



Product Catalog 2016 - 2017

Intelligent Systems and Platforms

Transforming the Industrial Cloud Era

- Intelligent Video and IoT Sensors
- Intelligent Transportation Platforms
- Intelligent Inspection Systems
- Modular IPCs
- Server-grade IPCs
- Industrial Storages
- Video Wall Controllers
- GPU Servers
- Industrial Motherboards
- Slot SBC & Passive Backplanes
- CompactPCI Platforms
- Industrial Chassis
- Industrial Computer Peripherals
- Industrial Ethernet Solutions

ADVANTECH

Enabling an Intelligent Planet

www.advantech.com

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About Advantech

Advantech: Partnering for Smart City & IoT Solutions

Founded in 1983, Advantech is a leader in providing trusted innovative embedded and automation products and solutions. Advantech offers comprehensive system integration, hardware, software, customer-centric design services, and global logistics support; all backed by industry-leading front and back office e-business solutions. Advantech has always been an innovator in the development and manufacture of high-quality, high-performance computing platforms. We cooperate closely with our partners to help provide complete solutions for a wide array of applications across a diverse range of industries. To realize our corporate vision of Enabling an Intelligent Planet, Advantech will continue collaborating and partnering for smart city and IoT solutions.

Advantech's Good-to-Great 3-Circle Principle

The Advantech 3-Circle Principle is based on the book "Good to Great," by Jim Collins. According to the book, a company looking for long-term success should clearly address these three fundamental principles, and commit to their continuing, solid execution. Advantech is fully committed to this approach and has defined the Advantech "Good to Great 3-Circle Principle" as a means of adhering to it.



World-Class Recognition

Advantech is an authorized alliance partner of both Intel® and Microsoft®. Our customers find the technologies we use inside our products to be widely compatible with other products in the global marketplace. Interbrand, the world renowned brand consulting firm, recognized Advantech as one of the Top 20 Taiwanese Global Brands for many years. Advantech appreciates this recognition of our efforts to build a trusted, global brand; it also symbolizes a promise we give to our business partners, which is to keep building a trustworthy brand that is recognized everywhere and improves the lives of all.

Quality and Environmental Compliance

As a member of the global village, Advantech understands the importance of preserving the environment. Our environmental programs focus on reducing, reusing, and recycling materials used in our manufacturing operations. Advantech's quality and environmental compliance efforts include the following:

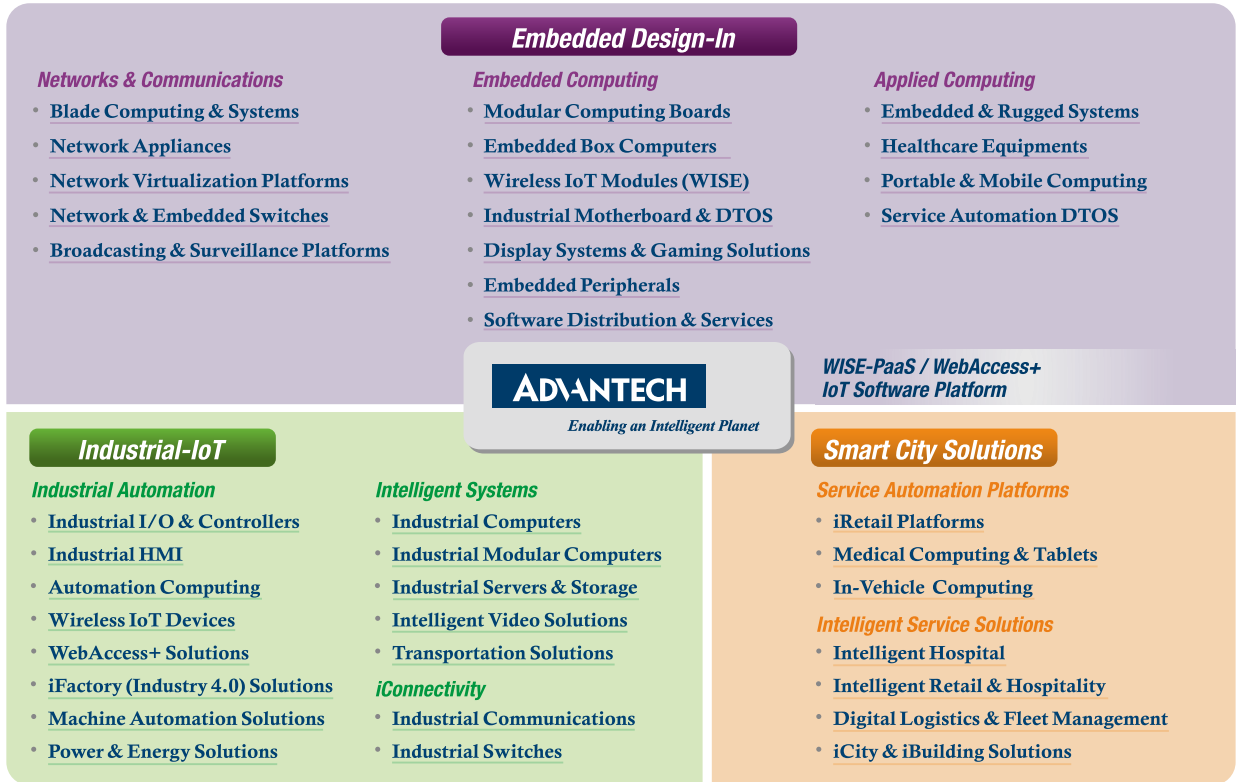
- SO 9001 Certification
- ISO 14001 Certification
- ISO 13485 Certification
- OHSAS 18001 Certification
- TL9000 Certification
- ISO 17025 Certification
- RoHS Directive Compliance
- WEEE Directive Compliance
- Authorized Sony Green Partner
- REACH SVHC Directive Compliance
- EICC Conflict Minerals Declaration



Timely Support at Your Convenience

Advantech has over 20 regional hotlines and offices throughout 92 cities, in 21 countries, with over 7,300 employees to provide efficient, professional services for customer care, product selection, technical support, and order handling. Through our call centers and online stores, customers worldwide enjoy the convenience of Advantech's multi-service channels to reduce business turnaround time. Together with the four customer service centers in Taiwan, China, Europe and the United States, our global service network offers an extensive spectrum of services that includes warehousing, logistics, peripheral certification, sourcing & purchasing, and RMA & value-added services, and technical support & training.

Advantech Corporate Structure and Growth Engines



In response to Smart City and Industry 4.0 trends, Advantech has established three business groups, namely Embedded Design-In, Industrial-IoT, and Smart City Solutions. These three are aligned to three target markets: Embedded Design-In serves Industrial Equipment Manufacturers (IEMs), and is equivalent to Advantech's central kitchen. Industrial-IoT serves Industry 4.0- and IoT-related industries, and Smart City Solutions serves smart city solution providers in various fields.

In order to cater to market trends, Advantech has undergone significant transformations, from products to solutions, from regional to global consolidation, and has also implemented vertical-market oriented (sector-lead) concepts in an effort to optimize operations and enhance resource-integration benefits.



Intelligent Systems and Platforms

Transforming the Industrial Cloud Era

With innovative technologies from cloud computing (industrial server, video server), edge computing (fanless, slim & portable devices), to high performance embedded systems. Advantech transforms embedded systems into intelligent systems with smart, secure, energy-saving features, built with Industrial Cloud Services and professional System Design-To-Order Services (System DTOS). Advantech's intelligent systems are designed to target vertical markets in intelligent transportation, factory automation/machine automation, cloud infrastructure, intelligent video application.

Overview

Intelligent Systems

Pursuing IoT Evolution with I-Cloud and Intelligent Systems



Intelligent Video



Industrial Cloud



Equipment Builder



Intelligent Transportation



Industrial Server & Storage



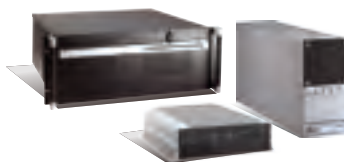
Industrial Cloud



Intelligent Vision Systems



Intelligent Video Systems



Intelligent Systems



Intelligent Transportation Systems

Star Products

Intelligent Inspection Systems



AIIS-1200P/U

Fanless Machine System, Braswell CPU, 2-CH GigE PoE or 2-CH USB 3.0 Camera Interface

- Intel® Braswell SoC
- 2-CH GbE(Power over Ethernet), IEEE 802.3af compliant for GigE Camera/2-CH dedicated controller for USB 3.0 Camera
- Compact size and volume less than 0.9 Lite



AIIS-3400P/U

Machine Vision System, Skylake-S CPU, 4-CH GigE PoE or 4-CH USB 3.0 Camera Interface

- Intel® Skylake-S i7/i5/i3 CPU
- 4-CH GbE PoE (Power over Ethernet), IEEE 802.3af compliant for GigE Camera/4-CH USB 3.0 with dedicated controller for USB 3.0 Camera
- Isolated 8-CH Digital I/O



AIIS-5410P

Fanless Vision System, Intel® Core™ i7/i5/i3, 4-CH GigE PoE Camera Interface, One PCI or PCIe Expansion Slot

- Intel® 6th Core™ Skylake i7/5/i3 CPU (BGA1440)
- 4-CH GbE PoE (Power over Ethernet)
- Powered device auto detection and classification



IAG Camera

0.3-10.0 Mega Pixel PoE Industrial Camera

- Best price/performance ratio CCD and CMOS sensor options
- Resolution up to 10.0 MP
- 100 m cable length

Modular IPC



ARK-5261

Intel® Celeron® Processor J1900 Fanless Embedded BOX PC with PCI/PCIe Expansion and Dual Mobile HDDs/SSDs

- Sealed construction with fanless operation, supports Intel® Celeron® Processor J1900 up to 2.41 GHz
- Supports 2 Giga LAN and 1 USB 3.0 + 5 USB 2.0
- Support 4 RS-232/422/485 with Auto-flow control and COM 1 & 2 port with 5V/12V



ARK-5420

Intel® 3rd Generation Core™ i Processor Fanless System with PCIe x4 & PCI Slot

- Support Intel® 3rd Generation Core™ i7/i5/Celeron BGA type CPU
- Intel® HM76 PCH
- Support wide temperature -25° C ~ 60° C



AiMC-3201

Micro Computer, Intel® Core™ i7/i5/i3 CPU, H81, 2 Expansions, 250W 80Plus PSU

- Intel® H81 Platform
- Intel® 4th gen Core™ i7/5/i3 CPU (LGA1150)
- One PCIe x16* & one PCIe x4 Expansion Slots



MIC-7500

Intel® 6th Generation Core™ i Processor Compact Fanless System

- Support Intel® 6th Generation Core™ i7/i5/i3 BGA type CPU with Intel® QM170 PCH
- Support AiMC Expansion Slot Module
- Support Isolation COM module & 32bit GPIO module

Intelligent Transportation Systems



ITA-1711

Intel® Celeron® Compact System with Multiple COM Ports and Dual Display

- Fanless, Intel® Celeron® J1900, 2.0 GHz Quad Core Compact System
- Onboard 4G DDR3 Memory and optional NVRAM
- Supports up to 2 x LAN, 6 x USB, 14 x COM ports

Fully Compliant with EN 50121-4



ITA-2211/2230

Intel® Atom™ E3845 / Intel® Core™ i7 2U Fanless Rackmount System with 3 ITAM Module

- Built-in Intel® Core™ i7-3555LE, 2.5 GHz CPU
- Onboard 4GB DDR3 Memory
- 2U Fanless Rackmount System
- Supports up to 26 x LANs/ 26 x COMs

Fully Compliant with EN 50155



ITA-5231

6th Generation Core™ i Processor Fanless System EN 50155 Certified Product for Railway Applications

- Intel skylake-H platform with QM170
- Fanless computer for railway vehicle applications, fully certified with EN 50155
- Temp. standard: EN 50155 TX (-40 ~ 70° C) and IEC 61373 body mount class B
- Expansion Module

Fully Compliant with EN 50155



ITA-5831

Intel® 6th Generation Core™ i Processor Fanless System EN 50155 Certified Product for Railway Applications

- Intel® skylake-H platform with QM170
- Fanless computer for railway vehicle applications, fully certified with EN 50155
- Temp. standard: EN 50155 TX (-40 ~ 70° C) and IEC 61373 body mount class B
- Expansion Module

Intelligent Video Platforms



ACP-4000VS

Industrial 4U Hybrid Intelligent Video System

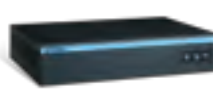
- Industrial grade intelligent surveillance system with flexible hybrid system structure
- Free bundled VMS/CMS and SDK for AP software integration
- Free bundled and optional intelligent video analysis (IVA) software



AiMC-3200VS

Compact Size Hybrid Intelligent Video System

- Compact size intelligent surveillance system with flexible hybrid system structure
- Free bundled VMS/CMS and SDK for AP software integration
- Free bundled and optional intelligent video analysis (IVA) software



NVS-300VS

Compact Size Intelligent Video Analysis System

- Intel® Celeron® J1900 Quad Core 2.0 GHz SoC
- DDR3L 1333MHz supports up to 8GB
- Supports 1 x Realtek GbE
- 4 x PoE ports to support IP camera



ARK-R12150L

Fanless Intelligent Video Controller

- All-in-One x86-based Intelligent and Industrial Platform with Intel® Core™ i7 processors + Intel® QM77 PCH
- 1 x DDR3/DDR3L, SO-DIMM support up to 8 GB
- Supports UHF RFID Controller Module (Optional)

Star Products

Industrial Rackmount Enclosures



ACP-4020

348mm Depth 4U Rackmount Chassis for Half-sized SBC or ATX Motherboard

- Compact 4U rackmount chassis, with only 348mm depth
- Supports 14-slot BP for half-size SBC or ATX/MicroATX motherboard
- Shock-resistant disk drive bay holds one internal 2.5", and two front-accessible 3.5" drives, plus one slim optical disk drive



ACP-4340

4U Rackmount Chassis for Full-size SHB/SBC or ATX/MicroATX Motherboard with 4 Hot Swap Drive Trays

- Supports a PICMG backplane with up to 14 slots or an ATX/Micro-ATX motherboard
- Shock-resistant disk drive bay holds four hot-swap 3.5" and 2.5" SAS/SATA disk trays, one slim optical disk drive, and one 2.5" internal drive



ACP-4D00

Dual-Node 350mm Depth 4U Chassis for Half-Sized Slot SBC

- Dual nodes, 350mm depth design for easy maintenance and space saving
- Supports PICMG 1.3 or PCI half-sized slot SBC with Core i7 CPU
- Supports 6-slot backplane, 3 available slots per node

Industrial Wallmount Enclosures



IPC-3026

Quiet Compact Chassis for Half Size SHB/SBC

- Support 6-slot PICMG 1.3/1.0 backplane
- Shockproof drive bay for one 3.5" HDD
- Support two 2.5" HDDs by hot-swap tray



IPC-6025

5-Slot Desktop/Wallmount Chassis with Scalability as 5U Quad-System Solution

- Front handle for easy withdraw in rackmount carrier
- Lockable front door prevent unauthorized access
- Shockproof drive bay for two 3.5" HDDs



IPC-7130L

Desktop/Wallmount Chassis for ATX/MicroATX Motherboard

- Stylish design with 7 expansion slots in the rear
- Shock-resistant drive bay holds one 5.25" disk drive and three 3.5" disk drives (two 3.5" HDD trays and one internal 3.5" drive bay)



IPC-5120

Desktop/Wallmount Chassis with front I/O Interfaces for ATX/mATX Motherboard

- With front I/O interface and four to seven expansion slots
- Shockproof drive bay for one 5.25" ODD and two 3.5" HDDs
- LED indicators for power status and HDD activity

Server-grade Rackmount Enclosures



HPC-7242

2U Rackmount Chassis for ATX Motherboard with 4 Hot-Swap SAS/SATA HDD Trays and RPS

- Supports ATX motherboard with dual processors
- Four shock-resistant hot-swap disk trays supporting 3.5" or 2.5" SAS/SATA drives for RAID 5/10 application, one slim ODD, and two 2.5" internal drives
- Dual front USB 3.0 ports



HPC-7320

3U Short-depth Rackmount/Tower Chassis for EATX/ATX

- Supports EATX/ATX/MicroATX motherboard with dual processors
- Two Hot-Swap 3.5"/2.5" drive bays, one slim ODD drive bay and two internal 3.5" HDD bays
- Dual front USB 3.0 ports



HPC-7400

4U Compact Rackmount / Tower Chassis for EATX/ATX/MicroATX Motherboard

- 4U compact industrial server chassis suitable for space-sensitive applications
- Supports EATX/ATX/MicroATX motherboard
- Shock-resistant 2 x 5.25" (front) + 2 x 3.5" int (rear) and optional 2 x 3.5" int. HDD bays



HPC-7442

4U Rackmount Chassis for Full-size SHB/SBC or EATX/ATX Motherboard with 4 Hot Swap Drive Trays

- Support a PICMG backplane with up to 14 slots or an EATX/ATX motherboard
- Shock-resistant disk drive bay provides four hot-swap 3.5" or 2.5" SAS/SATA disk trays, one slim optical disk drive, and one 3.5" internal drive

Industrial Storage



ASR-3100

1U Rackmount dual Xeon® E5-2600 v3 NVMe Storage Server, supporting 16 x SFF-8639 2.5" NVMe SSD and 2 x PCIe Gen III x8 slot

- Processor: Dual LGA 2011-R3 Intel Xeon E5-2600 v3 series
- Memory: DDR4-2133 RDIMM up to 512GB
- Supports 16pcs hot-swap 2.5" NVMe/SAS 12G/SATA 6G drives



ASR-3272

2U 12-bay Storage Server with Reliable Data Protection and Backup Solution

- Supports Intel® Xeon® E3-1200/E3-1200 v2 series up to 4 cores/8 threads
- Supports DDR3-1333/1600 MHz(ECC) U-DIMM up to 32 GB
- Supports 12x hot-swappable 3.5"/2.5" SATA/SAS 6Gb/s drives



ASR-5200E

High-availability Disk Array Solution for Mission-critical Service with Zero Down Time

- Redundant Dual Controller Configuration
- 2U12 (LFF)/2U24 (SFF), Two High-density Form Factors
- Default 2 x iSCSI 1Gb/s + 3 x SAS 6Gb/s per Controller



ASR-5300I

3U 16-bay IP-SAN Storage with Reinforced Reliability for Surveillance

- Single Controller Configuration
- 3U16 (LFF) Short-Depth Form-Factor
- Built-in 4 x iSCSI 1Gb/s Host Interface

Star Products

Industrial Motherboards



AIMB-705

LGA1151 6th Generation Intel® Core™ i7/i5/i3/Pentium ATX with DVI/VGA, DDR4, SATA III, USB 3.0 & 6 COMs

- Intel® 6th generation Core i7/i5/i3/pentium processor
- Dual channel (Non-ECC) DDR4 1866/2133 up to 32GB
- Support VGA and DVI display



AIMB-785

LGA1151 6th Generation Intel® Core™ i7/i5/i3/Celeron/Pentium ATX with Triple Display, DDR4, SATA III

- Supports Intel® Core™ i7/i5/i3/Celeron/Pentium processor with Q170 chipset
- Four DIMM sockets support up to 64 GB DDR4 1866/2133
- Supports triple display VGA/2 DVI-D and dual GbE LAN



ASMB-585

LGA 1151 Intel® Xeon® E3 v5/ 6th Generation Core™ Micro ATX Server Board with 4 DDR4, 1 PCIe x16, 3 PCIe x4, Quad LANs, USB 3.0

- Micro ATX Server Board with Intel® Xeon® E3-1200 v5 and Core i5/i7 processors
- DDR4 ECC/Non-ECC 2133/1866/1600 MHz DIMM up to 64GB



ASMB-785

LGA 1151 Intel® Xeon® E3 v5/ 6th Generation Core™ ATX Server Board with DDR4, 4 PCIe, 3 PCI, 6 USB 3.0, 6 COM, 6 SATA3, Quad/Dual LANs

- Supports LGA 1151 Intel® Xeon® E3-1200 V5 and Core i7/i5 processors
- One Gen 3.0 PCIe x16 link (or two PCIe x16 slots with x8 link), two PCIe x4, and three PCI slots

Server-grade Motherboards



ASMB-813

LGA 2011-R3 Intel® Xeon® E5-2600 v3 ATX Server Board with 8 DDR4 DIMM, 5 PCIe x16 Slot (Gen 3.0), 6 USB 3.0, IPMI

- ATX Server Board with Intel® Xeon® E5-2600 v3 processor
- Eight DDR4 2133 MHz RDIMM up to 256 GB and support DDR4 NVDIMM



ASMB-913

Dual LGA 2011-R3 Intel® Xeon® E5-2600 v3 EATX Server Board with 16 x DDR4 DIMM, 3 PCIe x16, 6 USB 3.0, PME support

- EATX Server Board with dual Xeon® E5-2600 v3 processor
- Dual Channel (Non-ECC) DDR4 1866/2133 MHz up to 32 GB
- Supports PCIe 3.0, USB 3.0, SATA 3.0



ASMB-823

Dual LGA 2011-R3 Intel® Xeon® E5-2600 v3 ATX Server Board with DDR4, 4 PCIe x16, 6 USB 3.0, SATA3, Dual LAN, IPMI 2.0

- Supports Intel® Core™ i7/i5/i3 LGA1151 processors with Q170
- Dual Channel (Non-ECC) DDR4 1866/2133 up to 32 GB
- Supports PCIe 3.0, M.2, USB 3.0, SATA3.0, SW Raid 0, 1, 5, 10



ASMB-923

Dual LGA 2011-R3 Intel Xeon® E5-2600v3 EATX Server Board with DDR4, 4 PCIe x16+ 2 PCIe x8(Gen 3.0), 4 USB 3.0

- EATX Server Board with dual Xeon® E5-2600 v3 processor, 8 DIMMs
- 256 GB memory capacity
- DDR4 2133 MHz RDIMM up to 256 GB

Slot Single Board Computer



PCE-3029

LGA 1151 6th Gen Intel® Core™ i7/i5/i3 Half-size SHB with PCIe 3.0/Dual independent display/Dual GbE LAN/SATA III/m-SATA/ USB 3.0

- Complies with PICMG 1.3
- Supports Intel® Core™ i7/i5/i3/Celeron/Pentium processor with H110 chipset
- Dual Channel (Non-ECC) DDR4 1866/2133 up to 32 GB



PCE-5029

LGA1151 Intel® Core™ i7/i5/i3 SHB DDR4/SATA 3.0/Dual GbE

- Supports Intel® 6th Core™ i7/i5/i3 processor with H110 chipset
- Dual Channel (Non-ECC) DDR4 1866/2133 MHz up to 32 GB
- Supports PCIe 3.0, USB 3.0, SATA 3.0



PCE-5129

Intel® Skylake-S LGA1551 processor PICMG1.3 SHB supports 2 DDR4 RDIMM, Triple display, M.2, AMT

- Supports Intel® Core™ i7/i5/i3 LGA1151 processors with Q170
- Dual Channel (Non-ECC) DDR4 1866/2133 up to 32 GB
- Supports PCIe 3.0, M.2, USB 3.0, SATA3.0, SW Raid 0, 1, 5, 10



PCE-9228

Dual LGA 2011-R3 Intel®Xeon E5-2600v3 PICMG1.3 Server grade SHB supports 8 DDR4 RDIMM, IPMI support

- Supports Dual Intel Xeon E5-2600v3 series processors with C612
- Support DDR4 2133MHz RDIMM up to 256GB
- Support PCIe3.0,USB3.0,SW raid 0, 1, 5, 10

Compact PCI



MIC-3042

4U CompactPCI® Enclosure with cPCI Power Supply (CT Bus non-CT Bus or PICMG 2.16)

- 8-slot 6U CompactPCI® backplane
- AC cPCI 500 W + 250 W redundant (2+1) power supplies
- PICMG 2.16 (CompactPCI Packet Switching Backplane) compliance
- PICMG 2.5 (CompactPCI Computer Telephony) compliance



MIC-3043

4U CompactPCI® Enclosure with cPCI Power Supply and Removable HDD Bay

- 6-slot 6U CompactPCI® backplane (Non-CT Bus)
- Supports removable HDD bays (up to 2 3.5" SATA/SAS or up to 4 2.5" SATA/SAS drives)
- Built-in SATA slim-type DVD-RW/RAM



MIC-3396

6U CompactPCI 4th Generation Intel® Core™ i3/i5/i7 Processor Blade with ECC support

- Supports 4th Generation Intel® Core™ i3/i5/i7 processors and Intel® QM87 PCH with embedded graphic (up to 3 independent displays)
- Up to 16 GB (DDR3 1600) low voltage ECC memory (max 8GB on board, socket SO-UDIMM x1, max 8GB)



MIC-3398

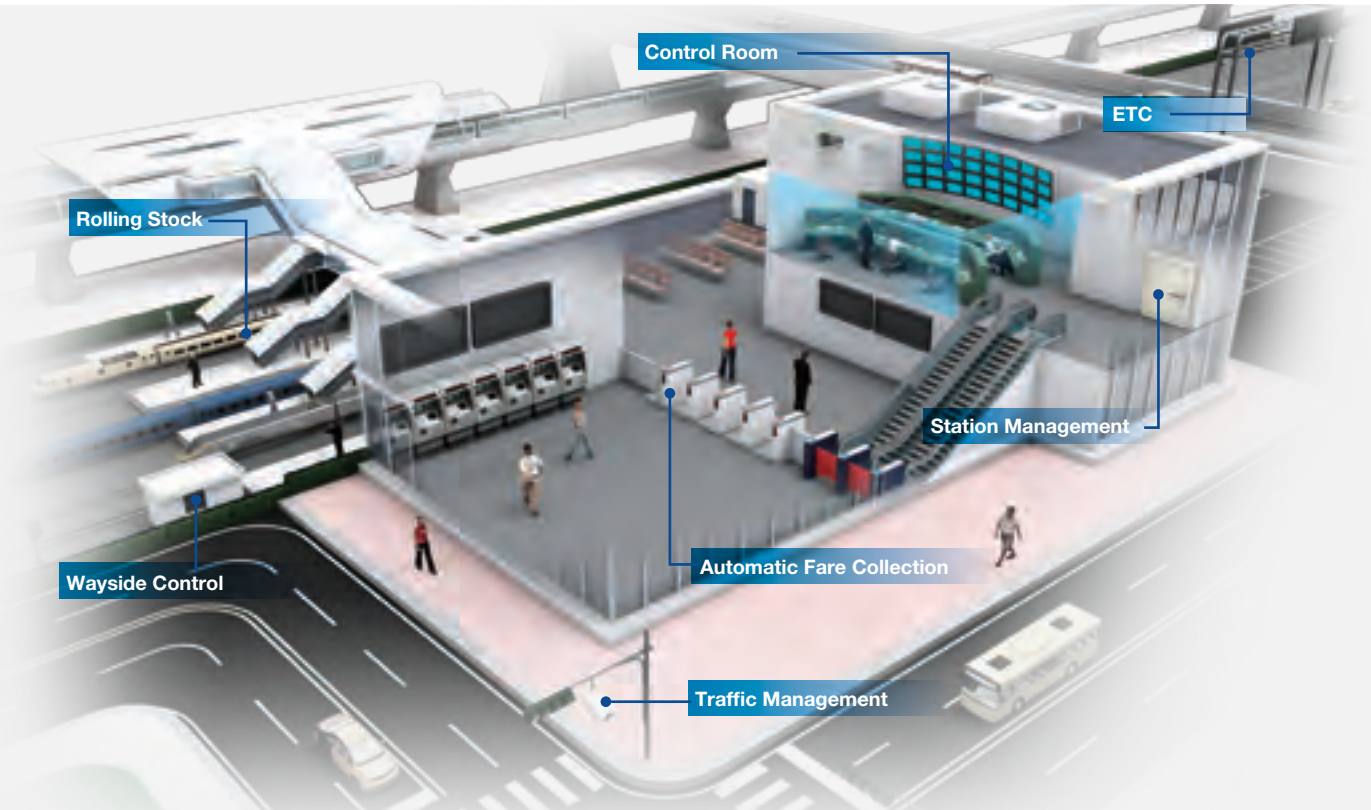
6U CompactPCI Intel® Atom™ SoC Processor Blade

- Supports Intel® Atom™ SoC E38xx, Celeron N2930 and J1900 processors, up to quad-cores at 2 GHz
- Up to 8GB of 1333MHz DDR3L memory
- 2.5" SATA-II HDD/SSD mounting site

Intelligent Transportation

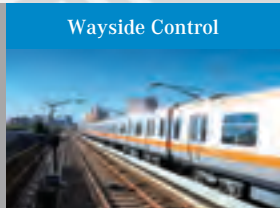
Intelligent Systems with Industry-Proven Success

Advantech working in cooperation with its partner has long provided reliable platform solutions that pave the way for intelligent transportation in cities around the globe. With a decade of successful experience, Advantech has dedicated resources to designing and developing new specific offerings for the transportation industry. These products support railway automatic fare collection, wayside, rolling stock, traffic management and more. Our mission is to enable intelligent transportation systems, which also helps us fulfill our vision of creating and delivering smart city technologies.



Automatic Fare Collection

Many cities worldwide are in the midst of improving their transportation system infrastructures, and Advantech has decades of experiences and domain know-how to fulfill needs of automatic fare collection application.



Wayside Control

Advantech offers industrial grade, EN50121-4 compliance fanless systems for front-end wayside applications including interlocking, signaling, automatic train control and more. Additionally, we develop proprietary I/O and power modules to provide advance product solutions.



In-train Surveillance, Passenger Information Systems

Advantech provides industrial-grade, EN50155 certified and EN45545 compliance systems to serve the specific demands of in-train surveillance/ PIS applications which allow operators to provide safe, accurate, current information with passengers.



Road Surveillance/ ETC

With the trend of urbanization, the numbers of vehicles on the road are increasing which indicates the needs of road surveillance in cities is mushrooming to keep cities safe 24/7. Advantech's rugged fanless box with intelligent video analytic act as the license plate recognition can be applied in ETC that keeps traffic flow smooth and safe at all times.

Product Solutions



ITA-1711
Intel® Celeron® J1900 Compact System with Dual GigaLAN, 10 COM Ports and Dual Display



ITA-2230
3rd Gen Intel® Core™ i Processor with EN50121-4 Full Compliance 2U Fanless System for Wayside Control



ITA-3630
3rd Gen Intel(R) Core™ i Processor Compact Fanless System



ITA-5730
3rd Gen Intel® Core™ i Processor with EN50155 Certified Compact Fanless System



EKI-9316P
Industrial 16-Port Managed Switch Full Gigabit Switch with PoE/PoE+

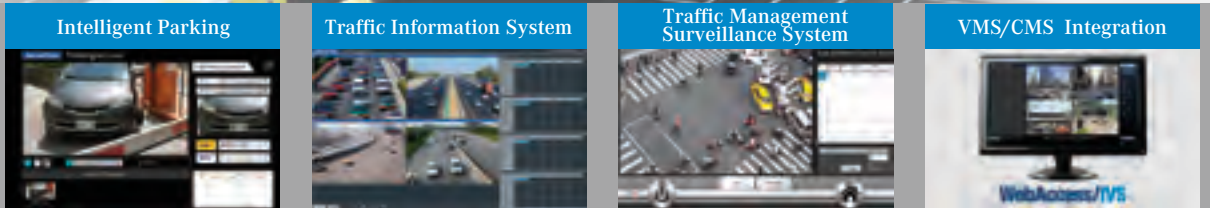


EKI-9516P
EN50155 12-port Full Gigabit Managed Ethernet Switch with PoE/PoE+

Intelligent Video Solution

New Video Platform with Intelligent Video Analytic Technology

Advantech provides new video platform not only for DVR/NVR application but also including valuable Intelligent Video Analytics (IVA) software. IVA technology will automatically track and identify objects, analyzes motion and extracts video intelligence from analog or digital video streams. The system can output analysis and video data mining in real-time events or store them in a database. Advantech Intelligent Video System with WebAccess/IVS Software is focused on automating video analysis and security alerts, thus enabling real-time response while eliminating the need for manual labor and the huge monitoring costs. These solutions can be deployed and/or customized for several vertical market application such as intelligent traffic management system or intelligent retail that will increase productivity and efficiency by integrated services.



ParkingAccess Gate is an all-in-one automated parking gate control system with LPR and RFID receiver integration. The system gives parking managers and operators strict control over the populations passing through the parking facility gates.

TrafficAccess VDS is an intelligent video analysis system for collecting traffic information, such as vehicle counts, classifications, occupancy, and average speed, by using specific vehicle detection technology.

The TrafficAccess IDS system emits a notification alarm immediately after an incident has occurred, even before the consequences of an incident can be observed using traditional monitoring methods.

Contemporary management of urban traffic is becoming increasingly complex as traffic congestion continues to rise worldwide. In order to measure road traffic in real time and provide useful road statistics, obtaining reliable data is essential.

Product Solutions



- ARK-RI2150L**
- ParkingAccess
 - WebAccess/IVS IVA SDK
 - LPR/Parking Vacancy
 - RFID Receive SDK



- ARK-1123HVS**
- TrafficAccess VDS (Vehicle Detection)
 - 1 channel with 4 lands detection
 - Traffic flow
 - Vehicle classification
 - Average speed
 - Occupancy



- ARK-5420VS**
- TrafficAccess IDS (Incident Detection)
 - 8 Channel detection
 - Pedestrian Detection
 - Fallen objects
 - Wrong-way drivers
 - Traffic congestion



- ACP-4000VS**
- WebAccess+IVS VMS/CMS
 - ClientSDK (OCX)
 - ServerSDK (Streaming)
 - WebCMS (Restful API)
 - IVA Data Center



- NVS-300VS**
- FaceAccess Server
 - Facial recognition
 - Scan/detect face with gender/age info
 - Access control integration

Machine Automation

Industrial Computers and Integration Services for Automation Applications

Advantech delivers a full range of industrial computers for versatile applications in the automation field, combined with sophisticated system integration services from customization, integration, validation, and certification. A one-stop solution is our commitment in providing rugged systems to customers who require a trusted partner to maximize their applications.



Production Automation



Embedded architectures with excellent expansion capabilities and high compatibility, and flexible and scalable PACs

Vision Inspection



Quality control systems have become very expensive in recent years, creating the demand for more cost-effective alternatives.

Process Control



High computing systems with scalable architectures and time-deterministic control are important factors for process control systems.

Packing Automation



Delivering a high degree of durability with a low total cost of ownership is a key factor for efficient packaging.

Product Solutions



ARK-5261

Fanless Compact Embedded System
Intel® Celeron Processor J1900 (Baytrail)
3 slots with PCIe & PCI Expandability



ARK-5420

Fanless Compact Embedded System
3rd Gen Intel® Core I Processor
2 slots with PCIe & PCI Expandability



MIC-7500

Fanless Compact Embedded System
6th Gen Intel® Mobile Core I Processor
to Assemble 2 or 4 Slot Expansion Module Flexibly



AiMC-3201

Compact and High Performance System
4th Gen Intel® Desktop Core I (Haswell)
2 slots with PCIe & PCI Expandability



AIIS-5410P

High Performance, Fanless Machine Vision System
6th Gen Intel® Mobile Core i7 CPU
4-CH PoE Camera Interface Embedded
1 Expansion Slot: PCIe x8 or PCI



AIIS-1200P/U

Palm Size, Fanless Machine Vision System
Intel® Braswell SoC
2-CH PoE or USB 3.0 Camera Interface Embedded

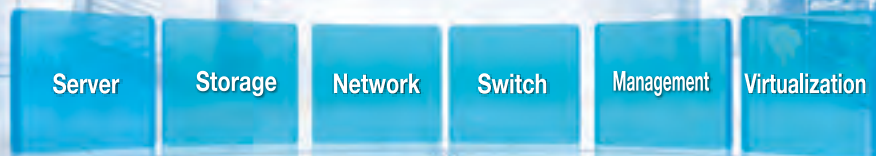
Industrial Cloud

Fully Integrated and Read-to-go Solutions

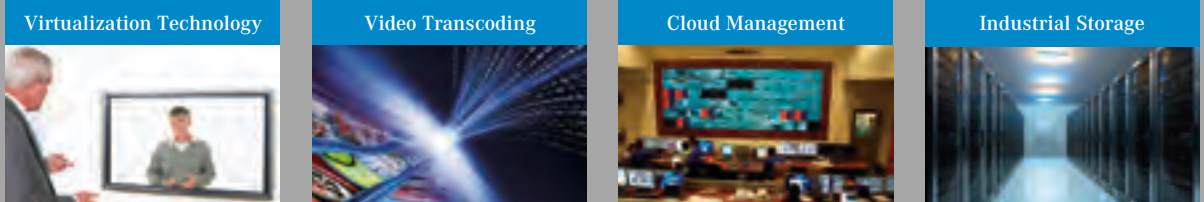
When big data becomes a trend, it is much more important for IT providers to dig out the hidden value of accumulated data through cloud. Advantech high performance industrial server and storage solution leaps in front to help customers build their own industrial clouds with reliability and flexibility. Primarily focusing on data & application synchronization, storage, monitoring & management, and application deployment, Advantech's customers can enhance their competitiveness and take advantage of dedicated cloud-based services that fulfill market demands.

Integrated I-Cloud Rack Solution

Easy Installation **Scalable Solution**
Customized Cloud **Trusty Integration**



Configurable Small Station *Highly Confidential* *Expandable Computing* *Workgroup Deployment* *Unified Interface*



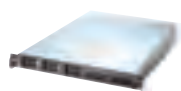
As is often the case with enterprises' diversified applications, the workload is frequently up and down. Virtualization is able to make efficient resource usage and real-time resource adjustments.

GPU servers accelerate compute-intensive image processing to benefit all video output quality, for both transcoding and automated content assembly.

Through IPMI remote management, the cloud management can be achieved, including out of band and cross-platform management, remote troubleshooting, and KVM over IP.

An industrial storage solution is preferable applicable to enterprises to easily increase capacity with better performance and reliability and to maximize the storage management efficiency.

Product Solutions



Computing Server
 1/2/3/4U Rackmount/Tower/Chassis with uATX/ATX/EATX Server Board with Single/Dual Intel® Xeon® E3/E5 Series Processors



GPU Server
 Advantech GPU server accelerates parallel computing with Intel® Xeon® Phi™ / NVIDIA Tesla, GRID, Quadro / AMD FirePro™



Industrial Storage
 4U 24-bay Storage Appliance with Reliable Data Protection and Backup Solution



Ethernet Switch
 High Performance 10/40G Top of Rack Ethernet Switch

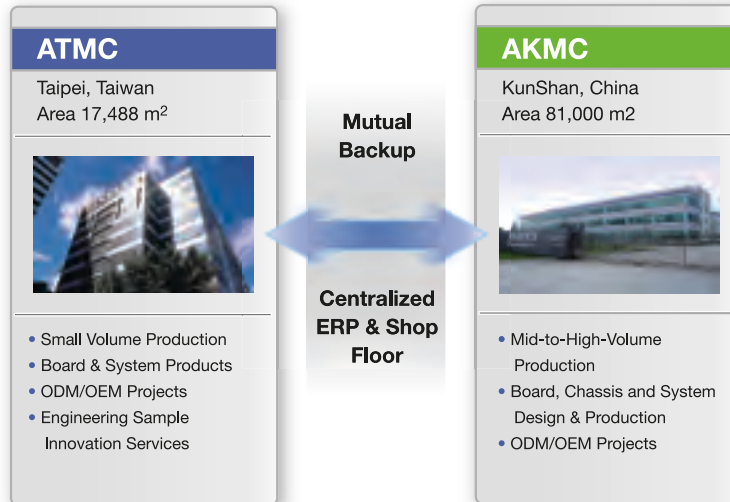


IPMI Module
 IPMI2.0 Server-grade Remote Control Solution

Advantech iPlanet Care

Manufacturing

Our dual, world-class manufacturing centers in Taiwan and China both maintain precise quality control, and offer a full range of production in a timely and cost-effective manner. To maximize the efficiency of operational procedures, we have implemented a cluster manufacturing system within our segmented manufacturing service units. This unique approach enables a direct, simplified, and highly streamlined design-to-manufacturing process.



- In-house board, chassis, and system production
- Dual world-class manufacturing centers minimize business risks
- Advanced production capabilities and customizable processes
- Rigid quality assurance system
- Most complete ISO standard coverage

Configure To Order Services

Advantech Configure To Order Services (CTOS) makes industrial computing solutions more accessible by offering web-based configuration tools, comprehensive, complex assembly services with high-mix, low-volume box build and customized assembly, modification, system integration and functional testing services.

- Online intelligent configuration
- Comprehensive approach to complex configuration solutions
- Local customized configuration services
- Carry 2 years global warranty covering system & peripherals integrated

ADVANTECH CTOS

Configure To Order Services

Certified Quality Assurance System

Advantech has been designing and manufacturing industrial PCs according to our 3C Quality Statement:

- Always strive for overall customer satisfaction
- Continuous improvement
- Apply closed-loop mechanisms to resolve problems

At Advantech, quality is our main priority. A complete line of safety, EMC and reliability measures such as ESD, vibration, drop testing, temperature, humidity and HALT chambers are available to ensure our products meet the strictest standards. All facilities are at least ISO 9001 and 14001 certified while others hold additional certifications such as ISO 13485, 17025, TL9000 and OHSAS18001. An environmental program that focuses on reducing, reusing and recycling of materials throughout the manufacturing process is also applied at Advantech. All our products are 100% RoHS compliant and Environmental Management Systems such as QC080000 are applied to meet worldwide environmental requests. Advantech's efforts towards environmental protection have been recognized by Sony since 2004 (Sony Green Partner).

- Complete ISO coverage
- Green policies
- Constant quality and reliability monitoring
- Ease of access to quality contacts



One-Stop Global Services

Advantech iPlanet Care combines exceptional business expertise, powerful design capacities, and a thorough global service network to provide one-stop global services and total solutions. Our broad range of global support packages adds maximum flexibility and efficiency to your projects.



Global Logistics Services

With strong integrated ERP and SAP supply chain solutions, our worldwide logistics network offers a wide range of options for different delivery models including local and global solutions that meet your unique needs and budget requirements.

Advantech's Logistics Service gives you the flexibility to simplify your logistical networks, bring your products to market on time, and enjoy a timely return on your investment.

- Optimized and flexible shipping solutions
- Integrated ERP and SAP supply chain solution with global distribution network
- Centralized plants with local delivery

Global Procurement Services

Advantech global procurement network consists of local teams that leverage strong, worldwide supplier relationships and strict vendor and product management to offer quality-guaranteed, compatible peripherals with short lead times and competitive prices.

- Localized procurement with worldwide network support
- Global standardization management; 100% compatible peripherals
- Trusted quality with revision control
- Short lead time and competitive price

Global Customer Support Services

Our global presence provides localized reliable customer support services. We can create an optimized maintenance and support plan, leveraging the full power of our service portfolio to help reduce costs and proactively mitigate business risks to best meet your needs. In addition to our complete technical and repair support, we provide a variety of customizable after-sales services, including extended warranty, advance replacement, upgrade, fast repair, etc. With our knowledgeable local support groups, we enable a consistent support experience around the world and help keep your investment at peak performance and within your budget.

- 24/7 technical support: hotline AE & online chat support
- Global deployment with local full-line repair capability
- Easy-to-use web-based repair and tracking system (eRMA)
- Various value-added, after-sales service packages



System Design to Order Service

Build Your Dream System in 30 Days

With an increasingly diverse market and multiple vertical applications, the needs of customized systems for specific applications are in high growth. Advantech is the dream system provider, supplying quality assurance and integrated services to worldwide customers. With customization, integration, validation, and certification, we are committed to providing a one-stop solution to customers who require a trusted partner to maximize their applications.



System Engineering Expert Group

System design should always start from the customer's perspective. To build up a system that precisely matches a customer's application, the Advantech professional engineering team always puts the customer first, from system working environment, ergonomics, to maintenance. The professional engineering team and rich experience from over 100 successful cases make Advantech the dream system builder for your business.



Worldwide Orders, Local Services

Our global presence provides reliable, localized customer support service, with customizable after-sales services, including extended warranty, advance replacement, and upgrade. We provide an optimized, within-budget, maintenance and support plan around the world to keep your investment at peak performance.

- 24/7 hotline AE
- Global RMA System



Certified Quality Assurance Systems

At Advantech, quality is our main priority. A complete line of safety, EMC, and reliability test equipment, such as hi-pot, ESD, vibration, drop test, temperature, humidity and HALT chambers are available to ensure our products meet the strictest standards. Also Advantech has an applied environmental program that focuses on reducing, reusing and recycling of materials throughout the manufacturing process. All our products are 100% RoHS compliant and Environmental Management Systems such as QC080000 are applied to meet worldwide environmental requirements.

World-class Manufacturing Center

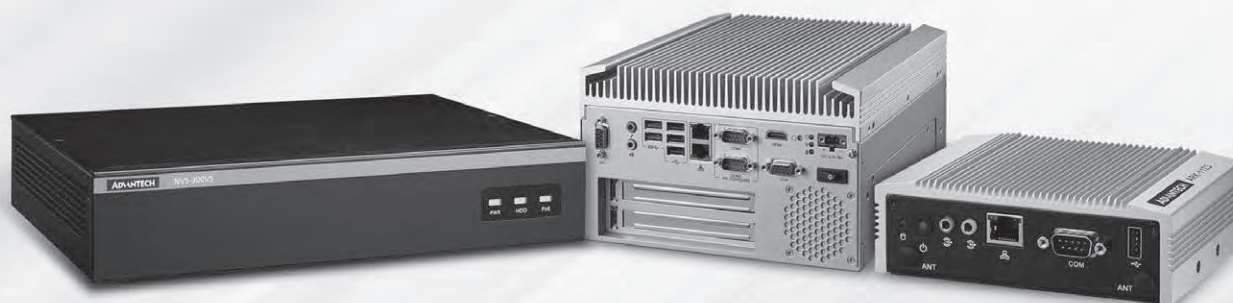
Our dual, world-class manufacturing centers in Taiwan and China both maintain precise quality control, and offer a full range of production in a timely and cost-effective manner. To maximize efficiency of operational procedures, we have implemented a cluster manufacturing system within our segmented manufacturing service units. This unique approach enables a direct, simplified, and highly streamlined design-to-manufacturing process.



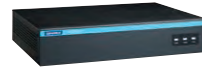
Intelligent Video and IoT Sensors

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WebAccess/IVS		
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Intelligent Video Platforms		
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ARK-RI2150L	Fanless Intelligent Video Controller	1-12
ARK-5261VS	Intel® Celeron® Processor J1900 Fanless Embedded BOX PC with PCI/PCIe Expansion and Dual Mobile HDDs/SSDs	1-14
ARK-5420VS	Intel® 3 rd Generation Core™ i Processor Fanless System with PCIe4 & PCI Slot	1-16
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To view all of Advantech's Intelligent Video and IoT Sensor, please visit www.advantech.com/products.



Selection Guide



Model Name		ACP-4000VS	AiMC-3200VS	NVS-300VS	NVS-500VS
System	CPU	Core i7-3770S 3.4G	Core i5-3550S 3.0G	Celeron J1900 2.0G	Core i7-4770S 3.1G
	Cache Memory	8MB	6MB	2MB	8MB
	System Chipset	Intel Q67	Intel H61		Intel Q87
	Memory	4GB DDR3 (Max. 32G)	4GB DDR3 (Max. 32G)	4GB DDR3L (Max. 8GB)	8GB DDR3 (Max. 16GB)
Storage	mSATA			32GB Build-in for OS	-
	SSD Driver	1 x 2.5" 32GB Build-in for OS	-	-	1 x 2.5" 32GB Build-in for OS
	HDD Driver	3 x 3.5" (3TBx1 Build-in)	2 x 2.5"(1TB x1 Build-in)	1 x removable 2.5" SATA Bay	4 X 3.5" 1 X 2.5" (32G SSD Build-in)
Graphic	Chipset Integrated	Intel HD Graphics	Intel HD Graphics	Intel HD Graphics	Intel HD Graphics
Camera Support	Analog Camera Inputs	Up to 32 CH D1/480FPS or 16 chs 1080p/160FPS (Capture card selected)	Up to 8 CH D1/240FPS or 4 CH 1080p/120FPS (Capture card selected)	-	-
	IP Camera Inputs	Up to 32 CH D1/480FPS or 16 CH Full HD1080p/160FPS	Up to 8 CH D1/240FPS or 4 CH Full HD1080p/120FPS	Up to 4 CH D1/120FPS or 2 CH 1080P/60FPS	Up to 32 CH D1/480FPS or 16 CH Full HD1080p/160FPS
Inputs and Outputs	Display	VGA+DVI-D	VGA+DVI-D	VGA+HDMI	HDMI x 2 + VGA x 1
	USB	2 x USB2.0 + 2 x USB3.0	4 x USB2.0	2 x USB2.0 + 1 x USB3.0	2 x USB2.0 + 2 x USB3.0
	Network	2 x Giga LAN Ports	2 x Giga LAN Ports	2 x Giga LAN Ports	2 x Giga LAN Ports
	Serial	2 x RS232	2 x RS232	1 x RS232	-
	PoE Ports	-	-	4 (total 80W)	16 (total 400W)
Environmental	Temperature	0 ~ 40° C (32 ~ 104° F) (Operating)	0 ~ 40° C (32 ~ 104° F) (Operating)	0 ~ 40° C (32 ~ 104° F) (Operating)	0 ~ 40° C (32 ~ 104° F) (Operating)
Hardware and Physical	Power	AC 400W, ATX 100 ~ 240 V _{AC}	AC 250W, ATX 100 ~ 240 V _{AC}	12V for system ; 54V for PoE functionality (optional)	100 ~ 240 V _{AC}
	Dimension	482 x 177 x 479 mm	232 x 90 x 232 mm	252 x 184 x 50 mm	430 x 540 x 44.5 mm (1U)
Software	WebAccess/IVS Standard	Bundled	Bundled	Bundled	Bundled
Page		1-24	1-26	1-8	1-10



ARK-1123HVS	ARK-RI2150L	ARK-2121SVS	ARK-2121VVS	ARK-5261VS	ARK-5420VS
Celeron J1900 2.0G	ULV Core i7 3517UE 1.7G	Atom E3845 QC 1.91G	Atom E3845 QC 1.91G	Celeron J1900 2.0G	Core i5-3610ME 2.7G
2MB	4 MB	2 MB	2 MB	2 MB	4 MB
	Intel QM77				Intel HM76
4GB DDR3L (Max. 8GB)	4GB DDR3 (Max. 8GB)	4GB DDR3L (Max. 8GB)	4GB DDR3L (Max. 8GB)	4GB DDR3 ((Max. 8GB)	4GB DDR3 ((Max. 12GB)
32GB Build-in for OS	64GB Build-in for OS	32GB Build-in for OS	32GB Build-in for OS	32GB Build-in for OS	32GB Build-in for OS
-	-	-	-	-	-
1 x 2.5"		1 x removable 2.5" SATA Bay	1 x removable 2.5" SATA Bay		1 x 2.5"
Intel HD Graphics	Intel HD Graphics	Intel HD Graphics	Intel Gen7 Graphics	Intel HD Graphics	Intel HD Graphics
-	-	-	-	Up to 4 CH D1/120FPS or 2 CH 1080p/60FPS (Capture card selected)	Up to 8 CH D1/240FPS or 4 CH 1080p/120FPS (Capture card selected)
Up to 4 CH D1/120FPS or 2 CH 1080P/60FPS	Up to 8 CH D1/240FPS or 4 CH Full HD1080p/120FPS	Up to 4 CH D1/120FPS or 2 CH 1080P/60FPS	Up to 4 CH D1/120FPS or 2 CH 1080P/60FPS	Up to 4 CH D1/120FPS or 2 CH 1080P/60FPS	Up to 8 CH D1/240FPS or 4 CH Full HD1080p/120FPS
HDMI x 2	VGA + HDMI	VGA+HDMI	VGA+HDMI	VGA	VGA+HDMI
2 x USB 2.0 + 1 x USB 3.0	2 x USB 2.0 + 2 x USB 3.0	3 x USB 2.0 + 1 x USB 3.0	3 x USB 2.0 & 1 x USB 3.0	4 x USB 2.0 (one internal Type A) + 1 x USB 3.0	3 x USB 2.0 & 2 x USB 3.0
2 x Giga LAN Ports	2 x Giga LAN Ports	2 x Giga LAN Ports	2 x Giga LAN Ports	2 x Giga LAN Ports	2 x Giga LAN Ports
1 x RS232	2 x RS232	2 x RS-232/422/485 ports	2 x DB9 connectors for RS-232/422/485 signal	4x RS-232/422/485	2 x DB9, RS232/422/485
	-	-	4 (2 x7Watt + 2 x15.4Watt)	-	-
-20 ~ 60° C (Operating)	Actual operational temperature may vary depending on used sensing module	-30 ~ 60° C(Operating)	-30 ~ 60° C(Operating)	-20 ~ 60° C(Operating)	-20 ~ 60° C(Operating)
AC to DC, DC12 V/3 A, 36 W	AC to DC, DC12 V/5 A, 60 W	9 ~ 36 V _{DC} w/ isolation	9 ~ 36 VDC w/isolation	AC to DC, 65 W DC19 V/3.4 A	ATX/AT,9 ~ 36V _{DC}
133.8 x 43.1 x 94.2 mm	264.5 x 75.1 x 133.0 mm	264.5 x 69.2 x 133.0 mm	264.5 x 69.2 x 133.0 mm	137 x 189 x 221 mm	253 x 129 x 240 mm
Bundled	Bundled	Bundled	Bundled	Bundled	Bundled
1-18	1-12	1-22	1-20	1-14	1-16

Intelligent Video Software Platform

ParkingAccess

TrafficAccess

FaceAccess

RetailAccess



Intelligent Video Analytics (IVA)



Motion Detection

Monitoring the amount of motion and alert when something changes



Forbidden Zone

Alarms when intrusions occur in one or more predefined forbidden zones



Camera Tamper

Trigger alarms when the camera lens are covered, sprayed, defocused, or the camera is repositioned



Optical Self Diagnostic

Trigger alarm when optical misalignment, debris collects on the lens



Object Counting

Counting of individuals and/or vehicles. For separated moving objects



Dwell Time & Loitering

Ensure environment safety for tracking anyone suspicious



Crowd Detection

Crowd density status of people in specific region can be detected as over capacity indicator



Parking Vacancy

Detect the defined parking space is occupied or not by scene analysis



Face Detection

Applied to retail, finance, and hospitality usage. Identify by age and gender



People Counting

Calculates people passing through certain area. Counting by faces



Facial Recognition

Scan crowds and automatically identify people by their faces that help match faces in a crowd with names on a watch list



License Plate Recognition

Detects and recognizes vehicle license plates upon motion or I/O trigger. Automatically locate and match vehicle plates against wanted lists

ADVANTECH

WebAccess/IVS



Flexible Event Action Plan

- Flexible event action plans including alarm signal, snapshot, email/SMS notification, PTZ control, video record, file, execution and more.
- Event sources include motion/sensor detection, camera signal loss, log status, backup/recording status, system status, etc.



Quick Search for Event Logs

- Quick search for event logs including login status, remote connection status, system events, camera status, motion/sensor detection, and more.
- Users can print out or save the event logs into excel or HTML files.



Multiple Backup Mode

- Backup recorded data to hard disk, Disk Array and USB without stopping video recording.
- Flexible selection of backup time, camera and storage location.
- Automatically calculate storage space required for backing up recorded data.



Flexible and Diverse Recording Modes

- Supports diverse recording modes and schedules for each individual camera



Powerful IE Browser Monitoring

- Monitor historical recorded video data and remote control for live view video, set up, and client system status monitoring through IE browser.

WebAccess/IVS/PowerVMS Function Description

Function	Specification	Description
Monitoring	Status display	<ul style="list-style-type: none"> Displays status and lists events of system login/logout, lost video, cameras status, web and remote connection, storage space, backup, sensors, and DO status
	e-Map	<ul style="list-style-type: none"> e-map layout shows the locations of video cameras, sensors and alarm devices, allowing you to control them and link actions to the surveillance system simultaneously; also provides a free tool for e-map editing
	Event log displaying	<ul style="list-style-type: none"> Real time display for event listings and automatic refresh of video events in ViewLog
	Screen Split	<ul style="list-style-type: none"> Full screen, 1, 4, 9, 10,13, 16 Sequencer, (Able to change time interval)
	Camera layout	<ul style="list-style-type: none"> Assign name and adjustable font to each camera
	Quality adjustment	<ul style="list-style-type: none"> Adjustable color control of Hue, Contrast, Brightness, and Saturation for preview, record and playback.
Recording	Resolutions	<ul style="list-style-type: none"> Selectable recording resolutions (Depends on the capture card and IP camera selected)
	Compression format	<ul style="list-style-type: none"> H.264
	Recording modes	<ul style="list-style-type: none"> Cyclic Recording, Non-Cyclic recording, Event Triggered Recording, and Scheduled Recording
	Recording Quality	<ul style="list-style-type: none"> Adjustable recording quality
	Recording Frame	<ul style="list-style-type: none"> Adjustable recording frames of each camera and event
	Pre & Post Alarm Recording	<ul style="list-style-type: none"> Adjust pre-alarm and post-alarm recording time (Pre-alarm recording: 10 seconds, post-alarm recording: 100 seconds)
Search & Playback	Record file length	<ul style="list-style-type: none"> Adjustable file length for record searching segment
	Playback Speed	<ul style="list-style-type: none"> Single frame, 1/16x, 1/8x, 1/4x, 1/2x, 1x, 2x, 4x, 8x,16x, fast forward and rewind
	Playback Mode	<ul style="list-style-type: none"> Can show up to 4 cameras' playback images simultaneously
	Search Mode	<ul style="list-style-type: none"> Allows image searching by date, time, camera, and event. Calendar and time segment for day and time search. Selectable event time, event type, and camera IDs for event search
	Smart Search	<ul style="list-style-type: none"> Able to search archives for incidents. Smart search list
	Image Transfer	<ul style="list-style-type: none"> Able to save image as BMP, JPG and AVI format. Selectable day and time for video saving or using bookmark time record list directly.
Data Storage	Bookmark	<ul style="list-style-type: none"> Stores many bookmarks to facilitate searching.
	Recording Time	<ul style="list-style-type: none"> Recording length varies depending on recording quality, resolution, mode and activity Auto continuous recording-- oldest recorded data will automatically be overwritten when hard drive is full
	Backup	<ul style="list-style-type: none"> Backup mode: Auto (schedulable) and Manual to backup video file
Alarm Notification	Storage Path	<ul style="list-style-type: none"> Adjust each storage path of each camera and reserve size. Setup each storage path to automatically delete the oldest file records
	Event Action Plan	<ul style="list-style-type: none"> Flexible, multiple event action plan. Able to define multiple actions taken for event source. Event source: PowerIVA, sensor triggered, video signal breaks, login failed, system abnormal and backup disk full etc. Event action: DO output, PTZ Control, e-mail sending, SMS notify, video file record, snapshots, phone/mobiles notification, warning sounds, video group play and specific program execute etc.
	E-mail and Phone notification	<ul style="list-style-type: none"> E-mail notification with attached recording file or snapshot image of any event triggered E-mail and phone notification on multi event source. (with voice modem option)
	PTZ Activation	<ul style="list-style-type: none"> Supports alarm setup with PTZ preset location.
Network Control	Sensor and DO	<ul style="list-style-type: none"> Adjustable sensor, DO layout, schedulable
	IE Remote Control	<ul style="list-style-type: none"> View live video, event list, PTZ control, and do remote recording, remote playback, remote setting, e-map function and remote snapshot through IE browser Supports 1, 4, 9, 10,13, 16 screen split
Operation	User Authority	<ul style="list-style-type: none"> Multi-level password protection and unlimited user accounts for logins and passwords.
	Authority setting	<ul style="list-style-type: none"> Allows authority settings of each user to each camera (local and remote monitor, playback, PTZ control, DO and e-map control, network connecting user numbers, with time limits, print and save function, control, etc.)
	PTZ Control	<ul style="list-style-type: none"> Embedded PTZ control panel: Pan & Tilt, zoom control and preset function. Supports most popular PTZ protocol
	Dynamic IP support	<ul style="list-style-type: none"> Built-in Web server. Supports dynamic IP.
	Language	<ul style="list-style-type: none"> English, Traditional Chinese, Simplified Chinese
	Others	<ul style="list-style-type: none"> Windows lockup Auto DVR login Auto reboot

Intelligent Video and IoT Sensors **1**

Intelligent Transportation Platforms **2**

Intelligent Inspection Systems **3**

Modular IPCs **4**

Server-grade IPCs **5**

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Video Wall Controllers **7**

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Slot SBC & Passive Backplanes **10**

CompactPCI Platforms **11**

Industrial Chassis **12**

Industrial Computer Peripherals **13**

Industrial Ethernet Solutions **14**

WebAccess/IVS/Intelligent Video Analytics (IVA) Solution Description

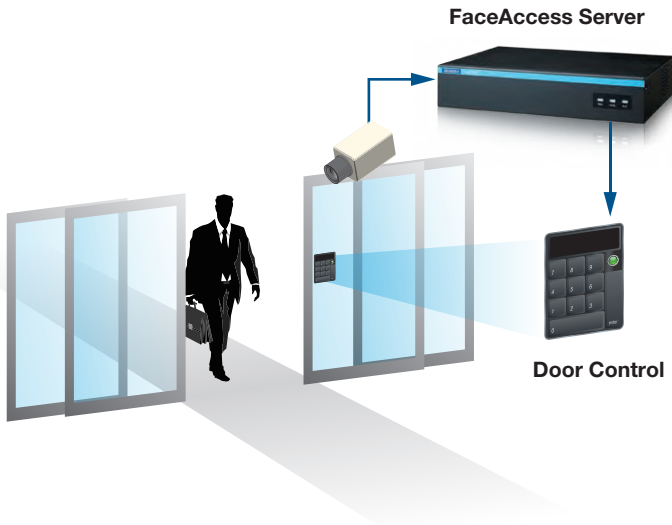
Software Package	Function List	Data Output
PowerIVA Standard	Motion Detection, Forbidden Zone, Camera Temper, Optical Self Diagnosis	XML, PowerVMS Event
	Face Detection (Counring/Gender/Age), Object Counting	XML, Statistic Database
PowerIVA Face	Facail Recognition, Face Detection Pro (Staff exclusion)	XML, Statistic Database
PowerIVA Security	Loitering, Object Taken, Crowd Detection	XML, PowerVMS Event
PowerIVA Parking	License Plate Recognition, Parking Vacancy Decton	XML
PowerIVA Retail	People Head Counting, Heat Map, Signage Attention	XML, Statistic Database

FaceAccess (Facial Recognition for Access Control)

FaceAccess detects, recognizes, and records every face that appears in a camera's field of view. Using facial data stored in a database, the system can be used to identify and verify one or more persons at the scene. FaceAccess can be deployed with access control systems and at service and ticketing counters, doorways and passageways, lobby and reception areas.

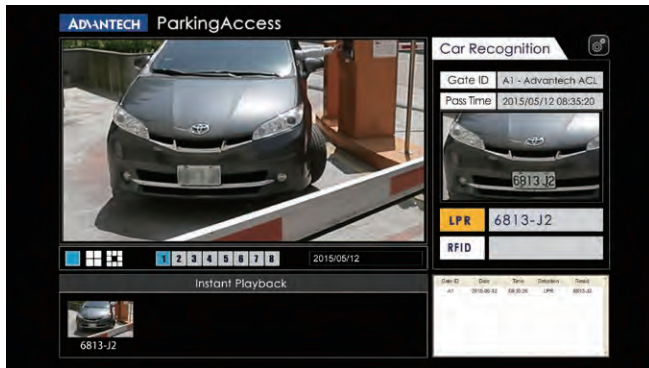
Features:

- Rapid and convenient search and browsing of registered faces
- Recognized facial data stored on a local or central database
- Supports live and recorded video streaming with WebAccess/IVS PowerVMS servers



Hardware Requirement	Intel Celeron J1900 2.0 GHz or Faster
Camera Resolution	Minimum : D1, Maximum: 1920x1080
Face Register Input	Live video, Playback video, Photo
Accuracy	92-95% with 500 testing samples
Control Integration	Software Plugin / SDK

ParkingAccess GATE (LPR/RFID for Parking Entry Control)



ParkingAccess Gate is an all-in-one automated parking gate control system with LPR and RFID receiver integration. The system gives parking managers and operators strict control over the populations passing through the parking facility gates.

Benefits:

- Increased revenue collection
- Increased traffic throughput
- Ability to determine exact visit duration encase of lost parking tickets
- Enhanced customer satisfaction
- Efficient carpool management
- Reduced CO2 levels in garage

Hardware Requirement	Intel Celeron J1900 2.0 GHz or Faster
Camera Resolution	Minimum : D1, Maximum: 1920x1080
Character high of License	50 pixel to 120 pixel
LPR Accuracy	95% - 98% (Depend on environment condition)
Control Integration	Software Plugin / SDK
RFID Module	Compliant with EPCglobal Class 1 Gen. 2 (ISO18000-6C) Adjustable output power (Up to +30dBm Max.)

Available Models

ARK-RI2150L

2CH LPR / RFID Receiver



ART-321E

UHF RFID 2-Port Module

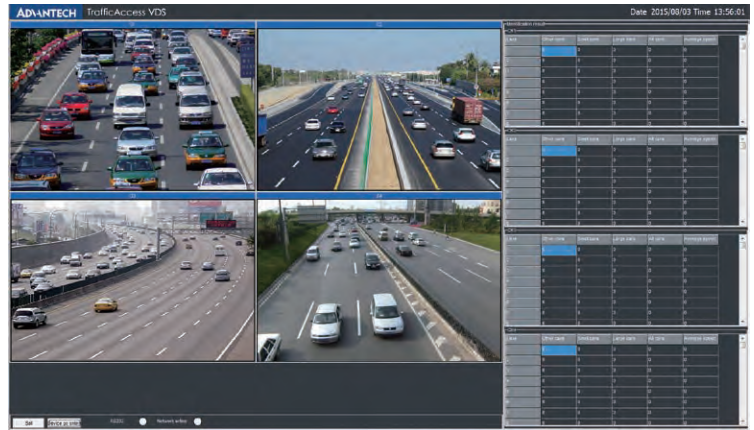


TrafficAccess VDS (Vehicle Detection System)

Contemporary management of urban traffic is becoming increasingly complex as traffic congestion continues to rise worldwide. In order to measure traffic in real time and provide useful road statistics, obtaining reliable data is essential. TrafficAccess VDS is an intelligent video analysis system for collecting traffic information, such as vehicle counts, classifications, occupancy, and average speed, by using specific vehicle detection technology.

Typical applications include:

- Real time traffic data collection
- Loop emulation applications
- Traffic studies and monitoring
- Level of traffic assessment



Available Models

ARK-1123HVS
1CH IP CAM / 4 Lands



ITA-3630VS
4CH IP CAM / 16 Lands



Input Resolution	D1, 1280x 720, 1920x1080
Maximum Detection Lane per Camera	4 (Height of camera position > 6 Meters)
IVA Function SPEC	Traffic flow ≈ 95% Vehicle classifications ≈ 85%±10% Average speed ≈ 85%±10% Occupancy ≈ 90%±5%
Connection Protocol	RS-232/RS-485/GPIO/TCPIP

TrafficAccess IDS (Incident Detection System)



As the world's population grows, traffic congestion and accidents continue to rise. TrafficAccess IDS is a video-based incident detection system that uses existing cameras to identify incidents and accidents on roadways and rapidly notify traffic control centers.

The TrafficAccess IDS system emits a notification alarm (audio and visual) immediately after an incident has occurred (within seconds), even before the consequences of an incident can be observed using traditional monitoring methods.

Available Models

ARK-2121SVS
4CH IVA



ARK-5420VS
8CH IVA



Input Resolution	D1, 1280x 720, 1920x1080
IVA Functions SPEC	Pedestrian Detection Fallen objects Wrong-way drivers Traffic congestion Fire and smoke Over speed/under speed Vehicles changing lane Stopped vehicles
Event Trigger I/O	Level 0 – 10 Trigger out: GPIO, TCP/IP
Connection Protocol	RS-232/RS-485/GPIO/TCPIP

NVS-300VS

Compact Size Intelligent Video Analysis System



Features

- Intel® Celeron® J1900 Quad Core 2.0 GHz SoC
- DDR3L 1333MHz supports up to 8GB
- Supports 1 x Realtek GbE
- 4 x PoE ports to support IP camera
- 1 x removable 2.5" SATA HDD bay and 1 x mSATA slot
- Supports dual independent displays: VGA and HDMI
- 4 x dry contact inputs and 2 x relay outputs
- 1 x serial port (RS-232/422/485)
- 1 x USB 3.0 and 2 x USB 2.0

WebAccess/IVS

Introduction

NVS-300VS provides a perfect video surveillance platform for diversified applications such as retail, casino and entertainment. It also comes pre-installed with several free bundled intelligent video analysis software applications to make your surveillance system more intelligent. NVS-300VS x86 architecture system combines the functions of a high performance Network Video Recorder with a Power-over-Ethernet (PoE) switch into one system. It not only supports up to 4 x PoE ports for IP cameras but its compact enclosure and removable 2.5" HDD bay with lock is ideal for all kinds of security applications. Advantech's Quality Assurance, and Configure To Order Services, provide the best reliability for 24/7 operations. The advanced thermal design, and easy to operate user interface make NVS-300VS the ideal PC based surveillance solution for various applications.

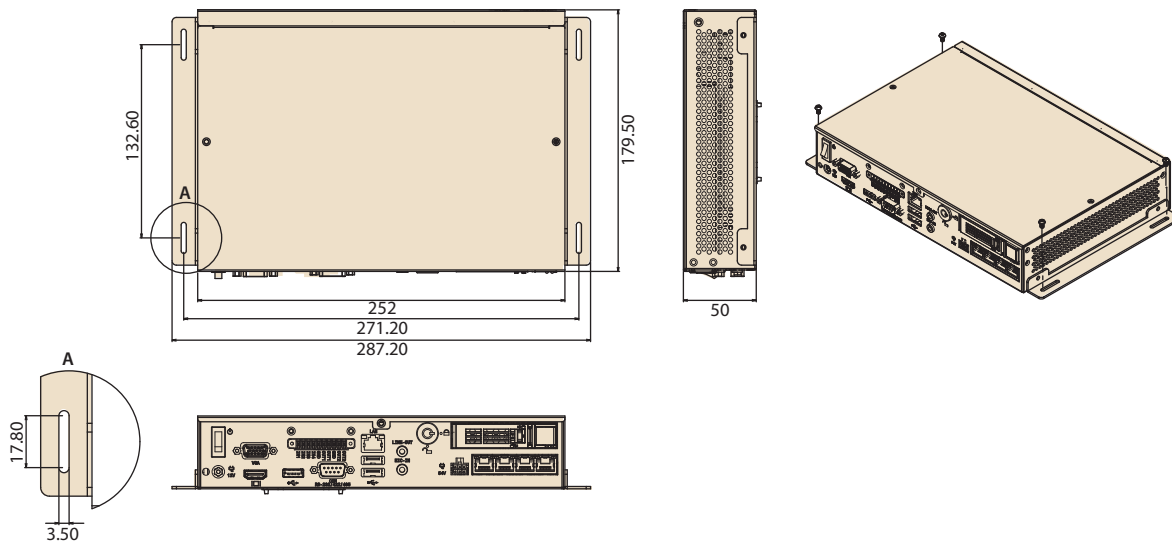
Specifications

Model	Part Number	NVS-300VS
Processor System	CPU	Intel J1900
	Max. Speed	2.0 GHz (Quad core)
	L2 Cache	2 MB
	BIOS	AMI 64 Mbit SPI
Memory	Technology	Dual Channel DDR3L 1066/1333 MHz SDRAM
	Max. Capacity	Build in 4GB (Max. 8GB)
	Socket	2 x 204-pin SO-DIMM (Non-ECC)
Graphics	Controller	Intel gen 7 graphics engine and media decode engine; CPU frequency: 688 MHz
	VGA	Up to SXGA 1920 x 1200 @ 60 MHz
	HDMI	Up to HDMI rev1.4a (1920 x 1080p @ 60 Hz)
Ethernet	Interface	10/100/1000 Mbps
	Controller	Gbe LAN: Realtek 8111E
	Connector	1 x RJ-45
SATA	Max Data Transfer Rate	300 MB/s
	Channel	2 (SATA1 support 2.5" HDD; SATA2 support mSATA)
Rear I/O	VGA	1
	HDMI	1
	Ethernet	1
	USB 2.0	2
	USB3.0	1
	Audio	Mic in; Line out
	Serial Ports	1 (RS-232/422/485 by jumper setting)
	DIO	4 in; 2 out
	PoE ports	4 (support IEEE 8.02.3af/at; total 80W shared by 4 ports)
	Storage	2.5" HDD Bay
mSATA		Build-in 32G mSATA
Camera Support	Video Encoding	H.264
	Maximum Frame Rate	30fps per channel
	Camera Inputs	Up to 4 channels D1/120FPS or 2 channels 1080P/60FPS
Power Requirement	Power Input Voltage	12V for system ; 54V for PoE functionality (optional)
	Power type	Adapter
Mechanical	Mounting	Wall mounting (optional)
	Dimension	252 x 179.5 x 50 mm (iron front); 252 x 184 x 50 mm (aluminum front)
Environment	Operating Temperature	0 to 40° C
	Storage Temperature	(-20 to 70° C)
	Relative Humidity	20% to 90 % RH

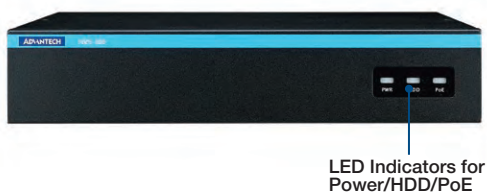
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Dimensions

Unit: mm

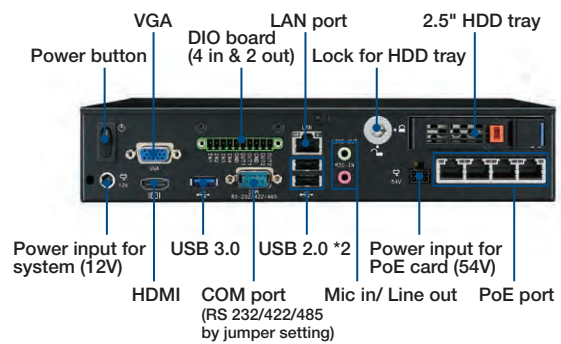


Front I/O



LED Indicators for Power/HDD/PoE

Rear I/O



Ordering Information

Part Number	Description
NVS-300VS-00A1E	Intelligent Video Analysis system with RAM 4G-1333, OS (WES7), 32G MSATA

Note:

- 54V POE adapter is optional
- Hard Drive is not included

Optional Accessories

Part Number	Description
1702002600 Power	cable 3-pin 180cm, USA type
1702031801 Power	cable 3-pin 180cm, UK type
1702002506 Power	cable 3-pin 180cm, EU type
1700000237 Power	cable 3-pin 180cm, PSE type
XDVS-FSP090AWAN2	54V POE adapter

NVS-500VS

High performance video recorder with PoE switch



Features

- Built in high power 802.3at PoE Switch (16/24 ports)
- 10/100/1000Base-T and SFP combo uplink port
- Supports Intel 4th Gen Core™ I processor (LGA1150) with Intel Q87 chipset
- Supports two 204-pin SO-DIMM up to 16GB DDR3 1333/1600 SDRAM
- Supports four 3.5" SATA HDD up to 16TB storage
- One 2.5" SATA HDD for OS storage
- Features USB 3.0 & USB 2.0
- Supports triple display of HDMI*2/VGA

WebAccess/IVS

Introduction

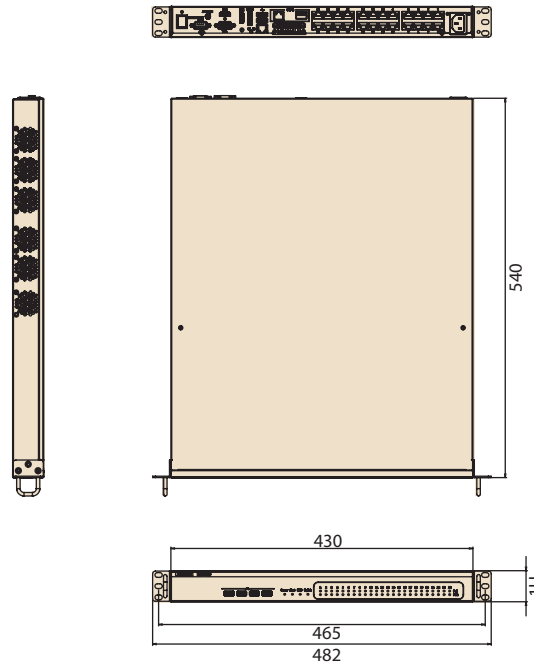
NVS-500VS, 4th generation Intel core based professional NVR, combines server, network switch and camera power supply (PoE) into one system. It embedded 16 to 24 ports of PoE Lan for camera links with high power budget, and also supports four 3.5" HDD up to 16TB storage capability. NVS-500VS can be perfectly applied to diversified usage cases such as banking, building surveillance as well as middle to large floor size of hypermarket.

Specifications

Model	Part Number	NVS-500VS-16A1E	NVS-500VS-24A1E	
System	Processor	Intel i7-4770S CORE 3.1G 8M 1150P 4 CORE I7-4770S		
	Chipset	Q87		
	Base Frequency	2.4GHz~3.1GHz		
	L3 Cache	3M~8M		
	Memory	Built-in 8G DDR3 1333		
Storage	SATA HDD	3.5" HDD x 4 (Up to 16TB) Built-In 2.5" 32G SSD		
	USB 2.0	2		
Front Panel	USB 3.0	2		
	LED Indicator	Power	1	
		Alert	1	
		HDD	1	
		Uplink	1	
		PoE	16	24
	Data Link	16	24	
Rear I/O Panel	USB 3.0	2		
	PoE Port	802.3at (10/100)	16	24
		Total Power	400W	
	Combo Uplink	Gigabit Ethernet	1	
		SFP	1	
	RJ45 (from PCH)	1		
	Display	HDMI	2	
		VGA	1	
	eSATA (Gen II)	1		
	Serial	RS-232/422/485 (BIOS Control)		
DIO	4 in 2 out			
Line-out	1			
Mechanical	Dimensions (W x L x H)	430x540x44.5mm (1U)		
	Power Management	Input	100-240 V _{AC}	
Output		Voltage	54V/12V	
		Wattage	600W	
Environment	Temperature	Operation	0 to 40° C	
		Storage	-20 to 70° C	
	Humidity	Operation	20% to 90 % RH	
OS		Windows 7 Embedded X64		

Dimensions

Unit: mm



Front I/O



Rear I/O



Ordering Information

Part Number	Product Description	PCH	PoE	PSU
NVS-500VS-16A1E	Intel Core-16 ports PoE NVR	Q87	16	600W
NVS-500VS-24A1E	Intel Core-24 ports PoE NVR	Q87	24	600W

Optional Accessories

Part Number	Description
1702002600	Power cable 3-pin 180cm, USA type
1702031801	Power cable 3-pin 180cm, UK type
1702002506	Power cable 3-pin 180cm, EU type
1700000237	Power cable 3-pin 180cm, PSE type

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ARK-RI2150L

Fanless Intelligent Video Controller



Features

- All-in-One x86-based Intelligent and Industrial Platform with Intel® Core™ i7 processors + Intel QM77 PCH
- 1 x DDR3/DDR3L, SO-DIMM support up to 8 GB
- Supports up to 2 x GbE, 2 x USB 3.0, 2 x USB 2.0 and 2 x COMs ports
- Supports 1 x internal mSATA socket
- Supports Intel AMT8.0
- Integrate video capture, analysis
- Feature-rich Protocol, support .Net, c/c++, Java, VB
- Supports VMS/CMS and SDK for AP software integration
- Power saving mode and fanless design
- Supports UHF RFID Tag Detection (Optional)

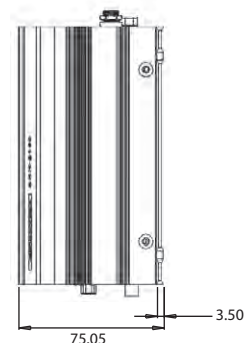
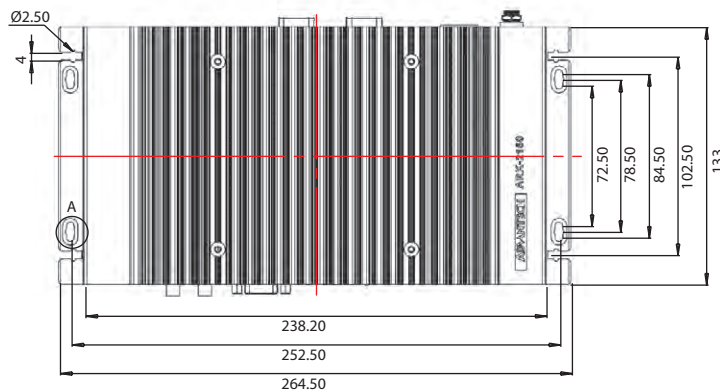
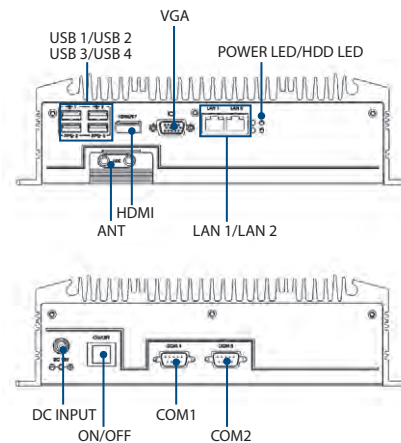
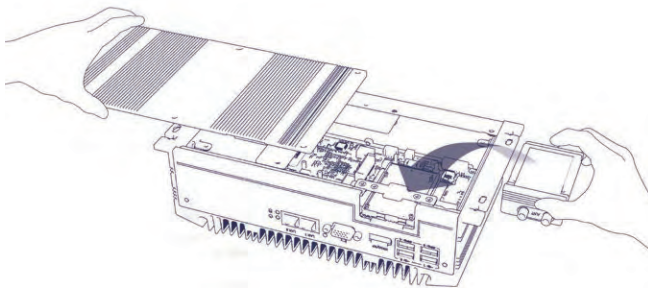
WebAccess/IVS



Introduction

ARK-RI2150L is a fan-less intelligent video controller powered by Intel® 3rd Generation Core i7-3517UE Dual Core 1.7 GHz processor, Intel QM77 express chipset and supports Intel AMT8.0 management engine interface. It also support power saving mode, fanless design. With changeable embedded modules and feature-rich protocol, ARK-RI2150L creates a high-performance open platform for easy integration and development in different applications. With Advantech® RFID module, ARK-RI2150L is an intelligent RFID controller and enables users to deploy manageable, easy-to-install, high-performance solutions.

Easy Installation



Specifications

Processor System	CPU	Intel ULV Core i7 3517UE
	Max. Speed	Dual Core 1.7 GHz (Max Turbo Frequency 2.8 GHz)
	L3 Cache	4 MB
	System Chipset	Intel QM77
	BIOS	AMI EFI 64Mbit
Memory	Technology	DDR3 1600MHz, DDR3L 1333 MHz
	Max. Capacity	8GB
	Socket	1 x 204-pin SO-DIMM
Graphic	Chipset	Intel QM77 Integrated GFX Gen 7
	Graphic Engine	DirectX11, OpenGL 3.1, and Open CL 1.1 Hardware decode acceleration: AVC/H.264, M PEG-2, VC-1
	VGA	Integrated 340.4MHz RAMDAC, Max resolution up to 2048 x 1536 @ 75Hz
	HDMI	Supports HDMI 1.4 for HD Video playback Max resolution up to 2560 x 1600 @ 60Hz on DisplayPort, Max resolution up to 1920 x 1200 @ 60Hz on HDMI
	Dual Display	VGA + HDMI or VGA + DisplayPort
I/O Interface	COM	2 x RS232
	USB	2 x USB 3.0 ports and 2 x USB 2.0 ports
	LAN	1 x 10/100/1000 Mbps Intel 82579LM Ethernet controller, support Wake On Lan 1 x 10/100/1000 Mbps Intel 82583V Ethernet controller, support Wake On Lan
Expansion	Mini PCIe	1 x Full-size Mini PCIe (Supports mSATA) 1 x Half-size Mini PCIe
Storage	SSD	Supports one internal mSATA socket
Power	Power Type	AT/ATX
	DC-input	12 V _{DC}
	Minimum Power Input	12 V, 4 A
	Power Adapter	AC to DC, DC12 V/5 A, 60 W
Software Support	Microsoft Windows	Windows 7, Windows 7 Embedded
Mechanical & Environmental	Construction	Aluminum housing
	Dimensions(W x H x D)	264.5 x 75.1 x 133.0 mm (10.41" x 2.96" x 5.24")
	Weight	2.35 kg
	Operating Temperature	Actual operational temperture may vary depending on used sensing module
	Storage Temperature	-40 ~ 85° C (-40 ~ 185° F)
	Operating Humidity	Relative Humidity 95% @ 40° C (non-condensing)
Mounting	Din-Rail mounting, Desk/wall-mounting	

Ordering Information

Model Name	Description
ARK-RI2150L-UFANOE	Intel ULV Core i7 3517UE/Win7E/64GB_mSATA/4GB DDR3

Optional Items

Part Number	Description
1757004349-01	AC to DC Adaptor, DC 12V/5A 60W, with lock, 0 ~ 40° C, for Home and Office use
1757004522-01	AC-to-DC Adapter, DC 12V/3.33A 40W, -20 ~ +70° C
1702002600	Power cable 3-pin 180cm, USA type, for 1757004522-01 and 1757004349-01
1702031801	Power cable 3-pin 180cm, UK type, for 1757004522-01 and 1757004349-01
1702002605	Power cable 3-pin 180cm, EU type, for 1757004522-01 and 1757004349-01
1700000237	Power cable 3-pin 180cm, with PSE, for 1757004349-01
ART-321E-00A1E	UHF RFID Two-Port Module (NCC only)

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ARK-5261VS

Intel® Celeron® Processor J1900 Fanless Embedded BOX PC with PCI/PCIe Expansion and Dual Mobile HDDs/SSDs



Features

- Sealed construction with fanless operation, supports Intel® Celeron® Processor J1900 up to 2.41 GHz
- Supports 2 Giga LAN and 1 USB 3.0 + 5 USB 2.0
- Support 4 RS-232/422/485 with Auto-flow control and COM 1 & 2 port with 5V/12V power
- Built-in 1 x PCIe, and 2 x PCI expansion slots or 3 x PCI expansion slots
- Support 4 RS-422/485 Isolation module type
- Rubber anti-vibration card-holder for PC expansion boards
- Supports wide power range of 9 ~ 30V DC input
- Support wide range operating Temperature of -20 ~ 60° C
- Supports SUSIAccess and Embedded Software APIs

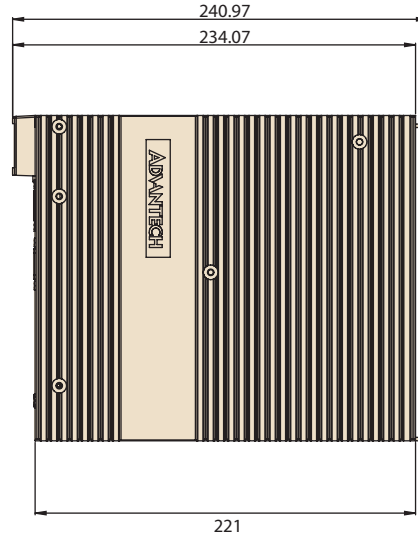
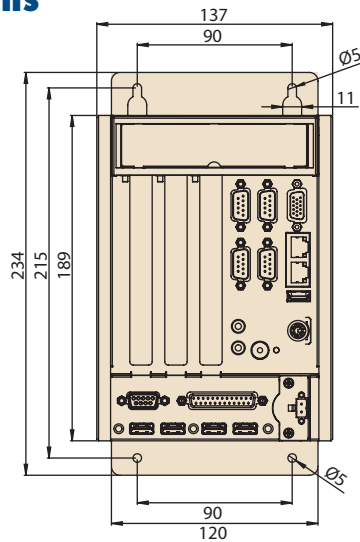
WebAccess/IVS



Specifications

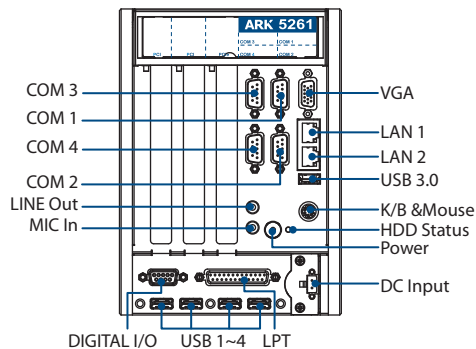
Processor System	CPU	Intel® Celeron® Processor J1900 2.0GHz		
	Max. Speed	2.41 GHz		
	BIOS	AMI 16 Mbit SPI BIOS		
Memory	Technology	Dual Channel DDR3L-1333 (Low power 1.35V)		
	Max. Capacity	Build-in 4GB memory, up to 8GB		
	Socket	2x 204-pin SO-DIMM		
Graphics	Chipset	Chipset integrated Intel HD Graphic		
	VRAM	Shared System Memory up to 224 MB SDRAM		
	Interface	VGA: 2560 x 1600 @ 60Hz		
Ethernet	LAN1	10/100/1000 Mbps GigaLAN Controller, Intel I211, supports Wake on LAN		
	LAN2	10/100/1000 Mbps GigaLAN Controller, Intel I211, supports Wake on LAN		
Audio	Interface	Line-Out, Mic-in		
IO Interface	Serial Ports	Standard Type: 4x RS-232/422/485, COM 1 & COM 2 with 5V/12V power, support Auto-flow control		
	USB Interface	1 x USB 3.0, 4 x USB 2.0, 1 internal type A USB 2.0		
	Keyboard/Mouse	1 x PS/2 port, supports PS/2 mouse and keyboard		
	Parallel Port	Supports D-sub 25-pin connector		
	Digital I/O	Supports 8-bit digital IO (DB9 Connector)		
Other	Watchdog timer	255-level timer interval, setup by software		
Storage	HDD/SSD	Supports two drive bays space for SATA HDD/SSD 2.5 (9.5mm height only)		
	mSATA	Build-in 32G mSATA		
Expansion	PCI/PCIe Slot	2 PCI Slot, and 1 PClex1 Slot		
		Supports maximum 15W power for expansion Supports maximum dimension of 99 mm (width) x 186 mm (length) for expansion PC board		
Software Support	Microsoft Windows	Windows 7/8.1, Win7/8.1 Embedded, Linux Fedora 19		
Power Requirement	Power Type	ATX / AT		
	Power Input Voltage	9 ~ 30 V _{DC}		
	Minimum Power Input	9V @ 6.6A ~ 30V @ 2A		
Power Consumption	Power Adapter	AC-to-DC, 65 W DC19 V/3.4 A		
	Idle	9.9 W (with Intel® Celeron® Processor J1900 2.0GHz and with Memory & SATA HDD)		
	Max.	12.9 W (with Intel® Celeron® Processor J1900 2.0GHz and with Memory & SATA HDD)		
Mechanical	Construction	Aluminum housing		
	Mounting	Desk/wall-mounting		
	Dimensions (W x H x D)	137 x 189 x 221 mm (5.39" x 7.44" x 8.70")		
	Weight	4.2 kg (9.24 lbs)		
Environment	Temperature	Operating (With Industry SSD)	Operating (With HDD)	Non-operating
		-20 ~ 60° C with 0.7m/sec air flow (with 2 x Industrial SSD without PC expansion boards)	0 ~ 40° C with 0.7m/sec air flow (with 1 x 2.5" HDD or mSATA without PC expansion boards)	- 40 ~ 85° C (-40 ~185° F)
	Storage Temperature	- 40 ~ 85° C (-40 ~185° F)		
	Relative Humidity	95% @ 40° C (non-condensing)		
	Vibration Loading During Operation	With 2.5-inch HDD: 1 Grms, IEC 60068-2-64, random, 5 ~ 500 Hz, 1 Oct./min, 1 hr/axis With SSD disk: 5 Grms, IEC 60068-2-64, random, 5 ~ 500 Hz, 1 Oct./min, 1 hr/axis		
	EMC	CE/FCC, CCC, BSMI		
	Safety Certifications	CCC, BSMI		

Dimensions

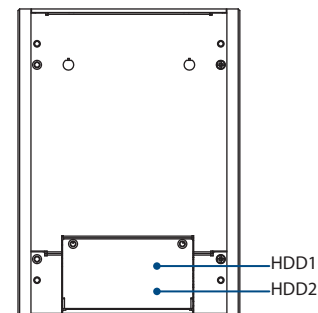


Unit: mm

Front View



Rear View



Ordering Information

Part Number	Description
ARK-5261VS-J0A1E	Intel Celeron J1900 2.41GHz with build-in 4GB memory, 32G mSATA, VGA, 2xGbE, 6xUSB ports, 4xCOM ports, audio, PCIe x1 & 2xPCI, 9 ~ 30 V _{DC} power with 2pin Phoenix connector

Packing List

Part Number	Description
-	1x ARK-5261VS Unit
2061526100	1 x Driver/Utility CD/Manual
2001526110	Startup Manual (English/Simple Chinese)
1960049826N001	1 x Mounting bracket upper
1960049827N001	1 x Mounting bracket lower
1990000505	3 x Shock proof rubber
96PSA-A65W19P2-2	AC-to-DC Adapter, DC19 V/3.42A 65 W, with phoenix power plug

Optional Item

Part Number	Description
1700001947	Power cable 2-pin 180 cm, USA for ARK-338X
1700001948	Power cable 2-pin 180 cm, Europe for ARK-338X
1700001949	Power cable 2-pin 180 cm, UK for ARK-338X
1700021831-01	DP to DVI-D cable w/BKT
PCA-TPM-00A1E	TPM Module
96PSA-A120W24T2	ADP A/D 100-240V 120W 24V

Embedded OS

Description
Windows 7 embedded 64bit

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ARK-5420VS

Intel® 3rd Generation Core™ i Processor
Fanless System with PCIe4 & PCI Slot



Features

- Support Intel i5-3610ME 2.7GHz CPU
- Intel® HM76 PCH
- Support wide temperature -25° C ~ 60° C
- Support VGA & HDMI
- 1 x 2.5" HDD+1 x m-SATA
- Support PCIe4 /PCI slot /Mini-PCIE
- Supports 9 ~ 36V wide range DC input

WebAccess/IVS

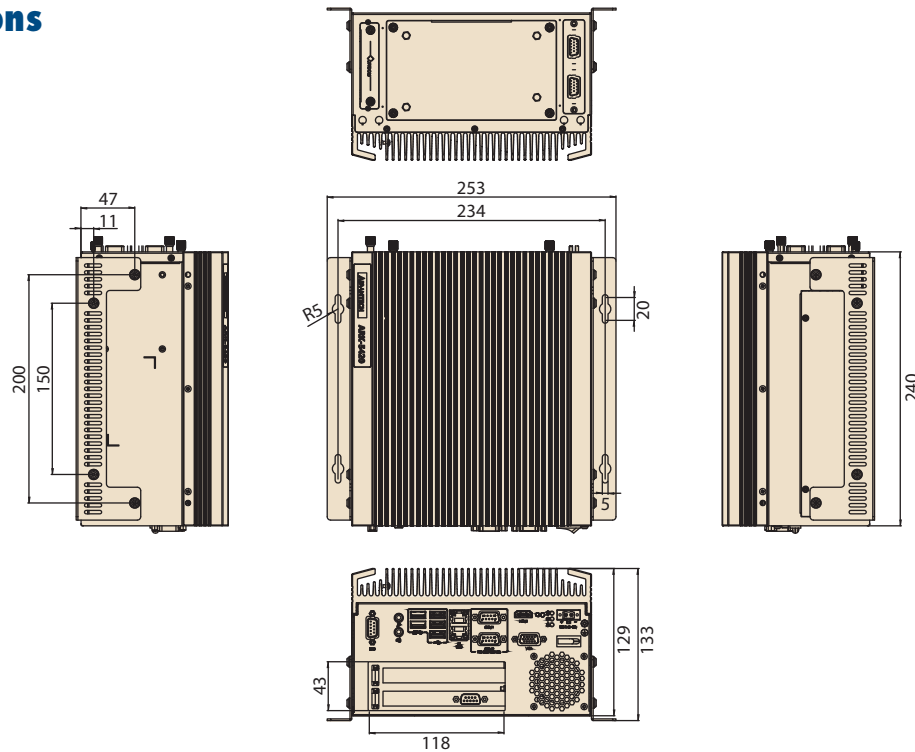


Specifications

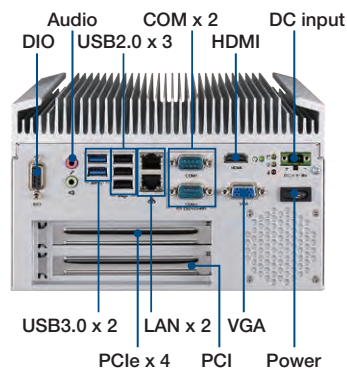
System Chipset	CPU	Intel i5-3610ME Processor		
	Max Speed	2.7 GHz		
	L3 Cache	4 MB		
	Chipset	Intel HM76		
	BIOS	AMI SPI 64 Mb		
Memory	Technology	DDR3 1333/1600, non ECC		
	On board memory	4 GB on board		
	Socket	1 x 204-pin SODIMM (up to 8GB per DIMM) Note: SODIMM and HDD Tray has mechanism interferences, only 1 x HDD or 1 x CF can be used when you request to expand memory size		
	Maximum Capacity	12 GB		
Display	Chipset	Intel Integrated Graphics HD4000, support Direct x11		
	VGA	1 x DB15, max resolution up to 2048 x 1536		
	HDMI	1 x HDMI, support HDMI1.4 standard, max to 1920 x 1200 @ 60Hz		
	Display Option	Support Dual independent display		
Ethernet	Controller	Intel I210-AT, 10/100/1000 Mbps		
	Interface	2 x RJ-45		
Storage	HDD	Support 1x 2.5"HDD + CF module (Optional function)		
	SSD	mSATA 32G		
I/O	USB	2 x USB3.0 + 3x USB 2.0		
	Serial Port	2 x DB9, RS232/422/485 with automatic flow control		
	DIO	1 x DB9, 8-bit		
	Audio	2 (1 x Line-Out, 1 x Mic-in)		
	LPT	1 x DB26 (Front panel, option)		
Expansion Slot	PCIe	1 x PCIe4		
	PCI	1 x PCI32 33Mhz Slot		
		1 x Internal Mini-PCle (Full-Size)		
LED & Button	LED	Power x 1/Storage x 1/Fault x 1		
	Button	Power on/off Switch x 1 Reset button x 1		
Power	Power Type	ATX/AT		
	Power Input Voltage	9 ~ 36V _{DC}		
Watchdog Timer	Output	System reset		
	Interval	Programmable 1~255 sec/min		
Environment	Temperature	Operating (With Industrial SSD)	Operating (with HDD)	Non-Operating
		-25 ~ 60° C with 0.7m/S air flow	0 ~ 40° C	-40 ~ 85° C
	Humidity	95% @ 40° C (non-condensing)		
	Vibration	With SSD: 2 Grms @ 5 ~ 500 Hz, random, 1 hr/axis With 2.5" HDD: 0.5 Grms @ 5 ~ 500 Hz, random, 1 hr/axis		
Shock	With SSD: 20G, IEC-68-2-27, half-sine wave, 11 ms duration With 2.5" HDD: 10G, IEC-68-2-27, half-sine wave, 11 ms duration			
Mechanical Features	Dimension (W x H x D)	253 x 129 x 240 mm		
	Install	Desktop/Wall-mounting		
Certifications	EMC	CE/FCC Class A, CCC, BSMI		
	Safety	UL,CCC,BSMI		

Dimensions

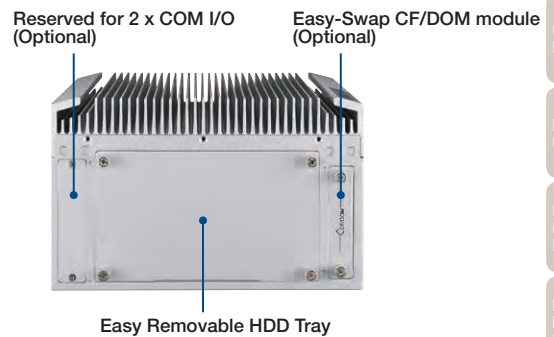
Unit: mm



Front View



Rear View



Ordering Information

Part No.	Description
ARK-5420VS-00A1E	Intel Core i5-3610ME 2.7GHz on-board 4Gb, VGA/HDMI, 2xGbE, 5xUSB ports, 2xCOM ports, audio, PCIe x4 & PCI, 9 ~ 36 V _{DC} power with 2pin Phoenix connector, 4G RAM, mSATA 32G

Packing List

Part No.	Description
-	ARK-5420VS
-	1 x Driver CD
1960059401N001	2 x Supporting-angels
1652002205	1 x 2-pin Terminal Block
96PSA-A65W19P2-2	Power adaptor

Optional Item

Part Number	Description
1700001947	Power Cord 2P USA 7A 125V 1.8M
1700001948	Power Cord 2P Europe 2.5A 250V 1.8M
1700001949	Power Cord 2P UK 2.5A/3A 250V 1.8M
1700019592	Parallel cable/D-SUB 25P(F)/IDE#2 26P-2.0 15cm
1700020692-01	LVDS cable/D-SUB 26P(F)/2*20P-1.25 15cm
PCA-5650-00A1E	Mini PCIe VGA card

Embedded OS

Description
Windows 7 embedded 64bit

- Intelligent Video and IoT Sensors **1**
- Intelligent Transportation Platforms **2**
- Intelligent Inspection Systems **3**
- Modular IPCs **4**
- Server-grade IPCs **5**
- Industrial Storages **6**
- Video Wall Controllers **7**
- GPU Servers **8**
- Industrial Motherboards **9**
- Slot SBC & Passive Backplanes **10**
- CompactPCI Platforms **11**
- Industrial Chassis **12**
- Industrial Computer Peripherals **13**
- Industrial Ethernet Solutions **14**

ARK-1123HVS

Intel® Celeron Quad Core J1900 SoC with Dual HDMI and Dual GbE Fanless Box PC



Features

- Intel® Celeron J1900 Quad Core 2.0 GHz SoC
- 1 x 2.5" SATA HDD/SSD Bay
- 2 x GbE for Multiple Internet Transmission
- 2 x Independent HDMI
- 1 x RS-232/422/485 (BIOS selection)
- 1 x Full-Size MiniPCIe (ex. WLAN or WWAN module)
- 1 x Half Size MiniPCIe (ex. mSATA)
- Optional VESA / DIN Rail / Wall Mounting kits
- Threaded DC jack design
- Supports SUSIAccess and Embedded Software APIs

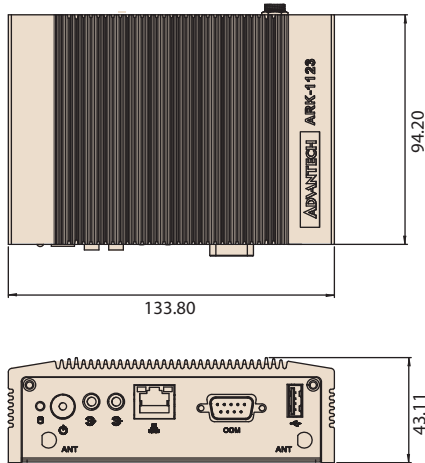
WebAccess/IVS



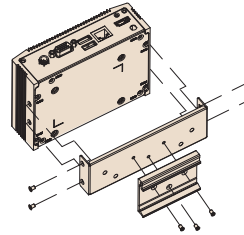
Specifications

ARK-1123HVS-00A1E		
Processor System	CPU	Intel® Celeron™ Processor J1900 Quad Core 2.0 GHz SoC
	Frequency	2.0 GHz (Up to 2.41 GHz w/ burst frequency enabled)
	L2 Cache	2 MB
	BIOS	AMI EFI 64 Mbit (Default BIOS is supported for 64-bit OS installation, BIOS for 32-bit OS is supported by project)
Memory	Technology	4G DDR3L 1600MHz
	Max. Capacity	8 GB
	Socket	1 x 204-pin SO-DIMM
Graphics	Chipset	Intel® Atom SoC integrated
	Graphic Engine	DirectX* 11.1, OGL 3.0, OCL 1.1, OGL ES 2.0 Encode: H264, MPEG2/4, VC1, WMV9 Decode: H264, MPEG2
	HDMI	2 x Lockable HDMI connector, support up to 1920 x 1080 at 60Hz
Audio	Main System	ALC-888S, High Definition Audio, Line-out & Line-in
Ethernet	LAN #1	10/100/1000 Mbps Intel I210 GbE, support Wake on LAN
	LAN #2	10/100/1000 Mbps Intel I210 GbE, support Wake on LAN
I/O Interface	Serial Ports	1 x RS-232/422/485 (BIOS selectable)
	USB Interface	2 x USB 2.0 & 1 x USB3.0
Other	Watchdog timer	255-level timer interval, setup by software
Expansion	Mini PCIe #1	1 x Full-size Mini PCIe, support WLAN or WWAN module
	Mini PCIe #2	1 x Half-size Mini PCIe, support Half-size mSATA module
Storage	2.5" Drive Bay	1 x 2.5" SATA HDD Bay (Max Height 7mm)
	mSATA	32G
Software Support	Microsoft Windows	WES7, Windows 7, WE8S, Windows 8 (32-bit support by project)
	Linux	Support (by Project)
Power Requirement	Power Input Voltage	Single 12 V _{DC}
	Power Adapter	AC to DC, DC12 V/3 A, 36 W with threaded design
Mechanical	Construction	Aluminum housing
	Mounting	VESA/DIN Rail/Wall Mounting Kits (Optional)
	Dimensions (W x H x D)	133.8 x 43.1 x 94.2 mm (5.27" x 1.7" x 3.71")
Environment	Operating Temperature	With extended temperature SSD/mSATA/RAM : -20 ~ 60° C with 0.7m/s air flow With standard temperature HDD/SSD/mSATA/RAM peripherals: 0 ~ 40° C with 0.7m/s air flow
	Storage Temperature	-40 ~ 85° C (-40~185° F)
	Relative Humidity	95% @ 40° C (non-condensing)
	Vibration During Operation	With mSATA/SSD: 3 Grms, IEC 60068-2-64, random, 5 ~ 500 Hz, 1 hr/axis With HDD: 0.5Grms, IEC 60068-2-64, random, 5~500Hz, 3 axes, 1hr/axis
	Shock During Operation	With mSATA/SSD: 30 G, IEC 60068-2-27, half sine, 11 ms duration With HDD: 10G, IEC 60068-2-27, half sine, 11 ms duration
Regulation	EMC	CE/FCC Class A, CCC, BSMI
	Safety	UL, CCC, BSMI, CB

Dimensions

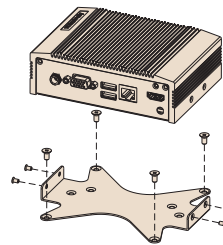


DIN Rail

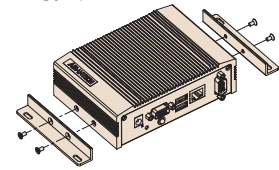


Unit: mm

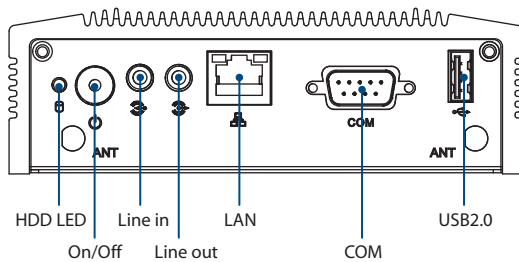
VESA mount



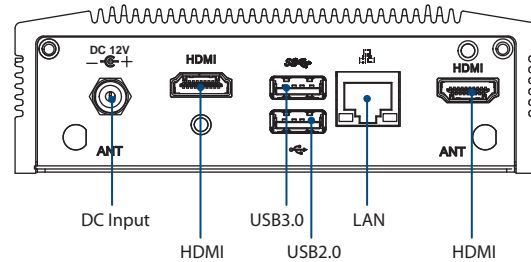
Wall mount



Front View



Rear View



Ordering Information

Part Number	CPU	RAM	HDMI	GbE	USB 2.0	USB 3.0	RS-232/422/485	Audio	MiniPCIe	2.5" HDD bay	mSATA	Operating Temperature
ARK-1123HVS-00A1E	Intel Celeron J1900	4G	2	2	2	1	1	Line in Line out	1 Half size 1 Full size	1	32G	-20 ~ 60° C

Packing List

Description
1 x ARK-1123HVS Unit
1 x User Manual (Simplified Chinese)
1 x AC to DC adapter DC12 V/3 A 36 W, 0 ~ 40° C with threaded design
1 x Power Cable 3-pin 180cm, USA type

Embedded OS

Description
Windows 7 embedded 64bit

Optional Accessories

Part Number	Description
170203183C	Power Cable 3-pin 180cm, Europe type (For power adapter 1757004096-01)
170203180A	Power Cable 3-pin 180cm, UK type (For power adapter 1757004096-01)
1700008921	Power Cable 3-pin PSE Mark 183cm (For power adapter 1757004096-01)
1757004522-01	AC-to-DC Wide Temperature Adapter, DC 12V/3.33A 40W, -20° C ~ 70° C
1702002600-01	Power cable 3-pin 183 cm, USA type (For power adapter 1757004522-01)
1700018705	Power cable 3-pin 183 cm, Europe type (For power adapter 1757004522-01)
1700018704	Power cable 3-pin 183 cm, UK type (For power adapter 1757004522-01)
170000237-01	Power cable 3-pin 183 cm, PSE type (For power adapter 1757004522-01)
AMK-V003E	ARK-112X series VESA mounting kit
AMK-R001E	ARK-112X series DIN-rail mounting kit
AMK-W001E	ARK-112X series Wall mounting kit

Intelligent Video and IoT Sensors	1
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Industrial Computer Peripherals	13
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ARK-2121VVS

In-Vehicle Intelligent Video System w/ 4 PoE Ports



WebAccess/IVS

Introduction

ARK-2121VVS is a Fanless In-Vehicle intelligent video system. It provides a great flexibility to support IP cameras with PoE power supply feature. It includes Advantech intelligent surveillance software, WebAccess/IVS which supports real-time monitoring, record, playback, quick search, event log, eMap operation, alarm notification, backup, remote monitoring ...etc. It also pre-installed with several free bundled intelligent video analysis software to make your surveillance system more intelligent. Advantech's Quality Assurance and Configure To Order Services, provide the best reliability for 24/7 operations. The advanced thermal design, and easy to operate user interface make the ARK-2121VVS the ideal PC based surveillance solution for various applications.

Specifications

Processor System	CPU	Intel Atom E3845 QC SoC
	Frequency	1.91 GHz
	L2 Cache	2 MB
	BIOS	AMI EFI 64 Mbit
Memory	Technology	DDR3L 1333 MHz
	Max. Capacity	8 GB
	Socket	1 x 204-pin SO-DIMM
Graphics	Chipset	Intel Gen7 Graphics
	Graphic Engine	DirectX11, OpenGL3.2, OpenCL1.1 Full HW acceleration, decode: H.264, MPEG2/4, VC-1, WMV9. Encode: H.264, MPEG2
	VGA	Up to 2560 x 1600 @ 60Hz
	HDMI	Lockable HDMI connector, up to 1080p
Audio	Main System	Realtek ALC888S, High Definition Audio (HD), Line-in, Line out, Mic-in
	Power over Ethernet, PoE	4 x 10/100 Mbps - 4ports full-load, IEEE802.3af Class 2 (7Watt) - 2ports full-load, IEEE802.3af Class 3 (15.4Watt)
I/O Interface	Optional COM or CANBus	2 x DB9 connectors for RS-232/422/485 signal (Default) or CANBus 2.0A/B (Module option)
	GPIO	6 x DI & 2 x DO w/ 3KV isolation Input Voltage: 0 to 30 V _{DC} , Output Current: Max. 500 mA per channel On-state Voltage: 24 V _{DC} nominal, open collector to 30 V _{DC}
	USB	3 x USB 2.0 & 1 x USB3.0
	Network	2 x 10/100/1000 Intel I210-IT GbE
Other	GPS	On board standalone GPS, support GPS, GLONASS and QZSS signals
	G-Sensor	On board high resolution G-Sensor, up to 13-bit resolution at ± 16g
	Watchdog timer	255-level timer interval, setup by software
Expansion	Mini PCIe #1	Full-size Mini PCIe, support mSATA
	Mini PCIe #2	Full-size Mini PCIe, support WLAN module
	Mini PCIe #3/4	2 x Full-size Mini PCIe w/SIM holders, support WWAN module. (USB interface)
Storage	2.5" Drive Bay	1 x removable 2.5" drive bay (Max 9.5mm height)
	mSATA	Leverage MiniPCIe #1 slot
Camera Support	Video Encoding	H.264
	Maximum Frame Rate	30fps per channel
	Camera Inputs	Up to 4 channels D1/120FPS or 2 channels 1080P/60FPS
Power Requirement	Power Input Voltage*	9 ~ 36 V _{DC} w/isolation
	Vehicle Power Ignition	Selectable boot-up & shut-down voltage, on/off delay time
	Isolation	1.5KV Isolated
Mechanical	Construction	Aluminum housing, Silver
	Mounting	Din-Rail mounting, Desk/wall-mounting, VESA mounting
	Dimensions (W x H x D)	264.5 x 69.2 x 133.0 mm
Environment	Operating Temperature	With extended temperature peripherals: -30~60° C with 0.7m/s air flow With standard temperature peripherals: 0 ~ 45° C with 0.7m/s air flow
	Storage Temperature	-40 ~ 85° C (-40~185° F)
	Relative Humidity	95% @ 40° C (non-condensing)
	Vibration/Shock	With mSATA/SSD: IEC 60721-3-5 Class 5M3
Regulation	EMC	CE/FCC Class A, CCC, BSMI
	Safety	UL, CCC, BSMI, E-Mark (E13)
	In-Vehicle Power	ISO7637-2 Lev.4

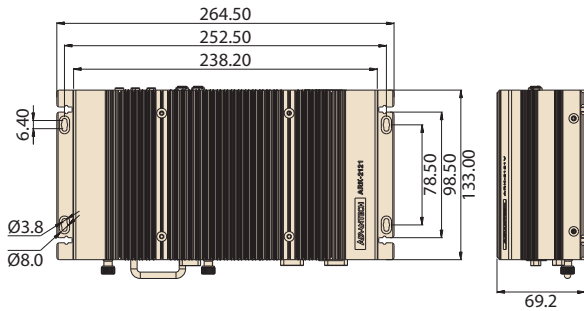
* Power Input Constraint at low voltage: 9~10.9V.

Features

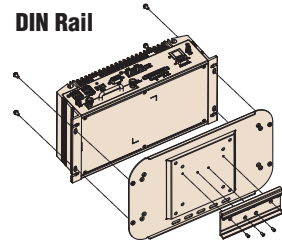
- Intel® Atom E3845 Quad Core 1.91 GHz SoC
- 4 x PoE ports to support IP camera
- Isolated COM ports and DIO
- Diversity Communication Abilities, ex. WWAN, WLAN
- Built-in GPS and G-Sensor for GIS application
- Intelligent Vehicle Power Ignition
- 9 ~ 36 V_{DC}* Wide Power Input w/isolation
- 1 x Removable 2.5" drive bay
- Supports iManager, SUSIAccess and Embedded Software APIs



Dimensions

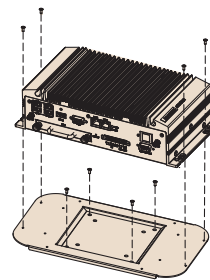


DIN Rail

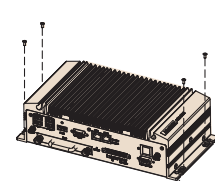


Unit: mm

VESA mount

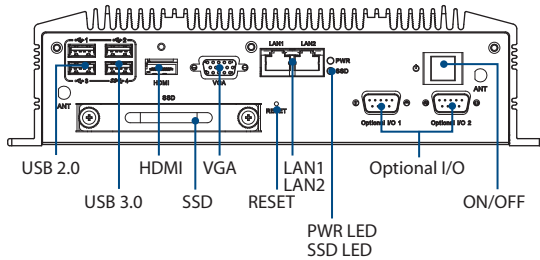


Wall mount



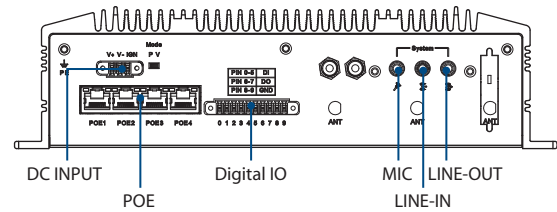
Front View

ARK-2121VVS-00A1E



Rear View

ARK-2121VVS-00A1E



Ordering Information

Part Number	Description
ARK-2121VVS-00A1E	ARK-2121V/32G_mSATA/4G_DDR3/Win7E

Packing List

Part Number	Description
-	1 x ARK-2121VVS Unit
-	1 x Driver/Utility CD/Manual
-	1 x User Manual (Simplified Chinese)
1652000049	3-pole phoenix power block 3.81mm
1750001782	1 x GPS antenna Active with 5M SMA cable
1652003235	10-Pin DIO plug in block
96PSA-A120W24T2	AC-to-DC Adapter with Phoenix Power Plug, 0 ~ 40° C for Home and Office Use

Optional Accessories

Part Number	Description
AMK-V004E	VESA mounting kit
AMK-R004E	DIN-rail mounting kit
1700001524	Power Cable 3-pin 180cm, USA type
170203183C	Power Cable 3-pin 183cm, Europe type
170203180A	Power Cable 3-pin 183cm, UK type

Intelligent Video and IoT Sensors	1
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Intelligent Inspection Systems	3
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Industrial Motherboards	9
Slot SBC & Passive Backplanes	10
CompactPCI Platforms	11
Industrial Chassis	12
Industrial Computer Peripherals	13
Industrial Ethernet Solutions	14

ARK-2121SVS

Rugged Intelligent Video System w/ 4 PoE Ports



Features

- Intel® Atom E3845 Quad Core 1.91 GHz SoC
- 4 x PoE ports to support IP camera
- 3KV isolation for 6 x Di & 2 x Do
- Diversity Communication Abilities, ex. WWAN, WLAN
- 9 ~ 36 V_{dc}* Wide Power Input w/isolation
- 1 x Removable 2.5" drive bay
- Supports iManager, SUSIAccess and Embedded Software APIs
- Anti-Vibration/ Shock proof with IEC 60068-2-64/27 3Grms/30G

WebAccess/IVS



Introduction

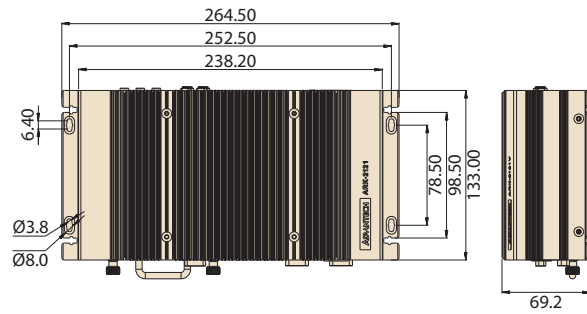
ARK-2121VVS is a rugged Fanless intelligent video system. It provides a great flexibility to support IP cameras with PoE power supply feature. It includes Advantech intelligent surveillance software, WebAccess/IVS which supports real-time monitoring, record, playback, quick search, event log, eMap operation, alarm notification, backup, remote monitoring ...etc. It also pre-installed with several free bundled intelligent video analysis software to make your surveillance system more intelligent. Advantech's Quality Assurance and Configure To Order Services, provide the best reliability for 24/7 operations. The advanced thermal design, and easy to operate user interface make the ARK-2121VVS the ideal PC based surveillance solution for various applications.

Specifications

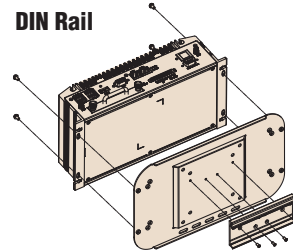
Processor System	CPU	Intel Atom E3845 QC SoC
	Frequency	1.91 GHz
	L2 Cache	2 MB
	BIOS	AMI EFI 64 Mbit
Memory	Technology	DDR3L 1333 MHz
	Max. Capacity	8 GB
	Socket	1 x 204-pin SO-DIMM
Graphics	Chipset	Intel Gen7 Graphics
	Graphic Engine	DirectX11, OpenGL3.2, OpenCL1.1
	VGA	Full HW acceleration, decode: H.264, MPEG2/4, VC-1, WMV9. Encode: H.264, MPEG2
	HDMI	Up to 2560 x 1600 @ 60Hz Lockable HDMI connector, up to 1080p
Audio	Main System	Realtek ALC888S, High Definition Audio (HD), Line-in, Line out, Mic-in
I/O Interface	Power over Ethernet, PoE	4 x 10/100 Mbps - 4ports full-load, IEEE802.3af Class 2 (7Watt) - 2ports full-load, IEEE802.3af Class 3 (15.4Watt)
	Serial Ports	2 x RS-232/422/485 ports (support auto flow control, BIOS selectable)
	GPIO	6 x DI & 2 x DO w/ 3KV isolation Input Voltage: 0 to 30 V _{dc} , Output Current: Max. 500 mA per channel On-state Voltage: 24 V _{dc} nominal, open collector to 30 V _{dc}
	USB	3 x USB 2.0 & 1 x USB3.0
	Network	2 x 10/100/1000 Intel I210-IT GbE
Other	Watchdog timer	255-level timer interval, setup by software
Expansion	Mini PCIe #1	Full-size Mini PCIe, support mSATA
	Mini PCIe #2	Full-size Mini PCIe, support WLAN module
	Mini PCIe #3/4	2 x Full-size Mini PCIe w/SIM holders, support WWAN module. (USB interface)
Storage	2.5" Drive Bay	1 x removable 2.5" drive bay (Max 9.5mm height)
	mSATA	Lverage MiniPCIe #1 slot
Camera Support	Video Encoding	H.264
	Maximum Frame Rate	30fps per channel
	Camera Inputs	Up to 4 channels D1/120FPS or 2 channels 1080P/60FPS
Power Requirement	Power Input Voltage*	9 ~ 36 V _{dc} w/ isolation
	Isolation	1.5KV Isolated
Mechanical	Construction	Aluminum housing, Silver
	Mounting	Din-Rail mounting, Desk/wall-mounting, VESA mounting
	Dimensions (W x H x D)	264.5 x 69.2 x 133.0 mm (10.41" x 2.72" x 5.24")
Environment	Operating Temperature	With extended temperature peripherals: -30 ~ 60° C with 0.7m/s air flow With standard temperature peripherals: 0 ~ 45° C with 0.7m/s air flow
	Storage Temperature	-40 ~ 85° C (-40~185° F)
	Relative Humidity	95% @ 40° C (non-condensing)
	Vibration During Operation	With mSATA/SSD: 3 Grms, IEC 60068-2-64, random, 5 ~ 500 Hz, 1 hr/axis
	Shock During Operation	With mSATA/SSD: 30 G, IEC 60068-2-27, half sine, 11 ms duration
Regulation	EMC	CE/FCC Class A, CCC, BSMI
	Safety	CB, UL, CCC, BSMI

* Power Input Constraint at low voltage: 9~10.9V.

Dimensions

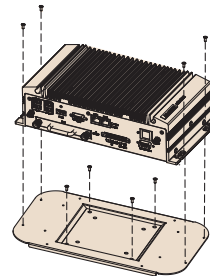


DIN Rail

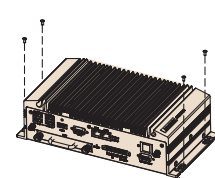


Unit: mm

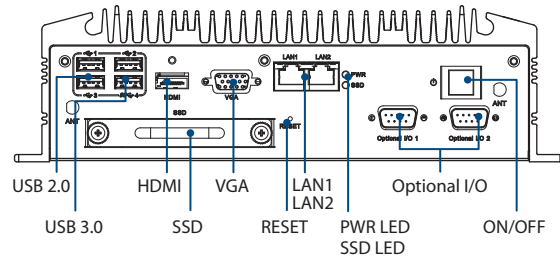
VESA mount



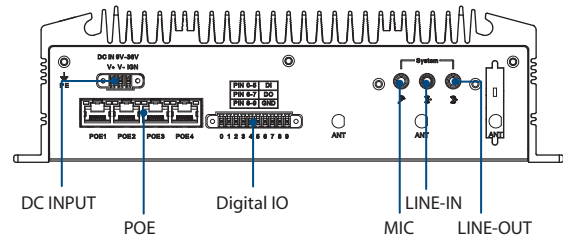
Wall mount



Front View



Rear View



Ordering Information

Part Number	Description
ARK-2121SVS-00A1E	ARK-2121S/32G_mSATA/4G_DDR3/Win7E

Packing List

Part Number	Description
-	1 x ARK-2121SVS Unit
-	1 x Driver/Utility CD/Manual
-	1 x User Manual (Simplified Chinese)
1652000049	3-pole phoenix power block 3.81mm
1652003235	10-Pin DIO plug in block
96PSA-A120W24T2	AC-to-DC Adapter with Phoenix Power Plug

Optional Accessories

Part Number	Description
AMK-V004E	VESA mounting kit
AMK-R004E	DIN-rail mounting kit
1700001524	Power Cable 3-pin 180cm, USA type
170203183C	Power Cable 3-pin 183cm, Europe type
170203180A	Power Cable 3-pin 183cm, UK type

Intelligent Video and IoT Sensors	1
Intelligent Transportation Platforms	2
Intelligent Inspection Systems	3
Modular IPCs	4
Server-grade IPCs	5
Industrial Storages	6
Video Wall Controllers	7
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Slot SBC & Passive Backplanes	10
CompactPCI Platforms	11
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Industrial Computer Peripherals	13
Industrial Ethernet Solutions	14

ACP-4000VS

Industrial 4U Hybrid Intelligent Video System



Features

- Industrial grade intelligent surveillance system with flexible hybrid system structure
- Free bundled VMS/CMS and SDK for AP software integration
- Free bundled and optional intelligent video analysis (IVA) software
- Supports analog/digital/IP Cameras with Hybrid structure
- 3 TB HDD for 16-ch of recording for 15 Days (D1@240FPS)

WebAccess/IVS

CE FCC

Introduction

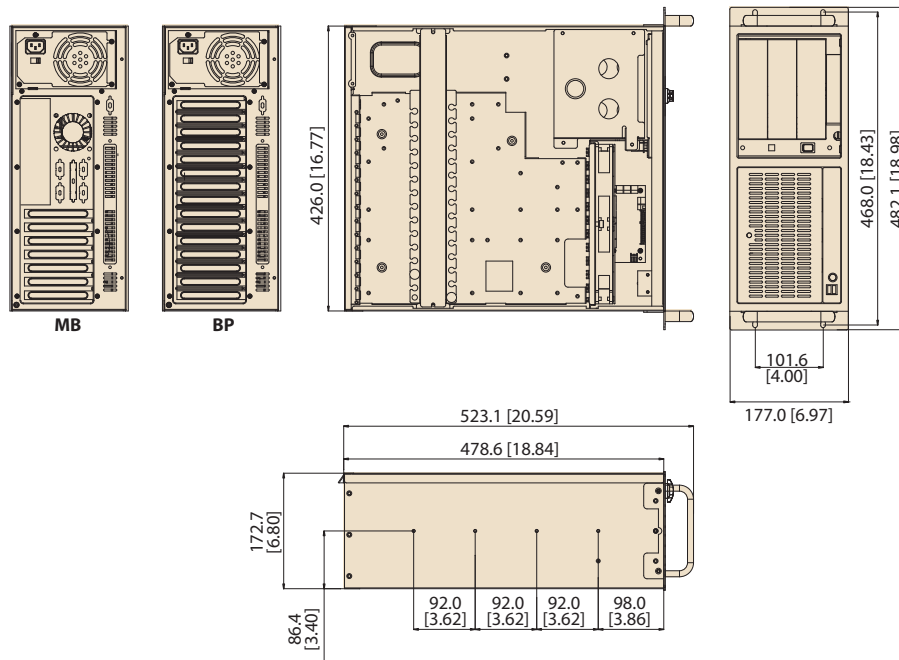
ACP-4000VS is an industrial hybrid intelligent video system. It provides great flexibility to support both analog and IP cameras with Advantech intelligent surveillance software, WebAccess/IVS. The embedded OS provides excellent reliability and protection against virus attack. Support analog/digital/IP Cameras with Hybrid structure preview and playback with motion detection, PTZ control, and HDD video backup. It also supports TCP/IP for preview and playback with full software functions via Internet/Intranet. ACP-4000VS is also pre-installed with several free bundled intelligent video analysis software to make your surveillance system more intelligent. Advantech's Quality Assurance, and Configure To Order Services, provide the best reliability for 24/7 operations. The advanced thermal design, and easy to operate user interface make the ACP-4000VS the ideal PC based surveillance solution for various applications.

Specifications

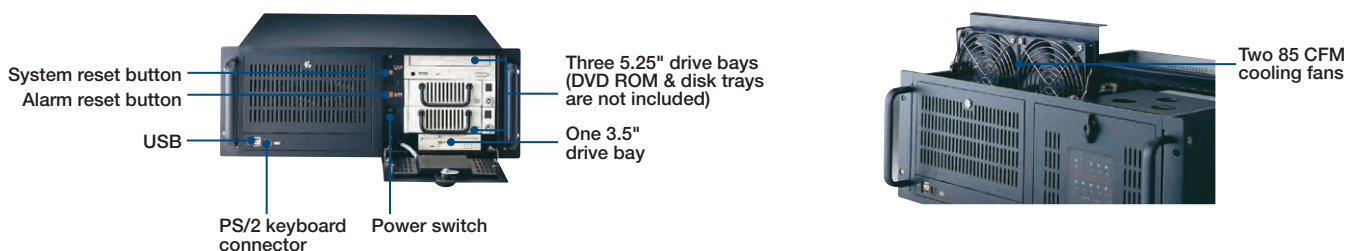
System	CPU	Core i7-3770S	
	Cache Memory	8MB	
	System Chipset	Intel Q67	
	Memory	4GB DDRIII (Max. Capacity 32GB)	
Storage	SSD Driver	Build-in 32G 2.5" SSD	
	HDD Driver	1 x 3.5" (3TB) SATA HDD (3 Drive Bay)	
Graphic	Chipset Integrated	Integrated Intel HD Graphics	
Analog Camera Support	Recording Standard	NTSC/PAL	
	Video Encoding	H.264	
	Maximum Frame Rate	30/25fps per channel	
	Analog Camera Inputs	Up to 32 channels D1/480FPS or 16 channels 1080p/160FPS HW encoder capture card selected	
IP Camera Support	Recording Resolutions	Up to 3 Megapixel	
	Video Encoding	H.264	
	Maximum Frame Rate	30fps per channel	
	Camera Inputs	Up to 32 channels D1/480FPS or 16 channels Full HD 1080P/160FPS IP cameras	
Inputs and Outputs	Display	VGA+DVI-D	
	USB	2 x USB 2.0 + 2 x USB 3.0	
	Network	2 x 10/100/1000 Mbps LAN Ports	
	Serial	2 x RS232	
	PS/2	2 (1 x keyboard and 1 x mouse)	
Environmental	Temperature	Operating	Non-Operating
		0 ~ 40° C (32 ~ 104° F)	-20 ~ 60° C (-4 ~ 140° F)
	Humidity	10 ~ 85% @ 40° C, non-condensing	10 ~ 95% @ 40° C, non-condensing
Hardware and Physical	Power	AC 400W, ATX 100V _{AC} ~ 240 V _{AC}	
	Storage	Up to 3 3TB 3.5" SATA HDD	
	Dimension (W x H x D)	482 x 177 x 479 mm (19" x 7" x 18.9")	
Third Party Integration	SDK Available for 3 rd Party software integration	Supported	

Dimensions

Unit: mm [inch]



Front View



Ordering Information

Part Number	Description
ACP-4000VS-00A1E	Industrial 4U Hybrid Intelligent Video System: 3T_HDD/4G_RAM/32G_mSATA/Win7E X64/IVA_4CH
ACP-4000VS-16A1E	Industrial 4U Hybrid Intelligent Video System: 3T_HDD/4G_RAM/32G_mSATA/Win7E X64/IVA_16CH
ACP-4000VB-00A1E	Barebone W/O HDD / RAM / SSD / OS

Optional Accessories

Part Number	Description
DVP-7637E	4ch video capture card for analog cameras
DVP-7640E	8ch video capture card for analog cameras
DVP-7650E	16ch video capture card for analog cameras

Intelligent Video and IoT Sensors	1
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Slot SBC & Passive Backplanes	10
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Industrial Computer Peripherals	13
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AiMC-3200VS

Compact Size Hybrid Intelligent Video System



Features

- Compact size intelligent surveillance system with flexible hybrid system structure
- Free bundled VMS/CMS and SDK for AP software integration
- Free bundled and optional intelligent video analysis (IVA) software
- Supports analog/digital/IP Cameras with Hybrid structure
- 1 TB HDD for 4-ch of recording for 15 Days (D1/60FPS)

WebAccess/IVS



Introduction

AiMC-3200VS is a compact size hybrid intelligent video system. It provides great flexibility to support both analog and IP cameras with Advantech intelligent surveillance software, WebAccess/IVS. The embedded OS provides excellent reliability and protection against virus attack. Support analog/digital/IP Cameras with Hybrid structure preview and playback with motion detection, PTZ control, and HDD video backup. It also supports TCP/IP for preview and playback with full software functions via Internet/Intranet. AiMC-3200VS is also pre-installed with several free bundled intelligent video analysis software to make your surveillance system more intelligent. Advantech's Quality Assurance, and Configure To Order Services, provide the best reliability for 24/7 operations. The advanced thermal design, and easy to operate user interface make the AiMC-3200VS the ideal PC based surveillance solution for various applications.

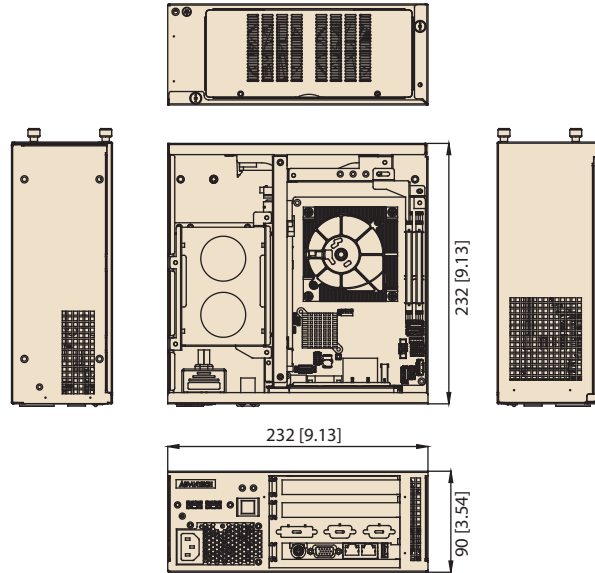
Specifications

System	CPU	Core i5-3550S	
	Cache Memory	6MB	
	System Chipset	Intel H61	
	Memory	4GB DDR3 (Max. Capacity 16GB)	
Storage	HDD Driver	Build-in 1TB 2.5" SATA HDD (2 Internal Bay)	
Graphic	Chipset Integrated	Integrated Intel HD Graphics	
Analog Camera Support	Recording Standard	NTSC/PAL	
	Video Encoding	H.264	
	Maximum Frame Rate	30/25fps per channel	
	Analog Camera Inputs	Up to 8 channels D1/240FPS or 4 channels 1080P/120FPS HW encoder capture card selected	
IP Camera Support	Recording Resolutions	Up to 3 Megapixel	
	Video Encoding	H.264	
	Maximum Frame Rate	30fps per channel	
	Camera Inputs	Up to 8 channels D1/240FPS or 4 channels Full HD 1080P/120FPS IP cameras	
Inputs and Outputs	Display	VGA+DVI-D	
	USB	4 USB2.0 (3 in front, 1 internal type-A for software key)	
	Network	2 x 10/100/1000 Mbps LAN Ports	
	Serial	2 x RS232	
	PS/2	1	
Environmental	Temperature	Operating 0 ~ 40° C (32 ~ 104° F)	Non-Operating -20 ~ 60° C (-4 ~ 140° F)
	Humidity	10 ~ 85% @ 40° C, non-condensing 10 ~ 95% @ 40° C, non-condensing	
Hardware and Physical	Power	AC 250W, ATX 100V _{AC} ~ 240 V _{AC}	
	Storage	Up to 2.5" HDD x 2	
	Dimension (W x H x D)	232 x 90 x 232 mm	
Third Party Integration	SDK Available for 3 rd Party software integration	Supported	

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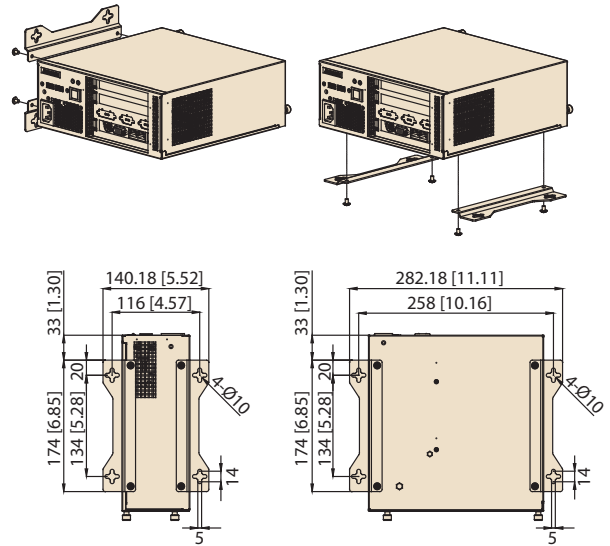
Dimensions

Unit: mm [inch]

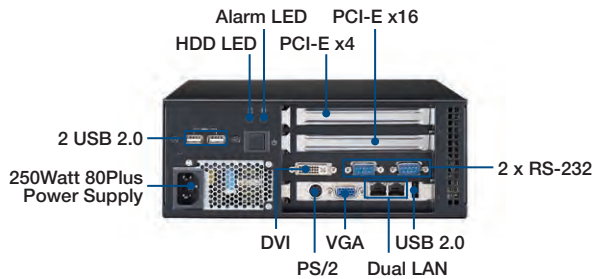


Installation

Unit: mm [inch]



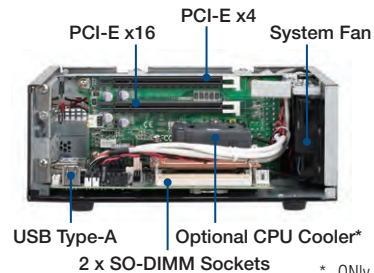
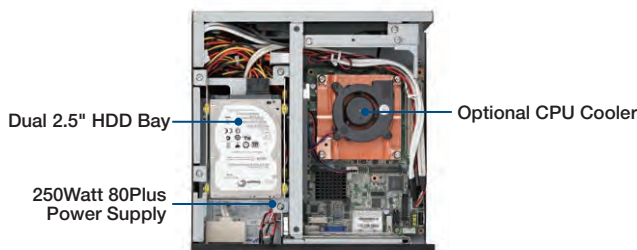
Front View



Rear Cover for Replacing Fans



Interior View



* ONLY 1 PCIe slot is available when using 1.5U CPU Cooler

Ordering Information

Part Number	Description
AiMC-3200VS-00A1E	Micro Computer, Micro Computer, 1T_HDD/4G_RAM/Win7E X64/IVA_4CH

Optional Accessories

Part Number	Description
DVP-7637E	4ch video capture card for analog cameras
DVP-7640E	8ch video capture card for analog cameras

ITA-3630VS

Intel® 3rd Generation Core™ i Processor Fanless Intelligent Video System for Road Surveillance



Features

- Supports Intel® 3rd Generation Core™ i5 BGA type CPU
- Intel® HM76 PCH
- Support wide temperature -25° C ~ 60° C
- Supports three independent displays
- 2 x 2.5" HDD or 1 x 2.5" HDD+1 x Easy-swap CF/DOM
- Built-in fixed bracket with 2 x USB2.0 port for Dongle
- Supports 9 ~ 36V wide range DC input

WebAccess/IVS

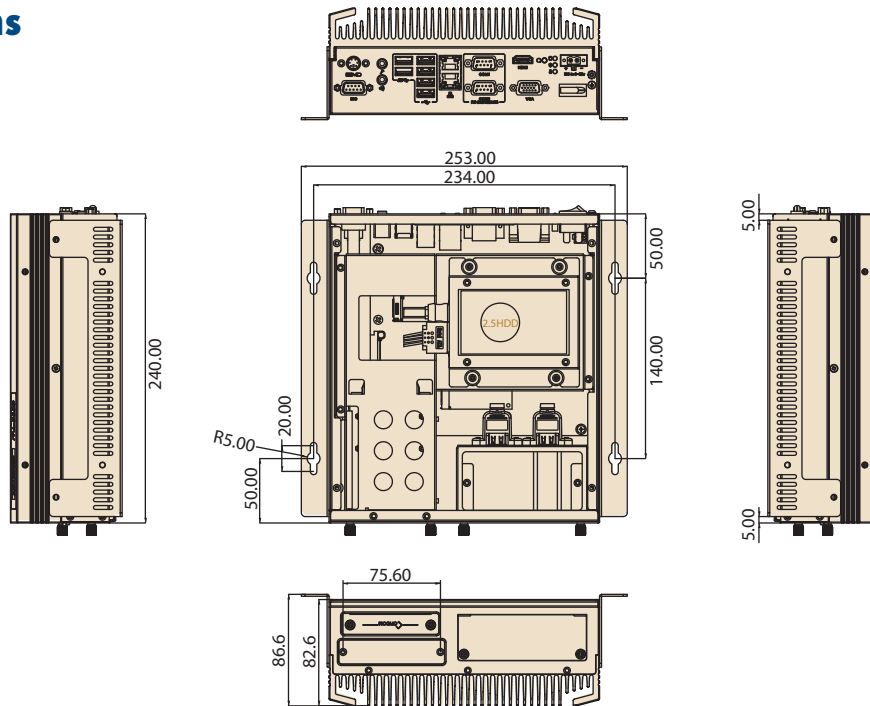


Specifications

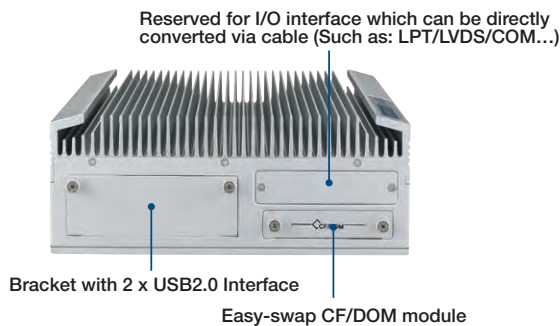
System Chipset	CPU	Intel i5-3610ME Processor		
	Max Speed	2.7 GHz		
	L3 Cache	4 MB		
	Chipset	Intel HM76		
Memory	BIOS	AMI SPI 64 Mb		
	Technology	DDR3 1333/1600, non-ECC		
	On board memory	4 GB on board		
	Socket	1 x 204-pin SODIMM (up to 8GB per DIMM) Note: SODIMM and HDD Tray has mechanism interferences, only 1 x HDD or 1 x CF can be used when you request to expand memory size		
Display	Maximum Capacity	12 GB		
	Chipset	Intel Integrated Graphics HD4000, support Direct x11		
	VGA	1 x DB15, max resolution up to 2048 x 1536		
	HDMI	1 x HDMI, support HDMI1.4 standard, max to 1920 x 1200 @ 60Hz		
	LVDS	Built-in interface, support 48-bit dual channel Convert to real I/O via cable (Front panel, Option)		
	eDP	Box Header on board		
Storage	Display Option	Dual Display: VGA+HDMI Triple Display: VGA+HDMI+eDP		
	HDD	Support 2 x 2.5" HDD or 2.5" HDD+CF module		
IP Camera Support	SSD	1 x internal mSATA (32GB)		
	Recording Resolutions	Up to 3 Megapixel		
	Video Encoding	H.264		
	Maximum Frame Rate	30fps per channel		
I/O	Camera Inputs	Up to 8 channels D1/240FPS or 4 channels Full HD 1080P/120FPS IP cameras		
	USB	2 x USB3.0 & 4 x USB2.0		
	Serial Port	2 x DB9, RS232/422/485 with automatic flow control		
	DIO	1 x DB9, 8-bit		
	Audio	2 (1 x Line-Out, 1 x Mic-in)		
	PS2	1 x PS2		
	LPT	1 x DB26 (Front panel, option)		
	Network	2 x 10/100/1000 Mbps LAN Ports		
Expansion Slot	Mini PCIe	1 x internal Mini PCIe (Full-Size)		
	LED	Power x 1/Storage x 1/Fault x 1		
LED & Button	Button	Power on/off Switch x 1 Reset button x 1		
	Power	Input Voltage: DC wide range 9V ~ 36V input Interface: 2-pin terminal block		
Watchdog Timer	Output	System reset		
	Interval	Programmable 1~255 sec/min		
Environment	Vibration	CF/SSD: 2G @ 5 ~ 500 Hz, Random 10Oct./min, 1Hr/axis 2.0Grms @ 5 ~ 500 Hz, Sine 1Hr/axis	HDD: 2G @ 5 ~ 500 Hz, Random 10Oct./min, 1Hr/axis 1.0Grms @ 5 ~ 500Hz, Sine 1Hr/axis	IEC 60068-2-6 IEC 60068-2-64
	Operating Temperature	CF/SSD/mSATA, 0.7m/s air flow: -25 ~ 60° C		IEC 60068-2-1/
	Storage Temperature	-40 ~ 85° C		IEC 60068-2-2/
	Humidity	20 ~ 95% @ 40° C (non-condensing)		IEC 60068-2-78
	Shock	20 G half sine, 11 ms		IEC 60068-2-27
Mechanical Features	Dimension (W x H x D)	253 x 86.6 x 240 mm		
	Install	Desktop/Wall-mounting		
	Weight	4kg		
Certifications	EMC	CE/FCC Class A, CCC, BSMI		
	Safety	UL,CCC,BSMI		

Dimensions

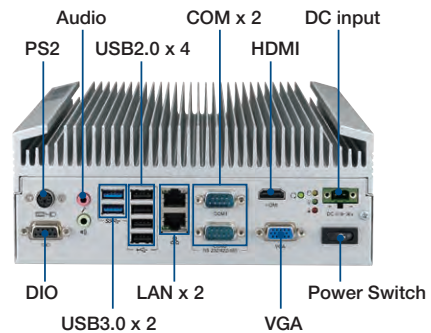
Unit: mm



Front View



Rear View



Ordering Information

Part Number	Description
ITA-3630VS-01A1E	ITA-3630/Win7E/i5/32G_mSATA/4G_DDR

Packing List

Part No.	Description
-	1 x ITA-3630VS
2062363000	1 x Driver CD
200K363000	1 x Startup manual
1960059401N001	2 x Supporting-angels
1652002205	1 x 2-pin Terminal Block
96PSA-A65W19P2-2	Power Adapter

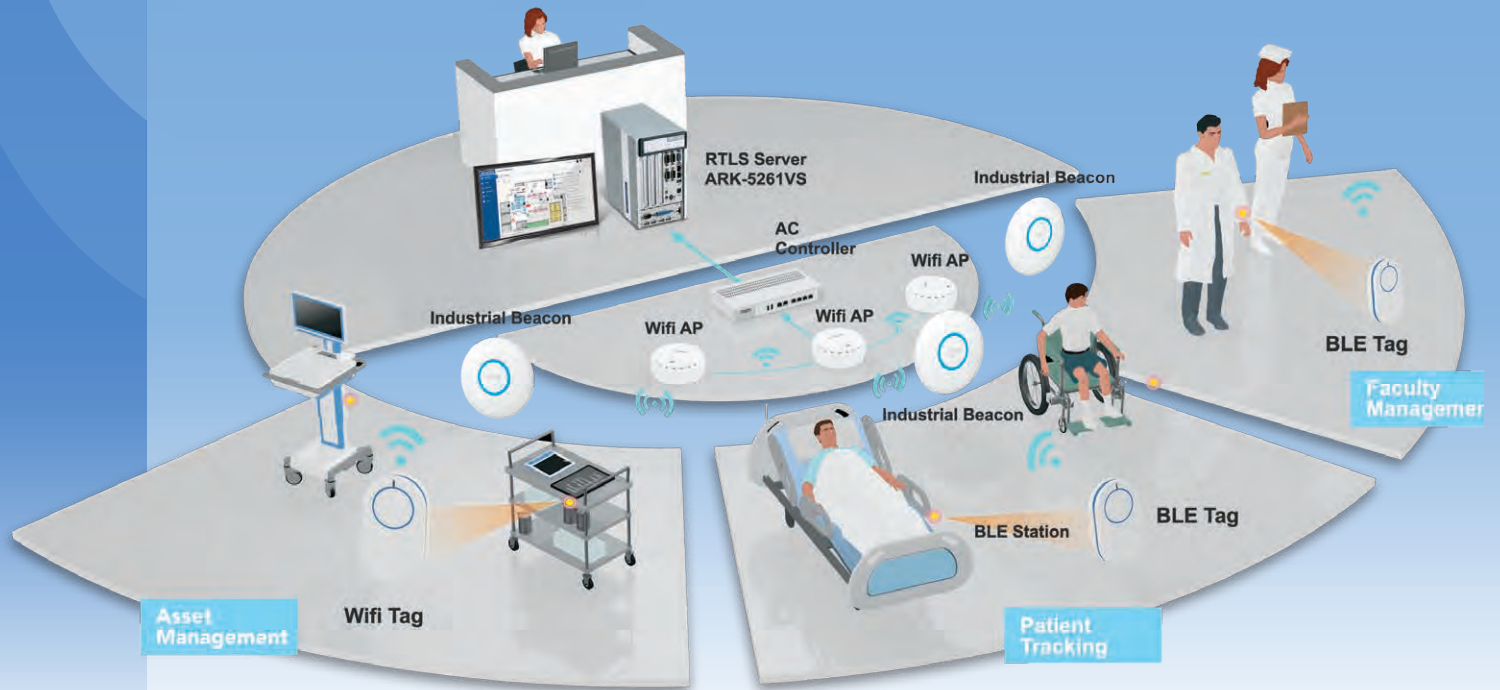
Optional Accessories

Part No.	Description
1700019592	Parallel cable/D-SUB 25P(F)/IDE#2 26P-2.0 15cm
1700020692-01	LVDS cable/D-SUB 26P(F)/2*20P-1.25 15cm
1700001947	Power Cord 2P USA 7A 125V 1.8M
1700001948	Power Cord 2P Europe 2.5A 250V 1.8M
1700001949	Power Cord 2P UK 2.5A/3A 250V 1.8M

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- Video Wall Controllers **7**
- GPU Servers **8**
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Intelligent IoT Tag Product Series

WISE-RTLS Hospital Solutions



Recommended Product selection



	WISE Tag		Industrial Beacon	WISE-RTLS
Model No.	WISE-2200W	WISE-2200B	WISE-2400	ARK-5261VS
Function	802.11b/g/n Wi-Fi Asset Tag	Bluetooth® 4.1 low energy Asset Tag	BLE/ Wi-Fi Intelligent Sensor Gateway	WISE-RTLS Controller
Standard	IEEE802.11 b/g/n	Bluetooth Low Energy 4.1	Bluetooth Low Energy 4.1 / IEEE802.11 b/g/n	• Supports WISE-Tag *1000 units
Security	WPA2 Personal and Enterprise Security	AES-128	WPA2 Personal and Enterprise Security /AES-128	• Supports Web browser and multiple algorithms to determine accurate in real-time
Operation Modes	Station	Advertising, Connected	• BLE :Scan • Wifi :Station, Access Point	
Typical Operating Range	Up to 80m	Up to 50m	Up to 80m	
Group Configuration	'FOTA (Firmware upgrade Over The Air) remote configuration			• Supports multiple function of Asset/people tracking, alerting and reporting, Push Message, Navigation and device management
User Interface	<ul style="list-style-type: none"> • Call button • Tamper switch • Power On/Off button • One Blue/Red LED • Motion detection 	<ul style="list-style-type: none"> • Call button • Tamper switch • One Blue/Red LED • Motion detection 	<ul style="list-style-type: none"> • One Blue/Red LED • Power On/Off button 	
Precision	~ 5 meter (Depends on AP performance)	Less than 2 meter	N/A	• Supports simplify integration into your ecosystem with an open API
Battery Type	960mAh Li-ion Rechargeable Battery	CR2450 Battery *550mAh	Power Adapter:AC to DC, DC 5V/1A	
Tag operation life	Up to 6 months (Battery life dependent on usage scenario and other factors)	Up to 1 year (Battery life dependent on usage scenario and other factors)	N/A	
Dimensions (W x H x D)	71*43*17 mm, IP54	47.5*32*15 mm, IP54	90*25 mm	

WISE-2200W

802.11b/g/n Wi-Fi Asset Tag



Features

- Compliant to standard IEEE 802.11b/g/n
- Supports G sensor and Tamper Switch for motion detection
- Small size to fit on small and odd-shaped assets
- Supports push button / dual LED to set and modify tag behaviors
- Support power saving function
- Support Over-the-air remote setting to modify tag behavior
- Rechargeable battery for easy maintenance
- Asset/Object location tracking and management

Introduction

The Advantech® WISE-2200W is an active RFID location tracking tag that operates with existing Wi-Fi network infrastructure to keep costs low and make deployments simple and fast. In conjunction with Advantech® Real Time Location System (RTLS) controller, the tag enables location of virtually any asset or object. WISE-2200W operates on standard Wi-Fi networks, it does not require any extra infrastructure beyond your facilities' existing WLAN.

Using standard 802.11b/g/n 2.4GHz Wi-Fi networks, WISE-2200W tracks assets in real-time. For applications requiring ultra-high location accuracy, such as hospitals, when used in combination with WISE-2400 wireless industrial beacons, can reach to high accuracy. A built-in battery enables WISE-2200W tags to operate, use a USB adapter as a charging.

The tag has built-in, configurable button that can send alarms or event notifications to identified authorities, also can be configured and managed remotely anywhere in the enterprise without having to recall or touch the tag. It also includes a LED light for local alerts, and includes an advanced tamper-proofing mechanism for security and theft prevention, triggering an immediate alert if it is removed or tampered with in any way.

Specifications

Wireless Features	Standard	IEEE 802.11 b/g/n standards compliant
	Frequency Range	2.400 ~ 2.4835GHz (subject to local regulations) USA, Canada (FCC):11 channels (2.412GHz-2.462GHz) Europe (CE): 13 channels (2.412GHz-2.472GHz)
	Transmission Power	-17 dBm at 1 DSSS -17.25 dBm at 11 CCK -13.5 dBm at 54 OFDM
	Receiver Sensitivity	-94.7 dBm at 1 DSSS -87 dBm at 11 CCK -73 dBm at 54 OFDM
	Security	WPA2 Personal and Enterprise Security
Functions	Typical Operating Range	Indoor Range: Up to 80m (260 feet)
	Group Configuration	FOTA (Firmware upgrade Over The Air) remote configuration
	G-Sensor	1. Motion detection 2. Adjustable motion detection trigger level 3. Wake up tag in sleep mode to active mode immediately
	Operation Modes	Station (Client / Network modes)
	Battery Management	Tag Battery gauge detection
Interfaces	LED Indicator (Red / Blue)	Power, WLAN, Battery
	Antenna	Omni-directional Antenna
	Call Button	*1 1. Reset: Resets device to factory defaults (to reset to factory defaults, push the button for more than 10 seconds) 2. Emergency alerting: Press the button and let go after 1 second to enable alert function
	Micro USB Port	*1 Micro USB port for charging
	Tamper Button	*1 Security and theft prevention, triggering an immediate alert
Power Consumption (Max)	Power Button	*1 Power On/Off
		1. Low-Power Consumption at 3.6 V 2. 960mAh Li-ion Rechargeable Battery
Humidity & Temperature	Operating	0 to 50° C
	Storage	-20 to 70° C
	Operating	10 to 90% RH (Non-condensing)
	Storage	5 to 95% RH (Non-condensing)
Dimensions & Weight	Dimensions	71 x 43 x 17 mm
	Weight	52g
	Water Resistant	Plastic: IP54
Mounting		Double-sided tape, Wall mount, Pole mount
Certifications		FCC/NCC

Intelligent Video and IoT Sensors **1**

Intelligent Transportation Platforms **2**

Intelligent Inspection Systems **3**

Modular IPCs **4**

Server-grade IPCs **5**

Industrial Storages **6**

Video Wall Controllers **7**

GPU Servers **8**

Industrial Motherboards **9**

Slot SBC & Passive Backplanes **10**

Compact PCI Platforms **11**

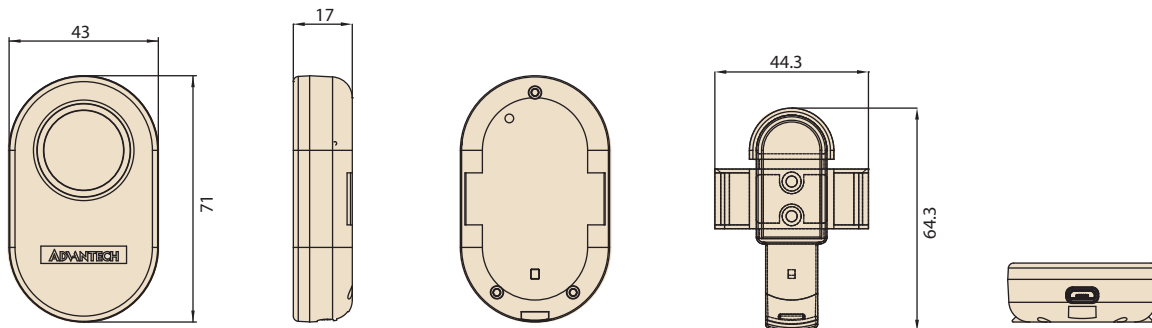
Industrial Chassis **12**

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Dimensions

Unit: mm



Interfaces



Ordering Information

Part Number	Specifications
WISE-2200W-00A1E	802.11b/g/n Wi-Fi Asset Tag

Optional Items

Part Number	Description
ARK-52611VS-J0A1E	WISE-RTLS Controller
WISE-2200B-00A1E	Bluetooth® 4.1 low energy Asset Tag
WISE-2400-00A1E	BLE/ Wi-Fi Intelligent Sensor Gateway

Packing List

Part Number	Description
-	1 x WISE-2200W Unit
-	1 x USB Cable (40cm)
-	1 x User Manual

WISE-2200B

Bluetooth® 4.1 low energy Asset Tag



Features

- Compliant to standard 2.4-GHz Bluetooth 4.1 low energy
- Supports G sensor and Tamper Switch for motion detection
- Small size to fit on small and odd-shaped assets
- Supports push button / dual LED to set and modify tag behaviors
- Support power saving function
- Support Over-the-air remote setting to modify tag behavior
- Asset/object location tracking and management

Introduction

The Advantech® WISE-2200B is an active RFID location tracking tag that operates with WISE-2400 of Bluetooth 4.1 with 2.4GHz to keep costs low and make deployments simple and fast. In conjunction with Advantech® Real Time Location System (RTLS) controller, the tag enables location of virtually any asset or object.

WISE-2200B tracks assets in real-time. For applications requiring ultra-high location accuracy, such as hospitals, when used in combination with WISE-2400 wireless industrial beacons, can reach to high accuracy.

The tag has built-in, configurable button that can send alarms or event notifications to identified authorities, also can be configured and managed remotely anywhere in the enterprise without having to recall or touch the tag. It also includes a LED light for local alerts, and includes an advanced tamper-proofing mechanism for security and theft prevention, triggering an immediate alert if it is removed or tampered with in any way.

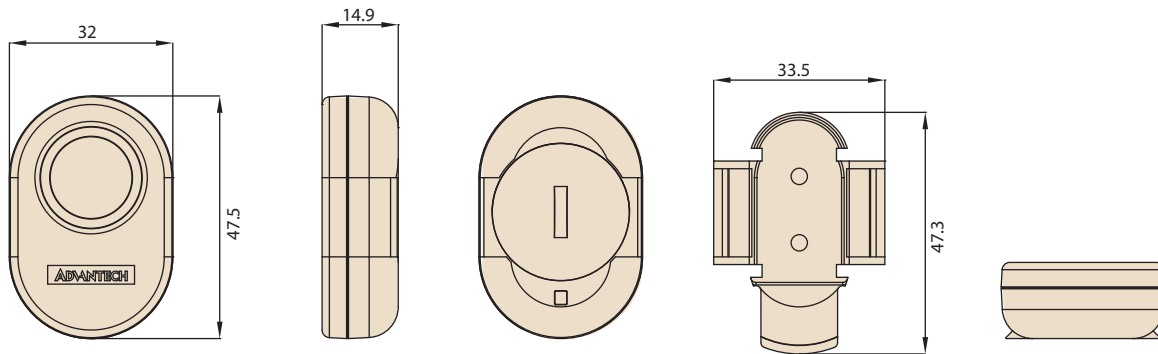
Specifications

Wireless Features	Standard	Bluetooth® version 4.1
	Transmit Power(EIRP)	~5dBm (max)
	Receiver Sensitivity	Typical -94dBm
	Security	AES128
	Typical Operating Range	Indoor Range: Up to 50m (164 feet)
Functions	Group Configuration	FOTA(Firmware upgrade Over The Air) remote configuration
	G-Sensor	1. Motion detection 2. Adjustable motion detection triggers level 3. Wake up tag in sleep mode to active mode immediately
	Operation Modes	Advertising, Connected
	Battery Management	Tag Battery gauge detection
	Interfaces	LED Indicator (Red / Blue)
Antenna		Omni-directional Antenna
Call button		*1 1. Reset: Resets device to factory defaults (to reset to factory defaults, push the button for more than 10 seconds) 2. Emergency alerting: Press the button and let go after 1 second to enable alert function
Tamper Button		*1 Security and theft prevention, triggering an immediate alert
Power Consumption (Max)		CR2450 (600mAh) battery
Humidity & Temperature	Operating	0 to 50° C
	Storage	-20° C to 70° C
	Operating	10% to 90% RH (Non-condensing)
	Storage	5% to 95% RH (Non-condensing)
Dimensions & Weight	Dimensions	47.5 x 32 x15 mm
	Weight	20g
	Water Resistant	Plastic: IP54
Mounting	Double-sided tape, Wall mount, Pole mount	
Certifications	FCC/NCC	

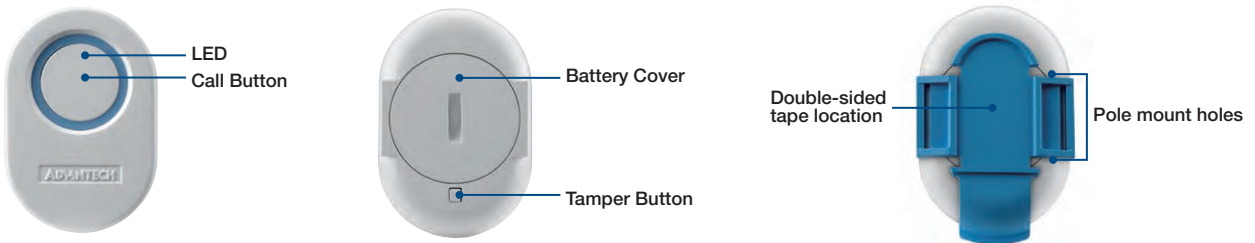
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Dimensions

Unit: mm



Interfaces



Ordering Information

Part Number	Specifications
WISE-2200B-00A1E	Bluetooth® 4.1 low energy Asset Tag

Optional Items

Part Number	Description
ARK-52611VS-J0A1E	WISE-RTLS Controller
WISE-2200W-00A1E	802.11b/g/n Wi-Fi Asset Tag
WISE-2400-00A1E	BLE/ Wi-Fi Intelligent Sensor Gateway

Packing List

Part Number	Description
-	1 x WISE-2200B Unit
-	1 x User Manual
-	1 x CR2450 Battery

WISE-2400

BLE/ Wi-Fi Intelligent Sensor Gateway



Features

- Compliant to standard IEEE 802.11b/g/n and Bluetooth 4.1 low energy
- Centralized monitoring of multiple BLE tags / sensors
- Multiple BLE-Wifi Gateway can be accessed/controlled from server and smart devices
- Supports SmartConfig™ Technology, AP Mode, and WPS2 for Easy and Flexible Wi-Fi Provisioning
- Supports Bluetooth 4.1 compliant up to 8 simultaneous connections
- Supports fast scan BLE devices up to over 40 devices
- Supports longer Range design
- Supports over-the-air programming
- Supports sensors function (Temperature / Humidity)

Introduction

The Advantech® WISE-2400 is Bluetooth® 4.1 and IEEE 802.11 b/g/n intelligent sensor gateway enable simultaneous, high-speed sensing and data acquisition from multiple WISE-2200B, temperature, and humidity inputs. Our range of Bluetooth sensing systems are ideal for both small scale applications requiring a few sensor nodes and large scale applications requiring hundreds of sensor nodes. WISE-2200W is an active RFID location tracking tag that operates with existing Wi-Fi network infrastructure to keep costs low and make deployments simple and fast. In conjunction with Advantech® Real Time Location System (RTLS) controller, the tag enables location of virtually any asset or object.

Specifications

Chipset		TI CC2640 + CC3200
RF Radio Features	Standard	Bluetooth® version 4.1 / 802.11 b/g/n
	Frequency Range	2.400 ~ 2.4835GHz
	Receiver Sensitivity	Bluetooth RF Performance: TX Power Up to +10dBm RX Sensitivity -97 dBm WIFI RF Performance: TX Power 17.0 dBm @1 DSSS 14.5 dBm @ 54 OFDM RX Sensitivity -94.7 dBm @ 1 DSS -74.0 dBm @ 54 OFDM
	Security	WPA2 Personal and Enterprise Security /AES-128
	Typical Operating Range	Indoor Range: Up to 80m (260 feet)
Functions	Upgrade	FOTA (Firmware upgrade Over The Air) remote configuration
	Sensor	Temperature / Humidity
	Operation Modes	BLE: Scan Wifi: Station, Access Point
	Device Connection	Support of Up to 8 Simultaneous Connection Fast Scan BLE devices up to over 40 devices
Interfaces	LED Indicators (Red / Blue)	WLAN, PWR
	Antenna	Omni-directional Antenna
	Micro USB	*1 Power , Data configuration
	Reset Button	*1 Press button 10 seconds to reset to factory default
External Power Supply	AC/DC USB POWER ADAPTER	5V/1A (US/EU)
Humidity & Temperature	Operating	0 to 50° C
	Storage	-20 to 70° C
	Operating	10 to 90% RH (Non-condensing)
	Storage	5 to 95% RH (Non-condensing)
Dimensions & Weight	Dimensions	90 x 25 mm
	Weight	56g
Mounting		Ceiling Mount
Certifications		FCC/NCC

Intelligent Video and IoT Sensors 1

Intelligent Transportation Platforms 2

Intelligent Inspection Systems 3

Modular IPCs 4

Server-grade IPCs 5

Industrial Storages 6

Video Wall Controllers 7

GPU Servers 8

Industrial Motherboards 9

Slot SBC & Passive Backplanes 10

CompactPCI Platforms 11

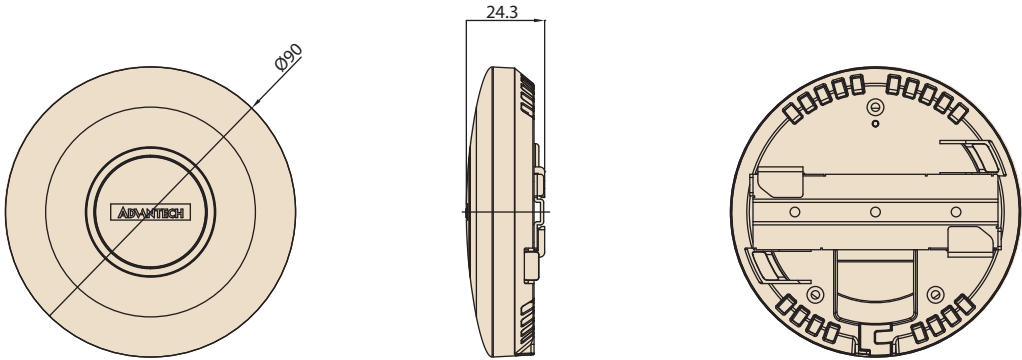
Industrial Chassis 12

Industrial Computer Peripherals 13

Industrial Ethernet Solutions 14

Dimensions

Unit: mm



Interfaces



Ordering Information

Part Number	Specifications
WISE-2400-00A1E	BLE/ Wi-Fi Intelligent Sensor Gateway

Optional Items

Part Number	Description
ARK-52611VS-J0A1E	WISE-RTLS Controller
WISE-2200W-00A1E	802.11b/g/n Wi-Fi Asset Tag
WISE-2200B-00A1E	Bluetooth® 4.1 low energy Asset Tag

Packing List

Part Number	Description
-	1 x WISE-2400 Unit
-	1 x USB Adapter 5V/1A (US/EU)
-	1 x USB Cable (60cm)
-	1 x Mounting kit

Intelligent Transportation Platforms

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To view all of Advantech's Intelligent Transportation Platforms, please visit www.advantech.com/products.



Selection Guide

Selection Guide



Model Name		ITA-1611	ITA-1711	ITA-1910	ITA-2211	ITA-2230
Processor System	CPU	Intel® Celeron™ J1900	Intel® Celeron™ J1900	Intel® Atom™ D525	Intel® Atom™ E3845	Intel® Core™ i7-3555LE
	CPU TDP	10W	10W	13W	10W	25W
	Frequency	2.0 GHz	2.0 GHz	1.8 GHz	1.91 GHz	2.5 GHz
	Core Number	4	4	2	4	2
	L2 Cache	2MB	2MB	1MB	2MB	6MB
	BIOS	AMI SPI 64Mbit	AMI SPI 64Mbit	AMI SPI 16Mbit	AMI SPI 64Mbit	AMI SPI 64Mbit
	Chipset	-	-	Intel ICH8-M	-	Intel® HM76
Memory	Technology	Dual channel DDR3 1333	Dual channel DDR3 1333	Single channel DDR3 800	Dual channel DDR3 1333	Dual channel DDR3 1600
	Capacity	Up to 8GB	Up to 8GB	Up to 2GB	Up to 8GB	Up to 12GB
	Onboard Memory	4GB	4GB	2GB	4GB	4GB
	DIMM Slot	1	1	-	1	1
Display	Graphic Memory	Share with system memory up to 256MB	Share with system memory up to 256MB	Share with system memory up to 256MB	Share with system memory up to 256MB	Share with system memory up to 512MB
	Multiple Display	Dual	Dual	Dual	Dual	Dual
	Display Interface	2 x VGA or VGA + DVI-D or VGA + LVDS Single channel max: 2048 x 1536 @ 60Hz Dual channel max: 1920 x 1080 @ 60Hz	2 x VGA or VGA + DVI-D or VGA + LVDS Single channel max: 2048 x 1536 @ 60Hz Dual channel max: 1920 x 1080 @ 60Hz	2 x VGA or VGA + LVDS (Optional) Single Channel Max: 2048 x 1536 @ 60Hz Dual Channel Max: 1366 x 768 @ 60Hz	VGA + DVI-D Single channel max: 2048 x 1536 @ 60Hz Dual channel max: 1920 x 1080 @ 60Hz	VGA + HDMI Single channel max: 2048 x 1536 @ 60Hz Dual channel max: 1920 x 1080 @ 60Hz
Ethernet	Controller	2 x Intel I211	2 x Intel I211	2 x Intel 82583V	2 x Intel® I210-IT	2 x Intel® I210-IT
	Speed	10/100/1000 Mbps	10/100/1000 Mbps	10/100/1000 Mbps	10/100/1000 Mbps	10/100/1000 Mbps
	Connector	2 x RJ45	2 x RJ45	2 x RJ45	2 x RJ45	2 x RJ45
Storage	Onboard Slot	1 x mSATA	1 x mSATA	1 x CF	1 x mSATA	1 x mSATA
	HDD/SSD	1 x 2.5" HDD/SSD	1 x 2.5" HDD/SSD	1 x 2.5" HDD/SSD	1 x 3.5" or 2 x 2.5" HDD/SSD	1 x 3.5" or 2 x 2.5" HDD/SSD
	Easy Swap Module	-	1	1	-	-
Expansion Interface	Mini PCIe	1	1	1	1	1
	PCIe	-	-	2 x PCIe x1	-	-
	PCI	-	-	1	-	-
	PC104+	-	-	-	1	1
	ITA-EM	-	-	-	3	3
I/O	Display	2 x VGA or VGA + DVI-D or VGA + LVDS	2 x VGA or VGA + DVI-D or VGA + LVDS	2 x VGA or VGA + LVDS	VGA + DVI-D	VGA + HDMI
	Audio	1 x Speaker-out with 2x4w amplifier, 1x Mic-in	1 x Speaker-out with 2x4w amplifier, 1x Mic-in	1 x Speaker-out with 2x4w amplifier, 1x Mic-in	1 x Speaker-out with 2x4w amplifier, 1x Mic-in	1 x Speaker-out with 2x4w amplifier, 1x Mic-in
	Ethernet	2	2	2	2	2
	USB3.0	1	1	-	1	4
	USB2.0	5	5	8	6	4
	COM	Up to 6 ports	Up to 14 ports	Up to 16 ports	2	2
	Digital I/O	8-ch	Up to 24 DI & 24 DO	Up to 24 DI & 24 DO	-	8-ch
Power	Input Range	DC 9V~36V	DC 9V~36V	DC 9V~36V	AC 100V~240V or DC 110V	AC 100V~240V or DC 110V
Physical Characteristics	Dimensions (W x H x D)	200 x 70 x 190 mm	200 x 100 x 190 mm	315 x 100 x 190 mm	483 x 88 x 325 mm	483 x 88 x 325 mm
Environment	Operational Temperature	-25~ 60° C (With SSD) 0 ~ 40° C (With HDD)	-25~ 60° C (With SSD) 0 ~ 40° C (With HDD)	-25~ 60° C (With SSD) 0 ~ 40° C (With HDD)	-25~ 60° C (With SSD) 0 ~ 40° C (With HDD)	-25~ 60° C (With SSD) 0 ~ 40° C (With HDD)
Certification	EMC	CE, FCC, CCC	CE, FCC, CCC	CE, FCC, CCC	CE, FCC, CCC	CE, FCC, CCC
	Safety Certifications	UL, CB, CCC, BSMI	UL, CB, CCC, BSMI	UL, CB, CCC, BSMI	UL, CB, CCC, BSMI	UL, CB, CCC
	Other	-	-	-	EN 50121-4	EN 50121-4
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Model Name		ITA-5231	ITA-5710	ITA-5730	ITA-5831
Processor System	CPU	Intel® 6th Gen. Core™ i7/i5/i3	Intel® Atom™ D525	Intel® Core™ i7-3555LE	Intel® 6th Gen. Core™ i7/i5/i3
	CPU TDP	25W	13W	25W	25W
	Frequency	Up to 2.0 GHz	1.8 GHz	2.5 GHz	Up to 2.0 GHz
	Core Number	4/2	2	2	4/2
	L2 Cache	8/6/3MB	1MB	6MB	8/6/3MB
	BIOS	AMI SPI 64Mbit	AMI SPI 16Mbit	AMI SPI 64Mbit	AMI SPI 64Mbit
	Chipset	Intel® QM170	Intel ICH8-M	Intel® HM76	Intel® QM170
Memory	Technology	Dual channel DDR4 2133	Single channel DDR3 800	Dual channel DDR3 1600	Dual channel DDR4 2133
	Capacity	Up to 16GB	Up to 2GB	Up to 12GB	Up to 16GB
	Onboard Memory	8GB	2GB	4GB	8GB
	DIMM Slot	1	-	1	1
Display	Graphic Memory	Share with system memory up to 512MB	Share with system memory up to 256MB	Share with system memory up to 512MB	Share with system memory up to 512MB
	Multiple Display	Dual	Dual	Dual	Dual
	Display Interface	DVI-I + DVI-D Single channel max: 4096 x 2304 @ 60Hz Dual channel max: 2880 x 1800 @ 60Hz	2 x VGA Single Channel Max: 2048 x 1536 @ 60Hz Dual Channel Max: 1366 x 768 @ 60Hz	VGA + HDMI Single channel max: 2048 x 1536 @ 60Hz Dual channel max: 1920 x 1080 @ 60Hz	DVI-I + DVI-D (Optional) Single channel max: 4096 x 2304 @ 60Hz Dual channel max: 2880 x 1800 @ 60Hz
Ethernet	Controller	3 x Intel® I210-IT	2 x Intel® I210-IT	3 x Intel® I210-IT	3 x Intel® I210-IT
	Speed	10/100/1000 Mbps	10/100/1000 Mbps	10/100/1000 Mbps	10/100/1000 Mbps
	Connector	3 x M12 X-coded(F)	2 x M12 A-coded(F) 8-pin	3 x M12 A-coded(F) 8-pin	3 x M12 X-coded(F)
Storage	Onboard Slot	1 x mSATA	1 x CF	1 x mSATA	1 x mSATA
	HDD/SSD	-	1 x 2.5" HDD/SSD	1 x 2.5" HDD/SSD	-
	Easy Swap Module	Max to 4 x 2.5" SSD or 2 x 2.5" HDD	1	1	Max to 3 x 2.5" SSD or 2 x 2.5" HDD
Expansion Interface	Mini PCIe	3	2	2	3
	PCIe	-	-	-	-
	PCI	-	1	1	-
	PC104+	-	-	-	-
	ITA-EM	4	-	-	2
I/O	Display	DVI-I + DVI-D	2 x VGA	VGA + HDMI	1 x DVI-I
	Audio	1 x Speaker-out with 2x4w amplifier, 1x Mic-in	1 x Speaker-out with 2x4w amplifier, 1x Mic-in	1 x Speaker-out with 2x4w amplifier, 1x Mic-in	1 x Speaker-out with 2x4w amplifier, 1x Mic-in
	Ethernet	3	2	3	3
	USB3.0	2	-	2	2
	USB2.0	1 x USB2.0 with M12 A-coded(F) 4-pin	2 x USB2.0 with M12 A-coded(F) 4-pin 6 x USB2.0 with Type A	2 x USB2.0 with M12 A-coded(F) 4-pin 4 x USB2.0 with Type A	1 x USB2.0 with M12 A-coded(F) 4-pin
	COM	2	2	2	2
	Digital I/O	8-ch	8-ch	8-ch	8-ch
Power	Input Range	Optional DC 24/48/72/110V input compliant with EN50155 class S2/C1	Optional DC 24/48/72/110V input compliant with EN50155 class S2/C1	Optional DC 24/48/72/110V input compliant with EN50155 class S2/C1	Optional DC 24/48/72/110V input compliant with EN50155 class S2/C1
Physical Characteristics	Dimensions (W x H x D)	483 x 88 x 200 mm	210 x 129 x 240 mm	210 x 129 x 240 mm	220 x 88 x 200 mm
Environment	Operational Temperature	EN 50155 TX -40~ 70° C (With SSD)	EN 50155 TX -40~ 70° C (With SSD)	EN 50155 TX -40~ 70° C (With SSD)	EN 50155 TX -40~ 70° C (With SSD)
Certification	EMC	CE, FCC, CCC	CE, FCC, CCC	CE, FCC, CCC	CE, FCC, CCC
	Safety Certifications	UL, CB, CCC, BSMI	UL, CB, CCC, BSMI	UL, CB, CCC, BSMI	UL, CB, CCC, BSMI
	Other	EN 50155, EN 50121-3-2, EN 45545	EN 50155, EN 50121-3-2, EN 45545	EN 50155, EN 50121-3-2, EN 45545	EN 50155, EN 50121-3-2, EN 45545
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Intelligent Transportation Platforms 2

Intelligent Inspection Systems 3

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Industrial Motherboards 9

Slot SBC & Passive Backplanes 10

CompactPCI Platforms 11

Industrial Chassis 12

Industrial Computer Peripherals 13

Industrial Ethernet Solutions 14

ITA-1611

Intel® Celeron™ J1900 Compact System Dual Gigabit Ethernet LAN and Dual Display



Features

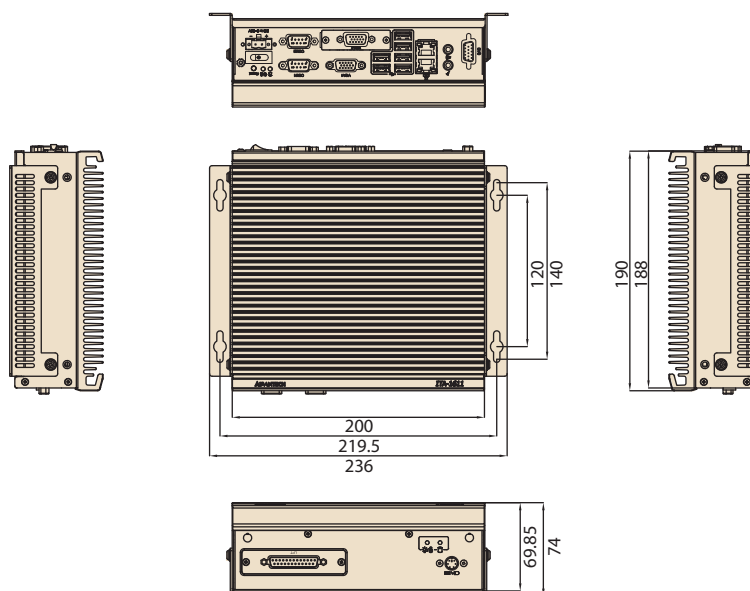
- Fanless, Intel® Celeron™ J1900, 2.0 GHz Quad Core Compact System
- Onboard 4G DDR3 Memory and optional NVRAM
- Supports up to 2 x LAN, 6 x USB, 6 x COM ports
- Supports 1 x USB 3.0 port
- Replaceable secondary display output (VGA2/DVI-D/LVDS)
- Support dual full HD resolution video output

System Specifications

Processor System	CPU	Intel® Celeron™ J1900		
	Max Speed	2.0 GHz		
	L2 Cache	2 MB		
	Core Number	4		
	BIOS	AMI SPI 64Mb		
Memory	Technology	Dual channel DDR3 1333		
	Capacity	Onboard 4 GB (Up to 8 GB with SODIMM)		
Graphics	Chipset	Embedded Gen 4+GFX Core		
	VRAM	Shared system memory up to 256 MB SDRAM		
	Dual Display	2 x VGA or VGA + DVI-D or VGA + LVDS		
		Single channel max: 2048 x 1536 @ 60Hz		
		Dual channel max: 1920 x 1080 @ 60Hz		
LVDS (optional)	Support 18bit /24bit dual channel up to 1920 x 1080 @ 60Hz			
Ethernet	Interface	10/100/1000 Mbps		
	Controller	2 x Intel I211		
	Connector	2 x RJ-45		
Storage	NVRAM	1 Mb FRAM(Optional)		
	Internal	1 x M-SATA Socket		
	External	Support 1 x 2.5" HDD/SSD(Optional)		
I/O Interface	Main Display	VGA1		
	Secondary Display	VGA2 / DVI-D / LVDS		
	LAN	2		
	USB	6 (5 x USB 2.0, 1 x USB 3.0)		
	COM	2 x RS 232/422/485 ports with automatic flow control (Up to 6 ports with additional 4 optional RS-232 Serial ports)		
	Digital I/O	1 x 8-ch GPIO		
	Audio	1 x Speaker out with 2x4w amplifier, 1x Mic in		
	PS/2 (front panel)	1		
	Reserved area (front panel)	1 (default 1 x LPT port, optional 2 x VGA with PCA-5650)		
Expansion Slots	Mini PCIe	1		
Power	Power Input Voltage	DC 9 V ~ 36 V input		
	Output	System reset		
Watchdog Timer	Interval	Programmable 1~255 sec/min		
	Environment	Operating (W/O HDD)	Operating (With HDD)	Non-Operating
Physical Characteristics	Temperature	-25 ~ 60° C	0 ~ 40° C	-40 ~ 85° C
	Dimensions (W x H x D)	200 x 70 x 190 mm		

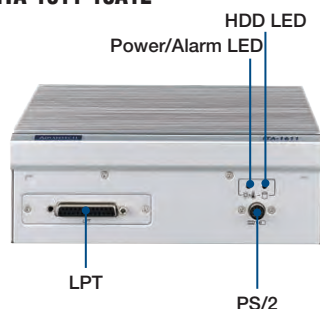
Dimensions

Unit: mm

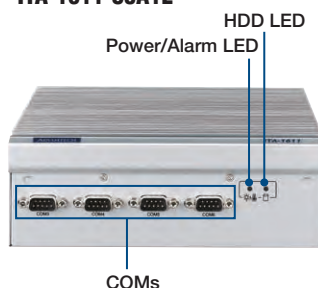


Front View

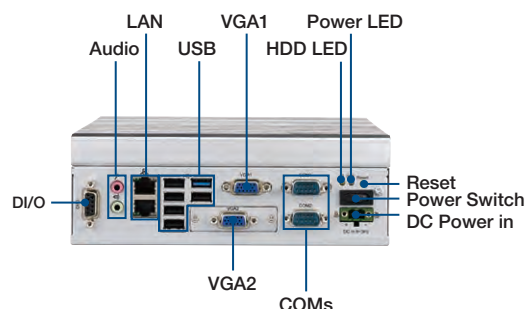
ITA-1611-10A1E



ITA-1611-S0A1E



Rear View



Ordering Information

Part number	CPU	Onboard Memory	Display	COM	D/O	GbE LAN	PS/2	LPT	USB
ITA-1611-00A1E	J1900	4GB DDR3	VGA+DVI	2	8bit	2	1	1	6
ITA-1611-10A1E	J1900	4GB DDR3	VGA*2	2	8bit	2	1	1	6
ITA-1611-S0A1E	J1900	4GB DDR3	VGA+DVI	6	8bit	2	0	0	6
ITA-1611-20A1E	J1900	4GB DDR3	VGA+LVDS	2	8bit	2	1	1	6

Packing List

Part.No	Description	Quantity
2001161100	Startup Menu(CH)	1
2001161110	Startup Menu(EN)	1
2062171010	CD-ROM	1
1960054855N001	HDD Bracket Part 1	1
1960057417N301	HDD Bracket Part 2	1
1700009409	HDD SATA Cable	1
1700017839	HDD Power Cable	1
1990021361N000	HDD Thermal Pad 1	1
1990021362N000	HDD Thermal Pad 2	1
1960052263T001	Mounting Bracket	2
1652002205	Plug-in Connector	1

Optional Accessories

Part.No	Description
PCA-5650-00A1E	Mini PCIe VGA card
96PSA-A60W12P2-1	Adapter 100-240V 60W 12V
1700000596	Power Cord (China) CCC,10A 250V, 3P 1.83M
1702002600-01	Power Cord 3P UL/CSA(USA) 125V 10A 1.83M
1700023534-01	Power Cord UK 3P 13A 250V 183cm
1702002605-01	Power cord 3P European 10A/16A 250V 1.83M
1960057418N001	VGA Bracket (front panel)

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ITA-1711

Intel® Celeron™ J1900 Compact System Multiple COM Ports and Dual Display



Features

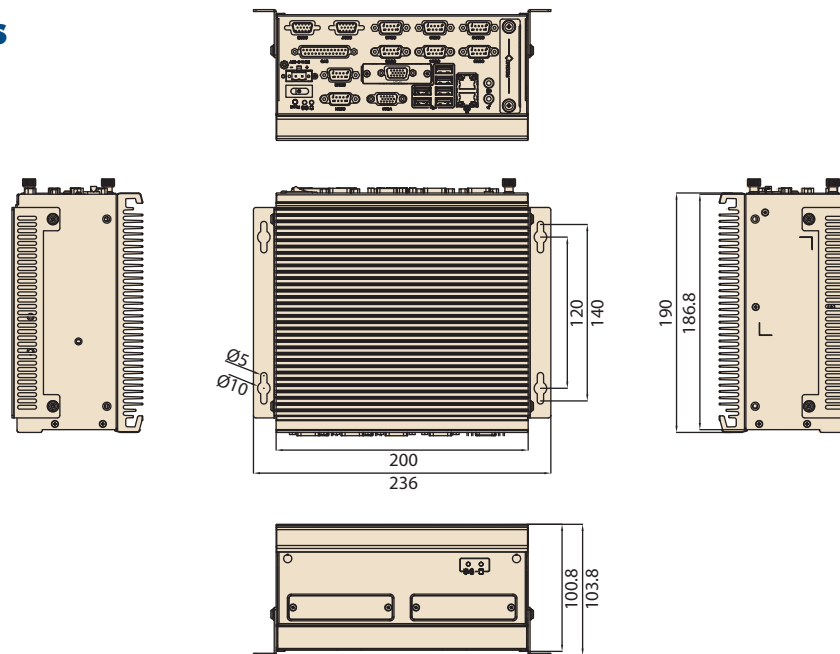
- Fanless, Intel® Celeron™ J1900, 2.0 GHz Quad Core Compact System
- Onboard 4G DDR3 Memory and optional NVRAM
- Supports up to 2 x LAN, 6 x USB, 14 x COM ports
- Supports 1 x USB 3.0 port
- Replaceable secondary display output (VGA2/DVI-D/LVDS)
- Support dual full HD resolution video output
- Serial ports support RS-232/422/485 with automatic flow control
- Support up to 24 in, 24 out Digital IO

System Specifications

Processor System	CPU	Intel® Celeron™ J1900		
	Max Speed	2.0 GHz		
	L2 Cache	2 MB		
	Core Number	4		
	BIOS	AMI SPI 64Mb		
Memory	Technology	Dual channel DDR3 1333		
	Capacity	Onboard 4 GB (Up to total 8GB with SODIMM)		
Graphics	Chipset	Embedded Gen 4+GFX Core		
	VRAM	Shared system memory up to 256 MB SDRAM		
	Dual Display	2 x VGA or VGA + DVI-D or VGA + LVDS		
		Single channel max: 2048 x 1536 @ 60Hz Dual channel max: 1920 x 1080 @ 60Hz		
LVDS (optional)	Support 18bit /24bit dual channel up to 1920 x 1080 @ 60Hz			
Ethernet	Interface	10/100/1000 Mbps		
	Controller	2 x Intel I211		
	Connector	2 x RJ-45		
Storage	NVRAM	1 Mb FRAM(Optional)		
	Internal	1 x M-SATA socket Support 1 x 2.5" HDD/SSD (Optional)		
	External	1 x Easy Swap SATA Slim/CompactFlash Module		
I/O Interface	Main Display	VGA1		
	Secondary Display	VGA2 / DVI-D / LVDS		
	LAN	2		
	USB	6 (5 x USB 2.0, 1 x USB 3.0)		
	COM	10 x RS 232/422/485 ports with automatic flow control (Up to 14 ports with additional 4 optional RS-232 Serial ports)		
	Digital I/O	1 x 24 bit GPIO (48 bit GPIO optional)		
	Audio	1 x Speaker out with 2x4w amplifier, 1x Mic in		
	Reserved area (front panel)	1 (LPT, DIQ2, PS/2 optional)		
Expansion Slots	Mini PCIe	1		
Power	Power Input Voltage	DC 9 V ~ 36 V input		
	Output	System reset		
Watchdog Timer	Interval	Programmable 1~255 sec/min		
	Environment	Operating (W/O HDD)	Operating (With HDD)	Non-Operating
Physical Characteristics	Temperature	-25 ~ 60° C	0 ~ 40° C	-40 ~ 85° C
	Dimensions (W x H x D)	200 x 100 x 190 mm		

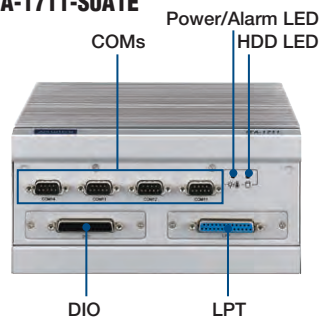
Dimensions

Unit: mm

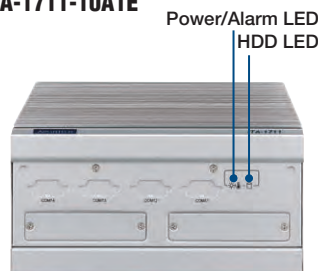


Front View

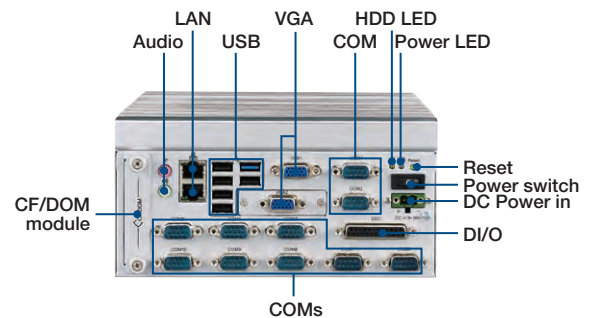
ITA-1711-S0A1E



ITA-1711-10A1E



Rear View



Ordering Information

Part number	CPU	Onboard Memory	Display	COM	D/O	GbE LAN	PS/2	LPT	USB	CF Tray
ITA-1711-00A1E	J1900	4GB DDR3	VGA+DVI	10	24bit	2	No	No	6	Yes
ITA-1711-10A1E	J1900	4GB DDR3	VGA*2	10	24bit	2	No	No	6	Yes
ITA-1711-20A1E	J1900	4GB DDR3	VGA+LVDS	10	24bit	2	1	No	6	Yes
ITA-1711-S0A1E	J1900	4GB DDR3	VGA+DVI	14	48bit	2	1	1	6	Yes

Packing List

Part.No	Description	Quantity
2001171100	Startup Menu(CHN)	1
2001171110	Startup Menu(ENG)	1
2062171010	CD-ROM	1
1960054855N001	HDD Bracket Part 1	1
1960065108N001	HDD Bracket Part 2	1
1700009409	HDD SATA Cable	1
1700017839	HDD Power Cable	1
1990021361N000	HDD Thermal Pad 1	1
1990021362N000	HDD Thermal Pad 2	1
1960052263T001	Mounting Bracket	2
1652002205	Plug-in Connector	1

Optional Accessories

Part.No	Description
PCA-5650-00A1E	Mini PCIe VGA card
96PSA-A60W12P2-1	Adapter 100-240V 60W 12V
1700000596	Power Cord (China) CCC,10A 250V, 3P 1.83M
1702002600-01	Power Cord 3P UL/CSA(USA) 125V 10A 1.83M
1700023534-01	Power Cord UK 3P 13A 250V 183cm
1702002605-01	Power cord 3P European 10A/16A 250V 1.83M
1960057419N011	DIO Bracket (front panel)
1960057419N001	LPT Bracket (front panel)
1960057418N001	VGA Bracket (front panel)

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ITA-1910

Intel® Atom™ D525 Compact System with Dual GigaLAN, 16 COM ports and Expansion Slots



Features

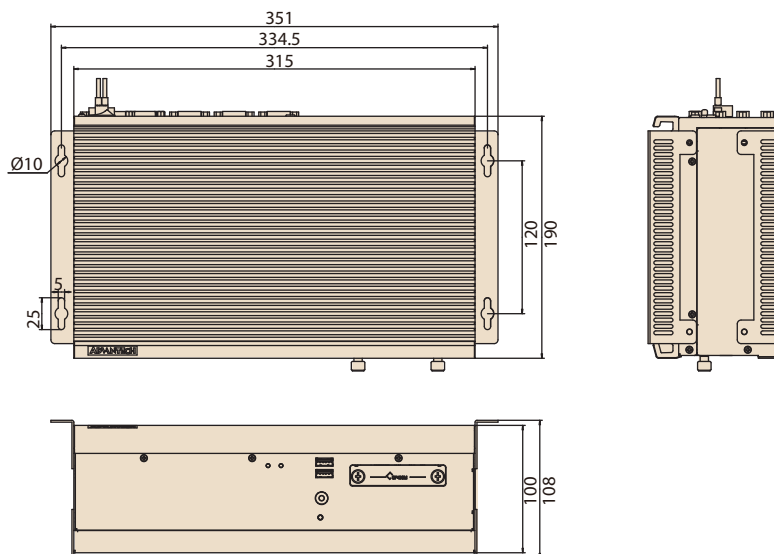
- Fanless, Intel® Atom™ D525, 1.8 GHz Dual Core Compact System
- Supports 9 ~ 36 V wide range DC input
- Supports up to 2 x GbE, 8 x USB 2.0, 16 x COM ports
- Serial ports support RS-232/422/485 with automatic flow control
- PCI/PCIe expansion slots
- Supports up to 24 Channel 24/48 bits Digital I/O
- Onboard DDR3 memory up to 2GB and optional NVRAM
- Front-accessible Easy Swap CF/DOM Module

Specifications

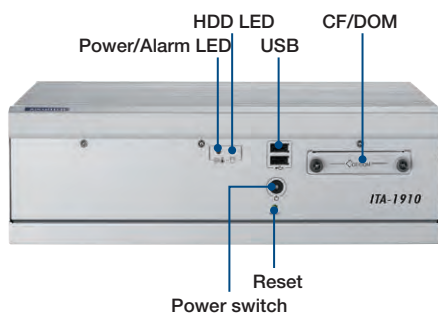
Processor System	CPU	Intel Atom Dual Core D525	
	Max Speed	1.8 GHz	
	L2 Cache	1 MB	
	Chipset	Intel ICH8-M	
	BIOS	AMI SPI 16 Mb	
Memory	Technology	Single channel DDR3 800	
	Max. Capacity	Onboard 1 GB (max up to 2 GB)	
Graphics	Chipset	Embedded Gen3.5+ GFX Core, Frequency 400 MHz	
	VRAM	Shared system memory up to 256 MB SDRAM	
	Multi display		2 x VGA or VGA + LVDS (Optional)
			Single Channel Max: 2048 x 1536 @ 60Hz Dual Channel Max: 1366 x 768 @ 60Hz
	LVDS	Support 18-bit single channel up to 1366 x 768 @ 60Hz (Optional)	
Extension Graphics (Optional)	Chipset	SMI SM750 GPU	
	VRAM	On chip 16MB	
	Multi display	2 x VGA	
	Max Resolution	Up to 1920 x 1440 @ 60Hz	
Ethernet	Interface	10/100/1000 Mbps	
	Controller	2 x Intel 82583V	
	Connector	2 x RJ-45	
Storage	NVRAM	1 Mb FRAM (Optional)	
	CF	1 x CompactFlash socket for Type I/II CompactFlash disk 1 x Easy Swap SATA DOM CompactFlash Module	
	HDD	Support 2.5" HDD (Optional)	
I/O Interface	VGA	2	
	LAN	2	
	USB	8	
	Serial	16 x RS-232/422/485 Serial ports with automatic flow control	
	Digital I/O	12-ch GPI, 12-ch GPO (Option another 12-ch GPI, 12-ch GPO)	
	Audio	1 x Speaker out with 2x4w amplifier, 1x Mic in	
Expansion Slots	PCI 32-bit	1	
	PCIe x 1	2 (w/o 6 COM I/O Card)	
	Mini PCIe	1	
Power	Input Voltage	DC 9V ~ 36V	
Watchdog Timer	Output	System reset	
	Interval	Programmable 1~255 sec/min	
Environment	Temperature	Operating (Without HDD)	Operating (With HDD)
		-25 ~ 60° C	0 ~ 40° C
Physical Characteristics	Dimensions (W x H x D)	Non-Operating	
		-40 ~ 85° C	

Dimensions

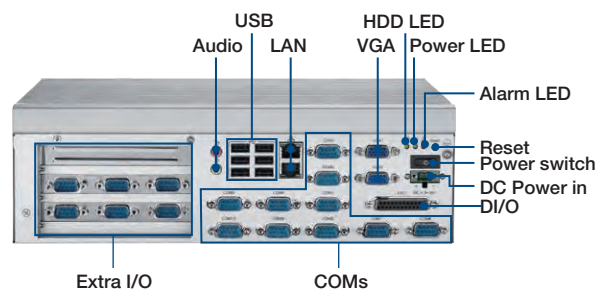
Unit: mm



Front View



Rear View



Ordering Information

Part No.	CPU	On Board Memory (DDR3 800 MHz)	COM (RS-232/422/485)	DI/O
ITA-1910-00A1E	D525 1.8 GHz	1G	16	24-bit
ITA-1910-01A1E	D525 1.8 GHz	2G	16	24-bit

Packing List

Part No.	Description	Quantity
2002191000	Startup manual	1
2062171000	Utility CD	1
1700019558	CF Cable 35cm	1
1960052263N001	Mounting Bracket	2
1960055919N001	DOM Bracket	1
1652002205	Plug-in Block 2P	1
1990006571S000	Rubber Pad	4
9662191000E	Accessory Box Of HDD Bracket	1

Optional Accessories

Part No.	Description
PCA-5650-00A1E	2 VGA output Mini PCI Express Graphic card
96PSA-A60W12P2-1	Adapter 100-240V 60W 12V
1700000596	Power Cord (China) CCC, 10A 250V, 3P 1.83M
1702002600-01	Power Cord 3P UL/CSA(USA) 125V 10A 1.83M
1700023534-01	Power Cord UK 3P 13A 250V 183cm
1700019591	COM Cable 10cm
1700019592	DIO Cable 15cm
1700002223	Parallel Cable 32cm

- Intelligent Video and IoT Sensors **1**
- Intelligent Transportation Platforms **2**
- Intelligent Inspection Systems **3**
- Modular IPCs **4**
- Server-grade IPCs **5**
- Industrial Storages **6**
- Video Wall Controllers **7**
- GPU Servers **8**
- Industrial Motherboards **9**
- Slot SBC & Passive Backplanes **10**
- Compact PCI Platforms **11**
- Industrial Chassis **12**
- Industrial Computer Peripherals **13**
- Industrial Ethernet Solutions **14**

ITA-2211

Intel® Atom™ E3845 2U Fanless Rackmount System with 3 ITAM Module



Features

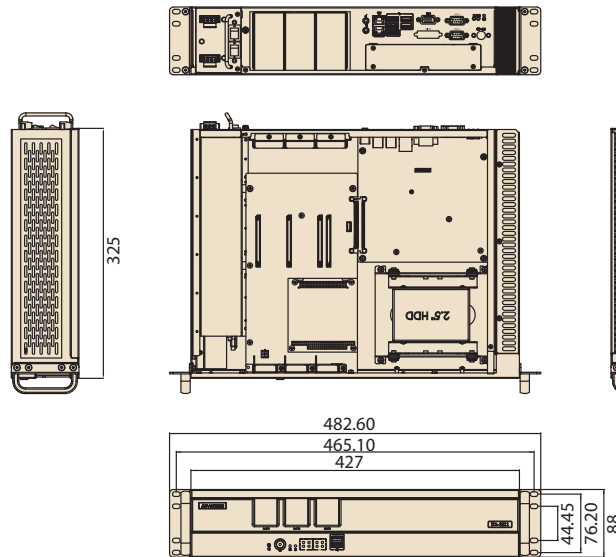
- Built-in Intel® Atom™ E3845, 1.91 GHz CPU
- Onboard 4GB DDR3 Memory
- 2U Fanless Rackmount System
- Support 3 ITAM Module for I/O Expansion
- Support Easy-Swap Power Module
- 2 GbE & 2 RS-232 for Management
- 6 USB2.0 & 1 USB3.0
- 1 VGA & 1 DVI D Display

System Specifications

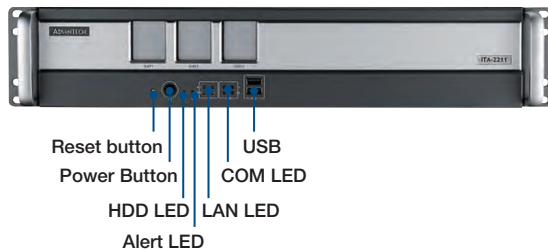
Processor System	CPU	Intel® Atom™ E3845 Processor; Quad core		
	Max Speed	1.91 GHz		
	L2 Cache	2 MB		
	BIOS	AMI® SPI 64 Mb		
Memory	Technology	Single Channel/ Dual Channel DDR3 1333		
	Max. Capacity	Onboard 4 GB; up to 8 GB		
Graphics	Chipset	Embedded Intel® Gen 7 Graphics, Frequency 542 MHz		
	VRAM	Shared System Memory up to 256 MB SDRAM		
	Dual Display	1 x VGA, 1 x DVI D Single Channel Max: 2056 x 1536 @ 60Hz Dual Channel Max: 1920 x 1080 x 24bpp @ 60Hz		
Ethernet	Interface	10/100/1000 Mbps		
	Controller	2 x Intel® I210-IT		
	Connector	2 x RJ-45		
Storage	SSD	1 x mSATA socket (SATA2 and mSATA is optional)		
	HDD	1 x 3.5" or 2 x 2.5" HDD bay		
I/O Interface	VGA	1		
	DVI D	1		
	LAN	2		
	USB	6 x USB 2.0; 1 x USB3.0		
	Serial	2 x DB9 (RS-232/422/485)		
	PS/2	1		
Expansion Slots	Audio	1 x Speaker-out with 2 x4W Amp, 1 x Mic-in		
	ITAM Slot	3		
	PCI104	1		
	Mini PCIe	1		
Power Module	Input Range	Single Power Module	Dual Power Module	
	Connector	AC 100 ~ 240V or DC 110V	Dual AC 100 ~ 240V or DC 110V	
	Wattage (60° C)	1 x 3pin 5.08mm Terminal Block	2 x 3pin 5.08mm Terminal Block	
		110 W	110W (Load Balance)	
Watchdog Timer	Output	System Reset		
	Interval	Programmable 1~255 sec/min		
Environment	Temperature	Operating (with SSD)	Operating (with HDD)	Non-Operating
		-25 ~ 60° C	0 ~ 40° C	-40 ~ 85° C
Physical Characteristics	Dimensions (W x H x D)	483 x 88 x 325 mm		
	EMC	CE/FCC Class A		
Certification	Safety	UL,CB,CCC		
	Compliance	EN 50121-4, Level 4 EMS		

Dimensions

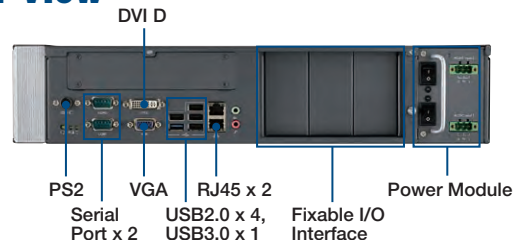
Unit: mm



Front View



Rear View



ITAM I/O Module & Power Module

Through ITAM I/O module to get LAN & Serial's amount expansion, it's for customer optional requirement. Pic shows in below:



Packing List

Part No.	Description	Quantity
200K221000	Startup manual	1
206K221000	Driver CD	1
1700020513-01	SATA cable*7P	2
1700017929	SATA power cable*4P	1
1700022322-01	SATA power cable*5P	1
1990001365	HDD rubber	4
1960018229N100	2.5" HDD bracket	2
1656303100	Terminal block*3P	2
1960000406T004	2U rackmount ear	2
1960021557S000	Handle bracket	2

Ordering Information

Part No.	Description
ITA-2211-00A1E	Intel Atom E3845, 4G on board memory, Single AC/DC power input, 2U Rackmount
ITA-2211-10A1E	Intel Atom E3845, 4G on board memory, Dual AC/DC power input, 2U Rackmount

Optional Accessories

Part No.	Description
ITA-EM-SR21-10A1E	8-port RS-232/422/485 ITAM Module
ITA-EM-SR21-00A1E	8-port RS-232/422/485 ITAM Module with 2.5KV isolation
ITA-EM-NC21-C0A1E	8-port GbE ITAM Module with RJ45 connector
ITA-EM-NC22-C0A1E	4-port GbE ITAM Module with RJ45 connector
ITA-EM-NC22-FOA1E	4-port GbE ITAM Module with SFP connector
1700023045-01	A Cable POWER 3P(F)/1*3P-5.08 10cm for ITA-2210

- Intelligent Video and IoT Sensors **1**
- Intelligent Transportation Platforms **2**
- Intelligent Inspection Systems **3**
- Modular IPCs **4**
- Server-grade IPCs **5**
- Industrial Storages **6**
- Video Wall Controllers **7**
- GPU Servers **8**
- Industrial Motherboards **9**
- Slot SBC & Passive Backplanes **10**
- Compact PCI Platforms **11**
- Industrial Chassis **12**
- Industrial Computer Peripherals **13**
- Industrial Ethernet Solutions **14**

ITA-2230

Intel® Core™ i7 Fanless 2U Rackmount System with 3 ITAM Module



Features

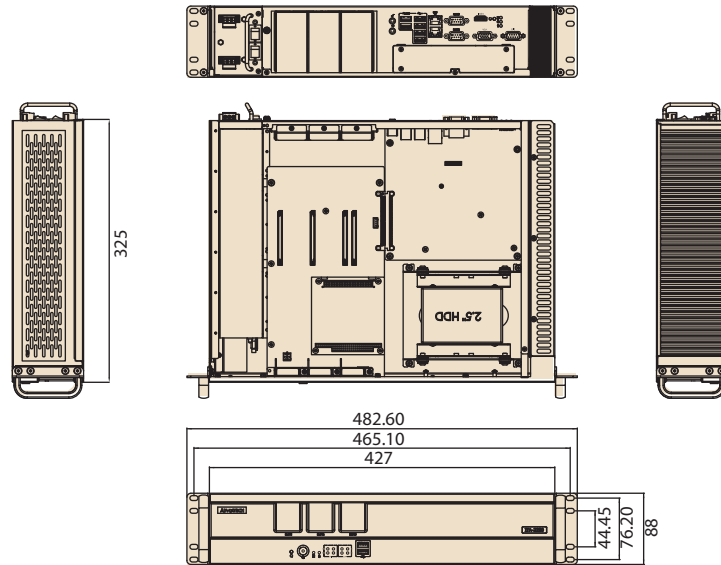
- Built-in Intel® Core™ i7-3555LE, 2.5 GHz CPU
- Onboard 4GB DDR3 Memory
- 2U Fanless Rackmount System
- Support 3 ITAM Module for I/O expansion
- Support Easy-Swap Power Module
- 4 USB 3.0 & 4 USB 2.0
- HDMI & VGA Display output
- Compliance with railway applications (EN50121-4)

System Specifications

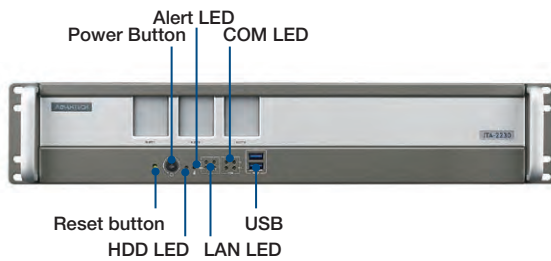
Processor System	CPU	Intel® Core™ i7-3555LE(25W)		
	Max Speed	2.5 GHz		
	L2 Cache	6 MB		
	Chipset	Intel® HM76		
	BIOS	AMI SPI 64 Mb		
Memory	Technology	DDR3 1600		
	Max. Capacity	Onboard 4 GB		
Graphics	Chipset	Intel® HD4000		
	VRAM	Shared system memory up to 512 MB SDRAM		
	Dual display	1 x VGA, 1 x HDMI, 1 x eDP (Optional)		
Ethernet	Interface	10/100/1000 Mbps		
	Controller	2 x Intel® I210IT		
	Connector	2 x RJ-45		
Storage	SSD	1 x Full size mSATA		
	HDD	1 x 3.5" or 2 x 2.5" HDD bay		
I/O Interface	VGA	1		
	HDMI	1		
	LAN	2		
	USB	4 x USB 3.0, 4 x USB 2.0		
	Serial	2 x DB9 (RS-232/422/485)		
	Digital I/O	1 x 8-ch TTL GPIO		
	Audio	1 x Speaker-out with 2 x4W Amp, 1 x Mic-in		
Expansion Slots	ITAM Slot	3		
	PC104+	1		
	Mini PCIe	1		
Power module		Single Power Module	Dual Power Module	
	Input Range	AC 100 ~ 240V or DC 110V	Dual AC 100 ~ 240V or DC 110V	
	Connector	1 x 3pin 5.08mm Terminal Block	2 x 3pin 5.08mm Terminal Block	
	Wattage (60° C)	110 W	110W (Load Balance)	
Watchdog Timer	Output	System Reset		
	Interval	Programmable 1~255 sec/min		
Environment		Operating (With SSD)	Operating (With HDD)	Non-Operating
	Temperature	-25 ~ 60° C	0 ~ 40° C	-40 ~ 85° C
Physical Characteristics	Dimensions (W x H x D)	483 x 88 x 325 mm		
	EMC	CE/FCC Class A		
Certification	Safety	UL,CB,CCC		
	Compliance	EN 50121-4,Level 4 EMS		

Dimensions

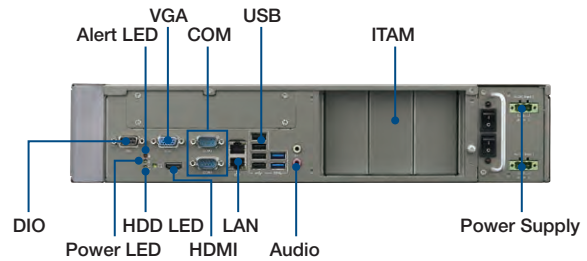
Unit: mm



Front View

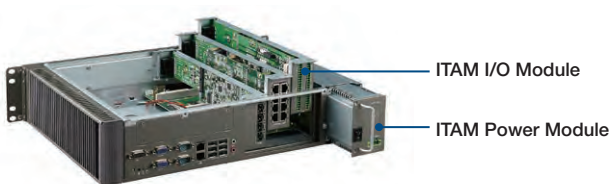


Rear View



ITAM I/O Module & Power Module

Through ITAM I/O module to get LAN & Serial's amount expansion, it's for customer optional requirement. Pic shows in below:



Packing List

Part No.	Description	Quantity
200K223000	Startup manual	1
206K223000	Driver CD	1
1700008941	SATA cable*7P	2
1700017929	SATA power cable*4P	1
1700022322-01	SATA power cable*5P	1
1990001365	HDD rubber	4
1960018229N100	2.5" HDD bracket	2
1656303100	Terminal block*3P	2
1960018229N100	2U Rack mount ear	2
1960021557S000	Handle bracket	2

Ordering Information

Part No.	Description
ITA-2230-00A1E	Intel Core i7, 4G on board memory, Single AC/DC power input 2U Rackmount
ITA-2230-10A1E	Intel Core i7, 4G on board memory, Dual AC/DC power input 2U Rackmount

Optional Accessories

Part No.	Description
ITA-EM-SR21-10A1E	8-port RS-232/422/485 ITAM Module
ITA-EM-SR21-00A1E	8-port RS-232/422/485 ITAM Module with 2.5KV isolation
ITA-EM-NC21-C0A1E	8-port GbE ITAM Module with RJ45 connector
ITA-EM-NC22-C0A1E	4-port GbE ITAM Module with RJ45 connector
ITA-EM-NC22-F0A1E	4-port GbE ITAM Module with SFP connector
1700023045-01	A Cable POWER 3P(F)/1*3P-5.08 10cm for ITA-2210

- Intelligent Video and IoT Sensors 1
- Intelligent Transportation Platforms 2
- Intelligent Inspection Systems 3
- Modular IPCs 4
- Server-grade IPCs 5
- Industrial Storages 6
- Video Wall Controllers 7
- GPU Servers 8
- Industrial Motherboards 9
- Slot SBC & Passive Backplanes 10
- CompactPCI Platforms 11
- Industrial Chassis 12
- Industrial Computer Peripherals 13
- Industrial Ethernet Solutions 14

ITA-5231

Intel® 6th Generation Core™ i Processor Fanless System; EN 50155 Certified Product for Railway Applications



Features

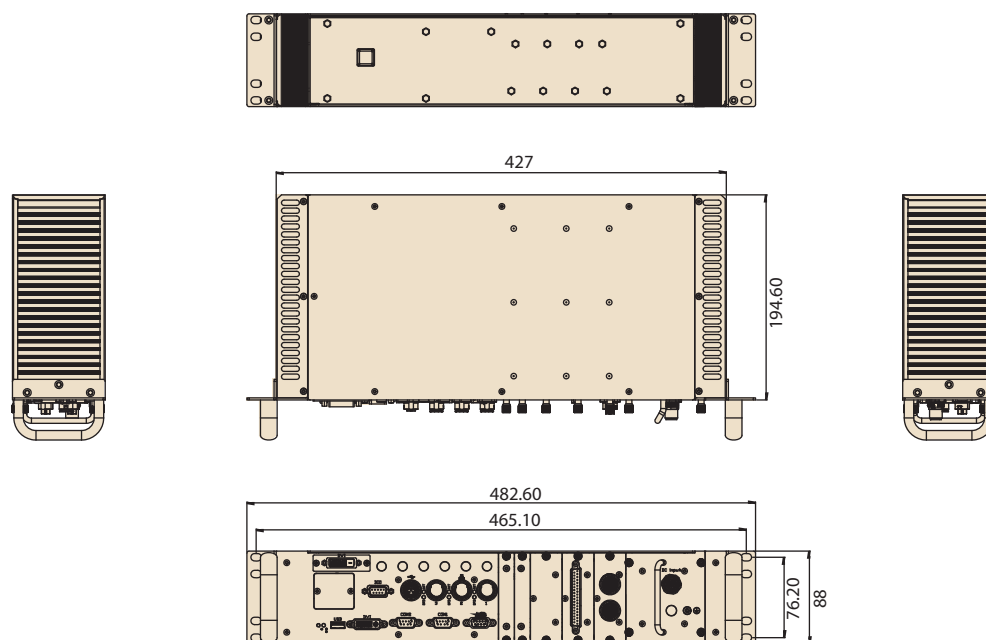
- Intel skylake-H platform with QM170
- Fanless computer for railway vehicle applications, fully compliant with EN 50155
- Satisfy temp. standard: EN 50155 TX (-40 ~ 70° C) and IEC 61373 body mount class B
- Compliant with EN 50121-3-2 EMC test standard
- Ruggedized connectors (M12) used for communication and power ports
- Support Easy-swap storage module and I/O module

Specifications

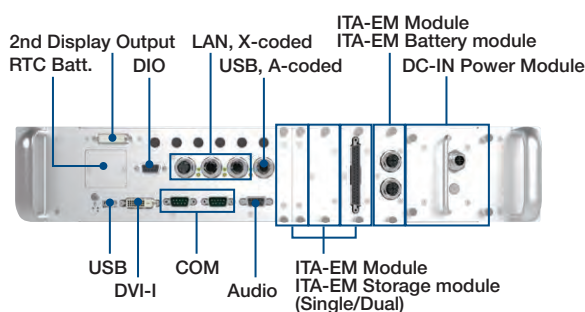
System Chipset	CPU	Intel® Core™ i7-6822EQ
	Max Speed	2.0GHz, Turbo boost max to 2.8GHz
	L3 Cache	8M
	Chipset	QM170
Memory	BIOS	AMI SPI 64 Mb
	Technology	DDR4 2133MHz
	SODIMM slot	1
Graphics	Max. Capacity	8G on board memory, up to 16G
	Chipset	Intel Integrated Graphics
	VRAM	Share with system memory up to 512MB
	Display	DVI-I + DVI-D Single channel max: 4096 x 2304 @ 60Hz Dual channel max: 2880 x 1800 @ 60Hz
I/O	USB	2 x USB3.0 with Type A 1 x USB2.0 with M12 A-coded(F) 4-pin
	Serial Port	2 x DB9, RS-232/422/485, Support auto-flow control
	DIO	1 x DB9, 8-bit with Isolation
	Main Display	1 x DVI-I
	Secondary Display	1 x DVI-D (Default) or 1 x VGA
	Audio	1 x DB9, 1 x Speaker-out with 2 x 4W Amp., 1 x Mic-in
Ethernet	Controller	Intel i210-IT
	Interface	10/100/1000 Mbps
	Connector	Up to 3 x M12 X-coded(F)
Storage	HDD/SSD easy-swap module	Max to 4 x 2.5" SSD or 2 x 2.5" HDD
	mSATA	1 x mSATA slot on board
Others	Mini PCIe	3 x Mini PCIe Socket (Full size)
	SIM card	2 x SIM slot
LED & Button	LED	1 x Power, 1 x Storage, 1 x Alert
	Button	1 x Power on/off Switch 1 x Reset Button
Power	Input Voltage	DC 24V input compliant with EN50155 class S2/C1(Optional DC 48/72/110V input)
	Connector	1 x M12 S-coded(M) 4-pin
Watchdog Timer	Output	System reset
	Interval	Programmable 1~255 sec/min
Environment	Temperature	Operating (with Industrial SSD/CF) Non-Operating -40 ~ 70° C -40 ~ 85° C
	Humidity	5% ~ 95% @ 40° C (Non-Condensing)
Mechanical	Dimension (W x H x D)	427 x 88 x 200 mm 483 x 88 x 200 mm with mounting kits
	Install	Rack-mounting
Certification	EMC	CE/FCC Class A, CCC
	Safety	UL, CB, CCC
EN 50155 Compliance	Ambient Temperature	EN 50155 TX (-40 ~ 70° C)
	Shock and Vibration	IEC 61373 body mount class B
	Interruptions of Voltage Supply	Class S2
	Supply Change Over	Class C1
	EMC	EN 50121-3-2

Dimensions

Unit: mm



Front View



Ordering Information

Part Number	CPU On board	Memory	Ethernet (M12/x-code/ 8-pin/Female)	USB (M12/A-code/ 4-pin/Female)	USB (Type A)	mini-PCIe	Storage	mSATA	COM (DB9)	Power input (M12/S-code/ 4-pin/male)
ITA-5231-T0A1E	i7-6822EQ	8G on board	3	2	1	3	up to 4 x 2.5" SSD	1	up to 10	24 V _{DC}

Optional List

Part Number	Description
ITA-EM-SR51	Easy-swap module, 4 x RS232/422/485 with Isolation
ITA-EM-CN51	Easy-swap module, 2 x CAN ports
ITA-EM-PE51	Easy-swap module, 2 PoE: up to 15.4W @ 48V _{DC}
ITA-EM-BA51	ITA-EM Battery module, Panasonic 4S1P 2900mAh
ITA-EM-ST51	ITA-EM Storage module, single 2.5" SSD

- Intelligent Video and IoT Sensors **1**
- Intelligent Transportation Platforms **2**
- Intelligent Inspection Systems **3**
- Modular IPCs **4**
- Server-grade IPCs **5**
- Industrial Storages **6**
- Video Wall Controllers **7**
- GPU Servers **8**
- Industrial Motherboards **9**
- Slot SBC & Passive Backplanes **10**
- CompactPCI Platforms **11**
- Industrial Chassis **12**
- Industrial Computer Peripherals **13**
- Industrial Ethernet Solutions **14**

ITA-5710

Intel® Atom™ D525 Fanless Compact System; EN 50155 Certified Product for Railway Applications



Features

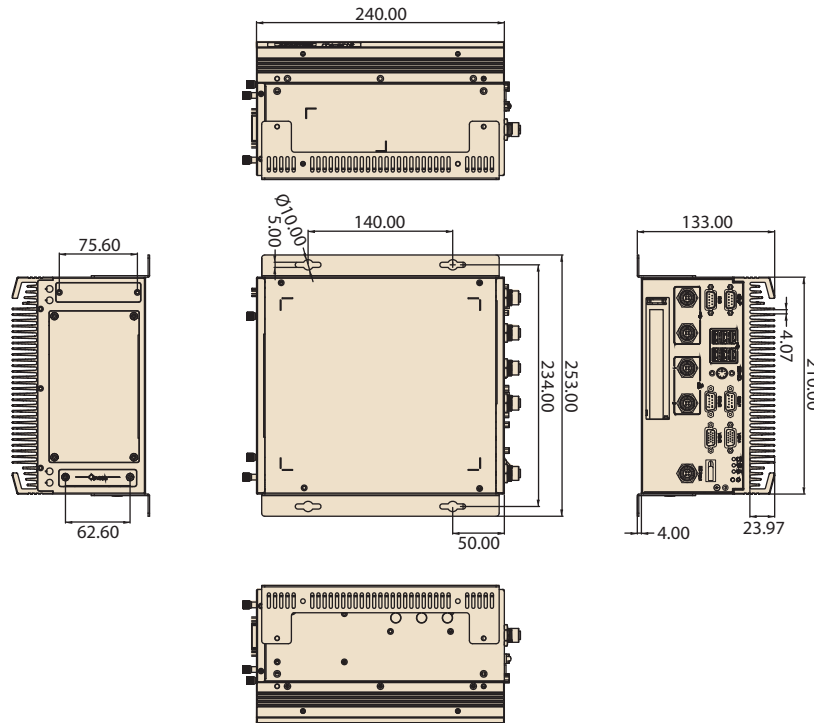
- Fanless computer for railway vehicle applications, fully compliant with EN 50155
- Satisfy temp. standard: EN 50155 TX (-40 ~ 70° C) and IEC 61373 body mount class B
- Compliant with EN 50121-3-2 EMC test standard
- Ruggedized connectors (M12) used for communication and power ports
- Optional PCI/Mini PCIe slots for expansion
- Support Easy-swap HDD/SSD/CF module

Specifications

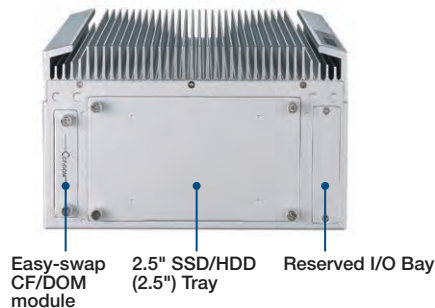
System Chipset	CPU	Intel® Atom™ D525	
	Max Speed	1.8 GHz	
	L2 Cache	1 MB	
	Chipset	Intel ICH8-M	
	BIOS	AMI SPI 16 Mb	
Memory	Technology	Single channel DDR3 800	
	Max. Capacity	Onboard 2GB	
Display	Chipset	Embedded Gen3.5+ GFX Core, Frequency 400 MHz	
	VRAM	Shared system memory up to 256 MB SDRAM	
	Dual Display		2 x VGA or VGA + LVDS (Optional) Single Channel Max: 2048 x 1536 @ 60Hz Dual Channel Max: 1366 x 768 @ 60Hz
		LVDS	Support 18-bit single channel up to 1366 x 768 @ 60 Hz (Optional)
Ethernet	Controller	Intel i210-IT	
	Interface	10/100/1000 Mbps	
	Connector	2 x M12 A-coded(F) 8-pin	
Storage	HDD/SSD	1 x 2.5" SSD/HDD Easy-Swap bay	
	Others	1 x CompactFlash socket for Type I/II CompactFlash disk on M/B	
		1 x Easy-Swap CF/SATA DOM Module	
I/O (Others)	USB	2 x USB2.0 with M12 A-coded(F) 4-pin 6 x USB2.0 with Type A	
	Serial Port	2 x DB9, RS-232/422/485, Support auto-flow control	
	DIO	1 x DB9, 8-bit	
	VGA	2 x DB15	
	Audio	1 x DB9, 1 x Speaker-out with 2 x 4W Amp., 1 x Mic-in	
	PS2	1 x PS2	
Expansion Slot	Mini PCIe	1 x Mini PCIe Socket (Full size) 1 x Mini PCIe Socket (Full/Half size)	
	PCI	1 x PCI32 33Mhz Slot	
LED & Button	LED	1 x Power, 1 x Storage, 1 x Alert	
	Button	1 x Power on/off Switch 1 x Reset Button	
Power	Input Voltage	DC 24V input compliant with EN50155 class S2/C1 (Optional DC 48/72/110V input)	
	Connector	1 x M12 A-coded(M) 4-pin	
Watchdog Timer	Output	System reset	
	Interval	Programmable 1~255 sec/min	
Environment	Temperature	Operating (with Industrial SSD/CF) Non-Operating -40 ~ 70° C -40 ~ 85° C	
	Humidity	5% ~ 95% @ 40° C	
Mechanical	Dimension (W x H x D)	210 x 129 x 240 mm 253 x 133 x 240 mm (with Supporting-angels)	
	Install	Desktop/Wall-mounting	
Certification	EMC	CE/FCC Class A, CCC	
	Safety	UL, CB, CCC	
EN 50155 Compliance	Ambient Temperature	EN 50155 TX (-40 ~ 70° C)	
	Shock and Vibration	IEC 61373 body mount class B	
	Interruptions of Voltage Supply	Class S2	
	Supply Change Over	Class C1	
	EMC	EN 50121-3-2	

Dimensions

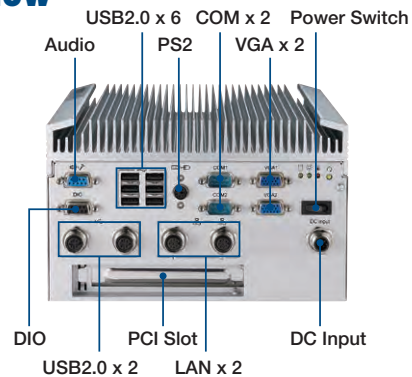
Unit: mm



Front View



Rear View



Ordering Information

Part number	CPU	On board Memory	Ethernet (M12/A-code/ 8-pin/Female)	USB (M12/A-code/ 4-pin/Female)	Power input (M12/A-code/ 4-pin/Male)	mini-PCIe Slot	COM (DB9)	2.5" SSD Tray	CF/DOM Tray	Power Input
ITA-5710-00A1E	Atom D525	2G DDR3	2	2	1	2	2	1	2	24 V _{DC}

Optional Accessories

M12 Connector (Need to purchase separately)

Advantech P/N	Description
Y5A5730000	M12 A-coded, 4-pin Female, Power
Y5A5730001	M12 A-coded, 8-pin Male, LAN
Y5A5730002	M12 A-coded, 4-pin Male, USB

M12 Cable (Need to purchase separately)

Advantech P/N	Description
1700022203-01	A-coded 4-pin Female to 2-pin European terminal, 10cm, Power cable
1700023142-01	A-coded 8-pin Male to standard port(Type A), 10cm, USB cable
1700022205-01	A-coded 4-pin Male to RJ45, 10cm, LAN cable

- Intelligent Video and IoT Sensors **1**
- Intelligent Transportation Platforms **2**
- Intelligent Inspection Systems **3**
- Modular IPCs **4**
- Server-grade IPCs **5**
- Industrial Storages **6**
- Video Wall Controllers **7**
- GPU Servers **8**
- Industrial Motherboards **9**
- Slot SBC & Passive Backplanes **10**
- Compact PCI Platforms **11**
- Industrial Chassis **12**
- Industrial Computer Peripherals **13**
- Industrial Ethernet Solutions **14**

ITA-5730

Intel® 3rd Generation Core™ i Processor Fanless System; EN 50155 Certified Product for Railway Applications



Features

- Supports Intel® 3rd Generation processor with HM76
- Fanless computer for railway vehicle applications, fully compliant with EN 50155
- Satisfy temp. standard: EN 50155 TX (-40 ~ 70° C) and IEC 61373 body mount class B
- Compliant with EN 50121-3-2 EMC test standard
- Ruggedized connectors (M12) used for communication and power ports
- Optional PCI/miniPCIe slots for expansion
- Support Easy-swap HDD/SSD/CF module

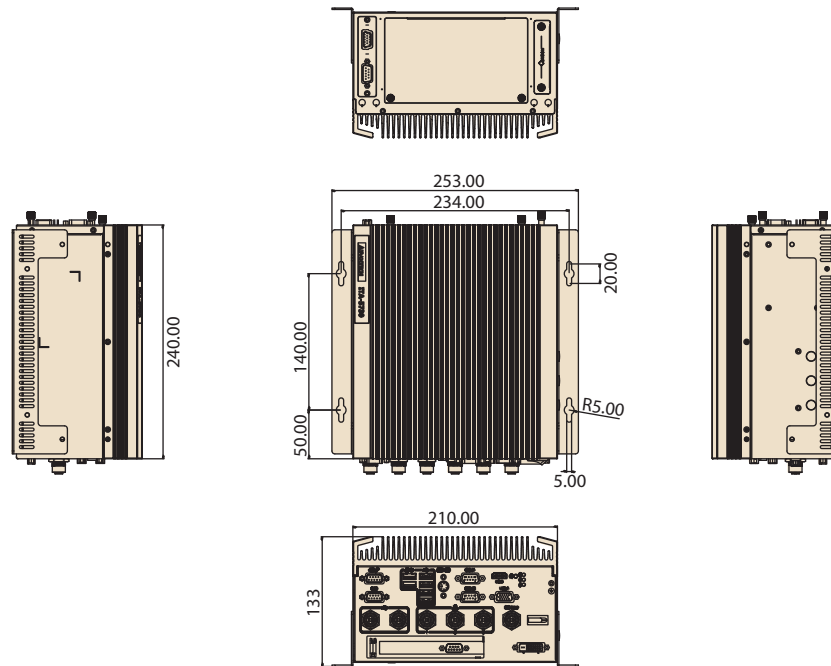
Specifications

System Chipset	CPU	Intel® Core™ i7-3555LE	Intel® Core™ i3-3217UE
	Max Speed	2.5 GHz	1.6 GHz
	L2 Cache	6 MB	3M
	Chipset	Intel HM76	
	BIOS	AMI SPI 64 Mb	
Memory	Technology	DDR3 1333/1600MHz	
	Max. Capacity	4G on board memory	
Display	Chipset	Intel Integrated Graphics HD4000, support Direct x11	
	VRAM	Share with system memory up to 512MB	
	Dual Display	VGA + HDMI Single channel max: 2048 x 1536 @ 60Hz Dual channel max: 1920 x 1080 @ 60Hz	
Ethernet	Controller	Intel i210-IT	
	Interface	10/100/1000 Mbps	
	Connector	Up to 3 x M12 A-coded(F) 8-pin	
Storage	HDD/SSD	Support 1 x 2.5" SSD/HDD Easy-Swap bay	
	Others	1 x mSATA slot on M/B 1 x Easy-Swap CF/SATA DOM Module	
I/O (Others)	USB	2 x USB2.0 with M12 A-coded(F) 4-pin 4 x USB2.0 with Type A 2 x USB3.0 with Type A	
	Serial Port	2 x DB9, RS-232/422/485, Support auto-flow control	
	DIO	1 x DB9, 8-bit	
	VGA	1 x DB15	
	HDMI	1	
	Audio	1 x DB9, 1 x Speaker-out with 2 x 4W Amp., 1 x Mic-in	
	PS2	1 x PS2	
Expansion Slot	Mini PCIe	1 x Mini PCIe Socket (Full size) 1 x Mini PCIe Socket (Full/Half size)	
	PCI	1 x PCI32 33Mhz Slot	
LED & Button	LED	1 x Power, 1 x Storage, 1 x Alert	
	Button	1 x Power on/off Switch 1 x Reset Button	
Power	Input Voltage	DC 24V (input compliant with EN50155 class S2/C1 (Optional DC 48/72/110V input)	
	Connector	1 x M12 A-coded(M) 4-pin	
Watchdog Timer	Output	System reset	
	Interval	Programmable 1~255 sec/min	
Environment	Temperature	Operating (with Industrial SSD/CF)	Non-Operating
	Humidity	-40 ~ 70° C	-40 ~ 85° C
Mechanical	Dimension (W x H x D)	210 (W) x 240 (D) x 129 (H) (8.4" x 9.5" x 5.1") 253 (W) x 240 (D) x 133 (H) (10.0" x 9.5" x 5.3") with mounting bracket	
	Install	Desktop/Wall-mounting	
	EMC	CE/FCC Class A, CCC	
EN 50155 Compliance	Safety	UL, CB, CCC	
	Ambient Temperature	EN 50155 TX (-40 ~ 70° C)	
	Shock and Vibration	IEC 61373 body mount class B	
	Interruptions of Voltage Supply	Class S2	
	Supply Change Over	Class C1	
EMC	EN 50121-3-2		

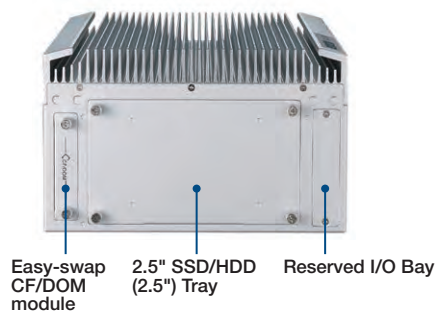
- Intelligent Video and IoT Sensors **1**
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- Intelligent Inspection Systems **3**
- Modular IPCs **4**
- Server-grade IPCs **5**
- Industrial Storages **6**
- Video Wall Controllers **7**
- GPU Servers **8**
- Industrial Motherboards **9**
- Slot SBC & Passive Backplanes **10**
- CompactPCI Platforms **11**
- Industrial Chassis **12**
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Dimensions

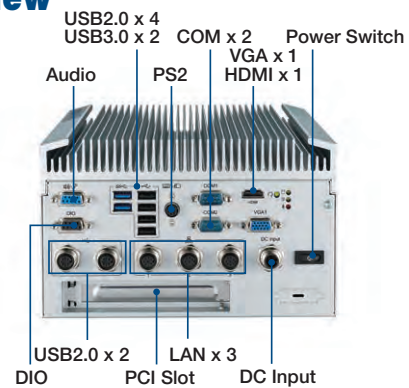
Unit: mm



Front View



Rear View



Ordering Information

Part number	CPU	On board Memory	Ethernet (M12/A-code/ 8-pin/Female)	USB (M12/A-code/ 4-pin/Female)	Power input (M12/A-code/ 4-pin/Male)	mini-PCIe Slot	mSATA Slot	COM (DB9)	2.5" SSD Tray	CF/DOM Tray	Power Input
ITA-5730-00A1E	i7-3555LE	4G DDR3	3	2	1	2	1	2	1	1	24 V _{DC}
ITA-5730-10A1E	i3-3217UE	4G DDR3	3	2	1	2	1	2	1	1	24 V _{DC}

Optional Accessories

M12 Connector (Need to purchase separately)

Advantech P/N	Description
Y5A5730000	M12 A-coded, 4-pin Female, Power
Y5A5730001	M12 A-coded, 8-pin Male, LAN
Y5A5730002	M12 A-coded, 4-pin Male, USB

M12 Cable (Need to purchase separately)

Advantech P/N	Description
1700022203-01	A-coded 4-pin Female to 2-pin European terminal, 10cm, Power cable
1700023142-01	A-coded 8-pin Male to standard port(Type A), 10cm, USB cable
1700022205-01	A-coded 4-pin Male to RJ45, 10cm, LAN cable

ITA-5831

Intel® 6th Generation Core™ i Processor Fanless System; EN 50155 Certified Product for Railway Applications



Features

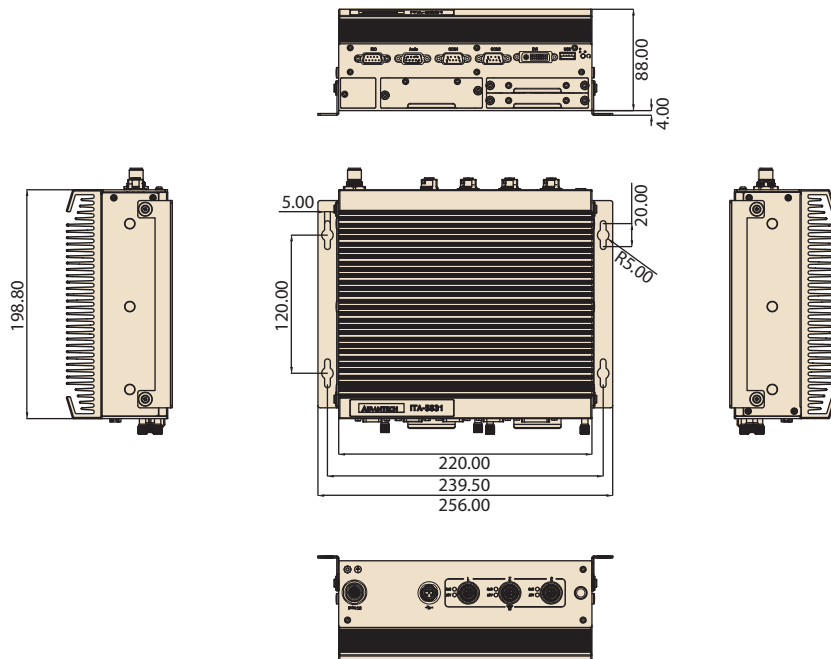
- Intel skylake-H platform with QM170
- Fanless computer for railway vehicle applications, fully compliant with EN 50155
- Satisfy temp. standard: EN 50155 TX (-40 ~ 70° C) and IEC 61373 body mount class B
- Compliant with EN 50121-3-2 EMC test standard
- Ruggedized connectors (M12) used for communication and power ports
- Support Easy-swap storage module and I/O module

Specifications

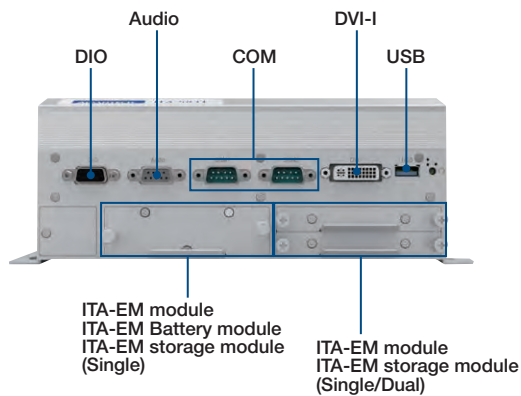
System Chipset	CPU	Intel® Core™ i7-6822EQ	
	Max Speed	2.0GHz, Turbo boost max to 2.8GHz	
	L3 Cache	8M	
	Chipset	QM170	
	BIOS	AMI SPI 64 Mb	
Memory	Technology	DDR4 2133MHz	
	SODIMM slot	1	
	Max. Capacity	8G on board memory, up to 16G	
Graphics	Chipset	Intel Integrated Graphics	
	VRAM	Share with system memory up to 512MB	
	Display	DVI-I + DVI-D (Optional)	
		Single channel max: 4096 x 2304 @ 60Hz Dual channel max: 2880 x 1800 @ 60Hz	
I/O	USB	1 x USB3.0 with Type A 1 x USB2.0 with M12 A-coded(F) 4-pin	
	Serial Port	2 x DB9, RS-232/422/485, Support auto-flow control	
	DIO	1 x DB9, 8-bit with Isolation	
	Main Display	1 x DVI-I	
	Audio	1 x DB9, 1 x Speaker-out with 2 x 4W Amp., 1 x Mic-in	
Ethernet	Controller	Intel i210-IT	
	Interface	10/100/1000 Mbps	
	Connector	Up to 3 x M12 X-coded(F)	
Storage	HDD/SSD easy-swap module	Max to 3 x 2.5" SSD or 2 x 2.5" HDD	
	mSATA	1 x mSATA slot on board	
Others	Mini PCIe	3 x Mini PCIe Socket (Full size)	
	SIM card	2 x SIM slot	
LED & Button	LED	1 x Power, 1 x Storage, 1 x Alert	
	Button	1 x Power on/off Switch 1 x Reset Button	
Power	Input Voltage	DC 24V input compliant with EN50155 class S2/C1(Optional DC 48/72/110V input)	
	Connector	1 x M12 S-coded(M) 4-pin	
Watchdog Timer	Output	System reset	
	Interval	Programmable 1~255 sec/min	
Environment	Temperature	Operating (with Industrial SSD/CF) -40 ~ 70° C	Non-Operating -40 ~ 85° C
	Humidity	5% ~ 95% @ 40° C (Non-Condensing)	
Mechanical	Dimension (W x H x D)	220 x 200 x 88 mm 275 x 200 x 88 mm with mounting kits	
	Install	Rack-mounting	
Certification	EMC	CE/FCC Class A, CCC	
	Safety	UL, CB, CCC	
EN 50155 Compliance	Ambient Temperature	EN 50155 TX (-40 ~ 70° C)	
	Shock and Vibration	IEC 61373 body mount class B	
	Interruptions of Voltage Supply	Class S2	
	Supply Change Over	Class C1	
	EMC	EN 50121-3-2	

Dimensions

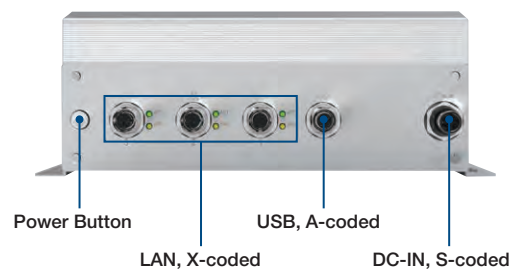
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Front View



Rear View



Ordering Information

Part number	CPU On board	Memory	Ethernet (M12/x-code/8-pin/Female)	USB (M12/A-code/4-pin/Female)	USB (Type A)	mini-PCIe	Storage	mSATA	COM (DB9)	Power input (M12/S-code/4-pin/male)
ITA-5831-T0A1E	i7-6822EQ	8G on board	3	1	2	3	up to 2 x 2.5" SSD	1	up to 10	24 V _{DC}

Optional List

Part number	Description
ITA-EM-SR61	Easy-swap module, 4 x RS232/422/485 with Isolation
ITA-EM-CN61	Easy-swap module, 2 x CAN ports
ITA-EM-PE61	Easy-swap module, 2 PoE: up to 15.4W @ 48V _{DC}
ITA-EM-BA61	ITA-EM Battery module, Panasonic 4S1P 2900mAh
ITA-EM-ST61	ITA-EM Storage module, single 2.5" SSD

- Intelligent Video and IoT Sensors **1**
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- Video Wall Controllers **7**
- GPU Servers **8**
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- Slot SBC & Passive Backplanes **10**
- CompactPCI Platforms **11**
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- Industrial Ethernet Solutions **14**

Intelligent Transportation Systems



ADVANTECH

Enabling an Intelligent Planet

Total Solutions Delivery for Infrastructure and Railway Systems

Advantech working in cooperation with its partners has long provided reliable system platform plus software solutions that pave the way for intelligent transportation in cities around the globe. With a decade of successful experience, Advantech has dedicated resources to researching and developing new products designed specifically for the transportation industry. These products, ITA-1000 Series, 2000 Series, 3000 Series, 5000 Series and Industrial Communication Products (EKI Series) support railway automatic fare collection, wayside, traffic management, rolling stock, and more. Our role is to help enable intelligent transportation systems, which also helps us fulfill our vision of creating and delivering smart city technologies.

Automatic Fare Collection Controller



ITA-1000 Series
Fanless, Intel® Celeron™ J1900 Compact System with Multi COM ports and Dual Display

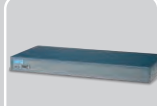


EKI-3000 Series
Unmanaged Industrial Ethernet Switch

Wayside Controller



ITA-2000 Series
EN 50121-4 Fully Compliance 2U Fanless Rackmount System



EKI-1528/EKI-1526
8 / 16-port RS-232/422/485 Serial Device Server

Rolling Stock Controller



ITA-5000 Series
EN 50155 Fully Certified Compact Fanless System with M12 Connectors



EKI-6500 Series
EN50155 Compliant IP67 M12 Managed Ethernet Switch with Wide Temperature

Traffic Management Controller



ITA-3000 Series
Intel® 3rd Generation Core™ I Processor Fanless System for Road Surveillance

Advantech Headquarters

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Neihu District, Taipei 114, Taiwan, R. O. C.
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Intelligent Inspection Systems

AIIS-1200P/U	Palm Size Vision System, Supports Intel® Braswell SoC, 2-CH Camera Interface for GigE PoE or USB 3.0	3-2
AIIS-1240/1440	Compact Vision System, Supports Intel® Core™ i7/i5/i3 CPU, 4-CH Camera Interface for GigE PoE or USB 3.0	3-4
AIIS-5410P	Fanless Vision System, Intel® Core™ i7/i5/i3, 4-CH GigE PoE Camera Interface, One PCI or PCIe Expansion Slot	3-6
Quartz	0.3-10.0 Mega Pixel PoE Industrial Camera	3-8

To view all of Advantech's Intelligent Inspection Systems, please visit www.advantech.com/products.



AIIS-1200P (PoE) AIIS-1200U (USB 3.0)

Palm Size Vision System, Supports Intel® Braswell SoC, 2-CH Camera Interface for GigE PoE or USB 3.0



Features

- Intel® Braswell SoC
- AIIS-1200P: 2-CH GbE PoE (Power over Ethernet)
 - Powered device auto detection and classification
 - IEEE 802.3af compliant and Supports IEEE 1588
 - Compatible with GigE Cameras
- AIIS-1200U: 2-CH USB 3.0 with dedicated controller
 - Maximize the USB3.0 bandwidth for multi-cameras
 - Compatible with USB 3.0 Cameras
- Compact & thoughtful design
 - Volume less than 0.9 Liter
 - Isolated Digital I/O
 - Wall or DIN-Rail mounting kit (optional)

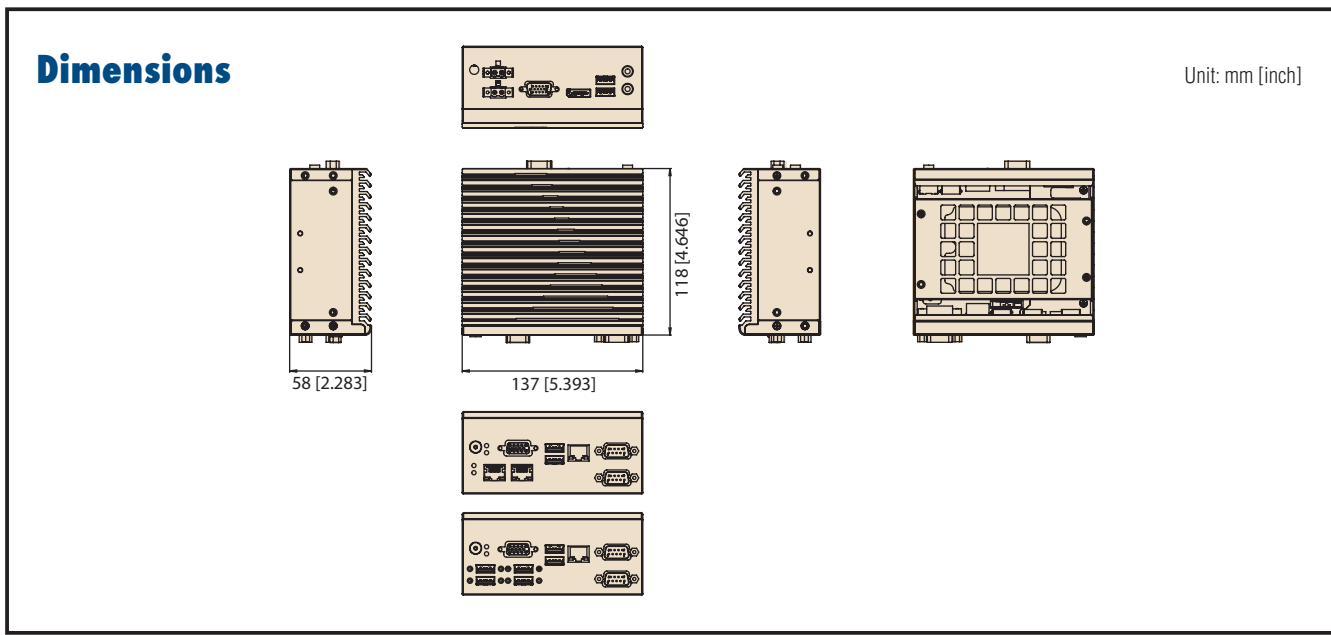


Specifications

Processor System	CPU	TBD	
	Core	TBD	
	Base Frequency	TBD	
	L3 Cache	TBD	
	Chipset	N/A	
	BIOS	AMI 64Mb SPI Flash	
Memory	Technology	Dual Channel DDR3 1066/1333 MHz (Non ECC)	
	Max. Capacity	8 GB (default 4 GB on board)	
	Socket	N/A; on board	
Graphics	Chipset Integrated	Integrated Intel HD Graphics	
Camera Interface PoE (AIIS-1200P)	Controller	CH1 ~ CH2: Intel i210	
	Compliant	IEEE 802.3af	
	Power Output	15.4W per Channel	
Camera Interface USB 3.0 (AIIS-1200U)	Controller	CH1 ~ CH2: µPD720202	
	Compliant	USB 3.0	
	Power Output	4.5W per Channel	
Ethernet	Interface	10/100/1000 Mbps	
	Controller	Intel i210	
Expansion	Mini PCIe	1 x Full-size (Supports mSATA)	
Storage	Internal 2.5" HDD Bay	1 (max. 9.5 mm height)	
	mSATA	1 (via mini PCIe slot)	
Front I/O	Display	VGA	
	USB	2 USB3.0	
	Serial	COM 1 (RS-232/422/485 via BIOS setting; RS-485 with auto-flow control) COM 2 (RS-232)	
Rear I/O	Audio	Line-out & Mic-in	
	USB	2 USB 3.0	
	DIO	4 isolated DI and 4 isolated DO channels	
Watchdog Timer	Output	System reset	
	Interval	Programmable 1 ~ 255 sec/min	
Power Requirement	Power Type	AT/ATX	
	Power Input Voltage	9 V _{DC} ~ 36 V _{DC}	
	Power Adapter	AC to DC, DC19V/3.42A, 65W (Optional)	
Miscellaneous	LED Indicators	Power, HDD, temperature	
	Control	Power on/off switch	
Environment	Temperature	Operating	Non-operating
		HDD: 0 ~ 40° C (32 ~ 104° F) with 0.7m/s air flow SSD: -20 ~ 60° C (-4 ~ 140° F) with 0.7m/s air flow	-40 ~ 70° C (-40 ~ 158° F)
	Humidity	10 ~ 95% @ 40° C, non-condensing	10 ~ 95% @ 60° C, non-condensing
	Vibration	HDD: 1G, random, 5~500Hz, 3 axes, 1 hr/axis SSD: 3G, random, 5~500Hz, 3 axes, 1 hr/axis	2G, sine wave, 5~500Hz, 3 axes, 1 hr/axis
		Shock	HDD: 10G, half sine wave, 11 ms duration SSD: 50G, half sine wave, 11 ms duration
Physical Characteristics	Dimension (W x H x D)	137 x 58 x 118 mm (5.39" x 2.28" x 4.65")	
	Weight	2 kg	

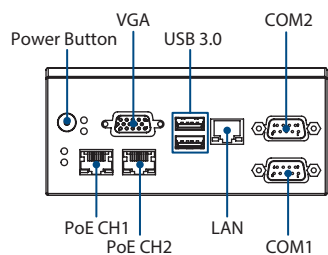
* Depend on CPU

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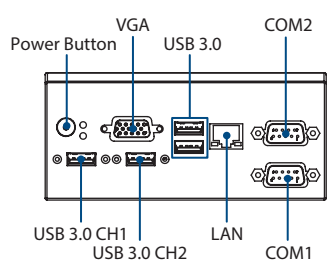


Front View

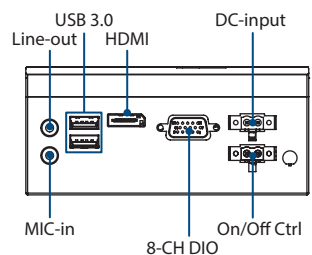
AIIS-1200P



AIIS-1200U



Rear View



Ordering Information

Part Number	Camera Interface	Display	USB 3.0	Isolated DIO	COM 232/422/485	COM 232
AIIS-1200P-S6A1E	2-CH GigE PoE	VGA + HDMI	4	8-CH	1	1
AIIS-1200U-S6A1E	2-CH USB 3.0	VGA + HDMI	4	8-CH	1	1

Packing List

Items	Part Number	Quantity
Bare System	AIIS-1200P-S6A1E (AIIS-1200U-S6A1E)	1
Startup Manual	TBD	1
Driver CD	TBD	1
Wallmount Bracket	TBD	2
Rubber Foot	TBD	4
2-pin Phoenix DC power connector	1652005203	2

Optional Accessories

Part Number	Description
TBD	DIN-Rail Bracket
96PSA-A65W19P2-2	DC24 Adapter 65Watt
1700023217-01	8-CH DIO Cable for Wiring Board
ADAM-3925-AE	8-CH DIO DB-25 Wiring Terminal, DIN-rail Mount

Note: If there is no 9-36V_{DC} source in your facility, this adapter is required to power on the system

AIIS-1240 (PoE) AIIS-1440 (USB 3.0)

Compact Vision System, Supports Intel® Core™ i7/i5/i3 CPU, 4-CH Camera Interface for GigE PoE or USB 3.0



AIIS-1240

AIIS-1440



Features

- Intel® 3rd Core™ i7/i5/i3 CPU (LGA1155)
- AIIS-1240: 4-CH GbE PoE (Power over Ethernet)
 - Powered device auto detection and classification
 - IEEE 802.3af compliant, Supports IEEE 1588
 - Compatible with GigE Cameras
- AIIS-1440: 4-CH USB 3.0 with dedicated controller
 - Maximize the USB3.0 bandwidth for multi-cameras
 - Compatible with USB 3.0 Cameras
- Compact & thoughtful design
 - Volume less than 3 Liter
 - Isolated Digital I/O
 - Internal USB Type-A with lock design (Max. 49mm length)

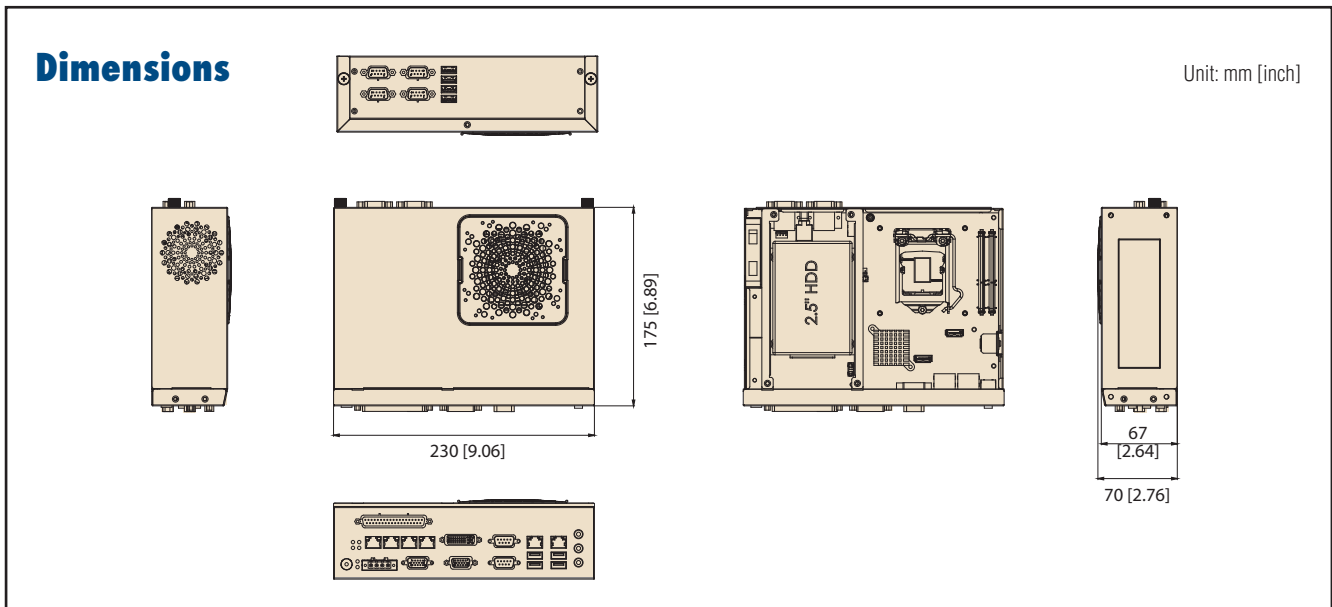
Specifications

Processor System	CPU	Core i7-3770	Core i5-3550S	Core i3-3220
	Core	4	4	2
	Base Frequency	3.4 GHz	3.0 GHz	3.3 GHz
	L3 Cache	8 MB	6 MB	3 MB
	Chipset	H61		
	BIOS	AMI 64Mb SPI Flash		
Memory	Technology	Dual Channel DDR3 1066/1333 MHz (Non ECC)		
	Max. Capacity	16 GB (8 GB per DIMM)		
	Socket	204-pin SO-DIMM x 2		
Graphics	Chipset Integrated	Integrated Intel HD Graphics		
Camera Interface PoE (AIIS-1240)	Controller	CH1 ~ CH4: Intel i210		
	Compliant	IEEE 802.3af		
	Power Output	15.4W per Channel		
Camera Interface USB 3.0 (AIIS-1440)	Controller	CH1 ~ CH4: µPD720202		
	Compliant	USB 3.0		
	Power Output	4.5W per Channel		
Ethernet	Interface	10/100/1000 Mbps		
	Controller	LAN1: Intel 82579V, LAN2: Intel 82583V		
Storage	Internal 2.5" HDD Bay	1 (max. 9.5 mm height)		
	CFast	1		
Front I/O	Display	VGA + DVI-D		
	USB	4 USB3.0		
	Serial	2 (RS-232, RS-422 or RS-485 via BIOS setting; RS-485 with auto-flow control)		
	Isolated DIO (Default)	4 DI and 4 DO Channels AIIS-DIO32-00A1E (16DI / 16 DO) High-voltage isolation up to 2,500 VDC on all channels Dry/wet contact support		
	Isolated IOD (Optional)	Supports 5 ~ 60 VDC isolated input channels High-sink current for isolated output channels (100mA max./Channel) Interrupt handling & Timer/counter capability		
Rear I/O	USB	4 USB2.0		
	Serial	4 RS-232		
Watchdog Timer	Output	System reset		
	Interval	Programmable 1 ~ 255 sec/min		
Power Requirement	Power Type	ATX		
	Power Input Voltage	19 V _{DC} ~ 24 V _{DC}		
	Minimum Power Input	DC 19-24V @ 8-6.3A		
	Power Adapter	AC to DC, DC24V/9.16A, 220W (Optional)		
Cooling	System Fan	1 (6cm / 27.7 CFM)		
Miscellaneous	LED Indicators	Power, HDD, temperature		
	Control	Power on/off switch		
Environment	Temperature	Operating 0 ~ 45° C (32 ~ 113° F)*	Non-operating -40 ~ 70° C (-40 ~ 158° F)	
	Humidity	10 ~ 95% @ 40° C, non-condensing		10 ~ 95% @ 60° C, non-condensing
	Vibration	1Grms, random, 5~500Hz, 3 axes, 1 hr/axis		2G, sine wave, 5~500Hz, 3 axes, 1 hr/axis
	Shock	10G, half sine wave, 11 ms duration		
Physical Characteristics	Dimension (W x H x D)	232 x 70 x 175 mm (9.06" x 2.76" x 6.89")		
	Weight	2.5 kg		

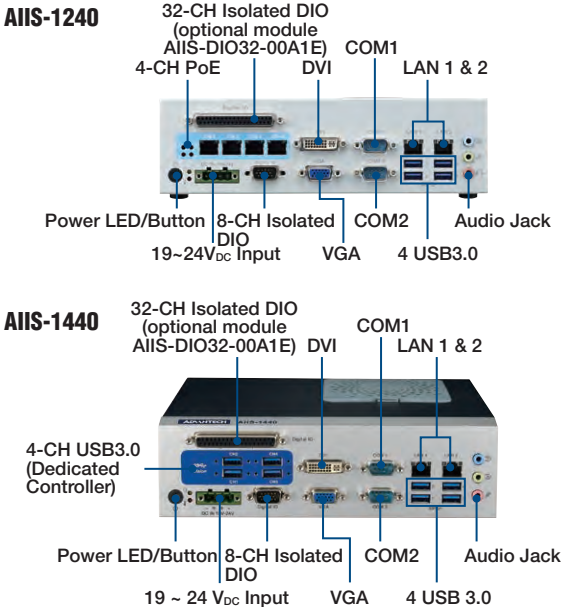
* Depend on CPU

AIIS-1240 (PoE) AIIS-1440 (USB 3.0)

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Front View



Rear View



Ordering Information

Part Number	Camera Interface	Display	USB 3.0/2.0	Isolated DIO	COM 232/422/485	COM 232
AIIS-1240-00A1E	4-CH GigE PoE	VGA+DVI-D	4 / 4	8-CH	2	4
AIIS-1440-00A1E	4-CH USB 3.0	VGA+DVI-D	4 / 4	8-CH	2	4

Packing List

Items	Part Number	Quantity
Bare System	AIIS-1240-00A1E (AIIS-1440-00A1E)	1
Startup Manual	2006S12400 (AIIS-1240)	1
	2006S14400 (AIIS-1440)	
Driver CD	206K124000 (AIIS-1240)	1
	206K144000 (AIIS-1440)	
Wallmount Bracket	1960014487T004	2
Rubber Foot	1990012452S000	4
CPU Cooler	1960060620N001	1
4-pin Phoenix DC power connector	1652003234	1

Optional Accessories

Part Number	Description
98R2124000E	DIN-Rail Bracket
1757004518-01	220Watt DC24 Adapter
1700023217-01	8-CH DIO Cable for Wiring Board
ADAM-3925-AE	8-CH DIO DB-25 Wiring Terminal, DIN-rail Mount
AIIS-DIO32-00A1E	Isolated DIO module, 32-CH, 9-pin USB interface
PCL-10137-1E	32-CH DIO Cable 1M for Wiring Terminal
ADAM-3937-BE	32-CH DIO DB-37 Wiring Terminal, DIN-rail Mount

Note: If there is no 19~24Vdc source in your facility, this adapter is required to power on the system

AIIS-5410P

Fanless Vision System, Intel® Core™ i7/ i5/i3, 4-CH GigE PoE Camera Interface, One PCI or PCIe Expansion Slot



Features

- Intel® 6th Core™ Skylake i7/5/i3 CPU (BGA1440)
 - 4-CH GbE PoE (Power over Ethernet)
 - Powered device auto detection and classification
 - Supports IEEE 1588 & IEEE 802.3af compliant
 - Compatible with GigE Cameras
- Compact & thoughtful design
 - Supports wide power input range 9V ~ 36V DC
 - Wide operating temperature range -20 ~ 60° C
 - Isolated Digital I/O
 - Internal USB dongle space with lock design
 - Desk/Wall mounting kit

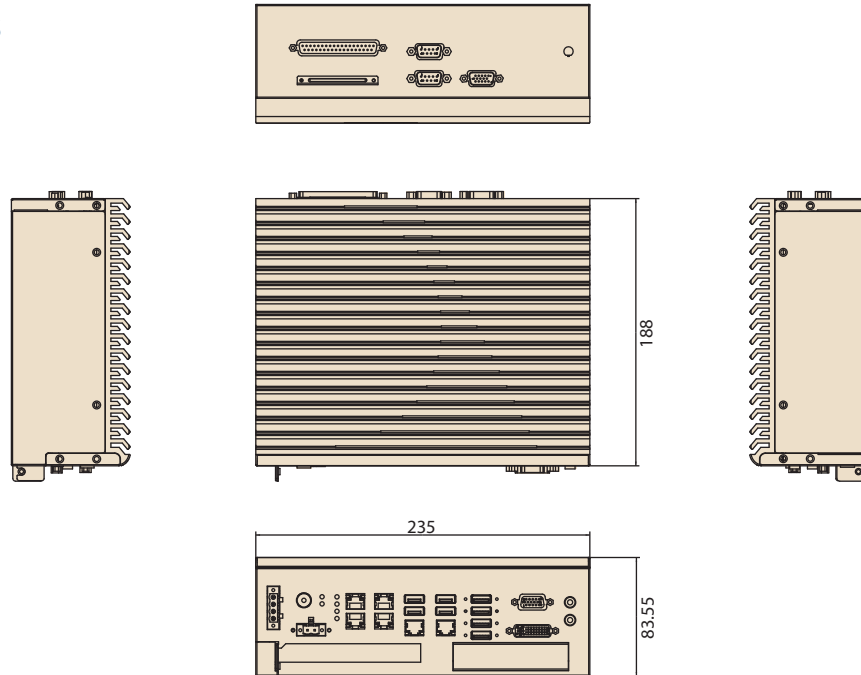
Specifications

		i7-6822EQ	i5-6442EQ	i3-6102E
Processor System	CPU	i7-6822EQ	i5-6442EQ	i3-6102E
	Core	4	4	2
	Base Frequency	2 GHz	1.9 GHz	1.9 GHz
	L3 Cache	8 MB	6MB	3MB
	Chipset	QM170		
	BIOS	AMI 64Mb SPI Flash		
Memory	Technology	Dual Channel DDR4 1866/2133 MHz (Non ECC)		
	Max. Capacity	32 GB (16 GB per DIMM)		
	Socket	260-pin SO-DIMM x 2		
Graphics	Chipset Integrated	Integrated Intel HD Graphics		
	Controller	CH1 ~ CH4: Intel i210		
PoE	Compliant	IEEE 802.3af		
	Power Output	15.4W per Channel		
	Internal 2.5" HDD Bay	2 (1 max. 9.5 mm height; 1 max. 15mm height)		
Storage	CFast	1		
	mSATA	1 (via mini PCIe socket)		
	PCI	1 (AIIS-5411P-U8A1E)		
Expansions	PCIe x8	1 (AIIS-5410P-U8A1E)		
	mini PCIe	1		
	iDoor	1		
Ethernet	Interface	10/100/1000 Mbps		
	Controller	2x Intel i210		
Front I/O	Display	VGA + DVI-D		
	USB	8 USB 3.0		
	Audio	Line-out, Mic-in		
Rear I/O	Serial	2 x RS-232/422/485 via BIOS setting; RS-485 with auto-flow control		
	Isolated DIO(Default)	4 DI and 4 DO Channels AIIS-DIO32-00A1E (16DI / 16 DO) High-voltage isolation up to 2,500 V _{DC} on all channels		
	Isolated IOD(Optional)	Dry/wet contact support Supports 5 ~ 60 VDC isolated input channels High-sink current for isolated output channels (100mA max./Channel) Interrupt handling & Timer/counter capability		
	Watchdog Timer	Output: System reset Interval: Programmable 1 ~ 255 sec/min		
Power Requirement	Power Type	ATX		
	Power Input Voltage	9 V _{DC} ~ 36 V _{DC}		
	Minimum Power Input	DC 19V @ 4.5A		
	Power Adapter	AC to DC, DC19V/7.89A, 150W (Optional)		
Miscellaneous	LED Indicators	Power, HDD, temperature		
	Control	Power on/off switch		
Environment		Operating	Non-operating	
	Temperature	HDD: 0 ~ 40° C (32 ~ 104° F) with 0.7m/s air flow SSD: -20 ~ 60° C (-4 ~ 140° F) with 0.7m/s air flow		-40 ~ 70° C (-40 ~ 158° F)
	Humidity	10 ~ 95% @ 40° C, non-condensing		10 ~ 95% @ 60° C, non-condensing
	Vibration	HDD: 1G, random, 5~500Hz, 3 axes, 1 hr/axis SSD: 3G, random, 5~500Hz, 3 axes, 1 hr/axis		2G, sine wave, 5~500Hz, 3 axes, 1 hr/axis
	Shock	HDD: 10G, half sine wave, 11 ms duration SSD: 50G, half sine wave, 11 ms duration		
Physical Characteristics	Dimension (W x H x D)	235 x 88 x 188 mm (9.25" x 3.46" x 7.4")		
	Weight	5 kg		

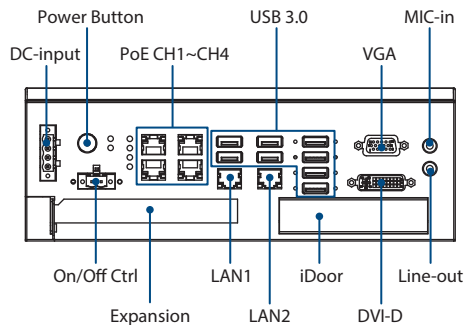
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Dimensions

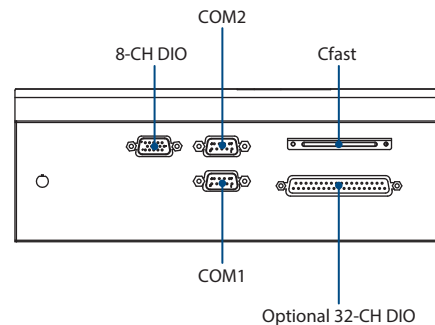
Unit: mm



Front View



Rear View



Ordering Information

Part Number	PoE Port	Display	USB 3.0	Isolated DIO	COM 232/422/485	Expansion Slot
AIIS-5410P-U8A1E	4-CH	VGA+DVI-D	8	8-CH	2	1 PCIe x8
AIIS-5411P-U8A1E	4-CH	VGA+DVI-D	8	8-CH	2	1 PCI

Packing List

Items	Part Number	Quantity
Bare System	AIIS-5410P-U8A1E (AIIS-5411P-U8A1E)	1
Startup Manual	TBD	1
Driver CD	TBD	1
Wallmount Bracket	TBD	2
Rubber Foot	1990012452S000	4
4-pin Phoenix DC power connector	1652003234	1
2-pin Phoenix DC power connector	1652005203	1

Optional Accessories

Part Number	Description
96PSA-A150W19V1	150Watt DC24 Adapter
TBD	220 Watt DC24 Adapter, New revision of 1757004518-01
AIIS-DIO32-00A1E	Isolated DIO module, 32-CH, 9-pin USB interface
PCL-10137-1E	32-CH DIO Cable 1M for Wiring Terminal
ADAM-3937-BE	32-CH DIO DB-37 Wiring Terminal, DIN-rail Mount
iDoor	iDoor modules except PoE module

Note: If there is no 9-36V_{DC} source in your facility, this adapter is required to power on the system

Quartz

0.3-10.0 Mega Pixel PoE Industrial Camera



Features

- Best price/performance ratio CCD and CMOS sensor options
- Resolution up to 10.0 MP
- 100 m cable length
- Ultra small form factor
- Built in 56 MB frame buffer
- Power over Ethernet

Introduction

The Advantech Quartz industrial camera series have between 0.3-10.0 mega pixel CCDs and include ultra-fast speeds and a high level of technology in a very small form factor. With the Quartz series, you can choose to use many of the most popular data interfaces in the machine vision market: the popular Gigabit Ethernet interface comes with a 100 meter cable length, and PoE (Power over Ethernet) to provide camera power and data via a single cable, and also offer separate input/output ports for triggering or flash control.

Specifications

Resolution	640 x 480, 1280 x 1024, 1600 x 1200, 2592 x 1944, 3856 x 2764
Frame Rate	120fps, 60fps, 60fps, 14fps, 10fps
Pixel Size (µm)	5.6 x 5.6, 5.3 x 5.3, 4.5 x 4.5, 2.2 x 2.2, 1.67 x 1.67
Sensor Size	1/4", 1/1.8", 1/1.8", 1/2.5", 1/2.3"
Color format	Mono
Image Buffer	56 MB
Interface	Gigabit Ethernet(Power over Ethernet)
Trigger Input	1 opto-isolated input line, can act as digital input
Exposure Output	1 opto-isolated output line, can act as digital output
Synchronization	External trigger, software trigger or free run
Dimensions	42 x 29 x 29 mm
Operating Temperature	0 ~ 50° C
O.S Support	Windows 32/64 bit
Power Requirements	Power over Ethernet (IEEE 802.3af), or +12V _{DC} (±10%)
Weight	90 g

Ordering Information

Part Number	Description
QCAM-GM0640—120CE	640 x 480 Mono
QCAM-GM1300—060CE	1280 x 1024 Mono
QCAM-GM1600—060CE	1600 x 1200 Mono
QCAM-GM2500—014CE	2592 x 1944 Mono
QCAM-GM3800—010CE	3856 x 2764 Mono

Modular IPCs

Selection Guide		4-2
AiMC-3201	Micro Computer, Intel® Core™ i7/i5/i3 CPU, H81, 2 Expansions, 250W 80Plus PSU	4-4
AiMC-3402	Front Access Micro Computer, Intel Core i7/i5/i3 CPU with 10 COM, 8 USB and 4 Expansion	4-6
AiMC-3421	Micro Computer, Intel® Core™ i7/i5/i3 CPU, H81, 4 Expansions 2PCI/2PCle, 300W 80Plus PSU	4-8
MIC-7500	Intel 6th Generation Core i Processor Compact Fanless System	4-10
i-Module for MIC-7 Series		4-12
PCE-USB4/8	PCI Express x4, 4/8 Ports USB3.0 Expansion card	4-13
ARK-5261	Intel® Celeron® Processor J1900 Fanless Embedded BOX PC with PCI/PCle Expansion and Dual Mobile HDDs/SSDs	4-14
ARK-5420	Intel® 3rd Generation Core™ i Processor Fanless System with PCIe4 & PCI Slot	4-16

To view all of Advantech's Modular IPC, please visit www.advantech.com/products.



Selection Guide



Model Name		AiMC-3201	AiMC-3402	AiMC-3421
Form Factor		Compact	Compact	Compact
Processor System	Chipset	H81	H61	H81
	CPU	Intel® core i7/ i5/ i3 LGA1150 Max. 3.2 GHz	Intel Core i7-3770/i5-3550S/i3-3220/ G1620/G2120	Intel® core i7/ i5/ i3 LGA1150 Max. 3.2 GHz
	Core	Max. 4	Max. 4	Max. 4
	Cache	Max. 8 MB	Max. 8 MB	Max. 8 MB
	Memory	DDR3 1033/1333/1600 MHz Max. 16 GB	DDR3 1333/1600 MHz Max. 16 GB	DDR3 1033/1333/1600 MHz Max. 16 GB
Graphic	Controller	Intel® HD Graphics	Intel HD Graphics	Intel® HD Graphics
	VRAM	Shared system memory is subject to OS	Shared system memory is subject to OS	Shared system memory is subject to OS
Expansion	PCIE x16	1*	1	1
	PCIE x8	-	-	-
	PCIE x4	1	-	-
	PCIE x1	-	1	1
	PCI	-	2	2
HDD Bay	3.5"	-	-	1 Internal
	2.5"	2 Internal	2 x 3.5" HDD bay (internal)	-
Ethernet	Interface	10/100/1000 Mbps	10/100/1000 Mbps	10/100/1000 Mbps
	Controller	LAN1: Intel I217V LAN2: Intel I211AT	LAN1: Realtek 8111E LAN2: Realtek 8111E	LAN1: Intel I217V; LAN2: Intel I211AT
PoE	Interface	-	-	-
	Controller	-	-	-
Front I/O	Display	VGA+DVI	VGA + VGA	-
	LAN	2	2	-
	USB	3 USB2.0	8 USB 2.0	2 USB2.0
	COM	2 RS-232	10 RS-232	-
	PS/2	1	2	-
	Audio	-	2 (Line-out, Mic-in)	-
Rear I/O	Display	-	-	VGA
	LAN	-	-	2
	USB	-	-	1 USB2.0
	COM	-	-	2 RS-232
	PS/2	-	-	1
	Audio	-	-	-
Watchdog timer	Output	System reset	System reset	System reset
	Interval	Programmable 1 ~ 255 sec/min	Programmable 1 ~ 255 sec/min	Programmable 1 ~ 255 sec/min
Power Supply	Output Wattage	250W	250W	250W
	Input Range	AC 100 ~ 240 V	AC 100 ~ 240 V	AC 100 ~ 240 V
Cooling	System Fan	2 (6 cm / 27.7 CFM, each)	1 (8cm / 45.68 CFM)	1 (9 cm / 53 CFM)
	Air Filter	Yes	optional module	Yes
Physical Characteristics	Dimensions (W x H x D)	232 x 90 x 232 mm (9.1" x 3.5" x 9.1")	148 x 330 x 300 mm (5.82" x 12.99" x 11.8")	150 x 222 x 270 mm (5.9" x 8.7" x 10.6")
	Weight	4.5 kg (9.9 lb)	6.3 kg (13.86 lb)	5 kg (11 lb)
Page		4-4	4-6	4-8

* ARK-5261 has 2 SKU. One is 2xPCI+ 1xPCIEx1 and the other is 3xPCI+ 1xmini-PCI-E



MIC-7500	ARK-5261	ARK-5420
Compact	Compact	Compact
QM170	-	HM76
Intel Skylake-H Core i7/i5/i3	Intel® Baytrail Celeron J1900 Max. 2.41GHz	Intel® core i7/i5/Celeron Max. 2.7 GHz
Max.4	Max. 4	Max. 2
Max. 8 MB	Max. 2 MB	Max. 4 MB
DDR4-2133MHz Max 32GB	DDR3L-1333 MHz Max.8GB	On-board 4Gb Memory + 1x DDR3 1333/1600MHz Max. 12GB
Intel® HD Graphics 5600, support Direct X11.2	Intel® HD Graphics	Intel® HD Graphics
Shared system memory is subject to OS	Shared System Memory up to 224 MB SDRAM	Shared system memory is subject to OS
Support by i-Module	-	-
	-	-
	-	1xPCIEx4
	1xPCIEx1	-
	2xPCI or 3xPCI*	1xPCI
2	1xMini-PCIE (Full size)* (Only support by 3xPCI sku)	1xMini-PCIE (Full size)
-	-	-
1 x 2.5' HDD/1 x m-SATA/1 x CF	2 swappable HDD tray	1 x Swappable HDD tray
10/100/1000 Mbps	10/100/1000 Mbps	10/100/1000 Mbps
LAN1: Intel i219LM LAN2: Intel i210AT	LAN1: Intel i211 LAN2: Intel i211	LAN1: Intel I210-AT LAN2: Intel I210-AT
-	-	-
-	-	-
DVI +VGA	VGA	VGA+HDMI
2	2	2
8 USB3.0	1 x USB3.0/5 x USB2.0	2xUSB3.0/3xUSB2.0
2 RS-232/422/485	4 RS-232/422/485 or 4x RS-422/485 isolatoin	2 RS-232/422/485
-	1	-
2 (Line-out, Mic-in)	2 (Line-Out, Mic-in)	2 (Line-Out, Mic-in)
-	-	-
-	-	-
-	-	-
-	-	-
-	-	-
System reset	System reset	System reset
Programmable 1~ 255 sec/min	Programmable 1~255 sec/min	Programmable 1~255 sec/min
-	-	-
DC 9~36V	DC 9~30V	DC 9~36V
-	Fanless	Fanless
-	-	-
74 x 192 x 230 mm (2.93" x 7.56" x 9.06")	137 x 189 x 221 mm (5.39" x 7.44" x 8.70")	253 x 129 x 240 mm (9.96" x 5.07" x 9.44")
2.8 kg (6.17 lb)	4.2 kg (9.24 lb)	4.5kg (9.92 lb)
4-10	4-14	4-16

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- Intelligent Transportation Platforms 2
- Intelligent Inspection Systems 3
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- Server-grade IPCs 5
- Industrial Storages 6
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- GPU Servers 8
- Industrial Motherboards 9
- Slot SBC & Passive Backplanes 10
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AiMC-3201

Micro Computer, Intel® Core™ i7/i5/i3 CPU, H81, 2 Expansions, 250W 80Plus PSU



Features

- Intel® H81 Platform
 - Intel® 4th gen Core™ i7/i5/i3 CPU (LGA1150)
 - One PCIe x16* & one PCIe x4 Expansion Slots
- Compact, well-thought-out design
 - Two internal, shock-resistant, 2.5" SATA HDD bays
 - Front accessible I/O: VGA+DVI-D, 2 GbE LAN, 3 USB2.0, 2 COM
 - Easy-to-maintain system fan and reusable filter
 - Alert to chassis intrusion
- Energy Savings
 - 250W 80Plus PSU

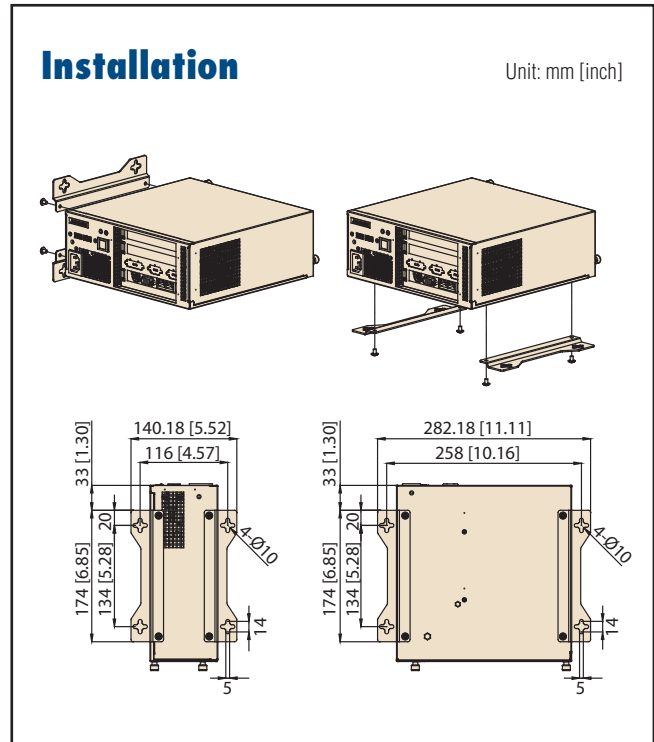
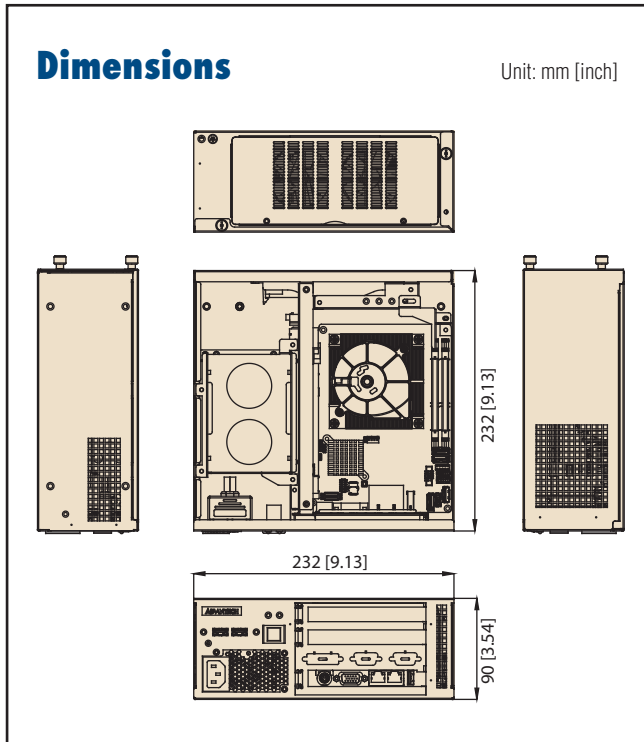
* PCI interface for AIMC-3201-01 model



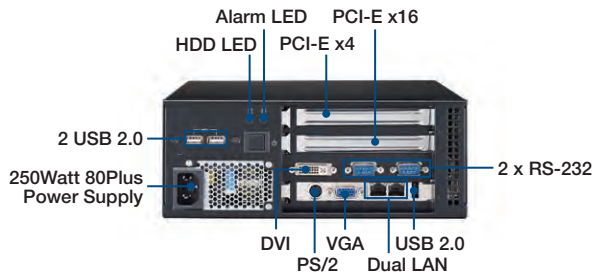
Specifications

Processor System 1.5U CPU Cooler 1 Expansion slot 0 ~ 40° C	CPU	i7-4790S	i5-4590S	i3-4360					
	Core	4/8	4/4	4/4					
	Base Frequency	3.2 GHz	3.0 GHz	3.7 GHz					
	L3 Cache	8 MB	6 MB	4 MB					
	Chipset	H81							
Processor System 1U CPU Cooler 2 Expansion slots 0 ~ 45° C	BIOS	AMI 128Mb SPI Flash							
	CPU	i7-4770TE	i5-4590T	i3-4350T	i3-4340TE	G3420	G3420TE	G1820	G1820TE
	Core	4/8	4/4	2/4	2/2	2/2	2/2	2/2	
	Base Frequency	2.3 GHz	2.0 GHz	3.1 GHz	2.6 GHz	3.2 GHz	2.3 GHz	2.7 GHz	2.2 GHz
	L3 Cache	8 MB	6 MB	4 MB	4 MB	3 MB	3 MB	2 MB	2 MB
Memory	Chipset	H81							
	BIOS	AMI 128Mb SPI Flash							
	Technology	Dual Channel DDR3 1066/1333/1600 MHz (Non ECC)							
Expansion slot (AIMC-3201-00)	Max. Capacity	16 GB (8 GB per DIMM)							
	Socket	204-pin SO-DIMM x 2							
Expansion slot (AIMC-3201-01)	Graphics	Integrated Intel HD Graphics							
	Chipset Integrated	Integrated Intel HD Graphics							
Ethernet	Expansion slot	PCI Express x16 1 (Lower-layer slot); Full-Height: 107 mm / Length: Max. 180 mm; Support 1U CPU cooler only							
	Controller	PCI Express x4 1 (Upper-layer slot); Full-Height: 107 mm / Length: Max. 180 mm							
SATA	Expansion slot	PCI Express x4 1 (Lower-layer slot); Full-Height: 107 mm / Length: Max. 180 mm; Support 1U CPU cooler only							
	Controller	PCI 1 (Upper-layer slot); Full-Height: 107 mm / Length: Max. 180 mm							
I/O Interface	Interface	10/100/1000 Mbps							
	Controller	LAN1: Intel I217V, LAN2: Intel I211AT							
	Max Data Transfer Rate	600 MB/s (SATA 3.0)							
	HDD Bay	2 internal 2.5" (Both: max. 15 mm height)							
	Display	VGA+DVI-D (19200 x 1200 pixel @ 60Hz)							
Watchdog Timer	USB	4 USB2.0 (3 in front, 1 internal type-A for software key)							
	Serial	2 RS-232							
	PS/2	1							
	Output	System reset							
Power Supply	Interval	Programmable 1 ~ 255 sec/min							
	Output Rating	AC 250W, ATX							
Cooling	Input Voltage	100 V _{AC} ~ 240 V _{AC}							
	System Fan	2 (6cm / 27.7 CFM)							
Miscellaneous	Air Filter	Yes							
	Chassis intrusion alert	Yes							
	LED Indicators	Power, HDD, temperature							
Environment	Control	Power on/off switch							
	Temperature	Operating 0 ~ 40° C (32 ~ 104° F)				Non-operating -20 ~ 60° C (-4 ~ 140° F)			
	Humidity	10 ~ 85% @ 40° C, non-condensing							
	Vibration	1Grms, random, 5~500Hz, 3 axes, 1 hr/axis				2Grms, sine wave, 5~500Hz, 3 axes, 1 hr/axis			
	Shock	10G, half sine wave, 11 ms duration							
	EMC	CE/FCC, CCC, BSMI							
	Safety	UL/CB, CCC, BSMI							
Physical Characteristics	Dimension (W x H x D)	232 x 90 x 232 mm							
	Weight	4.5 kg							

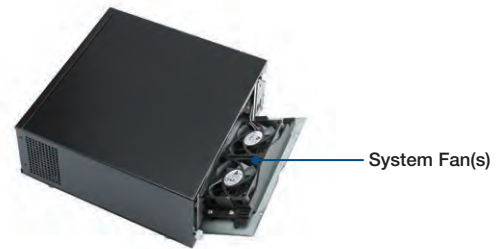
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Front View



Rear Cover for Replacing Fans



Ordering information

Part Number	VGA	DVI	US	GbE	RS-232	PS/2	PSU	PCIe Exp	PCI Exp	Cooler
AIMC-3201-00A1E	1	1	3	2	2	1	250W	2 (x16/x4)	-	1.5U/1U
AIMC-3201-01A1E	1	1	3	2	2	1	250W	2 (x16)	1	1.5U/1U

Packing List

Items	Part Number	Quantity
AIMC-3201	Bare System AIMC-3201-0xA1E	1
Driver CD	2066302800	1
Four-port USB Cable	1700014398-11	1
UL; C-UL 3PIN AC power code	1702002600	1
4 port USB 2.0 cable wit breaket	1700014398-11	1
2 port USB 3.0 cable wit breaket	1700020277-01	1
Startup manual (CHT)	2001320130	1

Optional Accessories

Part Number	Description
1960053207N001	1.5U Cooler for All CPUs; Support 1 Expansion slot
1960053065N001	1U Cooler for CPU iX-XXXXTX and GXXXXXX; Support 2 Expansion slots
PCIE-1674PC-AE	4-port PCI express GbE PoE card
PCIE-1672PC-AE	2-port PCI express GbE PoE card
PCA-COM485-00A1E	4-port RS-485/422 Module by LPC
PCA-COM232-00A1E	4-port RS-232 Module by LPC
PCA-AUDIO-HDA1E	Audio extension module with HD audio interface
PCA-TPM-00A1E	Trusted platform module compliant with TCG 1.2

Note: Purchasing proprietary CPU cooler from Advantech is a must. Other brands' CPU coolers are NOT compatible.

AiMC-3402

Front Access Micro Computer, Intel Core i7/i5/i3 CPU with 10 COM, 8 USB and 4 Expansion



Features

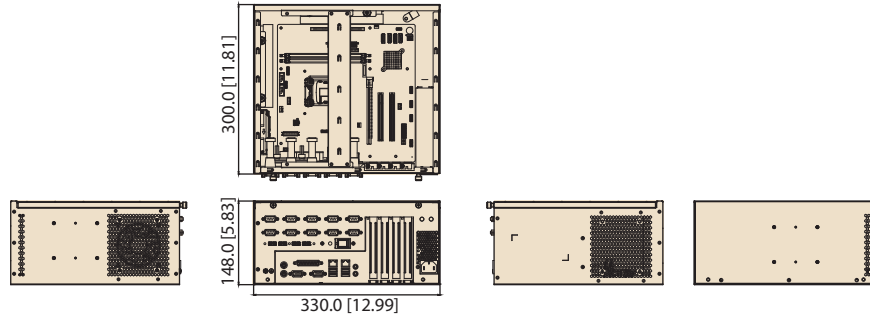
- Intel® H61 Platform
 - Intel® Core™ i7/i5/i3 CPU (LGA1155)
 - One PCIe x 16 & one PCIe x1 slot
- Compact & Rich I/O Configuration
 - Two internal 3.5" SATA HDD bays
 - 2 VGA, 2 GbE LAN, 8 USB 2.0, 10 COM
 - Optional filter module for dust proof
 - Optional bracket module support up to 10 USB and volume knob
- Energy Savings
 - 250W 80 PLUS PSU

Specifications

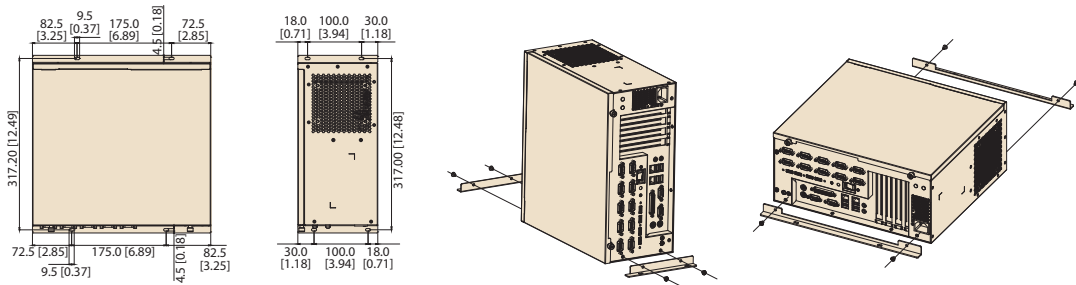
Processor System	CPU	Core i7-3770	Core i5-3550S	Core i3-3220	G2120	G1620
	Core	4	4	2	2	2
	Base Frequency	3.4 GHz	3.0 GHz	3.3 GHz	3.10GHz	2.70GHz
	L3 Cache	8 MB	6 MB	3 MB	3MB	2MB
	Chipset	H61				
BIOS	AMI 64Mb SPI Flash					
Memory	Technology	Dual Channel DDR3 1600/1333 MHz (Non ECC)				
	Max. Capacity	16 GB (8 GB per DIMM)				
	Socket	240-pin SO-DIMM x 2				
Graphics	Chipset Integrated	Integrated Intel HD Graphics				
Expansion slot	PCI Express x16	1				
	PCI Express x1	1				
Ethernet	Interface	10/100/1000 Mbps				
	Controller	2 x Realtek 8111E				
Drive bay	3.5" HDD (internal)	2				
	Slim ODD	1 (AiMC-3402D)				
I/O Interface	Display	2 VGA				
	USB	8 USB 2.0				
	Serial	10 COM				
	PS/2	2				
Power Supply	Output Rating	AC 250W, ATX				
	Input Voltage	100 V _{AC} ~ 240 V _{AC}				
Cooling	System Fan	1 (8cm / 45.68CFM)				
	Air Filter	Optional module				
Miscellaneous	LED Indicators	Power, HDD, Temp, Fan				
	Control	Power on/off switch, Reset button				
Environment	Temperature	Operating 0 ~ 40° C (32 ~ 104° F)		Non-operating -20 ~ 60° C (-4 ~ 140° F)		
	Humidity	95% @ 40° C, non-condensing		95% @ 60° C, non-condensing		
	Vibration	1Grms, random, 5~500Hz, 3 axes, 1 hr/axis		2Grms, sine wave, 5~500Hz, 3 axes, 1 hr/axis		
	Shock	10G, half sine wave, 11 ms duration				
	EMC	CE/FCC, CCC				
	Safety	CCC				
Physical Characteristics	Dimension (WxHxD)	148 x 330 x 300 mm				
	Weight	6.3 kg				

Dimensions

Unit: mm [inch]

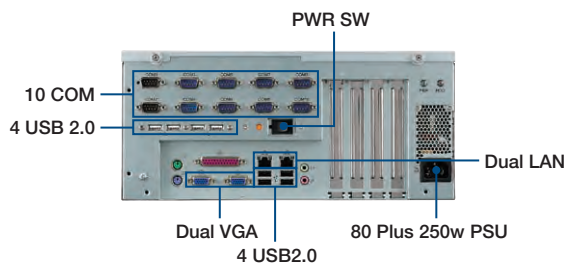


Installation



Front View

AiMC-3402-25A1E



AiMC-3402D-25A1E



Ordering information

Part No.	VGA	USB	GbE	RS-232	LPT	ODD	PSU	PCIe Exp	PCI Exp
AiMC-3402-25A1E	2	8*	2	10	1	NA	250W	1x16 + 1x1	2
AiMC-3402D-25A1E	2	8*	2	10	1	1	250W	1x16 + 1x1	2

* USB could be extended to 10 ports with optional module

Optional Accessory

Part Number	Description
9661340200E	Filter Module
9661340201E	2 USB and volume knob bracket module

CPU Cooler Option

Part Number	Description
1960047669N001	LGA1156 S-95W 12V0.4A 75 x 75 x 77 mm

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- Industrial Ethernet Solutions **14**

AiMC-3421

Micro Computer, Intel® Core™ i7/i5/i3 CPU, H81, 4 Expansions 2PCI/2PCle, 300W 80Plus PSU



Features

- Intel® H81 Platform
 - Intel® 4th gen Core™ i7/i5/i3 CPU (LGA1150)
 - Two PCIe (x16/x1) & two PCI Expansion Slots
- Compact & Rich I/O Configuration
 - One internal 3.5" SATA HDD bays with shock-resistant
 - Optional front removable 2.5" HDD bay
 - VGA, 2 GbE LAN, 4 USB2.0, 2 COM
 - Easy-to-maintain system fan and reusable filter
- Energy Savings
 - 300W 80Plus PSU

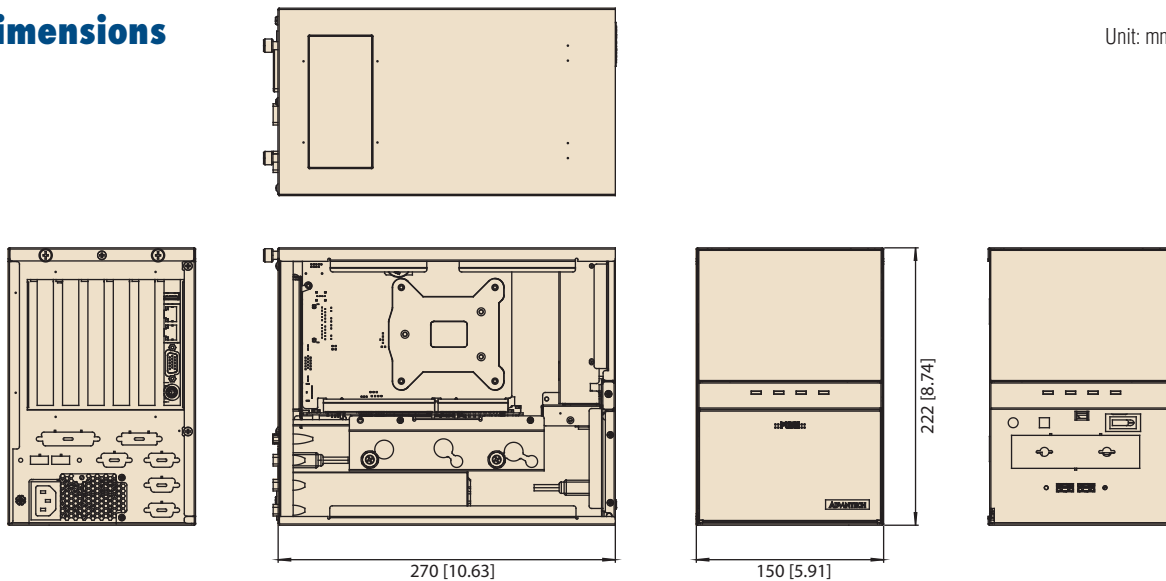
Specifications

Processor System 1.5U CPU Cooler 3 Expansion slot 0 ~ 40° C	CPU	i7-4790S	i5-4590S	i3-4360						
	Core	4/8	4/4	4/4						
	Base Frequency	3.2 GHz	3.0 GHz	3.7 GHz						
	L3 Cache	8 MB	6 MB	4 MB						
	Chipset	H81								
	BIOS	AMI 128Mb SPI Flash								
Processor System 1U CPU Cooler 4 Expansion slots 0 ~ 45° C	CPU	i7-4770TE	i5-4590T	i3-4350T	i3-4340TE	G3420	G3420TE	G1820	G1820TE	
	Core	4/8	4/4	2/4	2/4	2/2	2/2	2/2	2/2	
	Base Frequency	2.3 GHz	2.0 GHz	3.1 GHz	2.6 GHz	3.2 GHz	2.3 GHz	2.7 GHz	2.2 GHz	
	L3 Cache	8 MB	6 MB	4 MB	4 MB	3 MB	3 MB	2 MB	2 MB	
	Chipset	H81								
	BIOS	AMI 128Mb SPI Flash								
Memory	Technology	Dual Channel DDR3 1066/1333/1600 MHz (Non ECC)								
	Max. Capacity	16 GB (8 GB per DIMM)								
	Socket	204-pin SO-DIMM x 2								
Graphics	Chipset Integrated	Integrated Intel HD Graphics								
Expansion slot	PCI Express x16	1; Full-Height: 107 mm / Length: Max. 196 mm								
	PCI Express x1	1; Full-Height: 107 mm / Length: Max. 196 mm								
	PCI	2; Full-Height: 107 mm / Length: Max. 196 mm; When using 2 PCI slots, only supports 1U CPU Cooler								
Ethernet	Interface	10/100/1000 Mbps								
	Controller	LAN1: Intel I217V, LAN2: Intel I211AT								
SATA	Max Data Transfer Rate	600 MB/s (SATA 3.0)								
	HDD Bay	1 internal 3.5"								
I/O Interface	Display	VGA								
	USB	4 (USB 2.0 compliant, 2 in front, 1 in rear, 1 internal type-A for software key)								
	Serial	2 RS-232								
	PS/2	1								
	Watchdog Timer	Output	System reset							
Power Supply	Output Rating	AC 300W, ATX								
	Input Voltage	100 V _{AC} ~ 240 V _{AC}								
Cooling	System Fan	1 (9cm / 53 CFM)								
	Air Filter	Yes								
Miscellaneous	LED Indicators	Power, HDD, Temp, Fan								
	Control	Power on/off switch, Reset button								
Environment	Temperature	Operating 0 ~ 40° C (32 ~ 104° F)					Non-operating -20 ~ 60° C (-4 ~ 140° F)			
	Humidity	10 ~ 85% @ 40° C, non-condensing								
	Vibration	1Grms, random, 5-500Hz, 3 axes, 1 hr/axis					2Grms, sine wave, 5-500Hz, 3 axes, 1 hr/axis			
	Shock	10G, half sine wave, 11 ms duration								
	EMC	CE/FCC, CCC, BSMI								
	Safety	UL/CB, CCC, BSMI								
	Physical Characteristics	Dimension (WxHxD)	150 x 222 x 270 mm							
Weight		5 kg								

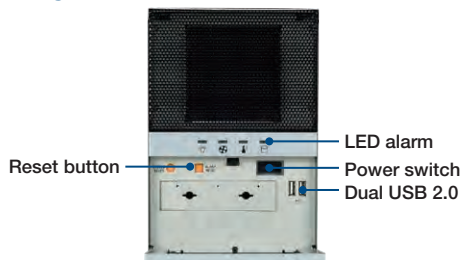
Intelligent Video and IoT Sensors	1
Intelligent Transportation Platforms	2
Intelligent Inspection Systems	3
Modular IPCs	4
Server-grade IPCs	5
Industrial Storages	6
Video Wall Controllers	7
GPU Servers	8
Industrial Motherboards	9
Slot SBC & Passive Backplanes	10
Compact PCI Platforms	11
Industrial Chassis	12
Industrial Computer Peripherals	13
Industrial Ethernet Solutions	14

Dimensions

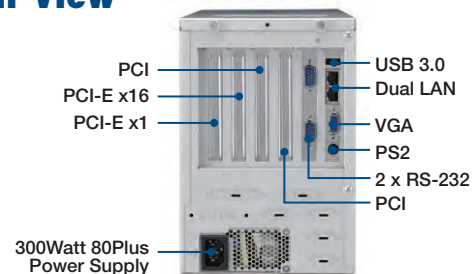
Unit: mm [inch]



Front View



Rear View



IDT-3120E



Optional mobile rack for dual 2.5" SATA HDDs with a 3.5" drive bay occupancy

Ordering Information

Model name	Power Supply
AIMC-3421-00A1E	Micro Computer, Intel® Core™ i7/i5/i3 CPU, H81, 4 Expansions 2PCI/2PCle, 300W 80Plus PSU

Packing List

Items	Part Number	Quantity
AIMC-3421 Bare System	AIMC-3421-00A1E	1
Driver CD	2066302800	1
Four-port USB Cable	1700014398-11	1
LPT Cable	1700002223	1
MOUNTING BRACKET	1960048518N001	1
Rubber Foot	1990012452S000	4

Optional Accessories

Part Number	Description
1960053207N001	1.5U Cooler for All CPUs; Support 3 Expansion slots
1960053065N001	1U Cooler for CPU iX-XXXXTX and GXXXXXX; Support 4 Expansion slots
PCIE-1674PC-AE	4-port PCI express GbE PoE card
PCIE-1672PC-AE	2-port PCI express GbE PoE card
1700021831-01	DP to DVI-D cable w/ BKT
IDT-3120E	Removable dual 2.5"HDD tray
PCA-COM485-00A1E	4-port RS-485/422 Module by LPC
PCA-COM232-00A1E	4-port RS-232 Module by LPC
PCA-AUDIO-HDA1E	Audio extension module with HD audio interface
PCA-TPM-00A1E	Trusted platform module compliant with TCG 1.2

Note: Purchasing proprietary CPU cooler from Advantech is a must. Other brands' CPU coolers are NOT compatible.

MIC-7500

Intel 6th Generation Core i Processor Compact Fanless System



Features

- Support Intel 6th Generation Core i7/i5/i3 BGA type CPU with Intel QM170 PCH
- Support I-Module expansion module
- Support VGA & DVI
- Support 1 x 2.5" HDD/1 x CFast slot/1x mSATA
- Support 2 Giga LAN and 8x USB 3.0
- Support 2 x RS-232/422/485 Serial & 4 x RS232 (Expansion by cable)
- Support Isolation COM module & 32bit GPIO module
- Supports wide power range of 9 ~ 36V DC input
- Support wide range operating Temperature of -20 ~ 60° C
- Supports SUSIAccess and Embedded Software APIs

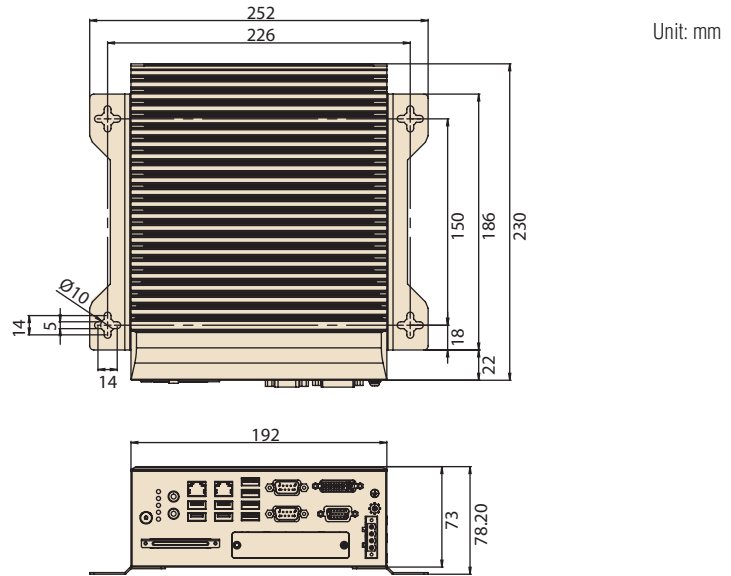


Specifications

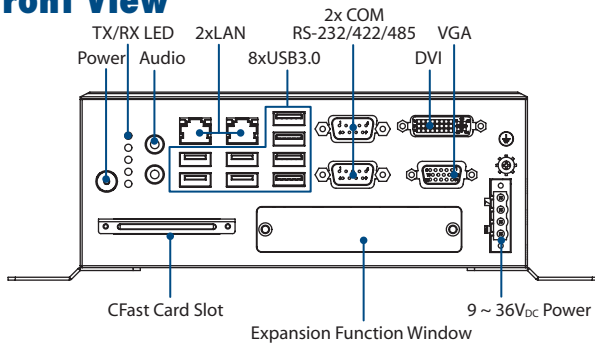


System Chipset	CPU	i7-6822EQ	Intel i5-6440EQ	Intel i3-6110EQ
	Max Speed	2.0 GHz	2.7 GHz	1.9 GHz
	L3 Cache	8MB	6MB	3MB
	Chipset	QM170		
	BIOS	AMI SPI 64 Mb		
Memory	Technology	Dual Channel DDR4-2133MHz		
	Socket	2x 204 pin DDR4 SO-DIMM socket, up to 16GB per socket Note: One DDR4 SO-DIMM least size is 4GB		
	Maximum Capacity	Build-in 4GB memory, update to 32GB		
Display	Chipset	Intel® HD Graphics 5600, support Direct X11.2		
	VGA	1 x DB15, max resolution up to 2048 x 1536		
	DVI	1 x DVI, max resolution up to 1920 x 1200 @ 30Mhz (2nd DVI connector expanded by cable, option)		
	Display Option	Support third independent display		
Ethernet	Controller	LAN1: Intel i219LM; LAN2: Intel i210, support Wake-on-LAN		
	Interface	2 x RJ-45		
Storage	HDD	Support 1 x 2.5" HDD		
	CFast	Support 1 x CFast slot		
	SSD	1 x internal mSATA (Mini-PCIE interface)		
I/O	USB	8 x USB 3.0 + 1 x Internal USB2.0		
	Serial Port	2 x DB9, RS232/422/485 with automatic flow control, 4 x RS-232 (Expanded by Cable, Option)		
	Audio	2 (1 x Line-Out, 1 x Mic-in)		
Expansion Slot	Expansion module	Support I-Module (MIC-75M13/MIC-75M40/MIC-75M20/MIC-75S20)		
	Mini-PCle	1 x Mini-PCle Support USIM socket, 1xMini-PCle support mSATA only		
LED & Button	LED	TX 1&2; RX 1&2; Storage x 1		
	Button	Power on/off Switch x 1		
Power	Power Type	ATX/AT		
	Power Input Voltage	9 ~ 36V _{DC}		
Watchdog Timer	Output	System reset		
	Interval	Programmable 1~255 sec/min		
Environment	Temperature	Operating (With Industrial SSD) -20 ~ 60° C with 0.7m/S air flow	Operating (with HDD) 0 ~ 40° C	Non-Operating -40 ~ 85° C
	Humidity	95% @ 40° C (non-condensing)		
	Vibration	With SSD: 2 Grms @ 5 ~ 500 Hz, random, 1 hr/axis With 2.5" HDD: 0.5 Grms @ 5 ~ 500 Hz, random, 1 hr/axis		
	Shock	With SSD: 20G, IEC-68-2-27, half-sine wave, 11 ms duration With 2.5" HDD: 10G, IEC-68-2-27, half-sine wave, 11 ms duration		
Mechanical Features	Dimension (W x H x D)	74 x 192 x 230 mm		
	Install	Desktop/Wall-mounting		
Certifications	EMC	CE/FCC Class A, CCC, BSMI		
	Safety	UL,CCC,BSMI		

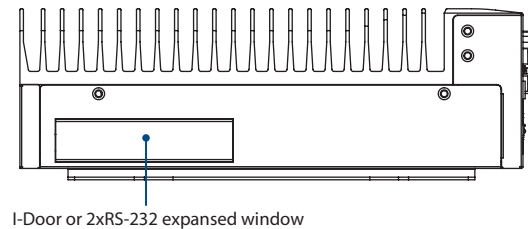
Dimensions



Front View



Left View



Ordering Information

Part Number	CPU	VGA	DVI	2.5" HDD	CF	USB3.0	GbE	COM	PCIe/PCI Exp	Power
MIC-7500-U0A1E	i7-6822EQ	1	1	1	1	8	2	2	i-Module (optional)	DC9 ~ 36V
MIC-7500-U7A1E	i5-6440EQ	1	1	1	1	8	2	2	i-Module (optional)	DC9 ~ 36V
MIC-7500-S9A1E	i3-6110EQ	1	1	1	1	8	2	2	i-Module (optional)	DC9 ~ 36V

Packing List

Part No.	Description
-	MIC-7500
-	CD-ROM for MIC-7500 V1.0
-	MIC-7500 Startup manual (English+Simple Chinese) V1.0
1652003234	1 x 4pin Phoenix Power Connector
1960070543N001	2 x Mounting Bracket
1700019445	1 x SATA Cable
1700024372-01	1 x SATA Power Cable

Optional Accessory

Part No.	Description
96PSA-A150W19V1	ADP A/D 100-240V 150W 19V
96PSA-A120W24T2	ADP A/D 100-240V 120W 24V
1702002600	Power Cord 3P UL/CSA(USA) 125V 10A 1.83M 180D
1700022940-01	Power cord PSE 7A 125V 3P 3m DAC-ST01
1702002605	Power cord 2P FRANCE 10A/16A 220V 1.83M 90D
i-Door module	Support i-Door module except PoE

Optional i-Module

Feature	Model name and specification
4-slot Expansion Module	MIC-75M40 (4x PCIe slots) MIC-75M13 (1x PCIe + 3x PCI slots)
2-slot Expansion Module	MIC-75M20 (2x PCIe slots) MIC-75M11 (1x PCIe + 1x PCI slots)
2-slot Expansion and Storage Module	MIC-75S20 (2x PCIe slots + 2x 2.5" hot-swap HDDs)

*optional i-Module details as next page

Embedded OS

Part Number	Description
TBD	img WE8S MIC-7500 x64 V6.5.2 10MUI; SAP
TBD	img WES7P MIC-7500 x64 V5.6.6 10MUI ;SAP

- Intelligent Video and IoT Sensors 1
- Intelligent Transportation Platforms 2
- Intelligent Inspection Systems 3
- Modular IPCs 4
- Server-grade IPCs 5
- Industrial Storages 6
- Video Wall Controllers 7
- GPU Servers 8
- Industrial Motherboards 9
- Slot SBC & Passive Backplanes 10
- CompactPCI Platforms 11
- Industrial Chassis 12
- Industrial Computer Peripherals 13
- Industrial Ethernet Solutions 14

i-Module for MIC-7 Series

Compatible with MIC-7 Series System Fan-Less System

4 Slot Expansion Module

MIC-75M40

- 1x PCIe8
- 3x PCIe4
- 1x SATA (2x 2.5" HDD bay)
- Support 1x 8cm FAN (Optional)
- Dimension (W x H x G): 90 x 192 x 230 mm

Note:

- 1: If your Expansion card power performance is total over 45W, please add a fan for thermal issue.
- 2: MIC-75M40 does not support MIC-73 series system.



MIC-75M13

- 1x PCIe16
- 3x PCI
- 1x SATA (2x 2.5" HDD bay)
- Support 1x 8cm FAN (Optional)
- Dimension (W x H x G): 90 x 192 x 230 mm

Note:

- 1: If your Expansion card power performance is total over 45W, please add a fan for thermal issue.
- 2: For MIC-73 series products (ATOM CPU), only support 1 xPCIEx4 signal.



2 Slot Expansion Module

MIC-75M20

- 1x PCIe16
- 1x PCIe4
- 45 x 192 x 230 mm
- Support 2x 4cm FAN (Optional)
- Dimension (W x H x G): 45 x 192 x 230 mm

Note:

- 1: If your Expansion card power performance is total over 45W, please add a fan for thermal issue.
- 2: MIC-75M20 does not support MIC-73 series system.



MIC-75M11

- 1x PCIe16
- 1x PCI
- 45 x 192 x 230 mm
- Support 2x 4cm FAN (Optional)
- Dimension (W x H x G): 45 x 192 x 230 mm

Note:

- 1: If your Expansion card power performance is total over 45W, please add a fan for thermal issue.
- 2: For MIC-73 series products (ATOM CPU), only support 1 xPCIEx4 signal.



MIC-75S20

- 1x PCIe16
- 1x PCIe4
- 2x Hot Swappable HDD tray
- Support 1x 8cm FAN (Optional)
- Dimension (W x H x G): 90 x 192 x 230 mm

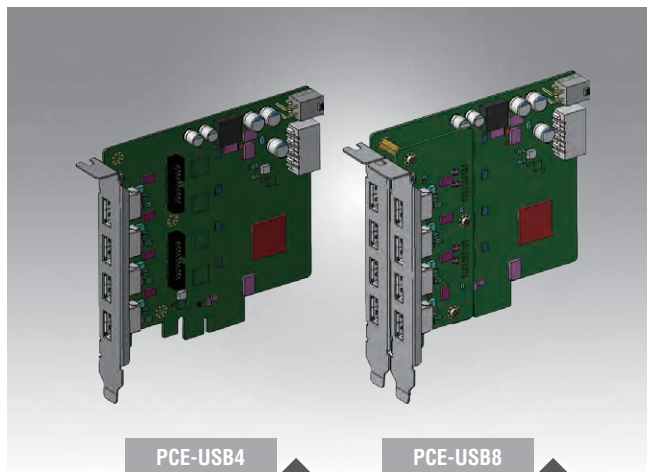
Note:

- 1: If your system is not using SSD, please add a fan for thermal issue.
- 2: MIC-75S20 does not supports any high performance expansion card, for example: Graphic card or PoE card.
- 3: MIC-75S20 does not support MIC-73 series system.



PCE-USB4 (4port) PCE-USB8 (8port)

PCI Express x4, 4/8 Ports USB3.0
Expansion card



CE FCC

Features

- 4 Independent USB 3.0 Controllers
- Support Smart Current Protection to 900mA/1500mA
- Support 4 or 8 USB3.0 Ports
- USB 3.0 Rev. 1.0 Compliant
- Intel xHCI Rev 1.0 Compliant
- PCI Express x4 Interface
- Support Win 7/8 and Linux

Introduction

The PCE-USB4 is a 4 ports PCIe x4 interface expansion card and designed for industrial and vision applications. PCE-USB4 has four independent Renesas μ PD720202 USB 3.0 Host Controllers and x4 PCI Express[®] Gen2 interface to fulfill up to 5 Gbps bandwidth for each port when four ports run simultaneously to achieve maximal per-port performance. PCE-USB4 series can expanded to 8 ports USB3.0 by 4 ports USB3.0 carry board and supports 5V_{DC} power with an unique design of configuration 900mA/1500mA current limit to supply stable 5V_{DC} power for external USB devices.

PCE-USB4 series is a high bandwidth with Industrial power design for Machine Vision, Factory Automation, Medical, and any needed high performance speed data transportation applications.

Specifications

USB	Interface	PCI Express x4
	Connector	4 x USB3.0 Type A connector (PCE-USB4-00A1E) 8 x USB3.0 Type A connector (PCE-USB8-00A1E)
	Host Bus	4-lanes, Gen2 PCI Express interface Compliant with PCI Express Base Specification Revision 2.0
	Controller	4 x Renesas μ PD720202 Host Controllers Compliant with Universal Serial Bus 3.0 specification Revision 1.0 Compliant with Intel [®] xHCI specification Revision 1.0
	Current Protection	1500mA per-port current limit
	Data Transfer Rate	Super-speed (5.0 Gbps)/High-speed (480.0 Mbps)/Full-speed (12.0 Mbps)/Low-speed (1.5 Mbps)
Environment	Operating Temperature	0 to 70° C (32 to 158° F)
	Storage Temperature	-40 to 85° C (-40 to 185° F)
	Dimensions	118 x 111 mm
	Certification	CE/FCC

Ordering Information

Part Number	Description
PCE-USB4-00A1E	PCIEx4 4xPorts USB 3.0 Expansion card
PCE-USB8-00A1E	PCIEx4 8xPorts USB3.0 Expansion card

Intelligent Video and IoT Sensors 1

Intelligent Transportation Platforms 2

Intelligent Inspection Systems 3

Modular IPCs 4

Server-grade IPCs 5

Industrial Storages 6

Video Wall Controllers 7

GPU Servers 8

Industrial Motherboards 9

Slot SBC & Passive Backplanes 10

Compact PCI Platforms 11

Industrial Chassis 12

Industrial Computer Peripherals 13

Industrial Ethernet Solutions 14

ARK-5261

Intel® Celeron® Processor J1900 Fanless Embedded BOX PC with PCI/PCIe Expansion and Dual Mobile HDDs/SSDs



Features

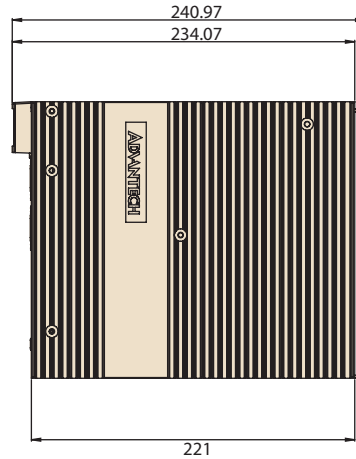
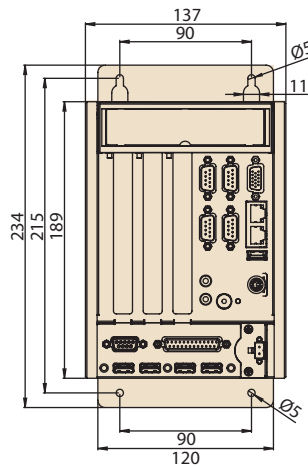
- Sealed construction with fanless operation, supports Intel® Celeron® Processor J1900 up to 2.41 GHz
- Supports 2 Giga LAN and 1 USB 3.0 + 5 USB 2.0
- Support 4 RS-232/422/485 with Auto-flow control and COM 1 & 2 port with 5V/12V power
- Built-in 1 x PCIe, and 2 x PCI expansion slots or 3 x PCI expansion slots
- Support 4 RS-422/485 Isolation module type
- Rubber anti-vibration card-holder for PC expansion boards
- Supports wide power range of 9 ~ 30V DC input
- Support wide range operating Temperature of -20 ~ 60° C
- Supports SUSIAccess and Embedded Software APIs



Specifications

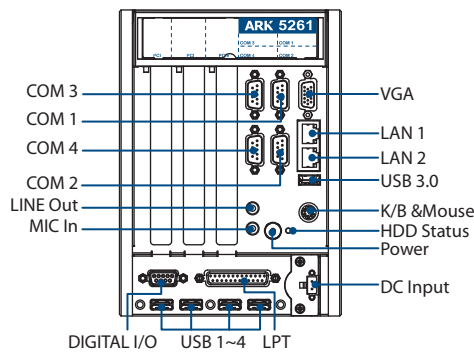
Processor System	CPU	Intel® Celeron® Processor J1900 2.0GHz		
	Max. Speed	2.41 GHz		
	BIOS	AMI 16 Mbit SPI BIOS		
Memory	Technology	Dual Channel DDR3L-1333 (Low power 1.35V)		
	Max. Capacity	Build-in 4GB memory, up to 8GB		
	Socket	2x 204-pin SO-DIMM		
Graphics	Chipset	Chipset integrated Intel HD Graphic		
	VRAM	Shared System Memory up to 224 MB SDRAM		
	Interface	VGA: 2560 x 1600 @ 60Hz		
Ethernet	LAN1	10/100/1000 Mbps GigaLAN Controller, Intel I211, supports Wake on LAN		
	LAN2	10/100/1000 Mbps GigaLAN Controller, Intel I211, supports Wake on LAN		
Audio	Interface	Line-Out, Mic-in		
IO Interface	Serial Ports	Standard Type: 4x RS-232/422/485, COM 1 & COM 2 with 5V/12V power, support Auto-flow control (ARK-5261S-JOA1E) Isolation type: 4x RS-422/485 ports; ESD Protection: 15Kv, Surge production: 2Kv, Electrical Isolation: 2Kv (ARK-5261I-JOA1E)		
	USB Interface	1 x USB 3.0, 4 x USB 2.0, 1 internal type A USB 2.0		
	Keyboard/Mouse	1 x PS/2 port, supports PS/2 mouse and keyboard		
	Parallel Port	Supports D-sub 25-pin connector		
	Digital I/O	Supports 8-bit digital IO (DB9 Connector)		
Other	Watchdog timer	255-level timer interval, setup by software		
Storage	HDD/SSD	Supports two drive bays space for SATA HDD/SSD 2.5 (9.5mm height only)		
	mSATA	Support one mSATA storage and shard with SATA 2		
Expansion	PCI/PCIe Slot	2 PCI Slot, and 1 PCIe Slot (ARK-5261S-JOA1E and ARK-5261I-JOA1E)		
		3 PCI Slot, and 1 Mini-PCIe Socket (Full Size) (ARK-5261P-JOA1E)		
		Supports maximum 15W power for expansion Supports maximum dimension of 99 mm (width) x 186 mm (length) for expansion PC board		
Software Support	Microsoft Windows	Windows 7/8.1, Win7/8.1 Embedded, Linux Fedora 19		
	Power Type	ATX / AT		
	Power Input Voltage	9 ~ 30 V _{DC}		
	Minimum Power Input	9V @ 6.6A ~ 30V @ 2A		
Power Requirement	Power Adapter	AC-to-DC, 65 W DC19 V/3.4 A		
	Idle	9.9 W (with Intel® Celeron® Processor J1900 2.0GHz and with Memory & SATA HDD)		
	Max.	12.9 W (with Intel® Celeron® Processor J1900 2.0GHz and with Memory & SATA HDD)		
Mechanical	Construction	Aluminum housing		
	Mounting	Desk/wall-mounting		
	Dimensions (W x H x D)	137 x 189 x 221 mm (5.39" x 7.44" x 8.70")		
	Weight	4.2 kg (9.24 lbs)		
Environment	Temperature	Operating (With Industry SSD)	Operating (With HDD)	Non-operating
		-20 ~ 60° C with 0.7m/sec air flow (with 2 x Industrial SSD without PC expansion boards)	0 ~ 40° C with 0.7m/sec air flow (with 1 x 2.5" HDD or mSATA without PC expansion boards)	- 40 ~ 85° C (-40 ~185° F)
	Storage Temperature	- 40 ~ 85° C (-40 ~185° F)		
	Relative Humidity	95% @ 40° C (non-condensing)		
	Vibration Loading During Operation	With 2.5-inch HDD: 1 Grms, IEC 60068-2-64, random, 5 ~ 500 Hz, 1 Oct./min, 1 hr/axis With SSD disk: 5 Grms, IEC 60068-2-64, random, 5 ~ 500 Hz, 1 Oct./min, 1 hr/axis		
	EMC	CE/FCC, CCC, BSMI		
	Safety Certifications	CCC, BSMI		

Dimensions

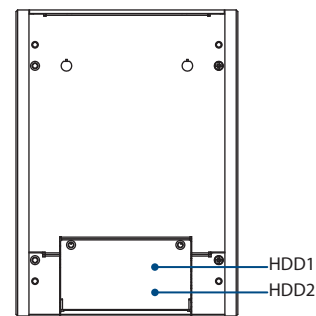


Unit: mm

Front View



Rear View



Ordering Information

Part Number	VGA	USB 3.0/2.0	GbE	RS-232	RS-422/485	PS/2	PCIe Exp	PCI Exp	Power
ARK-5261S-J0A1E	1	1+5	2	4	4	1	1(x1)	2	DC9 ~ 30V
ARK-5261P-J0A1E	1	1+4	2	4	4	1	x (Mini-PCIe)	3	DC9 ~ 30V
ARK-5261I-J0A1E	1	1+5	2	4	4	1	1(x1)	2	DC9 ~ 30V

Packing List

Part Number	Description
-	1x ARK-5261 Unit
2061526100	1 x Driver/Utility CD/Manual
2001526110	Startup Manual (English/Simple Chinese)
1960049826N001	1 x Mounting bracket upper
1960049827N001	1 x Mounting bracket lower
1990000505	3 x Shock proof rubber
2001526120	Startup Manual (CHT)

Optional Items

Part Number	Description
1700021831-01	DP to DVI-D cable w/BKT
PCA-TPM-00A1E	TPM Module
96PSA-A120W24T2	ADP A/D 100-240V 120W 24V
1702002600	Power Cord 3P UL/CSA(USA) 125V 10A 1.83M 180D (for 120W)
1700022940-01	Power cord PSE 7A 125V 3P 3m DAC-ST01 (for 120W)
1702002605	Power cord 2P FRANCE 10A/16A 220V 1.83M 90D (for 120W)
96PSA-A65W19P2-2	ADP A/D 100-240V 65W 19V WO/PFC
1700001524	Power Cord 3P UL 10A 125V 180cm (for 65W)
170203183C	POWER Code 3P Europe (WS-010+WS-083)183cm (for 65W)
1700021376-01	Power Cord 3P PSE 7A 125V 250cm(IEC60320-C5) (for 65W)

Embedded OS

Part Number	Description
2070013108	img WE8S ARK-5261 x64 V6.5.2 10MUJ; SAP
2070013109	img WES7P ARK-5261 x64 V5.6.6 10MUJ;SAP

- Intelligent Video and IoT Sensors 1
- Intelligent Transportation Platforms 2
- Intelligent Inspection Systems 3
- Modular IPCs 4
- Server-grade IPCs 5
- Industrial Storages 6
- Video Wall Controllers 7
- GPU Servers 8
- Industrial Motherboards 9
- Slot SBC & Passive Backplanes 10
- CompactPCI Platforms 11
- Industrial Chassis 12
- Industrial Computer Peripherals 13
- Industrial Ethernet Solutions 14

ARK-5420

Intel® 3rd Generation Core™ i Processor Fanless System with PCIe4 & PCI Slot



Features

- Support Intel 3rd Generation Core i7/i5/Celeron BGA type CPU
- Intel® HM76 PCH
- Support wide temperature -25° C ~ 60° C
- Support VGA & HDMI
- 1 x 2.5" HDD+1 x m-SATA
- Support PCIe4 /PCI slot /Mini-PCIE
- Supports 9 ~ 36V wide range DC input

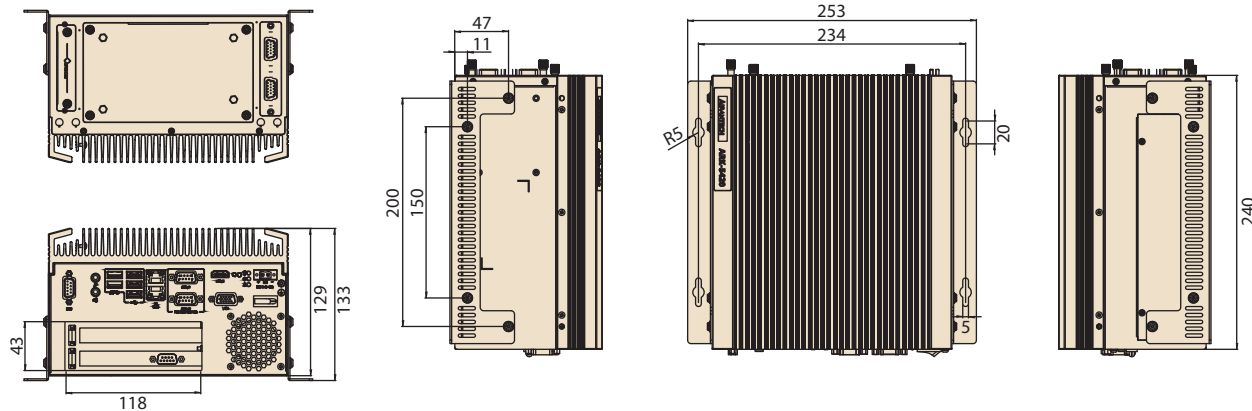


Specifications

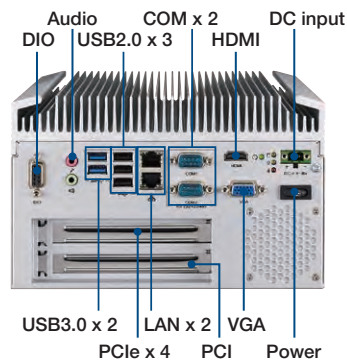
System Chipset	CPU	Intel Core i7-3555LE	Intel i5-3610ME Processor	Intel Celeron 1020E processor
	Max Speed	2.5GHz	2.7 GHz	2.20 GHz
	L3 Cache	6 MB	4 MB	2 MB
	Chipset	Intel HM76		
	BIOS	AMI SPI 64 Mb		
Memory	Technology	DDR3 1333/1600, non ECC		
	On board memory	4 GB on board		
	Socket	1 x 204-pin SODIMM (up to 8GB per DIMM) Note: SODIMM and HDD Tray has mechanism interferences, only 1 x HDD or 1 x CF can be used when you request to expand memory size		
	Maximum Capacity	12 GB		
Display	Chipset	Intel Integrated Graphics HD4000, support Direct x11		
	VGA	1 x DB15, max resolution up to 2048 x 1536		
	HDMI	1 x HDMI, support HDMI1.4 standard, max to 1920 x 1200 @ 60Hz		
	Display Option	Support Dual independent display		
Ethernet	Controller	Intel i210-AT, 10/100/1000 Mbps		
	Interface	2 x RJ-45		
Storage	HDD	Support 1x 2.5"HDD + CF module (Optional function)		
	SSD	1 x internal mSATA (Mini-PCIE interface)		
I/O	USB	2 x USB3.0 + 3x USB 2.0		
	Serial Port	2 x DB9, RS232/422/485 with automatic flow control		
	DIO	1 x DB9, 8-bit		
	Audio	2 (1 x Line-Out, 1 x Mic-in)		
	LPT	1 x DB26 (Front panel, option)		
	PCIE	1 x PCIe4		
Expansion Slot	PCI	1 x PCI32 33Mhz Slot 1 x Internal Mini-PCle (Full-Size)		
	LED	Power x 1/Storage x 1/Fault x 1		
LED & Button	Button	Power on/off Switch x 1 Reset button x 1		
	Power Type	ATX/AT		
Power	Power Input Voltage	9 ~ 36V _{DC}		
	Output	System reset		
Watchdog Timer	Interval	Programmable 1~255 sec/min		
	Temperature	Operating (With Industrial SSD) Operating (with HDD) -25 ~ 60° C with 0.7m/S air flow 0 ~ 40° C		Non-Operating -40 ~ 85° C
Environment	Humidity	95% @ 40° C (non-condensing)		
	Vibration	With SSD: 2 Grms @ 5 ~ 500 Hz, random, 1 hr/axis With 2.5" HDD: 0.5 Grms @ 5 ~ 500 Hz, random, 1 hr/axis		
	Shock	With SSD: 20G, IEC-68-2-27, half-sine wave, 11 ms duration With 2.5" HDD: 10G, IEC-68-2-27, half-sine wave, 11 ms duration		
	Dimension (W x H x D)	253 x 129 x 240 mm		
Mechanical Features	Install	Desktop/Wall-mounting		
	EMC	CE/FCC Class A, CCC, BSMI		
Certifications	Safety	UL,CCC,BSMI		

Dimensions

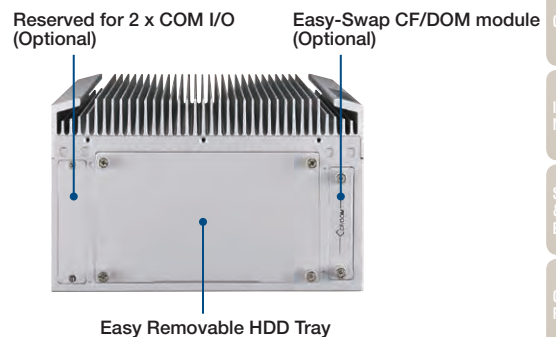
Unit: mm



Front View



Rear View



Ordering Information

Part Number	CPU	VGA	HDMI	USB3/2	GbE	COM	PCIe Exp	PCI Exp	Power
ARK-5420-U5A1E	i7-355LE	1	1	2 + 3	2	2	1(x4)	1	DC9 ~ 36V
ARK-5420-U7A1E	i5-3610ME	1	1	2 + 3	2	2	1(x4)	1	DC9 ~ 36V
ARK-5420-U2A1E	Celeron 1020	1	1	2 + 3	2	2	1(x4)	1	DC9 ~ 36V

Packing List

Part No.	Description
-	ARK-5420
-	1 x Driver CD
1960059401N001	2 x Supporting-angels
1652002205	1 x 2-pin Terminal Block

Optional Accessory

Part No.	Description
1700019592	Parallel cable/D-SUB 25P(F)/IDE#2 26P-2.0 15cm
9692005000E	CF card board
96PSA-A120W24T2	ADP A/D 100-240V 120W 24V
1702002600	Power Cord 3P UL/CSA(USA) 125V 10A 1.83M 180D (for 120W)
1700022940-01	Power cord PSE 7A 125V 3P 3m DAC-ST01 (for 120W)
1702002605	Power cord 2P FRANCE 10A/16A 220V 1.83M 90D (for 120W)
96PSA-A65W19P2-2	ADP A/D 100-240V 65W 19V WO/PFC
1700001524	Power Cord 3P UL 10A 125V 180cm (for 65W)
170203183C	POWER Code 3P Europe (WS-010+WS-083)183cm (for 65W)
1700021376-01	Power Cord 3P PSE 7A 125V 250cm(IEC60320-C5) (for 65W)
PCA-TPM-00A1E	TPM module
PCA-COM232-00A1E	COM 232 module (4xCOM 232 expanded by cable)
98R1542000E	ARK-5420 TPM/COM module Bracket Accessory
98R2542002E	ARK-5420 FAN module accessory

Embedded OS

Part Number	Description
2070013339	Img WES7P ARK-5420 V5.6.6 10muti;sap
2070013330	Image WES2009 ARK-5420 V4.7 10muti;SAP

- Intelligent Video and IoT Sensors 1
- Intelligent Transportation Platforms 2
- Intelligent Inspection Systems 3
- Modular IPCs 4
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- Industrial Storages 6
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- Industrial Motherboards 9
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Advantech Intelligent Modular IPC

Compact, Lightning-fast Solution for Machine Automation



ADVANTECH

Enabling an Intelligent Planet



Compact Size

Features:

- Volume reduced, less than 50% of standard 4U system
- Occupies less than an A4 sheet of paper

Benefits:

- Small, space saving footprint
- Easier cable routing



Expandability & Modularization

Features:

- PCI/ PCIe expansion systems
- Stacked configuration for customization

Benefits:

- Cost-effective way to increase capacity and scalability
- Simplify installation time and process



Comprehensive Portfolio

Features:

- Fanless/ Fan-based systems to choose from
- Machine Vision Dedicated Systems

Benefits:

- Meet all demands in reliability and performance
- 5 years warranty; 7 years longevity



Security & Remote Management

Features:

- Recovery powered by **Acronis** protected by **McAfee**
- Hardware status monitoring and control by **susiAccess**

Benefits:

- Live system backup, whitelist protection
- Remote KVM, Power On/Off, system diagnosis and alerts

Server-grade IPCs

Server-grade Motherboards

Selection Guide		5-2
ASMB-584	LGA 1150 Intel® Xeon® E3 v3/ Core™ Micro ATX Server Board with 2 PCIe x16 slots (x8 link), 1 PCIe x4, 1 PCI, USB 3.0, PCIe Gen III, Dual LANs	5-4
ASMB-585	LGA 1151 Intel® Xeon®E3-1200 v5 and Core i3/i5/i7 Micro ATX Server Board with 4 DDR4, 1 PCIe x16, 2 PCIe x4, 1 PCIe x1 slots, Quad LANs, USB 3.0	5-6
ASMB-784	LGA 1150 Intel® Xeon® E3 v3/ Core™ ATX Server Board with 2 PCIe x16 slots (x8 link), 3 PCI, USB 3.0, PCIe Gen III, Quad/Dual LANs	5-8
ASMB-785	LGA 1151 Intel® Xeon® E3 v5/ Core™ ATX Server Board with DDR4, 4 PCIe, 3 PCI, 6 USB 3.0, 6 COM, 6 SATA3, Quad/Dual LANs	5-10
ASMB-822	LGA2011 Intel® Xeon® E5 ATX Server Board with 6 x DDR3, 5 x PCIe x16 slot (Gen 3.0), USB 3.0, IPMI	5-12
ASMB-813	LGA 2011-R3 Intel® Xeon® E5-2600 v3 ATX Server Board with 8 DDR4 DIMM, 5 PCIe x16 Slot (Gen 3.0), 6 USB 3.0, IPMI	5-14
ASMB-823	Dual LGA 2011-R3 Intel® Xeon® E5-2600 v3 ATX Server Board with DDR4, 4 PCIe x16, 6 USB 3.0, SATA3, Dual LAN, IPMI 2.0	5-16
ASMB-922	Dual Intel® Xeon® E5-2600 / 2600 v2 EATX Server Board with DDR3, 3 PCIe x16 + 1 PCIe x8, PME support	5-18
ASMB-913	Dual LGA 2011-R3 Intel® Xeon® E5-2600 v3 EATX Server Board with 16 x DDR4 DIMM, 3 PCIe x16, 6 USB 3.0, PME support	5-20
ASMB-923	Dual LGA 2011-R3 Intel® Xeon® E5-2600v3 EATX Server Board with DDR4, 4 PCIe x16+ 2 PCIe x8(Gen 3.0), 4 USB 3.0	5-22
PME Expansion Cards	Various Selections Supporting PCI, PCI-X, PCIe x1/x4/x8/x16	5-24
ASMB Riser Card		5-25

Server-grade Chassis

Selection Guide		5-26
HPC-7140	1U Rackmount Server Chassis for MicroATX/ATX Server board with 4 x 3.5" Hot-swap Drive Bays and 1 full-height/half-length PCI-E x16 Expansion Slot	5-28
HPC-7180	1U Rackmount Server Chassis for EATX Server board with 8 x 2.5" Hot-swap Drive Bays and 1 FH/FL PCI-E x16 Expansion Slot	5-30
HPC-7242	2U Rackmount Chassis for ATX Motherboard with 4 Hot-Swap SAS/SATA HDD Trays and RPS	5-32
HPC-7280	2U Rackmount Chassis for EATX Server Board with 8 Hot-swap Drive Bays, Redundant PSU, and 3 Expansion Slots	5-34
HPC-7282	2U Rackmount Chassis for Micro/ATX Server Board with 8 Hot-swap Drive Bays, 7 Low Profile Expansion Slots	5-36
HPC-7320	3U Short-depth Rackmount/Tower Chassis for EATX/ATX/MicroATX Motherboard	5-38
HPC-7400	4U Compact Rackmount / Tower Chassis for EATX/ATX/MicroATX Motherboard	5-40
HPC-7442	4U Rackmount Chassis for Full-size SHB/SBC or EATX/ATX Motherboard with 4 Hot Swap Drive Trays	5-42
HPC-7480	4U Rackmount/Tower Chassis for EATX Server Board with 8 Hot-swap Drive Bays, Single PSU and 7 Expansion Slots	5-44
HPC-8316	3U Storage Chassis for ATX/EATX Serverboard with 16 Hot-swap Drive Bays	5-46

To view all of Advantech's Server-grade IPCs, please visit www.advantech.com/products.



Server-grade Motherboards



Model Name		ASMB-584	ASMB-585	ASMB-781	ASMB-782	ASMB-784	ASMB-785
Form Factor		Micro ATX	Micro ATX	ATX	ATX	ATX	ATX
Processor System	CPU	Intel® Xeon® E3 v3 and 4th Gen. Core™ i3/i5/i7 Series	Intel® Xeon® E3-1200 v5 and 6th Gen. Core™ i3/i5/i7 Series	Intel Xeon E3/2nd Gen. Core i3/ Pentium Series	Intel Xeon E3/E3 v2/ 2nd and 3rd Gen. Core i7/i5/i3/ Pentium Series	Intel® Xeon® E3 v3 and 4th Gen. Core i3/ i5/i7 Series	Intel® Xeon® E3-1200 v5 and 6th Gen. Core™ i3/i5/i7 Series
	Socket	1 x socket 1150	1 x socket 1151	1 x socket 1155	1 x socket 1155	1 x socket 1150	1 x socket 1151
	Max. Speed	3.5 GHz	3.6 GHz	3.4 GHz	3.5 GHz	3.5 GHz	3.6 GHz
	Front Side Bus	-	-	-	-	-	-
	L3 Cache	8 MB	8 MB	8 MB	8 MB	8MB	8MB
	Chipset	Intel C226	Intel C236	Intel C206	Intel C216	Intel C226	Intel C236
	BIOS	AMI 128Mbit, SPI	AMI 128Mbit, SPI	AMI 64 Mbit, SPI	AMI 64 Mbit, SPI	AMI 128Mbit, SPI	AMI 128Mbit, SPI
Expansion Slot	PCI	1*	-	3	3	3	3
	PCIe x16	-	1 (Gen3 x16 link)	1 (auto switch to two x8)	-	1 (switchable to two x8)	1 (switchable to two x8)
	PCIe x8	2 (x16 slot with x8 link)	-	2 (auto switch to one x16)	2 (x16 slot with x8 link)	2 (switchable to one x16)	2 (switchable to one x16)
	PCIe x4	1	3 (2 Gen3 x4 link, 1 Gen3 x1 link)	1	2	-	2
	PCIe x1	-	-	1	-	2	-
Memory	Technology	DDR3 ECC/non-ECC Unbuffer 1066/1333/1600 MHz	DDR4 ECC/non-ECC Unbuffer 1600/1866/2133 MHz	DDR3 ECC/Non-ECC Unbuffer 1066/1333 MHz	DDR3 ECC/Non-ECC Unbuffer 1066/1333/1600 MHz	DDR3 ECC/non-ECC Unbuffer 1066/1333/1600 MHz	DDR4 ECC/non-ECC Unbuffer 1600/1866/2133 MHz
	Max. Capacity	32 GB ECC/Non-ECC UDIMM	64 GB ECC/Non-ECC UDIMM	32 GB ECC/Non-ECC UDIMM	32 GB ECC/Non-ECC UDIMM	32 GB ECC/Non-ECC UDIMM	64 GB ECC/Non-ECC UDIMM
	Socket	4 x 240-pin DIMM	4 x 288-pin DIMM	4 x 240-pin DIMM	4 x 240-pin DIMM	4 x 240-pin DIMM	4 x 288-pin DIMM
Graphics	Controller	Intel GT2-HD Graphics	Intel GT2-HD Graphics	AST2300/1300 (G4/G2)	Intel HD Graphics	Intel GT2-HD Graphics	Intel GT2-HD Graphics
	VRAM	1 GB maximum shared memory with 2 GB and above system memory installed	1 GB maximum shared memory with 2 GB and above system memory installed	DDR3 64 MB	1 GB maximum shared memory with 2 GB and above system memory installed	1 GB maximum shared memory with 2 GB and above system memory installed	1 GB maximum shared memory with 2 GB and above system memory installed
	LCD	-	-	-	-	-	-
	TV-Out	-	-	-	-	-	-
	HDMI	-	-	-	-	-	-
	DVI	1	2	-	Yes (pin header)	2	2
	Dual Display	Yes	Yes	-	Yes (pin header for DVI)	Yes	Yes
Ethernet	Interface	10/100/1000 Mbps Gigabit Ethernet	10/100/1000 Mbps Gigabit Ethernet	10/100/1000 Mbps Gigabit Ethernet	10/100/1000 Mbps Gigabit Ethernet	10/100/1000 Mbps Gigabit Ethernet	10/100/1000 Mbps Gigabit Ethernet
	Controller	1 x Intel I217LM, 1 x Intel I210AT (G2 SKU only)	1 x Intel I219LM, 3 x Intel I210AT (G4 SKU only)	1 x Intel 82579LM, 1 x Intel 82574L, Intel 82580DB (G4 SKU only)	1 x Intel 82579LM + 3 x Intel 82574L (G4 SKU only)	1 x Intel I217LM + 3 x Intel I210AT (G4 SKU only)	1 x Intel I219LM + 3 x Intel I210AT (G4 SKU only)
	Connector	RJ-45 x 2 (G2 SKU) / RJ-45 x 1 (VG SKU)	RJ-45 x 2 (G2 SKU) / RJ-45 x 4 (G4 SKU)	RJ-45 x 4 (G4 SKU) / RJ-45 x 2 (G2 SKU)	RJ-45 x 4 (G4 SKU) / RJ-45 x 2 (G2 SKU)	RJ-45 x 4 (G4 SKU) / RJ-45 x 2 (G2 SKU)	RJ-45 x 2 (G2 SKU) / RJ-45 x 4 (G4 SKU)
TPM		Optional	Optional	Optional	Optional	Optional	Optional
SATA	Max. Data Transfer Rate	600 MB/s	600 MB/s	300MB/s for SATA2 600 MB/s for SATA3	300MB/s for SATA2 600 MB/s for SATA3	600 MB/s	600 MB/s
	Channel	6	7	4 for SATA2, 2 for SATA3	4 for SATA2, 2 for SATA3	6	6
SAS	Max. Data Transfer Rate	-	-	-	-	-	-
	Channel	-	-	-	-	-	-
Rear I/O	VGA/DVI/HDMI/DP	1 / 1 / - / 2	1 / 2 / - / -	1 / - / - / -	1 / - / - / -	1 / 2 / - / -	1 / 2 / - / -
	Ethernet	2 for G2 SKU and 1 for VG SKU	2 for G2 SKU and 4 for G4 SKU	4 for G4 SKU and 2 for G2 SKU	4 for G4 SKU and 2 for G2 SKU	4 for G4 SKU and 2 for G2 SKU	2 for G2 SKU and 4 for G4 SKU
	USB	4 (2 USB 3.0; 2 USB 2.0)	4 (USB 3.0)	4 (USB 2.0)	4 (2 USB 3.0; 2 USB 2.0)	4 (2 USB 3.0; 2 USB 2.0)	4 (USB 3.0)
	Audio	Mic-in, Line-out	Mic-in, Line-out	-	-	-	Mic-in, Line-out
	Parallel	-	-	-	-	-	-
	Serial	-	1 (RS-232)	1 (RS-232)	1 (RS-232)	1 (RS-232)	1 (RS-232)
	PS/2	-	-	2	2	2	-
Internal Connector	DVI	-	-	-	Yes (pin header)	-	-
	USB	9 (2 USB 3.0; 6 USB 2.0; 1 USB 2.0 Type A)	9 (2 USB 3.0; 6 USB 2.0; 1 USB 2.0 Type A)	8 (6 USB 2.0; 2 USB 2.0 Type-A)	10 (2 USB 3.0; 6 USB 2.0; 2 USB 2.0 Type-A)	9 (2 USB 3.0; 6 USB 2.0; 1 USB 2.0 Type A)	9 (2 USB 3.0; 6 USB 2.0; 1 USB 2.0 Type A)
	Audio	1	1	1	1	1	1
	Serial	2	3	1	1	1	3
	Parallel	1	-	1	1	1	1
	SATA	6	7	6	6	6	6
	SAS	-	-	-	-	-	-
	Compact Flash	-	-	-	-	-	-
Watchdog Timer	GPIO	8 bit GPIO	8 bit GPIO	1 (SATA SGPIO)	1 (SATA SGPIO)	8 bit GPIO	8 bit GPIO
	Output	System reset	System reset	System reset	System reset	System reset	System reset
	Interval	Programmable 1~255 sec	Programmable 1~255 sec	Programmable 1~255 sec	Programmable 1~255 sec	Programmable 1~255 sec	Programmable 1~255 sec
Page		5-4	5-6	online	online	5-8	5-10

* ASMB-584 A2 version has removed PCI slot for 1U & 2U chassis with riser.

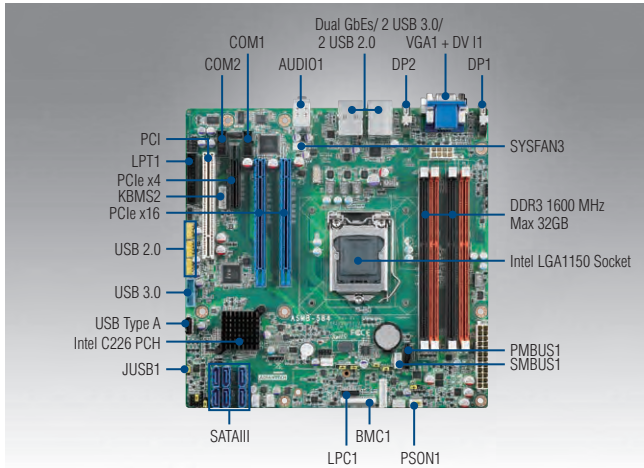


ASMB-822 ATX	ASMB-813 ATX	ASMB-823 ATX	ASMB-922 EATX	ASMB-913 EATX	ASMB-923 EATX
Intel® Xeon® E5-1600/ 1600 v2 / 2600 / 2600 v2	Intel® Xeon® E5-1600 v3/ 2600 v3 Series	Intel® Xeon® E5-2600 v3 Series	Intel® Xeon® E5-2600 / 2600 v2	Intel® Xeon® E5-2600 v3 Series	Intel® Xeon® E5-2600 v3 Series
1 x socket 2011 3.7 GHz	1 x socket 2011-R3 2.5 GHz	2 x socket 2011-R3 2.5 GHz	2 x socket 2011 2.1 GHz	2 x socket 2011-R3 2.5 GHz	2 x socket 2011-R3 2.5 GHz
-	QPI 9.6GT/s	QPI 9.6GT/s	QPI 8 GT/s	QPI 9.6GT/s	QPI 9.6GT/s
20 MB	30 MB	30 MB	20 MB	30 MB	30 MB
Intel C602J	Intel C612	Intel C612	Intel C602J	Intel C612	Intel C612
AMI 64 Mbit, SPI	AMI 128 Mbit, SPI	AMI 128 Mbit, SPI	AMI 64 Mbit, SPI	AMI 128 Mbit, SPI	AMI 128 Mbit, SPI
1	-	-	-	-	-
-	2/0	4	4 (1 for PME)	4 (1 for PME)	4
5	1/5	2	1	-	2
1	1	1 (x8 slot with x4 link)	-	-	1
-	1	-	-	-	-
DDR3 REG/ECC/ non-ECC Unbuffer 1066/1333/1600 MHz	DDR4 REG 2133/1866/1600/1333 MHz DIMM	DDR4 REG 2133/1866/1600/1333 MHz DIMM	DDR3 REG/ECC/non-ECC Unbuffer 1066/1333/1600 MHz	DDR4 REG 2133/1866/1600/1333 MHz DIMM	DDR4 REG 2133/1866/1600/1333 MHz DIMM
96 GB/Non-ECC/ECC/REG DIMM	256 GB REG DIMM	192 GB REG DIMM	128 GB/Non-ECC/ECC/REG DIMM	512 GB REG DIMM	256 GB REG DIMM
6 x 240-pin DIMM	8 x 288-pin DIMM	6 x 288-pin DIMM	8 x 240-pin DIMM	16 x 288-pin DIMM	8 x 288-pin DIMM
AST1300/AST2300	AST1400/AST2400	AST1400/AST2400	AST1300/AST2300	AST1400/AST2400	AST1400/AST2400
DDR3 64MB	DDR3 64MB	DDR3 64MB	DDR3 64MB	DDR3 64MB	DDR3 64MB
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
10/100/1000 Mbps Gigabit Ethernet	10/100/1000 Mbps Gigabit Ethernet	10/100/1000 Mbps Gigabit Ethernet	10/100/1000 Mbps Gigabit Ethernet	10/100/1000 Mbps Gigabit Ethernet	10/100/1000 Mbps Gigabit Ethernet
1 x Intel 82579LM + 1 x Intel I210AT 1 x Realtek 8201EL (ASMB-822I SKU only)	2 x Intel I210AT	2 x Intel I210AT	1 x Intel 82579LM + 1 x Intel I210AT 1 x Realtek 8201EL (ASMB-922I SKU only)	4 x Intel I210AT	2 x Intel I210AT
RJ-45 x 3 (1 for IPMI function) Optional	RJ-45 x 3 (1 for IPMI function) Optional	RJ-45 x 3 (1 sharing IPMI function) Optional	RJ-45 x 3 (1 for IPMI function) Optional	RJ-45 x 4 (1 sharing IPMI function) Optional	RJ-45 x 3 (1 for IPMI function) Optional
300MB/s for SATA2 600 MB/s for SATA3	600MB/s for SATA3	600MB/s for SATA3	300MB/s for SATA2 600 MB/s for SATA3	600MB/s for SATA3	600MB/s for SATA3
4 for SATA2, 2 for SATA3	8 for SATA3	9 for SATA3	4 for SATA2, 2 for SATA3	8 for SATA3	10 for SATA3
-	-	-	-	-	-
-	-	-	-	-	-
1 / - / - / -	1 / - / - / -	1 / - / - / -	1 / - / - / -	1 / - / - / -	1 / - / - / -
2	2	2	2	4	2
6 (2 x USB 3.0)	4 (USB 3.0), 2 (USB 2.0)	4 (USB 3.0)	4 (2 x USB 3.0)	2 (USB 3.0)	2 (USB 3.0), 2 (USB 2.0)
-	-	-	-	-	-
-	-	-	-	-	-
1 (RS-232)	1 (RS-232)	-	1 (RS-232)	1 (RS-232)	1 (RS-232)
2	2	-	2	-	2
-	-	-	-	-	-
8 (6 USB 2.0, 2 USB 2.0 Type-A)	5 (2 USB3.0, 2 USB2.0, 1 USB 2.0 Type-A)	5 (2 USB3.0, 2 USB2.0, 1 USB 2.0 Type-A)	9 (8 USB 2.0, 1 USB 2.0 Type-A)	7 (4 USB3.0, 2 USB2.0, 1 USB 2.0 Type-A)	7 (2 USB3.0, 4 USB2.0, 1 USB 2.0 Type-A)
1	1	1	1	1	1
1	1	1	1	1	1
1	-	-	-	-	-
6	8	9	6	8	10
-	-	-	-	-	-
-	-	-	-	-	-
8 bit GPIO	8 bit GPIO	8 bit GPIO	8 bit GPIO	8 bit GPIO	8 bit GPIO
System reset	System reset	System reset	System reset	System reset	System reset
Programmable, 1 ~ 255 sec	Programmable, 1 ~ 255 sec	Programmable, 1 ~ 255 sec	Programmable, 1 ~ 255 sec	Programmable, 1 ~ 255 sec	Programmable, 1 ~ 255 sec
5-12	5-14	5-16	5-18	5-20	5-22

- Intelligent Video and IoT Sensors 1
- Intelligent Transportation Platforms 2
- Intelligent Inspection Systems 3
- Modular IPCs 4
- Server-grade IPCs 5
- Industrial Storages 6
- Video Wall Controllers 7
- GPU Servers 8
- Industrial Motherboards 9
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- CompactPCI Platforms 11
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- Industrial Ethernet Solutions 14

ASMB-584

LGA 1150 Intel® Xeon® E3 v3/ 4th Generation Core™ Micro ATX Server Board with 2 PCIe x16 slots (x8 link), 1 PCIe x4, 1 PCI, USB 3.0, Dual LANs



Features

- Supports LGA 1150 Intel® Xeon® E3 v3 and 4th Generation Core™ i7/i5/i3 processors
- DDR3 1600 MHz ECC UDIMM up to 32GB
- Two PCIe x16 slots (x8 link), one PCIe x4 and one PCI slots
- Rackmount optimized placement with positive air flow design
- Supports Intel vPro, AMT 9.0, IPMI (optional), Software RAID 0, 1, 5, 10 and Embedded software APIs/utilities

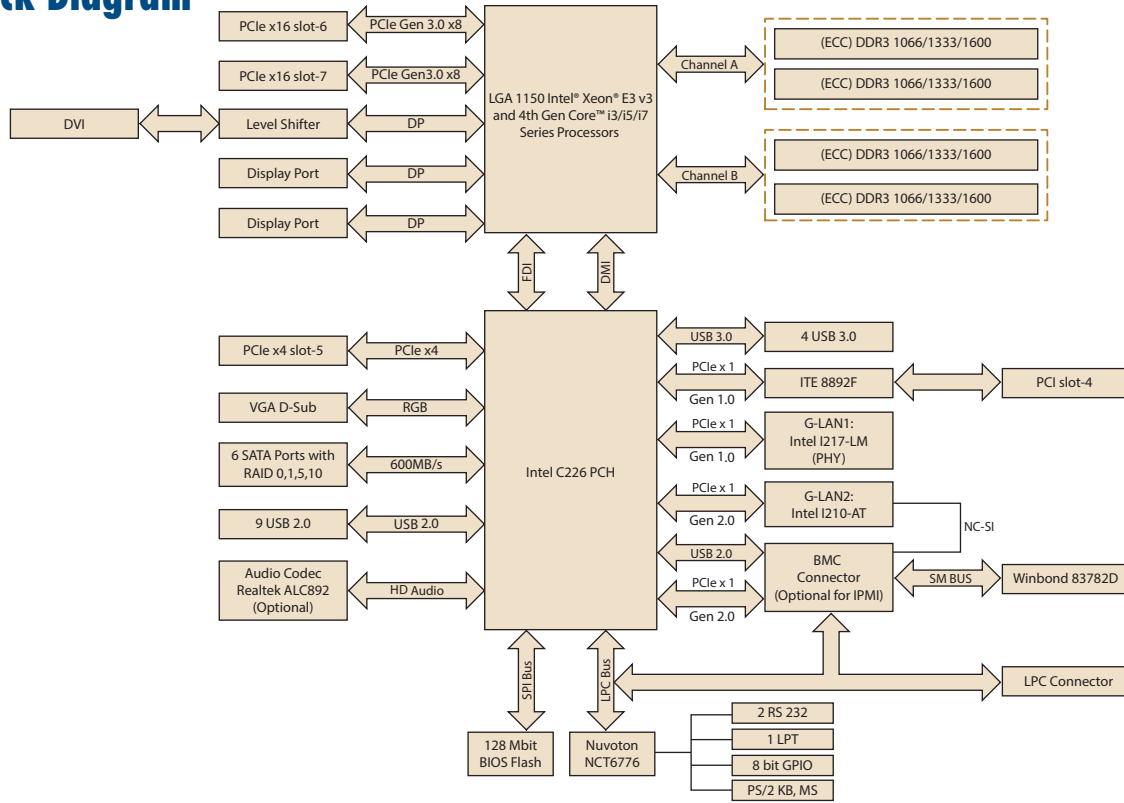


Specifications

Form Factor		Micro ATX form factor
Processor System	Socket	Intel LGA 1150
	CPU type	Intel® Xeon® E3-1200 v3 and Core™ i3/i5/i7 series (TDP up to 84W)
Core Logic	Chipset	Intel C226 chipset
Memory	Total slots	4 (Dual Channel)
	Max. capacity	32 GB
	Memory type	DDR3 ECC/Non-ECC 1600/1333/1066 MHz UDIMM (240-pin)*
	Memory size	1 GB, 2 GB, 4 GB, 8 GB
Expansion Slots	Total PCI/PCI-X/PCIe slots	4
	Slot location 1	-
	Slot location 2	-
	Slot location 3	-
	Slot location 4	PCI
	Slot location 5	PCIe x4 (Gen2 x4 link)
	Slot location 6	PCI x16 slot (Gen3 x8 link)
Graphics	Controller	Intel HD Graphics
	VRAM	1 GB maximum shared memory with 2 GB and above system memory installed
Storage	SATA controller	Intel C226: 6 SATA3 6 Gb/s ports with Intel Matrix Storage support (for Windows only) (Supports software RAID 0, 1, 10 & 5)
	SAS controller	-
Networking	Interface	10/100/1000 Mbps
	Controller	GbE LAN1: Intel I217-LM; GbE LAN2: Intel I210-AT
	Connector	RJ-45 x 2
Onboard I/O Connectors	Printer Port connector	1
	PSU connector	24-pin SSI power connector + 8-pin SSI 12V power connector
	USB connector	2 USB 3.0; 7 USB 2.0 (1 x USB Type-A)
	Fan header	5 (4-pin)
	SMBus	2
	Chassis intruder	1
	Front LAN LED	1
	Serial port header	2 (RS-232)
	Audio Connector	1 (ALC 892)
	PS/2 KB/Mouse	1
Rear I/O Connectors	External serial port	-
	External USB port	4 (2 USB 3.0 and 2 USB 2.0)
	VGA port	1
	DVI	1
	Display Port	2
	RJ-45	2 for G2 version
	PS/2 KB/mouse	-
Watchdog Timer	Output	System reset
	Interval	Programmable 1 – 255 sec
Power Requirement	Power On	Intel LGA1150 2.6GHz; DDR3 4G x4
		3.3 V 5 V 12 V 12V_8P 5 Vsb -12 V
Environment	Temperature	Operating
		0 – 60° C (32 – 140° F)
Physical Characteristics	Dimensions	Non-operating
		-40 – 85° C (-40 – 185° F)

*Memory ECC function enable or not depends on processor supporting.

Block Diagram



- 1 Intelligent Video and IoT Sensors
- 2 Intelligent Transportation Platforms
- 3 Intelligent Inspection Systems
- 4 Modular IPCs
- 5 Server-grade IPCs
- 6 Industrial Storages
- 7 Video Wall Controllers
- 8 GPU Servers
- 9 Industrial Motherboards
- 10 Slot SBC & Passive Backplanes
- 11 Compact PCI Platforms
- 12 Industrial Chassis
- 13 Industrial Computer Peripherals
- 14 Industrial Ethernet Solutions

Ordering Information

Part Number	Chipset	Memory	LAN	DVI	Display Port	IPMI	PCI / PCIe Slots
ASMB-584G2-00A1E	C226	DDR3 ECC UNB/Non-ECC	2	1	2	Optional Module	1 / 3
ASMB-584G2-00A2E*	C226	DDR3 ECC UNB/Non-ECC	2	1	2	Optional Module	0 / 3
ASMB-584VG-00A1E	C226	DDR3 ECC UNB/Non-ECC	1	1	N/A	N/A	1 / 3

*ASMB-584G2-00A2E is designed for 1U & 2U chassis with riser.

Packing List

Part Number	Description	Quantity
2066S58402	Driver CD	x 1
2006S58410	Startup manual	x 1
1700003194	SATA data cables	x 2
1700022749-11	SATA power cables	x 2
19Z0000470T000	I/O shield	x 1

Optional Accessories

Part Number	Description
1700002204	Dual port USB 2.0 cable (27 cm) with bracket
1700008461	Four port USB 2.0 cable (30.5 cm) with bracket
1960052651N021	LGA 1151/1150/1155 CPU cooler for 2U/4U and wallmount chassis (side-flow type)
1960049408N001	LGA 1151/1150/1155 1U CPU Cooler and supports up to 84W processor
19Z0001023T000	1U I/O shield
1700008809	Printer port cable kit (25 cm)
1700020294-01	Printer port cable kit (42 cm)
1701090401	COM port cable with bracket (40 cm)
1700020277-01	Dual port USB 3.0 cable with bracket (30 cm)
ASMB-RF348-21A1E	2U riser card (PCIe x16 to 2 PCIe x4 + 1 PCIe x8)
AIMB-RF10F-01A1E	1U riser card (PCIe x16 to PCIe x16)
IPMI-1000-00A1E	IPMI 2.0 Module
PCA-TPM-00A1E	TPM Module with Infineon TPM 1.2 solution

I/O View



ASMB-584G2-00A1E
ASMB-584G2-00A2E



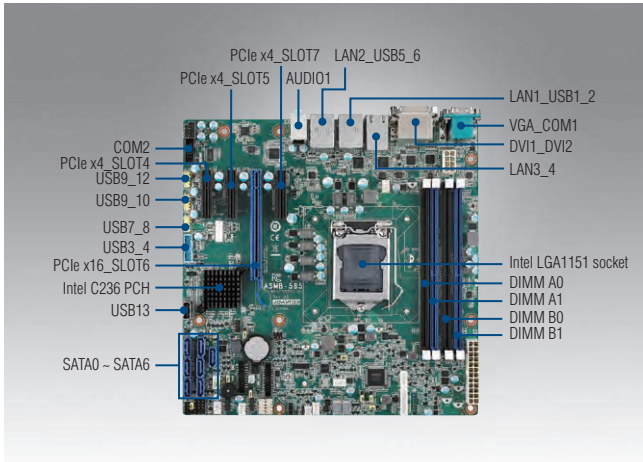
ASMB-584VG-00A1E

Note 1: It's a must to install PCA-TPM-00A1E for enabling Intel vPro feature. TPM and IPMI modules are installation alternatives.

Note 2: Purchasing ASMB-584's proprietary CPU cooler from Advantech is a must. Other brands' CPU coolers are NOT compatible with ASMB-584.

ASMB-585

**LGA 1151 Intel® Xeon® E3 v5/
6th Generation Core i series Micro ATX
Server Board with 4 DDR4, 1 PCIe x16,
3 PCIe x4, Quad LANs, USB 3.0**



Features

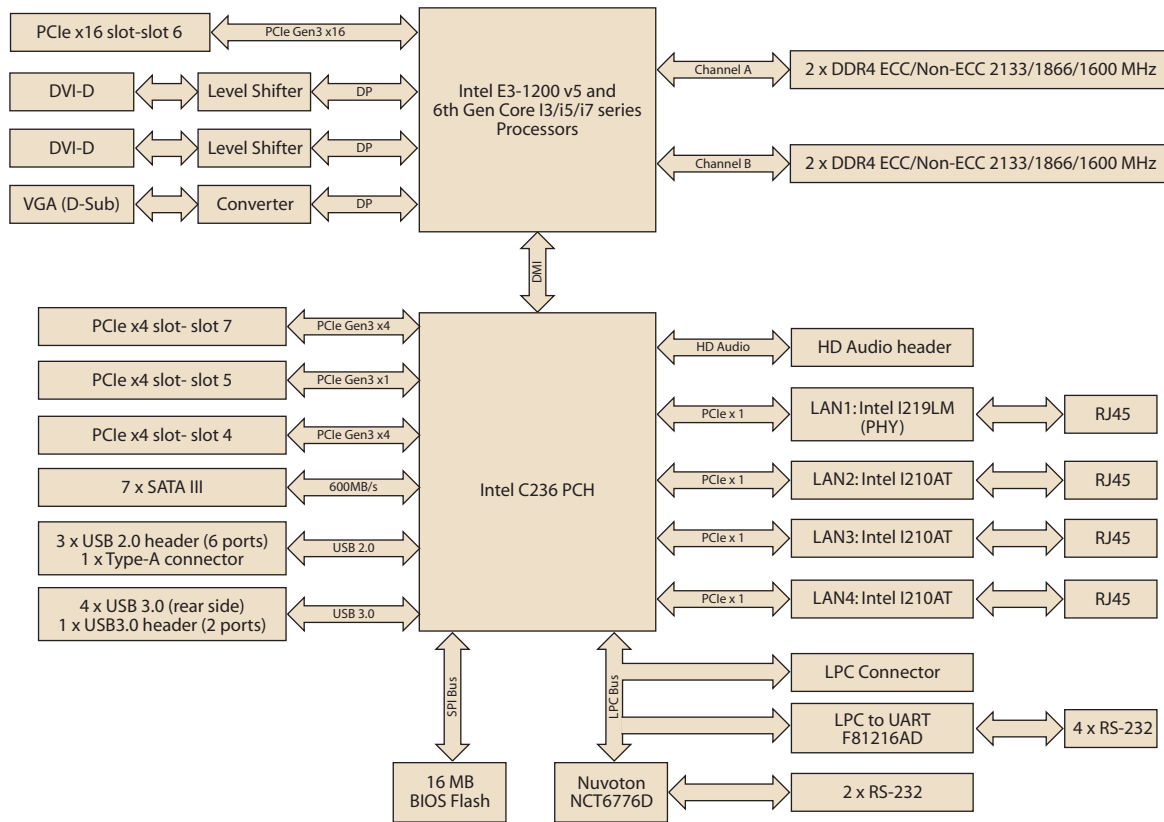
- Supports LGA 1151 Intel® Xeon® E3-1200 v5 and 6th Generation Core™ i7/i5/i3 processors
- DDR4 ECC/Non-ECC 2133/1866/1600 MHz DIMM up to 64GB
- One PCIe x16 slot (Gen3 x16 link), three PCIe x4 slots (2 Gen3 x4 link, 1 Gen3 x1 link)
- 0 ~ 60° C ambient operation temperature range
- Support up to ten RS-232 or six RS-232 and four RS-422/485 ports
- Support up to four Gigabit LAN ports
- Triple display - two DVI-D and one VGA ports
- Support seven SATA3 ports and six USB 3.0 ports

Quiet Specifications

CE FCC

Form Factor		Micro ATX form factor				
Processor System	Socket	Intel LGA 1151				
	CPU type	Intel® Xeon® E3-1200 v5 and 6th Gen Core™ i3/i5/i7 series processors (TDP up to 84W)				
Core Logic	Chipset	Intel C236 chipset				
	Total slots	4				
Memory	Capacity	Maximum 64 GB				
	Memory type	DDR4 ECC/Non-ECC 2133/1866/1600 MHz DIMM				
	Memory size	4 GB, 8 GB, 16 GB				
Expansion Slots	Total PCI/PCI-X/PCIe slots	4				
	Slot location 1	-				
	Slot location 2	-				
	Slot location 3	-				
	Slot location 4	PCIe x4 slot (Gen3 x4 link)				
	Slot location 5	PCIe x4 slot (Gen3 x1 link)				
	Slot location 6	PCIe x16 slot (Gen3 x16 link)				
Graphics	VGA	Intel HD Graphics				
	VRAM	1 GB maximum shared memory with 2 GB and above system memory installed				
Storage	SATA controller	Intel C236: 7 SATA3 6Gb/s Intel Matrix Storage (for Windows only) (Supports software RAID 0, 1, 10 & 5)				
	SAS controller	-				
Networking	GbE LAN	1 x Intel I219LM + 3 x Intel I210AT				
Onboard I/O Connectors	LPT connector	-				
	PSU connector	24-pin SSI power connector + 8-pin SSI 12 V power connector				
	USB 2.0 connector	3 (supports 6 x USB2.0 port), 1 x Type-A				
	USB 3.0 connector	1 (support 2 x USB 3.0 port)				
	Fan header	5 x 4pin				
	SMBus	1				
	Chassis intruder	1				
	Front LAN LED	2				
	Audio Header	1 (ALC 892)				
	Serial port header	3 (supports 5 x serial ports)				
	Rear I/O Connectors	External serial port	1			
External USB port		4 x USB 3.0				
VGA port		1				
DVI port		2				
RJ-45		4				
PS/2 KB/mouse		-				
Watchdog Timer	Output	System reset				
	Interval	Programmable 1 ~ 255 sec/min				
Power Requirement	Power On	3.3 V	5 V	12 V	5 Vsb	-12 V
		17.57 A	20.5 A	40.01 A	2 A	0.5 A
Environment	Temperature	Operating	Non-operating			
		0 ~ 60° C, depends on CPU speed and cooler solution	-40 ~ 85° C			
Physical Characteristics	Humidity	0% ~ 90%		5% ~ 95% (Non condensing)		
		Dimensions	244 x 244 mm (9.6" x 9.6")			

Block Diagram



Ordering Information

Part Number	Chipset	Memory	LAN	IPMI	Graphic
ASMB-585G2-00A1E	C236	DDR4 ECC/Non-ECC	2	-	Intel HD Graphics
ASMB-585G4-00A1E	C236	DDR4 ECC/Non-ECC	4	-	Intel HD Graphics

Packing List

Part Number	Description	Quantity
2061058500	Driver CD	x 1
2001058510	Startup manual	x 1
1700003194	SATA data cables	x 2
1703150102	SATA power cables	x 2
19Z0000996T000	I/O shield	x 1

Optional Accessories

Part Number	Description
1960049408N001	LGA 1151 CPU heatsink for 1U chassis, up to 84W processor
1960052651N021	LGA 1151 CPU cooler for 2U/4U chassis
PCA-TPM-00A1E	TPM Module by LPC
1700002204	Dual port USB2.0 cable (27 cm) with bracket
1700008461	Four port USB2.0 cable (30.5 cm) with bracket
1700020277-01	Dual port USB3.0 cable (30 cm) with bracket
PCA-COM232-00A1E	4 ports RS-232 module connect to LPC connector
PCA-COM485-00A1E	4 ports RS-422/485 module connect to LPC connector
1701090401	Single port RS-232 cable(40cm) for COM2 connector
1700008762	Dual port RS-232 cable(22.5cm) for COM3_4 & COM5_6 connector
968EMLSAP3	SUSIAccess Pro V2.1 Package for ISG w/CD/flyer/C

I/O View



ASMB-585G2-00A1E



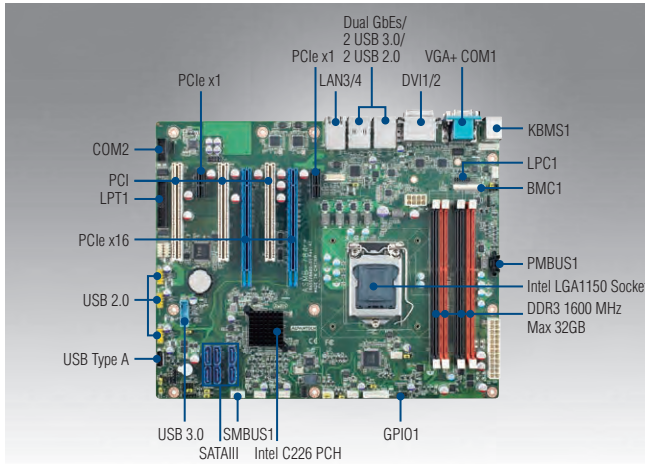
ASMB-585G4-00A1E

Note 1: Purchasing ASMB-585's proprietary CPU cooler from Advantech is a must. Other brands' CPU coolers may NOT compatible with ASMB-585.

- Intelligent Video and IoT Sensors 1
- Intelligent Transportation Platforms 2
- Intelligent Inspection Systems 3
- Modular IPCs 4
- Server-grade IPCs 5
- Industrial Storages 6
- Video Wall Controllers 7
- GPU Servers 8
- Industrial Motherboards 9
- Slot SBC & Passive Backplanes 10
- CompactPCI Platforms 11
- Industrial Chassis 12
- Industrial Computer Peripherals 13
- Industrial Ethernet Solutions 14

ASMB-784

LGA 1150 Intel® Xeon® E3 v3/ 4th Generation Core™ ATX Server Board with 2 PCIe x16 slots (x8 link), 3 PCI, USB 3.0, Quad/Dual LANs



Features

- Supports LGA 1150 Intel® Xeon® E3-1200 v3 and 4th Generation Core™ i7/i5/i3 processors
- DDR3 1600 MHz ECC/Non-ECC UDIMM up to 32GB
- One Gen 3.0 PCIe x16 link or two PCIe x16 slots with x8 link, two PCIe x1 and three PCI slots
- Rackmount optimized placement with positive air flow design
- Support Intel vPro, AMT 9.0, IPMI (optional) and Embedded software APIs and utilities

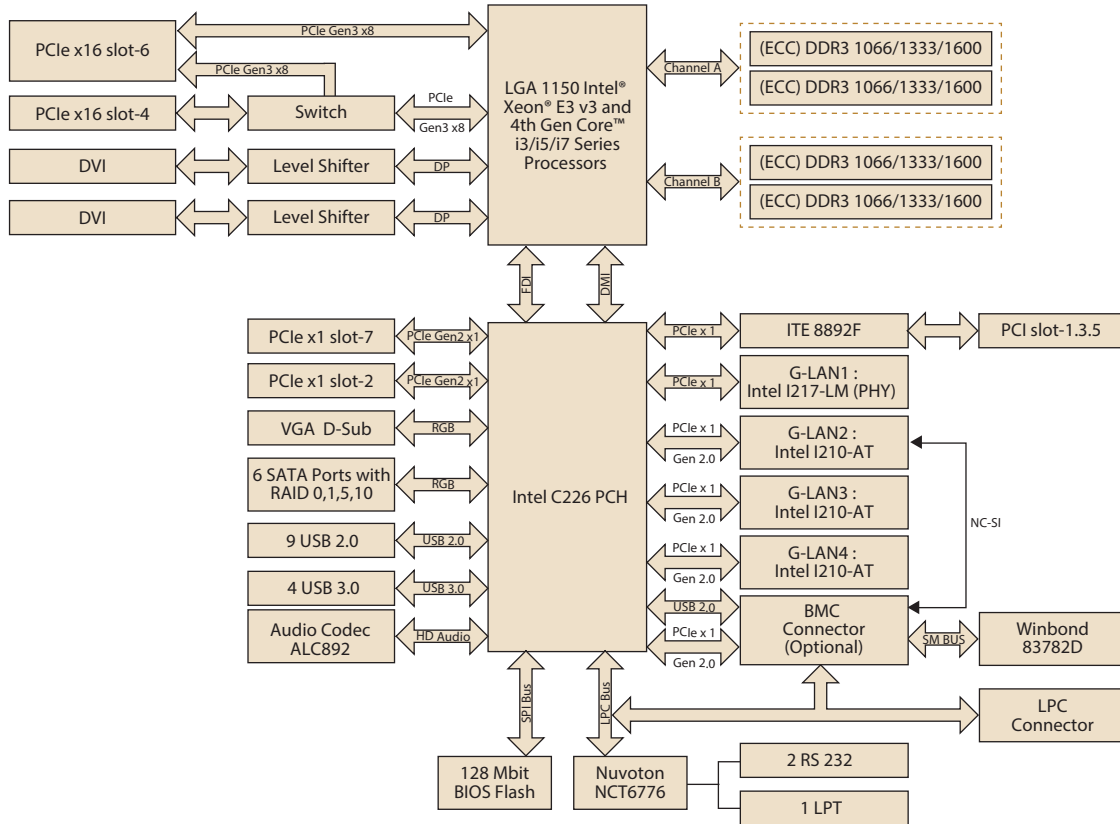


Specifications

Form Factor	ATX form factor						
Processor System	Socket	Intel LGA 1150					
	CPU type	Intel® Xeon® E3-1200 v3 and Core™ i3/i5/i7 series (TDP up to 84W)					
Core Logic	Chipset	Intel C226 chipset					
Memory	Total slots	4 (Dual Channel)					
	Max. capacity	32 GB					
	Memory type	DDR3 ECC/Non-ECC 1600/1333/1066 MHz UDIMM (240-pin)*					
	Memory size	1 GB, 2 GB, 4 GB, 8 GB					
Expansion Slots	Total PCI/PCI-X/PCIe slots	7					
	Slot location 1	PCI					
	Slot location 2	PCIe x1 slot (Gen2 x1 link)					
	Slot location 3	PCI					
	Slot location 4	PCI x16 slot (Gen3 x8 or x16 link)					
	Slot location 5	PCI					
	Slot location 6	PCI x16 slot (Gen3 x8 or x16 link)					
Graphics	Slot location 7	PCIe x1 slot (Gen2 x1 link)					
	Controller	Intel HD Graphics					
Storage	VRAM	1 GB maximum shared memory with 2 GB and above system memory installed					
	SATA controller	Intel C226: 6 SATA3 6 Gb/s ports with Intel Matrix Storage support (for Windows only) (Supports software RAID 0, 1, 10 & 5)					
Networking	SAS controller	-					
	Interface	10/100/1000 Mbps					
	Controller	GbE LAN1: Intel I217-LM; GbE LAN 2-4: Intel I210-AT					
Onboard I/O Connectors	Connector	RJ-45 x 2 for G2 version; RJ-45 x 4 for G4 version					
	Printer Port connector	1					
	PSU connector	24-pin SSI power connector + 8-pin SSI 12V power connector					
	USB connector	2 USB 3.0; 7 USB 2.0 (1 x USB Type-A)					
	Fan header	5 (4-pin)					
	SMBus	2					
	Chassis intruder	1					
	Front LAN LED	2					
	Serial port header	1 (RS-232)					
	Audio Connector	1 (ALC 892)					
	PS/2 KB/Mouse	1					
Rear I/O Connectors	External serial port	1					
	External USB port	4 (2 USB 3.0 and 2 USB 2.0)					
	VGA port	1					
	DVI	2					
	Display Port	-					
	RJ-45	2 for G2 version. 4 for G4 version					
Watchdog Timer	PS/2 KB/mouse	2					
	Output	System reset					
Power Requirement	Interval	Programmable 1 ~ 255 sec					
	Power On	Intel® Xeon® E3-1275v3 3.5GHz; DDR3 8G x4					
		3.3 V	5 V	12 V	12V_8P	5 Vsb	-12 V
Environment		1.17A	2.30A	0.06A	4.33A	0.16A	0.01A
	Operating	Non-operating					
	Temperature	0 ~ 60° C (32 ~ 140° F)					
Physical Characteristics	Humidity	Depends on CPU speed and cooler solution					
	Dimensions	304.8 x 244 mm (12" x 9.6")					

*Memory ECC function enable or not depends on processor supporting.

Block Diagram



Ordering Information

Part Number	Chipset	LAN	USB 3.0	DVI	SATAIII	IPMI
ASMB-784G2-00A1E	C226	2	4	2	6	Optional
ASMB-784G4-00A1E	C226	4	4	2	6	Optional

Packing List

Part Number	Description	Quantity
2066S78402	Driver CD	x 1
2006S78410	Startup manual	x 1
1700003194	SATA data cables	x 2
1700022749-11	SATA power cables	x 2
19Z0000502T000	I/O shield	x 1

I/O View



ASMB-784G2-00A1E



ASMB-784G4-00A1E

Optional Accessories

Part Number	Description
1700002204	Dual port USB 2.0 cable (27 cm) with bracket
1700008461	Four port USB 2.0 cable (30.5 cm) with bracket
1960052651N021	LGA 1151/1150/1155 CPU cooler for 2U/4U and wallmount chassis
1960049408N001	LGA 1151/1150/1155 1U CPU Cooler and supports up to 84W processor
1700008809	Printer port cable kit (25 cm)
1700020294-01	Printer port cable kit (42 cm)
1701090401	COM port cable with bracket (40 cm)
1700020277-01	Dual port USB 3.0 cable with bracket (30 cm)
1700007351	SATA cable L-type (for ACP-4320)
AIMB-AUDIO-HDA1E	HD Audio-Card
IPMI-1000-00A1E	IPMI 2.0 Module
PCA-TPM-00A1E	TPM Module with Infineon TPM 1.2 solution
19Z0000747T000	1U I/O shield

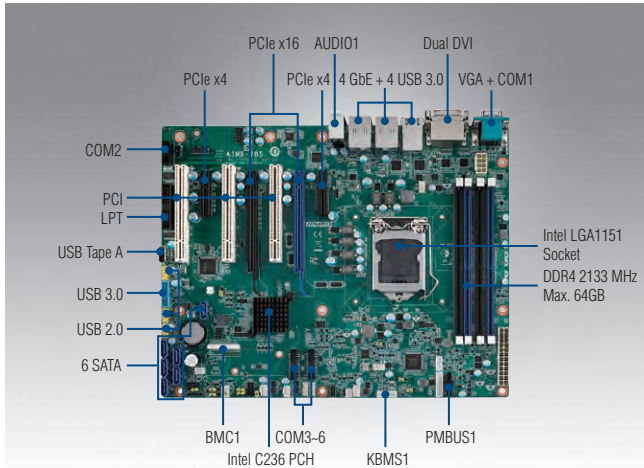
Note 1: It's a must to install PCA-TPM-00A1E for enabling Intel vPro feature.

Note 2: Purchasing ASMB-784's proprietary CPU cooler from Advantech is a must. Other brands' CPU coolers are NOT compatible with ASMB-784.

- Intelligent Video and IoT Sensors 1
- Intelligent Transportation Platforms 2
- Intelligent Inspection Systems 3
- Modular IPCs 4
- Server-grade IPCs 5
- Industrial Storages 6
- Video Wall Controllers 7
- GPU Servers 8
- Industrial Motherboards 9
- Slot SBC & Passive Backplanes 10
- Compact PCI Platforms 11
- Industrial Chassis 12
- Industrial Computer Peripherals 13
- Industrial Ethernet Solutions 14

ASMB-785

LGA 1151 Intel® Xeon® E3 v5/ 6th Generation Core™ ATX Server Board with DDR4, 4 PCIe, 3 PCI, 6 USB 3.0, 6 COM, 6 SATA3, Quad/Dual LANs



Features

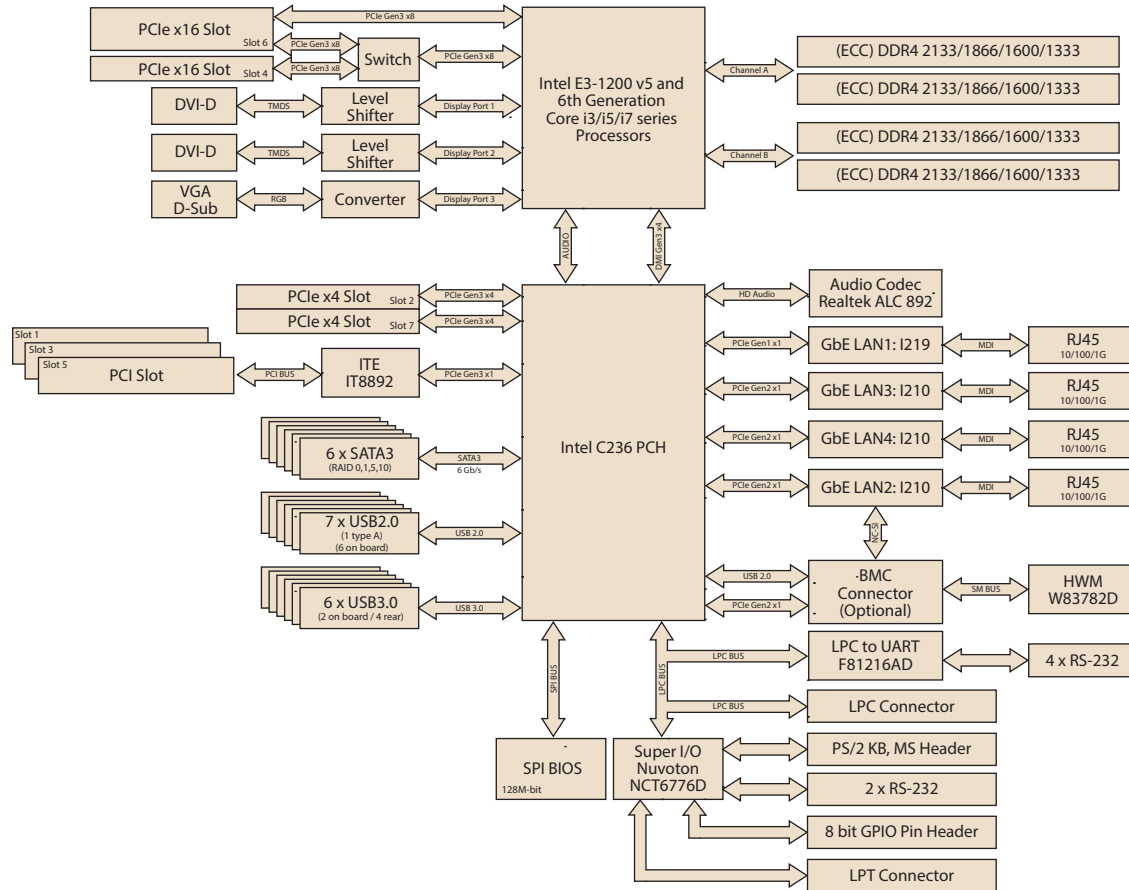
- Supports LGA 1151 Intel® Xeon® E3-1200 v5 and 6th Generation Core™ i7/i5/i3 processors
- DDR4 2133/1866/1600/1333 MHz ECC/Non-ECC UDIMM up to 64 GB
- One Gen 3.0 PCIe x1 link (or two PCIe x16 slots with x8 link), two PCIe x4, and three PCI slots
- Rackmount optimized placement with positive air flow design
- Support Intel vPro, AMT 9.0, IPMI (optional) and Embedded software APIs and utilities
- 0 ~ 60° C ambient operation temperature range



Specifications

Form Factor		ATX form factor	
Processor System	Socket	Intel LGA 1151	
	CPU type	Intel® Xeon® E3-1200 v5 and 6th Generation Core™ i3/i5/i7 series (TDP up to 80W)	
Core Logic	Chipset	Intel C236 chipset	
Memory	Total slots	4 (Dual Channel)	
	Max. capacity	64 GB	
	Memory type	DDR4 ECC/Non-ECC 2133/1866/1600 MHz UDIMM (288-pin)	
	Memory size	4 GB, 8 GB, 16 GB	
Expansion Slots	Total PCI/PCI-X/PCIe slots	7	
	Slot location 1	PCI	
	Slot location 2	PCIe x4 slot (Gen3 x4 link)	
	Slot location 3	PCI	
	Slot location 4	PCIe x16 slot (Gen3 x8 or x16 link)	
	Slot location 5	PCI	
	Slot location 6	PCIe x16 slot (Gen3 x8 or x16 link)	
Graphics	Controller	Intel HD Graphics	
	VRAM	1 GB maximum shared memory with 2 GB and above system memory installed	
Storage	SATA controller	Intel C236: 6 SATA3 6 Gb/s ports with Intel Matrix Storage support (for Windows only) (Supports software RAID 0, 1, 10 & 5)	
	SAS controller	-	
Networking	Interface	10/100/1000 Mbps	
	Controller	GbE LAN1: Intel I219; GbE LAN 2-4: Intel I210-AT	
	Connector	RJ-45 x 2 for G2 version; RJ-45 x 4 for G4 version	
Onboard I/O Connectors	Printer Port connector	1	
	PSU connector	24-pin SSI power connector + 8-pin SSI 12V power connector	
	USB connector	1 USB 3.0 (2 ports), 3 USB 2.0 (6 ports), 1 USB Type-A	
	Fan header	5 (4-pin)	
	SMBus	1	
	Chassis intruder	1	
	Front LAN LED	2	
	Serial port header	2 (support 4 RS-232 ports) + 1 (support 1 RS-232 port)	
	Audio connector	1 (ALC 892)	
	PS/2 KB/Mouse	1	
	Rear I/O Connectors	External serial port	1
External USB port		4 (USB 3.0)	
VGA port		1	
DVI		2	
Display port		-	
RJ-45		2 for G2 version; 4 for G4 version	
Audio connector		2 (Mic-in, Line-out)	
PS/2 KB/Mouse		-	
Watchdog Timer	Output	System reset	
	Interval	Programmable 1 ~ 255 sec	
Power Requirement	Power On	Intel® Xeon® E3-1275 v5 3.60GHz; DDR4 8G x 4	
		3.3 V 5 V 12 V 12V_8P 5 Vsb -12 V	
		0.96A 1.58A 0.32A 7.21A 0.11A 0.06A	
Environment	Operating	Non-operating	
	Temperature	0 ~ 60° C (32 ~ 140° F) Depends on CPU speed and cooler solution	-40 ~ 85° C (-40 ~ 185° F)
	Humidity	0% ~ 90%	5% ~ 95% (Non-condensing)
Physical Characteristics	Dimensions	304.8 x 244 mm (12" x 9.6")	

Block Diagram



Ordering Information

Part Number	Chipset	Memory	LAN	USB 3.0	DVI	SATAIII	IPMI
ASMB-785G2-00A1E	C236	DDR4 Non-ECC/ECC UDIMM	2	6	2	6	Optional
ASMB-785G4-00A1E	C236	DDR4 Non-ECC/ECC UDIMM	4	6	2	6	Optional

Packing List

Part Number	Description	Quantity
2066S78500	Driver CD	x 1
2006S78510	Startup manual	x 1
1700003194	SATA data cables	x 1
1700019381	SATA data cable (right angle)	x 1
1700022749-11	SATA power cables	x 2
19Z0000996T000	I/O shield	x 1

I/O View



ASMB-785G2-00A1E



ASMB-785G4-00A1E

Optional Accessories

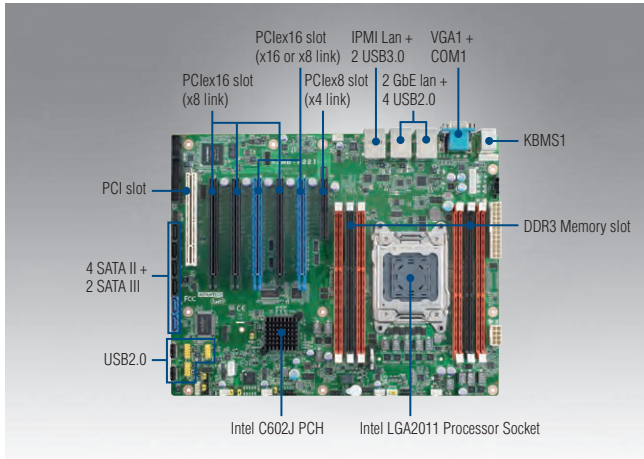
Part Number	Description
1700002204	Dual port USB 2.0 cable (27 cm) with bracket
1700008461	Four port USB 2.0 cable (30.5 cm) with bracket
1960052651N021	LGA 1151/1150/1155 CPU cooler for 2U/4U and wallmount chassis (side-flow type)
1960049408N001	LGA 1151/1150/1155 CPU heatsink for 1U chassis
1700008809	Printer port cable kit (25 cm)
1700020294-01	Printer port cable kit (42 cm)
1701090401	Single port RS-232 cable with bracket (40 cm)
1700008762	Dual port RS-232 cable with bracket (22.5 cm)
1700020277-01	Dual port USB 3.0 cable with bracket (30 cm)
IPMI-1000-00A1E	IPMI 2.0 Module
968EMLSAP3	SUSIAccess Pro V2.1
PCA-TPM-00A1E	TPM Module with Infineon TPM 1.2 solution

Note : Purchasing ASMB-785's proprietary CPU cooler from Advantech is a must. Other brands' CPU coolers are NOT compatible with ASMB-785.

- Intelligent Video and IoT Sensors 1
- Intelligent Transportation Platforms 2
- Intelligent Inspection Systems 3
- Modular IPCs 4
- Server-grade IPCs 5
- Industrial Storages 6
- Video Wall Controllers 7
- GPU Servers 8
- Industrial Motherboards 9
- Slot SBC & Passive Backplanes 10
- Compact PCI Platforms 11
- Industrial Chassis 12
- Industrial Computer Peripherals 13
- Industrial Ethernet Solutions 14

ASMB-822

LGA2011 Intel® Xeon® E5 ATX Server Board with 6 x DDR3, 5 x PCIe x16 slot (Gen 3.0), USB 3.0, IPMI



Features

- ATX Server Board with Intel® Xeon® E5-1600/1600 v2/2600/2600 v2 series processor
- DDR3 1600* MHz RDIMM up to 96 GB
- 5 x Gen 3.0 PCIe x16 slots
- 0 ~ 60° C ambient operation temperature range

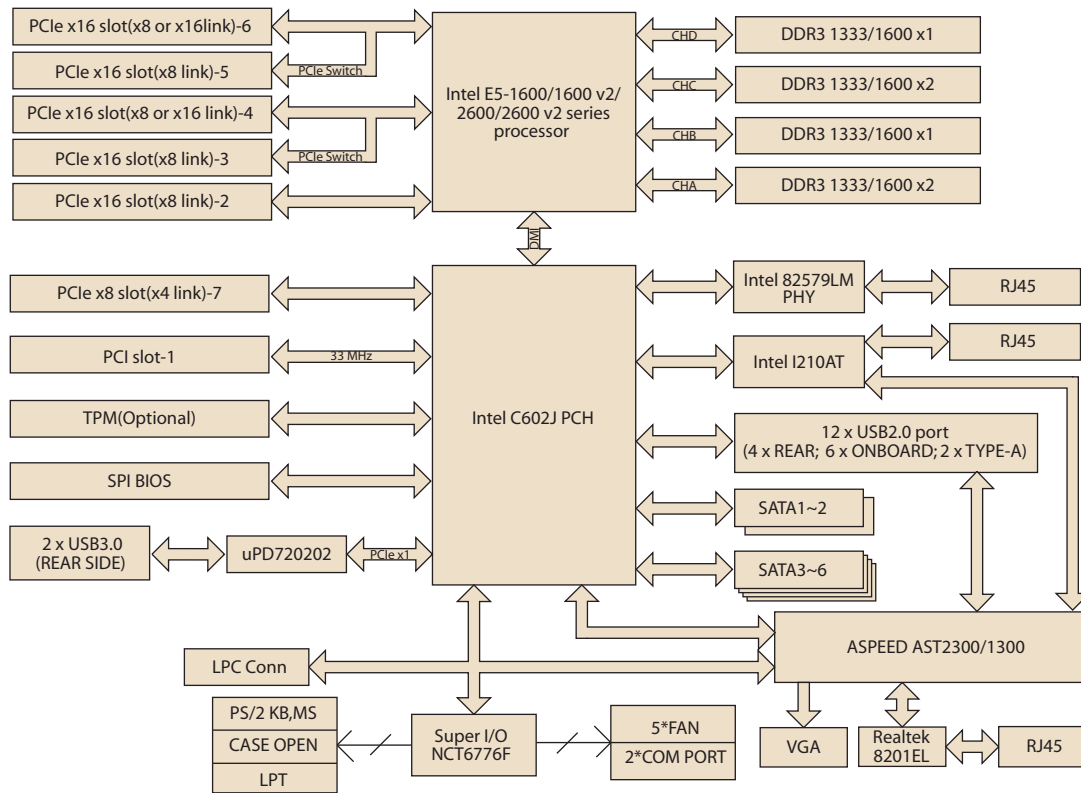


Specifications

Form Factor		ATX form factor				
Processor System	Socket	Intel LGA 2011				
	CPU type	Intel® Xeon® E5-1600 / 1600 v2 series (TDP up to 130W) Intel® Xeon® E5-2600 / 2600 v2 series (TDP up to 130W)				
Core Logic	Chipset	Intel C602J chipset				
Memory	Total slots	6				
	Capacity	Maximum 96 GB ECC RDIMM				
	Memory type	DDR3 ECC-REG/ECC/Non-ECC 1600*/1333/1066 MHz DIMM				
	Memory size	1 GB, 2 GB, 4 GB, 8 GB, 16 GB				
Expansion Slots	Total PCI/PCI-X/PCIe slots	7				
	Slot location 1	PCI				
	Slot location 2	PCIe x16 slot (Gen3 x8 link)				
	Slot location 3	PCIe x16 slot (Gen3 x8 link)				
	Slot location 4	PCIe x16 slot (Gen3 x8 or x16 link)				
	Slot location 5	PCIe x16 slot (Gen3 x8 link)				
	Slot location 6	PCIe x16 slot (Gen3 x8 or x16 link)				
Graphics	VGA	Aspeed AST2300/1300 64 MB				
Storage	SATA controller	Intel C602J: 4 SATA2 3 Gb/s ports, 2 SATA3 6Gb/s Intel Matrix Storage (for Windows only) (Supports software RAID 0, 1, 10 & 5)				
	SAS controller	-				
Networking	GbE LAN	1 x Intel 82579LM + 1 x Intel I210				
Onboard I/O Connectors	LPT connector	1				
	PSU connector	24-pin SSI power connector + 8-pin SSI 12 V power connector				
	USB connector	3 (supports 6 x USB2.0 port), 2 x Type-A				
	Fan header	5 x 4pin				
	SMBus	1				
	Chassis intruder	1				
	Front LAN LED	2				
	Audio Header	1				
	Serial port header	1				
Rear I/O Connectors	External serial port	1				
	External USB port	6 (2 x USB 3.0)				
	VGA port	1				
	RJ-45	3 (1 port dedicated for IPMI function)				
Management Solution	PS/2 KB/mouse	1				
	Software	-				
Monitoring	Out of band remote management	Yes				
	CPU temperature	Yes				
Watchdog Timer	System Monitoring	Yes				
	Output	System reset				
Power Requirement	Interval	Programmable 1 ~ 255 sec/min				
	Power On	3.3 V	5 V	12 V	5 Vsb	-12 V
		13.69 A	7.77 A	33.48 A	2 A	0.5 A
Environment	Operating	Non-operating				
	Temperature	0 ~ 60° C, depends on CPU speed and cooler solution		-40 ~ 85° C		
Physical Characteristics	Humidity	0% ~ 90%				
	Dimensions	304.8 x 244 mm (12" x 9.6")				
		5% ~ 95% (Non condensing)				

*ASMB-822/822I can only support DDR3 1600 REG DIMM which is Single/Dual rank.

Block Diagram



Ordering Information

Part Number	Chipset	Memory	LAN	IPMI	Graphic
ASMB-822-00A2E	C602J	DDR3 Non-ECC/ECC/REG	2	-	AST1300
ASMB-822I-00A2E	C602J	DDR3 Non-ECC/ECC/REG	2	Yes	AST2300

Packing List

Part Number	Description	Quantity
2062822I00	Driver CD	x 1
2002822I10	Startup manual	x 1
1700003194	SATA data cables	x 2
1703150102	SATA power cables	x 2
1700024441-01	LAN LED cable	x 1
1960048321T010	I/O shield	x 1
ASMB-BMC-00A1E	BMC module (only included in ASMB-822I SKU)	x 1

Optional Accessories

Part Number	Description
1960065593N001	ASMB-822I 1U CPU heatsink (TDP up to 130W)
1960063011N001	ASMB-822I 2U/4U CPU cooler (TDP up to 130W)
ASMB-RF3X8-21A1E	2U Riser Card (2 x PCI-X + 1 x PCIe x8)
PCA-AUDIO-HDA1E	HD Audio-card
PCA-TPM-00A1E	TPM Module by LPC
1700002204	Dual port USB cable (27 cm) with bracket
1700008461	Four port USB cable (30.5 cm) with bracket
1701260305	COM + Printer Port Cable Kit

I/O View



ASMB-822-00A2E

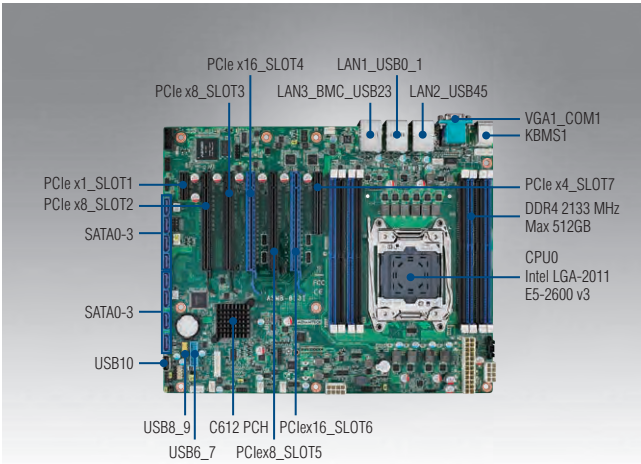


ASMB-822I-00A2E

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ASMB-813

**LGA 2011-R3 Intel® Xeon® E5-2600 v3
ATX Server Board with 8 DDR4 DIMM,
5 PCIe x16 Slot (Gen 3.0), 6 USB 3.0, IPMI**



Features

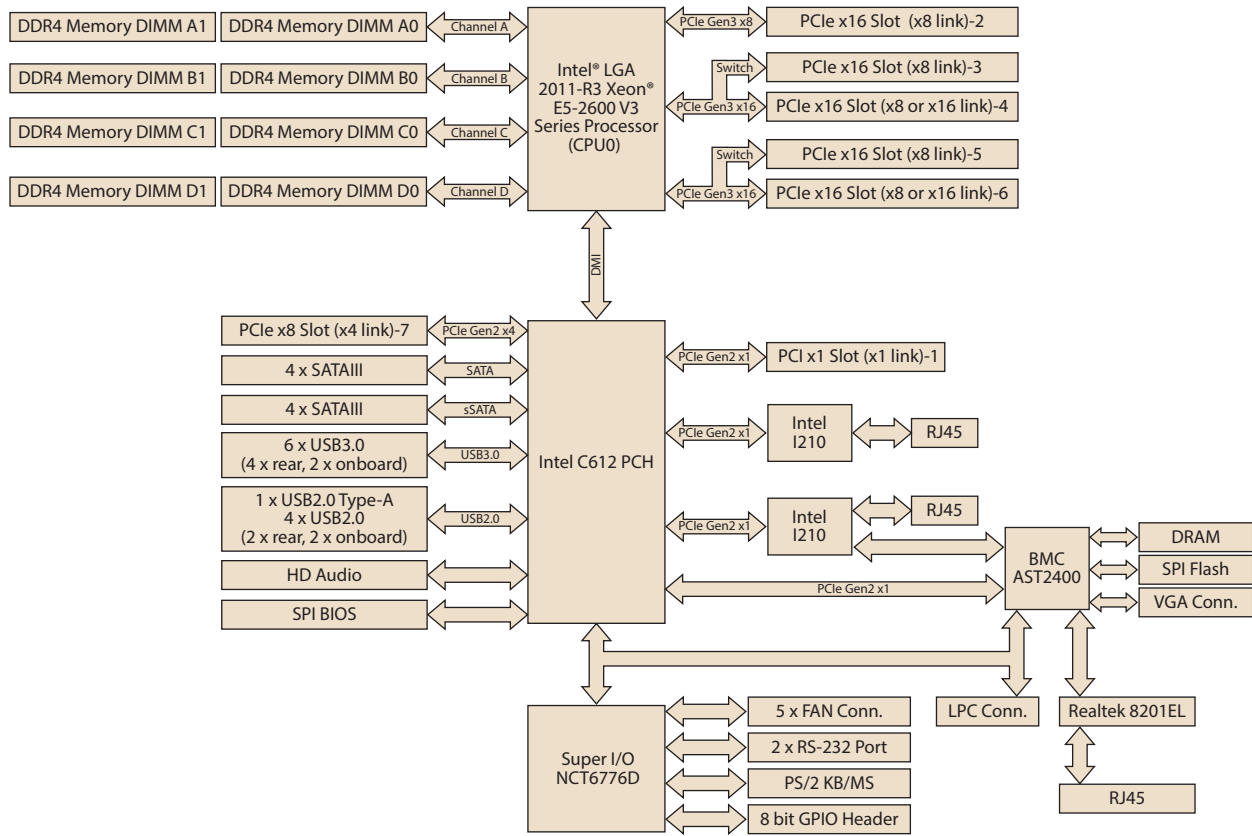
- ATX Server Board with Intel® Xeon® E5-2600 v3 processor
- Eight DDR4 2133 MHz RDIMM up to 256 GB and support DDR4 NVDIMM
- Seven PCIe expansion slots: five PCIe x8 (or two x16 and one x8), one PCIe x4 and one PCIe x1
- 0 ~ 60° C ambient operation temperature range



Specifications

Form Factor		ATX form factor				
Processor System	Socket	Intel LGA 2011-R3				
	CPU type	Intel® Xeon® E5-2600 v3 Series Intel® Xeon® E5-1600 v3 Series Intel® Core™ i7 5900 Series				
Core Logic	Chipset	Intel C612 chipset				
Memory	Total slots	8 (Quad Channel)				
	Capacity	Maximum 256 GB ECC RDIMM				
	Memory type	DDR4 ECC-REG 2133/1866/1600 MHz DIMM and NVDIMM				
	Memory size	4 GB, 8 GB, 16 GB, 32 GB				
Expansion Slots	Total PCI/PCI-X/PCIe slots	7				
	Slot location 1	PCIe x1 slot (Gen2 x1 link), signal from PCH				
	Slot location 2	PCIe x16 slot (Gen3 x8 link)				
	Slot location 3	PCIe x16 slot (Gen3 x8 link)				
	Slot location 4	PCIe x16 slot (Gen3 x16 link or x8 link when Slot 3 is occupied)				
	Slot location 5	PCIe x16 slot (Gen3 x8 link)				
	Slot location 6	PCIe x16 slot (Gen3 x16 link or x8 link when Slot 5 is occupied)				
Graphics	Slot location 7	PCIe x8 slot (Gen2 x4 link), signal from PCH				
	VGA	Aspeed AST2400/1400 64 MB				
Storage	IDE controller	-				
	SATA controller	Intel C612: 8 SATA3 6 Gb/s ports Intel Matrix Storage (for Windows only) (SATA0-SATA3 and sSATA0-sSATA3 support software RAID 0, 1, 10 & 5)				
	SAS controller	-				
Networking	GbE LAN	2 x Intel I210AT				
Onboard I/O Connectors	LPC connector	1				
	PSU connector	24-pin SSI power connector + 8-pin SSI 12 V power connector + 8-pin SSI 12 V power connector				
	USB connector	2 (supports 2 x USB3.0 ports and 2 x USB2.0 ports) + 1 x Type-A				
	Fan header	5 x 4-pin				
	SMBus	1				
	Chassis intruder	1				
	Front LAN LED	2				
	Audio Header	1				
Rear I/O Connectors	Serial port header	1				
	External serial port	1				
	External USB port	6 (4 x USB3.0 + 2 x USB2.0)				
	VGA port	1				
	RJ-45	3 (1 port dedicated for IPMI function)				
Management Solution	PS/2 KB/mouse	1				
	Software	-				
Monitoring	Out of band remote management	Yes (ASMB-813I SKU only)				
	CPU temperature	Yes				
Watchdog Timer	System Monitoring	Yes				
	Output	System reset				
Power Requirement	Interval	Programmable 1 ~ 255 sec/min				
	Power On	3.3V	5V	12V	5Vsb	-12V
		1.53A	0.92A	12.21A	0.04A	0.04A
Environment	Operating	Non-operating				
	Temperature	0 ~ 60° C, depends on CPU speed and cooler solution				
	Humidity	10% ~ 95%				
Physical Characteristics		-40 ~ 85° C				
	Dimensions	10% ~ 95% (Non condensing)				
		304.8 x 244 mm (12" x 9.6")				

Block Diagram



Ordering Information

Part Number	Chipset	Memory	GbE LAN	IPMI	VGA Chip
ASMB-813-00A1E	C612	8 x DDR4 RDIMM	2	-	AST 1400
ASMB-813I-00A1E	C612	8 x DDR4 RDIMM	2	Yes	AST 2400

Packing List

Part Number	Description	Quantity
2061813I00	Driver CD	x 1
2001813I10	Startup manual	x 1
1700003194	SATA data cables	x 2
1700022749-11	SATA power cables	x 2
1700019748	CPU power cable(8P)	x 2
1960048321T010	I/O shield	x 1

Optional Accessories

Part Number	Description
ASMB-RF3X8-21A1E	2U Riser Card (2 x PCI-X + 1 x PCIe x8)
PCA-AUDIO-HDA1E	HD Audio-card
PCA-TPM-00A1E	TPM Module by LPC
1960065593N001	LGA-2011 CPU heatsink for 1U chassis
1960063011N001	LGA-2011 CPU cooler for 2U/4U chassis
1700002204	Dual port USB cable (27 cm) with bracket
1700008461	Four port USB cable (30.5 cm) with bracket
1701090401	COM port cable with bracket
1701260305	COM + Printer Port Cable Kit
1700020277-01	Dual port USB 3.0 cable (30 cm) with bracket
1920000811T000	For 1U chassis IO shield

I/O View



ASMB-813-00A1E

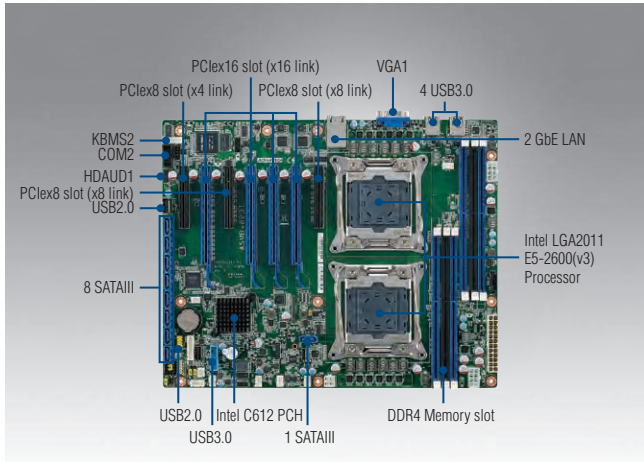


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ASMB-823

**Dual LGA 2011-R3 Intel® Xeon® E5-2600 v3
ATX Server Board with DDR4, 4 PCIe x16, 6
USB 3.0, SATA3, Dual LAN, IPMI 2.0**



Features

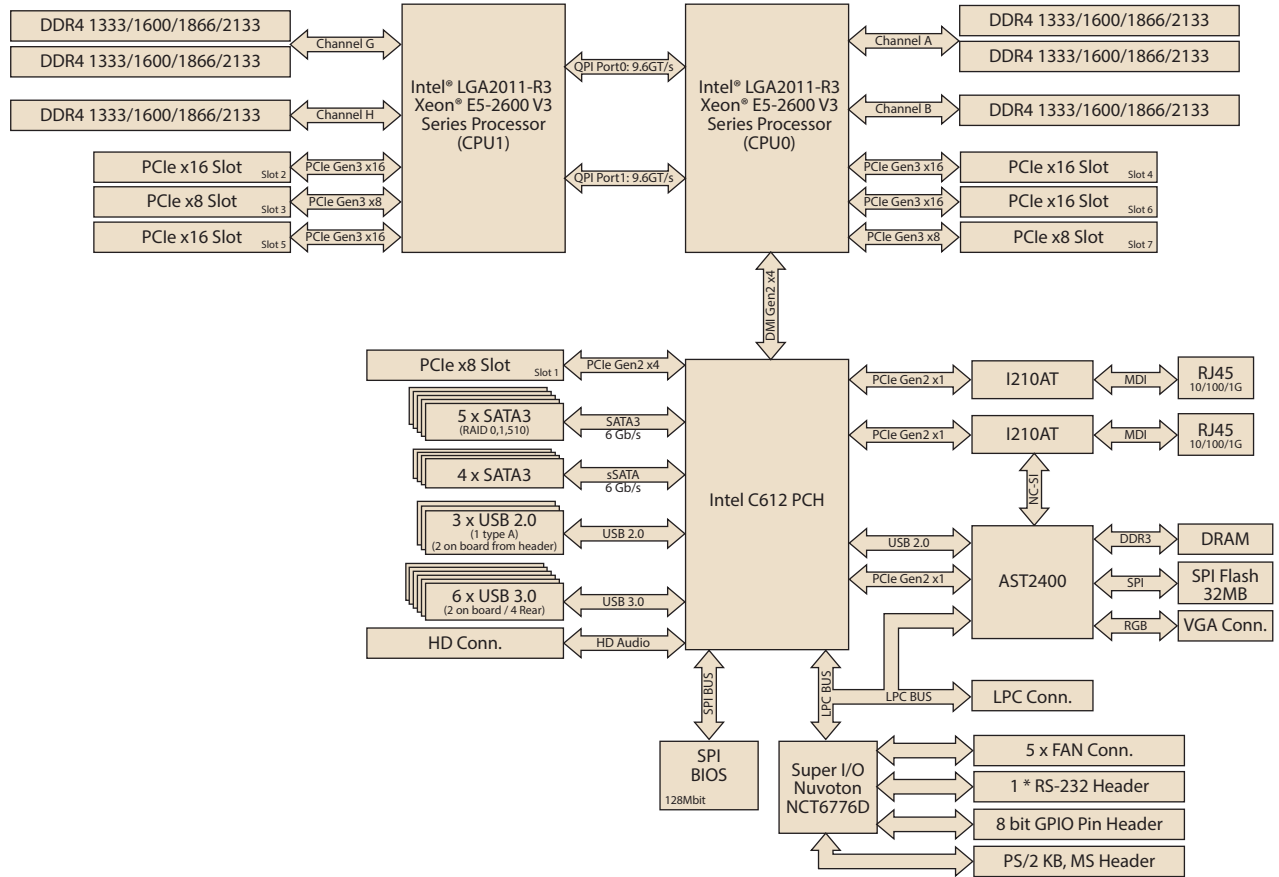
- ATX Server Board with dual Xeon® E5-2600 v3 processor
- DDR4 2133 MHz RDIMM up to 192 GB
- Four PCIe x16 slots (Gen3), two PCIe x8 (Gen3) and one PCIe x4 (Gen2) slots
- Nine SATA3 ports and six USB 3.0 ports
- 0 ~ 40° C ambient operation temperature range



Specifications

Form Factor	ATX form factor					
Processor System	Socket	Intel LGA 2011-R3				
	CPU type	Intel® Xeon® E5-2600 v3 dual processor (CPU cooler should be purchased separately and TDP up to 160W) Intel® Xeon® E5-1600 v3 Series (1S conditional support, please contact to Advantech application engineer)				
Core Logic	Chipset	Intel C612 chipset				
	Total slots	6 (Quad Channel)				
Memory	Capacity	Maximum 192 GB ECC RDIMM				
	Memory type	DDR4 ECC-REG 2133/1866/1600/1333 MHz DIMM				
	Memory size	1 GB, 2 GB, 4 GB, 8 GB, 16 GB, 32 GB				
Expansion Slots	Total PCI/PCI-X/PCIe slots	7				
	Slot location 1	1 x PCIe x8 slot (x4 link), signal from PCH				
	Slot location 2	1 x PCIe x16 slot (x16 link), signal from CPU1				
	Slot location 3	1 x PCIe x8 slot (x8 link), signal from CPU1				
	Slot location 4	1 x PCIe x16 slot (x16 link), signal from CPU0				
	Slot location 5	1 x PCIe x16 slot (x16 link), signal from CPU1				
	Slot location 6	1 x PCIe x16 slot (x16 link), signal from CPU0				
Graphics	VGA	Aspeed AST2400/1400 64 MB				
	IDE controller	-				
Storage	SATA controller	Intel C610: 9 SATA3 6 Gb/s ports Intel Matrix Storage (for Windows only) (SATA0-SATA4 supports software RAID 0, 1, 10 & 5)				
	SAS controller	-				
Networking	GbE LAN	2 x Intel I210AT				
Onboard I/O Connectors	Floppy connector	-				
	PSU connector	24-pin SSI power connector + 2 x 8-pin SSI 12 V power connector + 4-pin SSI 12 V power connector				
	USB connector	2 x USB2.0 ports (in one header) + 2 x USB3.0 ports (in one header) + 1*Type-A USB2.0 ports				
	Fan header	5 x 4-pin (2 for CPU + 3 for SYS)				
	SMBus	1				
	Chassis intruder	1				
	Front LAN LED	2				
	Audio Header	1				
	Serial port header	1				
Rear I/O Connectors	External serial port	-				
	External USB port	4 (USB 3.0)				
	VGA port	1				
	RJ-45	2 (one sharing IPMI function)				
	PS/2 KB/mouse	1 (by onboard connector)				
Management Solution	Infiniband	-				
	Software	-				
Monitoring	Out of band remote management	Yes				
	CPU temperature	Yes				
Watchdog Timer	System Monitoring	Yes				
	Output	System reset				
Power Requirement	Interval	Programmable 1 ~ 255 sec/min				
	Power On	3.3V	5V	12V	5Vsb	-12V
		1.67A	0.85A	18.11A	0.05A	0.004A
Environment	Operating	Non-operating				
	Temperature	0 ~ 40° C, depends on CPU speed and cooler solution				
Physical Characteristics	Humidity	-40 ~ 85° C				
	Dimensions	10% ~ 90% (Non condensing)				
		304.8 x 244 mm (12" x 9.6")				

Block Diagram



Ordering Information

Part Number	Chipset	Memory	GbE LAN	IPMI	VGA Chip
ASMB-823-00A1E	C612	DDR4 RDIMM	2	-	AST 1400
ASMB-823I-00A1E	C612	DDR4 RDIMM	2	Yes	AST 2400

Packing List

Part Number	Description	Quantity
2066823I00	Driver CD	x 1
2006823I10	Startup manual	x 1
1700003194	SATA data cables	x 2
1700022749-11	SATA power cables	x 2
1700019748	CPU power cable	x 2
19Z0000777T000	I/O shield	x 1

Optional Accessories

Part Number	Description
PCA-AUDIO-HDA1E	HD Audio-card
PCA-TPM-00A1E	TPM Module
1960057226N001	LGA2011 square CPU heatsink for 1U chassis (95W)
1960055362N001	LGA2011 square CPU cooler for 2U/4U chassis (145W)
1960065684N001	LGA2011 square CPU cooler for 4U chassis (160W)
1700002204	Dual port USB cable (27 cm) with bracket
1700008461	Four port USB cable (30.5 cm) with bracket
1700020277-01	Dual port USB 3.0 cable (30 cm) with bracket
1701090401	COM port cable with bracket
19Z0000806T000	For 1U chassis IO shield

I/O View

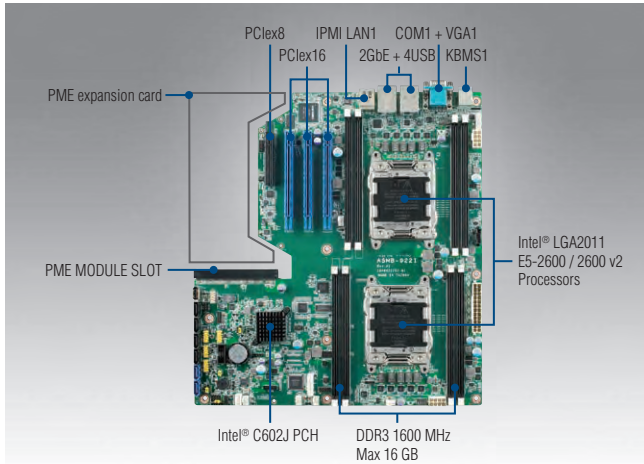


ASMB-823I-00A1E
ASMB-823-00A1E

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ASMB-922

Dual Intel® Xeon® E5-2600 / 2600 v2 EATX Server Board with DDR3, 3 PCIe x16 + 1 PCIe x8, PME support



Features

- EATX Server Board with dual Xeon® 2600 / 2600 v2 processor, PME flexible expansion and 128GB memory capacity
- DDR3 1600MHz RDIMM up to 128GB
- Three PCIe x16 slot(Gen3.0) + one PCIe x8 slot(Gen3.0) slots and PME expansion slot
- PME expansion cards supporting list is in page 5-24
- 0-40° C ambient operation temperature range

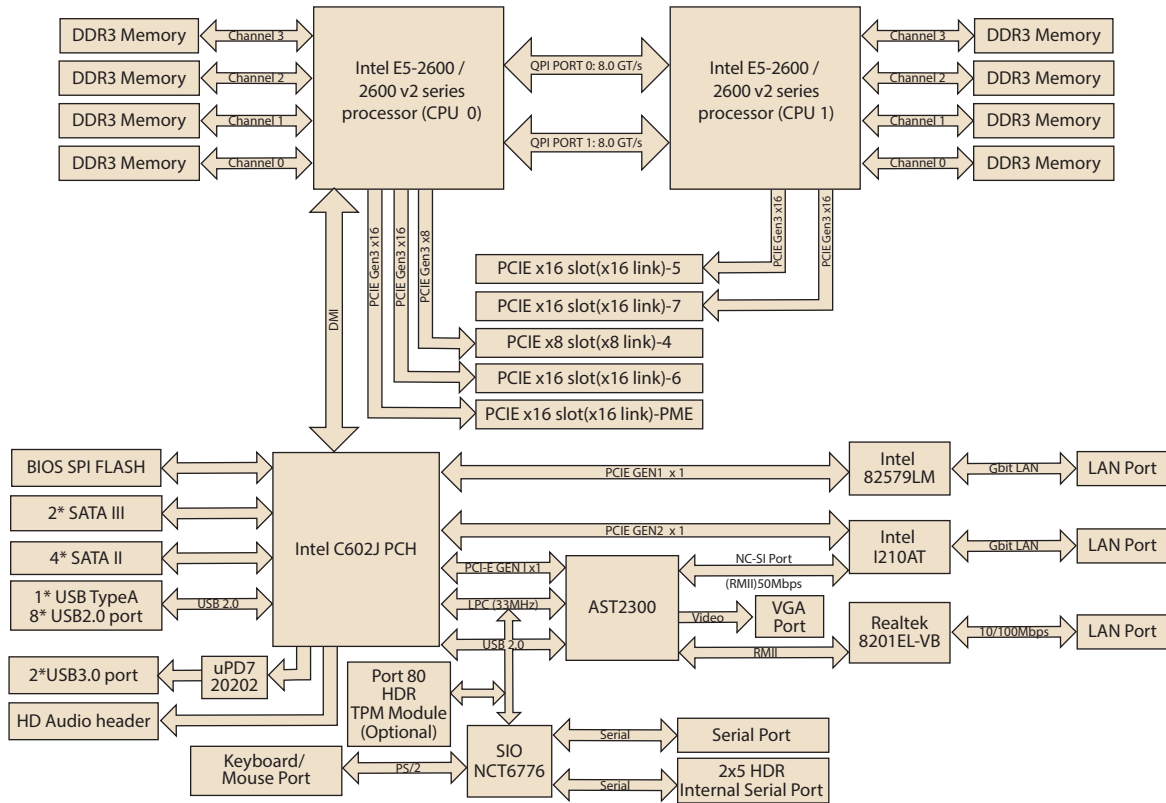
Note: ASMB-922 series could enable PME slot when processor is installed in CPU0 socket.



Specifications

Form Factor	Extended ATX form factor	
Processor System	Socket	Intel LGA 2011
	CPU type	Intel® Xeon® E5-2600 / 2600 v2 dual processor (TDP up to 130W)
Core Logic	Chipset	Intel C602J chipset
	Total slots	8 (Quad Channel)
Memory	Capacity	Maximum 128 GB ECC RDIMM
	Memory type	DDR3 ECC-REG/ECC/Non-ECC 1600/1333/1066 MHz DIMM
	Memory size	1 GB, 2 GB, 4 GB, 8 GB, 16 GB
Expansion Slots	Total PCI/PCI-X/PCIe slots	7
	Slot location 1	Fit to PME daughter board
	Slot location 2	Fit to PME daughter board
	Slot location 3	Fit to PME daughter board
	Slot location 4	1 x PCIe x8 slot (Gen3 x8 link), signal from CPU0
	Slot location 5	1 x PCIe x16 slot (Gen3 x16 link), signal from CPU1
	Slot location 6	1 x PCIe x16 slot (Gen3 x16 link), signal from CPU0
Graphics	VGA	Aspeed AST2300 64 MB
	SATA controller	Intel C602J: 4 SATA2 3 Gb/s ports, 2 SATA3 6Gb/s Intel Matrix Storage (for Windows only)
Storage	SAS controller	-
	GbE LAN	1 x Intel 82579LM + 1 x Intel I210AT
Networking	Floppy connector	-
	PSU connector	24-pin SSI power connector + 8-pin SSI 12 V power connector + 8-pin SSI 12 V power connector
	USB connector	4 (supports 6 USB port), 1* Type-A
	Fan header	5 x 4pin
	SMBus	1
	Chassis intruder	1
	Front LAN LED	2
	Audio Header	1
Rear I/O Connectors	Serial port header	1
	External serial port	1
	External USB port	4 (2*USB2.0 + 2*USB3.0)
	VGA port	1
	RJ-45	3 (1 port dedicated for IPMI function)
Management Solution	PS/2 KB/mouse	1
	Software	-
Monitoring	Out of band remote management	Yes
	CPU temperature	Yes
Watchdog Timer	System Monitoring	Yes
	Output	System reset
Power Requirement	Interval	Programmable 1 ~ 255 sec/min
	Power On	3.3V 19.69A 5V 7.77A 12V 58.66A 5Vsb 2A -12V 0.5A
	Operating	Non-operating
Environment	Temperature	0 ~ 40° C, depends on CPU speed and cooler solution -40 ~ 85° C
	Humidity	0% ~ 90% 5% ~ 95% (Non condensing)
Physical Characteristics	Dimensions	304.8 x 330.2 mm (12" x 13")

Block Diagram



Ordering Information

Part Number	Chipset	Memory	GbE LAN	IPMI	VGA Chip
ASMB-922-00A2E	C602J	DDR3 Non-ECC/ECC/REG	2	-	AST 1300
ASMB-922I-00A2E	C602J	DDR3 Non-ECC/ECC/REG	2	Yes	AST 2300

Packing List

Part Number	Description	Quantity
2066922I00	Driver CD	x 1
2006922I10	Startup manual	x 1
1700003194	SATA data cables	x 2
1703150102	SATA power cables	x 2
1960052312T000	I/O shield	x 1
1700019748	CPU power cables	x 2

Optional Accessories

Part Number	Description
ASMB-FF3P8-12A1E	PME card with 1 PCIe x8 slot (x8 link) and 1 PCIe x8 slot (x4 link) and 1 PCI slot
ASMB-FF3PX-12A1E	PME card with 2 PCI-X and 1 PCI slots
ASMB-FF20F-02A1E	PME card with 2 PCIe x16 slots
ASMB-FF208-02A1E	PME card with 2 PCIe x8 slots
ASMB-FF404-04A1E	PME card with 4 PCIe x4 slots (Only fit to HPC-7400 chassis)
PCA-AUDIO-HDA1E	HD Audio-card
PCA-TPM-00A1E	TPM Module
1960063011N001	LGA2011 CPU cooler for 2U/4U chassis (TDP up to 130W)
1960065591N001	LGA2011 CPU0 heatsink for 1U chassis (TDP up to 130W)
1960065593N001	LGA2011 CPU1 heatsink for 1U chassis (TDP up to 130W)
1700002204	Dual port USB cable (27 cm) with bracket
1700008461	Four port USB cable (30.5 cm) with bracket
1701090401	COM port cable with bracket

I/O View



ASMB-922-00A2E

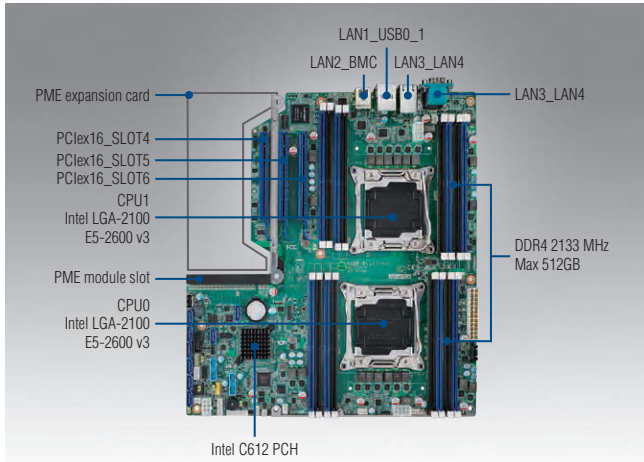


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ASMB-913

**Dual LGA 2011-R3 Intel® Xeon® E5-2600 v3
EATX Server Board with 16 x DDR4 DIMM,
3 PCIe x16, 6 USB 3.0, PME support**



Features

- EATX Server Board with dual Xeon® E5-2600 v3 processor
- 16 x DDR4 2133 MHz RDIMM up to 512 GB
- Three PCIe x16 slot(Gen3.0) and PME expansion slot
- PME expansion cards supporting list is in page 5-24
- 0 ~ 40° C ambient operation temperature range

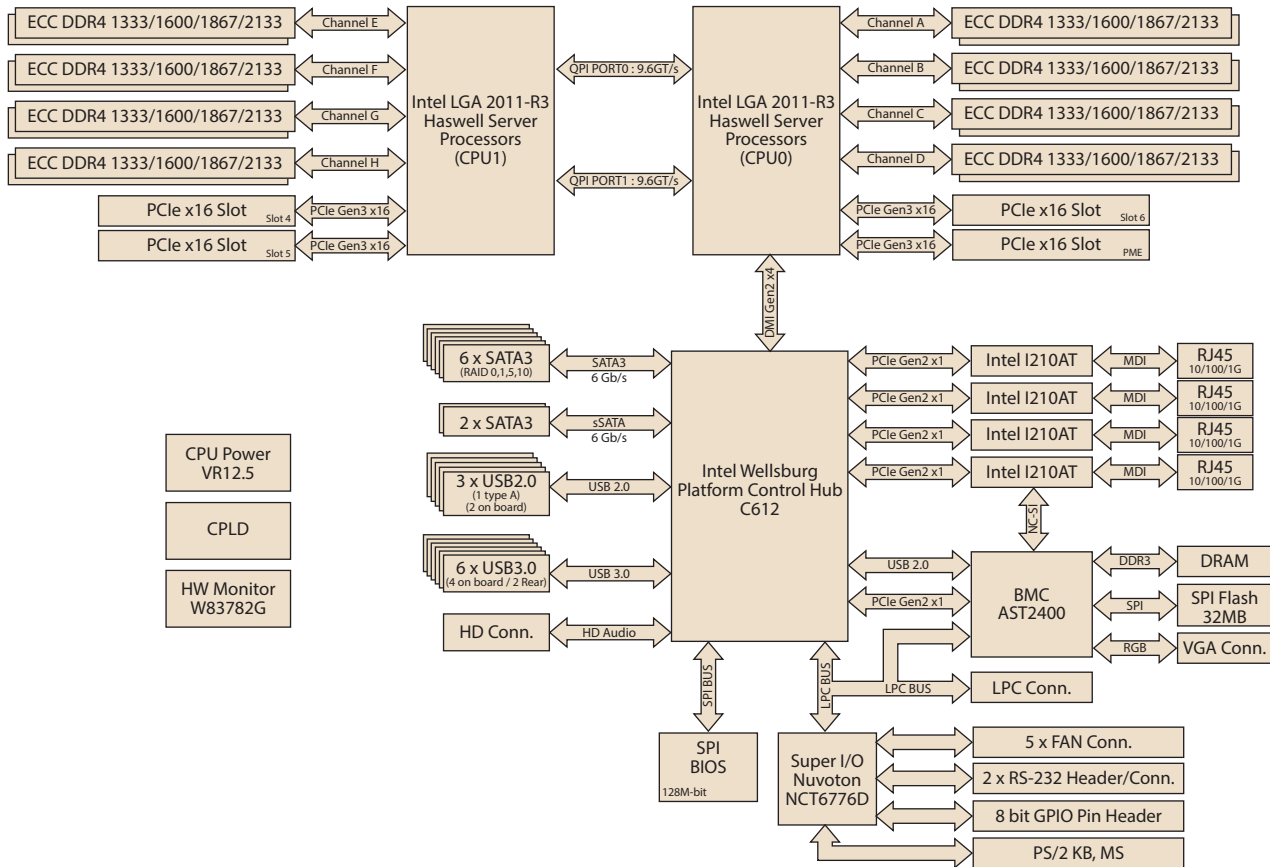
Note: ASMB-913I could enable PME slot when processor is installed in CPU0 socket.



Specifications

Form Factor		Extended ATX form factor					
Processor System	Socket	Intel LGA 2011-R3					
	CPU type	Intel® Xeon® E5-2600 v3 dual processor (CPU cooler should be purchased separately and TDP up to 160W) Intel® Xeon® E5-2600 v3 Series (1S conditional support, please contact to Advantech application engineer)					
Core Logic	Chipset	Intel C612 chipset					
Memory	Total slots	16 (Quad Channel)					
	Capacity	Maximum 512 GB ECC RDIMM					
	Memory type	DDR4 ECC-REG 2133/1866/1600 MHz DIMM					
	Memory size	4 GB, 8 GB, 16 GB, 32 GB					
Expansion Slots	Total PCI/PCI-X/PCIe slots	6					
	Slot location 1	Fit to PME daughter board					
	Slot location 2	Fit to PME daughter board					
	Slot location 3	Fit to PME daughter board					
	Slot location 4	1 x PCIe x16 slot (x16 link), signal from CPU1					
	Slot location 5	1 x PCIe x16 slot (x16 link), signal from CPU1					
	Slot location 6	1 x PCIe x16 slot (x16 link), signal from CPU0					
Graphics	VGA	Aspeed AST2400/1400 64 MB					
	IDE controller	-					
Storage	SATA controller	Intel C612: 8 SATA3 6 Gb/s ports Intel Matrix Storage (for Windows only) (SATA0-SATA5 and sSATA0-sSATA1 Supports software RAID 0, 1, 10 & 5)					
	SAS controller	-					
Networking	GbE LAN	4 x Intel I210AT					
Onboard I/O Connectors	Floppy connector	-					
	PSU connector	24-pin SSI power connector + 8-pin SSI 12 V power connector + 8-pin SSI 12 V power connector					
	USB connector	2 (supports 4 USB port), 1* Type-A, 2* USB3.0 20pin header (supports 4*USB 3.0 port)					
	Fan header	5 x 4pin					
	SMBus	1					
	Chassis intruder	1					
	Front LAN LED	2					
	Audio Header	1					
	Serial port header	1					
	Rear I/O Connectors	External serial port	1				
External USB port		4 (2*USB2.0 + 2*USB3.0)					
VGA port		1					
RJ-45		3 (1 port dedicated for IPMI function)					
PS/2 KB/mouse		-					
Infiniband		-					
Management Solution	Software						
	Out of band remote management	Yes (ASMB-913I sku only)					
Monitoring	CPU temperature	Yes					
	System Monitoring	Yes					
Watchdog Timer	Output	System reset					
	Interval	Programmable 1 ~ 255 sec/min					
Power Requirement	Power On	3.3V	5V	12V	5Vsb	-12V	
		1.4A	0.5A	23.2A	0.09A	0.05A	
Environment	Operating	Operating				Non-operating	
	Temperature	0 ~ 40° C, depends on CPU speed and cooler solution				-40 ~ 85° C	
Physical Characteristics	Humidity	10% ~ 95%				10% ~ 95% (Non condensing)	
	Dimensions	304.8 x 330.2 mm (12" x 13")					

Block Diagram



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Ordering Information

Part Number	Chipset	Memory	GbE LAN	IPMI	VGA Chip
ASMB-913-00A1E	C612	16 x DDR4 RDIMM	2	-	AST 1400
ASMB-913I-00A1E	C612	16 x DDR4 RDIMM	4	Yes	AST 2400

Packing List

Part Number	Description	Quantity
2061913100	Driver CD	x 1
2001913110	Startup manual	x 1
1700003194	SATA data cables	x 2
1703150102	SATA power cables	x 2
1700019748	CPU power cable(8P)	x 2
19Z0000995T000	I/O shield	x 1

Optional Accessories

Part Number	Description
ASMB-FF3P8-12A1E	PME card with 1 PCIe x8 slot and 1 PCIe x4 slot and 1 PCI slot
ASMB-FF3PX-12A1E	PME card with 2 PCI-X and 1 PCI slots
ASMB-FF20F-02A1E	PME card with 2 PCIe x16 slots
ASMB-FF208-02A1E	PME card with 2 PCIe x 8 slots
PCA-AUDIO-HDA1E	HD Audio-card
PCA-TPM-00A1E	TPM Module
1960057226N001	LGA-2011 CPU heatsink for 1U chassis (95W)
1960055362N001	LGA-2011 square CPU cooler for 2U/4U chassis (145W)
1960065684N001	LGA-2011 square CPU cooler for 4U chassis (160W)
1700002204	Dual port USB cable (27 cm) with bracket
1700008461	Four port USB cable (30.5 cm) with bracket
1701090401	COM port cable with bracket
1700020277-01	Dual port USB 3.0 cable (30 cm) with bracket
19Z0001086N000	For 1U chassis IO shield

I/O View



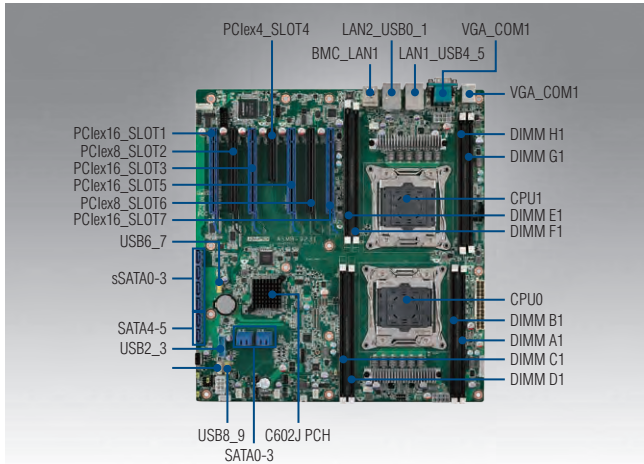
ASMB-913-00A1E



ASMB-913I-00A1E

ASMB-923

Dual LGA 2011-R3 Intel® Xeon® E5-2600v3 EATX Server Board with DDR4, 4 PCIe x16+ 2 PCIe x8(Gen 3.0), 4 USB 3.0



Features

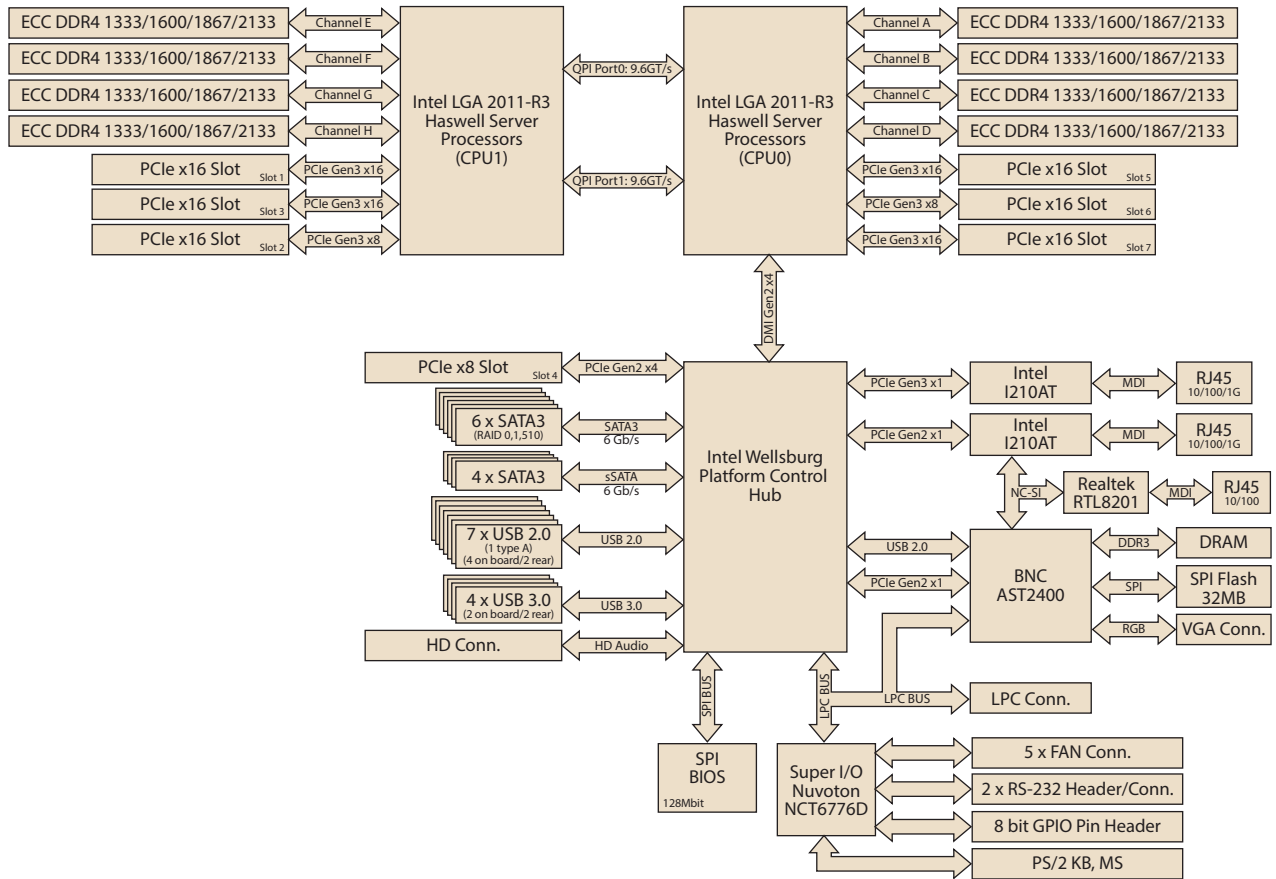
- EATX Server Board with dual Xeon® E5-2600 v3 processor, 8 DIMMs 256 GB memory capacity
- DDR4 2133 MHz RDIMM up to 256 GB
- Four PCIe x16 slots (Gen3) + two PCIe x8 slots (Gen3.0) and one PCIe x4 (Gen2.0)
- 0 ~ 40° C ambient operation temperature range



Specifications

Form Factor		Extended ATX form factor				
Processor System	Socket	Intel LGA 2011-R3				
	CPU type	Intel® Xeon® E5-2600 v3 dual processor (CPU cooler should be purchased separately and TDP up to 160W) Intel® Xeon® E5-1600 v3 Series (1S conditional support, please contact to Advantech application engineer)				
Core Logic	Chipset	Intel C612 chipset				
	Total slots	8 (Quad Channel)				
Memory	Capacity	Maximum 256 GB ECC RDIMM				
	Memory type	DDR4 ECC-REG 2133/1866/1600/1333 MHz DIMM				
	Memory size	1 GB, 2 GB, 4 GB, 8 GB, 16 GB, 32 GB				
Expansion Slots	Total PCI/PCI-X/PCIe slots	7				
	Slot location 1	1 x PCIe x16 slot (x16 link), signal from CPU1				
	Slot location 2	1 x PCIe x16 slot (x8 link), signal from CPU1				
	Slot location 3	1 x PCIe x16 slot (x16 link), signal from CPU1				
	Slot location 4	1 x PCIe x8 slot (x4 link), signal from PCH				
	Slot location 5	1 x PCIe x16 slot (x16 link), signal from CPU0				
	Slot location 6	1 x PCIe x16 slot (x8 link), signal from CPU0				
Graphics	VGA	Aspeed AST2400/1400 64 MB				
	IDE controller	-				
Storage	SATA controller	Intel C610: 10 SATA3 6 Gb/s ports Intel Matrix Storage (for Windows only) (SATA0-SATA5 and sSATA0-sSATA3 Supports software RAID 0, 1, 10 & 5)				
	SAS controller	-				
Networking	GbE LAN	2 x Intel I210AT				
Onboard I/O Connectors	Floppy connector	-				
	PSU connector	24-pin SSI power connector + 8-pin SSI 12 V power connector + 8-pin SSI 12 V power connector				
	USB connector	2 (supports 4 USB port), 1* Type-A , 1* USB3.0 20pin header (supports 2*USB 3.0 port)				
	Fan header	5 x 4pin				
	SMBus	1				
	Chassis intruder	1				
	Front LAN LED	2				
	Audio Header	1				
	Serial port header	1				
	Rear I/O Connectors	External serial port	1			
External USB port		4 (2*USB2.0 + 2*USB3.0)				
VGA port		1				
RJ-45		3 (1 port dedicated for IPMI function)				
PS/2 KB/mouse		1				
Infiniband		-				
Management Solution	Software	-				
	Out of band remote management	Yes (ASMB-923I sku only)				
Monitoring	CPU temperature	Yes				
	System Monitoring	Yes				
Watchdog Timer	Output	System reset				
	Interval	Programmable 1 ~ 255 sec/min				
Power Requirement	Power On	3.3V	5V	12V	5Vsb	-12V
		1.69A	1.00A	17.42A	0.05A	0.01A
Environment	Temperature	Operating			Non-operating	
		0 ~ 40° C, depends on CPU speed and cooler solution			-40 ~ 85° C	
Physical Characteristics	Dimensions	Humidity			10% ~ 95% (Non condensing)	
		10% ~ 95%				

Block Diagram



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Ordering Information

Part Number	Chipset	Memory	GbE LAN	IPMI	VGA Chip
ASMB-923-00A1E	C612	DDR4 RDIMM	2	-	AST 1400
ASMB-923I-00A1E	C612	DDR4 RDIMM	2	Yes	AST 2400

Packing List

Part Number	Description	Quantity
2066923I00	Driver CD	x 1
2006923I10	Startup manual	x 1
1700003194	SATA data cables	x 2
1703150102	SATA power cables	x 2
1700019748	CPU power cable(8P)	x 2
1960052312T010	I/O shield	x 1

Optional Accessories

Part Number	Description
PCA-AUDIO-HDA1E	HD Audio-card
PCA-TPM-00A1E	TPM Module
1960057226N001	LGA-2011 square CPU heatsink for 1U chassis (95W)
1960055362N001	LGA-2011 square CPU cooler for 2U/4U chassis (145W)
1960065684N001	LGA-2011 square CPU cooler for 4U chassis (160W)
1700002204	Dual port USB cable (27 cm) with bracket
1700008461	Four port USB cable (30.5 cm) with bracket
1701090401	COM port cable with bracket
19Z0000406T000	For 1U chassis IO shield

I/O View



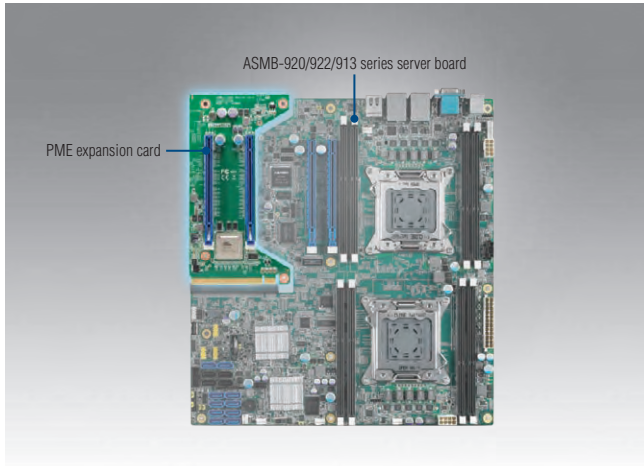
ASMB-923-00A1E



ASMB-923I-00A1E

PME Expansion Cards

Various Selections Supporting PCI, PCI-X, PCIe x1/x4/x8/x16



Features

- Auto-configured by BIOS
- ASMB-920/922/913 series plus PME forms a standard EATX motherboard compatible with EATX chassis
- Multiple options for all demands

Note:

- To enable PME function, it must to install processor both into CPU0 & CPU1 socket of ASMB-920 series.
- To enable PME function, it need to install a processor into CPU0 socket of ASMB-922 & 913 series.

Introduction

Advantech's PME (Powerful Modular Expansion) design allows versatile expansion module options to the ASMB-920/922/913 series motherboard. PME expansion cards are an economical, effective solution for a range of applications, providing function expansion for a range of PCIe modules. In addition to meeting standard industrial specifications, Advantech's PME modules fit just about anywhere. They are easy to assemble and provide a simple upgrade path.

Specifications

Model Name	ASMB-FF3PX	ASMB-FF20F	ASMB-FF208	ASMB-FF3P8	ASMB-FF404*
Total PCI/PCI-X/PCIe slots	3	2	2	3	4
Slot location E1	-	-	-	-	PCIe x8 (Gen3 x4 link)
Slot location 1	PCI 33/66 MHz	PCIe x16 (Gen3 x16 link)	PCIe x16 (Gen1 x8 link)	PCI 33/66 MHz	PCIe x8 (Gen3 x4 link)
Slot location 2	PCI-X 100 MHz	-	-	PCIe x8 (Gen3 x4 link)	PCIe x8 (Gen3 x4 link)
Slot location 3	PCI-X 100 MHz	PCIe x16 (Gen3 x16 link)	PCIe x16 (Gen1 x8 link)	PCIe x8 (Gen3 x8 link)	PCIe x8 (Gen3 x4 link)
Fit Motherboard	ASMB-920/922/913 series				
Environment	Temperature	Operating		Non-operating	
		System: 0 ~ 40° C		-40 ~ 85° C	
		Board: 0 ~ 60° C			
Physical Characteristics	Humidity	0% ~ 90%			
	Dimensions	101 x 193 mm	101 x 193 mm	101 x 193 mm	101 x 193 mm

Front View



ASMB-FF3PX-12A1E



ASMB-FF20F-02A1E



ASMB-FF208-02A1E



ASMB-FF3P8-12A1E



ASMB-FF404-04A1E^{Note 3}

Ordering Information

Part Number	Description
ASMB-FF3PX-12A1E	PME card with 2 PCI-X and 1 PCI slots
ASMB-FF20F-02A1E	PME card with 2 PCIe x16 slots (x16 link)
ASMB-FF3P8-12A1E	PME card with 1 PCIe x8 slot(x8 link) and 1 PCIe x8 slot(x4 link) and 1 PCI slot
ASMB-FF208-02A1E	PME card with 2 PCIe x16 slots (x8 link)
ASMB-FF404-04A1E	PME card with 4 PCIe x8 slots (x4 link)

Note:

- To enable PME function, it must to install processor both into CPU0 & CPU1 socket of ASMB-920 series.
- To enable PME function, it need to install a processor into CPU0 socket of ASMB-922 & 913 series.
- Only HPC-7400 chassis can support ASMB-920/922/913 series + ASMB-FF404.

ASMB Riser Card



Selection Guide

Model Name		ASMB-RF3X8-21A1E	ASMB-RF348-21A1E
Interface		PCIe x16	PCIe x16 for slot 6
Expansion Slots	Spec.	2 * PCI-X 64bit 133/100MHz + 1 * PCIe x8	1 * PCIe x8 +2 * PCIe x4
	Top Slot	3.3V PCI-X 64bit 133/100MHz	PCIe x16 (x8 link)
	Middle Slot	3.3V PCI-X 64bit 133/100MHz	PCIe x8 (x4 link)
	Bottom Slot	PCIe x8 slot (x8 link)	PCIe x8 (x4 link)
Chassis	2U	HPC-7280 ACP-2010MB/2320MB HPC-7242MB	HPC-7280 ACP-2010MB/2320MB HPC-7242MB
Motherboard	ASMB-584	X	*△ (Note3)
	ASMB-585	YES	*△ (Note1)
	ASMB-781	YES	*△ (Note1)
	ASMB-782	X	*△ (Note2)
	ASMB-784	YES	*△ (Note1)
	ASMB-785	YES	*△ (Note1)
	ASMB-820	YES	YES
	ASMB-822	YES	YES
	ASMB-823	YES	YES
	ASMB-813	YES	YES
	ASMB-920	YES	YES
	ASMB-922	YES	YES
	ASMB-923	X	* (Note3)
ASMB-913	YES	YES	

Yes: Fully compatible

△: Conditional Compatible

*△ Note 1: PCIe x16 slot of ASMB-781/784/785/585 motherboard can split as x8 x8 mode. When install ASMB-RF348-21A1E riser card, it supports one PCIe x4 (bottom slot) and one PCIe x8 (top slot). The middle of PCIe x4 of riser card doesn't work.

*△ Note 2: PCIe x16 slot of ASMB-782 motherboard is x8 link only. When install ASMB-RF348-21A1E riser card, it only supports one PCI-E x4 slot (bottom).

*△ Note 3: PCIe x16 slot of ASMB-584/923 motherboard is x8 link and can split as x4 x4 mode. When install ASMB-RF348-21A1E riser card, it supports two PCIe x4 (bottom and middle slot) and the top of PCIe x8 slot doesn't work.

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Server-grade Chassis



Height (1U = 1.75")		1U		2U	
Model Name		HPC-7140	HPC-7180	HPC-7242	HPC-7280
Form Factor Support		Micro ATX, ATX	ATX, EATX	Micro ATX, ATX	Micro ATX, ATX, EATX
No. of slots / No. of full-size cards		1/0	1/1	3/3	3/3
Drive Bay	Slim ODD Bay	1 (ODD should be purchased separately)	1 (ODD should be purchased separately)	1 (ODD should be purchased separately)	1 (ODD should be purchased separately)
	5.25" (front-accessible)	-	-	-	-
	3.5" (hot-swappable)	4	-	4 (3.5" / 2.5")	8
	3.5" (internal)	-	-	-	-
	2.5" (hot-swappable)	Optional	8	4 (3.5" / 2.5")	-
	2.5" (internal)	-	-	2	2
Cooling	Chassis Fan	4 (4cm / 24CFM)	5 (4 cm / 26.5 CFM)	1 (8 cm/47CFM) + 2 (6 cm/28CFM)	3 (8 cm / 90.04 CFM)
	Air Filter	-	-	Yes	-
Front I/O Interface	USB 3.0	-	-	2	-
	USB 2.0	2	1	-	1
Miscellaneous	LED Indicators	System: Power, HDD, LAN1, LAN2, System Information HDD Tray: HDD Power and Activity LED	System: Power, LAN1, LAN2 HDD Tray: HDD Power and Activity LED	System: Power, HDD, LAN1, LAN2, temperature, fan HDD Tray: HDD Power and Activity LED	System: Power, HDD, LAN1, LAN2 HDD Tray: HDD Power and Activity LED
	Rear Panel	-	-	Two 9-pin D-Sub	-
Environment	Operating Temperature	0 ~ 35° C (32 ~ 95° F)	0 ~ 40° C (32 ~ 104° F)	0 ~ 40° C (32 ~ 104° F)	0 ~ 40° C (32 ~ 104° F)
	Non-Operating Temperature	-40 ~ 70° C (-40 ~ 158° F)	-40 ~ 70° C (-40 ~ 158° F)	-40 ~ 70° C (-40 ~ 158° F)	-40 ~ 70° C (-40 ~ 158° F)
	Operating Humidity	10 ~ 85% @ 35° C non-condensing	10 ~ 85% @ 40° C non-condensing	10 ~ 85% @ 40° C non-condensing	10 ~ 85% @ 40° C non-condensing
	Non-operating Humidity	10 ~ 95% @ 60° C non-condensing	10 ~ 95% @ 60° C non-condensing	10 ~ 95% @ 60° C non-condensing	10 ~ 95% @ 60° C non-condensing
Physical Characteristics	Dimensions (W x H x D)	437 x 43.5 x 503 mm (17.2" x 1.7" x 19.85")	430 x 43.5 x 597 mm (16.9" x 1.7" x 23.5")	482 x 88 x 525 mm (19" x 3.46" x 20.67")	482.6 x 88 x 700 mm (19" x 3.46" x 27.56")
Page		5-28	5-30	5-32	5-34



2U	3U / Tower	4U / Tower		
HPC-7282	HPC-7320	HPC-7400	HPC-7442	HPC-7480
Micro ATX, ATX	Micro ATX, ATX, EATX	Micro ATX, ATX, EATX	Micro ATX, ATX, EATX	Micro ATX, ATX, EATX
7/0	7/6	12/12	7/7	7/7
1 (ODD should be purchased separately)	1 (ODD should be purchased separately)	-	1 (ODD should be purchased separately)	-
-	-	2	-	3
8	2 (3.5" / 2.5")	-	4 can upgrade to 8 (3.5" / 2.5")	8
2	2	2 rear-accessible (3.5" / 2.5")	1	-
Optional	2 (3.5" / 2.5")	-	4 can upgrade to 8 (3.5" / 2.5")	-
-	-	2 rear-accessible (3.5" / 2.5")	-	-
3 (8cm / 52.6 CFM)	2 (8cm/141.9CFM) + 1 (6cm/27.72CFM)	3 (8cm/141.9CFM)	1 (12 cm / 114 CFM) + 1 (8 cm/55 CFM)	4 (8 cm / 68.15 CFM)
-	Yes	Yes	Yes	Yes
-	2	2	2	-
2	-	-	-	2
System: Power, HDD, LAN1, LAN2, System Information HDD Tray: HDD Power and Activity LED	System: Power, HDD, LAN1, LAN2 HDD Tray: HDD Power and Activity LED	System: Power, HDD, LAN1, LAN2	System: Power, HDD, LAN1, LAN2, temperature, fan HDD Tray: HDD Power and Activity LED	System: Power, HDD, LAN1, LAN2
-	Two 9-pin D-Sub	-	Five 9-pin D-Sub and one 68-pin SCSI openings	-
0 ~ 40° C (32 ~ 104° F)	0 ~ 40° C (32 ~ 104° F)	0 ~ 40° C (32 ~ 104° F)	0 ~ 40° C (32 ~ 104° F)	0 ~ 40° C (32 ~ 104° F)
-40 ~ 70° C (-40 ~ 158° F)	-40 ~ 70° C (-40 ~ 158° F)	-40 ~ 70° C (-40 ~ 158° F)	-40 ~ 70° C (-40 ~ 158° F)	-40 ~ 70° C (-40 ~ 158° F)
10 ~ 85% @ 40° C non-condensing	10 ~ 85% @ 40° C non-condensing	10 ~ 85% @ 40° C non-condensing	10 ~ 85% @ 40° C non-condensing	10 ~ 85% @ 40° C non-condensing
10 ~ 95% @ 60° C non-condensing	10 ~ 95% @ 60° C non-condensing	10 ~ 95% @ 60° C non-condensing	10 ~ 95% @ 60° C non-condensing	10 ~ 95% @ 60° C non-condensing
437 x 88.9 x 533.4 mm (17.2" x 3.5" x 21")	426.4 x 132.2 x 480 mm (16.79" x 5.2" x 18.9")	482 x 177 x 448 mm (19" x 7.0" x 17.6")	482 x 177 x 600 mm (19" x 7.0" x 23.6")	452 x 178 x 648 mm (17.8" x 7.0" x 25.5")
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HPC-7140

1U Rackmount Server Chassis for MicroATX/ATX Server board with 4 x 3.5" Hot-swap Drive Bays and 1 full-height/half-length PCI-E x16 Expansion Slot



CE FCC

Features

- 1U rackmount server chassis supports MicroATX/ATX motherboard
- Four hot swap 3.5" SAS/SATA/SSD drive bays
- Support 1U single and redundant power supply
- Easy swap and anti-vibration FAN design
- Two front USB and one front COM ports

Specifications

Form Factor Support	MicroATX/ATX	
Expansion Slots	PCIe x16 Full Height / Half Length x1	
Drive Bay	Slim ODD Bay	1 (ODD should be purchased separately)
	5.25" (front-accessible)	-
	3.5" (hot-swappable)	4 x SATA III / SAS 6Gb/s
	3.5" (internal)	-
	2.5" (hot-swappable)	Optional
Cooling	2.5" (internal)	-
	Chassis Fan	4 x Swappable 40mm PWM fan module
	Air Filter	-
System Monitoring	Chassis intrusion switch	
Front I/O Interface	USB 2.0	2
	COM Ports	1
Miscellaneous	LED Indicators	System : Power, LAN1, LAN2, HDD, System Information
	Rear Panel	HDD Tray: HDD Power and Activity LED
Environment	Temperature	Operating: 0 ~ 35° C (32 ~ 95° F) Non-Operating: -40 ~ 70° C (-40 ~ 158° F)
	Humidity	10 ~ 85% @ 40° C non-condensing / 10 ~ 95% @ 40° C, non-condensing
	Vibration (5-500 Hz)	0.25Grms / 0.5Grms
	Physical Characteristics	Dimensions (W x H x D)

Front View



Rear View

Single Power Supply SKU

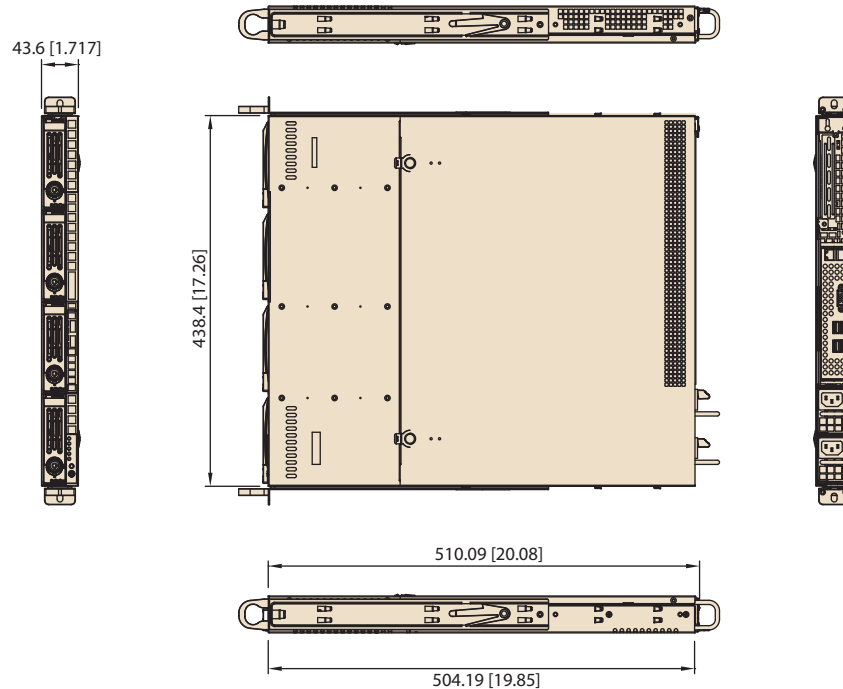


Redundant Power Supply SKU



Dimensions

Unit: mm [inch]



Ordering Information

Part Number	Description
HPC-7140-00A1E	HPC-7140 1U 4 bays server chassis (w/o SPS)
HPC-7140-R4A1E	HPC-7140 1U 4 bays server chassis (w/400W RPS)

Note: Standard HPC-7140-R4A1E does not support PMBUS function. This function only support by project-based.

Packing List

Items	Quantity
Hot-Swap 3.5" HDD tray with SATA cable (Pre-install)	4
Accessory Box	1

Power Supply Options

Part Number	80 Plus Grade	Wattage	Type	Input
XARR-CPS-2511-1A2	Bronze	250W	Single	AC 100 ~ 240V (full range)
XARR-CPS-6811-2A12	Gold	680W	Single	AC 100 ~ 240V (full range)

Optional Accessories

Part Number	Description
96CB-SAS-SATA-4P1	Cable mini SAS to 4-port SATA*
19Z0001023T000	1U IO Shield for ASMB-584
19Z0000747T000	1U IO Shield for ASMB-784
19Z0000406T000	1U IO Shield for ASMB-781/782/820
19Z0000811T000	1U IO Shield for ASMB-822/813
19Z0000806T000	1U IO Shield for ASMB-823
1703040150	A Cable B4P-5.08/B4P-5.08*2 15cm*
96CB-SATAPOWER-6P1	SATA POWER ADAPTER 6PIN TO BIG 4 PIN(G) for Slim ODD
AIMB-RF10F-01A1E	1U PCIe x16 to PCIe x16 Riser Card
1990026944T000	ASMB-823 Mylar FAN DUCT for HPC-7140*
9680016633	2.5" HDD Bracket for Swappable HDD Tray
9680016684	19" - 26.4" Rail Kit for HPC-7140
9680016685	25.6" - 33" Rail Kit for HPC-7140

* Note:

- When using add-on RAID Card with Mini-SAS connector(s), purchasing 96CB-SAS-SATA-4P1 cable is a MUST.
- HPC-7140 does not support AIMB-701, AIMB-780, AIMB-781, AIMB-782, AIMB-784
- HPC-7140 only support up to 30° C when installed ASMB-823
- When installing Slim ODD in HPC-7140-R4A1E, purchasing 1703040150 is a MUST
- Purchasing 1990026944T000 is a MUST while using dual CPU on ASMB-823

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HPC-7180

1U Rackmount Server Chassis for EATX Server board with 8 x 2.5" Hot-swap Drive Bays and 1 FH/FL PCI-E x16 Expansion Slot



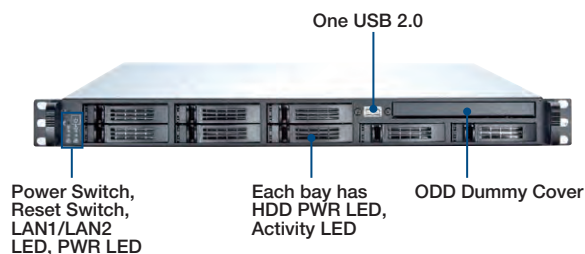
Features

- 1U rackmount server chassis supports ATX/CEB/EATX motherboard
- Eight hot swap 2.5" SAS/SATA/SSD drive bays
- Support 1U single and redundant power supply
- Easy swap and anti-vibration FAN design

Specifications

Form Factor Support	1U chassis support for max. motherboard size - 12" x 13" EATX		
Expansion Slots	PCIe x16 Full Height / Full Length x1		
Drive Bay	Slim ODD Bay	1 (ODD should be purchased separately)	
	5.25" (front-accessible)	-	
	3.5" (hot-swappable)	-	
	3.5" (internal)	-	
	2.5" (hot-swappable)	8 x SATA III / SAS 6Gb/s	
Cooling	2.5" (internal)	-	
	Chassis Fan	5 (4 cm / 26.5 CFM)	
	Air Filter	-	
System Monitoring	Chassis intrusion switch		
Front I/O Interface	USB 2.0	1	
	PS/2	-	
Miscellaneous	LED Indicators	System : Power, LAN1, LAN2	
	Rear Panel	HDD Tray: HDD Power and Activity LED	
Environment		Operating	Non-Operating
	Temperature	0 ~ 40° C (32 ~ 104° F)	-40 ~ 70° C (-40 ~ 158° F)
	Humidity	10 ~ 85% @ 40° C non-condensing	10 ~ 95% @ 40° C, non-condensing
Physical Characteristics	Dimensions (W x H x D)	597 x 430 x 43.5 mm (23.5" x 16.9" x 1.7")	

Front View

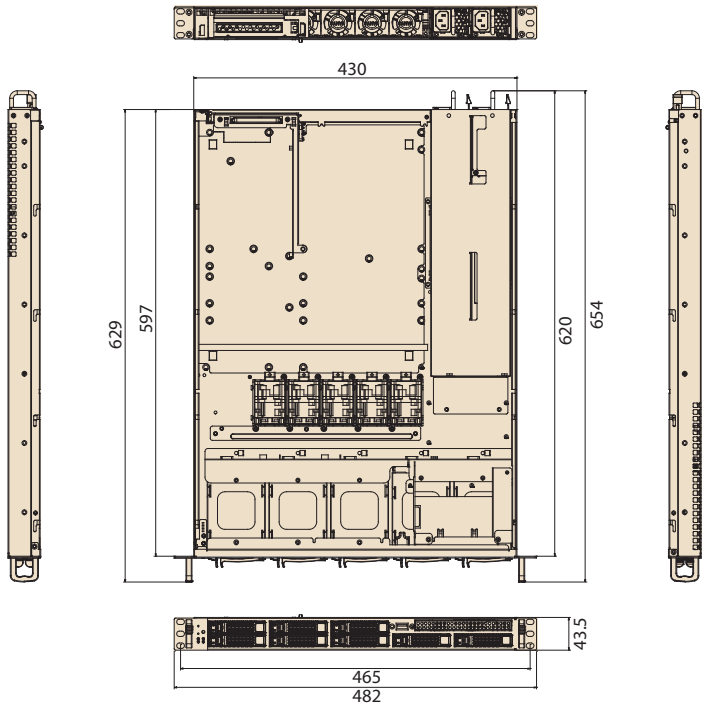


Rear View



Dimensions

Unit: mm [inch]



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Ordering Information

Part Number	Description
HPC-7180-00A1E	1U HPC chassis without Power supply
1757004188-01	(1+1) 100-240V 650W 1U redundant power supply

Optional Accessories

Part Number	Description
96CB-SAS-SATA-4P1	Mini-SAS Cable kit for add-on SAS RAID card*
19Z0000406T000	1U IO Shield for ASMB-781/820/920/782

* Note: When using add-on RAID Card with Mini-SAS connector(s), purchasing 96CB-SAS-SATA-4P1 cable is a MUST. Single port RAID Card needs 1 piece and dual port needs 2 piece.

System Contents

Items	Quantity
Hot-Swap 2.5" HDD tray (Pre-install)	8
1U PCIe x16 to PCIe x16 Riser Card (Pre-install)	1
Accessory Box (2.5" HDD Screws; Slime ODD Backplane)	1
1U Rail Kit	1

HPC-7242

2U Rackmount Chassis for ATX Motherboard with 4 Hot-Swap SAS/SATA HDD Trays and RPS



Features

- Supports ATX motherboard with dual processors
- Four shock-resistant hot-swap disk trays supporting 3.5" or 2.5" SAS/SATA drives for RAID 5/10 application, one slim ODD, and two 2.5" internal drives
- Dual front USB 3.0 ports
- Supports 80plus single or redundant power supply up to 700W
- Front-accessible system fan without opening top cover for easy maintenance
- LED indicators and audible alarm notification for system fault detection
- Built-in Intelligent System Module enabling whole system fan control and remote manageability

Quiet

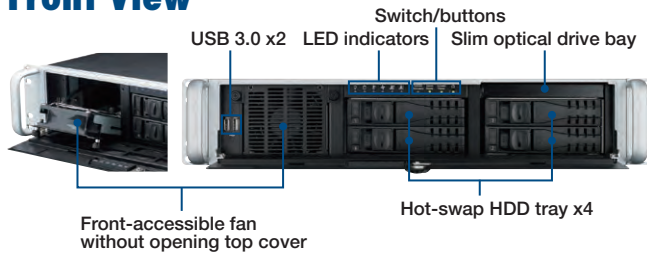
CE FCC

Specifications

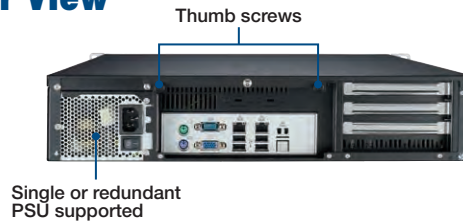
		External	Internal
Drive Bay	Slim Optical Drive	1	-
	2.5"	-	2
	Hot Swap	4 SAS/SATA HDDs	
Cooling	Fan	1 (8 cm/47CFM) + 2 (6 cm/28CFM) for SAS/SATA storage unit	
	Air Filter	Yes	
Front I/O Interface	USB 3.0*	2	
Miscellaneous	LED Indicators	Power, HDD, temperature, fan, LAN1, and LAN2	
	Rear Panel	Two 9-pin D-Sub	
Intelligent System Module Remote Monitoring	CPU/System fan speed, CPU/System temperature, motherboard voltage (Only selected Advantech MBs/CPU cards with SUSIAccess installed can fully enabled these functions, check with Advantech local rep. for detailed information.)		
Environment	Temperature	Operating 0 ~ 40° C (32 ~ 104° F)	Non-Operating -40 ~ 70° C (-40 ~ 156° F)
	Humidity	10 ~ 95% @ 40° C, non-condensing	
	Vibration (5 ~ 500 Hz)	1 Grms	2 G
	Shock	10 G (with 11 ms duration, half sine wave)	
Physical Characteristics	Dimensions (W x H x D)	482 x 88 x 525 mm (19" x 3.46" x 20.67")	
	Weight	13.7 kg (30.12 lb)	

* The USB ports do not operate if a main board without on-board USB 3.0 internal box header is installed.

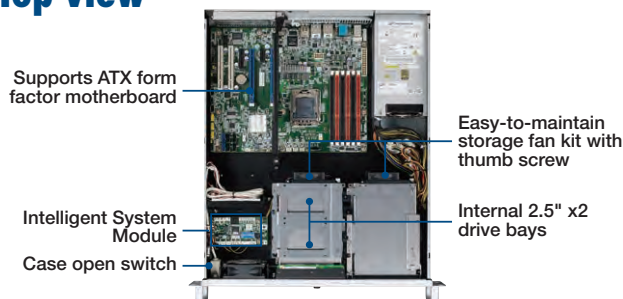
Front View



Rear View



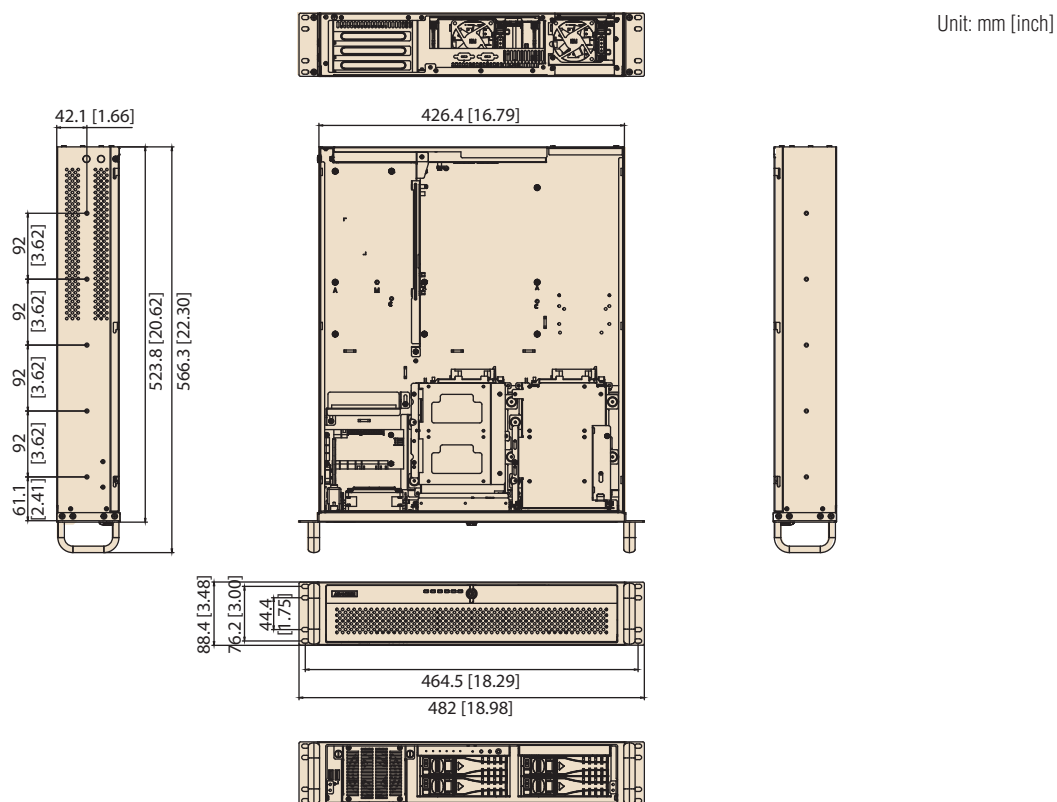
Top view



Rear I/O bracket for low profile add-on cards

*Note: Motherboard and power supply are not included.

Dimensions



Ordering Information

Part Number	Description
HPC-7242MB-00XE	Without PSU, with ATX switch

Packing List

Part Number	Description
9662132020E	Black mobile HDD tray
1990021407T000	Door filter

Power Supply Options

Part Number	80 Plus Grade	Wattage	Type	Input
PS8-350FATX-XE	Bronze	350W	Single	AC 100 ~ 240 V (full range)
PS8-500U2-XE	Bronze	500W	Single	AC 100 ~ 240 V (full range)
RPS8-500U2-XE	Bronze	500W	(1+1) Redundant	AC 100 ~ 240 V (full range)
RPS8-700U2-XE	Bronze	700W	(1+1) Redundant	AC 100 ~ 240 V (full range)

Optional Accessories

Part Number	Description
96CB-SATAPOWER-6P1	SATA power wire 6-pin to big 4-pin (for slim ODD)
1950014302N001	Special bracket for riser card AIMB-RP3P8-12A1E
Rear I/O panel kit for low-profile add-on cards	
1939000361	Screw (should purchase 7 pcs)
1960034816N000	I/O bracket (should purchase 7 pcs)
1960019475T201	Rear panel for low-profile

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HPC-7280

2U Rackmount Chassis for EATX Server Board with 8 Hot-swap Drive Bays, Redundant PSU, and 3 Expansion Slots



CE FCC

Features

- 2U rackmount chassis supports ATX/CEB/EATX motherboard
- Eight hot swap SAS/SATA drive bays
- Hot swap fan module design facilitates maintenance
- 800 W (1+1) redundant power supply
- Lockable front bezel prevents unauthorized access

Note: ASMB-RF3X8-21A1E riser card is built-in.

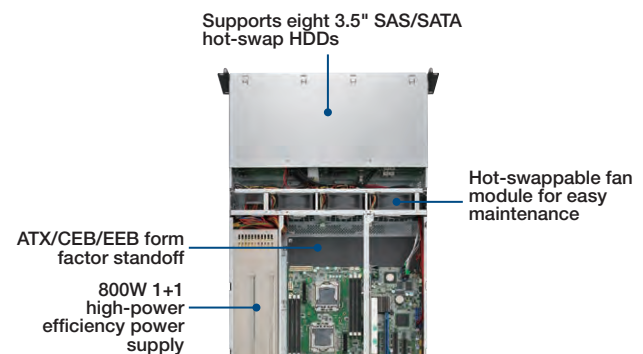
Specifications

Form Factor Support	2U chassis support for max. motherboard size - 12" x 13" EATX		
Expansion Slots	64bit PCI-X slot x 2 (When 1 slot is used, max. 133MHz is supported; when 2 slots are used, max. 100MHz is supported)		
	PCIe x 8 slot x 1 * Note: Expansion slots are supported by built-in ASMB-RF3X8-21A1E riser card.		
Drive Bay	Slim ODD Bay	1 (ODD should be purchased separately)	
	5.25" (front-accessible)	-	
	3.5" (hot-swappable)	8 (Lockable)	
	3.5" (internal)	-	
	2.5" (front-accessible)	-	
Cooling	Chassis Fan	3 (8 cm / 90.04 CFM)	
	Air Filter	-	
System Monitoring	Chassis intrusion switch		
Front I/O Interface	USB	1	
	PS/2	-	
Miscellaneous	LED Indicators	Power, HDD activity, LAN	
	Rear Panel	-	
Environment	Temperature	Operating 0 ~ 40° C (32 ~ 104° F)	Non-Operating -40 ~ 70° C (-40 ~ 158° F)
	Humidity	10 ~ 85% @ 40° C non-condensing	10 ~ 95% @ 40° C, non-condensing
	Vibration (5-500 Hz)	1 Grms	2 Grms
	Shock	10 G	30 G
		(with 11 ms duration, half sine wave)	
Physical Characteristics	Dimensions (W x H x D)	482.6 x 88 x 700 mm (2U)	
	Weight	28 kg	

Front View



Inside View

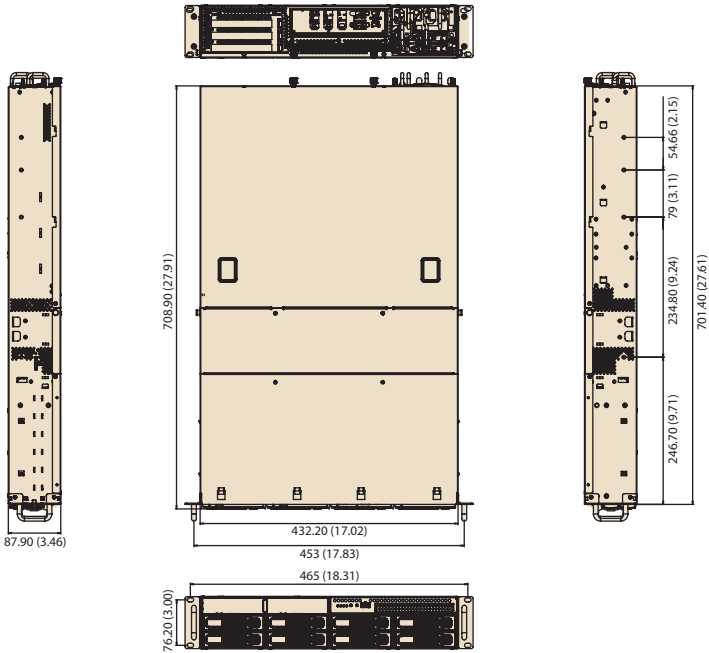


Rear View



Dimensions

Unit: mm [inch]



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- Slot SBC & Passive Backplanes 10
- CompactPCI Platforms 11
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- Industrial Computer Peripherals 13
- Industrial Ethernet Solutions 14

Ordering Information

Part Number	Power Supply
HPC-7280-R8A1E	1+1 800 W Redundant Power Supply

Packing List

Description	Quantity
800W Redundant Power Supply Module (Pre-installed)	x 2
Hot-swap 3.5" HDD Trays (Pre-installed)	x 8
ASMB-RF3X8 Riser Card (Pre-installed)	x 1
System Accessory (SATA Cable for Slim ODD x 1, Mini-SAS to 4 SATAs Cable x 2, Drive Bay Key x 2, Bezel Key x 2)	x 1
Startup Manual	x 1

Optional Accessories

Part Number	Description
19Z0000215N000	HPC-7280 Chassis Rail Kit
96CB-SAS-SAS-0.8	Mini-SAS cable kit for add-on SAS RAID card*

*Note: When using add-on RAID card with mini-SAS connector(s), purchasing 96CB-SAS-SAS-0.8 cable is a MUST, single port RAID card needs 1 piece, dual port needs 2 pieces

HPC-7282

2U Rackmount Chassis for Micro/ATX Server Board with 8 Hot-swap Drive Bays, 7 Low Profile Expansion Slots



Features

- 2U rackmount chassis supports MicroATX/ATX motherboard
- Eight hot swap SAS/SATA drive bays
- Swappable fan module design facilitates maintenance
- Supports 7 x Low-Profile/Half-Length I/O Expansion Slots

CE FCC

Specifications

Form Factor Support		MicroATX/ATX
Expansion Slots		Supports 7 x Low-Profile/Half-Length I/O Expansion Slots
Drive Bay	Slim ODD Bay	1 (ODD should be purchased separately)
	5.25" (front-accessible)	-
	3.5" (hot-swappable)	8 (Lockable)
	3.5" (internal)	2
	2.5" (hot-swappable)	Optional
Cooling	2.5" (internal)	-
	Chassis Fan	3 x 80 mm Fan Module with swappable bracket
	Air Filter	-
System Monitoring		Chassis intrusion switch
Front I/O Interface	USB 2.0	2
	COM Port	1
Miscellaneous	LED Indicators	Power, HDD activity, LAN, System Information
	Rear Panel	-
Environment	Temperature	Operating: 0 ~ 40° C (32 ~ 104° F) Non-Operating: -40 ~ 70° C (-40 ~ 158° F)
	Humidity	10 ~ 85% @ 40° C non-condensing 10 ~ 95% @ 40° C, non-condensing
	Vibration (5-500 Hz)	0.25Grms 0.5Grms
Physical Characteristics	Dimensions (W x H x D)	437 x 88.9 x 533.4 mm (17.2" x 3.5" x 21")

Front View

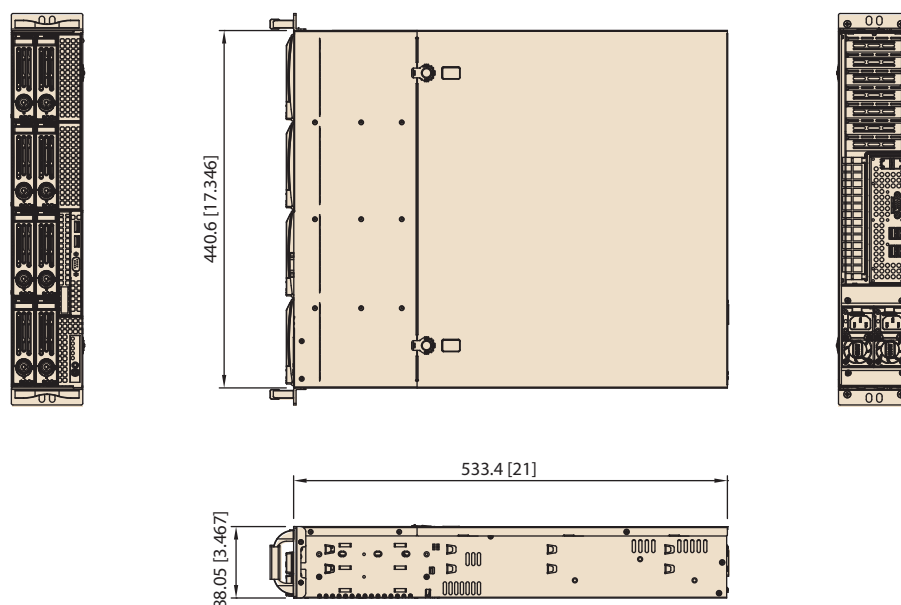


Rear View



Dimensions

Unit: mm [inch]



Ordering Information

Part Number	Description
HPC-7282-00A1E	HPC-7282 2U 8 bays server chassis (w/o PSU)

Packing List

Description	Quantity
Hot-swap 3.5" HDD Trays with SATA cable (Pre-installed)	x 8
System Accessory	x 1

Power Supply Options

Part Number	80 Plus Grade	Wattage	Type	Input
PS8-500U2-XE	Bronze	500W	Single	AC 100 ~ 240 V (full range)
XARR-CPS-6811-2A12	Gold	680W	Single	AC 100 ~ 240 V (full range)
RPS8-500U2-XE	Bronze	500W	(1+1) Redundant	AC 100 ~ 240 V (full range)
RPS8-700U2-XE	Gold	700W	(1+1) Redundant	AC 100 ~ 240 V (full range)

Optional Accessories

Part Number	Description
96CB-SAS-SATA-4P1	Cable mini SAS to 4-port SATA*
96CB-SATAPOWER-6P1	SATA POWER ADAPTER 6PIN TO BIG 4 PIN(G) for Slim ODD
9680016633	2.5" HDD Bracket for Swappable HDD Tray
9680016697	19" - 26.6" Rail Kit for HPC-7282
9680016698	26.5" - 33" Rail Kit for HPC-7282

* Note:

- When using add-on RAID card with mini-SAS connector(s), purchasing 96CB-SAS-SAS-0.8 cable is a MUST, single port RAID card needs 1 piece, dual port needs 2 pieces
- HPC-7282 does not support AIMB-701, AIMB-780, AIMB-781, AIMB-782, AIMB-784

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HPC-7320

3U Short-depth Rackmount/ Tower Chassis for EATX/ATX/MicroATX Motherboard



Features

- Supports EATX/ATX/MicroATX motherboard with dual processors
- Two Hot-Swap 3.5"/2.5" drive bays, one slim ODD drive bay and two internal 3.5" HDD bays
- Dual front USB 3.0 ports
- Supports Flex ATX Power, 2U 80Plus Single or Redundant Power Supply
- Front-accessible system fan without opening top cover for easy maintenance

Quiet

CE FCC

Specifications

		External	Internal
Drive Bay	Slim Optical Drive	1	-
	3.5"	-	2
	Hot Swap	2 (3.5" or 2.5")	
Cooling	Fan	2 (8cm/141.9CFM) + 1 (6cm/27.72CFM)	
	Air Filter	Yes	
Front I/O Interface	USB3.0	2	
Miscellaneous	LED Indicators	Power, HDD, LAN1, and LAN2	
	Rear Panel	Two 9-pin D-Sub	
Environment		Operating	Non-Operating
	Temperature	0 ~ 40° C (32 ~ 122° F)	-40 ~ 70° C (-40 ~ 156° F)
	Humidity	10 ~ 95% @ 40° C, non-condensing	10 ~ 95% @ 60° C, non-condensing
	Vibration (5 ~ 500 Hz)	1 Grms	2 G
	Shock	10 G (with 11 ms duration, half sine wave)	
Physical Characteristics	Dimensions (W x H x D)	426.4 x 132.2 x 480 mm (16.79" x 5.2" x 18.9")	
	Weight	12 kg	

Front View



Rear View



Inside View

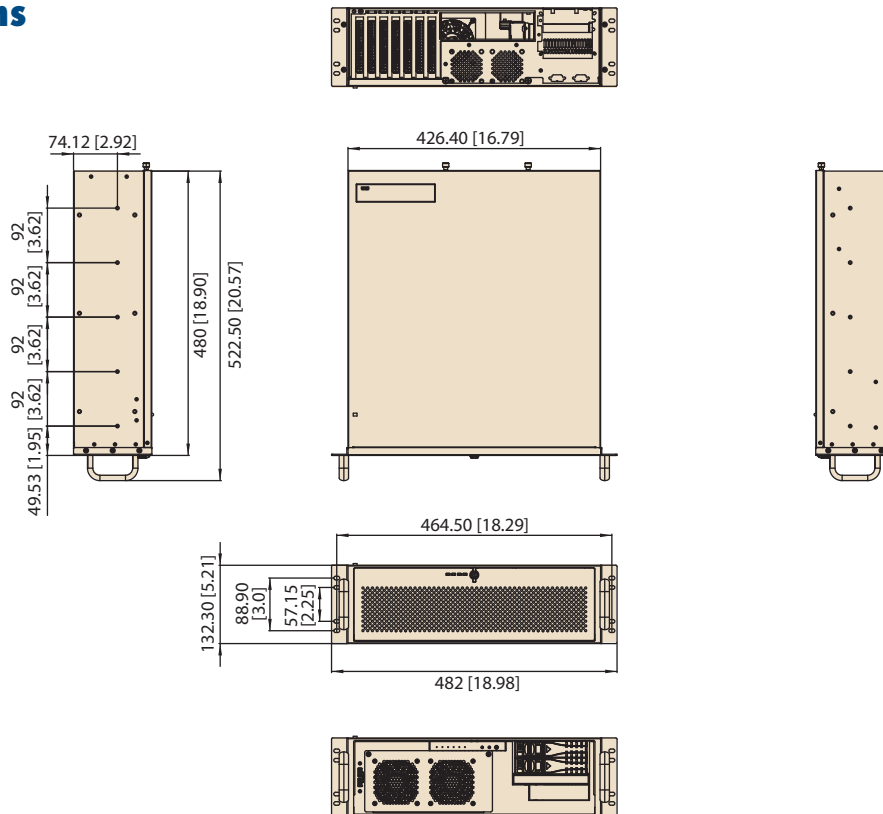


Rackmount View



Dimensions

Unit: mm [inch]



Ordering Information

Part Number	Description
HPC-7320MB-00XE	Without PSU, with ATX switch

Packing List

Part Number	Description	Quantity
1960002043T001 & 1960004574T001	Wall mount bracket	1
1960061378T001	FATX power rear bracket	1
1960069262N001	1U power rear bracket	1
1700011592	Front Dual USB 2.0 cable	1
1990025044T000	Door filter	1
1750007769-01	8cm system fan	2

Note:

- HPC-7320 does not support AIMB-701, AIMB-780, AIMB-781, AIMB-782, AIMB-784
- HPC-7320 does not support add-on card which need to connect additional power cable from the top.

Power Supply Options

Part Number	80 Plus Grade	Wattage	Type	Input
PS8-350FATX-XE	Bronze	350W	Single	AC 100 ~ 240 V (full range)
PS8-500U2-XE	Bronze	500W	Single	AC 100 ~ 240 V (full range)
96PS-A700W1U	Bronze	700W	Single	AC 100 ~ 240V (full range)
RPS8-500U2-XE	Bronze	500W	(1+1) Redundant	AC 100 ~ 240 V (full range)
RPS8-700U2-XE	Gold	700W	(1+1) Redundant	AC 100 ~ 240 V (full range)

Optional Accessories

Part Number	Description
2130015257T000	CPU cooler box
9680006903	20" Slide Rail (support 75~100cm depth cabinet)
9680006904	24" Slide Rail (support 90~110cm depth cabinet)
96CB-SATAPOWER-6P1	SATA power wire 6-pin to big 4-pin (for slim ODD)
1700011592	Front dual USB2.0 cable

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HPC-7400

4U Compact Rackmount / Tower Chassis for EATX/ATX/MircoATX Motherboard



Features

- 4U compact industrial server chassis suitable for space-sensitive applications
- Supports EATX/ATX/MircoATX motherboard
- Shock-resistant 2 x 5.25" (front) + 2 x 3.5" int (rear) and optional 2 x 3.5" int. HDD bays
- Supports 80plus 1U single and 1+1 redundant higher watt power supply
- Front-accessible system fan without opening top cover
- Lockable front door with replaceable air filter prevents unauthorized access

Quiet

CE FCC

Specifications

Drive Bay	5.25"	Front-accessible	Internal
	2.5" / 3.5"	2	-
Cooling	Fan	3 (8 cm / 142 CFM) PWM fans + optional 2 (6cm) rear fans	
	Air Filter	Yes	
Front I/O Interface	USB	2 (USB 3.0)	
Miscellaneous	LED Indicators	Power, HDD, LAN1 & LAN2	
	Control	Power switch and system reset button	
Environment	Temperature	Operating 0 ~ 40° C (32 ~ 104° F)	Non-Operating -40 ~ 60° C (-40 ~ 140° F)
	Humidity	10 ~ 95% @ 40° C, non-condensing	10 ~ 95% @ 60° C, non-condensing
	Vibration (5 ~ 500 Hz)	1 Grms	2 G
	Shock	10 G (with 11 ms duration, half sine wave)	
Physical Characteristics	Dimensions (W x H x D)	482 x 177 x 448 mm (19" x 7.0" x 17.6")	
	Weight	16 kg	

Front View



Rear View



With 700W single power supply

With 1400W redundant power supply

Inside View

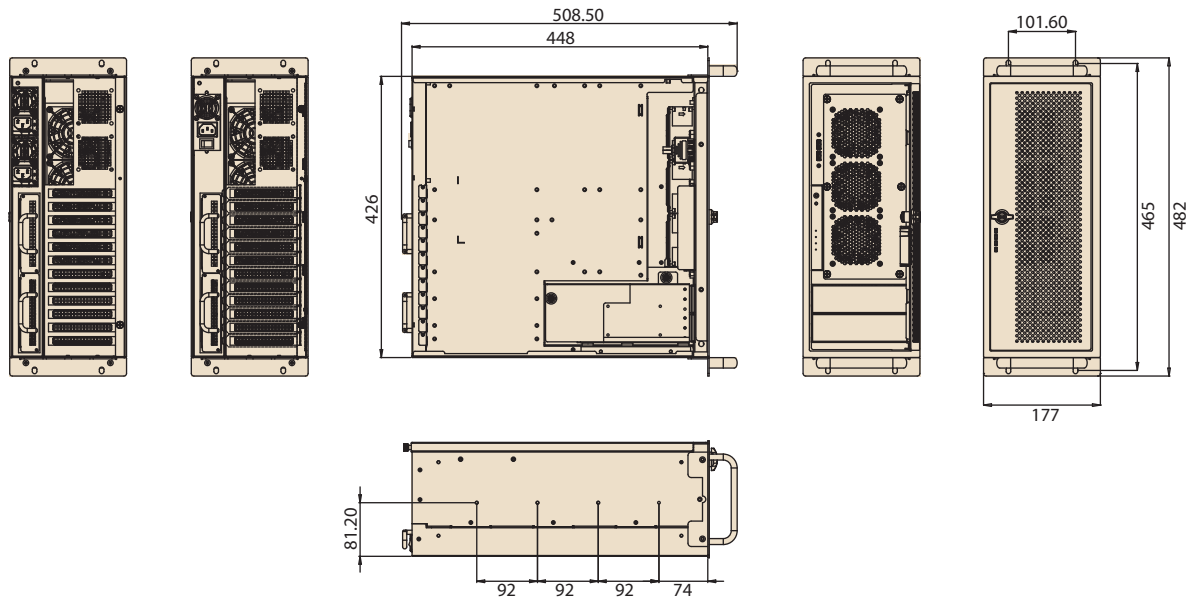


Tower View



Dimensions

Unit: mm



Ordering Information

Part Number	Power Supply
HPC-7400MB-70A1E	With single 700W power supply, with ATX switch
HPC-7400MB-14A1E	With redundant 1+1 1400W power supply, with ATX switch
HPC-7400MB-00A1E*	Without power supply, with ATX switch

* By project base

Packing List

Part Number	Description	Quantity
1990021256T000	Door filter	1
1750007769-01	8cm system fan	3
96PS-A700W1U	1U 700W single power supply, AC 100-240V (full range) (HPC-7400MB-70A1E only)	1
96PSRM-A1K4WMDU	1U 1400W 1+1 redundant power module, AC 100-240V (full range) (HPC-7400MB-14A1E only)	2
96PSR-1U-BKP-F1K4	1400W power distribution board for 96PSRM-A1K4WMDU (HPC-7400MB-14A1E only)	1

Optional Accessories

Part Number	Description
IPC-DT-5230E	Mobile rack for converting dual 5.25" drive bays to three 3.5" SAS/SATA HDD Trays
96RACK-5SS-CAGE-CR	Mobile rack for converting one 5.25" drive bays to four 2.5" SATA/SAS HDD Trays (Max. HDD height :15mm)
9892200013E	Module to convert one 5.25" drive bay to one slim ODD and one internal 3.5" drive bay
9680006903	20" Slide Rail (support 75~100cm depth cabinet)
9680006904	24" Slide Rail (support 90~110cm depth cabinet)
1700007032	Front dual USB 2.0 cable kit

Note:

- HPC-7400 does not support AIMB-701, AIMB-780, AIMB-781, AIMB-782, AIMB-784
- HPC-7400 does not support add-on card which need to connect additional power cable from the top.

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HPC-7442

4U Rackmount Chassis for Full-size SHB/SBC or EATX/ATX Motherboard with 4 Hot Swap Drive Trays



Features

- Support a PICMG backplane with up to 14 slots or an EATX/ATX motherboard
- Shock-resistant disk drive bay provides four hot-swap 3.5" or 2.5" SAS/SATA disk trays, one slim optical disk drive, and one 3.5" internal drive
- With optional storage upgrade kit installed, system equipped up to eight hot-swap HDD trays for higher storage capacity requirement (EATX/ATX motherboard version only)
- Supports 80plus single and redundant power supply
- Front-accessible system fan without opening top cover for easy maintenance (EATX/ATX motherboard version only)
- LED indicators and alarm notification for system fault detection
- Built-in Intelligent System Module enabling whole system fan control and remote manageability

Quiet

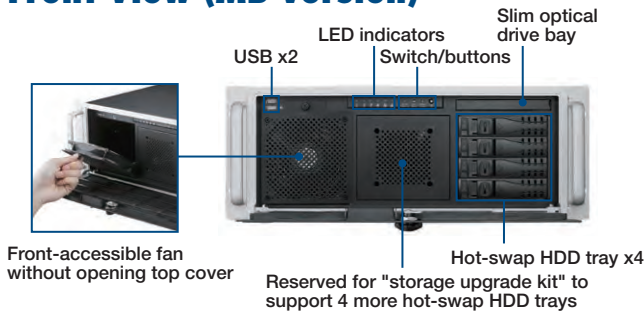
CE FCC

Specifications

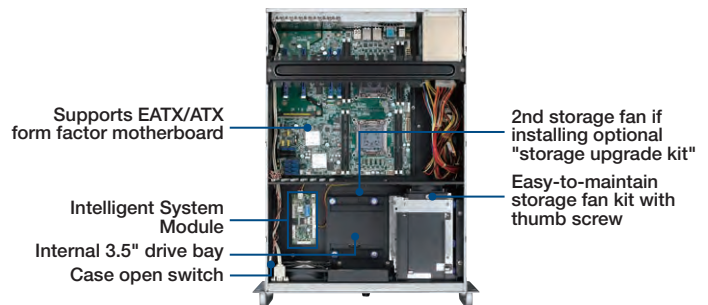
		External	Internal
Drive Bay	Slim Optical Drive	1	-
	3.5"	-	1
	Hot Swap	4 SAS/SATA HDDs (MB version support upgrade to 8)	
Cooling	Fan*	1 (12 cm /114 CFM) + 1 (8 cm/55 CFM)	
	Air Filter	Yes	
Front I/O Interface	USB 2.0	2	
Miscellaneous	LED Indicators	Power, HDD, temperature, fan, LAN1, and LAN2	
	Rear Panel	Five 9-pin D-Sub and one 68-pin SCSI openings	
Intelligent System Module Remote Monitoring	CPU/System fan speed, CPU/System temperature, motherboard voltage (Only selected Advantech MBs/CPU cards with SUSIAccess installed can fully enabled these functions, check with Advantech local rep. for detailed information.)		
Environment	Temperature	Operating 0 ~ 40° C (32 ~ 104° F)	Non-Operating -40 ~ 70° C (-40 ~ 156° F)
	Humidity	10 ~ 95% @ 40° C, non-condensing	10 ~ 95% @ 60° C, non-condensing
	Vibration (5 ~ 500 Hz)	1 Grms	2 G
	Shock	10 G (with 11 ms duration, half sine wave)	
	Physical Characteristics	Dimensions (W x H x D)	482 x 177 x 600 mm (19" x 7.0" x 23.6")
	Weight	18.5 kg (40.68 lb)	

* While adding the optional "storage upgrade kit", the chassis will support four more front-accessible SAS/SATA drive trays and one more (8cm/55CFM) fan for SAS/SATA drives. (only for MB version)

Front View (MB version)



Inside View



Mother Board Version

Upgrade Feature

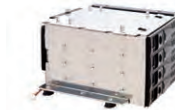


Enlarge venting area for optimized thermal capability (BP version)



HPC-7442 default SKU (supports 4 hot-swap HDD trays)

+



Storage upgrade kit (optional, 98R2744200E) (MB version)

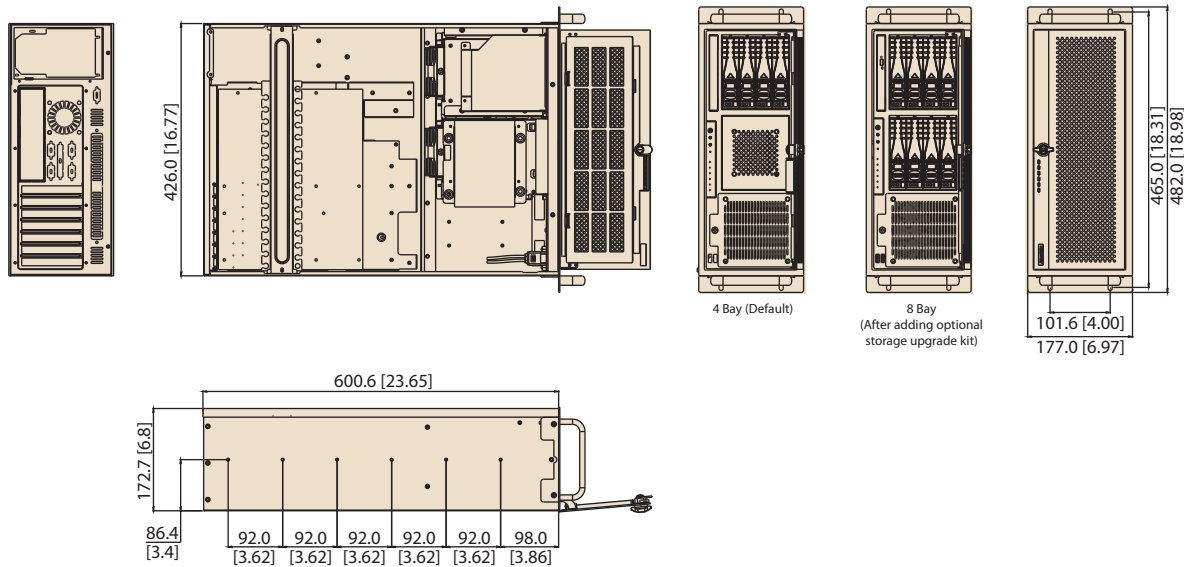
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HPC-7442 8-bay SKU (supports 8 hot-swap HDD trays)

Dimensions

Unit: mm [inch]



Ordering Information

Part Number	Description
Motherboard Version	
HPC-7442MB-00XE	Without PSU, with ATX switch
Backplane Version	
HPC-7442BP-00XE	Without PSU, with ATX switch

Packing List

Part Number	Description
9662132020E	Black mobile HDD tray
1990021256T000	Door filter

Power Supply Options

Part Number	80 Plus Grade	Wattage	Type	Input
PS8-400ATX-ZE	Bronze	400W	Single	AC 100 ~ 240 V (full range)
PS8-500ATX-ZE	Bronze	500W	Single	AC 100 ~ 240 V (full range)
PS8-700ATX-ZE	Bronze	700W	Single	AC 100 ~ 240 V (full range)
RPS8-500ATX-XE	Bronze	500W	(1+1) Redundant	AC 100 ~ 240 V (full range)
RPS8-750ATX-XE	Gold	750W	(1+1) Redundant	AC 100 ~ 240 V (full range)

Optional Accessories

Part Number	Description
98R2744200E	Storage Upgrade Kit (only for MB version)
96CB-SATAPOWER-6P1	SATA power wire 6-pin to big 4-pin (for slim ODD)
989K008734	Internal 3.5" to two 2.5" HDD Frame

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HPC-7480

4U Rackmount/Tower Chassis for EATX Server Board with 8 Hot-swap Drive Bays, Single PSU and 7 Expansion Slots



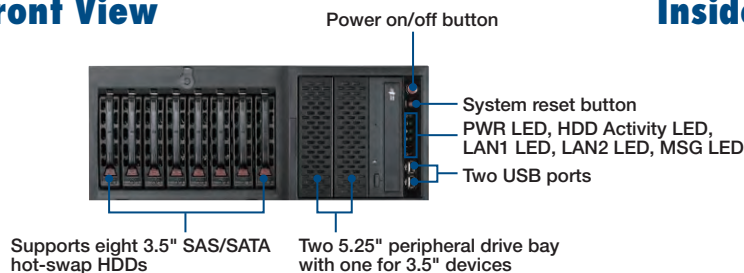
Features

- 4U rackmount chassis supports ATX/CEB/EATX motherboard
- Eight hot swap SAS/SATA drive bays
- Hot swap fan module design facilitates maintenance
- 665 W high efficiency single power supply
- Lockable front bezel prevents unauthorized access

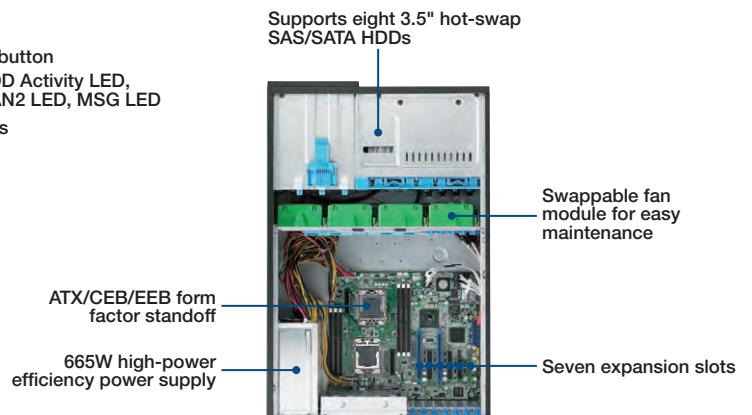
Specifications

Form Factor Support	4U chassis support for max. motherboard size - 12" x 13" EATX	
Expansion Slots	7 x Full-height, Full-length slots	
Drive Bay	Slim ODD Bay	-
	5.25" (front-accessible)	3 (ODD should be purchased separately)
	3.5" (front-accessible)	8
	3.5" (internal)	-
	2.5" (front-accessible)	-
Cooling	Chassis Fan	4 (8 cm / 68.15 CFM)
	Air Filter	Yes
System Monitoring	-	
Front I/O Interface	USB	2
	PS/2	-
Miscellaneous	LED Indicators	Power, HDD activity, LAN
	Rear Panel	-
Environment	Temperature	Operating: 0 ~ 40° C (32 ~ 104° F) Non-Operating: -40 ~ 70° C (-40 ~ 158° F)
	Humidity	10 ~ 85% @ 40° C non-condensing 10 ~ 95% @ 40° C, non-condensing
	Vibration (5-500 Hz)	1 Grms 2 Grms
	Shock	10 G 30 G
		(with 11 ms duration, half sine wave)
Physical Characteristics	Dimensions (W x H x D)	452 x 178 x 648 mm (4U)
	Weight	29.94 kg

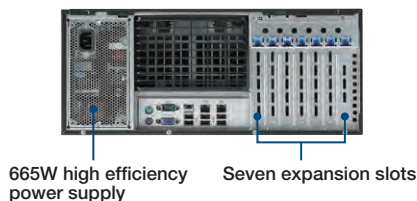
Front View



Inside View

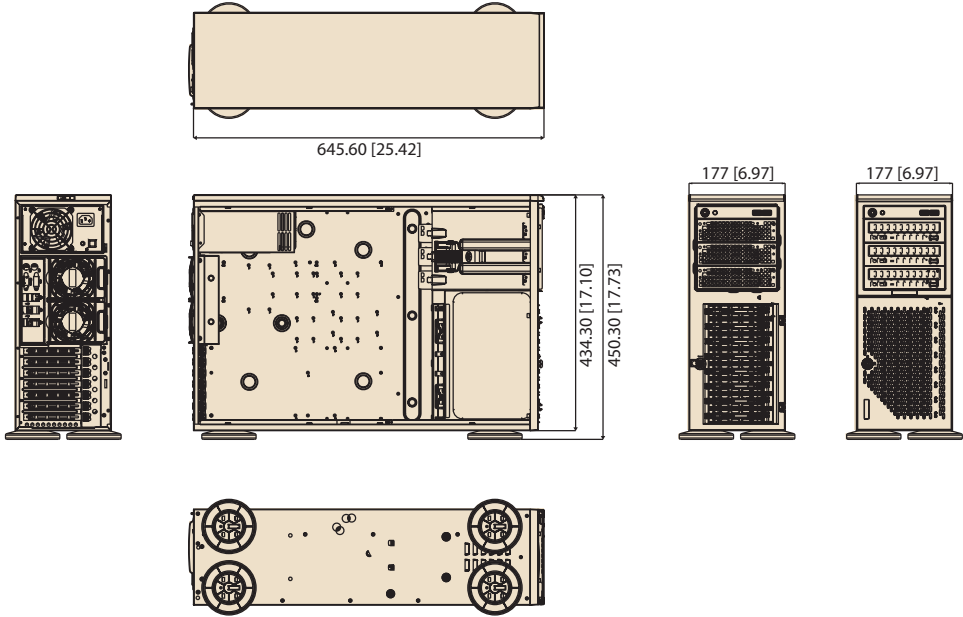


Rear View



Dimensions

Unit: mm [inch]



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Ordering Information

Part Number	Power Supply
HPC-7480-66A1E	665 W Single Power Supply

Packing List

Description	Quantity
Hot-swap 3.5" HDD Trays (Pre-installed)	x 8
Key for front bezel door	x 2
Startup Manual	x 1
Chassis Feet	x 4

Optional Accessories

Part Number	Description
XSMC-CSE-PT26L-B	HPC-7480 Chassis Rail Kit including mounting ears, handles and slide rail
96CB-SAS-SATA-4P1	Mini-SAS cable kit for add-on SAS RAID card*

*Note: When using add-on RAID card with mini-SAS connector(s), purchasing 96CB-SAS-SATA-4P1 cable is a MUST. Single port RAID card needs 1 piece and dual port needs 2 pieces.

HPC-8316

3U Storage Chassis for ATX/EATX Serverboard with 16 Hot-swap Drive Bays



Features

- 3U rackmount chassis supports ATX/EATX motherboard
- Supports 16-bay hot-swappable 3.5"/2.5" SAS 12Gb/s drives or SATA 6Gb/s drives
- No need additional HBA card for SATA version chassis
- Additional 2-bay internal 2.5" SATA drives support and swappable
- Dual front USB 3.0 ports
- Support Flex ATX Power, 2U 80+ single or redundant power supply

Quiet

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Specifications

Drive Bay	3.5"/2.5"	Front	Rear
	2.5"	16 (Hot-Swap)	-
Cooling	Fan	4 (8 cm)	-
	Air Filter	-	2 (Hot-pluggable for SAS Version)
Front I/O Interface	USB3.0	2	
Miscellaneous	LED Indicators	LAN1, LAN2, HDD, Power, and Information LED	
Environment	Temperature	Operating	Non-Operating
		0 ~ 40° C (32 ~ 122° F)	-40 ~ 70° C (-40 ~ 156° F)
	Humidity	10 ~ 95% @ 40° C, non-condensing	
	Vibration (5 ~ 500 Hz)	0.5 Grms	2 G
Physical Characteristics	Shock	10 G (with 11 ms duration, half sine wave)	
	Dimensions (W x H x D)	435 x 132 x 620 mm (17.13" x 5.2" x 24.41") / 435 x 132 x 540 mm (17.13" x 5.2" x 21.26")	
	Weight	19 kg (without hard drivers)	

Front View

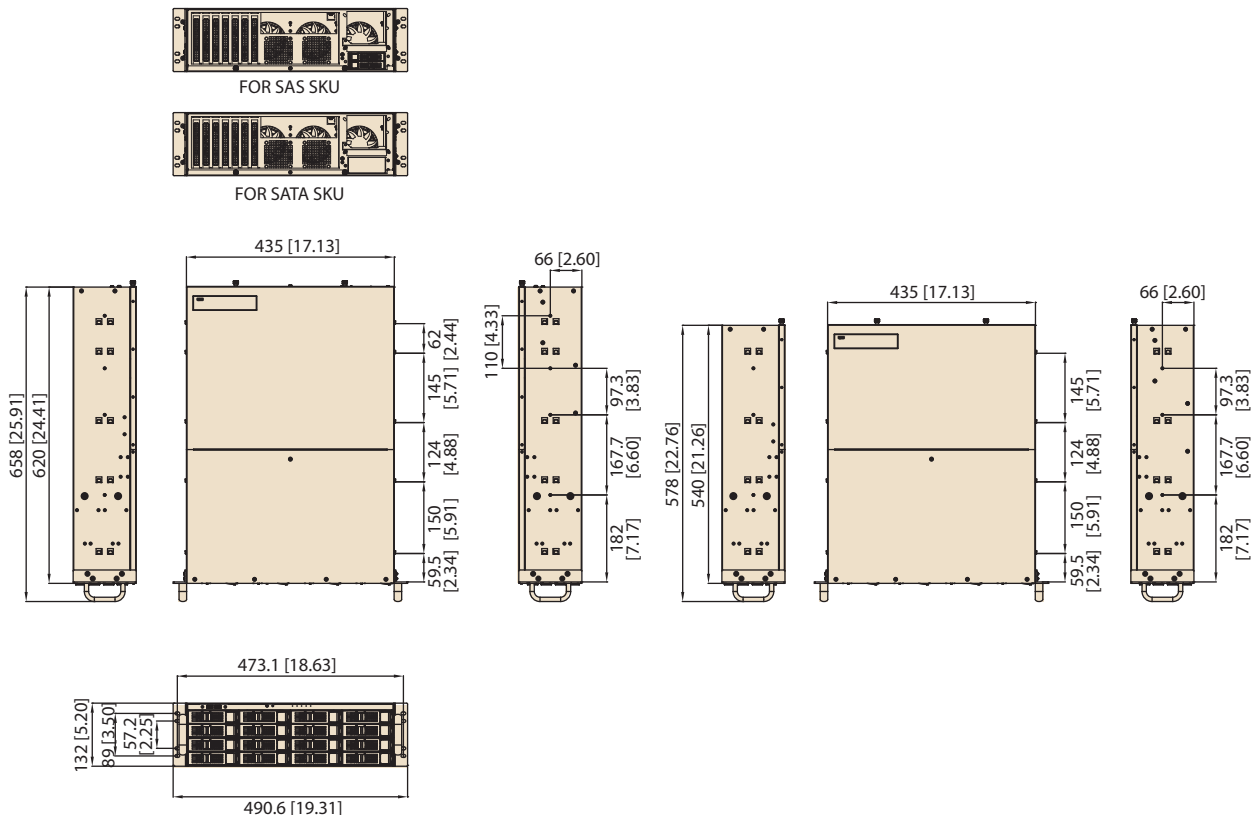


Rear View



Dimensions

Unit: mm [inch]



Ordering Information

Part Number	Chassis Depth	Front HDD BP	Rear HDD
HPC-8316MB-00A1E	620mm	SAS BP with expander	Hot-Swappable 2-bay SATA
HPC-8316MB-00A2E	540mm	SAS BP with expander	Hot-Swappable 2-bay SATA
HPC-8316MB-00A3E	620mm	SATA BP with port multiplier	Internal 2-bay SATA
HPC-8316MB-00A4E	540mm	SATA BP with port multiplier	Internal 2-bay SATA

Power Supply Options

Part Number	80 Plus Grade	Wattage	Type	Input	HPC-8316 SKUs
PS8-500U2-XE	Bronze	500W	Single	AC 100 ~ 240 V (full range)	A3, A4
RPS8-500U2-XE	Bronze	500W	(1+1) Redundant	AC 100 ~ 240 V (full range)	A3,A4
RPS8-700U2-XE	Gold	700W	(1+1) Redundant	AC 100 ~ 240 V (full range)	A1,A2,A3,A4

Packing List

Item	Quantity
Slide Rai Kit	1
Internal Mini SAS HD Cable 60cm, SFF-8643 to SFF-8643	1 (A1 & A2 SKU)
Internal Mini SAS HD Cable 85cm, SFF-8643 to SFF-8643	1 (A1 & A2 SKU)

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High Performance Server-grade IPC

For Non-stop 24/7 Mission Critical Applications



ADVANTECH

Enabling an Intelligent Planet

Advantech Server-grade IPC provides customers with a complete solution and value-added services rather than just a regular server product. Designed to give system integrators solutions for high-end applications such as medical imaging, automated optical inspection (AOI), surveillance DVR/NVR, and military simulators, Advantech Server-grade IPC features massive computing performance, hot swap & redundancy, and rich storage capacity.

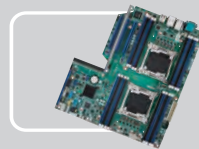
- **Automated Optical Inspection (AOI)**
For high speed image capture and analysis, and high memory consumption systems.
- **Digital Surveillance**
Provides huge storage, multiple I/O expansion, high reliability and high I/O speed data access.
- **Medical Imaging**
For X-ray, CT, and ultra sound scanning, with longevity support and strict revision control.



HPC-7320
3U Short-depth Rackmount/Tower Chassis for EATX/ATX/MicroATX Motherboard



HPC-7400
4U Compact Rackmount / Tower Chassis for EATX/ATX/MircoATX Motherboard



ASMB-913
Dual LGA 2011-R3 Intel Xeon® E5-2600 v3 EATX Server Board with 16 x DDR4 DIMM, 3 PCIe x16, 6 USB 3.0, PME support



Industrial Storages

Selection Guide		6-2
ASR-1400	4U 24-bay Reliable Disk Expansion Enclosure to Fit Industrial Applications	6-4
ASR-3100	1U Rackmount dual Xeon E5-2600 v3 NVMe Storage Server, supporting 16 x SFF-8639 2.5" NVMe SSD and 2 x PCIe Gen III x8 slot	6-6
ASR-3272	2U 12-bay Storage Server with Reliable Data Protection and Backup Solution	6-8
ASR-3472	4U 24-bay Storage Server with Reliable Data Protection and Backup Solution	6-10
ASR-5200E	High-availability Disk Array Solution for Mission-critical Service with Zero Down Time	6-12
ASR-5300I	3U 16-bay IP-SAN Storage with Reinforced Reliability for Surveillance	6-14
ASR-1000K	Flexible Expansion Module Fulfilling Various JBOD Demand	6-16

To view all of Advantech's Industrial Storage, please visit www.advantech.com/products.



Selection Guide



Product Categories		Disk Expansion Enclosure		Storage Server	
Model Name		ASR-1400	ASR-3100	ASR-3272	ASR-3472
System	Form Factor	4U 24-Bay	1U 16-Bay	2U 12-Bay	4U 24-Bay
	Number of Drives	24-Bays (2.5"/3.5")	16-Bay (2.5")	12-Bay (3.5"/2.5")	24-Bay (3.5"/2.5")
	Drive Type	SATA/SAS 6Gb/s or 3Gb/s	NVMe/SAS/SATA	SATA/SAS 6Gb/s or 3Gb/s	SATA/SAS 6Gb/s or 3Gb/s
	CPU Type	-	Dual LGA 2011-R3 Intel Xeon E5-2600 v3 series	LGA 1155 Xeon 1200V2 or 3rd Generation Core i3 processor	LGA 1155 Xeon 1200V2 or 3rd Generation Core i3 processor
	Chipset	-	Intel C612 Chipset	Intel C216 Chipset	Intel C216 Chipset
	Memory Type	-	16 x DDR4-2133 ECC RDIMM, maximum to 512GB	4 x 240 pin DDR3 up to 32 GB	4 x 240 pin DDR3 up to 32 GB
	Storage Expansion	2 x 6Gb/s SAS 4x wide ports	Two PCIe x8 slots (Gen3), one is HHHH card and the other one is FHHL card	Yes (only for E SKU)	-
	RAID Level	-	-	0, 1, 5, 6, 10, 50, 60	0, 1, 5, 6, 10, 50, 60
	TPM	-	-	Yes (optional)	Yes (optional)
Smart Fan Control	Yes (smart fan control for both cpu & sys fan)	Yes (smart fan controller for system fan)	Yes (smart fan control for both cpu & sys fan)	Yes (smart fan control for both cpu & sys fan)	
Expansion Slot	PCIe x16 slot with x8 link	-	-	1	1
	PCIe x8 slot	-	2 (one is HHHH card and the other one is FHHL card)	-	-
	PCIe x4 slot	-	-	2	2
	PCI	-	-	3	3
Display	Chipset	-	-	Integrated Intel HD Graphics(GT2-P4000 or GT1-2500)	Integrated Intel HD Graphics(GT2-P4000 or GT1-2500)
	Display Memory	-	1GB memory	1 GB maximum shared memory with 2 GB and above system memory installed	1 GB maximum shared memory with 2 GB and above system memory installed
	VGA	-	Aspeed AST-2400	Onboard, supports up to 2048 x 1536 (@60Hz)	Onboard, supports up to 2048 x 1536 (@60Hz)
Ethernet	Gigabit Ethernet	-	2	4	4
I/O	Front Panel I/O Port	-	2 USB 2.0	2 USB 2.0	2 USB 2.0
	Back Panel I/O Port	-	1 VGA Port 1 COM RS-232 Port 2 USB 2.0 Ports 2 USB 3.0 Ports 2 LAN RJ45 Port	1 PS/2 Keyboard/Mouse 1 VGA Port 1 COM RS-232 Port 2 USB 2.0 Ports 2 USB 3.0 Ports 4 LAN RJ45 Port	1 PS/2 Keyboard/Mouse 1 VGA Port 1 COM RS-232 Port 2 USB 2.0 Ports 2 USB 3.0 Ports 4 LAN RJ45 Port
	Internal I/O Connector	-	2 M.2 connectors (2242)	1 TPM Pin Header 2 USB Type A connectors	1 Parallel Port pin header 1 COM Port pin header 1 Audio Port pin header 1 TPM Pin Header 1 USB 3.0 Pin Header 2 USB Type A connectors 3 USB 2.0 Pin Headers
Power Supply	Power Output Wattage	875W Redundant Power	1100W Redundant Power	650W Redundant Power	875W Redundant Power
	Input Range	AC 100-240V	AC 100-240V	AC 100-240V	AC 100-240V
Mechanical	Dimension	699 x 432 x 176 (mm)	806 x 430 x 446 (mm)	699 x 432 x 88 (mm)	699 x 432 x 176 (mm)
	Weight	41 kg (without hard drives)	-	19 kg (without hard drivers)	42 kg (without hard drivers)
Environmental	Operating Temperature	0° C ~ 40° C (32° F ~ 104° F)	0° C ~ 40° C (32° F ~ 104° F)	0° C ~ 40° C (32° F ~ 104° F)	0° C ~ 40° C (32° F ~ 104° F)
	Non-Operating Temperature	-20° C ~ 60° C (-4° F ~ 140° F)	-20° C ~ 60° C (-4° F ~ 140° F)	-20° C ~ 60° C (-4° F ~ 140° F)	-20° C ~ 60° C (-4° F ~ 140° F)
	Operating Humidity	10% ~ 85% @ 40° C, non-condensing	10% ~ 85% @ 40° C, non-condensing	10% ~ 85% @ 40° C, non-condensing	10% ~ 85% @ 40° C, non-condensing
	Non-operating Humidity	10% ~ 95% @ 40° C, non-condensing	10% ~ 95% @ 40° C, non-condensing	10% ~ 95% @ 40° C, non-condensing	10% ~ 95% @ 40° C, non-condensing
	Operating Vibration (5-500 Hz)	0.25Grms	0.25Grms	0.25Grms	0.25Grms
Misc	Notification LED	Power Status, System Fail	Power Status, System Error, HDD Status, LAN LED, Location	Power Status, System Fail, LAN LED	Power Status, System Fail, LAN LED
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Product Categories		External Disk Array	
Model Name		ASR-5200E	ASR-5300I
System	Form Factor	2U 12-Bay (LFF) / 24-bay(SFF)	3U 16-Bay (LFF)
	Configuration	Dual Controller	Single Controller
	Number of Drives	12-Bay (3.5") / 24-Bay (2.5")	16-Bay (3.5")
	Drive Type	6Gb/s SAS	6 Gb/s SAS, 6 Gb/s SATA
	Cache Memory	Default 8GB	Default 2 GB, up to 16 GB
	JBOD Expansion	Yes, miniSAS HD	Yes, miniSAS
	Max Drives	120 x 3.5" drives / 240 x 2.5" drives	160 x 3.5" drives
	Default Host	4 x 1Gb/s iSCSI RJ45 port 6 x 6Gb/s SAS wide-port	4 x 1Gb/s iSCSI RJ45 Port
	Optional Host	8 x 8Gb/s FC SFP port 4 x 10Gb/s iSCSI SFP+ port 8 x 1Gb/s iSCSI RJ45 port	-
	RAID Level	0, 1, 5, 6, 10	0, 1, 3, 5, 6, 10, 30, 50, 60
LUN Number	2048 LUNs	2048 LUNs	
Notification	Email, SNMP traps	Email, Fax, LAN broadcast, SNMP traps, SMS, Skype	
Data Service	Advanced Functions	Thin Provisioning	Thin provisioning
		FlashCopy (Default 64 Targets)	Snapshot (64 images per source volume, max 128 per system)
	Optional Features	-	Volume copy/ mirror (16 source volume x 4 replication pairs, max 64 per system)
Power Supply	Output Wattage	800W Redundant Power	460W Redundant Power (80 Plus)
	Input Range	AC 100-240V	AC 100-240 V
Mechanical	Dimensions	556 x 483 x 87 (mm)	500 x 448 x 130 (mm)
	Weights	18 kg / 39.68lbs (without hard drives)	21.66kg / 47.75lbs (without hard drives)
Environment	Operating Temperature	10° C ~ 35° C (50° F ~ 95° F)	0 to 40° C (32 ~ 104° F) without BBU or Super-Cap
	Non-Operating Temperature	-10° C ~ 50° C (14° F ~ 125° F)	-40 to 60° C (-40° F ~ 140° F)
	Operating Humidity	20% ~ 80% @ 35° C, non-condensing	5 to 95% non-condensing
	Non-operating Humidity	10% ~ 90% @ 35° C, non-condensing	5 to 95% non-condensing
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ASR-1400

4U 24-bay Reliable Disk Expansion Enclosure to Fit Industrial Applications



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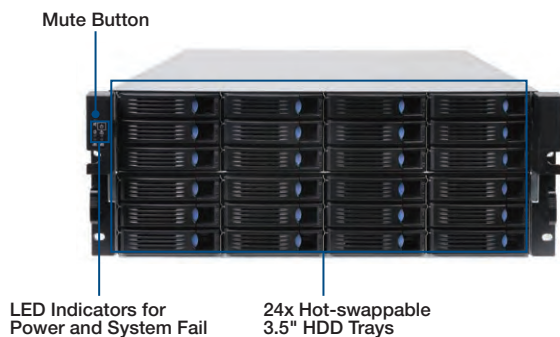
Features

- Support 24x hot-swap 2.5"/3.5" SATA/SAS 6Gb/s drives
- SES enclosure management and smart fan control
- Two 6Gb/s SAS host ports, storage daisy chain support
- High efficiency (80+) redundant power supply
- Optional to enable two SAS host ports for maximum performance

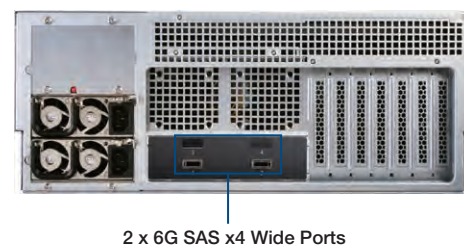
Specification

System	Form Factor	4U-24Bay	
	Number of Drives	24-Bays (2.5"/3.5")	
	Drive Type	SATA/SAS 6Gb/s or 3Gb/s	
	SAS Expansion Port	2 x 6Gb/s SAS 4x wide ports	
	Smart Fan Control	Yes (smart fan control for both cpu & sys fan)	
Power Supply	Power Output Wattage	875W Redundant Power	
	Input Range	AC 100-240V	
Mechanical	Dimension	699 x 432 x 176 (mm)	
	Weight	41 kg (without hard drives)	
Environmental		Operation	Non-operation
	Temperature	0° C ~ 40° C (32° F ~ 104° F)	-20° C ~ 60° C (-4° F ~ 140° F)
	Humidity	10% ~ 85% @ 40° C, non-condensing	10% ~ 95% @ 40° C, non-condensing
Misc	Notification LED	Power Status, System Fail	

Front View

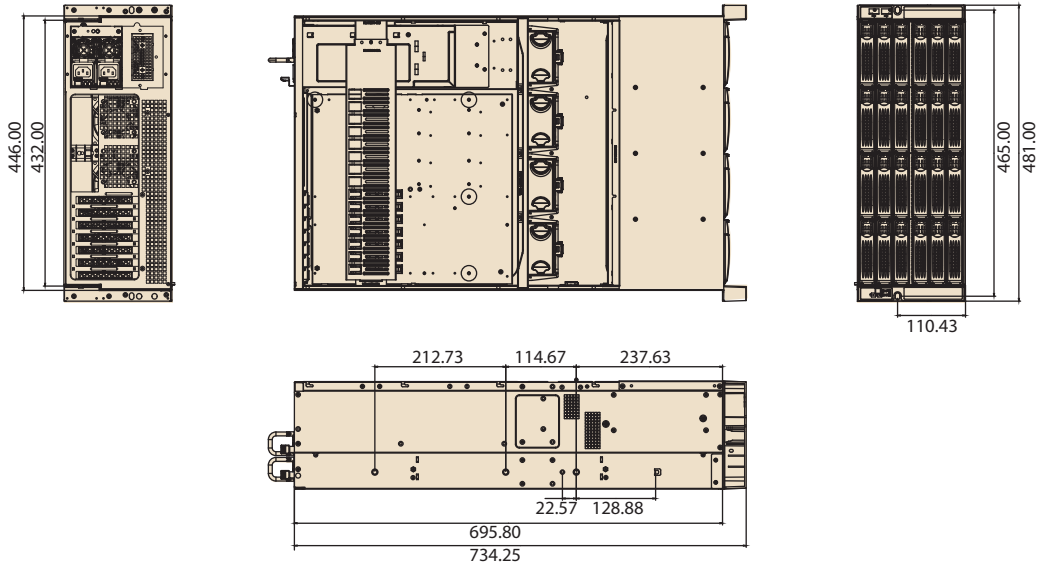


Rear View



Dimensions

Unit: mm



Order Information

Advantech P/N	Description
ASR-1400-24A1E	4U 24-Bay JBOD Expansion Enclosure

Optional Accessories

Advantech P/N	Description
XISG-SFFH8088D8088	External Mini SAS Cable 1m SFF-8088 to SFF-8088

System Contents

Description	Quantity
27" Slide Rail Kit	1
875W 80 PLUS 1+1 redundant power supply	1

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ASR-3100

1U Rackmount dual Xeon E5-2600 v3 NVMe Storage Server, supporting 16 x SFF-8639 2.5" NVMe SSD and 2 x PCIe Gen III x8 slot



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Features

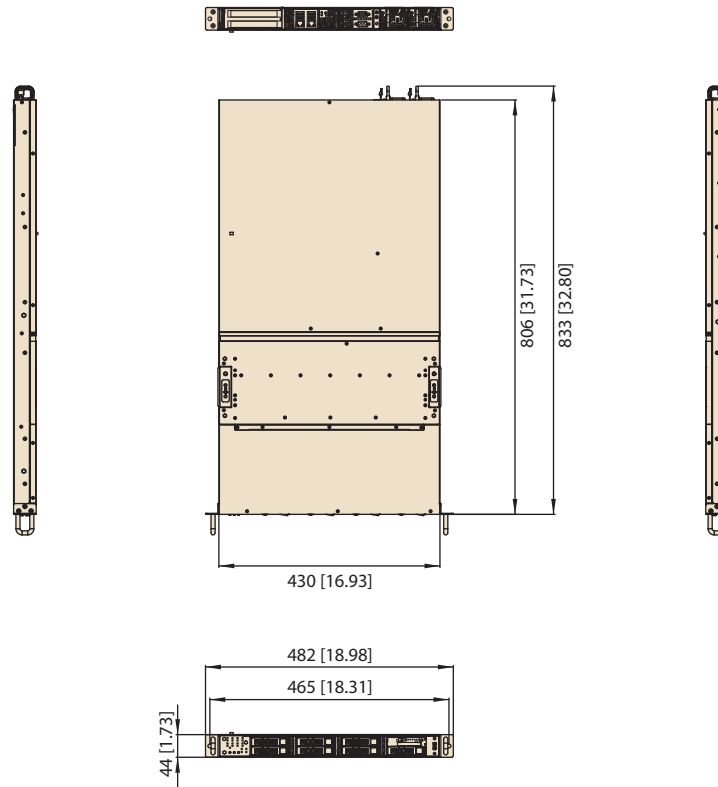
- Processor: Dual LGA 2011-R3 Intel Xeon E5-2600 v3 series
- Memory : DDR4-2133 RDIMM up to 512GB
- Supports 16pcs hot-swap 2.5" NVMe/SAS 12G/SATA 6G drives
- Remote Management: IPMI Function with LSI Raid Management
- Expansion: Supporting 2 *PCIe x8 Cards
- PSU: 1100W 1+1 redundant power supply with 80 PLUS Platinum level certification

Specifications

Processor System	Chipset	Intel C612 Chipset	
	CPU	Intel Xeon E5-2600(v3) dual processor (Max TDP Support is TBD)	
	Memory	16 x DDR4-2133 ECC RDIMM, maximum to 512GB	
Graphics	Controller	Aspeed AST2400	
	VRAM	64 MB	
Expansion Slot	PXle x8	Two PCIe x8 slots (Gen3), one is HHHL card and the other one is FHHL card	
Drive Bay	2.5" (Hot-Swap)	16 NVMe/SAS 16G/SATA 6G (SAS support by optional raid card)	
Ethernet	Interface	2 x 1 GB Base-T Ethernet	
	Controller	Intel X210 *2	
Front I/O Interface	USB	2 x USB 2.0	
	USB	4 x USB 3.0	
Rear I/O Interface	PS/2	-	
	COM	1	
	Display	1 x VGA	
	RJ-45	2	
Internal connector	Type-A USB	-	
	SATA	2 (SATA M.2 2242)	
	LPC	-	
Watchdog Timer	Output	Interrupt, system reset	
	Interval	Programmable, 1~255 sec	
Power Supply	Power Output Wattage	80 PLUS Platinum 1+1 redundant Power Supply 900W @ 100 ~ 120V 1100W @ 200 ~ 240V	
	Input Range	AC 100 ~ 240 V	
Cooling	Chassis Fan	7 x 4056	
	Air Filter	-	
Miscellaneous	LED Indicators	Power status, HDD activity, Lan status, Location, Error Message	
	Remote Management	Advantech Remote Monitoring Utility	
Environment	Temperature	Operating 0 ~ 40° C (32~104° F)	Non-Operating -20 ~ 60° C (-4 ~ 140° F)
	Humidity	10 ~ 85% @ 40° C 10 ~ 95% @ 40° C	
	Vibration (5 ~ 500 Hz)	0.25Grms -	
Physical Characteristics	Dimension (D x W x H)	806 x 430 x 44 mm	

Dimensions

Unit: mm [inch]



Ordering Information

Part Number	2.5" Front HDD Bay	2nd Row 2.5" HDD Bay	VGA Chip	10GB Base-T	IPMI	Power supply
ASR-3100I-R11A1E	8 (NVMe Drive)	8 (NVMe+SATA, SAS Optional)	AST 2400	2	YES	1+1 1100W RPS
ASR-3100I-R11A2E	8 (NVMe Drive)	8 (SATA, SAS Optional)	AST 2400	2	YES	1+1 1100W RPS
ASR-3100I-R11A3E	8 (NVMe Drive)	-	AST 2400	2	YES	1+1 1100W RPS

System Contents

Items	Description	Quantity
CPU0 heatsink	Heatsink for E5-2600 Serres	1
CPU1 heatsink	Heatsink for E5-2600 Serres	1
Rail kit	1U slide rail kit	1
CMA	Cable Management Arm	1
Driver CD	ASR-3100 CD with drivers and user manual	1
Startup manual	ASR-3100 startup manual	1

Compatible NVMe Drives

Items	Description
Intel P3700 2.0TB	2.0TB, 2.5in PCIe 3.0, 20nm, MLC
Intel P3700 1.6TB	1.6TB, 2.5in PCIe 3.0, 20nm, MLC
Intel P3700 800GB	800GB, 2.5in PCIe 3.0, 20nm, MLC
Intel P3700 400GB	400GB, 2.5in PCIe 3.0, 20nm, MLC
Intel P3600 2TB	2.0TB, 2.5in PCIe 3.0, 20nm, MLC

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ASR-3272

2U 12-bay Storage Server with Reliable Data Protection and Backup Solution



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Features

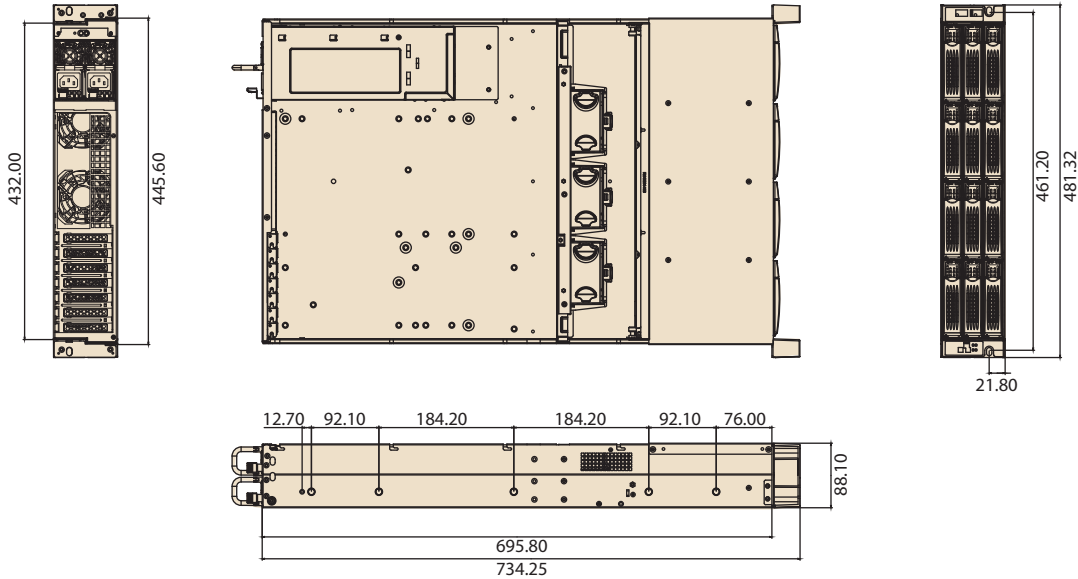
- Supports Intel® Xeon® E3-1200/E3-1200 v2 series up to 4 cores/8 threads
- Supports DDR3-1333/1600 MHz(ECC) U-DIMM up to 32 GB
- Supports 12x hot-swappable 3.5"/2.5" SATA/SAS 6Gb/s drives
- Advanced RAID feature by LSI SAS2108 ROC
- BBU option for data protection
- Remote management with Intel AMT
- Full length PCI card support
- 0 ~ 40° C industrial-temperature
- High efficiency (80+) redundant power supply
- Optional SKU: Max 60 drives support via SAS expansion port

Specification

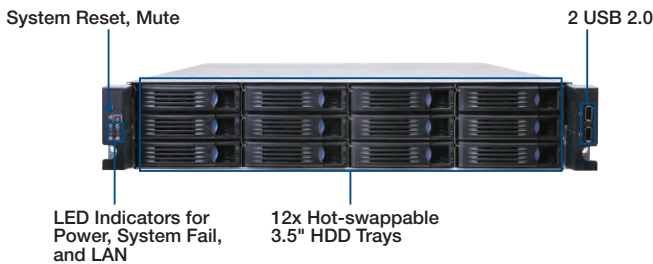
System	Form Factor	2U 12-Bay
	Number of Drives	12-bay (3.5"/2.5")
	Drive Type	SATA/SAS 6Gb/s or 3Gb/s
	CPU Type	LGA 1155 Xeon 1200V2 or 3rd Generation Core i3 processor
	Chipset	Intel C216 Chipset
	Memory Type	4 x 240 pin DDR3 up to 32 GB
	Storage Expansion	Yes (only for E SKU)
	RAID Level	0, 1, 5, 6,10, 50, 60
	TPM	Yes (optional)
Expansion Slot	Smart Fan Control	Yes (smart fan control for both cpu & sys fan)
	PCIe x16 slot with x8 link	1
	PCIe x4 slot	2
Display	PCI	3
	Chipset	Integrated Intel HD Graphics(GT2-P4000 or GT1-2500)
	Display Memory	1 GB maximum shared memory with 2 GB and above system memory installed
Ethernet	VGA	Onboard, supports up to 2048 x 1536 (@60Hz)
	Gigabit Ethernet	4
I/O	Front Panel I/O Port	2 USB 2.0
	Back Panel I/O Port	1 PS/2 Keyboard/Mouse
		1 VGA Port
		1 COM RS-232 Port
Internal I/O Connector	2 USB 2.0 Ports	
	2 USB 3.0 Ports	
Power Supply	4 LAN RJ45 Port	
	Power Output Wattage	1 TPM Pin Header
	Input Range	2 USB Type A connectors
Mechanical	Power Output Wattage	650W Redundant Power
	Dimension	AC 100-240V
	Weight	699 x 432 x 88 (mm)
Environmental	Weight	19 kg (without hard drivers)
	Temperature	Operation 0° C ~ 40° C (32° F ~ 104° F)
	Humidity	Non-operation -20° C ~ 60° C (-4° F ~ 140° F)
	Vibration(5-500 Hz)	10% ~ 85% @ 40° C, non-condensing 10% ~ 95% @ 40° C, non-condensing
Misc	Notification LED	0.25Grms -
		Power Status, System Fail, LAN LED

Dimensions

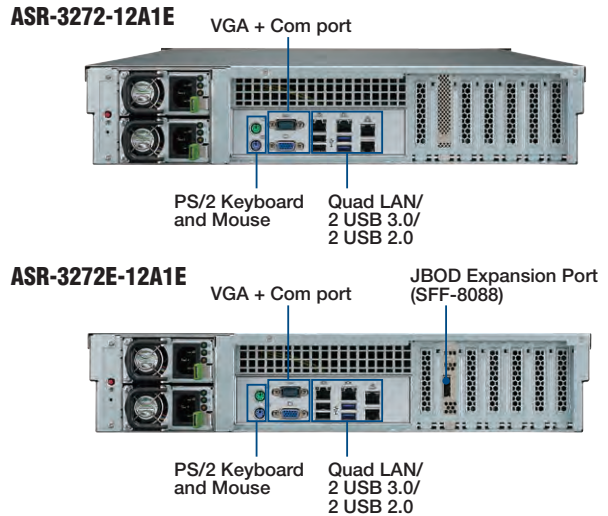
Unit: mm



Front View



Rear View



Order Information

Advantech P/N	Description
ASR-3272-12A1E	2U-12 Bay Rackmount Storage Server
ASR-3272E-12A1E	2U-12 Bay Rackmount Storage Server with SAS Expansion Port
ASR-3272W-12A1E	2U-12 Bay Rackmount NAS appliance with pre-installed Windows Storage Server 2012 R2
1960047831N001	Cooler for LGA 1155 processors and TDP up to 95W

Note:

- Purchasing this CPU cooler from Advantech is a must. Other brands' CPU coolers may result in incompatibility.

System Contents

Description	Quantity
26" Slide Rail Kit	1
650W 80 PLUS 1+1 redundant power supply	1
Internal Mini-SAS Cable 600mm, SFF-8087 to SFF-8087	1

Optional Accessories

Advantech P/N	Description
PCA-TPM-00A1E	TPM Module with Infineon TPM 1.2 solution
96RC-IBBU07-LS	LSIIBBU07 BATTERY BACKUP UNIT

Compatible Processors

Advantech P/N	Description
96MPXE-3.5-8M11T	Xeon 3.5G 8M 1155P 4CORE E3-1275V2
96MPXE-3.2-8M11T1	Xeon 3.2G 8M 1155P 4CORE E3-1225V2(G)
96MPI3-3.3-3M11T1	Core 3.3G 3M 1155P 2CORE I3-3220(G)

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ASR-3472

4U 24-bay Storage Server with Reliable Data Protection and Backup Solution



CE FCC

Features

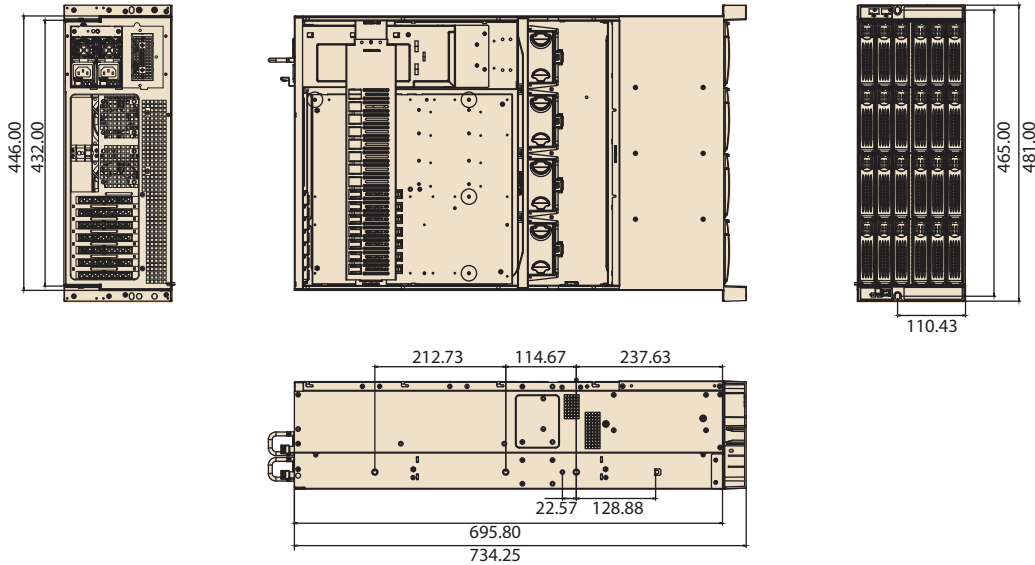
- Supports Intel® Xeon® E3-1200/E3-1200 v2 series up to 4 cores/8 threads
- Supports DDR3-1333/1600 MHz(ECC) U-DIMM up to 32 GB
- Supports 24x hot-swappable 3.5"/2.5" SATA/SAS 6Gb/s drives
- Advanced RAID feature by LSI SAS2108 ROC
- BBU option for data protection
- Remote management with Intel AMT
- Full length PCI card support
- 0 ~ 40° C industrial-temperature
- High efficiency (80+) redundant power supply
- Up to 2850 MB/s drive side bandwidth

Specification

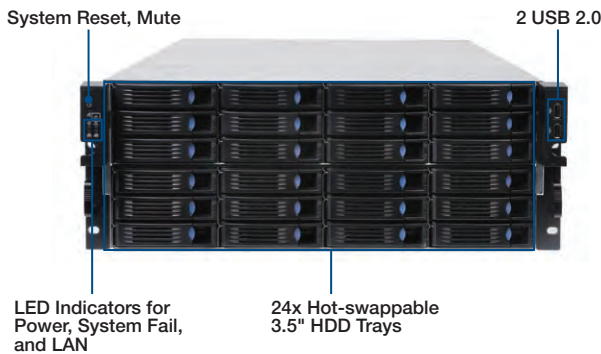
System	Form Factor	4U 24-Bay	
	Number of Drives	24-bay (3.5"/2.5")	
	Drive Type	SATA/SAS 6Gb/s or 3Gb/s	
	CPU Type	LGA 1155 Xeon 1200V2 or 3rd Generation Core i3 processor	
	Chipset	Intel C216 Chipset	
	Memory Type	4 x 240 pin DDR3 up to 32 GB	
	Storage Expansion	No	
	RAID Level	0, 1, 5, 6,10, 50, 60	
	TPM	Yes (optional)	
Expansion Slot	Smart Fan Control	Yes (smart fan control for both cpu & sys fan)	
	PCIe x16 slot with x8 link	1	
	PCIe x4 slot	2	
Display	PCI	3	
	Chipset	Integrated Intel HD Graphics(GT2-P4000 or GT1-2500)	
	Display Memory	1 GB maximum shared memory with 2 GB and above system memory installed	
Ethernet	VGA	Onboard, supports up to 2048 x 1536 (@60Hz)	
	Gigabit Ethernet	4	
I/O	Front Panel I/O Port	2 USB 2.0 1 PS/2 Keyboard/Mouse 1 VGA Port	
	Back Panel I/O Port	1 COM RS-232 Port 2 USB 2.0 Ports 2 USB 3.0 Ports 4 LAN RJ45 Port	
	Internal I/O Connector	1 Parallel Port pin header 1 COM Port pin header 1 Audio Port pin header 1 TPM Pin Header 1 USB 3.0 Pin Header 2 USB Type A connectors 3 USB 2.0 Pin Headers	
Power Supply	Power Output Wattage	875W Redundant Power	
	Input Range	AC 100-240V	
Mechanical	Dimension	699 x 432 x 176 (mm)	
	Weight	42 kg (without hard drivers)	
Environmental	Operation	Non-operation	
	Temperature	0° C ~ 40° C (32° F ~ 104° F)	-20° C ~ 60° C (-4° F ~ 140° F)
	Humidity	10% ~ 85% @ 40° C, non-condensing	10% ~ 95% @ 40° C, non-condensing
Misc	Vibration (5-500 Hz)	0.25Grms	
	Notification LED	Power Status, System Fail, LAN LED	

Dimensions

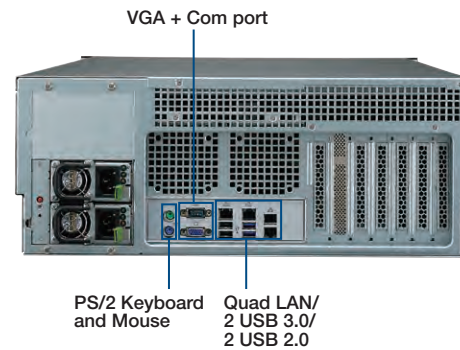
Unit: mm



Front View



Rear View



Order Information

Advantech P/N	Description
ASR-3472-24A1E	4U-24Bay Rackmount Storage Server
1960047831N001	Cooler for LGA 1155 processors and TDP up to 95W

Note:

- Purchasing this CPU cooler from Advantech is a must. Other brands' CPU coolers may result in incompatibility.

System Contents

Description	Quantity
27" Slide Rail Kit	1
875W 80 PLUS 1+1 redundant power supply	1
Internal Mini-SAS Cable 600mm, SFF-8087 to SFF-8087	2

Optional Accessories

Advantech P/N	Description
PCA-TPM-00A1E	TPM Module with Infineon TPM 1.2 solution
1700002204	Dual port USB 2.0 cable (27 cm) with bracket
1700008461	Four port USB 2.0 cable (30.5 cm) with bracket
1700008809	Printer port cable kit
1701090401	COM port cable with bracket
1700020277-01	Dual port USB 3.0 cable with bracket
AIMB-AUDIO-HDA1E	HD Audio-Card
96RC-IBBU07-LS	LSIIBBU07 BATTERY BACKUP UNIT

Compatible Processors

Advantech P/N	Description
96MPXE-3.5-8M11T	Xeon 3.5G 8M 1155P 4CORE E3-1275V2
96MPXE-3.2-8M11T1	Xeon 3.2G 8M 1155P 4CORE E3-1225V2(G)
96MPI3-3.3-3M11T1	Core 3.3G 3M 1155P 2CORE I3-3220(G)

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ASR-5200E

High-availability Disk Array Solution for Mission-critical Service with Zero Down Time



CE FCC

Features

- Redundant Dual Controller Configuration
- 2U12 (LFF)/2U24 (SFF), Two High-density Form Factors
- Default 2 x iSCSI 1Gb/s + 3 x SAS 6Gb/s per Controller
- Max 120 x 3.5" / 240 x 2.5" SATA/SAS 6Gb/s drives
- Additional Host Options: FC 8G/iSCSI 10G/iSCSI 1G
- Default BBU+Flash Module for Cache Backup
- State-of-the-art Data Service Functions: Thin Provisioning, FlashCopy, Easy Tier and Remote Mirror
- 3-year Warranty, with Advanced RMA Service

Specifications

Model Name	ASR-5200E	
System	Form Factor	2U 12-Bay (LFF) / 24-bay(SFF)
	Configuration	Dual Controller
	Number of Drives	12-Bay (3.5") / 24-Bay (2.5")
	Drive Type	6Gb/s SAS
	Cache Memory	Default 8GB
	JBOD Expansion	Yes, miniSAS HD
	Max Drives	120 x 3.5" drives / 240 x 2.5" drives (with corresponding JBODs)
	Default Host	4 x 1Gb/s iSCSI RJ45 port 6 x 6Gb/s SAS wide-port 8 x 8Gb/s FC SFP port
	Optional Host	4 x 10Gb/s iSCSI SFP+ port 8 x 1Gb/s iSCSI RJ45 port
	RAID Level	0, 1, 5, 6, 10
LUN Number	2048 LUNs	
Notification	Email, SNMP traps	
Data Service	Advanced Functions	Thin Provisioning FlashCopy (Default 64 Targets) Easy Tier
	Optional Features	FlashCopy upgrade (up to 2040 Targets) Remote Mirror
Power Supply	Power Output Wattage	800W Redundant Power
	Input Range	AC 100-240V
Mechanical	Dimensions	556 x 483 x 87 (mm)
	Weight	18 kg/39.68lbs (without hard drives)
Environmental	Operating Temperature	10° C ~ 35° C (50° F ~ 95° F)
	Non-operating Temperature	-10° C ~ 50° C (14° F ~ 125° F)
	Humidity	20% ~ 80% @ 35° C, non-condensing 10% ~ 90% @ 35° C, non-condensing

Front View



12-bay Unit



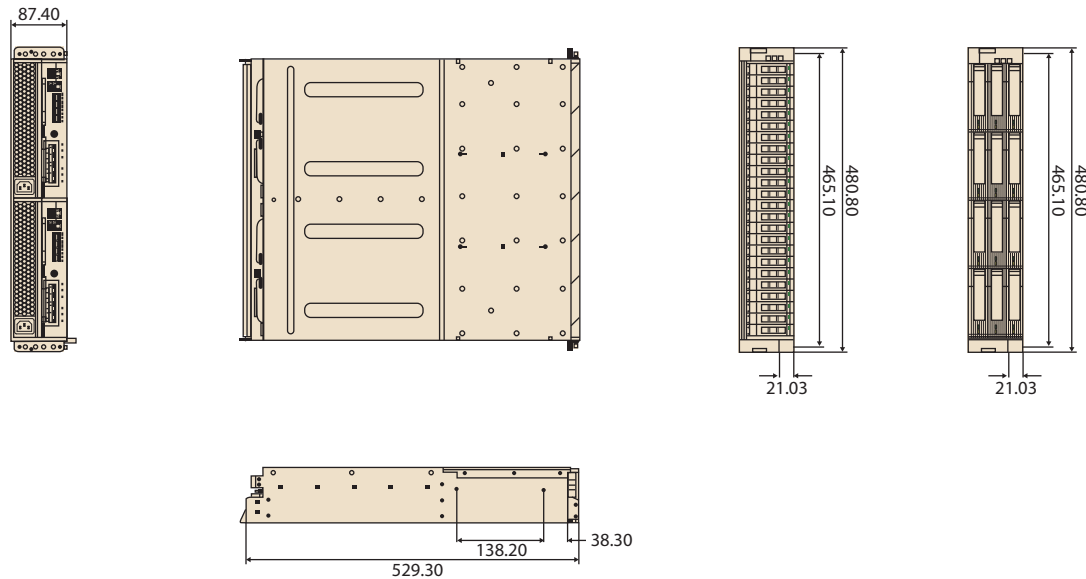
24-bay Unit

Rear View



Dimensions

Unit: mm



Order Information

Advantech P/N	Description
ASR-5200E-12A1E	2U-12 Bay Rackmount External Disk Array
ASR-5200E-24A1E	2U-24 Bay Rackmount External Disk Array

System Contents

Description	Quantity
Mount kit	1

Compatible Drives

Advantech P/N	Description
ASR-5200-L2TB07K	3.5" Enterprise SAS 2TB, 7Krpm, 3 Year Warranty
ASR-5200-L3TB07K	3.5" Enterprise SAS 3TB, 7Krpm, 3 Year Warranty
ASR-5200-L4TB07K	3.5" Enterprise SAS 4TB, 7Krpm, 3 Year Warranty
ASR-5200-S3HG15K	2.5" Enterprise SAS 300GB, 15Krpm, 3 Year Warranty
ASR-5200-S6HG10K	2.5" Enterprise SAS 600GB, 10Krpm, 3 Year Warranty

Note: Approved HDDs should be purchased from Advantech.

Optional Parts

Advantech P/N	Description
ASR-5200-FC08	FC 8G x4 port Host Interface Card
ASR-5200-RJ01	iSCSI 1G x4 port RJ45 Host Interface Card
ASR-5200-SP10	iSCSI 10G x2 port SFP+ Host Interface Card

Note: Host Interface Cards are sold by the pair.

Data Service License

Advantech P/N	Description
ASR-5200E-RME	FC/IP-based remote mirror license
ASR-5200E-TRE	Easy Tier license
ASR-5200E-FUE	FlashCopy Upgrade to 2040 tags

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ASR-5300I

3U 16-bay IP-SAN Storage with Reinforced Reliability for Surveillance



CE FCC

Features

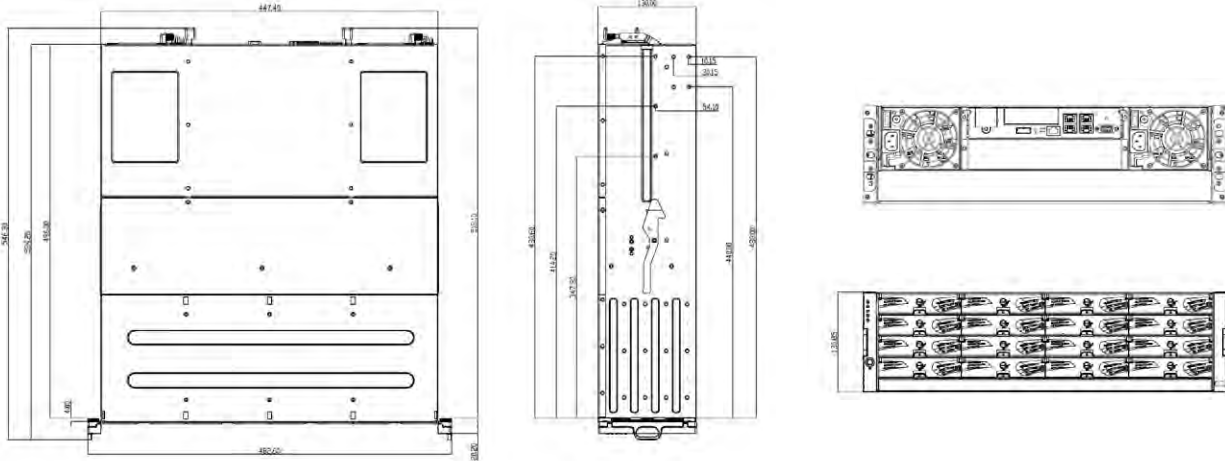
- Single Controller Configuration
- 3U16 (LFF) Short-Depth Form-Factor
- Built-in 4 x iSCSI 1Gb/s Host Interface
- Default 2GB Cache, Support up to 16GB
- Max 160 x 3.5"/2.5" SATA/SAS Drives
- Optional BBU/Super-Cap+Flash Module for Cache Backup
- Data Service Functions: Thin Provisioning, Snapshot, Volume Copy & Mirror

Specifications

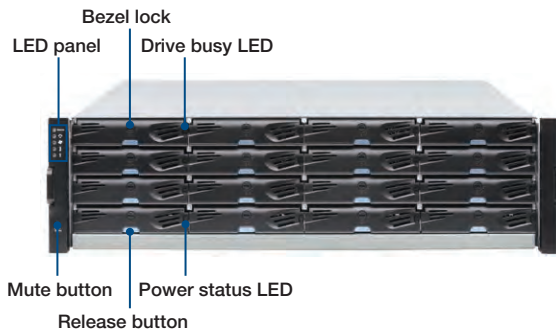
System	Form Factor	3U 16-Bay (LFF)	
	Configuration	Single Controller	
	Number of Drives	16-Bay (3.5")	
	Drive Type	6 Gb/s SAS, 6 Gb/s SATA	
	Cache Memory	Default 2 GB, up to 16 GB	
	JBOD Expansion	Yes, miniSAS	
	Max Drives	160 x 3.5" drives (with corresponding JBODs)	
	Default Host	4 x 1Gb/s iSCSI RJ45 Port	
	RAID Level	0, 1, 3, 5, 6, 10, 30, 50, 60	
	LUN Number	2048 LUNs	
	Notification	Email, Fax, LAN broadcast, SNMP traps, SMS, Skype	
Data Service	Advanced Function	Thin provisioning Snapshot (64 images per source volume, max 128 per system) Volume copy/ mirror (16 source volume x 4 replication pairs, max 64 per system)	
Power Supply	Output Wattage	460W Redundant Power (80 Plus)	
	Input Range	AC 100-240 V	
Mechanical	Dimensions	500 x 448 x 130 (mm)	
	Weights	21.66kg / 47.75lbs (without hard drives)	
Environment		Operating	Non-operating
	Temperature	0 to 40° C (32 ~ 104° F) without BBU or Super-Cap	-40 to 60° C (-40° F ~ 140° F)
	Humidity	5 to 95% non-condensing	5 to 95% non-condensing

Dimensions

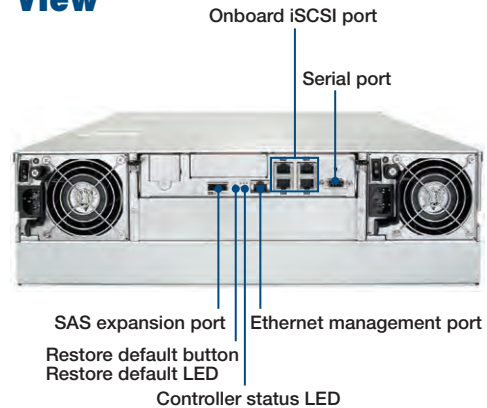
Unit: mm



Front View



Rear View



Order Information

Advantech P/N	Description
ASR-5300I-16A1E	3U-16 Bay Single Controller iSCSI Disk Array

System Contents

Description	Quantity
Mount kit	1

Compatible Drives

Advantech P/N	Description
96HD2T-ST-WD7KE	WD 3.5" Enterprise SATA 2TB, 7Krpm, 5 Year Warranty
96HD4TB-ST-WD7KE	WD 3.5" Enterprise SATA 4TB, 7Krpm, 5 Year Warranty
96HD3TB-ST-SG5KA	Seagate 3.5" Surveillance SATA 3TB, 5Krpm, 3 Year Warranty
96HD4TB-ST-SG5KA	Seagate 3.5" Surveillance SATA 4TB, 5Krpm, 3 Year Warranty
96HD2TB-ST-SG7KE	Seagate 3.5" Enterprise SATA 2TB, 7Krpm, 5 Year Warranty
96HD3TB-ST-SG7KE	Seagate 3.5" Enterprise SATA 3TB, 7Krpm, 5 Year Warranty
96HD4TB-ST-SG7KE	Seagate 3.5" Enterprise SATA 4TB, 7Krpm, 5 Year Warranty
96ND500G-ST-SG7K2	Seagate 2.5" Enterprise SATA 500GB, 7Krpm, 5 Year Warranty
96ND1T-ST-SG7KE	Seagate 2.5" Enterprise SATA 1TB, 7Krpm, 5 Year Warranty
96ND300G-SS-SG10KE	Seagate 2.5" Enterprise SAS 300GB, 10Krpm, 5 Year Warranty
96ND600G-SS-SG10KE	Seagate 2.5" Enterprise SAS 600GB, 10Krpm, 5 Year Warranty
96ND900G-SS-SG10KE	Seagate 2.5" Enterprise SAS 900GB, 10Krpm, 5 Year Warranty

Optional Parts

Advantech P/N	Description
ASR-5300I-CBMB	Cache backup module, BBU+Flash
ASR-5300I-CBMC	Cache backup module, Super-capacitor+ Flash
ASR-5300I-8GB	8GB DDR-III DIM module
ASR-5300I-4GB	4GB DDR-III DIM module
ASR-5300I-2GB	2GB DDR-III DIM module

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ASR-1000K

Flexible Expansion Module Fulfilling Various JBOD Demand



Features

- Two Mini-SAS HD (SFF-8644) host ports
- Supports up to 12Gbps SAS protocol
- SES enclosure management & smart fan control
- Storage daisy chain & maximum 48 Drives
- Flexibly leverage HPC-8000 series chassis to become JBOD subsystem

Specifications

System	Form Factor	I/O module	
	Back Panel I/O Port	2 mini-SAS HD (SFF-8644)	
	Internal I/O Connector	2 mini-SAS HD (SFF-8643)	
	SAS interlink	2 SAS 12Gbps cables, included	
	Smart Fan Control	Yes	
Mechanical	Storage Daisy Chain	Yes, up to 48 drives	
	Dimension (W x H x D)	175 x 53.2 x 181.77 mm	
	Weight	340g	
Environment	Temperature	Operating	Non-operating
		System: 0 ~ 40° C	-40 ~ 85° C
	Board: 0 ~ 60° C		
Humidity	0% ~ 90%	5% ~ 95% (Non condensing)	
Misc	Notification LED	Power LED, System Alert LED, FAN Fault LED, Overheat LED	
	Button	Power button, Mute Button	

Front View



I/O View



Ordering Information

Part Number	Description
ASR-1000K-00A1E	JBOD kit for enclosure expansion function
TBD	550Watt redundant power supply

Optional Accessories

Part Number	Description
TBD	1.5 meter mini-SAS HD (SFF-8644) to mini-SAS HD (SFF-8644) cable
TBD	1.5 meter miniSAS HD (SFF-8644) to mini-SAS (SFF-8088) cable

Compatible Enclosures

Part Number	Description
HPC-8316MB-00A2E	3U16bay short-depth chassis with SAS12G Expander Backplane

Video Wall Controllers

Selection Guide		7-2
AVS-240	4U Intel® Xeon® E5-2400 Video Wall Controller, Supporting 8-output Video Wall	7-4
AVS-290	Desktop/Wallmount Intel® Xeon® E3-1200 Video Wall Controller, Supporting 8-output Video Wall	7-6
AVS-540	4U Intel® Xeon® E5-2600 Video Wall Controller, Supporting 20-output Video Wall	7-8
AVS-541	4U Intel® Xeon® E3-1200V2 Video Wall Controller, Supporting 20-output Video Wall	7-10
AVS-542	4U Intel® Xeon® E5-2600 Video Wall Controller, Supporting 20 output / 15-40 input Video Wall	7-12
AVS-543	4U Intel® Xeon® E5-2600 Video Wall Controller, Supporting 20-output / 20-input Video Wall	7-14
AVS-840	4U Intel® Xeon® E3-1200V2 Video Wall Controller, Supporting 40-output Video Wall	7-16
AVS-860	6U Intel® Xeon® E3-1200V2 Video Wall Controller, Supporting 40-output Video Wall	7-18

To view all of Advantech's Video Wall Controller, please visit www.advantech.com/products.



Selection Guide



Model Name		AVS-240	AVS-290	AVS-540
Processor System	Chipset	Intel® C602J	Intel® C206	Intel® C602J
	CPU	Intel LGA1356 Xeon E5-2400 Single processor (up to 95W TDP)	Intel LGA1155 Xeon E3-1200 / Core i3-2120 / Pentium G850 Single processor	Intel LGA2011 Xeon E5-2600 Single processor (up to 95W TDP)
	L2 Cache	20/15/10 MB	8MB/6MB/3MB	5/10/15/20 MB
	Memory	DDR3 ECC & Register or ECC or non ECC 1600/1333/1066 MHz up to 96 GB	DDR3 ECC/Non-ECC 1066/1333 MHz up to 32GB	DDR3 ECC & Register or ECC or non ECC 1600/1333/1066 MHz up to 96 GB
Maximum Output/ Input support number	Output	8 Analog/Digital	8 Analog/Digital	20 Analog/Digital
	Input	8 Analog/Digital & 16 Analog	8 Analog/Digital	20 Digital
Drive Bay	5.25" (front-accessible)	3	1	3
	3.5" (hot-swappable)	-	2	-
	3.5" (internal)	1	1	1
	2.5" (internal)	-	-	-
	Slim ODD Bay	-	-	-
Ethernet	Interface	Dual 10/100/1000 Mbps Gigabit Ethernet	Quad 10/100/1000 Mbps Gigabit Ethernet	Dual 10/100/1000 Mbps Gigabit Ethernet
	Controller	Intel 82579LM + Intel 82574L	LAN1: Intel 82579LM; LAN2: Intel 82574L; LAN3/4: Intel 82580DB	Intel 82579LM + Intel I210
Front I/O Interface	USB	2 x USB2.0	2 x USB2.0	2 x USB2.0
	PS/2	1	-	1
Rear I/O Interface	USB	4 x USB2.0	4 x USB2.0	4 x USB2.0, 2 x USB 3.0
	PS/2	2	2	2
	COM	1	1	1
	RJ-45	2	4	3 (1 is dedicated for IPMI)
Watchdog Timer	Output	Interrupt, system reset	Interrupt, system reset	Interrupt, system reset
	Interval	Programmable, 1~255 sec/min	Programmable, 1~255 sec/min	Programmable, 1~255 sec/min
Power Supply	Power Output Wattage	80+ Bronze 500W Single Power Supply	80+ Bronze 400W Single Power Supply	80+ Bronze 700W Single Power Supply
	Input Range	AC 100 ~ 240 V	AC 100 ~ 240 V	AC 100 ~ 240 V
Cooling	Chassis Fan	2 (12 cm / 85 CFM each)	1 (12 cm/85 CFM) + 1 (6 cm/27.7CFM)	2 (12 cm / 114 CFM each)
	Air Filter	Yes	Yes	Yes
Physical Characteristics	Dimension	482 x 177 x 479 mm (19" x 7" x 18.9")	200 x 320 x 480 mm (7.9" x 12.6" x 18.9")	482 x 177 x 479 mm (19" x 7" x 18.9")
Page		7-4	7-6	7-8



AVS-541	AVS-542	AVS-543	AVS-840	AVS-860
Intel® C216	Intel® C602J	Intel® C602J	Intel® C216	Intel® C216
Intel LGA1155 Xeon E3-1200V2 Single processor (up to 95W TDP)	Intel LGA2011 Xeon E5-2600 Single processor (up to 95W TDP)	Intel LGA2011 Xeon E5-2600 Single processor (up to 95W TDP)	Intel LGA1155 Xeon E3-1200V2 Single processor (up to 95W TDP)	Intel LGA1155 Xeon E3-1200V2 Single processor (up to 95W TDP)
2/3/6/8 MB	5/10/15/20 MB	5/10/15/20 MB	2/3/6/8 MB	2/3/6/8 MB
DDR3 ECC or non ECC 1600/1333/1066 MHz up to 16 GB	DDR3 ECC & Register or ECC or non ECC 1600/1333/1066 MHz up to 96 GB	DDR3 ECC & Register or ECC or non ECC 1600/1333/1066 MHz up to 96 GB	DDR3 ECC or non ECC 1600/1333/1066 MHz up to 16 GB	DDR3 ECC or non ECC 1600/1333/1066 MHz up to 16 GB
20 Analog/Digital	20 Analog/Digital	20 Analog/Digital	40 Analog/Digital	40 Analog/Digital
20 Analog/Digital & 160 Analog	15 Analog/Digital or 40 Analog	20 Digital	40 Analog/Digital	40 Analog/Digital
3	-	-	3	4
-	-	4	-	-
2	2	-	2	2
-	1	1	-	-
-	1 (ODD should be purchased separately)	1 (ODD should be purchased separately)	-	-
Dual 10/100/1000 Mbps Gigabit Ethernet	Dual 10/100/1000 Mbps Gigabit Ethernet	Dual 10/100/1000 Mbps Gigabit Ethernet	Dual 10/100/1000 Mbps Gigabit Ethernet	Dual 10/100/1000 Mbps Gigabit Ethernet
Intel 82579LM + Intel 82574L	Intel 82579LM + Intel I210	Intel 82579LM + Intel I210	Intel 82579LM + Intel 82574L	Intel 82579LM + Intel 82574L
2 x USB2.0	2 x USB2.0	2 x USB2.0	2 x USB2.0	2 x USB2.0
-	-	-	-	-
1 x USB 3.0	4 x USB2.0, 2 x USB 3.0	4 x USB2.0, 2 x USB 3.0	1 x USB 3.0	1 x USB 3.0
1 (KB & MS through the Y cable)	2	2	1 (KB & MS through the Y cable)	1 (KB & MS through the Y cable)
-	1	1	-	-
2	3 (1 is dedicated for IPMI)	3 (1 is dedicated for IPMI)	2	2
Interrupt, system reset	Interrupt, system reset	Interrupt, system reset	Interrupt, system reset	Interrupt, system reset
Programmable, 1~255 sec/min	Programmable, 1~255 sec/min	Programmable, 1~255 sec/min	Programmable, 1~255 sec/min	Programmable, 1~255 sec/min
810W 3+1 redundant power supply (Front-accessible)	80+ Bronze 700W Single Power Supply	80+ Bronze 750W Redundant Power Supply	810W 3+1 redundant power supply (Front-accessible)	80+ Bronze 750W Redundant Power Supply
AC 115 ~ 230 V (full range)	AC 100 ~ 240 V	AC 100 ~ 240 V	AC 115 ~ 230 V (full range)	AC 100 ~ 240 V
3 (12 cm / 114 CFM each)	2 (9cm / 110.18 CFM)	2 (9cm / 110.18 CFM) + 1 (8 cm / 56CFM)	3 (12 cm / 114 CFM each)	4 (9cm/110CFM each)
Yes	Yes	Yes	Yes	Yes
482 x 177 x 657 mm (19" x 7" x 26")	482 x 177 x 348 mm (19" x 7.0" x 13.7")	482 x 177 x 478 mm (19" x 7.0" x 18.8")	482 x 177 x 657 mm (19" x 7" x 26")	482 x 266 x 464 mm (19" x 10.5" x 18.3")
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Slot SBC & Passive Backplanes 10

CompactPCI Platforms 11

Industrial Chassis 12

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AVS-240

4U Intel® Xeon® E5-2400 Video Wall Controller, Supporting 8-output Video Wall



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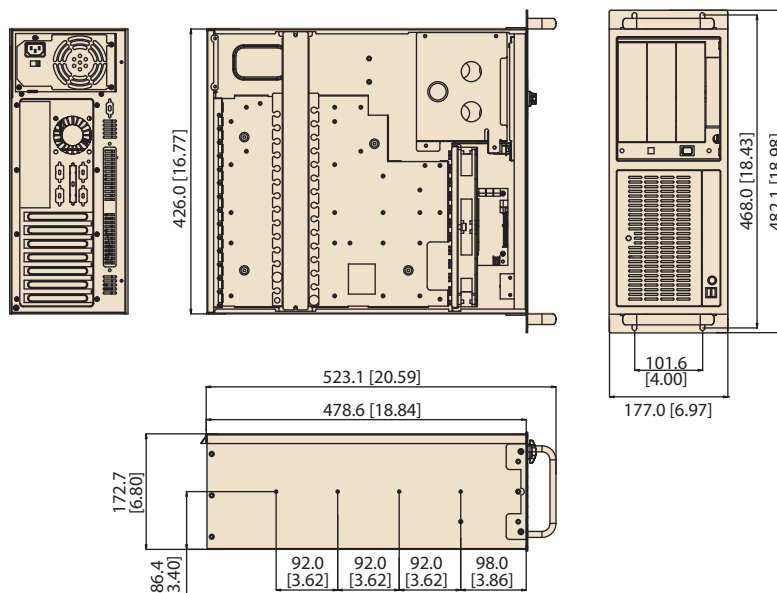
Features

- Validated by Matrox
- Support Mura Card : 2 Mura MPX-4/4 and 1 Mura MPX-V16
- Maximum Video Input: 8 Analog/Digital
- Maximum Video Output: 8 Analog/Digital
- Processor: Intel Xeon E5-2400 series up to 8 cores/ 16 threads
- Memory : DDR3-1333/1600 MHz (ECC) U-DIMM and R-DIMM up to 96 GB
- Remote Management: IPMI, Advantech Remote Monitoring Utility

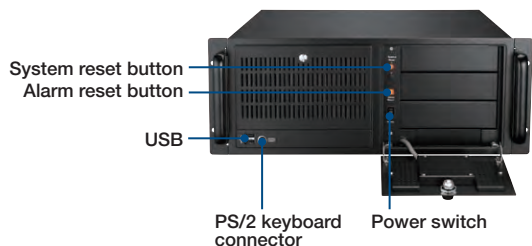
Specifications

Processor System	Chipset	Intel C602J Chipset	
	CPU	Intel LGA1356 Xeon E5-2400 Single processor (up to 95W TDP)	
	L2 Cache	20/15/10 MB	
	Front Side Bus	-	
	Memory	ECC & Register or ECC or non ECC DDR3 1600/1333/1066 MHz UDIMMs, maximum 96 GB	
Graphics	Controller	Aspeed AST2300 (Needs being disabled when Mura MPX is installed)	
	VRAM	64 MB	
Expansion Slot	PCIe x16 (Gen 3.0)	16.0 GB/s per direction, 1 slot (For Mura MPX installation)	
	PCIe x8 (Gen 3.0)	8.0 GB/s per direction, 1 slot (For Mura MPX installation)	
	PCIe x4 (Gen 2.0)	2.0 GB/s per direction, 1 slot (For Mura MPX-V8/V16 installation)	
	PCIe x1 (Gen 2.0)	500 MB/s per direction, 1 slot	
	PCI	32 bit/33 MHz, 2 slots	
Drive Bay	5.25" Front-Accessible	3	
	3.5" (Front Accessible)	1	
	3.5" Internal	-	
Ethernet	Interface	Dual 10/100/1000 Mbps Gigabit Ethernet	
	Controller	Intel 82579LM + Intel 82574L	
Front I/O Interface	USB	2 x USB2.0	
	PS/2	1	
Rear I/O Interface	USB	4 x USB2.0	
	PS/2	2	
	COM	1	
	Display	1 x VGA	
	Parallel	-	
	RJ-45	2	
Watchdog Timer	Output	Interrupt, system reset	
	Interval	Programmable, 1~255 sec/min	
Power Supply	Power Output Wattage	80+ Bronze 500W Single Power Supply	
	Input Range	AC 100 ~ 240 V	
Cooling	Chassis Fan	2 (12 cm / 85 CFM each)	
	Air Filter	Yes	
Miscellaneous	LED Indicators	Power status, HDD activity, Temperature, Fan, and Power voltage status	
	Remote Management	Advantech Remote Monitoring Utility	
Environment	Temperature	Operating 0 ~ 40° C (32~104° F)	Non-Operating -20 ~ 60° C (-4 ~ 140° F)
	Humidity	10 ~ 85% @ 40° C	
	Vibration (5 ~ 500 Hz)	1 Grms	
	Shock	10G (with 11ms duration, half since wave)	
		30G	
Physical Characteristics	Dimension	482 x 177 x 479 mm (19" x 7" x 18.9")	

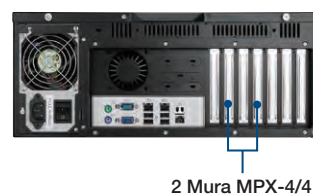
Dimensions



Front View



Rear View



Ordering Information

Advantech P/N	Description
AVS-240-00A1E	4U Rackmount Xeon E5-2400 Video Wall Controller Supporting Dual Matrox Mura MPX
1960055362N011	Cooler for Xeon E5-2400 series CPU with TDP Up To 95W

Note: Purchasing this CPU cooler is a must, other brand CPU cooler may result in compatibility issue.

Optional Parts

Item	Advantech P/N
Mobile rack for converting dual 5.25" drive bays to three 3.5" SAS/SATA HDD trays	IPC-DT-5230E
Mobile rack for converting a 3.5" drive bay to dual 2.5" SATA HDD trays	IPC-DT-3120E
Mobile rack for converting a 5.25" drive bay to four 2.5" SAS/SATA HDD trays	96RACK-5SS-CAGE-CR
SATA cable with lock	1700003194
ACP-4000 rail kit	9680006905
HD Audio-Card	PCA-AUDIO-HDA1E (Occupying 1 expansion slot)

Note:

- To support 2 2.5" SATA HDDs RAID with on-board RAID: 1700003194 x 2 + IDT-3120E x 1
- To support 3 3.5" SATA HDDs RAID with on-board RAID: 1700003194 x 3 + IDT-5230E x 1
- To support 4 2.5" SATA HDDs RAID with on-board RAID: 1700003194 x 4 + 96RACK-5SS-CAGE-CR x 1

System Contents

Items	Advantech P/N	Quantity
AVS-240 Bare-Bone System	N/A	1
Driver CD	2066820100	1

Note: CPU cooler needs to be purchased separately.

Compatible Processors

Advantech P/N	Description
96MPXE-1.8-15M13T	XEON 1.8G 15M 1356P 6CORE E5-2428L(G)- Sandy bridge
96MPXE-1.8-20M13T	XEON 1.8G 20M 1356P 8CORE E5-2448L(G)- Sandy bridge
96MPXE-2.0-10M13T	XEON 2.0G 10M 1356P 4CORE E5-2418L(G)- Sandy bridge

Validated Matrox Mura Cards

Advantech P/N	Model	Output	Input
96VG-2G-PE-MA	Mura MPX-4/0	4	0
96VG-2G-PE-MA1	Mura MPX-4/2	4	2
96VG-2G-PE-MA2	Mura MPX-4/4	4	4
96VG-1G-PE-MA	Mura MPX-SDI	2	2
96VG-128M-PE-MA	Mura MPX-V8	0	8
96VG-256M-PE-MA	Mura MPX-V16	0	16

Validated OS

Advantech P/N	OS for Embedded System
968QS28F08	Windows Server® 2008 with Hyper-V™ Standard 64 Bit
968QSV2845	Windows Server® 2008 without Hyper-V™ Standard 64 Bit
968QW7PROE	Windows® 7 Professional 64 Bit

- Intelligent Video and IoT Sensors 1
- Intelligent Transportation Platforms 2
- Intelligent Inspection Systems 3
- Modular IPCs 4
- Server-grade IPCs 5
- Industrial Storages 6
- Video Wall Controllers 7
- GPU Servers 8
- Industrial Motherboards 9
- Slot SBC & Passive Backplanes 10
- CompactPCI Platforms 11
- Industrial Chassis 12
- Industrial Computer Peripherals 13
- Industrial Ethernet Solutions 14

AVS-290

Desktop/Wallmount Intel® Xeon® E3-1200 Video Wall Controller, Supporting 8-output Video Wall



CE FCC

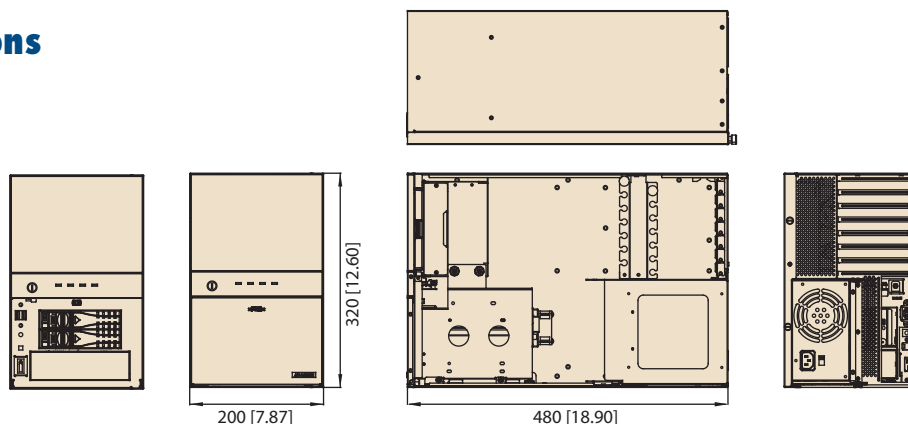
Features

- Validated by Matrox
- Supports Mura Card : 2 Mura MPX-4/4
- Maximum Video Input: 8 Analog/Digital
- Maximum Video Output: 8 Analog/Digital
- Processor : Intel Xeon E3-1200 series up to 4 cores/ 8 threads
- Memory: DDR3-1333MHz (ECC) U-DIMM up to 32GB
- Remote Management: IPMI, Advantech Remote Monitoring Utility

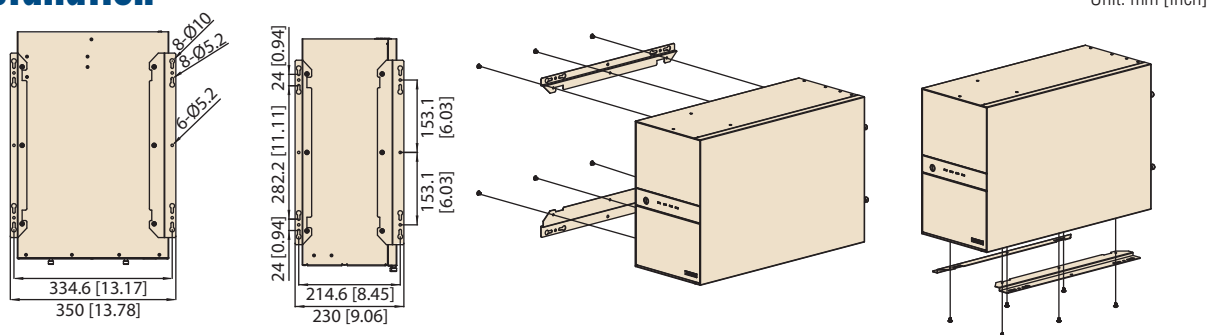
Specifications

Processor System	Chipset	Intel C206 Chipset	
	CPU	Intel LGA1155 Xeon E3-1200 / Core i3-2120 / Pentium G850 Single processor	
	L2 Cache	8MB/6MB/3MB	
	Front Side Bus	-	
	Memory	Dual Channel DDR3 ECC/Non-ECC 1066/1333 MHz up to 32GB	
Graphics	Controller	Aspeed AST2300 (Needs being disabled when Mura MPX is installed)	
	VRAM	64 MB	
Expansion Slot	PCIe Gen.2 x16	2 (For Mura MPX installation. Auto switch to x8 link if slot 4 is occupied)	
	PCIe Gen.2 x4	1	
	PCIe Gen.2 x1	1	
	PCI 32bit/33MHz	3	
Drive Bay	Slime optical disk drive Bay	-	
	5.25" Front-Accessible	1	
	3.5" Hot-swappable	2 x SATA	
	3.5" Internal	1 x SATA	
Ethernet	Interface	Quad 10/100/1000 Mbps Gigabit Ethernet	
	Controller	GbE LAN1: Intel 82579LM; GbE LAN2: Intel 82574L; GbE LAN3/4: Intel 82580DB	
Front I/O Interface	USB	2 x USB2.0	
Rear I/O Interface	USB	4 x USB2.0	
	PS/2	2	
	COM	1 (RS-232), COM1 don't support wake-on-modem)	
	Display	1 x VGA	
	Parallel	-	
	RJ-45	4	
Watchdog Timer	Output	Interrupt, system reset	
	Interval	Programmable, 1 ~ 255 sec/min	
Power Supply	Power Output Wattage	80+ Bronze 400W ATX PS/2 Single Power Supply	
	Input Range	AC 100 ~ 240 V	
Cooling	Chassis Fan	1 (12 cm/85 CFM) + 1 (6 cm/27.7CFM)	
	Air Filter	Yes	
Miscellaneous	LED Indicators	Power status, HDD activity, Temperature and FAN Status	
	Remote Management	Advantech Remote Monitoring Utility	
Environment	Operating	Non-Operating	
	Temperature	0 ~ 40° C (32 ~ 104° F)	-20 ~ 60° C (-4 ~ 140° F)
	Humidity	10 ~ 85% @ 40° C	10 ~ 95% @ 40° C
	Vibration (5-500 Hz)	0.5Grms	2Grms
Physical Characteristics	Shock	10G (with 11 ms duration, half sine wave)	30G
	Dimension	200 x 320 x 480 mm (7.9" x 12.6" x 18.9")	

Dimensions

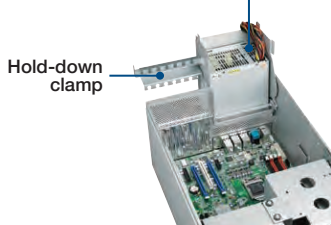


Installation

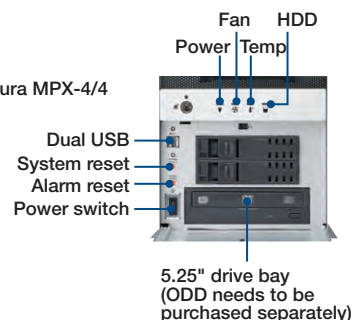


Inside view

Easy-to-maintain power supply bracket



Rear view



Ordering Information

Advantech P/N	Description
AVS-290-00A1E	Desktop/Wall-mount Xeon E3-1200 Video Wall Controller supporting dual Mura MPX
1960047669N001	Cooler for Xeon E3-1200 series CPU with TDP Up To 95W

Note: Purchasing this CPU cooler is a must, other brand CPU cooler may result in compatibility issue.

Optional Accessories

Item	Advantech P/N
2130006149S000	Filter cover
PCA-AUDIO-HDA1E	HD Audio-Card (Occupying 1 expansion slot)

System Contents

Item	Advantech P/N	Quantity
AVS-290 Bare-Bone System	N/A	1
Driver CD	2066S78100	1

Note: CPU cooler needs to be purchased separately.

Compatible Processors

Advantech P/N	Description
96MPXE-3.1-6M11T	XEON 3.1G 6M 1155P 4CORE E3-1225(G)
96MPXE-3.4-8M11T	XEON 3.4G 8M 1155P 4CORE E3-1275(G)
96MPI3-3.3-3M11T	CORE 3.3G 3M 1155P 2CORE I3-2120(G)

Validated Matrox Mura Cards

Advantech P/N	Model	Output	Input
96VG-2G-PE-MA	Mura MPX-4/0	4	0
96VG-2G-PE-MA1	Mura MPX-4/2	4	2
96VG-2G-PE-MA2	Mura MPX-4/4	4	4
96VG-1G-PE-MA	Mura MPX-SDI	2	2
96VG-128M-PE-MA	Mura MPX-V8	0	8
96VG-256M-PE-MA	Mura MPX-V16	0	16

Validated OS

Advantech P/N	OS for Embedded System
968QS28F08	Windows Server® 2008 with Hyper-V™ Standard 64 Bit
968QS2845	Windows Server® 2008 without Hyper-V™ Standard 64 Bit
968QW7PROE	Windows® 7 Professional 64 Bit

Intelligent Video and IoT Sensors	1
Intelligent Transportation Platforms	2
Intelligent Inspection Systems	3
Modular IPCs	4
Server-grade IPCs	5
Industrial Storages	6
Video Wall Controllers	7
GPU Servers	8
Industrial Motherboards	9
Slot SBC & Passive Backplanes	10
CompactPCI Platforms	11
Industrial Chassis	12
Industrial Computer Peripherals	13
Industrial Ethernet Solutions	14

AVS-540

4U Intel® Xeon® E5-2600 Video Wall Controller, Supporting 20-output Video Wall



CE FCC

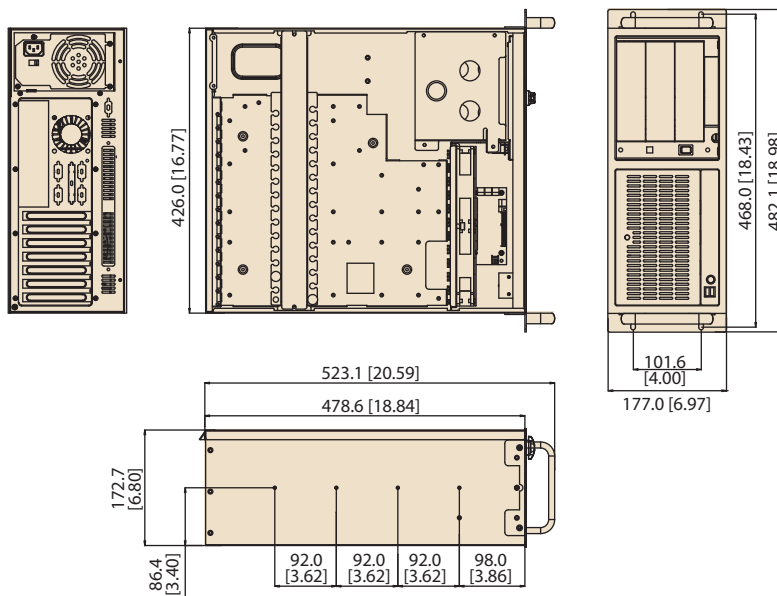
Features

- Validated by Matrox
- Supports Mura Cards: 5 Mura MPX-4/4
- Maximum Video Input: 20 Analog/Digital
- Maximum Video Output: 20 Analog/Digital
- Processor: Intel Xeon E5-2600 series up to 8 cores/ 16 threads
- Memory : DDR3-1333/1600 MHz (ECC) U-DIMM and R-DIMM up to 96 GB
- Remote Management: IPMI, Advantech Remote Monitoring Utility

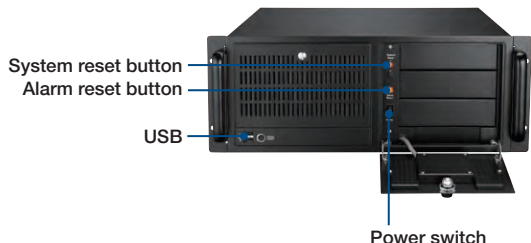
Specifications

Processor System	Chipset	Intel C602J Chipset	
	CPU	Intel LGA2011 Xeon E5-2600 Single processor (up to 95W TDP)	
	L2 Cache	5/10/15/20 MB	
	Memory	ECC & Register or ECC or non ECC DDR3 1600/1333/1066 MHz UDIMMs, maximum 96 GB	
Graphics	Controller	Aspeed AST2300 (Needs being disabled when Mura MPX is installed)	
	VRAM	64 MB	
Expansion Slot	Slot location 1	PCI	
	Slot location 2	PCIe x16 slot (Gen3 x8 link), for Mura MPX-4/4 installation	
	Slot location 3	PCIe x16 slot (Gen3 x8 link), for Mura MPX-4/4 installation	
	Slot location 4	PCIe x16 slot (Gen3 x8 or x16 link), for Mura MPX-4/4 installation	
	Slot location 5	PCIe x16 slot (Gen3 x8 link), for Mura MPX-4/4 installation	
	Slot location 6	PCIe x16 slot (Gen3 x8 or x16 link), for Mura MPX-4/4 installation	
Drive Bay	5.25" Front-Accessible	3	
	3.5" (Front Accessible)	1	
	3.5" Internal	-	
Ethernet	Interface	Dual 10/100/1000 Mbps Gigabit Ethernet	
	Controller	Intel 82579LM + Intel I210	
Front I/O Interface	USB	2 x USB2.0	
	PS/2	1	
Rear I/O Interface	USB	4 x USB2.0, 2 x USB 3.0	
	PS/2	2	
	COM	1	
	Display	1 x VGA	
	RJ-45	3 (1 is dedicated for IPMI)	
Watchdog Timer	Output	Interrupt, system reset	
	Interval	Programmable, 1~255 sec	
Power Supply	Power Output Wattage	80+ Bronze 700W Single Power Supply	
	Input Range	AC 100 ~ 240 V	
Cooling	Chassis Fan	2 (12 cm / 114 CFM each)	
	Air Filter	Yes	
Miscellaneous	LED Indicators	Power status, HDD activity, Temperature, Fan, and Power voltage status	
	Remote Management	Advantech Remote Monitoring Utility	
Environment	Operating	Non-Operating	
	Temperature	0 ~ 40° C (32~104° F)	-20 ~ 60° C (-4 ~ 140° F)
	Humidity	10 ~ 85% @ 40° C	10 ~ 95% @ 40° C
	Vibration (5 ~ 500 Hz)	1 Grms	2 Grms
	Shock	10G (with 11ms duration, half sine wave)	30G
Physical Characteristics	Dimension	482 x 177 x 479 mm (19" x 7" x 18.9")	

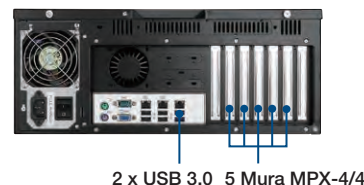
Dimensions



Front View



Rear View



Ordering Information

Advantech P/N	Description
AVS-540-00A1E	4U Rackmount Xeon E5-2600 Video Wall Controller Supporting 5 Matrox Mura MPX
1960058073N001	Cooler for Xeon E5-2600 series CPU with TDP Up To 95W

Note: Purchasing this CPU cooler is a must, other brand CPU cooler may result in compatibility issue.

Optional Parts

Item	Advantech P/N
Mobile rack for converting dual 5.25" drive bays to three 3.5" SAS/SATA HDD trays	IPC-DT-5230E
Mobile rack for converting a 3.5" drive bay to dual 2.5" SATA HDD trays	IPC-DT-3120E
Mobile rack for converting a 5.25" drive bay to four 2.5" SAS/SATA HDD trays	96RACK-5SS-CAGE-CR
SATA cable with lock	1700003194
ACP-4000 rail kit	9680006905
HD Audio-Card	PCA-AUDIO-HDA1E (Occupying 1 expansion slot)

- Note:
- To support 2 2.5" SATA HDDs RAID with on-board RAID: 1700003194 x 2 + IDT-3120E x 1
 - To support 3 3.5" SATA HDDs RAID with on-board RAID: 1700003194 x 3 + IDT-5230E x 1
 - To support 4 2.5" SATA HDDs RAID with on-board RAID: 1700003194 x 4 + 96RACK-5SS-CAGE-CR x 1

System Contents

Items	Advantech P/N	Quantity
AVS-540 Bare-Bone System	N/A	1
Driver CD	2066822100	1

Note: CPU cooler needs to be purchased separately.

Compatible Processors

Advantech P/N	Description
96MPXE-2.0-15M20T	XEON 2.0G 15M 2011P 6CORE E5-2620(G)
96MPXE-1.8-20M20T	XEON 1.8G 20M 2011P 8CORE E5-2648L(G)
96MPXE-2.1-20M20T	XEON 2.1G 20M 2011P 8CORE E5-2658(G)

Validated Matrox Mura Cards

Advantech P/N	Model	Output	Input
96VG-2G-PE-MA	Mura MPX-4/0	4	0
96VG-2G-PE-MA1	Mura MPX-4/2	4	2
96VG-2G-PE-MA2	Mura MPX-4/4	4	4
96VG-1G-PE-MA	Mura MPX-SDI	2	2
96VG-128M-PE-MA	Mura MPX-V8	0	8
96VG-256M-PE-MA	Mura MPX-V16	0	16

Validated OS

Advantech P/N	OS for Embedded System
968QS28F08	Windows Server® 2008 with Hyper-V™ Standard 64 Bit
968QSV2845	Windows Server® 2008 without Hyper-V™ Standard 64 Bit
968QW7PROE	Windows® 7 Professional 64 Bit

- Intelligent Video and IoT Sensors 1
- Intelligent Transportation Platforms 2
- Intelligent Inspection Systems 3
- Modular IPCs 4
- Server-grade IPCs 5
- Industrial Storages 6
- Video Wall Controllers 7
- GPU Servers 8
- Industrial Motherboards 9
- Slot SBC & Passive Backplanes 10
- CompactPCI Platforms 11
- Industrial Chassis 12
- Industrial Computer Peripherals 13
- Industrial Ethernet Solutions 14

AVS-541

4U Intel® Xeon® E3-1200V2 Video Wall Controller, Supporting 20-output Video Wall



CE FCC

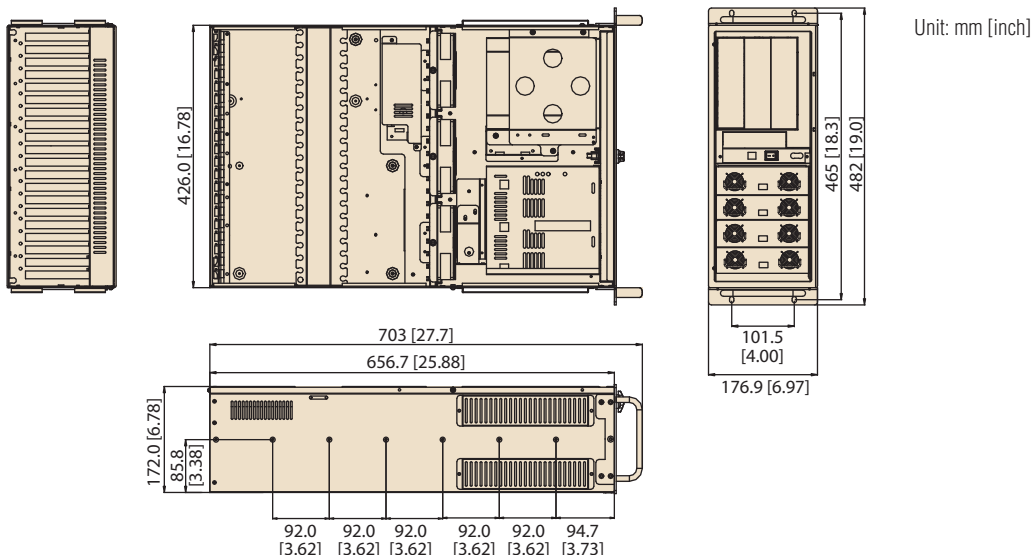
Features

- Validated by Matrox
- Supports Mura Cards: 5 Mura MPX-4/4 & 10 Mura MPX-V16
- Maximum Video Input: 20 Analog/Digital & 160 Analog
- Maximum Video Output: 20 Analog/Digital
- Processor: Intel Xeon E3-1200V2 series up to 4 cores/ 8 threads
- Memory : DDR3-1333/1600 MHz (ECC) U-DIMM up to 16 GB
- Remote Management: Advantech Remote Monitoring Utility, iAMT 8.0

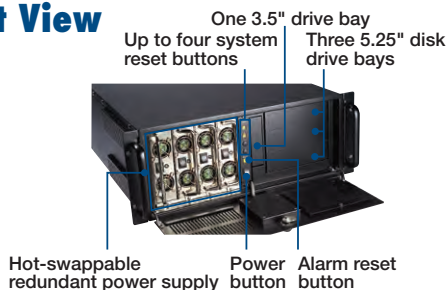
Specifications

Processor System	Chipset	Intel C216 Chipset	
	CPU	Intel LGA1155 Xeon E3-1200V2 Single processor (up to 95W TDP)	
	L2 Cache	2/3/6/8 MB	
	Memory	ECC & Register or ECC or non ECC DDR3 1600/1333/1066 MHz UDIMMs, maximum 16 GB	
Graphics	Controller	Aspeed AST2300 (Needs being disabled when Mura MPX is installed)	
	VRAM	64 MB	
Expansion Slot	Slot Location 1 (P1PCIEX4_1)	PCIex16 slot (Gen2 x4 link), for Mura MPX-V8/-V16 installation	
	Slot Location 2 (P1PCIEX8_1)	PCIe x16 slot (Gen3 x8 link), for Mura MPX-4/4 installation	
	Slot Location 3 (P1PCIEX4_3)	PCIe x4 slot (Gen3 x4 link), for Mura MPX-V8/-V16 installation	
	Slot Location 4 (P1PCIEX4_4)	PCIe x4 slot (Gen3 x4 link), for Mura MPX-V8/-V16 installation	
	Slot Location 5 (P1PCIEX8_2)	PCIe x16 slot (Gen3 x8 link), for Mura MPX-4/4 installation	
	Slot Location 6 (P1PCIEX4_5)	PCIe x16 slot (Gen3 x4 link), for Mura MPX-V8/-V16 installation	
	Slot Location 7 (P1PCIEX4_6)	PCIe x16 slot (Gen3 x4 link), for Mura MPX-V8/-V16 installation	
	Slot Location 8 (P1PCIEX8_3)	PCIe x16 slot (Gen3 x8 link), for Mura MPX-4/4 installation	
	Slot Location 9 (P2PCIEX4_1)	PCIe x16 slot (Gen3 x4 link), for Mura MPX-V8/-V16 installation	
	Slot Location 10 (P2PCIEX4_2)	PCIe x4 slot (Gen3 x4 link), for Mura MPX-V8/-V16 installation	
	Slot Location 11 (P2PCIEX4_3)	PCIe x4 slot (Gen3 x4 link), for Mura MPX-V8/-V16 installation	
	Slot Location 12 (P2PCIEX8_1)	PCIe x16 slot (Gen3 x8 link), for Mura MPX-4/4 installation	
	Slot Location 13 (P2PCIEX4_4)	PCIe x16 slot (Gen3 x4 link), for Mura MPX-V8/-V16 installation	
	Slot Location 14 (P2PCIEX4_5)	PCIe x16 slot (Gen3 x4 link), for Mura MPX-V8/-V16 installation	
	Slot Location 15 (P2PCIEX8_2)	PCIe x16 slot (Gen3 x8 link), for Mura MPX-4/4 installation	
	Slot Location 16 (P2PCIEX4_6)	PCIe x16 slot (Gen3 x4 link)	
Drive Bay	5.25" Front-Accessible	3	
	3.5" (Front Accessible)	1	
	3.5" Internal	1	
Ethernet	Interface	Dual 10/100/1000 Mbps Gigabit Ethernet	
	Controller	Intel 82579LM + Intel 82574L	
Front I/O Interface	USB	2 x USB2.0	
	PS/2	1	
Rear I/O Interface	USB	1 x USB 3.0	
	PS/2	1 (KB & MS through the Y cable)	
	Display	1 x VGA	
	RJ-45	2	
Watchdog Timer	Output	Interrupt, system reset	
	Interval	Programmable, 1~255 sec	
Power Supply	Power Output Wattage	810W 3+1 redundant power supply (Front-accessible)	
	Input Range	AC 115 ~ 230 V (full range)	
Cooling	Chassis Fan	3 (12 cm / 114 CFM each)	
	Air Filter	4 (200 x 45 mm) + 1 (128 x 95 mm)	
Miscellaneous	LED Indicators	Power, HDD, fan, temperature, and power voltage status	
	Remote Management	Advantech Remote Monitoring Utility, iAMT 8.0	
Environment	Temperature	Operating 0 ~ 40° C (32~104° F)	Non-Operating -20 ~ 60° C (-4 ~ 140° F)
	Humidity	10 ~ 85% @ 40° C	
	Vibration (5 ~ 500 Hz)	1 Grms	
	Shock	10G (with 11ms duration, half sine wave)	
Physical Characteristics	Dimension	482 x 177 x 657 mm (19" x 7" x 26")	

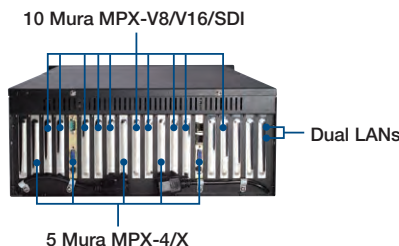
Dimensions



Front View



Rear View



Ordering Information

Advantech P/N	Description
AVS-541-01A1E	4U Rackmount Xeon E3-1200V2 Video Wall Controller, Supporting 5 Matrox Mura MPX-4/4 & 10 Mura MPX-V16
1960047831N001	AVS-541 Proprietary CPU Cooler
PCA-AUDIO-HDA1E	Audio extension module
PCA-TPM-00A1E	Trusted Platform Module compliant TCG 1.2
1700020277-01	2 ports of USB 3.0 cable W/ BKT(30cm)
1700008822	DVI-D Cable

Note: Purchasing this CPU cooler is a must, other brand CPU cooler may result in compatibility issue.

Optional Parts

Item	Advantech P/N
Mobile rack for converting dual 5.25" drive bays to three 3.5" SAS/SATA HDD trays	IPC-DT-5230E
Mobile rack for converting a 3.5" drive bay to dual 2.5" SATA HDD trays	IPC-DT-3120E
Mobile rack for converting a 5.25" drive bay to four 2.5" SAS/SATA HDD trays	96RACK-5SS-CAGE-CR
SATA cable with lock	1700003194
ACP-4000 rail kit	9680006905
HD Audio-Card	PCA-AUDIO-HDA1E (Occupying 1 expansion slot)

Note:

- To support 2 2.5" SATA HDDs RAID with on-board RAID: 1700003194 x 2 + IDT-3120E x 1
- To support 3 3.5" SATA HDDs RAID with on-board RAID: 1700003194 x 3 + IDT-5230E x 1
- To support 4 2.5" SATA HDDs RAID with on-board RAID: 1700003194 x 4 + 96RACK-5SS-CAGE-CR x 1

System Contents

Items	Advantech P/N	Quantity
AVS-541 Bare-Bone System	N/A	1
Driver CD	2066512700	1
1701260305	COM + printer ports cable kit	x1
1700060202	Keyboard and mouse Y-cable	x1
1700008461	4-port USB cable kit	x1

Note: CPU cooler needs to be purchased separately.

Compatible Processors

Advantech P/N	Description
96MPXE-3.2-8M11T1	XEON 3.2G 8M 1155P 4CORE E3-1225V2(G)
96MPXE-3.5-8M11T	XEON 3.5G 8M 1155P 4CORE E3-1275V2(G)
96MPI3-3.3-3M11T1	CORE 3.3G 3M 1155P 2CORE I3-3220(G)

Validated Matrox Mura Cards

Advantech P/N	Model	Output	Input
96VG-2G-PE-MA	Mura MPX-4/0	4	0
96VG-2G-PE-MA1	Mura MPX-4/2	4	2
96VG-2G-PE-MA2	Mura MPX-4/4	4	4
96VG-1G-PE-MA	Mura MPX-SDI	2	2
96VG-128M-PE-MA	Mura MPX-V8	0	8
96VG-256M-PE-MA	Mura MPX-V16	0	16

Validated OS

Advantech P/N	OS for Embedded System
968QS28F08	Windows Server® 2008 with Hyper-V™ Standard 64 Bit
968QSV2845	Windows Server® 2008 without Hyper-V™ Standard 64 Bit
968QW7PROE	Windows® 7 Professional 64 Bit

- Intelligent Video and IoT Sensors 1
- Intelligent Transportation Platforms 2
- Intelligent Inspection Systems 3
- Modular IPCs 4
- Server-grade IPCs 5
- Industrial Storages 6
- Video Wall Controllers 7
- GPU Servers 8
- Industrial Motherboards 9
- Slot SBC & Passive Backplanes 10
- CompactPCI Platforms 11
- Industrial Chassis 12
- Industrial Computer Peripherals 13
- Industrial Ethernet Solutions 14

AVS-542

4U Intel® Xeon® E5-2600 Video Wall Controller, Supporting 20 output / 15-40 input Video Wall



DATAPATH
ADVANTECH GROUP OF COMPANIES

CE FCC

Features

- Validated by Datapath
- Supports Video Wall Cards: 5 ImageDP4
- Maximum Video Input: 15 Analog/Digital or 40 Analog
- Maximum Video Output: 20 Analog/Digital
- Processor: Intel Xeon E5-2600 series up to 8 cores/ 16 threads
- Memory : DDR3-1333/1600 MHz (ECC) U-DIMM and R-DIMM up to 96 GB
- Remote Management: IPMI, Advantech Remote Monitoring Utility
- Compact 4U rackmount chassis, with only 348mm depth
- Smart fan speed control for system fans

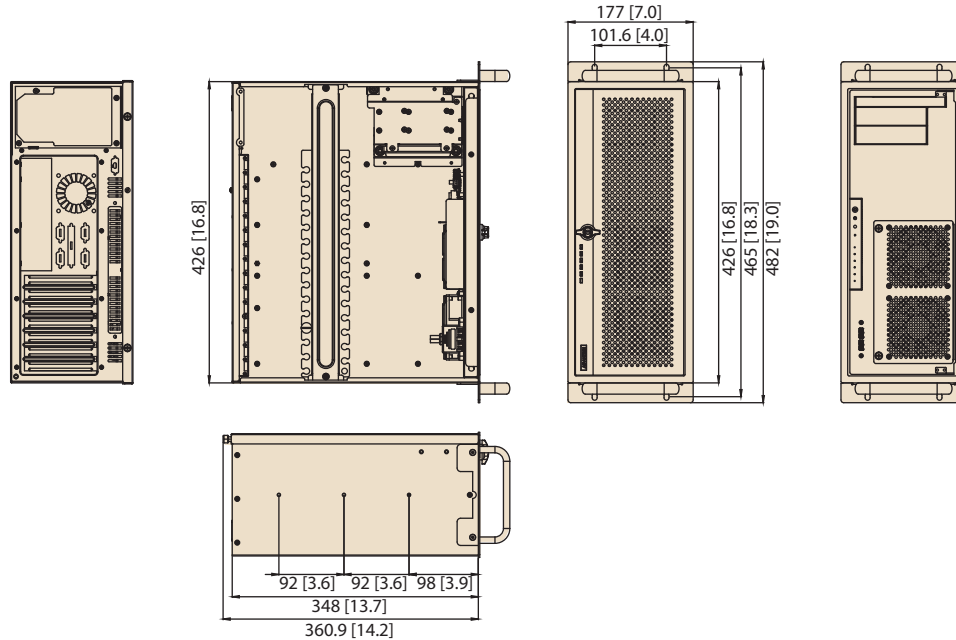
Specifications

Processor System	Chipset	Intel C602J Chipset	
	CPU	Intel LGA2011 Xeon E5-2600 / E5-2600 v2 series Single processor (up to 95W TDP)	
	L2 Cache	5/10/15/20 MB	
	Memory	ECC & Register or ECC or non ECC DDR3 1600/1333/1066 MHz UDIMMs, maximum 96 GB	
Expansion Slot	Slot location 1	PCI	
	Slot location 2	PCIe x16 slot (Gen3 x8 link), for ImageDP4 / VisionAV / Vision Series installation	
	Slot location 3	PCIe x16 slot (Gen3 x8 link), for ImageDP4 / VisionAV / Vision Series installation	
	Slot location 4	PCIe x16 slot (Gen3 x8 or x16 link), for ImageDP4 / VisionAV / Vision Series installation	
	Slot location 5	PCIe x16 slot (Gen3 x8 link), for ImageDP4 / VisionAV / Vision Series installation	
	Slot location 6	PCIe x16 slot (Gen3 x8 or x16 link), for ImageDP4 / VisionAV / Vision Series installation	
	Slot location 7	PCIe x8 slot (Gen2 x4 link), for VisionAV / Vision Series installation	
Drive Bay	Front-accessible	1	Internal
	Slim Optical Drive Bay	1	-
	3.5" Drive Bay	-	2
	2.5" Drive Bay	*	1
Ethernet	Interface	Dual 10/100/1000 Mbps Gigabit Ethernet	
	Controller	Intel 82579LM + Intel I210	
Front I/O Interface	USB	2 x USB2.0	
	USB	4 x USB2.0, 2 x USB 3.0	
Rear I/O Interface	PS/2	2	
	COM	1	
	Display	1 x VGA	
	RJ-45	3 (1 is dedicated for IPMI)	
	Watchdog Timer	Output	Interrupt, system reset
Power Supply	Interval	Programmable, 1~255 sec	
	Power Output Wattage	80+ Bronze 700W Single Power Supply	
	Input Range	AC 100 ~ 240 V	
Cooling	Chassis Fan	2 (9cm / 110.18 CFM)	
	Air Filter	Yes	
Environment	Operating	Temperature	Non-Operating
	Temperature	0 ~ 40° C (32~104° F)	-20 ~ 60° C (-4 ~ 140° F)
	Humidity	10 ~ 85% @ 40° C	10 ~ 95% @ 40° C
	Vibration (5 ~ 500 Hz)	1 Grms	2 Grms
Physical Characteristics	Shock	10G (with 11ms duration, half sine wave)	30G
	Dimension	482 x 177 x 348 mm (19" x 7.0" x 13.7")	

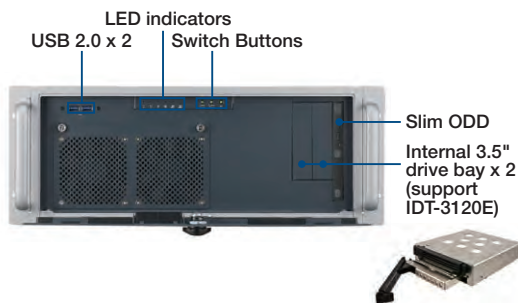
* The two internal 3.5" slots may be converted to two or even four 2.5" mobile SATA HDD trays using optional part no. IDT-3120E

Dimensions

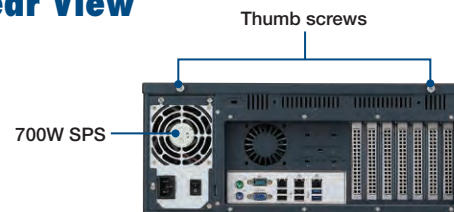
Unit: mm [inch]



Front View



Rear View



Ordering Information

Advantech P/N	Description
AVS-542-00A1E	4U Rackmount Xeon E5-2600 Video Wall Controller Supporting 6 Datapath cards
1960058073N001	Cooler for Xeon E5-2600 series CPU with TDP Up To 95W

Note: Purchasing this CPU cooler is a must, other brand CPU cooler may result in compatibility issue.

Optional Parts

Item	Advantech P/N
Mobile rack for converting a 3.5" drive bay to dual 2.5" SATA HDD trays	IPC-DT-3120E
SATA power wire 6-pin to big 4-pin (for slim ODD)	96CB-SATAPOWER-6P1
SATA cable with lock	1700003194
Rail Kit	9680006905
HD Audio-Card	PCA-AUDIO-HDA1E (Occupying 1 expansion slot)

System Contents

Items	Advantech P/N	Quantity
AVS-542 Bare-Bone System	AVS-542-00A1E	1
Driver CD	2062822100	1

Note: CPU cooler needs to be purchased separately.

- Intelligent Video and IoT Sensors 1
- Intelligent Transportation Platforms 2
- Intelligent Inspection Systems 3
- Modular IPCs 4
- Server-grade IPCs 5
- Industrial Storages 6
- Video Wall Controllers 7**
- GPU Servers 8
- Industrial Motherboards 9
- Slot SBC & Passive Backplanes 10
- CompactPCI Platforms 11
- Industrial Chassis 12
- Industrial Computer Peripherals 13
- Industrial Ethernet Solutions 14

AVS-543

4U Intel® Xeon® E5-2600 Video Wall Controller, Supporting 20-output / 20-input Video Wall



DATAPATH
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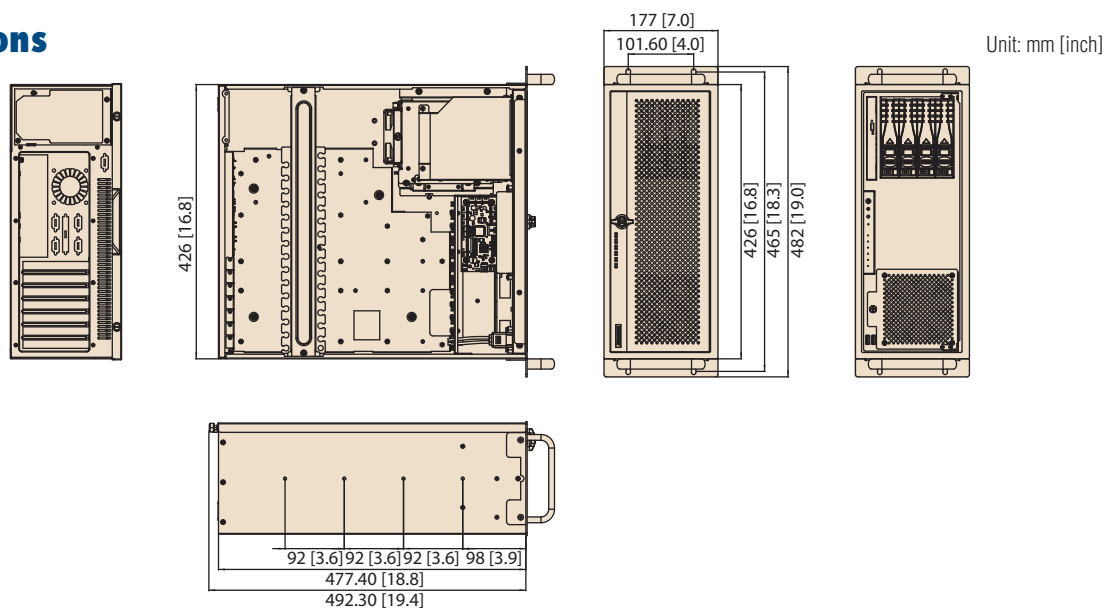
Features

- Validated by Datapath
- Supports Video Wall Cards: 5 ImageDP4
- Maximum Video Input: 20 Digital
- Maximum Video Output: 20 Analog/Digital
- Processor: Intel Xeon E5-2600 series up to 8 cores/ 16 threads
- Memory : DDR3-1333/1600 MHz (ECC) U-DIMM and R-DIMM up to 96 GB
- Remote Management: IPMI, Advantech Remote Monitoring Utility
- Smart fan speed control for system fans
- 80+ Bronze 750W Redundant Power Supply
- Support full-length expansion cards

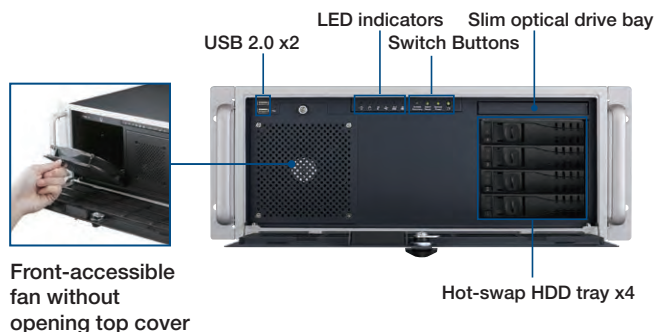
Specifications

Processor System	Chipset	Intel C602J Chipset	
	CPU	Intel LGA2011 Xeon E5-2600 / E5-2600 v2 series Single processor (up to 95W TDP)	
	L2 Cache	5/10/15/20 MB	
	Memory	ECC & Register or ECC or non ECC DDR3 1600/1333/1066 MHz UDIMMs, maximum 96 GB	
Expansion Slot	Slot location 1	PCI	
	Slot location 2	PCIe x16 slot (Gen3 x8 link), for ImageDP4 / VisionAV / Vision Series installation	
	Slot location 3	PCIe x16 slot (Gen3 x8 link), for ImageDP4 / VisionAV / Vision Series installation	
	Slot location 4	PCIe x16 slot (Gen3 x8 or x16 link), for ImageDP4 / VisionAV / Vision Series installation	
	Slot location 5	PCIe x16 slot (Gen3 x8 link), for ImageDP4 / VisionAV / Vision Series installation	
	Slot location 6	PCIe x16 slot (Gen3 x8 or x16 link), for ImageDP4 / VisionAV / Vision Series installation	
	Slot location 7	PCIe x8 slot (Gen2 x4 link), for VisionAV / Vision Series installation	
Drive Bay		Front-accessible	Internal
	Slim Optical Drive Bay	1	-
	3.5" Drive Bay	4	-
	2.5" Drive Bay	-	1
Ethernet	Interface	Dual 10/100/1000 Mbps Gigabit Ethernet	
	Controller	Intel 82579LM + Intel I210	
Front I/O Interface	USB	2 x USB2.0	
		4 x USB2.0, 2 x USB 3.0	
Rear I/O Interface	PS/2	2	
	COM	1	
	Display	1 x VGA	
	RJ-45	3 (1 is dedicated for IPMI)	
		3 (1 is dedicated for IPMI)	
Watchdog Timer	Output	Interrupt, system reset	
	Interval	Programmable, 1~255 sec	
Power Supply	Power Output Wattage	80+ Bronze 750W Redundant Power Supply	
	Input Range	AC 100 ~ 240 V	
Cooling	Chassis Fan	2 (9cm / 110.18 CFM) + 1 (8 cm / 56CFM)	
	Air Filter	Yes	
Environment		Operating	Non-Operating
	Temperature	0 ~ 40° C (32~104° F)	-20 ~ 60° C (-4 ~ 140° F)
	Humidity	10 ~ 85% @ 40° C	10 ~ 95% @ 40° C
	Vibration (5 ~ 500 Hz)	1 Grms	2 Grms
Physical Characteristics	Shock	10G (with 11ms duration, half sine wave)	
	Dimension	482 x 177 x 478 mm (19" x 7.0" x 18.8")	

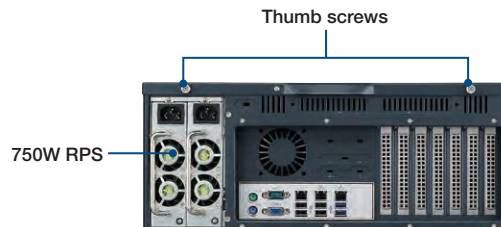
Dimensions



Front View



Rear View



Ordering Information

Advantech P/N	Description
AVS-543-01A1E	4U Rackmount Xeon E5-2600 Video Wall Controller Supporting 5 Datapath Cards
1960058073N001	Cooler for Xeon E5-2600 series CPU with TDP Up To 95W

Note: Purchasing this CPU cooler is a must, other brand CPU cooler may result in compatibility issue.

Optional Parts

Item	Advantech P/N
SATA power wire 6-pin to big 4-pin (for slim ODD)	96CB-SATAPOWER-6P1
SATA cable with lock	1700003194
Rail Kit	9680006905
HD Audio-Card	PCA-AUDIO-HDA1E (Occupying 1 expansion slot)

System Contents

Items	Advantech P/N	Quantity
AVS-543 Bare-Bone System	AVS-543-01A1E	1
Driver CD	2062822100	1

Note: CPU cooler needs to be purchased separately.

- Intelligent Video and IoT Sensors **1**
- Intelligent Transportation Platforms **2**
- Intelligent Inspection Systems **3**
- Modular IPCs **4**
- Server-grade IPCs **5**
- Industrial Storages **6**
- Video Wall Controllers **7**
- GPU Servers **8**
- Industrial Motherboards **9**
- Slot SBC & Passive Backplanes **10**
- CompactPCI Platforms **11**
- Industrial Chassis **12**
- Industrial Computer Peripherals **13**
- Industrial Ethernet Solutions **14**

AVS-840

4U Intel® Xeon® E3-1200V2 Video Wall Controller, Supporting 40-output Video Wall



CE FCC

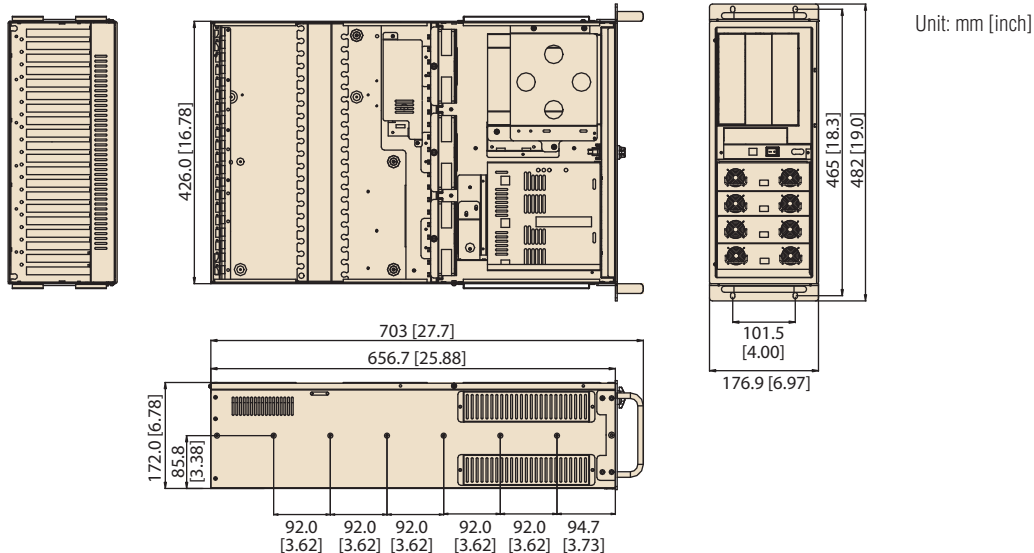
Features

- Validated by Matrox
- Support Mura Cards: 10 standard Mura MPX
- Maximum Video Input: 40 Analog/Digital
- Maximum Video Output: 40 Analog/Digital
- Processor: Intel Xeon E3-1200 V2 Series up to 4 cores/8 threads
- Memory : DDR3-1333/1600 MHz (ECC) U-DIMM and 16 GB
- Remote Management: Advantech Remote Monitoring Utility

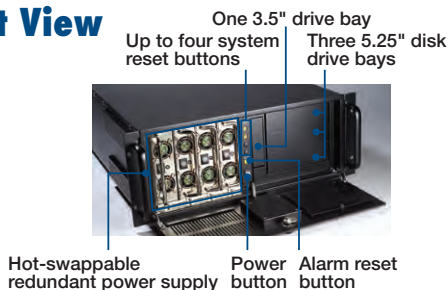
Specifications

Processor System	Chipset	Intel C216 Chipset
	CPU	Intel LGA 1155 Xeon E3-1200 V2 Single processor (up to 95W TDP)
	L3 Cache	8 MB
	Memory	ECC or non ECC DDR3 1333/1600 MHz UDIMMs, maximum 16 GB
Graphics	Controller	Chipset integrated Intel HD Graphic (Needs being disabled when Mura MPX is installed)
	VRAM	Shared system memory is subject to OS
Expansion Slot	Slot Location 1 (PPCIEX4_1)	PCIex16 slot (x4 link)
	Slot Location 2 (P1PCIEX16_1)	PCIe x16 slot (Gen2 x16 link), for Mura MPX-4/4 installation
	Slot Location 3 (P1PCIEX16_2)	PCIe x16 slot (Gen2 x16 link), for Mura MPX-4/4 installation
	Slot Location 4 (P1PCIEX16_3)	PCIe x16 slot (Gen2 x16 link), for Mura MPX-4/4 installation
	Slot Location 5 (P1PCIEX16_4)	PCIe x16 slot (Gen2 x16 link), for Mura MPX-4/4 installation
	Slot Location 6 (P1PCIEX16_5)	PCIe x16 slot (Gen2 x16 link), for Mura MPX-4/4 installation
	Slot Location 7 (P2PCIEX16_1)	PCIe x16 slot (Gen2 x16 link), for Mura MPX-4/4 installation
	Slot Location 8 (P2PCIEX16_2)	PCIe x16 slot (Gen2 x16 link), for Mura MPX-4/4 installation
	Slot Location 9 (P2PCIEX16_3)	PCIe x16 slot (Gen2 x16 link), for Mura MPX-4/4 installation
	Slot Location 10 (P2PCIEX16_4)	PCIe x16 slot (Gen2 x16 link), for Mura MPX-4/4 installation
	Slot Location 11 (P2PCIEX16_5)	PCIe x16 slot (Gen2 x16 link), for Mura MPX-4/4 installation
Drive Bay	5.25" Front-Accessible	3
	3.5" Front-Accessible	1
	3.5" Internal	1
Ethernet	Interface	Dual 10/100/1000 Mbps Gigabit Ethernet
	Controller	LAN1: Intel 82579LM LAN2: Intel 82574L
Front I/O Interface	USB	2 x USB2.0
	PS/2	-
Rear I/O Interface	USB	1 x USB 3.0, 4 x USB2.0 (via USB cable kit)
	PS/2	1 (Y cable for mouse and keyboard is included in the package)
	COM	-
	Display	1 x VGA
	RJ-45	2
Watchdog Timer	Output	Interrupt, system reset
	Interval	Programmable, 1~255 sec
Power Supply	Power Output Wattage	810W 3+1 redundant power supply (Front-accessible)
	Input Range	AC 100 ~ 240 V
Cooling	Chassis Fan	3 (12 cm / 114 CFM each)
	Air Filter	4 (200 x 45 mm) + 1 (128 x 95 mm)
Miscellaneous	LED Indicators	Power status, HDD activity, Temperature, Fan, and Power voltage status
		Operating Non-Operating
Environment	Temperature	0 ~ 40° C (32~104° F) -20 ~ 60° C (-4 ~ 140° F)
	Humidity	10 ~ 85% @ 40° C 10 ~ 95% @ 40° C
	Vibration (5 ~ 500 Hz)	1 Grms 2 Grms
	Shock	10G (with 11ms duration, half sine wave) 30G
Physical Characteristics	Dimension	482 x 177 x 657 mm (19" x 7" x 26")

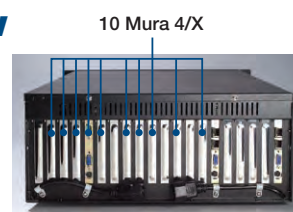
Dimensions



Front View



Rear View



Ordering Information

Part Number	Power Supply
AVS-840-01A1E	4U Rackmount Xeon E3-1200 v2 Video Wall Controller, Support 10 Matrox Mura MPX
1960047831N001	PCE-7127 Proprietary CPU Cooler (2U)
PCA-AUDIO-HDA1E	Audio extension module
PCA-TPM-00A1E	Trusted Platform Module compliant TCG 1.2
1700020277-01	2 ports of USB 3.0 cable W/ BKT(30cm)
1700008822	DVI-D Cable

Optional Parts

Item	Advantech P/N
Mobile rack for converting dual 5.25" drive bays to three 3.5" SAS/SATA HDD trays	IPC-DT-5230E
Mobile rack for converting a 3.5" drive bay to dual 2.5" SATA HDD trays	IPC-DT-3120E
Mobile rack for converting a 5.25" drive bay to four 2.5" SAS/SATA HDD trays	96RACK-5SS-CAGE-CR
SATA cable with lock	1700003194
ACP-4000 rail kit	9680006905

Note:

- To support 2 2.5" SATA HDDs RAID with on-board RAID: 1700003194 x 2 + IDT-3120E x 1
- To support 3 3.5" SATA HDDs RAID with on-board RAID: 1700003194 x 3 + IDT-5230E x 1
- To support 4 2.5" SATA HDDs RAID with on-board RAID: 1700003194 x 4 + 96RACK-5SS-CAGE-CR x 1

System Contents

Items	Advantech P/N	Quantity
AVS-840 barebone	N/A	1
Driver CD	2066512700	1
1701260305	COM + printer ports cable kit	x1
1700060202	Keyboard and mouse Y-cable	x1
1700008461	4-port USB cable kit	x1

Compatible Processors

Advantech P/N	Description
96MPXE-3.2-8M11T1	XEON 3.2G 8M 1155P 4CORE E3-1225V2(G)
96MPXE-3.5-8M11T	XEON 3.5G 8M 1155P 4CORE E3-1275V2(G)
96MPI3-3.3-3M11T1	CORE 3.3G 3M 1155P 2CORE I3-3220(G)

Validated Matrox Mura Cards

Advantech P/N	Model	Output	Input
96VG-2G-PE-MA	Mura MPX-4/0	4	0
96VG-2G-PE-MA1	Mura MPX-4/2	4	2
96VG-2G-PE-MA2	Mura MPX-4/4	4	4
96VG-1G-PE-MA	Mura MPX-SDI	2	2
96VG-128M-PE-MA	Mura MPX-V8	0	8
96VG-256M-PE-MA	Mura MPX-V16	0	16

Validated OS

Advantech P/N	OS for Embedded System
968QS28F08	Windows Server® 2008 with Hyper-V™ Standard 64 Bit
968QSV2845	Windows Server® 2008 without Hyper-V™ Standard 64 Bit
968QW7PROE	Windows® 7 Professional 64 Bit

Intelligent Video and IoT Sensors	1
Intelligent Transportation Platforms	2
Intelligent Inspection Systems	3
Modular IPCs	4
Server-grade IPCs	5
Industrial Storages	6
Video Wall Controllers	7
GPU Servers	8
Industrial Motherboards	9
Slot SBC & Passive Backplanes	10
CompactPCI Platforms	11
Industrial Chassis	12
Industrial Computer Peripherals	13
Industrial Ethernet Solutions	14

AVS-860

6U Intel® Xeon® E3-1200V2 Video Wall Controller, Supporting 40-output Video Wall



CE FCC

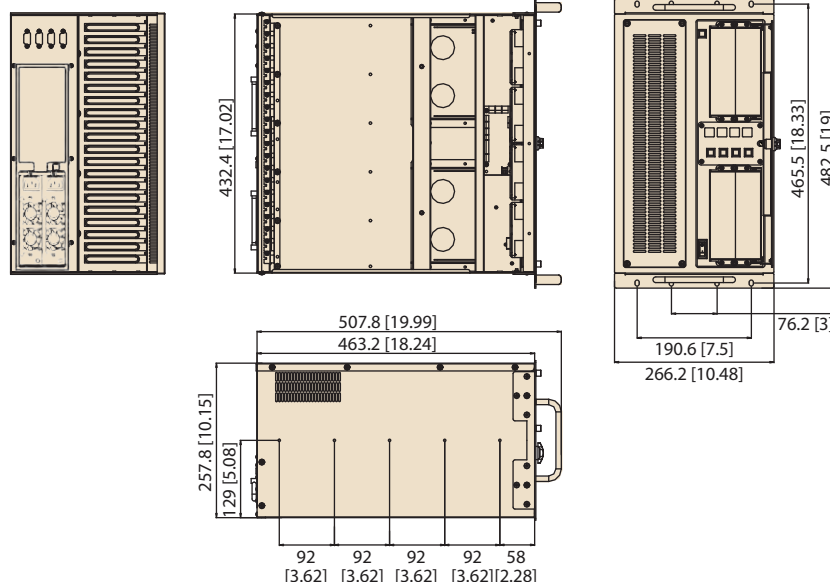
Features

- Validated by Matrox
- Support Mura Cards: 10 standard Mura MPX
- Maximum Video Input: 40 Analog/Digital
- Maximum Video Output: 40 Analog/Digital
- Processor: Intel Xeon E3-1200 V2 Series up to 4 cores/8 threads
- Memory : DDR3-1333/1600 MHz (ECC) U-DIMM and 16 GB
- Remote Management: Advantech Remote Monitoring Utility

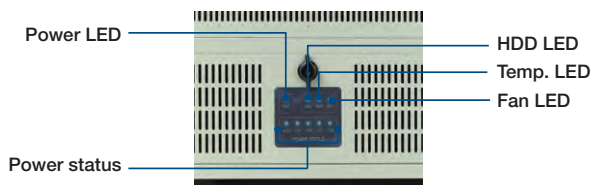
Specifications

Processor System	Chipset	Intel C216 Chipset	
	CPU	Intel LGA 1155 Xeon E3-1200 V2 Single processor (up to 95W TDP)	
	L3 Cache	8 MB	
	Memory	ECC or non ECC DDR3 1333/1066 MHz UDIMMs, maximum 16 GB	
Graphics	Controller	Chipset integrated Intel HD Graphic (Needs being disabled when Mura MPX is installed)	
	VRAM	Shared system memory is subject to OS	
Expansion Slot	Slot Location 1 (PPCIEX4_1)	PCIex16 slot (x4 link)	
	Slot Location 2 (P1PCIEX16_1)	PCIe x16 slot (Gen2 x16 link), for Mura MPX-4/4 installation	
	Slot Location 3 (P1PCIEX16_2)	PCIe x16 slot (Gen2 x16 link), for Mura MPX-4/4 installation	
	Slot Location 4 (P1PCIEX16_3)	PCIe x16 slot (Gen2 x16 link), for Mura MPX-4/4 installation	
	Slot Location 5 (P1PCIEX16_4)	PCIe x16 slot (Gen2 x16 link), for Mura MPX-4/4 installation	
	Slot Location 6 (P1PCIEX16_5)	PCIe x16 slot (Gen2 x16 link), for Mura MPX-4/4 installation	
	Slot Location 7 (P2PCIEX16_1)	PCIe x16 slot (Gen2 x16 link), for Mura MPX-4/4 installation	
	Slot Location 8 (P2PCIEX16_2)	PCIe x16 slot (Gen2 x16 link), for Mura MPX-4/4 installation	
	Slot Location 9 (P2PCIEX16_3)	PCIe x16 slot (Gen2 x16 link), for Mura MPX-4/4 installation	
	Slot Location 10 (P2PCIEX16_4)	PCIe x16 slot (Gen2 x16 link), for Mura MPX-4/4 installation	
	Slot Location 11 (P2PCIEX16_5)	PCIe x16 slot (Gen2 x16 link), for Mura MPX-4/4 installation	
Drive Bay	5.25" Front-Accessible	4	
	3.5" Front-Accessible	-	
	3.5" Internal	2	
Ethernet	Interface	Dual 10/100/1000 Mbps Gigabit Ethernet	
	Controller	LAN1: Intel 82579LM LAN2: Intel 82574L	
Front I/O Interface	USB	2 x USB2.0	
	PS/2	-	
Rear I/O Interface	USB	1 x USB 3.0, 4 x USB2.0 (via USB cable kit)	
	PS/2	1 (Y cable for mouse and keyboard is included in the package)	
	COM	-	
	Display	1 x VGA	
	RJ-45	2	
Watchdog Timer	Output	Interrupt, system reset	
	Interval	Programmable, 1~255 sec	
Power Supply	Power Output Wattage	1+1 750W Redundant Power Supply	
	Input Range	AC 100 ~ 240 V	
Cooling	Chassis Fan	4 (9cm/110CFM each)	
	Smart FAN Control	Yes	
	Air Filter	Yes	
Miscellaneous	LED Indicators	Power status, HDD activity, Temperature, Fan, and Power voltage status	
Environment	Operating Temperature	0 ~ 40° C (32~104° F)	Non-Operating -20 ~ 60° C (-4 ~ 140° F)
	Humidity	10 ~ 85% @ 40° C	10 ~ 95% @ 40° C
	Vibration (5 ~ 500 Hz)	1 Grms	2 Grms
	Shock	10G (with 11ms duration, half sine wave)	30G
	Physical Characteristics	Dimension	482 x 266 x 464 mm (19" x 10.5" x 18.3")

Dimensions



Front View



System Contents

Items	Advantech P/N	Quantity
AVS-860 barbone	N/A	1
Driver CD	2066512700	1
1701260305	COM + printer ports cable kit	x1
1700060202	Keyboard and mouse Y-cable	x1
1700008461	4-port USB cable kit	x1

Compatible Processors

Advantech P/N	Description
96MPXE-3.4-8M11T	XEON 3.4G 8M 1155P 4CORE E3-1275(G)
96MPXE-3.2-8M11T1	XEON 3.2G 8M 1155P 4CORE E3-1225V2(G) Ivy Bridge
96MPXE-3.5-8M11T	XEON 3.5G 8M 1155P 4CORE E3-1275V2(G) Ivy Bridge

Validated Matrox Mura Cards

Advantech P/N	Model	Output	Input
96VG-2G-PE-MA	Mura MPX-4/0	4	0
96VG-2G-PE-MA1	Mura MPX-4/2	4	2
96VG-2G-PE-MA2	Mura MPX-4/4	4	4
96VG-1G-PE-MA	Mura MPX-SDI	2	2
96VG-128M-PE-MA	Mura MPX-V8	0	8
96VG-256M-PE-MA	Mura MPX-V16	0	16

Validated OS

Advantech P/N	OS for Embedded System
968QS28F08	Windows Server® 2008 with Hyper-V™ Standard 64 Bit
968QSV2845	Windows Server® 2008 without Hyper-V™ Standard 64 Bit
968QW7PROE	Windows® 7 Professional 64 Bit

Ordering Information

Part Number	Power Supply
AVS-860-01A1E	6U Rackmount Xeon E3-1200 v2 Video Wall Controller, Support 10 Matrox Mura MPX
1960047831N001	PCE-7127 Proprietary CPU Cooler (2U)
PCA-AUDIO-HDA1E	Audio extension module
PCA-TPM-00A1E	Trusted Platform Module compliant TCG 1.2
1700020277-01	2 ports of USB 3.0 cable W/ BKT(30cm)
1700008822	DVI-D Cable

Optional Parts

Item	Advantech P/N
Mobile rack for converting dual 5.25" drive bays to three 3.5" SAS/SATA HDD trays	IPC-DT-5230E
Mobile rack for converting a 3.5" drive bay to dual 2.5" SATA HDD trays	IPC-DT-3120E
Mobile rack for converting a 5.25" drive bay to four 2.5" SAS/SATA HDD trays	96RACK-5SS-CAGE-CR
SATA cable with lock	1700003194
ACP-4000 rail kit	9680006905

Note:

- To support 2 2.5" SATA HDDs RAID with on-board RAID: 1700003194 x 2 + IDT-3120E x 1
- To support 3 3.5" SATA HDDs RAID with on-board RAID: 1700003194 x 3 + IDT-5230E x 1
- To support 4 2.5" SATA HDDs RAID with on-board RAID: 1700003194 x 4 + 96RACK-5SS-CAGE-CR x 1

Intelligent Video and IoT Sensors 1

Intelligent Transportation Platforms 2

Intelligent Inspection Systems 3

Modular IPCs 4

Server-grade IPCs 5

Industrial Storages 6

Video Wall Controllers 7

GPU Servers 8

Industrial Motherboards 9

Slot SBC & Passive Backplanes 10

CompactPCI Platforms 11

Industrial Chassis 12

Industrial Computer Peripherals 13

Industrial Ethernet Solutions 14

Advantech Video Wall Controller Solutions

Powered By Matrox® and Datapath®



ADVANTECH

Enabling an Intelligent Planet

Advantech Video Wall Controller

An Advantech video wall controller is designed for video wall applications.

Being strictly validated by the Matrox and Datapath laboratory, Advantech video wall controller features

Mura MPX Series and Datapath graphics cards compatibility, and industrial reliability, key characteristics are listed below.

- **Industrial Reliability:** System can run stably under 40°C temperature.
- **BIOS Optimized:** Multiple Mura MPX and Datapath graphics cards can be recognized by the system and function well.
- **Thermal Optimization:** No thermal issue even when multiple Mura MPX and Datapath graphics cards are installed in the system.
- **Data Switch Optimized:** Video captured can be displayed anywhere on the video wall.
- **Power Solution Optimized:** Power supply is sufficient for the system to carry multiple Mura MPX and Datapath graphics cards.
- **Remote Management:** A remote administrator can monitor and control the system by network connection.

8-output Solutions



AVS-240

4U Intel® Xeon® E5-2400 Video Wall Controller, Supporting 8-output Video Wall



AVS-290

Desktop/Wallmount Intel® Xeon® E3-1200 Video Wall Controller, Supporting 8-output Video Wall

20-output Solutions



AVS-540

4U Intel® Xeon® E5-2600 Video Wall Controller, Supporting 20-output Video Wall



AVS-542

4U Intel® Xeon® E5-2600 Video Wall Controller, Supporting 20 output / 15-40 input Video Wall

40-output Solutions



AVS-840

4U Intel® Xeon® E3-1200V2 Video Wall Controller, Supporting 40-output Video Wall



AVS-860

6U Intel® Xeon® E3-1200V2 Video Wall Controller, Supporting 40-output Video Wall



GPU Servers

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AGS-923	2U Rackmount Intel® Xeon® E5-2600 v3 GPU server, Supporting 4 x PCIe x16 double-depth card and 1 x PCIe x8 single-depth FH/HL card	8-10
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To view all of Advantech's GPU Server, please visit www.advantech.com/products.



Selection Guide



Model Name		AGS-910	AGS-913	AGS-920	AGS-923	HPC-7400-S813
Processot Support		Dual Intel® Xeon® E5-2600 / 2600 v2	Dual Intel® Xeon® E5-2600 v3	Dual Intel® Xeon® E5-2600 / 2600 v2	Dual Intel® Xeon® E5-2600 v3	Single Intel® Xeon® E5-2600 v3
Form Factor Support		Proprietary				ATX
Expansion Slots		3 x PCIe x16 double-depth card + 1 x PCIe x8 FH/HL card		4 x PCIe x16 double-depth card + 1 x PCIe x8 FH/HLcard		2 x PCIe x16 double-depth card + 1 x PCIe x8 + PCIe x4 + 1 x PCIe x1
Drive Bay	Slim ODD Bay	-				-
	2.5" Hot Swap	4		8		-
	3.5" Hot Swap	-		-		2
Cooling	Chassis Fan	7 x 40x56 + 2 x 40x28 high speed fan		4 x 80x38 + 1 x 80x20 + 1 x 80x38 (optional) high speed fan		3 x 80x38 + optional 2 (6cm) rear fans
	Air Filter	-				Yes
Chassis Intrusion Alarm		Yes				
Front USB		2				
Miscellaneous	LED Indicators	Power status, HDD activity, LAN status, location, error message				Power switch and system reset button
	Rear Panel	Location, error message				-
Environment		Operating			Non-Operating	
	Temperature	0 ~ 40° C (32~104° F)			-20 ~ 60° C (-4 ~ 140° F)	
	Humidity	10 ~ 85% @ 40° C			10 ~ 95% @ 40° C	
	Vibration (5~500 Hz)	0.5 Grms			2G	
	Shock	10 G (with 11ms duration, half since wave)				
Physical Characteristics	Dimensions (W x H x D)	430 x 44 x 770 mm	430 x 44 x 770 mm	430 x 88 x 770 mm	430 x 88 x 770 mm	482 x 177 x 448 mm
Page		8-4	8-6	8-8	8-10	8-12

Compatible GPU/Xeon Phi

Advantech Product Model			1U		2U		3U Chassis HPC-7320 / 4U Chassis HPC-7400					
GPU Card Vendor			AGS-910	AGS-913	AGS-920	AGS-923	ASMB-813	ASMB-822	ASMB-823	ASMB-913	ASMB-922	ASMB-923
Advantech DSP card	TI	DSP-8681	V	V	V	V	V	V	V	V	V	V
		DSP-8682	V	V	V	V	V	V	V	V	V	V
NVIDIA	GRID	K1	V	V	V	V	V	V	V	V	V	V
		K2	V	V	V	V	V	V	V	V	V	V
	TESLA	K10	V	V	V	V	V	V	V	V	V	V
		K20	V	V	V	V	V	V	V	V	V	V
AMD	Workstation	W9000	V	V	V	V	V	V	V	V	V	V
		W9100	V	V	V	V	V	V	V	V	V	V
	Server	S9000	V	V	V	V	V	V	V	V	V	V
		S9150	V	V	V	V	V	V	V	V	V	V
Intel	Coprocessor	Xeon Phi 5110P	V	V	V	V	V	V	V	V	V	

Note:

1. Tick means they have already passed compatibility tests (GPU card and driver install).
2. Detailed compatibility information of AGS series GPU server, please reference GPU Qualification list.
3. AGS-910/AGS-920 already have Tesla K20 qualification by NVIDIA.
4. Some GPU cards need to enable "Above 4G Decoding" in BIOS setup menu when installing multiple GPU cards.

GPU P/N

GRID series GPU Card	AGS-GRID-K1-P	GRID K1 16GB PCI-E x16 HS
	AGS-GRID-K2-PLR	GRID K2 8GB PCI-E x16 HS L to R
	AGS-GRID-K2-PRL	GRID K2 8GB PCI-E x16 HS R to L
	AGS-GRID-K520-PLR	GRID K520 8GB PCI-E x16 HS L to R
	AGS-GRID-K520-PRL	GRID K520 8GB PCI-E x16 HS R to L
TESLA series GPU Card	AGS-TESLA-K80	TESLA K80 24GB PCI-E x16 HS
	AGS-TESLA-K40-P	Tesla K40 12GB PCI-E x16 HS
	AGS-TESLA-K40-A	Tesla K40 12GB PCI-E x16 FS
	AGS-TESLA-K20-P	Tesla K20 5GB PCI-E x16 HS
	AGS-TESLA-K20-A	Tesla K20 5GB PCI-E x16 FS
	AGS-TESLA-K20X-P	Tesla K20X 6GB PCI-E x16 HS
	AGS-TESLA-K10-PLR	Tesla K10 8GB PCI-E x16 HS L to R
	AGS-TESLA-K10-PRL	Tesla K10 8GB PCI-E x16 HS R to L
Quadro Series GPU Card	AGS-QUADRO-K6000	Quadro K6000 12GB PCI-Ex16 DVI*2 DP*2 FS
	AGS-QUADRO-K5200	Quadro K5200 8GB PCI-Ex16 DVI*2 DP*2 FS
	AGS-QUADRO-K4200	Quadro K4200 4GB PCI-Ex16 DVI*1 DP*2 FS
	AGS-QUADRO-K2200	Quadro K2200 4GB PCI-Ex16 DVI*1 DP*2 FS
	AGS-QUADRO-K1200	QUADRO K1200 4GB PCI-Ex16 MDP*4 FS
	AGS-QUADRO-K1200LP	QUADRO K1200 4GB PCI-Ex16 MDP*4 FS/LP B
	AGS-QUADRO-K620	Quadro K620 2GB PCI-Ex16 DVI-I*1 DP*1 FS
	AGS-QUADRO-K420	Quadro K420 1GB PCI-Ex16 DVI-I*1 DP*1 FS
	AGS-QUADRO-M6000	QUADRO M6000 12GB PCI-Ex16 DVI*1 DP*4 FS
	AGS-QUADRO-SYNC-K	QUADRO SYNC FOR KEPLER w/4*RIBBON CABLE
NVS Series GPU Card	AGS-NVS-510	NVS 510 2GB PCI-E x16 MDP*4 FS
	AGS-NVS-315	NVS 315 1GB PCI-E x16 DMS59 FS
	AGS-NVS-310	NVS 310 512MB PCI-E x16 DP*2 FS

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AGS-910

1U Rackmount Intel® Xeon® E5-2600 / 2600 v2 GPU server, Supporting 3 x PCIe x16 double-depth card and 1 x PCIe x8 single-depth FH/HL card



CE FCC

Features

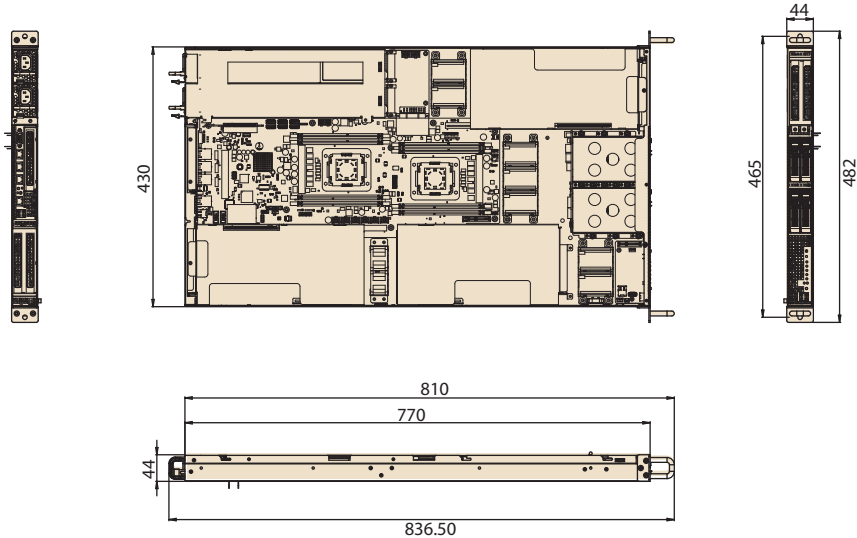
- Processor: Dual Intel® Xeon® E5-2600 / 2600 v2 series, up to 20 cores / 40 threads
- Memory: DDR3-1333/1600 MHz Non-ECC/ECC/REG type up to 128GB
- Remote Management: IPMI function support
- Expansion: Supporting 3 * PCIe x16 double-deck card + 1* PCIe x8 single-deck FH/HL card
- PSU: 1100W 1+1 redundant power supply with 80 PLUS Platinum level certification

Specifications

Processor System	Chipset	Intel C602J Chipset	
	CPU	Dual Intel LGA2011 Xeon 2600 / 2600 v2 processor (up to 135W TDP)	
	L2 Cache	Up to 30 MB	
	Memory	8 x DDR3 1333/1600 Non-ECC/ECC/REG DIMM, maximum to 128GB	
Graphics	Controller	Aspeed AST2300	
	VRAM	64 MB	
Expansion Slot	Slot location 1 (Upper Middle slot)	PCIe x 8 slot (Gen3 x8 link) for FH/HL expansion cards	
	Slot location 2 (Lower Right slot)	PCIe x16 slot (Gen3 x16 link), for double-deck 4.376"(H)/10.5"(L) expansion cards	
	Slot location 3 (Upper Left slot)	PCIe x16 slot (Gen3 x16 link), for double-deck 4.376"(H)/10.5"(L) expansion cards	
	Slot location 4	-	
	Slot location 5	-	
	Slot location 6 (Lower Left slot)	PCIe x16 slot (Gen3 x16 link), for double-deck 4.376"(H)/10.5"(L) expansion cards	
Drive Bay	2.5" (Hot-swap)	4	
	3.5" (Front Accessible)	-	
	3.5" Internal	-	
Ethernet	Interface	4 x 10/100/1000 Mbps Gigabit Ethernet	
	Controller	1 x Intel 82579LM + 3 x Intel I210AT	
Front I/O Interface	USB	2 x USB2.0	
Rear I/O Interface	USB	2 x USB2.0	
	PS/2	-	
	COM	-	
	Display	1 x VGA	
	RJ-45	4 (1 is sharing NIC for IPMI)	
Internal connector	Type-A USB	1	
	COM	2	
	LPC	1	
Watchdog Timer	Output	Interrupt, system reset	
	Interval	Programmable, 1~255 sec	
Power Supply	Power Output Wattage	80 PLUS Platinum 1+1 redundant Power Supply	
		900W @ 100 ~ 120V 1100W @ 200 ~ 240V	
	Input Range	AC 100 ~ 240 V	
Cooling	Chassis Fan	7 x 40x56 + 2 x 40x28 high speed fan	
	Air Filter	-	
Miscellaneous	LED Indicators	Power status, HDD activity, LAN status, location, error message	
	Remote Management	Advantech Remote Monitoring Utility	
Environment	Operating	Non-Operating	
	Temperature	0 ~ 40° C (32~104° F)	-20 ~ 60° C (-4 ~ 140° F)
	Humidity	10 ~ 85% @ 40° C	10 ~ 95% @ 40° C
	Vibration (5 ~ 500 Hz)	0.5 Grms	2 G
	Shock	10G (with 11ms duration, half sine wave)	30G
Physical Characteristics	Dimension (D x W x H)	770 x 430 x 44 mm	

Dimensions

Unit: mm [inch]

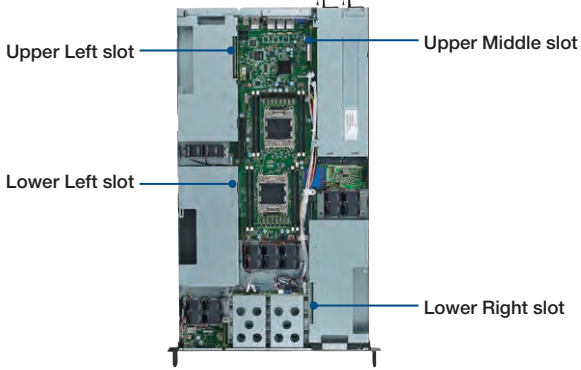


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Front View



Inside View



Rear View



Ordering Information

Part Number	HDD	VGA Chip	RJ45	IPMI	Power supply
AGS-910I-R11A1E	4	AST 2300	4	YES	1+1 1100W RPS

System Contents

Items	Advantech P/N	Quantity
CPU0 heatsink	1960065593N001	1
CPU1 heatsink	1960065591N001	1
Slide rail kit	9680015703	1
Power cable for expansion card (Pre-assembled in the system)	1700023022-01	6
Driver CD	2061910I00	1
Startup manual	2001910I10	1

AGS-913

1U Rackmount Intel® Xeon® E5-2600 v3 GPU server, Supporting 3 x PCIe x16 double-depth card and 1 x PCIe x8 single-depth FH/HL card



CE FCC

Features

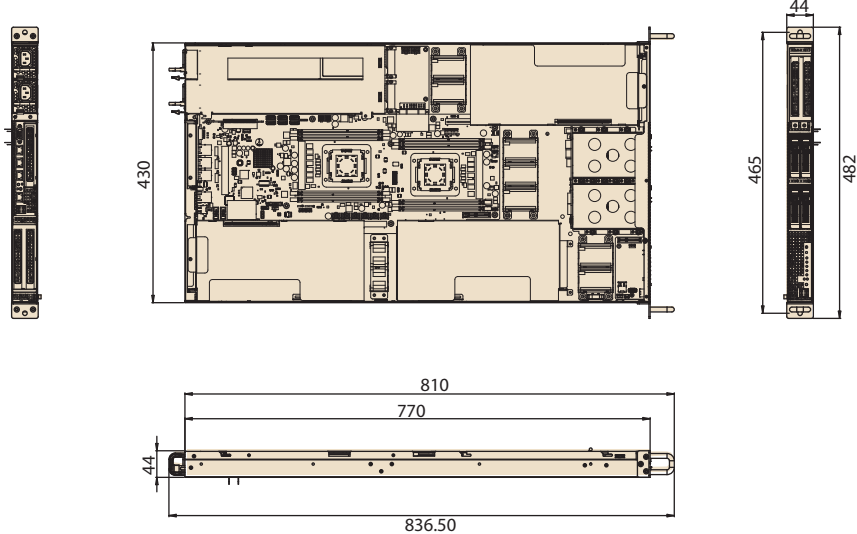
- Processor: Dual Intel® Xeon® E5-2600 v3 series, up to 20 cores / 40 threads
- Memory: DDR4 1600/1866/2133 MHz ECC-REG type up to 256GB
- Remote Management: IPMI function support
- Expansion: Supporting 3 * PCIe x16 double-deck card + 1* PCIe x8 single-deck FH/HL card
- PSU: 1100W 1+1 redundant power supply with 80 PLUS Platinum level certification

Specifications

Processor System	Chipset	Intel C612 Chipset	
	CPU	Dual Intel LGA2011 Xeon E5-2600 v3 processor (up to 135W TDP)	
	L2 Cache	Up to 30 MB	
	Memory	8 x DDR4 1600/1866/2133 ECC-REG DIMM, up to 256GB	
Graphics	Controller	Aspeed AST2400	
	VRAM	64 MB	
Expansion Slot	Slot location 1 (Upper Middle slot)	PCIe x 8 slot (Gen3 x8 link) for FH/HL expansion cards	
	Slot location 2 (Lower Right slot)	PCIe x16 slot (Gen3 x16 link), for double-deck 4.376"(H)/10.5"(L) expansion cards	
	Slot location 3 (Upper Left slot)	PCIe x16 slot (Gen3 x16 link), for double-deck 4.376"(H)/10.5"(L) expansion cards	
	Slot location 4	-	
	Slot location 5	-	
	Slot location 6 (Lower Left slot)	PCIe x16 slot (Gen3 x16 link), for double-deck 4.376"(H)/10.5"(L) expansion cards	
Drive Bay	2.5" (Hot-swap)	4	
	3.5" (Front Accessible)	-	
	3.5" Internal	-	
Ethernet	Interface	4 x 10/100/1000 Mbps Gigabit Ethernet	
	Controller	4 x Intel I210AT	
Front I/O Interface	USB	2 x USB2.0	
	USB	2 x USB3.0	
Rear I/O Interface	PS/2	-	
	COM	-	
	Display	1 x VGA	
	RJ-45	4 (1 is sharing NIC for IPMI)	
Internal connector	Type-A USB	1	
	COM	2	
	LPC	1	
Watchdog Timer	Output	Interrupt, system reset	
	Interval	Programmable, 1~255 sec	
Power Supply	Power Output Wattage	80 PLUS Platinum 1+1 redundant Power Supply	
		900W @ 100 ~ 120V 1100W @ 200 ~ 240V	
	Input Range	AC 100 ~ 240 V	
Cooling	Chassis Fan	7 x 40 x 56 + 2 x 40 x 28 high speed fan	
	Air Filter	-	
Miscellaneous	LED Indicators	Power status, HDD activity, LAN status, location, error message	
	Remote Management	Advantech Remote Monitoring Utility	
Environment	Operating Temperature	0 ~ 40° C (32 ~ 104° F)	Non-Operating -20 ~ 60° C (-4 ~ 140° F)
	Humidity	10 ~ 85% @ 40° C	10 ~ 95% @ 40° C
	Vibration (5 ~ 500 Hz)	0.5 Grms	2 G
	Shock	10G (with 11ms duration, half sine wave)	30G
	Physical Characteristics	Dimension (D x W x H)	770 x 430 x 44 mm

Dimensions

Unit: mm [inch]

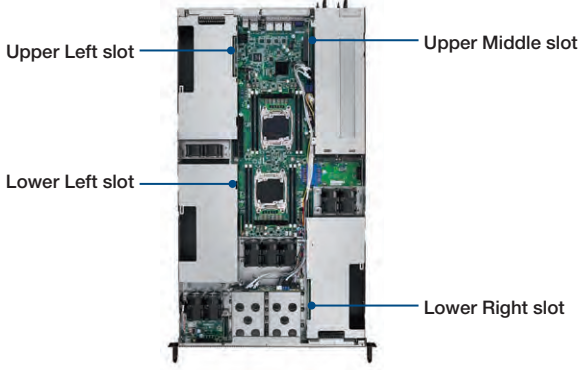


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Front View



Inside View



Rear View



Ordering Information

Part Number	HDD	VGA Chip	RJ45	IPMI	Power supply
AGS-913I-R11A1E	4	AST 2400	4	YES	1+1 1100W RPS

System Contents

Items	Advantech P/N	Quantity
CPU0 heatsink	1960065593N001	1
CPU1 heatsink	1960065591N001	1
Slide rail kit	9680015703	1
Power cable for expansion card (Pre-assembled in the system)	1700023022-01	6
Driver CD	2061S91300	1
Startup manual	2001S91310	1

AGS-920

2U Rackmount Intel® Xeon® E5-2600 / 2600 v2 GPU server, Supporting 4 x PCIe x16 double-deck card + 1 x PCIe x8 FH/HL card



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Features

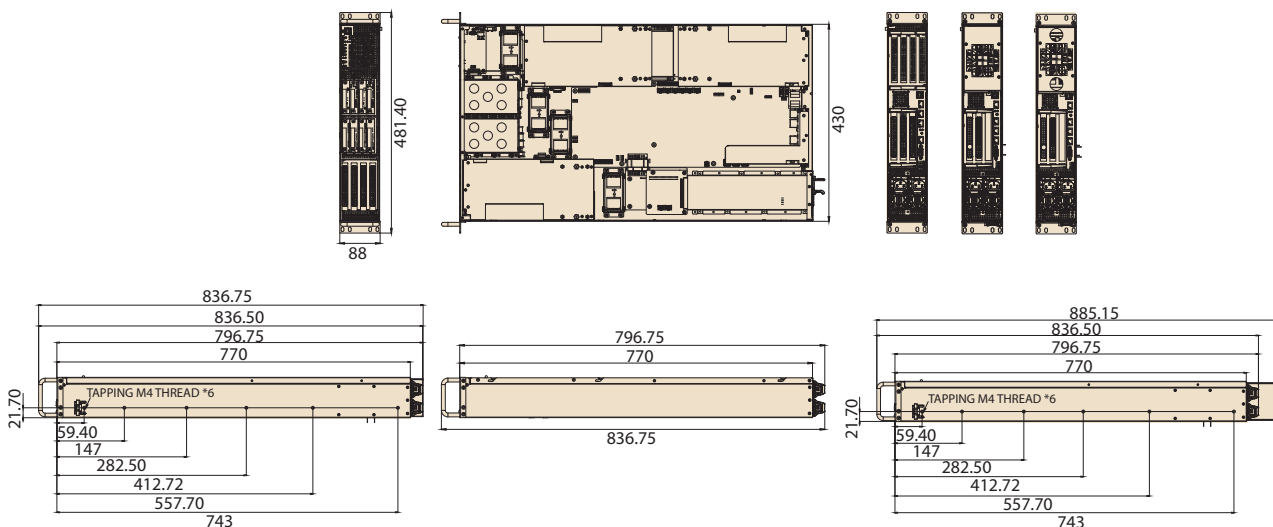
- Processor: Dual Intel® Xeon® E5-2600 / 2600 v2 series, up to 20 cores / 40 threads
- Memory : DDR3-1333/1600 MHz Non-ECC/ECC/REG type up to 128GB
- Remote Management: IPMI function support
- Expansion: Supporting 4 * PCIe x16 double-deck card + 1* PCIe x8 FH/HL card
- PSU: 1400W 1+1 redundant power supply with 80 PLUS Platinum level certification

Specifications

Processor System	Chipset	Intel C602J Chipset	
	CPU	Dual Intel LGA2011 Xeon E5-2600 / 2600 v2 processor (up to 150W TDP)	
	L2 Cache	5/10/15/20 MB	
	Memory	8 x DDR3 1333/1600 MHz Non-ECC/ECC/REG DIMM, maximum to 128GB (256GB is condition support by configuration)	
Graphics	Controller	Aspeed AST2300	
	VRAM	64 MB	
Expansion Slot	Slot location 1 (Upper Middle slot)	PCIe x 8 slot (Gen3 x8 link) for for single-depth 4.376"(H)/6.4"(L) expansion cards	
	Slot location 2 (Lower Right slot)	PCIe x16 slot (Gen3 x16 link), for double-depth 4.376"(H)/10.5"(L) expansion cards	
	Slot location 3 (Upper Left slot/bottom)	PCIe x16 slot (Gen3 x16 link), for double-depth 4.376"(H)/10.5"(L) expansion cards, support 12"(L) when remove 8020 FAN	
	Slot location 4	-	
	Slot location 5 (Upper Left slot/top)	PCIe x16 slot (Gen3 x16 link), for double-depth 4.376"(H)/10.5"(L) expansion cards, support 12"(L) when remove 8020 FAN	
	Slot location 6 (Lower Left slot)	PCIe x16 slot (Gen3 x16 link), for double-depth 4.376"(H)/10.5"(L) expansion cards	
Drive Bay	2.5" (Hot-swap)	8 (only 4 x SATAII + 2 x SATAIII on-board)	
	3.5" (Front Accessible)	-	
	3.5" Internal	-	
Ethernet	Interface	4 x 10/100/1000 Mbps Gigabit Ethernet	
	Controller	1 x Intel 82579LM + 3 x Intel I210AT	
Front I/O Interface	USB	2 x USB2.0	
	USB	2 x USB2.0	
Rear I/O Interface	PS/2	-	
	COM	-	
	Display	1 x VGA	
	RJ-45	4 (1 is sharing NIC for IPMI)	
Internal connector	Type-A USB	1	
	COM	2	
	LPC	1	
Watchdog Timer	Output	System reset	
	Interval	Programmable, 1~255 sec	
Power Supply	Power Output Wattage	80 PLUS Platinum 1400W 1+1 redundant Power Supply 900W @ 100 ~ 120V 1400W @ 200 ~ 240V	
	Input Range	AC 100 ~ 240 V	
Cooling	Chassis Fan	4 * 80x38 + 1 * 80x20 + 1 * 80x38 (optional) high speed fan	
	Air Filter	-	
Miscellaneous	LED Indicators	Power status, HDD activity, LAN status, location, error message	
	Remote Management	Advantech Remote Monitoring Utility	
Environment	Temperature	Operating 0 ~ 40° C (32 ~ 104° F)	Non-Operating -20 ~ 60° C (-4 ~ 140° F)
	Humidity	10 ~ 85% @ 40° C	10 ~ 95% @ 40° C
	Vibration (5 ~ 500 Hz)	0.5 Grms	2 G
	Shock	10G (with 11ms duration, half since wave)	
Physical Characteristics	Dimension	770 x 430 x 88 mm	

Dimensions

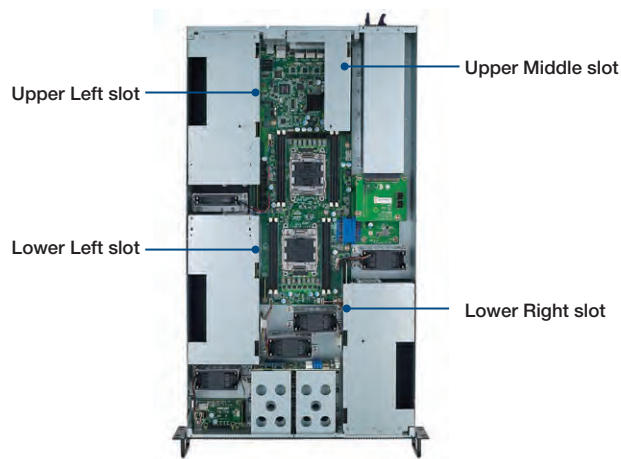
Unit: mm [inch]



Front View



Inside View



Rear View



Ordering Information

Part Number	HDD tray	VGA Chip	RJ45	IPMI	Power Supply
AGS-920I-R14A1E	8	AST 2300	4	YES	1+1 1400W RPS

Optional Accessories

Part Number	Description
98R1920I10E	Optional parts for Upper Left GPU card air duct with FAN
98R1920I20E	Optional parts for Upper Left GPU card air duct with FAN and display output

System Contents

Items	Advantech P/N	Quantity
AGS-920I Barebone System	N/A	1
Driver CD	N/A	1
Rail kit (pair)	9680015703	1
CPU cooler	1960063011N001	2
Power module (Installed in the system)	1757004662-01	2
Power cable for GPU/VGA card (Installed in the system)	1700023022-01	8

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AGS-923

2U Rackmount Intel® Xeon® E5-2600 v3 GPU server, Supporting 4 x PCIe x16 double-depth card and 1 x PCIe x8 single-depth FH/HL card



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Features

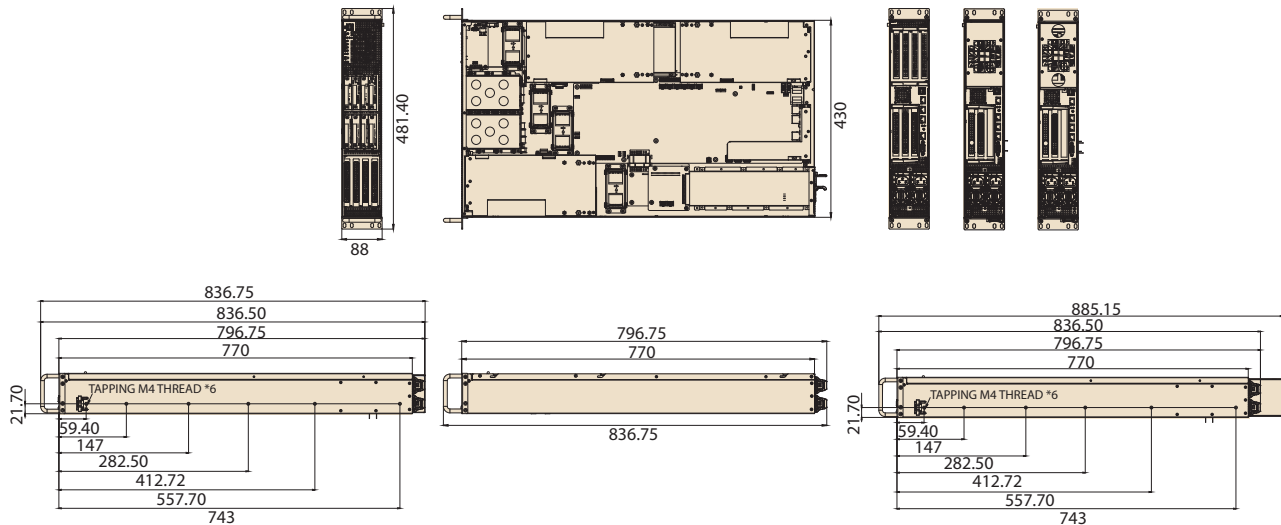
- Processor: Dual Intel® Xeon® E5-2600 v3 series
- Memory: DDR4 1600/1866/2133 MHz ECC-REG type up to 256GB
- Remote Management: IPMI function support
- Expansion: Supporting 4 * PCIe x16 double-depth card + 1* PCIe x8 single-depth FH/HL card
- PSU: 1400W 1+1 redundant power supply with 80 PLUS Platinum level certification

Specifications

Processor System	Chipset	Intel C612 Chipset	
	CPU	Dual Intel LGA2011 Xeon E5-2600 v3 processor (up to 145W TDP)	
	L2 Cache	Up to 30 MB	
	Memory	8 x DDR4 1600/1866/2133 ECC-REG DIMM, up to 256GB	
Graphics	Controller	Aspeed AST2400	
	VRAM	64 MB	
Expansion Slot	Slot location 1 (Upper Middle slot)	PCIe x 8 slot (Gen3 x8 link) for single-depth 4.376"(H)/6.4"(L) expansion cards	
	Slot location 2 (Lower Right slot)	PCIe x16 slot (Gen3 x16 link), for double-depth 4.376"(H)/10.5"(L) expansion cards	
	Slot location 3 (Upper Left slot/bottom)	PCIe x16 slot (Gen3 x16 link), for double-depth 4.376"(H)/10.5"(L) expansion cards, support 12"(L) when remove 8020 FAN	
	Slot location 4	-	
	Slot location 5 (Upper Left slot/top)	PCIe x16 slot (Gen3 x16 link), for double-depth 4.376"(H)/10.5"(L) expansion cards, support 12"(L) when remove 8020 FAN	
	Slot location 6 (Lower Left slot)	PCIe x16 slot (Gen3 x16 link), for double-depth 4.376"(H)/10.5"(L) expansion cards	
Drive Bay	2.5" (Hot-swap)	8 (4 from SATA III and 4 from slave SATA III on-board)	
	3.5" (Front Accessible)	-	
	3.5" Internal	-	
Ethernet	Interface	4 x 10/100/1000 Mbps Gigabit Ethernet	
	Controller	4 x Intel I210AT	
Front I/O Interface	USB	2 x USB2.0	
	USB	2 x USB3.0	
Rear I/O Interface	PS/2	-	
	COM	-	
	Display	1 x VGA	
	RJ-45	4 (1 is sharing NIC for IPMI)	
Internal connector	Type-A USB	1	
	COM	2	
	LPC	1	
Watchdog Timer	Output	System reset	
	Interval	Programmable, 1~255 sec	
Power Supply	Power Output Wattage	80 PLUS Platinum 1400W 1+1 redundant Power Supply	
		900W @ 100 ~ 120V	
		1400W @ 200 ~ 240V	
Cooling	Input Range	AC 100 ~ 240 V	
	Chassis Fan	4 * 80x38 + 1 * 80x20 + 1 * 80x38 (optional) high speed fan	
Miscellaneous	Air Filter	-	
	LED Indicators	Power status, HDD activity, LAN status, location, error message	
Environment	Remote Management	Advantech Remote Monitoring Utility	
	Temperature	Operating	Non-Operating
		0 ~ 40° C (32 ~ 104° F)	-20 ~ 60° C (-4 ~ 140° F)
	Humidity	10 ~ 85% @ 40° C	10 ~ 95% @ 40° C
	Vibration (5 ~ 500 Hz)	0.5 Grms	2 G
Shock	10G (with 11ms duration, half sine wave)		
Physical Characteristics	Dimension	770 x 430 x 88 mm	

Dimensions

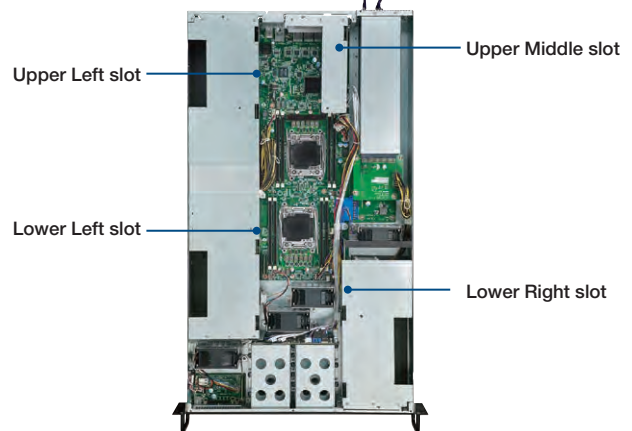
Unit: mm [inch]



Front View



Inside View



Rear View



Ordering Information

Part Number	HDD tray	VGA CHip	RJ45	IPMI	Power Supply
AGS-923I-R14A1E	8	AST 2400	4	YES	1+1 1400W RPS

Optional Accessories

Part Number	Description
98R1920I10E	Optional parts for Upper Left GPU card air duct with FAN
98R1920I20E	Optional parts for Upper Left GPU card air duct with FAN and display output

System Contents

Items	Advantech P/N	Quantity
Startup manual	2001S91310	1
Driver CD	2061S92300	1
Rail kit (pair)	9680015703	1
CPU cooler	1960063011N001	2
Power module (Installed in the system)	1757004662-01	2
Power cable for GPU/VGA card (Installed in the system)	1700023022-01	8

- Intelligent Video and IoT Sensors 1
- Intelligent Transportation Platforms 2
- Intelligent Inspection Systems 3
- Modular IPCs 4
- Server-grade IPCs 5
- Industrial Storages 6
- Video Wall Controllers 7
- GPU Servers 8
- Industrial Motherboards 9
- Slot SBC & Passive Backplanes 10
- CompactPCI Platforms 11
- Industrial Chassis 12
- Industrial Computer Peripherals 13
- Industrial Ethernet Solutions 14

HPC-7400-S813

4U GPU Server System With Intel® Xeon® E5-2600 v3 CPU, Supporting up to 2* GPU cards and 1400W RPS



CE FCC

Features

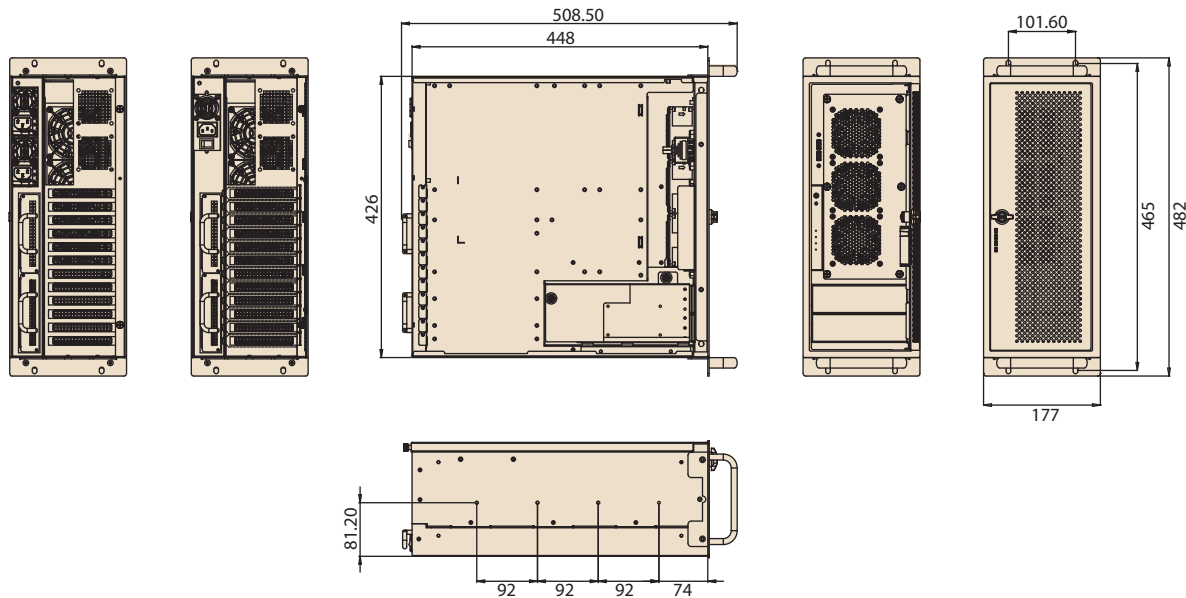
- 7 years longevity support- Revision control
- 0 ~ 40° C operating temperature
- Reliable resume from AC power loss function
- Intel® Grantley EP (C612) platform
 - Supports Intel® Xeon® E5-2600/E5-1600 v3 Series CPUs
 - Quad channel DDR4 2133 MHz ECC & Registered DIMMs up to 256 GB
- Supports up to 2* GPU cards
- 1400W 1+1 Redundant PSU with 80 PLUS Platinum level
- IPMI remote management

Specifications

Processor System	CPU type	Intel Xeon E5-2600 / E5-1600 v3 processor	
	CPU socket	Intel LGA-2011-R3	
	Memory	DDR4 ECC-REG 2133/1866/1600 MHz RDIMMs, maximum 256 GB	
	Chipset	Intel C612 Chipset	
Graphics	Controller	Aspeed AST2400	
	VRAM	64 MB	
Expansion Slot	PCIe x16 (Gen 3.0)	2 (Slot 4 and Slot 6 for GPU cards)	
	PCIe x8 (Gen 3.0)	1 (Slot 2)	
	PCIe x4 (Gen 2.0)	1 (Slot 7) from PCH	
	PCIe x1 (Gen 2.0)	1 (Slot 1) from PCH	
Drive Bay	Slime Odd Bay	-	
	5.25" Front-Accessibl	2	
	3.5" Hot-swappable	-	
	2.5" Hot-swappable	-	
	3.5" Internal	2 (rear-accessible)	
	2.5" Internal	-	
Ethernet	Interface	10/100/1000 Mbps Gigabit Ethernet	
	Controller	2 x Intel I210AT	
Remote Management		IPMI, Advantech Remote Monitoring Utility	
Front I/O Interface	USB	2 x USB3.0	
Rear I/O Interface	USB	6 (4 x USB3.0 + 2 x USB2.0)	
	PS/2	2	
	COM	1	
	Display	1 x VGA	
	Parallel	-	
	RJ-45	3 (1 port dedicated for IPMI function)	
Watchdog Timer	Output	Interrupt, system reset	
	Interval	Programmable, 1~255 sec/min	
Power Supply	Power Output Wattage	1+1 Redundant 1400 W	
	Input Range	AC 100 ~ 240 V	
Cooling	Chassis Fan	3 (8cm / 142CFM) PWM fans + optional 2 (6cm) rear fans	
	Air Filter	Yes	
Miscellaneous	LED Indicators	Power status, HDD activity, LAN activity	
	Remote Management	IPMI, Advantech Remote Monitoring Utility	
Environment		Operating	Non-Operating
	Temperature	0 ~ 40° C (32 ~ 104° F)	-20 ~ 60° C (-4 ~ 140° F)
	Humidity	10 ~ 85% @ 40° C	10 ~ 95% @ 40° C
	Vibration (5 ~ 500 Hz)	1 Grms	2 G
	Shock (with 11 ms du ration, half sine wave)	10G	
Physical Characteristics	Dimension (W x H x D)	482 x 177 x 448 mm	

Dimensions

Unit: mm



Ordering Information

Part Number	Description
HPC-7400MB-14A1E	4U chassis with redundant 1+1 1400W PSU
ASMB-813I-00A1E	LGA 2011-R3 ATX server board

Spare Parts

Parts number	Description
1990021256T00	Door filter
1750007769-01	8cm system fan
1757004664-01	1U 1400W 1+1 redundant power module, AC 100~240V (full range)
96PSR-1U-BKP-F1K4	1400W power distribution board for 1757004664-01

Optional Accessories

Parts number	Description
1700024754-01	GPU power cable (2*B4P Molex power connector to 6+2P PCIe power cable)
IDT-5230E	Mobile rack for converting dual 5.25" drive bays to three 3.5" SAS/SATA HDD Trays
96RACK-5SS-CAGE-CR	Mobile rack for converting one 5.25" drive bays to four 2.5" SATA/SAS HDD Trays (Max. HDD height :15mm)
9680006903	20" Slide Rail (support 75~100cm depth cabinet)
9680006904	24" Slide Rail (support 90~110cm depth cabinet)
1700007032	Front dual USB 2.0 cable kit
1960063011N001	LGA-2011 CPU cooler (narrow type)

Front View



Rear View



With 1400W redundant power supply

- Intelligent Video and IoT Sensors 1
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Unlocking Visual Computing Power

Trusted Platform and Comprehensive Industrial GPU Server Solution



ADVANTECH

Enabling an Intelligent Planet

Advantech's comprehensive GPU server solutions for accelerating industrial applications have a wide 1U to 4U product range, and satisfy all validation requirements. The unique industrial design and industry-leading 3-5-7 service guarantee make these GPU servers ideal solutions for accelerating business growth.

Allianced with diverse GPU and DSP processor providers

Supports GPU/DSP card brands including

- NVIDIA® Tesla®, GRID™, Quadro®
- AMD FirePro™
- Intel® Xeon Phi™
- Advantech-designed DSP cards

Ultimate Industrial-Grade Design

- Front and internal USB ports enhance usability
- Exclusive anti-vibration mechanism
- Cable-less design increases thermal efficiency
- GTX side power connector supports various GPU cards

3-5-7 Service Guarantee

- 3 service levels in design customization and development
- 5 years extended warranty
- 7 years product longevity



AGS-913

1U rackmount Intel® Xeon® E5-2600 v3 GPU server that supports 3 x PCIe x16 double-depth cards and 1 x PCIe x8 single-depth FH/HL card



ASMB-813 with HPC-7320

3U short-depth rackmount/ wallmount/ tower chassis with Intel® Xeon® E5-2600 v3 ATX server board that supports 5 x PCIe x16 double-depth cards



AGS-923

2U rackmount Intel® Xeon® E5-2600 v3 GPU server that supports 4 x PCIe x16 double-depth cards and 1 x PCIe x8 single-depth FH/HL card



ASMB-923 with HPC-7400

4U compact rackmount/tower chassis with dual Intel® Xeon® E5-2600 v3 EATX server board that supports 4 x PCIe x16 double-depth cards

www.advantech.com



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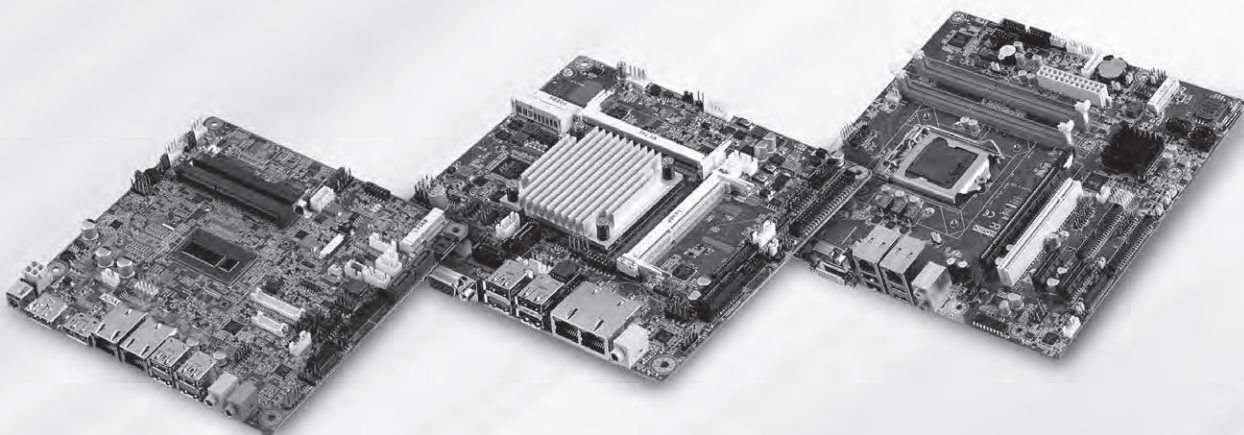


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Industrial Motherboards

Selection Guide		9-2
ATX Motherboards		
AIMB-767	LGA775 Intel® Core™2 Quad ATX with Dual VGA/DVI, 4 COM, Dual LAN	9-4
AIMB-769	LGA775 Intel® Core™2 Quad ATX with VGA, 2 COM, Single LAN	9-6
AIMB-701	LGA1155 3rd Intel® Core™ i7/i5/i3/Pentium® ATX with DVI/VGA, Dual GbE LAN	9-8
AIMB-782	LGA1155 3rd generation Intel® Core™ i7/i5/i3/Pentium ATX with DVI/VGA, DDR3, SATA III	9-10
AIMB-784	LGA1150 4th Generation Intel® Core™ i7/i5/i3/Pentium ATX with DVI/VGA, DDR3, SATA III	9-12
AIMB-705	LGA1151 6th Generation Intel® Core™ i7/i5/i3/Pentium ATX with DVI/VGA, DDR4, SATA III, USB 3.0 & 6 COMs	9-14
AIMB-785	LGA1151 6th Generation Intel® Core™ i7/i5/i3/Celeron/Pentium ATX with Triple Display, DDR4, SATA III	9-16
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To view all of Advantech's Industrial Motherboards, please visit www.advantech.com/products.



ATX Motherboards



Model Name		AIMB-767	AIMB-769	AIMB-701
Processor System	CPU	Intel Core 2 Quad/Core 2 Duo/Pentium dual-core/Celeron	Intel Core 2 Quad/Core 2 Duo/Pentium dual-core/Celeron	2nd/3rd Gen Intel Core i7/i5/i3/Pentium
	Socket	LGA775	LGA775	LGA1155
	Max. Speed	3.0 GHz/3.16 GHz/ 2.93 GHz/2.2 GHz	3.0 GHz/3.16 GHz/ 2.93 GHz/2.2 GHz	3.4 GHz/3.0 GHz/3.3 GHz/3.1 GHz
	Front Side Bus	1333/1066/800 MHz	1333/1066/800 MHz	-
	Cache	L2: 12 MB/6 MB/8 MB/512 KB	L2: 12 MB/6 MB/8 MB/512 KB	L3: 8 MB/6 MB/3 MB/3 MB
	Chipset	Intel G41 + ICH7R	Intel G41 + ICH7	H61
	BIOS	AMI 16 Mbit, SPI	AMI 16 Mbit, SPI	AMI 64 Mbit SPI
Expansion Slot	PCIe x16	1 (Gen1)	1 (Gen1)	1 (Gen2)
	PCIe x4	1 (Gen1)	-	1 for VG SKU (Gen2)
	PCIe x1	-	1 (Gen1)	1 for G2 SKU (Gen2)
	PCI	5	5	5
Memory	Technology	Dual channel DDR3 800/1066 MHz	Dual channel DDR3 800/1066 MHz	Dual Channel DDR3 1066/1333/1600 (1600 is only supported by Core i7/i5/i3 3xxx series processors)
	Max. Capacity	8 GB	8 GB	16 GB
	Socket	2 x 240-pin DIMM	2 x 240-pin DIMM	2 x 240-pin DIMM
Graphics	Controller	Intel GMA X4500	Intel GMA X4500	Intel HD Graphics
	VRAM	Shared system memory up to 352 MB	Shared system memory up to 352 MB	1 GB maximum shared memory with 2 GB and above system memory installed
Ethernet	Interface	10/100/1000 Mbps	10/100/1000 Mbps	10/100/1000 Mbps
	Controller	Dual Intel 82583V	GbE LAN: Realtek RTL8111DL	GbE LAN1: Intel 82579V, GbE LAN2: Intel 82583V
SATA	Max. Data Transfer Rate	300 MB/s	300 MB/s	300 MB/s
	Channel	4 (SW RAID)	4	4
EIDE	Mode	-	-	-
	Channel	-	-	-
I/O Interface	VGA	1	1	1
	DVI	1	-	1 for G2 version
	USB	8	8	10
	Serial	4	2	6 for G2 version (3 x RS-232, 1 x RS-232/422/485 with auto-flow control)
	Parallel	1	-	1
	FDD	1	1	-
	PS/2	2 (1 x rear I/O and 1 x wafer box)	2 (1 x rear I/O and 1 x wafer box)	2 (1 x rear I/O and 1 x wafer box)
	Ethernet (GbE)	2	1	2 for G2 version; 1 for VG version
	Audio	Mic-in, Line-out	Mic-in, Line-out	Mic-in, Line-out
	Watchdog Timer	Output	System reset	System reset
Interval		Programmable, 1 ~ 255 sec	Programmable, 1 ~ 255 sec	Programmable 1 ~ 255 sec
Page		9-4	9-6	9-8

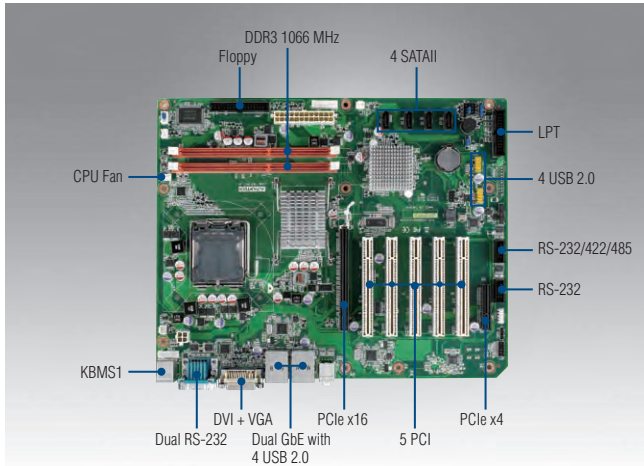


AIMB-782	AIMB-784	AIMB-705	AIMB-785
2nd/3rd Gen Intel Core i7/i5/i3/Pentium	4th Gen Intel Core i7/i5/i3	6th Gen Intel Core i7/i5/i3/Pentium	6th Gen Intel Core i7/i5/i3/Pentium
LGA1155	LGA1150	LGA1151	LGA1151
3.4 GHz/3.3 GHz/3.1 GHz/3.0 GHz	3.7 GHz/3.5 GHz/3.2 GHz/3.1 GHz/ 3.0 GHz/2.9 GHz/2.7 GHz/2.4 GHz/ 2.3 GHz/2.0 GHz	3.7 GHz/3.4 GHz/3.2 GHz/2.4 GHz/ 2.3 GHz	3.7 GHz/3.4 GHz/3.2 GHz/2.7 GHz/ 2.4 GHz/2.3 GHz
-	-	-	-
L3: 8 MB/6 MB/3 MB/2 MB	L3: 8 MB/6 MB/4 MB/ 3 MB/ 2 MB	L3: 8MB/6 MB/4 MB/ 3 MB/ 2 MB	L3: 8MB/ 6MB/4 MB/ 3 MB/ 2 MB
Q77	Q87	Intel H110	Q170
AMI 64 Mbit SPI	AMI 128 Mbit SPI	AMI 128 Mbit SPI	AMI 128 Mbit SPI
1 (Gen3)	1 (Gen3)	1 (Gen3)	1 (Gen3)
1 (Gen2)	1 (Gen2)	1 (Gen2)	3 (Gen3)
1 (Gen2)	1 (Gen2)	-	-
4	4	5	3
Dual Channel DDR3 1066/1333/ 1600 MHz	Dual Channel DDR3 1333/1600 MHz	Dual Channel DDR4 1866/2133 MHz	Dual Channel DDR4 1866/2133 MHz
32 GB	32 GB	32 GB	64 GB
4 x 240-pin DIMM	4 x 240-pin DIMM	2 x 288-pin DIMM	4 x 288-pin DIMM
Intel HD Graphics	Intel HD Graphics	Intel HD Graphics	Intel HD Graphics
Shared system memory up to 1 GB	Shared system memory up to 1 GB	Shared system memory is subject to OS	Shared system memory is subject to OS
10/100/1000 Mbps	10/100/1000 Mbps	10/100/1000 Mbps	10/100/1000 Mbps
GbE LAN1: Intel 82579LM, GbE LAN2: Intel 82583V	GbE LAN1: Intel I217LM, GbE LAN2: Intel I211AT	GbE LAN1: Intel I219V GbE LAN2: Intel I211AT (for G2 version)	GbE LAN1: Intel i219LM, GbE LAN2: Intel i211AT
600 MB/s; 300 MB/s	600 MB/s	600 MB/s	600 MB/s
6 (SW RAID)	6 (SW RAID)	4	6 (SW RAID)
-	-	-	-
-	-	-	-
1	1	1	1
1	2	1(for G2 version)	2
14 (4 USB 3.0 and 10 USB 2.0)	13 (4 USB 3.0 and 9 USB 2.0)	9 (4 USB 3.0 and 5 USB 2.0)	13 (6 USB 3.0 and 7 USB 2.0)
6	6	6 (for G2 version) 2 (for VG version)	6
1	1	1	1
-	-	-	-
2 (1 x keyboard and 1 x mouse)	2 (1 x keyboard and 1 x mouse)	2 (1 x rear I/O and 1 x wafer box)	1 (internal wafer box)
2	2	2 for G2 version; 1 for VG version	2
Mic-in, Line-out	Mic-in, Line-out	Mic-in, Line-out	Mic-in, Line-out
System reset	System reset	System reset	System reset
Programmable, 1 ~ 255 sec	Programmable, 1 ~ 255 sec	Programmable, 1-255 Sec	Programmable, 1-255 Sec
9-10	9-12	9-14	9-16

- Intelligent Video and IoT Sensors 1
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- Industrial Ethernet Solutions 14

AIMB-767

LGA775 Intel® Core™2 Quad ATX with Dual VGA/DVI, 4 COM, Dual LAN



Features

- Intel® G41 chipset supports 800/1066/1333 MHz FSB
- Dual channel DDR3 800/1066 supports up to 8 GB
- Supports dual display, VGA and DVI-D
- Supports dual core and quad core processors with 45nm processing
- Supports SATA RAID 0,1,5,10
- Supports Embedded software APIs and utilities

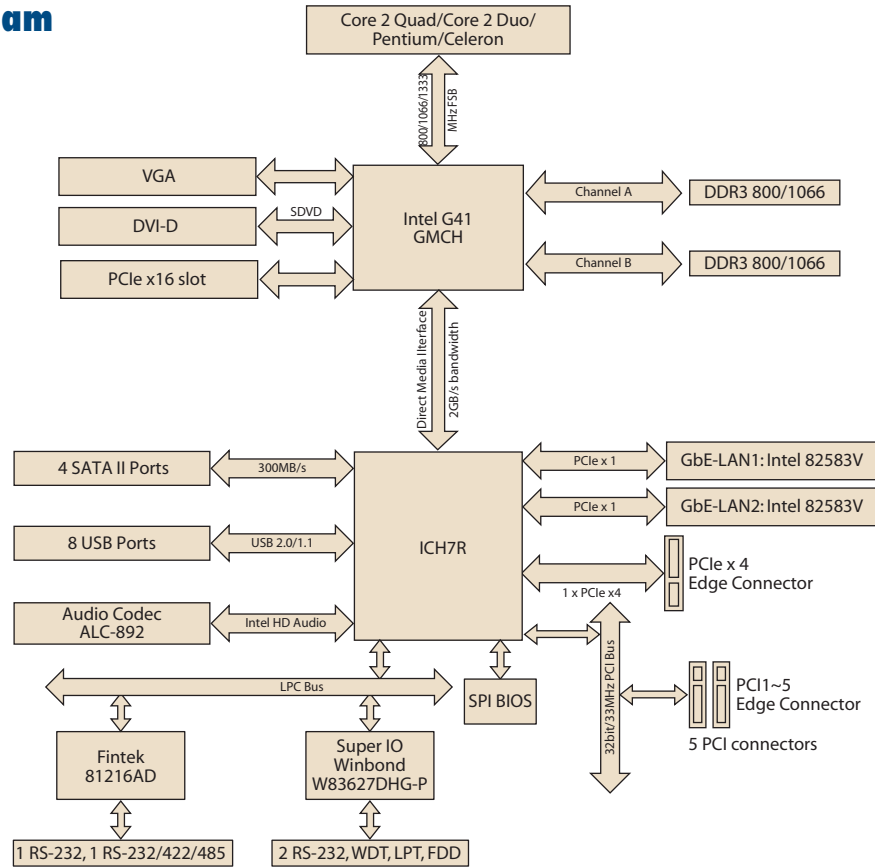
Quiet

Specifications

CE FCC

Processor System	CPU (45nm/65nm)	Intel Core 2 Quad	Intel Core 2 Duo	Intel Pentium	Intel Celeron	
	Max. Speed	Q9650 3.0 GHz	E8500 3.16 GHz	E6500 2.93 GHz	E1500 2.2 GHz	
	L2 Cache	12 MB	6 MB	8 MB	512 KB	
	Chipset	Intel G41 + ICH7R				
	BIOS	AMI 16 Mbit, SPI				
	Front Side Bus	800/1066/1333 MHz				
Expansion Slot	PCIe x16	4.0 GB/s per direction, 1 slot				
	PCIe x4	1 GB/s per direction, 1 slot				
	PCI	32-bit/33 MHz, 5 slots				
Memory	Technology	Dual channel DDR3 800/1066 MHz				
	Max. Capacity	8 GB				
	Socket	2 x 240-pin DIMM				
Graphics	Embedded	Intel GMA X4500 shared 352 MB system memory				
	DVI	Yes (If PCIe x16 slot is used, DVI is automatically disabled)				
	Dual Display	VGA + DVI				
Ethernet	Interface	10/100/1000 Mbps				
	Controller	GbE LAN1: Intel 82583V, GbE LAN2: Intel 82583V				
	Connector	RJ-45 x 2				
SATA II	Max. Data Transfer Rate	300 MB/s				
	Channel	4				
Rear I/O	VGA	1				
	DVI	1				
	Ethernet	2				
	USB	4				
	Audio	2 (Line-out, Mic-in)				
	Serial	2 (2 x RS-232)				
	PS/2	2 (1 x keyboard and 1 x mouse)				
Internal Connectors	USB	4				
	Serial	2 (1 x RS-232/422/485 with auto-flow control)				
	Parallel	1				
	SATA	4				
	FDD	1				
Watchdog Timer	Output	System reset				
	Interval	Programmable 1 ~ 255 sec				
Power Requirement	Power On	Intel Core 2 Quad Q9400 2.66 GHz FSB 1333 MHz, 2 x 2 GB DDR3 1066 SDRAM				
		3.3 V	5 V	12 V	5 Vsb	-12 V
		0.28 A	3.12 A	2.52 A	0.6 A	0.24 A
Environment		Operating		Non-Operating		
	Temperature	0 ~ 60° C (32 ~ 140° F), depends on CPU speed and cooler solution		-40 ~ 85° C (-40 ~ 185° F)		
Physical Characteristics	Dimensions (W x D)	304.8 x 244 mm (12" x 9.6")				

Block Diagram



- Intelligent Video and IoT Sensors 1
- Intelligent Transportation Platforms 2
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- Industrial Computer Peripherals 13
- Industrial Ethernet Solutions 14

Ordering Information

Part Number	Chipset	Display	GbE LAN	SW RAID	PCIe x16	PCIe x4
AIMB-767G2-00A2E	G41/ICH7R	VGA/DVI	2	Yes	1	1

Optional Accessories

Part Number	Description
1750000334	LGA775 CPU cooler for 4U chassis
1960022033T000	LGA775 CPU cooler for 2U chassis
1700008461	USB cable with four ports, 30.5 cm
1700002204	USB cable with dual ports, 27 cm
1700003195	USB cable with dual ports, 17.5 cm
1700008809	Printer port cable kit (25 cm)
1700020294-01	Printer port cable kit (42 cm)
1700340640	FDD cable
1960048353T000	I/O port bracket for 1U chassis

Packing List

Description	Quantity
Serial ATA HDD data cable	x 2
Serial ATA HDD power cable	x 2
COM port cable kit	x 1
I/O port bracket	x 1
Startup manual	x 1
Utility CD	x 1

Riser Card

Part Number	Description
AIMB-RP3PF-21A1E	2U riser card with 1 PCIe x 16 & 2 PCI slot expansion
AIMB-RP30P-03A1E	2U riser card for 3 PCI expansion
AIMB-RP10P-01A1E	1U riser card for 1 PCI expansion

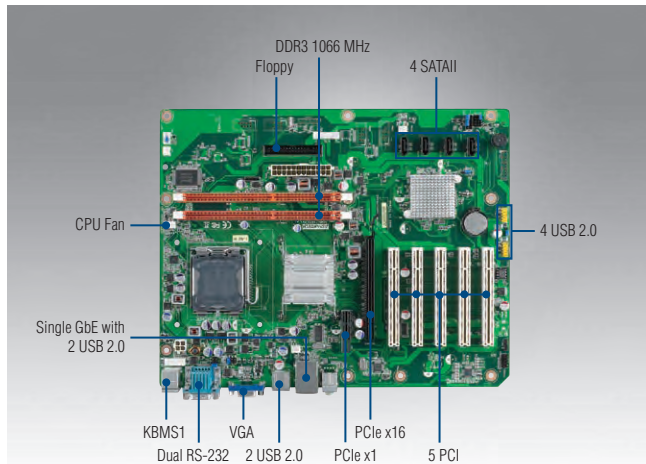
I/O View



AIMB-767G2-00A2E

AIMB-769

LGA775 Intel® Core™2 Quad ATX with
VGA, 2 COM, Single LAN



Features

- Intel® G41 chipset supports 800/1066/1333 MHz FSB
- Dual channel DDR3 800/1066 supports up to 8 GB
- Chipset integrated VGA
- Supports dual core and quad core processors with 45 nm processing
- Supports single 10/100/1000 Mbps Ethernet via dedicated PCIe x1 bus
- Supports Embedded Software APIs and Utilities

Quiet

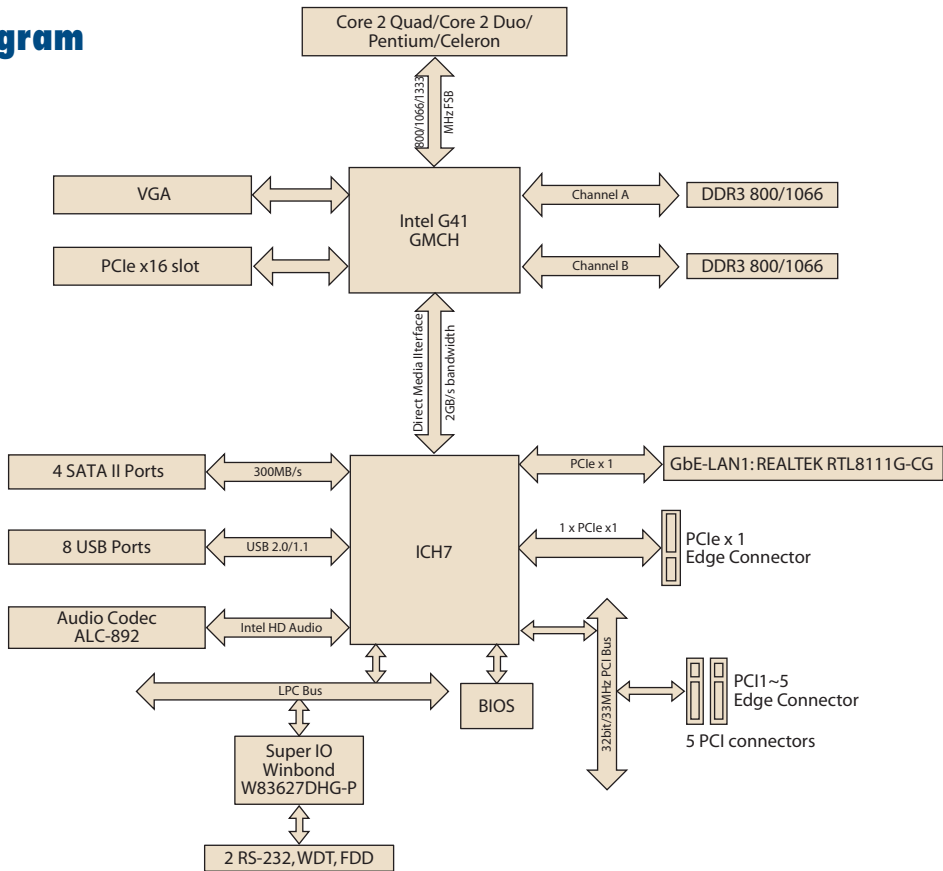
Specifications

CE FCC

Processor System	CPU (45nm/65nm)	Intel Core 2 Quad	Intel Core 2 Duo	Intel Pentium	Intel Celeron	
	Max. Speed	Q9650 3.0GHz	E8500 3.16 GHz	E6500 2.93 GHz	E1500 2.2 GHz	
	L2 Cache	12 MB	6 MB	8 MB	512 KB	
	Chipset	Intel G41 + ICH7				
	BIOS	AMI 16 Mbit, SPI				
	Front Side Bus	800/1066/1333 MHz				
Expansion Slot	PCIe x16	4.0 GB/s per direction, 1 slot				
	PCIe x1	250 MB/s per direction, 1 slot				
	PCI	32-bit/33 MHz, 5 slots				
Memory	Technology	Dual channel DDR3 800/1066 MHz				
	Max. Capacity	8 GB				
	Socket	2 x 240-pin DIMM				
Graphics	Embedded	Intel GMA X4500 shared 352 MB system memory				
	Add-on	PCIe x16 slot				
Ethernet	Interface	10/100/1000 Mbps				
	Controller	GbE LAN: REALTEK RTL8111G-CG				
	Connector	RJ-45 x 1				
SATA II	Max. Data Transfer Rate	300 MB/s				
	Channel	4				
Rear I/O	VGA	1				
	Ethernet	1				
	USB	4				
	Audio	2 (Line-out, Mic-in)				
	Serial	2 (2 x RS-232 to support DC power on 9th pin)				
	PS/2	2 (1 x keyboard and 1 x mouse)				
Internal Connectors	USB	4				
	SATA	4				
	FDD	1				
	GPIO	8-bit				
Watchdog Timer	Output	System reset				
	Interval	Programmable 1 ~ 255 sec				
Power Requirements	Power On	Intel Core 2 Quad Q6600 2.4 GHz				
		3.3 V	5 V	12 V	5 Vsb	-12 V
		2.33 A	1.75 A	5.01 A	0.14 A	0.08 A
Environment		Operating		Non-Operating		
	Temperature	0 ~ 60° C (32 ~ 140° F), depends on CPU speed and cooler solution		-40 ~ 85° C (-40 ~ 185° F)		
Physical Characteristics	Dimensions (W x D)	304.8 x 244 mm (12" x 9.6")				

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Block Diagram



Ordering Information

Part Number	Chipset	Display	GbE LAN	PCIe x16	PCIe x1
AIMB-769VG-00A2E	G41/ICH7	VGA	1	1	1

Packing List

Description	Quantity
Serial ATA HDD data cable	x 2
Serial ATA HDD power cable	x 1
I/O port bracket	x 1
Startup manual	x 1
Utility CD	x 1

I/O View



AIMB-769VG-00A2E

Optional Accessories

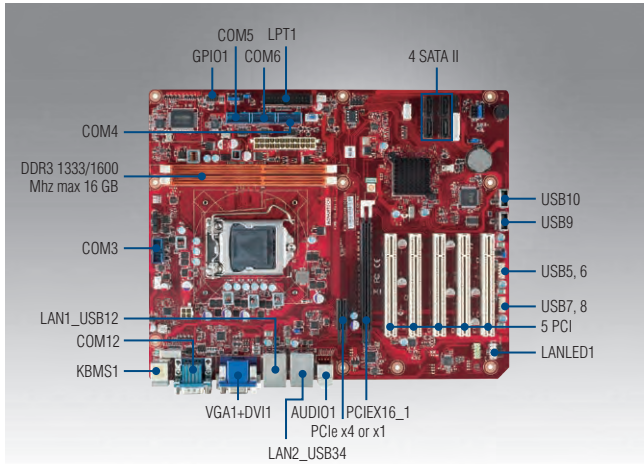
Part Number	Description
1750000334	LGA775 CPU cooler for 4U chassis (115 W)
1960022033T000	LGA775 CPU cooler for 2U chassis
1700008461	USB cable with four ports (30.5 cm)
1700002204	USB cable with dual ports (27 cm)
1700003195	USB cable with dual ports (17.5 cm)
1960048353T000	I/O port bracket for 1U chassis

Riser Card

Part Number	Description
AIMB-R4104-01A1E	1U riser card for 1 PCIe x4 expansion
AIMB-R430P-03A2E	2U riser card for 3 PCI expansion

AIMB-701

LGA1155 3rd Intel® Core™ i7/i5/i3/
Pentium® ATX with DVI/VGA, Dual GbE LAN



Features

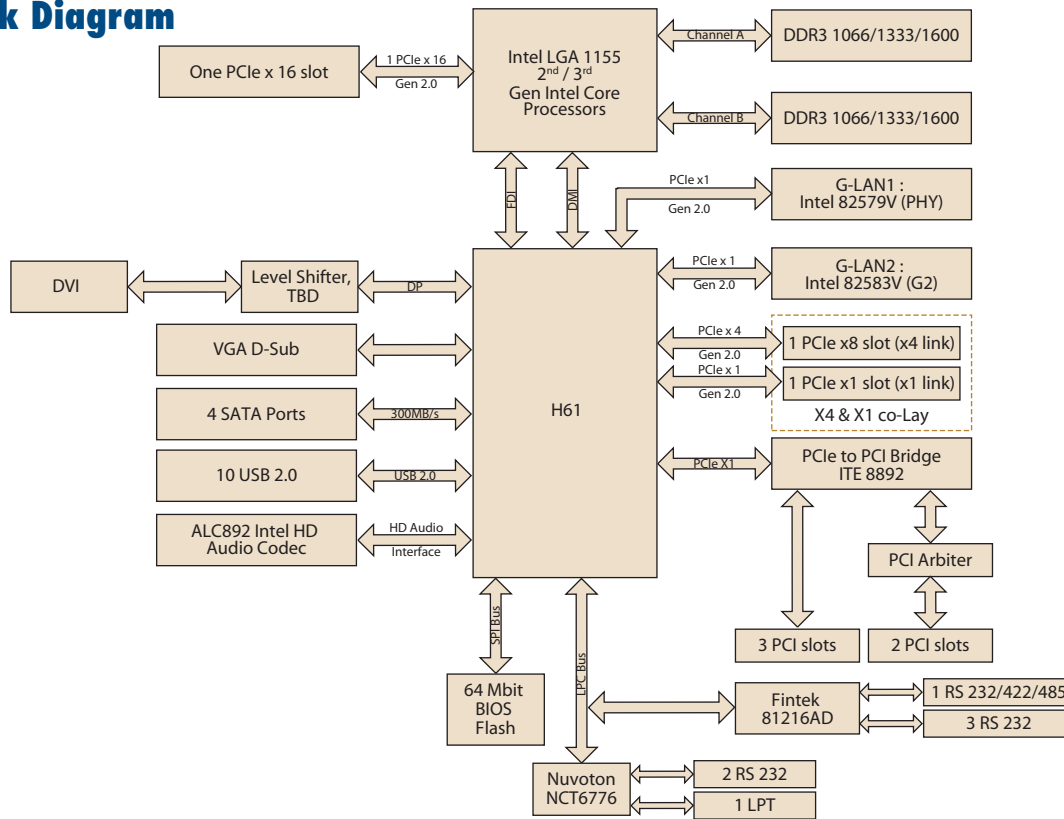
- Supports Intel® Core™ i7/i5/i3/Pentium® processor with H61 chipset
- Two DIMM sockets support up to 16 GB DDR3 1066/1333/1600
- Supports dual display VGA/DVI-D and dual GbE LAN
- Supports RS-232/422/485 with auto flow control
- Supports one PCIe x16 and 5 PCI expansion slots

Quiet Specifications



Processor System	CPU	Core i7 3xxx	Core i5 3xxx	Core i3 3xxx	Pentium G8xx
	Speed	3.4 GHz	3.4/3.3 GHz	3.4 GHz	2.9 GHz
	L3 Cache	8 MB	6 MB	3 MB	3 MB
	Socket	LGA1155			
	Chipset	H61			
	BIOS	AMI 64 Mbit SPI			
Expansion Slot	PCI	32-bit/33 MHz, 5 slots			
	PCIe x 1 (Gen2)	500 MB/s, 1 slot for G2 SKU			
	PCIe x 4 (Gen2)	2.0 GB/s, 1 slot for VG SKU			
	PCIe x16 (Gen2)	8 GB/s, 1 slot			
Memory	Technology	Dual Channel DDR3 1066/1333/1600 (1600 is only supported by Core i7/i5/i3 3xxx series processors)			
	Max. Capacity	16 GB			
	Socket	2 x 240-pin DIMM			
Graphics	Controller	Intel HD Graphics			
	VRAM	1 GB maximum shared memory with 2 GB and above system memory installed			
Ethernet	Interface	10/100/1000 Mbps			
	Controller	GbE LAN1: Intel 82579V, GbE LAN2: Intel 82583V			
	Connector	RJ-45 x 2			
SATA	Max Data Transfer Rate	300 MB/s			
	Channel	4			
Rear I/O	VGA	1			
	DVI	1 for G2 version			
	Ethernet	2 for G2 version; 1 for VG version			
	USB	4			
	Audio	2 (Mic-in, Line-out)			
	Serial	2 (RS-232)			
	PS/2	2 (1 x keyboard and 1 x mouse)			
Internal Connectors	USB	6			
	Serial	4 for G2 version (3 x RS-232, 1 x RS-232/422/485 with auto-flow control)			
	IDE	-			
	SATA	4			
	Parallel	1			
	IrDA	1			
Watchdog Timer	GPIO	8-bit			
	Output	System reset			
Power Requirement	Interval	Programmable 1 ~ 255 sec			
	Power On	Intel i7 2600 3.4 GHz processor, DDR3 4 GB x 2			
		3.3 V	5 V	12 V	5 Vsb
Environment		1.01 A	1.08 A	5.48 A	1.76 A
	Operating	0 ~ 60° C (32 ~ 140° F)		Non-Operating	
	Temperature	(Depends on CPU speed and cooler solution)		-40 ~ 85° C (-40 ~ 185° F)	
Physical Characteristics	Dimensions	304.8 x 244 mm (12" x 9.6")			

Block Diagram



Ordering Information

Part Number	Chipset	Memory	Display	USB 2.0	COM	GbE LAN	PCIe x1	PCIe x4	SW RAID
AIMB-701G2-00A1E	H61	Non-ECC	VGA + DVI	10	6	2	Yes	NA	NA
AIMB-701VG-00A1E	H61	Non-ECC	VGA	10	2	1	NA	Yes	NA

Packing List

Description	Quantity
SATA HDD cable	x 2
SATA power cable	x 1
I/O port bracket	x 1
Startup manual	x 1
Driver CD	x 1

I/O View



AIMB-701G2-00A1E



AIMB-701VG-00A1E

Optional Accessories

Part Number	Description
1700002204	Dual port USB 2.0 cable (27 cm) with bracket
1960047669N001	LGA1155/1156 CPU cooler for 4U and wallmount chassis
1960047831N001	LGA1155/1156 CPU cooler for 2U and wallmount chassis
1960049408N001	LGA1155/1156 CPU cooler for 1U and wallmount chassis
1700020294-01	Printer port cable kit (42 cm)
1701092300	COM port cable kit (28.5 cm)
1700018633-05A4	COM port cable kit (60 cm)
1960055954T000	I/O port bracket for 1U chassis

Note 1: Purchasing AIMB-701's proprietary CPU cooler from Advantech is a must. Other brands' CPU coolers are NOT compatible with AIMB-701.

Note 2: 1960049408N001 is design to be used with Advantech 1U chassis and supports up to 73W processor, user needs to conduct thermal test before using this cooler with other brand chassis.

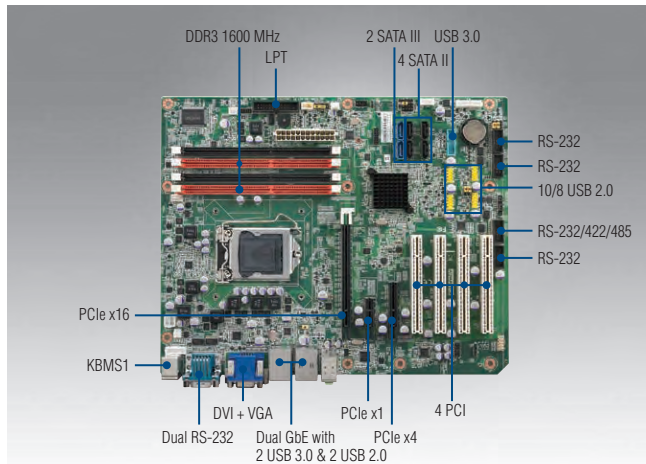
Riser Card

Part Number	Description
AIMB-R4104-01A1E	1U riser card with 1 PCIe x4 expansion
AIMB-R430P-03A2E	2U riser card with 3 PCI expansion

- Intelligent Video and IoT Sensors 1
- Intelligent Transportation Platforms 2
- Intelligent Inspection Systems 3
- Modular IPCs 4
- Server-grade IPCs 5
- Industrial Storages 6
- Video Wall Controllers 7
- GPU Servers 8
- Industrial Motherboards 9
- Slot SBC & Passive Backplanes 10
- Compact PCI Platforms 11
- Industrial Chassis 12
- Industrial Computer Peripherals 13
- Industrial Ethernet Solutions 14

AIMB-782

LGA1155 3rd generation Intel® Core™ i7/i5/i3/Pentium ATX with DVI/VGA, DDR3, SATA III



Features

- 3rd generation Intel® Core™ processor-based platform
- Supports Intel® Core™ i7/i5/i3/Pentium processor with Q77 chipset
- Four DIMM sockets support up to 32 GB DDR3 1066/1333/1600
- Supports dual display VGA/DVI-D and dual GbE LAN
- Supports SATA RAID 0, 1, 5, 10, AMT8.0, USB 3.0
- Supports Advantech LPC modules of TPM

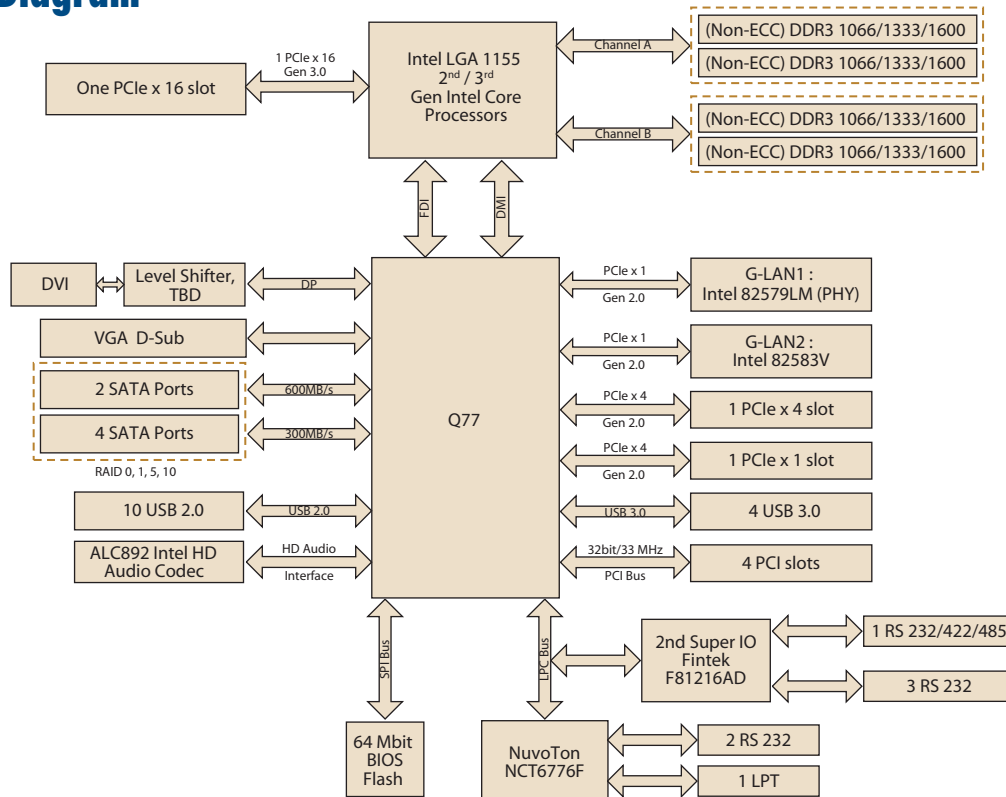
Quiet

Specifications

CE FCC

Processor System	CPU	Core i7	Core i7	Core i5	Core i5	Core i3	Core i3	Pentium	Pentium	Celeron
	Speed	3770	2600	3550S	2400	3220	2120	G2120	G850	G540
	L3 Cache	3.4 GHz	3.4 GHz	3.0 GHz	3.1 GHz	3.3 GHz	3.3 GHz	3.1 GHz	2.9 GHz	2.5 GHz
	Socket	8 MB	8 MB	6 MB	6 MB	3 MB	3 MB	3 MB	3 MB	2 MB
	Chipset	LGA1155								
Expansion Slot	PCI	Q77								
	PCI	AMI 64 Mbit SPI								
	PCIe x 1 (Gen2)	32-bit/33 MHz, 4 slots								
	PCIe x 4 (Gen2)	500 MB/s per direction, 1 slot								
Memory	Technology	2.0 GB/s per direction, 1 slot								
	Max. Capacity	16 GB/s per direction, 1 slot								
	Socket	Dual Channel DDR3 1066/1333/1600 (1600 only supported by Core i7/i5/i3 3xxx series processors)								
Graphics	Controller	32 GB								
	VRAM	4 x 240-pin DIMM								
Ethernet	Interface	Intel HD Graphics 2000/2500/3000/4000 (Depends on processor)								
	Controller	1 GB maximum shared memory with 2 GB and above system memory installed								
	Connector	10/100/1000 Mbps								
SATA	Controller	GbE LAN1: Intel 82579LM, GbE LAN2: Intel 82583V								
	Max Data Transfer Rate	RJ-45 x 2								
	Channel	600 MB/s								
	Channel	2								
Rear I/O	Max Data Transfer Rate	300 MB/s								
	Channel	4								
	VGA	1								
	DVI	1								
	Ethernet	2								
	USB	4 (Two USB 3.0)								
	Audio	2 (Mic-in, Line-out)								
Internal Connectors	Serial	2 (RS-232)								
	SATA	2 (1 x keyboard and 1 x mouse)								
	Parallel	1								
	IrDA	1								
	GPIO	8-bit								
	Watchdog Timer	Output	System reset							
Power Requirement	Interval	Programmable 1 ~ 255 sec								
	Power On	Intel Core i5 3550 3.0 GHz; DDR3 8G x 4								
	Operating	3.3 V	5 V	12 V	5 Vsb					
Environment	Non-Operating	0.77 A	2.23 A	3.56 A	0.46 A					
	Temperature	0 ~ 60° C (32 ~ 140° F), depends on CPU speed and cooler solution							-40 ~ 85° C (-40 ~ 185° F)	
Physical Characteristics	Dimensions	304.8 x 244 mm (12" x 9.6")								

Block Diagram



Ordering Information

Part Number	Chipset	Memory	Display	USB 3.0	USB 2.0	COM	GbE LAN	AMT	SATA III	SW RAID
AIMB-782QG2-00A1E	Q77	Non-ECC DDR3	VGA + DVI	4	10	6	2	Yes	2	Yes

Packing List

Part Number	Description	Quantity
1700003194	SATA HDD cable	x 2
1700022749-11	SATA power cable	x 1
1960050472T000	I/O port bracket	x 1
2002078210	Startup manual	x 1
2062078200	Driver CD	x 1

I/O View



AIMB-782QG2-00A1E

Optional Accessories

Part Number	Description
1700002204	Dual port USB 2.0 cable (27 cm) with bracket
1700020277-01	Dual port USB 3.0 Cable with bracket
1960047669N001	LGA1155/1156 CPU cooler for 4U and wallmount chassis
1960047831N001	LGA1155/1156 CPU cooler for 2U and wallmount chassis
1960049408N001	LGA1155/1156 CPU cooler for 1U and wallmount chassis
1700008809	Printer port cable kit (25 cm)
1700020294-01	Printer port cable kit (42 cm)
1701092300	COM port cable kit
1960055954T000	I/O port bracket for 1U chassis

Note 1: Purchasing AIMB-782's proprietary CPU cooler from Advantech is a must. Other brands' CPU coolers are NOT compatible with AIMB-782.

Note 2: 1960049408N001 is design to be used with Advantech 1U chassis and supports up to 73W processor, user needs to conduct thermal test before using this cooler with other brand chassis.

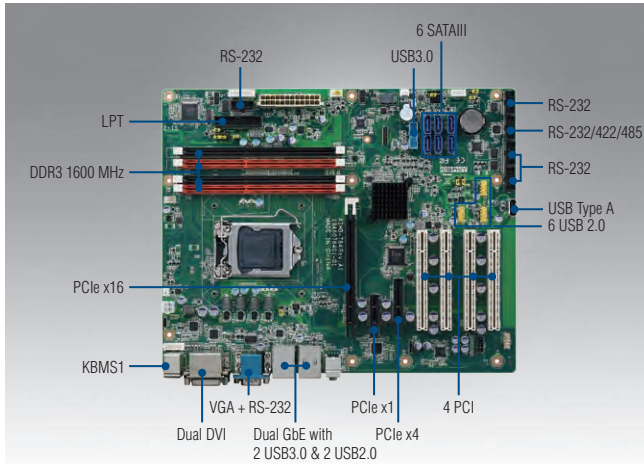
Riser Card

Part Number	Description
AIMB-R430P-03A2E	2U riser card with 3 PCI expansion
AIMB-R43PF-21A1E	2U riser card with 1 PCIe x16 & 2 PCI expansion

- Intelligent Video and IoT Sensors 1
- Intelligent Transportation Platforms 2
- Intelligent Inspection Systems 3
- Modular IPCs 4
- Server-grade IPCs 5
- Industrial Storages 6
- Video Wall Controllers 7
- GPU Servers 8
- Industrial Motherboards 9
- Slot SBC & Passive Backplanes 10
- Compact PCI Platforms 11
- Industrial Chassis 12
- Industrial Computer Peripherals 13
- Industrial Ethernet Solutions 14

AIMB-784

**LGA1150 4th Generation Intel® Core™
i7/i5/i3/Pentium ATX with DVI/VGA,
DDR3, SATA III**



Features

- 4th generation Intel® Core™ processor-based platform
- Supports Intel® Core™ i7/i5/i3 processor with Q87 chipset
- Four DIMM sockets support up to 32 GB DDR3 1333/1600
- Supports triple display VGA/2 DVI-D and dual GbE LAN
- Supports SATA RAID 0, 1, 5, 10, USB 3.0
- Supports Intel vPro, iAMT 9.0 & TPM technologies
- Note: PCA-TPM-00A1E module is required to enable Intel vPro and TPM technologies

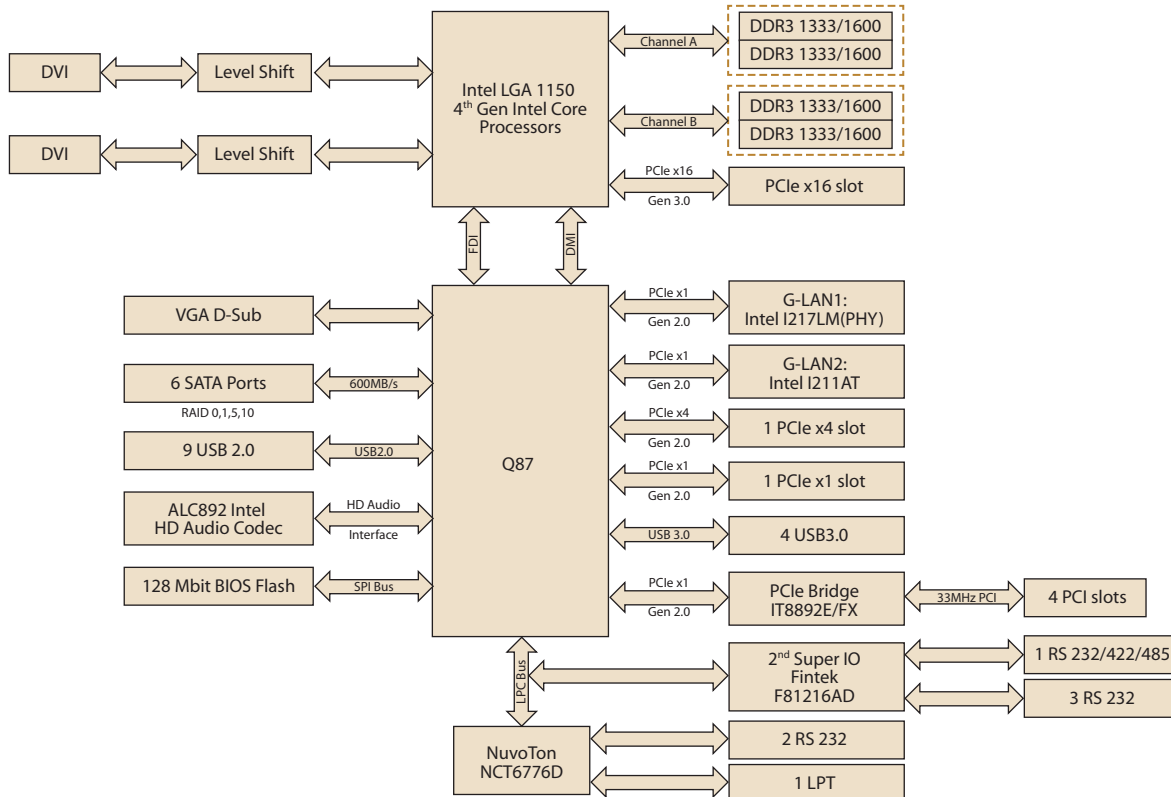
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Specifications

CE FCC

Processor System	CPU	i7-	i7-	i7-	i7-	i5-	i5-	i5-	i5-	i3-	i3-	i3-	i3-	G3420	G3320TE	G1820	G1820TE				
	Speed	4790S	4790T	4770S	4770TE	4590S	4590T	4570S	4570TE	4360	4350T	4330	4330TE	3.2 GHz	2.3 GHz	2.7 GHz	2.2 GHz				
	L3 Cache	8MB	8MB	8MB	8MB	6MB	6MB	6MB	6MB	4MB	4MB	4MB	4MB	3MB	3MB	2MB	2MB				
	Socket	LGA1150																			
	Chipset	Q87																			
	BIOS	AMI 128 Mbit SPI																			
Expansion Slot	PCI	32-bit/33 MHz, 4 slots																			
	PCIe x 1 (Gen2)	500 MB/s per direction, 1 slot																			
	PCIe x 4 (Gen2)	2.0 GB/s per direction, 1 slot																			
	PCIe x16 (Gen3)	16 GB/s per direction, 1 slot																			
Memory	Technology	Dual Channel DDR3 1333/1600																			
	Max. Capacity	32 GB																			
	Socket	4 x 240-pin DIMM																			
Graphics	Controller	Intel HD Graphics (Depends on processor)																			
	VRAM	1 GB maximum shared memory with 2 GB and above system memory installed																			
Ethernet	Interface	10/100/1000 Mbps																			
	Controller	GbE LAN1: Intel I217LM, GbE LAN2: Intel I211AT																			
	Connector	RJ-45 x 2																			
SATA	Max Data Transfer Rate	600 MB/s																			
	Channel	6																			
Rear I/O	VGA	1																			
	DVI	2																			
	Ethernet	2 (GbE)																			
	USB	4 (Two USB 3.0)																			
	Audio	2 (Mic-in, Line-out)																			
	Serial	1 (RS-232)																			
	PS/2	2 (1 x keyboard and 1 x mouse)																			
Internal Connectors	USB	9 (Two USB 3.0)																			
	Serial	5 (4 x RS-232, 1x RS-232/422/485 with auto-flow control)																			
	SATA	6																			
	Parallel	1																			
	Display Port	-																			
	IrDA	-																			
	GPIO	-																			
Watchdog Timer	Output	System reset																			
	Interval	Programmable 1 ~ 255 sec																			
Power Requirement	Power On	Intel Core i7-4790S processor; DDR3 8GB x4																			
		3.3V				5V				12V				5VSB				-12V			
		1.060				1.554				4.922				0.048				0.044			
Environment	Operating	0 ~ 60° C (32 ~ 140° F), depends on CPU speed and cooler solution										Non-Operating									
	Temperature	-40 ~ 85° C (-40 ~ 185° F)																			
Physical Characteristics	Dimensions	304.8 x 244 mm (12" x 9.6")																			

Block Diagram



Ordering Information

Part Number	Chipset	Memory	Display	USB 3.0	USB 2.0	COM	GbE LAN	AMT	SATA III	SW RAID
AIMB-784G2-00A1E	Q87	Non-ECC DDR3	VGA + dual DVI	4	9	6	2	Yes	6	Yes

Packing List

Part Number	Description	Quantity
1700003194	SATA HDD cable	x 2
1700022749-11	SATA power cable	x 1
19Z0000454T000	I/O port bracket	x 1
2006078410	Startup manual	x 1
2066078401	Driver CD	x 1

I/O View



AIMB-784G2-00A1E

Optional Accessories

Part Number	Description
1700002204	Dual port USB 2.0 cable (27 cm) with bracket
1700020277-01	Dual port USB 3.0 Cable with bracket
1960047669N001	CPU cooler for 4U and wallmount chassis
1960047831N001	CPU cooler for 2U and wallmount chassis
1960049408N001	CPU passive heatsink for 1U chassis
1960069682N001	I/O port bracket for 1U chassis
1700020294-01	Printer port cable kit (42 cm)
1701092300	COM port cable kit
PCA-TPM-00A1E	TPM module to enable TPM and vPro technologies

Note: Purchasing AIMB-784's proprietary CPU cooler from Advantech is a must. Other brands' CPU coolers are NOT compatible with AIMB-784.

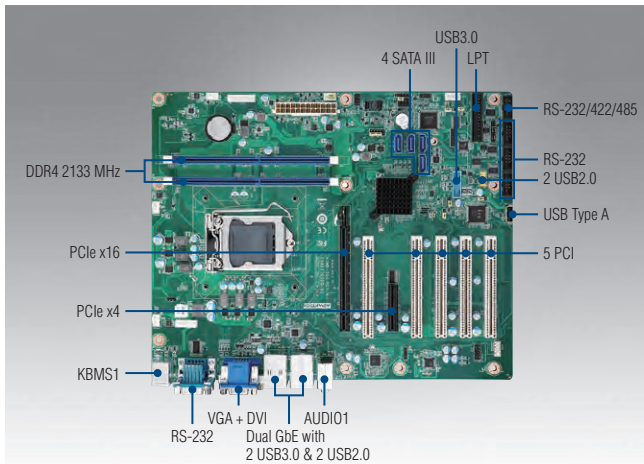
Riser Card

Part Number	Description
AIMB-RF10F-01A1E	1U riser card with 1 PCIe x 16 expansion
AIMB-R43PF-21A1E	2U riser card with 1 PCIe x16 & 2 PCI expansion

- Intelligent Video and IoT Sensors 1
- Intelligent Transportation Platforms 2
- Intelligent Inspection Systems 3
- Modular IPCs 4
- Server-grade IPCs 5
- Industrial Storages 6
- Video Wall Controllers 7
- GPU Servers 8
- Industrial Motherboards 9
- Slot SBC & Passive Backplanes 10
- CompactPCI Platforms 11
- Industrial Chassis 12
- Industrial Computer Peripherals 13
- Industrial Ethernet Solutions 14

AIMB-705

**LGA1151 6th Generation Intel® Core™
i7/i5/i3/Pentium ATX with DVI/VGA,
DDR4, SATA III, USB 3.0 & 6 COMs**



Features

- Intel 6th generation Core i7/i5/i3/pentium processor
- Dual channel (Non-ECC) DDR4 1866/2133 up to 32GB
- Support VGA and DVI display
- Support SATA3.0, USB3.0, dual GbEs
- Support 5 RS-232 and 1 RS-232/422/485 serial ports
- 1 PCIe x16 (Gen3) and 1 PCIe x4 (Gen2), and 5 PCI expansion slots

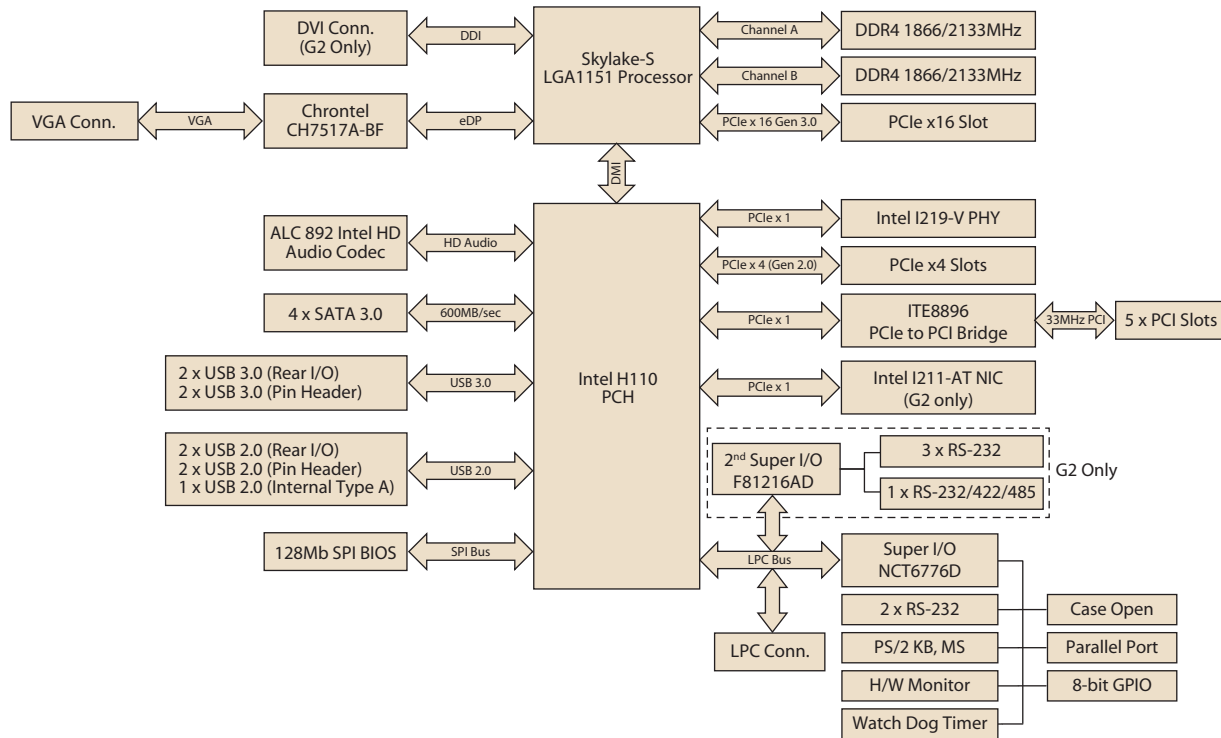
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Specifications

CE FCC

Processor System	CPU	i7-6700	i7-6700TE	i5-6500	i5-6500TE	i3-6100	i3-6100TE	G4400	G4400TE	G3900	G3900TE	
	Speed	3.4 GHz	2.4 GHz	3.2 GHz	2.3 GHz	3.7 GHz	2.7 GHz	3.3 GHz	2.9 GHz	2.8 GHz	2.6 GHz	
	Cache	8 MB	8 MB	6 MB	6 MB	4 MB	4 MB	3 MB	3 MB	2 MB	2 MB	
	Socket	LGA 1151										
	Chipset	Intel H110										
Expansion Slot	BIOS	AMI 128Mbit SPI Flash										
	PCI	32-bit/33 MHz, 5 slots										
	PCIe x4 (Gen2)	2 GB/s per direction, 1 slot										
Memory	PCIe x16 (Gen3)	16 GB/s per direction, 1 slot										
	Technology	Dual Channel(Non-ECC) DDR4 1866/2133 MHz										
	Max Capacity	32 GB (16 GB per DIMM)										
Graphics	Sockets	DDR4 288-pin DIMM x2										
	Controller	Chipset integrated Intel HD Graphics										
Ethernet	VRAM	Shared system memory is subject to OS										
	Interface	10/100/1000 Mbps										
	Controller	GbE LAN1: Intel I219-V, GbE LAN2: Intel I211-AT										
SATA	Connector	RJ-45 x2										
	Max Data Transfer Rate	600 MB/s										
Rear I/O	Channel	4										
	VGA	1 (Resolution up to 1920 x 1200 @ 60MHz)										
	DVI	1 for G2 version (Resolution up to 1920 x 1200 @ 60MHz)										
	Ethernet	2 for G2 version; 1 for VG version										
	USB	4 (USB3.0 x2, USB2.0 x2)										
	Audio	Line-out, Mic-in										
	Serial	2										
Internal Connectors	PS/2	2 (1 x keyboard and 1 x mouse)										
	USB	1 (Type A); 2 (USB2.0, Pin-header); 2 (USB3.0, Box-header)										
	Serial	1 (RS-232/422/485, Box-header); 3 (RS-232, Box-header)										
	Parallel	1										
Watchdog Timer	GPIO	8 bits										
	Output	System reset										
Power Requirement	Interval	Programmable 1 - 255 sec										
	Test Environment	SKL 2.2G 65W processor; DDR4 2133 8GB x2										
	Voltage	3.3V	5V	12V	5Vsb							
Environment	Current	0.99A	4.76A	4.19A	0.06A							
	Operating	0 ~ 60° C (32 ~ 140° F)					Non-Operating					
Physical Characteristics	Humidity	40° C @ 85% RH Non-condensing					-40 ~ 85° C (-40 ~ 185° F)					
	Dimensions	304.8 x 244 mm (12" x 9.6")										

Block Diagram



Ordering Information

Part Number	Chipset	Memory	Display	USB 3.0	USB 2.0	COM	GbE LAN	AMT	SATA	SW RAID	Intelligent System Module Support
AIMB-705G2-00A1E	H110	Non-ECC	VGA + DVI	4	5	6	2	No	4	No	No
AIMB-705VG-00A1E	H110	Non-ECC	VGA	4	5	2	1	No	4	No	No

Packing List

Part Number	Description	Quantity
1700003194	SATA HDD cable	x2
1700022749-11	SATA power cable	x1
1960050472T000	I/O port bracket	x1
-	Startup manual	x1
-	Driver CD	x1

I/O View



AIMB-705G2-00A1E



AIMB-705VG-00A1E

Optional Accessories

Part Number	Description
1701090401	Single COM cable(40 cm)
1701092300	Dual COM cable(28.5 cm)
1700020294-01	Printer port cable kit(42 cm)
1700020277-01	2-port USB 3.0 cable w/ BKT(30 cm)
1700002204	2-port USB 2.0 cable w/ BKT(27 cm)
1960052651N021	CPU cooler for 2U, 4U, and wallmount chassis
1960049408N001	CPU cooler for 1U chassis
PCA-COM232-00A1E	4-port RS-232 LPC module
PCA-TPM-00A1E	TPM Module

Note: Purchasing AIMB-705's proprietary CPU cooler from Advantech is a must. Other brands' CPU coolers are NOT compatible with AIMB-705.

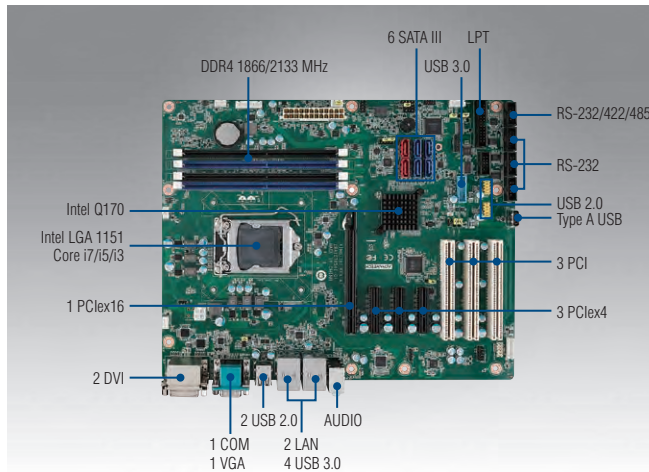
Riser Card

Part Number	Description
AIMB-RP10P-01A1E	1U riser card providing 1 PCI slot
AIMB-RP30P-03A1E	2U riser card providing 3 PCI slots
AIMB-RP3PF-21A1E	2U riser card providing 1 PCIe x 16 and 2 PCI slots

- Intelligent Video and IoT Sensors 1
- Intelligent Transportation Platforms 2
- Intelligent Inspection Systems 3
- Modular IPCs 4
- Server-grade IPCs 5
- Industrial Storages 6
- Video Wall Controllers 7
- GPU Servers 8
- Industrial Motherboards 9
- Slot SBC & Passive Backplanes 10
- Compact PCI Platforms 11
- Industrial Chassis 12
- Industrial Computer Peripherals 13
- Industrial Ethernet Solutions 14

AIMB-785

LGA1151 6th Generation Intel® Core™ i7/i5/i3/Celeron/Pentium ATX with Triple Display, DDR4, SATA III



Features

- Supports Intel® Core™ i7/i5/i3/Celeron/Pentium processor with Q170 chipset
- Four DIMM sockets support up to 64 GB DDR4 1866/2133
- Supports triple display VGA/2 DVI-D and dual GbE LAN
- Supports SATA RAID 0, 1, 5, 10, USB 3.0
- Supports Intel vPro, AMT 11.0 & TPM technologies
- Note: PCA-TPM-00A1E module is required to enable Intel vPro and TPM technologies

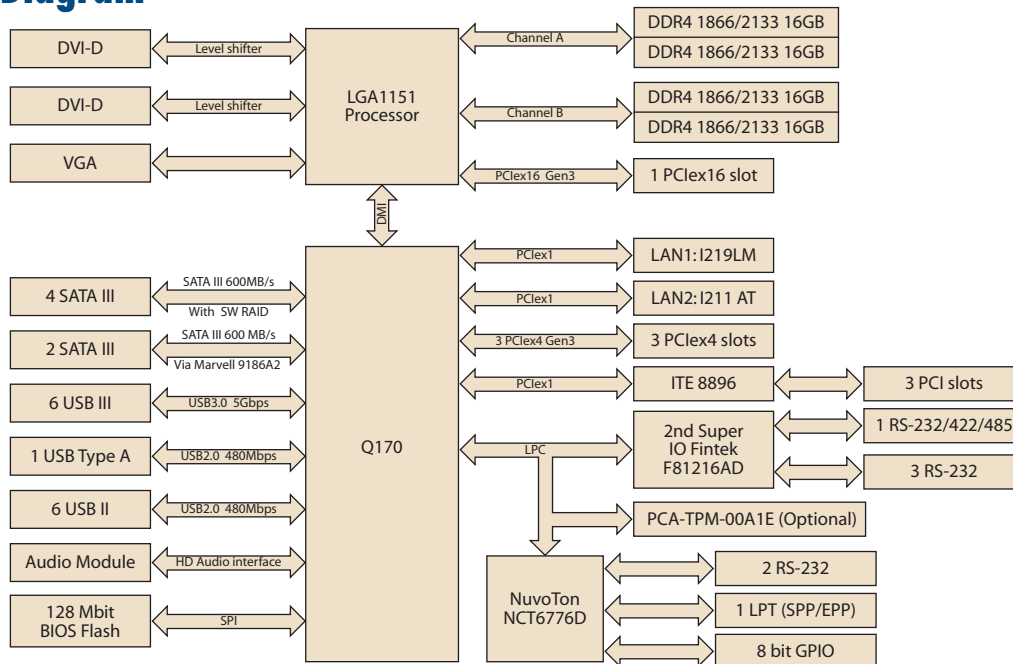
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Specifications

CE FCC

Processor System	CPU	i7-6700	i7-6700TE	i5-6500	i5-6500TE	i3-6100	i3-6100TE	G4400	G4400TE	G3900	G3900TE	
	Speed	3.4GHz	2.4GHz	3.2GHz	2.3GHz	3.7GHz	2.7GHz	3.3GHz	2.9GHz	2.8GHz	2.6GHz	
	L3 Cache	8MB	8MB	6MB	6MB	4MB	4MB	3MB	3MB	2MB	2MB	
	Socket	LGA1151										
	Chipset	Q170										
Expansion Slot	BIOS	AMI 128 Mbit SPI										
	PCI	32-bit/33 MHz, 3 slots										
	PCIe x 4 (Gen3)	4 GB/s per direction, 3 slots										
Memory	PCIe x16 (Gen3)	16 GB/s per direction, 1 slot										
	Technology	Dual Channel DDR4 1866/2133										
	Max. Capacity	64 GB										
Graphics	Socket	4 x 288-pin DIMM										
	Controller	Intel HD Graphics										
	VRAM	1 GB maximum shared memory with 2 GB and above system memory installed										
Ethernet	Interface	10/100/1000 Mbps										
	Controller	GbE LAN1: Intel I219LM, GbE LAN2: Intel I211AT										
	Connector	RJ-45 x 2										
SATA	Max Data Transfer Rate	600 MB/s										
	Channel	6 (4 from Intel® Q170 and 2 from Marvell 9186A2)										
	RAID	0,1,5,10 (4 SATAIII ports from Intel®)										
Rear I/O	VGA	1 (Up to 1920x1200@60Hz)										
	DVI-D	2 (Up to 1920x1200@60Hz)										
	Ethernet	2										
	USB	6 (USB3.0 x 4, USB2.0 x 2)										
	Audio	2 (Mic-in, Line-out)										
	Serial	1 (RS-232)										
	PS/2	N/A										
Internal Connectors	USB	7 (USB 3.0 with wafer box x 2, USB 2.0 with wafer box x 4, USB 2.0 with type A connector x 1)										
	Serial	4 (3 x RS-232, 1 x RS-232/422/485)										
	SATA	6										
	Parallel	1 (SPP/EPP)										
	Display Port	N/A										
	IrDA	N/A										
	GPIO	8-bit										
	PS/2 KB/Mouse	1 (Optional PS/2 KB/Mouse Cable is required)										
Watchdog Timer	Output	System reset										
	Interval	Programmable 1 ~ 255 sec										
Power Requirement	Power On	Intel I7-6700 @ 3.4GHz DDR4 2133 8G x 4										
	Voltage	+12V	+5V	+3.3V	+5Vsb	-12V	-5V					
	Current	1.14A	1.96A	1.02A	0.08A	0.06A	0.03A					
Environment	Operating	Non-Operating										
	Temperature	0 ~ 60° C (32 ~ 140° F), depends on CPU speed and cooler solution										
Physical Characteristics	Dimensions	304.8 x 244 mm (12" x 9.6")										

Block Diagram



Ordering Information

Part Number	Chipset	Memory	Display	USB 3.0	USB 2.0	COM	GbE LAN	AMT	SATA III	SW RAID
AIMB-785G2-00A1E	Q170	Non-ECC DDR4 1866/2133 up to 64GB	VGA + dual DVI	6	7	6	2	Yes	6	Yes

Note: SATA0 and SATA1(red SATA ports) don't support RAID function.

Packing List

Part Number	Description	Quantity
1700003194	SATA HDD cable	x 2
1700022749-11	SATA power cable	x 1
1920000884T000	I/O port bracket	x 1
2006078510	Startup manual	x 1
2066078501	Driver CD	x 1
2190000902	Warranty Card	x 1

I/O View



AIMB-785G2-00A1E

Optional Accessories

Part Number	Description
1700002204	Dual port USB 2.0 cable (27 cm) with bracket
1700020277-01	Dual port USB 3.0 Cable with bracket
1960052651N021	CPU Cooler for 2U, 4U and wallmount chassis
1960049408N001	CPU cooler for 1U Rackmount chassis
1960069666N001	IO bracket for 1U chassis
1700020294-01	Printer port cable kit (42 cm)
1701092300	COM port cable kit
1700019268-11	PS/2 KB/Mouse Cable
1960063434N000	IO Bracket for PS/2 KB/Mouse Cable
PCA-TPM-00A1E	TPM module to enable TPM and vPro technologies

Note: Purchasing AIMB-785's proprietary CPU cooler from Advantech is a must. Other brands' CPU coolers are NOT compatible with AIMB-785.

Riser Card

Part Number	Description
AIMB-RF10F-01A1E	1U riser card with 1 PCIe16 expansion
AIMB-R4104-01A1E	1U riser card with 1 PCIe4 expansion
AIMB-R430P-03A2E	2U riser card with 3 PCI expansion
AIMB-R431F-21A1E	2U riser card with 1 PCIe16 & 1 PCIe1 expansion
AIMB-R43PF-21A1E	2U riser card with 1 PCIe16 & 2 PCI expansion

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- Intelligent Inspection Systems 3
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Riser Cards



Selection Guide

Model Name		AIMB-RP10P-01A1E	AIMB-RF10F-01A1E	AIMB-RP30P-03A1E	AIMB-RP3PF-21A1E	AIMB-RP3P8-12A1E
Interface		PCI	PCIe x 16	PCI	PCIe x16/PCI	PCIe x16/PCI
Expansion Slots		1 PCI	1 PCIe x 16	3 PCI	1 PCIe x16 + 2 PCI	2 PCIe x8 + 1 PCI
Chassis	1U	Yes	Yes	-	-	-
	2U	-	-	-	Yes	Yes
ATX	AIMB-785	-	Yes	-	-	-
	AIMB-784	-	Yes	-	-	-
	AIMB-782	-	-	-	-	-
	AIMB-781	-	Yes	-	-	-
	AIMB-780	Yes	Yes	Yes	Yes	Yes (WG2 Only)*
	AIMB-705	Yes	-	Yes	Yes	-
	AIMB-701	-	Yes	-	-	-
	AIMB-769	-	Yes	-	-	-
	AIMB-767	Yes	Yes	Yes	Yes	-
	AIMB-766	Yes	-	Yes	Yes	-
AIMB-763	-	Yes	-	Yes	-	

*Note: AIMB-RP3P8-12A1E is not compatible with ACP-2010MB/2320MB, IPC-603MB chassis unless changing the riser card bracket to P/N: 1950014302N001.



Selection Guide

Model Name		AIMB-R4104-01A1E	AIMB-R430P-03A2E	AIMB-R4301-03A1E	AIMB-R431F-21A1E	AIMB-R43PF-21A1E
Interface		PCIe x4	PCIe x4	PCIe x4	PCIe x16/PCIe x4	PCIe x16/PCIe x4
Expansion Slots		1 PCIe x4	3 PCI	3 PCIe x1	1 PCIe x16 + 2 PCIe x1	1 PCIe x16 + 2 PCI
Chassis	1U	Yes	-	-	-	-
	2U	-	Yes	Yes	Yes	Yes
ATX	AIMB-785	Yes	Yes	Yes	Yes	Yes
	AIMB-784	-	-	-	□	Yes
	AIMB-782	-	Yes	-	□	Yes
	AIMB-781	Yes	Yes	Yes	Yes	Yes
	AIMB-780	-	-	-	-	-
	AIMB-701	Yes	Yes	△	-	-
	AIMB-769	Yes	Yes	△	-	-
	AIMB-767	-	-	-	-	-
	AIMB-766	-	-	-	-	-
	AIMB-763	-	-	-	-	-

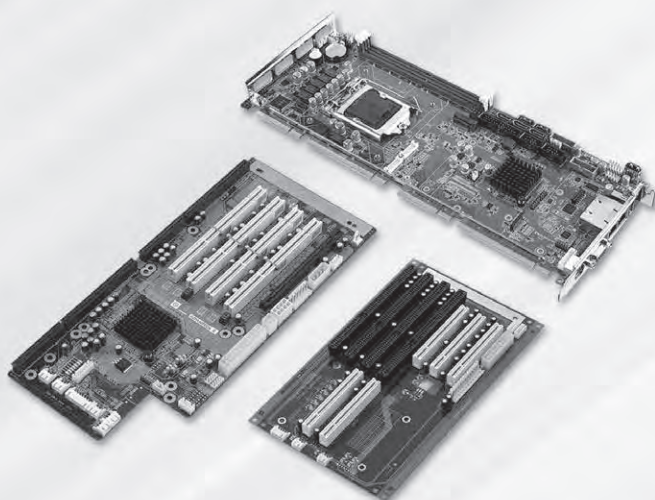
Yes: Fully compatible

□: Only the PCIe x 16 and PCIe x1 (bottom slot) connectors work.

△: Only one PCIe x1 connector works (bottom slot).

Slot SBC & Passive Backplanes

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Extension Modules for Slot SBCs		10-11
PICMG 1.3 System Host Boards		
PCE-5026	LGA1155 Intel® Core™ i7/i5/i3 SHB DDR3/SATA 2.0/Single GbE	10-12
PCE-5127	LGA1155 Intel® Core™ i7/i5/i3 SHB DDR3/SATA 3.0/USB3.0/Dual GbE	10-14
PCE-5128	LGA1150 Intel® Core™ i7/i5/i3/Pentium® SHB DDR3/SATA 3.0/USB3.0/Dual GbE/3 Displays	10-16
PCE-5029	LGA1151 Intel® Core™ i series SHB DDR4/SATA 3.0/USB3.0/Dual GbE/Dual Displays	10-18
PCE-5129	LGA1151 6th Generation Intel® Core™ i series SHB DDR4/SATA 3.0/USB3.0/M.2/Dual GbE/3 Displays	10-20
PCE-7127	LGA1155 Intel® Xeon®/Core™ i3/Pentium® SHB DDR3/SATA 3.0/USB3.0/Dual GbE	10-22
PCE-7128	LGA1150 Intel® Xeon®/Core™ i3/Pentium® SHB DDR3/SATA 3.0/USB3.0/Dual GbE /3 Displays	10-24
PCE-7129	LGA1151 6th Generation Intel® Xeon®/Core™ i3/Pentium® SHB DDR4/SATA 3.0/USB3.0/M.2/Dual GbE /3 Displays	10-26
PCE-9228	Dual LGA 2011-R3 Intel Xeon® E5-2600v3 SHB Server Board with C612, DDR4/SATA3.0/USB3.0/Dual GbE	10-28
PICMG 1.0 System Host Boards		
PCA-6011	LGA775 Intel® Core™ 2 Quad SBC with VGA/DVI/Dual GbE LAN	10-30
PCA-6012	Intel® Atom™ N455/D525 SBC with VGA/Dual GbE LAN	10-32
PCA-6013	Intel® Atom™ N455/D525 SBC with VGA/Dual GbE LAN	10-34
PCA-6028	LGA1150 Intel® Core™ i7/i5/i3/Pentium SBC with VGA/DVI/Dual GbE LAN	10-36
Half-Sized System Host Boards		
PCE-3026	LGA 1155 Intel® Core™ i7/i5/i3 Half-size SHB with PCIe/VGA/DVI/Dual GbE LAN	10-38
PCE-3028	LGA 1150 4th Generation Intel® Core™ i7/i5/i3 Half-size SHB with PCIe/VGA/DVI/Dual GbE LAN	10-40
PCE-3029	LGA 1151 6th Gen Intel® Core™ i7/i5/i3 Half-size SHB with PCIe 3.0/Dual independent display/Dual GbE LAN/SATA III/m-SATA/ USB 3.0	10-42
PCE-4128	LGA 1150 4th Gen Intel® Xeon® and Core™ i7/i5/i3 Half-size SHB with PCIe 3.0/Triple independent display/Dual GbE LAN/SATA 3.0/m-SATA/ USB 3.0	10-44
PCE-4129	LGA 1151 6th Gen Intel® Xeon® and Core™ i7/i5/i3 Half-size SHB with PCIe 3.0/Triple independent display/Dual GbE LAN/SATA III/m-SATA/ USB 3.0	10-46
PCI-7031	Intel® Atom™ N450/D510 PCI Half-size SBC with Onboard DDR2/VGA/LVDS/Dual GbE/SATA/COM	10-48
PCI-7032	Intel® Celeron J1900/N2930 PCI Half-size SBC with DDR3L 1333/Dual GbE/m-SATA/4 RS-232/422/485	10-50
PCA-6742	Advantech EVA-X4300 ISA Half-size SBC with VGA/LCD/LAN/CFC/USB and PC/104	10-52
PCA-6743	DM&P Vortex86DX ISA Half-size SBC with VGA/TTL or LVDS/LAN/USB/PC/104/CFC/COM	10-54
PCA-6763	AMD T16R ISA Half-size SBC with Dual Independent Display/Dual GbE/SATA/USB/m-SATA/COM/LPT	10-56
PCA-6782	Intel® Atom™ N455/D525 ISA Half-size SBC with VGA/LVDS/GbE LAN/SATA/COM/CFC/FDD and PC/104	10-58
Passive Backplanes		
PICMG1.3 Full-Size SHB Backplanes		10-60
PICMG1.0 Full-Size SBC Backplanes		10-65
Half-Size SBC Backplanes		10-69



To view all of Advantech's Slot SBC & Passive Backplanes, please visit www.advantech.com/products.

PICMG 1.3 System Host Boards



Model Name		LGA1155 PICMG 1.3 SHB PCE-5026	LGA1155 PICMG 1.3 SHB PCE-5127	LGA1150 PICMG 1.3 SHB PCE-5128	LGA1151 PICMG 1.3 SHB PCE-5029
Processor System	CPU	Intel® Core™ i7/Core™ i5/ Core™ i3 LGA1155 processors	Intel® Core™ i7/Core™ i5/ Core™ i3 LGA1155 Processors	Intel® Core™ i7/Core™ i5/ Core™ i3 LGA1150 Processors	Intel® Core™ i7/Core™ i5/ Core™ i3 LGA1151 Processors
	Max. Speed	3.4 GHz/3.4 GHz/3.1 GHz/ 3.3 GHz	3.4 GHz/3.4 GHz/3.1 GHz/ 3.3 GHz	3.1/2.9 GHz	3.7 GHz
	Cache	L3: 8/8/6/3/3 MB	L3: 8/8/6/3/3 MB	L3: 8/6 MB	Up to 8 MB (Depend on CPU)
	Chipset	Intel® H61	Intel® Q77	Intel® Q87	Intel® H110
	BIOS	AMI 64 Mbit SPI Flash	AMI 64 Mbit SPI Flash	AMI 128 Mbit SPI Flash	AMI 128 Mbit SPI Flash
Backplane Bus	PCIe	PICMG1.3: One x16 & Four x1	PICMG1.3: One x16 & Four x1	PICMG1.3: One x16 & Four x1	PICMG1.3: One x16 & Four x1
	PCI (32bit/33 MHz)	4	4	4	4
Memory	Technology	Dual-channel (Non-ECC) DDR3 1066/1333	Dual-channel (Non-ECC) DDR3 1333/1600	Dual-channel (Non-ECC) DDR3 1333/1600	Dual-channels (Non-ECC) DDR4 1866/2133
	Max. Capacity	16 GB	16 GB	16 GB	32 GB
	Socket	240-pins DIMM x 2	240-pins DIMM x 2	240-pins DIMM x 2	2 x 288-pins DIMM
Graphics	Controller	Chipset integrated Intel® HD Graphics	Chipset integrated Intel® HD Graphics	Chipset integrated Intel® HD Graphics	Chipset integrated Intel® HD Graphics
	VRAM	Shared system memory is subject to OS	Shared system memory is subject to OS	Shared system memory is subject to OS	Shared system memory is subject to OS
	Video Out	VGA	VGA/DVI-D (Optional DVI-D cable)	VGA/DVI-D/DVI-D (Optional DVI-D cable)	G2: VGA+DP/DVI (Optional DVI-D/DP cable) VG: VGA
Ethernet	Interface	10/100/1000 Mbps	10/100/1000 Mbps	10/100/1000 Mbps	10/100/1000 Mbps
	LAN1/LAN2 Controller	Intel® 82579V	Intel® 82579LM/ 82583V	Intel® I217LM/I211AT	LAN1: I219-V LAN2: I211-AT (G2 only)
	Connector	RJ45 x 1	RJ45 x 2	RJ45 X 2	G2: 2 VG: 1
	Disable in BIOS	Yes	Yes	Yes	Yes
SATA	Max. Data Transfer Rate	300 MB/s SATA2	300 MB/s SATA2.0 & 600 MB/s SATA3.0	600 MB/s SATA3.0	600 MB/s SATA3.0
	Channel	4 x SATA2.0	2 x SATA3.0; 4 x SATA2.0	6 x SATA3.0	4 x SATA3.0
	S/W Raid	-	0, 1, 5, 10	0, 1, 5, 10	-
Rear I/O	VGA	1	1	1	1
	Ethernet	1	2	2	G2: 2 VG: 1
	USB2.0	-	-	-	-
	USB3.0	-	1	1	G2: 1 VG: -
	PS/2	1	1	1	1
	Serial	1	-	-	G2: - VG: 1
Internal I/O	USB 2.0	10 USB 2.0 (Pin-header x 4+Vertical USB A type x 2+ 4 on backplane)	9 USB 2.0 (Pin-header x 4+USB Type A x 1 + 4 on backplane)	9 USB 2.0 (Pin-Header x 4 + USB Type A x 1 + 4 on backplane)	7 (Pin-header x 2+USB Type A x 1 + 4 on backplane)
	USB 3.0	-	2 USB3.0 (Pin-Header x 2)	2 USB3.0 (Pin-Header)	2 USB3.0 (Pin header)
	SATA	4	6	6	4
	M.2 (2280 Type M)	-	-	-	-
	Serial	2 RS-232(Pin-Header)	2 RS-232(Pin-Header)	2 RS-232(Pin-Header)	G2: 2 VG: 1
	Parallel	1(SPP/EPP/ECP)	1(SPP/EPP/ECP)	1(SPP/EPP/ECP)	1
	PS/2	1	1	1	1
	OBS(Onboard Security Hardware Monitor)	Yes	Yes	Yes	Yes
Watchdog Timer	Output	System reset	System reset	System reset	System reset
	Interval	Programmable, 1~255 sec	Programmable, 1~255 sec/min	Programmable, 1~255 sec/min	Programmable, 1~255 sec
Miscellaneous	Advantech Audio Module	PCA-AUDIO-HDA1E	PCA-AUDIO-HDA1E	PCA-AUDIO-HDA1E	PCA-AUDIO-HDB1E
	Advantech SNMP-1000	Yes	Yes	Yes	No
	Advantech SAB-2000	Yes	Yes	Yes	G2: Yes VG: -
	Advantech IPMI Module	-	-	-	-
	AMT	-	Yes	Yes	-
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LGA1151 PICMG 1.3 SHB PCE-5129	LGA1155 PICMG 1.3 SHB PCE-7127	LGA1150 PICMG 1.3 SHB PCE-7128	LGA1151 PICMG 1.3 SHB PCE-7129	LGA2011 PICMG 1.3 SHB PCE-9228
Intel® Core™ i7/Core™ i5/ Core™ i3 LGA1151 Processors	Intel® Xeon®/Core™ i3/Pentium LGA1155 processors	Intel® Xeon® and Core™ i7/ Core™ i5/Core™ i3 LGA1150 Processors	Intel® Xeon and Core™ i7/Core™ i5/Core™ i3 LGA1151 Processors	Intel Xeon E5-2600 v3 series LGA2011 Processors
3.4 GHz	3.9/3.3/3.1 GHz	3.5/2.9 GHz	3.6 GHz	2.5 GHz
Up to 8 MB(Depend on CPU)	L3: 8/3/3 MB	L3: 8/6 MB	Up to 8 MB(Depend on CPU)	Up to 30 MB(Depend on CPU)
Intel Q170	Intel® C216	Intel® C226	Intel C236	Intel C612
AMI 128 Mbit SPI Flash	AMI 64 Mbit SPI Flash	AMI 128 Mbit SPI Flash	AMI 128 Mbit SPI Flash	AMI 128 Mbit SPI Flash
PICMG1.3: One x16 & Four x1	One x16/Two x8 & Four x1	One x16/ Two x8 & Four x1	PICMG1.3: One x16 / Two x8 & Four x1	PICMG1.3: One x16/ Two x8 & Four x1 Expansion (ODM optional): 64 lanes
4	4	4	4	4
Dual-channels (Non-ECC) DDR4 1600/1866/2133	Dual-channel (ECC) DDR3 1333/1600	Dual-channel (ECC) DDR3 1333/1600	Dual-channels (ECC) DDR4 1600/1866/2133	Quard-channels ECC-Register DDR4 1600/1866/2133
32 GB	16 GB	16 GB	32 GB	256 GB
2 x 288-pins DIMM	240-pins DIMM x 2	240-pins DIMM x 2	2 x 288-pins DIMM	288-pins DIMM x 8
Chipset integrated Intel® HD Graphics	Chipset integrated Intel® HD Graphics	Chipset integrated Intel® HD Graphics	Chipset integrated Intel® HD Graphics	AST1400/AST2400
Shared system memory is subject to OS	Shared system memory is subject to OS	Shared system memory is subject to OS	Shared system memory is subject to OS	DDR3 64MB
VGA+DP/DVI-D+DP/DVI-D	VGA/DVI-D (Optional DVI-D cable)	VGA/DVI-D/DVI-D (Optional DVI-D cable)	VGA+DP/DVI-D+DP/DVI-D	VGA
10/100/1000 Mbps	10/100/1000 Mbps	10/100/1000 Mbps	10/100/1000 Mbps	10/100/1000 Mbps
Intel I219LM/I211	Intel® 82579LM/ 82583V	Intel® I217LM/I210AT	Intel I219LM/I210AT	Intel I210AT/I210AT
RJ45 x 2	RJ45 x 2	RJ45 x 2	RJ45 x 2	RJ45 x 2
Yes	Yes	Yes	Yes	Lan1: No; Lan2: Yes
600 MB/s SATA3.0	300 MB/s SATA2.0 & 600 MB/s SATA3.0	600 MB/s SATA3.0	600 MB/s SATA3.0	600 MB/s SATA3.0
5 x SATA3.0	2 x SATA3.0; 4 x SATA2.0	6 x SATA3.0	5 x SATA3.0	8 x SATA3.0
0, 1, 5, 10	0, 1, 5, 10	0, 1, 5, 10	0, 1, 5, 10	0, 1, 5, 10
1	1	1	1	1
2	2	2	2	3(IPMI occupy 1 LAN)
0	-	-	0	2
1	1	1	1	2
1	1	1	1	1
-	-	-	-	-
7 USB2.0 (Pin-header x 2+USB Type A x 1+ 4 on backplane)	9 USB 2.0 (Pin-header x 4+USB Type A x 1+ 4 on backplane)	9 USB 2.0 (Pin-Header x 4 + USB Type A x 1 + 4 on backplane)	7 USB2.0 (Pin-header x 2+USB Type A x 1+ 4 on backplane)	4 USB 2.0 (On backplane)
4 USB3.0 (Pin header)	2 USB3.0 (Pin-Header)	2 USB3.0 (Pin-Header)	4 USB3.0 (Pin header)	2 USB3.0 (Pin-Header)
5	6	6	5	8
1 (Shared w/ SATA0 port)			1 (Shared w/ SATA0 port)	
2 RS-232(Pin-Header)	2 RS-232(Pin-Header)	2 RS-232(Pin-Header)	2 RS-232(Pin-Header)	1 RS-232(Pin-Header)
1	1(SPP/EPP/ECP)	1(SPP/EPP/ECP)	1	-
1	1	1	1	-
Yes	Yes	Yes	Yes	Yes
System reset	System reset	System reset	System reset	System reset
Programmable, 1~255 sec/min	Programmable, 1~255 sec/min	Programmable, 1~255 sec/min	Programmable, 1~255 sec/min	Programmable, 1~255 sec/min
PCA-AUDIO-HDB1E	PCA-AUDIO-HDA1E	PCA-AUDIO-HDA1E	PCA-AUDIO-HDB1E	PCA-AUDIO-HDA1E
Yes	Yes	Yes	Yes	Yes
Yes	Yes	Yes	Yes	Yes
-	Yes	Yes	-	Yes
Yes	Yes	Yes	Yes	-
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PICMG 1.0 Single Board Computers



Model Name		Core™ 2 Quad PICMG 1.0 SBC	Atom™ N455/D525 PICMG 1.0 SBC
		PCA-6011	PCA-6012
Processor System	CPU	Intel® Core™ 2 Quad/Core™ 2 Duo/ Pentium dual-Core™/Celeron LGA775 processors	Onboard Intel® Atom™ N455 (VG version only) Onboard Intel® Atom™ D525 (G2 version only)
	Max. Speed	3.0 GHz/3.16 GHz/2.93 GHz/2.2 GHz	1.66 GHz/1.8 GHz
	Max. L2 Cache	12 MB/6 MB/8 MB/512 KB	512 KB/1MB
	Chipset	Intel® G41 + ICH7 (VG version only) Intel® G41 + ICH7R (G2 version only)	Intel® ICH8M
	BIOS	AMI 16 Mb SPI Flash	AMI 16Mb SPI Flash
Bus	FSB	1333/1066/800 MHz	-
	PCI	32-bit/33 MHz PCI	32-bit/33 MHz PCI
	ISA	HISA (ISA High Drive)	HISA (ISA High Drive)
Graphics	Controller	Chipset integrated Intel® Graphics Media Accelerator X4500	Embedded Gen3.5+ GFX Core™ technology, Direct X 9/Pixel Shader 2.0 compliant
	VRAM	Shared with system memory up to 352 MB	Shared with system memory up to 224 MB
	LCD/DVI	DVI (Optional)	LVDS (G2 version only)
Ethernet	Interface	10/100/1000 Mbps	10/100/1000 Mbps
	Controller	LAN1: Intel® 82583V LAN2: Intel® 82583V	LAN1: Intel® 82567V LAN2: Intel® 82583V
	Connector	RJ-45 x 2	RJ-45 x 2
	Disabled in BIOS	Yes	Yes
Memory	Technology	Dual-channel DDR3 1066/800 MHz	Dual-channel DDR3 800 MHz
	Max. Capacity	8 GB	2 GB (VG version only) 4 GB (G2 version only)
	Socket	240-pin DIMM x 2	204-pin SODIMM x 2
SATA	Max. Data Transfer Rate	300 MB/s	300 MB/s
	Channel	4	3
	RAID	0, 1, 5, 10 (G2 version only)	-
EIDE	Mode	ATA 100/66/33	ATA 100/66/33
	Channel	1 (Max. two devices)	1 (Max. two devices)
I/O Interface	USB	8 (USB 2.0, for VG version) 7 (USB 2.0, for G2 version)	8 (USB 2.0, for VG version) 9 (USB 2.0, for G2 version)
	Serial	2 (RS-232)	2 (RS-232)
	Parallel	1 (SPP/EPP/ECP)	1 (EPP/ECP)
	FDD	1	1
	PS/2	1	1
	LAN	1 (for VG version) 2 (for G2 version)	1 (for VG version) 2 (for G2 version)
	OBS (Hardware Monitor)	Yes	Yes
	Watchdog Timer	Output	System reset
	Interval	Programmable, 1~255 sec	Programmable, 1~255 sec
Miscellaneous	Audio	PCA-AUDIO-HDA1E	PCA-AUDIO-HDA1E
	Advantech SNMP-1000-B	Yes	Yes
	Advantech SAB-2000	Yes	Yes
	Solid State Disk	(Optional)	CompactFlash Type I/II (G2 version only)
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Atom™ N455/D525 PICMG 1.0 SBC	LGA1150 PICMG 1.0 SBC
PCA-6013	PCA-6028
Onboard Intel® Atom™ N455 (VG version only) Onboard Intel® Atom™ D525 (G2 version only)	Intel Core i7/i5/i3/Pentium LGA 1150 Processors
1.66 GHz/1.8 GHz	up to 3.2GHz
512 KB/1MB	up to 8MB
Intel® ICH8M	Intel H81
AMI 16Mb SPI Flash	AMI 128Mbit SPI Flash
-	-
32-bit/33 MHz PCI	32 bit/33 MHz PCI
HISA (ISA High Drive)	HISA (ISA High Driver)
Embedded Gen3.5+ GFX Core™ technology, Direct X 9/Pixel Shader 2.0 compliant	Chipset integrated Intel HD Graphics
Shared with system memory up to 224 MB	Shared system memory is subject to OS
LVDS (G2 version only)	DVI (G2 version only)
10/100/1000 Mbps	10/100/1000 Mbps
LAN1: Intel® 82567V LAN2: Intel® 82583V	LAN 1: Intel I217V LAN 2: Intel I211 (Only in G2 Sku)
RJ-45 x 2	RJ45 x 1 (VG sku); RJ45 x 2 (G2 sku)
Yes	Yes
Dual-channel DDR3 800 MHz	Dual channel (Non-ECC) DDR3 1333/1600 MHz
2 GB (VG version only) 3 GB (G2 version only)	16 GB (8 GB per DIMM)
1 GB on Board + 204-pin SODIMM x 1	DDR3 240-pin DIMM x 2
300 MB/s	600 MB/s
3	4 (1x SATA2.0, 2x SATA3.0, 1x mSATA)
-	-
ATA 100/66/33	-
1 (Max. two devices)	-
8 (USB 2.0, for VG version) 9 (USB 2.0, for G2 version)	Up to 8 x USB2.0 (6x pin header, 1x type A, 1x rear in G2 sku only) 2x USB3.0 (Pin header)
2 (RS-232)	2 RS-232 (Pin-Header)
1 (EPP/ECP)	1
1	-
1	1
1 (for VG version) 2 (for G2 version)	1 (for VG version) 2 (for G2 version)
Yes	Yes
System reset	System reset
Programmable, 1~255 sec	Programmable, 1~255 sec
PCA-AUDIO-HDA1E	PCA-AUDIO-HDA1E
Yes	Yes
Yes	Yes
CompactFlash Type I/II (G2 version only)	mSATA
10-34	10-36

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Half-Size Single Board Computers



Specifications		PCIe Half-Size SBC			
		PCE-3026	PCE-3028	PCE-3029	PCE-4129
Processor System	CPU	Intel® Core™ i7/i5/i3/Pentium/Celeron LGA1155 processor	Intel Core i7/i5/i3/Pentium LGA 1150 Processor	Intel Core i7/i5/i3/Pentium LGA 1151 Processor	Intel Xeon E3-1200v5 series, Core i7/i5/i3 LGA1151 processors
	Speed	up to 3.4 GHz	Up to 3.5 GHz	Up to 3.7 GHz	Up to 3.7 GHz
	L2 Cache	up to 8 MB	Up to 8MB	Up to 8 MB	Up to 8 MB
	Chipset	Intel® H61	Intel H81	Intel H110	Intel C236
	BIOS	AMI 64 Mbit SPI Flash	AMI 128 Mbit SPI Flash	AMI 128 Mbit SPI Flash	AMI 128 Mbit SPI Flash
	FSB	N/A	N/A	N/A	N/A
Bus	PCIe	One PCIe x16, Four PCIe x1	One PCIe x16, Four PCIe x1	One PCIe x16, Four PCIe x1	One PCIe x16 or Two PCIe x8, Four PCIe x1
	PCI	-	-	-	-
	ISA	-	-	-	-
Graphics	Controller	Chipset integrated graphics with Intel® HD	Chipset integrated graphics with Intel HD	Chipset integrated graphics with Intel HD	Chipset integrated graphics with Intel HD
	VRAM	Shared with system memory is subject to OS	Shared with system memory is subject to OS	Shared with system memory is subject to OS	Shared with system memory is subject to OS
	Video output	D-sub VGA port, DVI	D-sub VGA port, DVI	VGA, DVI, DP	VGA, DVI, DP
Ethernet	Interface	10/100/1000 Mbps	10/100/1000 Mbps	10/100/1000 Mbps	10/100/1000 Mbps
	Controller	LAN1: Intel® 82579V LAN2: Intel® 82583V	LAN1: Intel® I217V LAN2: Intel® I211AT	LAN1: Intel® I219V LAN2: Intel® I211AT	LAN1: Intel® I219LM LAN2: Intel® I210AT
	Connector	RJ-45 x 2	RJ-45 x2	RJ-45 x2	RJ-45 x2
	Disabled in BIOS	Yes	Yes	Yes	Yes
Memory	Technology	Dual-Chnnel DDR3 1066/1333 MHz	Dual-channel DDR3 1066/1333/1600 MHz	Dual-channel DDR4 1866/2133 MHz	Dual channel DDR4 ECC 1866/2133 MHz (ECC function enable depends on processor support)
	Max. Capacity	16 GB	16 GB	32 GB	32GB
	Socket	204-pin SODIMM x 2	204-pin SODIMM x2	260-pin SODIMM x2	260-pin SO-DIMM X2
SATA	Max. Data Transfer Rate	300 MB/s	600 MB/s, 300 MB/s	600MB/s	600MB/s
	Channel	3	4	4	4
	RAID Mode	-	-	-	0,1,5,10
EIDE	Channel	-	-	-	-
	USB	8 USB 2.0	2 USB 3.0 + 8 USB 2.0	3 USB 3.0 + 7 USB 2.0	3 USB 3.0 + 7 USB 2.0
I/O Interface	Serial	2 x RS-232 Optional: 4 x RS-422/485 w/Auto-flow or 4 RS-232 by COM module	2 x RS-232 Optional: 4x RS-422/485 w/ Auto-flow or 4 x RS-232 by COM module	2 x RS-232 Optional: 4x RS-422/485 w/ Auto-flow or 4 x RS-232 by COM module	2 x RS-232 Optional: 4x RS-422/485 w/auto-flow or 4 x RS232 by COM module
	Parallel	1	1	1	1
	FDD	-	-	-	-
	PS/2	1	1	1	1
	LAN	2	2	2	2
	OBS (Onboard Security Hardware Monitor)	-	-	Yes	Yes
Watchdog Timer	Output	System reset	System reset	System reset	System reset
	Interval	Programmable 1-255 sec/min	Programmable 1-255 sec	Programmable 1-255 sec	Programmable 1-255 sec
Miscellaneous	Audio	PCA-AUDIO-HDA1E	PCA-AUDIO-HDA1E	PCA-AUDIO-HDB1E	PCA-AUDIO-HDA1E
	Advantech SNMP-1000	-	-	-	-
	IPMI	-	-	-	-
	Solid State Disk	-	-	mSATA x 1	mSATA x 1
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ISA Half-Size SBC					
PCI-7031	PCI-7032	PCA-6782	PCA-6763	PCA-6742	PCA-6743
Intel® Atom™ D510/N450	Intel Celeron J1900/N2930	Intel® Atom™ D525/N455	AMD G-Series APU T16R	Advantech EVA-X4300	DM&P Vortex86DX
1.66 GHz	2.00/1.83 GHz	D525 1.8 GHz/N455 1.66 GHz	615 MHz	300 MHz	800 MHz
512 KB (N450)/1 MB (D510)	2MB/2MB	512 KB (N455)/1 MB (D525)	512 KB	L1 Cache 32 KB	256 KB
Intel® Atom™ D510/N450+ICH8M	Intel Celeron J1900/N2930 SOC	Intel® Atom™ D525/N455+ICH8M	AMD T16R+A55E	Advantech EVA-X4300	DM&P Vortex86DX
AMI 16 Mbit SPI Flash	AMI 64 Mbit SPI Flash	AMI 16 Mbit SPI Flash	AMI 64 Mbit SPI Flash	Award integrated 256 KB ROM in EVA-X4300	Award integrated 256 KB ROM in Vortex86DX
-	-	-	-	-	-
-	One PCIe x 1 (F SKU) Only	-	-	-	-
32-bit/33 MHz PCI	32-bit/33 MHz PCI	-	-	-	-
Embedded Gen3.5+ GFX Core™ technology Shared with system memory up to 224 MB	Chipset integrated graphics with Intel® HD Shared with system memory is subject to OS	Embedded Gen3.5+ GFX Core™ technology Shared with system memory up to 224 MB	Radeon HD 6250	SMI 712 graphic controller	SMI 712 graphic controller
D-Sub VGA port, LVDS	D-sub VGA port, 48-bit LVDS, DVI	D-sub VGA port, 18 bit LVDS	D-sub VGA port, LVDS (48-bit for G2 SKU, 18-bit for VG SKU), DVI	D-Sub VGA port, 18/24 bit TTL or 18/24 bit LVDS (optional)	D-Sub VGA port, up to 24 bit TTL or 18 bit LVDS (optional)
10/100/1000 Mbps LAN1: Intel® 82567V LAN2: Intel® 82583V	10/100/1000 Mbps LAN1: Intel® I211 LAN2: Intel® I211	10/100/1000 Mbps Intel® 82567V	10/100/1000 Mbps LAN1: Intel® I211 LAN2: Intel® I211	10/100 Mbps Realtek RTL8100C (VE)	10/100 Mbps LAN on Vortex86DX
RJ-45 x 2	RJ-45 x 2	RJ-45 x 1	RJ-45 x 2	RJ-45 x 1	RJ-45 x 1
Yes	Yes	Yes	Yes	Yes	Yes
Onboard 1G DDR2 667 MHz (for PCI-7031N) Single Channel DDR2 667 MHz (for PCI-7031D)	Dual-Chnnel DDR3L 1333	Single-Channel DDR2 667 MHz (for PCA-6782N) Single-Channel DDR2 667/800 MHz (for PCA-6782D)	Onboard 1GB DDR3 1066 MHz SODIMM DDR3 1066 MHz up to 4GB	Default onboard DDR 2 166MHz	Default onboard DDR2 (for VE SKU) Default onboard DDR2 (for F SKU)
1 GB (for PCI-7031N) 2 GB (for PCI-7031D)	8GB (for G2/F SKU) 4GB (for VG SKU)	2 GB	5GB	64 MB	256 MB (for VE SKU) 512 MB (for F SKU)
200-pin SODIMM x 1	204-pin SODIMM x 2 (for G2/F SKU) 204-pin SODIMM x 1 (for VG SKU)	200-pin SODIMM x 1	204-pin SODIMM x 1	-	-
300 MB/s	300 MB/s	300 MB/s	300 MB/s	-	150 MB/s
3	2 (SATA 2 can change mSATA)	3	2 (SATA 2 can change mSATA)	-	1 (for F SKU)
-	-	-	-	-	-
ATA 100/66/33	-	ATA 100/66/33	-	UDMA 100	UDMA 100
1 (Max. 2 devices)	-	1 (Max. 2 devices)	-	1 (Max. 2 devices)	1 (Max. 2 devices)
7 USB 2.0	1 USB 3.0 + 6 USB 2.0 (for G2/F SKU) 1 USB 3.0 + 5 USB 2.0 (for VG SKU)	8 USB 2.0	7 USB 2.0 (for G2 SKU) 6 USB 2.0 (for VG SKU)	4 USB 2.0	4 USB 2.0
2 x RS-232 Optional: 4 x RS-422/485 w/Auto-flow by COM module	4 x RS-232/422/485 (for G2/F SKU) 2 x RS-232/422/485 (for VG SKU) Optional: 4 x RS-422/485 w/Auto-flow or 4 RS-232 by COM module	2 x RS-232 Optional: 4 x RS-422/485 w/Auto-flow by COM module	2 x RS-232 Optional: 4 x RS-422/485 w/Auto-flow by COM module	1 x RS-232/422/485 3 x RS-232	F SKU: 2 x RS-232/422/485 & 2 x RS-232 VE SKU: 2 x RS-232
1	1	1	1	1	1
1	-	1	1	-	1
1	1	1	1	1	1
2	2 (for G2/F SKU) 1 (for VG SKU)	1	2 (for G2/F SKU) 1 (for VG SKU)	1 (VE)	1
-	Yes (G2 SKU only)	-	-	-	-
System reset Programmable, 1~255 sec/min	System reset Programmable, 1~255 sec/min	System reset Programmable, 1~255 sec/min	System reset Programmable, 1~255 sec/min	System reset/IRQ11 Programmable, 1~255 sec/min	System reset/IRQ11 Programmable, 1~255 sec/min
PCA-AUDIO-HDA1E	PCA-AUDIO-HDB1E	PCA-AUDIO-HDA1E	PCA-AUDIO-HDA1E	-	-
-	-	-	-	-	-
-	-	-	-	-	-
CompactFlash Type I/II 10-44	mSATA x 1 10-46	CompactFlash Type I/II 10-54	mSATA x 1 10-52	CompactFlash Type I/II 10-48	CompactFlash Type I/II 10-50

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PICMG1.3 Full-Size SHB Backplanes

Server Grade: Compatible with PCE-7000 Series CPU Boards

Category	Model Name	PCIe				PCI-X			PCI	Category	Model Name	Wallmount/Desktop Chassis			
		x16	x8	x4	x1	64/66	64/100	64/133	32/33			IPC-6025	IPC-6606	IPC-6806(W)	IPC-6608
2U Butterfly BP	PCE-7B06V-04A1E	-	1	-	-	-	-	-	4	2U Butterfly BP	PCE-7B06V-04A1E	-	-	-	-
8 slots BP	PCE-7B08-04A1E	-	2	1	-	-	-	-	4	8 slots BP	PCE-7B08-04A1E	-	-	-	V
14 slots BP	PCE-7B09R-04A1E	-	1	3	-	-	-	-	4	14 slots BP	PCE-7B09R-04A1E	-	-	-	-
	PCE-7B10-04A1E	-	-	5	-	-	-	-	4		PCE-7B10-04A1E	-	-	-	-
	PCE-7B13-64C1E	-	2	-	-	4	2	-	4		PCE-7B13-64C1E	-	-	-	-
	PCE-7B13-07A1E	-	2	3	-	-	-	-	7		PCE-7B13-07A1E	-	-	-	-
PCE-7B13D-04A1E	-	1, 2	-	-	-	-	-	4	PCE-7B13D-04A1E		-	-	-	-	
20 slots BP	PCE-7B17-00A1E	-	5	11	-	-	-	-	-	20 slots BP	PCE-7B17-00A1E	-	-	-	-

Category	Model Name	Rackmount Chassis															
		ACP-1010	ACP-1320	ACP-2000EBP	IPC-602EBP	IPC-510	IPC-610	IPC-611	ACP-4000	ACP-4010	ACP-4320	ACP-4340	ACP-4360	IPC-623	IPC-622		
		2-slot / 1U		6-slot / 2U		15-slot / 4U										20-slot/ 4U	20-slot/ 6U
2U Butterfly BP	PCE-7B06V-04A1E	-	-	V	V	-	-	-	-	-	-	-	-	-	-	-	-
8 slots BP	PCE-7B08-04A1E	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14 slots BP	PCE-7B09R-04A1E	-	-	-	-	V	V	V	V	V	V	V	V	-	-	-	-
	PCE-7B10-04A1E	-	-	-	-	V	V	V	V	V	V	V	V	-	-	-	-
	PCE-7B13-64C1E	-	-	-	-	V	V	V	V	V	V	V	V	-	-	-	-
	PCE-7B13-07A1E	-	-	-	-	V	V	V	V	V	V	V	V	-	-	-	-
20 slots BP	PCE-7B13D-04A1E	-	-	-	-	-	-	-	-	V	-	-	-	-	-	-	-
	PCE-7B17-00A1E	-	-	-	-	-	-	-	-	-	-	-	-	V	-	V	-

Desktop: Compatible with PCE-5000 Series CPU Boards

Category	Model Name	PCIe				PCI-X			PCI	Category	Model Name	Wallmount/Desktop Chassis					
		x16	x8	x4	x1	64/66	64/100	64/133	32/33			IPC-6025	IPC-6606	IPC-6806	IPC-6806W	IPC-6608	IPC-7132
1U Butterfly BP	PCE-5B03V-01A1E	1	-	-	-	-	-	-	1	1U Butterfly BP	PCE-5B03V-01A1E	-	-	-	-	-	-
	PCE-5B03V-00A1E	1	1	-	-	-	-	-	-		PCE-5B03V-00A1E	-	-	-	-	-	-
2U Butterfly BP	PCE-5B05V-30B1E	1	-	-	-	-	2	1	-	2U Butterfly BP	PCE-5B05V-30B1E	-	-	-	-	-	-
	PCE-5B06V-00A1E	1	-	-	4	-	-	-	-		PCE-5B06V-00A1E	-	-	-	-	-	-
	PCE-5B06V-04A1E	1	-	-	-	-	-	-	4		PCE-5B06V-04A1E	-	-	-	-	-	-
5 slot BP	PCE-5B04-20B1E	1	-	-	-	-	-	2	-	5 slot BP	PCE-5B04-20B1E	V	-	-	-	-	-
	PCE-5B05-02A1E	1	-	1	-	-	-	-	2		PCE-5B05-02A1E	V	-	-	-	-	-
	PCE-5B05-03A1E	1	-	-	-	-	-	-	3		PCE-5B05-03A1E	V	-	-	-	-	-
	PCE-5B05-04A1E	-	-	-	-	-	-	-	4		PCE-5B05-04A1E	V	-	-	-	-	-
6 slot BP	PCE-5B06-00A1E	1	-	-	4	-	-	-	-	6 slot BP	PCE-5B06-00A1E	-	V	-	V	-	-
	PCE-5B06-03A1E	1	-	1	-	-	-	-	3		PCE-5B06-03A1E	-	V	-	V	-	-
	PCE-5B06-04A1E	1	-	-	-	-	-	-	4		PCE-5B06-04A1E	-	V	-	V	-	-
8 slot BP	PCE-5B07-04A1E	1	-	1	-	-	-	-	4	8 slot BP	PCE-5B07-04A1E	-	-	-	-	V	-
	PCE-5B08-02A1E	1	-	-	4	-	-	-	2		PCE-5B08-02A1E	-	-	-	-	V	-
10 slot BP	PCE-5B09-04A1E	1	-	3	-	-	-	-	4	10 slot BP	PCE-5B09-04A1E	-	-	-	-	-	V
	PCE-5B09-06A1E	1	-	1	-	-	-	-	6		PCE-5B09-06A1E	-	-	-	-	-	V
14 slot BP	PCE-5B10-04A1E	1	-	-	4	-	-	-	4	14 slot BP	PCE-5B10-04A1E	-	-	-	-	-	-
	PCE-5B12-07A1E	1	-	3	-	-	-	-	7		PCE-5B12-07A1E	-	-	-	-	-	-
	PCE-5B12-64C1E	1	-	-	-	4	2	-	4		PCE-5B12-64C1E	-	-	-	-	-	-
	PCE-5B13-08A1E	1	-	-	3	-	-	-	8		PCE-5B13-08A1E	-	-	-	-	-	-
20 slot BP	PCE-5B12D-04A1E	1	-	-	-	-	-	-	4	20 slot BP	PCE-5B12D-04A1E	-	-	-	-	-	-
	PCE-5B12-00A1E	10	-	1	-	-	-	-	-		PCE-5B12-00A1E	-	-	-	-	-	-
	PCE-5B16Q-02A1E	1	-	-	-	-	-	-	2		PCE-5B16Q-02A1E	-	-	-	-	-	-
	PCE-5B18-88B1E	1	-	-	-	8	-	-	8		PCE-5B18-88B1E	-	-	-	-	-	-
	PCE-5B19-00A1E	17	-	1	-	-	-	-	-		PCE-5B19-00A1E	-	-	-	-	-	-

PCI/ISA Backplanes

Selection Guide

Yes: supported/- : not supported/Δ : optional

Category	Model Name	Slot per segment					Segment	AT	ATX	1U Chassis		2U Chassis		4U Chassis		
		ISA	PCI	PICMG	PICMG/PCI	ISA/PCI				ACP-1010	ACP-1320	ACP-2000	IPC-602	IPC-510	IPC-610	IPC-611
										2-slot	2-slot	6-slot	6-slot	15-slot	15-slot	15-slot
1U Butterfly BP	PCA-6103P2V-0A2E*	-	2	1	-	-	1	-	Yes	Yes	Yes	-	-	-	-	-
2U Butterfly BP	PCA-6105P4V-0B3E*	-	4	1	-	-	1	-	Yes	-	-	Yes	Yes	-	-	-
	PCA-6106P3V-0B2E*	1	3	2	-	-	1	Yes	Yes	-	-	Yes	Yes	-	-	-
5 Slot BP	PCA-6105P3-5A1E	1	2	1	-	1	1	-	Yes	-	-	-	-	-	-	-
6/8 Slot BP	PCA-6106P4-0A2E	-	4	2	-	-	1	Yes	Yes	-	-	-	-	-	-	-
	PCA-6106P3-0D2E	2	2	1	1	-	1	Yes	Yes	-	-	-	-	-	-	-
	PCA-6108P6-0C1E	1	5	1	1	-	1	Yes	Yes	-	-	-	-	-	-	-
	PCA-6108P4-0C2E	3	3	1	1	-	1	Yes	Yes	-	-	-	-	-	-	-
	PCA-6108-0B2E	8	-	-	-	-	1	Yes	Yes	-	-	-	-	Yes	Yes	Yes
14/15 Slot BP	PCA-6114P12-0B3E	1	11	1	1	-	1	Yes	Yes	-	-	-	-	Yes	Yes	Yes
	PCA-6114P10-0B2E	2	10	2	-	-	1	Yes	Yes	-	-	-	-	Yes	Yes	Yes
	PCA-6114P7-0E1E	4	6	3	-	1	1	Yes	Yes	-	-	-	-	Yes	Yes	Yes
	PCA-6114P4-0C2E	8	4	2	-	-	1	Yes	Yes	-	-	-	-	Yes	Yes	Yes
	PCA-6113P4R-0C2E	7	4	2	-	-	1	Yes	Yes	-	-	-	-	Yes	Yes	Yes
	PCA-6114-0B2E	14	-	-	-	-	1	Yes	Yes	-	-	-	-	-	-	-
20 Slot BP	PCA-6113DP4-0A2E	1	3,4	1,2	1,0	-	2	Yes	Yes	-	-	-	-	-	-	-
	PCA-6120P18-0A2E	1	17	1	1	-	1	Yes	Δ	-	-	-	-	-	-	-
	PCA-6120P4-0B2E	14	4	2	-	-	1	Yes	Δ	-	-	-	-	-	-	-
	PCA-6120P12-0A2E	7	11	1	1	-	1	Yes	Δ	-	-	-	-	-	-	-
	PCA-6119P7-0C1E	10	7	2	-	-	1	Yes	Δ	-	-	-	-	-	-	-
PCA-6120Q-0B2E	5	-	-	-	-	4	Yes	Δ	-	-	-	-	-	-	-	

Category	Model Name	4U Chassis						6U Chassis	Wallmount/Desktop Chassis				Cage	
		ACP-4000	ACP-4010	ACP-4320	ACP-4340	ACP-4360	IPC-623	IPC-622	IPC-6608	IPC-6606	IPC-6806/IPC-6806W	IPC-6025	IPC-6006	
		15-slot	15-slot	15-slot	15-slot	15-slot	20-slot	20-slot	8-slot	6-slot	6-slot	5-slot	6-slot	
1U Butterfly BP	PCA-6103P2V-0A2E*	-	-	-	-	-	-	-	-	-	-	-	-	-
2U Butterfly BP	PCA-6105P4V-0B3E*	-	-	-	-	-	-	-	-	-	-	-	-	-
	PCA-6106P3V-0B2E*	-	-	-	-	-	-	-	-	-	-	-	-	-
5 Slot BP	PCA-6105P3-5A1E	-	-	-	-	-	-	-	-	-	-	-	Yes	-
6/8 Slot BP	PCA-6106P4-0A2E	-	-	-	-	-	-	-	-	Yes	Yes	-	-	Yes
	PCA-6106P3-0D2E	-	-	-	-	-	-	-	-	Yes	Yes	Yes	-	Yes
	PCA-6108P6-0C1E	-	-	-	-	-	-	-	Yes	-	-	-	-	-
	PCA-6108P4-0C2E	-	-	-	-	-	-	-	Yes	-	-	-	-	-
14/15 Slot BP	PCA-6114P12-0B3E	Yes	Yes	Yes	Yes	Yes	-	-	-	-	-	-	-	-
	PCA-6114P10-0B2E	Yes	Yes	Yes	Yes	Yes	-	-	-	-	-	-	-	-
	PCA-6114P7-0E1E	Yes	Yes	Yes	Yes	Yes	-	-	-	-	-	-	-	-
	PCA-6114P4-0C2E	Yes	Yes	Yes	Yes	Yes	-	-	-	-	-	-	-	-
	PCA-6113P4R-0C2E	Yes	Yes	Yes	Yes	Yes	-	-	-	-	-	-	-	-
	PCA-6114-0B2E	Yes	Yes	Yes	Yes	Yes	-	-	-	-	-	-	-	-
20 Slot BP	PCA-6113DP4-0A2E	-	Yes	-	-	-	-	-	-	-	-	-	-	-
	PCA-6120P18-0A2E	-	-	-	-	-	Yes	Yes	-	-	-	-	-	-
	PCA-6120P4-0B2E	-	-	-	-	-	Yes	Yes	-	-	-	-	-	-
	PCA-6119P7-0C1E	-	-	-	-	-	Yes	Yes	-	-	-	-	-	-
	PCA-6119P7-0B3E	-	-	-	-	-	Yes	Yes	-	-	-	-	-	-
PCA-6120Q-0B2E	-	-	-	-	-	Yes	Yes	-	-	-	-	-	-	

Remarks:

* : only Compatible with Advantech's 1U/2U chassis

Intelligent Video and IoT Sensors 1

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Backplanes Compatible with Half-Size SBCs

Selection Guide

Yes : supported /- : not supported

Interface	Category	Model Name	Slots per segment							Segment
			ISA	PCI	PCIe x16	PCIe x 8	PCIe x4	PCIe x1	PICMG	
Pure ISA Backplane	-	PCA-6104-0C2E	3	-	-	-	-	-	1	1
	6-slot	PCA-6106-0B2E	5	-	-	-	-	-	1	1
	-	PCA-6108-0B2E *	7	-	-	-	-	-	1	1
	8-slot	PCA-6108E-0C2E	7	-	-	-	-	-	1	1
Pure PCI Backplane	-	PCA-6104P4-0B2E	-	3	-	-	-	-	1	1
	6-slot	PCA-6105P5-0B2E	-	4	-	-	-	-	1	1
	8-slot	PCA-6108P8-0A2E	-	7	-	-	-	-	1	1
PCI/PCIe Backplane	1U	PCI-7103P1V-01A1E	-	1	-	-	1	-	1	1
PICMG1.3 Half-Size Backplanes	6-slot	PCE-3B03-00A1E	-	-	1	-	1	-	1	1
	6-slot	PCE-3B06-00A1E	-	-	1	-	-	4	1	1
	6-slot	PCE-3B06-03A1E	-	3	1	-	-	1	1	1
	6-slot	PCE-3B06-02A1E	-	2	1	-	-	2	1	1
	3-slot	PCE-3B03A-00A1E	-	-	1	-	1	-	1	1
	3-slot	PCE-3B03-01A1E	-	1	1	-	-	-	1	1
	14-slot	PCE-3B12-08A1E	-	8	1	-	-	2	1	1
	14-slot	PCE-4B13-08A1E	-	8	-	2	-	2	1	1
	14-slot	PCE-4B12-03A1E	-	3	-	1	4	3	1	1
14-slot	PCE-4B13-00A1E	-	-	-	1	11	-	-	-	

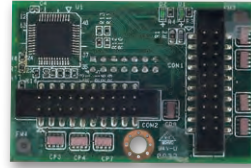
Interface	Model Name	AT	ATX	IPC-120	ACP-4020	ACP-4D00	IPC-6806S*	IPC-6006S	IPC-3026	IPC-3012
				Rackmount	Rackmount	Rackmount	Wallmount	Wallmount	Wallmount	Wallmount
				3-slot	14-slot	6-slot	6-slot	6-slot	6-slot	3-slot
Pure ISA Backplane	PCA-6104-0C2E	Yes	Yes	-	-	-	-	-	-	-
	PCA-6106-0B2E	Yes	Yes	-	-	-	Yes	Yes	Yes	-
	PCA-6108-0B2E	Yes	Yes	-	-	-	-	-	-	-
	PCA-6108E-0C2E	Yes	Yes	-	-	-	-	-	-	-
Pure PCI Backplane	PCA-6104P4-0B2E	Yes	Yes	-	-	-	-	-	-	-
	PCA-6105P5-0B2E	Yes	Yes	-	-	Yes	Yes	Yes	Yes	-
	PCA-6108P8-0A2E	Yes	Yes	-	-	-	-	-	-	-
PCI/PCIe Backplane	PCI-7103P1V-01A1E	-	Yes	Yes	-	-	-	-	-	
Half-Size Backplanes	PCE-3B03-00A1E	-	Yes	-	-	Yes	Yes	-	Yes	-
	PCE-3B06-00A1E	-	Yes	-	-	Yes	Yes	-	Yes	-
	PCE-3B06-03A1E	-	Yes	-	-	Yes	Yes	-	Yes	-
	PCE-3B06-02A1E	-	Yes	-	-	Yes	Yes	-	Yes	-
	PCE-3B03A-00A1E	-	Yes	-	-	-	-	-	-	Yes
	PCE-3B03-01A1E	-	Yes	-	-	-	-	-	-	Yes
	PCE-3B12-08A1E	-	Yes	-	Yes	-	-	-	-	-
	PCE-4B13-08A1E	-	Yes	-	Yes	-	-	-	-	-
	PCE-4B12-03A1E	-	Yes	-	Yes	-	-	-	-	-
PCE-4B13-00A1E	-	Yes	-	Yes	-	-	-	-	-	

Extension Modules for Slot SBCs



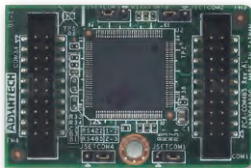
PCA-AUDIO-HDA1E

- 7.1 Channel HD Audio Extension Module
- Line-in, Mic-in, Lin-out, Front-out, Speaker-out, Rear-out, Subcen-out, Side-out
- Dimensions: 47.5 x 80.74 mm



PCA-COM232-00A1E

- 4 RS-232 series ports extension module by LPC connector on CPU card.
- Dimensions: 31.5 x 48 mm



PCA-COM485-00A1E

- 4 RS-422/485 series ports extension module by LPC connector on CPU card.
- With Auto-flow control function
- Dimensions: 31.5 x 48 mm



PCE-SA01-00A1E

- I/O extension stack board
- 1 DP, 2 USB 3.0, MIC-in, LINE-out
- Dimensions: 68 x 125 mm
- Supports Model: PCE-3029, PCE-4128, PCE-4129



PCA-5650-00A1E

- 2 VGA output Mini PCI Express Graphic card
- GPU: Silicon Motion SM750
- VGA output: 1920 x 1080, up to 75Hz vertical rate
- 16 Mb of embedded DDR memory



PCA-TPM-00A1E

- Trusted platform module compliant with TCG 1.2 specification and TCG software stack 1.2 via LPC connector on CPU card
- Hardware based data protection solution for storage device encryption and decryption
- Dimensions: 31.5 x 30.5 mm



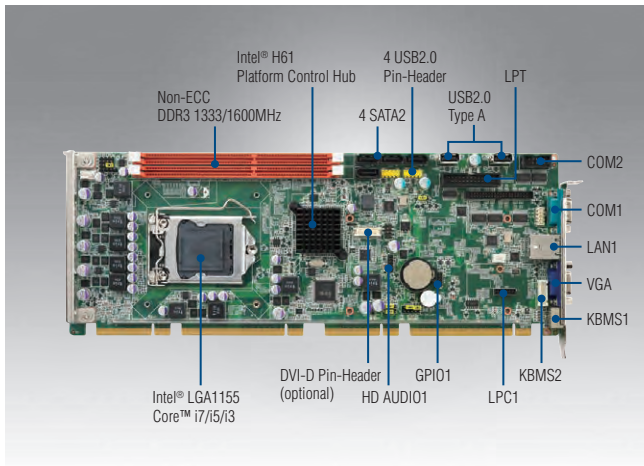
IPMI-1000-00A1E

- IPMI2.0 Server-grade remote control solution
- OS independent hardware-based solution
- Real-time and centralized management
- KVM over IP remote control function
- User friendly UI and utility
- Supports Model: PCE-5126WG2, PCE-7127, PCE-5128

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PCE-5026

**LGA1155 Intel® Core™ i7/i5/i3 SHB
DDR3/SATA 2.0/Single GbE**



Features

- LGA1155 Intel® Core™ i7/i5/i3, Pentium® and Celeron® processors
- Dual Channel (Non-ECC) DDR3 1066/1333/1600* up to 16 GB
- Supports 10 USB2.0 and TPM1.2(Optional)
- Supports embedded software APIs and utilities

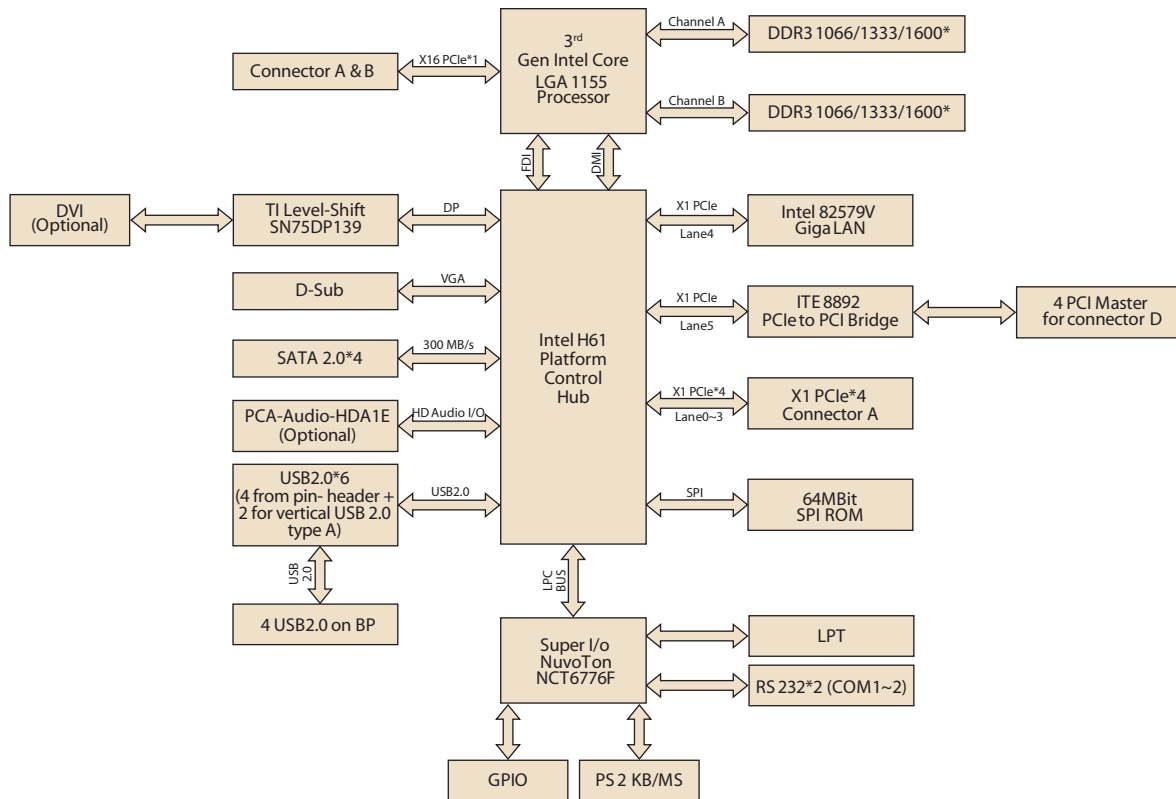
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CE FCC

Specifications

Processor System	CPU	Core i7-3770	Core i5-3550S	Core i3-3220	Pentium G2120	Pentium G850	Celeron G540
	Base Frequency	3.4 GHz	3.0 GHz	3.3 GHz	3.1 GHz	2.9 GHz	2.5 GHz
	L3 Cache	8 MB	6 MB	3 MB	3 MB	3 MB	2 MB
	Chipset	Intel H61					
	BIOS	AMI 64Mbit SPI Flash					
Bus	PCI Express	One PCIe x16, plus four x1 to backplane					
	PCI	Four 32-bit 33 MHz PCI Masters to Backplane					
Memory	Technology	Dual channel(Non-ECC) DDR3 1066/1333/1600*(depends on CPU Spec.)					
	Max. Cap.	16 GB (8 GB per DIMM)					
	Socket	DDR3 240-pin DIMM x 2					
Graphics	Controller	Chipset integrated Intel HD Graphics					
	VRAM	Shared system memory is subject to OS					
	Video Output	15 Pin VGA D-sub Connector x1/DVI-D connector x 1 (TPN optional)					
Ethernet	Interface	10/100/1000 Mbps					
	Controller	Intel 82579V					
	Connector with LED	RJ45 x 1					
SATA	SATA	SATA 2.0 x 4(300MB/sec)					
	Raid	-					
I/O Interface	USB	Ten USB2.0(Pin-header*4+Vertical USB A type*2+ 4 on backplane)					
	Serial	1 x RS-232 Pin-Header; 1 x RS-232 COM port					
	Parallel	1 (SPP/EPP/ECP)					
	PS/2	1 (Y cable for mouse and keyboard is included in the package)					
Watchdog Timer	Output	System reset					
	Interval	Programmable 1-255 sec					
Miscellaneous	Audio	Intel High Definition audio interface (required an audio extension module P/N: PCA-AUDIO-HDA1E)					
Power Requirement	Test Environment	Core i7-3770 (3.4 GHz) + DDR3 1066 4 GB x 2					
	Voltage	+12 V	+5 V	+3.3 V	+5 VSB	-12 V	-5 V
	Current	5.92 A	0.9 A	2.01 A	0.22 A	0.02 A	0 A
Environment	Operating					Non-operating	
	Temperature/Humidity	0 ~ 60° C(32 ~ 140° F); Depends on CPU frequency and cooler solution				-40 ~ 85° C and 60° C @ 95% RH Non-Condensing	
		40° C @ 85% RH Non-Condensing					
Physical	Dimensions	338 mm (L) x 122 mm (W) (13.3" x 4.8")					

Block Diagram



Ordering Information

Part Number	PCH	Memory	Backplane	LAN	VGA	DVI	COM	SATA II	USB 2.0	SW Raid	iAMT
PCE-5026VG-00A1E	H61	Non-ECC	PCE-5BXX	1	Yes	Optional	2	4	10	No	No

Packing List

Part Number	Description	Quantity
1700003194	Serial ATA HDD data cable	x2
1703150102	Serial ATA HDD power cable	x2
1701260305	COM + printer ports cable kit	x1
1700060202	Keyboard and mouse Y-cable	x1
1700008461	4-port USB cable kit	x1
9689000068	Jumper package	x1
2190000902	Warranty Card	x1
2006502610	Startup manual	x1
2066502600	Utility CD	x1

Optional Accessories

Part Number	Description
1960047831N001	PCE-5026 optimized CPU Cooler (2U)
PCA-AUDIO-HDA1E	Audio extension module
PCA-TPM-00A1E	Trusted Platform Module compliant TCG 1.2

I/O View

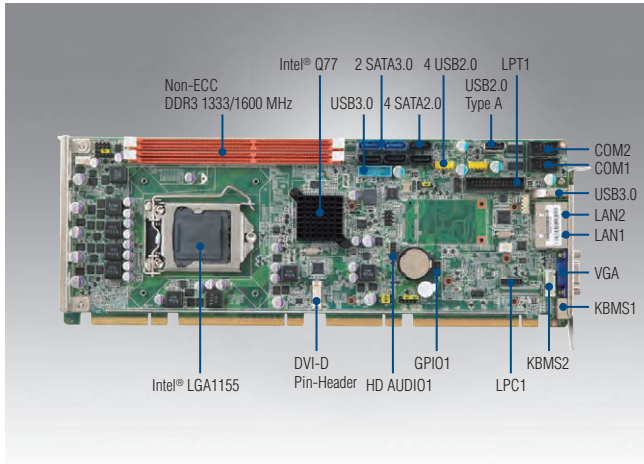


PCE-5026VG-00A1E

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- Intelligent Inspection Systems 3
- Modular IPCs 4
- Server-grade IPCs 5
- Industrial Storages 6
- Video Wall Controllers 7
- GPU Servers 8
- Industrial Motherboards 9
- Slot SBC & Passive Backplanes 10
- CompactPCI Platforms 11
- Industrial Chassis 12
- Industrial Computer Peripherals 13
- Industrial Ethernet Solutions 14

PCE-5127

LGA1155 Intel® Core™ i7/i5/i3 SHB DDR3/
SATA 3.0/USB3.0/Dual GbE



Features

- LGA1155 Intel® Core™ i7/i5/i3 and Pentium® processors
- Dual Channel (Non-ECC) DDR3 1333/1600 up to 16 GB
- Supports USB3.0, SATA3.0, SW Raid 0, 1, 5, 10
- Out-of-band remote management with iAMT8.0 and TPM 1.2 (optional)
- Supports embedded software APIs and utilities

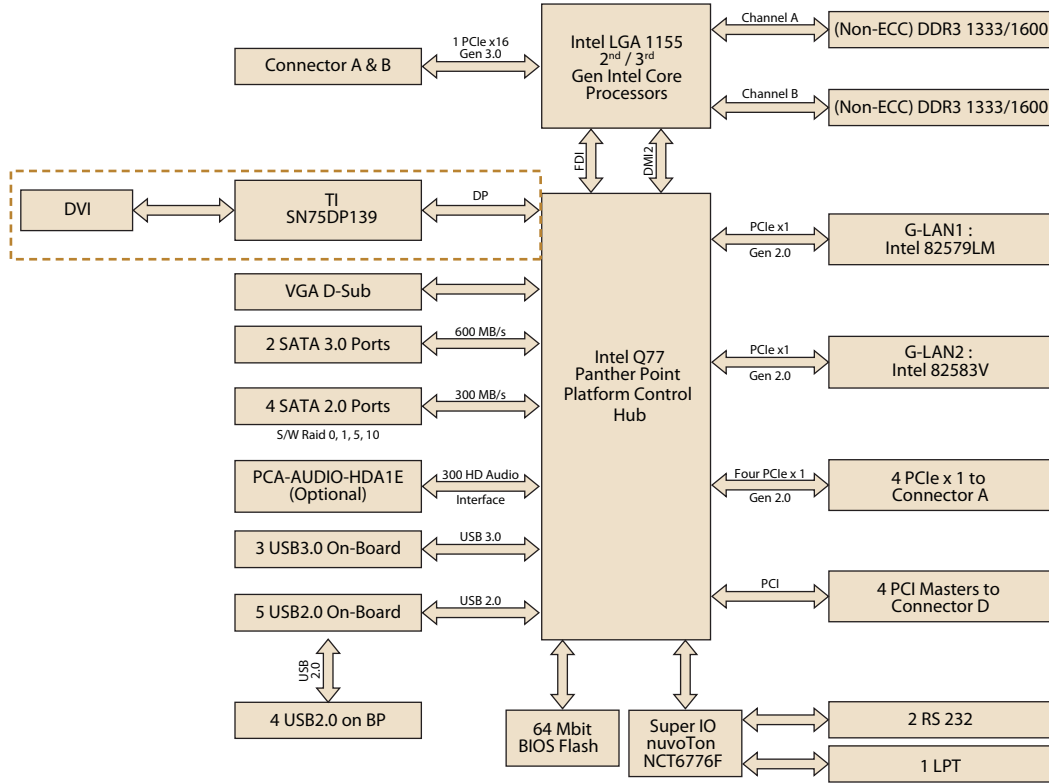
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CE FCC

Specifications

Processor System	CPU	Core i7-3770	Core i5-3550S	Core i3-3220	Pentium G2120	Pentium G850	Celeron G540	
	Base Frequency	3.4 GHz	3.0 GHz	3.3 GHz	3.1 GHz	2.9 GHz	2.5 GHz	
	L3 Cache	8 MB	6 MB	3 MB	3 MB	3 MB	2 MB	
	SKU/Chipset	Intel Q77						
	BIOS	AMI 64Mbit SPI Flash						
Bus	PCI-Express	One x16 plus four x1 to backplane						
	PCI	Four 32-bit 33 MHz PCI Masters to backplane						
Memory	Technology	Dual channel (Non-ECC) DDR3 1333/1600						
	Max. Cap.	16 GB (8 GB per DIMM)						
	Socket	DDR3 240-pin DIMM x 2						
Graphics	Controller	Chipset integrated Intel HD Graphics						
	VRAM	Shared system memory is subject to OS						
	Video Output	15 Pin VGA D-sub Connector x1/DVI-D connector x1 (Pin Header)						
Ethernet	Interface	10/100/1000 Mbps						
	Controller	LAN 1: Intel 82579LM LAN 2: Intel 82583V						
	Connector with LED	RJ45 x 2						
SATA	S/W Raid 0, 1, 5, 10	SATA 2.0 x 4 (300 MB/sec)						
		SATA 3.0 x 2 (600 MB/sec)						
I/O Interface	USB	Nine USB2.0 (Pin-header*4+USB Type A*1+ 4 on backplane); Three USB3.0 (Pin-Header*2+Rear*1)						
	Serial	2 x RS-232 Pin-Header						
	Parallel	1 (SPP/EPP/ECP)						
	PS/2	1 (Y cable for mouse and keyboard is included in the package)						
Watchdog Timer	Output	System reset						
	Interval	Programmable 1-255 sec						
Miscellaneous	Audio	Intel High Definition audio interface (required an audio extension module P/N: PCA-AUDIO-HDA1E)						
Power Requirement	Test environment	Core i7-3770 3.4GHz+DDR3 1333 4G X 2						
	Voltage	+12 V	+5 V	+3.3 V	+5 VSB	-12 V	-5 V	
	Current	5.37 A	0.98 A	1.44 A	0.42 A	0.01 A	0 A	
Environment	Temperature/Humidity	Operating				Non-operating		
		0 ~ 60° C(32~140° F); It subjects to CPU TDP and system thermal solution.				-40 ~ 85°C and 60° C @ 95% RH Non-Condensing		
		Operating humidity: 40° C @ 85% RH Non-Condensing						
Physical	Dimensions	338 mm (L) x 122 mm (W) (13.3" x 4.8")						

Block Diagram



Ordering Information

Part Number	PCH	Memory	Backplane	LAN	VGA	DVI-D	COM	SATA II	SATA III	USB 2.0	USB 3.0	S/W Raid	iAMT
PCE-5127G2-00A1E	Q77	Non-ECC	PCE-5BXX	2	Yes	Yes*	2	4	2	9	3	Yes	Yes

*Note: 1.Output DVI-D signal only (Required DVI-D cable)

Packing List

Part Number	Description	Quantity
1700003194	Serial ATA HDD data cable	x2
1700022749-11	Serial ATA HDD power cable	x1
1701260305	COM + printer ports cable kit	x1
1700060202	Keyboard and mouse Y-cable	x1
1700008461	4-port USB cable kit	x1
9689000068	Jumper package	x1
2190000902	Warranty Card	x1
2006512700	Startup manual	x1
2066512700	Utility CD	x1

Optional Accessories

Part Number	Description
1960047831N001	PCE-5127 optimized CPU Cooler (2U)
PCA-AUDIO-HDA1E	Audio extension module
PCA-TPM-00A1E	Trusted Platform Module compliant TCG 1.2
1700020277-01	2 ports USB 3.0 cable W/ BKT(30cm)
1700008822-11	DVI-D Cable
PCA-COM232-00A1E	4 Ports RS-232 Module by LPC

I/O View

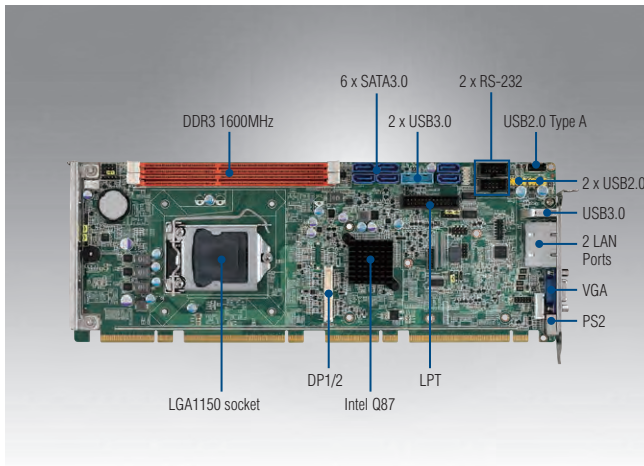


PCE-5127G2-00A1E

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- Industrial Ethernet Solutions 14

PCE-5128

LGA1150 Intel® Core™i7/i5/i3/Pentium® SHB DDR3/SATA 3.0/USB3.0/Dual GbE/ 3 Displays



Features

- Supports Intel® Core™ i7/i5/i3 LGA1150 processors with Q87
- Dual Channel (Non-ECC) DDR3 1333/1600 up to 16 GB
- Supports PCIe 3.0, USB 3.0, SATA3.0, SW Raid 0, 1, 5, 10
- Supports CRT and 2 x DP/DVI-D (optional) display
- Supports out-of-band remote management with AMT9.0
- Supports Advantech TPM module (LPC I/O)
- Supports SUSIAccess and Embedded Software APIs

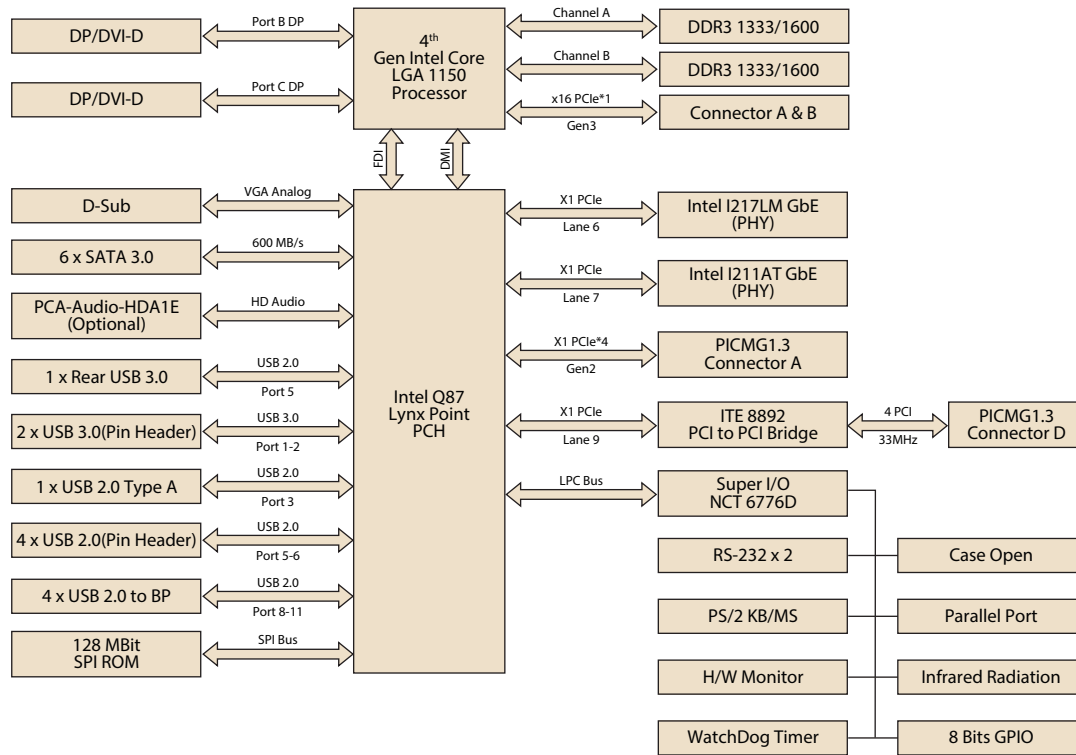
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CE FCC

Specifications

Processor System		Haswell refresh CPUs are supported from BIOS V2.xx						
	CPU	i7-4790S	i5-4590S	i5-4590T	i3-4360	i3-4350T	i3-4340TE	
	Base Frequency	3.2GHz	3.0GHz	2.0GHz	3.7GHz	3.1GHz	2.6GHz	
	L3 Cache	8MB	6MB	6MB	4MB	4MB	4MB	
Processor System		Haswell CPUs are supported by both BIOS V1.xx and V2.xx						
	CPU	i7-4770S	i7-4770TE	i5-4570S	i5-4570TE	i3-4330	i3-4330TE	G3420 G3320TE
	Base Frequency	3.1GHz	2.3GHz	2.9GHz	2.7GHz	3.5GHz	2.4GHz	3.2GHz 2.3GHz
	L3 Cache	8MB	8M	6MB	4MB	3MB	3MB	3MB 3MB
	SKU/Chipset	Intel Q87						
	BIOS	AMI 128Mbit SPI Flash						
Bus		PCI-Express One x16 plus four x1 to backplane						
	PCI	Four 32-bit 33 MHz PCI Masters to backplane						
Memory		Technology Dual channel (Non-ECC) DDR3 1333/1600 UDIMM						
	Max. Cap.	16 GB (8 GB per DIMM)						
	Socket	DDR3 240-pin DIMM x 2						
Graphics		Controller Chipset integrated Intel HD Graphics						
	VRAM	Shared system memory is subject to OS						
	CRT	Supports resolution up to 2048 x 1536 pixel at 60MHz						
	DVI-D	Supports resolution up to 1920 x 1200 pixel at 60MHz						
	Triple Display	CRT+DP/DVI-D+DP/DVI-D						
Ethernet		Interface 10/100/1000 Mbps						
	Controller	LAN 1: Intel I217LM LAN 2: Intel I211						
	Connector with LED	RJ-45 x 2						
SATA		S/W Raid 0, 1, 5, 10						
		SATA 3.0 x 6 (600 MB/sec)						
Rear I/O		USB 3.0 1						
	Ethernet	2						
	VGA	1						
	PS/2	1 (PS/2 Y cable supports 1 x keyboard and 1 x mouse)						
Internal Connector		USB Night USB2.0 (Pin-header*4+USB Type A*1+ 4 on backplane); Two USB3.0 (Pin header)						
	SATA	6						
	DP/DVI-D	2 (Pin header)						
	COM	2						
	Parallel	1						
	IrDA	1						
	GPIO	8-bit						
Watchdog Timer		Output System reset						
	Interval	Programmable 1-255 sec						
Miscellaneous		Audio Intel High Definition audio interface (required an audio extension module P/N: PCA-AUDIO-HDA1E)						
	Test Environment	Core i7-4770S DDR3 1600 8GB x 2						
Power Requirement		Voltage +12V +5V +3.3V +5Vsb -12V -5V						
	Current	4.02A 1.36A 0.81A 0.09A 0A 0A						
Environment		Operating 0 ~ 60° C (32~140° F); Depends on CPU frequency and cooler solution						
	Temperature/Humidity	Operating humidity: 40° C @ 85% RH Non-Condensing						
		Non-operating -40 ~ 85° C and 60° C @ 95% RH Non-Condensing						
Physical		Dimensions 338 mm (L) x 122 mm (W) (13.3" x 4.8")						

Block Diagram



Ordering Information

Part Number	PCH	Memory	Backplane	LAN	VGA	DP/ DVI-D	COM	SATA III	USB 2.0	USB 3.0	S/W Raid	AMT
PCE-5128G2-00A1E	Q87	Non-ECC	PCE-5BXX	2	Yes	2*	2	6	10	3	Yes	Yes

Note: Both DP and DVI-D cable are optional.

Packing List

Part Number	Description	Quantity
1700003194	Serial ATA HDD data cable	x2
1700022749-11	Serial ATA HDD power cable	x1
1701260305	COM + printer ports cable kit	x1
1700060202	Keyboard and mouse Y-cable	x1
1700008461	4-port USB cable kit	x1
9689000068	Jumper package	x1
2190000902	Warranty Card	x1
2006512800	Startup manual	x1
2066512800	Utility CD	x1

Optional Accessories

Part Number	Description
1960047831N001	PCE-5128 optimized CPU Cooler (2U)
PCA-AUDIO-HDA1E	Audio module
PCA-TPM-00A1E	TPM module(Trust Platform management)
PCA-COM232-00A1E	4 Ports RS-232 Module by LPC
PCA-COM485-00A1E	4 Ports RS-485/422 Module by LPC
1700020277-01	2 ports USB 3.0 cable w/ BKT(30cm)
1700021831-01	DP to DVI-D cable w/ BKT
PCE-DP10-00A1E	DP to DP cable w/ BKT

I/O View

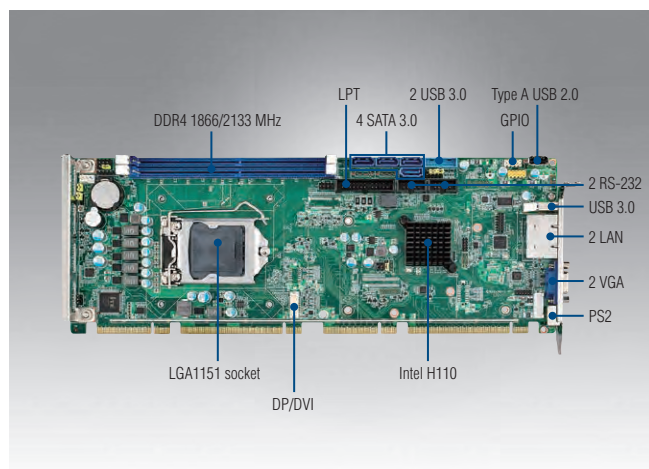


PCE-5128G2-00A1E

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- CompactPCI Platforms 11
- Industrial Chassis 12
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PCE-5029

**LGA1151 Intel® Core™ i series SHB
DDR4/SATA 3.0/USB3.0/Dual GbE/
Dual Displays**



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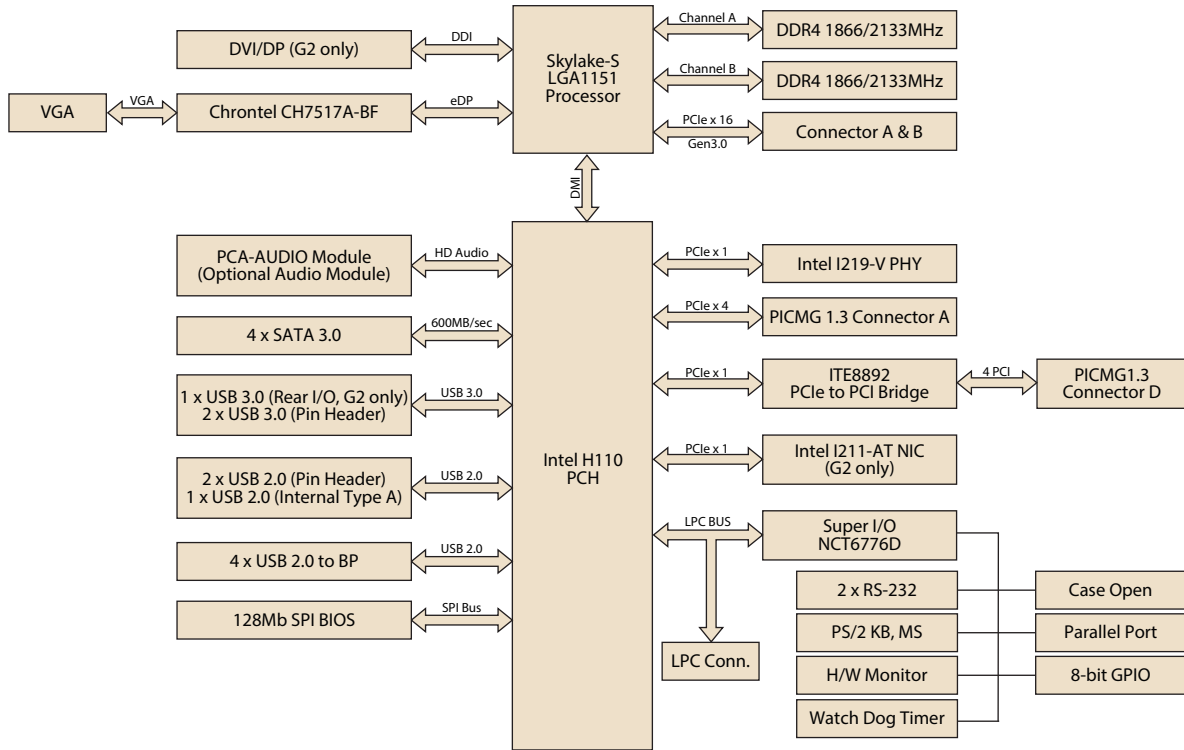
Features

- Supports Intel Core™ i7/i5/i3 LGA1151 processors with H110
- Dual Channel (Non-ECC) DDR4 1866/2133 MHz up to 32 GB
- Supports PCIe 3.0, USB 3.0, SATA 3.0
- Supports CRT and DVI-D/DP (cable optional) display
- Supports Advantech LPC modules
- Supports SUSIAccess and Embedded Software APIs

Specifications

Processor System	CPU	i7-6700	i7-6700TE	i5-6500	i5-6500TE	i3-6100	i3-6100TE	G4400	G4400TE	G3900	G3900TE	
	Speed	3.4 GHz	2.4 GHz	3.2 GHz	2.3 GHz	3.7 GHz	2.7 GHz	3.3 GHz	2.9 GHz	2.8 GHz	2.6 GHz	
	Cache	8 MB	8 MB	6 MB	6 MB	4 MB	4 MB	3 MB	3 MB	2 MB	2 MB	
	SKU/Chipset	Intel H110										
	BIOS	AMI 128Mbit SPI Flash										
Bus	PCI-Express	One x16 and one x4 to backplane										
	PCI	Four 32-bit 33 MHz PCI Masters to backplane										
Memory	Technology	Dual channel (Non-ECC) U-DIMM DDR4 1866/2133 MHz										
	Max. Cap.	32 GB (16 GB per DIMM)										
	Socket	DDR4 288 pins DIMM x 2										
Graphics	Controller	Chipset integrated Intel HD Graphics										
	VRAM	Shared system memory is subject to OS										
	CRT	Supports resolution up to 1920 x 1200 pixel @ 60MHz										
	DVI-D	Supports resolution up to 1920 x 1200 pixel @ 60MHz										
	Display Port	Supports resolution up to 4096x2304 @ 60Hz, 24bpp (Supporting 4K display required two DDR channels of same size)										
Ethernet	Dual Display	CRT+DP/CRT+DVI										
	Interface	10/100/1000 Mbps										
Rear I/O	Controller	LAN 1: Intel I219-V LAN 2: Intel I211-AT										
	Connector with LED	RJ45 x 2										
	USB 3.0	1 (G2 sku)										
Internal Connector	Ethernet	1 (VG sku); 2 (G2 sku)										
	VGA	1										
	Serial	1 (VG sku)										
	PS/2	1 (PS/2 Y cable supports 1 x keyboard and 1 x mouse)										
	USB	7 USB2.0 (Pin-header*2+USB Type A*1+ 4 on backplane); 2 USB3.0 (Pin header)										
Watchdog Timer	SATA	4										
	DP/DVI-D	1 (Pin header)										
	COM	2 (G2 sku) 1 (VG sku)										
	Parallel	1										
	GPIO	8 bits										
Miscellaneous	Output	System reset										
	Interval	Programmable 1-255 sec										
Power Requirement	Audio	Intel High Definition audio interface (required an audio extension module P/N: PCA-AUDIO-HDB1E)										
	Test environment	SKL 2.2G 65W; DDR4 2133 8GB x2										
	Voltage	+12V	+5V	+3.3V	+5Vsb	-12V	-5V					
Environment	Current	2.64A	1.23A	0.19A	0.09A	0A	0A					
	Temperature/Humidity	Operating 0 ~ 60° C(32~140° F); Depends on CPU and cooler solution					Non-operating -40 ~ 85°C and 60° C @ 95% RH Non-Condensing					
Physical	Operating humidity	40° C @ 85% RH Non-Condensing										
	Dimensions	338 mm (L) x 122 mm (W) (13.3" x 4.8")										

Block Diagram



Ordering Information

Part Number	Chipset	Memory	Backplane	Display	USB 3.0	USB 2.0	COM	GbE LAN	AMT	SATA	SW RAID	Intelligent System Module Support
PCE-5029G2-00A1E	H110	Non-ECC	PCE-5BXX	VGA + DVI/DP*	3	7	2	2	No	4	No	Yes
PCE-5029VG-00A1E	H110	Non-ECC	PCE-5BXX	VGA	2	7	2	1	No	4	No	No

*Note: DP cable (P/N: PCE-DP10-00A1E) and DVI-D cable (1700021831-01) is optional.

Packing List

Part Number	Description	Quantity
1700003194	Serial ATA HDD data cable	x2
1700022749-11	Serial ATA HDD power cable	x1
1701260305	COM + printer ports cable kit	x1
1700060202	Keyboard and mouse Y-cable	x1
1700002204	2-port USB cable kit	x1
9689000068	Jumper package	x1
2190000902	Warranty card	x1
-	Startup manual	x1
-	Utility CD	x1

Optional Accessories

Part Number	Description
1700020277-01	2-port USB 3.0 cable w/ BKT(30 cm)
1700002204	2-port USB 2.0 cable w/ BKT(27 cm)
1700021831-01	DP to DVI-D cable w/ BKT for G2 sku
1701090401	Single COM cable(40 cm)
1701092300	Dual COM cable(28.5 cm)
1960052651N021	CPU cooler for 2U, 4U, and wallmount chassis
1960049408N001	CPU cooler for 1U chassis
PCA-TPM-00A1E	TPM Module
PCA-COM485-00A1E	4-Port RS-422/485 LPC Module
PCA-COM232-00A1E	4-Port RS-232 LPC Module
PCE-DP10-00A1E	DP redriver board(25 cm) for G2 sku
PCA-AUDIO-HDB1E	Extension module for High Definition Audio

I/O View



PCE-5029G2-00A1E

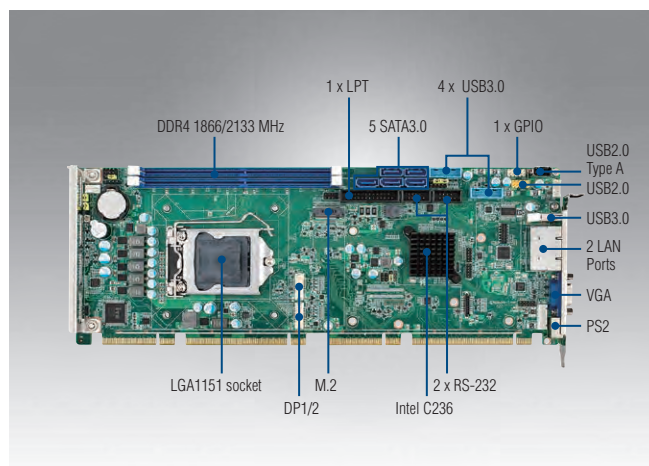


PCE-5029VG-00A1E

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- Industrial Motherboards 9
- Slot SBC & Passive Backplanes 10
- CompactPCI Platforms 11
- Industrial Chassis 12
- Industrial Computer Peripherals 13
- Industrial Ethernet Solutions 14

PCE-5129

LGA1151 6th Generation Intel® Core™ i series SHB DDR4/SATA 3.0/USB3.0/M.2/ Dual GbE/3 Displays



Features

- Supports Intel® Core™ i7/i5/i3 LGA1151 processors with Q170
- Dual Channel (Non-ECC) DDR4 1866/2133 up to 32 GB
- Supports PCIe 3.0, M.2, USB 3.0, SATA3.0, SW Raid 0, 1, 5, 10
- Supports CRT and 2 x DVI-D/DP (cable optional) display
- Supports out-of-band remote management with AMT11.0
- Supports Advantech LPC modules
- Supports SUSIAccess and Embedded Software APIs

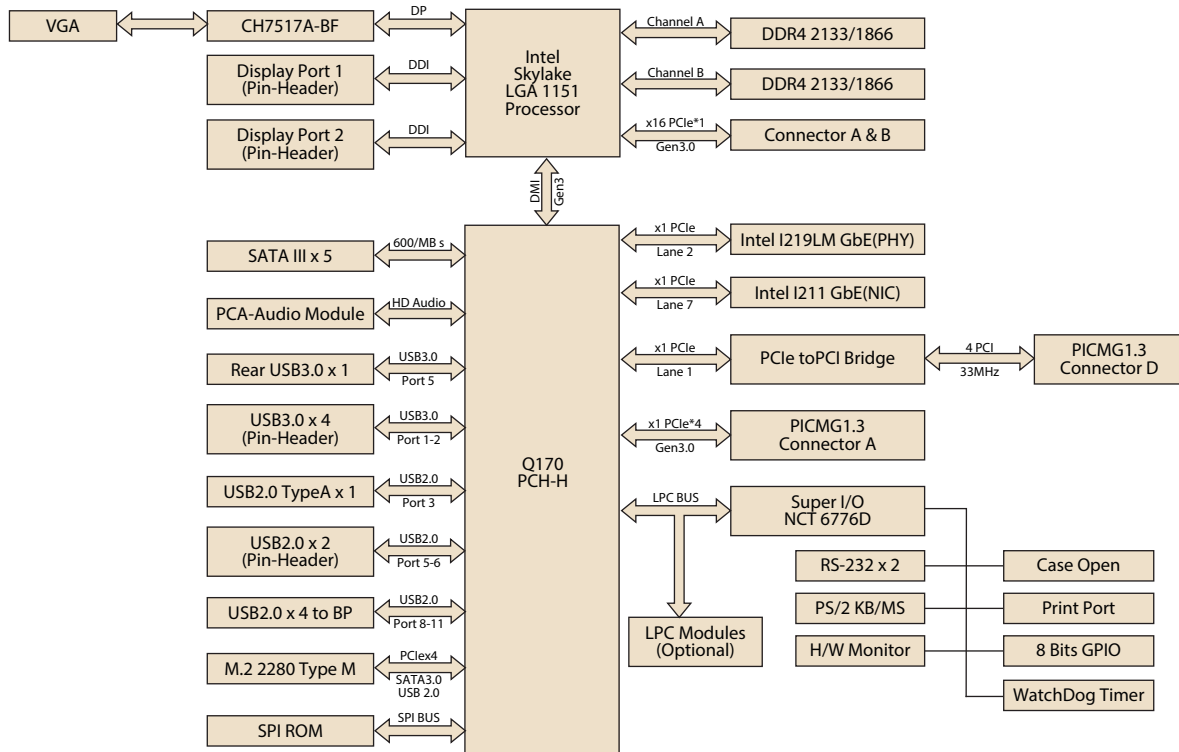
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CE FCC

Specifications

Processor System	CPU	i7-6700	i7-6700TE	i5-6500	i5-6500TE	i3-6100	i3-6100TE	G4400	G4400TE	G3900	G3900TE	
	Base Frequency	3.4GHz	2.4GHz	3.2GHz	2.3GHz	3.7GHz	2.7GHz	3.3GHz	2.9GHz	2.8GHz	2.6GHz	
	L3 Cache	8MB	8MB	6MB	6MB	4MB	4MB	3MB	3MB	2MB	2MB	
	SKU/Chipset	Intel Q170										
	BIOS	AMI 128Mbit SPI Flash										
Bus	PCI-Express	One x16 and one x4 to backplane										
	PCI	Four 32-bit 33 MHz PCI Masters to backplane										
Memory	Technology	Dual channel (Non-ECC) U-DIMM DDR4 1866/2133 MHz (Note: support DDR4 1024M x 8 memory technology)										
	Max. Cap.	32 GB (16 GB per DIMM)										
	Socket	DDR4 288 pins DIMM x 2										
Graphics	Controller	Chipset integrated Intel HD Graphics										
	VRAM	Shared system memory is subject to OS										
	CRT	Supports resolution up to 1920 x 1200 pixel @ 60MHz										
	DVI-D	Supports resolution up to 1920 x 1200 pixel @ 60MHz										
	Display Port	Supports resolution up to 4096x2304 @ 60Hz, 24bpp (Supporting 4K display required two DDR channels of same size)										
Ethernet	Triple Display	CRT+DP/DVI-D+DP/DVI-D										
	Interface	10/100/1000 Mbps										
	Controller	LAN 1: Intel I219LM LAN 2: Intel I211										
Rear I/O	Connector with LED	RJ45 x 2										
	USB 3.0	1										
	Ethernet	2										
	VGA	1										
	PS/2	1 (PS/2 Y cable supports 1 x keyboard and 1 x mouse)										
Internal Connector	USB	7 USB2.0 (Pin-header*2+USB Type A*1+ 4 on backplane); 4 USB3.0 (Pin header)										
	SATA (SW Raid 0,1,5,10)	5										
	M.2 (2280 Type M)	1 (Support SATA3.0 or PCIe4 device)										
	DP/DVI-D	2 (Pin header)										
	COM	2										
	Parallel	1										
	IrDA	1										
	GPIO	8bit										
Watchdog Timer	Output	System reset										
	Interval	Programmable 1-255 sec										
Miscellaneous	Audio	Intel High Definition audio interface (required an audio extension module P/N: PCA-AUDIO-HDA1E)										
Power Requirement	Test environment	SKL 2.2G 65W DDR4 2133 8GB x 2										
	Voltage	+12V	+5V	+3.3V	+5Vsb	-12V	-5V					
	Current	2.64A	1.23A	0.19A	0.09A	0.06A	0V					
Environment	Operating	Non-operating										
	Temperature/Humidity	0 ~ 60° C (32~140° F); Depends on CPU and cooler solution					-40 ~ 85° C and 60° C @ 95% RH Non-Condensing					
Physical	Dimensions	338 mm (L) x 122 mm (W) (13.3" x 4.8")										

Block Diagram



Ordering Information

Part Number	PCH	Memory	Backplane	LAN	VGA	DP/DVI-D	COM	SATA III	M.2	USB 2.0	USB 3.0	S/W Raid	AMT
PCE-5129G2-00A1E	Q170	Non-ECC	PCE-5BXX	2	Yes	2*	2	5	1	7	5	Yes	Yes

Note: DP/DVI-D cable is optional

Packing List

Part Number	Description	Quantity
1700003194	Serial ATA HDD data cable	x2
1700022749-11	Serial ATA HDD power cable	x1
1701260305	COM + printer ports cable kit	x1
1700060202	Keyboard and mouse Y-cable	x1
1700002204	2-port USB cable kit	x1
9689000068	Jumper package	x1
2190000902	Warranty Card	x1
2001512910	Startup manual	x1
2061512900	Utility CD	x1

Optional Accessories

Part Number	Description
1960052651N021	2U CPU cooler (PWM Fan)
1960049408N001	CPU cooler for 1U chassis
PCA-AUDIO-HDB1E	Audio module
PCA-TPM-00A1E	TPM module(Trust Platform management)
PCA-COM232-00A1E	4 Ports RS-232 Module by LPC
PCA-COM485-00A1E	4 Ports RS-485/422 Module by LPC
1700020277-01	2 ports USB 3.0 cable W/ BKT(30cm)
1700021831-01	DP to DVI-D cable w/ BKT
PCE-DP10-00A1E	DP to DP cable w/ BKT

I/O View

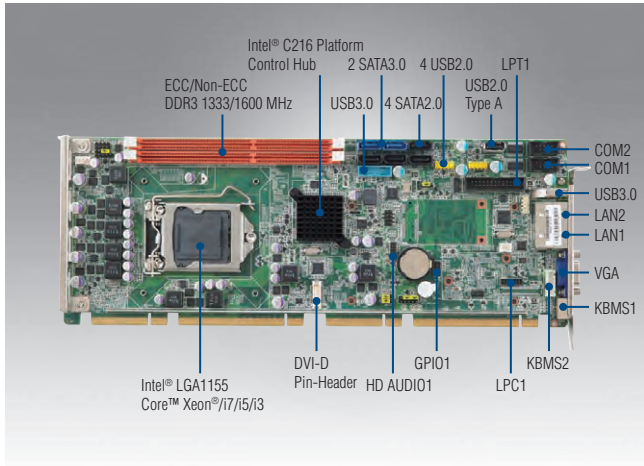


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GPU Servers	8
Industrial Motherboards	9
Slot SBC & Passive Backplanes	10
CompactPCI Platforms	11
Industrial Chassis	12
Industrial Computer Peripherals	13
Industrial Ethernet Solutions	14

PCE-7127

LGA1155 Intel® Xeon®/Core™i3/ Pentium® SHB DDR3/SATA 3.0/USB3.0/ Dual GbE



Features

- LGA1155 Intel® Xeon®/Core™i3/Pentium® processors
- Dual Channel (ECC) DDR3 1333/1600 up to 16 GB
- Supports USB3.0, SATA3.0, SW Raid 0, 1, 5, 10, and TPM 1.2 (optional)
- Out-of-band remote management with iAMT8.0 and IPMI (Optional)
- Supports embedded software APIs and utilities

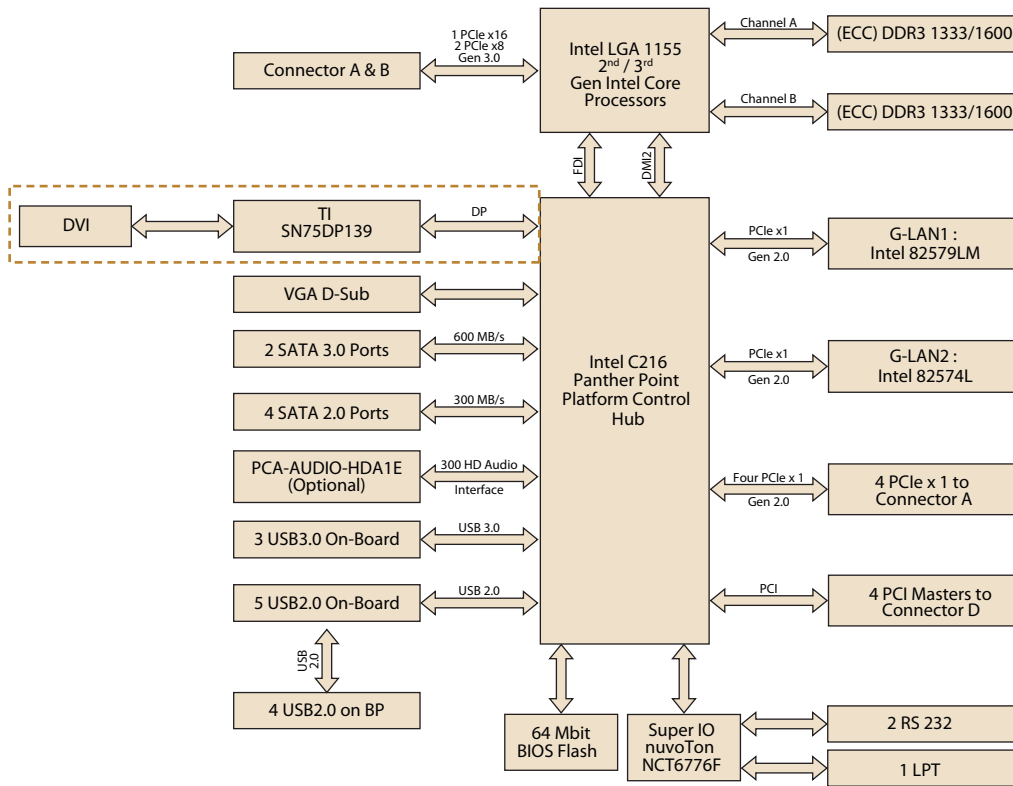
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CE FCC

Specifications

Processor System	CPU	Xeon E3-1275V2/ E3-1225V2	i7-3770	i5-3550S	Core i3-3220	Pentium G2120	Pentium G850	Celeron G540	
	Base Frequency	3.5/ 3.2 GHz	3.4 GHz	3.0 GHz	3.3 GHz	3.1 GHz	2.9 GHz	2.5 GHz	
	L3 Cache	8/ 8 MB	8 MB	6 MB	3 MB	3 MB	3 MB	2MB	
	SKU/Chipset	Intel C216							
	BIOS	AMI 64Mbit SPI Flash							
Bus	PCI-Express	One x16 or two x8, plus four x1 to backplane Gen. 2.0							
	PCI	Four 32-bit 33 MHz PCI Masters to backplane							
Memory	Technology	Dual channel(ECC) DDR3 1333/1600 UDIMM							
	Max. Cap.	16 GB (8 GB per DIMM)							
	Socket	DDR3 240-pin DIMM x 2							
Graphics	Controller	Chipset integrated Intel HD Graphics							
	VRAM	Shared system memory is subject to OS							
	Video Output	15-Pin VGA D-sub Connector x1/DVI-D connector x 1 (Pin Header)							
Ethernet	Interface	10/100/1000 Mbps							
	Controller	LAN 1: Intel 82579LM LAN 2: Intel 82574L							
	Connector with LED	RJ-45 x 2							
SATA	Ports/Max. Transfer Rate	SATA 2.0 x 4 (300 MB/sec) SATA 3.0 x 2 (600 MB/sec)							
	Raid	SW Raid 0, 1, 5, 10							
I/O Interface	USB	Nine USB2.0 (Pin-header*4+USB Type A*1+ 4 on backplane); Three USB3.0 (Pin-Header*2+Rear*1)							
	Serial	2 x RS-232 Pin-Header							
	Parallel	1 (SPP/EPP/ECP)							
	PS/2	1 (Y cable for mouse and keyboard is included in the package)							
Watchdog Timer	Output	System reset							
	Interval	Programmable 1-255 sec							
Miscellaneous	Audio	Intel High Definition audio interface (Required an audio extension module P/N: PCA-AUDIO-HDA1E)							
Environment	Temperature/Humidity	Operating					Non-operating		
		0 ~ 60° C (32~140° F); It subjects to CPU TDP and system thermal solution.					-40 ~ 85° C and 60° C @ 95% RH		
		Operating humidity: 40° C @ 85% RH Non-Condensing					Non-Condensing		
Physical	Dimensions	338 mm (L) x 122 mm (W) (13.3" x 4.8")							

Block Diagram



Ordering Information

Part Number	PCH	Memory	Backplane	LAN	VGA	DVI-D	COM	SATA II	SATA III	USB 2.0	USB 3.0	S/W Raid	iAMT	IPMI
PCE-7127G2-00A1E	C216	ECC/Non-ECC	PCE-5BXX/7BXX*	2	Yes	Yes*	2	4	2	9	3	Yes	Yes	Optional

* Note: 1. PCE-7127 supports all Advantech PCE-5BXX/7BXX backplanes except PCE-7B10-04A1E
2. Output DVI-D signal only (Required DVI-D cable)

Packing List

Part Number	Description	Quantity
1700003194	Serial ATA HDD data cable	x2
1700022749-11	Serial ATA HDD power cable	x1
1701260305	COM + printer ports cable kit	x1
1700060202	Keyboard and mouse Y-cable	x1
1700008461	4-port USB cable kit	x1
9689000068	Jumper package	x1
2190000902	Warranty Card	x1
2006512700	Startup manual	x1
2066512700	Utility CD	x1

Optional Accessories

Part Number	Description
1960047831N001	PCE-7127 optimized CPU Cooler (2U)
PCA-AUDIO-HDA1E	Audio extension module
PCA-TPM-00A1E	Trusted Platform Module compliant TCG 1.2
1700020277-01	2 ports of USB 3.0 cable W/ BKT(30cm)
1700008822-11	DVI-D Cable
PCA-COM232-00A1E	4 Ports RS-232 Module by LPC

I/O View

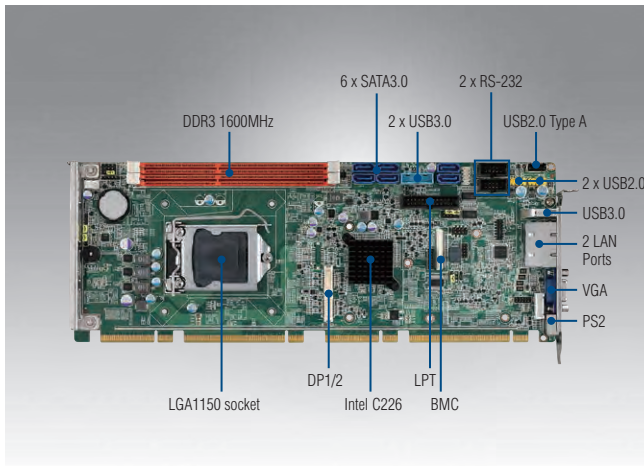


PCE-7127G2-00A1E

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- Server-grade IPCs 5
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- Video Wall Controllers 7
- GPU Servers 8
- Industrial Motherboards 9
- Slot SBC & Passive Backplanes 10
- Compact PCI Platforms 11
- Industrial Chassis 12
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- Industrial Ethernet Solutions 14

PCE-7128

LGA1150 Intel® Xeon®/Core™i3/ Pentium® SHB DDR3/SATA 3.0/USB3.0/ Dual GbE /3 Displays



Features

- Supports Intel® Xeon® E3 1200v3 series, Core™ i7/i5/i3 LGA1150 processors with C226
- Dual Channel (ECC/Non-ECC) DDR3 1333/1600 up to 16 GB
- Supports PCIE 3.0, USB 3.0, SATA3.0, SW Raid 0, 1, 5, 10
- Supports CRT and 2 x DP/DVI-D (optional) display
- Supports out-of-band remote management with AMT9.0 and IPMI
- Supports Advantech TPM module (LPC I/O)
- Supports SUSIAccess and Embedded Software APIs

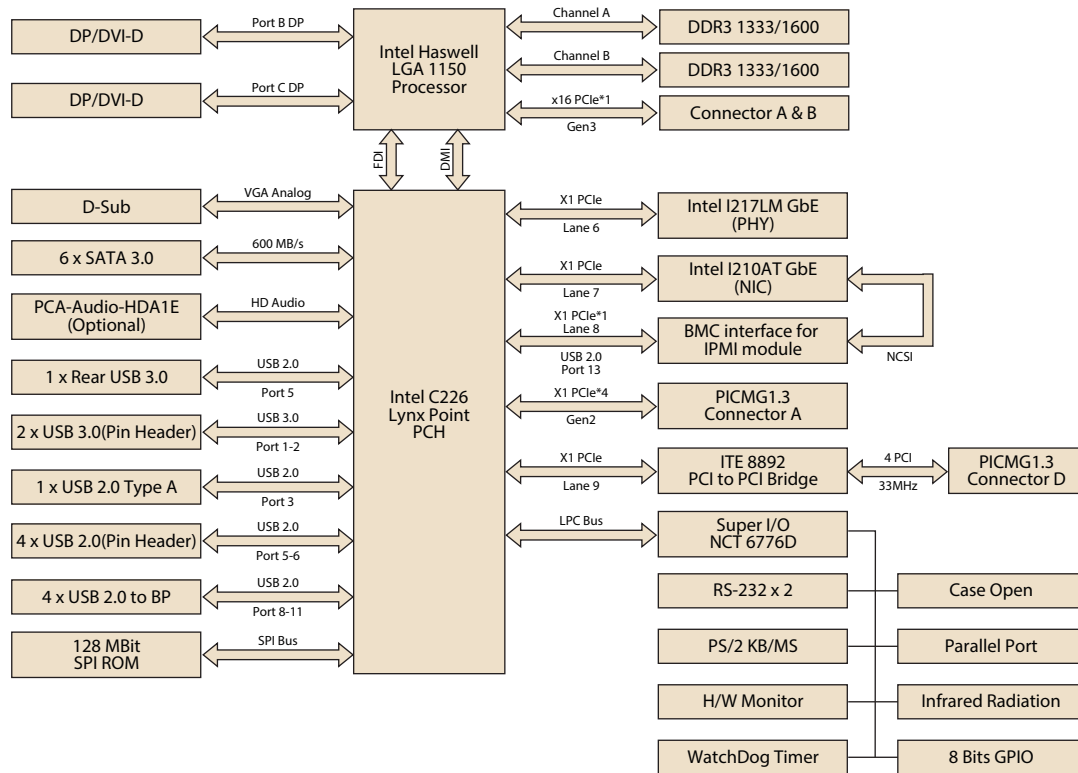
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Specifications

Processor System		Haswell refresh CPUs are supported from BIOS V2.xx							Hawell CPUs are supported by both BIOS V1.xx and V2.xx				
CPU		i7-4790S	i5-4590S	i5-4590T	i3-4360	i3-4350T	i3-4340TE						
Base Frequency		3.2GHz	3.0GHz	2.0GHz	3.7GHz	3.1GHz	2.6GHz						
L3 Cache		8MB	6MB	6MB	4MB	4MB	4MB						
CPU		E3-1275v3	E3-1225v3	E3-1268v3	i7-4770S	i7-4770TE	i5-4570S	i5-4570TE	i3-4330	i3-4330TE	G4320	G4320TE	
Base Frequency		3.5GHz	3.2GHz	2.3GHz	3.1GHz	2.3GHz	2.9GHz	2.7GHz	3.5GHz	2.4GHz	3.2GHz	2.3GHz	
L3 Cache		8MB	8MB	8MB	8MB	8M	6MB	4MB	3M	3M	3MB	3MB	
ECC Memory Supported		Yes	Yes	Yes	N/A	N/A	N/A	Yes	Yes	Yes	Yes	Yes	
SKU/Chipset		Intel C226											
BIOS		AMI 128Mbit SPI Flash											
Bus		PCI-Express One x16 or Two x8 plus four x1 to backplane											
PCI		Four 32-bit 33 MHz PCI Masters to backplane											
Memory		Technology Dual channel (ECC/Non-ECC) DDR3 1333/1600 UDIMM (Note: Please select Intel ECC supported processor to enable ECC function)											
Max. Cap.		16 GB (8 GB per DIMM)											
Socket		DDR3 240-pin DIMM x 2											
Graphics		Controller Chipset integrated Intel HD Graphics											
VRAM		Shared system memory is subject to OS											
CRT		Supports resolution up to 2048 x 1536 pixel at 60MHz											
DVI-D		Supports resolution up to 1920 x 1200 pixel at 60MHz											
Triple Display		CRT+DP/DVI-D+DP/DVI-D											
Ethernet		Interface 10/100/1000 Mbps											
Controller		LAN 1: Intel I217LM LAN 2: Intel I210											
Connector with LED		RJ45 x 2											
SATA		S/W Raid 0, 1, 5, 10											
SATA 3.0		SATA 3.0 x 6 (600 MB/sec)											
Rear I/O		USB 3.0 1											
Ethernet		2											
VGA		1											
PS/2		1 (PS/2 Y cable supports 1 x keyboard and 1 x mouse)											
Internal Connector		USB Night USB2.0 (Pin-header*4+USB Type A*1+ 4 on backplane); Two USB3.0 (Pin header)											
SATA		6											
DP/DVI-D		2 (Pin header)											
COM		2											
Parallel		1											
IrDA		1											
GPIO		8bit											
Watchdog Timer		Output System reset											
Interval		Programmable 1-255 sec											
Miscellaneous		Audio Intel High Definition audio interface (required an audio extension module P/N: PCA-AUDIO-HDA1E)											
Test environment		Core i7-4770S DDR3 1600 8GB x 2											
Power Requirement		Voltage				Current				Non-operating			
		+12V		+5V		+3.3V		+5Vsb		-12V		-5V	
		4.02A		1.36A		0.81A		0.09A		0A		0A	
Environment		Operating										Non-operating	
Temperature/Humidity		0 ~ 60° C(32-140° F); Depends on CPU frequency and cooler solution										-40 ~ 85° C and 60° C @ 95% RH Non-Condensing	
		Operating humidity: 40° C @ 85% RH Non-Condensing											
Physical		Dimensions 338 mm (L) x 122 mm (W) (13.3" x 4.8")											

Block Diagram



Ordering Information

Part Number	PCH	Memory	Backplane	LAN	VGA	DP/DVI-D	COM	SATA III	USB 2.0	USB 3.0	S/W Raid	AMT	IPMI
PCE-7128G2-00A1E	C226	ECC	PCE-5BXX PCE-7BXX	2	Yes	2*	2	6	10	3	Yes	Yes	Yes

Note: Both DP and DVI-D cable are optional.

Packing List

Part Number	Description	Quantity
1700003194	Serial ATA HDD data cable	x2
1700022749-11	Serial ATA HDD power cable	x1
1701260305	COM + printer ports cable kit	x1
1700060202	Keyboard and mouse Y-cable	x1
1700008461	4-port USB cable kit	x1
9689000068	Jumper package	x1
2190000902	Warranty Card	x1
2006512800	Startup manual	x1
2066512800	Utility CD	x1

Optional Accessories

Part Number	Description
1960047831N001	PCE-7128 optimized CPU Cooler (2U)
PCA-AUDIO-HDA1E	Audio module
PCA-TPM-00A1E	TPM module (Trust Platform management)
PCA-COM232-00A1E	4 Ports RS-232 Module by LPC
PCA-COM485-00A1E	4 Ports RS-485/422 Module by LPC
IPMI-1000-00A1E	IPMI2.0 module(Remote control management)
1700020277-01	2 ports USB 3.0 cable W/ BKT(30cm)
1700021831-01	DP to DVI-D cable w/ BKT
PCE-DP10-00A1E	DP to DP cable w/ BKT

I/O View

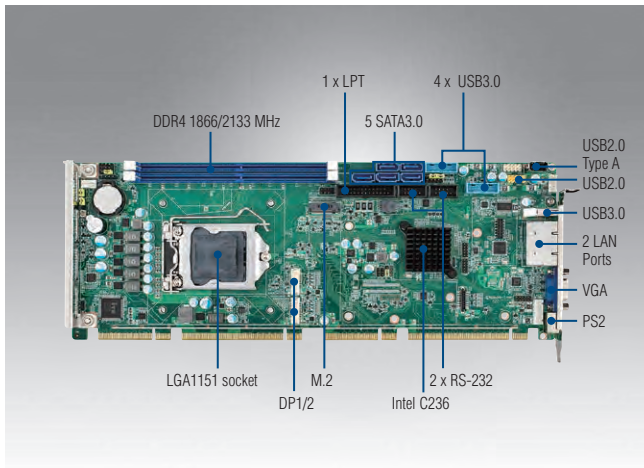


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PCE-7129

LGA1151 6th Generation Intel® Xeon® / Core™ i3/Pentium® SHB DDR4/SATA 3.0/USB3.0/M.2/Dual GbE /3 Displays



Features

- Supports Intel® Xeon E3-1200v5 series, Core™ i7/i5/i3 LGA1151 processors with C236
- Dual Channel (ECC/Non-ECC) DDR4 1866/2133 up to 32 GB
- Supports PCIE 3.0, M.2, USB 3.0, SATA3.0, SW Raid 0, 1, 5, 10
- Supports CRT and 2 x DVI-D/DP(cable optional) display
- Supports out-of-band remote management with AMT11.0
- Supports Advantech LPC modules
- Supports SUSIAccess and Embedded Software APIs

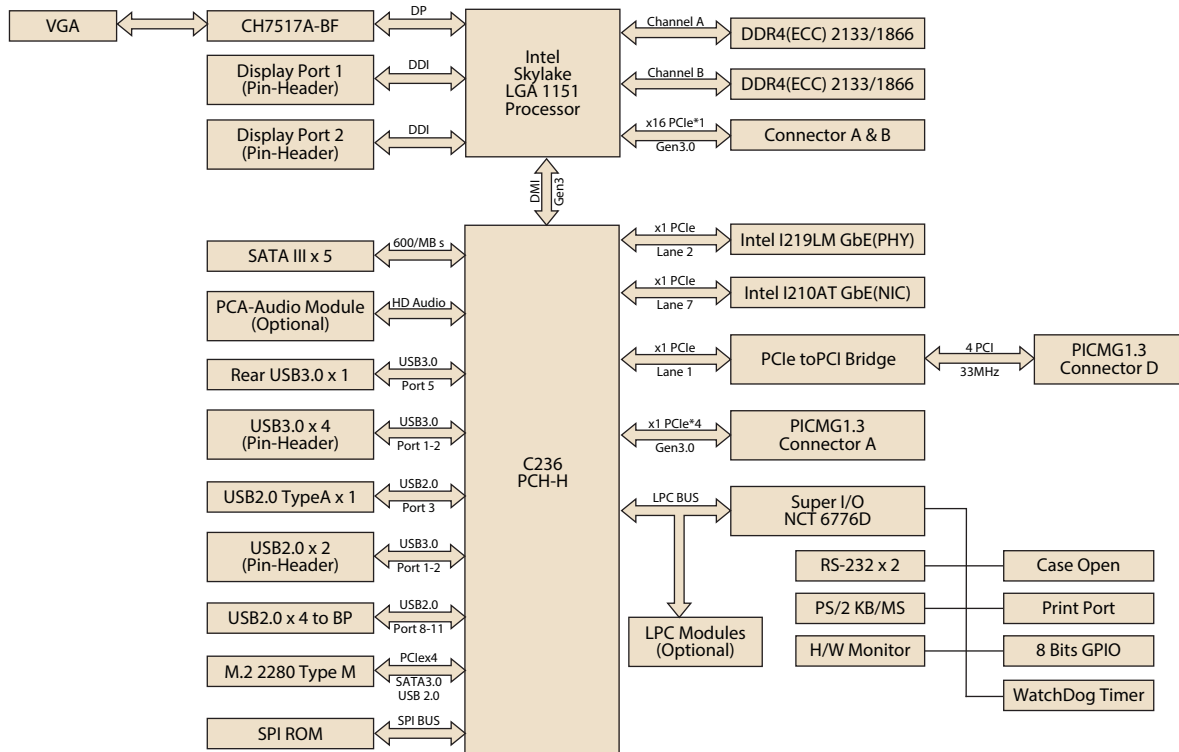
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CE FCC

Specifications

	CPU	E3-1275v5	E3-1225v5	E3-1268Lv5	i7-6700	i7-6700TE	i5-6500	i5-6500TE	i3-6100	i3-6100TE	G4400	G4400TE	G3900	G3900TE					
Processor System	Base Frequency	3.6GHz	3.3GHz	2.4GHz	3.4GHz	2.4GHz	3.2GHz	2.3GHz	3.7GHz	2.7GHz	3.3GHz	2.9GHz	2.8GHz	2.6GHz					
	L3 Cache	8MB	6MB	8MB	8MB	8MB	6MB	6MB	4MB	4MB	3MB	3MB	2MB	2MB					
	SKU/Chipset	Intel C236																	
	BIOS	AMI 128Mbit SPI Flash																	
Bus	PCI-Express	One x16 or Two x8 and one x4 to backplane																	
	PCI	Four 32-bit 33 MHz PCI Masters to backplane																	
Memory	Technology	Dual channel (ECC/Non-ECC) U-DIMM DDR4 1866/2133 MHz (Note: Please select Intel ECC supported processor to enable ECC function; support DDR4 1024M x 8 memory technology)																	
	Max. Cap.	32 GB (16 GB per DIMM)																	
	Socket	DDR4 288 pins DIMM x 2																	
Graphics	Controller	Chipset integrated Intel HD Graphics																	
	VRAM	Shared system memory is subject to OS																	
	CRT	Supports resolution up to 1920 x 1200 pixel @ 60MHz																	
	DVI-D	Supports resolution up to 1920 x 1200 pixel @ 60MHz																	
	Display Port	Supports resolution up to 4096x2304 @ 60Hz, 24bpp (Supporting 4K display required two DDR channels of same size)																	
Ethernet	Triple Display	CRT+DP/DVI-D+DP/DVI-D																	
	Interface	10/100/1000 Mbps																	
Rear I/O	Controller	LAN 1: Intel I219LM LAN 2: Intel I210AT																	
	Connector with LED	RJ45 x 2																	
	USB 3.0	1																	
Internal Connector	Ethernet	2																	
	VGA	1																	
	PS/2	1 (PS/2 Y cable supports 1 x keyboard and 1 x mouse)																	
	USB	7 USB2.0 (Pin-header*2+USB Type A*1+ 4 on backplane); 4 USB3.0 (Pin header)																	
	SATA (SW Raid 0,1,5,10)	5																	
	M.2 (2280 Type M)	1 (Support SATA3.0 or PCIe4 device)																	
	DP/DVI-D	2 (Pin header)																	
	COM	2																	
	Parallel	1																	
	IrDA	1																	
Watchdog Timer	GPIO	8bit																	
	Output	System reset																	
Miscellaneous	Interval	Programmable 1-255 sec																	
	Audio	Intel High Definition audio interface (required an audio extension module P/N: PCA-AUDIO-HDA1E)																	
Power Requirement	Test environment	SKL 2.2G 65W DDR4 2133 8GB x 2																	
	Voltage	+12V				+5V				+3.3V				+5Vsb		-12V		-5V	
	Current	2.64A				1.23A				0.19A				0.09A		0.06A		0V	
Environment	Operating	0 ~ 60° C(32~140° F); Depends on CPU and cooler solution										Non-operating							
	Temperature/Humidity	Operating humidity: 40° C @ 85% RH Non-Condensing										-40 ~ 85° C @ 60° C @ 95% RH Non-Condensing							
Physical	Dimensions	338 mm (L) x 122 mm (W) (13.3" x 4.8")																	

Block Diagram



Ordering Information

Part Number	PCH	Memory	Backplane	LAN	VGA	DP/DVI-D	COM	SATA III	M.2	USB 2.0	USB 3.0	S/W Raid	AMT
PCE-7129G2-00A1E	C236	ECC/Non-ECC	PCE-5BXX PCE-7BXX	2	Yes	2*	2	5	1	7	5	Yes	Yes

Note: DP/DVI-D cable is optional

Packing List

Part Number	Description	Quantity
1700003194	Serial ATA HDD data cable	x2
1700022749-11	Serial ATA HDD power cable	x1
1701260305	COM + printer ports cable kit	x1
1700060202	Keyboard and mouse Y-cable	x1
1700002204	2-port USB cable kit	x1
9689000068	Jumper package	x1
2190000902	Warranty Card	x1
2001512910	Startup manual	x1
2061512900	Utility CD	x1

Optional Accessories

Part Number	Description
1960052651N021	2U CPU cooler (PWM Fan)
1960049408N001	CPU cooler for 1U chassis
PCA-AUDIO-HDA1E	Audio module
PCA-TPM-00A1E	TPM module(Trust Platform management)
PCA-COM232-00A1E	4 Ports RS-232 Module by LPC
PCA-COM485-00A1E	4 Ports RS-485/422 Module by LPC
1700020277-01	2 ports USB 3.0 cable w/ BKT(30cm)
1700021831-01	DP to DVI-D cable w/ BKT
PCE-DP10-00A1E	DP to DP cable w/ BKT

I/O View

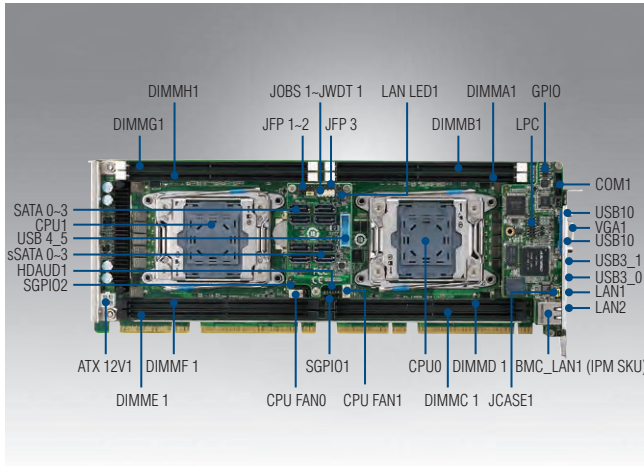


PCE-7129G2-00A1E

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- Video Wall Controllers 7
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PCE-9228

Dual LGA 2011-R3 Intel Xeon® E5-2600v3 SHB Server Board with C612, DDR4/SATA3.0/USB3.0/Dual GbE



CE FCC

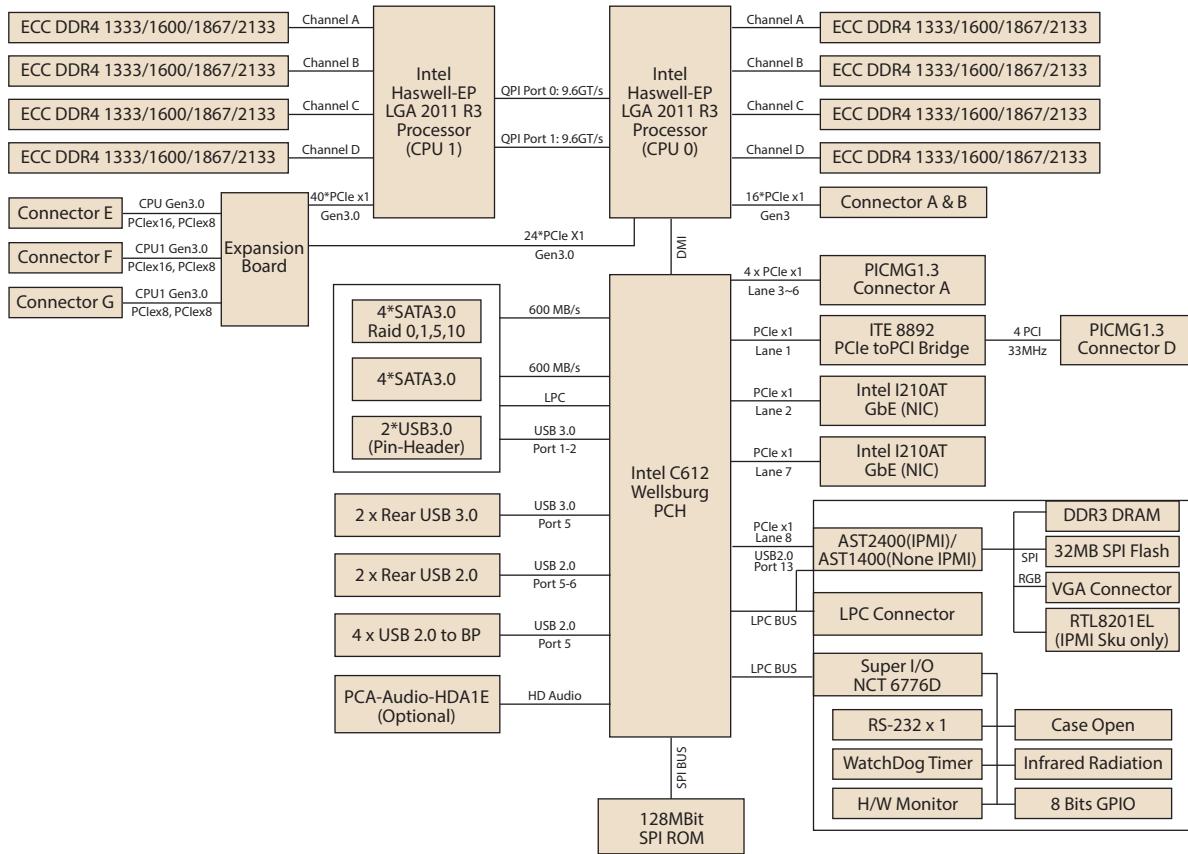
Features

- Supports Dual Intel Xeon E5-2600v3 series processors with C612
- Support DDR4 2133MHz RDIMM up to 256GB
- Support PCIe3.0,USB3.0,SW raid 0, 1, 5, 10
- Support out-of-band remote management with IPMI
- 0 ~ 40° C ambient operation temperature range

Specifications

Processor System	Socket	Intel LGA 2011-R3				
	CPU type	Intel Xeon E5-2600(v3) dual processor (TDP up to 120W per CPU)				
Core Logic	Chipset	Intel C612 chipset				
	Total slots	8 (Quad Channel)				
Memory	Capacity	Maximum 256 GB ECC RDIMM				
	Memory type	DDR4 ECC-REG 2133/1866/1600/1333 MHz DIMM				
	Memory size	1 GB, 2 GB, 4 GB, 8 GB, 16 GB, 32 GB				
Bus	PCI-Express	PICMG1.3: One PCIe x16 or Two PCIe x8, PCIe x4 from PCH				
	PCI	Expansion Board (ODM optional): Three PCIe x16 and Two PCIe x8 (Total 64 PCIe Links) Four PCI 32bit/33MHz				
Graphics	VGA	Aspeed AST2400/1400 64 MB				
Storage	SATA controller	8 SATA3.0 Ports support software raid 0, 1, 5, 10				
Networking	GbE LAN	2 x Intel I210AT				
	USB connector	2 USB3.0 Ports in one pin header				
Onboard I/O Connectors	CPU Fan header	2 x 4pin				
	GPIO	1				
	LAN LED	1				
	Audio Header	1				
	Serial port header	1 (Pin header 2.0 pitch)				
Rear I/O Connectors	External USB port	4 (2*USB2.0 + 2*USB3.0)				
	VGA port	1				
Management Solution	RJ-45	3 (1 port dedicated for IPMI function)				
	Software	SUSIAccess				
Watchdog Timer	Out of band remote management	IPMI (PCE-9228G2I sku only)				
	Output	System reset				
Power Requirement	Interval	Programmable 1 ~ 255 sec/min				
	Power On	3.3V	5V	12V	5Vsb	-12V
	E5-2680v3 x2 DDR4 RDIMM 16GB x8	2.61A	1.07A	26.73A	0.07A	0.01A
Environment	Operating	Non-operating				
	Temperature	0 ~ 40° C, depends on CPU speed and cooler solution				
Physical Characteristics	Humidity	-40 ~ 85° C				
	Dimensions	10% ~ 95% (Non condensing)				
		338 (L) x 122 mm (W) (13.3" x 4.8")				

Block Diagram



Ordering Information

Part Number	Chipset	Memory	GbE LAN	IPMI	VGA Chip
PCE-9228G2-00A1E	C612	DDR4 RDIMM	2	-	AST 1400
PCE-9228G2I-00A1E	C612	DDR4 RDIMM	2	Yes	AST 2400

Note: "I" sku features a dedicated LAN for IPMI function only.

Packing List

Part Number	Description	Quantity
2066922800	Driver CD	x 1
2066922810	Startup manual	x 1
1700003194	SATA data cables	x 2
1703150102	SATA power cables	x 1

Optional Accessories

Part Number	Description
PCA-AUDIO-HDA1E	HD Audio-card
PCA-TPM-00A1E	TPM Module
1960063011N011	Cooler IGA-2011 narrow cooler 107 x 70 x 64 for 4U chassis (120W; Puller fan)
1700020277-01	2 ports USB3.0 cable w/ BKT(30cm)
1700100250	COM port cable w/o bracket
PCA-COM232-00A1E	4 ports RS-232 module
PCA-COM485-00A1E	4 ports RS-422/485 module

I/O View



PCE-9228G2I-00A1E

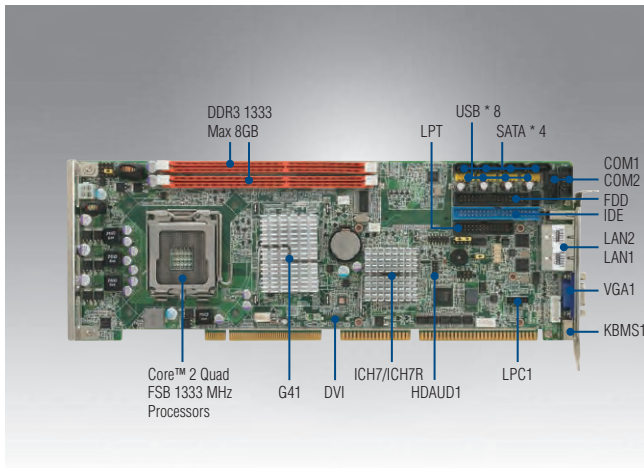


PCE-9228G2-00A1E

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PCA-6011

LGA775 Intel® Core™2 Quad SBC with VGA/DVI/Dual GbE LAN



Features

- Compliant with PICMG 1.0
- Supports LGA 775 Intel® Core™2 Quad FSB 1333 MHz processors
- Supports Dual Channel DDR3 1333 SDRAM up to 8 GB
- Dual GbE LAN via two PCIe x1 lane
- 2 COM ports, 4 SATA ports, 8 USB ports
- Dual display with VGA and DVI-D (G2 only)

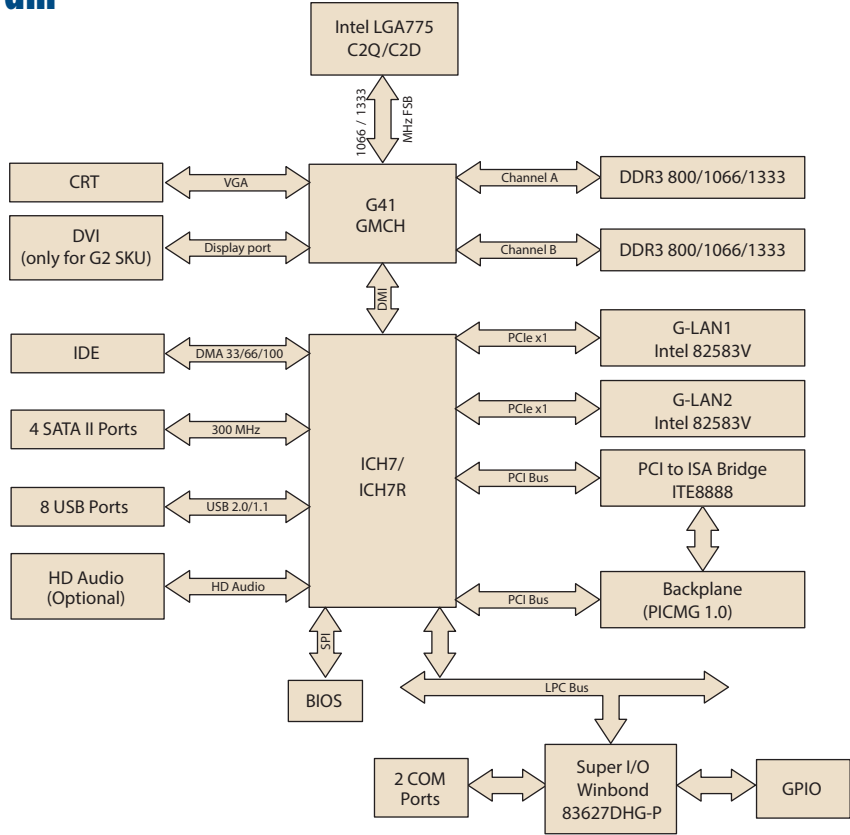
Quiet

CE FCC

Specifications

Processor System	CPU (45nm/65nm)	Intel Core 2 Quad	Intel Core 2 Duo	Intel Pentium	Intel Celeron	
	Max Speed	Q9650 3.0 GHz	E8500 3.16 GHz	E6500 2.93 GHz	E1500 2.2 GHz	
	L2 Cache	12 MB	6 M	8 M	512 KB	
	Chipset	Intel G41 + ICH7/ICH7R (only for G2 SKU)				
	BIOS	AMI 16 Mb SPI Flash				
Bus	FSB	800/1066/1333 MHz				
	PCI	32 bit/33 MHz PCI				
Memory	ISA	HISA (ISA High Driver)				
	Technology	Dual-channel DDR3 800/1066/1333 DIMMs				
	Max. Cap.	8 GB				
Graphics	Socket	240-pin DIMM x 2				
	Controller	Intel Graphics Media Accelerator X4500				
	VRAM	Shared with system memory up to 352 MB				
Ethernet	Video Output	15-Pin VGA D-sub Connector x1/DVI connector x1 (only for G2 SKU)				
	Interface	10/100/1000 Mbps				
	Controller	Intel 82583 V				
SATA	Connector	RJ-45 with LED Connector x 2 (G2 SKU), x1 (VG SKU)				
	Bandwidth	300 MB/s				
	Channel	4 ports				
EIDE	RAID	0, 1, 5, 10 (only for G2 SKU)				
	Mode	ATA 100/66/33				
	Channel	1 (Supports up to 2 IDE devices; Master device is alternative for CF socket)				
I/O Interface	CF	(Optional)				
	USB 2.0	8 ports by pin header (VG SKU); 6 ports by pin header/1 port on bracket I/O (G2 SKU)				
	Serial	2 RS-232 on board pin-headers, plus for ports of RS-485 with auto-flow control by module (optional, Advantech P/N: PCA-COM485-00A1E)				
	Parallel	1 (EPP/ECP/SPP)				
	FDD	1				
Watchdog Timer	PS/2	1 (for mouse and keyboard, Y cable is included in the package)				
	Output	System reset				
Miscellaneous	Interval	Programmable, 1~255 sec				
	Audio Output	Intel High Definition audio interface (requires an audio extension module P/N: PCA-AUDIO-HDA1E)				
Power Requirement	CPU	Configuration1: Core 2 Quad Q9400 (3.0 G, 95 W) + DDR3 1066 2 G x2				
	Voltage	+12 V	+5 V	+3.3 V	+5 VSB	-12 V -5 V
	Curent	5.14 A	4.04 A	0 A	0.17 A	0 A 0 A
	CPU	Configuration 2: Core2 Duo E8400 (3.0G, 65W) + DDR3 1066 2 GB x2				
Environment	Voltage	+12 V	+5 V	+3.3 V	+5 VSB	-12 V -5 V
	Curent	3.63 A	3.4 A	0 A	0.15 A	0 A 0 A
	Temperature	Operating 0 ~ 60° C (32 ~ 140° F), (operating humidity: 40° C @ 85% RH Non-Condensing)			Non-Operating -40° C ~ 85° C and 60° C @ 95% RH Non-Condensing	
Physical	Dimensions	338 mm (L) x 122 mm (W) (13.3" x 4.8")				

Block Diagram



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Ordering Information

Part Number	LAN	VGA	COM	SATA	S/W RAID	USB	DVI	CF
PCA-6011VG-00A1E	Single GbE	Yes	2	4	-	8	No (Optional)	No (Optional)
PCA-6011G2-00A1E	Dual GbE	Yes	2	4	Yes	7	Yes	No (Optional)

Packing List

Part Number	Description	Quantity
1701400452	IDE HDD cable	x 1
1700008461-11	USB cable with 4 ports	x 1
1700022749	Serial ATA HDD power cable	x 1
1700003194	Serial ATA HDD data cable	x 2
1700060202	Y-cable for PS/2 mouse & keyboard	x 1
1701260305	Printer + COM cable	x 1
9689000068	Jumper pack	x 1
2190000902	Warranty card	x 1
2002601110	Startup manual	x 1
2062601100	Utility CD	x 1

Optional Accessories

Part Number	Description
1750000332	LGA 775 CPU cooler for 115 W TDP CPUs
PCA-AUDIO-HDA1E	Audio extension module
1701090401	Single COM cable kit
PCA-COM485-00A1E	4 x 422/485 COM module
1700008822-11	DVI-D cable

I/O View



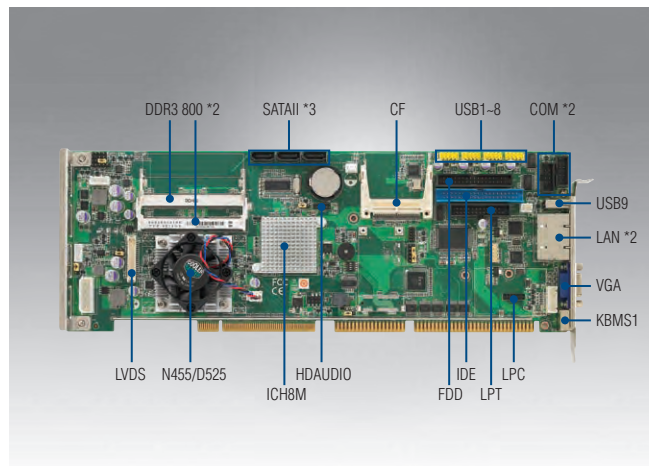
PCA-6011G2-00A1E



PCA-6011VG-00A1E

PCA-6012

Intel® Atom™ N455/D525 SBC with VGA/ Dual GbE LAN



Features

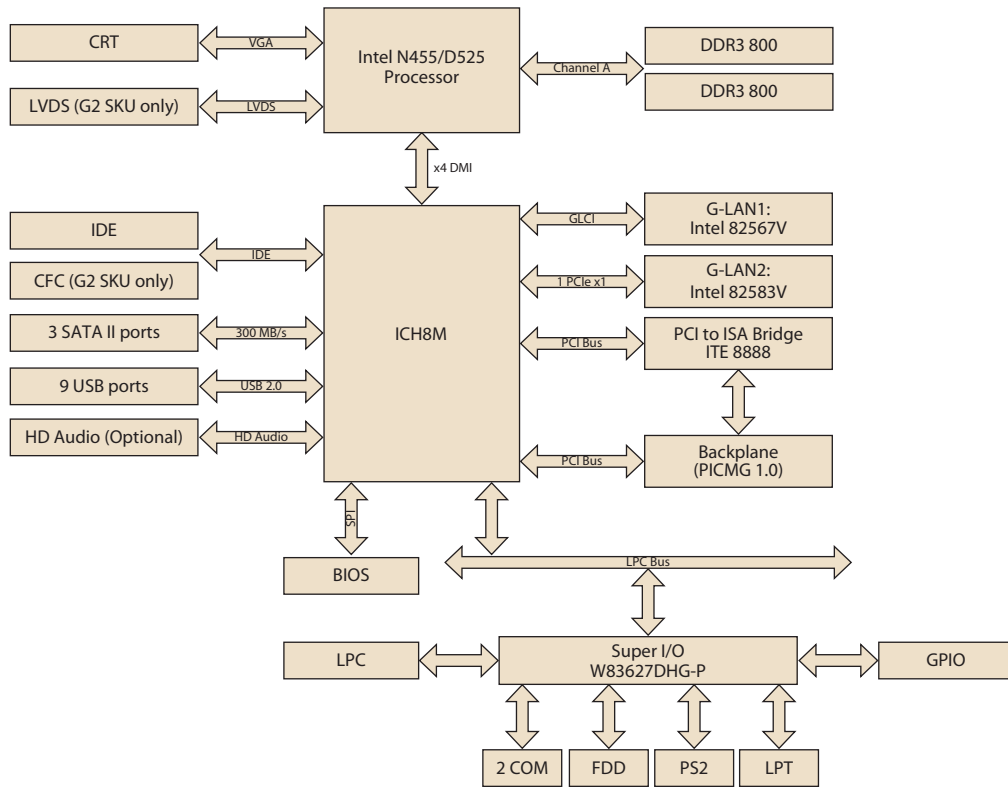
- Ultra low power, fanless N455 CPU and maximum 2 GB DDR3 800 memory (Only for N SKU)
- Dual Core™ high performance D525 CPU and maximum 4 GB DDR3 800 memory (Only for D SKU)
- Optional module for 4 x RS-485 w/auto-flow control
- Supports embedded software APIs and utilities

CE FCC

Specifications

Processor System	CPU	Intel Atom N455	Intel Atom D525
	Speed	1.66 GHz	1.8 GHz
	L2 Cache	512 KB	1 MB
	Chipset	Intel ICH8M	
	BIOS	AMI 16Mb SPI Flash	
Bus	PCI	32-bit/33 MHz PCI	
	ISA	HISA (ISA High Drive)	
	Technology	Dual channel DDR3 800 MHz DIMMs	
Memory	Max. Cap.	2 GB	4 GB
	Socket	204-pin SODIMM x 2	
	Controller	Embedded Gen3.5+ GFX Core technology, Direct X 9/Pixel Shader 2.0 compliant	
Graphics	VRAM	Shared with system memory up to 224 MB	
	Video Interface	15-pin VGA D-sub connector x1/LVDS pin header x 1 (G2 SKU only, supports single channel 18-bit LVDS)	
	Video Output	VGA: Supports up to SXGA 1400 x 1050 @ 60 Hz for Atom N455 VG SKU, up to 2048 x 1536 @ 60 Hz for Atom D525 G2 SKU	
		LVDS: Supports 18-bit single channel and up to WXGA 1366 x 768 or 1280 x 800 (G2 SKU only)	
Ethernet	Interface	10/100/1000 Mbps	
	Controller	LAN1: Intel 82567V, LAN2: Intel 82583V	
	Connector	RJ-45 with LED Connector x2 (G2 SKU), x1 (VG SKU)	
SATA 2	Max. Transfer Rate	300 MB/s	
	Channel	3	
EIDE	Mode	ATA 100/66/33	
	Channel	1 (Supports up to 2 IDE devices; Master device is alternative for CF socket)	
I/O Interface	USB 2.0	8 ports by pin header (VG SKU); 8 ports by pin header and 1 port on bracket I/O (G2 SKU)	
	Serial	2 RS-232 onboard pin-headers, plus four ports of RS-485 with auto-flow control by module (optional, Advantech P/N: PCA-COM485-00A1E)	
	Parallel	1 (EPP/ECP)	
	GPIO	1 (8-bit)	
	FDD	1	
	PS/2	1 (for mouse and keyboard, Y cable is included in the package)	
Watchdog Timer	Output	System reset	
	Interval	Programmable, 1-255 sec	
Miscellaneous	Audio Output	Intel High Definition audio interface (requires an audio extension module, P/N: PCA-AUDIO-HDA1E)	
Power Requirement	Configuration	Atom D525 CPU 1.8 GHz + DDR3 1333 2G x2 SODIMM; Storage: One SATA HDD	
	Voltage	+12 V +5 V +3.3 V +5 VSB -12 V -5 V	
	Current	0.44 A 3.71 A 0 A 0.15 A 0 A 0 A	
	Configuration	Atom N455 CPU 1.66 GHz + DDR3 1333 1G x2 SODIMM; Storage: One SATA HDD	
	Voltage	+12 V +5 V +3.3 V +5 VSB -12 V -5 V	
	Current	0.16 A 2.81 A 0 A 0.13 A 0 A 0 A	
Environment	Temperature	Operating	Non-Operating
		0 ~ 60° C (32 ~ 140° F) (Operational humidity: 40° C @ 85% RH Non-Condensing)	-40 ~ 85° C and 60° C @ 95% RH Non-Condensing
Physical	Dimensions	338 mm (L) x 122 mm (W) (13.3" x 4.8")	

Block Diagram



Ordering Information

P/N	CPU	Fan-Less	RAM	LAN	VGA	LVDS	FDD	SATA	USB	CF
PCA-6012VG-00A1E	Atom™ N455	Yes	Socket to 2G	Single GbE LAN	Yes	-	1	3	8	-
PCA-6012G2-00A1E	Atom™ D525	No	Socket to 4G	Dual GbE LAN	Yes	Yes	1	3	9	1

Packing List

Part Number	Description	Quantity
1960046526N001	CPU Cooler for Atom™ D525CPU (Only for G2 SKU)	x1
1701400452	IDE HDD cable	x 1
1700008461	USB cable with 4 ports	x 1
1700022749-11	Serial ATA HDD power cable	x 2
1700003194	Serial ATA HDD data cable	x 2
1700060202	Y-cable for PS/2 mouse & keyboard	x 1
1701260305	Printer + COM cable	x 1
9689000068	Jumper pack	x 1
2190000902	Warranty card	x 1
-	Startup manual	x 1
-	Utility CD	x 1

Optional Accessories

Part Number	Description
1701090401	Single COM Cable
1701092300	Dual COM Cable
PCA-AUDIO-HDA1E	Audio extension module
PCA-COM485-00A1E	4 x RS-422/RS-485 COM module

I/O View



PCA-6012VG-00A1E

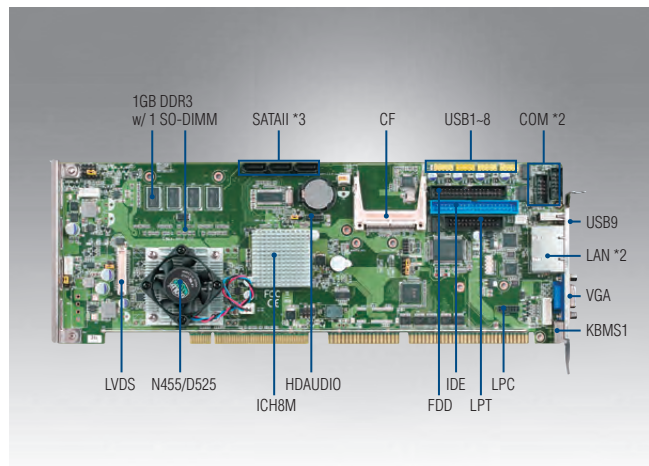


PCA-6012G2-00A1E

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PCA-6013

Intel® Atom™ N455/D525 SBC with VGA/Dual GbE LAN



Features

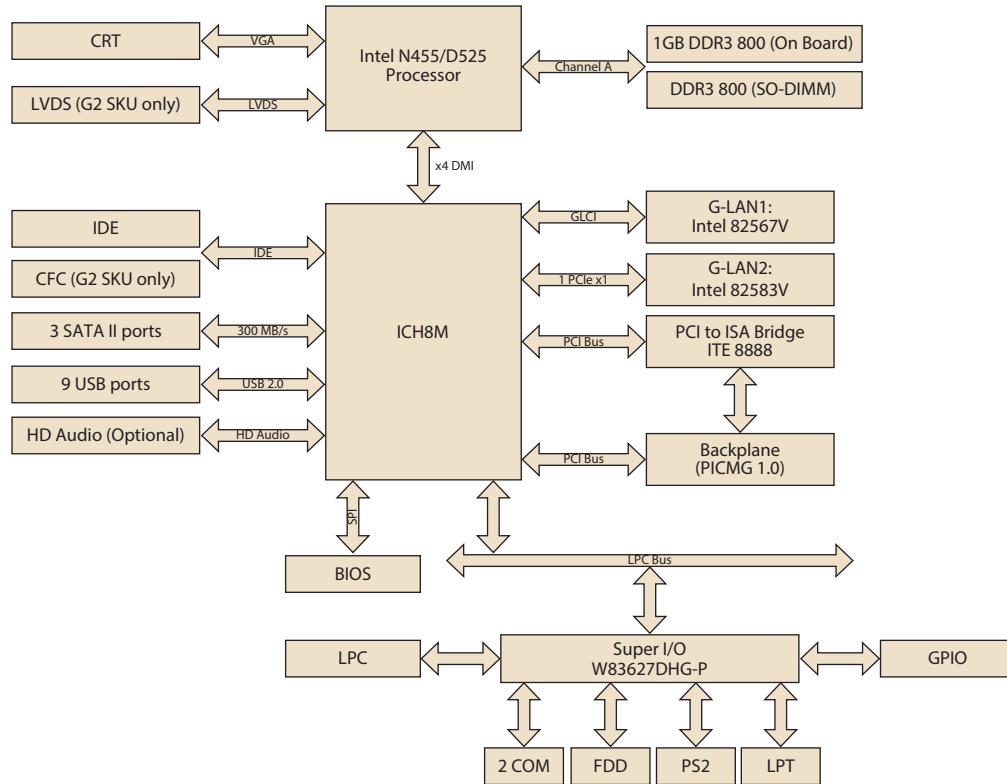
- Ultra low power, fanless N455 CPU and maximum 2 GB DDR3 800 memory (Only for N SKU)
- Dual core high performance Intel® Atom™ D525 processor and maximum 3 GB DDR3 800 memory (Only for D SKU)
- Memory anti-vibration through 1GB on board memory and SO-DIMM mounting holes
- IE61000-4-5 LV.3 anti-surge certified rear I/O: LAN, COM ports and optional module COM-485SP w/ 4x RS-485



Specifications

Processor System	CPU	Intel Atom N455	Intel Atom D525
	Speed	1.66 GHz	1.8 GHz
	L2 Cache	512 KB	1 MB
	Chipset	Intel ICH8M	
	BIOS	AMI 16Mb SPI Flash	
Bus	PCI	32-bit/33 MHz PCI	
	ISA	HISA (ISA High Drive)	
	Technology	Single channel DDR3 800 MHz DIMMs	
Memory	Max. Cap.	2 GB	3 GB
	Layout	1G on-board and 204 pin SODIMM x1	
	Controller	Embedded Gen3.5+ GFX Core technology, Direct X 9/Pixel Shader 2.0 compliant	
Graphics	VRAM	Shared with system memory up to 224 MB	
	Video Interface	15-pin VGA D-sub connector x1/LVDS pin header x 1 (G2 SKU only, supports single channel 18-bit LVDS)	
	Video Output	VGA: Supports up to SXGA 1400 x 1050 @ 60 Hz for Intel Atom N455 VG SKU, up to 2048 x 1536 @ 60 Hz for Atom D525 G2 SKU	
		LVDS: Supports 18-bit single channel and up to WXGA 1366 x 768 or 1280 x 800 (G2 SKU only)	
Ethernet	Interface	10/100/1000 Mbps	
	Controller	LAN1: Intel 82567V, LAN2: Intel 82583V	
	Connector	RJ45 with LED Connector x2 (G2 SKU), x1 (VG SKU)	
SATA 2	Max. Transfer Rate	300 MB/s	
	Channel	3	
EIDE	Mode	ATA 100/66/33	
	Channel	1 (Supports up to 2 IDE devices; Master device is alternative for CF socket)	
I/O Interface	USB 2.0	8 ports by pin header (VG SKU); 8 ports by pin header and 1 port on bracket I/O (G2 SKU)	
	Serial	2 RS-232 onboard pin-headers, plus four ports of RS-485 with auto-flow control by module (optional, Advantech P/N: PCA-COM485-00A1E)	
	Parallel	1 (EPP/ECP)	
	GPIO	1 (8-bit)	
	FDD	1	
	PS/2	1 (for mouse and keyboard, Y cable is included in the package)	
	Watchdog Timer	Output	System reset
Miscellaneous	Interval	Programmable, 1-255 sec	
	Audio Output	Intel High Definition audio interface (requires an audio extension module, P/N: PCA-AUDIO-HDA1E)	
Power Requirement	Configuration	Intel Atom D525 CPU 1.8 GHz + DDR3 1333 2G x2 SODIMM; Storage: One SATA HDD	
	Voltage	+12 V +5 V +3.3 V +5 VSB -12 V -5 V	
	Current	0.44 A 3 A 0 A 0.15 A 0 A 0 A	
	Configuration	Atom N455 CPU 1.66 GHz + DDR3 1333 1G x2 SODIMM; Storage: One SATA HDD	
	Voltage	+12 V +5 V +3.3 V +5 VSB -12 V -5 V	
	Current	0.16 A 2.1 A 0 A 0.13 A 0 A 0 A	
Environment	Temperature	Operating	Non-Operating
		0 ~ 60° C (32 ~ 140° F)	
		(Operational humidity: 40° C @ 85% RH Non-Condensing)	-40 ~ 85° C and 60° C @ 95% RH Non-Condensing
Physical	Dimensions	338 mm (L) x 122 mm (W) (13.3" x 4.8")	

Block Diagram



Ordering Information

P/N	CPU	Fan-Less	RAM	LAN	VGA	LVDS	FDD	SATA	USB	CF
PCA-6013VG-00A1E	Intel® Atom™ N455	Yes	1G onboard + 1 SO-DIMM to 2G	Single GbE LAN	Yes	-	1	3	8	-
PCA-6013G2-00A1E	Intel® Atom™ D525	No	1G onboard + 1 SO-DIMM to 3G	Dual GbE LAN	Yes	Yes	1	3	9	1

Packing List

Part Number	Description	Quantity
1960046526N001	CPU Cooler for Atom D525CPU (Only for G2 SKU)	x 1
1701400452	IDE HDD cable	x 1
1700008461-11	USB cable with 4 ports	x 1
1700022749-11	Serial ATA HDD power cable	x 1
1700003194	Serial ATA HDD data cable	x 1
1700060202	Y-cable for PS/2 mouse & keyboard	x 1
1701260305	Printer + COM cable	x 1
9689000068	Jumper pack	x 1
2190000902	Warranty card	x 1
-	Startup manual	x 1
-	Utility CD	x 1

Optional Accessories

Part Number	Description
PCA-AUDIO-HDA1E	Audio extension module
PCA-COM485-00A1E	4 x RS-422/RS-485 COM module
1701090401	Single COM cable
1701092300	Dual COM cable

I/O View



PCA-6013VG-00A1E

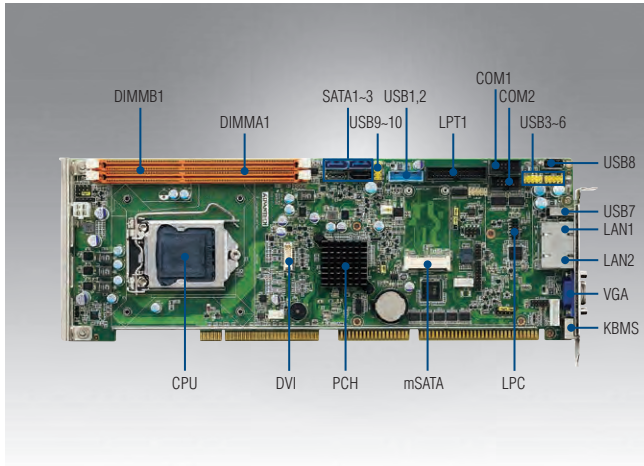


PCA-6013G2-00A1E

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- Industrial Motherboards 9
- Slot SBC & Passive Backplanes 10
- Compact PCI Platforms 11
- Industrial Chassis 12
- Industrial Computer Peripherals 13
- Industrial Ethernet Solutions 14

PCA-6028

LGA1150 Intel® Core™ i7/i5/i3/Pentium SBC with VGA/DVI/Dual GbE LAN



Features

- Supports Intel® Core™ i7/i5/i3/Pentium LGA1150 processors with H81
- Dual Channel (Non-ECC) DDR3 1333/1600 up to 16 GB
- Supports USB 3.0, SATA3.0
- Dual display with VGA and DVI-D (optional)
- Supports Advantech LPC modules.
- Supports SUSIAccess and Embedded Software APIs

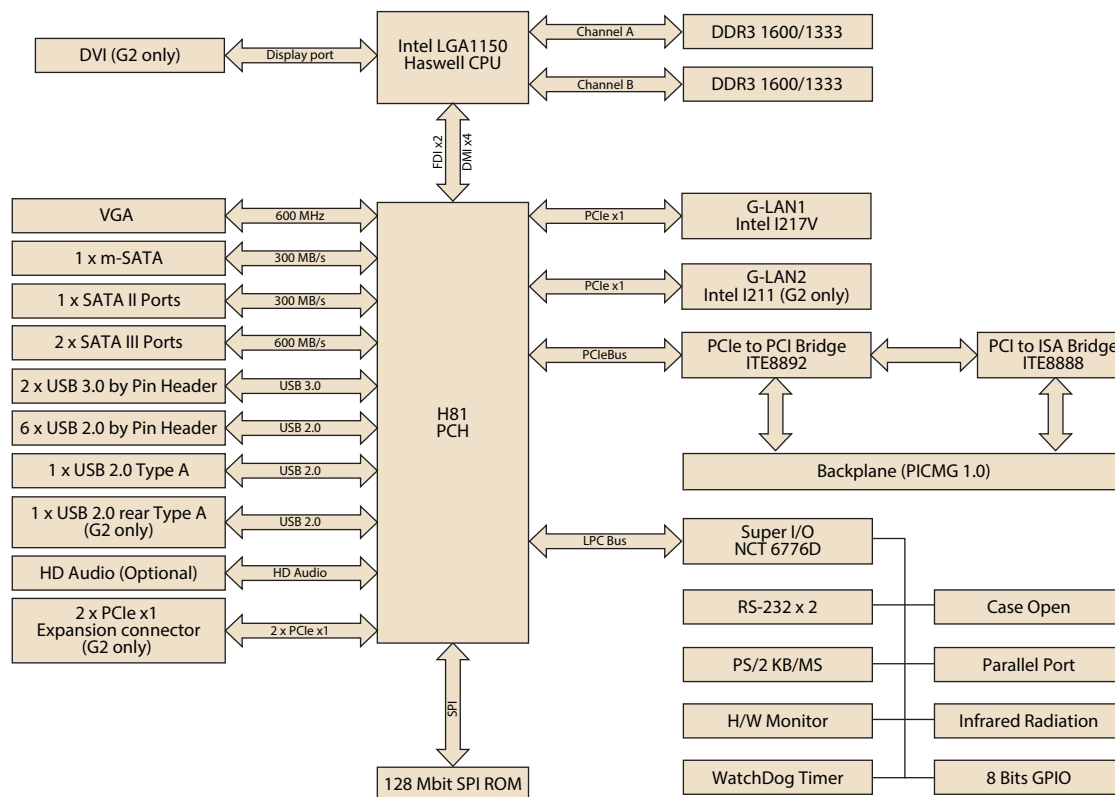
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CE FCC

Specifications

Processor System	Haswell refresh CPUs are supported from BIOS V2.xx								
	CPU	i7-4790S	i5-4590S	i5-4590T	i3-4360	i3-4350T	i3-4340TE		
	Base Frequency	3.2GHz	3.0GHz	2.0GHz	3.7GHz	3.1GHz	2.6GHz		
	L3 Cache	8MB	6MB	6MB	4MB	4MB	4MB		
	Haswell CPUs are supported by both BIOS V1.xx and V2.xx								
	CPU	i7-4770S	i7-4770TE	i5-4570S	i5-4570TE	i3-4330	i3-4330TE	G3420	G3320TE
	Base Frequency	3.1GHz	2.3GHz	2.9GHz	2.7GHz	3.5GHz	2.4GHz	3.2GHz	2.3GHz
	L3 Cache	8MB	8M	6MB	4MB	4MB	3MB	3MB	3MB
	SKU/Chipset	Intel H81							
	BIOS	AMI 128Mbit SPI Flash							
Bus	ISA	HISA (ISA High Driver)							
	PCI	32 bit/ 33 MHz PCI							
Memory	Technology	Dual channel (Non-ECC) DDR3 1333/1600							
	Max. Cap.	16 GB (8 GB per DIMM)							
	Socket	DDR3 240-pin DIMM x 2							
Graphics	Controller	Chipset integrated Intel HD Graphics							
	VRAM	Shared system memory is subject to OS							
	CRT	Supports resolution up to 2048 x 1536 pixel at 60Hz							
	DVI-D	Supports resolution up to 1920 x 1200 pixel at 60Hz (G2 only)							
Ethernet	Interface	10/100/1000 Mbps							
	Controller	LAN 1: Intel I21V LAN 2: Intel I211 (Only in G2 Sku)							
	Connector with LED	RJ45 x 1 (VG sku); RJ45 x 2(G2 sku)							
SATA	Channel	SATA 3.0 x 2 (600 MB/sec), SATA2.0 x 2 (300MB/sec)							
Rear I/O	USB 2.0	1 (Only in G2 sku)							
	Ethernet	1 (VG sku); 2 (G2 sku)							
	VGA	1							
	PS/2	1 (PS/2 Y cable supports 1 x keyboard and 1 x mouse)							
Internal Connector	USB	Up to 8x USB2.0 (6x Pin header, 1x Type A, 1x Rear in G2 sku only) 2x USB3.0 (Pin header)							
	SATA	4(1x SATA2.0, 2x SATA3.0, 1x mSATA)							
	DVI-D	1 (Pin header)							
	COM	2							
	Parallel	1							
	IrDA	1							
	GPIO	8-bit							
Watchdog Timer	Output	System reset							
	Interval	Programmable 1-255 sec							
Miscellaneous	Audio	Intel High Definition audio interface (required an audio extension module P/N: PCA-AUDIO-HDA1E)							
Power Requirement	Test Environment	Core i7-4790S@3.20GHz; 8GB DDR3 1600 2Rx8*2; SATA HDD*1							
	Voltage	+12V	+5V	+3.3V	+5Vsb	-12V	-5V		
	Current	4.94A	1.83A	0A	0.01A	0A	0A		
Environment	Temperature/Humidity	Operating 0 ~ 60° C(32~140° F); Depends on CPU frequency and cooler solution				Non-operating			
		Operating humidity: 40° C @ 85% RH Non-Condensing				-40 ~ 85°C and 60° C @ 95% RH Non-Condensing			
Physical	Dimensions	338 mm (L) x 122 mm (W) (13.3" x 4.8")							

Block Diagram



Ordering Information

Part Number	LAN	VGA	DVI-D	COM	SATA	USB	m-SATA
PCA-6028VG-00A1E	1	Yes	-	2	3 (1 x 2.0 + 2 x 3.0)	9 (2 x 3.0 + 7 x 2.0)	1
PCA-6028G2-00A1E	2	Yes	1*	2	3 (1 x 2.0 + 2 x 3.0)	10 (2 x 3.0 + 8 x 2.0)	1

*Note: Output DVI-D signal only (Required DVI-D cable: 1700021831-01)

Packing List

Part Number	Description	Quantity
1700003194	Serial ATA HDD data cable	x2
1700022749-11	Serial ATA HDD power cable	x1
1701260305	COM + printer ports cable kit	x1
1700060202	Keyboard and mouse Y-cable	x1
1700008461-11	4-port USB cable kit	x1
9689000068	Jumper package	x1
2190000902	Warranty Card	x1
-	Startup manual	x1
-	Utility CD	x1

Optional Accessories

Part Number	Description
1701090401	Single COM cable
1701092300	Dual COM cable
1700020277-01	2-port USB 3.0 cable w/ BKT(30cm)
1700021831-01	DP to DVI-D cable w/ BKT
1960047831N001	PCA-6028 optimized CPU cooler (2U)
PCA-AUDIO-HDA1E	Extension module for 7.1 Channel High Definition Audio
PCA-COM232-00A1E	4 x RS-232 module
PCA-COM485-00A1E	4 x RS-244/485 module
PCA-TPM-00A1E	Trusted platform module compliant with TCG 1.2

I/O View



PCA-6028G2-00A1E

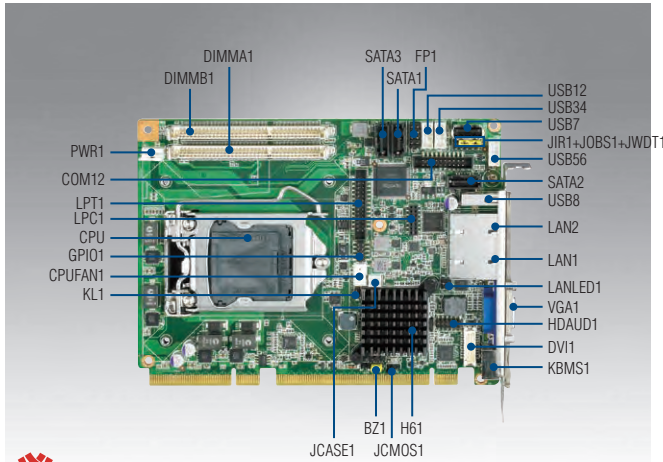


PCA-6028VG-00A1E

- Intelligent Video and IoT Sensors 1
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- Modular IPCs 4
- Server-grade IPCs 5
- Industrial Storages 6
- Video Wall Controllers 7
- GPU Servers 8
- Industrial Motherboards 9
- Slot SBC & Passive Backplanes 10
- Compact PCI Platforms 11
- Industrial Chassis 12
- Industrial Computer Peripherals 13
- Industrial Ethernet Solutions 14

PCE-3026

LGA 1155 Intel® Core™ i7/i5/i3 Half-size SHB with PCIe/VGA/DVI/Dual GbE LAN



Features

- Complies with PICMG 1.3
- Supports LGA 1155 Intel® Core™ i7/i5/i3 processor
- Intel® H61
- Dual channel 1066/1333 MHz SO-DIMM up to 16 GB
- Three SATA 2.0 ports
- Supports dual 10/100/1000 Mbps Ethernet
- Supports one VGA and one DVI



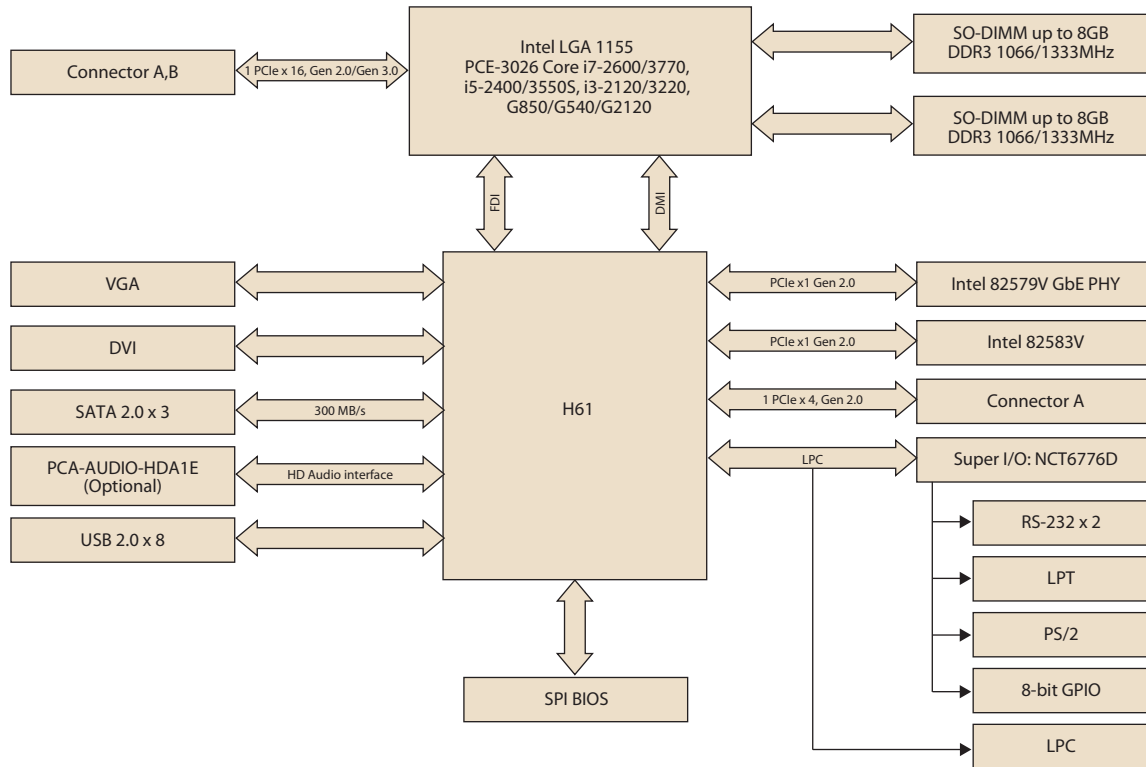
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CE FCC

Specifications

Processor System	CPU	Core i7-3770	Core i7-2600	Core i5-3550S	Core i5-2400	Core i3-3220	Core i3-2120	Pentium G2120	Pentium G850	Celeron G540	
	Base Frequency	3.4 GHz	3.4 GHz	3.0GHz	3.1GHz	3.3GHz	3.3GHz	3.1GHz	2.9GHz	2.5GHz	
	L3 Cache	8 MB	8 MB	6 MB	6 MB	3 MB	3 MB	3 MB	3 MB	2 MB	
	Chipset	Intel H61									
	BIOS	AMI 64Mb SPI Flash									
BUS	PCI Express	One x16 & four x1 to backplane									
Memory	Technology	Dual channel DDR3 1066/1333 MHz SO-DIMM (Non ECC)									
	Max. Capacity	16 GB (8 GB per DIMM)									
	Socket	204-pin SODIMM x 2									
Graphics	Chipset Integrated	Chipset integrated Intel HD Graphics									
	Video Output	One DB-15 VGA output, One DVI out put									
Ethernet	Interface	10/100/1000 Mbps									
	Controller	GbE LAN1: Intel 82579V GbE PHY, GbE LAN2: Intel 82583V									
	Connector	RJ-45 x 2									
SATA	Max. Data Transfer Rate	300 MB/s (SATA 2.0)									
I/O Interface	USB	8 USB 2.0 480 Mbps (6 onboard, 1 on rear I/O, 1 type A onboard)									
	Serial	2 RS-232, and 4 RS-485 (optional: PCA-COM485-00A1E)									
	Parallel	1 (SPP/EPP/ECP)									
	PS/2	1									
Watchdog Timer	Output	System reset									
	Interval	Programmable 1 ~ 255 sec/ min									
Miscellaneous	Audio Output	HD audio interface (requires an audio extension module P/N: PCA-AUDIO-HDA1E)									
Power Requirement	Test environment	Core i5-2400 (3.1 GHz) + DDR3 1333 4 GB x 2									
	Voltage	+12 V	+5 V	+3.3 V	+5 VSB	-12 V	-5 V				
	Current	3.8 A	1.05 A	1.54 A	0.24 A	0 A	0 A				
Environment	Temperature	Operating				Non-Operating					
		0 ~ 60° C (32 ~ 140° F) (operation humidity: 40° C @ 85% RH Non-Condensing)				-40° C - 85° C and 60° C @ 95% RH Non-Condensing					
Physical Characteristics	Dimensions (W x D)	167.64 mm x 126.39 mm (6.6" x 4.98")									

Block Diagram



Ordering Information

Part Number	VGA	DVI	GbE LAN	USB	SATA	COM
PCE-3026G2-00A1E	Yes	1*	Dual	8	3	2 x RS-232 4 x RS-485 (optional)

* For DVI display, optional DVI cable (1700008822) is required.

Packing List

Part Number	Description	Quantity
1700002223	Printer (parallel) port cable	1
1700003194	Serial ATA HDD data cable	1
1703150102	Serial ATA HDD power cable	1
1700008762	2-port COM cable kit	1
1700014398	4-port USB cable kit	1
1703040100	Power converter	1

I/O View



PCE-3026

Optional Accessories

Part Number	Description
PCA-AUDIO-HDA1E	Audio extension module with HD audio interface
PCA-TPM-00A1E	Trusted platform module compliant with TCG 1.2
PCA-COM485-00A1E	4 x RS-422/485 module
PCA-COM232-00A1E	4 x RS-232 module
1700008822	DVI cable
1960047831N001	2U CPU cooler for i7-3770, i7-2600, i5-3550S, i5-2400, i3-3220, i3-2120, G2120, G850, G540
1960053207N001	1.5U CPU cooler for i7-2600, i5-3550S, i5-2400, i3-3220, i3-2120, G2120, G850, G540
1960053065N001	1U blower for i3-3220, i3-2120, G2120, G850, G540

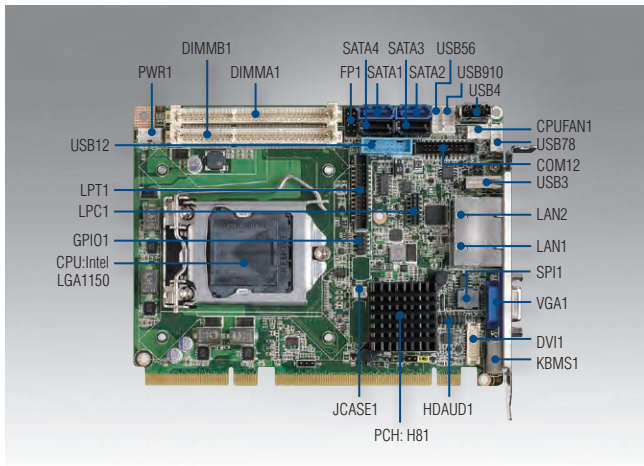
Compatible Backplane and Chassis

Backplane Model	PCI	PCIe x16	PCIe x4	PCIe x1	Compatible Chassis
PCE-3B03-00A1E	-	1	1	-	IPC-3026/ IPC-6806S
PCE-3B06-00A1E	-	1	-	4	IPC-3026/ IPC-6806S
PCE-3B06-03A1E	3	1	-	1	IPC-3026/ IPC-6806S

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- Industrial Motherboards 9
- Slot SBC & Passive Backplanes 10
- Compact PCI Platforms 11
- Industrial Chassis 12
- Industrial Computer Peripherals 13
- Industrial Ethernet Solutions 14

PCE-3028

LGA 1150 4th Generation Intel® Core™ i7/i5/i3 Half-size SHB with PCIe/VGA/ DVI/Dual GbE LAN



Features

- Complies with PICMG 1.3
- Supports Intel Core i7/i5/i3 LGA1150 processors with H81
- Dual Channel (Non-ECC) DDR3 1066/1333/1600 up to 16 GB
- Supports USB 3.0, SATA3.0
- Supports CRT and DVI-D (optional) display
- Support dual 10/100/1000 Mbps Ethernet
- Supports Advantech TPM module (LPC I/O)
- Supports SUSIAccess and Embedded Software APIs

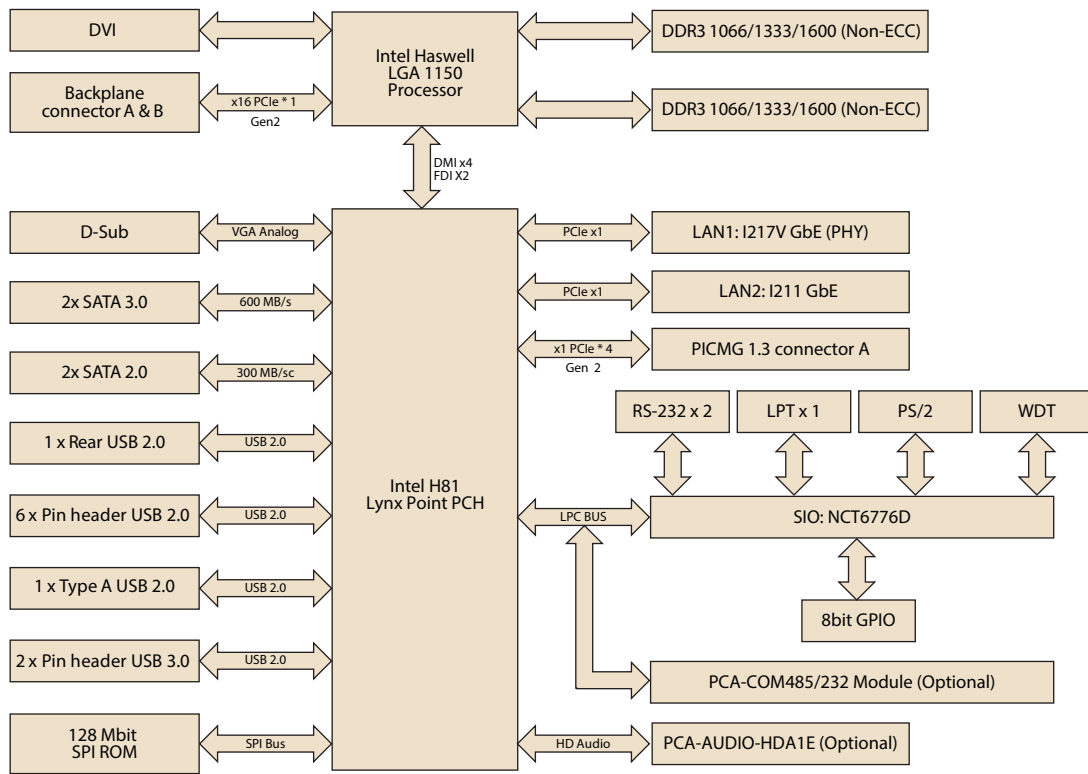
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CE FCC

Specifications

Processor System	CPU	i7-	i7-	i7-	i7-	i5-	i5-	i5-	i5-	i3-	i3-	i3-	i3-	G3420	G3320TE	G1820	G1820TE	
	Base Frequency	3.2GHz	2.7GHz	3.1GHz	2.3GHz	3.0GHz	2.0GHz	2.9GHz	2.7GHz	3.7GHz	3.1GHz	3.5GHz	2.4GHz	3.2 GHz	2.3 GHz	2.7 GHz	2.2 GHz	
	L3 Cache	8MB	8MB	8MB	8MB	6MB	6MB	6MB	4MB	4MB	4MB	4MB	4MB	3MB	3MB	2MB	2MB	
	SKU/Chipset	Intel H81																
	BIOS	AMI 128Mbit SPI Flash																
Bus	PCI-Express	One x16 plus four x1 to backplane																
Memory	Technology	Dual channel (Non-ECC) DDR3 1066/1333/1600																
	Max. Cap.	16 GB (8 GB per DIMM)																
	Socket	DDR3 204-pin SO-DIMM x2																
Graphics	Controller	Chipset integrated Intel GT2 4600 or GT1 HD graphics (Depends on CPU support)																
	VRAM	Shared system memory is subject to OS																
	CRT	Supports resolution up to 1920 x 1200 pixel at 60Hz																
	DVI-D	Supports resolution up to 1920 x 1200 pixel at 60Hz																
	Dual Independent Display	VGA+DVI-D																
Ethernet	Interface	10/100/1000 Mbps																
	Controller	LAN 1: Intel I217V LAN 2: Intel I211AT																
	Connector with LED	RJ-45 x 2																
SATA	Max. Data Transfer Rate	SATA 3.0 x 2 (600 MB/sec), SATA 2.0 x 2 (300 MB/sec)																
Rear I/O	USB 2.0	1																
	Ethernet	2																
	VGA	1																
	PS/2	1 (PS/2 Y cable supports 1 x keyboard and 1 x mouse)																
Internal Connector	USB	Seven USB 2.0 (Pin-header x 6 + USB Type A x 1); Two USB 3.0 (Pin header)																
	SATA	4																
	DVI-D	1																
	COM	2																
	Parallel	1																
	GPIO	8-bit																
Watchdog Timer	Output	System reset																
	Interval	Programmable 1-255 sec																
Miscellaneous	Audio	Intel High Definition audio interface (required an audio extension module P/N: PCA-AUDIO-HDA1E)																
Power Requirement	Test Environment	Intel Core i7-4770S (3.1GHz), DDR3 1600 8GB*2																
	Voltage	12V	5V	3.3V	5VSB	-5V	-12V											
	Current	7.26	1.06	0.42	0	0	0											
Environment	Temperature/Humidity	Operating										Non-operating						
		0 ~ 60° C (32~140° F); Depends on CPU frequency and cooler solution										-40 ~ 85° C and 60° C @ 95% RH Non-Condensing						
Physical	Dimensions	167.64 mm x 126.39 mm (6.6" x 4.98")																

Block Diagram



Ordering Information

Part Number	PCH	Memory	Backplane	LAN	VGA	DVI-D	COM	SATA III	SATA II	USB 2.0	USB 3.0	S/W Raid	AMT
PCE-3028G2-00A1E	H81	Non-ECC	PCE-3XXX	2	1	1	RS-232 x 2 onboard Optional RS-422/485 x 4 or RS-232 x 4 via module	2	2	8	2	No	No

Note: DVI-D cable is optional

Packing List

Part Number	Description	Quantity
1700003194	Serial ATA HDD data cable	x1
1703150102	Serial ATA HDD power cable	x1
1700008762	2-port COM cable	x1
1700002223	1-port LPT cable	x1
1700060202	Keyboard and mouse Y-cable	x1
1700020277-01	2 ports USB 3.0 cable W/BKT	x1
1700014398	4-port USB cable kit	x1
1703040100	Power Converter	x1
9689000002	Jumper package	x1
2190000902	Warranty Card	x1
2006302800	Startup manual	x1
2066302800	Utility CD	x1

Optional Accessories

Part Number	Description
PCA-COM485-00A1E	4 x RS-244/485 module
PCA-COM232-00A1E	4 x RS-232 module
PCA-AUDIO-HDA1E	Audio module
PCA-TPM-00A1E	TPM module(Trust Platform management)
1700021831-01	DP to DVI-D cable w/ BKT
1960047831N001	2U cooler for Intel Core i7-4770S, i7-4770TE, i5-4570S, i5-4570TE, i3-4330, i3-4330TE, G3420, G3220TE, G1820, G1820TE
1960053207N001	1.5 U cooler for Intel Core i7-4770S, i7-4770TE, i5-4570S, i5-4570TE, i3-4330, i3-4330TE, G3420, G3220TE, G1820, G1820TE
1960053065N001	1U blower for Intel Core i5-4570S, i5-4570TE, i3-4330, i3-4330TE, G3420, G3220TE, G1820, G1820TE

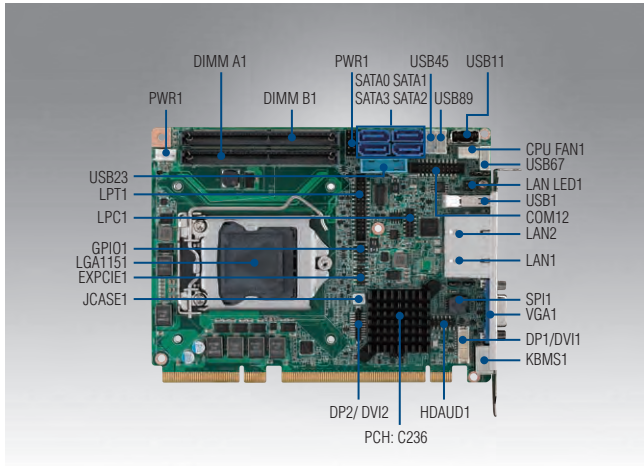
I/O View



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PCE-3029

**LGA 1151 6th Gen Intel® Core™ i7/i5/i3
Half-size SHB with PCIe 3.0/
Dual independent display/Dual GbE LAN/
SATA III/m-SATA/ USB 3.0**



CE FCC

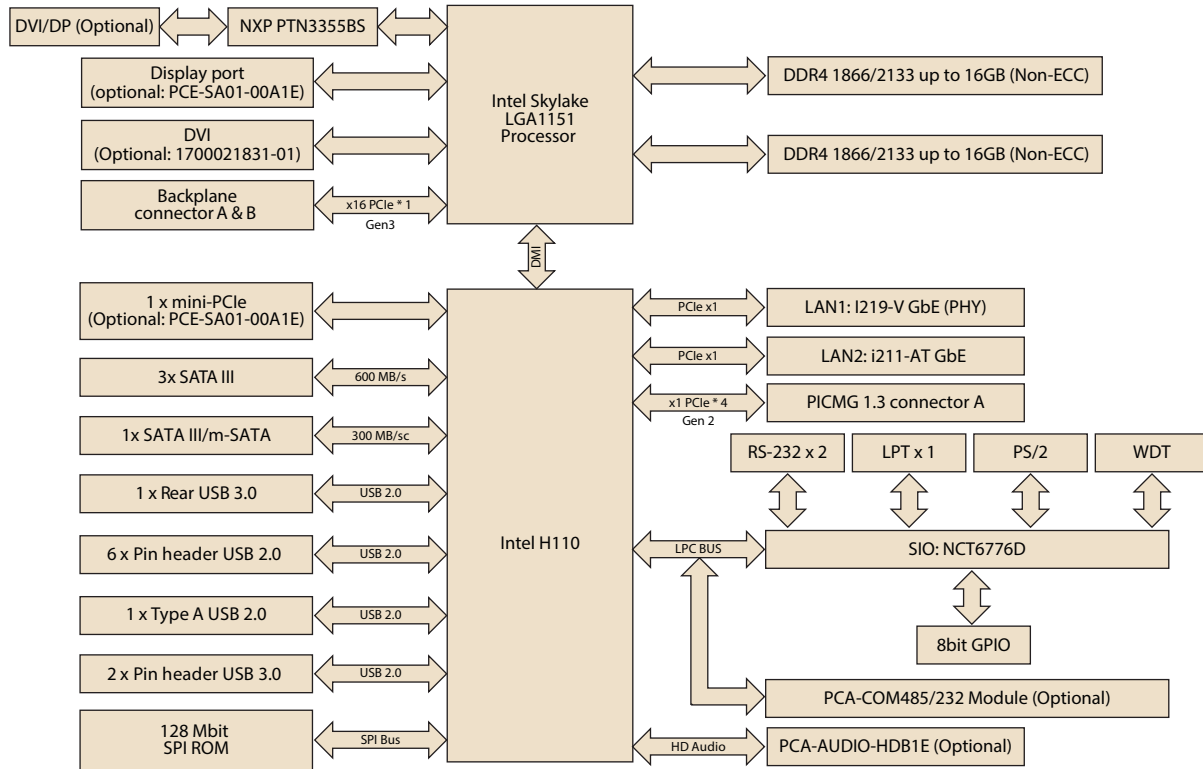
Features

- Complies with PICMG 1.3
- Supports Intel® Core™ i7/i5/i3/Celeron/Pentium processor with H110 chipset
- Dual Channel (Non-ECC) DDR4 1866/2133 up to 32 GB
- Supports USB 3.0, SATA III, PCIe 3.0
- Supports CRT and DVI-D/DP (optional) display
- Supports Advantech TPM module (Optional)
- Supports SUSIAccess and Embedded Software APIs

Specifications

Processor System	CPU	i7-6700	i7-6700TE	i5-6500	i5-6500TE	i3-6100	i3-6100TE	G4400	G4400TE	G3900	G3900TE	
	Base Frequency	3.4GHz	2.4GHz	3.2GHz	2.3GHz	3.7GHz	2.7GHz	3.3GHz	2.9GHz	2.8GHz	2.6GHz	
	L3 Cache	8MB	8MB	6MB	6MB	4MB	4MB	3MB	3MB	2MB	2MB	
	SKU/Chipset	Intel H110										
Bus	BIOS	AMI 128Mbit SPI Flash										
	PCI-Express	One x16 (Gen 3) plus four x1 (Gen 3) to backplane										
Memory	Technology	Dual channel (Non-ECC) DDR4 1866/2133 up to 32 GB										
	Max. Cap.	32 GB (16 GB per DIMM)										
	Socket	DDR4 260-pin SO-DIMM x2										
Graphics	Controller	Chipset integrated Intel HD Graphics										
	VRAM	Shared system memory is subjected to OS										
	CRT	Supports resolution up to 1920 x 1200 pixel at 60Hz										
	Display port	Supports resolution up to 4096 x 2304 pixel at 60Hz										
	DVI-D	Supports resolution up to 1920 x 1200 pixel at 60Hz										
Ethernet	Dual Independent Display	VGA+ DVI-D/DP (Optional)										
	Interface	10/100/1000 Mbps										
Rear I/O	Controller	LAN 1: Intel I219V LAN 2: Intel I211AT										
	Connector with LED	RJ-45 x 2										
	USB 3.0	1										
Internal Connector	Ethernet	2										
	VGA	1										
	PS/2	1 (PS/2 Y cable supports 1 x keyboard and 1 x mouse)										
	USB	7 USB 2.0 (Pin-header *6 + USB Type A *1); 2 USB 3.0 (Pin header)										
	SATA/m-SATA	SATA III x4 (600MB/sec) or SATA III x3 (600MB/sec)+m-SATA x1										
	mini-PCIe	(Optional: PCE-SA01-00A1E, PCIe Gen 2.0)										
	DVI-D	1										
	DP	1										
Watchdog Timer	COM	2 (RS-232)										
	Parallel	1 (SPP/EPP)										
	GPIO	8 bits										
	Output Interval	System reset Programmable 1-255 sec										
Miscellaneous	Audio	Intel High Definition audio interface (required an audio extension module P/N: PCA-AUDIO-HDB1E)										
	Test Environment	TBD										
Power Requirement	Voltage	TBD										
	Current	TBD										
	Environment	Operating	0 ~ 60° C (32~140° F); Depends on CPU frequency and cooler solution								Non-operating	
Physical	Temperature/Humidity	Operating humidity:	40° C @ 85% RH Non-Condensing								-40 ~ 85°C and 60° C @ 95% RH Non-Condensing	
		Dimensions	167.64 mm x 126.39 mm (6.6" x 4.98")									

Board Diagram



Ordering Information

Part Number	PCH	Memory	Backplane	LAN	VGA	DVI-D	DP	COM	SATA III/ m-SATA	mini-PCIe	USB 2.0	USB 3.0	S/W RAID	AMT
PCE-3029G2-00A1E	H110	Non-ECC	PCE-3BXX	2	1	1*	1**	2 RS-232 4 RS-422/485 or 4 RS-232 (optional)***	4/0 3/1	1**	7	3	No	No

* DVI-D cable (1700021831-01) is optional.

** PCE-SA01-00A1E is required. PCE-SA01-00A1E is compatible with IPC-3026/IPC-6806S/ACP-4D00/ACP-4020, but not compatible with IPC-3012.

***PCA-COM485-00A1E is required for additional 4 RS422/485; PCA-COM232-00A1E is required for additional 4 RS232.

Optional Accessories

Part Number	Description
PCA-COM485-00A1E	4 x RS-244/485 module
PCA-COM232-00A1E	4 x RS-232 module
PCA-AUDIO-HDB1E	Audio module with Realtek ACL892
PCA-TPM-00A1E	TPM module (Trust Platform management)
PCE-SA01-00A1E	IO extension module
1700021831-01	DP to DVI-D cable w/ BKT
1960053207N001	1.5U cooler for Intel Core i7/i5/i3/Pentium/Celeron
1960053065N001	1U cooler for Intel Core i7/i5/i3/Pentium/Celeron

Packing List

Part Number	Description	Quantity
1700003194	Serial ATA HDD data cable	x1
1700022749-11	Serial ATA HDD power cable	x1
1700008762	2-port COM cable	x1
1700002223	1-port LPT cable	x1
1700060202	Keyboard and mouse Y-cable	x1
1700020277-01	2 ports USB 3.0 cable W/BKT	x1
1700014398	4-port USB cable kit	x1
1703040100	Power Converter	x1
9689000002	Jumper package	x1
-	Startup manual	x1
-	Utility CD	x1

Bracket View

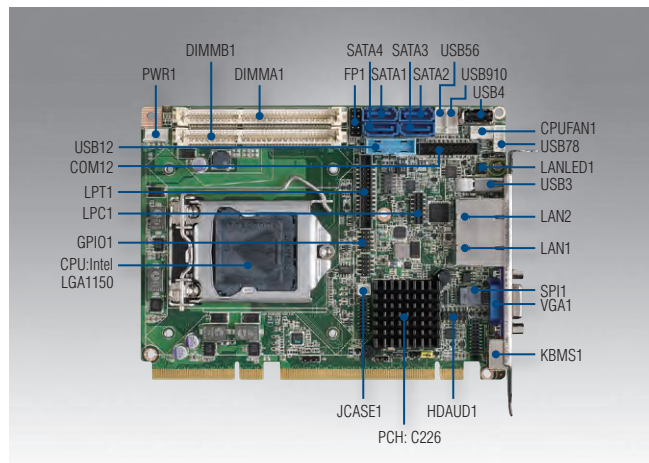


PCE-3029G2-00A1E

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PCE-4128

LGA 1150 4th Gen Intel® Xeon® and Core™ i7/i5/i3 Half-size SHB with PCIe 3.0/Triple independent display/Dual GbE LAN/SATA 3.0/m-SATA/ USB 3.0



Features

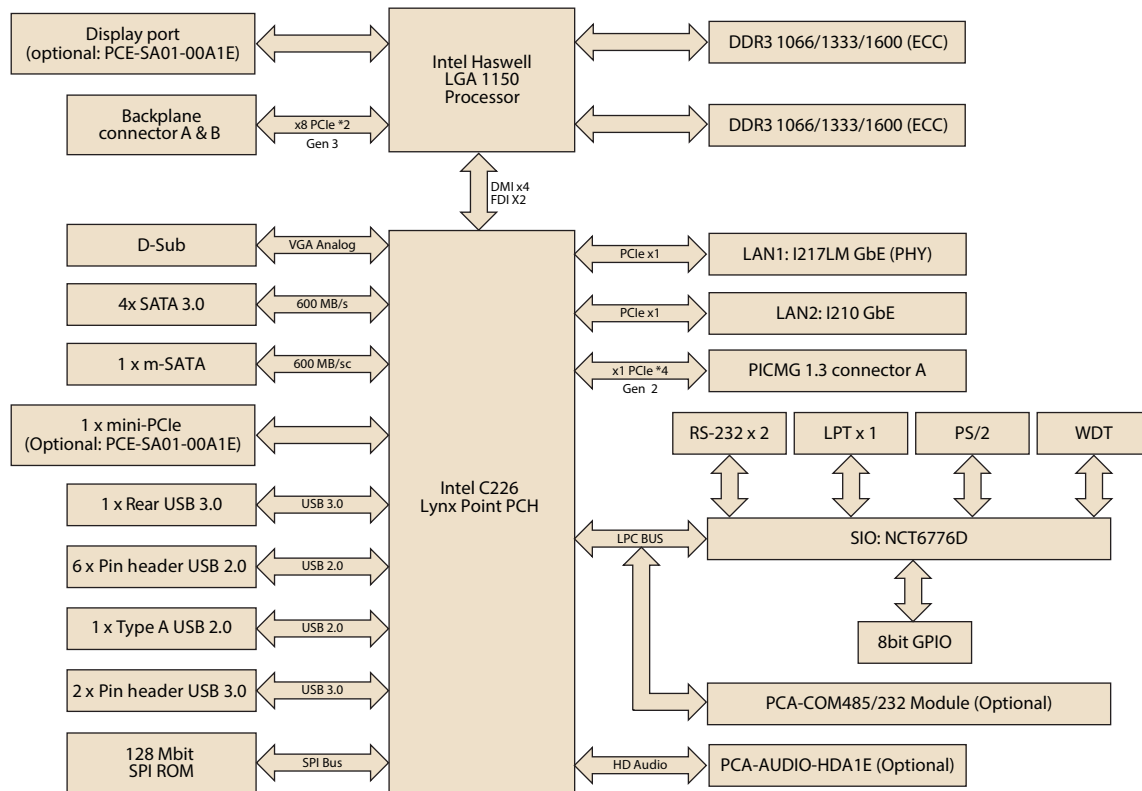
- Complies with PICMG 1.3
- Supports Intel Xeon E3 1200v3 series, Core i7/i5/i3 LGA1150 processors with C226
- Dual Channel DDR3 1066/1333/1600 up to 16 GB
- Supports PCIE 3.0, USB 3.0, SATA3.0, SW Raid 0, 1, 5, 10
- Supports triple displays
- Support dual 10/100/1000 Mbps Ethernet
- Supports out-of-band remote management with AMT9.0
- Supports Advantech TPM module (LPC I/O)
- Supports SUSIAccess and Embedded Software APIs

CE FCC

Specifications

Processor System	CPU	E3-1275v3	E3-1225v3	E3-1268v3	i5-4570TE	i3-4360	i3-4330	i3-4330TE	G3420	G3320TE	G1820	G1820TE	
	Base Frequency	3.5GHz	3.2GHz	2.3GHz	2.7GHz		3.5GHz	2.4GHz	3.2 GHz	2.3 GHz	2.7 GHz	2.2 GHz	
	L3 Cache	8MB	8MB	8MB	4MB		4MB	4MB	3MB	3MB	2MB	2MB	
	SKU/Chipset	Intel C226											
	BIOS	AMI 128Mbit SPI Flash											
Bus	PCI-Express	Two x8 or one x16, plus four x1 to backplane											
Memory	Technology	Dual channel DDR3 ECC 1066/1333/1600 MHz (ECC function enable depends on processor support)											
	Max. Cap.	16 GB (8 GB per DIMM)											
	Socket	DDR3 204-pin SO-DIMM X2											
Graphics	Controller	Chipset integrated Intel GT2 P4600 or GT2 4600 or GT1 HD graphics (Depends on CPU support)											
	VRAM	Shared system memory is subject to OS											
	CRT	Supports resolution up to 1920 x 1200 pixel at 60MHz											
	DP	Supports resolution up to 3840 x 2160 @ 60Hz											
Ethernet	Triple Display	CRT + DP (Optional: PCE-SA01-00A1E)											
	Interface	10/100/1000 Mbps											
	Controller	LAN 1: Intel I217LM LAN 2: Intel I210AT											
Rear I/O	Connector with LED	RJ45 x 2											
	USB 3.0	1											
	Ethernet	2											
	VGA	1											
Internal Connector	PS/2	1 (PS/2 Y cable supports 1 x keyboard and 1 x mouse)											
	USB	Seven USB2.0 (6 pin headers + 1 USB Type A); Three USB3.0 (1 on rear IO + 2 pin header)											
	SATA 3.0	4 (600 MB/sec, supports S/W RAID 0,1, 5, 10)											
	COM	2											
	Parallel	1											
Watchdog Timer	GPIO	8bit											
	Output	System reset											
	Interval	Programmable 1-255 sec											
Miscellaneous	Audio	Intel High Definition audio interface (required an audio extension module P/N: PCA-AUDIO-HDA1E)											
Power Requirement	Test environment	Intel Xeon E3-1275 v3 (3.5GHz), DDR3 1600 8GB *2											
	Voltage	12V	5V	3.3V	5VSB		-5V	-12V					
	Current	7.36	0.96	0.83	0.13		0	0					
Environment	Operating	Non-operating											
	Temperature/Humidity	0 ~ 60° C(32~140° F); Depends on CPU frequency and cooler solution								-40 ~ 85°C and 60° C @ 95% RH Non-Condensing			
Physical	Operating humidity:	40° C @ 85% RH Non-Condensing											
	Dimensions	167.64 mm x 126.39 mm (6.6" x 4.98")											

Block Diagram



*Display type depends on optional stack board

Ordering Information

Part Number	PCH	Memory	Backplane	LAN	VGA	DP	COM	SATA III	USB 2.0	USB 3.0	m-SATA	mini-PCIe	S/W Raid	AMT
PCE-4128G2-00A1E	C226	ECC	PCE-3BXX PCE-4BXX	2	1	1*	RS-232 x2 onboard Optional RS-422/485 x4, or RS-232 x4 via module	4	7	3	1	1*	Yes	Yes

*Optional: PCE-SA01-00A1E. PCE-SA01-00A1E is compatible with IPC-3026/IPC-6806S/ACP-4D00/ACP-4Q20, but not compatible with IPC-3012.

Packing List

Part Number	Description	Quantity
1700003194	Serial ATA HDD data cable	x1
1703150102	Serial ATA HDD power cable	x1
1700008762	2-port COM cable	x1
1700002223	1-port LPT cable	x1
1700060202	Keyboard and mouse Y-cable	x1
1700014398	4-port USB cable kit	x1
1700020277-01	2 ports USB3.0 cable W/BKT	x1
1703040100	Power converter	x1
9689000002	Jumper package	x1
2190000902	Warranty Card	x1
2006302800	Startup manual	x1
2066302800	Utility CD	x1

Optional Accessories

Part Number	Description
PCA-COM485-00A1E	4 x RS-244/485 module
PCA-COM232-00A1E	4 x RS-232 module
PCA-AUDIO-HDA1E	Audio module with Realtek ALC-888
PCA-AUDIO-HDB1E	Audio module with Realtek ALC-892
PCA-TPM-00A1E	TPM module (Trust Platform management)
PCE-SA01-00A1E	I/O extension stack board
1960047831N001	2U cooler for Xeon E3-1275v3, E3-1225v3, E3-1268v3, i7-4770S, i7-4770TE, i5-4570S, i5-4570TE, i3-4330, i3-4330TE, G3420, G3220TE, G1820, G1820TE
1960053207N001	1.5U cooler for i7-4770S, i7-4770TE, i5-4570S, i5-4570TE, i3-4330, i3-4330TE, G3420, G3220TE, G1820, G1820TE
1960053065N001	1U blower for i5-4570S, i5-4570TE, i3-4330, i3-4330TE, G3420, G3220TE, G1820, G1820TE

I/O View

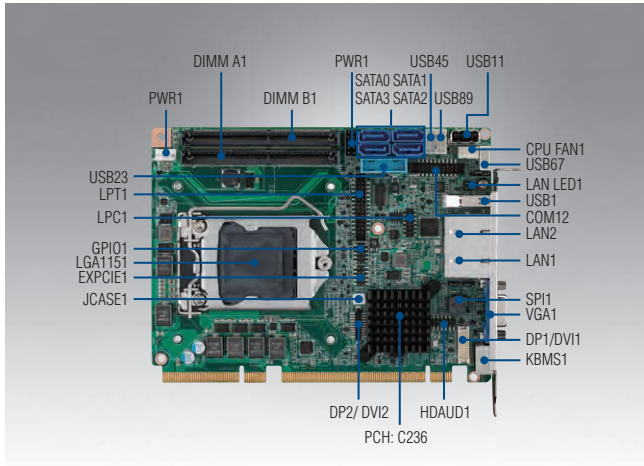


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PCE-4129

LGA 1151 6th Gen Intel® Xeon® and Core™ i7/i5/i3 Half-size SHB with PCIe 3.0/Triple independent display/Dual GbE LAN/SATA III/m-SATA/ USB 3.0



CE FCC

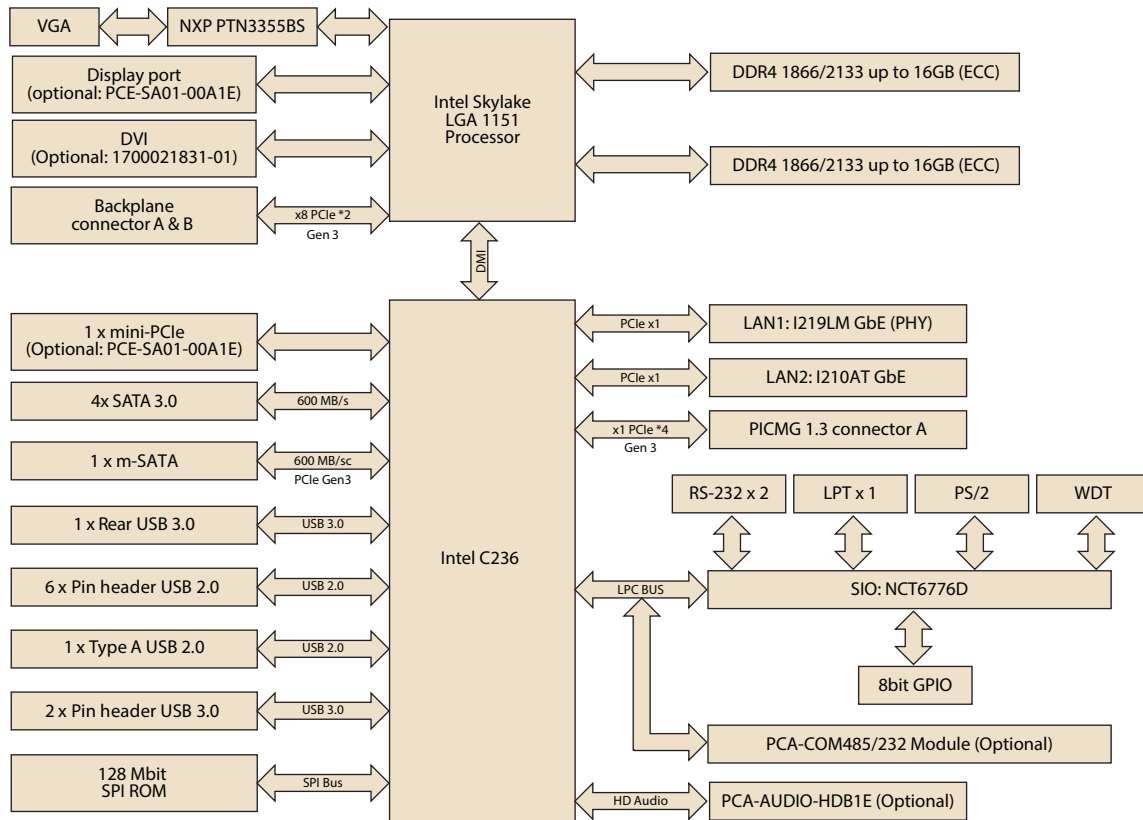
Features

- Complies with PICMG 1.3
- Supports Intel Xeon E3 1200v5 series, Core i7/i5/i3 LGA1151 processors with C236
- Dual Channel DDR4 1866/2133 (ECC) up to 32 GB
- Supports PCIE 3.0, USB 3.0, SATA3.0, SW RAID 0, 1, 5, 10
- Supports triple displays: VGA+DVI-D (Optional) + DP (Optional)
- Supports out-of-band remote management with AMT9.0
- Supports Advantech TPM module (Optional)
- Supports SUSIAccess and Embedded Software APIs

Specifications

Processor System	CPU	E3-1275v5	E3-1225v5	E3-1268Lv5	i7-6700	i7-6700TE	i5-6500	i5-6500TE	i3-6100	i3-6100TE	G4400	G4400TE	G3900	G3900TE	
	Base Frequency	3.6GHz	3.3GHz	2.4GHz	3.4GHz	2.4GHz	3.2GHz	2.3GHz	3.7GHz	2.7GHz	3.3GHz	2.9GHz	2.8GHz	2.6GHz	
	L3 Cache	8MB	6MB	8MB	8MB	8MB	6MB	6MB	4MB	4MB	3MB	3MB	2MB	2MB	
	SKU/Chipset	Intel C236													
BIOS	AMI 128Mbit SPI Flash														
	BIOS	AMI 128Mbit SPI Flash													
Bus	PCI-Express	Two x8 or one x16, plus four x1 to backplane (PCIe Gen 3.0)													
Memory	Technology	Dual channel DDR4 ECC 1866/2133 MHz (ECC function enable depends on processor support)													
	Max. Cap.	32 GB (16 GB per DIMM)													
	Socket	DDR4 260-pin SO-DIMM X2													
Graphics	Controller	Chipset integrated Intel HD Graphics													
	VRAM	Shared system memory is subjected to OS													
	CRT	Supports resolution up to 1920 x 1200 pixel at 60MHz													
	DVI-D	Supports resolution up to 1920 x 1200 pixel at 60MHz													
	DP	Supports resolution up to 4096 x 2304 @ 60Hz													
Triple Display	CRT + DP (Optional: PCE-SA01-00A1E) + DVI-D (Optional: 1700021831-01)														
Ethernet	Interface	10/100/1000 Mbps													
	Controller	LAN 1: Intel I219LM LAN 2: Intel I210AT													
	Connector with LED	RJ45 x 2													
Rear I/O	USB 3.0	1													
	Ethernet	2													
	VGA	1													
	PS/2	1 (PS/2 Y cable supports 1 x keyboard and 1 x mouse)													
Internal Connector	USB	7 USB2.0 (Pin headers*6 + USB Type A*1); 2 USB3.0 (Pin header)													
	SATA 3.0	4 (600 MB/sec, supports S/W RAID 0,1, 5, 10)													
	m-SATA	1 (600 MB/sec)													
	mini-PCIe	1 (Optional: PCE-SA01-00A1E, PCIe Gen 2.0)													
	COM	2 (RS-232)													
	Parallel	1 (SPP/EPP)													
Watchdog Timer	GPIO	8 bits													
	Output	System reset													
Miscellaneous	Interval	Programmable 1-255 sec													
	Audio	Intel High Definition audio interface (required an audio extension module P/N: PCA-AUDIO-HDB1E)													
Power Requirement	Test environment	TBD													
	Voltage	TBD													
	Current	TBD													
Environment	Temperature/Humidity	Operating										Non-operating			
		0 - 60° C (32-140° F); Depends on CPU frequency and cooler solution										-40 - 85° C and 60° C @ 95% RH			
Physical	Dimensions	Operating humidity: 40° C @ 85% RH Non-Condensing										Non-Condensing			
		167.64 mm x 126.39 mm (6.6" x 4.98")													

Board Diagram



Ordering Information

Part Number	PCH	Memory	Backplane	LAN	VGA	DVI-D	DP	COM	SATA III	USB 2.0	USB 3.0	m-SATA	mini-PCIe	S/W RAID	AMT
PCE-4129G2-00A1E	C236	ECC	PCE-3BXX PCE-4BXX	2	1	1*	1**	2 RS-232 4 RS-422/485 or 4 RS-232 (optional)***	4	7	3	1	1**	Yes	Yes

* DVI-D cable (1700021831-01) is optional.

** PCE-SA01-00A1E is required. PCE-SA01-00A1E is compatible with IPC-3026/IPC-6806S/ACP-4D00/ACP-4020, but not compatible with IPC-3012.

***PCA-COM485-00A1E is required for additional 4 RS422/485; PCA-COM232-00A1E is required for additional 4 RS232.

Optional Accessories

Part Number	Description
PCA-COM485-00A1E	4 x RS-244/485 module
PCA-COM232-00A1E	4 x RS-232 module
PCA-AUDIO-HDB1E	Audio module with Realtek ALC-892
PCA-TPM-00A1E	TPM module (Trust Platform management)
PCE-SA01-00A1E	I/O extension stack board
1700021831-01	DP to DVI-D cable w/ BKT
1960053207N001	1.5U cooler for Intel Core i7/i5/i3/Pentium/Celeron
1960053065N001	1U blower for Intel Core i7/i5/i3/Pentium/Celeron

Packing List

Part Number	Description	Quantity
1700003194	Serial ATA HDD data cable	x1
1700022749-11	Serial ATA HDD power cable	x1
1700008762	2-port COM cable	x1
1700002223	1-port LPT cable	x1
1700060202	Keyboard and mouse Y-cable	x1
1700014398	4-port USB cable kit	x1
1700020277-01	2 ports USB3.0 cable W/BKT	x1
1703040100	Power converter	x1
9689000002	Jumper package	x1
-	Startup manual	x1
-	Utility CD	x1

Bracket View

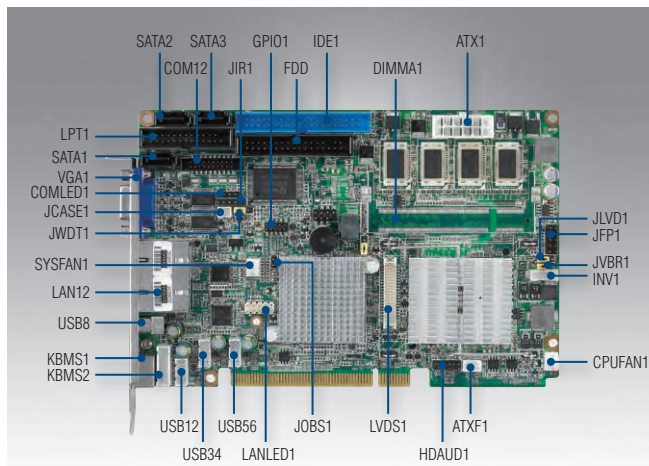


PCE-4129G2-00A1E

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PCI-7031

Intel® Atom™ N450/D510 PCI Half-size SBC with Onboard DDR2/VGA/LVDS/Dual GbE/SATA/COM



Features

- Ultra low power, fanless Intel® Atom™ processor N450 CPU and 1 GB onboard DDR2 667 memory (Only for N SKU)
- Dual Core™ high performance D510 CPU and maximum 2 GB DDR2 667 memory (For both D & DF SKUs)
- VGA/LVDS dual video outputs
- Optional module for 4 x RS-485 w/auto-flow control
- Supports embedded software APIs and Utilities

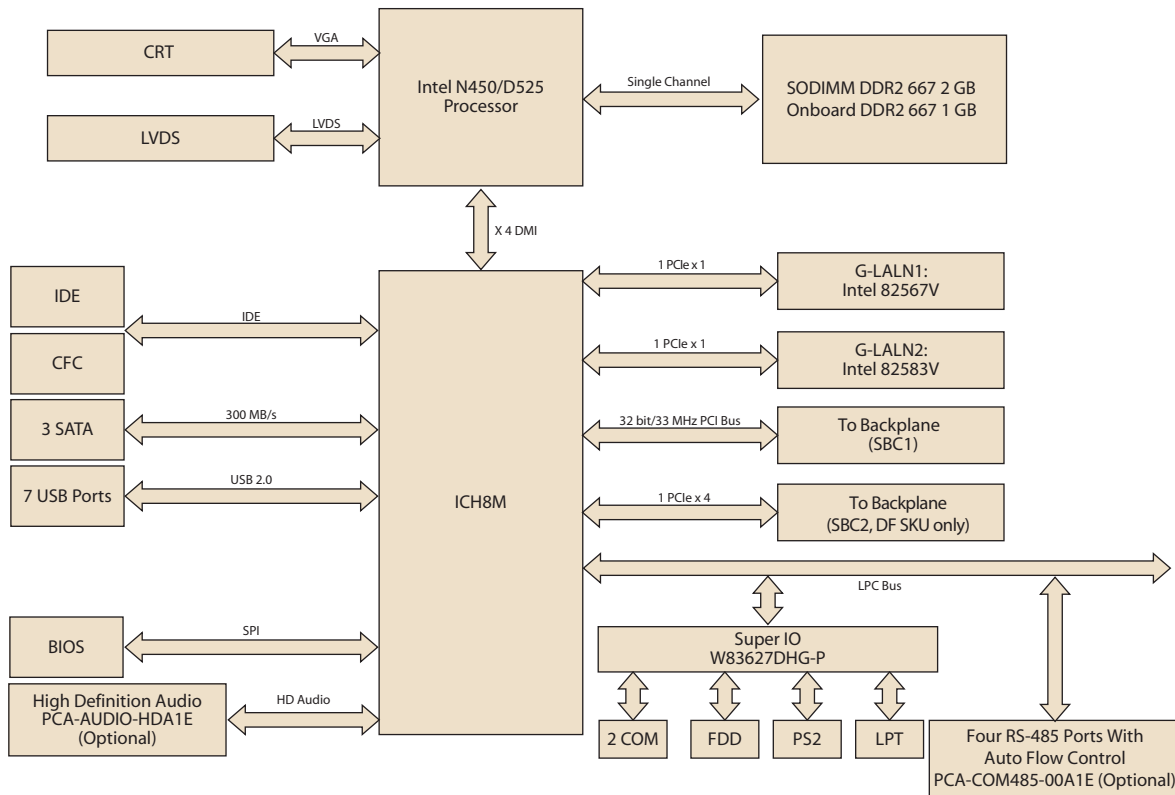


Note: eSOS needs ODM BIOS available by request

Specifications

Processor System	CPU	Intel Atom N450	Intel Atom D510
	Speed	1.66 GHz	1.66 GHz
	L2 Cache	512 KB	1 MB
	Chipset	ICH8M	
	BIOS	AMI 16Mb SPI Flash	
Bus	PCI-Express	-	
	PCI	Four 32 bit/33 MHz PCI Masters to Backplane	
Memory	Technology	Single channel DDR2 667 MHz	
	Max. Cap.	1 GB onboard for N SKU; max 2 GB SODIMM for D SKU	
	Socket	No socket for N SKU; 200-pin SODIMM x 1 for D SKU	
Graphics	Onboard VRAM	Embedded Gen3.5+ GFX Core technology, DirectX 9/Pixel Shader 2.0 compliant Shared 224 MB	
	Video Interface	15-pin VGA D-sub connector x1/Onboard LVDS pin header x 1 (supports single channel 18-bit LVDS)	
	Video Output	VGA: Supports up to SXGA 1400 x 1050 @ 60 Hz for N SKU, up to 2048 x 1536 @ 60 Hz for D & DF SKU LVDS: Supports 18-bit single channel and up to WXGA 1366 x 768 or 1280 x 800 for N, D, & DF SKUs Dual Display: VGA + LVDS, supports extended mode and clone mode for N, D, & DF SKUs	
	Ethernet	Interface	10/100/1000 Mbps
Ethernet	Controller	LAN1: Intel 82567V LAN2: Intel 82583V	
	Connector	RJ-45 with LED Connector x 2	
SATA	Max. Transfer Rate	300 MB/s	
EIDE	Channel	3	
	Mode	ATA 100/66/33	
I/O Interface	Channel	1 (supports up to 2 IDE devices)	
	USB 2.0	7 ports on the SHB	
	Serial	Two RS-232 onboard pin-headers, plus four RS-485 ports with auto-flow control by module (Optional, Advantech P/N: PCA-COM485-00A1E)	
	Parallel	1 (EPP/ECP)	
	FDD	1	
Watchdog Timer	PS/2	1 (for mouse and keyboard, an Y cable is included in the package)	
	Output Interval	System reset Programmable, 1~255 sec	
Miscellaneous	Audio Output	Intel High Definition audio interface (requires a audio extension module, P/N: PCA-AUDIO-HDA1E)	
	Environment	Operating	Non-Operating
Environment	Temperature	0 ~ 60° C (32 ~ 140° F) (operating humidity: 40° C @ 85% RH Non-Condensing)	-40 ~ 85° C and 60° C @ 95% RH Non-Condensing
	Physical	Dimensions	185 mm (L) x 122 mm (W) (7.3" x 4.8")

Block Diagram



Ordering Information

Model Name	CPU	Memory	Fanless	VGA	LVDS	SATA	USB	COM	CF
PCI-7031D-S6A1E	Atom™ D510	One SODIMM Socket 2 GB DDR2 667 No Onboard RAM	No	1	1	3	7	2	1
PCI-7031DF-S6A1E	Atom D510	One SODIMM Socket 2GB DDR2 667 No Onboard RAM	Yes*	1	1	3	7	2	1
PCI-7031N-S6A1E	Atom™ N450	No SODIMM Socket Onboard 1 GB DDR2 667	Yes	1	1	3	7	2	1

*PCI-7031DF-S6A1E is only compatible with chassis: IPC-120 and backplane: PCI-7103P1V-01.

Optional Accessories

Part Number	Description
PCA-COM485-00A1E	Extension module for four RS-422/485 ports with auto-flow control function
PCA-AUDIO-HDA1E	Extension module for 7.1 channel High Definition audio

I/O View



PCI-7031D-S6A1E
 PCI-7031N-S6A1E
 PCI-7031DF-S6A1E

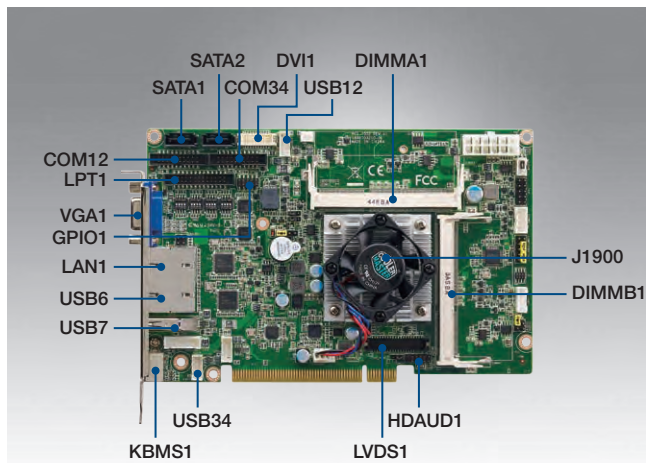
Packing List

Part Number	Description	Quantity
960046526N001	CPU cooler for Atom™ D510 CPU (only available for D SKU)	x 1
1700003194	Serial ATA HDD data cable	x 1
1703150102	Serial ATA HDD power cable	x 1
1701260301	Printer (parallel) port cable kit	x 1
1700008762	Dual COM ports cable kit	x 1
1700002343	ATX feature cable	x 1
1700014398	4-port USB cable kit	x 1
1700060202	Y cable for PS/2 keyboard and PS/2 mouse	x 1
1700000265	AT/ATX PSU 20-Pin to 12-Pin Cable Kit	x 1
9689000068	Jumper pack	x 1
-	Warranty card	x 1
-	PCI-7031 startup manual	x 1
-	CD with driver utility and manual (in PDF format)	x 1

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PCI-7032

Intel® Celeron J1900/N2930 PCI Half-size SBC with DDR3L 1333/Dual GbE/ m-SATA/4 RS-232/422/485



Features

- Ultra low power Intel® Celeron processor J1900/N2930, VG SKU is fan-less design
- Dual channel DDR3L 1066/1333 on 204-pin SO-DIMM socket
- Dual independent display
- Up to 2 GbE LAN
- 2 SATA 2.0 (300 MB/s), one of them can be configured as m-SATA
- Legacy I/O: 4 RS-232/422/485, and 1 LPT support

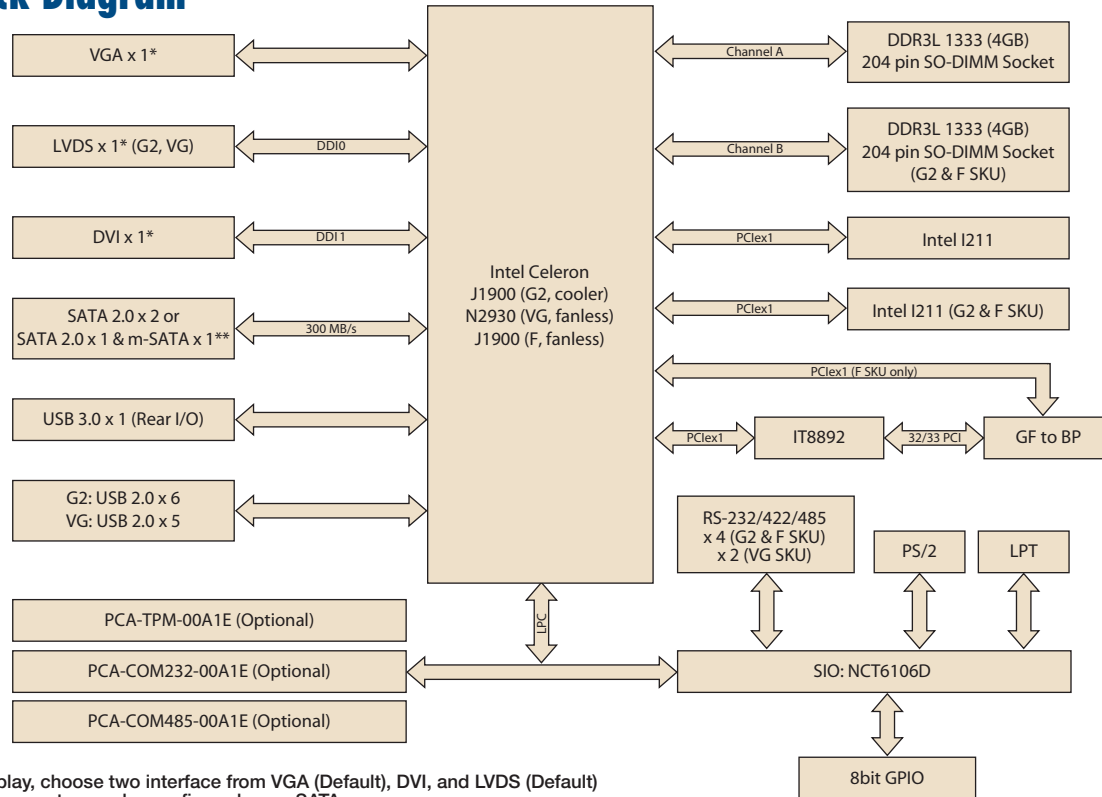
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CE FCC

Specifications

Processor System	CPU	Intel Celeron N2930	Intel Celeron J1900
	Speed	1.83 GHz	2.0 GHz
	L2 Cache	2 MB	2 MB
	BIOS	AMI 64Mb SPI Flash	
Bus	PCI-Express	PCIe x 1 (F SKU only)	
	PCI	Four 32 bit/33 MHz PCI Masters to Backplane	
Memory	Technology	G2: Dual channel DDR3L-1333 VG: DDR3L-1333 F: Dual channel DDR3L-1333	
	Max. Cap.	8 GB (4GB per DIMM)	
	Socket	DDR3 204-pin SO-DIMM x1 (VG); x2 (G2, F)	
Graphics	Onboard	Chipset integrated Intel® HD Graphics	
	VRAM	Shared system memory. It subjects to the OS.	
	Video Interface	Dual independent display: choosing two interfaces from VGA (default), LVDS (default), and DVI VGA: Supports up to 2560 x 1600 @ 60 Hz LVDS: 48 bit (Dual channel 24 bit) LVDS up to 1920 x 1200 @ 60 Hz DVI: Supports up to 2560 x 1600 @ 60 Hz	
	Video Output	Dual independent display: choosing two interface from VGA (Default), DVI and LVDS (Default)	
Ethernet	Interface	10/100/1000 Mbps	
	Controller	LAN1: Intel I211 LAN2: Intel I211 (G2, F)	
	Connector	RJ-45 with LED Connector x 2	
SATA	Max. Transfer Rate	300 MB/s (SATA 2.0)	
	Channel	2 (SATA2 can be configured as m-SATA)	
I/O Interface	USB 2.0	G2: one USB 3.0 (5Gbps, rear I/O), six USB 2.0 (480Mbps, pin-header x6) VG: one USB 3.0 (5Gbps, rear I/O), five USB 2.0 (480Mbps, pin-header x4, rear I/O x1) F: one USB 3.0 (5Gbps, rear I/O), six USB 2.0 (480Mbps, pin-header x6)	
	Serial	Four RS-232/422/485 for G2 & F; Two RS-232/422/485 for VG	
	Parallel	1 (EPP/ECP)	
	PS/2	1 (for mouse and keyboard, an Y cable is included in the package)	
Watchdog Timer	Output	System reset	
	Interval	Programmable, 1~255 sec/min	
Miscellaneous	Audio Output	Intel High Definition audio interface (requires a audio extension module)	
		Operating	Non-Operating
Environment	Temperature	0 ~ 60° C (32 ~ 140° F) (operating humidity: 40° C @ 85% RH Non-Condensing)	-40 ~ 85° C and 60° C @ 95% RH Non-Condensing
	Test Environment	Intel Celeron J1900 (2GHz), DDR3L 1333, 4GB SO-DIMM module*2	
Power Requirement	Voltage	12V	5VSB
	Current	0.737A	0.298A
			0.044A
Physical	Dimensions	185 mm (L) x 122 mm (W) (7.3" x 4.8")	

Block Diagram



* Dual display, choose two interface from VGA (Default), DVI, and LVDS (Default)
 ** SATA2 connector can be configured as m-SATA.

Ordering Information

Model Name	SoC	Memory	DIMM Slot	Fanless	USB	COM Port	PCIe x 1	LPT	LAN	VGA	LVDS	DVI	m-SATA	HW Monitor
PCI-7032G2-00A1E	J1900	Dual channel DDR3L-1333 up to 8GB (204-pin SO-DIMM socket x2)	2	No	1 x USB 3.0 6 x USB 2.0	4	No	1	2	Yes	Yes	Yes	Yes	Yes
PCI-7032VG-00A1E	N2930	DDR3L-1333 up to 4GB (204-pin SO-DIMM socket x1)	1	Yes	1 x USB 3.0 5 x USB 2.0	2	No	1	1	Yes	Yes	Yes	Yes	No
PCI-7032F-00A1E	J1900	Dual channel DDR3L-1333 up to 8GB (204-pin SO-DIMM socket x2)	2	Yes	1 x USB 3.0 6 x USB 2.0	4	Yes	1	2	Yes	No	Yes	No	No

*PCI-7032F-00A1E is only compatible with Advantech IPC-120 chassis which has special thermal design and can NOT be used with other enclosure.

Optional Accessories

Part Number	Description
PCA-COM485-00A1E	4x RS-422/485 module
PCA-COM232-00A1E	4 x RS-232 module
PCA-TPM-00A1E	TPM module (Trusted platform management)
1700021831-01	DVI cable
1700000265	12 pin-12 pin ATX power cable kit
1703100261	2-port USB cable kit

Packing List

Part Number	Description	Quantity
1960046526N001	CPU cooler for Celeron J1900 SoC (only available for G2 SKU)	x 1
1700003194	Serial ATA HDD data cable	x 1
1700022749-11	Serial ATA HDD power cable	x 1
1700002223	Printer (parallel) port cable kit	x 1
1700008762	Dual COM ports cable kit	x2 (G2,F) x1 (VG)
1700002343	ATX feature cable	x 1
1700014398-11	4-port USB cable kit	x 1
1700060202	Y cable for PS/2 keyboard and PS/2 mouse	x 1
9689000068	Jumper pack	x 1
2001703200	PCI-7032 startup manual	x 1
2061703200	DVD with driver utility and manual (in PDF format)	x 1

I/O View



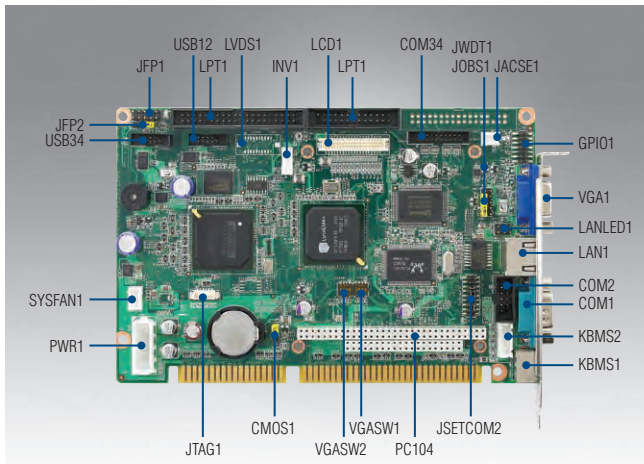
PCI-7032G2-00A1E
 PCI-7032F-00A1E

PCI-7032VG-00A1E

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PCA-6742

Advantech EVA-X4300 ISA Half-size SBC with VGA/LCD/LAN/CFC/USB and PC/104



Features

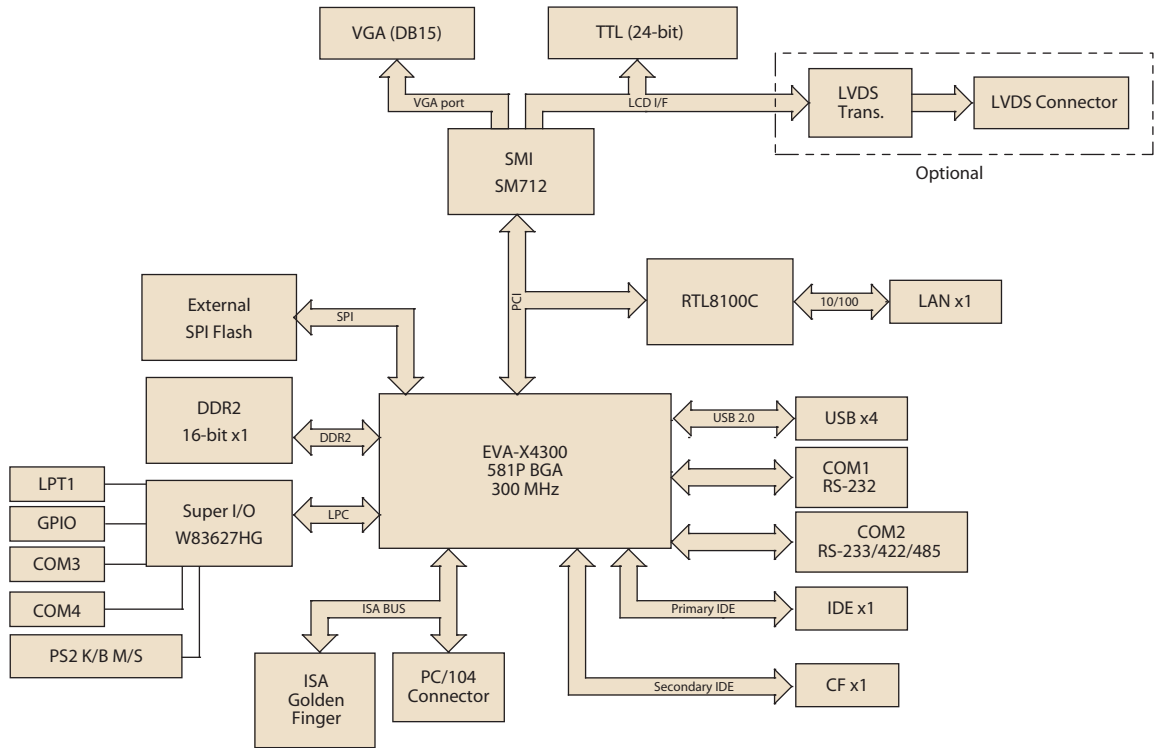
- Low power fanless EVA-X4300
- Onboard 128/64 DDR2 RAM
- 10/100 Mbps Ethernet
- 1024 x 768 @ 18/24-bit TTL/LVDS support

CE FCC

Specifications

Processor System	CPU	Advantech EVA-X4300 up to 300 MHz
	Max. Speed	300 MHz
	L1 Cache	32 KB
	Chipset	Advantech EVA-X4300 up to 300 MHz
	BIOS	Award integrated 256 KB ROM in Advantech EVA-X4300
Bus	PCI	32-bit/33 MHz
	ISA	8/16-bit 8 MHz
Memory	Technology	Default onboard DDR2 128 MB
	Socket	-
Graphics	Controller	Chipset integrated VGA controller VGA mode: SM712 graphics chip supports 1024 x 768 @ 24-bit true color LCD mode: SMI SM712 2D graphics chip supports 1024 x 768 @ 18/24-bit TFT
	VRAM	4 MB display memory
	LVDS	Yes (Optional)
	TTL	Up to 24-bit TTL for TFT LCD
	Dual Display	Supports CRT+LCD simultaneously display
Ethernet	Interface	10/100 Mbps
	Controller	Realtek RTL8100CL
	Connector	RJ-45 x 1
EIDE	Mode	PIO 4
	Channel	1
SATA (150 MB/s)	Port	-
I/O Interface	USB	4 ports (USB 2.0 and USB1.1 under DOS)
	Serial	4 COM (1 x RS-232/422/485 on one 2.54 mm pitch wafer box, 1 x RS-232 on rear I/O, 2 x RS-232 on one 2.0 mm pitch wafer box)
	Parallel	1 (via super I/O)
	FDD	-
	GPIO	8 bit; COMS Level (0 ~ 3.3 V)
	PS/2	6-pin DIN socket on bracket for PS/2 keyboard and mouse. (via super I/O) 6-pin (2.54 mm) wafer box connector for keyboard only
	Watchdog Timer	Output
	Interval	Programmable, 1~255 sec/min
Miscellaneous	Audio Output	-
	Solid State Disk	CompactFlash socket (Type I/II), shared with secondary IDE
Power Requirement	Typical	+5 V @ 1.6 A
	Max	+5 V @ 2 A
Environment	Operating	Non-Operating (Storage)
	Temperature	0 ~ 60° C (32 ~ 140° F) (operating humidity: 40° C @ 85% RH Non-Condensing)
Physical	Dimensions	185 mm (L) x 122 mm (W) (7.3" x 4.8")
OS		DOS, Win CE 5.0

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Ordering Information

P/N	CPU	LVDS	TTL	USB	GPIO	FE LAN	FDD
PCA-6742LV-00A1E	EVA-X4300	-	-	4	-	-	-
PCA-6742VE-00A1E	EVA-X4300	(Optional)	24-bit	4	1	RTL 8100C	-

Packing List

Part Number	Description	Quantity
1701260305	COM2 + LPT cable	x 1
1700060202	Y-cable for PS/2 Keyboard, PS/2 Mouse	x 1
1701400452	EIDE (HDD) cable	x 1
9689000002	Jumper pack	x 1
1700008887	USB cable with 4 ports (2.0 mm pitch)	x 1
-	Utility CD	x 1
-	Startup manual	x 1

Optional Accessories

Part Number	Description
1703100260	USB cable with 2 ports (2.0 mm pitch)
1700008762	Dual-COM port cable kit for COM 3-4
PCA-SATAP2-00A1E	IDE/SATA Adapter for CPU cards

I/O View



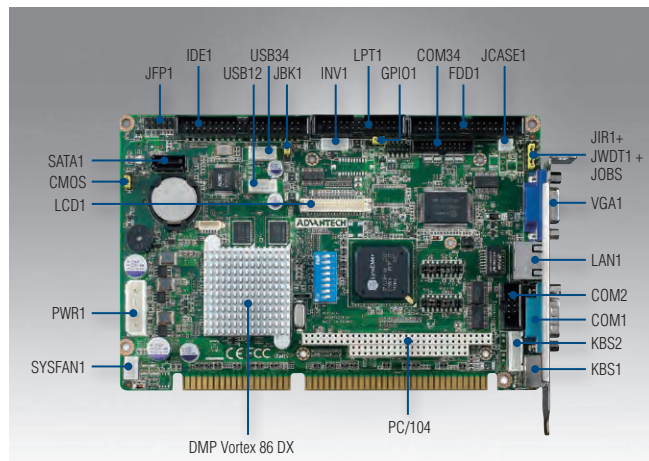
PCA-6742LV-00A1E



PCA-6742VE-00A1E

PCA-6743

DM&P Vortex86DX ISA Half-size SBC with VGA/TTL or LVDS/LAN/USB/PC/104/ CFC/COM



Features

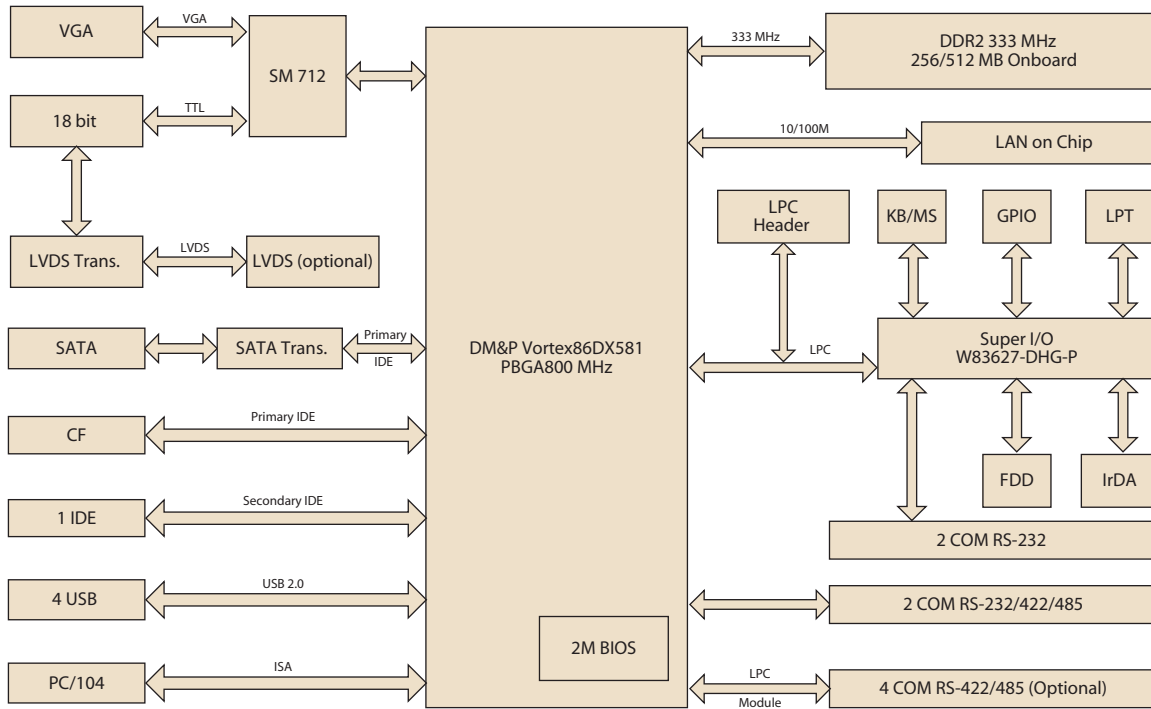
- Ultra low power, fanless DM&P Vortex86DX processor and 512/256 MB onboard DDR2 memory
- VGA+LCD dual video outputs
- FDD/ PC/104/ COM supported
- Optional module for 4 COM485 w/auto-flow control

CE FCC

Specifications

Processor System	CPU	DM&P Vortex86DX	
	Max. Speed	800 MHz	
	L1 Cache	16 KB I/D-Cache	
	L2 Cache	256 KB	
	Chipset	DM&P Vortex86DX	
Bus	BIOS	Award integrated in DM&P Vortex86DX	
	ISA	Full 16-bit ISA Bus signal	
Memory	Technology	Default onboard DDR2 256MB (For VE SKU) Default onboard DDR2 512MB (For F SKU)	
	Socket	-	
	Controller	Chipset integrated VGA controller VGA mode: SM712 graphics chip supports 1024 x 768 @ 24-bit true color LCD mode: SMI SM712 2D graphics chip supports 1024 x 768 @ 18-bit TFT	
Graphics	VRAM	Shared 4 MB	
	LVDS	18 bit LVDS (optional)	
	TTL	Up to 24-bit TTL for TFT LCD	
	Dual Display	Supports VGA+LCD simultaneous display	
	Interface	10/100 Mbps	
Ethernet	Controller	LAN on Vortex86DX	
	Connector	RJ-45 x 1	
	Mode	UDMA 100	
EIDE	Channel	1 (2 IDE devices from secondary IDE)	
	Port	1 (F SKU)	
I/O Interface	USB	4 (USB 2.0 ports)	
	Serial	F SKU: 2 RS-232/422/485 (1 Real I/O and 1 Pin header) + 2 RS-232 (with Pin header) VE SKU: 2 RS-232 (1 Real I/O and 1 Pin header) Optional: PCA-COM485; Add 4 RS-422/485 with Auto-Flow Control (Need to check if IRQ is available or not)	
	Parallel	1 (EPP/ECP/SPP)	
	FDD	1	
	GPIO	8-bit 4 in/4 out	
	PS/2	1 (6-pin DIN socket on bracket for PS/2 keyboard and mouse, 6-pin wafer box connector for keyboard only)	
	Watchdog Timer	Output	System reset/IRQ11
Miscellaneous	Interval	Programmable, 1~255 sec/min	
	Audio Output	-	
Power Requirement	Solid State Disk	Compact Flash socket (Type I/II) from primary master	
	Voltage	+12 V	+5 V
Environment	Current	0.04 A	1.44 A
	Temperature	Operating	Non-Operating
		0 ~ 60° C (32 ~ 140° F) (operating humidity: 40° C @ 85% RH Non-Condensing)	-40° C ~ 85° C and 60° C @ 95% RH Non-Condensing
Physical	Dimensions	185 mm (L) x 122 mm (W) (7.3" x 4.8")	

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Ordering Information

P/N	VGA	TTL	LVDS	SATA	COM	PC104	LPT	FDD	Onboard RAM
PCA-6743VE-Q0A2E	1	1	-	-	2 RS-232	-	1	1	256 MB
PCA-6743F-Q0A2E	1	1	-	1	2 RS-232 2 RS-232/422/485	1	1	1	512 MB
PCA-6743F-L0A2E	1	-	1	1	2 RS-232 2 RS-232/422/485	1	1	1	512 MB

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Packing List

Part Number	Description	Quantity
1700008762	Dual-COM port cable kit for COM3-4 (2.00 mm) (for F SKU)	x 1
1700014398-11	4-port USB cable kit (2.0 mm pitch)	x 1
1700060202	Y cable for PS/2 keyboard, PS/2 mouse	x 1
1701260305	COM2 (2.54 mm) +LPT (2.54 mm) cable (for F SKU)	x 1
1700003194	SATA HDD data cable	x 1
1700022749-11	SATA HDD power cable	x 1

Optional Accessories

Part Number	Description
PCA-COM485-00A1E	4 x RS-422/485 COM module

* Please check the IRQ resource availability before add on the module.

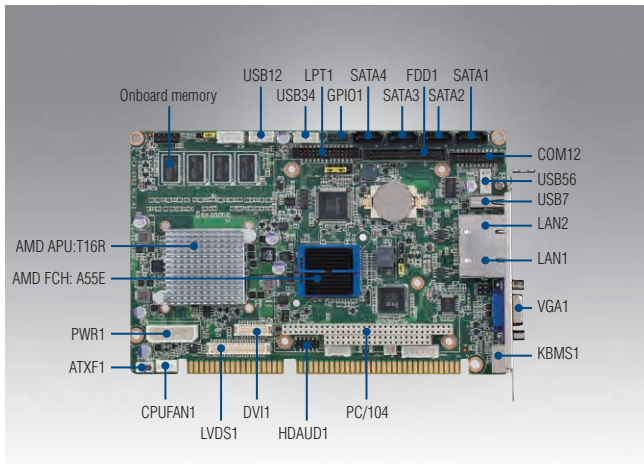
I/O View



PCA-6743VE-Q0A2E
PCA-6743F-Q0A2E
PCA-6743F-L0A2E

PCA-6763

AMD T16R ISA Half-size SBC with Dual Independent Display/Dual GbE/SATA/USB/m-SATA/COM/LPT



Features

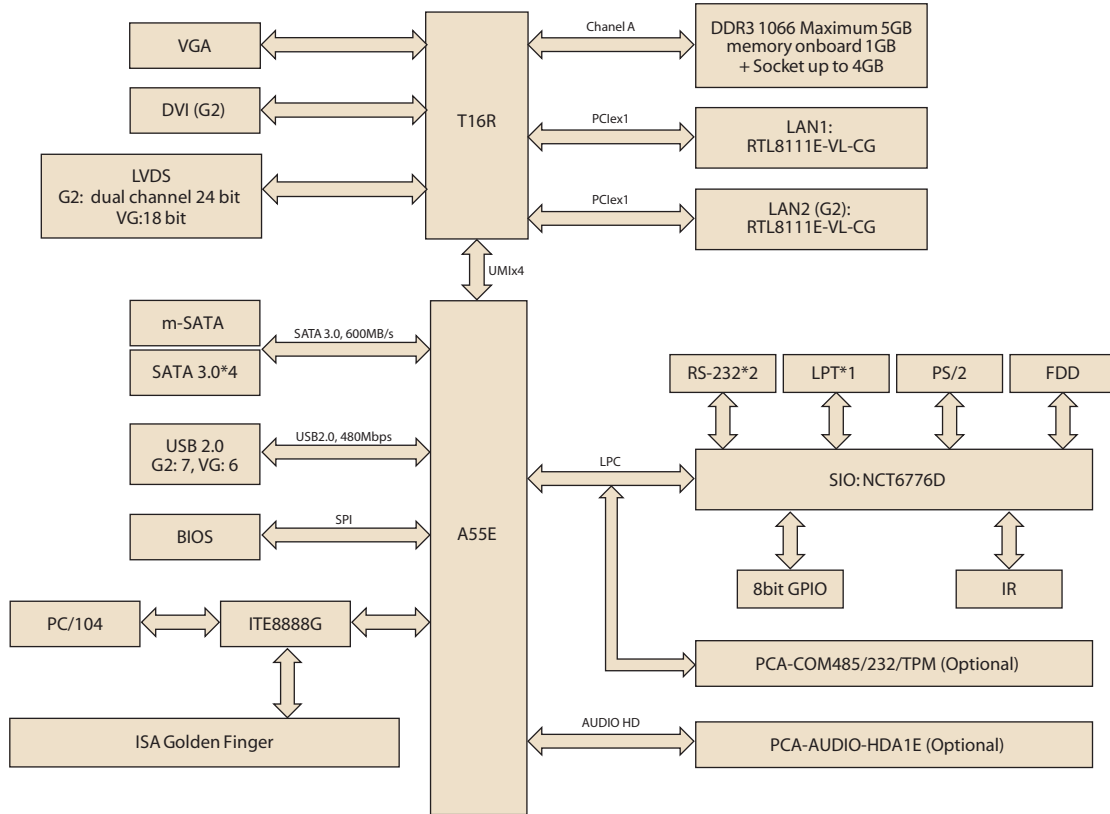
- Ultra low power, fanless AMD Accelerated Processing Unit T16R
- DDR3 1066 memory onboard 1GB+ DDR3 1066 SO-DIMM socket 4GB
- Dual independent display
- Up to 2 GbE LAN supported
- Up to 7 USB 2.0 (480 Mbps)
- 4 SATA 3.0 (600 MB/s) and 1 m-SATA (600 MB/s)
- legacy I/O, such as FDD/ PC/104/ COM/ LPT supported
- Optional module for 4 RS-422/485 or 4 RS-232, TPM and HD audio



Specifications

Processor System	CPU	AMD G-Series APU T16R					
	Max. Speed	615 MHz					
	L2 Cache	512 KB					
	Chipset	AMD Fusion controller hub A55E					
	BIOS	AMI-EFI 32 Mbit SPI					
Bus	ISA	Full 16-bit ISA Bus signal					
Memory	Technology	DDR3 1066 1GB onboard+ DDR3 1066 up to 4GB on 1 x 204-pin SODIMM socket					
	Controller	AMD G-Series T16R (Integrated with AMD GPU Radeon HD 6250)					
Graphics	VRAM	Optimized shared memory Architecture up to 384 MB system memory					
	Dual Display	G2: Choosing two interface from VGA (Default), LVDS, and DVI VG: VGA (Default)+LVDS					
	VGA	Up to 1920 x 1200 @ 60Hz					
	LVDS	G2: 48 bit (Dual channel 24 bit) LVDS up to 1920 x 1200 @ 60Hz VG: 18 bit LVDS up to 1024 x 768 @ 60Hz					
	DVI	Up to 1920 x 1200 @ 60Hz					
Ethernet	Interface	10/100/1000 Mbps					
	Controller	LAN1: Realtek RTL8111E-VL-CG LAN2: Realtek RTL8111E-VL-CG					
	Connector	RJ-45 x 2					
I/O Interface	USB	G2: USB2.0 x 7 (1 on bracket, 6 onboard) VG: USB2.0 x 6 (6 onboard)					
	SATA	SATA 3.0 x 4					
	m-SATA	1					
	AUDIO	HD AUDIO interface*1 for PCA-AUDIO-HDA1E (Optional)					
	Serial	RS-232 x 2 onboard Optional: RS-422/485 x 4 (PCA-COM485-00A1E) or RS-232 x 4 (PCA-COM232-00A1E) on module					
	Parallel	1 (EPP/ECP/SPP)					
	FDD	1					
	GPIO	8 bit					
	PS/2	1 (6-pin DIN socket on bracket for PS/2 keyboard and mouse, 6-pin wafer box connector)					
Watchdog Timer	Output	System reset/IRQ11					
	Interval	Programmable, 1~255 sec/min					
Power Requirement	Voltage	+12V	+5V	+3.3V	+5VSB	-12V	-5V
	Current	0.17A	1.87V	0A	0V	0A	0A
Environment	Temperature	Operating				Non-Operating	
		0 ~ 60° C (32 ~ 140° F) (operating humidity: 40° C @ 85% RH Non-Condensing)				-40° C ~ 85° C and 60° C @ 95% RH Non-Condensing	
Physical	Dimensions	185 mm (L) x 122 mm (W) (7.3" x 4.8")					

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Ordering Information

P/N	GbE LAN	Memory	VGA	DVI	LVDS	USB	SATA	COM	LPT	PC104	FDD	mSATA
PCA-6763G2-00A1E	2	onboard 1GB+ Socket up to 4GB	1	1	48 bit	7	4	2 RS-232	1	1	1	1
PCA-6763VG-00A1E	1	onboard 1GB+ Socket up to 4GB	1	-	18 bit	6	4	2 RS-232	1	1	1	1

Packing List

Part Number	Description	Quantity
1700008762	Dual-COM port cable kit (for G2 SKU)	x 1
1700014398	4-port USB cable kit (2.0 mm pitch)	x 1
1700060202	Y cable for PS/2 keyboard, PS/2 mouse	x 1
1700003194	SATA HDD data cable	x 1
1703150102	SATA HDD power cable	x 1
1700002343	ATX feature cable	x1
1700002223	LPT port cable kit (for G2 SKU)	x1
1700008954	LPT+COM cable kit (for VG SKU)	x1

Optional Accessories

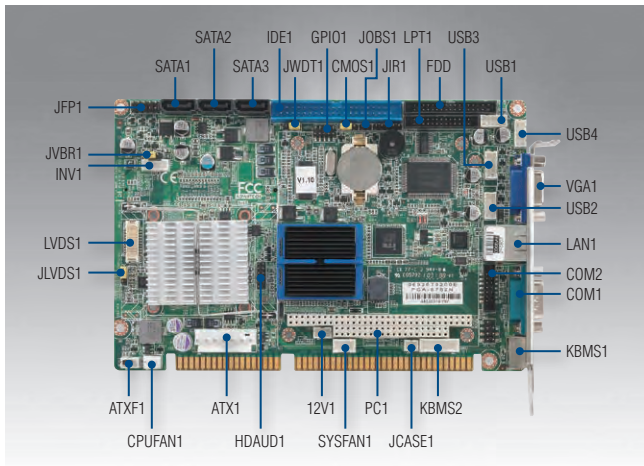
Part Number	Description
PCA-COM485-00A1E	4 x RS-422/485 COM module
PCA-COM232-00A1E	4 x RS-232 COM module
PCA-AUDIO-HDA1E	Extension module for 7.1 channel High Definition audio
PCA-TPM-00A1E	Trusted platform module compliant with TCG 1.2
1700008822	DVI cable
1701340603	FDD cable

I/O View



PCA-6782

Intel® Atom™ N455/D525 ISA Half-size SBC with VGA/LVDS/GbE LAN/SATA/COM/ CFC/FDD and PC/104



Features

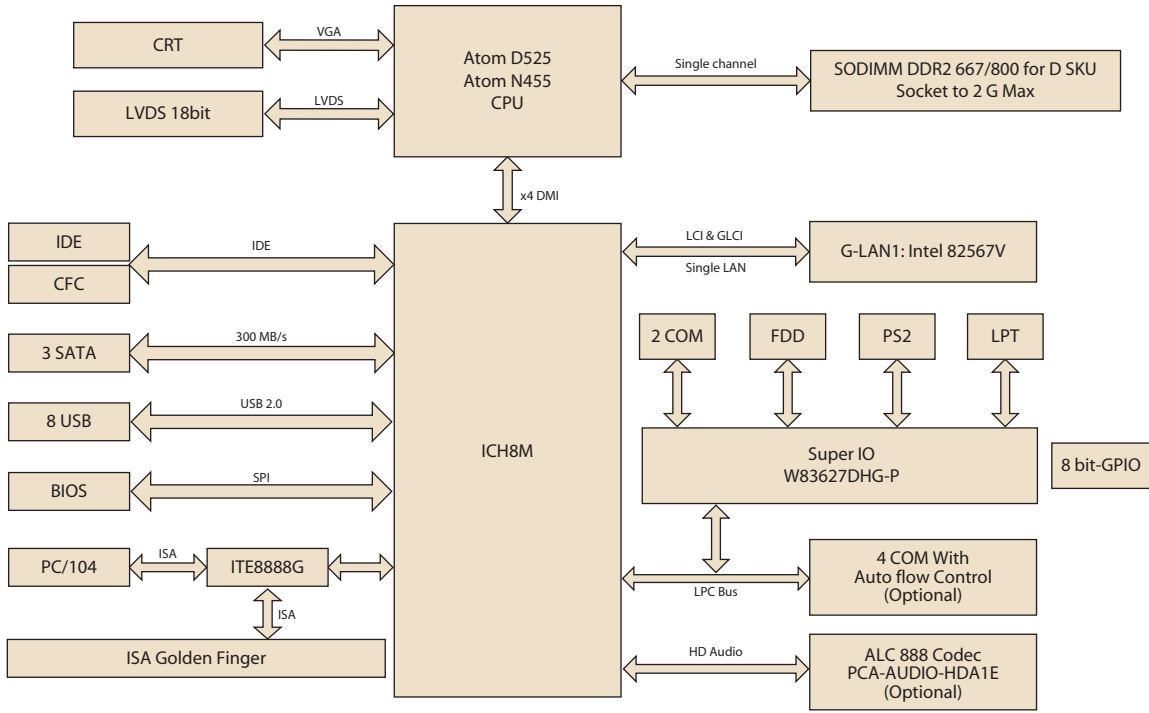
- Ultra low power, fanless N455 CPU and maximum 2 GB DDR2 667 memory (Only for N SKU)
- Dual Core™ high performance D525 CPU and maximum 2 GB DDR2 667/800 memory (Only for D SKU)
- VGA/LVDS dual video outputs
- Optional module for 4 x RS-485 w/auto-flow control
- Supports embedded software APIs and utilities



Specifications

Processor System	CPU	Intel Atom N455	Intel Atom D525					
	Speed	1.66 GHz	1.8 GHz					
	L2 Cache	512 KB	1 MB					
	Chipset	Intel ICH8M						
	BIOS	AMI 16Mb SPI Flash						
Bus	PCI	N/A						
	ISA	16-bit/Gold Finger						
Memory	Technology	Single channel DDR2 667 MHz	Single channel DDR2 667/800 MHz					
	Max. Cap.	max 2 GB SODIMM	max 2 GB SODIMM					
	Socket	200-pin DIMM x 1	200-pin DIMM x 1					
Graphics	On board	Embedded Gen3.5+ GFX Core technology, Direct X 9/Pixel Shader 2.0 compliant						
	VRAM	Shared 224 MB						
	Video Interface	15-pin VGA D-sub connector x1/Onboard LVDS pin header x 1 (supports single channel 18-bit LVDS)						
Video Output	VGA:	Supports up to SXGA 1400 x 1050 @ 60 Hz for N SKU, up to 2048 x 1536 @ 60 Hz for D SKU						
	LVDS:	Supports 18-bit single channel and up to WXGA 1366 x 768 or 1280 x 800 for both N and D SKUs						
Ethernet	Interface	10/100/1000 Mbps						
	Controller	LAN1: Intel 82567V						
SATA 2	Connector	RJ-45 with LED Connector x1						
	Max. Transfer Rate	300 MB/s						
EIDE	Channel	3						
	Mode	ATA 100/66/33						
I/O Interface	Channel	1 (Supports up to 2 IDE devices)						
	USB 2.0	8 ports on the SHB						
	Serial	Two RS-232 onboard pin-headers, plus four ports of RS-485 with auto-flow control by module (optional, Advantech P/N: PCA-COM485-00A1E)						
	Parallel	1 (EPP/ECP)						
	GPIO	1 (8-bit)						
	FDD	1						
Watchdog Timer	PS/2	1 (for mouse and keyboard, a Y cable is included in the package)						
	Output	Interrupt, system reset						
Miscellaneous	Interval	Programmable, 1~255 sec/min						
	Audio Output	Intel High Definition audio interface (requires an audio extension module, P/N: PCA-AUDIO-HDA1E)						
Power Requirement	Test Equipment	Atom D525 CPU 1.8 GHz; Memory: One of 2 GB DDR2 667 MHz SODIMM; Storage: One SATA HDD						
	Test Program	Hot CPU pro 4.22						
	Voltage	+12 V	+5 V	+3.3 V	+5 VSB	-12 V	-5 V	Total
	Current	0.46 A	2.41 A	0 A	0.01 A	0 A	0 A	17.62 W
	Test Equipment	Atom N455 CPU 1.66 GHz; Memory: One of 2 GB DDR2 667 MHz SODIMM; Storage: One SATA HDD						
	Test Program	Hot CPU pro 4.22						
Environment	Voltage	+12 V	+5 V	+3.3 V	+5 VSB	-12 V	-5 V	Total
	Current	0.13 A	2.19 A	0 A	0.01 A	0 A	0 A	12.56 W
Physical	Operating	Non-Operating						
	Temperature	0 ~ 60° C (32 ~ 140° F) (Operational humidity: 40° C @ 85% RH Non-Condensing)						
Physical	Dimensions	-40 ~ 85° C and 60° C @ 95% RH Non-Condensing						
	Dimensions	185 mm (L) x 122 mm (W) (7.3" x 4.8")						

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Ordering Information

P/N	CPU	Fan-Less	LAN	PC104	LVDS	FDD	SATA	USB	RAM
PCA-6782D-S8A1E	Atom™ D525	No	Single GbE LAN	Yes	Yes	1	3	8	Socket to 2G
PCA-6782N-S6A1E	Atom™ N455	Yes	Single GbE LAN	Yes	Yes	1	3	8	Socket to 2G

Packing List

Part Number	Description	Quantity
1960046526N001	CPU Cooler for Atom™ D510 CPU (Only Available for D SKU)	x 1
1700003194	Serial ATA HDD data cable	x 2
1703150102	Serial ATA HDD power cable	x 2
1700008954	Print port & COM port cable	x 1
1700002343	ATX Feature Cable	x 1
1700014398	4-port USB cable kit	x 1
1700060202	Y cable for PS/2 keyboard and PS/2 mouse	x 1
1703070101	ATX Power Cable 20P/7P 10 cm	x 1
1703080101	AT Power Cable	x 1
9689000002	Jumper Pack	x 1
-	Warranty card	x 1
-	PCA-6782 Startup Manual	x 1
-	CD with driver utility and manual (in PDF format)	x 1

Optional Accessories

Part Number	Description
PCA-COM485-00A1E	Extension module for four ports of RS-422/485 with auto-flow control function
PCA-AUDIO-HDA1E	Extension module for 7.1 channel High Definition audio
1701340603	FDD cable

I/O View



PCA-6782D-S8A1E
PCA-6782N-S6A1E

PICMG 1.3 Full-Size SHB Backplanes

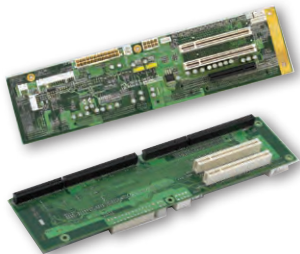
Server Grade Backplanes

Compatible with PCE-7000 Series System Host Board

2U Butterfly Backplanes

PCE-7B06V-04A1E

- 6-slot Butterfly BP for 2U chassis
- Segment: 1
- One CPU card slot
- PCIe slot: One x8
- PCI-X slot: N/A
- PCI slot: Four 32/33
- Compatible with IPC chassis: ACP-2000EBP and IPC-602EBP



8-slot Wallmount Chassis Backplanes

PCE-7B08-04A1E

- 8-slot BP for 8-slot chassis
- Segment: 1
- One CPU card slot
- PCIe slot: Two x8; One x4
- PCI-X slot: N/A
- PCI slot: Four 32/33
- Compatible with IPC chassis: IPC-6608



14-slot Rackmount Chassis Backplanes

PCE-7B13-64C1E

- 13-slot BP for 14-slot chassis
- Segment: 1
- One CPU card slot
- PCIe slot: Two x8
- PCI-X slot: Two 64/100; Four 64/66
- PCI slot: Four 32/33
- Compatible with IPC chassis: IPC-510, IPC-610, IPC-611, ACP-4000, ACP-4010, ACP-4320, and ACP-4360



PCE-7B13-07A1E

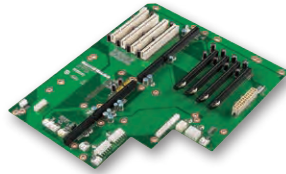
- 13-slot BP for 14-slot chassis
- Segment: 1
- One CPU card slot
- PCIe slot: Two x8, Three x4
- PCI-X slot: N/A
- PCI slot: Seven 32/33
- Compatible with IPC chassis: IPC-510, IPC-610, IPC-611, ACP-4000, ACP-4010, ACP-4320, and ACP-4360



14-slot Rackmount Chassis Backplanes

PCE-7B09R-04A1E

- 9-slot BP for 14-slot chassis
- Segment: 1
- One CPU card slot
- PCIe slot: One x8, Three x4
- PCI-X slot: N/A
- PCI slot: Four 32/33
- Compatible with IPC chassis: IPC-510, IPC-610, IPC-611, ACP- 4000, ACP-4010, ACP-4320, ACP-4340, and ACP-4360



20-slot Rackmount Chassis Backplanes

PCE-7B17-00A1E

- 17 slot BP for 20-slot chassis
- Segments: 1
- One CPU card slot
- PCIe slot: five x8, eleven x4
- PCI-X slot: N/A
- PCI slot: N/A
- Compatible with IPC chassis: IPC-623, IPC-622



PCE-7B19-88B1E

- 19-slot BP for 20-slot chassis
- Segments: 1
- One CPU card slot
- PCIe slot: Two X8
- PCI-X slot: Eight 64/100
- PCI slot: Eight 32/33
- Compatible with IPC chassis: IPC-623, IPC-622



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PICMG 1.3 Full-Size SHB Backplanes

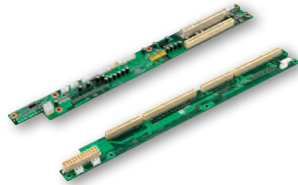
Mainstream Backplanes

Compatible with PCE-5000 Series System Host Board

1U Butterfly Backplanes

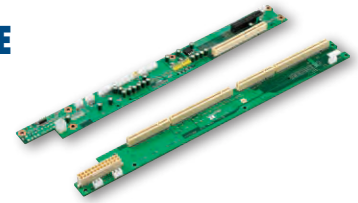
PCE-5B03V-01A1E

- 3-slot Butterfly BP for 1U chassis
- Segments: 1
- One CPU card slot
- PCIe slot: One x16
- PCI-X slot: N/A
- PCI slot: One 32/33
- Compatible with IPC chassis: ACP-1010



PCE-5B03V-00A1E

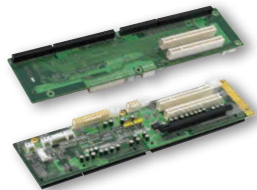
- 3-slot Butterfly BP for 1U chassis
- Segments: 1
- One CPU card slot
- PCIe slot: One x16; One x4
- PCI-X slot: N/A
- PCI slot: N/A
- Compatible with IPC chassis: ACP-1010



2U Butterfly Backplanes

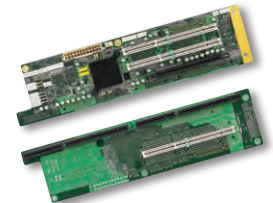
PCE-5B06V-04A1E

- 6-slot Butterfly BP for 2U chassis
- Segments: 1
- One CPU card slot
- PCIe slot: One x16
- PCI-X slot: N/A
- PCI slot: Four 32/33
- Compatible with IPC chassis: ACP-2000EBP and IPC-602EBP



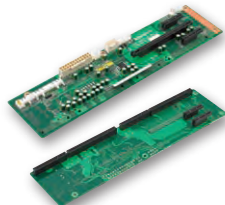
PCE-5B05V-30B1E

- 5-slot Butterfly BP for 2U chassis
- Segments: 1
- One CPU card slot
- PCIe slot: One x16
- PCI-X slot: Two 64/100; one 64/133
- PCI slot: N/A
- Compatible with IPC chassis: ACP-2000EBP and IPC-602EBP



PCE-5B06V-00A1E

- 6-slot Butterfly BP for 2U chassis
- Segments: 1
- One CPU card slot
- PCIe slot: One x16; Four x1
- PCI-X slot: N/A
- PCI slot: N/A
- Compatible with IPC chassis: ACP-2000EBP and IPC-602EBP



5-slot Wallmount Chassis Backplanes

PCE-5B05-02A1E

- 5-slot BP for 5-slot chassis
- Segments: 1
- One CPU card slot
- PCIe slot: One x16; One x4
- PCI-X slot: N/A
- PCI slot: Two
- Compatible with IPC chassis: IPC-6025



PCE-5B04-20B1E

- 4-slot BP for 5-slot chassis
- Segments: 1
- One CPU card slot
- PCIe slot: One x16
- PCI-X slot: Two 64/100
- PCI slot: N/A
- Compatible with IPC chassis: IPC-6025



PCE-5B05-04A1E

- 5-slot BP for 5-slot chassis
- Segments: 1
- One CPU card slot
- PCIe slot: N/A
- PCI-X slot: N/A
- PCI slot: Four 32/33
- Compatible with IPC-6025



PCE-5B05-03A1E

- 5 slot BP for 5 slot chassis
- Segments: 1
- One CPU card slot
- PCIe slot: One x16
- PCI-X slot: N/A
- PCI slot: Three PCI 32/33
- Compatible with IPC chassis: IPC-6025



6-slot Wallmount Chassis Backplanes

PCE-5B06-00A1E

- 6-slot BP for 6-slot chassis
- Segments: 1
- One CPU card slot
- PCIe slot: One x16; Four x1
- PCI-X slot: N/A
- PCI slot: N/A
- Compatible with IPC chassis: IPC-6606, and IPC-6806W



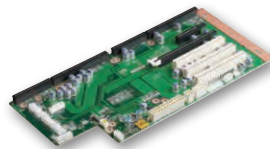
PCE-5B06-04A1E

- 6-slot BP for 6-slot chassis
- Segments: 1
- One CPU card slot
- PCIe slot: One x16
- PCI-X slot: N/A
- PCI slot: Four 32/33
- Compatible with IPC chassis: IPC-6606, and IPC-6806W



PCE-5B06-03A1E

- 6 slot BP for 6 slot chassis
- Segments: 1
- One CPU card slot
- PCIe slot: One x16; One x4
- PCI-X slot: N/A
- PCI slot: Three PCI 32/33
- Compatible with IPC chassis: IPC-6606, and IPC-6806W



8-slot Wallmount Chassis Backplanes

PCE-5B07-04A1E

- 7-slot BP for 8-slot chassis
- Segments: 1
- One CPU card slot
- PCIe slot: One x16; One x4
- PCI-X slot: N/A
- PCI slot: Four 32/33
- Compatible with IPC chassis: IPC-6608 and IPC-6908



PCE-5B08-02A1E

- 8-slot BP for 8-slot chassis
- Segments: 1
- One CPU card slot
- PCIe slot: One x16; Four x1
- PCI-X slot: N/A
- PCI slot: Two 32/33
- Compatible with IPC chassis: IPC-6608 and IPC-6908



10-slot Wallmount Chassis Backplanes

PCE-5B09-06A1E

- 9-slot BP for 10-slot chassis
- Segments: 1
- One CPU card slot
- PCIe slot: One x16; One x4
- PCI-X slot: N/A
- PCI slot: Six 32/33
- Compatible with IPC chassis: IPC-7132, IPC-510, IPC-610, ACP-4000, ACP-4010, ACP-4320, and ACP-4360



PCE-5B09-04A1E

- 9-slot for 10-slot chassis
- Segments: 1
- One CPU card slot
- PCIe slot: One x16, three x4
- PCI-X slot: N/A
- PCI slot: Four 32/33
- Compatible with IPC chassis: IPC-7132, IPC-510, IPC-610, ACP-4000, ACP-4010, ACP-4320, and ACP-4360



14-slot Rackmount Chassis Backplanes

PCE-5B10-04A1E

- 10-slot BP for 14-slot chassis
- Segments: 1
- One CPU card slot
- PCIe slot: One x16; Four x1
- PCI-X slot: N/A
- PCI slot: Four 32/33
- Compatible with IPC chassis: IPC-510, IPC-610, IPC-611, ACP-4000, ACP-4010, ACP-4320 and ACP-4360



PCE-5B12-64C1E

- 12-slot BP for 14-slot Chassis
- Segments: 1
- One CPU card slot
- PCIe slot: One x16
- PCI-X slot: Two 64/100; Four 64/66
- PCI slot: Four 32/33
- Compatible with IPC chassis: IPC-510, IPC-610, IPC-611, ACP-4000, ACP-4010, ACP-4320, and ACP-4360



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PICMG 1.3 Full-Size SHB Backplanes

14-slot Rackmount Chassis Backplanes

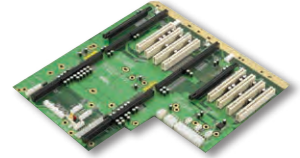
PCE-5B13-08A1E

- 13-slot BP for 14-slot chassis
- Segments: 1
- One CPU card slot
- PCIe slot: One x16; Three x1
- PCI-X slot: N/A
- PCI slot: Eight 32/33
- Compatible with IPC chassis: IPC-510, IPC-610, IPC-611, ACP-4000, ACP-4010, ACP-4320, and ACP-4360



PCE-5B12D-04A1E

- 12-slot BP for 14-slot chassis
- Segments: 2
- Each segment:
 - One CPU card slot
 - PCIe slot: One x16
 - PCI-X slot: N/A
 - PCI slot: Four 32/33
- Compatible with IPC chassis: ACP-4010



PCE-5B12-07A1E

- 13-slot BP for 14-slot chassis
- Segment: 1
- One CPU card slot
- PCIe slot: One x16, Three x4
- PCI-X slot: 0
- PCI slot: Seven 32/33
- Compatible with IPC chassis: IPC-510, IPC-610, IPC-611, ACP-4000, ACP-4320, ACP-4360, ACP-4010



20-slot Rackmount Chassis Backplanes

PCE-5B18-88B1E

- 18-slot BP for 20-slot chassis
- Segments: 1
- One CPU card slot
- PCIe slot: One x16
- PCI-X slot: Eight 64/66
- PCI slot: Eight 32/33
- Compatible with IPC chassis: IPC-623



PCE-5B16Q-02A1E

- 16-slot BP for 20-slot chassis
- Segments: 4
- Each segment:
 - One CPU card slot
 - PCIe slot: One x16
 - PCI-X slot: N/A
 - PCI slot: Two 32/33
- Compatible with IPC chassis: IPC-623



PCE-5B12-00A1E

- 12-slot BP for 20-slot chassis
- Segments: 1
- One CPU card slot
- PCIe slot: Ten x16 and one x4
- PCI-X slot: N/A
- PCI slot: N/A
- Compatible with IPC chassis: IPC-623, IPC-622



PCE-5B19-00A1E

- 19 slot BP for 20-slot chassis
- Segments: 1
- One CPU card slot
- PCIe slot: Seventeen X16 and One X4
- PCI-X slot: N/A
- PCI slot: N/A
- Compatible with IPC chassis: IPC-623, IPC-622

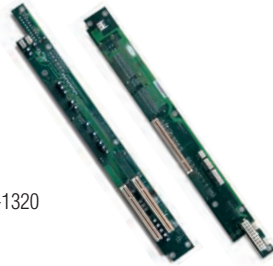


PICMG 1.0 Full-Size SBC Backplanes

1U Butterfly Backplanes

PCA-6103P2V-0A2E

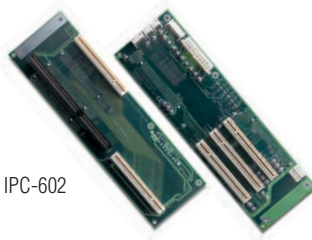
- Segments: 1
- Slots: 2 PCI, 1 CPU
- PCI bus: 32-bit/33 MHz
- Size: 40 x 400 mm (1.57" x 15.75")
- Ordering Information: 989K610303E
- Compatible with IPC chassis: ACP-1010, ACP-1320



2U Butterfly Backplanes

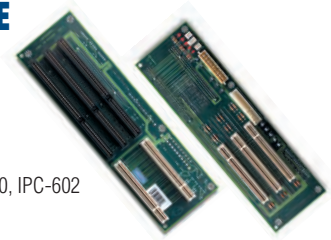
PCA-6105P4V-0B3E

- Segments: 1
- Slots: 4 PCI, 1 PICMG
- PCI bus: 32-bit/33 MHz
- Size: 80 x 260 mm (3.15" x 10.23")
- Ordering Information: 989K610512E
- Compatible with IPC Chassis: ACP-2000, IPC-602



PCA-6106P3V-0B2E

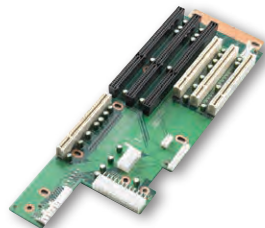
- Segments: 1
- Slots: 1 ISA, 3 PCI, 2 PICMG
- PCI bus: 32-bit/33 MHz
- Size: 80 x 260 mm (3.15" x 10.23")
- Ordering Information: 989K610622E
- Compatible with IPC Chassis: ACP-2000, IPC-602



5-slot PCI/ISA Backplanes

PCA-6105P3-5A1E

- Segments: 1
- Slots: 1 ISA, 2 PCI, 1 PICMG, 1 PCI/ISA
- Size: 106.5 mm x 327.66 mm (4.19" x 12.9")
- Ordering Information: PCA-6105P3-5A1E
- Compatible with IPC Chassis: IPC-6025



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PICMG 1.0 Full-Size SBC Backplanes

6-slot PCI/ISA Backplanes

PCA-6106P4-0A2E

- Segments: 1
- Slots: 4 PCI, 2 PICMG
- Size: 142 x 270 mm (5.59" x 10.63")
- Ordering Information: PCA-6106P4-0A2E
- Compatible with IPC Chassis: IPC-6806W, IPC-6806, IPC-6606, IPC-6006



PCA-6106P3-0D2E

- Segments: 1
- Slots: 2 ISA, 2 PCI, 1 PICMG/PCI, 1 PICMG
- Size: 142 x 270 mm (5.59" x 10.63")
- Ordering Information: PCA-6106P3-0D2E
- Compatible with IPC Chassis: IPC-6806W, IPC-6806, IPC-6606, IPC-6006



8-slot PCI/ISA Backplanes

PCA-6108P6-0C1E

- Segments: 1
- Slots: 1 ISA, 5 PCI, 1 PICMG/PCI, 1 PICMG
- Size: 180 x 260 mm (7.09" x 10.24")
- PCI bridge: PI7C8152BMAE
- Primary PCI: 3 slots; Secondary PCI: 3 slots
- Ordering Information: PCA-6108P6-0C1E
- Compatible with IPC Chassis: IPC-6908, IPC-6608



PCA-6108P4-0C2E

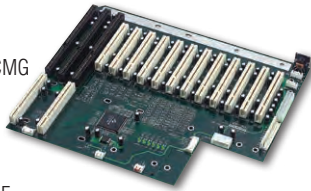
- Segments: 1
- Slots: 3 ISA, 3 PCI, 1 PICMG/PCI, 1 PICMG
- Size: 180 x 260 mm (7.09" x 10.24")
- Ordering Information: PCA-6108P4-0C2E
- Compatible with IPC Chassis: IPC-6908, IPC-6608



14-slot PCI/ISA Backplanes

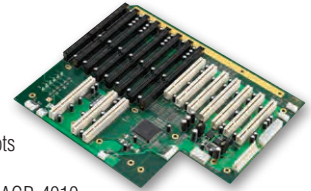
PCA-6114P12-0B3E

- Segments: 1
- Slots: 1 ISA, 11 PCI, 1 PICMG/PCI, 1 PICMG
- Size: 315 x 300 mm (12.4" x 11.8")
- PCI bridge: Pericom PI7C8150BMAE
- Primary PCI: 3 slots; Secondary PCI: 9 slots
- Ordering Information: PCA-6114P12-0B3E
- Compatible with IPC Chassis: ACP-4000, ACP-4010, ACP-4320, ACP-4340, ACP-4360, IPC-510, IPC-610, IPC-611



PCA-6114P7-0E1E

- Segments: 1
- Slots: 4 ISA, 6 PCI, 3 PICMG, 1 PCI/ISA
- Size: 315 x 260 mm (12.4" x 10.24")
- PCI bridge: PI7C8152BMAE
- Primary PCI: 3 slots; Secondary PCI: 4 slots
- Ordering Information: PCA-6114P7-0E1E
- Compatible with IPC Chassis: ACP-4000, ACP-4010, ACP-4320, ACP-4340, ACP-4360, IPC-510, IPC-610, IPC-611



PCA-6114P4-0C2E

- Segments: 1
- Slots: 8 ISA, 4 PCI, 2 PICMG
- Size: 315 x 260 mm (12.4" x 10.24")
- Ordering Information: PCA-6114P4-0C2E
- Compatible with IPC Chassis: ACP-4000, ACP-4010, ACP-4320, ACP-4340, ACP-4360, IPC-510, IPC-610, IPC-611
- When installing ACP-4320, ACP-4340, ACP-4360 and IPC-510 chassis, a 1U cooler is required



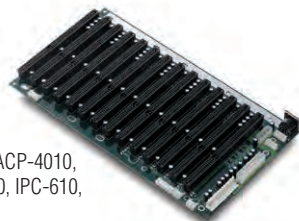
PCA-6113P4R-0C2E

- Segments: 1
- Slots: 7 ISA, 4 PCI, 2 PICMG
- Size: 315 x 260 mm (12.4" x 10.24")
- Ordering Information: PCA-6113P4R-0C2E
- Compatible with IPC Chassis: ACP-4000, ACP-4010, ACP-4320, ACP-4340, ACP-4360, IPC-510, IPC-610, IPC-611



PCA-6114-0B2E

- Segments: 1
- Slots: 14 ISA
- Size: 315 x 175 mm (12.4" x 6.89")
- Ordering Information: PCA-6114-0B2E
- Compatible with IPC Chassis: ACP-4000, ACP-4010, ACP-4320, ACP-4340, ACP-4360, IPC-510, IPC-610, IPC-611



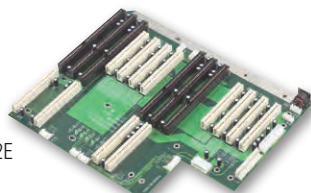
PCA-6114P10-0B2E

- Segments: 1
- Slots: 2 ISA, 10 PCI, 2 PICMG
- Size: 315 x 260 mm (12.4" x 10.24")
- PCI bridge: Pericom PI7C8150BMAE
- Primary PCI: 3 slots; Secondary PCI: 7 slots
- Ordering Information: PCA-6114P10-0B2E
- Compatible with IPC Chassis: ACP-4000, ACP-4010, ACP-4320, ACP-4340, ACP-4360, IPC-510, IPC-610, IPC-611



PCA-6113DP4-0A2E

- Segments: 2
- Slots: 2 ISA, 7 PCI, 1 PICMG/PCI, 3 PICMG
- Size: 315 x 260 mm (12.4" x 10.24")
- Ordering Information: PCA-6113DP4-0A2E
- Compatible with IPC Chassis: Only for ACP-4010
- Compatible with IPC Chassis: ACP-4010



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PICMG 1.0 Full-Size SBC Backplanes

20-slot PCI/ISA Backplanes

PCA-6120P18-0A2E

- Segments: 1
- Slots: 1 ISA, 17 PCI, 1 PICMG/PCI, 1 PICMG
- Size: 417 x 260 mm (16.42" x 10.24")
- PCI bridge: Three Pericom PI7C8150BMAE
- Secondary: 6 slot/6 slot/6 slot
- Ordering Information: PCA-6120P18-0A2E
- Compatible with IPC Chassis : IPC-623, IPC-622



PCA-6119P7-0C1E

- Segments: 1
- Slots: 10 ISA, 7 PCI, 2 PICMG
- Size: 417 x 260 mm (16.42" x 10.24")
- PCI bridge: PI7C8152BMAE
- Primary PCI: 3 slots; Secondary PCI: 4 slots
- Ordering Information: PCA-6119P7-0C1E
- Compatible with IPC Chassis : IPC-623, IPC-622



PCA-6120P12-0A2E

- Segments: 1
- Slots: 7 ISA, 11 PCI, 1 PICMG/PCI, 1 PICMG
- Size: 417 x 260 mm (16.42" x 10.24")
- PCI bridge: Pericom PI7C8150BMAE
- Primary PCI: 3 slots; Secondary PCI: 9 slots
- Ordering Information: PCA-6120P12-0A2E
- Compatible with IPC Chassis : IPC-623, IPC-622



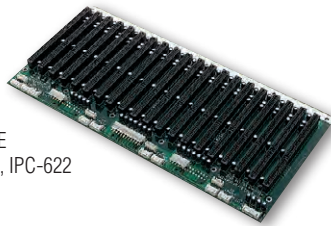
PCA-6120P4-0B2E

- Segment: 1
- Slots: 14 ISA, 4 PCI, 2 PICMG
- Size: 417 x 260 mm (16.42" x 10.24")
- Ordering Information: PCA-6120P4-0B2E
- Compatible with IPC Chassis : IPC-623, IPC-622



PCA-6120Q-0B2E

- Segment: 4
- Slots: 5-5-5-5 ISA
- Size: 417 x 200 mm (16.42" x 7.87")
- Ordering Information: PCA-6120Q-0B2E
- Compatible with IPC Chassis : IPC-623, IPC-622

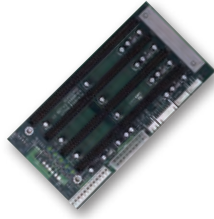


Half-Size SBC Backplanes

ISA Half-size SBC Backplanes

PCA-6104-0C2E

- Segments: 1
- Slots: 4 ISA
- Size: 94.7 x 186 mm (3.7" x 7.3")
- Ordering Information: PCA-6104-0C2E



PCA-6106-0B2E

- Segments: 1
- Slots: 6 ISA
- Size: 142 x 175 mm (5.59" x 6.89")
- Compatible with IPC-6806S, IPC-6006S, IPC-3026
- Ordering Information: PCA-6106-0B2E



PCA-6108E-0C2E

- Segments: 1
- Slots: 8 ISA
- Size: 180 x 190 mm (7.09" x 7.48")
- Compatible with IPC-6908
- Ordering Information: PCA-6108E-0C2E



PCA-6108-0B2E

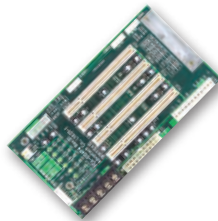
- Segments: 1
- Slots: 8 ISA
- Size: 222 x 171 mm (8.74" x 6.73")
- Only for commercial PC chassis (baby AT size)
- Ordering Information: PCA-6108-0B2E



PCI Half-size SBC Backplanes

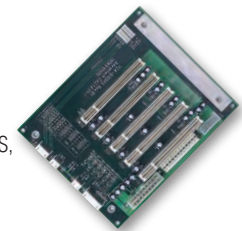
PCA-6104P4-0B2E

- Segments: 1
- Slots: 4 PCI
- Size: 110 x 180 mm (4.3" x 7")
- Ordering Information: PCA-6104P4-0B2E



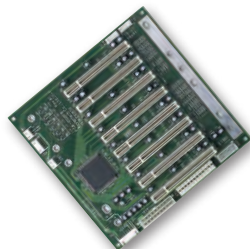
PCA-6105P5-0B2E

- Segments: 1
- Slots: 5 PCI
- Size: 143 x 155 mm (5.6" x 6")
- Compatible with ACP-4D00, IPC-6806S, IPC-6006S, IPC-3026
- Ordering Information: PCA-6105P5-0B2E



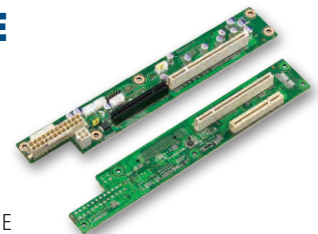
PCA-6108P8-0A2E

- Segments: 1
- Slots: 8 PCI
- Size: 182 x 185 mm (7.2" x 7.3")
- Compatible with IPC-6908
- Ordering Information: PCA-6108P8-0A2E



PCI-7103P1V-01A1E

- Segments: 1
- Slots: 1 PCI, 1 PCIe x 4 (in PCIe x 8 slot)
- Size: 252 x 41 mm (9.9" x 1.6")
- Compatible with IPC-120 chassis
- Compatible with PCI-7031DF and PCI-7032F CPU cards
- Ordering Information: PCI-7103P1V-01A1E



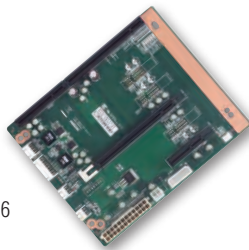
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Half-Size SBC Backplanes

PICMG 1.3 Half-size SHB Backplanes

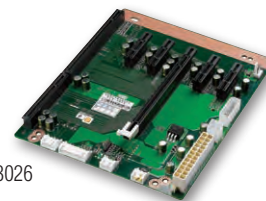
PCE-3B03-00A1E

- 3 slot backplane for 6-slot chassis
- Segments:1
- One CPU card slot
- PCIe slot: One x16, One x4
- Size: 142 x 176 mm
- Compatible with ACP-4D00, IPC-6806S, IPC-3026
- Ordering information: PCE-3B03-00A1E



PCE-3B06-00A1E

- 6 slot backplane for 6-slot chassis
- Segments:1
- One CPU card slot
- PCIe slot: One x16, four x1
- Size: 142 x 176 mm
- Compatible with ACP-4D00, IPC-6806S, IPC-3026
- Ordering information: PCE-3B06-00A1E



PCE-3B06-03A1E

- 6 slot backplane for 6-slot chassis
- Segments:1
- One CPU card slot
- PCIe slot: One x16, One x1
- PCI slot: Three 32/33
- Size: 142 x 176 mm
- Compatible with ACP-4D00, IPC-6806S, IPC-3026
- Ordering information: PCE-3B06-03A1E



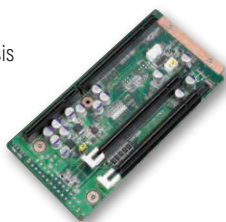
PCE-3B06-02A1E

- 6-slot backplane for 6-slot chassis
- Segments:1
- One CPU card slot
- PCIe slot: One x16, Two x1
- PCI slot: Two 32 bit/33MHz
- Size: 142 x 176 mm
- Compatible with ACP-4D00, IPC-6806S, IPC-3026
- Ordering information: PCE-3B06-02A1E



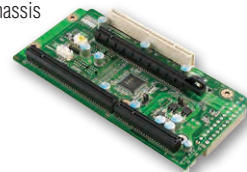
PCE-3B03A-00A1E

- 3 slot backplane for compact-sized wall-mount chassis
- Segments:1
- One CPU card slot
- PCIe slot: One x16, One x4
- Size: 173 x 86.3 mm
- Compatible with IPC-3012
- Ordering information: PCE-3B03A-00A1E



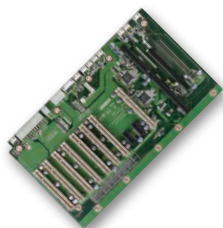
PCE-3B03-01A1E

- 3 slot backplane for compact-sized wall-mount chassis
- Segments:1
- One CPU card slot
- PCIe slot: One x16
- PCI slot: One 32 bit/33MHz
- Size: 173 x 86.3 mm
- Compatible with IPC-3012
- Ordering information: PCE-3B03-01A1E



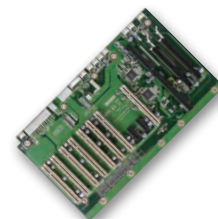
PCE-3B12-08A1E

- 12-slot backplane for 14-slot half-sized chassis
- Segments:1
- One CPU card slot
- PCIe slot: One x16, Two x1
- PCI slot: Eight 32 bit/33MHz
- Size: 315 x 185 mm
- Compatible with IPC chassis: ACP-4020
- Ordering information: PCE-3B12-08A1E



PCE-4B13-08A1E

- 13-slot backplane for 14-slot half-sized chassis
- Segments: 1
- One CPU card slot
- PCIe slot: Two x8, Two x1
- PCI slot: Eight 32 bit/33MHz
- Size: 315 x 185 mm
- Compatible with IPC chassis: ACP-4020
- Ordering information: PCE-4B13-08A1E



PCE-4B12-03A1E

- 12-slot backplane for 14-slot half-sized chassis
- Segments:1
- One CPU card slot
- PCIe slot: One x8, Four x4, Three x1
- PCI slot: Three 32 bit/33MHz
- Size: 315 x 185 mm
- Compatible with IPC chassis: ACP-4020
- Ordering information: PCE-4B12-03A1E



PCE-4B13-00A1E

- 13-slot backplane for 14-slot half-sized chassis
- Segments: 1
- One CPU card slot
- PCIe slot: One x8, Eleven x4
- PCI slot: N/A
- Size: 315 x 243.84 mm
- Compatible with IPC chassis: ACP-4020
- Ordering information: PCE-4B13-00A1E



CompactPCI Platforms

CompactPCI Chassis

MIC-3022	4U CompactPCI® Enclosure for 3U Cards	11-2
MIC-3042	4U CompactPCI® Enclosure with cPCI Power Supply (CT Bus non-CT Bus or PICMG 2.16)	11-4
MIC-3043	4U CompactPCI® Enclosure with cPCI Power Supply and Removable HDD Bay	11-6

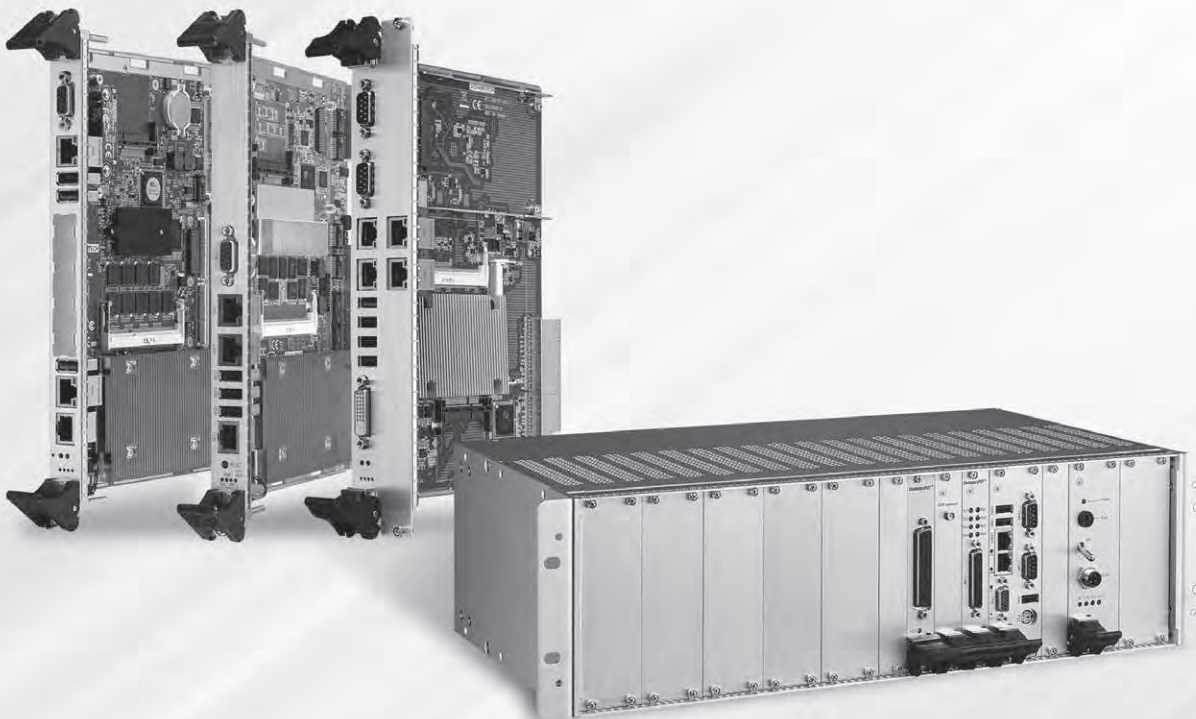
3U CompactPCI Blades

MIC-3325	3U CompactPCI® Intel® Atom™ Dual Core D525/N455 Processor Blade	11-8
MIC-3328	3U CompactPCI PlusIO Intel® 3rd Generation Core™ Processor Blade	11-10
MIC-3329	3U CompactPCI Intel® Quad-Core Atom™ SoC Processor Blade	11-12

6U CompactPCI Blades

MIC-3395	6U CompactPCI® 2nd and 3rd Generation Intel Core i3/i5/i7 Processor Blade with ECC Support	11-14
MIC-3395MIL	6U CompactPCI 3rd Generation Intel® Core™ i7 Rugged Processor Blade with ECC	11-16
MIC-3396	6U CompactPCI 4th Generation Intel® Core™ i3/i5/i7 Processor Blade with ECC support	11-18
MIC-3397	6U CompactPCI Intel® Xeon® E3 Quad Core & Pentium® Dual Core Processor Blade	11-20
MIC-3398	6U CompactPCI Intel® Atom™ SoC Processor Blade	11-22

To view all of Advantech's CompactPCI, please visit www.advantech.com/products.



MIC-3022

4U CompactPCI® Enclosure for 3U Cards



Features

- Hosts up to eight 3U CompactPCI® boards
- 32bit/66MHz PCI bus backplane
- PICMG 2.11 power supplies
- ATX power supply option for cost sensitive applications
- Dual system ready

Introduction

The MIC-3022 is a 4U enclosure designed to host up to 8 CompactPCI 3U cards connected via a 32bit 33MHz or 66MHz PCI bus. The chassis can be powered by PICMG2.11 CPCI power supplies or an ATX 400W power supply for cost sensitive applications. A CPCI power supply supports a wide range of applications in the industrial market requiring a robust, compact and reliable platform. Rear transition modules can be installed for each of the 8 slots to support I/O extension.

Four high performance fans provide adequate air flow to all slots, enabling system configurations which can be used in extended temperature environments. With the support of front swappable power supplies and add-in cards as well as a simplified fan replacement mechanism built in, systems based on the MIC-3022 can support a MTTR of 5 minutes or less.

Specifications

Backplane	3U slots	System x 1, Peripheral x 7, Rear transition x 8 (80 mm, IEEE1101.11 compliant)					
	Bus Interface	32-bit/33 MHz/66 MHz PCI bus					
	V (I/O)	+3.3 V/+5 V (selectable)					
Cooling	Fan	2 Blowers (Max 45.6CFM/FAN); up to 4 Blowers for dual system					
Power Supply	Standard CPCI 250W PSU	Input	AC 100 ~ 240 V @ 50 ~ 60 Hz, full range				
			+3.3 V	+5 V	+12 V	-12 V	
		Max. Load	18 A	25 A	5 A	0.5 A	
	Min. Load	0 A	1 A	0 A	0 A		
	ATX 400W PSU	Input	AC 100 ~ 240 V @ 50 ~ 60 Hz, full range				
			+3.3 V	+5 V	+12 V	-12 V	
Max. Load		11.6A	12.89A	11.74A	0.37A		
Min. Load	0.3A	0.3A	0.5A	0A			
Environment	Temperature	Operating	0 ~ 50° C (32 ~ 122° F)		Non-Operating	-40 ~ 70° C (-40 ~ 158° F)	
		Humidity	10 ~ 95% @ 40° C, non-condensing		10 ~ 95% @ 60° C, non-condensing		
	Shock	10 G		30 G			
	Vibration	Random: Operating, 2G	Frequency range (Hz)	5 ~ 10		Test Severity PSD Value	12 B/Octave
				10 ~ 50		0.02 g ² /Hz	
		Sine: Non-operating, 2G	50 ~ 100		-12 B/Octave		
	Physical Characteristics	Dimensions (W x H x D)	440 x 177 x 295 mm (17.3" x 7" x 11.6")				
Weight		11 kg					
MTBF		Backplane	Fan module	Power supply			
Reliability		800, 000 hours	50, 000 hours @ 25 °C	100, 000 hours @ 70% load			
Compliance		PICMG 2.0 R3.0 CompactPCI Specification PICMG 2.1 R2.0 CompactPCI Hot Swap Specification PICMG 2.11 R3.0 Front-Access Power Connectors Specification RoHS, CE, FCC, UL, CCC					

Ordering Information

Part Number	PCI	PICMG 2.11	ATX power SPEC	Description
MIC-3022AE	Yes	-	Yes	3U CPCI enclosure with 400W ATX PSU, single system
MIC-3022CE	Yes	Yes	-	3U CPCI enclosure with 250W CPCI PSU, single system

Recommended Configurations

Enclosure	CPU Board	Front I/O Board	Rear I/O Board
MIC-3022AE	MIC-3325	MIC-3953-AE	MIC-3525
MIC-3022CE	MIC-3328	MIC-3954	-
	MIC-3329	MIC-3955	-

Optional Accessories

Part Number	Description
1757004516-01	CPCI 250W Power Supply Unit
1757004391-01	ATX 400W Power Supply Unit

Backplane Information

Physical Number	Function	Rear I/O
1	System Slot	Yes
2	CPCI I/O slot	Yes
3	CPCI I/O slot	Yes
4	CPCI I/O slot	Yes
5	CPCI I/O slot	Yes
6	CPCI I/O slot	Yes
7	CPCI I/O slot	Yes
8	CPCI I/O slot	Yes

Rear View

CPCI Power Supply SKU



ATX Power Supply SKU



- Intelligent Video and IoT Sensors 1
- Intelligent Transportation Platforms 2
- Intelligent Inspection Systems 3
- Modular IPCs 4
- Server-grade IPCs 5
- Industrial Storages 6
- Video Wall Controllers 7
- GPU Servers 8
- Industrial Motherboards 9
- Slot SBC & Passive Backplanes 10
- CompactPCI Platforms 11
- Industrial Chassis 12
- Industrial Computer Peripherals 13
- Industrial Ethernet Solutions 14

MIC-3042

4U CompactPCI® Enclosure with cPCI Power Supply (CT Bus non-CT Bus or PICMG 2.16)



Features

- 8-slot 6U CompactPCI® backplane
- AC cPCI 500 W + 250 W redundant (2+1) power supplies
- PICMG 2.16 (CompactPCI Packet Switching Backplane) compliance
- PICMG 2.5 (CompactPCI Computer Telephony) compliance



Introduction

The MIC-3042 is a 4U enclosure designed for standard cPCI power supplies. It is equipped with a cPCI 500 W redundant 2+1 power supply with hot-swap support. The system has 8 slots for CompactPCI boards and 6 slots for IEEE 1101.11 rear I/O transition boards. The MIC-3042 comes with a built-in high quality backplane that supports 64-bit / 66 MHz PCI cards. The standard configuration includes a H.110 CT Bus that complies with PICMG 2.5, which is the open architecture used to build telecom solutions.

Specifications

		MIC-3042B		MIC-3042C	
Backplane	6U Slot	System x 1, Peripheral x 6, Media x 1, Rear transition x 7 (80 mm, IEEE1101.11 compliant)		System x 1, Peripheral x 7, Rear transition x 8 (80 mm, IEEE1101.11 compliant)	
	H.110 CT Bus	Yes		No	
Cooling	Fan	2 (front: 193 CFM, rear: 61.3 CFM)			
Power Supply	Input	AC 100 ~ 254 V @ 50 ~ 60 Hz, full range (MIC-3042X-A)			
	Output	AC cPCI 250 W redundant power module			
		+3.3 V	+5 V	+12 V	-12 V
	Max. Load	36 A	50 A	10 A	1 A
	Min. Load	0 A	2.0 A	0 A	0 A
Environment	Temperature	Operating 0 ~ 45° C (32 ~ 113° F)		Non-Operating -20 ~ 60° C (-4 ~ 140° F)	
	Humidity	20 ~ 90% @ 40° C, non-condensing		10 ~ 95% @ 40° C, non-condensing	
	Shock	10 G		30 G	
	Vibration (5 ~ 500 Hz)	1.0 Grms		2.0 G	
Physical Characteristics	Dimensions (W x H x D)	440 x 177 x 320 mm (17.3" x 7" x 12.6")			
	Weight	18 kg (39.7 lb)			
Reliability	MTBF	Backplane	Fan module		Power supply
		800,000 hours	50,000 hours @ 25 °C		100,000 hours @ 70% load
Serviceability	MTTR	5 minutes			
Compliance	PICMG 2.0 R3.0 CompactPCI Specification PICMG 2.1 R2.0 CompactPCI Hot Swap Specification PICMG 2.5 R1.0 CompactPCI Computer Telephony Specification PICMG 2.11 R3.0 Front-Access Power Connectors Specification PICMG 2.16 R1.0 CompactPCI Packet Switching Backplane Specification (non-standard offering, available upon request) RoHS, CE, FCC, UL, CCC				

Backplane Information

Physical Number	Function
8	I/O slot
7	I/O slot
6	I/O slot
5	I/O slot
4	I/O slot
3	I/O slot
2	System slot
1	Media blade slot

MIC-3042B, CT backplane (for MIC-3042B series)

Physical Number	Function
8	I/O slot
7	I/O slot
6	I/O slot
5	I/O slot
4	I/O slot
3	I/O slot
2	I/O slot
1	System slot

MIC-3042C, non-CT backplane (for MIC-3042C series)

Recommended Configurations

Enclosure	CPU Board	Rear I/O Board	Chassis Management Module
MIC-3042BE MIC-3042B-AE	MIC-3397A2-M8E, MIC-3397C2-M8E MIC-3397B1-M8E, MIC-3397C1-M8E System slot only: MIC-3395A1-M4E, MIC-3395A2-M4E, MIC-3395C1-M4E MIC-3396HA-M8E, MIC-3396HB-M8E, MIC-3396HC-M8E	RIO-3317 System slot only: RIO-3315-A1E, RIO-3315-B1E, RIO-3315-C1E, RIO-3316-C1E	Included MIC-3924L-AE or Optional MIC-3927CE
MIC-3042CE MIC-3042C-AE	MIC-3395A1-M4E, MIC-3395A2-M4E, MIC-3395C1-M4E MIC-3396HA-M8E, MIC-3396HB-M8E, MIC-3396HC-M8E MIC-3397A2-M8E, MIC-3397C2-M8E MIC-3397B1-M8E, MIC-3397C1-M8E	RIO-3315-A1E, RIO-3315-B1E, RIO-3315-C1E, RIO-3316-C1E, RIO-3317	

Ordering Information

Part Number	PICMG 2.16	PICMG 2.5	PCI	Switch Board Support	Media Blade Support	Chassis Management Module	cPCI Power Supply
MIC-3042BE	-	Yes	Yes	-	Yes	MIC-3924L-AE	-
MIC-3042B-AE	-	Yes	Yes	-	Yes	MIC-3924L-AE	AC cPCI 500 W + 250 W redundant (2+1)
MIC-3042CE	-	-	Yes	-	-	MIC-3924L-AE	-
MIC-3042C-AE	-	-	Yes	-	-	MIC-3924L-AE	AC cPCI 500 W + 250 W redundant (2+1)

For PICMG 2.16 support inquiry, please contact your Advantech local representative

Optional Accessories

Part Number	Description
1757004516-01	One AC cPCI 250 W redundant power module
MIC-3927CE	MIC-3927 intelligent chassis management module (IPMI)



LED board

Hot-swappable 193-CFM fan module



Built-in alarm board (MIC-3924L-AE)

Supports IEEE 1101.11 rear I/O transition boards

- Intelligent Video and IoT Sensors 1
- Intelligent Transportation Platforms 2
- Intelligent Inspection Systems 3
- Modular IPCs 4
- Server-grade IPCs 5
- Industrial Storages 6
- Video Wall Controllers 7
- GPU Servers 8
- Industrial Motherboards 9
- Slot SBC & Passive Backplanes 10
- CompactPCI Platforms 11
- Industrial Chassis 12
- Industrial Computer Peripherals 13
- Industrial Ethernet Solutions 14

MIC-3043

4U CompactPCI® Enclosure with cPCI Power Supply and Removable HDD Bay



Features

- 6-slot 6U CompactPCI® backplane (Non-CT Bus)
- Supports removable HDD bays (up to 2 3.5" SATA/SAS or up to 4 2.5" SATA/SAS drives)
- Built-in SATA slim-type DVD-RW/RAM
- AC cPCI 250 W + 250 W redundant (1+1) or 500W+250W (2+1) power supplies
- Supports hot-swappable fan modules
- Built-in alarm module (MIC-3924L-AE)

Introduction

The MIC-3043 is a 4U enclosure designed for mission-critical and high-reliability applications such as Networking, Telecommunication, and Image Processing. It is equipped with a hot-swappable CompactPCI redundant power supply and hot-swappable fan modules to minimize MTTR (Mean-Time-to-Repair). The MIC-3043 supports six 6U CompactPCI blades and rear I/O transition boards. Users can route I/O signals to the rear transition boards for simplified system cabling. Front boards and RTMs can be swapped in and out the system without powering down. The MIC-3043 has removable SATA /SAS HDD bays and one slim DVD-RW as standard. The MIC-3043 has a high-quality backplane with impedance controlled design that supports 64-bit / 66 MHz cards.

Specifications

		MIC-3043E		MIC-3043F	
Backplane	6U Slot	System x 1, Peripheral x 5, Rear transition x 6 (80 mm, IEEE1101.11 compliant)			
	Backplane	32-bit/33 MHz, 64-bit/66 MHz CompactPCI Rev. 3.0, PICMG2.9			
	V (I/O)	+3.3 V/+5 V (selectable)			
Cooling	Fan	2 (front: 193 CFM, rear: 61.3 CFM)			
	HDD	2 (3.5" SATA/SAS)		4 (2.5" SAS /SATA or SSD)	
Drive Bay	Slim DVD-RW/RAM	1		1	
	Alarm Indicators	2 (fan failure and system overheating)			
Power Supply	Input	AC 100 ~ 240 V @ 50 ~ 60 Hz, full range (MIC-3043X-XX)			
	Output	AC cPCI 250 W redundant power module (1+1 configuration)			
		+3.3 V	+5 V	+12 V	-12 V
	Max. Load	36 A	50 A	10 A	1 A
	Min. Load	0 A	2.0 A	0 A	0 A
Reliability	MTBF	Backplane	Power supply		FAN
		800,000 hours	100,000 hours @ 70%		80000 hours @ 40°
		Operating		Non-Operating	
Environment	Temperature	0 ~ 45° C, (32 ~ 113° F)		-20 ~ 60° C, (-4 ~ 140° F)	
	Humidity	-		10 ~ 95% @ 40° C, non-condensing	
	Shock	10 G		30 G	
	Vibration (5 ~ 500 Hz)	1.0 Grms*		2.0 G	
	Physical Characteristics	Dimensions (W x H x D)	440 x 177 x 320 mm (17.3" x 7" x 12.6")		
Weight		18 kg (39.7 lb)			
Compliance	PICMG 2.0 R3.0 CompactPCI Specification				
	PICMG 2.1 R2.0 CompactPCI Hot Swap Specification				
	PICMG 2.11 R3.0 Front-Access Power Connectors Specification				
	RoHS, CE, FCC, UL, CCC				

Backplane Information

Physical Number	Function
6	I/O slot
5	System slot
4	I/O slot
3	I/O slot
2	I/O slot
1	I/O slot

MIC-3812, non-CT Bus backplane (for MIC-3043E, MIC-3043F)

Recommended Configurations

Enclosure	CPU Board	Rear I/O Board	Chassis Management Module	
MIC-3043E2E MIC-3043E2-BE	MIC-3397A2-M8E, MIC-3397C2-M8E MIC-3397B1-M8E, MIC-3397C1-M8E MIC-3395A1-M4E, MIC-3395A2-M4E, MIC-3395B1-M4E, MIC-3395C1-M4E MIC-3396HA-M8E, MIC-3396HB-M8E, MIC-3396HC-M8E,	RIO-3315-A1E, RIO-3315-B1E, RIO-3315-C1E RIO-3316-C1E, RIO-3317	Included MIC-3924L-AE	Optional MIC-3927CE
MIC-3043FE MIC-3043F-BE	MIC-3397A2-M8E, MIC-3397C2-M8E MIC-3397B1-M8E, MIC-3397C1-M8E MIC-3395A1-M4E, MIC-3395A2-M4E, MIC-3395C1-M4E MIC-3396HA-M8E, MIC-3396HB-M8E, MIC-3396HC-M8E	RIO-3315-A1E, RIO-3315-B1E, RIO-3315-C1E RIO-3316-C1E, RIO-3317		

Ordering Information

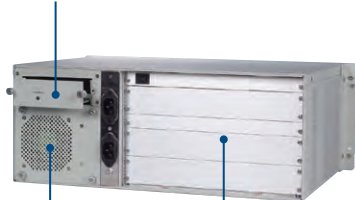
Part Number	PICMG 2.5	HDD Bay	Media Support	Chassis Management Module	cPCI Power Supply
MIC-3043E2E	-	3.5" SATA x 2	Slim DVD-RW/RAM	MIC-3924L-AE	-
MIC-3043E2-BE	-	3.5" SATA x 2	Slim DVD-RW/RAM	MIC-3924L-AE	Hot-swap AC cPCI 250 W + 250 W
MIC-3043FE	-	2.5" SATA/SAS HDD/SSD x4	Slim DVD-RW/RAM	MIC-3924L-AE	-
MIC-3043F-BE	-	2.5" SATA/SAS HDD/SSD x4	Slim DVD-RW/RAM	MIC-3924L-AE	Hot-swap AC cPCI 250 W + 250 W

Note: Please contact your local distributor to order AC 500W + 250W (2+1) redundant power suppliers.

Optional Accessories

Part Number	Description
1757004516-01	AC cPCI 250 W redundant power module
MIC-3927CE	MIC-3927 Intelligent chassis management module (IPMI)

Built-in alarm module (MIC-3924L-AE)



Hot-swappable rear fan

Supports IEEE 1101.11 rear I/O transition boards

Two hot-swappable SATA HDD bays



6-slot 6U cPCI backplane AC cPCI 500 W + 250 W redundant (2+1) power supplies

One slim-type CD-ROM



Hot-swappable 193-CFM fan module

- Intelligent Video and IoT Sensors 1
- Intelligent Transportation Platforms 2
- Intelligent Inspection Systems 3
- Modular IPCs 4
- Server-grade IPCs 5
- Industrial Storages 6
- Video Wall Controllers 7
- GPU Servers 8
- Industrial Motherboards 9
- Slot SBC & Passive Backplanes 10
- CompactPCI Platforms 11
- Industrial Chassis 12
- Industrial Computer Peripherals 13
- Industrial Ethernet Solutions 14

MIC-3325

3U CompactPCI® Intel® Atom™ Dual Core D525/N455 Processor Blade



Features

- Dual Core Intel® Atom™ D525 processor/single core N455 processor
- Intel® I/O Controller Hub 8-Mobile (ICH8M)
- 2GB DDR3 onboard up to 800 MT/s
- Optimized CompactFlash socket on single board computer
- 2.5" SATA-II HDD on XTM second layer
- Two 10/100/1000 Mbps ports, two USB ports, one VGA port on front panel
- Two COM ports, one USB ports, one PS/2 port on 8HP second layer
- Support 5V only power input
- PICMG 2.0, R 3.0, PICMG 2.1, R 2.0 compliant

Introduction

Advantech's MIC-3325 is a 3U CompactPCI dual/single core processor blade based on the Intel® Atom™ processor D525/N455+ICH8M two-chip platform. It provides the high performance of 2 cores and 4 threads of processing power at lower cost, and with easier validation. The MIC-3325 fully utilizes the I/O features of the Intel® chipsets, including an integrated memory controller (IMC), integrated graphics processing unit (GPU) and integrated I/O (IIO) such as DMI. The low power requirements of the Intel® Atom™ processor makes operation in elevated temperature ranges possible. Breakthrough memory design puts 2GB SDRAM on board, while keeping the speed at DDR3 800MT/s. The on-board CPU and memory provide less weight and higher shock/vibration resistance than socket devices. With such benefits, the MIC-3325 can be used in mission-critical applications such as military defense, transportation, traffic control, test and measurement (T&M) as well as critical data acquisition & control applications. MIC-3325 uses the Intel® ICH8M as the PCH, which provides extensive I/O support. The Integrated Gigabit Ethernet Controller can operate at multiple speeds (10/100/1000 Mb/s) and in either full duplex or half duplex mode. A flexible 8HP extension module design provides the MIC-3325 with great flexibility and additional I/O connectivity to the customer. For more connectivity details, please contact an Advantech representative.

Specifications

Processor System	CPU	Intel Atom N455 Single Core 1.66 GHz Intel Atom D525 Dual Core 1.8 GHz
	Max. Speed	1.8 GHz
	Chipset	Intel ICH8M @ Pine View-D Platform
	BIOS	SPI 2-MByte BIOS
	DMI	100 MHz reference clock
CompactPCI Interface	J1 Connector	32-bit PCI local bus (33MHz)
	J2 Connector	RTM area (VIO Power 32bit)
Memory	Technology	DDR3-800 SDRAM
	Max. Capacity	2GB
	On board/socket	On board
Graphics	Chipset	Integrated in Intel Atom N455/D525
	Resolution	Intel Atom N455 Single Core up to 1400 x 1050 (SXGA) Intel Atom D525 Dual Core up to 2048 x 1536
Ethernet	Controller	2Xi82583V
	Interface	10/100/1000 Mbps
	I/O Connector	RJ-45 x 1 (front panel), RJ-45 x 1 (RTM)
	Controller	ICH8M (MAC)+82567 (PHY)
	Interface	10/100/1000 Mbps
Storage	I/O Connector	RJ-45 x 1 (front panel)
	IDE	1 x CompactFlash Socket Type II
	SATA	1 x Internal SATA connector only on 8HP version
Front I/O	VGA	DB15 Port
	Ethernet	2 x 10/100/1000 Mbps RJ-45 connector
	USB 2.0	2 x Type A ports
	LEDs	Power, Hot Swap
	8HP-option A	2 x DB9 RS-232, 1 x USB Type A port, 1 x PS/2 port

Specifications (Cont.)

RIO (J2 interface)	SATA	1 SATA-II (internal)	
	VGA	1 port (VGA switchable from front panel by jumper1)	
	COM	2 ports (internal)	
	USB 2.0	2 ports	
	RJ-45	1 PCIe1 based on i82583V MAC/PHY	
Watchdog Timer	Supervision	0 ~ 255s, 1s step, generate reset signal	
Operating System	Compatibility	Microsoft Windows XP Professional, Windows 7, Windows XPE, Redhat6.1	
Power Requirement	Configuration	4HP, w/o RIO	
	Consumption	16.6 W for D525, 14.6 W for N455 (4HP with peripherals)	
Physical Characteristics	Dimensions (W x D)	4HP, 160.00 x 100.00 mm (6.30" x 3.95") (PCB size)	
	Weight	0.4 kg including XTM	
Environment	Temperature	Operating	Non-operating
		0 ~ 60° C (32 ~ 140° F)	-40 ~ 85° C (-40 ~ 185° F)
	Humidity	5 to 95% @ 40°C (non condensing) 95% @ 60° C (non-condensing)	
	Shock	10 G, 11ms 30 G, 11ms	
	Vibration	1.06 Grms (5 ~ 100 Hz, without on-board HDD) 2 Grms (5 ~ 500 Hz)	
Regulatory	Conformance	FCC, Class A, CE, RoHS	
Compliance	Standard	PICMG 2.0 Rev. 3.0 compatible; PICMG 2.1 R2.0 CompactPCI Hot Swap Specification	

Ordering Information

Part Number	Description
MIC-3325D-D2E	MIC-3325 with D525 CPU 2G RAM XTM dual slot
MIC-3325D-S2E	MIC-3325 with D525 CPU 2G RAM single slot
MIC-3325N-D3E	MIC-3325 w/ N455 CPU 2G RAM 8HP-2 XTM dual slot
MIC-3325N-S2E	MIC-3325 with N455 CPU 2G RAM single slot
MIC-3525-S1E	Rear I/O for MIC-3325 with VGA, LAN, USB, SATA, COM

Recommended Configurations

CPU Board	Enclosure	Rear I/O Board
MIC-3325	MIC-3022AE, 3U CPCI enclosure with 400W ATX PSU	MIC-3525-S1E
MIC-3325	MIC-3022CE, 3U CPCI enclosure with 250W CPCI PSU	MIC-3525-S1E

If you need other chassis or RIO, please contact your Advantech sales representative.

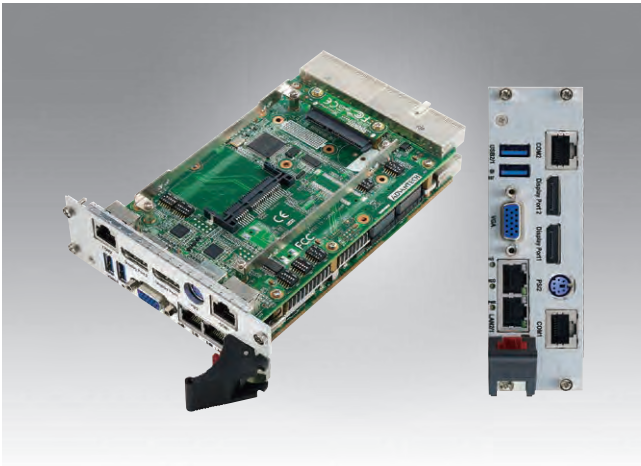
Optional Accessories

Part Number	Description
MIC-3955A1-S1E	3U CPCI 4-port Serial Port Controller with RS-232/422/485
MIC-3955B1-S1E	3U CPCI 4-port RS-232/422/485 to RIO 4HP
MIC-3955R1-D1E	3U CPCI 4-port RS-232/422/485 RIO Board 8HP
MIC-3716/3-A	3U 250kS/s, 16-bit, 16-ch multifunction Card
MIC-3756/3-A	64-ch Isolated DI/O Card
MIC-3680/3-A	2-port CAN Card
MIC-3953-AE	MIC-3953 3U PMC carrier board
MIC-3665-AE	CompactPCI PMC with dual copper (RJ-45) Gigabit Ethernet interfaces

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MIC-3328

3U CompactPCI PlusIO Intel® 3rd Generation Core™ Processor Blade



Features

- Supports 3rd Generation Intel® Core™ processor
- Intel® QM77 Platform Controller Hub
- 4 or 8GB DDR3-1600 soldered SDRAM with ECC
- Triple independent display support
- Optional 8GB SATA NAND Flash on board
- 2.5" SATA-II SSD, CFast, XMC on 8HP version
- Two 10/100/1000 Mbps ports, 2 USB 3.0 ports, 1 VGA port on front panel (4HP)
- Two COM ports, 2 Display ports, 1 PS/2 port (8HP)
- Supports CompactPCI PlusIO
- PICMG2.0, R3.0 , PICMG2.1, R2.0, PICMG2.30 compliant

Introduction

Advantech's MIC-3328 is a 3U CompactPCI PlusIO CPU blade based on the Intel® 3rd generation Core™ processor family. Based on latest 22nm process technology these processors support up to four cores / eight threads at up to 2.5GHz and up to 6M last level cache. With Intel HD Graphics(Gen7,DX11,OCL1.1) integrated into the CPU, the MIC-3328 can serve applications demanding high performance, high resolution video output on up to three independent display interfaces. Latest DDR3 DRAM up to 8GB running at 1600MT/s complement the powerful processor with high performance, ECC protected onboard memory.

MIC-3328's design for reliability like using soldered processor, DRAM and flash storage for enhanced shock and vibration tolerance make it an ideal choice for workstation workloads in harsh environments and mission/business-critical applications such as military, transportation, test & measurement and traffic control. The enhanced fixed point and floating point performance offered by the intel Core™ processor, improvements in the vector processing instruction set (AVX) along with the possibility to utilize the integrated GPU via standard interfaces such as OpenCL make the MIC-3328 also a great fit for signal processing applications such as radar, beam forming or image processing.

For best in class IO performance, MIC-3328 uses the Intel QM77 PCH, which provides extensive I/O support such as USB3.0, PCI Express gen.2 and SATA-III ports. Three i210 Gigabit Ethernet Controllers provide front panel as well as rear panel network connectivity. The i210 provides higher performance over previous Gigabit Ethernet controllers, better support for virtualization, Energy Efficient Ethernet and ECC protected packet buffers for enhanced reliability. Support for timestamping and synchronization is accomplished via IEEE1588 (PTP). Support for industrial Ethernet protocols such as ProfiNet, EtherCAT and Powerlink is available via third party software partners.

For dense applications the MIC-3328 is available with a 4HP front panel, occupying a single slot, only. For applications requiring additional IO and/or peripheral support, the MIC-3328 can be extended to 8HP (2 slots) via specific extension modules (XTMs). For industrial display or workstation applications, a graphics-centric XTM routes two Display Ports from the PCH for triple display support, adds 2 COM ports for data acquisition and control plus a PS/2 and 2.5" SSD. A second XTM provides a XMC mezzanine slot for industry standard extension modules like Advantech's MIC-3666 dual 10GE adapter card. The XMC slot supports a PCI Express x8 interface directly into the Intel Core™ processor with speeds up to 64Gbps according to PCI Express 3.0.

While support for legacy CompactPCI is provided on J1 via an onboard PI7C9X110 bridge, the MIC-3328 supports an UHM J2 connector according to PICMG2.30 (PlusIO). While this connector maintains backwards compatibility and interoperability with legacy systems, it makes state of the art serial interfaces such as Gigabit Ethernet, PCI express, USB and SATA available for use on a Rear transition Module (RTM) or on a hybrid backplane supporting legacy IO cards as well as CompactPCI Serial peripheral cards as defined in PICMG2.30. Thus, MIC-3328 provides a smooth, risk free and future proof migration path from legacy parallel PCI bus CompactPCI system to latest serial interface standard predominant in the computer industry. With full backwards compatibility to CompactPCI, customers investments stay protected while the door is opened for platform enhancements and innovations via the new serial interfaces. The MIC-3328 PlusIO J2 supports interfaces such as 4 PCI Express x1 gen. 2 links for IO extension, one GbE for computer to computer multiprocessing, three SATA for Hard drives and RAID systems as well as 4 USB ports for wireless interfaces and legacy interface replacement.

For more information about CompactPCI PlusIO and Serial offerings from Advantech or information on how this new platform can help you to gain competitive advantages, please contact your Advantech representative.

Specifications

Processor System	CPU	Intel® 3 rd Generation Core™ i7 up to 2.5 GHz (6MB L2 cache) 1.7G, 3517UE, 17w / 2.5G,3555LE, 25w/ 2.1G, 3612QE, 35w
	Platform Controller Hub	Intel QM77
	BIOS	Customized AMI Aptio UEFI BIOS
CompactPCI Interface	J1 Connector	32-bit PCI local bus (33MHz)
	J2 Connector	CompactPCI PlusIO / RTM
Memory	Technology	DDR3-1600MHz SDRAM, dual channel with ECC support
	Max. Capacity	8GB
	Soldered/socket	Soldered
Graphics	Chipset	Integrated in Intel CPU
	Resolution	VGA 2048 x 1536 pixels with 32-bit color at 75 Hz Display port 2560 x 1600 at 60 Hz

Specifications (Cont.)

Ethernet	Controller	3 x i210AT
	Interface	10/100/1000 Mbps
	I/O Connector	RJ-45 x 2 (front panel), RJ-45 x 1 (RTM / PlusIO)
Storage	IDE	1 x CFAST Socket on 8HP
	SATA	1 x optional SATA NAND Flash on 4HP, 1x Internal SATA connector on 8HP version
Front I/O	VGA	DB15 Port
	Ethernet	2 x 10/100/1000 Mbps RJ-45
	USB 3.0	2 x Type A
	8HP XTM	8HP-1: 2x RJ45 RS232, 2x Display port, 1x PS/2 port 8HP-2: XMC (PClex8 gen.3) front IO
PlusIO / RTM interface (4HPJ2 interface)	PCIe	4 x PCIe Gen 2 (one PCIe1 is routed to Mini-PCIe socket on board for wireless LAN using)
	SATA	2 x SATA-II (one SATA-II is designed as half size mSATA socket on board), 1 x SATA-III
	RJ45	1 GbE based on i210AT
	USB 2.0	4 ports
RIO (8HP)	8HP-1 J2 interface	1 x PS/2 is mutually exclusive with PS/2 on 8HP front panel by BOM control. It required a special 8HP board to work. The special 8HP board is on request by customer 2 x COM default setting is RS232, RS422/485 could be set by the switch on 8HP board (Total 4 COM ports on 8HP and it's RIO) 2 x DisplayPort is switchable from front panel by switch on 8HP board
Watchdog Timer	Supervision	0 ~ 255s, 1s step, generate reset signal
Operating System	Compatibility	Microsoft Windows XP Professional, Windows 7, Windows 8, Windows server 2008, VxWorks 6.9, Linux Redhat 6.1
Power Requirement	Configuration	CPU TDP 17w/25w/35w, 8HP with RIO
	Consumption	23.42W/ 33.12W /43.91W
Physical	PCB Dimensions	4HP or 8HP, 160.00 x 100.00 mm (6.30" x 3.95") (W x H)
	Weight	0.62kg w. AL Heatsink ,0.9kg w. Cu Heatsink including XTM
Environment	Temperature	Operating: 0 ~ 60° C (32 ~ 140° F) Non-operating: - 40 ~ 85° C (-40 ~ 185° F)
	Humidity	95% @ 40° C (non condensing) 95% @ 60° C (non-condensing)
	Shock	10 G, 11ms, each axis three times 30 G, 11ms, each axis three times
	Vibration	2Grms (5~500Hz, with CFAST on 8HP) Sine 2 Grms, 30mins each axis (5 ~ 500 Hz)
Regulatory	Conformance	FCC, Class A, CE, RoHS
Compliance	Standard	PICMG 2.0 Rev. 3.0, PICMG 2.1 R2.0, PICMG2.30 PlusIO compatible

Ordering Information

Model Number	Configuration
MIC-3328A1-D1E	MIC-3328, 3517UE, 4G RAM, w/ 8HP-1, 2 DP, 2 COM, PS/2
MIC-3328B1-D1E	MIC-3328, 3555LE, 8G RAM, w/ 8HP-1, 2 DP, 2 COM, PS/2
MIC-3328C1-D1E	MIC-3328, 3612QE, 8G RAM, w/ 8HP-1, 2 DP, 2 COM, PS/2
MIC-3328A1-S1E	MIC-3328, 3517UE, 4G RAM Single slot, 2 LAN, VGA, 2 USB
MIC-3328B1-S1E	MIC-3328, 3555LE, 8G RAM Single slot, 2 LAN, VGA, 2 USB
MIC-3328C1-S1E	MIC-3328, 3612QE, 8G RAM Single slot, 2 LAN, VGA, 2 USB

For other CPU blade SKU, chassis and RIO, please contact your Advantech sales representative.

Related Products

Model Number	Configuration
MIC-3666-AE	XMC board with dual 10Gbe SFP+, MIC-3328 8HP-2 matching
MIC-3611/3-AE	4-port RS-232/422/485
MIC-3716/3-A	3U 250kS/s, 16-bit, 16-ch multifunction Card
MIC-3756/3-A	3U CPCI 64-ch Isolated DI/O Card
MIC-3680/3-A	2-port CAN Card
MIC-3022AE	3U single system CPCI enclosure, with 400W ATX PSU
MIC-3022PAE	3U single system CPCI PlusIO enclosure, with 400W ATX PSU
MIC-3022CE	3U enclosure, 8 slots, 32-bit/33 MHz/66 MHz, 250W CPCI PSU
MIC-3022PCE	3U enclosure, w/ CPCI PlusIO BP, 300W CPCI PSU
MIC-3954-AE	3U CPCI-Serial card with dual mini-PCIe slot and SIM slot
MIC-3953-AE	3U CPCI PMC Carrier board

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MIC-3329

3U CompactPCI Intel® Quad-Core Atom™ SoC Processor Blade



CE FCC

Features

- Supports latest 22nm Intel® Atom™ Low power Quad Core E3845/Dual Core E3827 SoC processor
- Supports up to 4GB DDR3L-1333 soldered ECC memory
- Optional extension module on 8HP and RIO for VGA, LAN, USB, PS/2, Audio, COM ports
- Supports fanless application with optimized heatsink design
- Design to meet EN50121-4 and EN50155 for railway application
- PICMG2.0 R3.0, PICMG2.1 R.0 Compliant

Introduction

Advantech MIC-3329 Series, using Intel® latest 22 nm Atom™ technology (code name: Baytrail) to provide significant performance and power efficiency.

MIC-3329 series, as a 3U CompactPCI® processor blade, is featured with a dual-core E3827 and quad-core E3845 ATOM SoC processors, up to 4GB soldered DDR3L-1066/1333 ECC memory. It is available in single and dual slots width form factor, to offer various I/O functionalities by XTM (8HP) & Rear IO extensions. Front panel I/O on the single slot (4HP) provides 2 x RJ45 GbE ports (Switchable with RIO 4HP), 1 x VGA port (Switchable with RIO 4HP), 1 x USB2.0 port and 1 x USB3.0 port. Front panel I/O on the second layer (XTM) provides 2 x COM ports (RS232/422/485), 1 x PS/2 KB/MS and 1 x Audio ports. There are three types of storage device available such as on board 8GB SSD flash on 4HP (optional) or a Cfast socket on RIO 4HP, Cfast socket or 2.5" on board SATA drive on the front second layer.

MIC-3329 provides an ideal solution for transportation, railway and factory automation application. By using robust design on board layout & thermal, it is available to meet or exceed EN50155 and EN50121-4; With a very low TDP selection of processor such as 8W/10W, its low power consumption and industrial SoC features make MIC-3329 perfect fit for all fanless system applications.

Specifications

Processor System	CPU	Intel® Atom™ Processor SOC E3827/E3845
	Max Speed	Up to 2MB L2 Cache, 1.91 GHz
	BIOS	2 x AMI 8 MByte SPI flash
Memory	Technology	Single Channel DDR3L 1333 MHz with ECC
	Max. Capacity	Up to 4GB on board
Compact PCI Interface	J1 Connectors	32bit/33MHz PCI local bus
	J2 Connector	RTM
	Mode	System Master/Drone (Stand alone)
Ethernet	Controller	Intel® WGI210AT SLJXR Gigabit Ethernet Controller
	Interface	PCIe 1.0 x 1, 10/100/1000 Base TX Ethernet
	I/O Connector	2 x RJ45 to 4HP front (Switchable with RIO 4HP)
Graphics	Chipset	Integrated in processor
	I/O Connector	1 x VGA to 4HP front (Switchable with RIO 4HP)
	Resolution	1 x VGA 2560 x 1600, 60Hz
Storage	Mode	SATA-II
	Channels	1 x 2.5" SATA Drive connector on front 8HP (optional to Cfast upon request) 1 x Cfast socket on RIO (switchable with 8GB SSD flash on front 4HP, upon request)
Front I/O	USB	1 x US2.0 type A, 1 x USB3.0 type A
	VGA	1 x VGA (Switchable with RIO)
	LAN	2 x 10/100/1000Mbps on RJ45 (Switchable with RIO)
	Front Panel LEDs	x 1 blue/yellow for Hot Swap/HDD, x 1 green for Power, and x 1 green for Master/Drone mode
	8HP (XTM)	2 x COM port on DB9 (RS232/422/485); 1 x PS/2 KB/MS; 1 x Audio Line-in/Line-out
	Buttons	System reset button
To RTM	USB	2 x US2.0 type A,
	VGA	1 x VGA (Switchable with front)
	LAN	2 x 10/100/1000Mbps on RJ45 (Switchable with front)
	8HP (XTM)	2 x COM port on DB9 (RS232/422/485)
BIOS	Boot Options	SATA, USB, network (PXE)

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Watchdog Timer	Output	Local reset
	Interval	Programmable 1s ~ 255s
Operating System	Compatibility	Windows7,Windows8.1, Linux redhat6.5, CentOS6.6/6.5
Power Requirement	Win7 (max./typ.)	TBD
Physical	Dimension & Weight	3U/ 4HP&8HP: 100mm x 160 mm
	Environment	Operating Non-operating
Environment	Temperature	-40 ~ 70° C (-40 ~ 158° F) Fanless -40 ~ 85° C (-40 ~ 185° F)
	Humidity	95 % @ 40° C, non-condensing 95 % @ 60° C, non-condensing
	Vibration	2Grms (X,Y,Z 1H/axis, w/o HDD) 2Grms
	Shock	30 G, 11ms, each axis three times
Regulatory	Conformance	FCC Class A, CE, RoHS EN50121-4, EN50155
	Standards	PICMG2.0 R3.0, PICMG2.1 R.0

Supported CPU Configurations

Intel® CPU Model Number	# Cores	Freq.	Cache	Memory Types	CPU TDP
Intel® Atom™ Processor E3827	2	1.75GHz	1 MB L2 Cache	DDR3L-1333	8W
Intel® Atom™ Processor E3845	4	1.91GHz	2 MB L2 Cache	DDR3L-1333	10W

Ordering Information

System board	Front panel								On board Features		
	LAN(1)	USB2.0	USB3.0	VGA(2)	COM	PS/2	Audio	CPU	Memory(3)	SATA	Slot Width
MIC-3329B1-D1E	2	1	1	1	2	1	1	E3827	4GB	1	2
MIC-3329C1-D1E	2	1	1	1	2	1	1	E3845	4GB	1	2

*Note: (1)(2): 2 x LAN and 1 x VGA are switchable between front and RTM;
 (3) 2GB memory SKU is upon request;

RIO Board	Rear panel				On board Features	
	LAN(1)	USB2.0	VGA(2)	COM	Cfast Socket	Slot Width
MIC-3329R1-D1E	2	2	1	2	1	2

*Note: (1)(2): 2xLAN and 1xVGA are switchable between front and RTM

Recommended Configurations

CPU board	Rear I/O Board
MIC-3329xx-DxE Series	MIC-3329Rx-DxE Series

Related Products

Peripheral board	Description
MIC-3955	4-port RS232/422/485 communication card, with RIO support
MIC-3953-AE	PMC carrier board
MIC-3022	4U enclosure for 3U cards, with RIO support
MIC-3023	3U fanless enclosure for 3U cards, w/o RIO support

MIC-3395

6U CompactPCI® 2nd and 3rd Generation Intel Core i3/i5/i7 Processor Blade with ECC Support



CE FCC

Features

- Supports 2nd and 3rd Generation Intel® Core™ i3/i5/i7 Processors and Intel QM67 PCH with embedded graphics (dual independent display)
- Up to 16GB (DDR3 1066/1333/1600) ECC memory (max 8GB on-board socket SO-UDIMM x1, max 8GB)
- Optimized single-slot SBC with 2.5" SATA-III HDD/CFast socket
- Integrated on-board 2KB NVRAM and min. 8GB flash (optional)
- TPM
- Two SATA ports, four USB 2.0 ports, two DVI ports, two RS-232 ports, one PS/2 connector, and PCIe x4 interfaces to the Rear Transition Module (RTM)
- Six Gigabit Ethernet ports including two PICMG 2.16 for front and rear connectivity
- PICMG 2.16 R1.0, PICMG 2.1 R2.0, PICMG 2.6 R1.0 compliant

Introduction

Using Intel's 2nd and 3rd generation Core™ i3/i5/i7 processors based on 32nm and 22nm process technology supporting up to two Cores / four threads at 2.2 GHz and 4 MB level 2 cache, the MIC-3395 blade boosts computing performance deploying the latest virtualization, techniques and CPU enhancements. Onboard soldered DRAM with ECC support and optional memory expansion via an SODIMM socket extend the memory to a maximum of 16 GB to support the most demanding applications in high performance or virtualized environments, supporting up to 4GB per virtual machine. Dual channel design and memory speeds up to 1333MT/s for 2nd generation or 1600MT/s for 3rd generation processors along with increased cache size and cache algorithms guarantee maximum memory throughput. Combined with the powerful Intel QM67 chipset, these new processors offer improved I/O performance by leveraging 5GT/s DMI and PCIe interfaces. An onboard XMC/PMC site with PCIe x8 gen.2 connectivity can host high speed offload or I/O mezzanines such as the MIC-3666 dual 10GE XMC card. With SATA-III support and up to 6Gbps I/O, the latest enhancements in storage technology such as high speed SSDs can be employed. Six Gigabit Ethernet ports including two PICMG 2.16 for front and rear connectivity ensure best in class network connectivity. The processor's integrated enhanced graphics engine (HD3000/HD4000) offers twice the performance over previous generations. With dual independent display support, the MIC-3395 is an ideal fit for demanding workstation or imaging applications. RASUM features integrated in the CPU and chipset combined with PICMG 2.9, IPMI-based management make the MIC-3395 a highly available and reliable computing engine. The RIO-3315 RTM module supports one PS/2 connector with both keyboard and mouse ports, two USB ports, two RS-232 ports, two SATA ports, two DVI ports, and two Gigabit Ethernet ports. In case the SATA disk drives and SATA RAID support of the QM67 do not meet performance and reliability requirements, the RIO-3315 SAS version supports a 4-port SAS controller with RAID and failover support.

Specifications

Processor System	CPU	Intel 2nd and 3rd Generation Core i3/i5/i7 up to 2.2 GHz (4MB L2 cache)
	Platform Controller Hub	Hub Intel QM67
	BIOS	Redundant AMI 8MByte SPI flash
CompactPCI Interface	J1 Connector	32-bit PCI local bus
	J2 Connector	64-bit PCI local bus
	J3 Connector	PICMG2.16 + RTM area
	J4-J5 Connectors	RTM area
XMC/PMC Socket	PCIe x8	Gen2 (5GT/s)
	PCI	64-bit/66 MHz
Memory	Technology	DDR3 1066/1333/1600 MHz, dual channel with ECC support
	Max. Capacity	Up to 16GB (8GB on-board, 8GB SODIMM)
	Socket	204-pin SODIMM x1
Graphics	Controller	Intel embedded graphic controller HD3000/HD4000 (dual independent display)
	VRAM	Dynamic
	Resolution	Up to 2048 x 1536, 64k colors at 75Hz
Ethernet	Controller	5 Intel 82574L single-port Gigabit Ethernet controllers (on PCIe x1 channel)
	Interface	10/100/1000 Mbps Ethernet
	I/O Connector	PICMG 2.16 and RJ-45 x2 (RTM rear panel), RJ-45 x1 (front panel)
	Controller	1 Intel 82579LM single-port Gigabit Ethernet controller
	Interface	10/100/1000 Mbps Ethernet
Storage	I/O Connector	RJ-45 (front panel)
	Mode	SATA-III
	Channels	Onboard SATA-III connector
	Mode	SATA-II
	Channels	2 channels to RTM 1 channel to CFast socket 1 channel to on-board flash (optional)

Specifications (Cont.)

Front I/O	USB2.0	2 type A	
	COM	1 RS-232 on RJ-45	
	LAN	2 10/100/1000 Mbps on RJ-45	
	Front Panel LEDs	x1 blue/yellow for Hot Swap/HDD, x1 green for Master/Drone mode, x1 yellow BMC Heartbeat, and x1 green for Power	
	Buttons	CPU reset button and BMC reset button	
Rear I/O	USB2.0	4 ports	
	COM	2 ports	
	LAN	2 ports	
	SATA	2 SATA-II	
	PCIe	1 PCIe x4	
	Others	PS/2 for keyboard & mouse, DVI-I and DVI-D	
Watchdog Timer	Output	Local Rest and Interrupt	
	Interval	Programmable 1s ~ 255s	
Hardware Monitor	HWM	NCT6776F	
BMC	Controller	Renesas H8S 2167, IPMI v2.0 compliant	
Operating System	Compatibility	Windows 7, Windows 2008, Windows 2003, Windows XP SP3, RHEL 6.1, VxWorks 6.x (on request)	
Miscellaneous	NVRAM	2KB	
Power Requirement	Configuration	4HP	
	TDP	Maximum: up to 60 W (quad core), 50 W (dual core) or less, depending on CPU type	
Physical Characteristics	Dimensions (W x D)	233.35 x 160 mm (9.19" x 6.3")	
		Operating	Non-operating
Environment	Temperature	0 ~ 55° C (32 ~ 122° F)	-40 ~ 85° C (-40 ~ 185° F)
	Humidity	95 % @ 40° C, non-condensing	95 % @ 60° C, non-condensing
	Vibration (5-500 Hz)	2 Grms (without on-board 2.5" SATA HDD)	3.5 Grms
	Shock	20 G (without on-board 2.5" SATA HDD)	50 G
	Altitude	4,000 m above sea level	10,000 m above sea level
Regulatory	Conformance	FCC Class A, CE, RoHS	
	NEBS Level 3	Designed to meet GR-63-Core and GR-1089-Core	
Compliance	Standards	PICMG2.0 R3.0, PICMG2.1 R.0, PICMG2.9 R1.0, PICMG2.16 R1.0,	

Ordering Information

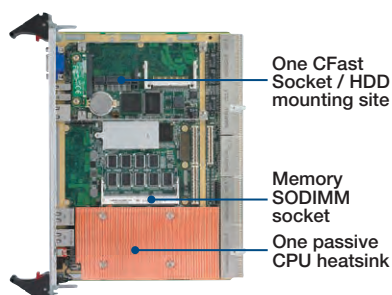
Part Number	Front Panel				Main On-board Features					
	VGA	USB2.0 (type A)	Ethernet (RJ-45)	Console (RJ-45)	CPU	Onboard Memory	CFast Socket	Storage Channel	SODIMM Socket	BMC Function
MIC-3395A1-M4E	1	2	2	1	i7-2655LE	4GB	1	1 SATA-III	1	No
MIC-3395A2-M4E	1	2	2	1	i7-2655LE	4GB	1	1 SATA-III	1	Yes
MIC-3395C1-M4E	1	2	2	1	i7-2715QE	4GB	1	1 SATA-III	1	Yes
MIC-3395IA-M8E	1	2	2	1	i7-3555LE	8GB	1	1 SATA-III	1	Yes
MIC-3395IB-M8E	1	2	2	1	i7-3612QE	8GB	1	1 SATA-III	1	Yes

* Note: For Sandy Bridge I3, I5 and Ivy Bridge I7-3615QE CPU and on-board flash available by request, please contact your local sales office.

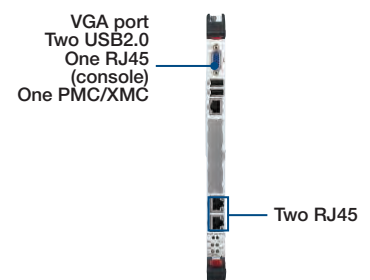
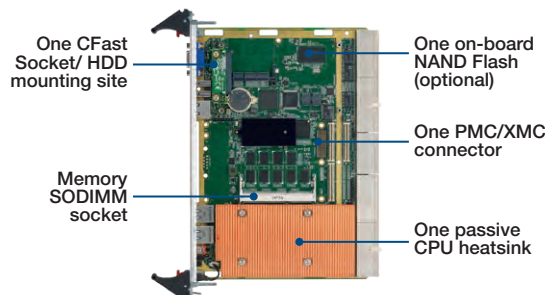
Related Products

Part Number	Description
RIO-3315-A1E	RTM Module with SAS Controller for MIC-3395
RIO-3315-B1E	RTM Module without SAS Controller for MIC-3395
RIO-3315-C1E	RTM Module with 4 LAN ports for MIC-3395
RIO-3316-D1E	RTM Module with HDD support for MIC-3395
MIC-3666-AE	Dual 10 Gigabit Ethernet XMC
MIC-3665-AE	CompactPCI PMC with dual copper (RJ-45) Gigabit Ethernet interfaces
MIC-3665-BE	CompactPCI PMC with dual fiber Gigabit Ethernet interfaces

MIC-3395x-MxE Series



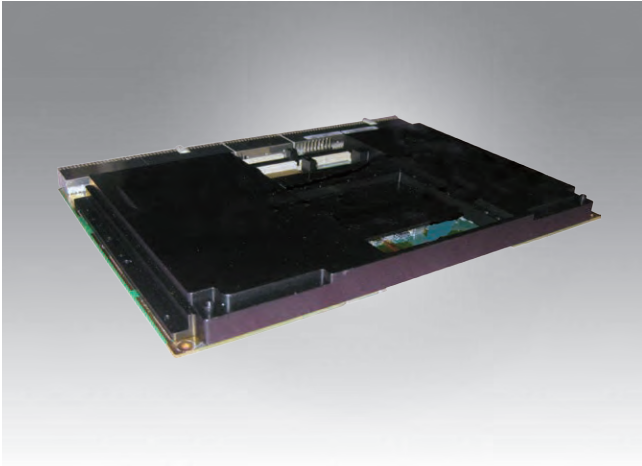
MIC-3395Ix-MxE Series



- Intelligent Video and IoT Sensors 1
- Intelligent Transportation Platforms 2
- Intelligent Inspection Systems 3
- Modular IPCs 4
- Server-grade IPCs 5
- Industrial Storages 6
- Video Wall Controllers 7
- GPU Servers 8
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- CompactPCI Platforms 11
- Industrial Chassis 12
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MIC-3395MIL

6U CompactPCI 3rd Generation Intel® Core™ i7 Rugged Processor Blade with ECC



Features

- Supports 3rd Generation Intel® Core™ i3/i5/i7 processors and Intel® QM67 PCH with embedded graphic (dual independent display)
- Up to 16GB (DDR3 1600) ECC memory (max 8GB on board, socket SO-UDIMM x1, max 8GB)
- Conduction cooled with ANSI/VITA30.1-2002 compliancy
- Optimized single-slot SBC with 2.5" SATA-III HDD/CFast socket/ on-board flash (optional)
- TPM
- Two SATA ports, four USB 2.0 ports, two DVI ports, two RS-232 ports, one PS/2 connector, and PCIe x4 interfaces to the Rear Transition Module (RTM)
- Six Gigabit Ethernet ports including two PICMG 2.16 for front and rear connectivity
- PICMG 2.16 R1.0, PICMG 2.1 R2.0, PICMG 2.6 R1.0 compliant

CE FCC

Introduction

MIC-3395MIL, a CompactPCI PICMG2.16 compliant single slot 6U CPU board, offers with two different configurations that meet a wide range of environmental requirements for ruggedized application.

Using Intel's 3rd generation core i7 ULV processors, it offers a low power dissipation design without the need of on-board forced ventilation. Ruggedized requirements are addressed by a condition cooled design an extended operation temperature range (-40° C ~ 70° C). Shock and vibration resistances of the board are increased by using wedge locks and a single-piece CNC-milled aluminum alloy plate that conforms to the major IC packages. With highly integrated functional capabilities, the MIC-3395MIL fully utilizes the I/O features of the Intel chipsets. It supports maximum 16GB of 1600 MHz DDR3 RAM, an onboard 2.5" Serial ATA HDD or SSD, a CFast slot, an onboard NAND flash (as optional), and a set of I/O functions brought through the backplane to a unique rear transition module, which contains two/four LAN ports, two DVI ports, two USB 2.0, one P/S2 port and one RS-232 port on the front panel.

Specifications

Processor System	CPU	Intel® 3rd Generation Core i7 ULV up to 2.5 GHz (4MB L2 cache)
	Platform Controller Hub	Intel QM67
	BIOS	Redundant AMI 8MByte SPI flash
CompactPCI Interface	J1 Connector	32-bit PCI local bus
	J2 Connector	64-bit PCI local bus
	J3 Connector	PICMG2.16 + RTM area
	J4~J5 Connectors	RTM area
XMC/PMC Socket	PClex8	Gen2 (5GT/s)
	PCI	64-bit/66 MHz
Memory	Technology	DDR3 1600 MHz, dual channel with ECC support
	Max. Capacity	Up to 16GB (max. 8GB on-board, max. 8GB SODIMM)
	Socket	204-pin SODIMM x1
Graphic	Controller	Intel embedded graphic controller Iris (triple independent display)
	VRAM	Dynamic
	Resolution	Up to 2048 x 1536, 64k colors at 75Hz
Ethernet	Controller	5 Intel 82574L single-port Gigabit Ethernet controllers (on PCIe x1 channel)
	Interface	10/100/1000Base-TX Ethernet
	I/O Connector	PICMG 2.16 and RJ-45 x2 (RTM rear panel), RJ-45 x1 (front panel)
	Controller	1 Intel 82579LM single-port Gigabit Ethernet controller
	Interface	10/100/1000Base-TX Ethernet
Storage	I/O Connector	RJ-45 (front panel)
	Onboard HDD/SSD	1 2.5" (SATA-III)
	Channels	Onboard SATA-III connector
	Onboard Flash	SATA-II
	Channels	1 CFast socket (SATA-II)
	Channels	1 soldered NAND Flash (SATA-II optional)
Front I/O	RTM	SATA-III
	Channels	2 SATA-III connectors
	USB2.0	1 type A
	VGA	1
	COM	1 RS232 on RJ45
	LAN	2 10/100/1000 Mbps on RJ45
	Front Panel LEDs	x1 blue/yellow for Hot Swap/HDD, x1 green for Master/Drone mode, x1 yellow BMC Heartbeat, and x1 green for Power
Buttons	CPU reset button and BMC reset button	

Specifications (Cont.)

Rear I/O	USB2.0	4 ports
	COM	2 ports
	LAN	2 ports
	SATA	2 SATA-III
	PCIe	1 PCIe4
	Display	1 DVI-I and 1 DVI-D
	Others	PS/2 for keyboard & mouse
Watchdog Timer	Output	Local Rest and Interrupt
	Interval	Programmable 1s ~ 255s
Hardware Monitor	HWM	NCT6776F
BMC	Controller	Renesas H8S 2167, IPMI v2.0 compliant
Operating System	Compatibility	Windows® 2003/XP SP3/2008/Win7, RHEL 6.1, VxWorks 6.x (on request)
Power Requirement	Configuration	4HP
	TDP	Maximum: up to 50W (dual core) or less, depending on CPU type
Physical	Dimension (WxD)	233.35 x 160.0 mm
		Operating Non-operating
Environment	Temperature	-40 ~ 70° C (-40 ~ 158° F) -40 ~ 85° C (-40 ~ 185° F)
	Humidity	95 % @ 40° C, non-condensing 95 % @ 60° C, non-condensing
	Vibration (5-500 Hz)	3.5 Grms (without on-board 2.5" SATA HDD)
	Bump	25G, 6ms
	Altitude	15000ft above sea level (without conformal coating) 40000 ft, -40° C, above sea level
Regulatory	Conformance	FCC Class A, CE, RoHS
Compliance	Standards	PICMG2.0 R3.0, PICMG2.1 R.0, PICMG2.9 R1.0, PICMG2.16 R1.0

Ordering Information

System Board Model Number	Front Panel					Main On-board Features				
	VGA	USB2.0 (type A)	Ethernet (RJ45)	Console (RJ45)	Conduction cool	CPU	Memory	CFast Socket	Storage Channel	SODIMM Socket
MIC-3395MILS-P4E	1	1	2	1	-	I7-3517UE	4GB	1	1	1
MIC-3395MILC-P4E	-	-	-	-	Yes	I7-3555LE	4GB	1	-	-

Part number	Rear Panel								On-board Header/Socket/Connector						
	LAN	USB2.0 (type A)	COM (D-SUB9)	COM (RJ45)	PS/2	DVI-D	DVI-I	VGA	MiniSAS	USB	COM	SATA	SAS (SATA interface)	Slot Width	Conn.
RIO-3395MIL-A1E	2	2	1	-	1	1	-	1	-	-	-	2	-	2*	J3, J4, J5
RIO-3315-A1E	2	2	-	1	1	1	1	-	1	2	1	2	4	1	J3, J4, J5
RIO-3315-C1E	4	2	-	1	1	1	1	-	-	2	1	2	-	1	J3, J4, J5

CPU Information

CPU Type	# of Core	# of Thread	DMI	Frequency	Cache	TDP	Graphics	PCIe
I7-3517UE	2	4	5 GT	1.7 GHz	4 MB	17W	350-900GHz	Gen 3
I7-3555LE	2	4	5 GT	2.5 GHz	4 MB	25W	550-950GHz	Gen 3

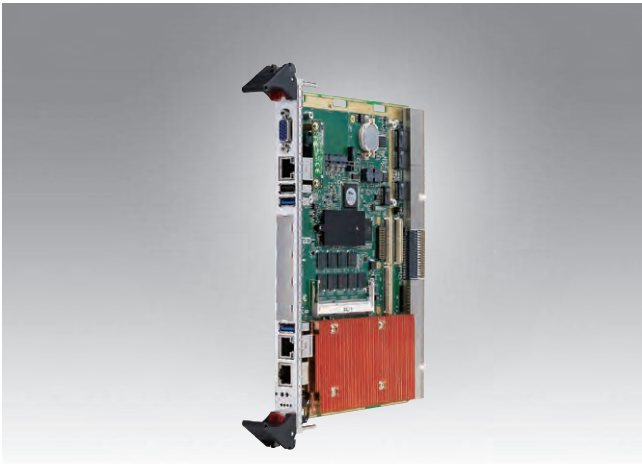
Related Products

Model number	Configuration
RIO-3395MIL-A1E	RTM Module with 2 LAN port, 1 DVI, 1 VGA, 1 COM (D-SUB9), 2 USB 2.0
RIO-3315-A1E	RTM Module with SAS Controller for MIC-3395 and MIC-3395MIL
RIO-3315-C1E	RTM Module with 4 LAN ports and USB2.0 for MIC-3395 and MIC-3395MIL
MIC-3666-AE	Dual 10 Gigabit Ethernet XMC
MIC-3665-AE	CompactPCI PMC with dual copper (RJ-45) Gigabit Ethernet interfaces
MIC-3665-BE	CompactPCI PMC with dual fiber Gigabit Ethernet interfaces
MIC-3667-AE	Quad copper (RJ-45) Gigabit Ethernet XMC

- Intelligent Video and IoT Sensors 1
- Intelligent Transportation Platforms 2
- Intelligent Inspection Systems 3
- Modular IPCs 4
- Server-grade IPCs 5
- Industrial Storages 6
- Video Wall Controllers 7
- GPU Servers 8
- Industrial Motherboards 9
- Slot SBC & Passive Backplanes 10
- CompactPCI Platforms 11
- Industrial Chassis 12
- Industrial Computer Peripherals 13
- Industrial Ethernet Solutions 14

MIC-3396

6U CompactPCI 4th Generation Intel® Core™ i3/i5/i7 Processor Blade with ECC support



CE FCC

Features

- Supports 4th Generation Intel® Core™ i3/i5/i7 processors and Intel® QM87 PCH with embedded graphic (up to 3 independent displays)
- Up to 16GB (DDR3 1600) low voltage ECC memory (max 8GB on board, socket SO-UDIMM x1, max 8GB)
- Optimized single-slot SBC with 2.5" SATA-III HDD/CFast socket/ on-board flash (optional)
- Two SATA ports, 1x USB 3.0, four USB 2.0 ports, two DVI ports, two RS-232 ports, one PS/2 connector, and PCIe x8 interfaces to the Rear Transition Module (RTM)
- Five Gigabit Ethernet ports including two PICMG 2.16 for front and rear connectivity
- PICMG 2.16 R1.0, PICMG 2.1 R2.0, PICMG 2.6 R1.0 compliant

Introduction

Using Intel's 4th generation core i3/i5/i7 processors based on 22nm process technology supporting up to four cores / eight threads at 2.4GHz and 6MB last level cache, the MIC-3396 blade boosts computing performance deploying the latest virtualization, techniques and CPU enhancements. Onboard soldered low voltage DRAM (1.35V) with ECC support and optional memory expansion via an SODIMM socket extend the memory to maximum of 16GB supporting the most demanding applications in high performance or virtualized environments. Dual channel design and memory speeds up to 1600MT/s along with increased cache size and cache algorithms guarantee maximum memory performance. Combined with the powerful Intel® QM87 chipset, the 4th generation Core™ processors offer improved I/O performance by leveraging 5GT/s DMI and 3rd generation PCIe interfaces. An onboard XMC/PMC site with PCIe x8 gen.3 connectivity can host high speed offload or I/O mezzanines such as the MIC-3666 dual 10GE XMC card. With SATA-III support and up to 7Gbps I/O, the latest enhancements in storage technology such as high speed SSDs or traditional HDDs can be used on the MIC-3396. Five gigabit Ethernet ports based on Intel's latest GbE controllers for front and rear, including two PICMG 2.16, ensure best in class network connectivity. The processor's integrated enhanced graphics engine (Iris) offers twice the performance over previous generations. With triple independent display support, the MIC-3396 is an ideal fit for demanding workstation applications. RASUM features integrated in the CPU and chipset combined with PICMG 2.9, IPMI-based management make the MIC-3396 a highly available and reliable computing engine. The RIO-3316 RTM module supports one PS/2 connector with both keyboard and mouse ports, one USB 3.0, two USB 2.0 ports, two RS-232 ports, two SATA ports, two DVI ports, and two Gigabit Ethernet ports. In case of the SATA disk drives and SATA RAID support of the QM87 do not meet performance and reliability requirements, the RIO-3315 SAS version supports a 4-port SAS controller with RAID and fail over support.

Specifications

Processor System	CPU	Intel 4 th Generation Core i3/i5/i7 mobile processors up to 2.4 GHz (6MB LLC)
	Platform Controller Hub	Intel QM87
	BIOS	Redundant AMI 8MByte SPI flash
CompactPCI Interface	J1 Connector	32-bit PCI local bus
	J2 Connector	64-bit PCI local bus
	J3 Connector	PICMG2.16 + RTM area, 1x PCIe x8
	J4-J5 Connectors	RTM area
XMC/PMC Socket	PCIex8	Gen3 (7GT/s)
	PCI	64-bit/66 MHz
Memory	Technology	DDR3 1600 MHz, dual channel with low voltage and ECC support
	Max. Capacity	Up to 16GB (max. 8GB on-board, max. 8GB SODIMM)
	Socket	SODIMM x1
Graphics	Controller	Intel embedded graphic controller Iris (triple independent display)
	VRAM	Dynamic
	Resolution	Up to 2048 x 1536, 64k colors at 75Hz
Ethernet	Controller	4 Intel I210AT single-port Gigabit Ethernet controllers (on PCIe x1 channel)
	Interface	10/100/1000Base-TX Ethernet
	I/O Connector	PICMG 2.16 and RJ-45 x2 (RTM rear panel), RJ-45 x1 (front panel)
	Controller	1 Intel I217LM single-port Gigabit Ethernet controller
	Interface	10/100/1000Base-TX Ethernet
Storage	I/O Connector	RJ-45 (front panel)
	Onboard HDD/SSD	1 2.5" (SATA-III)
	Channels	Onboard SATA-III connector
	Onboard Flash	SATA-II
	Channels	1 CFast socket (SATA-II) 1 on-board flash (SATA-II optional)
	RTM	SATA-III
	Channels	2 SATA-III connectors

Specifications (Cont.)

Front I/O	USB3.0	2 type A
	USB2.0	1 type A
	VGA	1
	COM	1 RS-232 on RJ-45
	LAN	2 10/100/1000 Mbps on RJ-45
	Front Panel LEDs	x1 blue for Hot Swap, 1x yellow for HDD, x1 green for Master/Drone mode, x1 green BMC Heartbeat, and x1 green for Power
Rear I/O	Buttons	CPU reset button and BMC reset button
	USB2.0	4 ports
	USB3.0	1 port
	COM	2 ports
	LAN	2 ports
	SATA	2 SATA-III
	PCIe	1 PCIe8 Gen3 7GT/s
	Display	1 DVI-I and 1 DVI-D
Watchdog Timer	Output	Local Rest and Interrupt
	Interval	Programmable 1s ~ 255s
Hardware Monitor	HWM	NCT7904
BMC	Controller	LPC1768, IPMI v2.0 compliant
Operating System	Compatibility	Win7, Linux, VxWorks 6.x (on request)
	Configuration	4HP
Power Requirement	TDP	Maximum: up to 80W (quad core), 50W (dual core) or less, depending on CPU type
Physical	Dimensions (W x D)	233.35 x 160.0 mm
	Operating	Non-operating
Environment	Temperature	0 ~ 55° C (32 ~ 122° F)
	Humidity	95 % @ 40° C, non-condensing
	Vibration (5-500 Hz)	3.5Grms (without on-board 2.5" SATA HDD)
	Bump	25G, 6ms
	Altitude	15000ft, 55° C above sea level
Regulatory Compliance	Conformance	FCC Class A, CE, RoHS
	Standards	PICMG2.0 R3.0, PICMG2.1 R.0, PICMG2.9 R1.0, PICMG2.16 R1.0,

Ordering Information

System Board Model Number	Front Panel					Main On-board Features					
	VGA	USB3.0 (type A)	USB2.0 (type A)	Ethernet (RJ-45)	Console (RJ-45)	CPU	Onboard Memory	CFast Socket	Storage Channel	SODIMM Socket	BMC
MIC-3396HA-M8E	1	2	1	2	1	i5-4400E	8GB	1	1 SATA-III	1	Yes
MIC-3396HB-M8E	1	2	1	2	1	i5-4400E	8GB	1	1 SATA-III	1	No
MIC-3396HC-M8E	1	2	1	2	1	i7-4700QE	8GB	1	1 SATA-III	1	Yes

*Note: For i3 CPU, 4GB on-board memory and on-board flash available by request, please contact your local sales office.

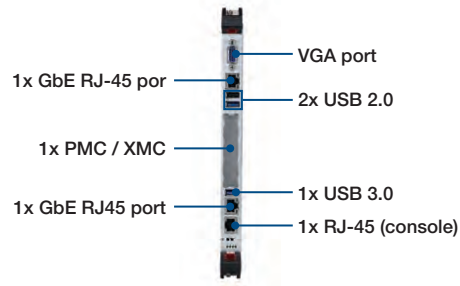
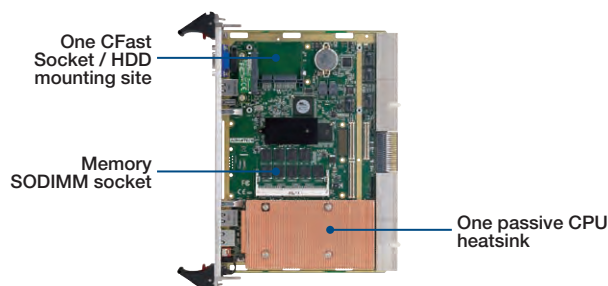
CPU Configurations

Intel® CPU Model Number	CPU Architecture	# Cores	# Threads	Freq.	Cache	CPU TDP	ECC
i3-4100E	22 nm	2	4	2.4 GHz	3 MB	37W	Yes
i5-4402E	22 nm	2	4	1.6 GHz	3 MB	25W	Yes
i5-4400E	22 nm	2	4	2.7 GHz	3 MB	37W	Yes
i7-4700EQ	22 nm	4	8	2.4 GHz	6 MB	47W	Yes

Related Products

Model number	Configuration
RIO-3316-C1E	RTM Module with 4 LAN ports and USB 3.0 for MIC-3396
RIO-3315-A1E	RTM Module with SAS Controller for MIC-3395 and MIC-3396
MIC-3666-AE	Dual 10 Gigabit Ethernet XMC
MIC-3665-AE	CompactPCI PMC with dual copper (RJ-45) Gigabit Ethernet interfaces
MIC-3665-BE	CompactPCI PMC with dual fiber Gigabit Ethernet interfaces
MIC-3667-AE	Quad copper (RJ-45) Gigabit Ethernet XMC

MIC-3396x-MxE Series



MIC-3397

6U CompactPCI Intel® Xeon® E3 Quad Core & Pentium® Dual Core Processor Blade



CE FCC

Features

- Supports 22nm Intel® Xeon® & Pentium® low voltage processor
- Intel® DH8900 chipset supports DMI1.0 x 4
- Up to 16GB DDR3-1333/1600 ECC memory
- Optional extension module on 8HP version supports high-end discrete graphics, up to four display output ports
- Supports up to five GbE ports, six USB2.0 ports, two VGA ports, three COM ports, one PS/2 connector, three 2.5" SATA connector (one SATA HDD is optional with 8GB NAND flash), one Cfast, one PCIe 2.0x4 interface to the Rear Transition Module (RTM)
- PICMG2.0 R3.0, PICMG2.1 R.0, PICMG2.16 R1.0 Compliant

Introduction

Advantech's MIC-3397 series is a 6U CompactPCI single board computer with server class processor of Intel® Quad-Core Xeon® E3-1125C v2(40W)/E3-1105C v2(25W) and low power dissipation processor of Intel® Dual-Core Pentium® B925C(15W) ,with DH8900 chipset supports DMI1.0 x 4 FSB. The processor using Intel® 22nm 64 bit process technology, up to 2.5GHz clock speed, 8MB L3 cache featured with Intel® Hyper-Threading, Virtualization, Trusted Execution Technology, enable the board meet the highest standards for the management and security of high-availability applications. It supports dual channel ECC memory, up to 16GB DDR3 of 1333/1600 MHz with max 8G on board and 8G SO-DIMM memory, three 2.5" Serial ATA interfaces (one on board optional with one 8 GB NAND flash, two to RTM),one Cfast slot, five Gigabit Ethernet ports(two on front panel, two to PCIMG2.16, two to RTM with one optional with front panel), six USB2.0 ports (three on front panel, three to RTM), two VGA ports (one on front panel, one to RTM) on 4HP, three COM ports (one to front panel, two to RTM), one PS/2 port, and one PCIe2.0 x4 interface reserved for user define to rear transition module.

MIC-3397, designed in single slot (4HP) and dual slots (8HP) form factor widths features. The 8HP version provides extensive & rich IO support, is featured with a high-performance discrete graphics, using AMD Radeon E6760 GPU, supports 1GB GDDR5 at PCIe x1, x2, x4, x8, and x16 lane widths, 2.5 GT/s and 5.0 GT/s link-data rates, up to four display outputs including one DVI-I, one DVI-D port and two DP 1.1 or 1.2 port in a MXM 3.0 type A form factor.

MIC-3397 Series can be installed in a standard CompactPCI system slot as system master, or peripheral slot as stand-alone server blade without CompactPCI bus communication, it meets the harsh environment application, to make board attractive to multiple markets which is ideally suited for datacom, telecom and military applications, its outstanding graphics design will bring more opportunities for image-processing in medical, defense system and many other vertical segments applications.

Specifications

Processor System	CPU	Quad-Core Intel® Xeon® Processor E3-1125C v2/E3-1105C v2; Dual-Core Intel® Pentium® Processor B925C
	Max Speed	Up to 8MB L3 Cache, 2.5 GHz
	Chipset	Intel® DH8900 PCH (Cave creek)
	BIOS	Redundant AMI 8 MByte SPI flash
Memory	Technology	Dual Channel DDR3 1333/1600 MHz with ECC
	Max. Capacity	8GB on board
	Socket	SO-DIMM x1, up to 8GB
Compact PCI Interface	J1 ~ J2 Connectors	64bit/66MHz PCI local bus
	J3 Connector	PICMG2.16 + RTM
	J5 Connector	RTM
	Bridge	Pericom PI7C9X130DNDE
	Mode	System Master/Drone (Stand alone)
Ethernet	PHY	4 Marvel 1 88E1112-C2-NNC1000 Gigabit Ethernet PHY
	Interface	SGMII, 10/100/1000 Base TX Ethernet
	I/O Connector	PICMG2.16 x 2 to J3, RTM x2 or RJ45 x1 to front
	Controller	Intel WGI210AT SLJXR Gigabit Ethernet Controller
	Interface	PCIe 1.0x1, 10/100/1000 Base TX Ethernet
Graphics	I/O Connector	RJ45 x1 to front
	Controller	SM750GX160000-AC ,265P, 16Mbytes of embedded 32-bit DDR memory
	Resolution	Dual display: 1360x768 (Clone & extended mode) Single display:1920x1080 (16bit, clone mode only)
	Controller (on MIC-3314)	AMD Radeon E6760, 128-bit wide, 1 GB, GDDR5, 51.2 GB/s
	Resolution	DP: 4096 x 2160; Dual Link DVI-D: 2560 x 1600; Single Link DVI-I: 1920 x 1200
Storage	Multi-display	Max up to 4 multidisplays:(Clone mode/extended): Config 1:1xDP+1xDP+1xDVI-D+1xDVI-I Config 2: 1xDP+1xDP+1xDVI-D+1xVGA
	Mode	SATA-II
	Channels	1 channel to on board SATA carrier or on board NAND flash 1 channel to on board cfast socket 2 channels to RTM

Specifications (Cont.)

Front I/O	USB2.0	3 type A
	COM	1 RS232/422 on RJ45
	LAN	2 10/100/1000Mbps on RJ45
	Graphics	1 VGA port on 4HP 2 DP port, 1 DVI-D and 1 DVI-I port on extension board
	Front Panel LEDs	x1 blue/yellow for Hot Swap/HDD, x1 green for Power, and x1 green for Master/Drone mode
To RTM	Buttons	System reset button
	USB2.0	3 ports
	COM	2 RS232/422/485 on RJ45 or DB9
	LAN	PICMG2.16 x2 to J3, RTM x2 (1 mux to front)
	SATA	2 ports
	PCIe	PCIe2.0 x4
	Graphics	1 VGA port
BIOS	Others	PS/2 for KB & Mouse
	Boot Options	SATA,USB port, USB disk, network (PXE)
Watchdog Timer	Output	Local reset & interrupt
	Interval	Programmable 1s ~ 255s
Hardware Monitor	Controller	NCT6776D
Operating System	Compatibility	Windows7, Windows7 Embedded, Linux
Power Requirement	TDP (max./typ.)	4HP:80W (MIC-3397)
		8HP:115W (MIC-3397 + MIC-3314)
Physical	Dimension & Weight	6U/1 slot width (4HP): 233.35 x 160 x 20 mm (9.2" x 6.3" x 0.8")
		6U/2 slot width (8HP): 233.35 x 160 x 40 mm (9.2" x 6.3" x 1.6")
Environment	Temperature	Operating: 0 ~ 55° C (32 ~ 122° F) Non-operating: -40 ~ 85° C (-40 ~ 185° F)
	Humidity	95 % @ 40° C, non-condensing 95 % @ 60° C, non-condensing
	Vibration	2.0G Grms (Single slot, without on-board 2.5" SATA HDD) 1.06 Grms (Dual slot, without on-board 2.5" SATA HDD)
	Shock	10G (Without on-board 2.5" SATA HDD)
	Altitude	15000 feet above sea level 30G (Single slot, without on-board 2.5" SATA HDD) 40000 feet above sea level
	Regulatory	Conformance
Compliance	Standards	NEBS Level 3 Designed to meet GR-63-Core and GR-1089-Core
		PICMG2.0 R3.0, PICMG2.1 R.0, PICMG2.16 R1.0,

Supported CPU Configurations

Intel CPU Model Number	# Cores	Freq.	Cache	Memory Types	CPU TDP
Intel® Pentium® Processor B925C	2	2.0GHz	4 MB L3 Cache	DDR3/3-1333	15W
Intel® Xeon® Processor E3-1105C v2	4	1.8GHz	8 MB L3 Cache	DDR3/3-1333/1600	25W
Intel® Xeon® Processor E3-1125C v2	4	2.5GHz	8 MB L3 Cache	DDR3/3-1333/1600	40W

Ordering Information

CPU Board	Front panel						CPU	On board Features						
	LAN (1)	COM (RJ45) (2)	USB	VGA	DVI	DP		Memory (Up to 8GB) (3)	SO-DIMM (Up to 8G)(4)	SATA HDD Socket	Cfast Socket	Slot Width	Conn.	
MIC-3397A2-M8E	2	1	3	1	NA	NA	Pentium B925C	8 GB	NA	1	1	1	J3/J5	
MIC-3397C2-M8E	2	1	3	1	NA	NA	Xeon E3-1125C v2	8 GB	1	1	1	1	J3/J5	
MIC-3397B1-M8E	2	1	3	1	2	2	Xeon E3-1105C v2	8 GB	1	1	1	2	J3/J5	
MIC-3397C1-M8E	2	1	3	1	2	2	Xeon E3-1125C v2	8 GB	1	1	1	2	J3/J5	

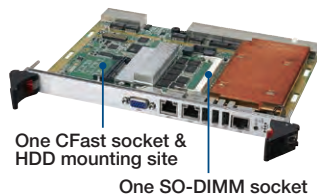
Note:

- LAN2 on front is switchable with RIO LAN1 which can be set in BIOS
- COM support RS232/422 mode only
- Total memory capacity is up to 16GB, 8GB on board, 8GB on SO-DIMM
- Pentium B925C SKU w/o SO-DIMM socket

Recommended Configurations

CPU board	Extension Module	Rear I/O Board
MIC-3397x-MxE Series	MIC-3314	RIO-3315-XXX RIO-3317-XXX

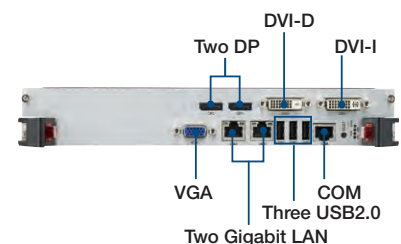
MIC-3397 4HP



MIC-3314



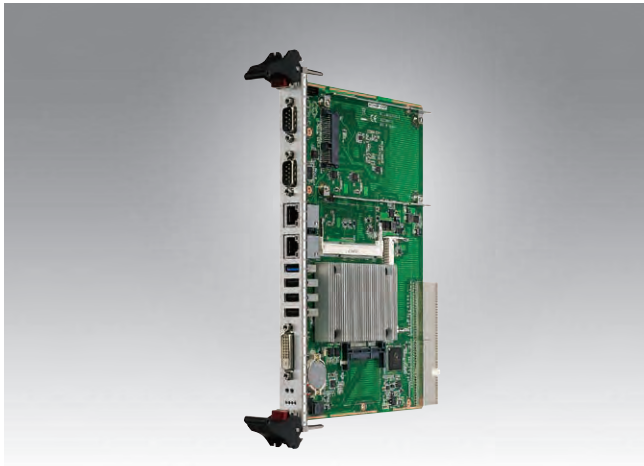
MIC-3397 + MIC-3314



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- Industrial Storages 6
- Video Wall Controllers 7
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MIC-3398

6U CompactPCI Intel® Atom™ SoC Processor Blade



CE FCC

Features

- Supports Intel® Atom™ SoC E38xx, Celeron N2930 and J1900 processors, up to quad-core at 2 GHz
- Up to 8GB of 1333MHz DDR3L memory
- 2.5" SATA-II HDD/SSD mounting site
- Comprehensive I/O capabilities: DVI, USB 3.0/USB 2.0, Gigabit Ethernet, Serial Ports, SATA-II/CFast
- 4HP single slot high with dual GbE interfaces or 8HP dual slot high with quad GbE interfaces
- PICMG 2.1 R2.0, PICMG 2.6 R1.0 compliant

Introduction

The MIC-3398 is a Low-Power 6U CompactPCI® CPU blade with best in class price/performance ratio tailored for applications that require a state of the art processor platform based on Intel Architecture with full IO capability at an attractive cost point.

The MIC-3398 supports Intel® Atom™ E3845 and Celeron N2930, J1900 SoC (system on a chip) family previously codenamed Bay trail with a maximum of quad-core 2.00 GHz processing performance.

Intel's latest Atom™ technology provides significant increases in performance and energy efficiency by using the latest 22nm Intel manufacturing process making it an ideal choice for control and workstation applications that require passive cooling with a power dissipation as low as 10W for the MIC-3398 board.

Up to 8GB, dual channel 1333 MHz DDR3L memory with ECC support provide a high performance and robust memory interface for demanding applications. With built-in graphics based on Intel's® HD Graphics Technology this blade offers a significant improvement in graphics performance compared to previous generation platforms. Support for an onboard 2.5" SATA-II drive as well as CFast SSDs adds comprehensive mass storage support.

On the system side, the MIC-3398 supports 32-bit, 33MHz and 64-bit, 66MHz PCI bus interfaces to a CompactPCI backplane.

A rich set of I/O interfaces such as DVI-D, USB3.0/2.0, Gigabit Ethernet and RS-232/422/485 ports round off the feature set. In addition to the single slot wide (4HP) board offering, a dual slot wide (8HP) version of the blade offers additional network connectivity by increasing Gigabit Ethernet port count from two to four.

Specifications

Processor System	CPU	Intel® Atom™ SoC (22nm) E38xx and Celeron N2930 and J1900, up to quad core 2.00 GHz
	BIOS	AMI 8MByte SPI flash
CompactPCI Interface	J1 Connector	32-bit PCI local bus
	J2 Connector	64-bit PCI local bus
Memory	Technology	DDR3L 1333 MHz, dual channel without ECC support
	Max. Capacity	Up to 8GB
	Socket	SODIMM x2
Graphic	Controller	Intel Gen 7 Graphics Engines and media encode/decode engine; GPU Frequency 750MHz
	VRAM	Shared memory up to 224 MB SDRAM
	Resolution	High resolution display up to 2560 x 1600 @ 60Hz
Ethernet	Controller	2 or 4 Intel I210AT single-port Gigabit Ethernet controllers (on PCIe x1 channel)
	Interface	10/100/1000Base-T Ethernet
	I/O Connector	2 RJ45 (4HP), 4 RJ45 (8HP)
Storage	Onboard HDD/SSD	1 2.5" mounting site (SATA-II)
	Channels	1 CFast socket (SATA-II)
Front I/O	USB3.0	1 type A
	USB2.0	3 type A
	DVI-D	1
	COM	2 RS232/422/485 on D-Sub-9
	LAN	2 10/100/1000 Mbps on RJ45 (4HP) 4 10/100/1000 Mbps on RJ45 (8HP)
	Front Panel LEDs	1x yellow for HDD, x1 green for Master/Drone mode, and x1 green for Power
	Buttons	CPU reset button and power button
Hardware Monitor	HWM	NCT7904
Operating System	Compatibility	Win7/WES7, Win8/WES8, Linux, VxWorks 6.x(on request)

Specifications (Cont.)

Power Requirement	CPU	J1900	E3845		
	Voltage	+3.3 V	+5 V	+3.3 V	+5 V
	Current	0.02 A	3.91 A	0.02 A	4.02 A
	Maximum	0.07 W	20.41 W	0.07 W	20.94 W
Physical	Dimension (W x D)	233.35 x 160.0 mm			
Environment	Temperature	Operating 0 ~ 55° C (32 ~ 122° F)		Non-operating -40 ~ 85° C (-40 ~ 185° F)	
	Humidity	95 % @ 40° C, non-condensing		95 % @ 60° C, non-condensing	
	Vibration (5-500 Hz)	2 Grms (without on-board 2.5" SATA HDD)		3.5 Grms	
	Shock	10G 11ms			
	Altitude	15000ft, 55° C, above sea level		40000 ft, -40° C, above sea level	
Regulatory	Conformance	FCC Class A, CE, RoHS			
Compliance	Standards	PICMG2.0 R3.0, PICMG2.1 R.0, PICMG2.9 R1.0			

Ordering Information

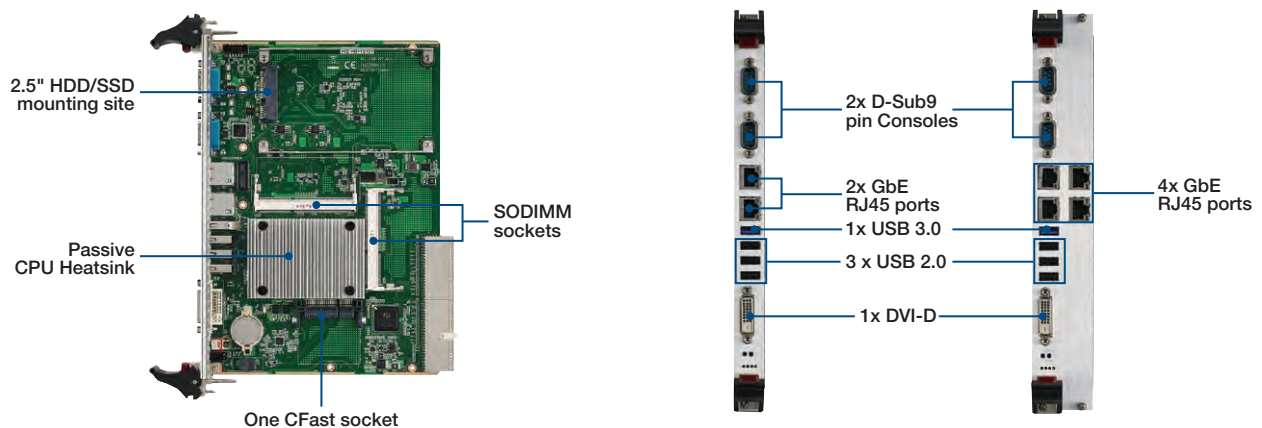
System Board Model Number	Front I/O					Main On-board Features							
	DVI-D	USB3.0 (type A)	USB2.0 (type A)	Ethernet (RJ45)	Console (D-Sub9)	CPU	Installed SODIMM	ECC Support	CFast Socket	Storage Channel	SODIMM Sockets	Front Panel	
MIC-3398A-M2E	1	1	3	2	2	J1900	1x 2GB	No	1	1 SATA II	2	4HP	
MIC-3398C-M2E	1	1	3	2	2	E3845	1x 2GB	No	1	1 SATA II	2	4HP	
MIC-3398B-M4E	1	1	3	4	2	J1900	1x 4GB	No	1	1 SATA II	2	8HP	
MIC-3398D-M4E	1	1	3	4	2	E3845	1x 4GB	No	1	1 SATA II	2	8HP	

For availability of other configurations please contact your Advantech representative.

CPU Configuration

Intel® CPU Model Number	# Cores	Freq.	Turbo Freq.	Cache	CPU TDP	ECC
E3845	4	1.91 GHz	Na	2 MB	10 W	Yes
N2930	4	1.83 GHz	2.16 GHz	2 MB	7.5 W	Yes
J1900	4	2.00 GHz	2.42 GHz	2 MB	10 W	No

MIC-3398x-Mx E Series



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ADVANTECH

Enabling an Intelligent Planet

Tick all the boxes on your next generation CompactPCI design requirements list



MIC-3396 with 4th generation Intel® Core™ processor (formerly codenamed Haswell)

- Intel® 8 series chipset
- Based on Intel® 22 nm 3D tri-gate transistor manufacturing technology
- Configurable TDP technology reduces package power consumption
- Enables support for previous ULV/LV platforms (17W/25W)
- Triple display support Designed for maximum reliability
- 5 LAN ports using Intel® i210 NICs: 2 /1 front, 1/ 2 rear, 2 PICMG2.16
- Faster I/O: PCIe gen.3 , USB3.0, SATA-III
- Optional BMC for advanced management
- Redundant BIOS support for fail safe upgrades
- ECC memory down on board
- XMC slot for I/O Expansion
- Soldered flash for data logging
- AMT7.0 including KVM red.

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Industrial Chassis

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1U Rackmount Chassis		
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IPC-623	4U 20-Slot Rackmount Chassis with Multi-System and Front-Accessible Redundant Power Supply	12-72
6U Rackmount Chassis		
IPC-622	6U 20-Slot Rack-mount Short Depth Chassis with Redundant Power Supply	12-74

To view all of Advantech's Industrial Chassis, please visit www.advantech.com/products.



Industrial Computer Chassis



Model Name		ARK-6610 / ARK-6620	ARK-6622H/L	IPC-3012	IPC-3026	IPC-6006 / IPC-6006S	IPC-6806S	IPC-6806/6806W	
Form Factor Support		Mini ITX	Mini ITX	PICMG 1.3 Half-size SBC	PICMG 1.0/1.3 Half-size SBC	PICMG 1.0 Full-size/ Half-size SBC	PICMG 1.0/1.3 Half-size SBC	PICMG 1.0 Full-size SBC o/ PICMG 1.0/1.3 Full-size SBC	
Drive Bay	Slim Optical Drive	1 / -	-	-	-	-	-	-	
	2.5"	-	-	-	-	-	-	-	
	3.5"	External	-	-	-	1	-	1	1 / 1
		Internal	1 / 1	2 (2.5")	2	0	-	1	1 / 1
5.25"	-	-	-	-	-	-	0 / 1		
Front I/O	USB	Front I/O chassis	Front I/O chassis	2	2	-	2	2 / 2	
	PS/2			-	-	-	-	- / -	
Cooling	No. of Fans	1 / 2	2 / 1	2	1	-	1	1 / 1	
	CFM	52.5 / 27.7	27.7 / 15.4	27	44.6	-	53	53 / 58	
Power Supply	AC	180W Flex ATX	180W Flex ATX	250W Flex ATX	150W Flex ATX	-	250W Flex ATX	250W Flex ATX 350W Flex ATX	
	AC Redundant	-	-	-	-	-	-	-	
	DC	-	-	-	-	-	-	-	
No. of Slots for add-on cards		1 / 1	1 / 1	2	4	6 / 6	4	5 / 5	
No. of Full-size Cards		-	-	-	-	6 / 6	-	6 / 6	
Passive Backplane Options	PICMG 1.0	-	-	-	Yes	Yes	Yes	Yes	
	PICMG 1.3	-	-	Yes	Yes	-	Yes	Yes	
Intelligent System Module		-	-	-	Yes	-	-	-	
Dimensions (W x H x D)	mm	250 x 156 x 253/ 272 x 88 x 232	272 x 88 x 232	232 x 90 x 232	150 x 222 x 270	158 x 186 x 368/ 158 x 186 x 215	191 x 178 x 290	166 x 178 x 398/ 198 x 221 x 398	
	inch	9.8 x 6.1 x 10/ 10.7 x 3.5 x 9.1	10.7 x 3.5 x 9.1	9.13 x 3.54 x 9.13	5.9 x 8.74 x 10.63	6.2 x 7.3 x 14.5/ 6.2 x 7.3 x 8.4	7.5 x 7.01 x 11.42	6.54 x 7.01 x 15.67/ 7.8 x 8.7 x 15.67	
Weight	kg	4.76 / 3.49	3.49	3.24	4.4	2.2 / 1.6	5.6	6.3 / 8	
	lb	10.47 / 7.68	7.68	7.14	9.7	4.8 / 3.5	12.3	13.9 / 17.6	
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IPC-6806S-D	IPC-6606/6608	IPC-7132	IPC-5120/7120	IPC-6025	IPC-5122	IPC-7130	IPC-7130L	IPC-7220
PICMG 1.0/1.3 Half-size SBC	PICMG 1.0/1.3 Full-size SBC	PICMG 1.3 Full-size SBC/ ATX / Micro ATX	Micro ATX / ATX	PICMG 1.0/1.3 Full-size SBC	Micro ATX	ATX / Micro ATX	ATX / Micro ATX	ATX / Micro ATX
1	-	-	- / -	-	1	-	-	-
1 (hot-swap)	-	-	-	-	-	-	-	-
-	1 / 1	1	1 / 1	1	1	2	2	1
1	1 / -	2	1 / 1	1	1	1	1	1
-	1 / 2	1	1 / 1	-	-	1	1	2
2	2 / 2	2	Front I/O chassis	2	2	2	2	2
-	- / -	-	-	-	-	-	-	-
1	1 / 1	1	1 + 1	1	1	1 + 1	1 + 1	1
53	53 / 85	85	85 / 10	46.6	85	73.8 + 21.2	73.8 + 21.2	85
250W Flex ATX	250W PS/2 300W PS/2	300W PS/2 400W PS/2	250W Flex ATX 350W Flex ATX	270W Flex ATX	300W PS/2 400W PS/2	300W PS/2 400W PS/2	300W PS/2 400W PS/2	300W PS/2 400W PS/2
-	-	-	-	-	-	350W Mini RPS 500W Mini RPS	350W Mini RPS 500W Mini RPS	350W Mini RPS 500W Mini RPS
-	-	-	-	-	-	-	-	-
4	5 / 7	9	4 / 7	4	4	7	7	7
-	6 / 8	10	-	5 / 5	-	7	7	7
Yes	Yes	-	-	Yes	-	-	-	-
Yes	Yes	Yes	-	Yes	-	-	-	-
-	-	-	-	Yes	Yes	Yes	-	Yes
191 x 178 x 290	173 x 254 x 396/ 173 x 315 x 410	200 x 330 x 430	320 x 164 x 316.5/ 380 x 164 x 316.5	111 x 212 x 420	157 x 360 x 340	200 x 320 x 480	200 x 320 x 480	200 x 320 x 480
7.5 x 7.01 x 11.42	6.8 x 10 x 15.6 / 6.8 x 12.4 x 16.1	7.9 x 13 x 16.9	12.6 x 6.5 x 12.5/ 15 x 6.5 x 12.5	4.4 x 8.3 x 16.5	6.2 x 14.2 x 13.4	7.9 x 12.6 x 18.9	7.9 x 12.6 x 18.9	7.9 x 12.6 x 18.9
5.6	9 / 11	9.96	6.54 / 7.01	4.7	6.5	12.8	11.11	14
12.3	19.8 / 24.2	21.93	14.42 / 15.45	10.3	14.3	28.2	24.49	30.8
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- Server-grade IPCs **5**
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- Video Wall Controllers **7**
- GPU Servers **8**
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- Slot SBC & Passive Backplanes **10**
- Compact PCI Platforms **11**
- Industrial Chassis **12**
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- Industrial Ethernet Solutions **14**

Industrial Computer Chassis



Model Name		1U Rackmount			2U Rackmount			4U Rackmount			
		IPC-100	IPC-120	ACP-1010	IPC-603	ACP-2000/ IPC-602	ACP-2010/2320	IPC-510	IPC-610-L	IPC-611	
Form Factor Support		Mini ITX	PICMG 1.3 Half-size SBC	PICMG 1.0/1.3 Full-Size SBC ATX/MicroATX	ATX/MicroATX	PICMG 1.0/1.3 Full-Size SBC	ATX/MicroATX	PICMG1.0/1.3 Full size SBC ATX/Micro-ATX	PICMG1.0/1.3 Full size SBC ATX/Micro-ATX	PICMG1.0/1.3 Full size SBC ATX/Micro-ATX	
Drive Bay	Slim Optical Drive	1	-	1	1	1 / -	- / 1	-	-	-	
	2.5"	-	2 (Internal)	1 x 3.5" or 2 x 2.5"	-	-	-	-	-	-	
	3.5"	Hot-swap	-	-	-	-	-	- / 2 (SAS/SATA)	-	-	-
		External	-	-	1	-	2 / 1	1 / -	1	1	
	Internal	1	-	1 x 3.5" or 2 x 2.5"	1	- / 1	2	-	-	-	
5.25"	-	-	-	-	- / 1	1 / -	3	3	3		
Front I/O	USB	8	2	2	0	2	2	2	2	2	
	PS/2	-	-	-	-	1	1	1	-	-	
Cooling	No. of Fans	-	1	2 (MB), 4 (BP)	2	2	2 / 3	1	1	1	
	CFM	-	6.5	2 x 24 (MB) / 3 x 24 + 1 x 15 (BP)	47	2 x 47/ 2 x 40	2 x 47/ 2 x 47 + 1 x 28	77	85	85	
Power Supply	AC	60W power board	250W Flex ATX 300W Flex ATX	250W Flex ATX 300W Flex ATX	350W Flex ATX	250W PS/2 300W PS/2 400W PS/2 500W PS/2	250W Flex ATX 300W Flex ATX	250W PS/2 300W PS/2 400W PS/2	250W PS/2 300W PS/2	250W PS/2 300W PS/2	
	AC Redundant	-	-	-	-	300W 1+1 RPS / -	250W 1+1	-	350W Mini RPS 500W Mini RPS	350W Mini RPS 500W Mini RPS	
	DC	-	-	-	-	300W 48V	-	-	-	-	
No. of Slots		1	3	MB: 1 BP: 3	3	6 / 6	3 / 3	15	15	15	
No. of Full-size Cards ^{Note}		0	0	MB: 1 BP: 0	0	4 / 4	3 / 3	8	15	15	
Passive Backplane Options	PICMG 1.0	-	Yes	Yes	-	Yes	-	Yes	Yes	Yes	
	PICMG 1.3	-	-	Yes	-	Yes	-	Yes	Yes	Yes	
Intelligent System Module		-	-	-	-	Yes	Yes	-	-	-	
Dimensions (W x H x D)	mm	480 x 44 x 288	480 x 44 x 300	480 x 44 x 497	482 x 88 x 308	482 x 88 x 451	482 x 88 x 480	482 x 177 x 446	482 x 177 x 480	482 x 177 x 480	
	inch	19 x 1.7 x 11.4	19 x 1.7 x 11.8	19 x 1.7 x 19.6	19 x 3.46 x 12.1	19 x 3.5 x 17.8	19 x 3.5 x 18.9	19 x 7 x 17.6	19 x 7 x 18.9	19 x 7 x 18.9	
Weight	kg	3.6	3.1	8	6.4	11.5/11.3	10.7/11.7	10.7	14.5	14.2	
	lb	7.92	6.82	17.6	14.1	25.3/24.9	23.5/25.7	23.5	31.9	31.2	
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Note: Depending on system configuration. Board component or CPU cooler mechanical interference might reduce supported full-sized card number.

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4U Rackmount										6U Rackmount
IPC-610-H	IPC-610-F	IPC-619	ACP-4020	ACP-4D00	ACP-4000	ACP-4010/ ACP-4320	ACP-4340	ACP-4360	IPC-623	IPC-622
PICMG1.0/1.3 Full size SBC ATX/Micro-ATX	PICMG1.0/1.3 Full size SBC ATX/Micro-ATX	PICMG 1.0/1.3 Fill-size SBC	PICMG1.0/1.3 Full-size SBC ATX/Micro-ATX	PICMG 1.3/PCI Half-sized SBC	PICMG1.0/1.3 Full-size SBC ATX/Micro-ATX	PICMG1.0/1.3 Full-size SBC ATX/Micro-ATX	PICMG1.0/1.3 Full size SBC ATX/Micro-ATX	PICMG1.0/1.3 Full size SBC ATX/Micro-ATX	PICMG 1.0/1.3 Full size SBC	PICMG 1.0/1.3 Full size SBC
-	-	-	1	-	-	-	1	1	-	-
-	-	-	1 (Internal)	-	-	-	1 (Internal)	-	-	-
-	-	-	-	-	-	- / 2 (SAS/SATA)	4 (SAS/SATA)	6 (SAS/SATA)	-	-
1	1	1	2	1 / each node	1	1 / -	-	1	1	-
-	1	-	-	-	-	1 / -	-	-	1	2
3	3	2	-	-	3	2	-	-	3	4
2	2	2	2 (USB 3.0)	2 (USB 2.0) + 2 (USB 3.0) / each node	2	4	2 (USB 3.0)	2	-	4
1	1	-	-	-	1	-	-	-	-	-
2	1	1	2	1 / each node	2	2 / 2	2	3	3	4
85	85	85	2 x 53	1 x 58 per node	2 x 85	2 x 85/ 1 x 114 + 1 x 28	1 x 74 + 1 x 56	1 x 114 + 2 x 47	114	4 x 58
300W PS/2 400W PS/2	300W PS/2 400W PS/2	250W PS/2 300W PS/2 400W PS/2	300W PS/2 400W PS/2 500W PS/2	250W Flex ATX 300W Flex ATX	300W PS/2 400W PS/2 500W PS/2	300W PS/2 400W PS/2 500W PS/2	400W PS/2 500W PS/2 700W PS/2	400W PS/2 500W PS/2 700W PS/2	400W 500W	400W PS/2 500W PS/2 700W PS/2
350W Mini RPS 500W Mini RPS	350W Mini RPS 500W Mini RPS	-	-	-	350W Mini RPS 500W Mini RPS	350W Mini RPS 500W Mini RPS 750W Mini RPS	350W Mini RPS 500W Mini RPS	350W Mini RPS 500W Mini RPS	460W 1+1 570W 2+1 810W 3+1	500W Mini RPS 750W Mini RPS
300W 48V	300W 48V	-	300W 48V	-	300W 48V	-	-	-	-	-
15	15	14	15	6 / each node	15	15 / 15	15	15	20	20
15	15	0	0	0	11	15 / 10	15	15	20	20
Yes	Yes	Yes	Yes	Yes (PCI BP only)	Yes	Yes	Yes	Yes	Yes	Yes
Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
-	-	-	Yes	Yes	Yes	Yes	Yes	Yes	-	Yes
482 x 177 x 479	482 x 177 x 499 (MB) 482 x 177 x 449 (BP)	482 x 177 x 430	482 x 177 x 348	430 x 177 x 350	482 x 177 x 479	482 x 177 x 479	482 x 177 x 478	482 x 177 x 501	482 x 177 x 657	482 x 266 x 464
19 x 7 x 18.9	19 x 7 x 19.6 (MB) 19 x 7 x 17.8 (BP)	19 x 7 x 16.9	19 x 7.0 x 13.7	19 x 7.0 x 13.8	19 x 7 x 18.9	19 x 7 x 18.9	19 x 7.0 x 18.8	19 x 7.0 x 19.8	19 x 7 x 26	19 x 10.5 x 18.3
15	16.2	15	8.5	15	15.2	16.6/17.6	12.5	19	26	30
33	35.6	33	18.7	33	33.5	36.5/38.7	27.5	41.8	57	66
12-52	12-54	12-56	12-58	12-60	12-62	12-64/12-66	12-68	12-70	12-72	12-74

Note: Depending on system configuration. Board component or CPU cooler mechanical interference might reduce supported full-sized card number.

ARK-6610/6620

Compact Chassis for Mini-ITX Motherboard



ARK-6610

ARK-6620

CE FCC

Features

- ARK-6610 with one front I/O expansion slot
- Various cut-outs for COM/DVI/LVDS,USB,S/C-video
- Shockproof drive bay for slim ODD and 3.5" HDD
- Bottom door to access CF card or Mini-PCle card
- Support 180W Flex ATX power supply

Specifications

		ARK-6610	ARK-6620
Disk Drive Bay	Slim Optical Drive	1	-
	3.5" (internal)	1	1
I/O Interface	COM	5	2
	USB	2	-
	DVI/LVDS	2	1
	S/C-Video	1	1
	WLAN Antenna	1	1
Cooling	Fan	1 (9 cm / 52.5 CFM)	2 (6 cm / 27.7 CFM, each)
	Air Filter	Yes	Yes
Miscellaneous	LED Indicators	Power, HDD, temperature	Power, HDD, temperature
	Control	Power switch	Power switch
Environment	Operating	Operating	Non-operating
	Temperature	0 ~ 40° C (32 ~ 104° F)	-20 ~ 60° C (-4 ~ 140° F)
	Humidity	10 ~ 85%, 40° C, non-condensing	10 ~ 95%, @ 40° C, non-condensing
	Vibration (5 ~ 500 Hz)	1 Grms	2 G
	Shock	10 G (with 11ms duration, half sine wave)	30 G
Physical Characteristics	Dimensions (W x H x D)	250 x 156 x 253 mm (9.8" x 6.1" x 10")	272 x 88 x 232 mm (10.7" x 3.5" x 9.1")
	Weight	4.76 kg (10.47 lb)	3.49 kg (7.68 lb)

Front View

ARK-6610

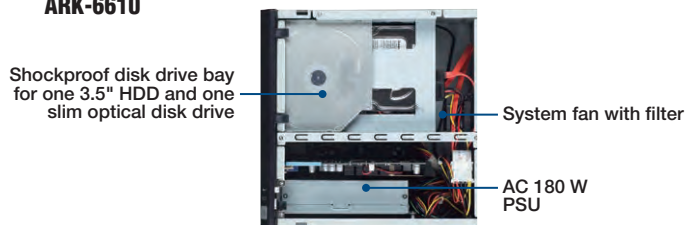


ARK-6620

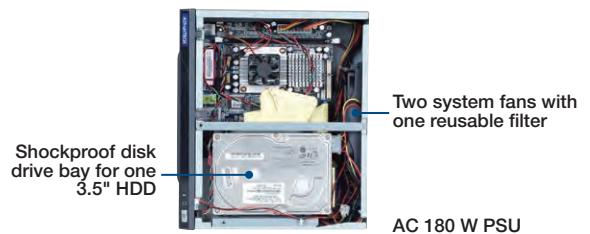


Inside View

ARK-6610



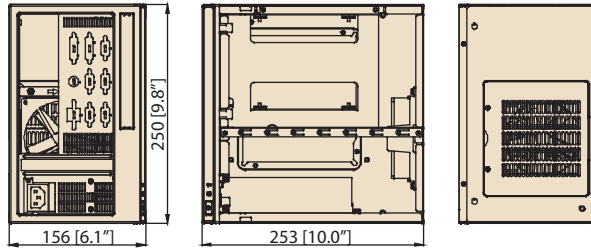
ARK-6620



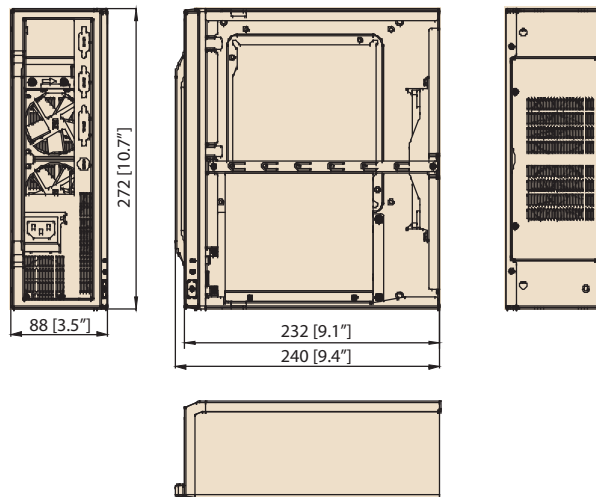
Dimensions

Unit: mm [inch]

ARK-6610

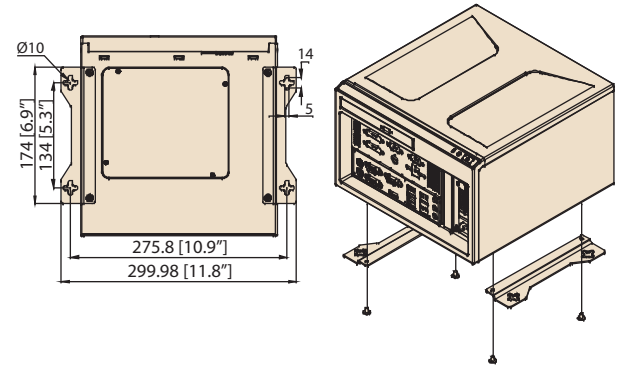


ARK-6620

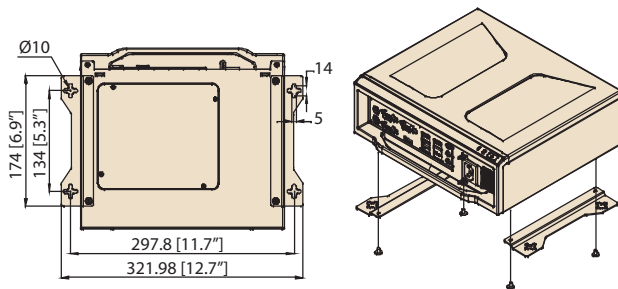


Installation

ARK-6610



ARK-6620



Chassis Ordering Information

Part Number	Power Supply	Power supply Wattage	Support Mini ITX MB type
AC power Mini ITX motherboard			
ARK-6610-18ZBE	96PS-A180WFX	180W	AC power Mini ITX MB
ARK-6620-18ZBE	96PS-A180WFX	180W	AC power Mini ITX MB
DC Power Mini ITX motherboard (AIMB-201DS / 212 / 213 / 214 / 215 / 223 / 224 / 225 / 230)			
ARK-6610-00XBE	-	-	DC power Mini ITX MB
ARK-6620-00XBE	-	-	DC power Mini ITX MB

Optional Accessories

Part Number	Description
1750002561	52.5 CFM, 92 x 92 x 25.4 mm system cooling fan (For ARK-6610)
1750006419	27.7 CFM, system cooling fan 60 x 60 x 13 mm (For ARK-6620)
98R2662001E	VESA mounting kit for ARK-6620
1960014495N001	PSU cover for DC Motherboard configuration

Intelligent Video and IoT Sensors	1
Intelligent Transportation Platforms	2
Intelligent Inspection Systems	3
Modular IPCs	4
Server-grade IPCs	5
Industrial Storages	6
Video Wall Controllers	7
GPU Servers	8
Industrial Motherboards	9
Slot SBC & Passive Backplanes	10
CompactPCI Platforms	11
Industrial Chassis	12
Industrial Computer Peripherals	13
Industrial Ethernet Solutions	14

ARK-6622

Compact Chassis with one front slot for Mini-ITX Motherboard



Features

- With front I/O interfaces and one expansion slot
- Shockproof drive bay for two 2.5" HDDs
- Bottom door to access CF card or Mini-PCle card
- LED indicators for system fault detection
- Equipped 180W FLEX power supply

CE FCC

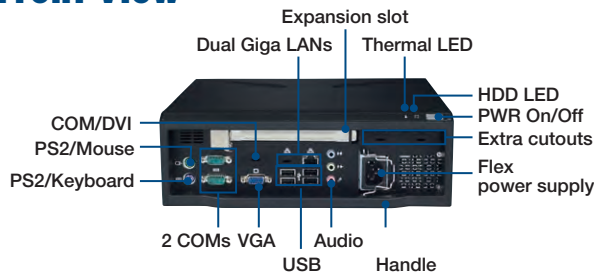
Specifications

Disk Drive Bay	2.5" (internal)	2	
Front I/O Openings	USB	4	
	PS/2	2	
	COM	2	
	DVI/COM	1	
	RJ-45	2	
	Audio	3 (Mic-in, Line-out, Line-in)	
	VGA	1	
	Expansion slot	1*	
	Reserved cutouts	2 x DB-9 and 2 x Wireless Antenna Opening	
Cooling	System Fan	ARK-6622H	ARK-6622L
		2 (6 cm/27.7CFM)	1 (6 cm/15.4CFM)
	Air Filter	Yes	Yes
Miscellaneous	LED Indicators	Power, HDD, Temperature	
	Control	Power switch	
Environment	Temperature	Operating 0 ~ 40° C (32 ~ 104° F)	Non-operating -20 ~ 60° C (-4 ~ 140° F)
	Humidity	10 ~ 85%, @ 40° C, non-condensing	10 ~ 95%, @ 40° C, non-condensing
	Vibration (5 ~ 500 Hz)	1 Grms	2 G
	Shock	10 G (with 11ms duration, half sine wave)	30 G
	Physical Characteristics	Dimensions (W x H x D)	272 x 88 x 232 mm (10.7" x 3.5" x 9.1")
	Weight	3.49 kg (7.68 lb)	

* The expansion slot is supported by dedicated riser cards, so an optional riser card is required for the add-on card.

* 176 mm (W) x 22 mm (H) space is available for add-on cards to assemble in slot.

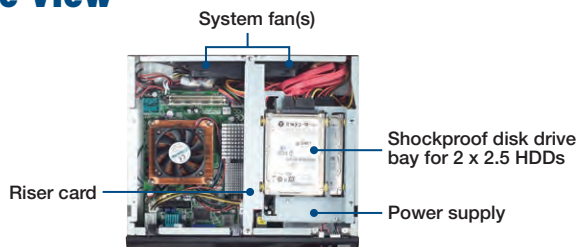
Front View



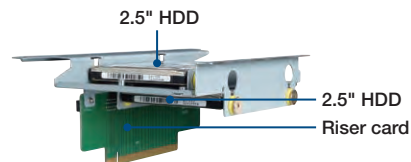
Rear Cover for Replacing Fans



Inside View



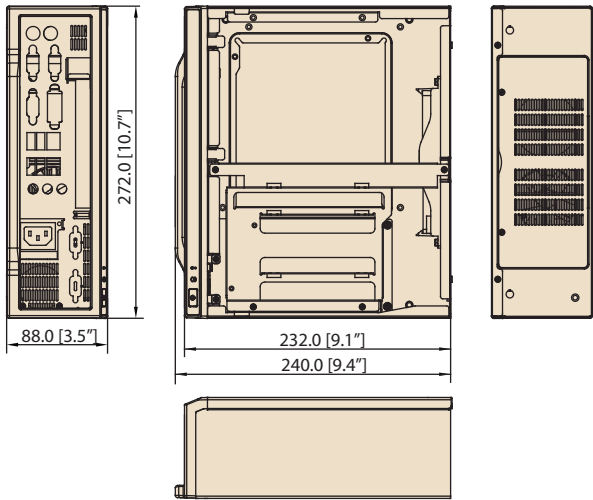
2.5" HDDs and Riser Card Bracket



- Intelligent Video and IoT Sensors 1
- Intelligent Transportation Platforms 2
- Intelligent Inspection Systems 3
- Modular IPCs 4
- Server-grade IPCs 5
- Industrial Storages 6
- Video Wall Controllers 7
- GPU Servers 8
- Industrial Motherboards 9
- Slot SBC & Passive Backplanes 10
- CompactPCI Platforms 11
- Industrial Chassis 12
- Industrial Computer Peripherals 13
- Industrial Ethernet Solutions 14

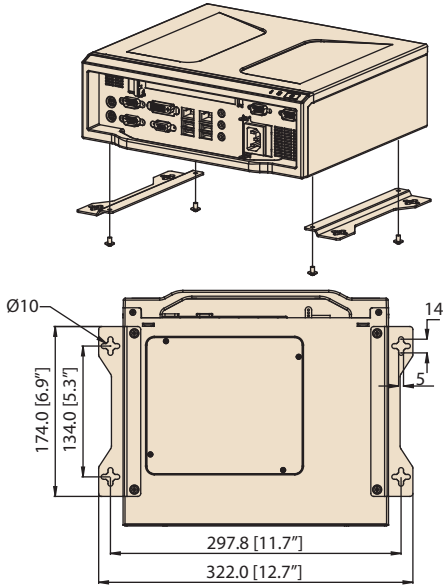
Dimensions

Unit: mm [inch]



Installation

Unit: mm [inch]



Ordering Information

Part Number	Power Supply	Recommended Motherboard	Recommended Riser Card
ARK-6622H-18ZE	96PS-A180WFX	AIMB-270/262	9892662210E
ARK-6622L-18ZE	96PS-A180WFX	AIMB-258 AIMB-210	9892662210E 9892662200E

Optional Accessories

Part Number	Description
9892662200E	PCI Interface Riser Card (for AIMB-210)
9892662210E	PCIe x16 Interface Riser Card (AIMB-258/262/270)
98R2662001E	VESA mounting kit
1750006419	27.7 CFM system cooling fan (For ARK-6622H)
1750005863	15.4 CFM system cooling fan (For ARK-6622L)

IPC-3012

Compact Chassis for PICMG 1.3 Half Size SHB



Features

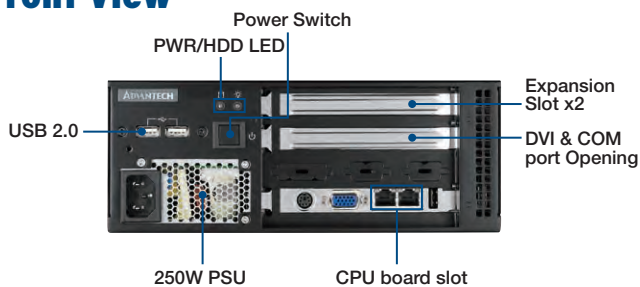
- Compact chassis with two front expansion slots
- Shockproof drive bay for two 2.5" HDDs
- Equipped 80 plus FLEX 250W power supply
- Thumb-screw for top cover easy opening
- Bidirectional to mount chassis on wall or workbench

CE FCC

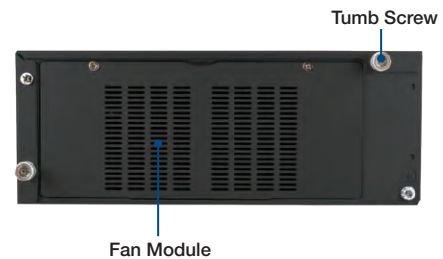
Specifications

Disk Drive Bay	2.5"	External -	Internal 2
Cooling	Fan Air Filters	2 (6 cm/27 CFM) Yes	
Front I/O interface	USB	2	
Miscellaneous	LED Indicators Control	Power, HDD Power Switch	
Environment	Temperature	Operating 0 ~ 40° C (32 ~ 104° F)	Non-operating -20 ~ 60° C (-4 ~ 140° F)
	Humidity	10 ~ 85 % @ 40° C, non-condensing	10 ~ 95 % @ 40° C, non-condensing
	Vibration (5-500 Hz)	1 Grms	2 G
	Shock	10 G (with 11 ms duration, half sine wave)	
Physical Characteristics	Dimensions (W x H x D)	232 x 90 x 232 mm	
	Weight	3.24 kg (7.14 lb)	

Front View



Rear View

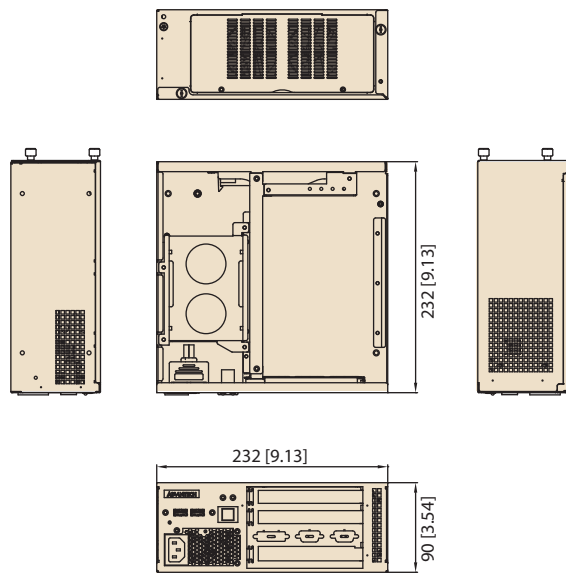


Inside View



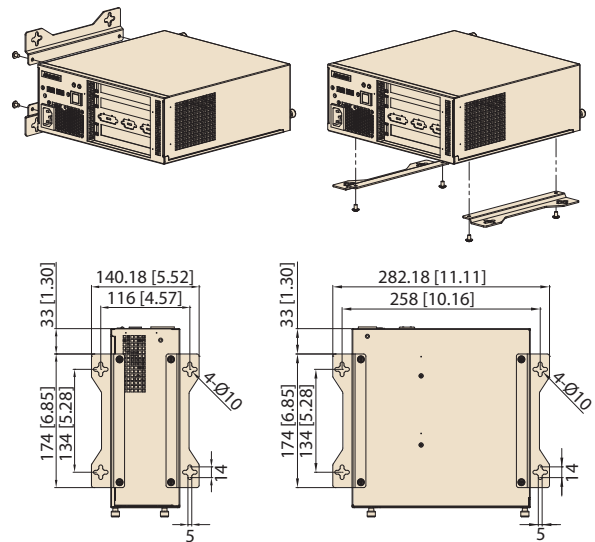
Dimensions

Unit: mm [inch]



Installation

Unit: mm [inch]



Ordering Information

Part Number	Description
IPC-3012-25ZE	With 250W Power supply 96PS-A250WFX-2, with ATX switch

Optional Accessories

Part Number	Description
1750006419	27.72 CFM, system fan 60 x 60 x 13 mm
1990005760T00B	Filter cover
1960053207N001	1.5U CPU cooler for one add-on card applied
1960053065N001	1U CPU cooler for two add-on cards applied

CPU card Options

Part Number	Description
PCE-3026G2-00A1E	PICMG 1.3 H/S SHB, H61, 2GbE
PCE-3028G2-00A1E	PICMG 1.3 H/S SHB, H81, 2GbE, 2 display
PCE-4128G2-00A1E	PICMG 1.3 H/S SHB, C226, 2GbE, 2 display

Backplane Options

Part Number	Description
PCE-3B03A-00A1E	3 Slots PICMG1.3BP, PCIe x16*1, PCIe x4*1
PCE-3B03-01A1E	3 Slots PICMG1.3BP, PCIe x16*1, 32-Bit/33 MHz PCI*1

- Intelligent Video and IoT Sensors 1
- Intelligent Transportation Platforms 2
- Intelligent Inspection Systems 3
- Modular IPCs 4
- Server-grade IPCs 5
- Industrial Storages 6
- Video Wall Controllers 7
- GPU Servers 8
- Industrial Motherboards 9
- Slot SBC & Passive Backplanes 10
- CompactPCI Platforms 11
- Industrial Chassis 12
- Industrial Computer Peripherals 13
- Industrial Ethernet Solutions 14

IPC-3026

Quiet Compact Chassis for Half Size SHB/SBC



Features

- Support 6-slot PICMG 1.3/1.0 backplane
- Shockproof drive bay for one 3.5" HDD
- Support two 2.5" HDDs by hot-swap tray
- LED indicators for system fault detection
- Lockable front door prevent unauthorized access
- Built-in Intelligent System Module enabling whole system fan control and remote manageability

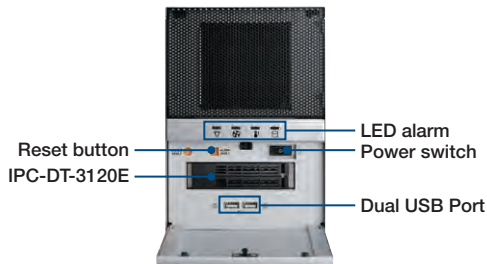
Quiet

CE FCC

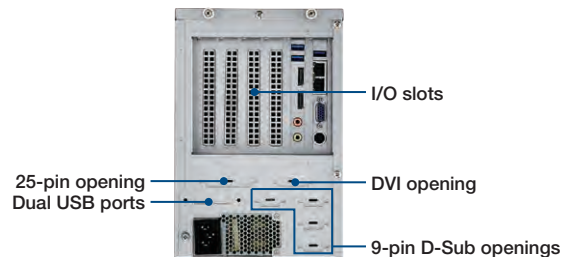
Specifications

Disk Drive Bay	3.5"	External -	Internal 1
Cooling	Fan Air Filters	1 (9 cm 44.6 CFM) Yes	
I/O Interface	USB	2 (Front accessible), 2 (Rear accessible)	
Miscellaneous	LED Indicators	Power, HDD, Temp, Fan	
	Front Panel	Reset button, Power switch	
	Rear Panel	Reserved four 9-pin D-Sub openings, 25-pin opening, DVI opening, dual USB ports	
Intelligent System Module Remote Monitoring	CPU/System fan speed, CPU/System temperature, motherboard voltage (Only selected Advantech MBs/CPU cards with SUSIAccess installed can fully enable these functions, check with Advantech local rep. for detailed information.)		
Environment	Temperature	Operating 0 ~ 40° C (32 ~ 104° F)	Non-operating -20 ~ 60° C (-4 ~ 140° F)
	Humidity	10 ~ 85% @ 40° C, non-condensing	
	Vibration (5-500 Hz)	1 Grms	2 G
	Shock	10 G (with 11 ms duration, half sine wave)	30 G
Physical Characteristics	Dimensions (W x H x D)	150 x 222 x 270 mm (5.9" x 8.74" x 10.63")	
	Weight	4.4 kg (9.7 lb)	

Front View

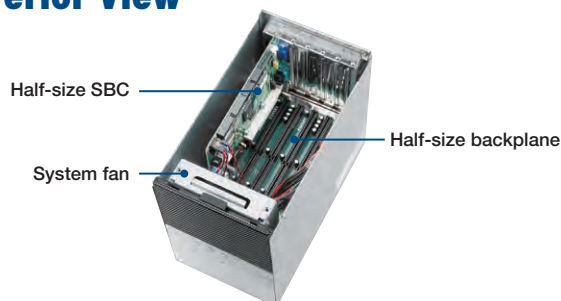


Rear View



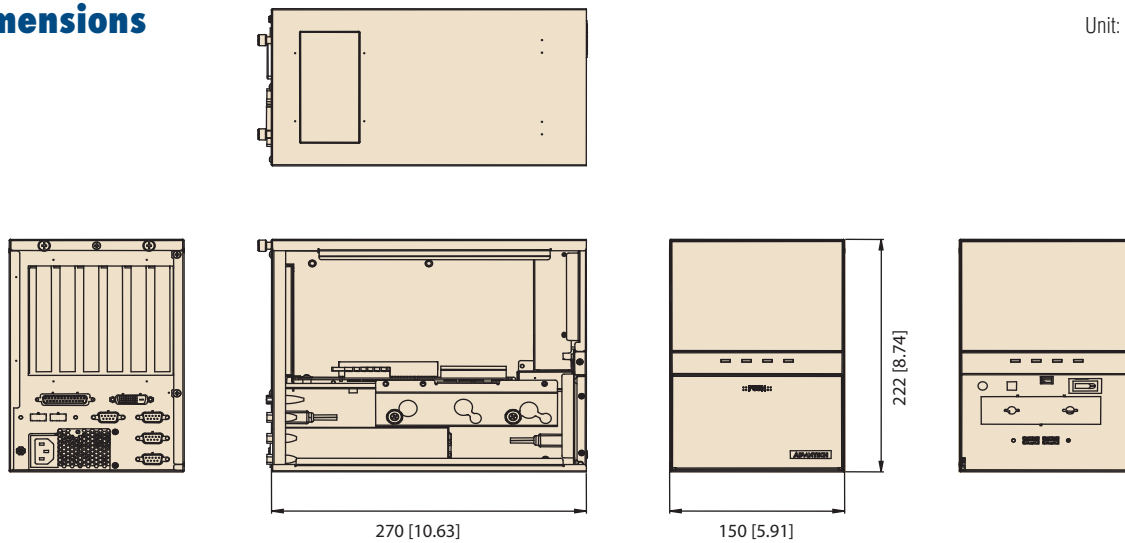
Note: Hot swap drive bay module should be bought separately.

Interior View

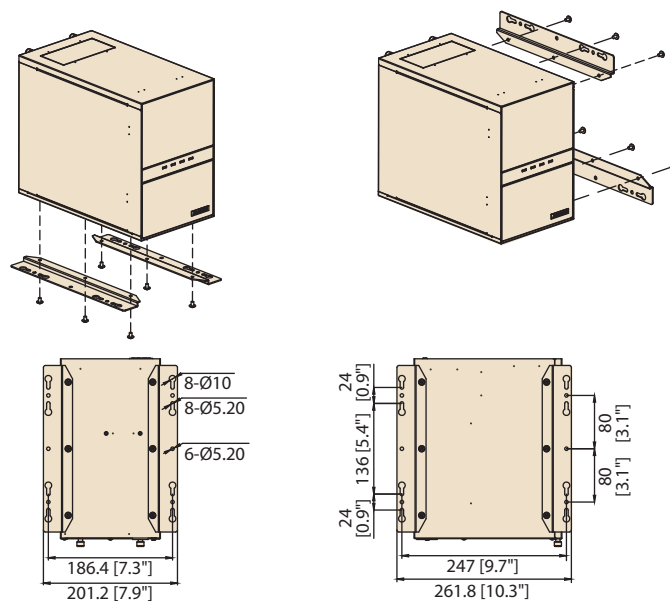


Dimensions

Unit: mm [inch]



Installation



Ordering Information

Part Number	Power Supply	Wattage	Type	Input
IPC-3026BP-15ZE	96PS-A150WFX-1	150W	Single	AC 100 ~ 240 V (full range)

Optional Accessories

Ordering P/N	Description
IPC-DT-3120E	Mobile rack for dual 2.5" SATA HDDs with a 3.5" drive bay occupancy

Backplane Options

Part Number	ISA	PCI	PClex16	PClex8	PClex4	PClex1	PICMG
PICMG 1.0							
PCA-6106-0B2E	5	-	-	-	-	-	1
PCA-6105P5-0B2E	-	4	-	-	-	1	
PICMG 1.3							
PCE-3B03-00A1E	-	-	1	-	1	-	1
PCE-3B06-00A1E	-	-	1	-	-	4	1
PCE-3B06-02A1E	-	2	1	-	-	2	1
PCE-3B06-03A1E	-	3	1	-	-	1	1

- Intelligent Video and IoT Sensors **1**
- Intelligent Transportation Platforms **2**
- Intelligent Inspection Systems **3**
- Modular IPCs **4**
- Server-grade IPCs **5**
- Industrial Storages **6**
- Video Wall Controllers **7**
- GPU Servers **8**
- Industrial Motherboards **9**
- Slot SBC & Passive Backplanes **10**
- CompactPCI Platforms **11**
- Industrial Chassis **12**
- Industrial Computer Peripherals **13**
- Industrial Ethernet Solutions **14**

IPC-6006

6-Slot Backplane Card Cage

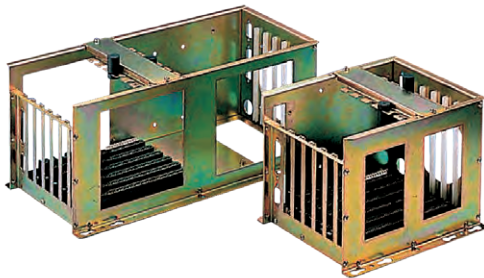


Features

- Open-frame card cage for embedded system
- Shockproof hold-down clamp design
- Support 6-slots full size and half size SBC
- Support one PS/2 power supply, one 3.5" HDD and one cooling fan

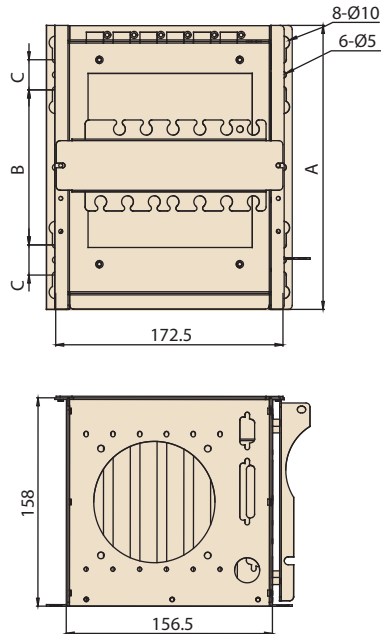
Specifications

Model Name	IPC-6006	IPC-6006S
Supported Backplanes	PCA-6106-0B2E PCA-6106P3-0D2E PCA-6106P4-0A2E PCA-6105P5-0B2E	PCA-6106-0B2E PCA-6105P5-0B2E
Dimensions (W x H x D)	158 x 186 x 368 mm (6.2" x 7.3" x 14.5")	158 x 186 x 215 mm (6.2" x 7.3" x 8.4")
Weight	2.2 kg (4.8 lb)	1.6 kg (3.5 lb)



Dimensions

Unit: mm [inch]



Dimensions		
	IPC-6006	IPC-6006S
A	368	215.34
B	270	117.54
C	24	22.86

Ordering Information

Part Number	Description
IPC-6006-BAREE	Full-size card cage without backplane
IPC-6006S-BAREE	Half-size card cage without backplane

Passive Backplane Options

Part Number	Slot	Segment
PCA-6106-0B2E	6 ISA	Single
PCA-6106P3-0D2E	2 ISA, 2 PCI, 1 PICMG/PCI, 1 PICMG	Single
PCA-6106P4-0A2E	4 PCI, 2 PICMG	Single
PCA-6105P5-0B2E	5 PCI	Single

Intelligent Video and IoT Sensors	1
Intelligent Transportation Platforms	2
Intelligent Inspection Systems	3
Modular IPCs	4
Server-grade IPCs	5
Industrial Storages	6
Video Wall Controllers	7
GPU Servers	8
Industrial Motherboards	9
Slot SBC & Passive Backplanes	10
CompactPCI Platforms	11
Industrial Chassis	12
Industrial Computer Peripherals	13
Industrial Ethernet Solutions	14

IPC-6806

6-Slot Desktop/Wallmount Compact Chassis for Full/Half-Sized Slot SBC



CE FCC

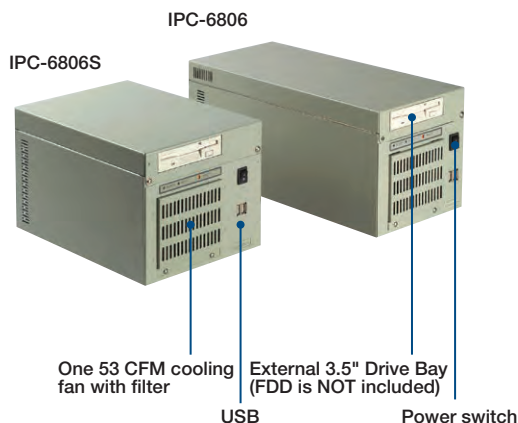
Features

- Three models with different sizes to support various industrial applications
 - IPC-6806S supports 6-slot PICMG 1.0/1.3 backplane
 - IPC-6806 supports 6-slot PICMG 1.0 backplane
 - IPC-6806W supports 6-slot PICMG 1.0/1.3 backplane
- Supports 6-slot backplanes
- Streamlined filtered airflow

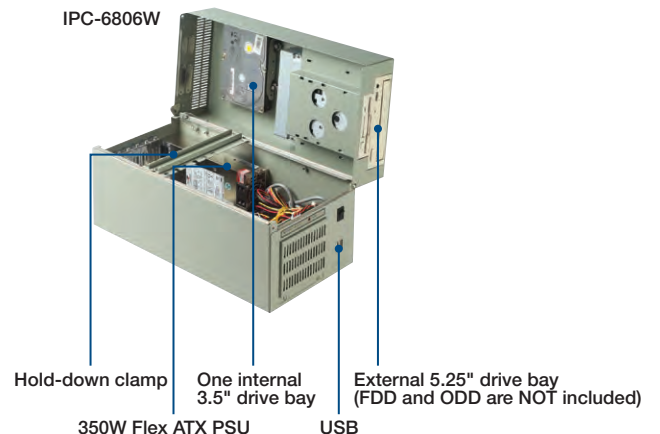
Specifications

Model Name		IPC-6806S	IPC-6806	IPC-6806W
CPU Card Form Factor		Half-sized PICMG 1.0/1.3	Full-sized PICMG 1.0	Full-sized PICMG 1.0/1.3
Drive Bay	5.25"	-	-	1
	External 3.5"	1 (not support IPC-DT-3120E)	1	1
	Internal 3.5"	1	1	1
Cooling	Fan	1 (9cm / 53 CFM)	1 (9cm / 53 CFM)	1 (9cm / 58 CFM)
	Air Filter	Yes	Yes	Yes
Front I/O Interface	USB 2.0	2	2	2
Miscellaneous	LED Indicators	Power and HDD		
	Control	Power switch and system reset buttons		
Environment	Operating Temperature	0 ~ 40° C (32 ~ 104° F)		Non-Operating -20 ~ 60° C (-4 ~ 140° F)
	Humidity	10 ~ 85% @ 40° C, non-condensing		10 ~ 95% @ 40° C, non-condensing
	Vibration (5 ~ 500 Hz)	0.5 Grms		2 G
	Shock	10 G (with 11 ms duration, half sine wave)		30 G
	Physical Characteristics	Dimensions (W x H x D)	191 x 178 x 290 mm (7.5" x 7.01" x 11.42")	166 x 178 x 398 mm (6.54" x 7.01" x 15.67")
	Weight	5.6 kg (12.3 lb)	6.3 kg (13.9 lb)	8 kg (17.6 lb)

Front View

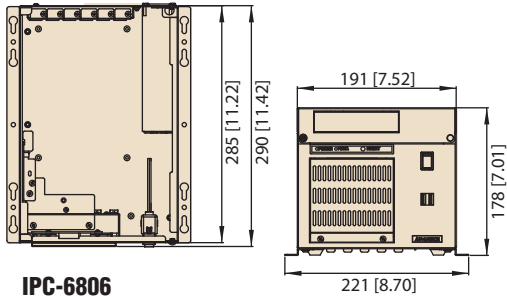


Inside View

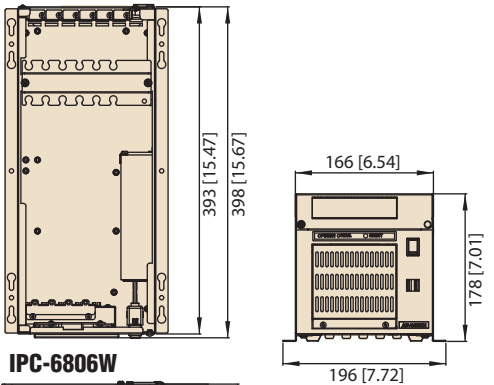


Dimensions

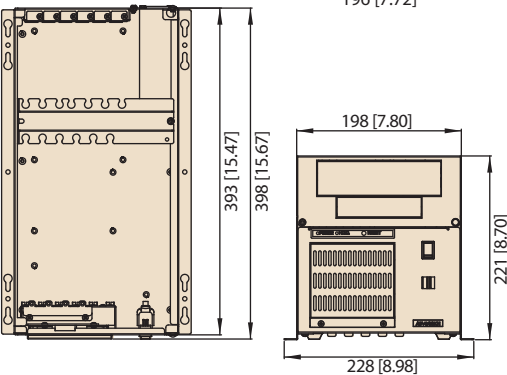
IPC-6806S



IPC-6806

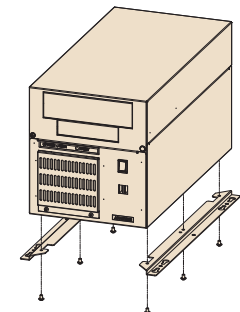
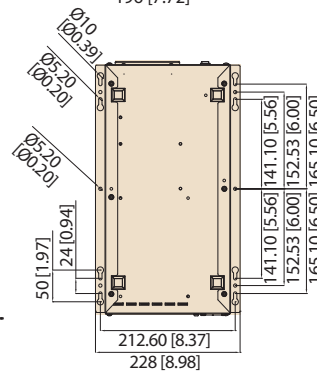
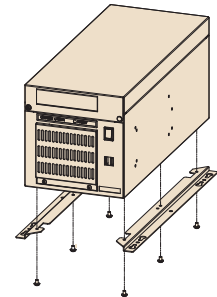
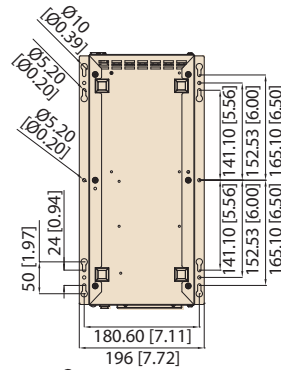
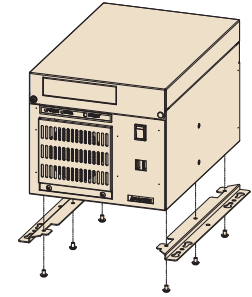
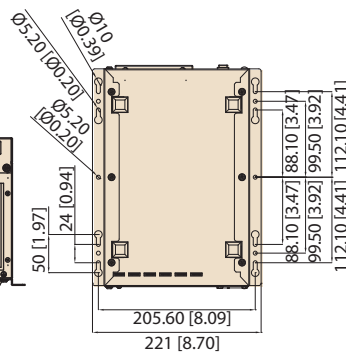


IPC-6806W



Installation

Unit: mm [inch]



Ordering Information

Part Number	Color	CPU Card Form Factor	Power Supply Wattage	Switch
IPC-6806S Series				
IPC-6806S-25CE	Gray	PICMG 1.0 Half-sized	250W	AT
IPC-6806 Series				
IPC-6806-25DE	Gray	PICMG 1.0 Full-sized	250W	ATX
IPC-6806W Series				
IPC-6806W-35CE	Gray	PICMG 1.0/1.3 Full-sized	350W	AT

Power Supply Specification

Part Number	80 Plus Grade	Wattage	Type	Input
PS8-250FATX-XE	Bronze	250W	Single	AC100-240V (full-range)
PS8-350FATX-XE	Bronze	350W	Single	AC100-240V (full-range)

- Intelligent Video and IoT Sensors 1
- Intelligent Transportation Platforms 2
- Intelligent Inspection Systems 3
- Modular IPCs 4
- Server-grade IPCs 5
- Industrial Storages 6
- Video Wall Controllers 7
- GPU Servers 8
- Industrial Motherboards 9
- Slot SBC & Passive Backplanes 10
- CompactPCI Platforms 11
- Industrial Chassis 12
- Industrial Computer Peripherals 13
- Industrial Ethernet Solutions 14

IPC-6806S-D

6-Slot Desktop/Wallmount Compact Chassis for Half-Sized Slot SBC



Features

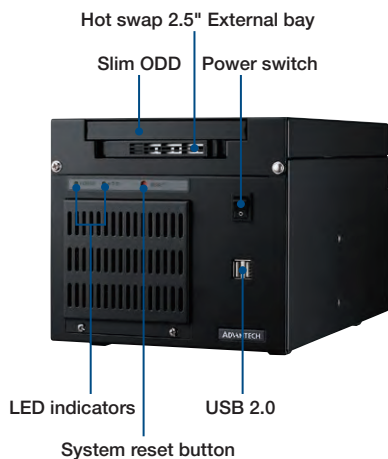
- One Hot-swap 2.5" drive bay
- Two front accessible USB 2.0 ports
- Support 6-slot PICMG 1.3/1.0 backplane
- Easy maintain system fan and filter

CE FCC

Specifications

Model Name	IPC-6806S		
CPU Card Form Factor	Half-sized		
Drive Bay	External Slim ODD port	1	
	Internal 3.5"	1	
	Hot-Swap drive bay	1 (only for HDD thickness with 9.6 mm / SAS not supported)	
Cooling	Fan	1 (9cm / 53 CFM)	
	Air Filter	Yes	
Front I/O Interface	USB 2.0	2	
Miscellaneous	LED Indicators	Power and HDD	
	Control	Power switch and system reset buttons	
Environment	Operating Temperature	0 ~ 40° C (32 ~ 104° F)	Non-Operating -20 ~ 60° C (-4 ~ 140° F)
	Humidity	10 ~ 85% @ 40° C, non-condensing	10 ~ 95% @ 40° C, non-condensing
	Vibration (5 ~ 500 Hz)	0.5 Grms	2 G
	Shock	10 G (with 11 ms duration, half sine wave)	30 G
	Physical Characteristics	Dimensions (W x H x D)	191 x 178 x 290 mm (7.5" x 7.01" x 11.42")
	Weight	5.6 kg (12.3 lb)	

Front View

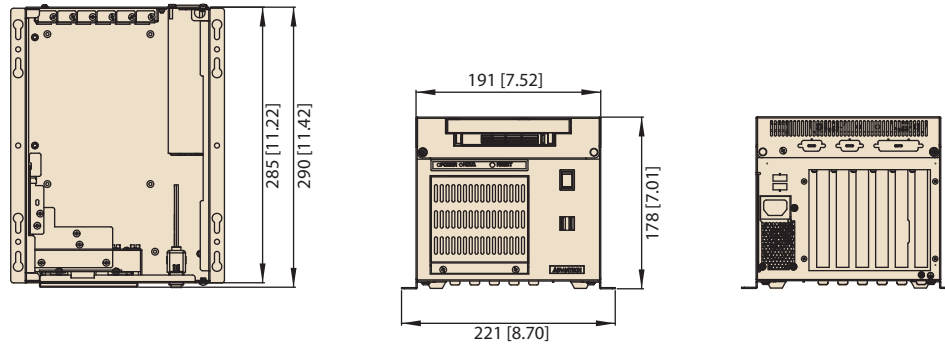


Inside View



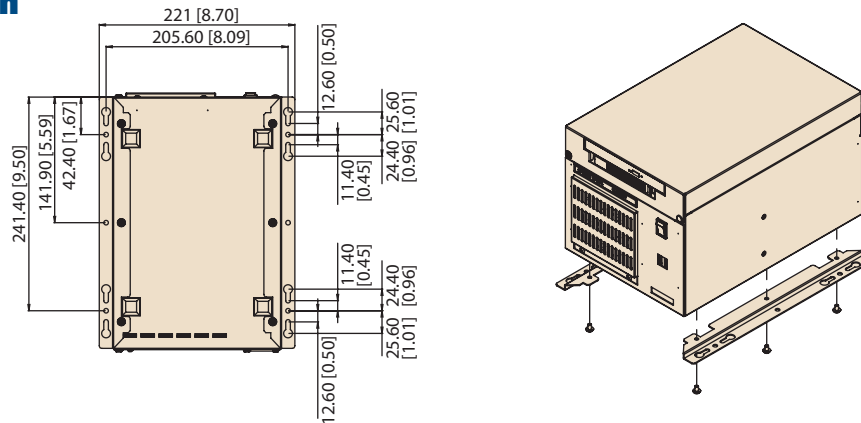
Dimensions

Unit: mm [inch]



Installation

Unit: mm [inch]



Ordering Information

Part Number	Color	CPU Card Form Factor	Power Supply Wattage	Backplane	Switch
IPC-6806S-25DE	Black	Half-sized	250W	-	ATX

Power Supply Specification

Part Number	80 Plus Grade	Wattage	Type	Input
PS8-250FATX-XE	Bronze	250W	Single	AC100~240V (full-range)

- Intelligent Video and IoT Sensors 1
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- Intelligent Inspection Systems 3
- Modular IPCs 4
- Server-grade IPCs 5
- Industrial Storages 6
- Video Wall Controllers 7
- GPU Servers 8
- Industrial Motherboards 9
- Slot SBC & Passive Backplanes 10
- CompactPCI Platforms 11
- Industrial Chassis 12
- Industrial Computer Peripherals 13
- Industrial Ethernet Solutions 14

IPC-6606/6608

6/8-Slot Desktop/Wallmount Chassis



Features

- Support 6/8-slot PICMG 1.0 / PICMG 1.3 backplane
- Shockproof drive bay for 5.25" ODD and 3.5" HDD
- Two front access USB ports
- Bidirectional to mount chassis on wall or workbench
- Easy maintain system fan and filter

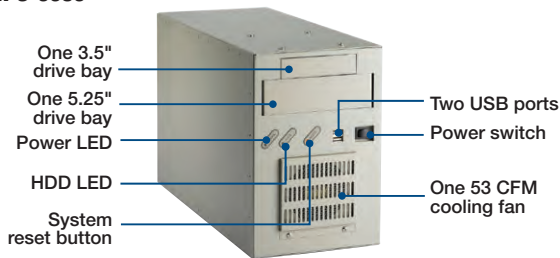
CE FCC

Specifications

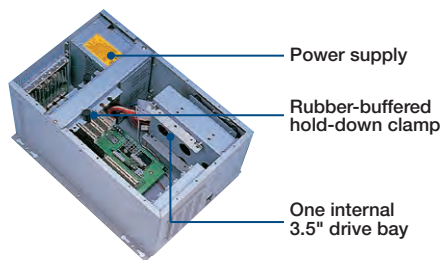
Model Name		IPC-6606	IPC-6608
Drive Bay	5.25"	1	2
	3.5"	2 (1 front-accessible, 1 internal)	1
Front I/O Interface	USB 2.0	2	2
Cooling	Fan	1 (9 cm / 53 CFM)	1 (12 cm / 85 CFM)
	Air Filter	Yes	
Miscellaneous	LED Indicators	Power and HDD	
	Control	Power switch and reset button	
Environment	Temperature	0 ~ 40° C (32 ~ 104° F), operating	
	Humidity	10 ~ 85% @ 40° C, non-condensing	
Physical Characteristics	Dimensions (W x H x D)	173 x 254 x 396 mm (6.8" x 10" x 15.6")	173 x 315 x 410 mm (6.8" x 12.4" x 16.1")
	Weight	9 kg (19.8 lb)	11 kg (24.2 lb)

Front View

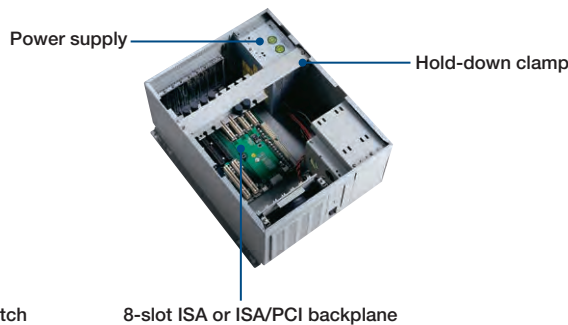
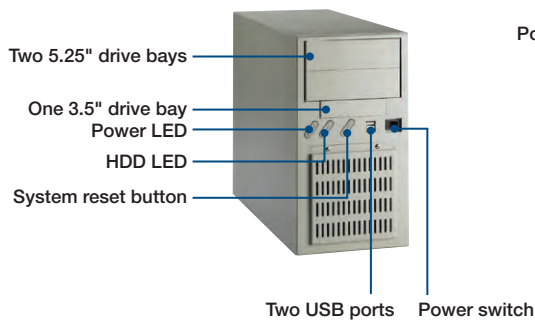
IPC-6606



Inside View



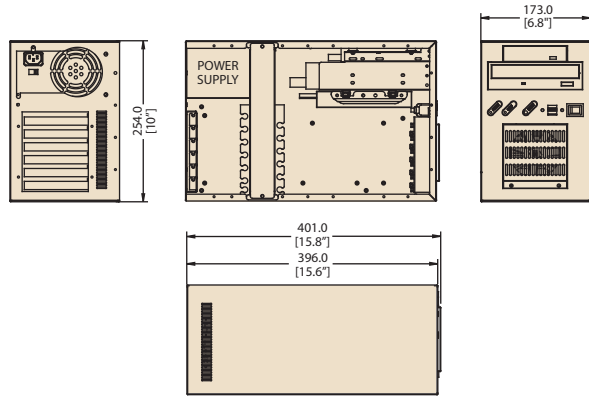
IPC-6608



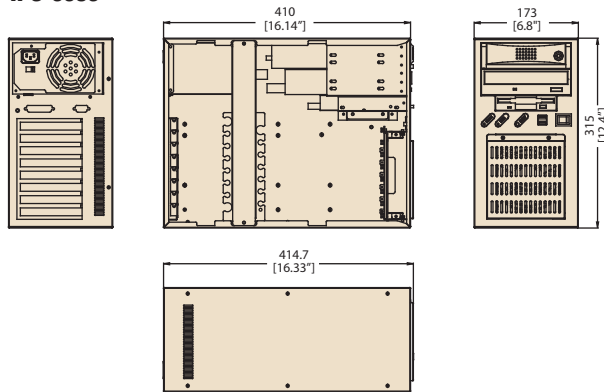
Dimensions

Unit: mm [inch]

IPC-6606



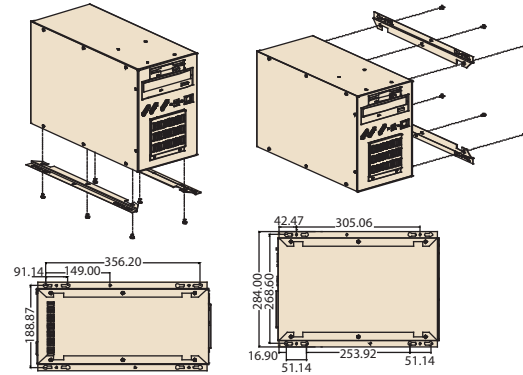
IPC-6608



Installation

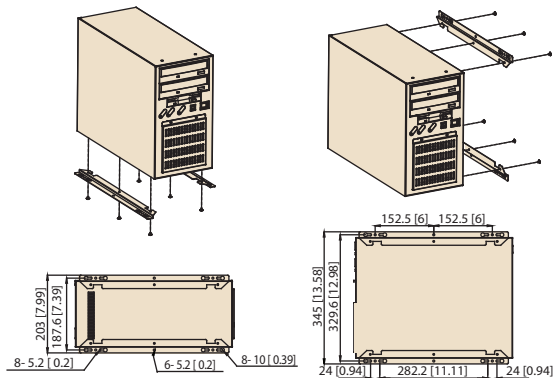
Unit: mm [inch]

IPC-6606



Bidirectional mounting

IPC-6608



Ordering Information

Part Number	Power Supply	Backplane	Switch
IPC-6606			
IPC-6606BP-00XE	-	-	AT/ATX
IPC-6606P3-25BE	96PS-A250WPS2	PCA-6106P3-0D2E	AT
IPC-6606P3-30CE	96PS-A300WPS2	PCA-6106P3-0D2E	ATX
IPC-6608			
IPC-6608BP-00E	-	-	AT/ATX
IPC-6608BP-25BE	96PS-A250WPS2	-	ATX
IPC-6608BP-30CE	96PS-A300WPS2	-	ATX

Power Supply Options

(For detailed power supply specs, please Refer to Chapter 12)

Part Number	Watts	Specifications	
		Watts	Input
PS8-250ATX-ZE (ATX, PFC)	250W	250W	AC 100 ~ 240 V (full-range)
PS8-300ATX-ZBE (ATX, PFC)	300W	300W	AC 100 ~ 240 V (full-range)
PS8-400ATX-ZE (ATX, PFC)	400W	400W	AC 100 ~ 240 V (full-range)

Optional Accessories

Part Number	Description
IPC-DT-3120E	Mobile rack for converting a 3.5" drive bay to dual 2.5" SATA HDD trays
IPC-DT-5230E	Mobile rack for converting dual 5.25" drive bays to three 3.5" SAS/SATA HDD trays

- Intelligent Video and IoT Sensors **1**
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- Video Wall Controllers **7**
- GPU Servers **8**
- Industrial Motherboards **9**
- Slot SBC & Passive Backplanes **10**
- CompactPCI Platforms **11**
- Industrial Chassis **12**
- Industrial Computer Peripherals **13**
- Industrial Ethernet Solutions **14**

IPC-7132

Cost-effective Wallmount Chassis for ATX/mATX Motherboard and 10-slot Backplane



Features

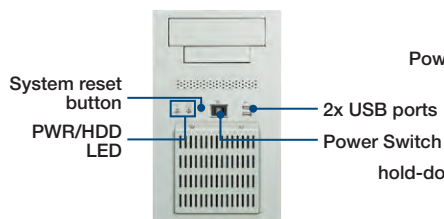
- Support ATX/mATX M/B and 10-slot PICMG 1.3 backplane
- Shockproof drive bay for one 5.25" ODD and three 3.5" HDDs
- Thumb-screw for top cover easy opening
- Bidirectional option to mount chassis on wall or workbench
- Two front access USB ports

CE FCC

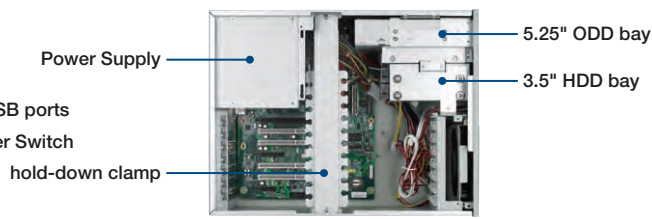
Specifications

		External	Internal
Disk Drive Bay	3.5"	1	2
	5.25"	1	-
Cooling	Fan	1 (12 cm/85 CFM)	
	Air Filters	Yes	
Front I/O interface	USB 2.0	2	
Miscellaneous	LED Indicators	Power, HDD	
	Control	Power Switch, System Reset Button	
	Rear panel	4x USB, 2x DB-9, 1x LPT port	
Environment	Temperature	Operating 0 ~ 40° C (32 ~ 104° F)	Non-operating -20 ~ 60° C (-4 ~ 140° F)
	Humidity	10 ~ 85 % @ 40° C, non-condensing	
	Vibration (5-500 Hz)	1 Grms	
	Shock	10 G (with 11 ms duration, half sine wave)	
	Dimensions (W x H x D)	200 x 330 x 430 mm (7.9" x 13" x 16.9")	
Physical Characteristics	Weight	9.96 kg (21.93 lb)	

Front View

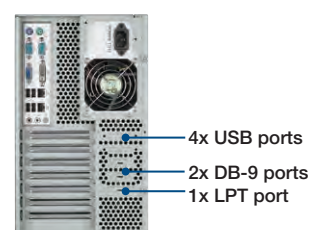


Inside View



IPC-7132MB

Rear View



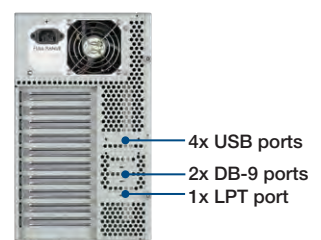
IPC-7132MB



Easy-to-maintain cooling fan

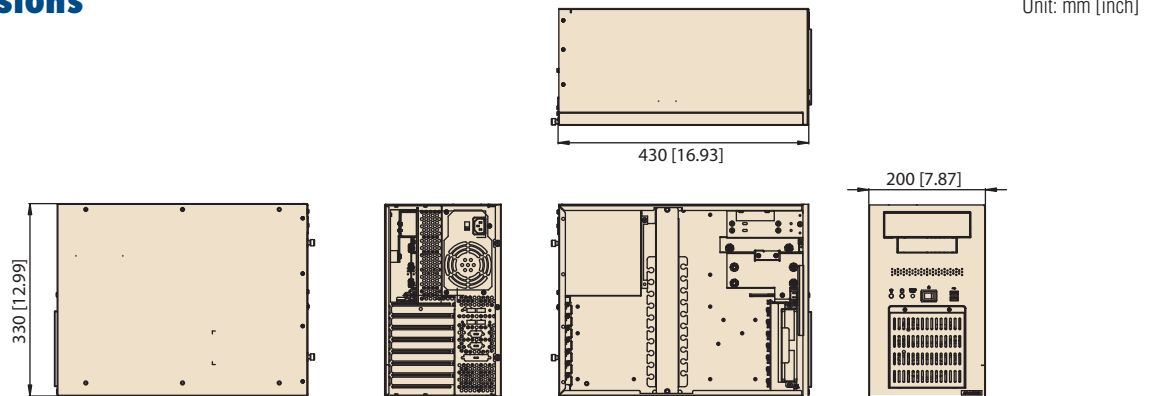


IPC-7132BP

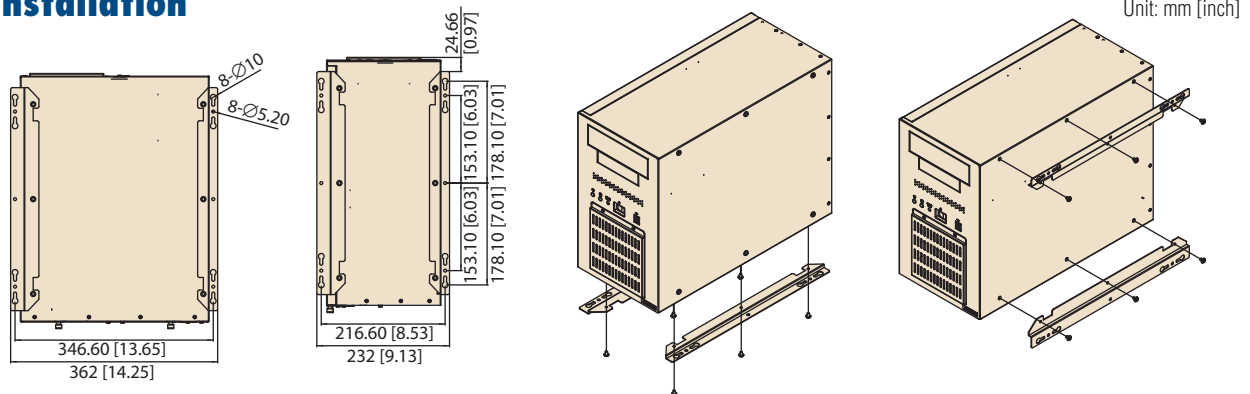


IPC-7132BP

Dimensions



Installation



Ordering Information

Model name	Description
Motherboard Version	
IPC-7132MB-00XE	Without power supply, with ATX switch
Backplane Version	
IPC-7132BP-00XE	Without power supply, with ATX switch

Power Supply Options

Part Number	80 Plus Grade	Wattage	Type	Input
PS8-300ATX-ZBE	Bronze	300W	Single	AC 100 ~ 240 V (full range)
PS8-400ATX-ZE	Bronze	400W	Single	AC 100 ~ 240 V (full range)

Optional Accessories

Part Number	Description
IPC-DT-3120E	Mobile HDD tray for dual 2.5" SATA HDDs
1750006427	87.87 CFM, system fan 120 x 120 x 25.0 mm

Backplane Options

Model	PICMG 1.3	PCIe	PCI-X	PCI
PCE-5B09-06A1E	PICMG 1.3	1 (PCIe x4)	-	6
PCE-5B09-04A1E	PICMG 1.3	3 (PCIe x4)	-	4

- Intelligent Video and IoT Sensors **1**
- Intelligent Transportation Platforms **2**
- Intelligent Inspection Systems **3**
- Modular IPCs **4**
- Server-grade IPCs **5**
- Industrial Storages **6**
- Video Wall Controllers **7**
- GPU Servers **8**
- Industrial Motherboards **9**
- Slot SBC & Passive Backplanes **10**
- Compact PCI Platforms **11**
- Industrial Chassis **12**
- Industrial Computer Peripherals **13**
- Industrial Ethernet Solutions **14**

IPC-7220

Desktop/wallmount Chassis for ATX/mATX Motherboard



Features

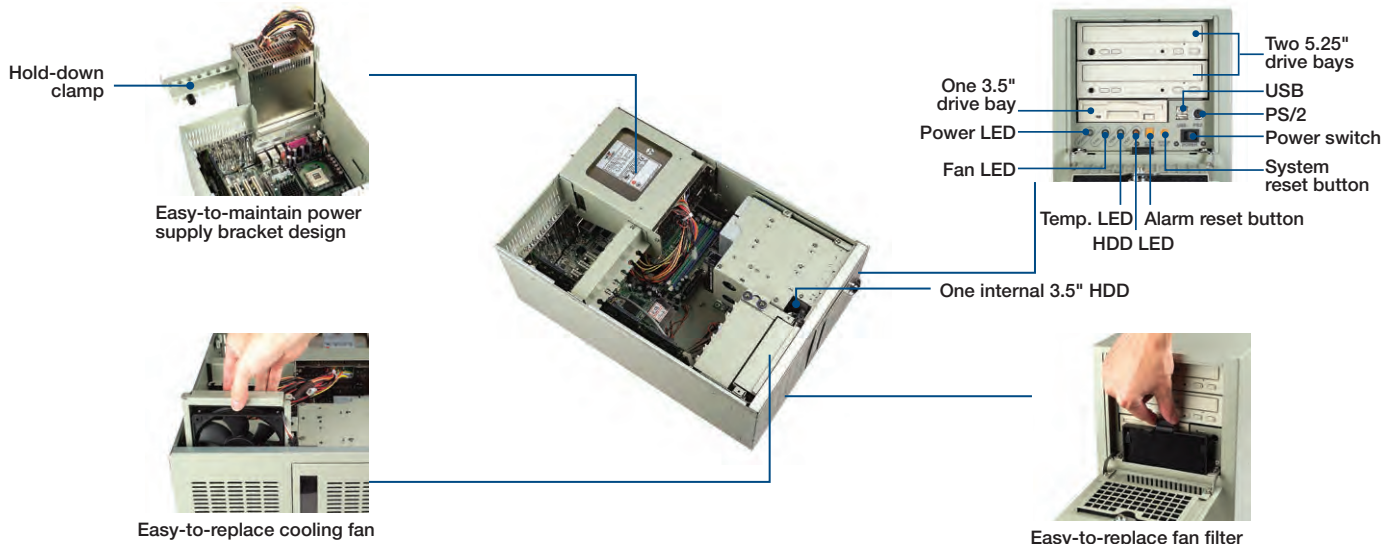
- Two 5.25" and two 3.5" shock-resistant drive bays
- Lockable front door to prevent unauthorized access
- LED indicators and alarm notification for system fault detection
- Easy-to-maintain system fan and air filter
- Low noise system fan
- Built-in Intelligent System Module enables whole system fan control and remote manageability

Quiet

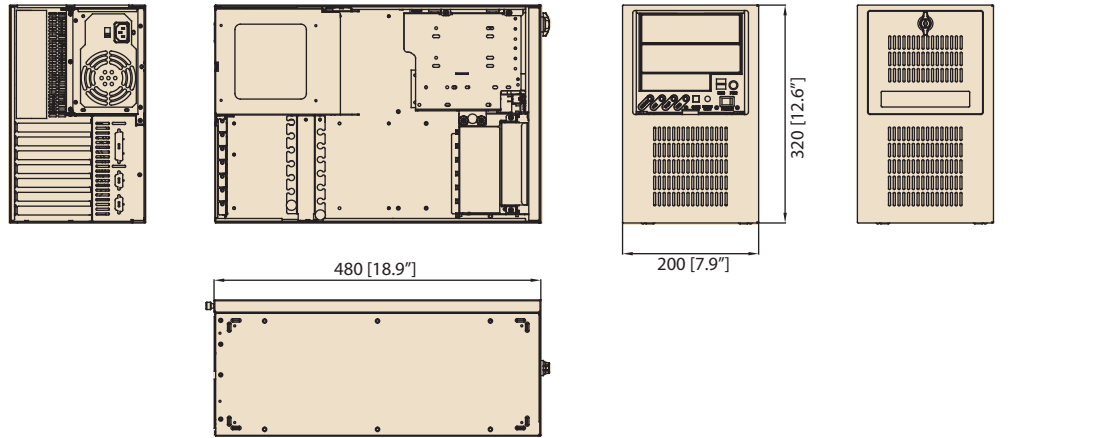
CE FCC

Specifications

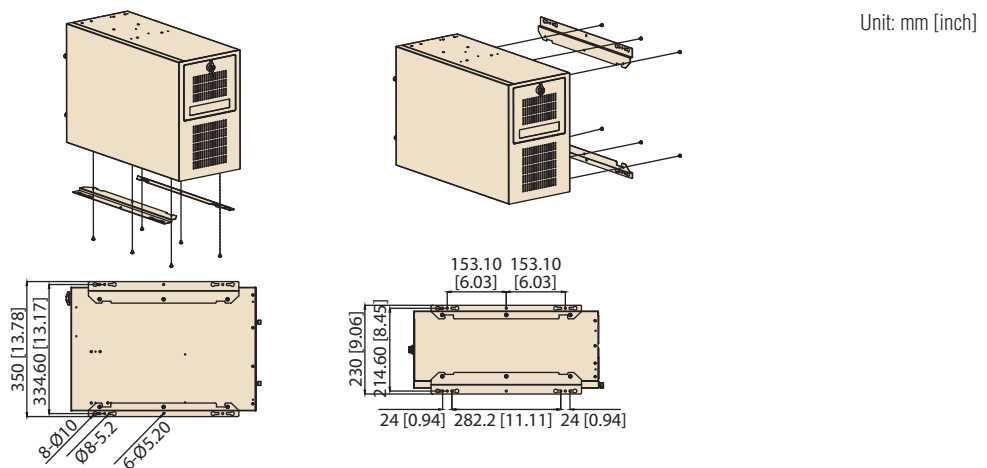
		External	Internal
Drive Bay	5.25"	2	-
	3.5"	1	1
Cooling	Fan	1 (12 cm / 85 CFM)	
	Air Filters	2 (one 7 x 12 cm and one 12 x 12 cm)	
	Smart Fan	System fan speed referring to chassis thermal sensor, or CPU temperature (Available with selected Advantech MBs/CPU cards)	
Front I/O Interface	USB 2.0	2	
	PS/2	PS/2 keyboard and mouse, or PS/2 keyboard depends on the enclosed motherboard	
Miscellaneous	LED Indicators	Power, HDD, temperature and fan	
	Control	Power switch, system reset and alarm reset buttons	
	Rear Panel	Reserved Two 9-pin D-Sub openings, one LPT opening	
Intelligent System Module Remote Monitoring	CPU/System fan speed, CPU/System temperature, motherboard voltage (Only selected Advantech MBs/CPU cards with SUSIAccess installed can fully enable these functions, check with Advantech local rep. for detailed information.)		
Environmental	Temperature	Operating 0 ~ 40° C (32 ~ 104° F)	Non-Operating -20 ~ 60° C (-4 ~ 140° F)
	Humidity	10 ~ 85% @ 40° C, non-condensing	
	Vibration (5 ~ 500 Hz)	1 Grms	2 G
	Shock	10 G (with 11 ms duration, half sine wave)	30 G
Physical Characteristics	Dimensions (W x H x D)	200 x 320 x 480 mm (7.9" x 12.6" x 18.9")	
	Weight	14 kg (30.8 lb)	



Dimensions



Installation



Ordering Information

Model Name	Description
IPC-7220-00BE	Without power supply, with ATX switch
IPC-7220-30BE	With 300W power supply and ATX switch
IPC-7220-40BE	With 400W power supply and ATX switch

Optional Accessories

Part Number	Description
IPC-DT-3120E	Mobile rack for converting a 3.5" drive bay to dual 2.5" SATA HDD trays
IPC-DT-5230E	Mobile rack for converting dual 5.25" drive bays to three 2.5" or 3.5" SAS/SATA HDD trays

Power Supply Options

Part Number	80 Plus Grade	Wattage	Type	Input
PS8-300ATX-ZBE	Bronze	300W	Single	AC 100 ~ 240 V (full-range)
PS8-400ATX-ZE	Bronze	400W	Single	AC 100 ~ 240 V (full-range)
RPS8-350ATX-XE	Gold	350W	1+1 Redundant	AC 100 ~ 240V (full range)
RPS8-500ATX-XE	Bronze	500W	1+1 Redundant	AC 100 ~ 240V (full range)

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- GPU Servers **8**
- Industrial Motherboards **9**
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- CompactPCI Platforms **11**
- Industrial Chassis **12**
- Industrial Computer Peripherals **13**
- Industrial Ethernet Solutions **14**

IPC-5120/7120

Desktop/Wallmount Chassis with front I/O Interfaces for ATX/mATX Motherboard



IPC-5120

IPC-7120

CE FCC

Features

- With front I/O interface and four to seven expansion slots
- Shockproof drive bay for one 5.25" ODD and two 3.5" HDDs
- LED indicators for power status and HDD activity
- Support four to seven half-size add-on cards

Specifications

		External	Internal
Drive Bay	5.25"	1	-
	3.5"	1	1
Cooling	Fans	1 (12 cm / 85 CFM) + 1 (4 cm / 10 CFM)	
	Air Filter	Yes	
Miscellaneous	LED Indicators	Power status and HDD activity	
	Control	Power switch and system reset button	
Environment	Temperature	Operating 0 ~ 40° C (32 ~ 104° F)	Non-Operating -20 ~ 60° C (-4 ~ 140° F)
	Humidity	10 ~ 85% @ 40° C, non-condensing	
	Vibration (5 ~ 500 Hz)	1 Grms	2 G
	Shock	10 G (with 11 ms duration, half sine wave)	30 G
	Physical Characteristics	Dimensions (W x H x D)	IPC-5120: 320 x 164 x 316.5 mm (12.6" x 6.5" x 12.5") IPC-7120: 380 x 164 x 316.5 mm (15" x 6.5" x 12.5")
	Weight	IPC-5120: 6.54 kg (14.42 lb) IPC-7120: 7.01 kg (15.45 lb)	

Front View

IPC-5120



IPC-7120



Inside View



Easy-to-maintain fan filter



Shock-resistant drive bay for holding an internal 3.5" HDD



Plug ring-lock securely fastens the power cord

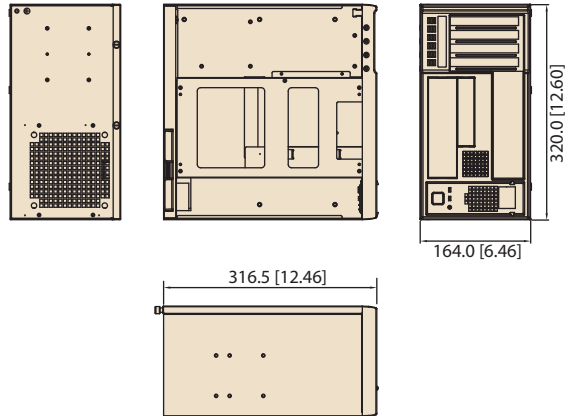


User-friendly mechanical design for installing an add-on card

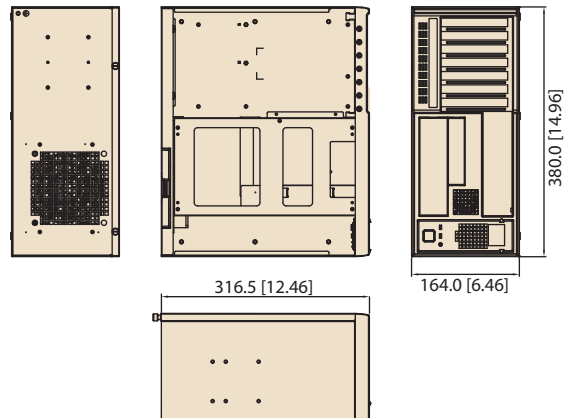
Dimensions

Unit: mm [inch]

IPC-5120



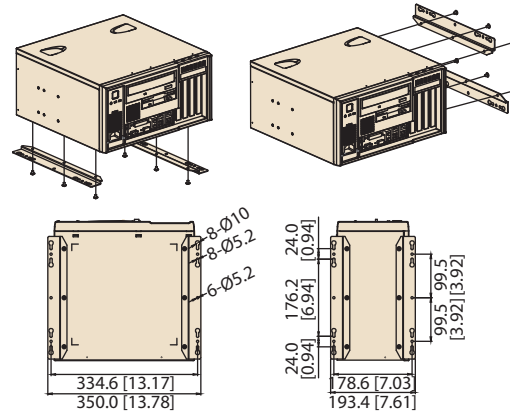
IPC-7120



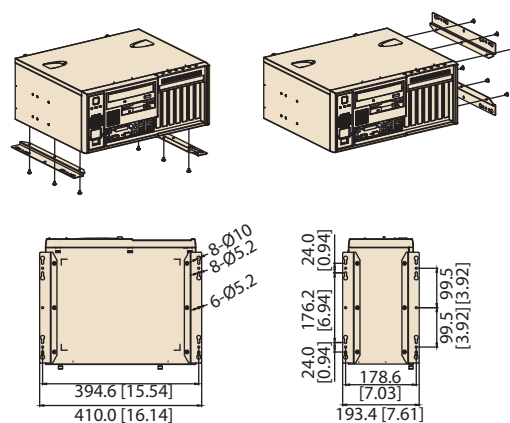
Installation

Unit: mm [inch]

IPC-5120



IPC-7120



Ordering Information

Part Number	Power Supply	Wattage	Switch
IPC-5120 Series			
IPC-5120-25CE	96PS-A250WFX-1	250W	ATX
IPC-5120-35CE	96PS-A350WFX-2	350W	ATX
IPC-7120 Series			
IPC-7120-25CE	96PS-A250WFX-1	250W	ATX
IPC-7120-35CE	96PS-A350WFX-2	350W	ATX

Power Supply Specification

Part Number	80 Plus Grade	Wattage	Type	Input
PS8-250FATX-XE	Bronze	250W	Single	AC 100-240V (full range)
PS8-350FATX-XE	Bronze	350W	Single	AC 100-240V (full range)

- Intelligent Video and IoT Sensors **1**
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- GPU Servers **8**
- Industrial Motherboards **9**
- Slot SBC & Passive Backplanes **10**
- CompactPCI Platforms **11**
- Industrial Chassis **12**
- Industrial Computer Peripherals **13**
- Industrial Ethernet Solutions **14**

IPC-6025

5-Slot Desktop/Wallmount Chassis with Scalability as 5U Quad-System Solution



Features

- Front handle for easy withdraw in rackmount carrier
- Lockable front door prevent unauthorized access
- Shockproof drive bay for two 3.5" HDDs
- LED indicators for system fault detection
- Optional rackmount carrier for quad-system solution
- Built-in Intelligent System Module enabling whole system fan control and remote manageability

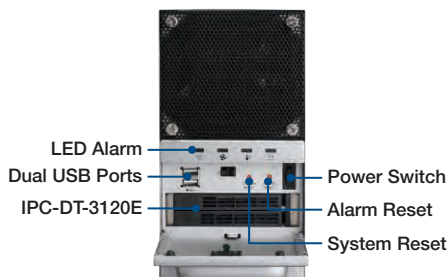


CE FCC

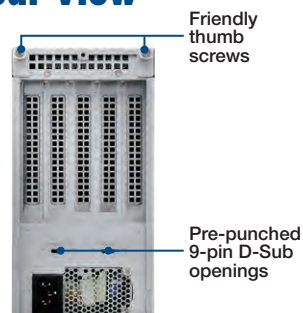
Specifications

Drive Bay	3.5"	External 1	Internal 1
Cooling	Fan	1 (9 cm / 46.6 CFM)	
	Air Filters	Yes	
Front I/O Interface	USB 2.0	2	
Miscellaneous	LED Indicators	Power, fan, temperature, HDD	
	Control	Power switch and system reset buttons	
	Rear Panel	Reserved Two 9-pin D-Sub openings	
Intelligent System Module Remote Monitoring	CPU/System fan speed , CPU/System temperature , motherboard voltage (Only selected Advantech MBs/CPU cards with SUSIAccess installed can fully enable these functions, check with Advantech local rep. for detailed information.)		
Environment	Temperature	Operating 0 ~ 40° C (32 ~ 104° F)	Non-operating -20 ~ 60° C (-4 ~ 140° F)
	Humidity	10 ~ 85% @ 40° C, non-condensing	
	Vibration (5 ~ 500 Hz)	1 Grms	2 G
	Shock	10 G (with 11 ms duration, half sine wave)	30 G
	Physical Characteristics	Dimensions (W x H x D)	111 x 212 x 420 mm (4.4" x 8.3" x 16.5")
	Weight	4.7 kg (10.3 lb)	

Front View



Rear View

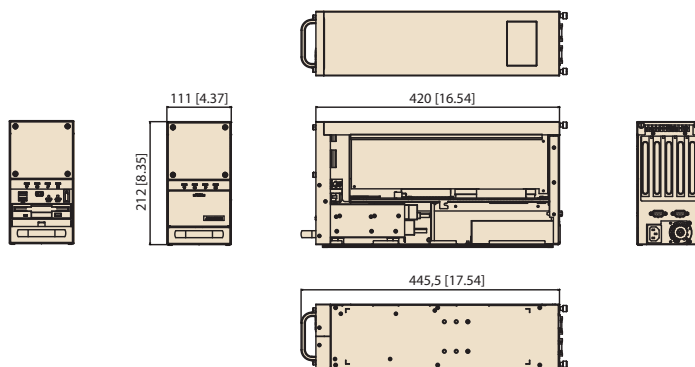


4 IPC-6025 combined as a 5U quad-system rackmount IPC

Note: Hot swap drive bay module should be bought separately.

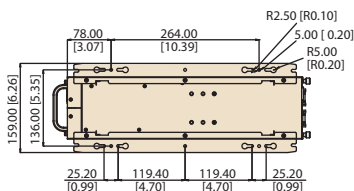
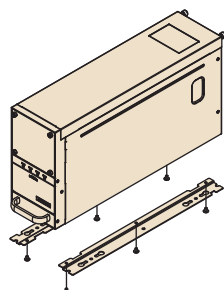
Dimensions

Unit: mm [inch]



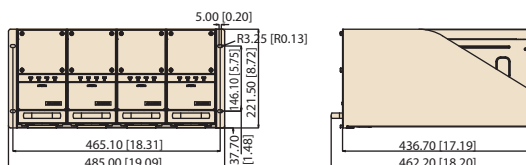
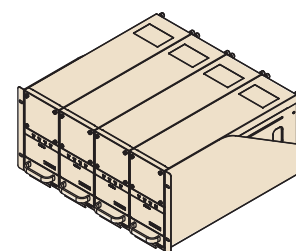
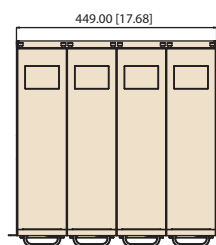
Installation

Single System



Quad System

Unit: mm [inch]



Ordering Information

Part number	Power Supply	80 Plus Grade	Wattage	Type	Input	Switch type
IPC-6025BP-27ZE	96PS-A270WFX	White	270W	Single	AC 100 - 240V (Full Range)	AT Switch

Optional Accessories

Ordering P/N	Description
9892602501E	Rackmount carrier for Quad System solution
IPC-DT-3120E	Mobile rack for dual 2.5" SATA HDDs

Backplane Options

Model	PICMG 1.3/1.0	PCIe	PCI-X	PCI	ISA	PCI/ISA
PCE-5000 Series						
PCE-5B04-20A1E	PICMG 1.3	1 (PCIe x 16)	2	-	-	-
PCE-5B05-02A1E	PICMG 1.3	1 (PCIe x 16) 1 (PCIe x 4)	-	2	-	-
PCE-5B05-03A1E	PICMG 1.3	1 (PCIe x 16)	-	3	-	-
PCE-5B05-04A1E	PICMG 1.3	-	-	4	-	-
PCE-7000 Series						
PCE-7B05-20A1E	PICMG 1.3	2 (PCIe x 8)	2	-	-	-
PCA-6106P4-0A2E	PICMG 1.0	-	-	2	1	1

Intelligent Video and IoT Sensors 1

Intelligent Transportation Platforms 2

Intelligent Inspection Systems 3

Modular IPCs 4

Server-grade IPCs 5

Industrial Storages 6

Video Wall Controllers 7

GPU Servers 8

Industrial Motherboards 9

Slot SBC & Passive Backplanes 10

Compact PCI Platforms 11

Industrial Chassis 12

Industrial Computer Peripherals 13

Industrial Ethernet Solutions 14

IPC-5122

Desktop/Wallmount Chassis for MicroATX Motherboard



Features

- Shockproof drive bay for slim ODD and 3.5" or 2.5" HDD
- Lockable front door prevent unauthorized access
- LED indicators for system fault detection
- Easy-to-maintain system fan and reusable air filter
- Built-in Intelligent System Module enabling whole system fan control and remote manageability

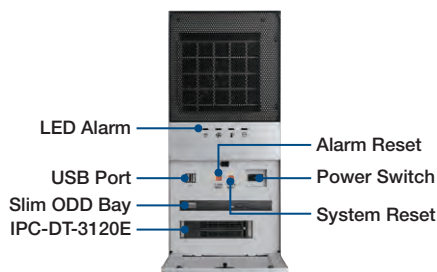
Quiet

CE FCC

Specifications

		External	Internal
Drive Bay	Slim Optical Drive	1	-
	3.5"	1	1
Cooling	Fan	1 (12 cm / 85 CFM)	
	Air Filter	Yes	
Front I/O Interface	USB 2.0	2 (Front accessible)	
Miscellaneous	LED Indicators	Power, HDD, fan and temperature	
	Control	Power switch, alarm reset and system reset buttons	
	Rear Panel	Six 9-pin D-Sub openings	
Intelligent System Module Remote Monitoring	CPU/System fan speed , CPU/System temperature , motherboard voltage (Only selected Advantech MBs/CPU cards with SUSIAccess installed can fully enable these functions, check with Advantech local rep. for detailed information.)		
Environment	Temperature	Operating 0 ~ 40° C (32 ~ 104° F)	Non-Operating -20 ~ 60° C (-4 ~ 140° F)
	Humidity	10 ~ 85% @ 40°C, non-condensing	
	Vibration (5 ~ 500 Hz)	1 Grms	2 G
	Shock	10 G (with 11 ms duration, half sine wave)	30 G
Physical Characteristics	Dimensions (W x H x D)	157 x 360 x 340 mm (6.2" x 14.2" x 13.4")	
	Weight	6.5 kg (14.3 lb)	

Front View



Inside View



Rear View



Note: Hot swap drive bay module and Slim ODD should be bought separately.



Easy-open door

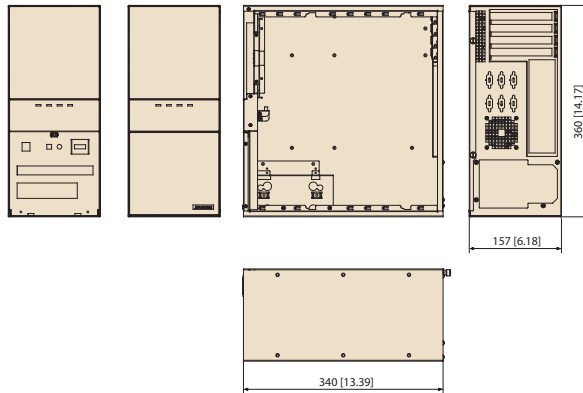


Gently press the hook to pull the air filter out



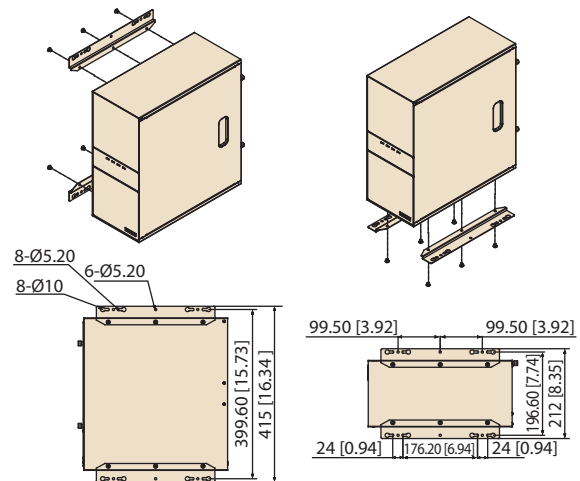
Dimensions

Unit: mm [inch]



Installation

Unit: mm [inch]



Ordering Information

Part Number	Description
IPC-5122-00XE	Without power supply, with ATX switch

Power Supply Options

(For detailed power supply specs, please refer to Chapter 13)

Part number	80 Plus Grade	Wattage	Type	Input
PS8-300ATX-ZBE	Bronze	300W	Single	AC 100-240V (full-range)
PS8-400ATX-ZE	Bronze	400W	Single	AC 100-240V (full-range)

Optional Accessories

Part Number	Description
IPC-DT-3120E	Mobile rack for converting a 3.5" drive bay to dual 2.5" SATA HDD trays

Intelligent Video and IoT Sensors	1
Intelligent Transportation Platforms	2
Intelligent Inspection Systems	3
Modular IPCs	4
Server-grade IPCs	5
Industrial Storages	6
Video Wall Controllers	7
GPU Servers	8
Industrial Motherboards	9
Slot SBC & Passive Backplanes	10
CompactPCI Platforms	11
Industrial Chassis	12
Industrial Computer Peripherals	13
Industrial Ethernet Solutions	14

IPC-7130

Desktop/Wallmount Chassis for ATX/MicroATX Motherboard with Dual Hot-Swap 3.5" Drive Bays



Features

- Shockproof drive bays - One 5.25", two hot-swap 3.5" and one internal 3.5"
- Lockable front door prevent unauthorized access
- LED indicators for system fault detection
- Bidirectional to mount chassis on the wall or workbench
- Built-in Intelligent System Module enabling whole system fan control and remote manageability

Quiet

CE FCC

Specifications

		External	Internal
Disk Drive Bay	5.25"	1	-
	3.5"	-	1
	Hot-Swap	2 (compatible with 3.5" or 2.5" devices)	-
Cooling	Fan	1 (12 cm/73.8 CFM) + 1 (6 cm/21.2 CFM)	
	Air Filters	Yes	
I/O Interface	USB 2.0	2 (Front accessible)	
Miscellaneous	LED Indicators	Power, fan, temperature, HDD	
	Front Panel	Power, HDD, Temp, Fan	
Intelligent System Module Remote Monitoring	CPU/System fan speed , CPU/System temperature , motherboard voltage (Only selected Advantech MBs/CPU cards with SUSIAccess installed can fully enable these functions, check with Advantech local rep. for detailed information.)		
Environment	Temperature	Operating 0 ~ 40° C (32 ~ 122° F)	Non-operating -20 ~ 60° C (-4 ~ 140° F)
	Humidity	10 ~ 85 % @ 40° C, non-condensing	10 ~ 95 % @ 40° C, non-condensing
	Vibration (5-500 Hz)	0.5 Grms	2 G
	Shock	10 G (with 11 ms duration, half sine wave)	30 G
	Physical Characteristics	Dimensions (W x H x D)	200 x 320 x 480 mm (7.9" x 12.6" x 18.9")
	Weight	12.8 kg (28.2 lb)	

Rear View

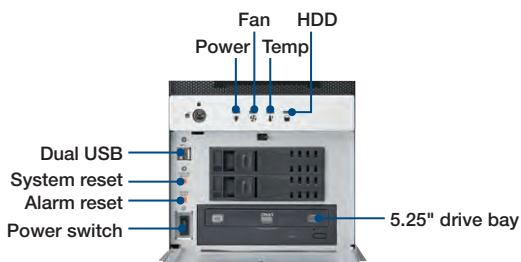


Inside View



Easy-to-maintain power supply bracket

Hold-down clamp

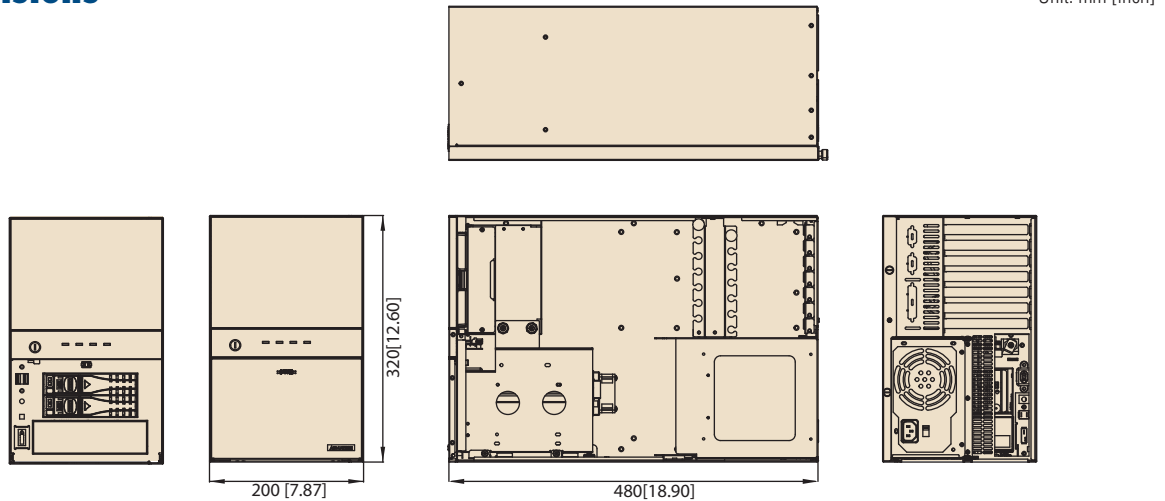


Easy-to-maintain reusable fan filter

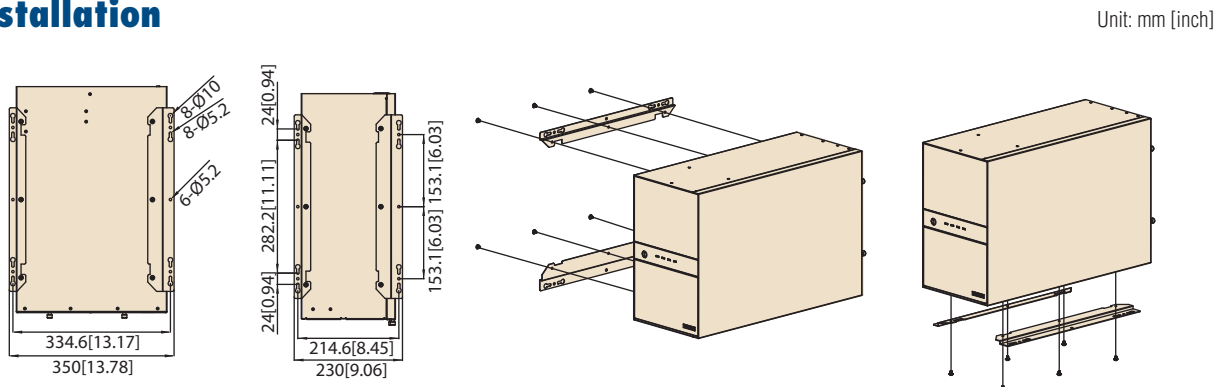


Dual Hot-Swap trays
(Compatible with both 2.5" and 3.5" devices)

Dimensions



Installation



Ordering Information

Part Number	Power Supply
IPC-7130-00XE	Without power supply, with ATX switch

Optional Accessories

Part Number	Description
1750006045	73.84 CFM, System fan 120 x 120 x 25 mm
1750006376	21.22 CFM, HDD fan 60 x 60 x 13 mm

Power Supply Options

Part Number	80 Plus Grade	Wattage	Type	Input
PS8-300ATX-ZBE	Bronze	300W	Single	AC 100 ~ 240V (full range)
PS8-400ATX-ZE	Bronze	400W	Single	AC 100 ~ 240V (full range)
RPS8-350ATX-XE	Gold	350W	1+1 Redundant	AC 100 ~ 240V (full range)
RPS8-500ATX-XE	Bronze	500W	1+1 Redundant	AC 100 ~ 240V (full range)

- Intelligent Video and IoT Sensors 1
- Intelligent Transportation Platforms 2
- Intelligent Inspection Systems 3
- Modular IPCs 4
- Server-grade IPCs 5
- Industrial Storages 6
- Video Wall Controllers 7
- GPU Servers 8
- Industrial Motherboards 9
- Slot SBC & Passive Backplanes 10
- CompactPCI Platforms 11
- Industrial Chassis 12
- Industrial Computer Peripherals 13
- Industrial Ethernet Solutions 14

IPC-7130L

Desktop/Wallmount Chassis for ATX/MicroATX Motherboard



Features

- Stylish design with 7 expansion slots in the rear
- Shock-resistant drive bay holds one 5.25" disk drive and three 3.5" disk drives (two 3.5" HDD trays and one internal 3.5" drive bay)
- Lockable front door prevents unauthorized access
- LED indicators for Power and HDD activity
- Bidirectional options to mount chassis on the wall or workbench

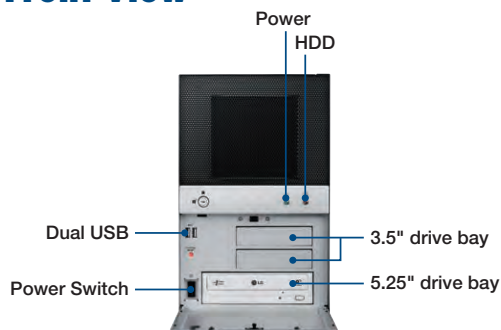
Quiet

CE FCC

Specifications

		External	Internal
Disk Drive Bay	5.25"	1	-
	3.5"	2 SAS/SATA HDDs	1
Cooling	Fan	1 (12 cm/73.8 CFM) + 1 (6 cm/21.2 CFM)	
	Air Filters	Yes	
I/O Interface	USB 2.0	2 (Front accessible)	
Miscellaneous	LED Indicators	Power, HDD	
	Front Panel	Power, HDD	
Environment	Temperature	Operating 0 ~ 40° C (32 ~ 122° F)	Non-operating -20 ~ 60° C (-4 ~ 140° F)
	Humidity	10 ~ 85 % @ 40° C, non-condensing	
	Vibration (5-500 Hz)	0.5 Grms	
	Shock	10 G (with 11 ms duration, half sine wave)	
	Weight	11.11 kg (24.49 lb)	
Physical Characteristics	Dimensions (W x H x D)	200 x 320 x 480 mm (7.9" x 12.6" x 18.9")	
	Weight	11.11 kg (24.49 lb)	

Front View



Rear View

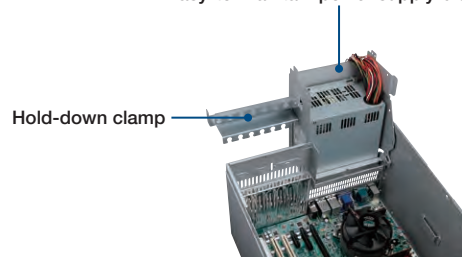


Inside View



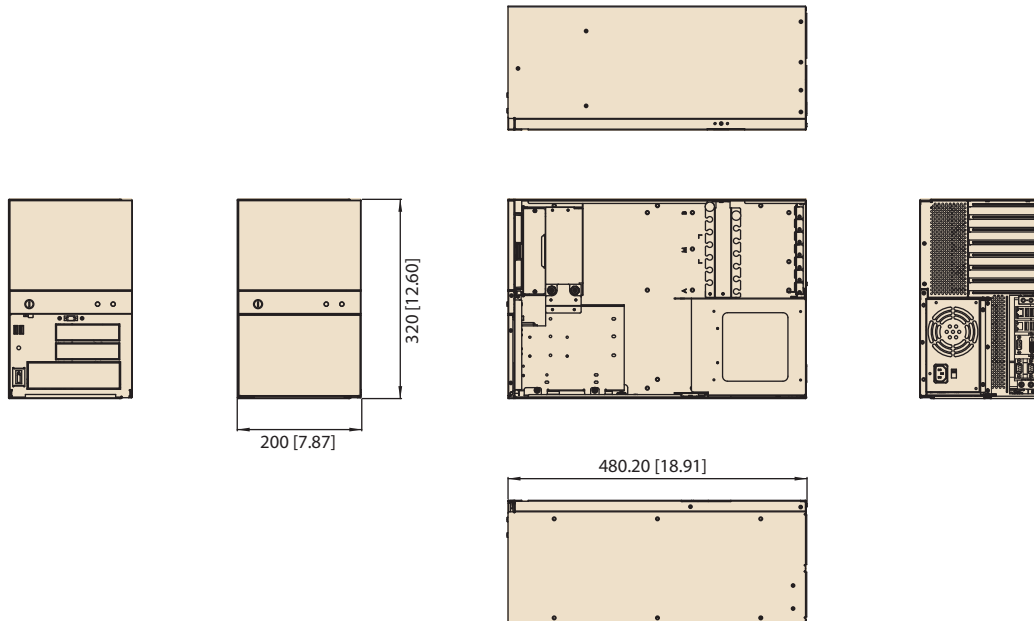
Dual External
3.5" SAS/SATA HDD trays

Easy-to-maintain power supply bracket



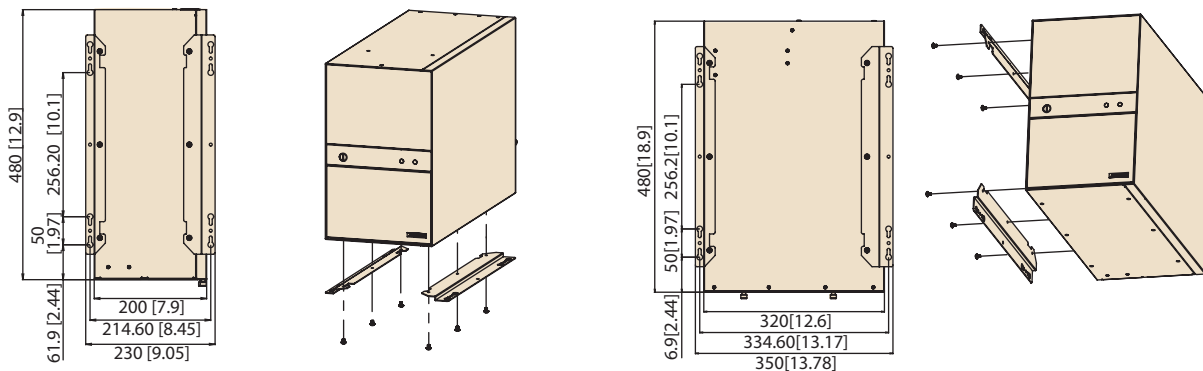
Dimensions

Unit: mm [inch]



Installation

Unit: mm [inch]



Ordering Information

Part Number	Power Supply
IPC-7130L-00XE	W/O PSU , with ATX switch

Optional Accessories

Part Number	Description
1750006045	73.84 CFM, System fan 120 x 120 x 25 mm
1750006376	21.22 CFM, HDD fan 60 x 60 x 13 mm
IPC-DT-3120E	Mobile rack for converting a 3.5" drive bay to dual 2.5" SATA HDD trays

Power Supply Options

Part Number	80 Plus Grade	Wattage	Type	Input
PS8-300ATX-ZBE	Bronze	300W	Single	AC 100 ~ 240V (full range)
PS8-400ATX-ZE	Bronze	400W	Single	AC 100 ~ 240V (full range)
RPS8-350ATX-XE	Gold	350W	1+1 Redundant	AC 100 ~ 240V (full range)
RPS8-500ATX-XE	Bronze	500W	1+1 Redundant	AC 100 ~ 240V (full range)

- Intelligent Video and IoT Sensors **1**
- Intelligent Transportation Platforms **2**
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- Modular IPCs **4**
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- Industrial Storages **6**
- Video Wall Controllers **7**
- GPU Servers **8**
- Industrial Motherboards **9**
- Slot SBC & Passive Backplanes **10**
- CompactPCI Platforms **11**
- Industrial Chassis **12**
- Industrial Computer Peripherals **13**
- Industrial Ethernet Solutions **14**

IPC-100

1U Compact Fanless System with Intel® Atom™ N450 on Board



Features

- Elegant, ultra-compact fanless system
- Built-in Intel® Atom™ processor N450 1.66 GHz
- Comprehensive I/O: dual gigabit Ethernet, 8 USB, 3 COM, 1 VGA
- 1 PCI and 1 mini-PCIe expansion slots
- Open frame AC to +12 V_{DC} 60 W power supply
- Anti-vibration design for 2.5" HDD-bay to ensure maximum reliability



Specifications

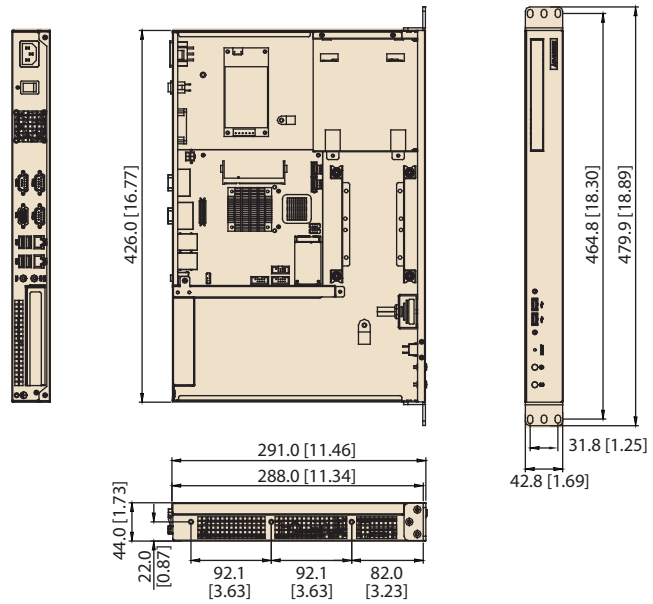
Processor System	CPU	Intel Atom Processor N450 1.66 GHz	
	L2 Cache	512 KB	
	Chipset	ICH8M	
	BIOS	AMI 16 MB SPI	
Memory	Technology	Single Channel DDR2 667MHz	
	Max. Capacity	200-pin SODIMM x1 up to 2 GB	
Expansion Slot	PCI	1 (32-bit/33 MHz) via PCI riser card (P/N: 989KC1000E)	
	Mini-PCIe	1	
Graphics	Chipset	Embedded Gen3.5+ GFX Core	
	Display Memory	Shared system memory up to 224 MB SDRAM	
	VGA	Supports up to SXGA 1400 x 1050 @ 60 Hz	
Ethernet	Interface	10/100/1000 Mbps	
	Controller	GbE LAN1: Intel 82567V; GbE LAN2: Intel 82583V	
	Connector	2 x RJ-45 connectors	
Watchdog Timer	Output	System reset	
	Interval	Programmable, 1~255 sec/min	
Storage Interface	2.5" HDD Bay	1 (SATA)	
	slim ODD	1 (SATA)	
I/O Interface	USB	8 (4 on rear, 2 on front, 2 internal)	
	Serial	3 (1 of RS-232/422/485, 2 of RS-232)	
	Ethernet	2	
	Audio	2 (Mic-in, Line-out)	
	VGA	1	
Miscellaneous	LED Indicators	Power, HDD	
	Control	AT power switch (on rear), system reset button (on front)	
Environment	Operating Temp.	Operating 0 ~ 40° C (32 ~ 104° F)	Non-operating -20 ~ 60° C (-4 ~ 140° F)
	Operating Humidity	10 ~ 85% @ 40° C, non-condensing	
	Vibration (5~500 Hz)	1 Grms	2 G
	Shock	10 G (with 11 ms duration, half sine wave)	30 G
	Physical Characteristics	Dimensions (W x H x D)	480 x 44 x 288 mm (19" x 1.7" x 11.4")
	Net Weight	3.6 kg / 7.92 lb	

* The motherboard only supports 2 SATA connectors.

* If IPC-100 is operated in an environment without any air flow, the environmental temperature should be no higher than 25° C.

- Intelligent Video and IoT Sensors **1**
- Intelligent Transportation Platforms **2**
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- Slot SBC & Passive Backplanes **10**
- Compact PCI Platforms **11**
- Industrial Chassis **12**
- Industrial Computer Peripherals **13**
- Industrial Ethernet Solutions **14**

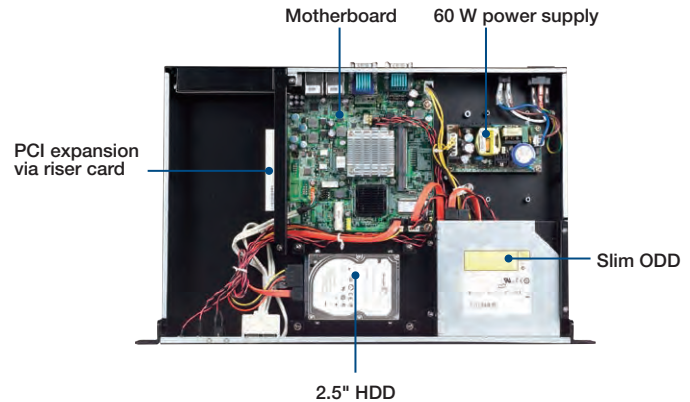
Dimensions



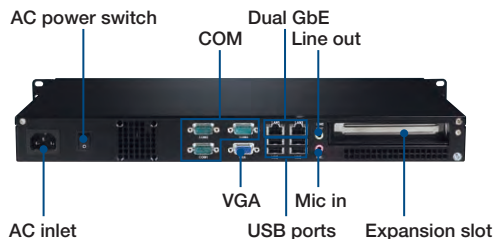
Front View



Inside View



Rear View



System Ordering Information

Part Number	CPU	Power supply	Expansion	Display	SATA	USB	COM	Audio
IPC-100-60SE	Intel Atom N450 1.66 GHz	AC to DC +12 V 60 W	1 x PCI (optional) 1 x Mini PCIe	VGA	2	8	3	2

Packing List

Description	Quantity
IPC-100 system	x 1
SATA power cable for HDD	x 1
SATA signal cable for HDD & slim ODD	x 2
SATA power cable for slim ODD	x 1
Mounting bracket	x 2
User manual	x 1
Driver CD	x 1

Optional Accessories

Part Number	Description
989KC10000E	1U riser card for 1 PCI expansion

IPC-120

Cost Effective Compact 1U Rackmount Chassis for Half-size SBC



CE FCC

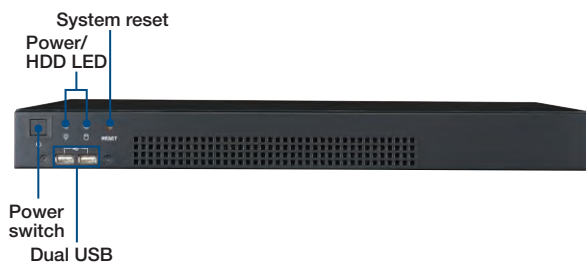
Features

- Compact, space-saving 1U rackmount chassis
- Supports half-size SBC and up to 2 expansion cards
- Supports 80plus single power supply up to 350W
- Optional fan kit for cooling high performance add-on card

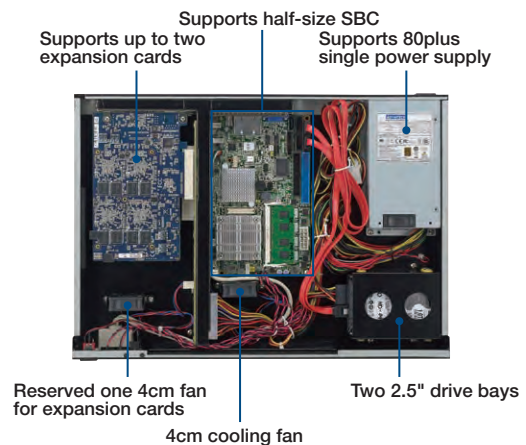
Specifications

Drive Bay	2.5"	Internal	
		2	
Cooling	Fan	1 (4 cm / 6.5 CFM)	
	Air Filter	Yes	
Front I/O Interface	USB	2	
Miscellaneous	LED Indicators	Power, HDD	
	Rear Panel	Two 9-pin D-Sub openings	
Environment		Operating	Non-Operating
	Temperature	0 ~ 40° C (32 ~ 104° F)	-40 ~ 70° C (-40 ~ 156° F)
	Humidity	10 ~ 95% @ 40° C, non-condensing	10 ~ 95% @ 60° C, non-condensing
	Vibration (5 ~ 500 Hz)	1 Grms	2 G
	Shock	10 G (with 11 ms duration, half sine wave)	
Physical Characteristics	Dimensions (W x H x D)	480 x 44 x 300 mm (19" x 1.7" x 11.8")	
	Weight	3.1 kg (6.82 lb)	

Front View



Inside View



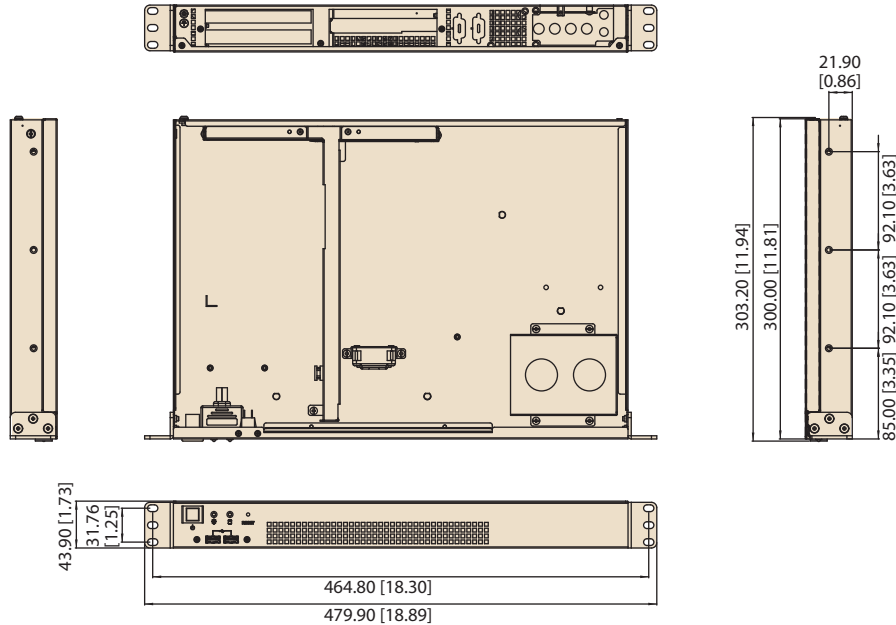
Rear View



*Note: Backplane, SBC, motherboard, power supply, and add-on cards are not included.

Dimensions

Unit: mm [inch]



Ordering Information

Part Number	Description
IPC-120BP-00XE	W/O power supply , with ATX switch
PCI-7103P1V-01A1E	PCI Half-Size BP, 3 slot, 1 PCI, 1 PCIe4

Power Supply Options

Part Number	80 Plus Grade	Wattage	Type	Input
PS8-250FATX-XE	Bronze	250W	Single	AC 100 ~ 240V (full range)
PSB-350FATX-XE	Bronze	350W	Single	AC 100 ~ 240V (full range)

Spare Parts

Part Number	Description	Quantity
2130014149T000	Fan Filter for IPC-120	
Optional FAN Upgrade Kit		
1750006377	Fan	1
1962601090	Fan Guard	1
1960019654N00B	Fan Holder	1
1930000074	Screws for fixing Fan and Fan Guard	4
1933030500	Screws for fixing Fan assembly	2

CPU Card Options

Part Number	Description
PCI-7031DF-S6A1E	Half-sized SBC Atom D510 w/PCIex4
PCI-7032F-00A1E	Half-sized SBC Celeron J1900 w/PCIex1 and four PCI

- Intelligent Video and IoT Sensors **1**
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- GPU Servers **8**
- Industrial Motherboards **9**
- Slot SBC & Passive Backplanes **10**
- Compact PCI Platforms **11**
- Industrial Chassis **12**
- Industrial Computer Peripherals **13**
- Industrial Ethernet Solutions **14**

ACP-1010

1U Rackmount Chassis for Full-size SHB/SBC or ATX/MicroATX Motherboard



Features

- Support full-size SHB/SBC or ATX/MicroATX motherboards
- LED indicators for Power, HDD, Temperature, Fan, LAN1 and LAN2
- Support up to 2 expansion slots in BP version, and 1 expansion slot via riser card in MB version
- Support both 250W/350W Flex ATX/PFC power supply

CE FCC

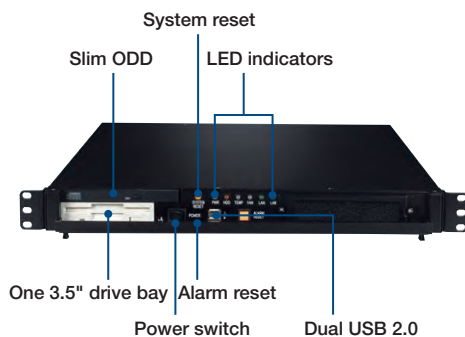
Specifications

		External	Internal
Driver bay	Slim Optical Disk Drive	1	-
	3.5"	1	1*
	2.5"	-	2*
Cooling	Fan	BP: 4 (4 cm/24 CFM x 3 + 15 CFM x 1) MB: 2 (4 cm/24 CFM each)	
Front I/O Interface	USB 2.0	2	
Miscellaneous	Notification LEDs	System: Power, HDD, Temperature, Fan, LAN1 and LAN2	
	Control	Power switch, system reset & alarm reset button	
	Rear panel	One 9-pin D-Sub opening	
Environment	Temperature	Operating 0 ~ 40° C (32 ~ 104° F)	Non-Operating -20 ~ 60° C (-4 ~ 140° F)
	Humidity	10 ~ 85% @ 40° C, non-condensing	10 ~ 95% @ 40° C, non-condensing
	Vibration (5 ~ 500 Hz)	0.5 Grms	2 Grms
	Shock	10 G (with 11 ms duration, half sine wave)	30 G
	Physical Characteristics	Dimensions (W x H x D)	480 x 44 x 497 mm (19" x 1.7" x 19.6")
	Weight	8 kg (17.6 lb)	

* ACP-1010MB version can choose to be 1x3.5" or 2x2.5" as internal drive bay.

* ACP-1010 support up to CPU 65W under 35° C for thermal concern.

Front View



Back View



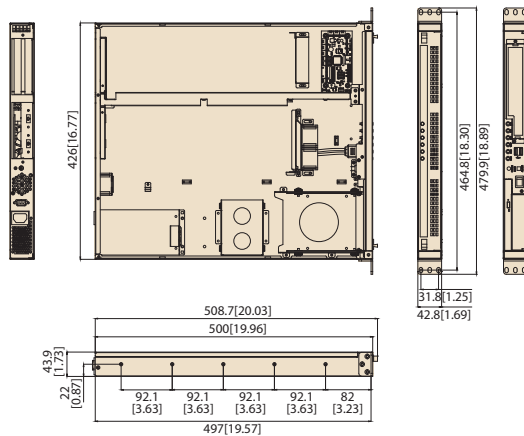
ACP-1010BP



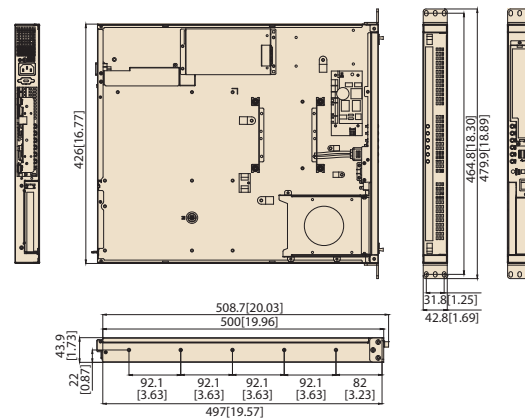
ACP-1010MB

Dimensions

ACP-1010BP



ACP-1010MB



Unit: mm [inch]

Ordering Information

Part Number	Description
Backplane Version	
ACP-1010BP-00BE	BP version W/O PSU
Motherboard Version	
ACP-1010MB-00BE	MB version W/O PSU

*ACP-1010MB does not support AIMB-763, 542, 562 and 564 because the height of the audio connector is over 1U.

Power Supply Options

(For detailed power supply specs, please refer to Chapter 13)

Part Number	80 Plus Bronze	Wattage	Type	Input
PS8-250FATX-XE	Bronze	250W	Single	AC 100 ~ 240 V (full range)
PS8-350FATX-XE	Bronze	350W	Single	AC 100 ~ 240 V (full range)

Spare Parts

Part Name	Description
2130007889S000	Filter 170 x 32 x 5 mm for ACP-1010
9662132020E	Black mobile HDD tray

Optional Accessories

Part Name	Description
96CB-SATAPOWER-6P1	SATA power wire 6-pin to big 4-pin (for slim ODD)
I/O shield	
1960055954T000	I/O shield for AIMB-701/781/782/581
1960048353T000	I/O shield for AIMB-767/769/780/566/580
1960063225N001	I/O bracket for ASMB-584
19Z0000406T000	I/O shield for ASMB-781/782
1960048321T010	I/O shield for ASMB-822i
19Z0000747T000	I/O shield for ASMB-784
19Z0001023T000	I/O shield for ASMB-584

Backplane Options

Part Name	Slot	CPU Card
PICMG 1.3		
PCE-5B03V-01A1E	One CPU, one PCIe x16, one PCI (32-bit/33MHz)	PCE-5000 Series
PCE-5B03V-00A1E	One CPU, one PCIe x16, one PCIe x4	
PCE-7B03V-01A1E	One CPU, one PCIe x8, one PCI	PCE-7000 Series
PCE-7B03V-00A1E	One CPU, two PCIe x8	
PICMG 1.0		
989K610302E (PCA-6103P2V-0A2E)	One CPU, 2 PCI (320bit/33MHz)	PICMG 1.0 Full-Size SBC

Intelligent Video and IoT Sensors	1
Intelligent Transportation Platforms	2
Intelligent Inspection Systems	3
Modular IPCs	4
Server-grade IPCs	5
Industrial Storages	6
Video Wall Controllers	7
GPU Servers	8
Industrial Motherboards	9
Slot SBC & Passive Backplanes	10
Compact PCI Platforms	11
Industrial Chassis	12
Industrial Computer Peripherals	13
Industrial Ethernet Solutions	14

IPC-603

2U 3-Slot Rackmount Chassis for ATX/ MicroATX Motherboard with Front I/O



CE FCC

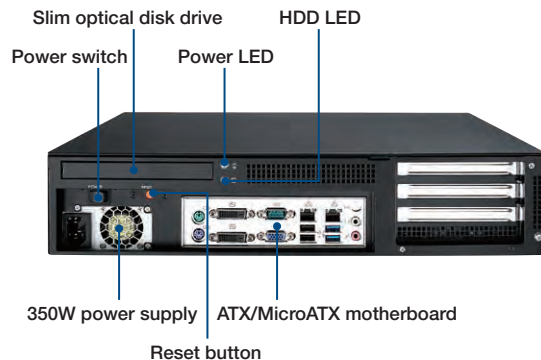
Features

- The best embedded computing system for machinery applications
- Streamlined in-chassis airflow design supporting LGA775 Intel® Pentium® 4 processor up to 3.8 GHz with suggested CPU cooler
- All I/O interfaces are in the front
- Shock resistant disk drive bay designed to hold one slim CD-ROM and one internal 3.5" HDD
- Equipped with 350W single power supply
- Easy-to-replace air filters

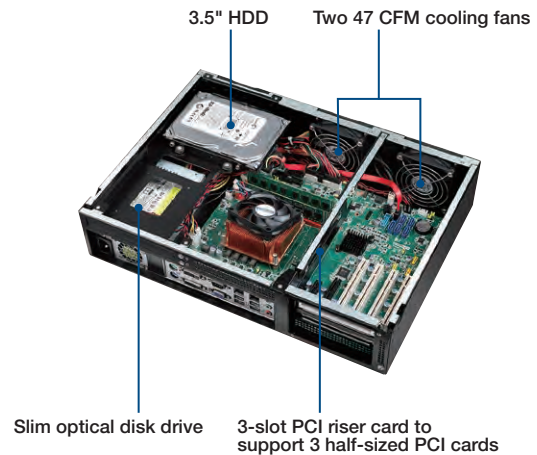
Specifications

		External	Internal
Drive Bay	Slim Optical Disk Drive	1	-
	3.5"	-	1
Cooling	Fan	2 (8 cm/47 CFM each)	
	Air Filters	3 (85 x 80 mm)	
Miscellaneous	Notification LEDs	Power & HDD activity	
Environment	Temperature	Operating 0 ~ 40° C (32 ~ 104° F)	Non-Operating -20 ~ 60° C (-4 ~ 140° F)
	Humidity	10 ~ 85% @ 40° C, non-condensing	10 ~ 95% @ 40° C, non-condensing
	Vibration (5 ~ 500 Hz)	1 Grms	2 G
	Shock	10 G (with 11 ms duration, half sine wave)	30 G
	Physical Characteristics	Dimensions (W x H x D)	482 x 88 x 308 mm (19" x 3.46" x 12.1")
	Weight	6.4 kg (14.1 lb)	

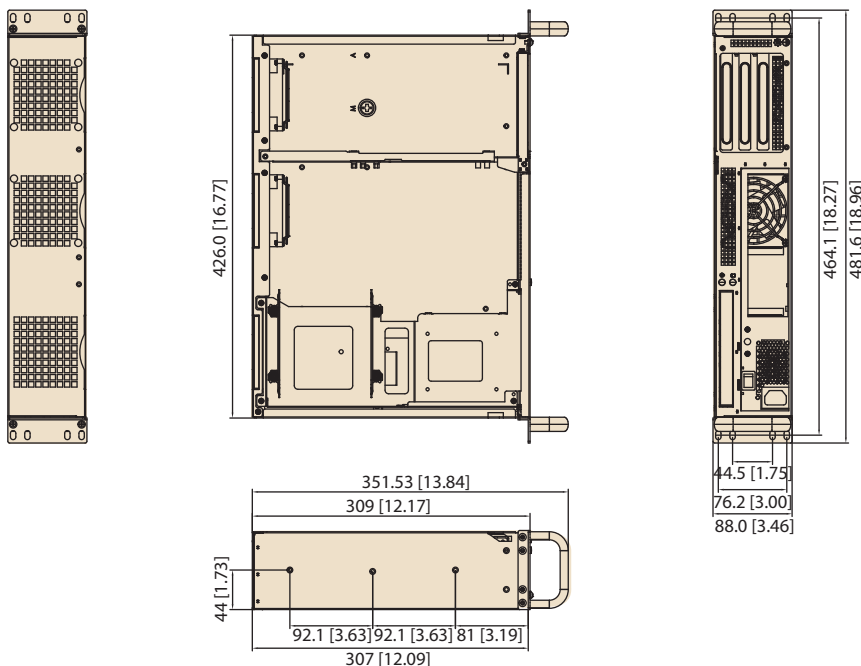
Front View



Inside View



Dimensions



Ordering Information

Part Number	Power Supply P/N	Wattage	Type	Input
IPC-603MB-35BE	96PS-A350WFX-2	350W	Single	AC 100 ~ 240 V full range

Optional Accessories

Part Number	Description
96CB-SATAPOWER-6P1	SATA power wire 6-pin to big 4-pin (for slim ODD)
1960022033T000	2U LGA775 P4 CPU cooler up to 3.4 GHz (84 W)

Spare Parts

Part Number	Description
2130004795S000	Fan filter 80 x 85 x 5 mm

- Intelligent Video and IoT Sensors **1**
- Intelligent Transportation Platforms **2**
- Intelligent Inspection Systems **3**
- Modular IPCs **4**
- Server-grade IPCs **5**
- Industrial Storages **6**
- Video Wall Controllers **7**
- GPU Servers **8**
- Industrial Motherboards **9**
- Slot SBC & Passive Backplanes **10**
- CompactPCI Platforms **11**
- Industrial Chassis **12**
- Industrial Computer Peripherals **13**
- Industrial Ethernet Solutions **14**

ACP-2000/ IPC-602

2U 6-Slot Rackmount Chassis with Front USB and PS/2 Interfaces



Features

- 2U rackmount chassis supports up to 6 cards
- Butterfly backplane design
- Front-accessible USB and PS/2 connectors
- 250W / 300W AC ATX and DC power supply options
- Two 40 CFM cooling fans with air filter
- Lockable front door prevents unauthorized access

Features with ACP-2000 only:

- System alarm notification by front LED indicators
- Built-in Intelligent System Module enabling whole system fan control and remote manageability

CE FCC

Specifications

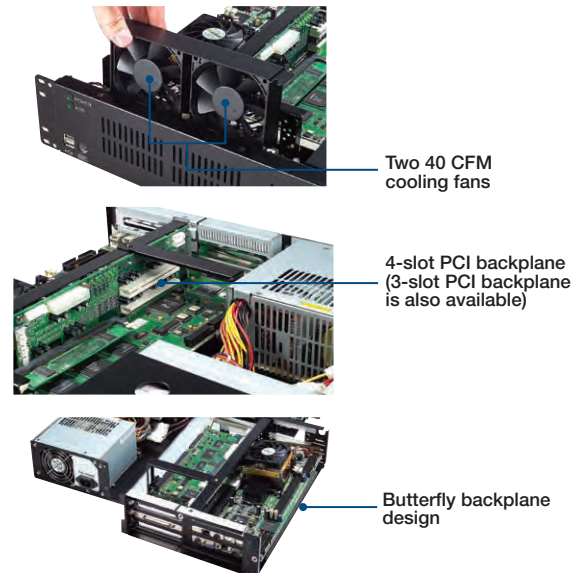
		External	Internal
Drive Bay	Slim Optical Disk Drive	1/-	-
	3.5"	2/1	-/1
	5.25"	-/1	-
Cooling	Fan	2 (8 cm / 47 CFM each) / 2 (8 cm / 40 CFM each)	
	Air Filter	Yes	
Front I/O Interface	USB	2	
	PS/2	1	
Miscellaneous	LED Indicators	Power and HDD activity; fan and temperature for ACP-2000 only	
	Rear Panel	One 9-pin D-Sub opening	
Intelligent System Module Remote Monitoring	CPU/System fan speed , CPU/System temperature , motherboard voltage (Only selected Advantech MBs/CPU cards with SUSIAccess installed can fully enable these functions, check with Advantech local rep. for detailed information.) (This feature only enabled in ACP-2000)		
Environment	Temperature	Operating 0 ~ 40° C (32 ~ 104° F)	Non-Operating -20 ~ 60° C (-4 ~ 140° F)
	Humidity	10 ~ 85% @ 40° C, non-condensing	
	Vibration (5 ~ 500 Hz)	0.5 Grms	
	Shock	10 G (with 11 ms duration, half sine wave)	
		2 G	
Physical Characteristics	Dimensions (W x H x D)	482 x 88 x 451 mm (19" x 3.5" x 17.8")	
	Weight	11.5 kg (25.3 lb) / 11.3 kg (24.9 lb)	

Front View

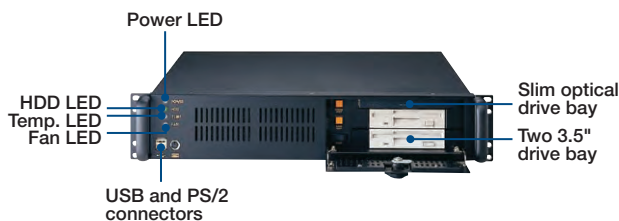
IPC-602



Inside View



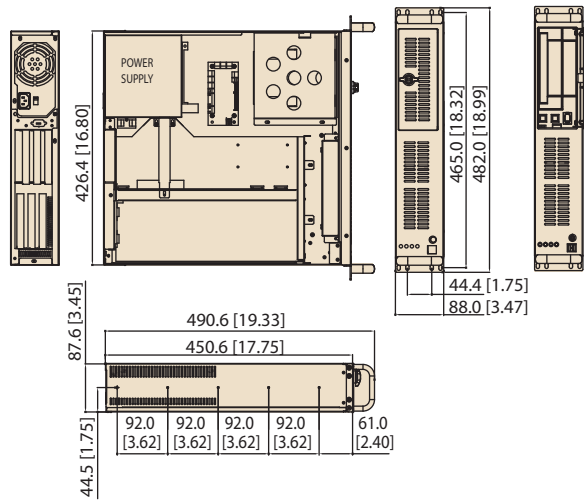
ACP-2000



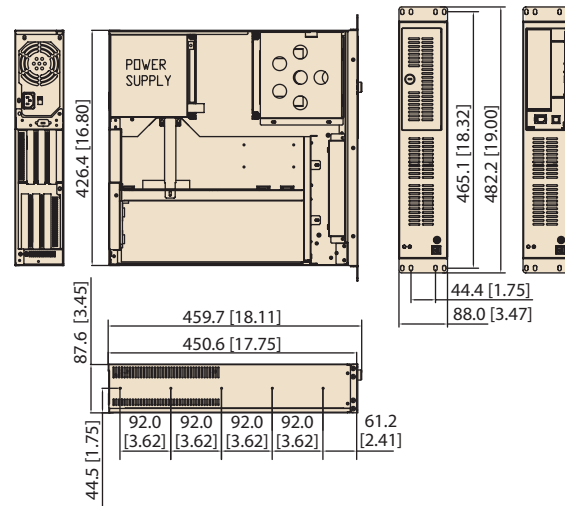
Dimensions

Unit: mm [inch]

ACP-2000



IPC-602



Ordering Information

Part Number	Power Supply	Backplane
PICMG 1.0		
ACP-2000P3-00BE	Without power supply, with ATX switch	989K610622E (PCA-6106P3V)
ACP-2000P4-00BE	Without power supply, with ATX switch	989K610512E (PCA-6105P4V)
PICMG 1.3		
ACP-2000EBP-00BE	Without power supply, with ATX switch	-
IPC-602EBP-00XBE	Without power supply, with ATX switch	-

Power Supply Options

Part Number	80 Plus Grade	Wattage	Type	Input
PS8-250FATX-XE (IPC-602 only)	Bronze	250W	Single	AC 100 ~ 240 V (full range)
PS8-300ATX-ZBE	Bronze	300W	Single	AC 100 ~ 240 V (full range)
PS8-400ATX-ZE	Bronze	400W	Single	AC 100 ~ 240 V (full range)
PS-300ATX-DC48E	-	300W	Single	DC -48 V
RPS-300ATX-ZE (ACP-2000 only)	-	300W	(1+1) Redundant	AC 100 ~ 240 V (full range)

Optional Accessories

Part Number	Description
1950000868T00B	P3 card cage
1950000869N002	P4 card cage
96CB-SATAPOWER-6P1	SATA power wire 6-pin to big 4-pin (for slim ODD)
IPC-DT-3120E	Mobile rack for converting a 3.5" drive bay to dual 2.5" SATA HDD trays

Spare Parts

Part Number	Description
2130006189S000	Filter behind the door 156 x 45 x 5 mm
1990001949	Filter in the front of the fans 165 x 58 mm

- Intelligent Video and IoT Sensors **1**
- Intelligent Transportation Platforms **2**
- Intelligent Inspection Systems **3**
- Modular IPCs **4**
- Server-grade IPCs **5**
- Industrial Storages **6**
- Video Wall Controllers **7**
- GPU Servers **8**
- Industrial Motherboards **9**
- Slot SBC & Passive Backplanes **10**
- CompactPCI Platforms **11**
- Industrial Chassis **12**
- Industrial Computer Peripherals **13**
- Industrial Ethernet Solutions **14**

ACP-2010/2320

2U Rackmount Chassis for ATX/ MicroATX Motherboard with Low-Profile Rear Bracket Option



Features

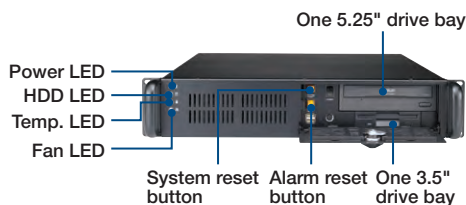
- LED indicators and audible alarm notification for system fault detection
- ACP-2010: One 5.25" and three 3.5 Shock-resistant drive bays
- ACP-2320: One Slim optical disk drive, two internal 3.5" drives and dual hot-swap SAS/SATA HDD trays
- Various riser card options to support three full-size PCI or PCIe cards for expansion
- Supports 300W / 400W ATX PFC power supply
- Reusable and washable air filters
- Built-in Intelligent System Module enabling whole system fan control and remote manageability

CE FCC

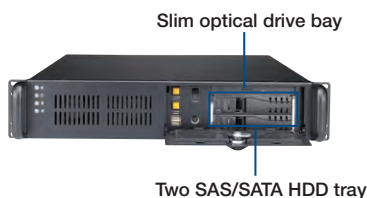
Specifications

		External	Internal
Drive Bay	Slim Optical Disk Drive	- / 1	-
	5.25"	1 / 0	-
	3.5"	1 / 2	2 / 2
	Hot Swap	- / 2 (mobile trays compatible with 2.5" HDD/SSD)	-
Cooling	Fan	2 (8 cm /47 CFM each) / 2 (8 cm /47 CFM each) + 1 (6 cm /28 CFM) for SAS/SATA storage unit	
	Air Filters	Yes	
	Smart Fan	System fan speed referring to chassis thermal sensor, or CPU temperature (Available with selected Advantech MBs/CPU cards)	
Front I/O Interface	USB 2.0	2	
	PS/2	1	
Miscellaneous	LED Indicators	Power, HDD, temperature, fan	
	Rear Panel	Two 9-pin D-Sub openings	
Intelligent System Module Remote Monitoring	CPU/System fan speed, CPU/System temperature, motherboard voltage (Only selected Advantech MBs/CPU cards with SUSIAccess installed can fully enable these functions, check with Advantech local rep. for detailed information.)		
Environment		Operating	Non-operating
	Temperature	0 ~ 40° C (32 ~ 104° F)	-20 ~ 60° C (-4 ~ 140° F)
	Humidity	10 ~ 85% @ 40° C, non-condensing	
	Vibration (5 ~ 500 Hz)	1 Grms	2 G
	Shock	10 G (with 11 ms duration, half sine wave)	30 G
Physical Characteristics	Dimensions (W x H x D)	482 x 88 x 480 mm (19" x 3.46" x 18.9")	
	Weight	10.7 kg (23.5 lb) / 11.7 kg (25.7 lb)	

Front View

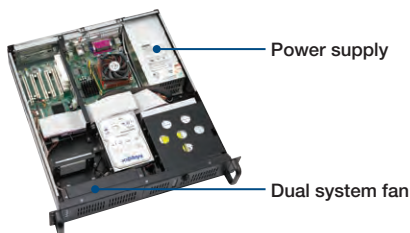


ACP-2010

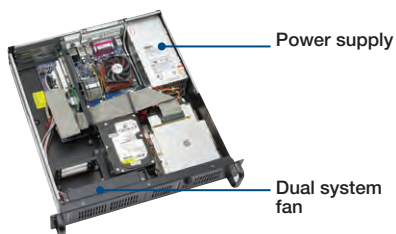


ACP-2320

Inside View



ACP-2010



ACP-2320

Rear View



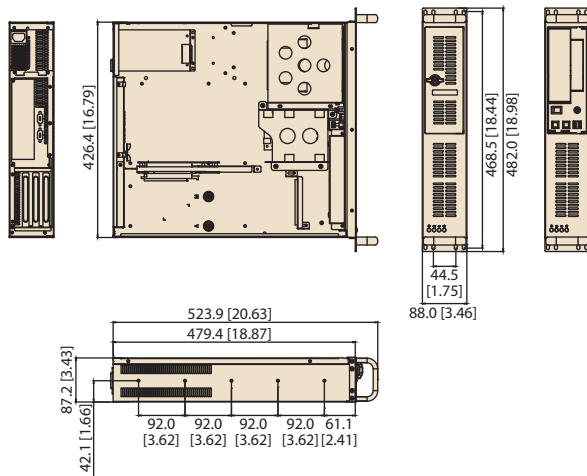
Rear I/O bracket for low profile add-on cards



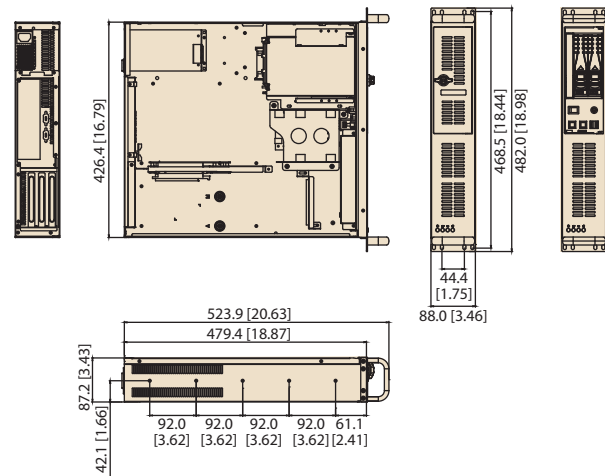
Dimensions

Unit: mm [inch]

ACP-2010



ACP-2320



Ordering Information

Part Number	Power Supply
ACP-2010MB-00CE	Without power supply
ACP-2320MB-00CE	Without power supply

Power Supply Options

Part Number	80 Plus Grade	Wattage	Type	Input
PS8-250FATX-XE	Bronze	250W	Single	AC 100 ~ 240 V (full range)
PS8-350FATX-XE	Bronze	350W	Single	AC 100 ~ 240 V (full range)
96PS-A400WFX-1	Gold	400W	Single	AC 100 ~ 240 V (full range)
96PSR-A250W2U	non-80 Plus	250W	(1+1) Redundant	AC 100 ~ 240 V (full range)

Optional Accessories

Part Number	Description
1950014302N001	Special bracket for riser card AIMB-RP3P8-12A1E
96CB-SATAPOWER-6P1	SATA power wire 6-pin to big 4-pin (for slim ODD)
IPC-DT-3120E	Mobile rack for converting a 3.5" drive bay to dual 2.5" SATA HDD trays
Rear I/O panel kit for low-profile add-on cards	
1939000361	Screw (should purchase 7 pcs)
1960034816N000	I/O bracket (should purchase 7 pcs)
1960019475T201	Rear panel for low-profile

Spare Parts

Part Number	Description
9662132020E	Black mobile HDD tray
1990007986S000	Filter behind the door 156 x 45 x 5 mm
1990001949	Filter in the front of the fans 168 x 58 mm

- Intelligent Video and IoT Sensors 1
- Intelligent Transportation Platforms 2
- Intelligent Inspection Systems 3
- Modular IPCs 4
- Server-grade IPCs 5
- Industrial Storages 6
- Video Wall Controllers 7
- GPU Servers 8
- Industrial Motherboards 9
- Slot SBC & Passive Backplanes 10
- CompactPCI Platforms 11
- Industrial Chassis 12
- Industrial Computer Peripherals 13
- Industrial Ethernet Solutions 14

IPC-510

Economical 4U Rackmount Chassis with Front USB and PS/2 Interfaces



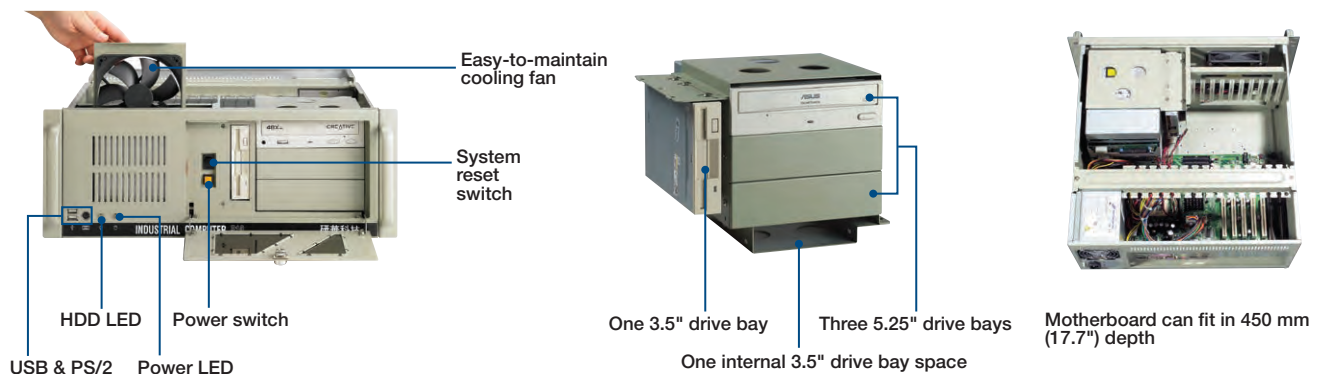
Features

- The most cost-effective rackmount chassis
- Supports PS/2 single power supply
- Easy to install front-accessible drive bays to hold three 5.25" and two 3.5" drives (one front-accessible & one internal)
- Front-accessible USB & PS/2 interfaces
- Designed to withstand environmental extremes, such as shock, vibration and high temperature

CE FCC

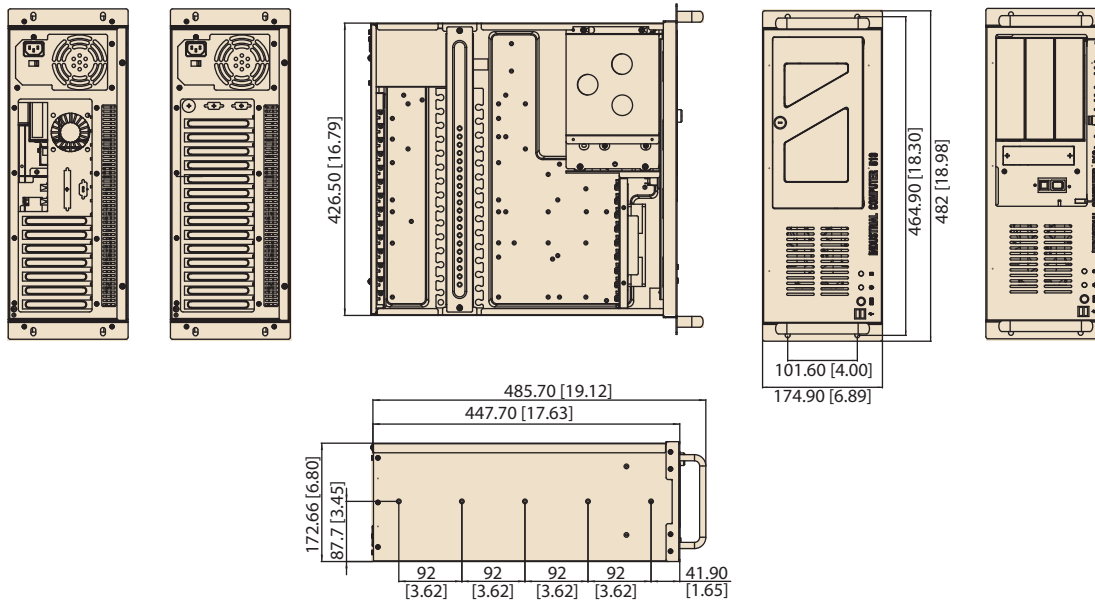
Specifications

Drive Bay	5.25"	External 3	Internal -
	3.5"	1	1
Cooling	Fan	1 (12 cm / 77 CFM)	
	Air Filter	Yes	
Front I/O Interface	USB	2	
	PS/2	1	
Miscellaneous	LED Indicators	Power and HDD activity	
	Rear Panel	Backplane version: Two 9-pin D-Sub openings Motherboard version: One 9-pin D-Sub and one 68-pin SCSI openings	
Environment	Temperature	Operating 0 ~ 40° C (32 ~ 104° F)	Non-Operating -20 ~ 60° C (-4 ~ 140° F)
	Humidity	10 ~ 85% @ 40° C, non-condensing	
	Vibration (5 ~ 500 Hz)	1 Grms	2 G
	Shock	10 G (with 11 ms duration, half sine wave)	30 G
	Physical Characteristics	Dimensions (W x H x D)	486 x 177 x 446 mm (19" x 7" x 17.6")
	Weight	10.7 kg (23.5 lb)	



Dimensions

Unit: mm [inch]



Ordering Information

Part Number	Power Supply
Backplane Version	
IPC-510BP-00XBE	Without power supply, with ATX switch
IPC-510BP-30CE	96PS-A300WPS2
Motherboard Version	
IPC-510MB-00XBE	Without power supply, with ATX switch
IPC-510MB-30CE	96PS-A300WPS2

Power Supply Options

Part Number	80 Plus Grade	Wattage	Type	Input
PS8-250ATX-ZE	Bronze	250W	Single	AC 100 ~ 240V (full range)
PS8-300ATX-ZBE	Bronze	300W	Single	AC 100 ~ 240V (full range)
PS8-400ATX-ZE	Bronze	400W	Single	AC 100 ~ 240V (full range)

Optional Accessories

Part Number	Description
IPC-DT-3120E	Mobile rack for converting a 3.5" drive bay to dual 2.5" SATA HDD trays
IPC-DT-5230E	Mobile rack for converting dual 5.25" drive bays to three 3.5" SAS/SATA HDD trays

Spare Parts

Part Number	Description
2130006190S000	Fan filter 120 x 100 x 15 mm

- Intelligent Video and IoT Sensors **1**
- Intelligent Transportation Platforms **2**
- Intelligent Inspection Systems **3**
- Modular IPCs **4**
- Server-grade IPCs **5**
- Industrial Storages **6**
- Video Wall Controllers **7**
- GPU Servers **8**
- Industrial Motherboards **9**
- Slot SBC & Passive Backplanes **10**
- CompactPCI Platforms **11**
- Industrial Chassis **12**
- Industrial Computer Peripherals **13**
- Industrial Ethernet Solutions **14**

IPC-610-L/ IPC-611

4U 15-Slot Rackmount Chassis with Front-Accessible Fan



IPC-610-L

Features

- Supports an ATX motherboard or a backplane with up to 15 slots
- Shock-resistant disk drive bay design holds up to three 5.25" and one 3.5" disk drives
- Special hold-down clamp design with rubber cushions protects the cards from shocks and vibrations
- Power and HDD activity notification improves system availability
- Front-accessible air filter for easy system maintenance
- Lockable front door prevents unauthorized access
- Flexible mechanical design supports both 300W single PS/2 and redundant ATX power supply

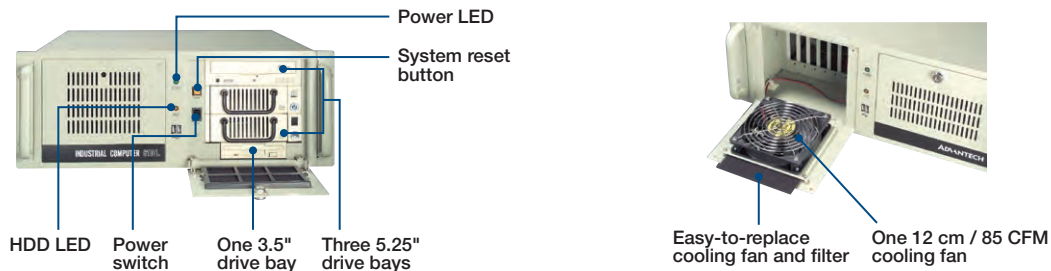
CE FCC

Specifications

Drive Bay	3.5"	External	1
	5.25"		3
Cooling	Fan		1 (12 cm / 85 CFM)
	Air Filter		Yes
Miscellaneous	LED Indicators	Power and HDD activity	
	Control	Power switch and system reset button	
	Rear Panel	Backplane version: One 9-pin D-Sub opening Motherboard version: Five 9-pin D-Sub & one 68-pin SCSI openings	
Environment	Temperature	Operating	Non-Operating
	Humidity	0 ~ 40° C (32 ~ 104° F)	-20 ~ 60° C (-4 ~ 140° F)
	Vibration (5 ~ 500 Hz)	10 ~ 85 % @ 40° C, non-condensing	10 ~ 95 % @ 40° C, non-condensing
	Shock	1 Grms	2 G
Physical Characteristics	Color / Logo	IPC-610-L: Beige / Advantech Logo IPC-611: Black / No Logo	
	Dimensions (W x H x D)	482 x 177 x 480 mm (19" x 7" x 18.9")	
	Weight	14.5 kg (31.9 lb) / 14.2 kg (31.2 lb)	

Front View

IPC-610-L

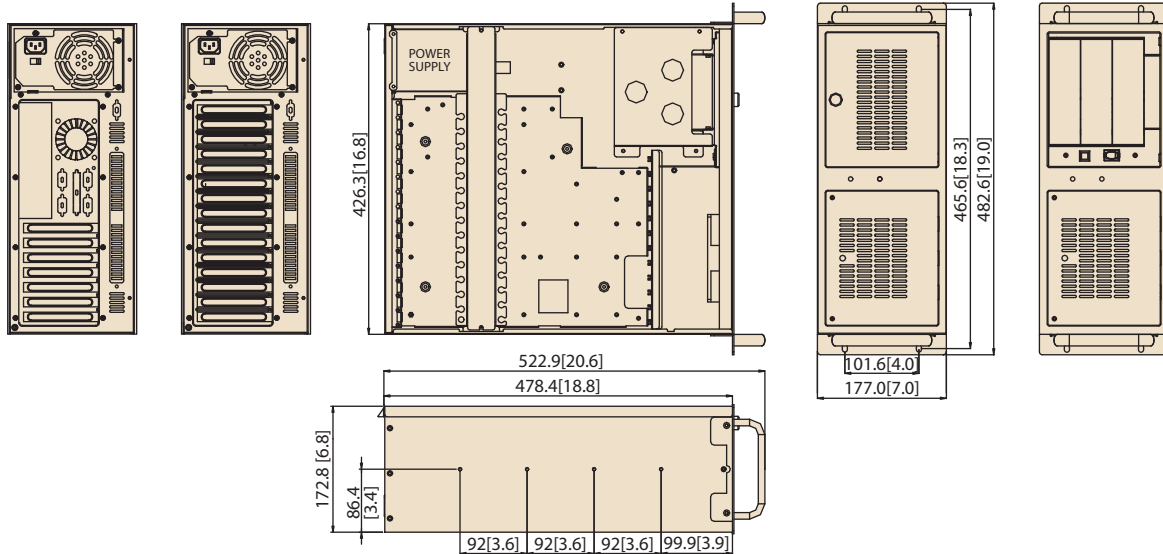


IPC-611



Dimensions

Unit: mm [inch]



Ordering Information

Part Number	Power Supply
Backplane Version	
IPC-610BP-00LBE	Without power supply, with ATX/AT switch
IPC-611BP-00XBE	Without power supply, with ATX switch
Motherboard Version	
IPC-610MB-00LBE	Without power supply, with ATX switch
IPC-611MB-00XBE	Without power supply, with ATX switch

Power Supply Options

(For detailed power supply specs, please refer to Chapter 13)

Part Number	80 Plus Grade	Wattage	Type	Input
PS8-250ATX-ZE	Bronze	250W	Single	AC 100 ~ 240 (full range)
PS8-300ATX-ZBE	Bronze	300W	Single	AC 100 ~ 240 (full range)
RPS8-350ATX-XE	Gold	350W	1+1 Redundant	AC 100 ~ 240 (full range)
RPS8-500ATX-XE	Bronze	500W	1+1 Redundant	AC 100 ~ 240 (full range)

Optional Accessories

Part Number	Description
IPC-DT-5230E	Mobile rack for converting dual 5.25" drive bays to three 3.5" SAS/SATA HDD trays

Spare Parts

Part Number	Description
2130006149S000	Fan filter 127 x 127 x 5 mm
2130004802S000	Door filter 142 x 97 x 5 mm

- Intelligent Video and IoT Sensors **1**
- Intelligent Transportation Platforms **2**
- Intelligent Inspection Systems **3**
- Modular IPCs **4**
- Server-grade IPCs **5**
- Industrial Storages **6**
- Video Wall Controllers **7**
- GPU Servers **8**
- Industrial Motherboards **9**
- Slot SBC & Passive Backplanes **10**
- CompactPCI Platforms **11**
- Industrial Chassis **12**
- Industrial Computer Peripherals **13**
- Industrial Ethernet Solutions **14**

IPC-610-H

4U Rackmount Chassis with Visual Alarm Notification



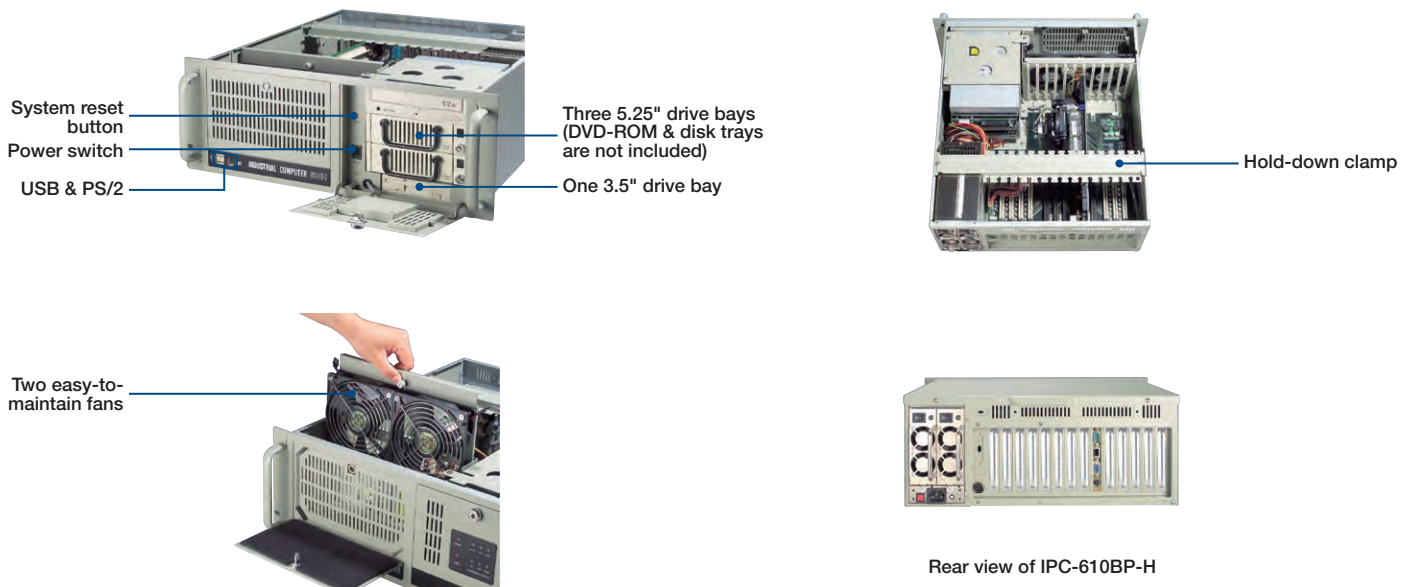
Features

- 4U rackmount chassis supports up to 15 add-on cards
- Shock-resistant disk drive bay design holds up to three 5.25" and one 3.5" disk drives
- Front accessible USB & PS/2 interfaces for easy data transfer
- Dual front-accessible filtered cooling fans provide optimized and streamlined airflow
- Front LEDs indicate power status, and HDD activity
- Lockable front door prevents unauthorized access
- Supports single PS/2 and redundant ATX power supplies

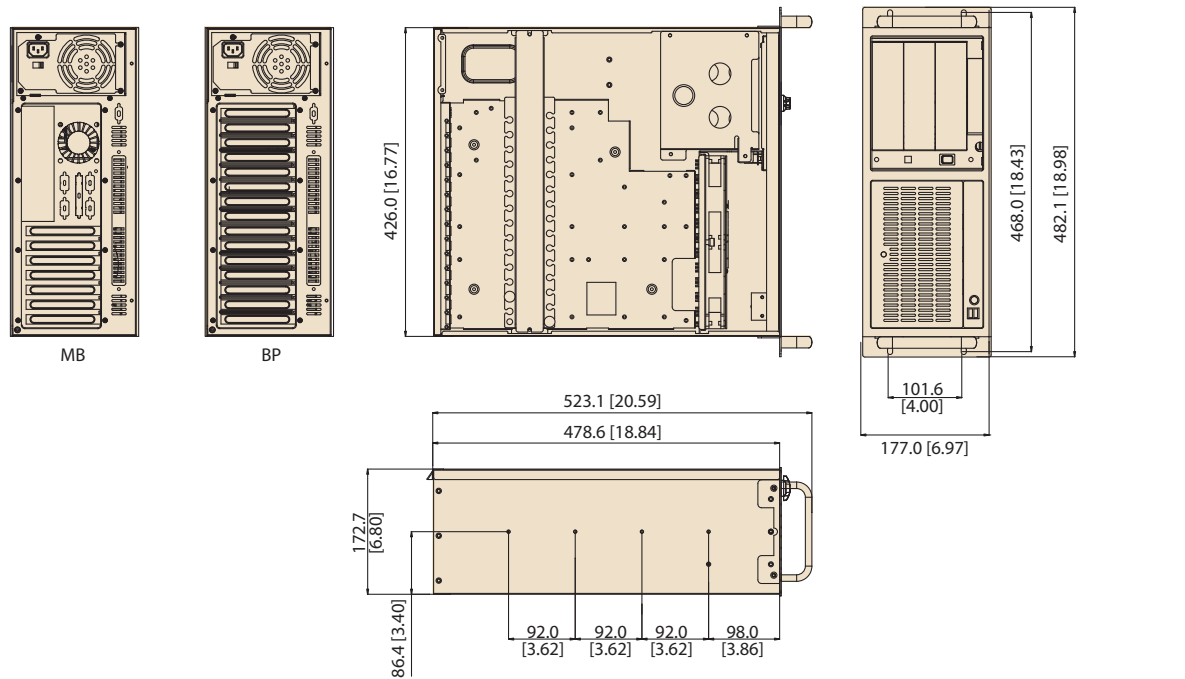
CE FCC

Specifications

Drive Bay	3.5"	External	1
	5.25"		3
Cooling	Fan		2 (12 cm / 85 CFM each)
	Air Filter		Yes
Front I/O Interface	USB		2
	PS/2		1
Miscellaneous	LED Indicators	Power, HDD, and power voltage status	
	Rear Panel	Backplane version: One 9-pin D-Sub opening Motherboard version: Five 9-pin D-Sub & one 68-pin SCSI openings	
Environment	Temperature	Operating	Non-Operating
	Humidity	0 ~ 40° C (32 ~ 104° F)	-20 ~ 60° C (-4 ~ 140° F)
	Vibration (5 ~ 500 Hz)	10 ~ 85% @ 40° C, non-condensing	10 ~ 95% @ 40° C, non-condensing
	Shock	1 Grms	2 G
Physical Characteristics	Dimensions (W x H x D)	10 G (with 11 ms duration, half sine wave)	30 G
	Weight	482 x 177 x 479 mm (19" x 7" x 18.9")	15 kg (33 lb)



Dimensions



Ordering Information

Part Number	Power Supply
Backplane Version	
IPC-610BP-00XHE	Without power supply, with ATX switch
IPC-610BP-30HBE	96PS-A300WPS2
IPC-610BP-40HBE	96PS-A400WPS2
IPC-610BP-50HBE	96PS-A500WPS2
Motherboard Version	
IPC-610MB-00XHE	Without power supply, with ATX switch
IPC-610MB-30HBE	96PS-A300WPS2
IPC-610MB-40HBE	96PS-A400WPS2
IPC-610MB-50HBE	96PS-A500WPS2

Power Supply Options

(For detailed power supply specs, please refer to Chapter 13)

Part Number	80 Plus Grade	Wattage	Type	Input
PS8-300ATX-ZBE	Bronze	300W	Single	AC 100 ~ 240 (full range)
PS8-400ATX-ZE	Bronze	400W	Single	AC 100 ~ 240 (full range)
PS8-500ATX-ZE	Bronze	500W	Single	AC 100 ~ 240 (full range)
PS-300ATX-DC48E	-	300W	Single	DC - 48V
RPS8-350ATX-XE	Gold	350W	1+1 Redundant	AC 100 ~ 240 (full range)
RPS8-500ATX-XE	Bronze	500W	1+1 Redundant	AC 100 ~ 240 (full range)

Optional Accessories

Part Number	Description
1700006916	ATX 24P/20P + 4P + 15P 60cm (connecting from power supply to LED board)
1700006917	Two Mini DIN (connect to MB) / 6P (connect to front I/O board) PS2 KB/Mouse cable
IPC-DT-5230E	Mobile rack for converting dual 5.25" drive bays to three 3.5" SAS/SATA HDD trays

* If users use AIMB-763 or 3rd party motherboard, they need to purchase 1700006915 or 1700006916 for the front voltage LEDs to function normally. And they also need to purchase 1700006917 to make front PS/2 function normally.

Spare Parts

Part Number	Description
2130006147S000	Door filter 97.6 x 36.6 x 5 mm
2130004803S000	Fan filter 115 x 195 x 5 mm

Intelligent Video and IoT Sensors	1
Intelligent Transportation Platforms	2
Intelligent Inspection Systems	3
Modular IPCs	4
Server-grade IPCs	5
Industrial Storages	6
Video Wall Controllers	7
GPU Servers	8
Industrial Motherboards	9
Slot SBC & Passive Backplanes	10
CompactPCI Platforms	11
Industrial Chassis	12
Industrial Computer Peripherals	13
Industrial Ethernet Solutions	14

IPC-610-F

Classic 4U 15-Slot Rackmount Chassis



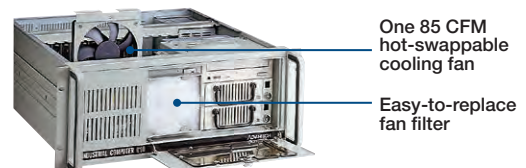
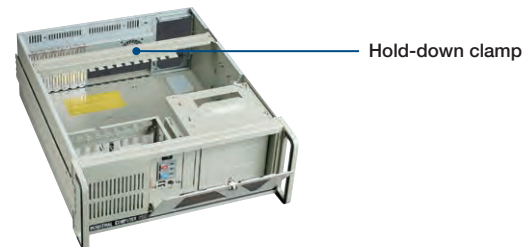
Features

- 4U rackmount chassis supports up to 15 cards
- Shock-resistant disk drive bay design holds up to three 5.25" and two 3.5" (one front-accessible & one internal) disk drives
- Special hold-down clamp design with rubber cushions protects the cards from shock and vibration
- Power and HDD activity notification improves system availability
- Front-accessible air filter for easy system maintenance
- Lockable front door prevents unauthorized access
- 300W / 400W AC and 300W DC ATX power supply options

CE FCC

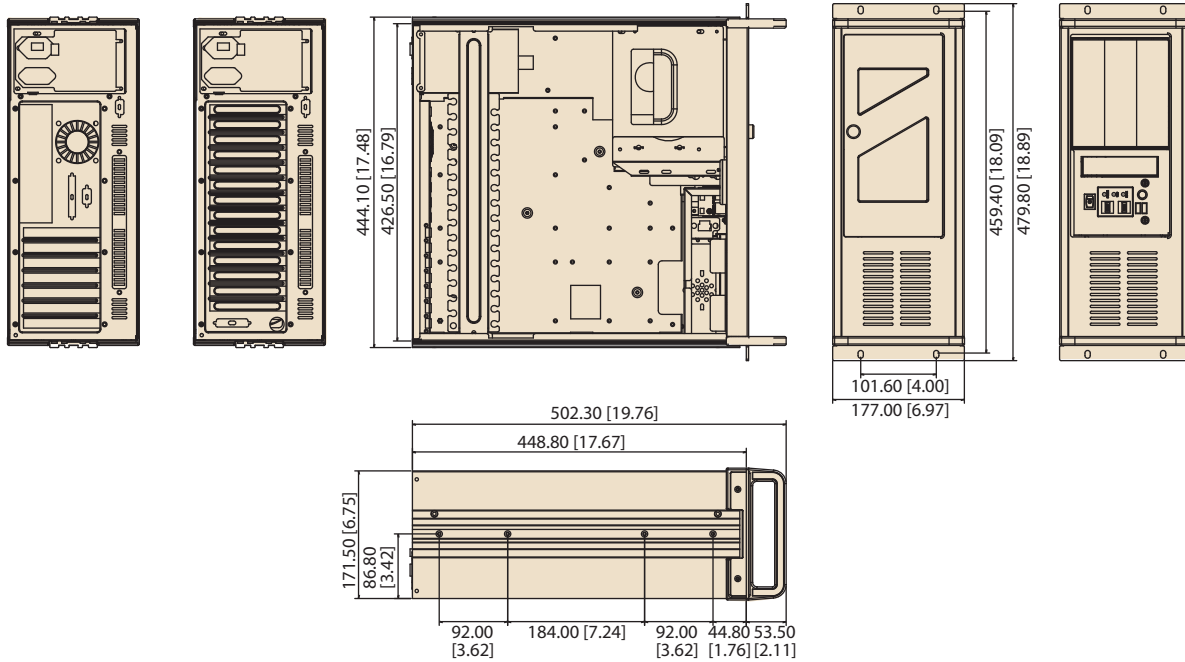
Specifications

		External	Internal
Drive Bay	3.5"	1	1
	5.25"	3	-
Cooling	Fan	1 (12 cm / 85 CFM)	
	Air Filter	Yes	
Front I/O Interface	USB	2	
	PS/2	1	
Miscellaneous	LED Indicators	Power, HDD, keyboard lock	
	Control	Power, system reset and keyboard lock switches	
	Rear Panel	Backplane version: One 9-pin D-Sub opening Motherboard version: Five 9-pin D-Sub & one 68-pin SCSI openings	
Environment	Temperature	Operating 0 ~ 40° C (32 ~ 104° F)	Non-Operating -20 ~ 60° C (-4 ~ 140° F)
	Humidity	10 ~ 85% @ 40° C, non-condensing	
	Vibration (5 ~ 500 Hz)	1 Grms	2 G
	Shock	10 G (with 11 ms duration, half sine wave)	30 G
	Physical Characteristics	Dimensions (W x H x D)	IPC-610BP: 482 x 177 x 449 mm (19" x 7" x 17.8") IPC-610MB: 482 x 177 x 499 mm (19" x 7" x 19.6")
	Weight	16.2 kg (35.6 lb)	



Dimensions

Unit: mm [inch]



Ordering Information

Part Number	Power Supply
Backplane Version	
IPC-610BP-00FEE	Without power supply, with ATX switch
IPC-610BP-30FEE	96PS-A300WPS2
Motherboard Version	
IPC-610MB-00FEE	Without power supply, with ATX switch
IPC-610MB-30FEE	96PS-A300WPS2

Power Supply Options

(For detailed power supply specs, please refer to Chapter 13)

Part Number	80 Plus Grade	Wattage	Type	Input
PS8-300ATX-ZBE	Bronze	300W	Single	AC 100 ~ 240 (full range)
PS8-400ATX-ZE	Bronze	400W	Single	AC 100 ~ 240 (full range)
PS-300ATX-DC48E	-	300W	Single	DC - 48V
RPS8-350ATX-XE	Gold	350W	1+1 Redundant	AC 100 ~ 240 (full range)
RPS8-500ATX-XE	Bronze	500W	1+1 Redundant	AC 100 ~ 240 (full range)

Optional Accessories

Part Number	Description
IPC-DT-3120E	Mobile rack for converting a 3.5" drive bay to dual 2.5" SATA HDD trays
IPC-DT-5230E	Mobile rack for converting dual 5.25" drive bays to three 3.5" SAS/SATA HDD trays

Spare Parts

Part Number	Description
2130006190S000	Fan filter 120 x 100 x 15 mm

- Intelligent Video and IoT Sensors 1
- Intelligent Transportation Platforms 2
- Intelligent Inspection Systems 3
- Modular IPCs 4
- Server-grade IPCs 5
- Industrial Storages 6
- Video Wall Controllers 7
- GPU Servers 8
- Industrial Motherboards 9
- Slot SBC & Passive Backplanes 10
- CompactPCI Platforms 11
- Industrial Chassis 12
- Industrial Computer Peripherals 13
- Industrial Ethernet Solutions 14

IPC-619

Short-depth 4U rackmount chassis for full-size SBC



CE FCC

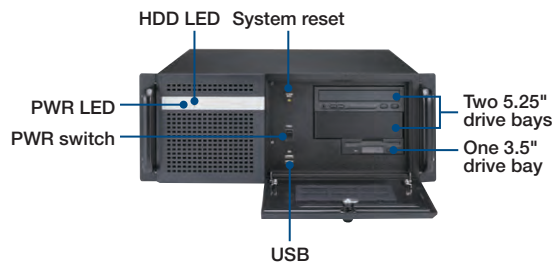
Features

- Space-saving 4U rackmount chassis, with only 429 mm depth
- Supports backplanes up to 14 slots
- Shock-resistant drive bay design supports up to two 5.25" and one 3.5" disk drives
- Power supply options up to 400W PS/2 single power

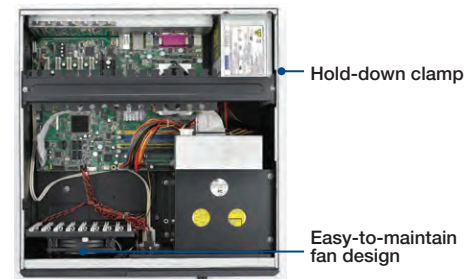
Specifications

Drive Bay	5.25"	External	2
	3.5"		1
Cooling	Fans		1 (12 cm/85 CFM)
	Air Filters		Yes
I/O interfaces	USB		2 (front-accessible)
Miscellaneous	Notification LEDs		PWR, HDD
	Control		Power switch and system reset button
	Rear Panel		One 9-pin D-Sub opening
Environment		Operating	Non-Operating
	Temperature	0 ~ 40° C (32 ~ 104° F)	-20 ~ 60° C (-4 ~ 140° F)
	Humidity	10 ~ 85% @ 40° C, non-condensing	10 ~ 95% @ 40° C, non-condensing
	Vibration (5-500 Hz)	1 Grms	2 G
	Shock	10 G (with 11 ms duration, half sine wave)	30 G
Physical	Dimensions (W x H x D)	482 x 177 x 430 mm (19" x 7" x 16.9")	
	Weight	15 kg (33 lb)	

Front View

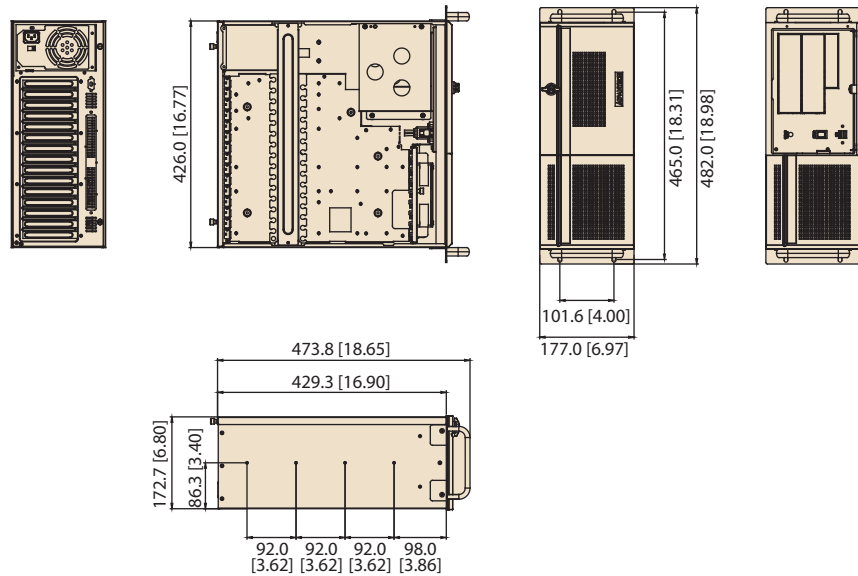


Inside View



Dimensions

Unit: mm [inch]



Ordering Information

Model Name	Power Supply
IPC-619BP-00XE	Without power supply, with ATX switch

Power Supply Options

Part Number	80 Plus Grade	Wattage	Type	Input
PS8-250ATX-ZE	Bronze	250W	Single	AC 100 ~ 240V (full range)
PS8-300ATX-ZBE	Bronze	300W	Single	AC 100 ~ 240V (full range)
PS8-400ATX-ZE	Bronze	400W	Single	AC 100 ~ 240V (full range)

Optional Accessories

Part Name	Description
1990001298	Door filter 150 x 68 mm
1990001299	Fan filter 95 x 130 mm
1750002121	Fan 120 x 120 x 25 mm
IPC-DT-3120E	Mobile rack for converting a 3.5" drive bay to dual 2.5" SATA HDD trays
IPC-DT-5230E	Mobile rack for converting dual 5.25" drive bays to three 3.5" SAS/SATA HDD trays

- Intelligent Video and IoT Sensors **1**
- Intelligent Transportation Platforms **2**
- Intelligent Inspection Systems **3**
- Modular IPCs **4**
- Server-grade IPCs **5**
- Industrial Storages **6**
- Video Wall Controllers **7**
- GPU Servers **8**
- Industrial Motherboards **9**
- Slot SBC & Passive Backplanes **10**
- CompactPCI Platforms **11**
- Industrial Chassis **12**
- Industrial Computer Peripherals **13**
- Industrial Ethernet Solutions **14**

ACP-4020

348mm Depth 4U Rackmount Chassis for Half-sized SBC or ATX Motherboard



Features

- Compact 4U rackmount chassis, with only 348mm depth
- Supports 14-slot BP for half-size SBC or ATX/MicroATX motherboard
- Shock-resistant disk drive bay holds one internal 2.5", and two front-accessible 3.5" drives, plus one slim optical disk drive
- Dual front USB 3.0 ports
- Front-accessible system fan without opening top cover for easy maintenance
- LED indicators and alarm notification for system fault detection
- Smart fan speed control
- Built-in Intelligent System Module enabling whole system fan control and remote manageability

Quiet

CE FCC

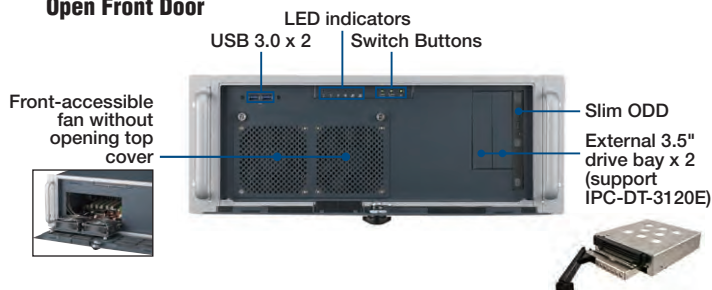
Specifications

		External	Internal
Drive Bay	Slim ODD	1	-
	3.5"	2	-
	2.5"	-	1
Cooling	Fan	2 (9 cm / 53 CFM)	
	Air Filter	Yes	
Front I/O Interface	USB 3.0*	2	
Miscellaneous	LED Indicators	Power, HDD, temperature, fan, LAN1, and LAN2	
	Rear Panel	Backplane version: One 9-pin D-Sub opening Motherboard version: Five 9-pin D-Sub and one 68-pin SCSI openings	
Intelligent System Module Remote Monitoring	CPU/System fan speed, CPU/System temperature, motherboard voltage (Only selected Advantech MBs/CPU cards with SUSIAccess installed can fully enable these functions, check with Advantech local rep. for detailed information.)		
Environment	Temperature	Operating 0 ~ 40° C (32 ~ 104° F)	Non-Operating -40 ~ 70° C (-40 ~ 156° F)
	Humidity	10 ~ 95% @ 40° C, non-condensing	
	Vibration (5 ~ 500 Hz)	1 Grms	2 G
	Shock	10 G (with 11 ms duration, half sine wave)	
	Dimensions (W x H x D)	482 x 177 x 348 mm (19" x 7.0" x 13.7")	
Physical Characteristics	Weight	8.5 kg (18.7 lb)	

* The USB ports do not operate if a main board without on-board USB 3.0 internal box header is installed.

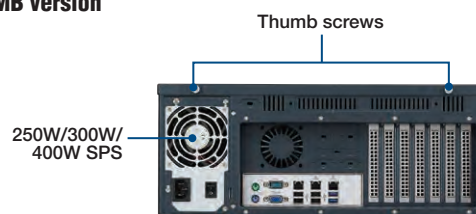
Front View

Open Front Door

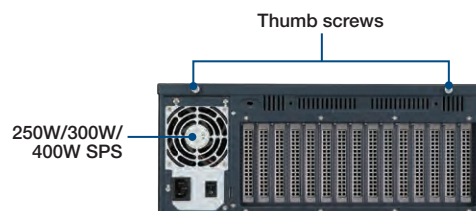


Rear View

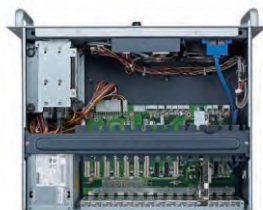
MB version



BP version

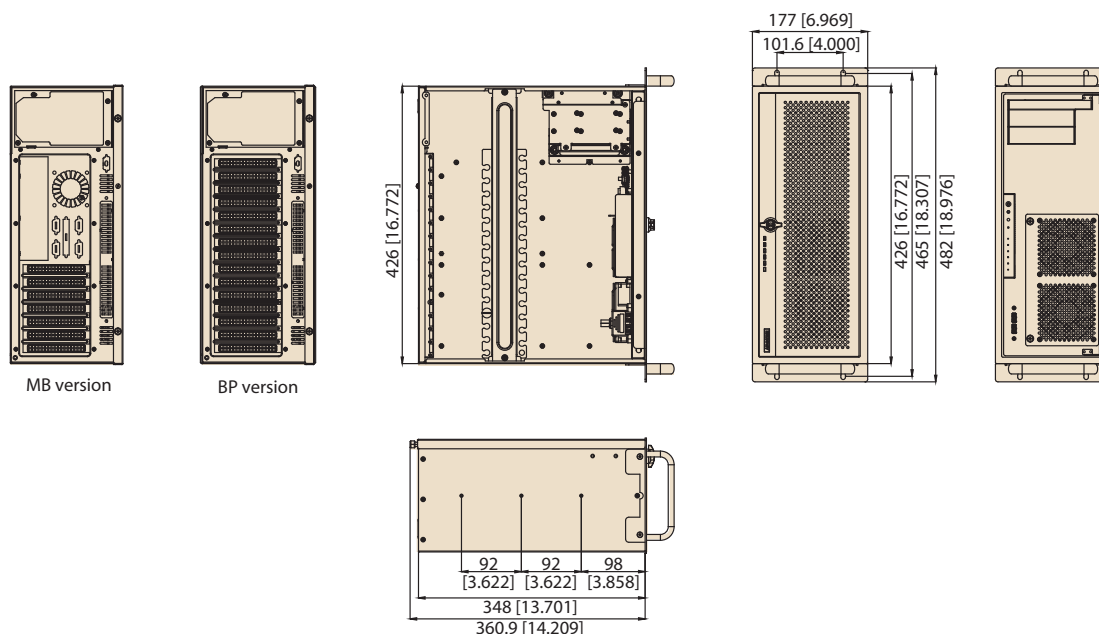


Inside View



Dimensions

Unit: mm [inch]



Ordering Information

Part Number	Description
ACP-4020BP-00XE	Backplane version without power supply
ACP-4020MB-00XE	Motherboard version without power supply

Power Supply Options

Part Number	80 Plus Grade	Wattage	Type	Input
PS8-250ATX-ZE	Bronze	250W	Single	AC 100 ~ 240 V (full range)
PS8-300ATX-ZBE	Bronze	300W	Single	AC 100 ~ 240 V (full range)
PS8-400ZTX-ZE	Bronze	400W	Single	AC 100 ~ 240 V (full range)

Optional Accessories

Part Number	Description
IPC-DT-3120E	Drive bay module converting 1 3.5" to 2 hot-swap 2.5"
989K008734	Bracket to fix two 2.5" devices in a 3.5" drive bay
9680006905	Slide rail for ACP-4020
96CB-SATAPOWER-6P1	SATA power wire 6-pin to big 4-pin (for slim ODD)

Supported CPU Cards

Part Number	Description
PCE-3028G2-00A1E	PICMG 1.3 half-sized SBC w/ 4th Gen. Core i CPU, front USB 3.0
PCE-4128G2-00A1E	PICMG 1.3 half-sized SBC w/ Xeon E3-12XX v3 CPU, front USB 3.0

Supported Backplanes

Part Number	Description
PCE-3B12-08	PICMG 1.3 BP with 1 PCIe x 16, 2 PCIe x 1, 8 PCI slots (for PCE-3028 & PCE-4128)
PCE-4B13-08	PICMG 1.3 BP with 2 PCIe x 8, 2 PCIe x 1, 8 PCI slots (only for PCE-4128)

Spare Parts

Part Number	Description
1990021256T000	Door filter

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Server-grade IPCs 5

Industrial Storages 6

Video Wall Controllers 7

GPU Servers 8

Industrial Motherboards 9

Slot SBC & Passive Backplanes 10

Compact PCI Platforms 11

Industrial Chassis 12

Industrial Computer Peripherals 13

Industrial Ethernet Solutions 14

ACP-4D00

Dual-Node 350mm Depth 4U Chassis for Half-Sized Slot SBC



Features

- Dual nodes, 350mm depth design for easy maintenance and space saving
- Supports PICMG 1.3 or PCI half-sized slot SBC with Core i7 CPU
- Supports 6-slot backplane, 3 available slots per node
- Supports 2 front USB 3.0 ports each node
- Supports 250W or 350W Flex ATX PSUs

Specifications (Each Node)

Drive Bay	3.5"	Front-accessible	Internal
		1	-
Cooling	Fan	1 (9 cm / 58 CFM)	
	Air Filter	Yes	
Front I/O Interface	USB 2.0	2	
	USB 3.0	2	
Miscellaneous	LED Indicators	Power On/Off, HDD Action, Fan Status, Temperature Status	
	Front Buttons	System Reset, Alarm Reset, Power Switch	
	Real Panel	2 COM/VGA, 1 PRT Semi-Piercing Openings	
Environment		Operating	Non-Operating
	Temperature	0 ~ 40° C (32 ~ 104° F)	-20 ~ 60° C (-4 ~ 140° F)
	Humidity	10 ~ 85% @ 40° C, non-condensing	10 ~ 95% @ 40° C, non-condensing
	Vibration (5 ~ 500 Hz)	1 Grms	2 Grms
	Shock	10 G(with 11 ms duration, half sine wave)	30 G(with 11 ms duration, half sine wave)
Physical Characteristics	Dimensions (W x H x D)	430 x 177 x 350 mm	
	Weight	15.0 kg	

Front and Back Views

Thumb Screws to Fix The Sub-System in the Cage



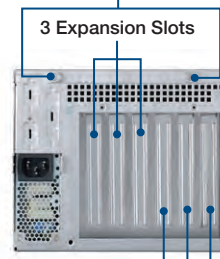
Dual Nodes Design

Easy Maintenance Fan



Front LEDs

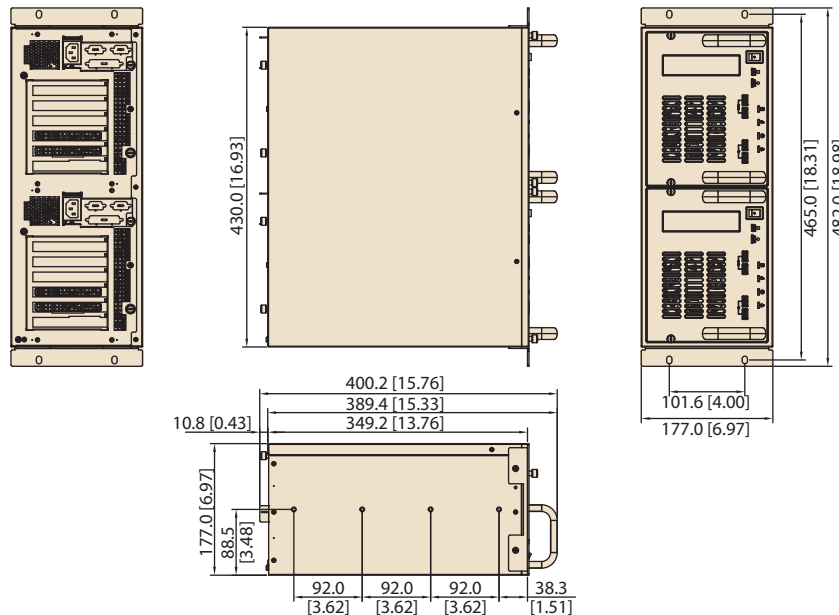
Thumb Screws to Fix The Top Lid



Slots Occupied by CPU Card and CPU Cooler

Dimensions

Unit: mm [inch]



Ordering Information

Part Number	Description
ACP-4D00BP-00XE	4U dual node chassis without BP, power supply

Power Supply Options

Part Number	80 Plus Grade	Specifications	
		Wattage	Input
PS8-250FATX-XE	80 Plus Bronze	250W	AC 100 ~ 240 V (full range)
PS8-350FATX-XE	80 Plus Bronze	350W	AC 100 ~ 240 V (full range)

Optional Accessories

Part Number	Description
1960053207N001	1.5U CPU cooler for 3 available expansion slots
IPC-DT-3120E	Drive bay module converting 1 3.5" to 2 hot-swap 2.5"
989K008734	Bracket to fix two 2.5" devices in a 3.5" drive bay
9680006905	Slide rail for ACP-4D00

* The 1.5U CPU cooler 1960053207N001 is for LGA 1155/1150 socket CPUs, it is thin enough to leave 3 available expansion slots on the backplane.

Supported CPU Cards

Part Number	Description
PCE-3028G2-00A1E	PICMG 1.3 half-sized SBC w/ 4th Gen. Core i CPU, front USB 3.0
PCE-4128G2-00A1E	PICMG 1.3 half-sized SBC w/ Xeon E3-12XX v3 CPU, front USB 3.0

* Strongly recommend Advantech CPU cards listed above to minimizing risk of compatibility issue. If the CPU card has no USB 3.0 on-board box header, the front USB 3.0 ports can NOT be activated.

Supported Backplanes

Part Number	CPU Card Slot	PCIe Slot	PCI
PCE-3B03-00A1E	PICMG 1.3	1 PCIe x 16 1 PCIe x 4	-
PCE-3B06-00A1E	PICMG 1.3	1 PCIe x 16 4 PCIe x 1	-
PCE-3B06-03A1E	PICMG 1.3	1 PCIe x 16 1 PCIe x 1	3
PCA-6105P5-0B2E	PCI	-	4

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- Intelligent Inspection Systems **3**
- Modular IPCs **4**
- Server-grade IPCs **5**
- Industrial Storages **6**
- Video Wall Controllers **7**
- GPU Servers **8**
- Industrial Motherboards **9**
- Slot SBC & Passive Backplanes **10**
- Compact PCI Platforms **11**
- Industrial Chassis **12**
- Industrial Computer Peripherals **13**
- Industrial Ethernet Solutions **14**

ACP-4000

Quiet 4U Rackmount Chassis with Visual & Audible Alarm Notification



Features

- Supports either an ATX motherboard or PICMG backplane with up to 15 slots
- Shock-resistant disk drive bay design holds up to three 5.25" and one 3.5" disk drives
- LED indicators and alarm notification for system fault detection
- Low noise system fans
- Built-in Intelligent System Module enables whole system fan control and remote manageability

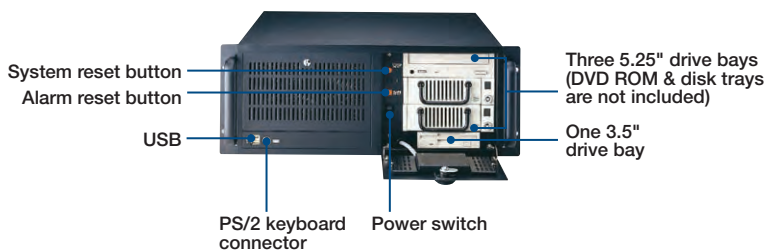
Quiet

CE FCC

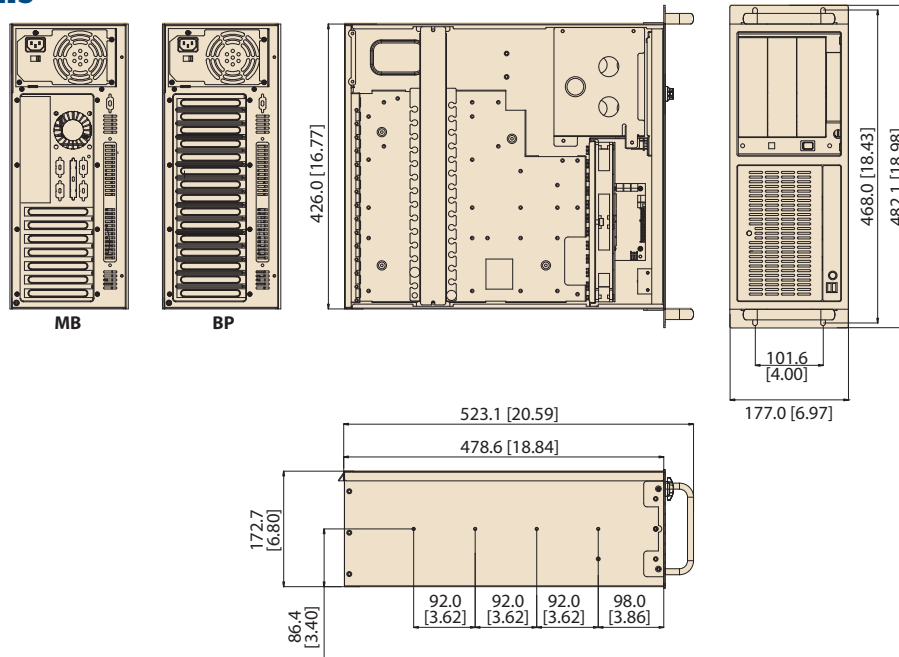
Specifications

Drive Bay	3.5"	1	External
	5.25"	3	
Cooling	Fan	2 (12 cm / 85 CFM each)	
	Air Filter	Yes	
Front I/O Interface	USB 2.0	2	
	PS/2	1	
Miscellaneous	LED Indicators	Power, HDD, temperature, fan, and power voltage status	
	Rear Panel	Backplane version: One 9-pin D-Sub opening Motherboard version: Five 9-pin D-Sub & one 68-pin SCSI openings	
Intelligent System Module Remote Monitoring	CPU/System fan speed , CPU/System temperature , motherboard voltage (Only selected Advantech MBs/CPU cards with SUSIAccess installed can fully enable these functions, check with Advantech local rep. for detailed information.)		
Environment	Temperature	Operating 0 ~ 40° C (32 ~ 104° F)	Non-Operating -20 ~ 60° C (-4 ~ 140° F)
	Humidity	10 ~ 85% @ 40° C, non-condensing	
	Vibration (5 ~ 500 Hz)	1 Grms	2 G
	Shock	10 G (with 11 ms duration, half sine wave)	30 G
	Physical Characteristics	Dimensions (W x H x D)	482 x 177 x 479 mm (19" x 7" x 18.9")
	Weight	15.2 kg (33.5 lb)	

Front View



Dimensions



Ordering Information

Part Number	Description
Backplane Version	
ACP-4000BP-00CE	Without power supply, with ATX switch
ACP-4000BP-30CE	Bundled with 96PS-A300WPS2
ACP-4000BP-40CE	Bundled with 96PS-A400WPS2
Motherboard Version	
ACP-4000MB-00CE	Without power supply, with ATX switch
ACP-4000MB-30CE	Bundled with 96PS-A300WPS2
ACP-4000MB-40CE	Bundled with 96PS-A400WPS2

Power Supply Options

(For detailed power supply specs, please refer to Chapter 13)

Part Number	80 Plus Grade	Wattage	Type	Input
PS8-300ATX-ZBE	Bronze	300W	Single	AC 100 ~ 240 V (full range)
PS8-400ATX-ZE	Bronze	400W	Single	AC 100 ~ 240 V (full range)
PS8-500ATX-ZE	Bronze	500W	Single	AC 100 ~ 240 V (full range)
RPS8-350ATX-XE	Gold	350W	1+1 Redundant	AC 100 ~ 240 V (full range)
RPS8-500ATX-XE	Bronze	500W	1+1 Redundant	AC 100 ~ 240 V (full range)
PS-300ATX-DC48E	N/A	300W	Single	DC -48 V

Optional Accessories

Part Number	Description
1700006915	ATX 24P/20P + 4P + 8P 60cm cable (connecting from power supply to alarm board)
1700006917	Two Mini DIN (connect to MB) / 6P (connect to front I/O board) PS2 KB/Mouse cable
IPC-DT-5230E	Mobile rack for converting dual 5.25" drive bays to three 3.5" SAS/SATA HDD trays

* If users use AIMB-763 or 3rd party motherboard, they need to purchase 1700006915 or 1700006916 for the front voltage LEDs to function normally. And they also need to purchase 1700006917 to make front PS/2 function normally.

* If users use ASMB-820 or ASMB-822, they need to purchase 1700006915 for the front voltage LEDs to function normally.

Spare Parts

Part Number	Description
2130006147S000	Door filter 97.6 x 36.6 x 5 mm
2130004803S000	Fan filter 115 x 195 x 5 mm

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Intelligent Transportation Platforms	2
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Server-grade IPCs	5
Industrial Storages	6
Video Wall Controllers	7
GPU Servers	8
Industrial Motherboards	9
Slot SBC & Passive Backplanes	10
CompactPCI Platforms	11
Industrial Chassis	12
Industrial Computer Peripherals	13
Industrial Ethernet Solutions	14

ACP-4010

Quiet 4U Rackmount Chassis for ATX/CEB/EEB Motherboard or Full-size SHB/SBC with Dual System Support



Features

- Supports either an ATX/CEB/EEB single/dual processors motherboard or a PICMG backplane with up to 15 slots
- Supports one or two systems in a single chassis
- Shock-resistant disk drive bay design holds up to two 5.25" and two 3.5" disk drives
- LED indicators and alarm notification for system fault detection
- Low noise system fans
- Built-in Intelligent System Module enables whole system fan control and remote manageability

Quiet

CE FCC

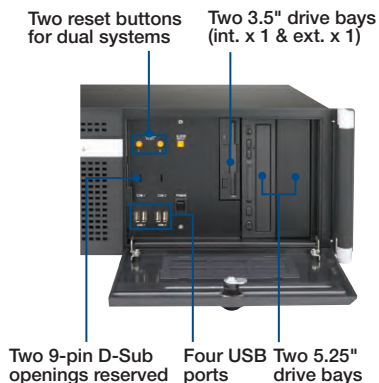
Specifications

Drive Bay	5.25"	External	Internal
	3.5"	2	-
Cooling	Fan	2 (12 cm /85 CFM each)	1
	Air Filter	Yes	
Front I/O Interface	USB 2.0	4	
	9-pin D-Sub	2 (Reserved)	
Miscellaneous	LED Indicators	Power, HDD, temperature, fan, LAN1, and LAN2	
	Rear Panel	Backplane version: One 9-pin D-Sub opening Motherboard version: Five 9-pin D-Sub and one 68-pin SCSI openings	
Intelligent System Module Remote Monitoring	CPU/System fan speed , CPU/System temperature , motherboard voltage (Only selected Advantech MBs/CPU cards with SUSIAccess installed can fully enable these functions, check with Advantech local rep. for detailed information.)		
Environment	Temperature	Operating 0 ~ 40° C (32 ~ 104° F)	Non-Operating -20 ~ 60° C (-4 ~ 140° F)
	Humidity	10 ~ 85% @ 40° C, non-condensing	10 ~ 95% @ 40° C, non-condensing
	Vibration (5 ~ 500 Hz)	1 Grms	2 G
	Shock	10 G (with 11 ms duration, half sine wave)	30 G
Physical Characteristics	Dimensions (W x H x D)	482 x 177 x 479 mm (19" x 7.0" x 18.9")	
	Weight	16.6 kg (36.5 lb)	

*Installation of all 15 full-size cards will sacrifice the two 3.5" disk drive bays.

*While an EEB motherboard is installed in the chassis, only one 3.5" and two 5.25" disk drive bays are available.

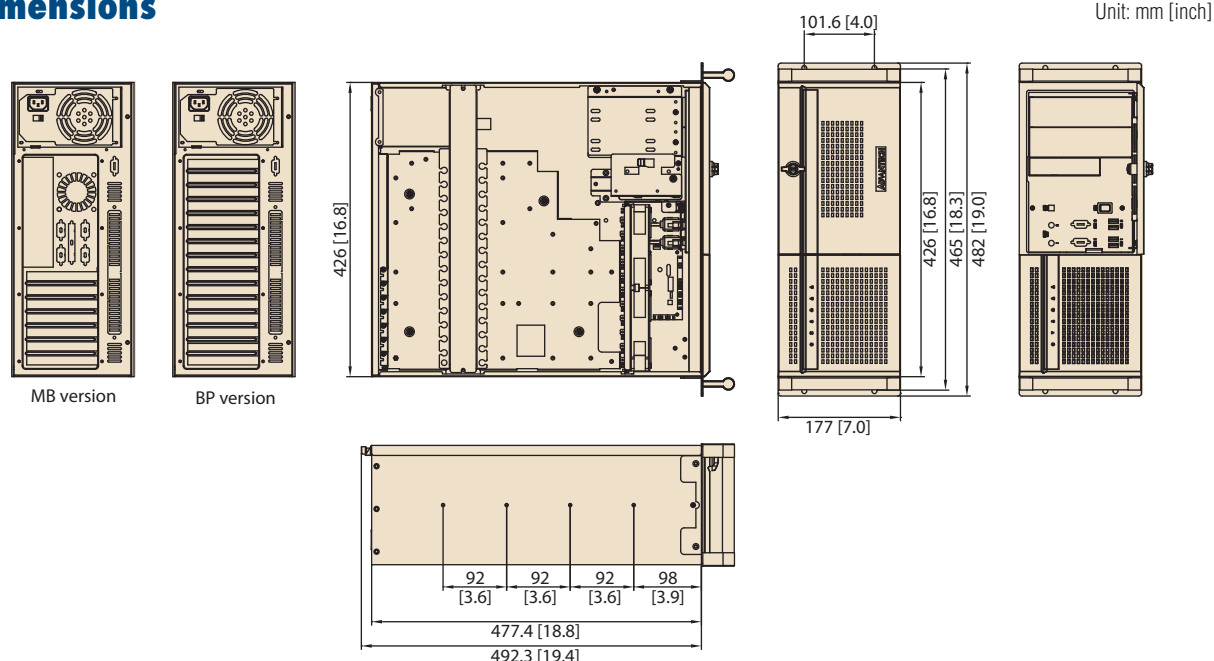
Front View



Inside View



Dimensions



Ordering Information

Model Name	Description
Backplane Version	
ACP-4010BP-00BE	Without PSU with ATX switch
Motherboard Version	
ACP-4010MB-00BE	Without PSU with ATX switch

Optional Accessories

Part Number	Description
IPC-DT-3120E	Mobile rack for converting a 3.5" drive bay to dual 2.5" SATA HDD trays
IPC-DT-5230E	Mobile rack for converting dual 5.25" drive bays to three 3.5" SAS/SATA HDD trays

Power Supply Options

(For detailed power supply specs, please refer to Chapter 13)

Part Number	80 Plus Grade	Wattage	Type	Input
PS8-300ATX-ZBE	Bronze	300W	Single	AC 100 ~ 240 V (full range)
PS8-400ATX-ZE	Bronze	400W	Single	AC 100 ~ 240 V (full range)
PS8-500ATX-ZE	Bronze	500W	Single	AC 100 ~ 240 V (full range)
RPS8-350ATX-XE	Gold	350W	1+1 Redundant	AC 100 ~ 240 V (full range)
RPS8-500ATX-XE	Bronze	500W	1+1 Redundant	AC 100 ~ 240 V (full range)
RPS8-750ATX-XE	Gold	750W	1+1 Redundant	AC 100 ~ 240 V (full range)

Spare Parts

Part Number	Description
1990001299	Fan filter 95 x 130 mm
1990001298	Door filter 150 x 68 mm

Intelligent Video and IoT Sensors **1**

Intelligent Transportation Platforms **2**

Intelligent Inspection Systems **3**

Modular IPCs **4**

Server-grade IPCs **5**

Industrial Storages **6**

Video Wall Controllers **7**

GPU Servers **8**

Industrial Motherboards **9**

Slot SBC & Passive Backplanes **10**

Compact PCI Platforms **11**

Industrial Chassis **12**

Industrial Computer Peripherals **13**

Industrial Ethernet Solutions **14**

ACP-4320

Quiet 4U Rackmount Chassis with Dual Hot-Swap SAS/SATA HDD Trays



Features

- Supports either an ATX motherboard or a PICMG backplane with up to 15 slots
- Support dual SAS/SATA hot-swap HDD trays
- LED indicators and alarm notification for system fault detection
- Low noise system fans
- Built-in Intelligent System Module enabling whole system fan control and remote manageability

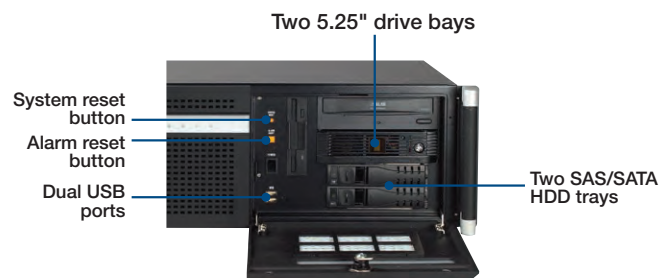
Quiet

CE FCC

Specifications

		External	Internal
Driver Bay	5.25"	2	-
	3.5"	1 SAS/SATA Tray	-
	Hot Swap	2 (compatible with 3.5" or 2.5" devices)	-
Cooling	Fan	1 (12 cm / 74 CFM) + 1 (6cm / 28 CFM)	
	Air Filter	Yes	
	Smart Fan	System fan speed referring to chassis thermal sensor, or CPU temperature (Available with selected Advantech MBs/CPU cards)	
Front I/O Interface	USB 2.0	2	
Miscellaneous	LED Indicators	Power, HDD, temperature, fan, LAN1 and LAN2	
	Rear Panel	Backplane version: One 9-pin D-Sub opening Motherboard version: Five 9-pin D-Sub opening and one 68-pin SCSI opening	
Intelligent System Module Remote Monitoring	CPU/System fan speed , CPU/System temperature , motherboard voltage (Only selected Advantech MBs/CPU cards with SUSIAccess installed can fully enable these functions, check with Advantech local rep. for detailed information.)		
Environment	Temperature	Operating 0 ~ 40° C (32 ~ 104° F)	Non-Operating - 20 ~ 60° C (-4 ~ 140° F)
	Humidity	10 ~ 85% @ 40° C , non-condensing	
	Vibration (5 ~ 500 Hz)	1 Grms	2 G
	Shock	10G (with 11 ms duration, half sine wave)	30 G
Physical Characteristics	Dimension (W x H X D)	482 x 177 x 479 mm (19" x 7.0" x 18.9")	
	Weight	17.6 kg (38.7lb)	

Front View



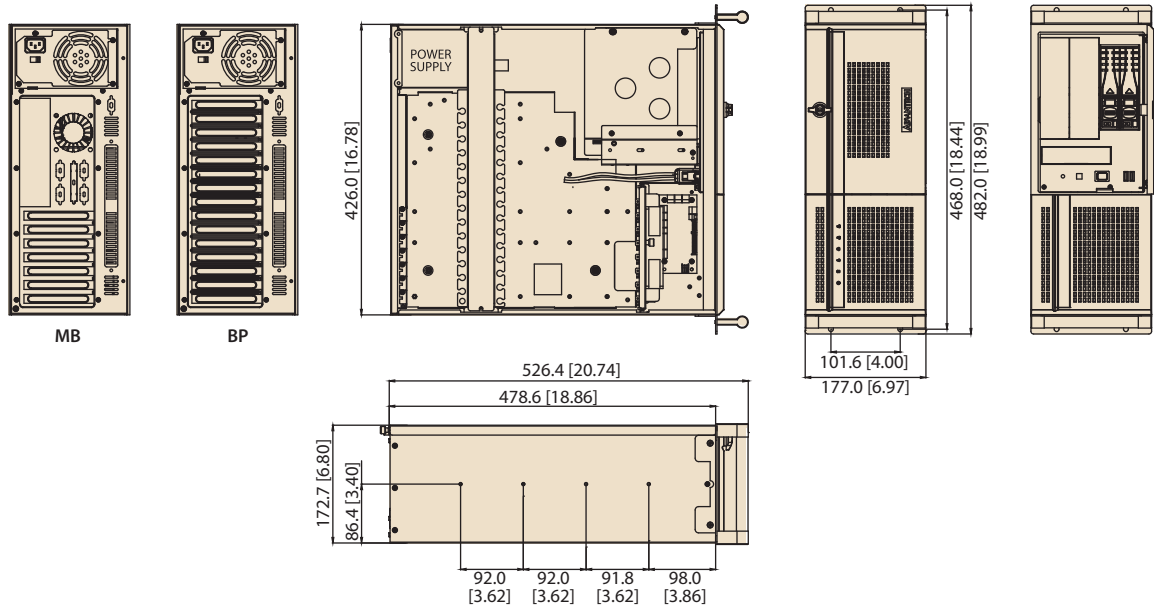
Inside View

Easy-to-maintain system fan



Dimensions

Unit: mm [inch]



Ordering Information

Model Name	Description
ACP-4320BP-00BE	Full-sized PICMG 1.0/1.3 BP version, without PSU
ACP-4320MB-00BE	MB version, without PSU
ACP-4320BP-40BE	Full-sized PICMG 1.0/1.3 BP version, with 96PS-A400WPS2
ACP-4320MB-40BE	MB version, with 96PS-A400WPS2

Power Supply Options

Part Number	80 Plus Grade	Wattage	Type	Input
PS8-300ATX-ZBE	Bronze	300W	Single	AC 100 ~ 240 V (full range)
PS8-400ATX-ZE	Bronze	400W	Single	AC 100 ~ 240 V (full range)
PS8-500ATX-ZE	Bronze	500W	Single	AC 100 ~ 240 V (full range)
RPS8-350ATX-XE (1+1 redundant)	Gold	350W	1+1 Redundant	AC 100 ~ 240 V (full range)
RPS8-500ATX-XE (1+1 redundant)	Bronze	500W	1+1 Redundant	AC 100 ~ 240 V (full range)

Optional Accessories

Part Number	Description
IPC-DT-3120E	Mobile rack for converting a 3.5" drive bay to dual 2.5" SATA HDD trays
IPC-DT-5230E	Mobile rack for converting dual 5.25" drive bays to three 3.5" SAS/SATA HDD trays
1700007351	M Cable SATA 7P/SATA 7P 40CM C=R 90/180

When choose ASMB-781, ASMB-782, ASMB-820, ASMB-823 for system mother board, 2pcs right-angle SATA cable (PN: 1700007351) are necessary for hot-swap driver bay.

Spare Parts

Part Number	Description
1990001299	Fan filter 95 x 130 mm
1990001298	Door filter 150 x 68 mm

Intelligent Video and IoT Sensors	1
Intelligent Transportation Platforms	2
Intelligent Inspection Systems	3
Modular IPCs	4
Server-grade IPCs	5
Industrial Storages	6
Video Wall Controllers	7
GPU Servers	8
Industrial Motherboards	9
Slot SBC & Passive Backplanes	10
CompactPCI Platforms	11
Industrial Chassis	12
Industrial Computer Peripherals	13
Industrial Ethernet Solutions	14

ACP-4340

4U Rackmount Chassis for Full-size SHB/SBC or ATX/MicroATX Motherboard with 4 Hot Swap Drive Trays



Features

- Supports a PICMG backplane with up to 14 slots or an ATX/Micro-ATX motherboard
- Shock-resistant disk drive bay holds four hot-swap 3.5" and 2.5" SAS/SATA disk trays, one slim optical disk drive, and one 2.5" internal drive
- Dual front USB 3.0 ports
- Front-accessible system fan without opening top cover for easy maintenance
- LED indicators and alarm notification for system fault detection
- Smart fan speed control
- Built-in Intelligent System Module enabling whole system fan control and remote manageability

Quiet

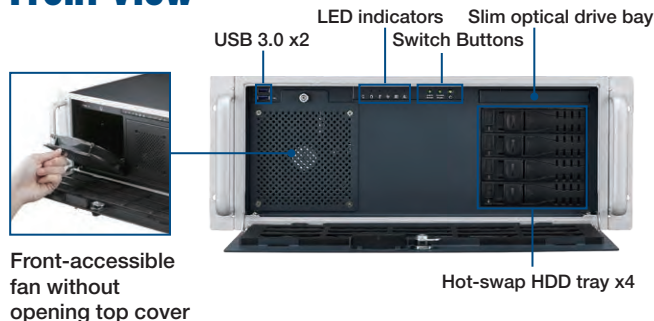
CE FCC

Specifications

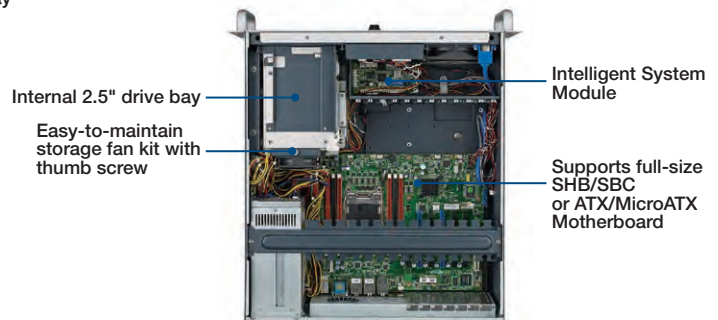
		External	Internal
Drive Bay	Slim Optical Drive Bay	1	-
	3.5" Drive Bay	-	-
	2.5" Drive Bay	-	1
	Hot Swap	4	-
Cooling	Fan	1 (12 cm /74 CFM) + 1 (8 cm/56 CFM) for SAS/SATA storage unit	
	Air Filter	Yes	
Front I/O Interface	USB 3.0*	2	
Miscellaneous	LED Indicators	Power, HDD, temperature, fan, LAN1, and LAN2	
	Rear Panel	Backplane version: One 9-pin D-Sub opening Motherboard version: Five 9-pin D-Sub and one 68-pin SCSI openings	
Intelligent System Module Remote Monitoring	CPU/System fan speed , CPU/System temperature , motherboard voltage (Only selected Advantech MBs/CPU cards with SUSIAccess installed can fully enable these functions, check with Advantech local rep. for detailed information.)		
Environment	Temperature	Operating 0 ~ 40° C (32 ~ 104° F)	Non-Operating -40 ~ 70° C (-40 ~ 156° F)
	Humidity	10 ~ 95% @ 40° C, non-condensing	
	Vibration (5 ~ 500 Hz)	1 Grms	2 G
	Shock	10 G (with 11 ms duration, half sine wave)	
Physical Characteristics	Dimensions (W x H x D)	482 x 177 x 478 mm (19" x 7.0" x 18.8")	
	Weight	12.5 kg (27.5 lb)	

* The USB ports do not operate normally if a main board with USB 2.0 internal connector only is installed.

Front View



Inside View



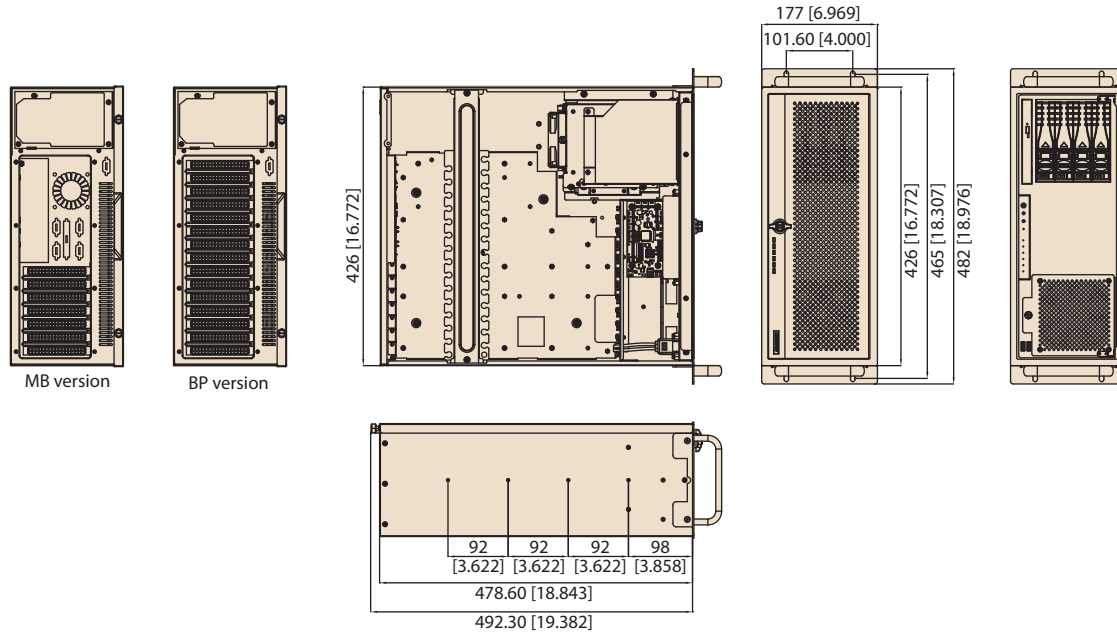
Rear View



*Note: Backplane, SBC, motherboard, and power supply are not included.

Dimensions

Unit: mm [inch]



Ordering Information

Part Number	Description
Backplane Version	
ACP-4340BP-00XE	Without PSU, with ATX switch
Motherboard Version	
ACP-4340MB-00XE	Without PSU, with ATX switch

Power Supply Options

Part Number	80 Plus Grade	Watts	Type	Input
PS8-400ATX-ZE	Bronze	400W	Single	AC 100 ~ 240 V (full range)
PS8-500ATX-ZE	Bronze	500W	Single	AC 100 ~ 240 V (full range)
PS8-700ATX-ZE	Bronze	700W	Single	AC 100 ~ 240 V (full range)
RPS8-500ATX-XE	Bronze	500W	1+1 Redundant	AC 100 ~ 240 V (full range)

Optional Accessories

Part Number	Description
96CB-SATAPOWER-6P1	SATA power wire 6-pin to big 4-pin (for slim ODD)
98R1434000E	ACP-4340 fan kit for multi GPU card

Spare Parts

Part Number	Description
9662132020E	Black mobile HDD tray
1990021256T000	Door filter

Intelligent Video and IoT Sensors	1
Intelligent Transportation Platforms	2
Intelligent Inspection Systems	3
Modular IPCs	4
Server-grade IPCs	5
Industrial Storages	6
Video Wall Controllers	7
GPU Servers	8
Industrial Motherboards	9
Slot SBC & Passive Backplanes	10
CompactPCI Platforms	11
Industrial Chassis	12
Industrial Computer Peripherals	13
Industrial Ethernet Solutions	14

ACP-4360

4U Rackmount Chassis with 6 Hot-Swap SAS / SATA Trays for RAID



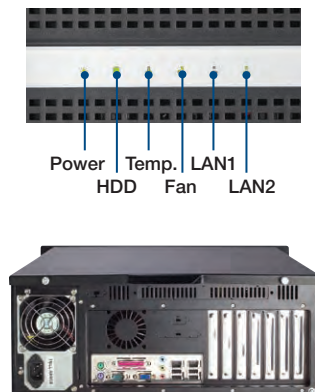
CE FCC

Features

- Supports up to 6 SAS/SATA HDDs, which can be hot-swappable if a SATA RAID card is used
- Supports either an ATX motherboard or a PICMG backplane up to 15 slots
- Supports one slim optical disk drive and one 3.5" FDD or internal HDD
- LED indicators for LAN connectivity and alarm notification for redundant power supply, HDD activity, system fan and in-chassis temperature
- Reusable, front-accessible filters for easy maintenance

Specifications

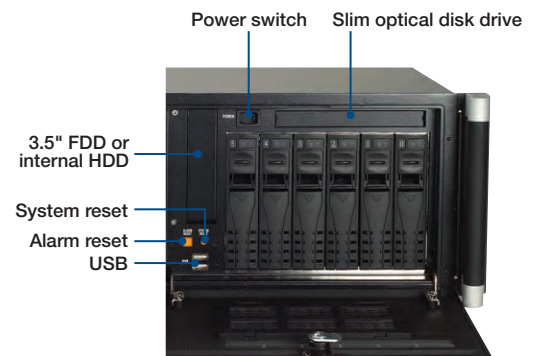
Drive Bay	Front-accessible	1	
	Slim Optical Drive (Front-accessible) 3.5"	6 SAS/SATA HDDs + 1 (mobile trays compatible with 2.5" HDD/SSD)	
Cooling	Fan	1 (12 cm / 114 CFM) + 2 (8 cm / 47 CFM each) for SAS/SATA storage unit	
	Air Filter	Yes	
Front I/O Interface	USB	2	
Miscellaneous	LED Indicators	System: Power, HDD (for IDE drives only), fan, temperature, LAN1 and LAN2 SAS/SATA HDD trays: HDD power and activity	
	Rear Panel	Backplane version: One 9-pin D-Sub opening Motherboard version: Five 9-pin D-Sub and one 68-pin SCSI openings	
Environment	Operating	Non-Operating	
	Temperature	0 ~ 40° C (32 ~ 104° F)	-20 ~ 60° C (-4 ~ 140° F)
	Humidity	10 ~ 85% @ 40° C, non-condensing	10 ~ 95% @ 40° C, non-condensing
	Vibration (5 ~ 500 Hz)	1 Grms	2 G
	Shock	10 G (with 11 ms duration, half sine wave)	30 G
Physical Characteristics	Dimensions (W x H x D)	482 x 177 x 501 mm (19" x 7" x 19.8")	
	Weight	19.0 kg (41.8 lb)	



Rear view of ACP-4360MB



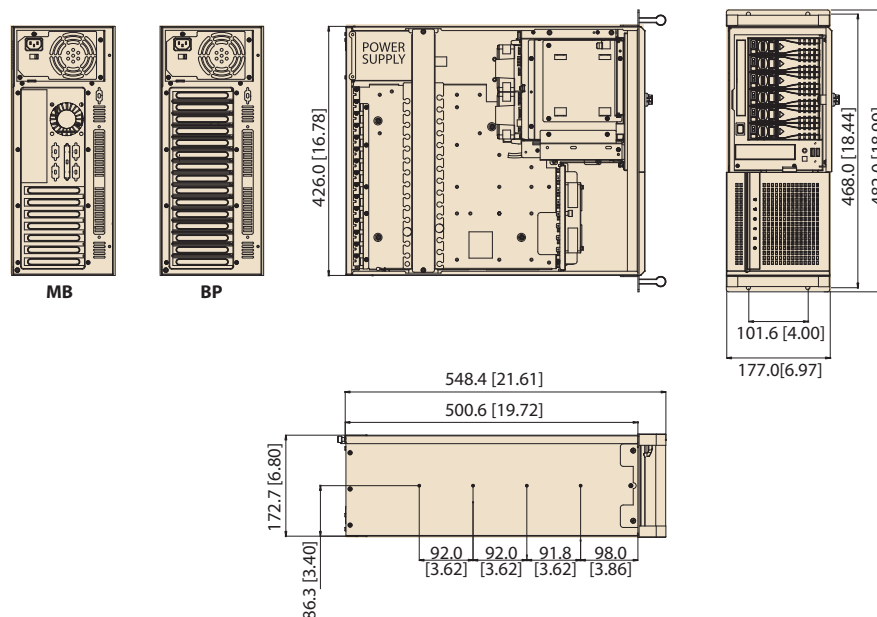
Easy-to-maintain system fan



Six hot-swappable SAS/SATA HDD trays

Dimensions

Unit: mm [inch]



Ordering Information

Part Number	Power Supply
Backplane Version	
ACP-4360BP-00XBE	Without power supply, with ATX switch
Motherboard Version	
ACP-4360MB-00XBE	Without power supply, with ATX switch

Power Supply Options

(For detailed power supply specs, please refer to Chapter 13)

Part Number	Specifications	
	Watts	Input
PS8-400ATX-ZE	400W	AC 100 ~ 240 V (full range)
PS8-500ATX-ZE	500W	AC 100 ~ 240 V (full range)
PS8-700ATX-ZE	700W	AC 100 ~ 240 V (full range)
RPS8-350ATX-XE (1+1 redundant)	350W	AC100~240V(full range)
RPS8-500ATX-XE (1+1 redundant)	500W	AC 100 ~ 240 V (full range)

Optional Accessories

Part Number	Description
96CB-SATAPOWER-6P1	SATA power wire 6-pin to big 4-pin (for slim ODD)
96RC-SAS-4P-PE-LS	Interface PCIe x8, 4-port SAS/SATA RAID card with 1 SAS SFF8087 connector
96RC-SAS-8P-PE-LS1	Interface PCIe x8, 8-port SAS/SATA RAID card with 2 SAS SFF8087 connectors
96CB-SAS-SATA-4P	Mini SAS to 4 SATA + SGPIO cable, 0.8 m

PS. When choosing either of above RAID cards, please must use 96CB-SAS-SATA-4P to ensure the LEDs on HDD trays function correctly.

Spare Parts

Part Number	Description
1990001299	Fan filter 95 x 130 mm
1990001298	Door filter 150 x 68 mm
9662700022E	Black 3.5" mobile HDD tray

Intelligent Video and IoT Sensors 1

Intelligent Transportation Platforms 2

Intelligent Inspection Systems 3

Modular IPCs 4

Server-grade IPCs 5

Industrial Storages 6

Video Wall Controllers 7

GPU Servers 8

Industrial Motherboards 9

Slot SBC & Passive Backplanes 10

Compact PCI Platforms 11

Industrial Chassis 12

Industrial Computer Peripherals 13

Industrial Ethernet Solutions 14

IPC-623

4U 20-Slot Rackmount Chassis with Multi-System and Front-Accessible Redundant Power Supply



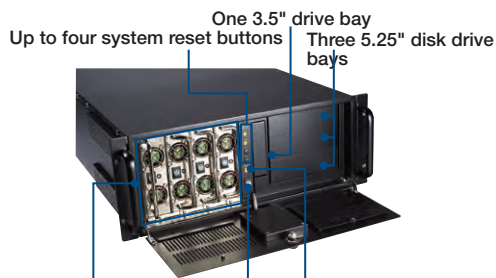
Features

- 4U rackmount chassis supports up to 4 multi-systems
- Front-accessible redundant power supply
- Shockproof disk drive bay design can hold up to three front-accessible 5.25" and one 3.5" disk drives, and one internal 3.5" HDD
- Three 12 cm / 114 CFM ball-bearing cooling fans
- Front LEDs and audible alarm notifications for system power status, fan operation, HDD status, and in-chassis temperature monitoring
- Dual top cover designed for easy maintenance
- Five easily replaceable air filters provide good airflow
- Redundant power supplies are all with dual AC inputs

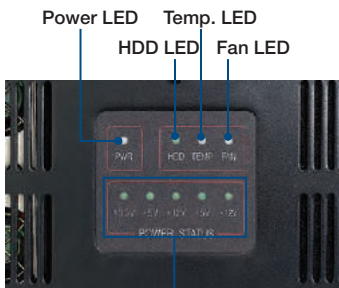
CE FCC

Specifications

		Front-accessible	Internal
Drive Bay	3.5"	1	1
	5.25"	3	-
Cooling	Fan	3 (12 cm / 114 CFM each)	
	Air Filter	4 (200 x 45 mm) + 1 (128 x 95 mm)	
Miscellaneous	LED Indicators	Power, HDD, fan, temperature, and power voltage status	
	Control	Power switch, system reset (reserve 3 more for quad-system) and alarm reset buttons	
	Hold-down Clamp	Hold-down clamp with rubber pad underneath and accessory rubber cushions	
Environment		Operating	Non-Operating
	Temperature	0 ~ 40° C (32 ~ 104° F)	-20 ~ 60° C (-4 ~ 140° F)
	Humidity	10 ~ 85% @ 40° C, non-condensing	10 ~ 95% @ 40° C, non-condensing
	Vibration (5 ~ 500 Hz)	1 Grms	2 G
	Shock	10 G (with 11 ms duration, half sine wave)	30 G
Physical Characteristics	Dimensions (W x H x D)	482 x 177 x 657 mm (19" x 7" x 26")	
	Weight	26 kg (57 lb)	

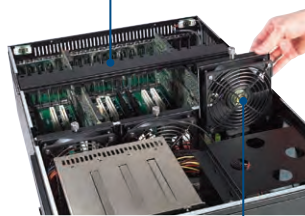


Hot-swappable redundant power supply
Power button
Alarm reset button



Power voltage status

Hold-down clamp with rubber pads underneath



Three 114 CFM hot-swappable fans



Dual AC power cords for 460W / 570W / 810W redundant power supply

Single power supply

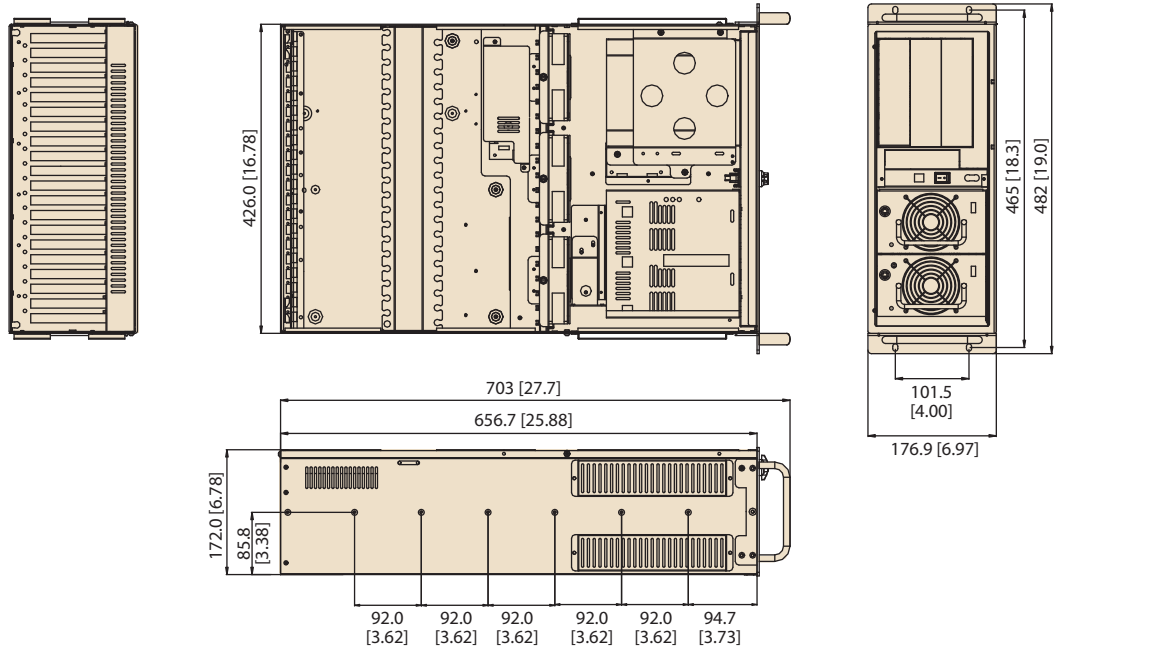


Extra drive bay which can hold up to three 3.5" HDDs



Front panel appearance while with single power supply configuration

Dimensions



Ordering Information

Part Number	Power Supply
IPC-623BP-00XBE	Barebone chassis for 500W single P/S
IPC-623BP-00RBE	Barebone chassis for 460W / 570W / 810W RPS, with ATX switch

Power Supply Options

(For detailed power supply specs, please refer to Chapter 13)

Part Number	Specifications	
	Watts	Input
96PS-A400WPS2-2	400W (ATX, PFC)	AC 100 ~ 240 V (full range)
96PS-A500WPS2-2	500W (ATX, PFC)	AC 115 ~ 240 V (full range)
96PSR-A460WOTH-2	460W (ATX, PFC)	AC 100 ~ 240 V (full range)
1757001761 (2+1 redundant)	570W (ATX, PFC)	AC 115 ~ 230 V (full range)
1757001677 (3+1 redundant)	810W (ATX, PFC)	AC 115 ~ 230 V (full range)

Optional Accessories

Part Number	Description
IPC-DT-3120E	Mobile rack for converting a 3.5" drive bay to dual 2.5" SATA HDD trays
IPC-DT-5230E	Mobile rack for converting dual 5.25" drive bays to three 3.5" SAS/SATA HDD trays
1700002459	Reset button with wire

Spare Parts

Part Number	Description
2130004799S000	Side filter 45 x 200 x 6 mm
2130004800S000	Door filter 130 x 95 x 6 mm

- Intelligent Video and IoT Sensors **1**
- Intelligent Transportation Platforms **2**
- Intelligent Inspection Systems **3**
- Modular IPCs **4**
- Server-grade IPCs **5**
- Industrial Storages **6**
- Video Wall Controllers **7**
- GPU Servers **8**
- Industrial Motherboards **9**
- Slot SBC & Passive Backplanes **10**
- CompactPCI Platforms **11**
- Industrial Chassis **12**
- Industrial Computer Peripherals **13**
- Industrial Ethernet Solutions **14**

IPC-622

6U 20-Slot Rack-mount Short Depth Chassis with Redundant Power Supply



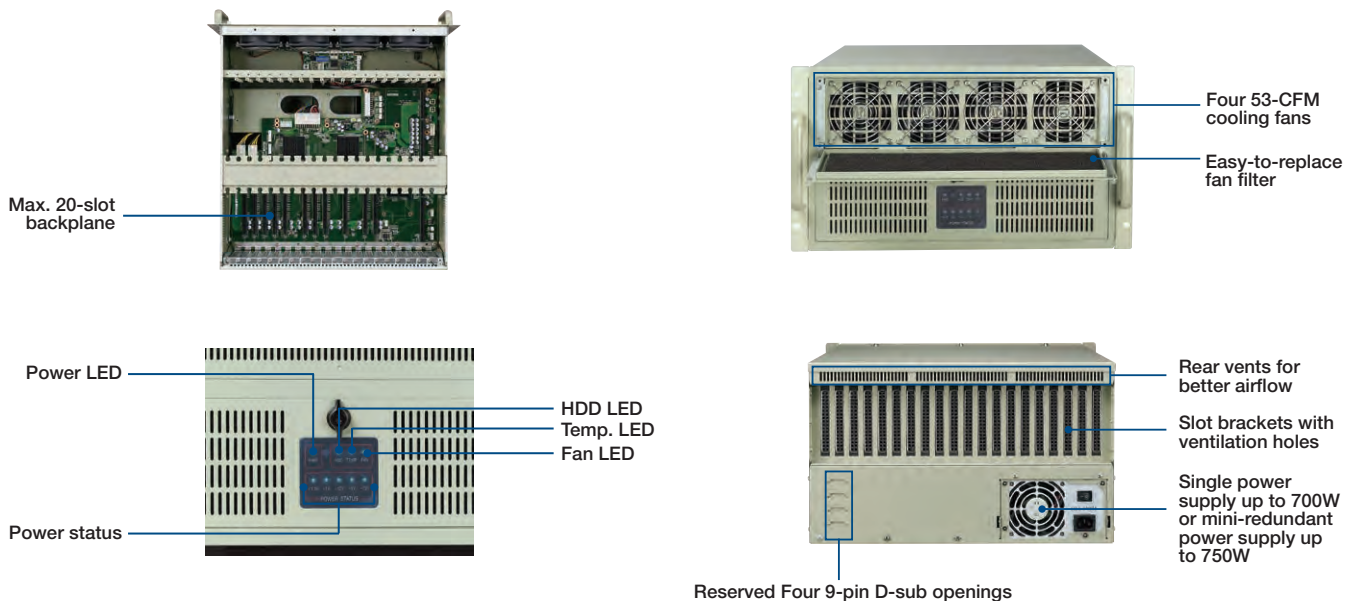
Features

- 6U rackmount chassis supports PICMG 1.0/1.3 20 slots backplane
- Support Mini-redundant power supply up to 750W
- LED indicators and audible alarm notification for system fault detection
- Four 9 cm / 53 CFM ball-bearing system fans for excellent cooling
- Front accessible fan filters for easy maintenance
- Lockable front door prevents unauthorized access
- Built-in Intelligent System Module enabling whole system fan control and remote manageability

CE FCC

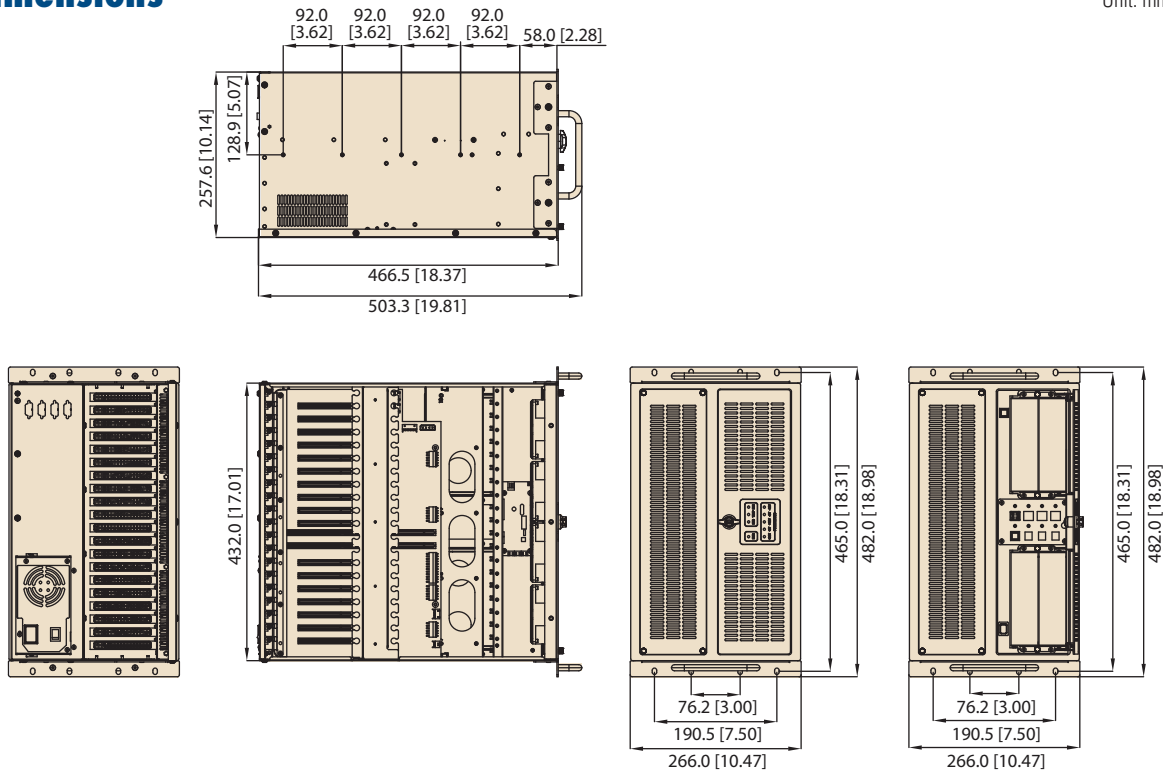
Specifications

Drive Bay	5.25"	Front-accessible	Internal
	3.5"	4	-
Cooling	Fan	4 (9 cm / 58 CFM each)	2
	Air Filter	Yes (Front accessible)	
Front I/O Interface	USB	2 (default) and reserve up to 4 sets of dual USB ports in the front	
Miscellaneous	LED Indicators	Power, HDD, fan, temperature and power voltage status	
	Control	Power switch, system reset (reserve 3 more for quad-system) and alarm reset buttons	
	Rear Panel	Four 9-pin D-sub openings	
Intelligent System Module Remote Monitoring	CPU/System fan speed , CPU/System temperature , motherboard voltage (Only selected Advantech MBs/CPU cards with SUSIAccess installed can fully enable these functions, check with Advantech local rep. for detailed information.)		
Environment	Temperature	Operating	Non-Operating
	Humidity	0 ~ 40° C (32 ~ 104° F)	-20 ~ 60° C (-4 ~ 140° F)
	Vibration (5 ~ 500 Hz)	10 ~ 85% @ 40° C, non-condensing	10 ~ 95% @ 40° C, non-condensing
	Shock	0.5 Grms	1 Grms
Physical Characteristics	Dimensions (W x H x D)	5G (with 11 ms duration, half sine wave)	
	Weight	482 x 266 x 464 mm (19" x 10.5" x 18.3")	
		30.0 kg (66 lb)	



Dimensions

Unit: mm [inch]



Ordering Information

Part Number	Description
IPC-622BP-00DE	W/O power supply, with AT switch

Power Supply Options

Part Number	80 Plus Grade	Wattage	Type	Input
PS8-400ATX-ZE	Bronze	400W	Single	AC 100 ~ 240V (full range)
PS8-500ATX-ZE	Bronze	500W	Single	AC 100 ~ 240V (full range)
PS8-700ATX-ZE	Bronze	700W	Single	AC 100 ~ 240V (full range)
RPS8-500ATX-XE (1+1 redundant)	Bronze	500W	1+1 Redundant	AC 100 ~ 240V (full range)
RPS8-750ATX-XE (1+1 redundant)	Gold	750W	1+1 Redundant	AC 100 ~ 240V (full range)

Optional Accessories

Part Number	Description
1700002444	Reset button with wire
1700007032	Dual USB connector with wire
IPC-DT-5230E	Mobile rack for converting dual 5.25" drive bays to three 3.5" SAS/SATA HDD trays

Spare Parts

Part Number	Description
2130004802S000	Door filter 142 x 97 x 5 mm
2130004804S000	Fan filter 382 x 93 x 5 mm

- Intelligent Video and IoT Sensors **1**
- Intelligent Transportation Platforms **2**
- Intelligent Inspection Systems **3**
- Modular IPCs **4**
- Server-grade IPCs **5**
- Industrial Storages **6**
- Video Wall Controllers **7**
- GPU Servers **8**
- Industrial Motherboards **9**
- Slot SBC & Passive Backplanes **10**
- CompactPCI Platforms **11**
- Industrial Chassis **12**
- Industrial Computer Peripherals **13**
- Industrial Ethernet Solutions **14**

Advantech 6th Core i Skylake Family

from Boards to Systems for IoT Requirements

- Up to 10% additional CPU performance
- Up to 40% more high speed I/O
- Up to 30% faster graphics performance



ADVANTECH

Enabling an Intelligent Planet

Industrial Motherboard

- AIMB-785 (Q110), AIMB-705 (H110), ASMB-585 (C236), ASMB-785 (C236)



PICMG 1.3 Single Board Computer

- PCE-5129 (Q110), PCE-5029 (H110), PCE-7129 (C236)



Intelligent Inspection System

- AIIS-5410 (QM170), AIIS-3410 (H110), AIIS-3400 (H110)



Modular Industrial Computer

- MIC-7500 (QM170)



Intelligent Transportation System (EN50155 Certified)

- ITA-5231 (QM170), ITA-5831 (QM170)



Industrial Computer Peripherals

Power Supplies	<i>13-2</i>
CPU Coolers	<i>13-5</i>
Keyboards	<i>13-7</i>
Accessories	<i>13-8</i>

To view all of Advantech's Peripherals, please visit www.advantech.com/products.



Power Supplies

80 Plus PS/2 Single Power Supplies



Part Number	PS8-250ATX-ZE	PS8-300ATX-ZBE	PS8-400ATX-ZE	PS8-500ATX-ZE	PS8-700ATX-ZE
Form Factor	PS/2	PS/2	PS/2	PS/2	PS/2
Wattage	250w	300W	400W	500W	700W
80 Plus Grade	Bronze	Bronze	Bronze	Bronze	Bronze
Input Range	90 ~ 264 V _{AC}	100 ~ 127V _{AC} , 200 ~ 240 V _{AC}	90 ~ 264 V _{AC}	90 ~ 264 V _{AC}	90 ~ 264 V _{AC}
Output Range	+3.3V @ 20 A +5 V @ 21 A +12 V1 @ 16 A +12 V2 @ 16 A -12 V @ 0.3 A -5 V @ 0.3A +5 Vsb @ 2.5 A	+3.3V @ 11.12 A +5 V @ 13.2 A +12 V @ 7.64 A +12 VCPU @ 8 A -12 V @ 0.1 A -5V @ 0.05 A +5 Vsb @ 1.39 A	+3.3V @ 21 A +5 V @ 20 A +12 V1 @ 16 A +12 V2 @ 16 A -12 V @ 0.5 A -5V @ 0.3 A +5 Vsb @ 3 A	+3.3V @ 24 A +5 V @ 20 A +12 V1 @ 16 A +12 V2 @ 16 A -12 V @ 0.5 A -5V @ 0.3 A +5 Vsb @ 3 A	+3.3V @ 24 A +5 V @ 30 A +12 V1 @ 16 A +12 V2 @ 16 A +12 V3 @ 16 A +12 V4 @ 16 A -12 V @ 0.5 A -5V @ 0.5 A +5 Vsb @ 4 A
MTBF(hrs)	100,000 @ 25° C	100,000 @ 25° C	100,000 @ 25° C	100,000 @ 25° C	100,000 @ 25° C
Dimensions (W x H x D)	150 x 86 x 140 mm	150 x 86 x 140 mm	150 x 86 x 140 mm	150 x 86 x 140 mm	150 x 86 x 140 mm
Safety	CE, FCC, UL, CB, TUV, CCC, KCC	CE, FCC, UL, CB, TUV, CCC, KCC, BSMI	CE, FCC, UL, CB, TUV, CCC, KCC	CE, FCC, UL, CB, TUV, CCC, KCC	CE, FCC, UL, CB, TUV, CCC, KCC
Compatible Chassis	ACP-2000/IPC-602, ACP-4000, ACP-4010, ACP-4020, ACP-4320, ACP-4340, ACP-4360 IPC-6606, IPC-6608, IPC-5122, IPC-7130, IPC-7130L, IPC-6908, IPC-7132, IPC-7220, IPC-510, IPC-610-F, IPC-610-H, IPC-610-L, IPC-611, IPC-619	ACP-2000/IPC-602, ACP-4000, ACP-4010, ACP-4020, ACP-4320, ACP-4340, ACP-4360 IPC-6606, IPC-6608, IPC-5122, IPC-7130, IPC-7130L, IPC-6908, IPC-7132, IPC-7220, IPC-510, IPC-610-F, IPC-610-H, IPC-610-L, IPC-611, IPC-619	ACP-2000/IPC-602, ACP-4000, ACP-4010, ACP-4020, ACP-4320, ACP-4340, ACP-4360 IPC-6606, IPC-6608, IPC-5122, IPC-7130, IPC-7130L, IPC-6908, IPC-7132, IPC-7220, IPC-510, IPC-610-F, IPC-610-H, IPC-610-L, IPC-611, IPC-619, HPC-7442	ACP-2000/IPC-602, ACP-4000, ACP-4010, ACP-4020, ACP-4320, ACP-4340, ACP-4360 IPC-6606, IPC-6608, IPC-5122, IPC-7130, IPC-7130L, IPC-6908, IPC-7132, IPC-7220, IPC-510, IPC-610-F, IPC-610-H, IPC-610-L, IPC-611, IPC-619, HPC-7442	ACP-2000/IPC-602, ACP-4000, ACP-4010, ACP-4020, ACP-4320, ACP-4340, ACP-4360, IPC-510, IPC-610-F, IPC-610-H, IPC-610-L, HPC-7442

PS/2 DC Power Supplies



Model Name	PS-300ATX-DC48E
Wattage	300W
Input Range	72 ~ 36 V _{DC} , 15 A
Outputs	+5 V @ 30 A (0.3 A min) +3.3 V @ 28 A (0.3 A min) +12 V @ 15 A (0.2 A min) -12 V @ 0.8 A, -5 V @ 0.3 A, +5 Vsb @ 2 A
MTBF (hrs)	100,000 @ 25C
Dimensions (H x W x D)	86 x 150 x 140 mm (3.39" x 5.91" x 5.51")
Safety	UL, TUV, CB, CCC
Compatible Chassis	ACP-2000, ACP-4000, ACP-4010, ACP-4020, ACP-4320, ACP-4340, ACP-4360, IPC-602, IPC-610

80 Plus 1U/2U Single Power Supplies



Part Number	PS8-500U2-XE	96PS-A700W1U
Form Factor	2U	1U
Wattage	500W	700W
80 Plus Grade	Bronze	Bronze
Input Range	90 ~ 264 V _{AC}	90 ~ 264 V _{AC}
Output Range	+3.3V @ 20 A, +5 V @ 20 A +12 V1 @ 16 A, +12 V1 @ 16 A +12 V3 @ 16 A, -12 V @ 0.5A +5 Vsb @ 3 A	+3.3V @ 24 A, +5 V @ 30 A +12 V1 @ 16 A, +12 V2 @ 16 A +12 V3 @ 16 A, +12 V4 @ 16 A -12V @ 0.5 A, +5 Vsb @ 4 A
MTBF(hrs)	100,000 @ 25° C	100,000 @ 25° C
Dimensions (W x H x D)	70 x 100 x 240 mm	40 x 100 x 250 mm
Safety	CE, FCC, UL, CB, TUV, CCC, KCC	CE, FCC, UL, CB, TUV, CCC, KCC
Compatible Chassis	HPC-7242, HPC-7282, HPC-7320, HPC-8316	HPC-7320, HPC-7400, HPC-8316

80 Plus Flex ATX Power Supplies



Part Number	PS8-250FATX-XE	PS8-350FATX-XE	96PS-A400WFX-1
Form Factor	Flex ATX	Flex ATX	Flex ATX
Wattage	250W	350W	400W
80 Plus Grade	Bronze	Bronze	Gold
Input Range	90 ~ 264 V _{AC}	90 ~ 264 V _{AC}	90 ~ 264 V _{AC}
Output Range	+3.3V @ 12 A +5 V @ 14 A +12 V @ 18 A -12 V @ 0.3 A +5 Vsb @ 2.5 A	+3.3V @ 16A +5 V @ 16 A +12 V1 @ 18 A +12 V2 @ 18 A -12 V @ 0.3A +5 Vsb @ 3 A	+3.3V @ 16 A +5 V @ 16 A +12 V1 @ 18 A +12 V2 @ 18 A -12 V @ 0.5 A -5 V @ 0.2 A +5 Vsb @ 3 A
MTBF(hrs)	100,000 @ 25° C	100,000 @ 25° C	100,000 @ 25° C
Dimensions (W x H x D)	81.5 x 40.5 x 150 mm	81.5 x 40.5 x 150 mm	81.5 x 40.5 x 190 mm
Safety	CE, FCC, UL, CB, TUV, CCC, KCC	CE, FCC, UL, CB, TUV, CCC, KCC, BSMI	CE, FCC, UL, CB, TUV, CCC, KCC
Compatible Chassis	ACP-1010/ACP-1320, ACP-2010/ACP-2320, ACP-4D00, IPC-120, IPC-3012, IPC-6806S, IPC-6806S-D, IPC-6806, IPC-5120, IPC-7120	ACP-1010/ACP-1320, ACP-2010/ACP-2320, ACP-4D00, IPC-120, IPC-603, IPC-3012, IPC-6806S, IPC-6806S-D, IPC-6806, IPC-5120, IPC-7120	ACP-1010/ACP-1320 ACP-2010/ACP-2320

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Power Supplies

80 Plus Redundant Power Supplies



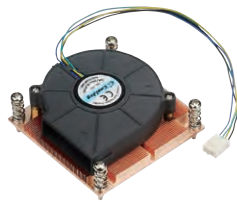
Part Number	RPS8-350ATX-XE	RPS8-500ATX-XE	RPS8-750ATX-XE	RPS8-500U2-XE	RPS8-700U2-XE
Form Factor	Mini Redundant	Mini Redundant	Mini Redundant	2U Redundant	2U Redundant
Wattage	350W 1+1	500W 1+1	750W 1+1	500W 1+1	700W 1+1
80 Plus Grade	Gold	Gold	Gold	Bronze	Gold
PMBus	Ver. 1.2	Ver. 1.2	Ver. 1.2	-	Ver. 1.2
Input Range	90 ~ 264 V _{AC}	90 ~ 264 V _{AC}	90 ~ 264 V _{AC}	90 ~ 264 V _{AC}	90 ~ 264 V _{AC}
Output Range	+3.3V @ 20 A +5 V @ 20 A +12 V1 @ 29 A -5 V @ 0.3 A -12 V @ 0.5 A +5 Vsb @ 2 A	+3.3V @ 20 A +5 V @ 20 A +12 V1 @ 16 A +12 V2 @ 16A +12 V3 @ 16A -5 V @ 0.3 A -12 V @ 0.5 A +5 Vsb @ 3 A	+3.3V @ 24 A +5 V @ 30 A +12 V @ 60.9 A -12 V @ 0.5 A +5 Vsb @ 4 A	+3.3V @ 20 A +5 V @ 25 A +12 V @ 40.2 A -12 V @ 0.5 A +5 Vsb @ 3.52 A	+3.3V @ 25 A +5 V @ 25 A +12 V @ 57 A -12 V @ 0.3 A +5 Vsb @ 4.5 A
MTBF(hrs)	100,000 @ 25° C	100,000 @ 25° C	100,000 @ 25° C	100,000 @ 25° C	100,000 @ 25° C
Dimensions (W x H x D)	150 x 84 x 190 mm	150 x 84 x 190 mm	150 x 84 x 200 mm	85 x 86.6 x 217 mm	75.6 x 83.8 x 250 mm
PMBUS	1.2	1.2	1.2	NA	1.2
Safety	CE , FCC, UL , CB, TUV, CCC, KCC	CE , FCC, UL , CB, TUV, CCC, KCC	CE , FCC, UL , CB, TUV, CCC, KCC	CE , FCC, UL , CB, TUV, CCC, KCC	CE , FCC, UL , CB, TUV, CCC, KCC
Compatible Chassis	IPC-7130, IPC-7130L, IPC-7220, IPC-610, IPC-611, ACP-4000, ACP-4010, ACP-4320, ACP-4340, ACP-4360, IPC-622, HPC-7442	IPC-7130, IPC-7130L, IPC-7220, IPC-610, IPC-611, ACP-4000, ACP-4010, ACP-4320, ACP-4340, ACP-4360, IPC-622, HPC-7442	ACP-4000, ACP-4010, IPC-622, HPC-7442	HPC-7242, HPC-7282, HPC-7320, HPC-8316	HPC-7242, HPC-7282, HPC-7320, HPC-8316

CPU Coolers

Intel® LGA1150/1151/1155/1156



Model Name	1960049408N001	1960047831N001	1960052651N021	1960047669N001
Thermal Dispatch Performance	Intel LGA1156/1155/1150/1151 84W	Intel LGA1156/1155/1150/1151 95W	Intel LGA 1156/1155/1150/1151 80W	Intel LGA1156/1155/1150/1151 95W
Fan	-	7 cm/35.5CFM 5400+/- 10% RPM	6 cm/28.77 CFM 5800 +/- 10% RPM	8 cm/57.5 CFM 4500+/- 10% RPM
Heatsink Material	Copper	Copper	Aluminum	Aluminum & Copper heart
Heatsink Dimensions	85 x 85 x 26 mm (3.35" x 3.35" x 1.02")	83 x 83 x 39.26 mm (3.27" x 3.27" x 1.54")	90x 90x 68 mm (3.54" x 3.54" x 2.68")	90 x 90 x 35 mm (3.54" x 3.54" x 1.38")
Dimensions	-	83 x 83 x 55.73mm (3.27" x 3.27" x 2.17")	90x 90x 68 mm (3.54" x 3.54" x 2.68")	120 x 120 x 77 mm (4.72" x 4.72" x 3.03")
Weight	611 g	582 g	417g	500 g
Minimum Chassis Height	1U	2U	2U/4U	4U
Recommended Chassis	ACP-1010/1320 HPC-7140/7180	Backplane version of chassis	Motherboard/ backplane version of chassis	Motherboard version of chassis
Supported Boards	AIMB-580/701/780/781/782/784; PCE-5125/5126/5127/7127/5026 ASMB-584/585/781/782/784/785	AIMB-580/581/582; PCE-5125/5126/5127/ 5026/7127/5128/7128	AIMB-705/785 PCE-5029/5129/7129/3029/4129 ASMB-584/585/781/782/784/785	AIMB-580/581/582/701/780/ 781/782/784

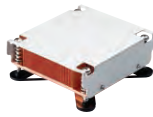


Model Name	1960053065N001	1960053207N001
Thermal Dispatch Performance	Intel LGA1155/1150/1151 55W Up to Core i3	Intel LGA1155/1150/1151 65W Up to Core i7
Fan	77 x 75 x 15.4 mm/11.83 CFM 5500+/- 10% RPM	9 cm/45.09 CFM 4400 +/- 10% RPM
Heatsink Material	Copper	Aluminum & Copper
Heatsink Dimensions	84 x 84 x 13 mm (3.32" x 3.32" x 0.51")	92.9 x 92.2 x 46 mm (3.67" x 3.67" x 1.82")
Dimensions	84 x 84 x 28 mm (3.32" x 3.32" x 1.11")	92.9 x 92.2 x 46 mm (3.67" x 3.67" x 1.82")
Weight	382g	250g
Minimum Chassis Height	1U	1.5U
Recommended Chassis	IPC-3026, IPC-3012	IPC-3026, IPC-3012
Supported Board	PCE-3026/3028/3029/4128/4129 AIMC-3200/3201/3420/3421	PCE-3026/3028/3029/4128/4129 AIIIS-1240/1440/3400/3410 AIMC-3200/3420

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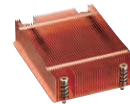
CPU Coolers

Intel® Pentium 4 LGA775



Model Name	1960013266T000	1750000332	1750000334
Thermal Dispatch Performance	Pentium 4: Up to 3.4 GHz (90 nm, 84 W, L2: 1 MB) Core 2 Duo: Up to 3.33 GHz (65 nm, 65 W, L2: 4 MB)	Pentium 4: Up to 3.8 GHz (90 nm, 115 W, L2: 1 MB) Core 2 Duo: Up to 3.33 GHz (65 nm, 65 W, L2: 4 MB) Core 2 Quad: Up to 3 GHz (45 nm, 95 W, L2: 12 MB)	Pentium 4: Up to 3.8 GHz (90 nm, 115 W, L2: 1 MB) Core 2 Duo: Up to 3.33 GHz (65 nm, 65 W, L2: 4 MB)
Fan	-	7 cm / 35.5 CFM 5,400 ± 10% RPM	8 cm / 57.7 CFM 4,500 ± 10% RPM
Heatsink Material	Copper	Copper	Aluminum fins & copper heart
Heatsink Dimensions	80 x 80 x 27 mm (3.15" x 3.15" x 1.06")	83 x 83 x 15 ~ 39 mm (3.27" x 3.27" x 0.59" ~ 1.54")	90 x 90 x 32 mm (3.54" x 3.54" x 1.26")
Dimensions	90 x 82.4 x 26 mm (3.54" x 3.24" x 1.02")	83 x 83 x 55 mm (3.27" x 3.27" x 2.17")	110 x 110 x 67 mm (4.33" x 4.33" x 2.64")
Weight	554 g	560 g	550 g
Minimum Chassis Height	1U	2U	4U
Recommended Chassis	ACP-1320 series	Backplane version of chassis	Motherboard version of chassis
Supported Boards	AIMB-766/764/762, PCA-6194/6011/6010, PCE-5124	PCA-6194/6011/6010, PCE-5124	AIMB-256/566/564/562769/767/766/764/763/762

Intel® Xeon® LGA2011



Part number	1960055362N001	1960065684N001	1960063011N001	1960063011N011	1960065593N001	1960065591N001	1960057226N001
Thermal Dispatch Performance	Up to 145W	Up to 160W	Up to 135W	Up to 120W	Up to 135W	Up to 135W	Up to 95W
Fan	6cm / 38.8CFM 6800 ± 10% RPM	9cm/108.08CFM 5000 ± 10% RPM	6cm/50.40CFM 9000± 10% RPM	6cm/50.40CFM 9000+/- 10% RPM(Puller Fan)	-	-	-
Heatsink Material	Aluminum Fins & Cu Block with 3 Heat Pipes	Aluminum Fins & Copper base with 3 Heat Pipes	Aluminum fins soldered Copper base with Heatpipe	Aluminum fins soldered Copper base with Heatpipe	Copper with vapor chamber	Copper with vapor chamber	Aluminum fins soldered Copper base with Heatpipe
Heatsink Dimensions (L x W x H)	90.0 x 90.0 x 63.9 mm	88.2 x 88.2 x 112.15 mm	107 x 70 x 64.0 mm	107 x 70 x 64.0 mm	106 x 82 x 27 mm	106 x 82 x 27 mm	90 x 90 x 25.5 mm
Dimensions	90.0 x 90.0 x 65.6 mm	88.2 x 88.2 x 112.15 mm	94.0 x 70.0 x 64.0 mm	94.0 x 70.0 x 64.0 mm	106 x 82 x 27 mm	106 x 82 x 27 mm	90 x 90 x 25.5 mm
Weight	413g	583g	319g	319g	405g	385g	197g
Minimum Chassis Height	2U	4U	2U	2U	1U	1U	1U
Supported Boards	ASMB-823/913/920/923	ASMB-823/913/920/923	ASMB-822/922/813	PCE-9228	ASMB-822/813 & 922 (For CPU1)	ASMB-922 (For CPU0)	ASMB-823/913/920/923
Remark	Square Type	Square Type	Narrow Type	Narrow Type	Narrow Type	Narrow Type	Square Type

Keyboards



IPC-KB-6307
105-key Keyboard with Touchpad

- 105-key, supports Windows key
- Built-in pressure activated touchpad, fully compatible with Windows, supporting plug & play
- Spiral cable with PS/2 keyboard & mouse connector
- Dimensions (W x H x D): 392 x 26 x 255 mm (15.4" x 1" x 10")
- Weight: 2 kg (8.8 lb)
- CE compliant
- Language: English
- P/N: IPC-KB-6307



IPC-KB-6312
Rackmount 105-key Keyboard with Touchpad

- 105-key, supports Windows key
- Built-in pressure activated touchpad, fully compatible with Windows, supporting plug & play
- Spiral cable with PS/2 keyboard & mouse connector
- 19" rackmount
- Height: 1U (44.4 mm, 1.75")
- Ball-bearing slide rail with handle and lock
- Dimensions (W x H x D): 482 x 44.4 x 360 mm (19" x 1.75" x 14.2")
- Language: English
- P/N: IPC-KB-6312 (beige keyboard / beige rack)
IPC-KB-6312B (beige keyboard / black rack)



IPC-KB-6302
Compact 104-key Keyboard

- 104-key with tactile response
- AT & PS/2 compatible
- Over 20 million life cycles
- Spiral cable with 6-pin PS/2 keyboard connector (not including PS/2 to 5-pin DIN PC/AT adapter)
- Dimensions (W x H x D): 400 x 40 x 188 mm (15.7" x 1.6" x 7.4")
- Language: English
- P/N: IPC-KB-6302



IPC-KB-6304
Compact 88-key Keyboard

- 88-key with membrane structure
- PC/AT, PS/2, DOSV compatible
- 5 million life cycles
- Spiral cable with 6-pin PS/2 keyboard connector (not including PS/2 to 5-pin DIN PC/AT adapter)
- Dimensions (W x H x D): 287 x 29 x 140 mm (11.3" x 1.14" x 5.5")
- Weight: 0.5 kg (1.1 lb)
- CE, FCC, UL, CSA, CNS compliant
- Language: English
- P/N: IPC-KB-6304



IPC-KB-6305
Compact 88-key Keyboard with Touchpad

- 88-key with membrane structure
- PC/AT, PS/2, DOSV compatible
- Built-in touchpad for pointing input device
- 5 million life cycles
- Spiral cable with PS/2 keyboard & mouse connector (not including PS/2 to PC/AT and PS/2 to DB-9 adapters)
- Dimensions (W x H x D): 289 x 27 x 227 mm (11.4" x 1.06" x 8.9")
- Weight: 0.8 kg (1.76 lb)
- CE, FCC, UL, CSA, CNS compliant
- Language: English
- P/N: IPC-KB-6305

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Accessories

Slide Rail



For 1U rackmount chassis

- 26" P/N: 9680009153
- Maximum acceptable load: 25kg
- 1 pair included



For 2U and higher rackmount chassis

- 26" P/N: 9680006905
- Maximum acceptable load: 45kg
- 1 pair included

Industrial Disk Tray/Bay



IPC-DT-5121/ IPC-DT-5121B

Shockproof industrial hard disk drive tray with cooling fan and optional front USB and PS/2 interfaces

- Accepted Device: 1 x 3.5" HDD (only for 9.5mm thickness)
- Cooling Fan: 1 x 4 cm
- Color (Codes): Gray (414U), Black (4C2X)
- Dimensions (W x H x D): 148.5 x 42.6 x 171 mm³



989K008733

A frame to securely fix a 3.5" HDD in a 5.25" drive bay

- Accepted Device: 3.5" HDD x 1



IPC-DT-3120E

Mobile rack for converting a 3.5" drive bay to dual 2.5" SATA HDD/SSD trays

- Accepted Device: 2 x 2.5" SATA HDD/SSD (only for HDD/SSD thickness less than 9.6 mm)
- Dimensions (W x H x D): 101.6 x 25.4 x 139 mm³



989K008734

A frame to securely fix two 2.5" HDDs/SSDs in a 3.5" drive bay

- Accepted Device: 2.5" SATA HDD/SSD x 2 (only for HDD thickness less than 9.6 mm)



9892200013E

Module to convert a 5.25" drive bay to a slim ODD and a 3.5" drive bay

- Accepted Device: 3.5" device x 1, slim ODD x 1



96RACK-5SS-CAGE-CR

Mobile rack for converting one 5.25" drive bay to four 2.5" SAS/SATA HDD/SSD trays

- Accepted Device: 2.5" SAS/SATA HDD/SSD x 4
- Dimension (W x H x D): 146 x 41 x 170 mm³



IPC-DT-5230E

Mobile rack for converting dual 5.25" drive bays to three 3.5" SAS/SATA HDD trays

- Accepted Device: 3.5" SAS/SATA HDD x 3 or 2.5" SAS/SATA HDD/SSD x 3
- Cooling Fan: 1 x 8 cm
- Dimensions (W x H x D): 146.5 x 86 x 225 mm³



96RACK-5-SS-CR-B2

Mobile rack for converting one 5.25" drive bay to one slim ODD and two 2.5" SAS/SATA HDD/SSD trays

- Accepted Device : slim ODD x 1 , 2.5" SAS/SATA HDD/SSD x 2
- Dimension (W x H x D): 146 x 41.3 x 170 mm³

Add-on Card Hold Down Kit



98RKBTOS09E

Add-on card hold down kit (short)

- Bracket Q'ty of each kit : 5 pcs
- For PCI add-on card with height 72.3mm ~ 87.3mm and PCIe add-on card with height 81.7mm ~ 91.8mm



98RKBTOS10E

Add-on card hold down kit (long)

- Bracket Q'ty of each kit : 5 pcs
- For PCI add-on card with height 54.8mm ~ 75.7mm and PCIe add-on card with height 59.3mm ~ 80.2mm

Accessories

USB Cables



Part Number	1700008461	1700003195	1700002204	1700014398	1700020277-01
Description	USB 2.0 cable with 4 ports	USB 2.0 cable with 2 ports	USB 2.0 cable with 2 ports	USB 2.0 cable with 4 ports	USB 3.0 cable with 2 ports
Cable Length	30.5 cm (12.01")	17.5 cm (6.89")	27 cm (11.92")	30.5 cm (12.01")	30 cm (11.81")
Remark	For ATX/Micro-ATX MB, full-sized SBC			For half-sized SBC	For ATX/Micro-ATX MB, full/half-sized SBC

SATA Cables



Part Number	96CB-SATAPOWER-6P1	1700022749-11	1700019381	1700007351	1700003194
Description	SATA power cable for slim ODD	SATA power cable for HDD/SSD	SATA data cable (right angle)	SATA data cable (right angle)	SATA data cable
Cable Length	10 cm (3.94")	10 cm (3.94")	55 cm (21.65")	40 cm (15.75")	60 cm (23.62")
Remark	Big 4 P to SATA power cable for Slim ODD	Big 4 P to SATA power cable for HDD/SSD	SATA data cable with 1 right angle and 1 vertical connectors	SATA data cable with 1 right angle and 1 vertical connectors	SATA data cable with vertical connectors with locks

COM and Printer Ports Cables



Part Number	1701092300	1701090401	1700020294-01	1700008762
Description	COM cable with 2 ports	COM cable with 1 port	Printer (Parallel) port cable	COM cable with 2 ports
Cable Length	28.5 cm (11.22")	40 cm (15.75")	42.0 cm (16.54")	22.5 cm (8.86")
Remark	For ATX/Micro-ATX MB, full-sized SBC		For ATX/Micro-ATX MB, full-sized SBC	For half-sized SBC

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Accessories

Video Cables



Part Number	PCE-DP10-00A1E	1700021831-01	1700008822-11
Description	Display port cable	DP to DVI port cable	DVI to DVI port cable
Cable Length	25 cm (9.84")	30 cm (11.81")	30 cm (11.81")
Remark	Video cable for converting on board DP connector to external DP port supporting DP 1.1a/1.2 signaling	Video cable for converting on board DP connector to external DVI-D port	Video cable for converting on board DVI connector to external DVI-D port

Other Cables



Part Number	1700006915	1700006916	1700024754-01
Description	Cable for ACP-4000MB front LED board	Cable for IPC-610MB-H front LED board	Power cable for GPU card
Cable Length	60 cm (23.62")	60 cm (23.62")	10 cm
Remark	For those Advantech motherboards with VOLT1 connector too far away from the chassis LED board		2*B4P Molex power connector to 6+2P PCIe power cable for GPU card

Industrial Ethernet Solutions

Industrial Ethernet Product Selection Guide		14-2
EN50155 Ethernet Switches		
EKI-6558TI	EN50155 IP67 8-port M12 Managed Ethernet Switch with Wide Temperature	
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EN50155 Ethernet Switches



Model Name		EKI-6558TI	EKI-6559TMI	EKI-6528TI	EKI-6528TPI
Description		EN50155 IP67 8-port M12 Managed Ethernet Switch with Wide Temperature	EN50155 IP67 8-port M12 + 2-port Fiber Optic Managed Ethernet Switch with Wide Temperature	EN50155 8-port M12 Unmanaged Switch with Wide Temperature	EN50155 8-port PoE M12 Unmanaged Switch with Wide Temperature
Interface	Ports Number	8	10	8	8
	10/100Base-T (X)	8	8	8	4
	100BaseFX	-	2	-	-
	10/100/1000Base-T (X)	-	-	-	-
	1000Base-SX/LX/LHX/XD/ZX/EZX	-	-	-	-
	PoE (10/100 Mbps)	-	-	-	4
	PoE (10/100/1000 Mbps)	-	-	-	-
Network Management	DI/DO	-	-	-	-
	Console	V	V	-	-
	Redundancy	V	V	-	-
	Diagnostics	V	V	-	-
	VLAN	V	V	-	-
	Configuration	V	V	-	-
	SNMP	V	V	-	-
Power	Security	V	V	-	-
	Traffic Control	V	V	-	-
	2 x Unregulated 12 ~ 48 V _{DC}	V	V	12 ~ 48 V _{DC}	24 ~ 48 V _{DC}
	2 x Unregulated 100 ~ 240 V _{DC}	-	-	-	-
Mechanism	2 x Unregulated 100 ~ 240 V _{AC}	-	-	-	-
	Relay Output	V	V	-	-
	DIN-rail Mount	-	-	V	V
	Wall Mount	V	V	V	V
Protection	Rack Mount	-	-	-	-
	IP Level	IP67	IP67	IP40	IP40
	ESD (Ethernet)	V	V	V	V
	Surge (EFT for power)	V	V	V	V
Operating Temperature	Power Reverse	V	V	V	V
	-10 ~ 60°C (14 ~ 140°F)	-	-	-	-
	-40 ~ 75°C (-40 ~ 158°F)	V	V	V	V
	-40 ~ 85°C (-40 ~ 185°F)	-	-	-	-
Certification	CE	V	V	V	V
	FCC	V	V	V	V
	UL/cUL 60950-1	-	-	V	V
	Class I, Division 2	-	-	-	-
	UL 508	V	V	-	-
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PoE Switches



Model Name		EKI-9312P	EKI-9316P	EKI-7659CPI	EKI-2726FHPI	EKI-2525P	EKI-2526PI
Description		12 Port Industrial-Class Managed DIN Rail Switch Full Gigabit Switch with PoE/PoE+	16 Port Industrial-Class Managed DIN Rail Switch Full Gigabit Switch with PoE/PoE+	8+2G Port Gigabit Managed Redundant Industrial PoE Switch with Wide Temperature	4G+2 SFP W/ 4 IEEE 802.3 High Power PoE Industrial Wide Temperature Switch	5-port Industrial PoE Switch	6-port Industrial PoE Switch with Wide Temperature
Interface	Ports Number	12	16	10	6	5	6
	10/100Base-T (X)	-	-	-	-	1	2
	100BaseFX	-	-	-	-	-	-
	10/100/1000Base-T (X)	-	-	-	4	-	-
	1000Base-SX/LX/LHX/XD/ZX/EZX	4	4	2 Combo	2	-	-
	PoE (10/100 Mbps)	-	-	8	-	4	4
	PoE (10/100/1000 Mbps)	8 (PoE+)	12 (PoE+)	-	4 (PoE+)	-	-
	M12 Connector (10/100 Mbps)	-	-	-	-	-	-
	DI/DO	-	-	-	-	-	-
Console	1	1	V	-	-	-	
Network Management	Redundancy	V	V	V	-	-	-
	Diagnostics	V	V	V	-	-	-
	VLAN	V	V	V	-	-	-
	Configuration	V	V	V	-	-	-
	SNMP	V	V	V	-	-	-
	Security	V	V	V	-	-	-
	Traffic Control	V	V	V	-	-	-
Power	2 x Unregulated 48 V _{DC}	48 V _{DC}	48 V _{DC}	48 V _{DC}	48 V _{DC}	48 V _{DC}	48 V _{DC}
	2 x Unregulated 100 ~ 240 V _{DC}	-	-	-	-	-	-
	2 x Unregulated 100 ~ 240 V _{AC}	-	-	-	-	-	-
	Relay Output	-	-	V	V	V	V
Mechanism	DIN-rail Mount	V	V	V	V	V	V
	Wall Mount	v	v	V	V	V	V
	Rack Mount	-	-	-	-	-	-
	IP Level	IP30	IP30	IP30	IP30	IP30	IP30
Protection	ESD (Ethernet)	V	V	V	V	V	V
	Surge (EFT for power)	V	V	V	V	V	V
	Power Reverse	V	V	V	V	V	V
Operating Temperature	-10 ~ 60°C (14 ~ 140°F)	-	-	-	-	V	-
	-40 ~ 75°C (-40 ~ 167°F)	v	v	V	V	-	V
	-40 ~ 85°C (-40 ~ 185°F)	-	-	-	-	-	-
Certification	CE	v	v	V	V	V	V
	FCC	v	v	V	V	V	V
	UL/cUL 60950-1	v	v	V	-	V	V
	Class I, Division 2	v	v	-	-	-	-
	UL 508	-	-	-	V	-	-
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Model Name		EKI-2525PA	EKI-2528PAI	EKI-2701HPI	EKI-2701PSI
Description		5-port Industrial PoE Switch with 24/48 V _{DC} Power Input	8-port Industrial PoE Switch with 24/48 V _{DC} Power Input and Wide Temperature	Industrial PoE+ Injector with Wide Temperature	Industrial PoE Splitter with Wide Temperature
Interface	Ports Number	5	8	2	2
	10/100Base-T (X)	1	4	-	-
	100BaseFX	-	-	-	-
	10/100/1000Base-T (X)	-	-	1	1
	1000Base-SX/LX/LHX/XD/ZX/EZX	-	-	-	-
	PoE (10/100 Mbps)	4	4	-	-
	PoE (10/100/1000 Mbps)	-	-	1 (PoE+)	1
	M12 Connector (10/100 Mbps)	-	-	-	-
	DI/DO	-	-	-	-
Network Management	Console	-	-	-	-
	Redundancy	-	-	-	-
	Diagnostics	-	-	-	-
	VLAN	-	-	-	-
	Configuration	-	-	-	-
	SNMP	-	-	-	-
	Security	-	-	-	-
	Traffic Control	-	-	-	-
Power	2 x Unregulated	24/48 V _{DC}	24/48 V _{DC}	24/48 V _{DC}	44~57 V _{DC}
	2 x Unregulated 100 ~ 240 V _{DC}	-	-	-	-
	2 x Unregulated 100 ~ 240 V _{AC}	-	-	-	-
	Relay Output	V	V	V	-
Mechanism	DIN-rail Mount	V	V	V	V
	Wall Mount	V	V	V	V
	Rack Mount	-	-	-	-
	IP Level	IP30	IP30	IP30	IP30
Protection	ESD (Ethernet)	V	V	V	V
	Surge (EFT for power)	V	V	V	V
	Power Reverse	V	V	V	V
Operating Temperature	-10 ~ 60°C (14 ~ 140°F)	V	-	-	-
	-40 ~ 75°C (-40 ~ 167°F)	-	V	V	V
	-40 ~ 85°C (-40 ~ 185°F)	-	-	-	-
Certification	CE	V	V	V	V
	FCC	V	V	V	V
	UL/cUL 60950-1	-	-	V	V
	Class I, Division 2	-	-	-	-
	UL 508	V	V	V	-
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Managed Ethernet Switches



Model Name		EKI-9778	EKI-9316/ EKI-9312	EKI-7758F	EKI-7656C/CI	EKI-7659C/CI	EKI-7657C/CI	EKI-7654C
Description		24GbE + 4 10GbE Port Managed Switch with Combo Port	16/12 Port Industrial-Class Managed DIN Rail Switch Full Gigabit Switch	4G+4SFP Gigabit Managed Redundant Industrial Ethernet Switch	16+2G Combo Port Gigabit Managed Redundant Industrial Ethernet Switch	8+2G Combo Port Gigabit Managed Redundant Industrial Ethernet Switch	7+3G Combo Port Gigabit Managed Redundant Industrial Ethernet Switch with 2 x DI/O	4+2G Combo Port Gigabit Managed Redundant Industrial Ethernet Switch
Interface	Ports Number	28	16/12	8	18	10	10	6
	10/100Base-T (X)	-	-	-	16	8	7	4
	100BaseFX	-	-	-	-	-	-	-
	10/100/1000Base-T (X)	16 combo	12/8	4	2	2	3	2
	1000Base-SX/LX/LHX/ XD/ZX/EZX	8 & 16 combo	4	4	2 (Combo)	2 (Combo)	3 (Combo)	2 (Combo)
	10GBE SFP+	4	-	-	-	-	-	-
	PoE (10/100 Mbps)	-	-	-	-	-	-	-
	DI/DO	-	-	-	-	-	2	-
Console	1	1	V	V	V	V	V	
Network Management	Redundancy	V	V	V	V	V	V	V
	Diagnostics	V	V	V	V	V	V	V
	VLAN	V	V	V	V	V	V	V
	Configuration	V	V	V	V	V	V	V
	SNMP	V	V	V	V	V	V	V
	Security	V	V	V	V	V	V	V
	Traffic Control	V	V	V	V	V	V	V
Power	2 x Unregulated 12 ~ 48 V _{DC}	-	24/48 V _{DC}	V	V	V	V	V
	2 x Unregulated 100 ~ 240 V _{DC}	-	-	-	-	-	-	-
	2 x Unregulated 100 ~ 240 V _{AC}	V	-	-	-	-	-	-
	Relay Output	-	-	V	V	V	V	V
Mechanism	DIN-rail Mount	-	V	V	V	V	V	V
	Wall Mount	-	V	V	V	V	V	V
	Rack Mount	V	-	-	-	-	-	-
	IP Level	IP30	IP30	IP30	IP30	IP30	IP30	IP30
Protection	ESD (Ethernet)	V	V	V	V	V	V	V
	Surge (EFT for power)	V	V	V	V	V	V	V
	Power Reverse	V	V	V	V	V	V	V
Operating Temperature	-10 ~ 60°C (14 ~ 140°F)	V	-	V	V	V	V	V
	-40 ~ 75°C (-40 ~ 158°F)	-	V	-	V (EKI-7656CI)	V (EKI-7659CI)	V (EKI-7657CI)	-
	-40 ~ 85°C (-40 ~ 185°F)	-	-	-	-	-	-	-
Certification	CE	V	V	V	V	V	V	V
	FCC	V	V	V	V	V	V	V
	UL/cUL 60950-1	Ongoing	V	V	V	V	V	V
	Class I, Division 2	-	V	V	V	-	V	-
	UL 508	-	-	-	-	-	-	-
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Managed Ethernet Switches



Model Name		EKI-7559SI/MI	EKI-7554SI/MI	EKI-2748FI/CI	EKI-2548I
Description		8+2 SC Type Fiber Optic Managed Redundant Industrial Ethernet Switch with Wide Temperature	4+2 SC Type Fiber Optic Managed Redundant Industrial Ethernet Switch with Wide Temperature	8Gx Managed Ethernet Switch with Wide Temperature	8Tx Managed Ethernet Switch with Wide Temperature
Interface	Ports Number	10	6	8	8
	10/100Base-T (X)	8	4	-	8
	100BaseFX	2	2	-	-
	10/100/1000Base-T (X)	-	-	4/6	-
	1000Base-SX/LX/LHX/XD/ZX/EZX	-	-	4/2	-
	PoE (10/100 Mbps)	-	-	-	-
	PoE (10/100/1000 Mbps)	-	-	-	-
	DI/DO	-	-	-	-
Console	V	V	V	-	
Network Management	Redundancy	V	V	V	V
	Diagnostics	V	V	V	V
	VLAN	V	V	V	V
	Configuration	V	V	V	V
	SNMP	V	V	V	V
	Security	V	V	V	V
	Traffic Control	V	V	V	V
Power	2 x Unregulated 12 ~ 48 V _{DC}	V	V	V	V
	2 x Unregulated 100 ~ 240 V _{DC}	-	-	-	-
	2 x Unregulated 100 ~ 240 V _{DC}	-	-	-	-
	Relay Output	V	V	V	V
Mechanism	DIN-rail Mount	V	V	V	V
	Wall Mount	V	V	V	V
	Rack Mount	-	-	-	-
	IP Level	IP30	IP30	IP30	IP30
Protection	ESD (Ethernet)	V	V	V	V
	Surge (EFT for power)	V	V	V	V
	Power Reverse	V	V	V	V
Operating Temperature	-10 ~ 60°C (14 ~ 140°F)	-	-	-	-
	-40 ~ 75°C (-40 ~ 167°F)	V	V	V	V
	-40 ~ 85°C (-40 ~ 185°F)	-	-	-	-
Certification	CE	V	V	V	V
	FCC	V	V	V	V
	UL/cUL 60950-1	V	V	-	-
	Class I, Division 2	V	-	V	V
	UL 508	-	-	V	V
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ProView Series Ethernet Switches



Model Name		EKI-5725/I EKI-5728/I	EKI-5525/I EKI-5528/I	EKI-5729F/FI	EKI-5726/I	EKI-5726F/FI	EKI-5524SS/MM Series
Description		5/8-port Gigabit Ethernet ProView Switch	5/8-port Fast Ethernet ProView Switch	8-Port+2 SFP Gigabit Ethernet ProView Switch	16-port Gigabit Ethernet ProView Switch	16-port+2 SFP Gigabit Ethernet ProView Switch	4-port + 2 F Single/Multi-mode (SC/ST) Fast Ethernet ProView Switch
Interface	Ports Number	5/8	5/8	8	16	16	4
	10/100Base-T (X)	-	5/8	-	-	-	-
	100BaseFX	-	-	-	-	-	-
	10/100/1000Base-T (X)	5/8	-	8	16	16	-
	1000Base-SX/LX/LHX/XD/ZX/EZX	-	-	2	-	2	-
	100FX Fiber, fixed	-	-	-	-	-	2
	100FX Fiber mode	-	-	-	-	-	Single/ Multi-Mode
100FX Fiber connector type	-	-	-	-	-	SC/ ST type	
Network Management	VIP Port	V	V	V	V	V	V
	Modbus TCP	V	V	V	V	V	V
	EtherNet/IP	EKI-5728I	-	EKI-5729FI	V	V	-
	Configuration	V	V	V	V	V	V
	SNMP	V	V	V	V	V	V
Power	2 x Unregulated 48 V _{DC}	V	V	V	V	V	V
	2 x Unregulated 100 ~ 240 V _{DC}	-	-	-	-	-	-
	2 x Unregulated 100 ~ 240 V _{AC}	-	-	-	-	-	-
	Relay Output	V	V	V	V	V	V
Mechanism	DIN-rail Mount	V	V	V	V	V	V
	Wall Mount	V	V	V	V	V	V
	Rack Mount	-	-	-	-	-	-
	IP Level	IP30	IP30	IP30	IP30	IP30	IP30
Protection	ESD (Ethernet)	V	V	V	V	V	V
	Surge (EFT for power)	V	V	V	V	V	V
	Power Reverse	V	V	V	V	V	V
Operating Temperature	-10 ~ 60°C (14 ~ 140°F)	V	V	V	V	V	V
	-40 ~ 75°C (-40 ~ 167°F)	EKI-5725I EKI-5728I	EKI-5525I EKI-5528I	EKI-5729FI	EKI-5726I	EKI-5726FI	EKI-5524SSI/ SSI-ST EKI-5524MMI/ MMI-ST
	-40 ~ 85°C (-40 ~ 185°F)	-	-	-	-	-	-
Certification	CE	V	V	V	V	V	V
	FCC	V	V	V	V	V	V
	e-Mark	EKI-5728/I	-	V	-	-	-
	IECEX	V	V	V	V	V	V
	Class 1, Division 2	V	V	V	V	V	V
	ATEX	V	V	V	V	V	V
	UL 508	V	V	V	V	V	V
	EtherNet/IP	EKI-5728I	-	EKI-5729FI	-	-	-
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Unmanaged Ethernet Switches



Model Name		EKI-4524I/RI	EKI-7626C/CI	EKI-7629C/CI	EKI-7526I	EKI-2525/I EKI-2528/I
Description		24+2 SPF Port Unmanaged Industrial Ethernet Switch with Wide Temperature	16+2G Combo Port Gigabit Unmanaged Industrial Ethernet Switch	8+2G Combo Port Gigabit Unmanaged Industrial Ethernet Switch	16-port Unmanaged Industrial Ethernet Switch	5/8-port Unmanaged Industrial Ethernet Switch
Interface	Ports Number	24/26	18	10	16	5/8
	10/100Base-T (X)	24	16	8	16	5/8
	100BaseFX	0/2	-	-	-	-
	10/100/1000Base-T (X)	-	2	2	-	-
	1000Base-SX/LX/LHX/ XD/ZX/EZX	-	2 (Combo)	2 (Combo)	-	-
	PoE (10/100 Mbps)	-	-	-	-	-
	PoE (10/100/1000 Mbps)	-	-	-	-	-
	DI/DO	-	-	-	-	-
Network Management	Console	-	-	-	-	-
	Redundancy	-	-	-	-	-
	Diagnostics	-	-	-	-	-
	VLAN	-	-	-	-	-
	Configuration	-	-	-	-	-
	SNMP	-	-	-	-	-
	Security	-	-	-	-	-
Power	Traffic Control	-	-	-	-	-
	2 x Unregulated 12 ~ 48 V _{DC}	-	V	V	V	V
	1 x Unregulated 100 ~ 240 V _{DC}	V	-	-	-	-
	1 x Unregulated 100 ~ 240 V _{AC}	V	-	-	-	-
Mechanism	Relay Output	V	V	V	V	V
	DIN-rail Mount	-	V	V	V	V
	Wall Mount	-	V	V	V	V
	Rack Mount	V	-	-	-	-
Protection	IP Level	IP30	IP30	IP30	IP30	IP30
	ESD (Ethernet)	V	V	V	V	V
	Surge (EFT for power)	V	V	V	V	V
Operating Temperature	Power Reverse	V	V	V	V	V
	-10 ~ 60°C (14 ~ 140°F)	-	V	V	-	V
	-40 ~ 75°C (-40 ~ 167°F)	V	V (EKI-7626CI)	V (EKI-7629CI)	V	V (EKI-2525/ EKI-2528)
Certification	-40 ~ 85°C (-40 ~ 185°F)	-	-	-	-	-
	CE	V	V	V	V	V
	FCC	V	V	V	V	V
	UL/cUL 60950-1	-	V	V	-	V
	Class I, Division 2	-	-	-	-	V
UL 508	-	-	-	V	-	
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Media Converters



Model Name		EKI-2541 M/MI/S/SI	EKI-3541 M/S	EKI-2741 F/FI/SX/SXI/LX/LXI
Description		10/100TX to Multi-mode / Single-mode SC Type Fiber Optic Industrial Media Converters	10/100TX to Multi-mode / Single-mode SC Type Fiber Optic Industrial Media Converters	10/100/1000TX to Fiber Optic Gigabit Industrial Media Converters
Interface	Ports Number	2	2	2
	10/100Base-T (X)	1	1	-
	100BaseFX	1	1	-
	10/100/1000Base-T (X)	-	-	1
	1000Base-SX/LX/LHX/XD/ZX/EZX	-	-	1
	PoE (10/100 Mbps)	-	-	-
	PoE (10/100/1000 Mbps)	-	-	-
Network Management	DI/DO	-	-	-
	Console	-	-	-
	Redundancy	-	-	-
	Diagnostics	-	-	-
	VLAN	-	-	-
	Configuration	-	-	-
	SNMP	-	-	-
Power	Security	-	-	-
	Traffic Control	-	-	-
	2 x Unregulated 12 ~ 48 V _{DC}	V	V	V
	2 x Unregulated 100 ~ 240 V _{DC}	-	-	-
Mechanism	2 x Unregulated 100 ~ 240 V _{AC}	-	-	-
	Relay Output	V	V	V
	DIN-rail Mount	V	V	V
	Wall Mount	V	V	V
Protection	Rack Mount	-	-	-
	ESD (Ethernet)	V	V	V
	Surge (EFT for power)	V	V	V
	Power Reverse	V	V	V
Operating Temperature	IP Level	IP30	IP40	IP30
	-10 ~ 60°C (14 ~ 140°F)	V	V	V
	-40 ~ 75°C (-40 ~ 167°F)	V (EKI-2541 M/MI/SI)	-	V (EKI-2741 F/ FI/SX/ LX/LXI)
Certification	-40 ~ 85°C (-40 ~ 185°F)	-	-	-
	CE	V	V	V
	FCC	V	V	V
	UL/cUL 60950-1	V	V	V
	Class I, Division 2	V	-	V
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- Intelligent Video and IoT Sensors **1**
- Intelligent Transportation Platforms **2**
- Intelligent Inspection Systems **3**
- Modular IPCs **4**
- Server-grade IPCs **5**
- Industrial Storages **6**
- Video Wall Controllers **7**
- GPU Servers **8**
- Industrial Motherboards **9**
- Slot SBC & Passive Backplanes **10**
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EKI-6558TI

EKI-6559TMI

EN50155 IP67 8-port M12 Managed Ethernet Switch with Wide Temperature

EN50155 IP67 8-port M12 + 2-port Fiber Optic Managed Ethernet Switch with Wide Temperature



EKI-6558TI

EKI-6559TMI



Features

- EN50155 certified
- Supports X-Ring Pro function (ultra high-speed recovery time < 20 ms)
- Wide redundant power design
- Provides M12 connector with IP67 protection
- Provides Waterproof fiber optic connector
- TFTP firmware updates and system configure restore and backup
- Dual 12 ~ 48 V_{DC} power input and 1 relay output
- Supports wide operating temperature -40 ~ 75°C
- Provides 100 Mbps LC type connector

Introduction

The EKI-6558TI and EKI-6559TMI are EN50155 certified IP67 wide temperature industrial switches which are especially designed for railway industry and harsh environments. M12 connectors secure highly reliable connectivity for industrial communication applications. EN50155 certification ensures the use of railway application. EKI-6559TMI also provides two additional fiber optic ports to extend communication range. Both EKI-6558TI and EKI-6559TMI provide Advantech's X-Ring Pro protocol, which enables users to establish a redundant Ethernet network with ultra high-speed recovery (less than 20 ms). They also support advanced network standards to optimize network performance, reduce maintenance cost, and secure network safety.

Specifications

Communications	Standard	IEEE 802.3, 802.3u, 802.3x, 802.3ad, 802.1D, 802.1w, 802.1p, 802.1Q, 802.1X
	LAN	10/100Base-T (X), 100Base-FX
	Transmission Speed	Up to 100 Mbps
Interface	Ethernet	M12, 4-pole D-coded, Female x 8
	Fiber Optic	LC type waterproof x 2, Multi-mode (EKI-6559TMI)
	Console	M12, 8-pole A-coded, Female x 1
Network Management	Configuration	Web browser, Telnet, Serial console, TFTP, SNMPv1/v2c/v3, Port Speed/Duplex Configuration, IPv6
	VLAN	IEEE 802.1Q, GVRP, Port-based VLAN
	Redundancy	Advantech X-Ring Pro (Recovery time < 20 ms at 250 pcs full loading ring structure), Dual Homing, Dual Ring, Couple Ring, 802.1w/D RSTP/STP
	Security	IP Access security, port security, DHCP Server, Port and IP Binding, 802.1X Port Access Control, SSL
	Traffic Control	IGMP Snooping/Query for multicast group management, Port Trunking, Static/802.3ad, LACP Rate limit and storm control, IEEE 802.1p QoS CoS/TOS/ DSCP priority queuing, IEEE 802.3x flow control
	Diagnostics	Port Mirroring, Real-time traffic statistic, MAC Address Table, SNTP, Syslog, Email Alert, SNMP Trap, RMON
Mechanism	Enclosure	IP67, aluminum shell with solid mounting kits
	Dimensions (W x H x D)	193 x 176 x 62.5 mm (7.59" x 6.93" x 2.46")
	Mounting	Wall
Power	Power Consumption	Max. 8.1 W
	Power Input	12 ~ 48 V _{DC} , redundant dual inputs
	Power Connector	M12, 5-pole A-coded, male x 1
	P-Fail Output	1A @ 24 V _{DC}
	P-Fail Connector	M12, 8-pole A-coded, Female x 1
Protection	Power Reverse	Present
Environment	Operating Temperature	-40 ~ 75°C (-40 ~ 167°F)
	Storage Temperature	-40 ~ 85°C (-40 ~ 185°F)
	Operating Humidity	5 ~ 95% (non-condensing)
	Storage Humidity	0 ~ 95% (non-condensing)
	MTBF	388,201 hours (EKI-6558TI), 320,420 hours (EKI-6559TMI)
Certification	Safety	UL 508
	EMI	FCC Part 15 Subpart B Class A, EN 55022 Class A
	EMS	EN 61000-4-2, EN 61000-4-3, EN 61000-4-4, EN 61000-4-5, EN 61000-4-6, EN 61000-4-8
	Shock	IEC 61373
	Freefall	IEC 60068-2-32
	Vibration	IEC 61373
Railway	EN50155, EN 50121-3-2, EN 50121-4	

Ordering Information

Part Number	Description
EKI-6558TI	EN50155 8-port M12 Managed Ethernet Switch
EKI-6559TMI	EN50155 8-port M12+ 2-port FX Managed Ethernet Switch

EKI-6528TI

EKI-6528TPI

EN50155 8-port M12 Unmanaged Switch with Wide Temperature

EN50155 8-port M12 Unmanaged PoE Switch with Wide Temperature



EKI-6528TI

EKI-6528TPI



Features

- Auto Bypass between Port 1 and Port 2
- EN50155 certified
- Wide redundant power design
- 8-port 10/100 Mbps M12 type connector with IP40 protection
- 4-port PoE type M12 (EKI-6528TPI)
- Dual redundant power input
- Supports wide operating temperature -40 ~ 75°C

Introduction

The EKI-6528TI and EKI-6528TPI are EN50155 certified industrial switches with IP40 protection and wide temperature support designed for railway applications. EKI-6528TPI provides four PoE ports that support IEEE 802.3af and can provide up to 15.4 watts of power per port. M12 connectors ensure highly reliable connectivity for industrial communication applications. With IP40 compact metal housings, these switches are protected against dusty environments and are a good fit for many industrial applications. Under no-power condition, 'Auto Bypass' function ensures the Ethernet signal connection through internal circuitry. This feature provides non-stop communication to rolling stocks even no power exists in some of the carriages.

Specifications

Communications	Standard	IEEE 802.3, IEEE 802.3u, IEEE 802.3x, IEEE 802.3af
	LAN	10/100Base-T (X)
	Transmission Speed	Up to 100 Mbps
Interface	Ethernet	M12, 4-pole D-coded, Female x 8
Mechanism	Enclosure	IP40 protected metal shell
	Dimensions (W x H x D)	92 x 180 x 42 mm (3.62" x 7.08" x 1.65")
	Mounting	DIN-rail, Wall
Power	Power Consumption	Max. 3.36 W (EKI-6528TI) Max. 72 W (EKI-6528TPI)
	Power Input	24 ~ 48 V _{DC} , redundant dual inputs (for EKI-6528TPI) 12 ~ 48 V _{DC} , redundant dual inputs (for EKI-6528TI)
	Power Connector	M12, 5-pole A-coded, male x 1
	P-Fail Output	1A @ 24 V _{DC}
	P-Fail Connector	M12, 8-pole A-coded, Female x 1
Protection	Power Reverse	Present
	Overload Current	Present
Environment	Operating Temperature	-40 ~ 75°C (-40 ~ 167°F)
	Storage Temperature	-40 ~ 85°C (-40 ~ 185°F)
	Operating Humidity	5 ~ 95% (non-condensing)
	Storage Humidity	0 ~ 95% (non-condensing)
	MTBF	391,307 hours (EKI-6528TI); 348,384 hours (EKI-6528TPI)
Certification	Safety	UL 60950-1
	EMI	FCC Part 15 Subpart B Class A, EN 55022 Class A
	EMS	EN 61000-4-2, EN 61000-4-3, EN 61000-4-4, EN 61000-4-5, EN 61000-4-6, EN 61000-4-8
	Shock	IEC 61373
	Freefall	IEC 60068-2-32
	Vibration	IEC 61373
Railway	EN50155, EN 50121-3-2, EN 50121-4	

Ordering Information

Part Number	Description
EKI-6528TI	EN50155 8-port M12 Unmanaged Ethernet Switch
EKI-6528TPI	EN50155 8-port M12 Unmanaged PoE Switch

Intelligent Video and IoT Sensors	1
Intelligent Transportation Platforms	2
Intelligent Inspection Systems	3
Modular IPCs	4
Server-grade IPCs	5
Industrial Storages	6
Video Wall Controllers	7
GPU Servers	8
Industrial Motherboards	9
Slot SBC & Passive Backplanes	10
CompactPCI Platforms	11
Industrial Chassis	12
Industrial Computer Peripherals	13
Industrial Ethernet Solutions	14

EKI-9312P

Industrial-Class 12 Port Managed DIN Rail Switch Full Gigabit Switch with PoE/PoE+



Features

- All Gigabit connections support dual ring protection and non-blocking traffic forwarding
- X-Ring Pro: recovery time within 20ms for 250 node connections
- IEEE 802.3at PoE+ to supply 30W power
- IEEE 802.3af PoE to supply 15.4W power
- IEEE 802.3af/802.3at per port with system PoE power management
- Dual power input, dual image for system reliability
- Operating temperature: -40 ~ 75°C

Introduction

The EKI-9312P Gigabit managed PoE+ Ethernet switches come standard with 8 10/100/1000BaseT(X), 802.3af (PoE), and 802.3at (PoE+) compliant Ethernet ports, and 4 fiber optic Gigabit Ethernet ports. The EKI-9312P PoE Ethernet switches provide up to 30 watts of power per PoE+ port for heavy-duty, industrial PoE devices, such as weather-proof IP surveillance cameras, high performance wireless access points, and rugged IP phones.

The EKI-9312P are equipped with 8 Gigabit Ethernet ports and up to 4 fiber optic ports, making them ideal for upgrading an existing network to Gigabit speed or building a new, full Gigabit network. The X-Ring Pro with RSTP, STP and MSTP support, increases system reliability and the availability of your network. The EKI-9312P are designed especially for bandwidth demanding applications, such as video and process monitoring, intelligent transportation systems, all of which benefit from a scalable backbone construction.

Specifications

Interface	I/O Port	8 x 10/100/1000Base-T/TX RJ-45 4 x 1000BASE-X SFP
	Console port	RJ-45
	F/W backup port	USB
	Power Connector	6-pin screw Terminal Block (including relay)
Physical	Enclosure	Aluminum Shell
	Protection Class	IP 30
	Installation	DIN Rail
	Dimensions (W x H x D)	86 x 165 x 125 (mm)
LED Display	System LED	PWR1, PWR2, SYS, CFG, Alarm and R.M.
	Port LED	Link / Speed / Activity / PoE
Environment	Operating Temperature	-40 ~ 75°C
	Storage Temperature	-40 ~ 85°C
	Ambient Relative Humidity	10 ~ 95% (non-condensing)
	Humidity	10 ~ 95% (non-condensing)
Power	Power Consumption	~ 21.82 Watts (System) EKI-9312P: ~203.42 Watts
	Power Input	48 (46 to 57 V) V _{DC} dual inputs (> 53 V _{DC} for PoE+ output recommended)
Certification	EMI	CE, FCC Class A
	Safety	UL60950 C1D2
	EMS	EN61000-6-4; EN61000-6-2; EN61000-4-2 (ESD), Level 4 EN61000-4-3 (RS) Level 3; EN61000-4-4 (EFT) Level 4; EN50121-4; EN61000-4-5 (Surge), Level 4; EN61000-4-6 (CS) Level 3 EN61000-4-8 (Magnetic Field) Level 4
	Shock	IEC 60068-2-27
	Freefall	IEC 60068-2-32
Security	Vibration	IEC 60068-2-6
	Port Security	Static, Dynamic
	Authentication	802.1x (Port-Based, MAC-Based, MD5/TLS/TTLS/PEAP Encryption), RADIUS, TCACAS+
	ACL	1K rules
Management	Advanced Security	IP Source guard, ARP inspection, DHCP Snooping
	DHCP	Client, Server, Relay, Option66/67/82
	Access	SNMP v1/v2c/v3, WEB, Telnet, RMON, Standard MIB, Private MIB
	Security access	SSH2.0, SSL
	Software upgrade	TFTP, HTTP, Dual Image
NTP	NTP client/server	

Ordering Information

Part Number	Description
EKI-9312-POID42E	Layer 2 Fastpath, 8 x GbE 100/1000Base-T with PoE+ 4 x GbE SFP w/ 48 V _{DC} Redundant Power Input

EKI-9316P

Industrial-Class 16 Port Managed DIN Rail Switch Full Gigabit Switch with PoE/PoE+



Features

- All Gigabit connections support dual ring protection and non-blocking traffic forwarding
- X-Ring Pro: recovery time within 20ms for 250 node connections
- IEEE 802.3at PoE+ to supply 30W power
- IEEE 802.3af PoE to supply 15.4W power
- IEEE 802.3af/802.3at per port with system PoE power management
- Dual power input, dual image for system reliability
- Operating temperature: -40 ~ 75°C

Introduction

The EKI-9316P Gigabit managed PoE+ Ethernet switches come standard with 12 10/100/1000BaseT(X), 802.3af (PoE), and 802.3at (PoE+) compliant Ethernet ports, and 4 fiber optic Gigabit Ethernet ports. The EKI-9316P PoE Ethernet switches provide up to 30 watts of power per PoE+ port for heavy-duty, industrial PoE devices, such as weather-proof IP surveillance cameras, high performance wireless access points, and rugged IP phones.

The EKI-9316P are equipped with 12 Gigabit Ethernet ports and up to 4 fiber optic ports, making them ideal for upgrading an existing network to Gigabit speed or building a new, full Gigabit network. The X-Ring Pro with RSTP, STP and MSTP support, increases system reliability and the availability of your network. The EKI-9316P are designed especially for bandwidth demanding applications, such as video and process monitoring, intelligent transportation systems, all of which benefit from a scalable backbone construction.

Specifications

Interface	I/O Port	12 x 10/100/1000Base-T/TX RJ-45 4 x 1000 BASE-X SFP
	Console port	RJ-45
	F/W backup port	USB
	Power Connector	6-pin screw Terminal Block (including relay)
Physical	Enclosure	Aluminum Shell
	Protection Class	IP 30
	Installation	DIN Rail
	Dimensions (W x H x D)	86 x 165 x 125 (mm)
LED Display	System LED	PWR1, PWR2, SYS, CFG, Alarm and R.M.
	Port LED	Link / Speed / Activity / PoE
Environment	Operating Temperature	-40 ~ 75°C
	Storage Temperature	-40 ~ 85°C
	Ambient Relative Humidity	10 ~ 95% (non-condensing)
	Humidity	10 ~ 95% (non-condensing)
Power	Power Consumption	~ 21.82 Watts (System) EKI-9316P: ~294.22 Watts
	Power Input	48 (46 to 57 V) V _{DC} dual inputs (> 53 V _{DC} for PoE+ output recommended)
Certification	EMI	CE, FCC Class A
	Safety	UL60950 C1D2
	EMS	EN61000-6-4; EN61000-6-2; EN61000-4-2 (ESD) Level 4 EN61000-4-3 (RS) Level 3; EN61000-4-4 (EFT) Level 4 EN61000-4-5 (Surge) Level 4; EN61000-4-6 (CS) Level 3 EN61000-4-8 (Magnetic Field) Level 4; EN50121-4
	Shock	IEC 60068-2-27
	Freefall	IEC 60068-2-32
	Vibration	IEC 60068-2-6
Security	Port Security	Static, Dynamic
	Authentication	802.1x (Port-Based, MAC-Based, MD5/TLS/TTLS/PEAP Encryption), RADIUS, TCACAS+
	ACL	1K rules
Management	Advanced Security	IP Source guard, ARP inspection, DHCP Snooping
	DHCP	Client, Server, Relay, Option66/67/82
	Access	SNMP v1/v2c/v3, WEB, Telnet, RMON, Standard MIB, Private MIB
	Security access	SSH2.0, SSL
	Software upgrade	TFTP, HTTP, Dual Image
	NTP	NTP client/server

Ordering Information

Part Number	Description
EKI-9316-POID42E	Layer 2 Fastpath, 12 x GbE 100/1000Base-T with PoE+ 4 x GbE SFP w/ 48 V _{DC} Redundant Power Input

Intelligent Video and IoT Sensors	1
Intelligent Transportation Platforms	2
Intelligent Inspection Systems	3
Modular IPCs	4
Server-grade IPCs	5
Industrial Storages	6
Video Wall Controllers	7
GPU Servers	8
Industrial Motherboards	9
Slot SBC & Passive Backplanes	10
CompactPCI Platforms	11
Industrial Chassis	12
Industrial Computer Peripherals	13
Industrial Ethernet Solutions	14

EKI-7659CPI

8+2G Port Gigabit Managed Redundant Industrial PoE Switch with Wide Temperature



Features

- 2 Gigabit Copper/SFP combo ports, plus 8 PoE injector ports
- SFP socket for Easy and Flexible Fiber Expansion
- Redundancy: Gigabit X-Ring Pro (ultra high-speed recovery time < 20 ms), RSTP/STP (802.1w/1D)
- Management: Web, Telnet, Serial Console, SNMP
- Control: VLAN/GVRP, QoS, IGMP Snooping/Query, LACP, Rate Limit
- Security: IP/MAC and port binding, DHCP Server, IP access list, 802.1X, SSL SNMPv3
- Diagnostic: Port Statistic, Port Mirroring, RMON, Trap, Email Alert, Syslog
- Dual 48 V_{DC} power input and 1 relay output
- Supports wide operating temperatures -40 ~ 75°C



Introduction

The EKI-7659CPI supports eight Power over Ethernet (PoE) ports and two Gigabit combo ports. The PoE device helps realize a centralized power supply solution and provides up to 15.4 watts of power per port. To create reliability in your network, the EKI-7659CPI comes equipped with a proprietary redundant network protocol -- X-Ring Pro that was developed by Advantech, which provides users with an easy way to establish a redundant Ethernet network with ultra high-speed recovery time less than 20 ms. Furthermore, EKI-7659CPI also supports many advanced network standards to optimize network performance, ease maintenance issues, and secure network safety.

Specifications

Communications	Standard	IEEE 802.3, 802.3u, 802.3x, 802.3z, 802.3ad, 802.3ab, 802.3af, 802.1D, 802.1w, 802.1p, 802.1Q, 802.1X
	LAN	10/100/1000Base-T (X), Optional 100Base-FX, 1000Base-SX/LX/LHX/XD/ZX/EZX
	Transmission Distance	Ethernet: Up to 100 m (4-wire Cat.5e, Cat.6 RJ45 cable suggested for Gigabit port) SFP: Up to 110 km (depends on SFP)
	Transmission Speed	Ethernet: 10/100 Mbps Auto-Negotiation Gigabit Copper: 10/100/1000 Mbps, Auto-Negotiation Gigabit Fiber: Up to 1000 Mbps
Interface	Connectors	8 x RJ45 (Ethernet), 2 x RJ45/SFP (mini-GBIC) combo ports, 6-pin removable screw terminal (Power&Relay)
	LED Indicators	System: PWR, PWR1, PWR2, R.M., P-Fail, 10/100T (X): Link/Activity, Duplex/Collision Gigabit Copper: Link/Activity, Speed (1000 Mbps), SFP: Link/Activity
	Console	RS-232 (RJ45)
Network Management	Configuration	Web browser, Telnet, Serial console, TFTP, SNMPv1/v2c/v3, Port Speed/Duplex Configuration, IPv6
	VLAN	IEEE 802.1Q, GVRP, Port-based VLAN
	Redundancy	Advantech X-Ring Pro (Recovery time < 20 ms at 250 pcs full loading ring structure), Dual Homing, Dual Ring, Couple Ring, 802.1w/D RSTP/STP
	Security	IP Access security, port security, DHCP Server, Port and IP Binding, 802.1X Port Access Control, SSL
Mechanism	Traffic Control	IGMP Snooping/Query for multicast group management, Port Trunking, Static/802.3ad, LACP Rate limit and storm control, IEEE 802.1p QoS CoS/TOS/ DSCP priority queuing, IEEE 802.3x flow control
	Diagnostics	Port Mirroring, Real-time traffic statistic, MAC Address Table, SNTP, Syslog, E-Mail Alert, SNMP Trap, RMON
	Enclosure	IP30, metal shell with solid mounting kits
Power	Dimensions (W x H x D)	79 x 152 x 105 mm (3.11" x 5.98" x 4.13")
	Mounting	DIN-rail, Wall
	Power Consumption	116 W (Full load PoE)
	Power Input	48 V _{DC} , redundant dual power input
	Power Output	15.4W at 48V (per PoE port)
Protection	Fault Output	1 Relay Output
	Power Reverse	Present
Environment	Overload Current	Present
	Operating Temperature	-40 ~ 75°C (-40 ~ 167°F)
	Storage Temperature	-40 ~ 85°C (-40 ~ 185°F)
	Operating Humidity	5 ~ 95% (non-condensing)
	Storage Humidity	0 ~ 95% (non-condensing)
	MTBF	190,200 hours
Certification	Safety	UL 60950-1, CAN/CSA-C22.2 No.60950
	EMI	FCC Part 15 Subpart B Class A, EN 55022 Class A
	EMS	EN 61000-4-2, EN 61000-4-3, EN 61000-4-4, EN 61000-4-5, EN 61000-4-6, EN 61000-4-8
	Shock	IEC 60068-2-27
	Freefall	IEC 60068-2-32
Vibration	IEC 60068-2-6	

Ordering Information

Part Number	Description
EKI-7659CPI	8FE + 2G Combo Port Managed PoE Ethernet Switch w/Wide Temp

EKI-2726FHPI

4G+2 SFP W/ 4 IEEE 802.3 High Power PoE Industrial Wide Temperature Switch



Features

- All Gigabit Ethernet ports for 4 Copper and 2 SFP
- Back-plane (Switching Fabric): 12Gbps
- Embedded 4 ports PoE inject function
- Provide 30W at 55V power output
- Redundant Power Design
- IP30 Chassis Design
- Supports operating temperatures from -40 ~ 75°C

Introduction

The EKI-2726 FHPI switch has 4 x 10/100/1000BASE-T Ethernet ports with PoE+ function and 2 x SFP sockets, it has been designed to work within a wide operating temperature range. This cost-effective solution, meets the high reliability requirements and demands of industrial applications. The equipment also meets the IEEE 802.3 at standard and can provide 30Watts output per PoE port.

Specifications

Communications	Standard	IEEE 802.3, 802.3u, 802.3x, 802.3af/at, 802.3ab, 802.3z
	LAN	10/100/1000Base-T 1000Base-SX/LX/LHX/XD/ZX/EZX
	Transmission Distance	Ethernet: Up to 100 m SFP: Up to 110 km (depends on SFP)
	Transmission Speed	Copper: 10/100/1000 Mbps, Auto-Negotiation Gigabit Fiber: Up to 1000 Mbps
Interface	Connectors	10/100/1000T(X): RJ-45 x 4 SFP: Gigabit Base x 2
	LED Indicators	System: P1, P2, P-Fail, Per port: Link/Activity, Speed, PoE (1 to 4 ports)
Power	Power Consumption	5.5 watts @ 48V _{DC} (Ethernet only)
	Power Input	48 V _{DC} (44V _{DC} to 57 V _{DC}), redundant dual inputs
	Fault Output	1 Relay Output
Mechanism	Dimensions (W x H x D)	59.6 x 152 x 105 mm (2.35" x 5.98" x 4.13")
	Enclosure	IP30, Metal shell with solid mounting kits
	Mounting	DIN-rail, Wall
Protection	Power Reverse	Present
	Overload Current	Present
Environment	Operating Temperature	-40 ~ 75°C (-40 ~ 167°F)
	Storage Temperature	-40 ~ 85°C (-40 ~ 185°F)
	Operating Humidity	5 ~ 95% (non-condensing)
	MTBF	339,740 hours
Certification	Safety	UL/cUL508 Class I, Division 2, Groups A, B, C and D
	EMI	FCC Part 15 Subpart B Class A, EN 55022 Class A
	EMS	EN 61000-4-2, EN 61000-4-3, EN 61000-4-4, EN 61000-4-5, EN 61000-4-6, EN 61000-4-8
	Shock	IEC 60068-2-27
	Freefall	IEC 60068-2-32
	Vibration	IEC 60068-2-6

Ordering Information

Part Number	Description
EKI-2726FHPI	4G+2 SFP Unmanaged Gigabit Switch with 4-port PoE+(IEEE 802.3af/at)

Intelligent Video and IoT Sensors	1
Intelligent Transportation Platforms	2
Intelligent Inspection Systems	3
Modular IPCs	4
Server-grade IPCs	5
Industrial Storages	6
Video Wall Controllers	7
GPU Servers	8
Industrial Motherboards	9
Slot SBC & Passive Backplanes	10
Compact PCI Platforms	11
Industrial Chassis	12
Industrial Computer Peripherals	13
Industrial Ethernet Solutions	14

EKI-2525P EKI-2526PI

5-port Industrial PoE Switch 6-port Industrial PoE Switch with Wide Temperature



EKI-2525P

EKI-2526PI



Features

- Provides 5/6 Fast Ethernet ports with 4 PoE ports with injector function
- Supports 10/100 Mbps Auto Negotiation
- Provides broadcast storm protection
- Supports Ethernet ESD protection
- Provides Slim size, DIN-rail/Wall mount with IP30 metal mechanism
- Supports Redundant 48 V_{DC} power input and P-Fail relay
- Supports operating temperatures from -10 to 60°C (EKI-2525P)
- Supports wide operating temperature -40 ~ 75°C (EKI-2526PI)

Introduction

The EKI-2525P is a 5-port unmanaged PoE (Power-over-Ethernet) Industrial Ethernet switch and EKI-2526PI is a 6-port unmanaged PoE Industrial Ethernet switch, they support 4 PoE ports which are classified as power source equipments (PSE). The PoE devoces makes centralized power supply come true and provides up to 15.4 watts of power per port. Advantech EKI PoE devices can be used to power IEEE 802.3af compliant powered devices (PD) by Ethernet cable and eliminates the need for additional power wiring. Advantech EKI PoE devices come equipped with all the standard features of the EKI family. Furthermore, it offers a 48 V_{DC} redundant power input design (EKI-2525P/EKI-2526PI), and is secured with a double protection mechanism; Power Polarity Reverse Protect and an Overload Current Resettable Fuse. Advantech EKI PoE devices come with compact metal housing that rates IP30 to help against from dusty industrial environments.

Specifications

Communications	Standard	IEEE 802.3, 802.3u, 802.3x, 802.3af
	LAN	10/100Base-T (X)
	Transmission Distance	Ethernet: Up to 100 m (EKI-2525P/EKI-2526PI)
	Transmission Speed	Up to 100 Mbps
Fiber Optics (EKI-252SPI)	Single-mode	1310 nm, Tx Power: -8/-15 dBm, Rx Sensitivity: -34 dBm, Parameters: 9/125 um
Interface	Connectors	PoE Ports: 4 (Ports 1 ~ 4) Ethernet x1 (EKI-2525P) Ethernet x2 (EKI-2526PI) 6-pin removable screw terminal (power & relay)
	LED Indicators	P1, P2, P-Fail; 10/100TX: Link/Activity, Duplex/Collision
	Power Consumption	EKI-2525P: 65 W (Full load PoE); EKI-2526PI: 62.6 W (Full load PoE)
Power	Power Input	48 V _{DC} (EKI-2525P/EKI-2526PI), redundant dual inputs
	Power Output	15.4 W at 48 V (per PoE port)
	Fault Output	1 Relay Output
	Dimensions (W x H x D)	37 x 140 x 95 mm (1.46" x 5.51" x 3.74") (EKI-2525P) 48.6 x 140 x 95 mm (1.91" x 5.51" x 3.74") (EKI-2526PI)
Mechanism	Enclosure	IP30, Metal shell with solid mounting kits
	Mounting	DIN-rail, Wall
Protection	Reverse Polarity	Present
	Overload current	Present
Environment	Operating Temperature	-10 ~ 60°C (14 ~ 140°F) (EKI-2525P) -40 ~ 75°C (-40 ~ 167°F) (EKI-2526PI)
	Storage Temperature	-40 ~ 85°C (-40 ~ 185°F)
	Operating Humidity	5 ~ 95% (non-condensing)
	Storage Humidity	0 ~ 95% (non-condensing)
	MTBF	440,132 hours
Certification	Safety	UL 60950-1, CAN/CSA-C22.2 No.60950
	EMI	FCC Part 15 Subpart B Class A, EN 55022 Class A
	EMS	EN 61000-4-2, EN 61000-4-3, EN 61000-4-4, EN 61000-4-5, EN 61000-4-6, EN 61000-4-8
	Shock	IEC 60068-2-27
	Freefall	IEC 60068-2-32
Vibration	IEC 60068-2-6	

Ordering Information

Part Number	Description
EKI-2525P	5-port Switch with 4 port-PoE
EKI-2526PI	6-port Switch with 4 port-PoE

EKI-2701HPI

IEEE 802.3af/at Gigabit PoE+ Injector with Wide Temperature



Features

- Supports 10/100/1000Base-T (X) for PoE+ OUT and Data IN
- IEEE 802.3af/at compliant, supports a full 30 watt output
- Power input (24 ~ 48 V_{DC}), inject 30 W for each port
- Provides slim size and DIN-rail/Wall mount with IP30 metal mechanism
- Supports operating temperatures from -40 to 75°C

Introduction

With PoE (Power over Ethernet) technology, we can transfer both data and electrical power to Ethernet-enabled devices using a standard CAT5 cable. EKI-2701HPI is compliant IEEE 802.3af/at and inject 30W for PD device. This product can operate in a wide range of Temp. between -40 to 75°C and support wide power input range between 24 to 48 V_{DC}.

Specifications

Communications	Standard	IEEE 802.3, 802.3u, 802.3x, 802.3af/at, 802.3ab	
	LAN	10/100/1000Base-T (X)	
	Transmission Distance	Up to 100 m	
	Transmission Speed	up to 1000 Mbps	
Interface	Connectors	PoE OUT: RJ45 DATA IN: RJ45 6-pin removable screw terminal	
	LED Indicators	PWR1, PWR2, PoE status, Link/Activity	
	Power		
Power	Power Consumption	Max. 33.36 W @ 24 V _{DC} (Full load PoE)	
	Power Input	24 ~ 48 V _{DC} , redundant dual power inputs	
	Power Output	30 W @ 24 V _{DC}	
Mechanism	Dimensions (W x H x D)	37 x 140 x 95 mm (1.46" x 5.51" x 3.74")	
	Enclosure	IP30, Metal shell with solid mounting kits	
	Mounting	DIN-rail, Wall	
Protection	Reverse	Present	
	Overload Current	Present	
Environment	Operating Temperature	-40 ~ 75°C (-40 ~ 167°F)	
	Storage Temperature	-40 ~ 85°C (-40 ~ 185°F)	
	Operating Humidity	5 ~ 95% (non-condensing)	
	Storage Humidity	0 ~ 95% (non-condensing)	
	MTBF	1,419,817 hours	
Certification	Safety	UL508	
	EMI	FCC Part 15 Subpart B Class A, EN 55022 Class A	
	EMS		EN 61000-4-2
			EN 61000-4-3
			EN 61000-4-4
			EN 61000-4-5
			EN 61000-4-6
			EN 61000-4-8
Shock	IEC 60068-2-27		
Freefall	IEC 60068-2-32		
Vibration	IEC 60068-2-6		

Ordering Information

Part Number	Description
EKI-2701HPI	PoE+ Injector, support a full 30 W output

Intelligent Video and IoT Sensors	1
Intelligent Transportation Platforms	2
Intelligent Inspection Systems	3
Modular IPCs	4
Server-grade IPCs	5
Industrial Storages	6
Video Wall Controllers	7
GPU Servers	8
Industrial Motherboards	9
Slot SBC & Passive Backplanes	10
CompactPCI Platforms	11
Industrial Chassis	12
Industrial Computer Peripherals	13
Industrial Ethernet Solutions	14

EKI-9778

1U Rackmount Industrial-Class Switch with Combo Port Flexibility 24GbE + 4 10GbE Managed Switch



Features

- Switching architecture with 24 x GbE ports and 4 x 10GbE ports
- 16 x gigabit combo ports (1000BASE-T/TX or GbE SFP)
- 4 x 10 Gigabit SFP+ ports
- 2 x redundant power 110 ~ 220 V_{AC} input
- Fanless design
- IEEE1588 PTPv2 with 1-step precision clock
- 128 Gbps switch fabric capacity supported
- Embedded hardware monitor
- Operating temperature -10 ~ 60°C

FCC CE

Introduction

The EKI-9778 Industrial-Class switch represents the entry level of Advantech's rackmount industrial class switch portfolio; EKI-9778 Industrial-Class switch is designed for flexible installation, and can be deployed in demanding industrial environments. The EKI-9778 gigabit combo switch design makes network planning easy, and allows greater flexibility for users install up to 16 Gigabit Ethernet combo ports plus 8 Gigabit 1000Base-X and 4 10 Gigabit SFP+ ports, making EKI-9778 suitable for edge to core industrial networks. It integrates Layer 2 switching software, which is optimized for scale and performance, delivering wire speed across all ports up to 128Gbps for layer 2 traffic forwarding. In addition, the fanless convection design provides a high degree of reliability, operating under -10 ~ 60°C operating temperatures, and two built-in 110 ~ 220 V_{AC} input redundant power modules ensure vital network capabilities with minimum downtime.

Specifications

Interface	I/O Port	4 x 10GbE SFP+ slot 8 x 1000Base-X SFP 16 x Gigabit Combo Port (10/100/1000Base-T(X) or 1000Base-X SFP)
	Console port	RJ-45
	F/W upgraded	USB
	Power Connector	AC Socket
Physical	Enclosure	Metal Shell
	Installation	Rack-Mount
	Dimensions (W x H x D)	446 x 44 x 352 (mm)
LED Display	System LED	PWR1, PWR2, SYS, CFG, Alarm
	Port LED	Link / Activity / Speed
Environment	Operating Temperature	-10 ~ 60°C
	Storage Temperature	-40 ~ 85°C
	Ambient Relative Humidity	5 ~ 95% (non-condensing)
	Humidity	5 ~ 95% (non-condensing)
Power	Power Consumption	~72 Watts Max
	Power Input	110 ~ 220 V _{AC} Redundant Inputs
Certification	EMI	FCC Part 15 Subpart B Class A, CE EN55022, EN55024
	Safety	EN 60950-1*
	EMS	EN 61000-4-2, EN 61000-4-3, EN 61000-4-4, EN 61000-4-5, EN 61000-4-6, EN 61000-4-8
	Shock	IEC 60068-2-27
	Freefall	IEC 60068-2-32
	Vibration	IEC 60068-2-6
Security	Port Security	Static, Dynamic
	Authentication	802.1x (Port-Based, MAC-Based, MD5/TLS/TTLS/PEAP Encryption), RADIUS, TCACAS+
	ACL	1K rules
Management	Advanced Security	IP Source guard, ARP inspection, DHCP Snooping
	DHCP	Client, Server, Relay, Option66/67/82
	Access	SNMP v1/v2c/v3, WEB, Telnet, RMON, Standard MIB, Private MIB
	Security access	SSH2.0, SSL
	Software upgrade	TFTP, HTTP, Dual Image
	NTP	NTP client/server

Ordering Information

Part Number	Description
EKI-9778-COSA820E	Layer 2 Fastpath, 8xGbE SFP slot + 16xGbE Combo Port + 4x(10GbE SFP+ slot) w/110 ~ 220 VAC Redundant Power Input

EKI-9312

Industrial-Class 12 Port Full Gigabit Managed DIN Rail Switch



Features

- All Gigabit connections support dual-ring protection and non-blocking traffic forwarding
- X-Ring Pro: recovery time within 20ms for 250 node connections
- STP, RSTP, MSTP for better redundancy
- Super security mechanism includes SSL, SSH, 802.1X, MAC, IP filtering, RADIUS, TACACS+, VLAN for access protection
- Dual power input, dual image for system reliability
- Operating temperature: -40 ~ 75°C

Introduction

The EKI-9312 Gigabit Managed Ethernet Switches are designed for rigorous mission critical applications, such as factory automation, ITS, and process control. The 4 Gigabit Ethernet ports allow great flexibility to build up a Gigabit redundant ring and a Gigabit uplink.

The EKI-9312 is equipped with 8 Gigabit Ethernet ports and up to 4 fiber optic ports, making them ideal for upgrading an existing network to Gigabit speed or building a new, full Gigabit network. The X-Ring Pro with RSTP, STP and MSTP support, increases system reliability and the availability of your network. The EKI-9312 are designed especially for communication demanding applications, such as video and process monitoring, or intelligent transportation systems, all of which can benefit from a scalable backbone construction.

Specifications

Interface	I/O Port	8 x 10/100/1000Base-T/TX RJ-45, 4 x 1000BASE-X SFP
	Console port	RJ-45
	F/W backup port	USB
	Power Connector	6-pin screw Terminal Block (including relay)
Physical	Enclosure	Aluminum Shell
	Protection Class	IP 30
	Installation	DIN Rail
	Dimensions (W x H x D)	86 x 165 x 125 (mm)
LED Display	System LED	PWR1, PWR2, SYS, CFG, Alarm and R.M.
	Port LED	Link / Speed / Activity
Environment	Operating Temperature	-40 ~ 75°C
	Storage Temperature	-40 ~ 85°C
	Ambient Relative Humidity	10 ~ 95% (non-condensing)
	Humidity	10 ~ 95% (non-condensing)
Power	Power Consumption	~ 21.82 Watts (System)
	Power Input	24/48 V _{DC} , redundant dual inputs
Certification	EMI	CE, FCC Class A
	Safety	UL60950 C1D2
	EMS	EN61000-6-4; EN61000-6-2; EN61000-4-2 (ESD) Level 4 EN61000-4-3 (RS) Level 3; EN61000-4-4 (EFT) Level 4; EN61000-4-5 (Surge) Level 4; EN61000-4-6 (CS) Level 3 EN61000-4-8 (Magnetic Field) Level 4; EN50121-4
	Shock	IEC 60068-2-27
	Freefall	IEC 60068-2-32
	Vibration	IEC 60068-2-6
	Security	Port Security
Authentication		802.1x (Port-Based, MAC-Based, MD5/TLS/TTLS/PEAP Encryption), RADIUS, TACACS+
ACL		1K rules
Advanced Security		IP Source guard, ARP inspection, DHCP Snooping
Management	DHCP	Client, Server, Relay, Option66/67/82
	Access	SNMP v1/v2c/v3, WEB, Telnet, RMON, Standard MIB, Private MIB
	Security access	SSH2.0, SSL
	Software upgrade	TFTP, HTTP, Dual Image
	NTP	NTP client/server

Ordering Information

Part Number	Description
EKI-9312-C0ID42E	Layer 2 Fastpath, 8xGbE 100/1000Base-T + 4x GbE SFP w/ 24/48 VDC Redundant Power Input

- 1 Intelligent Video and IoT Sensors
- 2 Intelligent Transportation Platforms
- 3 Intelligent Inspection Systems
- 4 Modular IPCs
- 5 Server-grade IPCs
- 6 Industrial Storages
- 7 Video Wall Controllers
- 8 GPU Servers
- 9 Industrial Motherboards
- 10 Slot SBC & Passive Backplanes
- 11 CompactPCI Platforms
- 12 Industrial Chassis
- 13 Industrial Computer Peripherals
- 14 Industrial Ethernet Solutions

EKI-9316

Industrial-Class 16 Port Full Gigabit Managed DIN Rail Switch



Features

- All Gigabit connections support dual-ring protection and non-blocking traffic forwarding
- X-Ring Pro: recovery time within 20ms for 250 node connections
- STP, RSTP, MSTP for better redundancy
- Super security mechanism includes SSL, SSH, 802.1X, MAC, IP filtering, RADIUS, TACACS+, VLAN for access protection
- Dual power input, dual image for system reliability
- Operating temperature: -40 ~ 75°C

Introduction

The EKI-9316 Gigabit Managed Ethernet Switches are designed for rigorous mission critical applications, such as factory automation, ITS, and process control. The 4 Gigabit Ethernet ports allow great flexibility to build up a Gigabit redundant ring and a Gigabit uplink.

The EKI-9316 is equipped with 12 Gigabit Ethernet ports and up to 4 fiber optic ports, making them ideal for upgrading an existing network to Gigabit speed or building a new, full Gigabit network. The X-Ring Pro with RSTP, STP and MSTP support, increases system reliability and the availability of your network. The EKI-9316 is designed especially for communication demanding applications, such as video and process monitoring, or intelligent transportation systems, all of which can benefit from a scalable backbone construction.

Specifications

Interface	I/O Port	12 x 10/100/1000Base-T/TX RJ-45 4 x 1000 BASE-X SFP
	Console port	RJ-45
	F/W backup port	USB
	Power Connector	6-pin screw Terminal Block (including relay)
Physical	Enclosure	Aluminum Shell
	Protection Class	IP 30
	Installation	DIN Rail
	Dimensions (W x H x D)	86 x 165 x 125 (mm)
LED Display	System LED	PWR1, PWR2, SYS, CFG, Alarm and R.M.
	Port LED	Link / Speed / Activity
Environment	Operating Temperature	-40 ~ 75°C
	Storage Temperature	-40 ~ 85°C
	Ambient Relative Humidity	10 ~ 95% (non-condensing)
	Humidity	10 ~ 95% (non-condensing)
Power	Power Consumption	~ 21.82 Watts (System)
	Power Input	24/48 V _{DC} , redundant dual inputs
Certification	EMI	CE, FCC Class A
	Safety	UL60950 C1D2
	EMS	EN61000-6-4; EN61000-6-2; EN61000-4-2 (ESD) Level 4 EN61000-4-3 (RS) Level 3; EN61000-4-4 (EFT) Level 4 EN61000-4-5 (Surge) Level 4; EN61000-4-6 (CS) Level 3 EN61000-4-8 (Magnetic Field) Level 4; EN50121-4
	Shock	IEC 60068-2-27
	Freefall	IEC 60068-2-32
	Vibration	IEC 60068-2-6
Security	Port Security	Static, Dynamic
	Authentication	802.1x (Port-Based, MAC-Based, MD5/TLS/TTLS/PEAP Encryption), RADIUS, TACACS+
	ACL	1K rules
	Advanced Security	IP Source guard, ARP inspection, DHCP Snooping
Management	DHCP	Client, Server, Relay, Option66/67/82
	Access S	NMP v1/v2c/v3, WEB, Telnet, RMON, Standard MIB, Private MIB
	Security access	SSH2.0, SSL
	Software upgrade	TFTP, HTTP, Dual Image
	NTP	NTP client/server

Ordering Information

Part Number	Description
EKI-9316-C0ID42E	Layer 2 Fastpath, 12xGbE 100/1000Base-T + 4x GbE SFP w/ 24/48 VDC Redundant Power Input

EKI-7758F

4G+4 SFP Gigabit Managed Redundant Industrial Ethernet Switch



Features

- All Gigabit Ethernet ports for 4 Copper and 4 SFP
- SFP sockets for easy and flexible fiber expansion
- Redundancy: Gigabit X-Ring Pro (ultra high-speed recovery time < 20 ms), RSTP/STP (802.1w/1D)
- Management: Web, Telnet, Serial Console, SNMP
- Control: VLAN/GVRP, QoS, IGMP Snooping/Query, LACP, Rate Limit
- Security: IP/MAC and port binding, DHCP Server, IP access list, 802.1X, SSL
- Diagnostic: Port statistic, Port Mirroring, RMON, Trap, Email Alert, Syslog
- Dual 12 ~ 48 V_{DC} power input and 1 relay output

Introduction

The EKI-7758F supports eight Gigabit ports with four Ethernet and four SFP. To create reliability in your network, the EKI-7758F comes equipped with a proprietary redundant network protocol – X-Ring that was developed by Advantech, which provides users with an easy way to establish a redundant Ethernet network with ultra high-speed recovery time less than 20 ms. Furthermore, the EKI-7758F also supports many advanced network standards to optimize network performance, ease maintenance issues, and secure network safety.

Specifications

Communications	Standard LAN	IEEE 802.3, 802.3u, 802.3x, 802.3z, 802.1D, 802.1w, 802.1p, 802.1Q, 802.1X, 802.3ad, 802.3ab 100Base-T (X), 10/1000Base-T, Optional 100Base-FX, 1000Base-SX/LX/LHX/XD/ZX/EZX
	Transmission Distance	Ethernet : Up to 100 m (4-wire Cat.5e, Cat.6 RJ45 cable suggested for Gigabit port) SFP: Up to 110 km (depends on SFP)
	Transmission Speed	Gigabit Copper: 10/100/1000 Mbps, Auto-Negotiation SFP: Up to 1000 Mbps
Interface	Connectors	4 x RJ45 (Ethernet) 4 x SFP (mini-GBIC) ports 6-pin removable screw terminal (Power & Relay)
	LED Indicators	System: PWR, R.M., PWR1, PWR2, P-Fail Gigabit Copper: Link/Activity, Speed SFP: Link/Activity
	Console	RS-232 (RJ45)
Network Management	Configuration	Web browser, Telnet, Serial console, TFTP, SNMPv1/v2c/v3, Port Speed/Duplex Configuration, IPv6
	VLAN	IEEE 802.1Q, GVRP, Port-based VLAN
	Redundancy	Advantech X-Ring Pro (Recovery time < 20 ms at 250 pcs full loading ring structure), Dual Homing, Dual Ring, Couple Ring, 802.1w/D RSTP/STP
	Security	IP Access security, port security, DHCP Server, Port and IP Binding, 802.1X Port Access Control, SSL
Mechanism	Traffic Control	IGMP Snooping/Query for multicast group management, Port Trunking, Static/802.3ad, LACP Rate Limit and storm control, IEEE 802.1p QoS CoS/TOS/ DSCP priority queuing, IEEE 802.3x flow control
	Diagnostics	Port Mirroring, Real-time traffic statistic, MAC Address Table, SNTp, Syslog, E-Mail Alert, SNMP Trap, RMON
	Enclosure	IP30, metal shell with solid mounting kits
	Dimensions (W x H x D)	79 x 152 x 105 mm (3.11" x 5.98" x 4.13")
Power	Mounting	DIN-rail, Wall
	Power Consumption	Max. 17 W
	Power Input	12 ~ 48 V _{DC} , redundant dual inputs
Protection	Fault Output	1 Relay Output
	Power Reverse	Present
Environment	Overload Current	Present
	Operating Temperature	-10 ~ 60°C (14 ~ 140°F)
	Storage Temperature	-40 ~ 85°C (-40 ~ 185°F)
	Operating Humidity	5 ~ 95% (non-condensing)
	Storage Humidity	0 ~ 95% (non-condensing)
	MTBF	289,777 hours
Certification	Safety	UL 60950-1, CAN/CSA-C22.2 No.60950
	EMI	Class I, Division 2
	FCC	FCC Part 15 Subpart B Class A, EN 55022 Class A
	EMS	EN 61000-4-2, EN 61000-4-3, EN 61000-4-4, EN 61000-4-5, EN 61000-4-6, EN 61000-4-8
	Shock	IEC 60068-2-27
Freefall	IEC 60068-2-32	
Vibration	IEC 60068-2-6	

Ordering Information

Part Number	Description
EKI-7758F	4G+4 SFP Managed Gigabit Ethernet Switch

Intelligent Video and IoT Sensors	1
Intelligent Transportation Platforms	2
Intelligent Inspection Systems	3
Modular IPCs	4
Server-grade IPCs	5
Industrial Storages	6
Video Wall Controllers	7
GPU Servers	8
Industrial Motherboards	9
Slot SBC & Passive Backplanes	10
CompactPCI Platforms	11
Industrial Chassis	12
Industrial Computer Peripherals	13
Industrial Ethernet Solutions	14

EKI-7656C/CI

16+2G Combo Port Gigabit Managed Redundant Industrial Ethernet Switch



Features

- 2 Gigabit Copper/SFP combo ports, plus 16 Fast Ethernet ports
- SFP socket for Easy and Flexible Fiber Expansion
- Redundancy: Gigabit X-Ring Pro (ultra high-speed recovery time < 20 ms), RSTP/STP (802.1w/1D)
- Management: Web, Telnet, Serial Console, SNMP
- Control: VLAN/GVRP, QoS, IGMP Snooping/Query, LACP, Rate Limit
- Security: IP/MAC and port binding, DHCP Server, IP access list, 802.1X, SSL, SNMPv3
- Diagnostic: Port Statistic, Port Mirroring, RMON, Trap, Email Alert, Syslog
- Dual 12 ~ 48 V_{DC} power inputs and 1 relay output
- Supports wide operating temperatures from -40 to 75°C (EKI-7656CI)



Introduction

The EKI-7656C supports 16 Fast Ethernet ports and 2 Gigabit combo ports. To create reliability in your network, the EKI-7656C comes equipped with a proprietary redundant network protocol -- X-Ring Pro that was developed by Advantech, which provides users with an easy way to establish a redundant Ethernet network with ultra high-speed recovery time less than 20 ms. Furthermore, EKI-7656C also supports many advanced network standards to optimize network performance, ease maintenance issues, and secure network safety.

Specifications

Communications	Standard	IEEE 802.3, 802.3u, 802.3x, 802.3z, 802.1D, 802.1w, 802.1p, 802.1Q, 802.1X, 802.3ad, 802.3ab
	LAN	10/100/1000Base-T (X), Optional 100Base-FX, 1000Base-SX/LX/LHX/XD/ZX/EZX
	Transmission Distance	Ethernet: Up to 100 m (4-wire Cat.5e, Cat.6 RJ45 cable suggested for Gigabit port)
	Transmission Speed	Ethernet: 10/100 Mbps Auto-Negotiation Gigabit Copper: 10/100/1000 Mbps, Auto-Negotiation, SFP: Up to 1000 Mbps
Interface	Connectors	16 x RJ45 (Ethernet) 2 x RJ45/SFP (mini-GBIC) combo ports 6-pin removable screw terminal (Power&Relay)
	LED Indicators	System: PWR, PWR1, PWR2, R.M., P-Fail Ethernet: Link/Activity, Duplex/Collision Gigabit Copper: Link/Activity, Speed (1000 Mbps) SFP: Link/Activity
	Console	RS-232 (RJ45)
Network Management	Diagnostics	Port Mirroring, Real-time traffic statistic, MAC Address Table, SNMP, Syslog, E-Mail Alert, SNMP Trap, RMON
	VLAN	IEEE 802.1Q, GVRP, Port-based VLAN
	Configuration	Web browser, Telnet, Serial console, TFTP, SNMPv1/v2c/v3, Port Speed/Duplex Configuration, IPv6
	Redundancy	Advantech X-Ring Pro (Recovery time < 20 ms at 250 pcs full loading ring structure), Dual Homing, Dual Ring, Couple Ring, 802.1w/D RSTP/STP
	Security	IP Access security, port security, DHCP Server, Port and IP Binding, 802.1X Port Access Control, SSL
	Traffic Control	IGMP Snooping/Query for multicast group management, Port Trunking, Static/802.3ad, LACP Rate Limit and storm control, IEEE 802.1p QoS CoS/TOS/ DSCP priority queuing, IEEE 802.3x flow control
Mechanism	Enclosure	IP30, metal shell with solid mounting kits
	Dimensions (W x H x D)	79 x 152 x 105 mm (3.11" x 5.98" x 4.13")
	Mounting	DIN-rail, Wall
Power	Power Consumption	Max. 10.7 W
	Power Input	12 ~ 48 V _{DC} , redundant dual inputs
	Fault Output	1 Relay Output
Protection	Power Reverse	Present
	Overload Current	Present
Environment	Operating Temperature	-10 ~ 60°C (14 ~ 140°F) -40 ~ 75°C (-40 ~ 167°F) (EKI-7656CI)
	Storage Temperature	-40 ~ 85°C (-40 ~ 185°F)
	Operating Humidity	5 ~ 95% (non-condensing)
	Storage Humidity	0 ~ 95% (non-condensing)
	MTBF	295,000 hours
Certification	Safety	UL 60950-1, CAN/CSA-C22.2 No.60950
	EMI	FCC Part 15 Subpart B Class A, EN 55022 Class A
	EMS	EN 61000-4-2, EN 61000-4-3, EN 61000-4-4, EN 61000-4-5, EN 61000-4-6, EN 61000-4-8
	Shock	IEC 60068-2-27
	Freefall	IEC 60068-2-32
	Vibration	IEC 60068-2-6

Ordering Information

Part Number	Description
EKI-7656C	16FE + 2G Combo Port Managed Ethernet Switch
EKI-7656CI	16FE + 2G Combo Port Managed Ethernet Switch w/ Wide Temp

EKI-7659C/CI

8+2G Combo Port Gigabit Managed Redundant Industrial Ethernet Switch



Features

- 2 Gigabit Copper/SFP combo ports, plus 8 Fast Ethernet ports
- SFP socket for Easy and Flexible Fiber Expansion
- Redundancy: Gigabit X-Ring Pro (ultra high-speed recovery time < 20 ms), RSTP/STP (802.1w/1D)
- Management: Web, Telnet, Serial Console, SNMP
- Control: VLAN/GVRP, QoS, IGMP Snooping/Query, LACP, Rate Limit
- Security: IP/MAC and port binding, DHCP Server, IP access list, 802.1X, SSL, SNMPv3
- Diagnostic: Port Statistic, Port Mirroring, RMON, Trap, Email Alert, Syslog
- Dual 12 ~ 48 V_{DC} power input and 1 relay output
- Supports wide operating temperatures from -40 to 75°C (EKI-7669CI)



Introduction

The EKI-7659C supports eight Fast Ethernet ports and two Gigabit combo ports. To create reliability in your network, the EKI-7659C comes equipped with a proprietary redundant network protocol -- X-Ring Pro that was developed by Advantech, which provides users with an easy way to establish a redundant Ethernet network with ultra high-speed recovery time less than 20 ms. Furthermore, EKI-7659C also supports many advanced network standards to optimize network performance, ease maintenance issues, and secure network safety.

Specifications

Communications	Standard	IEEE 802.3, 802.3u, 802.3x, 802.3z, 802.1D, 802.1w, 802.1p, 802.1Q, 802.1X, 802.3ad, 802.3ab
	LAN	10/100/1000Base-T (X), Optional 100Base-FX, 1000Base-SX/LX/LHX/XD/ZX/EZX
	Transmission Distance	Ethernet: Up to 100 m (4-wire Cat.5e, Cat.6 RJ45 cable suggested for Gigabit port) SFP: Up to 110 km (depends on SFP)
	Transmission Speed	Ethernet: 10/100 Mbps Auto-Negotiation Gigabit Copper: 10/100/1000 Mbps, Auto-Negotiation Gigabit Fiber: Up to 1000 Mbps
Interface	Connectors	8 x RJ45 (Ethernet) 2 x RJ45/SFP (mini-GBIC) combo ports 6-pin removable screw terminal (Power & Relay)
	LED Indicators	System: PWR, PWR1, PWR2, R.M., P-Fail 10/100T (X): Link/Activity, Duplex/Collision Gigabit Copper: Link/Activity, Speed (1000 Mbps) SFP: Link/Activity
	Console	RS-232 (RJ45)
Network Management	Configuration	Web browser, Telnet, Serial console, TFTP, SNMPv1/v2c/v3, Port Speed/Duplex Configuration, IPv6
	VLAN	IEEE 802.1Q, GVRP, Port-based VLAN
	Redundancy	Advantech X-Ring Pro (Recovery time < 20 ms at 250 pcs full loading ring structure), Dual Homing, Dual Ring, Couple Ring, 802.1w/D RSTP/STP
	Security	IP Access security, port security, DHCP Server, Port and IP Binding, 802.1X Port Access Control, SSL
	Traffic Control	IGMP Snooping/Query for multicast group management, Port Trunking, Static/802.3ad, LACP Rate limit and storm control, IEEE 802.1p QoS CoS/TOS/ DSCP priority queuing, IEEE 802.3x flow control
	Diagnostics	Port Mirroring, Real-time traffic statistic, MAC Address Table, SNMP, Syslog, E-Mail Alert, SNMP Trap, RMON
Mechanism	Enclosure	IP30, metal shell with solid mounting kits
	Dimensions (W x H x D)	79 x 152 x 105 mm (3.11" x 5.98" x 4.13")
	Mounting	DIN-rail, Wall
Power	Power Consumption	Max. 10.7 W
	Power Input	12 ~ 48 V _{DC} , redundant dual inputs
	Fault Output	1 Relay Output
Protection	Power Reverse	Present
	Overload Current	Present
Environment	Operating Temperature	-10 ~ 60°C (14 ~ 140°F) -40 ~ 75°C (-40 ~ 167°F) (EKI-7659CI)
	Storage Temperature	-40 ~ 85°C (-40 ~ 185°F)
	Operating Humidity	5 ~ 95% (non-condensing)
	Storage Humidity	0 ~ 95% (non-condensing)
	MTBF	284,409 hours
Certification	Safety	UL 60950-1, CAN/CSA-C22.2 No.60950
	EMI	FCC Part 15 Subpart B Class A, EN 55022 Class A
	EMS	EN 61000-4-2, EN 61000-4-3, EN 61000-4-4, EN 61000-4-5, EN 61000-4-6, EN 61000-4-8
	Shock	IEC 60068-2-27
	Freefall	IEC 60068-2-32
	Vibration	IEC 60068-2-6

Ordering Information

Part Number	Description
EKI-7659C	8FE + 2G Combo Port Managed Ethernet Switch
EKI-7659CI	8FE + 2G Combo Port Managed Ethernet Switch w/ Wide Temp

Intelligent Video and IoT Sensors	1
Intelligent Transportation Platforms	2
Intelligent Inspection Systems	3
Modular IPCs	4
Server-grade IPCs	5
Industrial Storages	6
Video Wall Controllers	7
GPU Servers	8
Industrial Motherboards	9
Slot SBC & Passive Backplanes	10
CompactPCI Platforms	11
Industrial Chassis	12
Industrial Computer Peripherals	13
Industrial Ethernet Solutions	14

EKI-7657C/CI

7+3G Combo Port Gigabit Managed Redundant Industrial Ethernet Switch with 2 x DI/O



Features

- 3 Gigabit Copper/SFP combo ports, plus 7 Fast Ethernet ports
- 2 Digital Inputs and 2 Digital Outputs for Events and Alarms in the Network
- SFP socket for Easy and Flexible Fiber Expansion
- Redundancy: Gigabit X-Ring Pro (ultra high-speed recovery time < 20 ms), RSTP/STP (802.1w/1D)
- Management: Web, Telnet, Serial Console, SNMP
- Control: VLAN/GVRP, QoS, IGMP Snooping/Query, LACP, Rate Limit
- Security: IP/MAC and port binding, DHCP Server, IP access list, 802.1X, SSL, SNMPv3
- Diagnostic: Port Statistics, Port Mirroring, RMON, Trap, Email Alert, Syslog
- Dual 12 ~ 48 V_{DC} power input and 1 relay output
- Operating temperature from -40 to 75°C (EKI-7657CI)



Introduction

The EKI-7657C supports seven Fast Ethernet ports and three Gigabit combo ports with 2 x Digital Input and Digital Output ports. To create reliability in your network, the EKI-7657C comes equipped with a proprietary redundant network protocol -- X-Ring Pro that was developed by Advantech, which provides users with an easy way to establish a redundant Ethernet network with ultra high-speed recovery time less than 20 ms. Furthermore, the EKI-7657C also supports many advanced network standards to optimize network performance, ease maintenance issues, and secure network safety.

Specifications

Communications	Standard LAN	IEEE 802.3, 802.3u, 802.3x, 802.3z, 802.1D, 802.1w, 802.1p, 802.1Q, 802.1X, 802.3ad, 802.3ab
	Transmission Distance	10/100/1000Base-T (X), Optional 100Base-FX, 1000Base-SX/LX/LHX/XD/ZX/EZX Ethernet: Up to 100 m (4-wire Cat.5e, Cat.6 RJ45 cable suggested for Gigabit port) SFP: Up to 110 km (depends on SFP)
	Transmission Speed	Ethernet: 10/100 Mbps Auto-Negotiation Gigabit Copper: 10/100/1000 Mbps, Auto-Negotiation Gigabit Fiber: Up to 1000 Mbps
Interface	Connectors	7 x RJ45 (Ethernet) 3 x RJ45/SFP (mini-GBIC) combo ports 1 x 6-pin removable terminal (Power & Relay) 1 x 6-pin removable terminal (DI/DO)
	LED Indicators	System: PWR, PWR1, PWR2, R.M., P-Fail 10/100T (X): Link/Activity, Duplex/Collision Gigabit Copper: Link/Activity, Speed (1000 Mbps) SFP: Link/Activity
	Console	RS-232 (RJ45)
Network Management	Configuration	Web browser, Telnet, Serial console, TFTP, SNMPv1/v2c/v3, Port Speed/Duplex Configuration, IPv6
	VLAN	IEEE 802.1Q, GVRP, Port-based VLAN
	Redundancy	Advantech X-Ring Pro (Recovery time < 20 ms at 250 pcs full loading ring structure), Dual Homing, Dual Ring, Couple Ring, 802.1w/D RSTP/STP
	Security	IP Access security, port security, DHCP Server, Port and IP Binding, 802.1X Port Access Control, SSL
Mechanism	Traffic Control	IGMP Snooping/Query for multicast group management, Port Trunking, Static/802.3ad, LACP Rate limit and storm control, IEEE 802.1p QoS CoS/TOS/DSCP priority queuing, IEEE 802.3x flow control
	Diagnostics	Port Mirroring, Real-time traffic statistic, MAC Address Table, SNTp, Syslog, Email Alert, SNMP Trap, RMON
	Enclosure	IP30, metal shell with solid mounting kits
Power	Dimensions (W x H x D)	79 x 152 x 105 mm (3.11" x 5.98" x 4.13")
	Mounting	DIN-rail, Wall
	Power Consumption	Max. 10.7 W
Protection	Power Input	12 ~ 48 V _{DC} , redundant dual inputs
	Fault Output	1 Relay Output
Environment	Power Reverse	Present
	Overload Current	Present
	Operating Temperature	-10 ~ 60°C (14 ~ 140°F) -40 ~ 75°C (-40 ~ 167°F) (EKI-7657CI)
	Storage Temperature	-40 ~ 85°C (-40 ~ 185°F)
	Operating Humidity	5 ~ 95% (non-condensing)
Certifications	Storage Humidity	0 ~ 95% (non-condensing)
	MTBF	284,409 hours
	Safety	UL 60950-1, CAN/CSA-C22.2 No.60950
	EMI	FCC Part 15 Subpart B Class A, EN 55022 Class A
	EMS	EN 61000-4-2, EN 61000-4-3, EN 61000-4-4, EN 61000-4-5, EN 61000-4-6, EN 61000-4-8
	Shock	IEC 60068-2-27
	Freefall	IEC 60068-2-32
Vibration	IEC 60068-2-6	

Ordering Information

Part Number	Description
EKI-7657C	7FE + 3G Combo Port Managed Ethernet Switch w/ 2 x DI/DO
EKI-7657CI	7FE + 3G Combo Port Managed Ethernet Switch w/ 2 x DI/DO and Wide Temp

EKI-7654C

4+2G Combo Port Gigabit Managed Redundant Industrial Ethernet Switch



Features

- 2 Gigabit Copper/SFP combo ports, plus 4 Fast Ethernet ports
- Full/half duplex mode flow control
- MDI/MDI-X auto crossover
- SFP socket for Easy and Flexible Fiber Expansion
- Redundancy: Gigabit X-Ring Pro (ultra high-speed recovery time < 20 ms), RSTP/STP (802.1w/1D)
- Management: Web, Telnet, Serial Console, SNMP
- Dual 12 ~ 48 V_{DC} power input and 1 relay output



Introduction

The EKI-7654C supports four Fast Ethernet ports and two Gigabit combo ports. To create reliability in your network, the EKI-7654C comes equipped with a proprietary redundant network protocol -- X-Ring Pro that was developed by Advantech, which provides users with an easy way to establish a redundant Ethernet network with ultra high-speed recovery time less than 20 ms. Furthermore, the EKI-7654C also supports many advanced network standards to optimize network performance, ease maintenance issues, and secure network safety.

Specifications

Communications	Standard LAN	IEEE 802.3, 802.3u, 802.3x, 802.3z, 802.1D, 802.1w, 802.1p, 802.1Q, 802.1X, 802.3ad, 802.3ab
	Transmission Distance	100Base-TX, 10/1000Base-T, Optional 100Base-FX, 1000Base-SX/LX/LHX/XD/ZX/EZX Ethernet: Up to 100 m (4-wire Cat.5e, Cat.6 RJ45 cable suggested for Gigabit port) SFP: Up to 110 km (depends on SFP)
	Transmission Speed	Ethernet: 10/100 Mbps Auto-Negotiation Gigabit Copper: 10/100/1000 Mbps, Auto-Negotiation Gigabit Fiber: Up to 1000 Mbps
Interface	Connectors	4 x RJ45 (Ethernet) 2 x RJ45/SFP (mini-GBIC) combo ports 6-pin removable screw terminal (Power & Relay)
	LED Indicators	System: PWR, PWR1, PWR2, R.M., P-Fail 10/100T (X): Link/Activity, Duplex/Collision Gigabit Copper: Link/Activity, Speed (1000 Mbps) SFP: Link/Activity
	Console	RS-232 (RJ45)
Network Management	Configuration	Web browser, Telnet, Serial console, TFTP, SNMPv1/v2c/v3, Port Speed/Duplex Configuration, IPv6
	VLAN	IEEE 802.1Q, GVRP, Port-based VLAN
	Redundancy	Advantech X-Ring Pro (Recovery time < 20 ms at 250 pcs full loading ring structure), Dual Homing, Dual Ring, Couple Ring, 802.1w/D RSTP/STP
	Security	IP Access security, port security, DHCP Server, Port and IP Binding, 802.1X Port Access Control, SSL
	Traffic Control	IGMP Snooping/Query for multicast group management, Port Trunking, Static/802.3ad, LACP Rate limit and storm control, IEEE 802.1p QoS CoS/TOS/ DSCP priority queuing, IEEE 802.3x flow control
Mechanism	Diagnostics	Port Mirroring, Real-time traffic statistic, MAC Address Table, SNTp, Syslog, E-Mail Alert, SNMP Trap, RMON
	Enclosure	IP30, metal shell with solid mounting kits
	Dimensions (W x H x D)	79 x 152 x 105 mm (3.11" x 5.98" x 4.13")
Power	Mounting	DIN-rail, Wall
	Power Consumption	Max. 10.7 W
	Power Input	12 ~ 48 V _{DC} , redundant dual inputs
Protection	Fault Output	1 Relay Output
	Power Reverse	Present
	Overload Current	Present
Environment	Operating Temperature	-10 ~ 60°C (14 ~ 140°F)
	Storage Temperature	-40 ~ 85°C (-40 ~ 185°F)
	Operating Humidity	5 ~ 95% (non-condensing)
	Storage Humidity	0 ~ 95% (non-condensing)
	MTBF	284,409 hours
Certification	Safety	UL 60950-1, CAN/CSA-C22.2 No.60950
	EMI	FCC Part 15 Subpart B Class A, EN 55022 Class A
	EMS	EN 61000-4-2, EN 61000-4-3, EN 61000-4-4, EN 61000-4-5, EN 61000-4-6, EN 61000-4-8
	Shock	IEC 60068-2-27
	Freefall	IEC 60068-2-32
	Vibration	IEC 60068-2-6

Ordering Information

Part Number	Description
EKI-7654C	4FE + 2G Combo Port Managed Ethernet Switch

- 1 Intelligent Video and IoT Sensors
- 2 Intelligent Transportation Platforms
- 3 Intelligent Inspection Systems
- 4 Modular IPCs
- 5 Server-grade IPCs
- 6 Industrial Storages
- 7 Video Wall Controllers
- 8 GPU Servers
- 9 Industrial Motherboards
- 10 Slot SBC & Passive Backplanes
- 11 Compact PCI Platforms
- 12 Industrial Chassis
- 13 Industrial Computer Peripherals
- 14 Industrial Ethernet Solutions

EKI-7559SI/MI

EKI-7554SI/MI

8+2 SC Type Fiber Optic Managed Industrial Ethernet Switch with Wide Temperature

4+2 SC Type Fiber Optic Managed Industrial Ethernet Switch with Wide Temperature



EKI-7559SI/MI

EKI-7554SI/MI



Features

- 2 x SC type fiber ports, plus 4 Fast Ethernet ports. (EKI-7554SI/MI)
- 2 x SC type fiber ports, plus 8 Fast Ethernet ports. (EKI-7559SI/MI)
- Redundancy: X-Ring Pro (high-speed recovery time < 20 ms), RSTP/STP (802.1w/1D)
- Management: Web, Telnet, Serial Console, SNMP
- Control: VLAN/GVRP, QoS, IGMP Snooping/Query, LACP, Rate Limit
- Security: IP/MAC, port binding, DHCP Server, IP access list, 802.1X, SSL, SNMPv3
- Diagnostic: Port Statistic, Port Mirroring, RMON, Trap, Email Alert, Syslog
- Dual 12 ~ 48 V_{DC} power input and 1 relay output
- Supports wide operating temperature -40 ~ 75°C

Introduction

Both the EKI-7554SI/MI and EKI-7559SI/MI support two SC type Fiber ports, EKI-7554SI/MI four Fast Ethernet ports and EKI-7559SI/MI can support up to eight Fast Ethernet ports. To create reliability in your network, the EKI-7554SI/MI come equipped with a proprietary redundant network protocol -- X-Ring Pro that was developed by Advantech, which provides users with an easy way to establish a redundant Ethernet network with ultra high-speed recovery time less than 20 ms. Furthermore, EKI-7554SI/MI also supports many advanced network standards to optimize network performance, ease maintenance issues, and secure network safety.

Specifications

Communications	Standard	IEEE 802.3, 802.3u, 802.3x, 802.3ad, 802.1D, 802.1w, 802.1p, 802.1Q, 802.1X
	LAN	10/100Base-T (X), 100Base-FX
	Transmission Distance	Ethernet : Up to 100 m Multi-mode Fiber: Up to 2 km (EKI-7554MI) Single-mode Fiber: Up to 30 km (EKI-7554SI)
Interface	Transmission Speed	Up to 100 Mbps
	Connectors	4 x RJ45 ports (EKI-7554SI/MI) 8 x RJ45 ports (EKI-7559SI/MI) 2 x SC type fiber optic connectors
	LED Indicators	System: PWR, PWR1, PWR2, R.M., P-Fail 10/100T (X): Link/Activity, Duplex/Collision
Network Management	Console	RS-232 (RJ45)
	Configuration	Web browser, Telnet, Serial console, TFTP, SNMPv1/v2c/v3, Port Speed/Duplex Configuration, IPv6
	VLAN	IEEE 802.1Q, GVRP, Port-based VLAN
	Redundancy	Advantech X-Ring Pro (Recovery time < 20 ms at 250 pcs full loading ring structure), Dual Homing, Dual Ring, Couple Ring, 802.1w/D RSTP/STP
Mechanism	Security	IP Access security, port security, DHCP Server, Port and IP Binding, 802.1X Port Access Control, SSL
	Traffic Control	IGMP Snooping/Query for multicast group management, Port Trunking, Static/802.3ad, LACP Rate limit and storm control, IEEE 802.1p QoS CoS/TOS/ DSCP priority queuing, IEEE 802.3x flow control
	Diagnostics	Port Mirroring, Real-time traffic statistic, MAC Address Table, SNTp, Syslog, Email Alert, SNMP Trap, RMON
Power	Enclosure	IP30, metal shell with solid mounting kits
	Dimensions (W x H x D)	79 x 152 x 105 mm (3.11" x 5.98" x 4.13")
	Mounting	DIN-rail, Wall
Protection	Power Consumption	Max. 7.7 W (EKI-7554SI/MI) Max. 8.4 W (EKI-7559SI/MI)
	Power Input	12 ~ 48 V _{DC} , redundant dual inputs
	Fault Output	1 Relay Output
Environment	Power Reverse	Present
	Overload Current	Present
	Operating Temperature	-40 ~ 75°C (-40 ~ 167°F)
	Storage Temperature	-40 ~ 85°C (-40 ~ 185°F)
	Operating Humidity	5 ~ 95% (non-condensing)
	Storage Humidity	0 ~ 95% (non-condensing)
Certification	MTBF	262,230 hours (EKI-7554SI/MI) 264,964 hours (EKI-7559SI/MI)
	Safety	UL 60950-1, CAN/CSA-C22.2 No.60950 Class 1, Division 2 (EKI-7559MI/SI)
	EMI	FCC Part 15 Subpart B Class A, EN 55022 Class A
	EMS	EN 61000-4-2, EN 61000-4-3, EN 61000-4-4, EN 61000-4-5, EN 61000-4-6, EN 61000-4-8
	Shock	IEC 60068-2-27
	Freefall	IEC 60068-2-32
Vibration	IEC 60068-2-6	

Ordering Information

Part Number	Description
EKI-7554SI	4FE + 2-port Single-mode Fiber Managed Ethernet Switch w/Wide Temp
EKI-7554MI	4FE + 2-port Multi-mode Fiber Managed Ethernet Switch w/Wide Temp

Part Number	Description
EKI-7559SI	8FE + 2-port Single-mode Fiber Managed Ethernet Switch w/Wide Temp
EKI-7559MI	8FE + 2-port Multi-mode Fiber Managed Ethernet Switch w/Wide Temp

EKI-5725/I

EKI-5728/I

5-port Gigabit Ethernet ProView Switch

8-port Gigabit Ethernet ProView Switch



Features

- Communicates with SCADA software via Modbus/TCP
- Communicates with NMS (Networking management system) via SNMP
- Port-based QoS for deterministic data transmission
- -40 ~ 75°C operating temperature range (EKI-5725I and EKI-5728I only)
- 12 ~ 48V_{DC} (8.4 ~ 52.8V_{DC}) wide-range power input
- EMS level 3 protection for extreme outdoor environments
- IEEE 802.3az Energy Efficient Ethernet (EEE)
- Jumbo Frame Support (Up to 9,216 Bytes)
- Supports redundant 12 ~ 48 V_{DC} power input and P-Fail relay
- Loop detection
- e-Mark certification passed (EKI-5728/I only)

Introduction

The EKI-5725/I and EKI-5728/I are the world's first convergence switches for process control and IT networking management. This series uses Modbus/TCP to communicate with the SCADA software and SNMP to communicate with the NMS (Networking Management System) at the same time, thereby allowing full read control over the devices either for control engineers or for IT. The devices come with the Port-based QoS for deterministic data transmission allows the priority ports to prioritize the traffic coming over those ports and delay the less immediately necessary data over the remaining ports. EKI-5725/I and EKI-5728/I switches use the highest quality components, to enable the range to operate in temperatures of between -40 and 75°C along with EMS Level 3 protection to repel electromagnetic interference for industrial resistance.

Specifications

Communications	Standard	IEEE 802.3, 802.3u, 802.3x, 802.1p, 802.3az, 802.3ab
	LAN	10/100/1000Base-T(X)
	Transmission Distance	Up to 100 m
	Transmission Speed	Up to 1000 Mbps
Interface	Connectors	EKI-5725/I: 5 x RJ45 EKI-5728/I: 8 x RJ45 6-pin removable screw terminal (power & relay)
	LED Indicators	P1, P2, P-Fail, Loop detection 10/100/1000T(X): LNK/ACT, Speed
Switch Properties	MAC Table Size	EKI-5725/I: 2K EKI-5728/I: 8K
	Packet Buffer Size	EKI-5725/I: 1M bit EKI-5728/I: 4.1M bit
	Switching Capacity	EKI-5725/I: 10 Gbps EKI-5728/I: 16 Gbps
	Jumbo Frame	9216 bytes
Power	Power Consumption	EKI-5725/I: Max. 2 W EKI-5728/I: Max. 5.2 W
	Power Input	12-48 V _{DC} (8.4-52.8 V _{DC}), redundant dual inputs
	Fault Output	1 Relay Output
Mechanism	Dimensions (W x H x D)	EKI-5725/I: 27 x 120 x 84 mm EKI-5728/I: 43 x 120 x 84 mm
	Enclosure	IP30, metal shell with solid mounting kits
	Mounting	DIN-Rail, Wall
Protection	Reverse Polarity	Present
	Overload Current	Present
Environment	Operating Temperature	EKI-5725 & EKI-5728: -10~60°C (14~140°F) EKI-5725I & EKI-5728I: -40~75°C (-40~167°F)
	Storage Temperature	-40 ~ 85°C (-40 ~ 185°F)
	Operating Humidity	10 ~ 95% (non-condensing)
	Storage Humidity	10 ~ 95% (non-condensing)
	MTBF	EKI-5725/I: 5,168,110 hours EKI-5728/I: 4,176,861 hours
Certification	Safety	IEC/EN 60950-1, UL508, Class 1 Division 2, IECEx, ATEX
	EMC	CE, FCC, e-Mark (EKI-5728/I only)
	EMI	FCC Part 15 Subpart B Class A, EN 55011/55022 Class A, EN 61000-6-4
	EMS	EN 61000-4-2 (Level 3), EN 61000-4-3 (Level 3), EN 61000-4-4 (Level 3), EN 61000-4-5 (Level 3), EN 61000-4-6 (Level 3), EN 61000-4-8 (Level 3)
	Shock	IEC 60068-2-27
	Freefall	IEC 60068-2-32
Vibration	IEC 60068-2-6	

Ordering Information

Part Number	Description	Part Number	Description
EKI-5725	5-port Gigabit Ethernet ProView Switch	EKI-5728	8-port Gigabit Ethernet ProView Switch
EKI-5725I	5-port Gigabit Ethernet ProView Switch with Wide Temperature	EKI-5728I	8-port Gigabit Ethernet ProView Switch with Wide Temperature

Intelligent Video and IoT Sensors	1
Intelligent Transportation Platforms	2
Intelligent Inspection Systems	3
Modular IPCs	4
Server-grade IPCs	5
Industrial Storages	6
Video Wall Controllers	7
GPU Servers	8
Industrial Motherboards	9
Slot SBC & Passive Backplanes	10
CompactPCI Platforms	11
Industrial Chassis	12
Industrial Computer Peripherals	13
Industrial Ethernet Solutions	14

EKI-5525/I

EKI-5528/I

5-port Fast Ethernet ProView Switch

8-port Fast Ethernet ProView Switch



Features

- Communicates with SCADA software via Modbus/TCP
- Communicates with NMS (Networking management system) via SNMP
- Port-based QoS for deterministic data transmission
- -40 ~ 75°C operating temperature range (EKI-5525I and EKI-5528I only)
- 12 ~ 48 V_{DC} (8.4 ~ 52.8 V_{DC}) wide-range power input
- EMS level 3 protection for extreme outdoor environments
- IEEE 802.3az Energy Efficient Ethernet (EEE)
- Jumbo Frame Support
- Supports redundant 12 ~ 48 V_{DC} power input and P-Fail relay
- Loop detection

Introduction

The EKI-5525/I and EKI-5528/I are the world's first convergence switches for process control and IT networking management. This series uses Modbus/TCP to communicate with the SCADA software and SNMP to communicate with the NMS (Networking Management System) at the same time, thereby allowing full read control over the devices either for control engineers or for IT. The devices come with the Port-based QoS for deterministic data transmission allows the priority ports to prioritize the traffic coming over those ports and delay the less immediately necessary data over the remaining ports. EKI-5525/I and EKI-5528/I switches use the highest quality components, to enable the range to operate in temperatures of between -40 and 75°C along with EMS Level 3 protection to repel electromagnetic interface for industrial resistance.

Specifications

Communications	Standard	IEEE 802.3, 802.3u, 802.3x, 802.1p, 802.3az
	LAN	10/100Base-T(X)
	Transmission Distance	Up to 100 m
	Transmission Speed	Up to 100 Mbps
Interface	Connectors	EKI-5525/I: 5 x RJ45 EKI-5528/I: 8 x RJ45 6-pin removable screw terminal (power & relay)
	LED Indicators	P1, P2, P-Fail, Loop detection 10/100T (X): LNK/ACT, Speed
Switch Properties	MAC Table Size	EKI-5525/I: 2K EKI-5528/I: 8K
	Packet Buffer Size	EKI-5525/I: 1M bit EKI-5528/I: 128K bit
	Switching Capacity	EKI-5525/I: 1Gbps EKI-5528/I: 1.6 Gbps
	Jumbo Frame	EKI-5525/I: 9216 bytes EKI-5528/I: 2048 bytes
Power	Power Consumption	EKI-5525/I: Max. 2 W EKI-5528/I: Max.3.6 W
	Power Input	12-48 V _{DC} (8.4-52.8 V _{DC}), redundant dual inputs
	Fault Output	1 Relay Output
Mechanism	Dimensions (W x H x D)	EKI-5525/I: 27 x 120 x 84 mm EKI-5528/I: 43 x 120 x 84 mm
	Enclosure	IP30, metal shell with solid mounting kits
	Mounting	DIN-Rail, Wall
Protection	Reverse Polarity	Present
	Overload Current	Present
Environment	Operating Temperature	EKI-5525 & EKI-5528: -10-60°C (-14-140°F) EKI-5525I & EKI-5528I: -40-75°C (-40-167°F)
	Storage Temperature	-40 ~ 85°C (-40 ~ 185°F)
	Operating Humidity	10 ~ 95% (non-condensing)
	Storage Humidity	10 ~ 95% (non-condensing)
	MTBF	EKI-5525/I: 5,168,110 hours EKI-5528/I: 5,235,270 hours
Certification	Safety	IEC/EN 60950-1, UL508, Class 1 Division 2, IECEx, ATEX
	EMC	CE, FCC
	EMI	FCC Part 15 Subpart B Class A, EN 55011/55022 Class A, EN 61000-6-4
	EMS	EN 61000-4-2 (Level 3), EN 61000-4-3 (Level 3), EN 61000-4-4 (Level 3), EN 61000-4-5 (Level 3), EN 61000-4-6 (Level 3), EN 61000-4-8 (Level 3)
	Shock	IEC 60068-2-27
	Freefall	IEC 60068-2-32
Vibration	IEC 60068-2-6	

Ordering Information

Part Number	Description
EKI-5525	5-port Fast Ethernet ProView Switch
EKI-5525I	5-port Fast Ethernet ProView Switch with Wide Temperature

Part Number	Description
EKI-5528	8-port Fast Ethernet ProView Switch
EKI-5528I	8-port Fast Ethernet ProView Switch with Wide Temperature

EKI-5729F/FI

8-Port+2 SFP Gigabit Ethernet ProView Switch



Features

- Communicates with SCADA software via Modbus/TCP
- Communicates with NMS (Networking management system) via SNMP
- Port-based QoS for deterministic data transmission
- -40 ~ 75°C operating temperature range (EKI-5729FI only)
- 12 ~ 48 V_{DC} (8.4 to 52.8 V_{DC}) wide-range power input
- EMS level 3 protection for extreme outdoor environments
- IEEE 802.3az Energy Efficient Ethernet (EEE)
- Jumbo Frame Support (Up to 9,216 Bytes)
- Supports redundant 12 ~ 48 V_{DC} power input and P-Fail relay
- Loop detection
- e-Mark certification passed



Introduction

The EKI-5729F/FI are the world's first convergence switches for process control and IT networking management. This series uses Modbus/TCP to communicate with the SCADA software and SNMP to communicate with the NMS (Networking Management System) at the same time, thereby allowing full read control over the devices either for control engineers or for IT. The devices come with the Port-based QoS for deterministic data transmission allows the priority ports to prioritize the traffic coming over those ports and delay the less immediately necessary data over the remaining ports. EKI-5729F/FI switches use the highest quality components, to enable the range to operate in temperatures of between -40 and 75°C along with EMS Level 3 protection to repel electromagnetic interface for industrial resistance.

Specifications

Communications	Standard LAN	IEEE 802.3, 802.3u, 802.3x, 802.1p, 802.3az, 802.3ab
	Transmission Distance	Ethernet: UP to 100 m (4-wire Cat.5e, Cat.6 RJ-45 cable suggested for Gigabit port) SFP: UP to 110 km (depends on SFP)
	Transmission Speed	Ethernet: 10/100/1000 Mbps Auto-Negotiation Gigabit Copper: 10/100/1000 Mbps, Auto-Negotiation Gigabit Fiber: UP to 1000 Mbps
Interface	Connectors	8 x RJ45 2 x SFP ports 6-pin removable screw terminal (power & relay)
	LED Indicators	P1, P2, P-Fail, Loop detection 10/100/1000T(X): LNK/ACT, Speed SFP: LNK/ACT
Switch Properties	MAC Table Size	8K
	Packet Buffer Size	4.1M bit
	Switching Capacity	20 Gbps
	Jumbo Frame	9216 bytes
Power	Power Consumption	Max. 6.8 W
	Power Input	12-48 V _{DC} (8.4-52.8 V _{DC}), redundant dual inputs
	Fault Output	1 Relay Output
Mechanism	Dimensions (W x H x D)	43 x 120 x 84 mm
	Enclosure	IP30, metal shell with solid mounting kits
	Mounting	DIN-Rail, Wall
Protection	Reverse Polarity	Present
	Overload Current	Present
Environment	Operating Temperature	EKI-5729F: -10~60°C (14~140°F) EKI-5729FI: -40~75°C (-40~167°F)
	Storage Temperature	-40 ~ 85°C (-40 ~ 185°F)
	Operating Humidity	10 ~ 95% (non-condensing)
	Storage Humidity	10 ~ 95% (non-condensing)
	MTBF	3,858,286 hours
Certification	Safety	IEC/EN 60950-1, UL508, Class 1 Division 2, IECEx, ATEX
	EMC	CE, FCC, e-Mark
	EMI	FCC Part 15 Subpart B Class A, EN 55011/55022 Class A, EN 61000-6-4
	EMS	EN 61000-4-2 (Level 3), EN 61000-4-3 (Level 3), EN 61000-4-4 (Level 3), EN 61000-4-5 (Level 3), EN 61000-4-6 (Level 3), EN 61000-4-8 (Level 3)
	Shock	IEC 60068-2-27
	Freefall	IEC 60068-2-32
	Vibration	IEC 60068-2-6

Ordering Information

Part Number	Description
EKI-5729F	8-port+2 SFP Gigabit Ethernet ProView Switch
EKI-5729FI	8-port+2 SFP Gigabit Ethernet ProView Switch with Wide Operating Temperature Range

Intelligent Video and IoT Sensors	1
Intelligent Transportation Platforms	2
Intelligent Inspection Systems	3
Modular IPCs	4
Server-grade IPCs	5
Industrial Storages	6
Video Wall Controllers	7
GPU Servers	8
Industrial Motherboards	9
Slot SBC & Passive Backplanes	10
CompactPCI Platforms	11
Industrial Chassis	12
Industrial Computer Peripherals	13
Industrial Ethernet Solutions	14

EKI-5524SS/MM Series

4-port + 2x100FX port (Single/Multimode, SC/ST type), Fast Ethernet ProView Switch



Features

- Communicates with SCADA software via Modbus/TCP
- Communicates with NMS (Networking management system) via SNMP
- Port-based QoS for deterministic data transmission
- -40~75°C operating temperature range (EKI-5524SSI/SSI-ST, EKI-5524MMI/MMI-ST only)
- 12~48 V_{DC} (8.4~52.8 V_{DC}) wide-range power input
- EMS level 3 protection for extreme outdoor environments
- IEEE 802.3az Energy Efficient Ethernet (EEE)
- Jumbo Frame Support (Up to 9,216 Bytes)
- Supports redundant 12~48VDC power input and P-Fail relay
- Loop detection

Introduction

The EKI-5524SS/MM Series are the world's first convergence switches for process control and IT networking management. This series uses Modbus/TCP to communicate with the SCADA software and SNMP to communicate with NMS (Networking Management System) at the same time, thereby allowing full read control over the devices either for control engineers or for IT. The devices come with the Port-based QoS for deterministic data transmission allows the priority ports to prioritize the traffic coming over those ports and delay the less immediately necessary data over the remaining ports. EKI-5524SS/MM Series switches use the highest quality components, to enable the range to operate in temperatures of between -40 and 75°C along with EMS Level 3 protection to repel electromagnetic interference for industrial resistance.

Specifications

Communications	Standard LAN	IEEE 802.3, 802.3u, 802.3x, 802.1p, 802.3az 10/100Base-T(X), 100Base-FX
	Transmission Distance	Ethernet: Up to 100 m Multi-mode Fiber: Up to 2 km (EKI-5524MM Series) Single-mode Fiber: Up to 30 km (EKI-5524SS Series)
	Optical Fiber	Multi-Mode (EKI-5524MM/MMI/MM-ST/MMI-ST) Wavelength: 1310nm, Tx Power: -14/-20 dBm, Rx Sensitivity: -32 dBm, Parameters: 50/125 um, 62.5/125 um Single-Mode (EKI-5524SS/SSI/SS-ST/SSI-ST) Wavelength: 1310 nm, Tx Power: -8/-15 dBm, Rx Sensitivity: -34 dBm, Parameters: 9/125 um
Interface	Connectors	4 x RJ45 ports 2 x SC/ST type fiber optic connectors 6-pin screw Terminal Block (including relay)
	LED Indicators	P1, P2, P-Fail, Loop detection 10/100T(X): LNK/ACT, Speed
Switch Properties	MAC Table Size	2K
	Packet Buffer Size	1M bit
	Switching Capacity	1.2 Gbps
	Jumbo Frame	9216 bytes
Power	Power Consumption	Max. 4 W
	Power Input	12~48 V _{DC} (8.4~52.8 V _{DC}), redundant dual inputs
	Fault Output	1 Relay Output
Mechanism	Dimensions (W x H x D)	43 x 120 x 84 mm
	Enclosure	IP30, metal shell with solid mounting kits
	Mounting	DIN-Rail, Wall
Protection	Reverse Polarity	Present
	Overload Current	Present
Environment	Operating Temperature	EKI-5524SS/SS-ST/MM/MM-ST: -10~60°C (14~140°F) EKI-5524SSI/SSI-ST/MMI/MMI-ST: -40~75°C (-40~167°F)
	Storage Temperature	-40 ~ 75°C (-40 ~ 167°F)
	Operating Humidity	10 ~ 95% (non-condensing)
	Storage Humidity	10 ~ 95% (non-condensing)
	MTBF	144,890 hours
Certification	Safety	IEC/EN 60950-1, UL508, Class 1 Division 2, IECEx, ATEX
	EMC	CE, FCC
	EMI	EN 55011/55022 Class A, EN 61000-6-4, FCC Part 15, Subpart B Class A
	EMS	EN61000-4-2 (ESD) Level 3, EN61000-4-3 (RS) Level 3, EN61000-4-4 (EFT) Level 3, EN61000-4-5 (Surge) Level 3 EN61000-4-6 (CS) Level 3, EN61000-4-8 (Magnetic Field) Level 3
	Shock	IEC 60068-2-27
	Freefall	IEC 60068-2-32
	Vibration	IEC 60068-2-6

Ordering Information

Part Number	Description
EKI-5524SS/SSI	4-port + 2x100FX port (Single-mode, SC type), Fast Ethernet ProView Switch / with Wide Temperature
EKI-5524MM/MMI	4-port + 2x100FX port (Multi-mode, SC type), Fast Ethernet ProView Switch / with Wide Temperature

Part Number	Description
EKI-5524SS-ST/SSI-ST	4-port + 2x100FX port (Single-mode, ST type), Fast Ethernet ProView Switch / with Wide Temperature
EKI-5524MM-ST/MMI-ST	4-port + 2x100FX port (Single-mode, ST type), Fast Ethernet ProView Switch / with Wide Temperature

EKI-5726F/FI

16-port+2 SFP Gigabit Ethernet ProView Switch



Features

- Communicates with SCADA software via Modbus/TCP
- Communicates with NMS (Networking management system) via SNMP
- Port-based QoS for deterministic data transmission
- -40 ~ 75°C operating temperature range (EKI-5726FI only)
- 12 ~ 48 V_{DC} (8.4 ~ 52.8 V_{DC}) wide-range power input
- EMS level 3 protection for extreme outdoor environments
- IEEE 802.3az Energy Efficient Ethernet (EEE)
- Jumbo Frame Support (Up to 9,216 Bytes)
- Supports redundant 12 ~ 48 V_{DC} power input and P-Fail relay
- Loop detection



Introduction

The EKI-5726F/FI are the world's first convergence switches for process control and IT networking management. This series uses Modbus/TCP to communicate with the SCADA software and SNMP to communicate with the NMS (Networking Management System) at the same time, thereby allowing full read control over the devices either for control engineers or for IT. The devices come with the Port-based QoS for deterministic data transmission allows the priority ports to prioritize the traffic coming over those ports and delay the less immediately necessary data over the remaining ports. EKI-5726F/FI switches use the highest quality components, to enable the range to operate in temperatures of between -40 and 75°C along with EMS Level 3 protection to repel electromagnetic interface for industrial resistance.

Specifications

Communications	Standard LAN	IEEE 802.3, 802.3u, 802.3x, 802.1p, 802.3az, 802.3ab 10/100/1000Base-T(X), Optional 100Base-FX, 1000Base-SX/LX/LHX/XD/ZX/EZX
	Transmission Distance	Ethernet: UP to 100 m (4-wire Cat.5e, Cat.6 RJ-45 cable suggested for Gigabit port) SFP: UP to 110 km (depends on SFP)
	Transmission Speed	Ethernet: 10/100/1000 Mbps Auto-Negotiation Gigabit Copper: 10/100/1000 Mbps, Auto-Negotiation Gigabit Fiber: UP to 1000 Mbps
Interface	Connectors	16 x RJ45 2 x SFP ports 6-pin removable screw terminal (power & relay)
	LED Indicators	P1, P2, P-Fail, Loop detection 10/100/1000T(X): LNK/ACT, Speed SFP: LNK/ACT
Switch Properties	MAC Table Size	8K
	Packet Buffer Size	4.1M bit
	Switching Capacity	36 Gbps
	Jumbo Frame	9216 bytes
Power	Power Consumption	Max. 9.6W
	Power Input	12-48 V _{DC} (8.4-52.8 V _{DC}), redundant dual inputs
	Fault Output	1 Relay Output
Mechanism	Dimensions (W x H x D)	74 x 120 x 84 mm
	Enclosure Mounting	IP30, metal shell with solid mounting kits DIN-Rail, Wall
Protection	Reverse Polarity	Present
	Overload Current	Present
Environment	Operating Temperature	EKI-5726F: -10-60°C (14-140°F) EKI-5726FI: -40-75°C (-40-167°F)
	Storage Temperature	-40 ~ 85°C (-40 ~ 185°F)
	Operating Humidity	10 ~ 95% (non-condensing)
	Storage Humidity	10 ~ 95% (non-condensing)
	MTBF	2,788,343 hours
Certification	Safety	IEC/EN 60950-1, UL508, Class 1 Division 2, IECEx, ATEX
	EMC	CE, FCC
	EMI	FCC Part 15 Subpart B Class A, EN 55011/55022 Class A, EN 61000-6-4
	EMS	EN 61000-4-2 (Level 3), EN 61000-4-3 (Level 3), EN 61000-4-4 (Level 3), EN 61000-4-5 (Level 3), EN 61000-4-6 (Level 3), EN 61000-4-8 (Level 3)
	Shock	IEC 60068-2-27
	Freefall	IEC 60068-2-32
Vibration	IEC 60068-2-6	

Ordering Information

Part Number	Description
EKI-5726F	16-port+2 SFP Gigabit Ethernet ProView Switch
EKI-5726FI	16-port+2 SFP Gigabit Ethernet ProView Switch with Wide Operating Temperature Range

- 1 Intelligent Video and IoT Sensors
- 2 Intelligent Transportation Platforms
- 3 Intelligent Inspection Systems
- 4 Modular IPCs
- 5 Server-grade IPCs
- 6 Industrial Storages
- 7 Video Wall Controllers
- 8 GPU Servers
- 9 Industrial Motherboards
- 10 Slot SBC & Passive Backplanes
- 11 Compact PCI Platforms
- 12 Industrial Chassis
- 13 Industrial Computer Peripherals
- 14 Industrial Ethernet Solutions

EKI-7629C/CI

8+2G Combo Port Gigabit Unmanaged Industrial Ethernet Switch



Features

- Provides 2 Gigabit Copper/SFP combo port plus 8 Fast Ethernet ports (EKI-7629C/CI)
- SFP socket for Easy and Flexible Fiber Expansion
- Supports Auto Negotiation and Auto MDI/MDI-X
- Provides flexible mounting: DIN-rail and Wall mount
- Supports Dual 12 ~ 48 V_{DC} power input and 1 relay output
- Supports wide operating temperatures from -40 to 75°C (EKI-7629CI)



Introduction

Aside from 2 Gigabit fiber optic/copper combo ports, the EKI-7629C/CI comes equipped with 8 x 10/100Base-TX fast Ethernet ports. Traditional RJ45 ports can be used for up-linking wide-band paths in short distances (< 100 m), or the appropriate replaceable SFP module can be used for the application of wideband uplinking and long distance transmissions to flexibly fit field requests. The long MTBF (Mean Time Between Failures) ensures low operation and maintenance cost. EKI-7629C/CI includes a switch controller that can automatically sense transmission speeds (10/100 Mbps). The RJ45 interface can also be auto-detected, so MDI or MDI-X is automatically selected and a cross-over cable is not required. All Ethernet ports have memory buffers that support the store-and-forward mechanism, which assures that data can be transmitted properly.

Specifications

Communications	Standard	IEEE 802.3, 802.3ab, 802.3u, 802.3x, 802.3z
	LAN	100Base-TX, 10/100Base-T, Optional 100Base-FX, 1000Base-SX/LX/LHX/XD/ZX/EZX
	Transmission Distance	Ethernet: Up to 100 m (4-wire Cat.5e, Cat.6 RJ45 cable suggested for Gigabit port) Gigabit Fiber: Up to 110 km (depending on SFP)
	Transmission Speed	Ethernet: 10/100 Mbps Auto-Negotiation Gigabit Copper: 10/100/1000 Mbps, Auto-Negotiation SFP: Up to 1000 Mbps
Interface	Connectors	8 x RJ45 (Ethernet) with 2 x RJ45/SFP (mini-GBIC) combo ports (EKI-7629C/CI) 6-pin removable screw terminal (Power & Relay)
	LED Indicators	System: PWR1, PWR2, P-Fail Gigabit Copper: Link/Activity, Speed (1000 Mbps) Gigabit SFP: Link/Activity
Power	Power Consumption	Max. 6.8 W
	Power Input	12 ~ 48 V _{DC} , redundant dual inputs
	Fault Output	1 Relay Output
Mechanism	Dimensions (W x H x D)	79 x 152 x 105 mm (3.11" x 5.98" x 4.13")
	Enclosure	IP30, Metal shell with solid mounting kits
	Mounting	DIN-rail, Wall
Protection	Reverse Polarity	Present
	Overload Current	Present
Environment	Operating Temperature	-10 ~ 60°C (14 ~ 140°F)
	Wide Temp. Model	-40 ~ 75°C (-40 ~ 167°F)
	Storage Temperature	-40 ~ 85°C (-40 ~ 185°F)
	Operating Humidity	5 ~ 95% (non-condensing)
	Storage Humidity	0 ~ 95% (non-condensing)
	MTBF	295,000 hours
Certification	Safety	UL 60950-1, CAN/CSA-C22.2 No.60950
	EMI	FCC Part 15 Subpart B Class A, EN 55022 Class A
	EMS	EN 61000-4-2, EN 61000-4-3, EN 61000-4-4, EN 61000-4-5, EN 61000-4-6, EN 61000-4-8
	Shock	IEC 60068-2-27
	Freefall	IEC 60068-2-32
	Vibration	IEC 60068-2-6

Ordering Information

Part Number	Description
EKI-7629C	8+2G Combo Port Unmanaged Ethernet Switch
EKI-7629CI	8+2G Combo Port Unmanaged Ethernet Switch w/ Wide Temp

EKI-2525/I

EKI-2528/I

5-port Unmanaged Industrial Ethernet Switch

8-port Unmanaged Industrial Ethernet Switch



EKI-2525

EKI-2528



Features

- Provides 5/8 Fast Ethernet ports with Auto MDI/MDI-X
- Supports 10/100 Mbps Auto-Negotiation
- Provides broadcast storm protection
- Provides compact size with DIN-rail/Wall mount, and IP30 metal mechanism
- Supports redundant 12 ~ 48 V_{DC} power input and P-Fail relay
- Supports wide operating temperatures from -40 to 75°C (EKI-2525I/EKI-2528I)

Introduction

The EKI-2525/2528 supports a Fast Ethernet solution. The power is a +12 ~ 48 V_{DC} redundant input design, and is secured with a double protection mechanism: Power Polarity Reverse Protect and an Overload Current Resettable Fuse. The former tolerates reverse power wiring while the later secures the system from overload currents. As the power supply turns normal, EKI-2525/2528 will automatically get back to work. Each port of EKI-2525/2528 has 2 LED's to show the link status transmission speed and collision status. It also provides a relay output for an event alarm. In the event of a power failure, the built-in LED will activate the alarm to notify administrators. Engineers can simply verify the hardware status by checking the LED, and have troubleshooting easy and quick. EKI-2525/2528 comes with compact metal housing that rates IP30 to help against from dusty industrial environments.

Specifications

Communications	Standard	IEEE 802.3, 802.3u, 802.3x
	LAN	10/100Base-T (X)
	Transmission Distance	Up to 100 m
	Transmission Speed	Up to 100 Mbps
Interface	Connectors	8 x RJ45 (EKI-2528) or 5 x RJ45 (EKI-2525) 6-pin removable screw terminal (power & relay)
	LED Indicators	P1, P2, P-Fail 10/100T (X): Link/Activity, Duplex/Collision
	Power	Power Consumption EKI-2528: Max. 3.9 W EKI-2525: Max. 3 W
Power	Power Input	12 ~ 48 V _{DC} , redundant dual inputs
	Fault Output	1 Relay Output
	Mechanism	Dimensions (W x H x D) 37 x 140 x 95 mm (1.46" x 5.51" x 3.74")
Mechanism	Enclosure	IP30, Metal shell with solid mounting kits
	Mounting	DIN-rail, Wall
	Protection	Reverse Polarity Overload current Present
Environment	Operating Temperature	-10 ~ 60°C (14 ~ 140°F) -40 ~ 75°C (-40 ~ 167°F), (EKI-2525I and EKI-2528I)
	Storage Temperature	-40 ~ 85°C (-40 ~ 185°F)
	Operating Humidity	5 ~ 95% (non-condensing)
	Storage Humidity	0 ~ 95% (non-condensing)
	MTBF	388,566 hours (EKI-2528) 402,589 hours (EKI-2525)
	Certification	Safety UL 60950-1, CAN/CSA-C22.2 No.60950 Class I, Division 2
Certification	EMI	FCC Part 15 Subpart B Class A, EN 55022 Class A
	EMS	EN 61000-4-2, EN 61000-4-3, EN 61000-4-4, EN 61000-4-5, EN 61000-4-6, EN 61000-4-8
	Shock	IEC 60068-2-27
	Freefall	IEC 60068-2-32
	Vibration	IEC 60068-2-6

Ordering Information

Part Number	Description
EKI-2525	5-port Ethernet Switch
EKI-2525I	5-port Ethernet Switch w/ Wide Temp

Part Number	Description
EKI-2528	8-port Ethernet Switch
EKI-2528I	8-port Ethernet Switch w/ Wide Temp

Intelligent Video and IoT Sensors	1
Intelligent Transportation Platforms	2
Intelligent Inspection Systems	3
Modular IPCs	4
Server-grade IPCs	5
Industrial Storages	6
Video Wall Controllers	7
GPU Servers	8
Industrial Motherboards	9
Slot SBC & Passive Backplanes	10
Compact PCI Platforms	11
Industrial Chassis	12
Industrial Computer Peripherals	13
Industrial Ethernet Solutions	14

EKI-2541M/MI

EKI-2541S/SI

10/100T (X) to Multi-Mode SC Type Fiber Optic Industrial Media Converter

10/100T (X) to Single-Mode SC Type Fiber Optic Industrial Media Converter



Features

- Provides 1 x 10/100 Mbps Ethernet port with RJ45 connector
- Provides 1 x 100 Mbps Multi-mode/Single-mode SC type fiber port
- Provides internal jumper for Link Fault Pass-through (LFP) setting
- Supports full/half duplex flow control
- Supports store and forward transmission
- Supports Auto-negotiation
- Supports MDI/MDI-X auto-crossover
- Supports redundant 12-48 V_{DC} power input
- Provides flexible mounting: DIN-rail and Panel mount
- Supports wide operating temperatures from -40 to 75°C (EKI-2541M/SI)

Introduction

The EKI-2541M/2541S is designed to convert Ethernet networks to fiber networks by transparently converting Ethernet signals to optic signals. The advantages of fiber optics are wide bandwidth, EMI immunity and long-distance transmissions. Therefore, the EKI-2541M/2541S is an ideal solution for “fiber to building” applications at central offices or local sites. EKI-2541M/2541S supports MDI/MDIX auto detection, so you don't need to use crossover wires. Furthermore, the EKI-2541M/2541S can work normally from -10 to 60°C and accepts a wide voltage range from 12 ~ 48 V_{DC}. Besides, it also provides 3,000 V_{DC} surge (EFT) protection against over-voltage, so it is suitable for harsh operating environments.

Link Fault Pass-Through (LFP)

The EKI-2541M/2541S is an enhanced Ethernet to fiber-optic converter. Aside from its standard features, the versatile the EKI-2541M/2541S also has the LFP (Link Fault Pass-through) feature. When one side of the link fails, the other side continues transmitting packets, and waiting for a response that never arrives from the disconnected side. Use the internal jumper to enable the LFP function, then the EKI-2541M/2541S will force the link to shut down as soon as noticed that the other link has failed, giving the application software a chance to react to the situation.

Specifications

Communications	Standard	IEEE 802.3, 802.3u, 802.3x
	LAN	10/100Base-T (X), 100Base-FX
	Transmission Distance	Ethernet: Up to 100 m; Fiber: Multi-mode: up to 2 km; Fiber: Single-mode: up to 30 km
	Transmission Speed	Up to 100 Mbps
Optical Fiber	Multi-mode (EKI-2541M/MI)	Single-mode (EKI-2541S/SI)
	Wavelength: 1310 nm Tx Power: -14/-20 dBm Rx Sensitivity: -31 dBm Parameters: 50/125 um, 62.5/125 um	Wavelength: 1310 nm Tx Power: -8/-15 dBm Rx Sensitivity: -34 dBm Parameters: 9/125 um
Interface	Connectors	1 x RJ45, 1 x SC type fiber connector, 6-pin removable screw terminal (power)
	LED Indicators	P1, P2, P-Fail, Ethernet: 10/100 m, LNK/ACT, Fiber: HDX/FDX, LNK/ACT
	DIP Switch	Port/Power Alarm, LFP; Fiber: HDX/FDX, Converter/Switch
Power	Power Consumption	Max. 2.7 W
	Power Input	12 ~ 48 V _{DC} , redundant dual inputs
Mechanism	Dimensions (W x H x D)	37 x 140 x 95 mm (1.46" x 5.51" x 3.74")
	Mounting	DIN-rail, Wall
	Enclosure	IP30, Metal shell with solid mounting
Protection	Power Reverse	Present
	Overload current	Present
Environment	Operating Temperature	-10 ~ 60°C (14 ~ 140°F) Wide Temp. model: -40 ~ 75°C (-40 ~ 167°F)
	Storage Temperature	-40 ~ 85°C (-40 ~ 185°F)
	Operating Humidity	5 ~ 95% (non-condensing)
	Storage Humidity	0 ~ 95% (non-condensing)
	MTBF	577,175 hours
Certification	Safety	UL 60950-1, CAN/CSA-C22.2 No.60950
	EMI	FCC Part 15 Subpart B Class A, EN 55022 Class A
	EMS	EN 61000-4-2, EN 61000-4-3, EN 61000-4-4, EN 61000-4-5, EN 61000-4-6, EN 61000-4-8
	Shock	IEC 60068-2-27
	Freefall	IEC 60068-2-32
	Vibration	IEC 60068-2-6

Ordering Information

Part Number	Description
EKI-2541M	Ethernet to Multi-mode Fiber Converter
EKI-2541MI	Ethernet to Multi-mode Fiber Converter w/ Wide Temp.

Part Number	Description
EKI-2541S	Ethernet to Single-mode Fiber Converter
EKI-2541SI	Ethernet to Single-mode Fiber Converter w/ Wide Temp.

EKI-2741 Series

10/100/1000T (X) to Fiber Optic Gigabit Industrial Media Converters



EKI-2741F

EKI-2741LX

EKI-2741SX



Features

- Provides 1 x 1000 Mbps Ethernet port with RJ45 connector
- Provides 1 x 1000 Mbps fiber port with SC or SFP (mini-GBIC) type connector for 1000Base-SX/LX device
- Provides DIP switch for full/half duplex setting
- Supports MDI/MDI-X auto crossover
- Supports Auto-Negotiation
- Supports redundant 12 ~ 48 V_{DC} power input
- Provides flexible mounting: DIN-rail and Wall mount
- Provides Link Fault Pass-through (LFP)
- Jumbo Frame: 9K bytes

Introduction

The EKI-2741 is designed to convert Gigabit Ethernet networks to Gigabit fiber networks by transparently converting Ethernet signals to optic signals. Therefore, the EKI-2741 is an ideal solution for “fiber to building” applications at central offices or local sites. EKI-2741 supports MDI/MDIX auto detection, so you don’t need to use crossover wires. Furthermore, the EKI-2741 accepts a wide voltage range from 12 ~ 48 V_{DC}. Besides, it also provides 3,000 V_{DC} surge (EFT) protection against over-voltage, so it is suitable for harsh operating environments. EKI-2741 is an enhanced gigabit Ethernet to fiber optic converter. Aside from its standard features, the versatile the EKI-2741 also has the LFP (Link Fault Pass-through) feature. When one side of the link fails, the other side continues transmitting packets, and waiting for a response that never arrives from the disconnected side. EKI-2741 will force the link to shut down as soon as noticed that the other link has failed, giving the application software a chance to react to the situation.

Specifications

Communications	Standard LAN	IEEE 802.3, 802.3u, 802.3ab, 802.3x, IEEE 802.3z 10/100/1000Base-T (X), 1000Base-SX or 1000Base-LX
	Transmission Distance	Ethernet: Up to 100 m Fiber: Multi-mode: Up to 550 m Single-mode: Up to 10 km (EKI-2741LX) or up to 110 km (EKI-2741F) SFP: Up to 110 km (EKI-2741F)
	Transmission Speed	Up to 1000 Mbps
	Optical Fiber	Up to 1000 Mbps Multi-mode (EKI-2741SX) Wavelength: 850 nm Single-mode (EKI-2741LX/LXI) Wavelength: 1310 nm Tx Power: -4/-9.5 dBm Rx Sensitivity: -18 dBm Parameters: 50/125 um, 62.5/125 um Tx Power: -3/-9.5 dBm Rx Sensitivity: -20 dBm Parameters: 9/125 um
Interface	Connectors	1 x RJ45, 1 x SC type fiber connector (EKI-2741SX/LX) or 1 x SFP type fiber connector (EKI-2741F), 6-pin removable screw terminal (power & relay)
	LED Indicators	P1, P2, P-Fail; Fiber: LNK/ACT; Ethernet: 1000M, LNK/ACT
	DIP Switch	Port Alarm, LFP
Power	Power Consumption	5.28 W (EKI-2741F), 5.18 W (EKI-2741SX), 5.30 W (EKI-2741LX)
	Power Input	12 ~ 48 V _{DC} , redundant dual inputs
Mechanism	Dimensions (W x H x D)	37 x 140 x 95 mm (1.46" x 5.51" x 3.74")
	Enclosure	IP30, Metal shell with solid mounting kits
	Mounting	DIN-rail, Wall
Protection	Power Reverse	Present
	Overload current	Present
Environment	Operating Temperature	10 ~ 60°C (14 ~ 140°F)
	Wide Temp. model	-40 ~ 75°C (-40 ~ 167°F)
	Storage Temperature	-40 ~ 85°C (-40 ~ 185°F)
	Operating Humidity	5 ~ 95% (non-condensing)
	Storage Humidity	0 ~ 95% (non-condensing)
	MTBF	515,600 hours (EKI-2741F); 525,300 hours (EKI-2741SX/LX)
Certification	Safety	UL 60950-1, CAN/CSA-C22.2 No. 60950
	EMI	FCC Part 15 Subpart B Class A, EN 55022 Class A
	EMS	EN 61000-4-2, EN 61000-4-3, EN 61000-4-4, EN 61000-4-5, EN 61000-4-6, EN 61000-4-8
	Shock	IEC 60068-2-27
	Freefall	IEC 60068-2-32
	Vibration	IEC 60068-2-6

Ordering Information

Part Number	Description	Part Number	Description
EKI-2741F	Giga Ethernet to SFP Fiber Converter	EKI-2741FI	Giga Ethernet to SFP Fiber Converter w/ Wide Temperature
EKI-2741SX	Giga Ethernet to 1000Base-SX Fiber Converter	EKI-2741SXI	Giga Ethernet to 1000Base-SX Fiber Converter w/ Wide Temperature
EKI-2741LX	Giga Ethernet to 1000Base-LX Fiber Converter	EKI-2741LXI	Giga Ethernet to 1000Base-LX Fiber Converter w/ Wide Temperature

Intelligent Video and IoT Sensors	1
Intelligent Transportation Platforms	2
Intelligent Inspection Systems	3
Modular IPCs	4
Server-grade IPCs	5
Industrial Storages	6
Video Wall Controllers	7
GPU Servers	8
Industrial Motherboards	9
Slot SBC & Passive Backplanes	10
CompactPCI Platforms	11
Industrial Chassis	12
Industrial Computer Peripherals	13
Industrial Ethernet Solutions	14

SFP Transceiver Modules



Features

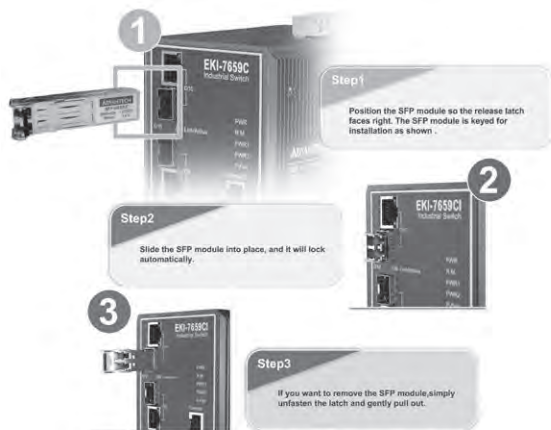
- Industry standard small form pluggable (SFP) package
- Immovable lock design
- Hot pluggable
- Duplex LC connector
- Full duplex speeds support
- TTL signal detect indicator
- 3.3 V_{DC} power supply
- Industry leading EMI performance for high port density
- Class 1 laser product complies with EN 60825-1
- RoHS compliant

Introduction

Advantech's Small Form-factor Pluggable (SFP) transceiver family is available with a variety of different types, allowing users to select the appropriate transceiver for each link to provide the required optical reach over the available optical fiber type. Advantech's SFP transceiver immovable lock design can fix SFP module into the switch firmly. Besides Advantech's SFP transceiver's compact design provides high port density and compliant with Fast Ethernet and IEEE 802.3z Gigabit Ethernet Standards. Advantech's SFP transceivers ensure your networks operate with maximum performance, reliability, and flexibility.

Specifications

Category	Distance	Model Name	Wavelength	TX Power	RX Sens	Voltage	Operating Temp
100Base-FX	M.M. (2km)	SFP-FXM/LC-AE	1310 nm	-14dBm ~ -20dBm	-31dBm (Min)	3.3V	0 to 70°C (-40 to 85°F)
	M.M. (2km)	SFP-FXM/LCI-AE					
	S.M. (30km)	SFP-FXS/LC-30E					
	S.M. (30km)	SFP-FXS/LCI-30E					
1000Base	SX (550m)	SFP-GSX/LC-AE	850 nm	-4 dBm ~ -9.5dBm	-18dBm (Min)	3.3V	0 to 70°C (-20 to 85°F)
	LX (10 km)	SFP-GLX/LC-10E	1310 nm	-3 dBm ~ -9.5dBm	-20dBm (Min)	3.3V	0 to 70°C (-40 to 85°F)
		SFP-GLX/LCI-10E					
	LX (20 km)	SFP-GLX/LC-20E	1310 nm	-2 dBm ~ -8dBm	-23dBm (Min)	3.3V	0 to 70°C (-40 to 85°F)
		SFP-GLX/LCI-20E					
	LX (40 km)	SFP-GLX/LC-40E	1310 nm	+1 dBm ~ -4dBm	-24dBm (Min)	3.3V	0 to 70°C (-40 to 85°F)
		SFP-GLX/LCI-40E					
	XD (50km)	SFP-GXD/LC-50E	1550 nm	+1 dBm ~ -4dBm	-24dBm (Min)	3.3V	0 to 70°C (-40 to 85°F)
	ZX (70km)	SFP-GZX/LC-70E	1550 nm	+5 dBm ~ 0dBm	-24dBm (Min)	3.3V	0 to 70°C (-40 to 85°F)
		SFP-GZX/LCI-70E					
EZ (110km)	SFP-GZX/LC-110E	1550 nm	+5 dBm ~ 0dBm	-30dBm (Min)	3.3V	0 to 70°C (-40 to 85°F)	
	SFP-GZX/LCI-110E						
1000Base	RJ45 (100m)	SFP-GTX/RJ45-AE				3.3V	0 to 70°C



Note: Don't remove the SFP module plugs until you are ready to install the cables.

Ordering Information

Part Number	Power Supply
SFP-FXM/LC	100Base-FX Multi-mode SFP module
SFP-FXS/LC-30E	100Base-FX Single-mode SFP module
SFP-GSX/LC	1000Base-SX Multi-mode SFP module
SFP-GLX/LC-10E	1000Base-LX Single-mode SFP module (10 km)
SFP-GLX/LC-20E	1000Base-LX Single-mode SFP module (20 km)
SFP-GLX/LC-40E	1000Base-LX Single-mode SFP module (40 km)
SFP-GXD/LC-50E	1000Base-XD Single-mode SFP module (50 km)
SFP-GZX/LC-70E	1000Base-ZX Single-mode SFP module (70 km)
SFP-GTX/RJ45	1000Base RJ45 SFP module

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