MOS-1130Y-0201E Isolated CANBus iDoor Module
User Manual

MOS-1130Y-0201E is a 2-Ports Isolated CANBus mini- PCIe, CANOpen, DB9.

This manual covers the pin assignment for the CAN connector,and the wiring of the two transmission wires.

1. Packing List

MOS-1130

- miniPCIe Card x 1
- DB37 I/O Plate x 2 with iDoor bracket x 1
- FPC cable x 2
- Startup Manual x 1

Note: If any of these items are missing or damaged, please contact your distributor or sales representative immediately.

2. Initial Inspection

You should find the following items inside the shipping package:

- Mini-PCIe communication interface card

- Industrial Communication Driver, Utility and mini-PCIe communication card user's manual in DVD-ROM

MOS-1130 was carefully inspected mechanically and electrically before it was shipped. It should be free of marks and scratches and in perfect working order when received.

As you unpack the MOS Module, check for signs of shipping damage (damaged box, scratches, dents, etc.). If it is damaged or it fails to meet specifications, notify our service department or your local sales representative immediately. Also notify the carrier. Retain the shipping carton and packing material for inspection by the carrier.

After inspection we will make arrangements to repair or replace the unit. When you handle the MOS Module, remove it from its protective packaging by grasping the rear metal panel. Keep the anti-vibration packing. Whenever you remove the card from the PC, store it in this package for protection.

Warning!   Discharge your body's static electric charge by touching the back of the grounded chassis of the system unit (metal) before handling the board. You should avoid contact with materials that hold a static charge such as plastic, vinyl and Styrofoam. Handle the board only by its edges to avoid static damage to its integrated circuits. Avoid touching the exposed circuit connectors. We also recommend that you use a grounded wrist strap and place the card on a static dissipative mat whenever you work with it.

3. Driver and Advantech Device Manager

Please follow the steps below to install Advantech CAN WDM Driver.

For driver download, please visit Advantech website:

http://support.advantech.com/Support/SearchResult.aspx?keyword=MOS-1130Y-0201E&searchtabs=BIOS,Certificate,Dat asheet,Driver,Firmware,Manual,Online%20Training,Software%20Utility,Utility,FAQ,Installation,Software%20API,Software %20API%20Manual,3D%20Model&select_tab=Driver
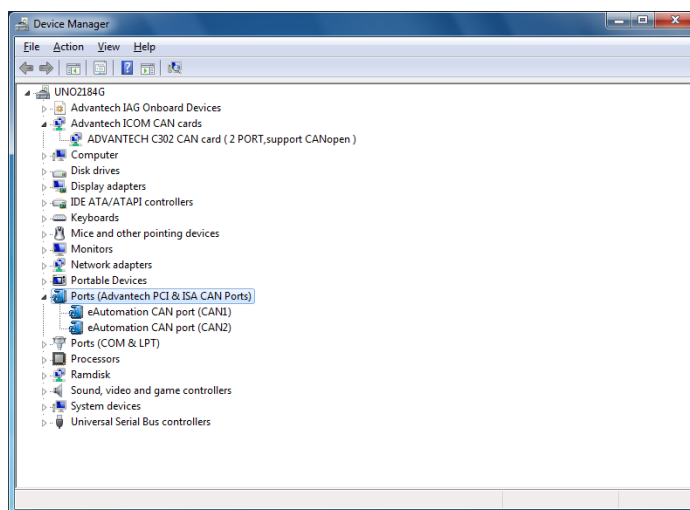
1. Select "Next" to continue the installation.
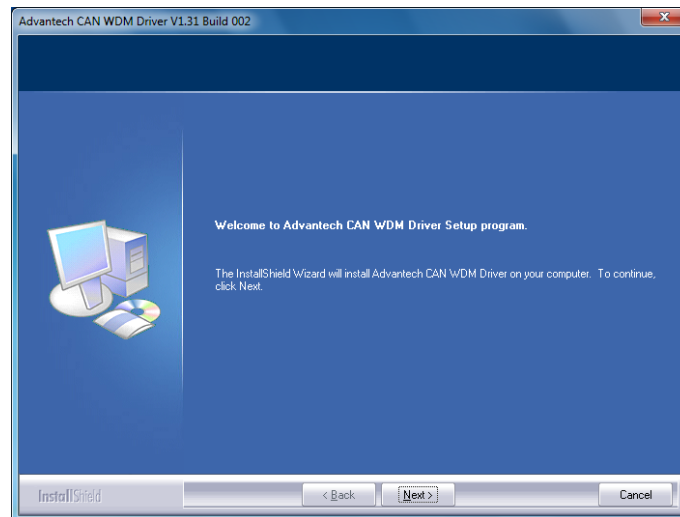
2. After a while, the installation will be complete.
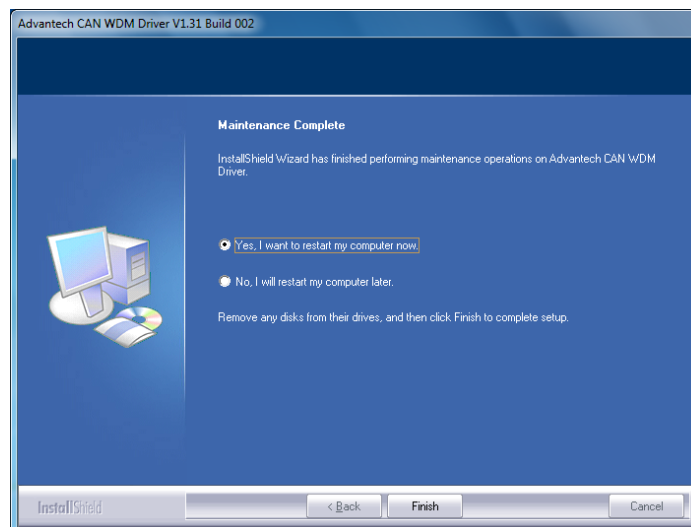
3. After the physical hardware has been installed, the card will be automatically detected.
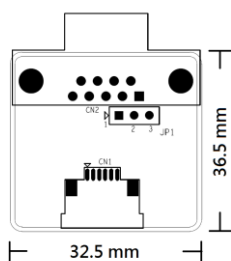
4. Jumper and Switch Settings

Figure 1 CAN-bus transceiver board silk screen

4.1 How to Set Jumpers

You configure your card to match the needs of your application by setting jumpers. A jumper is the simplest kind of electric switch. It consists of two metal pins and a small metal clip (often protected by a plastic cover) that slides over the pins to connect them. To "close" a jumper you connect the pins with the clip. To "open" a jumper you remove the clip.
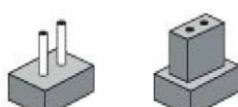

Figure 2 How to set the jumpers

4.2 Terminator Resistor Setup (JP1)

You can set the terminator resistor if necessary to match impedance. Each port has a separate resistor located on its own transceiver board.

Table 1: MOS-1130Y-0201E Terminator Resistor Jumper Setting		
Status		Value of Terminator Resistor (Ohm)
Pin 2-3	Open mode	None
Pin 1-2	Close mode	120 Ohms

Table 1: MOS-1130 Terminator Resistor Jumper Setting

Note! is suggested to set the terminator resistor to 120 Ohm to maintain a satisfactory baud rate performance.

5. Pin Assignments

Figure 3 shows the pin assignment for the card's male DB-9 connectors and corresponding pin assignments of female DB-9 connectors of the cable.
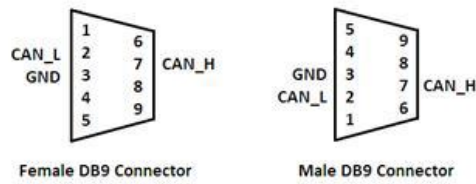

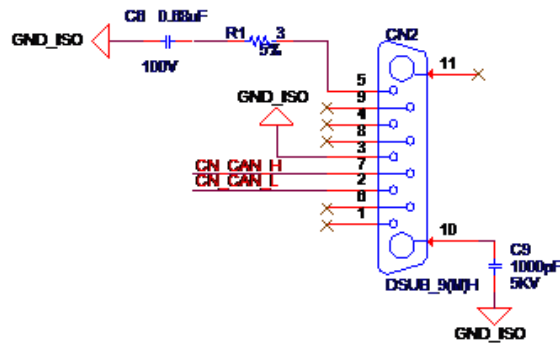**Figure 3 MOS-1130Y-0201E DB-9 connector pin assignments**

Figure 4 MOS-1130Y-0201E DB-9 connector schematics

The CAN standard supports half–duplex communication. This means that just two wires are used to transmit and receive data.

Table 2: MOS-1130Y-0201E Terminator Resistor Jumper Setting		
Pin	Signal	Description
2	CAN_L	LOW-level CAN voltage input/output
3	GND	Ground
7	CAN_H	HIGH-level CAN voltage input/output

6. Wiring

CAN-bus main board has two FPC connectors for wiring to two CAN-bus transceiver boards through FPC cables. Please ensure to follow Figure 5 and Figure 6 for appropriate wiring in between.
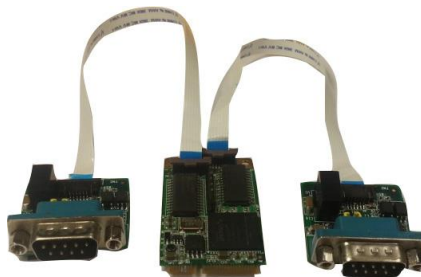

Figure 5 FPC cable wiring

Figure 6 Wiring on module side