

User Manual

MOS-2220-X1101E is a parallel port extension printer module, it provides a bi-directional bridge between the USB interface and IEEE-1284 parallel port printers.

MOS-2220-X1101E meet universal Serial Bus Specification Rev. 1.1 compliant. And it support USB printer class specification 1.0 compliant, Data Transfer Rate: 1.216Mbps.

1. Packing List

MOS-2220-X1101E

- ✚ Parallel printer miniPCIe card x1
- ✚ Wire cable with I/O bracket x1
- ✚ 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:

- ✚ miniPCIe card x1
- ✚ Wire cable with I/O bracket x1
- ✚ Startup Manual x 1

The MOS-2220-X1101E card harbors certain electronic components vulnerable to electrostatic discharge (ESD). ESD could easily damage the integrated circuits and certain components if preventive measures are not carefully paid attention. Before removing the card from the antistatic plastic bag, you should take following precautions to ward off possible ESD damage:

- ✚ Touch the metal part of your computer chassis with your hand to discharge static electricity accumulated on your body. Or one can also use a grounding strap.
- ✚ Touch the anti-static bag to a metal part of your computer chassis before opening the bag.
- ✚ Take hold of the card only by the metal bracket when removing it out of the bag.

After taking out the card, first you should:

Inspect the card for any possible signs of external damage (loose or damaged components, etc.). If the card is visibly damaged, please notify our service department or our local sales representative immediately. Avoid installing a damaged card into your system.

Also pay extra caution to the following aspects to ensure proper installation:

- ✚ Avoid physical contact with materials that could hold static electricity such as plastic, vinyl and Styrofoam.
- ✚ Whenever you handle the card, grasp it only by its edges. DO NOT TOUCH the exposed metal pins of the connector or the electronic components.

Note!

Keep the anti-static bag for future use. You might need the original bag to store the card if you have to remove the card from PC or transport it elsewhere.



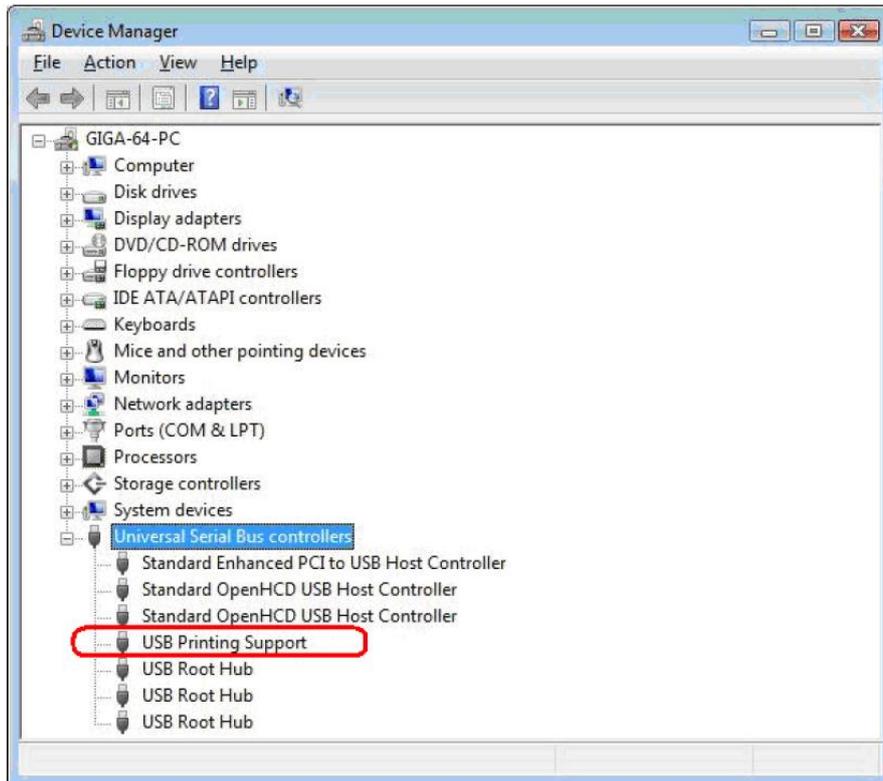
3. Installation & Setup

3.1 Driver Installation

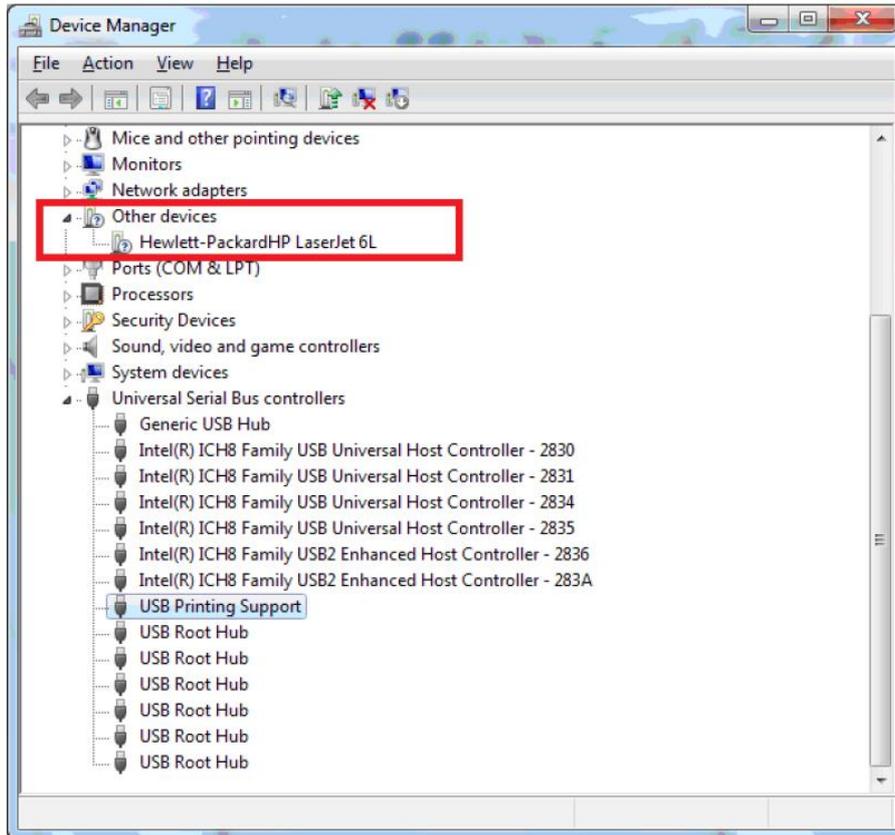
For MOS-2220-X1101E driver download, please visit Advantech website:

http://support.advantech.com/Support/SearchResult.aspx?keyword=MOS-2220-X1101E&searchtabs=BIOS,Certificate,Datasheet,Driver,Firmware,Manual,Online%20Training,Software%20Utility,Utility,FAQ,Installation,Software%20API,Software%20API%20Manual,3D%20Model&select_tab=Driver

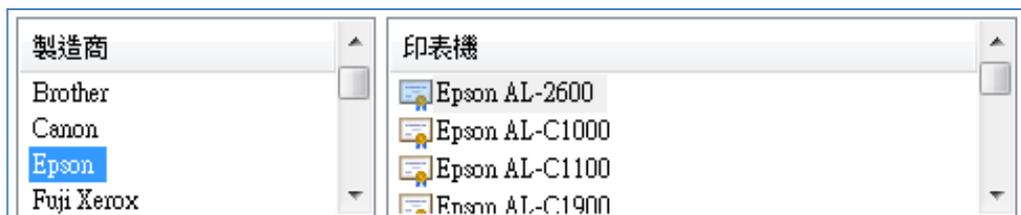
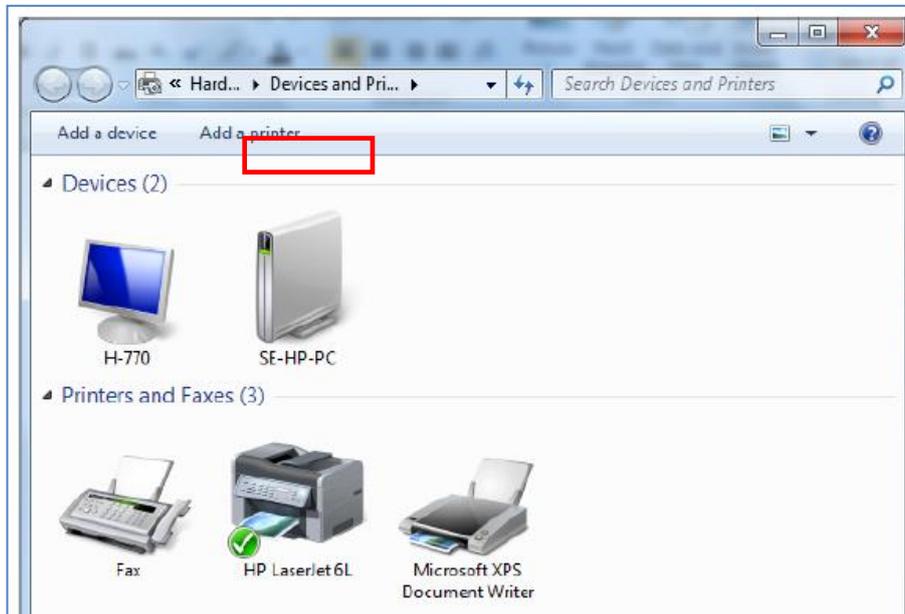
- I. Attached the IEEE-1284 parallel printer device to the MOS-2220-X1101E module. Insert/ plug the MOS-2220-X1101E module to the USB interface of the platform and then Power on the printer.
- II. Windows will first detect the MOS-2220-X1101E module device as a “USB Printing Support” device shown under Device Manager-USB controllers.



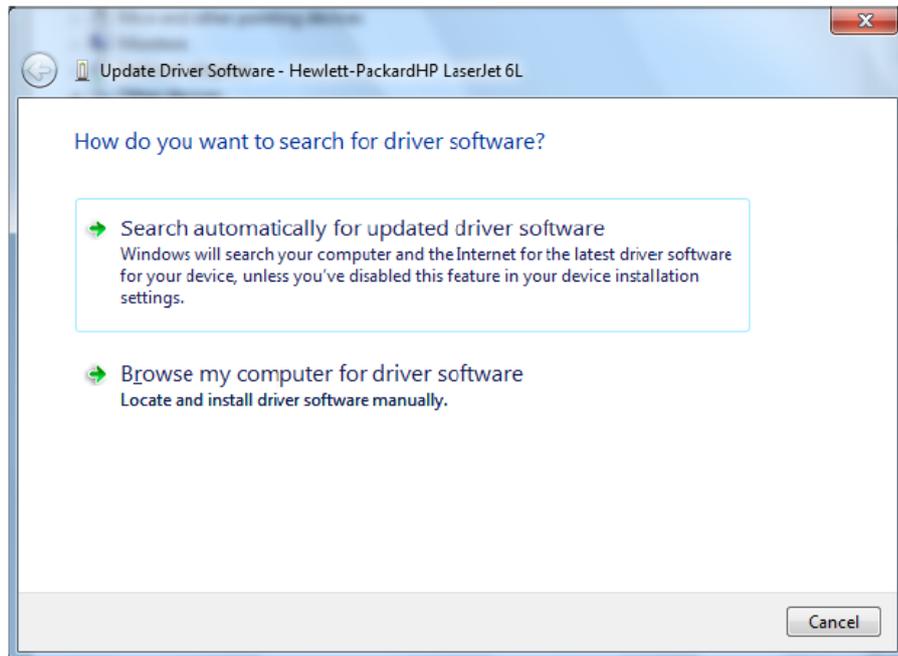
- III. Windows will next detect the attached printer device but some Windows version like Windows 7 may not include the printer device drivers. You may need to right-click on printer device and run Update Driver thru Windows Update to download the printer driver. If Windows Update could not find the printer device driver, you may need to contact the printer manufacturer or go to the printer manufacturer website to download the printer device driver for the OS version you have.



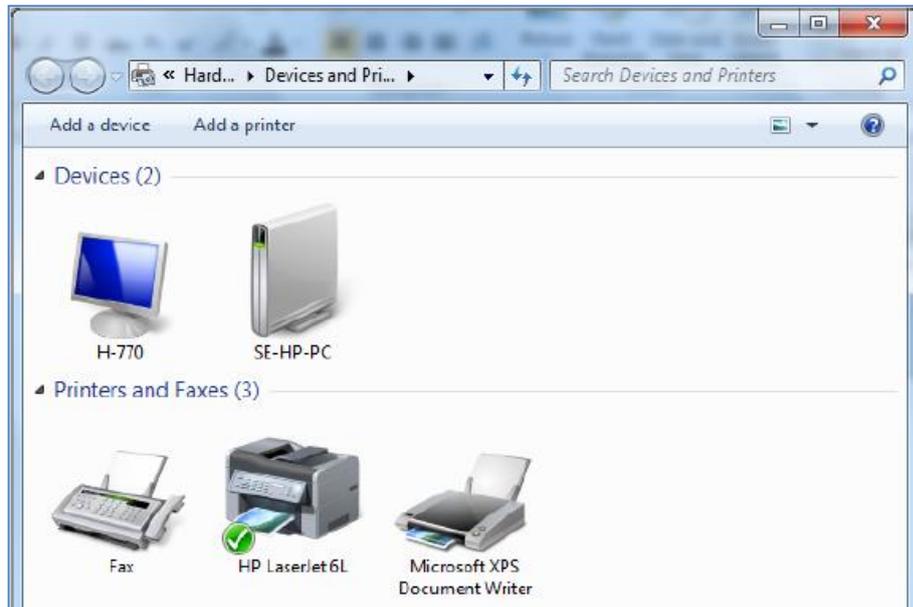
Once the printer device driver is properly installed, the printer device will disappear from the Device Manager. You then need to click Add a printer to choose the correct brand and model name of printer.



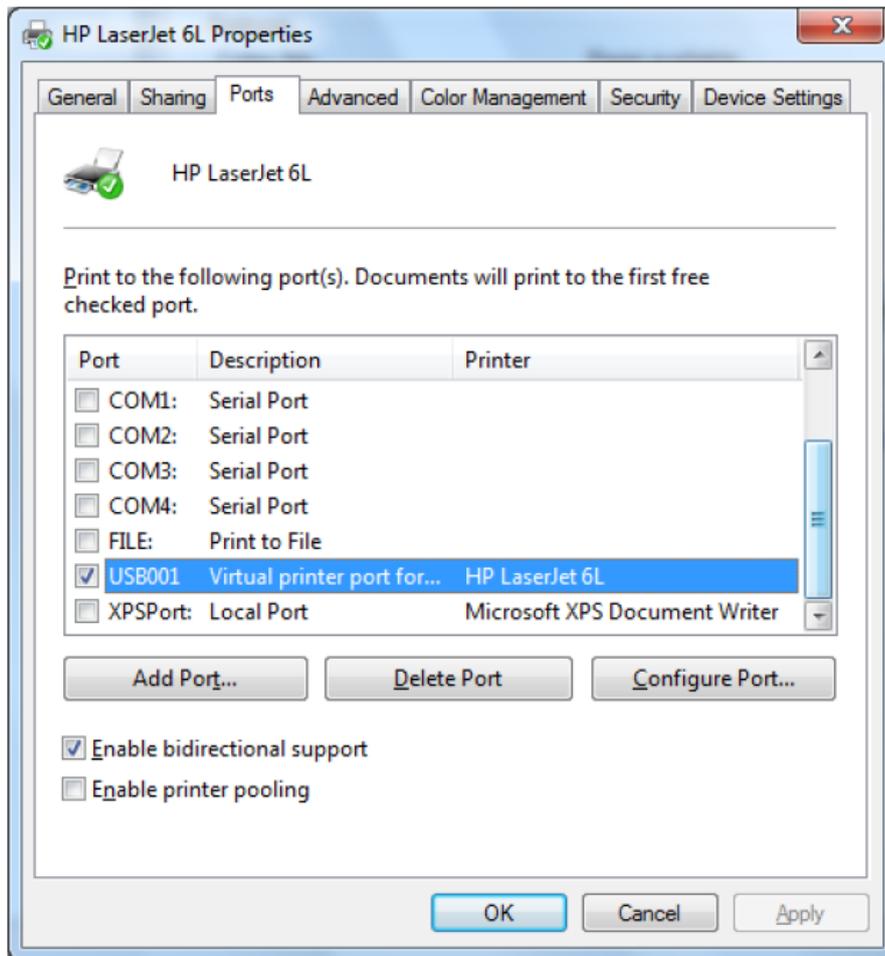
- IV. Right-click on the printer device in Device Manager and click Update Driver. Make sure you have an Internet connection. Then click to search automatically for updated driver software.



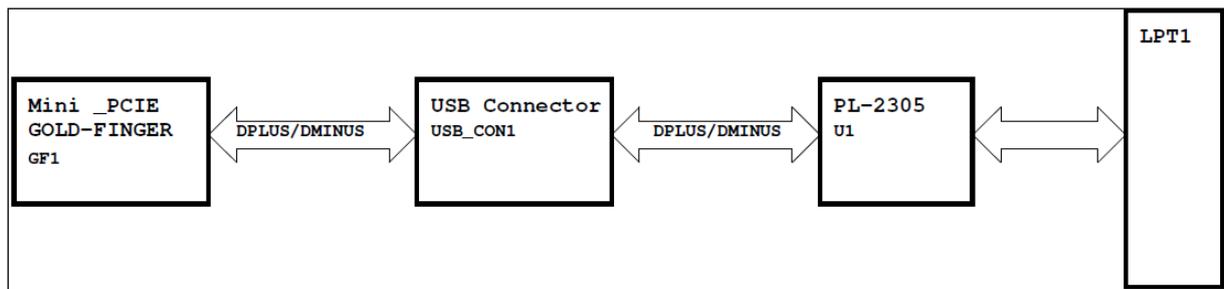
- V. Once the printer device driver is properly installed, the printer device will disappear from the Device Manager. You then need to click Start-Devices and Printers to check the installed printer device. Right-click on the printer device and click Printer Properties for more settings.



- VI. You can check the virtual printer port settings (USB001) by clicking on the Ports tab folder under the Printer device Properties. You can also run a Print Test Page under General tab folder.



4. Block Diagram



System Block Diagram

5. Signal Connections

5.1 Switch and Jumper Settings



| LED # | Function |
|-------|-----------------------|
| LED1 | Red, Module Ready LED |

Figure 5.1: Card Connector, Jumper and Switches

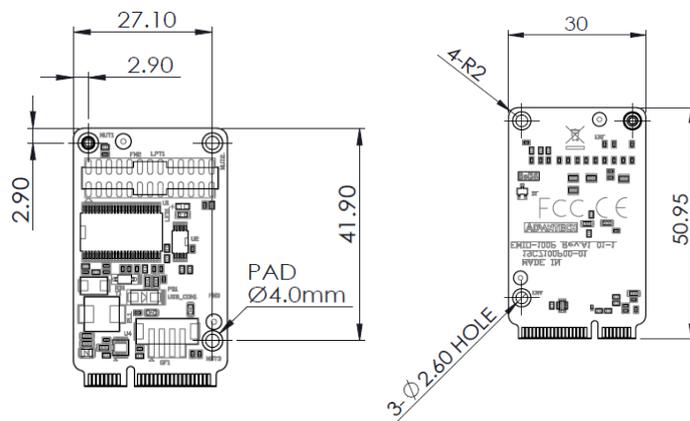


Figure 5.2: Dimension

MOS-2220-X1101E User Manual 2

5.2 Signal connections

5.2.1 Pin Assignment

The MOS-2220-X1101E has designed 1-channel of parallel printer port which is LPT1. It is a 2.0mm 13x2-pins 180 degree, Male type pin header connector. The pins are numbered as shown in the table below.

Figure 5.3: LPT Connector

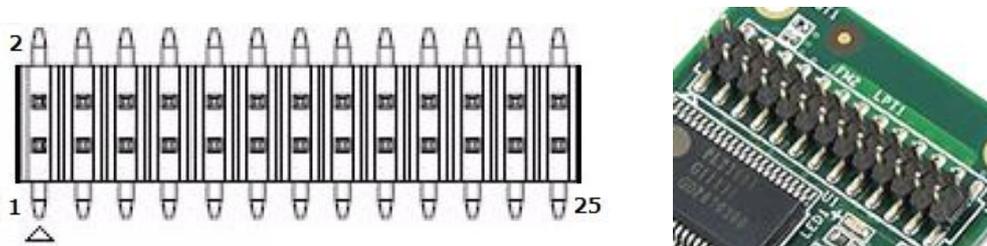


Table 5.1: MOS-2220-X1101E Pin Definition

| LPT1 Pin # | Signal Name | LPT1 Pin # | Signal Name |
|------------|-------------|------------|-------------|
| 1 | LPT_STB# | 2 | LPT_AFD# |
| 3 | LPT_PD0 | 4 | LPT_ERR# |
| 5 | LPT_PD1 | 6 | LPT_INIT# |
| 7 | LPT_PD2 | 8 | LPT_SLIN# |
| 9 | LPT_PD3 | 10 | GND |
| 11 | LPT_PD4 | 12 | GND |
| 13 | LPT_PD5 | 14 | GND |
| 15 | LPT_PD6 | 16 | GND |
| 17 | LPT_PD7 | 18 | GND |
| 19 | LPT_ACK# | 20 | GND |
| 21 | LPT_BUSY | 22 | GND |
| 23 | LPT_PE | 24 | GND |
| 25 | LPT_SLCT | 26 | N/A |