

MIO-3110 Mini-PCI to USB Interface Connection Hub Startup Manual



Introduction

Advantech introduces its new MIO module, MIO-3110 with Mini-PCI interface for advanced USB interface connection hub.

Packing list

Before you begin installing your card, please make sure that the following materials have been shipped:

- 1 MIO-3110 Mini-PCI USB interface connection hub
- 1 Startup manual
- 1 CD ROM for MIO-3110 Driver
- 1 USB cable
Cable for USB 4 PORTS/10P- p/n: 1700000601
2.0MM*2 30.5CM

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

Note 1: Acrobat Reader is required to view any PDF file. Acrobat Reader can be downloaded at: www.adobe.com/products/acrobat/readstep2.html(Acrobat is a trademark of Adobe.)

Specifications

- Mini PCI Type III Interface
- NEC μ PD720101 USB 2.0 Host Controller
- Provides Five USB 2.0 Ports up to 480Mbps
- Provides four USB 2.0 Ports
- Supports both USB 2.0 & USB 1.1 devices

Mechanical and Environmental

- **Power requirement:** +5V DC
- **Size:** 50.8mm x 59.6mm
- **Operating Temperature:** 32°F ~ 140°F (0°C ~ 60°C)
- **Speed:** Supports high-speed (480Mbps), full-speed (12Mbps), and low-speed 1.5Mbps data rate

For more information on this and other Advantech products, please visit our website at:

<http://www.advantech.com>

<http://www.advantech.com/eplatform>

For technical support and service, please visit our support website at:

<http://www.advantech.com/support>

This manual is for the MIO-3110 series Rev. A1.

Part No.2006M31100

1st Edition
Aug. 2006

Jumpers & Connectors

The table below lists the function of each of the jumpers and connectors.

USB Connector (CN1)

| Pin | Signal | Pin | Signal |
|-----|-----------|-----|-----------|
| 1 | USB 2 +5V | 2 | USB 1 +5V |
| 3 | USB D2- | 4 | USB D1- |
| 5 | USB D2+ | 6 | USB D1+ |
| 7 | GND | 8 | GND |
| 9 | GND | | |

USB Connector (CN2)

| Pin | Signal | Pin | Signal |
|-----|-----------|-----|-----------|
| 1 | USB 4 +5V | 2 | USB 3 +5V |
| 3 | USB D4- | 4 | USB D3- |
| 5 | USB D4+ | 6 | USB D3+ |
| 7 | GND | 8 | GND |
| 9 | GND | | |

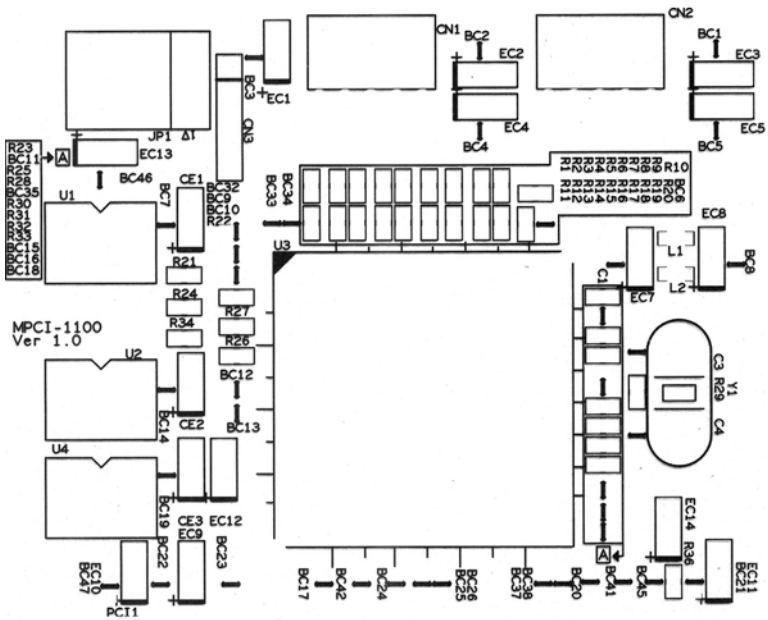
USB Connector (CN3) optional

| Pin | Signal | Pin | Signal |
|-----|-----------|-----|---------|
| 1 | USB 5 +5V | 2 | USB D5- |
| 3 | USB D5+ | 4 | GND |
| 5 | GND | 6 | |

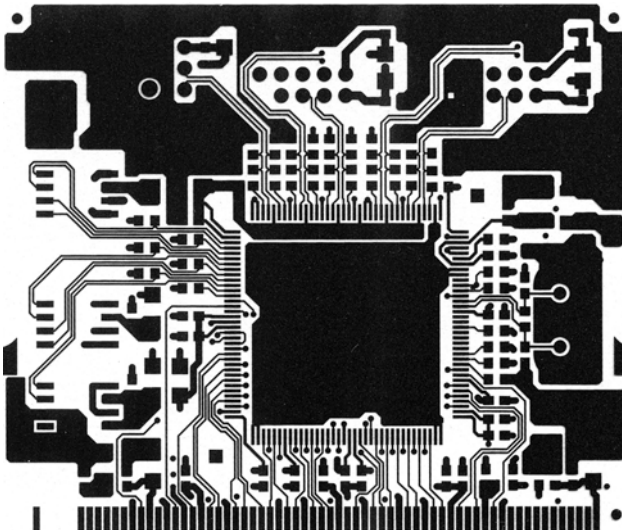
Power Connector (JP1)

| Pin | Signal | Pin | Signal |
|-----|--------|-----|--------|
| 1 | N.C. | 2 | GND |
| 3 | GND | 4 | +5V |

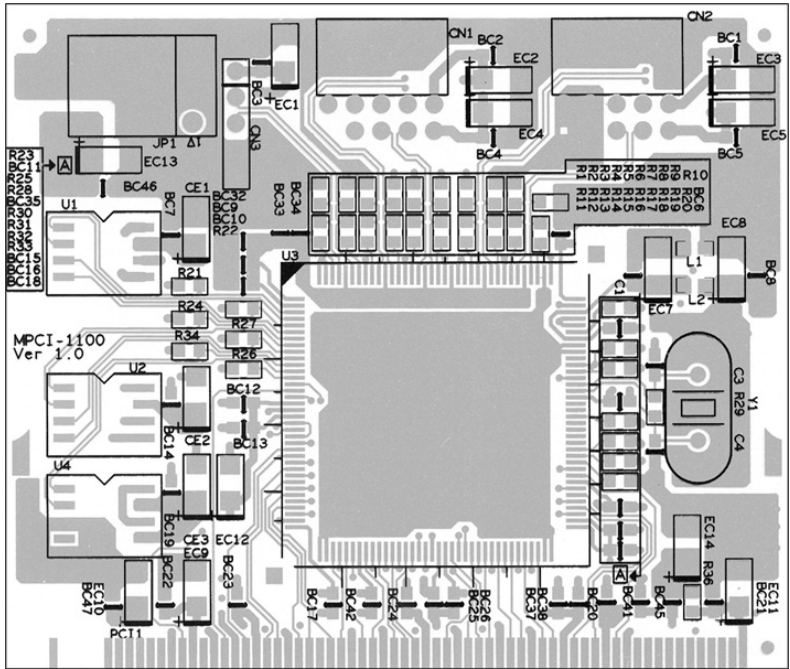
Board Layout



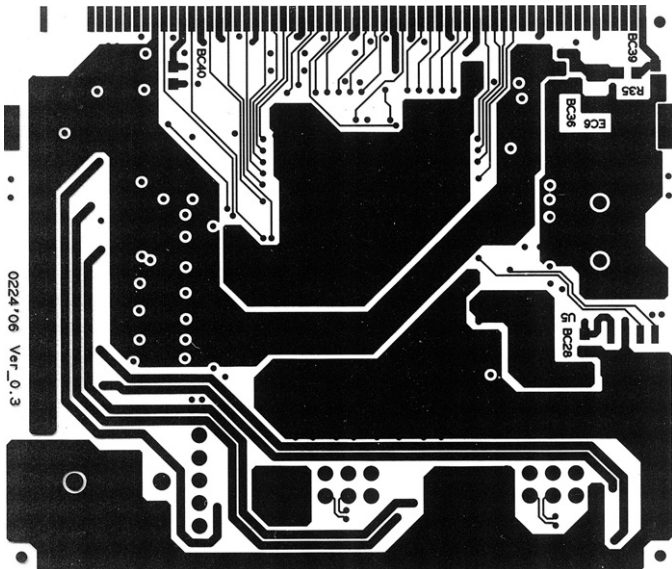
Locating connector (component side)



Locating connector (solder side)



Mechanical Drawing (component side)



Mechanical Drawing (solder side)

FCC

This device complies with the requirements in part 15 of the FCC rules: Operation is subject to the following two conditions:

- 1. This device may not cause harmful interference, and*
- 2. This device must accept any interference received, including interference that may cause undesired operation*

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this device in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his/her own expense. The user is advised that any equipment changes or modifications not expressly approved by the party responsible for compliance would void the compliance to FCC regulations and therefore, the user's authority to operate the equipment.

Caution!



There is a danger of a new battery exploding if it is incorrectly installed. Do not attempt to recharge, force open, or heat the battery. Replace the battery only with the same or equivalent type recommended by the manufacturer. Discard used batteries according to the manufacturer's instructions.

Achtung!