MEC-USB-M102

Mini PCI-e 2-port USB 3.0 Board

- Single-Lane (x1) PCI-Express with throughput up to 5.0/2.5Gbps
- Fully compliant with PCI-Express Base Specification Rev. 2.0
- Two USB3.0 Super-Speed ports
- Support simultaneous operation of multiple USB 1.1, USB 2.0, and USB 3.0 devices
- USB data transfer rate of 1.5/12/480/5000 Mbps
- Universal Serial Bus 3.0 specification Revision 1.0 compliant
- Support Hot-Swap function

Overview

MEC-USB-M102 is a USB 3.0 card for embedded PC. The card follows the Mini PCI-e standard which is complaint with PCI Express x 1 classification and small form factor (30.00 x 50.95 mm). This board fits in any host computer that has Mini PCI-e card slots.

Top Performance

MEC-USB-M102 provides data transfer rate of 1.5/12/480/5000 Mbps while connecting to USB 3.0 compliant peripherals. MEC-USB-M102 supports Hot-Swap and Plug-n-Play functions which allow devices to be plugged in or removed while bus is active.
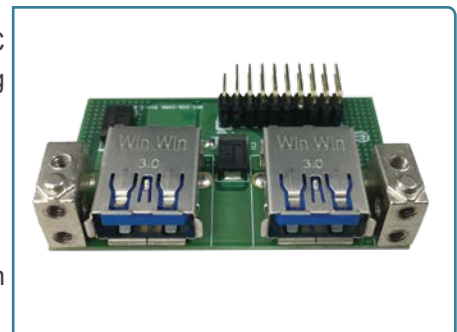
High Usability

MEC-USB-M102 is designed with flexibilities for many different applications. The accessories (daughter board, bracket, connection / power input cable) are included in the standard package.

MECFIX – Versatile Mounting

MECFIX is the unique mounting mechanism designed specially for MEC daughterboard. The feature of the mounting unit allows the following mounting options:

1. **Standard PCI/PCIe Bracket**
2. **Low Profile PCI/PCIe Bracket**
3. **Internal Mounting** inside of PC system from any position and angle.
4. **Customizing Front/Rear Plate** of PC system according to dimension of MEC daughterboard.

Specifications

General
PCI-Express Revision:
PCI-Express Base Specification Rev 2.0
PCI-Express Electromechanical Revision:
PCI-Express Mini Card Electromechanical Rev. 2.0

Hardware
Controllers: Renesas (NEC) µPD720202K8-701-BAA-A
Bus: Single-Lane (x1) PCI-Express with throughput up to 5.0/2.5Gbps

Interface (Connector)
USB 3.0: 2 (USB)

Performance
Data Transfer Rate:
Data Transfer rate of 1.5 / 12 / 480 / 5000 Mbps.
Low Speed (1.5Mbps), Full Speed(12Mbps),
High Speed(480Mbps), Super Speed(5Gpbs)

Driver Support
Operating Systems: Win 7, Win 8, Win 10

Power Requirement
Power Consumption: 215mA@3.3V

Dimensions
Width x Length (mm): 30.00 x 50.95

Environmental Limits
Operating Temperature: 0°C ~ 70°C
Storage Temperature: -40°C ~ 95°C
Humidity (non-condensing): 5% ~ 95%

Regulatory Approvals
EMC: CE, FCC
EMI: EN 55032, EN61000-3-2, EN61000-3-3,
FCC Part 15 Subpart B
Class B
EMS: En 55024, IEC 61000-4-2, IEC 61000-4-3,
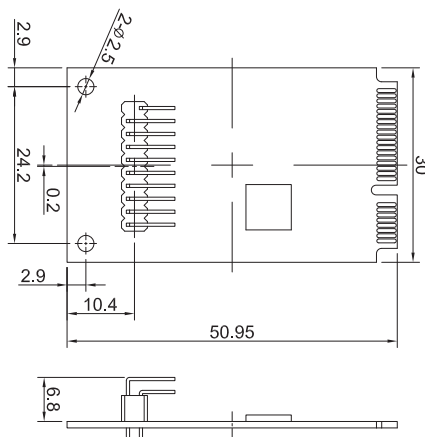IEC 61000-4-4, IEC 61000-4-5, IEC 61000-4-6,
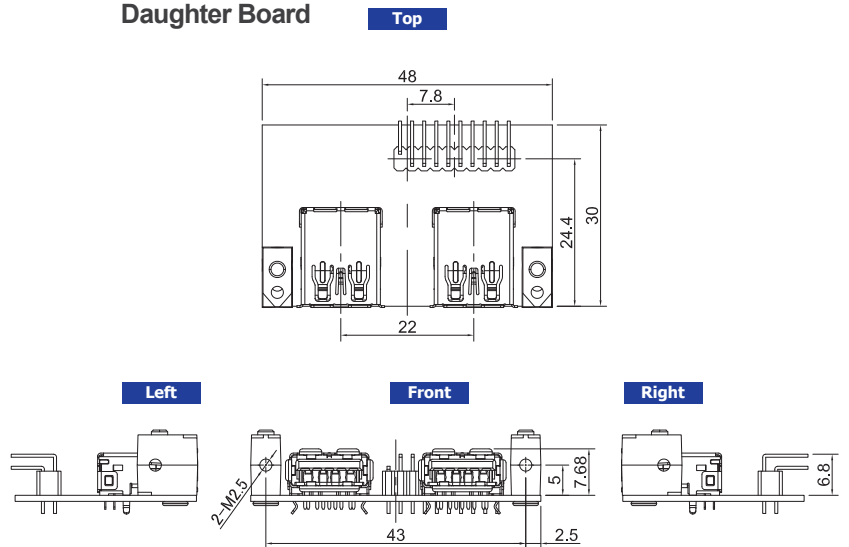IEC 61000-4-8, IEC 61000-4-11

Reliability
Warranty: 3 years

Dimensions

Unit: mm

Daughter Board   Top

Package Checklist

- Mini PCI-e Card x 1
- Daughter Board x 1
- Bracket x 1
- M2.5 Screw x 2
- 20Pin Internal Cable (30cm) x 1
- Quick Installation Guide (Printed) x 1
- Driver CD x 1

Ordering Information

Available Models

MEC-USB-M102   Mini PCI-e 2-port USB 3.0 board