# MEC-USB-2002

### M.2 2242/2260/2280 2-port USB 3.0 Board



- Single-Lane (x1) PCI-Express with throughput up to 5.0/2.5GT/s
- 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-2002 is a USB 3.0 card for embedded PC. The card follows the M.2 standard which is complaint with PCI Express x 1 classification and M.2 form factor. This board fits in any host computer that has M.2 slots.



### **Top Performance**

MEC-USB-2002 provides data transfer rate of 1.5/12/480/5000 Mbps while connecting to USB 3.0 compliant peripherals. MEC-USB-2002 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-2002 is designed with flexibilities for many different applications. The accessories (bracket, connection / power input cable) are included in the standard package.

# **Specifications**

#### General

**PCI-Express Revision:** 

PCI-Express Base Specification Rev 2.0

**PCI-Express Electromechanical Revision:** 

PCI-Express M.2 Electromechanical Rev. 1.1

**Power Requirement** 

Power Consumption: 198mA@3.3V

**Dimensions** 

Width x Length (mm): 22.00 x 42.00

22.00 x 60.00 22.00 x 80.00

#### Hardware

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

#### Interface (Connector)

**USB 3.0:** 2 (USB)

#### **Performance**

#### **Data Transfer Rate:**

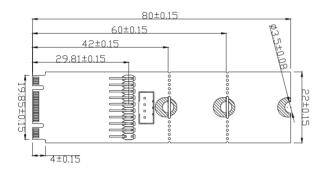
Data Transfer rate of 1.5 / 12 / 480 / 5000 Mbps. Low Speed (1.5Mbps), Full Speed(12Mbps), High Speed(480Mbps), Super Speed(5Gpbs)

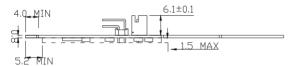
#### **Driver Support**

Operating Systems: Win 7, Win 8, Win 10

### **Dimensions**

#### Unit: mm





#### **Environmental Limits**

Operating Temperature:  $0^{\circ}\text{C} \sim 70^{\circ}\text{C}$ Storage Temperature:  $-40^{\circ}\text{C} \sim 95^{\circ}\text{C}$ Humidity (non-condensing):  $5\% \sim 95\%$ 

#### Regulatory Approvals

EMC: CE, FCC

EMI: EN 55032, EN61000-3-2, EN61000-3-3,

FCC Part 15 Subpart B, Class B

**EMS:** EN 55035, 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 **MTBF:** >20,161,919



### Package Checklist

- M.2 Card x 1
- Bracket x 1
- 20Pin Internal Cable (25cm) x 1
- 4Pin Power Input Cable (30cm) x 1
  External power in \*Needed when total power consumption exceed 5W
- Quick Installation Guide (Printed) x 1



# **Ordering Information**



### **Available Models**

MEC-USB-2002 M.2 2242/2260/2280 2-port USB 3.0 board