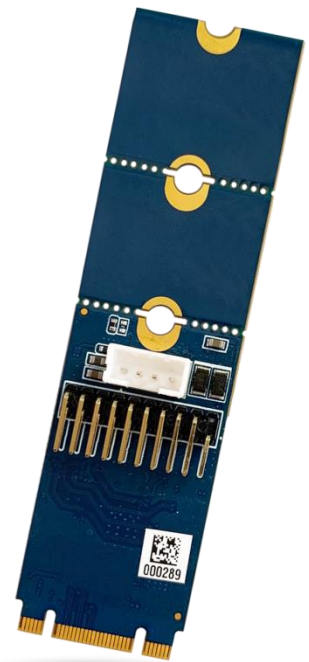


MEC-USB-2002C

M.2 2242/2260/2280 (B+M key) 2 port
USB3.2 board

Product Datasheet



Date: 2024.09.19

Revision: 1.3

File: Cervoz_Modular_Expansion_Card_M.2_3-in-1_B_M_USB_Datasheet_Rev1.3

Revision History

Date	Revision	Description
2024.07.22	1.2	New datasheet format and add Type-C cable
2024.09.19	1.3	Add "USB Power"

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1. Product Overview

1.1 Introduction

MEC-USB-2002C is a USB 3.2 Gen1x1 card for embedded PC. The card follows the M.2 standard which is compliant with PCI Express x 1 classification and M.2 form factor. This board fits in any host computer that has M.2 slots.

MEC-USB-2002C supports data transfer rate of 1.5/12/480/5000 Mbps when connected to USB 3.2 compliant peripherals. It also supports Hot-Swap and Plug-n-Play functions, enabling devices to be connected or disconnected seamlessly while the bus is active.

MEC-USB-2002C is designed with flexibilities for many different applications. The accessories (bracket, connection and power input cable) are included in the standard package.

1.2 Feature

- 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 USB 3.2 Gen1x1 Super-Speed ports
- Support simultaneous operation of multiple USB 1.1, USB 2.0, and USB 3.2 GEN1x1 devices
- USB data transfer rate of 1.5/12/480/5000 Mbps
- Universal Serial Bus 3.2 specification Revision 1.0 compliant
- Support Hot-Swap function

2. Product Specifications

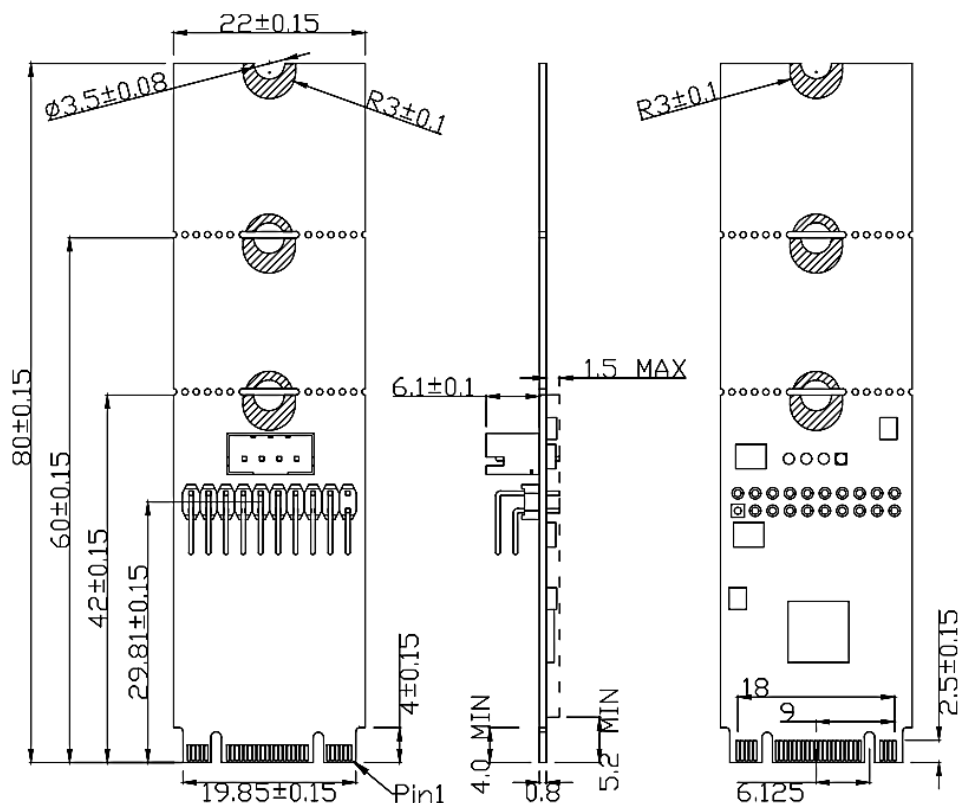
General	
PCI-Express Revision	PCI-Express Base Specification Rev. 2.0
PCI-Express Electromechanical Revision	PCI-Express M.2 Electromechanical Rev. 1.1
Hardware	
Controller	Renesas (NEC) μ PD720202K8-701-BAA-A
Bus	Single-Lane (x1) PCI-Express with throughput up to 5.0/2.5GT/s
Interface (Connector)	
USB 3.2	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 (5Gbps)
Driver Support	
Operating Systems	Win 7, Win 8, Win 10
Power Requirement	
Power Consumption	198mA@3.3V
USB Power(Per Port)	5V@1000mA
Dimensions	
Width x Length (mm)	22.00 x 42.00 22.00 x 60.00 22.00 x 80.00
Environmental Limits	
Operating Temperature	0 ~ 70°C
Storage Temperature	-40 ~ 95°C
Humidity (non-condensing)	5% ~ 95%
Regulatory Approvals	
EMC	CE, FCC, UKCA

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

3. Ordering Information

Model Name	Description
MEC-USB-2002	M.2 2242/2260/2280 2 port USB 3.2 board
MEC-USB-2002C	M.2 2242/2260/2280 2 port USB 3.2 board with Type-C cable

4. Dimensions



5. Package Checklist

5.1 MEC-USB-2002

- M.2 3-in-1 Card x 1
 - Bracket x 1
 - 20Pin Internal Type-A 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



5.2 MEC-USB-2002C

- M.2 3-in-1 Card x 1
 - Bracket x 1
 - 20Pin Internal Type-C Cable (30cm) 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

