

PCI-e low profile 4/8port USB3.2 Gen1x1 board

MEC-USB-PL004

MEC-USB-PL008

MEC-USB-PL008C

Product Datasheet



Date: 2024.08.13

Revision: 1.0

File: CervoZ_Modular_Expansion_Card_PCl_e_Low_Profile_USB_Datasheet_Rev1.0



Revision History

Date	Revision	Description
2024.08.13	1.0	First Released



Table of Contents

1. Product Overview.....	4
1.1 Introduction.....	4
1.2 Feature.....	4
2. Product Specifications.....	5
3. Ordering Information.....	6
4. Dimensions.....	7
4.1 MEC-USB-PL004 with standard bracket.....	7
MEC-USB-PL004 with low profile bracket.....	8
4.2 MEC-USB-PL008(C) with standard bracket.....	9
MEC-USB-PL008(C) with low profile bracket.....	10
5. Package Checklist.....	11
5.1 MEC-USB-PL004.....	11
5.2 MEC-USB-PL008.....	12
5.3 MEC-USB-PL008C.....	13

1. Product Overview

1.1 Introduction

MEC-USB-PL004/8 is an industrial-grade USB 3.2 Gen1x1 card available in 4-port or 8-port configurations, designed for embedded PCs. The card follows the PCI-e standard which is compliant with PCI Express x 4 classification and is compatible with any host computer that has PCI-e card slots.

MEC-USB-PL004/8 supports data transfer rates of 1.5/12/480/5000Mbps 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-PL004/8 is designed with flexibilities for various applications and comes with a range of accessories, including cables, a standard bracket, and a low-profile bracket, all included in the standard package.

1.2 Feature

- Quad-Lane (x4) PCI-Express with throughput up to 5.0/2.5GT/s
- Fully compliant with PCI-Express Base Specification Rev.2.0
- 4-port/8-port USB 3.2 PCI Express Card with 4 independent host controllers
- 900 mA/1500 mA max. per port configurable via switch settings
- 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 Base Specification Rev. 2.0
Hardware	
Controller	Renesas (NEC) μ PD720202K8-701-BAA-A x4
Bus	Quad-Lane (x4) PCI-Express with throughput up to 5.0/2.5GT/s
Interface (Connector)	
USB 3.2	4 or 8 (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, Win 11
Power Requirement	
Power Consumption	MEC-USB-PL004: 1400mA @3.3V MEC-USB-PL008(C): 1700mA @3.3V Maximum 3A @12V w/PCIe slot Maximum 3A @12V w/4 pin Power cable Maximum 5.5A @12V w/6 pin PCIE-ATX
USB Power(Per Port)	5V@900mA 5V@1500mA (900/1500 mA maximum per port configurable via switch settings)
Dimensions	
Width x Length (mm)	68.90 x 158.00
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	6,329,507 Hours

3. Ordering Information

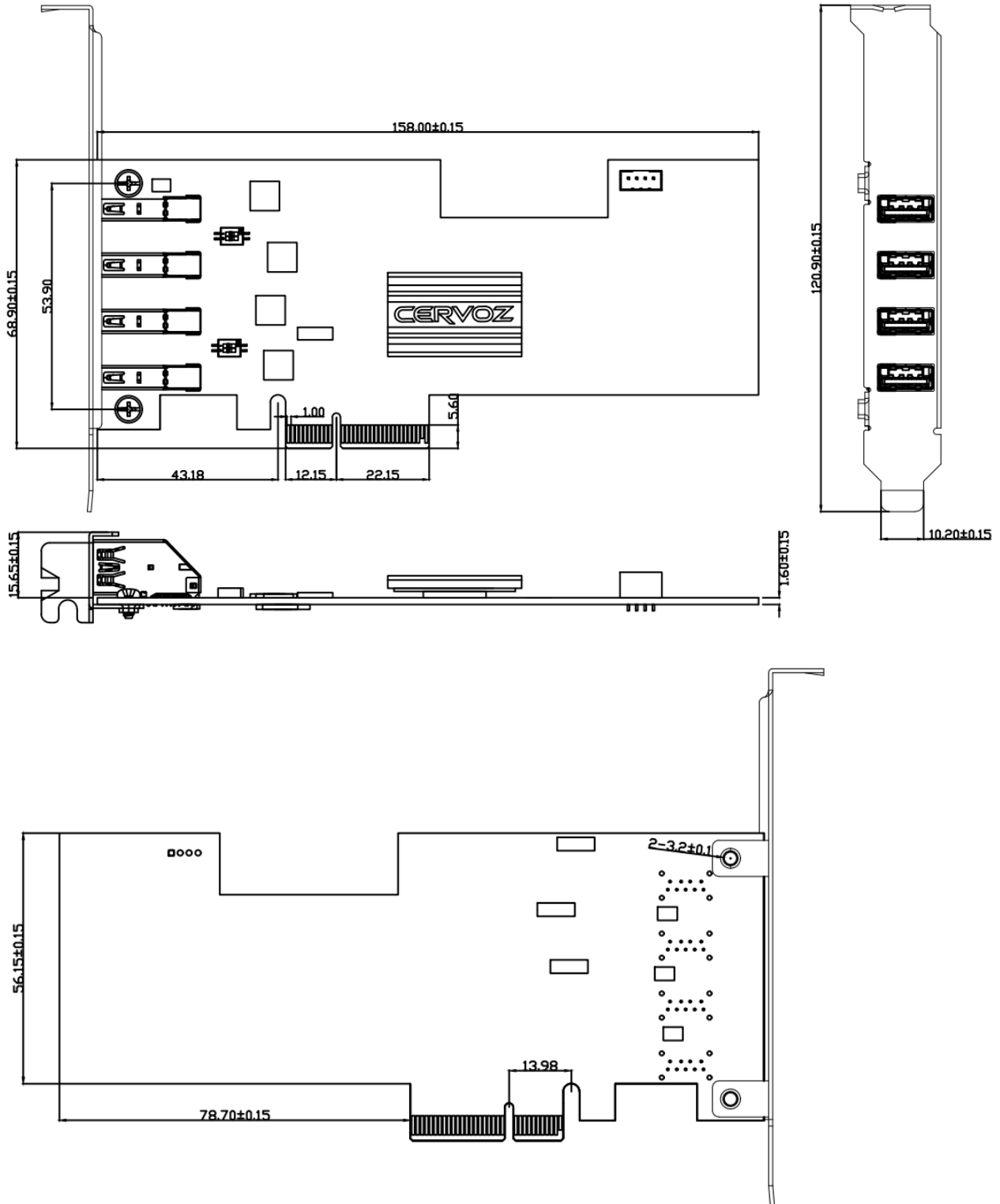
Model Name	Description
MEC-USB-PL004	PCI- e low profile 4 port USB3.2 board
MEC-USB-PL008	PCI- e low profile 8 port USB3.2 board
MEC-USB-PL008C	PCI- e low profile USB3.2 board with 4 port Type-A + 4 port Type-C



4. Dimensions

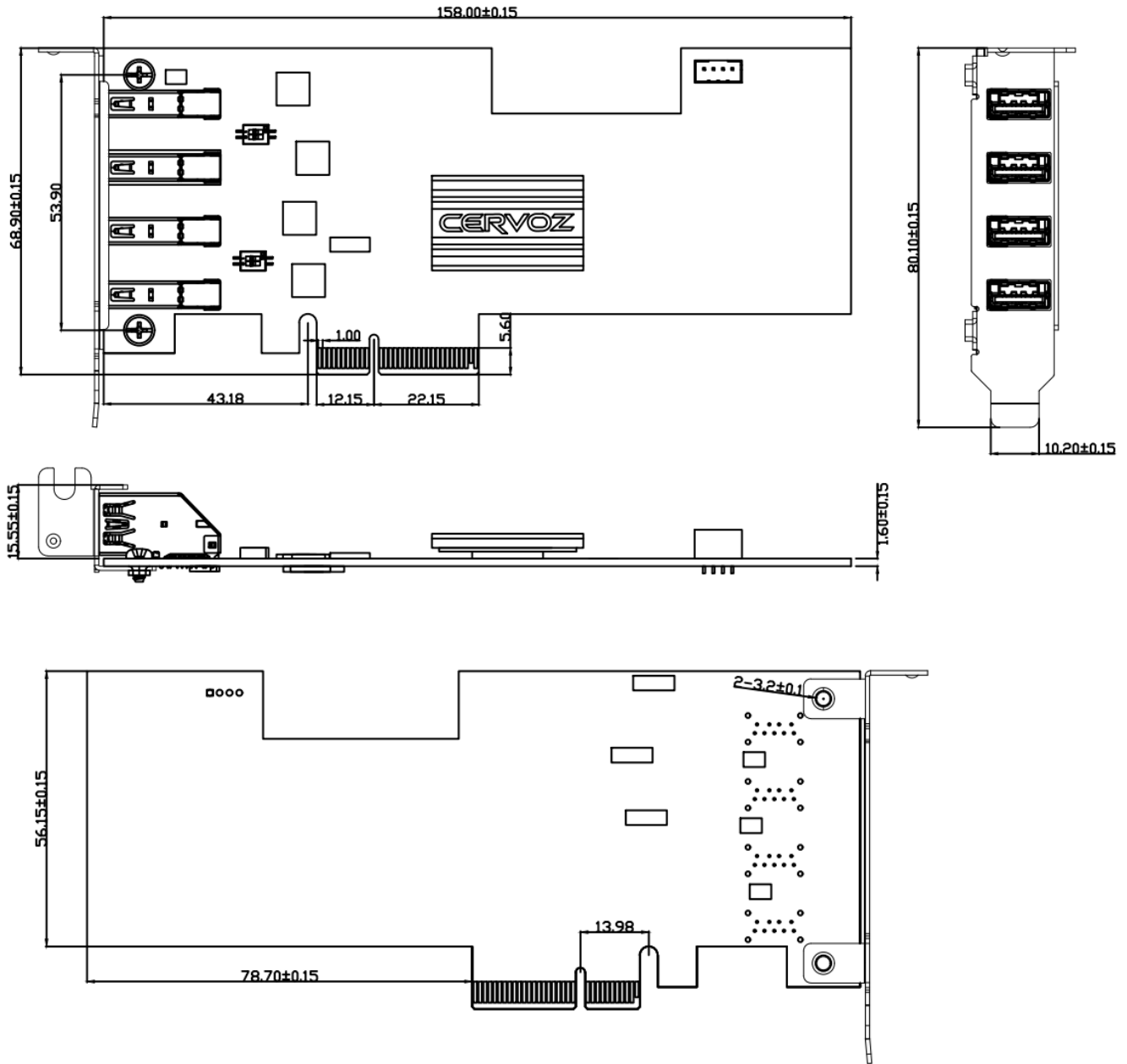
5.4 MEC-USB-PL004

with standard bracket



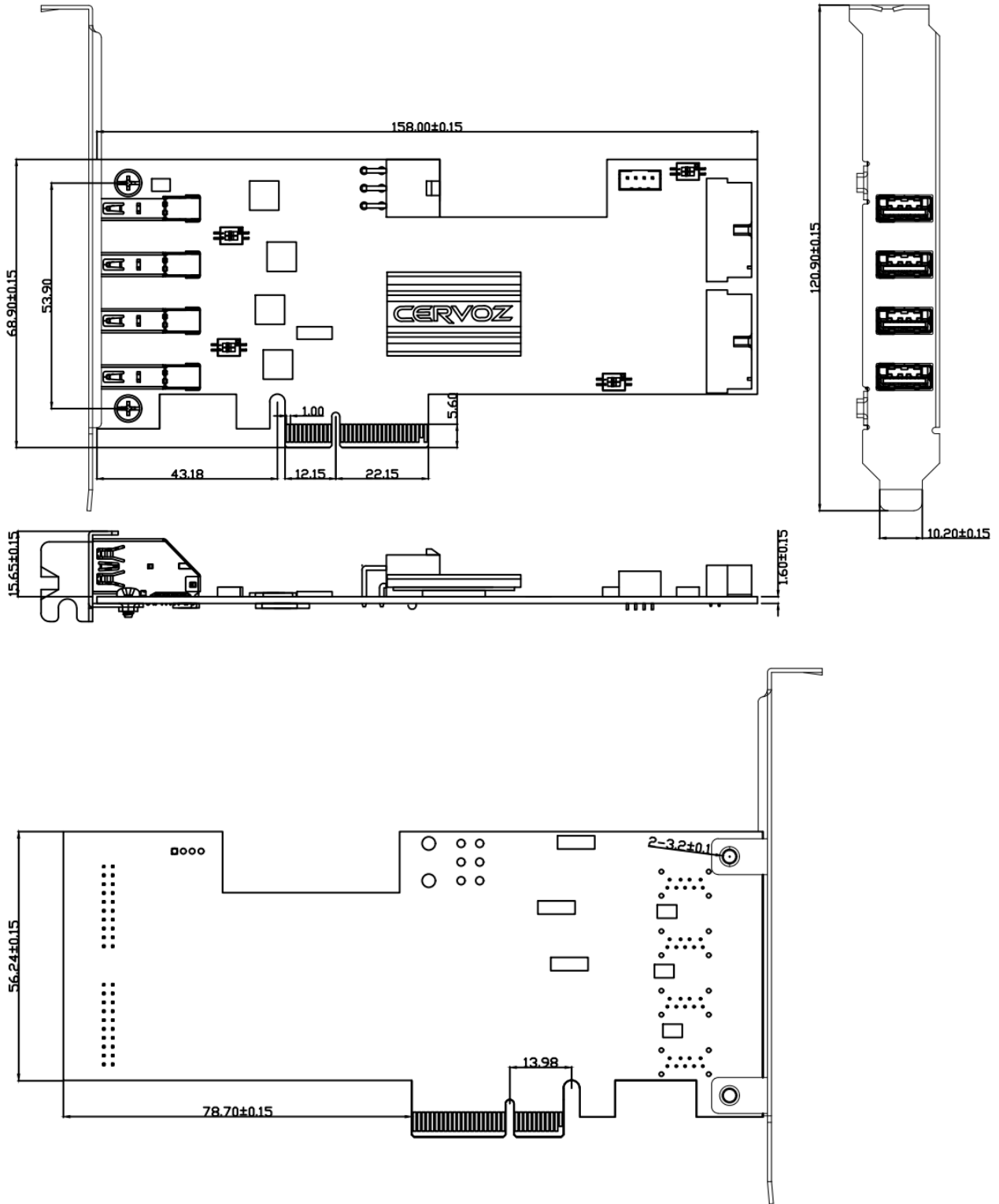


with low profile bracket



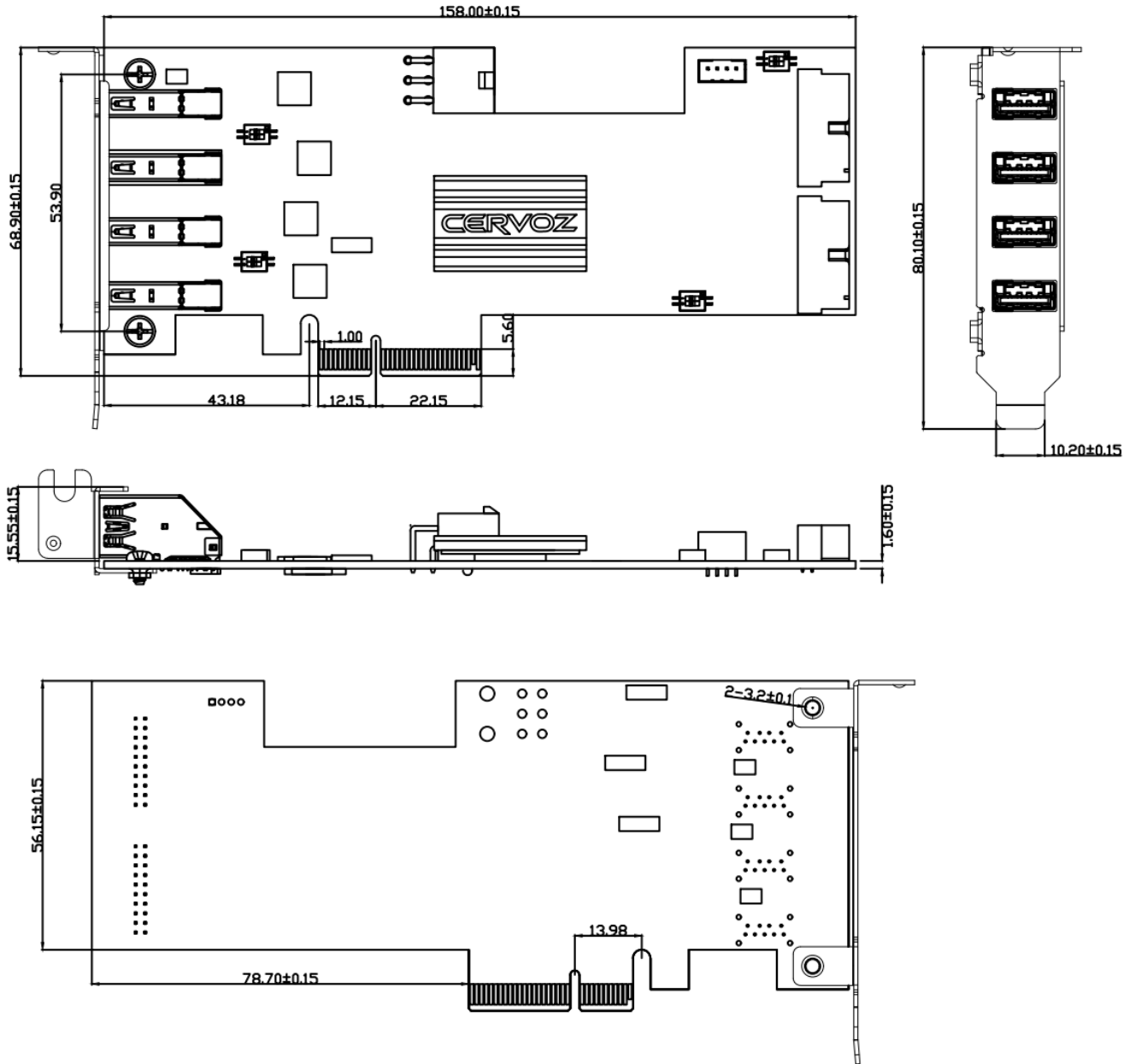


5.5 MEC-USB-PL008(C)
with standard bracket





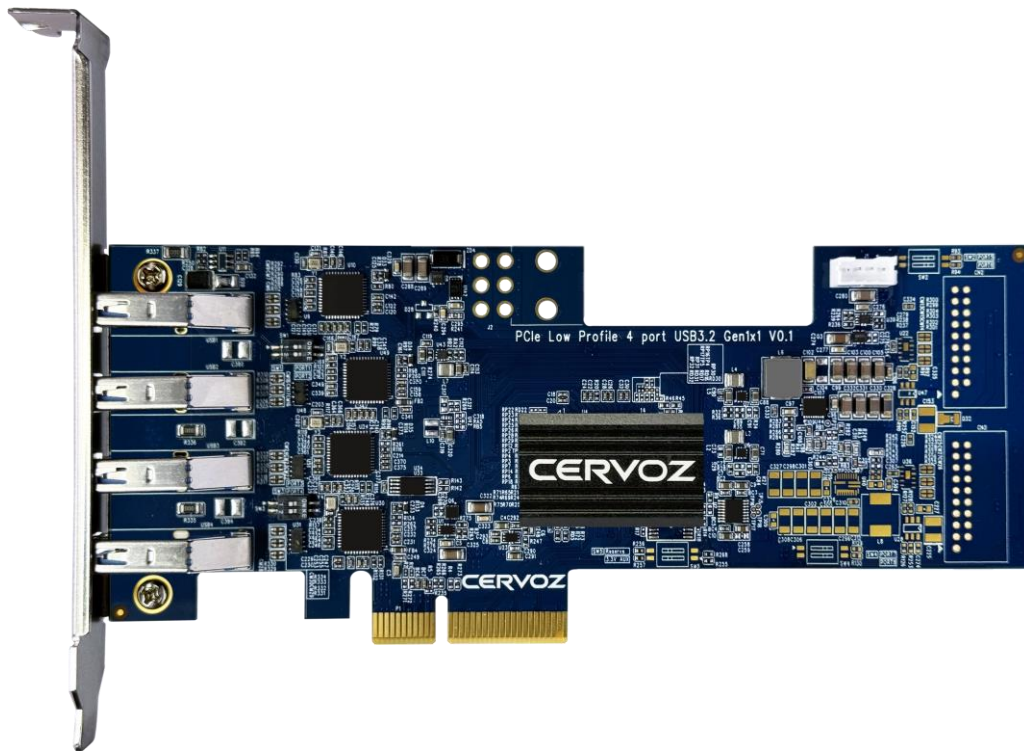
with low profile bracket



5. Package Checklist

5.1 MEC-USB-PL004

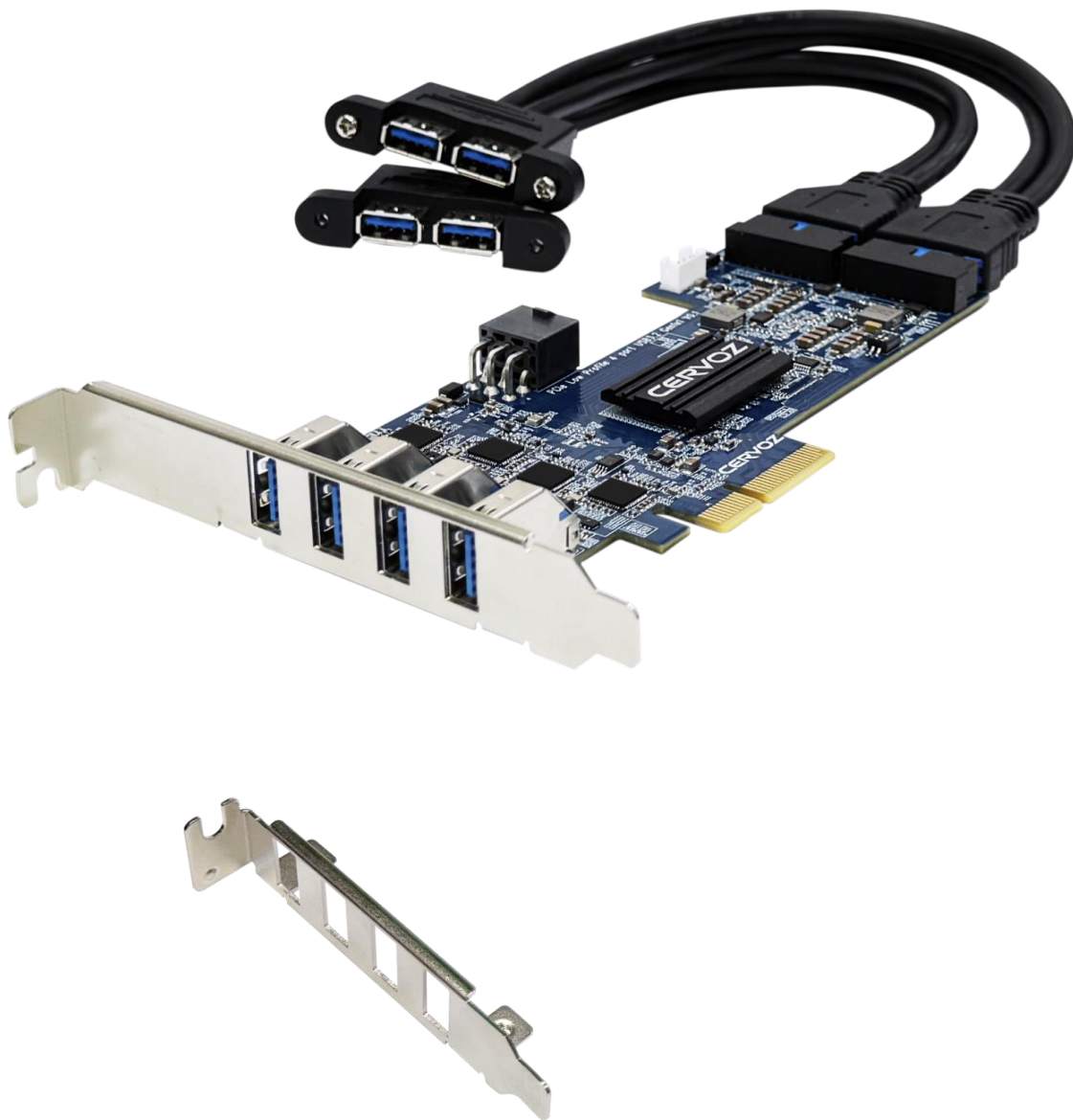
- PCI-e Low Profile USB Card (with Heatsink x1) x 1
- Standard Bracket x 1
- Low Profile Bracket x 1
- 4Pin Power Input Cable (30cm) x 1
- Quick Installation Guide (Printed) x 1





5.2 MEC-USB-PL008

- PCI-e Low Profile USB Card (with Heatsink x1) x 1
- Standard Bracket x 3
- Low Profile Bracket x 1
- 20Pin Internal Type-A Cable (25cm) x 2
- 4Pin Power Input Cable (30cm) x 1
- Quick Installation Guide (Printed) x 1



5.3 MEC-USB-PL008C

- PCI-e Low Profile USB Card (with Heatsink x1) x 1
- Standard Bracket x 3
- Low Profile Bracket x 1
- 20Pin Internal Type-C Cable (25cm) x 2
- 4Pin Power Input Cable (30cm) x 1
- Quick Installation Guide (Printed) x 1

