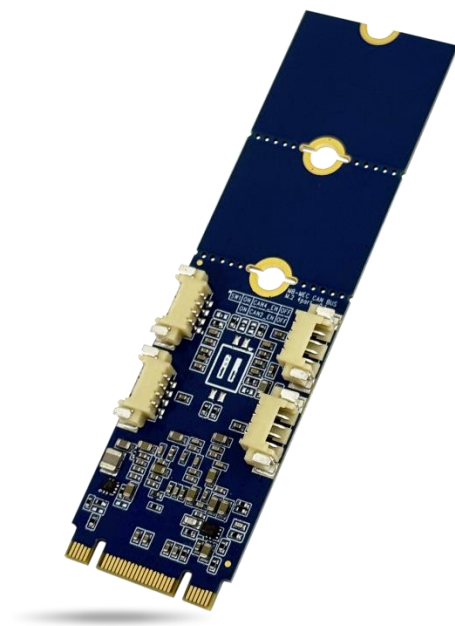


MEC-CAN-2814i

M.2 2242/2260/2280 (B+M key) quad isolated
CAN bus 2.0B board ($-40^{\circ}\text{C} \sim +85^{\circ}\text{C}$)

Product Datasheet



Date: 2024.12.18

Revision: 1.1

File: Cervoz_Modular_Expansion_Card_M.2_3-in-1_B_M_CAN bus_Datasheet_Rev1.1

Revision History

Date	Revision	Description
2024.10.01	1.0	First Released
2024.12.18	1.1	Add Feature “Support Linux SocketCAN”

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1. Product Overview

1.1 Introduction

MEC-CAN-2814i is a Quad CAN bus module 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-CAN-2814i provides four DB9 connectors that come with 11898-1 and 11898-2 layer protocol support of CAN bus 2.0A/B. The wide operating temperature and 2.5kV isolation make MEC-CAN-2814i suitable for use on harsh industrial environments.

MEC-CAN-2814i is designed with flexibilities for many different application and accessories (daughter board, bracket and 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
- Meet the Requirements of the ISO 11898 High Speed Standard
- CAN bus 2.0B EFF backward compatible with 2.0A SFF
- Support baud rate 10/20/50/100/125/250/500/800/1000K
- Support CAN message acceptance filter
- Compliant with EN61000-4-2 (ESD) Air-15kV, Contact-8kV
- Split Termination resistor enabled/disabled by switch
- Provide software SDK for Application layer develop
- Support 2.5kV isolated per port
- Support Linux SocketCAN

2. Product Specifications

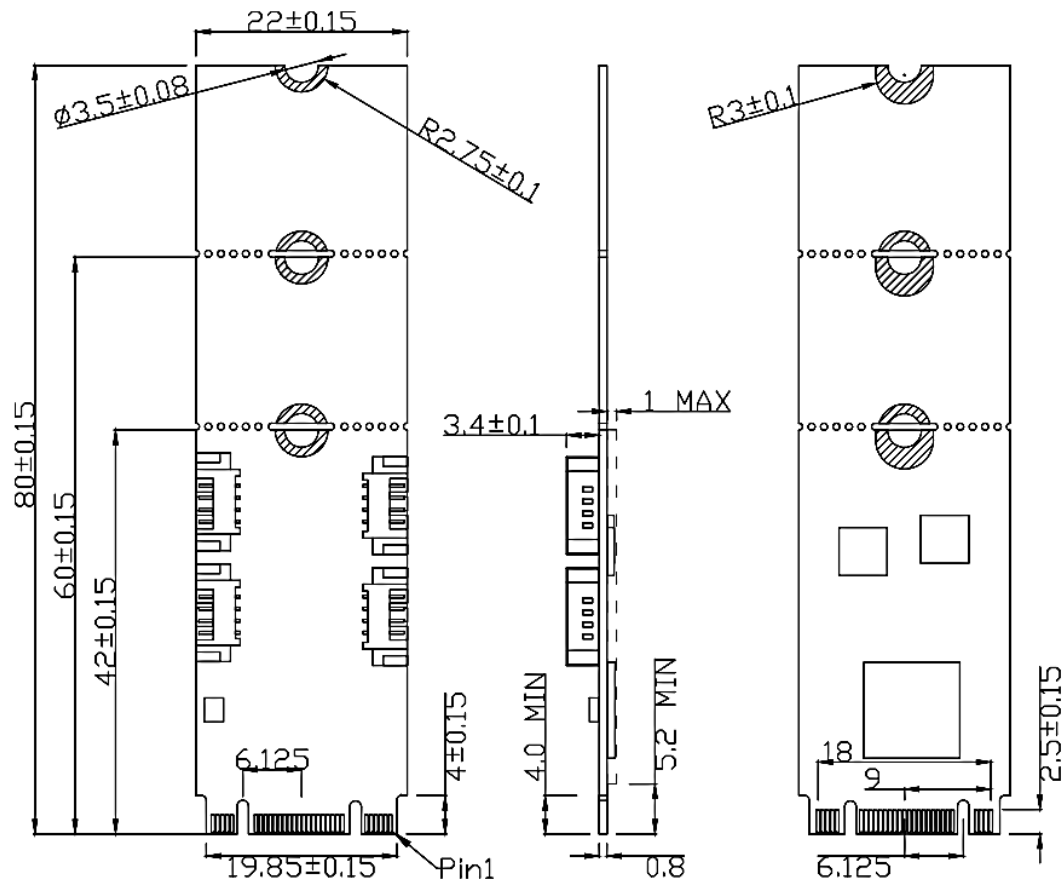
General	
PCI-Express Revision	PCI-Express Base Specification Rev. 2.0
PCI-Express Electromechanical Revision	PCI-Express M.2 Electromechanical Rev. 1.1
Hardware	
Bus	Single-Lane (x1) PCI-Express with throughput up to 5.0/2.5GT/s
Output I/F	CAN bus 2.0B
Interface (Connector)	
CAN bus	4 (DB9 male)
Communications	
Controller	F81601 x2
CAN Transceiver	ADM3057E
Protocol	CAN bus 2.0 A/B
Signal Support	CAN-H 、 CAN-L
Speed	10/20/50/100/125/250/500/800/1000K
CAN Frequency	24MHz
Termination Resistor	120 OHM (split termination mode)
Serial Line Protection	
ESD Protection	15kV on board
Galvanic Isolation	
Voltage	2.5kV
Performance	
Baud Rate	up to 1Mbps
Power Requirement	
Power Consumption	MAX 3.3V @ 1100mA
Dimensions	
Width x Length (mm)	22.00 x 42.00 / 22.00 x 60.00 / 22.00 x 80.00

Driver Support	
Operating Systems	Download driver and SDK Windows 11 Windows 10 32-Bit and 64-Bit Windows 8.1 32-Bit and 64-Bit Windows 8 32-Bit and 64-Bit Windows 7 32-Bit and 64-Bit Linux Kernel 3.4 and above
Environmental Limits	
Operating Temperature	-40 ~ 85°C
Storage Temperature	-40 ~ 95°C
Humidity (non-condensing)	5% ~ 95%
Regulatory Approvals	
EMC	CE, FCC, UKCA
EMI	EN 55022, 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 IEC 62368-1
Reliability	
Warranty	3 years
MTBF	>20,161,919

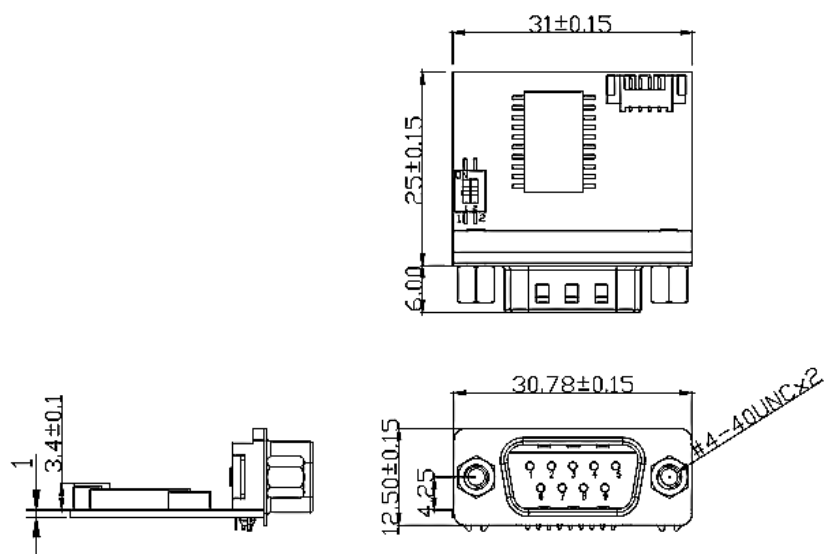


3. Dimensions

3.1 Main Board



3.2 Daughter Board



4. Package Checklist

- M.2 2242/2260/2280 Card x 1
- Daughter Board x 4
- Bracket x 2
- MB to DB Internal Cable (30cm) x 4
- Quick Installation Guide (Printed) x 1

