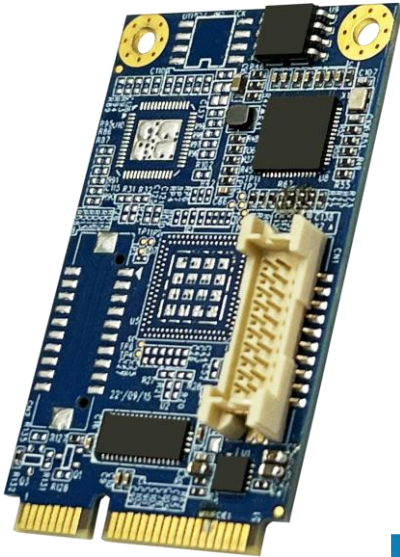# MEC-LAN-M601i

Mini PCI-e 1-port 2.5GbE isolated Ethernet Board (-40℃~+85℃)

- Single-Lane (x1) PCI-Express with throughput to 5.0/2.5GT/s
- Fully compliant with PCI-Express Base Specification Rev.2.1
- Integrated 10/100/1000/2500Mbps transceiver
- IEEE 802.3, IEEE802.3u, IEEE 802.3ab, IEEE 802.3z and IEEE 802.3bz compliant
- IEEE 802.3x and IEEE 802.3z flow control
- Support Wake-on-LAN
- Complies with EN61000-4-2(ESD)Air-15kV, Contact-8kV
- Complies with EN61000-4-4(EFT)2kV
- Complies with EN61000-4-5 2kV Surge protection

Overview

MEC-LAN-M601i is a single isolated 2.5GbE LAN module for embedded PC. The card follows the Mini PCI-e standard which is compliant with PCI Express x 1 classification and small form factor (30×50.95 mm). This board fits in any host computer that has Mini PCI-e card slots. MEC-LAN-M601i is a highly cost-effective solution to expand Gigabit network for your computer.

Top Performance

MEC-LAN-M601i has one Ethernet port that supports auto-negotiation 10/100/1000/2500Mbps Ethernet connection with IEEE 802.3x and IEEE 802.3z flow control.

Intel Ethernet Chipset

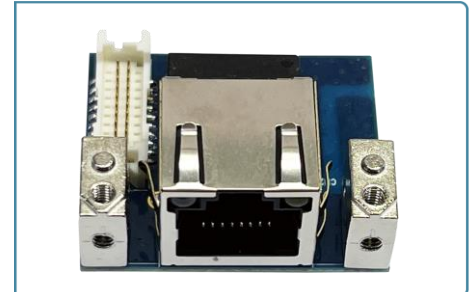MEC-LAN-M601i uses high performance, efficiency, and stability Intel I226 Gigabit Ethernet Controller.

High Usability

MEC-LAN-M601i is designed with flexibilities for many different application and accessories (daughter board, bracket, connection cable) are included in the standard package.

MECFIX – Versatile

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. 2.1

PCI-Express Electromechanical Revision:
PCI-Express Mini Card Electromechanical Rev. 2.0

Hardware

Controllers: Intel I226-IT x 1
Bus: Single-Lane (x1) PCI-Express with throughput up to 5.0/2.5GT/s

Interface (Connector)

Ethernet 10/100/1000/2500: 1 (RJ45)

Technology

Standards:

- IEEE 802.3 for 10BaseTE
- IEEE 802.3u for 100BaseTX
- IEEE 802.3ab for 1000BaseT
- IEEE 802.3bz for 2500BaseX

Time Sensitive Networking Capabilities:
IEEE 802.1Qbu、802.3br、802.1Qbv、802.1AS-REV、802.1p/Q、802.1Qav

Flow Control:
IEEE 802.3x and IEEE 802.3z flow control

Isolated GbE LAN port: Single

Driver Support

Operating Systems: Win 10, Win 11

Power Requirement

Power Consumption: 350mA@3.3V

Dimensions

Width x Length (mm): 30.00 x 50.95

Environmental Limits

Operating Temperature: -40°C ~ 85°C
Storage Temperature: -40°C ~ 125°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
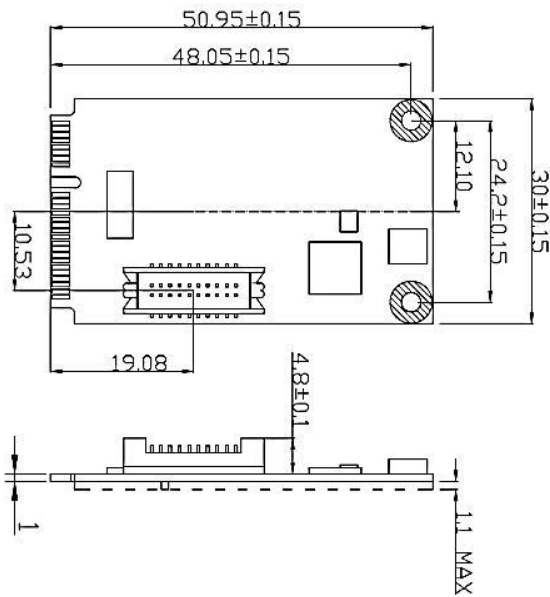**EMS:** EN 55035, IEC 61000-4-2, IEC 61000-4-3, IEC 61000-4-4, IEC 61000-4-5, IEC 61000-4-6, IEC 61000-4-8, IEC 61000-4-11
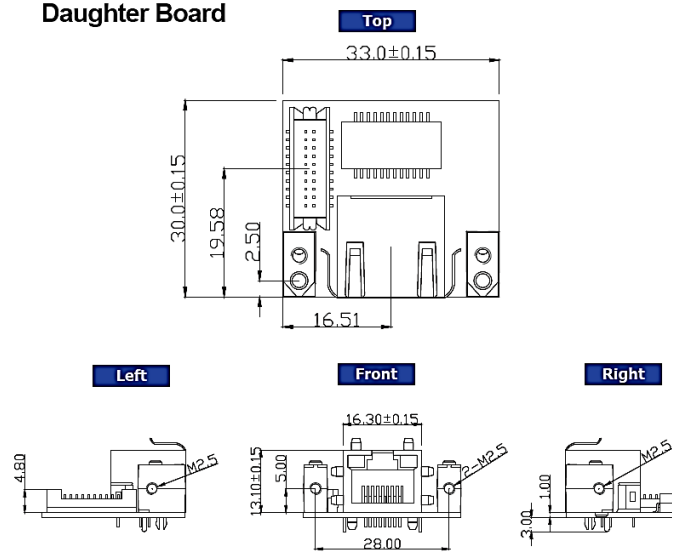
Reliability

Warranty: 3 year
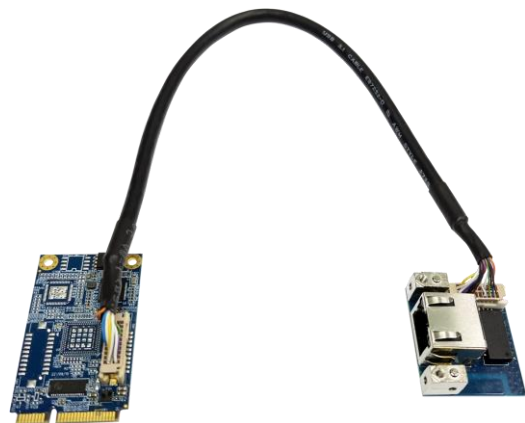**MTBF:** >20,161,919

Dimensions

Daughter Board

Package Checklist

- Mini PCI-e Card x 1
- Daughter Board x1
- Bracket x 1
- M2.5 Screw x 2
- 20Pin Internal Cable (30cm) x 1
- Quick Installation Guide (Printed) x 1

Ordering Information

Available Models

MEC-LAN-M601i   Mini PCI-e 1-port 2.5GbE isolated Ethernet board (-40℃~+85℃)