

M2L1225W

M.2 B,M key 1 port 2.5G BASE-T
Network Card (Wide Temp.)



Introduction

SUNIX M2L1225W is a 2.5GbE M.2 Ethernet card engineered to deliver high-performance and reliable network connectivity for industrial and embedded applications.

Powered by the Intel® I226-IT Ethernet controller (Industrial Grade), the solution supports stable 2.5GbE transmission and wide operating temperature range from -40°C to 85°C, ensuring dependable performance in harsh environments such as industrial PCs (IPC), edge computing platforms, and embedded systems. The I226-IT also provides long product lifecycle support, making it ideal for long-term deployment projects.

The compact M.2 form factor, paired with a dedicated RJ45 I/O board, offers a space-efficient and flexible expansion solution for small-form-factor systems requiring additional high-speed LAN connectivity.

Feature

- Integrated MAC/PHY supporting 10BASE-T_e, 100BASE-TX, 1000BASE-T and 2500BASE-T 802.3 specifications.
- Support 1-Lane 5Gbps PCI Express Bus
- Transmit/Receive on-Chip buffer support
- Advanced Configuration and Power Interface (ACPI) specification v2.0c.
- Support intel vPRO.
- Support ASPM L0s
- Support operating temperature range from -40°C to 85°C
- Support M.2 B+M key 2242 and 2280 length requirement.

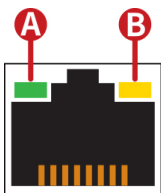
Specifications

Model	M2L1225W
Description	M.2 B,M key 1 port 2.5G BASE-T Network Card
Chipset	Intel I226IT
Interface	M.2 B+M Key(PCI Express Gen2 x1)
Port	RJ45 (2.5GbE) x 1(daughter board)
Standard	IEEE 802.3, IEEE 802.3u, IEEE 802.3x, IEEE 802.3ab/az/bz IEEE 802.1Q VLAN Tagging, IEEE 802.1ad Double VLAN
Network Media	10BASE-T: UTP category 3, 4, 5 cable (maximum 100m) 100BASE-TX: UTP category 5, 5e cable (maximum 100m) 1000Base-T: UTP category 5, 5e cable (maximum 100m) 2500Base-T: UTP category 5e, 6 cable (maximum 100m)
Data Rates	10/100/1000/2500Mbps
O.S Support	Windows 10 · 11(X86/X64) Linux 5.8 and above
Environment	Operation temp. -40 °C ~ 85 °C (32-104°F) Operation humidity: < 85% non-condensing Storage temp. -40°C ~ 85 °C (14~176°F)
Regulatory Approvals	CE, FCC, VCCI, BSMI RoHS

Dimension

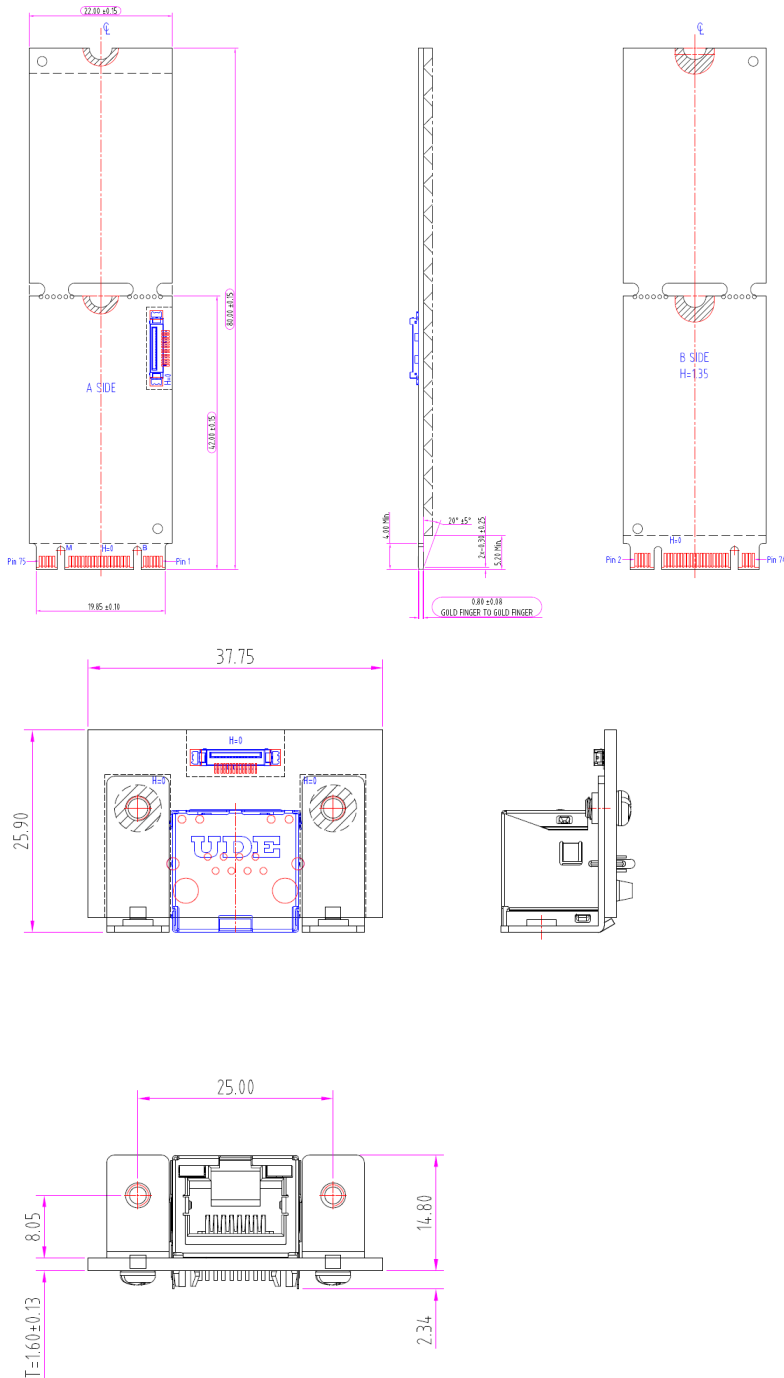
PCB Dimension	Main board: 80(42) x22 x0.8 mm Daughter board: 24x337.75x1.6mm
Cable	250 mm

LED Indicator



LED Function	A	B
10/100bps	Green - ON = Linking Green - Blink = Transferring	OFF
1Gbps		Green
2.5Gbps		Yellow

Mechanical Drawing



Packing List

- M2L1225W - M.2 B,M key 1 port 2.5G BASE-T Network Card (Wide Temp.)
- 250mm board to board cable
- Daughter board