



# M.2 B,M key 1 port 2.5G BASE-T Network Card

## User Manual

Ver.2

For latest manual and driver update:  
Please visit <https://www.sunix.com> by searching "M2L1225".

### Introduction

The SUNIX M2L1225 series is a 2.5GbE M.2 Ethernet expansion solution designed for compact systems, featuring a mainboard and daughterboard configuration for flexible installation. The series offers two models based on application needs: the M2L1225W features the Intel® I226-IT controller with a wide operating temperature range of -40°C to 85°C for harsh industrial environments, while the M2L1225 utilizes the Intel® I225 chip with Intel vPro® support for high-performance enterprise management.

### Features

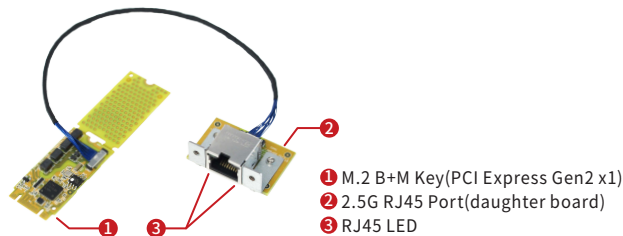
- Integrated MAC/PHY supporting 10BASE-T<sub>e</sub>, 100BASE-T<sub>X</sub>, 1000BASE-T & 2500BASE-T 802.3 spec.
- Support 1-Lane 5Gbps PCI Express Bus
- Transmit/Receive on-Chip buffer support
- Advanced Configuration and Power Interface (ACPI) specification v2.0c.
- Support intel vPRO.
- Support ASPM L0s
- Support M.2 B+M key 2242 and 2280 length requirement.

### Package Checklist

Please check if the following items are present and in good condition upon opening package. Contact your vendor if any item is damaged or missing.

- M2L1225 - M.2 B,M key 1 port 2.5G BASE-T Network Card
- or M2L1225W - M.2 B,M key 1 port 2.5G BASE-T Network Card (Wide Temp.)
- 250mm board to board cable
- Daughter board

### Hardware Guide



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

### Specification

Model	M2L1225
Description	M.2 B,M key 1 port 2.5G BASE-T Network Card
Chipset	Intel I225LM
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)
	2500Base-T: UTP category 5e, 6 cable (maximum 100m)
Data Rates	10/100/1000/2500Mbps
PCB Dimension	Main board: 80(42) x22 x0.8 mm
	Daughter board: 24x337.75x1.6mm
Cable	250 mm

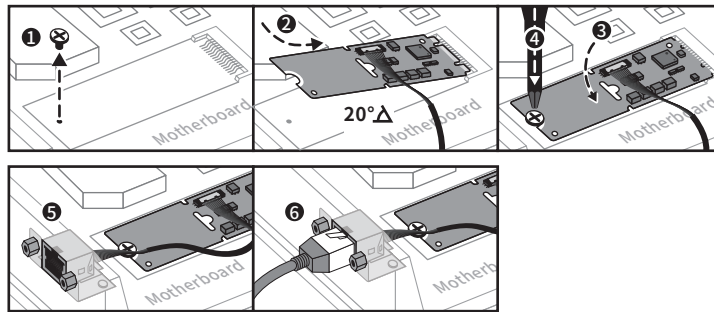
Operating Environment	
Humidity	< 85% non-condensing
M2L1225	
Temperature	0~60°C (32~140°F)
Storage temp.	-10~85°C (14~176°F)
M2L1225W	
Temperature	-40~85°C (-40~185°F)
Storage temp.	-40~85°C (-40~185°F)

Regulatory Approvals	
EMC	CE, FCC, VCCI, BSMI
Green	RoHS, WEEE
O.S Support	
Microsoft	Windows 10 · 11 (X86/X64)
Linux	Linux 5.8 and above

### Hardware Installation

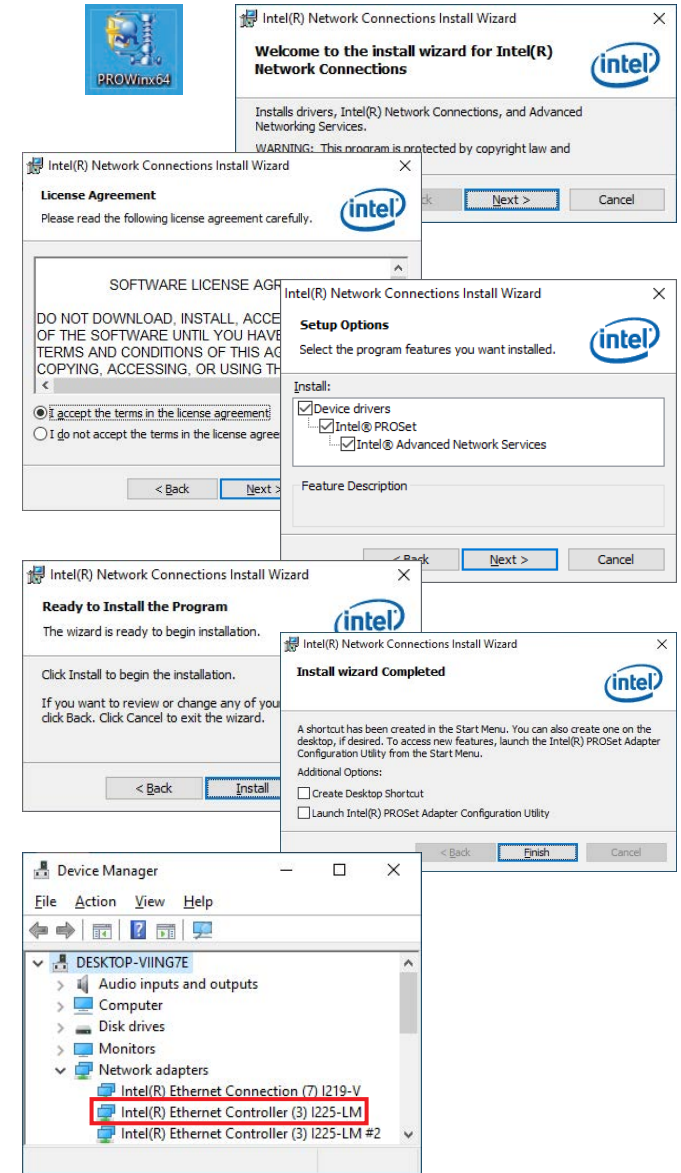
**SAFETY FIRST**  
To avoid damages, please make sure to remove any power connection before card installation, and follow the detailed steps given below before inserting the card into your computer.

- Step 1:** Remove the screw attached to the motherboard.
- Step 2:** Insert M.2 Card tightly into the M.2 slot with 20° angle.  
(SUNIX M.2 Card supports Key-M and Key-B slot)
- Step 3:** Push the M.2 card down to the screw hole.
- Step 4:** Lock screw on M.2 card that you remove from motherboard in step 1.
- Step 5:** Secure the daughter board onto PC chassis.
- Step 6:** Insert your internet cable to finish the network installation



### Driver Installation

SUNIX M2L1225 2.5G Network card supports Windows and Linux operation system. Users can install the driver via the latest driver from official SUNIX website.

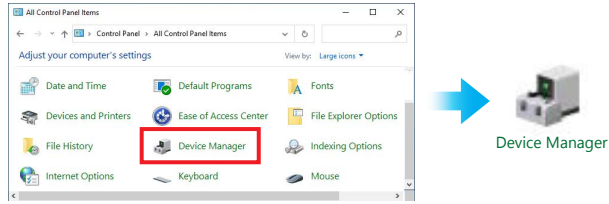


## Hardware Verify

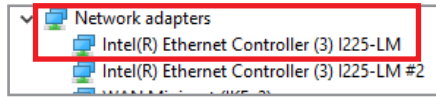
To make sure network card installed ready, user can verify in the device manager.

(1). Click on the "Device Manager" tab in the Windows Control Panel

Start > Control Panel > Device Manager



(2). Please entry "Network adapters" catalog, and "Intel(R) Ethernet Controller (3) I225-LM" shows in the device manager.

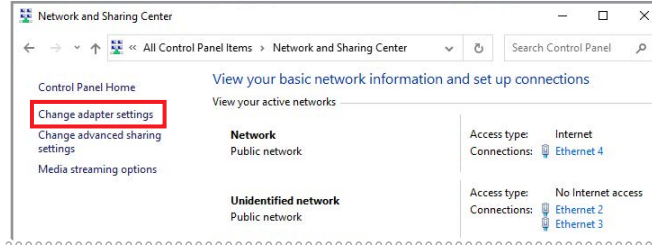
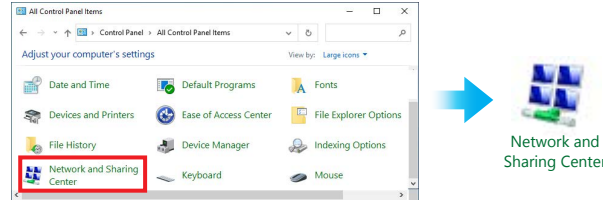


## Network Setting

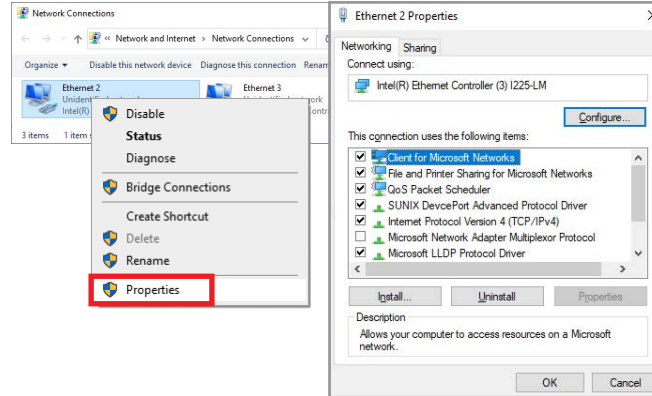
User can set 2.5G networking setting from the following instructions.

(1). Click on the "Network and Internet" tab in the Windows Control Panel

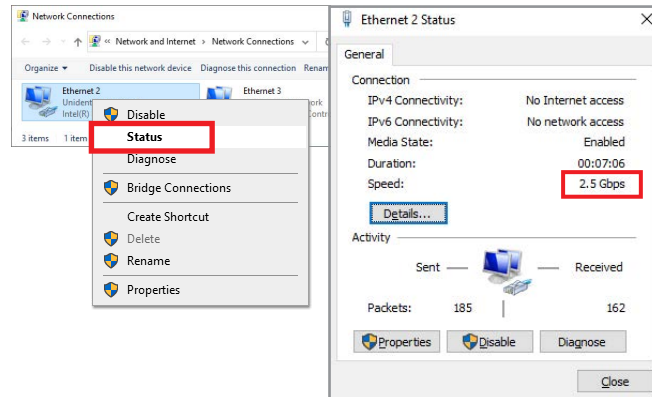
Start > Control Panel > Network and Internet > Network and Sharing Center



(2). Right click the "Ethernet" adapter and select "Properties" to set network settings.



(3). Right click the "Ethernet" adapter used by the network card, and select "Status" from the menu to affirm network settings.



## Connection

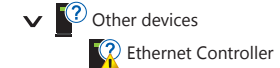
To ensure the better transfer performance, please use the CAT5E or higher grade network cable.

## Troubleshooting

Q 1. My computer can NOT detect Network Ethernet card.

- Ans:a. Make sure the network card is correctly plugged into PCI Express slot.  
If not, turn off your computer and try another PCI Express slot.  
b. If the network card is plugged correctly, please check card's golden connectors (finger) is clean; if not, clean golden connectors (finger) surface by eraser.  
c. Please upgrade your motherboard BIOS to the least version.  
d. If above operations are useless, please try another PC desktop to check board itself is workable or not.

Q 2. How to deal with yellow exclamation mark on Ethernet Controller?



Ans: If there's an Ethernet Controller shows yellow exclamation mark in the device manager, please try to re-install driver again by following driver installation guide. If problem still happens, please try install network card into another PCI Express slot.

Q 3. I cannot get 2.5G Ethernet transfer performance.

Ans: Please make sure your networking environment supporting 2.5G hardware infrastructure, including Ethernet Switch and category 5e or higher level cable.

Q 4. How to configure 10/100/1000/2500 Ethernet settings?

Ans: PCIe Networking card is able to automatically sense and operate on either speed without manual reconfiguration. Just connect the correct Ethernet cable between PCIe card and Networking Switch or router, and then user would get the best performance.

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