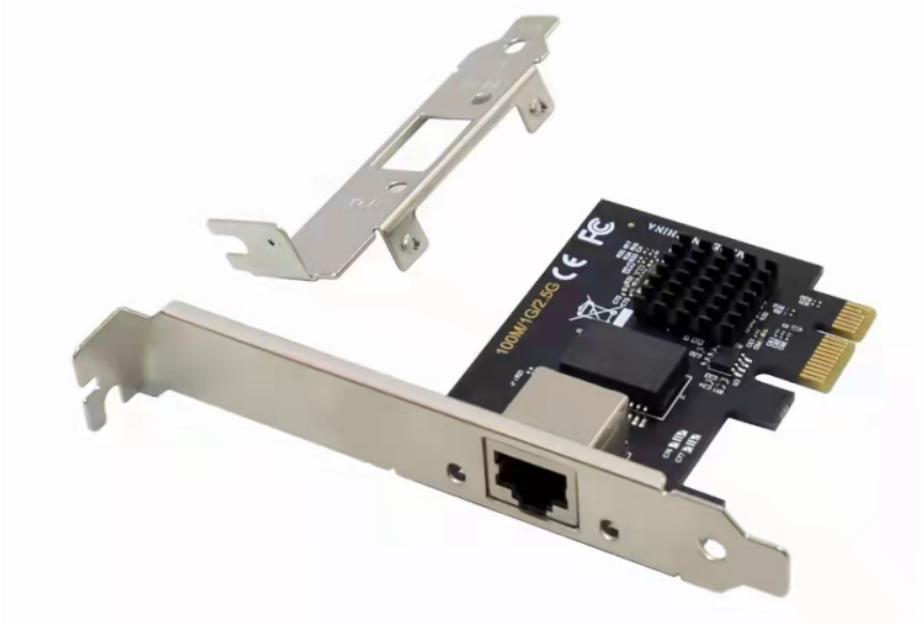# PCIe x1 to 2.5G LAN Card (RTL Chipset) (ER3019B)

Introduction:

This 2.5G PCIe Network Card converts a PCIe slot (X1/X4/X8/16) into a 2.5G RJ45 Ethernet Port. It combines a four-speed IEEE802.3 compatible Media Access controller with a four-speed Ethernet transceiver. It complies with the IEEE802.3u specification for 10/100Mbps Ethernet, the IEEE802.3ab specification for 1000Mbps Ethernet and **latest IEEE802.3bz specification for Super-Fast 2500Mbps** Ethernet. It offers high-speed transmission over CAT6/CAT5e UTP cable. It comes with standard bracket and low-profile-bracket to meet the needs of different cases such as desktop, workstation, server, mini tower computer and so on. This super-fast 2.5x-speed card provides much faster data-transfer speeds and is suitable for multiple market segments and emerging applications like gaming, communications platforms, live broadcasts, and downloads in bandwidth-demanding tasks.

Product Highlights:

- Integrated 10M BASE-Te and 100/1000M/2.5G base-T 802.3 compatible transceiver
- Supports 2.5G and 1G Lite mode
- Auto-Negotiation with Extended Next Page capability (XNP)
- Supports pair swap/polarity/skew correction
- Crossover Detection & Auto-Correction
- Supports 1-Lane 2.5/5Gbps PCI Express Bus
- Supports hardware ECC (Error Correction Code) function
- Supports hardware CRC (Cyclic Redundancy Check) function
- Supports PCI MSI (Message Signaled Interrupt) and MSI-X
- Transmit/Receive on-chip buffer support
- Supports ECMA-393 ProxZzzy Standard for sleeping hosts
- Wake-On-LAN and 'RealWow!' Technology (remote wake-up) support
- Compatible with IEEE802.3, IEEE802.3u, IEEE802.3ab
- Supports IEEE1588v1, IEEE1588v2, IEEE80.2AS time synchronization
- Supports IEEE802.1Qav credit-based shaper algorithm
- Supports IEEE802.1P Layer 2 Priority encoding
- Supports IEEE802.1Q VLAN tagging
- Supports IEEE802.1ad Double VLAN
- Supports IEEE802.3az (Energy Efficient Ethernet)
- Supports IEEE802.3bz (2.5GBase-T)
- Supports full duplex flow control (IEEE802.3x)
- Supports jumbo frame to 16K bytes
- Supports Virtual Machine Queue (VMQ)
- Supports quad core Receive –Side Scaling (RSS)
- Supports Protocol Offload (ARP&NS)
- It is backward compatible for 2.5Gbps/1Gbps/100Mbps
- The heatsink provides excellent heat dissipation and reduces the temperature quickly to maintain the stability of network transmission.
- Support Win7 / Sever2008/Win8/ Sever 2012 / Win10 /Win11 / Linux, DOS, no driver needed on Windows10, easily download the driver in Realtek official website for other OS

Technical Specifications:

Brand	EiRA
SKU Code	ER3019B
Product model	PCIe x1 to 2.5G LAN CARD (RTL Chipset)
Chipset	RTL 8125B
Form Factor	Plug-in Card with Small Form Factor Support
Small/Low Profile Bracket	Provided
PCIe Specification Revision	PCIe 2.1
PCI-Express Transfer Rate	5.0 Gbps
Input Bus Interface	PCI Express x1 - Compatible with x1/x4/x8/x16 slots
Output Interface	1 x 2.5 Gbps RJ-45 Ethernet port (Copper)
Data Transfer Rate	100/1000M/2.5G
Dimensions	80 x 42 mm
Weight	34.8 gms
System supported	Vista /Win7 / Sever2008/Win8/ Sever 2012 / Win10 /Win11 / Linux, DOS
Accessories	1 x CD-driver, 1 x Low profile bracket, 1 x PCIe Card
Warranty*	1 year

System Requirements

- Linux, DOS, Win7/Win8/Server2008/Win8.1/Server2012/Win10/Win11
- One available PCI Express x1/x4/x8/x16 slot

Package Contents

- 1 x PCI Express RTL8125B 2.5G LAN Card
- 1 x CD
- 1 x Low profile bracket

Hardware Installation

1. Turn off the computer and unplug the power cord
2. Remove the computer cover and the adapter slot cover from the slot that matches your adapter
3. Insert the adapter edge connector into the slot and secure the bracket to the chassis
4. Replace the computer cover, then plug in the power cord
5. Power on the computer

Install Drivers and software

Windows Operating Systems

1. Please insert the CD driver bound into your CD-ROM Drive.

2. Double-click to open the CD-ROM drive and find the driver corresponding to the system.

3.1 For Windows® Win7, Server 2008 R2(32/64 bit)

   Type "RTL8125\Windows\Win7_Server2008 R2\Install_Win7_7127_10222019\setup.exe", Double click it.

3.2 For Windows® Win8, Win8.1 Server2012(32/64 bit)

   Type "RTL8125\Windows\Win8_8.1_Server2012\Install_Win8_8.1_8073_10222019\setup.exe", Double click it.

3.3 For Windows® Win10 (32/64 bit)

   Type "RTL8125\Windows\Win10\Install_Win10_10036_10222019\setup.exe", Double click it.

3.4 For Windows® Win11 (32/64 bit)

   Type "RTL8125\Windows\Win11\Install_PCIE_Win11_11.4.1201.2021_01182022.exe"

4. Follow the on-screen instructions to complete the installation.