

PCIe x8 to 2-Port 10GbE RJ45 Lan Card (Intel X540 chipset) (ER3025)



Product Overview:

This PCI-e 10Gbps Dual RJ45 Port Ethernet Network Card, is based on INTEL X540 Chipset, which is used by many OEMs as a single chip solution for LAN on Motherboard (LOM) to deliver 10 Gigabit Ethernet (10 GbE) on the latest server platforms. 10GBASE-T converged network adapter simplifies migration to 10 GbE, provides iSCSI, FCoE, Virtualization, and Flexible Port Partitioning. Overall, the PCIe x8 to 2-Port 10GbE RJ45 LAN Card with the Intel X540 chipset offers reliable, high-speed Ethernet connectivity for demanding networking applications, providing low-latency, high-throughput performance and advanced features for enhanced network efficiency and scalability.

Product Highlights:

- Low cost, low power, 10 Gigabit Ethernet (10GbE) performance for the entire data center
- Standard CAT-6a cabling with RJ45 connectors.
- Backward compatibility with existing 1000Base-T networks simplifies the transition to 10GbE.
- Flexible I/O virtualization for port partitioning and quality of service (QoS) of up to 64 virtual ports
- Unified networking delivering LAN, iSCSI, and FCoE in one low-cost CNA.
- Industry first dual-port 10GBase-T adapter with single-chip solution with integrated MAC + PHY
- Reliable and proven 10 Gigabit Ethernet technology from Intel corporation.
- Network / Transport Protocol: TCP/IP, UDP/IP, IPSec, iSCS
- Features Link Aggregation Control Protocol (LACP)
- Compliant Standards: IEEE 802.1Q, IEEE 802.1p, IEEE 802.3ad (LACP)
- Dual Port 10GbE adapters
- PCI Express v2.1,5.0 GT/s, x8 lanes
- PXE, iSCSI, FCoE boot
- Network Virtualization
- IEEE 802.3an/ab and 10G Ethernet Specification Compliance
- Low Profile and Full-Height bracket

Applications:

- Data Centers
- Server Virtualization
- High-Performance Computing (HPC)
- Multimedia Content Delivery
- Cloud Computing
- Enterprise Networks
- Research and Development
- Video Surveillance
- Telecommunications
- Financial Services

System Requirements

- Windows Server 2008 R2 / 2012 / 2012 R2 / 2016 R2
Windows 7 / 8 / 8.1 / 10 / 11
FreeBSD 11.0 or later
Linux SLES 11 / 12 or later
Linux Stable Kernel version 2.6.x/3.x/4.x or later
VMware ESX/ESXi 5.x/6.x or later
- Available PCI Express x8/x16 slot

Technical Specifications:

Brand	EiRA
SKU Code	ER3025
Product model	PCIe x8 to 2-Port 10GbE RJ45 Lan Card (Intel X540 chipset)
Chipset	Intel X540
Form Factor	Plug-in Card with Small Form Factor Support
Small/Low Profile Bracket	Provided
PCIe Specification Revision	PCI-Express host interface specification v2.1
PCI-Express Transfer Rate	5GT/s BUS width
Input Bus Interface	PCI Express x8 - Compatible with x8/x16 slots
Output Interface	2 x RJ45 (Copper)
Data Transfer Rate	up to 10 Gbps (10000Mbps)
Network Standard Physical Layer Interfaces	Cat-6A 10G up to 100m, Cat-6 10G up to 55m Cat-5E/Cat-6/Cat-6A 1G/100M up to 100m
Jumbo Frame Support	Up to 9.5 KB
Network Virtualization	VMDq, PCI-SIG SR-IOV, Intel VT-c
LED Indicators	10Gb/s: green and green blinking 1000Mbps/100Mbps: Green and Orange blinking
Power Supply	PCI Express +12V±8% / +3.3V±9%
System supported	Windows Server 2008 R2 / 2012 / 2012 R2 / 2016 R2 Windows 7 / 8 / 8.1 / 10 / 11 FreeBSD 11.0 or later Linux SLES 11 / 12 or later Linux Stable Kernel version 2.6.x/3.x/4.x or later VMware ESX/ESXi 5.x/6.x or later
Dimensions	112 x 73 x 18 mm
Weight	150 gms
Operating Temperature	0°C to 55°C (32°F to 131°F)
Warranty*	1 year

Package Contents

- PCIe x8 to 10GbE RJ45 Lan Card
- 1 x User's Manual
- 1 x Installation CD with drivers
- 1 x Low-profile bracket

Cabling Requirements:

Intel 10 Gigabit adapters

- For 10GBASE-T on Category 6, Category6a, or Category 7 wiring, twisted 4-pair copper:
- Category 6 wiring supports 55 meters max.
- Category 6a wiring supports 100 meters max.
- Category 7 wiring supports up to 100 meters.

Intel 1 Gigabit adapters

- For 1000BASE-T or 100BASE-TX, use Category 5 or Category5e wiring, twisted 4-pair copper:
- Make sure you use Category 5 cabling that complies with the TIA-568 wiring specification. For more information on this specification.
- Length is 100 meters max.
- Category 3 wiring supports only 10Mbps.

CAUTION: If using less than 4-pair cabling, you must manually configure the speed and duplex setting of the adapter and the link partner. In addition, with 2-and 3-pair cabling the adapter can only achieve speeds of up to 100Mbps.

- For 100BASE-TX, use Category 5 wiring.
- For 10BASE-T, use Category 3 or 5 wiring

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

- You must have administrative rights to the operating system to install the drivers.
- Insert the CD driver bound with Intel network driver into your CD-ROM drive (also you can download the latest drivers from [support website](#))
- If the Found New Hardware Wizard screen is displayed, click Cancel.
- Start the autorun located in the software package, the autorun may automatically start after you have extracted files.
- Click install Drivers and Software
- Follow the instructions in the install wizard to finish it.

Installing Linux Drivers from Source Code

- Download and expand the base driver tar file.
- Compile the driver module.
- Install the module using the modprobe command.
- Assign an IP address using the ifconfig command.