

PCIe x4 to 10GbE RJ45 LAN Card (AQC107 Chipset) (ER3023)



Introduction:

This PCI Express AQC107 10GbE Ethernet card is a high-performance, multi-gigabit Ethernet card that supports 10GBASE-T/5GBASE-T/2.5GBASE-T/1000BASE-T/100BASE-T, with a PCI Express Gen3x4 or Gen2x4, the AQtion Ethernet controller easily handles the 10GbE Line-rate performance. The AQC107 incorporates Aquantia's AQrate[®] PHY technology which delivers 10GbE network connectivity speed through Cat 6a and delivers 5 GbE and 2.5 GbE network connectivity speed through 100 meters of Cat 5e or better cabling enabling higher data rates with zero change to legacy cabling.

Product Highlights:

- Compliant with PCIE Express Revision 3.0 and downstream with PCI Express Revision 2.0
- Supports line rate of 8.0GT/s and 5.0GT/s per lane
- Supports Gen 3x4 or Gen 2x4
- Supports communication and management function
- Integrated Aquantia AQrate PHY featuring NBASE-T technology
- Supports PHY specifications with 10GBASE-T/5GBASE-T/2.5GBASE-T/1000BASE-T /100BASE-T.
- On-chip high resolution cable analyzer for advanced cable diagnostics
- Energy Efficient Ethernet (EEE) Support
- Supports IEEE1588v2 Precision Time Protocol
- Support large send offload, Receive Side Scaling (RSS), Direct Cache Access (DCA) and Header checksum for increased network performance and lower host CPU utilization
- Wake-On-LAN (WoL) power management

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- Supports IPv4, IPv6 and IPv6/UDP checksum offload
- Supports Jumbo frame (up to 16kbytes)
- Quality of Service (QoS)
- Supports up to eight traffic classes and Data Center Bridging (DCB)

Technical Specifications:

Brand	EiRA
SKU Code	ER3023
Product model	PCIe x4 to 10GbE RJ45 LAN Card (AQC107 Chipset)
Chipset	AQtion AQC107
Form Factor	Plug-in Card with Small Form Factor Support
Small/Low Profile Bracket	Provided
PCIe Specification Revision	PCIe 3.0
PCI-Express Transfer Rate	8.0GT/s
Input Bus Interface	PCI Express x4 - Compatible with x4/x8/x16 slots
Output Interface	1 x RJ45 (Copper)
Data Transfer Rate	10GBASE-T/5GBASE-T/2.5GBASE-T/1000BASE-T /100BASE-T
Dimensions	132 x 68 mm
Weight	90 gms
System supported	Win7/ Win8/Win8.1/Win10/Win11/Server2012/ Server2016 32 or 64bits, Linux Kernels3.10 and above
Accessories	1 x CD-driver, 1 x Low profile bracket, 1 x PCIe Card
Warranty*	1 year

System Requirements

- Win7/ Win8/Win8.1/Win10/Win11/ Server2012/ Server2016 32 or 64bits, Linux Kernels3.10 and above
- Available PCI Express x4/x8/x16 slot

Package Contents

- 1 x PCI Express AQ107 10GbE Ethernet card
- 1 x User's Manual
- 1 x CD driver
- 1 x Low-profile bracket

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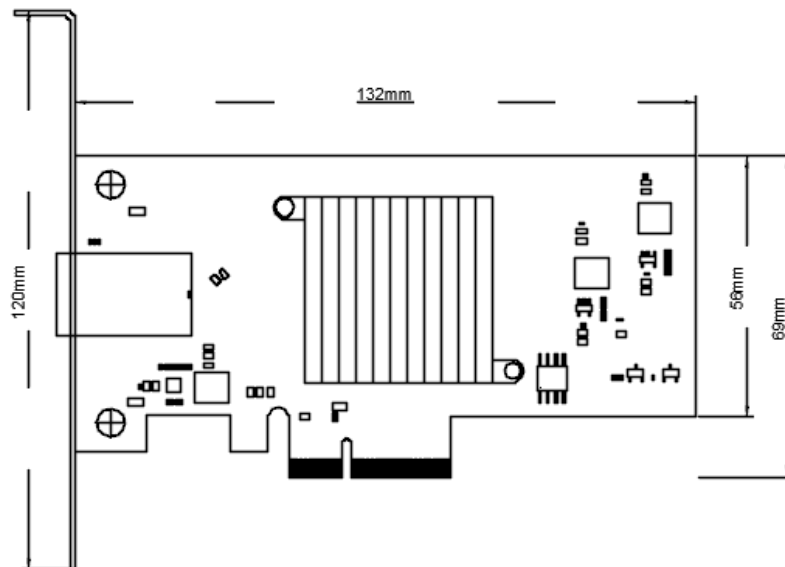
Cabling Requirements:

Transmission bandwidth	Twisted pair type	Transmission distance
10Gbps	Cat 6a or better	100 meters
5Gbps	Cat5e or better	100 meters
2.5Gbps	Cat5e or better	100 meters
1000Mbps	Cat5e or better	100 meters
100Mbps	Cat5e or better	100meters

LED Indicators:

Link speeds	LED Green	LED Orange
10Gbps	ACT blinking	10G link
5Gbps/2.5Gbps/1000Mbps/100Mbps	ACT blinking	No bright

Hardware description:



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.

1. Insert the CD driver bound with PCI Express AQ107 10GbE Ethernet card driver into your CD-ROM drive:
2. If the Found New Hardware Wizard screen is displayed, click **Cancel**
3. Open the location of the driver file and select the driver file according to the system type.

For Windows 32bit: Type

`"Driver\AQC107\Windows\WindowsInstaller\Aquantia_AQtion_x32_Win_ver2.1.17.0.msi"`

For Windows 64bit: Type

`"Driver\AQC107\Windows\WindowsInstaller\Aquantia_AQtion_x64_Win_ver2.1.17.0.msi"`

4. Double click it
5. Follow the instructions in the install wizard to finish it

Installing Linux Drivers from Source Code

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