X-MEDIA ®

User Guide

1-Port 10GbE Gigabit PCIe x4 Network Adapter

Model No.:   XM-NA6810

For the most up-to-date information, please visit www.x-mediausa.com

Version 1.0

Contents

TRADEMARKS

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Package Contents

The following items should be found in the package:

- XM-NA6810 1-Port 10GbE Gigabit PCIe x4 Network Adapter
- Low Profile Bracket
- One CD Disk contains Drivers and User Guide

Note: The above list is for reference only. The actual content may differ according to the product you purchased. Please save the original packaging material for future reference. If any of the listed items are damaged or missing, please contact with your seller.

Conventions

The "Adapter" mentioned in this User Guide stands for XM-NA6810 without any explanations.

Chapter 1   Product Overview

1.1 Introduction

The Adapter, XM-NA6810 with Aquantia AQC107 controller chipset, it is a high-performance, Multi-Gigabit Ethernet card that supports the 10GBASE-T/5GBASE-T/2.5GBASE-T/1000BASE-T/100BASE-T. This Adapter supports six speeds: 10/100Mbps and 1G/2.5G/5G/10G. The AQC107 incorporates Aquantia's AQrate PHY technology which delivers 10GbE network connectivity speed through Cat-6/6a, and delivers 5GbE and 2.5GbE network connectivity speed through 100 meters of Cat-5e or better cabling enables higher data rates with zero change to legacy cabling.

1.2 Features

- Fully complies with IEEE 802.3, 802.3u, 802.3ab, 802.3bz, 802.3an standards
- Compliant with PCI Express Revision 3.0 and downstream with PCI Express Revision 2.0
- Support PCI Express Gen 3x4, 2x4
- Support line rate of 8.0GT/s and 5.0GT/s per lane
- Support IEEE 802.1p Layer 2 Priority Encoding; IEEE 802.1q VLAN Tagging
- Support IEEE 1588v1, IEEE 1588v2, IEEE 80.2AS time synchronization
- Support IEEE 802.3az - Energy Efficient Ethernet (EEE)

- Support large send offload, Receive Side Scaling (RSS), Direct Cache Access (DCA), Quality of Service (QoS) and Header
- Support Half/Full Duplex mode and 802.3x Flow Control
- Support Wake-On-LAN (WoL) power management
- Support IPv4, IPv6 and IPv6/UDP checksum offload
- Support Jumbo Frame to 16KB bytes
- Crossover Detection & Auto-Correction (MDI/MDI-X)
- LED indicator for monitoring Link/Act
- Support Standard and Low-Profile Chassis

1.3 LED Status

The Link/Act LED of Adapter indicates 100M/1G/2.5G/5G/10G status. They will light when connection is built, and flashing when the Adapter is transmits and receive data.

1. ACT (Flashing Green) / LINK (Solid Orange) - 10Gbps
2. ACT (Flashing Green) / LINK (No Status) - 5Gbps/2.5Gbps/1Gbps/1000Mbps/ 100Mbps

Chapter 2   Installation Guide

2.1 Hardware Installation

To Install the Adapter, please follow these steps listed below:

1. Turn off your computer and unplug the power cord and all cables

2. Remove your computer's case cover

3. Locate an available PCIe x4 slot

4. Remove the screw that secures the slot bracket (the small piece of metal that covers the opening for PCIe card on the back panel of your computer), then remove the slot bracket

5. Carefully insert the Adapter into the PCIe x4 slot. Please avoid touching the gold connector of the Adapter

6. Secure the Adapter to the case by using the screw you removed from the slot bracket

7. Reinstall your computer's case cover

8. Plug in the power cord and all other cables, and then turn on your computer

2.2 Software Installation

Windows® Operating System

You must have administrator rights to the operating system to install the driver.

1. Insert the CD driver disk with PCI Express AQ107 10GbE Ethernet Card driver into 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 64-bit**

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

    For **Windows 86-bit**

    Type
    "Driver\AQC107\Windows\WindowsInstaller\Aquantia_AQtion_x86_Win_ver2.1.17.0.msi

4. Double click it.

5. Follow the instructions in the install wizard to finish the installation

Installing Linux Driver 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

Appendix A: Specification

Specifications:	
Standards:	IEEE 802.3, 802.3u, 802.3ab, 802.3bz, 802.3an
Chipset:	Aquantia AQC107
Interface:	32-bit PCIe x4 Standard
	1*100M/1G/2.5G/5G/10G RJ-45 port
Data Transfer Rate:	100M/1G/2.5G/5G/10G
Network Media:	100Base-TX: UTP Cat. 5, 5e cable (Maximum 100m)
	EIA/TIA-568 100Ω STP (Maximum 100m)
	1000Base-T: UTP Cat. 5e, 6 cable (Maximum 100m)
	EIA/TIA-568 100Ω STP (Maximum 100m)
	2.5GBase-T: UTP Cat. 5e, 6 cable (Maximum 100m)
	EIA/TIA-568 100Ω STP (Maximum 100m)
	5GBase-T: UTP Cat. 5e, 6 cable (Maximum 100m)
	EIA/TIA-568 100Ω STP (Maximum 100m)
	10GBase-T: UTP Cat. 6, 6a, 7 cable (Maximum 100m)
	EIA/TIA-568 100Ω STP (Maximum 100m)
Jumbo Frame:	16K Bytes
Flow Control:	IEEE 802.3x Flow Control (Full Duplex)
LEDs:	Link/Act
Operating Temperature:	0° ~ 40° C (32° ~ 104° F)
Storage Temperature:	-40° ~ 70° C
Operating Humidity:	10% ~ 90% Non-Condensing
Storage Humidity:	5% ~ 90% Non-Condensing
Supported OS:	Windows 7/8/8.1/10/11(32/64-bit); Linux; FreeBSD
	Windows Server 2008, 2012, 2016; VMWare ESXi
Emission (EMI):	FCC; CE