

# **Mini PCI-Express Gigabit Ethernet Adapter**

## **User Manual Ver. 1.00**

## Introduction

This Mini PCI-Express Gigabit Ethernet Adapter is a high performance 10/100/1000 BASE-T Ethernet LAN controller. Supports compliant with the IEEE 802.3u specification for 10/100Mbps Ethernet and the IEEE 802.3ab specification for 1000Mbps Ethernet. It also supports an auxiliary power auto-detect function, and will auto-configure related bits of the PCI power management registers in PCI configuration space.

## Features

- Support existing CAT-5 UTP cabling with automatic crossover detection
- Fully compliant with PCI-Express Base Specification Revision 1.1
- Single-Lane (x1) PCI-Express with throughput up to 2.5Gbps
- Compatible with PCI-E Mini Card Electromechanical specification revision 1.2
- Compatible with Half size Mini card type form factor
- Fully Plug and Play compatible
- A high performance 1000BASE-T Ethernet controller card
- Backwards compatible to 10/100BASE-T networking
- 10/100/1000Mbps data rate auto negotiation operation
- Compatible to existing CAT-5 UTP cabling
- Fully compliant with IEEE 802.3, 802.3u, 802.3ab
- Supports full duplex flow control (IEEE 802.3x)
- Supports IEEE 802.1P Layer 2 Priority Encoding
- Supports IEEE 802.1Q VLAN tagging
- Supports jumbo frame to 9K bytes
- Crossover Detection and Auto Correction operation

## System Requirements

- Windows ME,98SE, 2000, XP, Vista, 7 and 8 32-/64-bit
- Windows Server 2003, 2008 and 2012 32 -/64-bit
- Linux, DOS MAC OS X 10.4.X or above

## Package Contents

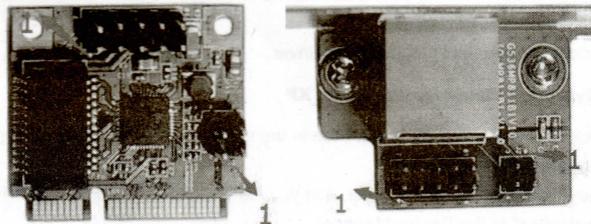
- Gigabit Ethernet Mini PCI-Express Card - Main card x1

- Gigabit Ethernet Mini PCI-Express Card - Daughter card x1
- User manual x1
- Driver CD x1
- 10-pin network cable x1
- 4-pin LED cable x1

**Note: Contents may vary depending on country/market**

## Installing the Cards into the computer

1. Turn off your computer and all external devices connected to it.
2. Open the computer case. Refer to your computer user manual for more details.
3. Find an available Mini PCI-Express slot and remove the slot bracket. Save the bracket screw for later use.
4. Insert the main card to the Mini PCI-Express slot firmly and evenly. Take care not to force it into the slot. Once you have properly positioned the main card into the slot, secure it with the screw you have just saved.
5. Connect the network Cable and LED cable between the main card and the daughter card. The orientation of the cable socket must be same as the headers which are shown as below:



The cable socket should always be inserted onto the header with the same orientation and the triangle mark on the PCB showing pin 1 of the cable and the header.

6. Find an empty expansion slot on the back panel of the computer case and remove the metal bracket. Save the bracket screw for later use.
7. Place the bracket of the daughter card on the expansion slot on the back panel and secure it with the bracket screw you have just saved.
8. Connect the system to network by inserting the CAT-5 or above cable (not included)

in the package ) into RJ45 connector on the daughter card.

9. Secure the computer case and switch on your computer.

## ***Driver Installation***

**The following section shows you how to install The Mini PCI-Express Gigabit Ethernet Card driver on different operating systems**

### **For Windows® 2000, 2003, XP**

1. Please insert the CD driver into your CD ROM.
2. Into the CD ROM ( H:\Realtek\RTL8111\Win2K\_XP\_Server2003)
3. Double click "**setup**"
4. Follow the on-screen instructions to complete the installation.
5. Restart windows to complete the installation.

### **For Windows® Vista/7/8**

1. Turn on your computer.
2. Once Windows is running, a new network controller card is detected.
3. If the Windows asks for driver for the network controller card, then insert Driver CD into the optical driver (Assume the optical driver letter is H)
4. Browse to the following path (Assume the Windows OS used is Windows 8)  
**H:\Realtek\RTL8111\Win 8**
5. Execute "**setup.exe**" to install the driver.

### **Verifying for Windows 2K\_2003\_XP**

1. Click on the "**Device Manager**" tab in the Windows Control Panel. **Computer > Manage > Device Manager**
2. Entry "**Network adapters**" tem, and you can read "**Realtek PCIe GBE Family Controller**" in the Device Manager