Gigabit USB 2.0 Ethernet Adapter

User’s Manual

ABOUT THIS MANUAL

This manual is designed for use with the Gigabit USB 2.0 Ethernet Adapter. Information in this document has been carefully checked for accuracy; however, no guarantee is given to the correctness of the contents. The information in this document is subject to change without notice. The manufacturer does not make any representations or warranties (implied or otherwise) regarding the accuracy and completeness of this document and shall in no event be liable for any loss of profit or any commercial damage, including but not limited to special, incidental, consequential, or other damage.

SAFETY INSTRUCTIONS

Always read the safety instructions carefully:

- Keep this User's Manual for future reference
- Keep this equipment away from humidity
- If any of the following situation arises, get the equipment checked by a service technician:
  - The equipment has been exposed to moisture.
  - The equipment has been dropped and damaged.
  - The equipment has obvious sign of breakage.
  - The equipment has not been working well or you cannot get it to work according to the User's Manual.

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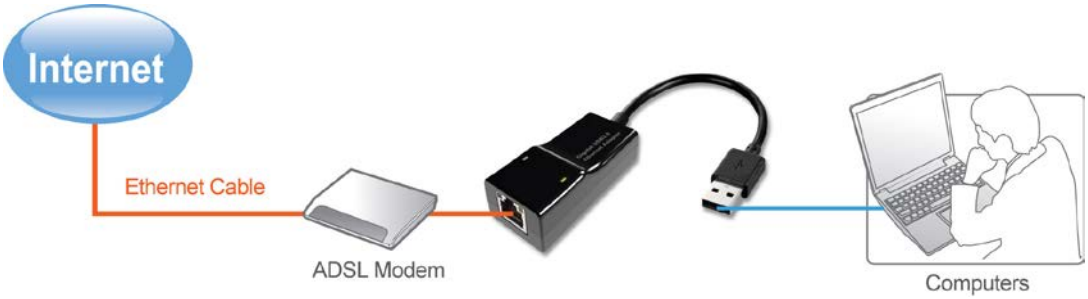
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1. Introduction

This Gigabit USB 2.0 Ethernet adapter is a cost effective solution that converts a USB port into a 10/100/1000Base-T Ethernet port. It enables low cost and affordable Gigabit Ethernet network connection to desktop, notebook PC, and embedded system using popular USB ports. No need to purchase an expensive Gigabit network interface card and to spare a PCI or Cardbus slot, just using your existing USB ports and you can upgrade your network connection speed.



Or



Features

- Supports 10/100/1000 Mbps auto-sensing capability.
- Supports Auto MDIX (straight and cross network cable auto-detection).
- USB specification 1.0, 1.1 and 2.0 compliant.
- Supports USB full and high speed modes with bus power capability
- IEEE 802.3, 802.3u, and 802.3ab (10Base-T, 100Base-T, and 1000Base-T) compatible
- Supports both full-duplex and half-duplex operation in Fast Ethernet
- Supports Jumbo packet of up to 9KB
- Supports suspend mode and remote wakeup via link-up and magic packet

Package Contents

Before installation, please check the items of the package.

- Gigabit USB 2.0 Ethernet Adapter x1
- Driver CD x1
- Quick Installation Guide x1

System Requirements

- Operating Systems：

  Windows® XP, Windows® Vista, Windows® 7, and Windows® 8

  Mac OS® X v10.5 - v10.8
- One available USB port

LED Status

LED	Color	Description
1000 Mbps	Green	When network links.
Link	Orange	When data is transferring.

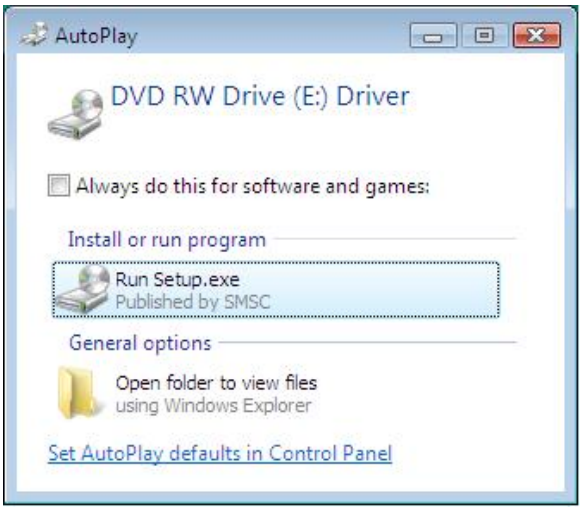
2. Installation and Connection

Installing Drivers

On Windows® XP

Note: DO NOT connect the Ethernet adapter to your computer before completing the driver installation.

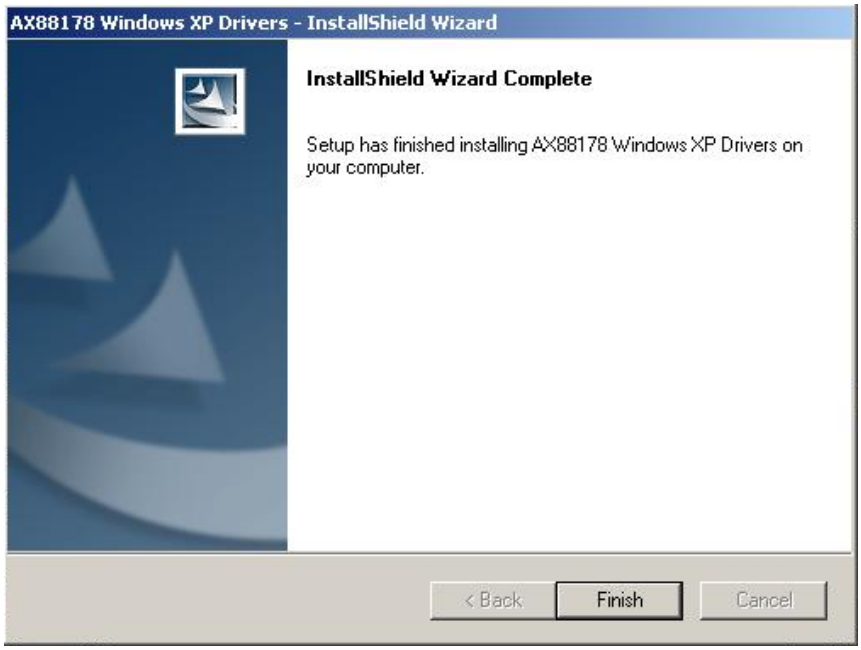
1. Insert the provided CD into your disc drive. Locate and double-click the **Setup.exe** file in the **Driver** folder to launch the setup program.



2. When you click **setup.exe**, you could see the screen as below



3. Click **Finish** to complete the installation.



4. Connect the Ethernet adapter's USB end to a free USB port of your computer.

   Then you will see the dialog on your desktop.



   *Actual strings depend on your operation system. These screen shots are from Windows® XP 32-bit and might vary slightly for each operation system.

5. Connect an Ethernet cable to the Ethernet port on the adapter and connect the other end of the Ethernet cable to your network hub, switch or router. Then you can use the USB 2.0 Ethernet Adapter.

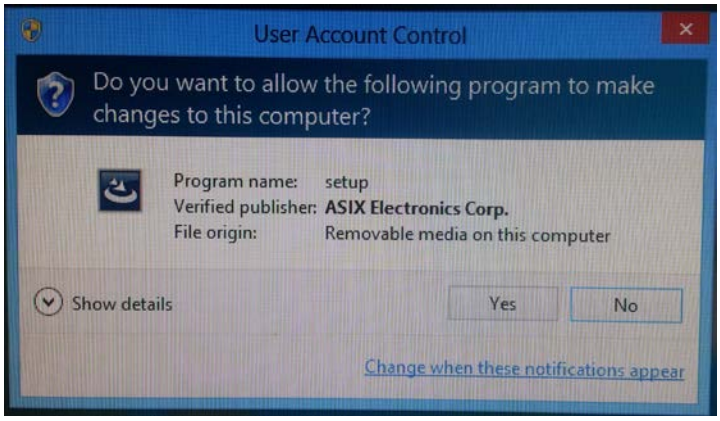
On Windows® Vista/ Windows® 7/ Windows® 8

Note: DO NOT connect the Ethernet adapter to your computer before completing the driver installation.

1. Insert the provided CD into your disc drive. Locate and double-click the **Setup.exe** file in the **Driver** folder to launch the setup program.



2. Click **Yes** to install the driver.



3. Wait for the program to install the drivers.



4. Click **Finish** to complete the installation.

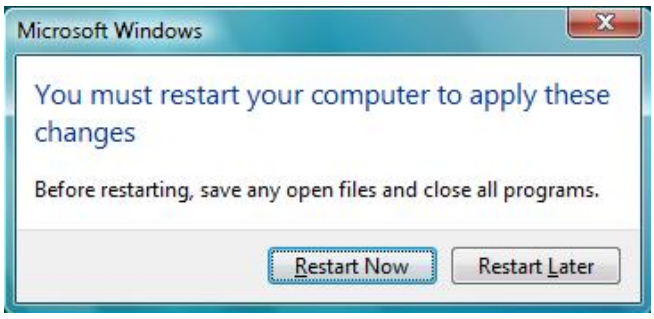


*Actual strings depend on your operation system. These screen shots are from Windows® 8 64-bit and might vary slightly for each operation system.

4. Connect the Ethernet adapter's USB end to a free USB port of your computer. Then you will see the dialog on your desktop.



Note: It is normal situation that when you see the dialog box of "**You must restart your computer to apply these changes**". Please click "**Restart Now**".

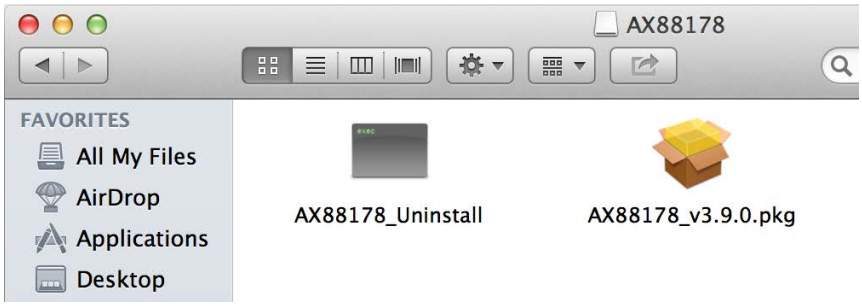


5. Follow the instructions below to complete the installation. Then you can use the USB 2.0 Ethernet Adapter.

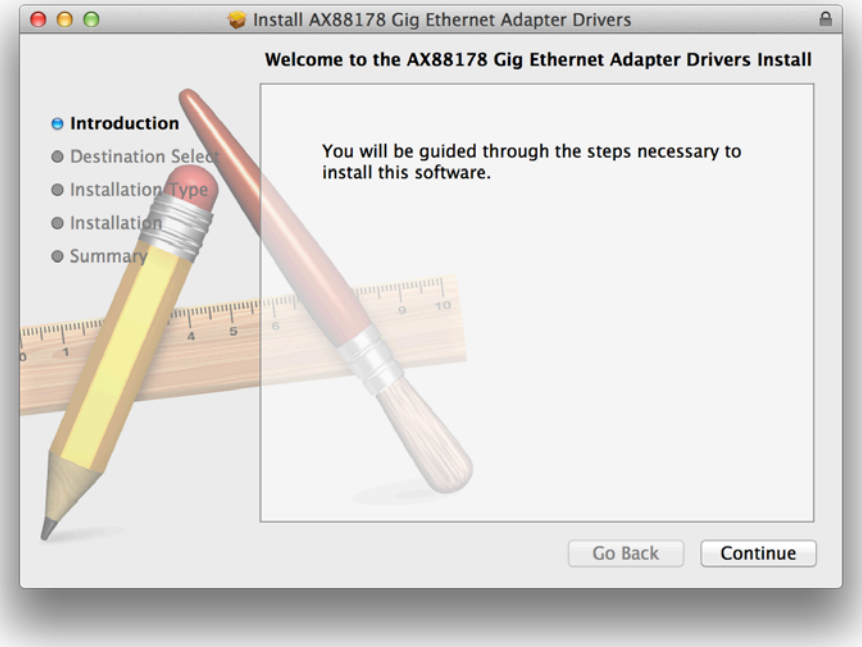
On MAC OS® x 10.5-10.8

Note: DO NOT connect the Ethernet adapter to your computer before completing the driver installation.

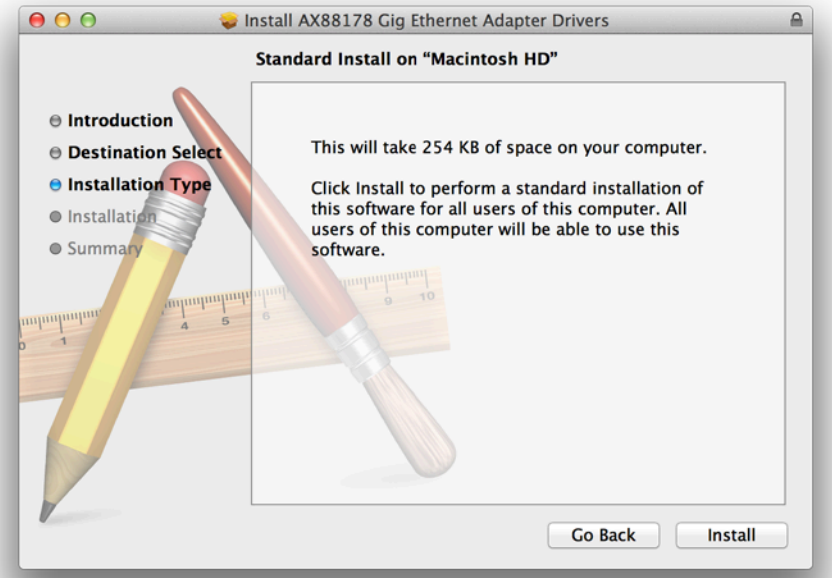
1. Insert the provided CD into your disc drive. Locate and double-click the **AX88178._v3.9.0.pkg** file in the **Driver** folder on Mac10.5-10.8 to launch the setup program. (On Mac10.5-10.8, driver will be installed automatically.)



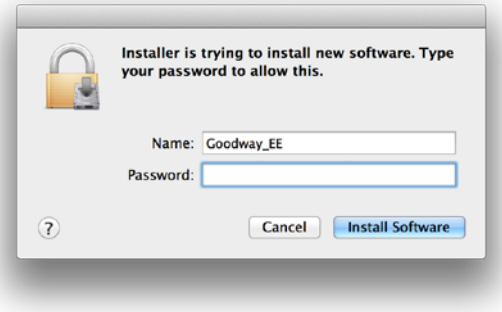
2. When the **Install AX88178 Gig Ethernet Adapter Drivers** screen appears, please select Continue.



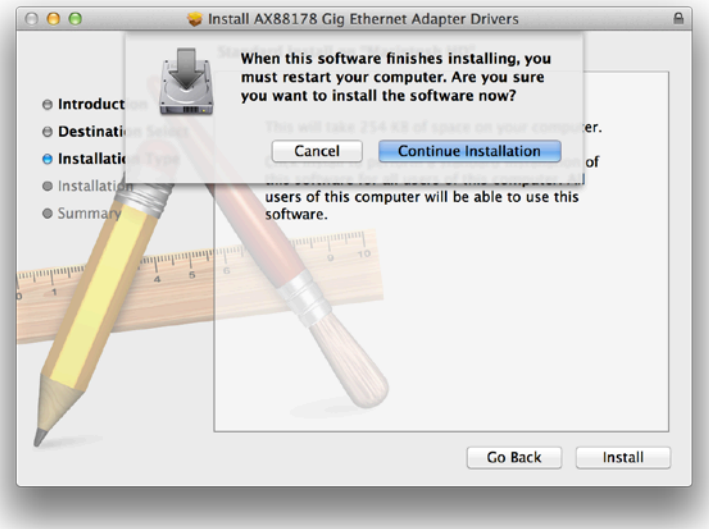
3. When the screen below appears, please click **Install** to install



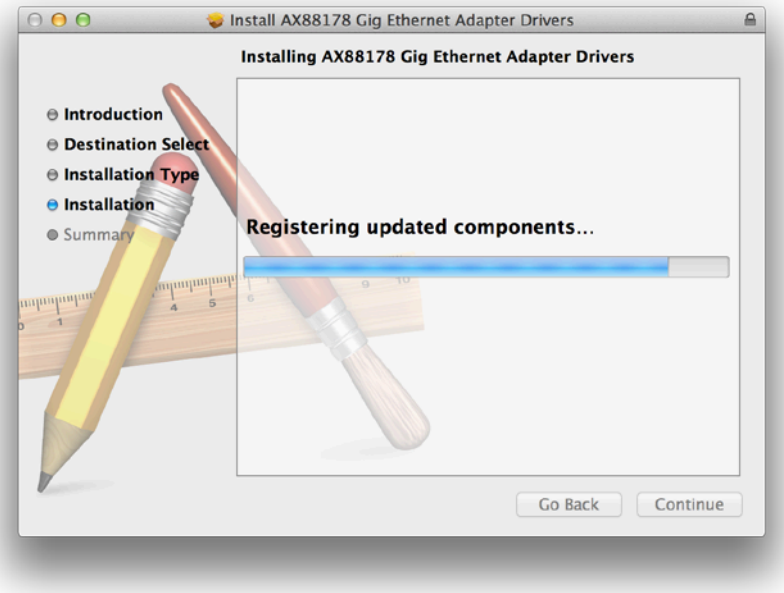
4. Please enter your password as prompted.



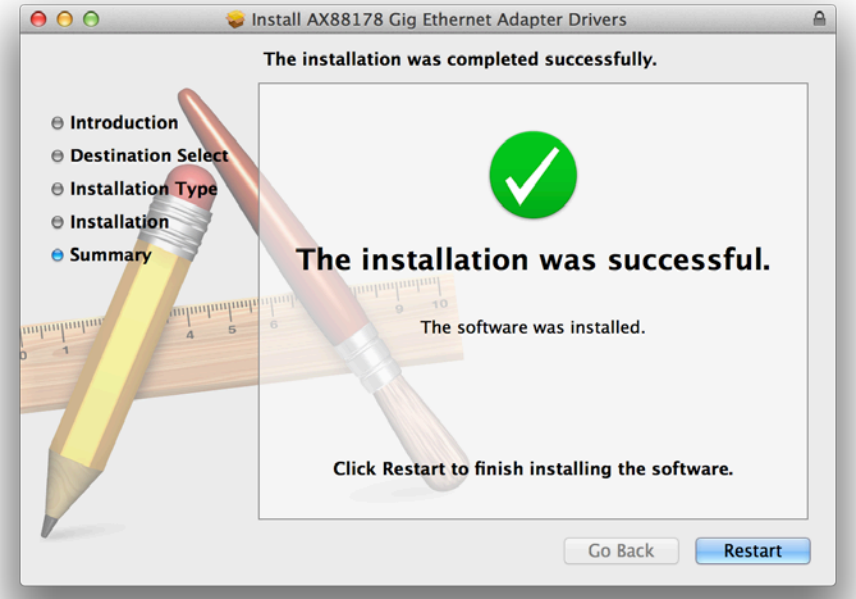
5. When the screen below appears, please click **Continue Installation**



6. It will take for a while to install the driver.

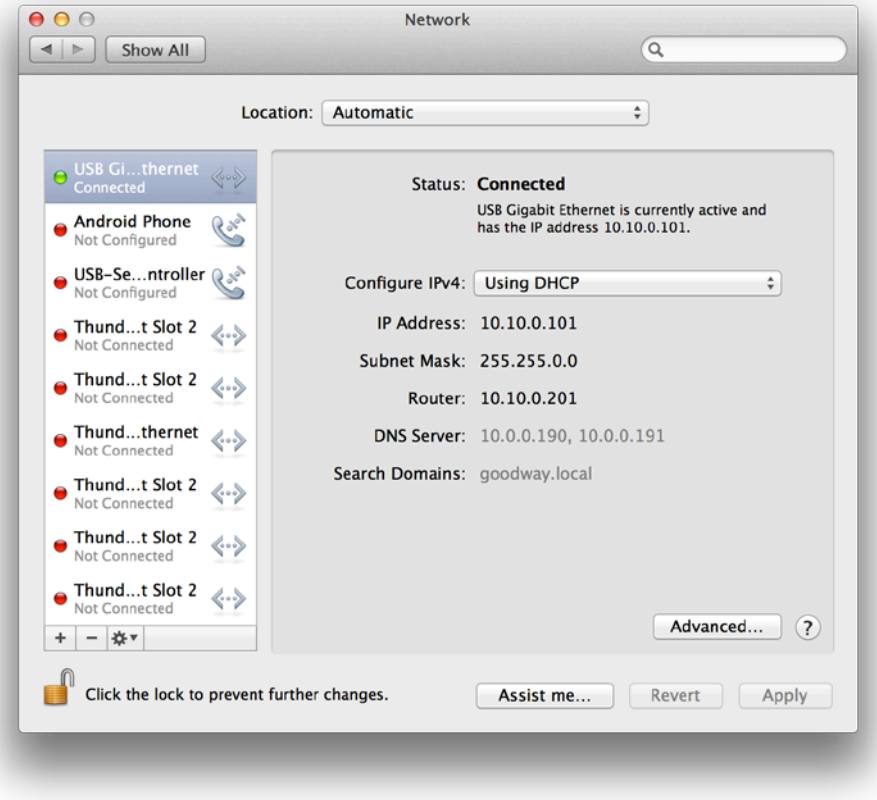


7. Click **"Restart"**, the computer will be restarted once installation is completed.



8. Connect the Ethernet adapter to a free USB port.

9. You will find that a new Ethernet network interface is available.



**Actual strings depend on your operation system. These screen shots are from Mac® 10.8 and might vary slightly for each operation system.*

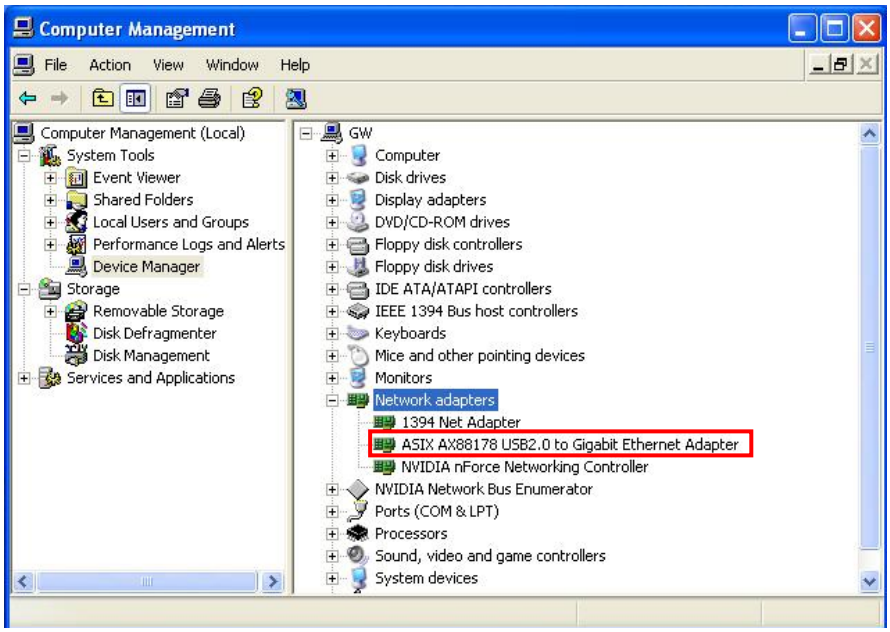
Now the installation is complete. You can connect the adapter to a network device by an Ethernet cable.

The Link LED should light up green to indicate a proper physical connection between the Ethernet adapter and the network. If the Link LED doesn't light up, please verify the cable connections between all the network devices.

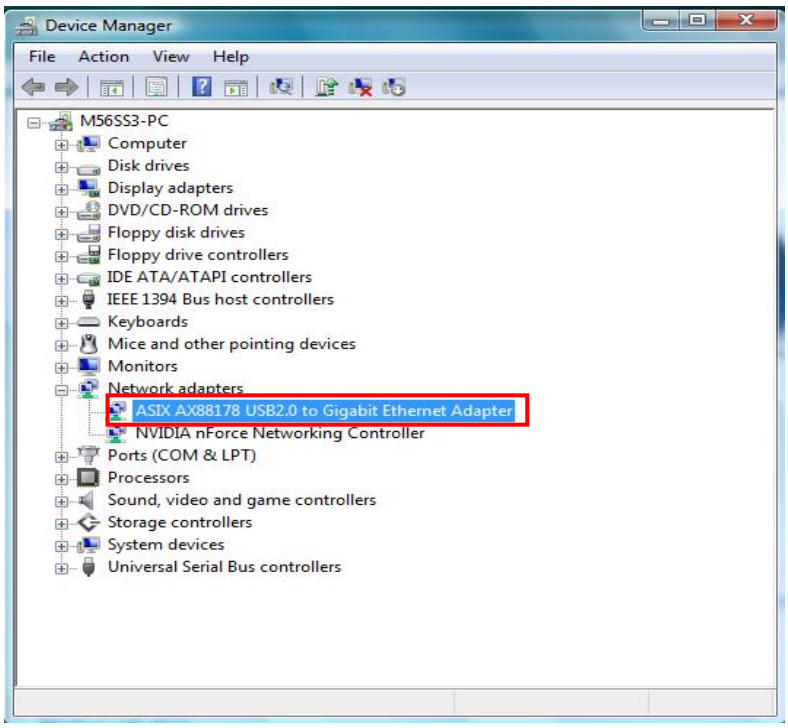
Verifying the Driver Installation

To verify your Ethernet adapter installation, please launch **Device Manager** by the steps below:

- On ***Windows® XP*** Right-click the My Computer icon on the desktop and select **Manager** > **Device Manager**.



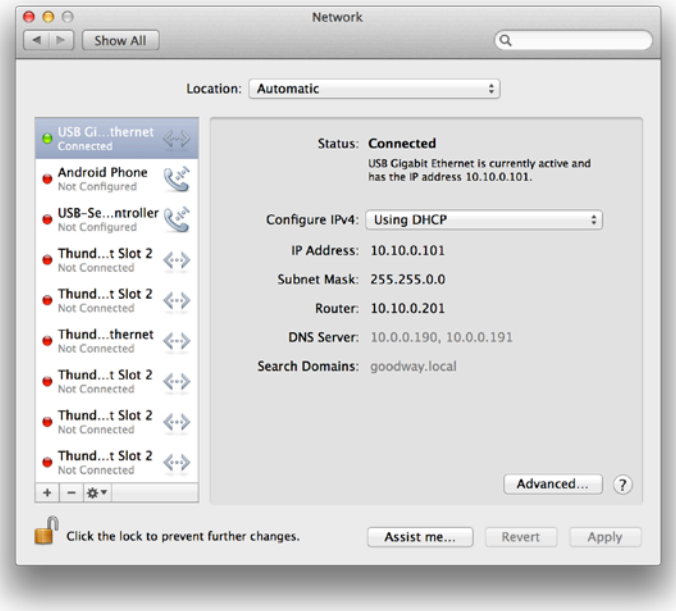
- On ***Windows® Vista/ Windows® 7/ Windows® 8***: Right-click the **Computer** icon on the desktop and select **Properties** > **Device Manager**.



In the **Network adapters** group, a string similar to **USB2.0 to Gigabit Ethernet Adapter** should be displayed.

If there is a question or exclamation mark next to that item, then the driver is not properly installed. Please delete the item, unplug the adapter and repeat the installation steps.

- On ***Mac OS® v10.5-10.8*** click "System Preferences" on the desktop and select **Network**



- Or to verify the driver of the adapter, follow the below steps to open the **About this Mac on Mac®**

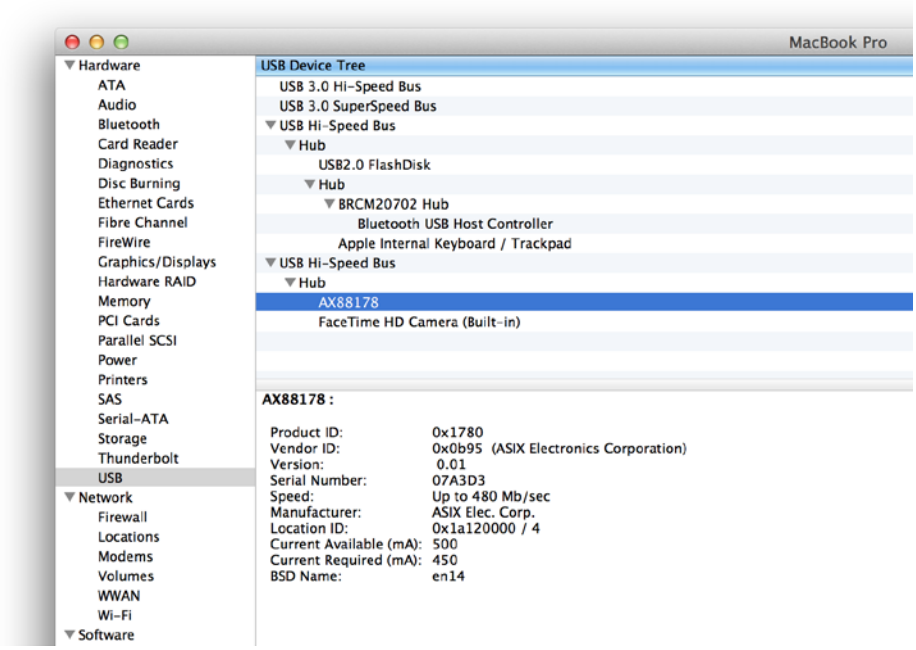
  1. When the screen below appears and click **More Info…**



2. When the screen below appears, please click System Report…



3. You will find that a new Ethernet network interface is available. It's usually named **USB HI-Speed Bus Hub AX88178.**



**Actual strings depend on your operation system. These screen shots are from Mac® 10.8 and might vary slightly for each operation system.*

Connecting to a Network

Now you can connect your network device, e.g, switch, router, DSL/Cable modem, to the adapter's LAN port via an Ethernet cable.

Notes on Ethernet Cables

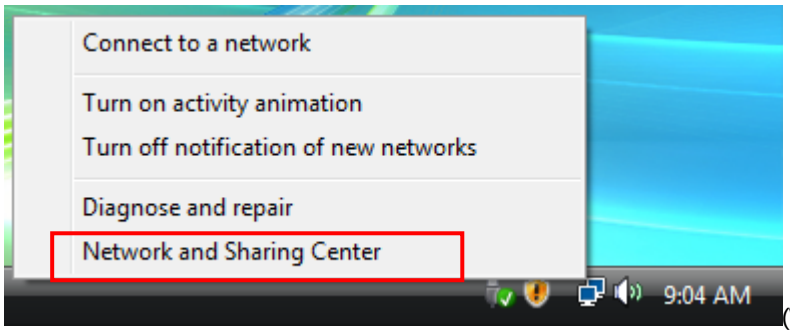
- Sometimes a so-call crossover Ethernet cable is required for connection to certain network equipments. As the adapter's LAN port supports Auto-MDIX feature, it eliminates the need to use crossover cables.
- When the Ethernet adapter is used in a Gigabit network, it's recommended that you use Category 6 Ethernet cable for higher transmission speed.

On **Windows® XP**, upon your connection, a message pops up in the notification area indicating your connection speed.

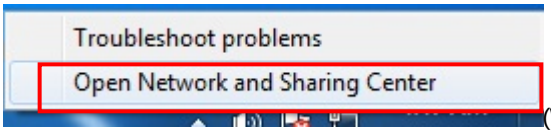
The adapter's AutoSense feature can automatically detect the network's maximum line speed. To have a 1000Mbps connection, your network device (e.g., switch, router or DSL modem) must also support 1000Mbps.

On **Windows® Vista/ Windows® 7/ Windows® 8**, you can view the connection speed by the steps below:

1. Right-click the network icon in the system tray and select **Network and Sharing Center**.

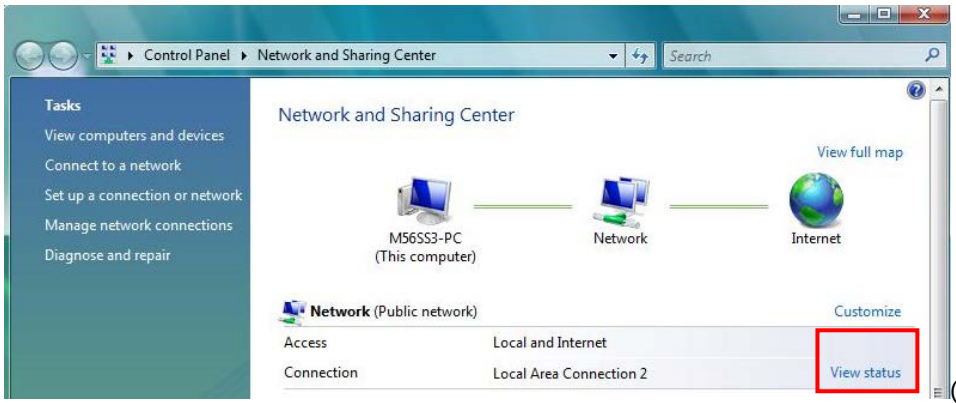


(Windows® Vista)

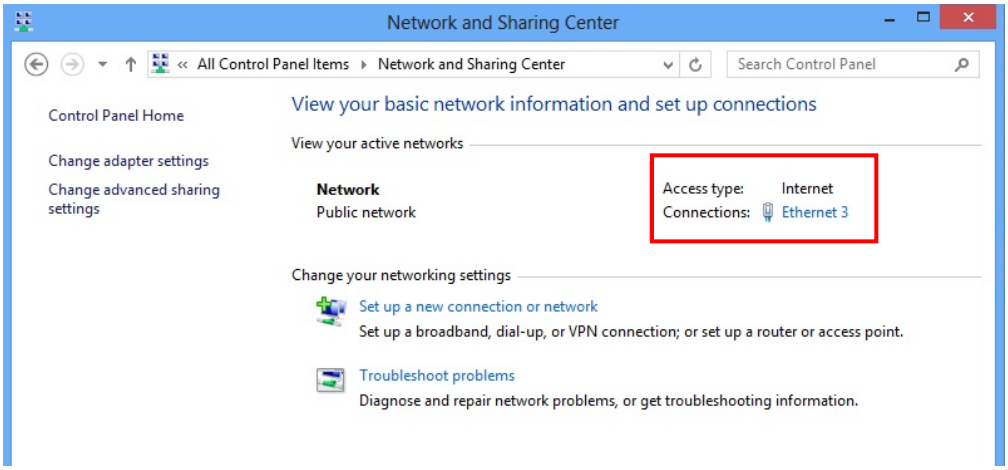


(Windows ® 7/ Windows ® 8)

2. Click **View status** on Windows Vista and Local Area Connection on Windows® 7 / Windows® 8 for the connection of your Ethernet adapter.

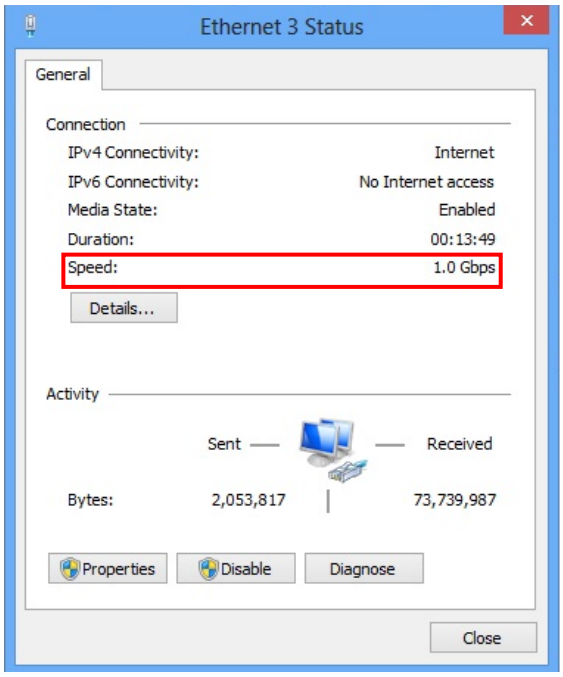


(Windows® Vista)



(Windows® 7 / Windows® 8)

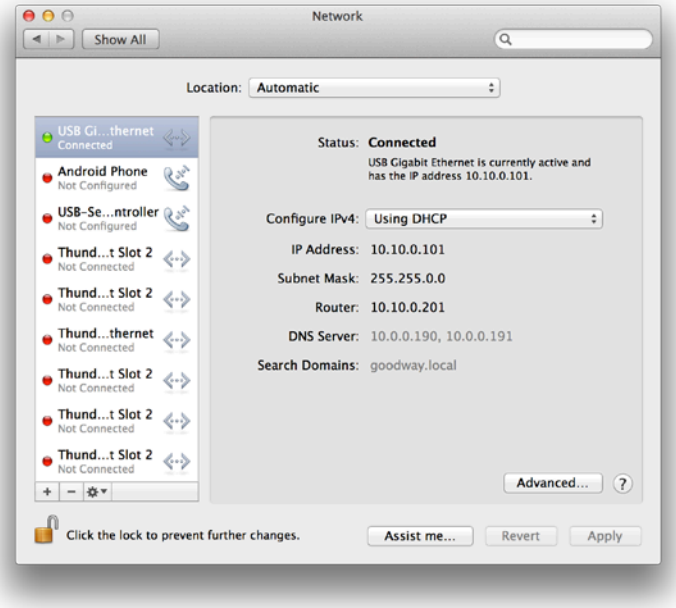
3. Current connection speed will be displayed among the connection information.



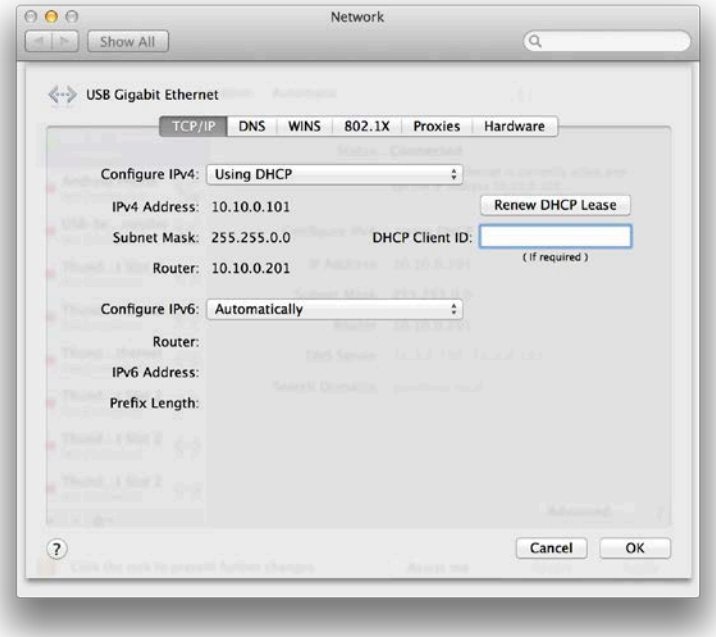
On **Mac OS® x10.5-10.8,** you can view the speed of connection by the steps below:

1. Click "System Preferences" on the desktop > Network.

   * If you can't connect the internet by using DHCP, please install the provided driver and double-click **AX88178._v3.9.0.pkg** file in the **Driver** folder on Mac 10.5-10.8



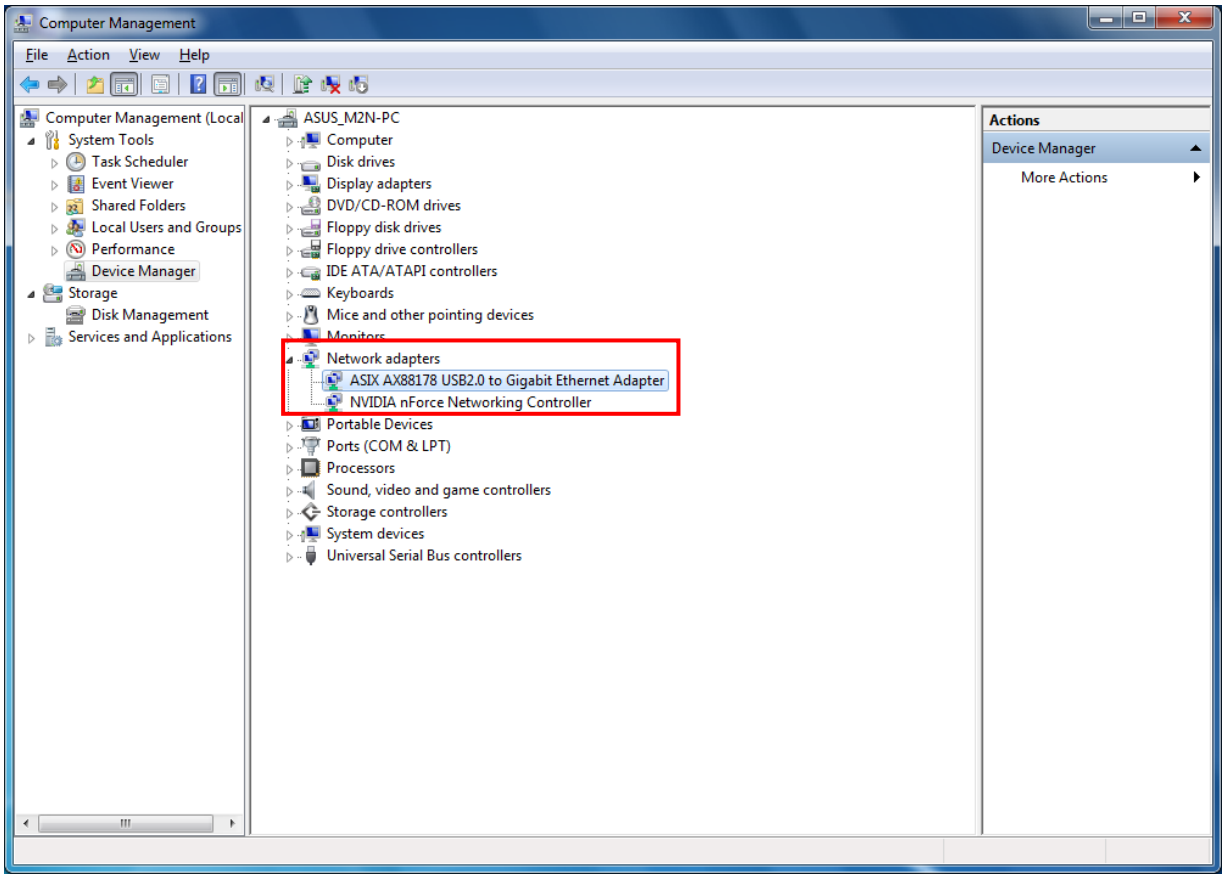
2. Click Advanced > Ethernet and you will see the speed of your internet.



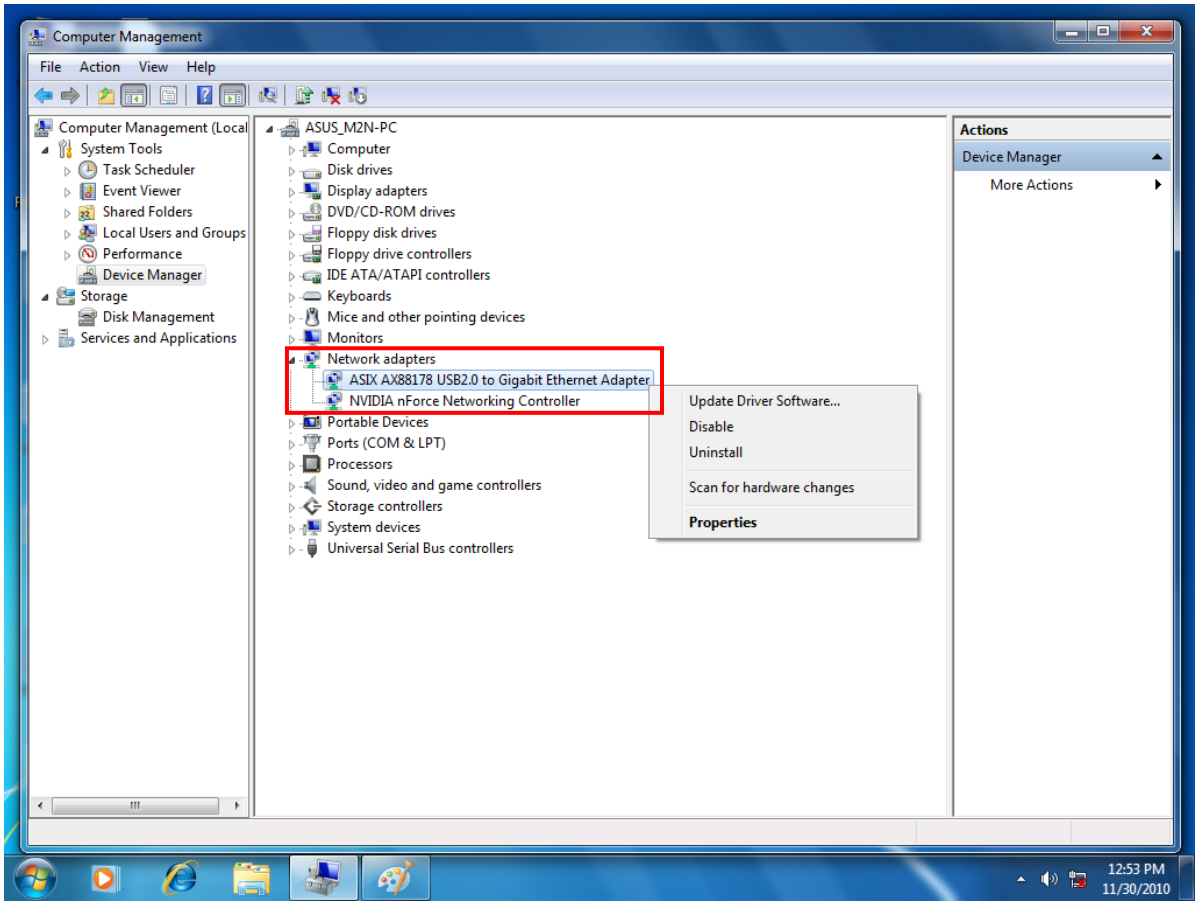
**Actual strings depend on your operation system. These screen shots are from Mac® 10.8 and might vary slightly for each operation system.*

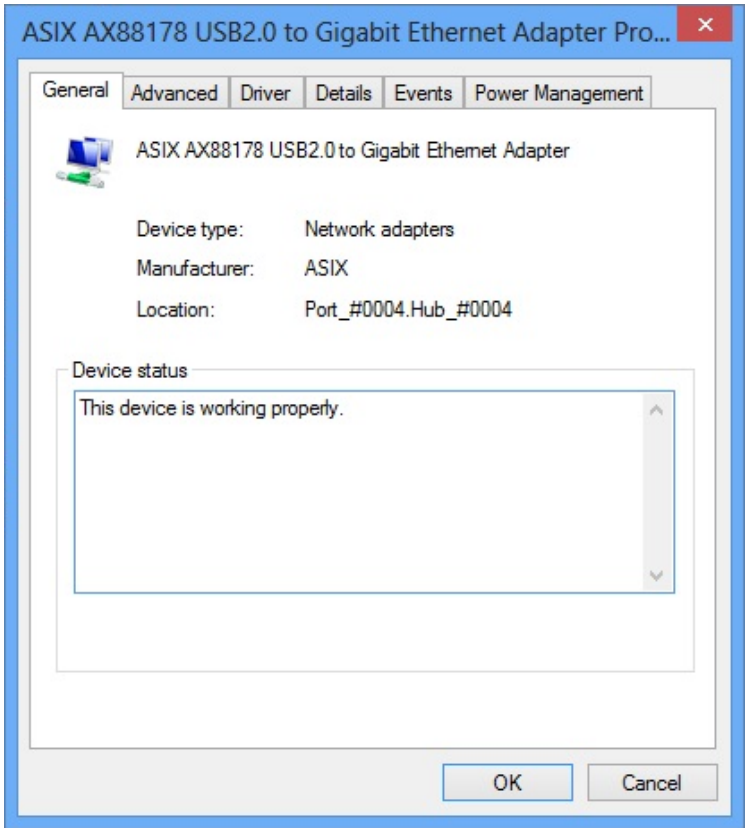
Enable Jumbo Frame

1. Please double click on **Control Panel > Device Manger > Network Adapter > ASIX Ax888178 USB 2.0 to Gigabit Ethernet Adapter**.

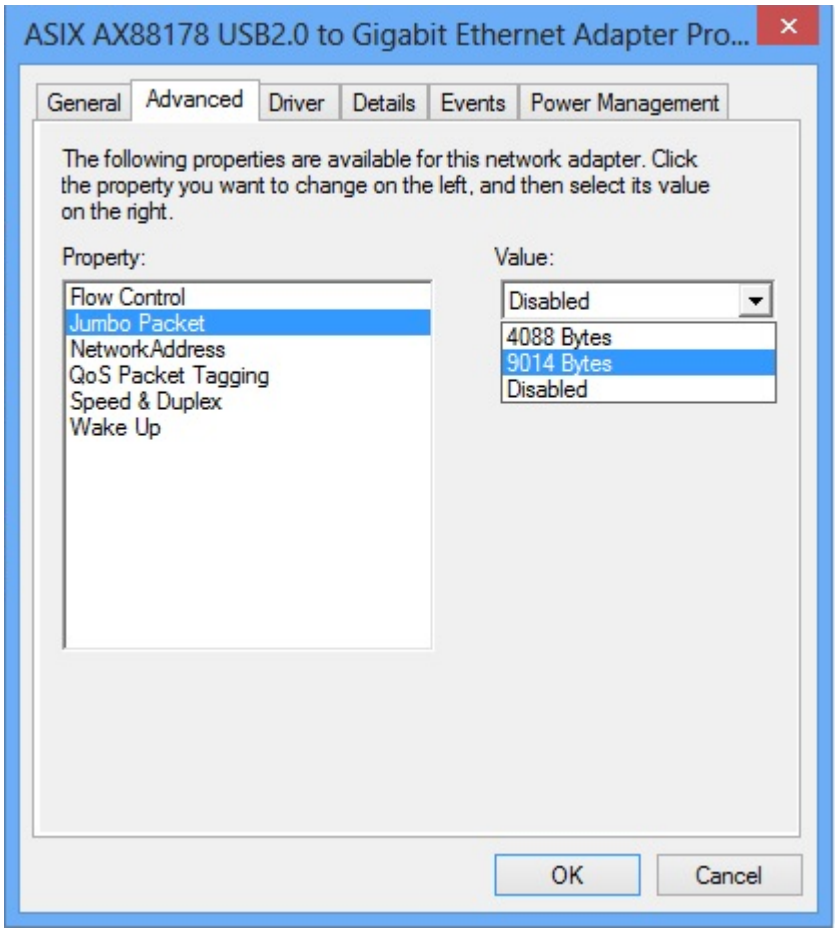


2. Right-click on **ASIX AX88178 USB 2.0 to Gigabit Ethernet Adapter** and choose **Properties**.





3. Please select Jumbo Packet on Property window and select 9014 Bytes on Value window.



Notice*:* Please be aware that if other network device also supports same specification of transfer mode when enabling the function.

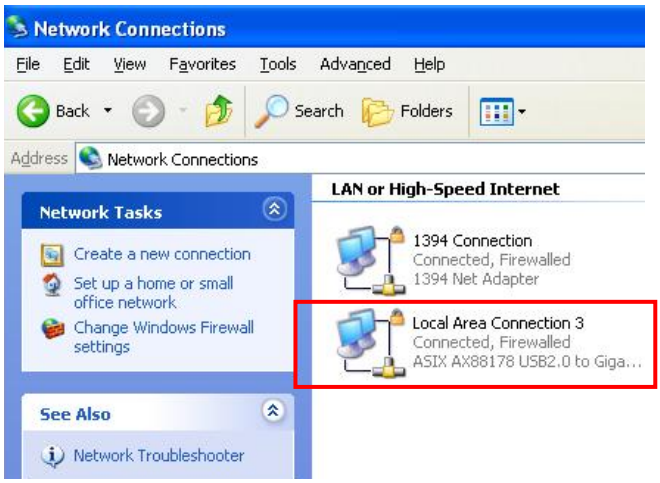
Configuring Network Settings

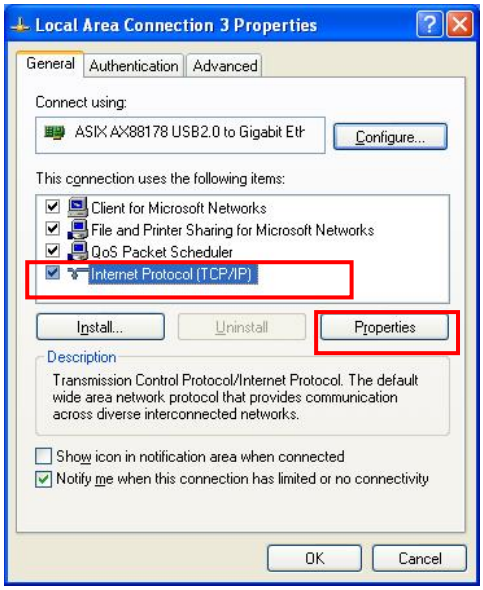
You should configure your Ethernet adapter as required according to your network environment. If you are unsure about the settings, consult with your network administrator for assistance. The following describes how to launch the network settings window for your Ethernet adapter.

Windows® XP

After the installation, a local area connection icon is automatically created for your Ethernet adapter in the **Network Connections** folder. You can access **Network Connections** folder by selecting **Start** > **Settings** > **Control Panel** > **Network and Internet Connections**.

In the **Network Connections** folder, double-click the connection icon indicating your adapter. Then the **Local Area Connection Properties** window appears for user to make required settings.

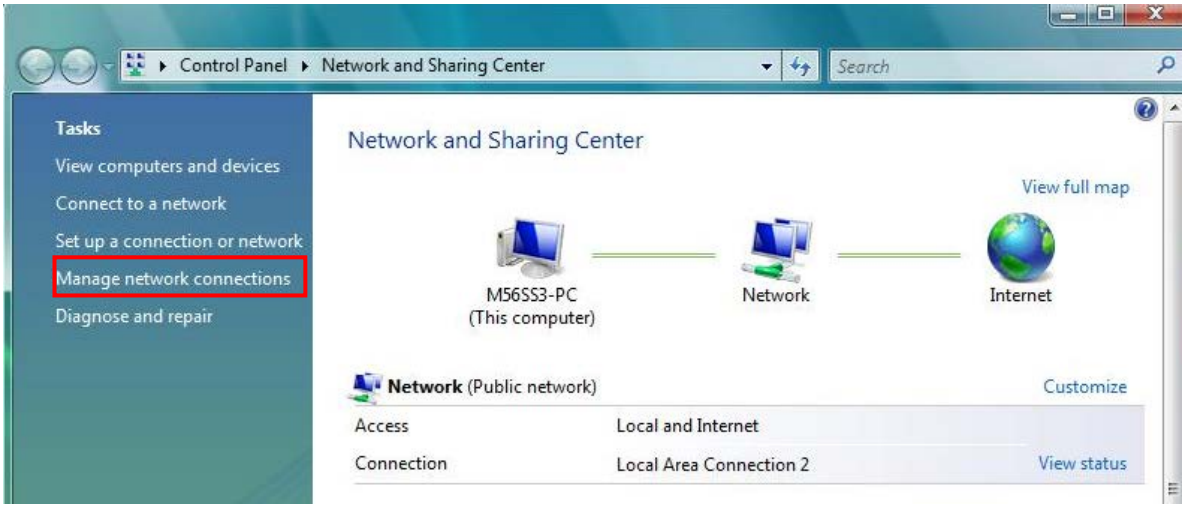




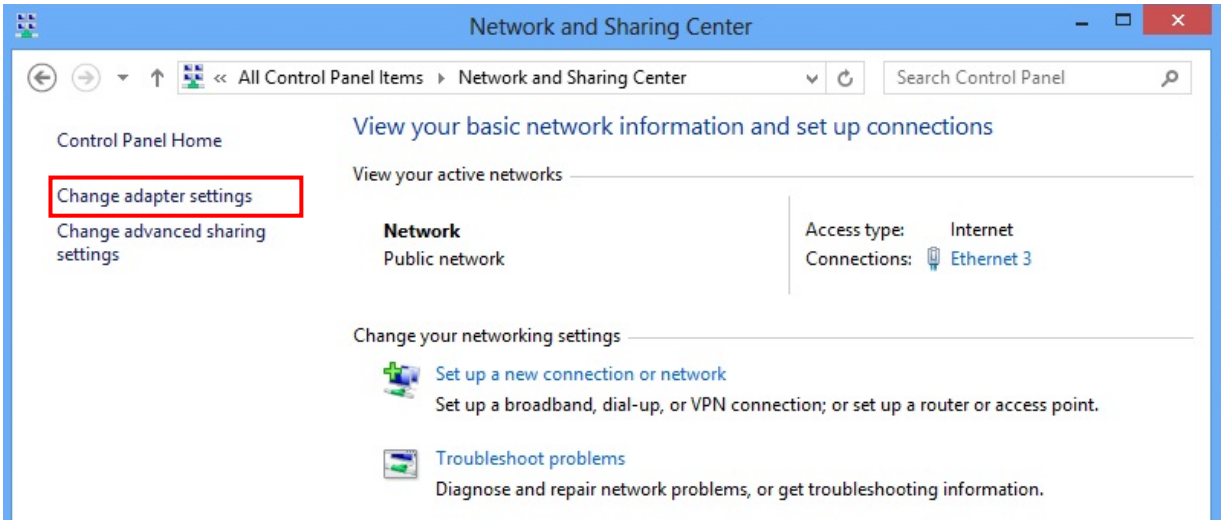
Windows® Vista/ Windows® 7/ Windows® 8

To configure network settings for your Ethernet adapter on Windows Vista:

1. Right-click the network icon in the system tray and select **Network and Sharing Center**.
2. Click **Manage network connections** on Windows Vista and **Change adapter settings** on Windows® 7 / Windows® 8.

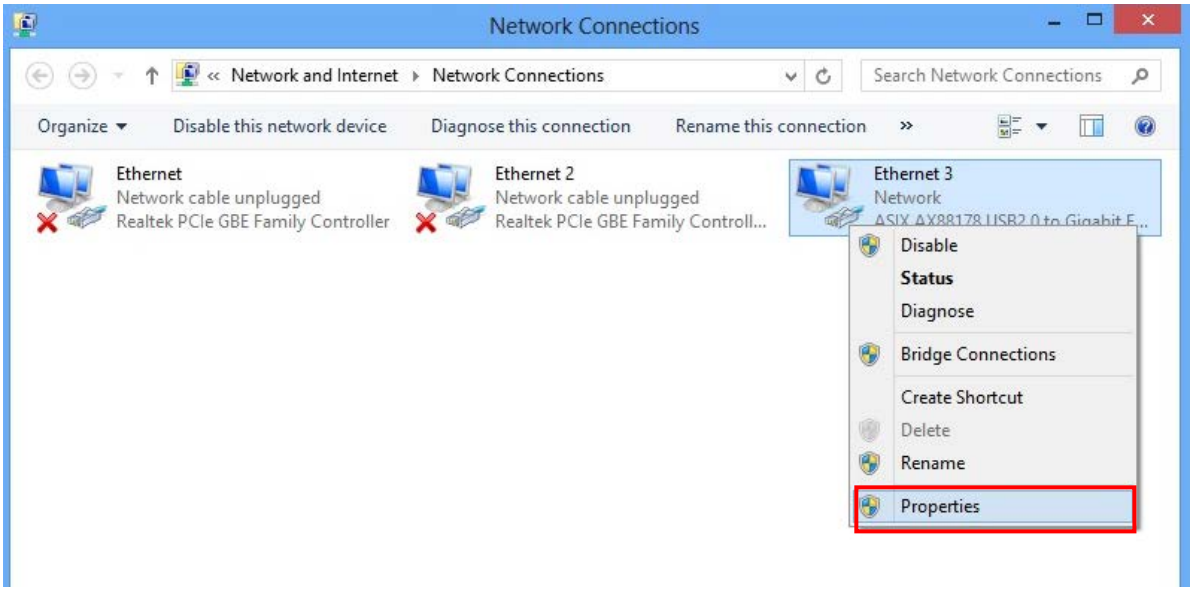


(Windows® Vista)

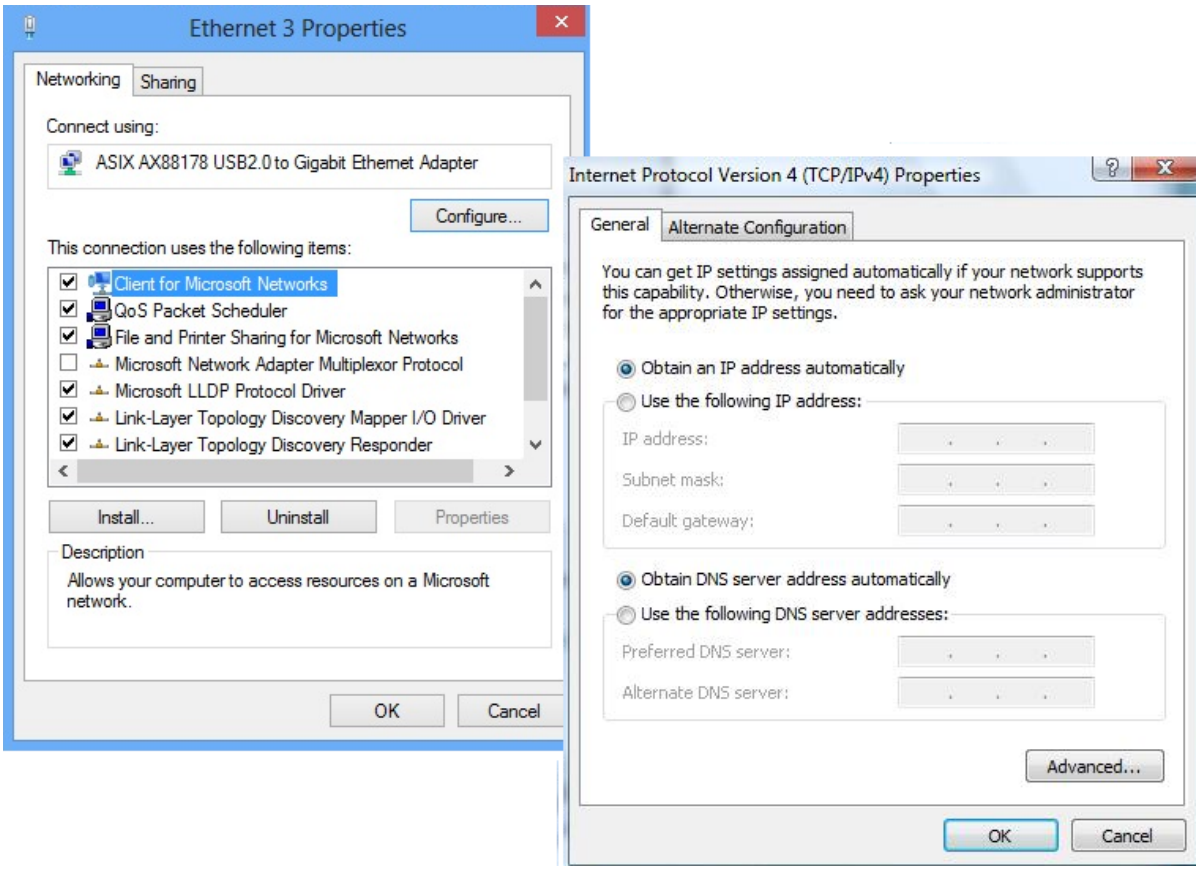


(Windows ® 7/ Windows ® 8)

3. Right-click the Local Area Connection icon indicating your network adapter and click **Properties**.



4. Then the **Ethernet 3 Properties** window appears for user to make required settings.



3. Specifications

Network Standards	IEEE 802.3: 10Base-T IEEE 802.3u: 100Base-T IEEE 802.3ab: 1000Base-T
Data Transfer Rates	Ethernet: 10Mbps (Half/Full Duplex) Fast Ethernet:100Mbps (Half/Full Duplex) Gigabit:1000Mbps (Full Duplex)
Data Bus	USB 2.0 (1.1 compliant)
Power Consumption	950mW
Power Management	Suspend mode, hibernation mode
Network Interface	Female RJ45 jack
RAM	Embedded 20KB SRAM for RX packet buffering and 20KB SRAM for TX packet buffering
Operating System Support	Windows® XP, Windows® Vista, Windows® 7 and Windows® 8 Mac OS® X v10.5-10.8
Working Environment:	Operation temperature: 0 ~ 40 degree Storage temperature: -20 ~ 70 degree
Certification	FCC, CE

* Specification is subject to change without further notice.

4. Regulatory Compliance

FCC Conditions

This equipment has been tested and found to comply with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

(1) This device may not cause harmful interference

(2) This device must accept any interference received. Including interference that may cause undesired operation.

CE

This equipment is in compliance with the requirements of the following regulations: EN 55 022: CLASS B

WEEE Information

For EU (European Union) member users:
According to the WEEE (Waste electrical and electronic equipment) Directive, do not dispose of this product as household waste or commercial waste. Waste electrical and electronic equipment should be appropriately collected and recycled as required by practices established for your country. For information on recycling of this product, please contact your local authorities, your household waste disposal service or the shop where you purchased the product.





