Universal Serial Bus (USB)

- Changing the USB port communication
- Installing the USB driver
- Using the Virtual Ethernet Port
- Using the Virtual Serial Port

The modem is equipped with a USB port which increases the methods by which you can send and receive data. The USB port can be set to work as either an Ethernet port or a virtual serial port. A driver installation is required to use the USB port in either mode.

Note: It is recommended that you use a USB 2.0 cable with your modem and connect directly to your computer for best throughput.

Changing the USB port communication

The command to change the port configuration is `*USBDEVICE` and it is in the USB group of AceManager.

By default, the port is set to work as a virtual Ethernet port (`*USBDEVICE=1`).

To change the USB port to allow virtual serial port communication, disable the Ethernet port emulation, set `*USBDEVICE` to 0.

Note: If you use a terminal connection with the USB port to change `*USBDEVICE`, the change is immediate. Your connection will be terminated after inputting the command.
Installing the USB driver

1. Set the Port Type

Virtual Ethernet port is the default setting for the USB port. If you want to install the virtual serial port, change the USB port configuration using the directions above.

2. Connect the modem to your computer’s USB port

When you connect the modem for the first time to a USB port on your computer, Windows should detect a new device and prompt you to install the driver.

Note: Windows will see each port type as a different USB device and will see every port on your computer separately. If you change the port type on the modem or connect to a different USB port on your computer or hub, Windows will see it as a new device.

Figure 0-2: Found New Hardware Wizard

- To start the install of the USB virtual Ethernet driver, select No, not this time and click Next.
- Select Install from a list of specific location and click Next.
3. Install the driver from a specific location

a. Select and/or enter the location of the driver.
   · If the driver is on the CD and the CD is in your drive, you can just select Search removable media.
   · If you have installed AceManager or the Setup Wizard, the drivers have been conveniently copied to your hard drive. Enter C:\Program Files\Common Files\AirLink as the location to search.
   · If you will be installing the driver from a file downloaded from the Sierra Wireless website, select Include this location in the search and type in the location where you downloaded the file.

b. Click Next.

After you select the location, the installation should begin. If you get a message asking if you want to continue the installation, click Continue Anyway.
c. Click Finish to complete the installation. The driver should be enabled without any need to reboot your computer.

![Completing the Found New Hardware Wizard](image)

Figure 0-6: Hardware Wizard : Finish

4. Optional: Verify and Configure the Virtual Port Settings

**Virtual Ethernet**

The USB Ethernet connection will show up in your Network Connections as a Local Area Connection.

---

**Tip:** If you also have an Ethernet card on the computer or have installed the USB Ethernet to more than one USB port on your computer, the USB Ethernet may show up with a number.

---

![Network Connections](image)

Figure 0-7: Network Connections

You can also verify the installation by looking in the Device Manager:

- a. Click on Start > Control Panel.
- b. Double-click on the System icon.
- c. Select the Hardware tab and click the Device Manager button.
d. Click on the + in front of *Network Adapters*.

The newly installed driver, *AirLink USB Ethernet/RNDIS*, should be displayed. If the driver is displayed with a # and number behind the driver name (such as, *AirLink USB Ethernet/RNDIS #2*), it means more than one is installed on your computer, most likely for different USB port. More than one copy of the driver should not cause any problems since only the connected port and its driver would be active.
Virtual Serial

You can verify the installation by looking in the Device Manager.

a. Click on Start > Control Panel.
b. Double-click on the System icon.
c. Select the Hardware tab and click the Device Manager button.

d. Click on the + in front of Modems.

The newly installed driver, AirLink USB Serial Port, should be displayed.

Tip: If the driver is displayed with a # and number behind the driver name (such as, AirLink USB Serial Port #2), it means more than one is installed on your computer, most likely for different USB port. More than one copy of the driver should not cause any problems since only the connected port and its driver would be active.
To connect to the modem using the USB virtual serial, most applications or utilities will require you to select or enter the serial (COM) port number. The USB connection will appear as a standard serial port, so you will need to determine its number to connect to it. The driver installation will automatically assign a port or you can change it if you wish to another unused port.

a. From the Device Manager, right click on the driver name and select Properties.

b. Select the Advanced tab and click the Advanced Port Settings button.
c. At the bottom of the screen, the current port used will be listed. Use the drop down menu to select an available COM port number if you need to change it.

Using the Virtual Ethernet Port

Once the driver is installed, you can use the USB port just like a standard Ethernet port.

**Using USB Ethernet with AceManager**

In AceManager, use the UDP or TCP connection and enter the IP address of the modem (192.168.13.31 by default) and the password (12345 by default).
Using USB Ethernet with a Terminal Emulation Utility

Configure your terminal application for telnet communication.

a. In HyperTerminal, select TCP/IP (Winsock)

b. Use the IP address of the modem (192.168.13.31 by default) as the destination and use the telnet port of the modem (2332 by default).

c. Enter the modem password (12345 by default) when requested.

Using the Virtual Serial Port

Once the driver is installed, you can use the USB port just like a standard serial port.

Using the USB virtual serial port with AceManager

In AceManager, the USB virtual serial port connection will appear as a standard serial port. Use the PPP connection and select the COM#serial port of the USB connection.
Tip: You will need to open AceManager after you connect the USB cable to your computer for AceManager to have access to the USB Serial PORT.

Using the USB virtual serial port with a Terminal Emulation Utility

a. Select the serial port of the USB connection when prompted for a COM port.

b. Change the Bits per Second to 115200 (default), Data Bits to 8, Parity to None, Stop Bits to 1, and Flow Control to Hardware.

c. You should also need to make sure your connection uses Auto Detect for the terminal emulation.
Important Notice

Due to the nature of wireless communications, transmission and reception of data can never be guaranteed. Data may be delayed, corrupted (i.e., have errors) or be totally lost. Although significant delays or losses of data are rare when wireless devices such as the Sierra Wireless AirLink modem are used in a normal manner with a well-constructed network, the Sierra Wireless AirLink modem should not be used in situations where failure to transmit or receive data could result in damage of any kind to the user or any other party, including but not limited to personal injury, death, or loss of property. Sierra Wireless accepts no responsibility for damages of any kind resulting from delays or errors in data transmitted or received using the Sierra Wireless AirLink modem, or for failure of the Sierra Wireless AirLink modem to transmit or receive such data.

Safety and Hazards

Do not operate the Sierra Wireless AirLink modem in areas where blasting is in progress, where explosive atmospheres may be present, near medical equipment, near life support equipment, or any equipment which may be susceptible to any form of radio interference. In such areas, the Sierra Wireless AirLink modem MUST BE POWERED OFF. The Sierra Wireless AirLink modem can transmit signals that could interfere with this equipment.

Do not operate the Sierra Wireless AirLink modem in any aircraft, whether the aircraft is on the ground or in flight. In aircraft, the Sierra Wireless AirLink modem MUST BE POWERED OFF. When operating, the Sierra Wireless AirLink modem can transmit signals that could interfere with various onboard systems.

Note: Some airlines may permit the use of cellular phones while the aircraft is on the ground and the door is open. Sierra Wireless AirLink modem may be used at this time.

Limitation of Liability

The driver or operator of any vehicle should not operate the Sierra Wireless AirLink modem while in control of a vehicle. Doing so will detract from the driver or operator’s control and operation of that vehicle. In some states and provinces, operating such communications devices while in control of a vehicle is an offence.

The information in this manual is subject to change without notice and does not represent a commitment on the part of Sierra Wireless. SIERRA WIRELESS AND ITS AFFILIATES SPECIFICALLY DISCLAIM LIABILITY FOR ANY AND ALL
DIRECT, INDIRECT, SPECIAL, GENERAL, INCIDENTAL, CONSEQUENTIAL, PUNITIVE OR EXEMPLARY DAMAGES INCLUDING, BUT NOT LIMITED TO, LOSS OF PROFITS OR REVENUE OR ANTICIPATED PROFITS OR REVENUE ARISING OUT OF THE USE OR INABILITY TO USE ANY S IERRA WIRELESS PRODUCT, EVEN IF S IERRA WIRELESS AND/OR ITS AFFILIATES HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES OR THEY ARE FORESEEABLE OR FOR CLAIMS BY ANY THIRD PARTY.

Notwithstanding the foregoing, in no event shall S IERRA WIRELESS and/or its affiliates aggregate liability arising under or in connection with the S IERRA WIRELESS product, regardless of the number of events, occurrences, or claims giving rise to liability, be in excess of the price paid by the purchaser for the S IERRA WIRELESS product.

**Patents**

Portions of this product may be covered by some or all of the following US patents:

- 5,515,013
- 5,629,960
- 5,845,216
- 5,847,553
- 5,878,234
- 5,890,057
- 5,929,815
- 6,169,884
- 6,191,741
- 6,199,168
- 6,239,405
- 6,359,591
- 6,400,336
- 6,516,204
- 6,561,851
- 6,643,501
- 6,653,979
- 6,697,030
- 6,785,830
- 6,845,249
- 6,847,830
- 6,876,697
- 6,879,585
- 6,886,049
- 6,968,171
- 6,985,757
- 7,023,878
- 7,053,843
- 7,106,569
- 7,145,267
- 7,200,512
- D442,170
- D459,303

and other patents pending.

Licensed under the following Nortel Networks Limited patents:

- United States patent numbers: 5128925, 5398247
- France patent numbers: 2665993, 2653959, 2659812, 2745091

**Copyright**

© 2008 S IERRA WIRELESS. All rights reserved.

**Trademarks**

A I RCard® and “H eart of the Wireless Machine®” are registered trademarks of S IERRA WIRELESS. Watcher® is a trademark of S IERRA WIRELESS, registered in the European Community. A IRLink™ and A c eWare™ are trademarks of S IERRA WIRELESS. S IERRA WIRELESS, the S IERRA WIRELESS logo, the red wave design, and the red-tipped antenna are trademarks of S IERRA WIRELESS. W indows® is a registered trademark of Microsoft Corporation.

Other trademarks are the property of the respective owners.
## Contact Information

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Support Desk</strong></td>
<td><strong>Phone:</strong></td>
<td><strong>Hours:</strong></td>
</tr>
<tr>
<td></td>
<td>1-877-231-1144</td>
<td>5:00 AM to 5:00 PM Pacific Time, Monday to Friday, except US Holidays</td>
</tr>
<tr>
<td></td>
<td><strong>E-mail:</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td><a href="mailto:support@sierrawireless.com">support@sierrawireless.com</a></td>
<td></td>
</tr>
<tr>
<td><strong>Sales Desk</strong></td>
<td><strong>Phone:</strong></td>
<td><strong>Hours:</strong></td>
</tr>
<tr>
<td></td>
<td>1-510-781-4200</td>
<td>8:00 AM to 5:00 PM Pacific Time</td>
</tr>
<tr>
<td></td>
<td>1-604-232-1488</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>E-mail:</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td><a href="mailto:MobileandM2Msales@sierrawireless.com">MobileandM2Msales@sierrawireless.com</a></td>
<td></td>
</tr>
<tr>
<td><strong>Post:</strong></td>
<td>Sierra Wireless AirLink Solutions</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3159 Corporate Place</td>
<td>Hayward, CA</td>
</tr>
<tr>
<td></td>
<td>USA</td>
<td>94545</td>
</tr>
<tr>
<td></td>
<td>Sierra Wireless</td>
<td></td>
</tr>
<tr>
<td></td>
<td>13811 Wireless Way</td>
<td>Richmond, BC</td>
</tr>
<tr>
<td></td>
<td>Canada</td>
<td>V6V 3A4</td>
</tr>
<tr>
<td><strong>Fax:</strong></td>
<td>1-510-781-4299</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1-604-231-1109</td>
<td></td>
</tr>
<tr>
<td><strong>Web:</strong></td>
<td><a href="http://www.sierrawireless.com">www.sierrawireless.com</a></td>
<td></td>
</tr>
</tbody>
</table>

Consult our website for up-to-date product descriptions, documentation, application notes, firmware upgrades, troubleshooting tips, and press releases:

[www.sierrawireless.com](http://www.sierrawireless.com)