AXW-D800 / AXW-D1900

CDMA 1xEVDO
Wireless Broadband Modem

User Manual
User ID and Password
You may need to enter the user ID and password in order to use the 1xEV-DO Modem.
Please write User ID and Password for future need. Keep this manual in a secure place.

User ID: ___________________________
Password: _________________________
Dial Number: _______________________

1x Data Service User ID and Password (optional)
In some cases, your service provider may provide you with a different user ID and password for 1x data service access (153.6 Kbps max).

User ID: ___________________________
Password: _________________________
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Package Contents

After opening the package, check to make sure that you have all the parts shown below. If any piece is missing or broken, please call customer service.

- One Axesstel 1x-EVDO Wireless Broadband Modem
- Two Antennas
- Power Adaptor (Input: AC 110~240V 50~60 Hz, Output: DC 9V 1A)
- AC Power Cable
- CAT-5 Ethernet cable
- USB cable
- USB Driver Installation CD
- Quick Guide or User Manual

CAUTION! Use only the provided power adaptor. Using other power adaptor may damage the EV-DO modem.

Before you start

You must have an active account with the service provider in order to make connection.

- Configure your PC to obtain TCP/IP settings automatically from DHCP server feature of EV-DO modem. Refer to "TCP/IP Settings" for more information on how to set up TCP/IP settings on your PC.
- In order to connect multiple PCs to EV-DO modem and share internet connection, you will need an Ethernet Switch, a Hub, or a Router.
**Introduction**

Axesstel 1xEv-DO Broadband EV-DO modem allows users to "get connected" to high speed data services with unprecedented ease. Powered by the latest QUALCOMM MSM6500 processor, this wireless broadband modem provides high speed data service through USB or Ethernet interfaces at rates of up to 2.4Mbps download and 153.6 Kbps upload. With RJ-45 Ethernet connection, the users can enjoy true plug and play connection without driver installation.

**Features**

- CDMA 1xEV-DO data service with speed up to 2.4Mbps download and 153.6Kbps upload
- Backward compatible to CDMA2000 1xRTT Data service (153.6 Kbps max) if available by the service provided.
- Receive Diversity (2 antennas) for enhanced RF performance
- 4 LED indicators (Power, Signal Strength, Connection, and Ethernet)
- RJ-45 Ethernet and High Speed USB 1.1 data port
- Web based Configuration Tool
- Desktop or Wall-Mountable
Safety Precaution

1. Avoid placing the unit in a dusty location, or near a source of gas or fire.
2. Do not shake, hit or drop the unit.
3. To clean the unit, use only a soft, dry cloth. The chemicals in alcohol, benzine or acetone can damage the surface of the unit.
4. Do not twist or pull the cord out of the unit.
5. Do not disassemble the phone.
6. DO NOT use the power adapter if the power cord is damaged or the unit has been dropped or damaged in any way.
7. Only use the power adaptor provided by Axesstel. Do not use the Axesstel adapter for any other purpose.
8. Use only the antenna provided with the unit. Do not use the antenna for any other purpose.
9. Do not use the unit near water, for example, near a bathtub, sink, wet basement, or swimming pool.

NOTE: The input voltage and the shape of the plug on this phone may vary from country to country.

Basic Installation

1. Connect the antennas on the connectors of each side of the unit.
2. Connect the EV-DO modem to computer using RJ-45 Ethernet Cable (CAT 5) or USB cable.
3. Move the connection selector switch to USB or Ethernet depending on which cable you are using.
4. Connect the power adaptor to the DC 9V socket of the EV-DO modem.
5. Plug the AC adaptor into an appropriate electrical wall outlet.

Wall mounting...

1. Mark two mounting holes on the wall.
2. Drill two holes at the marked locations.
3. Tighten the screws until the head is about 5mm from the wall.
4. Hang the unit on the screw using the two holes in the back.
5. Push the unit down until the unit is firmly locked into place.
Getting to know the EV-DO modem

**Power Switch**
Power Switch is located on the front side of the EV-DO modem. Turn on the unit by moving switch to ON position (O). Turn off the unit by moving switch to OFF position (I).

*NOTE: When you turn on the EV-DO modem, it automatically searches for service signal. When it successfully acquires service signal, the signal LED turns to green, orange or red depending on signal strength.*

**Connection Type Switch**
Axesstel Wireless 1xEV-DO Modem lets you choose type of connection. Connection Type Switch is located between Ethernet port and USB port. Set this switch to Ethernet or USB depending on type of connection you are using.

**LED Indicators**

<table>
<thead>
<tr>
<th>LED</th>
<th>Color</th>
<th>Indicates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power</td>
<td>Green</td>
<td>Power is on</td>
</tr>
<tr>
<td></td>
<td>Off</td>
<td>Power is off</td>
</tr>
<tr>
<td>Signal</td>
<td>Green</td>
<td>Excellent signal level</td>
</tr>
<tr>
<td></td>
<td>Orange</td>
<td>Good signal level</td>
</tr>
<tr>
<td></td>
<td>Red</td>
<td>Poor signal level</td>
</tr>
<tr>
<td></td>
<td>Off</td>
<td>No signal or service is present</td>
</tr>
<tr>
<td>Connect</td>
<td>Green</td>
<td>Connected to the CDMA network</td>
</tr>
<tr>
<td></td>
<td>Off</td>
<td>Not connected</td>
</tr>
<tr>
<td>Ethernet</td>
<td>Green</td>
<td>PC connected to the modem by Ethernet</td>
</tr>
<tr>
<td></td>
<td>Blinking</td>
<td>Indicates data activity</td>
</tr>
<tr>
<td></td>
<td>Off</td>
<td>No PC connected to the modem by Ethernet</td>
</tr>
</tbody>
</table>
Connection using Ethernet port
1. Power off the unit before connecting the cables.
2. Connect CAT-5 Ethernet cable to Ethernet port of EV-DO Modem.
3. Connection type switch next to the Ethernet port should be set to Ethernet. If not, slide the switch toward the Ethernet port.
4. Connect other end of Ethernet cable to the RJ-45 connector of Ethernet network adapter or a network device.
5. Connect the Power Adapter to the power connector of EV-DO modem. Plug the AC plug into a power outlet.
6. Turn the power ON, using the power switch next to the power jack. The LED labeled “Power” light on.
7. Wait for few seconds for EV-DO modem to search for the service. The LED labeled “Signal” turns to Red, Orange, or Green when signal is acquired.

Configuring Your PC
The EV-DO modem’s Ethernet is configured with DHCP by default. This means that IP address of your PC is automatically assigned by the EV-DO modem.

If the PC’s cannot get IP address and cannot make connection to internet. Check the TCP/IP setting of your “Local Area Connection”.

1. Click the Start button, select Settings, and select Control Panel.
2. Double click the Network Connection icon.

3. Go to Local Area Connection Properties.
4. Select the “Internet Protocol (TCP/IP)”

1. If there is no TCP/IP line listed, you will need to install TCP/IP first.

5. Press the “Properties” button.

6. Check “Obtain an IP address automatically”

7. Check “Obtain DNS Server address automatically”.

8. Click Ok to exit Properties.

9. If asked to re-start the PC, click “YES”.

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Connecting the World Now
EV-DO modem provides an embedded Web-based Management Utility. Configure your EV-DO modem by using your Web Browser. Please refer to Web-based Manager section.

**Log In**
Open your Web browser and enter 192.168.0.1 in the address bar. When prompt for User name and password, enter the following user id and password.

**User ID:** admin  
**Password:** admin

If you have changed the user name and the password, enter the new name and password.
1. Click on the “Network” tab.

3. Under “PPP Configuration”, enter login User ID and Password of the account. Choose type of Authentication process used by the network. Enter access dial number of login account.

4. Press “APPLY” button.
5. Turn off and turn on the terminal.

6. Log in and check if the information you have entered are correctly shown. Password is shown with black dots for security purpose. If the User ID is not changed, repeat the steps 3, and 5.

DHCP stands for Dynamic Host Configuration Protocol. Axesstel Wireless 1x-EV-DO Modem has a built-in DHCP server. The DHCP server will automatically assign an IP address to the computers on the LAN. Be sure to set each client PC’s TCP/IP settings to “obtain an IP address automatically”.
Connection using USB port

USB Driver Installation (Part 1)
Run Setup from the CD
Run the Setup program on the USB Driver CD.
It is important that you should run the setup before connecting the USB cables to your PC.

1. Run the setup. Make sure that the USB cable is not yet connected.

- If you wish to change the location of the files, press “Browse” and select location.

2. Otherwise, press “Next”.
USB Driver Installation (Part 2)

Preparation
1. Turn off both the EV-DO modem and your PC.
2. Connect the included USB Cable to USB port on your PC.
3. Cable select switch, located between Ethernet and USB connectors, should be set to USB.
4. Connect other end of USB Cable to USB port on EV-DO modem.
5. Connect the included Power Adapter to Power connector of EV-DO modem.
6. Connect the other end of Power Adapter to an electrical outlet.
7. Power on EV-DO modem.
USB Driver Installation (Part 3)

Driver Installation

1. Power on the PC. After the boot up process, you will see “Found New Hardware” screen.

2. The New Hardware Wizard may recognize the name by itself. Or you may have to select from a list.

3. Select “Qualcomm Multimedia USB Modem”.

4. When you encounter this window, press “Continue Anyway”.
Connection Using USB connection.
After USB driver has been installed, follow following steps to connect to the 1’xEV-DO network.

1. Open Network Connections from the Start Menu or Control Panel.

5. Press “Finish”.

Connection Using USB connection.
After USB driver has been installed, follow following steps to connect to the 1’xEV-DO network.

1. Open Network Connections from the Start Menu or Control Panel.

Press “Finish”.
2. Double click “AxessD2” connection item.

Make sure that the modem associated with the connection is “Qualcomm Multimedia USB Modem”.

2. Enter User name and Password.
   - Check “Save this user…” if you do not wish to enter the user name and password every time you use the EV-DO modem.

3. On you first use, press “Properties” button to check if all settings are correct.

4. Make sure to enter the dial number as well. This number is dependant on the service provider.
3. Check that the correct modem is select.

4. Check “Show icon in notification area when connected”

- If a wrong modem is select, connection attempt will fail.

5. Your PC is trying to connect to the EV-DO network.

If failed check each step of this section and try again.
To disconnect USB connection

1. To disconnect the EV-DO connection, Select “Disconnect” from the Tray Icon Area.

2. If the tray icon is not visible, open the “Network Connections” and select the “AxessD2” connection item.
3. Right click on the icon and select “Disconnect”.

CDMA 1xEV-DO Wireless Broadband Modem
AXW-D800 / AXW-D1900

Connecting the World Now
Advanced Menu: Web Admin Tool

EV-DO modem provides an embedded Web-based Management Utility. This utility is operating system independent. Configure your EV-DO modem by using your Web Browser.

Log In

1. Open your Web browser
2. Enter 192.168.0.1 in the address bar as in the diagram.

- The default IP address of the EV-DO modem is 192.168.0.1. If you change the IP address of the EV-DO modem, you will have to remember the new IP address in order to get into this menu.

3. When prompt for User name and password, enter admin/admin.
4. Click on appropriate tab to access System, Network, Security, or Status settings.
<table>
<thead>
<tr>
<th>Function</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Host Name</td>
<td>Name of the EV-DO modem. You may change this name according to your network need.</td>
</tr>
<tr>
<td>Change Password</td>
<td>To change the password of your account, enter your old password and new password.</td>
</tr>
<tr>
<td>System Upgrade</td>
<td>To download new firmware.</td>
</tr>
<tr>
<td>Restore Default</td>
<td>Restore all settings to factory default settings.</td>
</tr>
<tr>
<td>Reboot System</td>
<td>Restart EV-DO modem.</td>
</tr>
</tbody>
</table>
### Network

#### Local Area Network Setup

<table>
<thead>
<tr>
<th>LAN</th>
<th>IP Address</th>
<th>192.168.0.1</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Subnet Mask</td>
<td>255.255.255.0</td>
</tr>
</tbody>
</table>

#### DHCP Server

<table>
<thead>
<tr>
<th>Enable/Disable</th>
<th>Range from 192.168.0.2 to 192.168.0.253</th>
</tr>
</thead>
<tbody>
<tr>
<td>DNS IP Address</td>
<td>216.70.224.17</td>
</tr>
<tr>
<td>DHCP Relay Server</td>
<td>0.0.0.0</td>
</tr>
</tbody>
</table>

#### APPLY

#### Wide Area Network Setup

<table>
<thead>
<tr>
<th>WAN Connection Type</th>
<th>EvDO Modern</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical Address</td>
<td>00:0b:ac:00:00:03</td>
</tr>
</tbody>
</table>

#### PPP Configuration

<table>
<thead>
<tr>
<th>User ID</th>
<th>Password</th>
<th>Authentication</th>
<th>Dial Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>user123</td>
<td>*********</td>
<td>PAP</td>
<td>#777</td>
</tr>
</tbody>
</table>

#### APPLY

### IP Table

<table>
<thead>
<tr>
<th>IP Address</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>IP address of EV-DO modem.</td>
</tr>
<tr>
<td>Subnet Mask</td>
<td>Subnet Mask</td>
</tr>
<tr>
<td>DHCP Server</td>
<td>Enable if using Dynamic IP Address.</td>
</tr>
<tr>
<td>DHCP Server IP Range</td>
<td>Range of IPs that can be assigned by the DHCP Server to each PC.</td>
</tr>
<tr>
<td>DNS Address</td>
<td>IP address of DNS Server provided by your Service Provider.</td>
</tr>
<tr>
<td>PPP Configuration</td>
<td>Enter User ID, Password, Authentication type, and dial number of your wireless data network account.</td>
</tr>
<tr>
<td>APPLY</td>
<td>After making changes to Network settings, always click APPLY button to saves changes.</td>
</tr>
</tbody>
</table>
### Security

#### Firewall Support
Enable/Disable built-in firewall feature.

#### Client Filtering
Local Client PC group cannot access specified remote application.

#### Packet Forward
Enable specific ports to be opened for specific applications.

#### MAC Filtering
Block specific MAC addresses.

#### DMZ Server
Open a virtual server to public.

#### Blocking WAN Ping
Do not respond to ping request with WAN IP address.

#### APPLY
Click APPLY to apply any of the Security setting changes.

<table>
<thead>
<tr>
<th>Protocol</th>
<th>Port #</th>
<th>Local PC IP</th>
<th>Protocol</th>
<th>Port #</th>
<th>Local PC IP</th>
</tr>
</thead>
<tbody>
<tr>
<td>TCP</td>
<td>0</td>
<td>0.0.0.0</td>
<td>TCP</td>
<td>0</td>
<td>0.0.0.0</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>TCP</td>
<td>0</td>
<td>0.0.0.0</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>TCP</td>
<td>0</td>
<td>0.0.0.0</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>TCP</td>
<td>0</td>
<td>0.0.0.0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>MAC Filtering Support</th>
<th>Disable</th>
<th>Deny</th>
<th>Allow</th>
</tr>
</thead>
<tbody>
<tr>
<td>0:0:0:0:0:0:0:0:0:0:0:0:0:0:0:0</td>
<td>Allow</td>
<td>Deny</td>
<td>Allow</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Blocking WAN Ping</th>
<th>Do not respond to ping request with WAN IP address</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Allow: Deny:</td>
</tr>
</tbody>
</table>
## Status

### axess•tel

### Local Area Network

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Link Status</strong></td>
<td><strong>Running</strong></td>
</tr>
<tr>
<td><strong>H/W Address</strong></td>
<td><strong>20:51:78:65:73:73</strong></td>
</tr>
<tr>
<td><strong>MTU</strong></td>
<td><strong>1500</strong></td>
</tr>
<tr>
<td><strong>Tx Packet</strong></td>
<td><strong>625</strong></td>
</tr>
<tr>
<td><strong>Rx Packet</strong></td>
<td><strong>637</strong></td>
</tr>
</tbody>
</table>

### Wide Area Network (Dial PPP)

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Link Status</strong></td>
<td><strong>Stopped</strong></td>
<td><strong>MTU</strong></td>
</tr>
<tr>
<td><strong>My IP</strong></td>
<td><strong>0.0.0.0</strong></td>
<td><strong>Remote IP</strong></td>
</tr>
<tr>
<td><strong>Tx Packet</strong></td>
<td><strong>0</strong></td>
<td><strong>Rx Packet</strong></td>
</tr>
</tbody>
</table>

### Local Area Network
- Current operation and connection status of LAN.

### Wide Area Network
- Current operation and connection status of WAN.
Troubleshooting

General
- Check for the appropriate power indication on the LED. If no power, check the adaptor (or External Power Supply) connection between the electrical outlet and the modem.

I can't get good signal. My connection is unstable.
- Check for the Signal LED. If off, there is no service coverage. (Out of service area)
- Two antennas should be firmly connected to the unit. For some reason, only one is to be used, always connect to the right side, which is for receive and transmit. The left antenna is only for receiving.
- If Signal LED is showing red, it means current signal is weak. Try placing EV-DO modem at different locations or Rotating EV-DO modem to different direction. Avoid areas with high level of radio interference.

I can't connect to the Internet.
- If using the Ethernet cable, check TCP/IP settings of your PC and make sure your PC is obtaining IP address automatically from the EV-DO Modem. Refer to “TCP/IP Settings” section of this manual.
- If using the USB cable, check that you are using the correct Modem, correct user name and password.

My PC is set to obtain IP address automatically as instructed in the manual but I can't access the Web.
- Make sure the TCP/IP setting is also set to “obtain DNS server address automatically”. Please refer to “TCP/IP Settings” section for more information.

Q. How do I renew PC’s IP in Windows system?
1. Click Start and Click Run.
2. Type cmd in the prompt and click OK.
3. In Command Prompt (C:\), type ipconfig/release and press Enter.
4. In Command Prompt (C:\), type ipconfig/renew and press Enter.
5. Exit the Command Prompt. Now your IP is renewed.
## Specifications

<table>
<thead>
<tr>
<th>Categories</th>
<th>Specifications</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Frequency Range</strong></td>
<td></td>
</tr>
<tr>
<td>AXW-D800</td>
<td>TX: 824.64~848.37 MHz</td>
</tr>
<tr>
<td></td>
<td>RX: 859.64~893.37 MHz</td>
</tr>
<tr>
<td>AXW-D1900</td>
<td>TX: 1850.00~1909.95 MHz</td>
</tr>
<tr>
<td></td>
<td>RX: 1930.00~1989.95 MHz</td>
</tr>
<tr>
<td><strong>Operation Temperature</strong></td>
<td>-20 ~ +50 °C</td>
</tr>
<tr>
<td><strong>Operation Humidity</strong></td>
<td>5% ~90%</td>
</tr>
<tr>
<td><strong>AC Adaptor</strong></td>
<td>Input: AC 110<del>240V, 50</del>60 Hz</td>
</tr>
<tr>
<td></td>
<td>Output: DC 9V, 1A</td>
</tr>
<tr>
<td><strong>Dimension</strong></td>
<td>160 (L) x 197 (W) x 50 (H) mm</td>
</tr>
<tr>
<td><strong>Weight</strong></td>
<td>540 g</td>
</tr>
</tbody>
</table>