

High speed Internet
access anywhere,
anytime.



Merlin™ X720



Ovation™ MCD3000



Merlin™ PC720

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About this Guide

This guide provides the following information:

- **Everyday Basics:** If you are working with the default settings and want a quick reference for daily activities, read this section.
- **MobiLink Basics:** This section provides an overview of the MobiLink control panel. Read this to familiarize yourself with the control panel options.
- **Connection Basics:** If you had trouble setting up your profile as part of the installation or you want to find out how to automatically connect to the network when you turn your laptop power on, read this section.
- **SMS Basics:** This section shows you how to send and receive SMS.
- **Address Book Basics:** Thinking about sending an SMS to a group of people? You'll want to read this section first.

For installation instructions, please refer to the Quick Start Guide. A printed version of this guide was included in the product box. You'll also find a copy on the CD.

For information on advanced topics not included in this guide, please refer to the MobiLink online help.

Note: MobiLink software is for supported Windows platforms only. Support for Mac OS and Linux is provided through drivers. For more information, see <http://www.novatelwireless.com>.

Everyday Basics

After you install the MobiLink™ software and set up your Novatel Wireless Broadband device for first time use, it's time to get down to the everyday basics. The following steps provide a roadmap of typical usage activities. Use it as a guide and customize it according to your needs.

1

Start MobiLink.

MobiLink is the communications software you use to connect to the cellular network and to send and to receive SMS.



Double click the MobiLink icon on your desktop to start the application.

The LED on your device will display a solid green light while it searches for available networks.

When a network is found and attached to, the light on the LED will begin to flash green. The message on the MobiLink control panel will change to "Ready".

You'll find a complete list of LED colors and related states on page 37.

Want to have MobiLink start automatically each time you start your computer? See page 11 for instructions.

2

Send or receive SMS.

Once you are attached to a cellular network, you can send and receive SMS*. Check the envelope icon on the MobiLink control panel. It will appear blue when SMS is available and gray when it is not.

Click the envelope icon on the MobiLink control panel to send and receive SMS.



click to send and receive SMS

Need more information? See page 13.

Not sure what "attached" means? See page 27.

* Network/Operator dependent

3

Surf the web or check your e mail.

When you surf the web or send or receive e mail, you are sending and receiving data from the cellular network. Before you can do this, you have to connect to the network.

Click the **Connect** button on the MobilLink control panel to connect to the network.



Want to connect to the cellular network automatically when you turn on your computer? See page 11 for instructions.

4

Disconnect from the network.

- Click **Disconnect** to end your Internet session.
- Click the **Menu** button and select **Exit**.



Note: Remove your device before transporting your laptop.

Want to find out how much time you spent online? See page 12 for instructions.

MobiLink Basics

To start MobiLink, double click the MobiLink icon on your desktop (see page 1). This opens the MobiLink control panel.

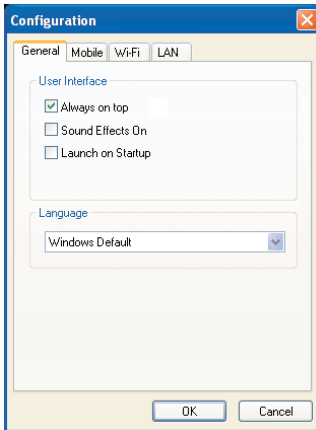


- 1 SMS**
Click to send and receive SMS.
- 2 Address Book**
Click to add SMS contacts or groups.
- 3 Views**
Select the Mobile view to connect to the cellular network.
- 4 Internet**
Click to launch your web browser after you connect.
- 5 Menu**
Click to change your MobiLink settings.
- 6 Help**
Click to access the online help.
- 7 Minimize**
Click to minimize. A MobiLink icon displays in the system tray.
- 8 Exit**
To Exit MobiLink, use the Menu. This only closes the window.
- 9 Signal Strength**
More bars indicate a stronger signal and better connection.

Always on Top

Use the Always on Top setting to keep your MobiLink control panel displayed on your screen when you switch programs or windows.

- Click the Menu button (page 5) and select **Configuration**.
- Select the General tab.

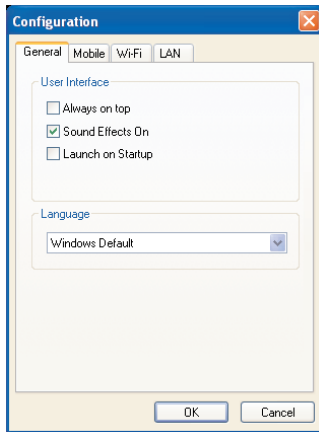


- Select **Always on top**.
- Click **OK**.

Sound Effects

You can customize more than just visual effects with MobiLink. Use the Sound Effects On setting to hear a sound when you click on items on the MobiLink control panel. This setting is turned on by default.

- Click the Menu button (page 5) and select **Configuration**.
- Select the General tab.

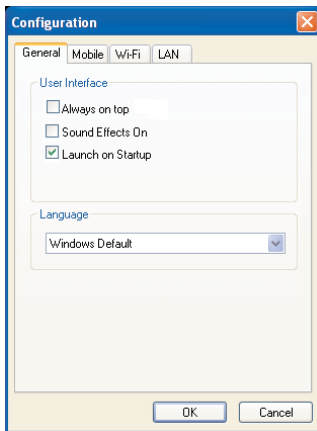


- De select **Sound Effects On** to turn the sound effects off.
- Click **OK**.

Launch at Startup

Use the Launch at Startup setting to automatically start MobiLink when you start your laptop. You must have Windows Administrator rights to enable this setting. Check your Windows system documentation for additional information on Administrator rights.

- Click the Menu button (page 5) and select **Configuration**.
- Select the General tab.

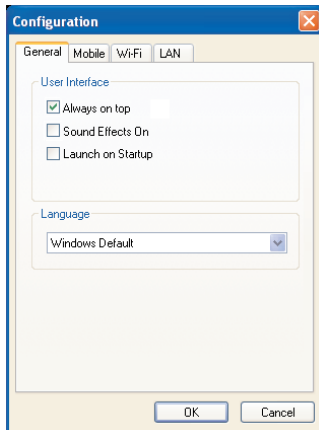


- Select **Launch at Startup**.

Language

MobilLink is automatically set to the language you use for Microsoft Windows (Windows Default). You can select a different language, if your operating system supports the language.

- Click the Menu button (page 5) and select **Configuration**.
- Select the General tab.



- Select the language you require from the **Language** list.
- Click **OK**.

Transparency

Use the Transparency setting to allow desktop items to appear even when the MobiLink control panel is on top. Adjust it anywhere from 0 to 90 percent (0% being solid and 90% being the most transparent).

- Click the Menu button (page 5) and select **Transparency**.
- Select the required transparency setting.



Get Connected

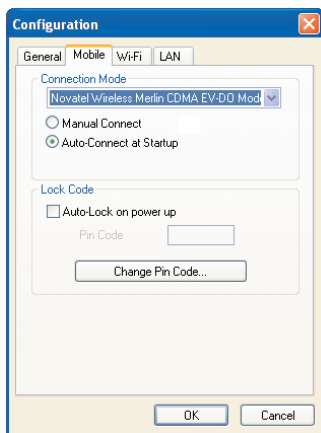
Connect to the cellular network when you want to surf the web or send or receive e mail.

Connection Mode

You can connect to the cellular network manually or automatically each time you start your computer. Your device is set up by default to connect manually.

If you change this default to connect automatically, the profile you used the last time you connected manually will be used for the auto connection. Your connection will be established as soon as you insert your device without launching MobiLink.

- Click the Menu button (page 5) and select **Configuration** from the menu.
- Select the Mobile tab.

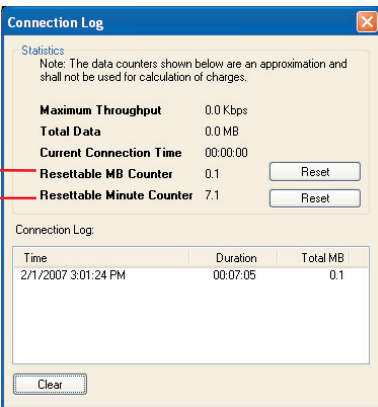


- Select **Auto Connect at Startup** and then click **OK**.

Connection Log

To monitor the duration of your connection and data transferred, you can view connection statistics throughout the month. You can reset the Data and Time counters at any time. Please note that the usage information shown in MobiLink may be different from that shown on your bill.

- Click the Menu button (page 5) and select **Connection Log**.



The screenshot shows a window titled "Connection Log" with a blue header and a close button. The main area is divided into two sections. The top section, "Statistics", contains a note and several data points: Maximum Throughput (0.0 Kbps), Total Data (0.0 MB), Current Connection Time (00:00:00), Resetable MB Counter (0.1), and Resetable Minute Counter (7.1). Each of the last two has a "Reset" button. The bottom section, "Connection Log:", contains a table with three columns: Time, Duration, and Total MB. A single entry is shown: 2/1/2007 3:01:24 PM, 00:07:05, 0.1. A "Clear" button is at the bottom.

Data Counter (MB) —

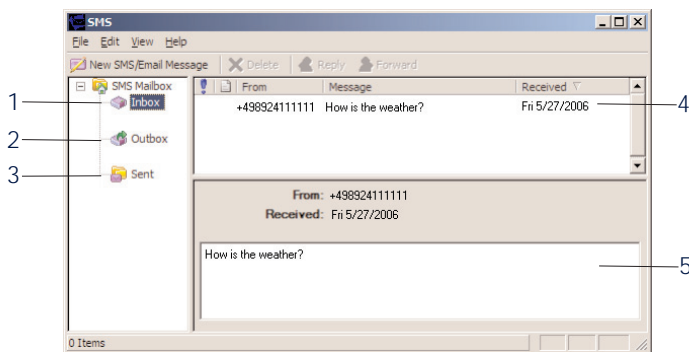
Time Counter (Minutes) —

Time	Duration	Total MB
2/1/2007 3:01:24 PM	00:07:05	0.1

Note: The Connection Log is intended for use by people who connect manually. If you are using the Auto Connect at Startup option (page 11), the log statistics may not be meaningful.

SMS Basics

Your device is equipped to send and receive SMS. This feature may or may not be available, depending on your mobile operator. Click the SMS button on the MobiLink control panel to open the SMS window.

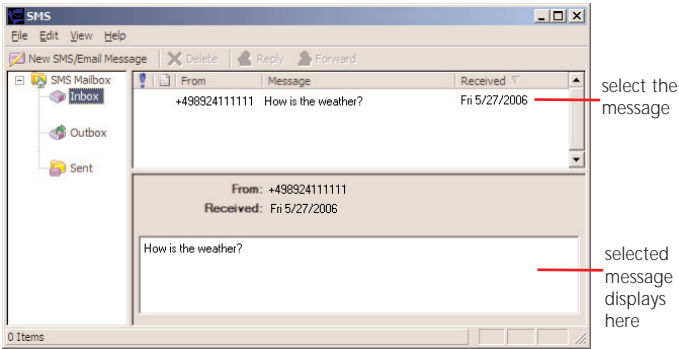


- 1 **Inbox**
Messages you receive on your device.
- 2 **Outbox**
Messages waiting to be sent.
- 3 **Sent**
Messages sent on your device.
- 4 **Summary**
Click a message header in the summary area to read.
- 5 **Message**
Displays the message selected in the Summary area.

Read messages

An envelope icon will display in the top right corner of the MobiLink control panel when you receive a new message.

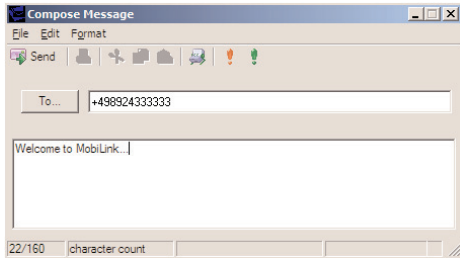
- Select the required folder.
- Select the message you want to read in the top panel (Summary). The messages displays in the bottom panel (Message).



Send messages

The length of outgoing messages is limited to 160 characters. If your message is longer than this, it will be sent in multiple messages.

- Click the **New SMS/Email Message** button.



- In the **To** box, type the phone number of the recipient.

If you are sending the message to more than one person, separate the names or phone numbers with a semicolon (;).

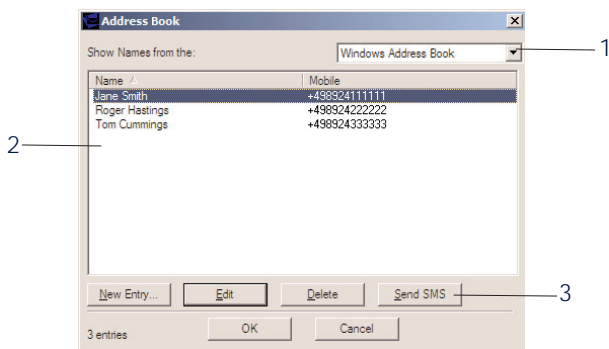
You can also click the **To** button to address the message to contacts or groups in your Address Book.

- Click the **Send** button on the toolbar to send your message.

Address Book Basics

Tired of typing the same e mail address or phone number every time you send an SMS? Want to send an SMS regularly to a group of friends? Use the Address Book to set up contact information. You can also send an SMS to a contact in your Address Book without opening the SMS window.

To open the Address Book, click the Address Book icon on the MobilLink control panel.



1 Address Book

Store individual contacts locally on your computer (Windows Address Book). Use contacts from your Windows Address Book to create groups (Global Group Contacts).

2 Contacts

Contacts or groups display in this area.

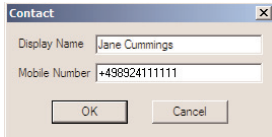
3 Send SMS

Send an SMS to the selected contact or group.

Add a new contact

A display name is required for each contact. Be sure to include the correct phone number for your contact.

- Select **Windows Address Book** from the Address Book list.
- Click the **New Entry** button.



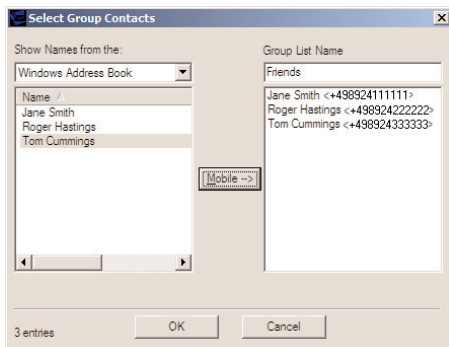
The image shows a dialog box titled "Contact" with a close button (X) in the top right corner. It contains two text input fields: "Display Name" with the text "Jane Cummings" and "Mobile Number" with the text "+498924111111". At the bottom of the dialog box, there are two buttons: "OK" and "Cancel".

- Type the contact name in the **Display Name** box.
- Type the phone number in the **Mobile Number** box.
- Click **OK**.

Add a new group

Groups are useful when you want to send an SMS to several contacts at once. Create a group name and then add individual contacts from your Address Book to the group. To send an SMS to the group, just enter the name of the group in the To box.

- Select **Global Group Contacts** from the Address Book list.
- Click the **New Entry** button.



- Select **Windows Address Book** from the Address Book list.
- Enter a unique name for the group in the **Group List Name** box.
- Select the contact from the **Name** list.
- Click the **Mobile** button to add the contact to the group.
- When you are finished adding contacts to the group, click **OK**.

Troubleshooting

Why can't I install MobiLink?

You might not have administrative privileges. Contact your system administrator, if applicable, or log on to your computer as an administrator and create a user account with administrator privileges.

Why do I see the message “No card detected” when I run MobiLink?

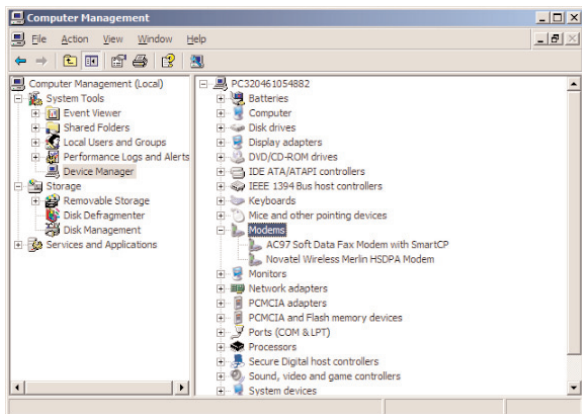
This can happen for any of the following reasons:

Your device is not inserted properly.

- Exit MobiLink.
- Remove your device from the ExpressCard slot, PCMCIA slot, or the USB port.
- Restart your computer.
- Restart MobiLink.
- Insert your device into the ExpressCard slot, PCMCIA slot, or USB port again.

Windows did not install the drivers for your device correctly.

- Right click on the My Computer icon on your desktop and select **Manage** from the shortcut menu.
- Select **Device Manager**.
- Click the plus sign (+) next to **Modems**.



If you see a yellow exclamation mark (!) or red x beside any device, try the following:

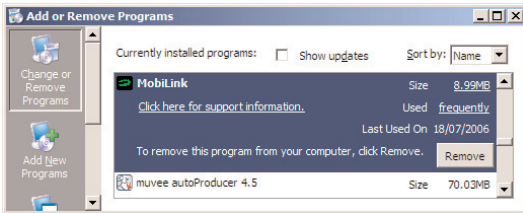
- Restart your computer.

OR

- Choose **Start Settings Control Panel Add or Remove Programs**.

Note: Make sure your device is connected to your computer.

- Select **MobiLink** and click **Remove**.



- Remove your device from the ExpressCard slot, PCMCIA slot, or USB port.
- Re install the MobiLink software. See the Quick Start Guide for instructions.

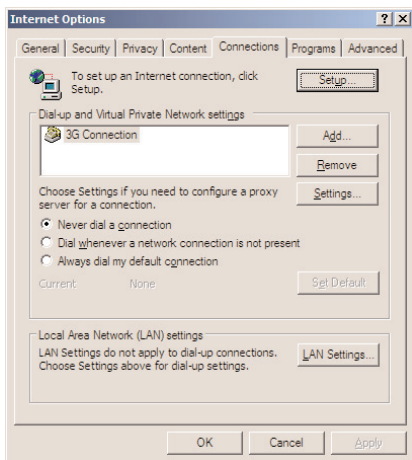
Why does the LED flash red?

You are outside of the coverage area. Contact your mobile operator to find out more about coverage areas.

Why can't I browse the web?

Check your server settings.

- Start Internet Explorer.
- Choose **Tools Internet Options**.
- Click on the **Connections** tab.



- Double click on **3G Connection***.

* This field name will vary, depending on your service provider.

- If you are using a proxy server, select the appropriate boxes.

3G Connection Settings [?] [X]

Automatic configuration
Automatic configuration may override manual settings. To ensure the use of manual settings, disable automatic configuration.

Automatically detect settings

Use automatic configuration script

Address:

Proxy server

Use a proxy server for this connection (These settings will not apply to other connections).

Address: Port: Advanced...

Bypass proxy server for local addresses

Dial-up settings

User name: Properties

Password: Advanced

Domain:

OK Cancel

Glossary

1xRTT

Short for single carrier (1x) Radio Transmission Technology. A high speed wireless technology based on the CDMA platform. 1xRTT has the capability of providing broadband like speeds of up to 144 Kpbs. 1xRTT is also referred to as CDMA2000.

Attached

When your device has found a cellular network and has registered to it, the LED will flash (see page 47). In this state you can send and receive SMS. However, to pass data (i.e., surf the web or check your e mail), you must be connected.

bps

Bits per second rate of data flow.

Broadband

High capacity high speed, transmission channel with a wider bandwidth than conventional copper telephone lines. Broadband channels can carry video, voice, and data simultaneously.

EVDO

Evolution, Data Only or EVolution, Data Optimized. Significantly faster than EDGE networks employed by GSM networks, the EV DO feature of CDMA2000 networks is significantly faster, providing access to mobile devices with air interface speeds of up to 2.4 Mbps with Rev. 0 and up to 3.1 Mb/s with Rev. A.

Firewall	A hardware or software boundary that protects a network or single computer from unwanted outside traffic.
ISP	Internet Service Provider. Also referred to as the service carrier, an ISP provides Internet connection service.
IP	Internet Protocol. The mechanism by which packets are routed between computers on a network.
Kbps	Kilobits (1024 bits) per second rate of data flow.
LAN	Local Area Network. A data network confined to limited area with moderate to high data rates.
Mbps	Megabits (1,048,576 bits) per second rate of data flow.
MB	Megabyte. A unit of data that is approximately 1 million bytes.
NDIS	Network Driver Interface Specification. A Windows device driver interface that enables support for multiple network protocols.
PPP	Point to Point Protocol. A method of connecting a computer to the Internet.

Proxy

A firewall mechanism that replaces the IP address of a host on the internal (protected) network with its own IP address for all traffic passing through it.

SMS

Short Messaging Service. Short text messages of no more than 160 characters sent and received by broadband devices.

TCP/IP

Transmission Control Protocol/Internet Protocol. A protocol for communicating over the Internet.

VPN

Virtual Private Network. A way to communicate through a dedicated server securely to a corporate network over the Internet.

WAN

Wide Area Network. A network which uses common carrier provided lines.

WWAN

Wireless Wide Area Network. A communications technology that utilizes digital mobile phone systems to access data from any location in the range of a cell tower that is connected to a data enabled network.

Safety Information

Important Notice

Due to the transmission and reception properties of cellular communications, data can occasionally be lost or delayed. This can be due to the variation in radio signal strength that results from changes in the characteristics of the radio transmission path.

Although data loss is rare, the environment where you operate the device may adversely affect communications. Variations in radio signal strength are referred to as fading. Fading is caused by several different factors including signal reflection, the ionosphere, and interference from other radio channels.

Novatel Wireless or its partners will not be held responsible for damages of any kind resulting from the delays or errors in data transmitted or received with the device, or failure of the device to transmit or receive such data.

Potential Hazards

Do not operate the device in an environment that may be susceptible to radio interference resulting in danger specifically:

Areas where prohibited by the law.

- Follow any special rules and regulations and obey all signs and notices. Always turn off the host device and remove the device from the card slot when instructed to do so, or when you suspect that it may cause interference or danger.

Where explosive atmospheres may be present.

- Do not operate your device in any area where a potentially explosive atmosphere may exist. Sparks in such areas could cause an explosion or fire resulting in bodily injury or even death. Be aware and comply with all signs and instructions.
- Users are advised not to operate the device while at a refueling point or service station. Users are reminded to observe restrictions on the use of radio equipment in fuel depots (fuel storage and distribution areas), chemical plants or where blasting operations are in progress.
- Areas with a potentially explosive atmosphere are often but not always clearly marked. Potential locations can include gas stations, below deck on boats, chemical transfer or storage facilities, vehicles using liquefied petroleum gas (such as propane or butane), areas where the air contains chemicals or particles, such as grain, dust or metal powders, and any other area where you would normally be advised to turn off your vehicle engine.

Near Medical and life support equipment.

- Do not operate your device in any area where medical equipment, life support equipment, or near any equipment that may be susceptible to any form of radio interference. In such areas, the host communications device must be turned off. The device may transmit signals that could interfere with this equipment.

On an aircraft, either on the ground or airborne.

- In addition to FAA requirements, many airline regulations state that you must suspend wireless operations before boarding an airplane. Please ensure that the host device is turned off and your device is removed from the card slot prior to boarding aircraft in order to comply with these regulations. The device can transmit signals that could interfere with various onboard systems and controls.

While operating a vehicle.

- The driver or operator of any vehicle should not operate a wireless data device while in control of a vehicle. Doing so will detract from the driver or operator's control and operation of that vehicle. In some countries, operating such communications devices while in control of a vehicle is an offense.

Electrostatic Discharge (ESD).

- Electrical and electronic devices are sensitive to electrostatic discharge (ESD). The MobiLink software will attempt to re initialize the device should a substantial electrostatic discharge reset the device. If the software is not operational after an ESD occurrence, then restart MobiLink.

Specifications

PC720



Technology/Bands

- CMDA 1xEV DO Rev. A & Rev. 0
- CMDA 1xRTT
- 800/1900 MHz

Dimensions and Weight

- 123 x 54 x 5.0 mm (4.8 x 2.1 x 0.2 in)
- 49 grams (1.7 oz)

Power consumption

- Voltage 3.3 v (nominal)

Environmental

- Operating temperature: 0° to 55°C (32° to 131°F)
- Storage temperature: 20° to 65°C (4° to 149°F)

Operating Systems

- Windows® 2000, XP & Vista
- Mac OS X or higher
- Linux® 2.6.16

System Requirements

- Card Slot: PCMCIA
- Disk Drive: CD ROM
- Hard Drive: 14 MB
- RAM: 32 MB
- Browser: Microsoft Internet Explorer 5.5 or higher

Accessories

(sold separately)

- External antenna

Specifications

MCD3000



Technology/Bands

- CMDA 1xEV DO Rev. A & Rev. 0
- CMDA 1xRTT
- 800/1900 MHz

Dimensions and Weight

- 89 x 38 x 18 mm (3.5 x 1.5 x 0.7 in)
- 45 grams (1.6 oz)

Power consumption

- Voltage 5 V

Environmental

- Operating temperature: 0° to 45°C (32° to 131°F)
- Storage temperature: 20° to 65°C (4° to 149°F)

Operating Systems

- Windows® 2000, XP & Vista
- Mac OS X or higher
- Linux® 2.6.16

System Requirements




- Card Slot: USB Interface
- Disk Drive: CD ROM
- Hard Drive: 14 MB
- RAM: 32 MB
- Browser: Microsoft Internet Explorer 5.5 or higher

Accessories

(sold separately)

- External antenna

LED States

LED Color		Description
RED		Flashing: Service is currently not available.
GREEN		Flashing: Service is available. Solid: Connected to a network.
AMBER		Solid: Contact your service provider to have your card replaced.