

USB8L

4G LTE Global Modem



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Contents

Introduction and Getting Started.....	5
Overview	6
Key Features.....	6
System Requirements.....	6
Description	6
Front View.....	7
Back View	7
Status Indicators.....	8
Getting Started	9
Connecting your Modem	9
Connecting to the Internet.....	10
Removing the Modem	10
Caring for your Modem.....	10
Replacing the SIM Card.....	11
Resetting the Modem.....	12
Using the Web User Interface	13
Overview	14
Home Page	14
Banner.....	14
Side Menu	15
Getting Help.....	15
Admin Password.....	15
Changing the Admin Password	15
Viewing Messages.....	16
Messages Page.....	16
Monitoring Data Usage.....	17
Data Usage Page	18
Managing Settings	19
Networks Tab.....	20
SIM Tab	21
GPS Tab.....	22
Software Update Tab	24
Preferences Tab	25
Viewing Info About the USB8L.....	26
Internet Status Tab	26
Internet Sessions Tab.....	28
Diagnostics Tab	29
Device Info Tab	30
Logs Tab	31
Getting Help.....	32
FAQ Tab	32
Customer Support Tab.....	33
Troubleshooting and Support.....	34
Overview	35
Technical Support.....	35
Product Specifications and Regulatory Information	36
Product Specifications.....	37
Device.....	37
Environmental.....	37

Technology and Bands.....	37
Regulatory Information.....	38
Product Certifications and Supplier’s Declarations of Conformity	40
Wireless Communications	40
Limited Warranty and Liability	41
Safety Hazards.....	42

1

Introduction and Getting Started

Overview

Description

Status Indicators

Getting Started

Caring for your Modem

Overview

The USB8L is a plug-and-play modem that provides 4G connectivity for reliable internet access.

Key Features

- Global connectivity covering LTE, HSPA+ and/or UMTS bands in over 200 countries, cumulatively.
- Compact design with an innovative swivel hinge that adjusts to any USB port orientation. The USB8L provides 4G connectivity for your laptop or other device, with no software or device drivers to install. Just plug it in and connect.
- Cellular security protocols with VPN support to help keep your information protected.
- Failover communications for kiosks, vending machines, IoT devices, and more.
- Integrated NMEA GPS technology, to help track mobile assets.

System Requirements

Supported platforms:

- Windows 7 or higher
- Mac OS 10.8 or higher
- Linux OS
- Chrome OS

Compatible browsers:

- Microsoft Internet Explorer 7 or higher
- Mozilla Firefox 3.6 or higher
- Google Chrome 9 or higher
- Apple Safari 5 or higher
- Opera 9 or higher

You will also need the following:

- USB Type A Port 2.0 or higher
- 4G data wireless data plan required

Description

The USB8L package includes:

- USB8L
- Pre-installed SIM card
- Quick Start Guide

- Important Customer Safety Information

Front View



Back View



Status Indicators

The status light on the back of the device has a light that indicates the status of your USB8L.

Color	State	Meaning
Green	Solid 	<ul style="list-style-type: none"> - Home network - Device ready - Network connection registered
	Blinking 	<ul style="list-style-type: none"> - Device powering up - Searching for network - Data being transferred
Amber	Solid 	<ul style="list-style-type: none"> - Roaming network
	Blinking 	<ul style="list-style-type: none"> - Roaming - Data being transferred - Software update in progress
Red	Solid 	<ul style="list-style-type: none"> - Failed state: <ul style="list-style-type: none"> - No SIM - Locked SIM - SIM error - PUK error - Network not available

Getting Started

To get your USB8L modem up and running, follow these steps:

1. Make sure your laptop or device is turned on and meets the system requirements on page 6.
2. Your USB8L comes with a pre-installed SIM card. If you need to swap out the SIM, see page 11.
3. Connect the modem to your laptop or device, see below.
4. Connect to the internet, see page 10.

Connecting your Modem

IMPORTANT: Do not connect the modem to a USB hub, as it might not provide sufficient power.

To properly insert the modem into your device:

1. Open the USB connector.

Use your thumb to gently flip open the USB connector on your modem. Be sure to avoid over-extending the USB connector past its resistance point. Avoid opening the USB connector with metal objects as this might damage the pins.



2. Insert the modem.
 - a. Hold the modem along the side edges and gently insert it into your device's USB port. It should fit easily into the port. Do not force the modem into the port as this might damage both the modem and the port.
 - b. Position the modem as indicated in the following illustrations to maintain SAR compliance and to ensure proper performance. This modem has been designed and tested to meet SAR compliance as outlined by the FCC. Ensure that the modem maintains a separation distance of at least 5 mm.

IMPORTANT: The modem must be positioned at 120° for optimal functionality. Failure to maintain a position between the normal operating range of 110° - 130° will cause the modem to stop functioning.



While starting up, the status light slowly blinks green.

NOTE: If you are having difficulty inserting the modem into your device's USB port, verify that you are inserting the modem in the correct orientation and that you are using a Type A USB port.

Connecting to the Internet

Your modem is set to automatically connect to the internet except when you are roaming.

Once the modem is inserted and connected to your wireless network, the status light turns solid green. (The light is amber when roaming.) You are now connected to the Internet.

Removing the Modem

IMPORTANT: Be sure to disconnect from the network and close browsers, email, VPN, and other communication apps to avoid potential problems such as automatic shutdown or screen freezing.

When your USB modem not in use, you can safely remove it by gently gripping the edges and pulling it out of the USB port.

NOTE: On Mac OS devices, click the eject icon next to the modem icon in the Finder sidebar to eject the modem.

Caring for your Modem

Like any electronic product, the USB8L must be handled with care to ensure reliable operation. The following guidelines are recommended:

- Protect the USB8L from liquids, dust, and excessive temperatures.
- Do not apply adhesive labels to the modem; they might cause the modem to overheat or alter antenna performance.
- The USB connector should plug easily into your device's standard Type A USB port. Forcing the modem into a port might damage the connector.
- Remove the modem from your device before transporting it.
- Store the modem in a dry secure location when not in use.

Replacing the SIM Card

A SIM card is a small rectangular plastic card that stores your phone number and important information about your wireless service. Your USB8L comes with a Nano SIM card pre-installed. These instructions are for replacing your SIM card.

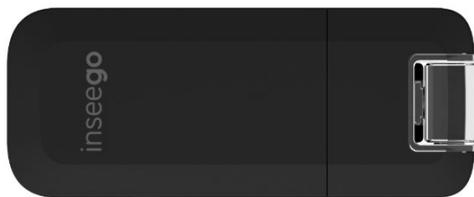
The USB8L supports only Nano SIM cards.



CAUTION! Always use a factory-made SIM card supplied by the service provider. Do not bend or scratch your SIM card. Avoid exposing your SIM card to static electricity, water, or dirt.

To replace the SIM card:

1. Open the protective door by pressing on the cover and sliding the door off.



2. Remove the SIM card by pushing forward on the exposed edge.



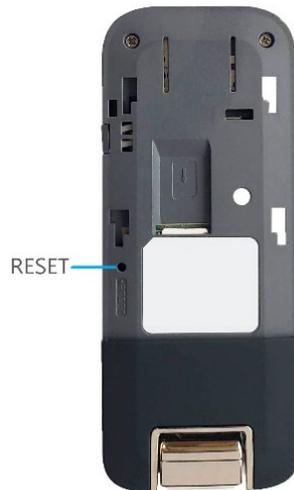
3. Insert the new SIM card with the gold contacts facing down.
4. Push the SIM card until it remains securely in the slot.
5. Replace the back cover and snap into place.

NOTE: The SIM card must remain in the wireless modem when in use.

Resetting the Modem

NOTE: If you reset the device to factory settings, all of your custom settings will be lost, including your password for the Web UI, which will default to: **admin**.

The master reset button is in a small hole located on the front of the device under the removable cover. This button returns the device to factory settings.



To reset the USB8L:

1. Place one end of an unfolded paper clip into the reset button hole.
2. Press the paper clip on the button to restore the modem to factory default settings.

NOTE: You can also reset your modem on the Web UI on the Settings > Preferences tab.

2

Using the Web User Interface

Overview

Admin Password

Viewing Messages

Monitoring Data Usage

Managing Settings

Viewing Info About your Modem

Getting Help

Overview

The USB8L Web User Interface is web-based software that interacts directly with your USB8L modem. Use it to check messages, monitor data usage, manage settings – including GPS and software updates, access device information, and find help and customer support.

To access the Web User Interface, plug the USB8L into a USB port on your computer and go to <http://my.usb> or <http://192.168.1.1>.

The first time you log in, use the default password: **admin**. You will be prompted to enter and confirm your own individual password for future access.

Home Page

The Home page of the Web UI is the local gateway to configuring and managing your USB8L. It displays data usage and device information, and offers links to other pages with option settings and help.

Click > in the bottom-right corner of a panel to access screens with further information and options.

verizon Verizon 4G LTE Sign In

Data Usage

0%
0 GB of data remaining
0 days to go

My Plan: 0 GB Data Plan
Data Usage: 0 GB remaining
0.000 GB used by USB8L
0 GB data remaining

All usage is an estimate. Billing cycle ends

Device Info

Modem FW Version	SDx20_1.30.0.20
PRI	111
Software Version	1M
Embedded OS Version	2.114.0.18.6.12

Diagnostics

IMEI	9900 1804 0001 657
IMEISV	9900 1804 0001 650A
FW Version	SDx20_1.30.0.20
Mobile Number	619.348.9819
SIM Status	Ready
ICCID	89148000005512010729

Settings

GPS (OFF)
The GPS receiver can determine your current location. This location can be provided to connected devices.

Software Update
Last software update: No updates applied.

Customer Support

Online Support	verizon.com/Support
Phone	1-800-922-0204

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Banner

The website banner at the top of each page displays current signal status () for your USB8L. It also includes a drop-down to sign in or out of your account, change your password, or restart your USB8L.

verizon Verizon 4G LTE Sign Out

Side Menu

Each subscreen in the USB8L Web User Interface includes a menu on the side, which you can use to return to the Home page or jump to other pages. The current page is indicated by a red bar.

Home
Messages
Data Usage
Settings
About
Help

Getting Help

Select the question mark (?) in the upper right hand corner of a page to view Help on that topic.

Admin Password

The Admin password is what you use to sign into the USB8L Web UI. The default Admin password is: **admin**.

You are prompted to change the Admin password upon first login. Change the password to something easy to remember and set up a security question that will help you securely recover your password if you forget what you changed it to.

Changing the Admin Password

To change the Admin password:

1. **From the Web UI:** Click the down arrow next to **Sign Out** in the top-right corner of any Admin Web UI page and select **Change Password**.
2. Enter your current Admin password, then enter a new password and confirm it.
3. Select a security question from the drop-down list and type an answer to question in the **Answer** field. **NOTE:** Answers are case-sensitive.
4. Click **Save Changes**.

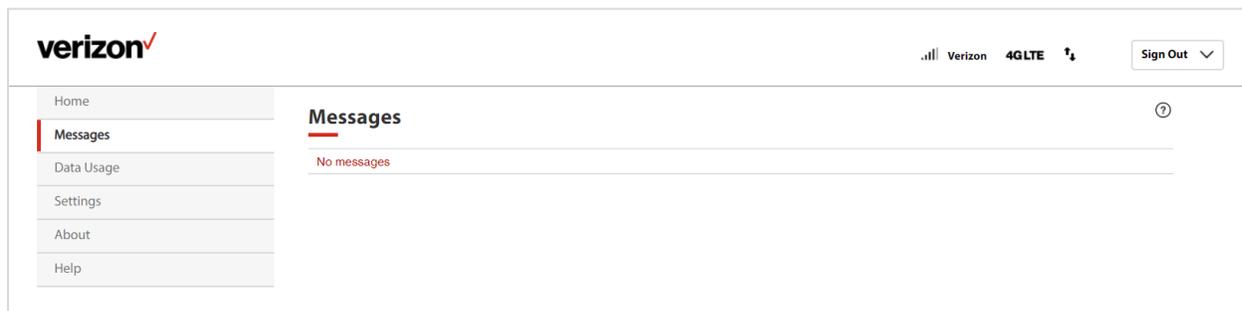
The next time you sign in to the USB8L Web UI, use the new Admin password. If you cannot remember the password, click **Forgot the Admin password?**; after you correctly answer the security question you set up, the current password displays.

Viewing Messages

You can view the Messages page by selecting **Messages** from the side menu.

Messages Page

Use the Messages page to view SMS messages from Verizon.



Messages are listed in order of the date they are received. **NOTE:** You cannot reply to messages on this page.

Unread messages are indicated by a New icon. Once this page is opened, messages are considered read. The New icon only indicates messages received since the last viewing of this page.

You can delete messages individually or all at one time. Click the **Trash** icon for each message you want to delete.

Monitoring Data Usage

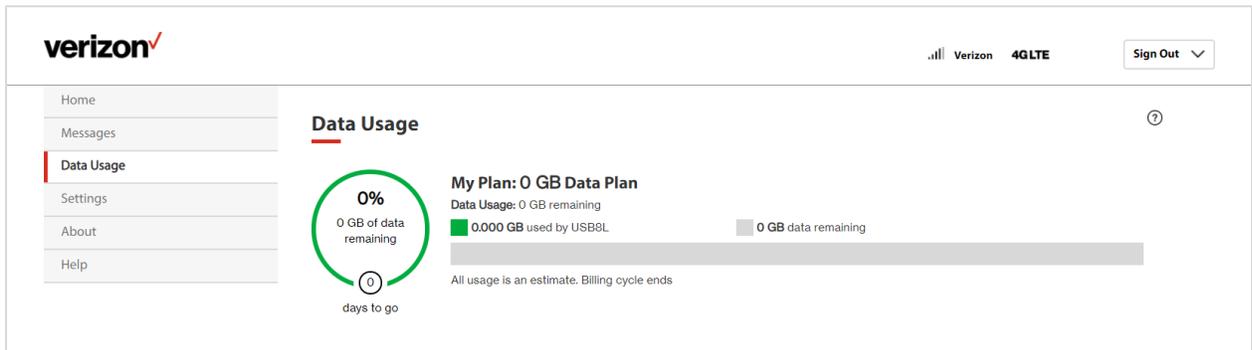
On the Web UI Home page, the Data Usage panel displays graphs of your USB8L data usage for the current billing cycle.

The screenshot shows the Verizon Web UI Home page. At the top left is the Verizon logo. At the top right, there is a signal strength indicator, 'Verizon 4G LTE', and a 'Sign In' button with a dropdown arrow. The main content area is divided into several panels. The 'Data Usage' panel is highlighted with a red border. It shows a circular progress indicator at 0% with '0 GB of data remaining' and '0 days to go'. Below this, it states 'My Plan: 0 GB Data Plan' and 'Data Usage: 0 GB remaining'. A bar chart shows '0.000 GB used by USB8L' and '0 GB data remaining'. A note says 'All usage is an estimate. Billing cycle ends'. To the right of the Data Usage panel is the 'Device Info' panel, which lists: Modem FW Version (SDx20_1.30.0.20), PRI (111), Software Version (1M), and Embedded OS Version (2.114.0.18.6.12). Below these are three more panels: 'Diagnostics' with fields like IMEI, IMEISV, FW Version, Mobile Number, SIM Status, and ICCID; 'Settings' with 'GPS (OFF)' and 'Software Update' status; and 'Customer Support' with 'Online Support' (verizon.com/Support) and 'Phone' (1-800-922-0204). At the bottom of the page, there is an 'inseego' logo, a copyright notice '© 2021 all rights reserved', and the website 'www.inseego.com'.

To view the Data Usage page, select > from the Home page Data Usage panel (or select **Data Usage** from the Web UI side menu). The Data Usage page appears.

Data Usage Page

Use the Data Usage page to view details about your USB8L data usage and billing plan.



The data usage graph displays vary according to plan, but generally include:

- Estimated percentage of data remaining for the current billing cycle
- Number of days left in the billing cycle
- Data limit on your plan
- Estimated amount of data used in the current billing cycle
- Estimated amount of data remaining for the current billing cycle
- Date the billing cycle ends

Managing Settings

On the Web UI Home page, the Settings panel shows the GPS settings (ON/OFF) and the date and time of the last software update.

The screenshot displays the Verizon Web UI Home page. At the top left is the Verizon logo. At the top right, there is a signal strength indicator, 'Verizon 4G LTE', and a 'Sign In' button with a dropdown arrow. The main content area is divided into four panels: 'Data Usage', 'Device Info', 'Diagnostics', and 'Settings'. The 'Data Usage' panel shows '0% My Plan: 0 GB Data Plan' with a progress bar indicating '0.000 GB used by USB8L' and '0 GB data remaining'. The 'Device Info' panel lists: Modem FW Version (SDx20_1.30.0.20), PRI (111), Software Version (1M), and Embedded OS Version (2.114.0.18.6.12). The 'Diagnostics' panel lists: IMEI (9900 1804 0001 657), IMEISV (9900 1804 0001 650A), FW Version (SDx20_1.30.0.20), Mobile Number (619.348.9819), SIM Status (Ready), and ICCID (89148000005512010729). The 'Settings' panel, which is highlighted with a red border, shows 'GPS (OFF)' with a description: 'The GPS receiver can determine your current location. This location can be provided to connected devices.' and 'Software Update' with the text: 'Last software update No updates applied.' At the bottom left is the 'inseego' logo, at the bottom center is '© 2021 all rights reserved', and at the bottom right is 'www.inseego.com'.

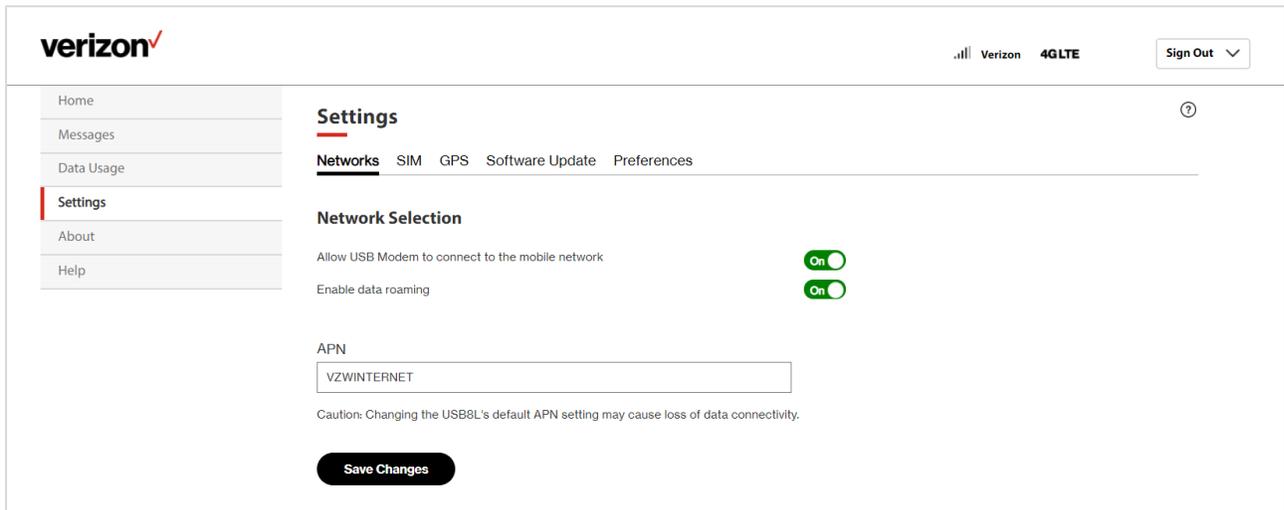
To change settings, select > from the Home page Settings panel (or select **Settings** from the Web UI side menu).

The Settings page includes the following tabs:

- Networks
- SIM
- GPS
- Software Update
- Preferences

Networks Tab

Use this tab for network settings, including entering an APN for a private network.



Network Selection

Allow USB Modem to connect to the mobile network: Use the ON/OFF slider when necessary to prevent access to the mobile network. This prevents your connected device from connecting to the internet and using your mobile data plan. For normal operation, this setting must be left on.

Enable data roaming: Use the ON/OFF slider to turn off cellular data and prevent access to the mobile network when roaming.

APN: In most configurations, the USB8L is used with a dynamic IP and SIM and the Access Point Name (APN) is available from the network, for example: *VZWINTERNET*. However, if you are on a private network, you may need to enter the private network APN for your network to communicate with the USB8L.

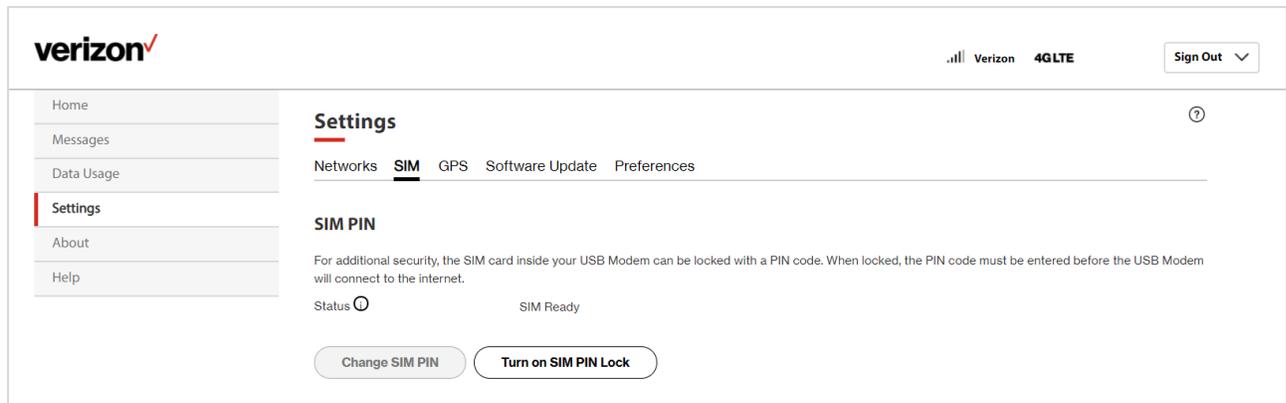
CAUTION: Changing the APN may cause a loss of data connectivity and disconnect you from the Web UI.

Click **Save Changes**. The USB8L may reboot for changes to take effect.

SIM Tab

The SIM card in your USB8L can be locked using a PIN. If the SIM card is locked, you must enter the PIN before connecting to the mobile network. Once entered, the PIN is remembered until the next shutdown. You may also need to provide the existing PIN to change a SIM. The default PIN is available from Verizon.

Use this page to turn on SIM Pin lock, unlock your SIM, or change your SIM PIN.



SIM PIN

Status: The current status of the SIM card. Possible states include:

- **SIM Ready** – No SIM PIN is needed.
- **PIN Locked** - SIM PIN must be entered before you can use the mobile network.
- **PUK Locked** - PUK (personal unblocking key) for the SIM must be entered in order to continue. The PUK can be obtained from your service provider.
- **Unlocked** - SIM PIN was needed, but has already been entered.
- **No SIM** - No SIM is detected. Check that the SIM is inserted correctly.
- **SIM Error** - SIM is detected, but is not responding as expected and cannot be used.

Change SIM PIN: Use this button to change the SIM PIN. You must enter the current PIN, then enter the new PIN and confirm it.

Turn on SIM PIN Lock: Use this button to set the SIM so that entry of a PIN is required upon startup to connect to the mobile network. To perform this operation, you must enter the current PIN.

GPS Tab

Use the GPS tab to configure GPS settings for your modem.

The screenshot shows the Verizon USB8L Settings interface. At the top left is the Verizon logo. On the right, there are signal strength indicators, 'Verizon 4G LTE', and a 'Sign Out' button. A left-hand navigation menu includes 'Home', 'Messages', 'Data Usage', 'Settings' (highlighted), 'About', and 'Help'. The main content area is titled 'Settings' and has sub-tabs for 'Networks', 'SIM', 'GPS', 'Software Update', and 'Preferences'. The 'GPS' tab is active. Under 'GPS Settings', there is a descriptive text: 'The GPS receiver can determine your current location. This location can be provided to connected devices.' Below this are three toggle switches: 'Enable GPS' (set to 'On'), 'Turn off GPS when the USB Modem restarts' (set to 'Off'), and 'Enable NMEA over LAN' (set to 'On'). A 'Port number' input field contains the value '11010'. A 'Save Changes' button is positioned below the input field. Further down, the 'Current Location' section shows 'Searching ...'. The 'GPS Driver' section includes a note about NMEA data and a 'Download Driver' button.

GPS Settings

Enable GPS: This setting enables or disables the GPS radio on your USB8L. When the ON/OFF slider is **ON**, the device acquires GPS and makes GPS location data available on this page. A GPS Agreement appears, click **Confirm** to proceed. When **OFF**, no GPS data is available.

Turn off GPS when the USB Modem restarts: This setting determines when the GPS receiver will turn off, once it is on. When the ON/OFF slider is **ON**, the GPS receiver turns off when the USB8L is shut down. You will need to turn it on again the next time the GPS receiver is needed.

Enable NMEA over LAN: NMEA is a standard method of providing a GPS data stream in Windows and other computing platforms. You can use third-party applications to utilize or forward the GPS data to a remote server over your local area network (LAN). Use the **ON/OFF** slider to enable or disable NMEA over LAN. To use this feature, follow these steps:

1. Turn on **Enable GPS** and **Turn on Enable NMEA over LAN**, then click **Save Changes**.
2. Click the **Download Driver** button and save the driver to your computer.
3. Open the driver .exe file and follow the installation instructions.

Port number: The TCP port number used to establish a connection to the USB8L and obtain raw GPS data for the NMEA over LAN feature. Unless there is a good reason to do so, you should not change the port number. Acceptable port values are between 1024 and 65535.

Current Location

Latitude: Latitude for the last location fix.

Longitude: Longitude for the last location fix.

Altitude: Altitude for the last location fix.

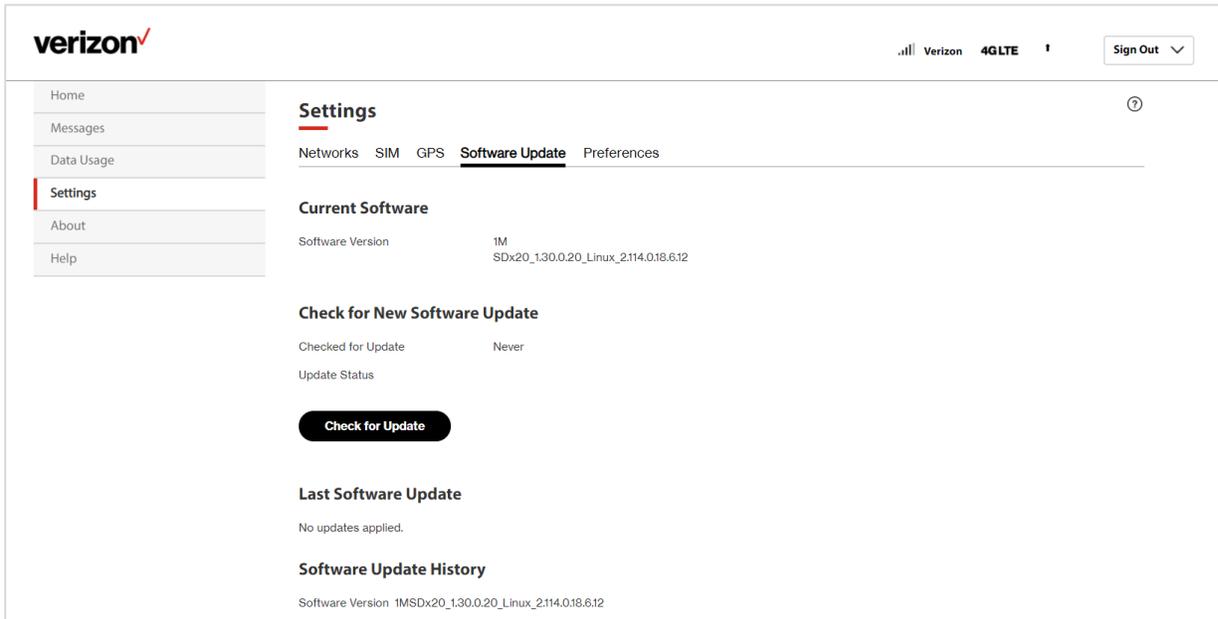
Accuracy: A measure of the accuracy of the horizontal position obtained by the GPS receiver.

GPS Driver

For the NMEA over LAN feature, use the **Download Driver** button to download and install a GPS driver for your Windows platform. This driver creates a virtual NMEA port, obtains GPS data from the USB8L, and makes this GPS data available to NMEA-aware third-party applications.

Software Update Tab

Software updates are delivered to the USB8L automatically over the mobile network. This tab displays your current software version, last software update information, software update history, and allows you to check for new software updates.



Current Software

Software Version: The version of the software currently installed on your USB8L.

Check for New Software Update

Checked for Update: The date and time the USB8L last checked to see if an update was available.

Update Status: This area is usually blank. If you check for an update, the results display.

Check for Update: Use this button to manually check for available software updates. If a new software update is available, it is automatically downloaded.

Last Software Update

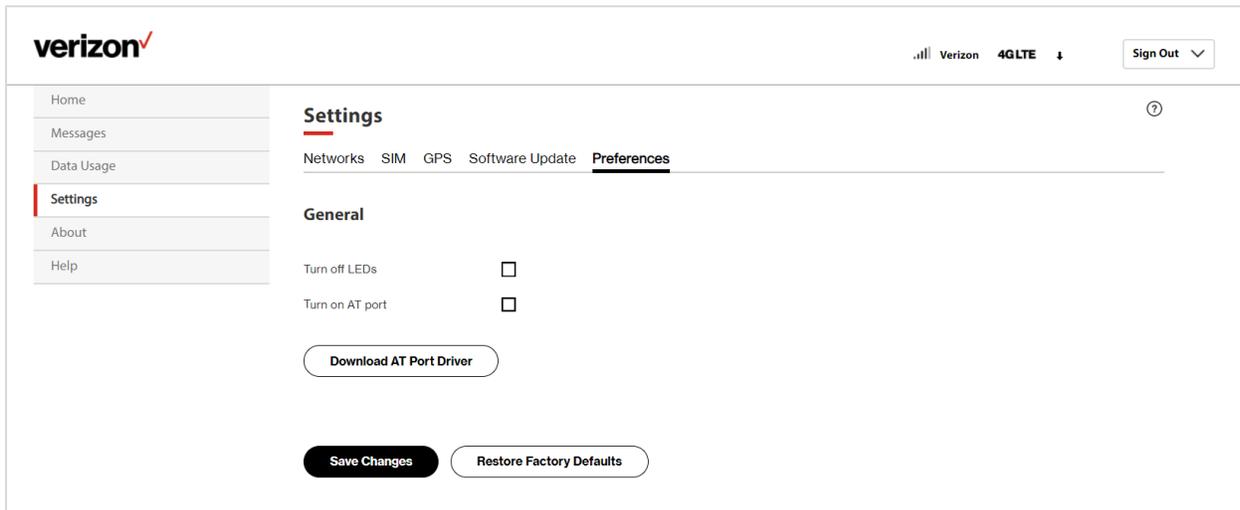
This section displays details about the last software update.

Software Update History

This section displays details of the last updates that have been downloaded and installed to your USB8L. If no updates have been installed, this section is not displayed.

Preferences Tab

This tab allows you to set options for your USB8L and restore factory default settings.



General

Turn off LEDs: Check this box to turn off the LED status light on the USB8L.

Turn on AT port: Check this box to enable the AT port and allow AT commands.

Download AT Port Driver: Use this button and AT commands to download and install an AT port modem driver for your device's platform.

Restore Factory Defaults: This button resets all settings to their factory default values.

CAUTION: Resetting your USB8L means all of your custom settings will be lost, including your password for the Web UI, which will default to: **admin**.

Click **Save Changes**.

Viewing Info About your Modem

The About page includes the following tabs:

- Internet Status
- Internet Sessions
- Diagnostics
- Device Info
- Logs

Internet Status Tab

Use the Internet Status tab to view general internet connection and system information.

The screenshot shows the Verizon 'About' page. At the top left is the Verizon logo. On the right, there is a signal strength indicator, 'Verizon 4G LTE', and a 'Sign Out' button with a dropdown arrow. Below the logo is a search bar with the placeholder text 'r search term'. A vertical navigation menu on the left contains links for Messages, Data Usage, Settings, About (which is highlighted with a red bar), and Help. The main content area is titled 'About' and has a sub-header 'Internet Status' with tabs for Internet Sessions, Diagnostics, Device Info, and Logs. The 'General' section contains the following information:

Status	Connected
Network Name	Verizon
Technology	4G LTE
Time Connected	00:12:12:11 (dd:hh:mm:ss)
Received	36.18 MB
Transmitted	155.27 MB

The 'IPv4' section contains the following information:

IP address	100.109.182.17
Mask	255.255.255.0
Gateway	100.109.182.1
DNS	198.224.171.135

General

Status: The current status of the USB8L connection.

Network Name: The name of the network for the current internet session.

Technology: Indicates the current cellular data connection, for example, 4G LTE.

Time Connected: The amount of time that has elapsed since the connection for the current internet session was established.

Received: The amount of data received for the current internet session. This counter starts at zero when the connection is established.

Transmitted: The amount of data transmitted for the current internet session. This counter starts at zero when the connection is established.

IPv4

IP address: The internet IP address assigned to the USB8L.

Mask: The network mask associated with the IPv4 address.

Gateway: The gateway IP address associated with the IPv4 address.

DNS: The Domain Name Server currently used by the USB8L.

Internet Sessions Tab

Use the Internet Sessions tab to export and view Internet session data.

The screenshot shows the Verizon mobile app interface. At the top, there's a Verizon logo and a 'Sign Out' button. Below the logo is a search bar and a navigation menu with options: Messages, Data Usage, Settings, About (selected), and Help. The main content area is titled 'About' and has sub-tabs: Internet Status, **Internet Sessions**, Diagnostics, Device Info, and Logs. Under 'Internet Sessions', there's a section 'Export Internet Sessions Information' with a note: 'Note: The sessions information should not be used to estimate or monitor data usage during your billing cycle.' Below the note is a black 'Export' button. The data is presented in a table titled 'Internet Sessions from 10/20/2021 8:59:35 PM to 10/21/2021 3:42:54 PM'.

Date & Time	Duration	Rx Data	Tx Data	Total Data	IPv4 Address
10/20/2021 8:59:35 PM	00:00:00:10	2.75 KB	4.12 KB	6.86 KB	100.69.51.211
10/20/2021 9:16:08 PM	00:18:22:32	16.17 MB	18.73 MB	34.89 MB	100.99.70.116
10/21/2021 3:40:42 PM	00:00:00:47	6.64 KB	12.36 KB	19.00 KB	100.72.176.36
10/21/2021 3:41:33 PM	00:00:00:44	9.10 KB	13.32 KB	22.42 KB	100.117.245.119
10/21/2021 3:42:21 PM	00:00:00:11	504.00 B	668.00 B	1.14 KB	100.93.233.226
10/21/2021 3:42:36 PM	00:00:00:16	616.00 B	1.26 KB	1.86 KB	100.106.84.13
10/21/2021 3:42:54 PM	00:12:03:20	15.66 MB	132.77 MB	148.43 MB	100.109.182.17

Export Internet Sessions Information

Click the **Export** button to export Internet session data.

Internet Sessions

NOTE: Internet Sessions are presented in date order.

Date/Time: The date and time the Internet session began.

Duration: The total amount of time for the Internet session.

Rx Data: The amount of data received for the Internet session. This counter starts at zero when the connection is established.

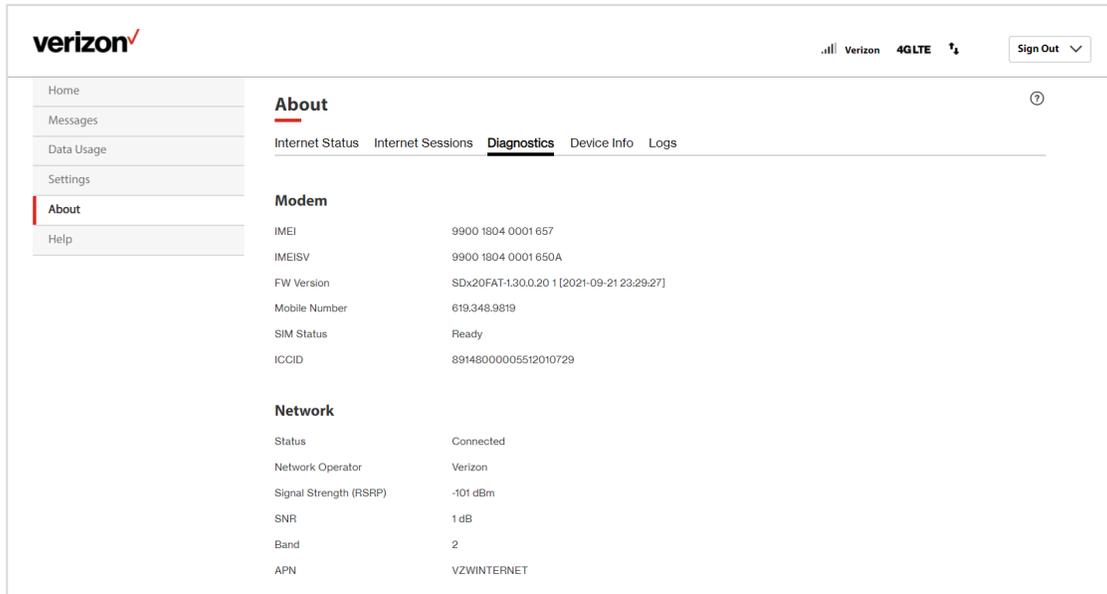
Tx Data: The amount of data transmitted for the Internet session. This counter starts at zero when the connection is established.

Total Data: The total amount of data for the Internet session. This is the sum of Received Data and Transmitted Data.

IPv4 Address: The IP address for the session.

Diagnostics Tab

This tab displays detailed information used solely for troubleshooting or technical support.



The screenshot shows the Verizon mobile app interface. At the top, there's a Verizon logo and a 'Sign Out' button. A navigation menu on the left includes Home, Messages, Data Usage, Settings, About (highlighted), and Help. The main content area is titled 'About' and has sub-tabs for Internet Status, Internet Sessions, Diagnostics (selected), Device Info, and Logs. Under the 'Modem' section, the following information is displayed:

IMEI	9900 1804 0001 657
IMEISV	9900 1804 0001 650A
FW Version	SDx20FAT-1.30.0.20 1 [2021-09-21 23:29:27]
Mobile Number	619.348.9819
SIM Status	Ready
ICCID	89148000005512010729

Under the 'Network' section, the following information is displayed:

Status	Connected
Network Operator	Verizon
Signal Strength (RSRP)	-101 dBm
SNR	1 dB
Band	2
APN	VZWINTERNET

Modem

IMEI: The International Mobile Equipment Identity (IMEI) for your USB8L. This is a 15 digit code used to uniquely identify an individual mobile station. The IMEI does not change when the SIM is changed.

IMEISV: A combination of the IMEI and an approval number for this type of device.

FW Version: The version of the firmware (software) currently installed on your USB8L.

Mobile Number: The phone number of your USB8L.

SIM status: The current status of the SIM card.

ICCID: The unique ID number assigned to the SIM card. This field is blank if there is no SIM card installed, or a SIM error condition exists.

Network

Status: The status of the network.

Network Operator: The name of the Mobile Network Operator (MNO).

Signal Strength (RSRP): The strength of the cellular signal, measured in dBm. Higher absolute values indicate a stronger signal, for example: -80 dBm is a stronger signal than -90 dBm.

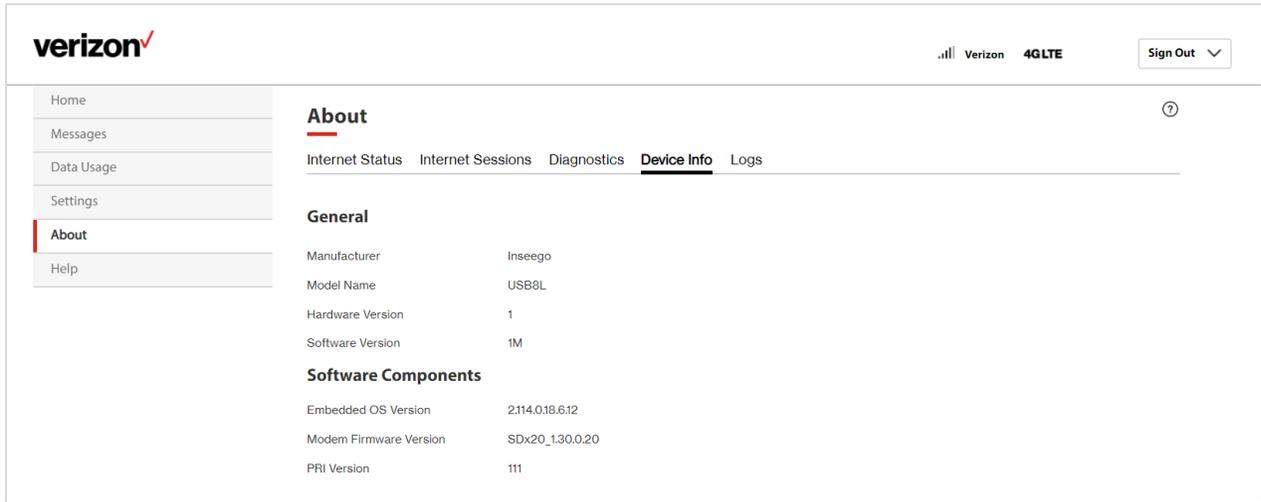
SNR: Signal to Noise Ratio. A ratio of signal power to noise power expressed in decibels. SNR is a positive value, and higher numbers are better.

Band: The band in use for the current connection.

APN: The Access Point Name (APN) for your USB8L, for example: *VZWINTERNET*.

Device Info Tab

Use this tab to view details about your USB8L.



The screenshot shows the Verizon USB8L Device Info tab. The Verizon logo is in the top left, and the status bar in the top right shows signal strength, Verizon, and 4G LTE. A 'Sign Out' button is in the top right corner. The left sidebar contains navigation options: Home, Messages, Data Usage, Settings, About (selected), and Help. The main content area is titled 'About' and has a sub-tab 'Device Info' selected. Below the sub-tabs are two sections: 'General' and 'Software Components'. The 'General' section lists: Manufacturer (Inseego), Model Name (USB8L), Hardware Version (1), and Software Version (1M). The 'Software Components' section lists: Embedded OS Version (2.114.0.18.6.12), Modem Firmware Version (SDx20_130.0.20), and PRI Version (111).

General	
Manufacturer	Inseego
Model Name	USB8L
Hardware Version	1
Software Version	1M

Software Components	
Embedded OS Version	2.114.0.18.6.12
Modem Firmware Version	SDx20_130.0.20
PRI Version	111

General

Manufacturer: Inseego.

Model Name: Model of the device (USB8L).

Hardware Version: The version of hardware.

Software Version: The version of software currently installed.

Software Components

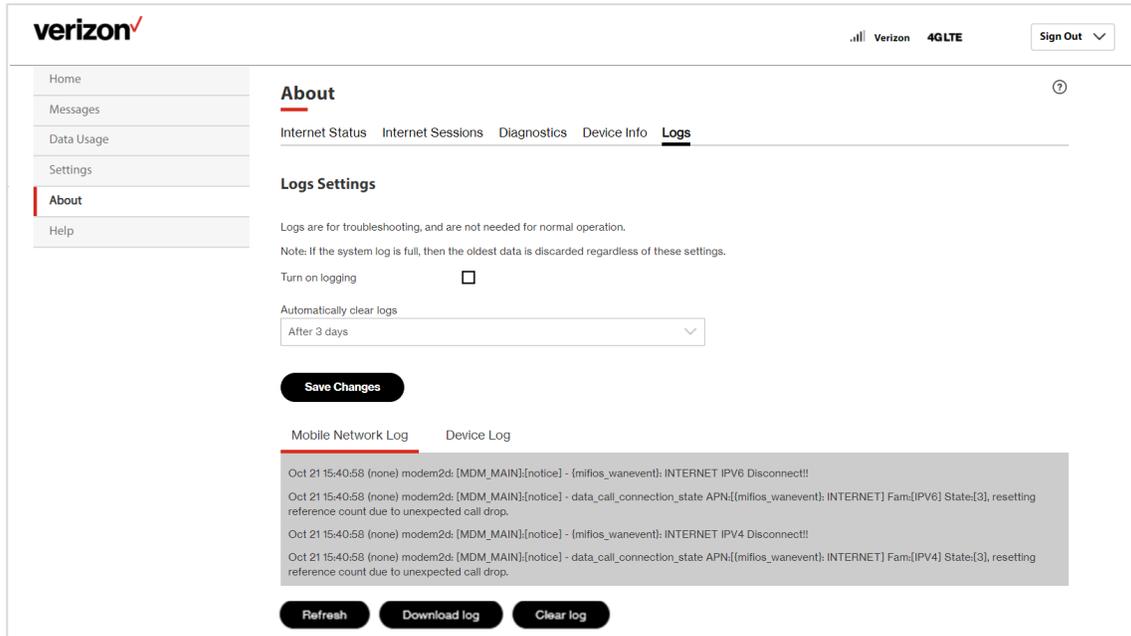
Embedded OS Version: The version number for the embedded Operating System and its components.

Modem Firmware Version: The version of firmware (software) currently installed for the modem component.

PRI Version: The configuration version currently applied to the USB8L.

Logs Tab

Use this tab to view log information for troubleshooting.



Log Settings

Turn on logging: Check this box to turn on logs as needed.

Automatically clear logs: Use the drop-down list to select when logs are cleared.

NOTE: If the log is full, the oldest data is deleted regardless of this setting.

Click **Save Changes** to enact changes.

If logs are turned on, the following are visible:

Mobile Network Log: Displays log data of connections to the mobile network.

Device Log: Displays log data of events other than mobile data connections that occurred on this device.

Refresh: Updates the displayed log data.

Download log: Allows you to download log data.

Clear log: Deletes all existing log data. This makes new data easier to read.

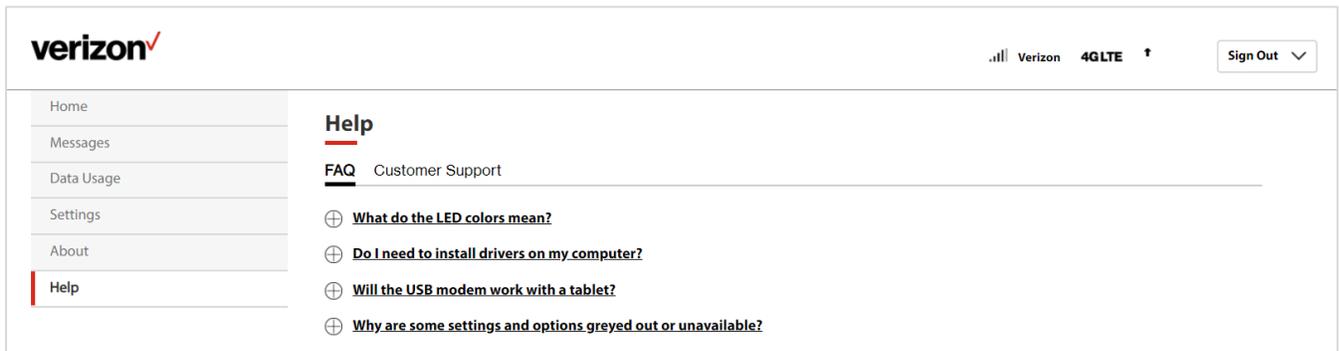
Getting Help

The Help page includes two tabs:

- FAQ
- Customer Support

FAQ Tab

Use the FAQ tab to find answers to frequently asked questions about the USBL modem.



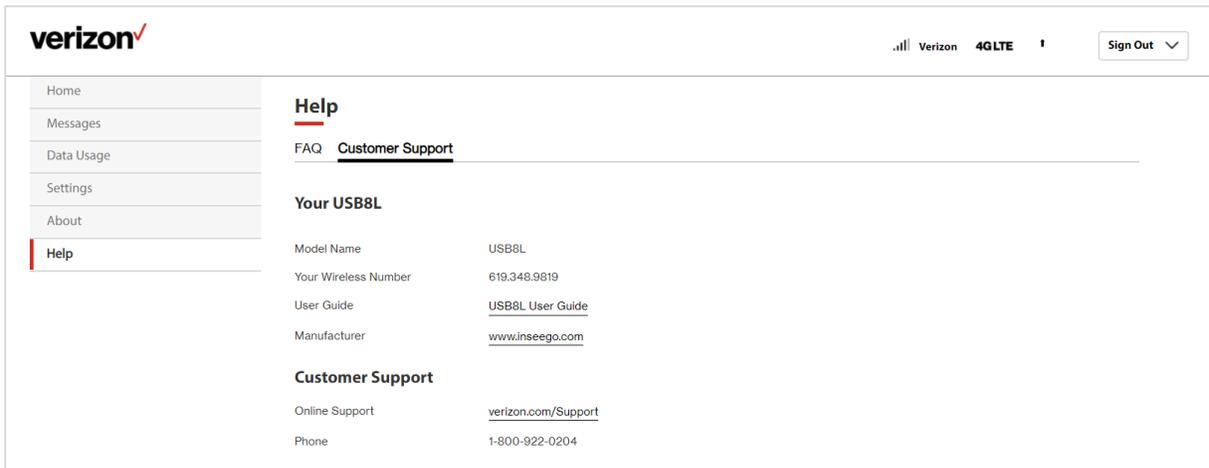
The screenshot shows the Verizon mobile app interface. At the top left is the Verizon logo. At the top right, there is a signal strength indicator, the text "Verizon 4GLTE", and a "Sign Out" button with a dropdown arrow. On the left side, there is a vertical navigation menu with the following items: Home, Messages, Data Usage, Settings, About, and Help (which is highlighted with a red bar). The main content area is titled "Help" and has a sub-tab "FAQ" selected. Below the sub-tab, there are four FAQ items, each preceded by a plus sign icon in a circle:

- ⊕ [What do the LED colors mean?](#)
- ⊕ [Do I need to install drivers on my computer?](#)
- ⊕ [Will the USB modem work with a tablet?](#)
- ⊕ [Why are some settings and options greyed out or unavailable?](#)

Click on the ⊕ icon next to a question to see more information.

Customer Support Tab

Use the Customer Support tab for useful links and support information.



The screenshot shows the Verizon mobile app interface. At the top left is the Verizon logo. On the right, there are signal strength bars, the text 'Verizon 4G LTE', and a 'Sign Out' button with a dropdown arrow. A left-hand navigation menu is visible with options: Home, Messages, Data Usage, Settings, About, and Help (which is highlighted with a red bar). The main content area is titled 'Help' and has a sub-section 'Customer Support'. Under 'Your USB8L', there are four rows of information: 'Model Name' is USB8L; 'Your Wireless Number' is 619.348.9819; 'User Guide' is a link to 'USB8L User Guide'; and 'Manufacturer' is a link to 'www.inseego.com'. Below this, under 'Customer Support', there are two rows: 'Online Support' is a link to 'verizon.com/Support' and 'Phone' is 1-800-922-0204.

Your USB8L

Model: Model of the device (USB8L).

Your Wireless Number: The phone number associated with your USB8L.

User Guide: A link to this User Guide.

Manufacturer: A link to the Inseego website.

Customer Support

Online Support: A link to Verizon Support.

Phone: The number to contact for USB8L support.

3

Troubleshooting and Support

Overview

Technical Support

Overview

When properly installed, the USB8L is a highly reliable product. Most problems are caused by one of these issues:

- System resources required by the modem are being used by other devices.
- Network coverage is unavailable due to coverage area, an account problem, or a network problem.

The following tips can help solve many common problems encountered while using the USB8L:

- Make sure your device meets the system requirements*.
- Make sure you are using the modem in the correct geographic region. Be sure you have 4G Mobile Broadband and service with the USB8L in the U.S
- Ensure that your wireless coverage extends to your current location.
- Ensure that you have an active subscription plan.
- You can resolve many issues by restarting your device and your USB8L.

Technical Support

IMPORTANT: Before contacting Support, be sure to restart your device and your USB8L.

Verizon mobile app

Manage your account, track your usage, edit account information, pay your bill and more. Text and data fees may apply.

Get help using your USB8L

From your computer, visit verizonwireless.com/Support.

Customer service

Call **800.922.0204**

Twitter **@VZWSupport**.

More information

To access a User Guide, go to verizonwireless.com/Support and find USB8L. Or, from the USB8L Admin Web UI, select **Help > Customer Support** and click on the User Guide link.

* 4G data wireless data plan required.

USB Type A Port 2.0 or higher.

Supported platforms: Windows 7 or higher, Mac OS 10.8 or higher, Linux OS, Chrome OS.

Compatible browsers: Microsoft Internet Explorer 7 or higher, Mozilla Firefox 3.6 or higher, Google Chrome 9 or higher, Apple Safari 5 or higher, Opera 9 or higher.

4

Product Specifications and Regulatory Information

Product Specifications

Regulatory Information

Product Certifications and Supplier's Declarations of Conformity

Wireless Communications

Limited Warranty and Liability

Safety Hazards

Product Specifications

Device

Name:	USB800L, USB800, USB800G, USB8L, USB8
Model:	MC800
Regulatory:	FCC (North America) ISED (CAN) CE (EU)
Standards, approvals, certifications:	GCF, PTCRB
Dimensions:	3.58" x 1.45" x 0.45" (91.1 x 37 x 11.4 mm)
Weight:	2.4 oz (68 g)
Interface type:	USB 2.0 Type A with swivel hinge
Chipset:	QUALCOMM® SDX20
Status indicator:	Multi-color LED
SIM	4FF
Enterprise features:	VPN support

Environmental

Operating temperature:	-10°C to 55°C (14° F to 113° F)
Storage temperature:	-20° C to +65° C (-4° F to 149° F)
Relative humidity	5% to 90% over operating temperature
Drop:	1 meter drop, no damage – fully operational
Vibration stability:	5 Hz to 500 Hz, 0.1 octave/second

Technology and Bands

Technology and designated bands:	LTE Cat 18, 480 Mbps LTE max throughput	B1/B2/B3/B4/B5/B7/B12/B13/B14/B17/B18/B20/B28/B29/B30/B66
	HSPA+/UMTS	B1/B2/B4/B5/B8
	Carrier Aggregation 5 CC Download CA	
	2x2 MIMO	
Localization services:	GNSS: GPS/GLONASS/Galileo/Beidou	

Regulatory Information

Federal Communications Commission Notice (FCC – United States)

FCC ID: PKRISGMC800

Electronic devices, including computers and wireless modems, generate RF energy incidental to their intended function and are therefore subject to FCC rules and regulations.

This equipment has been tested to, and found to be within, the acceptable limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a residential environment.

This equipment generates radio frequency energy and is designed for use in accordance with the manufacturer's user manual. However, there is no guarantee that interference will not occur in any particular installation. If this equipment causes harmful interference to radio or television reception, which can be determined by turning the equipment off and on, you are encouraged to try to correct the interference by one or more of the following measures.

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and the receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/television technician for help.

This device complies with Part 15 of the Federal Communications Commission (FCC) Rules.

Operation is subject to the following two conditions.

- This device may not cause harmful interference.
- This device must accept any interference received, including interference that may cause undesired operation.

WARNING: DO NOT ATTEMPT TO SERVICE THE WIRELESS COMMUNICATION DEVICE YOURSELF. SUCH ACTION MAY VOID THE WARRANTY. THIS DEVICE IS FACTORY TUNED. NO CUSTOMER CALIBRATION OR TUNING IS REQUIRED. CONTACT INSEGO CORP TECHNICAL SUPPORT FOR INFORMATION ABOUT SERVICING YOUR WIRELESS COMMUNICATION DEVICE.

FCC CAUTION: Any changes or modification not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

RF EXPOSURE INFORMATION: This device complies with FCC radiation exposure limits set forth for uncontrolled environments. In order to comply with FCC/ISED RF Exposure requirements, this device must be installed to provide at least 30 cm separation from the human body at all times.

Innovation, Science and Economic Development Notice (ISED – Canada)

IC: 3229A-MC800

ISED RSS-Gen Notice

This device contains license-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's license-exempt RSS(s). Operation is subject to the following two conditions:

1. This device may not cause interference.
2. This device must accept any interference, including interference that may cause undesired operation of the device.

L'émetteur/récepteur exempt de licence contenu dans le présent appareil est conforme aux CNR d'Innovation, Sciences et Développement économique Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes:

1. L'appareil ne doit pas produire de brouillage.
2. L'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

ISED Canada ICES-003 Compliance

CAN ICES-3 (B)/NMB-3(B)

FCC RF Exposure Guidance Statement

In order to comply with FCC RF Exposure requirements, this device must be installed to provide at least 5 mm separation from the human body at all times.

Afin de se conformer aux exigences d'exposition RF FCC / ISED, cet appareil doit être installé pour fournir au moins 5 mm de séparation du corps humain en tout temps.



Inseego Corp. declares that MC800 is in Compliance with the Radio Equipment Directive 2014/53/EU, its essential requirements and other relevant provisions of the directive.

A full copy of the EU declaration of conformity is available at the following internet address:
<https://www.inseego.com/support/>.

The Declaration of Conformity may be also consulted at Inseego Corp., 9710 Scranton Rd., Suite 200 San Diego, USA.

RF Radiation Exposure Guidance Statement

This device must be installed to provide at least 5 mm separation from the human body at all times.

EU Radio Frequency and Transmitted Output Power Information

Band	Max Power	Frequency
WCDMA-BAND I	24 dBm	1920-1980 MHz
WCDMA-BAND VIII	24 dBm	880-915 MHz
BAND 1	24 dBm	1920-1980 MHz
BAND 3	24 dBm	1710-1785 MHz
BAND 7	24 dBm	2500-2570 MHz
BAND 20	24 dBm	832-862 MHz
BAND 28	24 dBm	703-748 MHz

Product Certifications and Supplier's Declarations of Conformity

Product Certifications and Supplier's Declarations of Conformity documentation may be consulted at Inseego Corp., 9710 Scranton Road Suite 200, San Diego CA 92121, USA.

<https://www.inseego.com/support/>.

Wireless Communications

IMPORTANT: Due to the transmission and reception properties of wireless communications, data occasionally can 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 modem might 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.

Inseego Corp. 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 USB8L device, or failure of the USB8L device to transmit or receive such data.

Limited Warranty and Liability

THIS LIMITED WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS, AND YOU MAY HAVE OTHER RIGHTS THAT VARY FROM STATE TO STATE (OR BY COUNTRY OR PROVINCE). OTHER THAN AS PERMITTED BY LAW, INSEEGO CORP DOES NOT EXCLUDE, LIMIT OR SUSPEND OTHER RIGHTS YOU MAY HAVE, INCLUDING THOSE THAT MAY ARISE FROM THE A PARTICULAR SALES CONTRACT.

INSEEGO CORP warrants for the 12-month period (or 24-month period if required by statute where you purchased the Product) immediately following your receipt of the Product that the Product will be free from defects in material and workmanship under normal use. TO THE EXTENT PERMITTED BY LAW, THESE WARRANTIES ARE EXPRESSLY IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, WITHOUT LIMITATION, ALL IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

The exclusive remedy for a claim under this warranty shall be limited to the repair or replacement, at INSEEGO CORP'S option, of defective or non-conforming materials, parts, components or the device. The foregoing warranties do not extend to (I) non conformities, defects or errors in the Products due to accident, abuse, misuse or negligent use of the Products or use in other than a normal and customary manner, environmental conditions not conforming to INSEEGO CORP'S specification, of failure to follow prescribed installation, operating and maintenance procedures, (II) defects, errors or nonconformities in the Product due to modifications, alterations, additions or changes not made in accordance with INSEEGO CORP'S specifications or authorized by INSEEGO CORP, (III) normal wear and tear, (IV) damage caused by force of nature or act of any third person, (V) shipping damage, (VI) service or repair of Product by the purchaser without prior written consent from INSEEGO CORP, (VII) products designated by INSEEGO CORP as beta site test samples, experimental, developmental, reproduction, sample, incomplete or out of specification Products, or (VIII) returned products if the original identification marks have been removed or altered. There is no warranty that information stored in the Product will be retained following any Product repair or replacement.

EXCEPT AS PROVIDED IN THIS WARRANTY AND TO THE MAXIMUM EXTENT PERMITTED BY LAW, INSEEGO CORP IS NOT RESPONSIBLE FOR DIRECT, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING FROM ANY BREACH OF WARRANTY OR CONDITION, OR UNDER ANY OTHER LEGAL THEORY.

THE FOREGOING LIMITATION SHALL NOT APPLY TO DEATH OR PERSONAL INJURY CLAIMS, OR ANY STATUTORY LIABILITY FOR INTENTIONAL AND GROSS NEGLIGENT ACTS AND/OR OMISSIONS. SOME STATES (COUNTRIES AND PROVINCES) DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATION OR EXCLUSION MAY NOT APPLY TO YOU.

Safety Hazards

Do not operate the USB8L in an environment that might 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 when instructed to do so, or when you suspect that it might cause interference or danger.

Where explosive atmospheres might be present

Do not operate your device in any area where a potentially explosive atmosphere might 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 might be susceptible to any form of radio interference. In such areas, the host communications device must be turned off. The device can 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 modem is turned off prior to boarding aircraft in order to comply with these regulations. The modem 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). Macintosh native connection software might attempt to reinitialize the device should a substantial electrostatic discharge reset the device. If the software is not operational after an ESD occurrence, then restart your computer.