SONIM. H500 5G
USER GUIDE

WELCOME

Welcome to your new Sonim H500 5G Mobile Hotspot. This guide will help you set up and start using your device quickly and easily. You'll also learn everything there is to know about using the features of the device, safety and handling, and more. Follow the steps below to connect to Verizon's 5G network, configure settings, and connect your devices to enjoy fast and reliable internet access from virtually anywhere.

What's in the box

The Sonim H500 5G package includes:

- Sonim H500 5G Mobile Hotspot
- 6000mAh Li-ion Battery
- Charger
- USB-C Cable
- User Quick Start Guide
- SIM Card (pre-inserted into the device)
- Battery door lever

SYSTEM REQUIREMENTS

The Sonim H500 5G must have cellular data service to function and is compatible with all major operating systems and the latest versions of browsers.

- Compatible with Google Chrome®, Firefox®, Internet Explorer®, Safari™, and Mobile Safari™
- Devices must support Wi-Fi to use in Wi-Fi mode

ABOUT YOUR MOBILE HOTSPOT

The powerful, secure hotspot device equipped with everything you need to work, play, create, and communicate virtually anywhere life takes you.

5G

The Sonim H500 5G supports powerful 5G performance, including mmWave, C-band and other band combinations, for exceptional connectivity. It also ensures reliable access with 4G support, so you can stay connected.

Wi-Fi 6

The Sonim H500 5G offers dual-band Wi-Fi 6, enabling faster speeds and more reliable connections than previous generations of Wi-Fi, even when multiple devices are connected. This ensures virtually smooth streaming, quick downloads, and efficient online collaboration.

USB Type-C Charging Port and RJ45 Ethernet Port

The Sonim H500 5G provides direct internet connections to other devices via Ethernet or USB-C cables. Use an Ethernet cable for a stable, wired connection, ideal for setting up temporary conference rooms or tradeshow booths where reliable connectivity is crucial. The USB Type-C port offers versatility, doubling as a universal charging port to give your external devices a power boost when needed. For example, during business travel, you can connect your laptop to the Sonim H500 5G's Ethernet port for seamless internet access and simultaneously charge your smartphone through the USB Type-C port, ensuring continuous productivity on the go (Ethernet cable not included).

Durable Design

The Sonim H500 5G mobile hotspot is engineered for ultra durability, featuring an IP68 rating that certifies its resistance to dust and water. This means the device can be submerged in up to 1.5 meters of fresh water for 30 minutes without sustaining damage, making it ideal for harsh and unpredictable environments. It also meets the rigorous MIL-STD-810H military standard, ensuring resilience against extreme conditions such as drops from up to 1.5 meters, shock, vibration, temperature fluctuations and is resistant to salt fog, enhancing its suitability for maritime or coastal environments[1].

Note: The H500 5G only has IP68 protection when the Ethernet and USB doors are closed.

Security Support

WPA3 Wi-Fi security support, VPN passthrough, and remote connectivity to office networks provide the peace of mind that data connections are secure.

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[1] For more information, consult the Sonim H500 5G warranty at
https://www.sonimtech.com/support/warranties

GETTING TO KNOW YOUR DEVICE
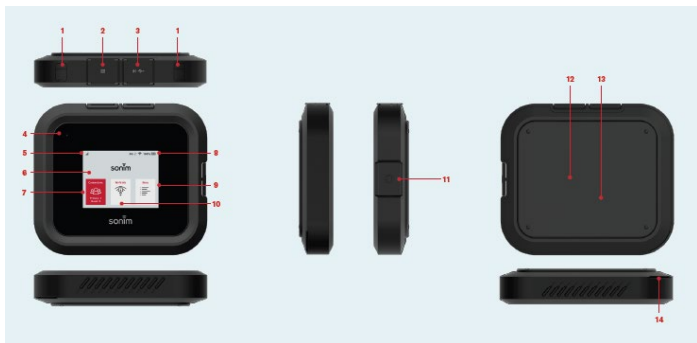
1. Test ports
2. Ethernet port (RJ45)
3. USB Type-C
4. Status LED (indicates sign of life - flashes white periodically)
5. Signal strength
6. Display
7. Connections info
8. Battery indicator
9. Menu
10. Wi-Fi info
11. Power button
12. Battery under battery cover
13. SIM (SIM under battery)
14. Battery cover opening

Status icons

Icon	Meaning
3G	Connected to 3G network
4G	Connected to 4G LTE network
5G	Connected to 5G network
.ıll	Network signal strength
x	No network signal
👥	Number of connected devices
🌐	Internet connected
🚫	No internet connection
📶	Wi-Fi indicator
📡	Wi-Fi information
🖧	LAN connection
↓↑	Upload and download activity is taking place
🔋	Battery is charging
🔋	Battery fast charging
⎓	Device is in 'No Battery Mode'
🔋	Battery 100%
🔋	Battery 75%
🔋	Battery 50%
🔋	Battery 25%
🔋	Low battery warning 10%
🔋	Low battery; Charge immediately
📇	Locked SIM: Contact Verizon for the PIN to unlock. Unlock in the web UI
📇	SIM error. Check that your SIM card is properly inserted

	No SIM Detected
	You have unread messages
	You have read messages
	Trash
	Device menu
	Status menu
	Help menu
	Settings
	Go back to Home screen
	Go back to previous screen in the device UI
	GPS
	Data usage

GETTING STARTED

Remove the battery safety tab

IMPORTANT! The device ships with a safety tab to protect the device from automatically turning on during shipment. Remove the tab prior to first use.

To remove the battery safety tab:

1. Open the battery door.
2. Remove the plastic safety tab.
3. Close the battery door.

Prior to first use, open the battery door and remove the plastic tab on the battery.

To open the battery compartment, gently insert the battery door lever (tool included in the box with your device) into the slot located at the corner of the device as illustrated below, and then gently pry it open. Remove the plastic safety tab and close the battery door.
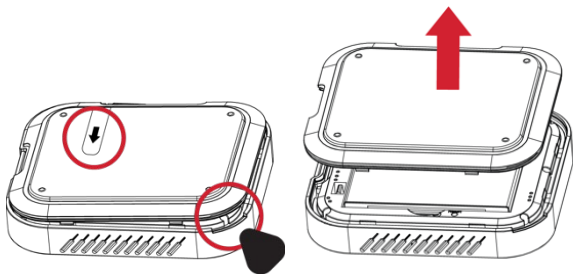
How to insert the battery

Step 1

Insert the battery flush into the cavity so the three gold contacts on the top of the battery are aligned with the gold contact points in the battery compartments and gently push it into place.
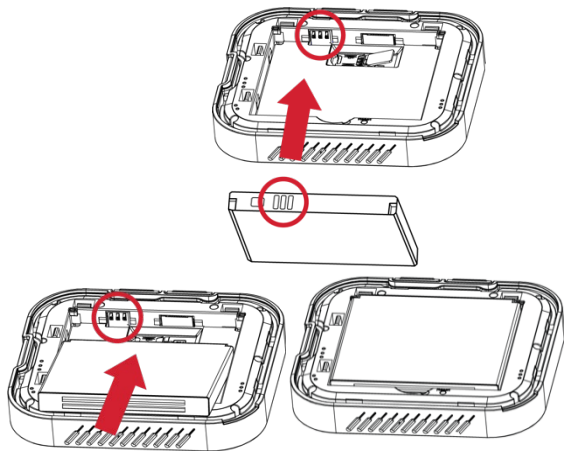
Step 2

Close the battery cover ensuring that it is fully closed. You will hear a click when the battery cover is properly sealed. This is important to ensure the Sonim H500 5G remains water-resistant[1].
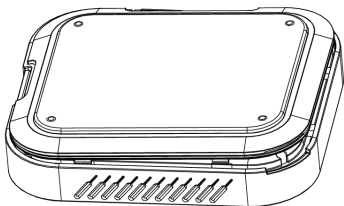
Caution! Recycle used batteries per local regulations. If you do not use the approved battery with your Sonim H500 5G mobile hotspot, there will be a risk of fire or explosions and perhaps burns. Do not attempt to open, crush, or burn the battery. Do not allow the battery to exceed 140°F (60°C).

Warning Only use the Sonim-approved battery and charger that was provided with your Sonim H500 5G mobile hotspot. The warranty does not cover damage caused by usage of non-approved batteries and/or chargers.

NOTE: Before removing or replacing the battery, ensure your Sonim H500 5G mobile hotspot is not connected to any device or power source. Take caution when removing the battery cover and battery. Use the battery door lever that was included in the box with your device to open the battery cover, and never attempt to remove the battery with a knife, a key, a pen or any other tool. Using any other tool besides what has been provided can damage the battery and void your warranty.

Before using your mobile hotspot, read the Additional Battery Information found on page 68.

Charging your mobile hotspot

NOTE: It is important to fully charge your Sonim H500 5G mobile hotspot's battery before using it for the first time.

To charge the battery:

1. Connect the USB end of the charger to the charging port of the mobile hotspot.
2. Plug the other end of the wall charger into a safe & certified electrical outlet.

Installing/replacing a SIM card

The Subscriber Identity Module (SIM) card is a small rectangular plastic card that stores your phone number and essential wireless service information. Your mobile hotspot will not function without a properly activated SIM card.

Your Sonim H500 5G mobile hotspot comes with a pre-installed SIM card. To replace a SIM card:

1. Power OFF the mobile hotspot, remove the battery cover, and take out the battery.
2. To remove a SIM card, gently slide the SIM out of the SIM card slot.
3. Place the new SIM card with the gold contacts facing down.
4. Gently slide the SIM into the SIM card slot.
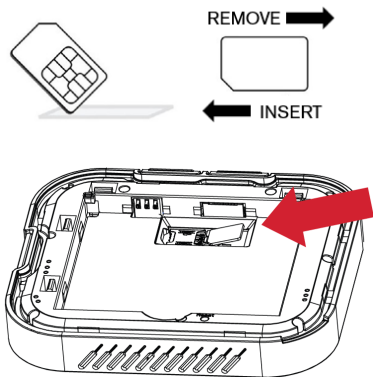
Caution! Do not bend or scratch your SIM card. Avoid exposing the SIM card to static electricity, water, or dirt.

Unlocking your SIM

The PIN set up on your SIM:

To unlock the PIN set up, go to **Menu** > **Unlock SIM**.

If you have a PIN lock on your SIM:
The "Unlock **SIM**" icon will display in the upper left corner of the screen. Tap the icon to enter the unlock screen, and then enter the PIN code to unlock.

NOTE: The SIM PIN can be obtained from Verizon.

Turning the mobile hotspot ON/OFF

To turn the Sonim H500 5G mobile hotspot on or off:

- To turn ON: Press and hold the **Power** button for four seconds.
- To turn OFF: Press and hold the **Power** button for three seconds.
- To wake up the display: Press and release the **Power** button.

LED status indicator

The Sonim H500 5G has a white status LED to indicate that the device is turned on. The LED will turn on for one second and turn off for five seconds when the device is powered on. This provides the user an indication that the device is on without having to turn on the display. The LED will continue to blink while the user has devices connected to the Sonim H500 5G. If there are no devices connected to the Sonim H500 5G, the device will go into deep-sleep mode to conserve battery life. When the device is in deep-sleep mode, the LED will not blink. Once the user takes the unit out of deep-sleep mode by briefly pressing the power button, the LED will resume blinking.

Setting up a Wi-Fi connection

1. Turn on the Sonim H500 5G by pressing the power button for four seconds.

2. Open the Wi-Fi application or controls on your laptop or Wi-Fi-enabled device that you want to connect to your Sonim H500 5G.

3. Find your Sonim H500 5G's Wi-Fi name (SSID). There are three Wi-Fi names (SSID) in your Sonim H500 5G (Primary Network (2.4GHz), Primary Network (5GHz), and Guest Network), enter the password to connect any of the three SSIDs for the Internet access. Note that the Guest Network may be turned off by default.

NOTE: The Wi-Fi names (SSIDs) and password appear on the screen (under Wi-Fi Info). It is recommended that you connect to the Primary Wi-Fi. Guest Wi-Fi should be first enabled using **Menu >Wi-Fi>Guest Network.**

USING YOUR MOBILE HOTSPOT

The display of the Sonim H500 5G mobile hotspot allows you to gain access to the internet, check the status of your Sonim H500 5G, view data usage, Wi-Fi SSID and password, connected device details, and other details about your device.
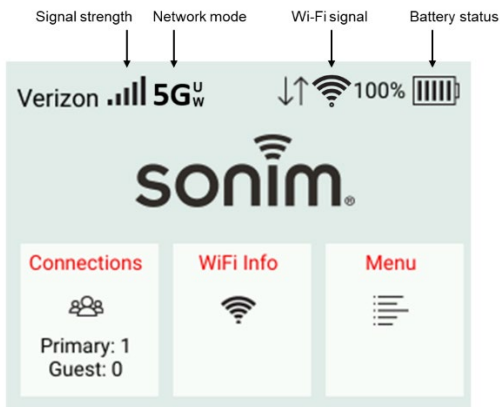
The Home Screen

The Sonim H500 5G Home Screen provides a quick overview of its status.

The device screen is a 2.4 inch (61mm) TFT LCD with Capacitive Touch.

There are three selectable icons: **Connections, Wi-Fi Info** and **Menu**. Once a selection is made, that section will appear red briefly before it changes screens.

The home screen provides connection status on the top bar:

Signal strength   Network mode   Wi-Fi signal   Battery status

Verizon .Ill 5G$_w^U$ ↓↑ 🛜 100% [IIII]

sonim.

Connections	WiFi Info	Menu
🐾	🛜	☰
Primary: 1 Guest: 0		

H500 5G USB options

You can check and select the available USB options.

1. When the USB cable is plugged in, the **USB Options** screen appears.
2. Select the appropriate option from the list and click **OK** to return to the Home page.

USB Connection Optior

Charge This Hotspot ○

Access Internet (USB) ○

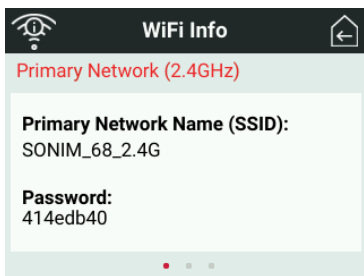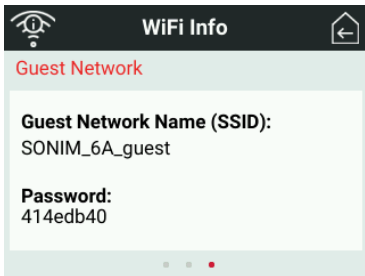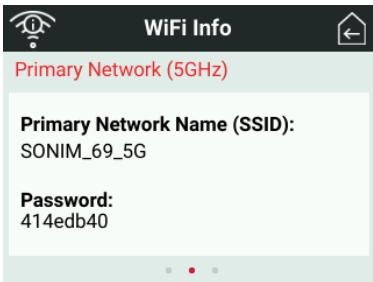Access Internet (USB & Wi-Fi) ⦿

OK

Connections

This displays the number of devices connected to each of the primary and guest connections. Touch the Connections window and the names of the devices connected, and their respective IP and MAC addresses will appear. It is possible to block or unblock a device by selecting the device you wish to take action on by tapping **Block** or **Unblock** at the top right of the screen.

Wi-Fi Info

Once selected, the Wi-Fi icon will provide details of the Primary and Guest Network Names (SSID) and Passwords to access the networks.

- Click on **Wi-Fi Info** on the home screen to enter the Wi-Fi information display page.

- Swipe the page to display the various options: Primary Network (2.4GHz)/Primary Network (5GHz)/Guest Network.

- To change the Network Name (SSID) and/or Password, refer to the section Managing Your Mobile Hotspot using the Web User Interface.

WiFi Info

Primary Network (5GHz)

Primary Network Name (SSID):
SONIM_69_5G

Password:
414edb40

WiFi Info

Guest Network

Guest Network Name (SSID):
SONIM_6A_guest

Password:
414edb40

Menu

The menu icon allows the user to access additional options including Network, Wi-Fi, Messages, Settings, Help and Data usage.

The top left icon acts as a guide to display where you are in the menu. The icons on the top right of the screen gives you the option of either going back one page ⬅ or returning to the home page ⌂.

Current page   Return to Home screen

Go back one Page

Wi-Fi

Primary Network (2.4GHz)

Primary Network Name (SSID):
SONIM_68_2.4G

Password:
414edb40
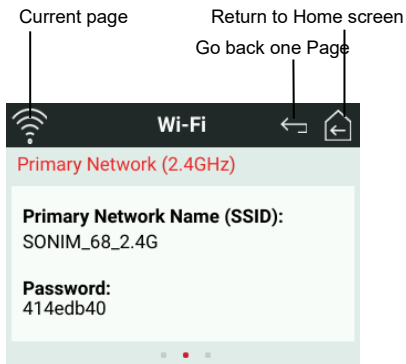
Network

Network options can be accessed by pressing the Network icon.
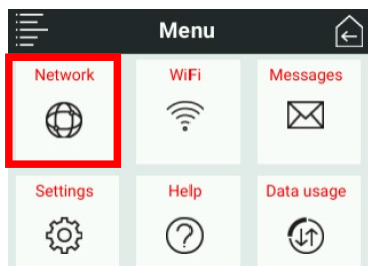
Using the toggle switches you can enable or disable a cellular Network Connection and Data Roaming.
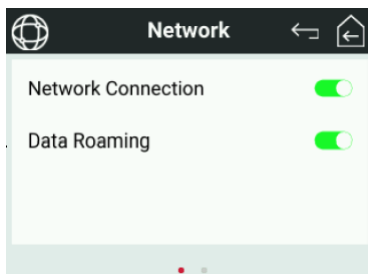
Green means it is enabled, and gray means it is disabled.

From the Network home page, you can swipe to the second page to see your IMEI number and your mobile number.
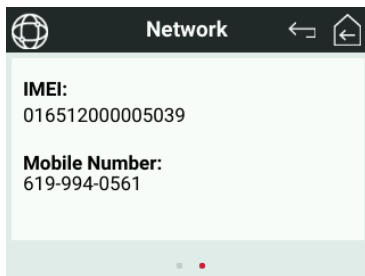
Wi-Fi

Wi-Fi options can be accessed by pressing the Wi-Fi icon.
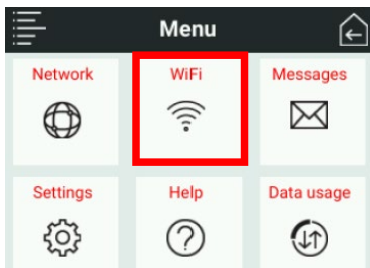
The Wi-Fi menu allows setup of the Primary and Guest Wi-Fi networks as well as update Wi-Fi Settings.
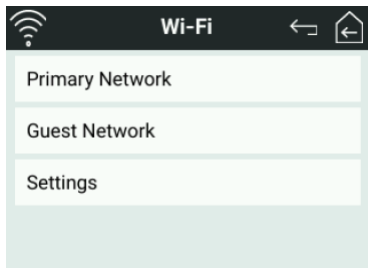
Selecting the Primary Network allows users to enable and disable the 2.4GHz and 5GHz Wi-Fi networks by sliding the toggle switches.

Green means it is enabled, and gray means it is disabled.
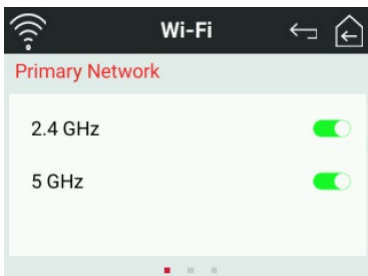
Swipe the screen, to display the Primary Network names (2.4GHz and 5GHz) (SSID) and passwords.

NOTE: Passwords can only be changed from the Web UI.

Selecting the Guest Network allows users to enable and disable the 2.4GHz and 5GHz Wi-Fi networks by sliding the toggle switches. Note that the user can only enable either 2.4GHz or 5GHz Guest Network, but not both simultaneously.
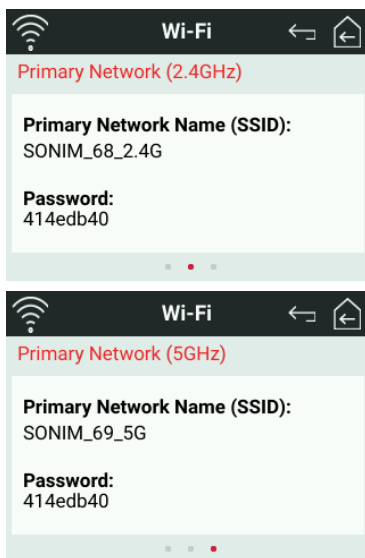Green means it is enabled, and gray means it is disabled.
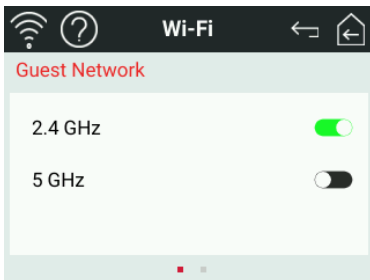
Swipe the screen, to display the Guest Network Name (SSID) and passwords.
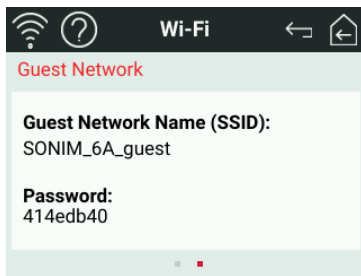
The Wi-Fi Settings tab:

- Wi-Fi connections to be enabled or disabled
- Enable WPS connections either with the button or enter a PIN
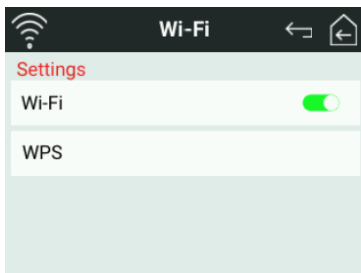
WPS is Wi-Fi Protected Setup. It is a wireless network security standard that makes connections between a router (H500 5G) and wireless devices faster and easier.
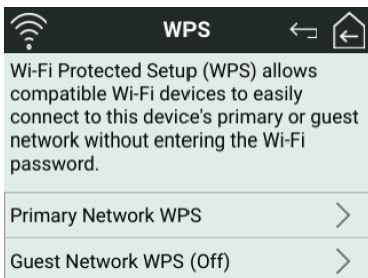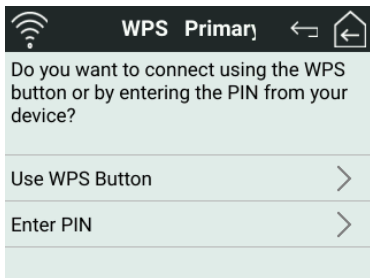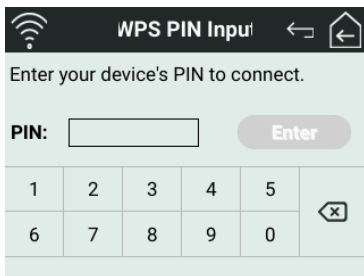
With the WPS button method you can connect to a Wi-Fi enabled device. To activate this feature, press the WPS button on the connecting device.
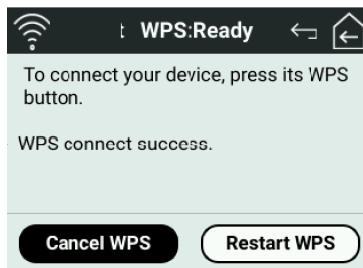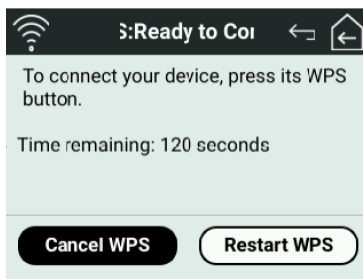
Use the WPS PIN method to connect to a Wi-Fi enabled device that has a WPS PIN associated with it.

Messages

Messages can be accessed by pressing the Messages icon.
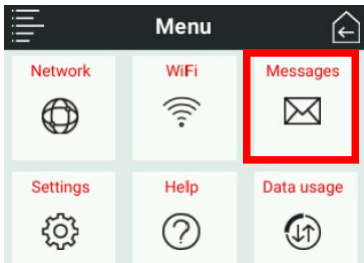
Messages can be viewed and deleted in this section. Here you will find messages about your device or messages from Verizon regarding software updates or carrier notifications.

NOTE: Messages cannot be sent from the hotspot. Messages can be deleted using the Delete button. Once it has been deleted it cannot be recovered.
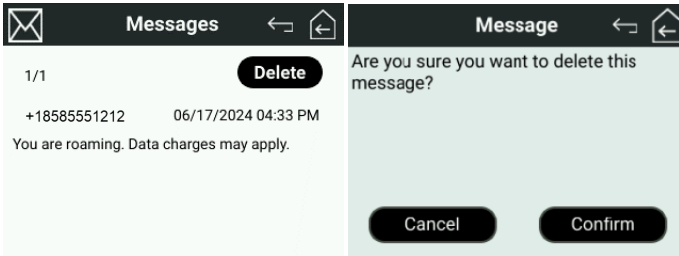
Settings

Settings can be accessed by pressing the Settings icon.
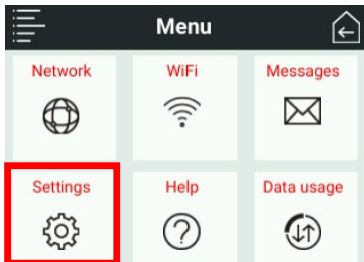
Pressing the Settings icon allows the following settings selections:

Airplane Mode can be enabled or disabled.

NOTE: If Airplane Mode is active, you will not be able to use the Sonim H500 5G as a hotspot.

USB Tethering (a mobile connection shared with laptop /PC using a USB data cable) can be enabled or disabled.

Language options are provided and can be selected

Screen Timeout can be modified (note long screen times can drain the battery faster).
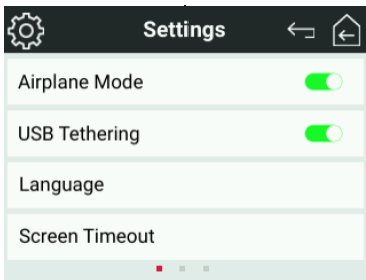
Sleep Mode for the device can be set to different time intervals.

NOTE: the longer the selected sleep mode time, the shorter the battery life.

Reset and Reboot allows the device to be reset and rebooted back to factory default settings.

Ethernet allows an Ethernet connection with an Ethernet cable to be enabled or disabled.
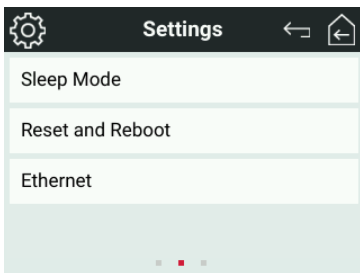
About Hotspot provides useful information about your device, such as:

- Model
- Software Version
- Hardware Version
- Battery Level (%)
- Internet Status
- Technology
- Network
- Signal Strength (RSRP)
- SNR (dB)
- Mobile Number
- IMEI
- ICCID
- Roaming status
- APN
- IP Address (IPv4/IPv6)

Software Update informs you when software updates are available for your Sonim H500 5G.
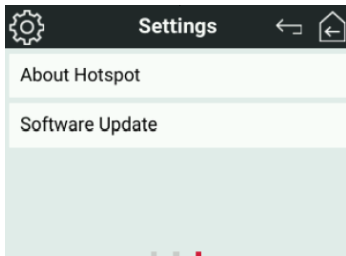
Clicking on Software Update will display the Model Name, current software version and the date the device last checked for a software update.

Help

Help can be accessed by pressing the Help icon.
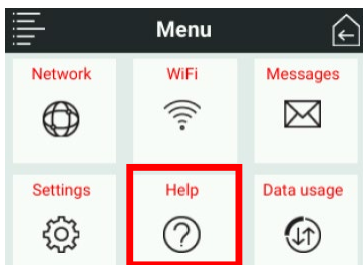
Admin Website provides details about how to access the Web User Interface which allows users to update advanced settings on the device. The admin Username and Password are located here.

NOTE: Default username is **admin.**

Wi-Fi tutorial provides instructions to set up Wi-Fi connections.

Access the user guide displays a QR code that links to the online user guide, available at https://www.sonimtech.com/wireless-connectivity/help/h500.

NOTE: You cannot access the user guide directly from the Sonim H500 5G. You will need to use the QR code to link to the URL for the online user guide.
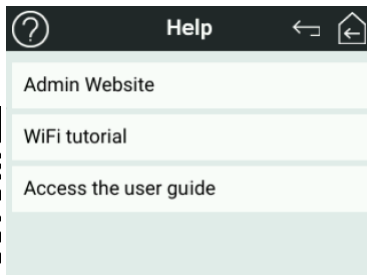
Data usage

Click to find information about the amount of data used during the current billing period.
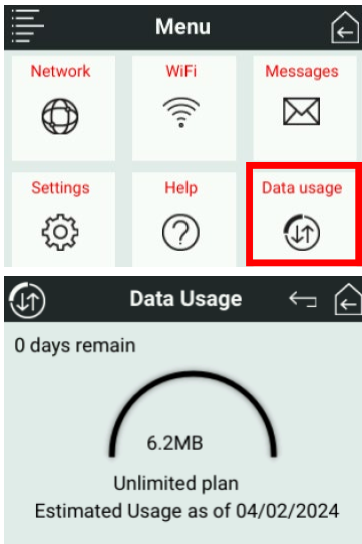
MANAGING YOUR MOBILE HOTSPOT USING THE WEB USER INTERFACE (WEB UI)

You can edit the settings directly on the Mobile Hotspot's screen or through the web user interface, commonly referred to as Web UI device management.

Web user interface device management

1. On your Wi-Fi device or laptop that is connected to your Sonim H500 5G, type **http://192.168.1.1** or **http://sonim.mobilehotspot/** in the browser bar.
   NOTE: Your device or laptop MUST be connected to your Sonim H500 5G for you to access your Web User Interface.

2. Enter the **Username** and **Password.**

3. Click **Login.** You can modify the user credentials, if you desire. Select **Admin> Admin Settings.**

NOTE: The default username is "admin" and the password is shown in the "Help" section on the main menu of the device UI.

You can only modify the user credentials from the web user interface. You cannot modify the credentials on the H500 5G itself.

For website instructions, including features that can be managed on the website, refer to Help on the device main screen.

Log out of Web UI

To log out,

1. Click **Logout** in the upper right corner.
2. Click **OK** on the pop-up screen to exit the application and return to the login interface.

Web UI Home screen

The Web UI home screen main navigation tabs are: Status, Network, Wi-Fi, LAN/WAN, Data Usage, Messages, Connections, Settings and Help.

Main menu
Red indicates selected screen
Green tick indicates connected
Wi-Fi, Network and Connected devices dashboard provide key information

Status bar
Black cross indicates not connected

Network

You can view the basic device network settings. Connections to the cellular network can be enabled or disabled with the toggle switches. Red means it is enabled, gray means it is disabled. Network mode and operator can be selected. Data roaming can also be enabled or disabled.
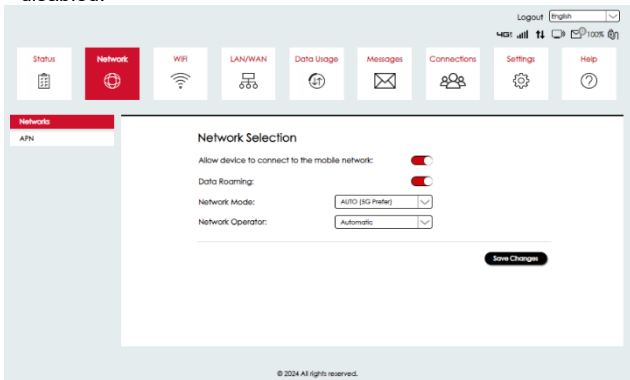
The APN screen allows additions or changes to an Access Point Name (APN).
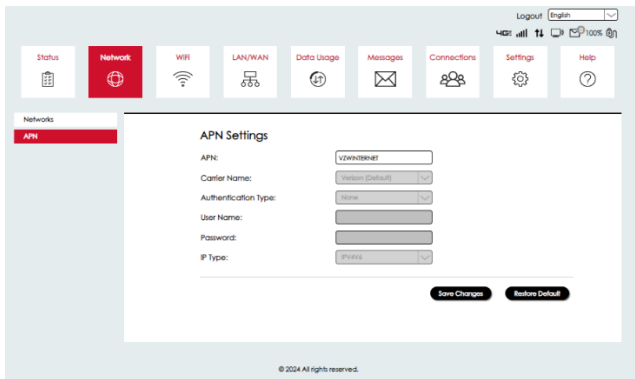
Wi-Fi

You can view the basic device Wi-Fi settings.

1. From the Device Home screen, click **Wi-Fi** > **Settings**.

2. From this page you can modify the band settings.

3. From the Primary Network or Guest Network tabs, you can manage the 2.4GHz & 5GHz bands and Guest Network by:

   - Setting the number of devices allowed to connect

   - Renaming the network name

   - Setting the security standard

   - Changing your password and hiding it from being visible on the device. Changing the password for one band, does not change it for both.

   - Changing the Wi-Fi network settings.

   - Turning off the SSID broadcast.

   - Click **Save Changes** to apply the changes.

Status	Network	WiFi	LAN/WAN	Data Usage	Messages	Connections	Settings	Help

Settings
Primary Network
Guest Network

WiFi

These settings apply regardless of which network (Primary, Guest, or both) is in use. Changes to WiFi settings may prevent some WiFi devices from connecting properly.

Allow WiFi devices to connect

2.4 GHz Band Settings

802.11 mode:	802.11b/g/n/ax ▼
Bandwidth:	40MHz ▼
Channel:	Automatic ▼

Save Changes

5 GHz Band Settings

802.11 mode:	802.11ac/n/ax ▼
Bandwidth:	80MHz ▼
Channel:	Automatic ▼

Save Changes

| Status | Network | WiFi | LAN/WAN | Data Usage | Messages | Connections | Settings | Help |

Settings
Primary Network
Guest Network

WiFi

Note: For added security, share your guest network instead of your primary network.

2.4 GHz Band Settings

Status: 🔴

Connected Devices: 32 ▼

Primary network name(SSID): Verizon-SONIM-H500_88_2.4G

Security: WPA3/WPA2 Mixed Mode ▼

Password: •••••••• ▼

☐ Hide password on touchscreen

☑ Broadcast primary network name(SSID)

☑ WPS

☐ WiFi privacy separation

Save Changes

5 GHz Band Settings

Status: 🔴

Connected Devices: 32 ▼

Primary network name(SSID): Verizon-SONIM-H500_E9_5G

Security: WPA3/WPA2 Mixed Mode ▼

Password: •••••••• ▼

☐ Hide password on touchscreen

☑ Broadcast primary network name(SSID)

☐ WPS

☐ WiFi privacy separation

Save Changes
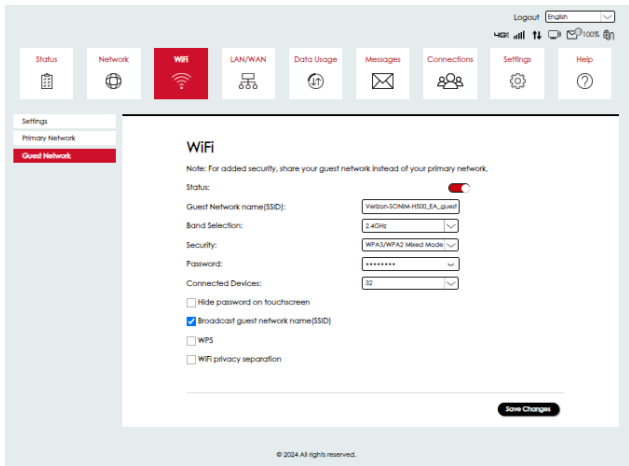
LAN/WAN

You can reconfigure the IPv4 settings on the Sonim H500 5G. Please exercise caution when changing LAN settings to avoid potential network issues.

Dynamic Host Configuration Protocol (DHCP)

You can view the network management protocol that is used to assign an Internet Protocol (IP) address to any device and configure network devices to communicate across an IP network.

1. From the Home screen, click **LAN/WAN** > LAN.
2. Enable any DHCP-specific options that your device requires.
3. Click **Save Changes** to ensure the changes take effect.
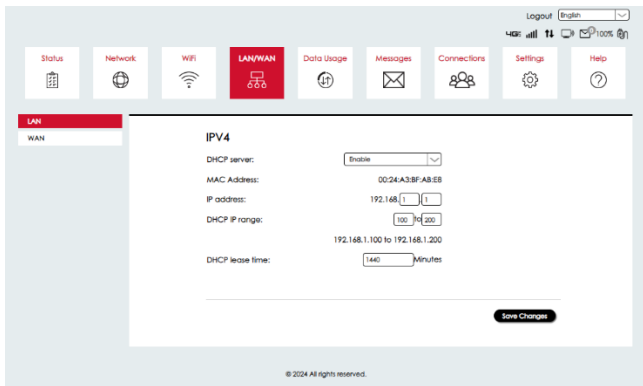
IP passthrough can be enabled.

NOTE: IP passthrough lets a device connected to the mobile hotspot use a public IP address directly, instead of sharing the hotspot's internal network. This can be useful for gaming, remote work, or any situation where you need a direct internet connection for better performance and fewer restrictions.
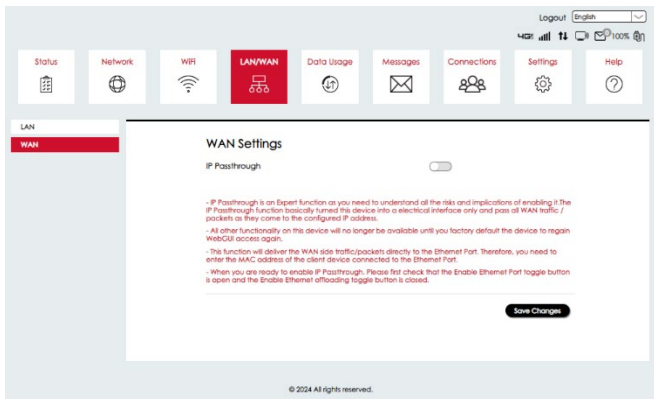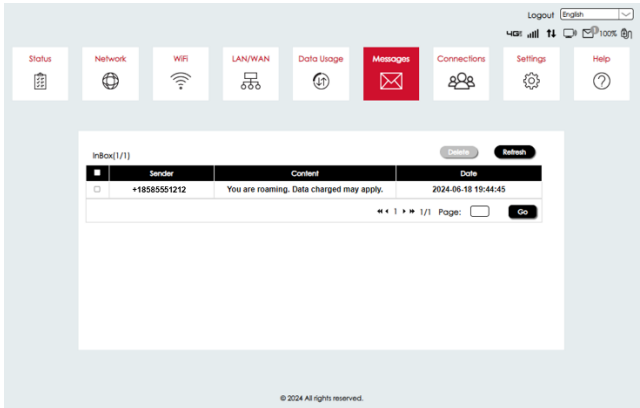
Data Usage

Select Data Usage to view how much data has been used during your billing cycle.
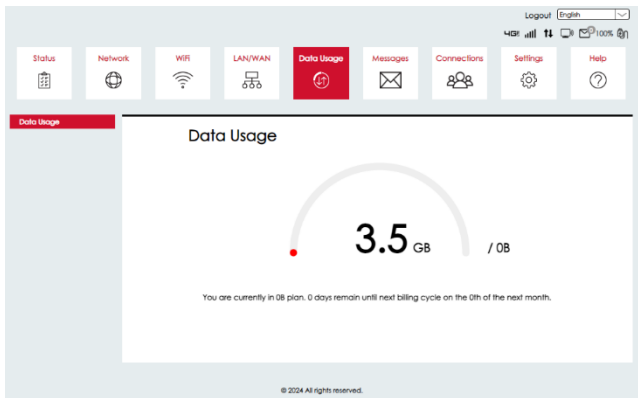
Messages

Your Sonim H500 5G cannot send messages, however it can receive messages from Verizon only. From here, you can review messages that have been received. You can save the messages, or you can delete those that are no longer needed. To delete messages, simply check the box of the message you would like to delete and then select Delete. Once deleted, the message cannot be recovered.

Connections

This screen shows the connected devices and their status. Click on the arrow on the right margin to show their IPV4 and MAC addresses.

From this menu you can also block a device or devices from accessing your connection. To block a device(s), simply check the box(es) to block the device and hit **Save Changes**.

On this screen you will see the devices you have blocked. To unblock a device, simply uncheck the box and select **Save Changes**.

Settings

Settings provides access to several useful tasks.

Software update

Use this section to review current software & hardware versions and check for available software updates.

To check for a software update, click the Check for Update button and follow the instructions on the screen.

Restore and restart

You can remotely reboot your device or reset it to factory default settings.

1. From the Home screen, click **Settings** > **Restore and Restart.**
2. Click **Restart** to restart the device or click **Reset Factory Defaults** to restore the original factory settings to the device.
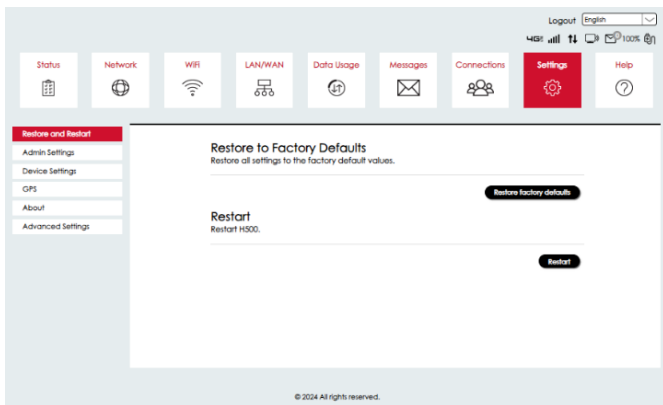
Admin Settings

You can modify/change all the Sonim H500 5G Mobile Hotspot settings.

1. From the Home screen, click **Settings > Admin Settings**.

2. Modify your Username and/or Password for the web user interface, if desired.

3. Click **Apply** to ensure the changes take effect.

Device Settings

USB tethering can be enabled /disabled from this page.

1. From the Home screen, click **Settings** > **Device Settings**
2. Enable/disable the ability of the Mobile Hotspot to support tethered devices.
    NOTE: The default setting is DISABLE.
3. Click **Save Changes** to ensure the changes take effect.
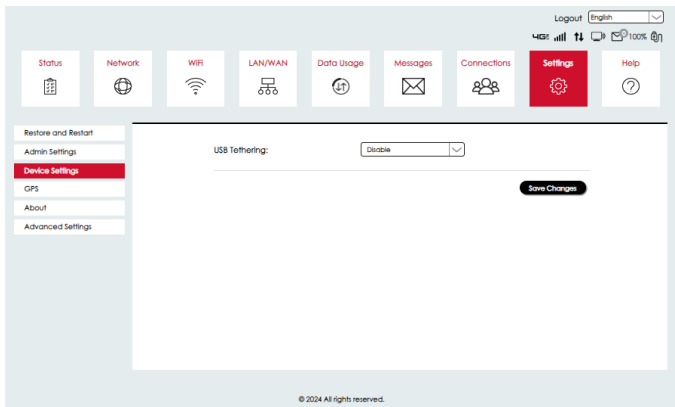
GPS

GPS can be enabled or disabled.

GPS over Wi-Fi in the Sonim H500 5G web UI allows the device to provide a GPS (NMEA*) stream to a Windows computer. This can be used when running an app that is capable of utilizing a NMEA GPS stream (such as an enterprise application). To utilize GPS over Wi-Fi, a driver must be installed on the computer.

NOTE: The default is DISABLE.

*NMEA: National Marine Electronics Association.

About

In the About screen, you can view the Internet Status, Network and Device information tabs and relevant information about your Sonim H500 5G.

On the Internet Status tab, you will see the following specifications:

- Internet Mode
    - Network Status
    - Network Operator
    - Connection Uptime
    - IP Address
    - Subnet Mask
    - Default Gateway
    - Primary DNS Server
    - Secondary DNS Server
    - IPv6 Address
    - IPv6 Primary DNS Server
    - IPv6 Secondary DNS Server

- On the Device Info tab, you will see the following specifications:
    - Device Model
    - Software Version
    - Hardware Version
    - IMEI
    - IMSI
    - MAC
    - Mobile Number
    - ICCID

    - And the following RF Parameters:
        - RSRP
        - RSSI
        - RSRQ
        - SNR
        - PCI

About — Internet Status

Internet Mode:	Mobile Data
Network Status:	Connected
Network Operator:	Verizon
Connection Uptime:	2 Mins
IP Address:	100.117.44.59
Subnet Mask:	255.255.255.248
Default Gateway:	100.117.44.60
Primary DNS Server:	198.224.171.135
Secondary DNS Server:	198.224.169.135
IPv6 Address:	2600:1012:b1c1:8858:e8d8:296c:9871:9767
IPv6 Primary DNS Server:	2001:4888:65:ff00:62e:d:::
IPv6 Secondary DNS Server:	2001:4888:64:ff00:620:d:::

About — Device Info

Device Model:	H500
Software Version:	H50.0-03-5.4.0-15.32.00
Hardware Version:	V1.0
IMEI:	351966690003741
IMSI:	311480176888870
MAC:	00:24:A3:BF:AB:E6
Mobile Number:	16199940561
ICCID:	89148000009789735638

RF Parameters

RSRP:	-83dBm
RSSI:	-58dBm
RSRQ:	-10dB
SNR:	undefineddB
PCI:	419

Advanced Settings

Warning! Making changes to Advanced Settings can cause the device to stop operating properly. Only make changes to these settings if you understand the impact to the device.

Manual DNS

You can specify control settings on the Open DNS website to block specific categories of websites and view the ones that have been accessed from your specific network.

1. From the Home screen, click **Settings**> **Advanced Settings** > **Manual DNS**.
2. Modify the DNS address as required and apply to filter.
3. Click **Save Changes** to ensure the changes take effect.
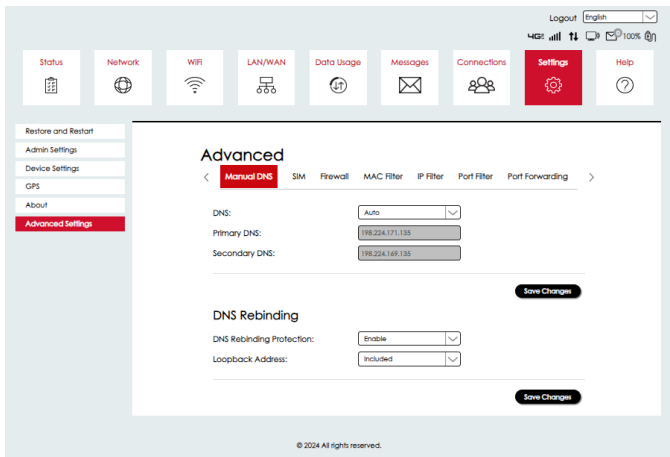
Subscriber Identity Module (SIM)

You can enable SIM Personal Identification Number (PIN) security to allow your device to connect to the Internet.

1. From the Home screen, click Settings> Advanced Settings > SIM.
2. Enter your device's default PIN to enable SIM PIN security.
   NOTE: Contact Verizon for the default PIN. Only Verizon has this information.
3. Click **Save Changes** to ensure the changes take effect.
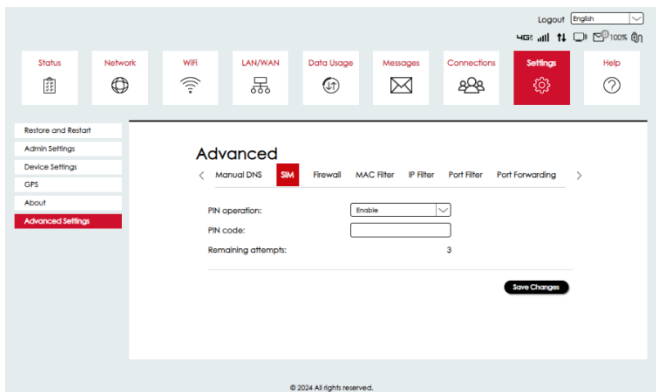
Firewall

The Firewall tab allows you to enhance the security of your network connections by managing and configuring protective measures against unauthorized access and cybersecurity threats.

1. From the Home screen, click **Settings**> **Advanced Settings** > **Firewall**.

2. Enable/disable the key firewall settings.

3. Click **Save Changes** to ensure the changes take effect.

NOTE: Firewall settings should be changed with caution as it may leave the device vulnerable to unauthorized access.
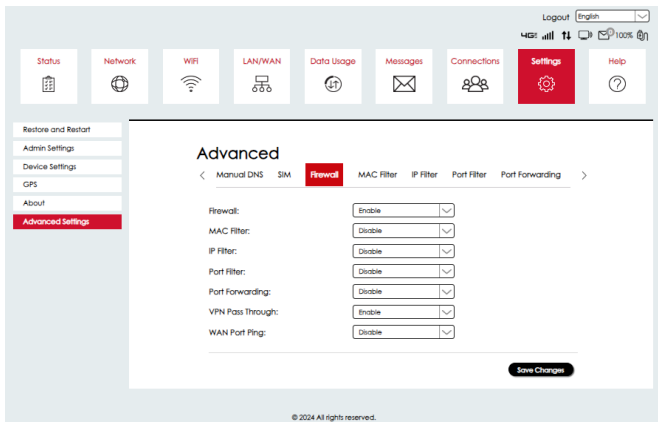
MAC Filter

MAC Filter

You can define a list of devices and only allow those devices on your Wi-Fi network using MAC address filtering.

1. From the Home screen, click **Settings** > **Advanced Settings** > **MAC Filter**.
2. Enable/disable the ability to add devices to your Whitelist or Blacklist settings.
3. Click **Save Changes** to ensure the changes take effect.

IP Filter

You can manage what IP traffic is allowed in and out of your network based on the rules you define.

1. From the Home screen, click **Settings** > **Advanced Settings** > **IP Filter**.
2. Enable/disable the IP address network packets that need to be filtered.
3. Click **Save Changes** to ensure the changes take effect.

NOTE: The IP address filtering must be configured in the Firewall before it can be utilized for Blacklisted or Whitelisted devices.

Port Filter

You can select which programs (for example, HTTP, FTP, and email servers) can use the Mobile Hotspot to connect to the Internet.

1. From the Home screen, click **Settings** > **Advanced Settings** > **Port Filter**.
2. Define the type of ports required.
3. Click **Save Changes** to ensure the changes take effect.

Port Forwarding

You can set up (for example, Web servers, FTP servers, email servers) specialized Internet applications on your networks.

1. From the Home screen, click **Settings** > **Advanced Settings** > **Port Forwarding**.

2. Manage/customize your IP address to send and receive to the LAN side and the internet side.

3. Click **Save Changes** to ensure the changes take effect.
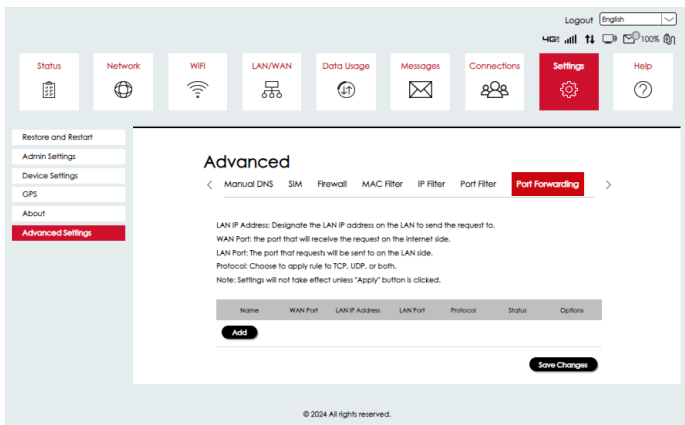
Data Management Zone (DMZ) Settings

You can allow an external network to connect to and communicate with inside LAN devices through this WAN interface.

1. From the Home screen, click **Settings** > **Advanced Settings** > **DMZ Settings**.

2. Click enable to add the desired IP address to manage the DMZ settings.

3. Click **Save Changes** to ensure the changes take effect.
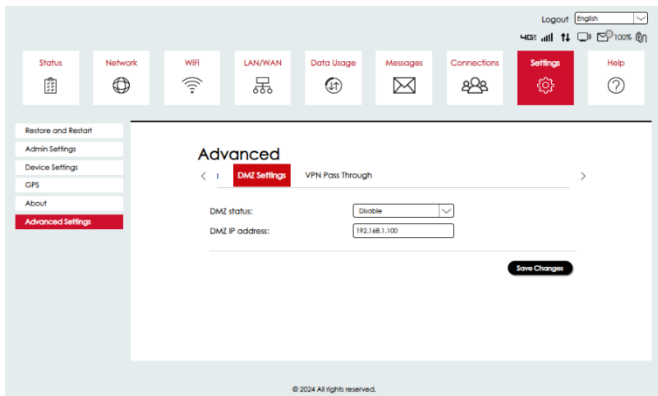
VPN passthrough

Your device supports VPN passthrough. VPN passthrough allows VPN traffic to pass through the device's firewall, ensuring secure internet connections for remote work or accessing private networks while maintaining data privacy.

1. From the Home screen, click **Settings** > **Advanced Settings** > VPN passthrough.

2. Click enable to add the desired IP address to manage the DMZ settings.

3. Click **Save Changes** to ensure the changes take effect.
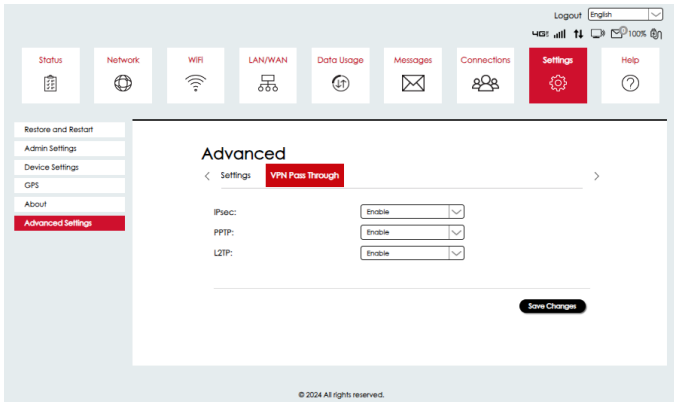
PRODUCT SPECIFICATIONS

General

Name	Sonim H500 5G Mobile Hotspot
Model	H500V
Approvals	FCC (US) IC (Canada)
Weight	308g, 10.9oz
SIM	4FF removable
Dimension	115x100x22.7mm, 4.53"x3.94"x0.89"
Connectivity	3G/4G/5G
Wireless Network (Wi-Fi mode)	Wi-Fi 6 (802.11 a/b/g/n/ac/ax)* *dual concurrent
Location services	GPS L1 & L5 / NMEA 2000 / GPS over Wi-Fi
Ethernet	1 x RJ 45 (1 Gbps)
USB interface	USB C 3.1
Display	2.4 Inch
Battery Size	6000 mAh Li-ion
Time for Full charge	3 hours (when not in use)
Usage without battery installed	Yes, when connected to wall power.
Chipset	Qualcomm® SDX62-0
Memory	RAM= 1GB, FLASH=1GB

WIRELESS COMMUNICATION

Warning! Data can occasionally be lost or delayed due to wireless transmission and reception properties.

The data loss 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, caused by several factors, including signal reflection, the ionosphere, and interference from other radio channels. SONIM® 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 Mobile Hotspot device or failure of the Sonim H500 5G Mobile Hotspot device to send or receive such data.

SAFETY HAZARDS

Do not operate the Mobile Hotspot in an environment that might be susceptible to radio interference resulting in danger[2] specifically:

AREAS PROHIBITED BY LAW

Follow any special rules and regulations and obey all signs and notices. Always turn off the hotspot host device when instructed or suspect it might cause interference or danger.

Do not operate your device under the following conditions.

- In areas where blasting is in progress
- Where explosive atmospheres may be present
- Near medical equipment
- Near life support equipment, or any equipment that may be susceptible to any form of radio interference.

In such areas, your device MUST BE POWERED OFF. Your device can transmit signals that could interfere with this equipment. Some airlines may permit the use of mobile hotspots while the aircraft is on the ground. When in use on an airplane, follow the directions of the airlines and either power your device off, or put the mobile hotspot in Airplane Mode as directed. At all times when the aircraft is in the air, your device MUST be powered off or placed in Airplane Mode. Your device can transmit signals that could interfere with various onboard systems.

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

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[2] U.S. Food and Drug Administration. "Magnets in Cell Phones and Smart Watches May Affect Pacemakers and Other Implanted Medical Devices." Last modified May 13, 2021. https://www.fda.gov/radiation-emitting-products/cell-phones/magnets-cell-phones-and-smart-watches-may-affect-pacemakers-and-other-implanted-medical-devices.

Federal Communications Commission. "Wireless Devices and Health Concerns." Last modified November 4, 2020. https://www.fcc.gov/consumers/guides/wireless-devices-and-health-concerns.

FCC SAR WARNING

This device with **FCC ID: WYPH500V** meets the government's requirements for exposure to radio waves.

This mobile hotspot is designed and manufactured not to exceed the emission limits for exposure to radiofrequency (RF) energy set by the Federal Communications Commissioner of the U.S. Government:

o The exposure standard for wireless mobile hotspots employs a unit of measurement known as the Specific Absorption Rate or SAR. The SAR limit set by the FCC is 1.6W/ kg. Tests for SAR are conducted using standard operating positions (10mm) accepted by the FCC, with the mobile hotspot transmitting at its highest certified power level in all tested frequency bands. The SAR guideline includes a considerable safety margin designed to assure the safety of all persons regardless of age and health.

o The FCC has granted an Equipment Authorization for this model mobile hotspot with all reported SAR levels evaluated as in compliance with the FCC RF exposure guidelines. SAR information on this model mobile hotspot is on file with the FCC and can be found under the Display Grant section of https://www.fcc.gov/oet/fccid . Enter WYP for Grantee code and H500V for Product code on the FCC ID Search Form.

FCC STATEMENT

This product complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

1. This product may not cause harmful interference.
2. This product must accept any interference received, including interference that may cause undesired operation.

NOTE:

This product has been tested and found to comply with the limits for a Class B digital device under part 15 of the FCC Rules. These limits are designed to protect reasonably against harmful interference in a residential installation. This product generates uses and can radiate radio frequency energy and, if not installed and used by the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. Suppose this product does cause harmful interference to radio or television reception, which can be determined by turning the product OFF. In that case, the user is 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/TV technician for help.

Sonim or the manufacturer is not responsible for any radio or TV interference caused by unauthorized modifications to the product. Such changes could void the user's authority to operate the equipment.

Data transmission is always initiated by software, passed down through the MAC, digital and analog baseband, and finally to the RF chip. The MAC initiates several special packets, the only way the digital baseband portion will turn on the RF transmitter, which then turns off the end of the packet. Therefore, the transmitter will be on only while one of the packets mentioned above is transmitted. In other words, this device automatically discontinues transmission in case of either absence of information to transmit or operational failure.[3]

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[3] The FCC has granted an Equipment Authorization for this model mobile hotspot with all reported SAR levels evaluated as in compliance with the FCC RF exposure guidelines. SAR information on this model mobile hotspot is on file with the FCC and can be found under the Display Grant section of https://www.fcc.gov/oet/fccid . Enter WYP for Grantee code and H500V for Product code on the FCC ID Search Form.

BATTERY SAFETY WARNING

Battery usage

Your Sonim H500 5G mobile hotspot comes with a removable battery. For any battery-related questions, please contact the Sonim Customer Experience Center at 1-833-697-6646 (1-833-MY-SONIM) or email us at support@sonimtech.com.

Use only a Sonim-certified mobile hotspot battery for the Sonim H500 5G. The use of other batteries may cause permanent damage to your device, thus voiding the warranty.

- It is recommended to protect the battery from extreme temperature environments and moisture.

- Please keep the battery out of the reach of children.

  1. **Temperature**

     - Charging temperature 0°C-40°C

     - Operation temperature -20°C~ +55°C

  2. **Battery and charging usage**

     - Only Sonim BAT-06000-01S Battery can be used for H500B/H500V host.

     - Only use Sonim inbox accessary charger model 1-CHUSQ302-097 and USB cable

  3. **Battery Disposal**

DISPOSAL OF BATTERY

Please check local regulations for disposal of batteries. The battery should never be placed in municipal waste. Use a battery disposal facility if available.

4. Battery IEEE1725 safety statement[4]

Do not disassemble or open crush, bend or deform, puncture or shred.

Do not modify or re manufacture, attempt to insert foreign objects into the battery, immerse or expose to water or other liquids, expose to fire, explosion or other hazard.

Only use the battery with a charging system that has been qualified by the system per CTIA Certification Requirements for Battery System Compliant to IEEE 1725. Use of an unqualified battery or charger may present a risk of fire, explosion, leakage or other hazard.

Do not short circuit a battery or allow metallic conductive objects to contact battery terminals.

Promptly dispose of used batteries in accordance with local regulations.

Battery usage by children should be supervised.

Avoid dropping the phone or battery. If the phone or battery is dropped, especially on a hard surface, and the user suspects damage, take it to a service center for inspection.

Improper battery use may result in a fire, explosion or other hazard.

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[4] IEEE Standards Association. "**IEEE Standard for Rechargeable Batteries for Mobile Phones.**" Last updated August 23, 2021. https://standards.ieee.org/ieee/1725/7238/.

Additional battery information

The current battery level, and whether it is charging or not charging, is displayed in the upper right-hand corner of the screen.

Charging the battery

We recommend that you give your mobile hotspot a full charge before you use your mobile hotspot for the first time. The ambient temperature during charging shall be in the range 0°C to 40°C (32°F to 104°F). Only the power supplies with outputs meeting the SELV requirements can be used for charging. The maximum allowable input voltage for the mobile hotspot is 5V. Again, if you use an incorrect battery, there is a risk of fire or explosion while charging.

If the battery is completely out of charge, it can take several minutes for the charging icon to appear when the charger is connected.

Properly charging the device

1. INSERT CHARGER - Insert the charger plug into a power outlet.

2. CONNECT TO THE MOBILE HOTSPOT - The charging port is located on the back center of the mobile hotspot. Open the port cover and insert the charging connector to the charging port.

3. CHARGING ANIMATION/ICON

    - If the battery is being charged when the mobile hotspot is switched off, a battery charging animation with current battery level is displayed.

    - If the battery is being charged while the mobile hotspot is switched on, the battery icon on the status bar shows the animation indicating that the battery is being charged.

    - After the battery is fully charged the charging animation stops and you can disconnect the charger from the mobile hotspot. A message is displayed as Battery is full. Please unplug the charger.

Tips to extend the battery life

You can optimize battery power by utilizing two options within the Settings menu. First, the Screen Timeout and second, the Sleep Mode.

Managing Screen Timeout

To maximize your battery life, it is recommended to set your Screen Timeout to 30 seconds (which is the factory default). You have options to set the Screen Timeout to 30 seconds, or 1, 5 or 10 minutes. The longer the Screen Timeout is set, the shorter your battery life will typically be.

Managing Sleep Mode.

To further maximize your battery life, please go to Settings→Sleep Mode. Here, if no devices are connected to your hotspot, you will have the option to put your mobile hotspot to sleep after 5 minutes, 15 minutes, 30 minutes, 60 minutes or never. If you select "Never sleep" your device will stay awake until the battery depletes even if the mobile hotspot is not connected to any devices.

At any point, pressing the Power button will awaken the mobile hotspot so you can connect devices for usage.

If you are traveling and do not have access to mobile data or Wi-Fi network, switch to Airplane mode. To access Airplane Mode, go to SETTINGS AIRPLANE MODE. The default mode is OFF (slider will be on the left-hand side and black in color.) To turn Airplane Mode ON, touch the slider and the button will slide to the right and change to green color. To turn Airplane Mode OFF, simply touch the slider and it will turn black and the button will move to the left-hand side.

NOTE: With Airplane Mode ON, your hotspot will not be able to receive cellular signal and therefore will not have access to the internet.

AVOID HIGH TEMPERATURES

Leaving the device in hot or cold places, such as in a closed car in summer or winter conditions, reduces the capacity and lifetime of the battery. For the best results, try to use the device between -20°C and +55°C (-4°F and 131°F). A device with a hot or cold battery may not work temporarily, even when the battery is fully charged. Battery performance is particularly limited in temperatures well below freezing.

Storing your mobile hotspot or battery

If you plan to store your mobile hotspot or your battery for an extended time, please follow the recommendations below to ensure long battery life and minimize battery self-discharge:

Charge your battery to a level between 40% to 80%

Store mobile hotspot and battery separately to minimize battery trickle drain

Insulate the battery terminals to avoid discoloration and potential short circuits with other battery terminals

Store the battery in dry and cool conditions in a vibration-free environment

If you use a climate-controlled storage location, set the temperature to 50° to 64° F (10° - 18°Celsius) and keep the relative humidity between 40% - 50%

Recharge the battery once every 6 months, using the original Sonim wall charger and charging cable.

Child safety

Do not allow children to play with your mobile hotspot or its accessories. Keep it out of their reach. They could hurt themselves or others or could accidentally damage the mobile hotspot. Your mobile hotspot contains small parts, such as the SIM, which could be detached, and a battery door removal tool accessory which is included in the packaging that can create a choking hazard.

BASIC TROUBLESHOOTING & FAQ

I forgot my Wi-Fi password
On the touchscreen, tap Wi-Fi Info in order to check the SSID and password of your mobile hotspot.
On the Admin web UI, go to http://sonim.mobilehotspot. Login and go to Status page and your SSID and passwords will be listed on the left-hand side under Wi-Fi.

How can I change the Wi-Fi name and password?
Log into the Admin web UI, http://sonim.mobilehotspot.

My device won't connect to the internet. What is wrong?
All Sonim mobile hotspots require an activated SIM card to establish a connection to the internet. Contact Verizon to confirm that your SIM card is active.

Can I make my Sonim hotspot perform faster?
Sonim mobile hotspots are configured by default to provide the fastest connection possible based on the network and signal conditions.

Can I use my device in another country?
The Sonim H500 5G mobile hotspot will work in other countries IF your rate plan allows international roaming. Please contact Verizon to confirm your account is properly set up to allow international roaming along with the Terms and Conditions that apply.

Where can I find my passwords for my mobile hotspot?
Your SSID and passwords can be found on the main menu and clicking on Wi-Fi Info. Scroll through the three screens to find the SSID and password for each network name.

How can I check to see if I am on the current software on my hotspot?
From the Web-UI go to SETTINGS→SOFTWARE UPDATE→Check for Update

REGISTER YOUR DEVICE

Please register your phone at http://sonimxperience.com/registration_portal/portal/registration.php to receive product information and updates.

The Sonim H500 5G is covered by a 2-Year warranty. The battery is covered by a 1-Year warranty. For more FAQ's, please go to the Sonim website at www.sonimtech.com/support.

Manufacturer's address:

4445 Eastgate Mall, Suite 200, San Diego, CA 92121,

USA Tel: 1-650-378-8100.

Sonim H500 5G USER GUIDE
V1 25OCT2024