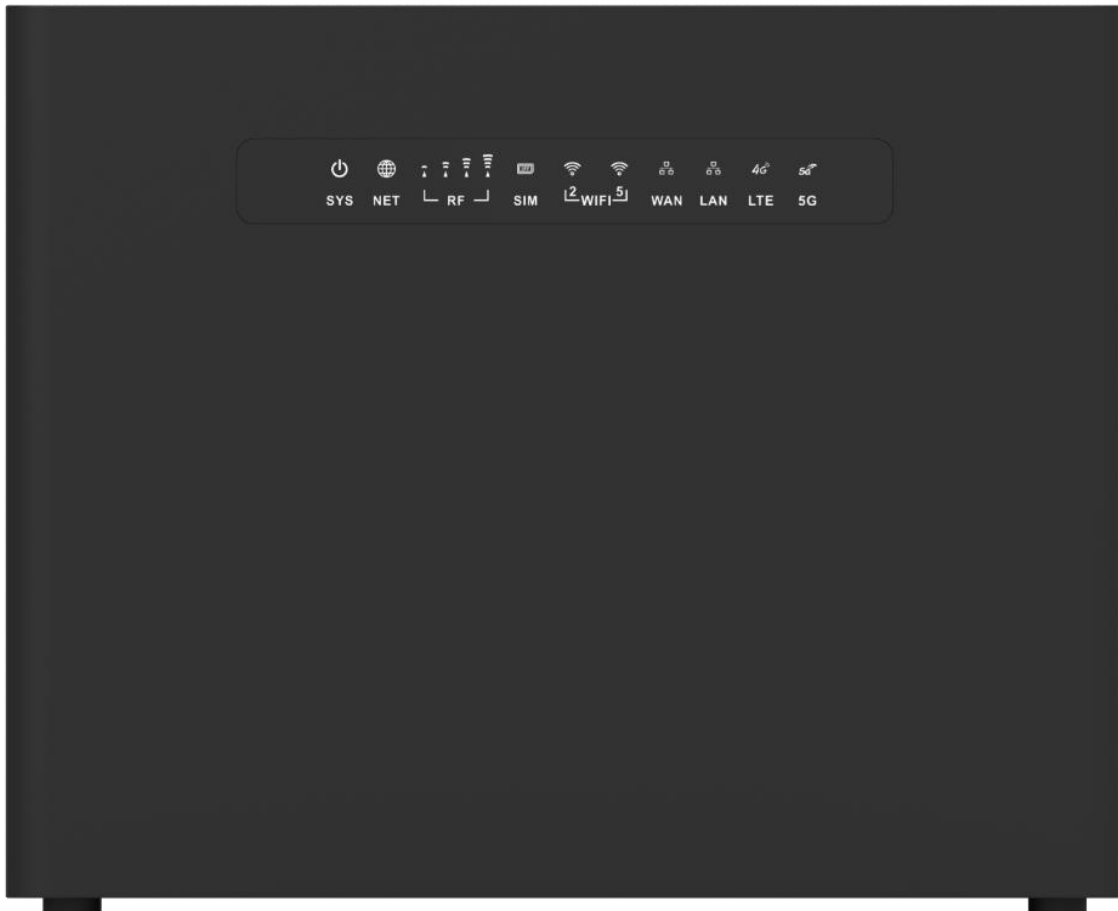




5G Cellular Modem Gateway 3.0 2023 User Manual



Thank you for purchasing this GTEN® modem product.

You can visit www.gtenamerica.com/support to obtain more information about your product, get help, access the latest downloads and manuals.

We recommend that you use only official GTEN® support resources.

GTEN® Modem

Table of Contents – Modem Features

	Page No.
Introduction	
Introduction and Hardware Overview	5
Package Contents	6
Install the Micro SIM Card	6
Front Panel with Status LEDs	7
Back Panel with Connectors, Buttons, and a Ports	8
Install the included antennas	8
Modem Labels	9
Positioning the Modem	10
Optional External Antenna	10
Get Started	Page No.
Internet Connection Over Mobile Broadband	12
Connect a Computer, Switch, Hub, Router, or Wi-Fi Router to the Modem	12
Connect a Computer to the LAN Port of the Modem	13
Connect a Router or Wi-Fi Router to the LAN Port of the Modem	13
Access the Modem’s Web Pages for the First Time	13
The Main page (Network Map)	14
Network Traffic page	17
Advanced Settings	Page No.
Manage the Wireless 2.4Ghz Settings	19
Manage the Wireless 5Ghz Settings	20
Manage the LAN Settings	21
Manage the Firewall Settings	22
1. Manage MAC-Filtering	23
2. Manage Port Forwarding	23
3. Manage DMZ/DDNS	24
4. Manage IP Filtering	24
5. Manage Port Filtering	24
6. Manage VPN Client Pass-Through	25
Manage Cellular Settings (APN/Band locking)	27
Manage Modem Web Interface Administration	28
1. Manage Services (Telnet/SSH Access)	29
2. Manage FW (Firmware Upgrades)	30
3. Perform Reboots/Hard Factory Resets	30
4. Advanced user AT Command Console	27
View the General System Log	31
Connected Devices	31

GTEN® Modem

Quick reference – What page to go to for my concern?

Manage the Mobile Broadband Connection	Page No.
Manage Mobile Broadband Auto Connect Options	15
Manually Connect to or Disconnect from the Mobile Broadband Network	15
Manage APN Profiles for Mobile Broadband Connections	27
View the current APN	15 or 27
Add a Custom APN	27
Change an APN	27
Secure Your Network	Page No.
Change the Modem Password	28
Manage Port Forwarding for Incoming Traffic	23
Enable Port Forwarding and Add a Service or Application	23
Remove a Service or Application for Port Forwarding	23
Disable Port Forwarding	23
Manage IP/Port Filtering for Outgoing Traffic	24
View Telnet/SSH Services	29
Disable Port Filtering	24
Manage the Modem and Monitor Usage and the Network	Page No.
Upgrade the Firmware of the Modem	30
Return the Modem to Its Factory Default Settings	30
Use the back panel reset button	10
Use the Modem's Web Pages to return to Factory Defaults	30
View Monthly Data and Session Data Usage	17
View Service Provider, Type of Service, and Signal Strength	15
View Other Details About Your Modem	15
View Information About the Mobile Broadband Connection	15
How do I access the modem's web pages?	13
Default Settings and Specifications	Page No
Technical and Environmental Specifications	36
Supported Mobile Broadband Bands	36
Warranty Information	37
FCC Declaration of Conformance	41
FCC RF Radiation Exposure Statement (SAR)	41
Safety Warnings	41
Safety and Compliance	42
Maintenance & Care	42
Legal Notices	42

GTEN® Modem

Troubleshooting the modem.

General Troubleshooting	Page No.
What do I do when I can't connect a device to the modem?	32
What do I do when I can't access the Internet?	32
What do I do when the NET icon display is not lit?	32
Why does the Signal Strength LED show only a few bars?	33
Why is the download or upload speed slow?	33
Can I connect multiple LAN devices to the modem?	33
What do I do if I forget my admin login password?	33
How do I disconnect from the mobile broadband network?	34
How do I find my computer's IP address?	34
Why can I not log into the Modem Web interface?	34
Troubleshoot the Mobile Broadband Internet Connection?	35
Can a Public Static Internet "IP" Address be used?	35

Introduction and Hardware Overview

This section provides a basic introduction and hardware overview:

- Device Introduction
- Package Contents
- Installing the Standard SIM Card
- Front Panel with Status LEDs
- Back Panel with Connectors, Buttons, and a Ports
- Modem Label
- Positioning the Modem
- Optional External Antenna

Device Introduction

The GTEN® Modem model, in this manual referred to as the modem, can provide broadband data services to areas where wired Internet is not readily available or is difficult, costly, or time-consuming to install. The modem uses existing 5G mobile networks with automatic fallback to 4G/LTE mobile networks to provide broadband data services.

The GTEN® Modem mobile network connection can provide high-speed Internet access for multiple users and devices in homes and offices.

Alternatively, you can connect the GTEN® Modem to an existing DSL, cable, or fiber optics gateway that supplies WAN ports so that the modem can provide a backup Internet connection for your home or office to achieve continuous connectivity. Professional installation and configuration are not required. When a SIM card is installed and activated, by default, the modem automatically searches for and connects to your network provider's mobile broadband network.

For information about installing the modem, see the quick start guide, which is included in your new modem box kit.

In the unlikely situation that the modem does not automatically connect to your network provider's mobile broadband network, you might need to add an access profile name (APN) profile.

For information about adding an APN profile, see [View APN Profiles](#) or [Add a Custom APN Profile](#).

Package Contents

Your package contains the following items:

- GTEN® Modem
- 4 x Cellular SMA Paddle antennas
- CAT 6 3' Ethernet cable
- 12 Volt 2/3 Amp power adapter
- Quick setup card

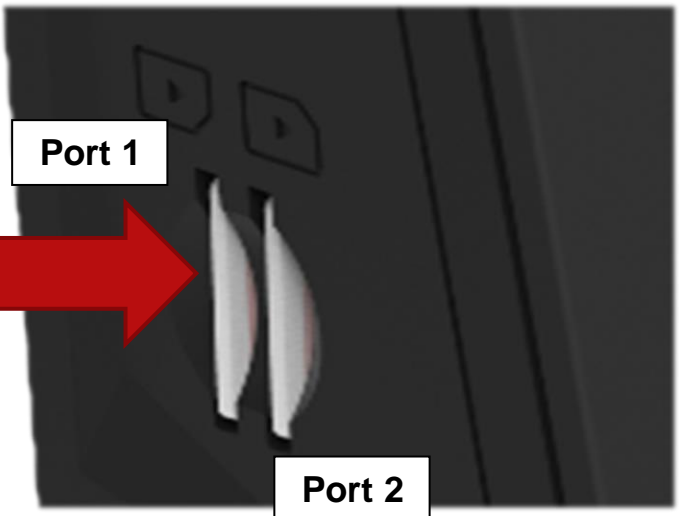


Install the SIM Card

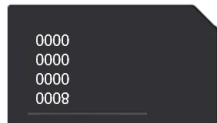
A standard SIM card might be preinstalled in the modem, or you might need to obtain a SIM card and install it yourself. To obtain a SIM card, contact your mobile broadband Internet service provider.

Overview of installing the SIM card:

To install a SIM in **port 1** the gold side faces towards front of the modem and the SIM notch faces downward. (See example)



To install a SIM in **port 2** the number side faces towards front of the modem and the SIM notch faces upward. (See example)



Port 2 Only in MAX & 5G Modems

To install the SIM card in the modem:

1. Ensure that power to the modem is off.
2. Place the modem horizontally with the front display panel facing you.
3. Insert the SIM card in the desired SIM slot (SLOT 1 is always recommended)
4. The SIM should lock into place by using your finger to push the SIM into the slot.
5. Turn on the power to the modem by connecting the power adapter.

Front Panel with Status LED's

The modem displays status LED bars on the front panel. (From left to right)

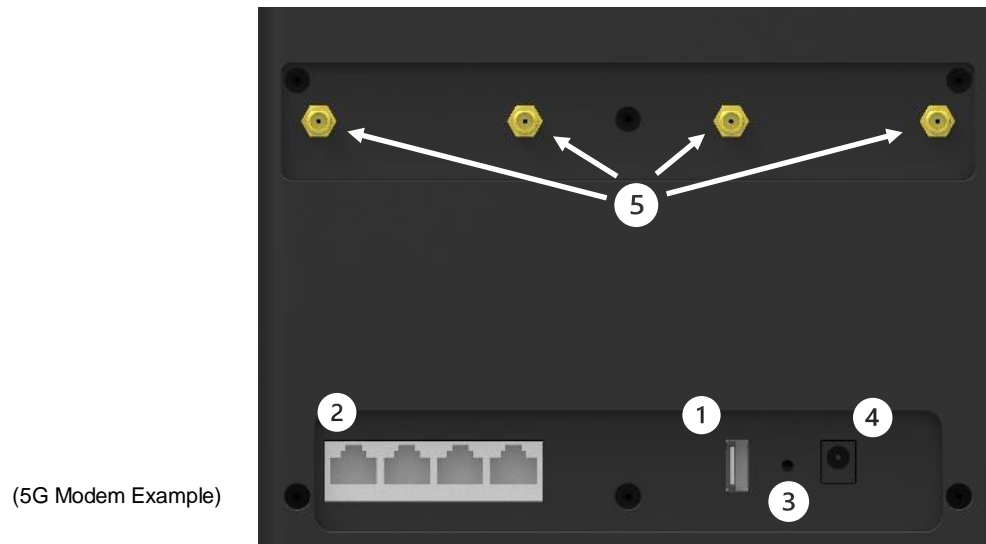


1. **SYS** light indicates POWER status when solid lit modem has power.
2. **NET** light indicates INTERNET connection when solid lit modem has connection to the internet.
3. **RF** lights indicate SIGNAL strength, the more RF lights lit the better the signal reception from the mobility tower.
4. **SIM** light indicates SIM CARD is being read by the modem when solid lit.
5. **WIFI 2 and 5** lights indicate an active broadcasting wireless network for you're at home devices, when lit SOLID this means the network is ready for connection, when blinking this means WIFI data is transmitting data to its connected devices.
6. **WAN** light indicates that the WAN Fail over is active when solid lit.
7. **LAN** light indicates that the Ethernet cables are active and transferring data over Ethernet cables.
8. **LTE** light indicates that the communication with the local tower, when lit the modem is successfully obtained signal from the tower.
9. **5G** light indicates that the communication with the local tower, when lit the modem is successfully obtained signal from the tower. When both 4G and 5G are lit the modem is using 5G NSA technology to provide enhanced services. NOTE: When the 5G light is lit "**BLUE**" this indicates you are connected to C-Band Ultra-Wide Band 5G technology. **BLUE** light indicator only available in 5G Modem Gateway 3.0.

Back Panel with Connectors, Buttons, and Ports

The following figure shows the ports, connectors, and buttons on the back panel of the modem.

From left to right, the back panel of the modem provides the following components:



1. USB 3.1 port for data sharing. (Not included in the LTE Modem)
2. WAN/LAN Gigabit Ethernet port. One RJ-45 Gigabit Ethernet port to connect a WAN router and 3 Gigabit Ethernet ports for wired devices including Wi-Fi extenders and routers, Ethernet switch or hub, or single computer.
3. Soft Reset button (Hold for 15 seconds to clear information) A recessed Reset button to return the modem to factory default settings.
4. Power supply port for power adapter connection.
5. Back external antenna ports designed to enhance 5G/LTE connections.
6. Wi-Fi On/Off button. (Side of modem) An On/Off button to control the Wi-Fi transmitter.

Install the included antennas.

The modem kit comes with up to 4 SMA antennas.

Install the
antennas on the
back ports



Modem Labels

In addition to the default URL and password to access the modem's web pages, the modem label on the back or bottom panel shows the following information:

- Serial number (SN)
- Stock keeping unit (SKU) number
- MAC address
- IMEI (International Mobile Station Equipment Identity) (On separate sticker)

Modem label examples:



Positioning the Modem

Before setting up the router, it is recommended to take the following into considerations for optimal signal strength:

- Near a window where the signal is mostly uninterrupted.
- On a flat surface.
- Keep a minimum distance of 35 centimeters between the router and your body.
- In an open space with as few blocking objects or obstructions as possible. For instance, make sure the number of walls and ceilings between the router and your wireless devices are.
- Elevated surface.
- Keep the router away from 802.11g or 20MHz only Wi-Fi devices, 2.4GHz computer peripherals, Bluetooth devices, cordless phones, heavy-duty motors, fluorescent lights, and some industrial equipment that may generate signal interferences with your router.
- Do not place heavy objects on the device, for instance, sitting on the device.
- Avoid positioning it:
 - next to a wall that may obstruct the signal.
 - near heavy-duty appliances.
 - close to metal fixtures, enclosures, cabinets, or thick concrete.
 - in a basement.
 - on the floor or lower surface.

Optional External Antenna

You can purchase an external multiple input, multiple output (MIMO) antenna for the modem to extend the mobile broadband signal range indoors or in fringe network areas. The modem uses SMA ports for its external antenna port(s).

The external antenna plugs into the two (four for 5G model) antenna connectors on the back of the modem to boost speeds and extend coverage in buildings or vehicles, or in remote sites where network coverage is sparse. You could, for example, attach the external antenna on the outside window.

Visit gtenmaerica.com for our Outdoor external 5G/LTE antenna designed for your modem.

Get Started

This section describes how to connect to the modem. To get started, you do not need to configure the mobile broadband connection unless your modem did not come with a SIM installed.

The chapter contains the following sections:

- Internet Connection Over Mobile Broadband
- Connect a Computer, Switch, Hub, Router, or Wi-Fi Router to the Modem
- Access the Modem's Web Pages for the First Time

Internet Connection Over Mobile Broadband

By default, when the modem powers up with a SIM card installed, it automatically searches for and connects to your network provider's mobile broadband network.

This process might take several minutes. The SIM card that is installed determines the mobile broadband network to which the modem connects.

Even though the modem might connect to the mobile broadband network of the same service provider each time that you start the modem, the type of mobile broadband service to which the modem connects might differ.

Pro Tip: If the modem does not automatically connect to the mobile broadband network after 5 minutes, the **SYS** Power LED remains solid, and you might need to contact your mobile service provider to get the access point name (APN) profile information and activate a custom APN profile in the modem.

Connect a Computer, Switch, Hub, Router, or Wi-Fi Router to the Modem

By default, the modem functions in Router mode with the DHCP server enabled and IP pass-through (IPPT) disabled. This means that you can connect multiple devices to the modem, for example, through an Ethernet switch or hub, and that each device can receive an IP address from the modem.

Connect a Computer to the LAN Port of the Modem

You can add a single computer to the Ethernet local area network (LAN) of the modem.

To connect a computer to the Ethernet LAN of the modem:

1. Attach one end of the Ethernet cable that came in the product package to an Ethernet port on your computer.
2. Attach the other end of the cable to the Gigabit Ethernet LAN port on the back panel of the modem.

Connect a Router or Wi-Fi Router to the LAN Port of the Modem

You can add a router or Wi-Fi router to the Ethernet local area network (LAN) of the modem.

To connect a router or Wi-Fi router to the Ethernet LAN of the modem:

1. Attach one end of the Ethernet cable that came in the product package to an Ethernet port on your router or Wi-Fi router.
2. Attach the other end of the cable to the Gigabit Ethernet LAN port on the back panel of the modem.

Access the Modem's Internal Web Pages for the First Time

(Does not require internet)

The modem comes configured and ready to use. You can use the modem's web pages to monitor data usage and change basic settings.

You can log in to the modem's web pages over an Ethernet cable. The modem's web pages run on any device with a web browser such as Google Chrome, Mozilla Firefox, and Microsoft EDGE.

To access the modem's web pages:

1. Launch a web browser from a device that is connected to the modem.

The device can be a computer that is directly connected to the modem or a client from a router that is connected to the modem.

2. In the URL address field of your browser, enter **192.168.2.1**
3. To access the full Dashboard page and other pages, you must enter your username and password which are both set by default to **GTEN**
See the modem label for the default password.

While the password that you enter is unique to your modem and is secure, we recommend that you change it to a password that you want to use.

- a. If you do not want to enter your password each time that you access the modem's web pages, select the Remember me check box on your browser.
- b. Click the Sign In button or hit <enter>. (See example)

192.168.2.1

This site is asking you to sign in.

Username
admin

Password
.....

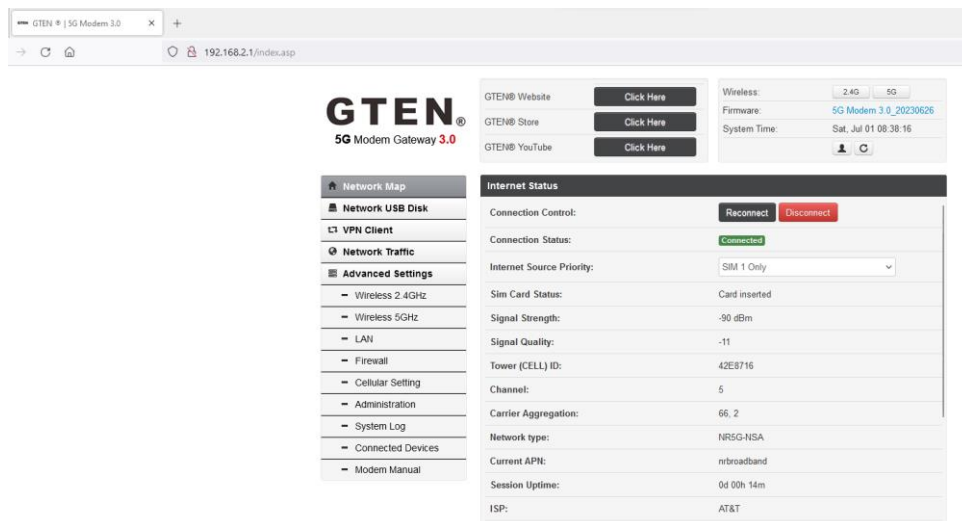
Sign in Cancel

When the full GTEN “Network Map” page displays. You are now ready to monitor the modem and manage the settings.

If you cannot log in to the modem or your browser does not display the Dashboard page, check the following:

- Make sure that the computer, router, or Wi-Fi router is connected to the LAN Gigabit Ethernet port of the modem or you have established a Wi-Fi connection.
- Make sure that your browser does not cache the previous page by closing and reopening the browser.
- If your computer is set to a static or fixed IP address (this type of setting is uncommon), change the setting to obtain an IP address automatically from the modem.

What you should see when first logged in: (The Main Page)

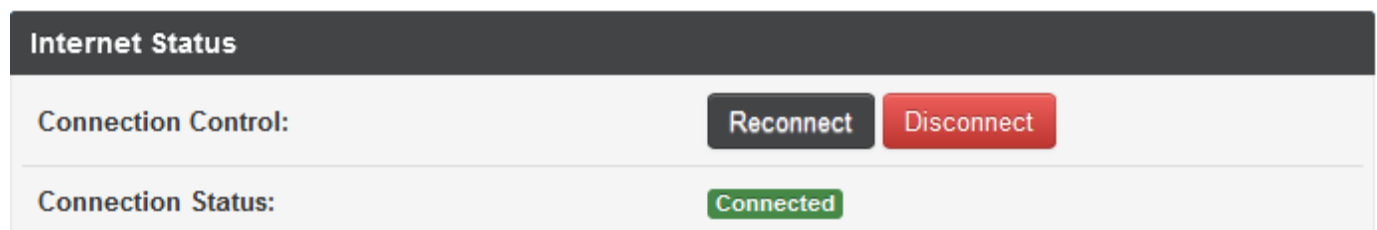


The Main page (Network Map)

Top of the page:

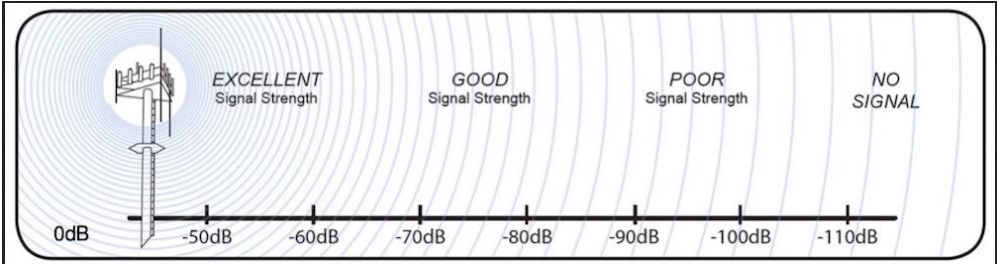
<p>GTEN® Website https://gtenamerica.com</p>	<p>Click on this option to take you to the GTEN America website for the latest information on new products and current product updates.</p>
<p>GTEN® Store https://store.gtenamerica.com</p>	<p>Click on this option to take you to the GTEN America STORE website to purchase additional parts and outdoor antennas.</p>
<p>GTEN® YouTube https://videos.gtenamerica.com</p>	<p>Click on this option to take you to the GTEN America YOUTUBE page for how to videos.</p>
<p>Wireless:</p>	<p>Click on either icon option to take you directly to the Wi-Fi settings for your router.</p>
<p>Firmware:</p>	<p>Provides you with the current firmware version. Click on the current Firmware number to take you directly to the FIRMWARE upgrade settings for your router.</p>

On this page you will find all the modem connection information. Below is an explanation of what each response means:



The connection control is used to reconnect to the neighborhood tower, use only when experiencing connection issues. You will first need to release the previous connection by clicking on Disconnect and then click on Reconnect to reestablish Internet connection.


Connection Status: **Connected** – This means the modem has a valid connection to the internet and is actively passing broadband data.

<p>Internet Source Priority:</p>	<p>You can choose the type of internet connection you want to use like WIRED WAN or SIM card connections</p> <div style="border: 1px solid black; padding: 2px; display: inline-block;">Wired WAN First then SIMs ▼</div>
<p>Sim Card Status:</p>	<p>Not Card inserted – This means the modem is NOT reading the SIM card correctly. Also, can be an indication that the APN is not set correctly.</p> <p>Card inserted – This means the modem is reading the SIM card correctly.</p>
<p>Signal Strength:</p>	<p>This is the cellular radio reception (RSRP) score. It is important to try and keep this number under -100 for the best signal.</p> 
<p>Signal Quality:</p>	<p>This is the cellular radio signal quality (RSRQ) score. It is important to try and keep this number under -10 for the best wireless experience. This score can be affected by nearby devices.</p>
<p>Tower (CELL) ID:</p>	<p>This is the neighborhood tower public identification number.</p>
<p>Channel:</p>	<p>41 – This is the modems PRIMARY (PCC) connection channel.</p>
<p>Carrier Aggregation:</p>	<p>2, 4 – This is the modems CA channels (SCC) connection channel(s). What is Carrier Aggregation? Carrier aggregation is used in 5G and LTE to increase the bandwidth by combining several channels into one channel, which thereby increase the bitrate and data speeds. NOT AVAILABLE IN THE GTEN LTE MODEM.</p>
<p>Network type:</p>	<p>This is the modems mobile broadband connection method: 5G-SA – Means 5G is the connection method without LTE. (5G Models only) 5G-NSA – Means 5G is the primary connection method with LTE channels (5G Models only) LTE – Means 4G LTE is the primary connection method. UTMS/HSPA+– Means 3G is the primary connection method.</p>
<p>Current APN:</p>	<p>Access point name is used by the Internet provider to connect your SIM card to the appropriate service provider. This APN is provided to you by the operator and normally is preprogrammed into your device.</p>

Session Uptime:	This timer indicates how long the modem has been on and passing data.
ISP:	This is current common carriers network you are connected to.
IMEI:	This is modems identification number for the common carrier.
ICCID:	This is the modems physical SIM card number.
Module Manufacturer:	This is the communication radio card manufacturer.
Cellular Module:	This is the communication radio card model and firmware number.
Internet Network (WAN) – Information from the common carrier.	
IPv4 Address WAN:	The IP address provided by the carrier assigned to your device.
Gateway WAN:	The IP address of the carrier’s master device.
DNS:	The primary Dynamic Name servers used by the common carrier.
Secondary DNS:	The secondary Dynamic Name servers used by the common carrier.
Local Network (LAN) – Information about your local network.	
Local IP:	This is your modems WEB access address. (Gateway address)
Local Netmask:	This is your modems NETMASK access address. (Gateway address)
MAC Address:	This is your modems unique MAC address. (Gateway address)

Network Traffic

This section describes how to review and manage the data usage and provides a usage amount based on daily or monthly consumption:



GTEN® Website [Click Here](#)

GTEN® Store [Click Here](#)

GTEN® YouTube [Click Here](#)

Wireless: 2.4G 5G

Firmware: [5G Modem 3.0_20230626](#)

System Time: Sat, Jul 01 08:42:58

[User](#) [Refresh](#)

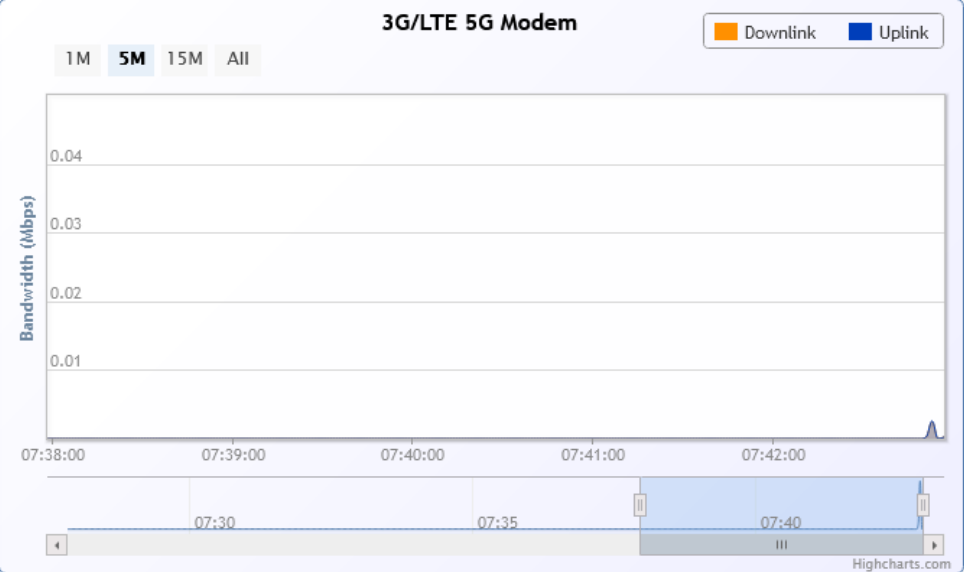
- [Network Map](#)
- [Network USB Disk](#)
- [VPN Client](#)
- [Network Traffic](#)
- [Advanced Settings](#)
- [Wireless 2.4GHz](#)
- [Wireless 5GHz](#)
- [LAN](#)
- [Firewall](#)
- [Cellular Setting](#)
- [Administration](#)
- [System Log](#)
- [Connected Devices](#)
- [Modem Manual](#)

Network Traffic-Real Time

Real Time Last 24 Hours Daily Monthly 3G/LTE 5G Modem

3G/LTE 5G Modem

Downlink Uplink



Color	Network	Current	Average	Maximum	Total
	Downlink	0.25 Kbps	0.59 Kbps	2.46 Kbps	35.96 KiB
	Uplink	0.25 Kbps	0.61 Kbps	2.57 Kbps	29.56 KiB

Tracking options:

- **Real Time** – Means the current data rates and activity that is actively passing information.
- Last 24 Hours – Means the last 24 hours of usage.
- Daily – Provides a day-by-day usage report.
- Monthly – Provides a month-by-month usage report.

- Drop down selector allows you to choose the connection type you want to review usage for, by default this is set to **5G/LTE router**.

To see your current data speeds, see the bottom of this page: (example below)

Network	Current	Average	Maximum
Downlink – means download speeds	109.00 Mbps	54.83 Mbps	144.40 Mbps
Uplink – means upload speeds	10.00 Mbps	7.35 Mbps	13.67 Mbps

Advanced Settings

Available options to be discussed:

1. Wireless 2.4GHz
2. Wireless 5GHz
3. LAN
4. Firewall
5. 5G Modem Setting
6. Administration
7. System Log
8. Connected Devices

Manage the Wireless 2.4 Settings

This section describes how to manage the Wi-Fi 2 settings:

Wireless-General (2.4GHz)

- Wireless 2.4GHz



Enable Radio

Wi-Fi 2 is turned on by default, to disable Wi-Fi 2 click on this option to shut off broadcasting on Wi-Fi 2

SSID:

This section is where you can modify your Wi-Fi name for your Wi-Fi 2 SSID broadcast.



Hide SSID:

Wi-Fi 2 is visible on by default, to hide Wi-Fi 2 SSID click on this option to shut off SSID visibility on Wi-Fi 2

Wireless Mode:

This section is where you can modify your Wi-Fi connection method. By default, all options are chosen.

Channel Bandwidth:

This section is where you can modify your Wi-Fi channel bandwidth method. By default, 20/40 Mhz option is chosen.

Radio Channel:

This section is where you can modify your Wi-Fi channel bandwidth method. By default, the Auto select option is chosen.

WP2/WPA3-Personal ▼

Authentication Method:

This section is where you can modify your Wi-Fi authentication method. By default, the WPA2/WPA3 option is chosen as it is the most common connection method.

AES ▼

Encryption:

This section is where you can modify your Wi-Fi encryption method. By default, the AES option is chosen as it is the most common connection method.

Click the eye icon to display the password.

Wifi Key:

This section is where you can modify your Wi-Fi KEY (password). By default, the Wi-Fi KEY (password). is set to

1234567890

When you are all set. Click the  button to save your changes.

Manage the Wireless 5 Settings

Wireless-General (5GHz)

- 

To set Wi-Fi 5 settings follow the same instructions above in the Wi-Fi 2 Section.

When you are all set. Click the  button to save your changes.

Pro Tip: When choosing the correct wireless connection method be sure that your device can work with the appropriate wireless technology. For example, old devices and many small wireless devices require the 2.4Ghz network and new items like tablets, laptops and Televisions require the 5Ghz network. Be sure to check with your device instructions for the appropriate connection method.

Manage the Modem LAN Settings

This section describes how to manage the LAN settings.

Manage the LAN Settings (See example)

LAN IP

IP Address:

This section is where you can modify your modems IP address. By default, the address is **192.168.2.1**

192.168.10.254

Subnet Mask:

This section is where you can modify your modems Mask address. By default, the address is **255.255.255.0**

255.255.255.0

DHCP Server

Enable DHCP Server

This section is where you can allow your modem to Dynamically produce local IP addresses to your connected devices. By default, this option is **ENABLED**



Enable IPV6

This section is where you can allow your modem to Dynamically produce local IPv6 addresses to your connected devices. By default, this option is **ENABLED**



IP Pool Starting Address:

This section sets the beginning range of your DHCP pool. By default, this option is set to **192.168.2.2** to allow for the maximum amount of DHCP devices.

IP Pool Ending Address: Set to the end of the range

DHCP Lease Time (sec):

This section sets the lease time of each device on your DHCP pool. By default, this option is set to **604800** to allow for the maximum amount of time for the connected DHCP devices.

604800 (default)

When you are all set. Click the  button to save your changes.

Pro tip: Once your settings are saved, you may lose connection to your devices or the WEB interface, if this happens you may need to restart the modem also any device that is connected to the modem is disconnected when the modem restarts.

Manage the Firewall Settings

This section describes how to manage the firewall settings.

Manage the Firewall Settings (See example)

Firewall

Respond Ping Request from WAN

This feature is disabled by default and is used to constantly communicate with the public server.



Access to Router Services from WAN

Access SSH Server from WAN

This feature is disabled by default and is used to allow inbound communications to the modems SSH service.



Access FTP Server from WAN

This feature is disabled by default and is used to allow inbound communications to the modems USB disk when attached.



When you are all set. Click the  button to save your changes.

Firewall - Manage the MAC-Filter Settings (See example)

MAC filter allows you to block packets from devices with specified MAC Address in your LAN and wireless LAN.

MAC Filter Mode:

This feature is disabled by default and is used to Restrict or allow communications through the modems LAN connection when set.

Disabled ▼

MAC Filter List:

MAC Address:

This section allows you to choose the MAC address connected to your modem device.

When you are all set. Click the  button to save your changes.

Firewall - Manage the Port Forwarding Settings (See example)

Port forwarding allows remote computers to connect to a specific computer or service within a private local area network (LAN). For a faster connection, some P2P applications (such as BitTorrent), may also require that you set the port forwarding setting. Please refer to the P2P applications user manual for details.

Port Forwarding

Enable Port Forwarding

This feature is disabled by default.



Port Forwarding List

Start Port	End Port	Local IP
<input type="text"/>	<input type="text"/>	<input type="text"/>

When you are all set. Click the  button to save your changes.

Firewall - Manage the DMZ Settings (See example)

Virtual DMZ allows you to expose one computer to the Internet, so that all the inbounds packets will be redirected to the computer you set. It is useful while you run some applications that use uncontained incoming ports. Please use it carefully.

DMZ Settings

This feature is disabled by default.

IP Address of Exposed Station:

When you are all set. Click the button to save your changes.

Firewall - Manage the IP Filtering Settings (See example)

IP Filtering

This feature is disabled by default.

IP Address

When in use, a list of restricted IP address will appear here.

When you are all set. Click the button to save your changes.

Firewall - Manage the Port Filtering Settings (See example)

Port Filtering

This feature is disabled by default.

Port Forwarding List

No data in table.

When you are all set. Click the button to save your changes.

Manage VPN Client (See example)

Static VPN Client extends a private LAN subnets across the Internet (Site-to-Site).

VPN Client

Settings

Static VPN Client extends a private LAN subnets across the Internet (Site-to-Site).

Enable VPN Client

Enable VPN Client?
 This feature is disabled by default.

VPN Client Settings

VPN Client Protocol: Choose your connection option. PPTP

Remote VPN Server (IP or DNS host):

Login:

Password:

Mppe: disable

Settings Depending on Remote VPN Server Role

Restrict Access from VPN Server Site: No (Site-to-Site), using NAT translation

Obtaining DNS from VPN Server: No

Route All Traffic through the VPN interface? No

Route to Remote LAN Subnet behind VPN Server

Remote LAN Subnet/Mask: /

When you are all set. Click the button to save your changes.

Manage Cellular Settings

This section describes how to manage the modem settings.

- Band Locking Menu
- APN Menu
- AT Command Console

Band Locking Menu (5G models only offer 5G band locking technology). You can set your channel(s) to the desired setting. For example, for channel 2 just type the number 2 in the Channel/Band box and hit apply. If you want to use more than one channel then use an : between each channel number. Example for more than one channel is like this: 2:5:13, with this combination the modem will search for 3 channels or connect to all of them if possible. After setting your desired channel you can return to the main page.

5G Modem Technology Settings

Set 5G SA Channel/Band:

Set 5G NSA Channel/Band:

Set LTE Channel/Band:

Preferred Network: **AUTO**

MTU: [1000..1500]

When you are all set. Click the  button to save your changes.

APN Menu

Welcome to the APN (Access Point Name) settings menu, if required, you may enter the APN setting below at the instruction of your service provider. Please make sure to accurately enter this information as provided. [Network Map](#)

5G Modem Technology Settings

SIM Card Slot:

APN:

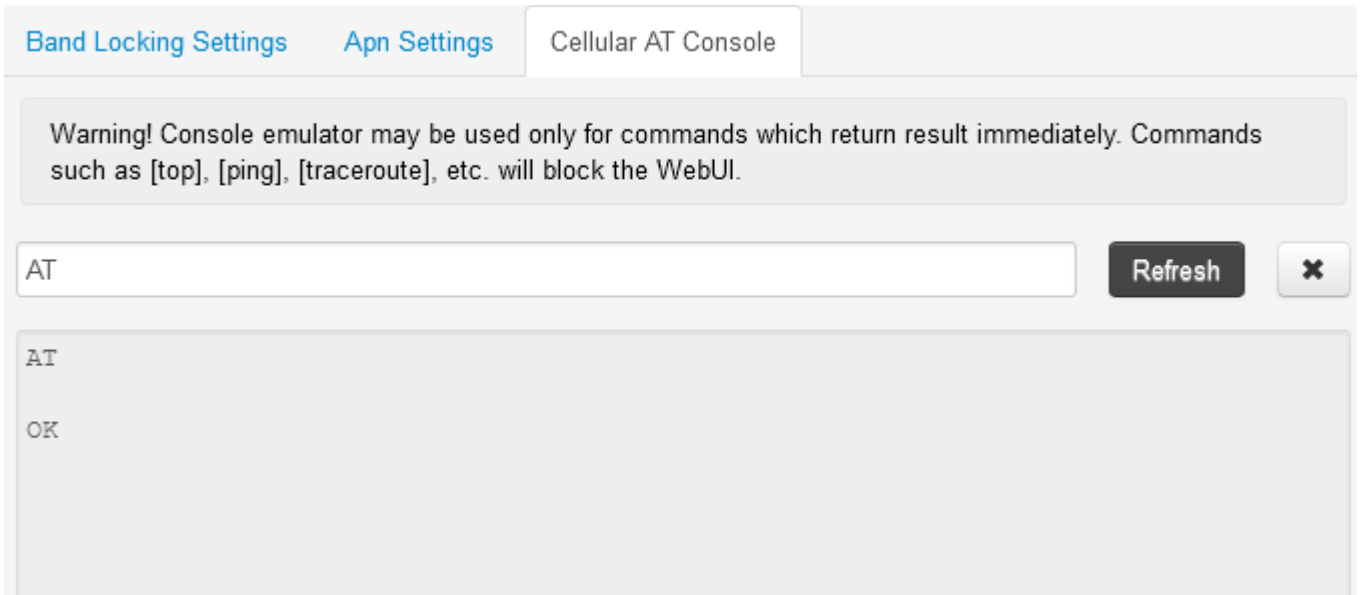
Authentication:

Username:

Password:

PDP Type:

Modem Web Interface - Advanced user AT Command Console



Pro Tip: AT commands are instructions used to control a modem. AT is the abbreviation of “AT”tention. Every command line starts with "AT" or "at". That's why modem commands are called AT commands. After each AT command hit <enter> on your keyboard for a response.

Listed below are some basic and friendly AT commands you can use that can.

AT	This confirms the module is connected, Response will be OK
ATI	This confirms the modules hardware and software information.
AT+CGDCONT?	This confirms the modems APN is set correctly.
AT+CFUN=0	This tells the modem to disconnect for the mobility network.
AT+CFUN=1,1	This tells the modem to connect to the mobility network.

For a comprehensive AT command list visit the GTEN files website: (Listed below)

https://gtenamerica.com/files/Quectel_5G_AT_V1.2.pdf (For GTEN 5G Modem Only)

Pro Tip: Using improper AT commands can destroy your modem and VOID its warranty, please use with caution and contact your ISP if you feel that you may have performed an error. Refer to FACTORY RESET upon advice from your ISP if required.

Manage Modem Web Interface

This section describes how to manage the modem Web interface settings.

Manage the modem web interface settings (See example)

Base administration control.

System Identification

Administrator Login:

This section is where you SET the modem admin username by default the section is blank and is set to “admin”

New Password:

This section is where you SET the modem admin password by default the section is blank and is set to “admin”

Retype New Password:

When you are all set. Click the  button to save your changes.

Modem Web Interface - Manage Services (Telnet/SSH Access)

Control of various system services.

HTTP Web Server

Web Server Protocol:

This section is where you SET the modems Web admin access server type the section is set to “HTTP”

Pro tip: Using “HTTPS” may help prevent unwanted attacks to your modems device.

Port of Web Access from LAN:

This section is where you SET the modems Web admin access port # the section is set to “80”

Restricting Web Access from LAN:

This section is where you SET the modem Web admin access permission section is set to “NO”

Terminal Services

Enable Telnet Server

This section is where you SET the modems telnet

access the section is set to **“ENABLED”**

Enable SSH Server

This section is where you SET the modems SSH access the section is set to **“NO”**

When you are all set. Click the  button to save your changes.

Pro FYI: What is telnet/SSH used for?

Telnet or SSH is a network protocol used to virtually access a computer and to provide a two-way, collaborative, and text-based communication channel between two machines. It follows a user command Transmission Control Protocol/Internet Protocol (TCP/IP) networking protocol for creating remote sessions. Many ISPs use this communication form to repair your modems connection remotely.

Modem Web Interface - Manage FW (Firmware Upgrades)

Firmware Version:

New Firmware Data File:

No file chosen



Note:

1. For a configuration parameter existing both in the old and new firmware, its setting will be kept during the upgrade process.

Occasional updates are important to add new features and keep the modem's performance at its best. In many cases, your modem will install updates automatically. However, if your equipment isn't performing properly, it's worth checking to make sure the firmware is up to date.

Visit <https://gtenamerica.com> for the latest updates for your device.

** You should only use a computer to update your firmware.

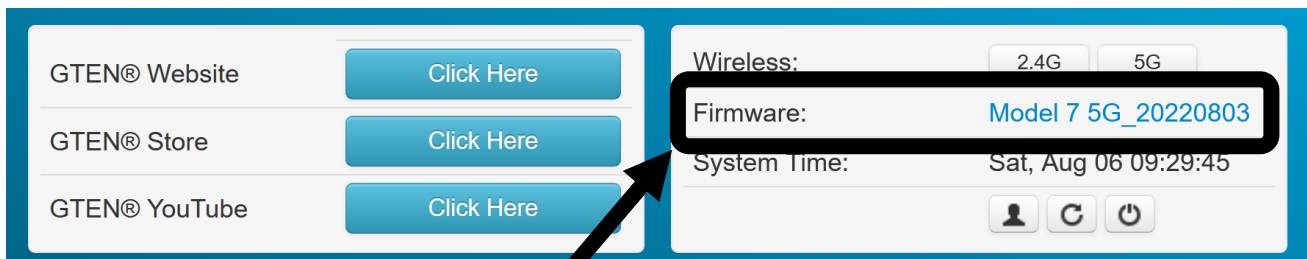
To perform a firmware update, follow these steps:

1. Download the latest firmware to your computer.

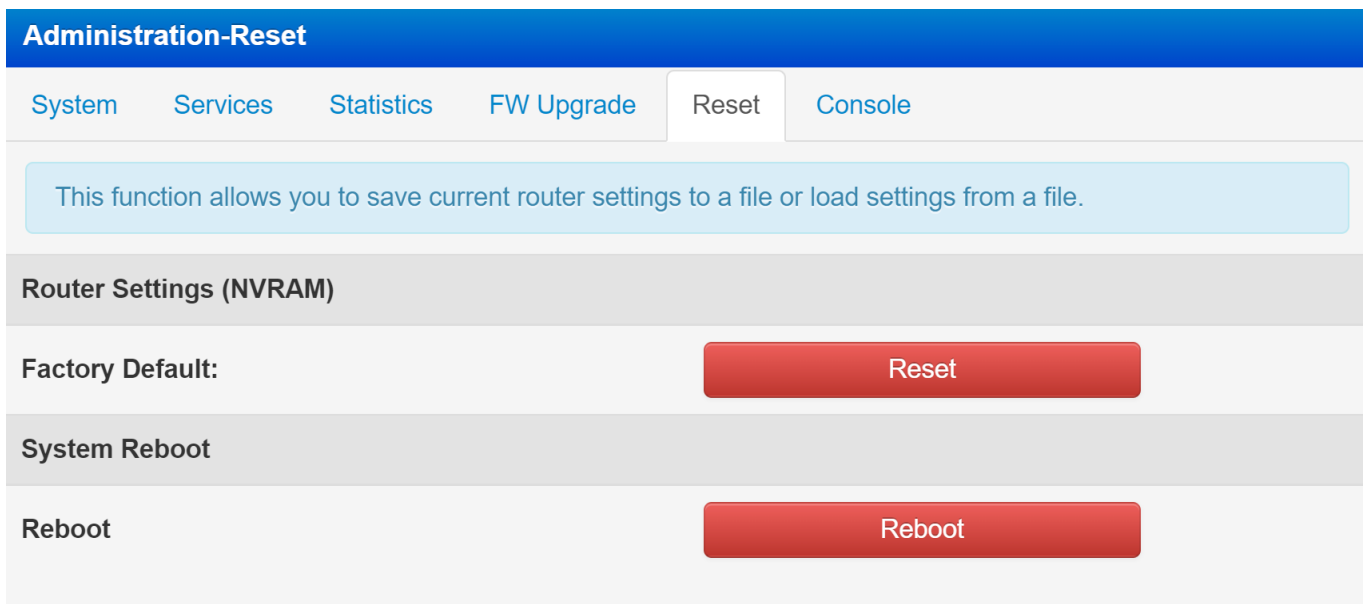
2. Once fully downloaded then click on Choose File.
3. Then select the *.bin file you just downloaded.
4. Then hit upload.
5. The modem will reboot on its own and firmware will have updated.
6. Then perform a factory reset on the modem.
7. After reboot from factory reset, you can reprogram your APN.

Your firmware file name now should be updated!

See below for an example:



Modem Web Interface - Perform Reboots/Hard Factory Resets



This section is where you reset your modem to factory default settings using the Factory Default reset button. **Remember to only do this when instructed to do.**

View the General System Log

System Log-General Log

General Log

System Time Thu, Aug 04 09:53:14 2022 GMT-0400

```
Thu Aug 4 08:38:55 2022 daemon.notice procd: /etc/init.d/network: sh: 1: unknown c
Thu Aug 4 08:38:55 2022 daemon.notice procd: /etc/init.d/network: BusyBox v1.25.1
```

The General System logs display the status of the modem in chronological order, that are used by the *modem* technician to determine if may be an issue with your broadband connection or your device. You can **SAVE** the log for troubleshooting purposes upon request of your ISP.

Connected Devices

This section shows what devices are connected your modem.

Connected Devices			
Connected Devices			
Client List			
Name	LAN IP:	MAC Address:	Block
LAPTOP-SAGU537N	192.168.2.183	38:f3:ab:0a:0f:4a	+

General Troubleshooting

This section describes how to possibly resolve modem issues that may arise.

Pro Tip: Most modem issues are resolved by just unplugging the device from the power cord for 30 seconds and plugging the modem back in.

Pro Tip 2: Do not factory reset the device unless instructed by a trained representative or you will lose broadband connection and will have to program the modem from the beginning.

What do I do when I can't connect a device to the modem?

Some suggestions listed below:

1. Restart your equipment and try both Wi-Fi SSID's as sometimes some devices work with only one type of Wi-Fi technology. Remember your modem has 3 connection types.
2. Try connecting with an Ethernet cable instead.

3. Try using a different device to confirm the Internet is working.
4. Run your computer's internet troubleshooter if not able to connect.
5. Reposition your router/gateway to enhance your Wi-Fi range.
6. Contact the device manufacturer for further information and support.
7. **GTEN support cannot help with third party device connection information.**

What do I do when I can't access the Internet?

Some suggestions listed below:

Restart your device by removing the power cord and waiting 30 seconds and plug it back in.

After the restart if your modem **NET and 4G and or 5G** LED lights are lit, you are connected to the tower, you can now try your devices again. If you are still having trouble visit your modems WEB interface page to confirm connection and check if your APN is correct.

If all are correct, your SIM may be blocked or suspended, please contact your ISP for help.

What do I do when the NET icon display is not lit?

Some suggestions listed below:

Restart your device by removing the power cord and waiting 30 seconds and plug it back in.

After the restart if your modem **NET and 4G and or 5G** LED lights are **NOT** lit, visit your modems WEB interface page to confirm connection and check if your APN is correct. If not visit the APN settings page and update your APN and reboot.

Why does the Signal Strength LED show only a few bars?

Some suggestions listed below:

This is most likely related to poor signal.

You could do something about some of the internal interference such as electronics, metal objects, or for that matter anything that sends magnetic or electronic signals and interferes with the cell waves. Therefore, get rid of any internal clutter as much as possible.

See to it that there aren't too many things standing between your modem and the cell tower – get a clear line of view, place modem on the second floor or third floor if you want to improve signal. The reason is that the higher you go, there will be fewer obstructions in your vicinity (other houses, buildings, etc). In this manner, you can regain lost signal in your house, or office building.

You may also want to try an external antenna setup to improve the quality of your service.

Why is the download or upload speed slow?

Some suggestions listed below:

Slow speeds are most often caused by interference from other surrounding sources and transmitting devices in the vicinity. Solid metal objects or concrete walls also block LTE/5G radio waves, making for an even weaker signal which will result in slower speeds. Fixing this might be as simple as repositioning your router and changing the connection channel.

Another culprit of slower speeds might be your ISP plan, many plans come with usage restrictions or slow speeds during congested periods, check with your ISP for the latest plan details regarding your SIM and service.

Can I connect multiple LAN devices to the modem?

Some suggestions listed below:

Your modem supports up to 64 devices over 5Ghz Wi-Fi, 32 devices over 2.4Ghz Wi-Fi, and 3 devices over Ethernet. If you need to connect more than 3 Ethernet devices, you can also connect a Ethernet switch up to your modem to add an additional 200+ wired devices or wireless extenders.

What do I do if I forget my admin login password?

Some suggestions listed below:

The simplest ways to reset your admin password is by using a paper clip and hold down the RST button in the back of the device for 30 seconds. See Back Panel with Connectors, Buttons, and a Ports on Page 8 for the location of this reset button.

How do I disconnect from the mobile broadband network?

Some suggestions listed below:

The simplest way to disconnect from the mobile broadband network is removing the power cord from the device, however if you want to keep the device on but kill the 5G/LTE connection then on the “Network Map” just hit the disconnect button.



How do I find my computer's WAN IP address?

Some suggestions listed below:

You can find this information on the “Network Map” main page under Internet Network (WAN)

Internet Network (WAN)	
IPv4 Address WAN:	172.47.116.203
Gateway WAN:	172.47.116.204
DNS:	10.177.0.34
Secondary DNS:	

Why can I not log into the Modem Web interface?

Some suggestions listed below:

This usually can be solved by **restarting the router**. Also make sure you are connected to the correct wireless network; it is best to use an Ethernet when connecting to the modems Web Interface.

Pro Tip: While many Laptops and Tablets do not offer Ethernet ports this is easily fixed by obtaining an inexpensive USB or USB3 Ethernet adapter for your device. They small device will save you a lot of headaches in the future and offer faster connection speeds vs Wi-Fi.

Troubleshoot the Mobile Broadband Internet Connection?

Some suggestions listed below:

The very first recommendation is to power your device off (removing the power cord), wait 30 seconds and turn it on again. This usually fixes all connection issues. You may also:

1. Check that your SIM card is correctly inserted into your device.
2. Change your modem's location which can improve your signal.
3. Log into the modem's Web Interface to ensure the device is connected. (See below)

Connection Status: **Connected** – This means the modem has a valid connection to the internet and is actively passing broadband data. If anything else is displayed you are NOT connected.

4. On the modems “Network Map” page try disconnecting and then reconnecting the connection by using the connection buttons.
5. Ensure your APN is correctly spelled.
6. Make sure your modems mobile broadband channels are set for the right carrier.

Pro Tip: If you have tried everything and nothing works, contact your Internet service provider immediately, do not **FACTORY RESET** the device as this will wipe out all of your modems programming.

Can a Public Static Internet “IP” Address be used?

Some suggestions listed below:

YES, this is obtained from your service provider.

Pro FYI: Static IP means the IP address never changes if you stay with the same provider or same server. Dynamic means the IP address can change from time-to-time. Public means the IP address can be visited from any computer in the world. Private means the IP address can only be used by those on the same network.

Default Settings and Specifications

GTEN® 5G Model 3.0 (2023)

Available options to be discussed:

Technical and Environmental Specifications

Specifications

- Dimensions: (see below)



- Weight: 1195g or 2.634524 lbs.

Radio Module Communication Information:

Radio Manufacturer: **QUECTEL**

Module Name: **RM505Q-AE**

Bands available for nr5G: **n1, n2, n3, n5, n7, n8, n12, n20, n25, n28, n38, n40, n41, n48, n66, n71, n77, n78, n79**

Bands available for LTE: **B1, B2, B3, B4, B5, B7, B8, B12, B13, B14, B17, B18, B19, B20, B25, B26, B28, B29, B30, B32, B34, B38, B39, B40, B41, B42, B43, B48, B66 and B71.**

Band available for UMTS DC-HSPA 2:4:5

Carrier Aggregation supported: YES

nr5G Technology supported: DSS-LGA, NSA, SA

Data sheet for this device can be found > <https://gtenamerica.com/5gsheet.pdf>

Support

Thank you for purchasing this GTEN® product. You can visit www.gtenamerica.com/support to obtain more information about your product, get help, access the latest downloads and manuals. We recommend that you use only official GTEN® support resources.

Compliance

For regulatory compliance information, visit <https://gtenamerica.com/gten-america-modem-history/>

See the regulatory compliance document before connecting the power supply.

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Warranty

GTEN® MODEMS PRODUCT LIMITED WARRANTY TERMS AND CONDITIONS

This GTEN® branded product, as supplied and distributed by Infinite Internet and delivered new, in the original carton to the original consumer purchaser, is warranted by GTEN® against manufacturing defects in materials and workmanship for a limited warranty period of:

- 1) 90 days from the date of purchase.

For additional warranty information visit <https://infiniteic.com/gtenwarranty/>

GTEN® AMERICA N.A. INC.
148 Vista Royale Blvd
Vero Beach, FL, 32962
USA

FCC Declaration of Conformance

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This equipment has been tested and found to comply with the 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 in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, 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 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.

Operations in the 5.850-5.895GHz band are restricted to indoor usage only.

FCC RF Radiation Exposure Statement (SAR)

This Transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

This equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 35 centimeters between the radiator and your body.

Safety Warnings

Adapter

Do not use any other power adapter except the one that accompanies this unit or a power adapter identified in the list below.

Use of another adapter could result in damage to the unit.

The following power adapter is qualified for use with this GTEN® Modem: (specified the adapter specifications, brand, make, type and other restrictions)

Caution

Ensure to connect the power cord of power adapter to a socket-outlet with grounding connection.

Safety and Compliance

Read before Use

We recommend you read the following sections thoroughly before use. GTEN® America Inc. is not liable for malfunctions or damages resulting from misuse of the modem.

Safety Precaution

Please observe the following safety precautions.

Use the chargers, cables or accessories approved by the device manufacturer.

Do NOT disassemble or modify the device. Doing so voids the warranty.

Prevent wetness from penetrating internal parts. Using the device in wet or damp environment (for instance, charging it in a wet environment like bathtub or bathroom) may result in malfunctions.

Do NOT use this device near source of heat or fire, such as oven, microwave, stove, or heater.

Keep your device away from cooking appliances.

Do NOT place the device in places with heated atmosphere (dryer, sauna, hot water).

Do NOT use the device and disconnect all cables at places with fire or explosion risks.

Avoid strong physical impact (heavy objects or excessive force).

Keep your device away from liquid or conductive materials.

Do NOT charge the device when either the device, the adapter, or the cable is wet. It may cause short-circuit.

Power off the device when near medical equipment or high-precision control systems to avoid potential interference.

Charge with specified voltage only.

Place the device on a flat, stable surface for optimal use.

Keep the device and adapter away from children and pets.

The device must be disposed of in accordance with the locally applicable environmental regulations.

Keep the device away from magnetic items such as magnetic strip cards or items that generate strong electronic or magnetic fields, such as a microwave.

Do NOT store the device in an overheated environment.

Do NOT use the device when it is overheated.

Disconnect all the the cable connections when the device is not in use.

Place the device in places with good signal strength.

Make sure the adapter you use with the device meets the approved standards and specifications.

Disposal and Recycling

Do not dispose of the router in a household garbage bin.

Products with this label must be taken to specific collection points at the end of their life.

You can learn more about how to recycle your mobile device by visiting the CTIA website at www.ctia.org/news/how-to-recycle-your-mobile-device

Maintenance & Care

- Avoid extreme temperature or direct sunlight.
- Clean handset with soft, dry cloth. Do NOT use alcohol solvent (color may fade)
- Warranty does not cover malfunctions caused by misuse.
- Stop all the applications and shut down the device before cleaning it.
- Keep the device and its accessories dry at all times.
- If anomaly occurs, contact your ISP support immediately.
- When storing the device, do NOT store it in a container with dampness or under extended heat.
- Avoid dropping the device or strong physical impact at all times.

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Changes

The functions of the product and associated peripherals or accessories are described in this document are based on the current hardware, software and/or local network conditions at the time of writing, and thus may vary due to conditions set by local network service providers or carriers. Therefore, all information described herein is subject to change without prior notice.