

C801 4G Router

User Guide



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Admin Log in

Accessing other menus from the home screen requires admin log in.

1. Click "Log in" on the upper right corner of the main screen to log in. (clicking other menu on the main screen will prompt the log in page as well.)

Enter Your Password

Password

Login Cancel

If too many incorrect passwords are tried, access will be suspended.

2. Enter the password and click "Login".

Note: The default password is "password." It's recommended to change the password for your security.

Settings Tab

Configure your device options, including **Router**, **Mobile Network** and **Device**.

Router

Connection Settings

Set the Connection Settings for your device.

1. From the Web UI, click **Settings>Router>Connection Settings** to display the manage connection preference parameters.

Home Settings About Support

Router

- Connection Settings
- OOB Settings
- Remote Management
- LAN Settings
- Firewall Settings
- 4G LTE Network
- Device

Connection Settings

Manage Connection Preference.

WAN Preference: Ethernet + LTE Backup

Ping Interval (seconds): Ethernet + LTE Backup

Ping Retry Count: Ethernet Only

Response Host: LTE Only

Save Changes

- **WAN Preference:** Select the preference for your wide access network connection.
 - **Ethernet + LTE Backup:** This setting will prioritize Ethernet connection as the main source of internet and failover to LTE when ethernet connection is lost. (Once the Ethernet connection is restored, the C801 will failback to Ethernet connection automatically)
 - **Ethernet Only:** This setting will only allow Ethernet connection as the primary source of internet.
 - **LTE Only:** This setting will only allow LTE as the primary source of internet.

Note: Items below only apply when **WAN Preference** is set to **Ethernet + LTE Backup** mode.

Depending on the settings below, ping packet is sent to the response host address through Ethernet interface.

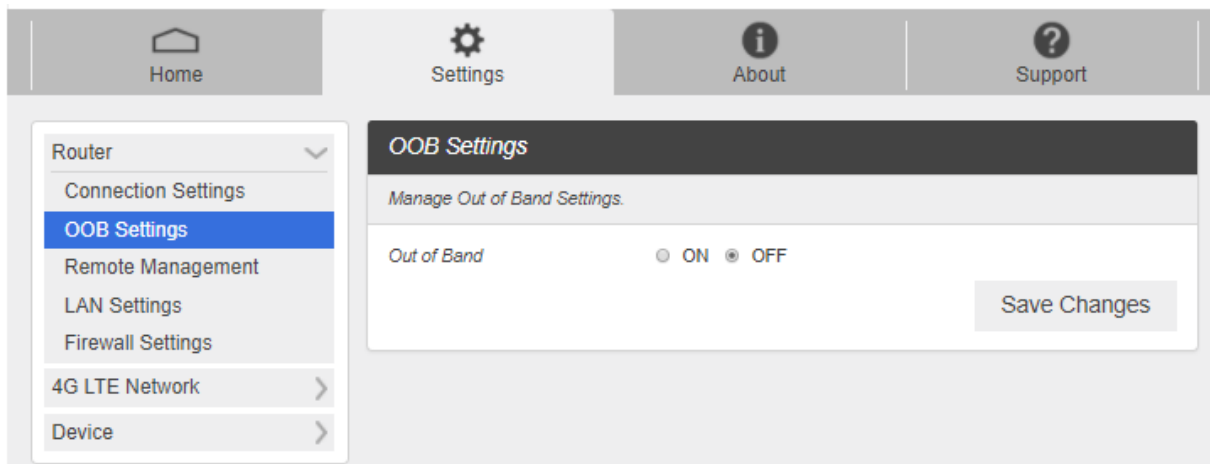
If ping is successful, connection will be made via ethernet. If not, device will failover to LTE connection.

- **Ping Interval (seconds):** Set how often the device is to ping in seconds.
- **Ping Retry Count:** Set the number of times the device should ping.
- **Response Host:** Set the host address.
 - Default: The default host address is set to 8.8.8.8
 - User Set: Set the desired host name / IP address

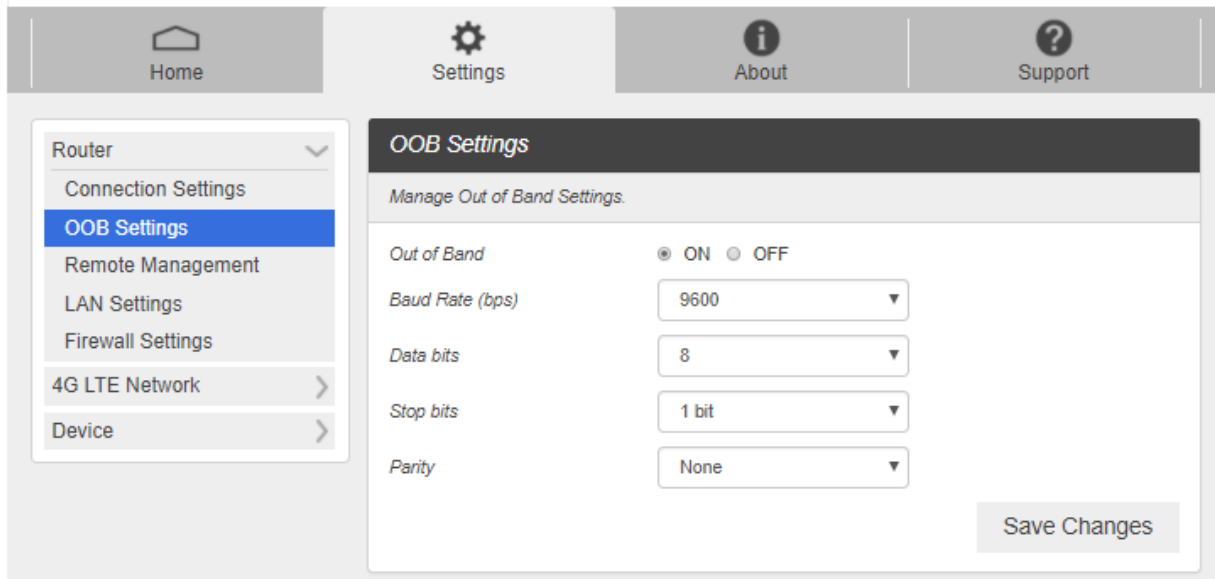
2. Click Save Changes to save your settings.

OOB Settings

1. From the Web UI, click **Settings>Router>OOB Settings** to display the device information shown in the following figure.



2. If ON is selected for OOB Setting, an extra menu will appear like below.



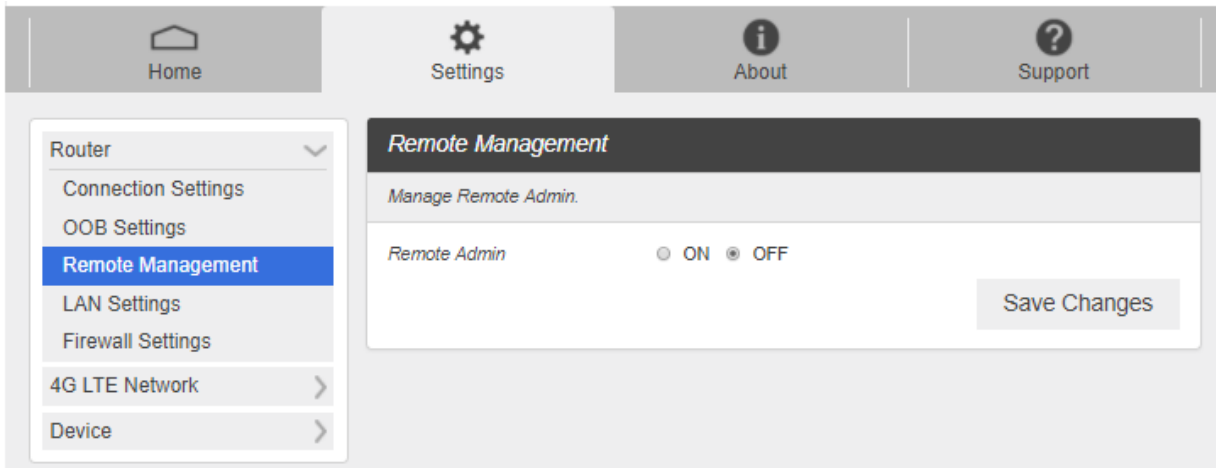
Please configure the Out of Band settings to match your router configuration. Your router should have the following information below.

- **Baud Rate(bps):** Input and output baud rate
- **Databit:** Character size mask
- **Stopbit:** stop bits. If enabled, send two stop bits, else one.
- **Parity:** parity bit. Odd,even, or None.

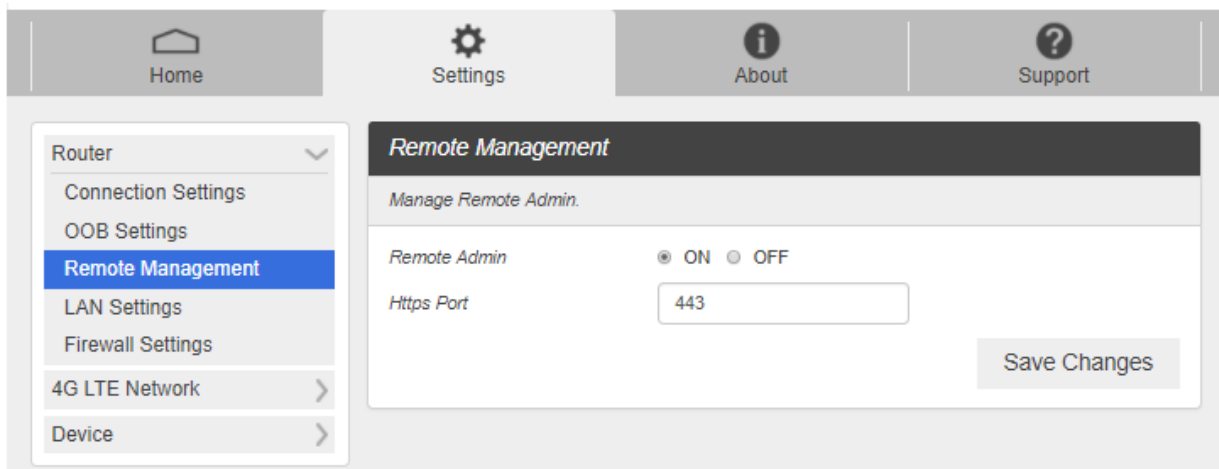
3. **Click Save Changes to save your settings.**

Remote Management

1. From the Web UI, click **Settings>Router>Remote Management** to display the device information shown in the following figure.



If ON is selected for Remote Management, user will be able to access the C801's webpage remotely via HTTPS. The standard port is 443.



2. Click **Save Changes** to save your settings.

LAN Settings

1. From the Web UI, click **Settings>Router>LAN Settings** to display the information shown in the following figure.

The screenshot displays the LAN Settings page. At the top, there are navigation tabs: Home, Settings, About, and Support. On the left, a sidebar menu shows 'Router' expanded with options: Connection Settings, OOB Settings, Remote Management, LAN Settings (highlighted), Firewall Settings, 4G LTE Network, and Device. The main content area is titled 'LAN Settings' and includes the instruction 'Manage your LAN Settings.' Below this, several settings are listed:

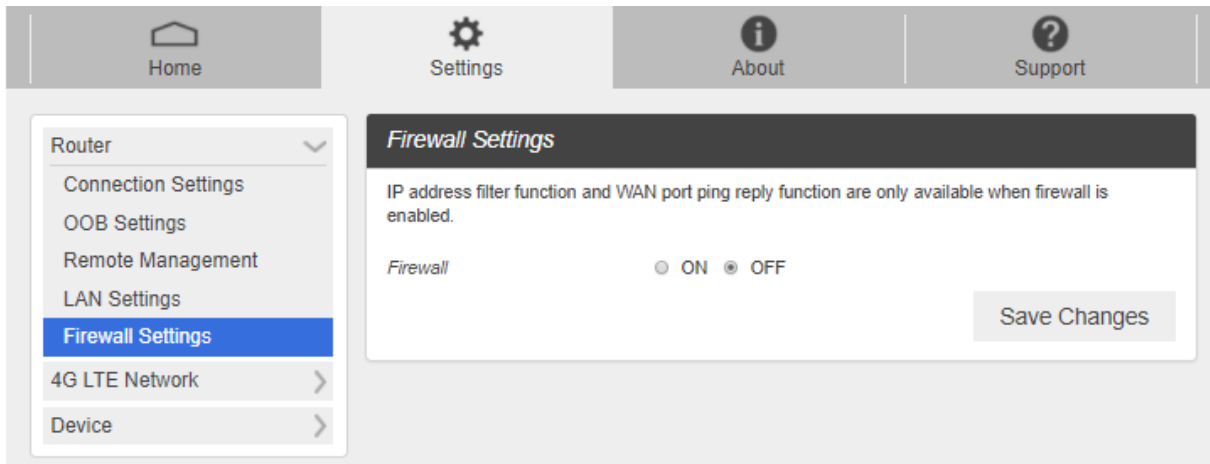
- IP Address:** 192.168.128.1 (Network Access Identifier)
- Subnet Mask:** 255.255.255.0
- VPN Passthrough:** ON OFF
- IP Passthrough:** ON OFF
- DHCP Server:** ON OFF
- DHCP IP Range:** 192.168.128.10 ~ 192.168.128.100
- DHCP Lease Time:** 86400
- DNS Manual Mode:** ON OFF
- NAT Timeout:** 300

A 'Save Changes' button is located at the bottom right of the settings area.

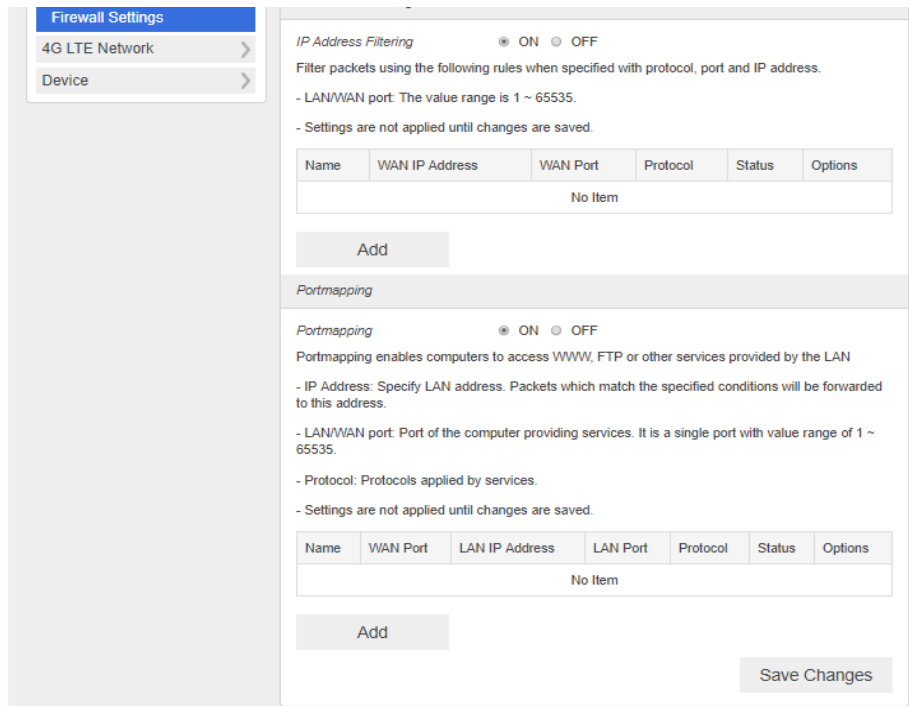
- **IP Address:** IP address for Web User Interface.
 - **Subnet Mask:** Subnet mask for the IP address.
 - **DHCP Server:** Enable or disable DHCP Server function.
 - **DHCP IP Range:** Allocate begin and end IP address for IP Range.
 - **DHCP Lease Time:** Define how long the leased IP address will be in use before expiration. A new IP address will be assigned after expiration.
 - **DNS Manual Mode:** Turn DNS manual mode on or off.
 - **NAT Timeout:** Set TCP NAT time.
2. **Click Save Changes to save your settings.**

Firewall Settings

1. From the Web UI, click **Settings>Router>Firewall Settings**. The Settings page is shown in the following figure.



2. If ON is selected for Firewall, an extra menu will appear like below.

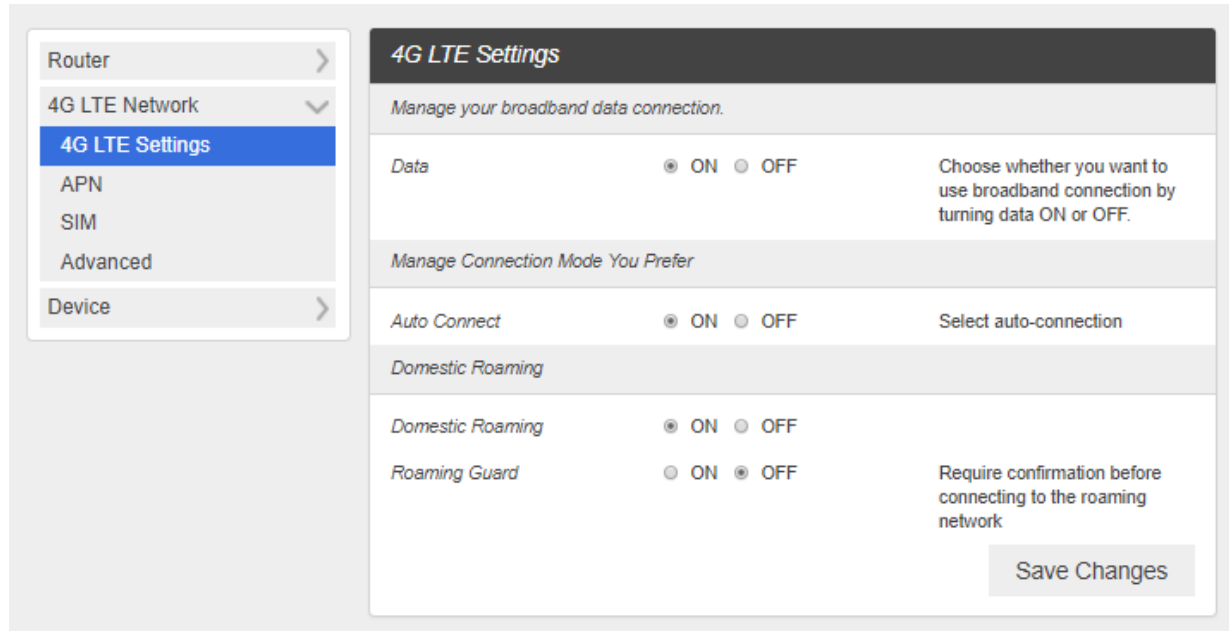


4G LTE Network

! 4G LTE Network Settings should only be used as directed by Customer Service personnel.

4G LTE Settings

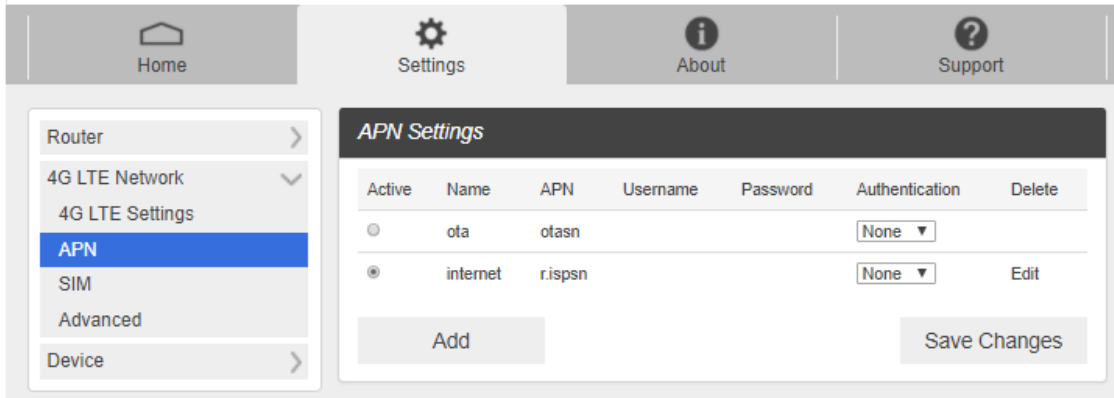
1. From the Web UI, click **Settings>4G LTE Network>4G LTE Settings**. The 4G LTE Settings page is shown in the following figure.



2. **Data:** Turn Data on or off. Turn it off to prevent all Internet traffic from using the broadband connection.
3. **Auto Connect:** Turn the device on or off to automatically connect to the network.
4. **Domestic Roaming:** Turn on to allow C801 to connect to a roaming network.
5. **Roaming Guard:** Turn on to ask confirmation before roaming to another network.
6. Click **Save Changes** to save your settings.

APN

- From the Web UI, click **Settings>4G LTE Network>APN**. The default APN parameters are shown in the following figure. You can use the default APN to connect to the Internet. You can also add new APNs.



- To add a new APN, follow the steps below:

- Click **Add** to access the following page.

- Enter the related parameters as described in the following table.

Parameters	Description
Name	Type the profile name.
APN	Type the APN string.
User name	User name is used to obtain authentication from the ISP when the connection is established.
Password	Password is used to obtain authentication from the ISP when the connection is established.
Authentication	Password Authentication Protocol (PAP) provides a simple method without encryption for the peer to establish its identity using a 2-way handshake. Challenge-Handshake Authentication Protocol (CHAP) is used to periodically verify the identity of the peer using a 3-way handshake.

3) Click **Save** to add the new APN.

Note: The default APN cannot be edited or deleted.

SIM

1. From the Web UI, click **Settings>4G LTE Network>SIM**. The SIM PIN lock is disabled by default. You can enable it by entering SIM PIN.

The screenshot shows the 'SIM' settings page. On the left, a navigation menu includes 'Router', '4G LTE Network', '4G LTE Settings', 'APN', 'SIM' (highlighted), 'Advanced', and 'Device'. The main content area has a dark header 'SIM' and a warning: 'The SIM card inside your device can be locked using a PIN. If the SIM card is locked you must enter the PIN below before you are able to connect to the internet.' Below this, 'SIM Status' is 'Disabled'. The 'Desired Action' is a dropdown menu set to 'Enable PIN'. There is an empty text box for 'Enter Current PIN'. A warning states: '3 attempts remain until your sim is PUK locked. Entering an incorrect PIN too many times will PUK lock your SIM and you will be unable to use this device. You will need to contact your service provider to unlock the SIM.' A 'Save Changes' button is at the bottom right.

- Enter the SIM PIN and press “**Save Changes**”. The SIM Status will be changed to Enabled. Once the SIM PIN Lock is enabled, you need to enter the SIM PIN to connect to the broadband network each time you power on your C801.

Note: If you enter the wrong SIM PIN three times, your SIM will be disabled permanently until you enter the PUK code from your service provider. Please contact your Service Provider.

Advanced

- ! **Caution** *Advanced Settings should only be used as directed by Customer Service personnel. Certain advanced options will reset your device's connections and programming and will require reactivation.*

1. From the Web UI, click **Settings>4G LTE Network>Advanced** to configure the advanced settings.

The screenshot shows a web interface for configuring advanced settings. On the left is a navigation menu with the following items: Router (with a right arrow), 4G LTE Network (with a down arrow), 4G LTE Settings, APN, SIM, **Advanced** (highlighted in blue), and Device (with a right arrow). The main content area is titled "Advanced" and contains three sections:

- Factory Reset**: A section with a description: "This operation, also called Reverse Logistics, will display provisioning information and reset the modem to the factory default values. The MSL is needed to perform a reset." To the right of the text is a button labeled "Factory Reset".
- Clear Programming**: A section with a description: "Use this to clear all account information. You will need to re-activate in order to connect to the mobile network. The MSL is not required for this operation." To the right of the text is a button labeled "Renew Device".
- SIM Lock Service**: A section with a description: "The SIM lock service will allow the use of a non-Sprint SIM." To the right of the text is a button labeled "Unlock UICC".

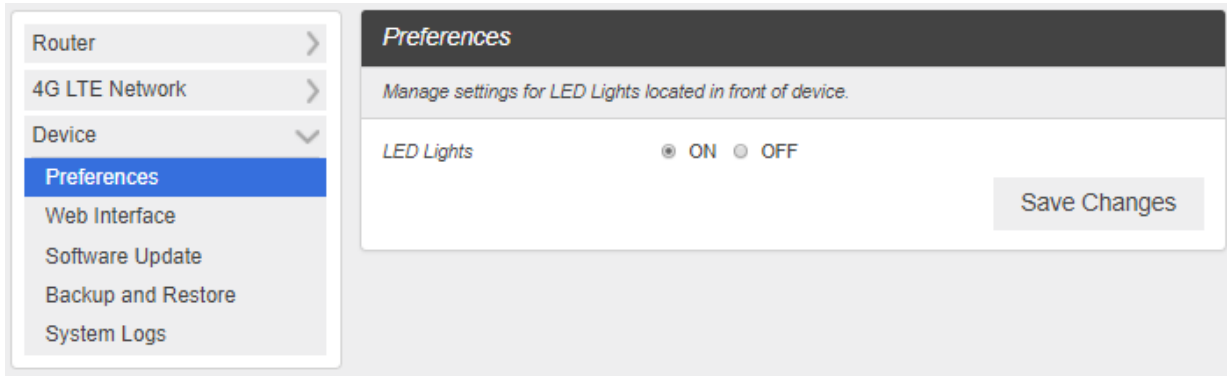
- **Factory Reset:** Click **Factory Reset** to reset the C801 to factory default value.
- **Clear Programming:** Click **Renew Device** to clear all account information.
- **SIM Lock Service:** Click **Unlock UICC** to allow the use of SIM from various service providers.

Device

- ! The Device settings menu lets you configure preferences, manage account password, update software, back up, restore and check system logs

Preferences

1. From the Web UI, click **Settings>Device>Preferences**. You can configure LED preferences on this page.

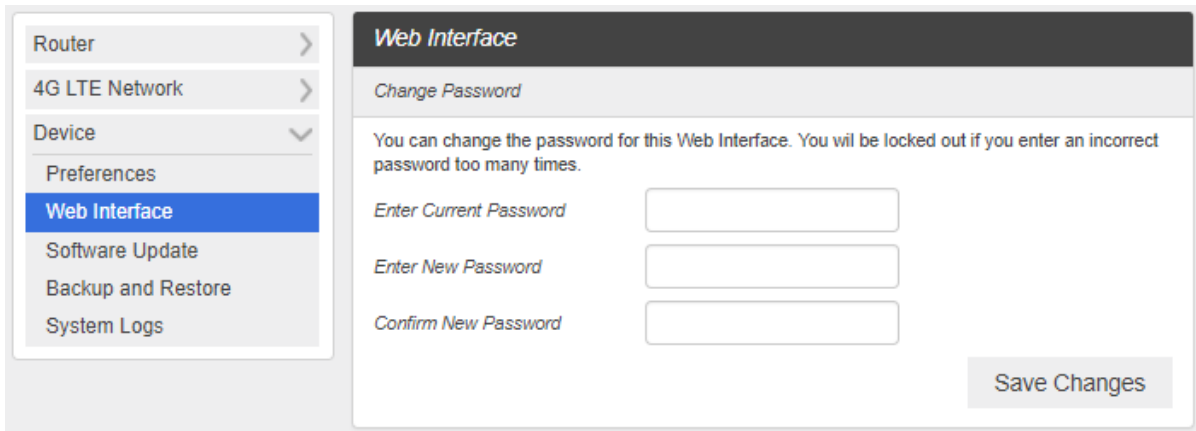


- **LED Lights:** If ON is selected, the LED indicators on your C801 will illuminate when the device is on. If OFF is selected, LEDs will never illuminate.

2. Click **Save Changes** to save your settings.

Web Interface

1. From the Web UI, click **Settings>Device>Web Interface**. You can manage your Web UI admin password on this page.

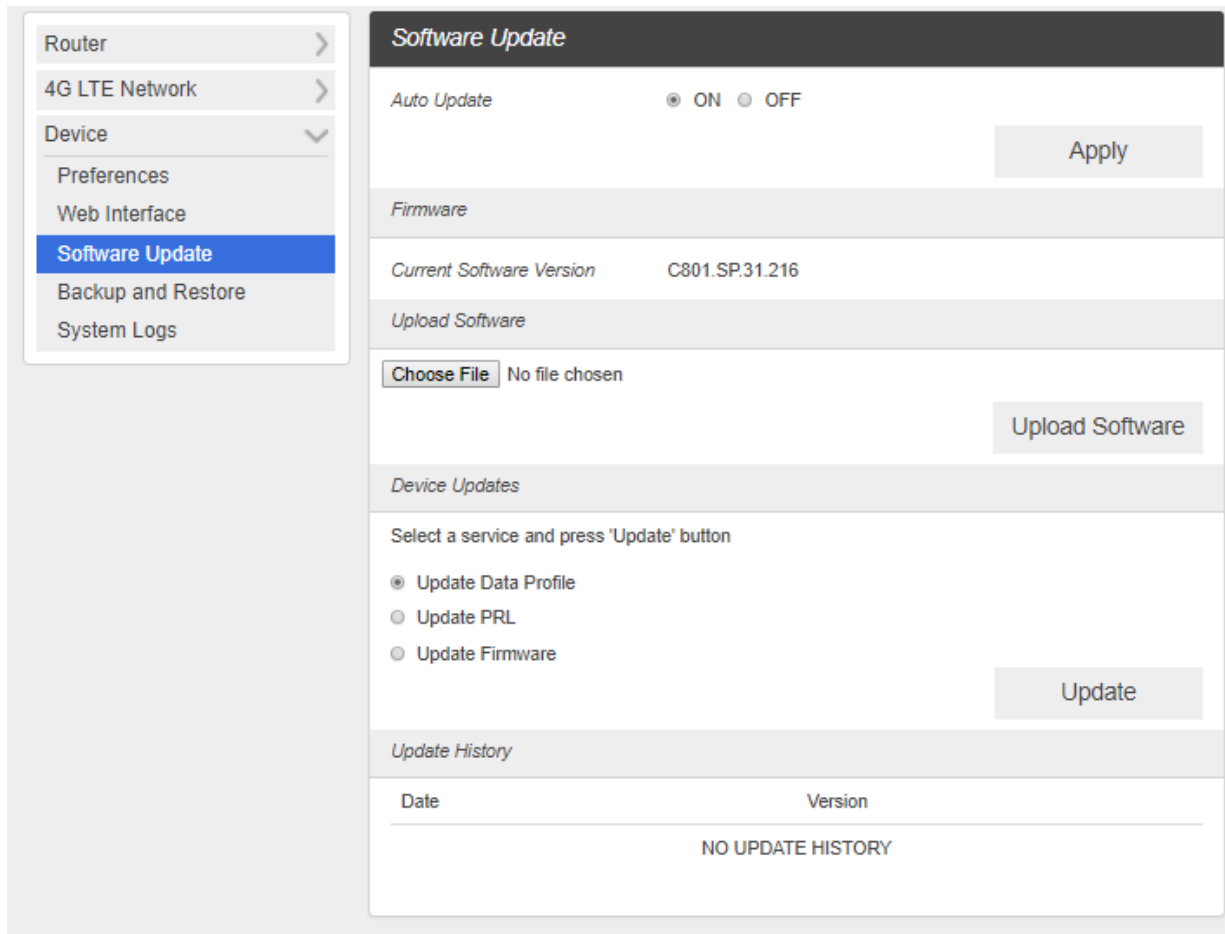


- **Change Password:** Allows changing password of Web UI Log in.

2. Click **Save Changes** to save your settings.

Software Update

1. From the Web UI, click **Settings>Device>Software Update**. You can update the software on this page.



Software Update

Auto Update ON OFF Apply

Firmware

Current Software Version C801.SP.31.216

Upload Software

Choose File No file chosen Upload Software

Device Updates

Select a service and press 'Update' button

Update Data Profile
 Update PRL
 Update Firmware Update

Update History

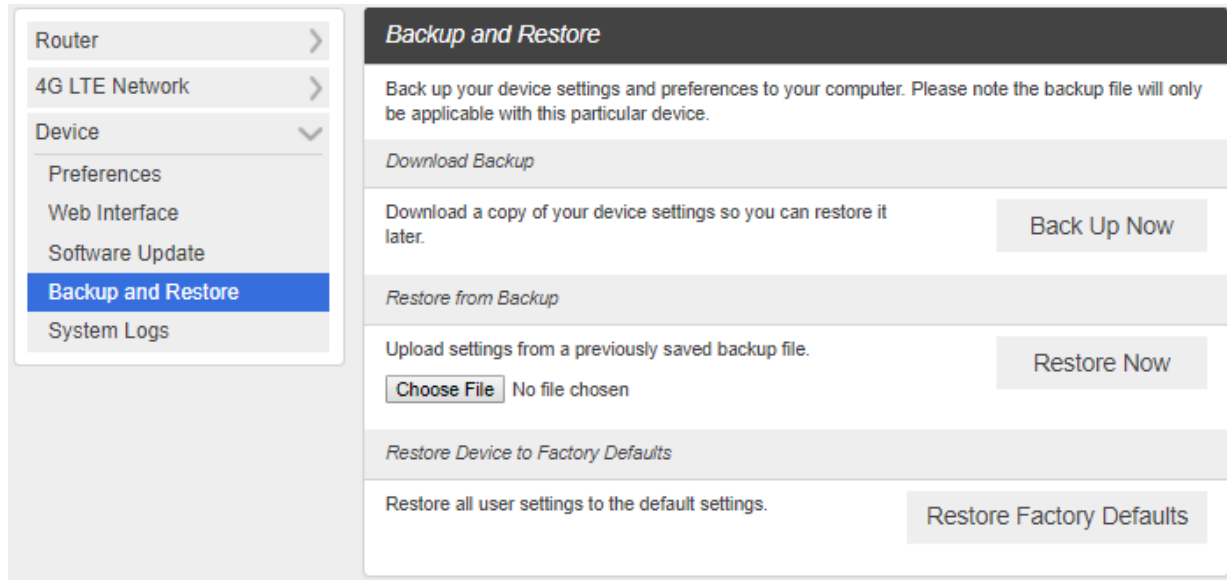
Date	Version
NO UPDATE HISTORY	

Read the onscreen options and choose the update you would like to initiate.

- **Auto Update:** If ON is selected, your C801 will check the latest software periodically and update if new software is available.
- **Update Software:** If you have a new software file provided by your service provider, you can select the file and update your C801 manually by pressing Update Software button.
- **Device Updates:** If you would like to check for new data profile, PRL, or Firmware, select desired option and press the Update button. Your C801 will check for the latest version. If available, the device will proceed to update.
- **Update History:** Displays the update history list.

Backup and Restore

1. From the Web UI, click **Settings>Device>Backup and Restore** to back up your device settings to your computer, restore settings from backup file, or restore your device to its factory default settings.



■ Backup Now

To back up your device settings to your computer, follow the steps below:

- 1) Click **Back Up Now**.
- 2) Click **Save** on the pop-up window.
- 3) Choose a location on your computer to save the backup file.
- 4) Click **Save**.

■ Restore Now

To restore from backup file, follow the steps below:

- 1) Click **Select File** to select the backup file from your computer.
- 2) Click **Restore now**

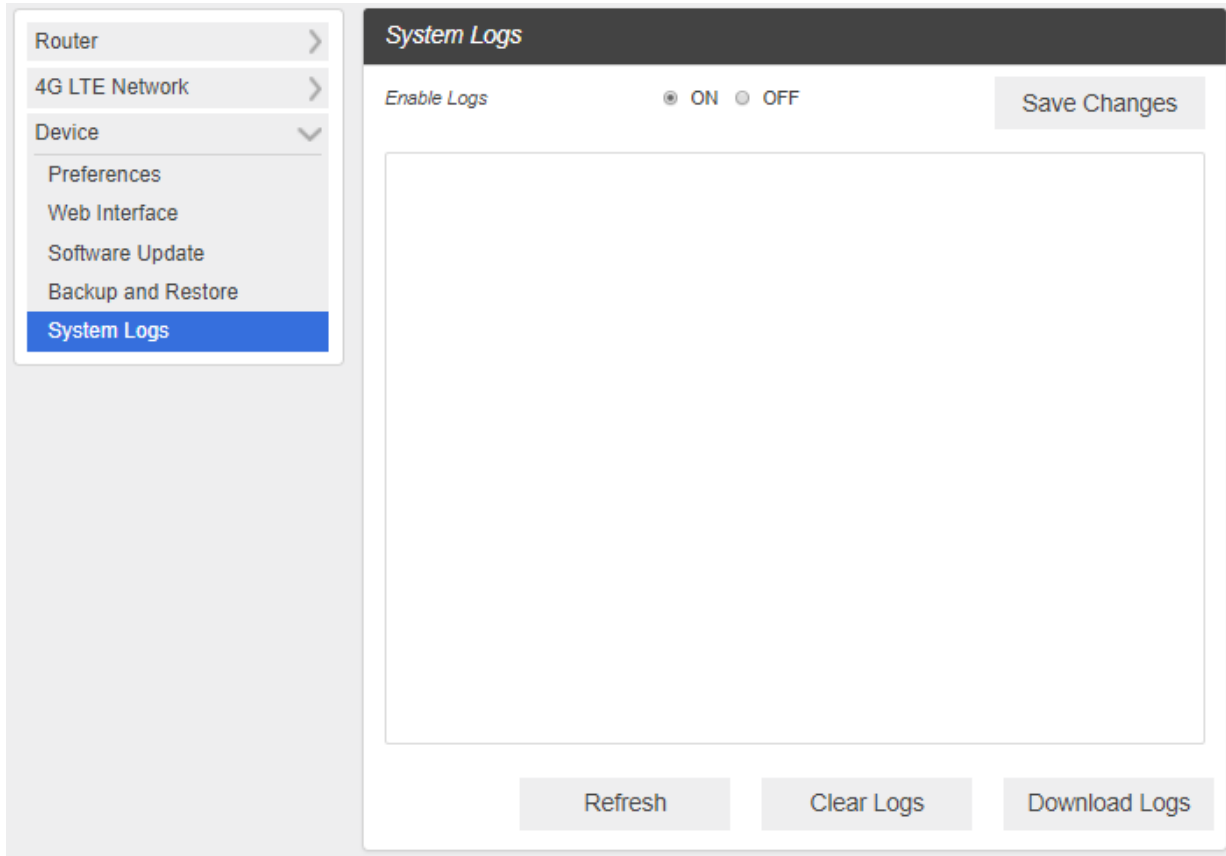
■ Restore to Factory Defaults

To restore your device to its factory default settings, follow the steps below:

- 1) Click **Restore factory defaults**.
- 2) Click **Yes** to confirm the command.

System Logs

1. From the Web UI, click **Settings>Device>System logs**, and then click **Download logs** to download the system logs displayed



Note: System logs are used for engineering purposes by your service provider. Keep it OFF during regular usage of your device.

About

Displays your device's connection information, firmware information, WWAN information, and device information.

1. From the Web UI main screen, Click the **About** tab to view the available information.

The screenshot shows the 'About' page of a web UI. The top navigation bar includes 'Home', 'Settings', 'About', and 'Support' tabs. The 'About' tab is selected. The main content area is divided into four sections: 'Account', 'Firmware', 'Device', and 'WWAN Info'. Each section contains a list of key-value pairs. At the bottom right, there is a 'Save to File' button. Below the main content, there is a 'Debug Info' section with a 'Debug' button.

Account	
My Number	9132189552
MSID	9134840931
MEID	35924104322562
ICCID	8901120200000019056
IMSI	310120052147880
IMEI	359241043225629

Firmware	
Firmware Version	0.3.1.9
Build Date	Jan 24 2018
Web App Version	C801.SP.31.216
Bootloader Version	0.54.76

Device	
Model	Franklin C801
Manager	http://myrouter
Hardware Revision	P1

WWAN Info	
Activation Date	01/16/2018 11:18:00
Refurbished	No
IP Address	184.254.11.219, 2600:1:b101:45bd:0:6b:ce53:d001
LTE APN NI	r.ispsn
Lifetime Transferred	184.12 MB

Save to File

Debug Info

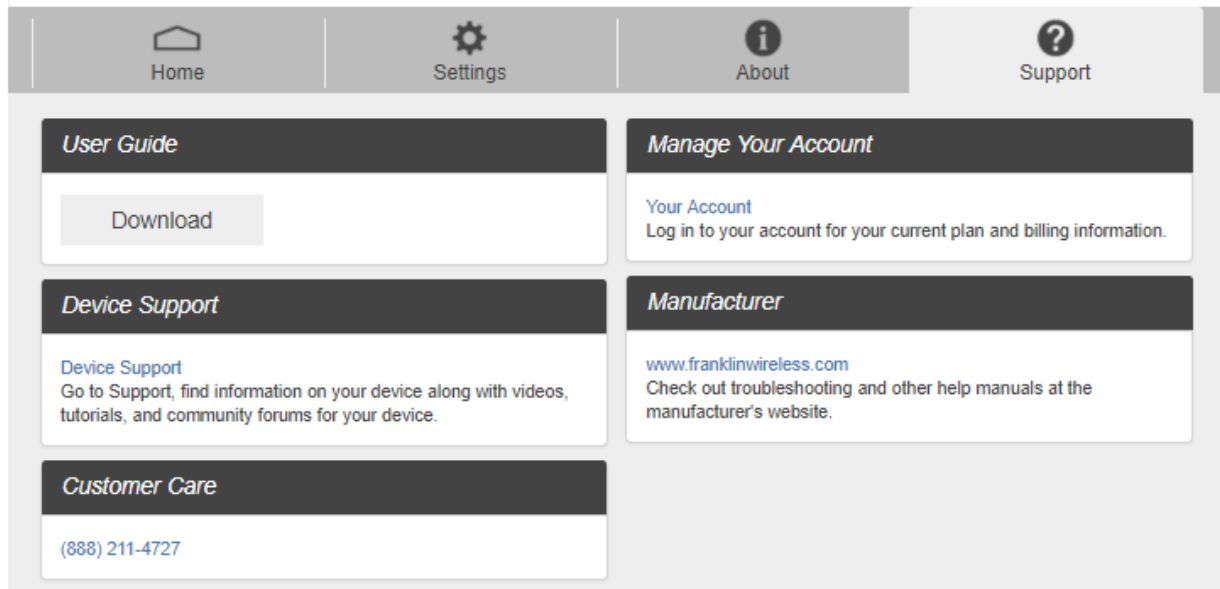
View detailed diagnostic information about your device.

Debug

Support Tab

Obtain support information on this interface.

1. From the Web UI main screen, click the **Support** tab to view the available options.



Appendix

The following topics cover items such as troubleshooting, device specifications, applicable warranty and service information, customer service contacts, and applicable trademark and copyright notices.

Troubleshooting

Check below for troubleshooting solutions for common device issues.

Issue: Internet connection fails.

Solution 1: Make sure that you are within the service area.

Solution 2: If signal reception is poor, move to where signal reception is good and then reconnect.

Solution 3: The access point might be busy depending on the time of day. Wait a little and then reconnect.

Solution 4: Activate the Web UI and make sure that network settings are correct

Issue: Transmission fails quickly.

Solution 1: Make sure that the broadband device is properly connected to the PC or other device.

Solution 2: Signal reception might be poor. Check transmission where signal reception is good.

Solution 3: Restart the broadband device.

Issue: Transmissions are slow.

Solution 1: Signal reception might be poor. Check transmission where signal reception is good.

Solution 2: Connection might be poor. Try again after a while.

Issue: Forgot PIN / Unknown PIN Unblocking Key (PUK) / SIM card is locked.

Solution: Contact Service Provider.

Issue: SIM card is not recognized.

Solution 1: Check whether the SIM card is properly installed. For details, see Insert or Remove a SIM Card.

Solution 2: Check the SIM card for damage.

Solution 3: Check the SIM card IC chip for scratches/corrosion.

Solution 4: Dirty SIM card (particularly IC chip) may prevent recognition. Clean gently with a soft cloth.

Solution 5: Contact Customer Service.

Issue: How do I return the broadband device to the default settings (reset)?

Solution 1: Use the Web UI to reset the device to default settings. For details, see Web UI Window.

Issue: An old phone number appears on the Web UI.

Solution: The Web UI may display an old phone number depending on subscription terms or cancellation method.

Issue: The broadband device operation is unstable.

Solution 1: Avoid extremely high/low temperatures, high humidity, direct sunlight, dusty areas, etc. Read "Safety Precautions" for use in a proper environment.

Solution 2: Avoid invalid software. Operation is unguaranteed for Internet connection, etc., using other-party software.

Issue: The connection suddenly failed.

Solution 1: The connection method may have been changed. Check connection mode on the broadband device Web UI.

Solution 2: Restart the broadband device.

Specifications

The following tables list the specifications for the broadband device, the AC charger, and the materials.

Broadband Device Specifications

Item	Description
Model name	C801 4G Router
Dimensions	104mm (L) x 104mm (W) x 49mm (H)
Weight	220g
Interface	Web UI
Power consumption	Normal state: 1.75 Watts Max state : 3.5 Watts
Operating system	Linux OS

Item	Description
Frequency	LTE B25 DL: 1930 ~ 1995 MHz UL:1850 ~ 1915 MHz LTE B26 DL: 859 ~ 894 MHz UL: 814 ~ 849 MHz LTE B41 DL: 2496 ~ 2690 MHz UL: 2496 ~ 2690 MHz
Compatible networks	LTE category 4
Communication speed	LTE category 4 DL : 150Mbps UP : 50Mbps

AC Charger Specifications

Item	Description
Rated input voltage	100-240Vac
Operating range	90-264Vac
Rated input frequency	50/60Hz +/- 3Hz
Nominal dc output voltage	+5.0V (±5%)
Rating load current	2.0A

Materials Specifications

Parts	Materials/Finishing
A cover	PC(White), Silk print
B cover	PC(Black), Silk print
A cover DECO	PC(Black)
Rubber feet	Silicon(Black)

Warranty and Service

The following topics outline your device's warranty and service information.

Warranty

Your device purchase includes Warranty.

- Confirm shop name and purchase date.
- Read contents of Warranty and keep it in a safe place.
- Check warranty period in the Warranty.

Services

Before submitting your device for repairs, contact Service Provider's Customer Service or General Information; be prepared to describe the problem in detail.

- During the warranty period, repairs will be made under the terms and conditions described in the Warranty.
- After the warranty period, repairs will be upon request; if said repairs can be made, you will be charged for them.

Customer Service

For broadband device or service information, call general information. For repairs, call your Service Provider's customer assistance.

Trademarks and Copyright Information

The names of companies, products, and services used in this guide are registered trademarks or trademarks of the respective companies.

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Safety and Notices

The following topics address important safety precautions, general notes, and required RF exposure information for your broadband device.

Safety Precautions

The following topics outline important safety precautions that must be observed when using your device.

Important Notice

Due to the nature of wireless communications, transmission and reception of data can never be guaranteed. Data may be delayed, corrupted (i.e., have errors) or be totally lost. Although significant delays or losses of data are rare when wireless devices are used in a normal manner with a well-constructed network, your device should not be used in situations where failure to transmit or receive data could result in damage of any kind to the user or any other party, including but not limited to personal injury, death, or loss of property. Franklin Wireless accepts no responsibility for damages of any kind resulting from delays or errors in data transmitted or received using your device, or for failure of your device to transmit or receive such data.

Safety and Hazards

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.

Do not operate your device in any aircraft, whether the aircraft is on the ground or in flight. In aircraft, your device **MUST BE POWERED OFF**. When operating, your device can transmit signals that could interfere with various onboard systems.

Note: Some airlines may permit the use of cellular phones while the aircraft is on the ground. Your device may be used at this time if allowed by airlines.

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

FCC Compliance

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.

Note: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this 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

RF Exposure Statement

The antenna(s) must be installed such that a minimum separation distance of at least 20 cm is maintained between the radiator (antenna) and all persons at all times. This device must not be co-located or operating in conjunction with any other antenna or transmitter.

