Important safety instructions

This device complies with the applicable requirements for performance, construction, labeling, and information when used as outlined below:

CAUTION: Potential device damage. Potential loss of service. In new installations when using your existing house wiring, it is important that physical connections to the previous telephone provider must be removed and the wiring must be checked. Cancellation of telephone service is not adequate. Failure to do so may result in loss of service and/or permanent damage to this device.

- The device is designed to be connected directly to a telephone.
- Do not use device near water (i.e. wet basement, bathtub, sink or near a swimming pool, etc.), to avoid risk of electrocution.
- Do not use the telephone to report a gas leak in the vicinity of the leak.
- The device shall be cleaned using only a damp, lintfree, cloth. No solvents or cleaning agents shall be used. Do not use spray cleaners or aerosols on the gateway.
- Avoid using and/or connecting the device during an electrical storm, to avoid risk of electrocution.
- Do not locate the device within 6 feet (1.9 m) of a heat, flame, or ignition source (i.e. gas fires, electric heaters, radiators, fireplaces, etc.).
- Use only the external AC power adapter provided.
- The only way to disconnect this device from the main supply is to unplug it from the electrical outlet, the device should therefore be installed near the outlet, which must be easily accessible
- Ensure the coax cable attached to the device is in good physical shape and properly tightened to the device. This device is intended to be installed in accordance with the requirements of IEC 60728-11 (Cable networks for television signals, sound signals and interactive services), for safe operation.
- Do not block the ventilation holes on this device. Leave a gap of at least 4 inches/10 cm above and around it to allow for adequate ventilation. Never stand it on soft furnishings or carpets.

Power supply unit	This Class III device shall be powered by the Power Supply that is provided together with the device.
Input Voltage	110-240Vac, 50/60 Hz, 1.0Amax
Output Voltage	12.0Vdc, 2.5A, 30W

This product is intended to be powered by a listed power adapter or DC power source marked "L.P.S." (or "Limited Power Source"), rated 12Vdc, 2.5A minimum, TMA = 40°C minimum. For further assistance, please contact ARRIS for further information.

Canadian Compliance

CAN ICES-003(B) / NMB-003(B)

This device complies with Innovation, Science and Economic Development Canada's license-exempt RSSs. Operation is subject to the following two conditions:

(1) This device may not cause interference; and

(2) This device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes :

(1) l'appareil ne doit pas produire de brouillage, et

(2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

The device meets the exemption from the routine evaluation limits in section 2.5 of RSS 102 and compliance with RSS-102 RF exposure, users can obtain Canadian information on RF exposure and compliance.

Le dispositif rencontre l'exemption des limites courantes d'évaluation dans la section 2.5 de RSS 102 et la conformité à l'exposition de RSS-102 rf, utilisateurs peut obtenir l'information canadienne sur l'exposition et la conformité de rf.

Caution:

(i) the device for operation in the band 5150–5250 MHz is only for indoor use to reduce the potential for harmful interference to co-channel mobile satellite systems.

(i) le dispositif fonctionnant dans la bande 5150-5250 MHz est réservé uniquement pour une utilisation à l'intérieur afin de réduire les risques de brouillage préjudiciable aux systèmes de satellites mobiles utilisant les mêmes canaux.

Radiation Exposure Statement:

Caution: This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter. This device should be installed and operated with a minimum distance of 42 centimeters between the radiator and your body.

Cet émetteur ne doit pas être Co-placé ou ne fonctionnant en même temps qu'aucune autre antenne ou émetteur. Cet équipement devrait être installé et actionné avec une distance minimum de 42 centimètres entre le radiateur et votre corps.

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.

This device 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 device 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 device does cause harmful interference to radio or television reception, which can be determined by turning the device off

and on, the user is encouraged to try to correct the interference by one of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the device and receiver.
- Connect the device 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.

FCC Caution:

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

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

Note: The country code selection is for non-US models only and is not available to all US models. Per FCC regulation, all Wi-Fi devices marketed in US must fix to US operation channels only.

Radiation Exposure Statement:

This device complies with FCC radiation exposure limits set forth for an uncontrolled environment. This device should be installed and operated with minimum distance 25.6 inches/65 cm between the radiator and your body.

Caring for the environment by recycling

[symbol]	When you see this symbol on a product, do not dispose of the product with residential or commercial waste.
[recycle symbol]	Please recycle product packaging and this document.

Recycling your equipment

Some countries or regions have set up systems to collect and recycle electrical and electronic waste items.

Recycling information can be obtained from the WEEE recycling section at: www.CommScope.com

Open source software and licenses

For instructions on how to obtain a copy of any source code being made publicly available by ARRIS related to software used in this ARRIS product you may send your request in writing to:

ARRIS, Software Pedigree Operations, 2450 Walsh Avenue, Santa Clara, CA 95051, USA.

The ARRIS website **opensource.arris.com** also contains information regarding use of open source. ARRIS has created **opensource.arris.com** to serve as a portal for interaction with the software community-at-large.

CommScope Legal Statements

Trade Name	ARRIS
Responsible Party	ARRIS International plc.
Address	3871 Lakefield Drive, Suwanee, GA 30024, United States www.arris.com

ARRIS NVG653UX
5G NR Fixed Wireless Router Guide

Introduction

Use this Quick Start Guide to install, configure, and perform basic troubleshooting for the ARRIS NVG653UX and NVG658UX gateways.

Power supply installation
Connect the power supply cord to the Power In connector on the gateway and the other end into an appropriate electrical outlet.
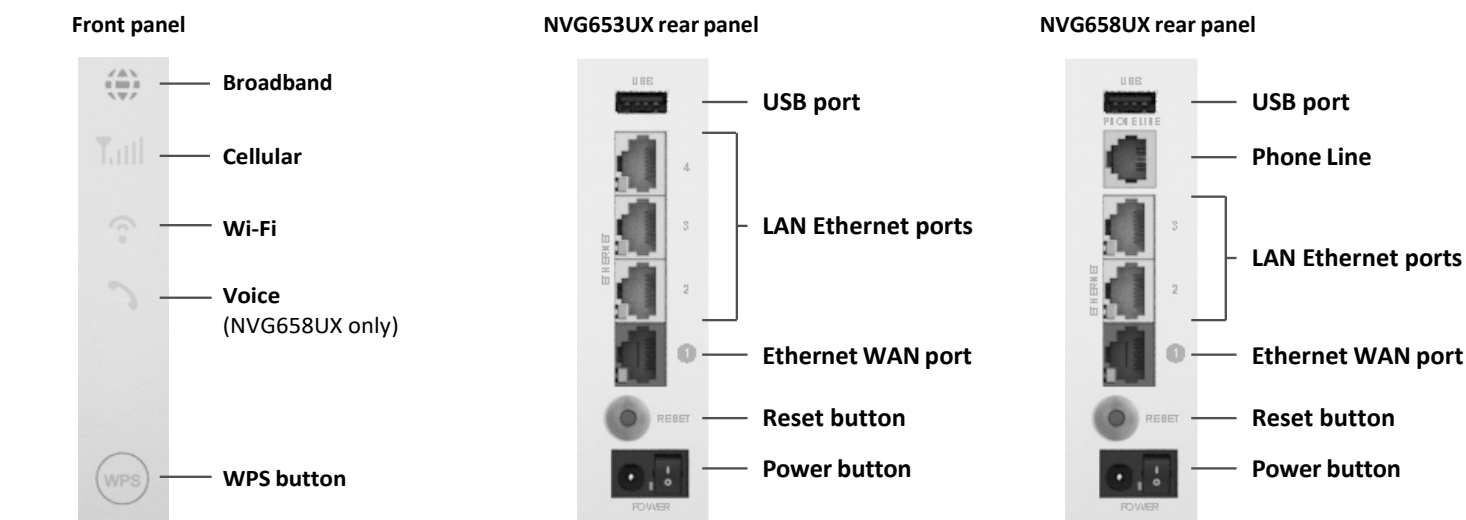
Product ventilation
The gateway is intended for residential use. Position the gateway in a vertical position and where temperature remains within a range of $32° − 104°F$ $(0° − 40°C)$ and heat from the unit itself is not trapped. There must be at least two inches (2") of clearance on all sides except the bottom.

Gateway positioning
Position the gateway in a vertical position. Proper positioning of the gateway is essential for proper cooling.

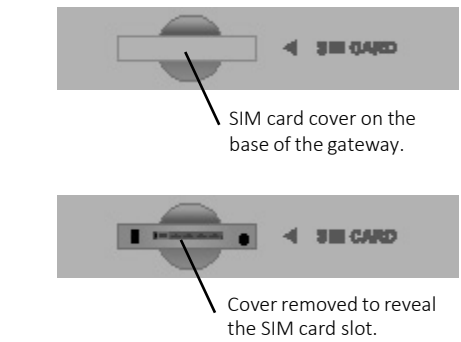### Status indicator lights and port configuration
Colored LEDs on the gateway indicate the status of various port activity.

Front panel

- Broadband
- Cellular
- Wi-Fi
- Voice (NVG658UX only)
- WPS button

NVG653UX rear panel

- USB port
- LAN Ethernet ports
- Ethernet WAN port
- Reset button
- Power button

NVG658UX rear panel

- USB port
- Phone Line
- LAN Ethernet ports
- Ethernet WAN port
- Reset button
- Power button

LED descriptions

LED	Status
Broadband	Solid blue: 5G NR connection is active. Flashing blue: 4G LTE connection is active. Solid purple: Ethernet WAN connection is active. Solid red: No IP address or authentication failed. Flashing red: Device booting in progress. Off: No active broadband connection.
Cellular	Antenna LED solid green: Cellular connection exists. Antenna LED off: No cellular connection exists (possibly because of SIM card not being present). Signal strength bars green: Indicates cellular signal strength; the more bars illuminated the greater the signal strength.
Wi-Fi	Solid green: Wireless enabled (either radio). Flashing yellow: WPS pairing process timer active. Flashing red: Wi-Fi Protected Setup (WPS) timeout or conflict. Solid red: Wireless network failure. Off: Wireless is disabled for both radios.
Voice (NVG658UX only)	Solid green: All voice lines are registered and active. Flashing green: One or more voice lines are ringing or off-hook. Solid red: All voice lines are provisioned but not have failed registration. Off: No voice services have been provisioned.
LAN/WAN Ethernet LEDs on RJ-45 ports (rear panel)	Solid green: Port is active. Off: Port is not active. Flashing green: Traffic is passing on the line.
Power (rear panel)	Solid green: The device is powered on. Off: The device is powered off.

Note, during a firmware download the front panel LEDs will flash red in a circular sequence.
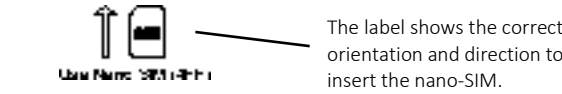
Inserting your SIM

Your gateway requires a nano-SIM card (4FF) to connect to the cellular network. The SIM card slot is on the base of your gateway. To insert your nano-SIM:

1. On the base of the gateway, remove the SIM card cover to reveal the SIM card slot.

SIM card cover on the base of the gateway.

Cover removed to reveal the SIM card slot.

2. Insert the nano-SIM into the slot, in the orientation and direction shown on the label on the base.

The label shows the correct orientation and direction to insert the nano-SIM.

3. Replace the door of the SIM card slot.

Powering and initial cabling

Press the **Power** button on the back of the gateway. The Power indicator will initially flash GREEN to indicate that the gateway is booting and then solid GREEN to indicate it is operational. Under normal operation, while the gateway is powering up, LED status is as follows:

- Broadband, Cellular, and Wi-Fi indicators will be off.
- Broadband indicator will initially be solid RED, and once the gateway obtains an IP Address will change to solid BLUE.
- Wi-Fi indicator will light solid GREEN to indicate that the Wi-Fi service is enabled.
- Cellular indicator will light solid GREEN to indicate that there is a cellular connection.

NOTE: During the initial setup, it may take several minutes to achieve service connectivity.

Broadband: Follow instructions provided by your Service Provider. If no instructions are provided, then call your Service Provider.

Digital Phone Service: To connect the gateway to a digital phone line:
1. Connect the supplied RJ-11 terminated phone cable to the Phone port on the back of the gateway.
2. Connect the phone cable to a phone or fax machine.

LAN Ethernet: To make an Ethernet connection:
1. Connect the supplied RJ-45 terminated Ethernet cable to one of the Ethernet ports on the back of the gateway.
2. Connect the Ethernet cable to the Ethernet port on a local computer.

USB port: To connect the gateway to the USB port:
1. Connect the USB cable to the USB port on the back of the gateway.
2. Connect the other end of the USB cable to your device.

Connect a wireless device to the gateway

To connect a wireless device (such as a phone, tablet, or laptop) to the gateway:
- Use your device to scan the QR code on the side of the gateway, *or*
- In your device's Wi-Fi settings, connect to the Wi-Fi network with a name starting with "ARRISXXXX" (where "XXXX" matches the network name printed on the label on the side and bottom of the gateway), and enter the Wi-Fi password when prompted.

Access the Web Management Interface

To access the gateway's Web Management Interface:
1. Ensure your device is connected to the gateway via Wi-Fi (see **Connect a wireless device to the gateway** above) or via an Ethernet connection.
2. Enter the address **http://myrouter** into your web browser (such as Firefox, Chrome, or Microsoft Edge) to open the Web Management Interface.
3. Enter the Device Access Code when prompted - this is a unique code printed on the label on the base of the gateway- and click **Continue**.

The Home page provides an overview about the connection and network status. You can also access information for the following:
- **Overview:** Connection and network status
- **Wi-Fi:** Wi-Fi configuration and EasyMesh
- **Network:** Interfaces for Cellular, WAN and LAN, Leases, Routes, Firewall and WAN Settings
- **Services:** Dynamic DNS, Wake on LAN
- **System:** System Log, info, Administration, Diagnostics, Reboot
- **Cellular:** Cellular Statistics, SIM Unlock

Change the default Wi-Fi name and password

To change the default Wi-Fi name and password:
1. Access the Web Management Interface (see above).
   Note: You will prompted to enter the Device Access Code - this is a unique code printed on the label on the base of the gateway.
2. Open the **Wi-Fi** menu and select **Wi-Fi Configuration**. An overview of the 5GHz and 2.4GHz wireless frequency bands is displayed
3. In the Main Network section for the appropriate wireless frequency band, click **CONFIG** to open the Interface Configurations page.
4. Change the SSID and Key (password) fields as required and click **Save and Apply**.