

## MPE/SAR/RF exposure information

This device was verified for RF exposure and found to comply with FCC OET bulletin 65 and Council Recommendation 1999/519/EC RF exposure requirements. This equipment complies with FCC and ISED radiation exposure limits set forth for an uncontrolled environment.

**WARNING:** While this device is in operation, a separation distance of at least 37 cm (15 inches) must be maintained between the radiating antennas and the bodies of all persons exposed to the transmitter to meet the FCC and ISED RF exposure guidelines.

No change to the antenna or the device is permitted. Any changes to the antenna or the device could result in the device exceeding the RF exposure requirements. This device must not be co-located or operated in conjunction with any other antenna or radio transmitter.

Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

## MPE / SAR / RF information sur l'exposition

Cet appareil répond aux directives d'exposition RF FCC OET-65 et Recommandation du Conseil 1999/519/EC sur la limitation d'exposition du public général aux champs électromagnétiques.

**MISE AN GARDE:** Pour satisfaire aux exigences de la FCC et IC concernant l'exposition aux radiofréquences, une séparation de 37 cm ou plus doit être maintenue entre cet appareil et des personnes lors de fonctionnement du dispositif. Pour assurer la conformité, des opérations au plus près que cette distance n'est pas recommandée.

Aucune modification de l'antenne ou de l'appareil n'est autorisée. Toute modification de l'antenne ou de l'appareil peut dépasser les exigences d'exposition aux RF. L'antenne utilisée pour cet émetteur ne doit pas être co-localisée ou fonctionner conjointement avec une autre antenne ou transmetteur.

L'utilisation de commandes ou de réglages ou l'exécution de procédures autres que celles spécifiées dans le présent document peuvent être la cause d'une exposition à un rayonnement dangereux.

## Safety information

The following sections describe the safety guidelines for this product.

### AC adapter

This product is intended to be supplied with a listed ARRIS Direct Plug-In AC adapter marked Class 2 or LPS, with an output 12V 3A.

The AC power adapter supplied with this product is designed to ensure your personal safety and to be compatible with this equipment. Use only the power adapter that was provided with the gateway.

Please follow these guidelines:

- Do not use the adapter in a high moisture environment. Never touch the adapter when your hands or feet are wet.
- Allow adequate ventilation around the adapter. Avoid locations with restricted airflow.
- Connect the adapter to a proper power source. The voltage and grounding requirements are found on the product case and/or packaging.

### Adaptateur secteur

Cet appareil est destiné à être alimenté par une source d'alimentation directe fournie par ARRIS ou de « Classe 2 » ou marquée « LPS », et avec un courant de sortie de 12V DC, 3A.

Le bloc d'alimentation secteur fourni avec ce produit a été conçu pour garantir votre sécurité et être compatible avec cet appareil.

Veillez suivre les consignes suivantes:

- N'utilisez pas l'adaptateur secteur dans un environnement hautement humide. Ne touchez jamais l'adaptateur secteur si vos pieds ou mains sont humides.
- Laissez une ventilation adéquate autour de l'adaptateur secteur. Évitez les endroits où la circulation de l'air est insuffisante.
- Branchez l'adaptateur secteur sur une prise respectant les spécifications sur la tension et la mise à la terre se trouvant sur la coque et/ou l'emballage du produit.

**Telecommunication cord** Caution: To reduce the risk of fire, use only No. 26 AWG or larger UL Listed or CSA Certified Telecommunication Line Cord.

**Cordon téléphonique** Attention: Afin de réduire le risque d'incendie, n'utilisez qu'un cordon téléphonique de calibre 26 AWG ou supérieur listé UL ou certifié CSA.

## Internal telephone ports (VoIP)

Telecommunication equipment connected to this port (e.g., via "Phone Lines 1 & 2" port) should be UL Listed and the connections shall be made in accordance with Article 800 of the NEC.

### Port téléphonique (VoIP)

Tout équipement de télécommunication téléphonique connecté à ce port doit être listé UL et les branchements doivent être fait conformément aux dispositions de l'Article 800 du Code national de l'électricité (NEC).

### Repairs

Do not, under any circumstances, attempt any service, adjustments, or repairs on this equipment. Instead, contact your local ARRIS distributor or service provider for assistance. Failure to comply may void the product warranty.

### Réparations

N'essayez en aucun cas d'effectuer des réparations, des ajustements ou des réparations sur cet équipement. Contactez plutôt votre distributeur ou fournisseur de services ARRIS local pour obtenir de l'aide. Le non-respect de cette consigne peut annuler la garantie du produit.

### Location - electrical considerations

CAUTION: Due to risk of electrical shock or damage, do not use this product near water, including a bathtub, wash bowl, kitchen sink or laundry tub, in a wet basement, or near a swimming pool. Also, avoid using this product during electrical storms. Avoid locations near electrical appliances or other devices that cause excessive voltage fluctuations or emit electrical noise (for example, air conditioners, neon signs, high-frequency or magnetic security devices, or electric motors).

### Emplacement – Considération électriques

AVERTISSEMENT: Pour éviter un risque de choc électrique, n'utilisez pas cet appareil à proximité d'une source d'eau, par exemple près d'une baignoire, un lavabo, une machine à laver, dans un garage humide ou près d'une piscine. Évitez aussi d'utiliser cet appareil durant un orage. Évitez de brancher cet appareil à proximité d'appareils électriques pouvant causer de large fluctuations de tension ou émettant du bruit électrique (tel que climatiseurs, enseignes au néon, dispositifs de sécurité magnétique ou de haute-fréquence, ou moteurs électriques).

### Location - environmental considerations

Do not plug the power adapter into an outdoor outlet or operate the residential gateway outdoors. It is not waterproof or dustproof, and is for indoor use only. Any damage to the unit from exposure to rain or dust may void your warranty.

Do not use the residential gateway where there is high heat, dust, humidity, moisture, or caustic chemicals or oils. Keep the gateway away from direct sunlight and anything that radiates heat, such as a stove or a motor.

- Do not use the adapter if the cord becomes damaged.
- Do not attempt to service the adapter. There are no serviceable parts inside. Replace the unit if it is damaged or exposed to excess moisture.

### Lieu - considérations environnementales

Ne branchez pas l'adaptateur secteur sur une prise extérieure et n'utilisez pas la passerelle résidentielle à l'extérieur. Il n'est pas étanche à l'eau ou à la poussière, et est pour une utilisation à l'intérieur seulement. Tout dommage à l'appareil résultant d'une exposition à la pluie ou à la poussière peut annuler votre garantie. N'utilisez pas la passerelle résidentielle dans des endroits où la chaleur, la poussière, l'humidité, des produits chimiques ou des huiles sont caustiques. Gardez la passerelle à l'abri de la lumière directe du soleil et de tout ce qui dégage de la chaleur, tel qu'un poêle ou un moteur.

- N'utilisez pas l'adaptateur si le cordon est endommagé.
- N'essayez pas de réparer l'adaptateur. Il n'y a aucune pièce réparable à l'intérieur. Remplacez l'appareil s'il est endommagé ou exposé à un excès d'humidité.

### Class 1 Laser Product

**DANGER:** Viewing the laser output with certain optical instruments (e.g. eye loupes, magnifiers and microscopes) within a distance of 100 mm may pose an eye hazard.

**DANGER:** There must be a proper termination of all active fibers in the network.

Complies with 21 CFR 1040.10 and 1040.11, except for conformance with IEC 60825-1 Ed. 3, as described in Laser Notice No. 56, dated May 8, 2019

## Produit laser de classe 1

**DANGER:** La visualisation de la sortie laser avec certains instruments optiques (loupes, loupes et microscopes, par exemple) à une distance de 100 mm peut présenter un risque pour les yeux.

**DANGER:** toutes les fibres actives du réseau doivent être correctement terminées

Conforme à 21 CFR 1040.10 et 1040.11, sauf pour la conformité à la norme IEC 60825-1 Ed. 3, tel que décrit dans La Notice Laser n° 56 du 8 mai 2019.

<b>Trade Name</b>	ARRIS
<b>Responsible Party</b>	ARRIS International plc.
<b>Address</b>	3871 Lakefield Drive, Suwanee, GA 30024, United States
<b>Phone</b>	1-866 362-7747

## RF Max Output Power

The following table shows the RF Output Power for CPE wireless devices:

Frequency Band (GHz)	Maximum RF Power (dBm)
2.41. to 2.48	20
5.15. to 5.35*	30
5.47 to 5.725	30

\*5150 - 5350 MHz is limited to indoor use only in these countries: BE, BG, CK, DK, DE, EE, IE, EL, ES, FR, HR, IT, CY, LV, LT, LU, HU, MT, NL, AT, PL, PT, RO, SI, SK, FI, SE, and UK.

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# NVG568LX/HLX and NVG578LX/LX1/HLX Gateway Quick Start Guide

## Introduction

Use this Quick Start Guide to install, configure, and perform basic troubleshooting for the NVG578LX/NVG578LX1/NVG578HLX and NVG568LX/NVG568HLX 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.

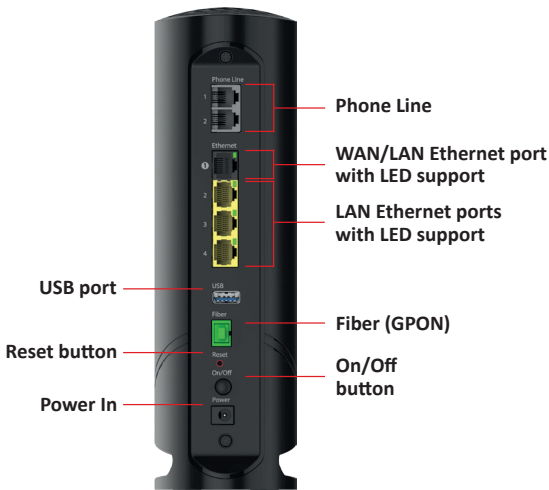
## Product ventilation

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.

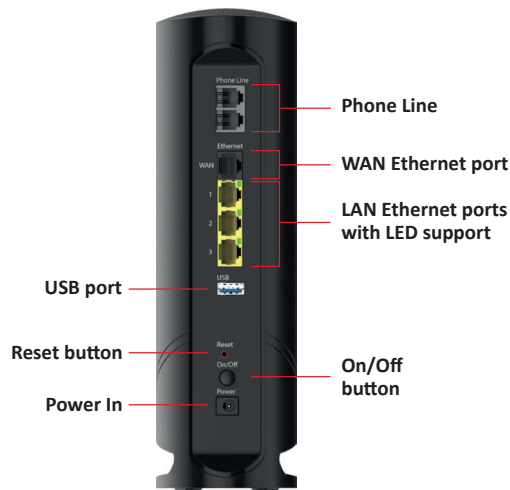
## Gateway positioning, status indicator lights and port configuration

Proper positioning of the gateway is essential for proper cooling. Colored LEDs on the gateway indicate the status of various port activity.

## NVG578LX / NVG578LX1 / NVG578HLX



## NVG568LX / NVG568HLX



## Front Panel (all models)



**NOTE:** Please see the product label placed on the base of your unit for the model number.

## LED descriptions

LED	Status
<b>Power</b>	<p><b>Solid Green:</b> The device is powered.</p> <p><b>Flashing Green:</b> The device is booting.</p> <p><b>Solid Red:</b> Boot failure.</p> <p><b>Flashing Red:</b> Detecting Factory Reset (press and hold the recessed Reset Switch for 10 or more seconds to trigger the factory reset).</p> <p><b>Off:</b> No power</p>
<b>Broadband</b>	<p><b>Solid Green:</b> Broadband connected.</p> <p><b>Solid Red:</b> No IP address or authentication failed.</p>
<b>WAN</b>	<p><b>Solid Green:</b> WAN connection is active.</p> <p><b>Flashing Green:</b> Aquiring connection.</p> <p><b>Solid Red:</b> No broadband WAN connection on the line.</p>
<b>Wi-Fi</b>	<p><b>Solid Green:</b> Wireless enabled (either radio).</p> <p><b>Flashing Yellow:</b> WiFi Protected Setup (WPS) is active.</p> <p>- <b>Slow Flashing:</b> = less than 3 sec WPS push for the configured radio SSID (2.4 GHz or 5GHz) user pairing.</p> <p>- <b>Fast Flashing</b> = 3 sec or longer WPS push for 5GHz Video SSID pairing.</p> <p><b>Flashing Red:</b> WiFi Protected Setup (WPS) timeout or conflict.</p> <p><b>Solid Red:</b> Wireless network failure.</p> <p><b>Off:</b> Wireless disabled (both radios).</p>
<b>Voice</b>	<p><b>Solid Green:</b> All phone lines are registered and active.</p> <p><b>Flashing Green:</b> A phone line is ringing or off-hook.</p> <p><b>Solid Red:</b> All provisioned phone lines are provisioned but not SIP registered.</p> <p><b>Solid Yellow:</b> Both lines of a two line system are provisioned with one unregistered.</p> <p><b>Flashing Yellow:</b> Two phone lines provisioned, one line is registered and the other has a registration failure, operational line is ringing or off hook (only applicable for two lines)</p> <p><b>Off</b> = No phone services have been provisioned, or the gateway power is off.</p>
<b>LAN/WAN Ethernet LEDS on rear panel RJ-45 ports</b>	<p><b>Solid Green:</b> Port is active.</p> <p><b>Off:</b> Port is not active.</p> <p><b>Flashing Green:</b> Traffic is passing on the line.</p>



## Powering and initial cabling

Press the **On/Off** 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, WAN, Wi-Fi, and Voice indicators will be off.
- WAN indicator will initially be flashing GREEN, and upon acquiring a connection it will light solid GREEN.
- Wi-Fi indicator will light solid GREEN to indicate that the Wireless service is enabled. Broadband will light solid GREEN to indicate Internet connection is active.
- Voice indicator will light solid GREEN to indicate that digital phone service is active.

**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:

- Connect a RJ-11 terminated phone cable to a Phone Line port on the back of the gateway.
- Connect the other end of the phone cable to a phone or fax machine.

**LAN Ethernet:** To make an Ethernet connection:

- Connect a RJ-45 terminated Ethernet cable to one of the Ethernet ports on the back of the gateway.
- Connect the other end of the Ethernet cable to the Ethernet port on a local computer.

**USB port:** To connect the gateway to the USB port:

- Connect a USB cable to the USB port on the back of the gateway.
- Connect the other end of the USB cable to your device.

## Configuring your gateway

### 1. Add a wireless device to the gateway

To add a wireless device to the gateway, use your phone or tablet to scan the QR code on the side of the gateway.

Once connected follow steps 3 and 4 below to access the Web Management Interface and make changes to the Wi-Fi network. If your device is unable to scan the QR code, locate the Wi-Fi name and password information on the label on the side and base of the gateway and enter this information into your device.

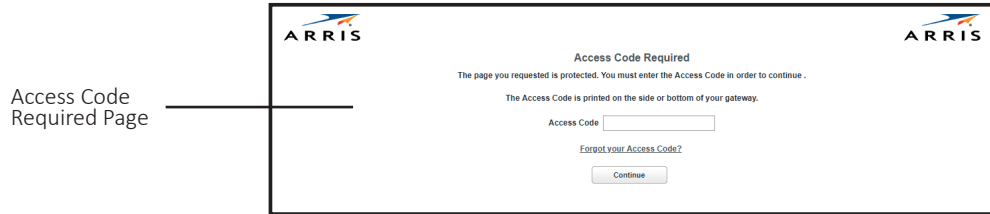
### 2. Add a wired device to the gateway

To add a wired device to the gateway, such as a PC or laptop, connect an Ethernet cable between your device and the gateway. Once connected follow step 3 below to access the Web Management Interface and make changes to the gateway.

### 3. Access the Web Management Interface

Using the same device you connected to the gateway from either Step 1 or 2, open a web browser on your device (such as Firefox, Chrome, or Microsoft Edge) and type the following address in the address bar: <http://192.168.1.254>

You will be presented with a Web Interface similar to the one shown on the right. If you attempt to make changes to any of the gateway settings, you will be presented with a screen asking for the Device Access Code. This can be found on the product label on the base of the gateway. Enter the Device Access Code in the web page and select Continue. You will now be able to make changes to the gateway settings.



### 4. To make changes to the Wi-Fi Network name/password

Continuing from Step 3, to make changes to the default Wi-Fi name/password:

- Using the interface shown in your web browser, select the Wi-Fi section.
- Make changes to the SSID (network name) and/or password, and select Apply when complete.

### 5. To disable the Wi-Fi Network

- Using the interface shown in your web browser, select the Wi-Fi section.
- Disable the Wi-Fi network, and select Apply when complete.

**Note:** If your service provider operates a community Wi-Fi service that might include your unit, please contact them to disable this service.

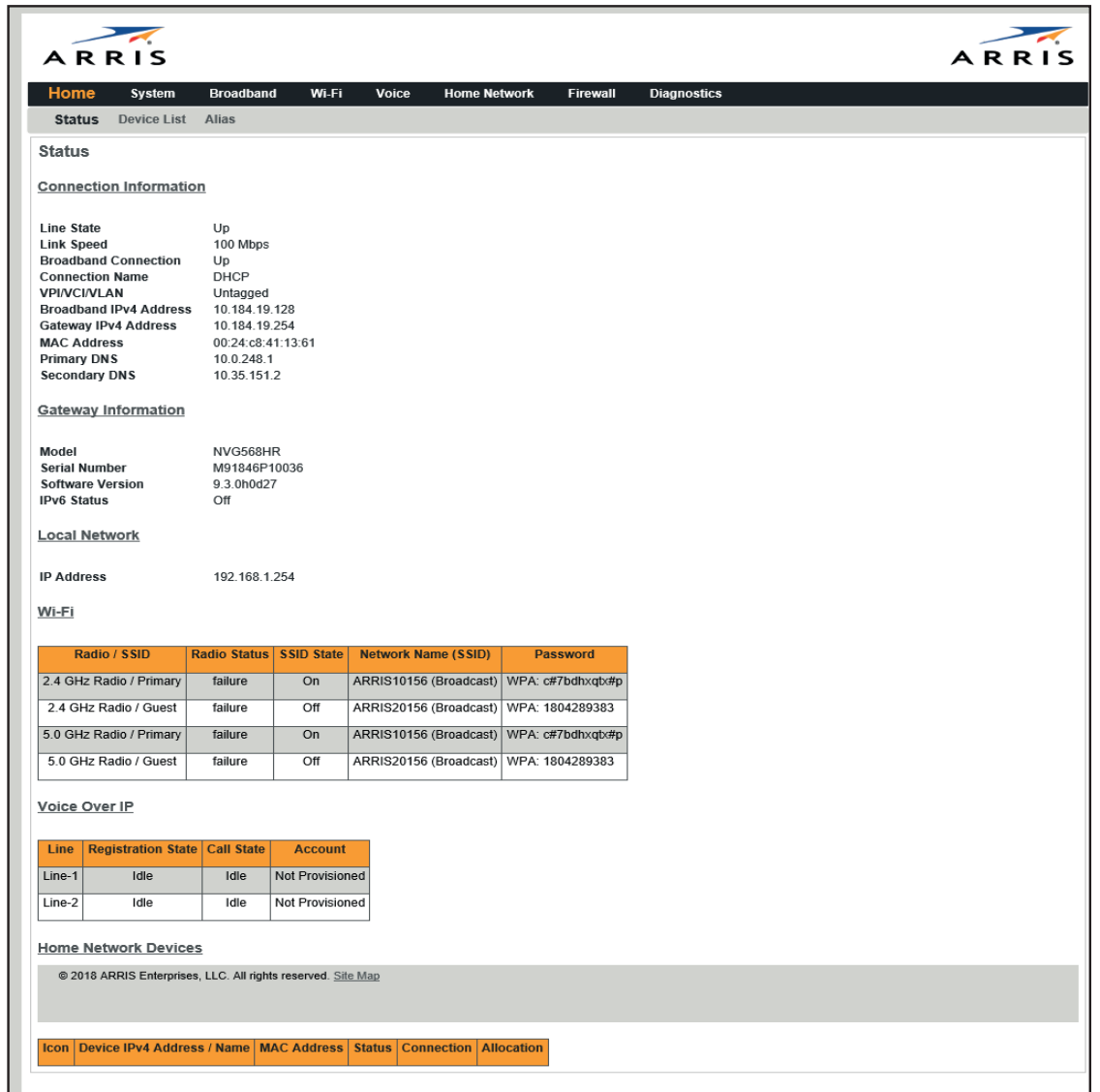


Image: Home page

**NOTE:** This is a reference image and may slightly differ based on your device.

## Declaration of conformity

The following sections describe regulatory compliance by region.

### FCC/ISED compliance

This device has been tested and certified as compliant with the regulations and guidelines set forth in the Federal Communication Commission- FCC Title 47 Part 15 and the Innovation Science and Economic Development (ISED) Canada CAN ICES-3 (B)/NMB-3(B) and RSS-247 Radio and Telecommunication regulatory requirements.

Cet appareil a été testé et certifié conforme aux réglementations et directives définies dans les exigences réglementaires CAN CAN ICES-3 (B) / NMB-3 (B) et RSS-247 d'Innovation et Canada (ISED).

**Manufacturer:** ARRIS

**Models:** NVG5x8 Product Family

This device complies with part 15 of the FCC Rules and Industry Canada license- exempt RSS standard(s).

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 of the device.

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

- l'appareil ne doit pas produire de brouillage, et
- l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

Users should be advised that high-power radars are allocated as primary users (i.e. priority users) of the bands 5250-5350 MHz and 5470-5725 MHz and that these radars could cause interference and/or damage to the LE-LAN device.

Les utilisateurs doivent être avisés que les radars de haute puissance sont désignés utilisateurs principaux (c.-à-d., qu'ils ont la priorité) pour les bandes 5250-5350 MHz et 5470-5725 MHz et que ces radars peuvent causer du brouillage et/ou des dommages aux dispositifs LAN-EL.

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

Where applicable, antenna type(s), antenna models(s), and worst-case tilt angle(s) necessary to remain compliant with the e.i.r.p. elevation mask requirement set forth in section 6.2.2.3 shall be clearly indicated.

Les dispositifs fonctionnant dans la bande 5150-5250 MHz sont réservés uniquement pour une utilisation à l'intérieur afin de réduire les risques de brouillage préjudiciable aux systèmes de satellites mobiles utilisant les mêmes canaux.

Lorsqu'il y a lieu, les types d'antennes (s'il y en a plusieurs), les numéros de modèle de l'antenne et les pires angles d'inclinaison nécessaires pour rester conforme à l'exigence de la p.i.r.e. applicable au masque d'élévation, énoncée à la section 6.2.2.3, doivent être clairement indiqués

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 to 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.

**Caution:** Changes or modifications not expressly approved by the party responsible for compliance could void your authority to operate this equipment.

### EU DECLARATION OF CONFORMITY

ARRIS declares that this product is in compliance with Directive 2014/53/EU.

The full text of the EU declaration of conformity is available at the following internet address: [http://arris.force.com/consumers/ConsumerProductDOC\\_EU](http://arris.force.com/consumers/ConsumerProductDOC_EU)

EU compliance is maintained at the following address: ARRIS International Plc, Victoria Road, Saltaire, West Yorkshire, BD18 3LF, United Kingdom.