vantiva

BGW620-700

Residential Gateway
User Guide

CONTENTS

FRONT PANEL

Configuration label

Scan the QR code on this label to access the configuration page. Once configured, remove the sticker.

Indicator

See the LED function table for details.

Power rating label

The model number, serial number, and electrical rating are on a label on the base of the device.

REAR PANEL

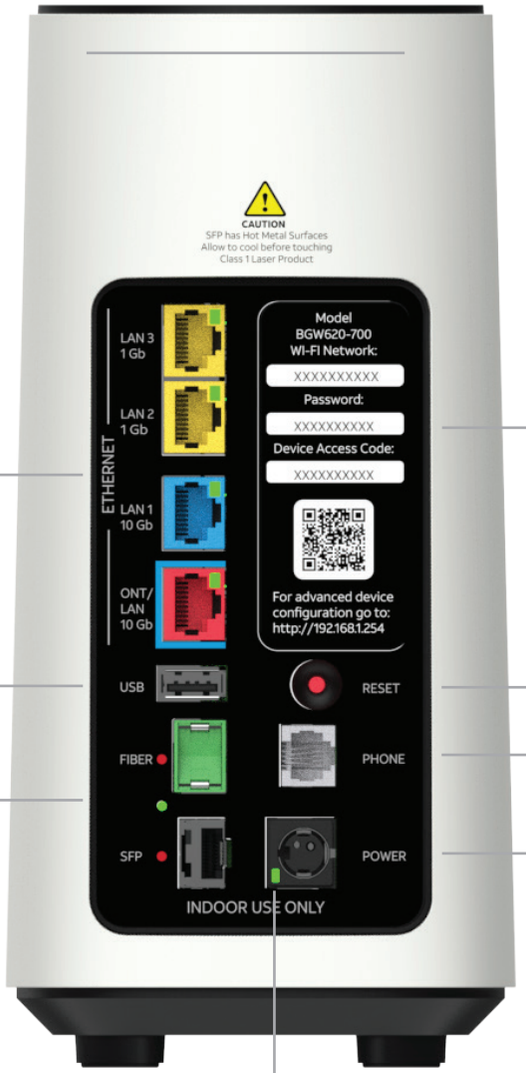
ETHERNET

Use these ports to connect your devices via a wired Ethernet connection. The ONT/LAN (dual function port firmware configurable) and LAN 1 ports support speeds up to 10 Gbps, while LAN 2 and LAN 3 offer up to 1 Gbps speeds. Each port has an indicator that lights up when connected.

USB

FIBER and SFP

Connect your fiber-optic cable or SFP (Small Form-factor Pluggable) module to the respective port for high-speed internet connectivity. The indicator lights up when an SFP module or a cable is connected to either of these ports.



Wi-Fi Configuration Label

Provides details, including the default Wi-Fi network SSID, password, device access code, and a QR code for easy access to the configuration page.

RESET

Press and hold this button for 10 seconds to restore your residential gateway to its factory default settings.

PHONE

(Optional) Connect a VOIP telephone to this port for voice communication. (Requires VoIP service from your carrier)

POWER

Connect the appropriate end of the supplied power adapter to this port.

Note: Do not connect your residential gateway to the power supply until you have properly connected all the other cables.

LED indicator

See the LED function table for details.

POWERING AND INITIAL CABLING

Before you begin

To maintain optimal performance and prevent overheating, install the product in a vertical position. This allows for better airflow and efficient heat dissipation.

Connecting to the Internet

To establish a high-speed internet connection using fiber-optic cable or SFP (Small Form-factor Pluggable) modules:

1. Carefully insert the fiber-optic cable or SFP module into the respective **FIBER** or **SFP** port on the rear panel of your residential gateway.
2. Ensure that the fiber-optic cable or SFP module clicks into place and is located securely to establish a reliable connection.

Connecting the power adapter

To power your residential gateway:

1. Connect the appropriate end of the power adapter cable to the **POWER** port on the rear panel of your residential gateway.
2. Connect the power plug end to a suitable power outlet.

After your residential gateway is powered on, the power indicator blinks green momentarily and then remains steady green.

WARNING
Please use only the power supply and cord that came with your residential gateway. Using any other power supply or cord may result in electric shock, fire, bodily injury, and/or property damage. If you notice any damage to the power supply or cord or if it needs to be replaced, please contact your service provider to obtain an authorized replacement.

Connecting devices to your residential gateway

You can connect computers or other suitable electronic devices to your residential gateway via Ethernet or Wi-Fi.

Connecting devices using wired Ethernet

To connect devices using wired Ethernet:

1. Connect a RJ-45 terminated Ethernet cable to one of the **ETHERNET** ports on the back of your residential gateway.
2. Connect the other end of the Ethernet cable to the Ethernet port on a local computer.

Connecting Devices Using Wi-Fi

To add a wireless device to your residential gateway, use your smartphone or tablet to scan the QR code on the front of your residential gateway.

If your device is unable to scan the QR code, locate the Wi-Fi name and password information on the label on the back and base of your residential gateway and enter this information into your device.

Once connected, follow the steps on your device to make changes to the Wi-Fi network.

Connecting a VoIP telephone (Subscription Required)

To connect your residential gateway to a digital telephone line:

1. Connect a RJ-11 terminated telephone cable to the **PHONE** port on the back of your residential gateway.
2. Connect the other end of the telephone cable to a telephone or fax machine.

   Note: To connect two telephones, connect the telephone cable to a splitter and then to the telephones.

TECHNICAL SPECIFICATIONS

Dimensions/Weight/ Placement	• Dimensions: 9.03 inches high (including feet) x 8.66 inches deep x 4.33 inches wide • Weight: 4.41 lbs • Placement: Vertical desktop or vertical wall mount (optional, please contact your retailer. • DO NOT operate with device on its side.
Core Components	• SoC Broadcom BCM68880 Quad Core 30k DMIPS • LPDDR4 4GBytes • eMMC 8GBytes • GNSS L1 Receiver • 3-axis Accelerometer Tilt Switch • Barometer Pressure Sensor
Communications interfaces	• Concurrent Wi-Fi support for 2.4 GHz, 5 GHz, and 6 GHz (Wi-Fi 7) • Two 1000Base-T Ethernet, RJ-45 ports • One IoT radio (with support for Thread, Zigbee and BLE) • One GNSS single-band receiver • Two 10G Ethernet, RJ-45 ports • One voice FXS, RJ-14 port • One USB 2.0 500 mA port
WAN Interfaces	• One SFP port • One Optical BOSA
Power Supply	• Desktop power supply: Delta ADH-72BR 12 V, 72 W, 6 A DC • The AC/DC 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 your residential gateway.
Environment	• Operating temperature: 0°C to 41.7°C (32° F to 107° F); 8% to 95% (Non Condensing) relative humidity • Storage temperature: –40° C to 80° C (–40° F to 176° F)
North America Agency Approvals	• Safety Approvals: United States – UL 62368, Third Edition • EMC: United States – FCC Part 15 Class B, Subparts B, C, and E • Telecom: United States – CFR Part 68

LED FUNCTIONALITY

Rear Panel LEDs

LED Function	Color	Illuminated	Description
Power	Green	No	BGW620 is not powered
		Yes	BGW620 is powered
Ethernet	Green	No	Ethernet is not connected
		Yes	Ethernet is connected
Optical or SFP+	Green	No	No connection
		Yes	Connected

Front Panel LED

The front panel status LED is controlled by software this table is a sub-set of the software defined states.

LED Function	Color	Flashing	Description
Unit status	White	No	BGW620 is connected
VOIP available	Yellow	No	Phone is off the hook or ringing
Software upgrade	Amber	Yes	The BGW620 software is being updated.
Security	Blue	No	A security issue observed during reboot
Connection fault	Red	No	Fibre / XFP+ incorrectly fitted / not connected
			BGW620 is overheating
Factory reset	Green	Yes	Factory reset in progress

ACCESSORIES

RGSHELF-BGW620

The wall mount kit RGSHELF-BGW620 is available to enable the BGW620 to be fitted to the wall or within a wiring panel.

- The wall mount is intended to be installed by trained technicians.
- The kit contains all the fixings required to attach the wall mount to a wall.
- The BGW620 can be mounted facing left or right to allow for easier cable entry.
- The power supplier holder can be removed if space is short.
- Placing the power supply in any position other than below the BGW620 may impact Wi-Fi performance.
- Do not block the BGW620 vent holes otherwise it may overheat.

MOUNTING INSTRUCTIONS

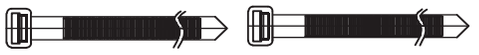
Description

1. This product is a wall mounted shelf kit designed for use only with AT&T Residential Gateway model BGW620-700.
2. This shelf is designed to mount to
   a) wiring panels (use 18x20 screws)
   - or-
   b) drywall (use 18X38 screws and anchors).
3. Included with the kit is the following:
   a) Shelf
   b) Power supply cradle
   c) 4 – 6x40 anchors
   d) 4 – 18x38 screws
   e) 4 – 18x20 screws
   f) 2 – 6x300 zip ties

6X40 Anchor

PA8#-18X38.1C3MC Screw

PA8#-18X20C3MC Screw



6X300 Zip tie

Caution

DO NOT place anything on top of the gateway or block the holes in the base as this will cause it to overheat. Make fiber and electrical connections according to AT&T's standard practices. Do not place heavy items on the shelf, do not lean on, sit, or use the shelf improperly.

Only qualified skilled installers should install, replace, or service this equipment. The installer is responsible for ensuring proper installation of this equipment.

Installation

1. Read the BGW620-700 safety sheet before installing the shelf.
2. Select an appropriate wall location near the fiber and power connections. The location must provide clearance on all sides of the Residential Gateway.
3. The power supply (PSU) should, if possible, be placed under the shelf using the power supply cradle, with any excess cable being bundled and fixed under or in front of the PSU using the zip ties and the cable tie loops on the shelf.
4. Placing the PSU alongside the base of the gateway may impact Wi-Fi or Bluetooth performance.

IMPORTANT SAFETY AND REGULATORY INFORMATION

Important Safety Instructions

1. The model number, serial number and electrical rating are on the product label.
2. This device is for indoor use only, do not place or locate in an outdoor location.
3. Use only the power supply and cord provided with the device. Do not use the power supply with any other devices.
4. Place the device in a vertical orientation on flat, firm, solid surface, away from any other items.
5. Do not locate or use the device near water and avoid areas with moisture.
6. Do not locate the device in direct sunlight or near a heat source.
7. Do not use any telephone connected to this device to report a gas leak in the vicinity of the leak.
8. Do not block the ventilation openings on this device or place in an enclosed location that could cause the device to overheat.
9. Never insert objects into the ventilation openings of this device as this can result in the risk of electrical shock or fire.
10. Unplug this device before cleaning. Do not use liquids, aerosols, or forced air to clean the device. Clean using a dry, lint-free cloth.
11. Use the product in the environment specified as below:
    Air temperature between 0°C (32 F) and +40°C (104 F).
    Relative humidity between 20% and 90%.

Class 1 Laser Product

CAUTION: Viewing the laser output with certain optical instruments (e.g., eye loupes, magnifiers, and microscopes) within a distance of 100 mm (approx. 4 in.) may pose an eye hazard. 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. Only Laser Class 1 Optical Transceiver can be used.

Federal Communications Commission (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

(2) this device must accept any interference received, including interference that may cause undesired operation.

FCC Radio Frequency Interference Statement

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:

1. Reorient or relocate the receiving antenna.
2. Increase the separation between the equipment and receiver.
3. Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
4. 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.

FCC Radiation Exposure Statement

This device complies with FCC radiation exposure limits set forth for an uncontrolled environment. 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 21 in. (53 cm) from the radiating element and any person.

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

FCC regulations restrict the operation of this device to indoor use only.

The operation of this device is prohibited on oil platforms, cars, trains, boats, and aircraft, except that operation of this device is permitted in large aircraft while flying above 10,000 feet in the 5.925-6.425 GHz band.

Operation of transmitters in the 5.925-7.125 GHz band is prohibited for control of or communications with unmanned aircraft systems.

SERVICE AND WARRANTY REQUIREMENTS

Service and Warranty requirements are detailed in the product contract

Note: This product was tested for FCC compliance under conditions that included the use of shielded cables and connectors between system components. Changes or modifications to this product not authorized by the manufacturer could void your authority to operate the equipment.

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