GRANDSTREAM GWN7670 Dual Band WiFi 7 Access Point Instructions

Contents

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Product Usage Instructions

Regulatory Compliance:

This device complies with U.S. FCC Part 15 and Canada's regulatory information for radio equipment. It is important to adhere to the following conditions:

1. The device should not cause harmful interference.
2. The device must accept any interference received, even if it causes undesired operation.

Installation:

Ensure the device is installed according to the provided instructions. Improper installation may result in harmful interference. Place the device in a suitable location to avoid interference with other electronic devices.

Operation:

When operating the device, make sure it is functioning within the specified parameters. Any changes or modifications not approved by the manufacturer may impact the device's operation and compliance.

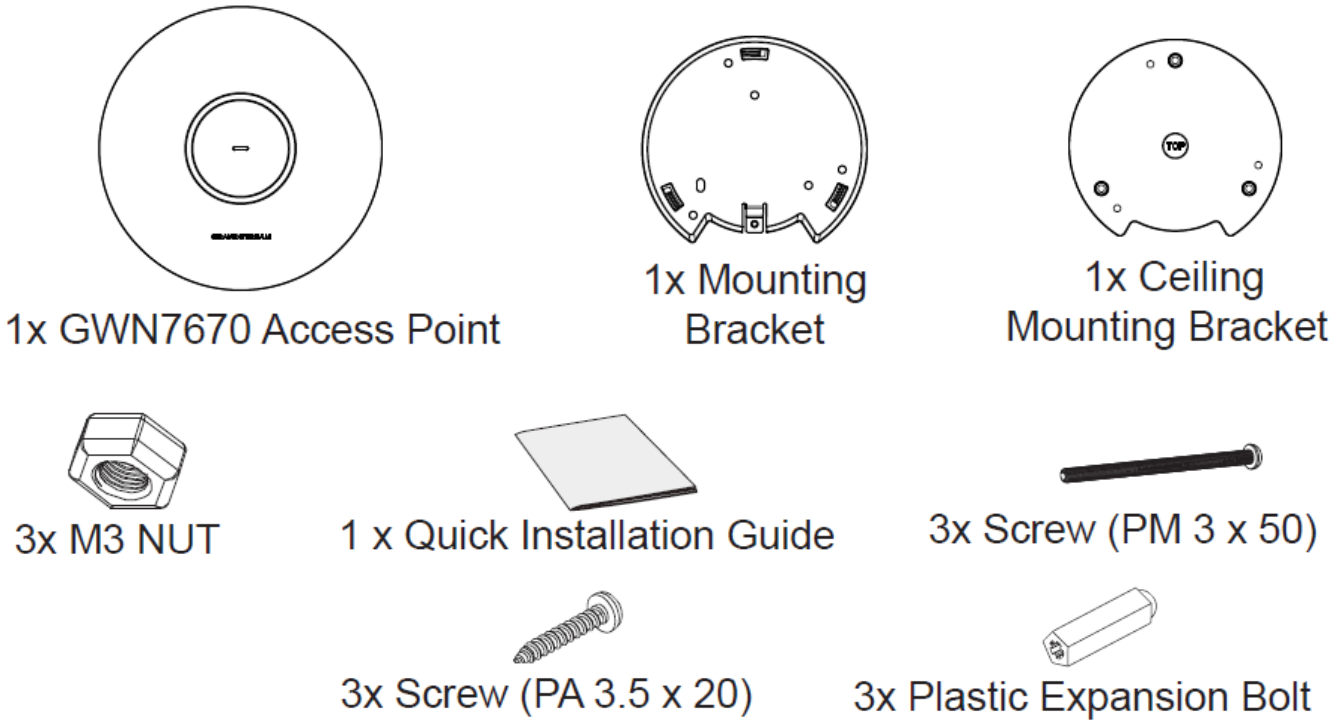
OVERVIEW

The GWN7670 is a next-generation enterprise-grade Wi-Fi 7 access point designed for SMB environments. It offers 2×2:2 MIMO technology on the 2.4GHz band and 2×2:2 MIMO on the 5GHz band, along with a sophisticated antenna design. Wi-Fi 7's 4096-QAM modulation delivers significant increases in data transfer rates, while MLO technology optimizes spectrum resource utilization to ensure a smooth experience for every user. To facilitate easy installation and management, the GWN7670 inherits the controller-less distributed network management design from the GWN766x series, with the controller embedded within the product's Web user interface. The GWN7670 is also supported by GDMS Networking and GWN Manager, Grandstream's cloud and on-premise Wi-Fi management platforms. It is ideal for voice-over-Wi-Fi deployments and offers seamless integration with Grandstream's Wi-Fi-capable IP phones. With support for advanced QoS, low-latency real-time applications, mesh networks, captive portals, Bluetooth location services with BLE 5.3, 256 concurrent clients per AP, and 2x 2.5 Gigabit network ports (one supporting PoE+), the GWN7670 is an ideal for medium-sized wireless network deployments with medium-to-high user density.

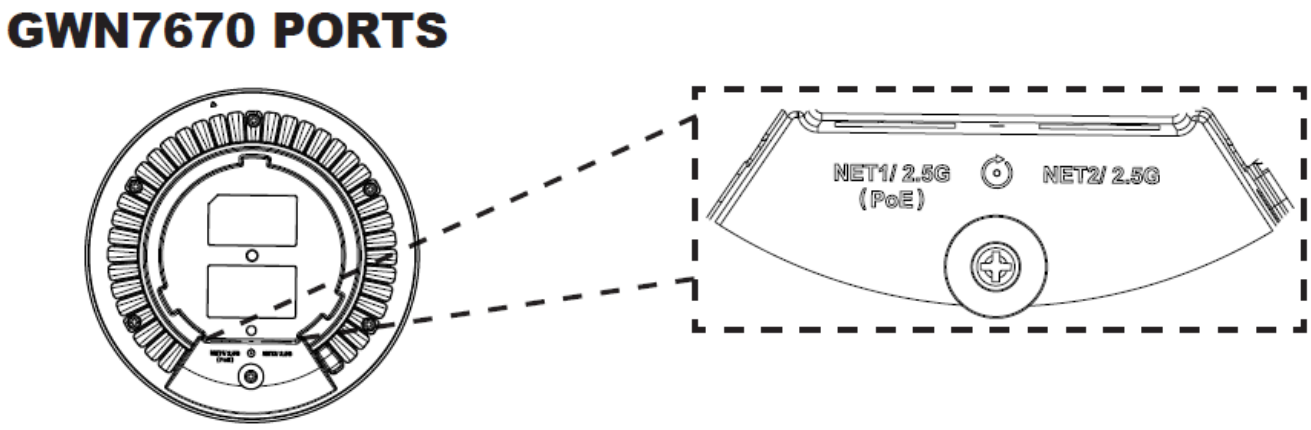
PRECAUTIONS

- Do not attempt to open, disassemble, or modify the device.
- Do not expose this device to temperatures outside range of 0 °C to 45 °C for operating and -30 °C to 60 °C for storage.
- Do not expose the device to environments outside of the following humidity range: 10-90% RH (non-condensing).
- Do not power cycle your device during system boot up or firmware upgrade. You may corrupt firmware images and cause the unit to malfunction.

PACKAGE CONTENTS



GWN7670 PORTS

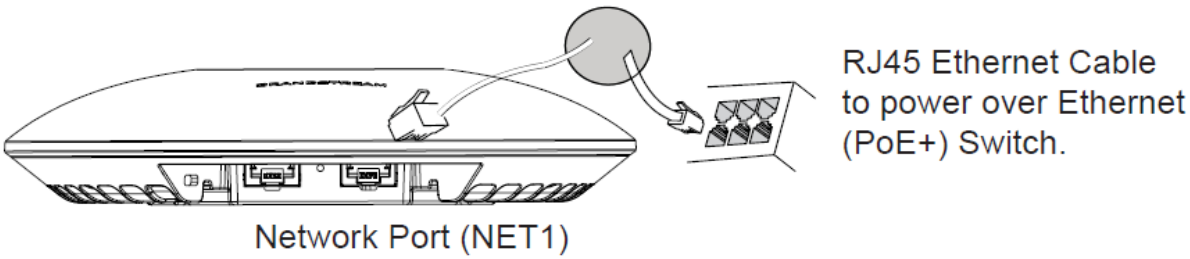


Port	Description
NET1/2.5G (PoE)	Ethernet RJ45 port (2.5Gbps) supporting PoE+.
NET2/2.5G	Ethernet RJ45 port (2.5Gbps).
RESET	Factory reset button. Hold for 7 seconds to reset to factory default.

POWERING AND CONNECTING THE GWN7670

GWN7670 can be powered on using PoE+ switch using the following steps:

- Step 1: Plug a RJ45 Ethernet cable into the network port (NET1) of GWN7670.
- Step 2: Plug the other end into the uplink port of the power over Ethernet (PoE+) switch.

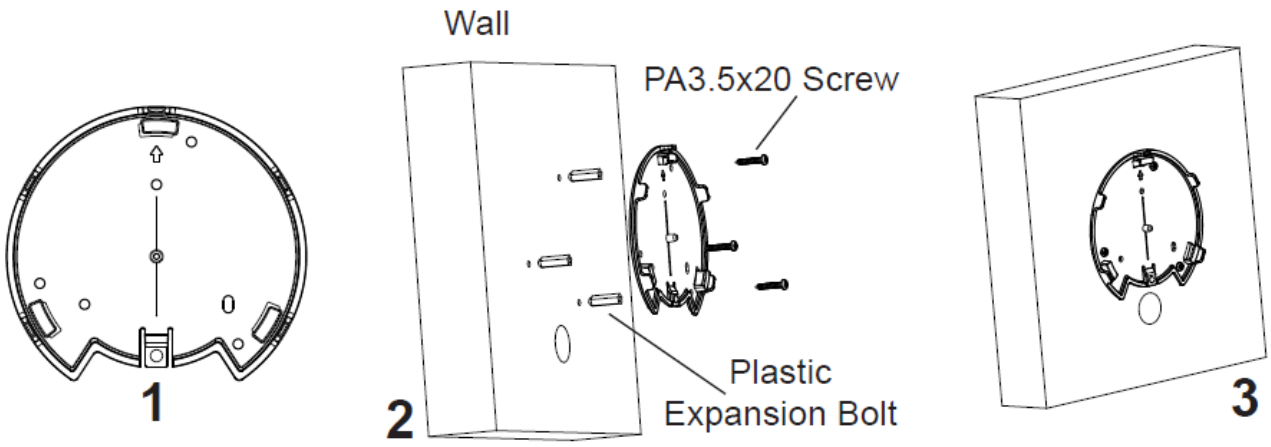


HARDWARE INSTALLATION

GWN7670 can be mounted on the wall or ceiling, Please refer to the following steps for the appropriate installation.

Wall Mount

1. Position the mounting bracket at the desired location on the wall with the arrow pointing up.
2. Use a pencil to mark the four mounting holes (screw holes DIA 5.5mm, reticle hole DIA 25mm).
3. If your Ethernet cable feeds through the wall, then cut or drill a circle approximately 18mm in diameter.
4. Insert screw anchors into the 5.5mm holes. Attach the mounting bracket to the wall by inserting the screws into the anchors.



5. Connect the power cable and the ethernet cable (RJ45) to your GWN7670.
6. Align the arrow on the GWN7670 AP with the arrow on the locking tab of the mounting bracket and ensure that the device is firmly seated on the mounting bracket.
7. Turn the GWN7670 clockwise until it locks into place and fits the locking tab.

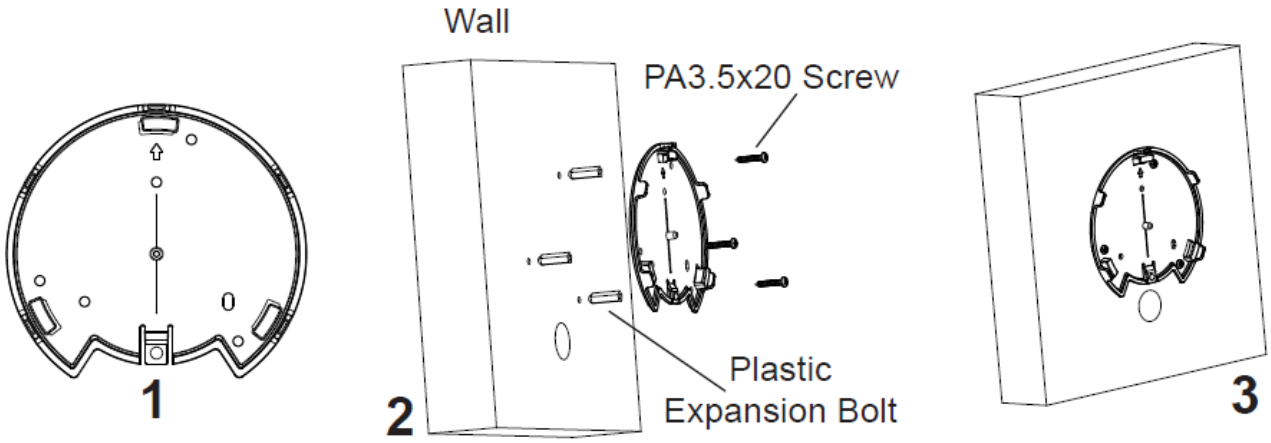
Ceiling Mount

Note: Ceiling mounting is recommended for optimal coverage performance.

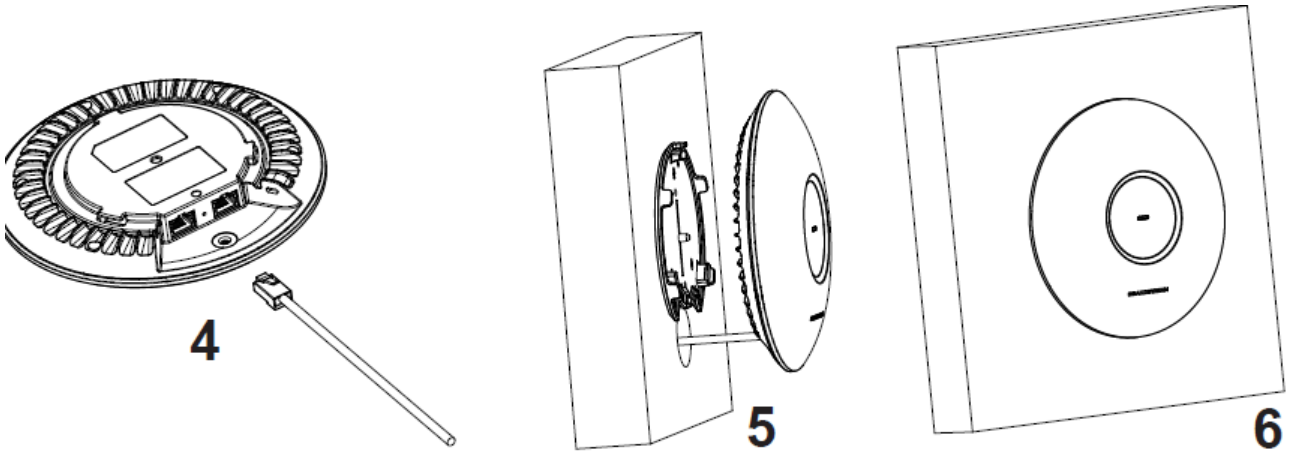
1. Remove the ceiling tile.
2. Place the ceiling backing plate in the center of the ceiling tile and mark the mounting screw holes (screw holes

DIA 5.5mm, reticle hole DIA 25mm).

3. Insert the screws through the mounting bracket.

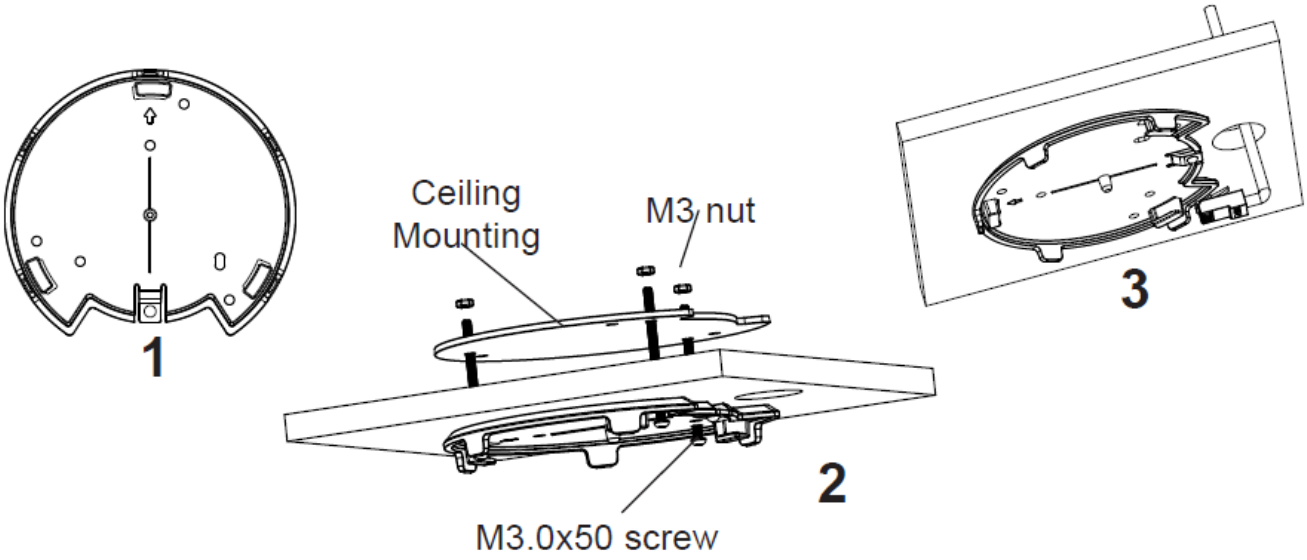


4. Connect the Ethernet cable (RJ45) to the correct ports of your GWN7670.
5. Align the arrow on the GWN7670 with the arrow on the locking tab of the mounting bracket and ensure that the device is firmly seated on the mounting bracket and connect the network and power cables.
6. Turn the GWN7670 clockwise until it locks into place and fits the locking tab.



CONNECT TO GWN7670 DEFAULT Wi-Fi NETWORK

GWN7670 can be used as standalone access point out of box, or after factory reset with Wi-Fi enabled by default. After powering the GWN7670 and connecting it to the network, GWN7670 will broadcast a default SSID based on its MAC address GWN[MAC's last 6 digits] and a random password.
Note: GWN7670's default SSID and password information are printed on the MAC tag of the unit.



ACCESSING THE CONFIGURATION INTERFACE

A computer connected to the GWN7670's SSID, or to the same network as the GWN7670 can discover and access its configuration interface using one of the below methods:

Method 1: Discover GWN7670 using its MAC Address

1. Locate the MAC address on the MAC tag of the unit, which is on the underside of the device, or on the package.
2. From a computer connected to same network as the GWN7670, type in following address using GWN7670's MAC address on your browser https://gwn_<mac>.local

Example: If a GWN7670 has the MAC address EC:74:D7:8C:4D:F8, this unit can be accessed by typing **https://gwn_ec74d78c4df8.local** on the browser.

Method 2: Discover GWN7670 using GWN Discovery Tool

1. Download and install GWN Discovery Tool from the following link: **https://www.grandstream.com/tools/GWNDiscoveryTool.zip**
2. Open the GWN DiscoveryTool, and click on Scan.
3. The tool will discover all GWN76XX Access Points connected on the network showing their MAC and IP addresses.
4. Click on Manage Device to be redirected directly to the GWN7670's configuration interface, or type in manually the displayed IP address on your browser.
5. Enter username and password to login. (The default administrator username is "admin" and the default random password can be found at the sticker on the GWN7670).

Notes:

- Make sure that the GWN7670 is not already paired with another GWN76xx Access Point as slave, GWN Router, GCC device or GDMS Networking Cloud, otherwise the configuration interface cannot be accessed.
- If the GWN7670 is already paired, make sure to unpair it first, then do a factory reset.
- It is customer's responsibility to ensure compliance with local regulations for frequency bands, transmit power and others.
- To manage GWN7670 over cloud, please refer to **https://www.gdms.cloud**.

The GNU GPL license terms are incorporated into the device firmware and can be accessed via the Web user interface of the device at my_device_ip/gpl_license. It can also be accessed here: **https://www.grandstream.com/legal/open-source-software** To obtain a CD with GPL source code information please submit a written request to **info@grandstream.com**

Refer to online documents and FAQ for more detailed information:
https://www.grandstream.com/our-products

The GWN7670 is a new generation enterprise-grade Wi-Fi 7 access point, ideal for small-to-medium-sized businesses to build next-generation Wi-Fi networks. It offers dual-band 2×2:2 MU-MIMO with DL/UL OFDMA technology and a sophisticated antenna design for maximum network throughput and expanded Wi-Fi coverage range. With 4096 QAM modulation, Wi-Fi 7 achieves a significant increase in data transfer rates. MLO technology optimizes spectrum resource utilization to ensure a smooth experience for every user. To ensure easy installation and management, the GWN7670 uses a controller-less distributed network management design in which the controller is embedded within the product's Web user interface The GWN7670 is also supported by GDMS Networking and GWN Manager, Grandstream's cloud and on-premise Wi-Fi management platform. It is the ideal Wi-Fi AP for voice-over-Wi-Fi deployments and offers aseamless connection with Grandstream's Wi-Fi capable IP phones. With support for advanced QoS, low-latency realtime applications, mesh networks, captive portals, BT location with BLE 5.3, 256 concurrent clients per AP and 2 x 2.5 Gigabit network ports with PoE+, GWN7670 is an ideal Wi-Fi access point for medium wireless network deployments with medium-to-high user density.

3.6Gbps aggregate wireless throughput, 5Gbps aggregate wired throughout

Dual-band 2x2:2 MU-MIMO with DL/UL OFDMA technology

Up to 175-meter coverage range

Support 256 concurrent Wi-Fi client devices

Advanced QoS to ensure real-time performance of low-latency applications

Anti-hacking secure boot and critical data/control lockdown via digital signatures, unique security certificate/random default password per device

Self power adaptation upon auto detection of PoE+

Embedded controller manages up to 50 local GWN APs; GDMS Networking offers unlimited AP management, & GWN Manager offers on-premise software AP management

Specification

Wi-Fi Standards	IEEE 802.11 a/b/g/n/ac/ax/be
Antennas	5 single frequency antennas 2.4GHz x 2, gain 3.5dBi 5GHz x 2, gain 5.5dBi BT gain 3.5dBi
Wi-Fi Data Rates	**5G:** IEEE 802.11be: Up to 2880 Mbps IEEE 802.11ax: 7.3 Mbps to 2402 Mbps IEEE 802.11ac: 6.5 Mbps to 1732 Mbps IEEE 802.11n: 6.5 Mbps to 600 Mbps IEEE 802.11a: 6, 9, 12, 18, 24, 36, 48, 54 Mbps **2.4G:** IEEE 802.11be: Up to 688 Mbps IEEE 802.11ax: 8 Mbps to 1147 Mbps IEEE 802.11n: 6.5Mbps to 600Mbps IEE E 802.11b: 1, 2, 5.5, 11 Mbps IEEE 802.11g: 6, 9, 12, 18, 24, 36, 48, 54 Mbps **Actual throughput may vary depending on many factors including environmental conditions, distance between devices, radio interfe- rence in the o perating environment and mix of devices in the network*
Frequency Bands	2.4GHz Radio: 2400 – 2483.5 MHz 5GHz Radio: 5180 – 5895 MHz **Not all frequency bands can be used in all regions*

Channel Bandwidth	2.4G: 20 and 40 MHz 5G: 20, 40, 80, and 160 MHz
Wi-Fi and System Security	WEP, WPA/WPA2-PSK, WPA/WPA2 Enterprise (TKIP/AES); WPA3, anti-hacking secure boot and critical data/control lockdown via digital signatures, unique security certificate and random default password per device
MIMO	2×2:2 2.4GHz 2×2:2 5GHz
Coverage Range	Up to 175 meters **coverage range can vary based on environment*
Maximum TX Power	5G: 25dBm 2.4G: 27dBm **Maximum power varies by country, frequency band and MCS rate*
Receiver Sensitivity	**5G** 802.11a: -92dBm @6Mbps, -74dBm @54Mbps; 802.11n 20MHz: -73dBm @MCS7; 802.11n 40MHz:-70dBm @MCS7; 802.11ac 20MHz: -67dBm@MCS8; 802.11ac: 40MHz:- 63dBm @MCS9; 802.11ac 80MHz: -59dBm @MCS9; 802.11ax 20MHz: -60dBm @MCS11; 802.11ax 40MHz: -58dBm @MCS11;802.11ax 80MHz: -56dBm @MCS11 MCS11;802.11ax 160MHz: -52dBm@ MCS11 802.11be 20MHz: -59dBm @MCS13; 802.11be 40MHz: -56dBm @MCS13; 802.11be 80MHz: -54dBm @MCS13; 802.11be 160MHz: -52dBm @MCS1 **2.4G** 802.11b: -96dBm@1Mbps, -88dBm@11Mbps; 802.11g: -93dBm @6Mbps, -75dBm@54Mbps; 802.11n 20MHz: -73dBm @MCS7; 802.11n 40MHz:-70dBm @MCS7 802.11ax 20MHz: -60dBm @MCS11; 802.11ax 40MHz: -58dBm @MCS11 802.11be 20MHz: -65dBm @MCS11; 802.11be 40MHz: -62dBm @MCS11;
SSIDs	32 SSIDs total, 16 per radio (2.4GHz & 5GHz)
Concurrent Clients	256
Network Interfaces	2x 2.5G Ethernet WAN/LAN
Auxiliary Ports	1x Reset Pinhole, 1x Kensington lock
Bluetooth®	BLE 5.3

Mounting	Indoor wall mount or ceiling mount, kits included
LEDs	1 tri-color LED for device tracking and status indication
Network Protocols	IPv4, IPv6, 802.1Q, 802.1p, 802.1x, 802.11e/WMM
QoS	802.11e/WMM, VLAN, TOS
Network Management	Embedded controller can manage up to 50 local GWN APs GDMS Networking offers a free cloud management platform for unlimited GWN APs GWN Manager offers a premise-based software controller for up to 3,000 G WN APs
Power and Green Energy Efficiency	PoE 802.3at; Maximum Power Consumption: 15W
Environmental	Operation: 0°Cto 45°C Storage: -30°C to 60°C Humidity: 10% to 90% Non-condensing
Physical	Unit Dimension: 185mmx185mmx44.5mm; Unit Weight: TBD Entire Package Dimension: 228.5mmx220mmx79mm; Entire Package Weight: T BD
Package Content	GWN7670 Wi-Fi 7 Wireless AP, Mounting Kits, Quick Start Guide
Compliance	FCC, CE, RCM, IC

- www.grandstream.com

FAQ

- **Q: What should I do if the device is causing interference?**
  - A: If the device is causing interference, try relocating it to a different position. Ensure it is not placed near other electronic devices that may be affected by the interference.
- **Q: Can I make modifications to the device?**
  - A: No, any changes or modifications not approved by the manufacturer could void your authority to operate the equipment. Contact customer support for guidance on any required modifications.

Documents / Resources

	GRANDSTREAM GWN7670 Dual Band WiFi 7 Access Point [pdf] Instructions YZZGWN7670, gwn7670, GWN7670 Dual Band WiFi 7 Access Point, GWN7670, Dual Band Wi Fi 7 Access Point, WiFi 7 Access Point

References

- Grandstream Networks - Networking & Unified Communications
- User Manual