GRANDSTREAM
CONNECTING THE WORLD

Wi-Fi 6 CERTIFIED

Wi-Fi 6 Extender and Access Point

GWN7660EM

The GWN7660EM is an AX3000 Wi-Fi 6 access point with a socket design, enabling simple deployment and superior performance. It can be used as a wireless extender, which works with the GWN7062E/ET and will work with future Grandstream routers to quickly build a home wireless mesh networking to expand network coverage. It offers 2x2:2 MU-MIMO technology on the 2.4G band and 3x3:2 MU-MIMO on the 5G band as well as a sophisticated antenna design and uses XTRA Range technology with beamforming for maximum network throughput and expanded Wi-Fi coverage range. To ensure easy installation and management, the GWN7660EM uses a controller-less distributed network management design in which the controller is embedded within the product's Web user interface. The GWN7660EM 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 a seamless connection with Grandstream's Wi-Fi capable IP phones. With support for advanced QoS, low-latency real- time applications, mesh networks, captive portals, 128 concurrent clients per AP and 1 x 1 Gigabit network port, GWN7660EM is an ideal Wi-Fi access point for small and medium household users to achieve high-speed Wi-Fi coverage in the whole house.

Gigabit	**2x2 MIMO**	**120 meters**	
3Gbps aggregate wireless throughput and 1Gigabit wireline port	Dual-band 2.4G 2x2:2 and 5G 3x3:2 MU- MIMO with OFMDA and XTRA Range technology	Up to 120-meter coverage range	Supports 128 concurrent Wi-Fi client devices
QoS			
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	Supports Mesh networking with the GWN7062E/ET series, future Grandstream Routers, and other GWN series access points to provide easy network expansion	Embedded controller can manage up to 10 local GWN series APs; GDMS Networking offers unlimited AP management; GWN Manager offers premisebased software

Hardware Specifications

Radio	**Antenna**	1 single frequency antenna and 2 dual frequency antennas 2.4GHz x 2, maximum gain 2.5 dBi 5GHz x 3, maximum gain 2.5 dBi
	MIMO	2.4GHz: 2x2:2, MU-MIMO 5GHz: 3x3:2, MU-MIMO
	Frequency Bands	2.4GHz Radio: 2400 - 2483.5 MHz 5GHz Radio: 5150 - 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 Data Rates	**2.4G** IEEE 802.11ax: 7.3 Mbps to 573.5 Mbps IEEE 802.11n: 6.5 Mbps to 300 Mbps IEEE 802.11g: 6, 9, 12, 18, 24, 36, 48, 54 Mbps IEEE 802.11b: 1, 2, 5.5, 11 Mbps **5G** IEEE 802.11ax: 7.3 Mbps to 2402 Mbps IEEE 802.11ac: 6.5 Mbps to 867 Mbps IEEE 802.11n: 6.5 Mbps to 600 Mbps IEEE 802.11a: 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 operating environment and mix of devices in the network*
	Maximum TX Power	2.4G: 26 dBm 5G: 24 dBm *Maximum power varies by country, frequency band and MCS rate*
	Receiver Sensitivity	**2.4G** 802.11b: -96 dBm @1 Mbps, -88 dBm @11 Mbps; 802.11g: -93 dBm @6 Mbps, -75 dBm @54 Mbps; 802.11n 20 MHz: -73 dBm @MCS7; 802.11n 40 MHz: -70 dBm @MCS7; 802.11ax 20 MHz: -60 dBm @MCS11; 802.11ax 40 MHz: -58 dBm @MCS11; **5G** 802.11a: -92 dBm @6 Mbps, -74 dBm @54 Mbps; 802.11n 20 MHz: -73 dBm @MCS7; 802.11n 40 MHz: -70 dBm @MCS7; 802.11ac 20 MHz: -67 dBm @MCS8; 802.11ac 40 MHz: -63 dBm @MCS9; 802.11ac 80 MHz: -59 dBm @MCS9; 802.11ax 20 MHz: -60 dBm @MCS11; 802.11ax 40 MHz: -58 dBm @MCS11; 802.11ax 80 MHz: -56 dBm @MCS11; 802.11ax 160 MHz: -52 dBm@ MCS11;
	Coverage Range	Up to 120 meters *Coverage range can vary based on environment*
Interfaces	**Network Ports**	1x autosensing 10/100/1000 Base-T Ethernet Port
	LEDs	1 tri-color LED for device tracking and status indication
	Auxiliary Ports	1x Reset Pinhole, 1x SYNC Key
Power	**AC**	110-240V~50/60Hz 0.4A
	Maximum Power Consumption	12W
Physical	**Dimension**	Unit: 110 × 110 × 56.7 mm Entire Package: 125 × 117 × 93 mm
	Weight	Unit: 210.5 g Entire Package: 314 g
	Mounting	Indoor wall-plug mount
	Package Content	GWN7660EM Wi-Fi 6 Wireless AP, AC adapter plug, Quick Start Guide
Environmental	**Temperature**	Operation: 0°C to 40°C Storage: -10°C to 60°C
	Humidity	10% to 90% Non-condensing
Compliance	FCC, CE, RCM, IC	

Software Specifications

WLAN	**Wi-Fi Standards**	IEEE 802.11a/b/g/n/ac/ax
	SSIDs	16 SSIDs total, 8 per radio (2.4GHz & 5GHz)
	Concurrent Clients	128
	Basics	Beamforming OFDMA 1024-QAM Target wake time (TWT) Maximal Ratio Combining (MRC) Space-Time Block Coding (STBC) Low-density Parity-Check (LDPC) 802.11 Dynamic Frequency Selection (DFS) BSS coloring
	SSID Hidden	Restrict access and improve wireless network security by SSID hiding
	Multicast/Broadcast Suppression	Multicast/Broadcast enable optimization with ARP proxy
	Multicast Enhancement	Convert multicast data into unicast data for transmission
	Bandwidth Limiting	Support SSID/Client/MAC/IP-based rate limiting
	Band Steering/Client Steering	Guide client to the frequency band with more abundant spectrum resources
	RRM	Dynamically assign radio power, channel
	VPN	L2TPv3
	VLAN	Support interface/SSID/MAC binding VLAN based Management VLAN Dynamic VLAN
	Time Policy	Track the time that the client connects to Wi-Fi, Support setting the amount of time for the client to connect to Wi-Fi and the reconnec type after a timeout
	Schedule	Supports SSID, LED, Reboot schedule
WLAN Extension	**Bridge**	Supported
	Mesh	2.4G, 2.4G & 5G, 5G Support mesh with GWN7062E series by SYNC key Support mesh with GWN7600 series
	Hotspot2.0	Supported
	Wireless Roaming	802.11k, 802.11v, 802.11r Layer 2 roaming
Network	**IPv4**	Static or DHCP
	IPv6	Static or DHCP
	DHCP	Support server/client/relay
	NAT	NAT Pool
	LLDP	Link Layer Discovery Protocol, discovering and identifying other LLDP enabled devices and neighboring devices in the network
User Authentication	**802.1x authentication**	Support
	MAC authentication	Use client MAC address as the username and password for access control through the RADIUS server
	PPSK	PPSK with/without RADIUS
	Captive Portal	Support radius/social login/vouchers/password/SAML SSO/active directory authentication
Security	**Encryption**	Open system OSEN WPA2-PSK (personal) WPA2-802.1x (enterprise) WPA3-SAE (personal) WPA3-802.1x (enterprise) WPA/WPA2, WPA2/WPA3 Anti-hacking secure boot and critical data/control lockdown via digital signatures, unique security certificate and random default password per device
	Forwarding Security	MAC filtering Client isolation OS filtering
	WIDS	Inbound/outbound traffic rules Rogue AP detection and containment ARP attack defense ND attack defense
Service Quality	**QoS**	802.11e/WMM,802.1p, 802.1q, TOS
Management Platform	**Local Web**	Embedded controller can manage up to 50 local GWN APs
	GDMS Networking	A free cloud management platform for unlimited GWN APs
	GWN Manager	premise-based software controller for up to 3,000 GWN APs
	GWN APP	Integrate GDMS Networking and GWN Manager to manage GWN APs via the APP
	Management Protocol	TR-069 SNMP

8.2025 v1