Omada by tp-link

Datasheet

Omada BE15000(US) / BE12000(EU) Tri-Band Ceiling Mount Wi-Fi 7 Access Point

Model: EAP787

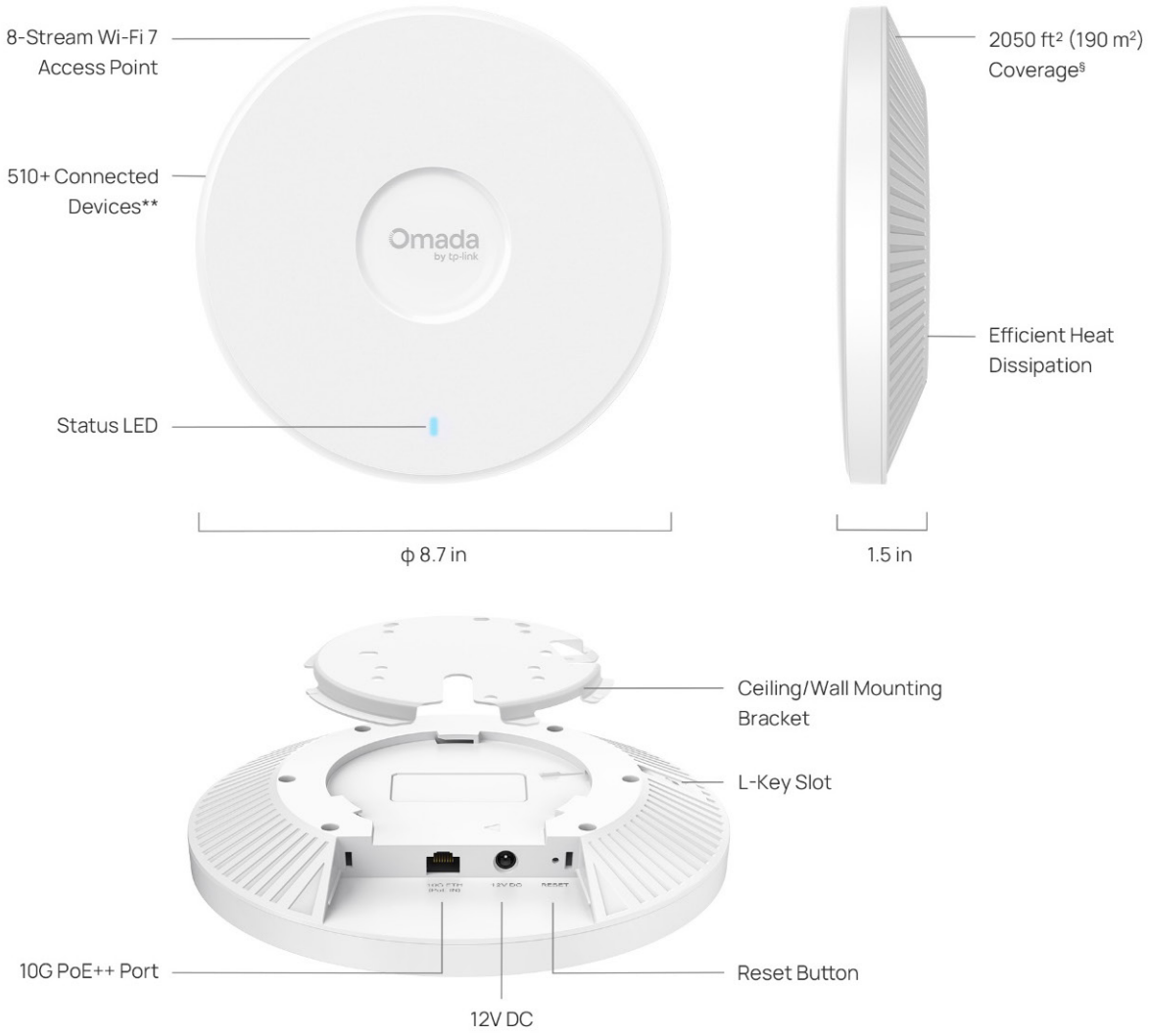
Product Overview

Omada BE15000(US)/ BE12000(EU) Tri-Band Ceiling Mount Wi-Fi 7 Access Point EAP787 is the flagship model of the ceiling mount access points, fully leveraging Wi-Fi 7 technology to deliver optimal performance for most demanding clients and applications.

Featuring Dedicated RF Scanning, EAP787 provides spectrum management by continuously scanning the surrounding wireless frequencies without impacting normal user data transmission. This enables the detection and avoidance of factors that may affect wireless performance, enhancing network stability and throughput to fully maximize the capabilities of Wi-Fi 7.

- **Dedicated RF Scanning:** Offers real-time spectrum monitoring and dynamic interference avoidance for robust wireless performance. §
- **Long-Range 6 GHz Coverage with AFC:** Unlock stronger signals and extended 6 GHz range performance (AFC enabled via firmware update, planned for April, 2026).#
- **Tri-Band 8-Stream Wi-Fi 7:** Up to 15.1 Gbps for US and up to 12.2 Gbps for EU.†
- **1× 10G Port:** Ensures fast connectivity throughout the network.
- **Low Latency and Interference:** 320MHz Bandwidth, Multi-Link Operation, Multi-RUs, and 4K-QAM ensure high performance for your network.‡
- **Flexible Deployment and Easy Setup:** Supports both 802.3bt PoE and DC power supply for flexible installation with Omada SDN for one-click setup.
- **Advanced Features:** Supports centralized management, Mesh, and Seamless Roaming.△
- **More Capacity and Wider Coverage:** Supports 510+ concurrent clients** and covers up to 2050 ft² (190 m²)* for reliable and extensive wireless connectivity.

Product Appearance

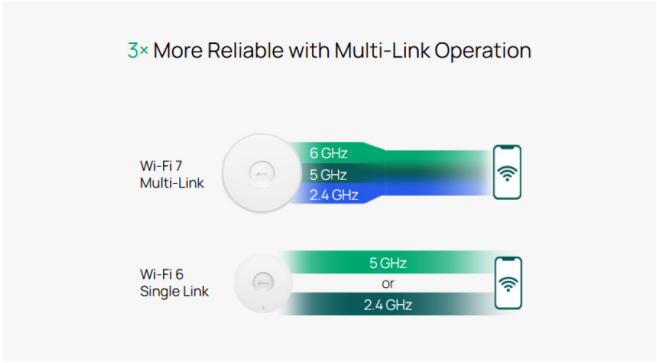


**The actual capacity depends on the wireless environment and client traffic and is generally less than the maximum number of client connections.
§Coverage value is calculated based on laboratory testing. Actual coverage is not guaranteed and will vary as a result of client limitations and environmental factors.

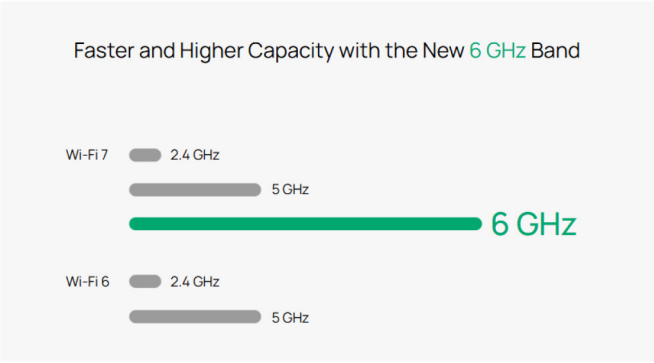
Feature Descriptions

Omada Wi-Fi 7 Technology: Swifter, Smoother, Stronger

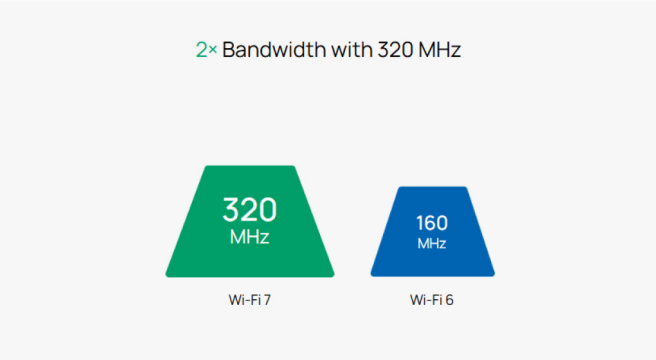
Featuring superb Wi-Fi 7 technologies including Multi-Link Operation, 6 GHz, 320 MHz Bandwidth, 4K-QAM, and Multi-RUs, Omada EAP787 significantly enhances throughput, connection stability, and concurrent capacity, ensuring faster and higher quality connections for more devices.



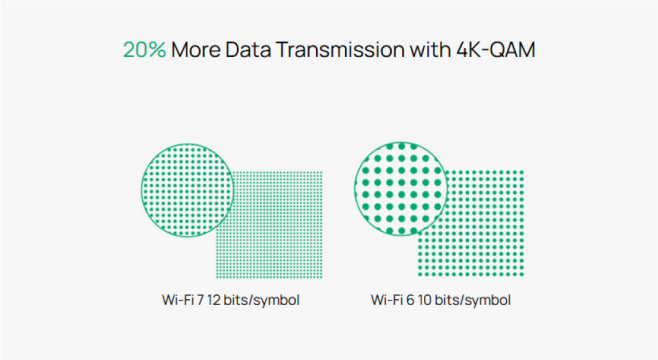
Wi-Fi 6 devices primarily rely on a single link for data transmission. In contrast, Wi-Fi 7 introduces Multi-Link Operation (MLO), enabling devices to utilize multiple links simultaneously, thereby achieving higher throughput, lower latency, and improved reliability.



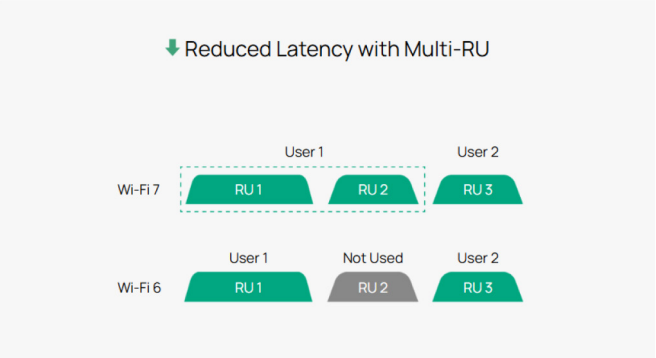
The new 6 GHz band offers a larger spectrum and cleaner channels compared to traditional bands, delivering higher capacity, faster connectivity, and less interference.



With 320 MHz ultra-wide channels, Wi-Fi 7 doubles the bandwidth of Wi-Fi 6's 160 MHz and the number of subcarriers, delivering dramatically higher data transfer rates.



4096-QAM enables each symbol to carry 12 bits instead of 10, increasing theoretical transmission rates by 20% compared to Wi-Fi 6's 1024-QAM. This higher transmission rate boosts data throughput, delivering enhanced speeds and improved network reliability.



Wi-Fi 6 restricts each user to a single resource unit (RU), limiting spectrum flexibility. Wi-Fi 7 overcomes this limitation by allowing multiple RUs to be allocated to a single user and enabling RU aggregation, improving data throughput and spectral efficiency.

Dedicated RF Scanning

Dedicated RF Scanning empowers EAP787 with professional spectrum scanning and analysis, enabling real-time identification of interference sources and channel congestion. With advanced air packet capture, it enriches and enhances network maintenance and troubleshooting capabilities. The feature also provides precise channel utilization metrics, helping to optimize Wi-Fi performance and deliver a superior user experience. By detecting and addressing interference, Dedicated RF Scanning guarantees a secure, stable, and high-quality wireless environment for enterprise networks.

[§]Dedicated RF Scanning requires the use of an Omada controller (V6.0 or above).

Long-Range 6 GHz Coverage with AFC

With AFC support, EAP787 safely accesses additional 6 GHz spectrum, intelligently selecting and managing Wi-Fi channels to reduce interference and maximize spectrum efficiency. This enables stronger signals, wider coverage, and more stable connections in high-demand indoor environments, delivering improved performance for all connected devices.

[#] AFC availability varies by region and country. For supported areas, please visit: https://www.omadanetworks.com/support/faq/4373/

10G PoE++ Port for Optimized Wired Performance

With a 10 Gigabit Ethernet port, EAP787 delivers remarkable multi-gigabit performance for higher bandwidth and faster Wi-Fi. Compatibility with 802.3bt PoE is ideal for flexible deployment.

Easy Setup

Push up and rotate to lock for easy installation. Benefit from convenient setup and on-the-go network management via the Omada app or web interface.

Boosted Network Security

EAP787 offers advanced security features, including a secure guest network with up to 24 SSIDs, SMS login for enhanced business authentication, WPA3 encryption for worry-free open public access, and rogue AP detection, ensuring safer and more reliable network experiences for both guests and business operations.

Cloud-Based Centralized Management

As part of Omada's unified SDN ecosystem, EAP787 integrates seamlessly with Omada switches, gateways, and controllers, delivering end-to-end visibility, automated optimization, zero-touch provisioning, and batch configuration—all managed from a single cloud interface.

Specifications

Hardware Specifications

Item	Description	
Wi-Fi Standards	6 GHz: IEEE 802.11ax/be 5 GHz: IEEE 802.11a/n/ac/ax/be 2.4 GHz: IEEE 802.11b/g/n/ax/be	
802.11be	Spatial Streams	• 2.4 GHz: 2×2 Uplink/Downlink with 2 spatial streams • 5 GHz:4×4 Uplink/Downlink with 4 spatial streams • 6 GHz: 2×2 Uplink/Downlink with 2 spatial streams • Support MU-MIMO
	Frequency Bands	2.400 to 2.4835 GHz ISM 5.150 to 5.250 GHz U-NII-1 5.250 to 5.350 GHz U-NII-2A 5.470 to 5.725 GHz U-NII-2C 5.725 to 5.850 GHz U-NII-3/ISM 6.105 to 6.425 GHz U-NII-5 6.425 to 6.525 GHz U-NII-6 6.525 to 6.875 GHz U-NII-7 6.875 to 7.125 GHz U-NII-8 *Note: Country-Specific Restriction Apply
	Bandwidth	2.4 GHz: 20 MHz/40 MHz 5 GHz: 20 MHz/40 MHz/80 MHz/160/240 MHz 6 GHz: 20 MHz/40 MHz/80 MHz/160 MHz/320 MHz *Note: Country-Specific Restriction Apply
	Wireless Data Rate	2.4 GHz + 5 GHz + 6 GHz:15101 Mbps • 2.4 GHz: 8.6 Mbps to 688 Mbps (MCS0-MCS13, NSS=1 to 2, EHT20/40) • 5 GHz: 8.6 Mbps to 8648 Mbps (MCS0-MCS13, NSS=1 to 4, EHT20/40/80/160/240) • 6 GHz: 8.6 Mbps to 5765 Mbps (MCS0-MCS13, NSS=1 to 2, EHT20/40/80/160/320)
	Radio Technology	Uplink/downlink OFDMA (Orthogonal Frequency-Division Multiple Access)
	Modulation Type	4096-QAM, 1024-QAM, 256-QAM. 64-QAM, 16-QAM, QPSK, BPSK
	Frame Aggregation	• A-MPDU (Aggregate MAC Protocol Data Unit) for Tx/Rx • A-MSDU (Aggregate MAC Service Data Unit) for Tx/Rx

Item	Description	
	Others	• Preamble Puncturing • BSS Coloring • Multi-Link Operation (MLO) • TWT (Target Wake Time) • Maximal Ratio Combining (MRC) • Transmit Beamforming (TxBF) • Wi-Fi Protect Access 3 (WPA3) • Dynamic Frequency Selection (DFS) • Cycle Delay Diversity (CDD) • Cycle Shift Diversity (CSD) • Space-Time Block Coding (STBC) • Low-Density Parity Check (LDPC)
802.11ax	Spatial Streams	• 2.4 GHz: 2×2 Uplink/Downlink with 2 spatial streams • 5 GHz:4×4 Uplink/Downlink with 4 spatial streams • 6 GHz: 2×2 Uplink/Downlink with 2 spatial streams • Support MU-MIMO
	Frequency Bands	2.400 to 2.4835 GHz ISM 5.150 to 5.250 GHz U-NII-1 5.250 to 5.350 GHz U-NII-2A 5.470 to 5.725 GHz U-NII-2C 5.725 to 5.850 GHz U-NII-3/ISM 6.105 to 6.425 GHz U-NII-5 6.425 to 6.525 GHz U-NII-6 6.525 to 6.875 GHz U-NII-7 6.875 to 7.125 GHz U-NII-8 *Note: Country-Specific Restriction Apply
	Bandwidth	2.4 GHz: 20 MHz/40 MHz 5 GHz: 20 MHz/40 MHz/80 MHz/160 MHz 6 GHz: 20 MHz/40 MHz/80 MHz/160 MHz *Note: Country-Specific Restriction Apply
	Wireless Data Rate	• 2.4 GHz: 8.6 Mbps to 573 Mbps (MCS0-MCS11, NSS=1 to 2, HE20/40) • 5 GHz: 8.6 Mbps to 4804 Mbps (MCS0-MCS11, NSS=1 to 4, HE20/40/80/160) • 6 GHz: 8.6 Mbps to 2402 Mbps (MCS0-MCS11, NSS=1 to 2, HE20/40/80/160) *Note: Country-Specific Restriction Apply
	Radio Technology	Uplink/downlink OFDMA (Orthogonal Frequency-Division Multiple Access)
	Modulation Type	1024-QAM, 256-QAM. 64-QAM, 16-QAM, QPSK, BPSK
	Frame Aggregation	• A-MPDU (Aggregate MAC Protocol Data Unit) for Tx/Rx • A-MSDU (Aggregate MAC Service Data Unit) for Tx/Rx

Item	Description	
	Others	• TWT (Target Wake Time) • MRC (Maximal Ratio Combining) • TxBF (Transmit Beamforming) • WPA3 (Wi-Fi Protect Access 3) • DFS (Dynamic Frequency Selection) • CDD (Cycle Delay Diversity) • CSD (Cycle Shift Diversity) • STBC (Space-Time Block Coding) • LDPC (Low-Density Parity-Check)
802.11ac	Spatial Streams	• 5 GHz: 4×4 Uplink/Downlink MU-MIMO with 4 spatial streams
	Frequency Bands	5.150 to 5.250 GHz U-NII-1 5.250 to 5.350 GHz U-NII-2A 5.470 to 5.725 GHz U-NII-2C 5.725 to 5.850 GHz U-NII-3/ISM *Note: Country-Specific Restriction Apply
	Bandwidth	5 GHz: 20 MHz/40 MHz/80/160 MHz
	Wireless Data Rate	• 5 GHz: 6.5 Mbps to 3467 Mbps (MCS0-MCS9, NSS=1 to 4, VHT20/40/80/160)
	Radio Technology	OFDM (Orthogonal Frequency-Division Multiplexing)
	Modulation Type	256-QAM. 64-QAM, 16-QAM, QPSK, BPSK
	Frame Aggregation	• A-MPDU (Aggregate MAC Protocol Data Unit) for Tx/Rx • A-MSDU (Aggregate MAC Service Data Unit) for Tx/Rx
	Others	• MRC (Maximal Ratio Combining) • TxBF (Transmit Beamforming) DFS (Dynamic Frequency Selection) • CDD (Cycle Delay Diversity) • CSD (Cycle Shift Diversity) • STBC (Space-Time Block Coding) • LDPC (Low-Density Parity-Check)
802.11n	Spatial Streams	• 2.4 GHz: 2×2 MIMO with 2 spatial streams • 5 GHz: 4×4 MIMO with 4 spatial streams
	Frequency Bands	2.400 to 2.4835 GHz ISM 5.150 to 5.250 GHz U-NII-1 5.250 to 5.350 GHz U-NII-2A 5.470 to 5.725 GHz U-NII-2C 5.725 to 5.850 GHz U-NII-3/ISM *Note: Country-Specific Restriction Apply
	Bandwidth	20 MHz/40 MHz
	Wireless Data Rate	• 2.4 GHz: 6.5 Mbps to 300 Mbps (MCS0-MCS7, NSS=1 to 2, HT20/40) • 5 GHz: 6.5 Mbps to 600 Mbps (MCS0-MCS7, NSS=1 to 4, HT20/40)
	Radio Technology	OFDM (Orthogonal Frequency-Division Multiplexing)

Item	Description	
	Modulation Type	64-QAM, 16-QAM, QPSK, BPSK
	Frame Aggregation	• A-MPDU (Aggregate MAC Protocol Data Unit) for Tx/Rx • A-MSDU (Aggregate MAC Service Data Unit) for Tx/Rx
	Others	• MRC (Maximal Ratio Combining) • TxBF (Transmit Beamforming) • DFS (Dynamic Frequency Selection) • CDD (Cycle Delay Diversity) • CSD (Cycle Shift Diversity) • STBC (Space-Time Block Coding) • LDPC (Low-Density Parity-Check)
Antenna	Wi-Fi	• 2.4 GHz: 2 × 4 dBi (peak gain), Internal antenna module • 5 GHz: 4 × 5 dBi (peak gain), Internal antenna module • 6 GHz: 2 × 5 dBi (peak gain), Internal antenna module *Note: The gains above are the single-antenna peak gains.
	IoT	• Bluetooth: 1 × 5 dBi (peak gain), Internal antenna module
Interfaces	• 1 x 10M/100M/1000M/2.5Gbps/5Gbps/10Gbps Multigigabit Ethernet Port (RJ45); PoE in • 1 x 1 DC power interface: 12VDC	
IoT	BLE 5.2, 1Mbps	
Memory	• Flash: 1024Mbit • DRAM: 8192Mbit	
Button	1 × Reset button: Press the button for longer than 5 seconds to make the device restore to factory settings.	
Indicator	1 × multi-color system LED indicates on the front: Blue: Normal power supply (DC or 802.3bt) Orange: Insufficient power supply (802.3at or 802.3af) Flashing status under normal power supply condition: Slowly Flashing blue and orange once, then stay blue: Power-on status. Flash twice and then stay blue: Initialization is completed. Flashing blue: Firmware update. Flashing blue 5 times: Reset the device. Quickly flashing blue: Locate the device. Slowly flashing blue: The device is in an isolated state.	
Reliability	MTBF (Mean Time between Failure)	- hours at the operating temperature of 25℃ (77℉)
Power Supply	Input	802.3bt PoE++: 42.5 - 57 V=1.2A 12VDC/2.5A
	Output	/

<table>
<tr><th>Item</th><th colspan="4">Description</th></tr>
<tr><td rowspan="5">Power Consumption</td><td>MODE</td><td>POWER CONSUMPTION</td><td>SYSTEM CONFIGUTATION</td><td>WI-FI RADIOS (COMBINED POWER)</td></tr>
<tr><td>DC Power</td><td>24.5W</td><td>10Gbps Ethernet Enabled
Dedicated RF Scanning Enabled
BLE Enabled</td><td>2.4GHz(2x2) Tx 25dBm
5GHz(4x4) Tx 29dBm
6GHz(2x2) Tx 24dBm</td></tr>
<tr><td>802.3bt PoE</td><td>29W</td><td>10Gbps Ethernet Enabled
Dedicated RF Scanning Enabled
BLE Enabled</td><td>2.4GHz(2x2) Tx 25dBm
5GHz(4x4) Tx 29dBm
6GHz(2x2) Tx 24dBm</td></tr>
<tr><td>802.3at PoE</td><td>25.5W</td><td>2.5Gbps Ethernet Enabled
Dedicated RF Scanning Enabled
BLE Enabled</td><td>2.4GHz(2x2) Tx 25dBm
5GHz(4x4) Tx 29dBm
6GHz(2x2) Tx 24dBm</td></tr>
<tr><td>802.3af PoE</td><td>13W</td><td>10Gbps Ethernet Enabled
Dedicated RF Scanning Disabled
BLE Disabled</td><td>2.4GHz Disabled
5GHz Disabled
6GHz Disabled</td></tr>
<tr><td>Surge/Lightning Protection</td><td colspan="4">Ethernet Ports: ±4 kV</td></tr>
<tr><td>ESD/EMP Protection</td><td colspan="4">• Air discharge: ±8 kV
• Contact discharge: ±4 kV
*Note: ESD/EMP Protection means Electrostatic Discharge/Electromagnetic Pulse Protection independently.</td></tr>
<tr><td rowspan="2">Tx Power</td><td colspan="2">Maximum transmit power</td><td colspan="2">CE (EIRP)
• 2.4 GHz: 20 dBm
• 5 GHz: 23 dBm in U-NII-1, 23 dBm in U-NII-2A, 30 dBm in U-NII-2C
• 6 GHz: 23 dBm
FCC (Conducted Power)
• 2.4 GHz: 25 dBm
• 5 GHz: 29 dBm in U-NII-1, 26 dBm in U-NII-2A, 24 dBm in U-NII-2C, 29 dBm in U-NII-3
• 6 GHz: 23 dBm
*Note: MIMO combined power, excluding antenna gains. The actual transmit power depends on local laws and regulations.</td></tr>
<tr><td colspan="2">Minimum transmit power</td><td colspan="2">CE (EIRP)
• 2.4 GHz: 6 dBm
• 5 GHz: 9 dBm in U-NII-1, 9 dBm in U-NII-2A, 9 dBm in U-NII-2C, 7 dBm in U-NII-3
• 6 GHz: 6 dBm
FCC (Conducted Power)
• 2.4 GHz: 4 dBm
• 5 GHz: 7 dBm in U-NII-1, 7 dBm in U-NII-2A, 4 dBm in U-NII-2C, 7 dBm in U-NII-3
• 6 GHz: 4 dBm
*Note: MIMO combined power, excluding antenna gains. The actual transmit power depends on local laws and regulations.</td></tr>
</table>

Item	Description	
	Adjustable power increment	1 dBm
Environment	Temperature	• Operating: 0℃ to +40℃ (33.8℉ to +104℉) • Storage: -30℃ to +70℃ (-22℉ to +158℉)
	Humidity	• Operating: 10% to 90% (non-condensing) • Storage: 5% to 90% (non-condensing)
	Altitude	• Storage: up to + 2000 m (6561 feet) • Operating: up to + 2000 m (6561 feet)
Unit	Dimensions (W×D×H)	• Main Unit: 220 × 220 × 38.8 mm (8.7 × 8.7× 1.5 in.) • Shipping Unit: 540 × 300 × 300 mm (21.3 × 11.8 × 11.8 in.)
	Weight	• Main Unit: 0.885 kg (1.95 lbs) • Mounting Bracket: 0.05 kg (0.11 lbs) • Shipping Unit: 9.53 kg (21.01 lbs)
	Mounting	• Ceiling /Wall Mounting (Kits included) • Junction Box Mounting (Kits included) • T-Bar Mounting (Kits included)

Software Specifications

Item	Description	
Wireless Functions	Maximum number of BSSIDs	24 (8 on each band)
	Maximum number of associated STAs	512
	Guest Network	Yes
	ACS (Automatic Channel Selection)	Yes
	Airtime Fairness	Yes
	Band Steering	Yes
	802.11 Rate Control	Yes
	Rogue AP Detection	Yes
	URL Filtering	Yes
	RF Scan	Yes
	WLAN Optimization	Yes
	WIDS/WIPS	No
	Lock to AP	Yes
	Rate Limit	• SSID Rate Limit • Client Rate Limit
	Load Balance	• Maximum Associated Clients • RSSI Threshold
	MLO	• 2.4 GHz+5 GHz • 2.4 GHz+6 GHz • 5 GHz+6 GHz • 2.4 GHz+5 GHz+6 GHz
	Roaming	• 802.11 k • 802.11v • 802.11r • Non-Stick Roaming • Ping-Pong Roaming Suppression • AI Roaming *Note: Only support Layer 2 Roaming currently.
	Multicast/Broadcast Management	• Multicast-to-Unicast Conversion • ARP-to-Unicast Conversation • Multicast Filtering • Multicast/Broadcast Rate Limit

Item	Description	
	QoS (Quality of Service)	• WMM (Wi-Fi Multimedia) • DSCP (Differentiated Services Code Point) • U-APSD (Unscheduled Automatic Power Save Delivery)
Security and Authentication	ACL	
	MAC Filter	
	802.1X Authentication	
	MAC-Based Authentication	
	• None • Enhanced Open • WPA/WPA2/WPA3-Personal • WPA/WPA2/WPA3-Enterprise	
	Radius Accounting	
	• PPSK without Radius • PPSK with Radius (Generic Radius with bound MAC/EKMS/Generic Radius with unbound MAC)	
	Captive Portal	• No Authentication • Simple Password • Hotspot (Voucher / Local User / SMS / RADIUS / Form Auth) • RADIUS Server • External LDAP Server • External Portal Server • Pre-Authentication Access • Authentication-Free Client
	EAP Types	• EAP-TLS • EAP-TTLS • EAP-PEAP • EAP-CHAP • EAP-SIM • EAP-AKA • EAP-GTC • EAP-FAST • EAP-PEAP • EAP-MD5 • EAP-MSCHAPv2 • PEAPv0 • PEAPv1
Management methods	Omada Controller	• Omada Controller v5.15.20 and above(Dedicated RF Scan need V6.0) • Omada Essential v5.15.22 and above(Dedicated RF Scan need V6.0)
	App	Omada app v4.24

Item	Description	
	Standalone Management	Yes
	Standalone Mesh	No
	SSH	Yes
	SNMP	v1, v2c, v3
Operating Modes	AP	Yes
	Repeater	No
	Mesh	Yes
System Feature	System Log	Yes
	Reboot Schedule	Yes
	WLAN Schedule	Yes
	NTP (Network Time Protocol)	Yes
	Email Alerts	Yes
	Firmware Upgrade	Yes
	Restore & Backup	Yes
	LED Control	Yes
Network Features	VLAN	• SSID VLAN • Dynamic VLAN • Management VLAN
	Static IP / DHCP Client	Yes
	IPv4/IPv6	Yes
	LLDP (Link Layer Discovery Protocol)	Yes
	mDNS	Yes
	Tools	• Ping / Traceroute / DNSLookup / ARP Table • Packet Capture • Terminal

Standards Compliance and Certifications

Item	Category	Description
Standards compliance	IEEE Standards	• IEEE 802.11a/b/g/n/ac/ax/be • IEEE 802.11e/i/k/v/r • IEEE 802.1x/q • IEEE 802.3at • IEEE 802.3ab • IEEE 802.3bz • IEEE 802.3x
	Radio Standards	• ETSI EN 300 328 • ETSI EN 301 893 • EN 303 413 • EN 303 687 • EN 50385 EN50665 EN IEC 62311 • FCC Part 15E • RSS-247, RSS-GEN • LP0002
	EMC standards	• EN 55032 • EN 55035 • EN 301489-1 • EN 301489-17 • EN 301489-19 • FCC Part 15C • ICES-003 issue7 • CNS 15936
	Safety Standards	• EN 62368-1 • IEC 62368-1 • CNS 15598-1
	Security Standards	• WPA-Personal/Enterprise • WPA2-Personal/Enterprise • WPA3-Personal/Enterprise • OWE
	RoHS	• Directive 2011/65/EU, Directive (EU) 2015/863 • EN IEC 63000: 2018
	Others	• Equipment Radio Regulations: 2008 (including amendments) • VCCI-CISPR 32
Certifications	• Wi-Fi Alliance: Wi-Fi 7 (R1), Wi-Fi 6 (R2), Wi-Fi 6E, WPA3-R3, WPA3-Suite B, Enhanced Open Security • FCC/CE/NCC/VCCI/JRF/BSMI/WFA	

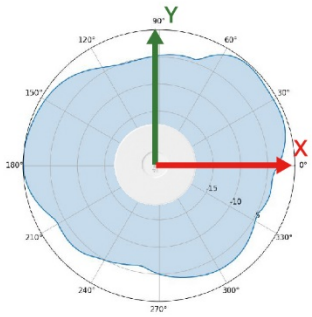
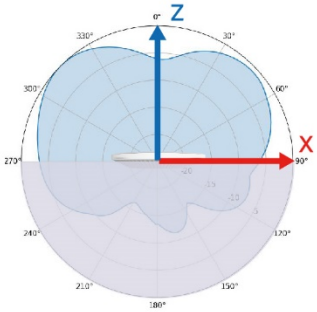
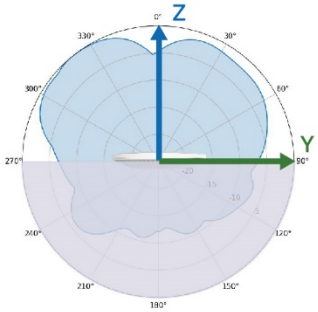
RF Performance

Frequency Band	Wi-Fi Protocol & Bandwidth	MCS Index / Data Rate	EU/US Maximum Transmit Power (dBm) per transmit chain	Receiver Sensitivity (dBm) per receive chain
2.4 GHz	802.11n, HT20	MCS0	15/22	-96
		MCS7	15/20	-78
	802.11n, HT40	MCS0	15/22	-93
		MCS7	15/20	-75
	802.11ax, HE20	MCS0	15/22	-96
		MCS11	15/19	-66
	802.11ax, HE40	MCS0	15/22	-93
		MCS11	15/19	-66
	802.11be, EHT20	MCS0	15/22	-96
		MCS13	15/19	-61
	802.11be, EHT40	MCS0	15/22	-93
		MCS13	15/19	-57
5 GHz	802.11n, HT20	MCS0	22/23	-96
		MCS7	19/19	-76
	802.11n, HT40	MCS0	22/23	-92
		MCS7	19/19	-72
	802.11ac, HT20	MCS0	22/23	-96
		MCS7	19/19	-76
	802.11ac, HT40	MCS0	22/23	-92
		MCS9	18.5/18.5	-66
	802.11ac, HT80	MCS0	22/23	-89
		MCS9	18.5/18.5	-63
	802.11ax, HE20	MCS0	22/23	-96
		MCS11	17/17	-65
	802.11ax, HE40	MCS0	22/23	-92
		MCS11	17/17	-63
	802.11ax, HE80	MCS0	22/23	-89
		MCS11	17/17	-60
	802.11ax, HE160	MCS0	22/23	-86

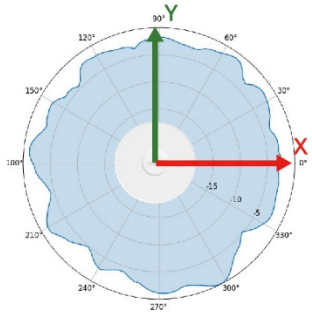
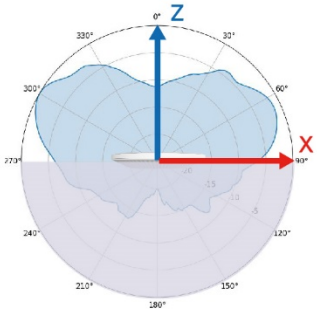
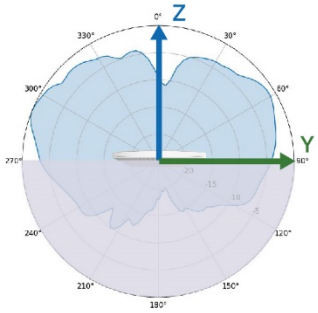
Frequency Band	Wi-Fi Protocol & Bandwidth	MCS Index / Data Rate	EU/US Maximum Transmit Power (dBm) per transmit chain	Receiver Sensitivity (dBm) per receive chain
		MCS11	17/17	-60
	802.11be, EHT20	MCS0	22/23	-96
		MCS13	17/17	-61
	802.11be, EHT40	MCS0	22/23	-92
		MCS13	17/17	-57
	802.11be, EHT80	MCS0	22/23	-89
		MCS13	17/17	-54
	802.11be, EHT160	MCS0	22/23	-86
		MCS13	17/17	-54
6 GHz	802.11ax, HE20	MCS0	18/21	-93
		MCS11	16/16	-63
	802.11ax, HE40	MCS0	18/21	-90
		MCS11	16/16	-61
	802.11ax, HE80	MCS0	18/21	-87
		MCS11	16/16	-58
	802.11ax, HE160	MCS0	18/21	-84
		MCS11	16/16	-58
	802.11be, EHT20	MCS0	18/21	-93
		MCS13	16/16	-58
	802.11be, EHT40	MCS0	18/21	-90
		MCS13	16/16	-54
	802.11be, EHT80	MCS0	18/21	-87
		MCS13	16/16	-52
	802.11be, EHT160	MCS0	18/21	-84
		MCS13	16/16	-52
	802.11be, EHT320	MCS0	18/21	-81
		MCS13	14/14	-49

Antenna Radiation Patterns

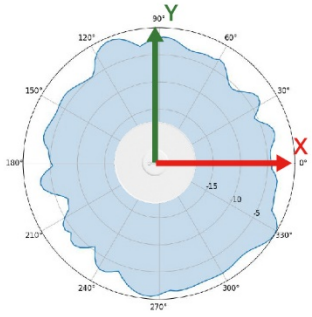
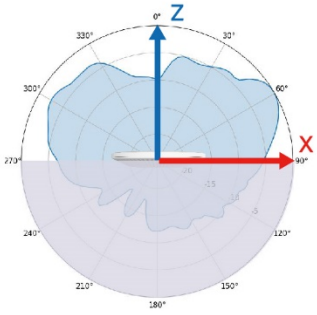
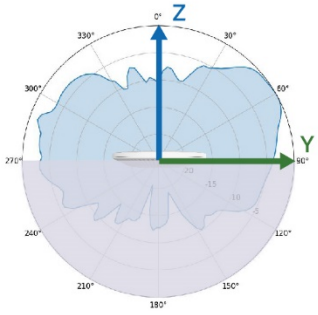
2.4 GHz

XY Plane	XZ Plane	YZ Plane
		

5 GHz

XY Plane	XZ Plane	YZ Plane
		

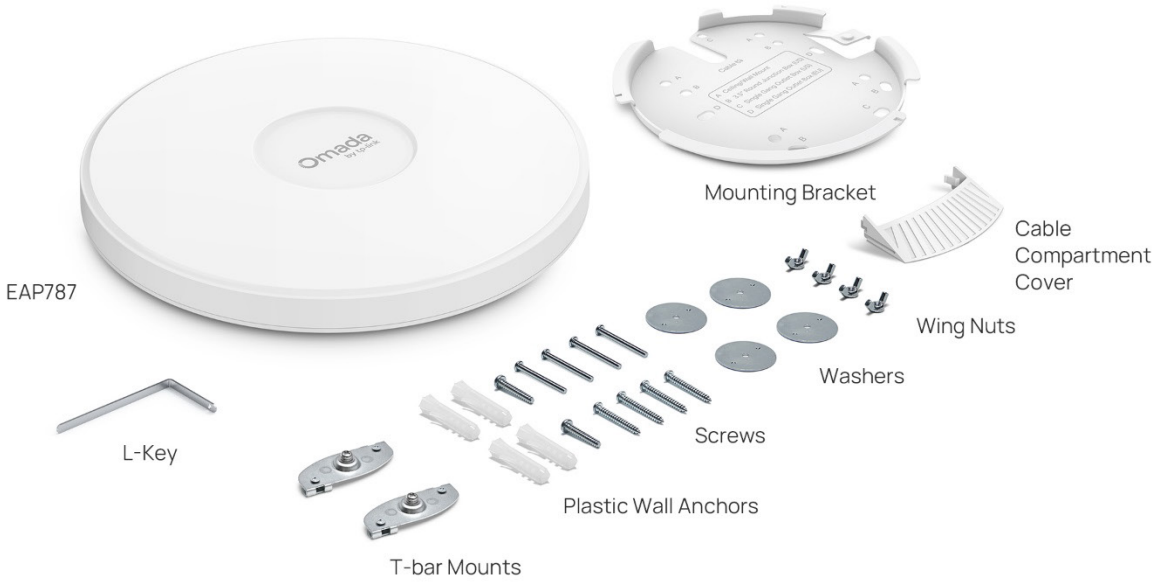
6 GHz

XY Plane	XZ Plane	YZ Plane
		

Package Contents

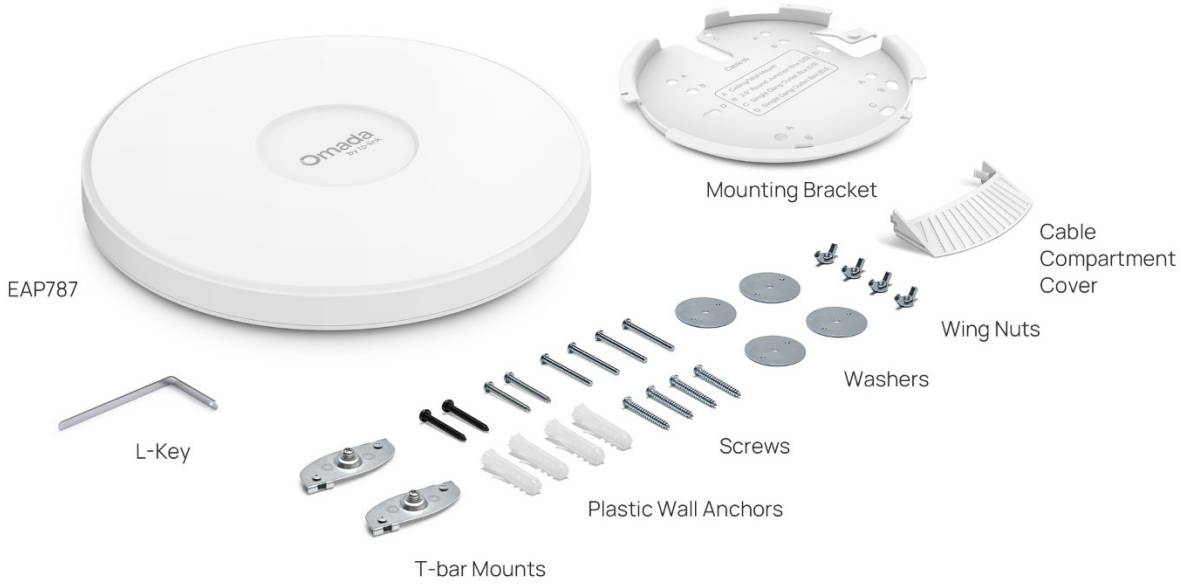
Item	Quantity
EAP787	1
Installation Guide	1
Mounting Kit	1 (See the picture below for details)

US:



*The accessories may vary by country/region. Please refer to the actual product.

EU:



*The accessories may vary by country/region. Please refer to the actual product.

Support Services

We are committed to providing you with comprehensive and reliable support services to ensure seamless experience with Omada products.

- Contact Support: https://support.omadanetworks.com/#contact-us
- Warranty Services: https://www.omadanetworks.com/support/replacement-warranty/

Revision History

Version	Date	Description
V1.0	2025-06-20	Initial release.
V1.1	2025-06-26	Updated AFC disclaimer and combined power.
V1.2	2025-09-12	Updated AFC disclaimer.
V1.3	2026-04-28	Added WFA.

§ Dedicated RF Scanning requires the use of an Omada controller (V6.0 or above).

† Maximum wireless signal rates are the physical rates derived from IEEE Standard 802.11 specifications. The 320 MHz bandwidth is only available on the 6 GHz band. Simultaneously, the 160 MHz and 240 MHz bandwidths or the 320 MHz bandwidth might not be available on the 5 GHz band or the 6 GHz band, respectively, in some regions/countries due to regulatory restrictions. Actual wireless data throughput, wireless coverage, and connected devices are not guaranteed and will vary as a result of internet service provider factors, network conditions, client limitations, and environmental factors, including building materials, obstacles, volume and density of traffic, and client location.

‡ Use of Wi-Fi 7 (802.11be), Wi-Fi 6 (802.11ax), and features including Multi-Link Operation (MLO), 320 MHz Bandwidth, 240 MHz Bandwidth, 160 MHz Bandwidth, 6 GHz, 4K-QAM, Multi-RUs, OFDMA, and MU-MIMO requires clients to also support the corresponding features.

△ Omada Mesh, Seamless Roaming, Captive Portal, and Cloud Access require the use of an Omada controller.

* Coverage value is calculated based on laboratory testing. Actual coverage is not guaranteed and will vary as a result of client limitations and environmental factors.

** The actual capacity depends on the wireless environment and client traffic and is generally less than the maximum number of client connections.

AFC availability varies by region and country. For supported areas, please visit: https://www.omadanetworks.com/support/faq/4373/

Some models featured in this guide may be unavailable in your country or region. Visit TP-Link website for local sales information: **https://www.omadanetworks.com**. Specifications are subject to change without notice.