Omada by tp-link

Datasheet



Omada Campus
BE22000 (US) / BE19000 (EU)
Indoor/Outdoor
Wi-Fi 7 Access Point

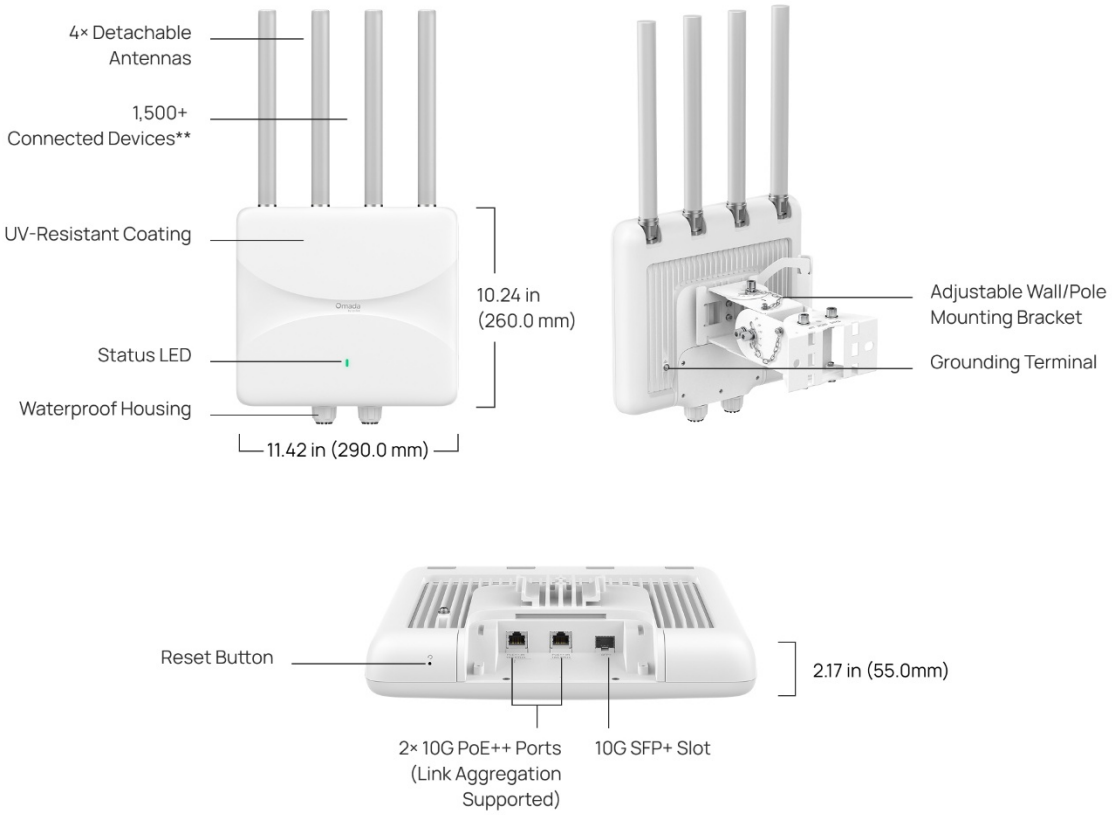
Model: AP8788

Product Overview

Engineered for extreme outdoor demands, AP8788 is a flagship Wi-Fi 7 access point tailored for high-density deployments. It combines robust reliability with massive capacity, effortlessly handling heavy network traffic in harsh environments. Perfect for stadiums, large public venues, campuses, and other high-traffic outdoor areas.

- **Up to 1,500+ Concurrent Clients:** Delivers industry-leading capacity for seamless connectivity in ultra-high-density outdoor scenarios.**
- **12-Stream Tri-Band Wi-Fi 7:** Maximizes aggregate network throughput, drastically reduces latency, and ensures reliability.
- **AFC-Enabled 6 GHz:** Unlocks the 6 GHz band for outdoor use, significantly reducing interference and boosting network performance.*
- **Switchable Omni & Directional Antennas:** Easily switch between omnidirectional, directional, or custom antenna configurations with just a few clicks in the software to adapt to different venues.
- **IP68 Weatherproof with UV-Resistant Coating:** Guarantees resilient, long-lasting operation against extreme weather conditions.
- **High-Availability Dual 10G Ports:** Supports Link Aggregation (LAG), delivering an aggregated uplink capacity of up to 20 Gbps.***
- **Dual PoE Power Backup:** Designed for zero-downtime operations, providing seamless power failover to guarantee uninterrupted connectivity.
- **Adaptive WLAN Optimization:** Enables fast deployment by automatically optimizing channel assignments and transmit power to adapt to dynamic RF environments.†
- **Dedicated RF Scanning:** Provides real-time situational awareness to mitigate RF interference and neutralize security threats, without impacting network performance.†
- **Enterprise-Grade Traffic Optimization:** Combines load balancing, rate control, and multicast optimization to allocate resources efficiently, prevent bandwidth monopolization, and ensure seamless high-density traffic delivery. †

Product Appearance



Feature Descriptions

Unprecedented Capacity & Throughput

Powered by a 12-stream tri-band architecture, AP8788 shatters traditional wireless bottlenecks by maximizing aggregate throughput and drastically reducing latency. This massive airtime capacity seamlessly accommodates 1,500+ concurrent clients, ensuring outdoor connectivity even during peak utilization periods.**

Flexible Deployment Tailored for Every Scenario

With switchable antennas, AP8788 adapts seamlessly to diverse outdoor scenarios. Easily toggle between 360° omnidirectional and focused directional modes for targeted zones, with patterns customizable per frequency band. Furthermore, a modular mounting kit with interchangeable standard and extended arms accommodates various spatial constraints. It allows effortless wall or pole installation with flexible horizontal and vertical adjustments, ensuring optimal positioning in any environment.

Uncompromised Outdoor Durability & Performance

Engineered for the harshest environments, AP8788 features an IP68-rated enclosure with a UV-resistant coating and 6kV lightning protection, ensuring reliable operation across extreme temperatures (-30°C to 70°C) and humidity (10%–95%). Coupled with AFC-enabled technology for standard-power 6 GHz outdoor operations, it significantly reduces interference and boosts network performance, delivering multi-gigabit Wi-Fi 7 speeds with uncompromised reliability.

Fault-Tolerant Architecture for Mission-Critical Reliability

AP8788 guarantees network resilience through a high-redundancy architecture. It features dual 10G Ethernet uplinks supporting Link Aggregation (LAG), delivering 20 Gbps bandwidth and seamless data failover during upstream faults.*** To ensure uninterrupted connectivity, it integrates intelligent dual-PoE redundancy. This fail-safe power and data backup design delivers continuous, mission-critical operation, offering seamless power failover to keep the network online even during unexpected infrastructure failures.

Dedicated RF Scanning†

Equipped with Dedicated RF Scanning, AP8788 provides professional-grade spectrum analysis without impacting client traffic. It enables real-time identification of interference sources and channel congestion. Combined with advanced over-the-air packet capture, it significantly enhances network troubleshooting. By detecting and addressing interference, Dedicated RF Scanning guarantees a secure, stable, and high-quality wireless environment for enterprise networks.

Enterprise-Grade Traffic & Airtime Optimization†

Advanced Load Balancing distributes clients to prevent network congestion, while Rate Control blocks low-speed devices to preserve valuable airtime for critical tasks. Combined with optimized Multicast Management, it streamlines heavy traffic for uninterrupted delivery without wasting airtime.

Adaptive WLAN Optimization†

Continuously monitors the RF environment to maintain optimal performance. When it detects environmental changes, such as a new AP or strong interference, the system automatically performs targeted, localized scanning and optimization. This dynamic adjustment process effectively mitigates disruptions, maximizing overall network efficiency and capacity.

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: 4×4 Uplink/Downlink MU-MIMO with 4 spatial streams • 5 GHz: 4×4 Uplink/Downlink MU-MIMO with 4 spatial streams • 6 GHz: 4×4 Uplink/Downlink MU-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 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/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:21552 Mbps • 2.4 GHz: 8.6 Mbps to 1376 Mbps (MCS0-MCS13, NSS=1 to 4, 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 11528 Mbps (MCS0-MCS13, NSS=1 to 4, 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 • MLO (Multi-Link Operation) • 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)
802.11ax	Spatial Streams	• 2.4 GHz: 4×4 Uplink/Downlink MU-MIMO with 4 spatial streams • 5 GHz:4×4 Uplink/Downlink MU-MIMO with 4 spatial streams • 6 GHz: 4×4 Uplink/Downlink MU-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 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 1147 Mbps (MCS0-MCS11, NSS=1 to 4, 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 4804 Mbps (MCS0-MCS11, NSS=1 to 4, 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 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 MHz/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: 4×4 MIMO with 4 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 600 Mbps (MCS0-MCS7, NSS=1 to 4, 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: • 4 × 9.34 dBi (peak gain), internal directional antenna (antenna beamwidth 90°×75°) • 4 ×8.39dBi (peak gain), external Omni-Directional antenna 5 GHz: • 4 × 9.98 dBi (peak gain), internal directional antenna (antenna beamwidth 90°×45°) • 4 ×8.27dBi (peak gain), external Omni-Directional antenna 6 GHz: • 4 × 11.8dBi (peak gain), internal directional antenna (antenna beamwidth 90°×45°) • 4 ×8.34dBi (peak gain), external Omni-Directional antenna Note: The gains above are the single-antenna peak gains.
	IoT	• Bluetooth: 1 × 2.87 dBi (peak gain), Internal Omni-Directional antenna • GPS: 1 × 3.48 dBi (peak gain), Internal Omni-Directional antenna
Interfaces	• 2 × 100M/1000M/2.5Gbps/5Gbps/10Gbps Multigigabit Ethernet Port (RJ45); PoE in • 1 × 1Gbps/10Gbps SFP+ interface	
IoT	BLE 6.0, 1Mbps	
Memory	• Flash: 2048Mbit • DRAM: 2 x 8192Mbit	
Button	1 × Reset button: Press the button for longer than 5 seconds to make the device restore to factory settings.	

<table>
<tr><th>Item</th><th colspan="2">Description</th></tr>
<tr><td>Indicator</td><td colspan="2">1 ×green/orange system LED indicate on the front:
<table>
<tr><td>LED Status</td><td>Indication</td></tr>
<tr><td>SYS-LED green and orange light turn on sequentially for 0.5s each, then green stays solid on</td><td>Power-on status</td></tr>
<tr><td>SYS-LED green blinks 2 times (on/off 0.5s each), then solid on</td><td>Initialization is completed</td></tr>
<tr><td>SYS-LED orange blinks, on/off 0.2s each</td><td>System abnormal</td></tr>
<tr><td>SYS-LED green & orange slow alternate blink, on/off 0.5s each</td><td>Firmware update</td></tr>
<tr><td>SYS-LED green blinks 5 times, on/off 0.2s each</td><td>Reset the device</td></tr>
<tr><td>SYS-LED green fast blink, on/off 0.2s each</td><td>Locate the device</td></tr>
<tr><td>SYS-LED green toggle on/off; keep on for 4.2s then off, on-time 0.8s</td><td>The device is in an isolated state.</td></tr>
<tr><td>SYS-LED green blinks 3 times (on/off 0.5s each), then solid on</td><td>Recovery</td></tr>
</table></td></tr>
<tr><td>Reliability</td><td>MTBF (Mean Time between Failure)</td><td>242500 hours at the operating temperature of 25℃ (77℉)</td></tr>
<tr><td rowspan="2">Power Supply</td><td>Input</td><td>PoE Power Supply:
802.3bt PoE++: 42.5-57 V=1.2A</td></tr>
<tr><td>Output</td><td>/</td></tr>
</table>

<table>
<tr><th>Item</th><th colspan="4">Description</th></tr>
<tr><td>Power Consumption</td><td colspan="4">
<table>
<tr><th>MODE</th><th>POWER CONSUMPTION</th><th>SYSTEM CONFIGUTATION</th><th>WI-FI RADIOS</th></tr>
<tr><td>802.3BT POE (Class 6)</td><td>51W</td><td>2*10Gbps ETH0/ETH1 Enabled
Dedicated RF Scanning Enabled
BLE Enabled
SFP+ Enabled</td><td>2.4GHz(4x4) Tx 21dBm
5GHz(4x4) Tx 22dBm
6GHz(4x4) Tx 22dBm</td></tr>
<tr><td>802.3AT POE</td><td>25.5W</td><td>1*2.5Gbps ETH0 Enabled
Dedicated RF Scanning Enabled
BLE Enabled
SFP+ Disabled</td><td>2.4GHz(2x2) Tx 15dBm
5GHz(2x2) Tx 16dBm
6GHz(2x2) Tx 16dBm</td></tr>
<tr><td>802.3AF POE</td><td>12.95W</td><td>1*1Gbps ETH0 Enabled
Dedicated RF Scanning Disabled
BLE Disabled
SFP+ Disabled</td><td>2.4GHz Disabled
5GHz Disabled
6GHz Disabled</td></tr>
</table>
</td></tr>
<tr><td>Surge/Lightning Protection</td><td colspan="4">Ethernet Ports: ±6 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>Tx Power</td><td>Maximum transmit power</td><td colspan="3">CE (EIRP)
• 2.4GHz: 20 dBm
• 5GHz: 23 dBm in U-NII-1, 23 dBm in U-NII-2A, 30 dBm in U-NII-2C
• 6GHz: 23 dBm
FCC (conducted power)
• 2.4GHz: 27 dBm
• 5GHz: 28 dBm in U-NII-1, 24 dBm in U-NII-2A, 24 dBm in U-NII-2C, 28 dBm in U-NII-3
• 6GHz: 28 dBm (SP mode, all bandwidth with AFC);
• Note: MIMO combined power, excluding antenna gains. The actual transmit power depends on local laws and regulations.</td></tr>
</table>

Item	Description	
	Minimum transmit power	CE (EIRP) • 2.4GHz: 12 dBm • 5GHz: 13 dBm in U-NII-1, 13 dBm in U-NII-2A, 13 dBm in U-NII-2C • 6GHz: 13 dBm FCC (conducted power) • 2.4GHz: 7 dBm • 5GHz: 7 dBm in U-NII-1, 7 dBm in U-NII-2A, 7 dBm in U-NII-2C, 7 dBm in U-NII-3 • 6GHz: 7 dBm Note: MIMO combined power, excluding antenna gains. The actual transmit power depends on local laws and regulations.
	Adjustable power increment	1 dBm
Environment	Temperature	• Operating: -30℃ to +70℃ (-22℉ to +158℉) • Storage: -40℃ to +70℃ (-40℉ to +158℉)
	Humidity	• Operating: 10% to 95% (non-condensing) • Storage: 5% to 95% (non-condensing)
	Altitude	• Storage: up to + 2000 m (6561 feet) • Operating: up to + 2000 m (6561 feet)
Unit	Dimensions (W×D×H)	• Main Unit: 290 × 260 × 67.5 mm (11.4 × 10.2× 2.7 in.) • Shipping Unit: 448 × 280× 232mm (17.6 ×11.0× 9.1 in.)
	Weight	• Main Unit: 2.48 kg • Mounting Bracket: Standard Bracket: 0.98 kg; Extended Bracket: 1.12 kg; • Shipping Unit: 7.95 kg
	Mounting	• Pole/Wall Mounting (Kits included)

Software Specifications

Item	Description	
Wireless Functions	Maximum number of BSSIDs	24 (8 on each band)
	Maximum number of associated STAs	1536 (512 on each band)
	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
	GRE	Yes
	AFC	Yes
	Wi-Fi Calling	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

Item	Description	
		• Multicast/Broadcast Rate Limit
	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	
	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 • Google Portal
	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 v6.2 and above • Omada Essential v6.2 and above

Item	Description	
	App	Omada app v5.2 and above
	Standalone Management	Yes
	Standalone Mesh	Yes
	SSH	Yes
	SNMP	v1, v2, v3
Operating Modes	AP	Yes
	Repeater	No
	Mesh	Yes
System Features	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
	BLE6.0	• iBeacon • IOT • BLE Console
Network Features	VLAN	• SSID VLAN • Dynamic VLAN • Management VLAN
	Static IP / DHCP Client	Yes
	IPv4/IPv6	Yes
	LLDP (Link Layer Discovery Protocol)	Yes
	NAT Traversal	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 802.1q • IEEE 802.3bt • 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 • FCC Part 15C
	EMC standards	• EN 55032 • EN 55035 • EN 301489-1 • EN 301489-17 • EN 301489-19 • FCC Part 15B
	Safety Standards	• EN IEC 62368-1
	RoHS	• Directive 2011/65/EU, Directive (EU) 2015/863 • EN IEC 63000: 2018
	Others	• Equipment Radio Regulations: 2008 (including amendments) • VCCI-CISPR 32
Certifications	• FCC/CE/VCCI/JRF	

RF Performance

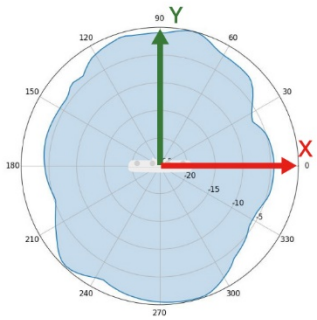
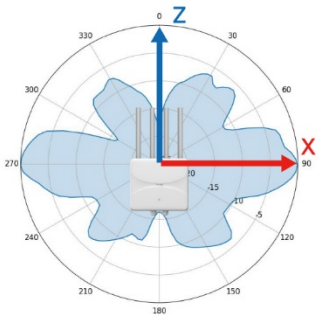
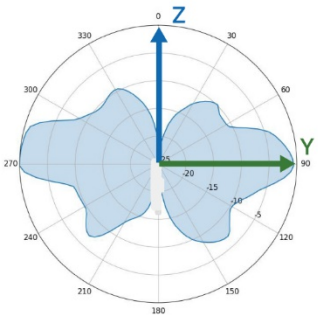
Frequency Band	Wi-Fi Protocol & Bandwidth	MCS Index / Data Rate	EU/US Maximum Transmit Power (dBm) per transmit chain	Receiver Sensitivity (dBm) per receive chain
2.4 GHz	802.11n, HT20	MCS0	9/21	-96
		MCS7	9/21	-77
	802.11n, HT40	MCS0	9/21	-93
		MCS7	9/21	-74
	802.11ax, HE20	MCS0	9/21	-95
		MCS11	9/20	-66
	802.11ax, HE40	MCS0	9/21	-92
		MCS11	9/20	-63
	802.11be, EHT20	MCS0	9/21	-95
		MCS13	9/20	-61
	802.11be, EHT40	MCS0	9/21	-91
		MCS13	9/20	-57
5 GHz	802.11n, HT20	MCS0	18/22	-93
		MCS7	18/20	-74
	802.11n, HT40	MCS0	18/22	-91
		MCS7	18/20	-71
	802.11ac, HT20	MCS0	18/22	-94
		MCS9	18/19	-75
	802.11ac, HT40	MCS0	18/22	-91
		MCS9	18/19	-66
	802.11ac, HT80	MCS0	18/22	-88
		MCS9	18/19	-62
	802.11ax, HE20	MCS0	18/22	-94
		MCS11	18/18	-64
	802.11ax, HE40	MCS0	18/22	-91
		MCS11	18/18	-62
	802.11ax, HE80	MCS0	18/22	-88
		MCS11	18/18	-59
	802.11ax, HE160	MCS0	18/18	-85

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	18/18	-59
	802.11be, EHT20	MCS0	18/22	-94
		MCS13	18/18	-58
	802.11be, EHT40	MCS0	18/22	-91
		MCS13	18/18	-56
	802.11be, EHT80	MCS0	18/22	-88
		MCS13	18/18	-53
	802.11be, EHT160	MCS0	18/18	-86
		MCS13	18/18	-54
	802.11be, EHT240	MCS0	18/18	-82
		MCS13	16/16	-50
6 GHz	802.11ax, HE20	MCS0	11/22	-96
		MCS11	11/18	-63
	802.11ax, HE40	MCS0	11/22	-93
		MCS11	11/18	-61
	802.11ax, HE80	MCS0	11/22	-90
		MCS11	11/18	-58
	802.11ax, HE160	MCS0	11/22	-87
		MCS11	11/18	-58
	802.11be, EHT20	MCS0	11/22	-96
		MCS13	11/17	-61
	802.11be, EHT40	MCS0	11/22	-93
		MCS13	11/17	-57
	802.11be, EHT80	MCS0	11/22	-90
		MCS13	11/17	-56
	802.11be, EHT160	MCS0	11/22	-88
		MCS13	11/17	-55
	802.11be, EHT320	MCS0	11/22	-83
		MCS13	11/15	-54

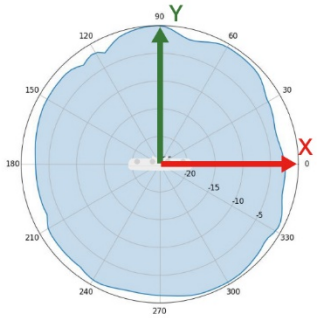
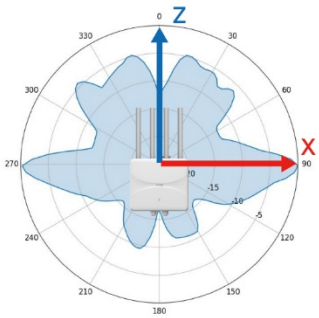
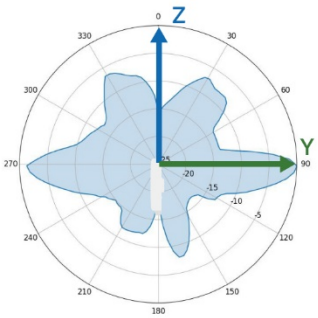
Antenna Radiation Patterns

Omnidirectional Mode

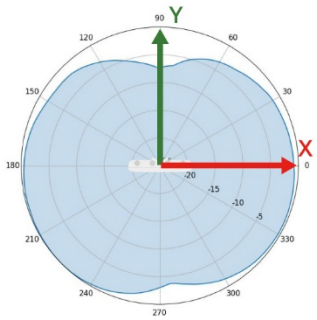
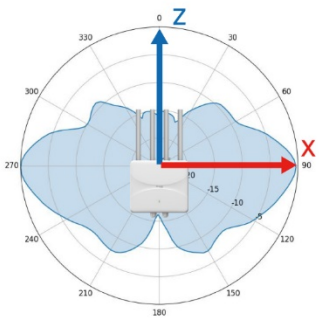
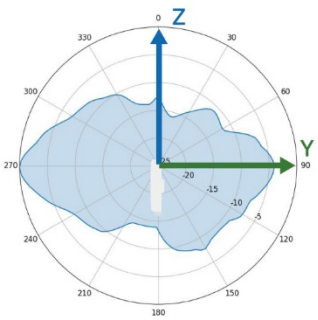
2.4 GHz

XY Plane	XZ Plane	YZ Plane
		

5 GHz

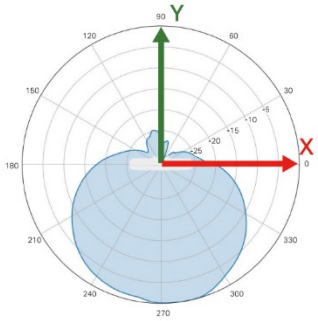
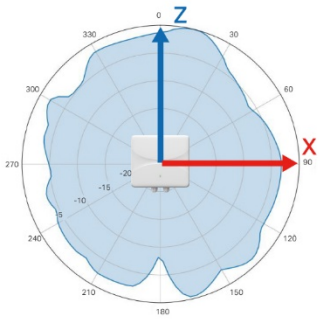
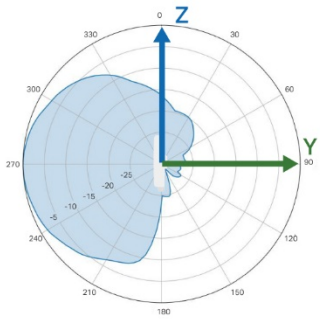
XY Plane	XZ Plane	YZ Plane
		

6 GHz

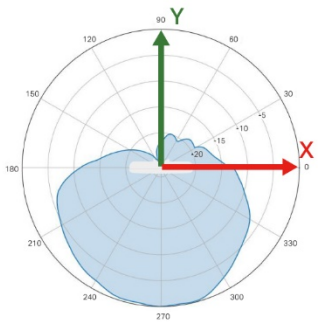
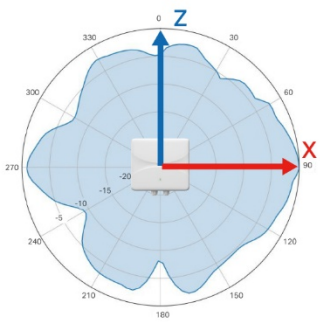
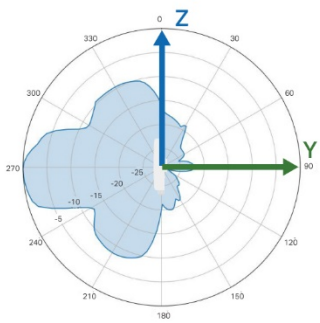
XY Plane	XZ Plane	YZ Plane
		

Directional Mode

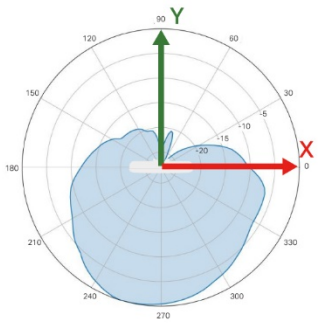
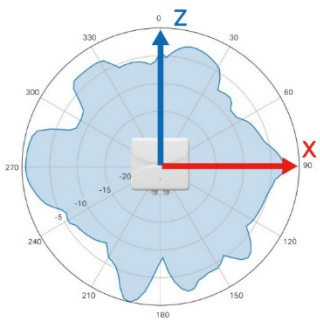
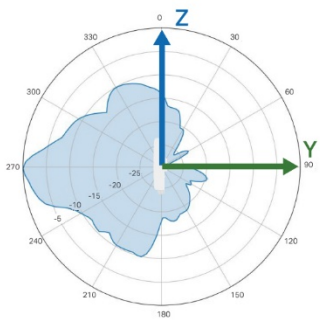
2.4 GHz

XY Plane	XZ Plane	YZ Plane
		

5 GHz

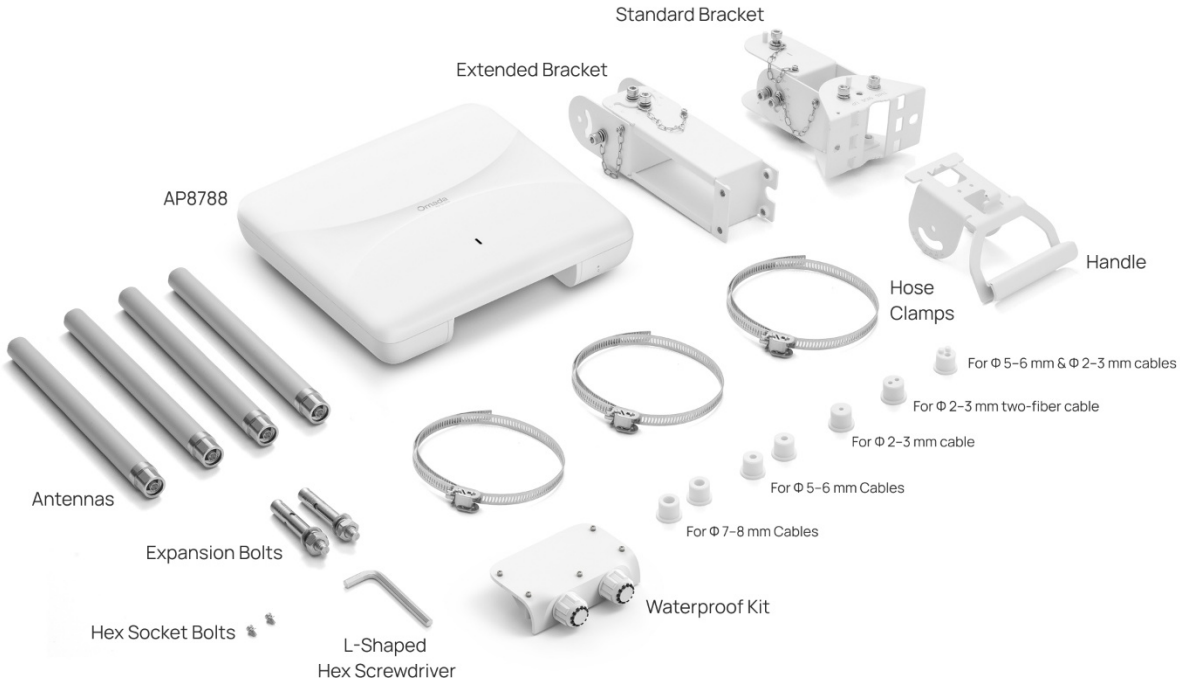
XY Plane	XZ Plane	YZ Plane
		

6 GHz

XY Plane	XZ Plane	YZ Plane
		

Package Contents

Item	Quantity
AP8788	1
Installation Guide	1
Waterproof Kit	1
Mounting Kit	1



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	2026-11-17	Initial release.

*AFC availability varies by region or country. For a list of supported areas, please refer to: https://www.omadanetworks.com/support/faq/4373/

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

***This feature requires the use of a compatible switch.

†These features require the use of an Omada controller.

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.

© 2026 TP-Link