Omada
by tp-link

AC1350 Wireless MU-MIMO Gigabit Ceiling Mount Access Point
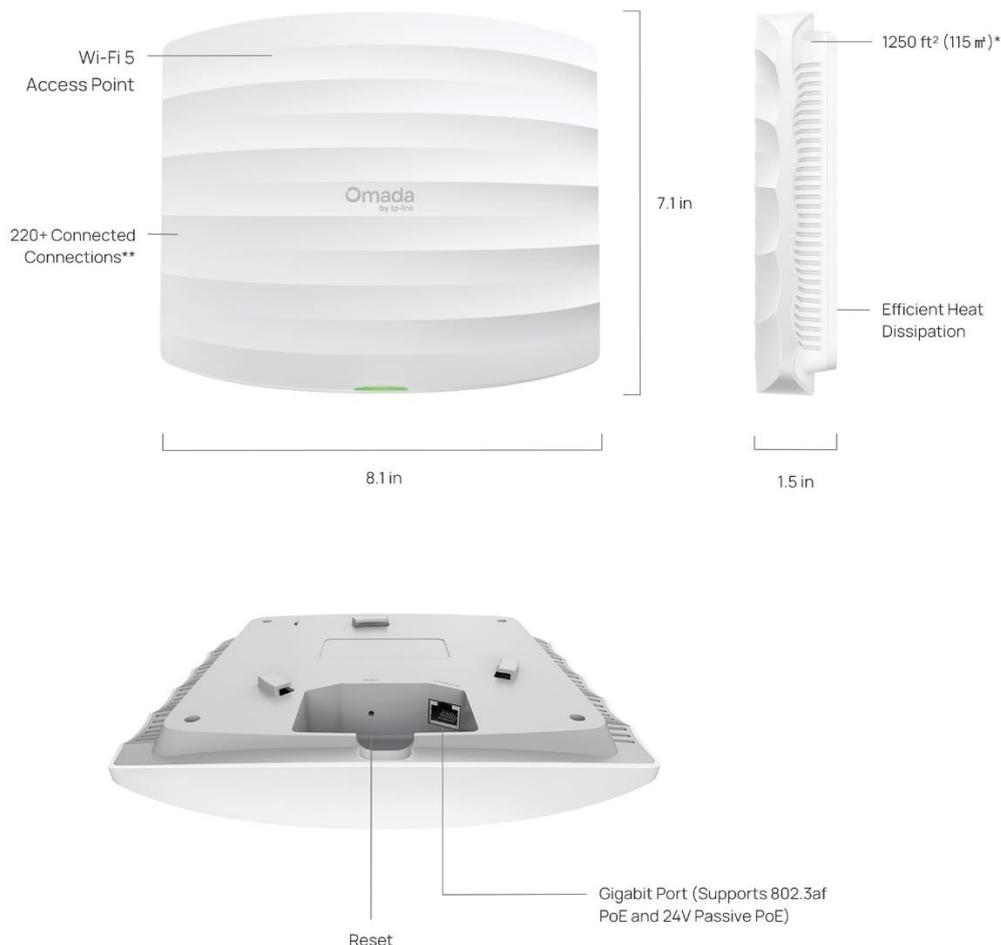
Model: EA223

Product Overview

The Omada AC1350 Wireless MU-MIMO Gigabit Ceiling Mount Access Point EAP223 is a proven choice for reliable wireless connectivity, delivering a fast, stable, and responsive dual-band Wi-Fi 5 experience.

- **Dual-Band Wi-Fi 5:** 867 Mbps on 5 GHz and 450 Mbps on 2.4 GHz[†]
- **1× Gigabit Port:** Ensures a high-speed connection to the wired network, eliminating a potential bottleneck.
- **Low Latency and Interference:** MU-MIMO, Band Steering, and Beamforming ensure high performance for your network.[‡]
- **Flexible Deployment and Easy Setup:** Supports both 802.3af PoE and 24V Passive PoE for flexible installation. Omada SDN for one-click setup.
- **Advanced Features:** Supports centralized management, mesh, and seamless roaming.[△]
- **More Connections and Wider Coverage:** Supports 220+ concurrent clients** and covers up to 1250 ft² (115 ㎡) * for reliable and extensive wireless connectivity.

Product Appearance

Wi-Fi 5 Access Point

220+ Connected Connections**

7.1 in

8.1 in

1250 ft² (115 ㎡)*

Efficient Heat Dissipation

1.5 in

Gigabit Port (Supports 802.3af PoE and 24V Passive PoE)

Reset

*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.

Feature Descriptions

Omada Wi-Fi 5 Technology

Wi-Fi 5 (802.11ac) leverages MU-MIMO, Beamforming, and Band Steering to deliver a stable and efficient wireless experience. MU-MIMO allows an access point to transmit data to multiple devices simultaneously, increasing overall throughput and reducing latency. Beamforming concentrates the wireless signal towards connected devices, creating stronger, more reliable connections over greater distances. Band Steering intelligently moves dual-band clients to the less congested 5 GHz band, optimizing network performance for clients.

Gigabit PoE Port for Optimized Wired Performance

Boost overall network efficiency with a high-performance Gigabit PoE port, delivering blazing-fast data speeds. Compatibility with 802.3af PoE and Passive PoE is ideal for flexible deployment.

Easy Setup via the Omada app, web browser, or SDN

The Omada SDN supports quick setup of EAP223 through automatic device identification and one-click adoption. Configure and manage on the go via the Omada app or web browser.

Boosted Network Security

EAP223 offers advanced security features, including a secure guest network with up to 16 SSIDs, SMS login for enhanced business authentication, WPA2 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, the EAP223 works harmoniously with Omada switches, gateways, and controllers. Businesses gain 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	5 GHz: IEEE 802.11a/n/ac 2.4 GHz: IEEE 802.11b/g/n	
802.11ac	Spatial Streams	• 5 GHz: 2×2 Downlink MU-MIMO with 2 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
	Wireless Data Rate	• 5 GHz: 6.5 Mbps to 867 Mbps (MCS0-MCS9, NSS=1 to 2, VHT20/40/80/160)
	Radio Technology	OFDM (Orthogonal Frequency-Division Multiplexing)
	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) • 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)
802.11n	Spatial Streams	• 2.4 GHz: 3×3 MIMO with 3 spatial streams • 5 GHz: 2×2 MIMO with 2 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: 6.5Mbps to 450 Mbps (MCS0-MCS7, NSS=1 to 3, HT20/40) • 5 GHz: 6.5Mbps to 300 Mbps (MCS0-MCS7, NSS=1 to 2, HT20/40)

Item	Description	
	Radio Technology	OFDM (Orthogonal Frequency-Division Multiplexing)
	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) • 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)
Antenna	Wi-Fi	• 2.4 GHz: 3 × 4 dBi (peak gain), internal omnidirectional antennas • 5 GHz: 2 × 5 dBi (peak gain), internal omnidirectional antennas Note: The gains above are the single-antenna peak gains.
Interfaces	• 1 x 10M/100M/1000M Multigigabit Ethernet Port (RJ45); PoE in	
Memory	• Flash: 128 Mbit • DRAM: 1 Gbit	
Button	1 × Reset button: Press the button for longer than 5 seconds to restore the device to factory settings.	
Indicator	1 × duel-color system LED indicates on the front: • Power-on status • Firmware initialization or upgrade status • Uplink service status • Error status	
Reliability	MTBF (Mean Time between Failure)	NA
Power Supply	Input	• 24V Passive POE or 802.3af POE
	Output	/

Power Consumption	• 802.3af (PoE):
	  EU: 9.7W, 2.4GHz radio 3×3, 5GHz radio 2×2.
	  US: 12.6W, 2.4GHz radio 3×3, 5GHz radio 2×2.
	Note: Actual power consumption may vary depending on the AP usage.	

Surge/Lightning Protection	Ethernet Ports: ±4 kV	
ESD/EMP Protection	• Air discharge: ±8 kV • Contact discharge: ±4 kV Note: ESD/EMP Protection means Electrostatic Discharge/Electromagnetic Pulse Protection independently.	

Item		Description
Tx Power	Maximum transmit power	CE (ERIP) • 2.4GHz: 20 dBm • 5GHz: 23 dBm in U-NII-1, 23 dBm in U-NII-2A, 27 dBm in U-NII-2C FCC (conducted power) • 2.4GHz: 24 dBm • 5GHz: 22 dBm in U-NII-1, 22 dBm in U-NII-3 Note: MIMO combined power, excluding antenna gains. The actual transmit power depends on local laws and regulations.
	Minimum transmit power	CE (ERIP) • 2.4GHz: 10 dBm • 5GHz: 9 dBm in U-NII-1, 9 dBm in U-NII-2A, 9 dBm in U-NII-2C FCC (conducted power) • 2.4GHz: 6 dBm • 5GHz: 4 dBm in U-NII-1, 4 dBm in U-NII-3 Note: MIMO combined power, excluding antenna gains. The actual transmit power depends on local laws and regulations.
	Adjustable power increment	1 dB
Environment	Temperature	• Operating: 0℃ to +40℃ (32℉ to +104℉) • Storage: -40℃ to +70℃ (-40℉ to +158℉)
	Humidity	• Operating: 10% to 90% (non-condensing) • Storage: 5% to 90% (non-condensing)
	Altitude	• Storage: up to + 2000 m (6561feet) • Operating: up to + 2000 m (6561feet)
Unit	Dimensions (W×D×H)	• Main Unit: 205.4*181.6*37.1 mm (8.1× 7.1 × 1.5 in.) • Shipping Unit: 340*228*64 mm (13.4 × 9.0 × 2.5 in.)
	Weight	• Main Unit: 0.42 kg (0.925 lbs) • Mounting Bracket: 0.060 kg (0.132 lbs) • Shipping Unit: 0.76 kg (1.68 lbs)
	Mounting	• Ceiling /Wall Mounting (Kits included)

Software Specifications

Item	Description	
Wireless Functions	Maximum number of BSSIDs	16 (8 on each band)
	Maximum number of associated STAs	228
	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
	WLAN Optimization	No
	Lock to AP	Yes
	Rate Limit	• SSID Rate Limit • Client Rate Limit
	Load Balance	• Maximum Associated Clients • RSSI Threshold
	Roaming	• 802.11 k • 802.11v • 802.11r *Note: Only support Layer 2 Roaming currently.
	Multicast/Broadcast Management	• Multicast-to-Unicast Conversion • ARP-to-Unicast Conversation • Multicast Filtering
	QoS (Quality of Service)	• WMM (Wi-Fi Multimedia) • U-APSD (Unscheduled Automatic Power Save Delivery)
Security and Authentication	ACL	
	MAC Filter	
	802.1X Authentication	
	MAC-Based Authentication	
	• None • WPA/WPA2 -Personal • WPA/WPA2 -Enterprise	
	Radius Accounting	

Item	Description	
	• PPSK without Radius • PPSK with Radius (Generic Radius with bound MAC)	
	Captive Portal	• No Authentication • Simple Password • Hotspot (Voucher / Local User / SMS / RADIUS / Form Auth) • RADIUS 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 V6.2 and above • Omada Essential V6.2 and above
	App	Omada App V5.1 and above
	Standalone Management	Yes
	SSH	Yes
	SNMP	v1, v2c, v3
Operating Modes	AP	Yes
	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

| Item	Description	
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 - Packet Capture - Terminal

Standards Compliance and Certifications

| Item	Category	Description
Standards compliance	IEEE Standards	• IEEE 802.11a/n/ac • IEEE 802.11k/v/r • IEEE 802.1q • IEEE 802.3af • IEEE 802.3x
	Radio Standards	• RSS-247, RSS-Gen • ETSI EN 301 893, EN 62311& EN 50665 • FCC Part 15E、FCC Part 15C
	EMC standards	• EN 55032 • EN 55035 • ICES-003 • EN 301489-1 • EN 301489-17 • FCC Part 15B
	Safety Standards	• EN 62368-1 • IEC 62368-1 • IEC 60950-22
	RoHS	• Directive 2011/65/EU, Directive (EU) 2015/863 • EN IEC 63000: 2018
Certifications	• FCC/CE/ISED	

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	10.5/16	-91
		MCS7	10.5/16	-74
	802.11n, HT40	MCS0	10.5/16	-89
		MCS7	10.5/16	-72
5 GHz	802.11n, HT20	MCS0	20/16	-93.5
		MCS7	20/16	-75
	802.11n, HT40	MCS0	20/16	-91
		MCS7	20/16	-72
	802.11ac, HT20	MCS0	20/16	-93.5
		MCS8	20/16	-70
	802.11ac, HT40	MCS0	21/16	-91
		MCS9	21/16	-65
	802.11ac, HT80	MCS0	21/16	-87.5
		MCS9	21/16	-62

Antenna Radiation Patterns

2.4 GHz

XY Plane	XZ Plane	YZ Plane

5 GHz

XY Plane	XZ Plane	YZ Plane
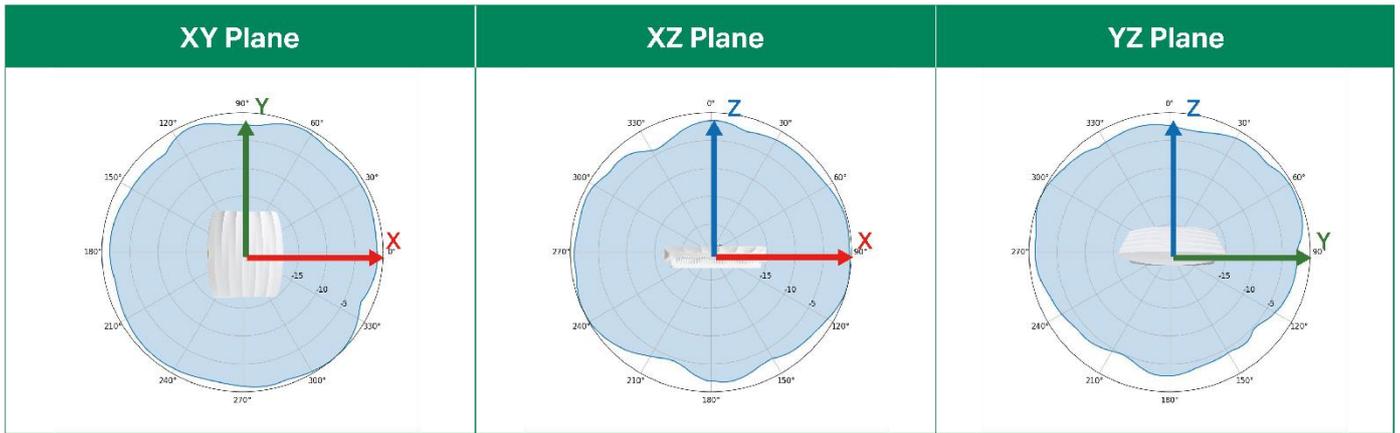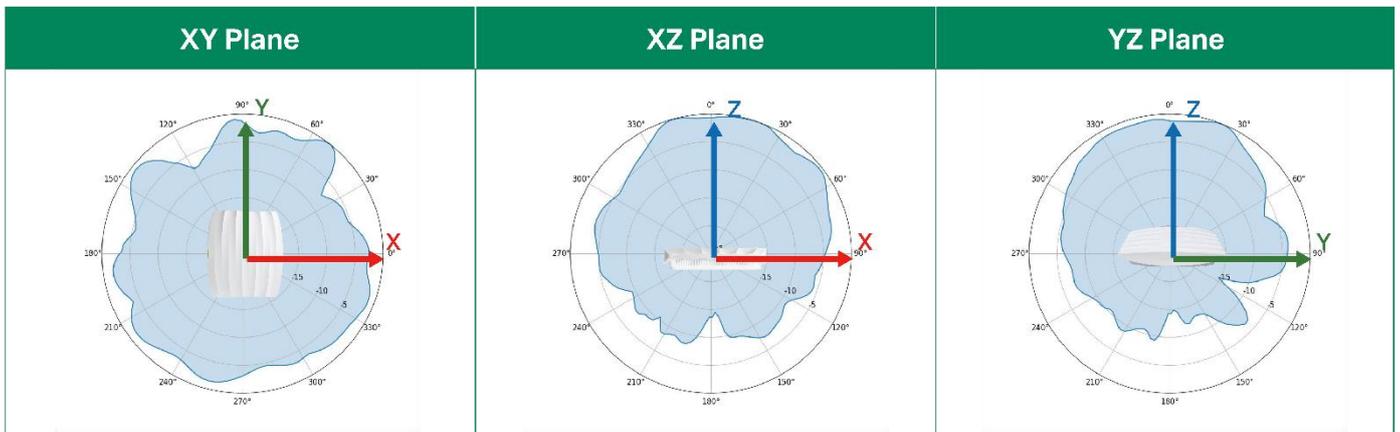
Package Contents

Item	Quantity
EAP223	1
Installation Guide	1
Power Adapter	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	2026-01-21	Initial release.

[†]Maximum wireless signal rates are the physical rates derived from IEEE Standard 802.11 specifications. 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.

[‡]MU-MIMO capability requires client devices that also support MU-MIMO.

*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.

[△]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.