Omada by tp-link

Datasheet

300 Mbps Wireless N Ceiling Mount Access Point

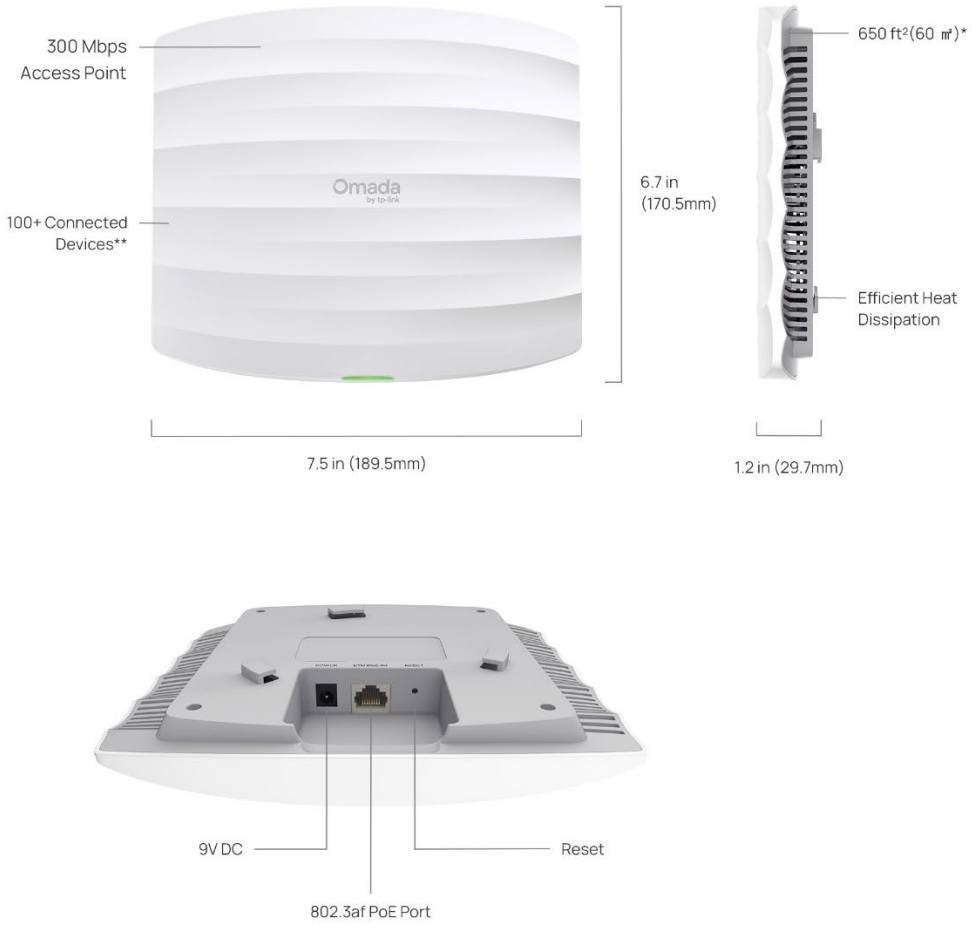
Model: EAP115

Product Overview

The Omada 300 Mbps Wireless N Ceiling Mount Access Point EAP115 is an ideal choice for smooth wireless connectivity, delivering a reliable, consistent, and secure Wi-Fi experience.

- **Smooth Wi-Fi 4:** Up to 300 Mbps Wi-Fi with 2×2 MIMO.†
- **1× Fast Ethernet Port:** Provides a reliable wired connection for standard network access.
- **Optimized Network Performance:** Load Balance, Scheduling, and QoS (WMM) work in concert to deliver a smooth and responsive experience.
- **Flexible Deployment and Easy Setup:** Supports both 802.3af PoE and DC Power supply for flexible installation. Omada SDN for one-click setup.
- **Advanced Features:** Supports centralized management and 802.11r seamless roaming.△
- **Stable Capacity and Coverage:** Supports 100+ concurrent clients** and covers up to 650 ft² (60)* for reliable wireless connectivity.

Product Appearance



*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 4 Technology

Wi-Fi 4 (802.11n) standard provides a dependable and stable wireless experience using MIMO, Scheduling, and QoS. MIMO technology enhances throughput for faster downloads and smoother browsing. Scheduling boosts overall throughput by bundling data packets together, which reduces overhead and makes data transmission far more efficient. Meanwhile, QoS ensures that essential applications get the priority they need, maintaining network quality even during busy periods.

Fast Ethernet Port for Stable Wired Performance

Establish a stable wired connection with a 10/100 Mbps Ethernet port, providing reliable throughput for core network services. Compatibility with 802.3af PoE is ideal for flexible deployment.

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

The Omada SDN supports quick setup of EAP115 through automatic device identification and one-click adoption. Configure and manage on the go via the Omada app or web browser.

Boosted Network Security

EAP115 offers advanced security features, including a secure guest network with up to 8 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.

Centralized Management

As part of Omada's unified SDN ecosystem, the EAP115 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 interface.

Specifications

Hardware Specifications

Item	Description	
Wi-Fi Standards	2.4 GHz: IEEE 802.11b/g/n	
802.11n	Spatial Streams	2.4 GHz: 2x2 MIMO
	Frequency Bands	2.400 to 2.4835 GHz ISM Note: Country-Specific Restriction Apply
	Bandwidth	20 MHz/40 MHz
	Wireless Data Rate	2.4 GHz: 6.5Mbps to 300 Mbps (MCS0-MCS7, NSS=1 to 3, HT20/40)
	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) • WPA2 (Wi-Fi Protect Access 2) • 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 omnidirectional antennas Note: The gains above are the single-antenna peak gains.
Interfaces	1 x 10M/100M Ethernet Port (RJ45); (802.3af PoE)	
Memory	• Nor Flash: 64 Mbit • DRAM: 512 Mbit	
Button	1 × Reset button: Press the button for longer than 5 seconds to make the device restore to factory settings.	
Indicator	1 × tri-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)	N/A

Item	Description	
Power Supply	Input	802.3af PoE or external 9V/0.6A DC power supply
	Output	/
Power Consumption	• 802.3af PoE or external 9 V/0.6 A DC power supply: EU: 3.1W, 2.4GHz radio 2×2. US: 3.1W, 2.4GHz radio 2×2. Note: Actual power consumption may vary depending on the AP usage.	
Surge/Lightning Protection	Ethernet Ports: ±2 kV	
ESD/EMP Protection	• Air discharge: ±8 kV • Contact discharge: ±4 kV Note: ESD/EMP Protection means Electrostatic Discharge/Electromagnetic Pulse Protection independently.	
Tx Power	Maximum transmit power	CE (ERIP) • 2.4GHz: 19 dBm FCC (conducted power) • 2.4GHz: 21 dBm 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 FCC (conducted power) • 2.4GHz: 6 dBm 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 (6561 ft) • Operating: up to + 2000 m (6561 ft)
Unit	Dimensions (W×D×H)	• 189.5*170.5*29.7 mm (7.5 × 6.7 × 1.2 in.) • Shipping Unit: 268 × 69 × 246 mm (10.55 × 2.72 × 9.69 in.)
	Weight	• Main Unit: 0.24 kg (0.529 lbs) • Mounting Bracket: 0.031 kg (0.068 lbs) • Shipping Unit: 0.64kg (1.41 lbs)
	Mounting	• Ceiling /Wall Mounting (Kits included)

Software Specifications

Item	Description	
Wireless Functions	Maximum number of BSSIDs	8 (8 on each band)
	Maximum number of associated STAs	100
	Guest Network	Yes
	ACS (Automatic Channel Selection)	Yes
	Airtime Fairness	Yes
	Band Steering	No
	802.11 Rate Control	Yes
	Rogue AP Detection	Yes
	URL Filtering	Yes
	WLAN Optimization	Yes
	Lock to AP	No
	Rate Limit	Client Rate Limit
	Load Balance	• Maximum Associated Clients • RSSI Threshold
	Roaming	802.11r *Note: Only support Layer 2 Roaming currently.
	Multicast/Broadcast Management	NO
	QoS (Quality of Service)	• U-APSD (Unscheduled Automatic Power Save Delivery)
Security and Authentication	ACL	
	MAC-Based Authentication	
	• None • WPA/WPA2 -Personal • WPA/WPA2 -Enterprise	
	Radius Accounting	
	• PPSK without Radius • PPSK with Radius (Generic Radius with bound MAC)	

Item	Description	
	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
	Repeater	No
	Mesh	No
System Feature	System Log	Yes
	Reboot Schedule	Yes
	WLAN Schedule	Yes
	NTP (Network Time Protocol)	Yes
	Email Alerts	No
	Firmware Upgrade	Yes
	Restore & Backup	Yes
	LED Control	Yes
Network Features	VLAN	• SSID VLAN

Item	Description	
		• Management VLAN
	Static IP / DHCP Client	Yes
	IPv4	Yes
	IPv6	No
	LLDP (Link Layer Discovery Protocol)	No
	mDNS	No
	Tools	No

Standards Compliance and Certifications

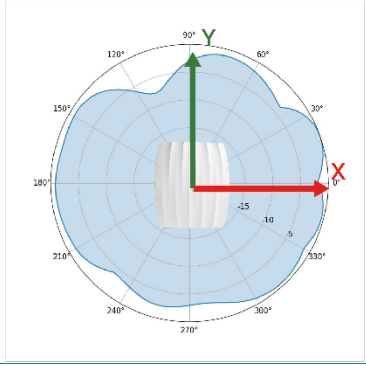
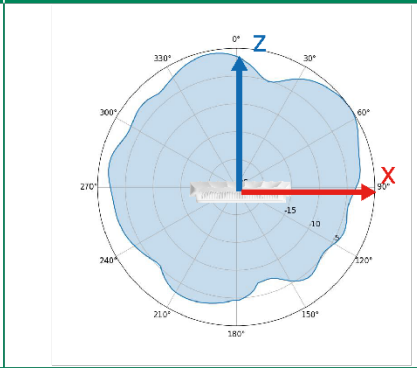
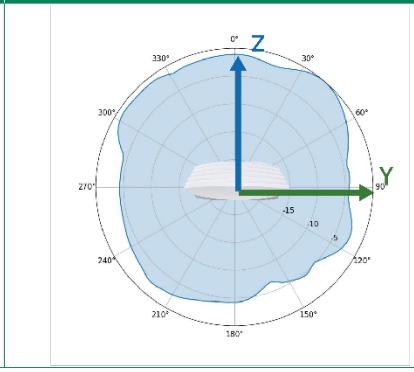
Item	Category	Description
Standards compliance	IEEE Standards	• IEEE 802.11a/n • IEEE 802.11r • IEEE 802.1q • IEEE 802.3af • IEEE 802.3x
	Radio Standards	• ETSI EN 301 893, EN 62311& EN 50665 • FCC Part 15E, FCC Part 15C
	EMC standards	• EN 55032 • EN 55035 • EN 301489-1 • EN 301489-17 • FCC Part 15B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

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	12/16	-91
		MCS7	12/16	-73
	802.11n, HT40	MCS0	12.5/13.5	-88
		MCS7	12.5/13.5	-71

Antenna Radiation Patterns

2.4 GHz

XY Plane	XZ Plane	YZ Plane
		

Package Contents

Item	Quantity
EAP115	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	2026-03-26	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 on-premises 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.