Omada by tp-link

Datasheet

Omada 5 GHz
867 Mbps Long-Range
Indoor/Outdoor Wireless Bridge

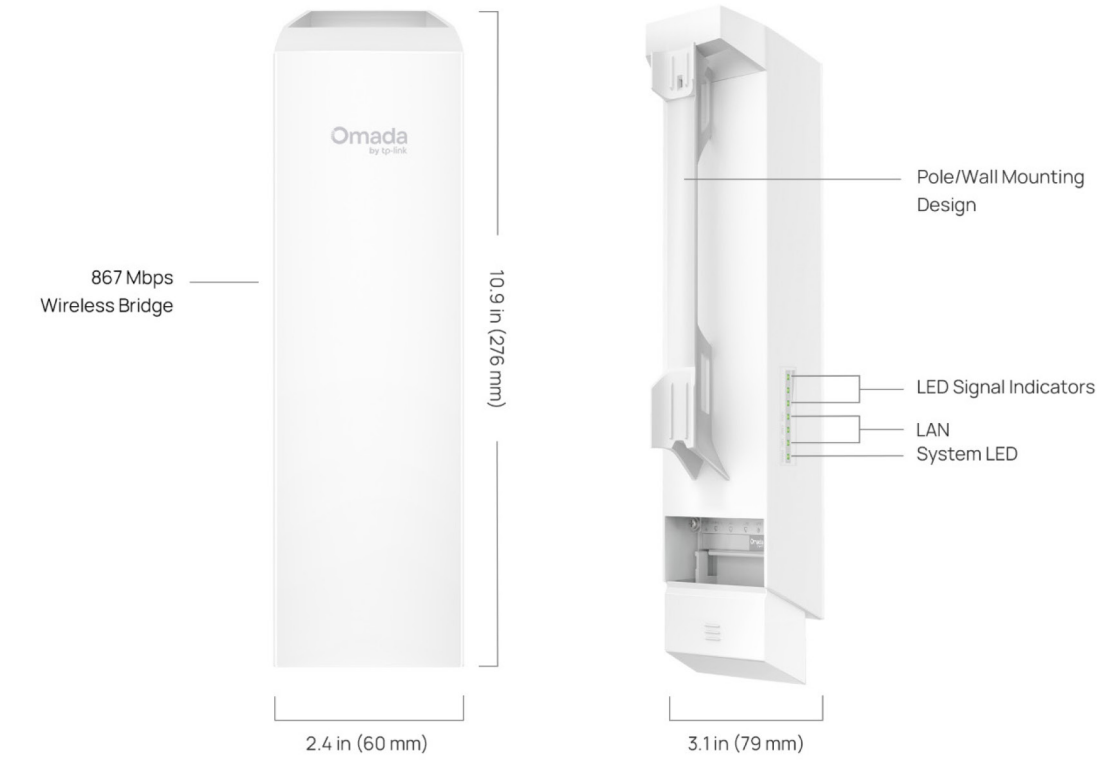
Model: EAP215-Bridge KIT

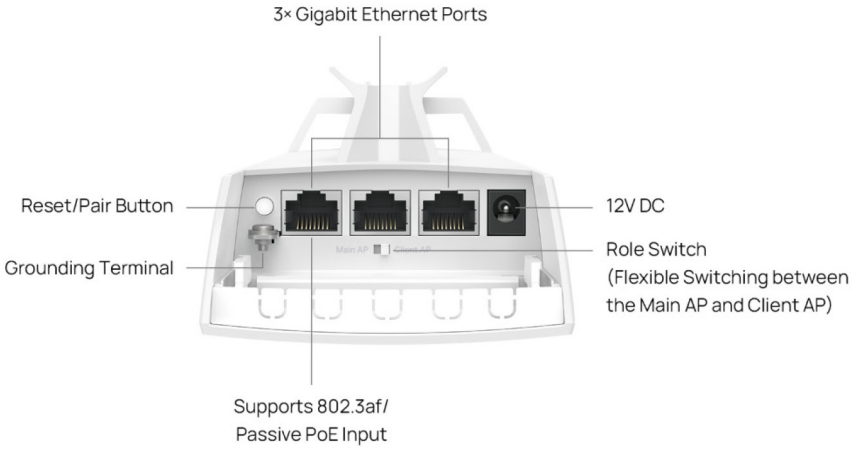
Product Overview

Omada 5 GHz 867 Mbps Long-Range Indoor/Outdoor Wireless Bridge EAP215 Bridge KIT is an enterprise-grade Wi-Fi bridge kit engineered for transmission up to 3.1 miles (5 km). It delivers reliable PtP or PtMP connectivity in remote outdoor environments—ideal for farms, additional offices, parking lots, and other locations where extending network access and monitoring is critical.

- Up to 3.1 mi (5 km) Wireless Transmission: With 14 dBi high-gain directional antennas.*
- Equipped with Omada SmartBridging: Our unique design for the most effortless and easy bridge setup ever, like instant auto-pairing with preconfigured kit and multi-bridge auto-pairing‡.
- App-Guided Alignment: Visualized app-guided alignment for long-distance setups and instant speed testing for installation verification.
- Simple PoE Deployment and Power Supply: 1× Gigabit PoE port supports both 802.3af PoE and Passive PoE for simplified wiring and lower deployment costs.
- Designed for Outdoor Durability & Reliability: IP65 weatherproof enclosure, 6 kV lightning protection and operating range of -40 ℃ to +70 ℃ (-40℉ to +158 ℉).**
- Remote Monitoring & Management: Standalone mode or Omada SDN mode for remote centralized management via Web UI or App.†

Product Appearance





Feature Descriptions

Up to 3.1 mi (5 km) Wi-Fi Connectivity

It delivers reliable Wi-Fi with low latency and strong signal integrity, equipped with 14 dBi high-gain directional antennas for uninterrupted wireless transmission, and it is ideal for connecting remote sites in rural and hard-to-wire environments.

Omada SmartBridging: The Most Effortless Bridge Setup

Preconfigured for instant PtP auto-pairing, the bridges deliver instant connectivity right out of the box. Simply power on and go, ideal for quick and easy deployments.

Effortlessly connect multiple bridges with PtMP Auto-Pairing‡. Simply dial the role switch and press the Pair/Reset button‡-no portal login needed. Supports up to 1-to-4 multi-bridge connections.

App-Guided Alignment for Optimal Performance

Simply bridge alignment with real-time signal strength visualization on the Omada app. Perfect for installations where bridges are far apart, this feature ensures optimal alignment and connectivity. The Omada app also allows users to easily verify installations, test transmission speeds, and troubleshoot connections for optimal performance.

Simple Deployment with PoE Support

1× Gigabit PoE port delivers both power and data through a single cable, cutting deployment costs and outdoor wiring complexity. It supports both 802.3af PoE and Passive PoE power supply.

Outdoor-Ready Design for Extreme Conditions

EAP215-Bridge KIT supports IP65 weatherproof and 6 kV lightning protection safeguard your network in harsh outdoor environments. Additionally, an extended temperature tolerance of -40 °C to 70 °C (-40 °F to +158 °F) makes it ideal for extremely hot and cold environments.

Remote Monitoring & Management

Use the Omada app for easy on-site setup-no internet required. For additional flexibility, switch to Omada SDN, enabling cloud management via the Omada app or web portal for seamless control, and monitor from anywhere.

Specifications

Hardware Specifications

Item	Description	
Wi-Fi Standards	5 GHz: IEEE 802.11a/n/ac	
Transmission Distance	5km	
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 (DFS Channel) 5.470 to 5.725 GHz U-NII-2C (DFS Channel) 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: 8.6 Mbps to 866 Mbps (MCS0-MCS9, NSS=1 to 2, VHT20/40/80)
	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
802.11n	Spatial Streams	• 5 GHz: 2×2 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 (DFS Channel) 5.470 to 5.725 GHz U-NII-2C (DFS Channel) 5.725 to 5.850 GHz U-NII-3/ISM *Note: Country-Specific Restriction Apply
	Bandwidth	20 MHz/40 MHz
	Wireless Data Rate	• 5 GHz: 8.6 Mbps to 300 Mbps (MCS0-MCS7, NSS=1 to 2, 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

Item	Description	
Antenna	Wi-Fi	Internal 2×2 dual-polarized directional MIMO antennas 5 GHz: 14.0 dBi Horizontal: 43°, Vertical: 18° *Note: The gains above are the single-antenna peak gains.
	IoT	• None
Interfaces	• 3 x 10M/100M/1000Mbps Gigabit Ethernet Port (RJ45)	
IoT	None	
Memory	• Flash: 128Mbit • DRAM: 1024Mbit	
Button	1 × System Mode Selection Button: Slide the switch to switch the device roles (Main AP or Client AP) 1 × Pair/Reset button‡: Press the button for longer than 5 seconds to make the device restore to factory settings; Press this button on the Main AP and the Client AP to establish a network connection.	
Indicator	1x system LED: • On: Working normally/Initializing • Off: Working abnormally/Power off/LED is turned off. • Flash: • Flashes twice: Initialization is complete. • Flashes quickly: The AP is resetting, or the Omada Controller is locating the device • Flashes once per second: The AP is upgrading. • On with periodic off: The AP is in the isolated state. 3 × LAN LEDs On: The port is connected but not active. Flash: The port is connected and active. Off: The port is not connected. 3 × Singal LEDs • On: • Working as Main AP: All LEDs remain solid during normal operation. • Working as Client AP: More lit LEDs indicates better wireless signal strength. • Blinking: Pairing‡ • Off: No signal	
Reliability	MTBF (Mean Time between Failure)	360000- hours at the operating temperature of 25℃ (77℉)
Power Supply	Input	12V/1A DC 802.3af PoE 24V or 48V Passive PoE
	Output	/

Item	Description	
Power Consumption	• Max with DC:9.9W • Max with PoE:11.5W • Standby with DC:3.5W • Standby with PoE:4.9W	
Surge/Lightning Protection	Ethernet Ports: ±6 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) • 5 GHz: 23 dBm in U-NII-1, 23 dBm in U-NII-2A, 30 dBm in U-NII-2C, FCC (Conducted Power) • 5 GHz: 23.5 dBm in U-NII-1, 25 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) • 5 GHz: 6 dBm in U-NII-1, 6 dBm in U-NII-2A, 6 dBm in U-NII-2C, 6 dBm in U-NII-3 FCC (Conducted Power) • 5 GHz: 4 dBm in U-NII-1, 4dBm 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 dBm
Environment	Temperature	• Operating: -40℃ to +70℃ (-40℉ to +158℉) • 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 feet) • Operating: up to + 2000 m (6561 feet)
	Windproof	Class 16
	Weatherproof Enclosure	IP65 for Pole Mount
Unit	Dimensions (W×D×H)	• Main Unit: 275.8×79×60.3 mm (10.8×3.1×2.3 in.) • Shipping Unit: 318×250×105 mm (12.5×9.8×4.1 in.)
	Weight	• Main Unit: 0.86 kg (1.89 lb) • Mounting Unit: 0.056 kg (0.12 lb) • Shipping Unit: 2 kg (4.4 lb)
	Mounting	• Pole Mount (Kits included)

Software Specifications

Item	Description	
	Maximum number of associated STAs	8
	Guest Network	Yes
	ACS (Automatic Channel Selection)	Yes
	Airtime Fairness	No
	TDMA	No
	Speed Test	Yes
	PtP	Yes
	PtMP	4
	Channel Optimization	Yes
	Antenna Alignment	Yes
	802.11 Rate Control	No
	Rogue AP Detection	Yes
	WLAN Optimization	No
	Lock to AP	No
	Rate Limit	• SSID Rate Limit • Client Rate Limit
	Load Balance	No
	MLO	No
	Multicast/Broadcast Management	• Multicast/Broadcast Rate Limit
Security and Authentication	ACL	
	• None • WPA/WPA2 • WPA/WPA2	
	Radius Accounting	
	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

Item	Description	
		• PEAPv1
Management methods	Omada Controller	• Omada Controller V5.15.24 and above • Omada Essential V5.15.24 and above
	App	Omada App V4.25 and above
	Standalone Management	Yes
	Standalone Mesh	No
	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	Yes
	Firmware Upgrade	Yes
	Restore & Backup	Yes
	LED Control	Yes
Network Features	VLAN	• SSID VLAN • Management VLAN
	Static IP / DHCP Client	Yes
	IPv4	Yes
	LLDP (Link Layer Discovery Protocol)	Yes
	mDNS	Yes
	Tools	• Ping / Traceroute • Packet Capture • Terminal

Standards Compliance and Certifications

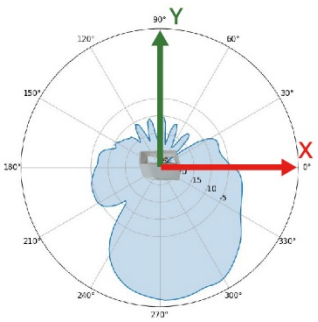
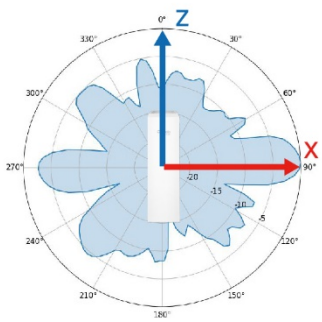
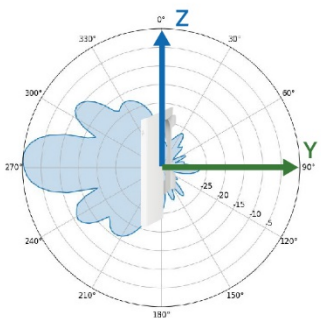
Item	Category	Description
Standards compliance	IEEE Standards	• IEEE 802.11a/n/ac • IEEE 802.1q • IEEE 802.3af • IEEE 802.3ab • IEEE 802.3x
	Radio Standards	• RSS-247, RSS-Gen • ETSI EN 301 893, EN 62311& EN 50665 • FCC Part 15E
	EMC standards	• EN 55032 • EN 55035 • ICES-003 • EN 301489-1 • EN 301489-17 • FCC Part 15B • VCCI-CISPR 32
	Safety Standards	• EN 62368-1 • IEC 62368-1 • IEC 60950-22
	Security Standards	• WPA-Personal/Enterprise • WPA2-Personal/Enterprise
	RoHS	• Directive 2011/65/EU, Directive (EU) 2015/863 • EN IEC 63000: 2018
	Others	
Certifications	• FCC/CE/ISED/VCCI/MIC	

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
5 GHz	802.11a	6M	16/22	-94
		54M	16/19	-78
	802.11ac, VHT20	MCS0	16/22	-94
		MCS8	16/17.5	-71
	802.11ac, VHT40	MCS0	16/22	-90.5
		MCS9	16/16.5	-66.5
	802.11ac, VHT80	MCS0	16/20	-87.5
		MCS9	16/16.5	-63

Antenna Radiation Patterns

5 GHz

XY Plane	XZ Plane	YZ Plane
		

Package Contents

Item	Quantity
EAP215-Bridge	2
Passive PoE Adapter	2
Power Cord	2
Mounting Kit	2
Installation Guide	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	2025-11-10	Initial release.

Note: Maximum wireless signal rates are the physical rates derived from IEEE Standard 802.11 specifications. Actual wireless data throughput and wireless coverage are not guaranteed and will vary as a result of 1) environmental factors, including building materials, physical objects, and obstacles, 2) network conditions, including local interference, volume and density of traffic, product location, network complexity, and network overhead, and 3) client limitations, including rated performance, location, connection, quality, and client condition.

*The advertised coverage is calculated based on laboratory testing. Actual coverage is not guaranteed and will vary as a result of the performance of the equipped antennas, client limitations, and environmental factors.

**Protection against lightning and electro-static discharge may be achieved through proper product setup, grounding, and cable shielding. Refer to the instruction manual and consult an IT professional to assist with setting up this product.

†These functions require the use of an Omada controller.

‡Pairing with the Pair/Reset button requires firmware upgrade if the button is labeled as “Reset” only.

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.