EAP | Datasheet

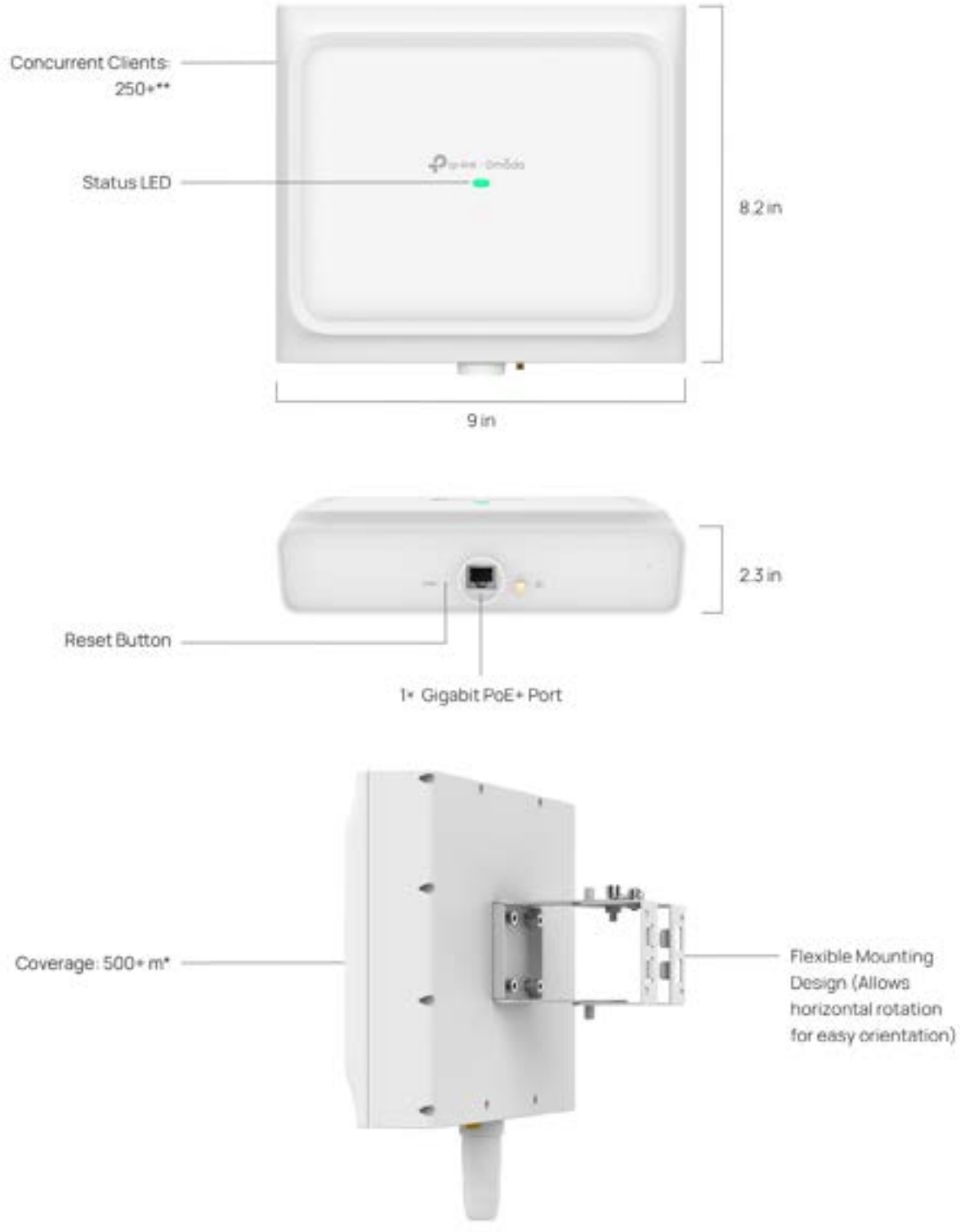
EAP650 D120-Outdoor

AX3000 Indoor/Outdoor Wi-Fi 6 Access Point

Highlights

- Superior WiFi 6 Speeds: 2402 Mbps on 5 GHz and 574 Mbps on 2.4 GHz.*
- Directional Ultra-Range Coverage: Equipped with built-in high-gain directional antennas to deliver precise and extended coverage.*
- Ideal for Warehouses and Outdoor Scenes: Features an IP68 waterproof enclosure with -30°C to +70°C operating range.
- 802.11k/v/r Seamless Roaming: Ensures uninterrupted connectivity for AGVs and handheld scanners.*
- Flexible Deployment: Supports 802.3at PoE and Omada Mesh technology.
- Centralized Cloud Management: Control everything from a single interface anywhere via the Omada app or Web UI.*

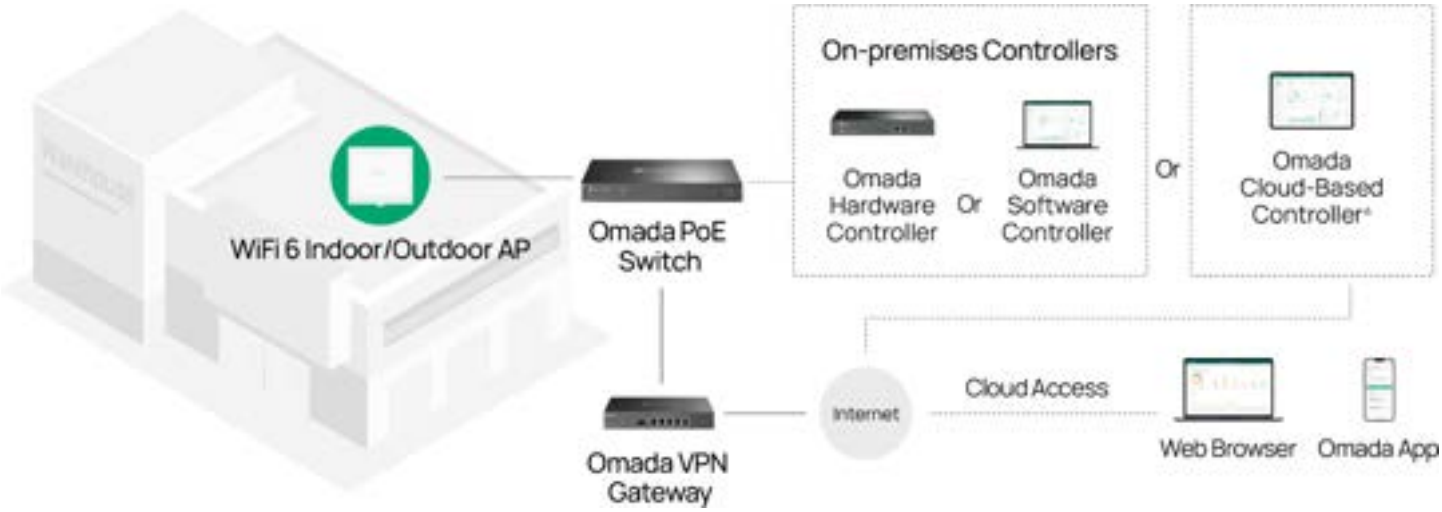
Product Pictures



* Coverage 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.

Omada Solution

Omada's Software Defined Networking (SDN) platform integrates network devices, including access points, switches, and gateways, providing 100% centralized cloud management. Omada creates a highly scalable network—all controlled from a single interface.



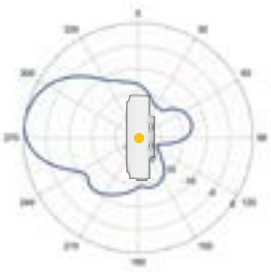
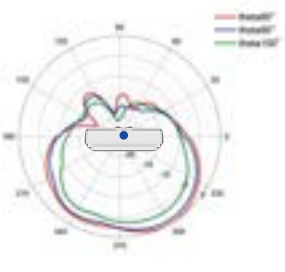
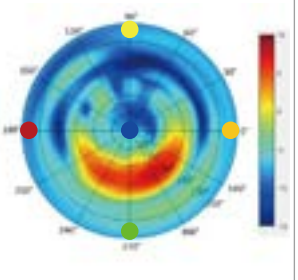
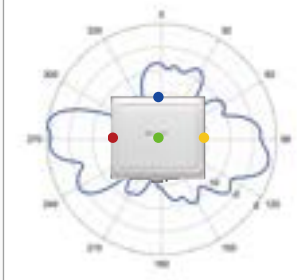
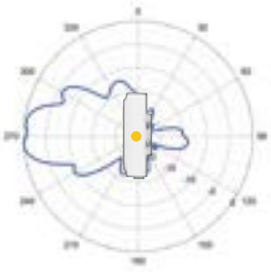
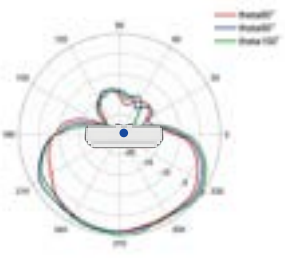
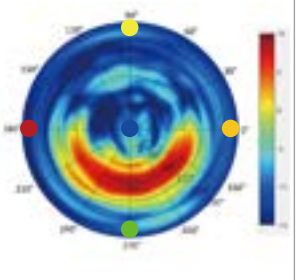
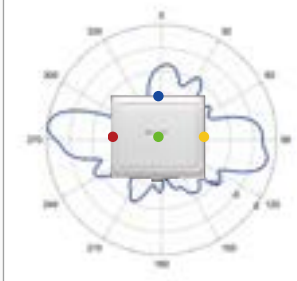
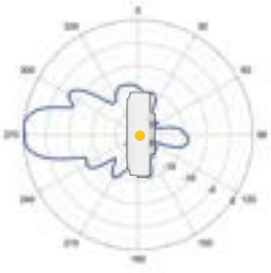
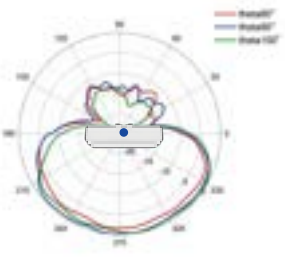
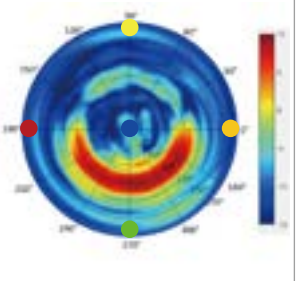
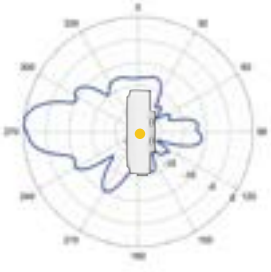
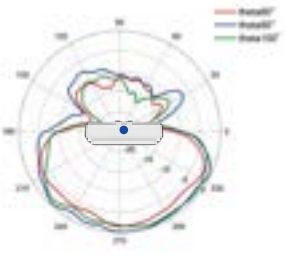
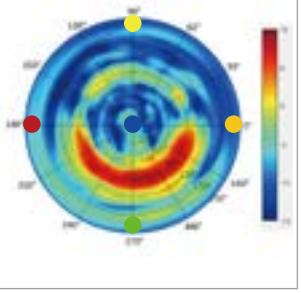
Specifications

Model		EAP650 D120-Outdoor
Name		AX3000 Indoor/Outdoor Wi-Fi 6 Access Point
Main Design	LAN Interfaces	1x Gigabit Ethernet Port
	Wi-Fi Standards	IEEE 802.11 a/b/g/n/ac/ax
	Maximum Data Rate	574 Mbps (2.4 GHz) +2402 Mbps (5 GHz)
	Wireless Client Capacity	256
	Bluetooth	Supported
	Antennas	2.4 GHz: 2x 8 dBi 5 GHz: 2x 10 dBi
	Transmit Power	CE: < 20 dBm (2.4GHz, EIRP); < 23dBm (5 GHz, band1&band 2, EIRP);< 30 dBm (5 GHz,band 3, EIRP); FCC: < 30 dBm (2.4 GHz); < 30 dBm (5 GHz)
	Reception Sensitivity	2.4GHz: 11ax HE20 MCS0:-95dBm; 11ax HE20 MCS11:-66dBm 11ax HE40 MCS0:-93dBm; 11ax HE40 MCS11:-64dBm 5GHz: 11ax HE20 MCS0:-95dBm; 11ax HE20 MCS11:-65dBm 11ax HE40 MCS0:-92dBm; 11ax HE40 MCS11:-63dBm 11ax HE80 MCS0:-89dBm; 11ax HE80 MCS11:-60dBm
Centralized Management	Omada Software Controller	•
	Omada Hardware Controller	•
	Omada Cloud-based Controller	•
	Omada APP	•
Security	Captive Portal Authentication	•
	Access Control	•
	Maximum number of MAC Filter	4000
	Wireless Isolation between Clients	•
	VLAN	•
	Rogue AP Detection	•
	Wireless Encryption	WPA-Personal/Enterprise, WPA2-Personal/Enterprise, WPA3-Personal/Enterprise

Model		EAP650 D120-Outdoor
Wireless Function	Multiple SSIDs	16 (8 on each band)
	Channel	US: 2G:1 - 11; 5G: 36,40,44,48,52,56,60,64,100,104,108,112,116,120,124,128,132,136,140,149,153,157,161,165 EU: 2G:1 - 13; 5G: 36,40,44,48,52,56,60,64,100,104,108,112,116,120,124,128,132,136,140
	Enable/Disable Wireless Radio	•
	Enable/Disable SSID Broadcast	•
	Guest Network	•
	Automatic Channel Assignment	•
	Transmit Power Control	Adjust transmit Power on dBm
	QoS (WMM)	•
	Seamless Roaming	802.11k/v/r
	Mesh	•
	Beamforming	•
	MU-MIMO	2x2 (2.4 GHz & 5 GHz) DL/UL MU-MIMO
	MIMO	2x2 (2.4 GHz & 5 GHz) MIMO
	OFDMA	DL/UL OFDMA
	Rate Limit	Based on SSID/Client
	Load Balance	•
	Airtime Fairness	•
	Band Steering	•
	RADIUS Accounting	•
	MAC Authentication	•
	Reboot Schedule	•
	Wireless Schedule	•
	Wireless Statistics	•
	Static IP/Dynamic IP	•
	802.11ax	8 Mbps to 2402 Mbps (MCS0-MCS11, NSS = 1 to 2 HE20/40/80/160)
	802.11ac	6.5 Mbps to 1733 Mbps (MCS0-MCS9, NSS = 1 to 2 VHT20/40/80/160)
	802.11n	6.5 Mbps to 300 Mbps (MCS0-MCS15, HT20/40)
	802.11g	6, 9, 12, 18, 24, 36, 48 ,54 Mbps
	802.11b	1, 2, 5.5, 11 Mbps
	802.11a	6, 9, 12, 18, 24, 36, 48 ,54 Mbps

Model		EAP650 D120-Outdoor
Management	LED ON/OFF Control	•
	Management MAC Access Control	•
	Web-based Management	•
	SNMP	v1, v2c, v3
	SSH	•
	Restore & Backup	•
	Firmware update via Web	•
	NTP	•
	System Log	•
	Email Alerts	•
Physical & Environment	Power Supply	802.3at PoE or 48V Passive PoE
	Maximum Power Consumption	EU: 12.5W (802.3at PoE or Passive PoE) US: 14.7W (802.3at PoE or Passive PoE)
	Reset	•
	Mounting	Optional bracket accessory: Supports vertical ±45° , horizontal ±45° adjustment **Note:** Optional bracket accessories need to be purchased separately.
Others	Certifications	CE, FCC, RoHS
	Dimensions (W x D x H)	230 × 207.5 × 58 mm
	Net Weight	1.4kg
	Enclosure Material / Rack Material	Top Cover: PC+GF10% Bottom Shell: PC+GF10% Mounting rack: SUS304
	Lightning Protection	Air discharge: ±8kV Contact discharge: ±4kV Common mode 10/700: ±6kV
	Environment	Operating Temperature: -30 °C~70 °C (-22 °F~158 °F); Storage Temperature: -40 °C~70 °C (-40 °F~158 °F); Operating Humidity: 10%–90% non-condensing; Storage Humidity: 5%–90% non-condensing;

Antenna Radiation Patterns

EAP650 D120-Outdoor				
	Elevation-0°	Elevation-90°	Azimuth	Mapped 3D
2.45 GHz				
5.25 GHz				
5.5 GHz				
5.75 GHz				

Disclaimers

* Maximum wireless transmission rates are the physical rates derived from IEEE Standard 802.11 specifications. Range, coverage, and maximum quantity of connected devices are based on test results under normal usage conditions. Actual wireless data throughput, wireless coverage, and quantity of connected devices 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.

* Use of WiFi 6 (802.11ax) and its features, including OFDMA, and 1024-QAM, requires clients to support the corresponding features.

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

* Omada Mesh, Seamless Roaming, Cloud Access, and Captive Portal require the use of Omada SDN controllers. Go to Omada Mesh Product List to find all the models supported by Omada mesh technology, and refer to the User Guides for Omada SDN Controllers for configuration methods.

* 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.

* Actual network speed may be limited by the rate of the product's Ethernet WAN or LAN port, the rate supported by the network cable, Internet service provider factors and other environmental conditions.

* PoE budget calculations are based on laboratory testing. Actual PoE power budget is not guaranteed and will vary as a result of client limitations and environmental factors.

* MU-MIMO capability requires client devices that also support MU-MIMO.

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