



# **Omada AX3000 Ceiling Mount Wi-Fi 6 Access Point**

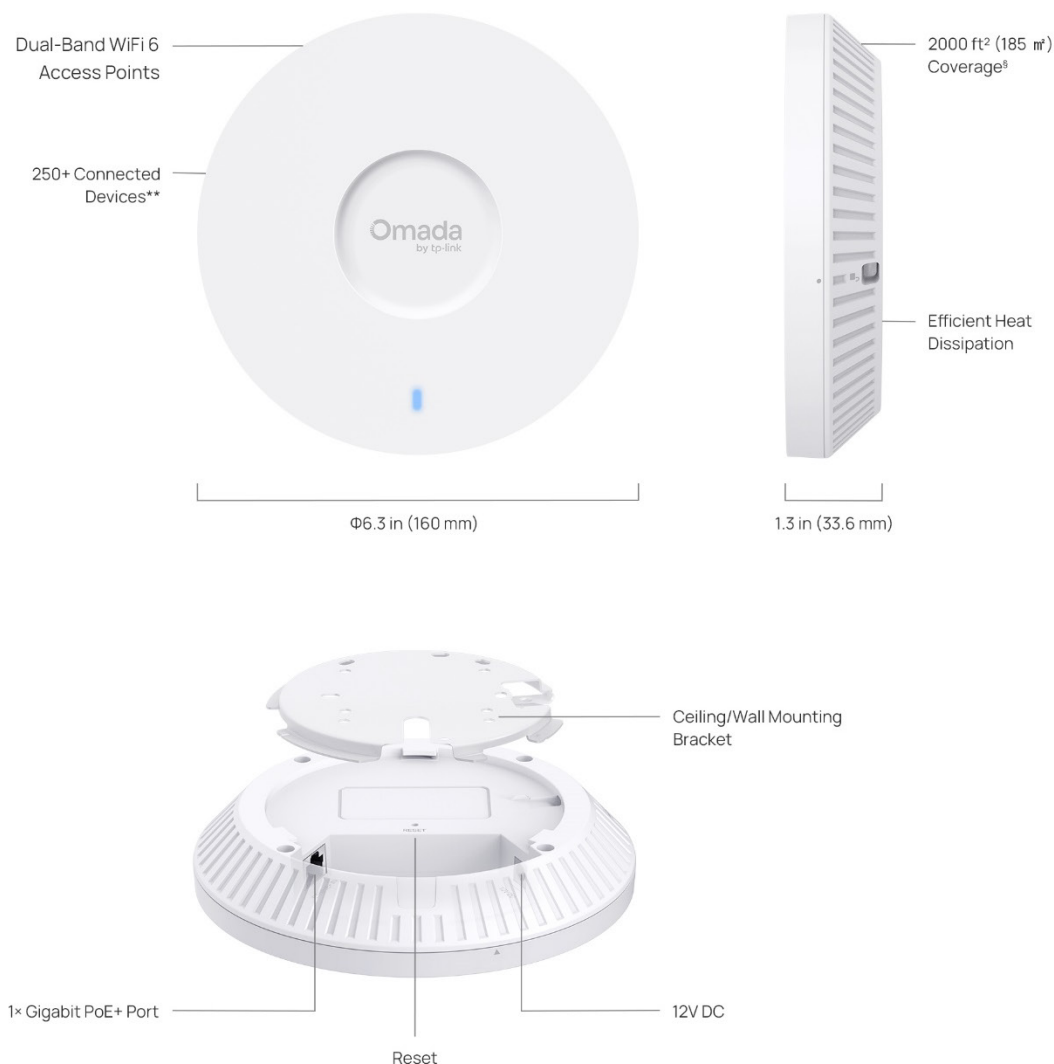
Model: EAP653 UR

# Product Overview

The Omada AX3000 Dual-Band Ceiling Mount Access Point EAP653 UR delivers blazing-fast speeds and extended coverage, leveraging Wi-Fi 6 efficiencies to support more devices over larger areas with stable performance.

- **4-Stream Dual-Band Wi-Fi 6:** 2,402 Mbps on 5 GHz and 574 Mbps on 2.4 GHz<sup>†</sup>
- **Ultra-Range Coverage:** Up to 2,000 ft<sup>2</sup> (185 m<sup>2</sup>) coverage of stable connectivity in expansive deployments.\*
- **1× Gigabit Port:** Ensures fast connectivity throughout the network.
- **Low Latency and Interference:** 160 MHz Bandwidth, MU-MIMO, OFDMA, and 1024-QAM ensure high performance for your network.<sup>‡</sup>
- **Flexible Deployment and Easy Setup:** Supports both 802.3at PoE and DC Power supply for flexible installation. Omada SDN for one-click setup.
- **Advanced Features:** Supports centralized cloud management, mesh, and seamless roaming.<sup>△</sup>
- **More Connections:** Supports up to 250+ concurrent connections.\*\*

## Product Appearance



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

‡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.

# Feature Descriptions

## Omada Wi-Fi 6 Technology

Wi-Fi 6 (802.11ax) supports up to 160 MHz Bandwidth, MU-MIMO, OFDMA, and 1024-QAM, making it an ideal choice for high-performance wireless networks. 160 MHz bandwidth delivers faster speeds and lower latency, enabling smoother streaming, gaming, and multitasking on multiple devices. OFDMA allows multiple devices to share channels efficiently, reducing latency and improving performance in dense environments. MU-MIMO supports more simultaneous device connections, enhancing overall network capacity. 1024-QAM increases data transmission rates, delivering 25% faster speeds compared to Wi-Fi 5.



Higher Efficiency with OFDMA



More Simultaneous Connections with MU-MIMO

## Ultra-Range Wireless Coverage

Equipped with high-power dual-band internal antennas, EAP653 UR delivers exceptional signal strength and extended wireless coverage, penetrating walls and minimizing dead zones—ideal for expansive business environments.

## Gigabit PoE Ports for Optimized Wired Performance

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

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

The Omada SDN supports quick setup of EAP653 UR through automatic device identification and one-click adoption. Configure and manage on the go via the Omada app or web browser.

## Boosted Network Security

EAP653 UR offers advanced security features, including a secure guest network with up to 16 SSIDs, SMS login for enhanced business authentication, WPA3 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 EAP653 UR 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/ax<br>2.4 GHz: IEEE 802.11b/g/n/ax |                                                                                                                                                                                                                                                                                                                                                                   |
| 802.11ax        | Spatial Streams                                             | <ul style="list-style-type: none"> <li>2.4 GHz: 2×2 Uplink/Downlink MU-MIMO with 2 spatial streams</li> <li>5 GHz: 2×2 Uplink/Downlink MU-MIMO with 2 spatial streams</li> </ul>                                                                                                                                                                                  |
|                 | Frequency Bands                                             | 2.400 to 2.4835 GHz ISM<br>5.150 to 5.250 GHz U-NII-1<br>5.250 to 5.350 GHz U-NII-2A<br>5.470 to 5.725 GHz U-NII-2C<br>5.725 to 5.850 GHz U-NII-3/ISM<br><a href="#">Note: Country-Specific Restriction Apply</a>                                                                                                                                                 |
|                 | Bandwidth                                                   | 2.4 GHz: 20 MHz/40 MHz<br>5GHz: 20 MHz/40 MHz/80MHz/160MHz<br><a href="#">Note: Country-Specific Restriction Apply</a>                                                                                                                                                                                                                                            |
|                 | Wireless Data Rate                                          | <ul style="list-style-type: none"> <li>2.4G+5G: 2976Mbps</li> <li>2.4GHz: 8.6 Mbps to 574 Mbps (MCS0—MCS11,NSS=1 to 2, HE20/40)</li> <li>5 GHz: 8.6 Mbps to 2402 Mbps (MCS0—MCS11,NSS=1 to 2, HE20/40/80/160)</li> </ul> <a href="#">Note: Country-Specific Restriction Apply</a>                                                                                 |
|                 | Radio Technology                                            | Uplink/downlink OFDMA (Orthogonal Frequency-Division Multiple Access)                                                                                                                                                                                                                                                                                             |
|                 | Modulation Type                                             | 1024-QAM, 256-QAM. 64-QAM, 16-QAM, QPSK, BPSK                                                                                                                                                                                                                                                                                                                     |
|                 | Frame Aggregation                                           | <ul style="list-style-type: none"> <li>A-MPDU (Aggregate MAC Protocol Data Unit) for Tx/Rx</li> <li>A-MSDU (Aggregate MAC Service Data Unit) for Tx/Rx</li> </ul>                                                                                                                                                                                                 |
|                 | Others                                                      | <ul style="list-style-type: none"> <li>MRC (Maximal Ratio Combining)</li> <li>TxBF (Transmit Beamforming)</li> <li>WPA3 (Wi-Fi Protect Access 3)</li> <li>DFS (Dynamic Frequency Selection)</li> <li>CDD (Cycle Delay Diversity)</li> <li>CSD (Cycle Shift Diversity)</li> <li>STBC (Space-Time Block Coding)</li> <li>LDPC (Low-Density Parity-Check)</li> </ul> |
| 802.11ac        | Spatial Streams                                             | <ul style="list-style-type: none"> <li>5 GHz: 2×2 Downlink MU-MIMO with 2 spatial streams</li> </ul>                                                                                                                                                                                                                                                              |
|                 | Frequency Bands                                             | 5.150 to 5.250 GHz U-NII-1<br>5.250 to 5.350 GHz U-NII-2A<br>5.470 to 5.725 GHz U-NII-2C<br>5.725 to 5.850 GHz U-NII-3/ISM<br><a href="#">Note: Country-Specific Restriction Apply</a>                                                                                                                                                                            |
|                 | Bandwidth                                                   | 5 GHz: 20 MHz/40 MHz/80 MHz/160 MHz                                                                                                                                                                                                                                                                                                                               |

| Item    | Description        |                                                                                                                                                                                                                                                                                                                                                                   |
|---------|--------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|         | Wireless Data Rate | <ul style="list-style-type: none"> <li>5 GHz: 6.5 Mbps to 1732 Mbps (MCS0-MCS9, NSS=1 to 2, VHT20/40/80/160)</li> </ul>                                                                                                                                                                                                                                           |
|         | Radio Technology   | OFDM (Orthogonal Frequency-Division Multiplexing)                                                                                                                                                                                                                                                                                                                 |
|         | Modulation Type    | 256-QAM, 64-QAM, 16-QAM, QPSK, BPSK                                                                                                                                                                                                                                                                                                                               |
|         | Frame Aggregation  | <ul style="list-style-type: none"> <li>A-MPDU (Aggregate MAC Protocol Data Unit) for Tx/Rx</li> <li>A-MSDU (Aggregate MAC Service Data Unit) for Tx/Rx</li> </ul>                                                                                                                                                                                                 |
|         | Others             | <ul style="list-style-type: none"> <li>MRC (Maximal Ratio Combining)</li> <li>TxBF (Transmit Beamforming)</li> <li>WPA3 (Wi-Fi Protect Access 3)</li> <li>DFS (Dynamic Frequency Selection)</li> <li>CDD (Cycle Delay Diversity)</li> <li>CSD (Cycle Shift Diversity)</li> <li>STBC (Space-Time Block Coding)</li> <li>LDPC (Low-Density Parity-Check)</li> </ul> |
| 802.11n | Spatial Streams    | <ul style="list-style-type: none"> <li>2.4 GHz: 2×2 MIMO with 2 spatial streams</li> <li>5 GHz: 2×2 MIMO with 2 spatial streams</li> </ul>                                                                                                                                                                                                                        |
|         | Frequency Bands    | 2.400 to 2.4835 GHz ISM<br>5.150 to 5.250 GHz U-NII-1<br>5.250 to 5.350 GHz U-NII-2A<br>5.470 to 5.725 GHz U-NII-2C<br>5.725 to 5.850 GHz U-NII-3/ISM<br><b>Note: Country-Specific Restriction Apply</b>                                                                                                                                                          |
|         | Bandwidth          | 20 MHz/40 MHz                                                                                                                                                                                                                                                                                                                                                     |
|         | Wireless Data Rate | <ul style="list-style-type: none"> <li>2.4 GHz: 6.5Mbps to 300 Mbps (MCS0-MCS7, NSS=1 to 2, HT20/40)</li> <li>5 GHz: 6.5Mbps to 300 Mbps (MCS0-MCS7, NSS=1 to 2, HT20/40)</li> </ul>                                                                                                                                                                              |
|         | Radio Technology   | OFDM (Orthogonal Frequency-Division Multiplexing)                                                                                                                                                                                                                                                                                                                 |
|         | Modulation Type    | 64-QAM, 16-QAM, QPSK, BPSK                                                                                                                                                                                                                                                                                                                                        |
|         | Frame Aggregation  | <ul style="list-style-type: none"> <li>A-MPDU (Aggregate MAC Protocol Data Unit) for Tx/Rx</li> <li>A-MSDU (Aggregate MAC Service Data Unit) for Tx/Rx</li> </ul>                                                                                                                                                                                                 |
|         | Others             | <ul style="list-style-type: none"> <li>MRC (Maximal Ratio Combining)</li> <li>TxBF (Transmit Beamforming)</li> <li>WPA3 (Wi-Fi Protect Access 3)</li> <li>DFS (Dynamic Frequency Selection)</li> <li>CDD (Cycle Delay Diversity)</li> <li>CSD (Cycle Shift Diversity)</li> <li>STBC (Space-Time Block Coding)</li> <li>LDPC (Low-Density Parity-Check)</li> </ul> |
| Antenna | Wi-Fi              | <ul style="list-style-type: none"> <li>2.4 GHz: 2 × 5 dBi (peak gain), internal omnidirectional antennas</li> <li>5 GHz: 3 × 5 dBi (peak gain), internal omnidirectional antennas</li> </ul> <b>Note: The gains above are the single-antenna peak gains.</b>                                                                                                      |

| Item                       | Description                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Interfaces                 | <ul style="list-style-type: none"> <li>1 x 10M/100M/1000M Multigigabit Ethernet Port (RJ45); PoE in</li> <li>1 x DC power interface: 12VDC</li> </ul>                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| IoT                        | <ul style="list-style-type: none"> <li>BLE5.2,1Mbps</li> </ul>                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Memory                     | <ul style="list-style-type: none"> <li>Flash: 1Gbit</li> <li>DRAM: 4Gbit</li> </ul>                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Button                     | 1 x Reset button: Press the button for longer than 5 seconds to make the device restore to factory settings.                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Indicator                  | 1 x single-color system LED indicates on the front: <ul style="list-style-type: none"> <li>Power-on status</li> <li>Firmware initialization or upgrade status</li> <li>Uplink service status</li> <li>Error status</li> </ul> |                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Reliability                | MTBF (Mean Time between Failure)                                                                                                                                                                                              | EU: 249924H@25°C, 211357H@40°C<br>US: 188977H@25°C, 158209H@40°C                                                                                                                                                                                                                                                                                                                                                                                            |
| Power Supply               | Input                                                                                                                                                                                                                         | <ul style="list-style-type: none"> <li>48V Passive POE or 802.3at POE</li> <li>DC: 12V/1.5A</li> </ul>                                                                                                                                                                                                                                                                                                                                                      |
|                            | Output                                                                                                                                                                                                                        | /                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Power Consumption          | <ul style="list-style-type: none"> <li>EU: 14.8W, 2.4GHz radio 2×2, 5GHz radio 2×2</li> <li>US: 16.4W, 2.4GHz radio 2×2, 5GHz radio 2×2</li> </ul> Note: Actual power consumption may vary depending on the AP usage.         |                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Surge/Lightning Protection | Ethernet Ports: ±4 kV                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| ESD/EMP Protection         | <ul style="list-style-type: none"> <li>Air discharge: ±8 kV</li> <li>Contact discharge: ±4 kV</li> </ul> Note: ESD/EMP Protection means Electrostatic Discharge/Electromagnetic Pulse Protection independently.               |                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Tx Power                   | Maximum transmit power                                                                                                                                                                                                        | CE (EIRP) <ul style="list-style-type: none"> <li>2.4GHz: 20 dBm</li> <li>5GHz: 23 dBm in U-NII-1, 23 dBm in U-NII-2A, 29 dBm in U-NII-2C</li> </ul> FCC (conducted power) <ul style="list-style-type: none"> <li>2.4GHz: 26 dBm</li> <li>5GHz: 27 dBm in U-NII-1, 23 dBm in U-NII-2A, 23 dBm in U-NII-2C, 27 dBm in U-NII-3</li> </ul> Note: MIMO combined power, excluding antenna gains. The actual transmit power depends on local laws and regulations. |
|                            | Minimum transmit power                                                                                                                                                                                                        | CE (EIRP) <ul style="list-style-type: none"> <li>2.4GHz: 7 dBm</li> <li>5GHz: 6 dBm in U-NII-1, 6 dBm in U-NII-2A, 6 dBm in U-NII-2C</li> </ul> FCC (conducted power) <ul style="list-style-type: none"> <li>2.4GHz: 4 dBm</li> <li>5GHz: 4 dBm in U-NII-1, 4 dBm in U-NII-2A, 4 dBm in U-NII-2C, 4 dBm in U-NII-3</li> </ul> Note: MIMO combined power, excluding antenna gains. The actual transmit power depends on local laws and regulations.          |

| Item        | Description                |                                                                                                                                                                         |
|-------------|----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|             | Adjustable power increment | 1 dB                                                                                                                                                                    |
| Environment | Temperature                | <ul style="list-style-type: none"> <li>Operating: 0°C to +40°C (32°F to +104°F)</li> <li>Storage: -40°C to +70°C (-40°F to +158°F)</li> </ul>                           |
|             | Humidity                   | <ul style="list-style-type: none"> <li>Operating: 10% to 90% (non-condensing)</li> <li>Storage: 5% to 90% (non-condensing)</li> </ul>                                   |
|             | Altitude                   | <ul style="list-style-type: none"> <li>Storage: up to + 2000 m (6561feet)</li> <li>Operating: up to + 2000 m (6561feet)</li> </ul>                                      |
| Unit        | Dimensions (W×D×H)         | <ul style="list-style-type: none"> <li>Main Unit: 160 × 160 × 33.6 mm (6.3 × 6.3 × 1.3 in.)</li> <li>Shipping Unit: 245 × 228 × 65 mm (9.7 × 9.0 × 2.6 in.)</li> </ul>  |
|             | Weight                     | <ul style="list-style-type: none"> <li>Main Unit: 0.41 kg (0.9 lbs)</li> <li>Mounting Bracket: 0.054 kg (0.119 lbs)</li> <li>Shipping Unit: 0.8 kg (1.8 lbs)</li> </ul> |
|             | Mounting                   | <ul style="list-style-type: none"> <li>Ceiling /Wall/Junction Box/T-Bar Mounting (Kits included)</li> </ul>                                                             |

## Software Specifications

| Item                        | Description                       |                                                                                                                                                                                                                                                      |
|-----------------------------|-----------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Wireless Functions          | Maximum number of BSSIDs          | 16 (8 on each band)                                                                                                                                                                                                                                  |
|                             | Maximum number of associated STAs | 250+                                                                                                                                                                                                                                                 |
|                             | 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                           | No                                                                                                                                                                                                                                                   |
|                             | WLAN Optimization                 | Yes                                                                                                                                                                                                                                                  |
|                             | WIDS/WIPS                         | No                                                                                                                                                                                                                                                   |
|                             | Lock to AP                        | Yes                                                                                                                                                                                                                                                  |
|                             | Rate Limit                        | <ul style="list-style-type: none"> <li>• SSID Rate Limit</li> <li>• Client Rate Limit</li> </ul>                                                                                                                                                     |
|                             | Load Balance                      | <ul style="list-style-type: none"> <li>• Maximum Associated Clients</li> <li>• RSSI Threshold</li> </ul>                                                                                                                                             |
|                             | MLO                               | No                                                                                                                                                                                                                                                   |
|                             | Roaming                           | <ul style="list-style-type: none"> <li>• 802.11 k</li> <li>• 802.11v</li> <li>• 802.11r</li> <li>• Non-Stick Roaming</li> <li>• Ping-Pong Roaming Suppression</li> <li>• AI Roaming</li> </ul> <p>*Note: Only support Layer 2 Roaming currently.</p> |
|                             | Multicast/Broadcast Management    | <ul style="list-style-type: none"> <li>• Multicast-to-Unicast Conversion</li> <li>• ARP-to-Unicast Conversation</li> <li>• Multicast Filtering</li> <li>• Multicast/Broadcast Rate Limit</li> </ul>                                                  |
|                             | QoS (Quality of Service)          | <ul style="list-style-type: none"> <li>• WMM (Wi-Fi Multimedia)</li> <li>• DSCP (Differentiated Services Code Point)</li> <li>• U-APSD (Unscheduled Automatic Power Save Delivery)</li> </ul>                                                        |
| Security and Authentication | ACL                               |                                                                                                                                                                                                                                                      |

| Item               | Description                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                             |
|--------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                    | MAC Filter                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                             |
|                    | MAC-Based Authentication                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                             |
|                    | <ul style="list-style-type: none"> <li>• None</li> <li>• Enhanced Open</li> <li>• WPA/WPA2/WPA3-Personal</li> <li>• WPA/WPA2/WPA3-Enterprise</li> </ul>                  |                                                                                                                                                                                                                                                                                                                                             |
|                    | Radius Accounting                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                             |
|                    | <ul style="list-style-type: none"> <li>• PPSK without Radius</li> <li>• PPSK with Radius (Generic Radius with bound MAC/EKMS/Generic Radius with unbound MAC)</li> </ul> |                                                                                                                                                                                                                                                                                                                                             |
|                    | Captive Portal                                                                                                                                                           | <ul style="list-style-type: none"> <li>• No Authentication</li> <li>• Simple Password</li> <li>• Hotspot (Voucher / Local User / SMS / RADIUS / Form Auth)</li> <li>• RADIUS Server</li> <li>• External LDAP Server</li> <li>• External Portal Server</li> <li>• Pre-Authentication Access</li> <li>• Authentication-Free Client</li> </ul> |
| Management methods | EAP Types                                                                                                                                                                | <ul style="list-style-type: none"> <li>• EAP-TLS</li> <li>• EAP-TTLS</li> <li>• EAP-PEAP</li> <li>• EAP-CHAP</li> <li>• EAP-SIM</li> <li>• EAP-AKA</li> <li>• EAP-GTC</li> <li>• EAP-FAST</li> <li>• EAP-PEAP</li> <li>• EAP-MD5</li> <li>• EAP-MSCHAPv2</li> <li>• PEAPv0</li> <li>• PEAPv1</li> </ul>                                     |
|                    | Omada Controller                                                                                                                                                         | <ul style="list-style-type: none"> <li>• Omada Local Controller V6.1 and above</li> <li>• Omada CBC V6.1 and above</li> </ul>                                                                                                                                                                                                               |
|                    | App                                                                                                                                                                      | Omada App V5.0 and above                                                                                                                                                                                                                                                                                                                    |
|                    | Standalone Management                                                                                                                                                    | Yes                                                                                                                                                                                                                                                                                                                                         |
|                    | Standalone Mesh                                                                                                                                                          | Yes                                                                                                                                                                                                                                                                                                                                         |
|                    | SSH                                                                                                                                                                      | Yes                                                                                                                                                                                                                                                                                                                                         |
|                    | SNMP                                                                                                                                                                     | v1, v2c, v3                                                                                                                                                                                                                                                                                                                                 |
| Operating Modes    | AP                                                                                                                                                                       | Yes                                                                                                                                                                                                                                                                                                                                         |
|                    | Mesh                                                                                                                                                                     | Yes                                                                                                                                                                                                                                                                                                                                         |
| System Feature     | System Log                                                                                                                                                               | Yes                                                                                                                                                                                                                                                                                                                                         |

| Item             | Description                          |                                                                                                                                 |
|------------------|--------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|
|                  | 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                                 | <ul style="list-style-type: none"> <li>• SSID VLAN</li> <li>• Dynamic VLAN</li> <li>• Management VLAN</li> </ul>                |
|                  | Static IP / DHCP Client              | Yes                                                                                                                             |
|                  | IPv4/IPv6                            | Yes                                                                                                                             |
|                  | LLDP (Link Layer Discovery Protocol) | Yes                                                                                                                             |
|                  | mDNS                                 | Yes                                                                                                                             |
|                  | Tools                                | <ul style="list-style-type: none"> <li>• Ping / Traceroute / DNSLookup</li> <li>• Packet Capture</li> <li>• Terminal</li> </ul> |

# Standards Compliance and Certifications

| Item                 | Category                                                                 | Description                                                                                                                                                                                                                                                                                                |
|----------------------|--------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Standards compliance | IEEE Standards                                                           | <ul style="list-style-type: none"> <li>• IEEE 802.11a/b/g/n/ac/ax</li> <li>• IEEE 802.11e/i/k/v/r</li> <li>• IEEE 802.1x/q</li> <li>• IEEE 802.3at</li> <li>• IEEE 802.3ab</li> <li>• IEEE 802.3x</li> </ul>                                                                                               |
|                      | Radio Standards                                                          | <ul style="list-style-type: none"> <li>• ETSI EN 300 328</li> <li>• ETSI EN 301 893</li> <li>• FCC Part 15E</li> <li>• FCC Part15C</li> <li>• RSS-247 Issue 3, RSS-GEN Issue 5</li> <li>• EN 62311</li> <li>• EN 50665</li> </ul>                                                                          |
|                      | EMC standards                                                            | <ul style="list-style-type: none"> <li>• EN 55032</li> <li>• EN 55035</li> <li>• EN 301489-1</li> <li>• EN 301489-17</li> <li>• EN 61000-3-3</li> <li>• EN IEC 61000-3-2</li> <li>• EN 60601-1-2:2015+A1:2021</li> <li>• FCC Part 15B</li> <li>• ICES-003 Issue 7</li> <li>• VCCI-CISPR 32:2016</li> </ul> |
|                      | Safety Standards                                                         | <ul style="list-style-type: none"> <li>• EN 62368-1</li> <li>• IEC 62368-1</li> </ul>                                                                                                                                                                                                                      |
|                      | Security Standards                                                       | /                                                                                                                                                                                                                                                                                                          |
|                      | RoHS                                                                     | <ul style="list-style-type: none"> <li>• Directive 2011/65/EU, Directive (EU) 2015/863</li> <li>• EN IEC 63000: 2018</li> </ul>                                                                                                                                                                            |
|                      | Others                                                                   | <ul style="list-style-type: none"> <li>• Equipment Radio Regulations: 2008 (including amendments)</li> </ul>                                                                                                                                                                                               |
| Certifications       | <ul style="list-style-type: none"> <li>• FCC/CE/MIC,VCCI,ISED</li> </ul> |                                                                                                                                                                                                                                                                                                            |

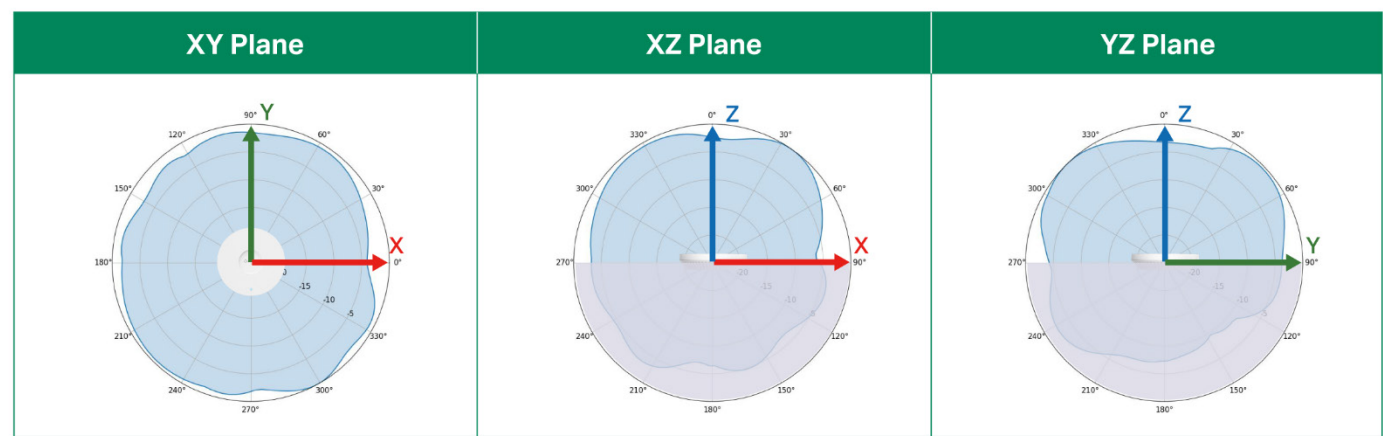
# RF Performance

| 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                  | EU:14<br>US:23                                        | -95                                          |
|                |                            | MCS7                  | EU:14<br>US:20                                        | -76.5                                        |
|                | 802.11n, HT40              | MCS0                  | EU:14<br>US:22                                        | -92                                          |
|                |                            | MCS7                  | EU:14<br>US:20                                        | -73.5                                        |
|                | 802.11ax, HE20             | MCS0                  | EU:14<br>US:23                                        | -96                                          |
|                |                            | MCS11                 | EU:14<br>US:18                                        | -66                                          |
|                | 802.11ax, HE40             | MCS0                  | EU:14<br>US:22                                        | -94                                          |
|                |                            | MCS11                 | EU:14<br>US:18                                        | -64                                          |
| 5 GHz          | 802.11n, HT20              | MCS0                  | EU:22<br>US:22                                        | -96                                          |
|                |                            | MCS7                  | EU:20<br>US:20                                        | -77.5                                        |
|                | 802.11n, HT40              | MCS0                  | EU:22<br>US:22                                        | -93.5                                        |
|                |                            | MCS7                  | EU:20<br>US:20                                        | -74.5                                        |
|                | 802.11ac, VHT20            | MCS0                  | EU:22<br>US:22                                        | -96                                          |
|                |                            | MCS8                  | EU:19.5<br>US:19.5                                    | -75                                          |
|                | 802.11ac, VHT40            | MCS0                  | EU:22<br>US:22                                        | -93                                          |
|                |                            | MCS9                  | EU:19<br>US:19                                        | -71                                          |
|                | 802.11ac, VHT80            | MCS0                  | EU:22<br>US:22                                        | -90                                          |
|                |                            | MCS9                  | EU:19<br>US:19                                        | -67                                          |
|                | 802.11ax, HE20             | MCS0                  | EU:22<br>US:22                                        | -95                                          |
|                |                            | MCS11                 | EU:18                                                 | -65                                          |

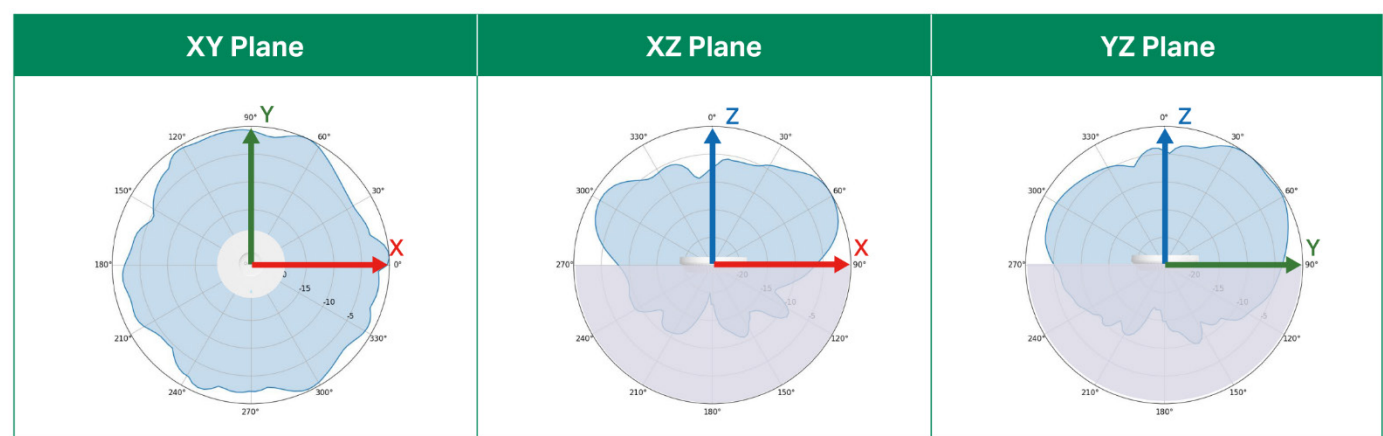
| Frequency Band | Wi-Fi Protocol & Bandwidth | MCS Index / Data Rate | EU/US Maximum Transmit Power (dBm) per transmit chain | Receiver Sensitivity (dBm) per receive chain |
|----------------|----------------------------|-----------------------|-------------------------------------------------------|----------------------------------------------|
|                | 802.11ax, HE40             |                       | US:18                                                 |                                              |
|                |                            | MCS0                  | EU:22<br>US:22                                        | -93                                          |
|                | 802.11ax, HE80             | MCS11                 | EU:18<br>US:18                                        | -63                                          |
|                |                            | MCS0                  | EU:22<br>US:22                                        | -91                                          |
|                | 802.11ax, HE160            | MCS11                 | EU:18<br>US:18                                        | -61                                          |
|                |                            | MCS0                  | EU:22<br>US:18                                        | -87                                          |
|                | 802.11ax, HE160            | MCS11                 | EU:18<br>US:18                                        | -58                                          |
|                |                            |                       |                                                       |                                              |

# Antenna Radiation Patterns

2.4 GHz

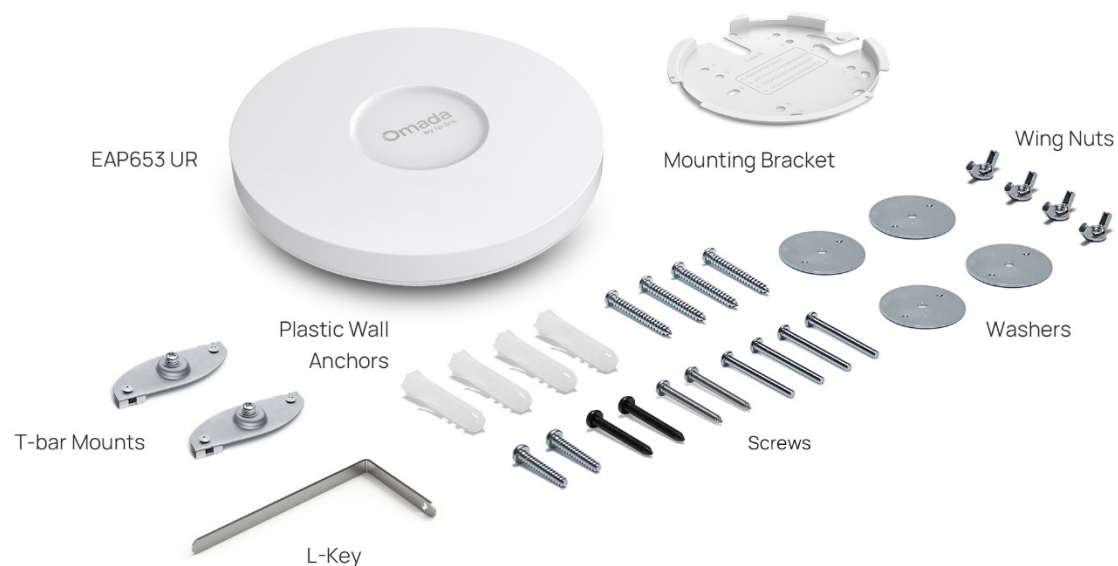


5 GHz



# Package Contents

| Item               | Quantity |
|--------------------|----------|
| EAP653 UR          | 1        |
| Installation Guide | 1        |
| Mounting Kit       | 1        |



\*The accessories may vary by country/region. Please refer to the actual product.

## 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    | 2026-02-12 | Initial release. |
| V1.1    | 2026-03-27 | Added BLE info.  |

†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.

‡Use of Wi-Fi 6 (802.11ax), and features including 160 MHz Bandwidth, OFDMA, MU-MIMO, and 1024-QAM requires clients to also support the corresponding features. The 160 MHz bandwidth is only available on 5 GHz band and may be unavailable in some regions/countries due to regulatory restrictions.

\*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.

△Omada Mesh, Seamless Roaming, Captive Portal, and Cloud Access 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.