



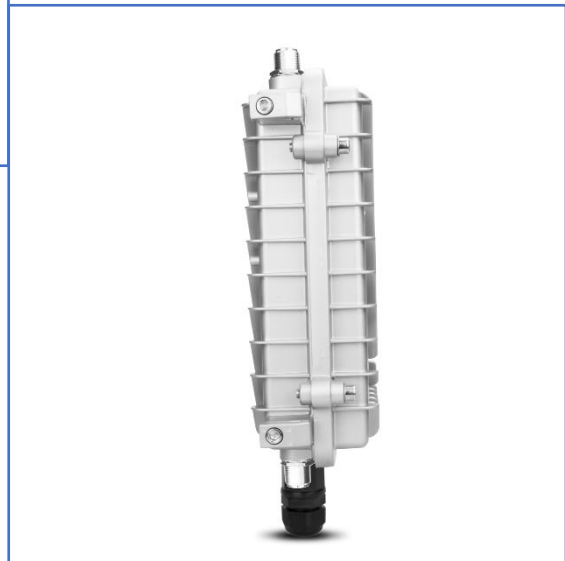
EP-AP90-M SPEC SHEET V1.0

802.11AX WiFi6 1800M Outdoor AP

1. Product Introduction

EP-AP90-M is an outdoor dual-band wireless access point that follows the 802.11ax wireless network standard. It operates simultaneously on the 2.4GHz and 5GHz ISM wireless frequency bands, catering to the needs of 128 concurrent users for high-speed wireless internet access. With Gigabit Ethernet interfaces and support for remote PoE (Power over Ethernet) delivery according to the 802.3af/at standard, it achieves a maximum throughput of 573Mbps in 2.4GHz 802.11ax mode and 1201Mbps in 5GHz 802.11ax mode, resulting in an overall wireless speed of up to 1800Mbps. This AP boasts high performance, high gain, high receive sensitivity, high bandwidth, low latency, high density, and high scalability. It not only offers extended coverage but also delivers superior wireless transmission performance and stability. With its IP65-rated outdoor waterproof housing and accompanying mounting hardware, it can be effortlessly deployed for outdoor WiFi 6 networks in areas such as scenic spots, residential areas, streets, and plazas, making it an optimal choice for high-density, high-bandwidth wireless access.

2. Product Image



3. Product Features

1) Designed with operator-standard hardware, the device's ability to resist electromagnetic interference complies with the requirements of YD/T968-2010 'Electromagnetic Compatibility Requirements and Measurement Methods for Telecommunication Terminal Equipment'. The overvoltage and overcurrent protection meet the requirements of YD/T 993-2006 'Technical Requirements and Test Methods for Lightning Protection of Telecommunication Terminal Equipment' regarding analog lightning strikes, power line induction, and power line contact, with a protection capability of common-mode 6KV and differential-mode 1.5KV. The surge protection capability meets the requirements of YD/T1082-2011 'Technical Requirements and Test Methods for Overvoltage and Overcurrent Protection and Basic Environmental Adaptability of Access Network

Equipment’. Enhanced heat dissipation and a metal aluminum alloy casing ensure that the device does not experience shutdowns due to overheating even in scorching summer days, fully ensuring the real-time, long-term, stable, and efficient transmission of user network data and enhancing the user experience.

- 2) Supports the 802.11AX protocol, providing wireless access speeds of 573Mbps in 2.4G and 1201Mbps in 5G, with an overall wireless access speed of 1800Mbps.
- 3) Equipped with an external professional WiFi6 MIMO RF chip, ensuring broader signal coverage, higher rates, and longer transmission distances.
- 4) Supports HNAT hardware fast forwarding, with wired bidirectional forwarding performance of up to 2Gbps on the WAN port.
- 5) Incorporates MU-MIMO, OFDMA, BSS Color, high rates, improved coverage, and low latency features, providing better wireless network performance and user experience in high-density network environments and scenarios with a large number of connected devices.
- 6. Can be used independently for small-scale scenarios or combined with gateway devices for batch deployment in medium to large-scale scenarios, meeting the requirements of various complex network environments.
- 7. Supports remote management via cloud platforms and WeChat mini programs, allowing real-time remote viewing, configuration, upgrades, maintenance, etc.
- 8. Constant product updates, feature enhancements, and performance optimizations ensure adaptability to various network environments and enhance the user experience.

4. Technical Specifications

Hardware configuration	
Main Chip	MT7621A+MT7905DAN+MT7975DN High-performance enterprise-level chip

Frequency	MIPS dual-core 880MHz
Memory	256MB
Flash	16MB
Wireless Technology	<ul style="list-style-type: none"> - 2.4G WiFi 2*2 802.11b/g/n/ax (theoretical maximum speed up to 573Mbps) - 5.8G WiFi 2*2 802.11a/n/ac/ax (theoretical maximum speed up to 1201Mbps) - 1024QAM high-speed access rate, OFDMA high-density user access - OFDMA/MU-MIMO uplink/downlink - BSS Color spatial reuse - Space-time block code (STBC), low-density parity check (LDPC), beamforming TX/RX for uplink and downlink <p>Power-saving features: single antenna standby technology, dynamic MIMO power-saving technology, enhanced automatic power-saving transmission technology, packet-by-packet power control technology, etc.</p>
Device Interfaces	<p>WAN PoE*1 10/100/1000Mbps adaptive</p> <p>External 2.4G N-type female connector *2</p> <p>External 5G N-type female connector *2”</p>
Buttons	Reset button for factory reset (long press for 6 seconds to reset)
Antenna	Optional
Power	48V 802.3af/at PoE power supply
Operating/Storage Temperature	-40℃～50℃/-50℃～70℃
Operating/Storage	10%～90%(non-condensing) /

Humidity	5%~90% (non-condensing)
Dimensions	290*150*75mm
Weight	1150g

WiFi Spec	
Frequency Range	2.4G: 2.4~2.4835GHz 5G: UNII-1: 5.15~5.35GHz UNII-2: 5.47~5.725GHz UNII-3: 5.725~5.825GHz
Channel	2.4G: 1、2、3、4、5、6、7、8、9、10、11、12、13 5G: 36、40、44、48、52、60、64、149、153、157、161、165
Modulation	802.11b: DSSS (DQPSK, DBPSK, CCK) 802.11g: OFDM (BPSK, QPSK, 16-QAM) 802.11n: OFDM (BPSK, QPSK, 16-QAM, 64-QAM) 802.11ac: OFDM (BPSK, QPSK, 64-QAM, 256-QAM) 802.11ax: OFDMA (BPSK, 256-QAM, 1024-QAM)
Transmission Rate	11b up 11Mbps, 11g up 54Mbps, 11n up 300Mbps 11ac up 864.7Mbps, 11ax 2.4G up 573Mbps, 11ax 5G up 1201Mbps
Receiver Sensitivity	2.4G: 11b: $<-99 \pm 1.5\text{dBm}$ @1Mbps, $<-90 \pm 1.5\text{dBm}$ dBm@11Mbps 11g: $<-96 \pm 1.5\text{dBm}$ @6Mbps, $<-78 \pm 1.5\text{dBm}$ @54Mbps 11n 20MHz: $<-96 \pm 1.5\text{dBm}$ @MCS0, $<-76 \pm 1.5\text{dBm}$ @MCS7 11n 40MHz: $<-92 \pm 1.5\text{dBm}$ @MCS0, $<-74 \pm 1.5\text{dBm}$ @MCS7

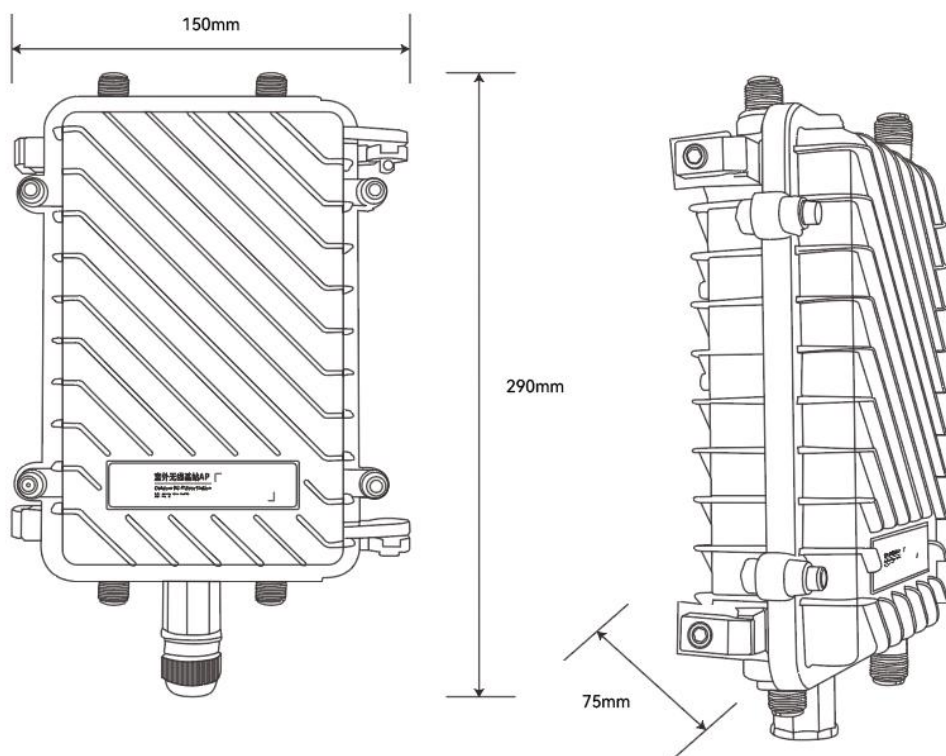
	<p>11ax 20MHz: $<-96 \pm 1.5\text{dBm}$ @MCS0, $<-66 \pm 1.5\text{dBm}$ @MCS11</p> <p>11ax 40MHz: $<-94 \pm 1.5\text{dBm}$ @MCS0, $<-63 \pm 1.5\text{dBm}$ @MCS11</p> <p>5G:</p> <p>11a: $<-94 \pm 1.5\text{dBm}$ @6Mbps, $<-78 \pm 1.5\text{dBm}$ @54Mbps</p> <p>11n 20MHz: $<-94 \pm 1.5\text{dBm}$@MCS0, $<-74 \pm 1.5\text{dBm}$ @MCS7</p> <p>11n 40MHz: $<-90 \pm 1.5\text{dBm}$ @MCS0, $<-72 \pm 1.5\text{dBm}$ @MCS7</p> <p>11ac 20MHz: $<-94 \pm 1.5\text{dBm}$ @MCS0, $<-72 \pm 1.5\text{dBm}$ @MCS8</p> <p>11ac 40MHz: $<-90 \pm 1.5\text{dBm}$ @MCS0, $<-66 \pm 1.5\text{dBm}$ @MCS9</p> <p>11ac 80MHz: $<-88 \pm 1.5\text{dBm}$ @MCS0, $<-62 \pm 1.5\text{dBm}$ @MCS9</p> <p>11ax 20MHz: $<-94 \pm 1.5\text{dBm}$ @MCS0, $<-64 \pm 1.5\text{dBm}$ @MCS11</p> <p>11ax 40MHz: $<-92 \pm 1.5\text{dBm}$ @MCS0, $<-60 \pm 1.5\text{dBm}$ @MCS11</p> <p>11ax 80MHz: $<-88 \pm 1.5\text{dBm}$ @MCS0, $<-58 \pm 1.5\text{dBm}$ @MCS11</p>
Transmit Power	<p>11b: $23\text{dBm} \pm 1.5\text{dBm}$@11Mbps</p> <p>11g: $20\text{dBm} \pm 1.5\text{dBm}$@54Mbps</p> <p>11n (20/40MHz): $17\text{dBm} \pm 1.5\text{dBm}$@MCS7</p> <p>11ac (40/80MHz): $17\text{dBm} \pm 1.5\text{dBm}$@MCS9</p> <p>11ax (20/40/80M) : $17\text{dBm} \pm 1.5\text{dBm}$@MCS11</p>

Software Functions	
Working Mode	Integrated Fat-Thin
Capacity	128 Users
Management mode	English WEB remote management / Cloud platform management / Mini Program management
Status	<ul style="list-style-type: none"> - Device Status: CPU usage, remaining memory, number of wireless users, device information (device name, device model, software version, serial number, MAC address, system time, total memory, remaining memory, uptime) - System Log
Basic Management	<ul style="list-style-type: none"> - LAN Settings: Automatic/Static IP, WAN Port VLAN, LAN Port VLAN, MAC Address - DHCP Configuration: Disabled/Normal/Advanced Settings - Mode Switching: Router/AP, DHCP Server (Enable/Disable)
Wireless	<p>2.4GHz Wireless Configuration:</p> <ul style="list-style-type: none"> - SSID Settings: SSID (GB2312/UTF-8), VLAN ID, Encryption, WiFi password (supports up to 5 SSIDs) - Basic Settings: Wireless Network On/Off, Region, Channel, Bandwidth, Transmission Power, AP Advanced (Network Mode/AP Isolation/Multicast [Off/Multicast to Multicast/Multicast to Unicast]/Weak Signal Disconnection)

	<ul style="list-style-type: none"> - WDS Settings: WDS Mode (Off/Self-learning Mode/Bridge Mode/Repeater Mode), Connection Status - User List (IP Address, MAC Address, Signal Strength, Transmission Rate, Reception Rate) <p>5.8GHz Wireless Configuration:</p> <ul style="list-style-type: none"> - SSID Settings: SSID (GB2312/UTF-8), VLAN ID, Encryption, WiFi password (supports up to 5 SSIDs) - Basic Settings: Wireless Network On/Off, Region, Channel, Bandwidth, VHT Bandwidth, Transmission Power, AP Advanced (Network Mode/AP Isolation/Multicast [Off/Multicast to Multicast/Multicast to Unicast]/Weak Signal Disconnection) - MESH Networking: Mode (Off, Master Device, Slave Device) - WDS Settings: WDS Mode (Off/Self-learning Mode/Bridge Mode/Repeater Mode), Connection Status - User List (IP Address, MAC Address, Signal Strength, Transmission Rate, Reception Rate)
ARP List	<p>ARP List (IP Address, MAC Address, Interface, Type, Status, Action [Static/Unique])</p> <p>Supports All Unique, All Static, All Dynamic, Export List</p> <p>Information, Export Binding Information, Import Binding Information, Add Binding, Refresh</p>

AC Platform Client	Status switch, Server Address, Device Name, Group Name, Maximum Number of Users, Maximum Number of 5G Users, Transmission Power, AP Isolation, Remark, DHCP Defense, Current Connection Status
Network Tools	Ping Test, TraceRoute
System Management	<ul style="list-style-type: none"> - Configuration Management: Backup and Import, Factory Reset - System Upgrade: Local Upgrade - Device Restart: Immediate Restart/Scheduled Restart - Device Name: Project Name, Device Name, Host Name, Internal Domain Name

5. Product dimension diagram (mm)



6. Packaging information

EP-AP90-M *1, L-shaped mounting bracket*1, U-shaped mounting bracket *1,

POE power adapter*1,User manual*1