

MAIPU

IAP180-822-PE

AX3000 Ceiling Mounted AP

Highlight Features

- Support 802.11ax MU-MIMO Technology
- Central Managed by IGW500 Internet Gateway
- Self-Provisioning Networking Supported
- Lifetime Free Maipu MMC Cloud Management



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Key Features

- **High-speed Gigabit dual-band wireless**

The IAP180-822-PE supports 2.4GHz and 5GHz dual-band concurrent communication. The 2.4GHz and 5GHz bands adopt a new generation of Wi-Fi wireless standard 802.11ax, providing 2.4GHz 574mbps and 5GHz 2402mbps. The highest access rate of the whole device is 2976Mbps. Compared with the traditional 802.11ac wireless AP, the throughput is significantly improved, bringing a real gigabit high-speed extreme experience.

- **Intelligent AP management technology, AP zero configuration, plug and play**

In the FIT AP application mode, the zero-configuration FIT AP can be found and automatically connected to the IGW500 series converged internet gateway through the L2/L3 network. The converged gateway can configure, operate and manage the FIT AP. IGW500 converged gateway supports rich L2/L3 functions, and forms the management and monitoring of FIT AP through the networks.

- **Support MU-MIMO, higher capacity**

The IAP180-822-PE supports MU-MIMO (multi-user multi-input multi-output), realize concurrent transmission of multiple Wi-Fi users, double the wireless effective capacity, and easily deal with high-density scenes. The wired adopts two gigabit ethernet interfaces for uplink, without the bottleneck of wireless bandwidth.

5GHz has more abundant bandwidth resources and less wireless interference. 802.11ax protocol adopts the latest modulation technology to greatly improve the wireless rate. Compared with traditional device, it has higher speed and larger capacity. At the same time, it realizes the effects of intelligent load and 5GHz prior, improves the utilization of 5GHz band, and improves the total capacity.

- **Unique antenna signal optimization algorithm, improving AP signal coverage**

The unique antenna signal optimization algorithm is adopted to make IAP180-822-PE signal have wide coverage and strong penetration ability. A single AP can cover 25-50 meters based on different environment scenarios which can reduce customers' investment in hardware equipment.

- **SSID + VLAN binding, ensuring information security**

The IAP180-822-PE supports transmitting 8 SSIDs at the same time. By setting different passwords for each SSID, dividing individual VLAN ID and assigning different network segments, it is easy to realize the effect that different wirelesses (SSID) transmit different services. By this way, sensitive information can be safely isolated internally.

- **One-key network optimization, improving the maintenance efficiency**

The IAP180-822-PE support one-key network auto channel optimization function. This will greatly improve the maintenance efficiency and reduce the troubleshooting cost.

Technical Specifications

Product Model	IAP180-822-PE
Version	V2
Interface Specification	
Service Port	1*10/100/1000Mbps Base-T adaptive Ethernet Port, 802.3af PoE 1*10/100/1000Mbps Base-T adaptive Ethernet Port
Power Interface	1*12V DC (Nominal, +/-5%)
Indicators	1*Green LED (For System and Radio status)
Reset Button	1*Rest Button (Factory reset; WPS)
Environment Specification	
Working Temperature	0°C to +40°C
Working Humidity	10% to 90% non-condensing
Storage Temperature	-40°C to +70°C
Storage Humidity	5% to 95% non-condensing
IP Rating	IP41
Weight	0.52 kg
Dimension	186mm*40mm
Hardware Specification	
Installation Mode	Ceiling Mounted
Power Supply	Adapter: DC 12V/1.5A (optional) PoE Standard: IEEE 802.3af
Power Consumption	<12W (without USB output)
Wireless Specification	
RF Design	Dual-band design: - Radio1: 2.4GHz, 2 streams: 2*2 - Radio2: 5GHz, 2 streams: 2*2
Operating Bands	- Radio1: 2.400-2.4835GHz - Radio2: 5.150-5.350GHz, 5.47-5.725GHz, 5.725-5.850GHz
Transmission Rate	- 802.11b: 1Mbps, 2Mbps, 5.5Mbps, 11Mbps - 802.11a/g: 6Mbps, 9Mbps, 12Mbps, 18Mbps, 24Mbps, 36Mbps, 48Mbps, 54Mbps - 802.11n: 6.5Mbps-300Mbps (MCS0-MCS31, HT20-HT40), 400Mbps with 256-QAM - 802.11ac: 6.5Mbps-866Mbps (MCS0-MCS9, NSS=1-2, VHT20-VHT160) - 802.11ax (2.4GHz): 8.6Mbps-574Mbps (MCS0-MCS11, NSS=1-2, HE20-HE40) - 802.11ax (5GHz): 8.6Mbps-2,402Mbps (MCS0-MCS11, NSS = 1-2, HE20-HE160)
Antenna	Internal 4 Antennas
Antenna Gain	2.4GHz: 5.0dBi 5GHz: 3.5dBi
Transmit Power	2.4GHz: +26dBm 5GHz: +26dBm The actual transmit power complies with the regulatory requirements for radio frequency emissions in various countries and regions
Transmit Power Adjustment	1 dBm

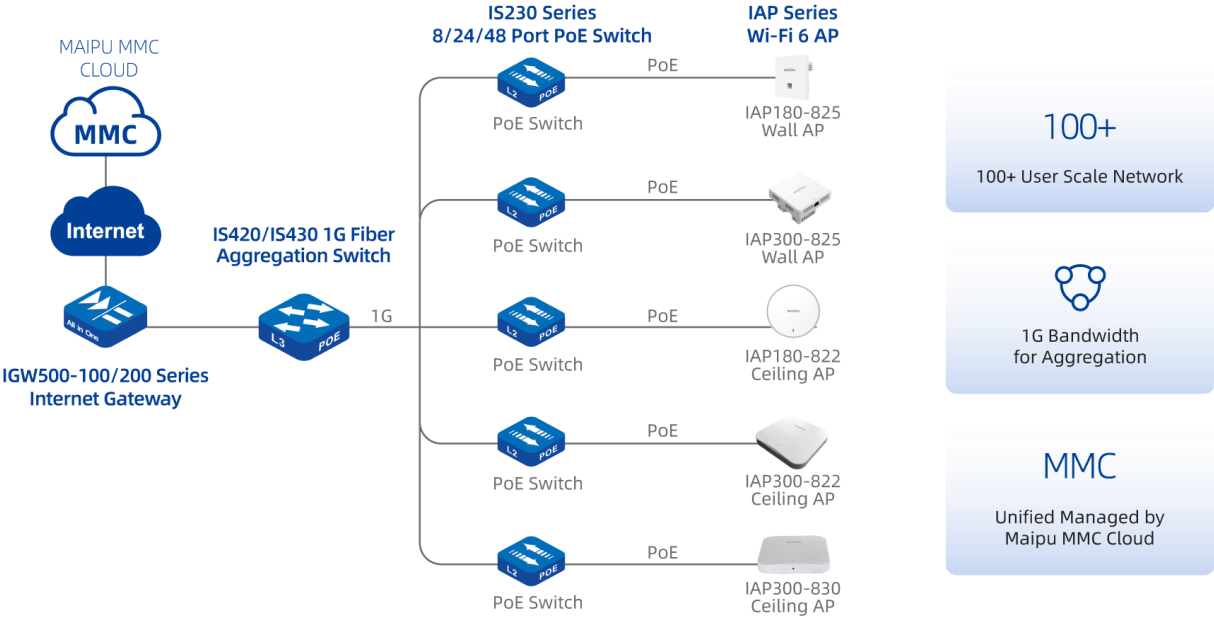
Modulation Mode	- 802.11b: BPSK, QPSK, CCK - 802.11a/g/n: BPSK, QPSK, 16-QAM, 64-QAM - 802.11ac: BPSK, QPSK, 16-QAM, 64-QAM, 256-QAM - 802.11ax: BPSK, QPSK, 16-QAM, 64-QAM, 256-QAM, 1024-QAM
Modulation and Encoding	- Low Density Parity Check (LDPC) - Maximum Likelihood Detection (MLD)
Advanced RF Features	- TPC (Transmit Power Control) - ACS (Automatic Channel Scanning)
Rate Limitation	- Based On SSIDs - Based On Users
Software Specification	
WIFI Standards	IEEE 802.11a/b/g/n/ac/ax
SSID Numbers	8*SSIDs (2.4GHZ+5GHZ)
Channelization	20, 40, 80, 160 MHz
STA Capacity	256
Recommend Users	50-80
Working Mode	FIT Mode
Security Type	Open, PSK, WPA-Personal, WPA2-Personal, WPA3-Personal, Portal, AES/TKIP
Working Bandwidth	- 802.11ax: HE160, HE80, HE40, HE20 - 802.11ac: VHT160, VHT80, VHT40, VHT20 - 802.11n: HT40, HT20
Data Rate	- Radio1: 2.4GHz, 575Mbps - Radio2: 5GHz, 2.402Gbps
MIMO Technologies	- Multi-User Multiple Input Multiple Output (MU-MIMO) - Maximum Ratio Combining (MRC) - Space-Time Block Coding (STBC) - Cyclic Delay/Cyclic Shift Diversity (CDD/CSD) - Dynamic MIMO power saving
Energy Saving	- U-APSD - Green AP mode
Advanced WIFI Features	- Orthogonal Frequency Division Multiple Access (OFDMA) - Short GI (Short Guard Interval) - DFS (Dynamic Frequency Selection) - Spectrum Navigation

Order Information

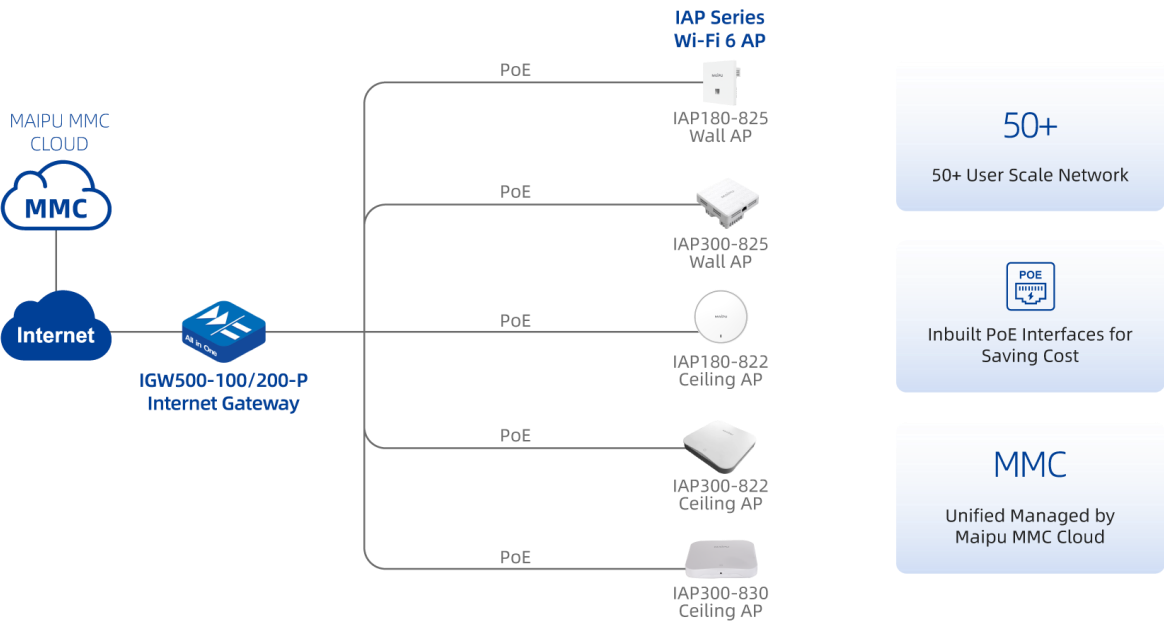
Model	Description
IAP180 Series AX3000 Access Point	
IAP180-822-PE	V2 Version: Ceiling mount Wi-Fi6 802.11a/b/g/n/ac/ax, Dual radios 2.4GHZ+5GHZ, forwarding performance of the whole device 3Gbps, 2*2*2 MIMO, 100mW AP, inbuilt antennas, PoE power supply mode, 2*1000M RJ45 interfaces

Application Scenario

Scenario One: Branch Networking



Scenario Two: Small Office Networking



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