

MAIPU



IAP300-830-PTE

AX5400 Ceiling Mounted AP

Highlight Features

- Support 2.5G Interface and Performance up to 5.4Gbps
- Support 802.11ax MU-MIMO Technology
- Support 802.11K/V/R Roaming Technology
- Central Managed by IGW500 Internet Gateway
- Self-Provisioning Networking Supported
- Lifetime Free Maipu MMC Cloud Management

Key Features

- **Support the new 802.11ax standard.**

The IAP300-830-PTE is designed with a tri-band configuration, operating in a 2.4GHz + 5.2GHz + 5.8GHz mode, all adopting the latest generation Wi-Fi wireless standard - 802.11ax protocol. The maximum connection speed can reach 5.4Gbps. The 2.4GHz frequency band provides access services for low-end terminals, while the dual 5GHz frequency bands deliver a truly gigabit-level high-speed 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 802.11k/v/r protocols for fast WiFi roaming**

The IAP300-830-PTE supports intelligent fast roaming technology, which significantly improves user experience when mobile clients move between APs. It achieves seamless mobility and smooth roaming by optimizing the switching process between APs. This ensures service continuity and reliability for latency-sensitive applications running over the WLAN.

Compared to basic roaming solutions, the fast roaming technology provides faster AP switching, lower packet loss, and smooth experience for roaming clients. This is critical for mobility-enabled WLAN applications.

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

The IAP300-830-PTE 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 IAP300-830-PTE signal have wide coverage and strong penetration ability. In multi-room scenarios, a single AP can provide coverage for multiple rooms, ensuring uninterrupted business operations and reducing the need for additional hardware investments by customers.

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

The IAP300-830-PTE supports transmitting 48 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**

IAP300-830-PTE support one-key network auto channel optimization function. This will greatly improve the maintenance efficiency and reduce the troubleshooting cost.

- **Green design and energy saving**

The IAP300-830-PTE adopts professional green environmental protection and low power consumption design. The device has low calorific value and supports green AP mode. It also supports U-APSD that allows devices to enter a low-power sleep mode when not actively transmitting data while ensuring they remain reachable.

Technical Specifications

Product Model	IAP300-830-PTE
Version	V2
Interface Specification	
Service Port	1*10/100/1000M/2.5Gbps Base-T adaptive Ethernet copper port, 802.3at PoE (LAN1) 1*10/100/1000Mbps Base-T adaptive Ethernet copper port, PoE Out 6.5W Max (LAN2)
USB Port	1*USB 2.0
Serial Console Interface	1*RJ45 Port
Power Interface	1*12VDC (Nominal, +/-5%)
Indicators	1* Multi-Color LED (For System and Radio status)
Reset Button	1* Rest Button (Factory Reset; WPS)
Environment Specification	
Working Temperature	0°C to +45°C
Working Humidity	10% to 90% non-condensing
Storage Temperature	-40°C to +70°C
Storage Humidity	5% to 95% non-condensing
IP Rating	IP51
Weight	0.85 kg
Dimension(W*D*H) mm	230*230*51
Hardware Specification	
Installation Mode	Ceiling Mounting
Power Supply	Adapter: DC 12V/2.0A (optional) PoE Standard: IEEE 802.3at When both DC and PoE power sources are available, DC power takes priority over PoE.
Power Consumption	<20W (without PoE output and USB output) The maximum transmit power of the AP complies with the regulations of different countries and regions
Radio Specification	
RF Design	Triple-band design: - Radio1: 2.4GHz, 2 streams: 2*2 - Radio2: 5.2GHz, 2 streams: 2*2 - Radio3: 5.8GHz, 2 streams: 2*2
Operating Bands (Country-specific restrictions apply)	- Radio1: 2.400–2.4835GHz - Radio2: 5.150–5.350GHz, - Radio3: 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)

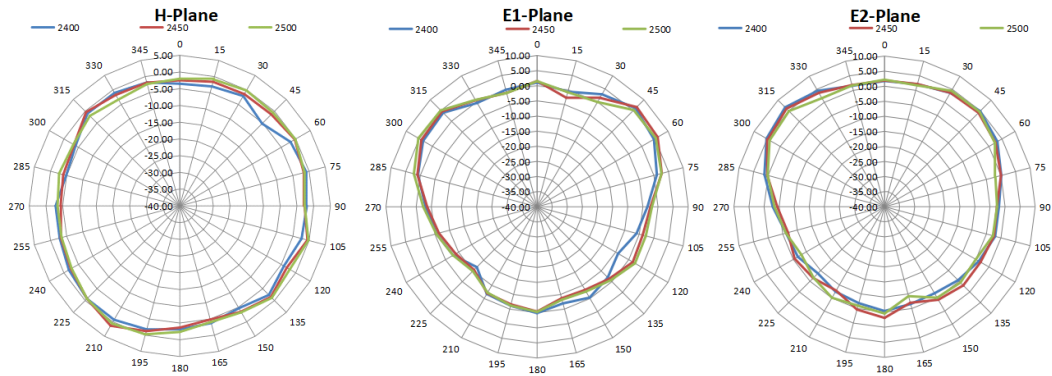
Antenna	Built-in Intelligent Antennas
Antenna Gain	2.4GHz: 4.0dBi 5.2GHz: 4.0dBi 5.8GHz: 4.0dBi
Transmit Power	2.4GHz: +20dBm 5.2GHz: +20dBm 5.8GHz: +20dBm Note: The actual transmit power complies with the regulatory requirements for radio frequency emissions in various countries and regions
Transmit 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)
WIFI Specification	
WIFI Standards	IEEE 802.11a/b/g/n/ac/ax
SSID Numbers	16*SSIDs
Channelization	20, 40, 80, 160 MHz
Recommend Users	128-256
Working Mode	Fit Mode, Standalone
Security Type	Open, PSK, WPA-Personal, WPA-Enterprise, WPA2-Personal, WPA2-Enterprise, WPA3-Personal, WPA3-Enterprise, Portal, 802.1X, Radius
Working Bandwidth	- 802.11ax: HE160, HE80, HE40, HE20 - 802.11ac: VHT160, VHT80, VHT40, VHT20 - 802.11n: HT40, HT20
Date Rate	- Radio1: 2.4GHz, 574Mbps - Radio2: 5GHz, 2.402Gbps - Radio2: 5GHz, 2.402Gbps - Combined: 5.378Gbps
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 - SM Power Save - 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

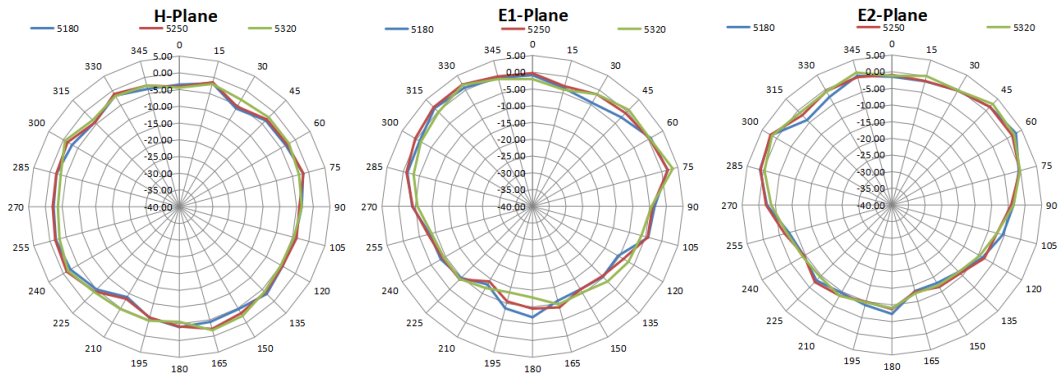
Model	Description
IAP300 Series Wi-Fi6 Access Point	
IAP300-830-PTE	V2 Version: IAP300-830-PTE, ceiling mount Wi-Fi6 802.11a/b/g/n/ac/ax, triple-band, dual mode, forwarding performance of the whole device 5.4Gbps, 3*2:2 MIMO, inbuilt antennas, PoE power input, 1*2.5G LAN Port (PoE), 1*1000M LAN Port. (installation accessory included)

ANTENNA PATTERNS

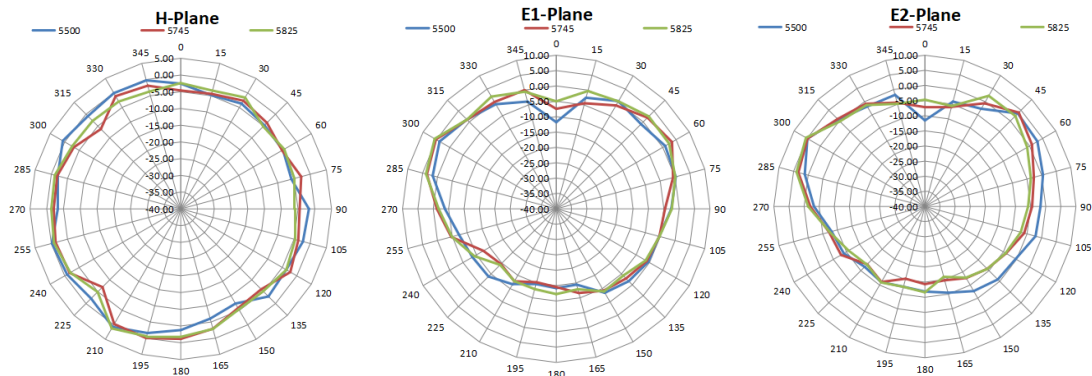
● 2.4GHz Wi-Fi(antennas 1,2)



● 5.2GHz Wi-Fi(antennas 1,2)

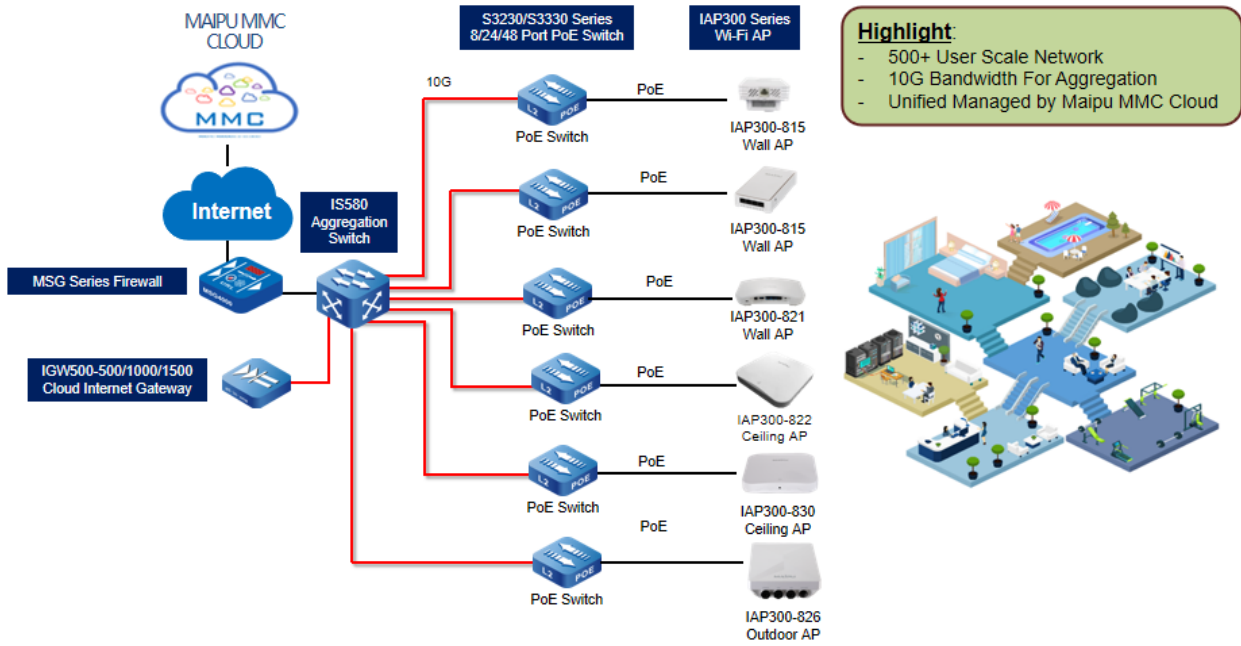


● 5.8GHz Wi-Fi(antennas 1,2)

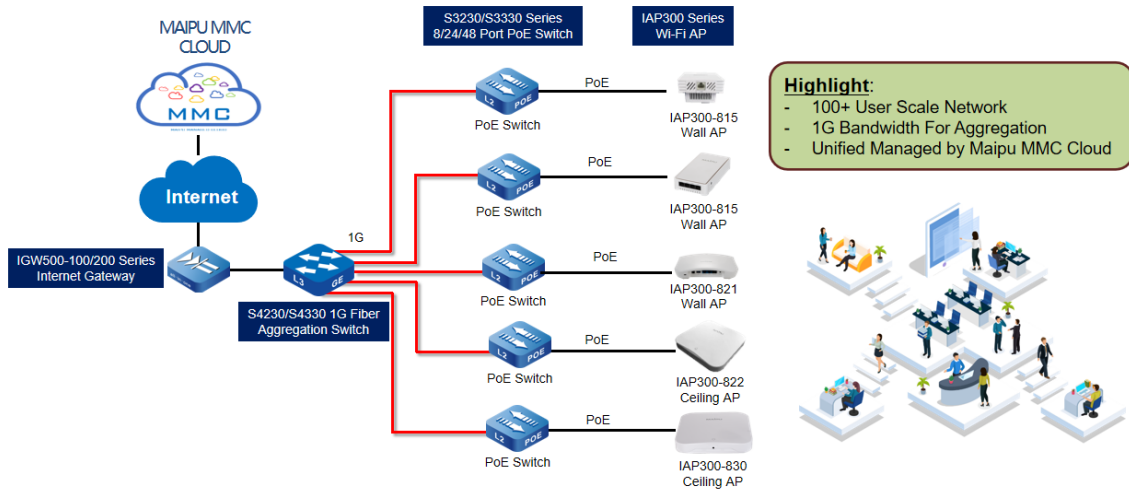


Application Scenario

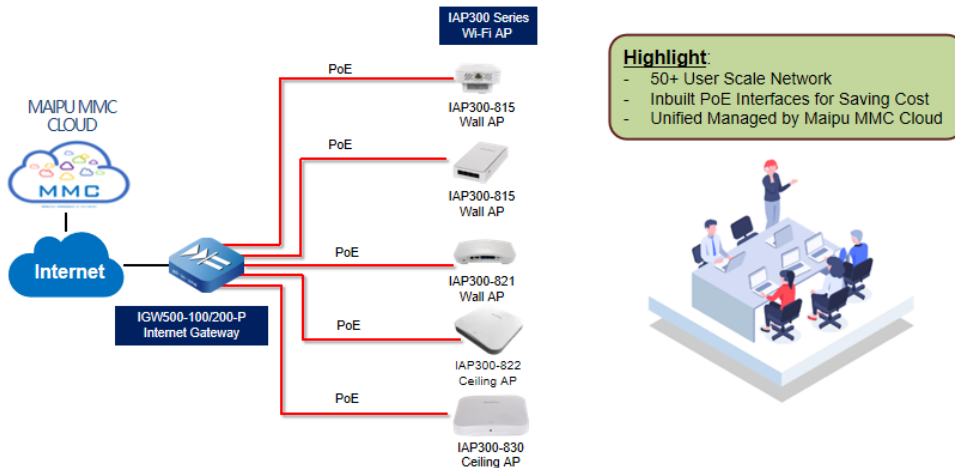
Scenario One: Medium-Sized Networking



Scenario Two: Branch Networking



Scenario Three: Small Office Networking



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