

# IAP300-621-PE

## AC1200 Ceiling Mounted AP

### Highlight Features

- Support 802.11ac wave2 MU-MIMO Technology
- Support 802.11K/V/R Fast Roaming Technology
- Central Managed by IGW500 Internet Gateway
- Self-Provisioning Networking Supported
- Lifetime Free Maipu MMC Cloud Management



Maipu Communication Technology Co., Ltd  
Maipu Mansion, No.16, Jiuxing Avenue  
Hi-Tech Zone  
Chengdu, Sichuan Province  
P. R. China  
URL: [http:// www.maipu.com](http://www.maipu.com)

# Key Features

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

The IAP300-621-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 802.11ac wave2, the highest access rate of the whole device is 1200Mbps. Compared with the traditional 802.11n 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 uplink and downlink MU-MIMO of higher capacity**

IAP300-621-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. 802.11ac 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 IAP300-621-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**

IAP300-621-PE supports transmitting 16 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**

IAP300-621-PE 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**

IAP300-621-PE adopts professional green environmental protection and low power consumption design. The device has low calorific value and supports standard PoE power supply mode. It can be powered by Maipu PoE switch, and the PoE distance can reach around 100m.

# Technical Specifications

|                           |  |
|---------------------------|--|
| Product Model             | IAP300-621-PE  |
| Version                   | V2   |
| Interface Specification   |  |
| Service Port              | 1*10/100/1000M Base-T adaptive Ethernet Port, 802.3af PoE (LAN1)<br>1*10/100/1000M Base-T adaptive Ethernet Port (LAN0)  |
| Power Interface           | 1*12VDC (Nominal, +/- 5%)  |
| Indicators                | 1*Green LED (For System and Radio status)  |
| Reset Button              | 1*Reset Button (Factory reset)   |
| 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                 | IP40   |
| Weight                    | 0.4kg  |
| Dimension (W*D*H) mm      | 180*180*31   |
| Hardware Specification    |  |
| Installation Mode         | Ceiling Mounting   |
| Power Supply              | Adapter: DC 12 V/1.5 A (optional)<br>PoE: IEEE 802.3af/802.3at-compliant (compatible).<br>When both DC and POE power sources are available, DC power takes priority over POE.  |
| Power Consumption         | <13W   |
| Wireless Specification    |  |
| RF Design                 | Dual-radio design, one 2.4 GHz radio and one 5 GHz radio<br>- Radio1: 2.4 GHz, 2 streams: 2*2<br>- Radio2: 5 GHz, 2 streams: 2*2   |
| Operating Bands           | - Radio1:<br>2.400 to 2.4835GHz<br>- Radio2:<br>5.150–5.350GHz, 5.47–5.725GHz, 5.725–5.850GHz  |
| Transmission Rate         | - 802.11b: 1Mbps, 2Mbps, 5.5Mbps, 11Mbps<br>- 802.11a/g: 6Mbps, 9Mbps, 12Mbps, 18Mbps, 24Mbps, 36Mbps, 48Mbps, 54Mbps<br>- 802.11n: 6.5Mbps-300Mbps (MCS0-MCS31, HT20-HT40), 400Mbps with 256-QAM<br>- 802.11ac: 6.5Mbps-866Mbps (MCS0-MCS9, NSS=1-2, VHT20-VHT80) |
| Antenna                   | Internal 4 Antennas  |
| Antenna Gain              | 2.4 GHz: 4.0dBi<br>5 GHz: 4.0dBi   |
| Transmit Power            | 2.4 GHz: +20 dBm<br>5 GHz: +20 dBm<br>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<br>- 802.11a/g/n: BPSK, QPSK, 16-QAM, 64-QAM, 256-QAM   |

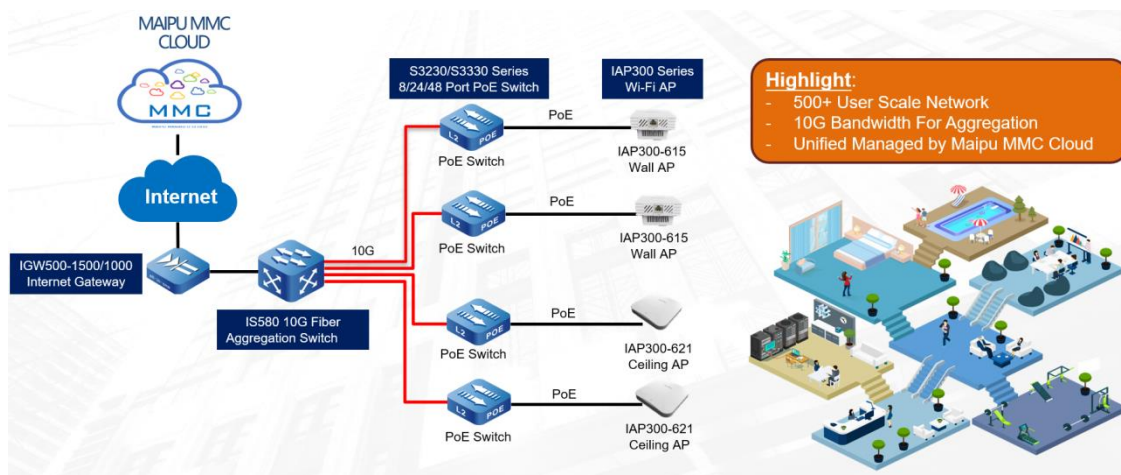
|                               |  |
|-------------------------------|--|
|                               | - 802.11ac: BPSK, QPSK, 16-QAM, 64-QAM, 256-QAM  |
| Modulation and Encoding       | - Low Density Parity Check (LDPC)<br>- Maximum Likelihood Detection (MLD)<br>- Beamforming   |
| Advanced RF Features          | - Channel Rate Adjustment, include TPC (Transmit Power Control)<br>- ACS (Automatic Channel Scanning)  |
| Fast Roaming                  | - 802.11 K/V/R   |
| Rate Limitation               | - Based On SSIDs<br>- Based On Users   |
| Load Balancing                | - Based On Users   |
| <b>Software Specification</b> |  |
| WIFI Standards                | - IEEE 802.11a/b/g/n/ac  |
| SSID Numbers                  | 16*SSIDs (2.4GHZ+5GHZ)   |
| Channelization                | 20, 40, 80 MHz   |
| STA Capacity                  | 256  |
| Working Mode                  | FIT/FAT Mode   |
| Network Features              | PPPoE Client, DHCP Server/Client, Static IP, DNS Proxy, Bridge, NAT<br>(Note: FAT Working Mode)  |
| Security Type                 | Open, PSK, WPA-Personal, WPA-Enterprise, WPA2-Personal, WPA2-Enterprise, WPA3-Personal, WPA3-Enterprise, Portal, 802.1X, Radius  |
| Working Bandwidth             | - 802.11ac: VHT80, VHT40, VHT20<br>- 802.11n: HT40, HT20   |
| Data Rate                     | - Radio1: 2.4 GHz, 300 Mbps<br>- Radio2: 5 GHz, 867 Mbps<br>- Combined: 1.167 Gbps   |
| MIMO Technologies             | - Wave2 Multi-User Multiple Input Multiple Output (MU-MIMO)<br>- Maximum Ratio Combining (MRC)<br>- Space-Time Block Coding (STBC)<br>- Cyclic Delay/Cyclic Shift Diversity (CDD/CSD)<br>- Dynamic MIMO power saving |
| Advanced WIFI Features        | - Short GI (Short Guard Interval)<br>- DFS (Dynamic Frequency Selection)<br>- Spectrum Navigation  |

## Order Information

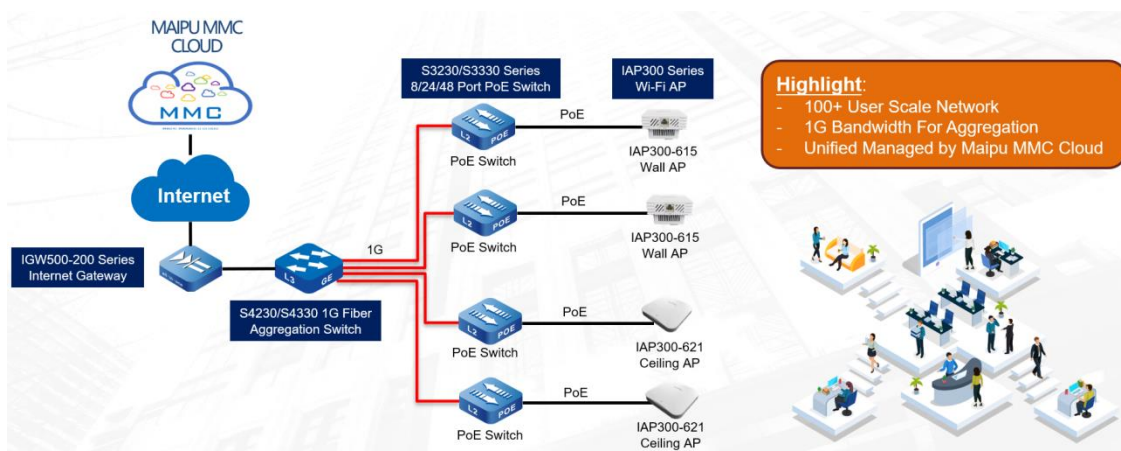
| Model                                    | Description   |
|--|---|
| <b>IAP300 Series AC1200 Access Point</b> |   |
| IAP300-621-PE                            | IAP300-621-PE, AC1200 ceiling mount Wi-Fi5 802.11a/b/g/n/ac wave2, Dual frequency band, dual mode, forwarding performance of the whole device 1200Mbps, 2:2 MIMO, inbuilt antennas, PoE power input, 2*1000M RJ45 interface |

## Application Scenario

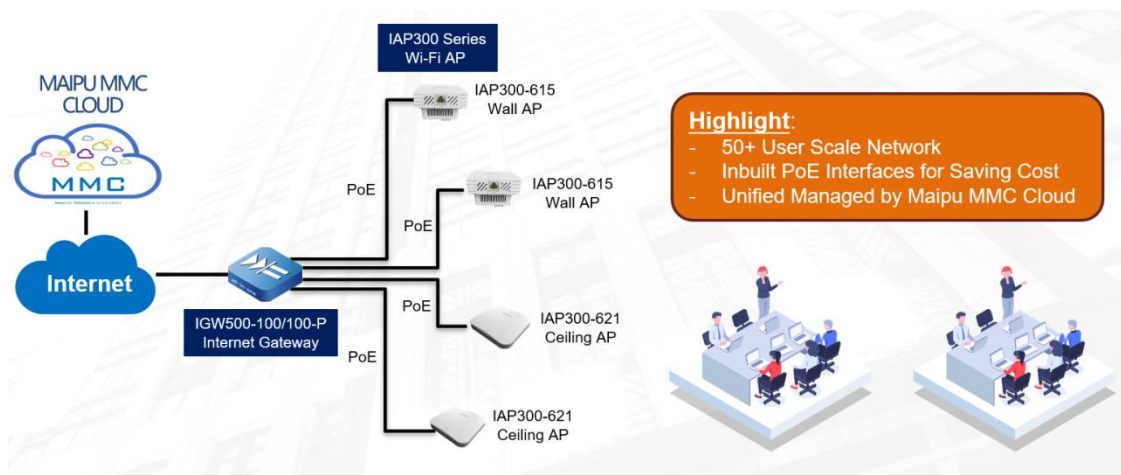
### Scenario One: Medium-Sized Networking



## Scenario Two: Branch Networking



## Scenario Three: Small Office Networking



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