

MAIPU

# IAP180-825-PE

AX3000 Wall 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 IAP180-825-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 IAP180-825-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.

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

The IAP180-825-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.

# Technical Specifications

|                           |                                                                                                                                                                                                                                                                                                                                                                                                                          |
|---------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Product Model             | IAP180-825-PE                                                                                                                                                                                                                                                                                                                                                                                                            |
| Version                   | V2                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Interface Specification   |                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Service Port              | 1*10/100/1000Mbps Base-T adaptive Ethernet Port, 802.3af PoE<br>1*10/100/1000Mbps Base-T adaptive Ethernet Port                                                                                                                                                                                                                                                                                                          |
| 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                    | 0.15 kg                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Dimension(W*D*H) mm       | 86*86*38                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Hardware Specification    |                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Installation Mode         | Wall Mounted                                                                                                                                                                                                                                                                                                                                                                                                             |
| Power Supply              | PoE Standard: IEEE 802.3af                                                                                                                                                                                                                                                                                                                                                                                               |
| Power Consumption         | <12W (without USB output)                                                                                                                                                                                                                                                                                                                                                                                                |
| Wireless Specification    |                                                                                                                                                                                                                                                                                                                                                                                                                          |
| RF Design                 | Dual-band design:<br>- Radio1: 2.4GHz, 2 streams: 2*2<br>- Radio2: 5GHz, 2 streams: 2*2                                                                                                                                                                                                                                                                                                                                  |
| Operating Bands           | - Radio1:<br>2.400-2.4835GHz<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-VHT160)<br>- 802.11ax (2.4GHz): 8.6Mbps-574Mbps (MCS0-MCS11, NSS=1-2, HE20-HE40)<br>- 802.11ax (5GHz): 8.6Mbps-2,402Mbps (MCS0-MCS11, NSS = 1-2, HE20-HE160) |
| Antenna                   | Internal 4 Antennas                                                                                                                                                                                                                                                                                                                                                                                                      |
| Antenna Gain              | 2.4GHz: 2.0dBi<br>5GHz: 2.0dBi                                                                                                                                                                                                                                                                                                                                                                                           |
| Transmit Power            | 2.4GHz: +23dBm<br>5GHz: +23dBm<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                                                                                                                                                                                                                                                                                                                                                  |

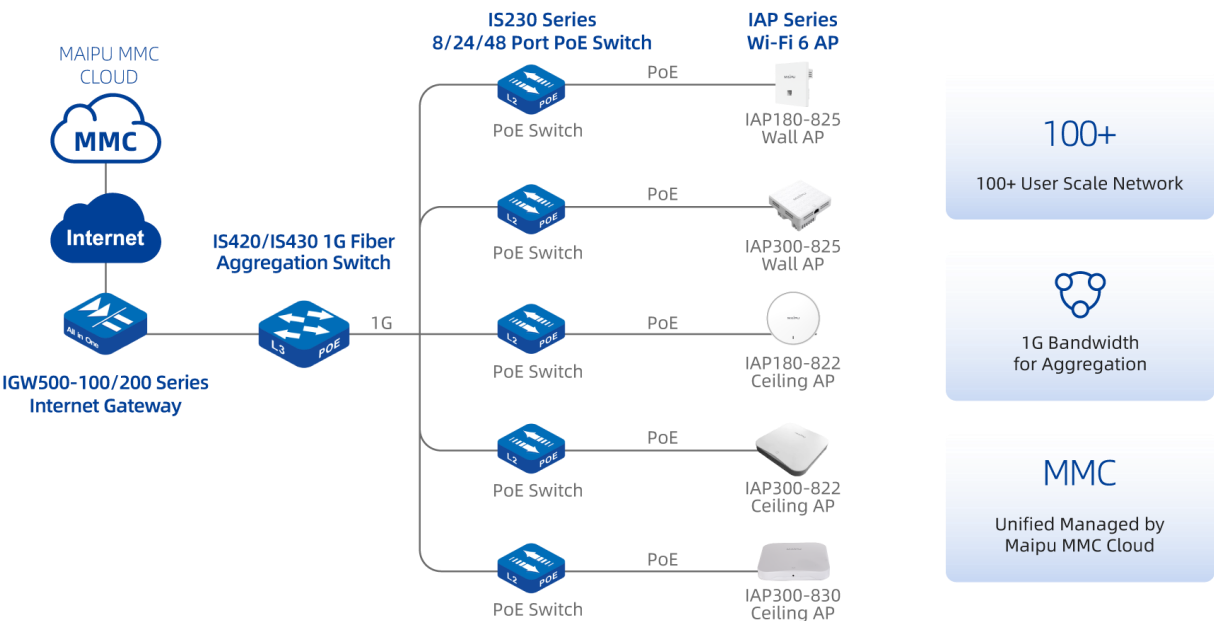
|                               |                                                                                                                                                                                                                                                                                          |
|-------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                               | <ul style="list-style-type: none"> <li>- 802.11ac: BPSK, QPSK, 16-QAM, 64-QAM, 256-QAM</li> <li>- 802.11ax: BPSK, QPSK, 16-QAM, 64-QAM, 256-QAM, 1024-QAM</li> </ul>                                                                                                                     |
| Modulation and Encoding       | <ul style="list-style-type: none"> <li>- Low Density Parity Check (LDPC)</li> <li>- Maximum Likelihood Detection (MLD)</li> </ul>                                                                                                                                                        |
| Rate Limitation               | <ul style="list-style-type: none"> <li>- Based On SSIDs</li> <li>- Based On Users</li> </ul>                                                                                                                                                                                             |
| <b>Software Specification</b> |                                                                                                                                                                                                                                                                                          |
| 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                                                                                                                                                                                                                            |
| Working Bandwidth             | <ul style="list-style-type: none"> <li>- 802.11ax: HE160, HE80, HE40, HE20</li> <li>- 802.11ac: VHT160, VHT80, VHT40, VHT20</li> <li>- 802.11n: HT40, HT20</li> </ul>                                                                                                                    |
| Data Rate                     | <ul style="list-style-type: none"> <li>- Radio1: 2.4GHz, 575Mbps</li> <li>- Radio2: 5GHz, 2.402Gbps</li> </ul>                                                                                                                                                                           |
| MIMO Technologies             | <ul style="list-style-type: none"> <li>- Multi-User Multiple Input Multiple Output (MU-MIMO)</li> <li>- Maximum Ratio Combining (MRC)</li> <li>- Space-Time Block Coding (STBC)</li> <li>- Cyclic Delay/Cyclic Shift Diversity (CDD/CSD)</li> <li>- Dynamic MIMO power saving</li> </ul> |
| Energy Saving                 | <ul style="list-style-type: none"> <li>- U-APSD</li> <li>- Green AP mode</li> </ul>                                                                                                                                                                                                      |
| Advanced WIFI Features        | <ul style="list-style-type: none"> <li>- Orthogonal Frequency Division Multiple Access (OFDMA)</li> </ul>                                                                                                                                                                                |

## Order Information

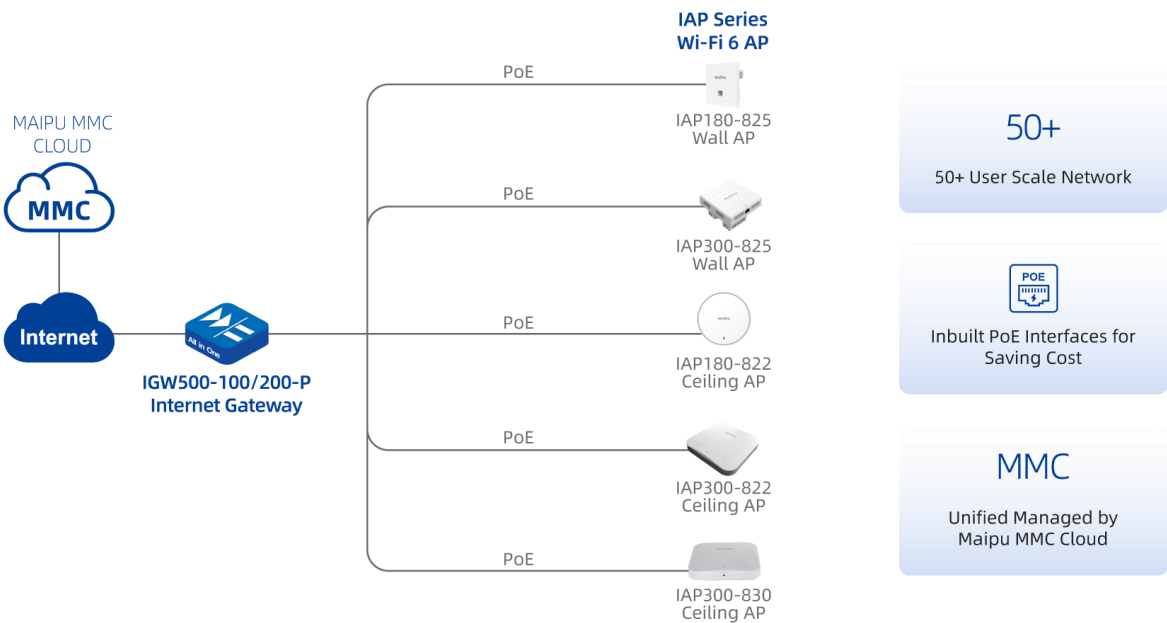
| Model                                    | Description                                                                                                                                                                                                                 |
|------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>IAP180 Series AX3000 Access Point</b> |                                                                                                                                                                                                                             |
| IAP180-825-PE                            | V2 Version:IAP300-825-PE, wall mount Wi-Fi6 802.11b/g/n/ac/ax, Dual frequency, Dual mode, forwarding performance of the whole device 3Gbps, 2*2 MIMO, 100mW AP, inbuilt antennas, PoE power supply mode, 2*1000M Interfaces |

# Application Scenario

## Scenario One: Branch Networking



## Scenario Two: Small Office Networking





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