

Maipu IAP300-821-PE Ceiling Mount Wi-Fi6 AP

Datasheet

Overview

Maipu IAP300 series access point is brand new series based on Wi-Fi6 technology. IAP300-821-PE is a high-performance entry level Wi-Fi6 AP for indoor large-area Wi-Fi coverage scenarios. It supports PoE and 12V DC local power supply. Compliant with 802.11a/b/g/n/ac/ax Wi-Fi protocol, IAP300-821-PE supports MU-MIMO dual-stream technology and offers built-in omnidirectional antennas. It can operate under 2.4GHz and 5GHz frequency, providing high-speed wireless access up to 1775Mbps bandwidth. It is ceiling mounted design which coverages of more than 25 meters. It is an ideal choice for many wireless scenarios, such as hotels, resorts, branch offices, chain stores, schools, etc.



IAP300-821-PE

Highlight Features

- Support 802.11AX MU-MIMO Technology
- Central Managed by IGW500 Internet Gateway
- Seamless Layer 2 Roaming Supported
- Self-Provisioning Networking Supported
- Lifetime Free Maipu MMC Cloud Management

Key Features

- **High-speed 802.11ax dual-band wireless**

IAP300-821-PE supports 2.4GHz and 5GHz dual-band concurrent communication. The 2.4GHz and 5GHz bands adopt a new generation of Wi-Fi6 wireless standard 802.11ax, providing 2.4GHz 574mbps and 5GHz 1201mbps. The highest access rate of the whole device is 1775Mbps. Compared with the traditional 802.11ac wireless mode, 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, increasing wireless efficiency and capacity greatly**

IAP300-821-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 IAP300-821-PE signal have wide coverage and strong penetration ability. In the standard scenario, a single AP can cover more than 25 meters reducing customers' investment in hardware equipment.

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

IAP300-821-PE supports transmitting four 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**

IAP300-821-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**

IAP300-821-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.

- **Rich product forms, meeting various complex application scenarios**

IAP300-821-PE adopts ceiling-mounted design, to meet the needs of different indoor environments, such as hotels, resorts, branch offices, chain stores, schools, etc.

Technical Specifications

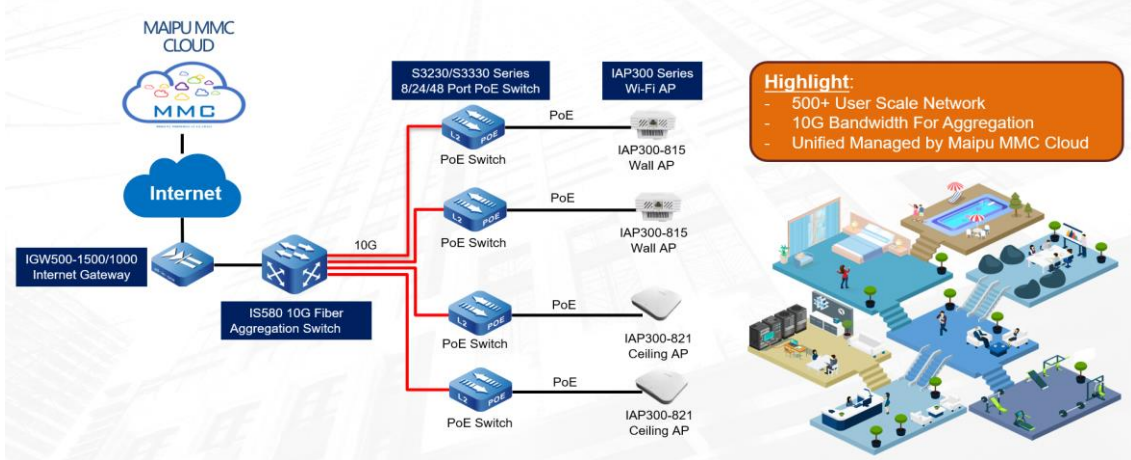
Product Model	IAP300-821-PE
Hardware Specification	
Interface	2*10/100/1000Base-T Ethernet Ports
PoE Power supply	Support 802.3af (LAN1)
RF standard	Support IEEE 802.11a/b/g/n/ac/ax MU-MIMO 2T2R MIMO (2*2:2)
RF transmission speed	1775Mbps (2.4GHz 2*2: 574Mbps, 5GHz 2*2: 1201Mbps)
RF working bandwidth	802.11ax: HT80 802.11ac: HT80, HT40, HT20 802.11n: HT40, HT20
RF transmission power (max.)	2.4G:20dbm+/-1.5db@1Mbps 5G:20dbm+/-1.5db@6Mbps
Protection	IP40
Overall power consumption	<13W
DC power supply	DC:12V±5%
Working temperature	0~45℃
Working humidity	10%~90%/RH, non-condensing
Altitude	≤5000m
Overall dimension (L * W * H)	180mm*180mm*31mm
Software specification (Collaborating with IGW500 Internet Gateway)	
Recommend client devices	128
Multiple SSIDs	4*SSID
AP Working Mode	Fit Mode
Security	OPEN, WPA-PSK, WPA2-PSK
AC Discovery	CAPWAP Broadcast, DHCP Option43, DHCP Option52
AP Remote Control	Force offline, limit the number of access users, restore the factory settings of the AP, restart the AP manually, restart the AP regularly, and turn on / off the breathing lamp
AP Status Report	Traffic statistics, RF parameters, memory/CPU information, STA information
STA Management	5GHz prior, 2.4G/5GHz load balancing, based on user load, based on traffic load balancing, L2 roaming, L3 roaming
Portal Authentication	Local Portal, External Portal, Portal whitelist, MAC Portal, Portal URL Redirection, Portal authentication free, Portal no-sense authentication
Anti-Flood Attack Detection	TCP Flood, UDP Flood, ICMP Flood, TCP Sync Flood, ARP Flood, Beacon Flood, etc.
Wireless QoS	AP Rate Limitation, BSS Total Bandwidth Limitation, BSS User Bandwidth Limitation, BSS Minimum Bandwidth Guarantee, BSS priority mapping
Wireless ACL	AP ACL, BYOD ACL, Time-Based ACL
Management	Access Controller Central Management

Order Information

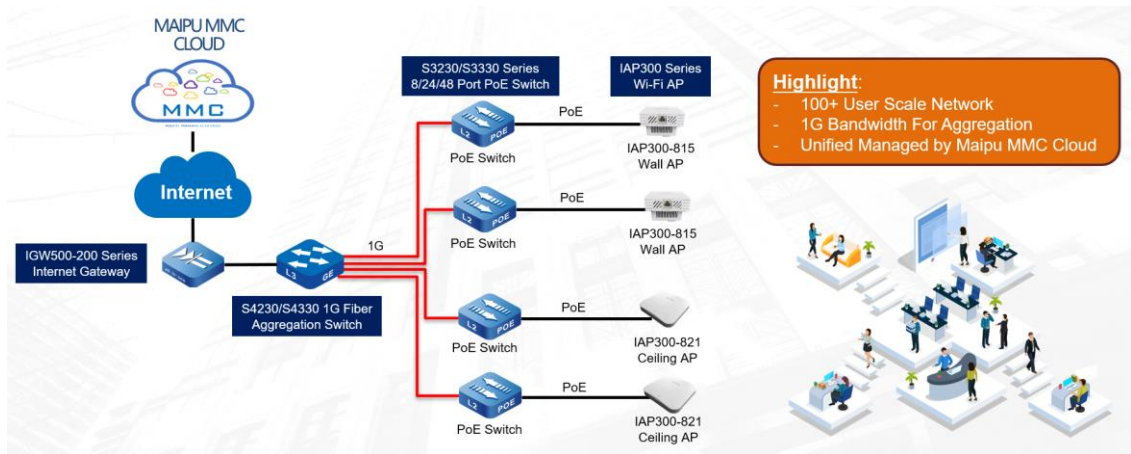
Model	Description
IAP300 Series Wi-Fi6 Access Point	
IAP300-821-PE	IAP300-821-PE, ceiling mount Wi-Fi6 802.11a/b/g/n/ac/ax, Dual frequency band, dual mode, forwarding performance of the whole device 1775Mbps, 2:2 MIMO, inbuilt antennas, PoE power supply, 2*1000M RJ45 interface

Application Scenario

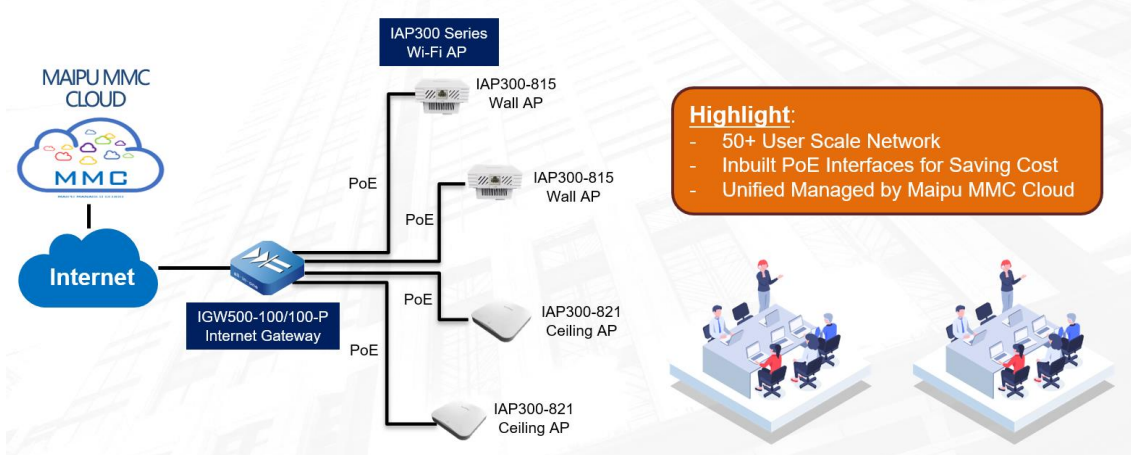
Scenario One: Medium-Sized Networking



Scenario Two: Branch Office Networking



Scenario Three: Small Office Networking



All rights reserved. Printed in the People's Republic of China.

No part of this document may be reproduced, transmitted, transcribed, stored in a retrieval system, or translated into any language or computer language, in any form or by any means, electronic, mechanical, magnetic, optical, chemical, manual or otherwise without the prior written consent of Maipu Communication Technology Co., Ltd.

Maipu makes no representations or warranties with respect to this document contents and specifically disclaims any implied warranties of merchantability or fitness for any specific purpose. Further, Maipu reserves the right to revise this document and to make changes from time to time in its content without being obligated to notify any person of such revisions or changes.

Maipu values and appreciates comments you may have concerning our products or this document. Please address comments to:

Maipu Communication Technology Co., Ltd

No.16, Jiuxing Avenue

Hi-Tech Zone

Chengdu, Sichuan Province

P. R. China

610041

Tel: (86) 28-65544850

Fax: (86) 28-65544948

URL: [http:// www.maipu.com](http://www.maipu.com)

Email: overseas@maipu.com

All other products or services mentioned herein may be registered trademarks, trademarks, or service marks of their respective manufacturers, companies, or organizations.