IGNITION DESIGN LABS

IAP5018-O

Wi-Fi 5 (802.11ac) Outdoor Dual-band Wireless Access Point

Product Introduction

IAP5018-O is a next-generation Wi-Fi 5 dual-band outdoor access point and designed to meet rapidly rising demand for high capacity and bandwidth in outdoor applications. Compliant with IEEE 802.11a/b/g/n/ac standards, IAP5018-O supports 3 spatial streams and provides a maximum bandwidth of 1.75 Gbps.

With an IP68 hardware design, IAP5018-O can adapt to various harsh outdoor environments and is widely applicable for wireless deployments in places such as schools, enterprises, stations, stadiums, oilfields, scenic spots, remote residential areas, and more.

Product Feature

High performance Wi-Fi access point

- Complies with IEEE 802.11a/b/g/n/ac standards
- Provides up to 1.75 Gbps bandwidth (450 Mbps in the 2.4 GHz band; 1.3 Gbps in the 5 GHz band)
- Supports up to 256 connections, with up to 80 terminals maintaining a bandwidth of 1 Mbps

Robust security

- Supports 802.1x, MAC-based, Web-based, and transparent authentication mechanisms
- Allows use of SMS, Facebook® or WeChat® to complete authentication
- Continuously monitors for rogue access points and network attacks
- Supports for up to 32 SSIDs
- User parameters and security policies can be assigned for each SSID

Smart Link connectivity management

- Actively monitors the link state with the access controller (AC) or gateway
- Maintains existing terminal sessions and establishes new sessions when the AC is down

Flexible data forwarding network architecture

- Supports for split bearer and control channels and provides enhanced flexibility for small or large network design
- Configurable for central data forwarding, routing all data traffic through the central gateway to provide complete control of packet flows
- The local forwarding mode provides unified user management and security policy administration for network access and offers high bandwidth and low latency for remote sites

Feature-rich AP with centralized optimization and management

- Supports innovative AP functions, such as PPPoE, Network Address Translation, and DHCP server/client
- Zero-touch join and configuration
- Load balancing of client and network traffic by voice, video, or data service type enhances the user QoE (Quality of Experience)
- Seamlessly switches with the cellular network and without service downgrade

Easy to deploy in outdoor applications

- With the highest level of dustproof and waterproof (that is IP68), the device is adaptable to harsh environments
- Supports PoE power mode and built-in high-performance antennas (maximum 9 dBi gain)
- Supports pole or bracket mounting
- Equipped with the heating module, the device is adaptable to snowy weather

Product Specification

Hardware specification

Item	Parameter description
Port	• 2 x 10/100/1000Base-T Ethernet ports • 1 x Micro USB console port
Reset button	• 1 x Reset button
Power supply	• 802.3at (PoE)
Antenna	• Internal antenna, 9 dBi gain
Operating frequency	• 802.11a/n/ac: 5.150~5.850 GHz • 802.11b/g/n: 2.40~2.4835 GHz
Spatial streams	• 3x3 MIMO
Max transmit power	• 2.4 GHz: 27 dBm (23 dBm per chain) • 5 GHz: 25 dBm (20 dBm per chain)
Modulation technique	• IEEE 802.11b:DSSS (DBPSK, DQPSK, CCK) • IEEE 802.11g/a/n: OFDM (BPSK, QPSK, 16-QAM, 64-QAM) • IEEE 802.11ac: OFDM (BPSK, QPSK, 16-QAM, 64-QAM, 256-QAM)
Data rates	• IEEE 802.11a: 54/48/36/24/18/12/9/6 Mbps • IEEE 802.11b: 11/5.5/2/1 Mbps • IEEE 802.11g: 54/48/36/24/18/12/9/6 Mbps • IEEE 802.11n: 20 MHz: 6.5–216.7Mbps 40 MHz: 13.5–450 Mbps • IEEE 802.11ac: 20 MHz: 6.5–288.9Mbps 40 MHz: 13.5–600 Mbps 80 MHz: 29.3–1300 Mbps
Indicator	• 1 x Power/status indicator • 1 x WAN/LAN indicator • 1 x Wi-Fi indicator
Power consumption	• 25W
Dimensions	• 10.24" x 8.27" x 3.15" (260 mm x 210 mm x 80 mm)
Weight	• 5.28 lbs (2.40 kg)
Operating temperature	• −40° F to +131° F (−40° C to +55° C)
Storage temperature	• −40° F to +158° F (−40° C to +70° C)
Relative humidity	• 0–100% noncondensing
Ingress protection ratings	• IP68

Software specification

Item	Parameter description
Max SSIDs	• 32
Max concurrent users	• 256
802.11n/ac	• Maximal ratio combining (MRC) • Maximum likelihood detection (MLD) • Automatic channel scanning • 20 MHz/40 MHz/80MHz channel bandwidth • A-MPDU, A-MSDU • Dynamic frequency selection (DFS) • Transmit power control (TPC) • Unscheduled automatic power save delivery (U-APSD)
Wi-Fi security and authentication	• WEP 64/128 • WPA/WPA2-PSK-TKIP • WPA/WPA2-PSK-CCMP • WPA/WPA2-802.1X-TKIP • WPA/WPA2-802.1X-CCMP • WAPI-PSK/CA • MAC, Portal, Transparent Authentication and Dot1x Authentication (EAP-TLS, EAP-TTLS, EAP-PEAP, EAP-SIM/AKA, EAP-FAST)
Local AP functions	• PPPoE client, NAT, DHCP server, DHCP client • Configuration of local SSID, encryption and shared keys
QoS	• 802.1p, IP DSCP, 802.11e • Rate-limiting based on STA/SSID/AP • Maximum concurrent user limiting based on SSID • Radius bandwidth property delivery • Voice QoS
Management	• Local management: console • Remote management: Telnet, SSH, CAPWAP • Platform-based and APP-based management • Network management and control: CAPWAP • Supports remote upgrades through FTP • Supports batch upgrades through multi-service gateway

Note:
• Specifications are subject to change.
• Actual operating frequency varies according to the regulations of different countries and regions.
• Actual transmit power varies according to the regulations of different countries and regions.
• Actual number of concurrent users varies according to the application environment and other factors.