IGNITION DESIGN LABS

IAP5018E-O

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

Product Introduction

IAP5018E-O is a high-performance 802.11ac outdoor wireless 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 and supporting 3×3 MIMO, IAP5018E-O provides a maximum bandwidth of 1.75 Gbps.

IAP5018E-O is designed with an IP68-rated enclosure, high-performance external antennas, and an internal heating module for deployment in harsh environments, such as transit centers, malls, corporate campuses, stadiums, as well as industrial environments like mining and oil & gas applications.

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 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 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 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
Reset button	• 1 x Reset button
Power supply	• 802.3at (PoE+)
Antenna	• 3 x External N-K type radio frequency interface (2.4 GHz) • 3 x External N-K type radio frequency interface (5 GHz)
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: 6.5–216.7 Mbps 40 MHz: 13.5–450 Mbps • IEEE 802.11ac: 20 MHz: 6.5–288.9 Mbps 40 MHz: 13.5–600 Mbps 80 MHz: 29.3–1300 Mbps
Indicator	• 1 x Power/status indicator • 1 x WAN/LAN 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	• Platform-based and APP-based management • Remote management: Telnet, SSH, CAPWAP • Network management and control: CAPWAP • Remote upgrades through FTP • 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.