IEEE802.11ax Railway-Grade Outdoor Access Point

AP-8078 Series



Overview

Boasting data rates of up to 2402 Mbps on the 5 GHz / 6 GHz radios and 1147 Mbps on the 2.4 GHz radio, the AP-8078 is designed with intelligent auto data rate fallback. Upon encountering degraded signals, the unit automatically selects the optimal data rate, burst rate, and frame size to maintain stable and reliable performance.

Fully compliant with the IEEE 802.11ax standard and optimised with a long-distance profile, the AP-8078 delivers superior wireless connectivity for extended-range communication links.

Key Features

- Data rates of up to 4804 Mbps for dual 5/6 GHz radios
- Option for 2.4 / 5 /6 GHz tri-band configuration with 4x4 MIMO*
- Compliant with IEEE 802.11 a / b / g / n / ac / ax*
- High output power: up to 20 dBm (5/6 GHz) and 23 dBm (2.4 GHz) per stream
- 4x N-type ports for external antennas per radio
- Supports Point-to-Point and Point-to-Multipoint links
- Rugged IP67 outdoor enclosure
- Dual power input: IEEE 802.3at PoE and DC 36V-56V
- 2x 2.5Gbps PoE LAN ports + 1x 10Gbps fibre port
- Wide operating temperature: -20°C to 70°C
- 6kV surge protection
- Advanced security: WPA3, WPA2 (802.11i), AES CCMP, TKIP
- Channel bandwidth: 20/40/80/160 MHz*

Standard Package

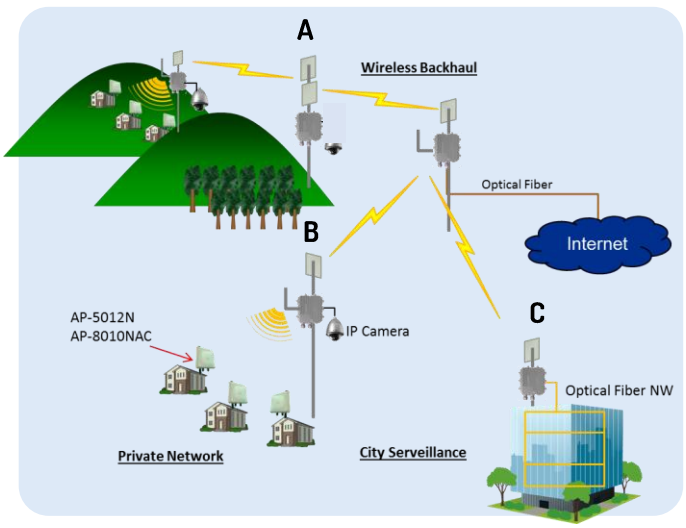
- 1x AP-8078 Access Point
- 1x Pole / wall Mounting Bracket Kit

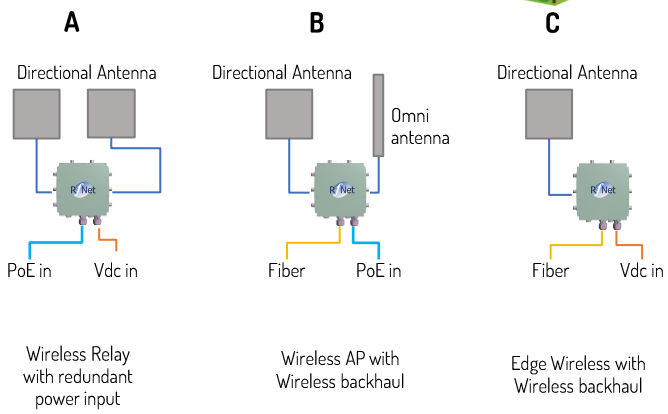
Applications

The AP-8078 is engineered for high-performance industrial wireless deployments across a wide range of applications, including:

- Long-range fixed wireless backhaul
- Wireless CCTV surveillance
- Edge connectivity with optical fibre backhaul
- Point-to-multipoint wireless networks with wireless backhaul

Use Case





Wireless Relay with redundant power input

Wireless AP with Wireless backhaul

Edge Wireless with Wireless backhaul

Selected Model Only

AP-8078 Series Technical Specification

Variant	5G5G	5G2G	5G5G2G	PI-5G5G6	PI-5G6
WIFI Mode	WiFi-6	WiFi-6		WiFi-6E	
IEEE Standards	IEEE 802.11 a / n / ac / ax	IEEE 802.11 a / n / ac / ax & IEEE 802.11 b / g		IEEE 802.11 a / n / ac / ax	
MIMO Mode & Max Data Rate (per Chain)	4x4 MIMO 2404Mbps @ 5GHz	4x4 MIMO - 2404Mbps @ 5GHz - 1147Mbps @ 2.4GHz 2x2 MIMO - 1202Mbps @ 5.0GHz - 573.5Mbps @ 2.4GHz	4x4 MIMO - 2404Mbps @ 5GHz 2x2 MIMO - 1202Mbps @ 5.0GHz - 573.5Mbps @ 2.4GHz	4x4 MIMO - 2404Mbps @ 5GHz & 6GHz	
WIFI Band	5GHz (5.150 ~ 5.825 GHz)	5GHz (5.150 ~ 5.825 GHz) 2.4GHz (2.142 ~ 2.472 GHz)		5GHz (5.150 ~ 5.825 GHz) 6GHz (5.955 ~ 7.115 GHz)	
Channel Bandwidth	20 / 40 / 80 MHz (5.0GHz)	20 / 40MHz (2.4GHz) 20 / 40 / 80MHz (5.0GHz)		20 / 40 / 80 / 160 MHz (5.0GHz & 6.0Ghz)	
Tx Power (Per Radio Stream)	20dBm	23dBm (2.4 GHz) 20dBm(5.0 GHz)		18dBm	
PoE IN Ports	2x 2.5Gbps	2x 2.5Gbps		1x 2.5Gbps	
Power Consumption (Max)	25W	40W	32W	30W	
Operation Modes	Wireless Access Point / Wireless Client / Wireless Repeater / Sensor AP (Sniffer) - for AP to work as a sensor refer to Wireless Intrusion Protection System (WIPS) brochure				

Features

Management	• Web management • SSH / Telnet • Access Point monitoring (ping external device in client mode only)	• Time setting (Manual / NTP) • Syslog • SNMP V1 / V2c / V3, SNMP trap
Security	• Supports WPA / WPA2-Personal (802.11i, AES, TKIP) • Supports WPA2-Enterprise and WPA3-Personal (802.11i, EAP-TTLS, EAP-PEAP) • Authentication AP mode -EAP/802.1 (RADIUS) • Supports WEP, with 64, 128 and 152 bits encryption	• MAC address filtering • Supports Super User (advanced settings & firmware upgrade) and Normal User (monitoring & basic settings) • Device administration access level • SSID suppression
Network	Supports data type prioritization, static & dynamic DHCP client, multicast snooping, and built-in DHCP server	
Others	Supports DFS (Dynamic Frequency Selection), TPC (Transmit Power Control), QoS with voice & multimedia prioritization, and both IPv4 and IPv6	

Interface Specification

Power IN	IEEE802.3at, DC in (36 – 56 V) (Auxiliary DC Input, Ruggedized Metal Housing)		
LAN Port & Data Rate	2x 10/100/1000/2500 Base-T	1x 10 / 100 / 1000 / 2500 Base-T	2x10 / 100 / 1000 / 2500 Base-T
LAN Connector	Option of M12 or RJ45		
Antenna Port	8 x N (female) connectors (for external antenna)		
Optical Fiber Port	1x (10Gbps Fibre Port)		
LED	POWER / LAN1 / LAN2 / OF1 / WLAN0 / WLAN1 / WLAN2		

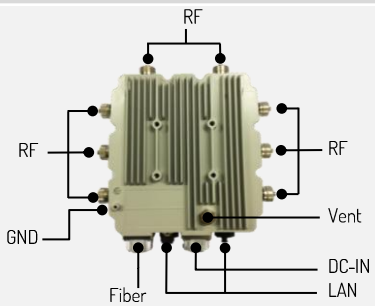
General Specifications

Dimension L x W x H	245 x 225 x 81 mm (Include panel connectors)
Weight	2.1 kg
Safety Chain	Yes
Regulatory	CE
RoHS	Yes
Mounting	Wall and Pole Mounting (Included)

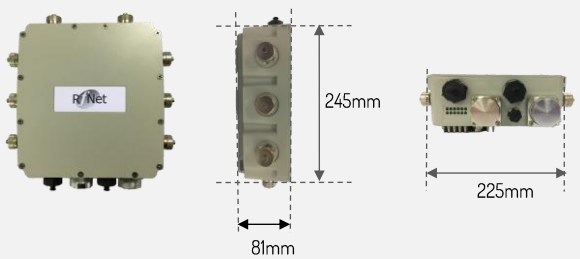
Environment Specifications

IP Rating	IP67
Operating Temperature	-20°C to +70°C
Storage Temperature	-30°C to +85°C
Humidity	10% ~ 95% max non-condensing
Wind Survivability	180 km/h
Lightning Protect	6 KV for LAN port

Interfaces



Dimension



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