

iWAP201-A Zone 2 WiFi Access Point



Zone 2 WiFi Access Point for use in potentially explosive, harsh, wet, and corrosive environments

**ATEX II 3 G Ex nA nL IIC T3 (-40°C ≤ Ta ≤ +70°C)
T4 (-20°C ≤ Ta ≤ +65°C)
T5 (-20°C ≤ Ta ≤ +30°C)**

ATEX II 2D Ex tD A21 IP66 T82°C (-40°C ≤ Ta ≤ +70°C)

Note: ambient temperature depends on whether the enclosure heater or cooler option is fitted

IP66 protection

316L stainless steel construction

Overview

The iWAP201A Zone 2 and 21 802.11 a/b/g Wireless Access Point provides reliable secure wireless broadband connectivity for your industrial facility. The unit has one Ethernet port for connecting network devices such as an IP Camera or other 10/100 Ethernet devices to the wireless network and one or two antenna ports depending on whether antenna diversity is required. The iWAP201-A operates in the 2.4GHz or 5GHz bands and is equipped with a single radio, with optional diversity operating at up to 100mW or 400mW. The unit also comes with the latest security as standard, and possesses the reliability essential for Enterprise-class wireless connectivity.

Multiple Operations From One Unit

The iWAP201-A can be used in a variety of ways:

1. When used in access point mode, it is possible to create an industrial 802.11 wireless network for mobile client connectivity with devices such as PDA's and Mobile PC's or Active WiFi RFID Tags.
2. When used in bridge mode, the unit allows connection of any industrial equipment featuring a 10/100 Ethernet interface to the wireless network. MODBUS/TCP, PROFINET or Ethernet/IP wireless gateway equipment can also be connected to the WLAN using this mode.
3. Finally it can also be used as a network repeater (WDS) in order to extend radio coverage, with the device supporting both INFRASTRUCTURE and AD-HOC modes.

Designed For Extreme Environments

The iWAP201-A is designed for use with a standard antenna or Extronics iANT200 series of intrinsically safe antennas for optimum coverage on Chemical Plants, Oil Refineries or Oil & Gas Platforms. Optional features include surge arrestors for lightning suppression in outdoor installations, multimode fibre inputs for the Ethernet, enclosure heating and cooling for extreme ambient temperatures and anti-condensation plus the option of plug and socket cable entry instead of cable glands.

Features and Benefits

Easily Configurable

The iWAP201-A incorporates an inbuilt web interface, the setup of the device is achieved using the web browser installed on your computer. The iWAP201-A doesn't require any additional software to be installed on your computer (no peripheral driver needed).

Advanced Security

To help deliver greater security for the WLAN, the integrated Extronics Access point utilises the latest methods of security used in Wi-Fi applications. 64/128 bits WEP, WPA -PSK, WPA2-PSK, IEEE 802.1x (RADIUS supplicant & authenticator), MAC addresses filtering and SSID broadcast control.

Specification

Power Supply	Universal 90-264VAC, 24VDC or IEEE802.3af POE (If heating and/or is used AC voltage is not universal voltage, only 115VAC or 230VAC may be used)
Maximum Power Consumption	Without heating or cooling POE 802.3af or 7.5W for mains or DC power With cooling 13W With heating and cooling 113W
Enclosure Material	316L Stainless Steel
Ingress Protection	IP66
Weight	Approximately 10 Kg
Dimensions	390 x 286 x 300 mm (h x w x d)
Environmental	Operating temperature: Without heating or cooling -20°C to 55°C With cooling -20°C to 70°C With heating and cooling -40°C to 70°C Storage temperature; -20°C to 70°C Relative humidity; 0 to 95%, non condensing
Input Connections	10/100BaseT Ethernet on RJ45 socket and screw terminals 115V/230VAC input option on screw terminals 24VDC input option on screw terminals Multimode fibre input option on ST connectors Note that connectors may be specified as an option in the ordering data
Output Connections	Dual energy-limited external RF outputs via N-type RF connectors with optional lightning arrestors
Security & Encryption	WEP 64/128 bits, WPA-PSK, WPA2-PSK and authentication IEEE 802.1x (RADIUS).
Wireless Specifications	IEEE 802.11 a/b/g/h & SUPER AG®
Frequency Ranges	2.40-2.50 GHz, channels 1-14 5.180-5.240 GHz, 8 channels (34, 36, 38, 40, 42, 44, 46, 48) 5.280-5.320 GHz, 4 channels (52, 56, 60 and 64) 5.5 to 5.7 GHz, 11 channels (100, 104, 108, 112, 116, 120, 124, 128, 132, 136, 140) Note: All channel configurations are country dependent
Receive Sensitivity (typical)	802.11a/g; -92dBm 802.11b; -95 dBm
Transmit Power	+20dBm (100mW) with low, medium and high settings, optional +26dBm (400mW) on request
Internal Losses From Antenna Connector To RF Transmitter (losses due to ATEX requirements)	2.4GHz = 1.55dB (add 0.5dB if surge arrestors are fitted) 5GHz = 2.8dB (add 0.8dB if surge arrestors are fitted)
Antennas	To be used with one or two intrinsically safe antenna (not included) e.g. Extronics iANT200 series or any standard antenna conforming to the conditions of safe use in the Ex certificate
ATEX Certification	Without Heaters ATEX II 3 G Ex nA nL IIC T3 (-20°C ≤ Ta ≤ +70°C) T4 (-20°C ≤ Ta ≤ +65°C) T5 (-20°C ≤ Ta ≤ +30°C) With Heaters ATEX II 3 G Ex nA nL IIC T3 (-40°C ≤ Ta ≤ +70°C) Any Heating Cooling Option ATEX II 2D Ex tD A21 IP66 T82°C (-40°C ≤ Ta ≤ +70°C)

Ordering Information

iWAP201-A - Zone 2 WiFi Access Point

iWAP201-A-[#4]-[#5]-[#6]-[#8]-[#9]-[#10]

Specify option [#4] - Power Supply

Universal 90-264VAC (If heater option [#8] selected the unit is not universal voltage, either 115 or 230VAC)	AC
24V DC	DC
IEEE802.3af compliant Power-Over-Ethernet	POE

Specify option [#5] - Ethernet Connection

10/100BaseT Ethernet on CAT5 copper	C
Multimode 10/100BaseFX fibre with ST connector	F

Specify option [#6] - 2 x Antenna Lightning Protection

No Surge Arrestors	N
Surge Arrestors Fitted	S

Specify option [#8] - Enclosure Heating (not compatible with universal 90-264VAC or POE supplies)

No enclosure heating - T4/T5 temperature classification	N
230VAC enclosure heating - T3 temperature classification	H1
115VAC enclosure heating - T3 temperature classification	H2
24VDC enclosure heating - T3 temperature classification	H3

Specify option [#9] - Enclosure Cable Entry

Cable glands fitted	G
Quick Release Sockets fitted (Not for fibre optic input)	S

Specify option [#10] - Enclosure cooling (not compatible with POE supply)

No enclosure cooling	N
Enclosure cooling fitted	C