iWAP200-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 iWAP200A Zone 2 and 21 Wireless 802.11 Access Points provide reliable secure WiFi connectivity for your industrial facility. The dual radio tri-mode Access Points are part of our Meru powered Wireless LAN System, which consists of coordinated Extronics iWAP AP's at the edge and centralised Meru controllers for management, security and coordination for over-the-air reliability and Quality of Service (QoS). The iWAP200-A also comes as standard with best in class security, basic Voice over WLAN (VoWLAN) support, and reliability essential for Enterprise-class Wi-Fi connectivity.

Reliable Connectivity Anywhere
The Meru powered iWAP200-A is especially suited for deployments in industrial environments where RF multi path interference often causes problems for standard WLANs. The iWAP200-A is a plug-and-play device that needs no configuration and no complex RF channel planning. Centralised configuration with Meru controllers and RF coordination provided by Meru Air Traffic Control™ technology eliminates costly installation steps and improves the throughput of the complete network.

Multi-Layered Security
To help deliver greater security for the WLAN, Extronics Meru powered AP's go beyond the basic over the air protection by providing multi-layered security policies. Local and Radius MAC Filtering, WPA2, WPA, 802.1x and WEP. No security information is contained within the AP and they only operate with the Meru controllers, it is also possible to have a different security policy assigned to a specific group of users or to a particular VLAN.

Centralised RF Management Lowers Operational costs
The iWAP200-A Access Points are controlled by a Meru Controller residing in the safe area which allows configuration and control of the system from a local terminal or remote PC

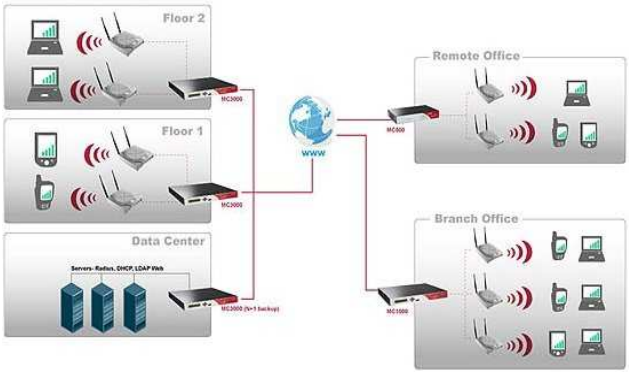
Designed For Extreme Environments
The Extronics iWAP200-A is designed for use with one or two standard antennas or Extronics iANT200 series of intrinsically safe antennas for optimum coverage on Chemical Plants, Oil Refineries or Oil & Gas Platforms. Optional features include surge arrestors for lightning 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

Single Channel Infrastructure for the Easiest to Deploy Network
The iWAP200-A is the easiest to deploy enterprise class WLAN because the single channel architecture eliminates channel planning required in a traditional WLAN significantly reducing costs. Also most suitable for plants with background noise on certain 802.11 channels as a noise free channel can be chosen for deployment, not possible with the traditional 1, 6, 11 channel planning WLAN.

Convenient Network Expansion
Add new AP's as more bandwidth is required without having to change channel planning.

Dual Radios and Wireless Backhaul Capability
Dual radios enable simultaneous support of 802.11a and 802.11b/g if required. Also a MESH wireless backhaul can be configured in locations where network cabling is to expensive to install.



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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 16W With cooling 21W With heating and cooling 121W
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	MAC filtering, WEP keys of 40, 64 or 128 bits, WPA, WPA2, TKIP, AES, VPN pass-through, Captive portal for guest access.
Wireless Specifications	Two Radios—IEEE 802.11a & IEEE 802.11b/g
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) 5.745-8.825, 5 channels (149, 153, 157, 161 and 165) Note: All channel configurations are country dependent
Receive Sensitivity (typical)	802.11a; -70dBm at 54 Mbps, -86 dBm at 6 Mbps 802.11b; -85 at 11 Mbps, -93 dBm at 1 Mbps 802.11g; -73 dBm at 54Mbps, -85 dBm at 6 Mbps
Transmit Power	+2dBm (1.5mW) to +20dBm (100mw) for 802.11b/g, +2dBm (1.5mW) to +16dBm (40mW) for 802.11a, variable in 1dBm increments
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 antennas (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

iWAP200-A - Zone 2 WiFi Access Point **iWAP200-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

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