IAP-120/120+

Industrial IEEE 802.11 b/g wireless access point

Features

- High Speed Air Connectivity : WLAN interface support up to 54Mbps link speed
- Support **X-Roaming** < 100 ms
- Support wireless load balance
- Highly Security Capability : WEP/WPA/WPA-PSK(TKIP,AES)/ WPA2/ WPA2-PSK(TKIP,AES)/802.1X Authentication supported
- Support AP/Bridge/Repeater/AP-Client /Client Mode
- Switch Mode Supported: Daisy Chain support to reduce usage of switch ports
- Dual redundant Ethernet port support redundant mode (Recovery time < 10ms)
- Secured Management by HTTPS
- Event Warning by Syslog, Email, SNMP Trap, Relay and Beeper
- Rigid IP-30 housing design
- DIN-Rail and wall mounting enabled

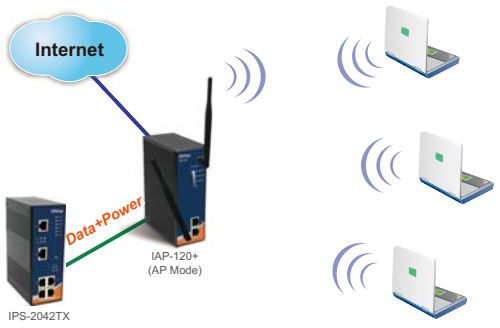
Introduction

IAP-120 series are reliable IEEE802.11b/g WLAN Access Point with 2 ports LAN. It can be configured to operate in AP/Bridge/Repeater/AP-Client mode. You are able to configure IAP-120 series by WEB interface via LAN port or WLAN interface. IAP-120 series provides dual Ethernet ports in switch mode, so that you can use Daisy Chain to reduce the usage of Ethernet switch ports. In addition, IAP-120 also provides P.D. feature on ETH2 which is fully compliant with IEEE802.3af PoE P.D. specification. Therefore, IAP-120 series are one of the best communication solutions for wireless applications on the industrial network.

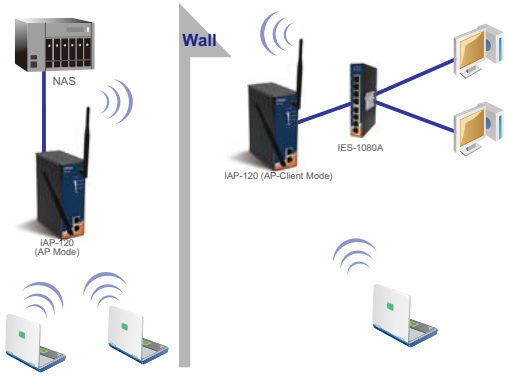
Application

In practical operation of wireless access point, Windows utility (AP-Tool) is supported. This utility is very helpful for you to search and configure IP of access point on the industrial network.

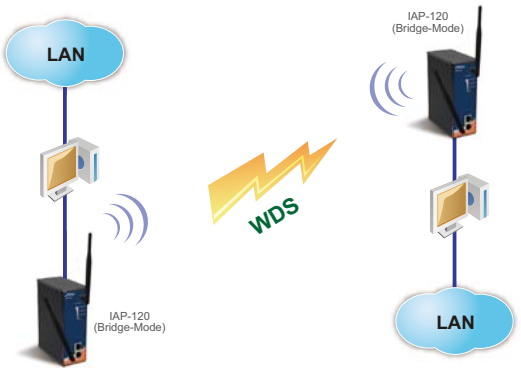
In addition, the wireless access point support various kinds of operation modes include AP/ Bridge/Repeater/AP-Client mode. IAP-120 series also support PoE P.D. feature to extend the layout up to 100 meters without external power source. You can build up the wireless network easily.



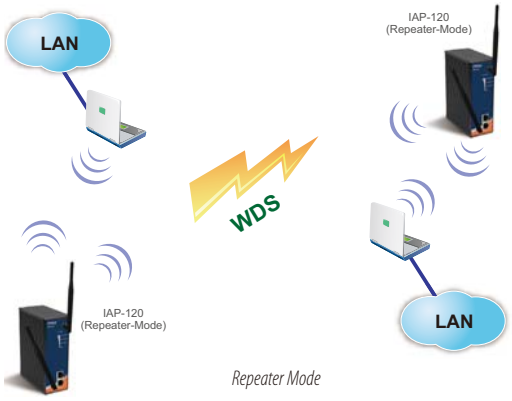
AP Mode



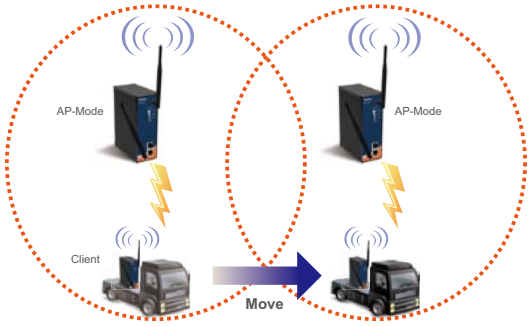
AP-Client Mode



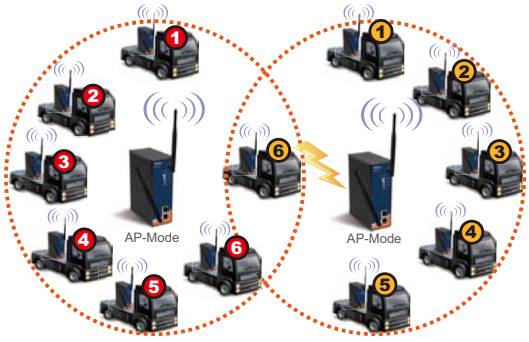
Bridge Mode



Repeater Mode

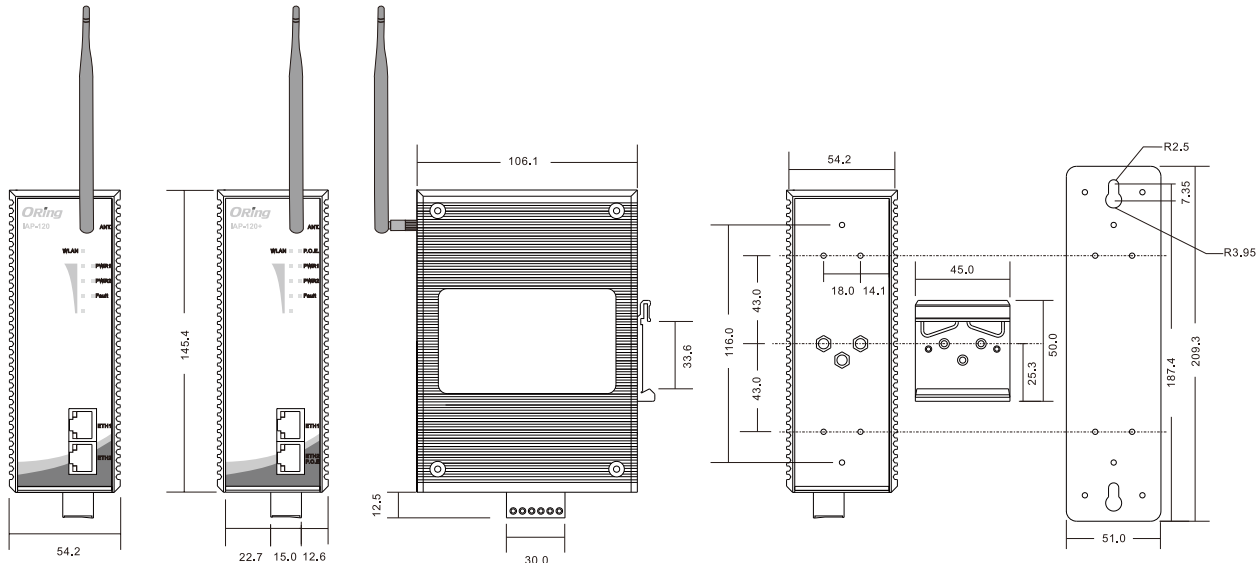


X-Roaming



Wireless Load Balance

Dimensions



Unit=mm

Specifications

ORing AP Model	IAP-120	IAP-120+
Physical Ports		
10/100Base-T(X) Ports in RJ45 Auto MDI/MDIX	2	
PoE P.D. Port	-	Present at ETH2 Fully compliant with IEEE 802.3af Power Device specification Over load and short circuit protection Isolation Voltage : 1000 VDC min. Isolation Resistance : 10^8 ohms min
WLAN interface		
Operating Mode	AP/Bridge/Repeater/AP-Client/Client	
Antenna and Connector	2dBi antenna on reverse SMA connector	
Radio Frequency Type	DSSS, OFDM	
Modulation	IEEE802.11b : CCK, DQPSK, DBPSK IEEE802.11g : OFDM with BPSK, QPSK, 16QAM, 64QAM	
Frequency Band	America/FCC : 2.412~2.462 GHz (11 channels) Europe CE/ETSI : 2.412~2.472 Ghz (13 channels)	
Transmission Rate	IEEE802.11b : 1/ 2/ 5.5/ 11 Mbps IEEE802.11g : 6/ 9/ 12/ 18/ 24/ 36/ 48/ 54 Mbps	
Transmit Power	IEEE802.11b/g : 20dBm Max	
Receiver Sensitivity	-81dBm @ 11Mbps, PER< 8%; -64dBm @ 54Mbps, PER< 10%	
Encryption Security	WEP : (64-bit ,128-bit key supported) WPA /WPA2 : IEEE802.11i(WEP and AES encryption) WPA-PSK (256-bit key pre-shared key supported) 802.1X Authentication supported TKIP encryption	
Wireless Security	SSID broadcast disable	
Protocol Support		
Protocol	ARP, BOOTP, DHCP, DNS, HTTPs, IP, ICMP, SNTP, TCP, UDP, RADIUS, SNMP, STP (IEEE 802.1D)	
LED Indicators		
Power Indicator	PWR 1(2)(PoE) / Ready : Red On : Power is on and booting up. Green On : Power is on and functioning Normally.	
10/100Base-T(X) RJ45 Port Indicator	Green for port Link/Act at 100Mbps. Amber for port Link/Act at 10Mbps.	
WLAN LEDs	WLAN Link /ACT : Green Green LED(s) for WLAN Strength : 1<25%, 2<50%, 3<75%, 4<100%	
Fault	Red : Ethernet link down or power down	
Fault Contact		
Relay	Relay output to carry capacity of 1A at 24VDC	
Power		
Redundant Input Power	Dual DC inputs. 12~48VDC on 6-pin terminal block	Triple DC inputs, 48VDC from PoE and Dual 12~48VDC on 6-pin terminal block
Power Consumption (Typ.)	6 Watts	
Overload Current Protection	Present	
Reverse Polarity Protection	Present	
Physical Characteristics		
Enclosure	IP-30	
Dimensions (W x D x H)	54.2(W) x 106.1(D) x 145.4(H) mm (2.13x4.18x5.72 inch.)	

Weight (g)	800 g	804 g
Environmental		
Storage Temperature	-40 to 85°C(-40 to 185°F)	
Operating Temperature	-10 to 55°C(14 to 131°F)	
Operating Humidity	5% to 95% Non-condensing	
Regulatory Approvals		
EMI	FCC Part 15, CISPR (EN55022) class A	
EMS	EN61000-4-2 (ESD), EN61000-4-3 (RS), EN61000-4-4 (EFT), EN61000-4-5 (Surge), EN61000-4-6 (CS), EN61000-4-8, EN61000-4-11	
Shock	IEC60068-2-27	
Free Fall	IEC60068-2-32	
Vibration	IEC60068-2-6	
Safety	EN60950-1	
MTBF (Hours) (MIL-HDBK-217F2, GB, GC, 25°C)	352,982	352,594
Warranty	3 years	

Ordering Information

IAP-[A][B]0[D]

Code Definition	Wireless Mode	10/100Base-T(X) Port Number	PoE Identification
Option	- **1:** IEEE802.11 b/g - **2:** IEEE802.11 a - **3:** IEEE802.11 a/b/g - **4:** IEEE802.11 b/g/n - **5:** IEEE802.11 a/n - **6:** IEEE802.11 a/b/g/n	- **"2":** 2 ports	-**"+":** PoE P.D. present at ETH2

	Model Name	Description
Available Model	IAP-120_US	Industrial IEEE 802.11 b/g wireless access point with 2x10/100Base-T(X), US band
	IAP-120_EU	Industrial IEEE 802.11 b/g wireless access point with 2x10/100Base-T(X), EU band
	IAP-120+_US	Industrial IEEE 802.11 b/g wireless access point with 2x10/100Base-T(X), 1-port PoE P.D., US band
	IAP-120+_EU	Industrial IEEE 802.11 b/g wireless access point with 2x10/100Base-T(X), 1-port PoE P.D., EU band

Packing List

- IAP-120/120+
- DIN-Rail Kit
- Wall-mount Kit
- Antenna
- ORing Tool CD
- Quick Installation Guide

Optional Accessories (Can be purchased separately)

- DR-45 series, 45W DIN-Rail power supply
- DR-75 series, 75W DIN-Rail power supply
- DR-120 series, 120W DIN-Rail power supply
- WLAN RF Antenna
- RF Antenna Base
- RF Surge Protector
- RF Cable