

# IAR-120/120+

## ➤ Industrial IEEE 802.11 b/g Cellular VPN router

### Features

- High Speed Air Connectivity: WLAN interface support up to 54Mbps link speed
- Provide HNAT enhance LAN to WAN routing performance
- Highly Security Capability: WEP/WPA/WPA-PSK(TKIP,AES)/ WPA2/WPA2-PSK(TKIP,AES)/802.1X Authentication supported
- Secured Management by HTTPS
- Support STP(802.1D) for wireless redundancy
- Various kind of WAN Connection Type supported: Dynamic/Static IP, PPPoE, Modem dial-up
- Support client operating mode
- IP table to prevent access from unauthorized IP address
- Support VPN for secured network connection (Open VPN , PPTP VPN)
- Support NAT Setting (Virtual Server , Port Trigger , DMZ , UPnP)
- Support DHCP forwarder through PPTP function
- 3G Modem signal information display (un-connecting status)
- Wireless connecting status monitoring
- USB interface support 3.5G HSDPA USB Modem dial-up
- 1KV isolation for PoE P.D. port of IAR-120+
- Event Warning by Syslog, Email, SNMP Trap, Relay and Beeper
- Rigid IP-30 housing design
- DIN-Rail and wall mounting enabled

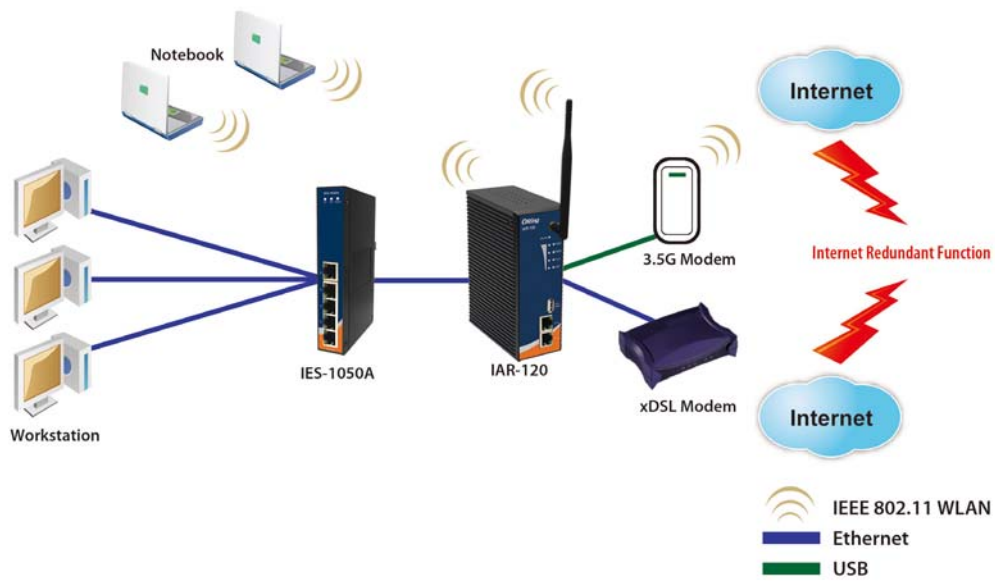


### Introduction

IAR-120/120+ is a reliable IEEE 802.11 b/g WLAN VPN router with 2 ports 10/100Base-T(X) router where ETH1 for LAN and ETH2 for WAN. It supports 802.1X and MAC filter for security control. It can be configured to operate in 3 modes of routing function: Dynamic/Static IP route, PPPoE authentication, and Modem (56K/GPRS/3G/3.5G Modem) dial up. In the mode of Modem dial-up, it support both traditional 56K modem and GPRS/3G/3.5G Modem with USB interface. Users can set up WLAN environment to fulfill demands of various applications rapidly by dialing up cellular modems. In addition, IAR-120+ also provides P.D. feature on ETH2 which is fully compliant with IEEE802.3af PoE P.D. specification. This feature extends the layout up to 100 meters without extra power source. Therefore, IAR-120/120+ is one of the best solution for applications of wireless and cellular communication.

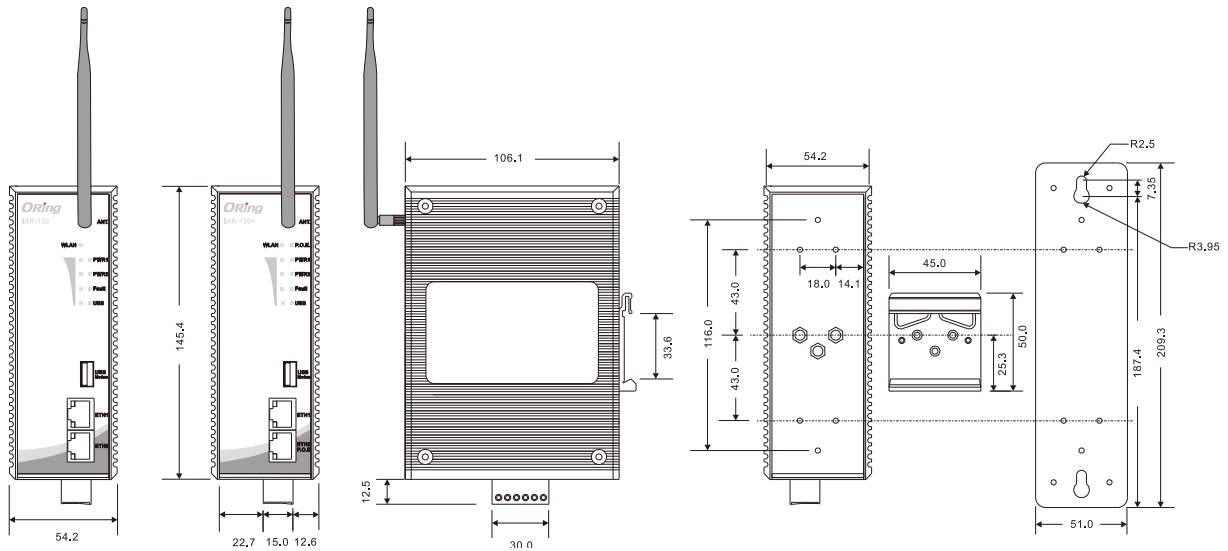
### Application

In IAR-120 / IAR-120+, there are 3 modes of routing functions supported: Dynamic/Static IP route, PPPoE dial up, and Modem dial-up. IAR-120 / IAR-120+ also support NAT, VPN and Back up functions. You can build up the wireless network and connect to the Internet easily.



Multiple WAN Devices supported

## Dimensions



Unit=mm

## Specifications

ORing Wireless Cellular Router Model	IAR-120	IAR-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 <sup>8</sup> ohms min
USB Host Port	1x USB 2.0 Host port	
WLAN Interface		
WAN Connection Type	Static/Dynamic IP/PPPoE/Modem (56K/GPRS/G/3.5G Modem) dial up	
Antenna and Connector	2dbi antenna connector 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	
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) TKIP encryption 802.1X Authentication supported	
Wireless Security	SSID broadcast disable	
Modem Support		
List	USB modems and ISDN adapters which support the Communication Device Class Abstract Control Model interface List of tested device : Hummingbird huc56s (Conexant) Huawei E220/E230 Simense HSDPA-180C Prolific 2303 + serial modem Quanta MUQ101 Sony Ericsson MD400/MD400g Sierra C885	
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., USB Modem not included)	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)	803 g	807 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)	341,549	341,185
Warranty	3 years	

## Ordering Information

IAR-**A**B**0**C

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

	Model Name	Description
Available Model	IAR-120_US	Industrial IEEE 802.11 b/g Cellular VPN router with 2x10/100Base-T(X), US band
	IAR-120_EU	Industrial IEEE 802.11 b/g Cellular VPN router with 2x10/100Base-T(X), EU band
	IAR-120+_US	Industrial IEEE 802.11 b/g Cellular VPN router with 2x10/100Base-T(X), 1-port PoE P.D., US band
	IAR-120+_EU	Industrial IEEE 802.11 b/g Cellular VPN router with 2x10/100Base-T(X), 1-port PoE P.D., EU band
Packing List		Optional Accessories (Can be purchased separately)
<ul style="list-style-type: none"> <li>IAR-120/120+</li> <li>DIN-Rail Kit</li> <li>Wall-mount Kit</li> <li>Antenna</li> <li>ORing Tool CD</li> <li>Quick Installation Guide</li> </ul>		<ul style="list-style-type: none"> <li>DR-45 series, 45W DIN-Rail power supply</li> <li>DR-75 series, 75W DIN-Rail power supply</li> <li>DR-120 series, 120W DIN-Rail power supply</li> <li>WLAN RF Antenna Series</li> <li>RF Antenna Base Series</li> <li>RF Cable Series</li> <li>RF Surge Protector Series</li> </ul>