

# 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

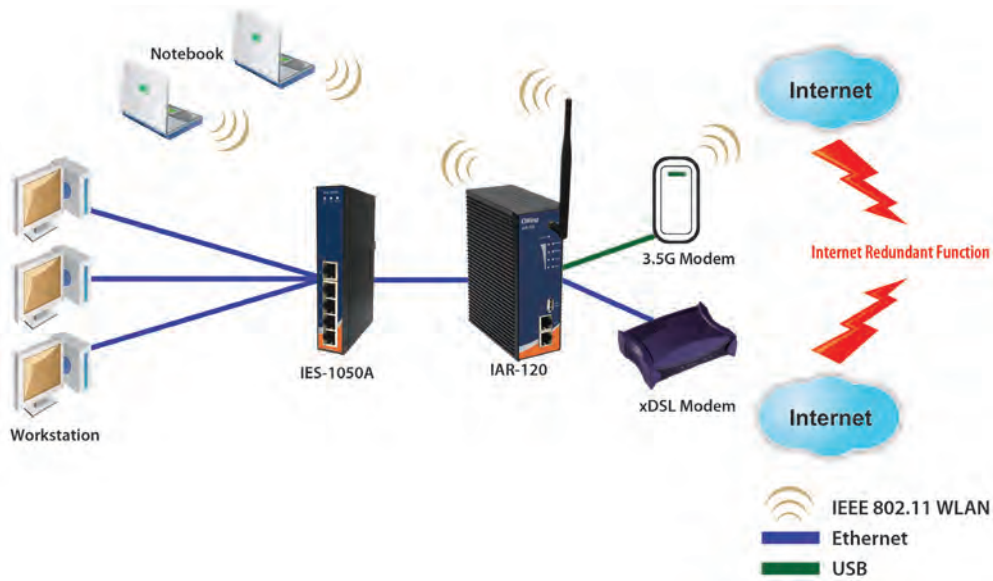


### Introduction

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.

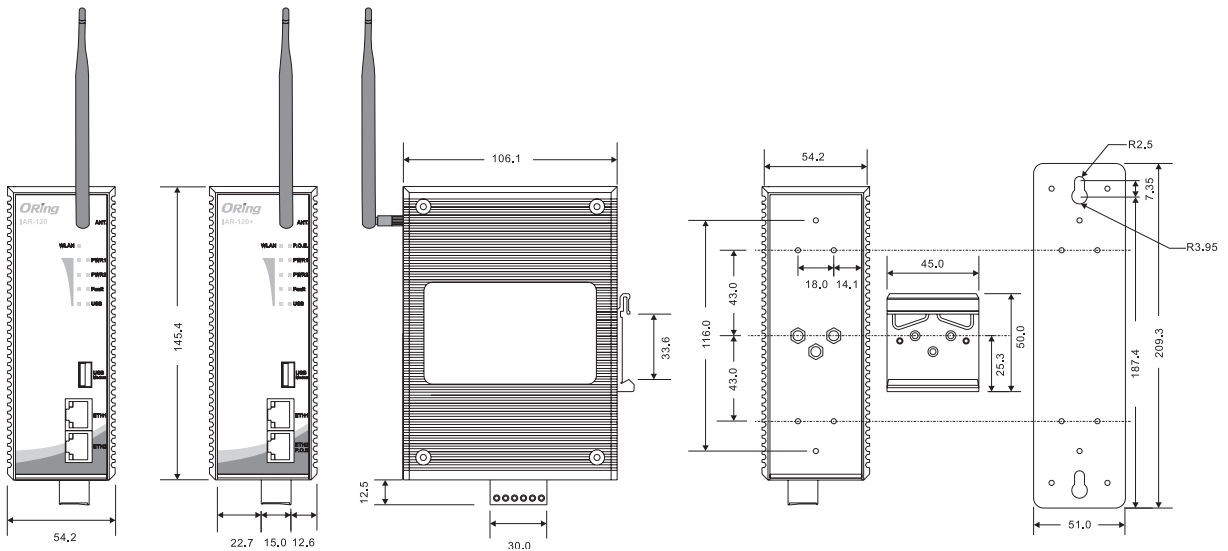
### Application

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+
<b>Physical Ports</b>		
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	
<b>WLAN Interface</b>		
WAN Connection Type	Static/Dynamic IP/PPPoE/Modem (56K/GPRS/G/3G/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	
<b>Modem Support</b>		
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	
<b>LED Indicators</b>		
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	
<b>Fault Contact</b>		
Relay	Relay output to carry capacity of 1A at 24VDC	
<b>Power</b>		
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 70°C(14 to 158°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
<b>Packing List</b>		<b>Optional Accessories (Can be purchased separately)</b> <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>