



# IAR-142(+)-4G

5

Industrial Cellular VPN Router

## IEEE 802.11 b/g/n 4G LTE Cellular Router with 2x10/100Base-T(X)

### Features

- High Speed Air Connectivity: WLAN interface support up to 150Mbps link speed
- Provide 2 port 10/100Base-T(X) port and 1 sim card slot
- 4G LTE Modem dial up included
- 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
- Various kind of WAN Connection Type supported: Dynamic/Static IP, PPPoE, Modem/Dial Up
- IP table to prevent access from unauthorized IP address
- Support NAT Setting (Virtual Server , Port Trigger , DMZ , UPnP)
- Versatile modes & event alarm by e-mail
- 1KV isolation for PoE P.D. port of IAR-142+-4G
- Event Warning by Syslog, Email, SNMP Trap
- Rigid IP-30 housing design
- DIN-Rail and Wall-mount enabled

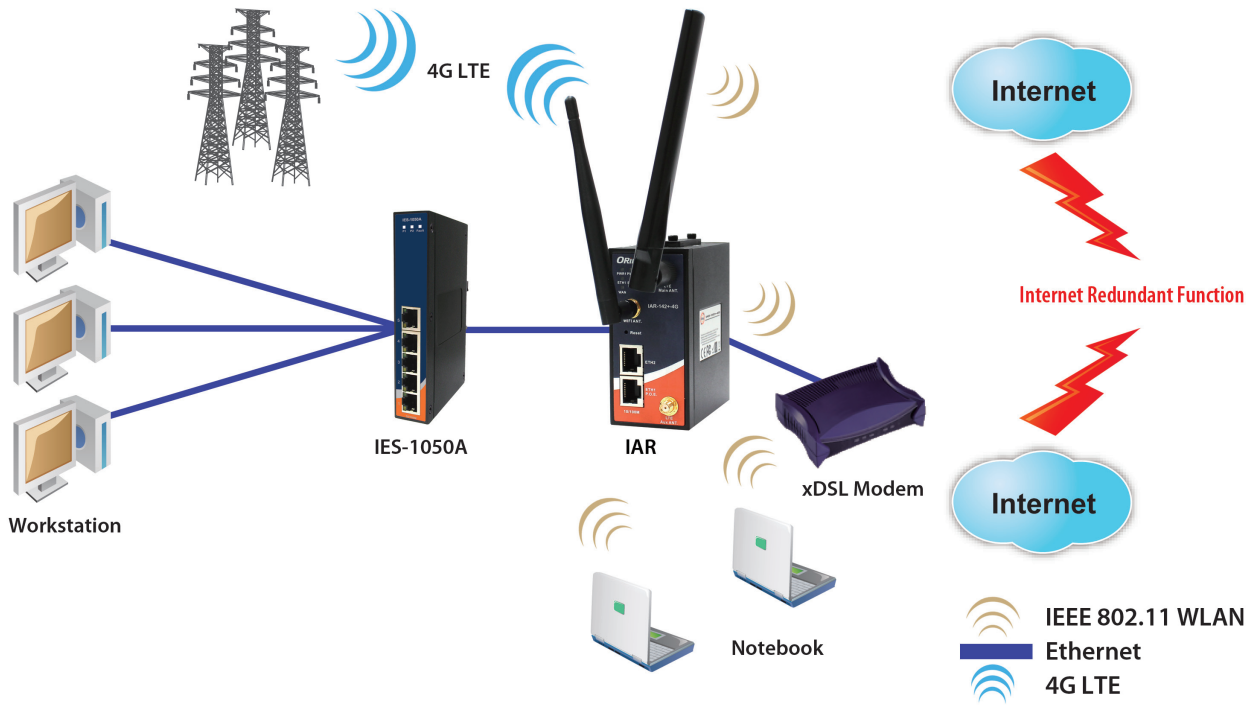


### Introduction

IAR-142(+)-4G is a reliable IEEE 802.11 b/g/n 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 could be configured to operate in 3 modes of routing function: Dynamic/Static IP route, PPPoE authentication, and Modem dial up. In the mode of Modem dial up, it support GPRS/3G/3.5G/LTE modem by internal 4G LTE module. Users can set up WLAN environment to fulfill demands of various applications rapidly by dialing up cellular modems. In addition, IAR-142+-4G also provides P.D. feature on ETH1 which is fully compliant with IEEE802.3af PoE P.D. specification. This feature extends the layout up to 100 meters. Therefore, IAR-142+-4G is one of the best solution for applications of wireless communication.

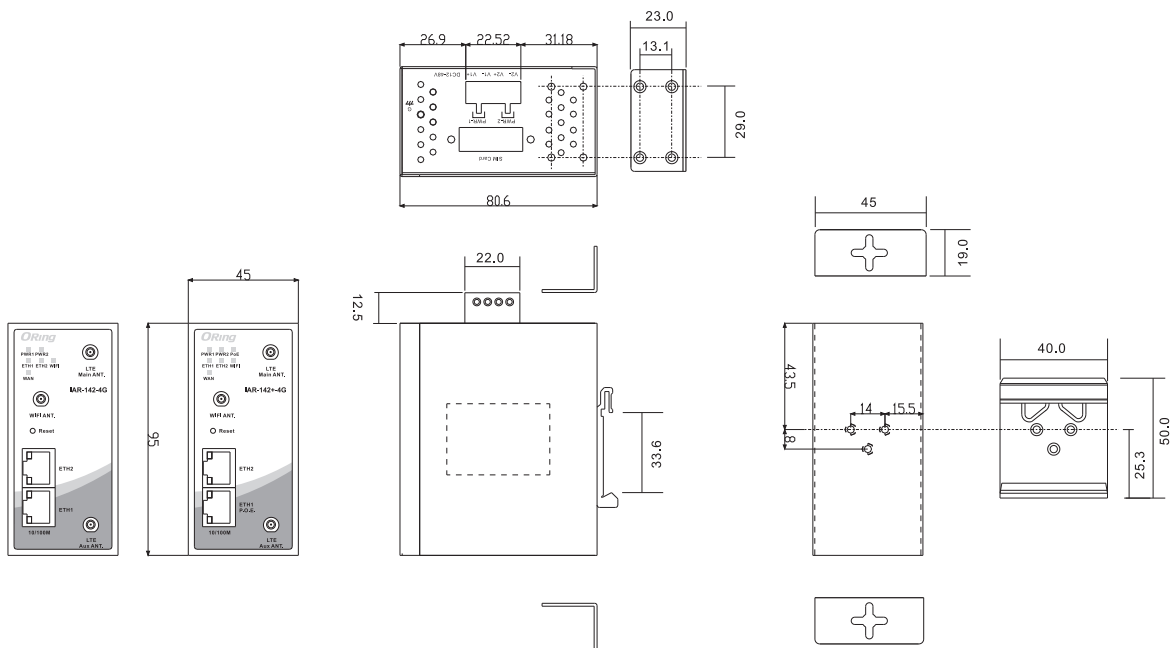
### Application

In IAR-142(+)-4G , there are 3 modes of routing functions supported: Dynamic/Static IP route, PPPoE dial up, and Modem dial up. IAR-142(+)-4G 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

- Industrial Ethernet Switch
- Industrial Media Converter
- Industrial Device Server
- Industrial Wireless Access Point
- Industrial Cellular VPN Router
- Industrial M2M Gateway
- Accessories
- Network Management Software

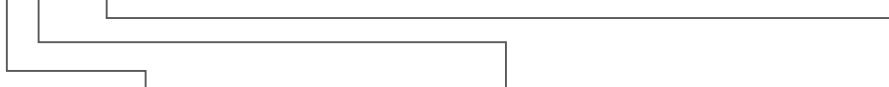
## Specifications

ORing AP Router Model	IAR-142-4G	IAR-142+4G
<b>Physical Ports</b>		
10/100 Base-T(X) Ports in RJ45 Auto MDI/MDIX		2
PoE P.D. port		Present at ETH1 Fully compliant with IEEE 802.3af Power Device specification Over load & short circuit protection Isolation Voltage: 1000 VDC min. Isolation Resistance : 10 <sup>9</sup> ohms min
Sim Card Slot		1
<b>Cellular Interface</b>		
Antenna Connector	2 x SMA Female	
Cellular Standard	GSM / GPRS/ EGPRS/ EDGE / WCDMA / HSDPA / HSUPA / LTE	
Band Option	<b>America(US grade)</b> LTE: 1900(B2)/1700(B4)/850(B5)/700(B13)/700(B17)/1900(B25) MHz CDMA/EVDO rev. a/b: 800/1900 UMTS/HSDPA/HSUPA/HSPA+/DC-HSPA+: 850/900/1700/1900/2100 MHz GSM/GPRS/EDGE: 850/900/1800/1900 MHz <b>Europe(EU grade)</b> LTE: 2100(B1)/1800(B3)/2600(B7)/900(B8)/800(B20) MHz UMTS/HSDPA/HSUPA/HSPA+/DC-HSPA+: 800/850/900/1900/2100 MHz GSM/GPRS/EDGE: 850/900/1800/1900 MHz	
<b>WLAN Interface</b>		
Antenna Connector	1 x Reverse SMA Female	
Modulation	IEEE802.11b: CCK/DQPSK/DBPSK IEEE802.11g: OFDM IEEE802.11n: BPSK, QPSK, 16-QAM, 64-QAM	
Frequency Band	America / FCC: 2.412~2.462 GHz (11 channels ) Europe CE / ETSI: 2.412~2.472 GHz ( 13 channels )	
Transmission Rate	802.11b: 1/2/5.5/11 Mbps 802.11g: 6/9/12/18/24/36/48/54 Mbps 802.11n(40MHz): UP to 150 Mbps	
Transmit Power	802.11b: 19dBm ±1.5dBm 802.11g: 17dBm ±1.5dBm 802.11n(2.4G@20MHz): 16dBm ±1.5dBm 802.11n(2.4G@40MHz): 14dBm ±1.5dBm	
Receiver Sensitivity	802.11b: -90dBm ±2dBm@1Mbps 802.11g: -72dBm ±2dBm@54Mbps 802.11n(2.4G@40MHz,MCS7): -68dBm ±2dBm	
Encryption Security	WEP: (64-bit , 128-bit key supported) WPA/WPA2 :802.11i(WEP and AES encryption) WPA-PSK (256-bit key pre-shared key supported) 802.1X Authentication supported TKIP encryption	
Wireless Security	SSID broadcast disable	
<b>LED Indicators</b>		
Power indicator	3 x LEDs, PWR1(2)(PoE) Green On: Power is on and functioning Normally.	
10/100T RJ45 port indicator	2 x LEDs, Green for port Link/Act at 100Mbps.	
WLAN LED	1 x LED, Green: WLAN Link /ACT	
WAN LED	1 x LED, Green On : Power is on and functioning Normal	
<b>Power</b>		
Redundant Input power	Dual DC inputs. 12-48VDC on 4-pin terminal block	

Power consumption	3W	
Overload current protection	Present	
Reverse polarity protection	Present	
<b>Physical Characteristics</b>		
Enclosure	IP-30	
Dimension (W x D x H)	45(W)x80.6(D)x95(H) mm	
Weight (g)	360g	365g
<b>Environmental</b>		
Storage Temperature	-40 to 85°C(-40 to 185°F)	
Operating Temperature	-10 to 60°C(14 to 140°F)	
Operating Humidity	5% to 95% Non-condensing	
<b>Regulatory approvals</b>		
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	IEC60068-2-31	
Vibration	IEC60068-2-6	
Safety	EN60950-1	
Warranty	3 years	

### Ordering Information

IAR-14 **A** **B** - **CC**



Code Definition	Giga Ethernet Port Number	PoE Identification	Cellular Generation
<b>Option</b>	<b>2</b> : 2 ports	<b>+</b> : PoE P.D. present at ETH1	<b>4G</b> : LTE

Available Model	Model Name	Description
	IAR-142-4G_US	IEEE 802.11 b/g/n 4G LTE Cellular Router with 2x10/100Base-T(X), US Band
	IAR-142-4G_EU	IEEE 802.11 b/g/n 4G LTE Cellular Router with 2x10/100Base-T(X), EU Band
	IAR-142+-4G_US	IEEE 802.11 b/g/n 4G LTE Cellular Router with 2x10/100Base-T(X), 1-port PoE P.D., US band
	IAR-142+-4G_EU	IEEE 802.11 b/g/n 4G LTE Cellular Router with 2x10/100Base-T(X), 1-port PoE P.D., EU band

**Packing List**

- IAR-142(+)-4G
- 2.4GHz Antenna x 1
- LTE Antenna x 2
- CD x 1
- Din-Rail Kit x 1
- 4-Pin Terminal Block x 1
- Quick Installation Guide x 1
- Wall-Mount Kit x 2
- Dust Cover x 2

**Optional Accessories (Can be purchased separately)**

- DR-45 series : 45 Watts power supply
- DR-120 series : 120 Watts power supply
- RF Antenna Base (Magnetic) series
- DR-75 series : 75 Watts power supply
- WLAN RF Antenna (Omni-directional) series
- RF Cable series