



# IGAR-1062+-4G

**Industrial IEEE 802.11 a/b/g/n 4G LTE Cellular Router  
with 2x10/100/1000Base-T(X)**

## Features

- High Speed Air Connectivity: WLAN interface support up to 300Mbps link speed
- Provide 2 port 10/100/1000Base-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
- Support client operating mode
- IP table to prevent access from unauthorized IP address
- Support VPN for secured network connection (Open VPN , PPTP, IPSEC, VPN)
- Support NAT Setting (Virtual Server , Port Trigger , DMZ , UPnP)
- Wireless connecting status monitoring
- Versatile modes & event alarm by e-mail
- 1KV isolation for PoE P.D.
- Event Warning by Syslog, Email, SNMP Trap, Relay and Beeper
- Rigid IP-30 housing design
- DIN-Rail and Wall-mount enabled

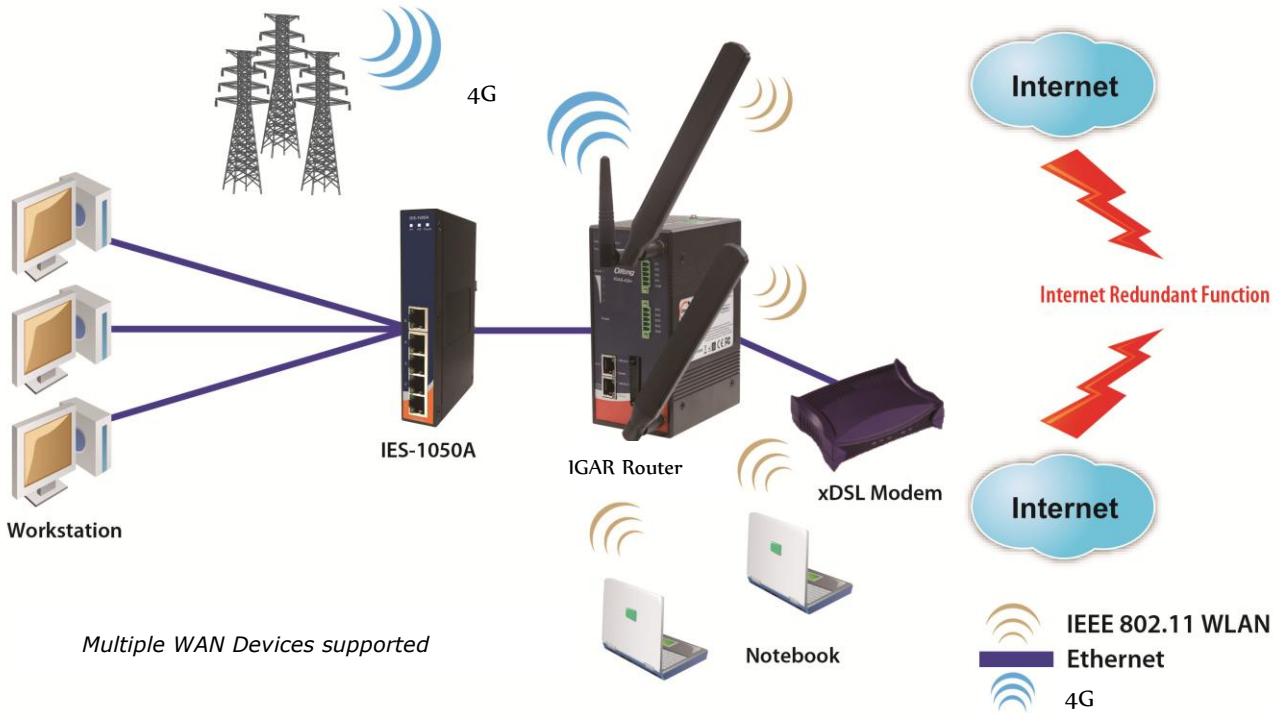


## Introduction

IGAR-1062+-4G is a reliable IEEE 802.11 a/b/g/n WLAN VPN router with 2 ports 10/100/1000Base-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 cellular module. Users can set up WLAN environment to fulfill demands of various applications rapidly by dialing up cellular modems. In addition, IGAR-1062+-4G provides PoE P.D. feature on ETH2 which is fully compliant with IEEE802.3af PoE specification. This feature extends the layout up to 100 meters. Therefore, IGAR-1062+-4G is one of the best solution for applications of wireless communication.

### Application

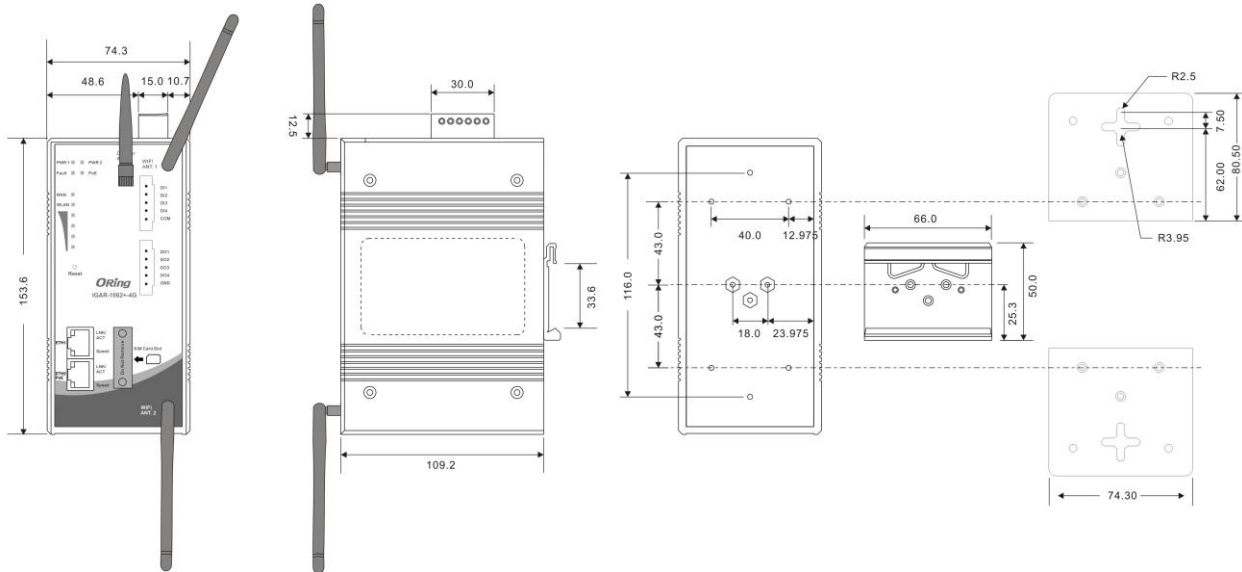
In IGAR-1062+-4G , there are 3 modes of routing functions supported: Dynamic/Static IP route, PPPoE dial up, and Modem dial up. IGAR-1062+-4G also support NAT, VPN and Back up functions. You can build up the wireless network and connect to the Internet easily.



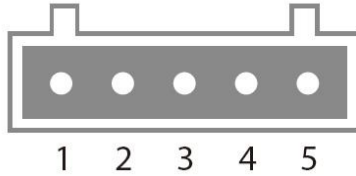
Multiple WAN Devices supported

### Dimension

Dimension (Unit =mm)



## DI/DO Definition



### Digital Input Pin Definition

| PIN      | 1   | 2   | 3   | 4   | 5   |
|----------|-----|-----|-----|-----|-----|
| Function | DI1 | DI2 | DI3 | DI4 | COM |

### Digital Output Pin Definition

| PIN      | 1   | 2   | 3   | 4   | 5   |
|----------|-----|-----|-----|-----|-----|
| Function | DO1 | DO2 | DO3 | DO4 | GND |

## Specifications

|  |  |
|--|--|
| <b>ORing AP Router Model</b>                         | IGAR-1062+4G   |
| <b>Physical Ports</b>                                |  |
| 10/100/1000 Base-T(X) Ports in RJ45<br>Auto MDI/MDIX | 2  |
| PoE P.D. port  | Present at ETH2<br>Fully compliant with IEEE 802.3af Power Device specification<br>Over load & short circuit protection<br>Isolation Voltage: 1000 VDC min.<br>Isolation Resistance : 10 <sup>8</sup> ohms min |
| 5-Pin Terminal Block                                 | 2(DI x 4 and DO x 4)   |
| Sim Card Slot  | 1  |
| <b>Cellular Interface</b>                            |  |
| Cellular Standard                                    | GSM / GPRS/ EGPRS/ EDGE / WCDMA / HSDPA / HSUPA /HSPA+ /LTE  |
| Band Option  | <b>America(US)</b><br>LTE:<br>700/1700/2100/ MHz<br>UMTS/HSDPA/HSUPA/HSPA+/DC-HSPA+:<br>800/850/1900/2100 MHz<br>GSM/GPRS/EDGE:<br>850/900/1800/1900 MHz<br><b>Europe(EU)</b><br>LTE:                          |

|                                  |  |
|----------------------------------|--|
|                                  | 800/900/1800/2100/2600 MHz<br>UMTS/HSDPA/HSUPA/HSPA+/DC-HSPA+:<br>900/2100 MHz<br>GSM/GPRS/EDGE:<br>900/1800/1900 MHz  |
| Antenna Connector                | 1 x SMA Female   |
| <b>WLAN interface</b>            |  |
| Antenna Connector                | 2 x Reverse SMA Female   |
| Modulation                       | IEEE802.11b: CCK/DQPSK/DBPSK<br>IEEE802.11a/g: OFDM<br>IEEE802.11n: BPSK, QPSK, 16-QAM, 64-QAM   |
| Frequency Band                   | America / FCC:<br>2.412~2.462 GHz (11 channels )<br>5.180~5.240 GHz & 5.745~5.825 GHz ( 9 channels )<br>Europe CE / ETSI:<br>2.412~2.472 GHz ( 13 channels )<br>5.180~5.240 GHz ( 4 channels )   |
| Transmission Rate                | 802.11b: 1/2/5.5/11 Mbps<br>802.11a/g: 6/9/12/18/24/36/48/54 Mbps<br>802.11n(40MHz): UP to 300 Mbps  |
| Transmit Power                   | 802.11a: 12dBm ± 1.5dBm@54Mbps<br>802.11b: 17dBm ± 1.5dBm@11Mbps<br>802.11g: 16dBm ± 1.5dBm@54Mbps<br>802.11gn HT20: 15dBm ± 1.5dBm @MCS7<br>802.11gn HT40: 14dBm ± 1.5dBm @MCS7<br>802.11an HT20: 12dBm ± 1.5dBm @MCS7<br>802.11an HT40: 11dBm ± 1.5dBm @MCS7 |
| Receiver Sensitivity             | 802.11a : -76dBm ± 2dBm@54Mbps<br>802.11b : -85dBm ± 2dBm@11Mbps<br>802.11g : -76dBm ± 2dBm@54Mbps<br>802.11gn HT20:-75dBm ± 2dBm@MCS7<br>802.11gn HT40:-72dBm ± 2dBm@MCS7<br>802.11an HT20:-74dBm ± 2dBm@MCS7<br>802.11an HT40:-71dBm ± 2dBm@MCS7             |
| Encryption Security              | WEP: (64-bit ,128-bit key supported)<br>WPA/WPA2 :802.11i(WEP and AES encryption)<br>WPA-PSK (256-bit key pre-shared key supported)<br>802.1X Authentication supported<br>TKIP encryption  |
| Wireless Security                | SSID broadcast disable   |
| <b>LED indicators</b>            |  |
| Power indicator                  | 3 x LEDs, PWR1(2)(PoE) / Ready:<br>Red On : Power is on and booting up<br>Green On : Power is on and functioning Normal  |
| 10/100/1000T RJ45 port indicator | 2 x LEDs,<br>LNK/ACT:Green for port Act.<br>Speed: Green for port Link at 1000Mbps<br>Amber for port Link at 100Mbps.<br>Off for port Link at 10Mbps   |
| WLAN LEDs:                       | Green Solid On: RF on, Blink: data transmitting<br>Green for WLAN Strength: 1<25%, 2<50%, 3<75%, 4<100%  |
| WAN LEDs:                        | Green On : Power is on and functioning Normal  |
| Fault                            | 1 x LED, Red for Ethernet link down or power down indicator  |
| <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   |
| Power consumption                | 9.5 Watts  |
| Overload current protection      | Present  |
| Reverse polarity protection      | Present  |
| <b>Physical Characteristic</b>   |  |

|                             |  |
|-----------------------------|--|
| Enclosure                   | IP-30  |
| Dimension (W x D x H)       | 74.3(W) x 109.2(D) x 153.6(H) mm (2.93 x 4.3 x 6.05 inch.)   |
| Weight (g)                  | 1155g  |
| <b>Environmental</b>        |  |
| Storage Temperature         | -40 to 85oC (-40 to 185°F)   |
| Operating Temperature       | -25 to 70°C (-13 to 158°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                   | IEC60068-2-32  |
| Vibration                   | IEC60068-2-6   |
| Safety                      | EN60950-1  |
| <b>Warranty</b>             | 5 years  |



## Ordering Information

**IGAR-ABCDE FF**

| Code Definition | Cellular Module Number    | 2 <sup>nd</sup> Wireless Mode  | 1 <sup>st</sup> Wireless Mode  | Giga Ethernet Port Number | PoE Identification           | Cellular Generation |
|-----------------|---------------------------|--|--|---------------------------|------------------------------|---------------------|
| Option          | 1: One SIM<br>2: Dual SIM | 1: 802.11 b/g<br>2: 802.11 a<br>3: 802.11 a/b/g<br>4: 802.11 b/g/n<br>5: 802.11 a/n<br>6: 802.11 a/b/g/n | 1: 802.11 b/g<br>2: 802.11 a<br>3: 802.11 a/b/g<br>4: 802.11 b/g/n<br>5: 802.11 a/n<br>6: 802.11 a/b/g/n | 2: 2 ports                | + : PoE P.D. present at ETH2 | 4G :LTE             |

|                 | Model Name       | Description   |
|-----------------|------------------|---|
| Available Model | IGAR-1062+-4G_US | Industrial IEEE 802.11 a/b/g/n 4G LTE Cellular router with 2x10/100/1000Base-T(X), 1-port PoE P.D., US band |
|                 | IGAR-1062+-4G_EU | Industrial IEEE 802.11 a/b/g/n 4G LTE Cellular router with 2x10/100/1000Base-T(X), 1-port PoE P.D., EU band |

## Packing List

- IGAR-1062+-4G
- 2.4GHz/5GHz Antenna x 2
- Cellular Antenna x 1
- 6-Pin Terminal Block x 1
- CD x 1
- Din-Rail Kit x 1
- 5-Pin Terminal Block x 2
- Quick Installation Guide x 1
- Wall-Mount Kit x 2
- Dust Cover x 2

## Optional Accessories

- 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