# IGAR-2062+-3G

## 5

### Industrial Cellular VPN Router

» **Industrial IEEE 802.11 a/b/g/n Dual 3G 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 2 sim card slot
- **Support dual 3.5G HSDPA dial up backup**
- 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)
- 3G Modem signal information display (un-connecting status)
- Wireless connecting status monitoring
- Versatile modes & event alarm by e-mail
- 1KV isolation for PoE P.D. port
- Event Warning by Syslog, Email, SNMP Trap, Relay and Beeper
- Rigid IP-30 housing design
- DIN-Rail and Wall-mount enabled

a/b/g/n Wifi 802.11a/b/g/n | G Full Gigabit | 3.5G Dual Cell | P■E IEEE802.3af P.D. | Redundant PWR | -10~60°C Temperature
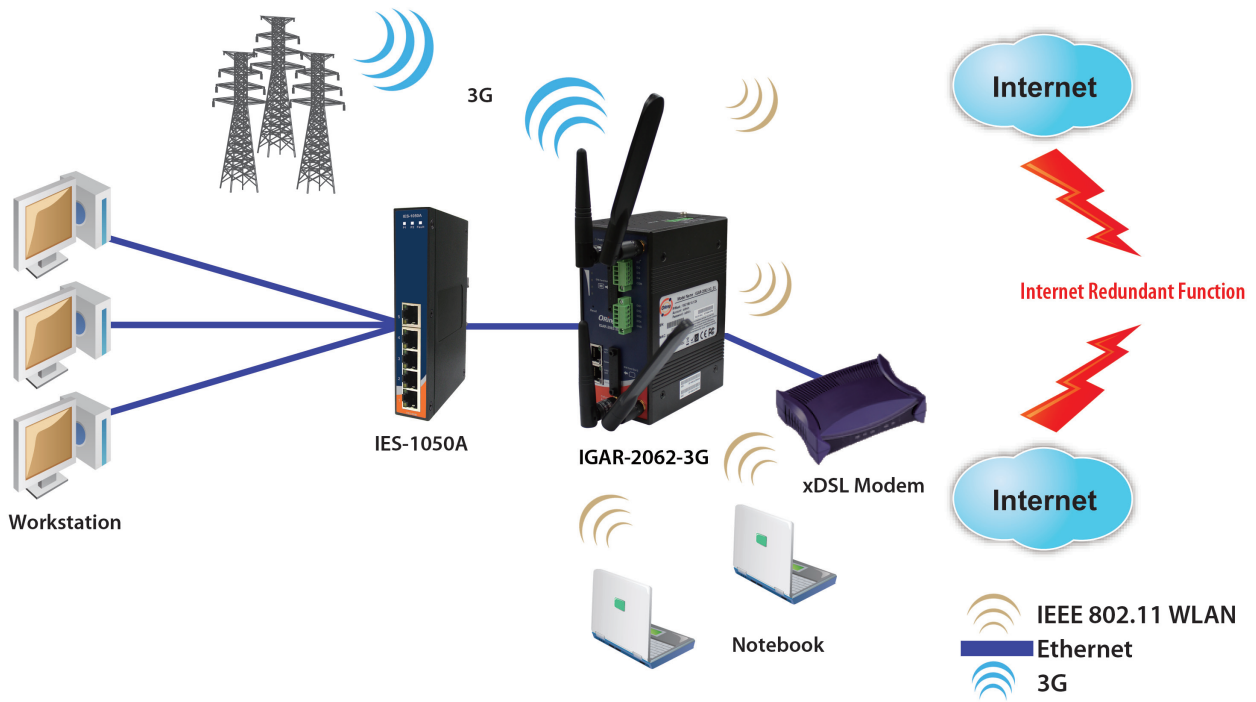
RoHS  Lead Free  CE  FC

### Introduction

IGAR-2062(+)-3G 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 (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 by internal 3G module.  Users can set up WLAN environment to fulfill demands of various applications rapidly by dual SIM dialing up cellular modems.  In addition, IGAR-2062+-3G 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.  Therefore, IGAR-2062+-3G is one of the best solution for applications of wireless communication.
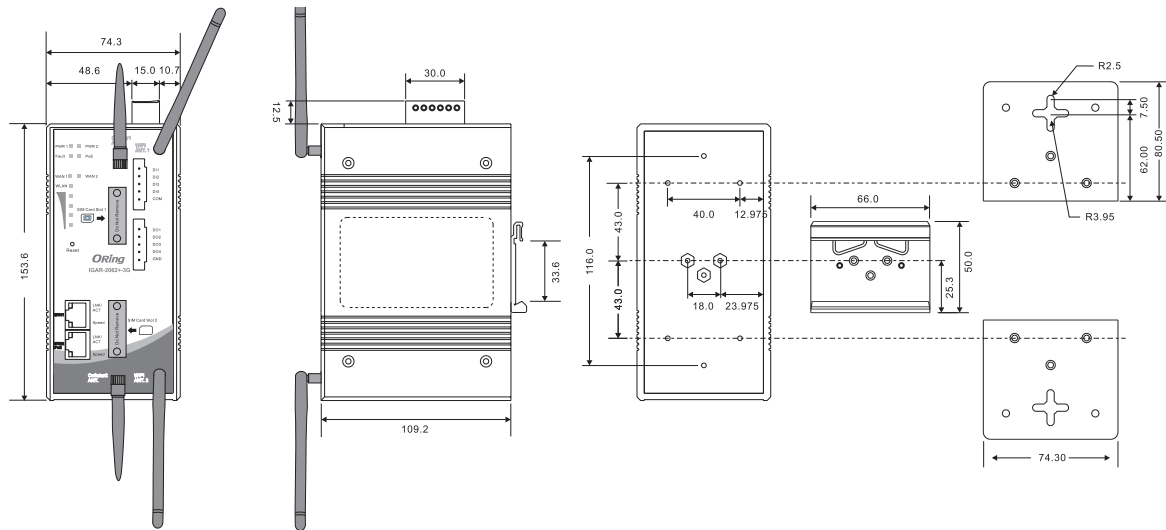
### Application

In IGAR-2062+-3G , there are 3 modes of routing functions supported: Dynamic/Static IP route, PPPoE dial up, and Modem dial up.  IGAR-2062+-3G also support NAT, VPN and Back up functions.  You can build up the wireless network and connect to the Internet easily.

**3G**
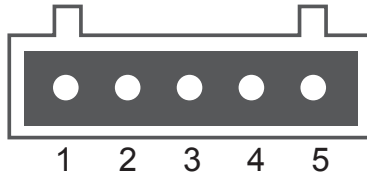
**Internet**

**Internet Redundant Function**

**IES-1050A**

**IGAR-2062-3G**

**xDSL Modem**

**Internet**

**Workstation**

**Notebook**

**IEEE 802.11 WLAN**

**Ethernet**

**3G**

*Multiple WAN Devices supported*

## Dimensions



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

| ORing AP Model | IGAR-2062+-3G |
|---|---|
| **Physical Ports** | |
| 10/100/1000 Base-T(X) Ports in RJ45 Auto MDI/MDIX | 2 |
| 5-Pin Terminal Block | 4(DI and DO) |
| 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 : 108 ohms min |
| Sim Card Slot | 2 |
| **Cellular Interface** | |
| Antenna Connector | 2 x Reverse SMA Female |
| Cellualr Standard | GSM / GPRS/ EGPRS/ EDGE / WCDMA / HSDPA / HSUPA |
| Band Option | Dual-band : HSUPA 1900/2100 MHz<br>Quad-band : GSM/GPRS/EDGE 850/900/1800/1900 MHz<br>WCDMA/HSDPA 850/900/1900/2100 MHz |
| **WLAN Interface** | |
| WAN Connection Type | Static/Dynamic IP ,PPPoE ,Modem/(56K/GPRS/3G/3.5G Modem) dial up |
| 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 $\pm$ 1.5dBm@54Mbps<br>802.11b: 17dBm $\pm$ 1.5dBm@11Mbps<br>802.11g: 16dBm $\pm$ 1.5dBm@54Mbps<br>802.11gn HT20: 15dBm $\pm$ 1.5dBm @MCS7<br>802.11gn HT40: 14dBm $\pm$ 1.5dBm @MCS7<br>802.11an HT20: 12dBm $\pm$ 1.5dBm @MCS7<br>802.11an HT40: 11dBm $\pm$ 1.5dBm @MCS7 |
| Receiver Sensitivity | 802.11a : -76dBm $\pm$ 2dBm@54Mbps<br>802.11b : -85dBm $\pm$ 2dBm@11Mbps<br>802.11g : -76dBm $\pm$ 2dBm@54Mbps<br>802.11gn HT20:-75dBm $\pm$ 2dBm@MCS7<br>802.11gn HT40:-72dBm $\pm$ 2dBm@MCS7<br>802.11an HT20:-74dBm $\pm$ 2dBm@MCS7<br>802.11an HT40:-71dBm $\pm$ 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 encryptionWEP: (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 |
| **LED Indicators** | |
| 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 |
| 10/100/1000Base-T(X) RJ45 Port Indicator | 2 x LEDs, Green for port Link/ Act at 1000Mbps<br>  Amber for port Link/ Act at 100Mbps. |
| 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: | 2 x LEDs, Green On : Power is on and functioning Normal |
| Fault | 1 x LED, Red for Ethernet link down or power down indicator |
| **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 |
| Power Consumption (Typ.) | 11 Watts |
| Overload Current Protection | Present |
| Reverse Polarity Protection | Present on terminal block |
| **Physical Characteristics** | |
| Enclosure | IP-30 |
| Dimensions (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) | 1155 g |
| **Environmental** | |
| Storage Temperature | -40 to 85℃(-40 to 185℉) |
| Operating Temperature | -10 to 60℃(14 to 140℉) |
| 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 |
| Warranty | 3 years |

Industrial Ethernet Switch

Industrial Media Converter

Industrial Device Server

Industrial Wireless Access Point

Industrial Cellular VPN Router

Industrial M2M Gateway

Accessories

Network Management Software

**5**

## Ordering Information

### IGAR-ABCDE-FF

| Code Definition | Cellular Module Number | 2nd Wireless Mode | 1st 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 | **3G :** UMTS |

| | Model Name | Description |
|---|---|---|
| **Available Model** | IGAR-2062+-3G_US | Industrial IEEE 802.11 a/b/g/n Dual 3G Cellular router with 2x10/100/1000Base-T(X), 1-port PoE P.D., US band |
| | IGAR-2062+-3G_EU | Industrial IEEE 802.11 a/b/g/n Dual 3G Cellular router with 2x10/100/1000Base-T(X), 1-port PoE P.D., EU band |

### Packing List

- IGAR-2062+-3G
- DIN-Rail Kit
- Wall-mount Kit
- ORing Tool CD
- Quick Installation Guide
- 2.4GHz/5GHz Antenna
- 3G Antenna
- 5-Pin Terminal Block
- Dust Cover
- 6-Pin Terminal Block

### 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 (Omni-directional) series
- RF Antenna Base (Magnetic) series
- RF Cable series