

Quick Installation Guide

IGAR-1004-D5G

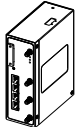



Industrial 5G Cellular Router

Introduction

IGAR-1004-D5G is a reliable 5G NR VPN router with 4 ports 10/100/1000Base-T(X) router where ETH1 for WAN and ETH2 to ETH4 for LAN. It supports 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 LTE/5G modem by internal cellular module. Users can set up WLAN environment to fulfill demands of various applications rapidly by dialing up cellular modems. Therefore, IGAR-1004-D5G one of the best solution for applications of cellular communication.

Package Contents





The device is shipped with the following items. If any of these items is missing or damaged, please contact your customer service representative for assistance.

Contents	Pictures	Number
IGAR-1004-D5G		X 1
QIG		X 1
Mounting Kit		X 1
Flat Screw (M3 X5)		X 6

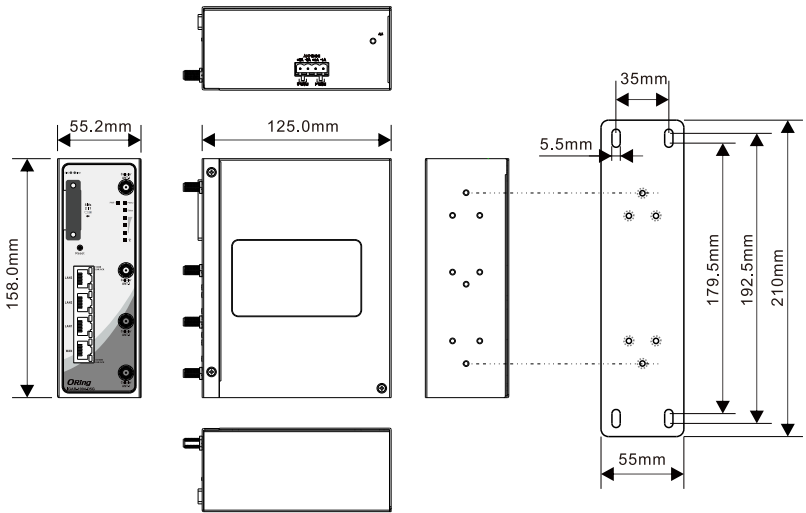
Preparation

Before you begin installing the device, make sure you have all of the package contents available and a PC with Microsoft Internet Explorer 6.0 or later, for using web-based system management tools.

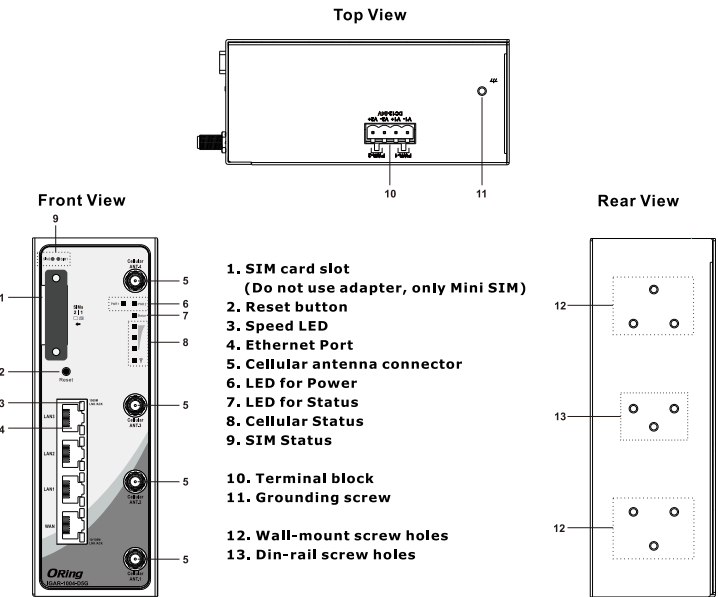
Safety & Warnings

-  **Elevated Operating Ambient:** If installed in a closed environment, make sure the operating ambient temperature is compatible with the maximum ambient temperature (Tma) specified by the manufacturer.
-  **Reduced Air Flow:** Make sure the amount of air flow required for safe operation of the equipment is not compromised during installation.
-  **Mechanical Loading:** Make sure the mounting of the equipment is not in a hazardous condition due to uneven mechanical loading.
-  **Circuit Overloading:** Consideration should be given to the connection of the equipment to the supply circuit and the effect that overloading of the circuits might have on overcurrent protection and supply wiring. Appropriate consideration of equipment nameplate ratings should be used when addressing this concern.

Dimension



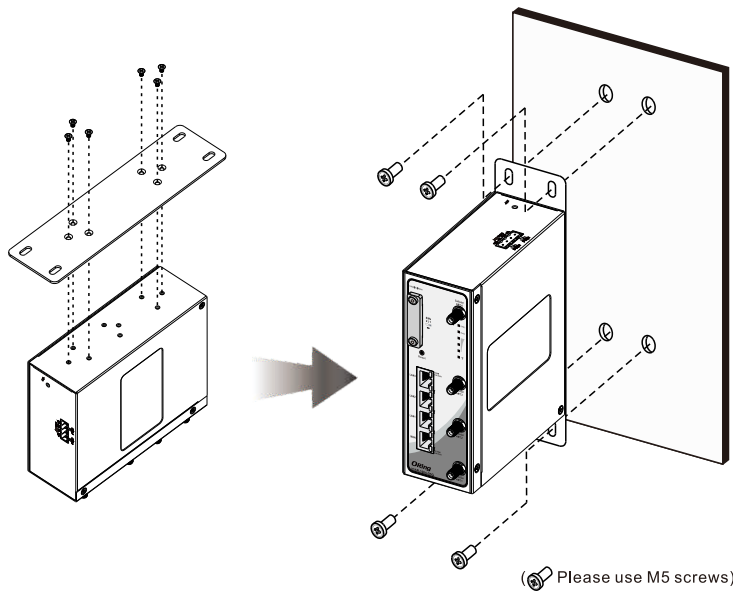
Panel Layouts



Installation

Wall-mounting

- STEP 1: Screw the wall-mount kits onto both ends of the rear panel of the device. A total of six screws are required, as shown below.
- STEP 2: Use the device, with wall mount plates attached, as a guide to mark the correct locations of the wall-mounting screws.
- STEP 3: Insert a screw head through the large part of the keyhole-shaped aperture on the plate, and then slide the device downwards. Tighten the screw for added stability.



Network Connection

The device has two 10/100/1000Base-T(X) Ethernet ports. According to the link type, the device uses CAT 3, 4, 5, 5e, UTP cables to connect to any other network device (PCs, servers, switches, routers, or hubs). Please refer to the following table for cable specifications.

Quick Installation Guide

IGAR-1004-D5G

Industrial 5G Cellular Router

● Wiring

Power inputs

The device supports dual redundant power supplies, Power Supply1 (PWR1) and Power Supply 2 (PWR2). The connections for PWR1 and PWR2 are located on the terminal block.

STEP 1: Insert the negative/positive wires into the V-/V+ terminals, respectively.

STEP 2: To keep the DC wires from pulling loose, use a small flat-blade screwdriver to tighten the wire-clamp screws on the front of the terminal block connector.

Power connection

The device has two sets of power inputs, power input 1 and power input 2, on a 4-pin terminal block connector on the top panel. Follow the steps below to wire power inputs.

STEP 1: Insert the negative/positive DC wires into the V-/V+ terminals, respectively.

STEP 2: To keep the DC wires from pulling loose, use a small flat-blade screwdriver to tighten the wire-clamp screws on the front of the terminal block connector.

Grounding

Grounding and wire routing help limit the effects of noise due to electromagnetic interference (EMI). Run the ground connection from the ground screws to the grounding surface prior to connecting devices.

● Network Connection

The device has two 10/100Base-T(X) Ethernet ports. According to the link type, the AP uses CAT 3, 4, 5, 5e, UTP cables to connect to any other network device (PCs, servers, switches, routers, or hubs). Please refer to the following table for cable specifications.

Cable	Type	Max. Length	Connector
10Base-T	Cat. 3, 4, 5 100-ohm	UTP 100 m (328 ft)	RJ-45
100Base-TX	Cat. 5 100-ohm UTP	UTP 100 m (328 ft)	RJ-45
1000Base-T	Cat. 5/Cat 5e 100-ohm UTP	UTP 100 m (328 ft)	RJ-45

RJ-45 Pin Assignment

10/100 Base-T(X) RJ-45 port		1000 Base-T RJ-45 port	
Pin Number	Assignment	Pin Number	Assignment
1	TD+	1	BI_DA+
2	TD-	2	BI_DA-
3	RD+	3	BI_DB+
4	Not used	4	BI_DC+
5	Not used	5	BI_DC-
6	RD-	6	BI_DB-
7	Not used	7	BI_DD+
8	Not used	8	BI_DD-

Note: "+" and "-" signs represent the polarity of the wires that make up each wire pair.

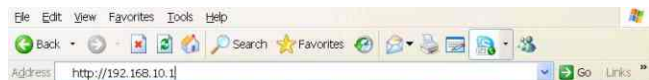
✚ Configurations

After installing the device, the green power LED should turn on. Please refer to the following tablet for LED indication.

LED	Color	Status	Description
PWR1/PWR2	Green/Red	On	DC power 1/2 is activated
	Red	On	Power is on and booting up
Status	Green	On	Power or link fails
Cellular signal strength	Green	On	Green for Strength:
			1 <30%
			2 >30%, <60%
			3 >75%
Cellular	Green	On	Power is on and functioning normal
SIM Status	Green	On	In active
10/100/1000Base-T(X) Fast Ethernet ports			
LNK/ACT	Green	On	Port is linked and running at 1000Mbps
	Green	On	Port is linked and running at 10/100Mbps

Follow the steps to set up the card:

1. Launch the Internet Explorer and type in IP address of the switch. The default static IP address is **192.168.10.1**



2. Log in with default user name and password (both are admin).



3. After logging in, you should see the following screen. For more information on configurations, please refer to the user manual.

● Resetting

To restore the device configurations back to the factory defaults, press the Reset button for a few seconds. Once the power indicator starts to flash, release the button. The device will then reboot and return to factory defaults.

✚ Specifications

ORing AP Router Model	IGAR-1004-D5G
Physical Ports	
10/100/1000Base-T(X) Ports in RJ45	1(WAN) + 3(LAN), Auto MDI/MDIX
Input Power Port in 4-pin terminal block	1
Cellular Interface (Main)	
Antenna	SMA Female x 4
SIM (Dual)	SIM (Mini SIM, 2FF)
Cellular Standard	HSDPA/ HSUPA / LTE/ LTE+ / 5G
Band Option	Covers all bands & technologies used in Europe
	5G NR :
	n1,n3,n5,n7,n8,n20,n28,n38,n40,n41,n75,n76,n77,n78
	LTE :
FDD : B1/B3/B5/B7/B8/B20/B28/B32	
TDD : B38/B40/B41/B42/B43	
WCDMA :	
B1/B5/B8	

Protocol Support	
General Protocol	TCP, UDP, IPv4, IPv6, ICMP, NTP, DNS, HTTP, HTTPS, FTP, SMTP, SSL v3, TLS, ARP, VRRP, PPP, PPoE, UPNP, SSH, DHCP, Telnet, SMPP, MQTT, Wake On Lan (WOL), PDN
Routing Protocol	BGP, OSPF v2, RIP v1/v2, EIGRP, NHRP
Protocol Support	
File system	SSHFS
Time Format	ISO 8601
Routing Protocol	BGP, OSPF v2, RIP v1/v2, EIGRP, NHRP
Firewall	Iptables rules, against DDOS and port scan prevention
LED Indicators	
PWR	2 x LEDs, PWR1(2) / Ready: Green On: Power is on and functioning Normal
Ethernet Port Indicator	8 x LEDs, LNK: Green for port Link/Act. SPD: Green On for 1000/100Base-T(X) link; Green Off for 10Base link
Cellular LED	1 x LED, Green slow blink for work normal
Status Indicator	1 x LED, Amber slow blink: booting, Green On: for normal
Power	
Connector	4-pin terminal block
Input Power	12~24Vdc (9~32Vdc Max.)
Isolation	DC 2KV/ AC 1.5KV
Power Consumption (Typ.)	30 watts Max.
Overload Current Protection	Present
Interruption	10ms keep live
Reverse Polarity Protection	Present
Physical Characteristic	
Enclosure	IP-40
Dimension (W x D x H)	55.2(W) x 125(D) x 158(H) mm
Weight (g)	<2Kg
Environmental	
Storage Temperature	-40 to 85°C (-40 to 185°F)
Operating Temperature	-20 to 70°C (-4 to 158°F)
Operating Humidity	10% to 95% Non-condensing
Regulatory Approvals	
EMI	CISPR (EN55022) class A
Shock	IEC60068-2-27, EN61373
Free Fall	IEC60068-2-31
Vibration	IEC60068-2-6, EN61373
E-Mark	ECE R10
Temperature and humidity, vibrations and shocks	EN68000
Fire protection	ECE R118
Cooling	EN60068-2-1
Dry Heat	EN60068-2-2
Safety	EN60950-1
MTBF	>50000
Warranty	5 years
Product life time	10 years

WEEE Notice



At the end of its serviceable life, this product shall not be mixed with general household waste. We strongly encourage you to contact your local WEEE recycling agency or supplier for recycling and disposal advice.