

# IMG-6322GT

## ► Industrial Cellular M2M Gateway with IEEE 802.11 a/b/g/n and 1 Port RS-422/485, 1 port RS-232/422/485 & 2x10/100/1000Base-T(X) Gateway

### Features

- Provide 2 x 10 / 100/1000 Base –T(X) port and SIM card slot
- 3.5G/4G LTE modem dial up included
- Support Open VPN, PPTP VPN
- High Speed Air Connectivity: WLAN interface support up to 300 Mbps link speed
- Highly Security Capability: WEP/WPA/WPA-PSK(TKIP,AES)/ WPA2 / WPA2-PSK (TKIP, AES) / 802.1x Authentication supported
- Versatile modes & event alarm by e-mail.
- Event warning by Syslog, Email, SNMP Trap, Relay output
- Redundant multiple host devices:  
5 host devices: TCP Server, TCP Client mode;  
4 IP ranges: UDP
- Modbus Protocol conversion between Modbus TCP and Modbus RTU
- Dual Power inputs 12–48VDC
- Rugged IP-30 casing design

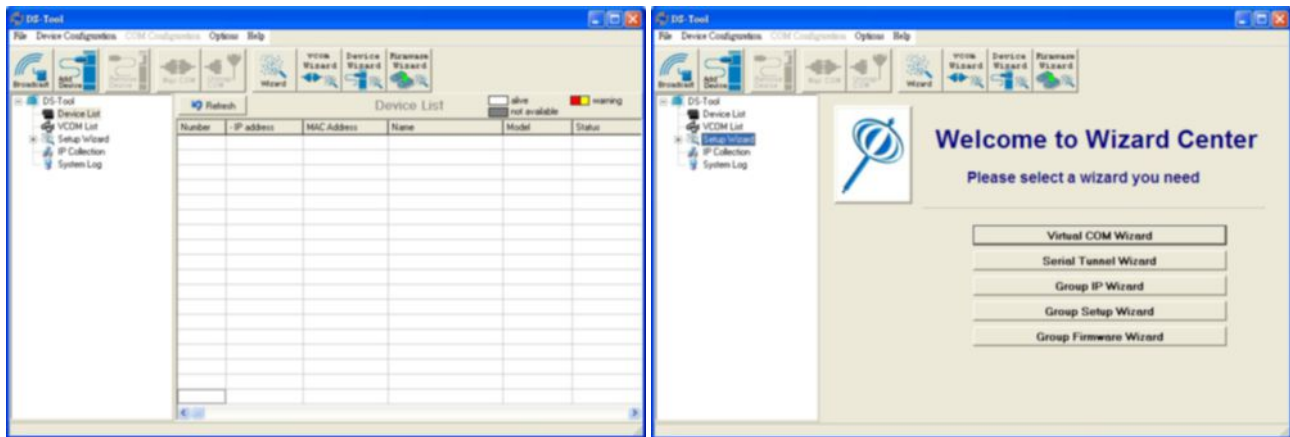
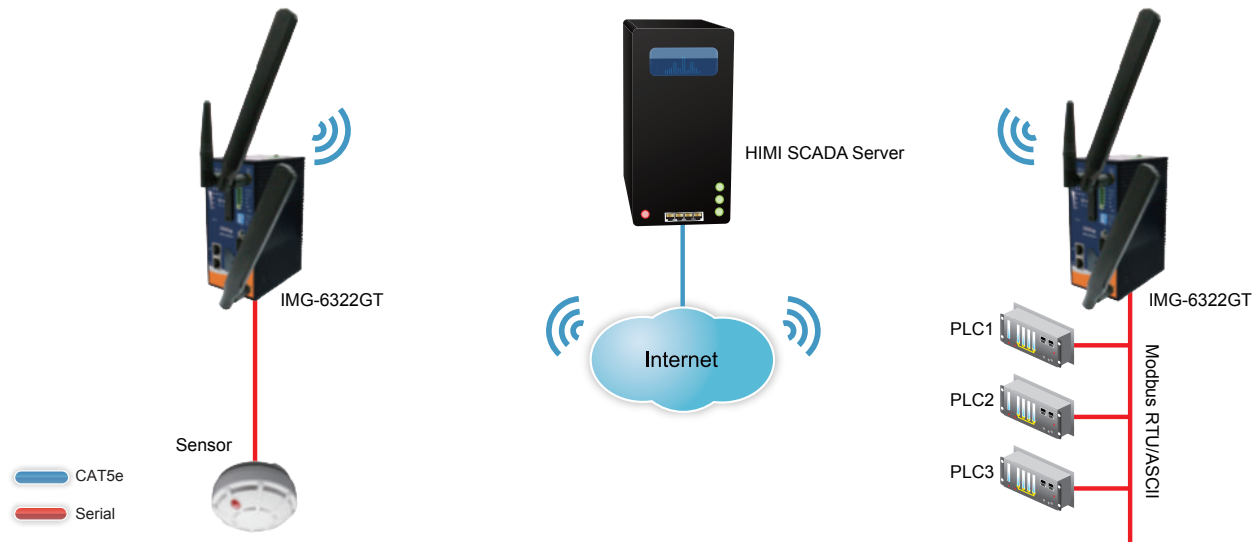


### Introduction

IMG-6322GT is an innovative 1 port RS-422/485, 1 port RS-232/422/485 and IEEE802.11 a/b/g/n VPN gateway with 2 ports 10/100/1000Base-T(X) ports. It could be configured to connect to the internet by dialing up 3.5G/4G cellular modem to fulfill demands of various applications rapidly and construct the WLAN environment. IMG-6322GT is also able to act as Modbus Gateway to convert in between different Modbus protocol such as Modbus TCP and Modbus RTU via wired or wireless interface. In TCP Server mode, IMG-6322GT can also transfer SSL encryption data into 5 host PCs simultaneously for backup purposes. Therefore, IMG-6322GT is one of the best solutions for applications of wireless and serial communication.

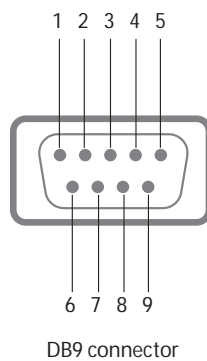
## Application

IMG-6322GT, it supports 3.5G/4G Modem dial up. The utility M2M-Tool which is used to manage and monitor all of the serial ports on IMG-6322GT.



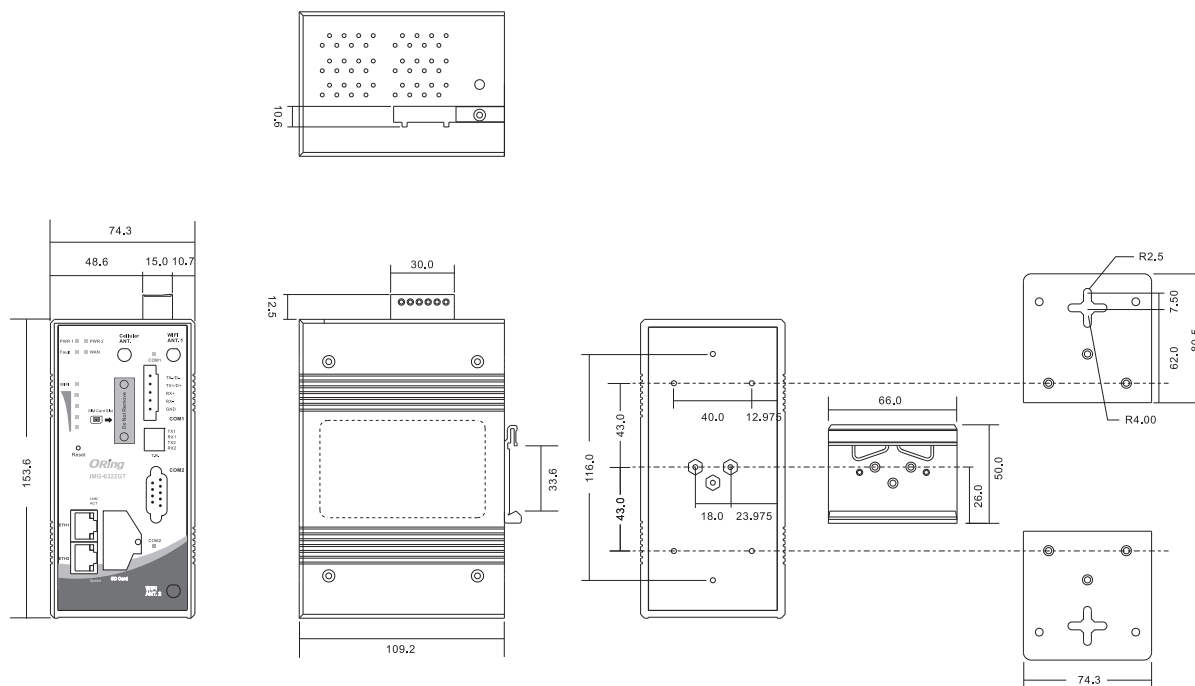
Monitoring and Configuration interface

## Pin Assignment



Pin #	RS-232	RS-422	RS-485 (4 wire)	RS-485 (2 wire)
1	DCD	TX-	TX-	DATA -
2	RXD	TX+	TX+	DATA +
3	TXD	RX+	RX+	-
4	DTR	RX-	RX-	-
5	GND	GND	GND	-
6	DSR	-	-	-
7	RTS	-	-	-
8	CTS	-	-	-
9	RI	-	-	-

## Dimensions



(Unit=mm)

## Specifications

ORing M2M Model	IMG-6322GT-3G	IMG-6322GT-4G
<b>Physical Ports</b>		
10/100/1000 Base-T(X) Ports in RJ45 Auto MDI/MDIX		2
SIM card slot		1
<b>Cellular interface</b>		
Cellular Standard	GSM / GPRS / EGPRS / EDGE / WCDMA / HSDPA / HSUPA	GSM / GPRS / EGPRS / EDGE / WCDMA / HSDPA / HSUPA / HSPA+/LTE
Band options	Dual-band : HSUPA 1900/2100 MHz Quad-band : GSM/GPRS/EDGE 850/900/1800/1900 MHz WCDMA/HSDPA 850/900/1900/2100 MHz	America(US) LTE: 700/1700/2100/ MHz UMTS/HSDPA/HSUPA/HSPA+/DC-HSPA+ : 800/850/1900/2100 MHz GSM/GPRS/EDGE: 850/900/1800/1900 MHz Europe(EU) LTE: 800/900/1800/2100/2600 MHz UMTS/HSDPA/HSUPA/HSPA+/DC-HSPA+ : 900/2100 MHz GSM/GPRS/EDGE: 900/1800/1900 MHz
Antenna Connector (Reverse SMA Female)	1	-
Antenna Connector (SMA Female)	-	1
<b>WLAN Feature</b>		
Antenna Connector	Reverse SMA Female connector x2	
Radio Frequency Type	DSSS, OFDM	
Modulation	IEEE802.11a/g: OFDM with BPSK, QPSK, 16QAM, 64QAM IEEE802.11b: CCK, DQPSK, DBPSK IEEE802.11n: BPSK, QPSK, 16-QAM, 64-QAM	

Frequency Band	America / FCC : 2.412~2.462 GHz (11 channels) 5.180~5.240 GHz & 5.745~5.825 GHz ( 9 channels ) Europe CE / ETSI : 2.412~2.472 Ghz (13 channels) 5.180~5.240 GHz (4 channels)	
Transmission Rate	IEEE802.11b: 1 / 2 / 5.5 / 11 Mbps IEEE802.11a/g: 6 / 9 / 12 / 18 / 24 / 36 / 48 / 54 Mbps IEEE801.11n: up to 300Mbps	
Transmit Power	802.11a: 12dBm ± 1.5dBm 802.11b: 17dBm ± 1.5dBm 802.11g: 16dBm ± 1.5dBm 802.11gn HT20: 15dBm ± 1.5dBm@150Mbps 802.11gn HT40: 14dBm ± 1.5dBm@300Mbps 802.11an HT20: 12dBm ± 1.5dBm@150Mbps 802.11an HT40: 11dBm ± 1.5dBm@300Mbps	
Receiver Sensitivity	802.11a: -76dBm ± 2dBm@54Mbps 802.11b: -85dBm ± 2dBm@11Mbps 802.11g: -76dBm ± 2dBm@54Mbps 802.11gn HT20: -75dBm ± 2dBm@150Mbps 802.11gn HT40: -72dBm ± 2dBm@300Mbps 802.11an HT20: -74dBm ± 2dBm@150Mbps 802.11an HT40: -71dBm ± 2dBm@300Mbps	
Encryption Security	WEP: (64-bit , 128-bit key supported) WPA/WPA2 :802.11i(WEP and AES encryption) WPA2PSK (256-bit key pre-shared key supported) 802.1X Authentication supported TKIP encryption	
Wireless Security	SSID broadcast disable and enable	
Serial Ports		
Connector	Terminal Block x 1 (Port 1), DB9 male x 1 (Port 2)	
Operation Mode	Port 1 : RS-422/RS-485(2W/4W). Which can be configured by utility Port 2 : RS-232/RS-422/RS-485(2W/4W). Which can be configured by utility	
Serial Baud Rate	110 bps to 921.6 Kbps	
Data Bits	7, 8	
Parity	odd, even, none, mark, space	
Stop Bits	1, 1.5, 2	
Serial signals	RS-232 :       TxD, RxD, DCD, RTS, CTS, DSR, DTR, RI, GND RS-422 :       TX+, TX-, RX+, RX-, GND RS-485 (2W): D+ , D- RS-485 (4W): TX+, TX-, RX+, RX-, GND	
LED Indicators		
Power indicator	PWR 1(2) / Ready: Green On: Power is on	
10/100/1000Base-T(X) RJ45 port indicator	2 x LEDs, LNK/ACT: Green for port LNK/ACT Speed: Green for port Link at 1000Mbps Amber for port Link at 100Mbps. Off for port Link at 10Mbps	
WLAN indicator	Green Solid On: RF on, Blink: data transmitting Green for WLAN Strength: 1<25%, 2<50%, 3<75%, 4<100%	
Fault	Power failure or port disconnected	
WAN	Green on : Modem module detected Green blinking : Modem module being activated	Green on : Modem module detected Green blinking : Modem module being activated
Serial TX/RX LED	Red : Receiving data Green : Transmitting data	
Power		
Power Input	Dual DC inputs. 12-48VDC on 6-pin terminal block	
Power consumption (Typ.)	10 Watts	10.5 Watts
Overload current protection	Present	
Reverse polarity protection	Present	
Physical Characteristic		
Enclosure	IP-30	
Dimension (W x D x H)	74.3 (W) x 109.2 (D) x 153.6 (H) mm (2.93x4.30x6.05 inch)	
Weight (g)	1050 g	

Environmental		
Storage Temperature	-40 to 85°C (-40 to 185°F)	
Operating Temperature	-40 to 70°C (-13 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	283297.3193 hours	US : 261406.4413 hours EU : 266562.8536 hours
Warranty	5 years	

## Ordering Information

IMG- **A** **B** **C** **D** **E** **E** - **FF**

Code Definition	Wireless Mode	Serial Port Type	Serial Port Number	Ethernet Port Number	Ethernet Port Type	Cellular Interface
<b>Option</b>	<b>1:</b> 802.11 b/g <b>2:</b> 802.11 a <b>3:</b> 802.11 a/b/g <b>4:</b> 802.11 b/g/n <b>5:</b> 802.11 a/n <b>6:</b> 802.11 a/b/g/n	<b>- 1:</b> RS-232 only <b>- 2:</b> RS-422/485 only <b>- 3:</b> RS-232/422/485	<b>- 2:</b> 2 port	<b>- 2:</b> 2 port	<b>-GT:</b> Gigabit Ethernet Port	<b>- 3G:</b> HSUPA <b>- 4G:</b> LTE

Available Model	Model Name	Description
	IMG-6322GT-3G_US	Industrial 3.5G M2M Gateway with IEEE 802.11 a/b/g/n and 1 Port RS-422/485, 1 port RS-232/422/485 & 2x10/100/1000Base-T(X) Gateway, US band
	IMG-6322GT-3G_EU	Industrial 3.5G M2M Gateway with IEEE 802.11 a/b/g/n and 1 Port RS-422/485, 1 port RS-232/422/485 & 2x10/100/1000Base-T(X) Gateway, EU band
	IMG-6322GT-4G_US	Industrial 4G LTE M2M Gateway with IEEE 802.11 a/b/g/n and 1 Port RS-422/485, 1 port RS-232/422/485 & 2x10/100/1000Base-T(X) Gateway, US band
	IMG-6322GT-4G_EU	Industrial 4G LTE M2M Gateway with IEEE 802.11 a/b/g/n and 1 Port RS-422/485, 1 port RS-232/422/485 & 2x10/100/1000Base-T(X) Gateway, EU band

### Packing List

- IMG-6322GT x 1
- Wall Mount Kit x 1
- Din-Rail Kit x 1
- CD x 1
- 2.4GHz/5GHz Antenna x 2
- Quick Installation Guide x 1
- Cellular Antenna x 1

### Optional Accessories (Can be purchased separately)

- DR-45 series : 45 Watts power supply
- WLAN RF Antenna Series
- DR-75 series : 75 Watts power supply
- RF Antenna Base Series
- DR-120 series : 120 Watts power supply
- RF Cable series