



IGMG-P83244GC+-D4G

Industrial 4G LTE Cellular M2M IoT Gateway with 4x10/100/1000Base-T(X) and 4xGigabit SFP combo ports, 2xSerial ports

Highlights

- Provide 8-port Gigabit Ethernet with 4x10/100/1000T and 4xGigabit SFP combo ports
- Support RS-232/422/485 in DB9 connector and RS-422/485 in terminal block
- IGMP v2/v3 (IGMP snooping support) for filtering multicast traffic
- Support 3.5G/4G LTE connection certificated by AT&T®
- **Ignition-Edge on board supported**
- **Support node-Red for data flow design**
- Support VPN for secured network connection (Open VPN, PPTP, IPSEC, VPN)
- **Support MQTT/Sparkplug, CoAP IoT protocol**
- **Support Modbus TCP/RTU industrial protocol**
- 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
- 1KV isolation for IEEE802.3at PoE P.D.
- Dual isolation power inputs 12~48VDC
- Rugged IP-30 casing design

Preliminary

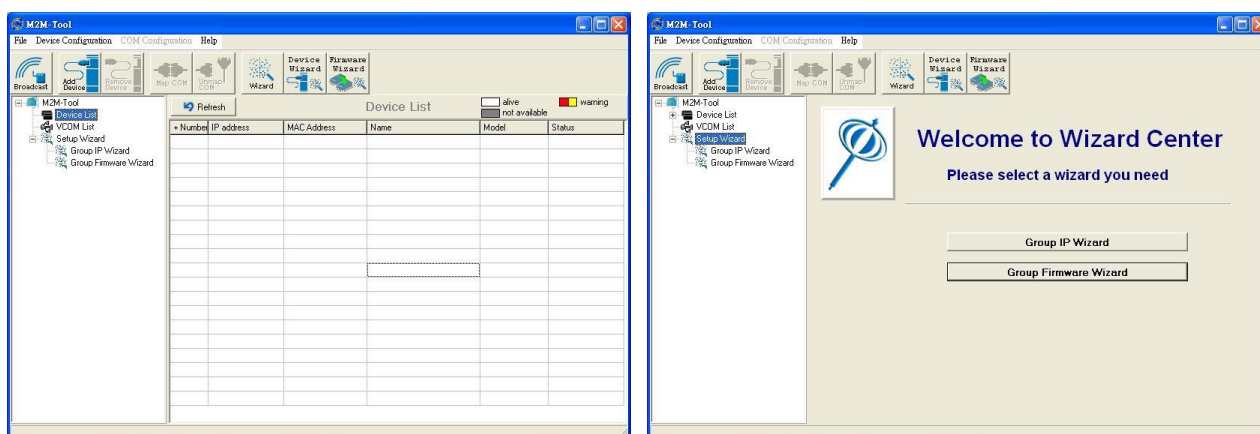


Introduction

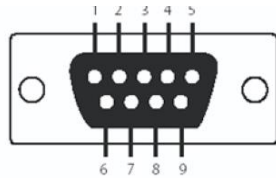
IGMG-P83244GC+-D4G is a breakthrough innovation product which is a combines powerful hardware and software IoT gateway. It is using dual core ARMv7 Cortex-A9 CPU operating speed up to 2.0 GHz. It integrates 8 ports industrial Ethernet which 6 ports in switch mode for LAN and 2 ports in standalone for WAN, and 4 SFP fiber in combo ports and provides LTE 4G connectivity with AT&T® certification and dual SIM card support. It is also built in mSATA storage 256MB(up to 1T) for huge IOT data collection. There are two serial ports RS232/422/485 and RS422/485 which both can support Modbus RTU serial protocol to connect with serial devices and providing all-in-one solutions to help user build up highly reliable and user-friendly SCADA and IOT system for variant industrial automation applications. IGMG-P83244GC+-D4G also supports VPN client/server including IPsec, OPENSSL VPN. It can provide remote access service through ORING-PaaS platform and NAT/firewall to protect networking security.

Application

IGMG-P83244GC+-D4G, it supports 3.5G/4G Modem dial up. The utility M2M-Tool is used to manage and monitor all of the serial ports on IGMG-P83244GC+-D4G.



Pin Definition

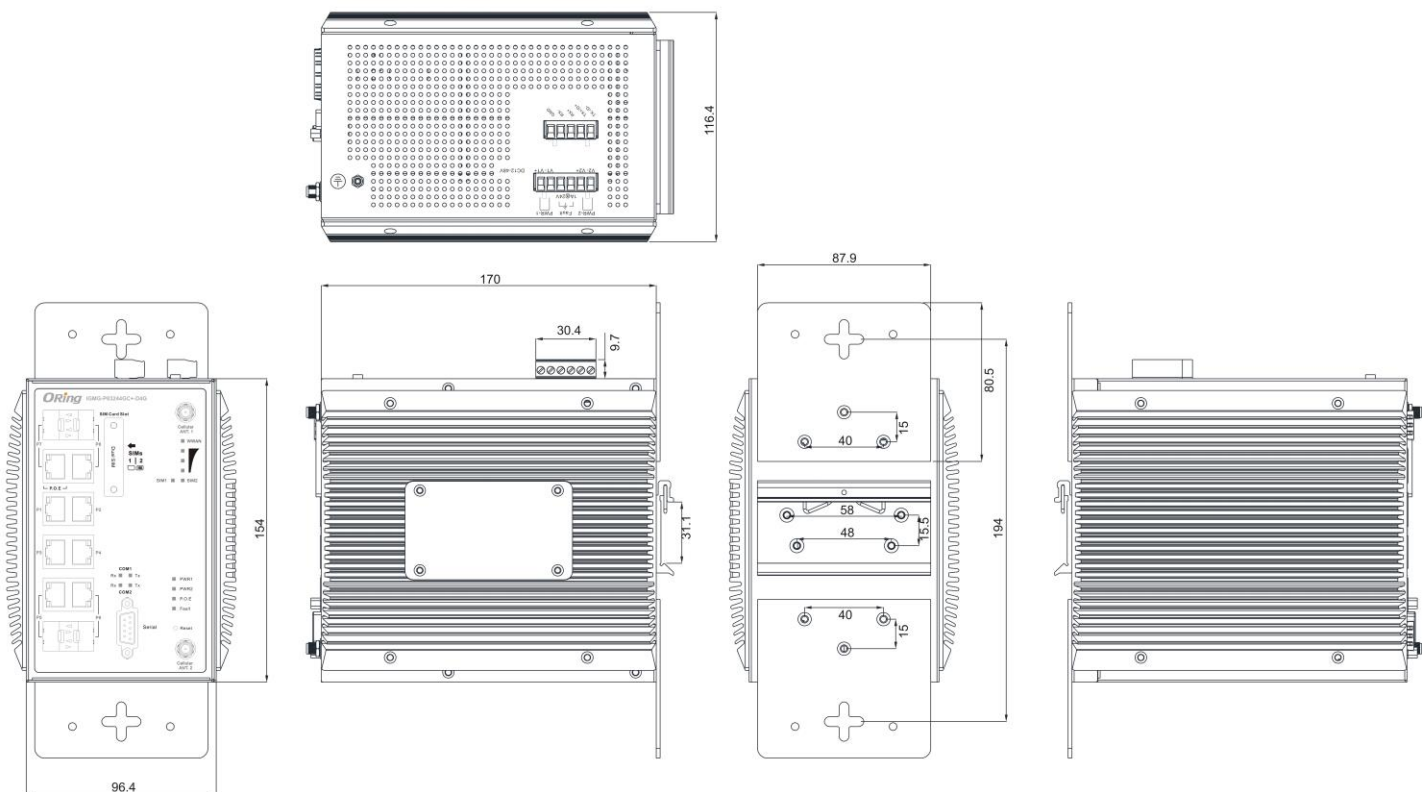


DB9 connector

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			

Dimension

Dimension (Unit =mm)



Specifications

ORing M2M Model	IGMG-P83244GC+-D4G
Networking Ports	
10/100/1000 Base-T(X) Ports in RJ45 Auto MDI/MDIX	4
Gigabit Combo port with 10/100/1000Base-T(X) and 100/1000Base-X SFP ports	4
Cellular interface	
Cellular Standard	GSM / GPRS / EGPRS / EDGE / WCDMA / HSDPA / HSUPA/HSPA+/LTE
SIM card slot	2
Band options	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 (SMA Female)	2
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	3 x LEDs, PWR 1, 2, PoE : Green On: Power is on
10/100/1000Base-T(X) RJ45 port indicator	2 x LEDs, LNK/ACT: Green for port LNK/ACT Speed: Amber for port Link at 100Mbps Off for port Link at 1000/10Mbps
WWAN status	Green On : Power is on and functioning Normal
WWAN signal strength	3 x LEDs Green for Strength: 1<30%, 2 >30% <60%, 3>75%
SIM Indicator	Green On: in active
Fault	Power failure or port disconnected
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.)	18 Watts	
Overload current protection	Present	
Reverse polarity protection	Present	
Physical Characteristic		
Enclosure	IP-30	
Dimension (W x D x H)	116.4mm W x 170mm D x 154mm H (4.6" W x 6.7" D x 6.1" H)	
Weight (g)	2400 g	
Environmental		
Storage Temperature	-40 to 85°C (-40 to 185°F)	
Operating Temperature	-40 to 75°C (-13 to 167°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	