



IMG-311DL-4GS

**Industrial 4G LTE Cellular Router with 1x10/100Base-T(X)
1x RS-232/422/485 and 2 x Digital I/O**

Features

- Provide 1x10/100Base-T(x) port and single SIM card slot
- 2/3.5/4G LTE model included
- **Support MQTT IoT protocol**
- **Support Modbus TCP/RTU industrial protocol**
- Support GPS
- Support Open VPN, PPTP VPN, IPSec.
- Support DHCP forwarding through PPTP function
- Versatile modes & event alarm by e-mail.
- Event warning by Syslog, Email, SNMP Trap
- Redundant multiple host devices:
5 host devices: Virtual COM, TCP Server, TCP Client mode,
UDP mode(4 IP Ranges)
- 2 x Digital I/O
- Support external MicroSD card
- 12~48VDC power input on terminal block
- Rigid IP-30 housing design
- Din-Rail and panel mounting enabled.
- Support OpenWRT SDK for project
- IEEE 802.11g/n Wifi support(optional)



Introduction

IMG-311DL-4GS is an innovative 1 port RS-232/422/485 and 2 ports digital I/O and 4G LTE cellular Gateway with 1 port 10/100Base-T(X) port. It could be configured to connect to the internet by dialing up 3.5G/LTE cellular modem to fulfill demands of various applications rapidly. IMG-311DL-4GS can also transfer data into 5 host PCs simultaneously for backup purposes. In addition, IMG-311DL-4GS also support protocol MQTT and LWM2M for Cloud application and Modbus TCP/RTU for industrial application. Therefore, IMG-311DL-4GS is one of the best solutions for applications of wireless and serial communication.

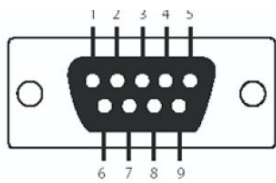
Application

IMG-311DL-4GS support 3.5G/LTE Modem dial up. The utility- M2M-Tool which is used to manage and monitor all of the serial ports on IMG-311DL-4GS.



M2M Gateway Connection

Pin Definition

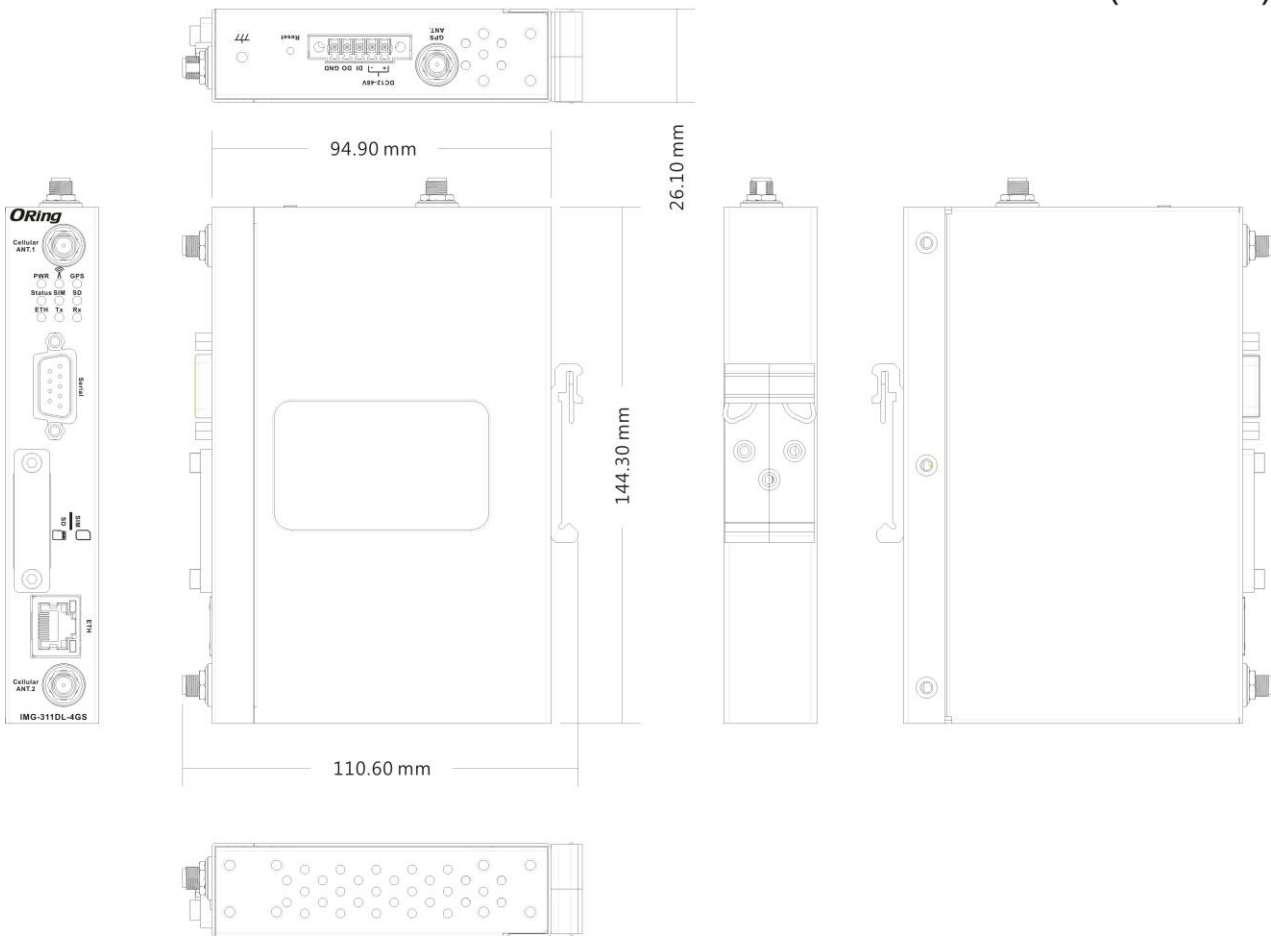


DB9 connector

| 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)



* All specifications are subject to change without notice.

Specifications

| ORing M2M Gateway Model | IMG-311DL-4GS |
|--|--|
| Physical Ports | |
| 10/100 Base-T(X) Ports in RJ45 Auto MDI/MDIX | 1 |
| Sim card slot | 1 |
| SD card slot | 1 |
| GNSS support | |
| Antenna Connector | 1 x External reverse SMA antenna connector |
| Frequency | GPS 1575.42±1.023 MHz |
| Cellular Interface | |
| LTE Connector | 2 x SMA Female |
| Cellular Standard | GSM / GPRS/ EGPRS/ EDGE / WCDMA / HSDPA / HSUPA /LTE |
| Band Option | EU grade LTE: FDD:B1/B3/B7/B8/B20/B28 UMTS/HSDPA/HSUPA: B1/B8 GSM/GPRS/EDGE: 900/1800 MHz US grade LTE: FDD:B2/B4/B5/B12/B13 UMTS/HSDPA/HSUPA: B2/B4/B5 |
| Serial Ports | |
| Connector | DB9 x 1 |
| Operation Mode | RS-232/422/485 |
| Serial Baud Rate | 110 bps to 115.2 Kbps |
| Data Bits | 7, 8 |
| Parity | odd, even, none, mark, space |
| Stop Bits | 1, 1.5, 2 |
| RS-232 | TxD, RxD, RTS, CTS, DTR, DSR, DCD, RI, GND |
| Flow Control | XON/XOFF, RTS/CTS, DTR/DSR |
| Digital Ports | |
| Digital I/O | 3.5mm Digital input x 1 and output x 1 (DI :Logic level 1: 5V~30V, Logic level 0: 0V~2V DO :Maximum Voltage is 30V, Maximum Current is 20mA) |
| Network Protocol | |
| Protocol | ICMP, IP, TCP, UDP, DHCP, SSH, DNS, SNMP V1/V2c, HTTPS, SMTP, DDNS, PPPoE |
| LED indicators | |
| Power indicator | 1 x LED, PWR 1/ Ready: Green On: Power is on |
| Cellular  | 1 x LED, Green for Link. |
| SD | 1 x LED, Green for SD Ready |
| SIM | 1 x LED, Green for SIM Ready |
| Serial TX / RX LEDs: | Red: Serial port is receiving data Green: Serial port is transmitting data |
| SYS LED | 1 x LED, Green On : System function normal |

| | |
|--------------------------------|--|
| GPS | 1 x LED, Solid for satellites ≥ 4 Blink for satellites < 4 |
| Power | |
| Input power | DC inputs. 12-48VDC on 3.5mm terminal block |
| Power consumption (Typ.) | 3W |
| Overload current protection | Present |
| Reverse polarity protection | Present on terminal block |
| Physical Characteristic | |
| Enclosure | IP-30 |
| Dimension (W x D x H) | 26.1(W) x 94.9(D) x 144.3(H) mm |
| Weight (g) | 370g |
| Environmental | |
| Storage Temperature | -40 to 85°C (-40 to 185°F) |
| Operating Temperature | -10 to 60°C (14 to 140°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 | IEC60068-2-31 |
| Vibration | IEC60068-2-6 |
| Safety | EN60950-1 |
| Warranty | 5 years |

Packing List

- **IMG-311DL-4GS x 1**
- **Wall-Mount Kit x 1**
- **Din-Rail Kit x 1**
- **LTE antenna x 2**
- **Quick Installation Guide x 1**

Optional Accessories

- **DR-45 series : 45 Watts power supply**
- **DR-120 series : 120 Watts power supply**
- **DR-75 series : 75 Watts power supply**