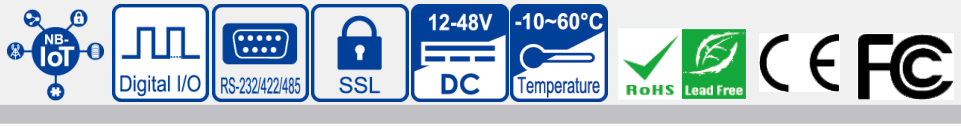
IMG-311DL-MN

Industrial IoT LPWAN Gateway with 1x10/100Base-T(X) 1xRS-232/422/485 and 2 x Digital I/O

Features

- Provide 1x10/100Base-T(x) port and single SIM card slot
- **LTE CAT-M1/CAT-NB1 modem included**
- Support 1xRS-232/422/485 in DB9 connector
- **Support MQTT IoT protocol**
- **Support Modbus TCP/RTU industrial protocol**
- 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
- MicroSD card compliance
- 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-MN LPWAN series is an innovative 1 port RS-232/422/485 and 2 ports digital I/O and LTE LPWAN IoT Gateway with 1 port 10/100Base-T(X) port and. It could be configured to connect to the internet by dialing up LTE cellular modem to fulfill demands of various applications rapidly a. In addition, IMG-311DL-MN can also transfer data into 5 host PCs simultaneously for backup purposes. In addition, IMG-311DL-MN also support protocol MQTT and LWM2M* for Cloud application and Modbus TCP/RTU for industrial application. specification Therefore, IMG-311DL-MN is one of the best solutions for applications of wireless and serial communication.

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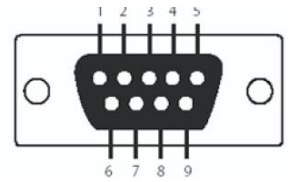
Application

IMG-311DL-MN LTE Cat-M1 or Cat-NB Modem dial up. The utility- M2M-Tool which is used to manage and monitor all of the serial ports on IMG-311DL-4G.



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			

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Dimension

Dimension (Unit =mm)



Specifications

ORing M2M Gateway Model	IMG-311DL-MN
Physical Ports	
10/100 Base-T(X) Ports in RJ45 Auto MDI/MDIX	**1**
Sim card slot	**1**
SD card slot	**1**
Cellular Interface	
LTE Connector	1 x SMA Female
Cellular Standard	LTE Cat-M1, Cat-NB1
Download/Upload Rate	LTE Cat-M1:300 / 375 Kbps LTE Cat-NB1: 32 / 70 Kbps
Band Option	**LTE Cat-M1/NB :** LTE FDD:B1/B2/B3/B4/B5/B8/B12/B13/B18/B19/B20/B25/B26/B27/B28/
Serial Ports	
Connector	DB9 x 1
Operation Mode	RS-232/422/485

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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, BOOTP, 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
Power	
Redundant Input power	DC inputs. 12-48VDC on 2-pin 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	IEC60068-2-32
Vibration	IEC60068-2-6
Safety	EN60950-1
Warranty	5 years

Packing List

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

Optional Accessories

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

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