

Your vision, automated



# MCOM601LORA

## WIRELESS LORA GATEWAY



The MCOM601LoRa is a LoRa based wireless modem with RS-232/RS-485 and 2 digital inputs, 1 digital output. MCOM601LoRa is an updated model of MCOM600RF. It runs of frequency band 868 mhz radio that can be used to convert data from an RS-232/RS-485 device to an LoRa message that can then be transmitted in transparent mode as well as intelligent mode via the 868 mhz ISM frequency band.

The MCOM601LoRa provides a maximum line of sight (LOS) transmission distance of 2000 meters (2 km) at a LoRa baud rate of 9600 bps. In order to overcome the interference that may be encountered in harsh environments, the MCOM601LoRa allows the LoRa transmission baud rate to be configured to a minimum of 650 bps, enhancing the capability of the modem to resist noise and other interference. The majority of these configuration parameters can be adjusted using a serial port, thereby providing a simple method of maintaining the system if the modem needs to be replaced.

## ➤ FEATURES

- 166db maximum link budget.
- +27 dbm output power @169/868/915 mhz band.
- Programmable bit rate up to 300 kbps.
- High sensitivity: down to -136dbm.
- Low RX current of 13mA.
- FSK, GFSK, MSK, GMSK, LoRaTm and OOK modulation.
- Built-in bit synchronizer for clock recovery.
- Automatic RF sense and CAD with ultra-fast AFC.
- Packet engine up to 256 bytes with CRC.
- 2 Digital inputs with current sensor
- 1 Relay output with 5A.
- Wireless line of sight (LOS) transmission range of up to 2000 meters at LoRa baud rate of 9600 bps.
- Transparent and intelligent transmission modes
- Provides baud rates from 1200 to 115200 bps for the RS-232/RS-485 interfaces

## ➤ SPECIFICATIONS

- **LoRa Interface**

Radio frequency	868 MHz to 915 MHz
Baud rate	115200 bps, 38400 bps, 19200 bps, 650 bps
Transmission power	19dB
Transmission distance (LoS)	2000 m ( at 19200 bps RF Rate)
Protocols	Transparent & intelligent transmit
Temporary buffer size	512 Bytes
Configuration	Serial port

- **COM Port Interface**

COM port	RS232 X 1 OR RS485 X 1
I/O ports	2 X DI, 1 X DO
Baud rate (bps)	1200 ~ 115200

- **LED Indicators**

RF_Tx / RF_Rx / PWR	Green / Yellow / Red
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- **EMS Protection**

ESD	±4 kV Contact
EFT	±1 kV
Surge	±1 kV

- **Power**

Input voltage range	+12 VDC ~ +30 VDC
Power consumption	1 W (Max)

- **Environment**

Operating temperature	-25 ~ +85°C
Storage temperature	-30 ~ +80°C
Relative humidity	0 ~ 90% RH, Non-condensing

## ➤ **APPLICATIONS**

- Long range system
- Meter reading
- Wireless data collection
- Automobile security system
- Home automation and security system
- Industrial automation
- Pump automation

## ➤ CONNECTION DETAILS

