LORA-223

RS485 LoRa Long Range Wireless Transceiver



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LoRa-PMAC LoRa-Radio

LORA-223

RS485 LoRa Long Range Wireless Transceiver

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1 PRODUCT OVERVIEW

The Owen Brothers **OBM-LoRa-223** Long Range Wireless Transceiver allows you to connect RS485 Modbus RTU devices over distances where it is impractical or impossible to run cables. The transceiver modules can connect to multiple devices and multiple transceiver modules. Ideal for electric, gas & water meters, inverters, temperature sensors, fuel sensors, environment sensors and much more.

Supported Serial Port Settings:

 Baud Rates
 1200, 2400, 4800, 9600 bps.

 Parity
 Even, Odd or None.

 Stop Bits
 1 or 2

2 SPECIFICATION

Operating Voltage:	AC85~42
Static Power:	0.5W@22
Working Frequency:	50Hz±1(
Wired Communication Port:	RS-485/I
Wireless Standard:	LoRa WA LoRa PM
Frequency Range:	428~438
Transmit Power:	+19dBm
Receive Sensitivity:	SF10: ≤
Operating Temperature:	-25°C :
Storage Temperature:	-40°C :
Mechanical Dimensions:	90.5 x 3 (LxWxH)

AC85~420Vac 0.5W@220Vac $50Hz\pm10Hz$ RS-485/Modbus-RTU LoRa WAN, LoRa Radio, LoRa PMAC 428~438MHz +19dBm Max SF10: \leq -132dBm -25°C : +70°C -40°C : +85°C 90.5 x 35.6 x 60.7 mm



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QUICK SETUP GUIDE: LORA RADIO MODE

The simplest mode to use out of the box with no configuration required by PC.

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Signal to noise ratio & signal strength LoRa Mode -Spread Factor -CR4/5 Frequency info 9600.8.N. Serial Port Settings

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MAIN DISPLAY IN LORA RADIO MODE

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To Select LoRa Radio Mode

- Press and hold the FUNC button to display the Main Menu
- Press the FUNC button repeatedly to scroll to System
- Press ENTER button to select System Setting Menu
- Press ENTER button repeatedly until shows LoRa Radio
- Press the FUNC button to return to Main Menu
- Press FUNC button to scroll to Reboot
- · Press ENTER button to reboot device to update settings

Change LoRa Radio Frequency

- Press and hold the FUNC button to display the Main Menu
- Press the FUNC button repeatedly to scroll to Frequency
- Press ENTER button to select Frequency Setting Menu
- Press Func button to select digit to change
- Press the ENTER button to increase digit
- Press FUNC button to scroll to end and return to Main Menu
- Press FUNC button to scroll to Reboot
- Press ENTER button to reboot device to update settings
- Modules must be on same frequency to communicate with each other

Change Serial Port Settings

- Press and hold the FUNC button to display the Main Menu
- · Press the FUNC button repeatedly to scroll to UART
- Press ENTER button to select UART Setting Menu
- Press the ENTER button repeatedly to scroll to desired Baud Rate
- Press FUNC button for Parity sub menu
- · Press the ENTER button repeatedly to scroll to desired Parity
- Press FUNC button to return to Main Menu
- Press FUNC button to scroll to Reboot
- Press ENTER button to reboot device to update settings









n Menu

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5 QUICK SETUP GUIDE: LORA PMAC MODE

PMAC Mode is a private radio-based MAC protocol. Features Software CRC check and CSMA (Conflict Avoidance)

LoRa PMAC Communication Modes

- Unicast addressing (one-to-one)
- Multicast addressing (one-to-many)
- Broadcast (one pair all)

To Select LoRa PMAC Mode

- Press and hold the FUNC button to display the Main Menu
- Press the FUNC button repeatedly to scroll to System
- Press ENTER button to select System Setting Menu
- Press ENTER button repeatedly until shows LoRa PMAC
- Press the FUNC button to return to Main Menu
- Press FUNC button to scroll to Reboot
- Press ENTER button to reboot device to update settings

Change LoRa PMAC Channel

- Press and hold the FUNC button to display the Main Menu
- Press the FUNC button repeatedly to scroll to Channel
- Press ENTER button to select Channel Setting Menu
- · Press the ENTER button to increase channel number
- Press FUNC button to return to Main Menu
- Press FUNC button to scroll to Reboot
- Press ENTER button to reboot device to update settings
- Modules must be on same channel to communicate with each other

View LoRa PMAC Settings

- Press and hold the FUNC button to display the Main Menu.
- Press the FUNC button repeatedly to scroll to LoRaPMAC.
- Press ENTER button to view LoRa PMAC ID's.
- Press FUNC button to view LoRaPMAC Mode.
- Press FUNC button to return to Main Menu.
- Modules must be on same Channel and Network ID

OBM-LoRa-223 Configuration Software

To change LoRa PMAC settings and more please use OBM-LoRa-223 Configuration software.

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6 **ROHS**

	HARMFUL SUBSTANCE						
PART NAME	LEAD	HG	CADMIUM	HEXAVALENT Chromium	POLYBROMINATED BIPHENYLS	POLYBROMINATED Diphenyl ethers	
	(PB)	(HG)	(CD)	(CR6)	(PBB)	(PBDE)	
CIRCUIT BOARD	0	0	0	0	0	0	
SHELL	0	0	0	0	0	0	
METAL PARTS	0	0	0	0	0	0	
INTERNAL WIRE	0	0	0	0	0	0	
OTHER ACCESSORIES	0	0	0	0	0	0	

This form is prepared according to the provisions of SJ/T 11364

O: Indicates that the content of the hazardous substance in all homogeneous materials of the part is specified in GB/T 26572

X: Indicates that the content of the harmful substance in at least one homogeneous material of the part exceeds GB/T 26572 limit requirements.

7 TECHNICAL SUPPORT

Technical Support/Sales:

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