

LoRaWAN radio module with external connection sensors for various types of meters

Part number: JOOBY OMNI RM LoRaWAN 4PU 201 EU



This radio module for several types of meters enables suppliers and management companies to obtain timely and relevant data about the resources consumed by their customers. The radio module connects to the metering devices using smart sensors and records metering pulses. The system then sends the received data to the server through the LoRaWAN wireless network, where it is converted into indicators and made available to the supplier in the administration panel. The radio module is

mounted on a flat surface (e.g., a wall) close to the meters and is installed using a mobile application. The Jooby OMNI RM LoRaWAN 4PU 201 EU radio module is designed for use with sensors that have a pulse output and an interface such as “dry contact” or “open collector”. The radio module can be connected to sensors developed by Jooby, as well as those from other manufacturers. If you use third-party sensors, you may need to parameterize the radio module to ensure that they work together.



Remote data collection from all metering points



Remote setting of the data transmission frequency



Mounting in just a few minutes, activation with a magnet, installation using a mobile application



Hourly, daily, monthly and annual consumption logs



Pulse input connection control



Possibility to read four meters simultaneously



Average lifetime without battery replacement is 10 years (1 data transfer per day)*



Enclosure protection level — IP54



Warranty period — 24 months

*The service life depends on the data transmission frequency

Technical Specification

LoRaWAN device class	A
Data transmission cyclicity	Configurable (standard once every 4 hours)
Remote change of the data transmission frequency	+
Data storage period in non-volatile memory (not less than / max), years	10/15
Event and alarm log capacity, number of events	256
Battery status monitoring	+
Support of ADR (Adaptive Data Rate)	+

General information

Enclosure material	ABS plastic
Weight, g	~ 196
Overall dimensions, mm	140 x 70 x 50
Warranty operation period, months	24

Operating conditions

Operating temperature, °C	-30...+85
Enclosure protection level	IP54
Approximate service life without battery replacement, years	10 (assuming one data transfer per day)*

Radio transmission specifications

Operating frequency, MHz	EU868
Connection protocol	LoRaWAN
Transmitter capacity, mW	< 25
Receiver sensitivity, dBm	< -138
Data transmission rate, bps	250 – 50 000
Communication range in urban areas, km	Up to 2
Communication range under line-of-sight conditions, km	Up to 10

Power source

Battery voltage, V	3,6
Rated battery capacity, A-h	2x2,5

Pulse interface

Number of pulse inputs	4
Minimum pulse duration/pause, ms	30/30
Default pulse duration/pause, ms	100/100
Maximum pulse frequency, Hz	16
Default pulse frequency, Hz	5
Pull-up voltage, from/to, V	3,3 / 3,6
Voltage polarity of the common wire	“_”
Pull-up resistance, kΩ	4,3

*The service life depends on the data transmission frequency