

LoRa click

MIKROE-1997

Weight: 40 g



LoRa click carries Microchip's <u>RN2483</u> fully certified LoRa Sub-GHz, 433/868 MHz **European** R&TTE Directive Assessed Radio Modem. The click is designed to use either a 3.3V or a 5V power supply. It communicates with the target microcontroller over a UART interface (TXD, RXD, CTS) with the addition of a Reset pin (RST).

NOTE: the antennas are sold separately.

RN2483 module

Microchip's RN2483 Low-Power Long Range LoRa Technology Transceiver module provides an easy to use, low-power solution for long range wireless data transmission.

The RN2483 module has a specified range of >15km in rural and suburban settings, and >5km coverage in urban areas.

A LoRaWAN[™] Class A protocol stack is embedded (bidirectional end devices), as well as an ASCII command interface accessible through UART. The high receiver sensitivity can go down to -148 dBm.

LoRaWan

LoRaWAN[™] or Low Power Wide Area Network is a wireless technology developed to enable low data rate communications over long distances, mainly for IoT applications and sensors.

The architecture for this network is usually arranged in a star-of-stars topology. A gateway relays messages between end-devices (for example, battery operated devices in home automation) and a central core network server.

Antenna Connectors

Two antenna connectors allow you to choose which of the two frequency bands will be employed.

Key features

- RN2483 module from Microchip
- On-board LoRaWAN[™] Class A protocol stack
- o ASCII command interface over UART
- >15 km coverage at suburban areas
- >5 km coverage at urban area
- o 433/868 MHz European R&TTE Directive Assessed Radio Modem
- Two antenna connectors onboard
- UART interface
- 3.3V or 5V power supply

Specifications

Туре	RF Sub 1GHz
Applications	Automated Meter Reading, Home and Building Automation, M2M, IoT, Industrial Monitoring and Control
On-board modules	Microchip's RN2483 Radio Modem

Key Features	Embeds LoRaWAN™ Class A protocol stack. Sub-GHz, 433/868 MHz European R&TTE Directive
Key Benefits	ASCII command interface. More than 15 km range (rural and suburban); more than 5 km (urban)
Interface	GPIO,UART
Input Voltage	3.3V or 5V
Compatibility	mikroBUS
Click board size	L (57.15 x 25.4 mm)

Pinout diagrams

This table shows how the pinout on **LoRa click** corresponds to the pinout on the mikroBUS[™] socket (the latter shown in the two middle columns).

Notes	Pin	mikroBUS tm				Pin	Notes
Not connected	NC	1	AN	PWM	16	NC	Not connected
Active-low device Reset input	RESET	2	RST	INT	15	СТЅ	Communication UART CTS signal
Not connected	NC	3	CS	ТΧ	14	TXD	UART transmit
Not connected	NC	4	SCK	RX	13	RXD	UART receive
Not connected	NC	5	MISO	SCL	12	NC	Not connected
Not connected	NC	6	MOSI	SDA	11	NC	Not connected
Power supply	+3.3V	7	3.3V	5V	10	+5V	Power supply
Ground	GND	8	GND	GND	9	GND	Ground