Delock IoT LoRa Radio Module 868 MHz 30 dBm TTL (3.3 V) SMT > I-PEX Inc., MHF® I jack

Description

This highly **energy-efficient** IoT LoRa radio module by Delock is suitable for LPWAN, M2M, IoT or Industry 4.0 applications. Via the UART TTL interface components such as sensors, controllers, GNSS trackers, LoRaWAN gateways etc. can be equipped with this LoRa compatible radio module. Due to the **flexible output power** of the module, a wide spectrum of antennas and thus a large transmission / reception range is possible.

The LoRa data are always transmitted encrypted in a secure radio network and thus remain protected from unauthorized access.

Energy efficiency

The IoT LoRa module supports four energy-saving modes and, with its very low power consumption (5 µA), is suitable for use with rechargeable batteries.

RF output power

There are four power levels available on the RF output of the IoT LoRa module for the antenna.

Forward Error correction (FEC)

The module can detect radio interference automatically and actively prevent transmission errors. This ensures error-free data transmission and secures the range of the transmission.

Item no. 12594

EAN: 4043619125944

Country of origin: Taiwan, Republic of China

Package: Box

Specification

- Connectors:
  1 x I-PEX Inc., MHF® I jack
  1 x 18 pin SMT
- Pitch: 1.27 mm
- Chipset: Semtech SX1276
- Interface: UART TTL (3.3 V)
- FIFO: 2 x 512 byte

- Frequency range: 862 - 893 MHz
- Channels: 32
- Sensitivity: -146 dBm @ 2,4 Kbps
- Transmission power: 21 - 30 dBm
- Air data rate: 0.3, 1.2, 2.4, 4.8, 9.6, 19,2 Kbps
- Energy modes: (Normal, Wake-up, Power-saving, Sleep)
- Supports WOR (Wake On Radio)
- Supports FEC (Forward Error Correction)
- Power supply: 3.3 - 5.2 V
- Current consumption: 600mA@30dBm
- Operating temperature: -40 °C ~ 85 °C
- Relative humidity: 10 - 90 % (non condensing)
- Dimensions (LxWxH): ca. 40 x 25 x 3.7 mm
- Weight: ca. 6 g

System requirements

- Antenna with I-PEX Inc., MHF® I plug
- Controller with TTL (3.3 V) interface

Package content

- Module

Images

Interface

Connector 1:	1 x I-PEX Inc., MHF® I jack
Connector 2:	18 x SMT

Technical characteristics

Data flow control:	AUX
Chipset:	Semtech SX1276
Data transfer rate:	up to 115,2 Kb/s
FIFO:	2 x 512 Byte
Frequency range:	862 - 893 MHz
Impedance:	50 Ohm
Storage temperature:	-40 °C - 125 °C
Operating temperature:	-40 °C ~ 85 °C
Humidity:	10 ~ 90 %
Interface:	UART
Power handling:	1 W
Data transmission:	Bi-directional
Voltage:	3,2 V - 5,2 V
Current consumption:	5 µA - 600 mA
UART:	UART TTL

Physical characteristics

Weight:	6 g
Length:	40.0 mm
Width:	25 mm
Height:	3.7 mm
Colour:	green