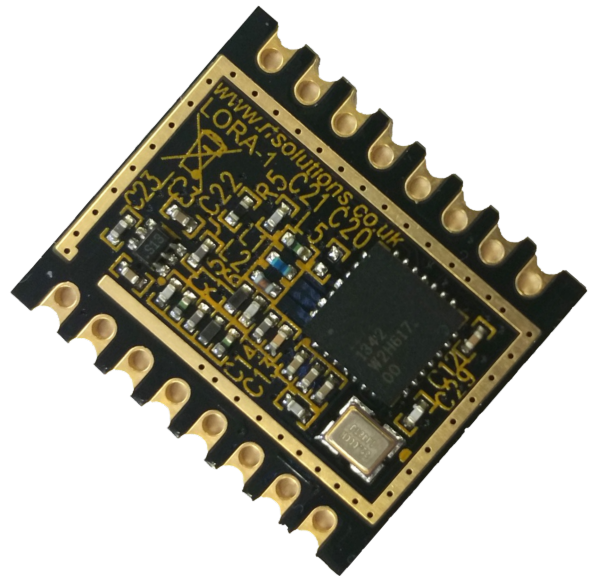


LongRange Transceiver

Features

- Upto 16KM Range
- Integrated LoRa™ Modem Semtech SX1272
- Highly Efficient Integral Impedance Matching Network
- Provides Full Functionality of the RFIC:
- 157 dB maximum link budget
- +20 dBm at 100 mW constant RF output vs. V supply
- +14 dBm high efficiency PA
- Built in RF switch
- High sensitivity: down to -130 dBm
- Bullet-proof front end: IIP3 = -12.5 dBm
- 89 dB blocking immunity
- Small Form Factor: 23mm x 20mm
- Programmable bit rate up to 300 kbps
- Low RX current of 10 mA, 100nA register retention
- FSK, GFSK, MSK, GMSK, LoRa™ and OOK modulation
- Built-in bit synchronizer for clock recovery
- Preamble detection
- 127 dB Dynamic Range RSSI
- Automatic RF Sense and CAD with ultra-fast AFC
- Packet engine up to 256 bytes with CRC
- Built-in temperature sensor and low battery indicator



Applications

- Home Automation
- RF Alarms
- Sensor networks
- Telemetry
- Meter Reading
- Irrigation Systems
- General Purpose Wireless Applications

Introduction

The RF-LoRa module is an extremely high performance, cost effective radio module featuring the Semtech SX1272 LoRa™ long range providing ultra-long range, spread spectrum communication and high interference immunity within minimal current consumption.

This module including crystal, RF Changeover switch, impedance matching network and track layout provide a simple digital interface and direct antenna connection. This enables a plug in RF solution with maximum efficiency. Programming of the module is via SPI interface.

Using the RF-LoRa enables a fast and easy to market solution with cost effective license exempt hardware.

The RF-LoRa Module is CE compliant and pending FCC approval. Providing that certain procedures are followed, this module can be used in a final application without further FCC approval, or testing. (please refer to application schematic later in this datasheet).