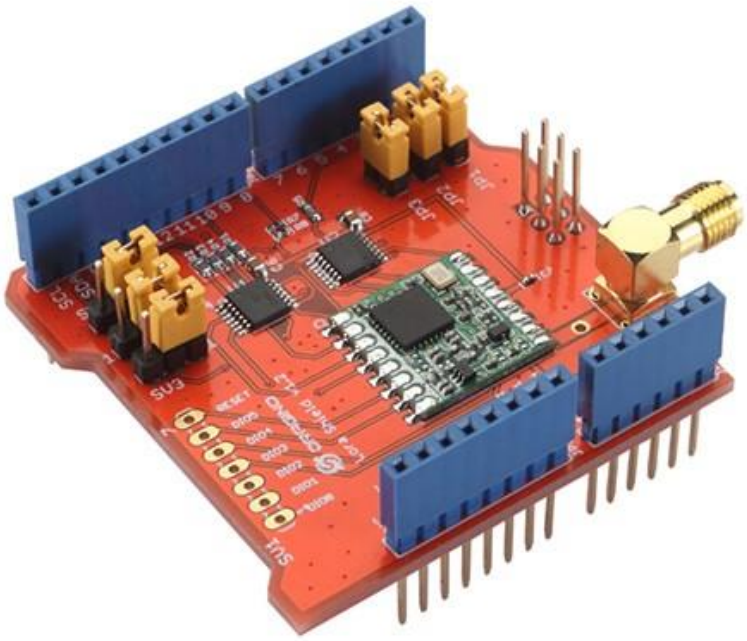
Dragino LoRa Shield - support 868M frequency



Description

The Dragino LoRa Shield is a long range transceiver on a Arduino shield form factor and based on Open source library.The LoRa Shield allows the user to send data and reach extremely long ranges at low data-rates. It provides ultra-long range spread spectrum communication and high interference immunity whilst minimising current consumption.

The LoRa Shield based on RFM95W targets professional wireless sensor network applications such as irrigation systems, smart metering, smart cities, smartphone detection, building automation, and so on.

Using Hope RF's patented LoRa™ modulation technique the LoRa Shield can achieve a sensitivity of over -148dBm using a low cost crystal and bill of materials. The high sensitivity combined with the integrated +20dBm power amplifier yields industry leading link budget making it optimal for any application requiring range or robustness. LoRa™ also provides significant advantages in both blocking and selectivity over conventional modulation techniques, solving the traditional design compromise between range, interference immunity and energy consumption.

These devices also support high performance (G)FSK modes for systems including WMBus, IEEE802.15.4g. The LoRa Shield delivers exceptional phase noise, selectivity, receiver linearity and IIP3 for significantly lower current consumption than competing devices.

FEATURES

- • Compatible with 3.3v or 5v I/O Arduino Board.
- • Frequency Band: 868 MHZ
- • Low power consumption
- • Compatible with Arduino Leonardo, Uno, Mega, DUE
- • External Antenna via I-Pex connector

SPECIFICATION

- • 168dB maximum link budget.
- • +20dBm - 100mW constant RF output vs.
- • +14dBm high efficiency PA.
- • Programmable bit rate up to 300 kbps.
- • High sensitivity: down to -148dBm.
- • Bullet-proof front end: IIP3 = -12.5dBm.
- • Excellent blocking immunity.
- • Low RX current of 10.3mA, 200nA register retention.
- • Fully integrated synthesizer with a resolution of 61 Hz.
- • 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.

Technical Details

Weight	G.W 44g
Battery	Exclude

Part List

LoRa Shield (support 868M frequency)	1
868~915Mhz Antenna	1