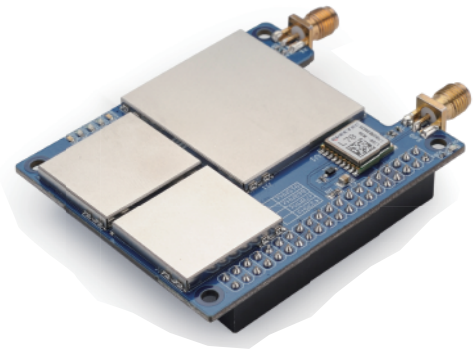
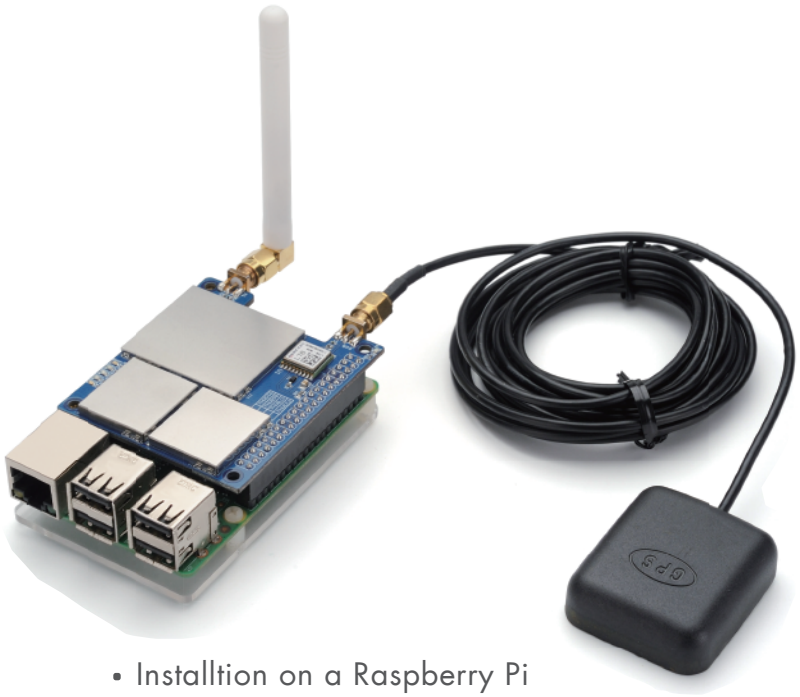
SX1301 LoRaWAN Concentrator for RPi

PG1301





• Installtion on a Raspberry Pi

OVERVIEW:

The PG1301 is a multi-channel high performance transmitter/receiver designed to simultaneously receive several LoRa packets using random spreading factors on random channels. Its goal is to enable robust connection between a central wireless data concentrator and a massive amount of wireless end-points spread over a very wide range of distances.

The PG1301 is design to use with Raspberry Pi to build smart metering fixed networks and Internet of Things applications with up to 5000 nodes per km2 in moderately interfered environment.

PG1301 has built-in GPS module. The GPS module provide timing to SX1301 for accuracy timing and can provide geographical coordinates to RPi for further process.

Features:

- Support Raspberry Pi 3B/3B+/4
- Up to -142.5dBm sensitivity with SX1257 Tx/Rx front-end
- 70 dB CW interferer rejection at 1 MHz offset
- Able to operate with negative SNR, CCR up to 9dB
- Emulates 49x LoRa demodulators and 1x (G)FSK demodulator
- Dual digital TX&RX radio front-end interfaces
- 10 programmable parallel demodulation paths
- Dynamic data-rate (DDR) adaptation

Specifications:

General Interfaces:

- SPI interface for LoRa
- UART interface for GPS
- Power Input: 5v, 1A
- 1 x SMA antenna for LoRa
- 1 x SMA antenna for GPS

Applications:

- Smart Buildings & Home Automation
- Logistics and Supply Chain Management
- Smart Metering
- Smart Agriculture
- Smart Cities
- Smart Factory

Ordering Info:

- PG1301-868 (For Bands: EU868,IN865)
- PG1301-915 (For Bands: US915,AU915, AS923,KR920)
- PG1301-470 (For Band: CN470)

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