Generic LoRaWAN Sensor

SN50V3-LB

OVERVIEW:

SN50V3-LB LoRaWAN Sensor Node is a Long Range LoRa Sensor Node. It is designed for outdoor use and powered by 8500mA Li/SOCl2 battery for long term use.SN50V3-LB is designed to facilitate developers to quickly deploy industrial level LoRa and IoT solutions. It help users to turn the idea into a practical application and make the Internet of Things a reality. It is easy to program, create and connect your things everywhere.

SN50V3-LB wireless part is based on SX1262 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.It targets professional wireless sensor network applications such as irrigation systems, smart metering, smart cities, smartphone detection, building automation, and so on.

SN50V3-LB has a powerful 48Mhz ARM microcontroller with 256KB flash and 64KB RAM. It has multiplex I/O pins to connect to different sensors.

SN50V3-LB has a built-in BLE module, user can configure the sensor remotely via Mobile Phone. It also support OTA upgrade via private LoRa protocol for easy maintaining.

SN50V3-LB is the 3rd generation of LSN50 series generic sensor node from Dragino. It is an open source project and has a mature LoRaWAN stack and application software. User can use the pre-load software for their IoT projects or easily customize the software for different requirements.

Features:

- LoRaWAN v1.0.3 Class A
- SX1262 LoRa Core
- Ultra-low power consumption
- Open-Source hardware/software
- Bands: CN470/EU433/KR920/US915/EU868/AS923/AU915/IN865
- Support Bluetooth v5.1 and LoRaWAN remote configure
- Support wireless OTA update firmware
- Uplink on periodically
- Downlink to change configure
- 8500mAh Battery for long term use
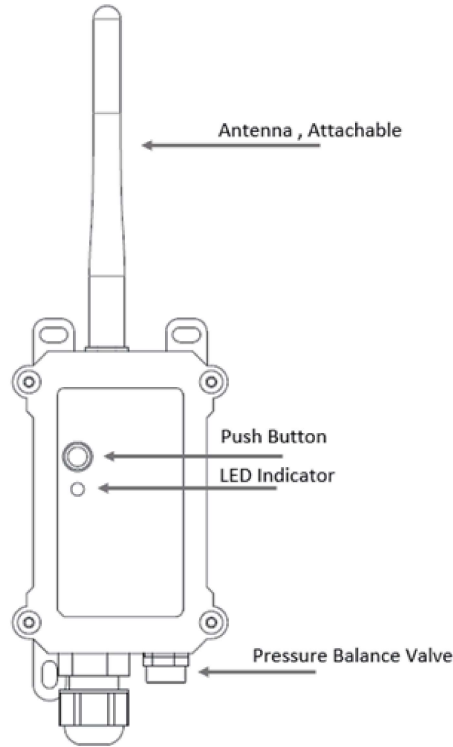- IP65 Water Proof
- External LoRa Antenna

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Button & LEDs

Antenna , Attachable

Push Button

LED Indicator

Pressure Balance Valve

Specifications:

Micro Controller:
- MCU: 48Mhz ARM
- Flash: 256KB
- RAM: 64KB

Common DC Characteristics:
- Supply Voltage: 2.5v ~ 3.6v
- Operating Temperature: -40 ~ 85°C

LoRa Spec:
- Frequency Range, Band 1 (HF): 862 ~ 1020 Mhz
- Max +22 dBm constant RF output vs.
- RX sensitivity: down to -139 dBm.
- Excellent blocking immunity.

I/O Spec (Multiplex Pins):
- Battery output (2.6v ~ 3.6v depends on battery)
- +5v controllable output
- 3 x Interrupt or Digital IN/OUT pins
- 3 x one-wire interface
- 1 x UART Interface
- 1 x I2C Interface

Battery:
- Li/SOCl2 un-chargeable battery
- Capacity: 8500mAh
- Self-Discharge: <1% / Year @ 25°C
- Max continuously current: 130mA
- Max boost current: 2A, 1 second

Power Consumption:
- Sleep Mode: 5uA @ 3.3v
- LoRa Transmit Mode: 125mA @ 20dBm, 82mA @ 14dBm

Applications:
- Wireless Alarm and Security Systems
- Home and Building Automation
- Automated Meter Reading
- Industrial Monitoring and Control
- Long range Irrigation Systems,etc.

Order Info: SN50V3-LB-XXX

XXX: The default frequency band
- XXX: Frequency Bands, options: EU433,CN470,EU868,IN865,KR920 AS923,AU915,US915