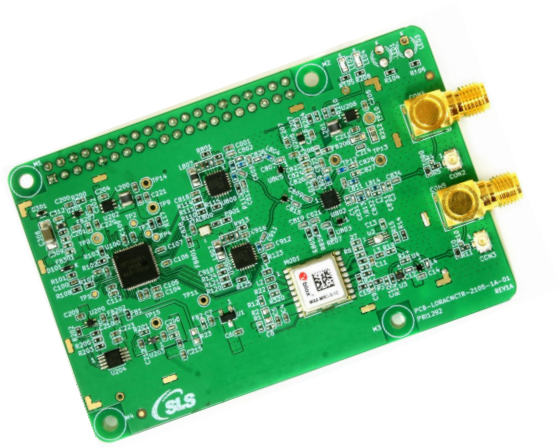
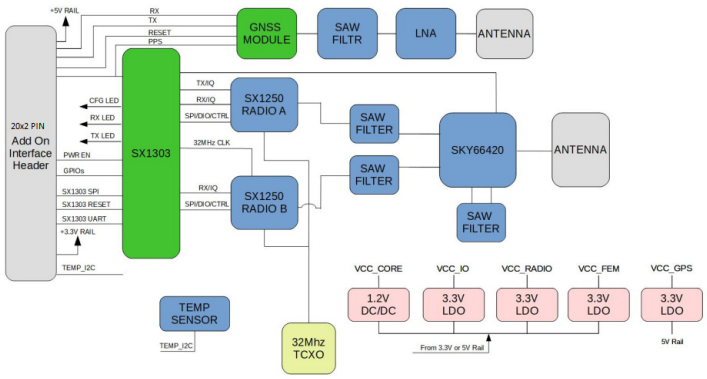
LoRa Concentrator Board NM0821-I

NEBULAE®
DESIGN TO CONNECT



Block Diagram



NLN0821-I is SX1303 based compact size, Low power LoRa concentrator board with 2 x SX1250 radio with onboard GPS and I2C based on-board Temperature sensor. Compared to SX1301 LoRa® chip, it offers higher sensitivity, less power consumption, and lower operating temperature.

It supports SPI based communication with host. Advanced fine time-stamped feature helps to identify estimated geo-location. It is designed for M2M and IoT applications and can be widely applied in LoRaWAN gateways. Develop your own LoRaWAN gateway hassle free with NM0821-I.

Applications

- Smart Metering
- Home, Building, Industrial automation
- Wireless Sensors
- M2M, IoT
- Smart Agriculture
- Logistic Tracking

Features

- Compact size 85.00 X 56.00 sq. mm ± 0.2 mm
- Frequency band 868/915 MHz Support
- SPI interface
- SX1303 base band processor
- High-speed 125/250/500 kHz LoRa demodulator
- Multi-SF (SF5, SF6, SF7 to SF12) 125 kHz LoRa® reception
- Supports Class A, B, C
- Fine Time Stamp
- 1 (G) FSK demodulator
- 2 x SX1250 Tx/Rx front-ends
- +3.3V and/or +5V
- Receiver Sensitivity: -125 dBm @125K/SF7, -139 dBm @125K/SF12
- Temperature Range: -40 °C to +85 °C
- UFL and SMA Antenna Connector
- Range up to 15 km (Line of Sight)
- Output power level up to +27 dBm
- Status LEDs
- GPS receiver
- Raspberry pi 20 x 2 pin compatible header