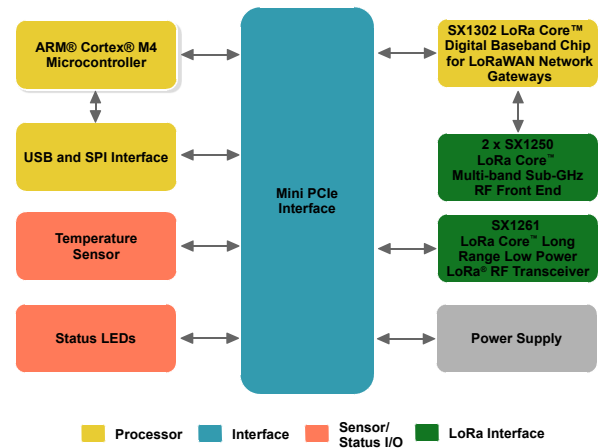


# Mini PCIe LoRa Concentrator Board NM0824-I



## Block Diagram



NM0824-I is SX1302 based compact size, Low power LoRa concentrator board with 2 x SX1250 & 1 x SX1261 radio with onboard I2C based Temperature sensor. Compared to SX1301 LoRa<sup>®</sup> 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. It would be a great choice to reduce technical difficulties and time-consumption when developing LoRa Gateways based devices.

## Applications

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

## Features

- Compact size 50.95 x 30.00 MM
- Frequency band 915 MHz Support
- SPI interface, USB interface
- SX1302 base band processor
- High-speed 125/250 / 500 kHz LoRa demodulator
- Multi-SF (SF5, SF6, SF7 to SF12) 125 kHz LoRa<sup>®</sup> reception
- Supported class A, B and C
- Fine time stamp
- 1 (G) FSK demodulator
- 2 x SX1250 Tx/Rx front-ends
- 1 x SX1261 Rx front-ends
- Operating voltage: +3.3V and/or +5V
- Temperature range: -40 °C to 85 °C
- Receiver sensitivity: -125dBm @125K/SF7, -139dBm @125K/SF12
- Range up to 15 km (Line of Sight)
- Range of several km in urban environment
- Output power level up to 27 dBm
- Status LEDs
- U.FL. antenna connector
- Mini PCIe 52 pin form factor card

For more information contact at <https://www.nebulae.io/> or [sales@nebulae.io](mailto:sales@nebulae.io)