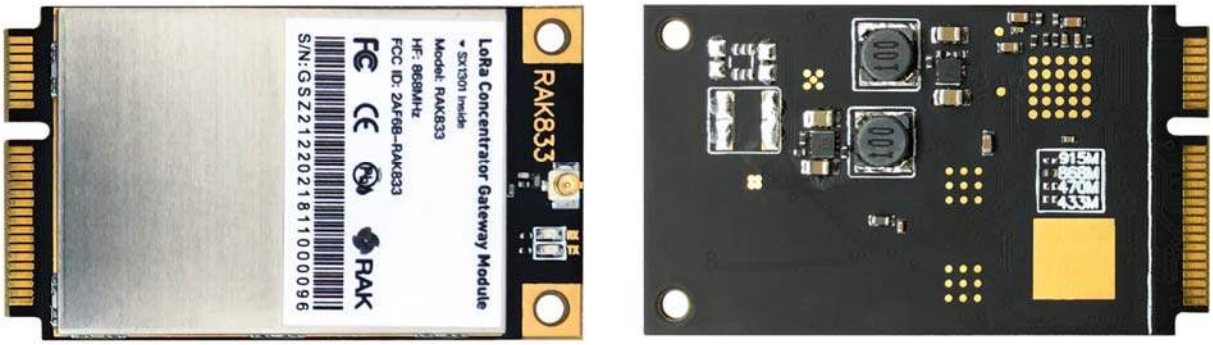


RAK833 SPI LoRa Gateway Concentrator mPCIe Module (based on SX1301)

The RAKwireless RAK83-SPI is a complete and cost effective LoRa gateway solution offering up to 10 programmable parallel demodulation paths. It's perfect for smart metering fixed networks and IoT applications with up to 500 nodes per Km2 in moderately interfered environments.

The modules have the industry standard PCI Express Mini Card form factor, which enables easy integration into an application board.

RAK833-SPI/USB

Target for development & femtocell gateways

- Supports bot SPI and USB interface
- Includes FT3323H chips
- USB interface allows for easy integration with a lot of different controller boards in the development stage.
- With the USB port, you can easily access information of I2C, SPI, serials, and can do better troubleshooting.
- Without the FTDI, if any troubleshoot is needed then you have to go by soldering and can put the PCB in danger.

LoRa Gateway Frequency Band

- 433 (433MHz - 435MHz)
- 470 (RX: 470MHz - 490MHz)(TX: 490MHz - 520MHz)
- EU 868 (865MHz - 872MHz)
- AS 923 (923MHz - 925MHz)
- AU 915 (915MHz - 928MHz)
- US 915 (902MHz - 928MHz)

Where to use RAK833-SPI/USB

- Industrial router
- IoT Gateway
- VPN Router
- Industrial computer

Supports SPI and USB interface

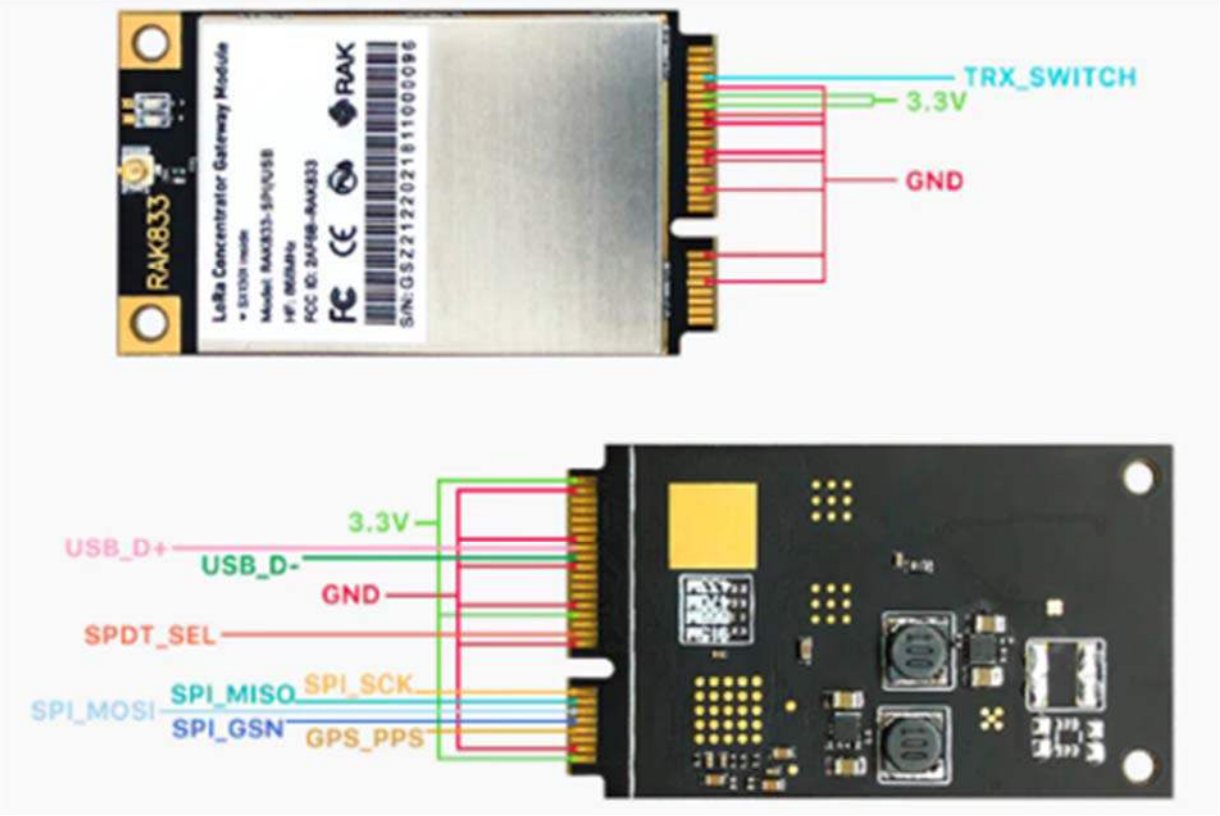
RAK833 refer Semtech's reference design of SX1301, communicates with host through SPI transfer interface.

An SPI interface is provided on the PCIe_SCK, PCIe_MISO, PCIe_MOSI, PCIe_CSN, PCIe_RST (Reset) pins of the system connector.

The SPI interface gives access to the configuration register of SX1301 via a synchronous full-duplex protocol. Only the slave side is implemented.

Product Specification

- Frequency band 868MHz & 915MHz
- Standard Mini PCI-e form factor with 52 Pin
- Voltage of Mini PCI-e is 3.3v which is compatible with 3G/LTE card of mini-PCIe type
- Max. Tx power is 25dbm & sensitivity - 136.5dbm
- Interfaces SPI
- SX1301 base band processor emulates 49 x LoRa demodulators 10 parallel demodulation paths



Applications

- Smart metering
- Internet of Things (IoT)
- Security sensors network
- Agricultural monitoring

https://uk.pi-supply.com/products/rak833-spi-lora-gateway-concentrator-mpcie-module-sx1301 10-14-18