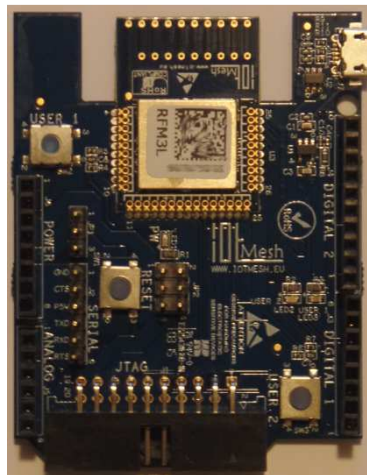




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RFM3L Evaluation Board

Datasheet



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Introduction

RFM3L evaluation board is an electronic system equipped with RFM3L radio transmission board in ISM range. RFM3L is an all in one electronic board that reduces time to market when implementing a radio transmission in applications with a small form factor. The RFM3L board is based on :

- ARM Cortex-M3 32bit microcontroller with ultra low power features from ST Microelectronics (STM32L151CUB6)
- Texas Instruments sub GHz low power radio transceiver (CC1101 max transmission power of 10dBm - 10mW).

The evaluation board offer the possibility to use RFM3L radio board in different way :

- USB device
- serial peripheral
- SPI peripheral
- I2C peripheral
- digital and analogic I/O driver board
- ...

all with ISM radio band communication facilities.

On the radio side, the transceiver allow various settings in ISM (Industrial Scientific and Medical) frequency band . The baseband modem can be configured with various data bitrates (600bds to 600kbds). The transceiver settings are made easy by the use of [SmartRF](#) Studio free software from Texas Instruments. Some settings are provided in example software for quick start.

The antenna is directly integrated in PCB.

This electronic board is a radio transmitter and it's use is regulated in your area. For more information, please contact your official organization responsible for the regulation of power and frequencies.

As far as this board is made of electronic components, please take care of electrostatic discharge during handling.



The electronic board is also ROHS compliant and lead free.



Board global view

Board elements

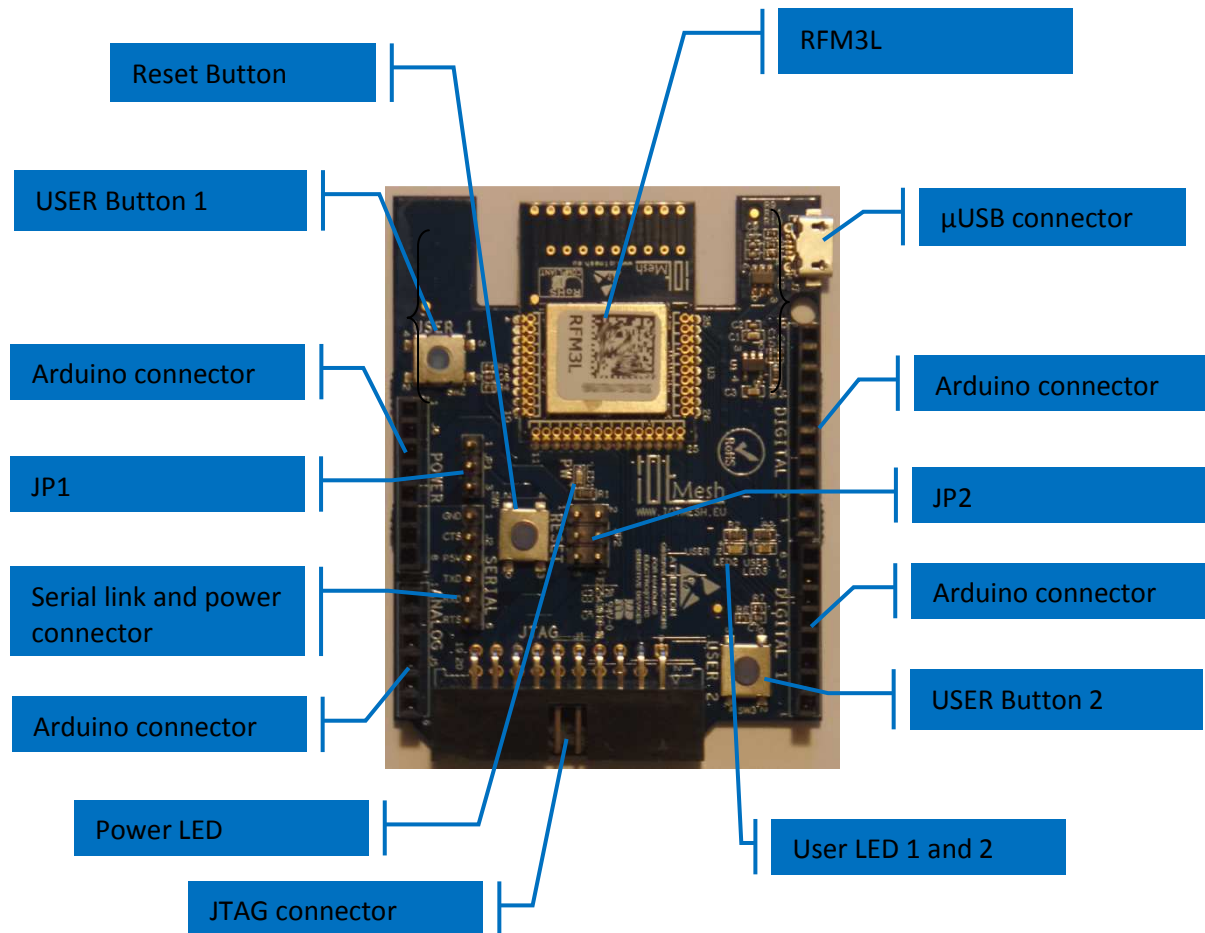


Figure 1 : Board elements view

Shunt configuration

JP1 : 5V supply source

Shunt between 1 & 2 : 5V supply from Arduino power connector.

Shunt between 2 & 3 : 5V supply from serial link connector.

JP2 : 3V3 supply source

Shunt between 1 & 2 : P3V3 supply from a 5V source selected by JP1

Shunt between 3 & 4 : P3V3 supply from arduino P3V3 power connector.

Shunt between 5 & 6 : P3V3 supply from JTAG connector.

RFM3L EEPROM Special care

Some data used by the IOTMesh library are stored in EEPROM in address range from 0x08080F00 to 0x08080FFF. Do not erase this EEPROM area. If so, please contact us to request special settings data.

Demo software

Some example software are available on www.iotmesh.eu website.