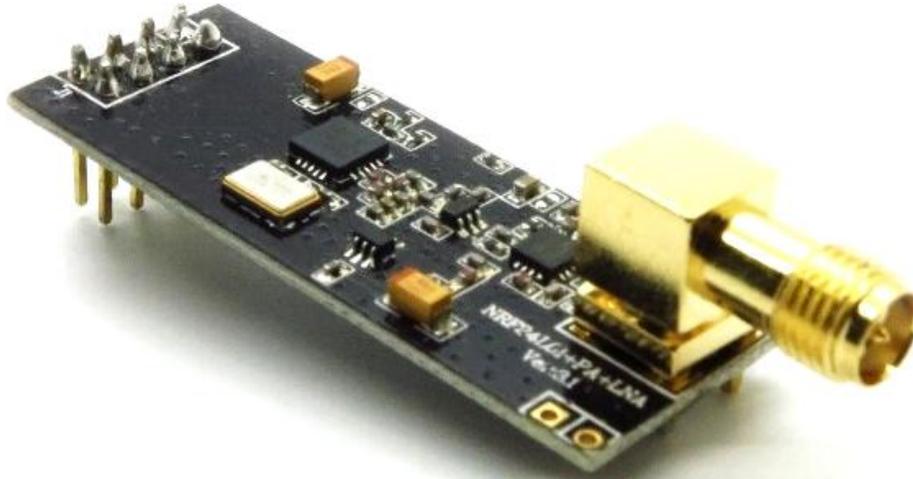


## RB-lte-47

### 2.4G nRF24L01 Wireless Module w / PA and LNA



#### Overview

The nRF24L01 module is the latest in RF modules from SparkFun. This module uses the 2.4GHz transceiver from Nordic Semiconductor, the nRF24L01+. This transceiver IC operates in the 2.4GHz band and has many new features! Take all the coolness of the nRF2401A and add some extra pipelines, buffers, and an auto-retransmit feature - very nice!

This board features a reverse polarized SMA connector for maximum RF range. And there is the PA and LNA circuit on board, with the external antenna it can reach long distance than the one without these parts.

This module comes with the 2.4G antenna (2DB), with 250Kbps transmission rate on open air it can reach the 800-1K meters communication distance.

**Note:** Manufacturer now populate these boards with the nRF24L01+. The '+' version of the IC has improved range, sensitivity, and data rates. The command set is backward compatible with the original nRF24L01.

#### Features

- Voltage: 3-3.6V (recommended 3.3V) V
- Maximum output power: +20dBm
- Emission mode current(peak): 115mA
- Receive Mode Current(peak): 45mA
- Power-down mode current: 4.2uA
- Sensitivity 2Mbps mode in received: -92dBm

- Sensitivity 1Mbps mode in received: -95dBm
- Sensitivity 250kbps mode in received: -104dBm
- PA gain: 20DbLNA gain: 10Db
- LNA Noise figure: 2.6Db
- Antenna Gain (peak): 2Dbi
- 2MB rate (Open area): 520m
- 1MB rate (Open area): 750m
- 250Kb rate (Open area): 1000m

### **Specification**

- Module Type: Wireless
- Weight: 25.00g
- Board Size: 4.6 x 1.7 x 1.2cm
- Version: 1
- Operation Level: Digital 5V
- Power Supply: External 5V