

User manual 2.4 GHZ module (ELB160PIT)

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1. Module Specification:

Out power: -6dBm
Base Frequency 2.4329990 GHz
Channel Spacing 199.951172 kHz
Rx Filter BW 541.666667 MHz
Data Rate 249.939 kbps
Data Modulation MSK
External power supply (VBAT) maximum 14.8V
Current consumption maximum 30ma
Single channel of operation: 2433 MHz

2. Signal Description:

PWR_ON; Switches on the 3.3V regulator (U1). Use this power to save power when the ISM transceiver is not required.

SCLK, SI, SO, and CSN; Signals are the SPI (serial interface with the CC2500). SCLK is the clock. SI is the serial data from external controller. SO is the serial data from the CC2500. NCS is the chip select of the SPI communication (positive logic). All these signals are at 3.3V logic level. For more information refer to CC2500 Low-Cost Low-Power 2.4 GHz RF Transceiver.

RED1, GRN1, and BLK1; Not used signals.

GUP; Indicates the red switch position. "1" no magnet, "0" senses magnet. This signal is an option for low current control.

PROG; Not used.

VBAT; Power supply.

3. CC2500 Setting:

For Data rate of 250KHz, MSK modulation and optimization for sensitivity use the register value as it is specified by table 3.