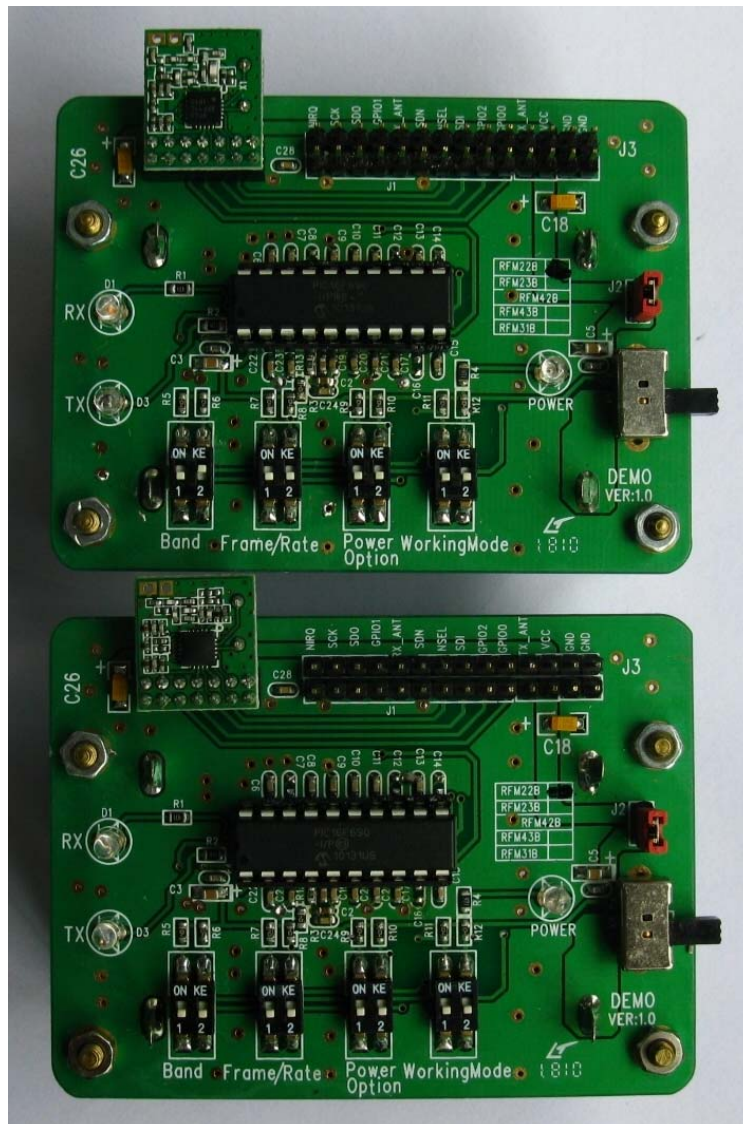


RF22B/23B/42B/43B/31B Demo Kit User Manual



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HOPE RF RF22B/23B/42B/43B/31B Demo

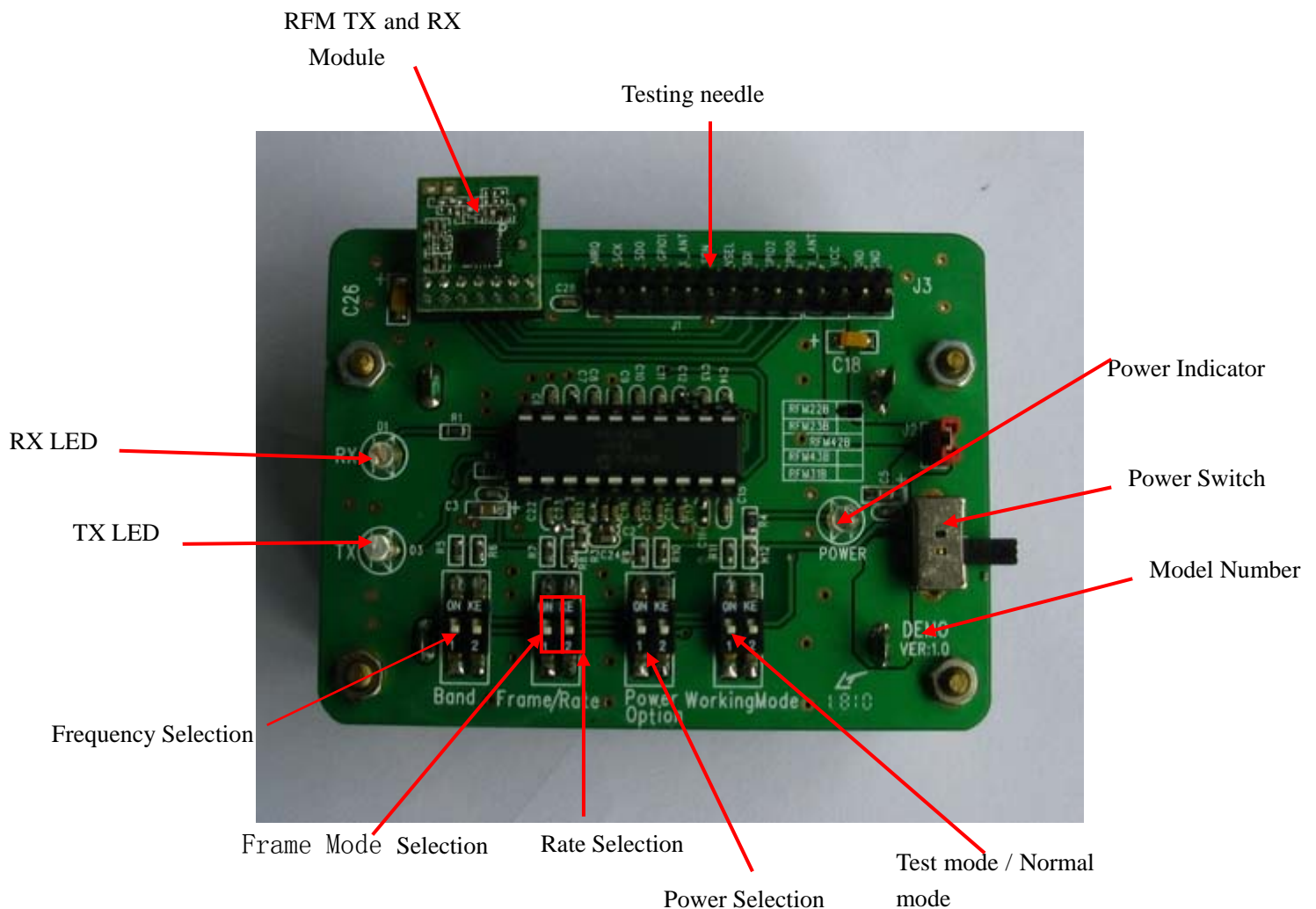
Datasheet REV1.0

General

RF22B/23B/42B/43B/31B Demo Kit is used mainly to demonstrate the function of RFM22B/23B/42B/43B/31B FSK module, such as RF distance, and also useful for faster code development purpose. It consists of TX DEMO and RX DEMO.

Products Introduction:

1. RF22B/23B/42B/43B/31B DEMO



Quick Start

Parameter Setting

Attention: RF DEMO setting has to be matching with each other for frequency and data rate so that RF link can be established.

1、Band and frequency: with Frequency select, ON=1, OFF=0

SW1	SW2	Frequency
1	1	915MHz
1	0	869MHz
0	1	434MHz
0	0	315MHZ

2、Frame Mode and Data Rate: With Data RATE select, ON=1, OFF=0

SW1	Frame MODE
1	FIFO
0	PH+FIFO

SW2	Data RATE
1	4.8K
0	2.4K

3、TX Power select: ON=1, OFF=0

SW1	SW2	【Power】 RFM22B RFM42B (RFM23B RFM43B)
1	1	STANDBY
1	0	+14dBm +7dBm
0	1	+17dBm +10dBm
0	0	+20dBm +13dBm

4、Test Mode select: ON=1, OFF=0

SW1	SW2	Mode
1	1	TX-Test
1	0	RX-Test
0	1	TX(Master)
0	0	RX(Slaver)

How to operate

1. RF22B/23B/42B/43B/31B DEMO

1. Select frequency, data rate, RF tx power and working mode through dip switch.
2. Switch on power, the microcontroller will configure the RFM module according to selected parameter.
3. RF DEMO of working in Master state start to send out data packets with one second interval .
4. When the Master module have one transmission, the TX LED will blink once to indicate the transmission. If the Slaver module received the data packets and verified to be correct, the led on receiver will blink once ,and the Slaver will reply same packet data to the Master ,The TX LED on the Slaver will blink .When the Master received the data packet and verified to be correct ,the RX LED on the Master will blink.

Testing needle

RF22B/23B/42B/43B/31B DEMO has all the RF module (RFM22B/23B/42B/43B/31B)pin connected externally for easier timing observation during their firmware development. If the MCU is removed, the RF module can be hooked to the target board to evaluate the RF module on end user's system.

Precautions:

1. Power supply range from 1.8V—3.6V
2. Dip switch setting for TX and and RX setting must be matching with each other.
3. Once a different setting is needed, make sure to re-power up the system again to make the setting valid.