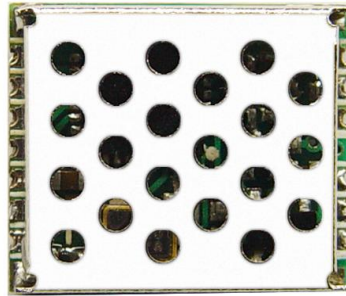

Wireless Low Power Transceiver RF Module (ISM Band System)



Version History

Version	Date	Changes
V1.01	Oct.29, 2007	1 st . Edition
V1.02	Dec.28,2007	2 nd . Edition
V1.03	Aug.27,2008	3 rd . Edition

Specification

● UHF Wireless Data Transceiver	● 800MHz ~ 928MHz ISM
● Channel hopping up to 1800 hops/s	● 24 bit RX/TX FIFO
● Hi Sensitivity: -123dBm	● Wire and frame mode
● Single 2.5V to 5V Supply	● Up to 2W Output Power
● RS-232 (UART) compatible	● SPI micro-controller interface
● Application Range : Multi-channel home automation standards 、 Wireless audio 、 Wireless networks 、 Reading 、 Home Automation 、 Remote keyless entry	

Transmit Mode

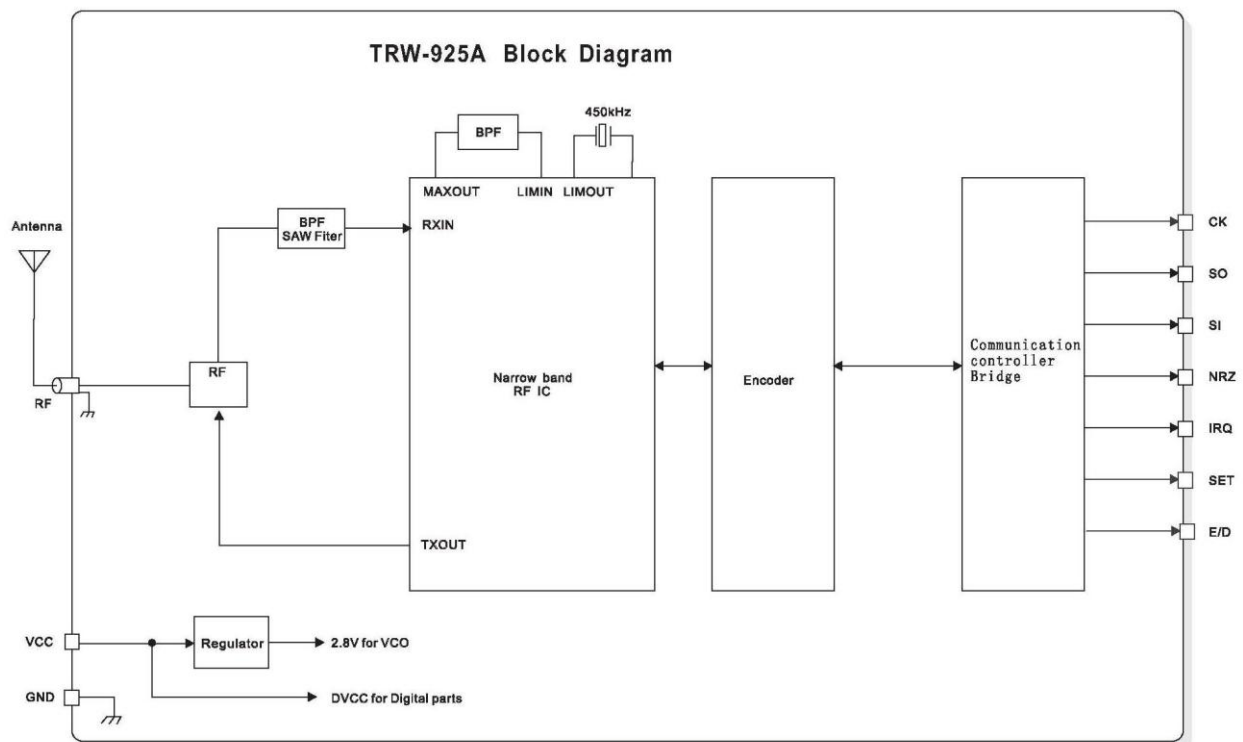
Parameter	Specification			Unit	Condition
	Min	Type	Max		
Frequency Range	800		928	MHz	
Stand by Current Consumption			660	μA	
Transmit Speed Rate	1.2		500	Kbps	Lowest PSK is 2.4kbps Lowest FSK is 1.2kbps
Output Power		10		mW	
The Largest Working Current			47.5	mA	868MHz: +10dBm

Receive Mode

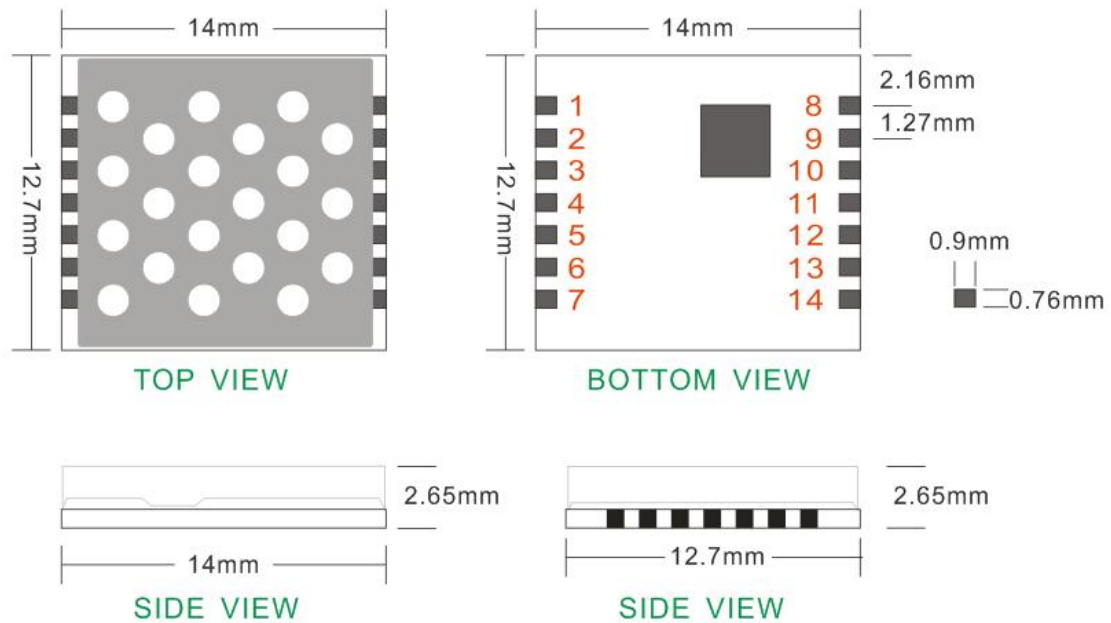
Parameter	Specification			Unit	Condition
	Min	Type	Max		
Frequency Range	800		928	MHz	
Stand by Current Consumption			660	μA	12.5KHz channel

Transmit Speed Rate	1.2		500	Kbps	Lowest PSK is 2.4Kbps Lowest FSK is 1.2Kbps
Sensitivity			-123	dBm	
The Largest Working Current			33.5	mA	868MHz: 500Kbit/s
Working Temperature	-10		-70	°C	
Storage Temperature	-50		-95	°C	

Block Diagram



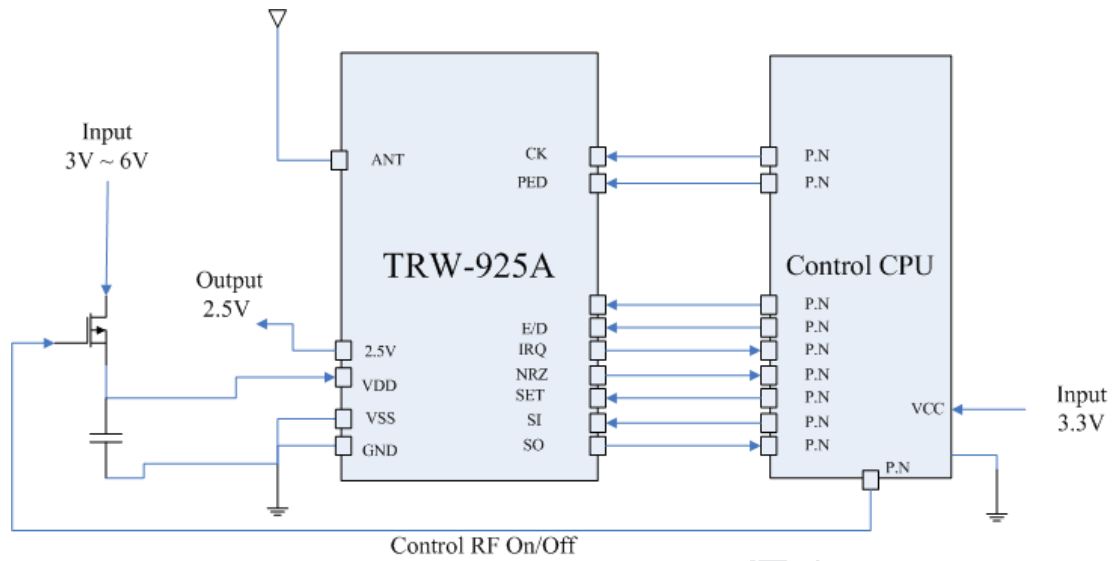
View



Pin Assignment

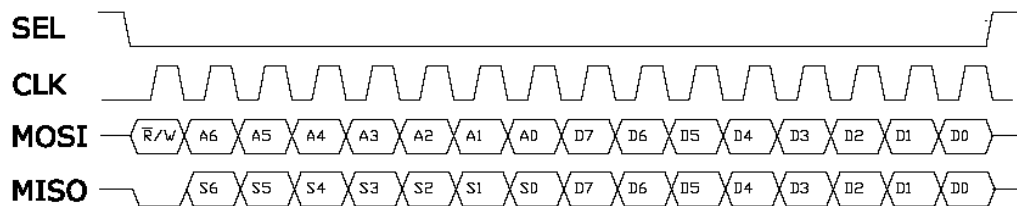
Pin	Function	IO	Description
1	GND	P	Main Power Electrode
2	ANT	ANT	Antenna interface
3	GND	P	Main Power Electrode
4	2.5V	P	Output
5	VSS	P	Main Power Electrode
6	VDD	P	Main Power Anode
7	PED	I	Power On/Off (Hi=Open, Lo=Close)
8	CK	I	CLK
9	SO	O	RF Serial Data Output (MISO)
10	SI	I	RF Serial Data Output (MOSI)
11	NRZ	O	Direct Data Output (Option)
12	IRQ	O	To indicate FIFO is empty or full.
13	SEL	I	Lo Option
14	E/D	I	RF Control (Hi= Work, Lo=Un-work)

Application Circuit

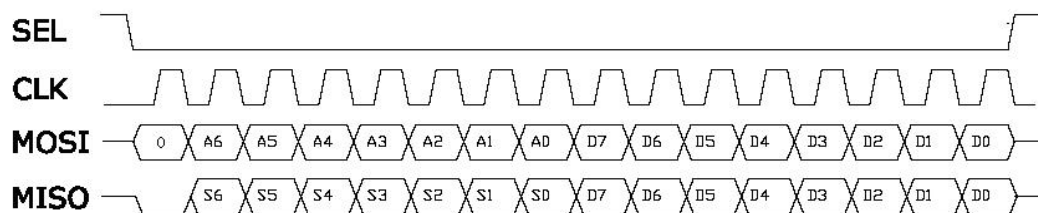


Time Request

SPI 8 data read / write waveform:



SPI 8 data read waveform: (In the previous is the highest effective data):



SPI 8 data write waveform: (In the previous is the highest effective data):

