
RFM218BW (G)FSK Receiver Module

Description

The RFM218BW is an ultra-low power, high performance receiver module which suitable for ISM band wireless applications (G) FSK RF receiver. The module is highly integrated, which simplifies the peripheral materials needed in the system design. It supports the direct mode which means input antenna then output data. It also supports Duty-Cycle operation mode, channel interception, high-precision RSSI, power-on reset, noise output and other functions, which makes the application design more flexible and achieves product differentiation design.

Features

- Comply with FCC and ETSI standard
- Strong anti-interference ability, suitable for complex interference environment scenarios
- Frequency range: 315MHz, 433.92 MHz, 868.35 MHz, 915 MHz
- Modulation and demodulation mode: (G)FSK
- Data rate: 2.4 kbps
- Sensitivity: -117 dBm 2.4kbps, FRF =433.92 MHz
- Voltage Range: 1.8~3.6 V
- Transmit current: 8.5 mA @ 433.92 MHz
- Supporting ultra low power receiving mode
- Sleep Current: less than 2uA

**RFM218BW****Applications**

- Automatic meter reading
- Home security and building automation
- ISM band data communication
- Industrial monitoring and control
- Remote control and security system
- Wireless sensor nodes
- Labeling reader

Ordering Information

Module No.	Working Fre.
RFM218B-315S2	315MHz
RFM218B-433S2	433.92MHz
RFM218B-868S2	868.35MHz
RFM218B-915S2	915MHz

Pin Information

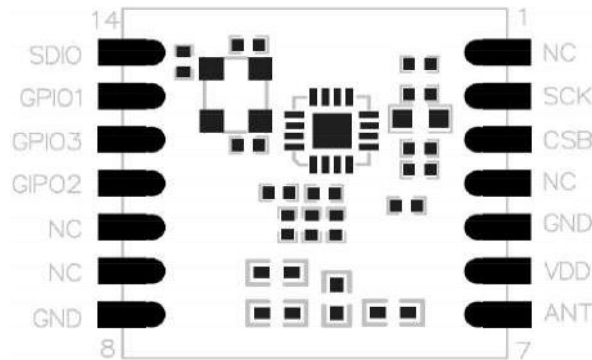


Figure1. RFM218BW Pin Assignment (Top View)

Table1. RFM218BW Pin Functions

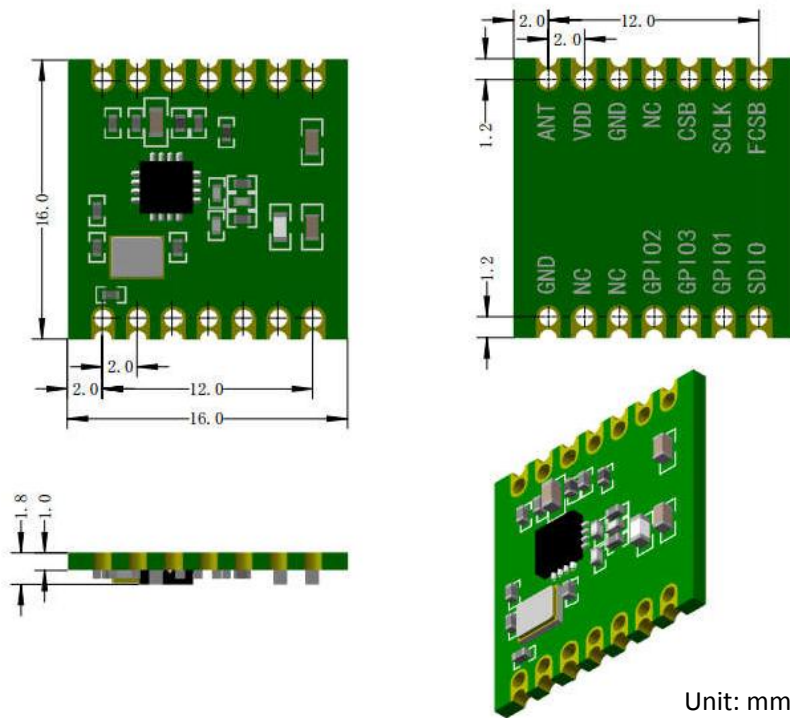
Pin No.	Name	Description
1	NC	Not connected
2	SCK	SPI clock
3	CSB	SPI Selection to access registers
4	NC	Not connected
5	GND	Ground (electricity)
6	VDD	Positive power supply
7	ANT	Antenna Input
8	GND	Ground (electricity)
9	NC	Not connected
10	NC	Not connected
11	GPIO2	Fixed as RX-ACTIVE output
12	GPIO3	Configurable as: DOUT,RX-ACTIVE,DCLK
13	GPIO1	Fixed as DOUT Output
14	SDIO	SPI Data input & output

Electrical parameters

Testing conditions: Power supply 3.3V, temperature 25°C.

Parameter	Symbol	Conditions	Minimum	Typical Value	Maximum	Unit
Working Frequency	Fc	Model: RFM218B-315S2		315		MHz
		Model: RFM218B-433S2		433.92		MHz
		Model: RFM218B-868S2		868.35		MHz
		Model: RFM218B-915S2		915		MHz
Modulation	MOD		(G)FSK			
Rx Sensitivity	S	315MHz 2.4 Kbps		-117		dBm
		433.92MHz 2.4 Kbps		-117		dBm
		868.35MHz 2.4 Kbps		-115		dBm
		915MHz 2.4 Kbps		-115		dBm
Rx Bandwidth	BW		50		500	KHz
Data Rate	DR		0.5	2.4	300	Kbps
Supply Voltage	VDD		1.8	3.3	3.6	V
Rx Working Current	IOP	315MHz		8.5	9	mA
		433.92MHz		8.5	9	mA
		868.35MHz		8.7	9	mA
		915MHz		8.7	9	mA
Sleep Current	ISleep				2	uA
Image Rejection	IMR			35		dB
Working Temperature	TOP		-40		+85	°C

Dimensions



Unit: mm

Figure 2.Dimensions

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