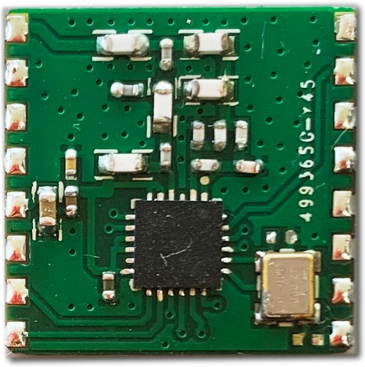
HOPERF

RFM310W

RFM310-868MHz Transceiver Module

Product Description

The RFM310HW module is a low-power, high-performance, OOK, (G)FSK, 4(G)FSK RF transceiver module for wireless applications. It supports a variety of data packet formats and encoding and decoding methods, which can flexibly meet various application requirements. Rich GPIO and interrupt configuration, Duty-Cycle operation mode, channel monitoring, high-precision RSSI, low-voltage detection, power-on reset, low-frequency clock output, fast frequency hopping, squelch output and other functions, making the application more flexible.



Product Features

- Super strong anti-interference ability, suitable for use in complex interference environments
- Sensitivity :-118dBmDR=2.4 Kbps DEV=1.2KHz
- Working Frequency: 868/915MHz
- Power Supply Voltage Input Range 1.8V-3.6V
- Emission Working Current: 90mA 19dbm 868MHz
- Receive Working Current: 14mA (No DCDC)
- Automatic Frequency Correction (AFC)
- Fast and accurate effective signal monitoring (PDJ,RSSI)
- Automatic ACK and re-transmission
- 4-wire SPI Interface
- Support pass-through and packet mode

Ordering Information

Model	Working Frequency
RFM310HW-868/915S2	868/915MHz

Applications

- Smart Meter Reading
- Home Security and Building Automation
- Industrial Monitoring and Control
- Remote Key Entry
- Wireless Sensor Nodes
- Tag Reader
- ISM Band Data Communication

Module Pin Diagram

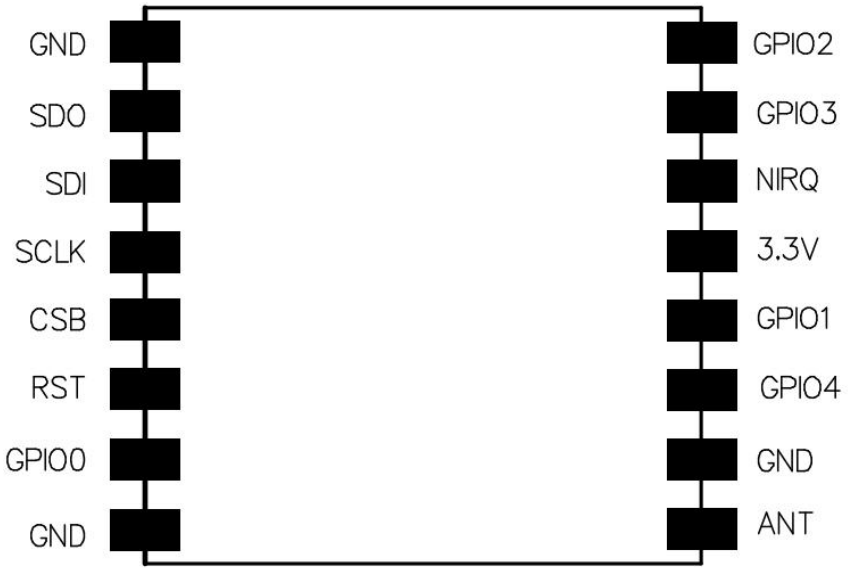


Figure 1. RFM310W Module Front View

Pin	Name	Function Description
1	GND	Ground Wire
2	SDO	SPI Data Output
3	SDI	SPI Data Input
4	SCLK	SPI Data Clock
5	CSB	SPI Chip Select Input
6	GPIO5/RST	IO, Configurable
7	GPIO0	IO, Configurable
8	GND	Ground Wire
9	ANT	Antenna Port
10	GND	Ground Wire
11,	GPIO4	IO, Configurable
12	GPIO1	IO, Configurable
13	3.3V	Power Supply
14	NIRQ	IO, Configurable
15	GPIO3	IO, Configurable
16	GPIO2	IO, Configurable

Table 1. RFM310W Module Pin Definition

Electrical Parameters

Test conditions: power supply 3.3V, temperature 25℃

Table 2. List of Electrical Parameters

Parameter	Symbol	Condition	Min	Typical Value	Max	Unit
Working Frequency	Fc	RFM310HW-868S2 RFM310HW-915S2		868 915		MHz
Receive Sensitivity	S	FSK: DR=2.4 kbpsDEV=1.2KHz		-118		dBm
Operating Voltage	V_{DD}		1.8	3.3	3.6	V
Receive Working Current	IRx	868MHZ		14		mA
Emission Working Current	I_{Tx}	868MHZ +19dbm 915MHZ +19dbm		90		mA
Sleep Current	I_{Sleep}			1		uA
Operating Temperature	T_{OP}		-40		+85	℃

Note: If the transmission frequency of the module is offset, it can be corrected through software configuration

Module Outline Dimensions

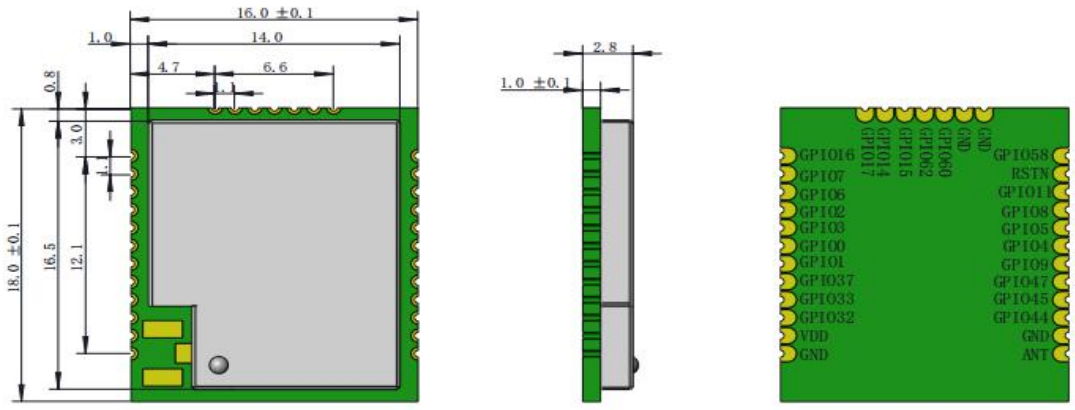


Figure 2. Module Dimensions Unit: mm

Contact Information

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