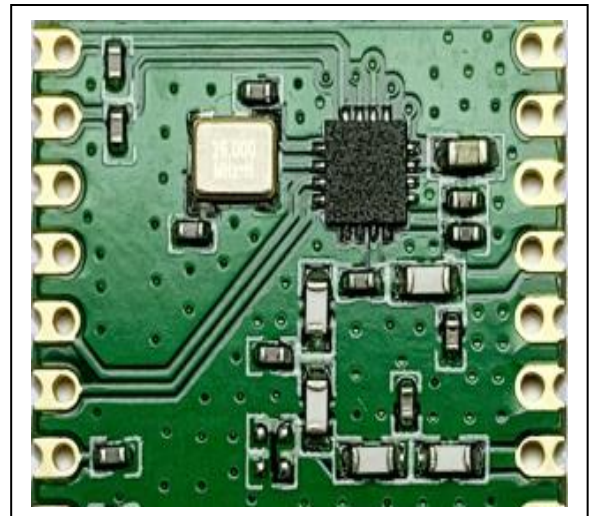


ISM Transmitter Module With +20dbm Output Power

(The purpose of this HPRKDZ01 spec covers mainly for the hardware and RF parameter info of the module, For software info please refer to CMT2119B chip data sheets and demo program of HopeDuino™ Development Kit)

1. General Introduction

HPRKDZ01 module series' design is based on the high performance CMOS/TEK NextGenRF™ CMT2119B chip, It operate at 868MHz ISM band , +20dBm output power ensures extended range and improved link performance.



HPRKDZ01

2. Features:

- 3-wire SPI Interface
- Frequency:868MHZ
- +20 dBm output power
- Symbol Rate:0.5 to 300kbps
- FSK modulation
- Direct and packet mode supported
- Configurable packet handler and 64-Byte FIFO
- NRZ, Manchester codec, Whitening codec, Forward Error Correction (FEC)

3. Application:

- Home security and building automation
- ISM band data communication
- Industrial monitoring and control
- Remote control and security system
- Wireless sensor node
- Remote key entry
- Tag reader

4. Pin Definition:

4.1 HPRKDZ01 Pin Definition

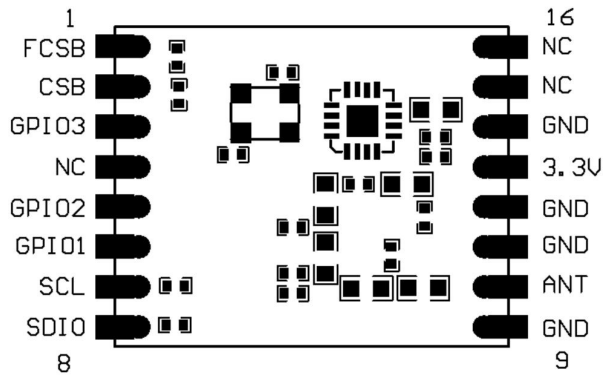


Figure 1.HPRKDZ01 Pin Definition

Number	Definition	Type	Function
1	FCSB	I	SPI FIFO select input, active low.
2	CSB	I	SPI Chip select input, active low.
3	GPIO3	I/O	General Purpose Digital I/O that may be configured through the registers to perform various functions
4	NC		No Connect.
5	GPIO2	I/O	General Purpose Digital I/O that may be configured through the registers to perform various functions
6	GPIO1	I/O	General Purpose Digital I/O that may be configured through the registers to perform various functions
7	SCL	I	SPI Clock input.
8	SDIO	I/O	SPI Data input and output.
9	GND	G	Ground.
10	ANT	AI/ AO	RF signal input/output.
11	GND	G	Ground.
12	GND	G	Ground.
13	3.3V(VDD)	PI	Power supply input, 1.8-3.6V.
14	GND	G	Ground.
15	NC		No Connect.
16	NC		No Connect.

5. Electrical Parameter:

Maximum

parameter	minimum	maximum	Unit
Positive Power Supply	-0.3	+3.6	V
Interface Voltage	-0.3	+3.6	V
Storage Temperature	-50	+150	°C
Soldering Temperature(30s)	-	+255	°C
ESD Rating(Human Body Model)	-2	2	KV

Recommended working range

parameter	minimum	maximum	Unit
Positive Power Supply	+1.8	+3.6	V
Working Temperature	-40	+85	°C
Supply Voltage Slew Rate	1	-	mV/us

DC characteristic

parameter	conditions	minimum	typical	maximum	Unit
TX WorkingCurrent	868MHz band, P _{out} =+20dBm	-	85	100	mA
Symbol Rate, FSK Mode	Programmable	0.5	-	300	kbps
Sleep Current	All band	-	-	1.5	uA

6. Mechanical Dimension

(All units in mm)

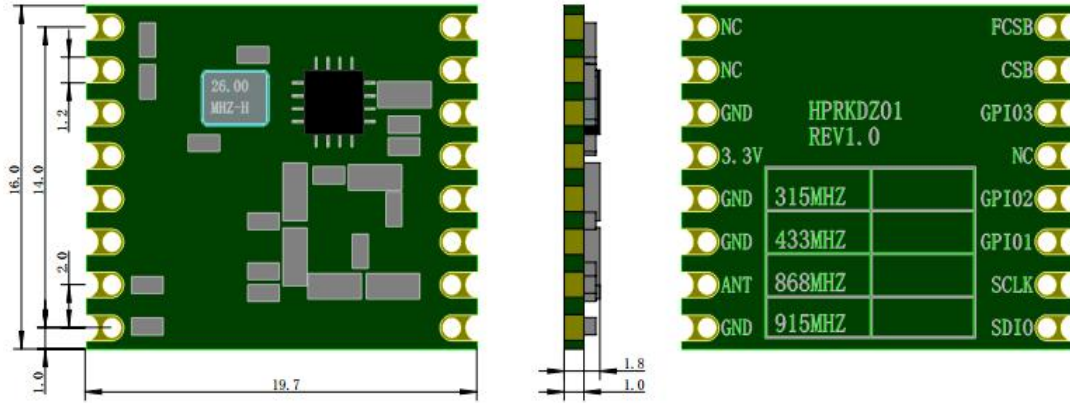


Figure5.HPRKDZ01 Mechanical Dimension

7. Order information

Model	Frequency	Output power
HPRKDZ01	868MHZ	+20dBm

8. Contact Information

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