

N530CS, CC1312R7 Module



N530CS Module Introduce

N530CS CC1312R7RGZ transceiver module designed for 433M, 868M and 915MHz band. Up to +14 dBm output power and down to -110 dBm sensitivity at 50 kbps.

N530CS is a low-cost and small size FSK spi RF transceiver module for transmitting and receiving digital data via radio frequency. All of the N530CS's electronics (don't including an antenna) reside on a single PCB, and all operational power is derived from a single supply voltage.

The transceiver module design consists of a CC1312R7RGZ low-power, integrated sub 1G transceiver RF chip , all IO pin of CC1312R7RGZ are brought out. The module available frequency is from 410 to 510Mhz, 820 to 960Mhz. The hardware is designed for maximum range, 500m + Range (Line of Sight, 50 kbps).

N530CS module based TI CC1312R7RGZ transceiver. The module is packaged with small size SMD, it is suitable for SMT production. Rapid development without understanding RF. The module supports Arduino and WMBus. AT command supports.

N530CS is suitable for ISM band in China, EU and USA.

Module Parameter

Model	N530CS
Module Interface	SPI, UART
Frequency	410-510 Mhz, 860-960 Mhz
RF Data Rate	1.2-4000 kbps
Transmitting Power	+14 dBm
Receiving Sensitivity	-110 dBm at 50 kbps
TX Current	24 mA
RX Current	6 mA
Frequency Deviation	+/- 10 khz
Communication Distance	10 – 500 m(Visual distance)
Antenna Interface	RF pin

Installation Mode	SMD
Volume (mm)	25 mm x 17 mm x 3 mm
Operating Voltage	+ 2 - 3.6 V
Working Temperature and Humidity Environment	Temperature: -30 - 70 °C; Humidity 10-95 %RH
Storage Temperature and Humidity Environment	Temperature: -40 - 80 °C; Humidity 10-95 %RH
Weight (kg)	≈10g

Module Pinout

Pin Number	Function	Describe
1	VCC	
2	GND	
3	DIO1	MCU IO port
4	DIO2	MCU IO port
5	DIO3	MCU IO port
6	DIO4	MCU IO port
7	DIO5	MCU IO port
8	DIO6	MCU IO port
9	DIO7	MCU IO port
10	DIO8	MCU IO port
11	DIO9	MCU IO port
12	DIO10	MCU IO port
13	DIO11	MCU IO port
14	DIO12	MCU IO port
15	DIO13	MCU IO port
16	DIO14	MCU IO port
17	DIO15	MCU IO port
18	TMS	TMS
19	TCK	TCK
20	DIO16	MCU IO port
21	DIO17	MCU IO port
22	DIO18	MCU IO port
23	RESET	MCU IO port
24	DIO19	MCU IO port

25	DIO20	MCU IO port
26	DIO21	MCU IO port
27	DIO22	MCU IO port
28	DIO23	MCU IO port
29	DIO24	MCU IO port
30	DIO25	MCU IO port
31	DIO26	MCU IO port
32	DIO27	MCU IO port
33	DIO28	MCU IO port
34	DIO29	MCU IO port
35	DIO30	MCU IO port
36	RF	
37	GND	

Application Area

Ultra low-power wireless applications

Operating in the 315/433/868/915 MHz ISM/SRD bands

Wireless alarm and security systems

Industrial monitoring and control

Wireless sensor networks

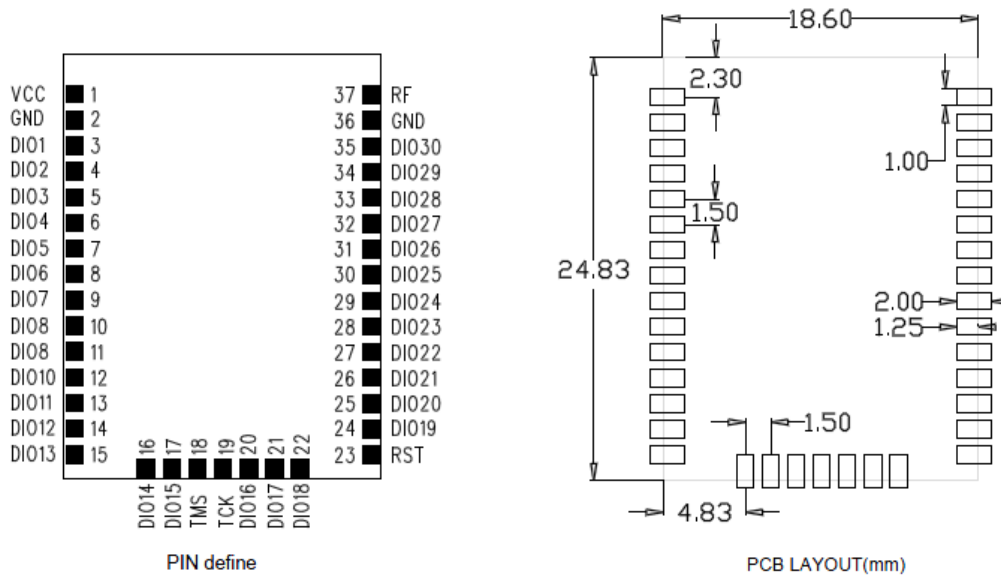
AMR – Automatic Meter Reading

Home and building automation

Wireless MBUS

Arduino

N530CS Layout



Ordering Information

N530CS-433M	RF Module	N530CS-433M	CC1312R7RGZ	20mW – 410-510Mhz
N530CS-868M	RF Module	N530CS-868M	CC1312R7RGZ	20mW – 860-960Mhz