

N536CS, CC1312R7 Module



N536CS Module Introduce

N536CS CC1312R7 transceiver module based TI wireless MCU **CC1312R7** and **PA LNA** chip, designed for 169M, 433M, 868M, 915MHz and 1200Mhz band. Up to **+33 dBm** output power and down to -112 dBm sensitivity at **50kbps**.

N536CS is a low-cost and small size sub g transceiver module for transmitting and receiving digital data via radio frequency. All of the N536CS's electronics (don't including an antenna) reside on a single PCB, and all operational power is derived from a single supply voltage.

N536CS module design consists of a CC1312R7 low-power, integrated sub 1G transceiver RF chip , most IO pin of CC1312R74T0RGZ are brought out. The module available frequency is from 160 to 1200Mhz. The hardware is designed for maximum range, 5000m + Range (Line of Sight).

N536CS module based TI CC1312R74T0RGZ transceiver. The module use SMD package. It has small size, the module is suitable for SMT production. Rapid development without understanding RF. The module supports WMbus and so on.

N536CS is suitable for ISM band in China, EU and USA at 868/915Mhz.

N536CS Module Parameter

Model	N536CS
Module Interface	SPI, UART
Frequency	160-960 Mhz, 1200Mhz
RF Data Rate	0-4000 kbps
868Mhz Transmitting Power	+33 dBm
868Mhz Receiving Sensitivity	-112 dBm at 50 kbps

868Mhz TX Current	900 mA (type)
868Mhz RX Current	12 mA
Frequency Deviation	+/- 10 khz, with TCXO
Communication Distance	10 – 5 000 m (Visual distance)
Antenna Interface	RF pin, IPEX
Installation Mode	SMD
Volume (mm)	36 mm x 24 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

N536CS Module Pinout

Pin Number	Function	Describe
1	GND	
2	GND	
3	VCCPA	PA power supply, 4.5V -- 5.5V; MAX current: 1200mA
4	VCCPA	PA power supply, 4.5V -- 5.5V; MAX current: 1200mA
5	GND	GND
6	DIO2	MCU IO port
7	DIO3	MCU IO port
8	DIO5	MCU IO port
9	DIO6	MCU IO port
10	DIO7	MCU IO port
11	DIO8	MCU IO port
12	DIO9	MCU IO port
13	DIO10	MCU IO port
14	VCC	CC1312R7 power supply, 2V -- 3.6V

15	GND	GND
16	DIO11	TMS
17	DIO12	TCK
18	DIO13	MCU IO port
19	DIO14	MCU IO port
20	DIO15	MCU IO port
21	TMS	MCU IO port
22	TCK	MCU IO port
23	RESET	MCU IO port
24	DIO16	MCU IO port
25	DIO17	MCU IO port
26	DIO18	MCU IO port
27	DIO19	MCU IO port
28	DIO20	MCU IO port
29	DIO21	MCU IO port
30	DIO22	MCU IO port
31	DIO23	MCU IO port
32	DIO24	MCU IO port
33	DIO25	MCU IO port
34	GND	
35	RF	

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

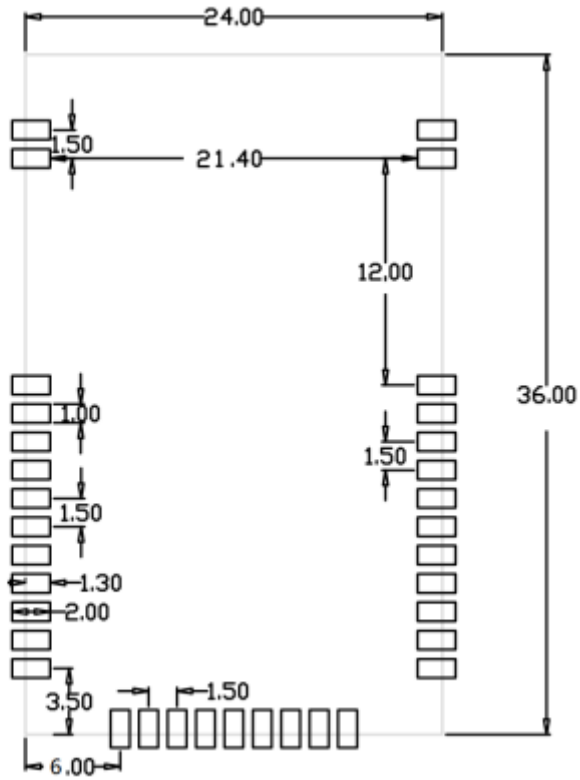
AMR – Automatic Meter Reading

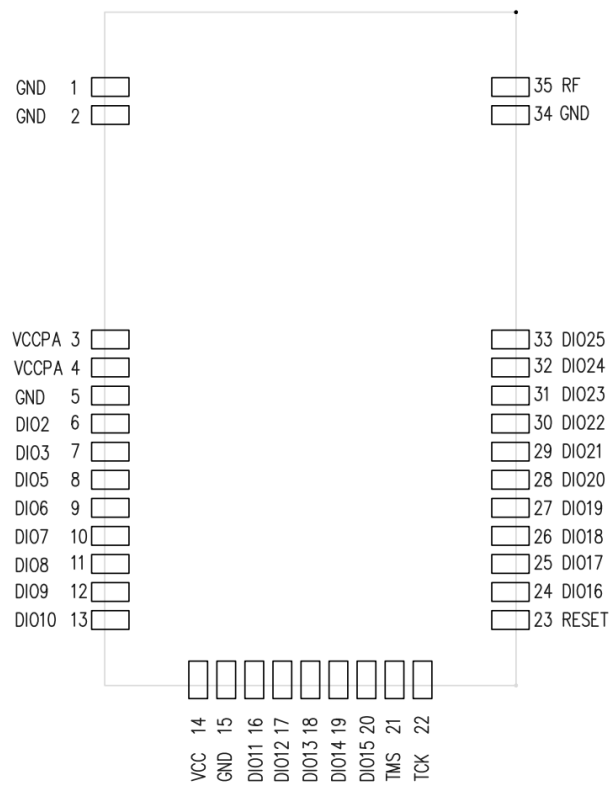
Home and building automation

N536CS PALNA Logic

	DIO27-TCXO	DIO28-LNAEN	DIO29-RXEN	DIO30-TXEN
Active	1	1	0	0
TX	1	1	0	1
RX	1	0	1	0
SLEEP	0	1	0	0

N536CS Layout





Ordering Information

N536CS-CC1312R7-433M	RF Module	CC1312R74T0RGZ	33DBM	2000mW – 410-480Mhz
N536CS-CC1312R7-868M	RF Module	CC1312R74T0RGZ	33DBM	2000mW – 860-880Mhz
N536CS-CC1312R7-915M	RF Module	CC1312R74T0RGZ	33DBM	2000mW – 910-930Mhz
N536CS-CC1312R7-1200M	RF Module	CC1312R74T0RGZ	33DBM	2000mW – 1210-1250Mhz