

N515CS-B, CC1200 PA Module, +26dBm



N515CS-B Module Introduce

N515CS-B CC1200 transceiver narrowband module designed for 169M, 433M, 868M and 915MHz ISM band. Up to +26 dBm output power and down to -125 dBm sensitivity at 1.2kbps.

N515CS-B is a low-cost and small size spi RF transceiver module for transmitting and receiving digital data via radio frequency. All of the N515CS-B'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 CC1200 low-power, integrated sub 1G transceiver RF chip. The module available frequency is from 169 to 960 Mhz, The hardware is designed for maximum range, 5000m + Range (Line of Sight).

N515CS-B module based TI CC1200 transceiver and PA LNA, the module leads out all pins of CC1200 chip, The interface of the module is SPI port and RF pin. The module is packaged with small size SMD, it is suitable for SMT production. Rapid development without understanding RF. The module supports Arduino and easy to get FCC.

N515CS-B is suitable for ISM band in China, EU and USA.

N515CS-B Module Parameter

Model	N515CS-B
Module Interface	SPI

Frequency	160-175 MHz, 410-480 Mhz, 860-960 Mhz
RF Data Rate	0-500 kbps
Transmitting Power	+25 dBm(VCC=3V, VCCPA= 5V)
Receiving Sensitivity	-125 dBm
TX Current	300 mA
RX Current	27 mA
Frequency Deviation	+/- 1 khz
Communication Distance	10 – 5000 m(Visual distance)
Antenna Interface	RF pin, IPEX
Installation Mode	SMD
Volume (mm)	29.5 mm x 21 mm x 3 mm
Operating Voltage	2.5 - 3.6 V
PA Operating Voltage	3 - 6 V (5V type)
Working Temperature and Humidity Environment	Temperature: -40-80 °C; Humidity 10-95 %RH
Storage Temperature and Humidity Environment	Temperature: -40-80 °C; Humidity 10-95 %RH
Weight (kg)	≈10g

N515CS-B Module Pinout

Pin Number	Function	Describe
1	RF	RF pin
2	GND	
3	GND	
4	VCCPA	3V to 6V
5	VCC	2.5V to 3.6V
6	VTC	TCXO power supply, Connected to MCU IO port or VCC.
7	LNAC	Connected to MCU IO port
8	LNAEN	LNA enable
9	PAEN	PA enable

10	RESET	Reset pin
11	GPIO3	Connected to MCU IO port
12	GPIO2	Connected to MCU IO port
13	MOSI	SPI
14	SCK	SPI
15	MISO	SPI
16	GPIO0	Connected to MCU IO port
17	CS	SPI
18	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

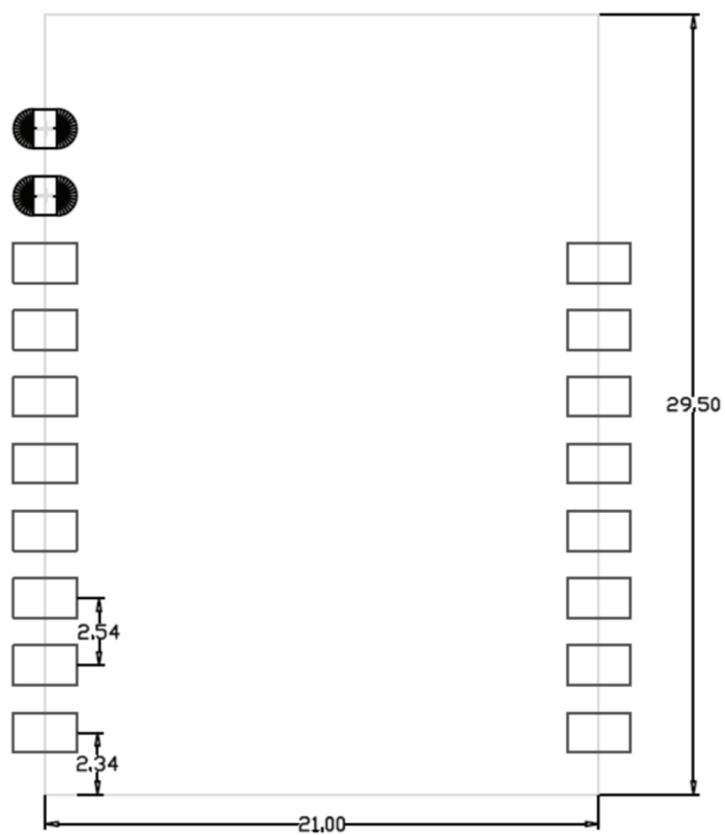
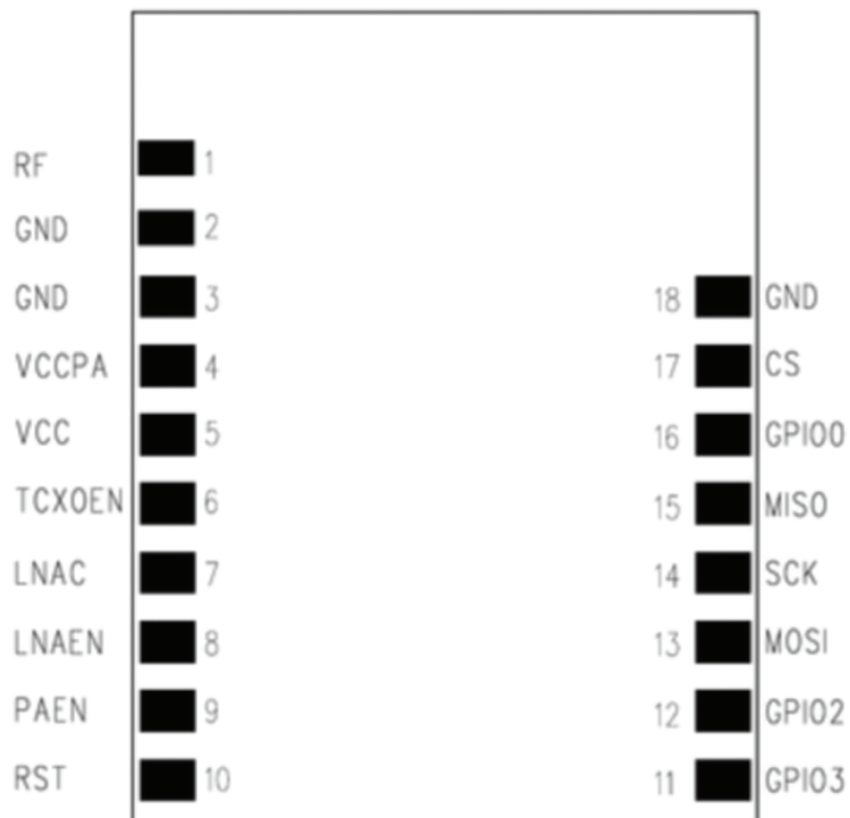
Wireless MBUS

Arduino

N515CS-B Logic (mm)

	VTC	LENC	PAEN	LNAEN
TX	1	1	1	0
RX	1	0	0	1
Sleep	0	1	0	0

N515CS-B Layout (mm)



Ordering Information

N515CS-B-B-169M RF Module +26 dBm – 160-175Mhz

N515CS-B-B-433M RF Module +26 dBm – 410-510Mhz

N515CS-B-B-868M RF Module +26 dBm – 860-880Mhz

N515CS-B-B-915M RF Module +26 dBm – 910-930Mhz