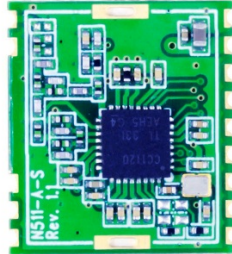


N511AS, CC1120 Module



N511AS Module Introduce

N511AS CC1120 transceiver narrowband module designed for 169M, 433M, 868M and 915MHz ISM band. Up to +15 dBm output power and down to -120 dBm sensitivity at 1.2kbps.

N511AS is a low-cost and small size spi RF transceiver module for transmitting and receiving digital data via radio frequency. All of the N511'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 CC1120 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, 1500m + Range (Line of Sight).

N511AS module based TI CC1120 transceiver, the module leads out all pins of CC1120 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.

N511AS is suitable for ISM band in China, EU and USA.

Module Parameter

Model	N511AS
Module Interface	SPI
Frequency	160-175 MHz, 410-480 Mhz, 860-960 Mhz
RF Data Rate	0-200 kbps
Transmitting Power	+15 dBm
Receiving Sensitivity	-120 dBm
TX Current	56 mA
RX Current	18 mA

Frequency Deviation	+/- 1 khz
Communication Distance	10 – 1500 m(Visual distance)
Antenna Interface	RF pin
Installation Mode	SMD
Volume (mm)	19 mm x 17 mm x 3 mm
Operating Voltage	2 - 3.6 V
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

Module Pinout

Pin Number	Function	Describe
1	RF	RF pin
2	GND	
3	GND	
4	GPIO3	Connected to MCU IO port
5	RESET	Connected to MCU IO port
6	VTC	TCXO power supply, Connected to MCU IO port or VCC.
7	GPIO2	Connected to MCU IO port
8	MOSI	SPI
9	SCK	SPI
10	MISO	SPI
11	GPIO0	Connected to MCU IO port
12	NSS	SPI
13	VCC	1.8V to 3.6V
14	GND	

Application Area

Ultra low-power wireless applications

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

Wireless alarm and security systems

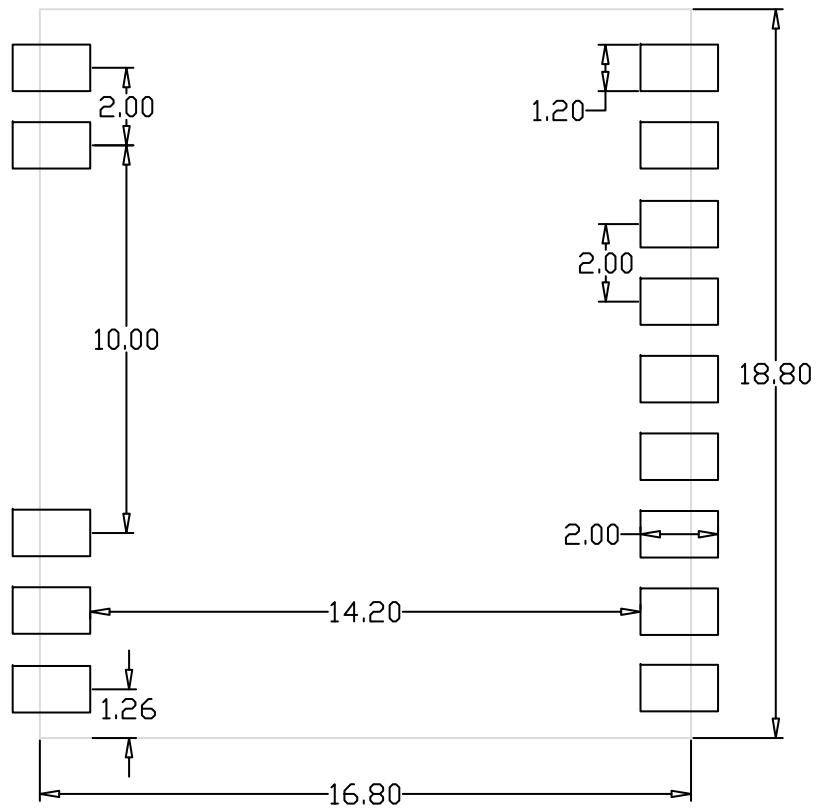
Industrial monitoring and control

Wireless sensor networks

AMR – Automatic Meter Reading

Home and building automation

Wireless MBUS



PCB LAYOUT(mm)

Ordering Information

N511AS-169M	RF Module	N511AS-169M	+15 dBm – 160-175Mhz
N511AS-433M	RF Module	N511AS-433M	+15 dBm – 410-510Mhz
N511AS-868M	RF Module	N511AS-868M	+15 dBm – 860-960Mhz