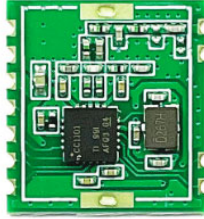


## N503AS, CC1101 Module



### N503AS Module Introduce

N503AS CC1101 transceiver module designed for 433M, 868M and 915MHz band. Up to +12 dBm output power and down to -116 dBm sensitivity.

N503AS is a low-cost and small size FSK spi RF transceiver module for transmitting and receiving digital data via radio frequency. All of the N503'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 CC1101 low-power, integrated sub 1G transceiver RF chip , all IO pin are brought out. The module available frequency is from 430 to 928Mhz, The hardware is designed for maximum range, 500m + Range (Line of Sight).

N503AS module based TI CC1101 transceiver, the module leads out all pins of CC1101 chip, The interface of the module is SPI port and RF pin. SMD package, small size, the module is suitable for SMT production. Rapid development without understanding RF. The module supports Arduino and WMBus.

N503AS is suitable for ISM band in China, EU and USA.

### Module Parameter

Model	N503AS
Module Interface	SPI
Frequency	430-464 Mhz, 860-928 Mhz
RF Data Rate	1.2-500 kbps
Transmitting Power	+12 dBm
Receiving Sensitivity	-112 dBm
TX Current	35 mA
RX Current	20 mA
Frequency Deviation	+/- 10 khz
Communication Distance	10 – 500 m(Visual distance)
Antenna Interface	RF pin
Installation Mode	SMD
Volume (mm)	17 mm x 16 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	GND	
2	GND	
3	VDD	1.8V to 3.6V
4	MOSI	SPI
5	CLK	SPI
6	MISO	SPI
7	GDO2	Connected to MCU IO port
8	GDO0	Connected to MCU IO port
9	CSN	SPI
10	GND	
11	RF Pin	Connected to antenna

### 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

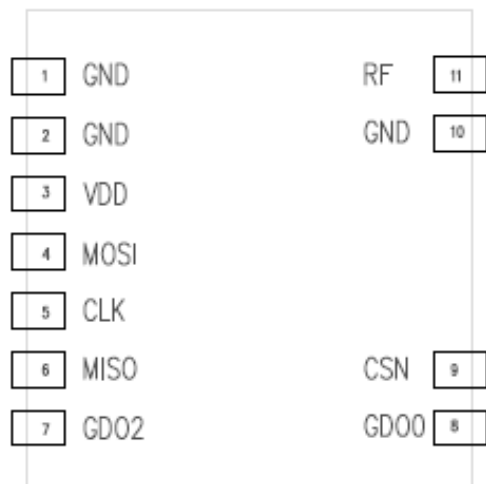
AMR – Automatic Meter Reading

Home and building automation

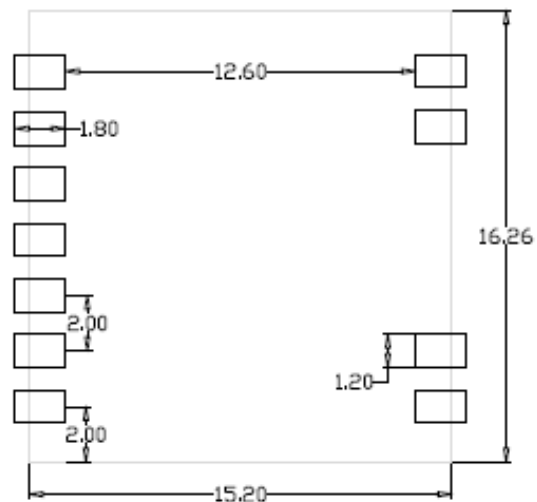
Wireless MBUS

Arduino

### N503AS Layout



**PIN define**



**PCB LAYOUT(mm)**

### Ordering Information

N503AS-433M	RF Module	N503AS-433M	10mW – 410-464Mhz
N503AS-868M	RF Module	N503AS-868M	10mW – 860-960Mhz