

# N515 Narrowband RF Module

CC1120 Narrowband RF Module,162-174Mhz,384-464Mhz,860-960Mhz

## INTRODUCTION

N515 is a low-cost and small size narrowband RF module for transmitting and receiving digital data via radio frequency. All of the N515'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,all IO pin are brought out.The module available frequency is from 162-174Mhz,384-464Mhz, 860-960Mhz,The hardware is designed for maximum range.The module output power is +24dbm(at +3.3V),+27dbm(at +5V),the visual distance up to 2000m.

## Technical specifications

### Hardware Information

Interfaces: SPI,IIC,UART  
Dimension: 36 x 23mm x 3mm  
Operating voltage: 2 - 3.6V  
PA Operating voltage: 3 - 5V  
Operating temperature: -30°C to +80°C

Consumption(Sleep) : 2uA  
Consumption (RX): 35mA  
Consumption (TX): 1400mA  
RF chip: CC1120  
Mounting: SMD

### Software

Asynchronous Transparent mode  
Low Power mode  
Secure mode

RSSI mode  
Serial bootloader  
Adjustable packet size

### Wireless Interface

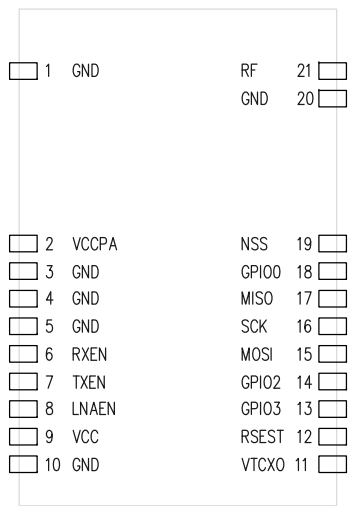
RF pin, IPEX  
Frequency:162-174Mhz,384-464Mhz,860-960Mhz  
Modulation: narrowband FSK  
RF deviation:  $\pm 1$  KHz

RF data rate: 1 - 200Kbps  
RF output power: up to 30dBm(3.6V)  
RF sensitivity: -126dBm

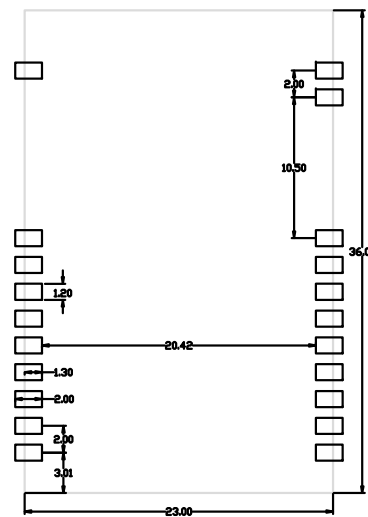
# RF T/R Logic

name	TCXOEN	LNAC	PAEN	LNAEN
Transmitt	1	1	1	0
receive	1	0	0	1
sleep	0	1	0	0

## Pin configuration & Dimensions



PIN define



PCB LAYOUT(mm)

## **Part numbers**

N515-B-S-434M    RF Module N515-B-S-434M – 1000mW – 410-480Mhz

## **OTHER MODULES OF BANDS RANGE**

N515-B-S-868M    RF Module N515-A-S-868M – 1000mW – 860-960Mhz

N515-B-S-169M    RF Module N515-A-S-169M – 1000mW – 162-174Mhz

## **Manufacturer**

SHENZHEN NANCHENG TECHNOLOGY CO.,LTD

## **Contact with us**

Shenzhen NanCheng Technology CO.,LTD  
Addr: Room307,Xinbaoyuan Building,N5179,District 74 Xinan Street,  
BaoAn District,Shenzhen,China 518101  
Sales department: +0086 755 29662101  
E-mail : info@hkulike.com  
Web: www.hkulike.com