

# N412

## SX1278 Lora RF Serial Module



### INTRODUCTION

N412 is a low-cost and small size Lora RF serial module for transmitting and receiving digital data via radio frequency. All of the N412'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 design consists of a SX1278 low-power, integrated sub 1G transceiver RF chip and ST MCU, all IO pin are brought out. The module available frequency is from 410 to 510Mhz, The hardware is designed for maximum range, The module Visual distance is about 2000m.

### Technical specifications

#### Hardware Information

Interfaces: SPI,UART,IIC  
Dimension: 29 x 21mm x 3mm  
Operating voltage: +2 - +3.6V  
Operating temperature: -30°C to +70°C

Consumption (Sleep): 2uA  
Consumption (RX): 25mA  
Consumption(TX):130mA(+20dBm)  
RF chip: SX1278  
Mounting: SMD

#### Software

Asynchronous Transparent mode  
Low Power mode  
Secure mode

RSSI mode  
Serial bootloader  
Adjustable packet size

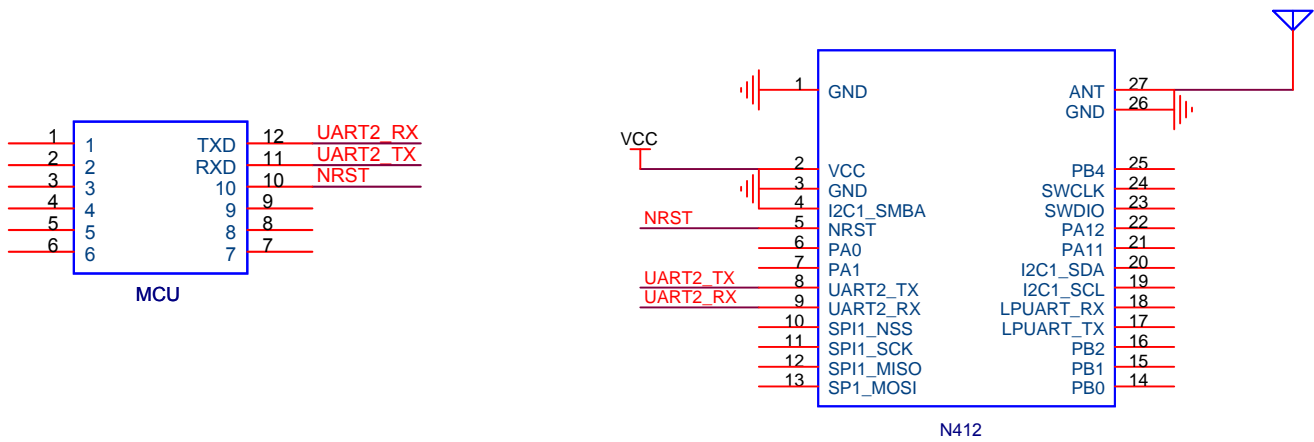
**Notice:** for more firmware information please contact with NanCheng Tech.

#### Wireless Interface

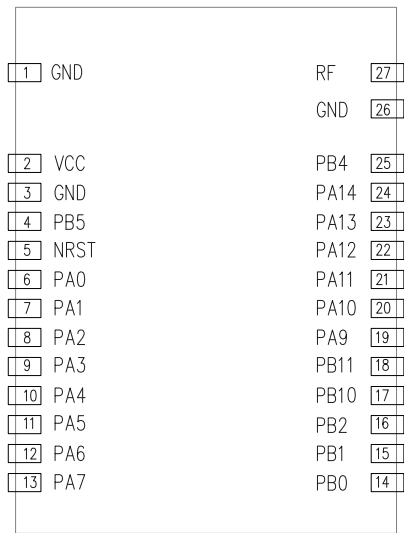
RF pin  
Frequency:410-510Mhz  
Modulation: Lora  
RF deviation:  $\pm 10$  Khz

RF data rate: 1.2 - 37.5kbps  
RF output power: up to 20dBm  
RF sensitivity: -131dBm

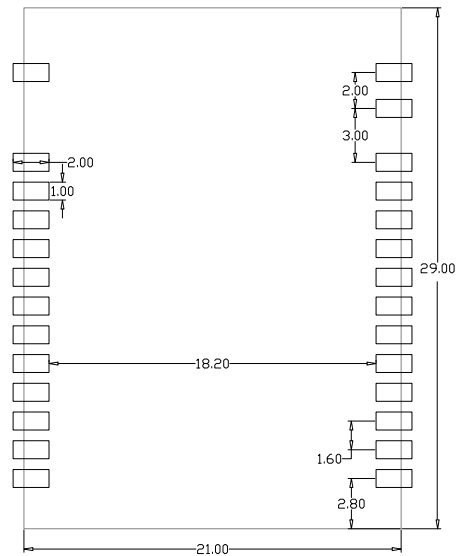
# Typical application circuit



# Pin configuration & Dimensions



PIN define



PCB LAYOUT(mm)

## **Part numbers**

N412-A-S-434M    RF Module N412-A-S-434M – 100mW – 410-510Mhz

## **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