

N514AS, CC1120 UART Module



N514AS Introduce

Radio module based TI CC1120, high power PA, LNA and MCU. Narrowband used.

N514AS CC1120 high power module designed for 169M, 433M, 868M 915Mhz narrowband. Up to **+30 dBm** output power, and down to -126dBm sensitivity. AT command used.

N514AS high power module based TI CC1120, ST MCU, PA and LNA. 169M, 433M, 868MHz and 915M narrowband used. Up to +30 dBm output power and down to -126dBm sensitivity. AT command used. The high power module is mainly for Internet of things, intelligent home, wireless meter reading, scientific research and medical treatment, and medium and long-distance wireless communication equipment. CC1120 high power module leads all pins out for secondary development. AT commands support.

N514AS high power module interface: SPI and UART port, RF pin, SMD package, small size, the module is suitable for SMT production.

N514AS leads uart pins out of for secondary development. Rapid development without understanding RF. **N514AS** is suitable for free frequency band in EU and USA.

ISM Frequency supported by N514AS high power module

169M band: 169 MHz to 170 MHz (China, EU)

433M band: 433 MHz to 435 MHz (China, EU)

470M band: 470 MHz to 480 MHz (China)

868M band: 868 MHz to 870 MHz (China, EU, USA)

888 MHz to 889 MHz (Australia)

915M band: 902 MHz to 928 MHz (USA)

APPLICATIONS

Sigfox network or point-to-point long distance transmission.

Narrowband system

Arduino device

Narrowband Ultra-Low-Power Wireless Systems

IEEE 802.15.4g Systems

With Channel Spacing Down to 12.5 kHz

Wireless Alarm and Security Systems

169-, 315-, 433-, 868-, 915-, 920-, 950-MHz
 Industrial Monitoring and Control ISM/SRD Band
 Wireless Healthcare Applications
 Wireless Metering and Wireless Smart Grid (AMR and AMI)
 Wireless Sensor Networks and Active RFID
 Private Mobile Radios
 Home and Building Automation
 N514AS is suitable for free frequency band in EU and America.

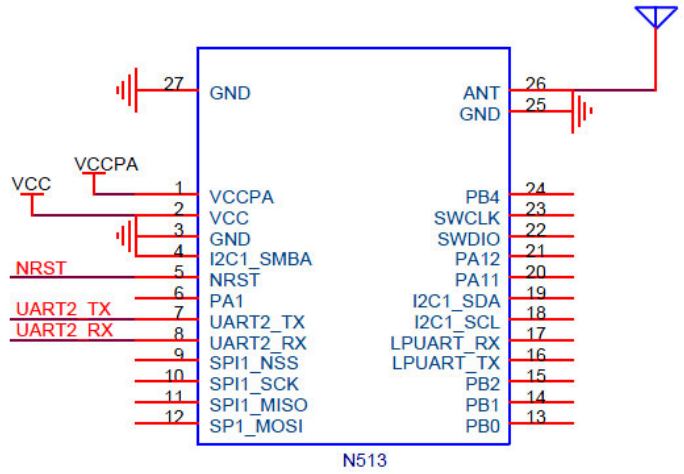
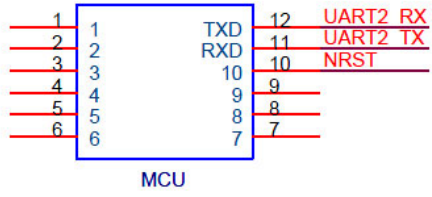
N514AS Parameter

RF Interface	Parameter	Introduce
Frequency	169M, 433M, 868M 915Mhz	Support ISM, narrowband
Output Power	+30dBm	The maximum power 1000mW
Sensitivity	-126dBm	1.2kbps
Symbol Rate	0.3-200kbps	Software programming control
Deviation	+/-1kHz	Antenna interface
Distance	15000m	In clear and open environment, the antenna gain is 3 dBi, the height above the ground is 2.5 meter s, and the air speed is 1.2 kbps.

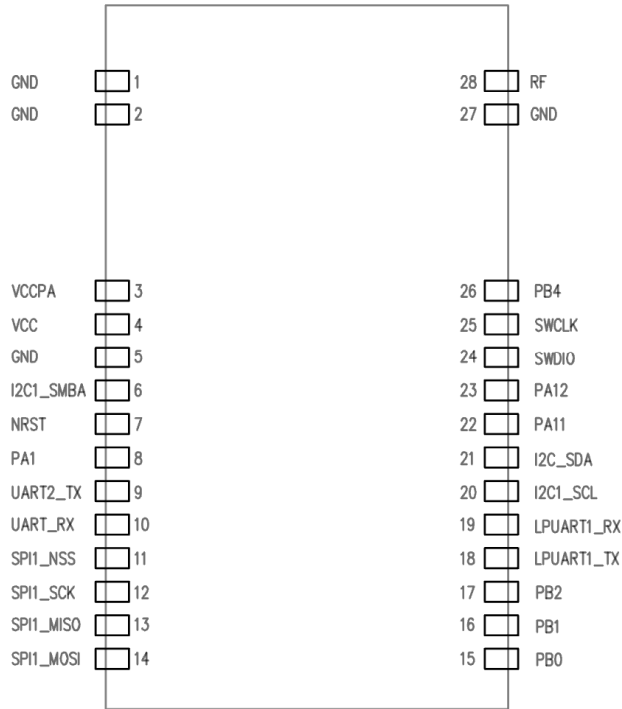
Hardware parameters	Value	Remarks
Size	42 x 24 x 3mm	-
Antenna Interface	IPEX, RF pin	-
Communication Interface	UART, SPI	Software programming, AT command
Package	SMD	-

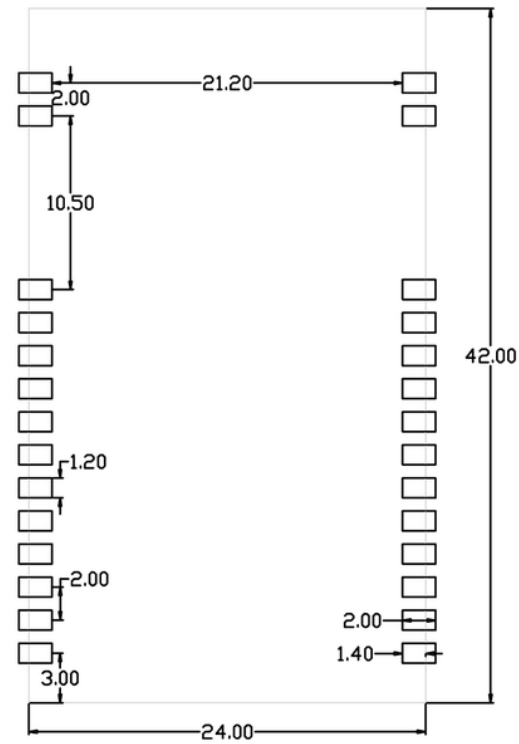
Electrical Parameters	Minimum	Typical	Maximum	Remarks
Volt	1.8V	3.3V	3.9V	
PA Volt	3V	3.6V	5V	
Emission Current		1200mA		Instantaneous power consumption
Receiving Current		35mA		-
Sleep current		2uA		Software programming control
Working Temperature	-40°C		85°C	-

N514AS typical circuit



N514AS Pin Definition





Ordering information

N514AS-169M	CC1120, PA, LNA, MCU	Narrowband, UART, 30dBm, 160M - 175MHz
N514AS-433M	CC1120, PA, LNA, MCU	Narrowband, UART, 30dBm, 410M - 480MHz
N514AS-868M	CC1120, PA, LNA, MCU	Narrowband, UART, 30dBm, 860M - 880MHz
N514AS-915M	CC1120, PA, LNA, MCU	Narrowband, UART, 30dBm, 910M - 960MHz

More information please contact with us.