

## N517DS CC1200 PA Module, +30dBm



### N517DS Module introduction

N517DS radio module based TI CC1200 transceiver, PA, and TCXO crystal.

N517DS CC1200 transceiver module designed for 169M, 433M, 868M and 915Mhz narrowband band.

N517DS has +30 dBm output power and the sensitivity down to -125 dBm, WMBUS and Arduinio support.

N517DS module has SMD and plug-in installation mode. The module use narrowband FSK modulation. N517DS FSK module occupies very little bandwidth.

N517DS hardware is designed for maximum range,10000 m + Range (Line of Sight).

### N517DS Module Parameters

| Module                 | Introduce                      |
|------------------------|--------------------------------|
| Interface              | SPI                            |
| Frequency              | 169M, 433M, 868M and 915Mhz    |
| RF Data Rate           | 0 - 500 kbps                   |
| TX Power               | <b>+30 dBm</b>                 |
| RX Sensitivity         | -126 dBm at 1.2kbps            |
| TX Current             | 1200 mA                        |
| RX Current             | 35 mA                          |
| Frequency Deviation    | +/- 2 Khz                      |
| Communication Distance | 10 - 10000 m (Visual distance) |
| Antenna Interface      | RF pin, SMA                    |
| Installation Mode      | SMD, plug-in                   |

|                                              |                                               |
|----------------------------------------------|-----------------------------------------------|
| Volume (mm)                                  | 36 mm x 24 mm x 3 mm                          |
| Operating Voltage                            | 2 - 3.6 V                                     |
| PA Operating Voltage                         | 3 - 3.9 V, type 3.6V                          |
| 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                                          |

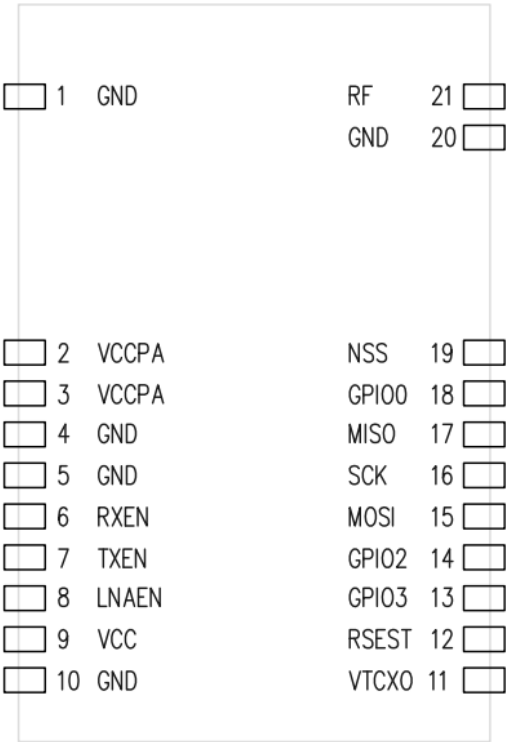
## N517DS pinout Description

|    | Pin name | Description |    | Pin name | Description |
|----|----------|-------------|----|----------|-------------|
| 1  | GND      | Ground      | 12 | RESET    | RESET       |
| 2  | VCCPA    | 3.6V        | 13 | GPIO3    | MCU I/O     |
| 3  | VCCPA    | 3.6V        | 14 | GPIO2    | MCU I/O     |
| 4  | GND      | Ground      | 15 | MOSI     | SPI         |
| 5  | GND      | Ground      | 16 | SCK      | SPI         |
| 6  | RXEN     | MCU I/O     | 17 | MISO     | SPI         |
| 7  | TXEN     | MCU I/O     | 18 | GPIO0    | MCU I/O     |
| 8  | LNAEN    | MCU I/O     | 19 | NSS      | MCU I/O     |
| 9  | VCC      | 2-3.6V      | 20 | GND      | GND         |
| 10 | GND      | GND         | 21 | RF       | RF PIN      |
| 11 | VTCXO    | MCU I/O     |    |          |             |

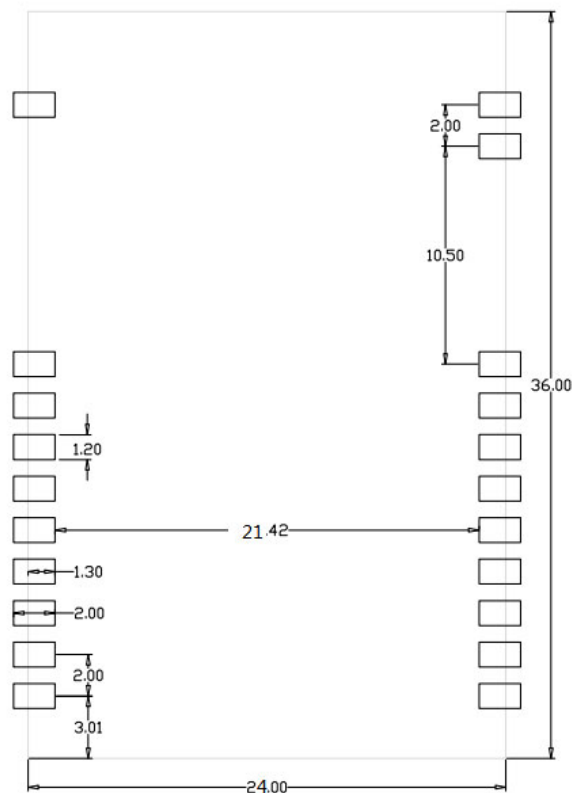
## N517DS Logic Description

|           | TXEN | RXEN | LENAN | VTCXO |
|-----------|------|------|-------|-------|
| Transmitt | 1    | 0    | 1     | 1     |
| Receive   | 0    | 1    | 0     | 1     |
| Sleep     | 0    | 0    | 1     | 0     |

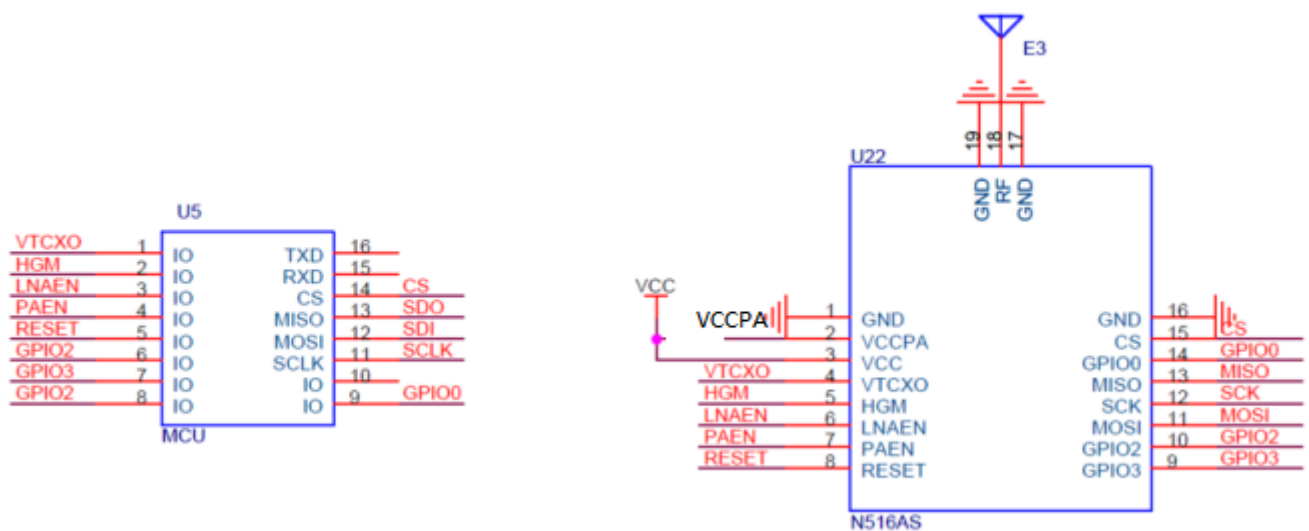
N517DS Module Package



N517DS Module Packaging Diagram



## N517DS Typical Application Circuit



## N517DS Ordering Information

|             |           |                                    |
|-------------|-----------|------------------------------------|
| N517DS-169M | CC1200+PA | +30 dBm, Narrowband, 165 - 175 MHz |
| N517DS-433M | CC1200+PA | +30 dBm, Narrowband, 410 - 510 MHz |

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|             |           |                                    |
|-------------|-----------|------------------------------------|
| N517DS-868M | CC1200+PA | +30 dBm, Narrowband, 860 - 880 MHz |
| N517DS-915M | CC1200+PA | +30 dBm, Narrowband, 910 - 960 MHz |

More information please contact with us.