

CD-PA1616D GNSS patch antenna module

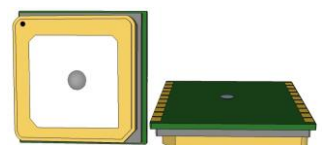
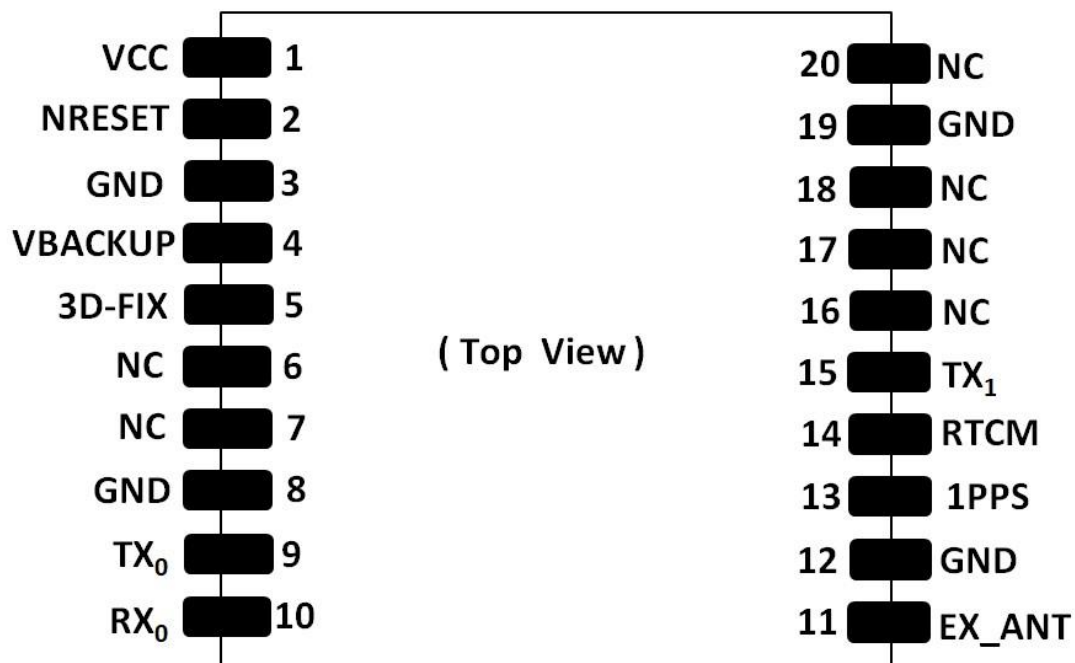


Features

- Built-in 15x15x4.0mm ceramic patch antenna on the top of module
- Ultra-High Sensitivity: -165dBm (w/o patch antenna), up to 45dB C/N of SVs in open sky reception.
- AlwaysLocate: Intelligent Algorithm (Advance Power Periodic Mode) for power saving
- EASY: Self-Generated Orbit Prediction for instant positioning fix
- GPS Consumption current(@3.3V):
 - Acquisition: 34mA Typical
 - Tracking: 29mA Typical
- High accuracy 1-PPS timing support for Timing Applications (± 20 ns jitter)
- High Update Rate: up to 10Hz^(note1)
- Logger function Embedded^(note2)
- Supports QZSS, SBAS(WAAS, EGNOS, GAGAN, MSAS) ranging
- Ultra-High Sensitivity: -165dBm
- Automatic antenna switching function

Note 1: SBAS can only be enabled when update rate is less than or equal to 5Hz.

Note2: Some features need special firmware or command programmed by customer



16x16x6.7 mm

Specification List

| Item | Description |
|---|---|
| GPS Solution | MTK MT3333 |
| Frequency | GPS L1, 1575.42MHz GLONASS L1, 1598.0625~1605.375MHz |
| Sensitivity(GPS portion) | Acquisition: -148dBm, cold start Reacquisition: -163dBm Hot start Tracking: -165dBm |
| TTFB (No. of SVs>4, C/N>40dB, PDop<1.5) | Hot start: 1 second typical Warm start: 33 seconds typical Cold start: 35 seconds typical, 60 seconds Max |
| Position Accuracy | Without aid:3.0m (50% CEP) DGPS(SBAS(WAAS,EGNOS,MSAS)):2.5m (50% CEP) |
| Update Rate | 1Hz (default), maximum 10Hz |
| Baud Rate | 9600 bps (default) |
| Velocity Accuracy | Without aid : 0.1m/s DGPS(SBAS(WAAS,EGNOS,MSAS,GAGAN)):0.05m/s |
| Timing Accuracy(1PPS Output) | ±20 ns RMS within 100ms in one pulse |
| Altitude | Maximum 18,000m (60,000 feet) |
| Velocity | Maximum 515m/s (1000 knots) |
| Acceleration | Maximum 4G |
| DGPS | SBAS(default) [WAAS, EGNOS, MSAS,GAGAN] |
| Power Supply | VCC : 3.0V to 4.3V ; VBACKUP : 2.0V to 4.3V |
| Current Consumption @ 3.3V,1Hz Update Rate | Acquisition: 34mA,Tracking: 29mA |
| Working Temperature | -40 °C to +85 °C |
| Dimension | 16 x 16 x 6.7 mm, QFN |
| Weight | 6g |