

CD-PA1616S GPS patch antenna module

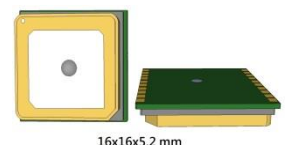
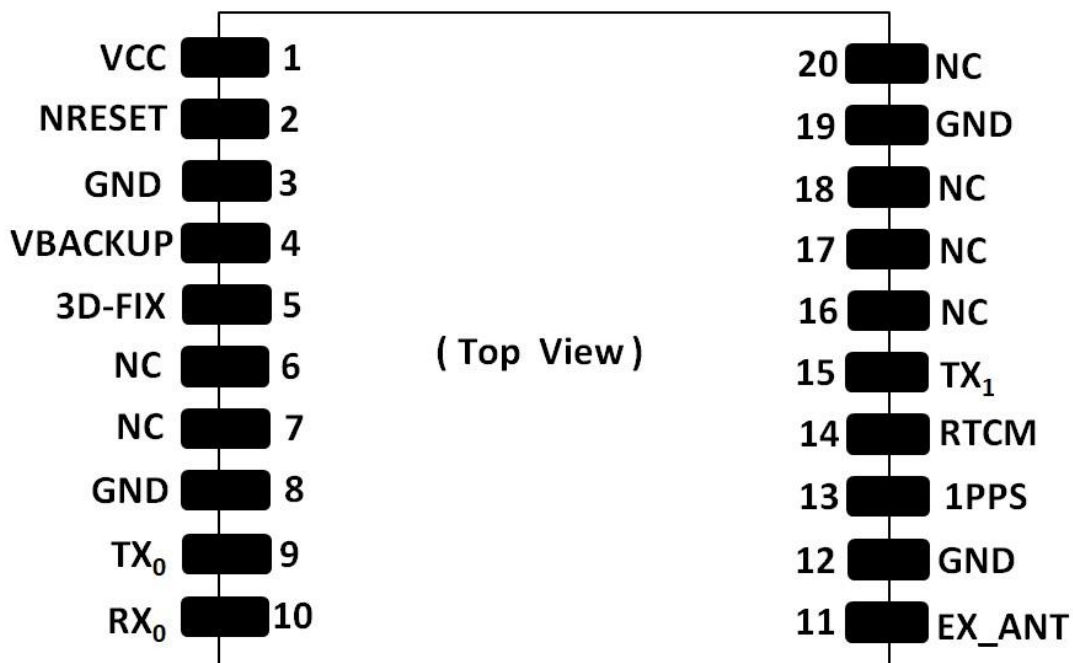


Features

- Built-in 15x15x2.5mm 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: 25mA Typical
 - Tracking: 20mA 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



16x16x5.2 mm

Specification List

Item	Description
GPS Solution	MTK MT3339
Frequency	GPS L1, 1575.42MHz
Sensitivity(GPS portion)	Acquisition: -148dBm, cold start Reacquisition: -163dBm Hot start Tracking: -165dBm
TTFF (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: 25mA,Tracking: 20mA
Working Temperature	-40 °C to +85 °C
Dimension	16 x 16 x 5.2 mm, QFN
Weight	4g