



Technology

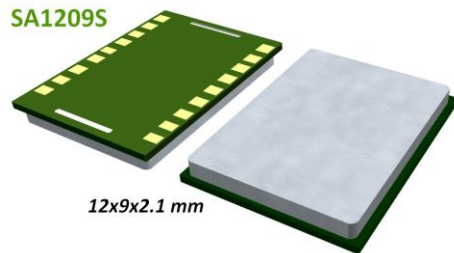
# CDTop Technology

Company Product Profile

March 2018

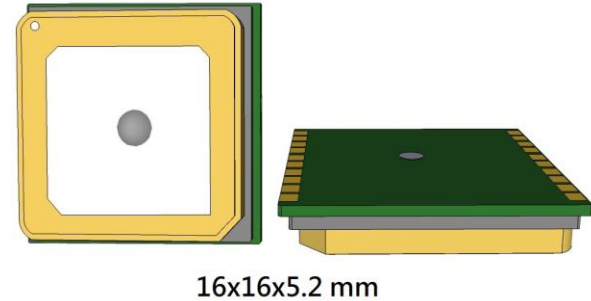
# GPS Product Portfolio

## Standalone Modules: SA1209S



- ✓ MT3339 Chipset (GPS Only)
- ✓ UART, 1PPS, 3D-Fix
- ✓ EASY, SBAS, Logger
- ✓ < 2.5 m CEP, - 165 dBm,
- ✓ 17 mA tracking
- ✓ RTC Crystal, TCXO, SAW

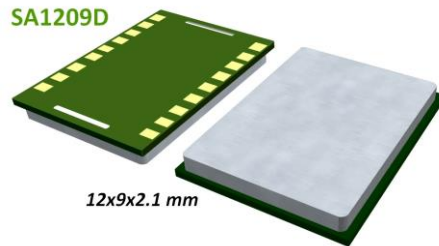
## Antenna Module: PA1616S



- ✓ MT3339 Chipset (GPS Patch)
- ✓ UART, RTCM, 1PPS, External Antenna
- ✓ EASY, SBAS, Logger
- ✓ < 2.5 m CEP, - 165 dBm
- ✓ 20 mA tracking
- ✓ RTC Crystal, TCXO, Saw

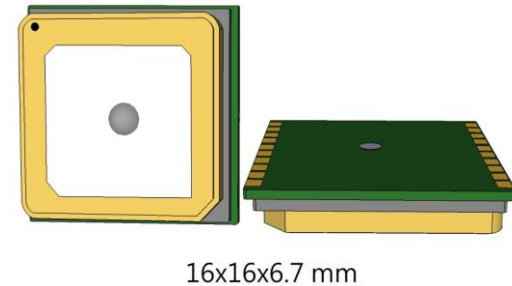
# Multi-GNSS Product Portfolio

## Standalone Modules: SA1209D



- ✓ MT3333 (GPS/Glonass/Beidou/Galileo)
- ✓ RTCM, 1PPS, 3D-Fix
- ✓ EASY, SBAS, Logger
- ✓ < 2.5 m CEP, - 165 dBm,
- ✓ 26 mA tracking
- ✓ RTC Crystal, TCXO, SAW

## Antenna Module: PA1616D



- ✓ MT3333 (GPS + Glonass Patch)
- ✓ UART, RTCM, 1PPS, 3D-Fix
- ✓ EASY, SBAS, Logger
- ✓ < 2.5 m CEP, - 165 dBm
- ✓ 29 mA tracking
- ✓ RTC Crystal, TCXO, SAW

# Free Firmware Customization

CDTop Technology is the Alpha-Testing site of MediaTek for GNSS. This strategic cooperation allows CDTOP to test all new MTK GNSS FW.

Through passed many years of cooperation, the CDTOP software team is now the most experienced MTK based module vendor in the world, offering the most extensive level of FW customization on MTK GNSS Chipsets in the industry.

## Basic Firmware Customization

1. Datum → Default : WGS84 (Customizable)
2. Data digits NMEA → Default : 4 digits (Max 6 )
3. DGPS → Default : SBAS, (Choose RTCM instead)
4. 3D Fix Output → Default : No fix period : 2 seconds, Duty cycle ½,  
Fixed: Period: 0.5 sec; Duty cycle: OFF (You can customize all paramters)
5. 1 PPS → Default : 100ms(Change the duration between 1 to 999 ms)
6. Baud Rate → Default : 9600 bps ( Change from 4,800 to 115,200 bps)
7. Update Rate → Default : 1Hz ( Select from 1 to 10Hz)
8. NMEA Sentence → Default : GGA(1), GSA(1), GSV(5), RMC(1), VTG(1),GLL(0), ZDA(0), You can customize the intervals.
9. LOCUS Internal Logger → Default : Up to 16 hours logging at 15s interval  
(Full customization possible including changing logging style, speed, distance, etc..)

# Free GNSS Firmware Customization

## Advanced Firmware Customization

### 1) One-Sentence :

- Output customized sentence in Binary or ASCII mode, or simplify NMEA output to reduce MCU load.
- Other customizations available per customer's requirement or algorithms.
- Default: NMEA
- ✓ Applications : Security, Wearable's, etc.

### 2) Last Position Retention:

- You can continue to the output the last position in the event of losing GNSS fix.
- Default : Disabled

### 3) Magnetic variation

- This option outputs degree of magnetic variation & magnetic heading, which is useful for navigation and determining direction.
- Default: Disabled
- ✓ Applications : Asset Tracking, Vehicle Tracking

# Free GNSS Firmware Customization

## Advanced Firmware Customization

### 4) Geo-fencing:

- Allows you to set a radius value around a target position, and informs the user if the receiver is inside or outside this predefined boundary.
- Default: Disabled
- ✓ Applications : Pet Tracking, Personal Tracking, Security

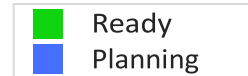
### 5) Distance calculation:

- You can calculate direct distance between current location and other points. This calculation is done by the module itself and can decrease load on the users MCU.
- Default :Disabled
- ✓ Applications : Aviation

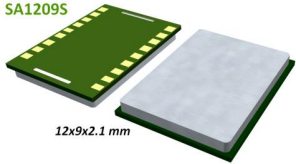
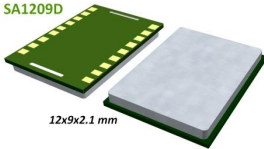
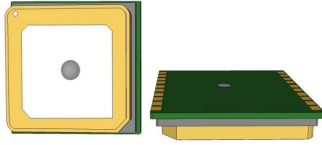
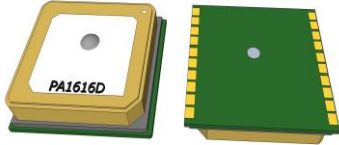
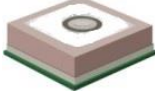
### 6) Navigation mode:

- You can choose different configurations based on your application e.g. : Vehicle, Pedestrian, Aircraft, Air balloon
- ✓ Applications: Vehicle Tracking, Personal Tracking, UAV

# Product Roadmap



**2018**

	Q1	Q2	Q3	Q4
Standalone Module	<p><b>MEDIATEK</b></p> <p>SA1209S</p>  <p>12x9x2.1 mm</p> <p>(Only for GPS)</p>	<p><b>MEDIATEK</b></p> <p>SA1209D</p>  <p>12x9x2.1 mm</p> <p>(for GPS+GLONASS)</p>		
Antenna Module		<p><b>MEDIATEK</b></p> <p>PA1616S</p>  <p>16x16x5.2 mm</p> <p>(Only for GPS)</p>	<p><b>MEDIATEK</b></p> <p>PA1616D</p>  <p>(for GPS+GLONASS)</p>	<p><b>MEDIATEK</b></p> <p>PA1010D</p>  <p>10x10x6.7mm</p>

## Contact Us

Tel: +886-7-8110721#300

Mail: [sales@cdtop-tech.com](mailto:sales@cdtop-tech.com)

Website: [www.cdtop-tech.com](http://www.cdtop-tech.com)