MeiG Smart SGM308 Module

GNSS Module LCC Packaging

MeiG Smart SGM308 GNSS module supports concurrent reception of GPS, GLONASS (or BeiDou), Galileo, and QZSS. It can acquire and track any mix of GPS, GLONASS (or BeiDou), Galileo and SBAS signals.

Compared with single GPS systems, enabling multiple GNSS systems increases the number of visible satellites, reduces the time to a first fix and improves the positioning accuracy, especially when driving through dense urban canyons.

By combining EASY™ (Embedded Assist System), an advanced AGNSS feature, with GLP (GNSS Low Power), a low- power mode, SGM308 module achieves high performance, low power consumption and fully meets the industrial standards. The EASY™ technology allows the module to calculate and predict orbits automatically by using the ephemeris data (of up to 3 days duration) which are stored in the internal RAM. As a result, SGM308 can acquire a fix position quickly, even at lower signal levels with low power consumption. With the GLP technology, SGM308can adaptively adjust the on/off time based on the environmental and motion conditions to achieve a balance between the positioning accuracy and power consumption.

Its enhanced performance makes SGM308 ideal for industrial PDA, consumer and industrial applications. The extremely low power consumption makes it a great solution for power sensitive applications, such as portable devices.

Main Advantages:

- Extremely compact size:10.1mm × 9.7mm × 2.4mm
- Supports anti-jamming technology and a multi-tone active interference canceller
- Multiple low-power modes ensure ultra-low power consumption
- Supports UART and I2C Interfaces. Maximum update rate: up to 10 Hz

EASY™ Technology

UltraLow Power Consumption

Extremely Compact Size

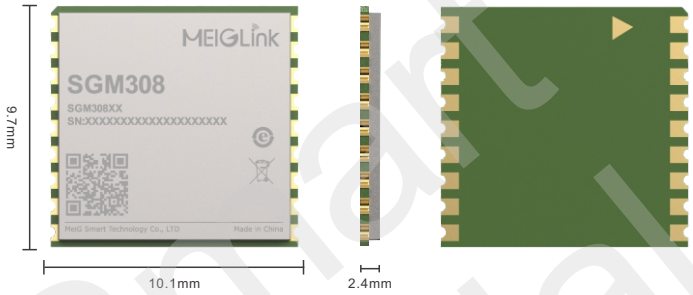
High Performance

MeiG Smart SGM308 Module

GNSS Module LGA Packaging

Basic Attributes:

- Package: LCC 18PIN
- Size: 10.1×9.7×2.4mm
- Weight: About 2g



Dynamic Performance:

- Maximum Altitude: Max. 10000 m
- Maximum Velocity: Max. 515 m/s
- Maximum Acceleration: 4g
- Positioning accuracy: 2M

Sensitivity:

- Acquisition: -147 dBm
- Tracking: -158 dBm
- Reacquisition: -156 dBm

Drivers & Tools:

- Tools: One-click upgrade tool
- FOTA upgrade

Module Interfaces:

- 2xUART
- 2xI2C
- 2xI2S
- 2xSPI
- PWERKEY
- Fly Mode
- LED indicator
- Antennas:main antenna

Certification:

- CE*

Electrical specification:

- 6μA @ Backup Mode
- 1mA @ Standby Mode
- 24 mA @ Tracking
- Supply Voltage：2.8~4.3, typical value 3.3V

Environmental Features:

- Working Temperature: -40℃ to 85℃
- Storage Temperature: -40℃ to 90℃
- Humidity: 5%~95%

SGM308 Band Frequency:

SGM308-C:
GPS L1 C/A:1575.42 MHz
GLONASS L1:1602.5625 MHZ
BeiDou B1I:1561.098 MHz
Galileo E1:1575.42MHz

Remarks:*means it is still in planning and design.

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