



GPS Antenna Module



SIM39EAU

SIMCom presents a high performance GPS module accompany with GPS antenna-SIM39EAU. This is a standalone L1 frequency GPS module include an embedded patch antenna on it. Designed with MTK's high sensitivity navigation engine, it allows you to achieves the industry's highest levels of sensitivity, accuracy, and Time-to-First-Fix (TTFF) with lowest power consumption. And with embedded antenna in SMT type, it is very easy to embed into customer's application.

Smart Machine Smart Decision

Mechanical data

- Dimensions: 22*22*7.5mm
- Weight: 8.5g

Features

- Support EASY™ self-generated orbit prediction
- Support EPO™ orbit prediction
- Support AGPS
- Support SBAS ranging (WAAS, EGNOS, GAGAN, MSAS)
- Support Jamming Removing
- Low-noise amplifier has been integrated

Interfaces

- Serial interfaces UART
- Digital I/O TIMESTAMP (PPS)
3D-FIX
- Protocols NMEA
PMTK

Support product

- SIM68 EVB KIT with USB V2.0 full speed interface

Performance data

- Receiver type 22 tracking/66 acquisition-channel GPS receiver
GPS L1, C/A Code
- Max. update rate 10Hz
- Sensitivity¹
 - Tracking: -165 dBm
 - Reacquisition: -160 dBm
 - Cold starts: -147 dBm
- Time-To-First-Fix²
 - Cold starts: 32 s (typical)
 - Warm starts: 30s
 - Hot starts: <1s
 - EPO Assist: 13s (CTTFF)
- Accuracy
 - Automatic Position³: 2.5m CEP
 - Speed⁴: 0.1m/s
- Operation temperature: -40℃~+85℃

Electrical data

- Power supply 2.8~4.3V
- Backup power 2.3V~4.3V
- Power consumption² 3.3V (typical)
 - Acquisition 27mA
 - Tracking 24mA
 - sleep 14uA

1.Demonstrated on EVB KIT at library

2.All SV @ -130 dBm

3.50% 24 hr static, -130dBm

4.50% @ 30m/s