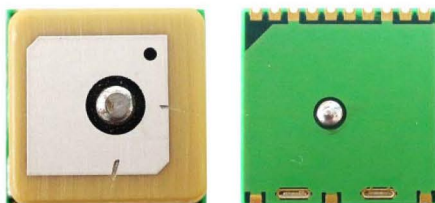


## SIM39EA



SIMCom presents a high performance GPS antenna module, SIM39EA. This is a standalone L1 frequency GPS module includes an embedded patch antenna on it. Designed with MTK's high sensitivity navigation engine, it allows you to achieve the industry's highest levels of sensitivity, accuracy, and Time-to-First-Fix (TTFF) with lowest power consumption. And with the embedded antenna in SMT type, it is very easy to do customer applications.

## Product Specifications

### Mechanical Data

Dimensions: 16 x 16 x 6.2mm

Weight: 5.8g

### Features

- Supports EASY™ self-generated orbit prediction
- Supports EPO™ orbit prediction
- Supports AGPS
- Supports SBAS ranging (WAAS, EGNOS, GAGAN, MSAS)

### Interfaces

- Serial Interface
- Digital I/O: UART; TIMEMARK (PPS); 3D-FIX
- Protocols: NMEA; PMTK

### Support Product

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

### Certificate

- CE (in plan)

### Performance Data

- Receiver type: 22 tracking/66 acquisition channel GPS receiver  
GPS L1, CA Code
- Max update rate: 10Hz
- Sensitivity<sup>1</sup>:  
Tracking: -165dBm  
Reacquisition: -160dBm  
Cold Starts: -147dBm
- Time-to-First-Fix<sup>2</sup>  
Cold Starts: 31s (typical)  
Warm Starts: 30s  
Hot Starts: <1s  
EPO Assist: 13s (CTTFF)
- Accuracy  
Automatic Position<sup>3</sup> : 2.5m CEP  
Speed<sup>4</sup> : 0.1m/s
- Operation Temperature: -40°C ~ 85°C

### Electrical Data:

- Power Supply: 2.8 ~ 4.3V
- Backup Power: 2.3V ~ 4.3V
- Power Consumption: 3.3V (typical)  
Acquisition: 23mA  
Tracking: 17mA  
Sleep: 200uA