







SIM39EA

SIMCom presents a high performance GPS antenna module-SIM39EA. 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 do customer application.

Smart Machine Smart Decision

Mechanical data

•Dimensions: 16*16*6.2mm

•Weight: 5.8g

Features

•Support EASY™ self-generated orbit prediction

Support EPO™ orbit prediction

Support AGPS

•Support SBAS ranging (WAAS, EGNOS, GAGAN,

MSAS)

Interfaces

Serial interfaces

•Digital I/O UART

TIMEMARK (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 acquisitionchannel 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: 31 s (typical)

Warm starts: 30s Hot starts: <1s

EPO Assist: 13s (CTTFF)

Accuracy

Automatic Position³: 2.5m CEP Speed⁴: 0.1m/s
•Operation temperature: $-40^{\circ}\text{C} \sim +85^{\circ}\text{C}$

Electrical data

Power supply
 Backup power
 Power consumption²
 Acquisition
 Tracking
 sleep
 2.3V~4.3V
 3.3V (typical)
 23.mA
 17mA
 200uA

1.Demonstrated with a good active antenna

2.All SV @ -130 dBm

3.50% 24 hr static, -130dBm

4.50%@ 30m/s

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