

GNSS Antenna Module





SIM33EAU

SIMCom presents a high performance GNSS module accompany with GNSS antenna-SIM33EAU. This is a standalone GNSS 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 GPS/GLONASS/Galileo/QZSS

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 TIMEMARK (PPS)

3D-FIX

•Protocols NMEA

PMTK

Support product

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

Performance data

•Receiver type 33 tracking/99 acquisitionchannel GNSS receiver

Gharmor Greek receiver

•Max. update rate 10Hz

Sensitivity¹

Tracking: -165 dBm
Cold starts: -146 dBm
Hot starts: -160 dBm

•Time-To-First-Fix2

Cold starts: 31 s (typical)

Warm starts: 26s Hot starts: <1s

EPO Assist: 13s (CTTFF)

Accuracy

Automatic Position³: 2.5m CEP Speed⁴: 0.1m/s

•Operation temperature: -40°C~+85 °C

Electrical data

Power supply
 Backup power
 Power consumption²
 Acquisition
 2.8~4.3V
 2.3V~4.3V
 3.3V (typical)
 38mA

Tracking 32mA Standby 520uA Backup 14uA

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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