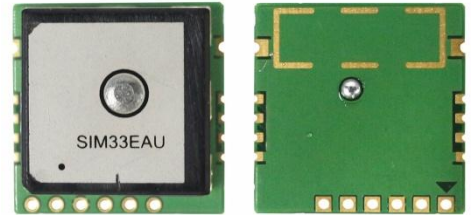




# GNSS Antenna Module



## SIM33EAU

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SIMCom presents a high performance GPS 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 acquisition-channel GNSS receiver
- Max. update rate       10Hz
- Sensitivity<sup>1</sup>
  - Tracking:               -165 dBm
  - Cold starts:           -146 dBm
  - Hot starts:             -160 dBm
- Time-To-First-Fix<sup>2</sup>
  - Cold starts:           31 s (typical)
  - Warm starts:           26s
  - 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℃~+85℃

### Electrical data

- Power supply            2.8~4.3V
- Backup power           2.3V~4.3V
- Power consumption<sup>2</sup>
  - Acquisition            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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