

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

#### 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	33 tracking/99 acquisition channel GNSS receiver
•Max. update rate	10Hz
<ul> <li>Sensitivity<sup>1</sup></li> </ul>	
Tracking:	-165 dBm
Cold starts:	-146 dBm
Hot starts:	-160 dBm
<ul> <li>Time-To-First-Fix<sup>2</sup></li> </ul>	
Cold starts:	31 s (typical)
Warm starts:	26s
Hot starts:	<1s
EPO Assist:	13s (CTTFF)
<ul> <li>Accuracy</li> </ul>	
Automatic Position <sup>3</sup> :	2.5m CEP
Speed <sup>4</sup> :	0.1m/s
•Operation temperature:	<b>-40</b> ℃ <b>~+85</b> ℃
Electrical data	

<ul> <li>Power supply</li> </ul>	2.8~4.3V
<ul> <li>Backup power</li> </ul>	2.3V~4.3V
•Power consumption <sup>2</sup>	3.3V (typical)
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



All specifications are subject to change without prior notice.