SIMCom GNSS Antenna Module

A company of SIM Tech
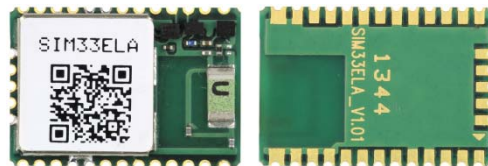
SIM33ELA

SIMCom presents a high performance GPS module accompany with GNSS antenna-SIM33ELA. This is a standalone GNSS module embedded a linear antenna . 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: 14*9.6*2.15mm
- Weight: 0.5g

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	PPS
	3D-FIX
	FORCE -ON
•Protocols	NMEA
	PMTK

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

Performance data
•Receiver type	33tracking/99 acquisition-channel GNSS receiver
•Max. update rate	10Hz
•Sensitivity[1]	
Tracking:	-165 dBm
Reacquisition:	-160 dBm
Cold starts:	-147 dBm
•Time-To-First-Fix[2]	
Cold starts:	28 s (typical)
Warm starts:	26s
Hot starts:	<1s
EPO Assist:	13s（CTTFF）
• Accuracy	
Automatic Position[3]:	2.5m CEP
Speed[4]:	0.1m/s
•Operation temperature:	-40℃~+85 ℃

Electrical data
•Power supply	2.8~4.3V
•Backup power	2.0V~4.3V
•Power consumption[2]	3.3V（typical）
Acquisition	25mA
Tracking	20mA
Backup	14uA

1.Demonstrated on EVB KIT at library
2.All SV @ –130 dBm
3.50% 24 hr static, -130dBm
4.50%@ 30m/s