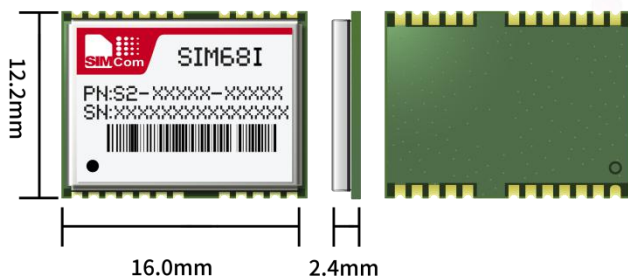


SIM68I

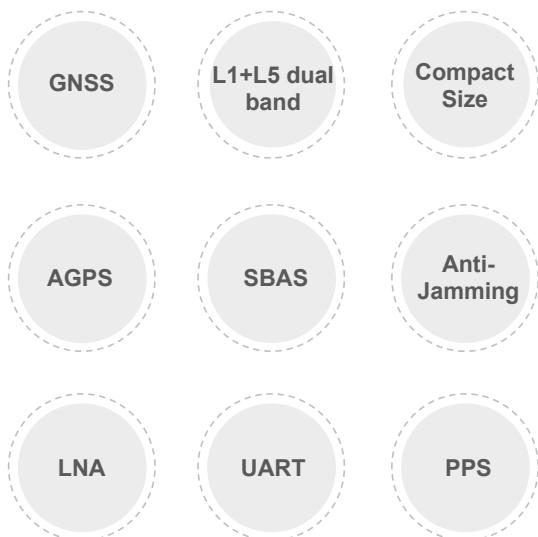
SIMCom GNSS Module



Product Description

SIM68I is a high performance and reliable GNSS module. It is a standalone L1 +L5 dual-band GNSS module in a LCC type with AIROHA's high sensitivity navigation engine, which allows customer to achieve industry's high level sensitivity, accuracy, and Time-to-First-Fix (TTFF) with lower power consumption.

SIM68I provides simultaneous GPS, GLONASS, BeiDou, Galileo and QZSS open service L1 reception capability and Navic open service L5 reception capability. SIM68I can acquire and track any mix of multiple satellite signals. Combining advanced AGPS called EASY™ (Embedded Assist System) with proven AlwaysLocate™ technology, SIM68I achieves the highest performance and fully meets the industrial standard.



Key Benefits

- ◆ L1 and L5 dual-band GNSS receiver
- ◆ Support EASY™ self-generated orbit prediction
- ◆ Support EPO™ orbit prediction
- ◆ Support SBAS ranging (WAAS, EGNOS, GAGAN, MSAS)
- ◆ Support Jamming Removing
- ◆ Low-noise amplifier has been integrated

Mechanical data

Dimensions	16*12.2*2.4mm
Weight	1g

Features

Support L1: BeiDou/GPS/GLONASS/Galileo/QZSS
L5: NavIC

Support EASY™ self-generated orbit prediction

Support EPO™ orbit prediction

Support SBAS ranging
(WAAS, EGNOS, GAGAN, MSAS)

Support Jamming Removing

Low-noise amplifier has been integrated

Support DGPS (RTCM)

Indoor and outdoor multi-path detection and compensation

LOCUSTM logger function

Interfaces

Serial interfaces	UART
	SPI
	I2C
Digital I/O	Pulse-per-second (PPS)
	EINT0 input
Protocols	NEMA
	PMTK

Certifications

TBD

Performance data

Receiver type	L1: 75SVs L5: 60SVs
Max. update rate	10Hz
Sensitivity ¹	
Tracking	-165dBm
Reacquisition	-160dBm
Cold starts	-148dBm
Time-To-First Fix ²	
Cold starts	27s
Warm start	25s
Hot starts	<1s
EPO Assist	13s
Accuracy	
Automatic Position ³	2.5m
Speed ⁴	TBD
Operation temperature ⁵	-40°C~+85 °C

Electrical data

Power supply	2.8V~4.3V
Backup power	2.3V~4.6V
Power consumption ^{2,6}	
Acquisition	22.9mA
Tracking	22.9mA
Sleep current	340uA
Backup	78uA
Antenna type	Active and passive
Antenna power	External or internal VCC_RF

Note

1. Demonstrated in lab
2. All SV @ -130 dBm, GPS&GLONASS mode
3. 50% 24 hr static, -130dBm,GPS&GLONASS mode
4. 50% @ 30m/s
5. When at -40°C~ -30°C, the sensitivity will be somewhat worse
6. @3.3V with a passive antenna