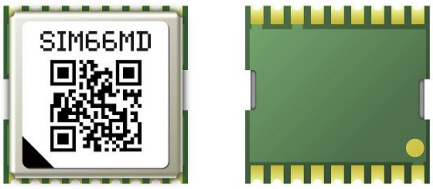
V: 2024.04

SIM66MD

SIMCom GNSS Module



GNSS

L1+L5 dual band

Compact Size

AGNSS

SBAS

LNA

PPS

UART

RTK*

Product Description

SIM66MD is a high performance and reliable GNSS module. It is a standalone L1 +L5 dual-band GNSS module in a LCC, which allows customer to achieve industry's high level sensitivity, accuracy, and Time-to-First-Fix (TTFF) with lower power consumption.

SIM66MD provides simultaneous GPS, GLONASS, BeiDou , Galileo QZSS open service L1 reception capability and GPS, BeiDou,Galileo,QZSS and NAVIC open service L5 reception capability. SIM66MD can acquire and track any mix of multiple satellite signals. SIM66MD achieves the highest performance and fully meets the industrial standard.

Key Benefits

- L1 and L5 dual-band GNSS receiver
- Support AGNSS
- Low-noise amplifier has been integrated
- Support RTK *

SIMCom Headquarters Building, Building 3, No. 289 Linhong Road, Changning District, Shanghai P.R.China
Tel: 86-21-31575100 Email: support@simcom.com Web: www.simcom.com

Mechanical data

Dimensions	10.1*9.7*2.5mm
Weight	0.5g

Features

Support	L1: BeiDou/GPS/GLONASS/Galileo/QZSS L5: BeiDou/GPS/Galileo/QZSS/NAVIC
Support AGNSS	
Support PPS	
Low-noise amplifier has been integrated	
Support DGPS (RTCM)/RTK*	
Indoor and outdoor multi-path detection and compensation	

Performance data

Receiver type	L1: 75SVs L5: 60SVs
Max. update rate	10Hz
Sensitivity[1]	
Tracking	-166dBm
Reacquisition	-157dBm
Cold starts	-150dBm
Time-To-First Fix[2]	
Cold starts	25s
Warm start	25s
Hot starts	<1s
Accuracy	
Automatic Position[3]	1M(RTK 2CM)
Speed[4]	0.01m/s
Operation temperature[5]	-40℃~+85 ℃

Interfaces

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

Electrical data

Power supply	2.1V~4.0V
Power consumption[2, 6]	
Acquisition	40mA
Tracking	40mA
RTC current	60uA
Antenna type	Active and passive
Antenna power	External or internal VCC_RF

Certifications

CE/UKCA

Note

1. Demonstrated in lab
2. All SV @ –130 dBm
3. 50% 24 hr static, -130dBm
4. 50%@ 30m/s
5. When at -40℃~ -30℃, the sensitivity will be somewhat worse
6. @3.3V with a passive antenna
7. *: optional