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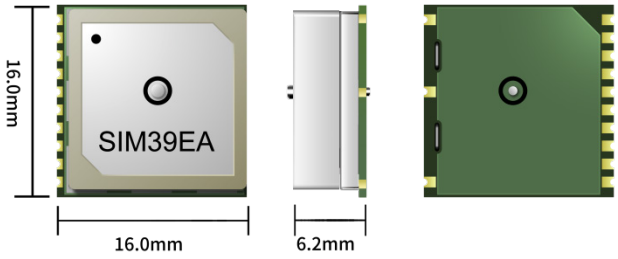
SIM39EA

SIMCom GNSS Module



GPS | LCC | Compact Size | AGPS | SBAS | Anti-Jamming | Embedded antenna | UART | PPS

Product Description

SIM39EA is a high performance and reliable GPS module. It is a standalone L1 frequency GPS module with an embedded patch antenna on it. It is designed with MTK'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. And with embedded antenna in LCC type, it is very easy for customer's applications design.

SIM39EA provides simultaneous GPS open service L1 reception capability. With 22 tracking channels and 66 acquisition channels, SIM39EA can acquire and track any mix of multiple satellite signals. Combining advanced AGPS called EASY™ (Embedded Assist System) with proven AlwaysLocate™ technology, SIM39EA achieves the highest performance and fully meets the industrial standard.

Key Benefits

- Support EASY™ self-generated orbit prediction
- Support EPO™ orbit prediction
- Support SBAS ranging (WAAS, EGNOS, GAGAN, MSAS)
- Support AGPS

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Mechanical data

Dimensions	16*16*6.2mm
Weight	5.8g

Features

Support GPS (L1 Band Receiver 1575.42MHz)
Support EASY™ self-generated orbit prediction
Support EPO™ orbit prediction
Support SBAS ranging (WAAS, EGNOS, GAGAN, MSAS)
Support AGPS

Interfaces

Serial interfaces	UART
Digital I/O	Pulse-per-second (PPS)
	GPIO
Protocols	NEMA
	PMTK

Performance data

Receiver type	22tracking/66 acquisition-channel GPS receiver
Max. update rate	10Hz
Sensitivity[1]	
Tracking	-165 dBm
Reacquisition	-160 dBm
Cold starts	-147 dBm
Time-To-First Fix[2]	
Cold start	31s
Warm start	30s
Hot start	<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	2.8V~4.3V
Backup power	2.3V~4.3V
Power consumption[2]	
Acquisition	23mA
Tracking	17mA
Sleep	200uA

Note

1. Demonstrated in lab
2. All SV @ –130 dBm
3. 50% 24 hr static, -130dBm
4. 50%@ 30m/s

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