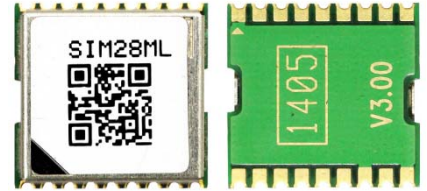




# GPS Module



## SIM28ML

SIMCom presents a small, high performance and reliable assisted GPS module-SIM28ML. This is a standalone L1 frequency GPS module in a SMT type and it is designed with MTK high sensitivity navigation engine, which allows you to achieves the industry's highest levels of sensitivity, accuracy, and Time-to-First-Fix (TTFF) with lowest power consumption.

## Smart Machine Smart Decision

### Mechanical data

- Dimensions 10.1\*9.7\*2.5mm
- Weight 0.5g

### Features

- Support EPO™ orbit prediction
- Support SBAS ranging (WAAS, EGNOS, GAGAN, MSAS)
- Support Jamming Removing
- Low-noise amplifier has been integrated

### Interfaces

- Serial interfaces
- Digital I/O
 

UART
GPIO
TIMEMARK (PPS)

- Protocols
 

NMEA
PMTK

### Support product

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

### Performance data

- Receiver type: 22 tracking/66 acquisition-channel GPS receiver  
GPS L1, C/A Code
- Max update rate 5Hz
- Sensitivity<sup>1</sup>

Tracking:	-165 dBm
Reacquisition	-160 dBm
Cold starts:	-148 dBm
- Time-To-First-Fix<sup>2</sup>

Cold starts	32 s (typical)
Warm starts	30s
Hot starts	<1s
EPO Assist	13s (CTTFF)
- Accuracy
 

Automatic Position <sup>3</sup>	2.5m CEP
Speed <sup>4</sup>	0.1m/s
- Operation temperature -40°C~+85 °C

### Electrical data

- Power supply 2.8~4.3V
- Backup power 2.0 V~4.3V
- Power consumption<sup>2,5</sup>

Acquisition	17mA
Tracking	16mA
Backup	8uA
- Antenna type Active and passive
- Antenna power External

- 1.Demonstrated in library
- 2.All SV @ -130 dBm
- 3.50% 24 hr static, -130dBm
- 4.50% @ 30m/s
5. @3.3V with a passive antenna

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