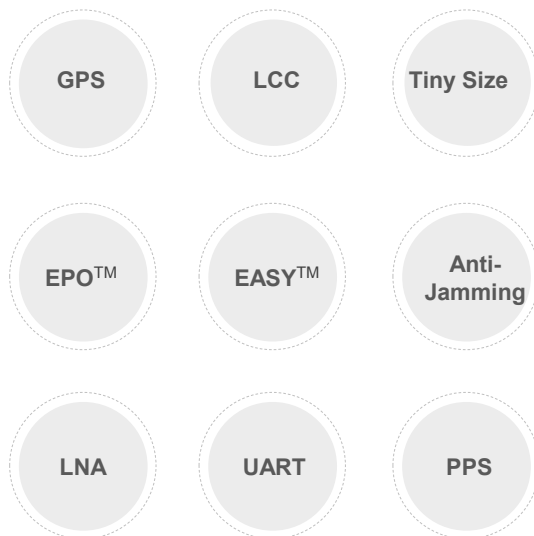
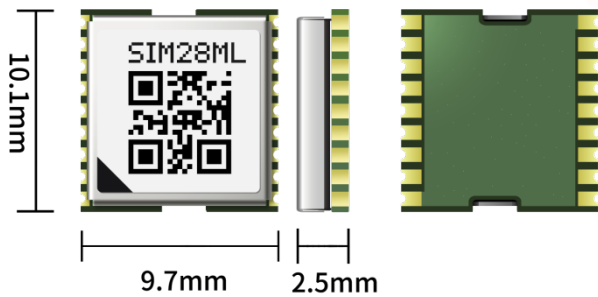


SIM28ML

SIMCom GNSS Module



Product Description

SIM28ML is a high performance and reliable GPS module. It is a GPS module integrated with GPS system in a LCC type 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.

SIM28ML provides simultaneous GPS open service L1 reception capability. With 22 tracking channels and 66 acquisition channels, SIM28ML can acquire and track any mix of multiple satellite signals. Combining advanced AGPS called EASY™ (Embedded Assist System) with proven AlwaysLocate™ technology, SIM28ML achieves the highest performance and fully meets the industrial standard.

Key Benefits

- ◆ Support EASY™ self-generated orbit prediction
- ◆ Support EPO™ orbit prediction
- ◆ Support Jamming Removing
- ◆ Low-noise amplifier has been integrated

Mechanical data

Dimensions	10.1*9.7*2.5mm
Weight	0.5g

Features

Support GPS (L1 Band Receiver 1575.42MHz)
Support EASY™ self-generated orbit prediction
Support EPO™ orbit prediction
Support Jamming Removing
Low-noise amplifier has been integrated

Interfaces

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

Certifications

CE
RoHS/REACH

Performance data

Receiver type	22tracking/66 acquisition-channel GPS receiver
Max. update rate	10Hz
Sensitivity ¹	
Tracking	-165 dBm
Reacquisition	-160 dBm
Cold starts	-148 dBm
Time-To-First Fix ²	
Cold start	32s
Warm start	3s
Hot start	<1s
EPO Assist	13s (CTTFF)
Accuracy	
Automatic Position ³	<2.5m CEP
Speed ⁴	0.1m/s
Operation temperature	-40°C~+85 °C

Electrical data

Power supply	2.8V~4.3V
Backup power	2.0V~4.3V
Power consumption ^{2,5}	
Acquisition	17mA
Tracking	16mA
Backup	8uA
Antenna type	Active and passive
Antenna power	External

Note

1. Demonstrated in lab
2. All SV @ -130 dBm
3. 50% 24 hr static, -130dBm
4. 50% @ 30m/s
5. @3.3V with a passive antenna