



GNSS Module



SIM68

SIMCom presents a high performance and reliable GNSS module-SIM68. With 32 tracking channels, SIM68 can easily receive and track any signal from GPS, Galileo, QZSS and Glonass systems. The ST engine integrated in SIM68 allows you to get high levels of sensitivity, accuracy and Time-to-First-Fix, which is perfect for your automotive and consumer applications.

Smart Machine Smart Decision

Mechanical data

- Dimensions 15*13*2.4mm
- Weight 1g
- Package 34pin LCC

Features

- Support GPS/GLONASS/Galileo/QZSS
- Support SBAS/ST-AGPS¹
- Jamming Removing supported
- Low-noise amplifier has been integrated

Interfaces

- Serial interfaces 3UART, SPI, USB, 2CAN, I²C
- Digital I/O STDBYN input
STDBYOUT output
Pulse-pre-second (PPS) output
- Analog I/O 2ADC input
- Protocols NMEA
ST-NMEA

Support product

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

Performance data

- Receiver type 32 tracking channel and 2 fast acquisition channel compatible with GPS, Galileo, QZSS and Glonass systems
- Max update rate 10Hz
- Sensitivity²

Tracking	-162dBm
Navigation	-160dBm
Cold starts	-148dBm
- Time-To-First-Fix³

Cold starts	35s
Warm starts	24s
Hot starts	1s

- Accuracy Automatic Position⁴ 1.5m CEP
- Operation temperature -40 to +85
- Storage temperature -45 to +125

Electrical data

- Power supply 3.0V to 3.6V
- Power consumption^{2,6}

Acquisition	100mA
Tracking	65mA
Backup	100uA
- Antenna type Active and passive
- Antenna power External

1. Autonomous ST-AGPS mode
 2. Demonstrated in lab
 3. All SV @ -130 dBm
 4. 50% 24 hr static, -130dBm
 5. 50% @ 30m/s
 6. @3.3V with a passive antenna