



GPS Module

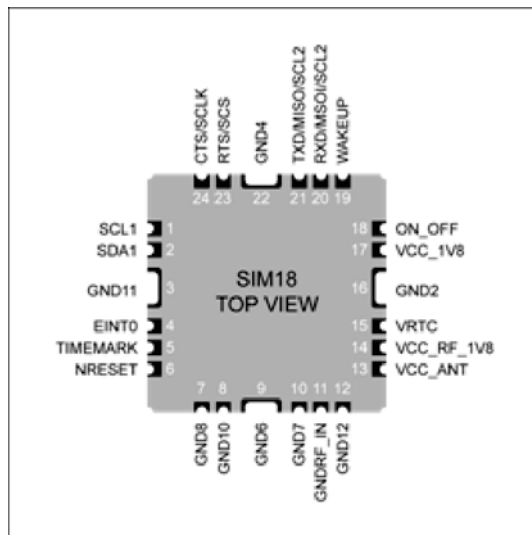
SIM18



SIMCom presents an ultra compact and reliable GPS module-SIM18. This is a standalone L1 frequency GPS module in a SMT type and designed with SiRF4 high sensitivity navigation engine, allowing you to benefit from small dimensions and cost-effective solutions.

Smart Machine Smart Decision

Mechanical data



- Dimensions: 11*11*2.4mm
- Weight: 0.5g

Interfaces

- Serial interfaces: UART, SPI or I²C
Additional master mode I²C
- Digital I/O: 1 NReset, 1 EINT0 input, 1 ON_OFF input, 1 WAKEUP output, 1 time pulse
- Protocols: NMEA, OSP

Support product

- SIM18 EVB KIT with USB V2.0 full speed interface

Performance data

- Receiver type: 48-channel SiRF4 engine
GPS L1, C/A Code
SBAS (WAAS or EGNOS)
- Max. update rate: 1Hz
- Sensitivity¹: Tracking: -162 dBm, Reacquisition: -160 dBm, Cold starts: -147 dBm
- Time-To-First-Fix²: Cold starts: 33 s (Typ), Hot starts: 0.6 s (Typ)
- Accuracy²: Position: 2.5m CEP, SBAS: TBD, Speed: <0.01m/s
- Operational limits: Velocity: <1000 knots, Altitude: <18.288m
- Operation temperature: -40° C to +85 ° C

Electrical data

- Power supply: 1.71V to 1.89V
 - Backup power: 1.71V to 1.89V
 - Power consumption^{2,3}: Acquisition: 50mA, Tracking: 40mA, Keep-Alive Only: <620 μ A
 - Antenna type: Active and passive
 - Antenna power: External or internal VCC_ANT
- 1 Demonstrated with a good active antenna
2 All SV @ -130 dBm
3 @1.8V with a passive antenna