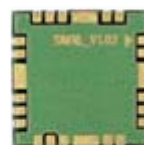




# GPS Module

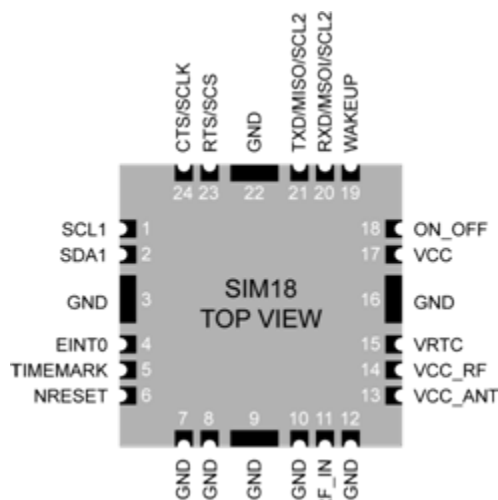


## SIM18

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

## Smart Machine Smart Decision

### Mechanical data



•Dimensions: 11\*11\*2.2mm

•Weight: 0.5g

### Interfaces

- Serial interfaces     UART, SPI or I<sup>2</sup>C  
                              Additional master mode I<sup>2</sup>C
- 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

### Certificate

- CE (available at Nov. 2010)

### Performance data

- Receiver type           48-channel SiRF4 engine  
                              GPS L1, C/A Code
- Max. update rate       1Hz
- Sensitivity<sup>1</sup>
  - Tracking:               -161 dBm
  - Reacquisition:       -160 dBm
  - Cold starts:           -147 dBm
- Time-To-First-Fix<sup>2</sup>
  - Cold starts:           35 s (typical)
  - Hot starts:            0.6 s (typical)
- Accuracy
  - Position<sup>3</sup>:            2.5m CEP
  - Speed<sup>4</sup>:               <0.01m/s
- Operational limits
  - Velocity:              <1850km/h
  - Altitude:              <18288km
- 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<sup>2,5</sup>
  - Acquisition           45mA (average)
  - Tracking               40mA (average)
  - Sleep                  18 μ A(average)
- 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. 50% 24 hr static, -130dBm

4. 50% @ 30m/s

5. @1.8V with a passive antenna

More about SIMCom SIM18

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