



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 TXD/MISO/SCL2 RXD/MSOI/SCL2 CTS/SCLK RTS/SCS WAKEUP GND4 SCL1 ON_OFF 3 VCC_1V8 SDA1 SIM18 GND2 GND11 TOP VIEW EINTO VRTC TIMEMARK VCC_RF_1V8 NRESET VCC_ANT GND7 GNDRF_IN GND12 GND10 **GND6** GND8

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

Interfaces

 Serial interfaces 	UART, SPI or I ² C Additional master mode I ² 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

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-Fix ²		
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 $^{\circ}$ C to +85 $^{\circ}$ 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		

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All specifications are subject to change without prior notice.