

Quectel L30

Compact GPS Module with Super Sensitivity



Super Tracking
Sensitivity -163dBm



CGEE Solution



Low Power
Consumption



Extended Temperature
Range -40°C to +85°C



High Accuracy



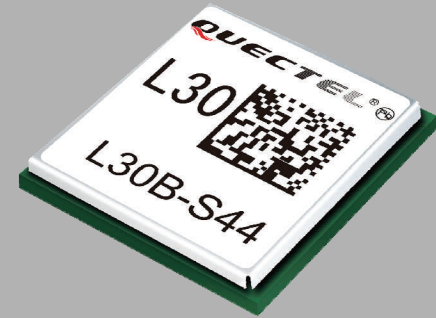
Anti-Jamming



LCC Type



RoHS Compliant



L30, a GPS receiver module, which is based on the latest SIRF-starIV ROM version 2.2, features extremely compact profile of 9.0 x 9.0 x 1.6mm and low current consumption of only 31 mA during tracking. Highest sensitivity down to -163dBm for tracking satellites along with lowest Time-To-First-Fix fulfill the toughest requirements.

L30 supports aided-GPS function without the necessity of downloading data from server since it automatically captures ephemeris data from satellites locally and predicts ephemeris over 3 days without server assistance.

With embedded active jammer remover, L30 can track and remove up to 8 CW (Carrier Wave) type signals up to 80dB-HZ signal level. This feature ensures fast and accurate navigation in hostile signal or high noise environment.

Its high sensitivity, lower power consumption and 48-PRN channels make L30 the best choice for portable device such as vehicle tracking, personal tracking, asset tracking, connected PND and security device.

Key benefits

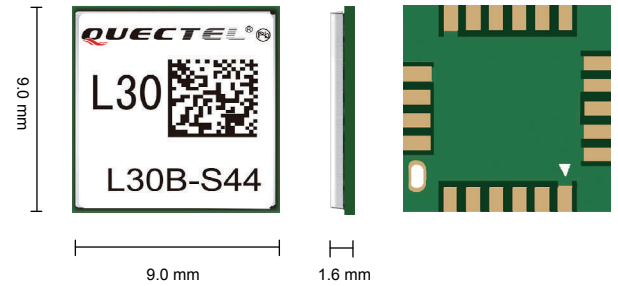
- ☞ Extremely compact size, 9.0 x 9.0 x 1.6mm
- ☞ High tracking sensitivity, -163dBm
- ☞ High autonomous acquisition sensitivity, -148dBm
- ☞ Power saving modes
- ☞ Self-Assisted CGEE function
- ☞ Hardware Baud Rate Configuration
- ☞ 5Hz Navigation Update Rate
- ☞ SBAS (WAAS, EGNOS and QZSS)
- ☞ Low power consumption:

Acquisition: 33mA @ -130dBm

Tracking: 31mA @ -130dBm

Quectel L30

Compact GPS Module with Super Sensitivity



General Specifications

L1 Band Receiver (1575.42MHz)	Channel Number	48 Channels
	C/A Code	
	SBAS	WAAS, EGNOS, QZSS
Horizontal Position Accuracy	Autonomous	<2.5 m CEP
	SBAS	<2.0 m CEP
Velocity Accuracy	Without Aid	<0.01m/s
Acceleration Accuracy	Without Aid	0.1 m/s ²
Timing Accuracy		<500ns
Reacquisition Time		<1s
TTFF (Time to First Fix)	Cold Start	<35s
	Warm Start	<35s
	Warm Start with CGEE	8s typ.
	Hot Start	<1s
Sensitivity with External LNA	Autonomous Acquisition	-148dBm
	Tracking	-163dBm
	Reacquisition	-160dBm
Environmental	Operating Temperature	-40°C to 85°C
	Storage Temperature	-45°C to 125°C
Dynamic Performance	Maximum Altitude	<18288m
	Maximum Velocity	514m/s
	Maximum Acceleration	4G
Dimensions		9.0 x 9.0 x 1.6mm
Weight		Approx. 0.6g
Active Jammer Remover	Removes in-band jammers up to 80 dB-Hz Tracks up to 8 CW jammers	

Serial Interfaces

One Multiplexed Interface	UART	Adjustable: Baud rate configured by Hardware Default: 4800 bps
	IIC	(Master/Slave): Up to 400 Kbps
I/O Voltage	1.71V ~ 1.89V	
Protocols	NMEA OSP	

Electrical Data

Power Supply	1.71V ~ 1.89V
Power Acquisition	33mA @ -130dBm
Power Tracking	31mA @ -130dBm
Hibernate	15uA
Power Saving	ATP, PTF, Hibernate
Antenna Type	Passive and active
Antenna Power	External