

# 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



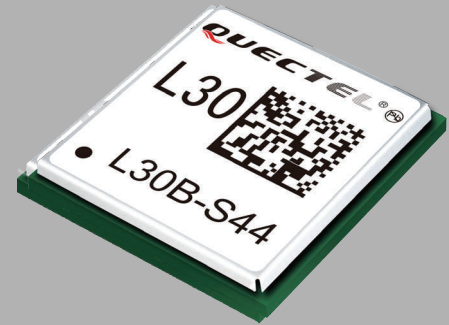
Anti-Jamming



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

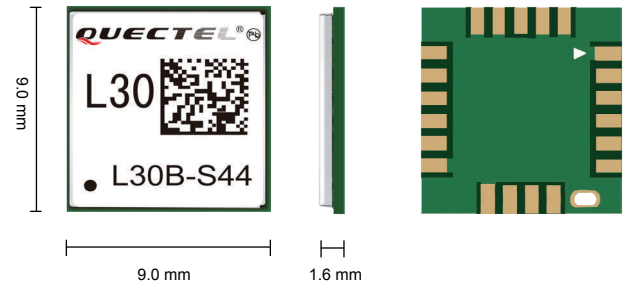
- ☞ Extremely compact size, 9.0 x 9.0 x 1.6mm
- ☞ High tracking sensitivity, -163dBm
- ☞ High autonomous acquisition sensitivity, -148dBm
- ☞ Power saving modes
- ☞ Self-Assisted CGEE function
- ☞ Hardware Baud Rate Configuration
- ☞ 5Hz Navigation Update Rate
- ☞ SBAS (WAAS, EGNOS and QZSS)
- ☞ Low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

Acquisition: 33mA @ -130dBm

Tracking: 31mA @ -130dBm

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## Compact GPS Module with Super Sensitivity



### General Specifications

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

### Serial Interfaces

<b>One Multiplexed Interface</b>	UART	Adjustable: Baud rate configured by Hardware Default: 4800 bps
	IIC	(Master/Slave): Up to 400 Kbps
<b>Update rate</b>	1Hz (Default), up to 5Hz	
<b>I/O Voltage</b>	1.71V ~ 1.89V	
<b>Protocols</b>	NMEA OSP	

### Electrical Data

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