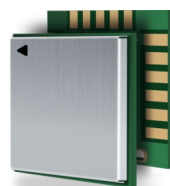# QUECTEL

Wireless Module Expert

L30

Compact GPS Module with Super Sensitivity

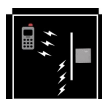Super sensitivity
-163dBm tracking

CGEE Solution

Low Power
Consumption

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

High Accuracy

Anti-Jamming

SMD Type

RoHS Compliant

The L30 module provides the high performance GPS engine module which is embedded the SIRFstarIV™ chip solution. With 48 PRN channels, L30 acquires and tracks satellites in the shortest time at very low signal level. With an extremely compact profile of 9.0mm x 9.0mm x 1.6mm, it perfectly suits portable devices, vehicle tracking, personal tracking, asset tracking, connected PND, security devices and other industrial applications.
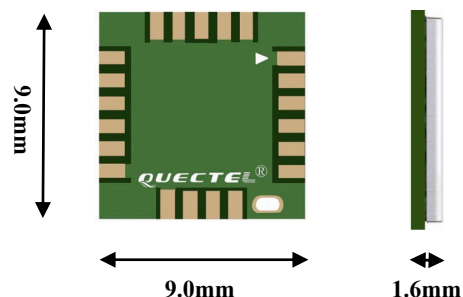
L30 supports aided-GPS function without the necessity of data download from server since it captures ephemeris data from satellites locally and predicts ephemeris within the next 3 days.

Advantages

● Extremely compact size, 9.0mm x 9.0mm x1.6mm

● -163dBm tracking sensitivity

● Highest autonomous mode acquisition sensitivity, -148dBm

● Power saving modes

● Self-Assisted CGEE function

● 48 PRN channels

● Low tracking power consumption, 40mA @ -130dBm

● Removes in-band jammers up to 80 dB-Hz

● Tracks up to 8 CW jammers

L30
Compact GPS Module
with Super Sensitivity

9.0mm

9.0mm

1.6mm

General Specifications

L1 Band Receiver (1575.42MHz)	Channel Number	48 channels
	C/A code	
	SBAS	WAAS, EGNOS
Horizontal Position Accuracy	Autonomous	〈2.5 m CEP
	SBAS	〈2.0 m CEP
Velocity Accuracy	Without aid	〈0.01 m/s
Acceleration Accuracy	Without aid	0.1 m/s²
Timing Accuracy		〈100 ns
Reacquisition Time		〈1 s
TTFF (Time To First Fix)	Cold Start	〈35s
	Warm Start	〈35s
	Warm Start with CGEE	10s typ.
	Hot start	〈1s
Sensitivity	Autonomous Acquisition	-145dBm
	Hot Start	-159dBm
	Tracking	-160dBm
	Navigation	-159dBm
Sensitivity with external LNA	Autonomous Acquisition	-148dBm
	Hot Start	-160dBm
	Tracking	-163dBm
	Navigation	-160dBm
Environmental	Operating temperature	-40℃ to 85℃
	Storage temperature	-45℃ to 125℃

Dynamic Performance	Maximum altitude	〈18288 m
	Maximum velocity	514m/s
	Maximum acceleration	4 G
Dimensions		9.0mm×9.0 mm×1.6mm
Weight		Approx. 0.6g

Serial Interfaces

One Multiplexed Interface	UART: Adjustable 1200~115200 bps Default: 4800bps
	IIC (master/slave): Up to 400 Kbps
	SPI (slave):Default
I/O Voltage	1.71V ~ 1.89V
Protocols	NMEA
	OSP

Electrical Data

Power supply	1.71V ~ 1.89V
Power Acquisition	40mA @-130dBm
Power Tracking	36mA @-130dBm
Hibernate	17uA
Power Saving	ATP, PTF, Hibernate
Antenna Type	Passive and active
Antenna power	External

Contact Us

Address	Room 501, Building 13, No.99 Tianzhou Road, Shanghai, China
Email	info@quectel.com
Tel	+86 21 51086236