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 GPS performance with an embedded SIRFstarIV™ chip solution. With 48 PRN channels, L30 can acquire and track satellites in the shortest time at a 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.

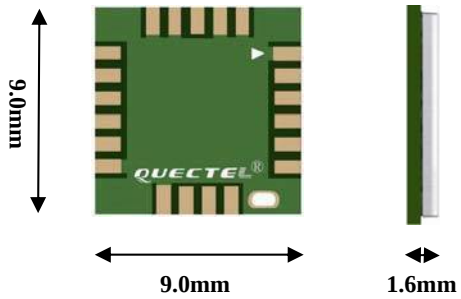
L30 supports aided-GPS function without the necessity of data download from server since it captures ephemeris data from satellites locally and predicts ephemeris within the next 3 days.

**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, 36mA @ -130dBm
- Removes in-band jammers up to 80 dB-Hz
- Tracks up to 8 CW jammers

# L30

## *Compact GPS Module with Super Sensitivity*




## 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°C to +85°C |
| | Storage temperature | -40°C to +125°C |

| | | |
|---|---|---|
| **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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