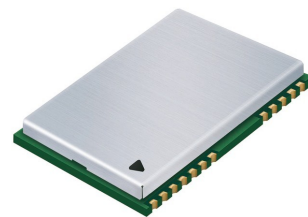


QUECTEL

Wireless Module Expert

L20

Compact GPS Module With Super Sensitivity



Super sensitivity
-163dBm tracking



CGEE Solution



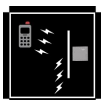
Low Power
Consumption



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



High Accuracy



Anti-Jamming



SMD Type



RoHS Compliant

The L20 module provides the high performance GPS engine module which is embedded the SIRFstarIV™ chip solution with SIRFaware™ technology. With 48 PRN channels, L20 acquires and tracks satellites in the shortest time even at indoor signal level. With a compact profile of 16.0mm x 12.2mm x 2.4mm, it perfectly suits for vehicle tracking, personal tracking, asset tracking, connected PND, security device and other industrial applications.

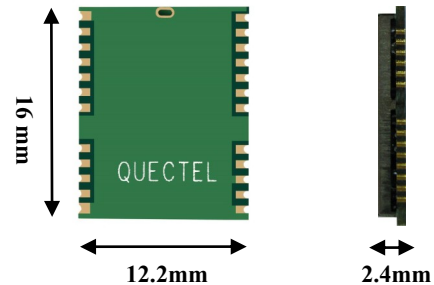
L20 supports aided-GPS function without the necessity of data download from server since it captures ephemeris data from satellites locally and predicts ephemeris out to 3 days.

Advantages

- -163dBm tracking sensitivity
- Highest autonomous mode acquisition sensitivity, -148dBm
- Power saving modes
- Self-Assisted CGEE function
- 48 PRN channels
- Low tracking power consumption, 41mA (passive antenna)
- Removes in-band jammers up to 80 dB-Hz
- Tracks up to 8 CW jammers

L20

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/s ² |
| Timing Accuracy | | <100 ns |
| Reacquisition Time | | <1 s |
| TTF (Time To First Fix) | Cold Start | <35s |
| | Warm Start | <35s |
| | Warm Start with CGEE | 10s typ. |
| | Hot start | <1s |
| Sensitivity | Autonomous Acquisition | -148dBm |
| | Hot Start | -160dBm |
| Environmental | Tracking | -163dBm |
| | Navigation | -160dBm |
| | Operating temperature | -40°C to 85°C |
| | Storage temperature | -45°C to 125°C |
| Dynamic Performance | Maximum altitude | <18288 m |
| | Maximum velocity | 514m/s |
| | Maximum acceleration | 4 G |
| Dimensions | | 16.0mm×12.2mm×2.4mm |
| Weight | | Approx. 1.0g |

Serial Interfaces

| | |
|--------------------|---|
| One UART | Adjustable: 1200~115200 bps Default: 4800bps |
| I/O Voltage | 2.0V ~ 3.6V |
| Protocols | NMEA OSP |

Electrical Data

| | |
|--------------------------|-----------------------------|
| Power supply | 2.0 to 3.6V |
| Power Acquisition | 57mA (passive antenna) |
| Power Tracking | 41mA (passive antenna) |
| Power Saving | TP, APM, PTF |
| Antenna Type | Passive and active |
| Antenna power | External or internal VCC_RF |

Contact Us

| | |
|----------------|--|
| Address | Room 501, Building 9, No.99 Tianzhou Road, Shanghai, China |
| Email | info@quectel.com |
| Tel | +86 21 51086236 |

