

Quectel L26

Compact GNSS Module with Super Sensitivity



L26 is a concurrent receiver module integrated with multiple systems. It provides simultaneous GPS, GLONASS, Galileo and QZSS open service L1 reception capability. With 33 tracking channels, 99 acquisition channels and 210 PRN channels, L26 can acquire and track any mix of multiple satellite signals.

Compared with using GPS only, enabling GPS, GLONASS, Galileo and QZSS generally doubles the number of visible satellites, reduces the time to first fix and increases positioning accuracy, especially when driving in rough urban environments.

Combining advanced AGPS called EASY™ (Embedded Assist System) with proven AlwaysLocate™ technology, L26 achieves the highest performance and fully meets the industrial standard. Additional feature of embedded logger function called LOCUS allows L26 to log position information to internal flash memory at default intervals of 15 seconds and provide typically more than 16 hours log capacity without adding cost.

L26 supports built-in short circuit protection for active antenna and an active antenna supervisor for short and open circuit detection.

Its super performance makes L26 ideal for automotive, industrial PDA, consumer and industry applications. Extremely low power consumption of L26 also makes it easier to be applied to power sensitive devices, especially portable applications.



Key Benefits

- ✓ Multi-GNSS engine for GPS, GLONASS, Galileo and QZSS
- ✓ EASY™, an advanced AGPS technology without the need of external memory
- ✓ Support short circuit protection and antenna detection
- ✓ Built-in LNA for better sensitivity
- ✓ Ultra low power consumption in tracking mode, 21mA
- ✓ AlwaysLocate™, an intelligent algorithm for power saving
- ✓ LOCUS, an embedded logger solution with no need of host and external flash
- ✓ High sensitivity, -167dBm @Tracking, -148dBm @Acquisition
- ✓ 99 acquisition/33 tracking channels, and 210 PRN channels
- ✓ Support DGPS, SBAS (WAAS/ EGNOS/ MSAS/ GAGAN)
- ✓ Anti-Jamming, Multi-tone Active Interference Canceller



EASY™ Technology



Ultra Low Power Consumption



Anti-jamming



Super Tracking Sensitivity -167dBm



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



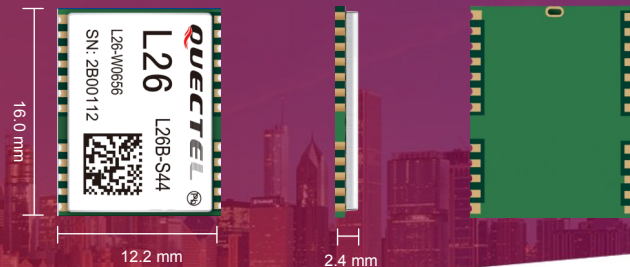
GPS/GLONASS/Galileo/QZSS



RoHS Compliant

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GNSS Features

L1 Band Receiver (1575.42MHz):

Channel: 33 (Tracking)/ 99 (Acquisition)/

210 (PRN)

C/A Code

SBAS: WAAS, EGNOS, MSAS, GAGAN

Horizontal Position Accuracy:

Autonomous: <2.5m CEP

Velocity Accuracy:

Without Aid: <0.1m/s

Acceleration Accuracy:

Without Aid: <0.1m/s²

Timing Accuracy:

1PPS Out: 10ns

Reacquisition Time: <1s

TTFF @-130dBm with EASY™:

Cold Start: <15s

Warm Start: <5s

Hot Start: <1s

TTFF @-130dBm without EASY™:

Cold Start: <35s

Warm Start: <30s

Hot Start: <1s

Sensitivity:

Acquisition: -148dBm

Tracking: -167dBm

Reacquisition: -160dBm

Dynamic Performance:

Maximum Altitude: Max. 18000m

Maximum Velocity: Max. 515m/s

Maximum Acceleration: 4G

Interfaces

Serial Interfaces:

UART: Adjustable 4800bps~115200bps

Default: 9600bps

Update Rate:

1Hz (Default), up to 10Hz

I/O Voltage:

2.7V~2.9V

Protocols:

NMEA 0183

PMTK

General Features

Temperature Range:

-40°C ~ +85°C

Dimensions:

16.0mm × 12.2mm × 2.4mm

Weight:

Approx. 1.0g

Power Management

Power Supply:

2.8V~4.3V

Power Acquisition:

29mA (GPS+GLONASS)

26mA (GPS)

Power Tracking:

21mA (GPS+GLONASS)

18mA (GPS)

Power Saving:

Typ. 2.7mA @AlwaysLocate™ (Note1)

7uA @Backup Mode

350uA @Standby Mode

Periodic Mode

Antenna Type:

Active or Passive

Antenna Power:

External or Internal VCC_RF

Note1: Measured in GPS+GLONASS System under Outdoor Static Mode.