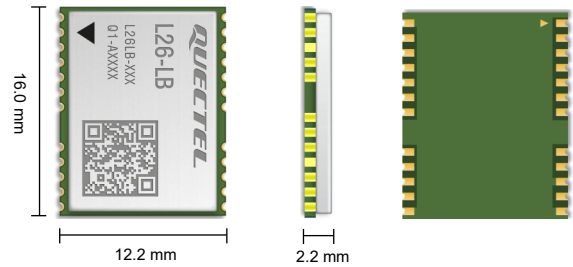




Quectel L26-LB

Compact GNSS Module



Quectel L26-LB GNSS module supports concurrent reception of GPS, GLONASS, BDS and QZSS. With 33 tracking channels, 99 acquisition channels and 210 PRN channels, it can acquire and track any mix of GPS, GLONASS (or BDS) and SBAS signals. L26-LB is designed to be compatible with Quectel L26 module, enabling convenient migration between them. The integrated LNA provides better performance in challenging environments.

Compared with single GPS system, multiple GNSS systems generally increase the number of visible satellites, reduce the time to first fix and improve positioning accuracy, even in rough urban environments.

Combining advanced AGNSS technologies such as EASY™ (Embedded Assist System) and low-power modes such as GLP (GNSS Low Power), L26-LB achieves high performance, low power consumption and fully meets the industrial standards. EASY™ technology allows the module to automatically calculate and predict orbits using the ephemeris data (up to 3 days) stored in internal RAM. With GLP technology, L26-LB can adaptively adjust the on/off time according to the environmental and motional conditions to achieve a balance between positioning accuracy and power consumption.

Its super performance makes L26-LB ideal for industrial PDA, consumer and industry applications. Extremely low power consumption makes it a great solution for power-sensitive applications, especially portable devices.



Key Features

- ✓ Multi-GNSS engine for GPS, GLONASS, BDS and QZSS, ensuring fast and accurate fixes in any environment
- ✓ Industrial leading sensitivity of -165 dBm during tracking and -148 dBm during acquisition
- ✓ Integrated LNA improves sensitivity
- ✓ Support anti-jamming and multi-tone active interference canceller
- ✓ Multiple low-power modes ensure ultra-low power consumption
- ✓ Support UART and I2C Interfaces
- ✓ Backward compatible with Quectel L26 module



EASY™
Technology



Ultra Low Power
Consumption



Extremely
Compact Size



Super Tracking
Sensitivity:
-165 dBm



Operating Temperature
Range: -40 °C to +85 °C



Anti-jamming



RoHS



Multi-GNSS System

Version: 1.2 | Status: Released

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Compact GNSS Module

GNSS Features

Supported Bands^①:

GPS L1 C/A: 1575.42 MHz

GLONASS L1 C/A: 1602.5625 MHz

BDS B1 C/A: 1561.098 MHz

Channels:

33 Tracking Channels

99 Acquisition Channels

210 PRN Channels

SBAS:

WAAS, EGNOS, MSAS, GAGAN

Horizontal Position Accuracy^②:

Autonomous: 2.5 m CEP

Velocity Accuracy^③:

Without Aid: 0.1 m/s

Acceleration Accuracy^③:

Without Aid: 0.1 m/s²

Accuracy of 1PPS Signal^③:

100 ns

Reacquisition Time:

1 s

TTFF (GPS + GLONASS, with AGNSS)^④:

Cold Start: 13 s

Warm Start: 3 s

Hot Start: 2 s

TTFF (GPS + GLONASS, without AGNSS)^④:

Cold Start: 24 s

Warm Start: 23 s

Hot Start: 2 s

Sensitivity:

Acquisition: -148 dBm

Tracking: -165 dBm

Reacquisition: -163 dBm

Dynamic Performance^③:

Maximum Altitude: Max. 18000 m

Maximum Velocity: Max. 515 m/s

Maximum Acceleration: 4g

Interfaces

I2C Interface:

Up to 400 kbps

UART Interface:

Adjustable: 9600–921600 bps

Default: 9600 bps

Update Rate:

1 Hz (Default), up to 10 Hz

I/O Voltage:

Typ. 2.8 V

Electrical Characteristics

Power Supply:

2.8–4.3 V, Typ. 3.3 V

Power Consumption (GPS + GLONASS)^③:

Acquisition: 31 mA @ 3.3 V

Tracking: 29 mA @ 3.3 V

Power Saving:

7 μ A @ Backup Mode

500 μ A @ Standby Mode

Antenna Type:

Active or Passive

Antenna Power:

External or Internal (through VDD_RF)

General Features

Operating Temperature Range:

-40 °C to +85 °C

Dimensions:

12.2 mm × 16.0 mm × 2.2 mm

Weight:

Approx. 1.0 g

Protocol:

NMEA 0183

^①: Default GNSS Configuration: GPS + GLONASS or GPS + BDS.

^②: CEP, 50%, 24 hours static, -130 dBm, more than 6 SVs.

^③: Room temperature, all satellites at -130 dBm.

^④: Open-sky, active high precision GNSS antenna.