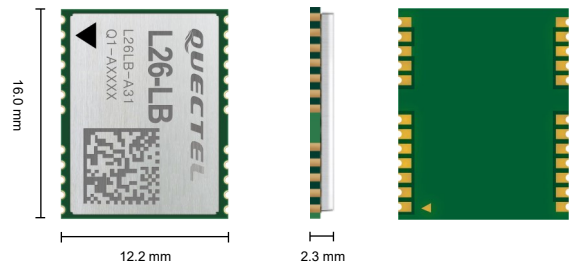


## Quectel L26-LB Compact GNSS Module



Quectel L26-LB GNSS module supports concurrent reception of GPS, GLONASS, BeiDou and QZSS. With 33 tracking channels, 99 acquisition channels and 210 PRN channels, it can acquire and track any mix of GPS, GLONASS (or BeiDou) 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, enabling multiple GNSS systems generally increases 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 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 calculate and predict orbits automatically using the ephemeris data (up to 3 days) stored in internal RAM. With GLP technology, L26-LB can adaptively adjust the on/off time to achieve a balance between positioning accuracy and power consumption according to the environmental and motional conditions.

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, BeiDou 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



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



Anti-jamming



RoHS



Multi-GNSS System

# Quectel L26-LB

## Compact GNSS Module

### GNSS Features

#### Receiving Bands<sup>①</sup>:

GPS L1 C/A: 1575.42 MHz

GLONASS L1 C/A: 1602.5625 MHz

BeiDou B1 C/A: 1561.098 MHz

#### Channel:

33 Tracking Channels

99 Acquisition Channels

210 PRN Channels

#### SBAS:

WAAS, EGNOS, MSAS, GAGAN

#### Horizontal Position Accuracy:

Autonomous: < 2.5 m CEP

#### Velocity Accuracy<sup>②</sup>:

Without Aid: < 0.1 m/s

#### Acceleration Accuracy:

Without Aid: < 0.1 m/s<sup>2</sup>

#### Timing Accuracy:

1PPS < 100 ns

#### Reacquisition Time:

< 1 s

#### TTF @ -130 dBm with EASY™<sup>②</sup>:

Cold Start: < 15 s

Warm Start: < 5 s

Hot Start: < 1 s

#### TTF @ -130 dBm without EASY™<sup>②</sup>:

Cold Start: < 35 s

Warm Start: < 30 s

Hot Start: < 1 s

#### Sensitivity:

Acquisition: -148 dBm

Tracking: -165 dBm

Reacquisition: -160 dBm

### Dynamic Performance:

Maximum Altitude: Max. 18000 m

Maximum Velocity: Max. 515 m/s

Maximum Acceleration: 4 g

### Interfaces

#### I2C Interface:

Up to 400 kbps

#### UART Interface:

Adjustable: 4800–921600 bps

Default: 9600 bps

#### Update Rate:

1 Hz (Default), up to 10 Hz

#### I/O Port Voltage:

2.7–2.9 V

### Electrical Characteristics

#### Power Supply:

2.8–4.3 V, Typ. 3.3 V

#### Power Consumption:

Acquisition: 30.3 mA @ 3.3 V (GPS + GLONASS)

Tracking: 28.0 mA @ 3.3 V (GPS + GLONASS)

#### Power Saving:

8.8 µA @ Backup Mode

0.9 mA @ Standby Mode

#### Antenna Type:

Active or Passive

#### Antenna Power:

External or Internal VCC\_RF

### General Features

#### Temperature Range:

-40 °C to +85 °C

#### Dimensions:

12.2 mm × 16.0 mm × 2.3 mm

#### Weight:

Approx. 1.0 g

#### Protocols:

NMEA 0183

PMTK

<sup>①</sup> Default GNSS Configuration: GPS + GLONASS

<sup>②</sup> Measured in GPS + GLONASS Systems under Outdoor Static Mode.