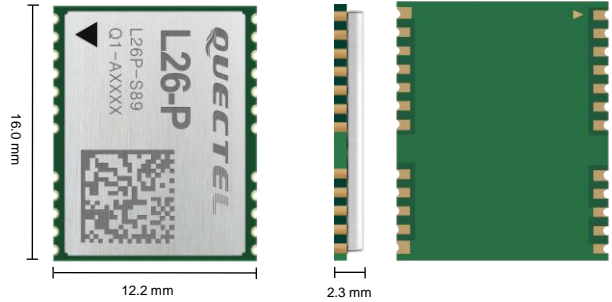




Quectel L26-P

Compact GNSS Module



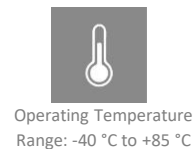
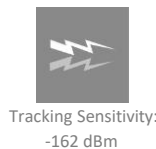
The L26-P is a single band, multi-constellation GNSS raw data receiver for high precision positioning applications. The module has an integrated 6-axis sensor (IMU), and it can output GNSS raw data concurrently with the sensor raw data. The firmware also supports an option to enable the output of standard NMEA messages. The module can acquire and track GPS, GLONASS, BeiDou, Galileo and QZSS signals and the built-in LNA ensures better performance in challenging signal conditions scenarios. Compared with GPS only receivers, enabling multiple GNSS systems increases the number of visible satellites, and it will lead into enhanced performance. The ability to use the GNSS RAW data in collaboration with the IMU data on an external position engine (customer MCU side) makes this module very attractive for many applications.

Its super performance makes L26-P ideal for base stations, automotive, industrial and consumer applications.



Key Features

- ✓ Ultra-compact size: 12.2 mm × 16.0 mm × 2.3 mm
- ✓ Multi-GNSS engine for GPS, GLONASS, BeiDou, Galileo and QZSS
- ✓ Built-in LNA for increased sensitivity
- ✓ Supports both GNSS and IMU RAW DATA function
- ✓ Supports DDGPS (RTCM)/SBAS (WAAS/EGNOS/MSAS/GAGAN)



GNSS Module		L26-P
Dimensions	12.2 mm × 16.0 mm × 2.3 mm	
Weight	Approx. 0.9 g	
Temperature Range		
Operating Temperature	-40 °C to +85 °C	
Storage Temperature	-40 °C to +90 °C	
GNSS Features		
Supported Bands	GPS L1 C/A, Galileo E1, QZSS L1: 1575.42 MHz GLONASS L1: 1602.5625 MHz BeiDou B1: 1561.098 MHz	
Default GNSS Constellation	GPS + BeiDou	
Channels	48 (Tracking)/2 (Fast Acquisition)	
SBAS	WAAS, EGNOS, MSAS, and GAGAN	
Horizontal Position Accuracy ^①	Autonomous: < 1.5 m CEP	
Velocity Accuracy ^①	Without Aid: < 0.1 m/s	
Acceleration Accuracy ^①	Without Aid: < 0.1 m/s ²	
Timing Accuracy ^①	1PPS < 100 ns CEP	
TTF @ -130 dBm with AGNSS ^②	Cold Start: < 13 s	
TTF @ -130 dBm without AGNSS ^①	Cold Start: < 32 s Warm Start: < 25 s Hot Start: < 2 s	
Sensitivity ^③	Acquisition: -147 dBm Tracking: -162 dBm Reacquisition: -154 dBm	
Dynamic Performance ^①	Maximum Altitude: 18000 m Maximum Velocity: 515 m/s Maximum Acceleration: 4g	
Interfaces		
UART Interface	Adjustable: 115200–921600 bps Default: 460800 bps Update Rate: 1 Hz (default)	
Protocol	NMEA 0183	
External Antenna Interface		
Antenna Type	Active or Passive	
Antenna Power Supply	External or Internal (through VCC_RF)	
Electrical Characteristics		
Supply Voltage Range	3.0–3.6 V; Typ. 3.3 V	
I/O Voltage	Typ. 3.3 V	
Current Consumption (@ 3.3 V) ^③	Normal Operation: 73 mA @ Acquisition Mode 62 mA @ Tracking Mode Power Saving Mode: 17 µA @ Standby Mode 7 µA @ Backup Mode	

Notes:

- ①: Room temperature, all satellites at -130 dBm.
- ②: Open-sky, active high precision GNSS antenna, less than 1 km baseline length.
- ③: Room temperature, demonstrated by good LNAs.