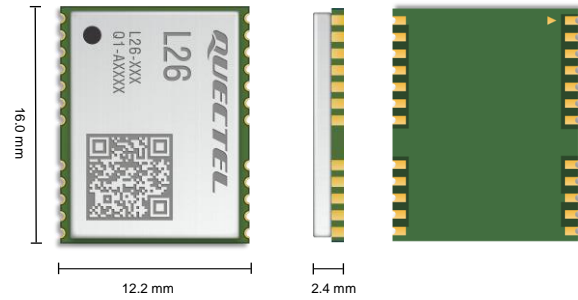




Quectel L26

Compact GNSS Module



The L26 is a multi-constellation GNSS receiver module capable of tracking GPS, GLONASS (or BDS), Galileo and QZSS in the L1 band concurrently. With 33 tracking channels, 99 Acquisition channels and 210 PRN channels, the L26 can acquire a flexible mix of multiple constellation signals.

In contrast to single constellation GPS only receivers, the L26 multi constellation GNSS receiver has access to a vast increase in visible satellites and thus has a reduced TTFF and improved positioning accuracy even in dense urban canyons.

The combination of EASY (Embedded Assist System) technology, EPO (Extended Prediction Orbit) technology, and GLP (GNSS Low Power) mode, lends L26 module high performance, low power consumption and full compliance with industrial standards. The EASY technology allows the module to automatically calculate and predict orbits by using the ephemeris data (up to 3 days) stored in internal RAM. The EPO technology enables the module to download predicted orbits data (up to 30 days) through the EPO server, resulting in a quick position fix with low power consumption, even at lower signal levels. GLP technology allows L26 to adaptively adjust the on/off time based on environmental conditions and motion information to strike a balance between positioning accuracy and power consumption.

Its enhanced performance makes the L26 ideal for industrial PDA, consumer and industry applications. Extremely low-power consumption makes it a great solution for power-sensitive applications, such as portables.



Key Features

- ✓ Multi-GNSS engine for GPS, GLONASS (or BDS), Galileo and QZSS, ensuring fast and accurate fix in any environment
- ✓ Industrial-leading sensitivity: -167 dBm during tracking and -148 dBm during acquisition
- ✓ Integrated LNA improves sensitivity
- ✓ EASY, an advanced AGNSS technology for quick positioning
- ✓ Embedded multi-tone active interference canceller for anti-jamming
- ✓ Multiple low-power modes to ensure ultra-low power consumption
- ✓ SDK commands developed by Quectel



EASY Technology



Ultra Low Power Consumption



Multi-GNSS System



Super Tracking Sensitivity: -167 dBm



Operating Temperature Range: -40 to +85 °C



Anti-jamming



RoHS Compliant

GNSS Module	L26
Dimensions	12.2 mm × 16.0 mm × 2.4 mm
Weight	Approx. 1.0 g
Temperature Range	
Operating Temperature	-40 °C to +85 °C
Storage Temperature	-40 °C to +90 °C
GNSS Features	
Supported Bands	GPS/QZSS L1 C/A: 1575.42 MHz GLONASS L1: 1602.5625 MHz BDS B1I : 1561.098 MHz Galileo E1: 1575.42 MHz
Default GNSS Constellation	GPS + GLONASS + QZSS
Number of Concurrent GNSS Systems	3 + QZSS
Channels	33 Tracking Channels 99 Acquisition Channels 210 PRN Channels
SBAS	WAAS, EGNOS, MSAS, GAGAN
Horizontal Position Accuracy^①	Autonomous: 2.5 m CEP
Velocity Accuracy^②	Without Aid: 0.1 m/s
Acceleration Accuracy^②	Without Aid: 0.1 m/s ²
Accuracy of 1PPS Signal^②	100 ns
TTFF (with AGNSS)^③	Cold Start: 15 s Warm Start: 5 s Hot Start: 1 s
TTFF (without AGNSS)^②	Cold Start: 35 s Warm Start: 30 s Hot Start: 1 s
Sensitivity (@ Default constellations)^④	Acquisition: -148 dBm Tracking: -167 dBm Reacquisition: -160 dBm
Dynamic Performance^②	Maximum Altitude: 10000 m Maximum Velocity: 515 m/s Maximum Acceleration: 4 g
Interfaces	
UART Interface	Adjustable: 9600–921600 bps Default: 9600 bps Update Rate: 1 Hz (Default), up to 10 Hz
Protocol	
Protocol	NMEA 0183 V4.10
External Antenna Interfaces	
Antenna Type	Active or passive
Antenna Power Supply	External power supply, or through the VCC_RF pin
Electrical Characteristics	
Supply Voltage Range	2.8–4.3 V, Typ. 3.3 V
I/O Voltage	Typ. 2.8 V
Power Consumption (@ 3.3 V, default constellations)	Normal Operation: 29mA @ Acquisition 21 mA @ Tracking Power Saving Mode: 7 μA @ Backup Mode 0.35 mA @ Standby Mode

NOTE:

1. ①: CEP, 50 %, 24 hours static, -130 dBm, more than 6 SVs.
2. ②: Room temperature, all satellites at -130 dBm.
3. ③: Open-sky, active high-precision GNSS antenna.
4. ④: Room temperature, demonstrated with good LNAs.