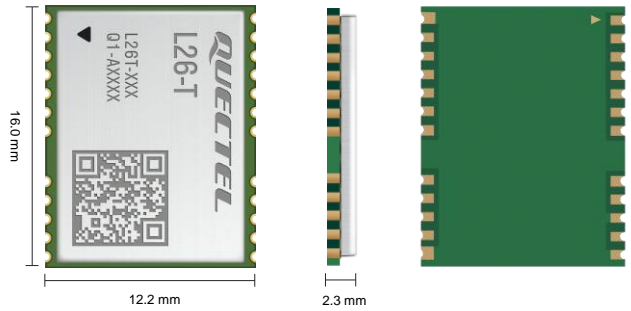




Quectel L26-T

Ultra-compact Multi-constellation GNSS Module



L26-T is an ultra-compact, single-band multi-constellation module featuring high precision timing and standard precision positioning. It is designed and manufactured according to the IATF 16949: 2016 standard.

Designed for navigation applications, L26-T can receive and track GPS, GLONASS, Galileo, BDS, and QZSS signals, output multi-GNSS raw data, and use SBAS to enhance accuracy and reliability. The built-in LNA ensures better performance even in harsh environments such as dense urban canyons.

For high-precision timing applications, the module can synchronize with the Coordinated Universal Time (UTC) at a nanosecond resolution. This outstanding timing performance is crucial to a variety of applications demanding high-accuracy time and frequency stability.

L26-T also leverages AGNSS data, resulting in a significantly reduced Time to First Fix (TTFF). The AGNSS feature enables high sensitivity acquisition even on the module's first start-up, when precise location, time, and frequency are still unknown.

For battery-powered applications, the module offers power saving modes to reduce power consumption.

The superb performance of L26-T makes it an ideal solution for base stations, as well as for automotive and industrial applications.



Key Features

- ✓ Ultra-compact size: 12.2 mm × 16.0 mm × 2.3 mm
- ✓ Multi-GNSS engine for GPS, GLONASS, Galileo, BDS, and QZSS
- ✓ Integrated LNA for better sensitivity
- ✓ Timing function
- ✓ Multi-GNSS raw data output
- ✓ Integrated AGNSS function
- ✓ Reception of SBAS broadcast signals



Multi-GNSS System



Low Power Consumption



Ultra-compact Size



Tracking Sensitivity:
-162 dBm



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



RoHS Compliant

GNSS Module	L26-T
Region	Global
Dimensions (mm)	12.2 × 16.0 × 2.3
Weight (g)	Approx. 0.9
Temperature Range	
Operating Temperature	-40 °C to +85 °C
Storage Temperature	-40 °C to +90 °C
GNSS Features	
Supported Bands	GPS L1 C/A: 1575.42 MHz GLONASS L1: 1602.5625 MHz Galileo E1: 1575.42 MHz BDS B1I: 1561.098 MHz QZSS L1: 1575.42 MHz
Default GNSS Constellations	GPS + GLONASS + Galileo
Number of Concurrent GNSS	3 + QZSS
Channel	48 Tracking Channels 2 Fast Acquisition Channels
SBAS	WAAS, EGNOS, MSAS, and GAGAN
Horizontal Position Accuracy ^①	Autonomous: 1.5 m CEP
Velocity Accuracy ^②	Without Aid: 0.1 m/s
Acceleration Accuracy ^②	Without Aid: 0.1 m/s ²
Timing Accuracy ^②	1PPS: < 13.6 (±6.8) ns @ 1σ
1PPS Jitter ^②	±6.5 ns
TTFF (with AGNSS) ^③	Warm Start: 2 s
TTFF (without AGNSS) ^②	Cold Start: 35 s Warm Start: 30 s Hot Start: 2 s
Sensitivity (@ Default Constellation)	Acquisition: -145 dBm Tracking: -162 dBm Reacquisition: -153 dBm
Dynamic Performance ^②	Maximum Altitude: 18000 m Maximum Velocity: 515 m/s Maximum Acceleration: 4g
Certifications	
Regulatory	Europe: CE
Others	RoHS
Interfaces	
UART Interface	Adjustable: 9600–921600 bps Default: 115200 bps Update Rate: 1 Hz (Default); Max. 5 Hz
Protocol	NMEA 0183
External Antenna Interface	
Antenna Type	Active or Passive
Antenna Power Supply	External or Internal (through VDD_RF)
Electrical Characteristics	
Supply Voltage Range	3.0–3.6 V; Typ. 3.3 V
I/O Voltage	Typ. 3.3 V
Power Consumption (@ Default Constellations, 3.3 V)	Normal Operation: 76 mA (250.8 mW) @ Acquisition Mode 73 mA (240.9 mW) @ Tracking Mode Power Saving Modes: 12 μA (39.6 μW) @ Standby Mode 7 μA (23.1 μW) @ Backup Mode

NOTE:

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