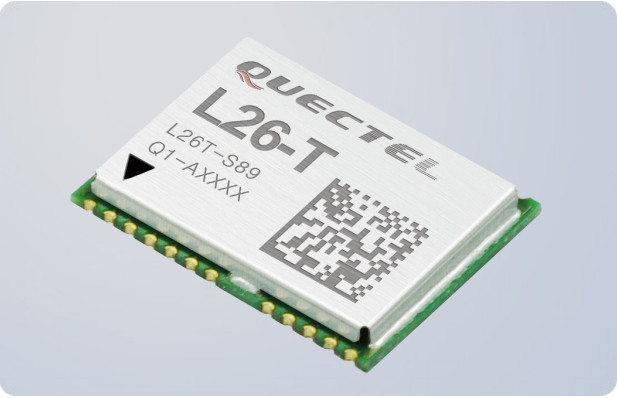
Quectel L26-T

Compact GNSS Module



L26-T concurrent GNSS modules features high integrity, precision timing in demanding applications world-wide. Supporting GPS, BeiDou, GLONASS and Galileo constellations, the module is completely compliant with national requirements. L26-T also supports the outputting of multi-GNSS raw data.

Multi-constellation allows accurate navigation in harsh environments such as urban canyons. And the built-in LNA ensures better performance under weak signal circumstances, survey-in and position-fixed navigation reduce timing jitter, even at low signal levels, and enable synchronization to be maintained with as few as one single satellite in view. Support for power saving mode reduces power consumption for battery-powered applications.

L26-T utilizes A-GNSS aiding data, which reduces the time-to-first fix and offers exceptional acquisition sensitivity, even on first installation before precise location, time or frequency are known.

The super performance makes L26-T ideal for base station, automotive, industrial and consumer applications.

Key Benefits

- Ultra-compact size: 12.2mm × 16.0mm × 2.3 mm
- Multi-GNSS engine for GPS, GLONASS, BeiDou, Galileo and QZSS
- Built-in LNA for better sensitivity
- Support timing function
- Support DGPS(RTCM)/SBAS (WAAS/EGNOS/MSAS/GAGAN)

Multi-GNSS Systems

Low Power Consumption

Extremely Compact Size

Tracking Sensitivity: -163dBm

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

RoHS Compliant

Rev.: V1.0 | Status: Preliminary

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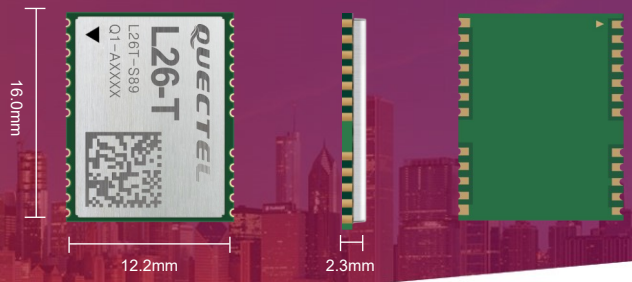

GNSS Features

Receiving Bands:

GPS L1/Galileo E1 C/A: 1575.42MHz

GLONASS L1 C/A: 1602.5625MHz

BeiDou B1 C/A: 1561.098MHz

Channels: 48 (Tracking)/ 2 (Fast Acquisition)

SBAS: WAAS, EGNOS, MSAS, GAGAN

Horizontal Position Accuracy:

Autonomous: <1.5m CEP

Velocity Accuracy:

Without Aid: <0.1m/s

Acceleration Accuracy:

Without Aid: <0.1m/s²

Timing Accuracy:

1PPS: 3. 9ns CEP

TTFF @-130dBm with AGPS

Cold Start: <13s

Warm Start: <4s

Hot Start: <3s

TTFF @-130dBm without AGPS

Cold Start: <35s

Warm Start: <29s

Hot Start: <3s

Sensitivity:

Acquisition: -147dBm

Tracking: -163dBm

Reacquisition: -156dBm

Dynamic Performance:

Maximum Altitude: Max. 18000m

Maximum Velocity: Max. 515m/s

Maximum Acceleration: 4.5g

Interfaces

UART Interface:

Adjustable: 9600bps~115200bps

Default: 9600bps

Update Rate: 1Hz (Default), up to 10Hz

I/O Voltage: 3.3V

Protocols: NMEA 0183

External Antenna Interface:

Antenna Type: Passive or Active

Antenna Power Supply: External

Electrical Characteristics

Power Supply:

3.0V~3.6V, typical 3.3V

Acquisition Power:

65mA@3.3V (GPS)

Tracking Power:

53mA @3.3V (GPS)

Power Saving:

9uA@Standby Mode

General Features

Temperature Range: -40°C ~ +85°C

Dimension: 12.2mm ×16.0mm ×2.3mm

Weight: approx. 0.9g*

* Under development

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