Quectel LC79D
Dual-Band GNSS Module

LC79D is a high performance GNSS module supporting multi-constellation GNSS and dual GNSS bands. It can acquire and track GPS, GLONASS, IRNSS, BeiDou, Galileo and QZSS signals. The module can work at L1 and L5 Bands for GPS and GALILEO satellites.

Compared with the GNSS module working at L1 band only, LC79D can generally increase the number of visible satellites, reduce TTFF and enhance positioning accuracy, especially when driving in rough urban environments.

LC79D achieves exceptional performance both in acquisition and tracking, and fully meets the industrial standard. With embedded LNA, dual antennas and antenna switch function, it is an ideal product for automotive, consumer and industry tracking applications.

Key Benefits

✓ Ultra-compact size: 10.1mm × 9.7mm ×2.4mm

✓ Multi-GNSS engine for GPS, GLONASS, IRNSS, BeiDou, Galileo and QZSS

✓ Support dual GNSS bands (L1, L5)

✓ Built-in LNA for better sensitivity

✓ Reliable anti-jamming performance due to multi-tone active interference canceller

✓ Support SPI and UART interface

✓ Support SDK command developed by Quectel

L1 & L5 Bands

Low Power Consumption

Ultra-Compact Size

RoHS Compliant

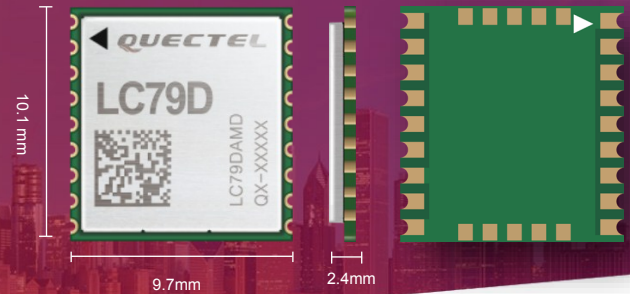Extended Operating Temperature: -40°C to +85°C

Anti-Jamming

Multi-GNSS Systems

Quectel LC79D

Dual-Band GNSS Module

10.1 mm | **9.7mm** | **2.4mm**

GNSS Features

Receiving Bands:

GPS L1 C/A Galileo E1 OS   QZSS L1 C/A:

1575.42MHz

GPS L5 Galileo E5a QZSS L5: 1176.45MHz

IRNSS L5 C/A: 1176.45MHz

GLONASS L1 OF: 1602.5625MHz

BDs B1 C/A: 1561.098MHz

Horizontal Position Accuracy:

Autonomous: <1.2m CEP

Velocity Accuracy:

Without Aid: <0.1m/s

Acceleration Accuracy:

Without Aid: <0.1m/s ^{2}

Reacquisition Time: <2. 5s

TTFF @-130dBm with AGPS:

Cold Start: <5s

Warm Start: <2.5s*

Hot Start: <2.5s*

TTFF @-130dBm without AGPS:

Cold Start: <32s

Warm Start: <28s

Hot Start: <2.5s

Sensitivity:

Acquisition: -148dBm

Tracking: -163dBm

Reacquisition: -159dBm

Dynamic Performance:

Maximum Altitude: 18000m

Maximum Velocity: 515m/s

Maximum Acceleration: 4G

Interfaces

SPI Interface:

Up to 50MHz

UART Interface:

Adjustable: 115200bps~921600bps

Default: 115200bps

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

I/O Voltage: 1.7V~1.9V, typical 1.8V

External Antenna Interface:

Antenna Type: Passive or Active

Antenna Power Supply: External

Power Management

Power Supply:

1.7V~1.9V, typical 1.8V

Power Acquisition:

43mA*@1.8V

Power Tracking:

30mA *@1.8V

Power Saving:

125uA *@Standby Mode

General Features

Temperature Range: -40°C ~ +85°C

Dimension: 10.1mm × 9.7mm ×2.4mm

Weight: 0.6g

Protocols: NMEA 0183

Approvals

Regulatory：

CE* (Europe)

Others:

RoHS Compliant

QUECTEL®