

INDUSTRIAL PRODUCT DATASHEET

L76K GNSS Module for Seeed Studio XIAO

Multi-GNSS receiver with high sensitivity and low power for Seeed Studio XIAO, ideal for GPS navigation, tracking, and smart city applications.

SKU

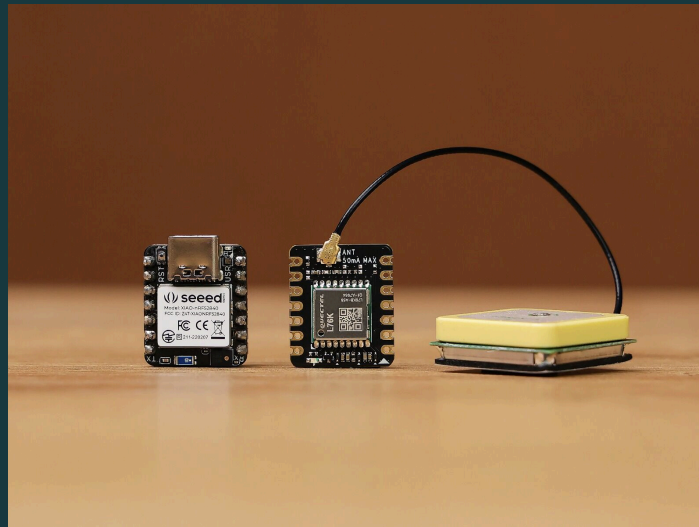
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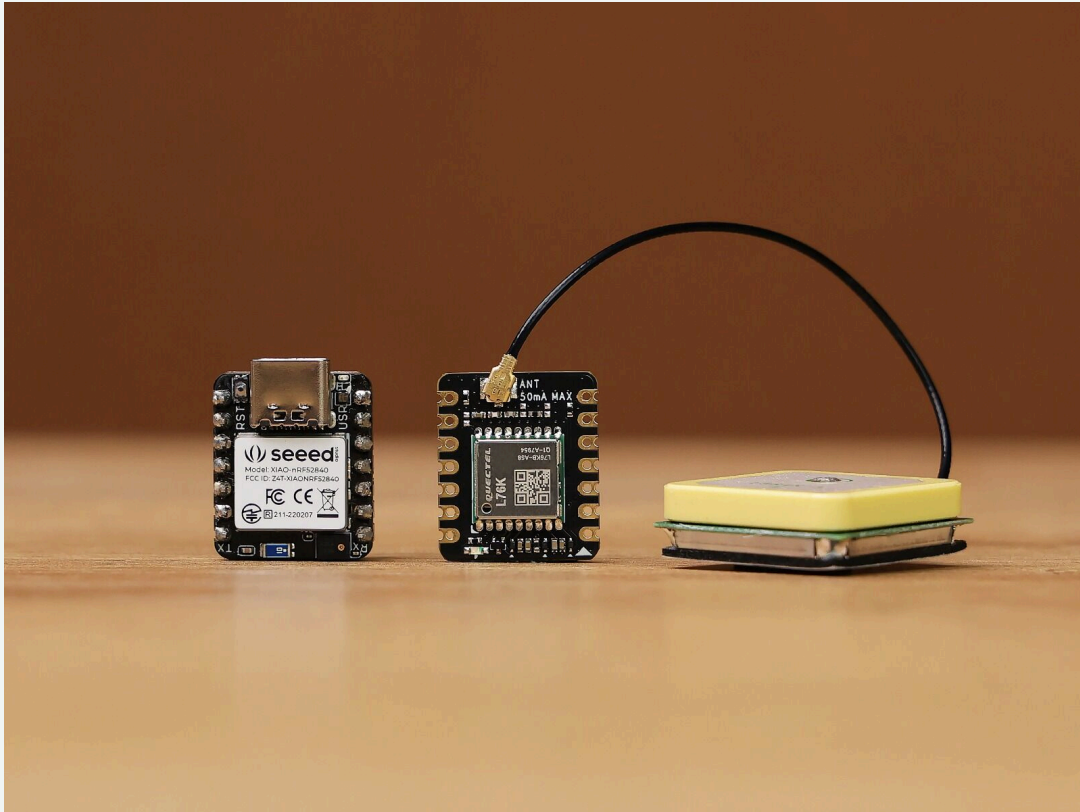
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PRICE

\$10.90(Excl. VAT)



Overview



The L76K GNSS Module for Seeed Studio XIAO is a multi-GNSS receiver supporting GPS, BeiDou, GLONASS, and QZSS with enhanced reception via built-in LNA and SAW filter. It offers high precision with 32/72 channels and -162dBm tracking sensitivity, while maintaining energy efficiency with 41mA tracking and 360 μ A standby.

Key Features

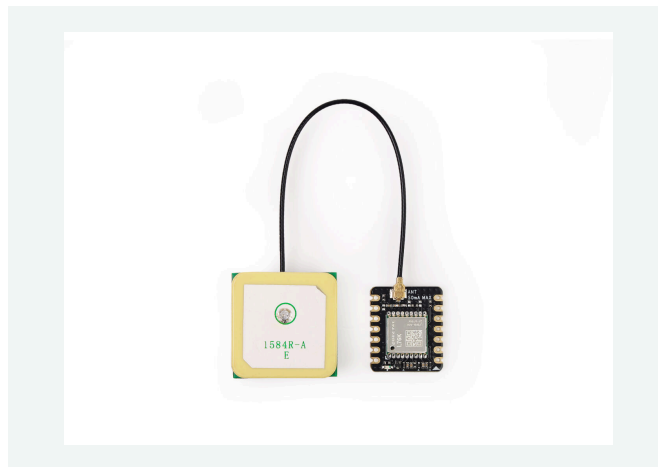
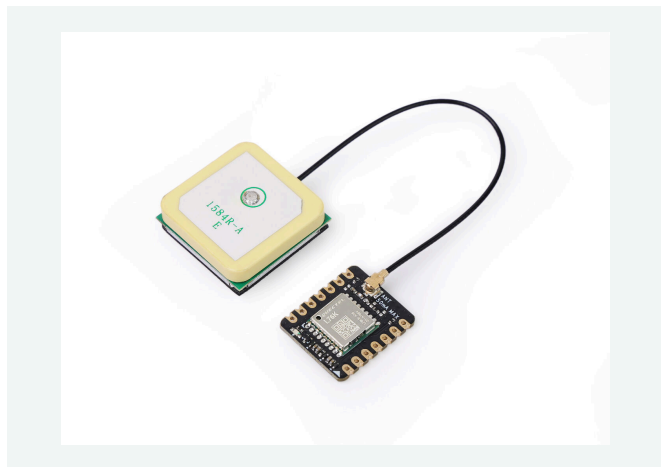
- **Enhanced Reception:** Built-in Low Noise Amplifier and Surface Acoustic Wave Filter for improved sensitivity and noise reduction
- **High Precision:** 32/72 channels, -162dBm tracking, -160dBm re-acquisition sensitivity
- **Energy Efficiency:** 41mA tracking/acquisition, 360µA standby
- **Multi-GNSS Systems:** Powered by Quectel L76K, supporting GPS, BeiDou, GLONASS and QZSS
- **Ceramic Antenna:** Enhanced signal reception, superior to traditional antennas.

Looking for an easy-to-use GPS module for your XIAO projects? The L76K GNSS Module is your answer. The L76K GNSS Module, specifically designed for SeeedStudio XIAO, is a versatile and efficient Multi-GNSS receiver. Compatible with all XIAO development boards, it offers comprehensive support for various satellite systems including GPS, BeiDou, GLONASS, and QZSS. This module is capable of both combined multi-system and independent single-system positioning, ensuring flexibility and precision in various applications.

Enhanced with AGNSS functionality, the module boasts a built-in low-noise amplifier and surface acoustic wave filter, delivering fast and precise positioning performance. It comes equipped with a high-performance active GNSS antenna, optimized for GPS L1 C/A, BeiDou B1, and GLONASS L1 frequencies, ensuring wide coverage and reliable signal reception.

Additionally, the module features a small, bright green LED, providing visual confirmation of the 1PPS (one pulse per second) output when a fix is established, simplifying troubleshooting and enhancing user experience.

Product Gallery

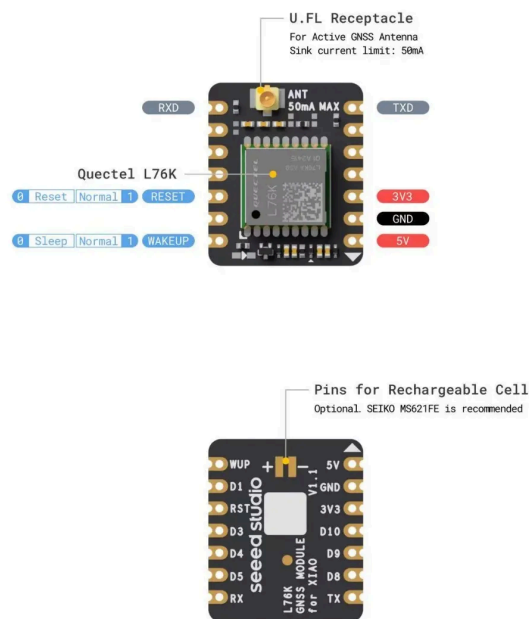


Specification

Item	Detail
GNSS bands	GPS L1 C/A: 1575.42MHz GLONASS L1: 1602MHz BeiDou B1: 1561.098MHz
Channels	32 tracking ch/72 acquisition ch
TTFF (Time To First Fix)	Cold Starts: 30s(w/o AGNSS), 5.5s(w/ GNSS) Hot Starts: 5.5s(w/o AGNSS), 2s(w/ AGNSS)
Sensitivity	Auto-acquisition: -148dBm Tracking: -162dBm Re-acquisition: -160dBm
Accuracy	Position: 2.0m CEP Velocity: 0.1m/s Acceleration: 0.1m/s ² Timing: 30ns
UART Interface	Baud Rate: 9600~115200bps(9600bps default) Update Rate: 1Hz(default), 5Hz(Max.) Protocol: NMEA 0183, CASIC proprietary protocol
Antenna	Type: Active Antenna Operating Frequency: 1559~1606MHz Coaxial Cable: RF1.13 Length=10cm Cable Connector: U.FL Plug RA

Current consumption(w/ active antenna)	Auto-aquisition: 41mA Tracking: 41mA Standby: 360uA
Dimension	18mm x 21mm

Hardware Overview



Applications

- GPS navigation
- GPS Tracker
- Smart City
- Logistics and Freight Management

Part List

L76K GNSS Module	x1
Active Antenna with iPex connector	x1
7 Pin Female Header 2.54mm	x2

Compliance & Logistics



HSCODE	8529909090
USHSCODE	8526910020
UPC	
EUHSCODE	8471707000
COO	CHINA

Resource Links

- <https://www.seeedstudio.com/L76K-GNSS-Module-for-Seeed-Studio-XIAO-p-5864.html>
- L76K GNSS Module for Seeed Studio XIAO
- PCN-109100021.pdf

Seeed Technology Co.,Ltd.
9F, Building G3, International E City,
Zhongshanyuan Road, Nanshan, Shenzhen, China

Tel: +86 0755-80695676
Web: www.seeed.cc
Shop: www.seeedstudio.com