

QUECTEL
Wireless Module Expert

L10-C

Compact GPS Module with Super Sensitivity



Super Sensitivity
-162dBm



Low Power
Consumption



Extended Temperature
Range -40 °C to +85 °C



High Accuracy



Anti-Jamming



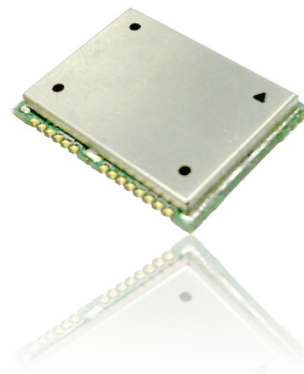
SMD Type



RoHS Compliant



USB 2.0 Full Speed
Compliant Interface



The GPS module L10-C brings the high performance of the MTK positioning engine to the industrial standard. L10-C supports 210 PRN channels. With 66 search channels and 22 simultaneous tracking channels, it acquires and tracks satellites in the shortest time even at very low signal level. This versatile, stand-alone receiver combines an extensive array of features with flexible connectivity options. Their ease of integration results in fast time-to-market in a wide range of automotive, consumer and industrial applications.

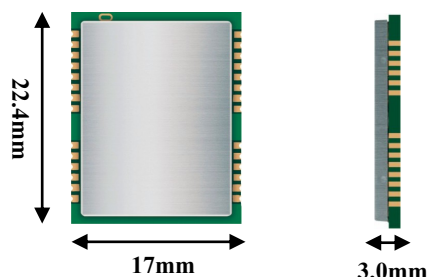
L10-C is in a popular form factor: 22.4*17mm. The size, mechanics and interface connectivity is an exact match with Quectel L10. Therefore, customers may use L10-C to get cost saving with minimal design effort.

Advantages

- 210 PRN channels, with 66 search channels and 22 simultaneous tracking channels
- Low tracking power consumption, 35mA (passive antenna)
- Full ESD protection on all pins
- Embedded with one 4Mbits flash memory
- Superior anti-jamming design for best integration with other wireless application, such as WiFi, WiMax, CDMA and GSM
- Multi-path detection and correction for accurate navigation in harsh urban canyon
- Up to 5Hz update rate
- USB 2.0 full speed compliant interface

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General Specifications

L1 Band Receiver (1575.42MHz)	Channel Number	22 TRK / 66 ACQ
	SBAS	19 C/A (WAAS, EGNOS, MSAS)
	QZSS	5 C/A, 5 SAIF
	Total	210 PRN channels
Position Accuracy		1.25m CEP
Velocity Accuracy		0.1m/s
Acceleration Accuracy		0.1m/s ²
Timing Accuracy		61ns
Reacquisition Time		<1s
TTFF (Time To First Fix)	Cold start	<35s
	Warm start	<35s
	Hot start	<1s
	SUPL*	5~10s (Optional)
	*Without counting data link time	
Sensitivity	Autonomous Acquisition	-145dBm
	Reacquisition	-157dBm
	Tracking	-162dBm
Sensitivity with external LNA	Autonomous Acquisition	-148dBm
	Reacquisition	-160dBm
	Tracking	-165dBm
Max Update Rate		5Hz
Environmental	Operating Temperature	-40℃ ~ 85℃
	Storage Temperature	-45℃ ~125℃
Dynamic Performance	Maximum Altitude	18,000 m
	Maximum Velocity	515m/s
	Acceleration	4 G
Dimensions		22.4mm×17.0mm×3.0mm
Weight		Approx. 2.2g

Interfaces

Serial Interfaces	1 UART with baud rate
	1 USB V2.0 full speed
Digital I/O	Configurable time pulse 1 Reset
Serial and I/O Voltage	2.7V ~ 2.9V
Protocols	NMEA
	PMTK

Electrical Data

Power Supply	3.0V ~ 4.3V
Power Acquisition	43mA (Passive antenna)
Power Tracking	35mA (Passive antenna)
Antenna Type	Active and passive
Antenna power	External or internal VCC_RF

Contact Us

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