

VDB-810

Embedded u-blox M8 GPS Mini PCIe Card



Receiver Type

Chipset	u-blox M8
Frequency	GPS L1 C/A, SBAS L1 C/A, QZSS L1 C/A, GLONASS L1OF, BeiDou B1
Channels	Supports 72 Channels

Sensitivity

Tracking & Navigation	-167dBm
Acquisition	-160dBm
Cold Start(Autonomous)	-148dBm

Time to First Fix (TTFF)

Cold Start	26 sec
Warm Start	26 sec
Hot Start	1 sec
Aided Start	2 sec

Accuracy

Horizontal Position	Autonomous : <2.5m CEP, SBAS : <2.0m CEP
Accuracy of	
Timepulse Signal	RMS 30ns
Max Navigation	99% <60ns
Update Rate	10Hz (GPS&GLONASS), 18Hz (GPS)

Output Message Format

GPS Protocol	NMEA 0183 V4.0, UBX, RTCM2.3
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Dynamic Conditions

Velocity	<500 m/s (972 knots)
Acceleration	<= 4g

Features

- Concurrent Reception of GPS/QZSS, GLONASS, BeiDou
- 72-channel u-blox M8 Engine w/ Over 2 Million Effective Correlators
- -167dBm SuperSense® Acquisition & Tracking Sensitivity
- 10 Hz Position Update Rate
- Standard Mini PCIe V1.2 Full-Mini Card(USB2.0 Interface)
- Time To First Fix (TTFF) : <1 sec
- Operating Temp. : -40°C to 85°C

Multipath Suppression

Intelligent Multipath Detection and Suppression

A-GPS

Supports AssistNow® Online and Offline, OMA SUPL Compliant

Environmental Characteristics

Operating Temp.	-40°C to +85°C
Storage Temp.	-40°C to +85°C
Peak Supply Current	Max=150mA
Max Performance	Acquisition ^{note1} =74mA
Eco Mode	Tracking ^{note2} = 43mA
Power Input	3.3V +/-10% VDC input
Dimensions	51 x 30 (mm)

Ordering Information

Part Number	VDB-810
Description	Embedded u-blox M8 GPS Mini PCIe Card