

# VDB-810G

## Embedded u-blox M8 GPS with G-Sensor Mini PCIe Card



### Receiver Type

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

### Sensitivity

<b>Tracking &amp; Navigation</b>	-167dBm
<b>Acquisition</b>	-160dBm
<b>Cold Start(Autonomous)</b>	-148dBm

### Time to First Fix (TTFF)

<b>Cold Start</b>	26 sec
<b>Warm Start</b>	26 sec
<b>Hot Start</b>	1 sec
<b>Aided Start</b>	2 sec

### Accuracy

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

### Output Message Format

<b>GPS Protocol</b>	NMEA 0183 V4.0, UBX, RTCM2.3
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### Dynamic Conditions

<b>Velocity</b>	<500 m/s (972 knots)
<b>Acceleration</b>	<= 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

### G-Sensor

3-axis accelerometer

### Environmental Characteristics

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

### Ordering Information

<b>Part Number</b>	VDB-810G
<b>Description</b>	Embedded u-blox M8 GPS with G-Sensor Mini PCIe Card