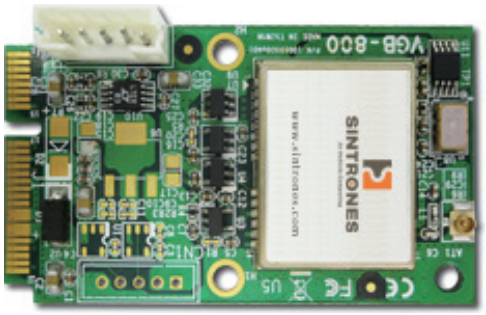
VDB-810 Series

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



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. : -40ºC to 85ºC

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

Output Message Format	
GPS Protocol	NMEA 0183 V4.0, UBX, RTCM2.3
Multipath Suppression	
Intelligent Multipath Detection and Suppression	
G-Sensor (VDB-810G)	
3-axis accelerometer	
A-GPS	
Supports AssistNow® Online and Offline, OMA SUPL Compliant	
Environmental Characteristics	
Operating Temp.	-40ºC to +85ºC, ambient w/ 0.6m/s airflow
Storage Temp.	-40ºC to +85ºC
Peak Supply Current	Max=150mA
Max Performance	Acquisitionnote2=74mA
Eco Mode	Trackingnote2= 43mA
Power Input	3.3V ±10% VDC input
Dimensions	51 x 30 (mm)
Ordering Information	
Part Number	VDB-810-000
Description	Embedded u-blox M8 GPS Mini PCIe Card
Part Number	VDB-810G-000
Description	Embedded u-blox M8 GPS with G-Sensor Mini PCIe Card
State of Origin	Made in Taiwan