

# VDB-800DR

## Embedded u-blox6 GPS with Dead Reckoning & G-Sensor Mini PCIe Card



### Features

- 50-channel u-blox6 Engine with Over 2 Million Effective Correlators
- -146dBm SuperSense® Acquisition and Tracking Sensitivity
- AssistNow Online and Offline A-GPS Services, OMA SUPL Compliant
- 100% Coverage with Continuous Position Fixes Even in Tunnels
- Highly Accurate and Reliable Navigation Performance
- Automatic Sensor Calibration and Temperature
- Operating Temperature : -40°C to 85°C

### Receiver Type

<b>Chipset</b>	u-blox6
<b>Frequency</b>	GPS L1, C/A Code GALILEO L1 Open Service (with upgrade) SBAS : WAAS, EGNOS, MSAS, GAGAN
<b>Channels</b>	Supports 50 Channels

### Sensitivity

<b>Tracking &amp; Navigation</b>	-160dBm
<b>Acquisition</b>	-160dBm
<b>Cold Start(Autonomous)</b>	-146dBm

### Time to First Fix (TTFF)

<b>Cold Start</b>	32 sec
<b>Warm Start</b>	32 sec
<b>Hot Start</b>	1 sec
<b>Aided Start</b>	< 3 sec

### Accuracy

<b>Horizontal Position</b>	Position : <2.5m CEP, SBAS : <2.0m CEP
<b>I/O Port</b>	1 x Odometer 1 x FWD
<b>Max Navigation</b>	99% <60ns
<b>Update Rate</b>	1Hz combined DR & GPS update rate

### Dynamic Conditions

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

### Output Message Format

<b>GPS Protocol</b>	NMEA, UBX Binary, GGA, GLL, GSA, GSV, RMC, VTG, TXT
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### 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-800DR-000
<b>Description</b>	Embedded u-blox6 GPS with Dead Reckoning & G-Sensor Mini PCIe Card