In-Vehicle Computing

VDB-800DR

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

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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 : -40ºC to 85ºC

Receiver Type

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

Sensitivity

Tracking & Navigation	-160dBm
Acquisition	-160dBm
Cold Start(Autonomous)	-146dBm

Time to First Fix (TTFF)

Cold Start	32 sec
Warm Start	32 sec
Hot Start	1 sec
Aided Start	< 3 sec

Accuracy

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

Dynamic Conditions

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

Output Message Format

GPS Protocol	NMEA, UBX Binary, GGA, GLL, GSA, GSV, RMC, VTG, TXT

Multipath Suppression

Intelligent multipath detection and suppression

A-GPS

Supports AssistNow® Online and Offline, OMA SUPL Compliant

G-Sensor

3-axis accelerometer

Environmental Characteristics

Operating Temp.	-40ºC to +85ºC
Storage Temp.	-40ºC to +85ºC
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-800DR-000
Description	Embedded u-blox6 GPS with Dead Reckoning & G-Sensor Mini PCIe Card

All specifications are subject to change without notice.