



## Product Datasheet

Part Code: 10-230-000-01

### DVR GPS Receiver

#### Key Features

- Ultra Compact size – Ideal for discrete / non invasive installations
- Built on hi-end SiRF Star III Chipset
- Embedded ARM 7TDMI CPU
- 20 Parallel satellite tracking channels - for ultra-fast acquisition and reacquisition
- 200,000 simultaneous effective correlation – for fast TTFF (Time-To-Fast-Fix)
- Extremely fast TTFF at low signal levels
- Built-in hardware based Tracking Loop detector – with WAAS / EGNOS demodulator support
- Built-in Lithium-ion battery for TTFF – rechargeable
- Full support of NMEA 0183 V2.2 data protocol
- Enhanced tracking algorithms – to provide superior navigation in urban / canyon and foliage environments
- LED indicates power on/off and Navigation update



#### Specifications

##### Receiver Specification

Tracks up to 20 satellites

Receiver: L1, C/A code

Max update rate: 1 HZ

Acquisition times (averaged):

- Reacquisition: 0.1 Sec
- Hot Start: 1 Sec
- Warm Start: 38 Sec
- Cold Start: 42 Sec

Position Accuracy - Non DGPS (Differential GPS):

- Position: 5-25 m CEP without SA
- Velocity: 0.1 m/sec without SA
- Time: 1  $\mu$  sec sync GPS time

EGNOS / WAAS:

- Position: <2.2 m horizontal 95% of time
- Position: <5 m vertical 95% of time

Dynamic Conditions:

- Altitude: 18,000 meters (60,000 ft) max
- Velocity: 736 meters/sec (1000 knots) max
- Acceleration: 4G max
- Jerk: 20 meters/sec max

##### Receiver Specification...continued

Antenna Type: Built-in Patch Antenna

Environmental:

- Waterproof: P67
- Power: 3.5 ~ 5.5VDC @ 80mA
- Dimensions: 64.5 x 42 x 17.8 mm
- Weight: < 84g
- Operating Temp: -10°C to +60°C

Protocol & Interface:

- Output Protocol: NMEA V2.2
- Standard: 4800/8/N/1 (B/D/P/S)
- Interface: RS-232 +CMOS 3V (L) via PS2 9 SUB-D connector loom
- Protocol Format: GGA (1), GSA (5), GSV (5), RMC (1), VTG (1)

##### Certifications (When used with Vidistor DVR)

Rail EMC and EMI: EN50121-2-3:2006

Rail Environmental: EN50155:2007

Rail Vibration: EN61373