



Product Datasheet

Part Code: 10-230-000-00

DVR In-line GPS Receiver

Key Features

- 65 Channel GPS L1 C/A Code
- Perform 8 million time-frequency hypothesis testing per second
- Open sky hot start 1 sec, cold start 29 sec
- Signal detection better than -161dBm
- Multipath detection and suppression
- Accuracy 2.5m CEP
- Maximum update rate 10Hz
- Tracking current ~23mA
- Provides a 10pin header to easily connect to PCB
- 5m CEP Accuracy
- RoHS compliance
- M12 connector for rolling stock regulation compliant



Specifications

Receiver Specifications

Receiver Type:

- 65 Channels
- GPS L1 frequency, C/A Code

Time to First Fix:

- Hot Start: 1 Sec (Avg)
- Warm Start: 5 Sec (Avg)
- Cold Start: 29 Sec (Avg)

Sensitivity:

- Tracking & Navigation: -161dBm
- Reacquisition: -161dBm
- Cold Start (Autonomous): -145dBm

Accuracy:

- Autonomous 2.5 m CEP
- Velocity: 0.1 m/sec
- Time: 300 ns
- RMS: 30 ns
- 99%: <60 ns
- Compensated: 15 ns

Max Update Rate: Supports 1 / 2 / 4 / 5 / 8 / 10 Hz update rate (1Hz default)

Product Codes

M12 - 10-230-00-001

Serial - 10-230-00-002

Receiver Specifications...continued

Velocity Accuracy: 0.1 m/s

Heading Accuracy: 0.5 degrees

Dynamics: 4G (39.2 m/sec)

RF Connector: MMCX

Serial Interface: 3.3V LVTTTL Level 1, M12 Connector

Datum: DefaultWGS-84 - User definable

Input Voltage: 3.3V ~ 5.5V DC $\pm 10\%$

Input Current: max 75 mA tracking

Dimensions: (L x W x H)

M12 - 100mm x 70mm x 30mm

Serial - 65mm x 70mm x 30mm

Weight: 10g

Communication Specifications

Interface: Full duplex serial interface

Bit Rate: 800/9600/38400/115200bps (Optional, Default 9600)

Update Rate: 1Hz

Serial Port Protocol: NMEA

Supported Systems: GPS/GLONASS/Galileo

Antenna Specification: SMA - both passive and active supported (max 50 Ω)