GM-R305

Low-Power Receiver for GPS Applications

The GM-R305 GPS receiver provides EverMore's latest 12-channel GPS technology, contained inside a mouse-like box with a host connection cable.

The GM-R305 pushes forward EverMore's high standard for rapid startup time and high performance in foliage and urban canyon environments. Applications will benefit from improved reliability provided by newest GPS kernel firmware. With sophisticated system design, the GM-R305 provides robust performance for users who need an economical GPS solution.

The GM-R305 feature set includes NMEA-0183 output, one serial I/O, and position & velocity filtering. With Flash-based program memory, the firmware is upgradeable, thus protecting your GPS investment.

The GM-R305 is an all-in-one GPS receiver that is designed for the end-users with less understanding on GPS knowledge. It is ready for use with PDA, Notebook, and PC in various situations: Marine, Land Survey, travel assistance and Vehicle tracking.

EverMore

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Features

- Easy connector to PC/Notebook
- Built-in patch antenna
- Enhanced LED indicator
- Receiver, Twelve parallel tracking channels
- Fast TTFF and low power consumption
- On-board rechargeable battery sustained real-time clock and memory for fast satellite acquisition during power-up
- Automatic cold start with no user initialization required

Performance Specifications

General:	L1 1575.42MHz, C/A code, 12-channel, Carrier-Aided with HWTrack©
Sensitivity:	-143 dBm Minimum
Update Rate:	1Hz
Accuracy:	Position: 15m CEP without S/A
	Velocity: 0.1m/sec without S/A
	Time: $\pm 1\mu s$
Acquisition:	Cold start: < 120sec average
	Warm start: < 45sec
	Hot start: < 15sec
Reacquisition:	< 100millisecond
Dynamics:	Altitude: -1000m to + 18,000m
	Velocity: 500m/sec
	Acceleration: $\pm 4g$

Environmental Specifications

Operation Temperature:	-30°C to + 80°C
Storage Temperature:	-40°C to + 90°C
Operating Humidity:	5% to 95%

Physical Characteristics

Primary Power:	5V DC
DC Current:	Max. 125mA
Serial Ports:	RS-232 Level
1PPS:	CMOS LVTTL Level
Dimensions:	2.29" L x 1.57" W x 0.84" H
	(58.2mm x 39.9 mm x 21.5 mm)
Weight:	3.88oz (110g)

User Protocol

Protocols:	EverMore @ 4800/9600baud, 8N1
	NMEA-0183 v2.20 @ 4800 baud, 8N1
NMEA Messages:	GGA, GLL, GSA, GSV, RMC, and VTG

Interface Connector

DB9 (Female):	TX, RX, 1PPS
PS/2(Male):	VCC input 3.8V~8V
Or	
USB :	VCC Input 5V

Applications

- Land/Marine Navigation
- Telematics
- Fleet Management
- Asset Tracking
- Timing Reference