LandMark™ 005 INS/GPS

Single Antena INS/GPS with High Speed IMU

The LandMark™ 005, MEMS INS/GPS offers the latest advancements in inertial technology. It features low noise MEMS sensors and VELOX™ processing technology enabling precision position information during short term GPS outages. The LandMark™005 INS/GPS is well suited for flight control, navigation, image and antenna stabilization.

±0.03°
Pitch and Roll

±0.001°
Heading

3 NMPH
Free Inertial

Active Continuous Wave Detection
Anti-Jamming

GPS L1C/A: GPS, SBAS, QZSSS, BEIDOU B1, GALILEO E1B/C
Receiver Type

Low Noise. High Speed.

Inertial Systems and Sensors

MMV GLADIATOR TECHNOLOGIES

LandMark™ 005 INS/GPS

INS System Performance

Channels	72 Channels
Reciever Type	GPS L1C/A: GPS SBAS QZSSS GLONASS BEIDOU B1 GALILEO E1B/C
SBAS—WASS EGNOS MSAS	< 2 m CEP
Heading	±0.001°
Update Rate (GPS)	10 Hz
Horizontal Position Acc.	Autonomous 2.5 m
Velocity Accuracy	0.05 m/s
Attitude Accuracy - Pitch/Roll	±0.03°
Startup Time (Inertial)	< 0.65 sec typical (29 sec, cold start)
Update Rate	100Hz
Free Inertial (60 sec duration)	3 NMPH

Inertial Performance	GYRO Axes	ACCEL Axes
Range	± 490 º/s	± 15 g
ARW / VRW	0.0028º /sec/√Hz	0.071 mg/√Hz
Bias In-Run w/ EKF	5º/hour	0.05 mg
Bias Over Temp w/ EKF	<0.1 °/s	<1.0 mg
G-Sensitivity	0.1 °/s/g^2	
Scale Factor Error	100 PPM (EKF) 500 PPM (Free Inertial)	

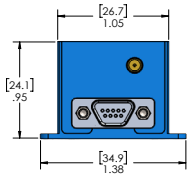
Environment

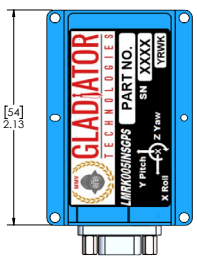
Shock	500 g ½ sine 1 ms
Vibration Operational	4g
Calibrated Temp	Operating: -40°C to +85°C Storage: -40°C to +100°C

SWAP-C Design

Input Voltage	+3.8 V to + 5.5 V Max (single sided)
Power Consumption	700 mW Typical / 900 mW Maximum
Mass	60 grams ±0.5 g
Size	Metric: 2.8 x 2.4 x 5.4 = 34.8 cm^3 US: 1.05 x 0.95 x 2.13 = 2.12 im^3

All performance parameters 1σ
Specification subject to change without notice
Rev. 23.04.12





NON ITAR
ECCN 7A994

MMV
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TECHNOLOGIES

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