

Next Gen

LandMark™ 60 INS/GPS

High Performance Inertial Navigation System



The LandMark™60 INS/GPS is our highest performing, lowest noise INS/GPS with VELOX™ Technology, CAN bus output, and RTK input. This robust unit is well suited for flight control, navigation, image & antenna stabilization, and automotive testing.



INS

$\pm 0.1^\circ$
Pitch and Roll

$\pm 0.003^\circ$
Heading

2 NMPH
Free Inertial

IMU

$0.0016^\circ/\text{s}/\text{VHz}$
ARW

$\pm 490^\circ/\text{sec} / 15\text{g}$
Range (Rate axis / Accel Axis)

600Hz
Bandwidth

Active Continuous Wave Detection
Anti-Jamming

GPS L1C/A GLONASS L1oh Beidou B1
GALILEO E1B/C

Receiver Type

Low Noise. High Speed.
Inertial Systems and Sensors



LandMark™ 60 INS/GPS

INS System Performance

Free Inertial (60 sec duration)	2 NMPH			
Channels	72 Channels			
Receiver Type	GPS L1C/A	GLONASS L1oh	BEIDOU B1	GALILEO E1B/C
SBAS	WASS EGNOS QZSS			
Heading	±0.003°			
Update Rate (GPS)	8 Hz			
Horizontal Position Acc.	Autonomous 2.5 m			
Velocity Accuracy	0.05 m/s (250 m/s max)			
Startup Time (Inertial)	< 0.65 sec typical, 29 sec (Cold Start)			
Update Rate (Inertial)	100, 200, 600 Hz			

Inertial Performance

	GYRO Axes	ACCEL Axes
Range	± 490 °/s	± 15 g
ARW / VRW	0.0016° /sec/√Hz	0.028 mg/√Hz
Bias In-Run w/ EKF	4°/hour	10 µg
Bias Over Temp w/ EKF	<0.03 °/s	<1 mg
Bias Over Temp (Free Inertial)	0.01 °/s	0.5 mg
G-Sensitivity	0.001 °/s/g²	0.25 mg/g²
Scale Factor Error	≤ 500 ppm (over temperature)	
Alignment	<0.5 mrad	

Environment

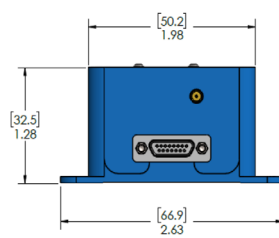
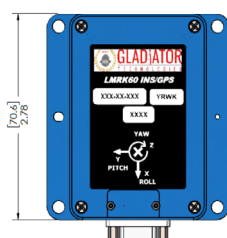
Shock (Operational)	500 g ½ sine 1 ms
Vibration Operational	6 gRMS (20 Hz to 3 kHz)
Calibrated Temp	Operating: -40°C to +85°C Storage: 55°C to +100°C

SWAP-C Design

Input Voltage	+7 V to +36 V Max (single sided)
Power Consumption	900 mW Typical / 1200 mW Maximum

All performance parameters 1σ
Rev. 23.09.12

Specification subject to change without notice



Further Technical Information Available:

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