



# LandMark™005 INS/GPS

## Inertial Navigation System



The LandMark™005 INS/GPS 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.



Low Noise:  $0.0028^\circ/\text{s}/\sqrt{\text{Hz}}$



Excellent Inertial Performance: 12 NMPH



VELOX™ High Speed Processing



Factory Calibrated:  $-40^\circ\text{C}$  to  $85^\circ\text{C}$



NON-ITAR

# Low Noise. High Performance.

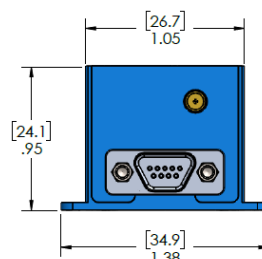
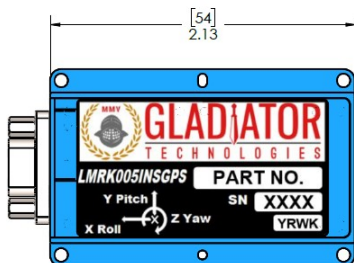


# GLADIATOR

TECHNOLOGIES

# LandMark™005 INS/GPS

Performance		
Parameter	Gyro	Accel
Range	±490°/s	±15 g
ARW / VRW	0.0028°/s/√Hz	50 µg/√Hz
Bias In-Run	5°/h	0.1 mg
Bias Over Temp.	< 0.1°/s	1 mg
Resolution	0.0012°/s	0.0064 mg
G Sensitivity	0.001°/s/g	1 mg/g <sup>2</sup>
Scale Factor Error	≤ 0.03% (over temperature)	
Alignment	< 0.5 mrad	
Environment		
Shock	500 g ½ sine 1 ms powered on	
Vibration	5.74 g <sub>RMS</sub> (20 Hz to 3 kHz)	
Temperature	Operating: -40°C to +85°C      Storage: 55°C to +100°C	
INS/GPS Performance		
Free Inertial Typical	12 NMPH (< 60 sec duration)	
Channels	72 Channels	
GNSS Receiver	GPS L1C/A: GPS SBAS QZSS BEIDOU B1 GALILEO E1B/C	
SBAS—WASS EGNOS MSAS	< 2 m CEP	
Max Navigation Update Rate (GPS)	Up to 10 Hz	
Velocity Accuracy	0.1 m/s (250 m/s max)	
GPS Horizontal Position Accuracy	Autonomous 2.5 m	
Startup Time (Inertial)	< 0.65 sec typical (alignment < 2 minutes)	
Update Rate (Inertial)	100, 200, 600 Hz	
Software	Development Kit Available	
Electrical		
Input Voltage	+3.8 V to +5.5 V Max. Input (single sided)	
Power Consumption	700 mW Typical / 900 mW Maximum	
Mechanical		
Size and Mass	Metric: 2.8 x 2.4 x 5.4 = 34.8 cm <sup>3</sup> US: 1.05 x 0.95 x 2.13 = 2.12 in <sup>3</sup> 55 grams	



[www.gladiatortechologies.com/landmark005ins](http://www.gladiatortechologies.com/landmark005ins)

All performance parameters 1σ  
 Specification subject to change without notice  
 Rev. 03.14.19



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