



LandMark™005 IMU

High Speed MEMS IMU



The LandMark™005 is Gladiator Technologies' high-speed, six-axis MEMS IMU. Equipped with low noise sensors, VELOX™ processing and user configurable firmware, the LandMark™005 comes factory calibrated and is ideal for stabilization and precision measurement applications.



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



Excellent Bias Stability: $5^{\circ}/h$



VELOX™ High Speed Processing



Factory Calibrated: -40°C to 85°C



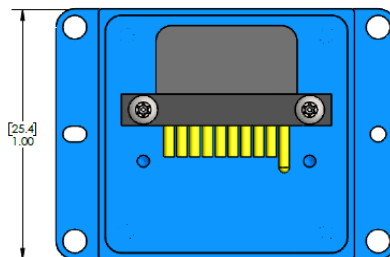
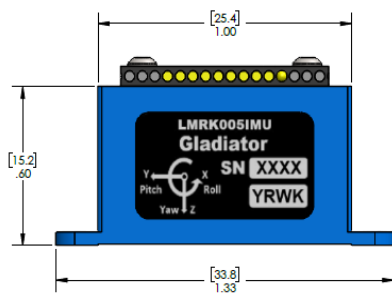
NON-ITAR

Low Noise. High Performance.



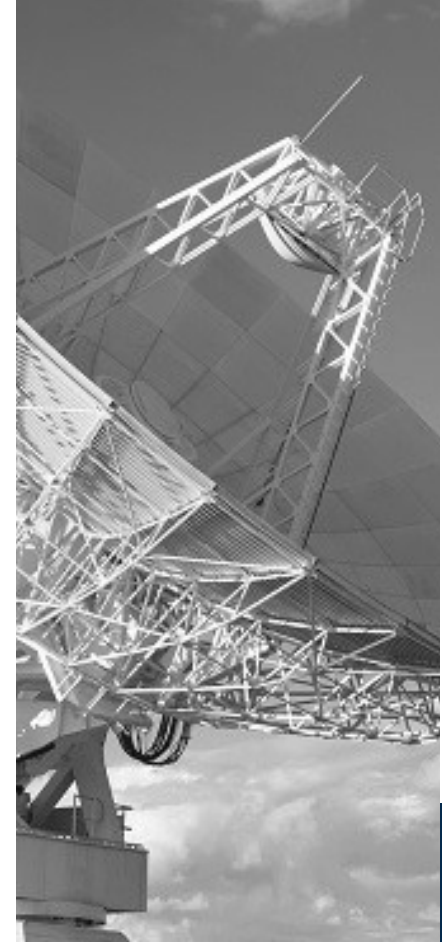
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Performance		
Parameter	Gyro	Accel
Range	±490°/s	±15 g
ARW / VRW	0.0028°/s/√Hz	0.075 mg/√Hz
Bias In-Run	5°/h	0.045 mg
Bias Over Temp.	< 0.1°/s	< 1 mg
Resolution	0.015°/s	0.49 mg
G Sensitivity	0.001°/s/g	1 mg/g ²
Scale Factor Error	≤ 0.03% (over temperature)	
Alignment	< 0.5 mrad	
Environment		
Shock	600 g ½ sine 1 ms powered on	
Vibration	5.74 g _{RMS} (20 Hz to 3 kHz)	
Operating Temp	-50°C to +85°C	
Non-Operating Temp	-55°C to +85°C	
Interface — with VELOX™ Processing		
Update Rate	Up to 10 kHz (User Selectable)	
External Sync	Up to 10 kHz (User Selectable)	
Start Up Time	≤ 0.15 s	
Data Format	16/24/32 - Bit	
Data Interface	RS-422/RS-485	
Bandwidth	350 Hz	
Software	Development Kit Available	
Electrical		
Input Voltage	+3.8 V to +5.5 V Max. Input (single sided)	
Power Consumption	200 mW Typical / 270 mW Maximum	
Mechanical		
Mass	18 grams	
Size	Metric: 2.54 x 2.54 x 1.52 = 9.81 cm ³ US: 1.0 x 1.0 x 0.6 = 0.6in ³	



www.gladiatortechologies.com/landmark005

All performance parameters 1σ
Specification subject to change without notice
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8020 Bracken Place SE
Snoqualmie, WA 98065
+1 425 396 0829
www.gladiatortechologies.com
sales@gladiatortechologies.com