

Next - Gen



# LandMark™ 007 IMU

High Dynamic IMU with VELOX™



The Next-Gen, SX2, LandMark™007 IMU is built for high dynamic applications and offers the latest advancements in MEMS inertial technology. This high speed, three-axis IMU is equipped with low noise sensors, cutting edge VELOX™ processing and user configurable firmware with the most advanced features available. The LandMark™007 IMU comes fully modeled and calibrated over temperature and is the premier MEMS IMU for high dynamic stabilization and precision measurement applications.

0.002°/s/vHz  
ARW

10 kHz  
Output Rate

0.075°/s  
Bias Over Temperature

600Hz  
Bandwidth

2000°/s  
Gyro Rate

98g  
Accel Range

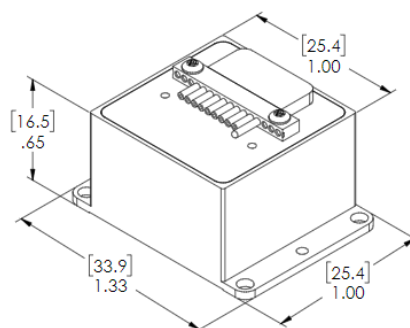
**Low Noise. High Speed.**  
*Inertial Systems and Sensors*



# LandMark™007 IMU

Performance		
Parameter	Gyro	Accel
Range	2000°/s	98g
ARW	0.002°/s/√Hz / 0.09√Hr	5 mg √Hz
Bias In-Run	4°/h	5 mg
Bias Over Temp.	0.075°/s	60 mg
G Sensitivity	< 0.001°/s/g	1 mg/g <sup>2</sup>
Scale Factor Error	≤ 0.03% (over temperature)	6000 PPM
Alignment	0.5 mrad	5 mrad
Environment		
Shock	1000 g ½ sine 1 ms powered on	
Vibration	15 g <sub>RMS</sub> (50 Hz to 2 kHz) random	
Calibrated Temp	-50°C to 85°C	
Non-Operating Temp	-55°C to 85°C	
Interface with VELOX™ and VELOX™ Plus Enhanced Options		
	VELOX™	VELOX™ Plus
Data Interface	RS422/485	16/24/32 Bit
Data Rate	8 kHz	10 kHz
External Sync	8 kHz	10 kHz
Max Baud Rate	3.0 Mbaud	7.5 Mbaud (user specified)
Max Bandwidth	350 Hz	600 Hz
Digital Message Delay	155 μs	114 μs
Electrical		
Input Voltage	+4.5V to +5.5 V Max. Input (single sided)	
Power Consumption	280 mW Typical / 450 mW Maximum	
Mechanical		
Mass	25 grams ±1	
Size	Metric: 2.54 x 2.54x 1.65 = 10.65 cm <sup>3</sup> US: 1.0 x 1.0 x 0.65 = 0.65in <sup>3</sup>	

All performance parameters 1σ  
 Specification subject to change without notice  
 Rev. 1.6.21



Further Technical  
 Information Available:  
[gladiatortechnologies.com](http://gladiatortechnologies.com)



**NON ITAR**  
 ECCN 7A994



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