

Next - Gen



# LandMark™ 005 IMU

with VELOX™



The Next-Gen, SX2, LandMark™005 IMU offers the latest advancements in MEMS inertial technology. This high speed, six-axis IMU is equipped with low noise sensors, cutting edge VELOX™ processing and user configurable firmware with the most advanced features available. The LandMark™005 IMU comes fully modeled and calibrated over temperature and is the premier MEMS IMU for stabilization and precision measurement applications.

0.0017°/s/√Hz  
ARW

10 kHz  
Output Rate

0.075°/s  
Bias Over Temperature

600Hz  
Bandwidth

0.6  
Cubic Inches

<29µs  
Message Delay

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



# LandMark™005 IMU

Performance	Gyro Axes	Accel Axes
Range	± 490°/sec	± 15 g
ARW - VRW	0.0017°/s/√Hz - 0.072°/√hr	40 µg/√Hz - 0.017 m/s/√hr
Bias Stability	3.5°/hour	20µg
Bias Over Temp.	<0.075°/s	< 0.4mg
Vibration Rectification Error	1 °/hr/g <sup>2</sup> rms	1 mg/g <sup>2</sup>
Scale Factor Error		500 ppm
Alignment		0.5 mrad

## Environment

Shock (Operational)	1000g's ½ sine 1 msec powered
Vibration (Operational)	8 gRMS (50 Hz to 2 kHz)
Calibrated Temp	-50°C to 85°C
Storage Temp	-55°C to 85°C
G-Sensitivity	0.01 %/s @ 1g
Reliability 55°C (MTBF)	>170,000

## Interface

	VELOX™	VELOX™ Plus
Data Interface	RS-422/485	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	69 µs	29 µs

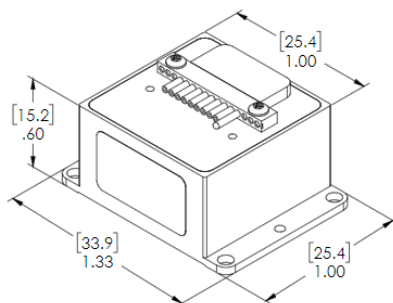
## Electrical

Input Voltage	+3.8 V to + 5.5 V Max (single sided)
Power Consumption	250 mW Typical / 400 mW Maximum

## Mechanical

Mass	19 grams
Size	Metric: 2.54 x 2.54 x 1.52 = 9.81 cm <sup>3</sup> US: 1.0 x 1.0 x 0.6 = 0.6in <sup>3</sup>

All performance parameters typical value  
Specification subject to change without notice  
Rev. 23.09.12



**NON ITAR**  
ECCN 7A994



**GLADIATOR**  
TECHNOLOGIES

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