

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, 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™007 IMU comes fully modeled and calibrated over temperature and is the premier MEMS IMU for high dynamic stabilization and precision measurement applications.

$0.0017^{\circ}/s/\sqrt{Hz}$
ARW

10 kHz
Output Rate

$0.075^{\circ}/s$
Bias Over Temperature

600Hz
Bandwidth

$2000^{\circ}/s$
Gyro Rate

98g
Accel Range

Low Noise. High Speed.
Inertial Systems and Sensors



LandMark™007 IMU

Inertial Performance	Gyro Axes	Accel Axes
Range	2000°/s	98 g
ARW / VRW	0.0017°/s/√Hz / 0.072°/rt-hr	5.6 mg √Hz
Bias In-Run	3.5°/h	1.5 mg
Bias Over Temp	0.075°/s	20 mg
Scale Factor Error	600 PPM	6,000 PPM
Vibration Rectification Error	1 °/hr/g ² rms	

Environment

Shock (Operational)	1000 g 1/2 sine 1 ms powered on
Vibration (Operational)	24 gRMS (50 Hz to 2 kHz) random
Calibrated Temp	-50°C to 85°C
Storage Temp	-55°C to 85°C
G-Sensitivity	0.03°/s
Reliability 45°C (MTBF)	>110,000

Interface

Interface	VELOX™	VELOX™ Plus
	RS422/485	16/24/32 Bit
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
Max Bandwidth	350 Hz	600 Hz
Digital Message Delay	155 µs	114 µs

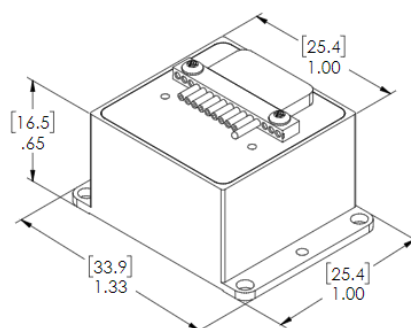
Electrical

Input Voltage	+3.8 V to +5.5 V Max (single sided)
Power Consumption	280 mW Typical / 450 mW Maximum

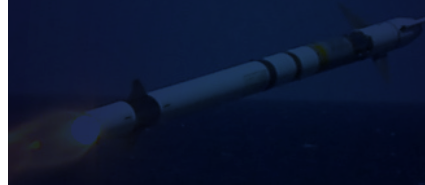
Mechanical

Mass	25 grams ±0.5 g
Size	Metric: 2.54 x 2.54 x 1.65 = 10.65 cm ³ US: 1.0 x 1.0 x 0.65 = 0.65 in ³

All performance parameters 1σ
Specification subject to change without notice
Rev. 8.08.22



Further Technical
Information Available:
gladiatortechnologies.com



NON ITAR
ECCN 7A994



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