

New Release

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 precision measurement applications.

$0.0025^{\circ}/s/\sqrt{Hz}$
ARW

$< 0.4 \text{ mg}$
Accel Bias Over Temp*

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

24 gRMS
Vibration

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

$98g$
Accel Range

* +/- 15 g linear acceleration

Low Noise. High Speed.
Inertial Systems and Sensors



LandMark™007 IMU

Inertial Performance	Gyro Axes	Accel Axes	
Range	2000°/s	15 g	>15-98g
ARW / VRW	0.0025°/s/√Hz / 0.106°/√hr	40 µg/√Hz	5.6 mg √Hz
Bias In-Run	3.5°/h	20 µg	1.5 mg
Bias Over Temp	0.075°/s	< 0.4 mg	20 mg
Scale Factor Error	600 PPM	500 PPM	6,000 PPM
Vibration Rectification Error	1 °/hr/g²rms		1 °/hr/g²rms

Environment

Shock (Operational)	1000 g ½ 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 55°C (MTBF)	>110,000

Interface

	VELOX™	VELOX™ Plus
Data Interface	RS422/485	16/24/32 Bit
Data Rate	5 kHz	8 kHz
External Sync	5 kHz	8 kHz
Max Baud Rate	3.0 Mbaud	7.5 Mbaud
Max Bandwidth	350 Hz	600 Hz
Digital Message Delay	155 µs	114 µs

Electrical

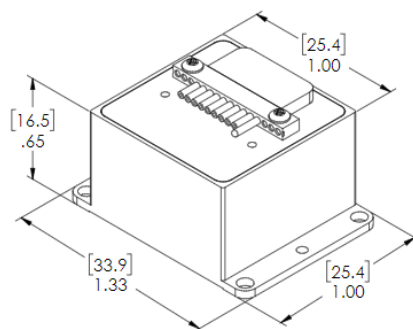
Input Voltage	+3.8 V to + 5.5 V Max (single sided)
Power Consumption	280 mW Typical / 450 mW Maximum

Mechanical

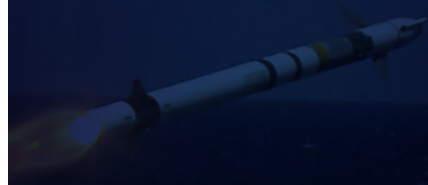
Mass	25 grams ±0.5 g
Size	Metric: 2.54 x 2.54x 1.65 = 10.65 cm³ US: 1.0 x 1.0 x 0.65 = 0.65in³

All performance parameters 1σ
Specification subject to change without notice
Rev. 23.09.12

SKU: LMRK007IMU 2000-98-350



Further Technical
Information Available:
gladiatortechnologies.com



NON ITAR
ECCN 7A994



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