





LandMark™007X IMU

High Dynamic MEMS IMU



The LandMark™007X IMU is Gladiator Technologies', smallest, High Dynamic, High Performance six-axis MEMS IMU. Equipped with low noise sensors, VELOX™ processing and user configurable firmware. This IMU is designed to perform in high dynamic environments up to 2000°/second, 200g, high shock and high vibration.



-  Low Noise: 0.0035°/s/√Hz
-  High Dynamic: 2000°/s & 200g
-  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	±2000°/s	±200 g
ARW / VRW	0.0035°/s/√Hz	5 mg/√Hz
Bias In-Run	10°/hour	1 mg
Bias Over Temp.	< 0.1°/s	50 mg
Resolution	0.06°/s	6 mg
G Sensitivity	0.003°/s/g	0.3 mg/g ²
Alignment	< 0.5 mrad	6 mrad
Scale Factor Error	≤ 1000 ppm (over temperature)	≤ 2500 ppm (over temperature)

Environment

Shock	1000 g ½ sine 1 ms powered on
Vibration	15 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

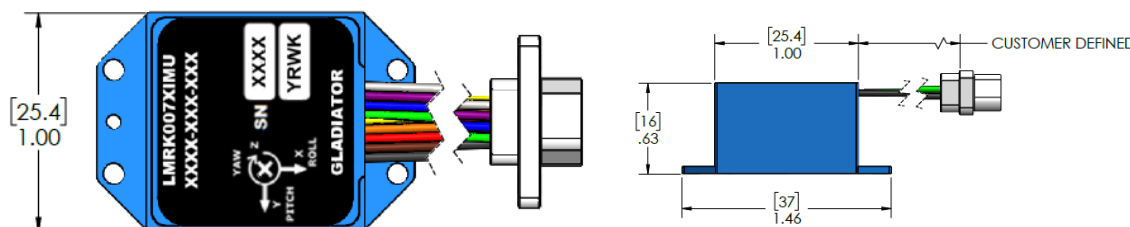
Update Rate	Up to 5 kHz (User Selectable)
External Sync	Up to 7 kHz (User Selectable)
Start Up Time	< 0.25 s
Data Format	16/24/32 - Bit
Data Interface	RS-422/RS-485
Bandwidth	350 Hz
Software	Development Kit Available

Electrical

Input Voltage	+3.8 V to +5.5 V Max. Input (single sided)
Power Consumption	225 mW Typical / 275 mW Maximum

Mechanical

Mass	20 ±1 grams
Size	Metric: 2.8 x 2.5 x 1.6 = 11.0 cm ³ US: 1.09 x 0.97 x 0.63 = 0.67 in ³



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All performance parameters 1σ
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