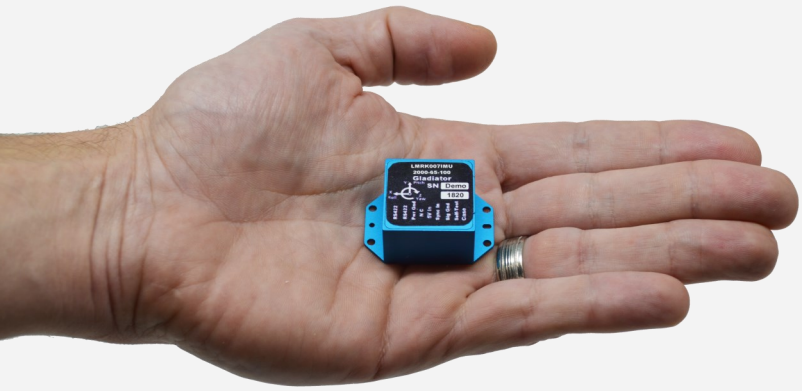
LandMark™007 IMU

High Dynamic MEMS IMU

The LandMark™007 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, 98g, high shock and high vibration.



- Low Noise: 0.0035°/s/√Hz
- High Dynamic: 2000°/s & 98g
- VELOX™ High Speed Processing
- Factory Calibrated: -50°C to 85°C
- NON-ITAR

Low Noise. High Performance.

MMV GLADIATOR TECHNOLOGIES

LandMark™007 IMU

Performance (available in any combination of gyro & accel ranges)

Parameter	Gyro		Accel	
Range	±490°/s	±2000°/s	±65 g	±98 g
ARW / VRW	0.0035°/s/√Hz	0.0035°/s/√Hz	6 mg/√Hz	6 mg/√Hz
Bias In-Run	10°/h	10°/h	2 mg	2 mg
Bias Over Temp.	< 0.1°/s	< 0.1°/s	±20 mg	±30 mg
Resolution	0.015°/s	0.06°/s	12 mg	12 mg
G Sensitivity /g^2	0.001°/s/g	0.003°/s/g	0.4 mg/g^2	0.3 mg/g^2
Scale Factor Error	500 PPM	500PPM	6000PPM	6000PPM
Alignment	< 0.5 mrad	< 0.5 mrad	4 mrad	6 mrad

Environment

Shock	1000 g ½ sine 1 ms powered on
Vibration	15 g_{RMS} (50 Hz to 2 kHz)
Operating Temp	-50°C to +85°C
Non-Operating Temp	-55°C to +85°C

Interface — with VELOX™ Processing

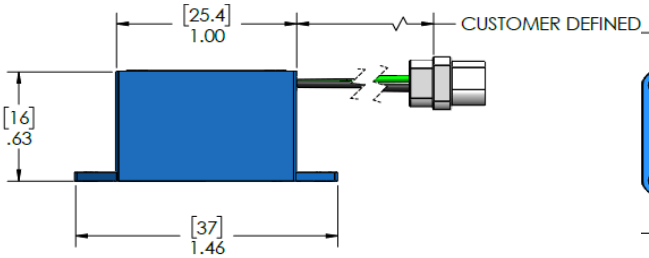
Update Rate	Up to 5 kHz (User Selectable)
External Sync	Up to 8 kHz (User Selectable)
Start Up Time	< 0.25 s
Data Format	16/24/32 - Bit
Data Interface	RS-422/RS-485
Bandwidth	350 Hz
Software	Development Kit Available

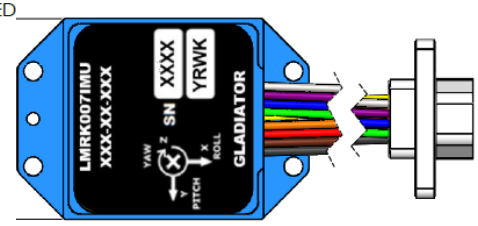
Electrical

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

Mechanical

Mass	≤ 20 grams
Size	Metric: 2.8 x 2.46 x 1.6 = 11 cm^3 US: 1.09 x 0.969 x 0.63 = 0.67in^3





www.gladiatortechnologies.com/landmark007

All performance parameters 1σ
Specification subject to change without notice
Rev. 07.29.20

MMV

GLADIATOR TECHNOLOGIES

8020 Bracken Place SE
Snoqualmie, WA 98065
+1 425 363 4180
www.gladiatortechnologies.com
sales@gladiatortechnologies.com