

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°/s/√Hz
ARW

< 0.4 mg
Accel Bias Over Temp*

0.075°/s
Bias Over Temperature

24 gRMS
Vibration

2000°/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

| Interface | VELOX™ | | VELOX™ Plus |
|-----------------------|-----------|--------------|-------------|
| | RS422/485 | 16/24/32 Bit | |
| 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

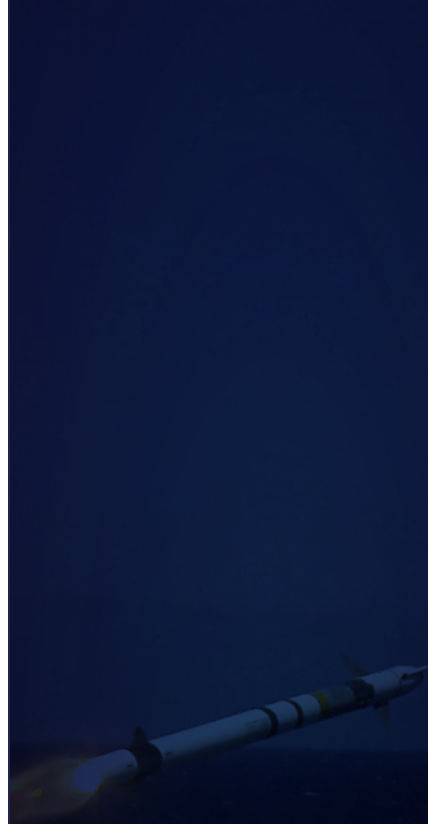
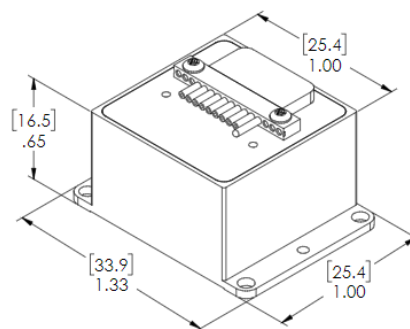
| | |
|-------------------|--------------------------------------|
| Input Voltage | +3.8 V to + 5.5 V Max (single sided) |
| Power Consumption | 280 mW Typical / 450 mW Maximum |

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



NON ITAR
ECCN 7A994



GLADIATOR
TECHNOLOGIES

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