

NxIMU



COMPACT NAVIGATION & TACTICAL-GRADE IMUs

Kearfott's Next-Generation Inertial Measurement Units (NxIMU) with advanced sensor technology and innovative packaging for industry-leading size, weight, power, and performance—addressing the navigation needs for demanding sea, land, air, and space applications.

Proven in high-performance applications including navigation, flight control, assured PNT (APNT), and line-of-sight stabilization, these monolithic ring laser gyro (MRLG) NxIMUs deliver a navigational and tactical advantage.



NxIMU meets FAA DO-178C and DO-254 Level A, as well as military and civil airworthiness certification standards.

Benefits

- FAA DO-178C Level A and DO-254 Level A certifiable
- Exceptional Performance
- Compact, Lightweight, Low Power
- Sea, Land, Air, & Space Applications
- Best-in-Class Vibration & Shock

The patented three-axis MRLG, three force-rebalanced accelerometers, and electronics within the environmentally sealed housing offers a dramatically superior solution versus single-axis gyro systems with fewer parts, lighter weight and reduced volume.



Multi-Domain
Superiority

**UNMATCHED
PERFORMANCE
MLRG IMU IN A
COMPACT FORM
FACTOR.**

Next Generation
Inertial Measurement Units



Kearfott

PRODUCT SPECIFICATIONS

System Characteristics	NxIMU ²⁴
Size	< 85 in ³ (1393 cm ³)
Weight	< 4 LBS (1.82 KG)
Power	< 20 W
Sensor Performance	
Gyro Bias Stability	0.003°/hr
Gyro Angle Random Walk	0.003°/hr
Gyro Scale Factor Error	50 PPM
Acceleration Bias Stability	50 µg
Velocity Random Walk	0.01 m/s/√hr
Scale Factor Error	50 PPM
Acceleration Vibration Rectification Coefficient	< 15 µg/g RMS
Input/Output	
Power Input	+5, +15 VDC
Interface	SDLC/UART OVER RS-422
Data Rates (Hz)	Configurable: 50, 100, 200, 256, 600 Hz
Operational Ranges	
Acceleration	< 30 g, all axes
Attitude (Roll, Pitch, Azimuth)	Unlimited
Attitude Rate	<300°/s
Attitude Acceleration	10,000°/s ²
Operating, Ambient Temperature	-54 to 71°C (-65.2 to 159.8°F)

ON COURSE. ON TARGET. ON POINT.

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