



LITIS® MEMS INERTIAL MEASUREMENT UNIT (IMU)

COMPACT, LIGHTWEIGHT, SUPERIOR PERFORMANCE

The latest tactical grade, modular MEMS IMU

The Collins LITIS® micro electro-mechanical systems (MEMS) inertial measurement unit (IMU) has the same form factor as SiIMU02® to allow simple system upgrades, providing enhanced capability with less reliance on GNSS aiding. The modular architecture of the LITIS design readily enables the incorporation of specific customer requirements.

Through extensive modeling and hardware testing, we ensure guaranteed performance over the lifetime of the product.

As a respected military supplier we appreciate the need for long term product availability backed by full customer support.

Collins Aerospace has a long and respected heritage in the design and development of inertial sensors and today specializes in MEMS products.

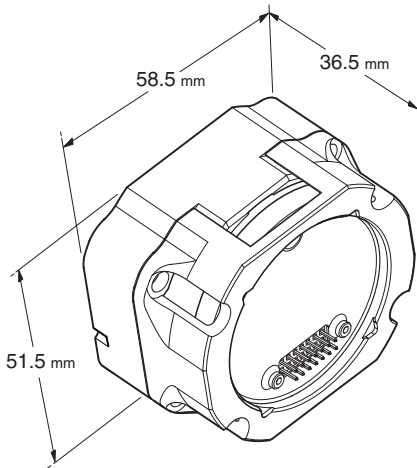
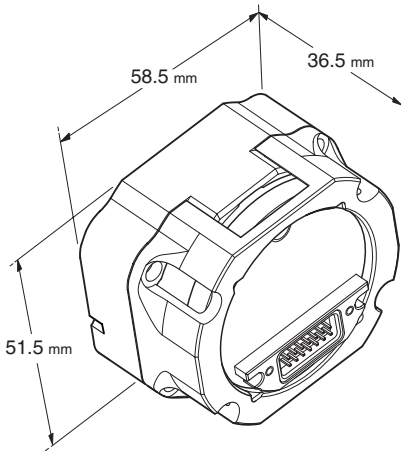


PEDIGREE

- First MEMS IMU in military service
- Selected by over 60 customers worldwide – over 130,000 MEMS products delivered
- Used in missile and weapons navigation, platform stabilization and navigation
- Rigorous performance and simulated aging ensures conformance to specification throughout product life



LITIS



PERFORMANCE

FOG performance

- High performance gyro
- Open loop accelerometer performance

PRODUCT BENEFITS

- Full 6-DoF and three-axis rate pack options
- Compact form factor – same as SiIMU02
- Low power and rapid start-up
- Rate and angle modes of operation
- Modular architecture
- ITAR free

KEY CHARACTERISTICS

Volume	65.5 cm ³ in typical housing
Mass	<200 grams in typical housing
Power consumption	≤2.5W
Operating temperature	-55° C to 85° C
Start-up time	300ms
Built-in-test	Start up, continous
Gyro operating range	±9000°/s
Accelerometer operating range	±30g to ±140g
Supply voltage	+5 VDC
Electrical interface	PC, SDLC, HDLC, AMRAAM (configurable)

TYPICAL PERFORMANCE

	GYRO	ACCELEROMETERS (±30G)
Bias repeatability (1σ)*	7°/hr	0.7mg
Bias instability (max)	0.5°/hr	0.1 mg
Random walk (max)	0.05°/√hr	0.17m/s/√hr
Scale factor error (1σ)*	330 ppm (±500°/s)	250 ppm (±1g)
Bandwidth (-90°) (configurable up to)	135 Hz	130 Hz

*All axes, all temperatures, factory fresh.

ALTERNATIVE PRODUCTS



SiIMU02

PERFORMANCE

Medium performance

- Gun hard options available (20,000g)



IMU25

PERFORMANCE

High performance

- Best-in-class MEMS IMU
- Highly modular, tailored solution
- Non-licensable

Specifications subject to change without notice.

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