



LITIS[®]

Inertial Measurement Unit (IMU)

LITIS[®] bridges the performance gap between SiIMU02[®] and the TITAN[®] MEMS Tactical Grade IMU. LITIS[®] offers near FOG performance in a compact, light-weight, rugged design.

LITIS[®] 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 modelling and hardware testing the company ensures 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.

UTC Aerospace Systems has a long and respected heritage in the design and development of inertial sensors and today specialises in Micro Electro-Mechanical Systems (MEMS) products.

- 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 stabilisation and navigation
- Rigorous performance and simulated ageing ensures conformance to specification throughout life

AIS Atlantic Inertial Systems

UTC Aerospace Systems

For additional information: Atlantic Inertial Systems Ltd
Clifford Road, Southway, Plymouth PL6 6DE United Kingdom
Tel: +44(0)1752 69 56 95 Fax: +44(0)1752 72 20 95
Email: gnc.uk@utas.utc.com www.utc.aerospacesystems.com/gnc

This document does not contain any export controlled technical data.

LITIS® | Inertial Measurement Unit (IMU)

Product Benefits

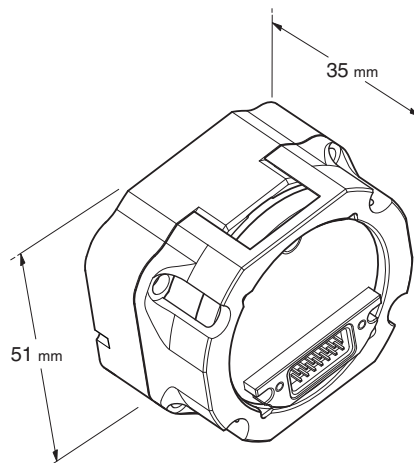
- Full 6-DoF
- Compact form factor - same as SiIMU02®
- Low power, rapid start up
- Rate and angle modes of operation
- Modular architecture

Key Characteristics

Volume	4 in ³ (65.5 cm ³) in typical housing
Mass	<200 gram in typical housing
Power consumption	<2.5W typical
Operating temperature	-45°C to +75°C
Start-up time data range	350ms
Built-in-test and continuous	Command, start up
Gyro operating range	±9000°/s axis 1, ±9000°/s axis 2 and 3
Accelerometer operating range	±35g
Supply voltage	+5V DC
Electrical interface	SDLC, HDLC

Typical Performance

	Gyros	Accelerometers
Bias repeatability (1σ)	≤10°/hr	≤3.3mg
Bias instability (rms)	≤0.5°/hr	≤0.2mg
Random walk (max)	0.125°/√hr	0.15m/s/√hr
Scale factor repeatability for ±1000°/s and ±35g ranges (1σ)	600 ppm	600 ppm
Bandwidth (-90°)	>70Hz	>70Hz



Performance

Tactical

- High performance gyro
- Closed loop high performance accelerometer



TITAN®

High Performance

- High performance gyro
- Open loop accelerometer performance



LITIS®

Medium Performance

- Gun Hard options available (20,000g)



SiIMU02®

Low Cost IMU

- Small form factor



MinIM®