

# SPACE ACCELEROMETER TRIAD (SAT)

High-performance Space-qualified accelerometer  
designed specifically for small, agile satellites



**Honeywell**

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Honeywell's new Space Accelerometer Triad (SAT) takes small-satellite maneuverability to a whole new level.

The Honeywell Space Accelerometer Triad (SAT) enables unprecedented maneuverability for small, agile satellites. It directly measures small accelerations to provide the data needed to precisely control positioning in orbit so the satellite can avoid space debris, consume less fuel and dock or fly in formation with other satellites.

Building on Honeywell's decades-long legacy of leadership in space-qualified angular rate-sensor technology, the SAT leverages qualified components used in the HG4934SRS three-Axis Space Rate Sensor. It delivers best-in-class performance in a small, lightweight, low-power and low-cost package ideal for small satellites. The SAT achieves guaranteed TID and SEE radiation performance.

The SAT uses three MN750 single-axis accelerometers packaged in a common chassis with protective mechanical rubber isolation and a mission processor and signal conditioning and power electronics to deliver best-in-class performance.

PERFORMANCE PARAMETER	UNITS	EOL PERFORMANCE VALUE
Mission Life & Orbit	years	>6 years, 1100km Polar LEO Reference Mission
Bias Repeatability (3 $\sigma$ )	mg	<0.9
Bias In-run Stability (20 minute) (3 $\sigma$ )	mg	<0.150
Scale Factor Repeatability (3 $\sigma$ )	ppm	<360
Scale Factor Linearity (< 50g) (3 $\sigma$ )	ppm/g	<51
Velocity Random Walk (VRW), Max	m/sec/rt-hr	<0.02
Noise (10 Hz StdDev) (1 $\sigma$ )	mg, max	<0.1mg
Bandwidth @ -3dB	Hz	10-25
Operating Range	g	<70
Operating Temperature Range (Vacuum)	°C	-40 to +70
Non-Operating Temperature Range	°C	-40 to +70
Supply Voltage	V	5 +/-10%
Power	W	<4.0
Dimensions	H x D cm	6.61 x 12.7 cm

## For more information

Contact your Honeywell representative for more information  
(Should we direct customers to a website and/or phone number)?

## Honeywell Aerospace

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N61-3112-000-000 | 07/22  
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