

## Custom Precision Accelerometer Packages

### Space-Qualified Linear Sensor Packages

A custom precision accelerometer package measures low linear acceleration on satellites or other precision platforms. The package uses six high-precision accelerometers to provide simultaneous acceleration signals along three orthogonal axes (two per axis) with a commandable dual range of +/- 25mG and +/- 1000mG over a 16Hz bandwidth.

Two independent sensor sets (dual redundant) are provided in a single enclosure. The unit provides pulse train outputs with frequency proportional to acceleration, and temperature sensor outputs with voltage proportional to temperature. All inputs and outputs are dual redundant. Separate connectors are used for power and signal connections.



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## Product Specifications

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### Dynamic

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Two Commandable Ranges. . . . .	$\pm 1000$ mG FS and $\pm 25$ mG FS
Output Scaling (Freq Output). . . . .	-FSmG = 100Hz, 0mG = 5.859KHz + FSmG = 11.681KHz
Scale Factor Stability . . . . .	< 1000 ppm
Non-linearity. . . . .	< 1000 ppm
SF Temperature Stability . . . . .	< 150 ppm / °C
Frequency Response . . . . .	0 Hz - 16 Hz with 2nd order roll-off above 16 Hz
Output Bias. . . . .	< 5 mG
Output Noise. . . . .	< 2 $\mu$ G rms

### Electrical

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Power Consumption. . . . .	< 35 W per side (at 30 VDC nominal)
Commands. . . . .	Separate On/Off commands via 40 msec pulse
Status . . . . .	All commands have status feedback
Telemetry. . . . .	Temperature telemetry is provided

### Mechanical

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Size. . . . .	Approx 175 mm x 175 mm x 175 mm
Weight. . . . .	< 7 kg
Sensor Misalignment . . . . .	< 1800 arc-seconds

### Environmental

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Temperature Limits . . . . .	-20°C to +66°C
Pressure Limits . . . . .	< 10 <sup>-5</sup> Torr
Input Voltage Limits. . . . .	0 VDC-40 VDC w/no harm to unit (30 VDC nominal)

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