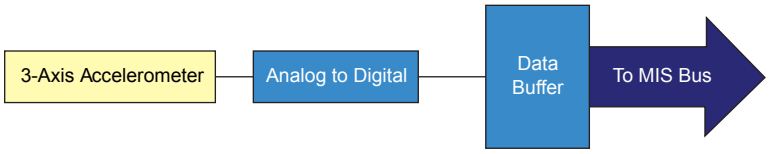
Dynetics Modular Instrumentation System
Compensated Inertial Measurement Unit (IMU)

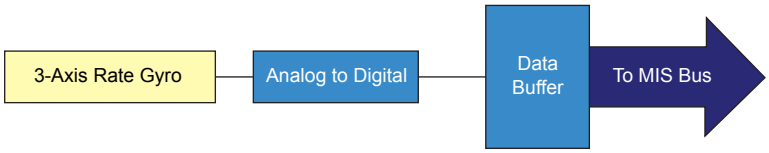
Triaxial Low-Noise Accelerometers

- +/- 10-g measurement ranges in X, Y, and Z axes
- 50-Hz, 3-dB bandwidth
- 50-µg data resolution
- Bias drift: 2 mg; cross axis: 0.25% max
- Scale-factor accuracy: 0.10% of full scale; scale-factor drift: 500 ppm, 1 sigma



Triaxial Rate Gyro

- +/- 300º/sec measurement range in yaw, pitch, and roll
- 40-Hz, 3-dB bandwidth
- 0.0006º/sec data resolution
- Bias drift: 18º/hr; random walk: 0.2º/hr; cross axis: 0.13% max
- Scale-factor accuracy: 0.1% of full scale; scale-factor drift: 300 ppm, 1 sigma
- Stability: 50º/hr/yr



Resolution

- 12 to 19 bits at 200 SPS (variable)

Interface

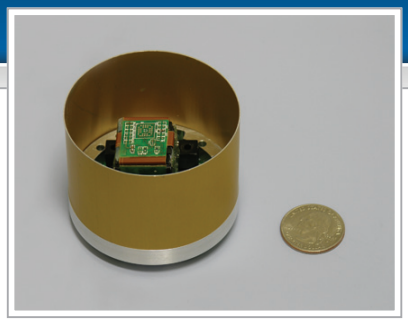
- Compatible with MIS architecture

Physical

- Diameter 2.375” min
- Height 2.316” min
- Weight 120 g min

Environmental

- Temperature: MIL-STD 810 E -40 to +85 ºC
- Humidity: 95% noncondensing
- Vibration: 100 g (0 to 500 Hz)
- Axial acceleration: MIL-STD 810 E 150 g for 52 sec
- Shock: 2000 g, sine-wave half cycle



Compensated IMU Highlights

Factory-configurable for a variety of sample rates.

The Dynetics IMU module works in concert with the Dynetics Modular Instrumentation System (MIS) PCM Encoder/Data Recorder and Power Supply Modules to provide a complete data acquisition solution.

For More Information:

telemetry@dynetics.com
256.713.5060
www.dynetics.com

K10008

Dynetics