

**Gun-hard, low-cost MEMS IMU
for the most demanding projectile
guidance requirements**

HG1930 MEMS Inertial Measurement Unit

Description

The new Micro Electromechanical Systems (MEMS) inertial measurement unit is especially designed for projectiles, missiles, smart munitions, and unmanned vehicles. Key features include micro-miniature size, low power and gun-hardened capability. The IMU includes MEMS gyroscopes, MEMS accelerometers, and a reliable, ARM7 microprocessor that drives excellent system performance.

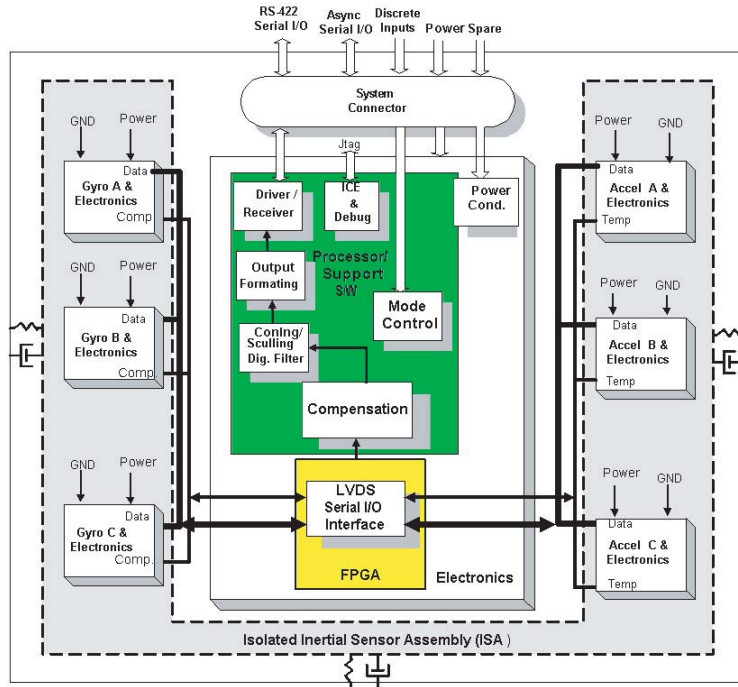
Performance Characteristics

- Low-cost tactical MEMS gyros
- Reliable, low-cost ARM7 microprocessor
- +5Vdc input power
- Single, physically integrated, hermetically sealed package
- Highly configurable per user requirements
- Programmable, expandable serial I/O using RS422 interface
 - Standard SDLC
 - AMRAAM compatible
 - Synchronous or asynchronous
 - Custom serial

Find out more

For more information contact us by phone at 1-612-951-6503

HG1930 IMU Block Diagram



System Performance

Dimension (in.)	2.0 dia. x 1.3 ht.
Volume	< 4 cu. in.
Weight	< 0.35 lbs.
Power	< 3 watts
Operating Temperature Range	-55°C to 85°C
Bit Effectiveness	> 92%
Life: MTBF	> 20,000 hrs.
Dormancy	> 20 years
Output Data Rate	Programmable to 2,400 Hz
Gyro Input Range	±1,440 deg/sec
Gyro Rate Scale Factor	300 ppm, 1σ
Gyro Rate Bias	Performance available from: 20 deg/hr., 1σ turn on - turn on 20 deg/hr., 1σ in run stability
Angular Random Walk	0.15 deg/hr. max
Accelerometer Range	±30g
Accelerometer Linearity	30 ppm, 1σ
Accelerometer Scale Factor Accuracy	700 ppm, 1σ
Accelerometer Bias	4 mg, 1σ

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