MEMSIC *Powerful Sensing Solutions for a Better Life*

IMU350
INERTIAL MEASUREMENT UNIT

The MEMSIC IMU350 is a robust entry-level Inertial Measurement Unit that utilizes MEMS-based high-stability inertial sensors and precision factory calibration to provide unmatched value in terms of both price and performance. The IMU350 is a next generation replacement for the widely accepted IMU320 used in dynamic control and land navigation systems with over 1500 systems currently in service.

Unmanned Surface Vehicle

Precision Farming

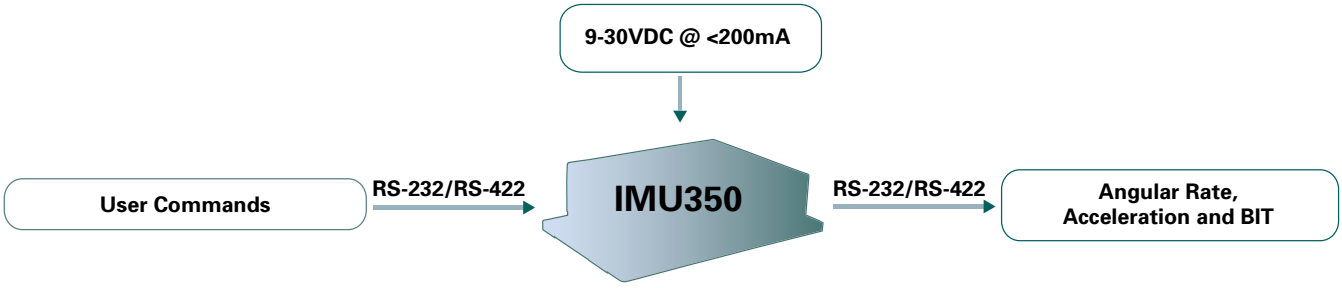
This rugged low-cost inertial system meets the demanding environmental requirements for operation in a wide variety of land vehicle and marine platform systems, and it is ideally suited for cost-sensitive high-volume OEM applications.

Features

- Angular Rate and Accel Data at 100Hz
- High Reliability MEMS Sensors
- Low Drift, Low Noise
- Wide Temp Range (-40°C to +70°C)
- Wide Input Power Range (9-30V)
- Low Profile <1.5”
- Lightweight <0.5lbs

Applications

- Unmanned Vehicle Control
- Precision Farming
- Robotics



Phone: 408.964.9700 | Fax: 408.854.7702 | E-mail: infoca@memsic.com | www.memsic.com

IMU350
INERTIAL MEASUREMENT UNIT

Performance — IMU350

Angular Rate	
Range: Roll, Pitch, Yaw (°/sec)	± 300
Bias Stability In-Run[1] (°/hr)	< 12
Bias Stability Over Temp [2] (°/sec)	< 0.5
Scale Factor Accuracy (%)	< 1
Non Linearity (%FS)	< 1
Resolution (°/sec)	< 0.02
Angle Random Walk (°/sq-rt hr)	< 3
Bandwidth (Hz)	50

Acceleration	
Input Range: X/Y/Z (g)	± 3
Bias Stability In-Run[2] (mg)	< 1
Bias Stability Over Temp (g)	< ± 0.015
Scale Factor Accuracy (%)	< 1
Non Linearity (%FS)	< 1
Resolution (mg)	< 0.5
Velocity Random Walk (m/s/sq-rt hr)	< 1
Bandwidth (Hz)	50

Specifications

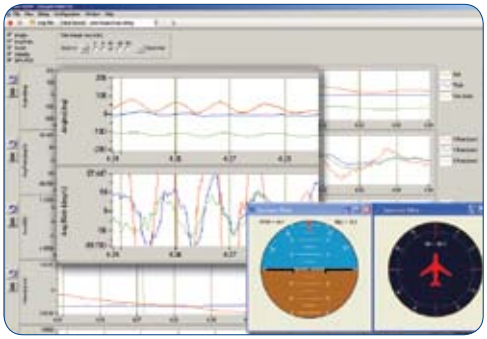
Environment	
Operating Temperature (°C)	-40 to +70
Non-Operating Temperature (°C)	-55 to +70

Electrical	
Input Voltage (VDC)	9 to 30
Power Consumption (W)	< 3
Digital Interface	RS-232 or RS-422 (user selectable)

Physical		
Size	(in)	2.50 x 2.50 x 1.50 (excl. flanges)
	(cm)	6.35 x 6.35 x 3.81 (excl. flanges)
Weight	(lbs)	< 0.5
	(kg)	< 0.23
Connector		DSub-9, Male

Reliability	
MTBF (hours)	>35,000

NAV-VIEW 3.X Configuration & Display Software



NAV-VIEW 3.X provides an easy to use graphical interface to display, record and analyze all of the IMU350 measurement parameters.

Other Components

Each IMU350 is shipped with an interface cable, MEMSIC's User's Manual and NAV-VIEW 3.X configuration and display software.

Ordering Information

Model	Description
IMU350CA-300	Inertial Measurement Unit

Support

For more detailed technical information please refer to the 350-Series User's Manual available online at:
www.memsic.com/Support

 Notes: [1] 1-sigma, constant temperature, Allan Variance curve. [2] 1-sigma.