

MEMS Attitude Reference System and Motion Sensor



Introduction

INEM-100 attitude and heading reference system is a cost-effective MEMS-based inertial measurement product, which is used to measure the 3-dimension attitude, angular rate, and acceleration of the carrier. INEM-100 consists of MEMS sensors and MEMS accelerometers with accurate error calibration and compensation system. It is perfectly suitable for whom need control the total cost and high accuracy attitude.

Features

- Cost-effective MEMS sensors
- Full scale temperature compensation
- Good anti-vibration and anti-shock performance
- Excellent environmental suitability
- Small and compact design, plug and play

Application

- Navigation and control for land vehicle
- Antenna stabilization and control
- Navigation and control for industrial UAV
- Attitude and heading reference

Specifications

Performances	Start-Up Time	3min
	Attitude Accuracy	0.05deg, 1 σ
	Heading Accuracy	3deg, 1 σ
Input Ranges	Angular Rate	± 400 deg/s
	Acceleration	± 20 g
	Work Environment	Work Temperature
Storage Temperature		-55 $^{\circ}$ C~+85 $^{\circ}$ C
Vibration		0.04g ² /hz @ 20~2000hz
Shock with normal work / without damage		30g@6ms/ 100g@0.5ms
Electrical Characteristics		Work Voltage
	Consumption	≤ 2.5 W
	Communication	RS422/RS232
Physical Characteristics	Size	48x 58x 37 mm
	Weight	≤ 110 g