

What is Motion Reference Unit ?

Motion Reference Unit (MRU in brief) Motion reference units (MRU) determine the orientation of an object relative to an inertial frame of reference or another body. To control this data output, referred to as attitude, MRUs integrate sensors for orientation measurements, as well as actuators for applying torque to position an object to the desired attitude. Algorithms supply actuators with commands based on current and desired attitudes.

MRUs utilize motion sensors with a single-axis or multi-axis configuration. They incorporate gyroscopes capable of detecting motion in space without the need to track external objects.

SkyMEMS Motion Reference Unit is composed of MEMS accelerometer, MEMS gyroscope and high performance information processing circuit and system functional module, it is mainly used to measure 3D position, speed, acceleration, attitude angle, and angular rate, etc.

The system enjoys smaller size, lighter weight, lower cost, and lower power consumption, faster start-up, and higher reliability, better dynamic environment adjustment, etc. it can get better performance to work with GPS and BEIDOU satellite position system, and it can be applied in tactical weapon, unmanned aircraft fields.

Applications of Motion Reference Unit

SkyMEMS Motion Reference Unit is a high performance pure inertial MEMS sensors, it will not be influenced by outside environment, which has been widely used in the following fields:

- Guided Rocket
- Precision Guided Weapon