

InertiaCube2+

Precision inertial orientation sensor



Continuing the success that has made InterSense technology the standard in motion tracking, the InertiaCube2+ is a multi-purpose sensor ideal for real-time applications in simulation & training, virtual & augmented reality, motion capture, and human movement analysis.

The InertiaCube2+ integrates nine discreet miniature sensing elements utilizing advanced Kalman filtering algorithms to produce a full 360° sourceless orientation tracking sensor.

Features

- Sourceless tracking with full 360° range
- 180 Hz update rate with adjustable motion prediction
- Adjustable output filters and rotational sensitivity
- SDK for Windows, Linux, and IRIX platforms
- Software libraries support up to 32 sensors simultaneously
- Serial and USB interface available
- CE, UL, RoHS compliant

InertiaCube2+ Performance Specifications

Degrees of Freedom	3 (Yaw, Pitch and Roll)
Angular Range	Full 360° - All Axes
Maximum Angular Rate*	1200° per second
Minimum Angular Rate*	0° per second
Accuracy (RMS)*	1° in yaw, 0.4° in pitch & roll at 25°C
Angular Resolution*	0.01° RMS
Update Rate	180 Hz
Minimum Latency	2 ms for RS-232 (PC host OS dependent)
Prediction	up to 50 milliseconds
Serial Rate	115.2 kbaud
Interface	RS-232 Serial
Size	1.44 in. x 1.09 in. x 0.74 in. (36.6 mm x 27.7 mm x 18.8 mm)
Weight	0.60 ounces (17 grams)
Cable Length	15 ft. (4.572 m) Max 75 ft. (22.86m) w/ extension kit
Power	6 VDC, 40 mA via AC adapter
Operating Temp. Range	0° to 50° C
O/S Compatibility	.dll for Windows Vista/XP/2000 .so for Linux

* measurement with perceptual enhancement set to '0'

USB Converter Specification

USB converter size	2.36 in x 1.38 in x 0.79 in (60 mm x 35 mm x 20 mm)
Cable Length	9.84 ft (3 meters)
Power Source	Direct from host USB port

Additional Software Features

- Compass Calibration Tool compensates the effects of static magnetic field distortions
- Magnetic Environment Calibration Tool prevents performance degradation by dynamic detection of magnetic disturbances

