

InterSense, Inc.
36 Crosby Drive, Suite 150
Bedford, MA 01730, USA
T: +1 781 541 6330
F: +1 781 541 6329
www.intersense.com

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 Angular Range Maximum Angular Rate* Minimum Angular Rate* Accuracy (RMS)* Angular Resolution* Update Rate

Update Rate
Minimum Latency
Prediction
Serial Rate
Interface

Weight Cable Length

Size

Power Operating Temp. Range O/S Compatibility 3 (Yaw, Pitch and Roll) Full 360° - All Axes 1200° per second 0° per second

1° in yaw, 0.4° in pitch & roll at 25°C 0.01° RMS

180 Hz 2 ms for RS-232 (PC host OS dependent) up to 50 milliseconds 115.2 kbaud RS-232 Serial

1.44 in. x 1.09 in. x 0.74 in. (36.6 mm x 27.7 mm x 18.8 mm) 0.60 ounces (17 grams)

15 ft. (4.572 m)

Max 75 ft. (22.86m) w/ extension kit 6 VDC, 40 mA via AC adapter

0° to 50° C

.dll for Windows Vista/XP/2000

.so for Linux

* measurement with perceptual enhancement set to '0'

USB Converter Specification

USB converter size

Cable Length

Power Source

2.36 in x 1.38 in x 0.79 in (60 mm x 35 mm x 20 mm) 9.84 ft (3 meters) 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

