

Precision Orientation Reference System

- · Inertial-based tracking from integration of nine sensing elements
- Sourceless tracking with full 360° range
- 180 Hz update rate with adjustable motion prediction
- Adjustable output filters and rotational sensitivity
- SDK for OEM applications on Windows, Linux, IRIX and Macintosh OS X platforms
- Software libraries support up to four sensors simultaneously
- Windows software provides simple configuration, network interface and joystick emulation
- CE compliant and UL approved

The InertiaCube² is the world's smallest inertial orientation reference system. Providing full 360° sourceless tracking in all axes, the InertiaCube² integrates nine discrete, miniature sensing elements with advanced Kalman filtering algorithms. Its simple serial or USB interface with support software provides a rapid development cycle for OEM applications.

Ideal for head tracking in simulation and training applications, the InertiaCube² is also being integrated in to systems for navigation of robotic & autonomous vehicles, 3D medical imaging, virtual & augmented reality, antenna & platform stabilization, location-based entertainment and attitude & heading reference systems.

InertiaCube² Specifications 3 (Yaw, Pitch and Roll) Full 360° - All Axes

Degrees of Freedom Angular Range Maximum Angular Rate* Minimum Angular Rate* Accuracy* Angular Resolution* Serial Interface Update Rate Minimum Latency Prediction Serial Rate

Interface Size

Weight Cable Length

Operating Temperature Range O/S Compatibility

1200° per second 0° per second 1° RMS 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 (shown above) Ethernet w/ Windows Control Software 1.137 in x 0.960 in x 1.335 in (28.89 mm x 24.38 mm x 33.91 mm) 0.88 ounces (25.00 grams) 15 ft. (4.572 m) - Max. 75 ft (22.86 m) 6 VDC, 100 milliamps via AC adapter 0° to 50° C

dll for Windows 98/2k/NT/XP/CE .so for Linux and SGI IRIX libisense.dylib for Mac OS X SDK with full InterSense API

Windows Control & Connectivity Software *Measurements with perceptual enhancement algorithm turned off (= 0)

Optional USB Adapter Specifications

InterSense USB Update Rate

USB Interface Minimum Latency Power Source **USB Adapter Size**

Software Support

Windows 98/2000 up to 150 Hz Windows XP 70 Hz Macintosh OS X 40 Hz 4 ms for USB direct (PC host OS dependent)

Direct from Host USB Port 2.36 in x 1.38 in x 0.79 in (60 mm x 35 mm x 20 mm) 9.84 feet (3 meters)

Cable Length

-1.1370.960 1.320 1.335 Ø 0.120 Dimensions in inches

1.606

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