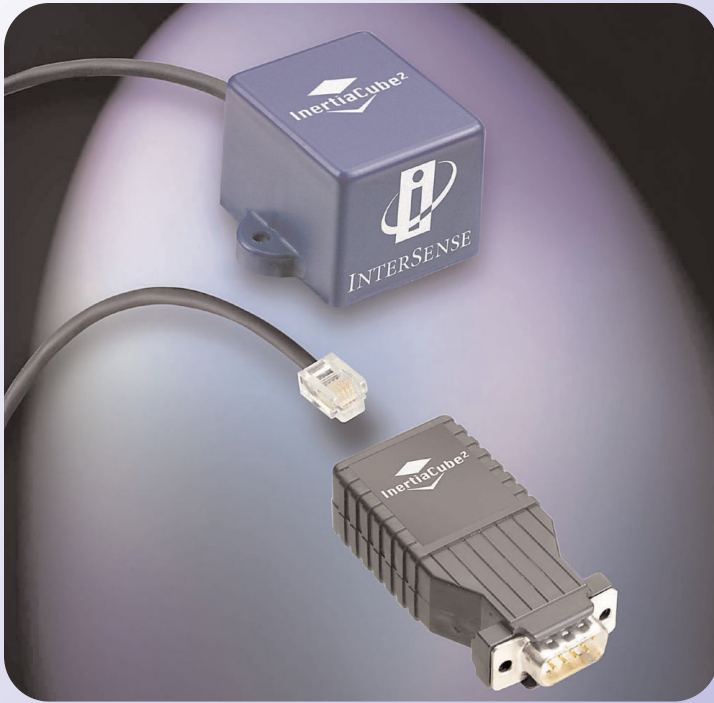# InterSense InertiaCube²

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*

- *Settable output filters and rotational sensitivity*

- *SDK for OEM applications on Windows, Linux and IRIX platforms*

- *Software libraries support up to four sensors simultaneously*

- *Windows software provides simple configuration, network interface and joystick emulation*

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 interface and support software provide 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

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*	1° RMS at 25°C
Angular Resolution*	0.01° RMS
Update Rate	180 Hz
Minimum Latency	2 milliseconds (host dependent)
Prediction	up to 50 milliseconds
Serial Rate	115.2 kbaud
Interface	RS-232 Serial
	Ethernet w/ Windows Control Software
Size	1.097 in x 0.945 in x 1.125 in
	(27.86 mm x 24.00 mm x 28.58 mm)
Weight	0.88 ounces (25.00 grams)
Cable Length	15 ft. (4.572 m) - Max. 75 ft (22.86 m)
Power	6 VDC, 100 milliamps via AC adapter
Operating Temperature Range	0° to 50° C
O/S Compatibility	.dll for Windows 98/2k/NT/XP/CE
	.so for Linux and SGI IRIX
Software Support	SDK with full InterSense API
	Windows Control & Connectivity Software

*Measurements with enhancement filter = 0 (off)

Dimensions in inches

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