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 into 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
- **Angular Accuracy**: 1° RMS at 25°C
- **Maximum Angular Rate**: 1200° per second
- **Minimum Angular Rate**: 0° per second
- **Angular Resolution**: 0.01° RMS
- **Serial Interface Update Rate**: 180 Hz
- **Minimum Latency**: 2 ms for RS-232 (PC host OS dependent)
- **Serial Rate**: 115.2 kbaud
- **Size**: 1.137 in x 0.960 in x 1.335 in (28.89 mm x 24.38 mm x 33.91 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
- **Software Support**: SDK with full InterSense API

*Measurements with perceptual enhancement algorithm turned off (= 0)

**Optional USB Adapter Specifications**

- **InterSense USB Update Rate**: Windows 98/2000 up to 150 Hz
- **Windows XP 70 Hz
- **Macintosh OS X 40 Hz
- **USB Interface Minimum Latency**: 4 ms for USB direct (PC host OS dependent)
- **Power Source**: Direct from Host USB Port
- **USB Adapter Size**: 2.36 in x 1.38 in x 0.79 in (60 mm x 35 mm x 20 mm)
- **Cable Length**: 9.84 feet (3 meters)