

Thales' industry-leading InterSense line of trackers, sensors and IMUs are used in a wide range of industries from aerospace, robotics, agriculture, oil & gas, entertainment, research, engineering and visualization industries. Thales offers a range of InterSense trackers including the advanced 3-DOF InertiaCube4™, the IS-900, the industry's leading 6-DOF hybrid ultrasonic and inertial tracker and the industry's newest and most advanced hybrid optical and inertial tracker, the IS-1200+ HOBIT. Thales offers a tracker, sensors and IMUs to meet your tracking needs.

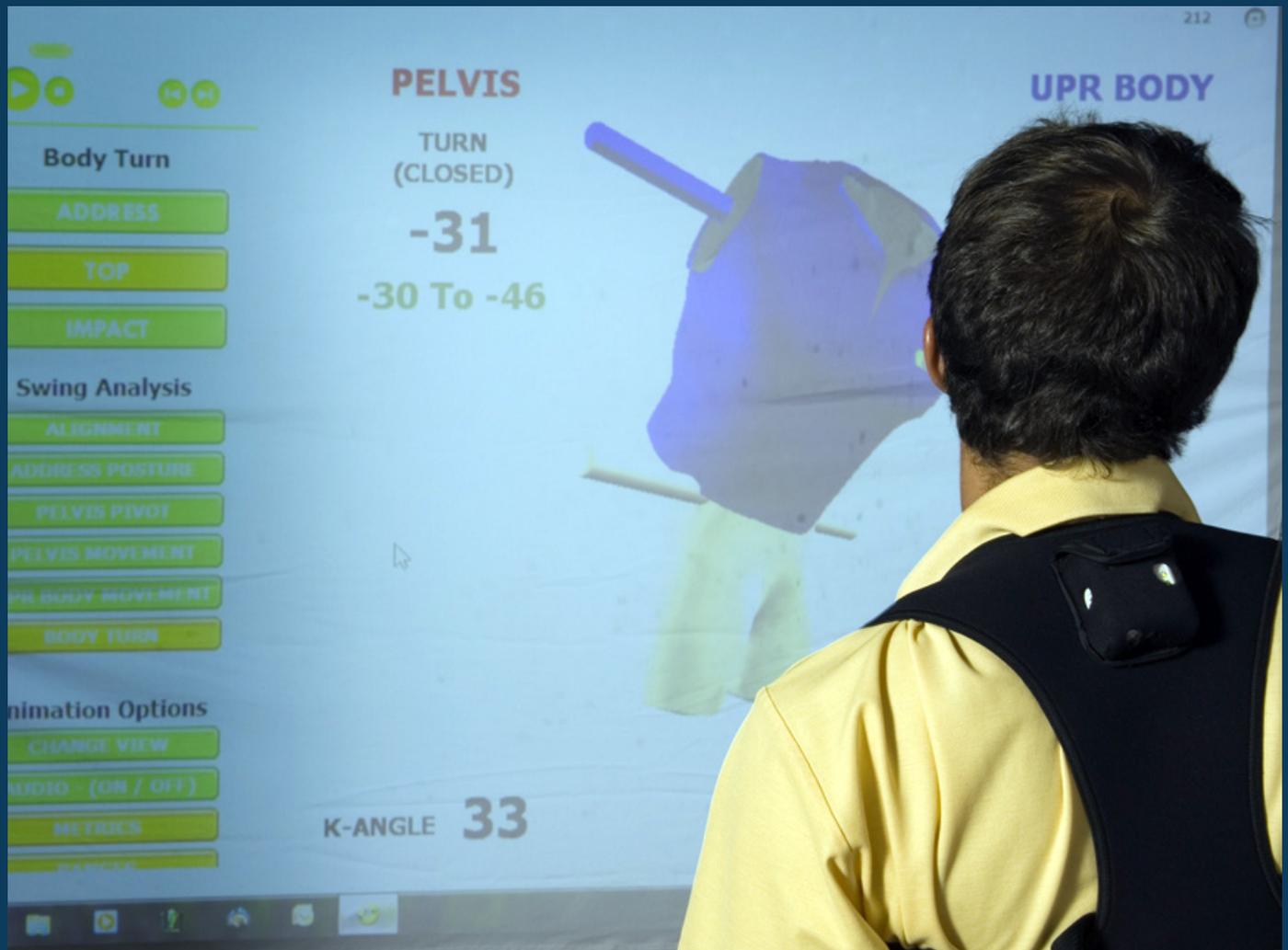
The InertiaCube4 is well suited for a range of applications:

- Training & Simulation
- Physical Therapy
- Biomechanics Analysis
- Robotics
- Entertainment



## INTERSENSE® INERTIACUBE4™

Precision Inertial Orientation 3-DOF MEMS Sensor



# INTERSENSE® INERTIACUBE4™

The 4th generation InertiaCube4 is the industry's leading 3-DOF MEMS-based inertial technology, utilizing advanced Kalman filtering algorithms to produce a full 360° sourceless orientation tracking sensor. The sensor's portable package with high-end performance and accuracy is ideal for a range of applications, including simulation & training, virtual & augmented reality, motion capture, and human movement analysis.

## INERTIALCUBE SPECIFICATIONS

### Degrees of Freedom

- 3 (Yaw, Pitch and Roll)

### Angular Range

- Full 360° - All Axes

### Maximum Angular Rate\*

- 2000° per second

### Minimum Angular Rate\*

- 0° per second

### Accuracy (RMS)\*

- 1° in yaw, 0.25° in pitch & roll at 25°C

### Angular Resolution\*

- 0.01° RMS

### Max Update Rate

- 200 Hz

### Minimum Latency

- 2 ms for RS-232 (PC host & OS dependent)

### Prediction

- up to 50 milliseconds

### Serial Rate

- 115.2 kbaud

### Interfaces

- USB or RS-232 Serial

### Size

- 1.44 in. x 1.09 in. x 0.55 in. (36.6 mm x 27.7 mm x 13.8 mm)

### Weight

- 0.39 ounces (11 grams)

### Cable Length

- USB 6 ft. (2 m), RS-232 15 ft. (4.572 m)

### Power

- 6 VDC, 40 mA

### Operating Temp. Range

- 0° to 50° C

### O/S Compatibility

- Windows 8, Windows 7, Windows XP, Linux, Mac OSX

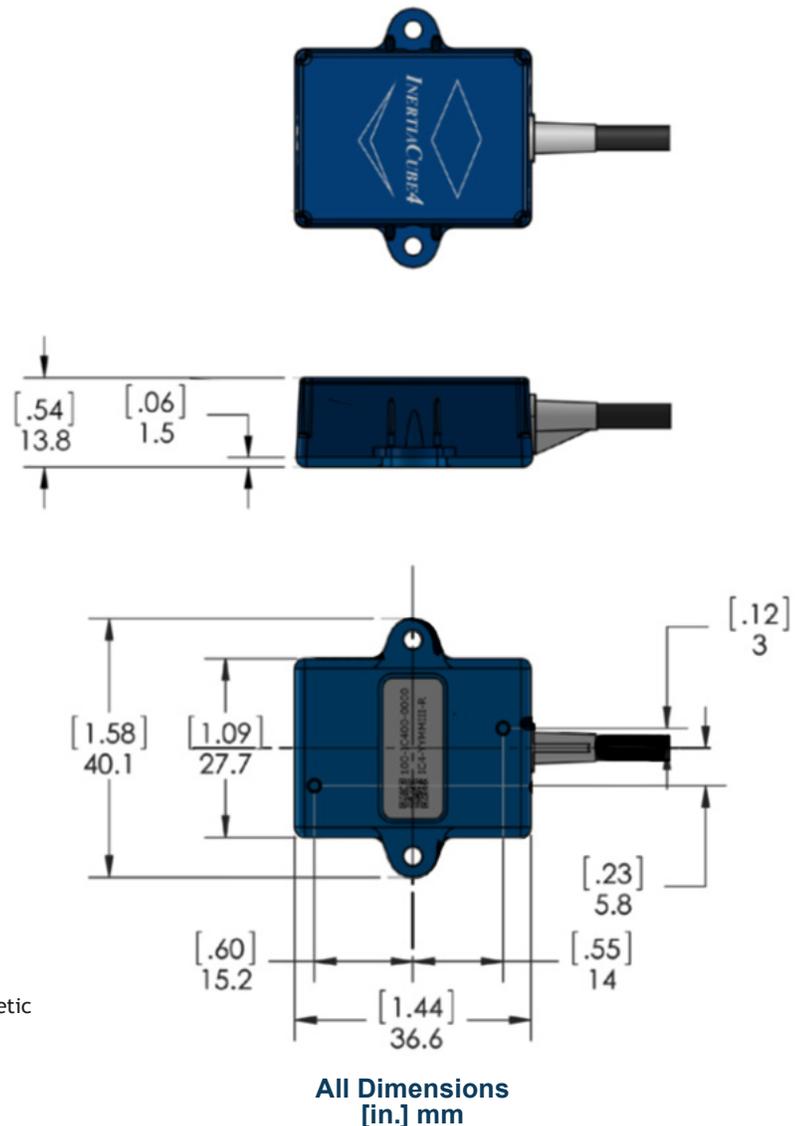
\* measurement with perceptual enhancement set to '0'

### Software Features

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

### U.S. Patents

5,645,077; 5,807,284; 6,162,191; 6,176,837; 6,314,055; 6,361,507; 6,409,687; 6,474,159; 6,681,629; 6,757,068; 6,786,877; 6,922,632; 7,000,469; and Patents Pending.



- > Non-U.S. Government sales are subject to U.S. Government approval.
- > Specifications are subject to change without notice.