INTERSENSE
Sensing Every Move

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INERTIACUBE BT

Dynamic wireless inertial orientation sensor

Precise motion measurement for sports biomechanics, physical therapy, and rehabilitation can now be captured with one easy and convenient wireless sensor - the InertiaCube BT from InterSense. Bluetooth® enabled, the InertiaCube BT simply attaches to any body segment you wish to analyze and captures the motion while displaying the data in real-time on your laptop. The sensor is 100% sourceless, which means there is no longer a need to instrument a room with electromagnetic sources or infrared cameras.

The InertiaCube BT, the latest product in the InertiaCube family of sensors, provides real-time angular motion data via a standard Bluetooth® interface to your computer. With an integrated rechargable battery and versitile, secure mounting straps, the InertiaCube BT is the ideal sensor for human movement analysis.

The InertiaCube BT combines nine discrete MEMS sensing elements with advanced Kalman filtering algorithms to produce full 360 degree sourceless rotational measurements. No infrastructure is required for sensor use.

Features

- Sourceless tracking with full 360° range
- 180 Hz data update rate
- Adjustable output filters and rotational sensitivity
- SDK for Windows, Linux, and Mac OS X platforms
- Supports up to 5 sensors with Class 1 Bluetooth adapter*
- 8 hours of continuous use on one battery charge
- Comfortable and secure mounting straps

InertiaCube BT Performance 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 (RMS)	1° in yaw
	0.5° in pitch & roll at 25°C
Angular Resolution	0.01° RMS
Update Rate	180 Hz
Range*	100 ft (31 m) w/ Class 1 receiver
	10 ft (3.1 m) w/ Class 2 receiver
Typical Average Latency*	40 ms
	(Bluetooth® dependent)
Wireless Interface	Bluetooth Class 1
Size	2.38 in. x 2.00 in. x 1.25 in.
	(60 mm x 54 mm x 32 mm)
Weight	2.4 ounces (67 grams)
Charging Power Supply	5V DC, 2A
Operating Temp. Range	0° to 50° C
O/S Compatibility	.dll for Windows 7/XP
	.so for Linux
	.dylib for Mac OS X
Software Support	SDK w/ full InterSense API

* Performance may vary depending on wireless environment, operating
  system and Bluetooth adapter.