



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 InterSense IS-900 is suited for a range of applications including:

- Simulation & Training
- Binocular and Head-Mounted Display Tracking
- Collaboration/Tele-presence/Design Review
- Immersive Data Visualization/Virtual Prototyping
- Entertainment



INTERSENSE[®] IS-900 SYSTEMS

Precision Inertial-Ultrasonic 6-DOF Motion Tracking System





INTERSENSE® IS-900 SYSTEMS

The InterSense IS-900 6-DOF tracking systems are based on an innovative hybrid inertial-ultrasonic technology providing real-time orientation and position tracking, eliminating noticeable jitter and latency, providing the smoothest and most realistic visual experience. The inertial-ultrasonic technology is immune to electromagnetic & metallic interference bringing simplicity and freedom from constant re-calibration and re-mapping.

PERFORMANCE SPECIFICATIONS

Degrees of Freedom

- 6 (X, Y, Z, Yaw, Pitch, and Roll)

Tracking Devices

- MicroTrax Head Tracker
- MicroTrax Wand
- MicroTrax Hand Tracker (Optional)
- Custom/OEM MicroTrax Devices (Contact Thales)

Tracking Volume

- Up to 20 m² with 12 SoniStrips (SimTracker maximum)
- Up to 140 m² with 84 SoniStrips (VETracker maximum)
- 2.5 m x 2.5 m x 3.0 m maximum w/ SoniFrame (optional)
- 1.0 m x 1.0 m x 1.0 m with SoniWing (optional)

Angular Range

- Full 360° - all axis

Resolution

- 0.75 mm (1.5 mm Wireless)
- 0.05° (0.10° Wireless)

Static Accuracy

- 2.0 - 3.0 mm (3.0 - 5.0 mm Wireless MicroTrax)
- 0.25° RMS in Pitch & Roll, 0.50° RMS in Yaw (Wired MicroTrax)
- 0.50° RMS in Pitch & Roll, 1.00° RMS in Yaw (Wireless MicroTrax)

Update Rate

- 180 Hz Nominal (120 Hz Nominal Wireless)

Latency

- 4 ms Typical

Interface

- Ethernet
- RS-232 Serial Port

O/S Compatibility

- Windows 8
- Windows 7
- Windows Vista
- Windows XP
- Linux

Software Support

- SDK with full InterSense API
- ISDEMO control and connectivity software

PHYSICAL SPECIFICATIONS

AC Input

- 100 - 120 V, 200 - 240 V, 60/50 Hz, 6/3 A (auto switching)

Operating Temperature

- 0 to 50 °C (32 to 122 °F)

Storage Temperature

- -20 to 70 °C (-4 to 158 °F)

Standard Cable Lengths

- 9.4 m (IS-900 to SoniStrips)
- 10.3 m (IS-900 to Tracking Devices)
- 1.8 m (IS-900 to Host, RS-232 Serial)

Maximum Cable Lengths

Contact your Thales InterSense Representative

Processor Size

- 1 U rack mounted (44.45 cm wide x 40.64 cm deep x 4.45 cm tall)

Processor Weight

- 6.8 kg

SoniStrip

	Size	Weight
2 ft	61.0 x 3.7 x 2.5 cm	0.4 kg
4 ft	122.0 x 3.7 x 2.5 cm	0.9 kg
6 ft	183.0 x 3.7 x 2.5 cm	1.3 kg

Devices

	Size (outside dimensions)	Weight
MicroTrax Head Tracker	10.15 x 1.54 x 1.38 cm	23 g
MicroTrax Wand	17.48 x 10.16 x 5.38 cm	170 g wired (200 g wireless)
MicroTrax Hand Tracker	11.43 x 7.62 x 1.90 cm	56 g
Wireless Transmitter	7.62 x 4.44 x 3.40 cm	65 g

IS-900 System Configurations

	IS-900 SimTracker	IS-900 VETracker	IS-900 OEM
Maximum Tracking Volume	20 m ²	140 m ²	Contact Thales for additional information on custom OEM configurations to meet your tracking needs.
Maximum Number of Tracked Devices	4	7	
Maximum Sonistrrips	12	84	
Wireless Option	Yes	Yes	
Interface Options	Ethernet or RS-232	Ethernet or RS-232	

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

Thales Visionix, Inc.

700 Technology Drive, Suite 102 | Billerica, MA 01821
 Phone: +1.781.541.7650 | Email: sales@intersense.com
 Website: www.intersense.com | www.thalesvisionix.com

