

InterSense® IS-900® Systems **6-DOF Motion Tracking System**



Precision Inertial-Ultrasonic
Hybrid Tracking Technology

InterSense® IS-900® Systems

InterSense® IS-900 6-Degrees of Freedom (DOF) tracking systems feature an innovative hybrid inertial-ultrasonic technology that delivers real-time orientation and position tracking, and eliminates noticeable jitter and latency for the smoothest, most realistic visual experience possible. Furthermore, the IS-900's inertial-ultrasonic technology is immune to electromagnetic and metallic interference, so users can focus intently on their mission without constant re-calibration and re-mapping.



Technical Specifications

Key Features

- ▶ Highly Flexible, Configurable and Extensible
- ▶ OEM Tracker Kits with Optional GPIO
- ▶ Information Assurance Compatible

Physical Specifications

Base unit
7.5" (W) x 16" (D) x 1.75" (H)
Weigh: 15lb (6.8kg)

Head Tracker
Available wired, Weight: 40g
Dimensions: 4.00 in x 0.61 in x 0.54 in
with 15 and 35 foot cables

Performance Specifications

AC Input: 100 – 240 V, 1A, 50/60Hz,
(auto switching)

Operating Temperature: 0 to 40° C

Storage Temperature: -20 to 70° C

Standard Cable Lengths: 9.4 m
(IS-900 to SoniStrips™); 10.0 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

Degrees of Freedom: 6 (X, Y, Z, Yaw, Pitch,
and Roll)

Tracking Devices: MicroTrax® Head Tracker;
MicroTrax Wand; Custom/OEM MicroTrax
Devices (Contact your Thales InterSense
Representative)

Tracking Volume: Up to 20 m² with
12 SoniStrips™ (SimTracker™); Up to 140 m²
with 84 SoniStrips (VETracker™);
SoniFrame – 2.0 m x 2.0 m x 3.0 m;
SoniWing – 1.0 m x 1.0 m x 1.0 m

Angular Range: Full 360° – all axis

Resolution: 0.75 mm; 0.05°

Static Accuracy:* 2.0 – 3.0 mm; 0.25°
RMS in Pitch & Roll, 0.50° RMS in Yaw

Update Rate: 180 Hz Nominal

Latency: 4 ms Typical

Interface: Ethernet; RS-232 Serial Port

Maximum Number of Devices: 4 for
SimTracker™, 7 for VETracker™

Prediction: Up to 50 ms

Genlock Synchronization: Yes

Software Support

SDK with full InterSense API for Windows
and Linux

ISDEMO control and connectivity software

*Accuracy specifications are measured in a controlled environment
and are subject to change for custom configurations.

Specifications are subject to change without notice.

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