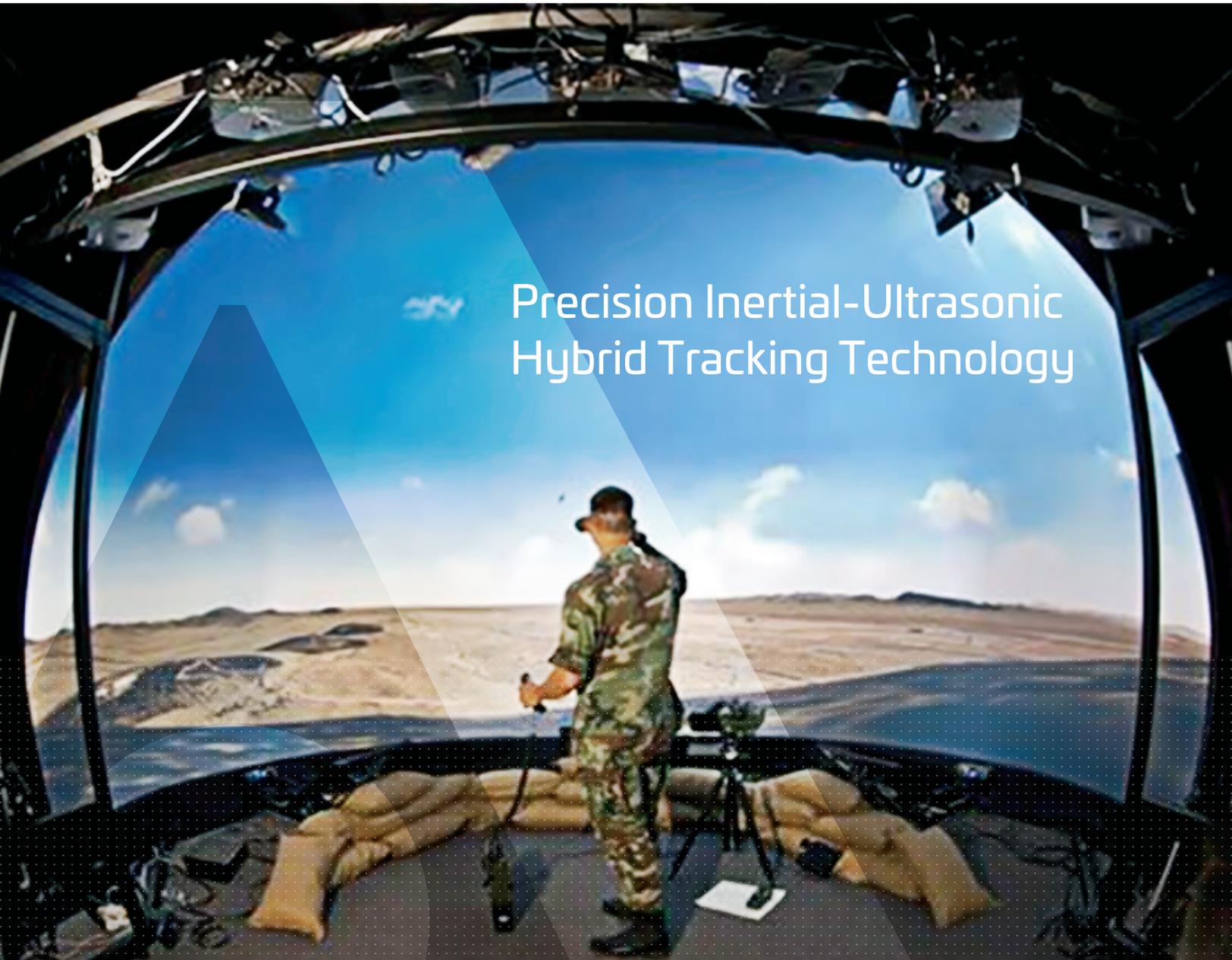# THALES
Building a future we can all trust

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.

➤ Wired and Wireless Tracking Options.

➤ OEM Tracker Kits with Optional GPIO.

➤ Information Assurance Compatible.

Physical Specifications

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

Operating Temperature: 0 to 40º C

Storage Temperature: -20 to 70º 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

Performance Specifications

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

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

Tracking Volume: Up to 20 m^2 with 12 SoniStrips (SimTracker); Up to 140 m^2 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 360º — all axis

Resolution: 0.75 mm (1.5 mm Wireless); 0.05º (0.10º Wireless)

Static Accuracy* (wired): 2.0 – 3.0 mm; 0.25º RMS in Pitch & Roll, 0.50º RMS in Yaw

Static Accuracy* (wireless): 3.0 – 5.0 mm; 0.50º RMS in Pitch & Roll, 1.00º RMS in Yaw

Update Rate

Update Rate: 180 Hz Nominal (120 Hz Nominal Wireless)

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

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*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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