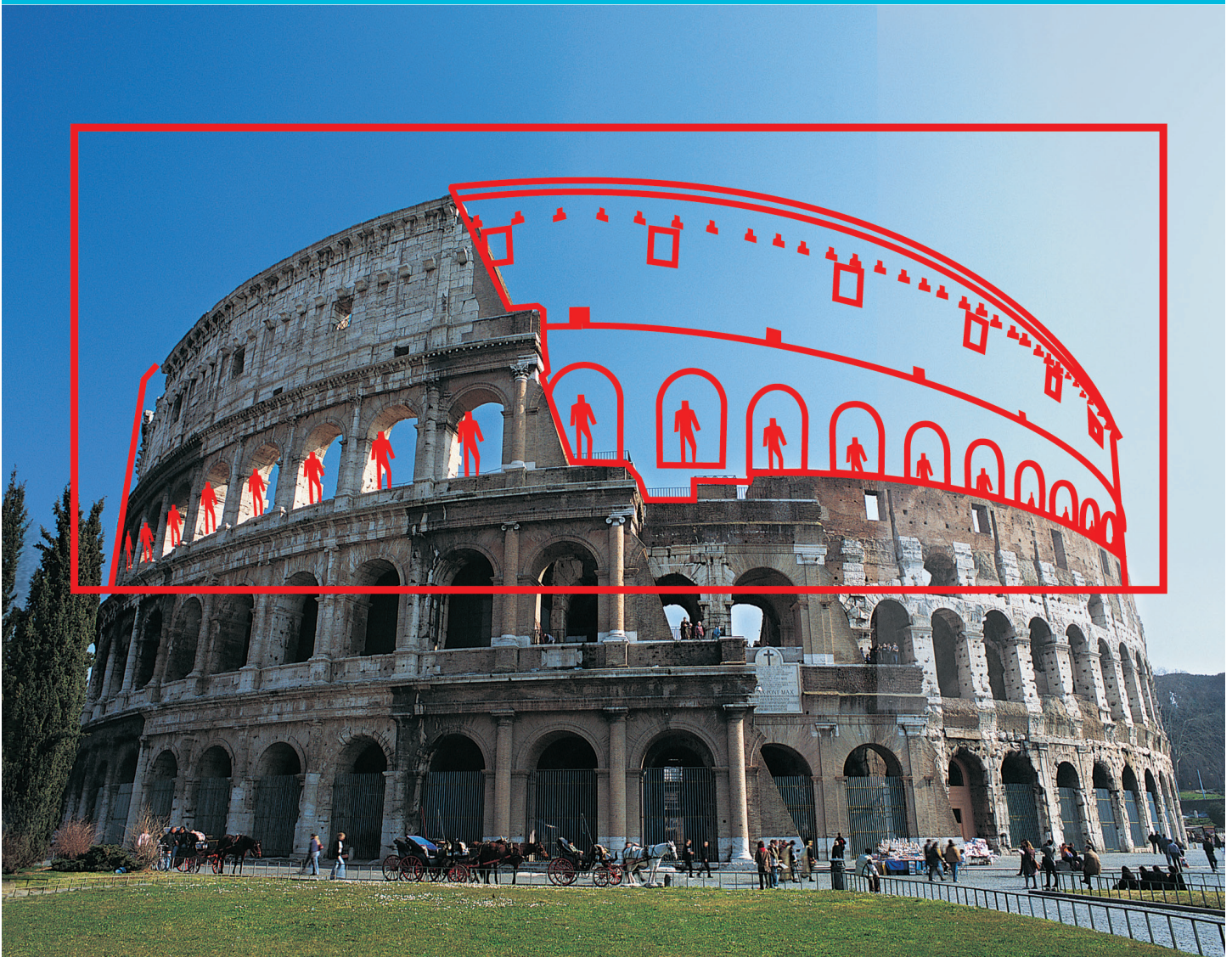


Natural Feature Tracking (NFT) is now available as part of the all-new IS-1500 motion tracking product line. NFT allows users to access the natural world as a reference for motion tracking. This small, lightweight, user-friendly Optical-Inertial device lets you track an object or person in any environment from your mobile computing platform with maximum precision that's highly suitable for augmented reality and robotic navigation applications.



INTERSENSE[®] IS-1500

Vision-Inertial Tracking for Mixed Reality and GPS Denied Navigation



INTERSENSE® IS-1500

Unprecedented Software Capabilities

The IS-1500's unique software architecture enables a lightweight, mobile Vision-Inertial Navigation approach to Natural Feature Tracking. Combined with optional marker-based tracking, the IS-1500 represents truly flexible next generation capability.

Total Mobility

With our InertiaCam hardware, a vision-inertial sensor incorporating our NavChip inertial measurement unit, the IS-1500 can track anywhere at any time including inside of a moving platform such as a car or plane.

Ruggedness and Reliability

The InertiaCam hardware is based on our HOBIT helmet tracker, which provides situational awareness to pilots in mission critical applications around the world. The InertiaCam is built to withstand the rigors of a wide range of challenging outdoor and indoor environments.

Simplicity

Precision factory calibrated hardware, compatibility with USB standards, and software that can run on your mobile processor alongside your application, all provide for ease of integration. Our simple to use SDK and developer tools should have you up and running in minutes.



TRACKING PERFORMANCE: FIDUCIAL MARKERS

Position Accuracy

- 2mm (typical)

Max Tracking Distance from Fiducials

- 20x the Fiducial diameter

Min Fiducials in View for Pose Recovery

- 2 (recommend 10-12 for optimal performance)

Orientation Drift Rate with no Fiducials

- 0.6°/minute (RMS)

TRACKING PERFORMANCE: NATURAL FEATURES

Position Drift (traveling)

- 1% of distance traveled (RMS)

Yaw Drift (traveling)

- 0.7°/minute (RMS)

Static Wander

- ±1 cm position, 1° RMS Yaw (RMS)

Global Relocation Accuracy

- See Fiducial marker accuracy above

INERTIACAM SENSOR MODULE

Dimensions

- 65mm X 20mm X 20mm

Mass (not including cable)

- 36 grams (metal reference design housing)

Interface (power and data)

- Single USB 2/3 cable (type-c connector)

Power Consumption

- 1.2 Watts (typical)

Temperature (Operating / Storage)

- -20° to 65°C, -30° to 85°C

Humidity (Operating / Storage)

- 20 to 80%, 20 to 95% (non-condensing)

OVERALL SPECIFICATIONS

Pitch and Roll Accuracy

- 0.25° RMS

Max Angular Rate and Linear Acceleration

- 2000 °/s, 16 G

Latency (average)

- 10 milliseconds (prediction off)

Prediction

- Up to 50 milliseconds

Synchronization

- Virtual (software)

Supported Operating Systems

- Windows & Linux (contact sales for other operating systems)



➤ Non-U.S. Government sales are subject to U.S. Government approval.
 ➤ Specifications are determined in a controlled and quantified environment and subject to change without notice.

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