The cost effective PCTracker is based on InterSense’s award winning IS-900 technology. Designed specifically to take advantage of fast, Windows-based computers with modern graphics engines, the PCTracker is built for the budget conscious user.

The PCTracker is a 6 degree of freedom (6-DOF) motion tracking system utilizing InterSense’s hybrid technology of inertial and ultrasonic tracking. The position and orientation of the tracking stations are determined with our advanced Kalman filter algorithms which combine the output of the inertial sensors with range measurements obtained from the ultrasonic components. The result is full 6-DOF data that is very smooth, precise, and free from jitter.

Chosen by system integrators for simplicity and its flexible configuration, the PCTracker is ideal for OEM applications. Custom integration of tracking devices for volume applications is available from InterSense.

**PCTracker Specifications**

- **Degrees of Freedom:** 6 (X, Y, Z, Yaw, Pitch, and Roll)
- **Standard Tracking Device:** MiniTrax Wired Head Tracker
- **Optional Tracking Devices:**
  - MiniTrax Wired Wand
  - MiniTrax Wired Hand Tracker
  - MiniTrax High Accuracy Head Tracker
- **Custom/OEM MiniTrax Devices:**
  - Consult InterSense
- **Standard Tracking Volume:**
  - 2.0 m x 2.0 m x 3.0 m with SoniFrame
  - 1.5 m x 1.5 m x 3.0 m with SoniWing
- **Angular Range:** Full 360º - All Axes
- **Resolution (Position):** 0.75 mm
- **Resolution (Orientation):** 0.05º
- **Static Accuracy (Position RMS):** 2.0 to 3.0 mm
- **Static Accuracy (Orientation RMS):** 0.25º in Pitch & Roll, 0.50º in Yaw
- **Serial Interface Update Rate:** 100 - 130 Hz (OS and PC Host Dependent)
- **Minimum Latency:** 4 ms Typical (OS and PC Host Dependent)
- **Interface:** RS-232 Serial Port(s)
  - (Two tracking devices require two serial ports)
- **Power:**
  - 6 - 12 VDC via AC to DC adapter
  - 200 milliamps Max
  - (configured with two MiniTrax Head Trackers)
- **O/S Compatibility:**
  - Windows 98/2000/Millennium/XP
- **Maximum Cable Lengths**
  - PCTracker Hub to SoniStrips - 4.5 m
  - PCTracker Hub to Tracking Devices - 4.25 m
  - PCTracker Hub to Host PC - 2.0 m
- **Software Support**
  - IServer Software and isense.dll
  - SDK with full InterSense API
  - Windows control & connectivity software

**PCTracker System Architecture**

**Tracker Ports**

1. SoniStrip
2. SoniStrip
3. SoniStrip

**RS232 Ports**

PC COM Ports

6 to 12 VDC Power Adapter

**PCTracker System Architecture**