

# Flock of Birds Class B

Real-time  
Localization and  
Measurement

## Ascension's Pulsed DC Magnetic Tracking Solution for 3D Ultrasound

### Specifications

#### TECHNICAL

Tracking Range:	1.2m ( $\pm 4'$ )
Angular Range:	$\pm 180^\circ$ Azimuth & Roll, $\pm 90^\circ$ Elevation
Static Accuracy:	Position: 1.8mm (0.07") RMS Orientation: 0.5° RMS
Static Resolution:	Position: 0.5mm (0.02") @ 30.5cm (12") Orientation: 0.1° @ 30.5cm (12")
Update Rate:	Up to 144 measurements/second
Outputs:	X, Y, Z positional coordinates and orientation angles, or rotation matrix
Interface:	RS-232
Format:	Binary

#### PHYSICAL

Transmitter:	9.6cm (3.75") cube with 3m (10') cable
Sensor:	25.4mm x 25.4mm x 20.3mm (1.0" x 1.0" x 0.8") cube
Enclosure:	5cm x 27.9cm x 22.9cm (2" x 11" x 9")
Power:	Medical grade
Operating Temp.:	10°C to 40°C (50°F to 104°F)
Operating Humidity:	10% to 90% non-condensing

#### Applications:

- 3D image reconstruction in ultrasound
- Telemedicine
- Medical instrument tracking
- Quantitative measurement

#### Benefits:

- Compliant with Class B standards
- Cost-effective performance/ROI
- Occlusion-free tracking
- Fast, dynamic performance without degradation
- Quantitative measurement improves diagnostic capability

#### Notes on Accuracy

Accuracy is defined as the root mean squared (RMS) deviation of a true measurement of the magnetic center of a single sensor with respect to the magnetic center of a single transmitter measured over the translation range. Accuracy varies from one location to another over this translation range and will be degraded if there are interfering electromagnetic noise sources or metal in the operating environment. To best meet accuracy specifications, the tracker should be operated in the forward (positive X) hemisphere.

#### Regulatory Certifications

EN 60601-1 (1997), 606001-2 (2001)

Radiated EMI  
EMC Immunity  
Electrical Safety  
Patient Contact



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