

# PATRIOT WIRELESS

TOTALLY WIRELESS TRACKING WITH EXPANDABLE COVERAGE

Experience high performance motion tracking while moving freely without any tethers or wires in your tracking environment. PATRIOT™ WIRELESS offers 1-4 embeddable, wireless markers for full 6DOF tracking, using proprietary A/C electromagnetic technology.



## HOW IT WORKS

Self contained markers can be placed anywhere on the body or an object and do not require line-of-sight for continuous tracking. Magnetic fields are generated by the markers and both position and orientation data are output, without the need for post analysis calculations. Accurate, high-quality data is delivered with an update rate of 50Hz per marker.

## SCALABLE

Adding markers (up to four per system) increases the number of objects or people being tracked. Upgrading with an additional receiver expands the area of coverage up to 24 linear feet.

## FEATURES

- ✓ Completely Wireless
- ✓ Freedom of Movement
- ✓ Fully Embeddable Markers
- ✓ Scalable Area of Coverage
- ✓ No Line-of-Sight Occlusions
- ✓ Zero Drift
- ✓ Full 6DOF Tracking
- ✓ Multiple Applications or Users

## OPTIONS



Additional Markers



Additional Receivers

# COMPONENTS

The PATRIOT WIRELESS system includes an SEU (Systems Electronics Unit), one marker, and one receptor. A single high-capacity battery charger is included with each marker. Add additional markers easily, and ask about how to upgrade to expand the coverage area.

## SYSTEM ELECTRONICS UNIT

The SEU contains the hardware and software necessary to sense the magnetic fields generated by the markers, compute position and orientation, and interface with the host computer via RS-232 or USB.

DIMENSIONS: 6.77 in (17.19 cm) x 6.26 in (15.90 cm) x 1.65 in (4.19 cm)

## WIRELESS MARKER

Marker weighs 2.8 ounces and can be easily attached to the body or object as needed.

WEIGHT: 2.8 ounces (79.4 g)

DIMENSIONS: 3.50 in (8.89 cm) x 1.66 in (4.22 cm) x .97 in (2.46 cm)

## RECEPTOR

This lightweight, small cube can be easily mounted to almost any surface.

WEIGHT: 3.2 ounces (90.7g)

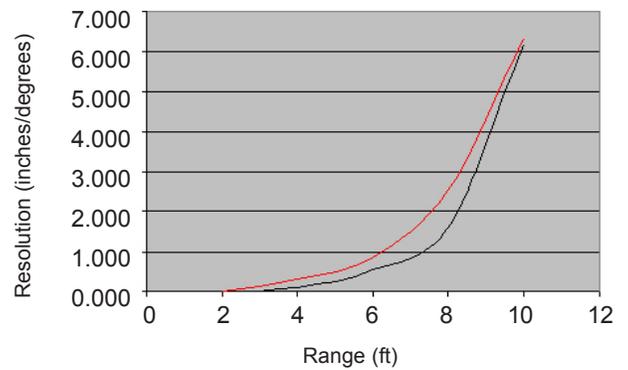
DIMENSIONS: 2.45 in (6.22 cm) x 1.45 in (3.68 cm) x 1.442 in (3.66 cm)

Dimensions and weight are approximate. Dimensional drawings available upon request.

# SPECIFICATIONS

UPDATE RATE	50Hz/marker
INTERFACE	RS-232 with selectable baud rates up to 115.2 K USB 2.0 (high speed)
LATENCY	Approximately 20 milliseconds
STATIC ACCURACY	1.0 degree and 0.3 inch (0.75 cm) using one marker and one receptor at 30 inches (76.2 cm). Accuracy is installation dependent, typical accuracy may normally result in 1 to 3 degrees and 1 to 3 inches (2.54 cm to 7.62 cm).
OPERATING TEMPERATURE	10°C to 40°C at a relative humidity of 10% to 95%, noncondensing
POWER REQUIREMENTS	100-240 VAC, 50-60Hz, single phase, 4W
SOFTWARE TOOLS	GUI and SDK included USB drivers for Microsoft Windows® included
REGULATORY	FCC Part 15, class B CE: EN61326-1: 2013 EMC Requirements EN61326-1: 2013 Immunity : Basic Environment

# RANGE VS RESOLUTION



— ORIENTATION — POSITION

Marker-Receptor Range (feet)	Position Resolution (inches)	Orientation Resolution (degrees)
2	0.006	0.021
4	0.109	0.296
6	0.537	0.864
8	1.608	2.534
10	6.195	6.356

# GET IN TOUCH

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40 Hercules Drive / PO Box 560  
Colchester, Vermont 05446-0560  
US & Canada: 800.357.4777 / 802.655.3159  
Fax: 802.655.1439



\*Large metallic objects, such as desks or cabinets, located near the source or sensor, may adversely affect the performance of the system.

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