Polhemus Motion Tracking Technical Comparisons - Tracking Performance

Specifications	VIPER™	FASTRAK®	PATRIOT™	LIBERTY™	LIBERTY™ LATUS™ (wireless)	PATRIOT™ WIRELESS	G4™ (wireless)
Update Rate	240Hz (VIPER 4) 960Hz (VIPER 8 & 16) per sensor	120Hz (divided by number of sensors)	60Hz per sensor	240Hz per sensor	188Hz (1-8 markers) 94Hz (9-12 markers)	50Hz (1-4 markers)	120Hz per sensor
Angular Range	All attitude	All attitude	All attitude	All attitude	All attitude	All attitude	All attitude
Latency	3ms (at 240Hz) 2ms (at 480Hz) 1ms (at 960Hz)	4ms	18.5ms	3.5ms	5ms	20ms	Less than 10ms in optimal RF communication conditions
Operating Temperature (minimum to maximum)	10°C to 40°C	10°C to 40°C	10°C to 40°C	0°C to 50°C	0°C to 50°C	10°C to 40°C	10°C to 40°C
Operating Voltage	100-240 VAC 50-60Hz	100-240 VAC 47-63Hz	100-240 VAC 50-60Hz	100-240 VAC 50-60Hz	100-240 VAC 50-60Hz	100-240 VAC 50-60Hz	Source: 100-240 VAC; 50/60Hz; RF Dongle: USB powered 5 volt, 30 ma; Hub: internal rechargeable battery included
Cable Length (contact us for custom lengths)	10 ft or 20 ft (approx. 3m or 6.1m)	10 ft or 20 ft (approx. 3m or 6.1m)	10 ft or 20 ft (approx. 3m or 6.1m)	10 ft or 20 ft (approx. 3m or 6.1m)	Receptor 60 ft or 120 ft (approx. 18m or 37m)	Receptor 20 ft or 60 ft (approx. 6.1m or 18m)	2 ft, 4 ft or 6 ft (approx. 0.61m, 1.22m or 1.83m)
Software Tools	Microsoft Windows®10 GUI Unity: Sample open source code included Linux: Sample open source code included	Microsoft Windows® GUI/ Linux® GUI	Microsoft Windows® GUI/ Linux® GUI	Microsoft Windows® GUI/ Linux® GUI	Microsoft Windows® GUI/Linux® GUI	Microsoft Windows® GUI	Microsoft Windows® GUI/Linux® GUI/Full Linux Support
Interface	USB; RS-422, both standard; dual output available	RS-232 or USB 2.0 (both included)	RS-232 or USB 2.0 (both included)	RS-232 or USB 2.0 (both included)	RS-232 or USB 2.0 (both included)	RS-232 or USB 2.0 (both included)	Proprietary RF link via USB
Degrees-of-Freedom	6DOF	6DOF	6DOF	6DOF	6DOF	6DOF	6DOF
Number of Sensors	1-16 sensors	1-4 sensors	1-2 sensors	1-16 sensors	1-12 wireless markers	1- 4 wireless markers	3 sensors per hub
Static Accuracy Position	0.015 inches RMS (0.38mm)	0.03 inches RMS (0.76mm)	0.06 inches RMS (1.52mm)	0.03 inches RMS (0.76mm)	0.1 inches (2.54mm) (1 marker at 30 inches)	0.3 inches (7.62mm) (1 marker at 30 inches)	0.08 inches RMS (2.0mm)
Static Accuracy Orientation	0.10° RMS	0.15° RMS	0.40° RMS	0.15° RMS	0.5° (1 marker at 30 inches)	1.0° (1 marker at 30 inches)	0.50° RMS