Polaris Vega® XT

Break new ground in OEM surgical tool tracking and navigation applications with the optical tracker that can provide fast, accurate tracking for emerging robotic-guided procedures: the Polaris Vega® XT.

This premier optical tracker combines unrivalled measurement accuracy, high-speed tracking, and low latency that supports real-time integration into OEM surgical navigation and robot-assisted surgery systems. A large tracking volume, Ethernet connectivity, and tight data synchronization further raise the bar on exceptional measurement performance.

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Exceptional Measurement Accuracy

The Polaris Vega XT delivers volumetric accuracy to 0.12 mm RMS with minimal noise. Track tools with total confidence; hardware characterization and factory calibration optimize accuracy for measurements that are highly repeatable and reliable.

Volumetric Accuracy[1,2] RMS	Pyramid Volume: 0.12 mm Extended Pyramid: 0.15 mm
95% Confidence Interval[1,2]	Pyramid Volume: 0.20 mm Extended Pyramid: 0.30 mm

[1] Based on a single marker through more than 900 positions throughout the measurement volume using the mean of 30 samples at each position at 20°C
[2] Accuracy stated based on overall volume

Tight Data Synchronization

The Polaris Vega XT uses the Precision Time Protocol (PTP) for timestamping and network synchronization, as communicated via Ethernet. System processing and timestamping occur at the hardware level, allowing for tighter, more precise data communication.

Data Communication	Gigabit Ethernet
Network Synchronization	Precision Time Protocol
Data/Power Interface	Ethernet, RJ45

Fast Measurement Rate

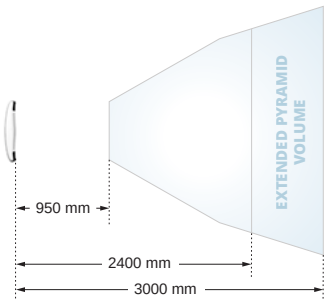
The Polaris Vega XT has a maximum frame rate of 250 Hz and latency of just 4 milliseconds, which allows for fast and efficient transfer of tracking data within robot-control systems. The frame rate remains constant even when multiple tracked tools are in view.

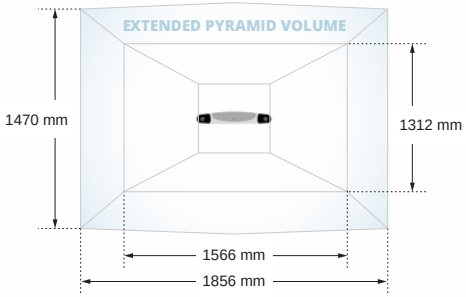
Maximum Frame Rate	250 Hz
Average Latency	< 4 ms (typical)
Measurement Volume	Pyramid, Extended Pyramid (optional)

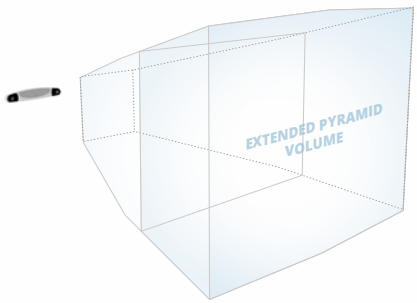
Ease and Speed of Integration

The Polaris Vega XT includes software, source code and API tools to streamline the design and development of tools, and to speed integration with OEM software applications. The software suite also includes utilities to support ongoing system diagnostics and maintenance.

Tool Types	Passive
Maximum Number of Tools	Load up to 25 tools
Maximum Number of Markers per Tool	6 single-face/20 multi-face







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