

Object Tracking



SightLine object trackers are powerful tools for any ISR application. Tried and tested, these trackers have over one million flight hours logged. Highly configurable, SightLine trackers can be tailored to meet mission requirements.

- **Vehicle and Stationary Modes:** Solid designated tracks on moving and non-moving objects
- **Scene Tracking:** Powerful, intuitive mode to keep the entire scene in the frame using scene translation telemetry. Essential for gimbals as a base mode and fallback from object trackers.
- **No Registration Mode:** Used to track objects when there are no background features (for example: trying to track an airplane against a blue sky).
- **Customizable Track Box Size, Nudge, Track through Zoom, and Rotation:** Operational and setting flexibility for improved tracker performance.
- **Acquisition Assist:** Automatically searches the area around an initial track location to find the optimal track box size and position. Allows users to easily select fast moving objects.
- **Intelligent Assist:** Automatically reinitialize (and optimize track box location and size) on targets when changes in the target appearance are detected.
- **Detection Track Cueing:** Transition a detection to a primary track (example: aerial MTI detection to vehicle object track).
- **Tracker-Only Configurations:** To address customer demand for a lower price-point, object tracker, we are introducing two new Tracker-Only configurations as part of the 2.23 software version release.

Tracker Configurations

Comparing the tracker configurations in the table below, you can see that maximum system flexibility is provided using the traditional SLA configuration. The new Tracker-Only configurations provide an excellent solution for customers who need a robust object tracking algorithm and telemetry data, and do not need other video processing functionality.

Tracker-Only options use the same, proven tracking algorithms as the full-featured SLA with telemetry to support gimballed pointing control. These two options are offered with limitations outlined in the following table. Because the tracker runs on the same low SWaP 1500-OEM and 1500-SOM hardware, units can be easily upgraded to full SLA functionality.

Attribute	Tracker-Only Options		
	Full SLA Tracker	Advanced	Base
Tracker Modes Supported	Vehicle Stationary Scene No Registration	Vehicle Stationary No Registration	Vehicle
Maximum Number of Simultaneous Tracks	5	1	1
Frame Size Processed	HD or SD	SD	SD
Track Box Size Adjust	✓	✓	✓
Track Box Nudging	✓	✓	✓
Track through Zoom and Rotation	✓	✓	
Acquisition Assist	✓	✓	
Intelligent Assist	✓	✓	
Scene Lock	✓		
Detection Track Cueing	✓		
Hardware platforms	1500, 3000	1500	1500