

AUTOMATIC TARGET RECOGNITION

ATR

DETECTOR & TRACKER

OPERATIONAL AIRBORNE PERCEPTION

Turn live payload video into mission-ready detections and persistent tracks, with direct gimbal integration and an open path for third-party analytics.

50+ TARGET TRACKS

AOI PIXEL TRACKER

OPERATIONAL

MISSION CAPABILITIES

A modular detector-tracker for airborne EO/IR payloads, designed to integrate into new aircraft or upgrade existing mission systems without replacing the surrounding video and control architecture.

VIDEO INPUT

VIDEO & PAYLOAD INGEST

Connect raw SDI, HDMI, MIPI or any V4L2-compatible camera. Accept standard STANAG 4609 motion imagery directly from payloads such as TRIP.

ATR

DETECTION & CLASSIFICATION

Run Neuronics ATR models or mission-specific third-party detectors. Configurable confidence thresholds and class sets support each sensor and mission profile.

TRACKING

MULTI-OBJECT & AOI TRACKING

Maintain more than 50 concurrent tracks with continuity through motion and partial occlusion. Operator click-to-track engages a dedicated pixel-level AOI tracker.

CONTROL

GIMBAL & MISSION CONTROL

Ingest MAVLink telemetry, publish target commands and cue the gimbal to selected or automatically acquired objects for closed-loop target control.

OPEN INTEGRATION

NEURONICS ANALYTICS - OR YOUR EXISTING MISSION SOFTWARE

Integrate third-party detectors and trackers, or insert Docker containers for preprocessing, detection and tracking while preserving the platform interface.

COMPUTE

JETSON ORIN

COMPUTE

QUALCOMM SOC

HARDWARE

CARRIER-BOARD READY

STATUS

OPERATIONAL