



L3HARRIS™
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2511X™ HIGH-ALTITUDE, LONG STANDOFF, ELECTRO OPTICAL INFRARED (EO/IR) IMAGING SYSTEM WITH ENHANCED GEOPOINTING

PAYLOAD SPECIFICATIONS

Sensor 1 : HD MWIR Infrared Imager

Lens Type	SAS-11™
Primary Aperture	11" (275 mm)
Sensor	HD MWIR camera
Wavelengths	3.5 μm-to-5.0 μm
Field of View (h) ¹	0.82 °

Sensor 2 : HD Visible Continuous Zoom Imager

Lens Type	SAS-11™
Primary Aperture	11" (275 mm)
Sensor	HD visible camera
Wavelengths	450 nm-to-650 nm
Field of View (h) ¹	0.10 °-to-0.33 °

Sensor 3 : HD NIR Continuous Zoom Imager

Lens Type	SAS-11™
Primary Aperture	11" (275 mm)
Sensor	HD NIR camera
Wavelengths	720 nm-to-900 nm
Field of View (h) ¹	0.10 °-to-0.33 °

Sensor 4 : WFOV HD Visible Continuous Zoom Imager

Lens Type	22:1 continuous zoom
Primary Aperture	2.5" (63.5 mm)
Sensor	HD visible camera
Wavelengths	450 nm-to-650 nm
Field of View (h) ¹	2.3 °-to-13.0 °

Sensor 5 : WFOV HD NIR Continuous Zoom Imager

Lens Type	22:1 continuous zoom
Primary Aperture	2.5" (63.5 mm)
Sensor	HD NIR camera
Wavelengths	720 nm-to-900 nm
Field of View (h) ¹	2.3 °-to-13.0 °

Sensor 6 : WFOV HD MWIR Infrared Imager

Lens Type	SAS-3W™
Primary Aperture	2.5" (63.5 mm)
Sensor	HD MWIR camera
Field of View (h) ¹	WFOV 13.0 °, MFOV 4.8 °



L3Harris' high-performance EO/IR stabilized imaging systems are optimized for high-altitude, long-range surveillance and reconnaissance on airborne platforms. The 2511X™ combines world-class X-MAST™ stabilization, long focal length and multi-spectral SAS-11™ lens. The 2511X ensures mission success through increased standoff, excellent image clarity and peerless geointing.

APPLICATIONS:

- > High-value target detection and tracking
- > Covert observation — can be used in fully enclosed bays
- > Tactical situational awareness
- > Littoral and maritime surveillance
- > Surveillance and reconnaissance
- > Full-motion video
- > Counter-improvised explosive device/homemade explosive detection with optional optical change detection capability

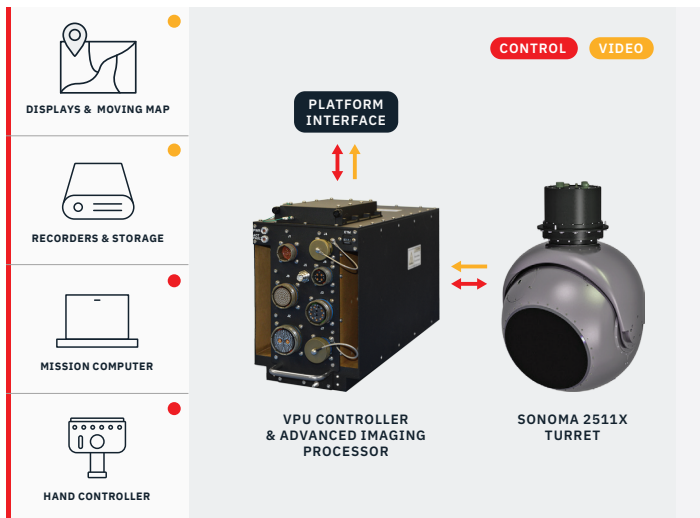
¹Less optional electronic zoom

KEY FEATURES:

- > High-definition, multi-spectral imaging with advanced 11-inch multi-spectral telescope (Mid-Wave (MWIR)/Near-IR (NIR)/visible)
- > Matched wide-field-of-view, high-definition SAS-3W™ multi-spectral telescope provides context in MWIR, NIR and visible bands
- > Patented X-MAST™ precision stabilization provides five-axis stabilization to the entire optical bench
- > Integrated shock isolation reduces impact to sensors and systems
- > Navigation-grade Inertial Measurement Unit (IMU) technology - IMU Inside™ - with integrated inertial navigation system and global positioning system receiver for precision geolocation and geointing and three times improved geointing/geoestimating over previous systems
- > Integrates with L3Harris' VPX-based next-generation Video Processing Unit (VPU)
- > Industry-compatible operator interface reduces learning curve
- > Road-following mode to support mosaic generation whether along a curving road or hot spot monitoring
- > Shared-aperture sensors grouped along turret centerline to optimize field of regard

BENEFITS:

- > Long focal length, multi-spectral telescope features built on X-MAST to deliver crisp images in all bands at superior standoff ranges
- > Boresighted context cameras provide simultaneous coverage of the field of view
- > Six channels of video guarantee situational awareness and high resolution — no detail is lost
- > Less than two μradians line-of-sight jitter delivers incredible image clarity
- > Increased reliability as shock loads are reduced to the optical bench
- > World-class precision geointing and geoestimating, enabling geofocus and advanced step and area scan patterns, now three times better than fielded systems
- > Simultaneous coverage of Visible, Near-IR and Mid-Wave IR channels ensure mission performance under a variety of atmospheric conditions
- > Turreted package provides hemispherical coverage, eliminates bow-tie blind spots
- > Shared-aperture sensors are mounted low in the turret minimizing penetration into the airstream for reduced drag and covert operations



STANDARD INTERFACES (WITH VPU)

- Three simultaneous HD video channels via HD-SDI
- Four simultaneous HD compressed video channels via H.264/H.265 via Ethernet
- Video Metadata per MISB RP 1107
- Command and Control per OMS/UCI, STANAG 4586, Sonoma Protocol and/or MX RCS

SYSTEM SPECIFICATIONS	
Turret	<ul style="list-style-type: none"> > ≤ 275 lb (all sensors), < 25.0" (D) x 36.3" (H) > 28 VDC per MIL-STD-704F, 400 W (typical)
Video Processor Unit	<ul style="list-style-type: none"> > 35 lb, 6.4" (W) x 9.0" H x 16.0" (D) > 250 W (typical), 350 W (max)
Hand Controller	<ul style="list-style-type: none"> > 2.2 lb, 4.25" (W) x 8.97" (L) x 3" (D) > 3.5 W (typical), 5 W (max)
Cables	> Consult factory for available variants
Environmental	> MIL-STD-461, MIL-STD-810, RTCA/DO-160
TURRET SPECIFICATIONS	
INS/Geo Capabilities	<ul style="list-style-type: none"> > Geointing, geolocation, GPS and integrated navigation-grade IMU > LOS pitch altitude accuracy: consult factory > LOS heading altitude accuracy: consult factory
Stabilization	> Typically < 2 μradians RMS
Stabilization and Steering	<ul style="list-style-type: none"> > (3) axis inner (pitch/yaw/roll) > (2) axis outer (azimuth/elevation)
Vibration and Movement	<ul style="list-style-type: none"> > Vibration isolation: (6) axis passive (x/y/z/pitch/roll/yaw) > AZ/EL slew rate: 0-to-60 degrees/second > LOS pan range: ±97 ° > LOS tilt range: -76 ° to +42 °

2511X™ High-Altitude, Long Standoff, Electro Optical Infrared (EO/IR) Imaging System With Enhanced Geointing

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L3Harris Technologies is an agile global aerospace and defense technology innovator, delivering end-to-end solutions that meet customers' mission-critical needs. The company provides advanced defense and commercial technologies across air, land, sea, space and cyber domains.



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