

# GÜCÜNÜ BİLGİDEN ALIR

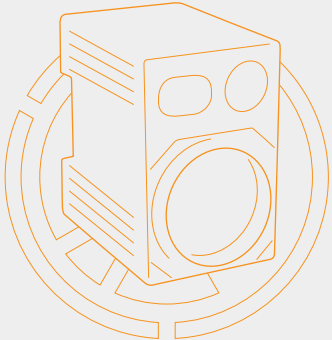


Lightweight  
Low Power

Electro Optic  
Systems

# EOSS<sup>150</sup>

**ELECTRO OPTIC  
SENSOR SYSTEM**





# EOSS<sup>150</sup> ALTAY Electro Optic Sensor System

## GENERAL FEATURES

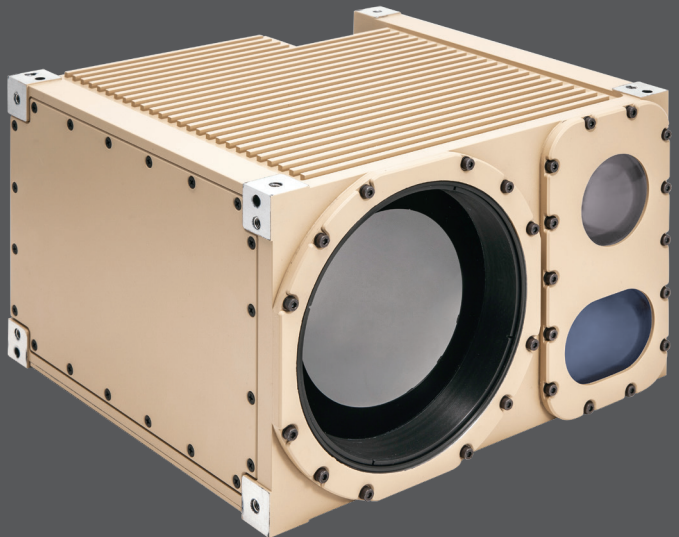
EO System Consist of:

- Thermal Camera
- Laser Range Finder
- Day Camera



## APPLICATIONS

- Remote stations
- Target detection systems
- Reconnaissance
- Observation and surveillance
- Border and port control



# SPECIFICATIONS

## Thermal Camera

Spectral Band	8-12 $\mu\text{m}$ (LWIR)
Array Type	Uncooled Microbolometer
Material	ASi
Detector	640 (Horizontal) x 480 (Vertical)
Pitch Size	17 $\mu\text{m}$ x 17 $\mu\text{m}$
NETD of Detector	< 30 mK (f/# 1.0, 300 K)
Autofocusing	Available
Time-to-image	< 2 sec (typically 1 sec)
Zoom Time (NFOV to WFOV)	< 8 sec
Focus Mechanism	Motorized
WFOV - NFOV (Horizontal)	25.3° - 4.1° ( $\pm 10\%$ ) Motorized Continuous Zoom (Adjustable FOV's)
Optical Zoom Ratio	6X
Focal Length	25 mm - 150 mm ( $\pm 10\%$ ) f/#: 1.4
Minimum Focusing Range	0.5m ( $\pm 10\%$ ) (WFOV) - 13 m ( $\pm 10\%$ ) (NFOV) Outer Lens Coating: Hard Carbon
Frame Rate	25 Hz (configurable up to 60 Hz)
Digital Zoom	X1, X2, X3, X4, X8
Digital Zoom Continuous	From X1 to X8 with 0.02 steps Noise Cancellation: Adaptive Temporal and Spatial Noise Cancellation
Detail Enhancement	Edge Aware Adaptive Digital Detail Enhancement
Image Enhancement	Plateau-based Adaptive Histogram Equalization
Color Palette	Up to 8 different palettes Live Calibration: With Shutter (periodic or externally controllable)
Range Performance*	<b>NATO STANAG 4347</b> ; $\Delta T$ : 2°C, 1/3/6 cycles, %50 probability, $\alpha=0.2$ km-1, Target (2.3 m x 2.3 m) <b>Detection:</b> 7.6 km ( $\pm 10\%$ ) <b>Recognition:</b> 3.2 km ( $\pm 10\%$ ) <b>Identification:</b> 1.7 km ( $\pm 10\%$ )

\*DRI values shown are nominal values and should be used as an estimation.

Exact DRI calculations depend on a wide variety of conditions.

## Laser Range Finder

Safety and Class	Eye safe, Class 1, EN60825-1:2014
Modes	Single Measurement Mode ( <b>SMM</b> )   Continuous Measurement Mode ( <b>CMM</b> )
Wavelength	1.5 $\mu\text{m}$
Range Precision	$\pm 1.5$ m (depending on target reflectivity and distance)
Beam Divergence	0.35 mrad
Ranging Capability	32 km
NATO Target	<b>SMM:</b> 10 km (in visibility of 15 / 20 km, target reflectivity 30%, detection probability 90%)
Measurement Range	<b>CMM:</b> 11km @10Hz
Target Discrimination	< 30 m; up to three targets, first second and last

## Day Camera

Spectral Band	0.4 $\mu\text{m}$ - 0.7 $\mu\text{m}$
Resolution	1080p / 720p
Optical Zoom Ratio	30X ( $\pm 10\%$ ) Continuous Zoom
FoV (horizontal)	Narrow FoV: 2.3° ( $\pm 10\%$ )   Wide FoV: 63.7° ( $\pm 10\%$ )
Electronic zoom	12X (360X with optical zoom)
Frame Rate	25 Hz.
Range Performance*	<b>NATO Target</b> (2.3 m x 2.3 m) <b>Detection:</b> 13 km ( $\pm 10\%$ ) <b>Recognition:</b> 8 km ( $\pm 10\%$ ) <b>Identification:</b> 4 km ( $\pm 10\%$ )

\*DRI values shown are nominal values and should be used as an estimation.

Exact DRI calculations depend on a wide variety of conditions.

## Interface

Power	MIL-STD-1275E compatible
Nominal Power Input Voltage	24 V
Maximum Power Consumption	20 W
Digital Video Output	Parallel Video 1.8 V or 3.3 V LVCMOS: 8 Data + Vsync + Hsync + Pixclk   Ethernet: Real-Time Transport Protocol. Payload type is RFC4175
Analog Video Output	PAL
Connectors	Mil-DTL-38999 Series 3 Connectors
Communications	RS-232 (9600/19200/38400/57600/115200)   Ethernet

## Physical Properties

Weight	4kg ( $\pm 10\%$ )
Dimensions (W x H x L)	240 mm x 150mm x 240mm

## Environmental Conditions

Operating Temperature	-32° to +55°
Storage Temperature	-40° to +71°

