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SEOM

ELECTRO-OPTICAL
OBSERVATION SYSTEM

Observation excellence
in any environment.



SEOM is an Electro-Optical system combining three advanced sensors for detecting, recognizing and identifying long-range targets with AI assistance.

Its versatility allows adaptation to terrestrial and naval applications. The stabilized platform supports precise manual and automatic tracking, suitable for fixed installations, land vehicles and naval vessels.



SEOM connects to remote weapon systems for enhanced targeting and features an operator console with a monitor-computer and joystick control for full system control.

For all-weather operation, it includes a high-resolution day sensor and offers two thermal channel options: uncooled for rapid availability and long-range and cooled for high performance with continuous zoom and detection over 22 km.

MECANUS
LEADING EDGE DEFENCE SOLUTIONS

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KEY FEATURES

Versatile integration: Adapts to fixed installations, land vehicles and naval vessels.

High-resolution day sensor for situational awareness and surveillance.

Thermal Channels: Options for both uncooled and cooled.

Precision positioning: Stabilized platform.

Manual and automatic target tracking.

Operator console.

SYSTEM PARAMETERS

Azimuth rotation: Continuous 360°

Elevation rotation: +/-90°

Stabilized platform: 2 axis. 300µRad

Precise manual and automatic tracking.

High-speed operation: Rapid positioning for quick target acquisition.

Ultra-slow movement: Long range objective tracking.

Standar power supply: Compatible with various power configurations for flexible deployment.

ENVIRONMENTAL

OPERATING TEMP. RANGE	-25°C to +60°C
HUMIDITY	MIL-STD-810G
VIBRATION / OPERATIONAL SHOCK	MIL-STD-810G
IP PROTECTION	IP65
EMI/EMC COMPLIANT	MIL-STD-461E, CE102, CS101, CS114, CS115, CS116 & RE102



SENSOR SPECIFICATION

LWIR CAMERA

RESOLUTION	640X480, 12µm pixel pitch
SPECTRAL RANGE	8-14µm
FRAME RATE	60FPS
ZOOM WFOV/NFOV	3x Discrete 12.5° (H) x 9° (V), 4° (H) x 3.5° (V)
DRI (NATO target 2.3m x 2.3 m)	Detection 9.1km, Recognition 3.2km, Identification 2.2km

VISIBLE CHANNEL

RESOLUTION	1920x1080p, 3.45µm pixel pitch
FRAME RATE	60FPS
ZOOM	28x Optical (336x Digital)
WFOV NFOV	55° (H) x 35° (V) 2.3° (H) x 1.2° (V)
DRI (NATO target 2.3m x 2.3 m)	Detection 14km, Recognition 9km, Identification 7km

MWIR CAMERA

RESOLUTION	640x512, 15µm pixel pitch
SPECTRAL RANGE	3.6-4.2µm
COOLER	Stirling
FRAME RATE	60FPS
ZOOM	20x Continuous (Optics: 40-200mm)
WFOV NFOV	27° (H) x 22° (V) 1.8° (H) x 1.5° (V)
DRI (NATO target 2.3m x 2.3 m)	Detection 22.7km, Recognition 9.5km, Identification 7.1km

LRF

PRECISION	+/- 1m
RANGE (NATO target 2.3m x 2.3m)	≥ 6500m
FIRING FREQUENCY	M1Hz- -10HZ

Visible laser pointer