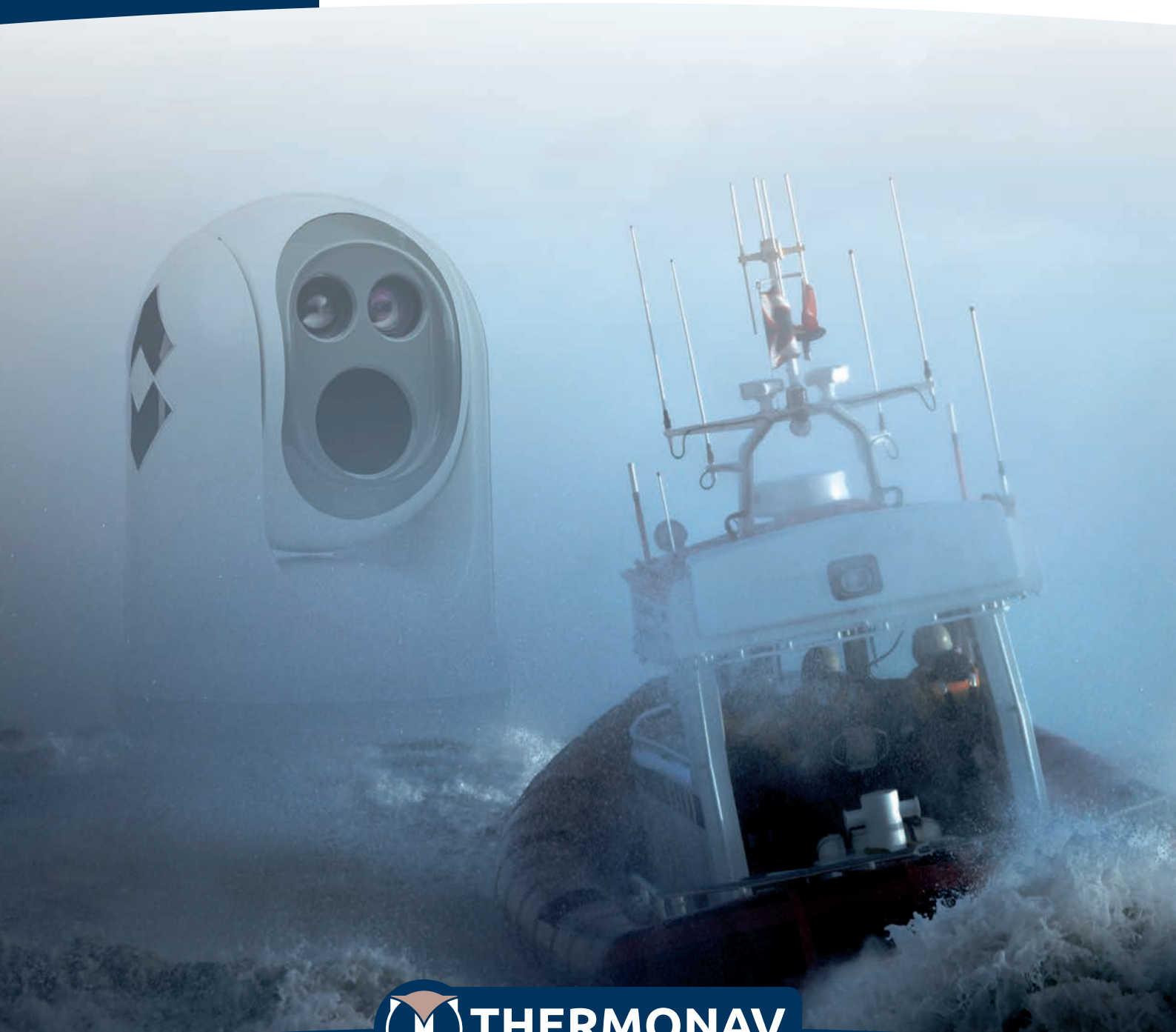


Defense

SEAGUARDIAN EOSS-F400  
Electro-Optical Surveillance System

**Astim**  
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powered



SeaGuardian EOSS-F400 is a state-of-the-art solution for observation sight. Based on FLIR M400 gimbal, SeaGuardian EOSS-F400 is a compact, high performance, new generation medium and long range multi-sensor system managed by a MIL-SPEC compliant console with advanced features for search and rescue operations, maritime patrol, sea control, border security, homeland protection and surveillance operations. SeaGuardian EOSS-F400 is equipped with a complete sensor suite comprising of a LWIR thermal camera and color HDTV camera both with continuous optical zoom and embedded spotlight.

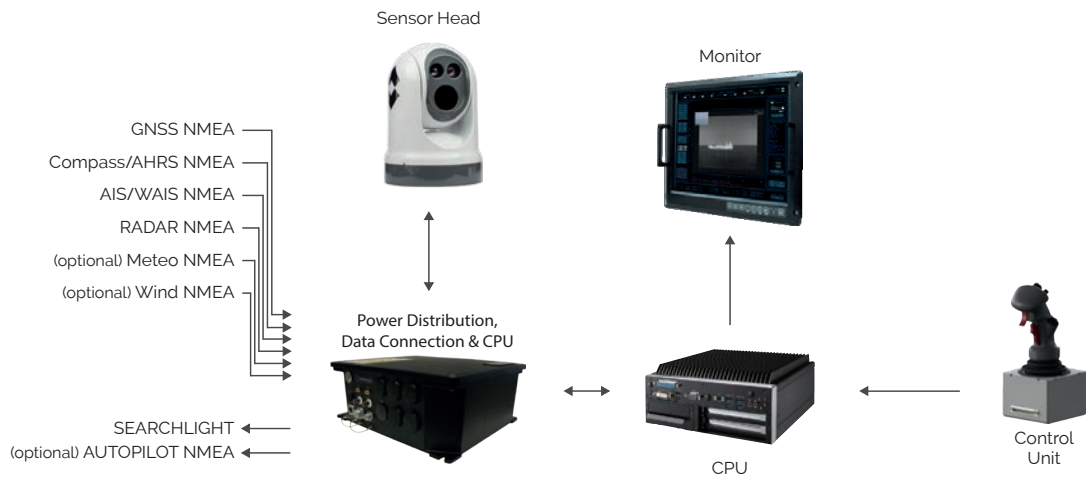
SeaGuardian EOSS-F400 can be integrated into SeaGuardian TMS – Tactical Mission System.

## Key Features

<b>Advanced Sensor for Short and Medium Range Sight</b>	Complete sensor suite providing multi-spectral coverage (TI and HDTV)
<b>Automatic Object Detection and Target Tracking</b>	Video Tracking (multiple algorithm capability: Centroid, Correlation, Scene, Phase Correlation, Combined), Multiple Target Track, Moving Target Detection  Radar/AIS Tracking (multiple algorithm capability: Track Engage, Track Scan, Track Last, Track Cursor), Target Classification and Data Fusion with automated capture of target snapshot images
<b>Image Enhancement</b>	Advanced real-time digital HD image processing engine (multiple algorithm capability: Electronic Image Stabilization, Image Blending, Digital Contrast Enhancement, Highlights Target, IR/TV Image Fusion, Local Area Contrast Processing, Edge Sharpening, Image Noise Reduction, Picture In Picture)
<b>GEO-Lock</b>	GEO Pointing, GEO Location, GEO Tracking
<b>Surveillance Mode</b>	Real-time Video Panorama Stitching with marked detected target and relative info, Azimuth Scan Sectors, Scan List Preset Points
<b>Mission Recorder</b>	Mini-VDR (Voyager Data Recorder with selectable sampling 2+99sec): Data & Time (UTC), Ship Position (GNSS LAT/LON and Mission Grid Map), Heading, Speed, Gimbal Orientation (Azimuth, Elevation), FOV (Field of View), Video Channel Used (IR/TV) (up to 365 days)  Recording and Playback of Encrypted and Georeferenced Videos and Photos (days selectable at the order)  Event and Warning Datalog (up to 365 days)
<b>Advanced Encryption</b>	AES-256
<b>Power Distribution, Data Connection and CPU</b>	High performance rugged CPU for Signal and Image Processing (Video Input: PAL, NTSC, HD-SDI), Rugged Power Distribution and Data Connection Unit
<b>Built-In Test (BIT)</b>	Multiple algorithm capability: Power-up, Periodic, Initiated
<b>Smart Integrations</b>	Searchlight slaving for Search & Rescue (SAR) or Oil Spill Detection (OSD) missions  Output data and videos over ethernet (2 channels of streaming MPEG-4, H.264, or M-JPEG video compression)  Optionally: Smart glasses for visualizing images, navigation data and target information in Augmented Reality (AR) mode



## SeaGuardian EOSS-F400 System Configuration



## Range Performance

	Identification		Recognition	Detection	
	1.9Km	3.5Km	9Km		
	3.3Km	6Km	15.5Km		
			15Km	20Km	>20Km

## Technical Specification

Gimbal (TCU)	Specifications
Size	273 mm diameter
Number of Axis	2 axis, active gyro-stabilization
Weight	20.4 Kg
AZ Coverage	N x 360° continuous
EL Coverage	+90° to -90°

HD Color TV Camera	Specifications
Sensor Type	1/2.8" CMOS
Number of pixel	~ 2.38 MPX
Continuous Zoom	63.7° ÷ 2.3°
Minimum Illumination	1.4 lx

Infrared Camera	Specifications
Detector Size	640 x 480 px
Detector Technology	VOx Microbolometer
Spectral Wavelength	7 + 14 μm
Continuous Zoom	18° ÷ 6°
Continuous E-Zoom	4x

Electrical Requirements	Specifications
Input Voltage	230VAC or 24VDC (DC with wide range input voltage)



# Astim

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Defense  
Security  
Naval  
Industry

+39.0544.471645 - [info@astim.it](mailto:info@astim.it) - Via Filippo Re, 15/A - 48124 RAVENNA Italy - [ASTIM.IT](http://ASTIM.IT)

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