



M460 / M460-LRF

Elite Multi-Spectral
Marine Camera System



M460 Overview

The M460 is an elite AI powered multi-spectral camera system for marine applications. More than a thermal camera, the M460 is a marine-imaging system that combines a long-wavelength thermal sensor with a 4K ultra low-light visible camera, a 12KM ITAR free laser rangefinder and a long-range laser spotlight. M460 integrates these powerful sensor payloads into a rugged three-axis stabilized gimbal housing, offering superior long-range detection capabilities with best-in-class image stabilization.



Key Features:

Multi-Spectral Imaging

Combines long-wave IR thermal, 4K ultra-low-light visible camera, laser rangefinder, and laser spotlight for unmatched situational awareness.

Three-Axis Stabilized Gimbal

Delivers smooth, distraction-free imagery in rough seas; enhances long-range zoom and target tracking accuracy.

AI Target Tracking

Detects, classifies, and tracks vessels, buoys and people using thermal and visible sensors—minimizing false alarms and improving navigation safety.

High-Sensitivity Thermal Sensor

FLIR long-wave IR sensor with 5.4x optical zoom enables early detection of vessels and obstacles, even in total darkness.

4K Day/Night Camera

25x optical zoom and ultra-low light sensitivity allow for detailed observation and positive identification of targets.

Color Thermal Vision (CTV)

Enhances thermal imagery with visible color overlays—making navigation aids and shoreline features easier to identify.

ITAR Free 12KM Laser Rangefinder

Provides precise distance measurements for tracking and evidence gathering; optional based on system configuration.

Tight Beam Laser Spotlight

Illuminates distant objects with minimal reflection and scatter—ideal for identifying people or vessels at night.

Intuitive User Interface

Operable via JCU-4 joystick and designed to integrate with touchscreen chartplotters from Furuno, Garmin, Raymarine and Simrad,

Radar Tracking

Automatically keeps camera focused on radar targets for enhanced safety and surveillance.

USV & Remote Ops Ready

Built to military-grade standards with ONVIF and FLIR Nexus SDK support; optimized for low-bandwidth remote control and integration.

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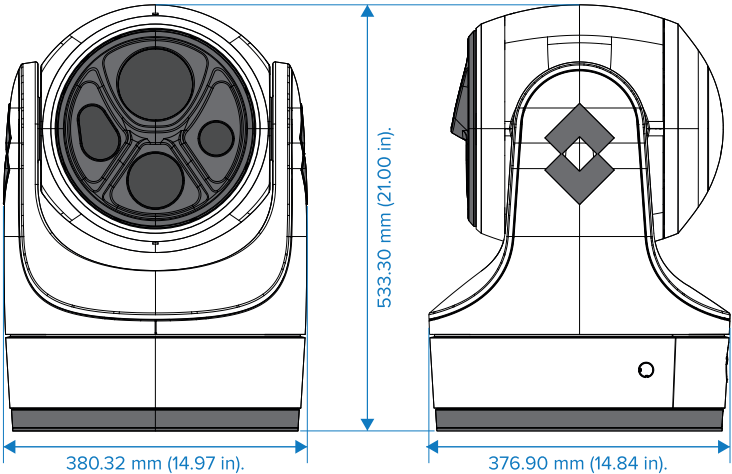
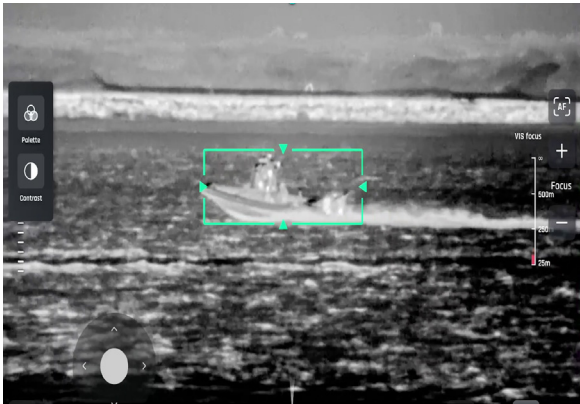
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DIMENSIONS



SPECIFICATIONS

	M460	M460-LRF
Thermal		
IR Resolution	640x512	
HFOV [°]	5.86-30.68	
Refresh Rate	30 Hz	
Zoom	5.4x optical, 4x digital	
Range Performance		
Detect a 30-foot Vessel	5.6nm (9 km)	
Detect Human Sized Target	1.86nm (3km)	
Ultra Low Light	8 MP	
Resolution	4k 3840 x 2160 @ 30fps	
HFOV [°]	2.4 - 49.5	
Zoom [X]	25x optical, 12x digital	
Low light [Lux]	0.4 lux (ICR off) / 0.06 lux (ICR on)	
Laser Range Finder	N/A	Yes
Max Range	N/A	12,000m
NATO Target Range	N/A	6,000m
Spotlight	Yes	
Beam Width [°]	2.0	
Max Illumination Range	1 km (0.25 lux)	

	M460	M460-LRF
Target Tracking		
Mechanical Stabilization	Yes	
Mechanically Stabilized Axes	3	
Electronic Stabilization	Yes (Visible)	
Object Detection & Classification	Yes (Thermal and Visible)	
AI Video Target Tracker	Yes	
Radar/AIS/WPT/MoB Target Tracker	Yes	
Qualifications		
General	IEC 60945 MIL-STD 810	
IP Rating	IP66 & IP67	
Operating Temperature	-13° to +131°F (-25° to +55°C)	
Storage Temperature	-22° to +158°F (-30° to +70°C)	
Lightning Protection	Near Strike 2kV	
Physical		
Weight	35 kg (77.16 lb)	
Height Parked	558mm (22")	
Height Forward Facing	533mm (21")	
Diameter	379mm (14.69)	

PRELIMINARY PRODUCT INFORMATION.
FEATURES AND SPECIFICATIONS ARE SUBJECT TO CHANGE

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