TELEDYNE FLIR

SEAFLIR® 240

HD multi-spectral surveillance system

APPLICATIONS

- UNMANNED SURFACE VESSEL (USV)
- SPECIAL OPERATIONS FORCES (SOF)
- LAW ENFORCEMENT OPERATIONS
- SITUATIONAL AWARENESS
- ISR
- TARGET ACQUISITION
- SEARCH & RESCUE MISSIONS



The SeaFLIR 240 is the latest addition to the SeaFLIR family of maritime surveillance sensing technology. The system was designed to meet the operational requirements of commercial and defense markets, such as transportation, offshore oil and gas, and special operations and law enforcement.

The system delivers best in class EO/IR imagery in a lightweight turret, with superior image processing and stabilization. The system includes a High Definition 1280 x 720 MWIR thermal payload (18x continuous zoom), in addition to a 1920 x 1080 HD CMOS visible camera (20x continuous zoom) with low light capability camera for superior range and resolution. Plus optional laser range finder and laser pointer.

The SeaFLIR 240 also brings forth an entirely new onscreen user interface (UI) while maintaining the reliable offering of legacy hand controllers that operators use on a daily basis. The UI is highly customizable based on mission or operator preferences, minimizes distraction and eliminates clutter in the active screen. All in an effort to help the war fighter or LE operator make decisions more quickly and efficiently.

FEATURES

FAST INSTALLATION AND EASE OF OPERATION

Compact & lightweight LRU with simplified cabling afford quick installation. Highly intuitive user interface (UI) for easy operation without specialized training. Customizable UI minimized distraction and eliminates clutter in active screen.

SUPERIOR RECOGNITION AND ACCURACY

Superior range performance delivers best in class target recognition. Advanced Video Tracking keeps the SeaFLIR 240 locked on target. Optional built-in IMU delivers superior stabilized imagery and target location accuracy.

ADVANCED PERFORMANCE TO REDUCE WORKLOAD

Auto Focus & Auto Gain reduce operator workload. Image blending Multi-Spectral Dynamic Imaging MSX® ensures crisp clear onscreen imagery.

MISSION CRITICAL CAPABILITIES

HD Thermal, HD Daylight and HD Low Light camera options. Eyesafe Laser Range Finder and Laser Pointer options. Standard Serial and Ethernet communication protocols.

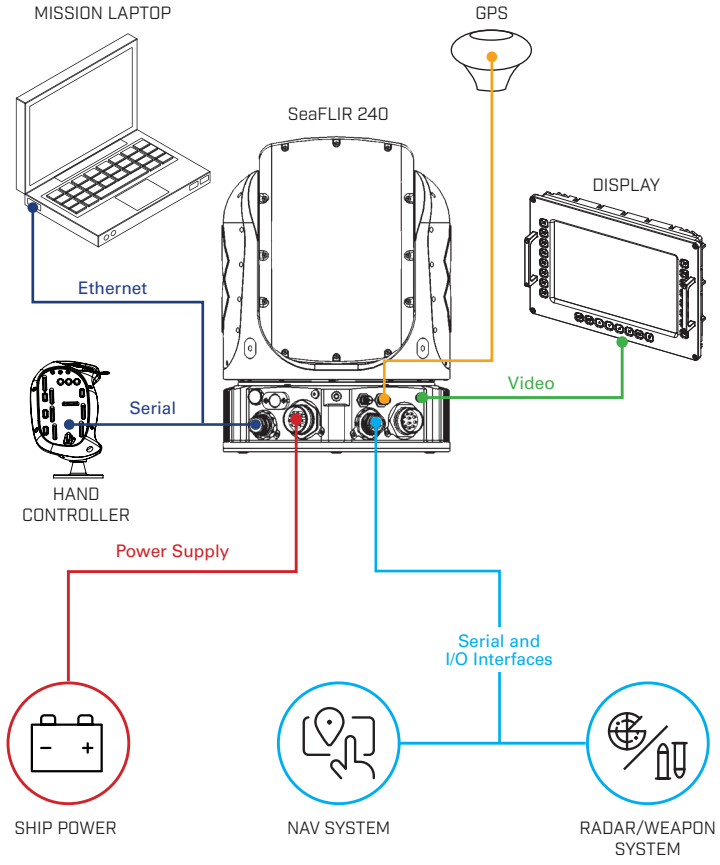
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SPECIFICATIONS

THERMAL PAYLOAD	
Sensor type	HD MWIR 1280 x 720 FPA
Wavelength	3-5 µm
FOVs - nominal	Optical: 31.7° to 1.78° / 18x continuous zoom (4x digital)
VISIBLE PAYLOADS	
Daylight Sensor type	HD 1/2.5" CMOS
FOVs - nominal	Optical: 38.4° to 2.1° / 20x continuous zoom
LASER PAYLOADS (OPTIONAL)	
Rangefinder	Max range: 25km (15km variant available) Eye safe, Class 1 Laser product
Pointer	Power: 150 mW / 852 nm, Invisible, Class 3B Laser product
SYSTEM INTERFACES	
Video Outputs	1x HD-SDI H.264 streaming over Ethernet (Streaming requires future firmware update)
Digital video format	1080p / SMPTE 292M
Communications	Serial: 3x RS-232 / RS-422, 1x allocated to Controller (HCU), 1x default to NMEA0183 (4800 baud), 1x user configurable, Ethernet: 1x 1.0 Gigabit
GPS Antenna	2 x TNC connectors
Controllers	Hand Controller Unit (HCU)
Display (Optional)	15.6" FHD (1920x1200) display suited for harsh maritime environment
OPERATION MODES & IMAGE PERFORMANCE FEATURES	
Auto-scan	Pattern scan defined by operator
Track Mode	Video tracker locks onto defined target
Position Mode	TFU pointed to user defined LOS
Heading Mode	Maintain LOS azimuth, stablized elevation
Radar Bearing Handoff	Accepts position data from RADAR system
Split Screen	IR & EO side by side cropped vertically or horizontally
Digital Detail Enhance (DDE)	Spatial edge enhancement
Local Area Contrast Enhancement (LACE)	Optimized image contrast over entire scene
Adaptive Temporal Filtering (ATF)	Reducing high frequency temporal noise
Multi-Spectral Dynamic Imaging (MSX)	Edge detail from color overlay on IR

ENVIRONMENTAL	
Standards	MIL-STD-810G (Shipboard), MIL-STD-461
Operating temperature	-40°C to 55°C
Storage temperature	-40°C to 71°C
POWER REQUIREMENTS	
Voltage	20 – 32 VDC (per MIL-STD-704E)
Consumption (steady state)	295 W typ., 600 W max (excluding anti-icing)
Anti-ice	Additional 360 W
DIMENSIONS & WEIGHT	
TFU size	11.0"(d) x 15.35"(h) (280 x 390 mm) cylindrical volume
TFU weight	</= 44.0 lbs (20.0 kg) (varies based on payloads)

SYSTEM DIAGRAM





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