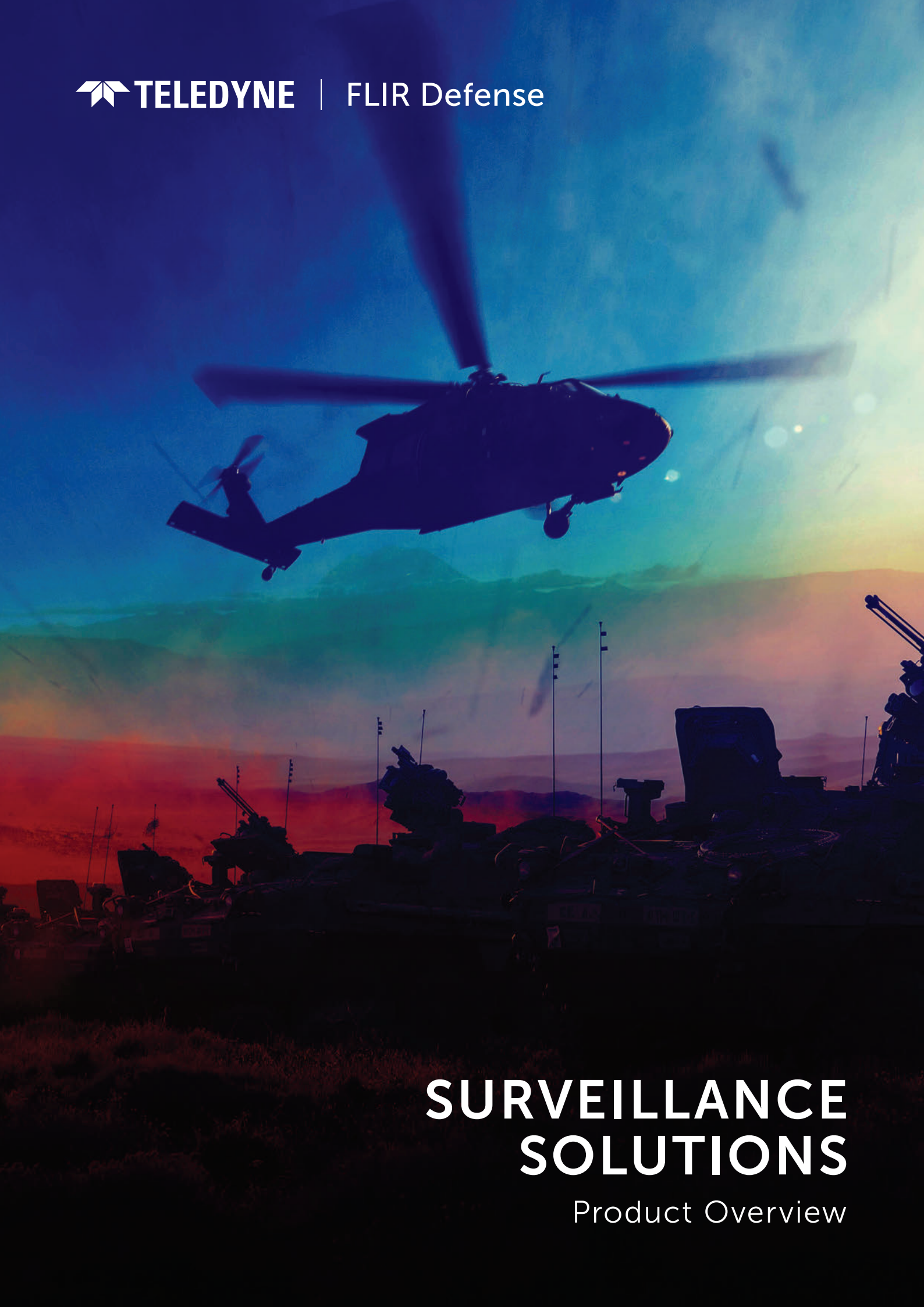
TELEDYNE | FLIR Defense



SURVEILLANCE SOLUTIONS

Product Overview

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FOR MORE PRODUCT INFORMATION AND VIDEOS, PLEASE VISIT DEFENSE.FLIR.COM

EXPORT INFORMATION

Teledyne FLIR Defense products are subject to the ITAR. The "Use" of any ITAR-controlled products requires that prior authorization be obtained from the U.S. Department of State to allow non-U.S. persons and affiliates to use these Teledyne FLIR Defense products.

*Equipment described herein may require U.S. Government authorization for export purposes. Diversion contrary to US law is prohibited.

According to the ITAR §120.10 and the EAR part 772, this document does not contain technical data / technology.

TELEDYNE FLIR DEFENSE

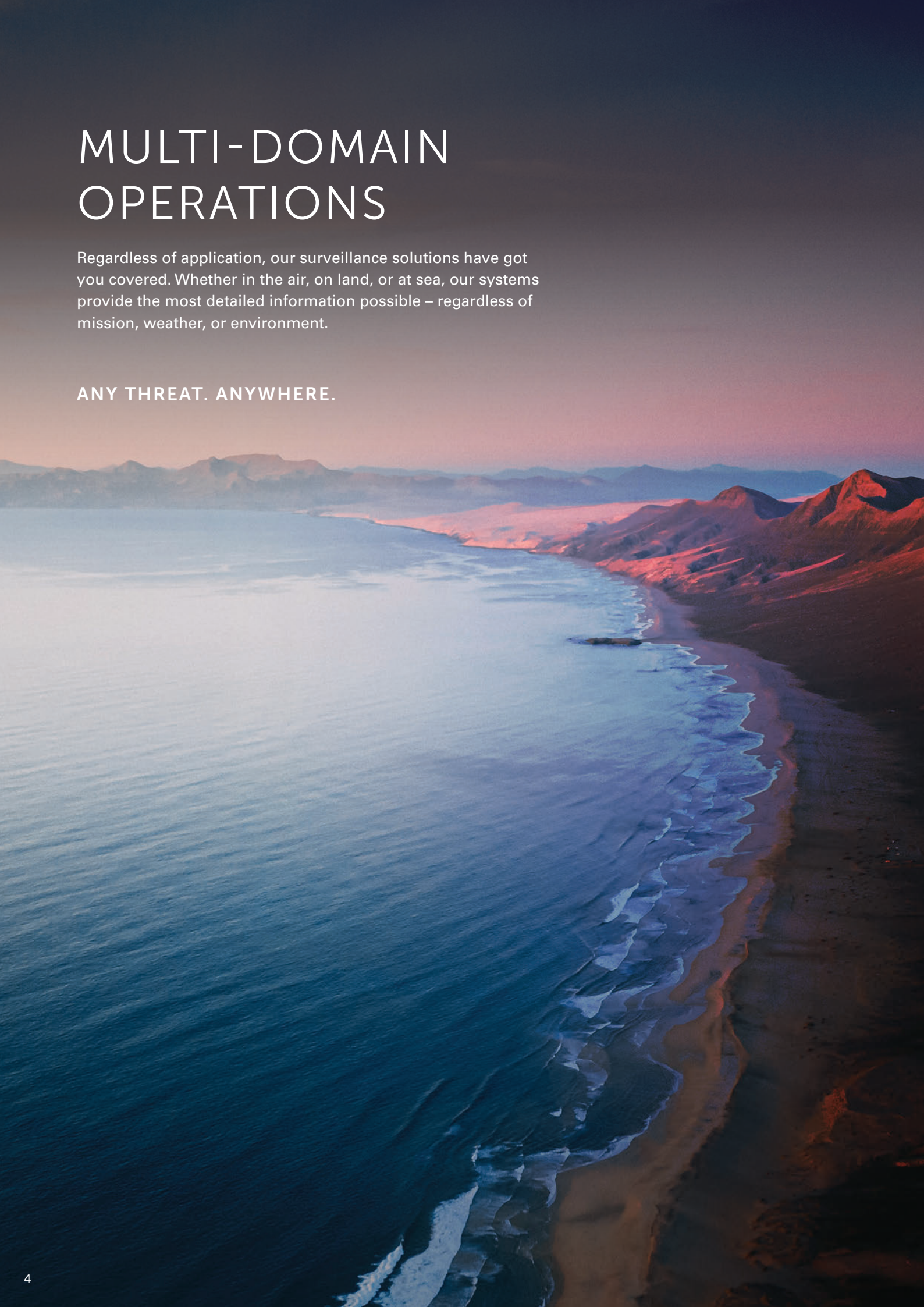
Our company designs, develops, manufactures, markets, and distributes technologies that enhance perception and awareness. We bring innovative sensing solutions into daily life through our thermal imaging, visible-light imaging, video analytics, measurement and diagnostic, and advanced threat detection systems.

We offer a diversified portfolio that serves a number of applications in government & defense, industrial, and commercial markets. Our products help first responders and military personnel protect and save lives.

MULTI-DOMAIN OPERATIONS

Regardless of application, our surveillance solutions have got you covered. Whether in the air, on land, or at sea, our systems provide the most detailed information possible – regardless of mission, weather, or environment.

ANY THREAT. ANYWHERE.



SURVEILLANCE SOLUTIONS

For more than 40 years, Teledyne FLIR has been committed to creating innovative surveillance technology which delivers critical support for essential military and law enforcement CONOPS, first responders involved in Search and Rescue missions, and domestic markets including protecting critical infrastructure.

Our mission-proven radars, thermal cameras and sensors bring all-seeing data to every corner of the map, and we work tirelessly to optimize systems to best serve unique missions wherever they're needed. From securing borders and combat reconnaissance, to equipping first responders and warfighters, our solutions are a key component for multi-domain operations and help ensure the public's safety.

Always looking ahead, our investment in research and development means our technology will only get smarter, more affordable, and in the field faster. As the world leader in thermal imaging, Teledyne FLIR is ready to meet any need and any mission.

AIRBORNE SOLUTIONS

With a complete, mission proven line of high definition EO/IR sensor options, Teledyne FLIR offers unmatched, multi-spectral HD imaging solutions, with world-class service and support, and a virtual system training platform to prepare you for any mission. For more than 40 years, Teledyne FLIR has proven it can rise to the challenge in every tactical environment the world has to offer. Terrain. Weather. Mission Requirements. Hostile actions. All these factors make airborne missions a relentless and evolving mix of actions and reactions, requiring persistent attention.

The appearance of U.S. Department of Defense (DoD) visual information does not imply or constitute DoD endorsement.

For more information please contact: surveillance_sales@Teledyne.com

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AIRBORNE SOLUTIONS

STAR SAFIRE®

MIL-SPEC HIGH PERFORMANCE

Since the 1990s, Star SAFIRE systems have pioneered long-range EO/IR sensors. Beginning with the first Star SAFIRE system, Teledyne FLIR has utilized a spiral development strategy to ensure customers are able to easily upgrade with the advancements in technology.

The appearance of U.S. Department of Defense (DoD) visual information does not imply or constitute DoD endorsement.

For more information please contact: surveillance_sales@Teledyne.com

SINGLE LRU HD EO/IR IMAGING SYSTEM

STAR SAFIRE 380-HD

The Star SAFIRE 380-HD provides superior image stabilization, ultra-long-range imaging performance, and true metadata embedded in the digital video. Featuring internal navigation for precise targeting, a MWIR thermal imager, optional HD color and lowlight cameras, and multiple laser payload options.

AVAILABLE AS 380X - HD

Features

- High Definition Video
- SWIR/MWIR
- Color EO
- Color EO Spotter Scope
- Moving Target Indicator (MTI)
- Integrated Video Tracker
- Fully integrated GPS/IMU Target Location
- Laser Rangefinder
- Laser Pointer
- Laser Illuminator
- Turret weight <100 lbs (45.4 kg)

SWAP-C SINGLE LRU HD EO/IR IMAGING SYSTEM

STAR SAFIRE 380-HDC

The Star SAFIRE 380-HDc delivers unparalleled stabilized HD multi-spectral imaging and MERLIN® intelligence functions in a compact, low-profile package. It's designed to maximize ground clearance in rotary aircraft without sacrificing capability and performance.

AVAILABLE AS 380X - HDC

Features

- High Definition Video
- Continuous Zoom SWIR/MWIR
- Continuous Zoom Color EO
- Color EO Spotter Scope
- Low Light EO (EMCCD)
- Moving Target Indicator (MTI)
- Integrated Video Tracker
- Fully integrated GPS/IMU Target Location
- Laser Rangefinder
- Laser Pointer
- Laser Illuminator
- Turret weight <65lbs (29.5 kg)

FULL-HD MULTI-SPECTRAL TARGETING SYSTEM

STAR SAFIRE 380-HLD

The Star SAFIRE 380-HLD provides superior image stabilization, ultra long-range imaging performance, and true metadata embedded in digital video, all with laser designation (LD) and rangefinder. The Star SAFIRE 380-HLD also provides the ability to operate continuously in all conditions.

AVAILABLE AS 380X - HLD

Features

- High Definition Video
- SWIR/MWIR
- Color EO
- Color EO Spotter Scope
- Moving Target Indicator (MTI)
- Integrated Video Tracker
- Fully integrated GPS/IMU Target Location
- Laser Designator
- Laser Rangefinder
- Laser Pointer
- Laser Illuminator
- Turret weight <110 lbs (49.9 kg)

AIRBORNE SOLUTIONS

COMPARISON CHARTS

STAR SAFIRE SERIES

	STAR SAFIRE 380-HD	STAR SAFIRE 380-HDC
HD INFRARED	●	●
HD COLOR EO	●	●
ZOOM LLTV	●	●
SHORT WAVE IR	●	●
LASER RANGEFINDER, POINTER, & ILLUMINATOR	●	●
LASER DESIGNATOR		
ANALOG VIDEO	●	●
HIGH DEFINITION VIDEO	●	●

For more information please contact: surveillance_sales@Teledyne.com

STAR SAFIRE 380-HLD	STAR SAFIRE 380X-HD	STAR SAFIRE 380X-HDC	STAR SAFIRE 380X-HLD
●	●	●	●
●	●	●	●
●	●	●	●
●	●	●	●
●	●	●	●
●			●
●			
●	●	●	●

380X ADVANCED IMAGING

ADVANCED IMAGING IN A SINGLE LRU

The intelligent sensing capabilities of 380X reduces operator workload for faster, smarter decision support and features customizable configurations for multi-tile video management and visual user interface, and touchscreen capability. It also features an integrated moving target indicator (MTI) and de-scintillation filter that removes atmospheric effects to reveal clearer, sharper detail from greater distances.

INTELLIGENT IMAGING

The 380X provides advanced image aiding capabilities in a single LRU, and is available in our globally renowned Star SAFIRE, TacFLIR, and SeaFLIR 380 series systems (including 380-HD, 380-HDc and 380-HLD). These intelligent imaging features are also available as a hardware, firmware, and software upgrade to an existing system or as a standalone new system.

Features

MULTIPLE VIDEO MANAGEMENT
Multi-tile image management allows operators to view multiple video sources simultaneously, including all camera payloads plus external video input.

BETTER CLARITY
See more with de-scintillation filter which can remove atmosphere obscurants to reveal fine details otherwise hard to detect, enabling operators to make faster, smarter decisions.

NEW USER INTERFACE
Navigate menus with customizable icon based graphics (GUI) to expedite inputs when needed.

IMPROVED TARGETING
Embedded Moving Target Indicator (MTI) helps identify threats earlier and more definitively.

AUGMENTED REALITY
AR mapping overlays improve situational awareness depicting mission in the live environment, increasing understanding and expediting better, smarter decisions.

AIRBORNE SOLUTIONS

TRAINING

VIRTUAL SYSTEM TRAINING PLATFORM

FLIRSIM is a portable, easy to set up and use, all-inclusive system-level training device that provides the functional equivalency of an FAA FTD level 6 simulator for Star SAFIRE 380 family sensor operators. Developed by MAG Aerospace, FLIRSIM replicates any real-world scenario or environment on demand to improve safety on live missions. Time spent using the FLIRSIM enhances operator mission effectiveness and accomplishment. FLIRSIM delivers direct operational cost savings normally incurred during training.

Features

ACTUAL TELEDYNE FLIR HAND CONTROLLER

- Same Teledyne FLIR Hand controller as found in vessels & aircraft
- Operators form muscle memory on the true button layout

TRANSPORTABLE AND EASY TO USE

- Complete system is self-contained in a rugged case
- Can be checked as luggage without incurring oversized luggage fees
- Easily set up anywhere

DYNAMIC SCENARIO GENERATION

- Able to train in real world environments
- Train where you operate
- Control weather conditions and time of day to immerse and challenge operator

TRAINING & SUPPORT PORTAL

Premium online training and support for operators using our globally renowned Star SAFIRE 380 series systems. Including our Star SAFIRE 380-HD and 380-HDc systems, customers have full access to training courses covering a wide range of topics ranging System Basics, System Operations, Menu & Payload Operation, as well as Infrared Theory (non-ITAR). All of this is accessible with an easy and secure login on our Surveillance Training Dashboard.

LAND SOLUTIONS

Our mission-proven land solutions monitor threats over vast areas with an array of radars and multi-sensor cameras. Discover man-portable, fixed, and vehicle-based solutions that provide the early warning and threat assessment to detect, identify, and intercept suspicious activity before it gets close.

Our ruggedized, MIL-spec radars, imagers and sensors monitor threats in the harshest environments and most demanding tactical situations. Strengthen force protection and increase stand-off range with solutions proven time and time again across the globe.

For more information please contact: surveillance_sales@Teledyne.com

LAND SOLUTIONS

RADARS

RANGER® R6SS & R8SS

The mid-range, man-portable Ranger R6SS and R8SS radars detect and track personnel and vehicles within 15km ranges, and detect up to 512 threats simultaneously. Light and small, the R6SS and R8SS fit in a backpack or are easily mounted to a vehicle or permanent structure as part of an integrated solution. With a pan tilt mount, the Ranger panel radars can scan a full 360° every second for complete perimeter security.

RANGER® R8-3DX & R8-3DXS

The man-portable Teledyne FLIR Ranger R8-3DX has the vertical coverage, low minimum detection velocity, and algorithms to detect and track up to 512 threats simultaneously, including drones, while mitigating bird detections. The system can monitor the coverage area 4x per second, running 24/7, detecting all ground and aerial threats in virtually any climate, day or night. Compact and lightweight, it fits in a backpack, draws 135W, and can integrate with other sensors, while costing much less than its vehicle-sized counterparts. The R8-3DXS variant provides increased vertical coverage, detection ranges, and enhanced elevation accuracy compared to the R8-3DX.

RANGER® R10-3DX

The Ranger R10-3DX provides mid-range detection capabilities for counter drone (C-UAS) and ISR missions on fixed installations or mobile platforms. The system utilizes effective electronic counter-measures, which means less interference and jamming risks, critical for modern battlefield operations, and by using Digital Beam forming technology, one panel continuously covers a wide area of 90° azimuth and up to 60° in elevation, and with 4 panels, a full 360° is achieved at 2 or 4 Hz refresh rate, ensuring potential threats can be detected at greater success by producing less room to evade. The system also offers low SWaP and a fast refresh rate, and AI-based algorithm for reliable threat classification during critical moments.

RADARS

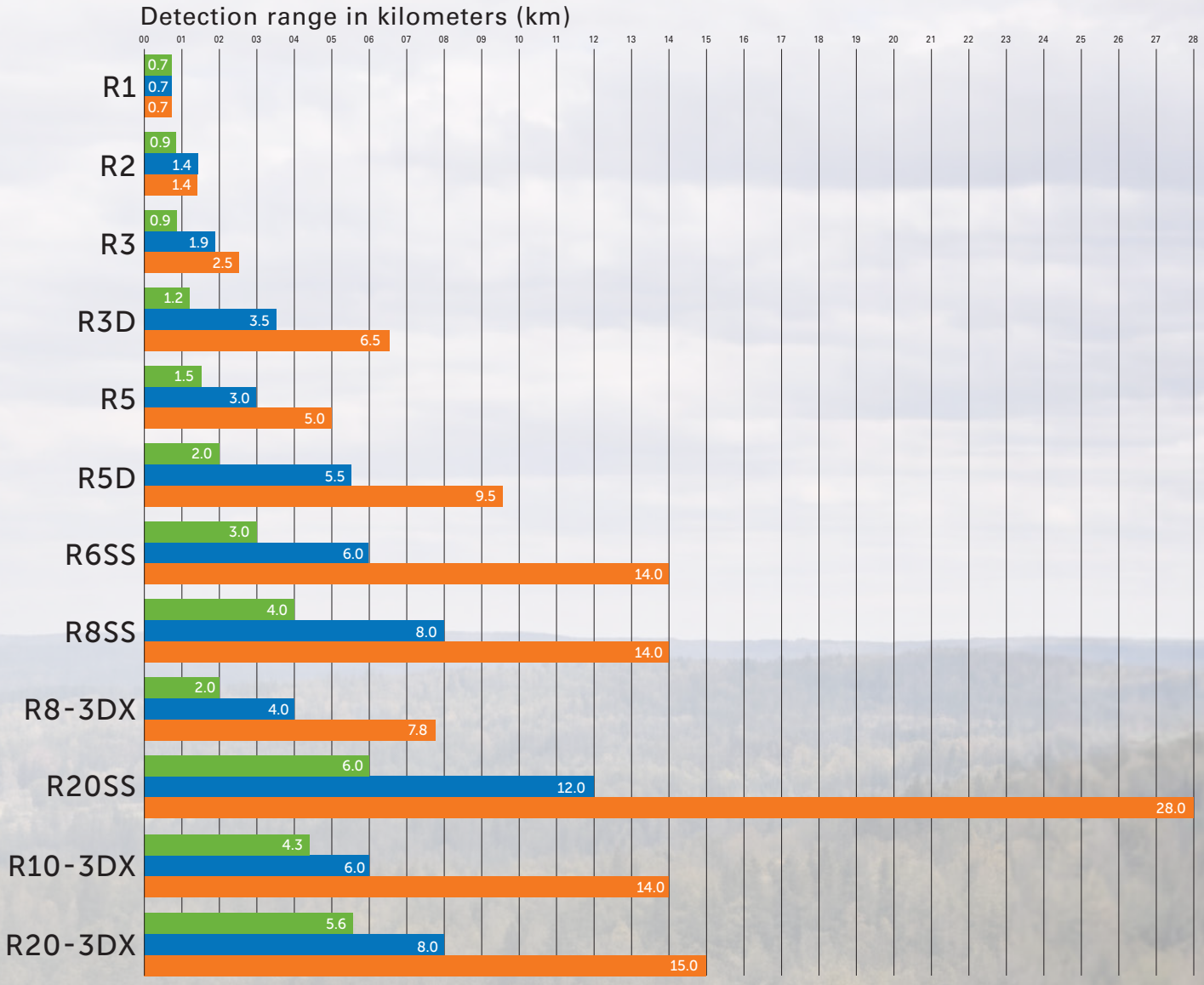
RANGER® R20SS & R20-3DX

The Ranger R20SS is an advanced electronic scanning surveillance Radar specifically designed to detect and track surface as well as low-altitude targets. Instrumented to a range of 30km for land applications and 60km for coastal, the R20SS has one of the fastest scan rates available while offering one of the lowest MDV (Minimum Detectable Velocity). With the ability to simultaneously track hundreds of targets moving in any direction and virtually any speed, the R20SS provides unequalled 24/7 persistent surveillance. The R20-3DX with its larger vertical coverage and elevation measurement capability is specifically optimized for small UAS detection. It can detect micro UAS targets at more than 3km out, pedestrians up to 8km out, and vehicles up to 15km out. Its automatic target classification greatly filters out unwanted targets and focuses on potential threats.

RANGER® R1, R2, R3, R5, R3D, R5D

These perimeter surveillance radars provide accurate, high-resolution detection of vehicles and personnel in the most demanding environments, with ranges of up to 5km. Scanning as much as a full 360 degrees per second they can effectively monitor up to 78 square kilometers (30 square miles). Features Doppler Staring mode, which significantly increases detection range. Multiple units can be installed with overlapping coverage to protect the larger areas required for border security missions, and are easily networked to form a single integrated system with other sensors and command and control systems.

DETECTION RANGES



DRONE* **PERSON** **VEHICLE**

System calculations in kilometers**

*Ranges are for micro drones

**Range values represent optimal performance, which will vary depending on target size, clutter environment, atmospheric conditions and sensor operational settings.

For more information please contact: surveillance_sales@Teledyne.com

IMAGERS

TACFLIR® 380-HD

The world's most capable all-digital, fully high definition system under 100 lbs, providing thermal, visible, and SWIR imagery along with superior image stabilization, ultra long range imaging performance, and true metadata embedded in the digital video. A single LRU system, the 380-HD is easy to integrate into a variety of towers and vehicles, providing persistent surveillance over the largest patrol areas.

AVAILABLE AS 380X-HD

TACFLIR® 380-HLD

The TacFLIR 380-HLD combines laser target designation with digital, high-definition EO-IR imaging for land vehicle applications. As a targeting system, TacFLIR 380-HLD is unmatched in its ability to optimize performance of precision-guided munitions from land vehicle environments. Payload includes a MWIR camera with a native 1280x720 resolution, HD CCD cameras, SWIR camera, and high powered laser designator (LD).

AVAILABLE AS 380X-HLD

TACFLIR® 280-HDEP

TacFLIR 280-HD is a high-performance land-based imaging system designed to identify and track smugglers, terrorists, or any other threat – day and night, and in the toughest terrain. Tailored for mobile deployment with high-definition imaging and powerful optics, TacFLIR 280-HD reveals the details necessary for long-range vehicle detection, identification, and threat assessment, and provides operators greater standoff.

IMAGERS

TACFLIR® 240 / TACFLIR® 240-EP

The new TacFLIR 240 has best in class EO/IR imagery, including HD MWIR thermal camera, HD CMOS viable and low light camera options, a lightweight turret, superior image processing, and stabilization. The system also brings a new onscreen user interface (UI) that is customizable based on mission or operator preferences, minimizes distraction and eliminates clutter in the active screen.

The TacFLIR 240-EP is an advanced land-based sensor which contains the same HD payload options within its lightweight stabilized turret as the TacFLIR 240, but also Extensible Processing (EP) capabilities which are hosted by the Control Electronics Unit (CEU). The system is designed to meet a variety of applications for military and federal law enforcement, and offers an optional removable 1 Terabyte Solid State Drive DVR, useful for video recording, still image capture and post mission analysis.

TACFLIR® 230

The TacFLIR 230 provides maximum sensor range performance including a high-resolution color zoom TV camera with low light capability, a powerful 640 x 480 cooled MWIR thermal camera with 18x total magnification, and optional laser pointer and range finder. At 41 pounds and with a nine-inch diameter, the TacFLIR 230 is optimized for mobility and easily deployed with extendable masts and gyro-stabilized for on-the-move operations.

MULTI-SENSOR

PAN/TILT LONG-RANGE MULTI-SENSOR

The Ranger HDC Multi-Sensor system integrates the long range, mid-wave HD Ranger HDC with a variety of powerful daylight sensors, and optionally a Laser Range Finder, GPS, Digital Magnetic Compass, and Automatic Video Tracker. An array of advanced functions and options are available to meet the most demanding needs. All sensors on the Ranger HDC Multi-Sensor units are mounted on a fast and accurate Pan & Tilt unit.

PAN/TILT MEDIUM-RANGE SENSOR

Ranger® HDC MR sets a new standard for high-definition perimeter security applications, border surveillance and force protection. The system includes a high-definition thermal imager with either a 1280 x 720 cooled detector or a 1024 x 576 uncooled detector along with a 1920 x 1080 HD Color TV camera, and is designed for slew to cue integration with other sensors such as radars, making it ideal for C-UAS. With superior capability to detect illegal activities in any weather using built-in fog mode and heat turbulence filters, operators can quickly and accurately determine true threats from false alarms in any situation.

PRODUCT FEATURES

	DETECTION RANGE (KM)		THERMAL	VISIBLE		SPOTTER SCOPE								
	PERSON	LARGE VEHICLE	HD MWIR	HDEO	HDLL	SD SWIR	HDEO	LRF	LP	LI	LD	SWIR LI	SINGLE LRU	DUAL LRU
TACFLIR® 380-HD **TACFLIR® 380X-HD** ULTRA LONG RANGE 	8	22	●	●	●	●	●	●	●	●			●	
TACFLIR® 380-HLD **TACFLIR® 380X-HLD** ULTRA LONG RANGE 	8	22	●	●		●	●	●	●	●	●		●	
TACFLIR® 280-HDEP LONG RANGE 	5	17.5	●	●	●	●	●	●	●	●		●		●
TACFLIR® 240 MEDIUM RANGE 	4.5	16	●	●	●			●	●				●	
TACFLIR® 240-EP MEDIUM RANGE 	4.5	16	●	●	●			●	●					●
TACFLIR® 230 SHORT RANGE 	3.5	13		●*				●	●				●	

Range values represent optimal performance, which will vary depending on target size, thermal contrast, atmospheric conditions and sensor operational settings.
*denotes SD EO capability only

VEHICLE VISION AND MOBILE SURVEILLANCE SOLUTIONS

As technology grows and threats become more pervasive on the battlefield, forces on the ground are in a constant struggle to extend standoff range during area surveillance and reconnaissance, while maintaining the ability to detect threats at long ranges, enable target identification and strike if necessary. Remote weapon sights, EO/IR imaging systems, driver vision and situational awareness systems are crucial elements of cohesive ISR-T missions, and Teledyne FLIR has the essential solutions needed for the modern and rapidly evolving battlefields across the globe.

VEHICLE VISION OPTIONS

REMOTE WEAPON STATION SIGHTS

Enable accurate target acquisition in all conditions – in rain, smoke or light fog, day or night

AREA SURVEILLANCE AND RECONNAISSANCE

Target ID and geolocation

Detect threats at long ranges

See overhead obstructions

Designate for LGMs

DRIVER'S VISION AND SITUATIONAL AWARENESS

Drive, navigate, and detect threats day or night

Readily assess the situation around the vehicle

Ensure safety during vehicle egress

See through dust, rain, smoke, and light fog

SEE WITHOUT BEING SEEN

BE FULLY AWARE

Keeping the warfighter protected inside the vehicle as well as the need to operate in all conditions demands that the modern military vehicle is equipped with multiple thermal cameras and sensors. FLIR's combat-proven Driver's Vision (DV) and Situational Awareness (SA) cameras allow full visibility — day or night — in the most adverse conditions.

MATED WITH AN RWS

MOUNTED TO THE WEAPON

CAN RETROFIT TO EXISTING RWS

MULTIPLE RANGES

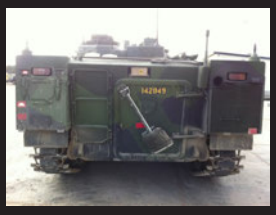
- Short Range
- Mid-Range
- Long Range - Cooled

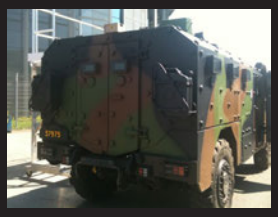
MULTIPLE SENSORS

- Infrared and Matching EO sensor
- Laser Rangefinder for higher accuracy

IMAGE ENHANCEMENT

- Autogain / Level
- White Hot Black Hot
- DDE

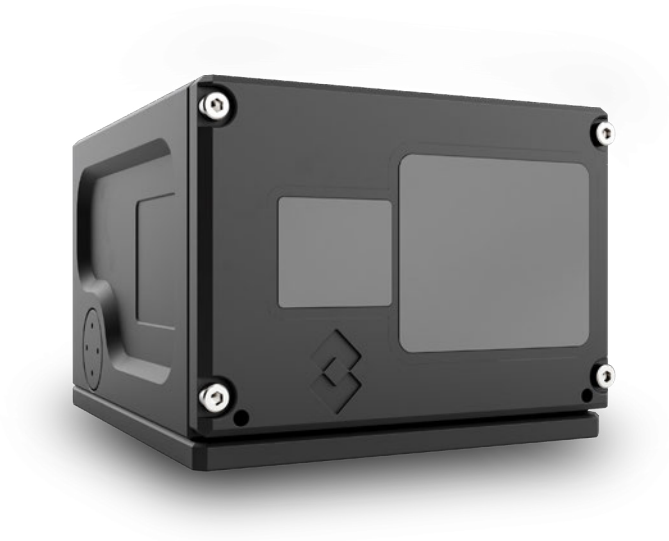




DRIVER VISION & SITUATIONAL AWARENESS SYSTEMS

THERMOVISION® DRIVER VISION HD (DV55-HD)

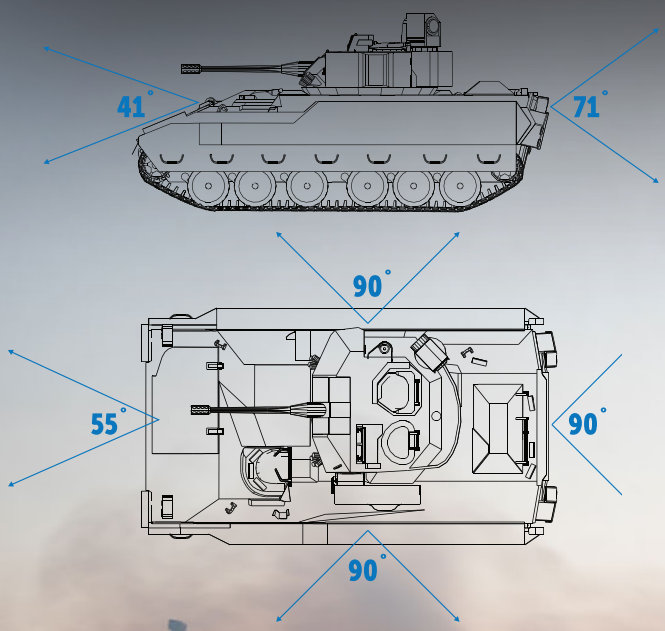
Rugged vehicle-mounted imaging system designed to enhance driver vision and operational safety of both wheeled and tracked platforms. DV55-HD is easy to integrate and compact, the system enhances mobility, reduces exposure and supports rapid decision making during vehicle operations.



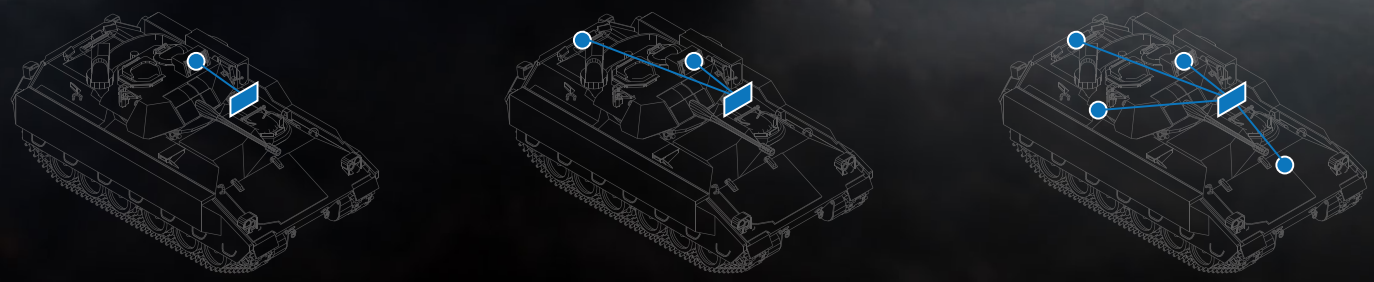
THERMOVISION® SITUATIONAL AWARENESS HD (SA90-HD)

Dual-sensor EO/IR imaging in a compact and lightweight design, SA90-HD is built to deliver essential situational awareness in battlefield environments. The system provides thermal and color camera image blending to reveal key details, and low-latency video for real-time awareness essential for crew safety and threat detection.

DRIVER VISION AND SITUATIONAL AWARENESS



- Operate in total darkness
- Mitigate restricted outside view due to vehicle design
- Operations at night present crews with uncertainty in the dark
- Early warning of threats as well as security when exiting the vehicle essential
- Front camera: 55° horizontal and 41° vertical FOV
- Rear and/or side cameras: 90° FOV and 71° vertical FOV



SINGLE SYSTEM

DUAL SYSTEM

QUAD SYSTEM

BUILT WITH FLIR'S CDMQ DESIGN APPROACH, EACH SYSTEM FEATURES MISSION ESSENTIAL FEATURES FOR THE VEHICLE OPERATOR.

POLARITY	Allow the operator to view the thermal image in either white hot or black hot
AUTO GAIN CONTROL	AGC alleviates any user input to ensure a properly displayed image.
REGION OF INTEREST	The ROI feature allows the operator to select which portion of the image should be affected by the AGC
DIGITAL DETAIL ENHANCEMENT	FLIR's DDE features an advanced image processor to provide crisp detail of object within the scene. DDE can highlight items normally hidden on a typical thermal image.
GRAPHICS OVERLAY	Standard overlays add distance and vehicle limitation information onscreen. FLIR can add overlay information if required for a specific vehicle model.
EO/IR IMAGE BLENDING	Presents the driver with a truly a multi spectral view of what is going on. It becomes possible to drive without using headlights and still see the color of vehicle or other lights.

- Quick integration and "Drop-In" field upgrades.
- Full control and display options.
- Common cables with MIL-STD connectors, and EMI shielding per our MIL-STD 461 design adherence.
- Embedded resettable power filtering guards against expected spikes and surges.
- Modular and interchangeable imagers to outfit multi-generations of the same vehicle type.
- Low-latency imagery provides real-time awareness for operators and crew.

MOBILE SURVEILLANCE

VEHICLE-MOUNTED

For decades Teledyne FLIR has helped vehicle operators extend standoff range and targeting capabilities,and strike when necessary with precise accuracy. Our remote weapon systems sights and vehicle sensors are crucial elements of cohesive ISR-T missions.

REMOTE WEAPON SYSTEMS SIGHT

THERMOSIGHT V4000E

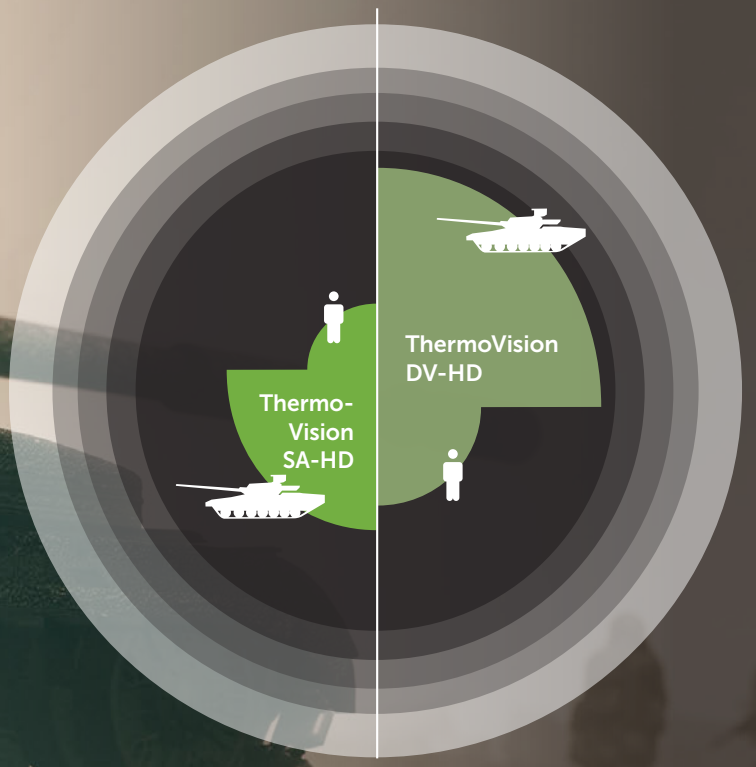
A cooled midwave infrared (MWIR) sight for long-range remote weapon systems designed to maximize performance and standoff range.

COMPACT VEHICLE-MOUNTED SIGHTS

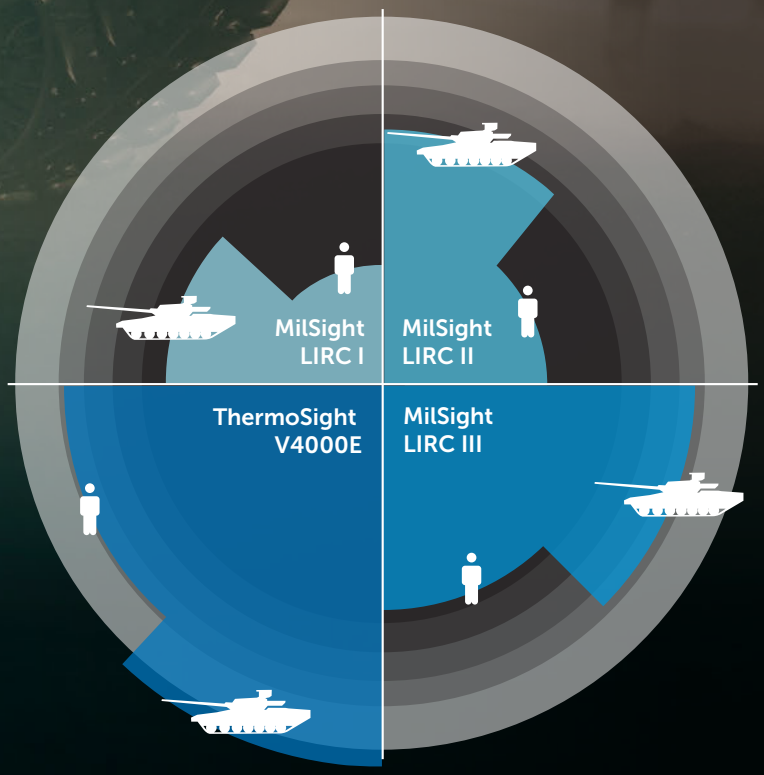
MILSIGHT LIRC

Compact and rugged thermal imagers designed to provide high sight-line stability and excellent imaging performance in tracked or wheeled armored vehicle applications. With a variety of ranges, the MilSight LIRC systems provide sight to command the battlefield.

RANGE PERFORMANCE



VEHICLE VISION



VEHICLE WEAPON SIGHT

MARITIME SOLUTIONS

With the only line of thermal imagers engineered from the beginning to perform in demanding maritime operating conditions, Teledyne FLIR is the world's most trusted supplier of maritime imaging systems.

Teledyne FLIR has designed and manufactured innovative sensing solutions for more than 40 years and has systems deployed on everything from aircraft carriers to RHIBs, and with all of the premier navies, coast guards, special operations forces, and maritime law enforcement agencies in the world.

Our systems are made for the mission, meet the demanding MIL standards and maritime OEM environmental requirements, and are built to perform anytime, anywhere, and in any weather.

For more information please contact: surveillance_sales@Teledyne.com

LONG RANGE / MEDIUM RANGE

SEAFLIR® 380-HD

The SeaFLIR 380-HD provides superior image stabilization, ultra-long range imaging performance, and true metadata embedded in the digital video. The full HD system is easy to integrate, operating simply as a node on a network and requiring no additional junction boxes. Fully seaworthy and hardened for military vessels — and fixed-wing and helicopter operations — it can operate continuously in all conditions — even when there's no airflow. The system combines important HD IR, color or SWIR spectral information for enhanced results — essential in single video channel downlinks. High 120x magnification optics extend detection range. Laser payloads covertly illuminate and point out targets, and determine distance and location. HD thermal and color imagery in all light conditions provide clear situational awareness 24/7.

AVAILABLE AS 380X-HD

SEAFLIR® 380-HLD

The SeaFLIR 380-HLD provides maritime platforms with exceptional all weather high-definition EO/IR imaging combined with a precision long range laser target designation capability. The effective combination provides operators with exceptional performance and the versatility to detect, identify, track and if necessary, engage targets with precision-guided munitions. The system offers the performance, stability and durability to operate successfully in the most challenging marine environments. Payload options include HD MWIR camera with a native 1280x720 resolution, HD CMOS cameras, SWIR camera, and multiple laser payload options including a high-powered laser target designator (LD). The SeaFLIR 380-HLD also provides 120x zoom to extend detection range and assist with target identification.

AVAILABLE AS 380X-HLD

SEAFLIR® 280-HDEP

With an all-new TFU design for improved reliability, the SeaFLIR 280-HDEP is ready for any maritime mission scenario. The modular and scalable control electronics unit is capable of supporting Aided Target Recognition (AiTR) via the Neural Network Target Classifier (NNTC). Optional Display Interface Boards (DIB) allow you to play up to six independent video streams, and removable terabyte hard drive w/DVR records up to 80 hours of compressed video and 250 screen captures. Designed for 24/7/365 maritime duty, SeaFLIR 280-HDEP provides long-range target detection, identification, and tracking. The system is ideal for long-range mission support for ISR, interdiction, EEZ constabulary, maritime SAR, covert OPS, man overboard search and track, and disaster recovery.

MEDIUM RANGE / SHORT RANGE

SEAFLIR® 240

The SeaFLIR 240 is the latest addition to the SeaFLIR family of maritime surveillance sensing technology. The system meets the operational requirements of commercial and defense markets, such as transportation, offshore oil and gas, and special operations and law enforcement. Best in class EO/IR imagery, including HD MWIR thermal camera, HD CMOS viable and low light camera options, a lightweight turret, superior image processing, and stabilization. The system also brings a new onscreen user interface (UI) that is customizable based on mission or operator preferences, minimizes distraction and eliminates clutter in the active screen.

SEAFLIR® 240-EP

The SeaFLIR 240-EP provides the same lightweight stabilized turret, HD payload options and inertial navigation capabilities as the SeaFLIR 240, and adds Extensible Processing (EP) capabilities hosted by the system's Control Electronics Unit (CEU). The system's CEU supports advanced image-processing like blending, Multi-Spectral Dynamic Imaging (MSX®), Adaptive Temporal Filtering (ATF) and Advanced Local Area Processing (ALAP) via a high-performance computing engine and dedicated graphics processor unit (GPU). The CEU provides up to 4 paired HDMI and HD-SDI video outputs, remote system command and control integration, and a 1 Terabyte Solid-State Drive for capturing video and images for post mission analysis.

SEAFLIR® 230

The SeaFLIR 230 is a member of the Teledyne FLIR family of 9" gimballed turrets. Representing the latest in sensor technology, it condenses extremely high-performance surveillance and targeting into a compact, low mass, and lightweight system. The SeaFLIR 230 provides a significant increase in maritime surveillance, is designed to cope with the most arduous marine environments, and sets a new benchmark in capability, versatility, and price.

MARITIME SOLUTIONS

PRODUCT FEATURES

	DETECTION RANGE (KM)		THERMAL	VISIBLE		SPOTTER SCOPE							
	HUMAN	VESSEL	HD MWIR	HDEO	HDLL	SD SWIR	HDEO	LRF	LP	LI	SWIR LI	SINGLE LRU	DUAL LRU
SEAFLIR® 380-HD/ SEAFLIR® 380X-HD ULTRA LONG RANGE	8	22	●	●	●	●	●	●	●	●		●	
SEAFLIR® 380-HLD/ SEAFLIR® 380X-HLD ULTRA LONG RANGE	8	22	●	●		●	●	●	●	●		●	
SEAFLIR® 280-HDEP LONG RANGE	5	17.5	●	●	●	●	●	●	●	●	●		●
SEAFLIR® 240 MEDIUM RANGE	4.5	16	●	●	●			●	●			●	
SEAFLIR® 240-EP MEDIUM RANGE	4.5	16	●	●	●			●	●				●
SEAFLIR® 230 SHORT RANGE	3.5	13		●*				●	●			●	

*denotes SD EO capability only

TACTICAL SOLUTIONS

COMBAT-PROVEN FORCE MULTIPLIER

From thermal and image intensified weapon sights to multi-sensor thermal binoculars, Teledyne FLIR tactical solutions provide recon sniper teams, border patrol agents, military patrols, and convoy security teams with a powerful tactical advantage whether they're scanning through camouflage or the dark of night. With more than 20,000 systems fielded worldwide, including the SOCOM SOPMOD program, and numerous sniper competitions won, it's no wonder why our systems have been called the "gold standard for long range sniper thermal sights."

For more information please contact: surveillance_sales@Teledyne.com

TACTICAL SOLUTIONS

HAND-HELD THERMAL IMAGERS

RECON® V ULTRA LITE

Fully operational at less than three pounds, the Recon V Ultra Lite provides breakthrough capabilities. Featuring tactical range target detection, recognition, recording, Bluetooth and WiFi connectivity, and geo-location with an HD color camera and dual FOV thermal channels. Powered by commercially available AA batteries, the unit has a run time greater than four hours with smart power management. Combined with a highly accurate laser range finder, GPS, digital magnetic compass, ATAK connectivity and intuitive user interface, targets can be quickly located 24/7.

RECON® V

The Recon V is a compact and light yet rugged multi-sensor thermal binocular designed for 24/7 day and night field operations that require enhanced imagery and long standoff range. Its internal GPS, DMC, and long-range laser pointer provide accurate range to target as well as precise location. The 10x continuous zoom optics, MEMS based electronic stabilization, and high-definition color video display combine to provide unmatched image quality.

RECON® B2-F0

The Recon B2-FO offers long range reconnaissance and target geo-location capability with multiple fields of view, mid-wave, IR sensor, high resolution color camera, 4x continuous zoom, GPS, DMC, laser rangefinder, laser pointer, image storage and download capability. Additional capabilities include remote control, external power input, video options, serial interface and 2.5x extender.

TACTICAL SOLUTIONS

IMAGE INTENSIFIED WEAPONS SIGHTS

MILSIGHT® S135 MUNS™

Magnum Universal Night Sight® (AN/PVS-27)

The MilSight S135 MUNS is a high-resolution clip-on night vision weapon sight that mounts on any MIL-STD-1913 Picatinny rail interface forward of an existing scope, adding night vision capabilities to daytime target acquisition platforms. The sight allows snipers to detect and recognize man-size targets in excess of 1000 meters. Developed for the USMC and adopted by US and NATO forces, S135 MUNS is compatible with multiple weapons platforms up to and including .50 caliber.

MILSIGHT® T105 UNS®

Universal Night Sight® (AN/PVS-22)

The MilSight T105 UNS clip-on weapon sight allows tactical engagements exceeding 800 meters. Mount in front of a boresighted day optic to quickly adapt any standard issue weapon for night operations. T105 UNS is engineered for battlefield use, successfully tested on weapons up to and including .50 caliber. It offers mission flexibility as a weapon sight with up to 12x magnification; mount with a spotting scope for long-range reconnaissance or use handheld as an observation device.

MILSIGHT® S140-D ADUNS

Universal Night Sight® (AN/PVS-22)

Designed to mount on any MIL-STD-1913 rail interface forward of an existing scope, the MilSight S140-D ADUNS (advanced dual-band universal night sight) offers ultimate mission flexibility. Use as a thermal weapon sight, on a spotting scope for long-range reconnaissance, or as a handheld observation device. The ADUNS system offers high-resolution blended thermal and image intensified night vision that provides crisp imagery through total darkness, fog, smoke, dust, and many other obscurants.

*All available with white or green phosphorous

For more information please contact: surveillance_sales@Teledyne.com

TACTICAL SOLUTIONS

THERMAL WEAPONS SIGHTS

THERMOSIGHT® HISS-HD

The HISS-HD thermal weapon sight provides clear, long-range optics for snipers and machine gun crews. It effortlessly mounts on MIL-STD-1913 rails, interfaces with various day scopes and weapons, and exceeds 2200 meters in target detection. With exceptional portability, compatibility with ballistic devices, and an optional remote control pendant for enhanced stability, the HISS-HD has unmatched capabilities in most operational scenarios.

THERMOSIGHT® HISS-XLR

The ThermoSight HISS-XLR mid-wave thermal weapon sight allows snipers to detect and recognize man-size targets in excess of 2,000 meters, an increase in engagement range of more than 25% compared to previous models. Clip-on design mounts on any MIL-STD-1913 rail interface forward of an existing scope, HISS-XLR can interface with a wide range of day scopes and weapon platforms. Long-range optics coupled with an HD display provides crisp imagery, and portrait orientation compensates for bullet drop at extreme ranges.

THERMOSIGHT® T75

Designed to mount on any MIL-STD-1913 rail interface forward of an existing scope, the ThermoSight T75 offers mission flexibility as a long-range thermal weapon sight and as a hand-held observation device. It's designed to interface with a wide range of day scopes and weapon platforms. The T75 runs on common AA Li batteries and is equipped with large, rugged controls for image adjustment. The long-wave IR sensor provides crisp imagery all night and all day.

WEDGE PRISM

Accessory for HISS-XLR and HISS-HD

Shooting at extreme ranges requires more elevation adjustment than is available with most riflescopes. The Wedge Prism mounts directly in front of the HISS-XLR and HISS-HD thermal clip-on sights. The Wedge Prism precisely elevates the image presented by the sight, allowing the shooter to combine the fixed elevation of the Wedge Prism and the elevation range of the riflescope, enabling precise engagements at extreme distances.

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