LONG-RANGE THERMAL VIDEO IMAGING SYSTEM

MULTIPLE MISSION PROFILES. ONE RELIABLE SOLUTION.

LRTV
LONG-RANGE THERMAL VIDEO IMAGING SYSTEM

SAFRAN
Optics 1
IMAGING SYSTEM

Better Local Area Detail Enhancement (B.L.A.D.E.)

This function enables the automatic gain control to compensate for very hot objects without "washing out" the picture. The result is a picture with better contrast and image detail.

Day:
NATO Target (2.3 x 2.3 m, contrast 0.2, albedo 0.5, scene illumination 20,000 lux)

Night:
NATO Target (2.3 x 2.3, ΔT = 2K)

Observation Range
- Detection: LRTV (320 x 240) 6.9 km, LRTV - VGA (640x480) 9.4 km
- Identification: LRTV 1.4 km, LRTV - VGA 1.9 km
- Recognition: LRTV 2.7 km, LRTV - VGA 3.7 km

LRTV LRTV - VGA

Detection
6.9 km
9.4 km

Identification
1.4 km
1.9 km

Recognition
2.7 km
3.7 km

(320 x 240)                 (640x480)

LRTV is a compact, multi-functional, fully-integrated device and is one of Optics 1’s most capable systems. The handheld includes all essential observation, detection, location, and targeting functions that users need to effectively conduct multi-mission operations.

Field-proven technology

The LRTV provides vital situational awareness and precision targeting capabilities to infantry platoon leaders, snipers, long-range reconnaissance, scouts, and special forces. It provides forces with enhanced operational capabilities for collaborative combat: threat detection, target location, and intelligence-gathering from units in contact to command and control centers.

Robust and Ruggedized

The LRTV is battlefield-proven as highly robust and ruggedized, ensuring the durability and operability of the device in all types of environmental conditions. Multimedia interfaces are available to control and manage data and images, making it interoperable with various systems and equipment (monitors, computers, etc.) and other Soldier Modernization Programs.

Increased Situational Awareness

The Fusion option for the LRTV enables users to have the ability to merge the IR NFOV and color day channel signals into a single combined display of scenery to increase situational awareness. This capability can unmask camouflaged subjects, spot hidden heat sources, and/or detect a presence through an artificially obscured scene. The LRTV offers 4 fusion modes: Hot Spot, Decamouflage, Reverse Decamouflage, and Split Screen.

Color Binocular Display
- Image processing and storage
- Photo/video recording (internal and USB)
- 2x MAG in NFOV
- 8x MAG in NFOV
- Selectable On/Off/Auto-Off

GPS Receiver
- Internal C/A for situational awareness
- Connection to PLGR, DAGR possible
- Multiple GEOID
- Selectable coordinate units

Digital Magnetic Compass and Inclinometer
- Data export
- Bi-directional with DAGR
- Absolute position
- Relative positions of targets

Laser Range Finder
- Class I eye-safe
- Ranges from 10 m up to 5 km
- Photo capture on ranging

Day Color Imager
- Connection to PLGR, DAGR possible
- 2x-4x zoom
- Image Fusion
- Image Processing (AGC, stabilization)

Cooled Thermal Imager
- MWIR
- B.L.A.D.E.
- 320 x 240
- 640 x 480
- 2x, 4x, 8x NFOV zoom
- Image Processing (AGC, stabilization, polarity)

Laser Pointer
- Class I eye-safe
- Visible to NVD team
- Paints target
- Long-range option (Class 3B)

GPS Receiver
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- Long-range option (Class 3B)
LRTV

TECHNICAL SPECIFICATIONS

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<th><strong>Thermal Imager</strong></th>
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<th><strong>Laser Pointer</strong></th>
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<tr>
<td>Wavelength</td>
<td>3 to 5 µm, cooled</td>
<td>Wavelegth</td>
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<tr>
<td>Wide field of view</td>
<td>9° x 6.75°</td>
<td>830 nm (NIR), visible</td>
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<td>Narrow field of view</td>
<td>3° x 2.25°</td>
<td>Range</td>
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<tr>
<td>Capability to NATO size target</td>
<td>&gt; 3,500 m</td>
<td>through I²</td>
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**Color Day Channel**

Field of view 3° x 2.25°

Capability to NATO size target 2,600 m

**Global Positioning Receiver (GPS)**

Embedded C/A code

External Connection to PLGR, DAGR with cable

**Laser Range Finder**

Wavelength 1.54 µm

Eye safety Class 1 per IEC60825-1

Range to NATO size target 5,000 m

**Digital Magnetic Compass**

Azimuth range 360°

Azimuth accuracy ±0.5°

Elevation range -30° to +30° standard

-45° to +45° optional

Elevation accuracy ±0.2°

**Power Supply**

Battery pack BT-70483 or BB-2847 (US)

External 9.2V DC

**Environmental Conditions**

Tested to MIL-STD810

**Physical Characteristics**

With battery 7.1 lbs (3.2 kg)

Without battery 6.2 lbs (2.8 kg)

For further specifications please refer to the product technical data sheet.

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**ACCESSORIES**

**Afocal Lens Kit**

Available in either NFOV (2x magnification) or WFOV (0.41x magnification). Pouch for lens also available.

**Tripods**

Various non-magnetic tactical tripods are available for use with the LRTV including the Tripod SST3-2, and Tripod CF (TOT-XS, TOT-SE, and TOT-S).

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