

LEONARDO ELECTRONICS

# LOTHAR SD

HIGH PERFORMANCE  
GUNNER SIGHT



LOTHAR Stabilised Digital is a two axis gyro-stabilized gunner sight designed for high-accuracy target engagement and fire on-the-move during day and night at all combat scenarios and all weather conditions.

Being able to aim up to +60°, the sight is suitable also for urban scenario against high elevation targets.

Field proven, LOTHAR SD can be linked to the gun or independently stabilised.

As a key component of a Fire Control System, LOTHAR SD can be integrated into turrets controlling guns from 25-30mm to 120-125mm.

LOTHAR SD incorporates the company's latest thermal imaging modules, either LWIR or MWIR proprietary detectors, a high performance colour HD TV, an eye-safe Laser Range Finder, and all the facilities needed for a perfect control of fire.

Completely digital system, designed in compliance with the most modern NATO-VGA architecture that puts it at the forefront in the production of suites dedicated to the multiple vehicle platforms existing on the market.

The use of standard digital interfaces simplifies integration and configuration within an Observation System.

## KEY BENEFITS

- 3rd Generation LWIR or MWIR Thermal Imager
- Day and Night high first hit capability
- Air and ground automatic target tracking
- Easy integration on existing and new turrets
- Advanced Embedded BITE for effective Logistic Support
- Ballistic Protection
- ITAR Free



## TECHNICAL SPECIFICATIONS

### SIGHT

<b>Elevation range</b>	-20° to +60°
<b>Azimuth range</b>	-10° to 10°
<b>Stabilization</b>	Two axes gyro stabilized
<b>Stabilization accuracy</b>	Elevation : < 0.05 mrad Azimuth : < 0.05 mrad

### INFRARED CAMERA

<b>Detector</b>	CMT 640x512 pixel
<b>Bandwidth</b>	3-5µm (MWIR) or 8-12µm (LWIR)
<b>Narrow FOV</b>	2.4° x 1.9° (MWIR) or 2.7° x 2.1° (LWIR)
<b>Wide FOV</b>	10° x 8° (MWIR) or 8.1° x 6.5° (LWIR)
<b>Digital zoom</b>	4x
<b>Digital Video Processing</b>	GLACE® (*)

### DAY HDTV

<b>Detector</b>	1280 x 1024 Color CCD
<b>Resolution</b>	1.3Mpixel
<b>Optic lenses:</b>	Narrow FOV: 2.7° x 2.1° Wide FOV: 8.1° x 6.5°
<b>Digital zoom</b>	4x

### LASER RANGE FINDER

<b>Eyesafe</b>	1.54µm (Class 1M)
<b>Range</b>	100m to 10000m
<b>Pulse Rate</b>	10ppm (1Hz burst)
<b>Accuracy</b>	+/-5m

### DIRECT VIEW OPTIC

<b>Field of View</b>	5.6° (10x magnification)
<b>Filter Laser Protection</b>	(1.064 and 0.694 µm)
<b>Eyepiece adjust</b>	from -5D to +5D
<b>Aiming reticule</b>	available

### USER INTERFACE

<b>Video</b>	HD-SDI, Analogue
<b>Controls</b>	CANBUS, SERCOS, RS-422, Ethernet
<b>Operating voltage</b>	28VDC (MIL STD 704D)

### SYSTEM ADVANCED PROCESSING

Picture in picture (mixing Day TV and IR camera images)  
Automatic video tracker  
Image enhancement (Edge, Glace, DE-Hazing, De-Fog)  
Stadimetric and ammo's ballistics scales  
Advanced Built-in test equipment  
Auto Calibration and functional test at start up

(\*) GLACE™, is a digital processing suite operating on the raw, uncompressed data of the detector, that locally analyzes the image to obtain the best level of contrast and brightness for each area, avoiding saturation and restoring the missing details that are usually lost during video compression.

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