Optronics Systems

LOTHAR
DAY/NIGHT GUNNER SIGHT

LOTHAR (Land Optronic Thermal Aiming Resource) is a modular and compact sight designed to deliver identification, recognition and pin-point targeting capabilities to the gunner, day or night.

In operation/deployed on the Italian Army, LOTHAR can be linked to the gun or independently stabilised. As a key component of a Fire Control System, LOTHAR can be integrated into turrets controlling guns from 25-30 mm to 120-125 mm.

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

KEY BENEFITS

- High performance detection, aiming and tracking capabilities whilst stationary and on the move
- State-of-the-art full digital equipment matching with today's Vetronics requirements and concepts
- Modular design for easy installation into small AIFV turrets as well as last generation MBTs
- Optimised cost to performance ratio
- Simple controls easy to operate
- Reduced maintenance burden through self test tools
- Flexible interfaces for easy integration on existing and new vehicles.

TECHNICAL SPECIFICATIONS

Mirror head

	GUN LINKED HEAD	2 AXES STABILISED HEAD
	Stabilization NO (linked to weapon)	2 axes/ 0.05mrad rms
Field of Regard (Elevation)	-20° to +60° (Slaved to weapon)	-20° to +60°
Field of Regard (Traverse)	Slaved to turret	-9° to +9°
Mirror speed	N/A	0.2 mrad/s to 0.5 rad/s
Gun Elevation Sensor	YES	N/A
Digital Vertical Sensor	N/A	YES

Ccd colour tv

Detector elements	Color CCD 752 x 582 pixel
Resolution	450 x 415 TV lines
CCD Sensitivity	>10 lux
Output	PAL
Fields of View	
Narrow FoV	3.2° x 2.4°
Wide FoV	8.0° x 6.0°

Laser range finder (eye safe)

Wavelength	1.54 µm (eye-safe)
Pulse Rate	10 ppm (1 Hz burst)
Cooling System	Air
Processing Range	from 100 - 10000 m
Resolution	5m

Daylight elbow (optional)

Field of View	5.6° cone (10X)
Filters	Laser Protection (1.064 and 0.694 um)
Eyepiece adjust	from -5D to +5D
Boresight of aiming reticule	YES

THERMAL IMAGER

		TILDE	TILDE S		ERICA FF	ALICE
Bandwidth		8 -12 µm (LWIR)	8 – 12 µm (LWIR)		3 – 5 µm (MWIR)	8-12 µm (LWIR)
Detector		288 x 4 TDI	640 x 512 (MCT FPA)		640 x 512 (MCT FPA)	640 x 480 - (Uncooled)
Fields of view			TILDE A	TILDE B		
Dual FOV	Narrow FoV	3.2°x 2.4°	2.5°x 2.0°	2.7° x 2.2°	2.4°x 1.9°	4.6° x 3.4°
	Wide FoV	8.0°x 6.0°	9.0° x 7.2°	8.1° x 6.5°	10°x 8.0°	13.8° x 10.4
	(Tilde S A only) Medium FoV		4.0° x 3.2°			
Single FOV						32°x26° or 8,2°x 6,2° *
ZOOM						25°x 19° > 4,3°x 3,2° *
Sensitivity		30 mK	25 mK		15 mK	50 mK
Integrated DVP (Digital Video Processing)		NO	Proprietary suite for realtime: - contrast and contour enhancement - local area processing.		Proprietary suite for realtime: - contrast and contour enhancement - local area processing.	Proprietary suite for realtime: - contrast and contour enhancement - local area processing.
Electronic ZOOM		2X – 4X	2X – 4X		2X – 4X	2X – 4X
Video Output		CCIR 625/50	CCIR 625/50		CCIR 625/50/SVGA	CCIR/VGA

* Interchangeable lenses

Dimension and weights

	Gun linked version	Stabilized version
Dimensions (mm)	535x385x265	635x415x310
Weight (Kg)	30-35Kg	33-38 Kg + Backup Sight 4 Kg
Depending on IR camera conf.		

Man machine interface

Multi Function Graphic Control Console
Stadimetric and ammo ballistics scales
Video Tracker
Video Processing

System interfaces

RS-422, ETH 10-100, CANBus, Time Triggered Ethernet 10/100 SERCOS III

Power

Supply	28 VDC (18-36 VDC)
Standard	MIL STD 704D

Environment

Standard	MIL STD 810E
Operating temperature	- 30°C +55°C
Storage temperature	- 40°C +70°C

Options

Built-in Muzzle Reference System (MRS)
Armoured protection
Lens wipers
Defrosting device

For more information please email **infomarketing@selex-es.com**

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