



ELECTRONICS DIVISION

# LEOSS-S

## LONG RANGE ELECTRO OPTICAL SURVEILLANCE SYSTEM

LEOSS-S is the latest multi-sensor, high accuracy, 4 axes gyro-stabilised turret system designed for airborne surveillance applications.

Designed to be compliant with demanding vibration profiles and multirole, it combines high performance sensors with a high performance turret to meet the operational needs of today's airborne rotary and fixed wing platforms as well as land vehicles and naval vessels.

LEOSS-S turret is a 15" system based on a modular payload, containing up to six Electro-Optical (EO) sensors.

### **PAYLOAD CONFIGURATION**

Up to 7 imaging and laser sensors can be selected:

- Medium Wave Infrared Camera (MWIR)
- Full HD TV Camera (FHTV) with Continuous Zoom
- 4K TV Spotter
- HD Short Wave Infrared (SWIR) Camera Spotter
- Eye-safe Laser Range Finder (LRF)
- Laser Illuminator (LI)
- Laser Marker (LM)

LEOSS-S features a single LRU turret with embedded computer and IMU/GPS for state-of-the-art performance.

It is designed to be integrated onto both helicopters and turboprop aircrafts for surveillance, patrol, Search & Rescue (SAR), environmental control and law enforcement operations.

### **KEY FEATURES**

- Automatic Video Tracking (AVT)
- Target speed tracking
- Advanced Image Enhancement Features (Haze penetration)
- Contrast Stretching
- De-noise
- Local Area Contrast Enhancement
- Sharpening, electronic stabilization
- Augmented Reality
- Image Fusion
- Moving Target Indicator Mode (MTI)
- GEO-Pointing, GEO-Steering, GEO-Scan
- Map and waypoint management on MFD
- Video HD recorder
- Autoscan mode



## TECHNICAL SPECIFICATIONS

### THERMAL CAMERA

- IR Bandwidth 3µm to 5µm (MWIR)
- Detector HD FPA 1280 x 720 progressive scan
- FOV continuous zoom from 30° to 1.5°
- 4X digital zoom

### TV CAMERA

- Detector Progressive scan global shutter CMOS
- Removable IR cut filter for low light visibility
- FOV 40X optical zoom up to NFOV 2.5°
- 4X digital zoom

### TV AND SWIR SPOTTER

- Detector scan 4K TV progressive global shutter CMOS
- FOV Continuous zoom from 1° to 0.47°
- 4X digital zoom
- Detector HD SWIR (1280 x 1024)
- FOV Continuous zoom from 1.8° to 0.8°
- 4X digital zoom

### LASER RANGE FINDER (LRF)

- Laser Eyesafe
- 1.57µm
- Class I

### LASER ILLUMINATOR

- Power Adjustable from 0.5W to 10W
- pulsed/continuous
- 808nm
- Class 4
- Divergence Wide, medium and narrow

### LASER MARKER

- Power 100mW (nominal)
- 915nm
- Class 3b
- Divergence Ultra narrow divergence

### PLATFORM TURRET

- Stabilisation 4 axes gyro-stabilised gimbal
- Steering Range Azimuth
- 360° continuous
- Elevation -40° to +120° (ball up)
- +40° to -120° (ball 3down)
- Maximum slew ≥ 60°/s azimuth and elevation
- Total mass 50kg
- Dimensions
- Diameter 381mm
- Height 519mm
- Power 28VDC
- 650W (typical)
- Operating temperature -40° to +55°
- IMU/GPS Embedded
- User console One Multi-Function Display (MFD)
- Dual Hand Control Grip (DHCU) or Single Hand Control Grip (SHCU), Mini Hand Control Unit (MHCU)
- Interface Video HD-SDI, CVBS (PAL, NTSC), STANAG 3350A, H264 on ETH
- Interface links RS422, RS232, GB ETH, USB, 2xARINC429, 1xMIL-STD-1553B (redundant)
- Multirole capability
- Suitable for Land and Naval platforms
- ITAR free

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