



## **EOST-46 HIGH PERFORMANCE PASSIVE ELECTRO-OPTICAL SURVEILLANCE AND TRACKING SYSTEM**

**SELEX Galileo is a leading supplier of stabilised airborne Electro-Optical (EO) sensor systems and has delivered turrets for fixed wing, rotary wing and unmanned aircraft platforms.**

EOST-46 is the latest multi-sensor turret system designed for the demanding airborne environment. It combines high performance sensors with a high performance platform to meet the operational needs of today's airborne observation, surveillance and reconnaissance needs.

EOST-46 is based on a modular payload, containing up to four EO sensors. It uses, both during night and day, the proprietary Erica SLX thermal imager, operating in the medium wavelength spectrum ( $3\div 5\mu$  or  $8\div 12\mu$ ), based on the SELEX Galileo range of Focal Plane Array (FPA) detectors.

For day operations, including low light conditions, EOST-46 utilises a 26x zoom TV colour and B/W camera for target search. A colour and B/W high magnification, long range TV camera spotter is available for target identification at long distance. As an alternative, a Laser Range Finder can be installed.

An NVG compatible laser illuminator is also available: in cooperation with TVCC or TV spotter, it provides low light search capability enhancement.

### **TYPICAL MISSIONS**

#### **Maritime Patrol**

All -weather surveillance, day/ night long stand-off range detection, identification and tracking of naval targets.

#### **Search And Rescue**

All-weather, day/ night detection of naval units in distress and /or men at sea.

#### **Coast Guard/Police Operations**

All-weather, day /night detection and identification of illegal activities (immigration, smuggling, poaching, etc).

#### **Land Operations**

All-weather, day/ night support to the operation of multirole armed helicopters employed for patrol, escort or protection of ground troops.

## EOST-46 - High performance passive Electro-Optical surveillance and tracking system



Piaggio P166 aircraft



Falco UAV

### TECHNICAL CHARACTERISTICS

#### PLATFORM TURRET

Line of Sight Stabilisation	< 20 $\mu$ rad, 4 axis gyrostabilised
Azimuth Steering Range	360° continuous
Elevation Steering Range	> +20° to < -120° in operational mode
Interface	Serial link RS422
Video Output	ITU472-3

#### INFRARED (IR) CAMERA

Nominal IR Spectral Band	3 + 5 $\mu$ (or 8 + 12 $\mu$ )
Array Format	640 x 512
Cooling	Stirling micro cooler
Field Of View (FOV)	1.2° x 0.9° - 4° x 3° - 24° x 18°
Polarity	White hot / black hot
Processing	AGC with dynamic compression Autofocusing Digital zoom

#### DAYLIGHT CAMERA

Detector	Colour CCD 1/4" size
FOV	42°x32° to 1.6°x1.2°
Optical Zoom	26x Continuous
Digital Zoom	12x
Minimum Illumination	0.7 lux 1/50sec (with IR-Cut filter disengaged)
Colour /Black & White	Yes, switchable
White Balance Modes	Auto, ATW, one push AWB
Focusing	Auto, manual, one push focus
Iris	Auto / manual
Gain	Auto / manual
IR Cut Filter	Automatic depending on light condition to increase sensitivity
Colour /B&W Image	Yes

#### SPOTTER COLOUR CAMERA

Imaging Device	Interline transfer CCD
Pixels	752 H x 582 V
FOV	0.44° x 0.33°
Horizontal Resolution	450 TVL
Operative Minimum Illumination	50 lux (Full filter selected)
Nominal Wavelength Range	450 ÷ 1000 nm
Colour /Black & White	Yes, switchable
White balance modes	ATW, AWB selectable
Sensitivity	Auto control integrating shutter, gain, exposure correction, gamma.
Selectable Wavelength Filters	Full pass (400 ÷ 1000 nm) Visible (460 ÷ 680 nm) Near IR (680 ÷ 900 nm) IR (830 ÷ 1000 nm)
Direct Sunlight Exposure Protection	Automatic

#### EYE SAFE LASER RANGE FINDER (optional alternative to the spotter)

Laser Type	1.54 $\mu$ m, Erbium-Glass
Safety Classification	Class 1M eye-safe
Multiple Targets	First and last

#### LASER ILLUMINATOR (OPTIONAL)

Emitting Wavelength	808 nm (NVG compatible)
Output Power	1 Watt CW (Class IV)
Beam Divergence	< 10 mRad

#### VIDEO TRACKER

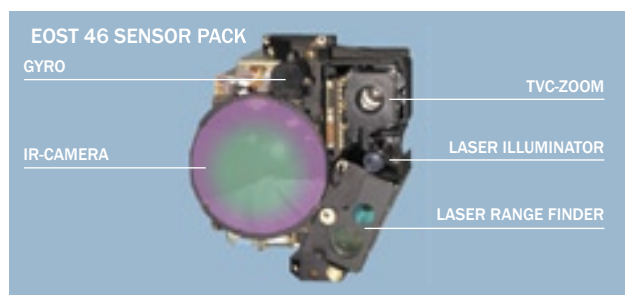
Tracking Modes	Centroid single target Centroid multi target (up to 5) Correlation single target Correlation multi target (up to 5) Correlation area
Target Polarity	White or black
Symbology	Mission and tactical symbology
Video Image Processing	Independent tracking function and display presentation Freeze Auto focussing Continuous digital zoom Picture in picture
On Screen Display (OSD)	Yes

#### PLATFORM CONTROL UNIT (PCU)

The Platform Control Unit is used to provide the platform and sensors with power supply and controls.

#### INSTALLATION DATA

Dimensions	Turret: 350mm $\varnothing$ (14") Height 540 mm for helicopters Height 500 mm for fixed wing
	PCU: 129 x 233 x 231mm
Weight:	Turret: 29 Kg including helicopter mechanical interface
	PCU: 5.2 Kg
Power consumption:	150 W (Typical); 400 W (max) at 28 VDC



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