



## MULTI-SENSOR TURRET SYSTEM

The company has been a leading supplier of stabilised airborne electro-optical sensor systems for over three decades. Titan 385ES-HD is the latest Multi-Sensor Turret System designed for the demanding airborne environment.

The Titan 385ES-HD Multi-Sensor Turret System combines high performance sensors into a single Line Replaceable Unit (LRU) solution, to meet the operational demands of today's airborne observation, surveillance and reconnaissance requirements.

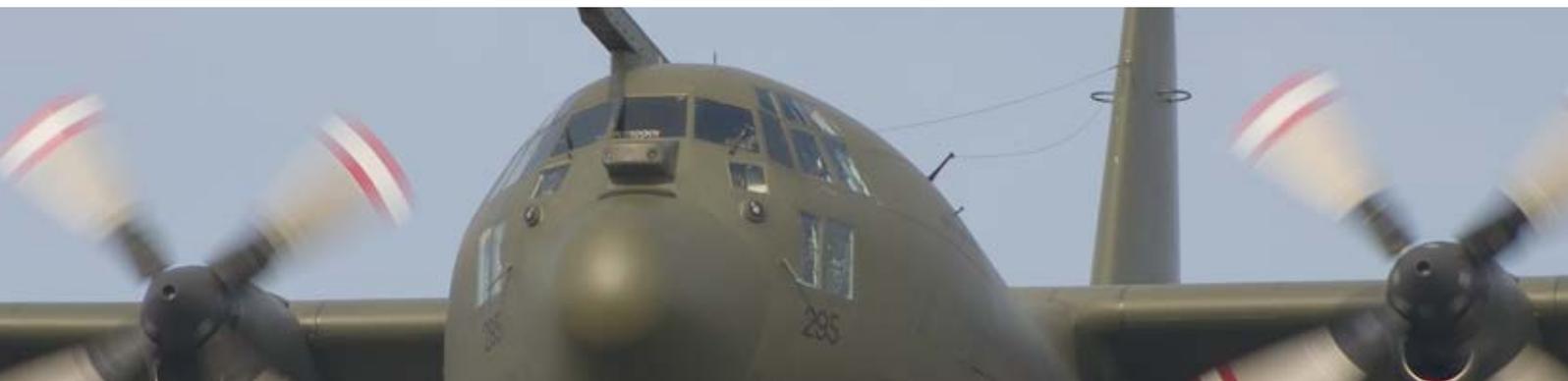
The company has delivered turrets worldwide for fixed wing, rotary wing and unmanned aircraft platforms. Our extensive customer base includes various branches of the UK armed forces as well as civil and military platform operators worldwide.

Titan 385ES-HD incorporates the company's latest high performance infrared staring focal plane array sensor technology, offering high resolution night vision capability in the mid wave infrared wavebands. A number of infrared optic configurations are available dependent on the operational application.

The Medium Wave infrared camera is supplemented as standard with an Uncooled Long-wave IR camera for instant availability, a solid state low light level television (L3TV) camera. Optional sensor configurations include an eye-safe laser rangefinder, colour/ low light monochrome spotterscope and laser illuminator/ pointer. Titan 385ESHD may also be configured with a subset of the standard sensor fit should the requirement demand.

Titan 385ES-HD incorporates an embedded Video autotracker capable of operating on any of the imaging sensor channels. Graphics processing and aircraft interfaces are also integrated into the single LRU design of Titan 385ES-HD.

# TITAN 385ES-HD



Primary control of Titan 385ES-HD is via the Control Grip Unit (CGU). In addition a Control Switch Unit (CSU) provides supplementary controls such as sensor configuration and Built in Test (BIT) control. The CSU functionality can optionally be embedded as softkeys into a Multi-Function Display Unit (MFD) or into the customers host system.

The company recognises the importance of system serviceability and have designed Titan 385ES-HD to be rapidly installed and removed. Typical installation times are less than 20 minutes.

## TECHNICAL SPECIFICATION

### INFRARED SENSOR (PRIMARY)

Detector type	HgCdTe (MCT) Staring focal plane array
Array size	1024x768
Operating waveband	3 - 5µm
Image resolution	1024x768
Infrared optic aperture	F/2
Fields of view†	WFOV - 19° x 14.4° NFOV - 3.8° x 2.8° plus electronic magnification † based on F/2 3-5µm system

### INFRARED SENSOR (SECONDARY)

Detector type	Alpha Silicon
Array size	640x480
Operating waveband	8 - 12µm
Fields of view	50° x 37.5° x2 emag to match Primary IR FOV

### LOW LIGHT LEVEL TELEVISION (L3TV) CAMERA

Detector type	Solid state CCD
Optics	25mm
Sensitivity	10 <sup>-3</sup> - 10 <sup>5</sup> Lux
Operating waveband	50 - 1100nm

## Optional Sensors

### LASER RANGE FINDER

Type	Erbium glass
Operating wavelength	1540nm
Range	80m to 20,000m
Range accuracy	± 5m

### LASER ILLUMINATOR/POINTER

Wavelength	810 - 850nm
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### LOW LIGHT SPOTSCOPE

Field of view	0.45°
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### COLOUR CAMERA

Field of view	Continuous zoom to match primary IR
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## System

EO turret dimensions	385mm (diameter) 525mm (height)
Nominal EO turret weight	45kg (System Controller additional 3kg)
Slew rate	>100°/s
Field of regard	360° Continuous in azimuth and elevation
Airspeed	230 knots (operational) 400 knots (carriage)
Mounting	Upright or pendulous
Interfaces	Mil-Std-1553B ARINC 429 (optional) RS232 / RS422 (control interfaces)

