

TOPLIGHT NG

High-End Multi-Mission Payload System



The TL NG Observation Configuration is a High-End, 16 inch class, stabilized gimbal, designed to provide a **single LRU** surveillance payload with an exceptional long range imagery and mission reliability. At its core is a high resolution day, night and SWIR investigator channel paired with advanced MWIR and VIS zoom sensors, providing unmatched clarity for identification and precision observation.

The system supports optional long range designator and Laser Range Finder modules, enabling accurate target detection, ranging, and mission-critical designation capabilities.

Operating on a CONTROP adapted OverC electrical architecture and built around a robust gimbal design, the TL NG ensures outstanding image stability and smooth tracking even in demanding dynamic environments. A rich suite of onboard algorithms - including ATR, VMD, turbulence mitigation, inertial navigation, and advanced auto tracking further enhances situational awareness across airborne, maritime, and ground ISR missions.

The TL NG Observer configuration provides a complete, high end surveillance solution ideal for multi mission platforms requiring superior imaging performance with minimal integration complexity.



TOPLIGHT NG

Observer Configuration

Electro-Mechanical

Type: 4 Gimbal Gyro-stabilized System
 Field of Regard: Azimuth: 360° x N (continuous)
 Elevation: +70° to -110°
 Angular Velocity: Azimuth / Elevation: 120° / Sec (max)

Wide FOV channels

TI Camera:
 Spectral Range: 3.0 - 5.0 μm
 Detector: FPA 640x512 XBN (Optional 1280x1024)
 Lens: Zoom X18
 Field of View: 27° to 1.5°, 0.4°

And

Daylight Camera: Color Full HD 1920x1080 pixels
 Lens: Zoom X26
 Field of View: 40° to 2.3°

Spotter Channel

TI Camera:
 Spectral Range: 3.6 - 4.2 μm
 Detector: FPA 2560 x 2048 XBN
 Field of View: 2.2°, E. zoom x3
 SWIR Camera: InGaAs 1280 x 1024 pixels, see spot capability
 Spectral Range: 0.9 - 1.7 μm
 Field of View: 0.8°, 0.4°
 Daylight Camera: 4K CMOS color camera
 Field of View: 0.5°

Laser Options

Designator: 1.064 nm, up to 22 PPS, STANAG-3733, Class 4
 Range Finder: 1.54 nm, up to 20km Class 1
 Or
 1.064 nm, up to 30km Class 4
 Spot detection: 4Q detector
 Or
 Laser Range Finder: 1.54 nm, up to 20 km, 1-5 PPS, Class 1

Laser Pointer

Type: 830 nm, 180mW, CW / Pulsed

Physical Characteristics

Weight (Turret): 50 kg (110lb)
 Dimensions (Turret): (Ø) 419mm (16.5") x (H) 500mm (19.7")

Electrical Interface

General: MIL-STD-704F, MIL-STD-1275F
 Power Consumption: MAX 400 W, Nominal 300 W
 Video Outputs: HD-SDI (1080p), H.264/5, optical

Environmental Conditions

Temperature: -32°C to +50°C

Features

Superior Gyro-stabilized Image
 Multi-Spectral Imaging
 Advanced Image Processing
 Airborne Qualified
 Integrated with Aircraft's Systems
 Integrated with Naval systems
 Integrated with Land and AD Systems

Optional

Image Processing

Local and Global AGC
 Advanced Video Enhancement
 ATR- Auto Target Recognition (optional AI capabilities)
 VMD- Video Motion Detection
 Advanced ground, maritime & aerial target tracker
 ATIR- Anti Turbulence Image Recognition
 Pseudo Color Ti



50kg



Radar



INS



Control Unit



Command & Control Systems