

TrakkaCam[®] TC-300 Gen II



INTRODUCING THE NEXT GENERATION OF COMPACT MULTI-SENSOR SURVEILLANCE.

The Trakka Systems TC Series tackles the most demanding airborne missions – from law enforcement and search & rescue to ISR and fire detection, excelling on both manned and unmanned platforms. The versatile, lightweight system is ideal for installation on fixed and rotary aircraft.

TRAKKA SYSTEMS TC SERIES GEN II: ENHANCED OPTICS AND OPTIMIZED PERFORMANCE.

The latest Trakka TC-300 boasts breakthrough Gen II performance, extending stand off range beyond its predecessor. This compact, high-performance multispectral system retains its user-friendly single-LRU configuration in a non-ITAR design exportable to operators worldwide.

The enhanced Gen II HDTV electro-optical (EO) camera offers longer range and clearer images with a new 50x continuous zoom lens. Paired with the improved infrared (IR) thermal imager the Gen II system pierces through even the most challenging conditions like fog, haze, low light, and total darkness. Real-time perceptual aids such as picture-in-picture, split screen, and image blending give operators the power to extract scene detail that would go unnoticed for optimal situational awareness. Embedded features like MTI aid decision-making and reduce workload.

Advanced interfaces seamlessly integrate with third-party equipment. Unlike competitors, it offers dual-stream H.264/H.265 video with KLV metadata directly over ethernet. This eliminates external encoders and simplifies integration with Moving Map and datalink systems, enabling real-time information sharing between air and ground crews and enhancing situational awareness through AR overlays or synthetic views.

KEY BENEFITS

- Performance better than 10" competitors, and approaching that of bigger systems, but at lower price / lower mass
- Advanced sensors, superior in size class:
 - Available with a full suite of 7 payload options: (IR, HDTV, LRF, LP, LI, A/T, IMU/GPS)
 - Continuous optical zoom on all imaging channels for maximum situational awareness
 - Best-in-class narrow FOVs, no need for separate spotter scopes
 - Open upgradeable architecture for incorporation of new technology sensors
- Expanded 30° upward tilt, ensures target visibility in aggressive banking scenarios and extreme in-flight maneuvers.
- Moving Target Detection (MTI) embedded directly into the system
- High performance 4-axis active gyro stabilization with integrated 6-axis passive isolation for superior image stabilization
- Fully integrated IMU/INS providing Geo Location and Geo Hold, with easy Moving Maps integration
- Innovative and ergonomic system design provides flexible platform and installation options
- Compact Single-LRU configuration is easy to install, integrate and requires no junction box
- Non-ITAR exportable product
- RTCA DO-160 Tested for Environmental, Electromagnetic and Mechanical compliance, and capable of withstanding the harshest environments



TC-300 Gen II

GIMBAL SPECIFICATIONS

Weight	~22kg (48.5 lb)
Diameter	300mm (11.8")
Azimuth	Continuous Azimuth
Elevation	+30° to -120° Elevation (+90 Stow)
Stabilization	4 axis, active gyro-stabilization with integrated 6 axis passive isolation

THERMAL IMAGER

Type	3-5µm MWIR array
Resolution	1280 x 720 pixels
Fields of View	40° to 2.4°, continuous zoom
Sensor Type	Cooled

COLOR HDTV

Type	HD CMOS Global Shutter
Resolution	3.2 MPixels
Fields of View	24.4° to 0.5°, continuous zoom

LASER RANGE FINDER (OPTIONAL)

Classification	Class 1, Eye-safe
Range	12km & 20km (options available)
Repetition Rate	Continuous or Single-Shot Modes

LASER POINTER (OPTIONAL)

Type	Class 3B
Wavelength	830nm
Output Power	200mW

LASER ILLUMINATOR (OPTIONAL)

Type	Class 3B
Wavelength	860nm
Output Power	480mW

ELECTRICAL REQUIREMENTS

Max power	320W Maximum Power
Steady State Power	100W Steady State
Input Voltage	22-36V Wide-Range Input Voltage

OPTIONS

Interface Types	SMPTE HD video outputs and H.264/H.265 over Ethernet (MISB 0601.7 Compliant), RS422, RS232
Functional Interfaces & Features	Auto Tracking, Geo-Location with integrated IMU/INS, Interface to Aircraft INS/GPS, Metadata, Moving Maps & Augmented Reality, Remote Control, Search-light Slaving, Radar Slaving, Data Links & Video Downlinks

ENVIRONMENTAL

Standards	MIL-STD 461, MIL-STD 810, RTCA DO-160
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Note: All FOVs are 720p. This information is provided for reference only. Specifications are subject to change without notice.
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FEATURES

- Moving Target Indicator (option)
- Object Tracking / Scene Tracking Modes (option)
- EO De-Fog (Haze Penetration) Processing
- Digital Contrast Enhancement
- Local Area Contrast Processing
- Edge Sharpening
- Image Noise Reduction
- Picture in Picture / Split screen
- 4x Electronic Continuous Zoom
- Graphical On-Screen Display for Intuitive Operation

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