TrakkaCam®
TC-375-SWIR

A NEW GENERATION OF HIGH PERFORMANCE, LONG-RANGE MULTI SENSOR SURVEILLANCE SYSTEMS

Ideally suited for a variety of air, maritime and land missions including law enforcement, search and rescue, civil protection, military ISR and force protection, manned and unmanned platforms and installations.

TRAKKA SYSTEMS TC SERIES

The new TC series from Trakka Systems features advanced technology in an ergonomic industrial design that sets new standards for full HD (1080p), long-range, multispectral imaging in a non-ITAR single-LRU configuration.

The TrakkaCam® TC-375-SWIR's multi-spectral senors are augmented with sophisticated image processing to see through environmental conditions like fog, haze, low light, and total darkness. A high-speed, digital video engine is embedded directly within the single-LRU gimbal delivering several standard and optional functions such as Moving Target Indicator (MTI) with Drone Detection Mode, which increases system performance and reduces operator workload.

The TC-375-SWIR has enhanced interfaces to provide easy integration with 3rd party equipment and embeds features like dual-stream H.264 video with KLV metadata over ethernet right into the system, removing the need for external encoders and enabling simplified integration with Moving Map and datalink systems, enabling operators and command centers to share mission-critical information in real-time while providing enhanced situational awarenes.

TC-375-SWIR's shortwave IR camera is uniquely suited for forest fire mapping, allowing the user to see through the smoke. SWIR can also capture clear detail through smog, clouds, and haze.

KEY BENEFITS

- Advanced sensors, superior in size class:
  - Available with a full suite of 8 Payload options:
  - (HD MWIR, SWIR, HDEO Spotter, LRF, LP, LI, A/T, IMU/GPS)
  - Continuous optical zoom on all imaging channels for maximum situational awareness
  - Open upgradeable architecture for incorporation of new technology sensors
  - Advanced multi-mode Auto Tracker
- Moving Target Detection (MTI) embeded 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
- Embedded H.264 video over ethernet with MISB 0601.7 Compliant Metadata. No need for separate encoder.
- 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

TC-375-SWIR

GIMBAL SPECIFICATIONS

Weight	<45 kg (99lb)
Diameter	375mm (14.7”)
Azimuth	Continuous Azimuth
Elevation	+20° 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
Fields of View	15° to 1.25°

COLOR HDTV (SPOTTER)

Type	HD CMOS Global Shutter
Resolution	3.2 MPixels
Fields of View	11.02° to 0.34°

SWIR

Type	InGaAs Photodiode Array
Resolution	640x512
Fields of View	47° to 7.0° (720p), continuous zoom

LASER RANGE FINDER (OPTIONAL)

Wavelength	1535 nm, Eye-safe
Range	20km
Repetition Rate	0.5Hz or Single-Shot Modes

LASER POINTER (OPTIONAL)

Type	Class 3B
Wavelength	830nm
Output Power	80mw

LASER ILLUMINATOR (OPTIONAL)

Type	Class 3B
Wavelength	860nm
Output Power	450mw

ELECTRICAL REQUIREMENTS

Power Requirments	<280W average (<350W max)
Input Voltage	22-36V Wide-Range Input Voltage

OPTIONS

Interface Types	SMPTE HD video outputs and H.264 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, Searchlight Slaving, Radar Slaving, Data Links & Video Downlinks

FEATURES

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

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Note: All FOVs are 720p. This information is provided for reference only. Specifications are subject to change without notice.