

TrakkaCam® TC-300-R



MULTI SPECTRAL SYSTEM FOR WILDFIRE FIGHTING.

Ideally suited for airborne wildfire fighting, that provides accurate, non contact temperature measurements in realtime.

TRAKKACAM TC-300-R®

The TC-300-R® multispectral camera consist of a radiometric long wave thermal imager, a high-definition daylight camera and a laser rangefinder.

The fully digital 4-axis active gyro stabilization system compensates for aircraft maneuvering and eliminates external vibrations for stable, long-range imaging.

High precision measurement accuracy, superb image quality, and long-wave solar reflection immunity provide outstanding performance for applications requiring real-time temperature readings.

The IMU/INS/Laser Rangefinder reports and holds geographical positions of assets.

The video imagery is streamed over Ethernet with embedded KLV meta data and is fully compatible with TrakkaMaps® TM-100 mapping system.

The gimbal is designed and tested according to RTCA DO-160 standards.

KEY BENEFITS

- Compact single-LRU configuration with no external electronics unit.
- High performance 4-axis active gyro stabilization for superior image stabilization.
- Fully integrated IMU/INS providing Geo Location and Geo Hold.
- Embedded video streaming over Ethernet with MISB 0601.7 Compliant meta data.
- Advanced sensors:
 - Choice of cooled or uncooled LWIR, HDTV, LRF,
 - IMU/GPS).
 - Advanced multi-mode Auto Tracker.
- IR temperature readings in real-time.
- Seamless interoperability with the TM-100 reduces integration time, and lowers ownership costs having one supplier.
- EASA POA and MOA production and maintenance facility assures the highest quality standards and reliability.



TC-300-R

GIMBAL SPECIFICATIONS

Weight	~22 kg (48.5 lb)
Diameter	300 mm (11.8") dia. x 410 mm (16.1")
Azimuth	Continuous Azimuth
Elevation	+20° to -120° Elevation (+90 Stow)
Stabilization	4 axis, active gyro-stabilization with integrated 6 axis passive isolation

THERMAL IMAGER

	OPTION 1	OPTION 2
Array Size	640 x 512 pixels	1024 x 768 pixels
Lens	9.1° to 3° continuous zoom	12° x 16° fixed optic
Detector	Cooled Focal Plane Array	Uncooled microbolometer array
Spectral Range	7.7-9µm	7.5-14µm
Temperature Reading Accuracy	+/-2.0°C, (+/-2.0% above 100°C)	+/-1.0 C, (+/-1.5% above 100°C)
Temperature Reading Range	5° to 1200°C	-40° to 1200°C
Focus	Manual and One-shot Auto Focus	Manual and One-shot Auto Focus
Digital Zoom	up to 4X continuous	up to 4X continuous

COLOR HDTV

Type	HD CMOS Global Shutter
Pixels	1936 x 1226
Fields of View	35.0° to 1.3°
Fields of View	up to 4X continuous

LASER RANGEFINDER

Classification	Class 1, Eye-safe
Range	Various available
Repetition modes	Continuous or Single-Shot

ELECTRICAL REQUIREMENTS

Max power	320W Maximum Power
Steady State Power	100W Steady State
Input Voltage	22-30V Wide-Range Input Voltage

CONFIGURATION

Features	Turret Camera Unit with embedded IMU/INS for georeference functionality, Remote Control Unit, Cable Kit, Auto tracking.
Interface Types	SMPTE HD video outputs and H.264 over Ethernet (MISB 0601.7 Compliant), RS422, RS232



FEATURES

- Forest fire fighting and mapping
- Powerline asset inspection
- Pipeline inspection
- Building heat loss measurement
- Animal surveys
- Storm damage assessment
- Agriculture monitoring
- Environmental surveys
- Right of Way (ROW) surveys



TC-300R - High Definition IR through smoke



TM-100 with Augmented Reality (AR) overlay

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