

# TrakkaCam<sup>®</sup> TC-300M-UC



## A NEW-GENERATION OF COMPACT HIGH PERFORMANCE MULTI SENSOR SURVEILLANCE SYSTEMS

**Ideally suited for naval and coastguard maritime missions including coastal and riverine patrol, search and rescue, illegal immigration protection, drug interdiction, economic exclusion zone (EEZ) protection, anti-piracy, maritime patrol, naval ISR and naval vessel 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 compact, high-performance, multispectral imaging in a non-ITAR single-LRU configuration.

The TC-300M-UC is MIL tested and built to withstand the harsh environmental conditions of maritime operations. Its EO/IR sensors are augmented with sophisticated image processing, to see through conditions such as fog, haze, low light, and total darkness. An advanced high-speed digital video engine embedded directly within the single-LRU gimbal provides several standard and optional functions, such as Moving Target Indicator (MTI) with Drone Detection Mode, reducing operator workload, and increasing system performance in adverse conditions.

All systems can be interfaced with moving map systems, maritime radar systems, Automatic Identification Systems (AIS), and secure data links. These attributes enable operators and command centers to share mission-critical information in real time, while providing enhanced situational awareness via augmented reality overlays or pure synthetic views.

### KEY BENEFITS

- Optimized for maritime operations
- Cost effective solution for shorter range maritime missions
- 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
- The advanced real-time digital HD image processing engine is embedded in gimbal and requires no additional electronics unit
- 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 with dual GPS capability for static navigation operations
- Ergonomic and compact 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
- MIL-STD & IP66 Tested for Environmental, Electromagnetic and Mechanical compliance, and capable of withstanding the harshest environments



# TC-300M-UC

## GIMBAL SPECIFICATIONS

|                      |  |
|----------------------|--|
| <b>Weight</b>        | ~20 kg (44 lb)   |
| <b>Diameter</b>      | 300mm (11.8")  |
| <b>Azimuth</b>       | Continuous Azimuth   |
| <b>Elevation</b>     | +120° to -20° Elevation  |
| <b>Stabilization</b> | 4 axis, active gyro-stabilization with integrated 6 axis passive isolation |

## THERMAL IMAGER

|                       |                             |
|-----------------------|-----------------------------|
| <b>Type</b>           | 8-12µm LWIR array           |
| <b>Resolution</b>     | 640x512                     |
| <b>Fields of View</b> | 29° to 5.9° Continuous Zoom |
| <b>Sensor Type</b>    | Un-Cooled                   |

## HDTV CAMERA

|                       |                             |
|-----------------------|-----------------------------|
| <b>Type</b>           | HD CMOS Global Shutter      |
| <b>Resolution</b>     | 2.37 MPixels (1080p)        |
| <b>Fields of View</b> | 35° to 1.3° continuous zoom |

## LASER RANGE FINDER (OPTIONAL)

|                        |                           |
|------------------------|---------------------------|
| <b>Wavelength</b>      | 1535 nm, Eye-safe         |
| <b>Range</b>           | 12km                      |
| <b>Repetition Rate</b> | 1 Hz or Single-Shot Modes |

## LASER POINTER (OPTIONAL)

|                     |          |
|---------------------|----------|
| <b>Type</b>         | Class 3B |
| <b>Wavelength</b>   | 830nm    |
| <b>Output Power</b> | 80mW     |

## LASER ILLUMINATOR (OPTIONAL)

|                     |          |
|---------------------|----------|
| <b>Type</b>         | Class 3B |
| <b>Wavelength</b>   | 860nm    |
| <b>Output Power</b> | 450mW    |

## ELECTRICAL REQUIREMENTS

|                           |                                 |
|---------------------------|---------------------------------|
| <b>Max power</b>          | 320W Maximum Power              |
| <b>Steady State Power</b> | 100W Steady State               |
| <b>Input Voltage</b>      | 22-36V Wide-Range Input Voltage |

## OPTIONS

|   |  |
|---|--|
| <b>Interface Types</b>                      | SMPTE HD video outputs and H.264 over Ethernet (MISB 0601.7 Compliant), RS422, RS232   |
| <b>Functional Interfaces &amp; Features</b> | Auto Tracking, Geo-Location with integrated IMU/INS, Metadata, Moving Maps & Augmented Reality, Remote Control, Searchlight Slaving, Radar Slaving, AIS and other NMEA 0183 Interfaces, Data Links & Video Downlinks |

Note: All FOVs are 720p



## FEATURES

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

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