

ThermoVision® SENTRY™ POD SYSTEM

APPLICATIONS

- Perimeter Security
- Border Patrol
- Night Observation

CURRENT CUSTOMERS



US NAVY - SPAWAR



US AIR FORCE - TASS/USAFE



US ARMY - MOUT



US MC - FLS



Central Intelligence Agency



24-HOUR PERIMETER SURVEILLANCE CAMERA SYSTEM

From the world leader in commercial uncooled microbolometer camera systems comes ThermoVision Sentry POD (Personnel Observation Device). The "POD" offers reliable, continuous day/night surveillance in a rugged, sealed, easy-to-use camera module. Superior reliability, exclusive features, lower life-cycle costs, easy integration, and greater affordability are some of the system's many advantages.

PROVEN SYSTEM PERFORMANCE

Utilizing the latest generation of uncooled detector technology from BAE Systems, Sentry POD features unmatched image sensitivity and clarity, and long-term stability. FLIR has produced more than 5000 systems that use this sensor module, making ThermoVision Sentry the most widely fielded and tested system of its type in the market.

ADVANCED IMAGING CAPABILITY

A dual field-of-view (FOV) infrared imager, combined with an integrated color CCD-TV camera, provides both situational awareness and close-up imaging on demand. The infrared optical system provides a 4:1 ratio between wide and narrow fields of view. Experience better situational awareness in the wide FOV, while maintaining detailed recognition capabilities in the narrow FOV. A 4:1 continuous digital electronic zoom provides for another level of magnification and fine-tuning for target discrimination purposes.

EXCLUSIVE FUNCTIONS PROMOTE EASE OF USE

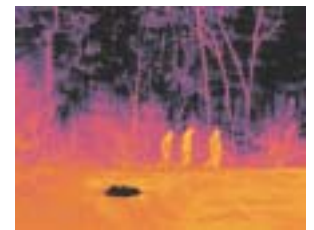
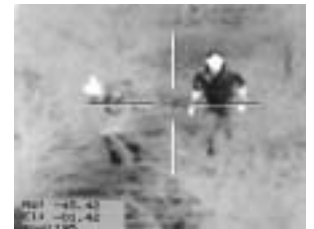
Sentry POD's exclusive easy-to-use on-board processing capability includes an auto-focus function that automatically produces sharp infrared images. Sentry's exclusive InstAlert™ object tagging feature highlights warm objects, such as people or vehicles, in red for immediate operator attention. (The background of the image remains in black and white for detailed scene analysis.) Utilizing the system's 14-bit dynamic range, Sentry's powerful auto-contrast algorithm instantly optimizes image contrast for maximum target definition and tracking capability.

EASY TO INTEGRATE

Rugged MIL-Spec connectors, a RS-232 communications protocol, a built-in test capability, and comprehensive Interface Control Documentation make Sentry POD a breeze to integrate into a surveillance system. No other system offers the level of testing, documentation, and field qualification found in ThermoVision Sentry POD.

COMMERCIALLY DEVELOPED, MILITARY QUALIFIED (CDMQ)

The Sentry POD imaging module was developed under the U.S. Air Force TASS (Tactical Automated Security System) program. Originally fielded in 1997, ThermoVision Sentry is installed and supported worldwide.



KEY FEATURES



FULLY AUTOMATIC IMAGE OPTIMIZATION

AUTO FOCUS

Exclusive feature offers a crisp, clear image at the press of a button or whenever fields of view are changed.

AUTO LEVEL/GAIN

14-bit dynamic range and a proprietary histogram equalization algorithm optimize contrast for maximum scene discrimination and target recognition.

AUTO UNIFORMITY CORRECTION

Automatic periodic internal image correction for detector non-uniformity errors. High-reliability solenoid rapidly performs the correction in less than 1 second.



RUGGED SEALED ENCLOSURE

TESTED TO IP65, MEETS NEMA CLASS 4

Protected against rain, dust, sand and corrosion

SHOCK AND VIBRATION HARDENED

Shock tested to 25 g under IEC 68-2-29 and vibration tested from 5-500 Hz under IEC 68-2-6.

SOLAR PROTECTION

Integrated sun shield and high operating temperature specification for hot climate operation.



PROVEN RELIABILITY

UNCOOLED MICROBOLOMETER DETECTOR

Low maintenance through the elimination of moving parts for detector cooling.

EXTENSIVE USER BASE

The most widely deployed system of its type, ThermoVision Sentry POD is used by government agencies around the world. In service since 1997.

MATURE SYSTEM DESIGN

Originally designed in 1995, ThermoVision Sentry POD has been updated with the next-generation microbolometer for greater sensitivity and image quality. Four years of field experience have yielded several engineering updates and feature enhancements, further refining the design.



ADVANCED IMAGE ENHANCEMENT FEATURES

INSTALERT™ OBJECT TAGGING ALARM

Exclusive feature tags warm objects in red, while the rest of the time scene remains in black and white. Ideal for monitoring several displays at once.

CONTINUOUS 4:1 DIGITAL ZOOM

Up to an additional 4:1 magnification while maintaining live imagery and scene detail. Ideal for long-range targets.

DIGITAL IMAGE FREEZE

Digitally freezes an image for a closer look or for image documentary purposes.



COMPREHENSIVE FIELD SUPPORT DOCUMENTS

DEVELOPED ILS PACKAGE

User manuals, documentation control, and field service training are available.

SPARE PARTS INVENTORY

FLIR Systems stocks a complete inventory of spare parts to support the installed base.

COMPREHENSIVE TECHNICAL MANUALS

Extensive documentation supports field integration and service.



INSTALERT™ COLOR TAGGING



COLOR ENHANCEMENT



4:1 CONTINUOUS ELECTRONIC ZOOM



AUTO CONTRAST ENHANCEMENT

ThermoVision® SENTRY™ POD SYSTEM

THERMAL IMAGER

Detector	Uncooled microbolometer, 320 x 240
Waveband	7.5-13 microns
Wide FOV	24° x 18°
Narrow FOV	6° x 4.5°
FOV Switch Time	<.8 seconds
Electronic Zoom	Continuous 1X to 4X
Focus Control	Auto or manual
Digital Image Resolution	14 bit
Gain/Level Adjustment	Manual or auto, with histogram equalization

FEATURES

Imager	Auto focus, auto image optimization, auto contrast enhancement
Target Detection	InstAlert™ color tagging
Image Magnification	Digital zoom 1X to 4X continuous
On-Screen Symbology	Date, time, NFOV brackets, reticle, control status, momentary focus indicator
Built-in-Test	Comprehensive self test, failure code display
Hour Meter	Records system operating time
Image Capture	Freeze frame
Image Polarity	White hot/black hot

ENVIRONMENTAL

Encapsulation	Sealed enclosure, IP65, NEMA 4
Shock	25 g, IEC 68-2-29
Vibration	5-500 Hz, IEC 68-2-6
Hi/Low Operating Temperature	-32° to +60°C (-26° to 140° F)
Solar Immunity	Sun shield provided
Optical Coating	Hard carbon AR
EMI/EMC	MIL-STD 461D

PHYSICAL

Dimensions	11 x 9 x 7 in. (270 x 230 x 180 mm)
Weight	<13 lbs. (6 kg)
Mounting Provision	2-1/4" x 20 Tapped Holes
Color	White or sand
Finish	2-part powder coating
Transport Provision	Integral carrying handle

VISUAL CAMERA

Type	1/4" color CCD
Resolution	460 television lines NTSC, 470 television lines PAL
Wide FOV	48°
Narrow FOV	2.7°

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