

Mobile Surveillance & Intelligence

c/w HIGH-DEFINITION Uncooled Thermal Imaging and HD Day camera

CS 2000 Series



Electro-Optical / Infra-Red camera system

c/w HIGH-DEFINITION Uncooled Thermal Imaging

CURRENT SECURITY electro-optical infrared cameras are the new generation of rugged, compact, and low maintenance turrets for land-based missions. The **CS 2032** is a gyro-stabilised payload integrating a **High-Definition LWIR uncooled thermal imager** and **High-Definition Day/Low light camera** for mobile surveillance and intelligence, as well as border surveillance and critical infrastructure surveillance applications. It is controlled through IP network on board or remotely. This COTS system is built to MIL Std.

APPLICATIONS

- Mobile Surveillance & Intelligence
- Critical Infrastructure Surveillance Applications
- Border Surveillance
- Port Security
- Facility Protection
- Wind Turbine Fields

BENEFITS

- **Rugged, low maintenance** design
- **Detects** a NATO target over 4km, night and day
- **Provides a clear, highly detailed image**, in HD day camera, even into the digital zoom range
- **Increases object detection** in low level of light with best of class low light sensitivity
- **Tracks** third party sensor targets
- **Video Tracking**
- **Streams H.264 (HD)** video with PiP or video streams and **communicates digitally** over IP network (Ethernet)
- **Outputs video in dedicated coax cable in SDI**
- **Enables Picture in Picture (PiP)** of two live video signal outputs (zoom synchronized or independent)
- **Single LRU** with no junction boxes or interface modules simplifies installations and retro fits, while reducing maintenance
- **Standard mounting and cabling** for all CS 2000 series enables ease of payload swaps and future upgrades
- **Designed to withstand marine environmental conditions** and proven by over 15 years and hundreds of successful operating installations worldwide



SYSTEM FEATURES

HD UNCOOLED THERMAL CAMERA THREAT CONFIRMATION & INTELLIGENCE

| | |
|--------------------------------|---------------------------------------|
| Sensor type: | HD LWIR |
| Spectral Range: | 8 – 14 µm Uncooled thermal imager |
| Resolution: | 1024x768 pixels (1920x1080 outputted) |
| Field of View: | 19.8° Fixed FoV |
| Focal length: | 50mm |
| f/stop: | f1.2 |
| Zoom: | 4x digital zoom |
| Frequency: | 30 fps, full frame rate for export |
| Detection range ¹ : | NATO target over 4km/ Human at 1.9km |

HD DAY / LOW LIGHT CAMERA

| | |
|-----------------|-------------------------------------|
| Sensor type: | 1/2.8" CMOS |
| Field of View: | 63° to 2.3° FoV in HD mode, 1080p30 |
| Optical zoom: | 30x continuous |
| Digital zoom: | 12x continuous |
| Window coating: | Hydrophobic |

LOW LIGHT HD CAMERA (FUNCTION)

| | |
|------------------------|-----------------------|
| Sensor type: | 1/2.8" CMOS |
| Low light sensitivity: | 0.0015Lux in B&W mode |

RADAR, GROUND SIGNALS TRACKING & THE THIRD-PARTY SENSOR

Slew-to-cue allows target detected from the Radar & Ground signals to be tracked automatically by the EO/IR. Interface between Radar, Ground signals over NMEA0183 communication standard in RS232 or RS422, through supplied Network Interface Box. GPS data is also fed through NMEA 0183 communication to register and the position in Latitude, Longitude, Date and Time. Interface to other sensors as required.

VIDEO TRACKING

Automatic pursuit of an object of interest or threat selected on the display by the operator, without any continuous input. Both the infrared and day sensors automatically track the target, even with small obstructions in their path.

CONTROLLER: HARDWARE OR GUI, IP BASED AND REMOTE-CONTROLLED SOLUTIONS

- 1. Video GUI** with optional USB joystick (two-button joystick or Rugged Rigid Grip)
- 2. Control GUI (Graphical User Interface)**, either on **dedicated touchscreen** display (Panel PC) or as pop up window in PC; with optional USB joystick (two-button joystick or Rugged Rigid Grip)
- 3. Protocol for interface to Command & Control System**

All controllers offer Built-in Test for remote diagnostic and are configured for optional additional controllers or remote control

PAYLOAD SPECIFICATIONS

| | |
|--------------|--|
| System type: | Gyro-stabilization ² , c./w. enhanced video stabilization |
| Pan Range: | Continuous 360° AZ rotation |
| Tilt range: | +/-90° elevation movement, including stow position |
| Colour: | Low Gloss Plastic Sand. Custom colour upon request. |

SYSTEM INTERFACE

| | |
|------------------|--|
| Video format: | SDI |
| Video streaming: | H.264 in HD with PIP or 2 video streams |
| Data: | Radar cursor / ARPA target / AIS over NMEA 0183 via RS422 or RS232 |
| Control: | Over IP network |

ENVIRONMENTAL

| | |
|--------------------------|---------------------------|
| Ingress Protection Mark: | IP67 |
| Compliant to: | MIL-STD 810 & MIL-STD 461 |
| Operational temperature: | -20°C to +55°C |

WEIGHT AND DIMENSIONS

| | |
|---------------------------------|--------|
| Weight: | ≤ 12kg |
| Diameter payload ³ : | 210mm |
| Height payload ³ : | 322mm |

POWER REQUIREMENTS

| | |
|-------------------|-------------|
| Voltage: | 24 to 36VDC |
| Max. Consumption: | 210W |

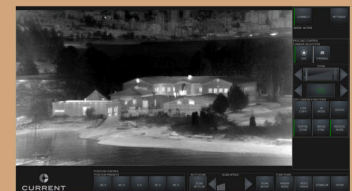
OTHER OPTIONS AND ACCESSORIES

Other sensors: Contact us with your specific requirements.

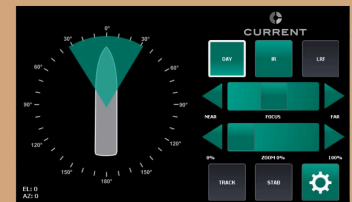
¹ theoretical calculation using Johnson's criteria & not accounting for atmospheric attenuation - ² resolved by 2 axis positioning - ³ Larger movement space required



CONTROL SOLUTIONS



1. Video GUI



2. Control GUI



3. Protocol for interface to Command & Control System



2-Button Joystick



Rugged Rigid Grip

