IRCAMERAS
INFRARED IMAGING SYSTEMS

Surveliance

EOSS 500CZC

Axsys Technologies | General Dynamics Advanced Information Systems

EOSS 500CZC, EOSS 500CZC-S, Continuous Zoom

Long Range Thermal Imaging System

The Axsys EOSS 500CZC continuous zoom (100-500mm) cooled infrared camera sets a worldwide standard for mobile and stationary long range thermal imaging for surveillance, reconnaissance, and targeting applications.

The EOSS 500CZC is a cost-effective and highly reliable EO/IR imaging system that is used in a variety of land- and marine-based applications such as deterring piracy in the Straits of Malacca, securing borders, airports and ports of entry, and protecting critical infrastructure from unwanted threats.

Operating in the 3-5µm spectral region, the EOSS 500 utilizes advanced cooled sensor technology in a 320 x 256, 30µm pitch focal plane array, or an optional 640 x 512, 15µm pitch focal plane array for maximum resolution (EOSS 500-S). The system is equipped with an automatically controlled defroster and protected with Axsys' proprietary diamond-like hard carbon coating designed to withstand the harshest of conditions. The EOSS 500 also includes a bore-sighted, 26X optical zoom CCTV and an Axsys APS 50 precision pan and tilt system.

Key Features

- Auto and manual focus
- 100-500mm (5x) continuous field-of-view optical zoom
- Integrated precision pan and tilt system
- 320 x 256 InSb, 30µm pitch focal plane array or optional 640 x 512, 15µm pitch focal plane array
- Multiple defined user presets
- Boresighted visible camera with 26x zoom

Key Benefits

- Extremely versatile solution for wide range of surveillance applications
- Highly reliable operation with thousands of hours of proven field experience
- Superior Axsys infrared optics for unmatched image quality
- Effectively operates in harsh environments

Technical Specifications

EOSS 500CZC System	
Video Format	NTSC/PAL/Differential
Serial Interface	RS-422
Power Requirements	18-28VDC (direct to P/T) 100-240VAC or 12VDC (with DCU)
Environmental	• Unit sealed and dry nitrogen backfilled • Front Element Defroster • Operating Temperature Range: -32°C to +60°C • Non-Operating Temperature Range: -33°C to +71°C
Controls	• Controls available on a hand held joystick, or through a PC via an RS-232/422 link • Proportional Pan and Tilt speed controls • Field of View and Focus Slaving: Visual/Thermal • Zoom • Focus (Auto/Manual) • Auto Scan with 10 tables of 10 user-defined presets, variable speed, dwell, & camera selection
Weight	~65 lbs (29kg) (Pan/tilt head & sensors)

Pan/Tilt Head	
Pan	360° continuous
Tilt	±60°
Accuracy	0.05°
Repeatability	0.01°
Position Rate Pan	<0.01° to >300°/second
Tilt	<0.01° to >300°/second

Thermal Camera Characteristics	
EOSS 500 Detector	320 x 256 InSb, FPA 30µm pitch
EOSS 500-S Detector	640 x 512 InSb, FPA 15µm pitch
Spectral Band	3–5µm
Type	Motorized Remote Focus & Continuous Zoom (100-500mm) Optical System
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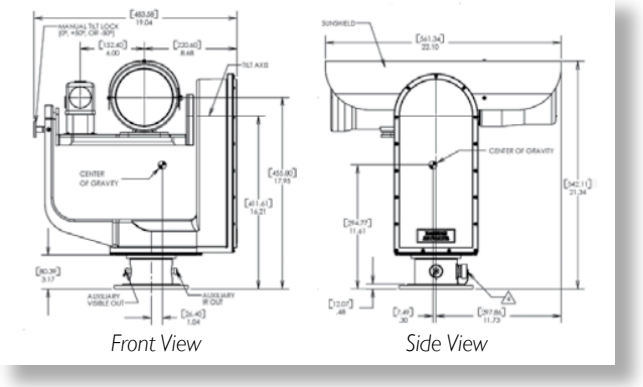
Field of View	5.5° x 4.1° (Wide) to 1.1° x 0.8° (Narrow), continuous zoom
Controls/Features	High Sensitivity Mode Multiple Color Palettes Inverse Polarity

Visible Camera Characteristics (CCTV)	Short Range	Long Range
Sensor	¼" IT CCD (Super HAD)	⅓" ITCCD
Approx.	630k Pixels (NTSC)	380k Pixels (NTSC)
Approx	740k Pixels (PAL)	440k Pixels (PAL)
FOV (cont optical zoom)	42° to 1.6°	26.8° to 0.9°
Optical Zoom	26X	30X
Digital Zoom	12X	10X
Resolution (TV lines)	470 NTSC/460 PAL	560 color, 700 B/W
Min. Illumination	<2.0 lux (1/60 sec)	<0.2 lux, f/1.2 color
	<0.05 lux (¼ sec)	<0.01 lux, f/1.2 B/W
Signal to Noise	>50dB	>50dB



Front View *Side View*