

## EOSS 500/500-S Modular System



**EOSS 500-CZC**  
**EOSS 500-CZC-S**  
**Modular**

Axsys' modular EOSS 500CZC continuous zoom (100–500mm) thermal camera system sets a worldwide standard for mobile and stationary long range thermal imaging solutions, offering a wide array of surveillance and security features in a fully integrated system. The versatile modular 100-500 Continuous Zoom Camera is an EOSS compatible cooled thermal imager designed to function either as a high performance independent thermal camera or as an integrated component of a modular EOSS surveillance system.

In either configuration, the product provides excellent thermal resolution in total darkness or daylight conditions. Operating in the 3–5 $\mu$ m spectral region, it utilizes advanced cooled photodetector technology in a 320 x 256 InSb, 30 $\mu$ m pitch focal plane array, or optionally a 640 x 512, 15 $\mu$ m pitch focal plane array for maximum resolution (EOSS 500-S Modular).

Simple mounting alternatives permit the thermal camera to be converted from a stand-alone security/surveillance camera to an element of a modular security system featuring an integrated 360° pan/tilt mounting, a 26X zoom Visible CCTV Camera, and an available joystick controller. The sensor head, including the camera and pan/tilt mounting, is environmentally sealed and dry nitrogen backfilled. The system is also available without a Visible Camera.

Axsys provides leading-edge IR equipment to the security and surveillance sector. Axsys' proprietary optical designs, state-of-the-art laboratories, and vertically integrated manufacturing capabilities ensure maximum performance and dependability.

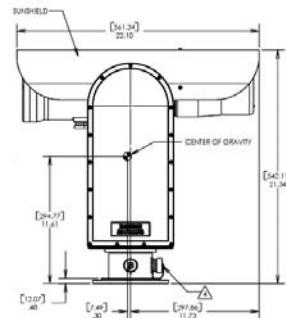
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## Security/Surveillance

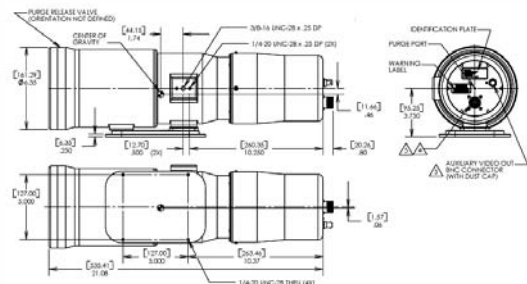
### Long Range Thermal Imaging System

#### Features Include:

- Auto & Manual Focus
- High Sensitivity Mode
- Multiple Color Palettes
- 5X Continuous Optical Zoom
- Integrated Pan/Tilt Mounting
- Integrated Controller and Joystick
- 5.5° to 1.1° Continuous Field of View
- Cooled 3–5 $\mu$ m IR Detector Technology
- Boresighted 26X Zoom Visible Camera
- Modular construction for conversion from independent camera to integrated component of EOSS surveillance system



EOSS 500 Modular System



100-500 Continuous Zoom Thermal Camera



## Modular EOSS 500CZC System Specifications

<b>Axsys Part Number</b>	23137 (includes Visible Camera), 23137 (less Visible Camera), 23081 (Standalone Camera).
<b>Video Format</b>	NTSC/PAL/Differential.
<b>Serial Interface</b>	RS-422.
<b>Power Requirements</b>	18-28VDC (direct to P/T), 100-240VAC or 12VDC (with DCU).
<b>Environmental</b>	<ul style="list-style-type: none"> <li>Unit sealed and dry nitrogen backfilled.</li> <li>Front Element Defroster.</li> <li>Operating Temperature Range: -32°C to +60°C</li> <li>Non-Operating Temperature Range: -33°C to +71°C.</li> </ul>
<b>Controls</b>	<ul style="list-style-type: none"> <li>Controls available on a hand held joystick, or through a PC via an RS-232/422 link.</li> <li>Proportional Pan and Tilt speed controls.</li> <li>Field of View and Focus Slaving: Visual/Thermal.</li> <li>Zoom.</li> <li>Focus (Auto/Manual).</li> <li>Auto Scan with 10 tables of 10 user-defined presets, variable speed, dwell, &amp; camera selection.</li> </ul>
<b>Weight</b>	~65 lbs.(29.4kg)(Pan/tilt head & sensors).

### Pan/Tilt Head

<b>Pan</b>	360° Continuous.
<b>Tilt</b>	±60°.
<b>Accuracy</b>	0.05°.
<b>Repeatability</b>	0.01°.
<b>Position Rate</b>	Pan < 0.01° to >300°/second. Tilt < 0.01° to >300°/second.

## Thermal Camera Characteristics

<b>EOSS 500 Detector</b>	320 x 256 InSb, FPA 30µm pitch.
<b>EOSS 500-S Detector</b>	640 x 512 InSb, FPA 15µm pitch. (add "Z" suffix to part number; see table below).
<b>Spectral Band Type</b>	3-5µm. Motorized Remote Focus & Continuous Zoom (100-500mm) Optical System.
<b>f/#</b>	4.
<b>Field of View</b>	5.5° x 4.1° to 1.1° x 0.8° Continuous.
<b>Controls/Features</b>	<ul style="list-style-type: none"> <li>High Sensitivity Mode.</li> <li>Multiple Color Palettes.</li> <li>Inverse Polarity.</li> <li>Removable adapter plate for conversion to pan/tilt mounting.</li> </ul>

## Visible Camera Characteristics (CCTV)

	<b>Short Range</b>	<b>Long Range</b>
<b>Sensor</b>	1/4" IT CCD (Super HAD)	1/3" IT CCD.
	Approx. 630k Pixels (NTSC)	380k Pixels (NTSC).
	Approx. 740k Pixels (PAL)	440k Pixels (PAL).
<b>FOV</b> (cont optical zoom)	42° to 1.6°	26.8° to 0.9°.
<b>Optical Zoom</b>	26X	30X.
<b>Digital Zoom</b>	12X	10X.
<b>Resolution</b> (TV lines)	470 NTSC/460 PAL	560 color, 700 B/W.
<b>Min. Illumination</b>	<2.0 lux (1/60 sec)	<0.2lux, f/1.2 color.
	<0.05 lux (1/4 sec)	<0.01lux, f/1.2 B/W.
<b>Signal to Noise</b>	>50dB	>50dB.

## Construction of Axsys Part Numbers

Note: To construct Part Numbers start with base code, add other desired options alphabetically (excepting that "P" must be last), and then add kit designator. Example: 23137F3HJ1ZP-600.

Code	Feature Referenced & Available Options	Example (sample part number plus code)
-600	EOSS kit with monitor and reel in case	23137-600
-601	EOSS kit, less monitor or reel in case	23137-601
-602	EOSS kit with no support accessories	23137-602
-603	EOSS kit, NEMA rated DCU with AC and DC cable added	23137-603
Fn	Visible Module Option (no suffix is Sony Block default, "Short Range")	
F3	Computar 10-300 Lens; Samsung Low Light Camera, "Long Range"	23137F3-600
H	IP over IEEE 802.3	23137H-600
H1	IP over IEEE 802.3; IPv6 Compliant; H.264 Video Compression	23137H1-600
J	Electronic Video Stabilizer Option	
J1	Gyro Stabilized Pan/Tilt Option	23137J1-600
J2	Video Stabilization and Gyro Stabilization Option	23137J2-600
L	Laser Illuminator/Pointer Option	23137L-600
P	PAL Video Format	23137P-602
Vnn	Paint Version (see 12792 paint specification)	23137V4-600
Yn	Laser Rangefinder Option	
Y1	20km, 1.0mRad	23137Y1-600
Y2	20km, 0.5mRad	23137Y2-600
Y3	30km, 0.5mRad	23137Y3-600
Z	640 X 480 Sensor Option	23137Z-600



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Manufacturer reserves the right to change specifications to reflect latest changes in technology and improvements at any time without notice. Export is subject to US Government regulations.



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