

SENSPEX

APPLIED SCIENCE & TECHNOLOGY

EOSS 500/500S

Modular System



The 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.

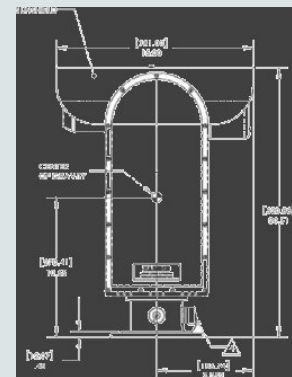
In either configuration, the product provides excellent thermal resolution in total darkness or daylight conditions. Operating in the $3/5\mu\text{m}$ spectral region, it utilizes advanced cooled photodetector technology in a 320×256 InSb, $30\mu\text{m}$ pitch focal plane array, or optionally a 640×512 , $15\mu\text{m}$ 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.

www.senspex.com

KEY FEATURES

- Auto and 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 $3-5\mu\text{m}$ IR Detector Technology
- Boresighted 26X Zoom Visible Camera
- Modular construction for conversion from independent camera to integrated component of EOSS surveillance system



EOSS 500/500S

System Specifications

Part Number	23137 (includes Visible Camera)
	23137 (less Visible Camera)
	23081(Standalone Camera)
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 handheld 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
	Focus (Auto/Manual)
	Auto Scan with 10 tables of 10 user defined presets, variable speed, dwell, and camera selection
Weight	~65 lbs. (29.4kg) (Pan/tilt head & sensors)

Pan/Tilt Head

Pan	360° Continuous
Tilt	+60°
Accuracy	0.05°
Repeatability	0.1°
Position Rate	Pan <0.01° to >300°/second
	Tilt <0.01° to >300°/second

Visible Camera Characteristics (CCTV)

	Short Range	Long Range
Sensor	1/4" IT CCD (Super HAD)	1/3" IT CCD
	Approx.: 630k Pixels (NTSC)	380k Pixels (NTSC)
	Approx.: 740 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 (1/4 sec)	<0.01 lux, f/1.2 B/W
Signal to Noise	>50dB	>50dB

Thermal Camera Characteristics

EOSS 500 Detector	320 x 256 InSb, FPA 30µm pitch
EOSS 500-S Detector	640 x 512 InSb, FPA 15µm pitch
	(add "Z" suffix to part no.; see table to right)
Spectral Band	3-5µm
Type	Motorized Remote Focus and Continuous Zoom (100-500mm) Optical System
f/#	4
Field of View	5.5° x 4.1°
	to 1.1° x 0.8° Continuous
Controls/Features	High Sensitivity Mode
	Multiple Color Palettes
	Inverse Polarity
	Removable adapter plate for conversion to pan/tilt mounting

Construction of Part Numbers

Code	Feature Reference & Available Options	Example (part # 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	Computer 10-300 Lens; Samsung Low Light "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, 1.0 mRad	23137Y1-600
Y2	20km, 0.5mRad	23137Y2-600
Y3	30km, 0.5mRad	23137Y3-600
Z	604 x 480 Sensor Option	23137Z-600

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: 23181F2H1ZP-600

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