

TSC₄₅₀₀



The TSC 4500 (Thermal Security Camera) provides the most advanced image processing and lowest noise to ensure better target recognition and longer stand-off range. Using Amorphous Silicon Microbolometer technology, this TSC contains a 4500AS core that provides 320 x 240 picture resolution. And its 30 micron detector provides a real-time frame rate of 30Hz.



Best-in-class image quality is ensured by sophisticated histogram-based image processing and 640 x 480 video output interpolation.

- Camera is fully RoHS-compliant
- Available with a 9Hz frame rate
- Available in a WFOV (50°), MFOV (25°) and NFOV (12°)

**LONG-RANGE
PERIMETER SURVEILLANCE**
FOR BORDERS, HARBORS,
WATERFRONTS AND AIRFIELDS

**MEDIUM-RANGE
FACILITY SURVEILLANCE**
FOR POWER PLANTS AND
PUBLIC UTILITY FACILITIES

**WIDE-ANGLE
SECURITY SURVEILLANCE**
FOR GATED ENTRANCES AND
EQUIPMENT STORAGE

CAMERA FEATURES:

- Uses proven Amorphous Silicon Microbolometer detector technology and provides 320 x 240 resolution
- Watertight to IP67 rating
- Select optics provide detection of human activity at up to 3,300 feet
- Equipped with a serial data port for camera diagnostics
- Fully RoHS-compliant for improved exportability and available with 9Hz frame rate
- Three field of view (FOV) alternatives provide user's desired detection range

USER BENEFITS:

- No lighting or infrared illumination required to view image
- Full visibility when smoke, fog or haze is present
- Rugged, dependable and ideal for long-range security surveillance
- Compatible with intelligent video analytics software



Long-range plant surveillance



Medium-range plant surveillance



TSC₄₅₀₀ TECHNICAL SPECIFICATIONS:

FEATURES		THERMAL-EYE TSC ₄₅₀₀		
FOCAL PLANE ARRAY	MATERIAL & STRUCTURE	Amorphous Silicon Microbolometer (320 x 240 pixel array)		
	SPECTRAL RESPONSE	7-14µm (filter bandwidth)		
	THERMAL SENSITIVITY (DETECTOR)	<50mK		
	REFRESH RATE	Real-time 30Hz (9Hz available)		
THERMAL IMAGING PERFORMANCE	START-UP TIME	~ 4 seconds		
	CONTRAST/BRIGHTNESS	Advanced Image Processing		
OPTICS	FIELD OF VIEW (H x V)	Wide Angle (50° x 38°)	Medium Angle (25° x 18°)	Narrow Range (12° x 9°)
	RANGE TO DETECT HUMAN ACTIVITY	Up to 775ft (235m)	Up to 1465ft (445m)	Up to 3300ft (1000m)
	FOCUS METHOD	Manual adjust with passive athermalized lens		
	f/#	1.0 Athermalized	1.2 Athermalized	
VIDEO	ANALOG OUTPUT	NTSC (color); Real-time 30Hz frame rate / PAL (color); Real-time 25Hz frame rate		
	OUTPUT RESOLUTION	NTSC: 640 x 480 pixels for higher-clarity thermal images and symbology overlay PAL: 768 x 574 pixels for higher-clarity thermal images and symbology overlay		
	CUSTOMIZABLE ABSOLUTE COLOR	3 OEM selectable color points are mapped to selectable absolute temperatures		
POWER	INPUT VOLTAGE	9 to 32VDC		
	INPUT POWER	~ 2.0W for 9 to 32VDC input at 25°C ambient		
INTERFACE/ CONTROLS	CAMERA SETUP	RS-232 and Advanced GUI Control		
ENVIRONMENTAL CHARACTERISTICS	OPERATING TEMPERATURE (AMBIENT AIR TEMP)	-20°C to 70°C (-4°F to 158°F)		
	STORAGE TEMPERATURE	-40°C to 105°C (-40°F to 221°F)		
	EMC COMPLIANCE	FCC Part 15 & CE Mark		
	WEATHERPROOFING	Watertight to IP67		
PHYSICAL CHARACTERISTICS	SIZE	8.3"L x 2.6"W x 2.7"H (21.1cm x 6.6cm x 6.9cm)		
	COLOR	Black Extruded Anodized Aluminum		
	WEIGHT	20oz. (567g)		
	MOUNTING BRACKET	¼" – 20 UNC-2B Universal top or bottom mount		
ORDERING INFORMATION	THERMAL-EYE TSC₄₅₀₀ 30HZ/25HZ CAMERAS, BLACK HOUSING			
	FOV ALTERNATIVES	Wide FOV (50° x 38°)	Medium FOV (25° x 18°)	Narrow FOV (12° x 9°)
	NTSC/PAL	4000143-9/4000143-11	4000143-1/4000143-3	4000143-2/4000143-4
	THERMAL-EYE TSC₄₅₀₀ 9HZ CAMERAS, BLACK HOUSING			
	NTSC/PAL	4000143-10/4000143-12	4000143-5/4000143-7	4000143-6/4000143-8
OPTIONAL ACCESSORIES	SOLAR SHIELD KIT (WHITE)	4000198-1		
	INTERFACE CABLE – 3FT (0.9M)	4000194-1		
	INTERFACE CABLE – 15FT (4.5M)	4000194-2		
	INTERFACE CABLE – 30FT (9M)	4000194-3		
	BREAK-OUT INTERFACE CABLE	4000193-1		
	24 VAC POWER CONVERTER KIT	4000195-1		
Specifications subject to change without notice		Power cables sold separately and not included in product		TSC ₄₅₀₀ RevF January 2008

This technical data and software is considered as Technology Software Publicly Available (TSPA) as defined in Export Administration Regulations (EAR) Part 734.7-11.

Please call for additional information.



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THERMAL-EYE