

# TSC<sub>4500</sub>



The TSC<sub>4500</sub> (Thermal Security Camera) provides the most advanced image processing and low 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.

And for improved exportability, this camera is fully RoHS-compliant and available with a 9Hz frame rate.

## 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
- Weatherized to IP66 rating
- Select optics provide detection of human activity at up to 6,100 feet
- Equipped with a serial data port for camera diagnostics
- Fully RoHS-compliant for improved exportability and available with 9Hz frame rate

### 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 software



Long-range plant surveillance



Medium-range plant surveillance

## TSC<sub>4500</sub> TECHNICAL SPECIFICATIONS (PRELIMINARY):

FEATURES		THERMAL-EYE TSC <sub>4500</sub>		
FOCAL PLANE ARRAY	MATERIAL & STRUCTURE	Amorphous Silicon Microbolometer (320 x 240 pixel array)		
	SPECTRAL RESPONSE	7-14µm (filter bandwidth)		
	THERMAL SENSITIVITY	<50mK		
	REFRESH RATE	Real-time 30Hz (9Hz available)		
THERMAL IMAGING PERFORMANCE	START-UP TIME	~ 4 seconds		
	CONTRAST/BRIGHTNESS	Advanced Image Processing		
	SATURATION TEMPERATURE	1100°F ±10% with automatic electronic iris		
OPTICS	FOV ALTERNATIVES	Wide Angle (25° x 18°)	Medium Range (12° x 9°)	Long Range (6° x 4°)
	RANGE TO DETECT HUMAN ACTIVITY	Up to 1465ft (445m)	Up to 3300ft (1000m)	Up to 6130ft (1860m)
	FOCUS	Manual adjust with passive athermalized lens	Manual or electronic adjust with passive athermalized lens	Manual or electronic adjust with passive athermalized lens
VIDEO	ANALOG OUTPUT	NTSC (color); Real-time 30Hz frame rate / PAL (color); Real-time 25Hz frame rate or 9Hz frame rate		
	SYNCHRONIZATION	Line sync when 24VAC power used		
	DIGITAL OUTPUT (OPTIONAL)	Full-resolution, 16-bits (corrected or uncorrected) or 24-bits (RGB color), plus control signals; 30Hz frame rate (NTSC), 25Hz frame rate (PAL) or 9Hz from 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 (WITH FISCHER CONNECTOR ONLY)	3 OEM selectable color points are mapped to selectable absolute temperatures		
POWER	INPUT VOLTAGE	24 VAC or 9 to 30VDC		
	INPUT POWER	~ 2.0W for 8 to 32VDC input and <3.0W for AC input at 25°C ambient		
INTERFACE/ CONTROLS	CAMERA SETUP (WITH FISCHER CONNECTOR ONLY)	RS-232 and Advanced GUI Control		
ENVIRONMENTAL CHARACTERISTICS	OPERATING TEMPERATURE (AMBIENT AIR TEMP)	-20°C to 85°C (-4°F to 185°F)		
	STORAGE TEMPERATURE	-40°C to 105°C (-40°F to 221°F)		
	EMC COMPLIANCE	FCC Part 15 & CE Mark		
	WEATHERPROOFING	Watertight to IP66		
PHYSICAL CHARACTERISTICS	SIZE	10"L x 1.9"W x 2.3"H (3.9cm x 0.75cm x 0.91cm)		
	COLOR	Black Extruded Anodized Aluminum		
	WEIGHT	20oz. (656g)		
	MOUNTING BRACKET	¼" – 20 UNC-2B Universal top or bottom mount		
ORDERING INFORMATION	<b>THERMAL-EYE TSC<sub>4500</sub> 30HZ CAMERAS, BLACK HOUSING</b>			
	FOV ALTERNATIVES	Wide FOV (25° x 18°)	Medium FOV (12° x 9°)	Narrow FOV (6° x 4°)
	NTSC/PAL	4000143-1/4000143-3	4000143-2/4000143-4	TBD
	<b>THERMAL-EYE TSC<sub>4500</sub> 9HZ CAMERAS, BLACK HOUSING</b>			
	NTSC/PAL	4000143-5/4000143-7	4000143-6/4000143-8	TBD
OPTIONAL ACCESSORIES	SUN/SOLAR SHIELD KIT (WHITE)	4000178-1		
	FISCHER FULL FUNCTION I/O CABLE (FOR ACCESS TO RS-232 DIGITAL CONTROL)	4000157-1		

Specifications subject to change without notice

PRELIMINARY TSC<sub>4500</sub> March 2007

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