



LWIR THERMAL IMAGING CAMERA

FLIR A6750 SLS™



The FLIR A6750 SLS incorporates a cooled Strained Layer Superlattice (SLS) detector that operates in the 7.5 to 10.5 μm waveband, to produce crisp, 640 x 512 pixel thermal imagery. Record high-speed data at up to 4.1 kHz with windowing, and synchronize with other instruments to ensure you never miss any data.

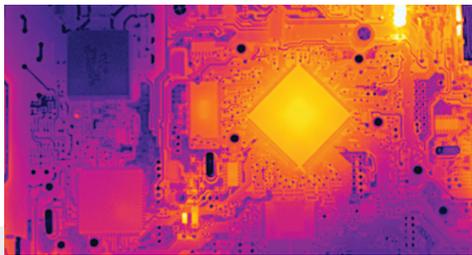
www.flir.com/science



FAST INTEGRATION TIMES

Capture high-sensitivity images of fast moving objects

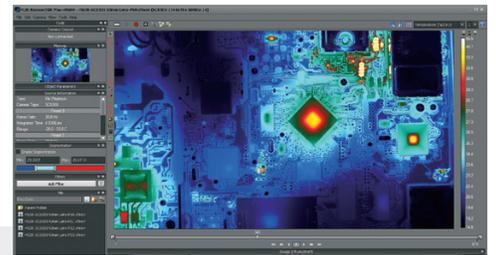
The FLIR A6750 SLS captures all pixels simultaneously in under 190 μs for room temperature scenes. This is particularly important when monitoring fast moving objects where an uncooled thermal imaging camera would suffer from image blur. The camera supports image frame rates up to 4.1 kHz when operating in windowing mode.



STANDARD VIDEO INTERFACES

"Plug and play" thermal imaging reduces set-up time

The FLIR A6750 SLS is a true plug-and-play thermal imaging camera, with a standard GigE Vision® interface to transmit full dynamic range digital video and GenICam for camera control. Additional interfaces include a BNC analog video output. The Gigabit Ethernet and analog video are simultaneously active yet independently controlled, allowing greater flexibility for recording and display purposes.



SEAMLESS SOFTWARE INTEGRATION

Various software options allow custom image analysis and processing

The FLIR A6750 SLS camera works seamlessly with FLIR ResearchIR Max software enabling intuitive viewing, recording, and advanced processing of the thermal data provided by the camera. A Software Developers Kit (SDK) is optionally available. Control the A6750 SLS and capture data directly into MathWorks® MATLAB software for custom image analysis and enhancement.

SPECIFICATIONS

Detector	A6750 SLS
Detector Type	Strained Layer Superlattice (SLS)
Spectral Range	7.5 μm (lower), 10.0–11.0 μm (upper)
Resolution	640 \times 512
Detector Pitch	15 μm
NETD	<45 mK (<40 mK typical)
Well Capacity	7.2 M electrons
Operability	>98% (>99% typical)
Sensor Cooling	FLIR Closed Cycle Rotary
Electronics / Imaging	
Readout	Snapshot (FLIR 4 Channel)
Readout Modes	Asynchronous Integrate While Read; Asynchronous Integrate Then Read
Synchronization Modes	Sync In, Sync Out
Integration Time	4800 ns to full frame
Frame Rate (Full Window)	Programmable 0.0015 Hz to 125 Hz
Subwindow Mode	Flexible windowing down to 16 \times 4 (steps of 16 columns, 4 rows)
Max Frame Rate	4,175 Hz (16 \times 4)
Dynamic Range	14-bit
Digital Data Streaming	Gigabit Ethernet
Analog Video	NTSC, PAL
Camera Control	Gigabit Ethernet and RS-232
Measurement	
Standard Temperature Range	-20°C to 650°C (-4°F to 1,202°F)
Optional Temperature Range	Up to 1,500°C (2,732°F), Up to 2000°C (3632°F), Up to 3,000°C (5,432°F)
Accuracy	$\pm 1^\circ\text{C}$ or $\pm 1\%$ of reading, 0°C to 3000°C
Optics	
Camera f/#	f/4.0 or f/2.5
Available Lenses	17 mm, 25 mm, 50 mm, 100 mm, 200 mm Close-up/ Microscope: 1x
Focus	Manual
Filtering	Behind-the-Lens, Custom Cold Filtering

Analog Video	
Analog Palettes	Selectable 8-bit
AGC	Manual, Linear, Plateau Equalization, DDE
Digital Zoom	1x, 4x
General	
Operating Temperature Range	-20°C to 50°C (-4°F to 122°F)
Storage Temperature Range	-55°C to 80°C (-67°F to 176°F)
Altitude	0 to 10,000 ft operational; 0 to 70,000 ft non-operational
Shock / Vibration	40 g, 11 msec $\frac{1}{2}$ sine pulse / 4.3 g RMS random vibration, all 3 axes
Power	24 VDC (<50 W steady-state)
Weight w/o Lens	2.3 kg (5 lbs)
Size (L \times W \times H) w/o Lens	216 \times 102 \times 109 mm (8.5 \times 4.0 \times 4.3 in)
Mounting	2 \times 1/4" -20, 1 \times 3/8" -16, 4 \times 10/24



Specifications are subject to change without notice. For the most up-to-date specs, go to www.flir.com

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