

FLIR A8200sc

Compact, High Definition, MWIR Performance Camera



The FLIR A8200sc is a compact, high sensitivity MWIR camera that produces low-noise HD thermal images. With its short exposure times and crisply detailed images, the A8200sc is the perfect choice for electronics inspection, aerial thermal mapping, non-destructive material testing, and industrial R&D applications.

High Sensitivity, HD Thermal Images

The A8200sc incorporates a cooled FLIR indium antimonide (InSb) detector that operates in the 3-5 μm waveband. It produces crisp mega pixel thermal images of 1024 x 1024. Achieving a high thermal sensitivity with very low noise (typically <20 mK), the FLIR A8200sc is able to capture the finest image details.

Fast Integration Times

Working in snapshot mode, the FLIR A8200sc is able to capture all pixels from a scene simultaneously. This is particularly important when monitoring fast moving objects which an uncooled thermal camera could not image without blurring. The camera supports faster frame rates when operating in windowing mode.

Standard Video Interfaces

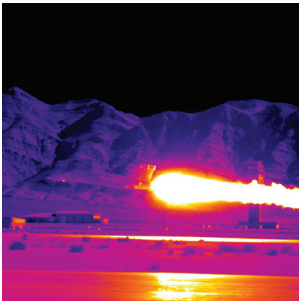
The A8200sc offers true “plug and play” connectivity, with standard GigE Vision[®] and CoaXpress[™] interfaces to transmit full dynamic range digital video, and GenICam for camera control. The HD-SDI video interfaces are simultaneously active yet independently controlled allowing greater flexibility for recording and display purposes.

Advanced Software Compatibility

The FLIR A8200sc camera works seamlessly with FLIR ResearchIR Max or with third-party software such as MathWorks[®] MATLAB, for intuitive viewing, recording and advanced processing of the infrared data. A Software Developers Kit (SDK) is optionally available.

Key Features

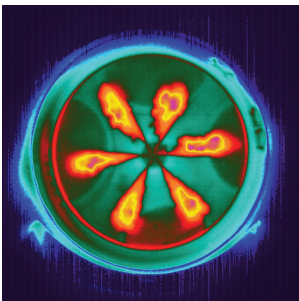
- 1024 x 1024 pixel true HD thermal imagery
- High sensitivity and low noise (<20 mK)
- Small target measurement down to 3.5 μm
- HD-SDI video output
- Wide choice for optics



Integration speeds fast enough to freeze-frame on an F18 at takeoff



Optional temperature calibration up to 3000°C, for research applications such as aerospace



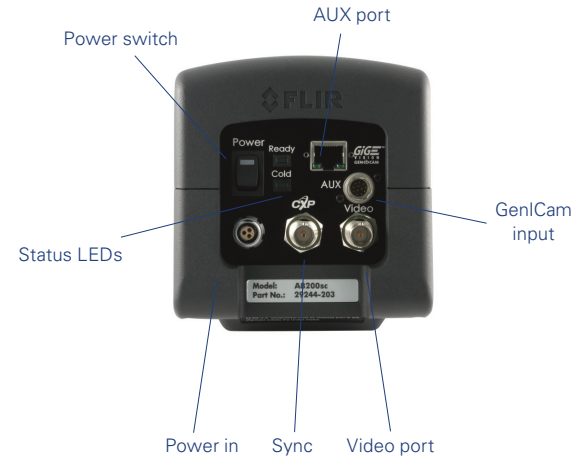
Freezing action such as an engine fuel spray increases temperature measurement accuracy



Specifications

System Overview		FLIR A820Qsc	
Detector Type	FLIR indium antimonide (InSb)		
Spectral Range	3.0 – 5.0 μm		
Resolution	1024 x 1024		
Detector Pitch	18 μm		
Thermal Sensitivity/NEΔT	<20 mK*		
Well Capacity	2.0 M electrons		
Operability	>99.5% (99.9% typical)		
Sensor Cooling	Closed cycle linear		
Electronics/Imaging			
Readout	Snapshot		
Readout Modes	Asynchronous Integrate While Read; Asynchronous Integrate Then Read		
Synchronization Modes	Sync In, Sync Out		
Minimum Integration Time	480 ns		
Max Frame Rate	50 Hz full frame		
Subwindow Mode	Flexible (steps of 16 columns, 8 rows)		
Dynamic Range	14-bit		
Digital Data Protocol	Gigabit Ethernet (GigE Vision® 2.0) & CoaXPress		
HD Video	HD-SDI (720p/50/59.9, 1080p/25/29.9)		
Camera Control	GenICam, RS-232		
Analog Video	NTSC, PAL		
Command & Control	GenICam		
Measurement			
Standard Temperature Range	-20°C to 350°C (-4°F to 662°F)		
Optional Temperature Range	Up to 1,500°C (2,732°F) Up to 3,000°C (5,432°F)		
Optics			
Camera f/#	f/4.0		
Available Lenses	17 mm, 25 mm, 50 mm, 100 mm, 200 mm		
Close-up Lenses / Microscopes	1x, 4x		
Focus	Manual		
Filtering	Behind-the-lens filter holder		
Image Presentation			
Palettes	Selectable 8-bit		
AGC	Linear, PE, DDE		
Video Zoom	Auto selected; 1x: 1/4 to full window, 2x: <1/4 window		
General			
Operating Temperature Range	-20°C to 50°C (-4°F to 122°F)		
Shock / Vibration	40 g, 11 msec ½ sine pulse / 4.3 g RMS random vibration, all 3 axes		
Power	24 VDC (<50 W steady state)		
Weight w/o Lens	8.2 lbs (3.73 kg)		
Size (L x W x H) w/o Lens	8.9 x 4.6 x 5.3 in (226 x 117 x 135 mm)		
Mounting	2 ea. ¼-20 tapped holes 1 ea. 3/8-16 tapped hole		

* NEΔT is measured at 50% well-fill, using a 25°C scene



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

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