FLIR A6250sc SWIR

SWIR performance camera with InGaAs detector

HIGH QUALITY SWIR IMAGES

The FLIR A6250sc is equipped with an Indium Gallium Arsenide (InGaAs) detector that makes phenomena in the 0.9 to 1.7 µm or optional 0.4 to 1.7µm waveband visible. The camera produces crisp thermal images of 640 × 512 pixels. It provides great image detail and small spot size for target detection and accurate measurements.

ADJUSTABLE FRAME RATES AND TRIGGERING

Frame rate output can be adjusted from 0.015Hz to the maximum frame rate at a given window size and integration time with better than 0.1Hz resolution. Sub window modes allow the user to select a subset of the total image to be read out, resulting in faster frame rates. The smart external triggering features allows synchronization of the image capture to the most fleeting of events.

STANDARD VIDEO INTERFACE

The FLIR A6250sc is a true "plug and play" thermal imaging camera with standard GigE Vision digital video. GenICam is used for camera control. With GenICam, no proprietary SDK is required with the A6250sc. The camera also supports an analog video output via BNC. The simultaneous and independent video streams provide display and recording flexibility.

TEMPERATURE CALIBRATION AND MEASUREMENT

The 0.9 to 1.7 um sensing waveband of the A6250sc corresponds to the ability to measure black body temperatures above 200 °C. Couple this with the ability to see through materials like glass, the A6200sc becomes a perfect tool for high temperature thermal measurement into an oven or furnace.

SOFTWARE

The FLIR A6250sc camera works seamlessly together with FLIR ResearchIR Max software enabling intuitive viewing, recording and advanced processing of the thermal data provided by the camera.

MATLAB COMPATIBILIY

Control the A6200sc and capture data directly into MathWorks® MATLAB software for advanced image analysis and processing.

See through paints to visualize hidden details

Imaging through layers of silicon for wafer analysis

KEY FEATURES

- InGaAs detector operating in the 0.9 to 1.7 µm or optional 0.4 to 1.7µm waveband
- Excellent image quality: 640 x 512 pixels
- High sensitivity
- Synchronization: with other instruments
- Control over GeniCam or MATLAB

GiGE VISION

MathWorks

GENICAM

Imaging Specifications

Frame Sync	FLIR A6250sc SWIR
Detector Type	Indium Gallium Arsenide (InGaAs)
Spectral Range	0.9 – 1.7 µm or 0.4 – 1.7 µm
Resolution	640 x 512
Detector Pitch	25µm
Noise (NEI)	1.5E-9 W/cm2 (Low Gain) 5.0E-10 W/cm2 (High Gain)
Quantum Efficiency	>80% from 1 to 1.6 µm
Well Capacity	Low Gain: 2.5 M electrons High Gain: 0.075 M electrons
Operability	99.5% (99.8% typical)
Sensor Cooling	TEC (0 – 20°C)
Electronics / Imaging	
Readout	Snapshot
Readout Modes	Asynchronous Integrate While Read; Asynchronous Integrate Then Read
Synchronization Modes	Sync In, Sync Out, Trigger In
Integration Time	5 µs to 687 seconds
Frame Rate (Full Window)	Programmable 0.0015Hz to 125Hz
Subwindow Modes	User Defined Size, Centered in Image
Max Frame Rate	10,364Hz (128 x 8)
Dynamic Range	14-bit
Digital Data Protocol	GigE Vision 2.0 (@ Min Window)
Analog Video	NTSC, PAL
Command & Control	GenICam and RS-232
Measurement	
Optional Temperature Calibration	Call for Details
Optics	
Camera f/#	Lens Dependant
Available Lenses	25 mm, 50 mm, 100 mm
Focus	Manual
Filtering	Behind the Lens
Analog Video	
Analog Palettes	Selectable 8-bit
AGC	Manual, Linear, Plateau Equalization, DDE
Zoom	Video Zoom is Auto Selected: 1x for Full and 1/2 window, 2x for 1/4 window
General	
Operating Temperature Range	-30°C to +50°C (-40°F to 122°F)
Storage Temperature Range	-55°C to 80°C (-67°F to 176°F)
Altitude	0 to 10,000 Feet Operational; 0 to 70,000 Feet Non-Operational
Shock / Vibration	40 g, 11 msec ½ sine pulse / 4.3 g RMS Random Vibration, All 3 Axis
Power	24 VDC (<50 W steady state)
Weight w/o Lens	5 lbs
Size (L x W x H) w/o Lens	8.5 x 4.0 x 4.3" / 21.6 x 10.2 x 10.9cm
Mounting	2 x ¼" -20, 1 x 3/8" – 16, 4 x 10/24

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