

## P/N: 29444-201

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### Website

<http://www.flir.com>

### Customer support

<http://support.flir.com>

### Disclaimer

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Detector	
Detector Type	Strained-Layer Superlattice
Spectral Range	7.5 $\mu\text{m}$ (lower), 11.5-12.5 $\mu\text{m}$ (upper)
Resolution	1280 x 1024
Pixel Size (square)	12 $\mu\text{m}$
Thermal Sensitivity/NETD (typical)	$\leq 45$ mK ( $\leq 40$ mK typical)
NEI (typical)	N/A
Noise Floor (typical)	N/A
Operability	$\geq 98\%$ ( $\geq 99\%$ typical)
Sensor Cooling	Linear Sterling Cooler
Electronics	
Readout Type	Snapshot
Readout Modes	Asynchronous integrate while read Asynchronous integrate then read
Synchronization Modes	Sync In, Sync Out
Image Time Stamp	Yes
Integration Time	480 ns to ~Full Frame
Pixel Clock	100 MHz
Frame Rate (Full Window)	Programmable; 0.5 Hz to ~45 Hz (GigE), 60 Hz (CXP)
Subwindow Mode	Flexible windowing down to 32 x 4 (steps of 32 columns, 4 rows)
Dynamic Range	14-bit
On-Camera Image Storage	None
Radiometric Data Streaming	Gigabit Ethernet (GigE Vision), CoaXpress
Standard Video	SDI
Command and Control	GenICam (GigE, CXP), RS-232
Temperature Measurement	
Standard Temperature Range (with band matched optics)	-20°C to 350°C (-4°F to 662°F)
Optional Temperature Range (with band matched optics)	250°C – 2000°C (ND1) 500°C – 3000°C (ND2)



## FLIR A8581 SLS (f/2.5, 7.5-12.5 $\mu\text{m}$ )

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Temperature Measurement	
Accuracy	$\leq 100^{\circ}\text{C} \pm 2^{\circ}\text{C}$ ( $\pm 1^{\circ}\text{C}$ typical), $> 100^{\circ}\text{C} \pm 2\%$ of reading ( $\pm 1\%$ typical)
Ambient Drift Compensation (with factory cal)	Yes
Optics	
Camera f/Number	f/2.5
Available Lenses	Manual (7.5-12 $\mu\text{m}$ ): 17 mm, 25 mm, 50 mm, 100 mm, 200 mm Motorized (7.5-12 $\mu\text{m}$ ): 17 mm, 25 mm, 50 mm, 100 mm, 200 mm
Close-up Lenses/Microscopes	1X
Lens Interface	FLIR FPO-M (4-tab bayonet, motorized)
Focus	Motorized (compatible w/ manual)
Filter Holder (Warm)	4-position motorized filter wheel (1 inch diameter filters)
Standard Video Presentation	
Palettes	Selectable 8-bit
Automatic Gain Control	Manual, Linear, Plateau equalization, DDE
Overlay	Fixed configuration, can be turned off
Video Modes	SDI: 720p@50/59.9 Hz, 1080p@25/29.9 Hz
Standard Video Zoom	Auto, best fit
General	
Operating Temperature Range	$-20^{\circ}\text{C}$ to $50^{\circ}\text{C}$ ( $-4^{\circ}\text{F}$ to $122^{\circ}\text{F}$ )
Power	24 VDC (< 24 W steady state)
Weight w/o Lens	3.7 kg (8.2 lbs)
Size (L x W x H) w/o Lens	226 x 117 x 135 mm (8.9 x 4.6 x 5.3 in)
Mounting	2 x $\frac{1}{4}$ " -20 tapped holes 1 x $\frac{3}{8}$ " -16 tapped hole 4 x 10-24 tapped holes
Export Classification	ECCN 6A003.b.4.a
Declaration of conformity	See: <a href="https://support.flir.com/resources/DoC">https://support.flir.com/resources/DoC</a>

### Supplies & accessories:

- 4215503; Lens 7.5-12  $\mu\text{m}$  100 mm f/2.5 FPO Manual Bayonet
- 4215424; Lens 7.5-12  $\mu\text{m}$  17 mm f/2.5 FPO Manual Bayonet
- 4215505; Lens 7.5-12  $\mu\text{m}$  200 mm f/2.5 FPO Manual Bayonet
- 4215496; Lens 7.5-12  $\mu\text{m}$  25 mm f/2.5 FPO Manual Bayonet
- 4215501; Lens 7.5-12  $\mu\text{m}$  50 mm f/2.5 FPO Manual Bayonet
- 4213642; Lens 7.5-12  $\mu\text{m}$ , 1X microscope, f/2.5 FPO Manual Bayonet
- 4216415; Motorfocus 100 mm LWIR lens, 7.5-12.0  $\mu\text{m}$ , f/2.5 (4-Tab Motorized FPO Bayonet)
- 4216409; Motorfocus 17 mm LWIR lens, 7.5-12.0  $\mu\text{m}$ , f/2.5 (4-Tab Motorized FPO Bayonet)
- 4216417; Motorfocus 200 mm LWIR lens, 7.5-12.0  $\mu\text{m}$ , f/2.5 (4-Tab Motorized FPO Bayonet)
- 4216411; Motorfocus 25 mm LWIR lens, 7.5-12.0  $\mu\text{m}$ , f/2.5 (4-Tab Motorized FPO Bayonet)
- 4216413; Motorfocus 50 mm LWIR lens, 7.5-12.0  $\mu\text{m}$ , f/2.5 (4-Tab Motorized FPO Bayonet)
- 4227599; FLIR Science Camera Power Supply



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- 4229763; Filter Holder, Behind the lens, 1" diameter, 4-tab Bayonet (A678x, A858x)
- 4233062; Cooled Science A and X Camera Microscope Stand
- 4232535; FLIR Research Studio, Professional Edition - 1 Year Subscription (online activation)
- 4232556; FLIR Research Studio, Professional Edition - Perpetual License (online activation)
- 4232590; FLIR Research Studio, Professional Edition - Perpetual License (USB dongle)
- 4220499; FLIR Research Studio, Standard Edition - 1 Year Subscription (online activation)
- 4220500; FLIR Research Studio, Standard Edition - Perpetual License (online activation)
- 4220646; FLIR Research Studio, Standard Edition - Perpetual License (USB dongle)
- 4232591; FLIR ResearchIR to Research Studio, Professional Edition - 1 Year License Upgrade
- 4224157; FLIR Science Camera SDK
- 4216760; FLIR Science File SDK





