

P/N: 29443-201

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Website

<http://www.flir.com>

Customer support

<http://support.flir.com>

Disclaimer

Specifications subject to change without further notice. Camera models and accessories subject to regional market considerations. License procedures may apply. Products described herein may be subject to US Export Regulations. Please refer to exportquestions@flir.com with any questions.



Detector	
Detector Type	FLIR Indium Antimonide (InSb)
Spectral Range	3.0 – 5.0 μm
Resolution	1280 x 1024
Pixel Size (square)	12 μm
Thermal Sensitivity/NETD (typical)	≤ 30 mK (≤ 25 mK typical)
NEI (typical)	N/A
Noise Floor (typical)	N/A
Operability	≥ 99.5% (≥ 99.9% 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), -10°C for microscopes
Optional Temperature Range (with band matched optics)	45°C - 600°C (ND1) 250°C – 2000°C (ND2) 500°C – 3000°C (ND3)



FLIR A8581 (f/2.5, 3.0-5.0 μm)

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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 (3-5 μm): 17 mm, 25 mm, 50 mm, 100 mm, 200 mm Motorized (3-5 μm): 17 mm, 25 mm, 50 mm, 100 mm, 200 mm
Close-up Lenses/Microscopes	1X, 3X
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°C to 50°C (-4°F to 122°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: https://support.flir.com/resources/DoC

Supplies & accessories:

- 4215502; Lens 3-5 μm 100 mm f/2.5 FPO Manual Bayonet
- 4215423; Lens 3-5 μm 17 mm f/2.5 FPO Manual Bayonet
- 4215504; Lens 3-5 μm 200 mm f/2.5 FPO Manual Bayonet
- 4215425; Lens 3-5 μm 25 mm f/2.5 FPO Manual Bayonet
- 4215500; Lens 3-5 μm 50 mm f/2.5 FPO Manual Bayonet
- T300385; Lens 3-5 μm Macro f/2.5 MW FPO Manual Bayonet
- 4214995; Lens 3-5 μm , 1X microscope, f/2.5 FPO Manual Bayonet
- 4219797; Lens 3-5 μm , 3X microscope, f/2.5 FPO Manual Bayonet
- 4216414; Motorfocus 100 mm lens, 3.0-5.0 μm , f/2.5 (4-Tab Motorized FPO Bayonet)
- 4216408; Motorfocus 17 mm lens, 3.0-5.0 μm , f/2.5 (4-Tab Motorized FPO Bayonet)
- 4216416; Motorfocus 200 mm lens, 3.0-5.0 μm , f/2.5 (4-Tab Motorized FPO Bayonet)
- 4216410; Motorfocus 25 mm lens, 3.0-5.0 μm , f/2.5 (4-Tab Motorized FPO Bayonet)
- 4216412; Motorfocus 50 mm lens, 3.0-5.0 μm , f/2.5 (4-Tab Motorized FPO Bayonet)
- 4227599; FLIR Science Camera Power Supply
- 4229763; Filter Holder, Behind the lens, 1" diameter, 4-tab Bayonet (A678x, A858x)
- 4233062; Cooled Science A and X Camera Microscope Stand



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- 4216760; FLIR Science File SDK





