

P/N: 29440-280

Copyright

© 2023, FLIR Systems, Inc.

All rights reserved worldwide. Names and marks appearing herein are either registered trademarks or trademarks of FLIR Systems and/or its subsidiaries. All other trademarks, trade names or company names referenced herein are used for identification only and are the property of their respective owners.

Document identity

Publ. No.: 29440-280

Commit: 90839

Language:

Modified: 2023-03-08

Formatted: 2023-05-02

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.



Specifications	
System Overview	A6780
Detector Type	FLIR Indium Antimonide (InSb)
Spectral Range	1.0 – 5.0 μm
Resolution	640 x 512
Pixel Size (square)	15 μm
Thermal Sensitivity/NETD	≤ 25 mK
Operability	$\geq 99.8\%$ ($\geq 99.95\%$ typical)
Sensor Cooling	Closed-cycle rotary

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	50 MHz
Frame Rate (Full Window)	Programmable; 0.0015 Hz to 125 Hz
Subwindow Mode	Flexible windowing down to 16 x 4 (steps of 16 columns, 4 rows)
Dynamic Range	14-bit
On-Camera Image Storage	None
Radiometric Data Streaming	Gigabit Ethernet (GigE Vision)
Standard Video	SDI
Command and Control	GenICam (GigE), RS-232

Temperature Measurement	
Standard Temperature Range (with band matched optics)	-20°C to 300°C (-4°F to 572°F)
Optional Temperature Range (with band matched optics)	45°C to 600°C (ND1) 250°C to 2000°C (ND2) 500°C to 3000°C (ND3)
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

P/N: 29440-280

© 2023, FLIR Systems, Inc.

#29440-280; r. 90839;

Optics	
Camera f/Number	f/2.5
Available Lenses	Manual (broadband):25 mm, 50 mm, 100 mm
Close-up Lenses/Microscopes	No microscopes available
Lens Interface	FLIR FPO-M (4-tab bayonet, motorized)
Focus	Motorized (compatible w/ manual)
Filter Holder (Warm)	3-position motorized filter wheel (1 inch diameter filters)
Image/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, 1080p@25/29.9
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	2.3 kg (5 lbs)
Size (L x W x H) w/o Lens	226 x 102 x 109 mm (8.9 x 4.0 x 4.3 in.)
Mounting	2 x 1/4" -20 tapped holes 1 x 3/8"-16 tapped holes 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:

- 4218540; Lens 1-5 um 100 mm f/2.5 FPO Manual Bayonet
- 4218538; Lens 1-5 um 25 mm f/2.5 FPO Manual Bayonet
- 4218539; Lens 1-5 um 50 mm f/2.5 FPO Manual Bayonet
- T300385; Lens 3-5 um Macro f/2.5 MW FPO Manual Bayonet
- 4242128; Motorfocus 100 mm lens, 1.0–5.5 μm, f/2.5 (Motorized FPO Bayonet)
- 4242126; Motorfocus 25 mm lens, 1.0–5.5 μm, f/2.5 (Motorized FPO Bayonet)
- 4242127; Motorfocus 50 mm lens, 1.0–5.5 μm, f/2.5 (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
- 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





