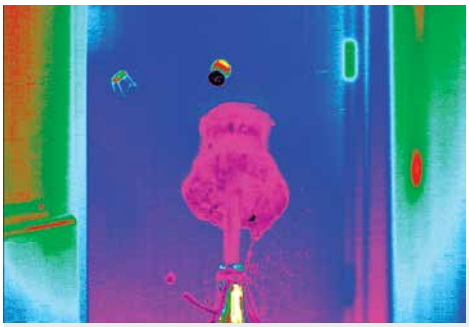
COMPACT MWIR HD THERMAL CAMERA

FLIR A8580

The FLIR A8580 MWIR High Definition Thermal Camera provides best-in-class imagery for industrial, military, and manufacturing R&D applications. The 1.3 MP detector produces beautiful, crisp images while the new built-in 4-position warm filter wheel allows the camera to easily measure temperatures up to 3,000°C. With the support for optional remote motor-focus lenses in addition to the standard manual focus and microscope lens options, users can maximize the number of measurement pixels on the object being tested and optimize focusing to ensure accurate temperature measurements regardless of size or distance. Simple, single cable connectivity using Gigabit Ethernet or CoaXPress provides complete camera control plus data capturing in FLIR Research Studio software, so users can analyze and understand data faster than ever before.

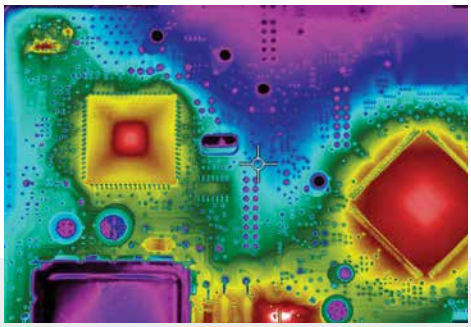
www.flir.com/A8580-MWIR



ADVANCED FEATURES FOR OPTIMAL FLEXIBILITY

Capture meaningful thermal data even in the most demanding applications

- Ensure your images are always crisp with the auto and remote focusing capabilities of the optional motor-focus lenses
- Effortlessly measure high temperature objects using the internal 4-position filter wheel preloaded with neutral density filters*
- Capture the data you need when you need it with advanced triggering and synchronization capabilities



SUPERIOR RESOLUTION AND MEASUREMENT ACCURACY

Get accurate thermal data on your entire device and individual subcomponents

- Analyze and record stunning 1.3 MP (1280 × 1024) resolution thermal images
- Detect thermal difference down to <30 mK with measurement accuracy of better than ±2%
- Choose from a range of lenses to ensure the maximum number of measurement pixels on the test article—regardless of size or distance from the camera
- Accurately measure temperatures on small objects with optional microscope lenses for spatial resolution down to 4 µm/pixel

SIMPLIFIED DATA ANALYSIS, SHARING, & COLLABORATION

Start collecting and sharing meaningful data with limited ramp-up time and simple connections

- Control all camera parameters and stream fully radiometric thermal data at more than 44 Hz using Gigabit Ethernet and CoaXPress
- Employ FLIR Research Studio's simple Connect ➔ View ➔ Record ➔ Analyze workflow to obtain and analyze thermal results quickly
- Work in the operating system you prefer and share data globally with colleagues in their preferred language

*Neutral density filters are optional

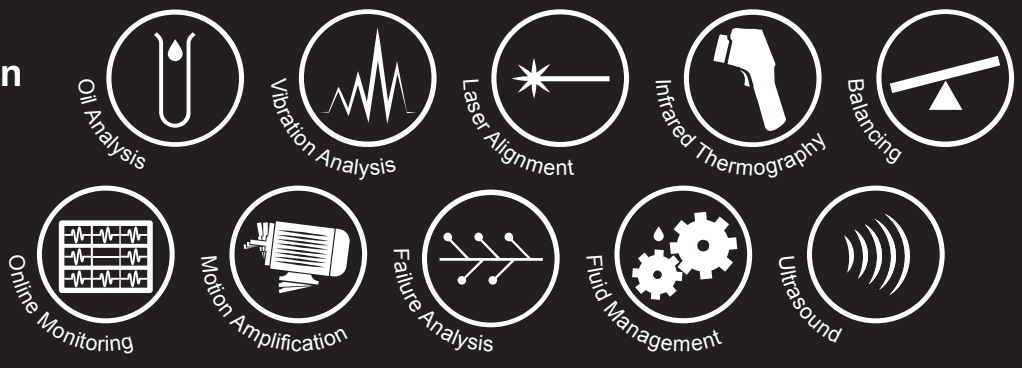
SPECIFICATIONS

MWIR Model names	A8580	A8581	A8582	A8583
Detector Type	FLIR Indium antimonide (InSb)			
Spectral range	1.5–5.0 µm	3.0–5.0 µm	1.5–5.0 µm	3.0–5.0 µm
Resolution	1280 × 1024			
Pixel size	12 µm			
Thermal sensitivity/NEDT	≤40 mK (≤30 mK typical)	≤30 mK (≤25 mK typical)	≤40 mK (≤30 mK typical)	≤30 mK (≤25 mK typical)
Well capacity	Gain 0: 3.0 Me-, Gain 1: 11.5 Me-			
Operability	≥99.5% (≥99.9% typical)			
Sensor cooling	Linear Sterling cooler			
Electronics				
Readout	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; Up to ~45 Hz (GigE), 60 Hz (CXP)			
Subwindow mode	Flexible windowing down to 32 × 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	HD-SDI			
Command and control	GenICam (GigE, CXP), RS-232			
Measurement				
Standard temperature range	-20°C to 300°C (-4°F to 572°F)	-20°C to 350°C (-4°F to 662°F), -10°C to 350°C (14°F to 662°F) for microscopes	20°C to 350°C (-4°F to 662°F)	-20°C to 350°C (-4°F to 662°F), -10°C to 350°C (14°F to 662°F) for microscopes
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	±2°C (±1°C typical) below 100°C, ±2% of reading (±1% typical) above 100°C			
Ambient drift compensation (with factory calibration)	Yes			
Optics				
Camera f/#	f/2.5	f/2.5	f/4	f/4
Available lenses	Manual (broadband): 25 mm, 50 mm, 100 mm. Motorized: TBA	Manual or Motorized: 17 mm, 25 mm, 50 mm, 100 mm, 200 mm	Manual (broadband): 25 mm, 50 mm, 100 mm. Motorized: TBA	Manual or Motorized: 17 mm, 25 mm, 50 mm, 100 mm, 200 mm
Close-up lenses / micro-scopes	—	1× (12 µm/pixel) or 3× (4 µm/pixel)	—	1× (12 µm/pixel) or 3× (4 µm/pixel)
Lens interface	FLIR FPO-M (4-tab bayonet, motorized)			
Focus	Motorized (compatible w/manual lenses)			
Filter holder (warm)	Internal 4-position motorized filter wheel; factory installed 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 at 50/59.9/60 Hz, 1080p at 25/29.9/30 Hz			
Standard video zoom	Automatic, variable			
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 (< 24 W steady state)			
Weight w/o lens	2.3 kg (5 lbs)			
Size (L × W × H) w/o lens	226 × 102 × 109 mm (8.9 × 4.0 × 4.3 in.)			
Mounting	2x ¼" -20 tapped holes, 1x 3/8"-16 tapped hole, 4x 10-24 tapped holes			

Contact our Expert Sales Team for more Information

Yellotec stands proud in the belief of its founder that all failures are preventable.

We are a solution oriented company focused on Machine Health and Reliability through the application of advanced technologies.



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