Product Bulletin 2026-115

External

2026-10-08

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Website
http://www.flir.com

Customer support
http://support.flir.com

FLIR A8451 and A8481 HD MWIR Camera Launch

The R&D Science Global Team is excited to release the FLIR A8451 and A8481! Both cameras bring 1280 × 1024 high-definition midwave infrared (MWIR) imaging to the compact A-Series science chassis used by the A6451, A6481, and A6700 Series.

Until now, HD MWIR at FLIR meant moving to a larger camera body. The A8451 and A8481 keep the compact body, so existing brackets, enclosures, bench fixtures, and cabling carry straight over. Researchers get four times the pixels of a VGA A-Series camera without reworking their setup.



Key features

- **Four times the pixels.** 1280 × 1024 high operating temperature (HOT) MWIR strained-layer superlattice (SLS) detector with 8 µm pixel pitch. The HD array is close in size to the VGA array, so on the same lens the field of view stays comparable and is sampled about twice as finely.
- **Same body, same fixtures.** Body and mounting points match the A6451, A6481, and A6700 Series.
- **Built to stay on.** Linear cooler rated at 27,000 hours MTBF, for programs that run continuously.
- **Deterministic capture.** GigE Vision and CoaXPress interfaces with precision trigger and sync I/O.
- **Familiar optics and software.** FLIR Precision Optics (FPO) bayonet lenses at f/2.5, and FLIR Research Studio Professional with radiometric .ATS recording.

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Choosing a model

	A8451	A8481
Part number	29767-251	29767-281
Lens interface	FPO manual bayonet	FPO motorized bayonet
Lenses supported	Manual, microscope, and macro	Manual, microscope, macro, and motorized
Filter wheel	None	Motorized, 3-position

Key specifications (both models)

Specification	Value
Detector	HOT MWIR SLS
Resolution	1280 × 1024
Pixel pitch	8 µm
Spectral range	3.4–5.1 µm
NETD	35 mK (typical)
Minimum integration time	480 ns
Full-frame rate	60 Hz (CoaXPress), 45 Hz (GigE Vision)
Windowing	Sub-window readout for higher frame rates
Cooler	Linear, 27,000 hours MTBF
Interfaces	GigE Vision and GenICam, CoaXPress, trigger and sync I/O
Optics	FLIR Precision Optics (FPO) bayonet, f/2.5
Software	FLIR Research Studio Professional

Applications

- Electronics and PCB testing
- Battery research
- Nondestructive testing
- Combustion and propulsion
- Aerospace and materials testing
- Academic and core labs

Where they fit

The A8451 and A8481 sit between the VGA A6451/A6481 and the HD A8581. For sensitivity-first HD work, the A8581 remains the right choice. For high-speed HD, the X-Series high-speed cameras are the right path.

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Optics, software, and accessories

Manual lenses, A8451 and A8481		Motorized lenses, A8481 only	
Part #	**Lens**	**Part #**	**Lens**
4215423	17 mm	**4216408**	17 mm
4215425	25 mm	**4216410**	25 mm
4215500	50 mm	**4216412**	50 mm
4215502	100 mm	**4216414**	100 mm
4215504	200 mm	**4216416**	200 mm
4214995	1× microscope	**4242126**	25 mm broadband
4219797	3× microscope	**4242127**	50 mm broadband
T300385	Macro	**4242128**	100 mm broadband

All lenses are f/2.5. MWIR: 3.0–5.0 µm. Broadband: 1.0–5.5 µm.

Part #	Description
4257132	Heavy Duty Open Base Camera Stand
4232535	Research Studio Professional, 1-year license (online activation)
4259088	Research Studio Professional, 2026 perpetual (2 activations)
4259089	Research Studio Professional, 2026 perpetual (USB dongle)

Factory calibrations are available in the CAL35 MWIR, CALM microscope, and CALBB broadband series. Calibration ranges and model compatibility are listed in the current price list. Please see CRM and the current price lists for pricing and lead times.

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Information resources

- User manuals and other online documentation for FLIR product series: https://support.flir.com/resources/app/
- Customer support, datasheets, user manuals and software download: https://flir.custhelp.com/

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