



Key Features:

- Industry-leading 27,000 hour cooler life, revolutionary HOT MWIR detector, and 125 Hz frame rate for capturing fast events and delivering high-sensitivity in non-destructive testing
- Seamless process control and integration with customer driven interfaces, commands, and triggers such as industry standard GigE Vision and GenICam
- Flexible, high-performance optics portfolio and extensive calibration options that allow users to store hundreds of calibrations on-camera, ideal for diverse application needs

Main Applications:

- Non-Destructive testing - Battery testing, aircraft material parts
- Process and Quality - Industrial Manufacturing
- Seal quality inspection in Food and Beverage and Pharmaceutical
- Machine vision operations

www.flir.com/products/A6451

www.flir.com/products/A6481

Specifications

Model	A6451	A6481
Part number	29674-251	29674-281
Detector		
Detector Type	Flir HOT MW (SLS)	
Spectral range	3.0 - 5.0 μm	
Resolution	640 \times 512	
Detector pitch	15 μm	
Thermal Sensitivity/NETD (typical)	< 30 mK, 25 mK typical (50% well-fill at 30°C)	
Operability	99.5%	
Sensor cooling	Flir FL-100 liner	
Electronics		
Readout type	Snapshot	
Readout modes	Asynchronous integrate while read / Asynchronous integrate then read	
Synchronization modes	Sync in / Sync out	
Image time stamp	Yes	

Model	A6451	A6481
Integration time	480 ns to ~full frame	
Pixel clock	50 MHz	
Frame rate (full window)	Programmable; .0015 Hz to 125 Hz	
Subwindow mode	Flexible windowing down to 16 \times 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 350°C (-4°F to 662°F), -10°C for microscopes	
Optional temperature range	45°C to 600°C (113°F to 1112°F) (ND1)	
	250°C to 2000°C (482°F to 3632°F) (ND2)	
	500°C to 3000°C (932°F to 5432°F) (ND3)	
Accuracy	$\leq 100^\circ\text{C} \pm 2^\circ\text{C}$ ($\pm 1^\circ\text{C}$ typical), $> 100^\circ\text{C} \pm 2^\circ\text{C}$ of reading ($\pm 1^\circ\text{C}$ typical)	

Specifications subject to change. For the most up-to-date specifications, visit flir.com.

For technical or sales support, please visit:

www.flir.com

This product is subject to United States export regulations and may require US authorization prior to export, reexport, or transfer to non-US persons or parties. Diversion contrary to US law is prohibited.

For assistance with confirming the Jurisdiction & Classification of Teledyne Flir, LLC products, please contact exportquestions@flir.com. ©2026 Teledyne Flir, LLC. All rights reserved.

Revised 01/24/25

Flir_A64xx_Datasheet-LTR 25-0761-INS

Specifications, continued

Model	A6451	A6481
Optics		
Camera f/#	f/2.5	
Available lenses	Manual (3-5 μm): 17 mm, 25 mm, 50 mm, 100 mm, 200 mm, 50 mm Macro	Manual (3-5 μm): 17 mm, 25 mm, 50 mm, 100 mm, 200 mm, 50 mm Macro 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	Manual	Motorized (compatible w/ manual)
Filter holder (warm)	Behind lens mount for standard 1 in. diameter filters	3-position motorized filter wheel (1 in. diameter filters)

Model	A6451	A6481
General		
Operating temperature range	-20°C to 50°C (-4°F to 122°F)	
Power	24 V DC (< 24 W steady rate)	
Weight w / o lens	2.3 kg (5 lbs)	
Size (L x W x H)	226 x 102 x 109 mm (8.9 x 4.0 x 4.3 in.)	
Mounting	2 x ¼" -20 tapped holes, 1 x ⅜" -16 tapped hole, 4 x 10 -24 tapped holes	

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, 1080p @ 29.9
Standard video zones	Auto, best fit

For more information about Flir A6451 please scan or visit:



For more information about Flir A6481 please scan or visit:



Specifications subject to change. For the most up-to-date specifications, visit flir.com.

For technical or sales support, please visit:

www.flir.com

This product is subject to United States export regulations and may require US authorization prior to export, reexport, or transfer to non-US persons or parties. Diversion contrary to US law is prohibited.

For assistance with confirming the Jurisdiction & Classification of Teledyne Flir, LLC products, please contact exportquestions@flir.com. ©2026 Teledyne Flir, LLC. All rights reserved.

Revised 01/24/25

Flir_A64xx_Datasheet-LTR 25-0761-INS