

FLIR A6700sc MWIR Series

Science-Grade Infrared Camera

The FLIR A6700sc offers sensitivity and resolution in a compact package at an affordable price.

Compact Size and Weight – Easy mounting in tight locations or applications that require light payloads.

Interface Flexibility – Simultaneous analog and digital outputs including composite NTSC or PAL (BNC), and industry-standard digital Gigabit Ethernet.

Optimized Imaging – Four active preset operating modes provide adjustable temperature measurement ranges, embedded non-uniformity correction, and bad pixel replacement.

Image Synchronization – Image synchronization through external BNC input, or a software trigger; clock out single images, or multiple images.

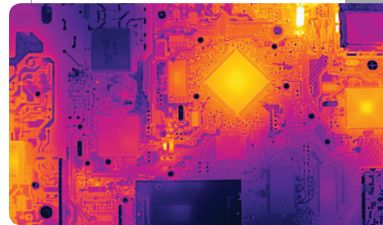
60 Hz Frame Rate – Features a 14-bit digital data stream at 60 Hz full frame resolution.

Windowing Flexibility – Supports image rates up to 480 frames per second in windowing mode.

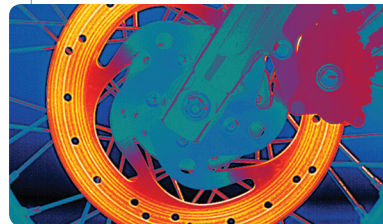
On-Camera Cal – On-camera Thermographic Calibration to include optional high temperature ranges.

Custom Configurations – Custom cold filtering option for specific spectral detection and measurement.

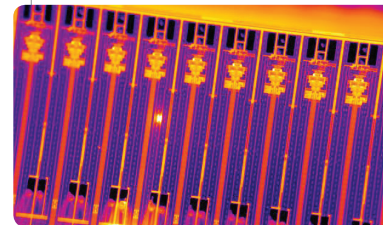
ResearchIR Max – Comes with FLIR ResearchIR Max software for data acquisition, analysis, and reporting; optional SDK.



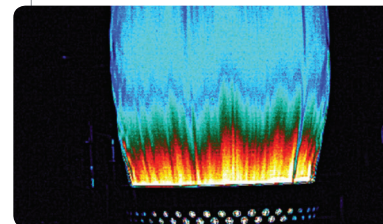
Circuit Board



Motorcycle Disc Braking system



Electronics Microscopy



Plastics Manufacturing Process

Imaging Specifications

Detector	
A6700sc	
Detector Type	Indium Antimonide (InSb)
Spectral Range	3.0 – 5.0 μm
Resolution	640 x 512
Detector Pitch	15 μm
NETD	<20 mK (18 mk typical)
Well Capacity	7.2 M electrons
Operability	>99.8% (>99.95% typical)
Sensor Cooling	Closed Cycle Rotary
Electronics / Imaging	
Readout	Snapshot (FLIR 4 Channel)
Readout Modes	Asynchronous Integrate While Read; Asynchronous Integrate Then Read
Synchronization Modes	Sync In
Integration Time	480 ns to 687 sec
Frame Rate (Full Window)	Up to 60Hz
Subwindow Mode	1/2 or 1/4 Window
Max Frame Rate (@ Min Window)	480Hz @ 1/4 window
Dynamic Range	14-bit
Digital Data Streaming	Gigabit Ethernet
Analog Video	NTSC, PAL
Command & Control	Gigabit Ethernet
Measurement	
Standard Temperature Range	-20°C to 350°C (-4°F to 662°F)
Optional Temperature Range	Up to 1,500°C (2,732°F) Up to 2,000°C (3,632°F)
Accuracy	$\pm 2^\circ\text{C}$ or $\pm 2\%$ of reading
Optics	
Camera f/#	4.0
Available Lenses	13 mm, 25 mm, 50 mm, 100 mm
Close-up Lenses / Microscopes	1x
Focus	Manual
Filtering	Behind the Lens, Custom Cold Filtering
Image Presentation	
Analog Palettes	Grayscale + Color
AGC	Manual, Linear, Plateau Equalization, DDE
Zoom	Video Zoom is Auto Selected: Full Res = 1x, 1/4 Res = 2x
General	
Operating Temperature Range	-40°C to 50°C (-40°F to 122°F)
Storage Temperature Range	-55°C to 80°C (-67°F to 176°F)
Altitude	0 to 10,000 Feet Operational; 0 to 70,000 Feet Non-Operational
Shock / Vibration	40 g , 11 msec 1/2 sine pulse / 4.3 g RMS Random Vibration, All 3 Axis
Power	24 VDC (< 50 W steady state)
Weight w/o Lens	5 lbs
Size (L x W x H) w/o Lens	7.7" x 4.0" x 4.0"
Mounting	2 x 1/4"-20, 1 x 3/8"- 16, 4 x 10/24



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NASDAQ: FLIR

Back Panel



- ① On/Off switch
- ② Cat 6 Ethernet port
- ③ Status LEDs
- ④ Power in
- ⑤ Sync
- ⑥ Video port