FLIR A655sc

High-Resolution LWIR Science-Grade

With its uncooled detector, high resolution, and all of the cutting-edge functionality scientists and researchers have come to expect from FLIR, the A655sc brings affordable research and science thermal imaging and measurement to a whole new level.

Affordable, Compact, and Powerful – The A655sc provides over 300,000 pixels of accurate temperature measurement data.

Uncooled Microbolometer Detector – Maintenance-free and provides excellent longwave imaging performance.

High Resolution – 640 × 480, 17 micron pixel detector provides great image detail and small spot size for accurate measurements of small temperature anomalies.

Full Frame Rate – *Provides 14-bit data* up to 50 frames per second at full frame 640 × 480 resolution.

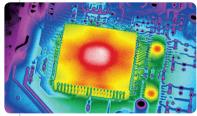
FPA Windowing – *Provides high-speed* windowing modes (up to 200 Hz with a 640 × 120 window) and digital control of image flow and recording to FLIR's R&D software.

Fully Compliant – With both GenlCam and GigE Vision protocols, the A655sc is ready to integrate with a variety of third-party analysis software packages.

Perfect for Research and Science Applications – The A655sc helps you to see and accurately quantify heat patterns, leakage, dissipation, and other heatrelated factors in equipment, products, and processes in real time.

Included Recording & Analysis Software – Remotely control the A655sc, record thermal snap-shots and movies, measure temperature from over 300,000 spots, create temperature verses time plots, and more with the included FLIR ResearchIR software.









Medical



Space Shuttle



Imaging Specifications

Detector	A655sc
Detector Type	Uncooled Microbolometer
Spectral Range	7.5 – 14.0 μm
Resolution	640 × 480
Detector Pitch	17 μm
NETD	<50 mK
Imaging	
Time Constant	<8 ms
Frame Rate (Full Window)	50 Hz
Subwindow Mode	User-Selectable 640 × 240 or 640 × 120
Maximum Frame Rate (@ Min. Window)	200 Hz (640 × 120)
Dynamic Range	14-bit
Digital Data Streaming	Gigabit Ethernet (50/100/200 Hz) USB (25/50/100 Hz)
Command and Control	Gigabit Ethernet, USB
Measurement	
Standard Temperature Range	–40°C to 150°C (–40°F to 302°F) 100°C to 650°C (212°F to 1,202°F)
Optional Temperature Range	Up to 2,000°C (3,632°F)
Accuracy	±2°C or ±2% of Reading
Optics	
Camera f/#	f/1.0
Available Lenses	13.1 mm (45°) 24.5 mm (24°) 41.3 mm (15°)
Focus	Automatic or Manual (Motorized)
Close-up / Microscopes	Close-up 50 µm, 100 µm
Image Presentation	
Digital Data	Via PC Using ResearchIR Software
General	
Operating Temperature Range	-15°C to 50°C (5°F to 122°F)
Storage Temperature Range	-40°C to 70°C (-40°F to 158°F)
Encapsulation	IP 30 (IEC 60529)
Bump / Vibration	25 g (IEC 60068-2-29) / 2 g (IEC 60068-2-6)
Power	12/24 VDC, 24 W Absolute Max.
Weight	0.9 kg (1.98 lb)
Size (L × W × H) w/o Lens	216 × 73 × 75 mm (8.5 × 2.9 × 3.0 in)
Mounting	1/4"-20 (on three sides), 2 x M4 (on three sides)

Back Panel



- Power Connector, Screw Terminal 2-pole: 10 – 30 VDC; 24 W Max.
- ② Gigabit Ethernet Port, 1000 MB, RJ-45 Connector: Control and image streaming.
- 3 USB2 HS Connector: Camera control and image streaming.
- ④ Digital I/O Connector, Screw Terminal 6-pole: Digital Out: 2 outputs, optoisolated, 10–30 VDC supply, 100 mA. Digital In: 2 inputs, opto-isolated, 10–30 VDC.

A655sc Packages

A655sc ResearchIR Recording & Analysis Package: A655sc, 24.5 mm (24°) Lens, Standard Temperature Calibration, ResearchIR Software

A655sc ResearchIR Max Recording & Analysis Package: A655sc, 24.5 mm (24°) Lens, Standard Temperature Calibration, ResearchIR Max Software

*Ask your FLIR representative about additional packages



BOSTON

FLIR Systems, Inc. 9 Townsend West Nashua, NH 03063 USA PH: +1 866.477.3687 PORTLAND Corporate Headquarters FLIR Systems, Inc. 27700 SW Parkway Ave. Wilsonville, OR 97070 USA PH: +1 866.477.3687

CANADA

FLIR Systems, Ltd. 920 Sheldon Ct. Burlington, ON L7L 5L6 Canada PH: +1 800.613.0507

MEXICO/LATIN AMERICA

FLIR Systems Brasil Av. Antonio Bardella 320 - B. Boa Vista- Cep: 18085–852 - Sorocaba – SP - Brazil PH: +55 15 3238 8070

www.flir.com NASDAQ: FLIR

Equipment described herein may require US Government authorization for export purposes. Diversion contrary to US law is prohibited. Imagery for illustration purposes only. Specifications are subject to change without notice. ©2012 FLIR Systems, Inc. All rights reserved. 3445 (Rev. 4/13)