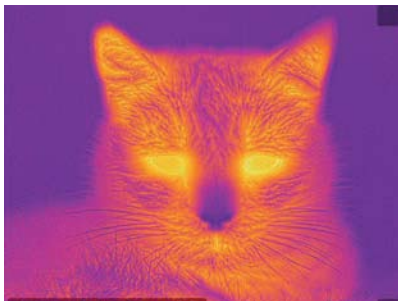
FLIR SC Series

FLIR SC660

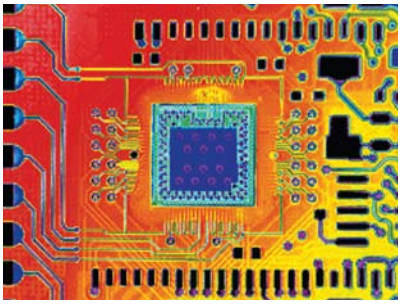
The High Performance infrared inspection system

FLIR SC660 is a high performance infrared system used for science and research applications within the long wave spectral range. With its 640x480 resolution it produces sharp images with high accuracy radiometric readings. Camera portability increases the flexibility of use. A Firewire port is available for real time image transfer to PC for data capture and analysis. The camera is equipped with the standard 24° lens.

- *Image resolution 640x480*
- *Sensitivity <30 mK*
- *Real time radiometric storage to built-in RAM*
- *Real time radiometric data streaming to PC over Firewire*
- *Supports Windowing*
- *Large high resolution 5.6" flip-out LCD*
- *Tiltable high resolution viewfinder*
- *Wide variety of high performance lenses with USM technology*
- *1-8 times continuous zoom with pan*
- *Picture in Picture*
- *Thermal fusion: above, below interval*
- *Rotatable handle for convenient operation*
- *Built-in 3.2 Mpixel digital camera with target illuminator*
- *Standard temperature range -40 °C to 1500 °C*
- *1%, 1°C accuracy*
- *Periodic storage*
- *Panorama*
- *Voice and text annotation*
- *Contrast optimization*
- *Laser locator with automatic alignment*
- *Built-in GPS*
- *Programmable buttons*
- *User profiles*



FLIR's exclusive Dynamic Details Enhancement (DDE) capability brings out detail in Infrared images.



Close-up optic provides resolution of very small targets

Connecting to FLIR research software allows for detailed thermal analysis

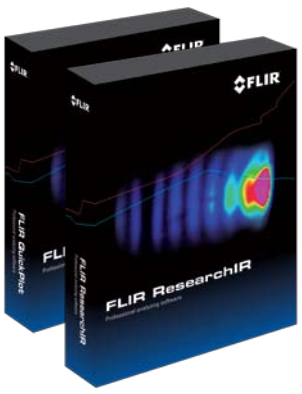
In Research & Development, process control and product testing evaluation, accuracy and reliability are vitally important. That's why FLIR SC-Series cameras are widely used around the world for applications as diverse as micro-electronics, automotive and aerospace industries, plastics injection molding, consumer appliance design, target signatures, mechanical fatigue testing, plant and biology researches, material evaluation, airborne detection and much more. Our cameras are used for capturing thermal distribution and recording variations in real time, allowing engineers to see and accurately measure heat production or dissipation process, leakage and other temperature factors in equipment, products and processes.

The FLIR SC660 is the perfect choice designed for R&D applications, when a portable infrared camera is preferred.

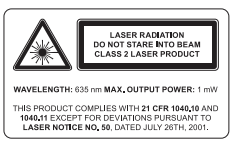
FLIR SC660 Technical Specifications

Imaging and optical data	
Field of view (FOV) / Minimum focus distance	24° × 18° / 0.3 m
Spatial resolution (IFOV)	0.65 mrad
Thermal sensitivity / NETD	<30 mK @ +30°C
Image frequency	30 Hz (60/120 Hz with windowing)
Focus	Automatic (one shot or follow the laserspot) or manual (electric or on the lens)
Zoom	1–8× continuous, digital zoom, including panning
Focal Plane Array (FPA) / Spectral range	Uncooled microbolometer / 7.5–13 µm
IR resolution	640 × 480 pixels
Image presentation	
Display	Built-in widescreen, 5.6 in. LCD, 1024 × 600 pixels
Viewfinder	Built-in, tiltable LCD, 800 × 600 pixels
Automatic image adjustment	Continuous / manual; linear or histogram based
Manual image adjustment	Level/span / max / min
Contrast optimization	Automatic, adjustable DDE
Image modes	IR-image, visual image, thermal fusion, picture in picture, thumbnail gallery
Reference image	Shown together with live IR image
Measurement	
Temperature range	–40°C to +1500°C
Accuracy	±1°C or ±1% of reading for limited temperature range, ±2°C or ±2% of reading
Measurement analysis	
Spotmeter	10
Area	5 boxes or circles with max. / min. / average
Automatic hot / cold detection	Max / Min temp. value and position shown within box, circle or on a line
Isotherm	2 with above / below / interval
Profile	1 live line (horizontal or vertical)
Difference temperature	Delta temperature between measurement functions or reference temperature
Reference temperature	Manually set or captured from any measurement function
Emissivity correction	Variable from 0.01 to 1.0 or selected from editable materials list
Measurement corrections	Reflected temperature, optics transmission, atmospheric transmission and external optics
Measurement function alarm	Audible/visual alarms (above / below) on any selected measurement function
Humidity alarm	1 humidity alarm, including dew point alarm
Insulation alarm	1 insulation alarm
Set-up	
Set-up commands	Configurable measurement tools menu; configure information to be shown in image; 2 Programmable buttons; user profiles; local adaptation of units, language, date and time formats
Storage of images	
Image storage	Standard JPEG, including measurement data, on memory card Built-in RAM for burst recording
Image storage mode	IR / visual images; simultaneous storage of IR and visual images Visual image is automatically associated with corresponding IR image
Periodic image storage	Every 10 seconds up to 24 hours
Panorama	For creating panorama images in FLIR Reporter Building software
Image annotations	
Voice	60 seconds stored with the image
Text	Predefined text or free text from PDA (via IrDA) stored with the image
Image marker	4 on IR or visual image
GPS	Location data automatically added to every image from built-in GPS
Video recording and streaming	
Radiometric IR-video recording	Real-time to built-in RAM, transferable to memory card.
Radiometric IR-video streaming	Real-time full dynamic to PC using FireWire 30 Hz or 60/120 Hz with windowing using FLIR ResearchIR
Non-radiometric IR-video recording	MPEG-4 to memory card
Non-radiometric IR-video streaming	MPEG-4 to PC using USB or WLAN (optional)
Digital camera	
Built-in digital camera	3.2 Mpixel, auto focus, and video lamp
Laser pointer	
Laser	Activated by dedicated button
Laser mode	Auto Focus/Level/Spotmeter
Laser alignment	Position is automatic displayed on the IR image
Data communication interfaces	
Interfaces	USB-mini, USB-A, IrDA, composite video, headset connection
Power system	
Battery	Li Ion, 3 hours operating time
Charging system	In camera (AC adapter or 12 V from a vehicle) or 2-bay charger
Power management	Automatic shutdown and sleep mode (user selectable)
Environmental data	
Operating temperature range	–15°C to +50°C
Storage temperature range	–40°C to +70°C
Humidity (operating and storage)	IEC 68-2-30/24 h 95% relative humidity +25°C to +40°C
Encapsulation	IP 54 (IEC 60529)
Bump	25 g (IEC 60068-2-29)
Vibration	2 g (IEC 60068-2-6)
Physical data	
Camera weight, incl. lens and battery	1.8 kg
Cameras size, incl. lens (L × W × H)	299 × 144 × 147 mm
Tripod mounting	UNC ¼"-20

Camera includes:
Hard transport case
Infrared camera with lens
Battery (2 ea., one inserted in camera, one outside camera)
Battery charger
Calibration certificate
FLIR QuickReport™ PC software CD-ROM
FireWire cable, 4/6
FireWire cable, 6/6
Headset
Lens cap (mounted on lens)
Lens cap (2 ea.)
Mains cable
Memory card-to-USB adapter
Memory card with adapter
Power supply
Printed Getting Started Guide
Shoulder strap
USB cable
User documentation CD-ROM
Video cable
Warranty extension card or Registration card
Supplies & Accessories
Close-up IR lens 0.5X, f = 75 mm (fits 24° IR lens) for ThermaCAM and FLIR 600 series
IR lens f = 76 mm, 12°, incl. case for FLIR 600 series
IR lens, f = 131 mm, 7°, incl. case for FLIR 600 series
IR lens f = 19 mm, 45°, incl. case for FLIR 600 series
IR lens f = 38 mm, 24°, incl. case for FLIR 600 series
Macro lens 1x (25 um) with case
High temperature option +2000°C
High temperature option +1500°C
Battery
Battery charger, incl. power supply and cable
Battery charger, incl. power supply and cable
Battery charger, incl. power supply and cable
Battery charger, incl. power supply with multi plugs
Power supply, incl. multi plugs
SD memory card, 1 GB
Adapter, SD memory card to USB
Memory card micro-SD with adapters
USB cable Std A <-> Mini-B, 2 m
FireWire cable 6/6, 2.0 m
FireWire cable 4/6, 2.0 m
Video cable, RCA <-> RCA, 2.0 m
Cigarette lighter adapter kit, 12 VDC, 1.2 m
Hard transport case for FLIR B/P/SC640
Headset, 3.5 mm plug
Remote Control Unit
FLIR Reporter Ver. 8.3 Professional (Sec. device)
FLIR Reporter Ver. 8.3 Professional
FLIR Reporter Ver. 8.3 Standard (Sec. device)
FLIR Reporter Ver. 8.3 Standard
FLIR BuildIR
FLIR Reporter Ver. 8.5 Standard
FLIR Reporter Ver. 8.5 Professional
Cover Visual Camera mkII



Optional softwares for R&D requirements



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