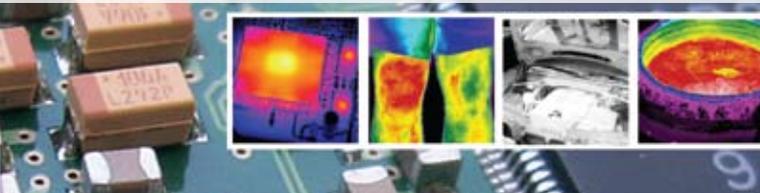




# NEW! FLIR<sup>®</sup> SC620

R&D INFRARED CAMERA SYSTEM

Highest sensitivity and most advanced feature set available. Supplies a combination of infrared and visible spectrum images of superior quality and temperature measurement accuracy – plus voice annotation, and a host of other advanced features.



- > Uncooled 640x480 IR Detector Array
- > Thermal Sensitivity  $\leq 0.065^{\circ}\text{C}$
- > Built-in 3.2 Mpixel visual camera
- > Temperature Range:  $-40^{\circ}\text{C}$  to  $+500^{\circ}\text{C}$
- > Full Radiometric Real-time Video to PC
- > Text and Voice Annotation
- > Optional Wireless Remote Operation

Features both thermal and visual camera capabilities – at the touch of a button!

### Highest Sensitivity

The SC620's high-definition 640x480 infrared detector delivers exceptional sensitivity, resolution, and image quality for scientific and research applications. Its  $0.065^{\circ}\text{C}$  sensitivity and  $\pm 2^{\circ}\text{C}$  accuracy means precise readings, taken on smaller objects, at safer distances.

### Visual Image Integration

The SC620 includes an integrated 3.2 megapixel digital video camera to aid in data presentation. Infrared and visual images can also be stored in standard JPEG formats. The visual camera includes a matching Field Of View (FOV) lens, so IR and visual images correlate over various distances. Moreover, full flexibility in the fusion of images allows user adjusted sizing and location of a picture-in-picture (PiP) view.

### Multifunction Video Capture

The SC620's 5.6" widescreen LCD allows on-camera viewing of images. Its FireWire interface can transfer 14-bit radiometric data directly into a PC for real-time analysis of captured images. MPEG-4 non-radiometric video sequences can also be streamed to a PC via USB.

### Voice and Text Annotation

The user can record a full 60 seconds of digital voice and embed it with each IR image. This allows a full description of the target and situation to be recorded and then documented in a data presentation. For added flexibility, text comments for each image can be entered manually or preloaded from a PC. Similarly, thermal and visual images, temperature

measurements, and annotations can be transferred to the PC via USB.

### Productivity Features

An abundance of features enhance the convenience and productivity of the SC620. Its tiltable viewfinder provides high-resolution color imagery. The multi-angle handle has an integrated joystick and buttons and for easy point-and-shoot operation – functions like auto-focus, freeze-frame, and image storage are just a button click away. Manual focus allows operators greater flexibility, while the auto-focus is helpful in hard-to-focus situations, and allows new users to become productive sooner. A visual target illuminator (lamp) ensures good visual reference images, even under low lighting conditions.

### Wireless Remote Control

Professional infrared camera users often work in hazardous areas or in places that are difficult to access. We have responded to our customers' feedback and developed a remote control that allows you to control all vital functions of the camera from a safe distance in a wireless mode.

### Lightweight and Rugged

The ergonomic magnesium housing is designed for rugged portability and meets the IP54 standard, thereby protecting internal parts from shock, vibration, dust and water-splash. The result is a camera that weighs only 1.7kg with battery, for the comfort of users that need to carry a camera several hours a day.

### 3-hour Run Time Battery

The SC620 can run up to three hours on a single, fully charged battery. It comes with an intelligent charging station capable of conditioning and charging two batteries at a time. In addition, you can plug the SC620 into an AC outlet or optional 12V cable and charge the battery while still in the camera.

### Evaluate Thermal Performance in Real-time with Powerful, Real-Time Digital Storage and Analysis Software

Engineers designing products or performing thermal tests often need to see more than just thermal anomalies, they have to be able to quantify and monitor heat patterns resulting from extremely fast or minute temperature changes. ThermaCAM<sup>®</sup> Researcher<sup>™</sup> software is a powerful Windows-based infrared software package that provides detailed, precision analysis and measurement tools for capturing, recording, and studying extremely high speed thermal events. It digitally stores, retrieves and analyzes live infrared images directly from the SC Series IR cameras. Whether you're evaluating static IR images, live IR video sequences or dynamic high speed thermal events, the ThermaCAM Researcher software available to help you manage thermal performance and develop cost-effective design solutions.

### Infrared Certification Training and Support

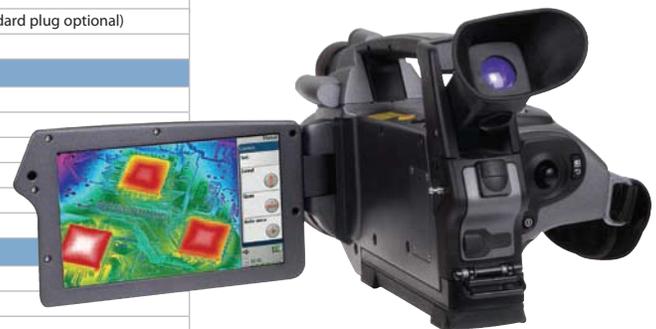
In addition to worldwide service and support, FLIR Systems offers Thermographer certification classes and high quality interactive thermography training from the most qualified international thermography instructor. The FLIR Systems Infrared Training Center (ITC) is the Global leader in IR Thermography Training.

# FLIR® SC620 Technical Specifications

<b>Imaging Performance</b>	
<b>Thermal</b>	
Field of view/min focus distance	24° × 18° / 0.3m (with standard lens)
Spatial resolution (IFOV)	0.65 mrad (with standard lens)
Thermal sensitivity	0.065°C at 30°C
Electronic Zoom	1–2× continuous, including pan
Image Frequency	30Hz (non-interlaced)
Focus	Auto, electric and manual
Detector type	Focal plane array (FPA) uncooled microbolometer; 640 × 480 pixels
Spectral range	7.5 to 13µm
<b>Visual</b>	
Built-in digital video	3.2 Mpixel, full color / built-in Target Illuminator / auto focus
<b>Image Presentation</b>	
Image Fusion	Picture in Picture (PIP) with full control of IR window, threshold above, threshold below, threshold interval
Viewfinder	Built-in, tiltable, high-resolution color viewfinder (800 × 600 pixels)
External display	Built-in 5.6" LCD (1024 × 600 pixels)
Video output	RS170 EIA/NTSC or CCIR/PAL composite video
<b>Measurement</b>	
Temperature ranges	–40°C to +120°C, 0°C to +500°C; up to +2000°C
Accuracy (% of reading)	±2°C or ±2% of reading
Measurement modes	Spots/Areas (Boxes, Circles), Isotherms (above, below, interval), Delta T, Reference temperature function
Menu controls	Palettes, load custom palettes, auto adjust (manual/continuous/based on histogram equalization), image gallery, programmable storage, on-screen live and reference image
Emissivity correction	Variable from 0.01 to 1.0 or select from listings in pre-defined material list
Measurement features	Automatic corrections based on user input for reflected ambient temperature, distance, relative humidity, atmospheric transmission, and external optics
Optics transmission correction	Automatic, based on signals from internal sensors
Atmospheric transmission correction	Automatic, based on inputs for distance, atmospheric temperature and relative humidity
Reflected ambient temperature correction	Automatic, based on input of reflected temperature
External optics/window correction	Automatic, based on input of optics/window transmission and temperature
<b>Image Storage</b>	
Type	Removable SD-card (1GB)
Image storage modes	Single image, simultaneous storage of IR and visual images
Periodic image storage	Every 10 seconds up to 24 hours
File format – THERMAL	Standard JPEG; 14 bit thermal measurement data included
File format – VISUAL	Standard JPEG inked with corresponding thermal image
Voice annotation of images	60 sec. of digital voice "clip" stored together with the image wired headset
Text annotation of images	Predefined by user and stored with image
Image marker	Markers on visual image
<b>Video streaming</b>	
Radiometric IR-video streaming	Real time, full dynamic digital IR-video using Firewire
Non radiometric IR-video recording	MPEG 4 streaming to PC using USB, Firewire or WLAN, with optional Wireless remote control
<b>Laser LocatIR™</b>	
Classification type	Class 2, Semiconductor AlGaInP Diode Laser: 1 mW/635 nm (red)
Laser	Laser pointer activated by dedicated button
<b>Power Source</b>	
Battery type	Li-Ion, rechargeable, field-replaceable
Battery operating time	3 hours continuous operation
Charging system	In camera (AC adapter or 12V from car) or 2 bay intelligent charger or 12V from car with optional DC12V connection cable
External power operation	AC adapter 90-260 VAC, 50/60Hz or 12V from car (cable with standard plug optional)
Power saving	Automatic shutdown and sleep mode (user-selectable)
<b>Environmental</b>	
Operating temperature range	–15°C to +50°C
Storage temperature range	–40°C to +70°C
Humidity	10% to 95%, IEC 68-2-30
Encapsulation	IP 54 IEC 529
Shock	Operational: 25G, IEC 68-2-29
Vibration	Operational: 2G, IEC 68-2-6
<b>Physical Characteristics</b>	
Weight	1.8kg (incl. lens and battery)
Size (L x W x H)	324 x 144 x 147 mm (incl. standard lens)
Tripod mounting	1/4"– 20

<b>Interfaces</b>	
1394 Firewire	Fully radiometric 14bit real time image video to PC
USB-A	Connect external USB device
USB Mini-B	Data transfer to/from PC
IrDA	Wireless communication
SD-card (2)	I/O slot; storage slot
<b>Camera includes:</b>	
User documentation in CD-ROM	
Camera with visual and IR lens	
Power supply	
2 batteries (3 hours operating time on each)	
2 bay charging station	
FLIR QuickReport software	
Manual and Quick Reference Card	
SD-card with USB card Reader	
Headset	
Cables (USB, FireWire, Video)	
<b>Lenses (optional)</b>	
<i>Automatic lens identification</i>	
<b>Field of view/minimum focus distance</b>	
25 micron / 18mm	
85° / 100m	
7° × 5.25° / 6m telelens	
12° × 9° / 1.2m telelens	
45° × 34° / 0.2m wide angle lenses	
Close-up 50µm 32mm x 24mm / 75mm	
<b>Other Options</b>	
FLIR Reporter software	
FLIR Researcher software	
FLIR Image Builder software	
High temperature option to +2000°C	
Wireless remote control	

**NEW!** RUGGED & LIGHTWEIGHT MAGNESIUM HOUSING!



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