



FLIR T1050sc

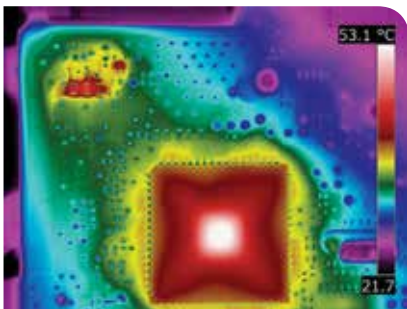
High Performance HandHeld Thermal Imaging Camera For R&D Applications

The T1050sc is a portable, high-speed, high definition infrared imaging and measurement camera. It's designed for engineers, researchers, and scientists who need the highest resolution and sensitivity possible in a flexible, battery-powered handheld package. Built on 50 years of experience, this camera records full 1024 x 768 resolution images at 30 frames per second. The T1050sc lets you capture lossless HD radiometric imagery at up to 120 Hz which you can view, acquire, analyze, and share in FLIR ResearchIR Max or MathWorks® MATLAB.

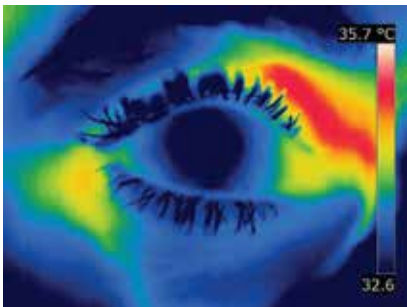
Outstanding Image Clarity

An extraordinarily sensitive detector and HD-ready optics provide stunning thermal images and accurate, non-contact temperature measurements

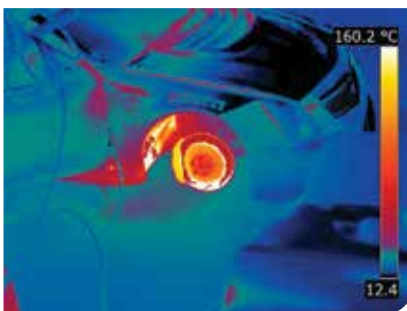
- 1024 x 768 LWIR uncooled HD detector
- Thermal sensitivity (NETD) of < 20 mK, more than twice as sensitive as the industry standard
- FLIR OSX™ Precision HDIR interchangeable lenses provides high-fidelity imagery and accurate temperature measurements at any focal length
- FLIR Vision Processor™ delivers the most detailed, smoothest imagery thanks to MSX®, UltraMax™, and our proprietary adaptive filtering algorithms



Overheating element on printed circuit board



Microscope lens allows for closer examination



Overheating race car tire and brakes

Portability, Flexibility

Battery-powered, handheld camera goes where you need it, whether you're in the lab or out in the field

- On-camera measurement tools and analytics packed in a portable, battery-powered, handheld, ergonomic design
- Wi-Fi communication simplifies image sharing, remote control and viewing, and quick reporting from the field
- Four programmable buttons, two programmable measurement functions

High-Speed Data, How You Need It

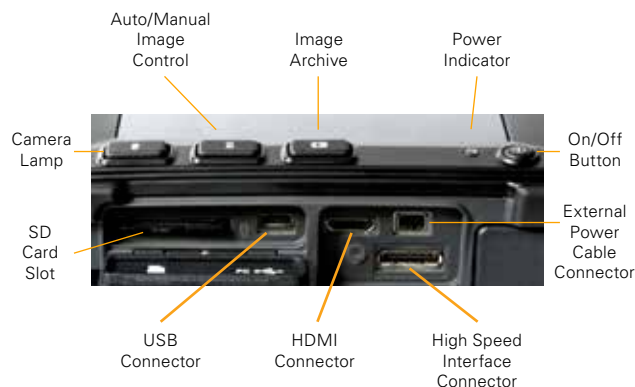
Stream uncompressed data to a PC or capture fully dynamic radiometric video in the camera

- Records real-time radiometric video at 30 Hz to the removable SD card
- Capture lossless HD radiometric imagery at up to 120 Hz or windowed areas at up to 480 Hz via FLIR High-Speed Interface (HSI)
- View, acquire, analyze, and share data with provided FLIR ResearchIR Max software, or using MathWorks® MATLAB (sold separately)
- Compatible with ATLAS SDK for integration of radiometric images and data in your enterprise software program



Specifications

System Overview	FLIR T1050sc
Detector Type	Uncooled Microbolometer
Spectral Range	7.5 - 14 μ m
Resolution	1024 x 768
Detector Pitch	17 μ m
Thermal Sensitivity/ NETD	< 20 mK at +30°C (+86°F)
Electronics/Imaging	
Frame Rate	30 Hz, full window, in camera 120 Hz, full window, with HSI to computer 240 Hz, ½ window with HSI 480 Hz, ¼ window with HSI
Dynamic Range	14-bit
Digital Data Streaming	Real-time radiometric via USB to PC Real-time non-radiometric H.264 via USB or Wi-Fi to PC
In-Camera Radiometric Recording	Real-time radiometric to SD card Real-time non-radiometric H.264 to SD card
Visual Video Recording	H.264 to the SD card
GPS, Compass	Location data, camera direction automatically added to every image
Image File Format	Standard JPEG, including digital photo and measurement data in one file
Measurement	
Object temp. range	-40°C to +150°C (-40°F to +302°F) +100°C to +650°C (+212°F to +1202°F) +300°C to +2000°C (+572°F to +3632°F)
Accuracy	$\pm 1^\circ\text{C}$ ($\pm 1.8^\circ\text{F}$) or $\pm 1\%$ at 25°C for temperatures between 5°C to 150°C. $\pm 2^\circ\text{C}$ ($\pm 3.6^\circ\text{F}$) or $\pm 2\%$ of reading at 25°C for temperatures up to 1200°C
Optics	
Camera f/number	f/1.15 (standard lens)
Available Lenses	81.2 mm (12°), 36 mm (28°), 21.2 mm (45°), 50 μ m Close-up
Spatial Resolution (IFOV)	12° lens: 0.20 mrad; 28° lens: 0.47 mrad; 45° lens: 0.80 mrad
Focus	Auto, continuous auto, manual
Image Presentation	
Display	4.3 in. wide, 800 x 48 pixel capacitive touch screen
Auto-Orientation	Automatic landscape or portrait
Image Analysis	10 spotmeters, 5+5 areas (boxes, circles) with max./min./average
Image Annotations	60 sec. voice (via Bluetooth), text, sketch
Visible Image	Field of View match, adapts to the IR lens
MSX [®]	Embosses visual details onto the full resolution thermal image, providing perspective and ability to read labels
UltraMax™	Unique super-resolution process quadruples pixel count, up to 3.1 MP
Additional Information	
Operating Temp. Range	-40°C to +150°C (-40°F to +302°F)
Storage Temp. Range	-40°C to +70°C (-40 to 158°F)
Encapsulation	IP 54 (IEC 60529)
Bump/Vibration	25 g (IEC 60068-2-29) / 2 g (IEC 60068-2-6)
External Power Operation	AC adapter, 90-260 VAC input, 50/60 Hz or 12 V output from a vehicle (cable with standard plug, optional)
Battery	Rechargeable Li-ion polymer battery, > 2.5 hours at 25°C (+68°F)
Weight	1.9 kg (4.3 lb.) to 2.1 kg (4.6 lb.), depending upon lens model
Size (L x W x H)	167.2 mm x 204.5 mm x 188.3 mm (6.6 in. x 8.0 in. x 7.4 in.)
Tripod Mounting	UNC ¼"-20
System Includes:	
Infrared camera with lens, Battery (2 each), Battery charger, HDMI-HDMI cable, Hard transport case, Large eyecup, Lens cap, Bluetooth headset, SD card, Neck strap, USB cable, Standard A to Mini-B, HSI box (SC models only), Calibration certificate, ResearchIR Max, FLIR Tools download card, User documentation on CD-ROM, Printed documentation	



Covers parts and labor for two years, batteries for five years, and detector for ten years.
Register Now: www.flir.com/warranty/ins

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