

A close-up, angled view of a FLIR E53 thermal imager. The device is black with a large lens in the center. The FLIR logo is visible on the left side of the body. The lens has a blue-tinted center. The background is a dark, solid color.

BUILDING

# ADVANCED THERMAL IMAGING

REIMAGINED FROM THE HANDLE UP

FLIR *E53*





# BRILLIANCE AT WORK



FLIR redesigned the Exx-Series from the handle up to deliver the best performance, resolution, and sensitivity of any pistol-grip handheld thermal camera.

The new E53 camera is packed with the features you need to detect the early signs of water intrusion, air leaks, and other building deficiencies before they cause serious damage.

## FLIR E53 camera now offers:

- Up to 161,472 points of measurement
- Our best MSX® enhancement
- A larger, 4" display that's 33% brighter
- A responsive new interface
- Improved organization and reporting options



# DESIGNED WITH YOU IN MIND



## Work Safer

Your job can take you up ladders and into crawl-spaces, so you need tools that can be used one-handed and worry-free. FLIR designed its new E53 camera to be tough enough to use every day, with simplified buttons and intuitive screens that allow you to focus on your work – instead of on the camera controls.

## Work Smarter

The new E53 camera produces standard radiometric JPEGs that can be opened and viewed without proprietary software. Image files produced by E53 camera are supported by FLIR's Software Development Kit (ATLAS SDK), so companies can use their own software and still support read-out of thermal measurements, METERLiNK® data, and other important parameters embedded within the image. Current and voltage measurements embedded in image files are also accessible.



Features By Camera	E53
IR Resolution	240 × 180 (43,200 pixels)
UltraMax®	—
Object Temperature Range	-20°C to 120°C (-4°F to 248°F) 0°C to 650°C (32°F to 1200°F)
Focus	Manual
Time-lapse (Infrared)	—
Laser Area Measurement	—
Laser Distance Measurement	—
Measurement Presets	No measurement, center spot, hot spot, cold spot, 3 spots, hot spot-spot*
Spotmeter	3 in live mode
Area	1 in live mode
Picture-in-Picture	Centered infrared area on the visual image
Detector Type and Pitch	Uncooled microbolometer, 17 µm
Thermal Sensitivity/NETD	<0.03°C @ 30°C (86°F), 42° lens
Spectral Range	7.5 – 14.0 µm
Image Frequency	30 Hz
Field of View (FOV)	42° × 32° (10 mm lens), 24° × 18° (18 mm lens), 14° × 10° (29 mm lens)
F-Number	f/1.3
Lens Identification	Automatic

\*Hot spot to center spot Delta measurement

Exx-Series cameras are backed by  
FLIR’s industry-leading warranty

2 years: Full protection, parts, labor

10 years: Detector



FLIR Exx-Series™

Digital Zoom	1-4x continuous
Image Presentation and Modes	
Display	4", 640 × 480 pixel touch screen LCD with auto-rotation
Digital Camera	5 MP, 53° × 41° FOV
Color Palettes	Iron, Gray, Rainbow, Arctic, Lava, Rainbow HC
Image Modes	Infrared, visual, MSX®, Picture-in-Picture
MSX®	Embosses visual details on full resolution thermal image
Measurement and Analysis	
Accuracy	±2°C (±3.6°F) or ±2% of reading for ambient temperature 15°C to 35°C (59°F to 95°F) and object temperature above 0°C (32°F)
Alarms	Moisture alarm, insulation alarm, measurement alarms
Color Alarm (Isotherm)	Above/below/interval/condensation/insulation
Compass, GPS	Yes; automatic GPS image tagging
METERLINK®	Yes; several readings
Laser Pointer	Yes; dedicated button
Image Storage	
Storage Media	Removable SD card (8 GB)
Image File Format	Standard JPEG with measurement data included
Video Recording and Streaming	
Radiometric IR Video Recording	Real-time radiometric recording (.csq)
Non-Radiometric IR or Visual Video	H.264 to memory card
Radiometric IR Video Streaming	Yes, over UVC or Wi-Fi
Non-Radiometric IR Video Streaming	H.264 or MPEG-4 over Wi-Fi; MJPEG over UVC or Wi-Fi
Communication Interfaces	USB 2.0, Bluetooth, Wi-Fi, DisplayPort
Video Out	DisplayPort over USB Type-C
Additional Data	
Battery Type	Li-ion battery, charged in camera or on separate charger
Battery Operating Time	Approx. 2.5 hours at 25°C (77°F) ambient temperature and typical use
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)
Shock/Vibration/Encapsulation; Safety	25 g / IEC 60068-2-27, 2 g / IEC 60068-2-6, IP 54 /IEC 60529; EN/UL/CSA/PSE 60950-1
Weight/Dimensions	1 kg (2.2 lbs), 27.8 × 11.6 × 11.3 cm (11.0 × 4.6 × 4.4 in)
Box Contents	
	Infrared camera with lens, battery (2 ea), battery charger, front protection, straps (hand, wrist), hard transport case, lanyards, lens caps, lens cleaning cloth, power supplies, 8 GB SD card, Torx wrench, cables (USB 2.0 A to USB Type-C, USB Type-C to USB Type-C, USB Type-C to HDMI)

# TECHNICAL SPECIFICATIONS



## The Infrared Training Center

The greater your knowledge about thermal imaging, the greater the dividends you'll realize for your company and your career. That's why the Infrared Training Center (ITC) offers classes for practically every application, from free online courses to advanced training that can certify you as a thermography expert, qualifying you to take a leadership role in your internal IR program.

ITC classes include:

- Thermography Fundamentals Training
- IR Building Inspection
- IR Roofing Inspection

## Thermography Certification Training

Level I certifies that you know how a thermal imager works and how to use it. Level II cranks your credibility up a notch with more in-depth concepts and intensive labs. Level III asserts that you have knowledge and skills to administer your company's thermography program. These certifications offer strong validation to support the work you do as a thermographer.

Mobile Training Units and on-site training at your facility are encouraged if you would like to certify a group of 10 or more.



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