FOTRIC 225 Pro. Thermal Camera 320×240 30 Hz 24°X18° FOV 1,202°F with Smartphone

PRODUCT DESCRIPTION

FOTRIC 225, Smartphone-Based Professional Thermal Camera 320×240 30Hz 24°x18° FOV (Samsung J7, unlocked)

FOTRIC 225, as the entry-level professional grade thermal imaging camera of FOTRIC 220 series, has 320 x 240 (76,800 pixels) detector resolution, the

most practical infrared thermal camera resolution, and a standard lens with the minimum detection distance of 0.15m (5.91inch).

FEATURES

- -Wide temperature range -4°F~1,202°F
- -High accuracy ±2°C or ±2%
- -15 color pallets with instant preview
- -Easy to use smartphone full touch screen operation
- -8 spots, 8 boxes, 1 line temperature measurement
- -Emissivity set for each ROI (Region of Interest)
- -Free reporting software (report with up to 200 images at one time)
- -10+ hours battery time
- -Instantly share thermal images through Messenger, Facebook, Twitter, Instagram, Email, etc.
- -Up to 1,000 frames of fully-radiometric thermal video recording on the phone
- -Voice and text image annotation
- -Highly cost-effective optional lens from telephoto lens to super wide angle lens
- -Handheld or fix amounted to tripod or test bench
- -Android APP and Windows software AnalyzIR
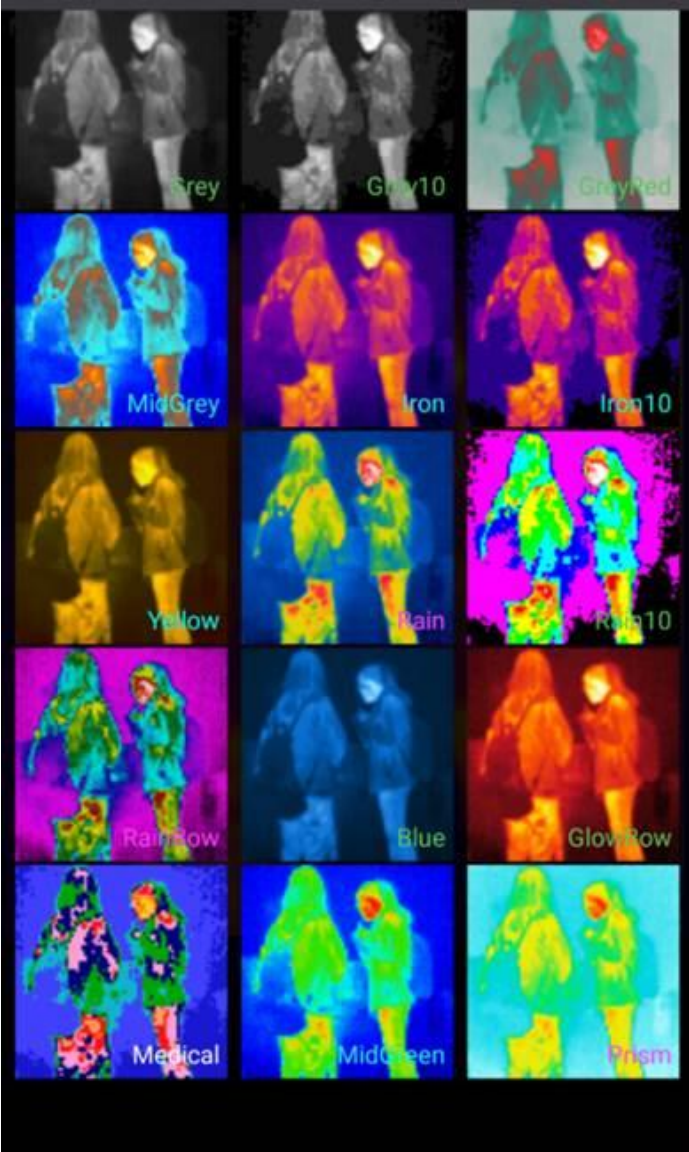- -Free smartphone (Samsung Galaxy J7 or equal)
- -…

SMARTPHONE FULL TOUCHSCREEN OPERATION

Easy-to-learn smartphone touchscreen APP user interface, ultra-simple operation, and ready to use.
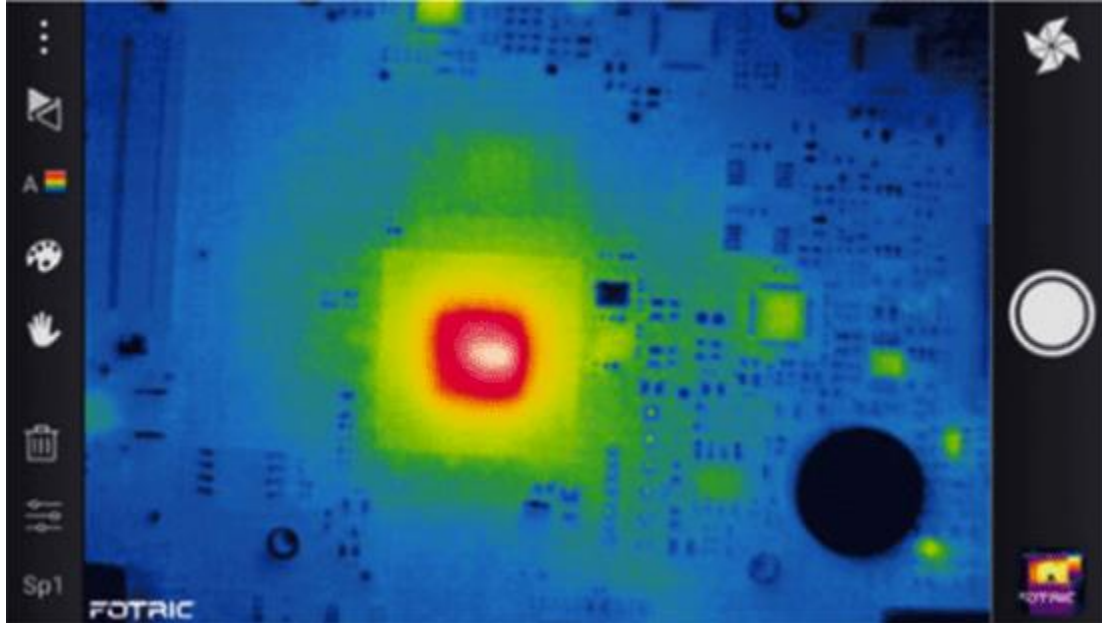
15 COLOR PALLETS WITH INSTANT PREVIEW

Save time to find the most suitable color pallets without guessing.

FULLY-RADIOMETRIC SHORT THERMAL VIDEO STREAM TO CAPTURE MORE DETAILS

A smartphone connected with a FOTRIC thermal camera can record directly up to 1,000 frames of fully radiometric video and capture temperature change processes in real-time with a user-defined sampling rate (up to 5 frames per second). It can automatically collect data without a PC.
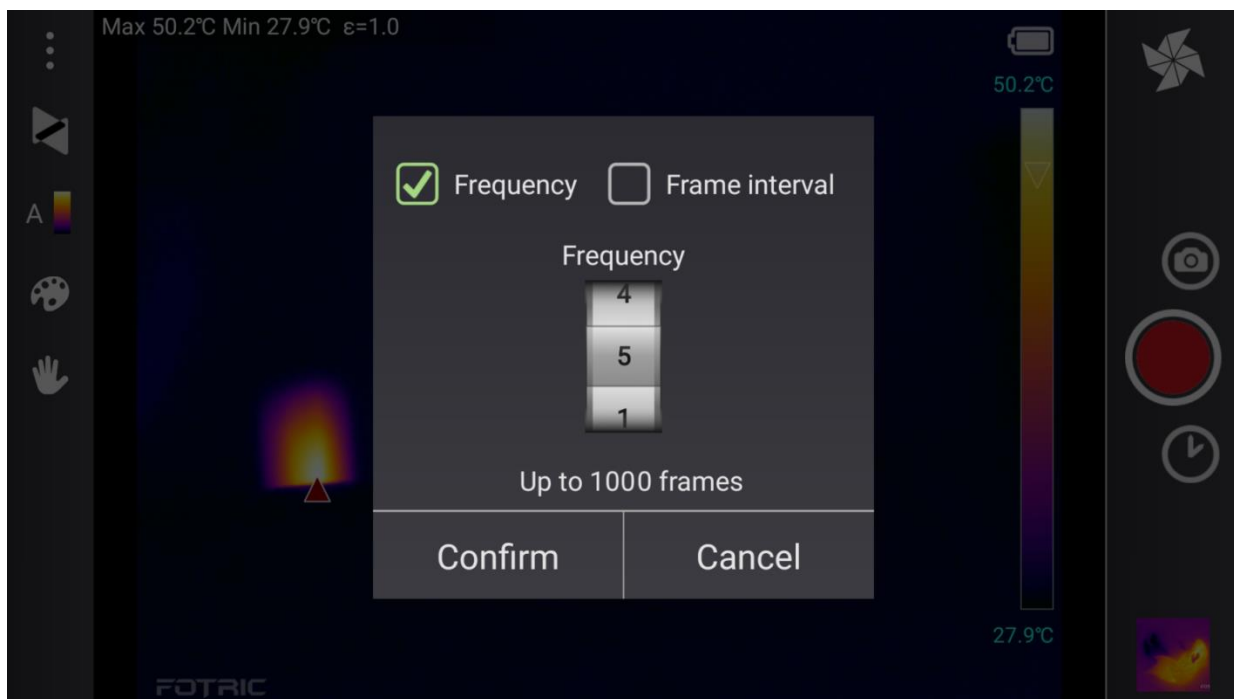
ANALYZE THE THERMAL IMAGE AND VIDEO CONVENIENTLY ON THE SMARTPHONE

The FOTRIC 220 series supports the instant analysis of the thermal image and thermal video on the smartphone, which is convenient after the thermal image or thermal video is recorded.
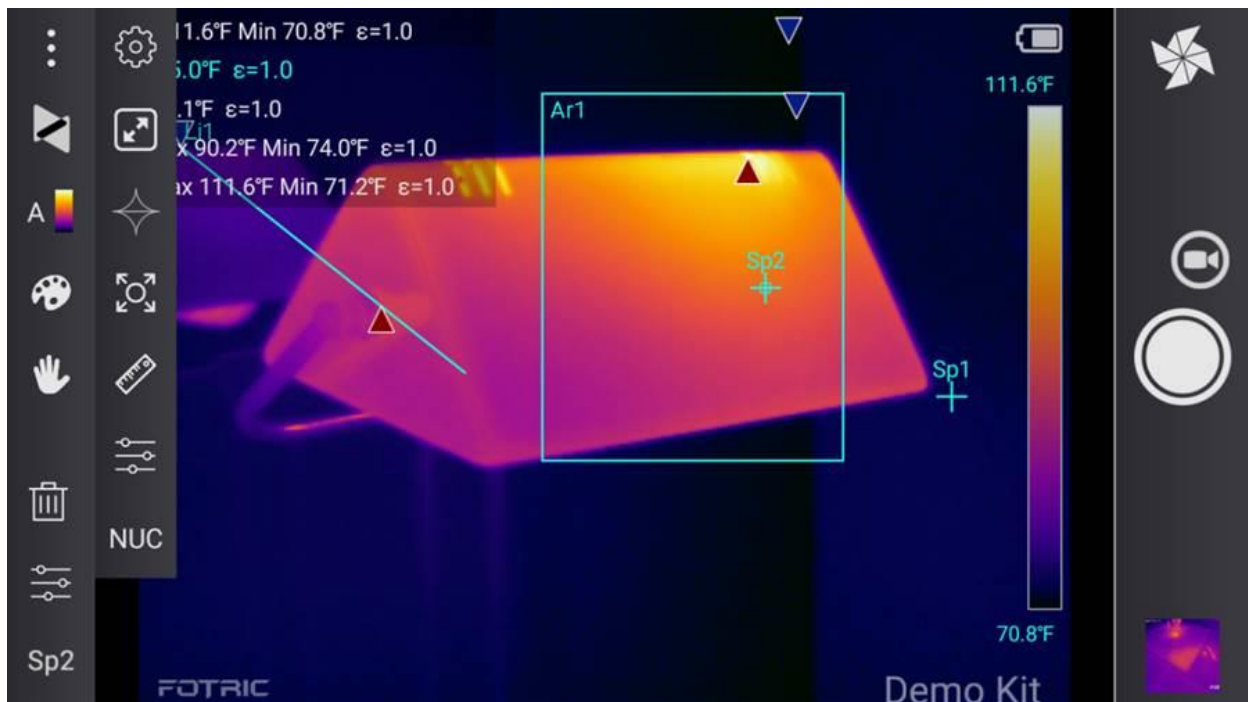
FLEXIBLE SUB-REGIONAL EMISSIVITY SETTING AND PROFESSIONAL TEMPERATURE MEASUREMENT PARAMETER CORRECTION

The different emissivity of each sub-region can be set to achieve an accurate temperature measurement of different material. At the same time, transmissivity, test distance, etc. can be set to ensure the accuracy of the temperature.
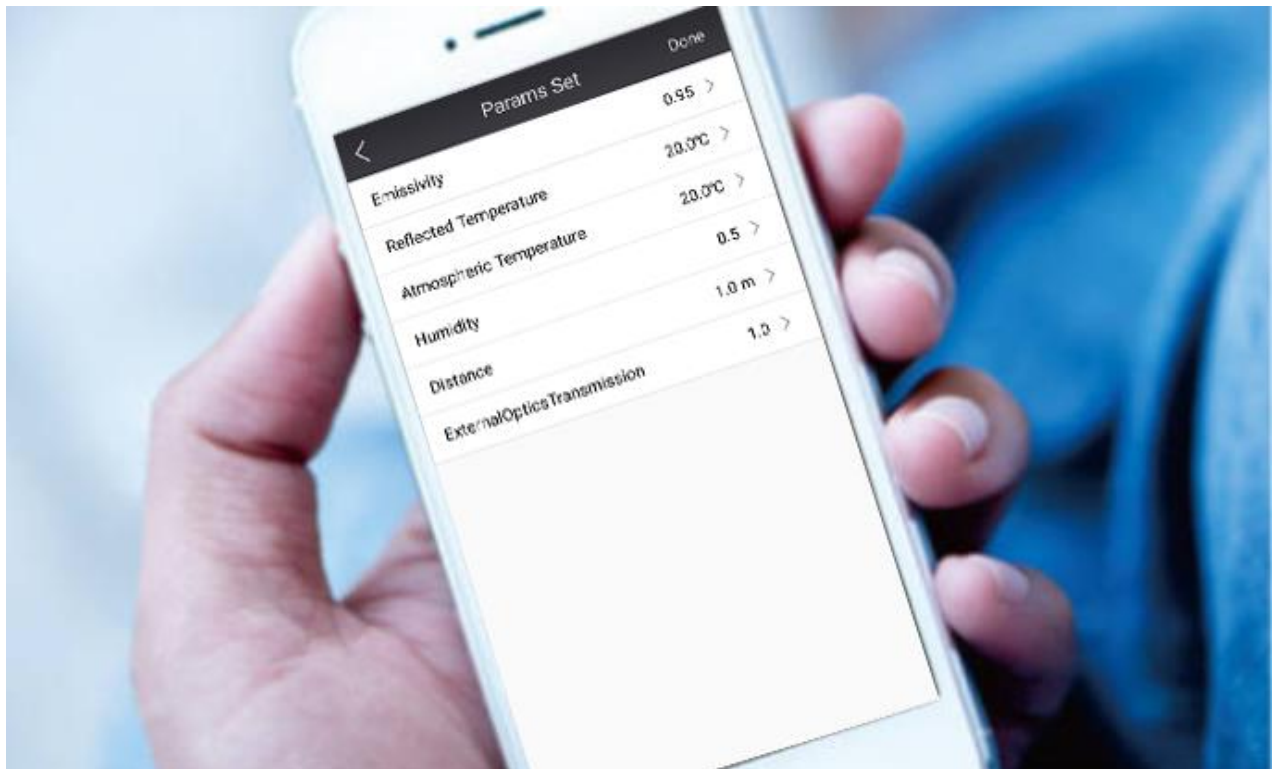
LONG BATTERY TIME AND NO WORRY OF FREQUENT CHARGING

The low-power design gives FOTRIC thermal camera more than 10 hours of battery life, to ensure a full day without interruption, allowing users to focus on work.
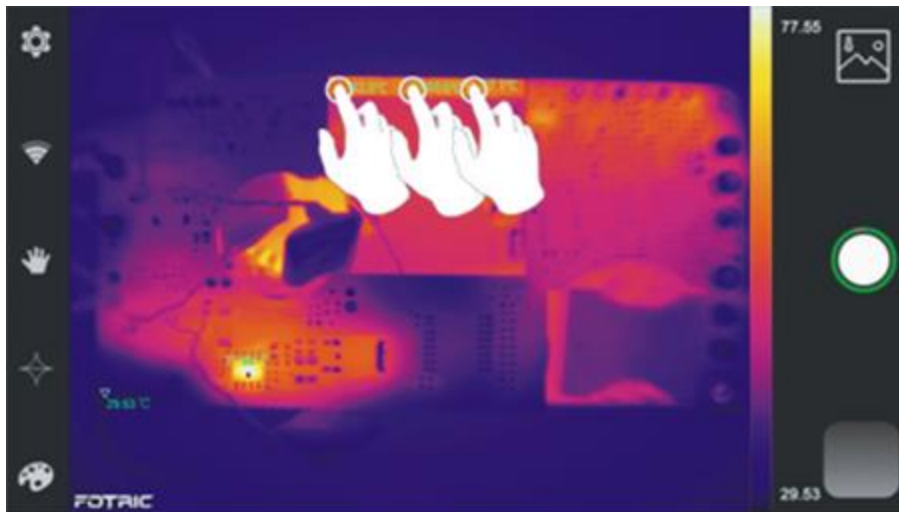
ASSOCIATE THERMAL IMAGE WITH DETECTED OBJECT AUTOMATICALLY FOR EASY AND EFFICIENT DATA MANAGEMENT

FOTRIC thermal camera can scan the equipment QR code and automatically tag thermal images, thus avoiding cumbersome, inefficient and erroneous manual entry.

INSTANTLY SHARE THERMAL IMAGES/VIDEOS THROUGH FAVORITE CHANNELS

Rapidly share field data with colleagues and solve field problems with remote diagnosis through your favorite channels such as Email, Message, Facebook, LinkedIn, Twitter, etc.

ANALYZIR – PROFESSIONAL ANALYSES AND REPORTING SOFTWARE

FOTRIC AnalyzIR software is developed to meet the needs of R&D users, from the image, temperature and time of the three-dimensional perspective to analyze the test data. One thermal picture will have more details and process of changes than the conventional equipment maintenance class thermal imager to obtain more in-depth research, more reliable data, and more valuable paper.
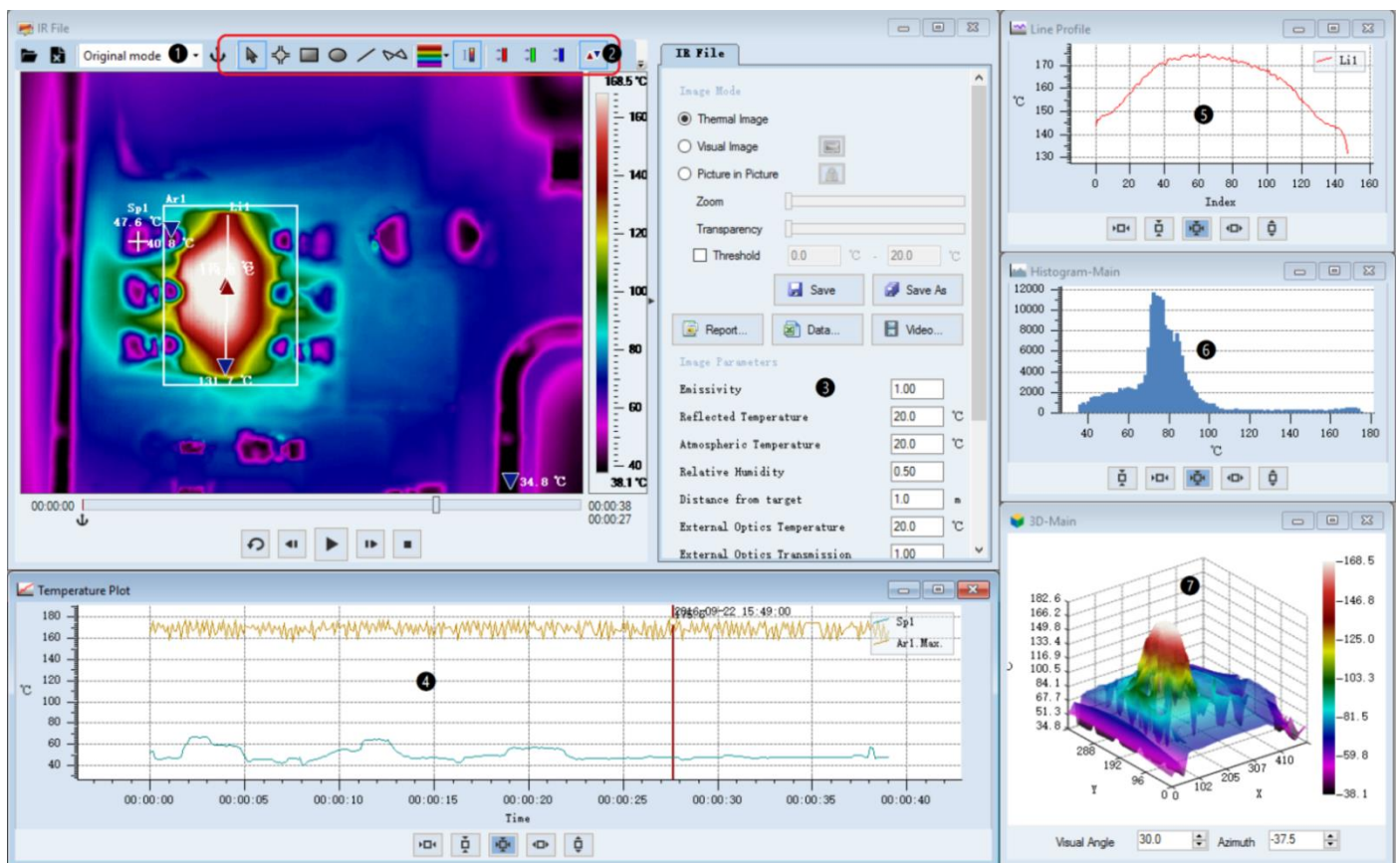
Note：

1.Original / temperature difference mode

2.Spot, line, box, palette, isotherm and other tools

3.Pre- and post-sampling temperature correction; support sub-regional emissivity setting

4.ROI temperature vs. time curve; ROI+ROI temperature vs. time curve; Overlay comparison of different thermal video curve

5.Plot of temperature along the line

6.Histogram

7.3-D thermal image

RAW TEMPERATURE DATA MATRIX

Users can pick up any frame of the thermal image, save as a fully radiometric thermal image, and export to the .CVS file containing the original temperature of all pixels. These raw temperature data will help you optimize the algorithm, or use other software to generate a simulation contour map.

Thermal Image

Simulation Cloud

FULL RANGE OF TEMPERATURE DIFFERENCE FFTD ANALYSIS TO REVEAL TINY DIFFERENCES CLEARLY

Obtain the temperature difference of any two thermal pictures intuitively for faster and more accurate analysis, and generate a more understandable report.

Image 1   Image 2   FRTD Temperture Difference Diagram
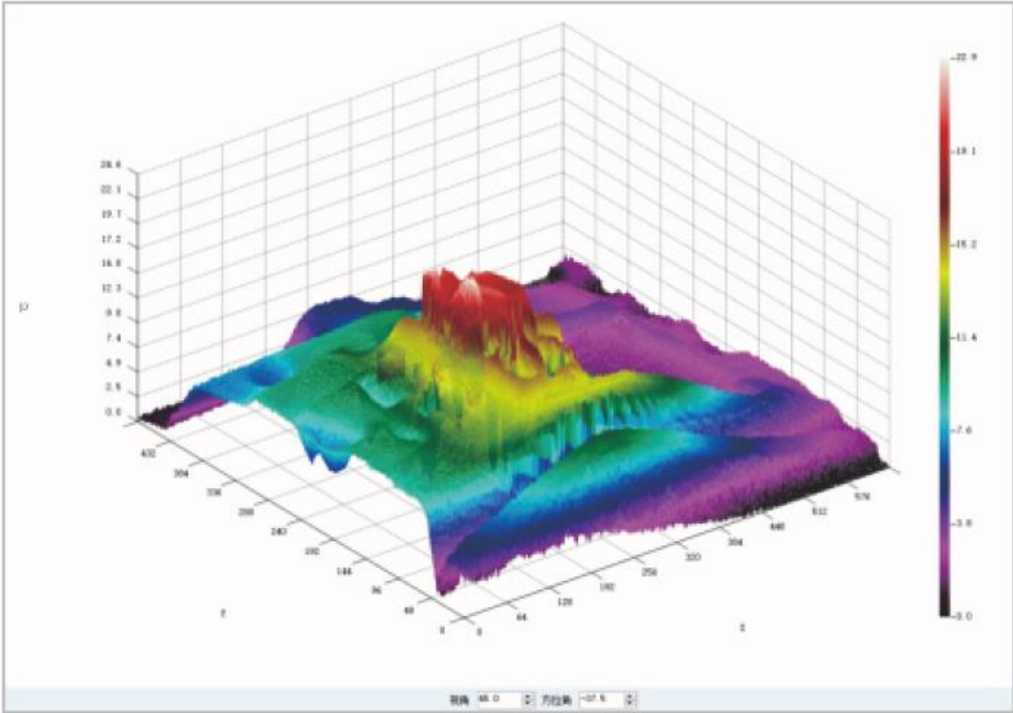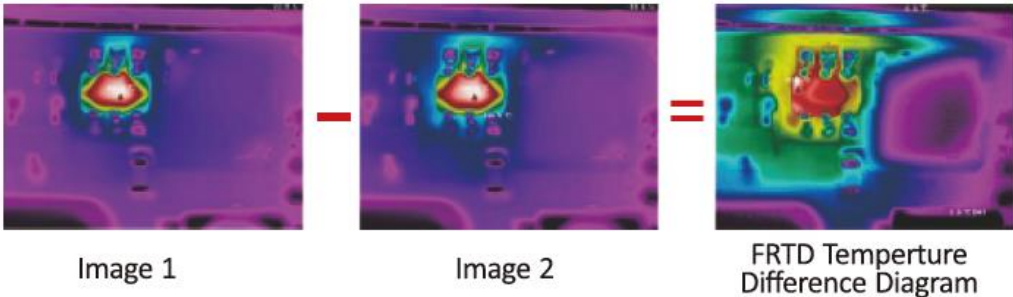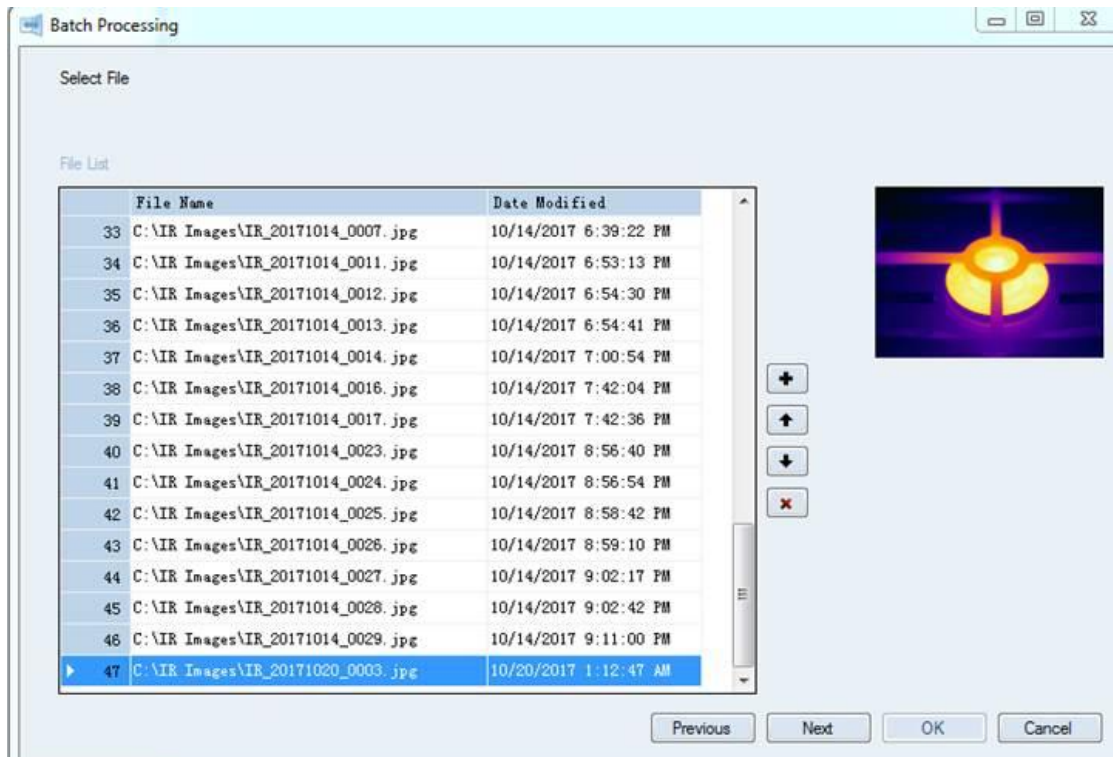

3D Graph

PICTURE-IN-PICTURE AND PICTURE FUSION FUNCTION

Support picture-in-picture (PIP) and picture fusion function; inspect the temperature of a specific area

POWERFUL BATCH PROCESSING FUNCTION

Generate a report with up to 200 images one time.

SPECIFICATIONS

	FOTRIC 225	FOTRIC 226	FOTRIC 227	FOTRIC 228
Infrared Imaging				
IR Resolution	320 × 240 pixels	384 × 288 pixels	512 × 384 pixels	640 × 480 pixels
Field of View (FOV)	24°× 18°	28°× 21°	23°× 17°	28.7°× 21.6°
Temperature Range	-20°C～＋650°C (-4°F～＋1202°F ）			
Minimum Focus Length	0.15m (Standard Lens)		0.1m (Standard Lens)	
Spatial Resolution (IFOV)	1.27mrad		0.78mrad	
Thermal Sensitivity (NETD)	≤0.06°C @30°C		≤0.05°C @30°C	
Measurement Accuracy	±2°C or ±2% whichever is greater @ Environment Temperature 10°C ~35°C			
Focus	Manual			
Spectral Range	8~14μm			
Detector Type	Focal Plane Array (FPA) uncooled microbolometer			
Zoom	8X continuous digital zoom		10X continuous digital zoom	
Image Processing				
Palettes	15 palette options (Gray White, Gray Red, Iron Red, Rainbow, etc.)			
Palette Switching	Tap palette icon			
Noise Calibration	Automatic noise calibration FFC / Manual noise calibration FFC			
Measurement and Analysis				
Correction Settings	Emissivity, reflected background temperature, relative humidity, ambient temperature, measuring distance, transmission			
Emissivity Adjustment	0.1~1.0			
Regional Emissivity Adjustment	Support			
Automatic Capture of High, Low and Average Temperature	Support			
Isotherm	Above / Below			
ROI Measurement Modes	8 moveable spots		12 moveable spots	

	8 moveable area boxes (min/max) 1 line (min/max) Emissivity set for each ROI		12 moveable area boxes (min/max) 3 lines (min/max) Emissivity set for each ROI	
Temperature Alarm	User-defined temperature threshold, audible and visual alarm of above/below temperature			
Image Format	Standard JPEG, including raw temperature data			
Long-Time Online Measurement				
USB	Transfer fully-radiometric thermal video stream with all original temperature data of each pixel to PC, connect with mobile devices supporting OTG (On-The-Go host)			
Continuous Online Monitoring	N/A	Support	N/A	Support
Professional Function				
Display Mode	Thermal image, customer size/transparency/moveable dual vision fusion picture-in-picture			
Image Saving Modes	Single thermal image / Thermal & digital image			
Take fully-radiometric Thermal Video Stream on Smartphone	Support, user-defined frame rate (up to 5 fps) or frame interval, up to 1,000 frames per video stream on smartphone			
Take fully-radiometric Thermal Video Stream on PC	N/A	Support	N/A	Support
Thermal Image Analysis on Smartphone	Support			
Thermal Video Analysis on Smartphone	Support			
Image Tagging / Labeling	Thermal image can be automatically labelled by scanning QR code or barcode			
Image Annotation	Voice / Text Memos			
Power Supply				
Battery Type	Rechargeable Lithium-ion			
Battery Operating Time	10 hours			
Charging System	AC Power Adapter			
Charging Voltage	12V DC Charger			
Environment				
Operating Temperature	-20°C ~+50°C			

Storage Temperature	-20°C ~+50°C
Humidity	＜90%RH
Physical parameters	
Enclosure Rating	IP40
FCC Certification	CFR 47 Part 15.107 CFR 47 Part 15.109
Tripod Mounting	UNC1/4''-20
Weight	~615g
Dimensions (L x H x W)	118×145×93.5mm
Warranty	2 years
Software and App	

Software and App

- FOTRIC AnalyzIR, professional computer analysis software
- FOTRIC LinkIR, Android smartphone App

Standard Configuration

- Thermal imaging camera (built-in battery)
- Standard infrared lens
- Lens protective case
- Power adapter
- USB to micro USB OTG cable (left angle / right angle)
- USB to Micro USB OTG cable
- USB to Micro USB-C OTG cable
- USB to USB cable
- Hand wrist strap
- Getting started manual (with warranty card)
- Calibration certificate

Optional Test Bench

- FOTRIC B3s Universal test bench
- FOTRIC Rc2 Rigid carry case for Fotric 220 series
- FOTRIC Bg1 Pouch shoulder bag

OPTIONAL LENS FOR FOTRIC 225 INFRARED THERMAL CAMERA (ORDER SEPARATELY WITH THE CAMERA)

FOTRIC 225
(with standard lens and up to 2 optional lenses)

L13-225 telephoto lens, FOV 13°x9°
L40-225 wide-angle lens, FOV 40°x30°
L76-225 wide-angle lens, FOV 76°x57°

OPTIONAL FOTRIC B3S UNIVERSAL R&D TEST BENCH

Compatible FOTRIC thermal cameras: FOTRIC 225，FOTRIC 226，FOTRIC 227，FOTRIC 228

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