TECHNICAL DATA

Fluke TiX885, TiX880, TiX875 and TiX870

Thermal Imager

- This Series features 640 × 480 infrared pixels: Clear and sharp thermal image, insight into temperature and changes. 1280 × 960 SuperResolution can also be supported for TiX885 and TiX880.
- Up to 30 Hz frame rate (TiX885 and TiX875) for efficient testing: Smoothly observing the target temperature rise and drop process, no lag as you walk.
- Flexible operation: 180 ° rotatable lens, the lens angle can be adjusted at any time; 5.5-inch OLED touch screen to achieve efficient and convenient operation; lithium battery supports > 3.5 hours of battery life, no pressure in outdoor testing
- Reliable tool for industrial O&M: Identify devices, organize test data and mark GPS location through QR code (TiX885, TiX880, TiX870)
- Excellent assistant for experimental R&D: Record fully-radiometric IR video streaming + data streaming (TiX885, TiX875), which can also be imported into a PC for secondary analysis via the SmartView IR software
- Support up to 1200 °C (TiX885, TiX880) to meet requirement of high-temperature testing for various industries

IR Resolution

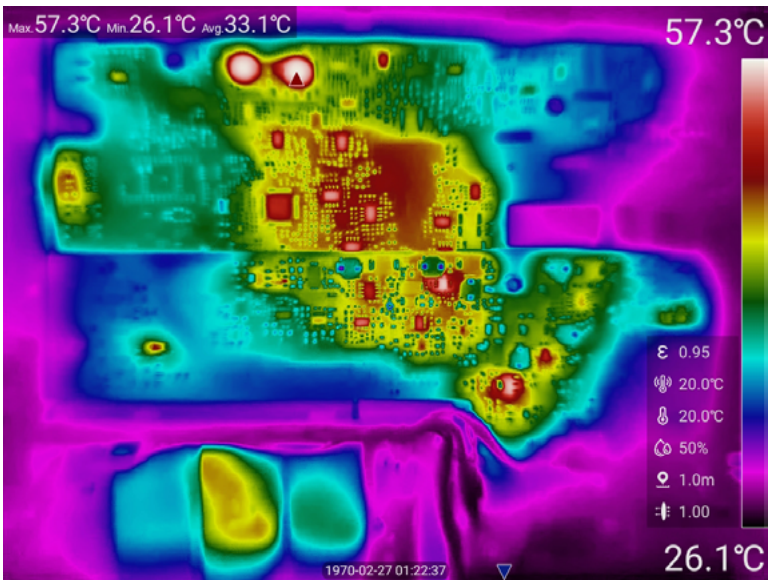
- 640 x 480

SuperResolution

- TiX885 Enhanced to 1280 x 960 pixels
- TiX880 Enhanced to 1280 x 960 pixels

Thermal Sensitivity*

- TiX885 <25 mK @ 30 °C
- TiX880 <25 mK @ 30 °C
- TiX875 <30 mK @ 30 °C
- TiX870 <35 mK @ 30 °C



Specifications

	TiX870	TiX875	TiX880	TiX885
Detector				
IR Resolution	640 × 480			
SuperResolution	–	–	Enhanced to 1280 × 960 pixels	Enhanced to 1280 × 960 pixels
Thermal Sensitivity*	<35 mK @ 30 °C	<30 mK @ 30 °C	<25 mK @ 30 °C	
Field of View (FOV)	25° × 19°			
Spatial Resolution (IFOV)	0.68 mRad			
Digital Zoom	1 to 25x		1 to 35x	
Detector Type	Focal Plane Array (FPA), Uncooled Infrared Detector			
Spectral Response	8 to 14 um			
Lens Aperture	F 1.0			
Lens Recognition	Auto			
Minimum Focus Distance	0.2 m			
Focus System	Auto/Manual			
Frame Rate	9 Hz	30 Hz	9 Hz	30 Hz
Measurement and Analysis				
Temperature Range	–40 °C to 700 °C	–40 °C to 700 °C	–40 °C to 1200 °C	–40 °C to 1200 °C
Temperature Measurement Range	–40 °C to 150 °C 0 °C to 350 °C 0 °C to 700 °C	–40 °C to 150 °C 0 °C to 350 °C 0 °C to 700 °C	–40 °C to 150 °C 0 °C to 350 °C 0 °C to 700 °C 300 °C to 1200 °C	–40 °C to 150 °C 0 °C to 350 °C 0 °C to 700 °C 300 °C to 1200 °C
Temperature Accuracy	±2 °C or ±2% of reading, whichever is greater (normal temperature, 23 °C typical)			
High/Low-Temperature Capture	Yes			
Reference Temperature Compensation	Yes. The full-screen and measurement mark temperature are displayed as the difference between the actual temperature and the fixed temperature			
Automatic Temperature Difference Calculation	Calculation of the difference between measurement marks or between a measurement mark and the fixed reference temperature			
Custom Temperature Measurement Point	10 points	20 points	10 points	20 points
Custom Temperature Measurement Area	10 areas (circle or rectangle)	20 areas (circle or rectangle)	10 areas (circle or rectangle)	20 areas (circle or rectangle)
Line Temperature Measurement	10 lines	20 lines	10 lines	20 lines
Temperature Measurement Methods	The highest and lowest temperature can be set within an area, and the highest/lowest temperature point can be automatically located			
Correction Settings	Emissivity, Reflected Temperature, Humidity, Ambient Temperature, Test Distance, Transmittance			
Full-Screen Emissivity Correction	0.01 to 1.00, built-in common material emissivity table			
Areal Emissivity Correction	Yes			
Analysis in the Imager	Yes			
Analysis Software	SmartView IR			
Supported Languages	Simplified Chinese/English			
Image Display				
Display	OLED touchscreen, 170° visual range			
Display Size	5.5 inches			
Display Contrast	100000:1			
Display Resolution	1920 × 1080 pixels, 1080P UHD display			
Digital Image Enhancement	Yes			
Settings for On-Screen Display (OSD)	Yes. Users can define OSD, such as the maximum, minimum, average temperature, full-screen emissivity and reflected temperature			
Settings for Information Display of Temperature Measurement Mark	Yes. Each temperature measurement mark can be set separately, such as emissivity			
Built-in Digital Camera	5.0 MP			
LED Torch/Flashlight	Yes			
Picture-in-Picture (PIP)	Yes			
Color Palettes	15			
Manual Span Adjustment	Yes			
Auto Span Adjustment	Yes			
Minimum Temperature Span (in manual mode)	2 °C			
Minimum Temperature Span (in auto mode)	4 °C			

* Under best case scenario

Video				
Fully-Radiometric Infrared Video Recording	–	Recorded to the Imager and PC	–	Recorded to the Imager and PC
Fully-Radiometric Infrared Video Recording (Frame Rate Adjustable)	–	1 to 12 Hz	–	1 to 12 Hz
Fully-Radiometric Infrared Video Streaming	–	USB 2.0	–	USB 2.0
Non-radiometric Infrared Video Streaming (HDMI output)	Transmission via HDMI			
Auto Capture	Customized frame rate or interval			
Professional Functions				
Color Alarm (Isotherm)	Yes. High temperature alarm, low temperature alarm			
QR Code Recognition	QR code supported	–	QR code supported	QR code supported
Voice Annotation	Yes. 200 s of voice annotation for every image			
Text Annotation	Yes			
Visible Light Image Association Technology	Yes			
Storage and Transfer				
Image Viewing	Thumbnail view navigation and view selection			
Storage Medium	Built-in 16G flash + 128 high-speed SD card			
SD Card	Included			
IR Image File Format	Standard JPEG, including measurement data, which meets the data format verification requirements of the State Grid for Infrared Imagers			
Video File Format	–	.MP4.IS5	–	.MP4.IS5
Visible Image File Format	Standard JPEG format			
Audio	Yes			
Transfer Interface	USB Type-C, HDMI, SD card, Bluetooth			
Bluetooth Transfer	Yes. The saved files can be transferred to a PC via Bluetooth.			
GPS	Yes	–	Yes	Yes
Remote Display Viewing	Yes. View thermal video streaming on a PC or a display terminal by connecting to the SmartView IR software on a PC via USB, or connecting to a display terminal via HDMI			
Remote Control Operation	Yes. Through the SmartView IR Software			
USB	USB 2.0			
Antenna	Internal			
Bluetooth Transfer				
Frequency	2400 MHz to 2483.5 MHz			
Output Power	< 100 mW			
Laser				
Laser Standard	IEC 60825-1, Class 2; 650nm; < 1mW			
Power and Environment				
Battery Type	Li-ion batteries (3 pcs)			
Battery Life	> 3.5 hrs for continuous use @ ambient temperature of 25 ° C			
Weight	1550 g (with battery)			
Dimensions	148 mm × 204 mm × 86 mm			
Certification Standards	IEC 61326-1: Industrial Electromagnetic Environment; CISPR 11: Group 1, Class A			
Tripod Mounting Base	UNC 1/4"-20 Standard Tripod Mounting Thread			
Warranty	2 years			
Recommended Calibration Period	2 years (assuming normal operation and aging)			

Optional Lens						
	Standard Lens	Tele-photo lens 7° TIX800 4X TELE, TIX800 7C TELE LEN	Tele-photo lens 12° TIX800 2X TELE, TIX800 12C TELE LEN°	Wide lens 46° TIX800 2X WIDE, TIX800 46C WIDE LEN	Macro lens 50um TIX800 MACRO, TIX800 50UM MACRO LEN	Macro lens 25um TIX800 MACRO, TIX800 25UM MACRO LEN
		5516646	5516631	5516654	5516668	5516679
Measurement Range	–40°C to 1200°C/ –40°C to 700°C	–40°C to 700°C	–40°C to 700°C	–40°C to 700°C	–40°C to 150°C	–40°C to 150°C
Lens Material	Germanium	Germanium	Germanium	Germanium	Germanium	Germanium
IFOV (Spatial resolution) mrad	0.68mrad	0.22mrad	0.34mrad	1.36mrad	/	/
Field of View (FOV) ° H x ° V	25° x 19°	8° x 6°	12° x 9°	50° x 39°	50um	25um
Minimum Focus Distance	0.5m	3m	2m	1m	Fixed focus 77.5mm	Fixed focus 9.4mm
Focal Length	25mm	–77.4mm	50mm	13mm	/	/

Accessories

- Fluke TiX800 Thermal Imager (standard lens)
- Rechargeable Li-ion batteries (3 pcs)
- Power adapter
- Battery charger
- Lens Cover
- USB Cable
- HDMI Cable
- High-Speed SD Card
- Card Reader
- Safety Information
- Quick Reference Guide
- Hand Strap
- Neck Strap
- Hard Carrying Case

Optional Lens

- TIX800 4X TELE,TIX800 7C TELE LEN
- TIX800 2X TELE,TIX800 12C TELE LEN
- TIX800 2X WIDE,TIX800 46C WIDE LEN
- TIX800 MACRO,TIX800 50UM MACRO LEN
- TIX800 MACRO,TIX800 25UM MACRO LEN

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