Product Fact Sheet
Keysight U5850 Series True*IR* Thermal Imagers

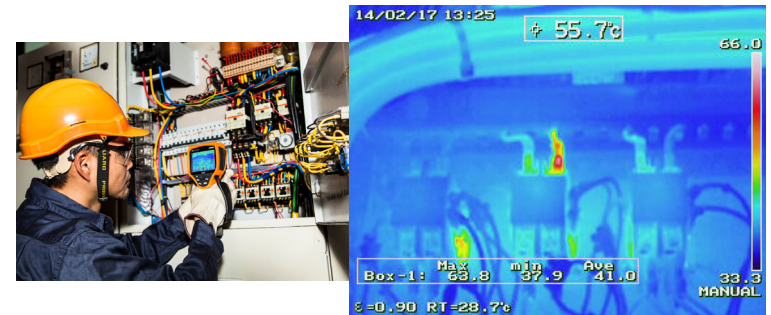## Get four times better resolution with today's hottest imagers

Detect potential problems faster with higher resolution and affordability of our True*IR* series of thermal imagers. Only from Keysight can you get a 320x240 fine resolution thermal imager with image logging and temperature trending capability at a lower price than the typical 320x240 thermal imager.
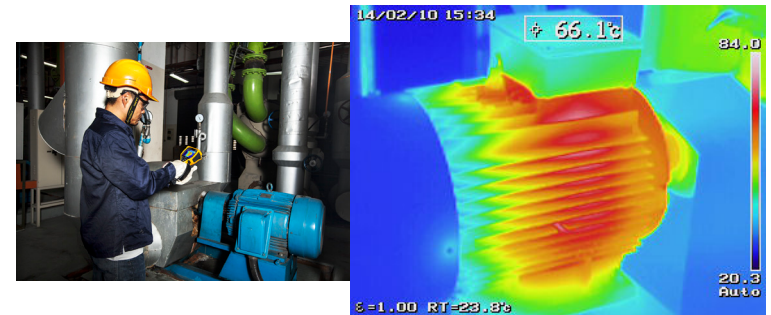
1. Flash light
2. Laser pointer
3. Visible image camera
4. Infrared (IR) image camera lens (with shutter)
5. Focus adjustment ring
6. Camera trigger key
7. DC power inlet
8. Video out port
9. USB mini-B port
10. SD memory card slot
11. Adjustable hand strap (for right-handed or left-handed use)
12. Quick access buttons
13. Large 3.5" color LCD display

Features

– Identify abnormalities faster with four times more in-camera fine resolution
– Stream, record and playback thermal images up to 8 frames per second with True*IR* Analysis and Reporting tool.
– Monitor temperature changes through image logging and temperature trending capabilities
– Ability to focus on objects as close as 10 cm away
– Compact, lightweight, ergonomic
– High temperature range (up to 1200 °C)
– Easy-to-use customizable color palette

Predictive maintenance on electrical systems

Predictive maintenance on electromechanical systems

Basic performance	U5855A	U5856A	U5857A
Temperature measurement range	–20 to 350 °C	–20 to 650 °C	–20 to 1200 °C
Thermal sensitivity	0.07 °C (at 30 °C)		
Accuracy [1]	± 2 °C or ± 2%		
Detector type	Uncooled focal plane array (a–Si)		
Detector resolution	160 x 120 pixels		
Fine resolution (in-camera)	320 x 240 pixels		
Field of view (FOV)	28° (H) × 21° (V)		
Spatial resolution (IFOV)	2.1 mrad (with fine resolution)		
Spectral length	8 µm to 14 µm		
Frame rate	9 Hz		
Focal distance	10 cm to infinity		
Focus mechanism	Manual focus		
Image processing and enhancement	**U5855A**	**U5856A**	**U5857A**
Image enhancement/correction	Emissivity, reflected temperature, object distance, ambient temperature, humidity, transmissivity, averaging		
Digital zoom	4x		
Color palette	Rainbow, Iron, Hot Iron, Iris, Grayscale, inverted Grayscale, Custom	Rainbow, Lava, Iron, Hot Iron, Iris, Olive, Medical, Grayscale, inverted Grayscale, Custom	Rainbow, Lava, Iron, Hot Iron, Iris, Olive, Medical, Grayscale, inverted Grayscale, Custom
Image fusion	Picture-in-picture, blend		
Measurements and alarm	**U5855A**	**U5856A**	**U5857A**
Measurements	Center spot, 3 moveable spots, max/min tracking, delta temperature, 3 moveable boxes (with min/max/avg)		
Color alarm	High/low temperature in all areas Alarm zones: Above/below/inside/ outside		
General specification	**U5855A**	**U5856A**	**U5857A**
Battery	Li-Ion rechargeable battery, 7.4 VDC, 2500 mAh		
Display	3.5" TFT		
Visible camera	3.1 MP		
Built- in LED flash light/Laser pointer	Available/Class 2		
Drop test	2 m		
IP rating	IP 54		
Dimensions (W x H x D)	95 x 250 x 85 mm		
Weight	0.746 kg (with battery)		
Calibration cycle	1 year		
Language	English, French, German, Italian, Japanese, Korean, Portuguese, Russian, Spanish, Simplified Chinese, Traditional Chinese		

1. After a 1-hour warm up with calibration at 25 °C.

Recommended accessories

Part number	Description
U5751A	Power adapter (with power cord)
U5752A	Rechargable Li-Ion battery
U5753A	External battery charger (2-bay)
U5761A	Video RCA to RCA interface cable, 2 m
U5762A	USB standard-A to mini type-B interface cable, 1 m
U5771A	Rugged carrying case, hard
U5772A	Hand strap, adjustable for right-handed and left-handed use

Recommended software

True*IR* Analysis and Reporting Tool

Downloadable from www.keysight.com/find/TrueIR_ART

ECN 2015 WINNER
IIMPACT
Awards
Cooling and Thermal Management

Standard shipped accessories

– Power adapter with power cord
– Rechargeable Li-Ion battery
– SD memory card
– Video RCA to RCA interface cable, 2 m
– USB standard-A to mini type-B interface cable, 1 m
– Hand strap
– Rugged carrying case, hard
– Quick start guide
– Certification of calibration

For more information go to www.keysight.com/find/trueIRimager

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