



UTi730E

Professional Thermal Imager

CONTENTS



Design



Features



Parameters



Applications



Package



Design



- **Appearance:** Handheld design
- **Display:** 3.5inch IPS (640*480)
- **IR resolution:** 320*240 pixels
- **Digital camera resolution:** 2MP
- **Button:** 10 (Power, Image view, Flashlight, Return, 4 direction keys(up/down/left/right)), SET, Trigger
- **Battery:** Detachable
- **USB:** Type-C
- Dual LED Flashlight
- 1/4 tripod mount hole



- Detachable battery with Snap-on design
- One click to check battery capacity
- Chargeable via built-in Type-C port



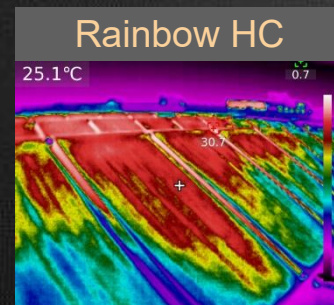
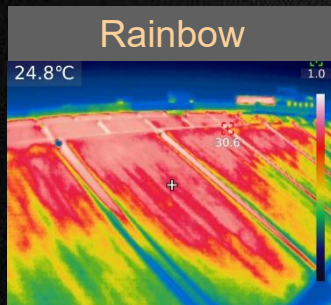
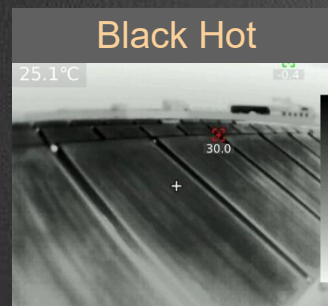
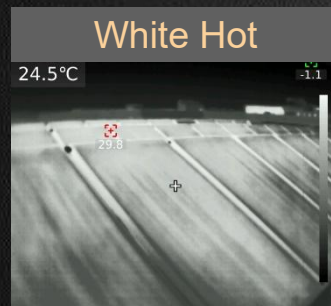
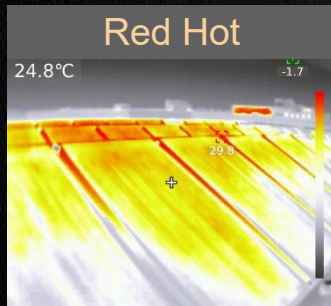
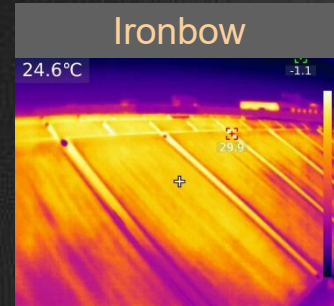
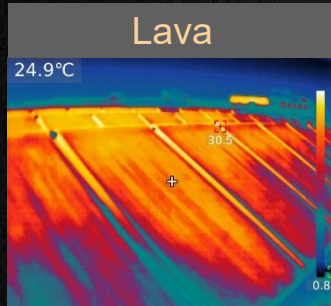
Features

Display Screen



- **3.5" IPS** Large Screen
- **640*480** resolution
- Clearly displays measurement results

Multiple Palettes



- 7 styles of palettes are selectable
- Suitable with more scenarios
- More intuitive & effective

Temperature Range & Accuracy



Tin Furnace



Freezer



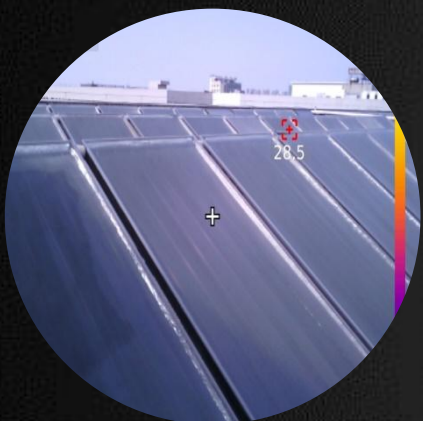
Solar Panel



Air Conditioner

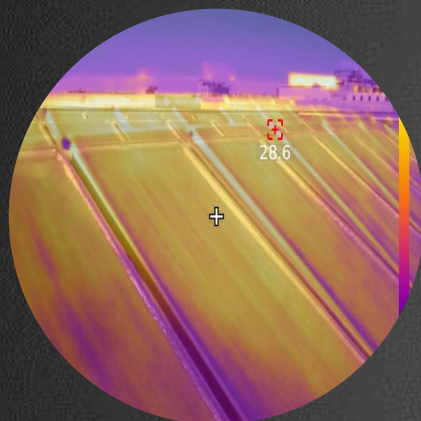
- Wide Temp. Range: -40°C ~ 400°C
- Accuracy: $\pm 2^{\circ}\text{C}$ or $\pm 2\%$
- Wide of applications

Image Modes



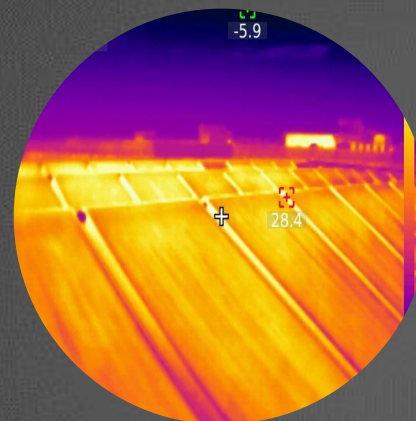
Visible

2x, 4x digital zoom



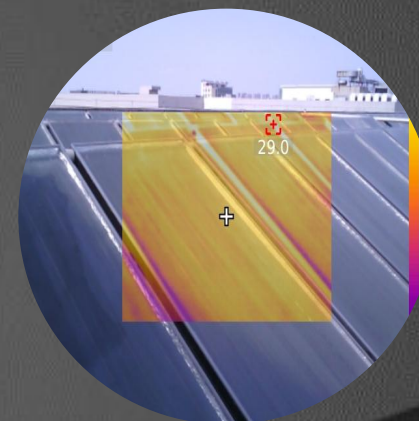
Fusion

Adjustable fusion
ratio (0%~100%)



Thermal

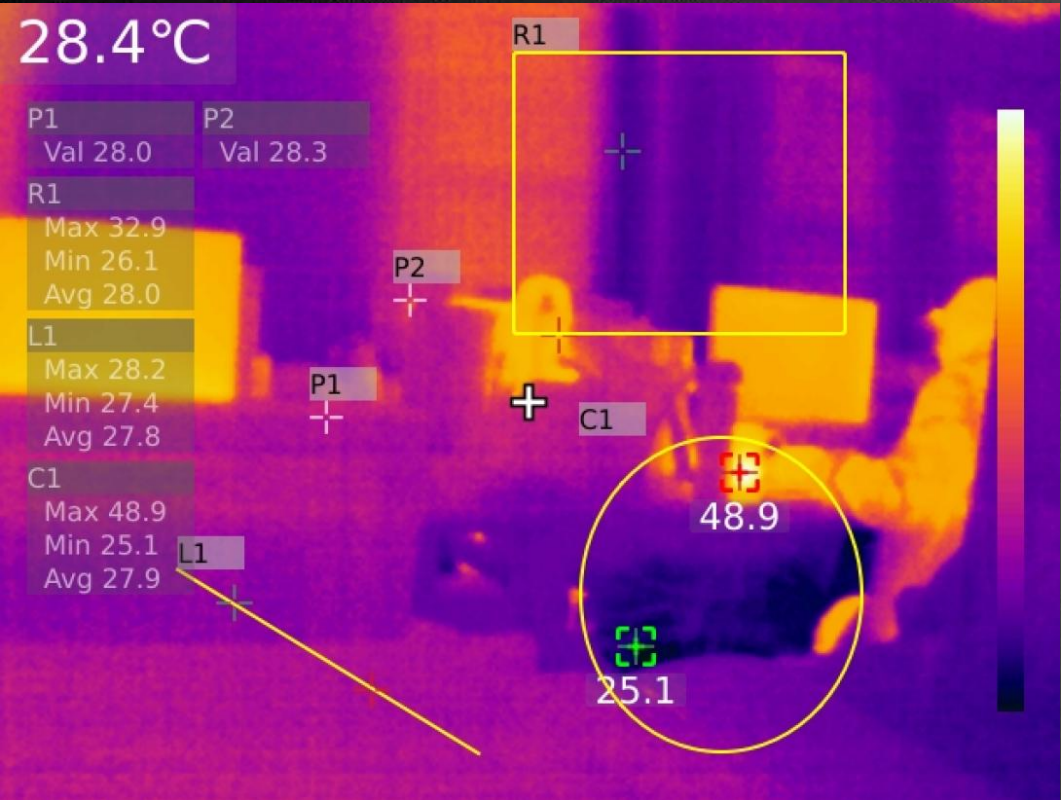
7 selectable palettes



PIP

Adjustable thermal
area (stretch & move)

On screen temperature analyze tools



Methods include: **Point**, **line**, **rectangle**, and **circle**. Real-time displays measurement data.

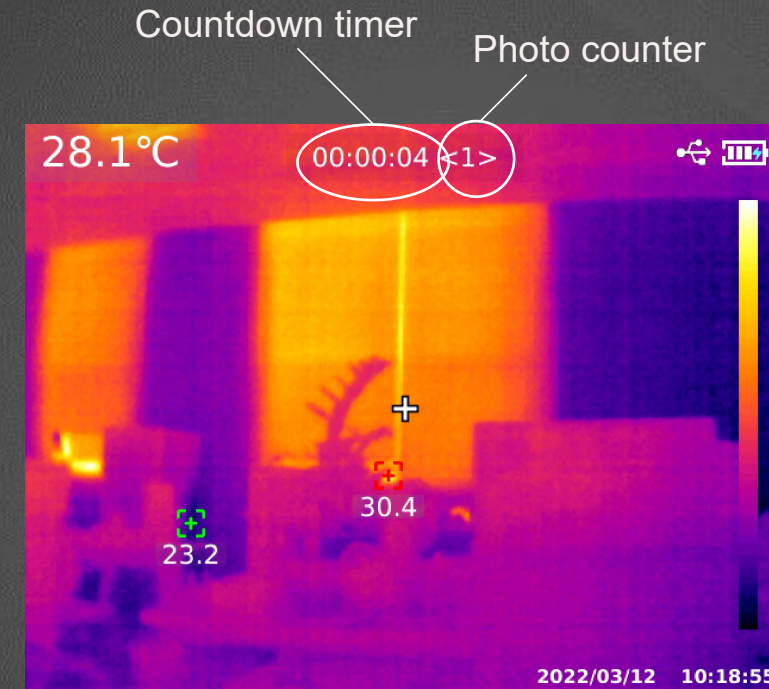
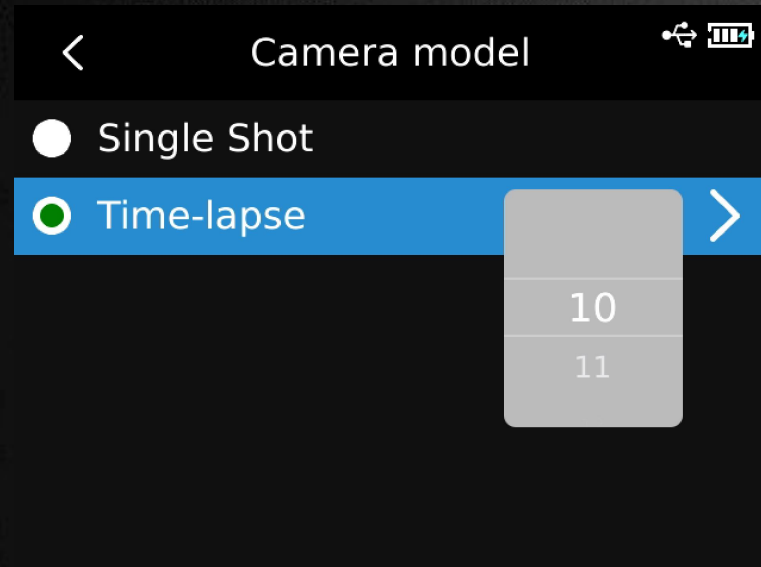
Limitations	
Methods	Maximum quantity
Point	5
Line	1
Rectangle	3
Circle	3
Maximum methods can be added is up to 6	

Flexible Isotherm



Isotherm is an effective way of alerting temperature. Users can quickly observe temperature of interest through setting the isotherm range. 6 isotherm modes are featured in UTi730E (Auto/Ratio/Below/Above/Section/Manual)

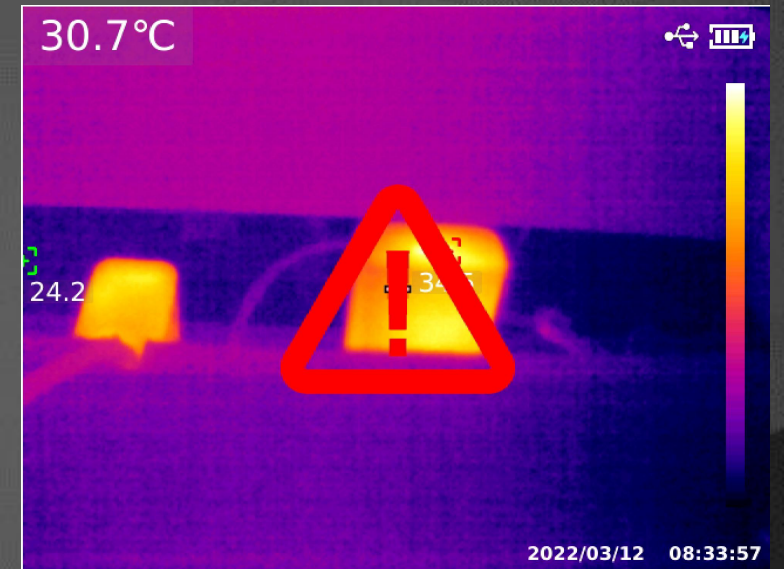
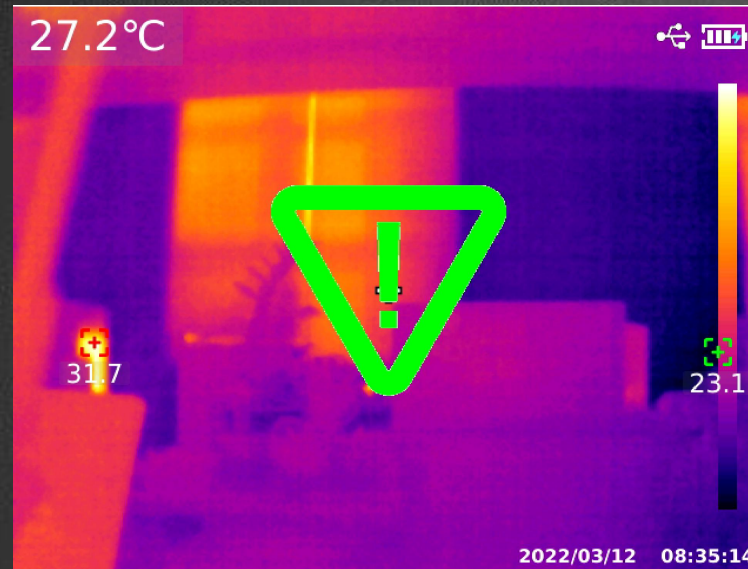
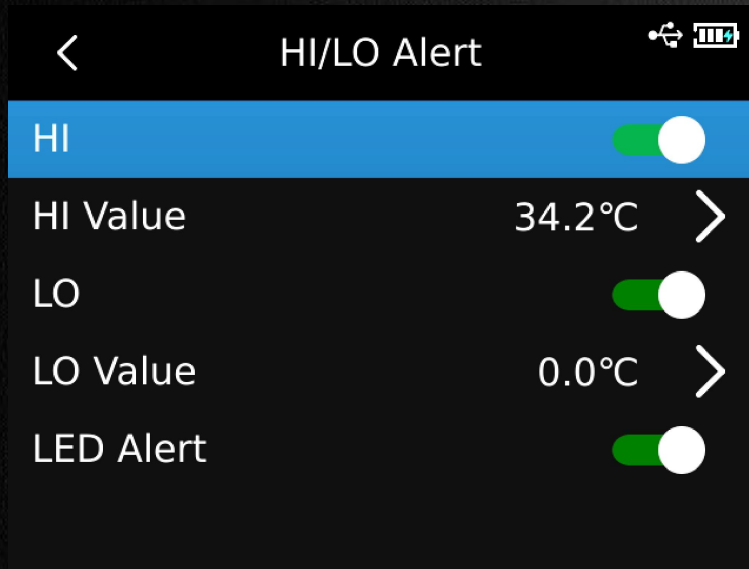
Time-lapse



Time-lapse allows users to take photos continuously with a user defined time period

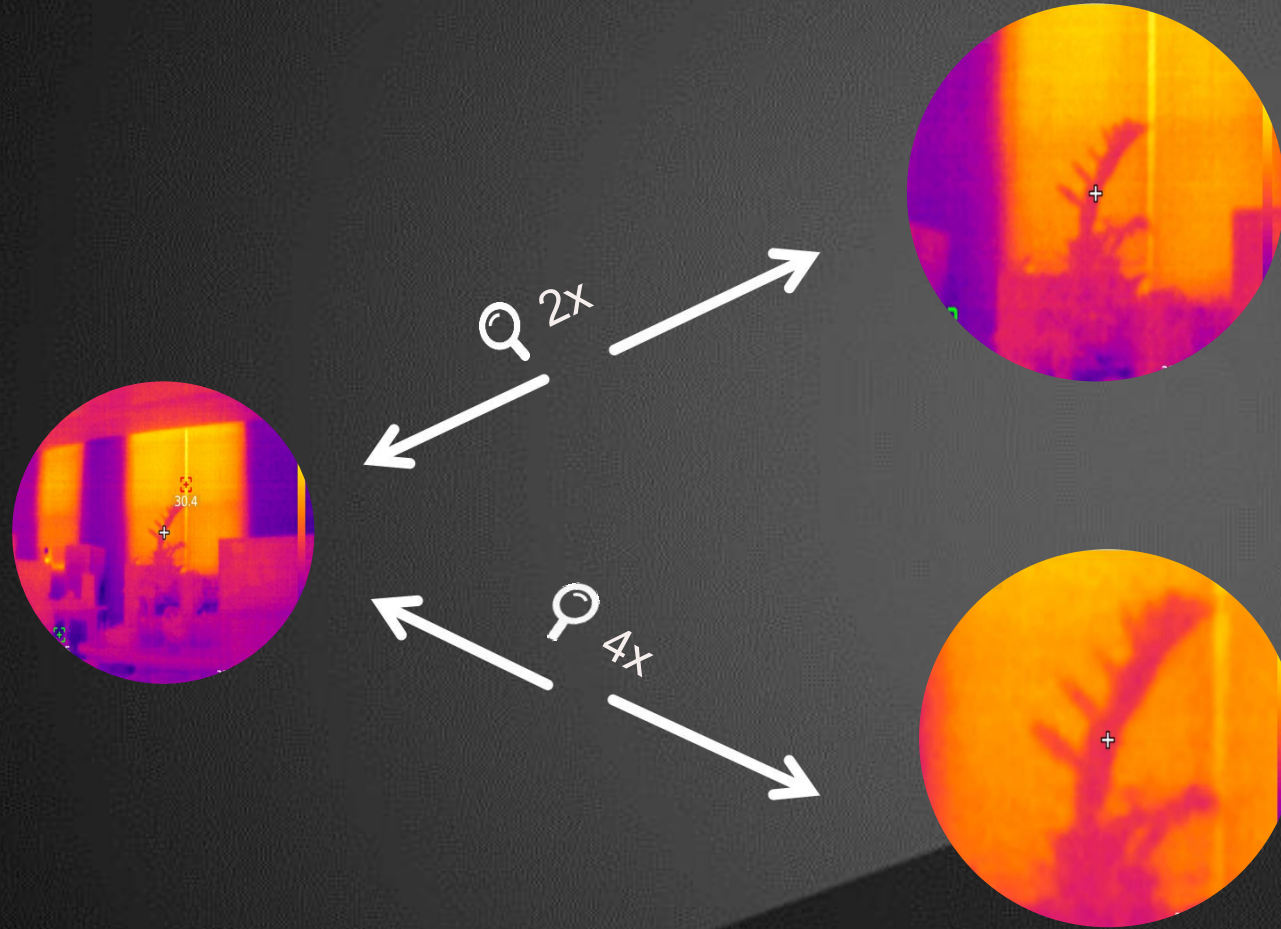
Time period (Time-lapse) is adjustable from 10s to 1000s.

Alert System



Alert system can ensure the safety during measurement process. Alert icons and LED flashlight are used as reminder when measured temperature exceeds the preset alert values.

Digital Zoom



Certificates





Parameters

Technical Specifications

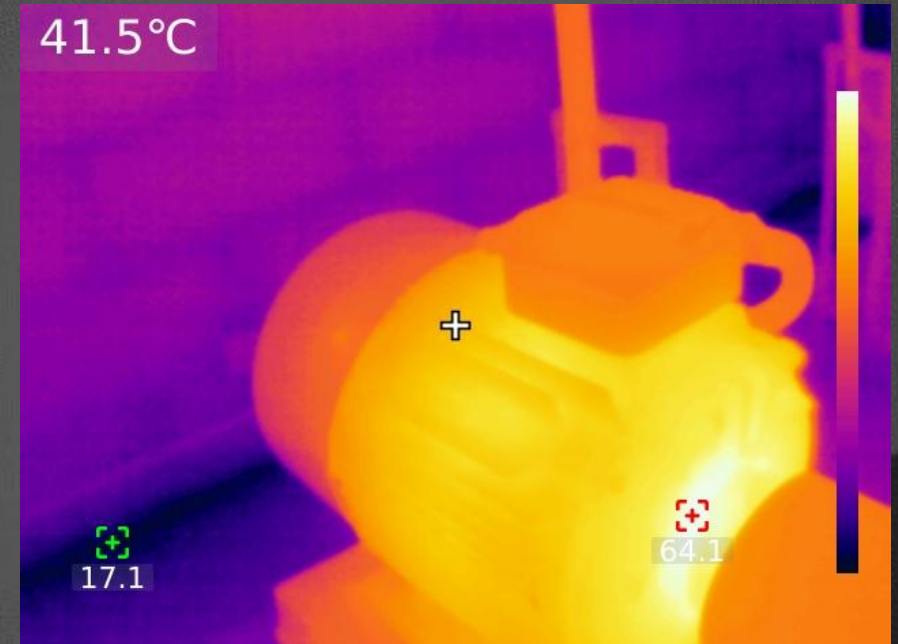
Specifications	
Detector type	UFPA (VOx)
IR resolution	320x240 pixels
Digital camera resolution	2MP
Temperature range	-40°C~400°C (-40°F ~752°F)
Accuracy	-10°C~400°C, $\pm 2^{\circ}\text{C}$ or $\pm 2\%$ whichever is greater (at 25°C ambient temperature)
Spectral range	8~14 μm
Frame rate	9Hz
Pixel size	12 μm
Lens focal length	4.0mm
Field of view (FOV)	56° (H) x 42° (V)
Spatial resolution (IFOV)	3mrad
Thermal sensitivity (NETD)	<65mK @25°C
Focus	Focus free
Display	3.5", 640x480 pixel IPS screen
Digital zoom	2x, 4x
Emissivity	0.01~1.00 adjustable (0.95 default)
Measurement tools	Point 5、Line 1、Rectangle 3、Circle 3
Image modes	Thermal, Visual image, Fusion, PIP

Specifications	
Palettes	Ironbow,, Rainbow, White hot, Red hot, Black hot, Lava, Rain.HC
Isotherm	Auto, Ratio, Below, Above, Section, Manual
Auto tracking for Lo/Hi temperature	√
ROI (Eliminates Interference)	√
Alarm	√ (Icon, Flashlight)
Auto Power Off	5/10/20/30/45(default)/60/90mins/off
PC Software	Analysis, Projection, Real-time display, Report generation
LED Flashlight	√
Wi-Fi	√
Languages	English, French, German, Spanish, Russian
Protection	IP54、2m drop proof
Certificates	CE, FCC, UKCA, RoHS
Battery type	Detachable
Battery operating time	Continuous operating time ≥4h (Fully charged)
Operating temperature/humidity	0°C~50°C (32°F ~122°F) 10%~95% RH (non-condensing)
Storage temperature	-10°C~60°C (14°F ~140°F)
Product net size	260mm x 97mm x 99mm
Accessories	Micro SD card, Type-C USB cable, English manual, Li-ion battery pack



Applications

Motor Inspection



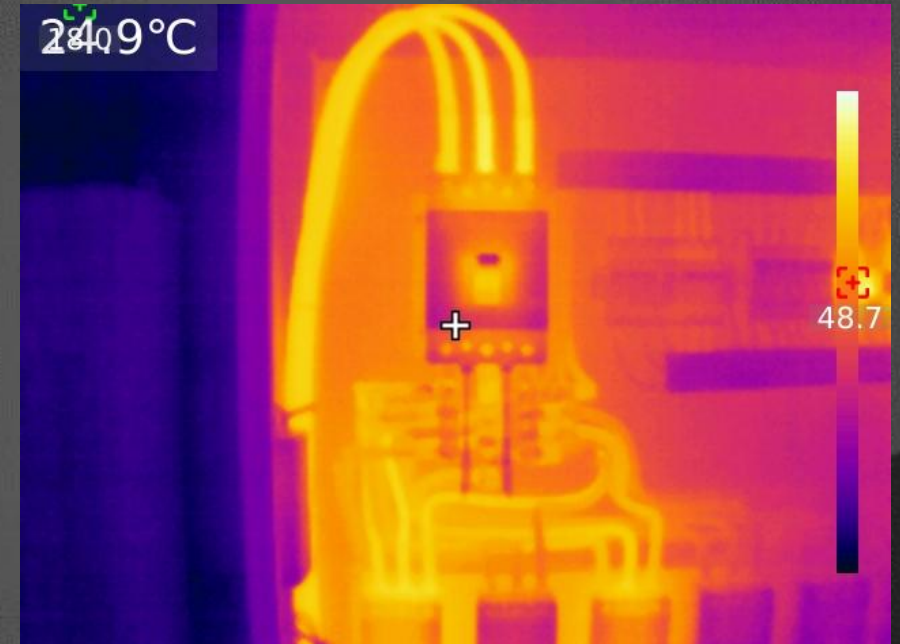
Faults such as wiring error, overload, unbalanced-load, component failure of motor equipment in production can be detected by thermal imager. Detecting faults in timely fashion helps to ensure safety of productions.

Pipeline Inspection



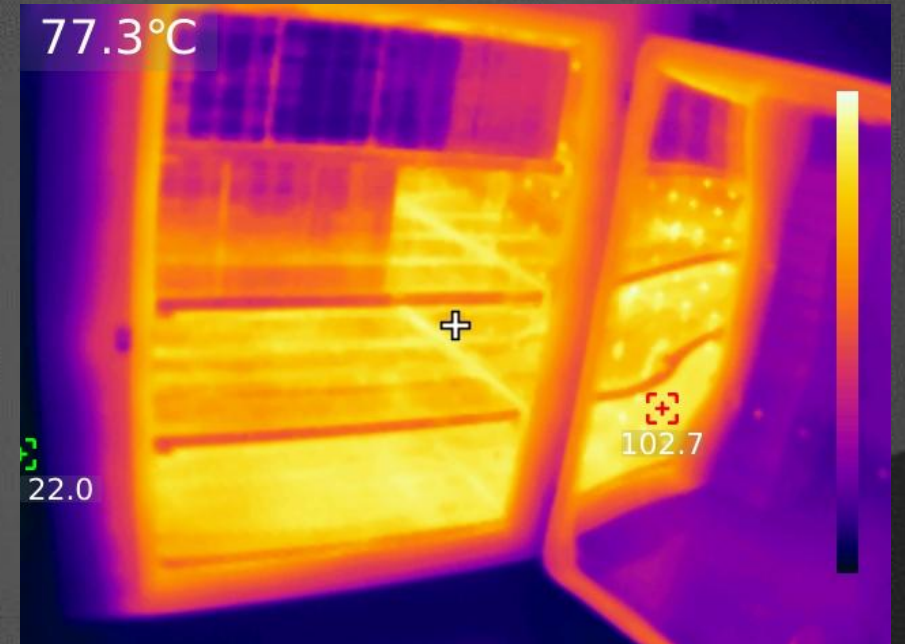
Aging, corrosion, blockage, leakage, and other faults can appear during pipeline inspection. With the help of thermal cameras, faults can be quickly located.

Power Distribution Cabinet Inspection



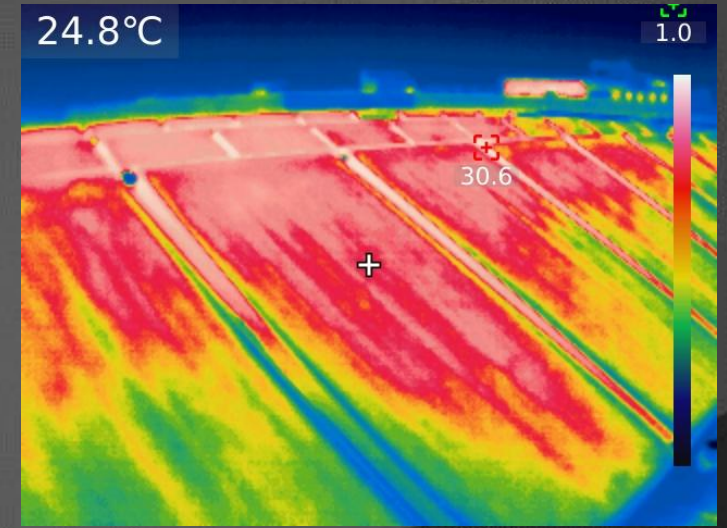
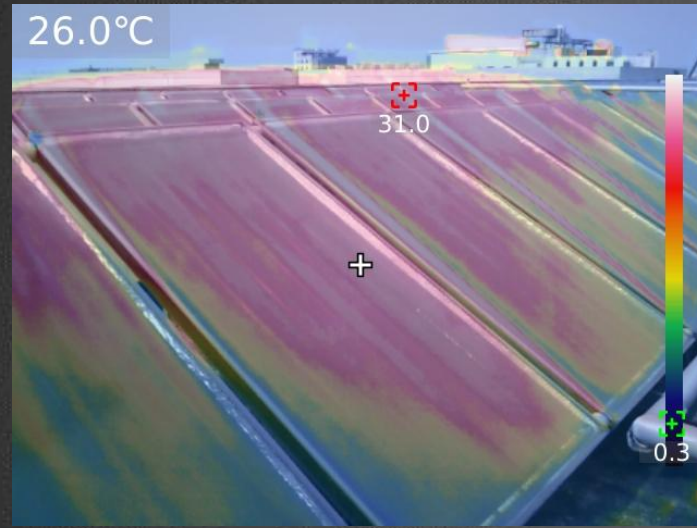
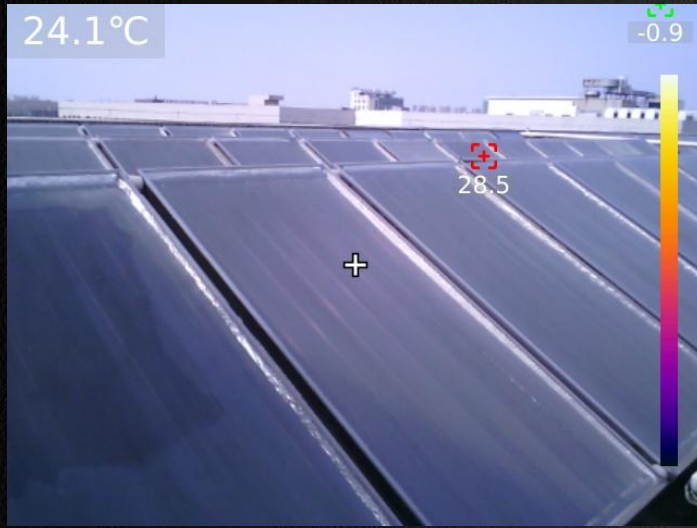
Measuring distribution cabinet in advance to determine possible fault locations and to reduce maintenance costs. Abnormal thermal phenomenon caused by oxidation, corrosion and loosening of switches, contacts, transformers, and other parts can quickly be found using thermal imager.

Smelter Sealing Inspection



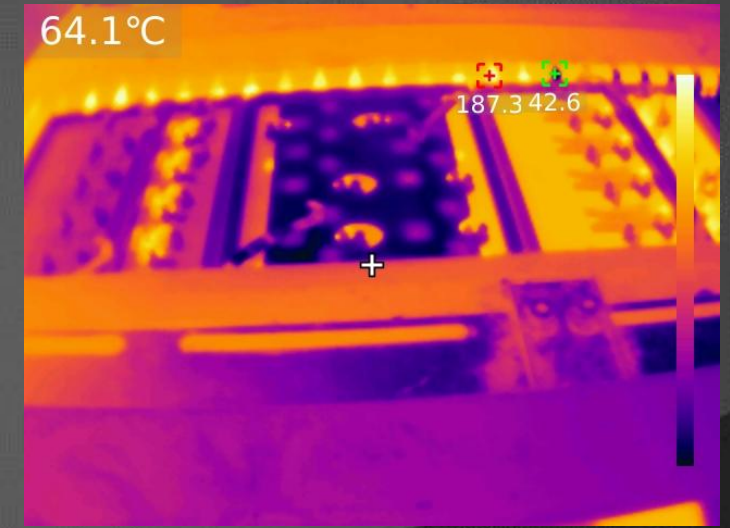
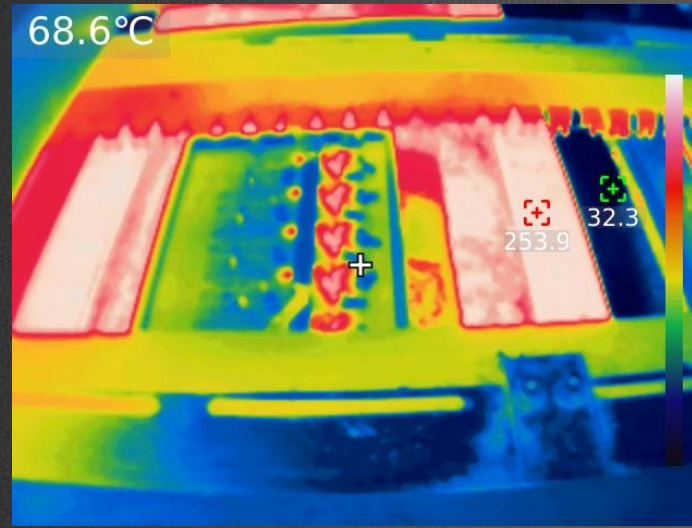
During production and manufacturing process, components need to be heated via smelter. Due to large temperature difference between inside and outside of the smelter, pressure difference can be formed easily, which may damage the smelter sealing, causing uneven heat distribution, affecting product quality. Thermal cameras can accurately display heat distributions and locate fault areas.

Solar Panel Inspection



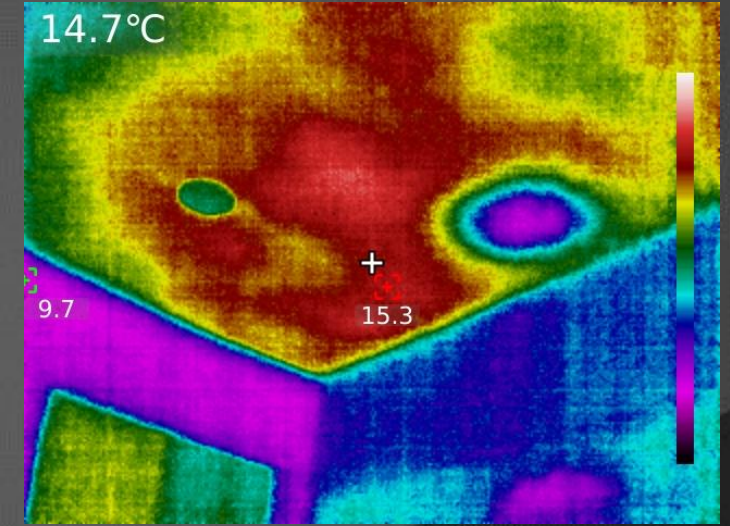
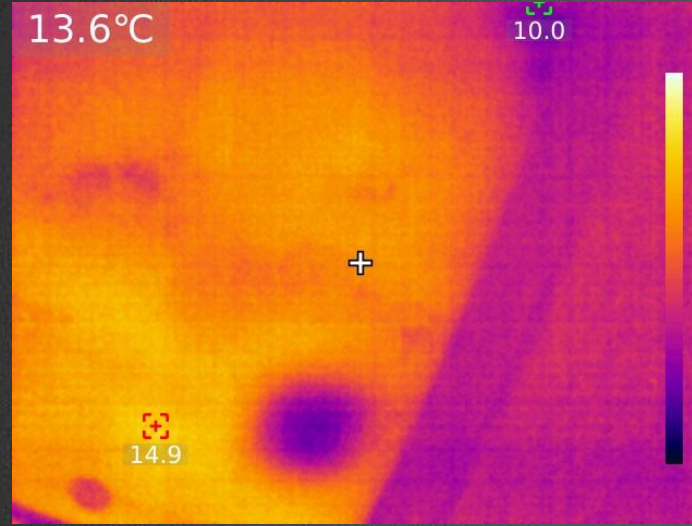
Thermal cameras can convert the surface temperature of measured objects into thermal imaging, which clearly shows temperature distribution of each module.

Furnace Temperature Inspection



Thermal cameras are widely used in SMT automation equipment such as tin furnace. Tin furnace temperature is important to the welding process. Excessive/insufficient temperature might cause component distortion or poor welding. To ensure each process is successful, operating temperature must be controlled in specific ranges. Real-time monitoring of temperature with thermal camera can easily find abnormalities in time and decrease defection rate.

Building Leakage Inspection



Detecting leakage is a common part of building inspection. Walls with leakage issue will show a temperature variation which is difficult to see through human eyes; but can be easily detected with thermal cameras. A thermal camera is a necessary tool for corrosion detection.



Package

Product net size	Product net weight	Standard individual packing	Indicative price
260mmx97mmx99mm	630g	Tool box	FOB \$ 420

Standard accessories

- Li-ion battery pack
- Micro SD card
- Type-C to USB cable
- User Manual