**2018**

# SATIR

**LEADING THE WAY IN THERMAL IMAGING**

## PRODUCT CATALOGUE

www.satir.com
www.sat.com.cn

*5.5-inch HD LCD touch panel*

# PK-80
# PK-160

## The Real Tablet Thermal Camera

### Ideal Portable Thermal Solution in the Age of the Internet

**Tablet? Thermal Camera? Both!**
PK series integrates tablet and thermal camera technologies, which makes the device a multifunctional, multi–application device.

**Always Online**
PK series can access the internet via either a WIFI connection or 3G Network. Users can share thermal information anytime, anywhere.

| | | | | | |
|---|---|---|---|---|---|
| Ergonomic Design | Shock Resistance | Infrared Video Store | Anti–electromagnetic interference | Anti–drop | Thermal Video Player |
| Internet Connection | USB | Bluetooth | 5.5" Touch Screen LCD | WiFi | Power Save |

CCD

IR Camera

LED

Battery Compartment

Volume Control of Tablet

Power Switch of Thermal Imager

## Perfectly integrated tablet and thermal camera technologies

Integrating infrared imaging technology with telecommunications technology. provides the user with a tablet that allows communication in real time, and allows live image video transmission.

### Android Platform: Open Source and Expandable

Based on the Android operating platform, the system is intelligent, scalable and easy to use.

**ANDROID**

### Multifunction USB connector

The USB port allows the user to re–charge camera and transfer data in one convenient connector.

### 5.5 Inch Capacitive Touch Screen

PK series has a 5.5 inch touch screen display, which provides a rapid response interface and an excellent user experience. The infrared image is displayed in higher definition and allows the user to see objects in finer detail.

## 8MP HD CCD

HD CCD provides vivid images with every detail.
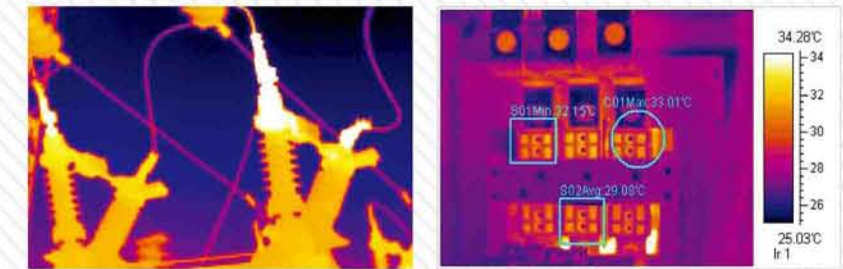
## Additional BUILT-IN Features

With Bluetooth, WiFi, compass, and other functions in one device, information can be transmitted anytime, anywhere with this professional infrared camera. These features make the PK series a multifunction, multi-application tool.

## LEADING THE WAY IN THERMAL IMAGING
## With our new camera for the
## tablet/internet generation

### Powerful analysis functions

PK series provides powerful measurement features which include 5 moveable spots, auto high/low temperature tracking, temperature alarms, isotherm, circle and area boxes.

Thermal Testing

File Report

| Type | PK-160 | PK-80 |
|---|---|---|
| Image performance | | |
| FOV | 24° x 32° | 21° x 21° |
| Spatial resolution | 3.05 mrad | 4.6 mrad |
| Thermal sensitivity | ≤0.08℃@30℃ | ≤0.1℃@30℃ |
| Detector resolution | 160x120 | 80x80 |
| Focus | Fixed focus | |
| Image presentation | | |
| Image mode | IR/CCD | |
| Visible pixels | High Definition CCD, 8 million pixels | |
| LCD Display | 5.5" HD Capacitive touch screen | |
| File format(IR/CCD) | .JPG | |
| Temperature measurement | | |
| Measurement mode | 5 movable spots, auto hot/cold spot capture, isothermal analysis, 2 circle analysis, 2 rectangular analysis | 3 movable spots, auto hot/cold spot capture, isothermal analysis, 1 circle analysis, 1 rectangular analysis |
| Measurement accuracy | ±2℃ or ±2% of readings | |
| Protective Performance | | |
| Encapsulation | IP54 | |
| Shock/Vibration resistance | 25G/2G | |
| Drop Resistant | Yes | |
| Operating temperature | 0℃~+50℃ | |
| Wireless transmission and positioning | | |
| WiFi | Yes | |
| Bluetooth | Yes | |
| Additional features | | |
| Built-in memory | Yes | |
| Video record | Yes | |
| Ports | USB port，3.5mm earphone port | |

# E8

## Entry Level

E8 Series– affordable,
compact and versatile

### Lightweight, Compact structure

E8 series adopts our innovative upright design, weighing less than 500grams (including the battery), it is designed to fit into the palm of your hand.

### Intelligent design, easy to operate

All of the control buttons are easy to reach, combined with the new improved menu, the user can control the camera with the touch of a button.

### Powerful analysis functions

Up to 10 spot temperature points, automatic max/min spot capture, line analysis, regional analysis and isotherm.

| | | | | | |
|---|---|---|---|---|---|
| Real-time transfer | Multi-lenses optional | USB | Friendly Operation Interface | 3-inch full color LCD can be flipped | Duo-vision |
| Ergonomic Design | 3 hours Continuous Operation | Bluetooth | Multi-sockets | Cost-effective and advanced technology | STD/PRO Software Optional |

Ergonomic design, light weight, compact, convenient one-handed operation, large number of functions, great expandability, similar quality camera for cheaper now, the E8 series is probably the most desirable compact thermal imaging camera in the world. The weight of the camera including the battery is less than 500g and with its unique design fits smoothly into the palm of your hand.

## Analysis function

Up to 10 spot temperature points, automatic max/min spot capture, line analysis, regional analysis and isotherm.
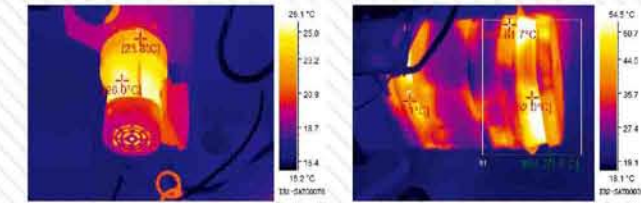
## Multi-functional docking station

The multi-functional docking station with integrated battery charging, video output, tripod mounting and USB connection enables the E8 to connect with a PC for real-time radiometric data recording and analysis.

«PC ◄—— « USB ◄—— « E8

## Bluetooth

Users can add voice annotation to the thermal images via a Bluetooth headset. The recording can be saved with the thermal image and can be played back in the headset or using the SatIrReport software.

**Bluetooth**

## Duo-vision

The E8 series can take high quality "Duo Vision" images which aids interpretation through thermal and visual blending. The user can move the infrared image overlay and alter the transparency to suit their application.

**270°**

**270° flip**

## E8 Series– affordable, compact and versatile
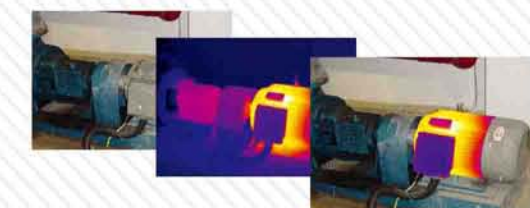
### L–ion battery for continuous use

Large capacity L–ion battery combined with innovatively designed energy conversion modes enables the E8 series to continuously work for over three hours.
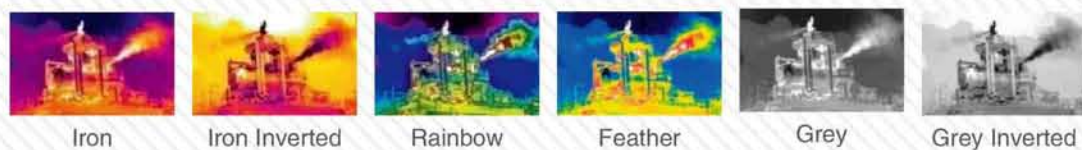
### Ten languages

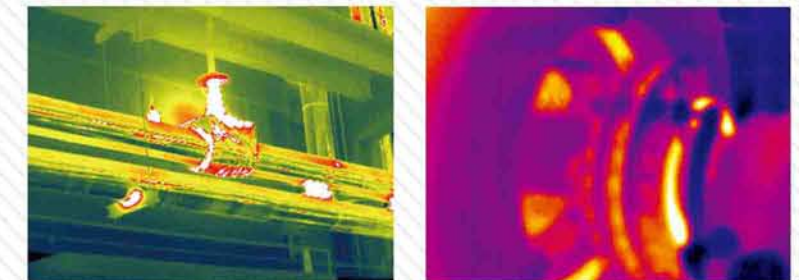English/French/German/ Italian/Spanish/Portuguese/ Chinese/Japanese/Russian/ Korean

### Six colour palettes

Iron/Iron Inverted/Rainbow/Feather/Grey/Grey Inverted

Iron    Iron Inverted    Rainbow    Feather    Grey    Grey Inverted

Real–time transfer

Bluetooth

3 hours Continuous Operation

Friendly Operation Interface

USB

Multi–lenses optional

Multi–sockets

STD/PRO Software Optional

| Type | | E8 |
|---|---|---|
| Image performance | | |
| FOV/Min. focus distance | | 20° x15° /0.1m |
| Spatial resolution | | 2.2 mrad |
| Thermal sensitivity | | ≤0.08℃ @30℃ |
| Detector type | | UFPA ( Uncooled focal plane array ) |
| Detector resolution | | 160 x120 |
| Spectral range | | 8–14um |
| Focus | | Manual |
| Image presentation | | |
| Image mode | IR | Yes |
| | CCD | Optional |
| | Duo–vision | Optional |
| Video output frequency | | NTSC (60Hz) or PAL (50Hz) full dynamic output |
| LCD Display | | 3" TFT screen |
| Temperature measurement | | |
| Measure range | | −20℃~+250℃ (up to 1500℃,optional) |
| Accuracy | | ±2℃ or ±2% of readings |
| Image storage | | |
| Type | | Removable SD card(up to16GB) |
| Physical characteristic | | |
| Weight | | less than 500g |
| Additional features | | |
| illuminator | | Optional |
| Laser pointer | | Yes |
| USB2.1 real–time transfer | | Optional |
| Bluetooth | | Optional |

# HotFind-VR
# HotFind-LR

## Middle Level

High performance IR camera for middle level applications
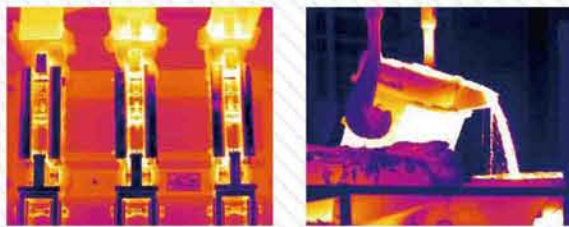
Sun Shield

Multi-lenses optional

USB

Bluetooth

Anti-electromagnetic interference

Abnormal Temperature Alarm

Easy to operate

3 hours Continuous Operation

Ergonomic Design

Multi-point temperature measurement Automatic capture

### Large screen design, perfect presentation

Hotfind-VR, HotFind-LR uses a 3.5 inch LCD screen, the user can adjust the angle of the LCD for the best viewing angle. The Tilting design also provides protection for the LCD while the camera is not in use.

### Extendable temperature range

Objects of different temperatures require the corresponding temperature ranged infrared cameras. The HotFind-VR, HotFind-LR has four temperature ranges. It can be extended from the standard −20 to 250℃, upto +1500℃, which means the HotFind series can also be widely used in high temperature applications.

1500°

250°

250°

0°

−20°
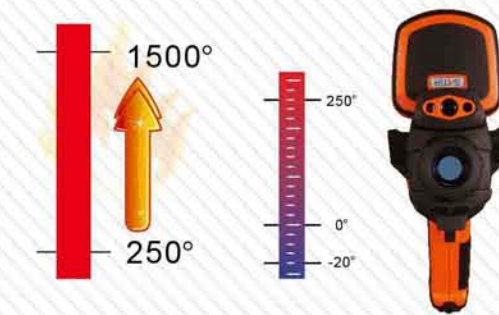
### Duo-vision technology

The HotFind-VR, HotFind-LR can take high quality "Duo-vision" images which aids better interpretation through thermal and visual blending. The user can move the infrared image overlay and alter the transparency to suit their application.

### Various optional lenses

Flexible design of the camera means the HotFind-VR, HotFind-LR can be fitted with various optional lenses for different field of view. All lenses are field replaceable and allow for long distance, wide angle or close views.

Industrial Thermal Imager Series © Middle Level

## Battery life

The HotFind-VR & Hotfind-LR uses lithium batteries with large capacity, and with its power saving design, it can work for more than 5 hours continuously.

## Bluetooth

Users can add voice annotation to the thermal images via a Bluetooth headset. The recording can be saved with the thermal image and can be played back in the headset or using the SatIrReport software.

## Measurement Features

The HotFind-VR & Hotfind-LR have integrated Spots (up to 9), Line profile, Area Boxes (up to 5), multiple Isotherm and auto-tracking analysis, which provide accurate non-contact temperature measurement.
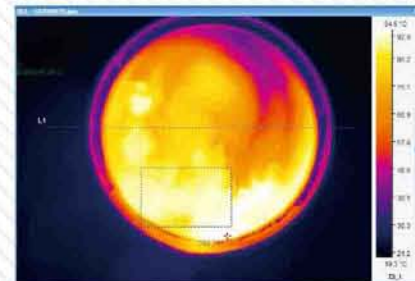
## High frame rate in real time

HotFind-VR, HotFind-LR adopts NTSC (60Hz) or PAL (50Hz) composite video output. The thermal images are displayed in real time which guarantees complete and vivid thermal imaging with no ghosting.

# High performance IR camera for entry level applications

## Laser Pointer

The laser pointer can target areas of concern quickly and efficiently after the temperature anomaly was found, troubleshooting in time.
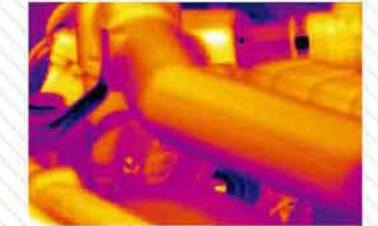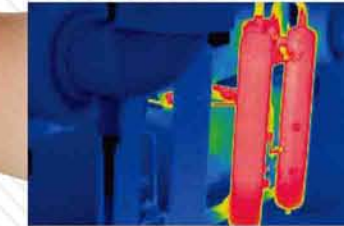
USB

Bluetooth

IP54

Shock Resistance

Sun Shield

Multi-lenses optional

3 hours Continuous Operation

Abnormal Temperature Alarm

| Type | | HotFind-VR | HotFind-LR |
|---|---|---|---|
| Image performance | | | |
| FOV/Min. focus distance | | 20° x15°/0.1m | 24° x18°/0.1m |
| Spatial resolution | | 2.2 mrad | 1.3 mrad |
| Thermal sensitivity | | ≤0.08°C@30°C | ≤0.05°C@30°C |
| Detector type | | UFPA ( Uncooled focal plane array ) | |
| Detector resolution | | 160 x120 | 384 x288 |
| Spectral range | | 8-14um | |
| Focus | | Manual | |
| Image presentation | | | |
| Image mode | IR | Yes | |
| | CCD | Yes | |
| | Duo-vision | Yes | |
| Video output frequency | | NTSC (60Hz) or PAL (50Hz) full dynamic output | |
| LCD Display | | 3.5" TFT screen | |
| Temperature measurement | | | |
| Measure range | | -20°C~+250°C (up to 1500°C,optional) | |
| Accuracy | | ±2°C or ±2% of readings | |
| Image storage | | | |
| Type | | 2GB Removable micro SD card(up to16GB,optional) | |
| Physical characteristic | | | |
| Weight | | less than 600g | |
| Additional features | | | |
| Available optional lenses | | 3.8°, 6.4°, 9°, 12°, 38° | 9°, 12°, 48° |
| Illuminator | | Yes | |
| USB real-time transfer | | Optional | |
| Bluetooth | | Optional | |

# HotFind-S

## Middle Level

384x288 resolution high performance IR camera for universal industrial applications

**DUO-VISION PLUS**

**Digital noise reduction, excellent imaging performance**
Using new imaging processing technology to reduce interference, combined with the outstanding performance of the latest generation 384x288 detector, the HotFind-S produces sharper thermal images.

| | | |
|---|---|---|
| Ergonomic Design | Shock Resistance | USB |
| Multi-sockets | Micro SD card | IP54 |
| Abnormal Temperature Alarm | DUO-VISION PLUS | 4 hours Continuous Operation |
| Sun Shield | Multi-lenses optional | Easy to Operate |

**High–speed processing, full–time dynamic image output**

The high speed image processing engine with up to 50Hz dynamic real time graphical output, produces a smooth, no delay image.
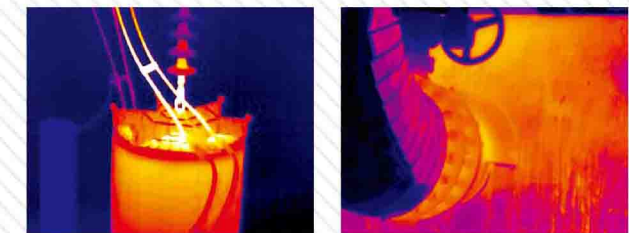
## Large storage capacity

HotFind–S can save thousands of infrared images or video of hours of video with its large capacity micro SD card, making it easy for user to review.

## DUO–VISION PLUS technology

By applying the unique DUO–VISION PLUS technology, infrared image and visual image can be merged together to deliver high quality thermal image with exquisite details, making it even easier for the users to find out more.
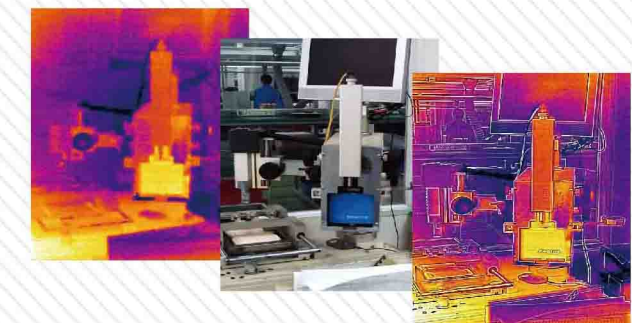
### 3.5" Tilting LCD

HotFind−S uses a 3.5inch LCD screen, the user can adjust the angle of the LCD for the best viewing angle. The tilting design also provides protection for the LCD while the camera is not in use.

## Dual Control− Keypad and Touch Screen

The camera comes with two methods of control, keypad and touch screen. The user can control the camera depending on their preference and application.

## Various optional lenses

Flexible design of the camera means the HotFind−S can be fitted with various optional lenses for different field of view. All lenses are field replaceable and allow for long distance, wide angle or close views.

## Battery life

HotFind−S uses lithium batteries with large capacity, and with its power saving design, it can work for more than 5 hours continuously.

# Digital noise reduction, excellent imaging performance

## easy to use interface

The touch screen menu design is easy to use, intuitive and provides the user with a pleasant user experience with powerful analysis features.

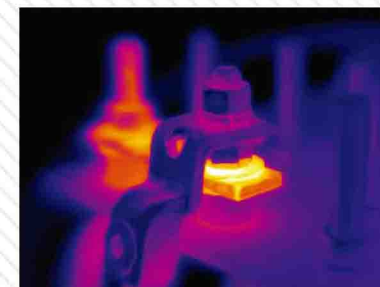| Ergonomic Design | Shock Resistance | DUO-VISION PLUS | Multi-sockets |
| Abnormal Temperature Alarm | Bluetooth | 4 hours Continuous Operation | Sun Shield |

| Type | HotFind-S |
| --- | --- |
| Image performance | |
| FOV | 24° x18° |
| Spatial resolution | 1.3 mrad |
| Thermal sensitivity | ≤0.05°C@30°C |
| Detector resolution | 384 x288 |
| Focus | Manual |
| Image presentation | |
| Image mode | IR/CCD/DUO-VISION PLUS |
| Visible pixels | High Definition CCD, 5 million pixels |
| LCD Display | 3.5" Capacitive touch screen |
| Image output mode | Analog video output |
| File format(Thermal/Visual) | JPG |
| Temperature measurement | |
| Measurement accuracy | -20℃~+600℃(up to 1500℃,optional) |
| Protective Performance | |
| Encapsulation | IP54 |
| Shock/Vibration resistance | 25G/2G |
| Drop Resistant | Yes |
| Operating temperature | -20℃~+50℃ |
| Additional features | |
| Built-in memory | Yes |
| Ports | USB port、Analog video output port |
| Video record | Yes |
| Bluetooth | Yes |

# D300

## Middle Level

High 384x288 resolution
detector and laser ranging

**DUO-VISION PLUS**

**Long time operation**
nearly 8 working hours, incomparable by any other products in the
market

**High frame rate in real time**
The high speed image processing engine with up to 50Hz dynamic real
time graphical output, produces a smooth, no delay image.

| | | | | | |
|---|---|---|---|---|---|
| Ergonomic Design | Shock Resistance | USB | Multi-sockets | DUO-VISION PLUS | IP54 |
| Abnormal Temperature Alarm | Bluetooth | 8 hours Continuous Operation | Sun Shield | Multi-lenses optional | Easy to Operate |

**Laser ranger finder(LRF)**

The LRF integrated into the D300 can
help users to acquire accurate information
of the target position and distance.
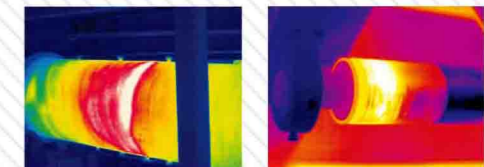
### DUO–VISION PLUS technology

By applying the unique DUO–VISION
Plus technology,the infrared and
visual image can be merged together
to deliver high quality thermal image
with exquisite details, making it even
easier for the users complete their
analysis.
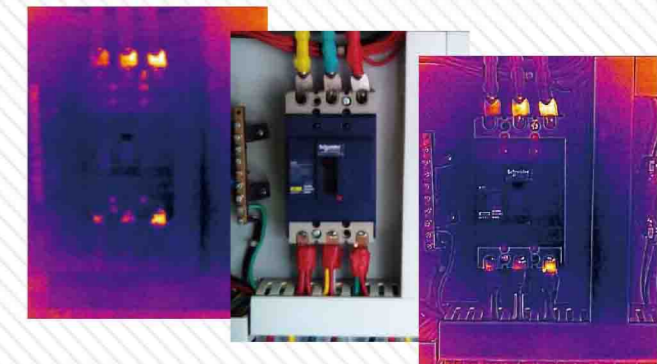
### IR video recording

The IR video recording function
enables the users to review the IR
video and perform further analysis,
giving the users full control to the
operational status of the target.

Industrial Thermal Imager Series © Middle Level

### Excellent imaging quality

D300 applies the latest image processing technology, which reduces interference, together with the excellent performance of the 384x288 infrared detector, D300 provides high quality infrared image with clear and fine details.

## 5MP CCD

D300 integrates the 5MP CCD, providing the users with absolute clear visual image.
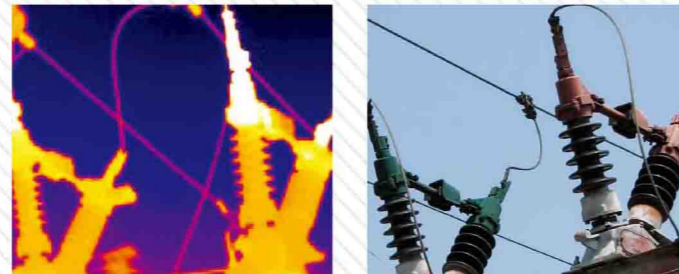
## Flip and rotatable LCD

The D300 has a 3.5 inch rotatable and flippable LCD display, making it more user–friendly for touchscreen operation, and also enabling the user to get the best viewing angle.

Flip and rotatable LCD

## large storage capacity(built–in)

16GB built–in memory ensures the reliability and stability, making it possible to take images or videos without the need for extra memory.

| | | | |
|---|---|---|---|
| Abnormal Temperature Alarm | Bluetooth | 8 hours Continuous Operation | Sun Shield |
| Ergonomic Design | Shock Resistance | DUO-VISION PLUS | Multi-sockets |

| Type | D300 |
|---|---|
| Image performance | |
| FOV | 24° x18° |
| Spatial resolution | 1.3 mrad |
| Thermal sensitivity | ≤0.05°C@30°C |
| Detector resolution | 384 x288 |
| Focus | Motorized/Automatic |
| Image presentation | |
| Image mode | IR/CCD/DUO-VISION PLUS |
| Visible pixels | High Definition CCD |
| LCD Display | 3.5" reversible capacitive touch screen |
| Image output mode | Analog video output |
| File format(Thermal/Visual) | .JPG |
| Temperature measurement | |
| Measurement range | -20℃ ~ +600℃ (up to 1500°C,optional) |
| Accuracy | ±2°C or ±2% of readings |
| Laser | |
| Type | Class 2, 1mW/635nm, red |
| Laser ranging | Yes |
| Measurement range | 0.05m ~ 30m |
| Protective Performance | |
| Encapsulation | IP54 |
| Shock/Vibration resistance | 25G/2G |
| Operating temperature | -20℃~+50℃ |
| Additional features | |
| Built-in memory | Yes |
| USB Ports | Type-C |
| Video record | Yes |
| Bluetooth | Yes (Optional) |
| Real-time transmission | USB real-time transmission with temperature data (Optional) |
| Battery life | 8 hours |

**NEW**

# D600

## Performance level

High 640x480 resolution
detector and laser ranging

**DUO-VISION PLUS**

### 3.5" Tilting LCD
D600 uses a 3.5inch LCD screen, the user can adjust the angle of the LCD for the best viewing angle. The tilting design also provides protection for the LCD while the camera is not in use.

### Automatic/Motorized Focusing
The D600 has a motorized lens which enables the user to focus the camera manually by using the keypad, or automatically using the touchscreen. This provides a clear and defined image for carrying out analysis.

| | | | | | |
|---|---|---|---|---|---|
| Ergonomic Design | Shock Resistant | USB | Multi-sockets | DUO-VISION PLUS | IP54 |
| Abnormal Temperature Alarm | Bluetooth | 8 hours Continuous Operation | Sun Shield | Multi-lenses optional | Easy to Operate |

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### Excellent Image Quality
The D600 applies the latest image processing technology to reduce interference and together with the excellent performance of the 640x480 infrared detector, the D600 produces a high quality infrared image with clear and defined details.
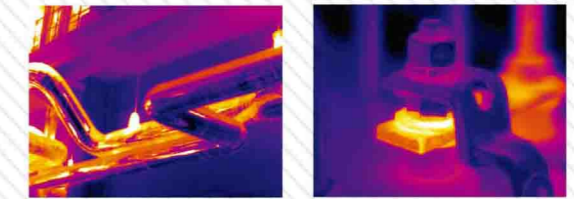
### DUO-VISION PLUS technology
By applying SATIR's DUO-VISION Plus technology, the infrared and visual image can be merged together to deliver a high quality and detailed image, that is unachievable through infrared alone, making it even easier for users to complete their analysis.
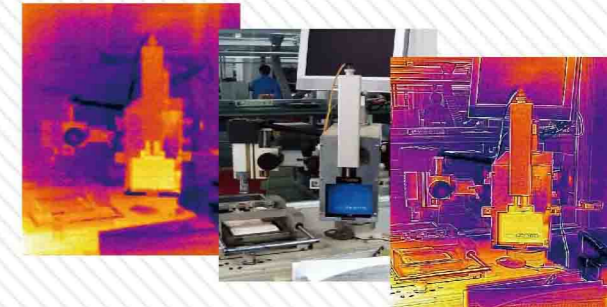
### Flip and rotatable LCD
The D600 has a 3.5 inch rotatable and flippable LCD display, making it more user-friendly for touchscreen operation, and also enabling the user to get the best viewing angle.

Flip and rotatable LCD

## High resolution 640x480 UFPA detector

At the heart of the D600 is a high resolution 640x480 UFPA detector. With an array of 307,200 active detectors, every on–screen pixel offers an accurate and reliable temperature measurement reading. A very high thermal sensitivity of 50mK ( 0.05°C@30°C) allows the D600 to display the sharpest images with superior image quality.

640 pixels
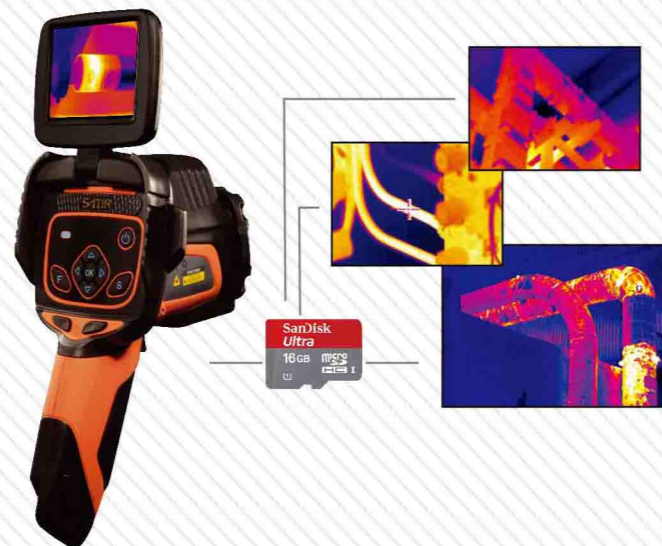
480 pixels

Clear

Defined
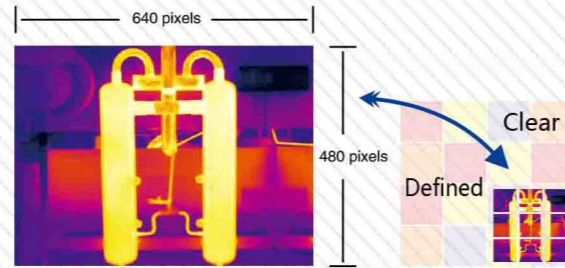
## Long time operation

D600 uses lithium batteries with large capacity, and with its power saving design, it can work for more than 8 hours continuously.
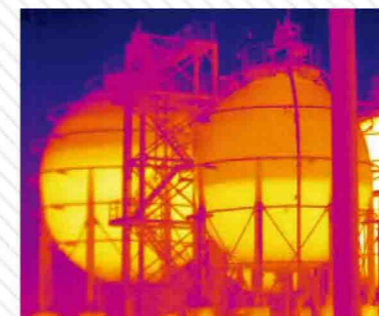
## Built–in Memory Storage

The 16GB built–in memory provides a reliable and stable platform to save images without the risk of losing external memory cards.

SanDisk
Ultra
16GB

# Laser ranger finder(LRF)

The LRF integrated into the D600 can help users to acquire accurate information of the target position and distance.

| Abnormal Temperature Alarm | Bluetooth | 8 hours Continuous Operation | Sun Shield |
| Ergonomic Design | Shock Resistant | DUO-VISION PLUS | Multi-sockets |

| Type | D600 |
|---|---|
| Image performance | |
| FOV/Min.focus distance | 24° x18°/0.20m |
| Spatial resolution | 0.65 mrad |
| Thermal sensitivity | ≤0.05°C@30°C |
| Detector type | UFPA |
| Resolution | 640x480 |
| Spectral range | 8-14um |
| Focus | Manual/Motor/Auto |
| Image presentation | |
| Image mode | IR/CC IR/CCD/Duo-vision//Duo-vision Plus |
| LCD Display | 3.5"  Capacitive touch screen,640x480 |
| Visible pixels | High definition CCD , 5million pixels |
| Video output | NTSC (60Hz) or PAL (50Hz) composite video |
| Temperature measurement | |
| Measurement range | -20℃ ~ +600℃ , up to +1500℃(optional) |
| Accuracy | ±2° or ±2% of readings |
| Measurement mode | 8 movable spots, auto hot/cold spot, profile, 2 area boxes, isotherm, line |
| Alarm | Yes |
| Image storage | |
| Type | 16GB |
| File format | JPG(thermal/Visual) |
| Power system | |
| Battery type | Built-in rechargeable lithium-ion battery |
| Charge interface | Type-C |
| Power manage | Auto shut off / Sleep mode |
| Environment specification | |
| Operating temperature range | -20°C to +50°C |
| Storage temperature  range | -40°C to +70°C |
| Encapsulation | IP54 |
| Physical characteristic | |
| Tripod mounting | 1/4"_20 |