



## DT-9868

### Economical Thermal Imager

The device is a professional Infrared 32x31 pixels imager thermometer with 2.2" color TFT LCD Display, 32x31 pixels imager & a Micro SD card for capturing images (BMP) for viewing on your PC, providing fast, easy and accurate reading for most surface temperature measurement. This product combines the convenience of an infrared thermometer with the visual advantage of a thermal imager creating a brand new tool category -a troubleshooting camera with infrared heat map.



#### FEATURES

- 2.2" 320x240 TFT LCD Display
- IR Temperature Measurement with Resolution 32x31 pixels
- Image Capture Frequency 9Hz
- Thermal Sensitivity (NETD)  $\leq 150\text{mK}$
- Hot Spot and Cold Spot Traking
- Visual Camera & Images Capature (BMP)
- Micro SD Memory Card
- Date / Time Setup Controls, Adjustable Emissivity & Trigger lock
- Li-Ion Rechargeable Battery
- USB Interface for Charge and download Image form SD Memory

### SPECIFICATIONS

Temperature	
Temperature Measurement Range	-20°C to + 300°C
Temperature Measurement Accuracy	±2% ± 2°C as tested (at 25°C)
On-Screen Emissivity Correction	Yes
On-Screen Reflected Background Temperature Compensation	Yes
Image Performance	
Image Capture Frequency	9 Hz
Detector Type	Uncooled pyroelectric ceramic
Thermal Sensitivity (NETD)	≤150 mK
Infrared Spectral Band	6.5 μm to 14 μm
Visual Camera	48608 pixels
Field of View	38 x 38 Degrees
Focus Mechanism	Fixed Focus
Image Presentation	
Palettes	Hot Metal, Ironbow, Rainbow, Rainbow High Contrast, Grayscale (white hot) and Grayscale (black hot)
Level and Span	Auto
Blending Information	
Parallax Correction of Visual and IR Blending	0.5m, 1.0m, 2.0m, 3.0m
View Options	Blending of the visual and the infrared from full infrared to full visual in 25% steps
Hot Spot and Cold Spot Tracking	Yes
Image capture and data storage	
Image Capture	Image available for review before a save
Storage Medium	Micro SD memory card, stores up to 6,000 images / GB
File Format	BMP
Memory Review	Scroll through all saved images and view on-screen
Operating Temperature	0°C to + 50°C
Storage Temperature	-20°C to + 60°C
Relative Humidity	10% to 90% non-condensing
Display	2.2 in diagonal 320*240 TFT LCD
Overload Display	-

**32  
X  
31**

IR resolution  
32x31 pixels

**NETD  
0.15°C**

Thermal sensitivity  
0.15°C (0.27°F)  
@ 1Hz and 100°C



JPG images/3GP videos



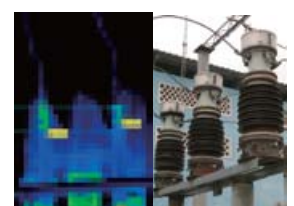
Fold reading on the images



USBinterface &  
Micro SD memory Card

### INCLUDED ACCESSORIES:

Instruction Manual, Battery, Battery Charger,  
USB Cable, Carrying Case, Test Report





## **DT-9873B**

### **DT-9873B Professional Thermal Imager**

The Thermal Imager is a handheld imaging camera used for predictive maintenance, equipment troubleshooting, and verification. Thermal and visual images are displayed on the LCD and can be saved to a Micro SD Memory card. Transferring images to a PC is accomplished by removing the SD memory card and connecting it to a PC through the included card reader.

In addition to the features mentioned above, the Thermal Imager provides video recording with audio and playback.

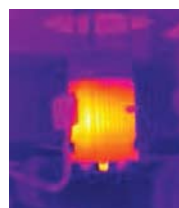
## SPECIFICATIONS

Imaging And Optical Data	
Field of view (FOV) / Minimum focus distance	29.8° x 22.6° / 0.2m
Spatial resolution (IFOV)	3.33mrad
Thermal sensitivity/NETD	< 0.08°C @ +30°C (+86°F) / 80 mK
Image frequency	50Hz
Focus mode	Manual
Focal length	7.5mm
Focal Plane Array (FPA) / Spectral range	Uncooled microbolometer / 8-14 $\mu$ m
IR resolution	160 x 120 pixels
Image Presentation	
Display	Capacitive Touch screen, 3.5 in. LCD, 320 x 240 pixels
Image modes	IR image only
Color palettes	IRON, Rainbow, Grey, GreyInverted, Sepia, Blue_Red, Hot Cold, Humidity
Measurement	
Object temperature range	-20°C to +150°C (-4°F to + 302°F) 0°C to + 400°C (+32°F to + 752°F)
Accuracy	$\pm 2^\circ\text{C}$ ( $\pm 3.6^\circ\text{F}$ ) or $\pm 2\%$ of reading
Measurement Analysis	
Spot	Center Spot
Automatic hot/cold detection	Auto hot or cold markers
Isotherm	Detect high/low temperature/interval
Emissivity correction	Variable from 0.01 to 1.0
Measurement corrections	Emissivity, ambient temperature, distance, relative humidity, offset temperature
Storage Of Videos	
Storage media	4Gbytes Micro SD card
Video storage format	Standard MPEG-4, 640x480@30fps, on memory card > 60 minutes
Video storage mode	IR images with audio
Storage Of Images	
Image storage format	Standard JPEG, including measurement data, on memory card > 1000 pictures
Image storage mode	IR images with annotation (audio or text)
Set-Up	
Set-up commands	Local adaptation of units, language, date and time formats, information of camera
Languages	Multinational

Digital Camera	
<b>Built-in digital camera</b>	640 x 480 pixels
<b>Built-in digital lens data</b>	FOV 62.3°
Data Communication Interfaces	
<b>Interfaces</b>	USB-mini, audio, composite video, Micro SD slot
<b>USB</b>	Data transform between camera and PC
<b>Video out</b>	Composite (PAL and NTSC)
Power System	
<b>Battery</b>	Lithium polymer battery, 4.5 hours operating time
<b>Input voltage</b>	DC 9V to 12V
<b>Charging system</b>	In camera (AC adapter)
<b>Power management</b>	Automatic shutdown and sleep mode
Environmental Data	
<b>Operating temperature range</b>	-20°C to +50°C (-4°F to +122°F)
<b>Storage temperature range</b>	-40°C to +70°C (-40°F to +158°F)
<b>Humidity (operating and storage)</b>	10%-90%
<b>Encapsulation</b>	IP65
<b>Drop test</b>	2m
<b>Bump</b>	25g (IEC60068-2-29)
<b>Vibration</b>	2g (IEC60068-2-6)
Physical Data	
<b>Camera weight, incl. battery</b>	920g
<b>Camera size (L x W x H)</b>	243 x 103 x 160

### INCLUDED ACCESSORIES:

- Lens : Field of view=29.8° x 22.6°, f=7.5mm
- Lens Cover
- Lithium Polymer Battery : 7.4V, 2600mAh
- Adaptor : Input AC Volts : 100V ~ 240V, 50/60Hz, MAX 0.8A  
Output DC Volts : 12V, 3000mA
- Charger
- Micro SD : 4 Gbyte
- USB Cable
- RCA Cable
- Earphone
- User Manual
- PC Software
- Installation CD
- Gift box & Carrying Case





## DT-9875 Thermal Imager

DT-9875 Thermal Imager is designed to make your work easier, more productive and effective. 160 x120 resolution at 50 Hz for real-time capture; a big, bright touch screen with toolbar helps you to fine-tune and analyze images quickly. Temperature range from -20°C to 400°C (-4°F to 752°F), 20X continuous zoom, picture-in-picture, voice comment recording and text annotation on images. Hot/Cold spot marker automatically finds the hottest and coldest spots. It includes memory card, lithium polymer battery & power supply, and USB cable.

### FEATURES

#### High Resolution IR Images:

19,200 pixels (160x120) Infrared Resolution

#### Visible Light Digital Camera:

640x480 Resolution with flash provides sharp images regardless of lighting conditions.

#### LED Flashlight:

Allows the visual camera and fusion to be used in poorly lit environments

#### Wide Temperature Range :

Form -20°C to +400°C targeting electrical and industrial applications

#### Thumbnail View :

Easy to view and analyze images quickly

#### The Image Rotation :

The ability to automatically rotate the active image

#### Audio recorded with the video image:

A speaker to listen to audio recorded with the video image

#### Capacitive Touch Screen :

More easy, productive and effective to operate it

#### Lithium Polymer Rechargeable Battery :

Lasts > 4hrs continuous use; replaceable

#### Copy to USB :

Easy uploads images from Camera to USB memory card

#### Area (Min / Max) Mode :

Shows the Minimum or the Maximum Temperature reading in the selected area

## APPLICATIONS

Plant/General Maintenance • HVAC/R • Transportation / Automotive • Cooling and Reheating • Serving Areas • Food Service Equipment • Cold Storage

## SPECIFICATIONS

Imaging And Optical Data	
<b>Field of View (FOV) Minimum focus Distance</b>	33° x 24° / 0.3m
<b>Spatial Resolution (IFOV)</b>	3.33mrad
<b>Thermal Sensitivity / NETD</b>	<0.08°C @ + 30°C (+86°F) /80mk
<b>Image Frequency</b>	50Hz
<b>Focus mode</b>	Manual
<b>Zoom</b>	1-20x Continuous, Digital Zoom
<b>Rotate</b>	0°-360°, Continuous increased by 1°
<b>Focal Length</b>	7.5mm
<b>IR Resolution</b>	160 x 120 pixel
Focal Plane Array (FPA)   Spectral Range Uncooled Microbolometer / 8-14µm	
Image Presentation	
<b>Display</b>	Capacitive Touch screen, 3.5 in. LCD, 320 x 240 pixels
<b>Image modes</b>	IR image visual image, picture in picture Image Fusion
<b>Picture in Picture</b>	IR Area on Visual Image or Visual Image Area on IR
<b>Color Palettes</b>	GRAY / GRAYINV / IRON / IRONINV / RAINBOW / FEATHER
Measurement	
<b>Object Temperature Range</b>	Low Range -20°C to + 150°C (-4°F to + 302°F) High Range 0°C to + 400°C (+32°F to + 752°F)
<b>Accuracy</b>	±2°C (±3.6°F) or ±2% of Reading
Measurement Analysis	
<b>Spot</b>	3
<b>Line</b>	2 lines (Horizontal and Vertical)
<b>Area</b>	3 Boxes with max. / min. / Average
<b>Automatic Hot / Cold Detection</b>	Auto Hot or Cold Markers
<b>Isotherm</b>	Detect High / Low Temperature / Interval
<b>Emissivity Correction</b>	Variable from 0.01 to 1.0
<b>Measurement corrections</b>	Emissivity, Ambient Temperature, Distance, Relative Humidity, Offset Temperature
Storage Of Videos	
<b>Storage Media</b>	4 Gbytes Micro SD Card
<b>Video Storage format</b>	Standard MPEG-4, 640x480@30fps, on Memory Card > 60 Minutes
<b>Video Storage Mode</b>	IR / Visual Images; Simultaneous Storage of IR and Visual Images
Storage Of Images	
<b>Image Storage Format</b>	Standard JPEG, Including Measurement Data, on Memory Card > 1000 Pictures
<b>Image Storage Mode</b>	IR / Visual Images; Simultaneous Storage of IR and Visual Images
Set-Up	
<b>Laser</b>	< class2
<b>Set-up Commands</b>	Local Adaptation of Units, Language, Date and Time Formats, Information of Camera
<b>Languages</b>	Multinational

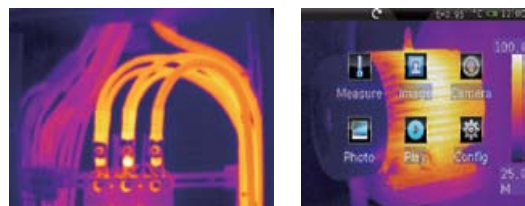
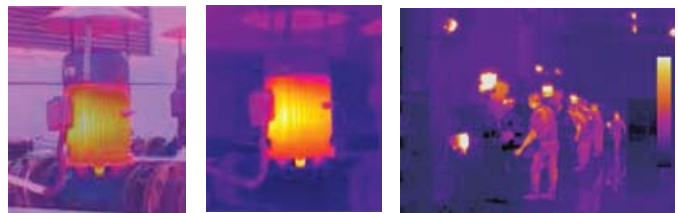
## SPECIFICATIONS

Digital Camera	
<b>Built-in Digital Camera</b>	640 x 480 pixels
<b>Built-in Digital Lance Data</b>	FOV62.3°
Data Communication Interfaces	
<b>Interfaces</b>	USB-mini, audio, Composite Video, Micro SD Slot
<b>USB</b>	Data Transform Between Camera and PC
<b>Video Out</b>	Composite (PAL and NTSC)
Power System	
<b>Battery</b>	Lithium Polymer Battery, 4.5 Hours Operating Time
<b>Input Voltage</b>	DC 9V to 12V
<b>Charging System</b>	In Camera (AC Adapter)
<b>Power Management</b>	Automatic Shutdown and Sleep Mode (user selectable)
Environmental Data	
<b>Operating Temperature Range</b>	-20°C to + 50°C (-4°F to + 122°F)
<b>Storage Temperature Tange</b>	-40°C to + 70°C (-40°F to + 158°F)
<b>Relative Humidity (operating and storage)</b>	10% ~ 90%
<b>Encapsulation</b>	IP65
<b>Drop test</b>	2m
<b>Bump</b>	25g (IEC60068-2-29)
<b>Vibration</b>	2g (IEC60068-2-6)
Physical Data	
<b>Camera Weight, incl. Battery</b>	920g
<b>Camera Size (L x W x H)</b>	243 x 103 x 160

## INCLUDED ACCESSORIES:

Hard Transport Case, 7.5mm Lens, Sun Visor, Tripod Base, AC Charger / Power Supply, Earphone, Battery, Camera Leans Cap, Software CD-ROM, Handstrap, Micro SD Card, USB Cable & RCA Cable, Gift Box.

**Optinal Accessories :** 33mm Lens / 22mm Lens 11mm Lens







## DT-9885 Performance Thermal Imager

DT-9885 is High Performance Thermal Imager with high resolution 384x288, help you to find the potential problems with innovation features and functionality, you can perform infrared inspections faster and more efficiently and thoroughly document problem areas for additional information.



### KEY FEATURES

- 384x288 High Performance & high resolution Thermal Imager with TFT color LCD display
- Professional IR-optical focus system ensures that images are in good focus for optimum image clarity and scanning convenience
- Meter-box analysis system—quickly identify and keep track of inspection locations by adding digital images of important information and surrounding areas
- Finds problems faster and easier by accurately identifying potential issues by combining digital and IR images
- Picture in Picture function Displays Thermal Image super-imposed over a digital image
- LED Flashlight allows the visual camera and fusion to be used in poorly lit environments
- Wide Temperature Range from -20 to +400°C targeting electrical and industrial applications
- ±2% Accuracy for reliable temperature measurement
- The image rotation facility allows to automatically rotate the active image
- Audio recording with the video image acts as a speaker to listen to audio recorded with the video image
- Capacitive touch screen is easier, productive and efficient to operate it
- Lithium polymer Rechargeable Battery lasts > 4hrs continuous use; and is replaceable
- An easy-to-access thumbnail image gallery helps you to quickly review and find your thermal images.
- Area (Min/Max) mode shows the Minimum or the Maximum Temperature reading in the selected area
- A conveniently located button activates the laser pointer that will help you associate the hot or cold spot in the thermal image with the real physical target in the field.
- In order to adapt the device to every situation both wide angle and tele-lenses are available.
- Equipped with standard video, USB outputs as well as a removable SD card.

## SPECIFICATIONS

Imaging And Optical Data	
<b>IR Resolution</b>	384 x 288 pixels, Focal Plane Array (FPA), Uncooled Microbolometer
<b>Field of View (FOV)</b>	47.1° x 36.2°
<b>Minimum focus Distance</b>	0.3m (0.99ft.)
<b>Spatial Resolution</b>	(IFOV) 2.28 mrad
<b>Thermal Sensitivity / NETD</b>	< 0.06°C @ +30°C (+86°F) / 60 mK
<b>Image Frequency</b>	50Hz
<b>Focus mode</b>	Manual
<b>Zoom</b>	32x Continuous, Digital Zoom
<b>Rotate</b>	0° - 360°, Continuous Change by 1°
Image Presentation	
<b>Display</b>	3.5" TFT, Capacitive Touch Screen
<b>Image modes</b>	IR Image, Visual Image, Picture in Picture
<b>Picture in Picture</b>	IR Area on Visual Image or Visual Image Area on IR
<b>Color Palettes</b>	GRAY/ GRAYIRON / RAINBOW / FEATHER
Measurement	
<b>Object Temperature Range</b>	Low Range -20°C to + 150°C (-4°F to + 302°F) High Range 0°C to + 400°C (+32°F to + 752°F)
<b>Accuracy</b>	±2°C (±3.6°F) or ±2% of Reading
Measurement Analysis	
<b>Spotmeter</b>	3
<b>Emissivity Adjustable</b>	0.01 ~ 1.0 Adjustable
<b>Emissivity Table</b>	Emissivity Table of Predefined Materials
<b>Line</b>	2 lines (Horizontal and Vertical)
<b>Area</b>	3 Boxes with max. / min. / Average
<b>Automatic Hot / Cold Detection</b>	Auto Hot or Cold Spotmeter Markers
<b>Isotherm</b>	Detect High / Low Temperature / Interval
<b>Difference Temperature</b>	Delta Temperature Between Measurement Pointer and Reference Pointer
<b>Measurement corrections</b>	Emissivity, Ambient Temperature, Distance, Relative Humidity, Offset Temperature
Set-Up	
<b>Laser / Flood light</b>	< class2 / white LED Floodlight
<b>Set-up Commands</b>	Local Adaptation of Units, Language, Date and Time Formats, Information of Camera
<b>Languages</b>	English, Chinese, French, German, Spanish
Storage Of Videos	
<b>Storage Media</b>	4 Gbytes Micro SD Card
<b>Video Storage format</b>	Standard MPEG-4, 640x480@30fps, on Memory Card > 60 Minutes
<b>Video Storage Mode</b>	IR / Visual Images; Simultaneous Storage of IR and Visual Images
Storage Of Images	
<b>Image Storage Format</b>	Standard JPEG, Including Measurement Data, on Memory Card > 1000 Pictures
<b>Image Storage Mode</b>	IR / Visual Images; Simultaneous Storage of IR and Visual Images

## SPECIFICATIONS

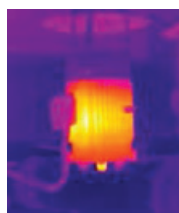
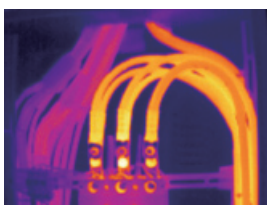
Digital Camera	
<b>Built-in Visible Light Digital Camera</b>	2 Mega pixels
Data Communication Interfaces	
<b>USB Interfaces</b>	USB-mini, data transform between camera and PC
<b>Video Out</b>	Composite (PAL and NTSC)
Power System	
<b>Battery</b>	Lithium polymer battery, 4 hours operating time
<b>Input Voltage</b>	DC 9V to 12V
<b>Charging System</b>	In camera (AC adapter)
<b>Power Management</b>	Automatic shutdown and sleep mode (user selectable)
Environmental Data	
<b>Operating Temperature Range</b>	-20°C to + 50°C (-4°F to + 122°F)
<b>Storage Temperature Tange</b>	-40°C to + 70°C (-40°F to + 158°F)
<b>Relative Humidity (operating and storage)</b>	10% RH ~ 90% RH
<b>Encapsulation</b>	IP65
<b>Drop test</b>	2m
<b>Bump</b>	25g (IEC60068-2-29)
<b>Vibration</b>	2g (IEC60068-2-6)
<b>Size (H x W x D)</b>	243mm x 103mm x 160mm
<b>Weight</b>	920g

## APPLICATIONS

HVAC/R  
 Transportation / Automotive  
 Cooling and Reheating  
 Serving Areas  
 Food Service Equipment  
 Cold Storage

## INCLUDED ACCESSORIES:

Hard Transport Case, 7.5mm Lens, Sun Visor, Tripod Base, AC Charger / Power Supply, Earphone, Battery, Camera Leans Cap, Software CD-ROM, Handstrap, Micro SD Card, USB Cable & RCA Cable, Gift Box.





## **DT-980**

### **HIGH PERFORMANCE THERMAL IMAGER**

The Thermal Imager is handheld imaging camera used for predictive maintenance, equipment troubleshooting, and verification. Thermal and visual images are displayed on the LCD and can be saved to a Micro SD Memory card. Transferring images to a PC is accomplished by removing the SD memory card and connecting it to a PC through the included card reader.

In addition to the features mentioned above, the Thermal Imager provide video recording with audio and play back.

DT-980 (80x80) Thermal Imager is designed to make your work easier, more productive and effective. 80 × 80 resolution at 50 Hz for real-time capture; Temperature range from -20°C to 350°C (-4°F to 662°F), 32X continuous zoom, picture-in-picture, voice comment recording and text annotation on images. Hot/Cold spot marker automatically finds the hottest and coldest spots. It includes memory card, Lithium polymer battery & power supply, and USB cable.



### Product Characteristics

**High Resolution IR Images :** (80x80) Infrared resolution

**Visible Light Digital Camera :** 5 Megapixels Digital camera resolution with flash provides sharp images regardless of lighting conditions

**Picture in Picture :** Displays thermal image super-imposed over a digital image

**LED Flashlight :** Allows the visual camera and fusion to be used in poorly lit environments

**Wide Temperature Range :** From -20 to +350°C targeting electrical and industrial applications  $\pm 2\%$  Accuracy reliable temperature measurement

**Thumbnail view :** Easy to view and analyze images quickly

**Audio recorded with the video image :** A speaker to listen to audio recorded with the video image

**Li-Ion Rechargeable Battery:** Lasts >4hrs continuous use; replaceable

**HDMI :** HDMI High resolution video output

**Inside 100M Memory :** About 80pictures or one minute video record

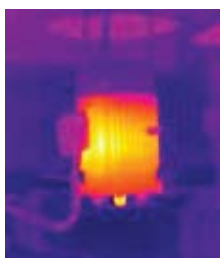
**Copy to USB :** Easy uploads images from camera to USB memory card

**Area (Min/Max) Mode :** Shows the Minumum or the Maximum Temperature reading in the selected area

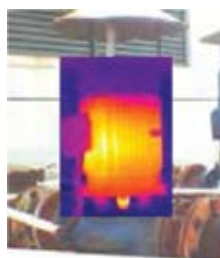
**Laser Sighting :** To aim at the target



EMC  
EN: 61326-1  
EN: 61010-1



Full Infrared



Picture-in-Picture



Color Alarms



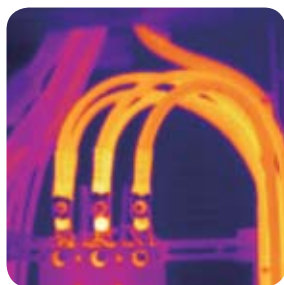
Full visible light

- 1 3.5" Touch-Screen LCD Display
- 2 Annotate Images with Voice
- 3 Picture-in-Picture
- 4 32X Continuous Zoom
- 5 Area Min Max with Auto Hot/Cold Mark

### Specifications

Imaging and optical data	
Field of view (FOV) / Minimum focus distance	17°x 17°/ 0.5m
Spatial resolution (IFOV)	3.78mrad
Thermal sensitivity/NETD	< 0.1°C@+30°C (+86°F) / 100 mK
Image Frequency	50Hz
Focus mode	Manual
Zoom	1–32× continuous, digital zoom
Focal length	9mm
Focal Plane Array (FPA) / Spectral range	Uncooled microbolometer / 8–14 μm
IR resolution	80 × 80 pixels
Image presentation	
Display	2.8 in. LCD, 240 × 320 pixels
Image modes	IR image, Visual image, Image Fusion
Color palettes	IRON, Rainbow, Grey, Grey Inverted
Measurement	
Object temperature range	–20°C to +150°C (–4°F to +302°F) 0°C to +350°C (+32°F to +662°F)
Accuracy	±2°C (±3.6°F) or ±2% of reading
Measurement analysis	
Spot	Center Spot
Automatic hot/cold detection	Auto hot or cold markers
Emissivity correction	Variable from 0.01 to 1.0
Measurement corrections	Emissivity, Reflected temperature
Storage of Videos	
Storage media	8Gbytes Micra SD card
Video storage format	Standard MPEG-4 encode, 1280x960@30fps, on memory card > 60 minutes
Video storage format	IR/visual images; simultaneous storage of IR and visual images
Storage of Images	
Image storage format	Standard JPEG, including measurement data, on memory card > 2000 pictures

Image storage mode	IR/visual images; simultaneous storage of IR and visual images
Set-up	
Laser	< class2
Set-up commands	Local adaptation of units, language, date and time formats, information of camera
Languages	multinational
Digital Camera	
Built-in digital camera	5 Megapixels
Built-in digital lens data	FOV 59°
Data communication interfaces	
Interfaces	USB-mini, audio, HDMI
USB	Data transform between camera and PC Live video between camera and PC
Video out	HDMI
Power System	
Battery	Li-ion battery, 4 hours operating time
Input voltage	DC 5V
Charging system	In camera (AC adapter)
Power management	Automatic shutdown
Environmental data	
Operating temperature range	–20°C to +50°C (–4°F to +122°F)
Storage temperature range	–40°C to +70°C (–40°F to +158°F)
Humidity operating & storage	10%~90%
Drop test	2m
Bump	25g(IEC60068-2-29)
Vibration	2g(IEC60068-2-6)
Physical data	
Camera weight, incl. battery	<500g
Camera size (L x W x H)	224x77x96



# DT-980

## High Performance Thermal Imager



Item	Qty.	Description
Thermal Imager	1	
Lens	1	Field of view = 17°x 17°, f = 9mm (in-built)
Li-ion battery	1	3.7V, 2600mAH
Adaptor	1	Input AC Volts: 100V~240V, 50/60HZ, MAX 0.9A. Output DC Volts: 5V, 3500mA
Micro SD	1	8Gbyte
USB cable	1	
HDMI cable	1	
Earphone	1	
Wrist strip	1	
User manual	1	
Warranty Card	1	
PC software installation CD	1	
Gift box & carrying case	1	

### Standard Accessories

Carrying Case, Test Certificate, Testing Leads, Temperature Probe, Battery Charger, Adaptor and Instruction Manual.

