

# DT-9885 Datasheet



Interchangeable  
Lens

3.5"

Image

Touch

Illuminating Light

USB

Image Fusion

Video

micro  
SD

USB

Illuminating Light

LASER

switching the unit on,  
function inside.

## 1-Introduction

### Overview

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 MicroSD 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.

## 2-Specifications

<b>Imaging And Optical Data</b>	
Field of view (FOV) / Minimum focus distance	24.6°x 18.6°/ 0.3m
Spatial resolution (IFOV)	1.14mrad
Thermal sensitivity/NETD	< 0.06°C @ +30°C (+86°F) / 60 mK
Image frequency	50Hz
Focus mode	Manual
Zoom	1–20× continuous, digital zoom
Rotate	0°– 360°, continuous increased by 1°
Focal length	22mm
Focal Plane Array (FPA) / Spectral range	Uncooled microbolometer / 8–14 μm
IR resolution	384 × 288 pixels
<b>Image Presentation</b>	
Display	Capacitive Touch screen, 3.5 in. LCD, 320 × 240 pixels
Image modes	IR image, visual image, picture in picture, Image Fusion
Picture in Picture	IR area on visual image or visual image area on IR
Color palettes	IRON/Rainbow/Grey/GreyInverted/Sepia/Blue_Red /Hot_Cold/Humidity
<b>Measurement</b>	
Object temperature range	–20°C to +150°C (–4°F to +302°F) 0°C to +400°C (+32°F to +752°F)
Accuracy	±2°C (±3.6°F) or ±2% of reading
<b>Measurement Analysis</b>	
Spot	3
Line	2 lines(horizontal and vertical)
Area	3 boxes with max. /min. /average
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
<b>Storage Of Videos</b>	
Storage media	4Gbytes Micro SD card
Video storage format	Standard MPEG-4, 640x480@30fps, on memory card > 60 minutes
Video storage mode	IR/visual images; simultaneous storage of IR and visual images
<b>Storage Of Images</b>	
Image storage format	Standard JPEG, including measurement data, on memory card > 1000 pictures
Image storage mode	IR/visual images; simultaneous storage of IR and visual images

<b>Set-Up</b>	
laser	< class2
Set-up commands	Local adaptation of units, language, date and time formats, information of camera
Languages	multinational
<b>Digital Camera</b>	
Built-in digital camera	640x480 pixels
Built-in digital lens data	FOV 62.3°
<b>Data Communication Interfaces</b>	
Interfaces	USB-mini, audio, composite video, Micro SD slot
USB	Data transform between camera and PC
Video out	Composite(PAL and NTSC)
<b>Power System</b>	
Battery	lithium polymer battery, 4.5 hours operating time
Input voltage	DC 9V to 12V
Charging system	In camera (AC adapter)
Power management	Automatic shutdown and sleep mode (user selectable)
<b>Environmental Data</b>	
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 and storage)	10%~90%
Encapsulation	IP65
Drop test	2m
Bump	25g(IEC60068-2-29)
Vibration	2g(IEC60068-2-6)
<b>Physical Data</b>	
Camera weight, incl. battery	920g
Camera size (L × W × H)	243x103x160

### 3-Packing Lists

#### 3.1-Standard Accessories

Item	Quantity	Description
Thermal Imager	1	
Lens	1	Field of view=24.6° x 18.6°, f=22mm
Lens Cover	1	
Lcd Hood	1	
Tripod Base	1	
Lithium polymer battery	1	7.4V, 2600mAH
Adaptor	1	Input AC Volts: 100V~240V, 50/60Hz, MAX 0.8A Output DC Volts: 12V, 3000mA
Charger	1	
Micro SD	1	4Gbyte
USB cable	1	
RCA cable	1	
Earphone	1	
User manual	1	
Warranty Card	1	
PC software	1	
Installation CD	1	
Gift box & Carrying case	1	

#### 3.2-Optional Accessories

Item	Quantity	Description
Lens	1	field of view = 47.1°x 36.2°, f = 11mm
Lens	1	field of view = 13°x 9.8°, f = 44mm
Lithium polymer battery	1	7.4V, 2600mAH