

DT-9885 Datasheet



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

Imaging And Optical Data	
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 μ m
IR resolution	384 × 288 pixels
Image Presentation	
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
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	±2°C (±3.6°F) or ±2% of reading
Measurement Analysis	
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
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/visual images; simultaneous storage of IR and visual images
Storage Of Images	
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

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	640x480 pixels
Built-in digital lens data	FOV 62.3°
Data Communication Interfaces	
Interfaces	USB-mini, audio, composite video, Micro SD slot
USB	Data transform between camera and PC
Video out	Composite(PAL and NTSC)
Power System	
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)
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 and storage)	10%~90%
Encapsulation	IP65
Drop test	2m
Bump	25g(IEC60068-2-29)
Vibration	2g(IEC60068-2-6)
Physical Data	
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