



## 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

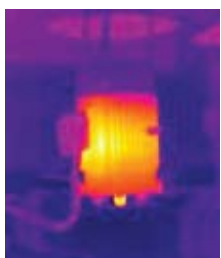
**Copy to USB :** Easy uploads images from camera to USB memory card

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

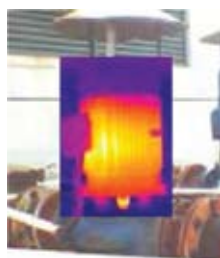
**Laser Sighting :** To aim at the target



EMC  
EN: 61326-1  
EN: 61010-1



Full Infrared



Picture-in-Picture



Color Alarms



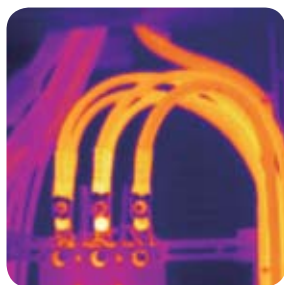
Full visible light

- 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	1–32x 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.



Contact :

**CEM INSTRUMENTS (INDIA) PVT. LTD.**

32A, Ganesh Chandra Avenue, 4th Floor, Kolkata-700013

Tel: 033-22151376, 22159759

Email: info@cem-instruments.in / info@cem-india.com

Web: www.cem-instruments.in / www.cem-india.com

**CEM INSTRUMENTS HEADQUATER & FACTORY**

19th Building, 5th Region, Baiwangxin Industry Park,  
Songbai Road, Baimang, Xili, Nanshan, Shenzhen,  
China, 518108

Tel: +86-755-27353188, Fax: +86-755-27653699

