NEC

Infrared Thermal Imager

Thermo Tracer
TH7800N

New!! Image Fusion Function Added

Thermal

Visual

Fusion

High performance UFPA detector

320 x 240 pixels microbolometer
for high-resolution thermal images

Visual/thermal image fusion function (NEW)

Measures visual and thermal images simultaneously and displays fused image for easily identifying area of interest.

Laser pointer

For easy determination of a measuring spot.

Flip-up 3.5" color LCD

Reflective/transmissive LCD for clear view at indoors and outdoor. Flip-up mechanism allows users to adjust the LCD position as they want.

Interval image recording (NEW)

Allows to obtain ever-changing temperature data as thermal images at certain time interval.

Large storage capacity

Stores up to 1,000 images in internal memory.

Basic performance

Resolution: 0.05°C (at 30°C, ∑16)
Accuracy: ±2% (of reading) or ±2°C
Battery life: Approx. 2 1/2 hours (typ)

Easy operation

Large control buttons for one-handed operation.
Multilingual menu: English, French, German, Italian, Japanese, Korean, Portuguese, Russian, Spanish, Simplified Chinese, Traditional Chinese, Finnish, Danish, Swedish, Norwegian and Dutch.

Robust design

Dust/splash-proof: IP54
Vibration-proof: 29.4m/sec^2 (3G)
Shock-proof: 294m/sec^2 (30G)

ISO9001 JQA-1598
ISO14001 JQA-EM0260 HEAD OFFICE

NEC Avio Infrared Technologies Co., Ltd.

Specifications

Measuring range	Range 1	-20 to 100°C
	Range 2	0 to 250°C
	Range 3 (optional)	200 to 1000°C
Resolution	0.05°C (Range 1 at 30°C, ∑16) 0.1°C (Range 1 at 30°C, 60Hz)	
Accuracy	±2°C or ±2% of reading, whichever is greater	
Detector	Uncooled focal plane array (microbolometer)	
Spectral Range	8 to 14μm	
Thermal Image Pixels	320 (H) x 240 (V) pixels	
Focusing Range	50cm to infinity	
I.F.O.V.	1.5mrad	
Field of View	27° (H) x 20° (V)	
Display	3.5-inch color LCD	
Battery Life	Approx. 2-1/2 hours (At 20°C, RUN mode, LCD backlight off)	
Frame Time	60 frames/sec	
S/N improvement	OFF, ∑2, ∑8, ∑16, and spatial filter ON/OFF	
Image Storage Capacity	Up to 1000 images (SIT file format: thermal & visual)	
Interval Image Recording	5 to 3600 sec interval	
Env. Temp. Correction	Provided (including interval NUC)	
Background Compensation	Provided	
Ambient Correction	Provided	
Auto Functions	Level/sense auto, level-trace, auto-gain control	
Thermal/Visual Image Fusion	Provided	
Image Processing Functions	Multi-point temperature display (up to 4 points) Multi-point emissivity correction (up to 4 points) Temperature difference between 2 points (Δt) Max/Min (peak hold) temperature display Alarm (full screen or specified box) Digital zoom: 2, 4 times (Run/Freeze) BOX setting, up to 5 boxes (max, min, average)	
Display Functions	Display color: color/monochrome, positive/negative Gradation: 16, 32, 64, 128, 256 Color palette: rainbow, brightness, shine, hot-iron, medical, fine Isothermal band display: max. 4 bands Battery monitor	
Laser Pointer	Class 2 (1mW/635nm red)	
Interfaces	USB 2.0/1.1 (Mass-storage mode) Video signal (NTSC/PAL)/S-video	
Operating temperature	-15 to 45°C, 90% RH or less (not condensed)	
Storage temperature	-40 to 70°C, 90% RH or less (not condensed)	
Power supply	AC adaptor: 100 to 240V, DC 7.2V (nominal)	
Environmental protection	IP54 (IEC60529)	
Dimensions	Approx. 102 (W) x 217 (H) x 205 (D) mm (excluding projections)	
Weight	1.3kg (including battery)	
Standard accessories	AC adaptor, battery pack (2 pcs), battery charger, wrist strap, lens cap, carrying case, viewer software, USB cable, operation manual	

Visual Camera

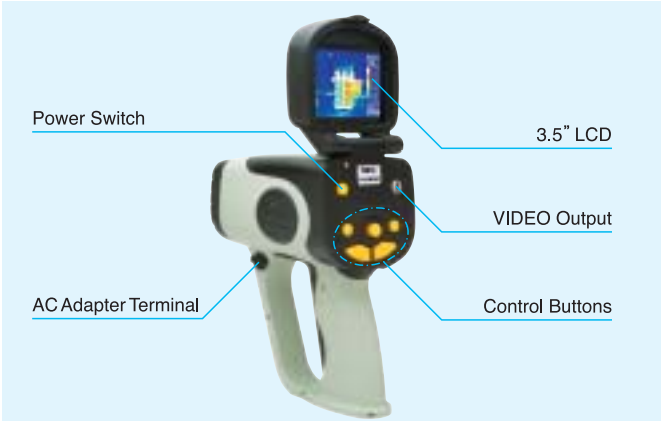
Pixels	0.41 Mega pixels
Sensitivity	1 lux
Focusing Range	50cm to infinity

Options

Model	Description
TH78-382	2x telephoto lens, 13° (H) x 10° (V) *1
TH78-383	0.5x wide angle lens, 54° (H) x 40° (V) *1
TH78-345	Video cable, 3m
TH91-348	S-video cable, 3m
TH78-390	High temperature range, 200 to 1000°C
TH78-490	2nd year warranty *2

*1: Optional lenses are not available with TH78-390 High temperature range.
*2: Fee is required separately for calibration.

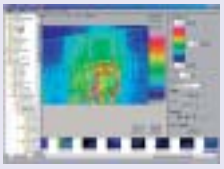
**Specifications are subject to change without prior notice.
**Described company name and model are brand name or registration of trademark.



Applicable Software

Viewer Software TH78-719 (standard)

- ☐Thermal image playback
  - ·Temp display setting
  - ·Visual image display
  - ·Voice playback
  - ·Point temp display (up to 10 points)
- ☐Data conversion: JPEG, BMP, AVI
- ☐Download of thermal image data from internal memory.



Report Generator NS9200 (optional)

- ☐Helps to make reports easily with thermal images and temperature data on MS Word and Excel.
- ☐Fusion of thermal and visual images.
- ☐Subtraction (Entire image, specified area, like-figures)
- ☐File management with database.
- ☐Detects abnormal temperature by max/min temperature display.

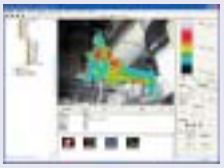
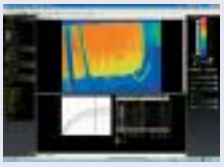
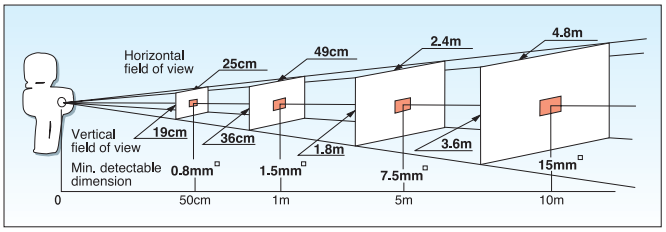


Image Processor Pro Ⅱ NS9300 (optional)

- ☐Thermal/visual image fusion.
- ☐Patchwork (Integrates multiple thermal images into one and enables data analysis)
- ☐Sequence editor (Converts multiple thermal image files into thermal movie files)
- ☐Report generation (MS Word, MS Excel, HTML and MRT)
- ☐Data output (Excel, BMP, JPEG and AVI)



Field of View Diagram (Thermal image)



CAUTION FOR SAFETY

Please read "WARNING" & "CAUTION " in the operation manual attached to the product carefully for proper operation before using the product.

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