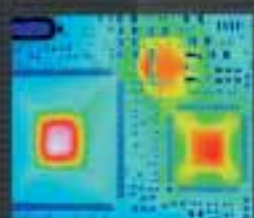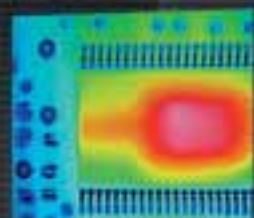# NEC

NEW

High Quality Image with 640✕480 Pixel

High Resolution
Infrared Thermal Imager **H2640**
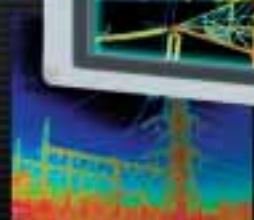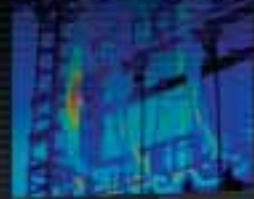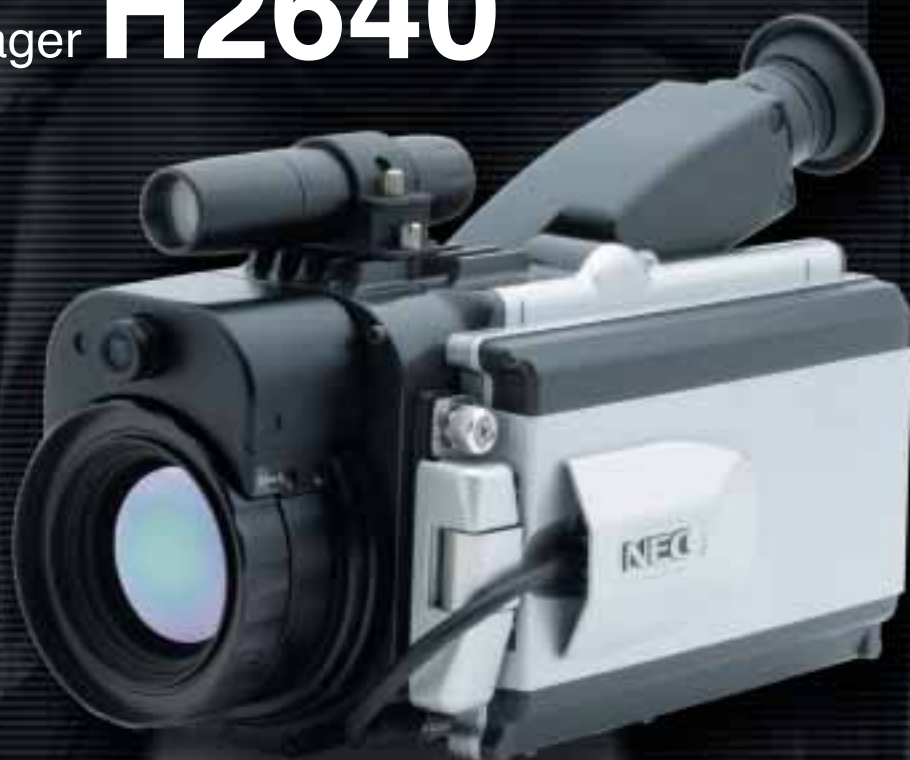
- 640✕480 UFPA detector
- Resolution 0.03℃
- Frame time：30 frames/sec
- Auto focusing
- Visible camera
- Thermal／visual fusion
- Real-time memory
- Data transfer via IEEE1394
- Voice recording
- Environmental protection

Captures more details. Makes greater potential.
Ultimate standard of image with more user-friendly operation!

NEC Avio Infrared Technologies Co., Ltd.

Features

High performance
- 640×480 pixel high quality image
- Resolution: 0.03℃

Visual/thermal image fusion function
- Visible camera built-in
- Overlaid display of thermal and visual images

Moving image recordable
- Internal high-speed memory stores up to 832 images
- Data transfer via IEEE1392

Excellent auxiliary functions
- Automatic focusing
- Built-in LED light & laser pointer
- Voice & text annotations

Various measuring functions
- Multiple emissivity correction in real-time
- Multi-focus function
- External trigger recording

Wide 5.6-inch LCD
- Less power consumption with a LED backlight
- Easy to see even at outdoor
- Image can be rotated 180°

Makes outwork easier
- Battery life: Approx. 2 hours
- IP54 environmental protection
- 200g less than previous TH9260

Multi-language menu
- English, French, Portugal, Spanish, Germany, Chinese(traditional), Chinese(simplified), Korean, Russian, Italian, Japanese

Specifications

Measuring range	-40 to 500℃ Range 1: -20 to 60℃ Range 2: -40 to 120℃ Range 3: 0 to 500℃ Range 4: 200 to 2000℃ (optional: display 0 to 2000℃)
Resolution	0.06℃ or better (at 30℃, 30Hz) 0.03℃ or better (at 30℃, Σ64)
Accuracy	±2℃ or ±2% of reading, whichever is greater
Detector	Uncooled focal plane array (microbolometer)
Spectral Range	8 to 13μm
I.F.O.V.	0.6mrad
Focusing Range	30cm to infinity
Field of View	21.7°(H) × 16.4°(V)
Frame Time	30 frames/sec
Display	View finder & 5.6-inch movable color LCD
Thermal Image Pixels	640(H) × 480(V) pixels
A/D resolution	14bits
Measuring functions	Run/Freeze
S/N improvement	Σ2, Σ8, Σ16, Σ32, Σ64
Alarm	Screen display and alarm sound (ON/OFF)
Interval measurement	Recording on built in real time memory: 1/30 to 3600 sec interval Recording on memory card: 5 to 3600 sec interval (thermal image) 30 to 3600 sec (thermal & visual images) Trigger function provided
Emissivity correction	Provided (0.10 to 1.00). Emissivity table provided.
Env. temp. correction	Provided (including interval NUC)
User setup	Pre-registration of environmental setup (up to 10 setups)
Background Compensation	Provided
Distance correction	Provided
Auto functions	Full automatic (level, sense, focus), Level trace, Auto-gain control
Thermal/visual image fusion	Provided
Visible light camera	1.31 Mega pixels, focusing distance: 30cm to infinity
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, movable Thumbnail display: 12 thermal images replay Image rotation: 180° rotation Multi-sense display, Battery life indicator Waveform display: X-Y line waveform at Freeze mode Multilingual menu
Image processing functions	Variable level/sense Multi-point temperature display (up to 10 points) Multi-point emissivity correction (up to 10 points) Temperature difference between 2 points (Δt) Max/Min (peak hold) temperature display Alarm (full screen or specified box) Digital zoom: 2, 4, 8 times (Run/Freeze) BOX setting, up to 5 boxes (max, min, average) Sharpness filter, Median filter, Average filter
Multi-focus*	On/Off, temp threshold (1 to 100℃, 1℃ step), Images to capture (16 or 32), direction of edge detection (horizontal, vertical, horizontal&vertical)
Annotation	Text and voice annotation (30 sec per image)
Storage device	Compact flash memory card for: Thermal image in SIX or BMP file format Visual image in SIX or JPEG file format
Movie recording	Real-time memory: up to 832 images (max 30Hz)
Video signal output	NTSC/PAL, composite video signal, S-video
Interfaces	IEEE1394a, RS-232C, USB1.1/2.0 (Mass-storage) Compact flash mermory card slot
Operating temperature	-15 to 50℃, 90% RH or less (not condensed)
Storage temperature	-40 to 70℃, 90% RH or less (not condensed)
Power supply	AC adaptor: DC 7.2V (nominal)
Power consumption	Approx. 9W (Typ)
Shock & vibration	Shock: 294m/sec² (30G) (IEC60068-2-27) Vibration: 29.4m/sec² (3G) (IEC60068-2-6)
Environmental protection	IP54 (IEC60529)
Dimention & weight	Approx. 110(W)×110(H)× 210(D) mm (excluding projections) Approx. 1.5kg (without battery, LCD) Approx. 1.7kg (with battery, LCD)

*Image with multi-focus may not be obtained if there is little temperature difference.
Standard accessories: AC adapter, battery pack(2pcs), battery charger, compact flash memory card & adapter, USB cable, target illuminator, carrying case, grip belt, neck strap, lens cap, viewer software, operation manual

Options

Model	Product Name	Description
TH71-334, 359, 360	AC adapter	Safety standard: PSE, UL, CE, CSA (334: 110V PSE, 359: 220-240V CE, 360: 110V UL)
TH91-464	Battery pack	Lithium ion battery
TH71-339, 340	Battery charger	With 2 battery slots (339: 200-240V, 340: 100-110V)
TH92-490	High temperatuer range	200 to 2000℃
TH92-482	10°telephoto lens (2x)	10.9°×8.2° with visual camera, focusing range: 2m to infinity
TH92-483	42°wide-angle lens (0.5x)	45.2°×33.7° with visual camera, focusing range: 0.3m to infinity
TH92-486	100μm close-up lens	Min. detectable size: 100×100μm, scan range: 64×48mm, working distance: 195mm (Add-on type)
TH92-485	25μm close-up lens	Min. detectable size: 25×25μm, scan range: 16×12mm, working distance: 11mm (Add-on type)
TH92-488	Lens adapter	For attaching TH9100 close-up lenses to H2640 (Applicable lenses: TH91-385/386)
TH92-491	2nd year product warranty	Except temperature calibration

Software

Model	Product Name	Description
NS9100	Data capture software with trigger function	Requires Windows XP(Professional) Service Pack 2(or newer), Windows 2000(Professional) Service Pack 4(or newer) or Windows Vista Ultimate. Microsoft Excel and Word are also required for operation of some functions *1 *2
TH91-157	External trigger box	For NS9100. Trigger input & output up to 4 points each.
NS9200	Report generator software	Requires Windows XP(Professional) Service Pack 2 (or newer) or Windows 2000 (Professional) Service Pack 4 (or newer). Microsoft Excel and Word (2000, 2002 or 2003) are also required for operation of some functions *3
NS9300	Image Processor Pro II software	Requires Windows XP(Home Edition/Professional) Service Pack 2 (or newer) , Windows 2000 (Professional) Service Pack 4 (or newer) or Windows Vista Ultimate. Microsoft Excel and Word are also required for operation of some functions *4 *5
TH92-717	IEEE1394 data capture software with cable	For real-time image data transfer via IEEE1394, with 4m cable

*1 Microsoft Excel (2000, 2003 or 2007) required for data conversion (CSV format) & report generation. Microsoft Word (2000, 2003 or 2007) required for report generation. *2 Data capture function requires IEEE1394.
*3 Data-capture-on-Excel function requires IEEE1394. *4 Microsoft Excel (2000, 2003 or 2007) required for data (CSV format) & report generation. *5 Data capture function requires IEEE1394.

Field of View Diagram (Thermal image)
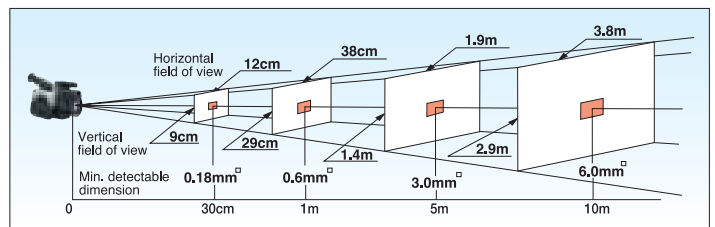
⚠ CAUTION FOR SAFETY

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

Distributor:

Catalog ref : NA021

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