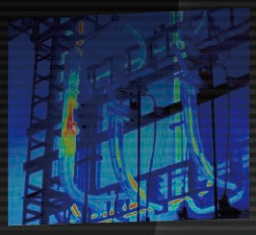
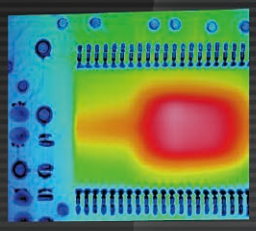
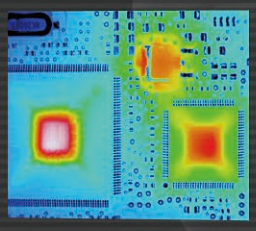
Avio

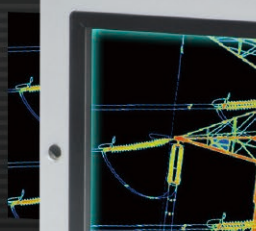
High Quality Image with 640×480 Pixel

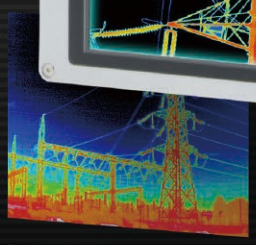
High Resolution
Infrared Thermal Imaging Camera **H2640**











- 640×480 UFPA Detector
- Resolution 0.03°C
- Frame Time : 30 fps
- Visual Light Camera
- Auto/Manual Focus (Mechanical)
- Thermal / Visual Fusion
- High Speed Continuous Capture
- IEEE1394 for Real-Time Capture
- Voice & Text Annotation
- IP54 Protective Case

Capture Details in High Resolution. Feature Packed for ALL Applications.
Crisper, Clearer Images Using Advanced VOX Detector Technology.

NIPPON AVIONICS CO., LTD.
An NEC Group Company

Features

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

Visual/thermal fusion, simultaneous image capture
- Visual light camera built-in
- Alpha blending, Resizable, Movable

Radiometric movie recording
- Real-time capture on PC via IEEE1394
- High speed continuous capture to internal memory

Excellent supporting functions
- Auto/manual focus(mechanical/motorized)
- LED illuminator and 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
- Bright LED-backlit screen-easy to see indoor/outdoor
- Pan-tilt display for flexible shooting posture

Easy to use-longer operation
- Battery life: Approx. 2 hours
- IP54 protective casing
- 200g lighter than preceding TH9260

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

Specifications

	Item		H2640	H2640D
Basic Performance	Infrared Detector		Uncooled Focal Plane Array (microbolometer)	
	Spectral Range		8 to 14μm	
	Measuring Range		-40 to 500°C (Optional : 200 to 2000°C)	
	Sensitivity (NETD)		0.06°C at 30°C 0.03°C at 30°C (with S/N improvement)	
	Accuracy		±2°C or ±2%	
	Frame Rate		30Hz	7.5Hz
	Detector Pixels		640(H)×480(V) pixels	
	Field of View		21.7°(H)×16.4°(V) (with standard lens)	
	Spatial Resolution		0.6mrad (with standard lens)	
	Focal Distance		30cm to infinity (with standard lens)	
	Focus		Auto / Manual	
Image Display	Auto Functions		Auto-gain control (Auto-scale), Auto-focus, Full-auto, Level trace	
	Color Pallet		Rainbow, Shine, Fine (Iris), Brightness, Hot iron, Medical (Display color :color/mono, positive/negative)	
	Gradation		256/128/64/32/16 tones	
	Multi-Sense-Display		Provided	
	Visual Camera		CMOS camera 1.3M pixels	
	Display Functions	Fusion	Provided	
		Digital Zoom	2/4/8 times	
		Multi-Image-Display	Display 12 images (replay mode)	
	Image Quality Improvement	Averaging	Off / Σ2/ Σ8/ Σ16/ Σ32/ Σ64	
		Edge Enhancement	Provided	
		Median Filter	Provided	
		Filtering	Provided	
	Multi-focus		Provided *1	
Measuring Functions	Point Temperature		10 Movable Points	
		Temperature Search	MAX/MIN	
		Delta Temperature	Provided	
	Temperature Display in Assigned Region		MAX, MIN and AVG in Box (for up to 5 Boxes)	
	Line Profile		Horizontal, Vertical or Horizontal & Vertical (at Freeze mode)	
	Alarm function		Alarm Sound, Alarm Display, ISO (Color Alarm)×4	
	Temperature Correction Function		Emissivity, Environment/Background, Distance, NUC	
		Emissivity	Multi-Point Correction (10 Points), Emissivity Table	
Storage / Output	Storage Device		CF Card	
	Data Storage		Thermal image in SIX (14bit) or BMP file format Visual image in SIX or JPEG file format	
		Interval Recording	5 to 3600 sec (thermal image) 30 to 3600 sec (thermal & visual image)	
		Movie Recording	max 30 fps in Real Time Memory (continuous capture up to 832 images)	max 7.5 fps in Real Time Memory (continuous capture up to 832 images)
		Voice Annotation	30sec Recording/Replay per Image	
		Text Annotation	Annotate up to 256 Characters with each Thermal Image Import Characters from CF Card	
	Interface	USB2.0	Mass-Storage (USB 2.0/1.1)	
		IEEE1394a	Provided	
		RS232C	Provided	
		Video output	NTSC or PAL , S-video (optional cable TH91-348 required)	
Auxiliary Measuring Functions	Graphical User Interface's Supported Language		English, French, Spanish, German, Italian, Portuguese, Russian, Chinese (Traditional, Simplified), Korean and Japanese.	
	User Setup		10 setups	
	Display		5.6" LCD Monitor (with Tilt and Brightness Adjustment), Color View Finder (with Tilt Mechanism)	
	Auxiliary	Laser Pointer	Provided (Class-2 Red color)	
		LED Light	Provided	
Others	Environment Resistance	Operating temperature / Humidity	-15°C to 50°C, 90%RH	
		Storage temperature / Humidity	-40°C to 70°C, 90%RH	
		Vibration / Shock	29.4m/sec² (3G), 294m/sec² (30G)	
		Dust / Splash Proof	IP54	
	Battery Operation		2hours (typ.)	
	AC Power		AC adapter (DC7.2V)	
	Power Consumption		9W (typ.)	
	Dimensions		Approx. 110mm(H) × 110mm(W) × 210mm(D) (excluding projections)	
	Weight		Approx. 1.7kg (including Battery Pack, LCD)	
	Standard Accessories		AC Adapter ×1, Battery Charger ×2, Rechargeable Li-Ion Battery ×1, CF Card ×1, CF Card adapter ×1, USB cable ×1, LED light ×1, Neck Strap ×1, Grip Belt ×1, Software ×1, Operation Manual ×1, Lens Cap ×1, and Carrying Case ×1	
	Standard Software		InfReC Analyzer NS9500Pro/NS9500LT	

*1 Image with multi-focus may not be obtained if there is little temperature difference.

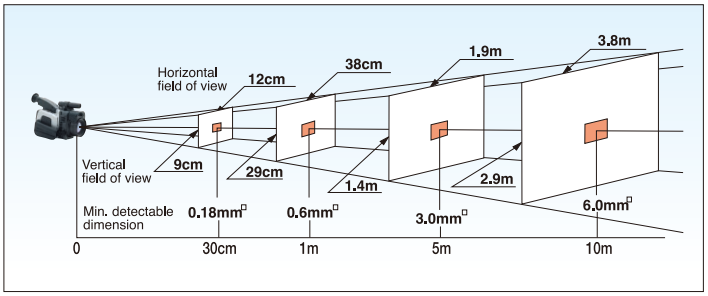
Options

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)
TH91-465	Battery pack	Lithium ion battery
TH71-339, 340	Battery charger	With 2 battery slots (339:200-240V, 340:100-110V)
TH92-490	High temperature range	200 to 2000°C
TH92-481	5°telephoto lens (4.5x)	4.9°×3.7° focusing range : 20m to infinity
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
NS9500PRO	Capture, analysis and report generator software	Real-time image data transfer via IEEE1394 (H2640). Requires WindowsXP (32bit), WindowsVista (32bit) or Windows7 (32/64bit). Microsoft Excel and Word required for report generation.
NS9500LT	Report generator software	Radiometric data viewer, analyser, reporter (license free)
TH92-717	IEEE1394 data capture software with cable	For real-time image data transfer via IEEE1394, comes with 4m cable

Field of View Diagram (Thermal image)



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WARNINGS & CAUTIONS
- Before using this product, please carefully read the provided Operation Manual "WARNINGS" & "CAUTIONS" section to ensure proper operation.
- Please do not place the product in high temperature, high humidity or high inert gas environments.

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Catalog ref : AV006 I1301D1 Printed in Japan