

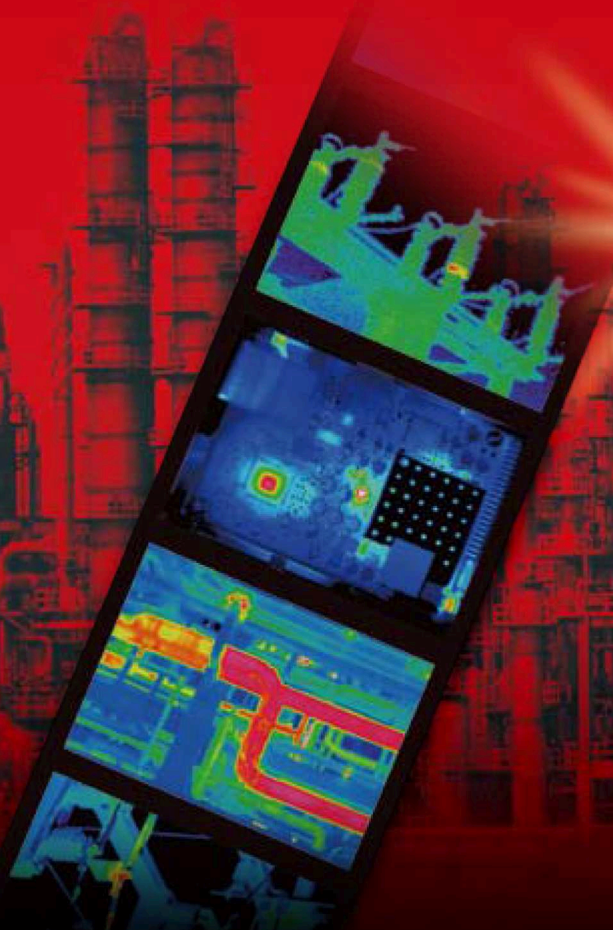


# New Series Released!

# NEC

# Thermo GEAR G120/G100

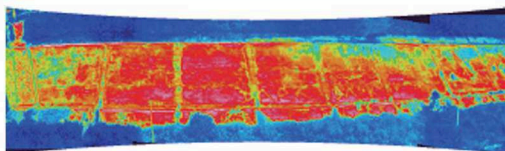
The World's First\*<sup>1</sup> Panoramic Thermal Imaging Function with Vibration Alarm Feature!!



### Wide-Angle Shot

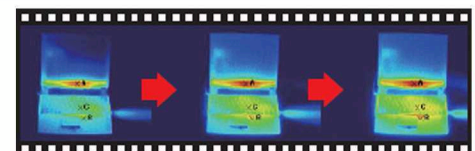
**World's First**<sup>\*1</sup>

### Thermal Image Panoramic<sup>\*2</sup>



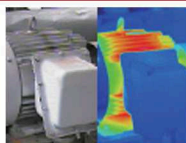
### Thermal Image Movie

### Direct Recording of Fully Radiometric Images on SD Card (10fps)<sup>\*2</sup>



### Image Fusion Function

### Parallel Display, etc.



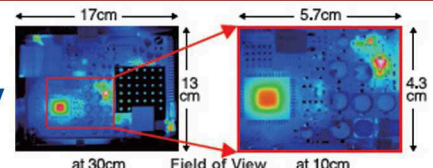
Parallel Display



Blended Display

### Macro Shot

### 10cm Macro Capability (Field of View)



### Alarm Function

**World's First**<sup>\*1</sup>

### Vibration<sup>\*2</sup>, Sound & Display

### Wide View Angle

### Ideal in Short Distances 32°(H) x 24°(V)

### 3.5 Inch LCD Screen

### Flexible 270° Display Supports Easy Shooting Posture

### Easy Operation

### GUI & Joystick for Intuitive Operation, Auto Focus/Level Sense

### Newly Developed Image Processor

### Split Screen Alpha Blending Edge Enhancement

### Data Storage Format

### Radiometric JPEG<sup>\*3</sup>

\*1 World's First (Panoramic Thermal Image Shooting Function), (Vibration Alarm Function) (Surveyed by NEC Avio at the end of December 2009) \*2 Installed only in G120 \*3 Dedicated Software (NS9500LT) is provided for radiometric data analysis while IR/Visible JPEG Images can be displayed by any ordinary viewer software

NEC Avio Infrared Technologies Co., Ltd.

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ISO9001  
JQA-1598



ISO14001  
JQA-EM0260  
HEAD OFFICE

## Specifications

Model	G120	G100		
Basic Performance	Measuring Range	-40°C to 500°C High Temperature Range: 350°C to 1500°C (Option)		
	Resolution (NETD)	0.08°C (at 30°C, 60 frames/sec)		
	Accuracy	±2°C or ±2% of Reading, whichever is greater		
	Infrared Detector	Uncooled Focal Plane Array		
	Thermal Image Pixels	320(H) x 240(V) pixels		
	Spectral Range	8 to 14µm		
	Frame Rate	60 frames/sec		
	Field of View	32°(H) x 24°(V) (Standard Lens f = 14mm)		
	Spatial Resolution (I.F.O.V.)	1.78mrad		
	Focusing Range	10cm to Infinity (Standard Lens) (For Temperature Accuracy: 30cm to Infinity)		
A/D Resolution	14bits			
Automatic Focus	Provided			
Setting of Level/Sense/Span	Auto/Manual			
Operation Support Function	Setting of Item/Each Function/Status is displayed by icon			
Operation/ Image Quality Improvement	Multiple Language Menu	16 Languages: English, Danish, Dutch, Finnish, French, German, Italian, Japanese, Korean, Norwegian, Portuguese, Russian, Spanish, Swedish, Simplified Chinese and Traditional Chinese		
	Correcting Function	Correction for Emissivity, Distance, Environmental Reflection and Background		
	Averaging	Provided		
	Median Filter	Provided		
	Edge Enhancement	Provided	Not Included	
Display Performance	Thermal/Visual Image Fusion Display	Fusion and Picture-in-Picture with Alpha Blending, and Split-Screen Display of Thermal/Visual Image		
	Color Palette	Rainbow, Iris, Brightness, Color, Hot Iron, Hot Black, Hot White		
	Gradation	256, 16 and 8 tones		
	Thumbnail Display	9 Image Display		
	Digital Zoom	1 to 4 times		
Measurement Performance	Panoramic Shooting Function	Provided (Scan Synthesis)	Not Included	
	Multipoint Temperature Display	5 Points		
	Multipoint Emissivity Correction	5 Points		
	Emissivity Back Calculation Function	Provided		
	Temperature Difference Between Two (2) Points	Provided		
	Temperature Analysis Function in Assigned Region	Temperature Display of Maximum/Minimum/Average in Assigned Region (for up to 5 boxes)		
	Profile	Horizontal/Vertical		
	Temperature Search Function	Searching Maximum/Minimum Temperature, Automatic Display of each position		
	Alarm Function	Mode(s): Alarm Sound, Alarm Display, Vibration (G120 only), Color Alarm ON/OFF, Setting Determination Temperature, External Alarm Output		
	Data Storage	Storage Device	SD Card, corresponding to SDHC	
Thermal Image Movie		Provided (10fps) Storage in SD Card   Not Included		
Still Image		Radiometric JPEG		
Interval Image Capturing		3sec to 60min, Automatic Recording of Thermal Image		
Event Trigger Recording		Provided		
Interface	USB 2.0	Mass Storage Function		
	Alarm Output	Contact Closure. No Voltage.		
	Video Output	NTSC/PAL Changeover (Simultaneous use is unable with LCD)		
Others	Laser Pointer	Provided (Class - 2 Red Color)		
	Visual Camera	2 Mega pixels CMOS Camera		
	LED Light	Provided		
	Voice Annotation	30sec Recording/Replay per Image		
	Text Annotation	Annotate up to 256 characters with each Thermal Image. Import characters from SD Card.		
	Display Unit	3.5 inch Color LCD Monitor (320 x 240) with Tilt Function and Brightness Control Function		
	PC Software	InfReC Analyzer NS9500LT (Limited Function Version), provided as Standard Accessory		
	Standard Accessories	Hard Case, Battery Pack, Battery Charger, AC Adaptor, Wristband, SD Card, USB Cable, Operation Manual, Software (see above)		
	Power	Rechargeable Battery	Lithium-ion Battery Pack (2,500mAh); 4 Hours of Continuous Use	
		AC Power (AC Adapter)	100V to 240VAC, 50/60Hz	
Power Consumption		4.3W (typical)		
Environmental Conditions	Operating Temperature/Humidity	-15°C to 50°C, 90%RH		
	Vibration/Shock	29.4m/sec <sup>2</sup> (3G)/294m/sec <sup>2</sup> (30G)		
	EMC	Compliant to CE (Class-A)		
Dust-Proof/Splash-Proof Construction	Protection Code: IP54 Equivalent			
Dimensions	Approx. 212mm (H) x 76mm (W) x 138mm(D) (excluding projections)			
Weight	Approx. 800g (including Battery Pack)			

Contact:

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## PC Software

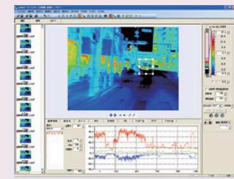
### InfReC Analyzer NS9500 (Optional)

(NS9500 Lite: Standard Accessories)

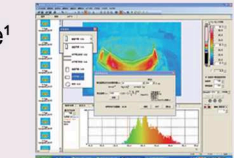
The Thermal Image Processing/Report Generator Software is designed for ease of operation with simple to read menus and icons.

#### Features

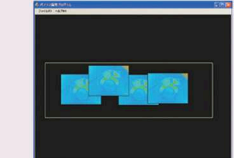
- ◆ Easy Report Generation (MS Word/MS Excel Format)
- ◆ Rich Processing Functions
  - Fusion Display of Thermal Image/Visual Image
  - Subtracting Function for Thermal Image
  - Panoramic Composite Function for Thermal Image<sup>1</sup>
  - Radiation Heat Quantity Analysis<sup>1</sup>
  - Length Measuring/Area Calculation Function<sup>1</sup> for Thermal Image
  - Trend Graph Display<sup>1</sup>
  - Line Profile Display
  - Drawing Function for Designated Point/Line/BOX/Circle<sup>1</sup>/Polygon Shaped<sup>1</sup>
  - Analysis for Max/Min/Peak Temperature



Trend Graph Display



Radiation Heat Quantity Analysis



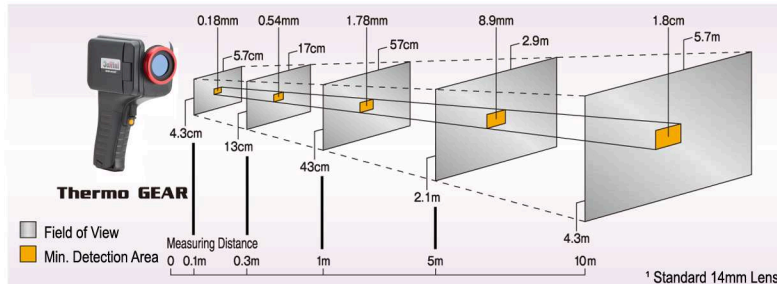
Panoramic Synthesis Function for Thermal Image

<sup>1</sup> NS9500 only

## Options

Options	Model	Specifications/Remarks
1500°C High Temperature Range	IRR-HG100B	350°C to 1,500°C
2x Telephoto Lens	IRL-TX02A-B	16°(H) x 12°(V) 0.89mrad (f = 28mm)
Rechargeable Battery Pack	T2UR18650F5928B	2,500mAh, 4 Hours of Continuous Use (Typical)
Battery Charger	NC-LSC05-110V / NC-LSC05-220V	110V or 220V
LCD Hood	IRU-F01A	
Video Cable	MV-320MP	3.5mm plug, 2m
Tripod (Small)	U9800	
InfReC Analyzer Standard	NS9500STD-B	PC Software
Portable Power for Longer Operation	TVB-C501	Case for 2 Extra Batteries (Battery not Included)
Two (2) Year Warranty	IRS-GG100A-B	

## Dimensions of Measuring Distance and Field of View<sup>1</sup>



<sup>1</sup> Standard 14mm Lens

**InfReC** InfraRed Camera. InfReC is the coined abbreviation word of "InfraRed Camera" and also has the meaning of "The Device Bringing-in Infrared Information". Our product research and development is targeted at improving the quality of life by protecting people and simplifying their daily tasks while measuring temperature, controlling environments, enhancing security, etc.

- ◆ Company names, merchandise names listed on this brochure are brand or trade mark of each company.
- ◆ Listed Specifications/Design, etc., may be subjected to change for improvement without notice. Printed color images may differ slightly from actual product color image.

## CAUTIONS & WARNINGS

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

Additional Contact: