



New Series Released!

NEC

Thermo GEAR G120/G100 Series

World's First!※1 Panoramic Thermal Image Shooting Function / Vibration Alarm Function Installed!



Innovative Thermograph Equipped with High Quality Image/High Performance in Addition to Multi-Angle LCD Screen!

<p>Wide-Angle Shot</p> <p>World's First ※1</p> <p>Panoramic Thermal Image ※2</p> 	<p>Thermal Image Movie</p> <p>Direct Recording on SD Card in Fully Radiometric (G120:10fps, G120D:8.5fps) ※2</p> 				
<p>IR/Visual Integrated Display</p> <p>Split-Screen, Fusion, Alpha Blending</p>  <p>Split-Screen Fusion</p>	<p>Macro Shot</p> <p>Min Focus Distance: 10cm</p> 				
<p>Alarm Function</p> <p>World's First ※1</p> <p>Vibration, Sound and Display ※2</p>	<p>Wide Field of View</p> <p>Ideal in Short Distance 32°(H) × 24°(V)</p>	<p>3.5 inch LCD Screen</p> <p>Tilting Display for Flexible Easy Shooting Posture</p>	<p>Easy Operation</p> <p>GUI and Joystick for Intuitive Operation, Auto Focus / Level-Sense</p>	<p>Newly Developed Image Processor</p> <p>Averaging, Median Filter, Edge Enhancement ※2</p>	<p>Data Storage Format</p> <p>Radiometric JPEG ※3</p>

※1:World's first [Panoramic Thermal Image Shooting Function],[Vibration Alarm Function](Surveyed by our company at end of December,2009.)
 ※2:Provided on G120 Series only.
 ※3:Dedicated software (NS9500LT) provided for radiometric data analysis while IR/visible JPEG images can be displayed by any ordinary viewer software.



NEC Avio Infrared Technologies Co., Ltd.

Specifications

Model	G120	G120D	G100	G100D	
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)			
	Accuracy	± 2°C or ± 2% of Reading, whichever is greater			
	Infrared Detector	Uncooled Focal Plane Array (microbolometer)			
	Thermal Image Pixels	320 (H) x 240 (V) pixels			
	Spectral Range	8 to 14μm			
	Frame Rate	60 frames / sec	8.5 frames / sec	60 frames / sec	8.5 frames / sec
	Field of View	32° (H) x 24° (V) (standard lens f = 14mm)			
	Spatial Resolution (I.F.O.V.)	1.78mrad			
	Focal Distance	10cm to infinity (standard lens) (For temperature accuracy: 30cm to infinity)			
A / D Resolution	14bits				
Operation / Image Quality Improvement	Automatic Focus	Provided			
	Setting of Level/Sense/Scan	Auto / Manual			
	Operation Support Function	Setting of Item / Each Function / Status is displayed by icon.			
	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			
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			
	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 Points	Provided			
Measurement Performance	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: Alarm Sound, Alarm Display, Vibration Alarm (G120 only), Color Alarm ON / OFF, Setting Determination Temperature, External Alarm Output			
	Storage Device	SD Card, corresponding to SDHC			
	Thermal Image Movie	10fps in SD card	8.5fps in SD card	Not Included	
Data Storage	Still Image	Radiometric JPEG			
	Interval Recording	3 s to 60 min, Automatic Recording of Thermal Image			
	Event Trigger Recording	Provided			
	USB 2.0	Mass Storage Function			
Interface	Alarm Output	Contact Closure. No Voltage.			
	Video Output	NTSC / PAL Changerover (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	30 sec 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 Supply	Rechargeable Battery	Lithium-ion Battery Pack (2,500mAh), 4 Hours of Continuous Use (typical)			
	AC Power (AC Adaptor)	100V to 240V AC, 50 / 60Hz			
Environmental Conditions	Power Consumption	4.3W (typical)			
	Operating Temperature / Humidity	-15°C to 50°C, 90% RH			
	Vibration / Shock	29.4m/sec ² (3G) / 294m/sec ² (30G)			
Dust-proof / Splash-proof Construction	EMC				
Dimensions	Compliant to CE (Class-A)				
Weight	Protection Code: IP54 Equivalent				
	Approx. 212mm (H) x 76mm (W) x 138mm (D) (excluding projections)				
	Approx. 800g (including Battery Pack)				



[InfReC] is the coined abbreviation word of "Infrared Camera" and also has the meaning of [The Device Recording 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. In addition, the color of photo may be a little different from actual color of products since they are printed.

PC Software

InfReC Analyzer NS9500 (optional)

(NS9500 Lite: Standard Accessories)

Thermal Image Processing and Report Generator Software
Easily identifiable menu system guides you to intuitive operation

[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*¹
Radiation Heat Quantity Analysis*¹

Length Measuring/Area Calculation Function*¹
for Thermal Image

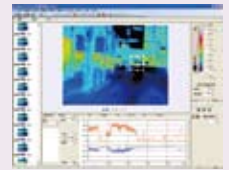
Trend Graph Display*¹

Line Profile Display

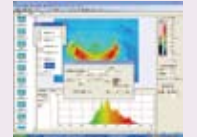
Drawing Function for Designated Point / Line / BOX / Circle*¹ / Polygon Shaped*¹

Analysis for Max./Min./Peak Temperature

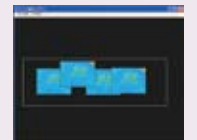
*1: NS9500 only



Trend Graph Display



Radiation Heat Quantity Analysis

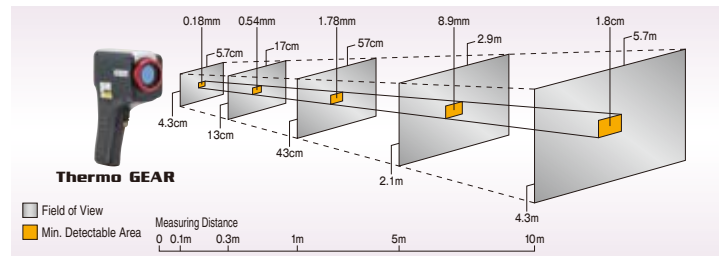


Panoramic Composite Function for Thermal Image

Options

Options	Model	Specifications / Remarks
1500°C High Temperature Range	IRR-HG100B	350°C to 1,500°C
2 x 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)
2 year warranty	IFS-GG100 A-B	

Dimensions of Measuring Distance and Field of View (Standard 14mm Lens)



NEC Avio Infrared Technologies has long experience and expertise in developing infrared cameras since the early 1970's. There is a wide range of portable and fixed mount thermal imagers available. To find out more, visit us at: www.nec-avio.co.jp/en/ or contact our local distribution partners.



CAUTIONS & WARNINGS

- 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 : NA024

D1003B4 Printed in Japan