



New Series Released!

NEC

Thermo GEAR G120/G100

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!

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

※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 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	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 (microbolometer)	
	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	
	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	
	Median Filter	Provided	
Edge Enhancement	Provided	Not Included	
	Not Included	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		
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 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: Alarm Sound, Alarm Display, Vibration Alarm (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 Recording		3 s to 60 min, 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 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	
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	
	Power Consumption	4.3W (typical)	
Environmental Conditions	Operating Temperature / Humidity	-15°C to 50°C, 90% RH	
	Vibration / Shock	29.4m/sec ² (3G) / 294m/sec ² (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)		



[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*
Radiation Heat Quantity Analysis*¹

Length Measuring/Area Calculation Function*
for Thermal Image

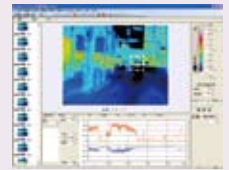
Trend Graph Display*¹

Line Profile Display

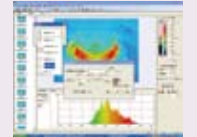
Drawing Function for Designated Point / Line / BOX / Circle*¹ / Polygon Shaped*¹

Analysis for Max./Min./Peak Temperature

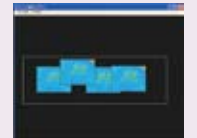
*1: NS9500 only



Trend Graph Display



Radiation Heat Quantity Analysis

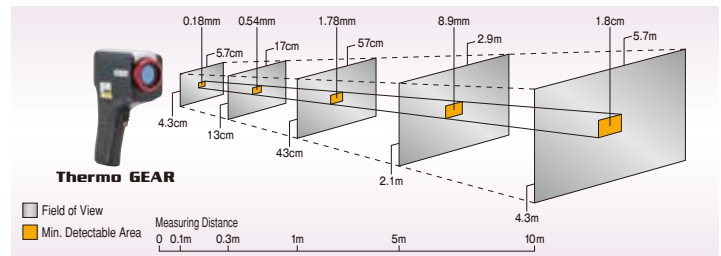


Panoramic Composite Function for Thermal Image

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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