InfReC
InfraRed Camera

Infrared Thermal Imaging Camera

High Resolution Infrared Image for Professional Thermographer

InfReC R550series

High speed sampling at maximum speed 120Hz（R550Pro）

- 120Hz：640×120 with windowing
- 60Hz ：640×240 with windowing
- 30Hz ：640×480 at full window

Automatic movie recording function by PC

- Software makes movie recording start automatically by external trigger input.

1.2M pixels Infrared Thermal Imaging Camera

- Super Resolution Mode (SR MODE) :1280x960 pixel
  (Standard MODE) :640x480 pixel
- Spatial Resolution: equivalent to 0.58 mrad

Variety of Lens Lineup Makes Play an Active Role in Various Measuring Scene

- 21um Closeup Lens
- 52um Closeup Lens
- 2x Telephoto Lens
- 2x Wide Angle Lens
- 3x Wide Angle Lens

Selectable 2 models for your application

- R550Pro: Measuring range: -40 to 2000°C
  Suitable for use in R&D, for making high temperature measurements, and for measuring high temperature
- R550: Measuring range: -40 to 650°C
  Excellent choice for inspection of electrical facilities and remotely located pipes.

Realizes the highest speed sampling(*) in the portable VGA class equipment

*Research by Avio in August 2018

For monitoring of welding process.

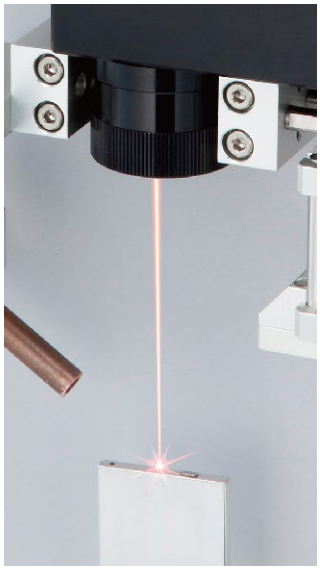
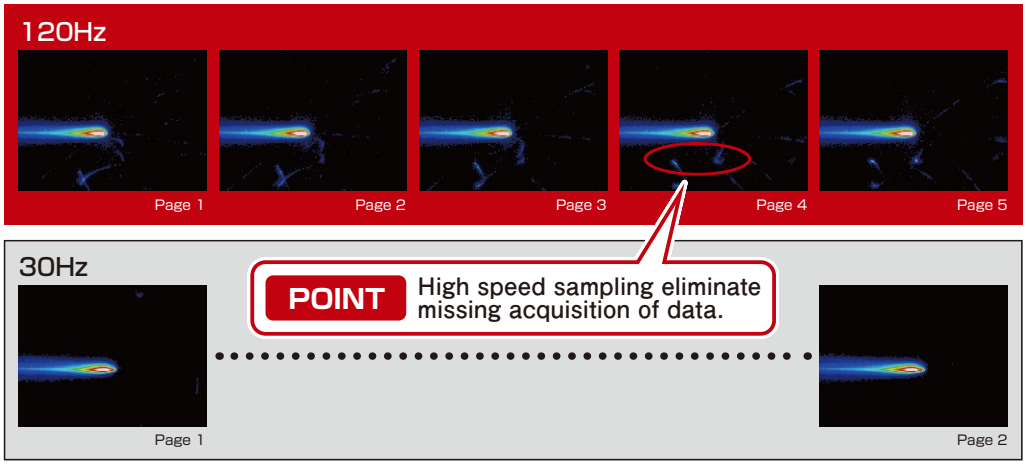


Image of laser welding

By high speed sampling time of 120Hz（R550Pro）, occurrence of small spatter and thermal affection can be checked.



Example of laser welder monitoring (Object: Stainless steel, Laser output: 250W, Scan 50mm)

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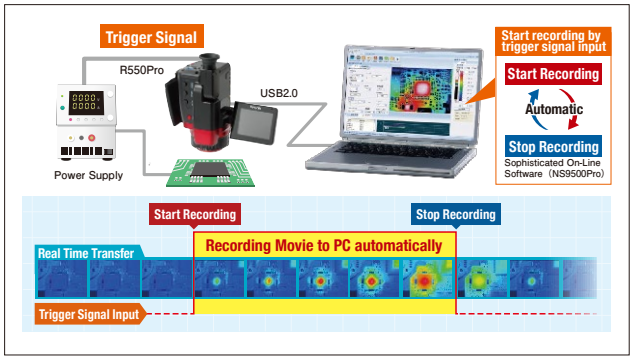
Automatic Movie Recording Feature Built In

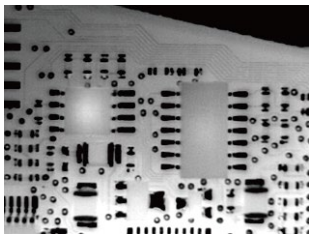
■Recording movie connected PC automatically by external trigger input to R550Pro

■Data recording linked with test equipment and field facility is available without configuring I/O system

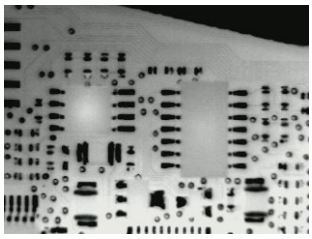


Maximum 1.2million pixel recoding (SR mode)

1.2 million pixels
(Taken by SR mode with digital zoom x2.0)

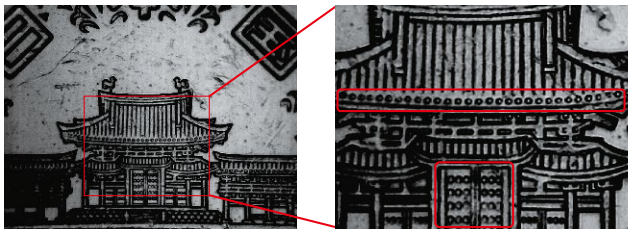


0.3 million pixels
(Take by standard mode with digital zoom x2.0)



Clear imaging and measurement from wide to micro with use of option lens

With use of 21um close up lens (Spatial resolution 21um)



Measuring Distance and F.O.V

Field of View and Spatial Resolution are the same magnification with measuring distance.

Lens Type			2x Telephoto Lens	Standard Lens	2x Wide Angle Lens	3x Wide Angle Lens
L=1m	Field of View (H) × (V)		29×22cm	57×42cm	128×92cm	211×149cm
	Spatial Resolution	Normal Mode	0.44mm	0.9mm	1.74mm	3.1mm
		Super Resolution (SR mode)*3	0.30mm	0.6mm	1.16mm	2.1mm

Specifications

	Feature		R550Pro	R550Pro-D	R550	R550-D
Basic Performance	Infrared Detector		Uncooled Focal Plane Array (Microbolometer)			
	Spectral Range		8 to 14μm			
	Measuring Range		−40 to 2000°C		−40 to 650°C	
	Sensitivity (NETD)		0.025°C at 30°C (with S/N improvement)			
	Accuracy		±1°C *1			
	Frame Rate		30Hz / 60Hz*2 / 120Hz*3	7.5Hz	30Hz	7.5Hz
	Detector Pixels		640(H)× 480(V) pixels			
	Recording Pixels		Standard mode : 640(H) × 480(V) , Super Resolution (SR mode) mode : 1280(H) × 960(V) *4			
	Field of View		32° (H) × 24° (V) (with standard lens)			
	Spatial Resolution		Standard mode : 0.87mrad , Super Resolution (SR mode) mode : 0 .58mrad equivalent *5			
	Focal Distance		10cm to infinity (with standard lens) *6			
	Focus		Auto/Manual			
Image Display	Auto Function		Auto Scale, Auto Focus, Full Auto			
	Color Pallets		7 pallets (Rainbow, Brightness, Hot-white, Hot-black, etc.)			
	Gradation		256 / 32 / 16 / 8 grade			
	Visible Camera		CMOS camera 5M pixels			
	Visible/Thermal Fusion		Side-by-side, Fusion(transparency changeable) , Picture-In-Picture(transparency changeable)			
	Display Functions		1 to 8 times continuous zoom (with display positioning scroll), Grid Overlay, 9 images multi-display (replay mode)			
	Image Quality Improvement		Denoising, Averaging (with ghost rejection), Edge enhancement			
Measuring Functions	Point Temperature		10 Movable Points, Temperature search: MAX/MIN x 1 each, Delta T			
	Temperature Display in Assigned Region		MAX, MIN and AVG in BOX (Up to 5 boxes)		N/A	
	Line Profile		Horizontal, Vertical, Horizontal & Vertical			
	Alarm Function		Alarm Display, Alarm Sound, Color Alarm, Alarm Recording,			
			Alarm Signal Output		N/A	
	Temperature Correction		Emissivity, Environmental/Background, Distance			
		Emissivity	Multi-point Correction, Emissivity Table			
			Emissivity Reverse Calculation		N/A	
		Drift Stabilizer	Yes		N/A	
Storage & Output	Storage Device		SD card, Conforms to SDHC			
	Data Format		Still image : JPEG *7 with temperature data,14bit(with visible image) Movie : SVX file(Dedicated format)			
	Data Storage		Still image(JPEG *7 with temperature data,14bit) , Recorded with visible image			
		Super Resolution (SR)	Yes			
		Quick Panorama	Horizontal equivalent to 100° / Vertical equivalent to 75°			
		SD Movie Recording	Max 3Hz		N/A	
		Interval Recording	3 sec to 60 min interval, with Visible image recorded			
		External Trigger Recording	Yes		N/A	
		Voice Recording	30sec Recording, replay per a Thermal image			
		Text Annotation	Annotate up to 128 Characters per a Thermal Image. Characters imported from SD Card			
	Interface USB2.0	Mass Storage	Yes			
		Movie Data Transfer	Thermal image: Max : 30Hz, Recorded with visible image *8			
		Windowing Data Transfer W1 : 640×240 W2 : 640×120	Thermal image W1 : 60Hz W2 : 120Hz		N/A	
		External Trigger Input	Automatic recording function by external trigger input		N/A	
		Video Output	NTSC / PAL Switchable			
		Alarm Output	Contact Signal. No Voltage		N/A	
		External Trigger Input	Pulse Signal		N/A	
Others	Display		3.5" LCD Monitor (with tilt and brightness adjustment), Color View Finder (with tilt adjustment)			
	Auxiliary		Laser Pointer (Red, class 2, IEC 60825-1 2007/2014), LED Light, Remote Controller			
	Environment Resistance	Operating Temperature & Humidity	−15° C to 50° C, 90%RH (non-condensing)			
		Storage Temperature & Humidity	−40° C to 70° C, 90%RH (non-condensing)			
		Vibration & Shock	29.4m/sec² (3G), 294m/sec² (30G)			
		EMC	Conforms to CE regulations (Class A)			
		Dust & splash proof	Protection class IP54 equivalent			
	Battery Operation		2.5hours (Typ), Rechargeable Li-Ion battery			
	AC Power		100V – 220V AC, 50/60Hz			
	Dimensions		Approx. H121mm×W105mm×D195mm (excluding projection)			
	Weight		Approx. 1.3kg (including Battery Pack)			
	Standard Accessories		Wired remote Controller x 1, SD Card x 1, USB Cable x1, Neck Strap x 1, Grip Beltx 1, Rechargeable Li-Ion Battery x 1, Software x 1, Operation Manual x 1, and Carrying Case x 1			
	Standard Software		InfReC Analyzer NS9500Professional		InfReC Analyzer NS9500Standard *9	

*1 Only the Range 1 at the environmental temperature from 20 to 30°C (In other condition, it is ±2°C or ±2%.)
*2 Windowing "Mode W1 (640×240)" *3 Windowing "Mode W2 (640×120)" *4 Still Image Only
*5 This increased resolution results from detecting characteristic within all frames acquired by the SR process and removing such effects as those caused by hand vibration.
*6 For temperature accuracy : 30cm to infinity *7 SAX format for USA and European countries. JPEG is not available.
*8 Thermal image only when image transfer speed at 30Hz
*9 In order to transfer thermal image movie data by R550 /R550-D, you need to upgrade to "InfReC Analyzer NS9500 Professional" (optional software).

Power Kit

R550 series is not including AC adapter, battery charger and AC cables.
Please order below Power Kit with R550 series main unit.

Item	Model	Specification/remarks	
Power Kit	PKA-110VGM(US)	For 100 to 120V region (US)	AC adapter x 1, battery charger x 1 and AC cable x 2
	PKA-110VGM	For 100 to 120V region (Taiwan)	
	PKA-220VGM	For 220 to 240V region (Europe and Asia)	

Options

	Options	Model	Specification/remarks
Lens	2x Telephoto Lens	IRL-TX02D	16° (H)×12° (V)
	2x Wide Angle Lens	IRL-WX02D	64° (H)×48° (V)
	3x Wide Angle Lens	IRL-WX03D	93° (H)×73° (V)
	21μm Closeup Lens	IRL-C021UB20	13mm(H)×10mm(V), Working Distance 22mm
	52μm Closeup Lens	IRL-C052UB	33mm(H)×25mm(V), Working Distance 56mm
Accessory	AC adaptor	RC60G-09D-110V(US)/110V/220V	110V(US), 110V or 220V
	Rechargeable Battery Pack	2UR18650F	2500mAh Driving Hours : 2 Hours (typical)
	Battery Charger	NC-LSC05-110V(US)/110V/220V	110V(US), 110V or 220V
	LCD Hood	IRU-F01A	

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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.

Distributor:

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