NEWS RELEASE

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Nippon Avionics Co., Ltd
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Nippon Avionics Co., Ltd. releases “InfReC R550 series”, a high resolution and highly functional infrared thermography equipment which realizes the high speed sampling (120Hz)

Nippon Avionics Co., Ltd. (Headquartered in Shinagawa-ku of Tokyo. President: Katsuhiko Akitsu) will release an infrared thermography equipment “InfReC R550 series (hereinafter “Product”)” which is capable of high speed sampling (120Hz).

R550 series

In recent years, small sized and high performance parts are becoming available due to rapid development of information equipment, and various high performance equipment are increasing by IoT represented by smart city and self-driving cars. And maintenance of those equipment as well as long life of parts through solid “MONOZUKURI (art of manufacturing)” are becoming important keys.

By realizing 120Hz sampling, Product enables time-series temperature analysis in overload test of devices with fast thermal behavior, which could be captured only by a high value high spec camera in the past, or sputter analysis and analysis of thermal impact to the neighborhood of the interested spot in laser machining or resistance welding, thus contributes to highly reliable “MONOZUKURI”.

Furthermore, models which can measure high temperature up to 2,000℃, similar to other conventional models, and various lens accessories, including close-up magnification lens, telescopic lens and wide field-of-view lens, are available enabling temperature measurement suitable for each object to be measured.

Because infrared thermography camera visualizes areal temperature, as compared to spot temperature, it can capture not only heat of a certain device but also thermal impact or heat accumulation to devices in the vicinity of the heat source. We will continue to pursue visualization of areas which could not be seen in the past and to contribute to secure, safe and solid “MONOZUKURI”.

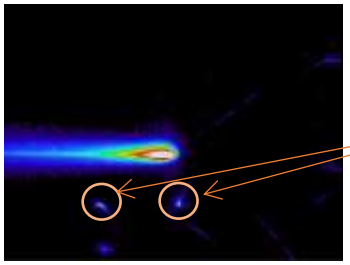
■ Major characteristics

1. 120Hz high speed sampling enables measurement of instantaneous temperature change (R550Pro).

By realizing 120Hz sampling, which is the fastest for portable cameras, the following symptoms, which could be captured only by high spec cameras in the past, can be verified and analyzed.

- ◆ Temperature evaluation and analysis in device overload test (captures high speed temperature change of small devices).
- ◆ Sputter analysis and analysis of thermal impact to the neighborhood of the interested spot in laser machining or resistance welding.

Image of laser machining



120Hz high speed sampling

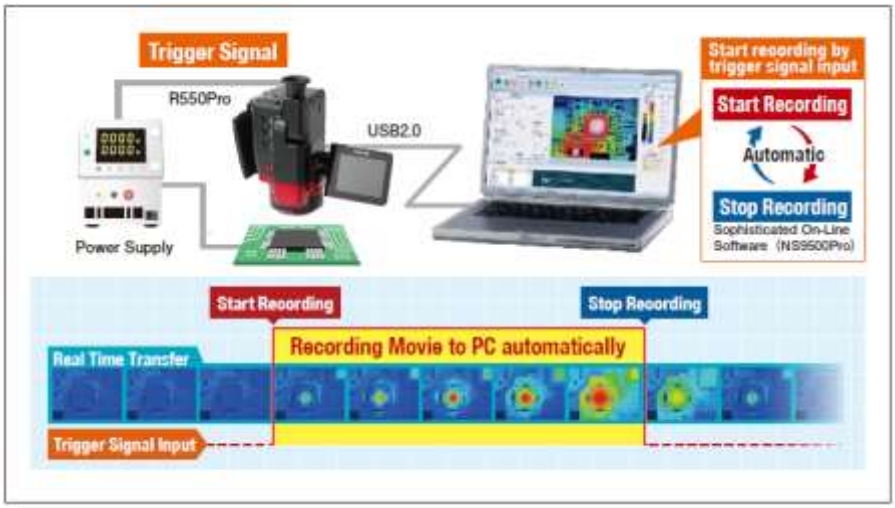
2. Improvement of defect detection rate by high resolution of 1.2 million pixels, which is one of highest in the class.

As the temperature resolution of 0.025℃ (at 30℃ with S/N ratio improvement) with 640 (H) x 480 (V) pixels is realized, small temperature difference becomes clear and defect detection probability in non-destructive test is improved.

Furthermore, by high resolution of up to 1.2 million pixels (1280 x 960 pixels) based on multiple frames super-resolution process, detailed temperature distribution on printed circuit board with micro devices mounted can be captured. Furthermore, image composition mode, which enables comparison of 5 million pixels visual image and thermal image, will be helpful in presentation of research outcome or preparation of report.

3. Auto video recording can be achieved by analytical software with external trigger (R550Pro).

By entering an external trigger signal, analytical software* on a PC starts auto recording. Because a system can be configured without using an I/O device (such as PLC), data recording in linkage with a test equipment or a facility at the site can be easily made. It is most suitable for temperature monitoring in manufacturing lines, such as metal mold monitoring.



*PC analytical software is included as a standard accessory.

4. 2 models are available for different applications.

A suitable model can be selected out of 2 models depending on the application.

Full function model for R&D:

・R550Pro: Measured temperature range -40 to +2,000℃

This model is suitable for R&D application where time-series data is measured and for high temperature measurement of miniature electronic component with fast thermal behavior or metal welding.

Model for R&D and facility diagnosis

・R550: Measured temperature range -40 to +650℃

Upper limit of measured temperature is raised to 650℃ instead of the conventional 500℃. As a result, it can be used for evaluation test/operation of heat-resistant paint (600℃ for many of them) and high temperature heater (used at 500 to 600℃).

Furthermore, it is suitable for inspection of high-place electric facility and plant piping.

5. Various optional lenses for different applications

2X telescopic lens, 2X wide field-of-view lens, 3X wide field-of-view lens, 21μm close-up magnification lens and 52μm close-up magnification lens are available for wide applications from far away temperature monitoring to thermal analysis of miniature parts.

Inquiries:

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