

# Body specification

| function          |                                | R550Pro  | R550               | R550S              |
|-------------------|--------------------------------|--|--------------------|--------------------|
| Basic performance | Detector                       | Two-dimensional uncooled sensor (micro bolometer)  |                    |                    |
|                   | Measurement wavelength         | 8 to 14 $\mu\text{m}$  |                    |                    |
|                   | Measurement temperature range  | -40 ° C to 2000 ° C  | -40 ° C to 650 ° C | -40 ° C to 120 ° C |
|                   | Temperature resolution         | 0.025 ° C at 30 ° C (when improving S / N)   |                    |                    |
|                   | Temperature accuracy           | $\pm 1$ ° C ※ 1  |                    |                    |
|                   | frame rate                     | 30 Hz / 60 Hz * 2/120 Hz *<br>3  | 30 Hz              |                    |
|                   | Number of detector pixels      | 640 (H) x 480 (V) pixels   |                    |                    |
|                   | Number of recorded pixels      | Standard time: 640 (H) x 480 (V) pixel<br>Super resolution (SR mode): 1280 (H) x 960 (V) pixels * 4    |                    |                    |
|                   | Measurement viewing angle      | 32 ° (H) x 24 ° (V) (with standard lens installed)   |                    |                    |
|                   | Spatial resolution             | Standard time: 0.87 mrad<br>Super resolution (SR mode): 0.58 mrad equivalent * 5                       |                    |                    |
|                   | Measured distance range        | 10 cm ~ $\infty$ (when equipped with standard lens) * 6  |                    |                    |
|                   | focus                          | Auto / manual  |                    |                    |
| Image display     | Auto function                  | Auto Scale / Auto Focus / Full Auto  |                    |                    |
|                   | Color palette                  | 7 types (olive, rainbow, iris, luminance color, hot iron, hot white, hot black)                        |                    |                    |
|                   | Gradation display              | 256/32/16/8 gradation  |                    |                    |
|                   | Visible image display          | CMOS 5 million pixels  |                    |                    |
|                   | Visual image composite display | Parallel, FUSION (permeable compositing possible), Picture in picture (permeable compositing possible) |                    |                    |

| function              |                                   | R550Pro   | R550  | R550S |  |
|-----------------------|-----------------------------------|---|---|-------|--|
|                       | Display function                  | 1 to 8 times continuous digital zoom (with display position scroll function), grid display, 9 screen multi image display (when still image is played) |   |       |  |
|                       | Image quality improvement         | Denoise, averaging (with afterimage removal function), edge emphasis  |   |       |  |
| Measurement function  | Point temperature measurement     | Movement point × 10, temperature search (maximum × 1, minimum × 1), temperature difference between two points   |   |       |  |
|                       | Area temperature measurement      | BOX 5 (Displays the highest, lowest, average temperature in each area)  | -   |       |  |
|                       | Line profile                      | Horizontal / vertical / horizontal + vertical   |   |       |  |
|                       | Alarm function                    | Alarm indication, alarm sound, color alarm (ISO), alarm recording   |   |       |  |
|                       |                                   | Alarm signal output   | -   |       |  |
|                       | Temperature compensation function | Emissivity correction, environment / background temperature correction, distance correction, NUC  |   |       |  |
|                       |                                   | Drift stabilizer  | -   |       |  |
|                       |                                   | Emissivity correction   | Multipoint emissivity correction, emissivity table function |       |  |
|                       | Emissivity inversion function     |   | -   |       |  |
|                       | Recording / outputting            | recoding media  | SD card, SDHC compatible                                    |       |  |
| data form             |                                   | Still image: JPEG with temperature data, 14 bit (simultaneous recording of visible images)<br>Video: SVX file (exclusive format)                      |   |       |  |
| Data recording        |                                   | Still image (JPEG with temperature data, 14 bit), simultaneous recording of visible images  |   |       |  |
| Super resolution (SR) |                                   | ○   |   |       |  |

| function |                    | R550Pro                    | R550  | R550S |  |
|----------|--------------------|----------------------------|---|-------|--|
|          |                    | mode)                      |   |       |  |
|          |                    | Quick panorama mode        | Equivalent to about 100 ° in the horizontal direction / about 75 ° in the vertical direction                  |       |  |
|          |                    | SD Movie Recording         | Up to 3 Hz  | -     |  |
|          |                    | Interval Recording         | 3 to 60 minutes interval, visible image simultaneous recording  |       |  |
|          |                    | External trigger recording | ○   | -     |  |
|          |                    | Voice memo                 | 30 seconds  |       |  |
|          |                    | Text memo                  | Maximum 128 characters (Read from SD card attached to thermal image)  |       |  |
|          | External interface | USB 2.0                    | USB 2.0 mass storage, video transfer (thermal image: maximum 30 Hz, visible image simultaneous recording) * 7 |       |  |
|          |                    |                            | Windowing transfer (thermal image)<br>W 1: 60 Hz (640 × 240 pixels)<br>W 2: 120 Hz (640 × 120 pixels)         | -     |  |
|          |                    |                            | Automatic recording function by external trigger input  | -     |  |
|          |                    | Video output               | NTSC / PAL switching RCA connector  |       |  |
|          |                    | Alarm output               | No-voltage contact signal   | -     |  |
|          |                    | External trigger input     | Pulse signal  | -     |  |

| function |                               | R550Pro                                      | R550  | R550S                                |
|----------|-------------------------------|--|---|--------------------------------------|
| Other    | Display device                |  | 3.5-inch color liquid crystal monitor (tilt mechanism, with brightness adjustment)<br>color liquid crystal view finder (with tilt mechanism)  |                                      |
|          | Shooting auxiliary function   |  | Wired remote control, laser pointer (red class 2, compatible with PSC), LED light   |                                      |
|          | Environmental resistance      | Operating Environment Temperature / Humidity | -15 °C to 50 °C, 90% RH (noncondensing)   |                                      |
|          |                               | Storage temperature / humidity               | -40 ° C to 70 ° C, 90% RH (non-condensing)  |                                      |
|          |                               | Vibration                                    | 29.4 m / sec 2 (3 G), 294 m / sec 2 (30 G)  |                                      |
|          |                               | EMC  | CE Compliant Standard (Class A)   |                                      |
|          |                               | Dustproof / splash resistant structure       | Degree of protection IP 54  |                                      |
|          | Battery operating time        |  | 2.5 hours   |                                      |
|          | AC power supply               |  | AC 100 V to 220 V, 50/60 Hz   |                                      |
|          | External dimensions           |  | Approximately 121 mm (H) x 105 mm (W) x 195 mm (D) Projections not included   |                                      |
|          | mass                          |  | 1.3 kg or less ※ Including battery  |                                      |
|          | Standard accessories          |  | Carrying case, SD card, USB cable, wire remote control, grip belt, neck strap, lens protection cap, instruction manual, free version · trial software collection (CD-ROM), battery pack, power supply Kit (AC adapter, battery charger, AC power cable) |                                      |
|          | Standard attached PC software |  | • InfReC Analyzer<br>NS9500 Professional for  | • InfReC Analyzer<br>NS9500 Standard |

| function | R550Pro | R550 | R550S |
|----------|---------|------|-------|
|----------|---------|------|-------|

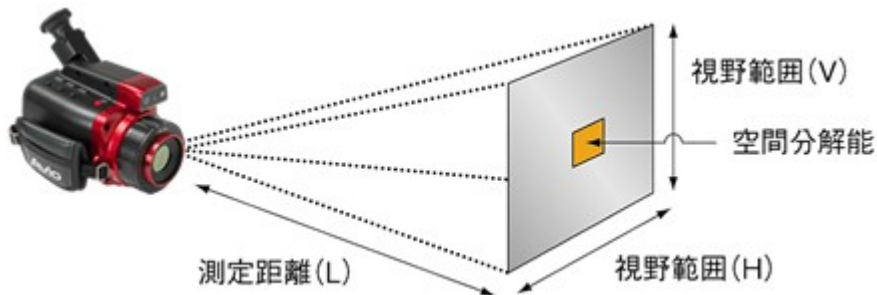
- Environment temperature: 20 to 30 ° C in range 1 (other: ± 2 or ± 2%)
- Windowing mode Frame rate when W1 (640 × 240) is set
- Windowing mode Frame rate when W2 (640 × 120) is set
- Only for still images
- Effects when combining processing of a plurality of images is appropriately performed by extracting features by effects such as camera shake
- Temperature accuracy guaranteed range is from 30 cm to ∞
- For 30 Hz transfer only thermal image transfer. Transfer speed with visible image is 15 Hz

## Measurement distance and visual field size

The field of view range and spatial resolution are equal to the measurement distance.

| Lens type    |                               | Double telephoto lens        | Standard lens | 2 × field of view magnifying lens | 3 times field of view magnifying lens |        |
|--------------|-------------------------------|------------------------------|---------------|-----------------------------------|---------------------------------------|--------|
| Distance 1 m | Field of view range (H) x (V) | 29 x 22 cm                   | 57 x 42 cm    | 128 x 92 cm                       | 211 x 149 cm                          |        |
|              | Spatial resolution            | Standard mode                | 0.44 mm       | 0.9 mm                            | 1.74 mm                               | 3.1 mm |
|              |                               | Super resolution (SR) mode * | 0.3 mm        | 0.6 mm                            | 1.16 mm                               | 2.1 mm |

Proximity magnifying lens (option)



|                                |            |            |
|--------------------------------|------------|------------|
| Working distance (WD)          | 22 mm      | 56 mm      |
| Measurement visual field range | 13 × 10 mm | 33 × 25 mm |