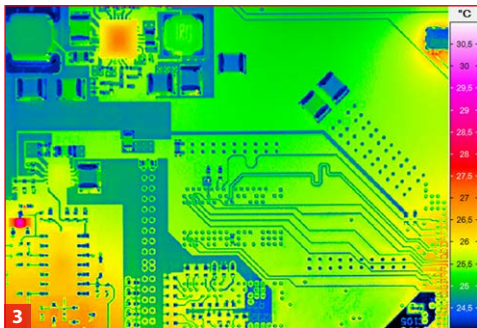


# ImageIR<sup>®</sup> 7300

High-end Thermography Camera

## INFRA<sup>TEC</sup>.

Europe's leading specialist for infrared sensors and measurement technology



- 1) ImageIR<sup>®</sup> 7300
- 2) Software IRBIS<sup>®</sup> 3
- 3) Circuit board

- Cooled FPA photon detector with (640 × 512) IR pixels**
- Frame rate up to 630 Hz, GigE vision compatible**
- Snapshot detector, internal trigger interface**
- Extremely short integration times in the microsecond range**
- Pixel size up to 2 μm**
- Thermal resolution better than 0.025 K**



[www.InfraTec.eu](http://www.InfraTec.eu)

[www.InfraTec-infrared.com](http://www.InfraTec-infrared.com)

**Made in Germany**



|  |   |
|--|---|
| Spectral range                                 | (2.0 ... 5.7) $\mu\text{m}$   |
| Pitch  | 15 $\mu\text{m}$  |
| Detector                                       | MCT or InSb   |
| Detector format (IR pixels)                    | (640 $\times$ 512)  |
| Image acquisition                              | Snapshot  |
| Readout mode                                   | ITR/IWR   |
| Aperture ratio                                 | f/3.0 or f/2.0  |
| Detector cooling                               | Stirling cooler   |
| Temperature measuring range                    | (-40 ... 300) $^{\circ}\text{C}$  |
| Measurement accuracy                           | $\pm 2^{\circ}\text{C}$ or $\pm 2\%$  |
| Temperature resolution @ 30 $^{\circ}\text{C}$ | Better than 0.025 K   |
| Frame rate (full / half / sub frame)*          | Up to 75 / 242 / 630 Hz   |
| Window mode                                    | Yes* (full frame / sub frame)   |
| Focus  | Manual  |
| Dynamic range                                  | 14 bit  |
| Integration time                               | (1 ... 20,000) $\mu\text{s}$  |
| Interfaces                                     | GigE, HDMI*   |
| Trigger  | 1 IN / 1 OUT, TTL   |
| Tripod adapter                                 | 1/4" and 3/8" photo thread, 2 $\times$ M5   |
| Power supply                                   | 24 V DC, wide-range power supply (100 ... 240) V AC   |
| Storage and operation temperature              | (-40 ... 70) $^{\circ}\text{C}$ , (-20 ... 50) $^{\circ}\text{C}$   |
| Protection degree                              | IP54, IEC 60529   |
| Dimensions; weight                             | (250 $\times$ 120 $\times$ 160) mm*; 3.3 kg (without lens)  |
| Further functions                              | High-speed mode*, Multi Integration Time*   |
| Analysis and evaluation software               | IRBIS <sup>®</sup> 3, IRBIS <sup>®</sup> 3 view, IRBIS <sup>®</sup> 3 plus*, IRBIS <sup>®</sup> 3 professional*, IRBIS <sup>®</sup> 3 control*, IRBIS <sup>®</sup> 3 online*, IRBIS <sup>®</sup> 3 process*, IRBIS <sup>®</sup> 3 active*, IRBIS <sup>®</sup> 3 mosaic*, IRBIS <sup>®</sup> 3 vision* |

\* Depending on model

Those, who are looking for a powerful thermographic camera to solve fundamental measurement and testing tasks in the fields of industry and science, that offers an impressive geometrical resolution will find the Imager<sup>®</sup> 7300 a perfect match. Its cooled **focal-plane array photon detector provides (640  $\times$  512) IR pixels** and a **pitch of 15  $\mu\text{m}$**  at a constant active detector area. Users, who are testing very small structures on large-scale measurement objects, benefit from substantial plus in terms of efficiency compared to smaller detector formats. In addition, you can choose between **MCT and InSb** detectors.

The camera supports **recording and storing images and sequences with frequencies up to 630 Hz**. An internal trigger interface guarantees for precise, repeatable triggering of correspondingly fast processes. Two respective inputs and outputs are used to control the camera or to generate digital control signals for external devices. Depending on the character of the measurement and testing situation due to its modular design, most diverse thermographic software and high-quality lenses the Imager<sup>®</sup> 7300 is quite easy to adapt to the on-site conditions.

| Lenses          | Focal length (mm) | FOV ( $^{\circ}$ )   | IFOV (mrad) |
|-----------------|-------------------|----------------------|-------------|
| Wide-angle lens | 12                | (43.6 $\times$ 35.5) | 1.3         |
| Standard lens   | 25                | (21.7 $\times$ 17.5) | 0.6         |
| Telephoto lens  | 50                | (11.0 $\times$ 8.8)  | 0.3         |
| Telephoto lens  | 100               | (5.5 $\times$ 4.4)   | 0.15        |
| Telephoto lens  | 200               | (2.7 $\times$ 2.2)   | 0.08        |

| Macro and Microscopic lenses                   | Minimum object distance (mm) | Object size (mm)   | Pixel size ( $\mu\text{m}$ ) |
|--|------------------------------|--------------------|------------------------------|
| Close-up for telephoto lens 50 mm              | 300                          | (58 $\times$ 46)   | 90                           |
| Close-up for telephoto lens 100 mm             | 500                          | (48 $\times$ 38)   | 75                           |
| Microscopic lens M = 1.0 $\times$ (3 versions) | 40 / 195 / 300               | (9.6 $\times$ 7.7) | 15                           |
| Microscopic lens M = 3.0 $\times$              | 22                           | (3.2 $\times$ 2.6) | 5                            |
| Microscopic lens M = 8.0 $\times$              | 14                           | (1.2 $\times$ 1.0) | 1.9                          |

Headquarters

**InfraTec GmbH****Infrarotsensorik und Messtechnik**

Gostritzer Str. 61 – 63

01217 Dresden / GERMANY

Phone +49 351 871-8630

Fax +49 351 871-8727

E-mail thermo@InfraTec.de

USA office

**InfraTec infrared LLC**

5048 Tennyson Pkwy.

Plano TX 75024 / USA

Phone +1 844-226-3722 (toll free)

E-mail thermo@InfraTec-infrared.com