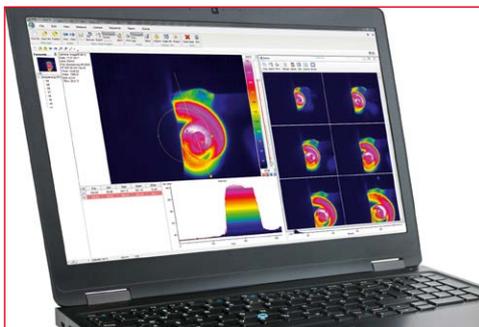


# ImageIR® 8800

High-end Thermography Camera



- 1) ImageIR® 8800 with interchangeable lenses from InfraTec
- 2) Software IRBIS® 3
- 3) Rotating rotor blade of a wind turbine

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

Europe's leading specialist for infrared sensors and measurement technology

Cooled FPA photon detector with (640 × 512) IR pixels

Opto-mechanical MicroScan with (1,280 × 1,024) IR pixels

Frame rate up to 14,593 Hz, GigE Vision interface

Snapshot detector, internal trigger interface

Extremely short integration times in the microsecond range

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



Latest information on the internet.

|  |   |
|--|---|
| Spectral range   | (7.7 ... 10.2) $\mu\text{m}$  |
| Pitch  | 15 $\mu\text{m}$  |
| Detector   | MCT   |
| Detector format (IR pixels)                              | (640 $\times$ 512)  |
| Image format with opto-mechanical MicroScan (IR pixels)* | (1,280 $\times$ 1,024)  |
| Image acquisition  | Snapshot  |
| Readout mode   | ITR   |
| Aperture ratio   | f/2.0   |
| Detector cooling   | Stirling cooler   |
| Temperature measuring range                              | (-40 ... 1,200) $^{\circ}\text{C}$  |
| Measurement accuracy                                     | $\pm 1$ $^{\circ}\text{C}$ or $\pm 1$ %   |
| Temperature resolution @ 30 $^{\circ}\text{C}$           | Better than 0.025 K   |
| Frame rate (full / half / quarter / sub frame)*          | Up to 233 / 874 / 2,892 / 14,593 Hz   |
| Window mode  | Yes   |
| Focus  | Manually, motorised or automatically*   |
| Dynamic range  | Up to 16 bit  |
| Integration time   | (10 ... 20,000) $\mu\text{s}$   |
| Rotating filter wheel*                                   | Up to 5 positions   |
| Rotating aperture wheel*                                 | Up to 5 positions   |
| Interfaces   | GigE, 10 GigE*, 2 $\times$ CAMLink*, HDMI*  |
| Trigger  | 3 IN / 2 OUT, TTL   |
| Analogue signals*, IRIG B*                               | 2 IN / 2 OUT, yes   |
| 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; 4.0 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

With its ImagerIR<sup>®</sup> 8800, InfraTec offers another top-level thermographic camera model belonging to the ImagerIR<sup>®</sup> high-end camera series. It is equipped with a **cooled focal-plane array photon detector** that provides a **format of (640  $\times$  512) IR pixels** and operates in **snapshot mode**. Combining an **outstanding thermal resolution of better than 0.025 K** with very high frame rates of up to 14,593 Hz and **extremely short integration times of only a few microseconds** this camera qualifies for airborne biological and geological surveys, non-destructive testing and the analysis of fast thermal processes, which are related to large temperature measuring ranges. Its **modular structure which consists of optical, detector and interface modules** makes it easily adaptable to the respective application.

An **integrated trigger interface** guarantees a repeatable high-precision triggering of quick procedures. Multiple configurable digital in- and outputs serve as control ports for the camera or as generator of control signals for external devices. The optical channel consists of exchangeable infrared lens systems as well as application-specific apertures, filters and optical elements.

| Lenses          | Focal length (mm) | FOV ( $^{\circ}$ )   | IFOV (mrad) |
|-----------------|-------------------|----------------------|-------------|
| Wide-angle lens | 13                | (40.5 $\times$ 32.9) | 1.2         |
| 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        |

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