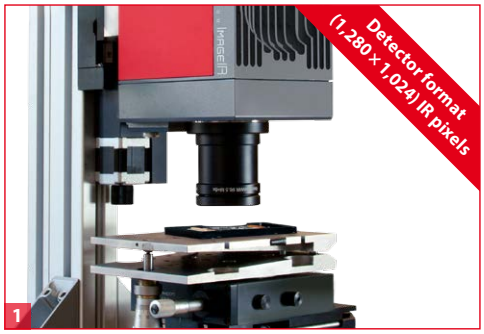
ImageIR® 9300

High-end Thermography Camera



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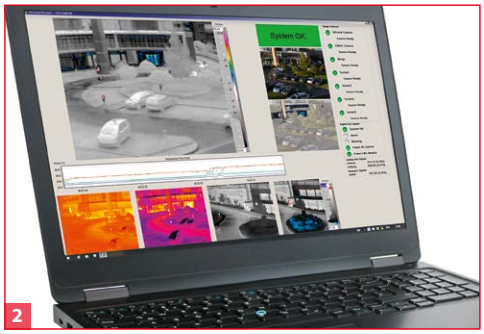

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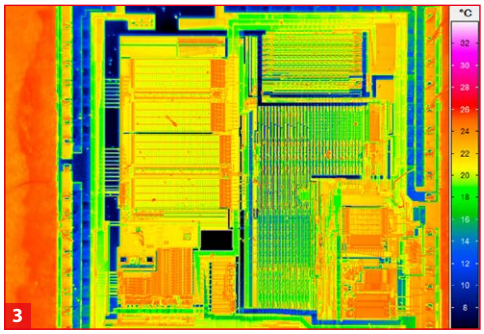


3

1) ImageIR® 9300 with microscopic lens
2) Controlling and acquisition software for facility protection
3) Microscopic thermography

InfraTec.

Europe's leading specialist for infrared sensors and measurement technology

- Cooled FPA photon detector with (1,280 × 1,024) IR pixels
- Opto-mechanical MicroScan with up to (2,560 × 2,048) IR pixels
- Full-frame rate up to 106 Hz, GigE Vision interface
- Snapshot detector, internal trigger interface
- Extremely short integration times in the microsecond range
- Pixel size with microscopic lens up to 2 µm
- Thermal resolution up to 0.025 K

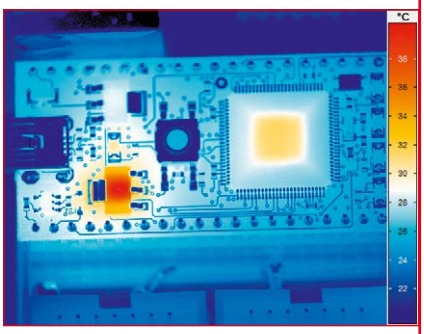
www.InfraTec.eu
www.InfraTec-infrared.com

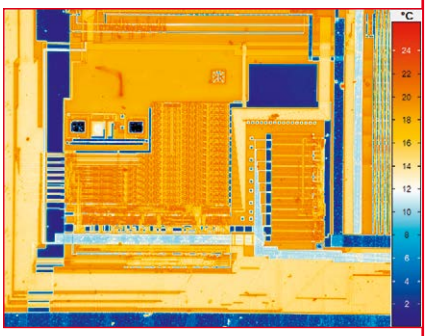
Made in Germany

Latest information on the internet.

Spectral range	(2.0 ... 5.7) µm
Pitch	15 µm
Detector	InSb
Detector format (IR pixels)	(1,280 × 1,024)
Image format with opto-mechanical MicroScan (IR pixels)	(2,560 × 2,048)
Image acquisition	Snapshot
Readout mode	ITR / IWR
Aperture ratio	f/2.0 or f/4.6
Detector cooling	Stirling cooler
Temperature measuring range	(-40 ... 1,500) °C, up to 2,000 °C*
Measurement accuracy	± 1 °C or ± 1 %
Temperature resolution @ 30 °C	0.025 K
Frame rate (full / half / quarter / sub frame)*	Up to 106 / 200 / 390 / 3,200 Hz
Window mode	Yes
Focus	Manually, motorised or automatically*
Dynamic range	Up to 16 bit*
Integration time	(0.5 ... 18,000) µs
Rotating filter wheel*	Up to 5 positions
Rotating aperture wheel*	Up to 5 positions
Multi integration time*	Yes
Interfaces	GigE, 10 GigE*, 2 × CAMLink*, HDMI*
Trigger	3 IN / 2 OUT, TTL
Analogue signals*, IRIG B*	1 IN / 2 OUT, yes
Tripod adapter	1/4" and 3/8" photo thread, 2 × M5
Power supply	24 V DC, wide-range power supply (100 ... 240) V AC
Storage and operation temperature	(-40 ... 70) °C, (-20 ... 50) °C
Protection degree	IP54, IEC 60529
Dimensions, weight	(235 × 120 × 160) mm, 4.0 kg (without lens)

* Depending on model





With its ImageIR® 9300, InfraTec introduces another top-level thermographic camera model belonging to the ImageIR® high-end camera series. It is equipped with a new generation **cooled focal-plane array photon detector** that provides a **format of (1,280 × 1,024) IR-pixels** – four times higher than comparable competitive units. Combining an **outstanding thermal resolution of 0.025 K** with very high frame rates of 106 Hz and **extremely short integration times of only a few microseconds**, this camera offers you a whole new range of applications.

ImageIR® 9300 was developed for demanding operations in research and development, **non-destructive material testing and process monitoring sectors**. 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. All **exchangeable radiometric precision lenses** of the ImageIR® can be equipped with a motorised focus unit, which is operated from the camera's application software. It allows quick, precise and remotely controllable motorised focusing and is a part of the optional autofocus function.

Lenses	Focal length (mm)	FOV (°)	IFOV (mrad)
Wide-angle lens	25	(42.0 × 34.2)	0.6
Standard lens	50	(21.7 × 17.5)	0.3
Telephoto lens	100	(11.0 × 8.8)	0.15
Telephoto lens	200	(5.5 × 4.4)	0.08

Macro and microscopic lenses	Minimum object distance (mm)	Object size (mm)	Pixel size (µm)
Close-up for telephoto lens 50 mm	300	(115 × 92)	90
Close-up for telephoto lens 100 mm	500	(96 × 77)	75
Microscopic lens M=1.0×	40	(19 × 15)	15
Microscopic lens M=8.0×	14	(2.4 × 1.92)	1.9

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