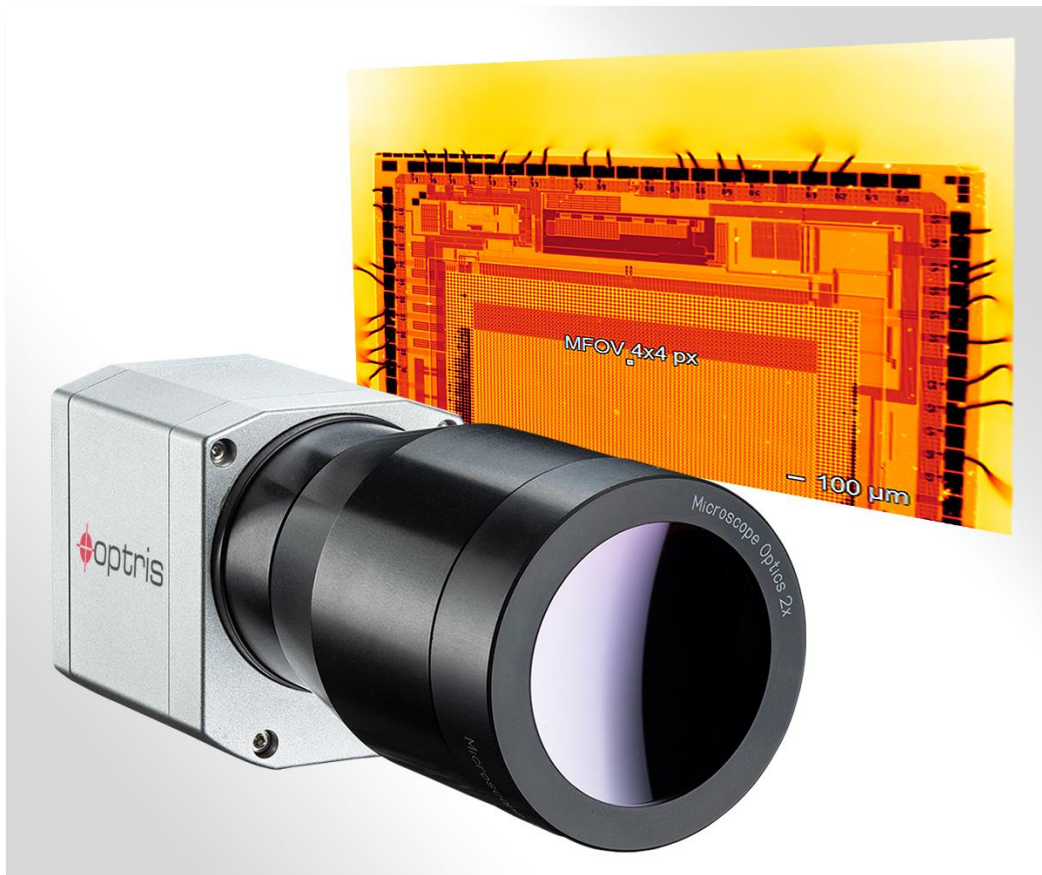


Online: <https://www.optris.com/en/pi-640i-infrared-camera-from-optris-with-new-microscope-optics/>

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Temperature measurement in the electronics industry

PI 640i infrared camera from Optris with new microscope optics

Electronic components consist of ever smaller structures and have a very compact design. Optris is now launching new microscope optics for the PI 640i infrared camera in order to measure temperatures precisely and with high geometric resolution, even with chip-level structures.

High temperatures have a negative impact on the service life of electronic components and assemblies. This is due to the accelerated ageing of many semiconductor materials at high temperatures. This can be caused, for example, by a poor electrical connection due to increased contact resistance. However, increased temperatures can also occur within complex semiconductor components such as processors.

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Temperature measurements with resolution in the micrometer range

With the new MO2X microscope optics with 2x magnification, the PI 640i infrared camera from Optris is now able to capture infrared images of even complex structures. For an exact temperature measurement, 4x4 pixels are required (MFOV), so that objects with a size of only 34 µm can now be measured. This means that even tiny structures can be analyzed at chip level. The thermal resolution of 80 mK is a very good value for this optic. The focus of the new optics makes it possible to work at a distance of 15 mm from the object being measured.

As the optics on the PI series infrared cameras can be easily exchanged, the system can be used flexibly for various measurement tasks. Together with the supplied high-quality microscope stand with fine adjustment, microelectronic assemblies can be inspected very easily. The maximum resolution of the infrared camera is 640 x 480 pixels at a frame rate of 32 Hz and even if this is 125 Hz, the PI 640i can still impress with 640 x 120 pixels.

The license-free analysis software PIX Connect is included in the scope of delivery; alternatively, a complete SDK is also available.

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About Optris GmbH

Optris GmbH was founded in 2003 and has established itself as one of the leading manufacturers of non-contact temperature measurement devices. Its product portfolio consists of both wearable and stationary infrared thermometers and online infrared cameras for thermographic real-time analyses. Optris develops and produces in Germany to ensure the highest standard in quality as a key component of its company policy.

Images

(www.optris.com/en/download)

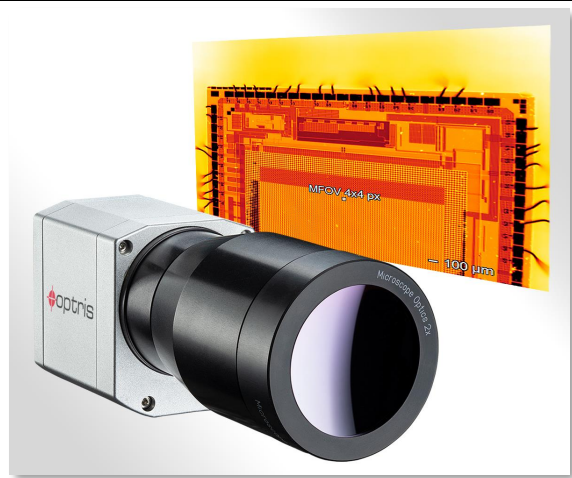
PR-2024-01b_Optris_Microscope-Optics_print.jpg

PR-2024-01b_Optris_Microscope-Optics_web.jpg

Caption:

The new MO2X microscope optics for the PI 640i infrared camera can measure temperatures of complex semiconductor components in the micrometer range.

Pic: Optris



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