

PRESS RELEASE

## **Xenics Introduces New InGaAs Arrays**

Leuven, Belgium, January 26, 2004 - *Xenics nv has introduced a new extended InGaAs linear imaging array. The imager is competitively-priced and offers state-of-the-art technology with a resolution of up to 512 pixels and is sensitive between 0.9 and 2.5  $\mu\text{m}$ . The array has been specifically designed to respond to the demand for near-infrared reflectance spectroscopy using photodiode array technology and complements our standard range of imagers with wavelengths of up to 1.7  $\mu\text{m}$ . Applications for these imagers can be found in the food industry, the pharmaceutical and chemical sector, environmental monitoring, waste sorting and many others.*

The imager is contained in a three-stage, Peltier-cooled vacuum package and is able to cool the array by about 75°C below ambient. Combined with a patented read-out design, this results in a low-noise output signal with no influence from dark current. The imager offers a selection of four gain settings ranging from 10nV/e<sup>-</sup> to 1.6 $\mu\text{V}/\text{e}^-$ , which allows for extremely sensitive measurements. The imager has good pixel uniformity, high sensitivity and, with a linearity of better than 1% over 0% to 95% of the full dynamic range, the array is excellent for quantitative measurements.

Images can be captured at a speed of up to 10,000 lines/second or at a pixel rate of 2.5 MHz. The array can be read out in an integrate-then-read or in an integrate-while-read mode. Integration times can be as short as 1  $\mu\text{sec}$  or be adjusted to several tens of msec, making them perfect for reflectance spectroscopy measurements.

The imaging array can be supplied with a fully digital camera that contains a 16-bit and a 12-bit ADC. It is equipped with a plug-and-play USB 2.0 interface (downwards compatible with USB 1.1). The camera has a special trigger connector that can be used to interface machines in critical timing applications. All camera settings can be controlled through the API interface. The camera housing in blue anodized brushed metal is a modern rigid design and is adapted to spectroscopy applications. For optimal interfacing with other optical systems, the focal point of the sensor is available outside the front of the camera.

Xenics also offers custom OEM line-scan imagers based on these arrays.

**Note to editors:**

**About Xenics**

Xenics is the leading developer of innovative infrared detection solutions for a wide range of applications. Xenics designs, manufactures and sells infrared detectors and cameras, both line-scan and 2D, covering the infrared wavelength ranges from 1 up to 14 micrometer. In addition, Xenics delivers custom products according to the agreed specification and planning. Xenics was established in 2000 as a spin-off company of the microelectronics and nanotechnology research center IMEC.

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