

VISION 2007

Xenics: High End Cheetah Aims at High Speed SWIR Imaging

November, 6, 2007 --- Xenics' latest release (Q4/2007) of its high-end, power PC-based, high-speed imaging system Cheetah is an InGaAs focal-plane array camera that covers the standard SWIR (short-wave infrared) wavelength area 0.9 to 1.7 μm - with all control and communications circuitry in one housing. Cheetah offers a high resolution of 640 x 512 pixels at a maximum full frame rate of 1,730 Hz. In a reduced-region-of-interest mode, more than 100,000 fps is feasible. The new release will be demoed by Xenics at Vision (6-8 Nov. 2007, Stuttgart, Germany, Hall 2/Booth C52).

Xenics' new high-speed, power PC-based Cheetah for the SWIR (0.9 to 1.7 μm) features a 640 x 512 pixel InGaAs array. This InGaAs detector features a new Xenics ROIC (read-out integrated circuit) optimized for high speed with 16 outputs and a 40 MHz pixel rate. The Cheetah camera includes a graphical user interface that provides direct access to various camera settings, such as exposure time, region of interest and gain. Moreover, a fast and easy non-uniformity correction (two-point) procedure is available. The camera's power PC allows for a data interface based on the TCP/IP Gigabit Ethernet protocol and more advanced correction procedures. Alternatively, also a CameraLink data interface is foreseen.

The new Cheetah camera can be operated in two modes: a) stand-alone, using the on-board memory (up to 16 GB) for extremely fast data acquisition. At 1,730 full frames per second, recording time is limited to 15 seconds; b) continuous streaming, using a PC and the CameraLink interface for continuous data streaming (frame rate is limited by the CameraLink interface speed).

The new Cheetah digital camera is equipped with 14-bit ADCs and is operated from a single 12 V/5 A power supply (included in the delivery). A C-mount fixture allows the use of all standard optical lenses. A medium-speed version of the Cheetah (400 fps maximum) will also be available.

In this advanced and user-friendly configuration, uniquely combining extreme high speed, high resolution and best sensitivity in a reliable InGaAs array, the new Cheetah is perfectly suited for high-speed imaging in the SWIR range for a variety of applications (medical, R&D, wavefront sensing, etc.).

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 to 14 micrometers. In addition, Xenics delivers custom products according to the agreed specification and planning.

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