

## **SPIE Defense + Security 2008**

### **XenICs Shows New SWIR "Cheetah" and Uncooled Bolometer "Gobi" Cameras**

*March 2008, Orlando, Florida, USA --- XenICs, Europe's leading developer and manufacturer of advanced infrared detector solutions, demonstrates a host of new products at DSS, taking place March 18 to 20, 2008. Prominently featured at XenICs' DSS booth 1127 is the latest release of its high-resolution, high-speed SWIR Cheetah imaging system. First time shown are XenICs' brand new Gobi uncooled bolometer cameras, and the XEVA VISNIR as well as XEVA broadband models. In addition, XenICs offers Cheetah application training sessions – scheduled to begin at 11am, as well as 2 and 3pm, day one and two of the DSS exhibition.*

XenICs' Cheetah, an advanced InGaAs focal-plane-array camera, covers the standard SWIR (short-wave infrared) wavelength area 0.9 to 1.7 $\mu$ m - with all control and communications circuitry in one compact housing. Cheetah offers a high resolution of 640 x 512 pixels at a maximum full frame rate of 1,730Hz. In a reduced region-of-interest mode, more than 100,000fps is feasible. This new release will be demonstrated by XenICs at SPIE Defense & Security 2008, Orlando, USA, 18 to 20 March, 2008. (Booth #1127)

The Cheetah InGaAs detector features a new XenICs-made ROIC (read-out integrated circuit) optimized for high speed with 16 outputs and a 40MHz 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. Power PC control allows for a data interface based on the TCP/IP Gigabit Ethernet protocol and more advanced correction procedures.

The Cheetah can be operated stand-alone, using the on-board memory (up to 16 GB) for extremely fast data acquisition at up to 1,730fps. With continuous streaming the frame rate is limited only by the CameraLink interface speed. The new digital camera is equipped with 14-bit ADCs and is operated from a single 12V/5 A power supply (included in the delivery). A C-mount fixture allows the use of all standard optical lenses.

"In this user-friendly configuration, uniquely combining extreme high speed, high resolution and best sensitivity, Cheetah is perfectly suited for various SWIR applications such as medical, R&D and wavefront sensing," says XenICs founder and CEO Bob Grietens. "But we do more. In addition to our fast growing business in advanced InGaAs SWIR imagers we are ready to enter the markets for uncooled bolometer solutions based on our extended, basic and application oriented, R&D portfolio."

Accordingly, at DSS 2008 XenICs premieres the new Gobi - a high-performance, yet affordably priced camera system for thermal imaging in industrial and public-service applications. With real-time signal processing, Gobi covers the midrange IR spectrum 8 to 14  $\mu\text{m}$ .

The Gobi camera is based on an uncooled microbolometer 2-D array offering an optical resolution of 384 x 288 pixels - at a 25  $\mu\text{m}$  pitch and pixel operability of up to >99.9%. Gobi uses 16bit ADCs and DSP-based electronics platform.

XenICs has also extended the wavelength areas of its proven high-detectivity and high-uniformity InSb detector cameras for the midwave infrared (MWIR) 3 to 5  $\mu\text{m}$  area. New broadband versions now cover the extended area 1 to 5  $\mu\text{m}$ . These crucial extensions are realized for both, the XMID-FPA-5.0-320 and -640. As before, both models continue to excel by their high flexibility in terms of frame rates and temperature ranges.

The XenICs XMID Series supports numerous applications in all-weather and night vision applications such as in advanced landing aids for aircraft.

### **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 0.4 to 14 micrometers. In addition, XenICs delivers custom products according to the agreed specification and planning.

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