

## **SAE 2008 World Congress**

### **XenICs at SAE 2008 World Congress: Shows New SWIR "Cheetah" and "Gobi" Uncooled Bolometer Cameras**

*April 2008, Detroit, Michigan, USA --- XenICs, Europe's leading developer and manufacturer of advanced infrared detector solutions, exhibits and demonstrates a host of new products at SAE 2008 (April 14 to 17, 2008). Prominently featured at XenICs' SAE booth 215 in the Safety, Testing & Simulation Pavilion is the latest release of its high-resolution, high-speed SWIR "Cheetah" thermal imaging system for advanced high-temperature industrial uses. For the first time shown is XenICs' brand new "Gobi" uncooled bolometer camera, also perfectly suited for industrial thermal imaging, and several of XenICs proven XEVA models.*

XenICs' Cheetah, a high-speed InGaAs focal-plane-array camera for industrial applications such as thermal imaging of high-temperature exhausts, catalysts, etc., covers the standard SWIR (short-wave infrared) wavelength area 0.9 to 1.7 $\mu$ m - with all control and communications circuitry located 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.

The Cheetah InGaAs detector is based on 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. XenICs' 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 industrial thermal imaging, 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 SAE 2008, XenICs presents the new "Gobi" uncooled microbolometer camera - a high-performance system for thermal imaging in industrial and public-service (night vision) applications. At real-time signal processing speed, Gobi covers the midrange IR spectrum 8 to 12 $\mu$ m .

As a member of XenICs proven product family of advanced infrared cameras, the new XenICs Gobi offers a high degree of flexibility in terms of frame rate, user interface and temperature range, enabling the user to adapt it to various industrial settings and tasks, covering the automotive industry at optimum operational conditions. All camera functions can be optimized according to user application context, including four differing display modes.

In addition, Gobi combines its high-speed and high-sensitivity features with an affordable price range. It is based on an uncooled 2-D array offering an optical resolution of 384 x 288 pixels - at a 25 $\mu$ m pixel pitch and a pixel operability of up to >99.9%.

Gobi uses 16-bit ADCs and a DSP-based electronics platform. User interface is via USB 2.0 and analog video out. Gobi is compatible with Windows 2000 Workstation and XP Pro.

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 an extended spectral area from 1 to 5  $\mu\text{m}$ .

### **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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