

Xenics introduces DIONE S 1280 core

Leuven, Belgium, 31 January 2022 --- Dione S 1280 has been announced today as the new high-resolution uncooled long-wave infrared (LWIR) SWaP core from Xenics.

Xenics is Europe's leading developer and manufacturer of advanced infrared sensors, cameras and customized imaging solutions from the short-wave infrared (SWIR) to the LWIR realm.

Dione S 1280 is a SXGA LWIR camera core optimized to meet today's increased demand for smaller size, lower weight, higher resolution and lower power (SWaP) with the highest performance. It is the cutting-edge LWIR core for the safety and security market and industrial applications. Dione S 1280 is the last brick of the Dione family of uncooled LWIR solutions which completes the LWIR high-resolution offer from Xenics.

Xenics' flying start for 2022

Xenics' team experienced a fabulous 2021 year with two new LWIR products released in the Dione and Ceres T family in addition to four new SWIR products with the new member of the Bobcat 320 series, and 2022 promises to be even greater. Without any pause, Xenics already continues its growth at a steady pace and demonstrates its willingness to bring innovation to customers.

SWaP and High-resolution with no compromise on performances

After the release, last spring, of the high-performance Dione S 640, Xenics moves to the high-resolution version: based on the 12 μ m last generation SXGA (1280x1024) microbolometer detection, Dione S 1280 offers the ultimate combo of high-resolution, high-performance, SWaP camera with ultra-fast adaptation to the environment capability.

"Dione S 1280 completes Xenics' high-resolution uncooled LWIR family" explains Raf Vandermissen, Head of Product Management at Xenics. "It offers customers a real SWaP optimised product with additional range capability thanks to the high-resolution, and eye-blinking adaptation to fast-changing environment due to an optimized mechanical shutter. Moreover, as with the whole Dione family products, latency is reduced to a minimum (only 150 μ s for Dione S 1280), making image-fusion or image-based decisions simpler".

As a member of a global family, Dione S 1280 shares the architecture and electrical interface with the other Dione members. Customers can thereby switch conveniently from one type of Dione to another and adapt their products to specific requirements.

In order to fulfil most customers' needs, the optimized mechanical shutter can be controlled manually, but it can also be automatically activated when temperature changes or according to a pre-set timing. The SAMTEC ST5 connector supports the 16-bit digital output (compatible with CameraLink™ protocol), the command and control (including triggering capabilities) and the power supply. Thanks to the similarities with the previous Dione family members and a GenICam

compliant SDK, Dione S 1280 integration in systems is straightforward.

Dione S 1280 comes with two possible optical interfaces: M34 (Dione S 1280 CAM M34) and M45 (Dione S 1280 CAM M45), depending on the type of optics to be mounted.

Dione S 1280 is the solution whenever there is a need for the highest electro-optical performance with SWaP requirements and fast adaptation to a changing environment:

- for high-end hand-held thermal imagers (HHTI) and thermal weapon sights (TWS) where the need is to see at longer range, in a very complex environment but where size and weight is critical.
- for drone observation where customers will benefit from very accurate pictures and will be able to detect at more extended range wherever the drone is looking at.
- for Driver Vision Enhancements and Situation Awareness where resolution is requested to improve accuracy, enlarge the field of view and simplify image fusion. Moreover, thanks to the extremely small latency and due to the optimized fast-operation shutter, customers will benefit from a real-time perception and always optimized pictures.
- for remote-controlled weapon stations with enhanced detection recognition and identification range with a fast changing environment as battlefield can be. Moreover, the ultrashort latency ensures accurate targeting and simplify target tracking.

Dione S 1280 demonstrates that long-range, SWaP and high optical performance are compatible. It is the ultimate solution for safety and security systems and drone applications.

About Xenics

Xenics is a pioneer of infrared technology with a proven track record of twenty years. Xenics designs and markets infrared imagers, cores and cameras of best-in-class image quality to support machine vision, scientific & advanced research, transportation, process monitoring, safety & security and medical applications.

Xenics offers a complete portfolio of line-scan and area-scan products for the vSWIR, SWIR, MWIR and LWIR ranges. Mastering all critical steps of the manufacturing process with advanced production facilities and in-house know-how on detectors, systems and software development Xenics delivers state-of-the-art solutions and optimized custom designs. As a European vendor with a worldwide sales and service network, Xenics supports its customers with simplified export procedures. More at: xenics.com

Press Release

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