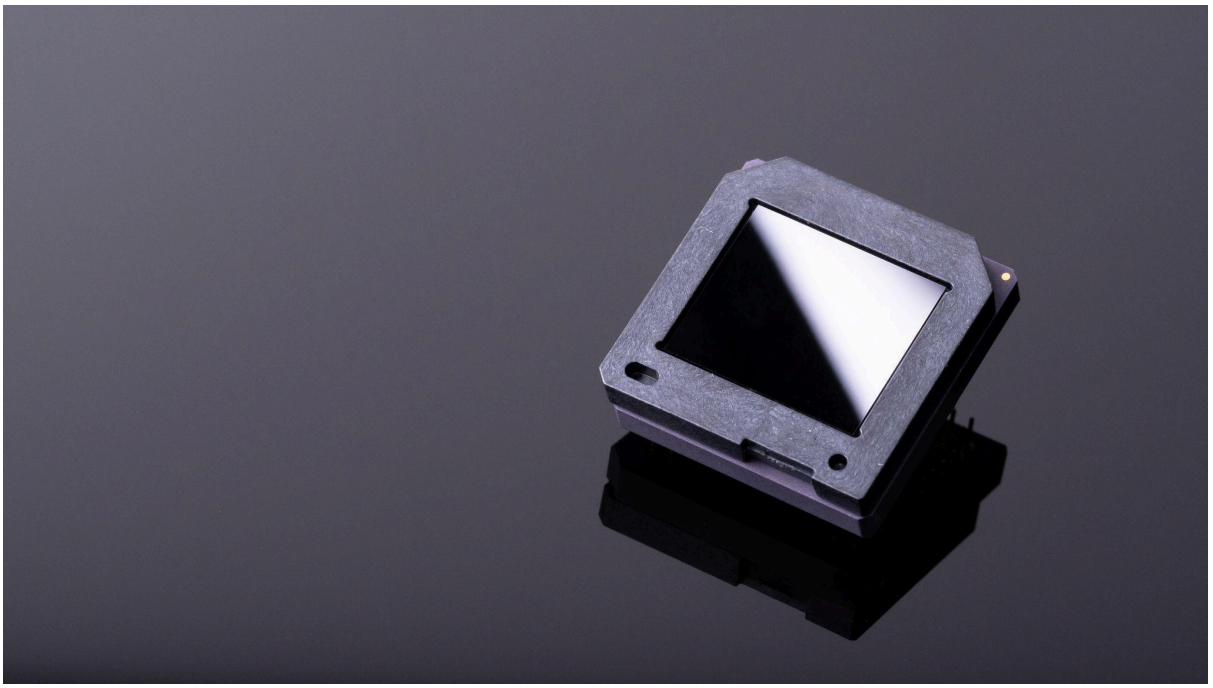
LYNRED unveils YOCTO, a new ultra-compact 8µm microbolometer pushing uncooled thermal imaging to a new level

With YOCTO1024, LYNRED delivers XGA format in an unprecedented small footprint, setting a new benchmark for leisure, hunting, defense and surveillance applications.

Grenoble, France, January 19, 2026 – LYNRED, a global leader in infrared imaging technologies, announces the launch of YOCTO, a new family of uncooled thermal sensors based on an 8.5µm pixel pitch microbolometer. The first product in the range, YOCTO1024, will be unveiled at SHOT Show 2026, from January 20 to 23 in Las Vegas (Booth 43557).



With YOCTO, LYNRED reaches a new technological milestone in uncooled thermal imaging. By integrating 2.5 times more pixels into the same footprint as a conventional VGA 12 µm sensor, the company succeeds in combining very high resolution with extreme compactness, without sacrificing thermal performance. Featuring an XGA format (1024×768), YOCTO1024 delivers sharper, more detailed images and improves DRI (Detection, Recognition, and Identification) performance by up to 40% compared to 12 µm sensors, equivalent to a x1.4 magnification.

Based on VOx technology optimized for the LWIR spectrum, YOCTO1024 stands out for its ultra-compact design. With its super small dimensions (18×18×4.85 mm³), the YOCTO1024 has a footprint reduced up to 40% compared to an XGA 12 µm sensor, enabling a lighter, smaller package for the same format.

This new family directly addresses the growing demand from leisure and hunting markets, including riflescopes, monoculars and binoculars, as well as from defense and surveillance applications such as handheld thermal imagers, weapon sights, drones and fixed observation systems. As end-users increasingly expect compact and lightweight equipment while maintaining long-range detection and image quality, YOCTO1024 provides a concrete and scalable response.

In a highly competitive market, YOCTO represents a distinctive positioning. LYNRED takes a step ahead with the release of this new range of microbolometers. Unlike many players focusing on finished products, LYNRED retains full vertical control over detector design and manufacturing, with technologies developed and produced within the European Union. YOCTO complements the existing 12 µm ATTO product line, offering system integrators greater flexibility to design high-performance and competitive solutions.

YOCTO1024 also supports LYNRED's long-term growth strategy. The company has recently invested in a new production facility to double its manufacturing capacity, positioning YOCTO as a future high-volume platform for both commercial and defense markets.

"With the YOCTO family, we take a decisive step forward by delivering uncooled thermal sensors optimized for high-volume production and miniaturization, while preserving performance", explains Hervé Bouaziz, Executive President at LYNRED. *"This new generation enables our customers to push the limits of system design and remain at the forefront of thermal imaging technology."*

A module version of YOCTO1024 will also be introduced in the following months, allowing easier integration, and expanding use-cases of infrared in other applications while significantly reducing system development time.

About LYNRED

LYNRED, alongside its subsidiaries LYNRED USA, LYNRED Asia-Pacific and New Imaging Technologies (NIT), is a global leader in designing and manufacturing high quality infrared technologies for aerospace, defense and commercial markets. It has a vast portfolio of infrared sensors that covers the entire electromagnetic spectrum from near to very far infrared. Its products are at the center of multiple military programs and applications and are key components in many top brands in commercial thermal imaging equipment sold across Europe, Asia and North America. LYNRED is the leading European manufacturer for IR detectors deployed in space.

www.lynred.com

Press contact

Virginie Raison - Oxygen

+33 6 65 27 33 52

virginie@oxygen-rp.com