



LYNRED

LYNRED introduces ARGO SL

A new generation compact Infrared detector for Drones

A turnkey mid wave infrared (MWIR) VGA T2SL Red Band module designed for size, weight and power (SWaP) limited systems, ARGO SL enables high performance thermal imaging for tactical drones and soldier borne applications. The solution will be presented at SPIE Defense + Security in National Harbor, April 26 to 30, booth 503.

Grenoble, France, April 20, 2026 - In contemporary conflicts, tactical advantage is measured in minutes, meters and milliwatts. Drones must fly longer, see farther and operate in degraded environments where fog, smoke or total darkness render conventional vision ineffective. At the same time, operators demand lighter platforms, extended autonomy and faster deployment cycles. This tension between performance and constraint has become one of the defining engineering challenges in defense imaging.

LYNRED addresses this challenge with the launch of ARGO SL, a turnkey mid wave infrared (MWIR) module delivering VGA resolution, specifically engineered for size, weight and power (SWaP) constrained applications. Designed for surveillance and defense system integrators, particularly those developing drone based platforms, ARGO SL aims to deliver full mid wave infrared performance without exceeding the strict size, weight and power budgets imposed by tactical systems.

The market context reinforces the urgency. According to the [Military UAS Sector Study released by Teal Group](#), the unmanned aircraft systems (UAS) market is projected to grow from USD 13 billion in 2026 to USD 30 billion by 2035, reflecting a compound annual growth rate (CAGR) of close to 10%. This expansion is driven by the operational shift observed in recent conflicts, including Ukraine, where unmanned systems are now central to reconnaissance, surveillance and intelligence missions. These platforms must function day and night, often in disrupted infrastructure environments where energy availability is limited.

Thermal imaging is no longer a complementary sensor in such scenarios. It is a decisive capability. In harsh conditions such as cold weather, rain or fog, or in complete absence of light, MWIR sensing provides reliable detection and identification where visible cameras fail. The question is no longer whether to integrate thermal imaging, but how to do so without compromising platform autonomy.

ARGO SL reconciles full band MWIR performance with a compact SWaP high operating temperature (HOT) architecture. The module integrates a type II superlattice (T2SL) focal plane array (FPA) operating at 130 kelvin (K) and covering the full MWIR band from 3.7 to 4.8 micrometers (μm). ARGO SL complements the existing portfolio, which already features GALATEA SL operating in the MWIR blue band between 3.6 and 4.2 μm , extending the spectral coverage within the MWIR band. While the MWIR blue band delivers the highest detection range with the lowest power consumption, the extended spectral coverage offered by the MWIR red band enhances signal-to-noise ratio and improves image quality robustness in challenging environments.

From an integrator's perspective, the value proposition is concrete. ARGO SL delivers VGA resolution at 640 by 512 pixels with a 15 μm pixel pitch, while maintaining power consumption at 4 watts (Wdc). Its compact format is compatible with sub 6 inch gimbals for tactical unmanned aerial vehicles (UAV), and can also be deployed in handheld or soldier worn systems. The result is extended mission duration without increasing battery size and greater flexibility in platform design.

Beyond raw performance, integration speed has become a strategic differentiator. Development cycles are shortening, and original equipment manufacturers (OEM) seek modular architectures that limit redesign efforts. ARGO SL is embedded in LYNRED's PlugUp™ platform, which standardizes interfaces and streamlines integration of cooled detectors. This approach simplifies product integration into OEM cameras, shortens time to market and enhances overall system reliability, thanks to split linear cooler. By adding ARGO SL to a family that already includes GALATEA SL, EOLE and SEEGNUS SL, LYNRED enables manufacturers to design once and upgrade over time within a coherent architecture.

An advanced thermal imager (ATI) version is also available, embedding image correction functions such as non-uniformity correction (NUC), bad pixel replacement (BPR), denoising, destriping and color mapping. This further accelerates system level integration and reduces software development overhead for customers.

As Hervé Bouaziz, Executive President of LYNRED, states: *“ARGO SL extends further the company's MWIR portfolio with a new family of T2SL III V Red Band, high operating temperature detectors to deliver high performance for demanding defense applications. The compact PlugUp™ platform and ATI format reflect a clear strategic intent: to provide advanced sensors, with reduced integration complexity and increased competitiveness for customers.”*

ARGO SL will be showcased at the SPIE Defense and Security exhibition in National Harbor from April 26 to 30. In a context where operational superiority increasingly depends on autonomous, lightweight and continuously deployable systems, ARGO SL positions thermal imaging as a scalable and integration ready capability rather than a design constraint.

About LYNRED

LYNRED, alongside its subsidiaries LYNRED USA, 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.

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