



## **Lynred launches Eyesential SW, shortwave infrared sensor for machine vision**

**Eyesential SW provides leading-edge performance in sensitivity, low noise and ease-of-use for machine vision, scientific imaging and spectroscopy, where delivering affordability is key**

**Lynred will showcase Eyesential SW, 640x512, 10 µm pitch shortwave infrared (SWIR) imaging sensor at SPIE Photonics West, San Francisco (CA), January 28 – 30, booth #5029**

**Grenoble, France, January 21, 2025** – Lynred, a leading global provider of high-quality infrared sensors for the aerospace, defense and commercial markets, today announces the launch of Eyesential SW, its latest VGA format shortwave (SWIR) infrared sensor for machine vision. It is designed to offer the ideal cost-performance ratio for visible-like imaging to address specific performance needs in machine vision. Eyesential SW has the performance and features that industry is looking for at half the price of comparable IR sensors on the market. It also includes specific functions for spectroscopy applications, such as spectral line selection/deselection.

Featuring a high-frame rate (300Hz full frame / 1200 Hz ¼ full frame), leading-edge performance in sensitivity and low noise, Eyesential SW is suited to the automation and data exchange trends in industry 4.0 manufacturing, which require enhanced detection capabilities and improved real-time detection on production lines.

“Lynred’s latest innovation, Eyesential SW, strikes the right balance between performance and cost for machine vision, making it a top choice for shortwave infrared sensors on the market. This SWIR sensor puts an end to the dilemma of equipment makers having to compromise on performance or price,” said Pierre Jenouvrier, cooled product division director at Lynred. “The integrity of our [InGaAs](#) technology, underpinning Eyesential SW and focusing on affordability, will give customers a new level of cost-effective VGA format SWIR sensors which better address machine vision market demands.”

Through Eyesential SW, a 640x512, 10 µm pitch, SWIR (0.9-1.7µm) sensor with 14-bit digital output and COTS (Commercial-Off-The-Shelf) packaging, Lynred aims to bolster Europe’s supply chain in SWIR sensors as well as strengthen its global offering in the machine vision market. This new sensor complements Lynred’s SWIR product portfolio, which includes Snake SW (640x512 / 15 µm), dedicated to high-end machine vision applications, and its recently acquired NIT SWIR modules.

### **Machine vision, scientific imaging and spectroscopy**

SWIR wavelengths are able to pass through many solid materials, including silicon. Distinguishing materials and detecting humidity make them ideal for on-line industrial inspection and non-destructive control. Due to these key characteristics, Eyesential SW has many industrial applications, for example, recycling operations to sort different types of plastics at high speed. Due to its sensitivity, high-frame rate and capacity to select/deselect spectral lines, the SWIR sensor is also well suited to infrared spectroscopy, an application for identifying and quantifying almost any chemical species and for scientific imaging.

In the kit Lynred offers to operate Eyesential SW are an electronic board, including mechanical and optical interfaces (C-Mount), and the Lynred Software Toolbox.

Eyesential SW will be on display at [SPIE Photonics West](#) on booth #5029, taking place in San Francisco (CA), January 28 – 30, 2025.

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### **About Lynred**

Lynred, alongside its subsidiaries Lynred USA, Lynred Asia-Pacific and New Imaging Technologies, 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](http://www.lynred.com)

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#### **Media and analyst contact**

#### **Andrew Lloyd & Associates**

Carol Leslie & Celine Gonzalez

[carol@ala.associates](mailto:carol@ala.associates) – [celine@ala.associates](mailto:celine@ala.associates)

UK/US: +44 1273 952 481

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