Lynred joins Nanoelec to accelerate 3D integration technology in infrared detectors

Veurey-Voroize and Grenoble, France, July 6, 2020 – Lynred, a global leader in designing and manufacturing high-quality infrared technologies for aerospace, defense and commercial markets, and IRT Nanoelec, a technology research institute for microelectronics, today announce that Lynred has joined the Nanoelec consortium as a partner. The objective of the 3D Integration program at Nanoelec is to provide the fiercely competitive Integrated Chip (IC) market with quick and cost-efficient access to 3D integration technologies that meet the demands for more features, higher density and better performance.

Lynred sees 3D stacking technology as key to enabling superior designs in future infrared (IR) detectors. Lynred's IR products are critical components at the center of thermal imagers used in applications where lighting conditions are poor.

3D stacking technology, already used in visible cameras, will contribute to addressing the major development trend in IR detectors: shrinking the pixel pitch, an important parameter for increased image resolution. The consortium's advances in this area will enable Lynred to integrate new functions at the level of the pixel, while producing even smaller, lighter IR devices.

"Following the successful development of our 3D architecture expertise, initially applied to High-Performance Computing (HPC), the partners in the Nanoelec 3D program are increasingly focusing on smart imager applications," said Séverine Cheramy, director of the 3D integration program at Nanoelec. "3D components enable the embedding of high-value processing functions in sensors, such as object recognition or motion capture. Lynred is a reference partner in this development; welcoming its IR imaging teams is a natural evolution for the consortium, building on the long tradition of cooperation between academia and industry within the Grenoble ecosystem. IRT Nanoelec has no doubt that Lynred will make a significant contribution to reinforcing the dynamics of the consortium, which runs multi-partner R&D dissemination and development programs for competitive advantages in the microelectronics sector."

Lynred joins as one of 21 members of the IRT Nanoelec consortium, whose partners include Mentor Graphics (a Siemens business), STMicroelectronics and CEA-Leti.

"Lynred is delighted to join Nanoelec and collaborate with world-leading researchers and industrial manufacturers in microelectronics on 3D technologies that will push the boundaries of performance," said Patrick Robert, senior expert in electronic design at Lynred. "We are excited by the market prospects that these new smart IR detector designs will bring our customers, as they seek to gain greater competitiveness in the IR market."

Lynred is the second largest producer of infrared detectors in an IR market estimated[1] at a 5% CAGR.

[1] This data is extrapolated from two industry reports: The world market for military infrared imaging detectors and systems' published by Maxtech international, edition 2020, and 'Uncooled Infrared Imagers and Detectors 2019' published by Yole Développement.

About the IRT Nanoelec

IRT Nanolec is a consortium of 21 members from the private and public sectors. The members work in multi-partner programs to carry out research and development projects to help businesses create value and grow in the areas of digital transition, energy transition and secure connected systems. IRT Nanoelec is one of 16 French institutes dedicated to technological research (IRT) and energy transition (ITE), supported by the French government under a scheme to leverage academic research and industrial R&D and innovation. It is based in Grenoble, France, a world-class center for scientific research, innovation and production in microelectronics.
www.irtnanoelec.fr / @IRTnanoelec

About Lynred

Lynred and its US-based subsidiary Lynred USA are global leaders in designing and manufacturing high quality infrared technologies for aerospace, defense and commercial markets. Lynred, a recent merger between Sofradir and ULIS, has a vast portfolio of infrared detectors that covers the entire electromagnetic spectrum from near to very far infrared. The Group's products are at the center of multiple military programs and applications. Its IR detectors are the key component of many top brands in commercial thermal imaging equipment sold across Europe, Asia and North America. The organization is the leading European manufacturer for IR detectors deployed in space.
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