

Press Release

LIGENTEC and X-FAB Expand Integrated Photonics Offering with SOI and Thin-Film Lithium Niobate Volume Scaling

Lausanne, Switzerland and Tessenderlo-Ham, Belgium – 19 January 2026

LIGENTEC and X-FAB today announced an expanded collaboration to further strengthen their integrated photonics offering and streamline customer access to advanced photonic technologies. The announcement marks the next step in aligning their portfolios to address growing demand across communication, computing, quantum, and sensing markets.

As part of this expansion, the partners will jointly bring X-FAB's [XPH90 Silicon Photonics](#) (SOI) technology to market through its integration into LIGENTEC's broader photonics platform portfolio, creating a unified ecosystem spanning both SOI and established low-loss Silicon Nitride (SiN) technologies. LIGENTEC will serve as the primary customer interface, providing a streamlined and coherent entry point to both high-bandwidth SOI solutions and its established low-loss Silicon Nitride (SiN) platform.

Together, these platforms address a wide range of application requirements, from high-speed, high-volume datacom and telecom to advanced computing, quantum, and sensing systems. The SiN technology continues to gain significant traction and expands capabilities across multiple markets, while SOI adds a dedicated solution for bandwidth- and integration-driven datacom and telecom applications.

A central pillar of the collaboration is the industrialization of heterogeneous integration technologies across both the SiN and SOI platforms, addressing the integration of key active and passive building blocks, including lasers, optical amplifiers, high-speed modulators, and photodetectors. A particular focus will be placed on thin-film lithium

niobate (TFLN) technologies, enabling advanced electro-optic capabilities for high-performance, next-generation communication and signal-processing systems.

To support this vision, the partners will invest in scaling high-speed TFLN-on-SiN and TFLN-on-SOI within the X-FAB foundry ecosystem on 200 mm wafer technologies. This step supports a clear path from advanced R&D to industrial-scale production and strengthens Europe's position in next-generation photonic integration.

Through this unified go-to-market approach, customers benefit from a broader and more coherent technology portfolio, early engagement at the system and application level, and a reliable transition from prototyping to volume manufacturing. The collaboration further reinforces the partners' ambition to build a robust, industrial-scale supply chain for integrated photonic technologies.

"Our collaboration with LIGENTEC to co-develop and co-market XPH90 SOI technology alongside their low-loss silicon nitride platform is a powerful response to the market's need for versatile, scalable photonics," said Rudi De Winter, X-FAB's CEO. "By fostering this heterogeneous integration, particularly with thin-film lithium niobate, we are providing the essential building blocks for quantum computing and the next generation of telecommunications and data communications systems. This collaboration reinforces our commitment to developing a robust, industrial-scale high volume European photonics supply chain."

"Our goal has always been to offer a seamless transition from prototyping to volume production," said Thomas Hessler, the CEO of LIGENTEC. "By expanding our partnership with X-FAB, we are giving our customers early access to a broader technology stack that now includes X-FAB's XPH90 silicon photonics (SOI) technology, as well as high-volume thin-film lithium niobate (TFLN) integration. This technology enables cutting-edge performance and helps our partners stay at the forefront of innovation in sensing, connectivity and computing applications."

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Glossary

PIC – Photonic Integrated Circuit

SiN – Silicon Nitride

SOI – Silicon on Insulator

TFLN – Thin-Film Lithium Niobate

About LIGENTEC SA

LIGENTEC, headquartered in Switzerland, is a leader in advanced photonic integrated circuit (PIC) technologies, providing high-performance silicon nitride (SiN) and silicon-on-insulator (SOI) platforms with heterogeneous integration of thin-film lithium niobate (TFLN) and III-V materials. Through its industrial process-design-house model, LIGENTEC provides a scalable path from design to volume manufacturing for quantum technologies, optical communications, and precision sensing. The company operates subsidiaries in France and Belgium and is ISO 9001:2015 certified.

About X-FAB

X-FAB is a global foundry group providing a comprehensive set of specialty technologies and design IP to enable its customers to develop world-leading semiconductor products that are manufactured at X-FAB's six wafer fabs located in Malaysia, Germany, France, and the United States. With its expertise in analog/mixed-signal technologies, microsystems/MEMS, Photonics, silicon carbide (SiC) and gallium nitride (GaN), X-FAB is the development and manufacturing partner for its customers, primarily serving the automotive, industrial and medical end markets. X-FAB has approximately 4,500 employees and has been listed on Euronext Paris since April 2017 (XFAB). For more information, please visit www.xfab.com

Media contacts

X-FAB

Anja Noack
MarCom Manager
X-FAB Silicon Foundries
+49-361-427-6162
anja.noack@xfab.com

LIGENTEC

Myriam Labidi
Marketing Manager
LIGENTEC SA
myriam.labidi@ligentec.com