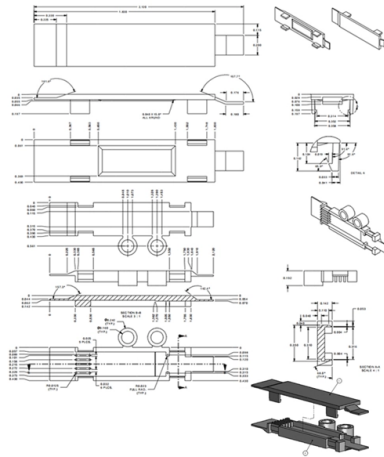


Spanish silicon photonics technology 100G



Overview

The operation, channeled through SETT and the PERTE Chip initiative, enables the development of the first III-V photonic chip manufacturing plant in Spain—a key milestone for technological sovereignty, European strategic autonomy, and dual-use civil-defense capabilities. The PIC100 is ST's first silicon photonics technology and one of the most efficient PICs on a 300 mm wafer, thus enabling 200Gbps/lane and even greater bandwidth in the future. Their expertise spans various applications, making them a key player in the photonics industry. Photonic integrated circuits. Study overcomes long-standing bottleneck in single photon detection with twisted 2D materials QUIONE: The birth of a unique analog quantum processor in the world New Catalyst Unveils the Hidden Power of Water for Green Hydrogen Generation Direct imaging captures the crystalline vibrations of a. (IN BRIEF) STMicroelectronics has begun high-volume production of its PIC100 silicon photonics platform, a technology designed to support hyperscalers deploying high-speed optical interconnects in data centers and AI computing clusters. ICFO excels in developing photonic chips with applications in health, sustainability, quantum technologies, nanomaterials, and advanced computing, reinforcing Spain's position in. AGPhotonics is a manufacturer that specializes in Integrated Photonics solutions, offering a range of products and services in photonics chip input/output, optical communications, and SATCOM technologies.

Article Content

Roadmapping the next generation of silicon photonics

Silicon photonics has developed into a mainstream technology driven by advances in optical communications. The current generation has led to a proliferation of integrated photonic

Update: PIC100 or ST's 1st silicon photonics technology

PIC100: ST first silicon photonics technology for 100 Gbps optical interconnects. Enabling next-gen data center and AI infrastructure communications.

Silicon Photonics

Silicon photonics is defined as an optical technology that integrates photonics and electronics to enhance high-speed communications and is considered a strategically important systems technology

STMicro's Silicon Photonics Hits Mass Production: What 800G/1.6T

STMicroelectronics enters high-volume PIC100 silicon photonics production for AI data centers. Here's what 800G/1.6T co-packaged optics mean for fabric design, power budgets, and

Top 100 Silicon Photonics Companies in Spain (2026) | ensun

The Silicon Photonics industry in Spain offers a dynamic landscape filled with opportunities and challenges. Companies in this sector must navigate a competitive environment that includes

STMicroelectronics expands AI infrastructure

Alongside the ramp-up of PIC100 production, STMicroelectronics is preparing the next stage in its silicon photonics technology roadmap. The

Top startups in Photonics in Spain (Jan, 2026)

Discover the top emerging companies in the Photonics Startups in Spain, their funding activity, key investors, company highlights, and growth stages

The Spanish Government backs a European photonic semiconductor

The photonic chips produced by SPARC will be essential for applications in telecommunications, automotive, quantum computing, medical technology, consumer electronics,

Silicon photonics for high-speed communications and photonic signal ...

Leveraging on the mature processing infrastructure of silicon microelectronics, silicon photonic integrated circuits may be readily scaled to large volume production for low-cost high

Spain could prioritize PIC manufacturing to lead in EU

VLC Photonics, as a pure-play fabless design house, works with multiple foundries and has expertise in all the main photonic integration technologies, including

Top 100 Photonics Companies in Spain (2026) | ensun

The Photonics industry in Spain offers a dynamic landscape with several key considerations for those interested in exploring opportunities. Regulatory frameworks are important, as compliance with EU

Top startups in Photonics in Spain (Jan, 2026)

There are 17 Photonics startups in Spain which include iPRONICS, Wootix, Alcyon Photonics, VLC Photonics, IDEADED. Out of these, 11 startup s are funded, with 4 having secured

High-Speed Pluggable Optics with Silicon Photonics

Cisco designs and manufactures high-speed pluggable optical transceivers based on industry-leading silicon photonics technology platforms. Cisco pluggable optics based on silicon photonics enable

From Taiwan to the World: Silicon Photonics Roadmap and Its Role in ...

In this context, silicon photonics has emerged as a globally contested technology. Countries like the Netherlands, the UK, the Czech Republic, Germany, Spain, Belgium, Switzerland,

Monolithic electro-optic platform on silicon with bandwidth of 100 GHz ...

Extending electro-optic bandwidth of native silicon photonic devices well beyond 100 GHz remains a challenge. We demonstrate a scalable C-band silicon photonic platform

Silicon photonics for 100G-and-beyond coherent transmissions

We describe component and module performances of our silicon based photonic integrated circuits developed for 100G to 400G coherent transponders.

Exploring Innovation in 100G Silicon Photonics Modules Industry

100G silicon photonics modules represent a critical component in high-speed optical communication networks. These modules integrate multiple optical components onto a single silicon

STMicroelectronics expands AI infrastructure capabilities with high ...

Alongside the ramp-up of PIC100 production, STMicroelectronics is preparing the next stage in its silicon photonics technology roadmap. The upcoming PIC100 TSV platform will

Spain Silicon Photonics Market (2021)

The Spain Silicon Photonics market is poised for significant growth in the coming years, fueled by the increasing adoption of advanced technologies in telecommunications, data centers, and healthcare

100G Silicon Photonics Modules Market | Forecast Report 2035

The 100G Silicon Photonics Modules Market was valued at 2.81 (USD Billion) in 2025 and is projected to grow to 8.0 (USD Billion) by 2035, at a CAGR of 11.0%. By Application (Telecommunications, Data

Perspective on the future of silicon photonics and electronics

The technology of silicon photonics provides a pathway to massively reduce the cost, complexity, and power required for creating these photonic connections. The use of co-packaging

Spanish Leadership in Photonic Technologies

Recently, ICFO presented the PIXEurope project at Santander38, aiming to reduce Europe's reliance on non-European chip suppliers. This initiative underscores Spain's leadership in

Spain 100G Optical Module Market Opportunities, Size ...

☐☐ Download Sample ☐☐ Get Special Discount Spain 100G Optical Module Market Size, Strategic Outlook & Forecast 2026-2033Market size (2024): USD 3.2 billionForecast (2033): USD 8.

CWDM/DWDM: Silicon Photonics Drives 100G/400G

Explore how CWDM/DWDM, powered by silicon photonics and PLC technology, cuts costs and boosts 100G/400G networks for 5G and data centers.

Silicon photonics

ST's silicon photonics technology can combine heterogeneous components for developing even faster modulators. It can also enable semiconductor optical amplifier (SOA) and laser integration.

Large-scale photonic processors and their applications

First, we define the photonic actuator as the key primitive element shared among all processors, and next we outline scaling ranges for medium, large, and very large-scale photonic

Monolithic Silicon Photonic Integrated Circuits for Compact 100

We present silicon photonic integrated circuits (PICs) based coherent optical transmitters and receivers for high-speed long-distance fiber optical transmission. High-degree photonic

Silicon photonics ushers in 100G networks

The recent article titled, “ Silicon Photonics is Hot ” authored by Rick Merritt and based on an interview with Andy Bechtolsheim, spurred me to take a deeper look at the technology

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