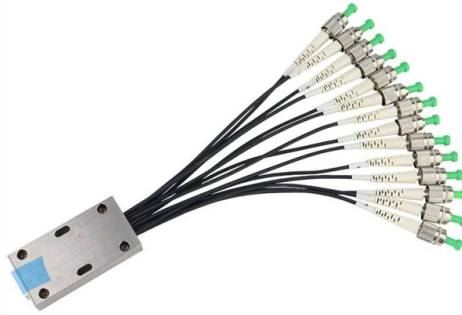


How Huawei uses silicon photonics modules



Overview

Huawei and imec, the European nanophotonics research center, say they have extended their joint work on optical data link technology to include silicon photonics. The two expect to co-develop technology that will support high speeds, low power consumption, and cost savings. CloudMatrix 384 supernode is the answer given by Huawei Cloud. What Makes CM384 Different?

CloudMatrix 384 super-node uses 6912 x 400G OSFP silicon photonic (SiPh) Linear Drive Pluggable Optics (LPO) optical modules and 3168 fibers, connecting 384 Ascend 910C computing chips through a complete mesh. Technology Research on LNOI-based High-Speed Modulators presents the key technologies and research progress of thin-film lithium niobate modulators with high bandwidth, low driving voltage, and low loss. Furthermore, it demonstrates the significant potential of such modulators in supporting the. Huawei and its semiconductor design subsidiary HiSilicon are the defining case study in the global semiconductor bifurcation. No other company's supply chain story more comprehensively illustrates how export controls, domestic industrial policy, and geopolitical competition interact to restructure. European countries (BE, NL, FI, FR, DE, IR, IT, SE, UK. Since the acquisition, 9 products have been successfully brought to market in volume.



Article Content

Dec 11, 2025

Overview of 11 Photonic Quantum Computing

Insider Brief Photonic quantum computing uses photons instead of matter-based qubits, offering room-temperature operation, fiber-network

Nov 09, 2025

Huawei: Kundenperspektive auf optische Module und Siliziumphotonik ...

Derzeit stellen die beiden Netzarten sehr unterschiedliche Anforderungen an optische Module: Betreiber-Netz und OTT-DCN-Netz. Betreiber-Netzwerke stellen hohe Anforderungen an

May 25, 2026

Silicon Photonics - the Backbone of HPC and AI | TechInsights

An overview of silicon photonics integration, key device structures, and technologies like co-packaged optics shaping next-gen datacenter interconnects. Integrating photonics with silicon

Jun 17, 2026

How to Compare Chemical Stability in Silicon Nitride Photonics

Silicon nitride photonics faces significant chemical stability challenges that directly impact device performance, reliability, and long-term operational viability. The primary concern stems from

Apr 01, 2026

Optics Transceiver Module Market 2025

China alone contributes over 45% of global transceiver production, led by Huawei and domestic champions focusing on cost-competitive solutions. Japan and South Korea drive innovation in silicon

Mar 26, 2026

Huawei's Breakthroughs in EUV Lithography and

Chinese technology giant Huawei has made significant strides in the field of semiconductors with the recent issuance of a patent for the development

Feb 03, 2026

Huawei Research Issue 04

Huawei is making waves with its new AI accelerator and rack scale architecture. Meet China's newest and most powerful Chinese domestic solution,

Mar 09, 2026

200G Optical Module Market 2025

Recent breakthroughs in coherent DSP technology and silicon photonics are making 200G modules more cost-effective for metro and long-haul applications. The market is seeing increased adoption of

Aug 26, 2025

Top 10 Optical Transceiver Manufacturers in the World (2026)

Headquarters: California, USA (intel) Best For: 100G/400G Silicon Photonics Modules
Overview: Intel revolutionized the market by integrating optical lasers directly onto silicon wafers (Silicon

Jun 24, 2026

Optical Module Market Analysis and Forecast in 2026

Huawei released the world's first single-wavelength 1.6Tbps silicon photonics module, which adopts third-generation silicon photonics integration

Feb 02, 2026

Huawei might finally have a Chinese fix for high-end chips

A homegrown version of the extreme ultra-violet lithography system needed to produce the most advanced chips is on trial at a Huawei facility, say

May 29, 2026

Huawei CloudMatrix 384 Super-node: 6912×400G SiPh

Deep dive into Huawei's AI super-node: 384 Ascend 910C chips, 6912×400G OSFP SiPh LPO modules (1:18 ratio), 1.7x faster than NVIDIA. Learn

Sep 17, 2025

Top 5G Optical Module Market Companies

Silicon photonics start-ups: Several young 5G Optical Module market companies focus on integrated silicon photonics platforms that promise lower power-per-bit, higher integration, and reduced cost for

Aug 01, 2025

20200123 Huawei Intro VU Amsterdam

Developing photonics on SiN and Si platforms as well as MEMS for a wide range of telecom applications. Since the acquisition, 9 products have been successfully brought to market in volume

Jul 23, 2025

Huawei / HiSilicon Spotlight — Ascend AI Chips, SMIC, China

Huawei HiSilicon supply chain spotlight: Ascend 910C/920/950PR AI accelerator roadmap, SMIC 7nm DUV-only manufacturing, HBM stockpile and CXMT domestic alternative, CloudMatrix 384 system

Mar 31, 2026

Huawei Research Issue 04

Low-Voltage Silicon Photonic Micro-Ring Modulator Design and Stabilization presents the research progress in high-performance silicon photonic micro-ring modulators, and discusses how to meet the

Jan 19, 2026

Tower Semiconductor Partners with NVIDIA to Double Data Center...

Tower Semiconductor teams up with NVIDIA to launch 1.6T silicon photonics optical modules, enabling double bandwidth for AI data centers and next-gen networking. The collaboration

Jun 30, 2025

2026 Global Optical Module Selection Guide (Website Homepage)

Power Priority: Silicon photonics / LPO for AI clusters; NPO for high-density racks. Compatibility First: Confirm port type (SFP+/QSFP-DD), firmware version, and MSA standards.

Mar 17, 2026

Tower Semiconductor & Nvidia team up on 1.6T silicon

Tower Semiconductor and NVIDIA are teaming up to scale next-generation AI infrastructure with 1.6T optical modules for data centers. The

Mar 29, 2026

Samsung Electronics Launches Silicon Photonics Foundry Business ...

Samsung Electronics' foundry division has officially announced its entry into the silicon photonics market. Silicon photonics is a technology that enables data transmission using light by

Aug 24, 2025

Huawei Technologies Research and Development Belgium NV hiring ...

Huawei Technologies Research and Development Belgium NV is a center of excellence for silicon photonics. Driven by AI applications, silicon photonics technology is playing an important role in

Nov 13, 2025

Co-Packaged Optics (CPO) Market Size to Hit USD

Wafer Fabrication Wafer fabrication for co-packaged optics (CPO) uses silicon photonics to produce optical and electronic components on a single

Nov 03, 2025

Silicon Photonics 2021 Market & Technology Report by Yole

Using silicon photonics for consumer health targeting smart watches and potentially other end-systems such as smartphones and consumer devices dedicated to healthcare could be a game changer for

Mar 23, 2026

Silicon photonics now part of Huawei, imec partnership

Huawei and imec, the European nanophotonics research center, say they have extended their joint work on optical data link technology to include silicon photonics. The two expect to co-develop...

Apr 27, 2026

Silicon photonics

Silicon photonics (SiPho) technology leverages silicon-based materials to develop photonic circuits, which use light to transmit data. Silicon photonics is a highly

Jun 29, 2025

Huawei backs optical chip push through photonics supplier investment

Against this backdrop, Huawei is expanding its photonics ecosystem through in-house chip development, capital investment, and global talent recruitment.

Sep 30, 2025

Roadmapping the next generation of silicon photonics

In order to complete the transition to the era of large-scale integration, silicon photonics will have to overcome several challenges. Here, the authors

Contact Us

For more information, pricing, or custom solutions, please contact us:

Website: <https://www.elagage-lorrain.fr>

Email: sales@elagage-lorrain.fr

Phone: +33 6 47 82 19 35

Address: 15 Rue de la République, 69002 Lyon, France

This document is for informational purposes only. Specifications subject to change without notice.

