

Huawei AI Chip Optical Module



Overview

In the AI era, Huawei provides a full range of GE to 800GE optical modules, featuring three major capabilities: Spanning (ultra-long transmission), Stable (ultra-high reliability), and Secure (ultra-solid security). Together, they ensure resilient data center interconnectivity and empower. On May 14, 2025, the "2025 Chip and Optical Forum" hosted by HiSilicon and organized by ICC was held at the Crowne Plaza Wuhan Optics Valley. At the. Huawei has officially launched the Ascend 950PR, a 1.56-petaflop AI inference chip that delivers 2.8 times the FP4 performance of Nvidia's H20 — marking the most aggressive challenge yet to American semiconductor dominance from a Chinese chipmaker operating under heavy US sanctions. The newer models in the series build on this foundation with higher computing capacity and optimised integration. The Ascend 910b came as a natural upgrade. At HUAWEI CONNECT 2025, Huawei Rotating Chairman Xu Zhijun unveiled an ambitious and well-structured technology roadmap. In a high-profile move, he announced four of its latest AI chip developments alongside a SuperPod solution plan, which has been hailed as the world's most powerful computing.



Article Content

Huawei AI CloudMatrix 384 – China's Answer to Nvidia

Meet China's newest and most powerful Chinese domestic solution, the CloudMatrix 384 built using the Ascend 910C. This solution competes directly

Huawei delivers advanced AI chip "cluster" to Chinese

Huawei has started the delivery of its advanced artificial intelligence chip “cluster” to Chinese clients who are increasing orders after being cut off from

Huawei backs optical chip push through photonics supplier investment

AI data centre and high-speed computing demand are pushing optical communications and photonic chips into focus, as data transmission bottlenecks reinforce the strategic role of

AI data centers hit interconnect limits, boosting optical module demand

The surge in optical module stocks reflects a deeper shift in AI infrastructure: the bottleneck is no longer computing power alone, but how that power is connected.

AI Data Centers Ignite a Laser Shortage Wave; Nvidia's

Nvidia's strategic monopoly on EMLs Beyond VCSELs used in short-reach links, mid-to long-reach optical modules mainly depend on two laser types:

Huawei Ascend 950PR: The 1.56 PFLOP AI Chip vs Nvidia

Huawei has officially launched the Ascend 950PR, a 1.56-petaflop AI inference chip that delivers 2.8 times the FP4 performance of Nvidia's H20 — marking the most aggressive challenge

Huawei launches SuperPoD: AI on the way to a million

Huawei has unveiled its new SuperPoD architecture at the Huawei Connect event in Shanghai, a proposal designed to large-scale AI computing

Corporate Information

Huawei released its first AI chip for smartphones, the Kirin 980. Huawei honored Dr. Erdal Arikan, the father of polar codes, for his dedication to basic research and

Broadcom, Marvell set to benefit as 1.6T optical modules near mass ...

1.6T optical communication modules are set for broad adoption in AI data centers in 2026, with optical transceiver vendors and key IC design houses preparing for shipments.

Nvidia halts H200 production as China backs Huawei AI

Nvidia has halted production of H200 artificial-intelligence chips intended for China amid Beijing's policy of supporting domestic chips

Huawei Unveils New AI Chips and SuperPod Solutions

In a high-profile move, he announced four of its latest AI chip developments alongside a SuperPod solution plan, which has been hailed as the world's most powerful computing SuperPods and clusters.

Optical Modules Market Research Report 2034

Optical Modules Market Outlook 2025-2034 The global optical modules market was valued at \$14.8 billion in 2025 and is projected to reach \$39.6 billion by 2034,

Why China's optical communications sector is the latest AI boom ...

Optical modules, also known as optical transceivers, convert electrical signals to optical signals, and vice versa, for high-speed data transmission in networking and AI infrastructure systems.

Optical Modules in Intelligent Computing Scenarios

In the AI era, Huawei provides a full range of GE to 800GE optical modules, featuring three major capabilities: Spanning (ultra-long transmission), Stable (ultra-high reliability), and Secure (ultra-solid

Optics Transceiver Module Market 2025

Which key companies operate in Global Optics Transceiver Module Market? -> Key players include TDK, Hamamatsu Photonics, Cisco, HP, Juniper, Huawei, Broadcom, among others. What are the

Huawei Ascend AI Chips: Specifications, Models, and Performance in

In this article, we will break down Huawei's Ascend AI chip models, examine their technical specifications, and compare them with global competitors in the market.

Optical computing interconnect technology landscape 2026

Optical interconnects have emerged as a critical enabler for next-generation computing infrastructure, addressing the fundamental bandwidth and energy limitations of electrical

AI Race: Can Huawei Close The AI Gap?

Watch Huawei Closely, Even If You Still Lean On NVIDIA Huawei isn't just catching up with its CANN stack and the new CloudMatrix architecture; it's

SMIC reportedly building 5nm capacities in Shanghai to

SMIC is said to have set up a new semiconductor production line in Shanghai and hopes to utilize its existing US and Dutch manufacturing facilities to

What Is StarryLink Optical Module? Why Do We Need It?

The StarryLink optical module is a core component developed by Huawei for data center networks. It delivers ultra-long-distance transmission, exceptional reliability, and enhanced security,

Huawei's new AI CloudMatrix cluster beats Nvidia's

At glance Huawei's CloudMatrix 384 is a rack-scale AI system composed of 384 Ascend 910C processors arranged in a fully optical, all-to-all

110+ AI Chips Statistics | Fact-Checked 2026

Home Electronics And Gadgets AI Chips Statistics GITNEX REPORT 2026 AI Chips Statistics From NVIDIA H100s packing 4 petaflops FP8 to Blackwell B200 pushing 20 petaflops FP4,

Optical Module Chip Market 2025

The optical module chip market exhibits a fragmented yet competitive structure with global technology providers, semiconductor manufacturers, and specialized optical communication companies vying for

Silicon photonics and co-packaged optics at the heart of

With AI reshaping data infrastructure, silicon photonics and co-packaged optics represent critical enablers of tomorrow's data center. Yole

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

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