After-sales service for 100G co-packaged photonics



Overview

Update: PIC100 or ST's 1st silicon photonics technology offers. By using ultra-short vertical electrical connections, ST can support a much denser module.

Key Takeaways

After-sales service for 100G co-packaged photonics focuses on testing, maintenance, thermal management, and vendor support to ensure reliability and high performance in data center environments.

Key Aspects of After-

Sales Service1. Testing and Diagnostics High-speed 100G CPO modules, including those using PIC100 or similar photonic integrated circuits, require specialized testing to ensure signal integrity and performance. Vendors like Quantifi Photonics provide automated high-volume test solutions for PICs and co-packaged optics, enabling parallel measurements, fast channel-switching, and reduced downtime in high-throughput labs.

GIGALIGH

T offers BER testing tools, active electrical loopback modules, and adapters for 100G QSFP28 and CFP modules, which are essential for post-deployment diagnostics and troubleshooting. 2.

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Thermal Management and Reliability CP

O modules integrate high-power electronic ICs and PICs in close proximity, which can complicate heat dissipation. After-sales support often includes guidance on thermal monitoring, liquid cooling solutions, and power management to prevent performance degradation and ensure long-term reliability. Vendors may provide firmware or software tools to monitor temperature and optimize power usage in operational environments.

3. Maintenance and Serviceability Due to the compact and integrated nature of CPO modules, serviceability can be challenging. After-sales service typically covers replacement of defective modules, calibration, and firmware updates.

Some vendors provide modular solutions that allow quick swapping of optical engines or adapters to minimize downtime. 4. Vendor Support and Warranty Leading suppliers like ST, ASMPT, and GIGALIGHT offer technical support, documentation, and training for deployment and maintenance of 100G CPO modules.

This includes guidance on integration with ASICs, troubleshooting optical and electrical links, and ensuring interoperability with existing network infrastructure. Warranty coverage often includes repair or replacement of defective units within a specified period. 5.

High-

Volume Manufacturing Considerations For large-scale deployments, after-sales service also involves support for automated testing and quality assurance. PXI-based modular test platforms allow vendors and customers to maintain consistent performance across multiple units, reducing the risk of field failures. SummaryAfter-sales service for 100G co-packaged photonics encompasses testing, thermal management, maintenance, vendor support, and high-volume quality assurance.

Effective service ensures that CPO modules maintain high reliability, performance, and interoperability in demanding data center and AI computing environments, while minimizing downtime and operational risks.

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Article Content

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

By using ultra-short vertical electrical connections, ST can support a much denser module and support near- and co-packaged optics. It will also enable us to create technologies capable of

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Co-Packaged Optics (CPO) Market Size to Hit USD 1,055.11 Million

The global co-packaged optics (CPO) market size is evaluated at USD 95.04 million in 2025 and is predicted to hit around USD 1,055.11 million by 2034, growing at a CAGR of 30.66%.

STMicro''s Silicon Photonics Hits Mass Production:

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

Development Trend of Optical Transceivers

Advantages of CPO Technology Co-Packaged Optics (CPO) is a promising trend in the development of optical transceivers, offering several technical advantages: High Integration CPO

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Co-Packaged Optics (CPO) has long promised to transform datacenter connectivity, but it has taken a long time for the technology to come to market, with tangible deployment-ready products

China Shenzhen Seacent Photonics Co.,Ltd. company profile

It has won the trust of customers with good after-sales service. The company''s products are exported to Europe, America, Japan, Korea, Russia and Southeast Asia.

CPO & Silicon Photonics: AI''s Interconnect Bottleneck

CPO & Silicon Photonics: AI''s Interconnect Bottleneck and Who Profits A company''s business model should be simple and easy to understand —

Testing Strategies for Next-Generation Optical Interconnects: Co ...

W H I T E P A P E R This paper discusses industry trends in Integrated Photonics and how market participants are adapting to test and mass produce next-generation optical interconnects in a cost

Co-Packaged Optics (CPO) 2025-2035: Technologies,

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IDTechEx''s "Co-Packaged Optics (CPO) 2025-2035" explores technical innovations and packaging trends, analyzing the value chain. It evaluates industry players

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This document is for preliminary research. Verify specifications against current standards, product documentation and project requirements.

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