SourcePhotonics optical modules

Article Overview

Source Photonics offers high-speed optical modules including 1.6T, 800G, and 400G transceivers using advanced PAM4 technology for data centers and telecom networks.

Overview

Source Photonics is a leading global manufacturer of optical communication products, specializing in high-speed transceivers and optical modules for hyperscale data centers, AI infrastructure, telecommunications, and enterprise networks . Their optical modules are designed to support next-generation networking architectures, enabling high-bandwidth applications and efficient data transmission.

Product Portfolio

o 1.6T Optical Modules: Includes DR8 and 2xFR4 modules, supporting single-lambda 200G PAM4 signaling. These modules are designed for high-density AI compute clusters and next-generation switch platforms .
o 800G Optical Modules: Includes SR8, DR8, 2xFR4 (single-lambda 100G), and DR4, FR4, LR4 (single-lambda 200G). These modules support immersion liquid cooling and are available in OSFP or QSFP-DD form factors .
o 400G Optical Modules: Compatible with earlier 100G/400G deployments, leveraging 100G single-lambda PAM4 technology .

Technical Features

o PAM4 EML Lasers: Self-developed 200G PAM4 externally modulated lasers (EML) operating in the O-band, including CWDM wavelengths (1271nm, 1291nm, 1311nm, 1331nm) and LWDM wavelengths (1295.5nm, 1300.0nm, 1304.5nm, 1309.1nm), .
o High-Speed Performance: Modules operate error-free under KP4 + inner code FECi threshold of 4.85x10^-3 at 113.4GBaud, supporting up to 10 km single-mode fiber transmission .
o Standards Compliance: Exceed IEEE Std 802.3ck-2022 and IEEE P802.3dj D1.1 specifications, ensuring interoperability and reliability .
o Copper Cable Options: DAC/ACC/AEC copper cables are available for short-reach connections, complementing optical modules .

Applications

o Hyperscale and AI Data Centers: High-bandwidth modules enable 51.2T and 102.4T switch platforms, supporting AI compute clusters .
o Telecommunications and Enterprise Networks: Modules provide reliable, high-speed connectivity for metro

and access networks .
o Advanced Cooling Solutions: Some modules support immersion liquid cooling, enhancing thermal management in dense deployments .

Summary

Source Photonics' optical modules combine high-speed PAM4 technology, versatile form factors, and robust standards compliance to meet the demands of modern data centers and telecom networks. Their portfolio spans 1.6T, 800G, and 400G modules, offering both optical and copper connectivity options, making them suitable for next-generation high-bandwidth applications .

The XGS-PON N2 OLT from Source Photonics is an optical transceiver module offering a universal upgrade path from existing

Source Photonics is a leading global manufacturer of optical communication products, specializing in high-speed transceivers and

Browse Source Photonics compatible optical transceivers. 100% compatible, tested and certified. Fast shipping, competitive pricing.

Source Photonics is quickly developing next generation single lambda 100G technology, in addition to 400G technologies to support

West Hills, CA and Frankfurt, Germany - September 23, 2024 - Source Photonics, a leading global provider of innovative and

Source Photonics to Spotlight its Latest Optical Innovations at ECOC 2025 Copenhagen, Denmark and West Hills, CA, September

The 50G PON OLT optical module features the smallest SFP-DD packaging to increase the number of ports per line card for

1.6T Transceivers 800G Transceivers 400G Transceivers 100G QSFP28 40G QSFP+ BOSA Combo PON GPON & EPON 10G

Suzhou Dongshan Precision Manufacturing has approved a $1.2 billion investment to expand optical chip and module

Source Photonics" latest 1.6T product series includes DR8, 2xFR4 optical modules and DAC/ACC copper

cables. The

Powering next-gen connectivity: How optical modules enable fast, reliable data transfer, and What are the

Source Photonics is one of the world"s leading optical communications suppliers, with operations spanning optical chip

The Source Photonics solution incorporates data center optimized optics with monolithically integrated multi-channel

What: At ECOC 2025, Source Photonics will showcase a broad portfolio of optical innovative products for AI/ML, cloud data center

Source Photonics, has released 800G DR8/DR8+ and 400G DR4/DR4+ immersion liquid

Our technical expertise in R&D runs deep with manufacturing process development expertise and highly specialized engineering

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