

Source Photonics Unveil its Complete Solution of 1.6T and 800G PAM4 Transceiver Family Products at ECOC'24 in Frankfurt

New 1.6T and 800G transceiver family enabled by 200G PAM4 EMLs paves the way for wide scale Al/ML and cloud Data Center deployments towards next-gen 51.2T and 102.4T switch platforms

West Hills, CA and Frankfurt, Germany – September 23, 2024 – Source Photonics, a leading global provider of innovative and reliable technology solutions for communications and data connectivity for use in hyperscale and AI datacenters, today announce the product availability of its wide range of transceiver portfolio, including 1.6T and 800G optical modules/AOC/DAC based on single-lambda 200G PAM4 technology, the latest 800G 4×200G DR4/FR4/LR4 and 400G/800G optical modules supporting immersion liquid cooling, with live demonstration onsite at ECOC 2024 (Booth #C67) in Frankfurt, Germany. This represents a critical milestone to enable next generation 51.2T and 102.4T switch platforms for accelerated AI compute infrastructure.



Fig.1 Source Photonics 1.6T and 800G Product Series

Source Photonics' latest 1.6T product series includes DR8, 2xFR4 optical modules and DAC/ACC copper cables. The 800G product series includes SR8, DR8, 2xFR4 based on single lambda 100G, and DR4, FR4, and LR4 modules based on single-lambda 200G, as well as DAC/ACC/AEC copper cables packaged in form of either OSFP or QSFP-DD form factors covering multiple optical connector and interface options.

Source Photonics began production shipments of 100G single lambda PAM4 based 100G/400G transceivers when 400G industry adoption start to take off from 2021, and over 7.5 million high speed 28/53GBd EML chips have been shipped so far. The newly released product-grade 100GBd EMLs enable 200Gb/s single lambda PAM4 signaling for shipping 1.6T and 800G transceivers. The 800G FR4/LR4 optical modules will be demonstrated at the ECOC exhibition. The optical modules leverage self-developed 200G PAM4 EML lasers around O band, including CWDM wavelengths of 1271nm/1291nm/1311nm/1331nm and LWDM wavelengths at 1295.5nm/ 1300.0nm/1304.5nm/1309.1nm. It operates error free under KP4 + inner code FECi threshold of 4.85×10⁻³ at 113.4GBaud, and supports up to 10km single mode fiber transmission, exceeding IEEE Std 802.3ck-2022 and IEEE P802.3dj D1.1 specifications.

"Highly integrated and reliable 200G PAM4 EMLs double the optical bandwidth of current solution to enable 1.6Tbps pluggable modules for scaling AI cluster in data centers, which facilitate the industry transition to 51.2Tbps per RU networking architectures", commented by Dr. Frank Chang, CTO at Source Photonics, "The latest generation of 800G family of products reduces power consumption per bit by over 20%, and provides a fruitful of

transceiver receptacle choices supporting backward compatibility and flexibility for smoothly upgrading from 400G to 800G and then 1.6T. The successful commercialization of 800G DR4/FR4/LR4 and the associated 1.6T DR8/2xFR4/2xLR4 optical transceivers represent our commitment in optical connectivity innovation to deliver next-generation pluggable transceivers."



Fig. 2 800G FR4/LR4 Demonstration Block Diagram

Visit Us at ECOC 2024 exhibition!

Live demonstrations of the 800G 4×226.8G PAM4 FR4/LR4 QSFP-DD optical modules will be conducted during the ECOC'24 exhibition, together with 1.6T, 800G, 400G/800G 2PIC, LPO/LRO, 10/25G/100G tunable and 25/50G PON high-performance optical transceiver solutions. Industry colleagues are welcome to visit booth #C67 for product details. Moreover, Source Photonics will also deliver a speech on 200G/Lane based 800G/1.6T optical transceivers at ECOC 2024.

The ECOC exhibition is taking place September 23-25, 2024.

About Source Photonics

Source Photonics is the world's leading supplier of optical communication technology. It uses innovative and reliable technology to provide communication and data connection solutions with products widely used in AI and cloud data centers, metropolitan area networks and access networks. The company continues to develop next-generation solutions that provide customers with technology support for fast-growing global AI and cloud infrastructure, wireless communications, routing and fiber-to-the-home. Source Photonics' global team of professional engineers and the company's production R&D capabilities complement each other, including experts in the design of optical chips, optical components and modules. Source Photonics headquarter in West Hills, Los Angeles, CA and have its own product development and production bases in Chengdu, Sichuan, Changzhou, Jiangsu and Hsinchu, Taiwan. For 2023 annual report, Source Photonics is ranked the top 9th company among the global optical transceiver manufacturers. For recent 1Q quarter of 2024, Source Photonics take the 3rd place for shipping the most 400G optical modules in the world.

For more information about Source Photonics, please visit www.sourcephotonics.com.

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