



The European Conference on Optical Communication 2024

Sivers Insights

ECOC 2024 Roundup

The 50th European Conference on Optical Communication

The European Conference on Optical Communication (ECOC) is Europe's leading conference on optical communications, and one of the largest and most prestigious events in the field worldwide.

The conference brings together experts and leaders from academia, research and industry across the globe to share their latest breakthroughs and visions for the future.

It's more than just a conference – it's a unique platform to share knowledge, exchange groundbreaking ideas, spark innovations and foster collaborations that drive science and the future of our industry.

Selected highlights from the extensive technical program at ECOC 2024

- 8 in-depth tutorials, 52 invited presentations, 451 contributed paper sessions featuring the latest breakthrough results.
- 14 workshops on hot topics in the community, covering optical as well as quantum communication in fibre and free-space, addressing the device, system and network level.
- Symposia on 50 years of ECOC, optical networking, optical satellite, green ICT and data-centre challenges.
- A demo session covering proof of concepts and early prototype developments, as a link between the scientific conference and the business-driven exhibition.
- A lively rump session debating the innovation potential of quantum technologies as well as sessions covering the topics Hack your research, Women in Photonics and Photonics in Germany.

Outstanding line-up of speakers, offering insights into optical communications

- Andreas Bechtolsheim, Co-Founder and Chief Architect of Arista Networks, (Can Interconnects Keep Up with AI?)
- Thomas van Briel, SVP Architecture and Strategy Deutsche Telekom Technik GmbH, (Evolution of IP and Optical Networks)
- Roel Baets, Emeritus Professor at Ghent University and former Group Leader at IMEC, (Towards Silicon Photonics 4.0)
- Joyce Poon, Head of Photonics Architecture at Lightmatter, (Future Computing with Integrated Photonics)

Exhibition

Alongside the conference, the collocated exhibition is the largest of its kind in Europe, offering unparalleled opportunities to explore the latest products, connect with new customers and discover emerging trends.

This year celebrates 50 years of ECOC! Over the past 50 years, optical technologies have evolutionised global communications, shaping the digital world we know today. Looking to the future, these technologies will be even more crucial in driving the next wave of digital transformation.

Booth and Demonstration

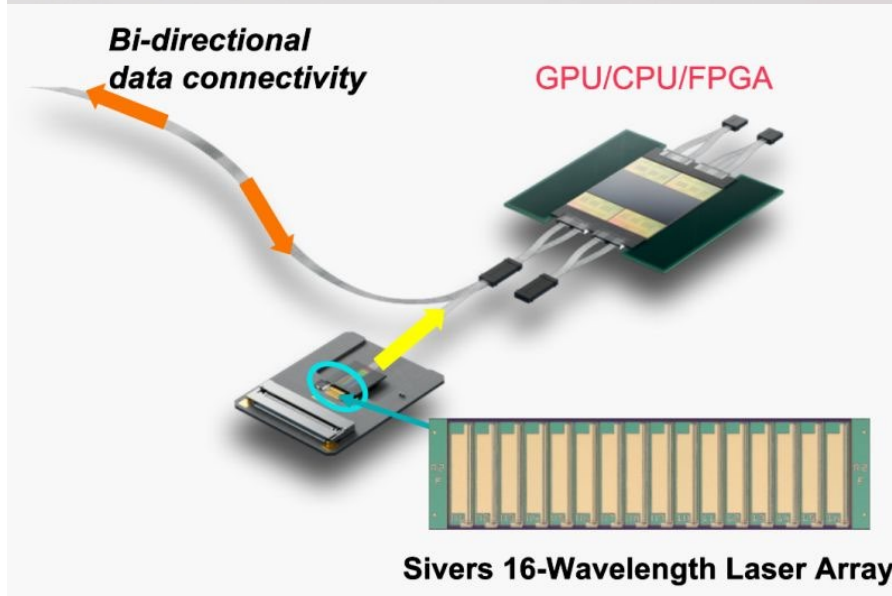
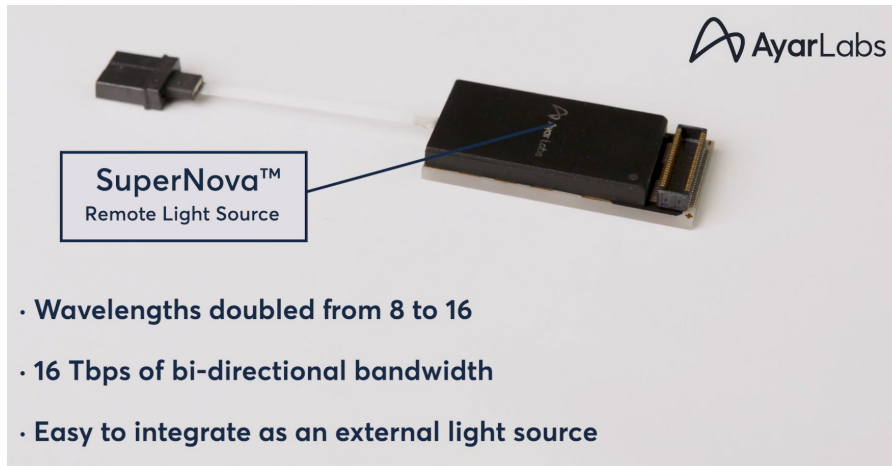
Sivers Semiconductors and Ayar Labs introduced the industry's first CW-WDM MSA compliant 16-wavelength light source by holding a joint live demonstration at the Sivers booth, showing the Sivers Semiconductors 16-wavelength distributed feedback (DFB) laser array integrated into the Ayar Labs SuperNova™ multi-wavelength light source for 16 Tbps of bi-directional bandwidth – a level of bandwidth essential for AI scale-up networks.

The technology partnership is driving transformative advancements in AI applications. As foundational AI models continue to grow in size and complexity, they demand increased GPU/accelerator processing power and memory capacity.



By integrating optical I/O directly within the GPU or accelerator package, this solution enables communication across the GPU cluster, ensuring scalable and efficient infrastructure to meet the expanding demands of AI workloads.

Optical connections also significantly reduce power consumption while delivering 5-10x faster communication speeds within the cluster, optimizing GPU utilization and accelerating AI performance.



Read full press release [here](#)

EPIC VIP Networking Reception (Monday 23rd September 2024)

Co-located with ECOC, this was an EPIC Industry Event attended by Graeme Urquhart, Sales Director of Sivers Photonics. The venue was the prestigious 'Fifty Heights' event space on the 50th floor of Tower 85, Germany's highest venue at 185 meters tall.

The annual EPIC networking reception at ECOC gathered 100 EPIC members, invited VIP guests – decision makers, technology experts, and investors. The program included quality networking and creating new business connections. Participation was free of charge but strictly on-invitation only.



Conclusion

We had a highly productive and enjoyable week at ECOC2024! Three exceptional days of demonstrations and customer engagements.

In an industry built on collaboration, and relying on a solid ecosystem, face-to-face interaction and the sharing of information and ideas with our customers and peers yet again proved to be invaluable.

The response and reaction to our joint demonstration with partner [Ayar Labs](#) has been incredible, and the potential of Sivers' high power discrete DFB lasers for 800G pluggable optics, and DFB laser array technology for WDM light sources is very exciting.

The growing complexity and size of AI models, especially generative AI models, are introducing huge scaling and power challenges which companies like Ayar Labs are solving with their optical I/O modules and solutions, powered by Sivers lasers.

We are proud to show the success of Sivers Semiconductors' photonics team in leading the industry with advanced laser chips for next generation AI Data Centre architectures.

Andrew McKee

Managing Director, Photonics