

Press Information

Kyocera develops pluggable optoelectronic module supporting PCIe® 6.0, contributing to high-speed, power-efficient AI data centers

Product to be exhibited at OFC 2026 at the AuthenX booth (Booth #5204), Los Angeles, United States from March 17–19.

Kyoto/London, 10th March 2026. Kyocera Corporation announces the development¹ of a pluggable optoelectronic module (OSFP-XD²) supporting the PCIe^{®3} 6.0 standard as a new product in its OPTINITY^{® 4} optoelectronic module series, which contributes to optical communication implementation and power savings in data centres.

Kyocera has been developing onboard-type optoelectronic modules that support PCIe^{® 5.0} and convert electrical signals from CPUs, GPUs, and other components into optical signals. With this latest development, by advancing the communication standard to PCIe^{® 6.0}, Kyocera has achieved a new level of high-speed, high-capacity communication. Further, the new module's pluggable configuration enhances design flexibility, system configuration versatility, and ease of implementation. Kyocera will continue developing onboard-type modules as well, aiming to provide optoelectronic interfaces for specific applications and system configurations.

This product was developed in collaboration with AuthenX, Inc., a company in which Kyocera has invested through Kyocera Venture Innovation Fund I (KVIF-I)⁵, the company's corporate venture capital (CVC) fund. The newly developed product will be exhibited at the AuthenX booth at OFC 2026, an international exhibition for the optical communications industry, which will be held in Los Angeles, USA, from March 17 to 19, 2026.

¹ This development is based on results obtained from a project, JPNP21029, subsidized by the New Energy and Industrial Technology Development Organization (NEDO).

² OSFP-XD: One of the form factors for pluggable optical modules, designed for next-generation high-density, multi-lane applications.

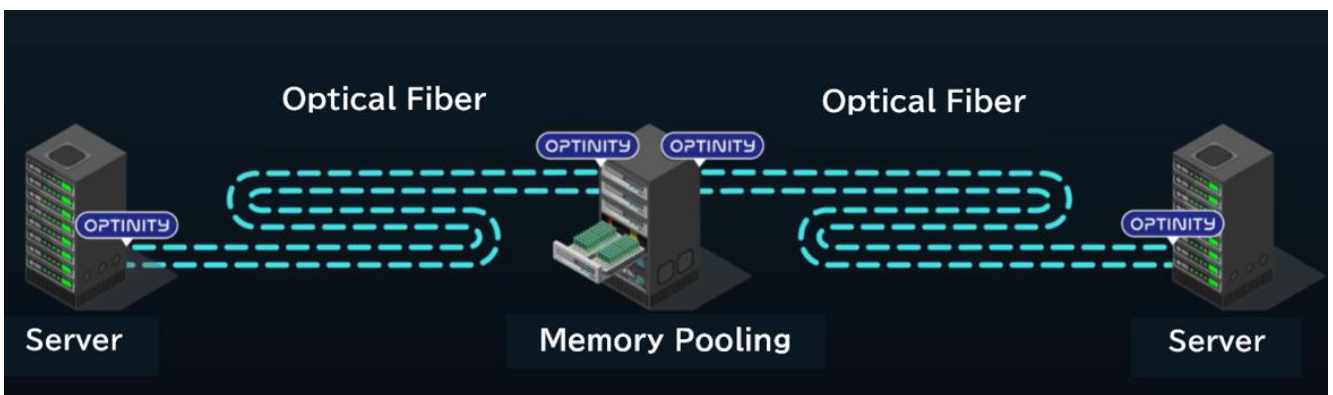
³ PCIe (Peripheral Component Interconnect Express): An interface standard for high-speed connection among devices such as CPUs, GPUs, AI accelerators, and storage. PCIe is a registered trademark of PCI-SIG.

⁴ OPTINITY is a trademark of Kyocera Corporation in Japan and other countries.

⁵ KVIF-I: A corporate venture capital fund jointly established in April 2024 by Kyocera and Global Brain Corporation to strengthen Kyocera's framework for continuously creating new businesses. (<https://europe.kyocera.com/news/2024/10/08132218.html>).



OPTINITY® OSFP-XD



Conceptual image of optical interconnection in a data

Development background

In recent years, with the advancement of generative AI and other technologies, the volume of data handled in data centres has been rapidly increasing. Accordingly, PCIe® interfaces that connect high-performance computing devices such as GPUs and AI accelerators must support even higher data speeds and capacities.

Conventional PCIe® connections using electrical wiring face the challenge of increased signal loss and power consumption as transmission distances increase. Additionally, retimers⁶ are needed to ensure communication stability, which increase latency and power consumption further. This limits flexibility for equipment placement within racks, making it difficult to optimize cooling efficiency and maintainability.

To address these challenges, PCIe® connections using optical signals are attracting attention as a technology that enables low-loss, stable transmission even between physically distant devices and resources, while enhancing system design flexibility and contributing to improved efficiency

⁶ Retimer: A chip used to correct signals degraded by loss and noise.

and power savings across entire data centres.

To address these challenges, in addition to developing onboard-type optoelectronic modules, Kyocera has newly developed a pluggable module supporting PCIe® 6.0.

Features of the newly developed product

1. Contributing to higher capacity and lower power consumption with next-generation standard PCIe® 6.0 optical interconnects

Using the OSFP-XD form factor, Kyocera has achieved high-capacity communication with PCIe® 6.0 x16 (64 GT/s per lane). Additionally, optical transmission enables us to eliminate the retimers that are required in electrical wiring, significantly reducing power consumption between PCIe® devices. This contributes to power savings across the entire data centre, enabling both reduced environmental impact and lower running costs.

2. High versatility through pluggable type module

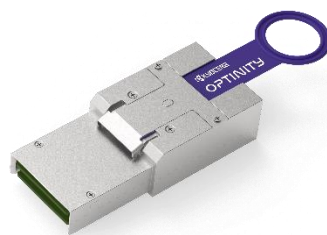
The pluggable format enhances system design flexibility, enabling integration into existing systems and future expansion.

3. Improved design flexibility through long-distance connections

Optical fibre transmission can extend the connection distance between PCIe® devices to several hundred meters or more, compared to the conventional electrical wiring limit of under 10 meters. This enables flexible equipment placement within and between racks, with expectations for optimized cooling efficiency and significantly improved maintainability.

Future development

In addition to onboard-type and OSFP-XD modules, Kyocera plans to develop modules supporting various other form factors for different applications, including Optical CDFP⁷, and will sequentially expand its lineup. This will contribute to large-scale computing well into the future.



Optical CDFP

⁷ Optical CDFP: One of the form factors for pluggable optical modules, mainly used in the 400G generation.



Exhibition at OFC 2026

This achievement will be exhibited at "OFC 2026," one of the world's largest international exhibitions in the optical communications field, to be held in Los Angeles, California, USA, from Tuesday, March 17 to Thursday, March 19, 2026. OFC attracts attention from telecommunications carriers, data centre operators, and research institutions worldwide as a platform where the latest advances and products in optical fibre communication technology are showcased. The newly developed OSFP-XD optical transceiver will be exhibited at the AuthenX booth.

Overview: Kyocera at OFC 2026

Show	OFC 2026 (Optical Fiber Communication Conference & Exhibition)
Date	17 th to 19 th March 2026
Location	Los Angeles, California, United States
Kyocera's booth	Booth # 5204

Strategic partnership with AuthenX

AuthenX is a Taiwanese startup company with strengths in the design and development of high-speed optical transceivers utilizing silicon photonics technology. Kyocera has been advancing joint development of optical interconnect technology for next-generation data centres with AuthenX, and in December 2025, made an investment through KVIF-I, to accelerate collaboration with the company.

This newly developed product was realized by combining AuthenX's module design technology with Kyocera's PCIe[®] protocol processing, signal quality management, and link training technologies cultivated over many years. Both companies will continue to work closely together and accelerate efforts toward commercialization and market launch of this technology.

About AuthenX

Company Name	AuthenX Inc.
Business Overview	A Taiwanese startup developing silicon photonics technology and other unique products including ELS and metalenses based on its strengths in optoelectronic integration and optical engine design to address the global challenge of energy consumption in AI servers.
President	Paul Wu (Chairman & General Manager)
Address	19F-2 No. 168, Sec. 2, Fuxing 3rd Road, Zhubei City, Hsinchu County 302052, Taiwan
Web page	https://www.authenxinc.com/



The press material is available for download via the following link:

<https://spgroup.app.box.com/s/ig30y2vgj4bcmy0bnws9as3zdcg49kl5>

For more information on Kyocera: uk.kyocera.com

About Kyocera

Kyocera has been successful in Europe for over 50 years. From its European headquarters in Esslingen am Neckar, KYOCERA Europe GmbH operates 29 sites including manufacturing facilities, with products ranging from fine ceramics, automotive, semiconductor and optical components to components for medical products, industrial tools, LCDs, touch solutions, industrial printing components, and consumer goods such as kitchen and office products.

KYOCERA Europe GmbH is a company of the [KYOCERA Corporation](#) headquartered in Kyoto/Japan, a renowned supplier in semiconductor, industrial and automotive components as well as electronic components, printing and multifunction systems, smart energy systems, and communications technology. Kyocera is one of the most experienced technology producers, with more than 65 years of industry expertise. The Kyocera Group comprises 288 subsidiaries (31 March 2025). With around 77,200 employees, Kyocera generated net annual sales of around EUR 12.43 billion in the 2024/2025 fiscal year.

Kyocera is ranked 1,123 on Forbes magazine's 'Global 2000' list for 2025 and ranked as 'The 100 Most Sustainably Managed Companies in the World' according to the Wall Street Journal. For the fourth time Kyocera has received an A ranking on the CDP A List for their performance on climate change. Kyocera has also received a silver rating in the EcoVadis Sustainability Survey and was acknowledged as a 'Top 100 Global Innovator 2026' for the tenth time by Clarivate, being one of the world's leading innovators.

Kyocera also takes an active interest in cultural affairs. The Kyoto Prize, a prominent international award, is presented each year by the Inamori Foundation – established by Kyocera founder Dr Kazuo Inamori – to individuals worldwide who have contributed significantly to the scientific, cultural, and spiritual betterment of humankind (equivalent to approximately €539,000 per prize category).

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