

Production of SWR™ begins at the new plant at the Sakura Works

Fujikura Ltd. has completed the construction of a new SWR™ plant, which had been under construction at Sakura Works in Chiba Prefecture, and started its operations. An opening ceremony was held on February 17.

At the new plant, we produce 12 core intermittent fixed-type optical fiber ribbon (Spider Web Ribbon™: hereinafter referred to as “SWR™”), which is mounted on Fujikura’s proprietary thin and high-density optical fiber cable (Wrapping Tube Cable™: hereinafter referred to as “WTC™”).

With this launch, SWR™ production volume is expected to increase by approximately 30% on a fiber length basis.

In recent years, data traffic has increased rapidly owing to the progress of digitalization, and the demand for high-capacity high-speed communication and low-delay communication is increasing more and more. As the development of optical broadband and data centers continues in various countries, strong demand is expected to continue.

In order to respond quickly to the increased demand, Fujikura has been constructing the new plant at the Sakura Works to enhance its SWR™/WTC™ production capacity.

At the new plant, we aim to achieve high productivity and quality by utilizing in-house developed manufacturing equipment and manufacturing DX (digital transformation). As a result, we have not only strengthened our production capacity to meet increased demand, but also improved our cost competitiveness for the future. The new plant will also actively introduce GX (green transformation) technology to achieve carbon neutrality, a first for Fujikura.

We will continue to contribute to the realization of an advanced information society through the operation of the new plant.

*Wrapping Tube Cable™, WTC™, Spider Web Ribbon™ and SWR™ are trademarks of Fujikura Ltd.



New Plant at the Sakura Works where production began



Tape cutting at the opening ceremony

■ Overview of the new plant

Address	1440 Mutsuzaki, Sakura-shi, Chiba Prefecture (in the Sakura Works)
Building area	Approx. 3,000 m ²
Investment amount	Approx. 10 billion yen

SWR™/WTC™ product website
<https://www.optic-product.fujikura.com/optical-fiber-cables/>



■ Points relevant to the 17 SDGs

We will contribute to the realization of an advanced information society through the production of SWR™ that utilizes our company’s original technology.



Launch sample shipment of "TitaniaBend PANDA PM fiber"

Fujikura Ltd. and Corning Incorporated (USA) have developed "TitaniaBend PANDA PM fiber", which is suitable for next-generation optical transceivers beyond 800Gbit/s. We will begin the sample shipment of the optical fiber in FY2025.

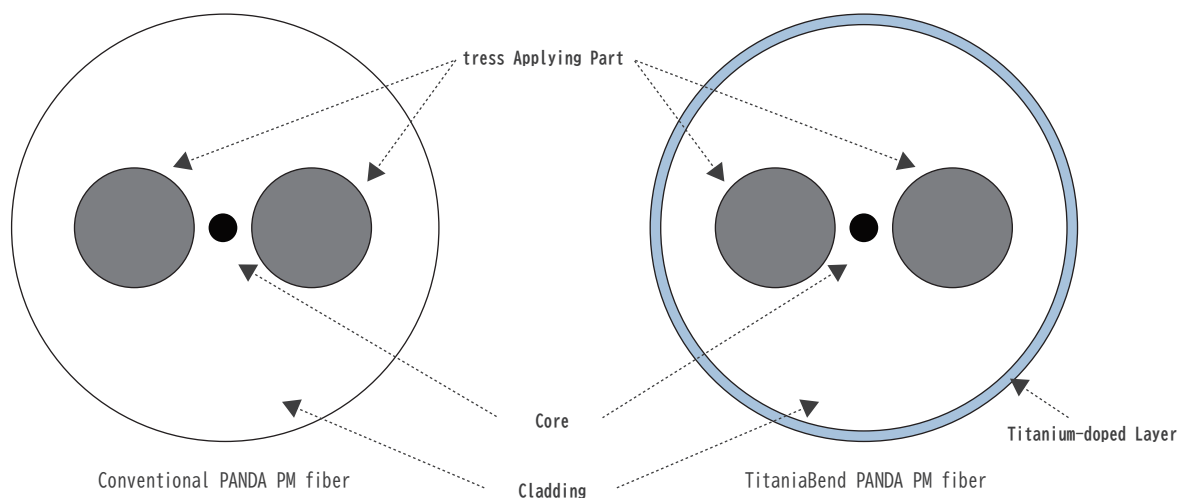
The drastic market expansion of AI applications, the demand for high-speed and large-capacity optical communications continues to grow. Optical transceivers that convert electrical and optical signals are used for transmitters and receivers in high-speed and large-capacity optical communication networks. Serving the increase in communication traffic in recent years, optical transceivers have become more integrated and smaller. The polarization-maintaining optical fibers (PANDA PM fibers) used in optical transceivers must be stored in a limited space, so optical fibers with a small allowable bending radius are required.

We achieved the suitable fiber design for "TitaniaBend PANDA PM fiber" that allows single-mode operation even under usage in a short length. Furthermore, adding a titanium-doped layer to the glass surface of the optical fiber combines optical properties and mechanical reliability under a small diameter bending radius. "TitaniaBend PANDA PM fiber" is applied under severe bending conditions of < 5mm radius, and the bend loss is reduced by up to approximately 90% compared to conventional products for tight bends.

"TitaniaBend PANDA PM fiber" is an optimized solution for next-generation optical transceivers. The fiber was presented at SPIE Photonics West 2025, held in San Francisco, USA January 25-30, 2025.

Fujikura Ltd. will continue to develop high-quality products to realize the advanced information society.

■ Cross-sectional structure of PANDA PM fibers



■ Points relevant to the 17 SDGs

This product is used for next-generation optical transceivers. We will contribute to the development of future optical communications with innovative technology.



✉ Optical fiber Division: opticalfiber@jp.fujikura.com

Announcement of exhibition at Data Center Japan 2025

We will participate in Data Center Japan 2025 to be held on the 4th and 5th floors of Hamamatsu-cho Kan, Tokyo Metropolitan Industrial Trade Center on March 18th and 19th, 2025. This event is organized by the Japan Data Center Council (JDCC) to commemorate its 15th anniversary, and introduces the latest technologies, products and services related to the data center industry. The event gets a lot of attention as it addresses the rapidly growing data center market and the evolution of digital infrastructure such as cloud services and AI.

We will exhibit fiber optic products for data centers such as next-generation VSFF (Very Small Form Factor) MMC/MDC fiber optic cabling solutions, fiber optic cable (SWR™/WTC™) for data center interconnects (DCI), One-Click™ Cleaner PRO, and fiber fusion splicers at our booth. We will also participate in a seminar on the theme of "The Latest Technology Trends in Fiber Optic Cables for DC" to introduce our technological capability and the latest information.

We look forward to welcoming you at the event.

*SWR™, WTC™, and One-Click™ are trademarks of Fujikura Ltd.



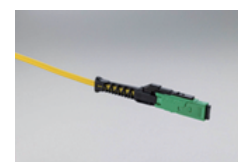
Exhibition

Date and time : 10:00 am to 5:00 pm, Tuesday, March 18, and Wednesday March 19, 2025

Venue : Fujikura booth, Hamamatsu-cho Kan, Tokyo Metropolitan Industrial Trade Center : 4A24 (4th floor)

Content : Fiber optic products for data centers

Official site : <https://f2ff.jp/event/dcjapan?lang=en>



MMC connector

Seminar

Date and time : 2:20 pm to 2:50 pm, Wednesday March 19, 2025

Venue : Room A (4th floor), Hamamatsu-cho Kan, Tokyo Metropolitan Industrial Trade Center

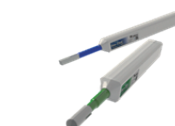
Speaker : Koji Tomikawa, Section Chief, Optical Cable Sales Department

Theme : Latest Trends in Fiber Optic Cable Technologies for Data Centers

Contents : With the remarkable advancements in AI performance in recent years, the demand for generative AI has been an explosive increase. As a result, there is a growing need for more advanced fiber optic cables that offer high core counts and low loss for interconnecting data centers.

In this session, we will explore the fundamentals of fiber optics, the evolution of fiber optic cables, and the latest technologies being used for data center interconnections today.

Details of seminar : https://f2ff.jp/introduction/10297?event_id=dcjapan&lang=en



One-Click™ Cleaner PRO



■ Points relevant to the 17 SDGs

We will support the construction of next-generation optical fiber networks through next-generation ultra-compact optical connector technology and optical cabling solutions, contributing to the development of social infrastructure that forms the basis of industry and daily life around the world.



The Excellent Award for "Development of 3D wiring technology" at the 38th JIEP Annual Meeting

We are pleased to announce that we have received the Excellence Award at the 38th Japan Institute of Electronics Packaging (JIEP) Annual Meeting. This award is given for outstanding academic and technical presentations and papers presented at the conference.

This award evaluated the application of vacuum/pressure forming and transfer printing methods that have enabled the formation of 3D and multilayer circuits with tail wiring for connection to external terminals on thermoplastic sheet such as ABS and polycarbonate.

We have developed a silver paste that is highly extensible at molding temperatures, and improved the

structure of the adhesive layer and the protective resist, which enabled us to develop 3D wiring that can follow a 3D curved surface to a depth of 10 mm.

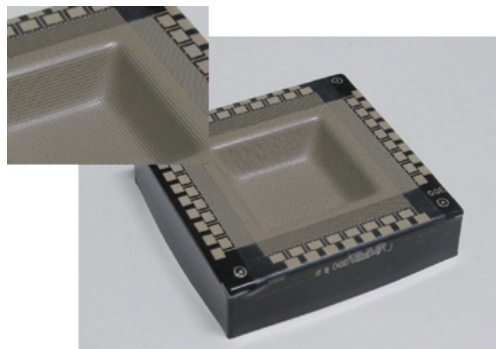
In addition to shortening the time required for conventional assembly work, it also improves product design and reduces the number of components, contributing to the further spread of products that operate in three-dimensional shapes, such as small electronic devices and in-vehicle modules.

We will continue to provide R&D and products to meet increasingly diverse customer needs.



Mr. Junichi Torii, Electronic Components Division who received an award

■ Figure 1 : 3D wiring (base material: ABS)



■ Figure 2 : Electrostatic capacitance type 3D switch
(Base Material: polycarbonate)



■ Points relevant to the 17 SDGs

This technology will contribute to the improvement of customer productivity and design.



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