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News Release

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## **FURUKAWA AND OFS ANNOUNCE 3 NEW COMPONENTS FOR 100 GBPS ULTRA-HIGH SPEED TRANSMISSION**

**OFC/ NFOEC 2010, Booth 1023, San Diego, California, March 22, 2010** - Furukawa Electric Co., Ltd., and the U.S.-based OFS, Specialty Photonics Division, are pleased to announce the availability of a Narrow Linewidth Full-Band Tunable Laser, a Coherent Mixer with Built-in Polarization Multiplexer/Demultiplexer, and a Polarization Maintaining Fiber with a new stress rod design for application in Optical Digital Coherent Transmission Systems. The next generation of ultra-high speed optical networks is going up to and beyond 100 Gbps, and new components are necessary to support these speeds.

**Narrow Linewidth Full-Band Tunable Laser:** Furukawa has developed a Tunable Distributed Feedback (DFB) laser with a linewidth less than 500 KHz. This decreases the linewidth of conventional DFB technology by a factor of 3 with an output optical power of 40 mW or higher. The high wavelength stability and high reliability characteristic of conventional DFB technology are maintained even over this decreased linewidth and high output power performance level.

**Coherent Mixer with Built-in Polarization Mx/DMx:** In order to generate ultra-high speed transmissions in an optical digital coherent system, system designers use a combination of a polarization multiplexer/demultiplexer and an optical interference device in a Dual Polarization Quadrature Phase Shift Keying (DP-QPSK) receiver.

Furukawa's established and proven planar lightwave circuit (PLC) technology has been applied into this new Coherent Mixer now integrated with a Built-in Polarization Mx/Dmx to improve the performance of DP-QPSK transmission. Our integration of these parts on one chip results in smaller size, while still maintaining superior loss uniformity (lower than 1 dB), low skew (typically lower than 1 ps), and high polarization extinction ratio (higher than 18 dB).

Polarization Maintaining Fiber with a New Stress Rod Design: In the DP-QPSK modulation system, optical signals have to be transmitted while keeping the state of polarization. This can occur between an optical local oscillator and a coherent mixer or between a signal light source and a modulator. The new PM fiber created by Furukawa's wholly owned subsidiary, OFS, achieves a superior polarization extinction ratio and low insertion loss with a novel design to support these systems.

Furukawa and OFS will be exhibiting at OFC/NFOEC, Booth #1023 beginning March 22, 2010.

### **About Furukawa Electric Company, Ltd.**

Furukawa Electric Co. Ltd. ([www.furukawa.co.jp/english](http://www.furukawa.co.jp/english)) is an \$11 billion global leader in the design, manufacture and supply of fiber optic products, network products, electronics components, power cables, nonferrous metals, and other advanced technology products. Headquartered in Tokyo, Japan, Furukawa operates production facilities on five continents around the globe, including OFS and the OFS, Specialty Photonics Division, in the USA.

### **About OFS**

OFS is a world-leading designer, manufacturer and provider of optical fiber, optical fiber cable, connectivity, FTTx and specialty photonics solutions. Our marketing, sales, manufacturing and research teams provide forward-looking, innovative products and solutions in areas including Telecommunications, Medicine, Industrial Automation, Sensing, Government, Aerospace and Defense applications. We provide reliable, cost effective optical solutions to enable our customers to meet the needs of today's and tomorrow's digital and energy consumers and businesses.

OFS' corporate lineage dates back to 1876 and includes technology powerhouses such as AT&T and Lucent Technologies. Today, OFS is owned by Furukawa Electric, a multi-billion dollar global leader in optical communications.

For more information, please visit [www.ofsoptics.com](http://www.ofsoptics.com).

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