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News Release

OFS PUBLISHES RESEARCH STUDIES ON NEXT GEN TRANSMISSION FIBERS

Same Ultra-Large Area Fiber Featured in 100G Live Demo

OFC/ NFOEC 2010, Booth 1023, San Diego, California, March 24, 2010 - OFS, designer, manufacturer and supplier of leading edge fiber optic network products, today published ground breaking research on various designs for next-generation transmission fiber for coherent optical communications at OFC/ NFOEC 2010. Prototype OFS fibers with ultra-large effective area and reduced attenuation are featured in a live demonstration of 100 gigabits per second (Gbps) coherent transmission and in three post-deadline research papers on 200 and 400 Gbps as well as ultra-high spectral efficiency transmission.

“Based on the market direction toward coherent receiver technology, and considering the sensitivity of coherent techniques to non-linear effects, OFS is working with carriers and systems integrators to research what optical fibers will be necessary to enable 400 Gbps and 1 terabit per second (Tbps) transmission technologies,” said Robert Lingle, Jr., Director of Fiber Design and Systems Research for OFS.

A live demonstration of 100 Gbps transmission in Opnext, Inc.’s booth employs an OFS prototype low loss, ultra-large effective area fiber to transmit real-time coherent 100 Gbps DWDM channels over a single “festoon” link of 240 km.

The same fiber is highlighted in a post-deadline paper (PDPB9) on 100 Gbps technology Thursday night, March 25th co-authored by scientists and engineers from AT&T Labs, NEC Labs, and OFS. This research achieved a record 64 Tbps capacity over a single optical fiber with ultra high spectral efficiency of 8 bits/s/Hz. The result shows that low loss, large area fibers will allow carriers to transmit video and data at extreme speeds in the future, at maximum information densities, to beneficially use their capital investment in optical cable and amplifier chains.

A slightly different OFS prototype ultra-large area fiber was used by co-authors from Alcatel-Lucent Bell Labs to achieve 224 Gbps transmission over 1200km distance (post-deadline paper PDPB8). This work begins to look beyond 100 Gbps transport, currently being commercialized, to explore how next-generation optical fibers will enable the next generation of higher data rates for the internet of the future.

This second fiber was also used by co-authors from Bell Labs and OFS in a third post-deadline paper (PDPC2) to push even further beyond 100 Gbps by transmitting a single 448 Gbps channel over 2000 km using a technique known as coherent optical orthogonal frequency-division multiplexing. This work also accounted for the inevitable impact of pass band narrowing in a re-configurable optical network.

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.

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