OFS LABORATORIES ANNOUNCES NEW DEVELOPMENTS THAT WILL REDUCE COSTS FOR CUSTOMERS

ECOC 2002 Accepts 16 Papers from OFS Laboratories

ECOC, Booth #85/86, Copenhagen, Denmark, September 9, 2002 - OFS, designer, manufacturer and supplier of leading edge fibre optic products, today announced several new research developments from OFS Laboratories that further advance fibre optic technology. The conference committee accepted 16 OFS-authored papers, including three invited papers, to be presented at ECOC 2002.

Among other advancements, the papers highlight Raman amplification advances that reduce cost for 10 Gb/s systems and enable and enhance 40Gb/s. Critical advances in microstructure and holey fibres are also presented.

"The recent developments improve performance of systems with longer reach," said Ken Walker, President, OFS Laboratories. "We are committed to developing practical technologies that will reduce costs for customers, while increasing capabilities."

Raman Amplification Architecture

OFS Laboratories continues its history of delivering the most advanced fibre and dispersion compensation technology in the world with new Raman amplification architectures, products and analysis.

Significant improvement in the design and performance of Raman amplifiers allows optimum performance of high speed DWDM networks at lower system cost. This work compares single- and two-stage amplifier solutions, illustrating that distance can be doubled by taking advantage of lower path average power in a single-stage amplifier architecture. The papers discuss OFS' world leading 1200-km system with S-band transmission of 40 x 10 Gb/s channels in an all-Raman re-circulating loop and how the results are also applicable to design of C- and L-band Raman amplifiers.
Leveraging OFS’ dispersion compensation products and expertise, Raman amplified DCF replaces or supplements EDFAs to increase capability and reduce network cost for long reach optical networks. Very low loss DCF modules have been developed, while pump reflectors are used on short Raman amplifiers to improve performance. Both advances provide an inexpensive way to increase the amplifier efficiency while decreasing system noise.

**Microstructure and Holey Fibre**

Microstructure fibres contain voids or air holes that run the length of the fibre, resulting in unique optical properties impossible to obtain with solid glass fibres. OFS is advancing the design of microstructure fibres, the process by which they are made and their application to optical networks.

The various types of microstructure fibres will be discussed in an invited paper that will be delivered on September 9th. Applications for microstructure and holey fibres can include transmission fibres, novel devices, lasers, tunable filters, tunable dispersion compensators, broadband attenuators and switches.

These new concepts are potential disruptive technologies. This work further demonstrates OFS’ expertise and creativity in all aspects of materials and optics and the application of innovative concepts to real-world problems.

**About OFS Laboratories**

OFS Laboratories is a world class Center of Excellence for optical innovations, complemented by Furukawa’s own first-rate R&D capabilities. OFS Laboratories generates commercially viable technology breakthroughs that the four OFS divisions take to market quickly. Examples of recent commercialization of patented breakthroughs include TrueWave REACH fibre (U.S. Patents 5,878,182; 5,905,838; 6,011,892) and AllWave fibre (U.S. Patents 6,131,415 and 6,205,268).

Scientists with OFS Laboratories have been responsible for many innovative fibre-optic technology inventions, now ubiquitous in the industry, such as nonzero dispersion fibre, submarine optical fibre and polarization maintaining fibre. Based in Murray Hill, NJ, OFS Laboratories will continue to push the boundaries of optical science.
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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