

OFS Demonstrates O-Band Amplification with its Newly Developed Bismuth-Doped Fiber

OFC 2020, San Diego, California, March 12, 2020 – OFS has demonstrated transmission reach extension through amplification in the O-band with its newly developed bismuth-doped fiber. The single-stage, MSA-compliant bismuth-doped fiber amplifier (BDFA) prototype provides up to 18 dB gain and +15 dBm output power over 40 nm gain bandwidth which can be centered between 1290 and 1310 nm. OFS and T8, LLC., a Russian network equipment manufacturer, used commercially available 100 Gbps QSFP-28 modules driven by commercial network equipment to demonstrate that the reach of 30 km specified LR4 modules from three suppliers can be extended up to 75 km of fiber.

Dr. David DiGiovanni, OFS CTO, mentioned that "Unlike non-silica-based praseodymium doped fiber, bismuth doped silica fiber is similar to conventional erbium-doped fiber in splicing, mechanical properties and manufacture. The simple amplifier design makes BDFA an equivalent of EDFA in the O-band. We expect rapid adoption in a number of applications, including test and measurement, telecom/datacom, and perhaps optical coherent tomography for medical diagnostics".

"It is really exciting to test the first samples of an O-band fiber amplifier that is designed for data transmission reach extension.", said Dr. Vladimir Treshchikov, T8, LLC. CEO and founder. "We demonstrated that the reach of off-the-shelf QSFP-28 modules and T8 designed transmission gear can be extended over 2 times by using a single BDFA stage. In the next few months we are planning to test OFS designed amplifiers in the installed fiber network in the Moscow region of Russia." To learn more about T8, please visit www.t8.ru.

About OFS

OFS is a world-leading designer, manufacturer and provider of optical fiber, fiber optic cable, connectivity, fiber-to-the-subscriber (FTTx) and specialty photonics products. We provide reliable,

cost-effective solutions for a broad range of applications including telecommunications, medicine, industrial automation, sensing, government, aerospace and defense. These products help our customers meet the needs of consumers and businesses, both today and into the future.

Headquartered in Norcross (near Atlanta) Georgia, U.S.A., OFS (OFS Fitel, LLC) is a global provider with facilities in China, Denmark, Germany, Morocco, Russia and the United States. OFS is a wholly- owned subsidiary of Furukawa Electric Co., Ltd., a multi-billion-dollar leader in optical communications.

Please visit www.ofsoptics.com.

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