

OFS and VIAVI Unveil Collaboration on Bismuth-Doped Fiber Amplifier

First fiber and amplifier producible at scale to be presented at OFC 2022

Scottsdale, Ariz., March 3, 2022 – [OFS](#) and [Viavi Solutions Inc.](#) (VIAVI) (NASDAQ: VIAV) today announced they have collaborated on the first test and measurement focused amplifier based on a new OFS Bismuth-doped fiber. The OFS fiber is the first to be produced at sufficient volumes to meet growing demand for 400 GbE and 800 GbE test applications worldwide. At OFC 2022, OFS will showcase Bismuth fiber at Booth #3939, and VIAVI will showcase the [MAP](#) Bismuth Doped Fiber Amplifier (mOFA-C1) at Booth #3727.

Communications and cloud networks are experiencing aggressive growth in demand, forcing providers to upgrade speeds faster than previously forecasted. Transport networks and hyperscale data centers are rapidly introducing 400 GbE, and the development of 800 GbE is accelerating. Among the many challenges being encountered are physical limitations impacting volume manufacturing and the ability of test systems to deliver the required optical power in the O-band. Doping allows for light amplification via stimulated emission, but achieving efficient, broad wavelength amplification that supports the entire O-band has been a challenge.

“It has been almost 30 years since the launch of Erbium-doped fibers, which began the current era of fiber amplification,” said David DiGiovanni, CTO and President of OFS Labs. “At OFC 2022, OFS is pleased to introduce the next milestone: Bismuth-doped fiber.”

Advantages of Bismuth doping and amplifier design include: the capability to broadly amplify in the O-band (1260-1360 nm) occupied by 100 GbE, 400 GbE and 800 GbE; and production of fiber at scale as the host matrix is almost the same as single-mode fiber. VIAVI and OFS collaborated closely during development of the mOFA-C1, including design, prototype and feasibility, with particular focus on maximizing the gain, power and wavelength coverage to amplify the above signals with a single amplifier. This new fiber dramatically simplified integration into VIAVI’s existing C- and L-band amplifier manufacturing processes.

“We are excited to work with OFS to launch the ecosystem for Bismuth-doped fiber, a new inflection point in optical network technology,” said Tom Fawcett, Vice President and General Manager, Lab & Production, VIAVI. “Based on our engagement with network equipment manufacturers and service providers, the industry needs to continually improve the ability to manufacture technologies up to 800 GbE. Bismuth fiber stands ready to meet that demand.”

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 fiber optic products. We put our development and manufacturing resources to work creating solutions for applications in such areas as telecommunications, medicine, industrial automation, sensing, aerospace, defense and energy. We provide reliable, cost-effective fiber optic solutions that help our customers meet the needs of consumers and businesses today and into the future. Headquartered in Norcross (near Atlanta) Georgia, U.S.A., OFS is a global provider with facilities in China,

Denmark, Germany, Morocco, Russia and the United States. OFS is part of Furukawa Electric Company, a multi-billion dollar leader in optical communications. Please visit www.ofsoptics.com.

About VIAVI

VIAVI (NASDAQ: VIAV) is a global provider of network test, monitoring and assurance solutions for communications service providers, enterprises, network equipment manufacturers, government and avionics. We help these customers harness the power of instruments, automation, intelligence and virtualization to [Command the network](#). VIAVI is also a leader in light management solutions for 3D sensing, anti-counterfeiting, consumer electronics, industrial, automotive, and defense applications. Learn more about VIAVI at www.viavisolutions.com. Follow us on [VIAVI Perspectives](#), [LinkedIn](#), [Twitter](#), [YouTube](#) and [Facebook](#).

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Media Inquiries:

OFS

Sherry Salyer
Shsalyer@ofsoptics.com
+1-770-798-4210

VIAVI

North America

Sonus PR
Micah Warren
viavi@sonuspr.com

Latin America

Edelman Significa
Monica Czeszak
monica.czeszak@edelmansignifica.com

DACH

Riba:BusinessTalk
Michael Beyrau
mbeyrau@riba.eu

EMEA & Asia Pacific/Japan

Sonus PR
Chevaan Seresinhe
viavi@sonuspr.com

India

Voila Communications
Manish Sharma
manish@voilacomm.in

China

Archetype
Geff Pan
viavichina@archetype.cn