Coherent Announces Industry-First Specialty Optical Fiber for Coherent LiDAR & Cold Atom Trapping for Quantum Computing

May 23, 2024

PITTSBURGH, May 23, 2024 (GLOBE NEWSWIRE) -- Coherent Corp. (NYSE: COHR), a leader in high-performance optical networking and laser solutions, announced today a first-to-market single-mode (SM), polarization-maintaining (PM) erbium-ytterbium co-doped optical fiber for high-power 1550 nm, narrow linewidth, and single-frequency amplifiers. Coherent is now the first company to support pure SM, PM optical fibers for >20 W average power capabilities.

Coherent - optical fiber

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Drawing optical fiber from a single glass tube

The key Coherent product innovation is merging exceptional high-power performance and superior beam quality to achieve unique performance characteristics previously unavailable. Additionally, it incorporates a design that emphasizes manufacturability and lightweight construction, featuring a 130 µm geometry made possible by a proprietary Coherent manufacturing technology.

“We are thrilled to announce the launch of the world’s first exclusively single-mode, polarization-maintaining erbium-ytterbium co-doped fiber for high-power applications,” said Kanishka Tankala, Vice President of Specialty Fiber Products. “This pioneering technology is optimal for quantum computing and coherent LiDAR research while also significantly improving the power scalability of current single-frequency amplifier systems.”

To ensure customers achieve the best beam quality and coupling efficiency, Coherent offers precision-matched passive fibers that may be used in manufacturing passive optical components or for beam delivery.

Coherent offers a diverse range of complimentary erbium-ytterbium co-doped fibers, which are customized with various compositions, numerical apertures, and large-mode fields to suit virtually any application.

The PM-EYDF-10P/130-XPH and matching passive optical fiber products are available immediately.

Learn more about cold atoms and quantum optics:
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About Coherent

Coherent empowers market innovators to define the future through breakthrough technologies, from materials to systems. We deliver innovations that resonate with our customers in diversified applications for the industrial, communications, electronics, and instrumentation markets. Headquartered in Saxonburg, Pennsylvania, Coherent has research and development, manufacturing, sales, service, and distribution facilities worldwide. For more information, please visit us at coherent.com.

Contact:

Amy Wilson
Manager, Corporate Communications & Investor Relations
corporate.communications@coherent.com

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