



## Coherent Showcases Optical Innovations to Scale AI Infrastructure at ECOC 2026

September 20, 2026

SAXONBURG, Pa., Sept. 20, 2026 (GLOBE NEWSWIRE) -- Coherent Corp. (NYSE: COHR), the global leader in photonics, today announced new optical technologies and live demonstrations designed to help customers scale AI infrastructure at the European Conference on Optical Communication (ECOC) 2026 in Málaga, Spain.

At Stand 2100, Hall 2, Coherent will showcase innovations spanning AI datacenter connectivity, co-packaged optics (CPO) and near-packaged optics (NPO), next-generation pluggable transceivers, optical transport, specialty fibers, optical circuit switching, advanced materials, and thermal management addressing rising power density.

PhotonLink™, a new integrated optics platform which brings together Coherent's critical optical technologies and integration capabilities to support CPO, NPO and emerging chip to chip connectivity. The platform combines components and complete optical assemblies with manufacturing at scale. Additional details about PhotonLink will be announced separately.

"Scaling AI infrastructure requires more than bandwidth – it requires solving power, integration and thermal challenges together," said Dr. Sanjai Parthasarathi, Chief Marketing Officer at Coherent. "At ECOC, we are demonstrating how Coherent's expertise across materials, components and optical systems helps customers address those challenges – from connections near compute to links between datacenters."

### FEATURED TECHNOLOGY DEMONSTRATIONS

Coherent's demonstrations illustrate how its vertical integration across materials, devices, components, modules and systems supports different AI connectivity architectures including scale-across, scale-out, scale-up and chip to chip. Highlights include:

#### **3.2T 2xDR4 Transceiver in an OSFP-Size Package**

Coherent will demonstrate a compact 3.2T pluggable architecture with dual 1.6T optical paths in an OSFP-size package. The technology demonstration incorporates eight 425G PAM4 line-side optical lanes, Coherent Differential EMLs and Coherent photodiodes, highlighting progress toward next-generation 400G-per-lane optical connectivity.

#### **6.4T NPO Optical Engine**

A 6.4T NPO demonstration will showcase a compact and power-efficient optical engine for high-density AI Scale-Up and Scale-Out fabrics. The demonstration brings together silicon photonics, fiber attach technology, ELSFPs, and Coherent laser technology to illustrate the advantages of vertical integration across critical optical interfaces.

#### **VCSEL-Based Optics for AI Scale-Up**

Coherent will demonstrate high-density 2D VCSEL and photodiode arrays for highly parallel optical architectures in CPO and NPO low latency connectivity.

#### **Full C-Band Pluggable Optical Line System**

For DCI and Scale-Across applications, Coherent will showcase its LS200 full C-band pluggable optical line system for datacenter interconnect and transport applications. The compact architecture brings pluggable line-system functionality closer to the router or switch while supporting flexible point-to-point optical transport.

### OPTICAL COMPONENTS, ASSEMBLIES AND MODULES

Coherent will also showcase new products and emerging technologies across its optical networking portfolio, including:

- **FlexConnect**

A detachable fiber array unit connector for CPO applications designed to simplify assembly and maintenance, with repeatable plug-unplug performance, interchangeability and an epoxy-free optical path compatible with high-power lasers.

- **OptiAlign**

A high-precision fiber array unit for CPO applications designed to support precise pitch control and high fiber-channel counts. Coherent combines an internally developed V-groove with customized fiber dimensions to address demanding optical alignment requirements.

- **OptiFocus**

A two-in-one coupling lens design for ELS, intended to simplify optical assembly while providing high coupling efficiency.

- **FiberPack**

A passive fiber assembly kit for scale-up and scale-out architectures that integrates fiber attach, micro-lens, tray, and termination technologies, drawing on Coherent's vertically integrated optical-components manufacturing.

- **OptiPolar Array X**

A multi-channel Polarization Beam Splitter Array in a super-compact form factor based on glass material optimized for multi-lane systems.

- **2D micro-VCSEL and PD array**

High Density 2D Array of individually addressable emitters and PD array with integrated lenses designed for flip chip bonding in NPO or CPO architectures.

- **Specialty Fibers**

Tight geometry-controlled Polarization Maintaining Fiber; Mode-Matched Fiber for improved coupling efficiency into edge-coupled silicon photonics; and multi-core fiber for high-density AI datacenter solutions.

- **Ultra-High-Power (UHP) CW laser**

Enabled by a proprietary design and advanced manufacturing processes, this ultra-high-power continuous-wave (CW) laser delivers high spectral stability, narrow linewidth, and low relative intensity noise (RIN) across its full operating range.

- **Pluggable Optical Line System (POLS)**

A full C-band optical line system with a high-power, variable-gain amplifier in a compact QSFP form factor. Designed for 800G ZR/ZR+ digital coherent optics, it supports up to 32 DWDM wavelengths over a single fiber pair, carrying up to 25.6Tbps across links from 2km to 200km.

## **THERMAL MANAGEMENT FOR HIGH DENSITY AI INFRASTRUCTURE**

Coherent will also showcase Thermadite™ materials, diamond-based solutions and other advanced materials and components designed to address the growing power density and cooling requirements of AI infrastructure.

## **PARTNER AND QUANTUM TECHNOLOGY DEMONSTRATIONS**

Coherent will participate in OIF interoperability and, separately, demonstrate quantum technologies for networking and encryption applications with industry partners.

With Quside, Coherent will demonstrate quantum random number generation for encryption applications using live quantum entropy alongside Coherent optical connectivity. With CUBIQ, Coherent will participate in a quantum key distribution demonstration in a compact pluggable architecture.

## **INDUSTRY THOUGHT LEADERSHIP AT ECOC 2026**

Coherent executives and technology experts will contribute to Market Focus sessions and the ECOC technical program, covering AI datacenter infrastructure, CPO, optical interconnect scaling, advanced materials, coherent-lite optics and satellite connectivity.

## **MARKET FOCUS**

### **Monday, September 21, 2026**

Cooling Smarter: How Advanced Materials Unlock Datacenter Efficiency

Speaker: Dr. Sanjai Parthasarathi

11:40 a.m. - 11:55 a.m.

Panel: Modules and Subsystems

Co-Chair: Dr. Sanjai Parthasarathi

1:00 p.m. - 5:00 p.m.

Beyond 1.6T: Enabling AI Datacenter Scale with Coherent-Lite Optics

Speaker: Shawn Esser

3:20 p.m. - 3:35 p.m.

### **Tuesday, September 22, 2026**

Scaling the Optical Future: Technologies Enabling Scale-Up, Scale-Out, and Scale-Across AI Infrastructure

Speaker: Dr. Julie Sheridan Eng

10:00 a.m. - 10:15 a.m.

Co-Packaged Optics: From Industry Promise to Reality

Speaker: Justin Abbott

11:00 a.m. - 11:15 a.m.

Fireside Chat on the Increasing Role of Photonics in Next-Generation AI/ML Interconnects

Speaker: Dr. Giovanni Barbarossa

1:00 p.m. - 1:55 p.m.

Panel: Realistic Check of AI Interconnect Scaling Solutions for the Post-1.6T Era

Panelist: Dr. Sanjai Parthasarathi

4:00 p.m. - 5:00 p.m.

### **Wednesday, September 23, 2026**

Scaling Ground Station Connectivity for Satellite Constellations

Speaker: Jessica Wang

10:20 a.m. - 10:35 a.m.

### **ECOC CONFERENCE**

### **Sunday, September 20, 2026**

Workshop: "Light Sources for Next-Generation Optical Communication Systems for AI Datacenters"

Organizer: Dr. Wilfried Maineult

9:00 a.m. - 12:30 p.m.

Workshop: "Hybrid Solutions for Very High Speed PON – the best (or worst) of coherent and IMDD worlds"

Speaker: Dr. Noriaki Kaneda

2:45 p.m. - 3:00 p.m.

Workshop: "Can Fast Narrow Channels Keep Rising Without Limit or Will Slow and Wide Become the Winner?"

Speaker: Dr. Chris Kocot

4:30 p.m. - 4:42 p.m.

### **Wednesday, September 23, 2026**

Poster Presentation: "PAM4 448 Gb/s per Lane InP MZM-SOA Array PIC for Next-Generation CPO"

Speaker: Dr. Anna Tatarczak

3:30 p.m. - 5:00 p.m.

Public Presentation: "2.3 Tbit/s Backside-Emitting 1060 nm VCSEL Array on Silicon Interposer for CPO Applications"

Speaker: Dr. Marc Ganzhorn

5:00 p.m. - 5:15 p.m.

### **Thursday, September 24, 2026**

Technical Session: "Novel Modulators: Discrete Photonic Devices and Technologies"

Chair: Dr. Wilfried Maineult

9:00 a.m. - 10:30 a.m.

Visitors to ECOC 2026 can experience Coherent's latest optical networking technologies and meet with company experts at Stand 2100, Hall 2, at FYCMA - Trade Fair & Congress Center in Málaga, September 21-23, to explore the demonstrations and discuss optical connectivity and break-through technologies.

For more information, visit [www.coherent.com](http://www.coherent.com).

### **About Coherent**

Coherent is the global photonics leader. We harness photons to drive innovation. Industry leaders in the datacenter, communications, and industrial markets rely on Coherent's world-leading technology to fuel their own innovation and growth. Founded in 1971 and operating in more than 20 countries, Coherent brings the industry's broadest, deepest technology stack; unmatched supply chain resilience; and global scale to help its customers solve their toughest technology challenges.

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