



## Credo and EFFECT Photonics Announce Collaboration on High-Performance, Ultralow Power Coherent DSP Solutions

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*Industry Leaders Join Forces to Meet the Next Generation Needs of Service Providers, 5G Telecom and Fixed Access Operators*

EINDHOVEN, Netherlands & SAN JOSE, Calif.--(BUSINESS WIRE)--Mar. 6, 2023-- [Credo](#) (NASDAQ:CRDO) and [EFFECT Photonics](#) today announced plans to collaborate on the development of coherent Digital Signal Processor (DSP) merchant ICs, featuring industry-leading power dissipation and performance. The DSPs are expected to deliver the capacity and reach needed to meet the explosive demands for connectivity and bandwidth and enable cost-effective network upgrades over existing physical fiber infrastructure. These merchant silicon offerings have the added benefit of giving customers the flexibility to choose from a variety of transceiver suppliers.

This press release features multimedia. View the full release here: <https://www.businesswire.com/news/home/20230306005327/en/>



The two companies will work together to develop new coherent DSP products featuring EFFECT Photonics' coherent DSP technology and Forward Error Correction (FEC), combined with Credo's high-speed SerDes, I/Os, Analog to Digital Converters (ADCs), and Digital to Analog Converters (DACs). Credo will manufacture and manage the sales and supply channels of the co-developed merchant ICs, and provide complete design services and customer support.

The first products will target 100G ZR and 100G ZR+ applications. The products will work within the popular QSFP28 optical module's ultralow 5W power envelope and extend network reach well beyond 80km to support advanced application requirements. These products will target new buildouts and the imminent 10G upgrade cycle to 100G for service providers, 5G telecom and fixed-access

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operators.

Alan Weckel, Founder and Technology Analyst at 650 Group stated, "Merchant solutions will help drive down the cost, and with the installed base of 10G ports in excess of 13M ports, there is a significant installed base that needs to upgrade to 100G to support new applications and traffic patterns, plus potential new market opportunities that coherent DSPs can open up in service provider, cloud, and enterprise edge networks."

"Coherent technologies are gaining importance as they improve spectral efficiency and increase data throughput. Historically, coherent solutions have been mostly deployed for very long distances due to their high power and high cost," said Scott Feller, Vice President of Marketing at Credo. "Our first collaboration with EFFECT Photonics will allow us to deliver capabilities that fit into the power envelopes of the most commonly used transceivers at a competitive price, providing our large volume customers with a refined solution that will seamlessly integrate into their existing access and edge infrastructure to address the dramatic bandwidth growth at the network edge."

"Our field-proven coherent technology and Credo's high-performance, power-efficient connectivity solutions and semiconductor manufacturing expertise provide a potent combination that we believe could truly revolutionize the network edge and access interconnect market," said Harald Graber, Chief Commercial Officer at EFFECT Photonics. "The clear market need for this technology presents a truly exciting opportunity for both of our companies."

The joint solutions will offer numerous benefits, including high performance, small size, excellent energy efficiency and cost-efficient production.

### DSP Feature Set/Advantages:

- Optimized ZR and ZR+ solutions cover 40 to 500km links.
- Energy-efficiency with ultralow power consumption.
- Devices will be rated for both commercial and industrial temperature operating ranges.
- Compliant with industry standards.
- Credo's high-speed data converters, SerDes and I/Os, are optimized for performance and energy efficiency.

- EFFECT Photonics' best-in-class, field-proven coherent DSP and FEC technology ([gained through the company's acquisition agreement with Viasat](#)).
- Credo will be the sole supplier of the merchant ICs, working with its foundry partners to provide dependable supply chain fulfilment with competitive lead times.
- Credo's DSP expertise leverages its N-1 process technology advantage to deliver the most cost-effective coherent DSPs in the market.

#### **About Credo**

Our mission is to deliver high-speed solutions to break bandwidth barriers on every wired connection in the data infrastructure market. Credo is an innovator in providing secure, high-speed connectivity solutions that deliver improved power and cost efficiency as data rates and corresponding bandwidth requirements increase exponentially throughout the data infrastructure market. Our innovations ease system bandwidth bottlenecks while simultaneously improving on power, security and reliability. Our connectivity solutions are optimized for optical and electrical Ethernet applications, including the emerging 100G (or Gigabits per second), 200G, 400G and 800G port markets. Our products are based on our proprietary Serializer/Deserializer (SerDes) and Digital Signal Processor (DSP) technologies. Our product families include integrated circuits (ICs), Active Electrical Cables (AECs) and SerDes Chiplets. Our intellectual property (IP) solutions consist primarily of SerDes IP licensing.

For more information, please visit: <https://www.credosemi.com>. Follow Credo on [LinkedIn](#) and [Twitter](#).

#### **About EFFECT Photonics**

**Where Light Meets Digital** - EFFECT Photonics is a highly vertically integrated, independent optical systems company addressing the need for high-performance, affordable optic solutions driven by the ever-increasing demand for bandwidth and faster data transfer capabilities. Using our field-proven digital signal processing and forward error correction technology and ultra-pure light sources, we offer compact form factors with seamless integration, cost efficiency, low power, and security of supply. By leveraging established microelectronics ecosystems, we aim to make our products affordable and available in high volumes to address the challenges in 5G and beyond, access-ready coherent solutions, and cloud and cloud edge services.

For more information, please visit: <https://www.effectphotonics.com>. Follow EFFECT Photonics on [LinkedIn](#) and [Twitter](#).

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