



## CreDO Introduces PAM4 DSP for High Performance Data Centers and Enterprise Networks

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*Black Hawk 800G delivers unparalleled low power*

# BLACK HAWK PAM4 DSP

Low Power  
800G Retimer  
400G Gearbox

San Jose, Calif., March 17, 2021 – [CreDO](#), a global innovation leader in high-performance, low-power serial connectivity solutions, today announced it is expanding its product offering with [Black Hawk](#) (CRT55321) that leverages the company's unique PAM4 DSP architecture to deliver industry-leading low power and reach. The PAM4 retimer and gearbox provide guaranteed, end-to-end signal integrity in backplane, front panel and copper applications. The CRT55321 expands the bandwidth capacity of next-generation network infrastructure at Hyperscale data centers, enterprise networks, and service providers while consuming less than 50% power of existing solutions.

The CRT55321 is a 32-lane device that supports 16 lanes on the host side and 16 lanes on the line side. The extended reach performance provides robust signal integrity for PAM4 across the most difficult channels, including legacy backplanes. The device can be used in front panel applications to drive QSFP, QSFP-DD, and OSFP optical modules, Active Electrical Cables (AEC), and passive copper cables. Applications that require rate-mismatching are supported using gearbox capability. It features best-in-class jitter and extended reach while operating at the lowest power consumption. The device supports built-in test and channel performance analysis capabilities such as PRBS pattern generation, internal eye monitoring and PRBS error detection. It supports IEEE standard auto-negotiation with link partners to enable more flexible applications.

"The introduction of Black Hawk DSP furthers CreDO's commitment to providing high-performance DSP for data centers, enterprise networking and high-performance computing," said Scott Feller, Vice President of Marketing at CreDO. "CreDO has leveraged its extensive analog and mixed-signal expertise to develop a unique DSP architecture to create the Black Hawk product which is 50% lower power than existing products. CreDO continues to innovate with new product solutions to help solve the signal integrity issues of the next-generation data center interconnects."

"CreDO has established a significant market share in Hyperscale data centers with their retimer and gearbox solutions. The new Black Hawk device, which offers a 50% reduction in power consumption, enables those data centers to lower power consumption while driving even higher bandwidth," says Alan Weckel, Founder and Technology Analyst at 650 Group. "As Cloud data centers deploy a larger number of 400G and 800G ports, low power solutions such as CreDO's Black Hawk will enable the migration."

### KEY FEATURES

- Support long-reach links defined in CEI-25G-LR, CEI-56G-LR-PAM4 and IEEE802.3cd
- Support chip-to-chip and chip-to-module interfaces defined in CEI-28G-SR/VS, CEI-56G-SR-PAM4, and IEEE 802.3bs
- Pin-compatible with CreDO's previous generation retimer and gearbox
- Support auto-negotiation and link training
- Fully adaptive and programmable RX equalization with CTLE and DFE
- Built-in diagnostics
- IO polarity switch control

### AVAILABILITY

The CRT55321 is entering production shipments in a 23x23mm BGA package. Additionally, CreDO offers an evaluation kit that allows customers to quickly evaluate performance in their specific application environment.

Customers interested in learning more about Black Hawk as well as CreDO's other current and future products and intellectual property solutions should contact CreDO at [sales@credosemi.com](mailto:sales@credosemi.com).

### About CreDO

CreDO is a leading provider of high-performance serial connectivity solutions for the Hyperscale data center, 5G carrier, enterprise networking, artificial intelligence, and high-performance computing markets. CreDO's solutions deliver the bandwidth, scalability, and end-to-end signal integrity for next-generation platforms requiring 25G, 50G, and 100G signal lane-rate connectivity for 100G, 200G, 400G, and 800G port enabled networks.

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