Creonic Releases Updated SDA OCT IP Core Supporting OCT 4.0 and Enhanced Synchronization

Kaiserslautern, Germany – January 6, 2026 – Creonic GmbH, the leading provider of ready-for-use IP cores for communication systems, announces an updated version of its SDA OCT IP Core. The new release introduces architectural improvements and extends standard support to simplify system integration and supporting both current and future Optical Communications Terminal (OCT) deployments that have been standardized by the Space Development Agency (SDA).

The updated SDA OCT IP Core now operates in a single clock domain, reducing design complexity and easing integration into FPGA-based systems. It adds flexible frame synchronization with configurable parameters, allowing adaptation to different links and system requirements. Timestamp passthrough functionality enables precise time alignment while intentionally omitting internal timestamp synchronization logic, supporting system-level timing concepts without imposing architectural constraints.

Resource utilization has been further optimized to enable efficient implementations on target platforms. The IP core is compatible with SDA OCT 3.1.0 as specified in Document ID SDA-9100-001-08 (March 2024) and is fully compliant with the Optical Communications Terminal (OCT) Standard Version 4.0.0, Document ID SDA-9100-001-09 (August 2024). Backward compatibility with SDA OCT 3.0 is maintained, ensuring continuity for existing designs.

The SDA OCT IP Core follows a generic and portable architecture and can be deployed on AMD and Altera FPGA platforms. Support for additional FPGA vendors can be provided as required, enabling long-term flexibility across different hardware targets.

For further information about the SDA OCT IP Core and related solutions, please visit www.creonic.com.

About Creonic

Creonic is the ISO 9001:2015 certified leader in ready-for-use IP cores, offering a rich services and product portfolio for wired, wireless, fiber, and free-space optical communications. Covering essential digital signal processing algorithms such as forward error correction, modulation, equalization, and demodulation, as a preeminent provider, our solutions support industry standards like 3GPP 5G, DVB-S2X, DVB-RCS2, CCSDS, and Wi-Fi. Designed for ASIC and FPGA technologies, Creonic's products meet the highest bench-marks of quality and performance. Trusted by dozens of customers worldwide, from innovative start-ups to global corporations, our IP cores power communications devices and chipsets, satellites, and NewSpace ventures, enabling unparalleled reliability and success in advanced communication systems.

For more information, please visit www.creonic.com.

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