

Creonic GmbH Introduces Fast Fourier Transform IP Core



Kaiserslautern, Germany, April 12, 2024 – Creonic GmbH, the leading provider of cutting-edge communications IP cores, proudly announces the release of its (inverse) [Fast Fourier Transform \(FFT/IFFT\) IP core](#) with Error Correction Code (ECC) memory support. Designed to meet the growing demand for efficient, error-tolerant signal processing solutions.

Creonic's Fast Fourier Transform uses the Cooley-Tukey algorithm internally. The new IP core produces transformed complex samples as output when operating on complex or real signal samples. The transform is executed by the core in a pipeline with \log_2 (transform length) stages, ensuring fast and accurate processing.

With many applications, including multi-carrier transmitter and receiver systems, spectrum analysis, signal filtering, and data compression, the FFT IP core is a versatile tool that can be used in various domains and segments. The ECC feature provides a competitive advantage for space applications where radiation tolerance is a stringent requirement.

Seamless integration is facilitated with AXI4-Stream handshaking interfaces. The core is compatible with Creonic's [DVB-S2X/RCS2](#) Multi-Carrier receivers and can be used on Xilinx/AMD, Intel/Altera, or Microchip FPGAs and various ASIC technologies.

For further information and updates, [visit our website](#).

About Creonic GmbH

Creonic is an ISO 9001:2015 certified provider of ready-for-use IP cores for wired, wireless, fiber, and free-space optical communications.

All relevant digital signal processing algorithms are covered, including, but not limited to, forward error correction, modulation, equalization, and demodulation.

The company offers the richest product portfolio in this field, covering standards like 3GPP 5G, DVB-S2X, DVB-RCS2, CCSDS, and WiFi.

The products are applicable for ASIC and FPGA technologies and comply with the highest requirements with respect to quality and performance.

For more information please visit our website at www.creonic.com.

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