

Creonic GmbH Introduces Advanced 5G LDPC Encoder IP Core for Enhanced Mobile Broadband Connectivity



Kaiserslautern, Germany, December 14, 2023 – Creonic GmbH, the leading provider of cutting-edge communications IP cores, proudly introduces the [5G LDPC Encoder IP core](#), a valuable addition to the company's diverse product portfolio, including field-proven 5G LDPC Decoders.

Designed with a focus on flexibility, the 5G LDPC Encoder features high throughput and low latency, aligning seamlessly with the standards set by 3GPP Release 15 for 5G LDPC encoding. Its applicability spans a wide spectrum, catering to the needs of 5G modem chipsets for base stations (BS) or user equipment (UE) and applications with the highest demands on error correction.

The encoder's high-throughput design ensures a performance of 5 Gbit/s on state-of-the-art FPGAs. In addition to speed, the encoder is highly efficient, ensuring a low-power and low-complexity design. The on-the-fly configuration allows for block-to-block adaptability, enhancing integration through AXI4-Stream handshaking interfaces for ASIC and FPGAs (AMD Xilinx, Intel).

The 5G LDPC Encoder IP core supports a wide range of applications with base code rates ranging from 22/68 to 22/26 for basegraph 1 and 10/52 to 10/14 for basegraph 2. It also includes puncturing, adding versatility to its functionality.

For additional details on the [5G LDPC Encoder and Decoder IP cores](#) and Creonic's portfolio of communication IP cores, please 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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