

PRESS RELEASE

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Fraunhofer IIS announces its JPEG XS SDK 5.0 solutions achieving 25% higher speed for en- and decoding

Erlangen, Germany / At IBC 2022 in Amsterdam, the video coding experts of the Fraunhofer Institute for Integrated Circuits IIS announce and demonstrate their JPEG XS SDK 5.0 solutions achieving a 25% acceleration for en- and decoding of 4k/8k images on x86 CPUs, ARM CPUs, and NVidia GPUs. Due to a more streamlined parametrization and optimization, they are able to provide an essential performance increase. The Fraunhofer IIS SDK also allows MXF support in accordance with SMPTE ST2124.

JPEG XS is a compression codec that was designed to enable the transmission of high-quality video up to 8k over Internet Protocol in production quality. The first edition of the ISO standard for JPEG XS was issued in 2019, and the codec is now on its way to the market.

Fraunhofer IIS provides a JPEG XS SDK that can enhance the performance of its software based en- and decoding on x86 CPUs, ARM CPUs, and NVidia GPUs by about 25% compared to previous implementations of JPEG XS. This was enabled by the massive use of single-instruction multiple-data commands and the optimization of the data pipelines for processing. The big benefit for the production workflow is that less than four cores of a CPU processor are required to carry out the en- or decoding of UHD video content at 60 fps.

A patent licensing pool program and several Software Development Kits (SDKs) were set up to pave the way for industry partners to access and implement JPEG XS in various media workflows and devices.

Head of Corporate Communications

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Compression efficiency for screen and mixed signal content

In the third edition of the standard, recently launched, efforts are made to achieve a better compression efficiency for screen and mixed-signal content. With the algorithmic enhancements the PSNR (Power Signal Noise Ratio) can be improved by up to 10 dB for screen content. After publication of the third edition publication, the new features will be integrated into the Fraunhofer IIS JPEG XS SDKs as well.

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Meet us for a demonstration and further briefings at:
IBC 2022 | September 9 – 12 | Hall 8 B80

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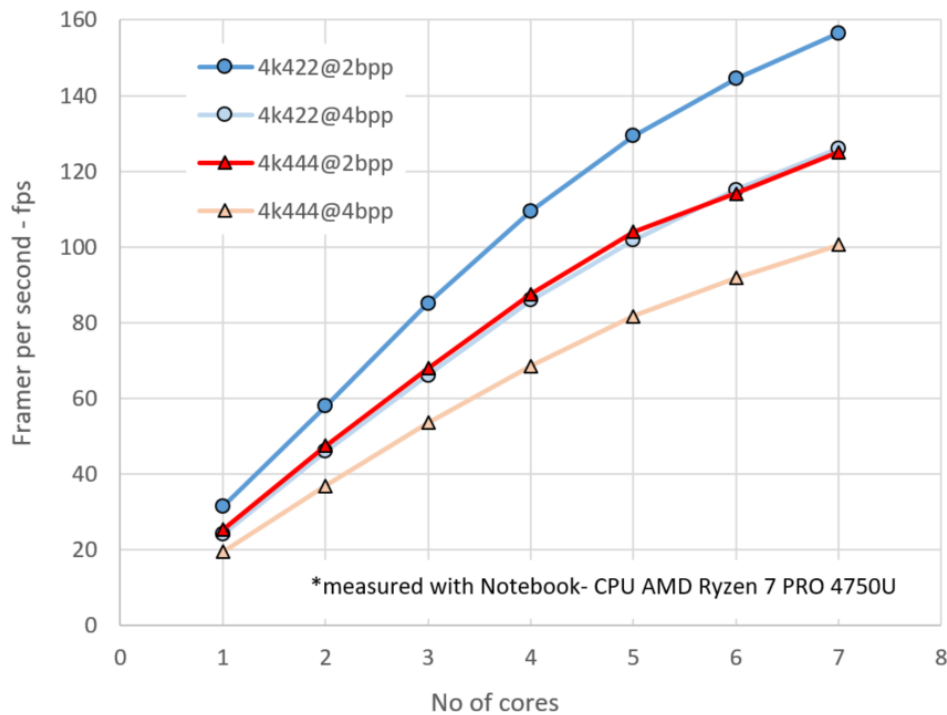


About Fraunhofer IIS

For over 30 years, the institute's Audio and Media Technologies division has been shaping the globally deployed standards and technologies in the fields of audio and moving picture production. Starting with the creation of mp3 and continuing with the co-development of AAC and the Digital Cinema Initiative test plan, almost all consumer electronic devices, computers and mobile phones are equipped with systems and technologies from Erlangen today. Meanwhile, a new generation of best-in-class media technologies – such as MPEG-H Audio, xHE-AAC, EVS, LC3/LC3plus, Symphoria, Sonamic and upHear – is elevating the user experience to new heights. Always taking into account the demands of the market, Fraunhofer IIS develops technology that makes memorable moments.

Detailed information on: www.iis.fraunhofer.de/en

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UHD Decoding Performance of Fraunhofer IIS JPEG XS SDK 5.0 | © Fraunhofer IIS/Siegfried Foessel |
Picture in color and print quality: www.iis.fraunhofer.de/en/pr

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