intoPIX Expands its offering for Medical, Human & Machine Vision Applications with TicoRAW & JPEG-XS on Lattice Low-Power FPGAs

Live Demonstration of TicoRAW at Embedded World 2025

Mont-Saint-Guibert, Belgium, March 4, 2025 – intoPIX, the leading provider of innovative image and video compression technologies, proudly announces the successful porting of its JPEG XS and TicoRAW IP-cores onto Lattice FPGAs. This expansion brings the benefits of high-efficiency, low-latency compression to a broader range of power-sensitive applications, reinforcing intoPIX's commitment to delivering top-tier imaging solutions across diverse industries.

Lattice Semiconductor's low-power FPGAs are widely recognized for their efficiency and compact footprint, making them ideal for embedded vision, automotive, industrial, high-end security, and aerospace applications. By integrating intoPIX's lightweight compression technologies, designers now have access to an optimized solution that delivers unparalleled image quality, lower bandwidth and power consumption.

"We are thrilled to extend our IP-cores capabilities to the Lattice FPGA platform," said Justine Hecq, Lead of the Automotive, Machine Vision and RAW Camera Technology Group at intoPIX. *"This collaboration empowers engineers to build power-efficient and high-performance vision systems while overcoming bandwidth and storage limitations."*

Enabling High-Quality, Power-Efficient Image Processing

TicoRAW, the world's most efficient RAW sensor compression technology, balances image quality, compression efficiency, and processing speed. Porting it to Lattice FPGAs makes it even more accessible for power-sensitive devices requiring real-time processing.

JPEG XS, a lightweight video compression standard, delivers visually lossless quality with ultra-low latency. Integrating intoPIX's JPEG XS IP cores into Lattice FPGAs enables real-time, high-speed video transmission with lower power consumption.

Key Applications

- **JPEG XS for Medical Applications:** Delivers visually lossless quality with ultra-low latency, making it ideal for surgical visualization, endoscopy, and telemedicine. Ensures seamless IP-based video transmission while reducing storage demands.

- **JPEG XS for Industrial Applications:** Provides microsecond latency and high-speed, visually lossless compression, enabling AI-driven inspection, robotics, and smart manufacturing with optimal bandwidth efficiency.

- **TicoRAW for Machine Vision Applications:** Compresses raw sensor data while preserving crucial image details, enhancing AI-based defect detection, object recognition, and quality control with minimal bandwidth and storage requirements.

Live Demonstration of TicoRAW at Embedded World at the Lattice Booth (Hall 4, Booth 4-528)

intoPIX will showcase TicoRAW on Lattice FPGAs at Embedded World 2025, a premier event for embedded systems and FPGA innovation. Attendees will discover how these solutions enable high-performance, low-latency, and power-efficient imaging and video processing for surgical visualization, AI-driven inspection, autonomous driving, and more.

intoPIX invites industry professionals, engineers, and technology enthusiasts to visit the Lattice booth to explore the potential of TicoRAW and JPEG XS on Lattice FPGAs.

About intoPIX

intoPIX creates and licenses innovative image processing and compression solutions. We deliver unique IP-cores (ASIC/FPGA) and efficient software solutions (CPU/GPU) to manage more pixels, preserve quality with no-latency, save cost & power, and simplify storage and connectivity. Our solutions open the way to new AV workflows and new devices, reducing costs & replacing uncompressed video, and always preserving the lowest latency with the highest quality.
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