

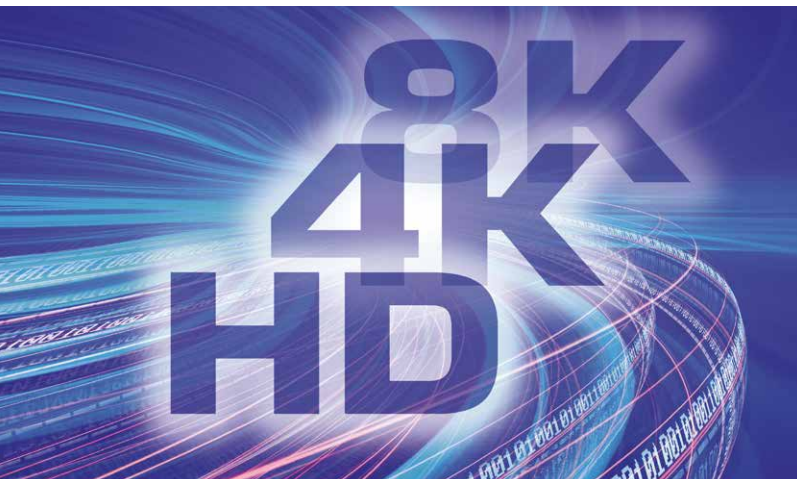


The disruptive **lossless quality video compression, powerful in software**

A TECHNOLOGY SERVING THE GLOBAL AV INDUSTRY

This revolutionary technology is fast and powerful in software (CPU, GPU) and extremely tiny in hardware (FPGA, ASIC), robust for real-time operation with no latency.

Up to now, image and video are sent or stored uncompressed into many displays and systems such as cameras, videos servers, or recorders. TICO is a smart upgrade path to manage higher resolutions (4K, 8K, ...) and frame rates while assuring visual quality, keeping power and bandwidth at a reasonable budget, and significantly reducing the complexity and cost of the system.



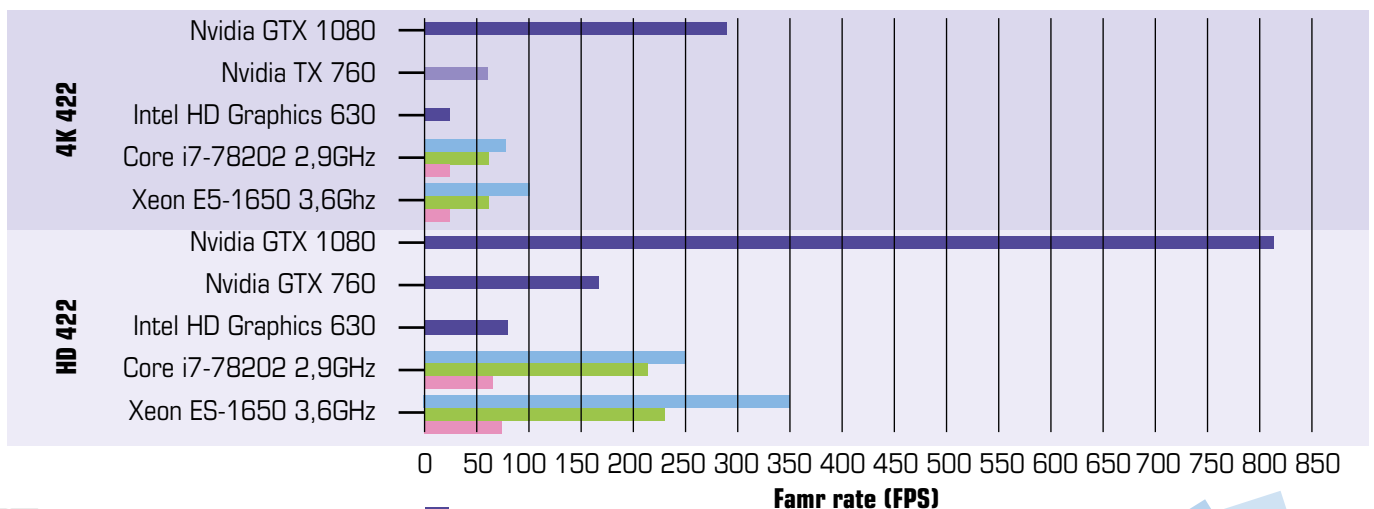
Technology benefits

- > Visually Lossless quality :
 - 2:1 to 8:1
 - Robust over multiple encoding generations
 - Math. lossless at lower compression ratio
- > Fixed latency : maximum one frame in pure CPU and GPU
- > Powerful, real-time or faster than real-time
- > Scalable for low power devices and multicore & multi-GPU installations
- > Easy-to-use API
- > SMPTE RDD35 Compliant :
 - TICO over IP (SMPTE 2022 5/6 & RTP for SMPTE 2110)
 - and over SDI infrastructures (4K over 3G-SDI)



Performances

GPU and CPU Decoding



- GPU
- CPU 6 threads
- CPU 4 threads
- CPU 1 thread

Use Cases

- Video over IP systems (SMPTE 2022, SMPTE 2110, ...)
- Video recorders & players
- Video servers, routers and switchers
- Cameras (high-res, real-time or high speed)
- Video monitors and displays
- Frame grabbers and video capture devices
- Cable extenders
- UHD/4K over 3G-SDI, over 10GbE
- UHD/8K over 12G-SDI, over 25GbE/40GbE, ...
- VR/AR/360°, capture, transmission
- (...)



TICO is a smart solution to

- Support higher data stream using existing systems & infrastructures (HD/4K/8K/HFR/HDR)
- Increase the stream configuration
- Reduce the internal video bandwidth (and power !)
- Cost effectively increase video buffer and storage capacity
- Reduce the number of lanes needed to transport a stream at a display interface or at an image sensor to save power, cost or both

intoPIX TICO SDK Packages

		ORDERING INFOS		
		CPU	GPU	
Start	<ul style="list-style-type: none"> • Standalone TICO encoder or decoder SDK • The highest quality visually lossless codec for the optimization of SDI and IP infrastructures • TICO is ideal for simple test applications, single recorder/player or anyone starting in the field of zero-latency, lossless video coding 	Enc	Dec	Dec
Pro	<ul style="list-style-type: none"> • Complete TICO encoder & decoder with support for multiple UHD-4K streams and higher frame rates in HD, on all operating systems • TICO Pro is perfect for all professionals looking to deploy zero-latency, lossless encoding over parts of or their whole infrastructure • Enables the access to Premium Support & Customization Progra 	✓	✓	✓
Ultimate	<ul style="list-style-type: none"> • Includes all the features of TICO Pro and adds UHD-8K, 4K hi-frame rates and specific image inputs with extreme parallel processing • TICO Ultimate is optimized for top productions and the future of broadcast 	✓	✓	✓

intoPIX TICO SDK Key Features

Quality & Latency	<ul style="list-style-type: none"> • Best-in-class visually lossless video codec (Lossless at lower compression rate) • Ultra low latency (below a single frame)
CPU and GPU footprint, speed performances	<ul style="list-style-type: none"> • Optimized for real-time operations on 100% CPU on 100% CPU or 100% GPU (Nvidia, AMD and Intel) • Extra small Intel CPU footprint (SSE 4.1 or newer) • Highly parallelized processing
Image formats & frame rates	<ul style="list-style-type: none"> • 422 10 bit and 444 8/10/12 bit • Start/Pro packages from HD to 4K UHD TV-1 (4096) • Ultimate package up to 8K UHD TV-1 (8192) • Frame rate depends on CPU/GPU performance & SDK packages
Compression	<ul style="list-style-type: none"> • Compliant & support of TICO Profile 1 & Profile 2 (SMPTE RDD35) • Proxi x2 decoding (HD decode from 4K codestream) – with Pro & Ultimate package
Rate Control	<ul style="list-style-type: none"> • Adjustable compression rate • CBR or optional Capped VBR mode
Supported platforms	<ul style="list-style-type: none"> • Windows (32 bit/64 bit), Linux (32 bit/64 bit) & Mac OS (64 bit)
SDI Addons	<ul style="list-style-type: none"> • Support of the SMPTE RDD35 SDI mapping to map UHD4K stream over a single 3G-SDI

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