A TECHNOLOGY SERVING THE GLOBAL AV INDUSTRY

This revolutionary technology is extremely tiny in FPGAs, fitting the smallest Intel FPGA Cyclone devices, 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, video 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: down to microseconds
  - Selectable from 2 to x pixel lines

> Very low FPGA resource requirement:
  - No external memory - only compressed line buffer
  - Low power consumption

> Powerful, real-time or faster than real-time in CPU

> Compatible with different resolutions, from mobile, HD to 4K/8K UHDTV, via multiple usual transport schemes

> Designed to be a standard for industry-wide support: TICO compression technology is available on multiple software and hardware technologies

> SMPTE RDD35 compliant:
  TICO over IP (SMPTE 2022 5/6 & RTP for SMPTE 2110-22) and over SDI infrastructures (4K over 3G-SDI)

> Selected as the baseline of the new JPEG-XS standard
**Typical applications from HD to Ultra HD**

- Video over IP systems (SMPTE 2022, SMPTE 2110-22, ...)
- Video servers, routers and switches
- 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, ...
- Video recorders & players
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