Denz-J2Koder

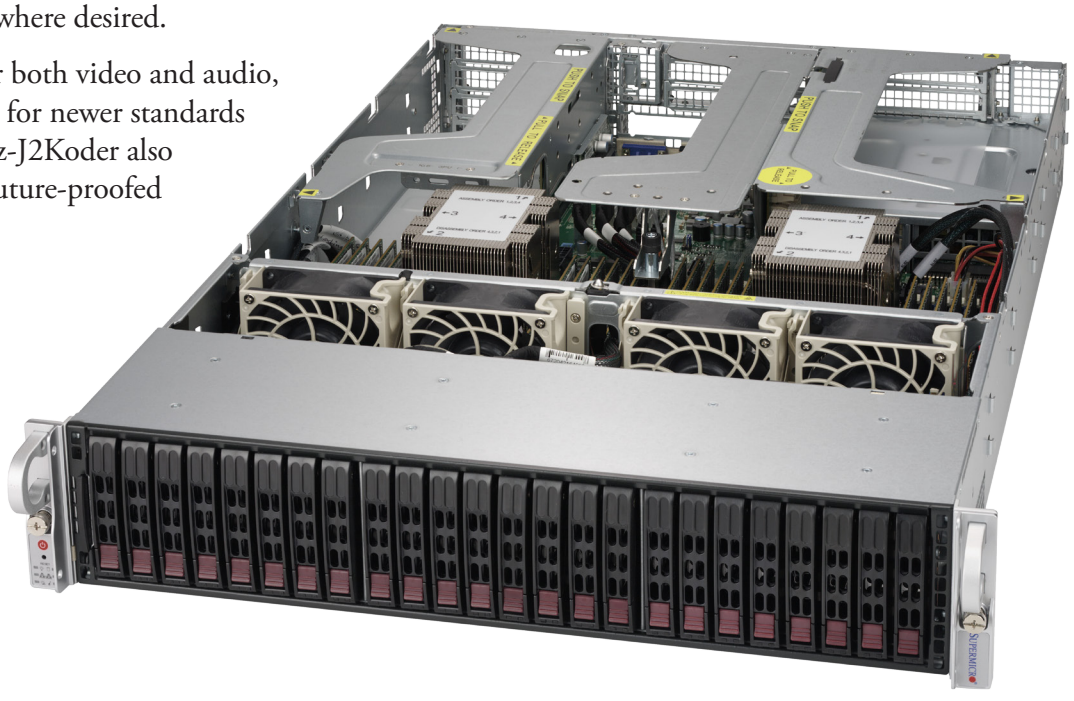
300Mbps TR-01 J2K to h.264 Encoders

The Denz-J2Koder can h.264-encode up to four (1u footprint) or eight (2u) J2K TR-01:2018 inputs, at up to 300 Mbps at up to 60 FPS each, to h.264 in a wide variety of IP output formats such as HLS, udp, rtmp, and even WebRTC. Latency is very low, typically one second. The Denz-J2Koder features four ten Gbps network adapters, ensuring plenty of bandwidth to transport it all.

Its flexibility in providing multiple outputs from each input makes it a perfect match for all installations whether they have simple or complicated monitoring needs. Its straightforward interface hides complexity, yet makes a high degree of customization available when needed, helping it to fit every professional need.

- Generous support for encoding all facets of the J2K input, even passing through Master Display Metadata. For J2K decoding, latency is typically cerca ten frames.
- Low latency encoding (ca. 1000ms total) using a proven, reliable engine and powerful hardware GPU platform. With the J2K decode latency above, a roughly equal amount for the h.264 encode, plus the MUX buffer we arrive at the 1000ms; and that is adjustable.
- Wide range of control over encoder output characteristics, such as allowing for very high bitrates, faithful color encoding, metadata, multiple audio channels, granular control of h.264 compression options, etc.
- Ability to simultaneously output multiple streams from a single input having different encoder settings, for example, relatively low bitrate highly compressed stream for barebones confidence monitoring, to a very high bitrate, best-quality stream for near real time analysis.
- The J2K decoder has been carefully tuned for optimum performance. For example, a typical job converting J2K at 10-bit, 4:2:2, 200 Mbps, TR-01 to very high bitrate MP4 (8 bit) at h.264, 15 Mbps would show the engine processing 200 fps. The J2Koder's interface will automatically build in similar optimization for your streams, and at the same time, allow you full manual control if you want it.
- Support for HLS (live streaming) output provides maximum compatibility and flexibility in opening up monitoring even to the external network where desired.

Advanced transcoding options for both video and audio, top quality hardware and support for newer standards such as WebRTC means the Denz-J2Koder also delivers a comfortable degree of future-proofed dependability.



System Overview Denz-J2Koder

JPEG2000 Decoding

- 2K resolution (up to 2160x1080 pixels)
- 1u form factor: up to four input streams simultaneously; 2u form factor: up to eight input streams simultaneously
- Stream sizes limited only by the throughput of up to four ten Gbps network adapters; performance may vary based upon stream size
- Device indepedendent color spaces, bit depth of each color component up to 12 bits
- JPEG2000 Packaging based upon Material eXchange Format (MXF)/eXtensible Mark up Language (XML) standards
- Reads all J2K audio and metadata channels; choice of output format may limit certain channels/features on egress side..

Encoding (MP4, HLS, WebRTC etc.)

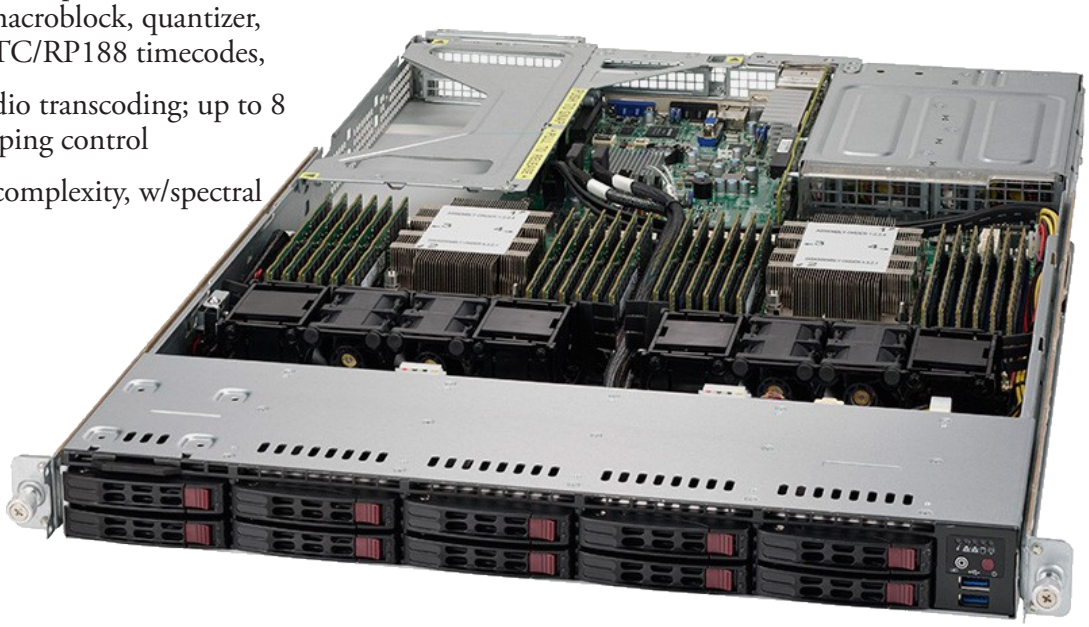
- h.264/h.265 transcoding
- 4:2:2 or 4:2:0 output.
- Advanced video transcoding options for GOP size, b-frames, x264/x265 profile/compression levels, slices/frame, canvas aspect ratio, macroblock, quantizer, CEA-608/708 captions, VITC/RP188 timecodes,
- AAC, MPEG2 and AC3 audio transcoding; up to 8 tracks with audio track mapping control
- Audio profile controls (low complexity, w/spectral band, w/parametric
- adtm/latm audio formats

Hardware

- Dual Socket P (LGA 3647) 2nd Gen Intel® Xeon® Scalable Processors
- Supports up to 28 Cores
- Up 6TB Memory total
- Intel® C621 chipset
- 6 Gbps SATA 3
- 4 RJ45 10 Gbps LAN *(can be bonded; plus 1 IPMI)*
- Nvidia GPU(s)

Power/Physical

- 750W (1u)/1000W (2u) Redundant Power Supplies
- Dimensions: 437 x 43 x 724 mm (1u form factor). 437 x 89 x 723 mm (2u form factor)



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