

# Doteck

## Doteck R4 Series

### JPEG-XS ST 2110 4K UHD Encoder and Transcoder



#### Features

- (1) Industrial grade 19 inch 1U standard equipment with built-in dual power supply
- (2) Web-based remote network management software
- (3) Support JPEG-XS, H.265/HEVC, H.264/AVC, AVS, AVS+, AVS2 (optional) encoding
- (4) Support MPEG-1 layer 2, MPEG-1 layer 3, LC-AAC, HE-AAC, AC3, EAC3, PCM audio encoding format
- (5) Support three video acquisition methods: 1-channel 12G-SDI, or 2-channel 6G-SDI, or 4-channel 3G/HD/SD-SDI
- (6) Support 2160p, 1080p, 1080i, 720p, 576i, 480i video input
- (7) Support SFP optical interface output of 10GBE or 25GBE
- (8) Support SMPTE ST2110-22 standard protocol output, support SMPTE ST2110-10/20/30/40 protocol output
- (9) Support UDP, RTP, RTSP, RTMP, HTTP, SRT network protocol output
- (10) Support simultaneous output of 10 RTMP addresses per channel
- (11) The volume can be controlled and adjusted

- (12) Support real-time display of running status, logging and other functions
- (13) Support SMPTE 2059 PTP clock timing
- (14) Support two gigabit ethernet ports, can be flexible configuration of IP program input and output physical channels
- (15) Support 1-channel 4K encoding or 4-channel high-definition encoding
- (16) Support downward transformation function (input 1-channel of 4K signal, support simultaneous output of 1-channel of 4K code stream and 1-channel of high-definition code stream)
- (17) Support adding logos, scrolling subtitles, and adjusting the size and position of the logos
- (18) Support adding the words "4K UHD" and also supports setting the font color and size
- (19) Support 10bit HDR

## **Introduction**

Dotek R4 series JPEG-XS ST 2110 4K UHD encoder and transcoder adopts standard 1U chassis structure, is a high quality broadcast audio and video real-time encoder and transcoder product. This product not only has the traditional H.264/AVC, H.265/HEVC video encoding ability, but also supports international video standard JPEG-XS and China's independent intellectual property rights video standard AVS+, AVS, AVS2 (optional) encoding format.

Dotek R4 series JPEG-XS ST 2110 4K UHD encoder and transcoder can compress 1-channel 12G-SDI, or 2-channel 6G-SDI, or 4-channel 3G/HD/SD-SDI digital videos into any of the above video encoding formats in real-time through the encoding module. The application of JPEG-XS encoding standard can achieve visual lossless quality image encoding technology. Its complexity and latency are low, making it suitable for real-time high-quality image or video compression. Application scenarios include real-time video transmission storage and buffering, omnidirectional video, and sensor data compression.

## **Technical Specifications**

|                  |
|------------------|
| <b>SDI input</b> |
|------------------|

|                         |  |
|-------------------------|--|
| SDI signal format       | 12G/6G/3G/HD/SD-SDI  |
| Channel                 | 1-channel 12G-SDI, or 2-channel 6G-SDI, or 4-channel 3G/HD/SD-SDI                                      |
| Resolution              | 2160p60/50/30/25<br>1080p60/50/30/25<br>1080i60/50<br>720p60/50/30<br>576p25, 480p30<br>576i50, 480i60 |
| Interface               | BNC 75Ω  |
| <b>Video encoding</b>   |  |
| Video encoding format   | JPEG-XS, H.265/HEVC, H.264/AVC, AVS+, AVS, AVS2 (optional)   |
| Bit rate                | 1.0~2048Mbps   |
| Rate control            | CBR, VBR   |
| Video pretreatment      | De-interleaving  |
| <b>Audio encoding</b>   |  |
| Audio encoding format   | MPEG-1 layer 2, MPEG-1 layer 3, LC-AAC, HE-AAC, AC3, EAC3, PCM   |
| Sampling rate           | 48KHz, 44.1KHz, 32KHz  |
| Channel                 | Mono, stereo, 5.1, 7.1 surrounding stereo sound  |
| Bit rate                | 64Kbps~1024Kbps  |
| <b>IP stream output</b> |  |
| Output interface        | 10GBE/25GBE SFP optical interface  |
| Channel                 | One 4K IP stream or 4-channel high-definition IP stream  |
| JPEG-XS output protocol | SMPTE ST2110-22,ST2110-10/20/30/40   |
| Network protocol        | UDP, RTP, RTSP, RTMP, HTTP, SRT  |
| <b>Control</b>          |  |
| Management              | Web-based remote network management software   |
| <b>Physical</b>         |  |
| Dimension(H×W×D, mm)    | 44×433×498(mm)   |
| Operation temperature   | 0-50℃  |
| Relative humidity       | 0-95%, non-condensing  |
| Power supply            | 130-260VAC, 50/60Hz  |

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