ZEUS™
by Z3 Technology

# Z3-HE4K-01
*4K Ultra HD Video Encoder*

**Stream One Source in 4K + 720p30**

Power
Z3 Technology
HE4K-01
Serial

Z3 Technology, LLC
http://z3 technology.com
HDMI In | HDMI Out | Ethernet | USB | SATA | +12V/2A

## 4K ENCODING & DECODING
## MULTI-RESOLUTION ENCODE
## COMPACT DESIGN
## EASY-TO-USE CONTROLS

## VIDEO ENCODING

| | |
|---|---|
| Interfaces | 1x 4K HDMI Input<br>1x GigE |
| Supported Resolutions | H.264 encode in resolutions up to 2160p30 (4K UHD)<br>Simultaneous encode of one source in 4K UHD + 720p30 |
| Video Codecs | H.264 |
| Output Formats | MPEG-2 TS, RTP, RTMP, RTSP and TS File |
| Video Frame Rates (UHD) | 23.98p, 24p, 25p, 29.97p and 30p @ 2160p |
| Features | •Stream One Source in Multiple Resolutions *(See Use Case on Next Pg)*<br>•Supports Sony VISCA camera control<br>•Supports Unicast and Multicast<br>•Seamless Bitrate and Frame Rate Changes |

## AUDIO ENCODING

| | |
|---|---|
| Interfaces | Embedded HDMI Audio |
| Audio Codecs | AAC-LC ADTS |
| Optional Audio Codecs | AAC-LC LATM, AAC-HE LATM, AAC-HE V2, G.711 and PCM |
| Audio Bitrate | 32 to 320 kbps |

## SPECIFICATIONS

| | |
|---|---|
| Dimensions | 145 x 130 x 34 mm (5.71 x 5.12 x 1.34 in) |
| Weight | 608 g (1.34 lb) |

## VIDEO DECODING

| | |
|---|---|
| Interfaces | 1x 4K HDMI Output<br>1x GigE |
| Supported Resolutions | HD resolutions up to 2160p30 (4K UHD), 1080p30, 1080p/i at 60fps and 720p60 |
| Input Formats | MPEG-2 TS, RTP, RTSP and TS File |
| Video Frame Rates (HD) | 30p, 50p and 60p @ 1080p |
| Video Frame Rates (UHD) | 23.98p, 24p, 25p, 29.97p and 30p @ 2160p |

## AUDIO DECODING

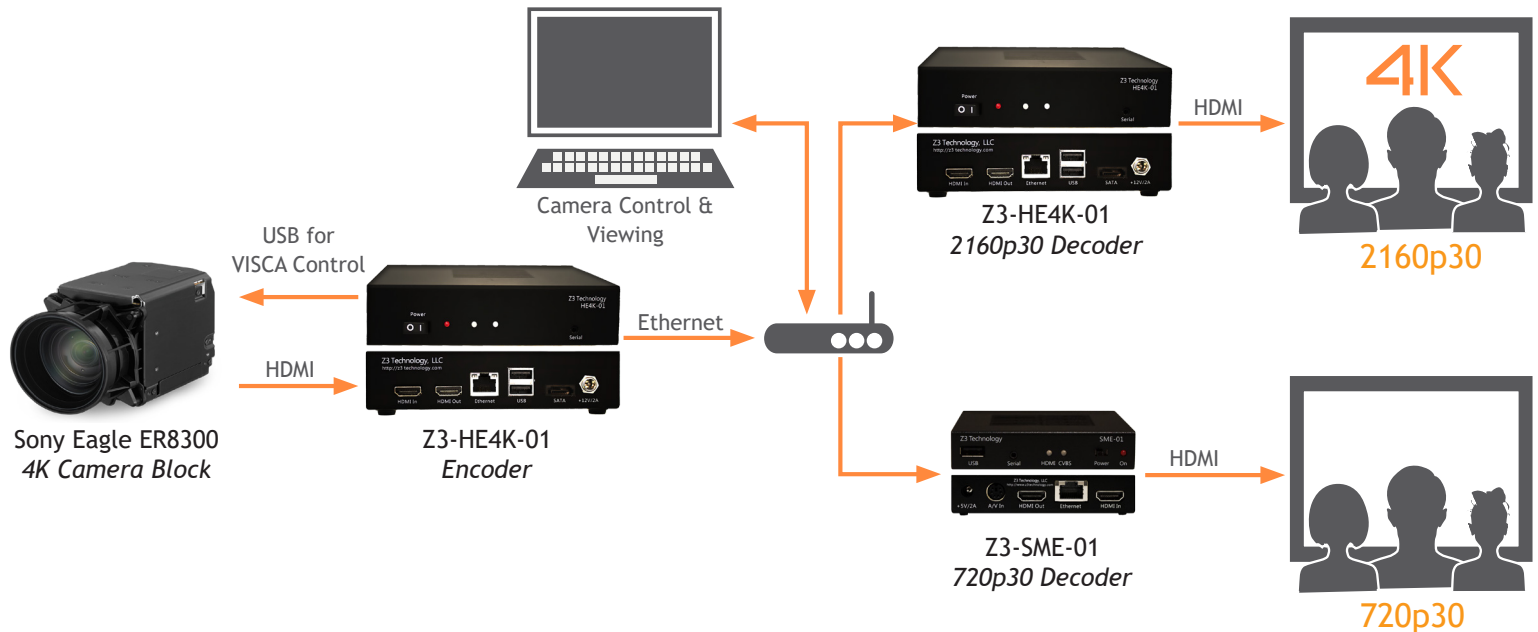| | |
|---|---|
| Audio Codecs | AAC-LC ADTS |
| Audio Bitrate | 32 to 320 kbps |

## OTHER

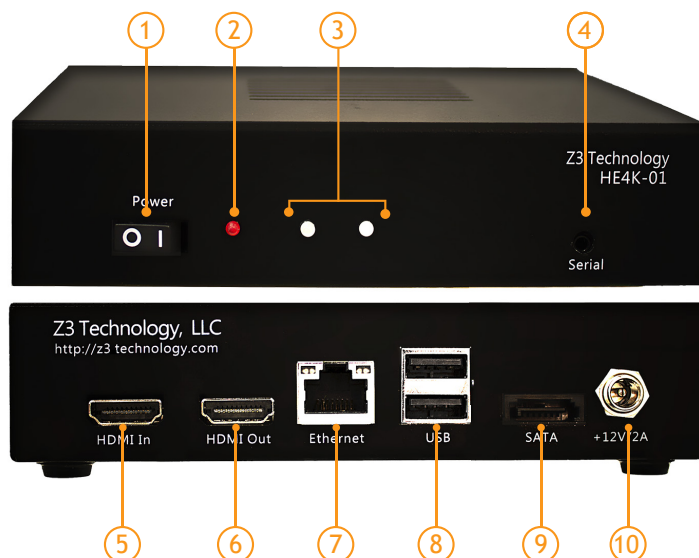| | |
|---|---|
| Additional Interfaces | 2x USB 2.0, SATA2 and RS-232 |
| Software Control | HTTP-Based GUI: Configuration and Software Update<br>RS-232: Configuration |
| Power | 12V External Power Supply<br>15W Typical Consumption |
| Temperature and Humidity | Operating: 0 to 40 degrees C at 20-80% Relative Humidity<br>Storage: -10 to 65 degrees C at 20-80% Relative Humidity |

# MULTI-RESOLUTION ENCODING WITH THE
## *Z3-HE4K-01*

The diagram below demonstrates a Sony Eagle FCB-ER8300 4K camera block capturing and sending 4K content over HDMI to our Z3-HE4K-01 encoder. Two streams are sent, one 2160p30 and one 720p30, over a network to a decoding device and made available for display. In the example below, the 4K stream is decoded by a second Z3-HE4K-01 and the 720p30 stream is decoded by our Z3-SME-01, an HD decoder.

**Z3-HE4K-01**
*2160p30 Decoder*

**4K**
2160p30

Camera Control & Viewing

USB for VISCA Control

HDMI

Ethernet

**Sony Eagle ER8300**
*4K Camera Block*

**Z3-HE4K-01**
*Encoder*

**Z3-SME-01**
*720p30 Decoder*

720p30

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## OPERATING CONTROLS

① Power Switch
② Power Light
③ Status LEDs
④ Serial Port
⑤ HDMI Input
⑥ HDMI Output
⑦ Ethernet
⑧ 2x USB 2.0
⑨ SATA2
⑩ 12V 2A Power

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**\*Contact Z³ Technology for Customized Product Options**