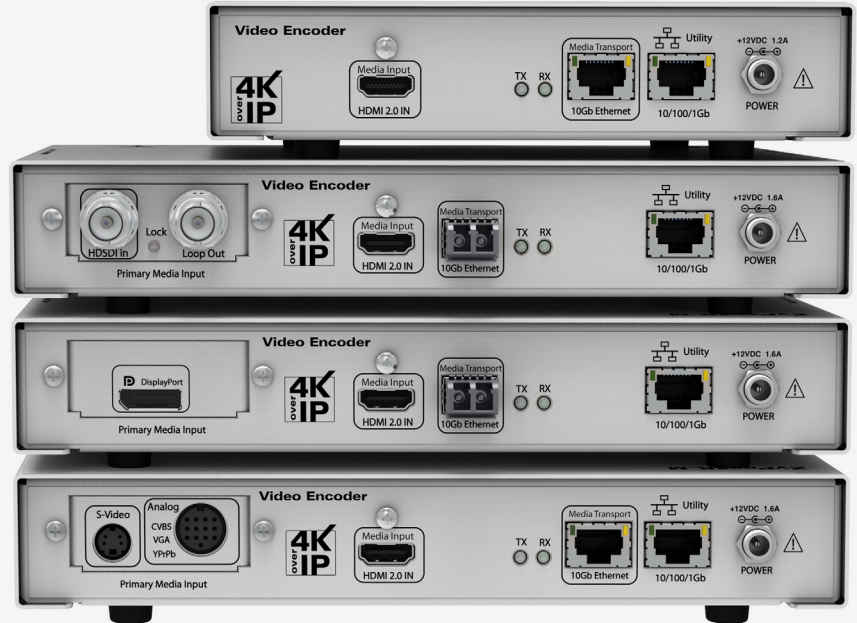


ZyPer4K

Uncompressed 4K Encoder/Decoder

The ZyPer4K platform allows for the distribution and switching of high definition uncompressed video, audio, and control using ZyPer4K encoder and decoder modules and off-the-shelf 10Gb Ethernet switches (both fiber and copper).



Highlights

- Uncompressed zero latency UltraHD (4K/60) video, audio, and control
- Lossless transport of 7.1 audio signals including all encoded formats and uncompressed linear PCM
- 1GbE utility network port on all encoders and decoders
- Source and display control (Infrared and RS232)
- HDMI 2.0 (full 4K 4:4:4 60Hz support)
- HDCP 2.2 compliant
- Supports HDR10, HDR10+
- Optional USB 2.0 support
- Supports 10Gb PoE (XS and XR units)
- Aluminum chassis with rubberized rim (XS and XR units)
- Fan-less thermal management (XS and XR units)
- ZMP (ZyPer Management Platform) with software
- GUI allows simple set up and control of ZyPer4K
- 128-bit AES encryption
- Video wall and multiview support

Uncompressed 4K

ZyPer4K delivers perfect pixel for pixel reproduction of uncompressed 720p, 1080p HD, Ultra HD, and 4K resolution content directly over a standard 10Gb Ethernet network. ZyPer4K eliminates the need to have a separate AV network or proprietary matrix switcher for video and other AV content.



Change sources and content instantly without programming

IP based architecture enables you to instantly switch from one source to another without any loss of frames - even at 4K resolutions.

USB 2.0 and KVM Control

ZyPer4K with USB support enables remote access to cameras, keyboards, mice and other devices (KVM) that offer flexibility in securing or accessing equipment such as digital media players that may be stored in remote locations.

ZyPer4K - XR AND XS ENCODERS



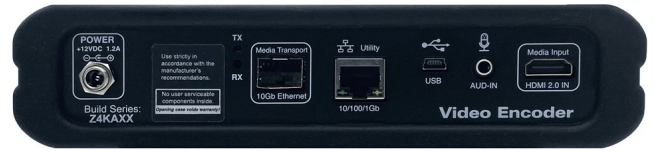
HDMI
ZyPer4K-XR



HDMI
ZyPer4K-XR



HDMI
ZyPer4K-XS



HDMI
ZyPer4K-XS

ZyPer4K - XR AND XS DECODERS



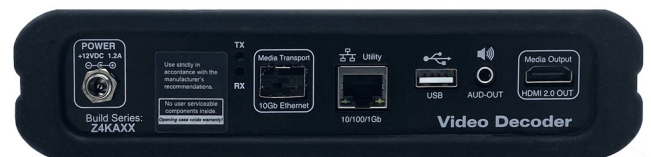
HDMI
ZyPer4K-XR



HDMI
ZyPer4K-XR



HDMI
ZyPer4K-XS



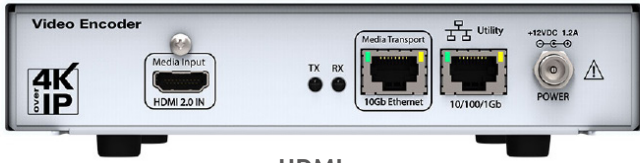
HDMI
ZyPer4K-XS

COPPER

NETWORK INTERFACE

FIBER

ZyPer4K ENCODERS



HDMI



HDMI



DUAL HDMI WITH LOOPUT



DUAL HDMI WITH LOOPUT



12G-SDI



12G-SDI



DISPLAYPORT



DISPLAYPORT



ANALOG



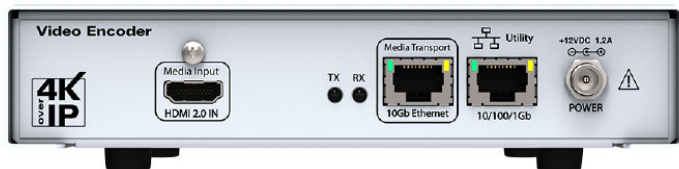
ANALOG

COPPER

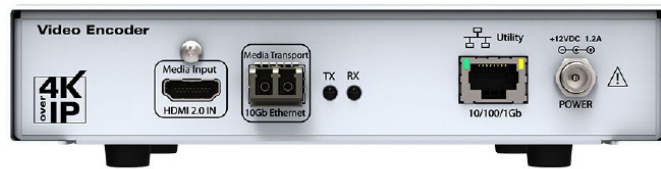
NETWORK INTERFACE

FIBER

ZyPer4K DECODERS



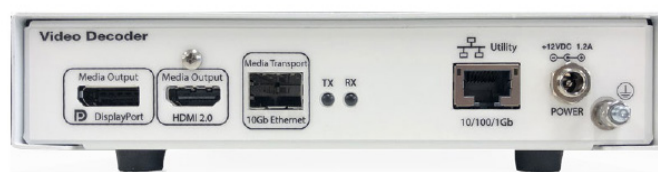
HDMI



HDMI



DISPLAYPORT



DISPLAYPORT

COPPER

NETWORK INTERFACE

FIBER

ZyPer4K FAMILY FEATURES

ZyPer4K Encoder	Information	Connector
Video	HDMI 2.0 with HDCP pass-through (Optional: 12G-SDI, DP, Analog)	HDMI 2.0 type A, with optional 12G-SDI, DisplayPort 1.3 or Analog
Audio (Digital)	Encoded audio formats and LPCM up to 8 channels	HDMI 2.0 type A, with optional 12G-SDI, DisplayPort 1.3 or Analog
Audio (Analog)	Unbalanced 2-Channel Stereo (In or Out)	3.5mm stereo mini jack
IR	Input/Output ports	3.5mm mini jacks
RS-232	Full Duplex up to 115.2 kbps	9-pin D-sub
USB (Optional)	USB 2.0	USB Type B
Ethernet	10 Gb for Video/Audio/Control with 1 Gb Utility	10 Gb RJ45 or SFP+ port 1 Gb RJ45 port
ZyPer4K Decoder	Information	Connector
Video	HDMI 2.0 with HDCP pass-through. Widescreen format selection (Crop, stretch or box)	HDMI 2.0 type A with optional DisplayPort
Audio (Digital)	Multi-channel linear PCM up to 8 channels (7:1)	HDMI 2.0 type A
Audio (Analog)	Unbalanced Stereo (Output)	3.5mm stereo mini jack
IR	Input/Output ports	3.5mm mini jacks
RS-232	Full Duplex up to 115.2 kbps	9-pin D-sub
USB (Optional)	USB 2.0	2 USB Type A
Ethernet	10 Gb for Video/Audio/Control with 1 Gb Utility	10 Gb RJ45 or SFP+ port 1 Gb RJ45 port
Other Specifications	ZyPer4K Encoder/Decoder	
Formats	<ul style="list-style-type: none"> • VGA: 640x480 (4:3) • SXGA: 1280x1024 (5:4) • 1080p/i: 1920x1080 (16:9) • SVGA: 800x600 (4:3) • WXGA: 1366x768 (16:9) • QXGA: 2048x1536 (4:3) • XGA: 1024x768 (4:3) • SXGA+: 1440x1080 (4:3) • Ultra HD: 3840x2160 (16:9) • HDTV: 1280x720 (16:9) • UXGA: 1600x1200 (4:3) • 4K: 4096x2160 (17:9) <p><i>Custom resolutions are supported at pixel clock rates up to 600 MHz</i></p>	
Video Other	Color depth: 24 bit, 30 bit, 36 bit, 48 bit	
Video Wall and Multiview	Video Wall up to 15x15. Multiview up to 19 sources.	
Signal transmission distance	Cat6a: 328 ft (100 m) or 30km fiber optic line	
Copy Protection/Security	HDCP 2.2, AES-128 Encryption, 802.1X compatible	
Power input (locking connector)	12 VDC 2A (Worldwide AC adapter is supplied)	
Power (Standard encoder/decoder)	Approximately 15 watts	
Dimensions (L x W x H) / Weight	6.9 in (176mm) x 5.7 in (145mm) x 1.5 in (37mm), 31.0 oz (880 g)	
Dimensions, Long box version	9 in (229mm) x 5.7 in (145mm) x 1.5 in (37mm), 37.7 oz (1070 g)	
Temperature	Operating temperature: 32° F to 104° F <0° C to +40° C> Storage temperature: -4° F to +176° F <-20° C to +80° C>	
Humidity	Operating/ Storage: 20% to 90% (Non-Condensing)	

ZyPer4K FAMILY FEATURES

ZyPer4K-XS Encoder	Information
Video	HDMI 2.0 with HDCP pass-through HDMI 2.0 type A
Audio (Digital)	Encoded audio formats and linear PCM up to 8 channels
Audio (Analog)	Unbalanced Stereo (Input or Output)
USB	Single USB 2.0 (USB Mini-B connector)
Ethernet	10 Gb for Video/Audio/Control with 1 Gb Utility
ZyPer4K-XS Decoder	Information
Video	HDMI 2.0 with HDCP pass-through
Audio (Digital)	Encoded audio formats and linear PCM up to 8 channels
Audio (Analog)	Unbalanced Stereo (Output)
USB	Single USB 2.0 (USB - A connector)
Ethernet	10 Gb for Video/Audio/Control with 1 Gb Utility
ZyPer4K-XS	ZyPer4K-XS
Formats	<ul style="list-style-type: none"> • VGA: 640x480 (4:3) • SXGA: 1280x1024 (5:4) • 1080p/i: 1920x1080 (16:9) • SVGA: 800x600 (4:3) • WXGA: 1366x768 (16:9) • QXGA: 2048x1536 (4:3) • XGA: 1024x768 (4:3) • SXGA+: 1440x1080 (4:3) • Ultra HD: 3840x2160 (16:9) • HDTV: 1280x720 (16:9) • UXGA: 1600x1200 (4:3) • 4K: 4096x2160 (17:9) <p><i>Custom resolutions are supported at pixel clock rates up to 600 MHz</i></p>
Video Other	Color depth: 24 bit, 30 bit, 36 bit, 48 bit
Video Wall and Multiview	Video Wall up to 15x15. Multiview with up to 19 sources.
Signal transmission distance	Cat6a: 100m multimode fiber optic line: 300m single mode fiber optic line: 10km
Copy Protection/Security	HDCP 2.2, AES-128 Encryption, 802.1X compatible
Power input (locking connector)	12V DC
Power (Standard encoder/decoder)	Approximately 9 watts
Dimensions (L x W x H) / Weight	199mm Wide x 47mm High x 116mm Deep. Weight is 850g
Temperature	Operating temperature: 32 F to 104 F <0 C to +40 C> Storage temperature: -4 F to +176 F <-20 C to +80 C>
Humidity	Operating/ Storage: 20% to 90% (Non-Condensing)

ZyPer4K FAMILY FEATURES

ZyPer4K-XR Encoder	Information	Connector
Video	HDMI 2.0 with HDCP pass-through	Switchcraft EHHDMI2 "HDMI 2.0 type A"
Audio (Digital)	Multi-channel linear PCM up to 8 channels (7:1)	Switchcraft EHHDMI2 "HDMI 2.0 type A"
Audio (Analog)	Unbalanced Stereo (Input or Output)	Switchcraft D3F-XLR "3-pin XLR"
USB	Single USB 2.0	Switchcraft EHUSBAX "USB Type B"
Ethernet	10 Gb for Video/Audio/Control with 1 Gb Utility	10 Gb Neutrik NE8FDX-P6 "RJ45" with PoE support or Neutrik NO2-4FDW-1-A "fiber" connector 1 Gb Neutrik NE8FDX-P6 "RJ45" port
Mounting	Mounting hole for standard truss clamps	M10 hole on each side of unit
ZyPer4K-XR Decoder	Information	Connector
Video	HDMI 2.0 with HDCP pass-through	Switchcraft EHHDMI2 "HDMI 2.0 type A"
Audio (Digital)	Multi-channel linear PCM up to 8 channels (7:1)	Switchcraft EHHDMI2 "HDMI 2.0 type A"
Audio (Analog)	Unbalanced Stereo (Output)	Switchcraft D3F-XLR "3-pin XLR"
USB	Single USB 2.0	Switchcraft EHUSBAX "USB Type A"
Ethernet	10 Gb for Video/Audio/Control with 1 Gb Utility	10 Gb Neutrik NE8FDX-P6 "RJ45" with PoE support or Neutrik NO2-4FDW-1-A "fiber" connector 1 Gb Neutrik NE8FDX-P6 "RJ45" port
Mounting	Mounting hole for standard truss clamps	M10 hole on one side of unit
Other Specifications	ZyPer4K-XR	
Formats	<ul style="list-style-type: none"> • VGA: 640x480 (4:3) • SXGA: 1280x1024 (5:4) • 1080p/i: 1920x1080 (16:9) • SVGA: 800x600 (4:3) • WXGA: 1366x768 (16:9) • QXGA: 2048x1536 (4:3) • XGA: 1024x768 (4:3) • SXGA+: 1440x1080 (4:3) • Ultra HD: 3840x2160 (16:9) • HDTV: 1280x720 (16:9) • UXGA: 1600x1200 (4:3) • 4K: 4096x2160 (17:9) <p><i>Supports all major VESA resolutions and variations including full HDMI 2.0 support</i></p>	
Video Other	Color depth: 24 bit, 30 bit, 36 bit, 48 bit	
Video Wall and Multiview	Video Wall up to 15x15. Multiview up to 19 sources.	
Signal transmission distance	Cat6a: 100m multimode fiber optic line: 300m	
Copy Protection/Security	HDCP 2.2, AES-128 Encryption, 802.1X compatible	
Power input (locking connector)	120/240 VAC (Neutrik NAC3MPX connector)	
Power	Approximately 9 watts	
Dimensions (L x W x H) / Weight	8.7 in (220mm) x 7.8 in (199mm) x 2.8 in (71mm), 74.0 oz (2100 g)	
Temperature	Operating temperature: 32° F to 104° F <0° C to +40° C> Storage temperature: -4° F to +176° F <-20° C to +80° C>	
Humidity	Operating/ Storage: 20% to 90% (Non-Condensing)	
Warranty	3 years	