

Prism 4K

TERADEK

Prism 4K is an H.264/HEVC encoder/decoder solution for broadcast, live production, and Pro AV applications. With room for up to nine codec cards in a 2U chassis (up to three codec cards in 1U chassis), Prism can encode or decode up to 4Kp60 video with stunning 10-bit 4:2:2 image fidelity. Prism supports many common streaming protocols such as MPEG-TS, RTP, RTMPS, and SRT.



	ENCODER CARD	DECODER CARD
VIDEO		
Video Inputs	12G/6G/3G/HD/SD-SDI (75 Ω BNC)	N/A
Video Outputs	12G/6G/3G/HD/SD-SDI (75 Ω BNC loop out)	2x 12G/6G/3G/HD/SD-SDI (75 Ω BNC)
Color Sampling	4:2:2, 10-bit	4:2:2, 10-bit
Supported Resolutions	4K DCI 23.98/24/25/29.97/30 4K UHD 23.98/24/25/29.97/30/50/ 59.94/60 1080p 23.98/24/25/29.97/30/50/59.94/60 1080i 50/59.94/60 1080PsF 23/24/25/29/30 720p 50/59.94/60 576i 480i	4K DCI 23.98/24/25/29.97/30 4K UHD 23.98/24/25/29.97/30/50/ 59.94/60 1080p 23.98/24/25/29.97/30/50/59.94/60 1080i 50/59.94/60 1080PsF 23/24/25/29/30 720p 50/59.94/60 576i 480i
VIDEO PROCESSING		
Supported Video Bitrate	250 Kbps to 85 Mbps	250 Kbps to 85 Mbps
Video Format Conversion Support	Built in video scaler and deinterlacer	Built in video scaler and deinterlacer
HDR Support	Yes (Rec.2100)	Yes (Rec.2100)
Video Compression	H.264, Advanced Video Coding (AVC) ISO MPEG-4 Part 10 / ITU H.264: Baseline, Main, High H.265, High Efficiency Video Coding (HEVC) ISO MPEG-H Part 2 / ITU H.265: Main	H.264, Advanced Video Coding (AVC) ISO MPEG-4 Part 10 / ITU H.264: Baseline, Main, High H.265, High Efficiency Video Coding (HEVC) ISO MPEG-H Part 2 / ITU H.265: Main
AUDIO		
Audio Compression	AAC-LC	AAC-LC
Audio Input	Embedded over SDI, 3.5mm TRRS Stereo LineLevel Analog or Microphone in, adjustable gain	N/A
Audio Output	Embedded SDI loop output	Embedded over SDI, 3.5mm Stereo Headphone (TRRS) output

*Prism encoders can encode interlaced or PsF video, but it will be deinterlaced inside the Prism first for H.264. Prism does not output H264 interlaced stream, but can output HEVC interlaced streams. Prism decoders can interlace video, i.e. it can receive progressive stream and output 1080i/etc video.



ENCODER CARD**DECODER CARD****PROTOCOL SUPPORT**

Supported Video Transport Protocols	Secure Reliable Transport (SRT), RTMP/RTMPS, MPEG-TS (UDP, TCP, TCP Server, Multicast), CDNs, RTSP/RTP Teradek Bonding Protocol	RTMP, RTSP, MPEG-TS (UDP, TCP, TCP Pull, and Multicast), and Secure Reliable Transport (SRT) Teradek Bonding Protocol
Network Protocols	TCP/IP, UDP, HTTP, DHCP, NTP, SSL, IGMP	TCP/IP, UDP, HTTP, DHCP, NTP, SSL, IGMP
Remote Management	Teradek Core	Teradek Core
Bonding	N/A	N/A

PHYSICAL ATTRIBUTES

Dimensions	1in. (W) x 10.9in. (D) x 3.56in. (H) [26.1 x 276.5 x 90.5mm]	1in. (W) x 10.9in. (D) x 3.56in. (H) [26.1 x 276.5 x 90.5mm]
Weight	12.4oz [352g]	12.4oz [352g]
Construction	Milled aluminum	Milled aluminum

INTERFACES

Configuration Interface	Feature-rich web UI for local device management, configuration, and control; Intuitive iOS configuration app (Prism App); OLED Status Display w/ Nav control and reset buttons; Core for cloud based device management	Feature-rich web UI for local device management, configuration, and control; Intuitive iOS configuration app (Prism App); OLED Status Display w/ Nav control and reset buttons; Core for cloud based device management
Switches	Menu joystick and Reboot button	Menu joystick and Reboot button
Card Slot	N/A	N/A

POWER

Power Input	Powered by chassis	Powered by chassis
Nominal Power Consumption	Up to 15W/card	Up to 15W/card

NETWORK

Ethernet	N/A	N/A
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Prism 4K Chassis

CHASSIS (2U/1U)

PHYSICAL ATTRIBUTES

Network Protocols **2U:** 17in. (W) x 12.1in. (D) x 3.5in. (H)
[431.8 x 307.3 x 88.9mm]

1U: 17in. (W) x 12.1in. (D) x 1.75in. (H)
[431.8 x 307.3 x 44.5mm]

Weight **2U:** 143oz [404g]

1U: 87oz [247g]

Construction Milled/Bent aluminum

Supported Resolutions N/A

INTERFACES

Switches On/Off button

Card slots **2U:** 9x card slots

1U: 3x cards slots

Ethernet 2x 10/100/1000 BASE-T Gigabit Ethernet (RJ45)

PROTOCOL SUPPORT

Bonding Yes (2x Ethernet interfaces)

POWER

Power Input **2U:** 2x Hot-swappable 500W VAC power supplies (1x required, 1x optional)

1U: 1x User-replaceable 150W VAC power supply

Nominal Power Consumption 5W

