

FHD video encoder

The FHD wired video encoder can encode SDI or HDMI video source and compress into IP stream, to realize long-distance HD source capturing and transmission over WAN or LAN network.



Advantages

- High bandwidth adaptability, makes it possible to transmit high definition, low-latency, non-padding image under low bit network.
- With branded chips solution together with video dynamic noise reduction and image enhancement technology, it can realize proper encoding under low bit transmission; 1Mbps@720p, 1.5Mbps@1080p
- Advanced video buffering and FEC technology ensures video encoding delay $\leq 67\text{ms}^*$ and stable and smooth transmission
- Adjustable bit rate from 64kbit/s ~ 40Mbit/s.
- Powerful streaming media service function, supports RTSP/RTMP/UDP-TS/Onvif/SIP/SRT and some other protocols.
- Dual stream output, the main code rate up to 1080p60Hz, and the sub-stream supports 720p60Hz video encoding.
- Portable and low power consumption in 24/7 continuous operation
- Capable with customized text and image overlay function, which can be at any position on the screen
- Audio embedding encoding supported
- With video real-time loop function, there is no delay and convenient for source pass-through

*Note: $\leq 67\text{ms}$ refers to the delay of the encoder end, and the end-to-end delay also relates to network, decoding, etc.

Specifications

Model	E1 E2
Video input	E1: 1x BNC SDI E2: 1x HDMI
Video Loop out	E1: 1x BNC SDI E2: 1x HDM
Analog audio input	2x 3.5mm
USB interface	2x USB 2.0 Type-A; 1x USB 2.0 Mini-USB
Network Support	RJ-45 Ethernet
Media transmission protocols	RTMP/HLS/TS over UDP/RTSP /Onvif/SRT
Video resolution	Up to 1080P60Hz, resolutions supported: E1: 1080p23.98/24/25/29.97/30Hz; 1080p50/59.94/60Hz; 1080i50/59.94/60Hz; 720p23.98/24/25/29.97/30Hz; 720p50/59.94/60Hz. E2: 1080p23.98/24/25/29.97/30Hz; 1080p50/59.94/60Hz; 1080i50/59.94/60Hz; 720p30/50/59.94/60Hz.
Video coding	H264/AVC; Motion-JPEG
Audio coding	AAC/G.711
Encoding latency	$\leq 67\text{ms}$
Image and text overlay	Custom text, image overlay function, can be superimposed to any position on the screen
Management	WEB
Power supply/consumption	DC 12V 1A / 4W
Size/Weight	125*89*28mm / 380g
Operating temperature	-20°C ~ 55°C

4K HDMI video encoder

This new generation video encoder comes with new features for video input and loop-through with HDMI up to 4K@30p and 3G-SDI up to 1080@60p. It encodes both HDMI and 3G-SDI video with H.265 and H.264 simultaneously or one of the sources or a mixed video from both video sources for live production, post-production, remote broadcast, live streaming or recording in various industries. It supports simultaneous streaming to 16 destinations with an adjustable bit rate of up to 100Mbps.



Advantages

- Dual-channel 4K HDMI and 3G-SDI HEVC video encoder
- supports simultaneous streaming and resolutions up to 4Kp30 via HDMI and 1080p60 with 3G-SDI
- H.264/ H.265 support
- supports NDI|HX2, NDI|HX3, SRT, RTMP, RTMPS, HLS, TS over UDP, RTP and RTSP
- Up to 16 simultaneous streams (8 main streams with 8 sub-streams)
- Multi-channel audio
- 8 x SDI embedded audio
- 4 x HDMI embedded audio channels
- Picture-in-Picture (PIP) and Picture-By-Picture (PBP) modes
- Integrated 1.14" LC display and touch buttons
- Recording in .MOV/.MP4 via 3 USB ports or on NAS storage

Specifications

Video Input	1x 3G-SDI (SMPTE 424M), compatible with HD-SDI (SMPTE 292M) and SD-SDI, (SMPTE 259M)
Video output	Loop-out: 1x 3G-SDI(SMPTE 424M), compatible with HD-SDI (SMPTE 292M) and SD-SDI, (SMPTE 259M); Loop-out: 1x HDMI 1.4b
Audio input	8x channels SDI embedded audio, 4 x channels HDMI embedded audio, 1 x 3.5 mm line in
Video formats	supported in HDMI input & loop-out: 3840 × 2160p 30 fps, 1920 × 1080p 23.98/24/25/29.97/30/50/59.94/60 fps, 1920 × 1080i 50/59.94/60 fps, 1280 × 720p, 9.97/30/50/59.94/60 fps, 720 × 576i 50 fps (PAL SD), 720 × 480i 59.94 fps (NTSC SD)
Supported in SDI input & loop-out	1920×1080p 23.98/24/25/29.97/30/50/59.94/60 fps, 1920×1080i 50/59.94/60 fps, 1280×720p 25/29.97/30/50/59.94/60fps, 720×576i 50 fps (PAL SD), 720×480i 59.94 fps (NTSC SD)
Encoding formats	H.264(AVC): Baseline/Main/High profile, Level 5.1, H.265(HEVC): Main profile, Level 5.0
Streaming protocols	NDI HX2 / NDI HX3 / SRT / RTMP / RTMPS / HLS / TS over UDP / RTP / RTSP Onvif (expandable for SIP/GB-T2818)
Intercom	Yes
PTZ control	Yes
Network connection	1x 10/100M/1000M RJ45 Ethernet port PoE support (802.3af class 3)
USB interfaces	2x USB 2.0 Type-C, 1x USB 2.0 Type-A
DHCP	Yes
Management	WebRTC/KiloLink Server
Power consumption	max. 5 W
Power supply	DC 12V / 1A
Size/Weight	140 x 100 x 28 mm / 420g
Operating temperature	-20°C ~ 55°C

FHD rack-mounted video encoder

The rack-mounted encoder refers to an integrated single, quad or multi-channel SDI/HDMI video encoding module in a 1U/3U rack-mount frame through plug-in card. Through wired network to realize remote video capturing and transmission.



Advantages

- Highly integrated, low power consumption, 24/7 continuous operation
- It can integrate 1U single-channel, 1U four-channels, or 3U multi-channels SDI/ HDMI video encoding module, and supports up to 32-channels in 3U rack. SDI encoding module and HDMI encoding module can be integrated into the same rack for customization;
- Advanced low-power consumption design (150w only for 32 channels at full load), together with built-in intelligent cooling device, it can ensure stable operation and makes 24h continuous working available that can be further enhanced through an optional redundant power supply unit
- High bandwidth adaptability, it can transmit high-definition, low-latency image without padding even under a low-bandwidth network environment
- Advanced video buffering technology and FEC technology ensures video encoding delay $\leq 67\text{ms}^*$ and transmission stable without non-padding.
- Adjustable bit rate from 64kbit/s~40Mbit/s.
- Powerful streaming media service function, all types of streaming media protocol supported, such as SRT/ RTSP/ RTMP/ HLS/ TS/ Onvif
- Dual stream output, the main code rate up to 1080p60Hz, and the sub-stream supports 720p 60Hz video encoding.

*Note: $\leq 67\text{ms}$ refers to the delay of the encoder end, and the end-to-end delay also relates to network, decoding, etc.

Specifications

Model No.	U1-1; U2-1; U1-4; U2-4
Video interface	U1-1: 1x BNC SDI U2-1: 1x HDMI U1-4: 4x BNC SDI U2-4: 4x HDMI
Video loop	U1-1: 1x BNC SDI U2-1: 1x HDMI U1-4: 4x BNC SDI U2-4: 4x HDMI
Network Support	Wired Ethernet
Media transmission protocols	RTMP/HLS/TS over UDP/RTSP /Onvif/SRT
Video resolution	Supports up to 1080P60Hz resolution
Video coding	H264/AVC, Motion-JPEG
Audio coding	AAC/G.711
Encoding latency	$\leq 67\text{ms}$
Image and text overlay	Custom text, image overlay function, can be superimposed to any position on the screen
Management	WEB
Power supply/consumption	AC 220v 25W/U series: up to 25W
Size/Weight	483 x 175.25 x 44.5mm/ 1.6kg
Operating temperature	-20°C ~ 55°C