



# KILOVIEW® E1

HD/3G-SDI Video Encoder  
Portable, cost-effective live  
streaming encoder  
NDI®



## Product overview

KILOVIEW® E1 is a professional HD/3G-SDI H.264 video encoder. Small size and ultra-low consumption design! E1 comes in 1.485G HD-SDI, 3G-SDI input, and SDI looping out. Input SDI signal through preceding image processor for image enhancement, then encoding by SOC processor for creating H.264 video encode featured with high performance and low bit rate.

E1 supports unbind audio from SDI signal, also input audio from Analog Line-in for AAC (MPEG4-Audio) stereo audio encoding or G.711 audio encoding.

E1 allows you to manage and preview video through WEB management. Easy operation and multi-languages supported for worldwide users.

## Features

### High integration, portable, low consumption, high performance

E1, small size of 125mm\*89mm\*28mm, integrates FPGA, video co-processor and video encoding chip. It supports 10/100M self-adaptive Ethernet interface. E1 can support 1080p60 Full HD video encoding, meanwhile open up to 960x540@60Hz sub-stream encoding. Under typical case, overall power consumption is <=4W.

### Low bit rate assuring nice image and quality audio

E1 adopts VLB (Very Low Bit Rate) H.264 video encoding technology, bonding with preceding video processor to do video dynamic noise reduction, image enhancement, etc.. Generally, 1Mbps@720p, 1.5Mbps@1080p can achieve good video encoding quality, which meet needs of low bit rate and quality image under internet applications.

### Powerful streaming media protocols supported and full service function

E1 is built in SUNSHINE streaming media engine, fully support RTP/RTSP/RTMP/HLS/TS. Through protocols like RTMP/TS and other, it could push live video to many global live video platform/CDN. E1 itself is light-weight streaming media server, which can allow 20-50 concurrent users to access simultaneously.

E1 supports Onvif 1.1/2.0 that can be easily connected to secure safety system/NVR system.

### Easy operation and professional quality.

E1 allows you to use Web interface to manage device. Using and setting is very easy. It is widely used in broadcast and TV, interactive media, medical, network education, secure safety and other fields, professional and stable.

### NDI®

NDI allows system, devices and applications to identify and communicate bi-directionally with one another over IP, and to encode, transmit, and receive multiple streams of high quality, low latency, frame-accurate video and audio in real time. Integrated into thousands of products in the hands of millions of users, NDI is the leading standard for IP video production.

## Other features

- ✓ Supported global live video platform (tested): YouTube, UStream, Twitch and so on.;
- ✓ Supported streaming media server platform/CDN system (tested): Wowza, FMS, RED5, SRS, etc.;
- ✓ Local storage and recording based on Micro SD/TF card and/or USB Storage;
- ✓ Support image rotation, cutting, gray scale and other special image processing;
- ✓ Support character /image overlay;
- ✓ Support quick function customization based on customers' needs (Please contact salesman and factory technical support);
- ✓ Two-way voice intercom function (based on factory provided solutions or for customization according to applications requirements).

## © Main parameters

<b>Interface</b>	Video input	1*BNC SDI
	Video looping out	1*BNC SDI
	Analog video input	1*3.5mm
	Analog video output	1*3.5mm
	Wired network	1*RJ-45, 10/100M self-adaptive Ethernet
	Wi-Fi	Built-in model, external dual antenna
	USB	1*USB 2.0 Type-A 1*USB 2.0 Mini-USB

<b>Network support</b>	Ethernet	Support
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<b>Signal and formats</b>	SDI signal standard	0.8Vp-p
	SDI impedance	75 Ohm
	SDI coupling way	AC
	SDI signal formats	HD-SDI(1.485Gbps) 3G-SDI(2.97Gbps)
	Supported video formats	1080p23.98/24/25/29.97/30 1080p50/59.94/60 1080i50/59.94/60 720p23.98/24/25/29.97/30 720p50/59.94/60,576i, 480i 525i(480i) / 625i(575i)
Audio	SDI unbind audio (stereo) Analog Line-in/Line-out (stereo)	

<b>Encoding</b>	Video encoding	H.264/AVCHigh profile (up to level 5.1), compatible with Main profile and Baseline
	Audio encoding	AAC/MPEG4-Audio, G.711(u-Law/a-Law) [other algorithm can be extended]
	Encoding delay	≤67ms
	Video encoding bitrates	256Kbps ~ 25Mbps adjustable
	Audio encoding bitrates	32Kbps ~ 512Kbps : AAC64Kbps : G.711

<b>Transmission protocols and Management protocols</b>	Transmission protocols	RTP / RTSP (compatible RTP over RTSP, RTSP HTTP Tunnel and RTSP Multicast) RTMP pushing, RTMP service, TS over UDP, HLS
	Private protocol	KMP (KILOVIEW Media Protocol)
	Control/management protocol	Onvif 1.1/2.0 KCP (KILOVIEW Control Protocol) WindTalk compatible with ( private ) protocols
	Management protocol	HTTP

<b>Management ways</b>	Management interface	Web
	Remote management	Support
	Online firmware updating	Support

<b>Working environment</b>	Power	DC 12V 1A
	Operating temperature	-4 to 140° F / -20 to 60° C
	Relative humidity	20 ~90%RH(un condensation)
	Power consumption	4W Max

<b>Size and accessories</b>	Size	4.9 x 3.5 x 1.125"/ 125 x 89 x 28 mm
	Weight	13.4oz / 380g
	Power adapter	External DC 12V 1A adapter

## © Product appearance

