

1/4/16 Channels HDMI/HD-SDI HEVC H.265 & H.264 IPTV Encoder



EDM401S
Single Port



EDM416S
16 Port



EDM404S
FOUR Port

Encodium EDM400S series HDMI/HD-SDI input, it is the world's New Generation HEVC H.265/H.264 hardware encoder in a professional grade, compact streaming appliance. Its advanced HEVC compression enables users to stream broadcast quality 1080p video with up to 50% bandwidth savings compared to today's H.264 standards.

Encodium EDM400S series boasts an all-hardware compression chip for real time encoding with advanced audio and meta data handling – all packaged in a portable device with low power consumption, which makes it possible to take next generation HEVC encoding from the server rooms into the field for professional and industrial applications with easy integration to education, health care, IPTV, conference, remote education, news interview, banking, transportation and other industries.

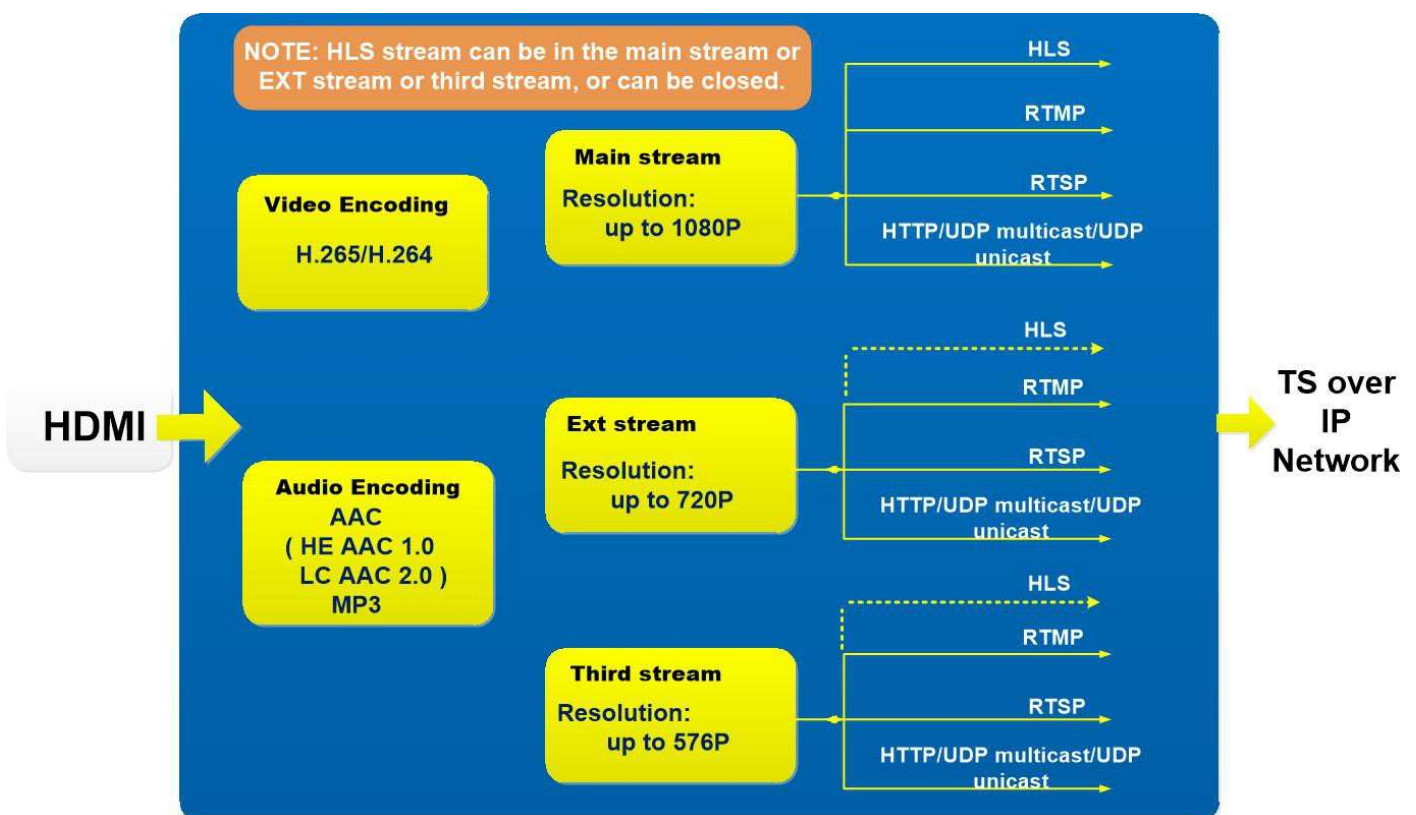
Next-Generation HEVC/H.265 Streaming: Reduces IPTV Bandwidth Costs

Whether it's from live news broadcasting in the field, Point-to-Point contribution of HD video, live

streaming from or within sports venues or fast move picture - demand for high quality real-time video anywhere, anytime is growing. The increase of video services translates to rising expenses for purchasing more satellite, cellular or other dedicated network bandwidth. The Encoder's cutting edge HEVC compression and streaming capabilities allows broadcasters, IPTV providers, A/V teams, corporate IT to reduce Operating Expenses (OPEX) for video streaming projects while managing demand for more video services and requests for higher quality video on existing bandwidth capability.

Flexible Connectivity Options with H.264 Backward Compatibility

A built-in video matrix enables routing of video sources to both the HEVC and H.264 compression cores for generating streams in both H.265 and H.264 formats. The on-board hardware scaler can be used for real-time downscaling, frame-sampling and flexible cropping options delivering the most optimized video output for your application.



- HDMI (HDCP), Blue Ray HD, HD-SDI input
- Number of input channels: Single, Quad, Sixteen input signals

- Full HD 1080P60, 1080I60, 1080P50, 1080I50, 720P60, 720P50, 576P, 576I, 480P, 480I Multiple resolution HDMI signal input
- H.264, H.265, BP/MP/HP hardware encoding
- 3 streams out, Each HDMI input source simultaneously support up to 1080P
- Support multi -protocol output, RTSP, RTMP, HLS(option) one of HTTP/UDP multicast/UDP unicast protocol output simultaneously
- Support insert picture LOGO, only BMP format. Please name it: logo.bmp
- AAC, MP3, G.711 and other audio coding format
- Separate audio output supported: Adaptive aspect ratio
- Next-generation HEVC / H.265 compression reduces network bandwidth by up to 50% compared to H.264
- Support RTMP push flow, (classic mode and URL mode), support IP address and domain names, ONVIF protocol
- Supports both HEVC and H.264 – built for the future without losing support for legacy receivers/decoders
- Web page video preview function, facilitate the implementation of adjustment
- Support RTSP, HTTP, HLS(option) UDP multicast, UDP unicast and other real time flow and TS flow
- Network interface using 1000M full duplex mode
- HD-to-SD downscale conversion
- Support CBR and VBR mode, 50Kbps ~ 12Mbps
- USB power supply supported, 5V or 3.7V
- Low power design
- WEB Management
- Easy-to-Use System Management

Application

- IPTV, video conference, remote education, Network radio, Live audio & video broadcast
- Backhaul/Monitoring for Broadcasters
- VOD, multiscreen headend
- Point-to-Point video contribution
- Streaming Full Motion Video to Desktop, TV and Mobile Devices over bandwidth-limited pipes

Product Specifications:

Inputs	
Video inputs	1/4/16 HDMI (HD-SDI option) input
	<u>Progressive</u> 1920x1080 @ 60/59.94/50/24/23.98 Frames per second 1280x720 @ 60/59.94/50 Frames per second <u>Interlaced</u> 1920x1080i 29.97/25 frames per second Video Input Format is Auto-Detected
Audio inputs	HDMI Embedded audio Unbalanced analog stereo input via 1/8" (3.5mm) jack (option)
Outputs	
IP Output type	RJ45 providing 1000Base-T Ethernet with Static or DHCP addressing;
Protocol	RTMP TS RTSP(UDP, TCP) TS HTTP UDP TS
Multi-Screen	Up to 3 channels High def. and any resolution of streams simultaneously out in each HD Source inputs
Users Interface	
Computer Based control	HTTP via standard PC or web browser using Command Center. The simple Control API and SDK is also available to programmers to create their own application
Pre-processing	
Image setting	Video adjustments (Brightness, contrast, Saturation, Hue)
Frame rate	from 5fps to 45fps
Image insertion	OSD insertion
Enhancement filter	Deinterlacing; Noise reduction; Sharpening; Visual Optimizing; Filtering

Video Encode			
Bitrate mode	Constant (CBR), Variable (VBR)		
H.264	Resolutions	First stream	1920*1080, 1280*720, 1024*576, 850*480, 720*576, 704*576, 640*480, 640*360, auto
		Second Stream	1280*720, 800*450, 720*576, 720*408, 704*576, 640*480, 640*360, 352*288, 320*240, 320*180, auto
		3 rd Stream (optional)	720*576, 720*408, 704*576, 640*480, 640*360, 352*288, 320*240, 320*180, auto
	Encode Frame Rates	Encode frame rates representing 1:1, ½ and ¼ of the input frames rates are supported Note that the maximum encoded frame rate is 30fps when input resolution is 1920x1080	
	H.264 Encode	MPEG-4 AVC/H.264 (ISO/IEC 14496-10 MPEG-4 AVC – Rec. ITU-T H.264) Baseline Profile L3 Main Profile L3 and L4 High Profile L4 and L4.2	
Video Bitrate	100kbps to 12Mbps		
H.265	H.265 Encode	MPEG-H HEVC (ISO/IEC 23008-2) Main Profile Level 4.1 (4:2:0 8-bits)	
	Video Bitrate	16kbps to 12Mbps	
	Key Interval	5-200	
	Resolutions	First stream	1920*1080, 1280*720, 1024*576, 850*480, 720*576, 704*576, 640*480, 640*360, auto
		Second Stream	1280*720, 800*450, 720*576, 720*408, 704*576, 640*480, 640*360, 352*288, 320*240, 320*180, auto
THIRD Stream		720*576, 720*408, 704*576, 640*480, 640*360, 352*288, 320*240, 320*180, auto	
Encode Frame Rates	Encode frame rates representing 1:1, ½ and ¼ of the input frames rates are Supported Note that the maximum encoded frame rate is 30fps when input resolution is 1920x1080		

Bitrate of Res.	Resolution	H.264 encoding	H.265 encoding
	720x576 (D1)	800-1500kbps	400-800kbps
	1080x720p (HD)	1200-2500kbps	800-1500kbps
	1920x1080p (Full HD)	3500-6000kbps	1500-2500kbps
Audio Encode			
Audio encoding	AAC, MP3		
Bit Rates	Range from 48 kbps to 256 kbps, Adjustable		
Resample Rate	48Khz, 44.1Khz		
Audio Channel	L+R, L, R		

For sales inquiries, please contact us via

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