

ENC3411S

DIBVISION | DIBSYS

Premium MPEG-2 H.264 HD SD One-seg Encoder



ENC3411S, premium MPEG-2/ H.264 encoder, this new professional HD SD video encoder for a solution to address the needs of early adopters of the premium TV standard, especially use in Multi-Audio channel MPEG-2 H.264 in High-End Cable TV and ISDB-Tb Application.

With high-quality MPEG-2 H.264 encoding, ENC3411S delivers FULL HD for an immersive experience with high-resolution and high-framerate. It fully supports for SDI/ HD-SDI, CVBS, HD-MI, YPbPr interface inputs encoding, both IP and two identical ASI data outputs, and capable of simultaneously delivering low resolution channels for new applications such as picture-in-picture (PIP) and ISDB-Tb One-seg application.

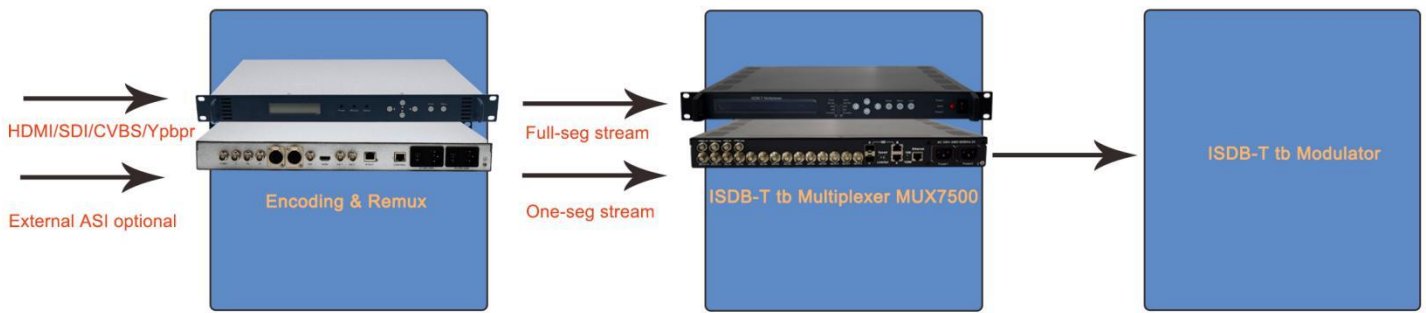
ENC3411S highly bandwidth efficient MPEG-2, H.264 VBR CBR encoding and native IP output make it possible to deliver exciting and competitive HD services to broadcast operators.

Features

- Advanced MPEG-2 MP@ML4:2:0 and MPEG-4 AVC 4:2:0 (H.264) video encoding
- ASIC technologies which offer broadcast, video quality, generally video bitrate advised: SD about 1.2mbps, 720p about 2mbps, 1080 about 6-8mbps for lowest bitrates
- HD-MI 1.3a interface, Auto detect the HD-MI input of resolutions
- Support the importation of SDI/HD-SDI, HD-MI, CVBS, YPbPr encoding
- Advanced multiplexing capabilities for cascading and multi-services via ASI input (optional)
- Low resolution channels for applications such as picture-in-picture (PIP: One-seg for ISDB-Tb)
- Audio sampling Rates: 44.1 khz, 32khz, 48KHz
- MPEG-1 Layer II, MPEG-2 AAC-LC, MPEG-4 AAC-LC, MPEG-2 HE-AAC, MPEG-4 HE-AAC audio encoding
- Supports unicast and multicast IP output UDP protocol as well as two identical ASI outputs
- WEB Management and local front panel
- Supports resolution: 1080i@50/59.94/60fps, 720p@50/59.94/60fps, 480i, 576i
- DVB/ISDB-Tb compliance with 2 streams output simultaneously: for one-seg and full-seg
- Built-in time base correction and video pre-processing
- Easy-to-Use System Management

Main Application

- Digital TV and IPTV headend system
- Point to Point video and audio over IP
- Remote live Rebroadcasts and real-time transmission
- Building, campus or metropolitan-area



TECHNICAL SPECIFICATIONS

Input

Video Input	1 x CVBS, 75Ω, BNC 1 x Digital SMPTE 292M (HD-SDI) digital video, BNC 1 x HD-MI 1.3a 1 x YPbPr component video interface, Connector: BNC
Audio Input	analog stereo audio, XLR interface (balanced) HD-MI/SDI embedded audio
DVB-ASI Input (optional)	Built-in multiplexer for encoder cascading

Output

DVB Interface	Two identical ASI, Comply to EN 50083-9 ASI Standard, BNC, 75Ω
IP output	100/1000M Base-T Ethernet UDP/RTP output, Multicast/Unicast supported
Output Format	188 /204 bytes per UDP packet
Output Rate	0.25Mbps~20Mbps

Video One SEG/PIP

Resolution	
PAL	352*288i/320*240i/320*180i/ 176*144i/160*120i/160*90i @50Hz
NTSC	352*288i/320*240i/320*180i/ 176*144i/160*120i/160*90i @59.94Hz
Encoding	MPEG-2; H.264; Auto (follow the main stream format: MPEG-2 or H.264)
Aspect Ratio	4:3; 16:9 Auto (follow the main stream)
Video PID	32 – 8190
Audio PID	PIP audio format is same as Main audio
Frame Rates	50fps, 59.94fps

Video Full-seg

Video format	MPEG-2/H.264 MP@ML 4:2:0
Resolution	1920 x 1080i @60/50fps, 1280 x 720P@60/50fps, 720 x 480i @60fps, 720x576i @50fps
In MPEG-2 encoding, only support SD output.	
Bit rate mode	VBR, CBR
GOP Structure	IBBP, IPPP, IBP, IBrBBP

Audio Encoding

Sampling Rates	48KHz, 44.1KHz, 32KHz
Bit rate	64, 128, 192, 256, 320 384kbps
Audio encoding	MPEG-1 Layer II, MPEG-2 AAC-LC, MPEG-4 AAC-LC, MPEG-2 HE-AAC, MPEG-4 HE-AAC
Quantization	24bit
Audio Gain	0 , +-6db, +-12db

Data Processing

PSI/SI Edition	PMT PID, Video Audio, PCR PID, Service ID Program Name, Service Provider TS id PCR Interval
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Management

Interface	1*RJ-45, 10/100 Base-T, for equipment IP Control
Remote Control	Web management
Local Control	LCD display and keypad

Environment

Power Supply	Comply to GB13837-92 & GB8898-88 standard
Power consumption	AC 100-250V 50/60Hz
Operation temperature	20 W
Storage temperature	-10 - 50°C
Dimensions	-10 - 75°C
Weight	450*350*44mm (1RU)
	5Kg

Related Products

	ENC3411S	ENC3411	ENC3711Pro
video interface	1×SDI, 1×CVBS, 1×YPbPr, 1×HDMI	1×SDI, 1×CVBS, 1×YPbPr, 1×HDMI	1×HDMI, 1×HD-SDI
Video Encoding	MPEG-2/SD; MPEG-4 AVC/H264 HD/SD	MPEG-2 HD/SD; MPEG-4 AVC/H.264 HD/SD	HEVC/H.265 HD MPEG-4 AVC/H.264 HD
Rate Control	CBR/VBR	CBR/VBR	CBR/VBR
GOP	IBBP, IPPP, IBP, IBrBBP	IP, IPB, IPBB, IPBBB, IPBBBB, IPBBBBB	IPPP, IBBP
Bit Rate	0.25-20Mbps	0.25Mbps~60.5Mbps	HEVC/H.265: 0.5 – 20.00 Mbps MPEG-4 AVC/H.264: 4 – 20.00 Mbps
Resolution	<p>One-seg PAL ---352*288i/320*240i/320*180i /176*144i/160*120i/160*90i @50Hz NTSC---352*288i/320*240i/320*180i/ 176*144i/160*120/160*90i @59.94Hz</p> <p>1920 x 1080i@50/59.94/60fps 1280x720p @50/59.94/60fps 720x480, 720x576</p>	<p>1920×1080i 1280×720p 720×576i 720×480i</p> <p>One SEG/PIP: 96×96, 128×96, 128×128, 192×192, 352×240, 352×288, 416×240</p>	<p>1920×1080p @60/59.94 1920×1080p @50 1920×1080i @60/59.94 1920×1080i @50 1280×720p @60/59.94 1280×720p @50</p>
Audio Interface	2*XLR(balanced) SDI/HDMI embed audio	1*Digital (AES3/EBU), 2*Analog R /L and 2*XLR (balanced/unbalanced)	2×XLR, 2×AES, 2×RCA, SDI/HDMI embedded audio
Audio Encode	MPEG-1Layer2/MPEG2/AAC Audio	MPEG-1 Layer II,HE-AAC (v1&v2), LC-AAC; DD AC3 passthrough	MPEG-1 Layer II, HE-AAC (v1&v2), LC- AAC, DD AC3 passthrough (for SDI and HDMI)
Audio Channel	1 Stereos	Up to 2 stereos	Up to 2 stereos
Chroma	4:2:0	4:2:0	4:2:0
ASI output	YES	YES	YES
IP out	MPTS/SPTS over UDP/RTP	MPTS/8*SPTS over UDP/RTP	MPTS over UDP / RTP /RTSP