ENC3184

8-Channel MPGE-2/H.264 High Efficient SD Encoder

ENC3184 a professional, Full-featured MEPG-2&H.264/AVC Magnum hardware compression solution, is designed for Cable, Satellite, Terrestrial, IPTV Live delivery of efficient bit-rate utilization for delivery of high quality video. Operators can provide multiple, feature-rich series and utilize less space than required in a traditional head-end performance.

ENC3184 supports PAL or NTSC or SECAM video input and audio signal can be analog audio content encoding in MPEG-2 and MPEG-4 AVC formats in a variety of standard video resolutions simultaneously. Significantly enhances bandwidth efficiency, and it provides up to Eight standard definition (SD) of superior quality constant bit-rate (CBR) or variable bit-rate (VBR) video using either MPEG-2 or AVC encoding.

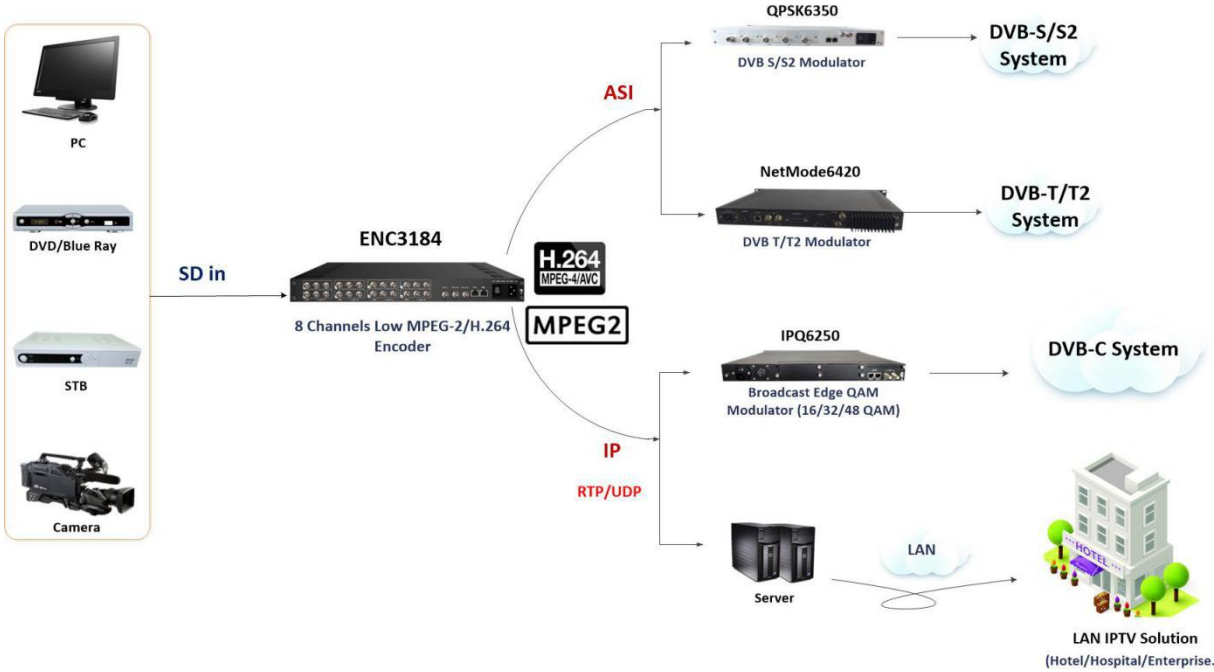
ENC3184 is ideal for reducing the rack space required for SD program encoding for content source origination and distribution. All encoded programs are multiplexed to multi-program transport stream (MPTS) outputs on both ASI and IP. Additionally, single program transport stream (SPTS) outputs are provided for all inputs on the IP network output. All settings are available via the front panel as well as a web based network management system. It also provides 2*ASI input which can dramatically lowers the cost per channel for real time SD video encoding.

Features

- Up to Eight high-quality Encoding channels per chassis (1-RU)
- Multi-codec support: capable of MPEG-2 and AVC/H.264 encoding of SD video
- PAL, NTSC, SECAM support
- MPEG-1 L2/LC-AAC/HE-AAC V1/HE-AAC V2 audio encoding
- Ultra-low bit rate encoding
- Each Channel Video output bitrate range: 0.5~5.5 Mbps (MPEG-2): 0.25 ~ 5.5Mbps (H.264)
- 4:2:0 encoding profiles for high video quality
- VBR/CBR Mode
- Video aspect ratio support: 4:3, 16:9, 1:1
- Simultaneous outputs via IP, DVB-ASI
- Switchable Multiplexing MPTS and SPTS of Output Mode
- IP output TS is in the form of UDP packet, support MPTS/SPTS mode; when "MPTS mode" is selected for DVB mode, IP and ASI can output TS simultaneously; when “SPTS” is selected for IPTV mode, only IP can output TS, and the ASI output TS cannot be used properly
- Two seperate ASI multiplexing capabilities for cascading and multi-services
- Feature to control picture appearance by adjusting Lightness, Contrast, Saturation, HUE, Image Horizontal Offset prior to encoding
- User-defined Volume Gain
- PCR correction to accurately correct
- PSI/SI information creation
- Flexible configuration of a admin account and multiple sub accounts
- Configurable Alarm parameters, Real time Monitoring the Alarm and operating temperature in running device
- Various video filters available to remove noise and improve the video quality
- Forced air-cooling (left to right side)
- Reboot in Web-GUI
- Management via embedded Web server,local front panel
- Reliable: Hardware based for 24/7 operation
- Power failure memory recovery

Application

- Private and MSO Cable Systems
- Contribute Video to IP and ASI networks
- IPTV, Satellite, cable or terrestrial headend applications
- Campus, Hospitality and Education Markets
- Low bitrate encoding in limited bandwidth



TECHNICAL SPECIFICATIONS

Input

	8*CVBS, 8 pairs unbalanced stereo audio
	8*SD-SDI (SMPTE 259M), audio embed
	2 separate DVB-ASI, built-in multiplexer for encoder cascading, BNC interface, 75 Ω

Output

	2 identical ASI output, BNC, ≤100Mbps
	2* 10/100 Base-T, RJ-45, 188Bytes TS
	1*MPTS/8*SPTS over UDP/RTP, Up to 7* 188Bytes TS

Video Coding

Encode Standard	H.264/MPEG-2/AVC
Input Format	PAL60/SECAM/NTSC4.43/PAL COMBINATION-N)/PAL(M)/PAL D/K/B/G/H/I/N)/NTSC(M/J)
Resolution PAL	720*576, 704*576, 640*576, 544*576, 352*576@50Hz
Resolution NTSC	720*480, 704*480, 640*480, 544*480, 352*480@60Hz
Output Bit Rate	0.25 ~ 5.5Mbps (H.264) 0.5 ~ 5.5Mbps (MPEG-2)
Bit Rate Mode	CBR/VBR
Aspect ratio	4:3/ 16:9 /1:1
Chroma	4:2:0 MPEG-2 & H.264
Advanced Pretreatment	Noise reduction, Sharpening

Audio Coding

Encode Mode	MPEG-1 L2 LC-AAC,HE-AAC V1, HE-AAC V2
Bit Rate(Kbps)	192, 224, 256, 320, 384.**(MPEG-1 L2)** 96, 112, 128, 160,192, 224, 256, 320, 384. **(LC AAC)** 96,112,128,160,192 **(HE-AAC V1)** 96 **(HE-AAC V2)**
Sampling rate	32KHz, 44.1KHz, 48KHz
Volume Gain	-63 - +20dB

TS Multiplexer

PSI/SI	Service ID; Program Number; TS_ID; ON_ID
Mux Status	On/Off
Video PID	0x20 ~ 0x1ffe
Audio PID	0x20 ~ 0x1ffe
PCR_PID	0x20 ~ 0x1ffe
PMT_PID	0x20 ~ 0x1ffe
Program Name	(16 letters), character range: A ~ Z, a ~ z, 0 ~ 9 and space. Alphabets and numbers are preferred for the program names
Program ID No.	1 ~ 65535
Output TS_ID	1 ~ 65535
Output ON_ID	1 ~ 65535

Encoding processing

Profile Mode	Main profile/high profile
Lightness	0 ~ 100
Contrast	0 ~ 100
Saturation	0 ~ 100
HUE	0 ~ 100
Image Horizontal Offset	0 ~ 40
Language Selection	Chinese/English
IP Output Program Type	MPTS/SPTS
Output Data Rate	2 ~ 40Mbps

System Management

Remote	Web-based management
Local	LCD, Key Button, LED indicate light
Management Port	Web-GUI, 10/100 Base-T Ethernet, RJ45
Configuration	Software Upgrade Import/Export Parameter Restore/**Reboot**
Alarm Status	Device Temperature; Encoder Error Input Signal Lost; ASI Input Signal Lost Buffer OverFlow; FPGA Initialize Error

Environmental

Electromagnetic Compliance	EN55022, EN55024, EN60950
Power Supply	AC 90-250V 50/60Hz
Power consumption	25 W
Operation temperature	-10 - 50°C
Storage temperature	-10 - 75°C
Dimensions	460(L)x483(W)x44.5mm(H) (1RU)
Weight	6.2kg

Ordering Information

ENC3144	4 channels CVBS input, MPEG2/H.264
ENC3184	8 channels CVBS input, MPEG2/H.264
ENC3145	4 channels SDI input MPEG2/H.264
ENC3185	8 channels SDI input, MPEG2/H.264

