

ENC3084

DIBSYS

8 Channels Low Bitrate SD MPEG-2 Encoder

DVB
Digital Video
Broadcasting

MPEG2

IP

SECAM



ENC3084 is a perfect choice for broadcasters demanding the highest performance of MPEG-2 encoding SD TV for Cable, IPTV, Satellite, Terrestrial, ATSC and Hospitality Hotel TV applications. It distributes 8 Channels SD Video Signals either All in one MPTS as mirrored of DVB-ASI to Next digital TV equipment as like Multiplexer, IPQAM or Push all SPTS Over UDP/IP to LAN IPTV Network as like software-transcoding, IPTV Streaming Server.

ENC3084 designed to address this ever increasing demand for more video and audio services. With high density, high reliability and advanced compress arithmetic, it used for MPEG-2 4:2:0 MP@ML video and MPEG-1 Layer-II, AAC audio compression. And produce ASI and IP output data streams, and encoder decoder connected with LAN IP, widely used for Composite Analog Contribution and Distribution applications in conjunction with IRD1208 Decoders.

BUSINESS BENEFITS

- **SECAM** mode of Composite analog inputs
- **Two separate DVB-ASI** input built-in multiplexer from cascading to "slave" encoder to One MPTS out
- MPEG2-TS can be fed to multiple networks simultaneously by utilizing built-in **dual FE IP** and DVB-ASI outputs
- Remote and Local management - can be managed from remote locations using web-based management, Local location using **LCD/Key button**
- With high performance, 5 years warranty, widely applicable to High-end Digital TV operators, replace the world famous brand MPEG-2 Encoder with Ultra low bitrate, win the trust of the world's users with the highest cost-effective feature
- Magnun chipset Technology

Features

- 8 channels composite and 8 pairs R/L analog audio per 1RU chassis
- Advanced MPEG-2 MP@ML4:2:0 Carrier-grade video compression
- PAL, NTSC, **SECAM** support
- Simultaneous MPEG-2 TS outputs via IP, DVB-ASI
- 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
- Switchable Multiplexing MPTS and SPTS of Output Mode
- Main and backup IP Ports, MPEG-TS can output In Two physical RJ45 ports simultaneously
- Configurable Alarm parameters, Real time Monitoring the Alarm and operating temperature in running device
- CBR & VBR rate control
- Two separate ASI input for External TS Multiplexing
- Audio sample rate: 32KHz, 44.1KHz, 48KHz
- PCR correction to accurately correct
- Precise synchronization, timing control, AV delay $\leq \pm 15\text{ms}$
- Feature to adjust the audio volume prior to encoding
- PSI/SI Information creation
- Flexible configuration of a admin account and multiple sub accounts
- Various video filters available to remove noise and improve the video quality
- Low power consumption and high reliability with MTBF(Mean Time Between Failure) ≤ 87600 Hours
- Forced air-cooling (left to right side)
- Reboot in Web-GUI
- Management via embedded Web server, local front panel

TECHNICAL SPECIFICATIONS

Video Input

Resolution

SECAM	720x576,704x576,640x576,544x576,352x576
NTSC4.43	720x480,704x480,640x576,544x480,352x480
NTSC(M/J)	720x480,704x480,640x576,544x480,352x480
PAL60	720x480,704x576,640x576,544x576,352x576
PAL(COMBINATION-N)	720x480,704x576,640x576,544x576,352x576
PAL(M)	720x480,704x480,640x480,544x480,352x480
PAL(D/K/B/G/H/I/N)	720x480,704x576,640x576,544x576,352x576
Level signal	1.0Vp-p level
Frequency	25Hz ~5.75MHz
Quantitative	10bits, comply to CCIR-601
Sampling frequency Rate	27MHz
Impedance	75Ω, unbalanced, BNC
Number of Ports	8

Audio Input

Impedance	600Ω, balanced, BNC
Audio format	R/L Analog audio
Number of Ports	up to eight stereo pairs

DVB-ASI Inputs and Outputs

Key reference specifications	EN 50083-9
Connector	BNC female, 75Ω
Signal Level	200-800mVp-p
Packet Length	188 bytes
Maximum bit-rate per port	≤100Mbps
Number of Input Ports	Dual separate ASI ports
DVB-ASI Input	Built-in multiplexer for encoder cascading
Number of Output Ports	Dual identical ASI ports
DVB-ASI Output	Only valid in MPTS

IP outputs

Interface	Dual 10/100 Base-T Ethernet, RJ45
Data format	UDP/RTP, Multicast/Unicast
Transport stream	SPTS and MPTS
Mux bitrate	2-60Mbps
Packet Length	7x 188Bytes

Video Coding

Key reference specifications	Comply to ISO 11172(MPEG-1) ISO 13818(MPEG2)
Adaptive field frame (AFF)	MPEG 2 on the base of FB
Advanced Pretreatment	noise reduction,

Video Compression and profiles	MPEG-2 4:2:0MP@ML, Main profile
Screen ratio	4:3
Operation mode	CBR,VBR
Encoding bitrate	1 ~ 7Mbps continuously adjust
Image Color	Contrast/Saturation/Hue/Brightness/Horizontal Offset
Horizontal Resolution	720, 544, 480, 352 pixels
Vertical Resolution	NTSC-480, 240 lines ; PAL-576, 288 lines
Formats	50fps, 59.94fps, 60fps

Audio coding

Sampling Frequencies	32KHz, 44.1KHz, 48kHz
Bit rate	64, 128, 192, 256, 384Kbps
Encoding Format	MPEG-1 L2/LC-AAC/HE-AAC V1/V2
Quantitative	16bit
Volume Gain	-63 ~ +20dB

TS Multiplexer

PSI/SI	Service ID; Program Number; TS_ID; ON_ID
Mux Status	On/Off
	Video PID
	Audio PID
	PCR_PID

System Management

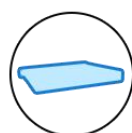
Remote	Web-based management
Management Interface	Ethernet 10/100 Base-T On RJ45
Local	LCD, Key Button, LED indicate light
Management Port	Web-GUI, 100M Base T Ethernet, RJ45
Configuration	Software Upgrade Import/Export Parameter Restore/ Reboot
Alarm Status	Device Temperature; Encoder Error Input Signal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

Main Application

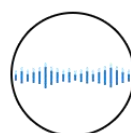
- Private and MSO Cable Systems
- Contribute Video to IP and ASI networks
- IPTV, Satellite, cable or terrestrial headend applications
- Campus, Hospitality and Education Markets



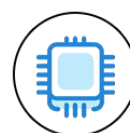
Exquisite appearance



LC-AAC



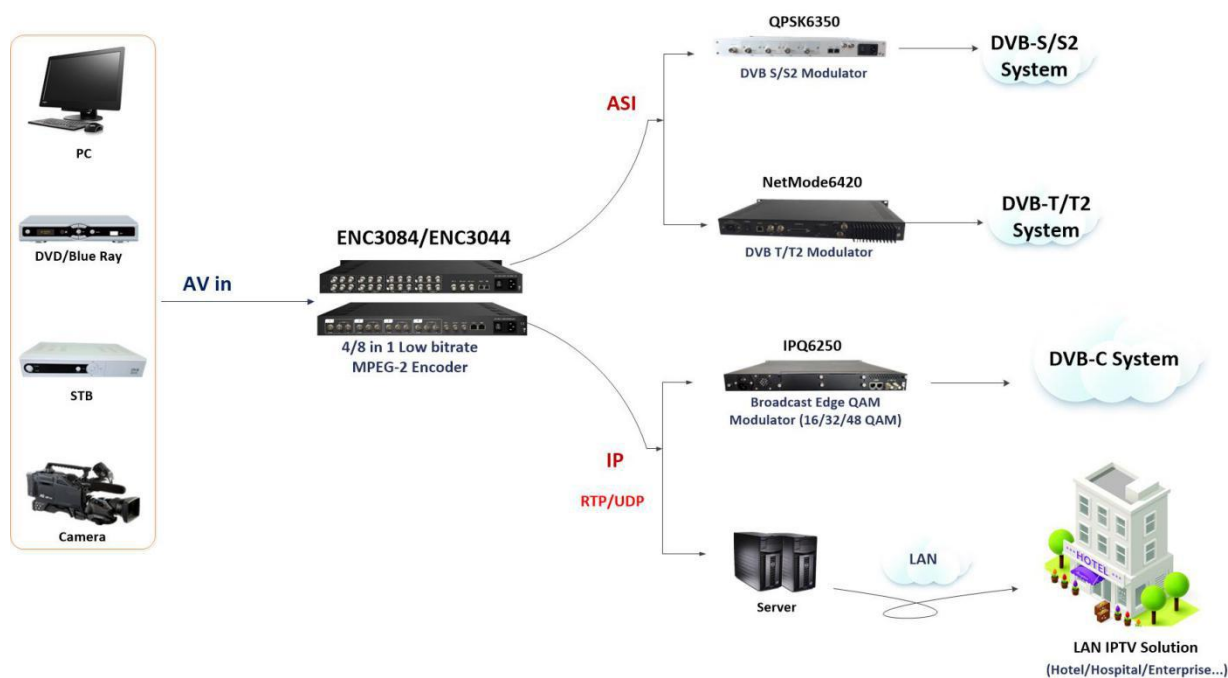
Low Bitrate



Magnun chipset



Frame rate



ORDERING INFORMATION

Product category	Product Model	Detail Description	Application
Related Products	24 AV SD MPEG2 Encoder ENC3081H	8/12/24 AV Ports; MPEG-2 MP@ML, MPEG1-L2/AC3 audio, UDP/RTP IP out	-Cable TV Operator -DTH, Terrestrial, Satellite Up-link -TV Studio Station
	8/12/24Ch AV MPEG2 Digital TV Modulator MSM620	128*IP and 8/12/24 Ch AV MPEG-2 SD@50/60 fps; 4*DVB-C/4*DVB-T/4*MPTS over UDP/RTP out, Multiplexer and DVB-C Scrambling	-Small Digital Cable TV System; -DVB-S2 to DVB-C/T Converter; -Upgrade Analog to Digital TV -Hotel, Campus
Companion Products	8Chs MPEG-2/H.264 Magnun SD Encoder ENC3184	Low bitrate; 8*AV(PAL, NTSC, SECAM)/ASI inputs; ASI/IP out; MPEG2/H.264; MPEG-1 L2/LC-AAC/HE-AAC V1/HE-AAC	-DVB-C/ATSC/ISDBT/DVB-T -Upgrade Analog to Digital TV -Hotel, Campus -Cable TV operator
	PREMIUM 8* DVB-S2 FTA IRD IRD1218	8* DVB-C or FTA/BISS DVB-S2 inputs (QPSK/8PSK demodulation); 14*MPTS/240+SPTS/2*ASI out; MPEG-TS over UDP/RTP; Multiplexer/Scrambling;5years Warranty	
	Carrier 8Ch AV MPEG-2 modulator EMI3084	1*ASI MUX and 8Ch AV MPEG-2, BNC; MPEG1 L2 Audio; 4*DVB-C/4*ATSC/2*DVB-T/2*ISDB-T/8*SPTS UDP and 2*ASI out	-Distribute SD to Coax& IPTV; -Hotel, Campus
	Carrier-grade IP QAM modulator IPQ6250	16 QAM no-adjacent/Two GbE IP per Module, 3 Modules/48QAM per 1RU, Annex A/B/C, Multiplexer/Scrambling; 5 Years Warranty	-Cable TV operator -Distribute video to QAM Network