

ENC3081H

Low bitrate 24* RCA MPEG2 SD IP Encoder



ENC3081H provides one of the highest compression efficiencies in the MPEG-2 broadcasting, making it possible to transmit high quality video content at the lowest possible bandwidth for Cable, IPTV, Satellite, Terrestrial, ATSC, Hospitality Hotel TV System TV applications available today. It distributes up to 24 Channels SD Video Signals all in one MPTS as mirrored of DVB-ASI to next digital TV equipment as like Multiplexer, IPQAM Networks and Push all SPTS Over UDP/IP to LAN IPTV Network Simultaneously. With high density, high reliability and advanced compress arithmetic, it is equipped with the latest advances in video compression technology to deliver unsurpassed video quality at lowest bitrates and low latency. Moreover, it has an ASI input to multiplex the input TS with the all encoded SPTS to generate a MPTS output.

This unit is designed especially for high channel density Distribution Video Engineering project, it can support rapid deployment, **OSD/Logo/QR code Insertion** and compatibility **Up to 24 RCA inputs** Simultaneously. It's an ideal encoder for anyone looking for an easy and affordable way to support a large number of SD channels in low cost deployment.

A rack mountable hardware appliance is used for broadcast local SD video feeds such as DVD Players, Professional Satellite Receiver, set-top boxes and cameras, either as a standalone system or part of a larger TV Server install, cable TV digital head-end, satellite digital TV broadcasting etc.

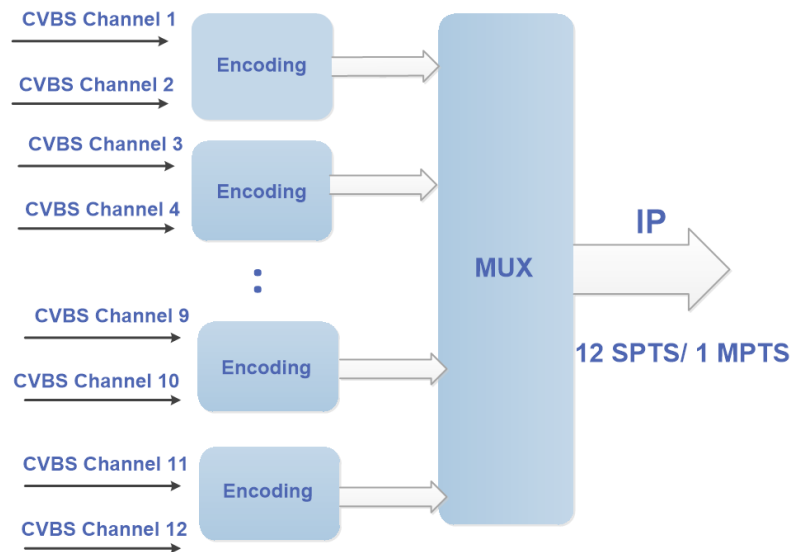
Features

- High density, modular 1-RU system capable of hosting up to Six AV Encoding input modules, each with quad AV channels
- High-quality low-bitrate MPEG-2 encoding of SD video with pre-processing technologies
- Simultaneous outputs via N* SPTS/1* MPTS over GbE IP Port
- MPEG-2 TS/UDP and RTP/RTSP over IP output
- Simultaneous outputs via IP, DVB-ASI(**Option**)
- Flexible GOP structures with B-frame insertion
- PCR de-jittering and re-stamping
- Feature to adjust the audio volume prior to encoding
- Support VBR and CBR bitrate mode
- Broadcast-grade down converter
- MPEG1 Layer II, Dolby AC-3 2.0 Audio encoding
- **Option** QR code, LOGO, OSD insertion
- Low power consumption and high reliability with MTBF (Mean Time Between Failure) \cong 87600 Hours
- DVB /ATSC compliance
- Easy-to-use web GUI
- Lowest cost per HD channel, breakthrough price

Main Application

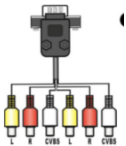
- Huge Number of SD channels In limited budget
- Migrate analog to DTV project
- Hotel, Campus of Video engineering project
- Convert Video to IP Connected with Camera, PC, Satellite Set Top Box, Local payout
- Applications in Logo, OSD Insertion of Video picture
- DVB-C/ATSC with MPEG-2/AC3 encoding
- Fill in more MPEG2 Channels in Limited Bandwidth of Coax Cable RF and IP network

Principle Chart



TECHNICAL SPECIFICATIONS

Composite Inputs



24 Composite inputs (Option 8, 12 Channels)
 48 Pairs of R/L unbalanced Analog inputs
 PAL, NTSC, 75Ω
 Connector 9-pin sub-D female
 Return loss ≥ 35 dB, 10Hz to 5.5MHz

Down/Cross Conversion

Input	Output
720x576i	720x576_50i, 704x576_50i, 640x576_50i, 352x288_50i 320x288_50i, 176x288_50i, 176x144_50i
720x480i	720x480_60i, 544x480_60i, 352x480_60i 352x240_60i, 320x240_60i, 176x240_60i, 176x120_60i

Frame Rates 50fps, 60fps

Video Processing

Input Format PAL-BGHID/PAL-CN/PAL-M/PAL-60
 NTSC/NTSC-M/NTSC-4-43
 Image Setting Brightness: 1 - 255
 Contrast: 1 - 255
 Saturation: 1 - 255
 Hue: -128 - 127
 Video Sharpness Close, Smoothness, General, Sharpness
 Encoding MPEG-2 MP@ML
 Bit-rate 0.5Mbps~8Mbps
 Encoding Schemes VBR, CBR
 GOP Structure IBBP
 Aspect Ratio 4 : 3, 16 : 9

Audio Processing

Encoding MPEG-1 Layer 2, Dolby AC3-2.0
 Sampling rate 48KHz
 Resolution 24-bit
 Bit-rate 64kbps, 128Kbps, 192kbps, 224kbps,
 256kbps, 320kbps, 384kbps
 Audio Gain -12 - +40

Multiplexing

PID Processing Max. 180 input per channel
 PID remapping

PSI/SI Editing Service Name, Program Number, Service Type,
 Service Provider, PMT/PCR/Video/Audio PID
 PMT descriptor Tag, PMT Descriptor Data
 PID Filtering
 CA Filter
 PCR Re-Jitter Accurate PCR adjusting
 Configurable PCR Interval/PCR PID Sync

Stream Output

DVB-ASI (Option) 1* ASI, 75Ω, BNC, 188Bytes
 MPEG-2 TS over DVB-ASI (EN 50083-9)
 RJ45 Port 100/1000M GbE Data1 Port, RJ45 (Only for 8 RCA)
 10/100M FE Data2 Port, RJ45-Option
 Simultaneous output with 8/12 *SPTS and
 1*MPTS through Data1 Port
 Simultaneous output with 24 *SPTS or
 1*MPTS through Data1 or Data2 Port
 MPEG-2 TS over UDP, unicast, and multicast streaming
 MPEG-2 TS over RTP/RTSP
 Configurable packet size (1-7)x188Bytes
 Filter Null Packet
 Total Bitrate ≤ 150Mbps (Should be More than Encoding bitrate)

System function

RJ45, 10/100M, Web management
 English language
 Ethernet software upgrade
 Save/Restore/Firmware Set/Backup/Load Setting

Environment

Dimension (WxLxH) 482mmx410mmx44mm (1RU)
 Weight 7.8kg
 Temperature 0~45°C (Operation); -20~80°C (Storage)
 Voltage range 100 to 120/200 to 240V AC ±10%; 50/60Hz
 Power consumption 25W

ORDERING INFORMATION

Product category	Product Model	Detail Description	Application
Broadcast HD Encoder	8* AV MPEG-2 Encoder ENC3084	8*CVBS, R/L unbalanced analog and ASI inputs, MPEG-2& MPEG1 L2; SPTS/MPTS over UDP/RTP and ASI out; 5 years warranty	-Cable TV Operator -DTH, Terrestrial, Satellite Uplink -TV Studio Station
AV MPEG2 Modulator	8/12/24Ch AV MPEG-2 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	-Small Digital Cable TV System; -DVB-S2 To DVB-C/T Converter; -Upgrade Analog to Digital TV -Hotel, Campus
IP to RF Modulator	16/32Ch IP -QAM Modulator IPM6000	2GbE port/1024 IP inputs. 16/32*QAM(Annex A/B/C, Scrambling)/8 *DVB-T/8*ATSC/6* ISDBT RF and MPTS over UDP/RTP out	-DVB/ATSC/ISDBT/DVB-T -Upgrade Analog to Digital TV -Hotel, Campus -Cable TV operator -Breakthrough Price !
DVB-S2 to RF Transmodulator	High Density Digital TV Transmodulator MSM628	16*DVB-S2 FTA/2ASI/512IP Input, 16DVB-C (Scrambling, Annex A/B) /8 DVB-T RF/MPTS over UDP/RTP out	-Distribute video over DVB-T -Upgrade Analog to Digital TV -Hotel, Campus -Cable TV operator -Breakthrough Price !
Broadcast SD Encoder	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; 5 years warranty	-Cable TV Operator -DTH, Terrestrial, Satellite Uplink -TV Studio Station -IPTV