

ENC3745

DIBSYS

Ultra Low bitrate&Pristine H.264/HEVC Video Encoder

H.264
MPEG-4/AVC

HEVC
High Efficiency Video Coding

1080P
HD

SDI



With the significant increase in UHD TV hitting the market, this new professional FULL HD video encoder for a solution to address the needs of early adopters of the premium TV standard. ENC3745 a high-quality UHD H.265 (HEVC) encoder, delivers Full HD video for an immersive experience with high-resolution and high-framerate. 1RU modular design, it supporting up to 5 pluggable encoding and one output modules, ENC3745 provides a best-of-class encoder platform for Digital TV Owners and TV stations.

The encoder, it can receive and encode four SD/HD/FHD into a Transport Stream (TS), combined with its significant HEVC bitrate savings, content in real-time via HEVC (H.265), today's most advanced compression standard. It is equipped with 3G-SDI interface, built-in Time Base Correction functional block ensures the stability of encoding process from audio and video intermittence.

The ENC3745 encoder employs 4:2:2 10-bit precision encoding technology originally designed for professional transmission. The internal re- multiplexing function allows creation of a new TS formed with the TS internally encoded and the TS from IP input. The final TS can be multiple SPTS or MPTS over IP, as well as over ASI.

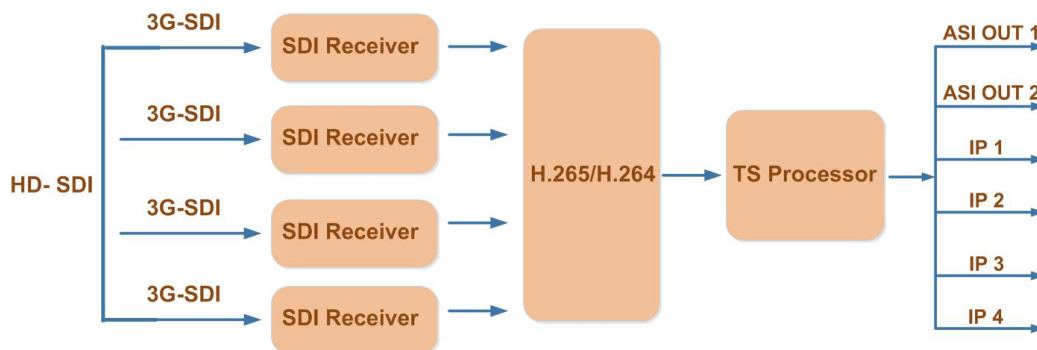
Application

- Digital television broadcasting systems
- satellite, cable, terrestrial and fiber networks
- Remote live Rebroadcasts and real-time transmission
- Building, campus or metropolitan-area

Features

- Multiple video resolution including 1080p, 1080i, 720p, 720i, and 480p, 480i
- Multiple inputs 3G/HD/SD-SDI
- H.265 / HEVC and H.264 / MPEG-4 AVC 4:2:0/4:2:2 10-bit encoding
- 4*MPTS/SPTS (UDP / RTP protocol) output
- pluggable encoding and output modules design
- Internal Time Base Correction (TBC)
- MPEG-1 Layer II & AAC LC audio encoding
- Supports 100/1000M TS/IP SPTS and MPTS
- Built-in re-multiplexer function
- PSI/SI editing/insert supported
- Low latency Mode
- Supports VBR and CBR encoding modes
- Reliable: Hardware based for 24/7 operation
- Remote Control and Supervision by SNMP, HTTP WEB
- Easy-to-Use System Management

Principle Chart



TECHNICAL SPECIFICATIONS

Input interface

HD-SDI 4×BNC Female, 75Ω (for one module)
Up to 20 channels inputs (5 encoding modules in total)

Video Processing

Video Format 1080p (1920×1080)
1080i (1920/1440×1080)
720p (1280×720)
480i (720×480)
576i (720×576)
Video Format Rate 60, 59.94, 50,30, 29.97, 25, 24, 23.97
Compression Standard MPEG-2, H.265(HEVC), H.264(AVC),
High Profile Level 4.0
Aspect Ratio 4:3/16:9 selectable
Chroma Sampling 4:2:0 8bits, 4:2:0 10bits, 4:2:2 8bits, 4:2:2 10bits
Video Encoding Bit Rate 200Kb/s-80Mb/s
Recommend Bit Rate 3840x2160p 60p/59.94p/50p: 6-16Mb/s
1920x1080p / 59.94/50 fps: 2~8Mb/s
1920x1080i /25/29.97fps: 1~6Mb/s
1440x1080i /25/29.97fps: 1~6Mb/s
1280x720p /50/59.94fps:1~6Mb/s
720x480i /29.97fps: 500k/s~4Mb/s

Audio Processing

Compression standard MPEG-1 Layer II, AAC LC, Linear PCM
Audio Input Embedded Audio (from SDI)
Audio Channels 4*Stereo, 8*Mono
Audio Sampling Rate 48KHz
Bit Rate 64 ~ 384Kb/s

TS Processing

TS Output Management Remux and demux
Service and PID Filtering and remapping

TS Input Management Remux and demux between IP input and the SPTS encoded
PSI/SI PSI/SI table regeneration, NIT and SDT Edition

TS over IP

Connector Type 4×RJ-45, 10/100/1000 Base-T, optional
Useful bit rate 800Mb/s
Protocol UDP, RTP/UDP, Multicast, Unicast, HLS, RTMP IGMPv2, ARP, SRT
Source Built-in Re-mux, Encoder

ASI Output

Connector Type 2×BNC Female, 75Ω
Output bit rate ≤ 99Mb/s
Packet Length 188 Bytes
Signal Level 800mVpp±10%

Control & Monitoring

Connector Type 1×RJ-45, 10/100/1000 Base-T OPTIONAL
Remote Control SNMP, HTTP Web
Local Control LCD display and 6-key keypad
Software Upgrade web

Environment

Power supply AC90~250V, 50Hz/60Hz
Power Consumption Maximum 20W
Dimension 44mm×483mm×318mm
Operating Temperature 0 ~ 45°C
Storage Temperature -10 ~ 60°C
Humidity 10 ~ 90%, non-condensed
Net weight 5Kg