

Transcoder

TXS 3453



The TXS transcoder is the newest processing platform in Sencore's Video Delivery Solutions portfolio. The TXS platform is capable of transcoding up to 16 HD channels of MPEG2 or H.264 video in a single-height rack unit. The TXS uses state-of-the-art compression techniques to achieve very low bit-rates and exceptional picture quality - rivaling that of costly single-channel professional encoders. The unit provides all the advanced transcoding, transrating, scaling, ancillary data and audio features needed to support the most challenging distribution applications.

The TXS 3453 includes ASI and IP inputs and outputs as standard features to ensure ease of integration and future compatibility without added cost. Other interface options, including terrestrial and satellite RF inputs and additional ASI ports are available to meet all types of system architecture needs.

The TXS 3453 is extremely easy to configure, control and monitor. The unit provides comprehensive access to all status information, configuration parameters and control features from local and remote user interfaces, including: front-panel controls, web-browser graphical interface, SNMP protocol integration and web-services API.

KEY FEATURES

- 50% higher compression allowing for lower bit-rates
- Transcoding/transmitting for up to 16 HD/SD Channels of:
 - MPEG2 to H.264
 - H.264 to MPEG2
 - MPEG2 to MPEG2
 - H.264 to H.264
- Inputs: ASI & IP
- Outputs: IP & ASI
- Redundant load-sharing power supplies
- Easy-to-control web interface
- SNMP full control and alarm monitoring

APPLICATIONS

- **Contribution Reception and Backhaul**
Receive network and live feeds via RF, ASI or IP and simultaneously transcode to the needed codec for distribution
- **HD to SD Down conversion**
Convert any HD broadcasts to SD for supporting an existing infrastructure
- **Local Reception and Integration for Distribution**
Receive local content feeds and simultaneously provide transcoded video for the distribution network saving bandwidth and cost

SPECIFICATIONS

Transcoder TXS 3453

ASI INPUTS AND OUTPUTS

ASI Connectors per chassis: Up to 8 bidirectional (standard)
Up to 8 additional inputs or outputs (optional)

Connector: BNC
Impedance: 75Ω
Packet format: Auto detect 188/204 byte
Bitrate: 500 Kbps to 213 Mbps
Syntax: SPTS or MPTS
Stuffing Mode: Supports both byte and packet mode

IP INPUTS AND OUTPUTS

Number of Ports: Up to 4 GbE ports (2 per platform)
Connector Type: RJ45 10/100/1000 - Auto Negotiate
Bitrate: 500 Kbps to 640 Mbps
Addressing: Unicast and Multicast
IP Encapsulation: 1 to 7 TS packets per IP packet
Input Format: UDP
IGMP compatibility: Version 1, 2 & 3

TRANSPORT STREAM PROCESSING

TS Processing: PID filtering and remapping capabilities
Built-in PSI viewer
Detailed bitrate measurement of incoming services

Ancillary Stream Pass-through: AFD
DVB Subtitles
DVB VBI Data (EN301775)
North American VBI (SCTE 127)
Closed Captioning (EIA 708)
Teletex
SCTE35

TRANSCODER

Multi-format MPEG2/H.264 integrated Decoder/Encoder

Profiles:
H.264 up to HP @ L4.1
MPEG2 up to MP @ HL

Native Video Formats:
1920 x 1080, interlaced @ 25 Hz, 29.97 Hz, and 30 Hz
1920 x 1080, progressive @ 23.97 Hz, 24 Hz, 25 Hz, 29.97 Hz, and 30 Hz
1440 x 1080, interlaced @ 29.97 Hz
1280 x 720, progressive @ 50 Hz, 59.94 Hz, and 60 Hz
720 x 480, interlaced @ 29.97 Hz
720 x 576, interlaced @ 29.97 Hz
704 x 480, interlaced @ 29.97 Hz
640 x 480, interlaced @ 29.97 Hz
528 x 480, interlaced @ 29.97 Hz
480 x 480, interlaced @ 29.97 Hz
352 x 480, interlaced @ 29.97 Hz

Audio Services: Up to 4 per transcode

Audio Pass Through:
Dolby Digital (AC-3)
AAC audio ADTS + LOAS
Dolby Digital Plus (EAC-3)
MPEG1/2 audio layers 1 & 2

Video Processing: Scene detection
Fade detection
De-blocking filter
Skin tone detection

Video bitrate: 500 Kbps to 40 Mbps
Video Output: CBR or capped VBR

MANAGEMENT

Connector: RJ-45 10/100 - Auto Negotiate
Protocols: HTTP and SNMP
User Interface: Embedded HTML user interface

DIMENSIONS/POWER

Height: 1 RU, 1.75" (5cm)
Width: 17.4" (44.2 cm)
Depth: 23" (58 cm)
Power: 100-240 VAC 50/60 Hz @ 3 Amps

ENVIRONMENTAL CONDITIONS

Operating Temp: 0° to 45°C
Storage Temp: -40°C to 65°C
Relative Operating Humidity: <95% (non-condensing)