

ATSC 3.0 to TS Multi-Channel Transcoder

TXS 3800



With the new ATSC 3.0 broadcast standard breaking compatibility with traditional broadcast transport streams, the need to convert these signals to support retransmission on existing cable, IPTV and satellite systems is set to grow rapidly.

Sencore's TXS 3800 is a robust and reliable multi-channel ATSC 3.0 to Transport Stream transcoder that is ideally suited to help MVPDs convert ATSC 3.0 to the formats and video/audio CODECs they need for their existing distribution systems. The TXS 3800 also supports descrambling ATSC 3.0 DRM (A3SA) with an add-on license.

The TXS 3800 includes both a multi-tuner ATSC 1.0/3.0 RF input for receiving directly off-air or an IP input for receiving streams from an external demodulator. Two transcoding modes are available: Full Transcode converts HEVC video and AC-4 audio to compatible CODECs such as H.264/MPEG-2 and AC-3; Passthrough Transcode preserves native HEVC video and AC-4 audio unchanged while still transcoding captions from TTML to 608/708 and packaging the output as an SPTS. The powerful transcoder in the TXS 3800 can handle up to 4 Full Transcode services, up to 20 Passthrough Transcode services, or a flexible mix of both to match your operational needs..

For operators deploying in markets still on ATSC 1.0, the TXS 3800 can be licensed to demodulate ATSC 1.0 RF signals and output them directly as IP multicasts—making it easy to start with ATSC 1.0 demodulation today and transition to ATSC 3.0 transcoding when market conditions require.

All configuration is done via the intuitive web GUI or through SNMP or web services API.

APPLICATIONS

ATSC 3.0 Retransmission

Receiving RF or IP ATSC 3.0 signals and converting them to stream formats necessary for retransmission on existing cable, IPTV and satellite distribution systems.

ATSC 3.0 Full Transcoding

Converting HEVC video and AC-4 audio in ATSC 3.0 streams to other formats such as H.264/MPEG-2 video and AC-3, AAC and MPEG audio.

ATSC 3.0 Passthrough Transcoding

Passing HEVC video and AC-4 audio through unmodified from an ATSC 3.0 source while transcoding captions (TTML to 708/608) and packaging the output as an SPTS — reducing processing overhead for operators who don't need codec conversion.

ATSC 1.0 Demodulation

Receiving ATSC 1.0 RF signals, demodulating the full transport stream, and outputting to IP multicasts — enabling a single platform to serve markets at different stages of ATSC 3.0 adoption, with easy switchover to ATSC 3.0 transcoding mode without replacing hardware.

ATSC 3.0 Descrambling

Descramble ATSC 3.0 for professional and authorized reuse applications.

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SPECIFICATIONS

INPUTS

Input Type: ATSC 3.0/1.0 via RF; ATSC 3.0 via IP
 RF Connector Type: 75ohm F Connector
 RF Frequency Range: 42 to 870 MHz
 RF Sensitivity: -20 to 30 dBmV
 RF Input Mode: ATSC 3.0 (default) or ATSC 1.0 (requires TXS 38004 license); switchable per port without reboot
 RJ45 10/100/1000
 IP Connector Type: RJ45 10/100/1000
 IP Input Streams: Up to 2 Receives per Transcoder
 Container Formats: MPEG-DASH via ROUTE

DESCRAMBLING

Supported Encryption System: A3SA with Widevine (requires TXS 38002 license)
 Max Descrambled Streams: Up to 12

TRANSCODER

Input Video CODECs: HEVC/H.265, H.264
 Input Video Resolution: Up to UHD
 Input Audio CODECs: AC-4, AC-3, AAC or MPEG
 Transcode Modes: Full Transcode (HEVC/AC-4 to H.264/MPEG-2/AC-3/AAC/MPEG-Audio, captions transcoded)
 Passthrough Transcode (HEVC/AC-4 passed through, captions transcoded)
 Video Transcode Capacity: Full Transcode - Up to 4 Services/Programs
 Passthrough Transcode - Up to 20 Services/Programs
 Audio Transcode Capacity: 2 Audio Services per Video Service
 Closed Caption Transcode: 1 Caption Service per Video Service
 Output Video CODECs: H.264 or MPEG-2
 Output Video: Resolution Up to UHD
 Output Audio CODECs: AC-3, AAC or MPEG

IP OUTPUT

Connector Type: RJ45 10/100/1000
 Output Streams: Up to 2 Transmits per Service
 Stream Format: MPEG Transport Stream via SMPTE 2022-2
 Addressing: Unicast or Multicast

ATSC 1.0 DEMODULATION

RF Input Mode: ATSC 1.0 (requires TXS 38004 license)
 Demod Output: Full Transport Stream
 IP Outputs per RF Port: 2 IP Unicasts or Multicasts
 Max ATSC 1.0 RF Ports: Up to 12

MANAGEMENT

Connector: RJ45 10/100/1000
 User Interface: Web GUI
 Automation Interfaces: SNMP Status/Control/Traps
 REST Web-Services API

PHYSICAL

Chassis Size: 1RU, Rackmount
 Power Supply: Dual, Redundant, Hot- Swappable
 100-240V, 50-60Hz

ORDERING INFO

TXS 3800	ATSC 3.0 Transcoder Base License
TXS 38001	ATSC 3.0 Full Transcoding License - 1 Service
TXS 38002	ATSC 3.0 Descrambling License
TXS 38003	ATSC 3.0 Passthrough Transcoding License - 1 Service
TXS 38004	ATSC 1.0 Demod License
TXS 38020	ATSC 3.0 RF Single-Tuner Input Card
TXS 38021	ATSC 3.0 RF 12-Tuner Input Card
TXS 38025	2x RJ45 Add-on Network Card
TXS 38026	2x SFP Add-on Network Card
TXS 38041	1RU Chassis for 1-2 Transcodes
TXS 38042	1RU Chassis for 3-4 Transcodes



Provided by: Mega Hertz | 800-883-8839 | info@go2mhz.com | www.go2mhz.com

<https://www.go2mhz.com/product/atsc-3-0-to-ts-multi-channel-transcoder/>