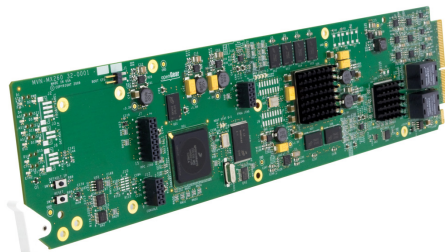




# 9990-TRX-MPEG » MULTI-STANDARD BROADCAST TRANSCODER

## OPTIONS

+XC2HD - Adds two transcoding licenses



The 9990-TRX-MPEG is a full-featured quad-channel video transcoder using the latest advances in video compression technology to ensure excellent video quality at low bit rates.

The 9990-TRX-MPEG is a full-featured quad-channel video transcoder that delivers up to 40 individual HD/SD channels. The latest advances in video compression technology ensure excellent video quality at low bit rates. Simultaneous support of DVB-ASI, broadcast over IP, MPEG-DASH Streaming, and HTTP Live Streaming allows content to be freely distributed over virtually any video network.

The 9990-TRX-MPEG provides transcoding of two video services (channels) using either MPEG-2 or MPEG-4 AVC codecs in SD format and the output of MPEG-1 Layer II services. The single program can be outputted over ASI and IP interfaces individually or simultaneously. License options allow easy scalability via easy to install software uploads without removing or powering-down the card.

The openGear® card form factor and DashBoard™ remote control makes for easy integration into existing terminal equipment environments.

## » FEATURES

Dual-channel multi-standard HD/SD transcoding standard – scalable for additional transcoding using software licenses as simple downloads

Supports MPEG-1 Layer II, AAC, and Dolby® AC-3 audio inputs

Full, future-proof “any-to-any” multi-standard codec support – adapts services from both MPEG-2 and MPEG-4 AVC systems

Low-power, high-density design; <14 Watts – up to 10 cards per frame

IP transmission using unicast or multicast

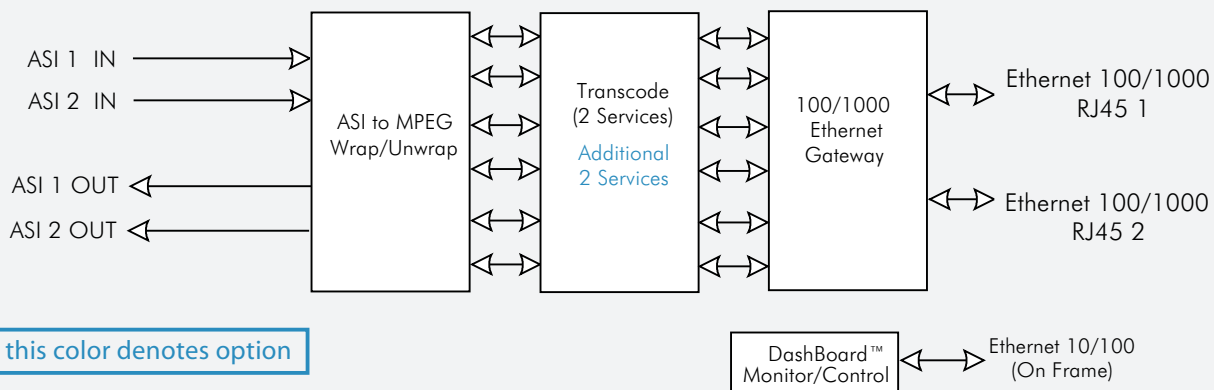
Gigabit Ethernet and DVB-ASI input/outputs

Audio pass-through

VBI and closed-captioning pass-through

Easy integration and control/monitoring via DashBoard remote control

Five year warranty





## 9990-TRX-MPEG » MULTI-STANDARD BROADCAST TRANSCODER

### » SPECIFICATIONS

#### Power

14 Watts

#### Inputs/Outputs

2x 100/1000Base-T RJ-45 ports, auto-negotiate or fixed speed

2x DVB-ASI input ports, BNC 75Ω

2x DVB-ASI output ports, BNC 75 Ω

213Mbit/s maximum ASI TS bit-rate per port

#### Ethernet

Number of Ports: 4

Cable Type: Standard straight-thru CAT-5e

Connector Type: RJ-45

#### Network Transport Protocols

UDP/IP (Unicast and Multicast)

RTP/IP (Unicast and Multicast)

RTMP (Flash)

HTTP Live Streaming (HLS): populates an external web server through FTP or SFTP

Direct HTTP Streaming: encodes directly to an HTTP connection. Automatically generates web pages with a video window for all supported modes (VLC plug in required)

#### Transcode Modes

Multi-codec capable

MPEG-2 to MPEG-4 AVC

MPEG-4 AVC to MPEG-2

SD/HD MPEG-2 to MPEG-2 and AVC to AVC re-encode

- format conversion

rate reduction

#### Video Processing

Integrated downconversion

- HD to SD

- Sub-SD resolutions

Adaptive deinterlacer

Frame rate reduction

AFD handling

Closed captions and VBI passthrough

#### Video Transcoding

Input:

MPEG-4 AVC HP@L4.0, HP@L4.2 (HD)

MPEG-4 AVC MP@L3.0 (SD)

MPEG-2 HP@HL (HD)

MPEG-2 MP@ML (SD)

Output:

MPEG-4 AVC HP@L4.0, HP@L4.2 (HD)

MPEG-4 AVC MP@L3.0 (SD)

MPEG-2 HP@HL (HD)

MPEG-2 MP@ML (SD)

CBR & VBR

1.5Mbps to 10 Mbps (profile dependent)

#### Video Formats

Input:

1080 x 1920p 60/50

1080 x 1920/1440i 25 29.97/30

720 x 1280/960 50/59.94

960 x 540 25/29.97

480 x 720/704/640/528 29.97

576 x 720/704/640/528 25

640x480, 480x270, 320x240, 320x180

Output:

1080 x 1920p 60/50

1080 x 1920/1440i 25 29.97/30

720 x 1280/960 50/59.94

960 x 540 25/29.97

480 x 720/704/640/528 29.97

576 x 720/704/640/528 25

640x480, 480x270, 320x240, 320x180

29.97, 25, 15, 12.5, 7.5, 6.25 frames/sec

#### Audio Transcoding

Input:

MPEG-1 layer II stereo

MPEG-4 AAC-LC stereo and 5.1

MPEG-4 HE-AAC 5.1

Dolby AC-3 stereo, 5.1, 7.1

Output:

MPEG-1 layer II

MPEG-4 AAC-LC

Pass-through

Conversion:

5.1 -> 5.1, 2.0

#### Management

10/100/1000Base-T Ethernet (RJ-45)

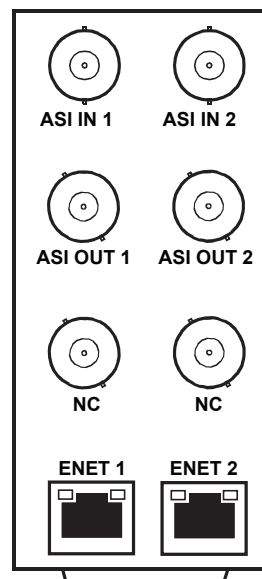
Configuration import/export

Visual fault indicator

SNMP v1,v2

Datasafe™ automated card configuration

Accurate bit rate control



**RM20-9990-B**

### » ORDERING INFORMATION

**9990-TRX-MPEG** Multi-Standard Broadcast Transcoder

**+TRX2** Add Transcoding License. Adds transcoding for two additional services

**RM20-9990TRX-B** 20-Slot Frame Rear I/O Module (Standard Width) 2 ASI Input BNCs, 2 ASI Output BNCs, 2 Gigabit Transport Ethernet ports