

# BBG-1090-TRX-MPEG • Multi-Standard Standalone Broadcast Transcoder



BBG4000

The BBG-1090-TRX-MPEG provides a compact form-factor standalone offering a powerful transcoding solution combining IPTV, professional broadcast, enterprise video delivery, and streaming video environments, making it ideally suited for content repurposing, edge transcoding, and video distribution network bandwidth optimization.

The BBG-1090-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. 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 BBG-1090-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 device. DashBoard™ remote control allows easy centralized control and monitoring access.

## 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

Compact self-contained form with built-in AC power supply

IP transmission using unicast or multicast

Gigabit Ethernet and DVB-ASI input/outputs

Audio pass-through

VBI and closed-captioning pass-through

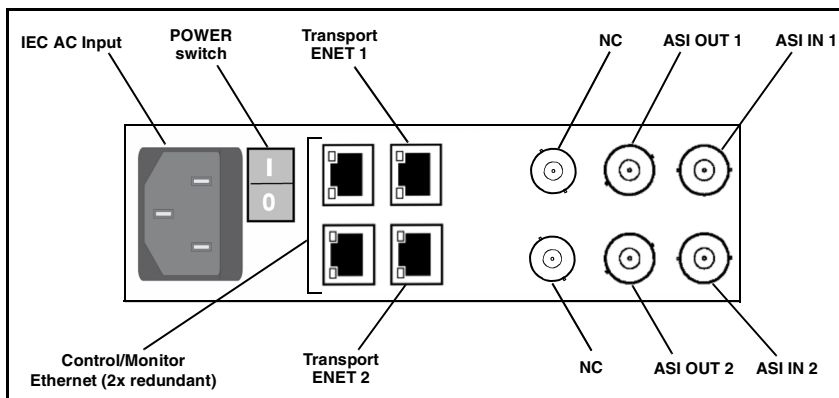
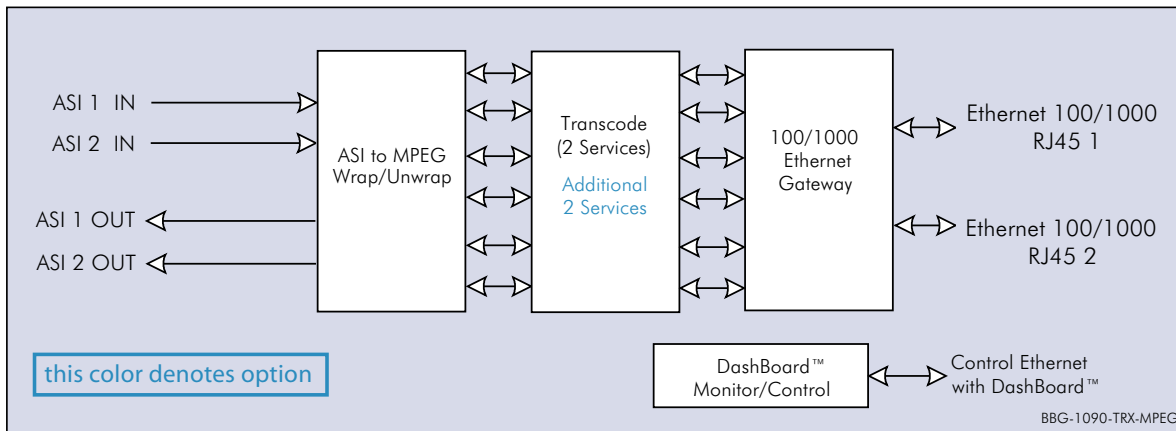
Easy integration and control/monitoring via DashBoard remote control

Five year warranty

## OPTIONS

+XC2HD-SA - Adds two transcoding licenses

+TRXDEEC-SA - Adds Dolby® decoding license (per video service (channel))



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## SPECIFICATIONS

### Power

100-250 VAC, 47-63 Hz, 15W

### 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 75Ω  
 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 pass-thru

### 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)

### Video Transcoding (cont.)

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

## ORDERING INFORMATION

**BBG-1090-TRX-MPEG** Multi-Standard Standalone Broadcast Transcoder

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

**+TRXDDEC-SA** Dolby® decoding license (per video service (channel))

**TRAY** 1 RU Rack Mount Tray (supports up to 3 modular chassis units)