AVE-1HD-RM

Video & Audio Encoder over IP for HDTV Broadcast and IPTV Distribution

DATASHEET | CATV / RF DISTRIBUTION

Features

- Realtime HDTV video / audio compression
- Compact, low-power 1RU design
- Video inputs: HDMI, HD-SDI, SD-SDI, Component & Composite
- Fully compliant with H.264 / MPEG-4/AVC encoding standards
- Supports H.264 High Profile @ Level 4.0
- Resolutions upto 1920 x 1080 @ 60i/50i
- Realtime MPEG-1 Layer II audio encoding
- Supports HDTV input format SMTPE-274M/ SMPTE-296M-2001, ITU-R BT.656
- Supports TCP/IP UDP protocol
- Up to 2 ASI output
- Supports MPEG-4/AVC HD & SD
- Supports SI(SDT) & Edit function
- HDCP Compliance

Applications

- IPTV Broadcast Systems
- HDTV Headend Conversion
- MDU Video Distribution
- Digital Signage & Kiosk Displays

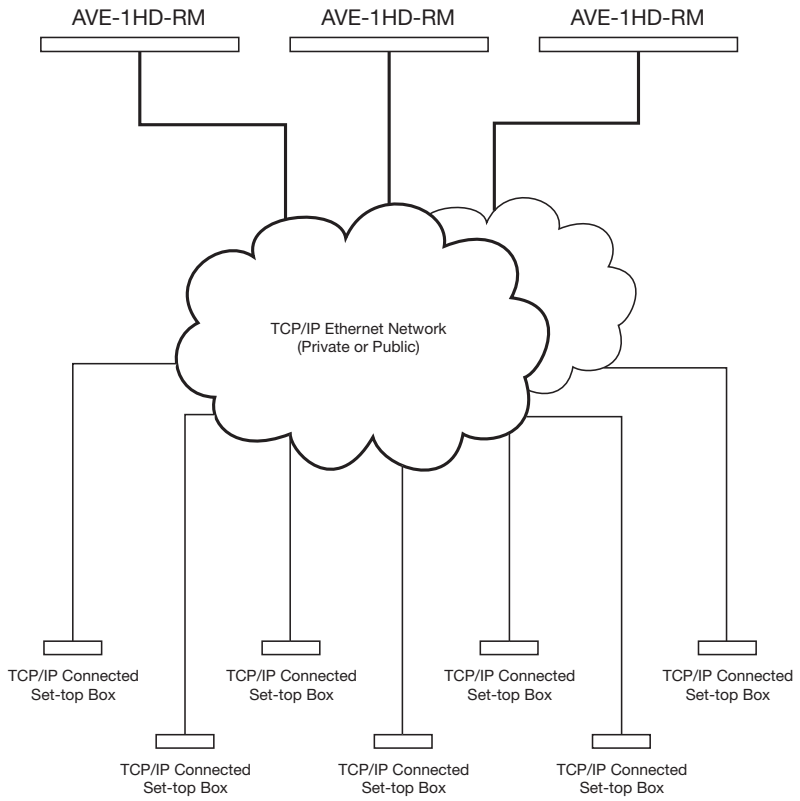
High-Definition H.264 Video/Audio Encoding

Emcore's AVE-1HD-RM is a professional grade video/audio encoding solution that simplifies the process of encoding video/audio streams into multiple formats for distribution. Utilizing the newest MPEG-4/AVC compression technology, the system can output a visually stunning video stream with clear, crisp audio. Perfect for large video distribution hubs, this 1RU product can convert HDMI, HD-SDI, SD-SDI & Component (RGB) video sources and rapidly convert them for the most demanding Broadcast or IPTV applications.

System Design

Enclosed in a ruggedized aluminum housing, the AVE-1HD-RM is perfectly suited towards applications that are space contrained and require equipment with lower power consumption and heat output. The front faceplate has manual push-button controls for local configurations, as well as a remote software interface for running the entire system from a remote TCP/IP connected control room.

Application Diagram



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P 626 293 3400 E video-sales@emcore.com W www.emcore.com/opticomm

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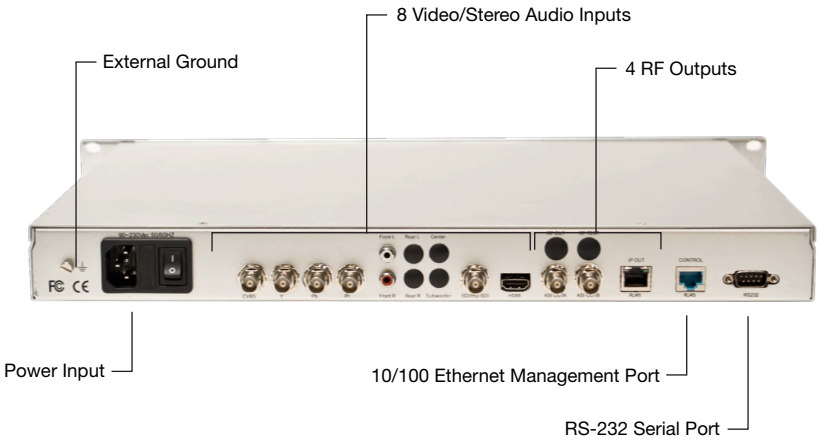
Ordering Information

Model	Description
AVE-1HD-RM	High Definition H.264 MPEG-4/AVC Video/Audio Encoder, 1RU Rackmount

Connection Diagram



Compliance

Inputs

Specifications	Values
Video	Composite, HD-SDI, SD-SDI, yPbPr, HDMI
Audio	Analog Audio Front Left/Right, Rear Left/Right, Center, Subwoofer

Video Encoding

Specifications	Values
Compression	H.264 MPEG-4/AVC High Profile @ Level 4.0
Resolutions	1920 x 1080 @ 60i50i 1440 x 1080 @ 60i/50i 1280 x 720 @ 60p/50p 720 x 480 @ 60i 720 x 576 @ 50i
Bit Rate	4 to 20 Mbps

Audio Encoding

Specifications	Values
Compression	MPEG-1 Layer II Dolby Digital AC3 (Optional) MPEG-2 AAC (Optional)
Sampling	48 kHz
Channel	2 Mono / 1 Stereo

Outputs

Specifications	Values
ASI	TS, 2 ports, BNC
TCP/IP	TS over IP, 1 Gb Ethernet

Management

Specifications	Values
Front Panel	Configuration / Alarm Messages (2x20 character LCD display)
Remote	Remote management client software for full control & system diagnostics

Physical Characteristics

Specifications	Values
Input Power	100~240 VAC
Power Consumption	20 Watts
Weight	~5.3 lbs (~2.4 kg)
Dimensions	19" (48.3 cm) W x 13.98" (35.5 cm) D x 1.69" (4.3 cm) H
Operating Temperature	0 - 45° C
Operating Humidity	10% - 80% Relative Humidity
Storage Temperature	-5 to 50° C
Storage Humidity	0% - 90% (non-condensing)

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