

Multi-Format AVC Receiver Encoder

MRE2000 Series



FRONT PANEL DETAIL



BACK PANEL DETAIL

OVERVIEW

The MRE2000 Series integrates a multi-purpose receiver with the power of real-time MPEG-4 AVC HD or SD encoder, to provide video services at the lowest bit rates.

In addition to supporting baseband video, the MRE2000 series offers support for analog off-air, digital terrestrial and direct MPEG-2 inputs. The MRE2000 Series compact form factor offers to revolutionize headend architectures, reducing box count, simplifying signal routing and redundancy support.

This IP centric platform delivers flexibility, value and exceptional video quality from its advanced multi-pass encoding system. The rich feature set includes support for statistical multiplexing over an IP infrastructure plus Constrained Fidelity CBR, a capped VBR mode for IPTV environments. Additionally, the platform also offers a low resolution proxy output stream for program guide or monitoring applications.

NTSC feeds benefit from advanced features such as ghost cancellation and audio level control.

This Linux based platform also offers an ASI option and is ideal for both IPTV and satellite applications.

KEY ADVANTAGES

Real-time HD or SD AVC

Input flexibility

- RF - ATSC and NTSC
- MPEG-2 TS
- SDI/HD-SDI

Ghost Cancellation

Audio level control

Exceptional video quality

Low resolution proxy

CBR, CF-CBR™ and StatmuxIP™

Ad-insertion support

Web browser interface

Low power 1RU chassis

SEE REVERSE SIDE FOR SPECIFICATIONS

ABOUT MODULUS VIDEO

Modulus Video's MPEG-4 AVC video encoders deliver the efficient use of bandwidth and outstanding standard and high definition television services behind today's most compelling IPTV operations.



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□ MPEG-4 AVC ENCODER FEATURES

Multi-pass encoding

Motion estimation:

- Supports P, B & ref B pictures
- 16x16, 8x8 Block sizes
- 1/4 Pixel motion estimation
- Field and frame support
- Weighted prediction
- Intra 4/16 estimation modes
- Selectable GOP structure

Rate control:

- CBR
- CF-CBR (capped VBR)
- VBR - StatmuxIP option

CABAC Entropy coding

De-blocking filter

MCTF SD Noise reduction

Ghost cancellation for NTSC feeds

Encoding Latency - 2.5 seconds

□ MPEG-4 AVC VIDEO PROCESSING

HD - Main Profile@ Level 4

SD - Main Profile@ Level 3

Output formats:

- 1080i x 1920/1440/1280
- 720p x 1280/960
- 525i x 720/704/544/528/480/352
- 625i x 720/704/544/528/480/352

Low resolution proxy (PIP):

- 200-500 Kbps
- Resolution 128x96

□ AUDIO PROCESSING

MPEG-1 LII (4 stereo pairs)

AAC-HE (v2) (4 stereo pairs)

Dolby Digital 2.0 (optional)

Dolby Digital Pass Through

BTSC Stereo extraction for NTSC RF

SAP Audio extraction for NTSC RF

□ COMPRESSED STREAM OUTPUT

MPEG-2 TS over UDP/IP

Ethernet:

- 4 Configurable ports
- 3 x GigE
- 1 x 10/100
- Connectors; RJ45

IP Output:

- Unicast or Multicast
- Proxy on separate SPTS

Ad insertion:

- SCTE 35 splice points
- SCTE 104 input

Optional ASI output

□ DIGITAL VIDEO INPUT

HD-SDI per SMPTE-292M

SD-SDI per SMPTE-259M

Input formats and frame rates:

- 1080i @ 30/29.97/25
- 720p @ 60/59.94/50
- 525i @ 29.97
- 625i @ 25

Connector: 75Ω BNC plus loop through

□ RECEIVER INPUT

RF NTSC/ATSC

Compressed - MPEG-2 UDP/IP

□ DIGITAL AUDIO INPUT

Embedded audio per SMPTE-272/299

Dual 75Ω BNC AES3 Digital audio

□ ANCILLARY SIGNAL SUPPORT

VANC EIA708CC (HD)

EIA608CC and XDS (SD)

Teletext (625 SD)

□ PLATFORM CONTROL & STATUS

HTTP Browser interface

SNMPv2 for Integrated facility management

LINUX Operating system

□ PHYSICAL

Width: 18.9" (480mm)

Depth: 15.5" (394mm)

Height: 1RU, 1.75" (50mm)

Weight: 14lb (6.4KG)

Power: 115-230V auto sensing

Power consumption: 80 Watts

Cooling airflow: front to rear

Temperature: to 40C

□ COMPLIANCE & SAFETY

FCC, TUV, UL, RoHS

□ ORDERING

Platforms:

- MRE2600 - HD and SD
- MRE2600A - HD and SD & ASI out
- MRE2620 - HD and SD with RF input
- MRE2100 - SD with HD upgrade option
- MRE2100A - SD with HD option & ASI out
- MRE2120 - SD with RF input

Software options:

- ME2000 - DD2: Dolby Digital 2.0 (2 pairs)
- ME2100 - HDU: HD upgrade
- ME2000 - SDVBR: StatmuxIP
- ME2000 - HDVBR: StatmuxIP



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