

DiviCom® Encoder MV 30

Product Description

The DiviCom® family of broadcast quality video encoders from Harmonic features a compact one rack unit design, full MPEG-2 compliance, excellent picture quality, NMX Digital Services Manager™ support and the endorsement of major broadband service providers worldwide. The product line offers the efficiency, features and performance to address the needs of every service provider.

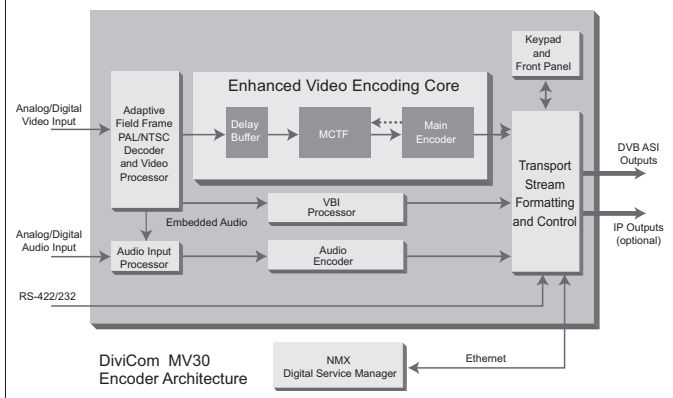
The MV 30 encoder runs custom Harmonic algorithms that maximize efficiency on application-specific compression silicon. The MV 30 features Motion Compensated Temporal Filtering (MCTF). This technique, pioneered by Harmonic, makes video easier to compress at low bit-rates by removing random noise while still maintaining picture sharpness. The MV 30 also adds SCTE 35 standard triggers for Digital Program Insertion (DPI) applications.

The MV 30 encoder has a rich complement of audio and VBI support features plus low delay mode for interview situations and software selectable 4:2:0 and 4:2:2 modes for maximum flexibility. The MV 30 is integrated with Harmonic's NMX Digital Services Manager™ that adds a full range of configuration, monitoring and redundancy capability.

Because the MV 30 encoder complies with MPEG-2 and DVB industry standards, it meets a wide range of cable, terrestrial and satellite distribution and contribution requirements. Either as a single encoder or in a multi-channel network, the MV 30 encoder offers exceptional technical performance and flexibility. The MV 30 encoder can also run in standalone mode, alleviating the need for external network management. Standalone encoders arrive pre-configured for specific applications and are ready to use right out of the box.

With the industry going towards an all IP infrastructure, the MV 30 provides a Fast Ethernet (FE) dual or redundant IP output. The FE IP output provides many benefits such as flexible routing and the ability of locating encoders remotely without geographic limitation. The IP output parameters can be easily configured through NMX or through the front panel in standalone mode. IP output is a hardware option that can be pre-configured to suit the customer's network.

Standard Configuration



Based on the industry's most widely implemented standards, Harmonic broadcast systems are easy to expand and upgrade. With over 17,000 encoders shipped worldwide, Harmonic has a proven reputation for outstanding performance and superior service.

Features

- One Composite and one SDI Video inputs
- Two pairs Analog and AES/EBU Audio inputs
- MPEG1-LII and Dolby Digital™ (AC-3) audio encoding
- Single PID Per Channel (SPPC) Audio programming
- Dolby E pass-through capability
- Video Noise Reduction with Motion compensated temporal filtering (MCTF)
- Comprehensive Closed Caption support
- Comprehensive VBI support
- Network Management using NMX Digital Services Manager
- Standalone operation using Front Panel
- Low delay encoding for interviews
- Software selectable 4:2:0/4:2:2 capability
- 100% DVB compliant
- Single rack unit chassis

Optional Features

- 100BaseT IP Output
- Four additional audio pairs
- SCTE 35 DPI triggering ready

System Management

Harmonic NMX Digital Services Manager

Software upgrade via Ethernet

Physical

Dimension 1.75" H x 19" W x 24" D
4.45 cm H x 48.26 cm W x 61 cm D

Weight 22 lbs./10 kg

Power

Input Voltage Range 85-132 VAC or 170-264 VAC
(48 VDC option)

Line Frequency 47–63 Hz

Typical Consumption 110 W

Environmental

Cooling Dual fans; air flow front to side

Operating Temperature 32° to 122° F/0° to 50° C

Storage Temperature –4° to 176° F/–20° to 80° C

Operating Humidity < 95% non-condensing

Electro-Magnetic Compliance FCC Part 15 Class A, EN 55022
Class A, EN 50082-1:1997,
CE mark (89/336/EEC)

Safety UL/cUL 1950, EN 60950,
CE mark (73/23/EEC)

Video Specifications

Input Formats Serial digital component or analog
composite

Digitizing Resolution 10 bits A/D

SNR > 52 dB rms

Frequency Response > –0.3 dB at 4.2 MHz
> –0.5 dB at 5.5 MHz

Differential Gain ± 1.5%

Video Input Filtering Motion compensated temporal filtering,
Horizontal low-pass filtering
Temporal low-pass filtering

Aspect Ratios 4:3 and 16:9

Repeat Field Detection On/Off

Vertical Resolutions 576, 288 (PAL), 480, 240 (NTSC)

Horizontal Resolutions 720, 704, 640, 544, 528, 480, 352

Encoding Rate 4:2:0 0.5 to 15 Mbps
4:2:2 1.5 to 50 Mbps

Flexible GOP Structures Dual B-frame support and
adaptive I-frame insertion

VBI Support WINK; NABTS; WST (Teletext);
WSS; VPS; AFD

Closed Captioning

ATSC Line 21 CC (EIA-608); XDS;
DTVCC (External EIA-708);
DiviCom Line 21 CC; DVS-157 (GI)
CC; ITU-R B0.1294 CC; SAUD CC;
DMV1 CC; DVS-157 + SAUD CC

Audio Specifications

All MV 30 Audio is based on Advanced Audio Adapter (AAA)
Architecture

Number of Channels 2, 4 or 6 stereo pairs

Input Formats Digital (AES3/EBU or S/PDIF) or
Analog (balanced/unbalanced)

Audio Formats MPEG audio Layer II and Dolby
Digital (AC-3): 2 Ch. encoding or
2/5.1 Ch. pass-through
Dolby E pass-through

Analog Digitizing Resolution 24 bits

Analog Input Level Adjustment 0 to +20 dBV in 0.5 dBV steps

Operating Modes Mono, dual channel, stereo, joint
stereo

Encoding Bit Rate MPEG audio Layer II - 56 to 384 kbps
Dolby Digital (AC-3) - 56 to 448 kbps

Sampling Frequencies 32 kHz, 44.1 kHz, 48 kHz

THD + Noise < 0.05% at 1 kHz with 48 kHz
sampling

Frequency Response < 3 dB 20 Hz to 20 kHz

Ordering Options

MV 30CBR (Two stereo pairs)

MV 30CBR-C: MV 30CBR w/one AAA (Four stereo pairs)

MV 30CBR-CC: MV 30CBR w/two AAAs (Six stereo pairs)

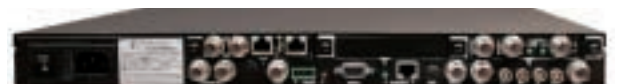
MV 30CBR-IP: MV 30CBR w/IP output option

MV 30CBR-CIP: MV 30CBR w/one AAA
(Four stereo pairs) and IP output option

MV 30CBR-D: MV 30CBR with DPI option

MV 30CBR-CD: MV 30CBR w/one AAA
(Four stereo pairs) and DPI option

MV 30CBR-DIP: MV 30CBR w/DPI option and IP output option



All product and application features and specifications are subject to change at Harmonic's sole discretion at any time and without notice.



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08/03