**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 Service 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 50 offers a powerful combination of MPEG-2 compression, features, and proven reliability. The MV50 encoder has a number of features, filters, and intelligent controls to consistently deliver the highest quality video in applications such as satellite and xDSL where bandwidth efficiency matters most.

The MV 50 encoder extends the use of LookAhead technology to predict video complexity and apply filter control. The LookAhead capability is key to DiviTackXE™, Harmonic’s market-leading statistical multiplexing system. New DiviTackXE features include support for up to 24 encoders in a stat mux pool with individual channel priority control.

The MV 50 encoder features ENRGY™ integrated noise reduction that enhances proven techniques like Motion Compensated Temporal Filtering (MCTF) and border processing, and adds unique, new filters. These include impulse noise reduction, edge adaptive texture filtering, non-linear spatial filtering and noise level estimation, resulting in exceptional picture quality at lower bit rates.

The MV 50 encoder also supports very low bit rate, last-mile applications.

The MV 50 encoder features a number of audio options, enhanced VBI support, and is integrated with the Harmonic suite of network management tools.

Based on the industry's most widely implemented standards, Harmonic broadcast systems are easy to expand and upgrade.

**Features**

- Dual-pass LookAhead CBR/VBR encoding
- Analog and digital audio/video inputs
- ENRGY integrated noise reduction
- Motion compensated temporal filtering
- Non-linear spatial filtering
- Impulse noise reduction
- Edge adaptive texture filtering
- Noise level estimation
- Border processing
- DiviTackXE: Intelligent Priority Control
- MPEG-LII and Dolby Digital™ (AC-3) audio encoding
- Up to six stereo/twelve mono audio pairs
- NMX Digital Service Manager support
- Single rack unit chassis

With over 17,000 encoders shipped worldwide, Harmonic has a proven reputation for outstanding performance and superior service.
System Management
- Front Panel Support
- NMX Digital Service Manager
- Software upgrade via Ethernet

Physical
- Dimension: 1.75" H x 19" W x 24" D
  44.5 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
- 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: Impulse noise reduction, motion compensated temporal filter, edge adaptive texture filter, non-linear spatial filter, noise level estimation
- Aspect Ratios: 4:3 and 16:9
- Repeat Field Detection: On/off
- Vertical Resolutions: 576 (PAL), 480 (NTSC)
- Horizontal Resolutions: 720, 704, 640, 544, 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

Audio Specifications
- All MV 50 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
- 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 50CBR (Two stereo pairs)
- MV 50CBR-C: MV 50CBR w/one AAA (Four stereo pairs)
- MV 50CBR-CC: MV 50CBR w/two AAAs (Six stereo pairs)
- MV 50VBR (Two stereo pairs)
- MV 50VBR-C: MV 50VBR w/one AAA (Four stereo pairs)

VBI Support
- WINK; NABTS; WST (Teletext); WSS; VPS; AFD
- Closed Captioning
  - ATSC Line 21 CC (EIA-608); XDS; DTVC (External EIA-708);
  - DivCom Line 21 CC; DVS-157 CC; ITU-R B.1294 CC; SAUD CC;
  - DMV1 CC; DVS-157 + SAUD CC

Closed Captioning

Audio Specifications

Video Specifications

Ordering Options

DIVICOM MV 50 ENCODER

DIGITAL VIDEO PRODUCTS

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