

The MVN-EN460 MPEG-4 AVC Encoder is the market leading real time compression solution that delivers unrivalled HD and SD video quality. When combined with the flexible openGear™ platform, the solution provides operators with the most powerful, cost effective architecture in the industry for delivering broadcast and streaming video services.



Business Benefits

Cost Effective

The MVN-EN460 enables operators to take advantage of OPEX savings by running dense, low power open architecture solutions.

Reliable Transmission

Reliable broadcast quality transmission of content over IP networks is achieved through SMPTE 2022 forward error correction and direct processing technologies. This delivers precise packet timing and buffer management, reducing IP jitter and delay.

High Density

The low power, high density, stackable 2RU chassis with dual, front loading hot-swap power supplies, enables up to 20 High Definition or Standard Definition video services to be encoded and streamed simultaneously.

Control & Monitoring

The DashBoard™ Network Control & Monitoring software is a free application designed for remote control & monitoring of the open architecture, openGear™ platform.

For larger deployments where multiple chassis are deployed, the DashBoard™ application may be used for software updates and monitoring.

Application

The MVN-EN460 AVC Encoder is a high performance real-time MPEG-4 SD and HD video encoding solution that is future-proofed by design. Based on the openGear™ architecture the EN460 has been designed to meet the demanding requirements of the IPTV, Telco, professional broadcast, enterprise video delivery, and streaming video markets.

The MVN-EN460 is a feature-rich high performance dual-channel MPEG-4 AVC HD and SD video encoder that delivers up to 20 individual or simulcast HD/SD channels in a completely hot-swappable, stackable, and fault tolerant chassis. Operators can take advantage to deliver multiple High Definition and Standard Definition video services simultaneously with Magenta's unique video encoding design.

Magenta's broadcast encoder is equipped with the latest advances in video compression technology to deliver unsurpassed video quality at ultra low bitrates. State of the art video processing combined with unique Mediastorm encoding technology enables new open system architectures to be created. Simultaneous support of DVB-ASI, broadcast video over IP, and HTTP Live Streaming allows content to be freely distributed over virtually any video network.

Base card Features

MVN-EN460 Base card (MVN-EN460/BAS)

The MVN-EN460 base module fits into any openGear™ chassis and is able to encode one video and one MPEG-1 Layer II audio pair in Standard Definition format. The single program can be output over ASI and IP interfaces individually or on both simultaneously. The flexible design allows for easy expansion of options to expand and deliver HD or multiple SD and HD services on each module

- MPEG-4 AVC Standard Definition encoder
- One MPEG-1 Layer II stereo audio service
- Management and control via openGear™ chassis
- IP transmission using unicast or multicast
- DVB-ASI and IP output
- Support for Dolby AC-3 pass through from SDI Input

Licensable Options

High Definition license (MVN-EN460/HD)

Second SD service (MVN-EN460/SDPLUS)

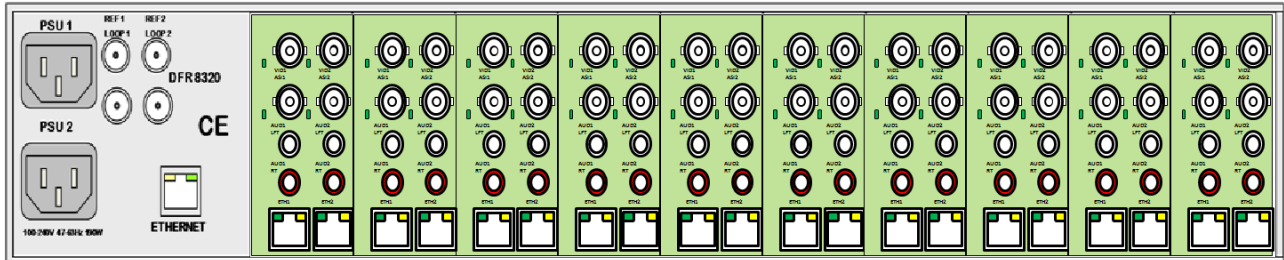
Second HD service (MVN-EN460/HDPLUS)

AAC audio (MVN-EN460/AAC)

SMPTE 2022 FEC (MVN-EN460/FEC)



Rear panel configuration:



Ten MVN-EN460 modules installed in an 2RU DFR-8321 openGear™ 19" chassis

<p>Inputs</p> <p>HD Video</p> <p>3G-SDI (SMPTE 424M) 75 Ohm</p> <p>HD-SDI (SMPTE 292M) 75 Ohm</p> <p>SD Video</p> <p>SD-SDI (SMPTE 259M) 75 Ohm with EDH</p> <p>Composite video (PAL/NTSC) 75 Ohm</p> <p>SD-SDI 625 & 525 line standards</p> <p>Audio</p> <p>Embedded SDI (up to 2 services)</p> <p>Unbalanced Analog (up to 2 services)</p> <p>Dolby Digital AC3 pass through</p>	<p>Video Encoding</p> <p>Dual Channel HD Video</p> <p>MPEG-4 AVC High profile at level 4.2 (HP@L4.2)</p> <p>MPEG-4 AVC High profile at level 4.0 (HP@L4.0)</p> <p>CBR & VBR</p> <p>2Mbps to 30Mbps (depending on profile)</p> <p>Dual channel SD Video</p> <p>MPEG-4 AVC Main profile at level 3.0 (MP@L3.0)</p> <p>CBR & VBR</p> <p>1.5Mbps to 10 Mbps (depending on profile)</p>	<p>Management and Control</p> <p>10/100Base-T Ethernet (RJ-45)</p> <p>Configuration import/export</p> <p>Audible and visual fault warning</p> <p>In-band and out-of-band control</p> <p>SNMP v1,v2</p> <p>Datasafe™ automated card configuration</p> <p>Accurate bit rate control</p> <p>Startup to streaming under 45 Sec</p>
<p>Network Interface</p> <p>2x 100/1000Base-T RJ-45 ports, auto negotiate or fixed speed</p> <p>2x DVB-ASI ports</p> <p>213Mbit/s maximum ASI TS bit-rate per port</p>	<p>Video Resolutions</p> <p>High Definition</p> <p>1080 x 1920p 60/50</p> <p>1080 x 1920/1440i 25/29.97/30</p> <p>720 x 1280/960 50/59.94</p> <p>960 x 540 25/29.97</p> <p>Standard Definition</p> <p>480 x 720/704/640/528 29.97</p> <p>576 x 720/704/640/528 25</p> <p>Lower Resolutions</p> <p>480x270, 320x240, 320x180</p>	<p>Physical & Power</p> <p>Dimensions:</p> <p>2RU (W x D x H) 483 x 400 x 89mm</p> <p>Stackable 19" rack units</p> <p>Front to back Airflow</p> <p>Encoder Card:</p> <p>6 Watts per channel</p> <p>Power Supply:</p> <p>Hot swappable 100-250 VAC 47-63Hz</p> <p>Self cooled 150W max</p> <p>Second hot swappable PSU (optional)</p>
<p>Network Protocols</p> <p>UDP/IP (Unicast and Multicast)</p> <p>RTP/IP (Unicast and Multicast)</p> <p>SMPTE-2022 FEC (Pro-MPEG Cop3), row and column support</p> <p>HTTP Live Streaming (HLS): populates an external web server through FTP or SFTP</p> <p>Direct HTTP Streaming: encodes directly to an HTTP connection</p> <p>Automatically generates web pages with a video window for all supported modes (VLC plug in required)</p>	<p>Audio Encoding</p> <p>MPEG-1 layer II, up to 2 stereo pairs</p> <p>Dolby® Digital AC passthrough</p> <p>MPEG-4 AAC-LC up to 2 pairs</p> <p>Lip sync adjustment</p>	<p>Environmental Conditions</p> <p>Operating Temperature:</p> <p>0°C to 40°C (32°F to 104°F)</p> <p>Operating Humidity:</p> <p>5% to 95% (non-condensing)</p>
	<p>Video Pre-processing</p> <p>Advanced adaptive spatial filtering</p> <p>Closed Captions CEA 608B & CEA-708C</p> <p>WSS/AFD</p>	<p>Compliance</p> <p>CE: CE marked in accordance with 93/68/EEC (22/07/03) Directive</p> <p>UL: UL approval</p> <p>US FCC: Part 15</p> <p>EMC: EN55022, EN55024, EN6100-3-2</p>