



≡ SeaChange® MediaClient™ 5110

High Definition Single Input Encoder

The SeaChange® MediaClient™ 5110 is a very cost-effective single-channel High Definition encoder for 59.94Hz and 50Hz HD Broadcast television systems. Capable of bit rates up to 80Mb/s, this product produces high quality MPEG-2 video encoding multiplexed as MPEG-2 Transport or Program Stream as well as HDV, XDCAM-HD or MXF OP1A. The HD-SDI input is SMPTE 292M compliant and handles up to 8 embedded audio stereo tracks (8 AES pairs).

The MediaClient 5110 HD Encoder is capable of frame-accurate encoding. When driven by broadcast automation timed commands, such as "start on VITC," the resulting ingest file begins and ends on exactly the right frame and ends after the specified duration. Frame-accurate ingest files permit editors to skip the time-consuming, tedious process of trimming the heads and tails of asset files when using 3rd party realtime encoders. All this in an effort to minimize the cost to implementing HD in the modern TV station.

The MediaClient 5110 supports MPEG-2 Main Profile @ High Level and 422 Profile @ High Level. In addition to Constant Bit Rate encoding, the MediaClient 5110 also supports Variable Bit Rate encoding with a powerful scene detection feature that maximizes the video encoding quality by optimizing the GOP structure.

VBI capabilities include capturing up to 6 uncompressed VBI lines, and encoded closed captions (per EIA-708), VITC (per SMPTE RP-188) and Teletext (per ETSI EN 300 472).

In addition to the embedded AES pairs, the MediaClient 5110 also passes Dolby-E and AC-3 audio in any of the 8 embedded pairs. It is housed in a 1RU rack-mount chassis with redundant power supplies.

The SeaChange MediaClient 5110 is one model of the extensive HD/SD SeaChange MediaClient product range. It ideally connects to the SeaChange MediaLibrary storage to form the most scalable, truly IT-centric playout transmission server available today. The resulting solutions provide IT-like simplicity and cost, and offer unmatched fault tolerance.



FEATURES

- Supports MPEG-2 Main Profile @ High Level and 422 Profile @ High Level Encoding Formats
- Supports HDV 1080i and 720p Encoding
- Frame-accurate Encoding
- Scene Change Detection Capability
- Supports XDCAM HD encoding format
- CBR and VBR Encoding Modes
- Space-saving 2RU Rack-mount Chassis
- Standard Redundant Power Supply

BENEFITS

- Complies with MPEG-2 Profiles and Levels
- Streamlines HD Content Workflows with MXF support
- Transitions Existing SeaChange MediaLibrary/MediaClient platform to High Definition
- On-air Operations Protected from Supply or Mains Failures

FUNCTIONAL SPECIFICATIONS

Video Standards	1080i/59.94Hz, 1080i/50Hz, 720p/59.94 and 720p/50Hz*
Video Quantization	Up to 1 bit
Video Codecs	MPEG-2 4:2:0 Profile, up to 8 Mb/s, per ISO/IEC 13818-2 (CBR or VBR) MPEG-2 4:2:2 Profile, up to 80Mb/s, per ISO/IEC 13818-2 (CBR or VBR) HDV 1080i and 720p XDCAM-HD at 18, 25 or 35Mb/s
Audio Sampling Frequency	48 KHz
Audio Quantization	16bit, 20bit or 24bit
Audio Codecs	Up to Eight AES Channels (16 tracks) Uncompressed, per SMPTE 302M and SMPTE 331M (for MXF only) Up to Four AES Pairs MPEG-1, Layer-II Compressed, per ISO/IEC 13818-3 Up to Eight Mixed Compressed and Uncompressed AES Pairs
Vertical Blanking Interval	Up to 6 Lines Uncompressed per Video Frame Close Caption per EIA-708 VITC per SMPTE RP-188 Teletext per ETSI EN 300 472 (uncompressed mode only)
Stream Multiplexes	MPEG-2 Program and Transport Stream MXF OP1A as per SMPTE 378M
Control Protocols	VDCP and Sony BVW-75
Network Protocols	CIFS (Common Internet File System)

OPERATIONAL CAPABILITIES

Record	Frame-accurate triggering from Control Port
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ORDERING INFORMATION

Sales Order Number	
mcl-5110	Frame Accurate High Definition Video Encoder with dual, redundant, hot-swappable power supplies, 2RU chassis, for use with SeaChange MediaLibrary 24000e™
FGA-5001-00	Optional LTC input adapter and cable

I/O SPECIFICATIONS

Video Input	One HD-SDI per SMPTE 292M, 75 Ohm BNC Connector
Audio Input	Up to Eight Embedded AES pairs (16 tracks) per SMPTE 272M
Time Code Input	VITC (HANC/VANC) per SMPTE RP-188 via HD-SDI input
LTC Input	Optional unbalanced, 75 Ohm BNC connector
Control	RS-422 Serial Port, 9-pin Female "D" Connectors
Reference	Analog Black Burst or HD Tri-level Sync, 75 ohm BNC Loop-thru connectors
Network	Dual 1000baseT Ethernet, RJ45 Connectors

HARDWARE SPECIFICATIONS

CPU	Dual Intel 3.0GHz Dual-core Xeon w/ 4MB cache
Memory	4GB, Registered, ECC
Internal Hard Disk	One 60GB SATA Drive
Removable Media	CD-ROM
CHASSIS SPECIFICATIONS	
Size	1RU rackmount, 1.7"H x 16.8"W x 22.6"D (43mm x 246mm x 574mm)
Power Supply	100-240 VAC, 50/60Hz, 6A Redundant, Hot-swappable

*upcoming feature