



SeaChange® MediaClient™ 4004

Standard Definition Four Channel Video Decoder

DESCRIPTION

The SeaChange® MediaClient™ 4004 is a four-channel Standard Definition Video Decoder for 525/59.94Hz and 625/50Hz television systems. It supports back to back playout of MPEG-2, IMX and DV25/50 coded files. MXF OP1A is also natively supported to allow tapeless workflows with productions systems. Output signals are SMPTE -259M SDI compliant with up to 8 embedded AES channel pairs, with compressed support.

Each of the four outputs is a fully-independent decoder that is equipped with an RS-422 automation control port to permit controlled via broadcast automation systems or jog/shuttle boxes. Each MediaClient 4004 is equipped with two Gigabit Ethernet ports, permitting synchronous video packet traffic to be isolated from the asynchronous control and configuration traffic.

The MediaClient 4004 is housed in a 1RU rack-mount enclosure. The high channel density and low cost per channel make the MediaClient 4004 the ideal solution for DTH satellite playout centers, network uplinks and other high density, multi-channel applications.

The SeaChange MediaClient 4004 is one model of the extensive SeaChange MediaClient HD/SD product range. It connects ideally with the rock solid SeaChange MediaLibrary to form the most scalable and innovative Playout server available today. The resulting solutions provide "IT-like" network simplicity, and offer unmatched fault resilience.



MediaLibrary storage elements combine RAID2® technology and distributed architecture to inherently provide protection against storage and server failures. This approach eliminates the need for costly, inefficient mirrored storage arrays, duplicate file copies, redundant video servers and expensive Fibre Channel hardware and licenses.

MediaClient software codec elements are based upon open standards such as CIFS protocols and IP/GigE physical layer. Storage capacity, I/O bandwidth and channel counts can be scaled with plug 'n play ease, without service interruptions.

MediaClient products support legacy and emerging signal formats such as SD, HDTV, etc. and can form the foundation of combined-use solutions supporting collaborative production, disaster recovery, business continuity, web streaming and VOD delivery.

BENEFITS

- Easy and low-cost scalability via IP connections
- High channel density: 4 SD outputs per RU
- MXF compatibility

FUNCTIONAL SPECIFICATIONS

Video Standards	525/59.94Hz and 625/50Hz
Video Quantization	10-bit for MPEG-2 and IMX; 8-bit for DV
Video Codecs	MPEG-2 4:2:0 Profile, up to 15Mb/s, per ISO/IEC 13818-2 (CBR) MPEG-2 4:2:2 Profile, up to 50Mb/s, per ISO/IEC 13818-2 (CBR) IMX30, IMX40, IMX50, per SMPTE 356M and 328M DV25, DV50, per SMPTE 314M DV, per IEC-61834-2
Audio Sampling Frequency	48 KHz
Audio Quantization	16bit, 20bit or 24bit, per applicable Audio Codec specification
Audio Codecs (MPEG Only)	Up to Eight AES Channels (16 tracks) Uncompressed, per SMPTE 302M Up to Four AES channels (8 tracks) MPEG-1, Layer II Compressed, per ISO/IEC 13818-3 Up to Eight Mixed Compressed and Uncompressed AES channels
Audio Codecs (IMX Only)	Four AES channels (8 tracks) Uncompressed, per SMPTE 331M
Audio Codecs (DV Only)	One AES channel (2 tracks) Uncompressed for DV, per IEC-61834-2 One AES channel (2 tracks) Uncompressed for DV25, per SMPTE 314M Two AES channels (4 tracks) Uncompressed for DV50, per SMPTE 314M
Vertical Blanking Interval	16 or 32 lines Compressed per Video Frame for MPEG 32 Lines Compressed per Video Frame for IMX Encoded CC per EIA-608-B and VITC per SMPTE-12 for MPEG and DV Up to 6 lines uncompressed per Video Frame VITC per SMPTE-12M
Audio Pass-through	Supports Pass-through of Any Data Format (16, 20 or 24-bit) per AES Pair, Including Dolby E or AC-3
Stream Multiplexes	MPEG-2 Program Stream and Transport Stream MXF Operational Pattern 1A, per SMPTE 378M Quicktime 7 Self contained (for DV) DV, per SMPTE 314M Quicktime 7 Self contained (for DV)

Control Protocols	VDCP and Sony BVW-75
Network Protocols	CIFS (Common Internet File System)

OPERATIONAL CAPABILITIES

Play	Four independent decoders, frame-accurate triggering from Control Port, Back-to-Back playout of all specified video/audio codecs and stream types, 5 second clip length for continuous back-to-back playout
Jog/Shuttle	-128x to +128x, supports scrub audio

I/O SPECIFICATIONS

Video Output	Two SDI per SMPTE 259M, 75 Ohm BNC Connectors
Audio Output	Up to Eight Embedded AES Pairs (16 tracks) per SDI Output, per SMPTE 272M
TC Output	VITC via VANC and VITC/LTC (HANC) per SMPTE RP188
Control	RS-422 Serial Port per Video I/O, 9-pin Female "D" Connectors
Reference	Analog Black Burst, 75 ohm BNC Loop-thru Connectors
Network	Dual 1000baseT Ethernet, RJ45 Connectors

HARDWARE SPECIFICATIONS

CPU	Dual Intel 3.6 GHZ, Xeon w/ 2MB cache
Memory	1GB, Registered, ECC
Service Disk	One 250GB SATA Drive
Removable Media	CD-ROM
Chassis	1RU Rackmountable with Rails
Power Supply	Dual, Redundant 520W Power Supplies, Hot-swappable Option for Single Power Supply

ORDERING INFORMATION

Sales Order Number	Description
MCL-4004	Standard Definition, 4 Channel Video Decoder for use with SeaChange® MediaLibrary™ with redundant power supply
PWR-0078-NR	Credit option to remove the second power supply
PWR-0078-00	Spare power supply for SeaChange MediaClient 4004