

Full Product List

Base Model

Alchemist Ph.C – HD (5048500)

Motion-Compensated Standards Conversion Platform with SD SDI I/O, SD standards conversion, CleanCut™, ARC, embedded & AES Audio, redundant PSU, intuitive touch screen control, RollCall control, 3 RU frame.

SD Only Active (5048500),
SD Only Passive (5049500)

Alchemist Ph.C – HD (5048000)

As above with SD, HD and 3Gbps SDI I/O, SD, HD and 3Gbps standards conversion with up, down and cross conversion.

Options

HD Upgrade (5045000)

Upgrade from SD only platform to SD & HD Platform.

Timecode

(5045001)

Adds LTC and VITC timecode processing.

Dolby®E Authoring (1 channel) (5045202)

Adds Dolby®E encoding, decoding and transcoding.

Dolby®E Authoring (2 channels) (5045212)

Adds Dolby®E encoding, decoding and transcoding.

FilmTools option (5045003)

Adds low rate progressive I/O.

Company policy is one of continuous product improvement. Specifications are therefore provisional and subject to change without notice. All other trademarks mentioned herein are duly acknowledged.

Technical Specification

Signal Inputs

Serial digital	2 x 75 Ohm SD/HD Serial Digital with embedded audio (4 Groups) Input Standards: 1.5 Gbit/s HD-SDI SMPTE292M/SMPTE299M 270 Mbit/s SD-SDI SMPTE259M 3Gbit/s HD - SDI SMPTE 424/425 Level A - mapping structure 1 (SMPTE 424/425) Level B - SMPTE 372M Dual link payload on a 3Gbit/s serial digital interface Dual link 1.5Gbit/s SMPTE 372
Reference	2 x loop-through HDTV Trisync/SD Bisync (Black & Burst) SMPTE 240M/274M, with auto selection dependant on output standard
Audio AES	8 channels unbalanced AES-3 via BNC connectors (75 Ohm)

Signal Outputs

Serial digital primary (Output A)	2 x 75 Ohm SD/HD Serial Digital with embedded audio (4 Groups) Output Standards: 1.5 Gbit/s HD-SDI SMPTE292M/SMPTE299M 270 Mbit/s SD-SDI SMPTE259M 3Gbit/s HD - SDI SMPTE 424/425 Level A - mapping structure 1 (SMPTE 424/425) Level B - SMPTE 372M Dual link payload on a 3Gbit/s serial digital interface Dual link 1.5Gbit/s SMPTE 372
Serial digital secondary (Output B)	2 x 75 Ohm SD/HD Serial Digital with embedded audio (4 Groups) Output Standards: 1.5 Gbit/s HD-SDI SMPTE292M/SMPTE299M 270 Mbit/s SD-SDI 3Gbit/s HD - SDI SMPTE 424/425 Level A - mapping structure 1 (SMPTE 424/425) Level B - SMPTE 372M Dual link payload on a 3Gbit/s serial digital interface Dual link 1.5Gbit/s SMPTE 372
Audio AES	8 channels unbalanced AES-3 via BNC connectors (75 Ohm)

Control Functions

Input select	Input A, Input B
Input blanking	Left, Right, Top, Bottom
Input loss	Input, Freeze, Black
Input standard	Auto
-SD	525, 625
-SD & HD	525, 625, 720 50p, 720 59p, 1080 50i, 1080 59i, 1080 50p, 1080 59p
Output standard	Auto
-Primary	SD 525, 625
-Primary SD & HD	525, 625, 720 50p, 720 59p, 1080 50i, 1080 59i, 1080 50p, 1080 59p
	Colorimetry

Output standard	Auto
- Secondary SD	525, 625
- Secondary SD & HD	525, 625, 720 50p, 720 59p, 1080 50i, 1080 59i, 1080 50p, 1080 59p
Output blanking	Colorimetry
Output blanking color	Left, Right, Top, Bottom
RGB legalizer	Red, Green, Blue
Enhancement	On/Off, 700 mV, 721 mV, 735 mV
Noise reduction	Horizontal & Vertical
Metadata	On/Off
	2 x input RS485
	2 x output RS485

Conversion Functions

Convert	Ph.C™ Motion Compensation CleanCut™
Alias suppression / aperture	Horizontal & Vertical aperture adjustment
Modes	SD, HD, 3Gbit/s Standard Conversion SD, HD, 3Gbit/s Standards, Up, Down & Cross Conversion
Ph.C area	5 user definable keys with overlays to define active and inactive areas
Aspect ratio conversion	Manual, Forced or Auto (Format) mode. Preset Input and Output ARC Settings 4:3, 16:9, 14:9LB, 16:9LB, 4:3PB, Anamorphic, No Change User (Pan, Size, Asp, Tilt) Forced or Auto (Format) SMPTE 2016, (AFD) Authoring
CleanCut™	On/Off F1/F2/Any
VANC passing	VANC data passed when in pass-through or ARC mode

Audio Functions

Audio select	Embedded, AES
Audio channel selection	Group 1 pair 1, Group 1 pair 2 Group 2 pair 1, Group 2 pair 2 Group 3 pair 1, Group 3 pair 2 Group 4 pair 1, Group 4 pair 2 AES1, AES2 AES3, AES4 AES5, AES6, AES7, AES8 PCM, Data
Audio type	

Power

Input voltage range	100 V to 240 V rms., 50/60 Hz
Mains fuse rating	T 8 AH 250 V. (Each Power supply)
Maximum input current	7 - 3 A (Each Power supply)
Power consumption	500 W

Communications

RollCall	BNC connector, RS422, Ethernet
SNMP	Ethernet

Mechanical

Temperature range	0 to 35° C operating
Cooling	Axial fan, front-to-rear airflow
Weight	Approximately 20 kg
Case type	3 RU Rack Mounting
Dimensions	483mm x 563mm x 132mm (w,d,h)

