ARCHITECTURAL SPECIFICATIONS

CORIOview multi-window processor

(HDCP compliant - HDMI, DVI, VGA, Component, Composite, S-Video, SD-SDI, HD-SDI, 3GSDI, HDBaseT, streaming RTSP and file playback. RS232, RJ45 Control, Output Video Scaling multi-window Processor)

DESIGN

1. Shall include a 5 year warranty.
2. Multi-window Processor Must support cross conversion of the following signals: DVI, HDMI, VGA, Component, Composite, YC, SD-HDI, HD-SDI, 3G-SDI, HDBaseT.
3. Multi-window Processor Must support up/down conversion of the following signals: DVI, HDMI, VGA, Component, Composite, YC, SD-HDI, HD-SDI, 3G-SDI, HDBaseT.
4. Multi-window Processor Must support scaling on all outputs.
5. Multi-window Processor Must allow less than 2 frames of delay.
6. Multi-window Processor Must have an integrated audio delay compensation of 30 m/s.
7. Multi-window Processor Must be a modular based system allowing for multiple input/output configurations. Video wall processors that do not allow for modular configurations of I/O ports shall not be accepted.
8. Multi-window Processor Must be able to support 8, simultaneous, video channels per wall, with up to 600 million pixels per second.
9. Multi-window Processor Must be FPGA based, allowing for FW upgrades to new functionality and features.
10. Multi-window Processor Must support custom resolutions from 640 x 480 to 3840 x 2160.
11. Multi-window Processor Must be HDCP compliant.
12. Multi-window Processor Must have 16 presets.
13. Multi-window Processor Must provide preset-driven transitions.
14. Multi-window Processor Must support 4K60 video sources.
15. Multi-window Processor Must support 4K30 outputs.
16. Multi-window Processor Must support Streaming video using RSTP over TCP/UDP and MPEGTS.
17. Multi-window Processor Must support dual, simultaneous streaming video up to 1080p @ 60fps in one slot.
18. Multi-window Processor Must support dual file playback via USB 3.0 as a .mp4, mpeg-4, mov, and AVI.
19. Multi-window Processor Must support dual file playback via internal solid state memory as a .mp4, mpeg-4, mov, and AVI.
20. Multi-window Processor Must support still image store up to 7680x4320.
21. Multi-window Processor Must support control via 3rd party controller.
22. Multi-window Processor Must require no more than 60 watts of power.

CONTROL

1. Multi-window Processor Must support control via RS-232.
2. Multi-window Processor Must support control via TCP/IP Ethernet.
3. Multi-window Processor Shall have integrated front panel for selecting presets, switching video or audio.

4. Multi-window Processor Must have a front panel button that selects an on-screen menu showing window and source selection.

INFORMATION DISPLAY

1. Multi-window Processor Must be able to add borders to video windows of selectable width and color.
2. Multi-window Processor Must have a function to display text within video windows to indicate sources.
3. Multi-window Processor Must have a mode that displays the current selection of presets.

PROGRAMMING

CORIOview chassis and Modules:

MWP-4D-1Y	CORIOview 4xDVI-U in 1x4K out Multi Window Processor
MWP-4H-1Y	CORIOview 4x1080P HDMI in, 1x4K HDMI out Multi Window Processor
MWP-4Hi-1Y	CORIOview 4x1080P HDMI in, 1xAVIP in, 1x4K HDMI out Multi Window Processor
MWP-4Y-1Y	CORIOview 4x4K HDMI in, 1x4K HDMI out Multi Window Processor
MWP-8GS-1Y	CORIOview 8x3G-SDI in 1x4K HDMI out Multi Window Processor
MWP-8H-1Y	CORIOview 8x1080P HDMI in 1x4K HDMI out Multi Window Processor
MWP-MTO	CORIOview Multi Window Processor (I/O made to order)
CV-3GSDI-2IN-FF	CORIOview 3G SDI 2 input (Factory Fitted)
CV-3GSDI-4IN-FF	CORIOview 3G SDI 4 input (Factory Fitted)
CV-3GSDI-SC-2OUT-FF	CORIOview 3G SDI Single Scaled Output - (Factory Fitted)
CV-DVIU-2IN-FF	CORIOview Input module: Dual 2x DVI-U (DVI, HDMI, RGB/YUV, CV, YC) via DVI-I (Factory Fitted)
CV-AVIP-IN-1USB-1ETH-128-FF	CORIOview 4K Media Streaming Input 128GB SSD (Factory Fitted)
CV-AVIP-IN-1USB-1ETH-FF	CORIOview 4K Media Streaming Input 16GB SSD (Factory Fitted)
CV-DVI-I-SC-2OUT-FF	CORIOview Output Module Single Scaled Output (Factory Fitted)
CV-HDBT-SC-2OUT-1ETH-FF	CORIOview HDBaseT Single Scaled Output (Factory Fitted)
CV-HDMI-4IN-FF	CORIOview HDMI 1080P 4-input (Factory Fitted)
CV-HDMI-4K-2IN-FF	CORIOview HDMI 4K 2-input (Factory Fitted)
CV-HDMI-4K-SC-1OUT-FF	CORIOview HDMI 4K 1-output (Factory Fitted)
CV-HDSDI-4IN-FF	CORIOview Input Module - 4x HD/SD-SDI via BNC (Factory Fitted)
RM-CV-1RU-DUAL	Dual rackmount kit for CORIOview product family
RM-CV-1RU-HANDLES	Rackmount Kit Handles for CORIOview product family
RM-CV-1RU-SINGLE	Single Rackmount Kit for CORIOview product family

TECHINICAL SPECIFICATIONS

Video Processing	
Technology	CORIO®3
Performance	Inputs up to 4K60 & Output up to 4K30
Format conversion	Up/Down/Cross Conversion
Max. number of Windows	8
Windows	
Windows	Up to eight windows*
Borders	Configurable color & thickness
Labels	Available on all windows
Transitions	Available when changing sources or Presets
Presets	
Number of presets available	16*
Accessible from front panel	16*
Preset effects	Transitions, fade through black or window movement
Configuration & Control	
Application	CORIOgrapher software
Platform	PC with Windows 10 & Windows 7 minimum
Standby Mode	Faster boot up & saves power
Control Ports	
RS-232	D9 Female Connector
IP Interface	RJ45 Connector
USB	Type B - for future use
Video Inputs	
4H-1Y	
Input connectors	4 x HDMI - HDMI 1.4 & HDCP 1.4 compatibility
Resolution support (4:4:4)	480i, 576i - 24Hz to 60Hz
	720p (1280x720) - 23.98, 24, 25, 29.97, 30, 50, 59.94, 60Hz
	1035i (1920x1035) - 59.94, 60Hz
	HDMI-4in - 1080i 50, 59.94, 60Hz
	1080p (1920x1080) -23.98, 24, 25, 29.97, 30, 50, 59.94, 60Hz
Color format support	RGB, YCbCr 4:4:4, 4:2:2 & 4:2:0
Color depth	8 bpc (24 bit/px)
Color space support	BT.601 on standard resolutions
	BT.709 for 720p, 1080i, 1080p and 2160p
8GS-1Y	
Input connectors	8 x BNC
SDI support	
3G-SDI	1080p 60/59.94 SMPTE424M-A 2.97/2.967Gbps < 0.3 UI jitter

HD-SDI	720p, 1035i, 1080i (reduced quality with this because quad input is 4:2:0), 1080p SMPTE292M 1.485/1.4835Gbps < 0.2 UI jitter
SD-SDI	(526/625 lines) SMPTE259M-C 270Mbps < 0.1UI jitter
Color format support	SDI 4:2:2
Color depth	20 bit

4D-1Y	
Input connectors	4 on DVI-U connector - HDMI 1.4 & HDCP 1.4 compatibility
DVI-U Connector supports	HDMI, DVI-I, YC, CV, VGA via optional adapters
Resolution support (4:4:4)	480i, 576i - 23.98, 24, 25, 29.97, 30Hz, 50, 59.94, 60Hz 720p (1280x720) - 50, 59.94, 60Hz 1035i (1920x1035) - 59.94, 60Hz 1080i (1920x1080) - 50, 59.94, 60Hz 1080p (1920x1080) -23.98, 24, 25, 29.97, 30, 50, 59.94, 60Hz
Analog Sync	TTL Level, 10KΩ, Pos or Neg
RGB Level Range	0.5-2.0 Vp-p
Scan Rate Detection	Automatic
Max Horizontal Scan Rate	150kHz
Color format support	Digital - RGB, YCbCr 4:4:4 & 4:2:2 Analog - RGBHV, RGBS, RGsB, YPbPr
Color depth	8 bpc (24 bit/px)
Color space support	BT.601 on standard resolutions BT.709 for 720p, 1080i, 1080p
Television Standards	NTSC, PAL

4Hi-1Y	
HDMI module	
Input connectors	4 x HDMI - HDMI 1.4 & HDCP 1.4 compatibility
Resolution support (4:4:4)	480i, 576i - 24Hz to 60Hz 720p (1280x720) - 23.98, 24, 25, 29.97, 30, 50, 59.94, 60Hz 1035i (1920x1035) - 59.94, 60Hz 1080i (1920x1080) - 50, 59.94, 60Hz 1080p (1920x1080) -23.98, 24, 25, 29.97, 30, 50, 59.94, 60Hz
Color format support	RGB, YCbCr 4:4:4, 4:2:2 & 4:2:0
Color depth	8 bpc (24 bit/px)
Color space support	BT.601 on standard resolutions BT.709 for 720p, 1080i, 1080p

AVIP module	
IP Input connector	1 on RJ45 connector
Resolution support	Channel 1 : PC and HD resolutions up to 1920x1080p60 1920x1200p, 60cvt-rb 3840x2160p 30, 29.97, 25, 24, 23.98Hz 4096x2160p 30, 29.97, 25, 24, 23.98Hz

	Full scaling support for other resolutions.
	Channel 2 : 1920x1080p60
	Full scaling support for other resolutions.
Interface	1Gb Ethernet port
Decoding	H.264 (CBP, Main, High)
Stream bit rates	2 Streams each 25Mbps
Sreaming resolutions	Configurable up to 1080p60
Color depth	4:2:0
Unicast Streams	RTSP, RTMP, HTTP, MPEG-TS
Multicast Streams	RTSP, MPEG-TS
Media/Images	
Interfaces	USB 3.0, Internal Storage
Video Codecs	H.264 (CBP, Main, High)
Video Formats	mp4, .mov, .mkv, .m4v, .ts, .mts, .m2ts, .mt2
Playback Bit Rates	Single stream to 100Mbs, Dual Streams to 40Mbs
File Playback Resolutions Supported	
Up to 3480x2160@30fps	1
Up to 1080p60@60fps	Up to 2
Up to 7680 x 4320	Up to 2 (still images only)
Media Handling	
External	1 x USB 3.0 interface
Supported devices	Flash file systems FAT, FAT32, ext3, ext4, NTFS
Internal	High speed storage up to 128GB per module

Audio Inputs*	
Supported sampling rate	48KHz
Sample size	24 bits
Supported channels	1 Stereo pair on each input
*4H-1Y, 8H-1Y, 4D-1Y, 4Y-1Y, 8GS-1Y	
Audio Output	
Connector	RCA
Format	S/PDIF
Supported sampling rate	48KHz
Sample size	24 bits
Supported channels	1 Stereo pair
Video Output	
Output connector	HDMI
Resolution support	720p, 1080i & 1080p @ 24Hz to 60Hz
	3840 x 2160 @ 23.98Hz 24Hz, 25Hz, 29.97Hz & 30Hz
Chroma sampling	4:4:4
Scaling	All supported resolutions
Compatibility	HDMI 1.4 & HDCP 1.4
Color depth	8 bpc (24 bit/px)

Color space support	BT.709 for 720p, 1080i, 1080p and 2160p
Embedded Audio Output	
Supported sampling rate	48KHz
Sample size	24 bits
Supported channels	1 Stereo pair
Mechanical	
Size (H x W x D)	1.73" x 8.54" x 9.61" (44 x 217 x 244mm)
Weight	3.75 lbs (1.7 Kg) approximately
Regulatory Compliance	
Main unit	FCC, CE, RoHS, UL
Environmental	
Operating Temperature	0º to +40ºC (+32º to +104ºF)
Operating Humidity	10% to 85%, Non-condensing
Storage Temperature	-10º to +70º C (+14º to +158º F)
Storage Humidity	10% to 85%, Non-condensing
MTBF	50,000 Hours
BTU	205 BTU/hr
Fan Noise	44dBA @ 0.5m
Power Supply	
External	110v-240v 50-50Hz auto-detecting
Connector	Locking
Power cable	US, UK, EU or AU
Accessories included	
Quick Start Guide	Printed
USB Key	Documentation & Links
Power Supply	Included
Warranty	
Limited Warranty	5 Years Parts and Labor