

C2-2200A Video Switcher/Scaler is based on TV One's exclusive CORIO®2 technology and provides high quality conversion from Composite, S-Video (YC), YUV, YPbPr, RGB or DVI to analog RGB/YPbPr and DVI at virtually any resolution and refresh rate. An analog computer input signal bypass (loop-thru) is also provided. NTSC, PAL, PAL-M, PAL-N, SECAM input standards are supported. The **C2-2205A** provides an SD/HD-SDI Input as well as all the other features of the C2-2200A.

All settings are stored in non-volatile memory and are retained even when power is switched off. Ten user defined presets are also available to customize settings for various applications. All the functions can be controlled via the front panel Push Buttons, Infrared, RS-232 or IP. The CORIOtools Suite integrates fully with the unit. Windows Control Panel software is provided and most third party control systems interface directly with the entire C2 range of products. A front panel LCD makes setup easy. The unit is housed in a desktop case and an optional rackmount kit holds one or two units.

Variable Zoom to 10X enlarges any part of the computer screen to fill the entire video screen and position controls allow movement to any area desired. Variable Shrink to as little as 10% allows fitting the image onto most displays. The high sampling rate ensures crisp, clear images, while full bandwidth chroma sampling ensures faithfully reproduced, high resolution colors. Motion compensation, diagonal interpolation and a 3:2 Pulldown feature for NTSC significantly improve the image quality. Temporal interpolation greatly improves frame rate conversion by analyzing and merging successive frames. Pixel Level Motion Adaptive Diagonal Interpolation ensures high quality de-interlacing of PAL and NTSC signals.

C2-2250A Advanced Features - In addition to all standard C2-2200A features. The **Key Mode** allows computer graphics to be keyed over an external Composite or YC signal. The keyed image may be faded in and out. Due to the 4:4:4 sampling format, precise keying at the pixel level can be achieved. The **Mix Mode** permits Seamless Cut, Fade or Wipe transitions between input sources. The **PIP Mode** allows either of the computer inputs to be inset in a window over the other inputs. The PIP window may be placed anywhere on the screen. The **Edge Blending** feature allows feathering any or all of the edges; multiple images can be aligned vertically, horizontally, or both to create unusual displays. Using multiple units, any number of images can be blended. Gamma correction is employed to compensate for many of the problems faced when blending projectors. Special preparation of the video in advance is not necessary, since all processing is done within the unit. The **Genlock** feature ensures precise synchronization of the incoming signals. The **C2-2255A** provides an SD/HD-SDI Input as well as all the other features of the C2-2250A.



Key Features of the C2-2200A Series

- Inputs: 2xCV, 2xYC, YUV/YPbPr, DVI-D, plus SD/HD-SDI on models C2-2205A and C2-2255A
- Outputs: DVI-I and Analog RGB/YPbPr (All units)
- Analog: PC to 2048x2048, HDTV to 1080p/60
- DVI: PC to 1920x1200, HDTV to 1080p/60
- Supports: NTSC, PAL, PAL-M, PAL-N, SECAM
- Motion Compensation & 3:2 Pulldown
- Temporal Interpolation & Diagonal Interpolation
- Automatic Incoming Resolution Detection
- 4:4:4 Full bandwidth Chroma Sampling
- Video signal parameter adjustments
- Integral 4x1 Stereo Audio Routing Switcher
- RS-232 and IP Interface & Windows Control Panel
- CORIOtools Suite compatible
- Variable Image Zoom to 10X and Shrink to 10%
- Mix, PIP, Chroma/Lumakey, Genlock & Edge Blending on models C2-2250A and C2-2255A
- Optional IR Remote Control Unit
- Optional Single/Dual Rackmount Kit
- Optional Input Expansion with S2 Switchers

Input Expansion is possible by using the optional S2 Series Input Expansion Switchers for SD/HD-SDI, DVI, RGB, YPbPr, YUV, Composite or YC. These units link to C2 unit via an OPTIONS Interconnect Cable and become an integral part of the main unit from a control and operational standpoint. The routing of these additional inputs is controlled directly from the control system of the C2 unit and multiple different S2 models may be simultaneously connected.

Basic Stereo Audio switching is provided by an integral 4x1 audio routing switcher. The four impedance-independent, unbalanced inputs follow the video input selection. A rear panel terminal block provides input and output access.

Advanced Stereo Audio is available via the optional S2-106AD Input Expansion Switcher, providing six differential audio inputs, which can be used for low impedance balanced or high impedance unbalanced sources. The user controls audio level, audio sampling frequencies and up to 999ms of adjustable audio delay independently for each input. The unit has numerous choices for audio I/O connectors, including a terminal block. The S2-106AD connects to the C2 unit via the OPTIONS interconnect cable and is then fully integrated into the control system of the host unit.



Video Switcher/Scalers

Models C2-2200A, 2205A, 2250A, 2255A



Specifications

Video Inputs		Operational Modes (C2-2250A, 2255A)	
Television Standards	NTSC, PAL, PAL-M, PAL-N, SECAM	Key	ChromaKey or Lumakey
Composite Video	2x via BNC	Mix	PC to/from Video
YC (S-Video)	2x via 4-Pin Mini-DIN	PIP	Variable Window Size & Position
YUV /YPbPr	1x via 3-BNC	SD-SDI Input Vertical Rates (C2-2205A, 2255A)	
SD/HD-SDI	1x via BNC (C2-2205A, 2255A)	SMPTE259M-C	
Computer Inputs		525i (720x488)	59.94Hz
Signal Type	1x DVI-D via DVI-I Connector	625i (720x576)	50 Hz
Format	1x Analog via HD-15 Female	HD-SDI Input Vertical Rates (C2-2205A, 2255A)	
Sync	RGBHV, RGBS, RGsB, YPbPr	SMPTE292M	
Termination	TTL Level, 10K Ω , Pos or Neg	720p (1280x720)	23.98, 24, 25, 29.97, 30, 50, 59.94, 60Hz
R-G-B Level Range	75 Ω	1035i (1920x1035)	59.94, 60Hz
Scan Rate Detection	0.5-2.0 Vp-p	1080i (1920x1080)	50, 59.94, 60Hz
PC Resolutions	Automatic	1080p (1920x1080)	23.98, 24, 25, 29.97, 30Hz
HDTV Resolutions	Any up to 2048x2048	Control Methods	
Max Horiz Scan Rate	Any up to 1080p	Local	via Front Panel Buttons & OSD
Computer Compatibility	150KHz	RS-232 Interface	via D9 Female Connector
Computer Outputs		IP Interface	via RJ45 Connector
Signal Type	1x DVI-I via DVI-I Connector	Infrared Remote	via optional IRC-5 Remote Unit
Format	1x Analog via HD-15 Connector	Input Expansion Control	via D-15 Options Connector
R-G-B Level	RGBHV, RGBS, RGsB, YPbPr	Warranty	
Analog Signals	0.7 Vp-p	Limited Warranty	5 Years Parts and Labor
DVI Signals	PC to 2048x2048, HD to 1080p/60	Regulatory Compliance	
Vertical Refresh Rate	PC to 1920x1200, HD to 1080p/60	Main Units	FCC, CE, RoHS
General		Power Supplies	UL, CUL, CE, PSE, GS, RoHS
Size and Position	Any to 250Hz	Mechanical	
Image Size	Automatic via AutoSet or Manual	Size (H-W-D)	41.5x218x150mm(1.63"x8.6"x5.9")
Image Freeze	User-Definable Presets	Weight (Net)	1.32kg (2.90 lbs)
Settings Memory	One Video Frame	Environmental	
Zoom Range	Non-Volatile	Operating Temperature	0° to +50° C (+32° to +122° F)
Shrink Range	Variable to 10X Zoom	Operating Humidity	10% to 85%, Non-condensing
Image Mirroring	Variable to 10%	Storage Temperature	-10° to +70° C (+14° to +158° F)
Horizontal Filtering	Horizontal and/or Vertical	Storage Humidity	10% to 85%, Non-condensing
Conversion Technology	Full Digital	Power Requirement	
Frame Rate Conversion	Proprietary – CORIO®2	External Power Supply	12VDC @1.5A (Note 2)
Color Resolution	Temporal	Accessories Included	
Sampling Rate	24-bit (16.8 Million Colors)	1x Operations Manual	
Digital Sampling	162MHz	1x Power Adapter	US, UK, Euro or AU
Firmware Memory	24-bit, 4:4:4 format	Product Item Numbers	
Video Decoder	Flash, Upgradeable via RS-232	C2-2200A	Basic Version
De-Interlacing	9-bit Digital	C2-2205A	Basic Version with SD/HD-SDI In
(NTSC-PAL)	Pixel-level Motion Adaptive,	C2-2250A	PLUS Version with Key, Mix, PIP
Comb Filter Decoding	Diagonal Interpolation	C2-2255A	PLUS Version with SD/HD-SDI In and Key, Mix, PIP
Film Mode (NTSC)	Adaptive	Optional Accessories	
Audio Input/Output		RM-220	Single/Dual Rackmount Kit
Inputs	3:2 Pulldown	IRC-5	Infrared Remote Control Unit
Output	CV/YC: Contrast, Brightness, Saturation, Hue (NTSC).	S2 Series	Input Expansion Switchers
I/O Impedance	Analog RGB/YPbPr levels (Note 1)	Control Software	Downloadable from Website
	4x Unbalanced via Terminals	Notes	
	Unbalanced via Terminals	(1) Balanced Audio (6-inputs) and Audio Delay is available via the S2-106AD accessory.	
	Impedance-Independent	(2) The C2 unit uses less than 1A, however, if an S2 unit is powered via the OPTIONS connector, 1.5A is required.	

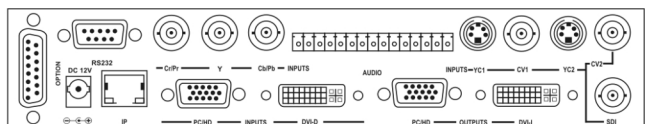
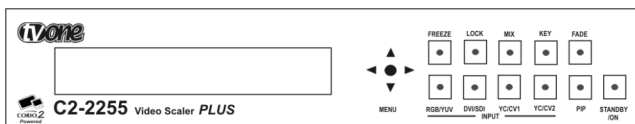
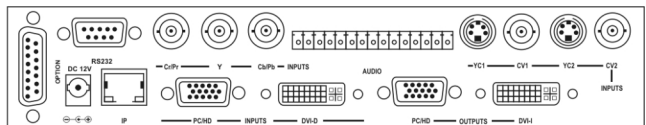
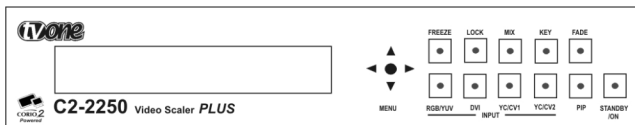
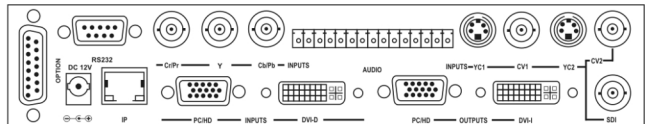
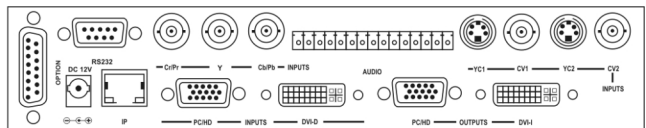
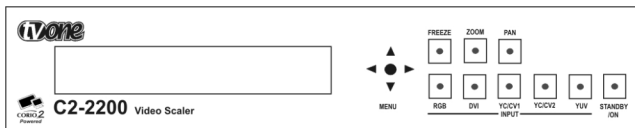


Video Switcher/Scalers

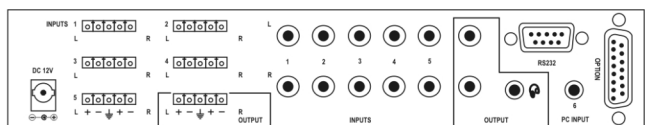
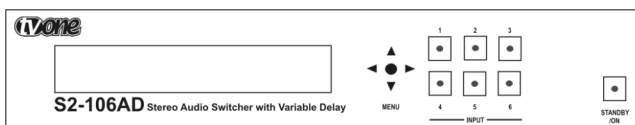
Models C2-2200A, 2205A, 2250A, 2255A



Panel Drawings



S2-106AD Advanced Audio Processor Module



Typical S2 Input Expansion Modules

