C2-2200 Video Switcher/Scaler is based on TV One's exclusive CORIO2™ technology and provides high scaling to Analog or DVI Computer or HDTV signals. NTSC and PAL video standards are supported. Video Inputs are 2x Composite, 2x S-Video and 1x YUV Component or YPbPr. A computer bypass is also provided. RGB/YPbPr Scaling permits the computer input signals to be scaled with the same flexibility as the video inputs. The output is selectable as any computer resolution up to 2048x2048 at any vertical refresh rate and all HDTV resolutions up to 1080p. A wide variety of computer signal formats are available to support PC, Mac and Workstation formats. **C2-2205** provides an SDI Input as well all the other features of the C2-2200.

All the functions can be controlled via the front panel Push Buttons, an Infrared Control Remote Unit or via an RS-232 or IP connection. A Windows Control Panel is provided and most third party control systems interface directly with the entire C2 range of products. A front panel LCD makes setup easy.

Variable Zoom to 10X allows you to enlarge any part of the video image to fill the entire computer screen and position controls allow you to move around to any area desired. Variable Shrink to as little as 10% allows fitting the image onto most displays. The advanced Digital Flicker Elimination circuitry and high sampling rate insures crisp, clear images, while full bandwidth chroma sampling insures faithfully reproduced, high res colors.

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 access.

C2-2250 Video Scaler PLUS has all the functions and features of the C2-2200 and adds a wide variety of additional capabilities, including Picture-In-Picture, Chromakey, Lumakey and Mixing. The **Key Mode** allows computer graphics to be keyed over an external Composite or S-Video signal or visa versa. 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 glitch-free mixing between the computer image and external video. The **PIP Mode** allows either of the computer inputs to be inset in a window over either of the video inputs. **C2-2255** provides an SDI Input as well.

Our exclusive AutoSet® feature takes the hassle out of setup by automatically sizing and positioning the computer image to fit exactly on the video screen. All settings are stored in non-volatile memory and are retained even when power is switched off. Optional rackmount kits are available for all C2-2000 models.

Edge Blending is a standard feature of the C2-2250 and C2-2255. Because of the ability to 'feather' any or a of the edges, multiple images can be aligned vertically,

Key Features of the C2-2200, C2-2205
- Automatic incoming resolution detection
- Analog Computer Input via HD-15 Connector
- DVI-D Computer Input via DVI-I Connector
- Inputs: 2x CV, 2x YC, 1x YUV/YPbPr Component
- 1x SDI Input (C2-2205)
- Scaling of the RGB or YPbPr input signal
- Analog PC to 2048x2048, HDTV to 1080p
- DVI PC to 1280x1024, HDTV to 1080p/30
- AutoSet® - Automatic picture sizing
- Multiple Worldwide Television Standards
- 2x Outputs (RGB or YPbPr) – DVI-D & Analog
- Integral 4x1 Stereo Audio Routing Switcher
- RS-232 & IP Interface and Windows Control Panel
- IR Remote Control
- Variable Image Zoom to 10X and Shrink to 10%
- Optional Single/Dual Rackmount Kit
- Optional Input Expansion for additional inputs

Additional Features of the C2-2250, C2-2255
- Picture-in-Picture
- Chromakey and Lumakey
- Edge Blending
- SDI Input (C2-2255)

horizontally, or both to create unusual displays. Using multiple units, there is no limit to the number of blended images. Edge Blending is not limited to high resolution RGB computer images, but can be applied to any input. 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.

Input Expansion to add additional DVI, RGB, YPbPr, YUV, Composite or S-Video inputs is easy by using any of the optional S2 Series Input Expansion Switchers. The S2 unit links to any C2-2000 series unit via an Options Interconnect Cable and becomes an integral part of scaler from a control and operational standpoint. The routing of these additional inputs is controlled directly from the control system of the C2. Multiple different S2 models may be simultaneously connected.

Specifications

Video Inputs

Television Standards	NTSC, PAL, PAL-M, PAL-N, SECAM
Composite Video	2x via BNC
S-Video (YC)	2x via 4-Pin Mini-DIN
YUV /YPbPr	1x via 3-BNC
SDI (SMPTE 259M)	1x via BNC (C2-2205, C2-2255)

Computer Inputs

Signal Type	1x Analog via HD-15 Female
	1x DVI-D via DVI-I Connector
Format	RGBHV, RGBS, RGsB, YPbPr
Sync	TTL Level, 10KΩ, Pos or Neg
Termination	Auto-terminating into 75Ω
R-G-B Level Range	0.5-2.0 Vp-p
Scan Rate Detection	Automatic
PC Resolutions	Any up to 2048x2048
HDTV Resolutions	Any up to 1080p
Max Horiz Scan Rate	150KHz
Computer Compatibility	PC, Macintosh, Workstations

Computer Outputs

Signal Type	1x Analog via HD-15 Connector
	1x DVI-I via DVI-I Connector
Format	RGBHV, RGBS, RGsB, YPbPr
R-G-B Level	0.7 Vp-p
Analog Signals	PC to 2048x2048,HD to 1080p
DVI Signals	PC to 1280x1024,HD to 1080p/30
Vertical Refresh Rate	Any to 250Hz

General

Size and Position	Automatic via AutoSet or Manual
Image Size	User-Definable Presets
Image Freeze	One Video Frame
Settings Memory	Non-Volatile
Zoom Range	Variable to 10X Zoom
Shrink Range	Variable to 10%
Image Mirroring	Horizontal and/or Vertical
Horizontal Filtering	Full Digital
Conversion Technology	Proprietary – CORIO2™
Color Resolution	24-bit (16.8 Million Colors)
Digital Sampling	24-bit, 4:4:4 format
Firmware Memory	Flash, Upgradeable via RS-232
Video Decoder	9-bit Digital
De-Interlacing (NTSC-PAL)	Pixel-level Motion Adaptive
Comb Filter Decoding	Adaptive
Film Mode (NTSC)	3:2 Pulldown

Video Adjustments	Contrast, Brightness, Saturation, Hue (NTSC), R-G-B Levels

Audio Input/Output

Inputs	4x Unbalanced via Terminals
Output	Unbalanced via Terminals

Operational Modes (C2-2250, C2-2255)

Key	Chromakey or Lumakey
Mix	PC to/from Video
PIP	Variable Window Size & Position

Control Methods

Local	via Front Panel Buttons & OSD
RS-232 Interface	via D9 Female Connector
IP Interface	RJ45 Connector
Infrared Remote	via IRC-4 Remote Unit
Input Expansion Control	via D-15 Options Connector

Warranty

Limited Warranty	2 Years Parts and Labor

Regulatory Compliance

Main Units	FCC, CE, RoHS
Power Supplies	UL, CE, CSA, RoHS

Mechanical

Size (H-W-D)	1.6"x8.6"x5.8" (41.5x218x147mm)
Weight (Net)	2.6 lbs (1.2 kg)

Environmental

Operating Temperature	+4° to +45° C (+40° to +113° F)
Operating Humidity	10% to 85%, Non-condensing

Power Requirement

External Power Supply	12VDC@1A

Accessories Included

1x C-Video Cable	6' (2m) BNC to BNC
1x VGA Cable	6' (2m) HD15 Male to Male
1x DVI	6' (2m) DVI Male to Male
1x Serial Cable	6' (2m) D9 Male to Male
1x IR Remote	IRC-4
1x Operations Manual	C2-2000 Series
1x In-Plug Power Supply	US, UK or Euro

Product Item Numbers

C2-2200	Video Switcher/Scaler
C2-2205	Video Switcher/Scaler w/SDI In
C2-2250	Video Switcher/Scaler PLUS
C2-2255	Video Sw Scaler PLUS w/SDI In

Optional Accessories

RM-220	Single/Dual Rackmount Kit
S2 Series	Input Expansion Switcher

Panel Drawings