C2-1200 Video Switcher/Scaler is based on TV One's exclusive CORIO®2 technology and provides high quality up conversion from standard video formats to Computer or HDTV signals. NTSC and PAL video standards are supported. Video Inputs are two Composite, two YC or one YUV Component or YPbPr. A computer bypass is also provided. 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.

A unique feature of this unit is the UTP output that supports RGB or YPbPr outputs up to 300 meters (1,000'), to allow integration into existing wiring structures. UTP receivers are optional.

All the functions can be controlled via the front panel Push Buttons, an Infrared Remote Control Unit or via an RS-232 connection. A Windows Control Panel is provided and most third party control systems interface directly with the entire C2 range of products. An On-Screen Display is available to assist in setup. 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 full bandwidth chroma sampling insures faithfully reproduced, high resolution 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.

C2-1250 Video Switcher/Scaler PLUS has all the functions and features of the C2-1200 and adds a wide variety of additional capabilities, including scaling of the RGB or YPbPr input, Genlock, PIP, Chromakey, Lumakey and Mixing. The **Key Mode** allows computer graphics to be keyed over an external Composite or YC 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 video inputs to be inset in a window over the full computer input.

Temporal Interpolation greatly improves conversion from one framerate to another by mering multiple frames of video information to create intermediate frames, which is vital foar smoothly scrolling images.

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 C2-1000 models.

Key Features of the C2-1200
- Automatic Incoming Resolution Detection
- Inputs: 2x CV, 2xYC (S-Video), YUV/YPbPr
- Computer Resolutions to 2048x2048
- HDTV Resolutions to 1080p
- Multiple Worldwide Television Standards
- Outputs: 2x RGB or YPbPr , UTP
- Integral 4x1 Stereo Audio Routing Switcher
- RS-232 Interface, Windows Control Panel
- Variable Image Zoom to 10X and Shrink to 10%
- Optional IR Remote Control
- Optional Single/Dual Rackmount Kit
- Optional Input Expansion for Additional Inputs
- Optional 1T-CT-400 Series UTP Receivers

Additional Features of the C2-1250
- Scaling of the RGB or YPbPr Input Signal
- PIP, Chromakey and Lumakey, Edge Blending
- AutoSet - Automatic picture sizing

Edge Blending is a standard feature of the C2-1250. Because of the ability to 'feather' any or all of the edges, multiple images can be aligned vertically, horizontally, or both to create unusual displays. Using multiple C2 units, a large number of images can be blended. 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 between projectors. Special preparation of the video in advance is not necessary, since all processing is done within the unit.

Input Expansion to add additional RGB, YPbPr, YUV, Composite or YC inputs is easy by using any of the optional S2 Series Input Expansion Switchers. The S2 unit links to any C2-1000 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 to a single C2, providing virtually unlimited input flexibility.

Specifications

Video Inputs
Television Standards	NTSC, PAL, PAL-M, PAL-N, SECAM
Composite Video	2x via BNC
YC (S-Video)	2x via 4-Pin Mini-DIN Connector
YUV/YPbPr	1x via 3-BNC

Computer Input
	(C2-1250 Only)
RGB/YPbPr	1x via HD15
Format - Analog	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 Output
Format - Analog	RGBHV, RGBS, RGsB, YPbPr, UTP
Connectors	1x HD-15 Female and 1x 5-BNC, 1x RJ-45 (for UTP Output)
R-G-B Level	0.7 Vp-p
PC Resolutions	Any up to 2048x2048
HDTV Resolutions	Any up to 1080p
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
Frame Rate Conversion	Temporal (C2-1250 Only)
Conversion Technology	Proprietary – CORIO®2
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
	(C2-1250)
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
Infrared Remote	via IRC-5 Remote Unit

Warranty
Limited Warranty	2 Years Parts and Labor

Regulatory Compliance
Main Units	FCC, CE, RoHS
Power Supplies	UL, CUL, CE, PSE, GS, RoHS

Mechanical
Size (H-W-D)	41.5x218x150mm(1.63"x8.6"x5.9")
Weight (Net)	1.26 kg (2.77 lbs)

Environmental
Operating Temperature	0° to +50° C (+32° to +122° F)
Operating Humidity	10% to 85%, Non-condensing
Storage Temperature	-10° to +70° C (+14° to +158° F)
Storage Humidity	10% to 85%, Non-condensing

Power Requirement
External Power Supply	12VDC@1A

Accessories Included
1x Operations Manual	C2-1000 Series
1x Power Adapter	US, UK or Euro

Product Item Numbers
C2-1200	Video Switcher/Scaler
C2-1250	Video Switcher/Scaler PLUS

Optional Accessories
IRC-5	Infrared Remote Control
RM-220	Single/Dual Rackmount Kit
S2 Series	Input Expansion Switchers

Compatible UTP Receivers
1T-CT-442	RGBHV – to 150 meters (500')
1T-CT-444	RGBHV – to 300 meters (1,000')
1T-CT-464	YPbPr – to 150 meters (500')

Panel Drawings