C2-4100 RGB Video Scaler is a high performance Cross Converter for PC and HDTV signals. It is also a Seamless Switcher, Chromkeyer, Lumakeyer, PIP Device, RGB Frame Synchronizer, Aspect Ratio Converter and a RGB-HDTV Genlock. The three Inputs and two Outputs will accommodate RGBHV resolutions up to 2048x2048 and YPbPr in all HDTV formats. Plus, the C2-4100 also has an RGBHV Preview Output to facilitate live event switching.

As a PIP Device, any input of the C2-4100 RGB Video Scaler can be squeezed and placed into a window of any size and positioned anywhere on the screen. The window can be placed over any other input as the background. The image in the window can then be seamlessly switched to another video input. The image can also be zoomed while it is in the window. Multiple C2-4100 units may be cascaded to provide multiple windows.

The C2-4100's output signal format flexibility assures that the Native Resolution of virtually any display can be matched. Adjustment is provided for Contrast and each video input has its own non-volatile memory to retain these settings, even when the power to the unit has been turned off. Integral Test Signals are user defined. Logo memory is provided, so the unit can easily be used as a Logo Inserter. The unit can be controlled from the front panel, via RS-232, by an optional Infrared Control or a LAN with the optional Ethernet Control. The Windows Control Panel provides complete control of the unit and adds Macros to facilitate long, complex sequence of commands.

In addition, the optional CC-300 CORIOconsole provides a hardware control solution similar to a traditional Video Switcher.

A2-2000 Stereo Audio Switcher is an option offered to add Audio Follow Video or Audio Breakaway capability to the units. Both Balanced and Unbalanced inputs and outputs are provided.

Multiple Products in One

- RGB Scaler
- PC ◄-► HDTV
- PC ◄-► PC
- HDTV ◄-► HDTV
- Logo Inserter
- Aspect Ratio Converter
- Lumakeyer
- Seamless Switcher
- PIP Device
- RGB Frame Sync
- RGB HDTV Genlock
- Windowing Device
- Chromakeyer
- And more…

Key Features of the C2-4100

- Multiple Conversion and Scaling Products
- Three Inputs and Two Outputs, Plus Preview
- I/O: YPbPr, YCbCr, RGBHV, RGsB, RGBS
- Computer Resolutions to 2048x2048
- HDTV Resolutions to 1080p
- Genlock any Input to Any Other
- AutoSet® - Automatic picture sizing
- Seamless Switching with Cuts or Fades
- Unrestricted PIP – Any Input Over any Other
- RS-232 Interface for External Control
- CORIO2® Technology Conversion Engine
- Zoom up to 1000% with 100% Pan coverage
- Image Shrink to 10% with 100% Pan coverage
- Video Image Adjustment with Multiple Memory
- Front Panel Knob, Buttons and LCD for Control
- Optional IR Remote or IP Interface
- Universal Internal Power Supply

Specifications

3 Video Inputs	
RGBHV, YPbPr, YUV	3x (1x via 5-BNC, 2x via HD-15F)
Genlock Input	
Reference Signal	Any of the Video Inputs
2 Video Outputs	
RGBHV, YPbPr, YYUV	2x (1x via 5-BNC, 2x via HD-15F)
Preview Output	
RGBHV, YPbPr, YUV	1x via HD-15 Female Connector
Input/Output Range	
Computer Resolutions	Up to 2048x2048
Max Vert Refresh Rate	250Hz
Max Horiz Frequency	150KHz
HDTV Resolutions	All Known Resolutions & Formats
Interlace Support	Progressive and Interlaced

Input RGB Sync	
Type	RGBHV, RGBS, RGsB
Level / Impedance	TTL, 10KΩ
Polarity	Positive or Negative
Maximum Level	5Vp-p
Output RGB Sync	
Type	RGBHV, RBGS, RGsB
Level / Impedance	5Vp-p, 220Ω
Polarity	Positive or Negative
Control Methods	
Local Front Panel	Up to 5x User-definable Preset Buttons +LED, Rotary Selector, LCD Readout
RS-232 Interface	DB-9 Male Connector
IP Interface	Optional via RJ45 Connector
Infrared Control Option	IRC-5 Remote Control Unit
Audio Switcher Control	Via D-15 Options Connector from the Main Unit

Specifications

General

Image Size & Position	AutoSet or Manual
Image Zoom Range	Continuous to 1000%
Image Shrink Range	Continuous to 10%
Image Mirroring	Horizontal and/or Vertical
Image Freeze	Full Frame
Video Memory	4x4MBytes Picture Memory Buffers (16MBytes total)
Resolution Memory	Approximately 1,000 Definable
Firmware Memory	Flash, Upgradeable via RS-232
PIP	Any 2 Video Inputs
Number PIP Windows	Multiple Units may be Cascaded
Video I/O Impedance	75Ω - R, G & B
De-Interlacing	Pixel-level Motion Adaptive At 15KHz Input (YUV)
Digital Sampling	24-bit, 8-bits per R, G and B
Colors	16.7 Million
Video Scaling Engine	Proprietary CORIO®2
Internal Format	4:2:2 YUV
Internal Test Patterns	User Defined
LCD Panel	24x2 Character
Logo Inserter	Flash Programmable
Proc Amp Adjustments	Video Level for RGB Inputs
Proc Amp Memory	Settings for each Video Input

Mechanical

Desktop Case (HWD)	44x432x201mm (1.75"x17"x7.9")
With Rack Ears (HWD)	44x483x201mm (1.75"x19"x7.9")
Weight (Net)	3.3 kg (7.26 lbs)

Warranty

Limited Warranty	2 Years Parts and Labor

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

Regulatory Approvals

Video Scaler Unit	FCC, CE, RoHS
Power Supplies	UL, CUL, CE, PSE, GS, RoHS

Power Requirement

Internal Power Supply	100-240VAC, 47-63Hz, 50W

Accessories Included

1x AC Power Cord	US, UK or Euro
1x Operations Manual	
1x Rackmount Kit	2 Ears and 4 Screws
1x Control Software	Downloadable from website

Optional Accessories

A2-2000	Audio Switcher (Note 1)
IRC-5	IR Remote Control Unit
IP Interface	Factory Installed Option
CC-300	Hardware Control Panel

Product Item Number

C2-4100	RGB Video Scaler
C2-4110	RGB Scaler with IP Interface

Audio Switching (Optional A2-2000 - Note 1)

Stereo Inputs	10x Balanced and Unbalanced
Program Output	1x Balanced and Unbalanced
Preview Output	1x Balanced and Unbalanced
Connectors per I/O	2x RCA for Unbalanced

Note

(1) A2-2000 is controlled from the C2-4100 and provides Audio Follow Video or Audio Breakaway. A Separate Spec Sheet available for this option.

Panel Drawings