

C2-7200 Dual Channel Video Processor features two independent video processing and scaling engines and two video mixers for maximum flexibility in handling DVI, HD-SDI, SD-SDI, RGBHV, RGBS, RGsB, YCbCr, YPbPr, CV and Y/C signals. At home in both broadcast and display environments, the C2-7200 is multiple products in one unit. A few examples are listed in the box to the right. The unit has three basic operating modes to simplify control.

Switcher Mode - Equally powerful Program and Preview channels allow any function (Next Image, PIP, Keying, Logo, etc) to be set up and previewed, totally independent of the Program output. Transition from Preview to Program is by Cut, Dissolve or Special Effect.

Independent Mode - Provides all the power of two completely independent scalers in one box, each with a full range of features, including PIP, Keying, etc. Each output can deliver different formats and resolutions simultaneously. For example, a presentation being fed to a high resolution display on Output 1 via DVI can be fed to a VCR for recording on Output 2 via Composite Video.

Dual PIP Mode - Any video input can be squeezed and placed into either of two windows of any size and positioned anywhere on the screen, even overlapping each other with user defined layer priority control. The windows can be placed over any other video input or a static image from memory as the background. The image in the window can then be seamlessly switched or cross faded to another video input or even zoomed. Keying can be applied to each window independently.

Powerful Features - 4:4:4 sampling provides full bandwidth color which allows precise keying, including Transparent (Soft) Keys. The unit's 11 Video Inputs accommodate multiple analog and digital video and computer signal formats and resolutions. It handles all known HDTV formats and any RGB resolution up to 2048x2048 - not just some predefined ones, but ANY resolution. Each of the two independent outputs delivers HD-SDI (or SD-SDI), DVI-I, RGBHV (or RGBS or RGsB), YCbCr, YPbPr, Composite and Y/C (S-Video).

C2-7200's output signal format flexibility assures that the Native Resolution of virtually any Digital Display can be matched. Because of the integral resolution calculator, even new resolutions can be instantly added to the menu. Signal parameter adjustments can be made for each video input and are stored in individual non-volatile memories. Integral Test Signals are user defined. A fast Logo memory is provided, so the unit can easily be used as a Logo Inserter. The C2-7200 employs advanced motion compensation to smooth out fast moving images and its automatic 3:2 Pull-down efficiently de-interlaces video from 24 fps film.



The unit can be controlled from the front panel, via RS-232 or IP. The Windows Control Panel affords complete control of the unit and adds Macros to facilitate long, complex sequence of commands.

C2-7100 Dual Channel Video Processor provides all the features and functions of the C2-7200, except without the SD/HD-SDI Inputs and Outputs.

A2-2000 Stereo Audio Switcher provides optional audio follow video or audio breakaway for the C2 series. It handles both Low Impedance Balanced and High Impedance Unbalanced Audio.

Multiple Products in One

- Seamless Switcher
- 2x Video Scalers
- 2x Down Converters
- 2x Frame Sync/TBCs
- 2x PC ◀-▶ HDTV
- 2x PC ◀-▶ PC
- 2x SDTV ◀-▶ HDTV
- 2x HDTV ◀-▶ HDTV
- 2x Analog ◀-▶ DVI
- 2x SD-SDI ◀-▶ HD-SDI
- 2x Analog ◀-▶ SD/HD-SDI
- 2x Aspect Ratio Converters
- Dual Window P-I-P
- 2x Single Window P-I-Ps
- 2x Logo Inserters
- 2x Standards Converters
- 2x Video Transcoders
- 2x Multi-Format Genlock
- 2x Chromakeyers
- 2x Lumakeyers

Key Features of the C2-7100, C2-7200

- Dual Independent Scaling Engines
- 4:4:4 Sampling for full bandwidth color
- 3x Composite & 3x S-Video Inputs
- 2x 10 bit SD/HD-SDI I/O (C2-7200 Only)
- 3x DVI Inputs (also handle RGB and YUV)
- 2 Independent Multi-Format Outputs
- All DVI channels support EDID v1.3
- Multiple Conversion & Scaling products in one
- Up to 11 Multi-format Inputs – Digital and Analog
- RGBHV to 2048x2048
- All known HDTV Resolutions
- Genlock any Video Input to any other
- Seamless Switching with Cuts, Fades or Effects
- Unrestricted Dual P-I-P - Any Input over any other
- RS-232 & IP Interface for external control
- CORIO2® Technology Conversion Engine
- Zoom up to 1000% with 100% Pan coverage
- Image Shrink to 10% with 100% Pan coverage



Dual Channel Video Processors

Models C2-7100, C2-7200

Specifications

Video Inputs

| | |
|--------------------|---------------------------------|
| Composite Video | 3x via BNC Connector |
| S-Video (Y/C) | 3x via 4-PIN Mini-DIN Connector |
| DVI-I (Note 1) | 3x via DVI-I Connector |
| SDI (SD or HD-SDI) | 2x via BNC (C2-7200 Only) |

Genlock Input

Reference Signal Any of the Video Inputs

Independent Output 1

| | |
|--------------------|---------------------------------|
| Composite Video | 1x via BNC Connector |
| S-Video (Y/C) | 1x via 4-PIN Mini-DIN Connector |
| DVI-I (note 1) | 1x via DVI Connector |
| SDI (SD or HD-SDI) | 1x via BNC (C2-7200 Only) |

Independent Output 2

| | |
|--------------------|---------------------------------|
| Composite Video | 1x via BNC Connector |
| S-Video (Y/C) | 1x via 4-PIN Mini-DIN Connector |
| DVI-I (note 1) | 1x via DVI Connector |
| SDI (SD or HD-SDI) | 1x via BNC (C2-7200 Only) |

Input/Output Range

| | |
|-----------------------|--|
| Computer Resolutions | Any from 640x480 to 2048x2048 |
| Max Vert Refresh Rate | 250Hz |
| Max Horiz Frequency | 150KHz |
| HDTV Resolutions | 480p, 576p, 720p, 1080i, 1080p |
| Interlace Support | Progressive and Interlaced |
| Television Standards | NTSC 3.58, 4.43, PAL-B,G,I ,D, H, PAL-M, PAL-N & SECAM (In Only) |
| SDI (C2-7200 Only) | SD-SDI or HD-SDI |

Input RGB Sync

| | |
|-------------------|-------------------------------|
| Type | Auto-detect RGBHV, RGBS, RGsB |
| Level / Impedance | TTL, 10K Ω |
| Polarity | Positive or Negative |
| Maximum Level | 5Vp-p |

Output RGB Sync

| | |
|-------------------|----------------------|
| Type | RGBHV, RBGS |
| Level / Impedance | 5Vp-p, 220 Ω |
| Polarity | Positive or Negative |

Audio Switching (Optional A2-2000)

| | |
|--------------------|--|
| 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 1x Terminal Block for Bal & Unbal |

Control Methods

| | |
|------------------------|---|
| Local Front Panel | 10x2 Programmable Buttons +LED, Rotary Selector, and LCD |
| RS-232 Interface | DB-9 Male Connector |
| IP Interface | RJ45 Connector |
| Audio Switcher Control | Via D-15 Options Connector from the Main Unit |

Mechanical

| | |
|----------------------|-----------------------------|
| Desktop Case (HWD) | 1.75x17x7.9" (44x420x200mm) |
| With Rack Ears (HWD) | 1.75x19x7.9" (44x482x200mm) |
| Weight (Net) | 5.0 lbs (2.25 kg) |

Environmental

| | |
|-----------------------|--------------------------------|
| Operating Temperature | +40° to +113° F (4° to +45° C) |
| Operating Humidity | 10% to 85%, Non-condensing |
| Storage Temperature | 32° to +140° F (0° to +60° C) |
| Operating Humidity | 10% to 85%, Non-condensing |

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 Sampling Rate | 108MHz |
| Resolution Memory | Approximately 1,000 Definable |
| Firmware Memory | Flash, Upgradeable via RS-232 |
| Flicker Filter | 4-Level Vertical |
| Picture-in-Picture | 2 Windows + Background from any 3 Video Inputs |
| Number PIP Windows | 2 |
| Video I/O Impedance | 75 Ω |
| Video Decoder | 9-bit Digital |
| Comb Filter Decoding | Adaptive |
| De-Interlacing | Pixel-level Motion Adaptive |
| Film Mode | 3:2 Pull Down |
| Video Encoder | 10-bit Digital |
| Digital Sampling | 24-bit, 8-bits per R, G and B |
| Colors | 16.7 Million |
| Video Scaling Engine | Proprietary CORIO2® |
| Internal Format | 4:4:4 YUV |
| Internal Test Patterns | User Defined |
| LCD Panel | 24x2 Character |
| Logo Inserter | Flash Programmable |
| Proc Amp Adjustments | Brightness, Contrast, Saturation, & Hue for CV & SV Inputs, plus Video Level for RGB Input |
| Proc Amp Memory | Settings for each Video Input |
| Power Requirement | |
| Internal Power Supply | 100-240VAC, 47-63Hz, 50W |
| Warranty | |
| Limited Warranty | 2 Years Parts and Labor |
| Regulatory Approvals | |
| Video Scaler Unit | FCC, CE |
| Power Supplies | UL, CE, CSA |
| Accessories Included | |
| 1x C-Video I/O Cable | 6' (2m) BNC to BNC |
| 1x S-Video I/O Cable | 6' (2m) 4-Pin S-V to 4-Pin S-V |
| 1x DVI I/O Cable | 6' (2m) DVI-I to DVI-I |
| 3x RGBHV I/O Adapters | DVI to HD-15 Adapters |
| 1x AC Power Cord | 6' (2m) USA Type 3-Pin |
| 1x Operations Manual | |
| 1x Rackmount Kit | 2 Ears and 4 Screws |
| 1x Software Disk | Downloadable from website |
| Optional Accessories | |
| A2-2000 | Audio Switcher (Note 2) |
| IEEE1394 DV I/O | Model Number to be Announced |
| Product Item Number | |
| C2-7100 | Dual Channel Video Processor |
| C2-7200 | C2-7100 Features, plus SDI I/O |
| Notes | |
| (1) DVI-I Input/Output connectors also accommodate RGBHV, RGBS, RGsB, YCbCr & YPbPr signal formats. | |
| (2) A2-2000 is controlled from the C2-7100 or C2-7200 and provides Audio Follow Video or Audio Breakaway. | |