C2-2100 Down Converter is based on TV One's exclusive CORIO2™ technology and provides high quality scan conversion from DVI or Analog Computer or HDTV signals to standard video formats. It handles any computer resolution up to 2048x2048 at any vertical refresh rate and all HDTV resolutions up to 1080p. In order to deal with PC, Mac and most Computer Workstation signals, a wide variety of computer signal formats can be accommodated. Video outputs are switchable between NTSC and PAL and are simultaneously provided in Composite, S-Video and YUV Component. Alternatively, the output can be YPbPr Component (Progressive Scan). A PC loop-thru is also provided. **C2-2105** provides an SDI output 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. 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 computer screen to fill the entire video 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 resolution colors. C2-2000 series units are housed in desktop cases and rackmount kits are available as options.

The Genlock feature insures precise synchronization of the incoming signals by providing a wide Subcarrier lock range with Subcarrier phase adjustment

C2-2150 Down Converter PLUS has all the functions and features of the C2-2100 and adds a wide variety of additional capabilities, such as Picture-In-Picture, Chromakey, Lumakey and Mix. The **Key Mode** allows computer graphics to be keyed over an external Composite or S-Video 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 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.   The **C2-2155** provides an SDI output as well.

Input Expansion is available for all models by choosing the appropriate S2 Series Input Switcher, which links to the main unit via an Options Interconnect Cable. The routing of these additional inputs is controlled directly from the C2-2000 Series converter's control system.

Key Features of the C2-2100, C2-2105
- Automatic incoming resolution detection
- Analog Computer Input via HD-15 w/Loop-thru
- DVI-D Computer Input via DVI-I Connector
- Genlock with Subcarrier Phase Adjustment
- Analog PC to 2048x2048, HDTV to 1080p
- DVI PC to 1280x1024, HDTV to 1080p/30
- AutoSet® - Automatic picture sizing
- Multiple Worldwide Television Standards
- Composite, S-Video, YUV, YPbPr Outputs
- SDI Output (C2-2105 only)
- 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 C2-2150, C2-2155
- Picture-in-Picture
- Chromakey and Lumakey
- Composite and S-Video Input
- SDI Out (C2-2155 only)

This symbol on a product indicates that it is powered by CORIO2™ technology, the most flexible video processing engine now available. Unlike most manufacturers, who use third party chipsets to provide video conversion, TV One has developed its own proprietary technology known as CORIO2™. This frees TV One products from the constraints imposed by third parties and results in an unsurpassed degree of flexibility. Products based on third party chipsets have a feature set frozen at the introduction of the product. Since the CORIO2™ video processing engine is entirely firmware based, it can be upgraded at any time by downloading the latest firmware version form the support website and flash upgrading the unit in the field. This enables new features to be added to units many years after the initial purchase. This "obsolescence insurance" means that a CORIO2™ based product can always be upgraded to the latest version of that model.

Specifications

Computer Inputs (2x)

Signal Type	1x Analog via HD-15F w/Loop-thru
	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
Analog Signals	PC to 2048x2048,HD to 1080p
DVI Signals	PC to 1280x1024,HD to 1080p/30
Vertical Refresh Rate	Any to 250Hz
Max Horiz Scan Rate	150KHz
Computer Compatibility	PC, Macintosh, Workstations

Video Outputs

Television Standards	NTSC, PAL, PAL-M, PAL-N, SECAM
Impedance	75Ω
Composite Video	1x via BNC
S-Video (Y/C)	1x via 4-PIN Mini-DIN
YUV, YPbPr	1x via 3-BNC
SDI (SMPTE 259M)	1x via BNC (C2-2105 & C2-2155)

Video Inputs

(C2-2150, C2-2155)

Composite Video	1x via BNC
S-Video (YC)	1x via 4-Pin Mini-DIN Connector
Genlock	1x via BNC

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)
Sampling Rate	108MHz
Digital Sampling	24-bit, 4:4:4 format
Firmware Memory	Flash, Upgradeable via RS-232
Video Encoder	8-bit Digital
Video Adjustments	R-G-B Levels

Operational Modes (C2-2150, C2-2155)

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

Genlock Adjustments

Subcarrier Lock Range	+/- 200Hz for NTSC Operation
	(+/- 250Hz for PAL Operation)
Subcarrier Phase	+/- 180°

Control Methods

Local	via Front Panel Buttons & OSD
RS-232 Interface	via D9 Female Connector
IP Interface	RJ45 Connector
Infrared Remote	via IRC-5 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 Cable	6' (2m) DVI Male to Male
1x Serial Cable	6' (2m) D9 Male to Male
1x IR Remote	IRC-5
1x Operations Manual	C2-2000 Series
1x In-Plug Power Supply	US, UK or Euro

Product Item Numbers

C2-2100 (C2-2105)	Down Converter (w/SDI Out)
C2-2150 (C2-2155)	Down Converter PLUS (w/SDI)

Optional Accessories

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

Panel Drawings