1T-C2-100 Down Converter is based on TV One's exclusive CORIO®2 technology and provides high quality scan conversion from Computer or HDTV signals to standard video formats in a compact package. It handles 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. Video outputs are switchable between NTSC and PAL and are simultaneously provided in Composite and YC. A PC loop-thru is also provided.

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 Remote Control Unit or an RS-232 connection. The CORIOtools Suite integrates fully with the unit. 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 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 ensures faithfully reproduced, high resolution colors. The 1T-C2-100 is housed in a compact desktop case and a single/dual rackmount kit is available as an option.

1T-C2-150 Down Converter PLUS has all the functions and features of the 1T-C2-100 and adds a wide variety of additional capabilities, such as Genlock, Chromakey and Lumakey. The **Key Mode** allows computer graphics to be keyed over an external Composite or YC 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 the computer input to be inset in a window over either of the video inputs.

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

Key Features of the 1T-C2-100

- Automatic Incoming Resolution Detection
- Computer Input via HD-15 with Loop-thru
- Computer Resolutions to 2048x2048
- HDTV Resolutions to 1080p
- AutoSet® - Automatic picture sizing
- Multiple Worldwide Television Standards
- Two CV and Two YC (S-Video) Outputs
- RS-232 Interface
- Windows Control Panel included
- CORIOtools Suite compatible
- Variable Image Zoom to 10X and Shrink to 10%
- Optional IR Remote Control
- Optional Single/Dual Rackmount Kit

Additional Features of the 1T-C2-150

- Genlock with Subcarrier Phase Adjustment
- Chromakey and Lumakey
- Mix and PIP
- CV and YC (S-Video) Input

This symbol on a product indicates that it is powered by CORIO®2 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 CORIO®2. 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 CORIO®2 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 CORIO®2 based product can always be upgraded to the latest version of that model.

Specifications

Computer Input
Signal Type - Analog	RGBHV, RGBS, RGsB, YPbPr
Sync	TTL Level, 10KΩ, Pos or Neg
Termination	Auto-terminating into 75Ω
Connectors	1x HD-15 Female with Loop-thru
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
Vertical Refresh Rate	Any to 250Hz
Max Horiz Scan Rate	150KHz
Computer Compatibility	PC, Macintosh, Workstations

Video Inputs
	(1T-C2-150 Only)
Composite Video	1x via BNC
YC (S-Video)	1x via 4-Pin Mini-DIN Connector

Video Outputs
Television Standards	NTSC, PAL, PAL-M, PAL-N, SECAM
Impedance	75Ω
Composite Video	2x via BNC (1x on 1T-C2-150)
YC (S-Video)	2x via 4-PIN (1x on 1T-C2-150)
Computer Loop-thru	1x via HD-15 Female Connector

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 – CORIO®2
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
	(1T-C2-150)
Key	Chromakey or Lumakey
Mix	Mix PC to/from Video
PIP	Variable Window Size & Position

Genlock Adjustments
	(1T-C2-150)
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
Infrared Remote	via IRC-5 Remote Unit

Warranty
Limited Warranty	5 Years Parts and Labor

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

Mechanical
Size (H-W-D)	30x200x90mm(1.18"x7.87"x3.54")
Weight (Net)	0.52 kg (1.14 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	1T-C2-100 Series
1x Power Adapter	US, UK, Euro or AU

Product Item Numbers
1T-C2-100	Down Converter
1T-C2-150	Down Converter PLUS

Optional Accessories
IRC-5	Infrared Remote Control
RM-230	Single/Dual Rackmount Kit

Panel Drawings