



C2-2375A

Universal 3G SDI Video/Audio Converter (▲▼×)



Key Features C2-2375A

- Up ▲, Down ▼, Cross × Conversion
- SDI inputs: 1x SD/HD/3G-SDI with re-locked out
- Digital/Analog inputs: 2x DVI-U (DVI, Analog RGB/YpPr/YUV/CV/YC)
- Genlock inputs: 1x Tri/Bi with loop-through
- SDI outputs: 2x SD/HD/3G-SDI (duplicated)
- Digital/Analog outputs: 2x DVI-U (DVI, Analog RGB/YpPr/YUV/CV/YC)
- 2nd Digital/Analog output can be different format
- Analog: PC to 2048x2048, HDTV to 1080p/60
- DVI: PC to 1920x1200, HDTV to 1080p/60
- Video: NTSC, PAL, PAL-M, PAL-N, SECAM
- Motion Compensation & 3:2 Pull-down
- Temporal Interpolation & Diagonal Interpolation
- Noise Reduction for PAL, NTSC and 1080i analog inputs
- Automatic Incoming Resolution Detection
- AutoSet - Automatic picture sizing of PC inputs
- 4:4:4 Full bandwidth sampling
- Video signal parameter adjustments
- Optional redundant internal PSU
- Audio de-embed / embed for SDI and HDMI (via DVI)
- Closed-caption de-embed (CV/SDI) /embed for SDI
- AFD and VP packet support for SDI
- Integral Audio Routing
- User-defined Logo insertion
- Borders with variable size and color
- Optional Audio Module with AES break-out and adjustable delay
- Optional Tally/UMD Module
- RS-232/422/485 interface
- IP Interface
- Variable Image Zoom to 10X and Shrink to 10%

C2-2375A 3G Up-Down-Cross Converter is based on TV One's exclusive CORIO@2 technology and provides high quality bi-directional conversion between a variety of analog and digital video formats. Input and Outputs can be SD/HD/3G-SDI, DVI, Composite Video, YC, YUV, YPbPr or RGB. Signal parameters of the incoming video may be adjusted. All settings are stored in non-volatile memory and are retained even when power is switched off. Ten user defined presets are also available to customize settings for various applications.

The high resolution RGB/YPbPr output is selectable as virtually any PC or HDTV resolution. 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. NTSC, PAL, PAL-M, PAL-N, SECAM standards are supported. The 2nd Digital/Analog output can be set to be a different video format and resolution.

All the functions can be controlled via the front panel Push Buttons, an RS-232/422/485 or IP connection. Windows Control Panel software is provided and most third party control systems interface directly with the entire C2 range of products. A front panel LCD makes setup easy. The unit is housed in a standard 1U rack mount case and features an optional redundant internal PSU and power inlet.

Variable Zoom to 10X enlarges any part of the computer screen to fill the entire video screen and position controls allow movement 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. Temporal interpolation greatly improves frame-rate conversion by merging successive frames. Pixel Level Motion Adaptive Diagonal Interpolation and Noise Reduction insures high quality de-interlacing of PAL, NTSC and 1080i signals. 3:2 Pull-down insures proper 24 fps film extraction from NTSC and 1080i sources.

Advanced Features - The Key Mode allows computer graphics to be keyed over an external Composite, YC, or SDI 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 Seamless Cut, Fade or Wipe transitions between input sources. The PIP Mode allows either of the computer DVI-U/SDI inputs to be inset in a window over DVI-U/SDI inputs or vice versa. The PIP window may be placed anywhere on the screen. The Genlock feature is SD and HD compatible and insures precise synchronization of the incoming signals by providing a wide Subcarrier lock range with Subcarrier phase adjust.

Integral Audio switching is provided to route audio from the (HDMI-compatible) DVI input or SDI input to the DVI and SDI outputs. An optional Audio Module can provide AES I/O abilities and audio delay and can link to our A2-7300 range of audio break-out units.

Video Switcher/Scalers

Distributor / Vertrieb:

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C2-2375A Specifications

Video Inputs

Television Standards	NTSC, PAL, PAL-M, PAL-N, SECAM
Composite Video	2x via DVI-U or 1x via BNC b/o*1
YC (S-Video)	2x via DVI-U or 1x via BNC b/o*1
YUV /YPbPr	2x via DVI-U or 1x via BNC b/o*1
SD/HD/3G-SDI	1x via BNC, with relocked output

Computer Inputs

Analog	2x via DVI-U or 1x via BNC b/o*1
Analog format	RGBHV, RGBS, RGsB, YPbPr
Digital	2x via DVI-U (DVI-I connector) HDMI compatible
Analog Sync	TTL Level, 10KΩ, Pos or Neg
Analog Termination	75Ω
R-G-B Level Range	0.5-2.0 Vp-p
Scan Rate Detection	Automatic
Analog Signals	PC to 2048x2048, HD to 1080p/60
DVI Signals	PC to 1920x1200, HD to 1080p/60
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	2x via DVI-U or 1x via BNC b/o*1
YC (S-Video)	2x via DVI-U or 1x via BNC b/o*1
YUV /YPbPr	2x via DVI-U or 1x via BNC b/o*1
SD/HD/3G-SDI	2x via BNC (identical)

Computer Outputs

Analog	2x via DVI-U or 1x via BNC b/o*1
Analog format	RGBHV, RGBS, RGsB, YPbPr
Digital	2x via DVI-U (DVI-I connector) HDMI compatible
R-G-B Level	0.7 Vp-p
Analog Signals	PC to 2048x2048, HD to 1080p/60
DVI Signals	PC to 1920x1200, HD to 1080p/60
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
Conversion Technology	Proprietary – CORIO@2
Frame-rate Conversion	Temporal
Color Resolution	24-bit (16.8 Million Colors)
Sampling rate / type	162MHz 24-bit 4:4:4
Firmware Memory	Flash, Upgradeable via RS-232
De-Interlacing	Pixel-level Motion Adaptive, Diagonal Interpolation, Noise Reduction.
Video Comb Filter	Adaptive
Film (NTSC, 1080i)	3:2 Pulldown
Video Adjustments	CV/YC: Contrast, Brightness, Saturation, Hue (NTSC). Analog RGB/YPbPr levels
DVI I/O	HDCP Compatible

Audio support

De-embed / embed SDI & HDMI (via DVI)

Closed Captions

De-embed / embed SDI (608 & 608 in 708)

Genlock Adjustments

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

SDI Jitter

SMPTE259M-C (SD-SDI)	(270Mbps:525/625Line) Jitter < 0.1 UI
SMPTE292M (HD-SDI)	(1.485/1.4835Gbps: 720p, 1035i, 1080i, 1080p) Jitter < 0.2 UI
SMPTE424M (3G-SDI)	(2.97/2.967Gbps: 1080p 60/59.94) Jitter < 0.3 UI

I/O Vertical Rates - SMPTE259M-C (SD-SDI)

525i (720x488)	59.94Hz
625i (720x576)	50 Hz

I/O Vertical Rates - SMPTE292M (HD-SDI)

720p (1280x720)	23.98, 24, 25, 29.97, 30, 50, 59.94, 60Hz
1035i (1920x1035)	59.94, 60Hz
1080i (1920x1080)	50, 59.94, 60Hz
1080p (1920x1080)	23.98, 24, 25, 29.97, 30Hz

I/O Vertical Rates - SMPTE425M-A (3G-SDI)

1080p (1920x1080)	50, 59.94, 60Hz
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Control Methods

Local	via Front Panel Buttons & LCD
RS-232/422/485	via D9 Female Connector
IP Interface	RJ45 Connector

Warranty

Limited Warranty 5 Years Parts and Labor

Regulatory Compliance

Main unit FCC, CE, RoHS

Mechanical

Size (HWD) with Rack Ears	44x483x201mm (1.75"x19"x7.9")
Weight (Net)	4.54Kg (10 lbs)

Environmental

Operating Temperature	0° to +55° C (+32° to +131° 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
MTBF (C2-2375A-DP-2)	35,000 hours

Power Requirement

Power Supply	110v to 240v auto-detecting
Redundancy	Optional redundant internal PSU

Accessories Included

1x Operations Manual	
1x Power cable	US, UK or Euro

Product Item Number

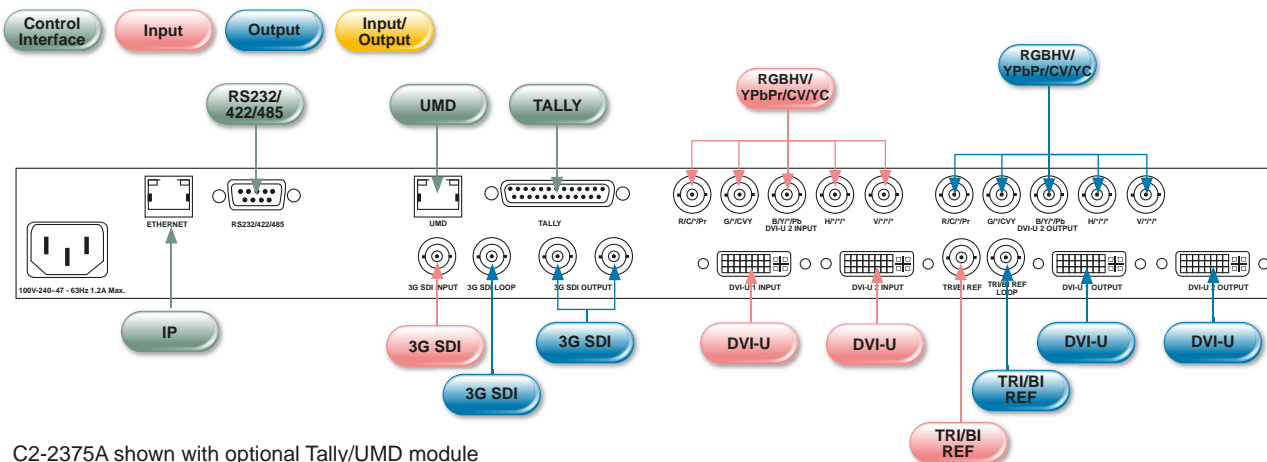
C2-2375A

Optional Accessories

Tally/UMD module	Factory fitted *2
Redundant PSU + inlet	Factory fitted *2
Adaptor DVI-BNC	ZDC2050
Control Software	Downloadable from Website

Notes

- (1) BNC break-out splits the DVI-U's analog signals into 5x BNC connectors for ease of use.
- (2) Each of these uses one of the 2 spare module slots.



C2-2375A shown with optional Tally/UMD module

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