



PC Card Down Converter

Model C2-160



C2-160 PCI/ISA Card Down Converter is based on TV One's exclusive CORIO2™ technology and provides high quality scan conversion from Computer or HDTV signals to standard video formats in a compact package. It handles virtually any computer resolution up to 2048x2048 at any vertical refresh rate and all HDTV resolutions up to 1080p. In order to deal with PC 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 and S-Video. 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 can be stored in non-volatile memory and are retained even when power is switched off. All the functions can be controlled via an optional Infrared Control Remote Unit or via an RS-232 connection. 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 insures faithfully reproduced, high resolution colors. The C2-160 plugs into a vacant slot inside a PC and receives its power from a standard Hard Drive connector within the PC.

The C2-160 also features 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 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 the computer input to be inset in a window over either of the video inputs.

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

The unit is provided with a single break-out cable incorporating all of the required PC and video inputs and outputs, along with RS232.



Key Features of the C2-160

- Automatic incoming resolution detection
- Computer Input with Loop-thru
- Computer Resolutions to 2048x2048
- HDTV Resolutions to 1080p
- AutoSet® - Automatic picture sizing
- Multiple Worldwide Television Standards
- Composite and S-Video Inputs/Outputs
- RS-232 Interface and Windows Control Panel
- Variable Image Zoom to 10X and Shrink to 10%
- Genlock with Subcarrier Phase Adjustment
- Chromakey and Lumakey
- Mix and PIP



This symbol on a product indicates that it is powered by CORIO2™ technology, the most flexible video processing engine now available.

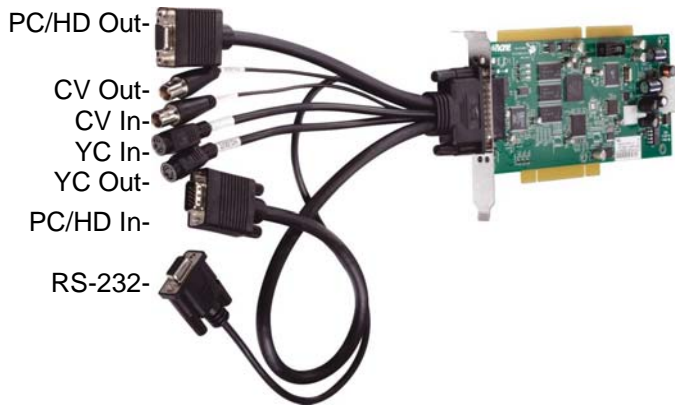
Unlike most manufacturers, who use third party chipsets to provide video conversion, TV One has developed its own proprietary technology known as CORIO2™. This frees TV One products from the constraints imposed by third parties and results in an unsurpassed degree of flexibility. Products based on third 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 from 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

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|--------------------------|-----------------------------------|
| Computer Input | (Note 1) |
| VGA Video | 1x HD-15 Male Connector |
| Signal Type - Analog | 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 |
| PC Resolutions | Any up to 2048x2048 |
| HDTV Resolutions | Any up to 1080p |
| Max Horiz Scan Rate | 150KHz |
| Video Inputs | (Note 1) |
| Composite Video | 1x BNC Connector |
| S-Video (YC) | 1x 4-Pin Mini-DIN Connector |
| Standards Supported | NTSC, PAL |
| Impedance | 75Ω |
| CV/YC Decoder | 8-bit Digital |
| Comb Filter Decoding | Adaptive |
| CV, YC Adjustments | Contrast, Bright, Saturation, Hue |
| Sub-carrier Lock Range | +/-200Hz NTSC, +/-250Hz PAL |
| Sub-Carrier Phase | +/- 180 degrees |
| Video Outputs | (Note 1) |
| Composite Video | 1x BNC Connector |
| S-Video (Y/C) | 1x 4-PIN Mini-DIN Connector |
| Computer Loop-thru | 1x HD-15 Female Connector |
| Television Standards | NTSC, PAL |
| Impedance | 75Ω |
| CV/YC Encoder | 8/10 bit Digital |
| Operational Modes | |
| Key | ChromaKey or Lumakey |
| Mix | Mix PC To/From Video |
| PIP | Variable Window Size & Pos. |
| General | |
| Pix Size and Position | Automatic 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% |

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|---|---------------------------------|
| General (Continued) | |
| 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 Adjustments | R-G-B Levels |
| Control Methods | |
| Local | Via Included software |
| Infra-Red | Via Optional Remote Control |
| RS-232 Interface | Via D9 Female Conn. (Note 1) |
| Warranty | |
| Limited Warranty | 2 Years Parts and Labor |
| Regulatory Compliance | |
| PCI/ISA Card | FCC, CE, CSA, RoHS |
| Mechanical | |
| Size (W-D) | 4"x8" (100mmx204mm) |
| Weight (Net) | 0.3 lbs (135g) |
| Environmental | |
| Operating Temperature | +4° to +45° C (+40° to +113° F) |
| Operating Humidity | 10% to 85%, Non-condensing |
| Storage Temperature | 0° to +60° C (+32° to +140° F) |
| Storage Humidity | 10% to 85%, Non-condensing |
| Power Requirement | |
| 12 VDC @ 800ma | Via PC Hard Drive Connector |
| Accessories Included | |
| 1x Breakout Cable | HD-44 to Various Connectors |
| 1x Operations Manual | Provided on CD |
| 1x Control Software | Microsoft Windows Based |
| Product Item Numbers | |
| C2-160 | PCI/ISA Down Converter |
| Optional Accessories | |
| CC-300 | CORIO Console |
| IRC4 | Infrared Remote Control |
| Notes | |
| (1) All Video and PC connections are via a breakout cable | |

C2-160 with Breakout Cable Attached



Sample Windows Control Panel Menus

