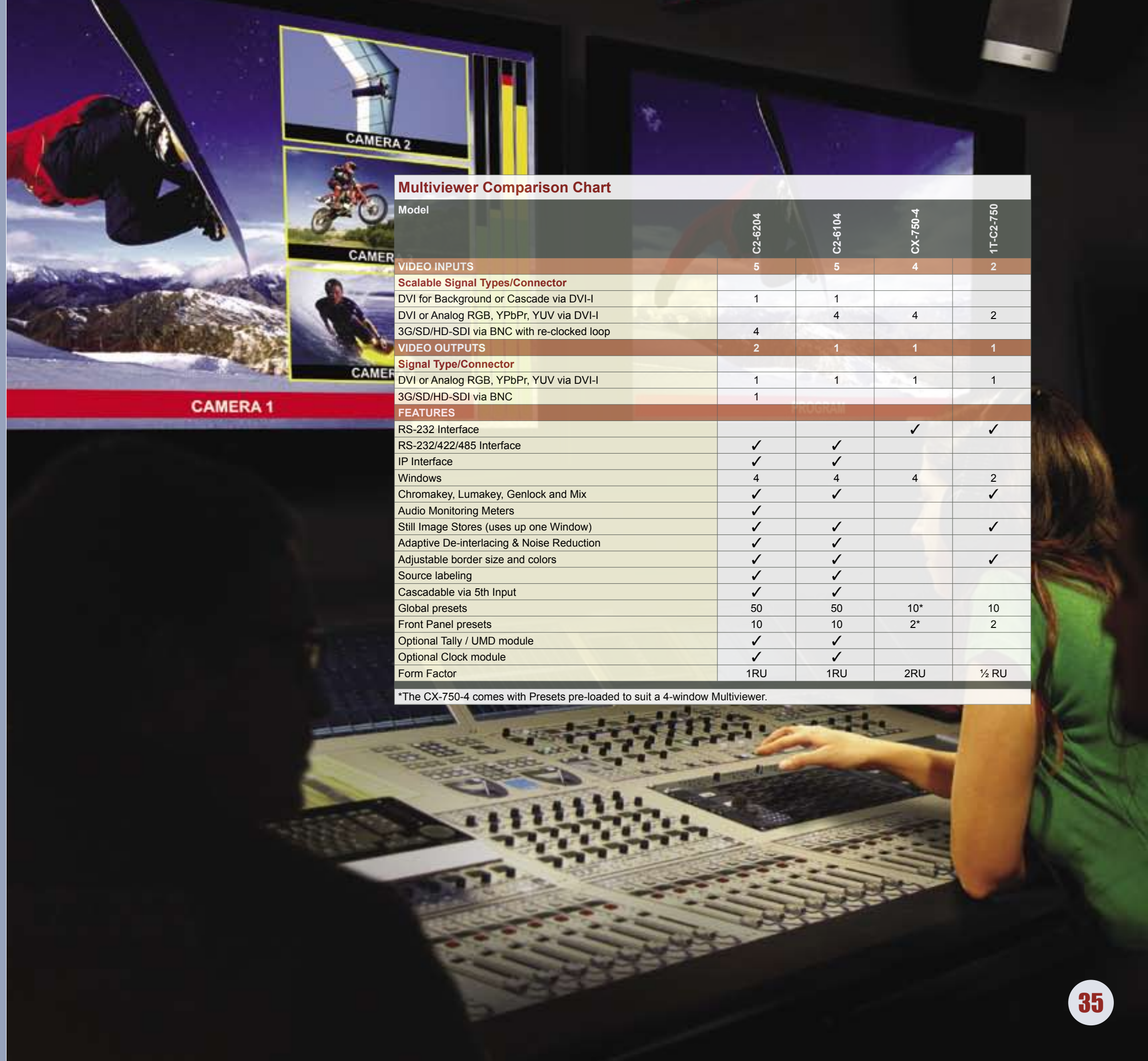


# Multiviewers

Multiviewers or Multi-Window Processors allow multiple video images to be displayed on a single display in different windows.



**Multiviewer Comparison Chart**

Model	C2-6204	C2-6104	CX-750-4	1T-C2-750
<b>VIDEO INPUTS</b>	5	5	4	2
<b>Scalable Signal Types/Connector</b>				
DVI for Background or Cascade via DVI-I	1	1		
DVI or Analog RGB, YPbPr, YUV via DVI-I		4	4	2
3G/SD/HD-SDI via BNC with re-clocked loop	4			
<b>VIDEO OUTPUTS</b>	2	1	1	1
<b>Signal Type/Connector</b>				
DVI or Analog RGB, YPbPr, YUV via DVI-I	1	1	1	1
3G/SD/HD-SDI via BNC	1			
<b>FEATURES</b>				
RS-232 Interface			✓	✓
RS-232/422/485 Interface	✓	✓		
IP Interface	✓	✓		
Windows	4	4	4	2
ChromaKey, LumaKey, Genlock and Mix	✓	✓		✓
Audio Monitoring Meters	✓			
Still Image Stores (uses up one Window)	✓	✓		✓
Adaptive De-interlacing & Noise Reduction	✓	✓		
Adjustable border size and colors	✓	✓		✓
Source labeling	✓	✓		
Cascadable via 5th Input	✓	✓		
Global presets	50	50	10*	10
Front Panel presets	10	10	2*	2
Optional Tally / UMD module	✓	✓		
Optional Clock module	✓	✓		
Form Factor	1RU	1RU	2RU	½ RU

\*The CX-750-4 comes with Presets pre-loaded to suit a 4-window Multiviewer.

# CORIOview C2-6204

## 4 Window 3G-SDI Multiviewer



### Key Features C2-6204

- 4-window Processor
- 4 high quality CORIO@2 scaling engines.
- 4 3G-SDI inputs with re-clocked loop through
- 5th input (DVI-I) for background or cascading multiple-units
- 4x Internal Still Image Stores
- DVI-D I/O support to 1920x1200, 1080p@60Hz
- DVI-A I/O support to 2048x2048, 1080p@60Hz
- SDI Output support, SD/HD/3G
- Analog supports RGBHV, RGBS, RGsB, YPbPr
- 10 user-definable presets
- Motion adaptive de-interlacing & noise reduction for YUV & YPbPr inputs
- Color borders and source labeling
- Zoom up to 10X with Full Positioning
- Image Shrink to 10% with Full Positioning
- Per-pixel or percentage scaling
- Autoset - Automatic analog picture sizing
- Chromakey, Lumakey, Genlock & Mix
- Front panel includes LCD, menu control and quick-setup features
- Control via RS-232/RS-422/RS-485, Ethernet or Front Panel
- CORIOtools Suite compatible
- Optional modules (e.g. for Tally I/O)
- 1RU rack-mount case

**CORIOview C2-6204 4-Window 3G SDI Processor** is based on TV One's exclusive CORIO@2 technology and has four 3G SDI inputs plus a DVI-I input (for cascade or background use) to place up to 4 sizeable windows on a single DVI-I / 3G SDI output. Each window is powered by a CORIO@2 scaler providing full PIP flexibility.

3G SDI resolutions up to 1080P/60 are supported. High performance de-interlacing with motion-adaptive noise reduction are available for interlaced sources. The unit provides a DVI-I output as well as a duplicate 3G SDI capable output.

All settings are stored in a non-volatile memory and are retained even when power is switched off. A built-in LCD and menu system aids quick setup allowing functions to be controlled via the front panel Push Buttons, or alternatively via RS-232/ RS-422/RS-485 or Ethernet.

Variable Zoom to 10X allows you to enlarge any part of the graphic image to fill the entire computer screen and position controls allow you to move around to any area desired. Variable Shrink to as little as 10% allows fitting multiple images next to each other, with full positional controls.

Advanced Features include Genlock, Chromakey, Lumakey and Mixing. The Key Mode allows any window to be keyed over any other with variable priority / layer control. 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.

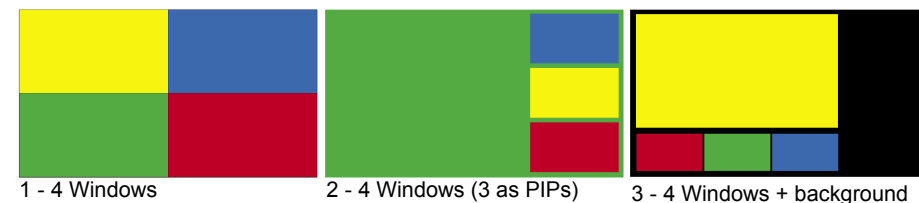
### User-defineable Presets

Ten user defined presets (controllable directly from the front panel or external communications) are available to customize settings for various applications. The 4 scaleable windows can be positioned and layered anywhere on the output monitor. Colored borders and source labelling are also provided for each window. Four Still Image Stores are built into the unit which can each display one of ten user loadable graphic images to be used in place of an input. The fifth input can be used for a background color, unscaled video or for cascading.



Ideal for Control Room applications

### Preset Examples



1 - 4 Windows

2 - 4 Windows (3 as PIPs)

3 - 4 Windows + background



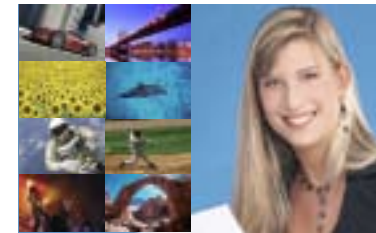
4 - 4 Windows + background

5 - 3 Windows + 1 stored user image (ie keyed logo) + background

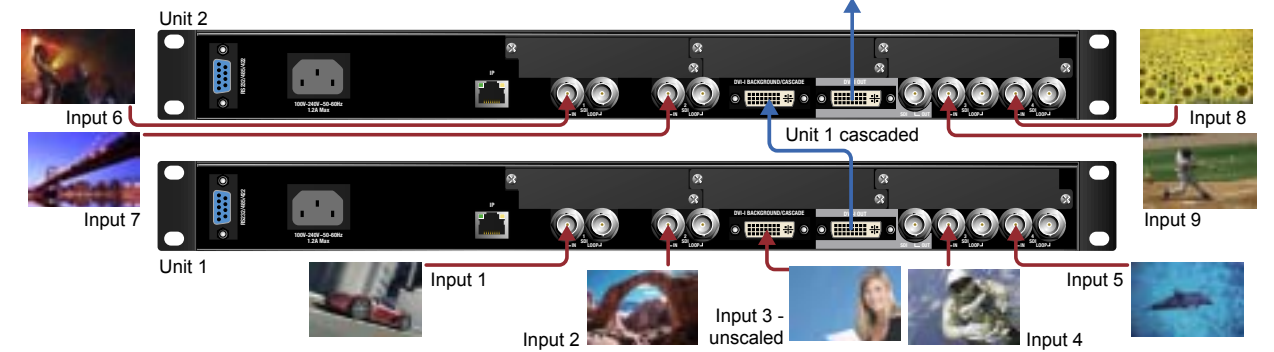


### Cascading 2 or more units

Several CORIOview Multiviewer units can be cascaded together to expand the number of images displayed. This example shows the combination of two units to provide eight scaled and positioned images from eight separate sources over an unscaled background.

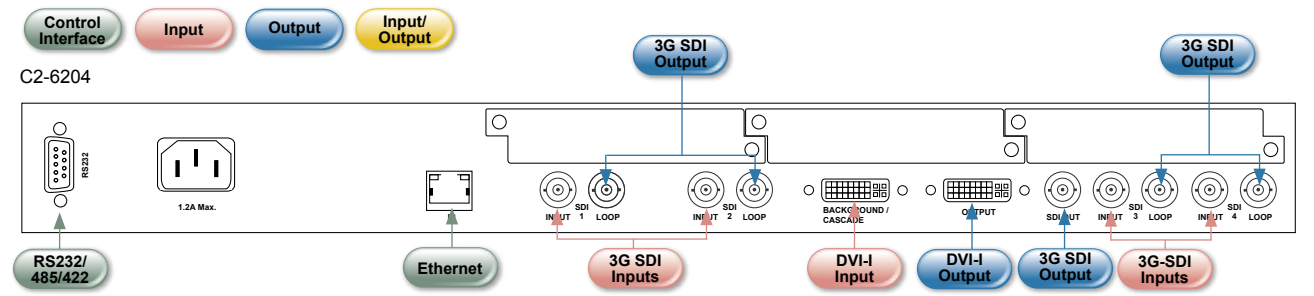


In cascading the output from Unit 1 is fed into the Background/ cascade input of Unit 2



### C2-6204 Specifications

<b>Inputs</b>	4x 3G SDI via BNC Connector 1 x DVI-I via DVI Connector (5th input)	YPbPr de-interlacing Film Mode (525i/1080i) Conversion Technology Frame Rate Conversion Color Resolution Sampling Rate Digital Sampling Firmware Memory Analog Video Adjust	Motion adaptive + noise reduction 3:2 Pull Down Detection Proprietary – CORIO@2 Frame add/drop 24-bit (16.8 Million Colors) 162MHz 24-bit, 4:4:4 format Flash, Upgradeable via RS-232 R-G-B Levels Contrast, Phase
<b>Signal Type</b>		<b>Control Methods</b>	via Front Panel Buttons & LCD via D9 Female Connector RJ45
<b>SDI Format:</b>	3G, HD, SD SDI	<b>Warranty</b>	Limited Warranty 2 Years Parts and Labor
<b>Digital DVI-D Format:</b>	Max HD Resolution Max PC Resolution	<b>Regulatory Compliance</b>	FCC, CE, RoHS UL, CUL, CE, PSE, GS, RoHS
<b>Analog DVI-A Format:</b>	Max HDTV Resolution Max PC Resolution Max Horiz Scan Rate Signal Format Sync Termination R-G-B Level Range Scan Rate Detection	<b>Mechanical</b>	Desktop Case (HWD) With Rack Ears (HWD) Weight (Net)
<b>Output</b>	Signal Type	<b>Environmental</b>	Operating Temperature Operating Humidity Storage Temperature Storage Humidity
<b>General</b>	Size and Position Image Size Image Freeze Settings Memory Zoom Range Shrink Range Image Mirroring Horizontal Filtering	<b>Power Requirement</b>	100-240VAC, 50-60Hz, 50W
		<b>Accessories Included</b>	1x AC Power Cord 2x VGA to DVI Adapters 1x Operations Manual 1x Rack mount Kit 1x Control Software
		<b>Product Item Numbers</b>	CORIOview C2-6204 CORIOview C2-6204 ZDH-2038 ZDH-2040 C2M-TALLY C2M-CLOCK
		<b>Optional Accessories</b>	3G SDI Multiviewer DVI-I Male to 5-BNC Female DVI-I Male to VGA Female Tally module Clock module



# CORIOview C2-6104

## 4 Window DVI-I Video Processor



### Key Features C2-6104

- 4-window Processor
- 4 high quality CORIO®2 scaling engines.
- 4 DVI-I inputs
- 5th input (DVI-I) for background or cascading multiple-units
- 4x Internal Still Image Stores
- DVI-D I/O support to 1920x1200, 1080p@60Hz
- DVI-A I/O support to 2048x2048, 1080p@60Hz
- Analog supports RGBHV, RGBS, RGsB, YPbPr
- 10 user-definable presets
- Motion adaptive de-interlacing & noise reduction for YUV & YPbPr inputs
- Color borders and source labeling
- Zoom up to 10X with Full Positioning
- Image Shrink to 10% with Full Positioning
- Per-pixel or percentage scaling
- Autoset - Automatic analog picture sizing
- Chromakey, Lumakey, Genlock & Mix
- Front panel includes LCD, menu control and quick-setup features
- Control via RS-232/RS-422/RS-485, Ethernet or Front Panel
- CORIOtools Suite compatible
- Optional modules (e.g. for Tally I/O)
- 1RU rack-mount case

Based on TV One's exclusive CORIO®2 Technology the **CORIOview C2-6104** has five DVI-I inputs (including one for cascade or background usage) to place up to 4 sizeable windows on a single DVI-I output. Each window is powered by a CORIO®2 scaler providing full picture-in-picture flexibility. High-performance de-interlacing with motion-adaptive noise reduction provides input compatibility with YUV and YPbPr sources such as 525i, 625i, 720p, 1080i and 1080p. Custom resolutions can also be added quickly and easily using available software.

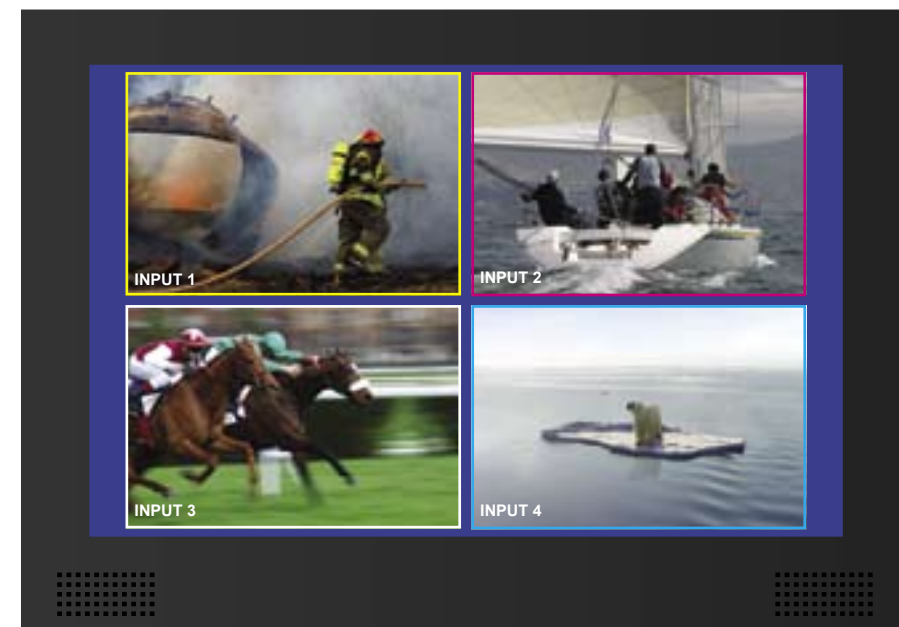
All settings are stored in a non-volatile memory and are retained even when power is switched off. A built-in LCD and menu system aids quick setup allowing functions to be controlled via the front panel Push Buttons, or alternatively via RS-232/ RS-422/RS-485 or Ethernet.

Variable Zoom to 10X allows you to enlarge any part of the graphic image to fill the entire computer screen and position controls allow you to move around to any area desired. Variable Shrink to as little as 10% allows fitting multiple images next to each other, with full positional controls.

Advanced Features include Genlock, Chromakey, Lumakey and Mixing. The Key Mode allows any window to be keyed over any other with variable priority / layer control. 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.

### CORIOtools Suite integration

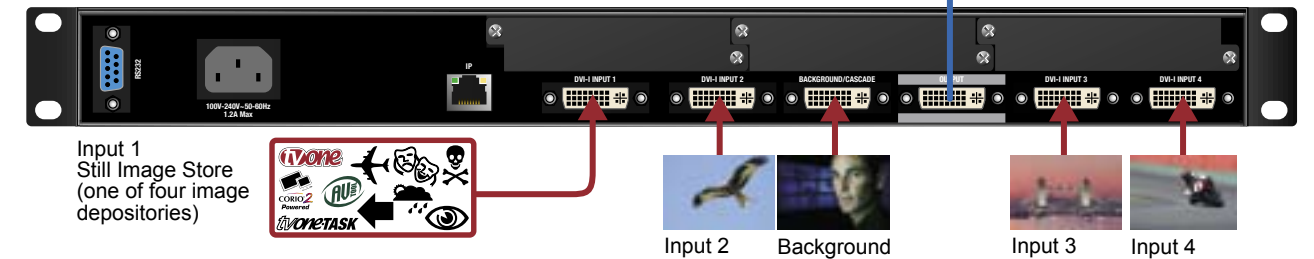
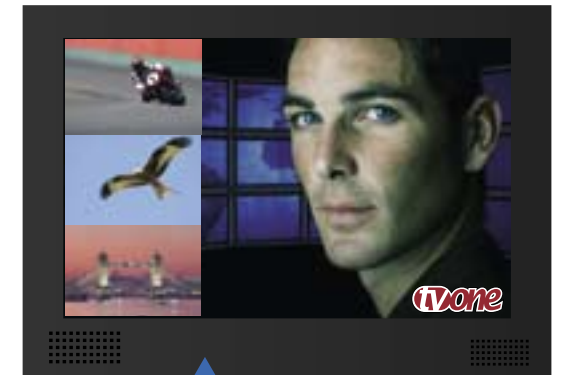
The CORIOtools Suite integrates fully with both the CORIOview C2-6204 and C2-6104. Amongst its many useful applications is the ability to visually label each input. This allows the operator to keep track of which window relates to which input - particularly useful when cascading units.



### Still Image Store

The CORIOview Multiviewers have four Still Image Stores which can each display one of ten user loadable graphic images in place of an input. A stored user image such as a custom logo or test card can be keyed, scaled and positioned over the full screen image. Keyed images can be faded in and out, and due to its 4:4:4 sampling format, precise keying at pixel level can be achieved.

In the example to the right, input 1 has been used to insert a keyed logo from one of the units four Still Image Stores.

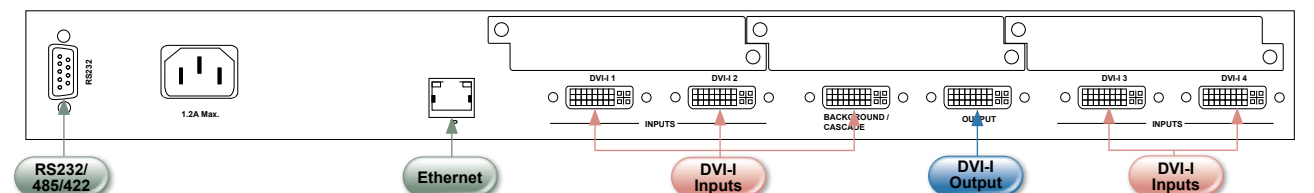


### C2-6104 Specifications

<b>Inputs</b>	5x DVI-I via DVI-I Connector	<b>Color Resolution</b>	24-bit (16.8 Million Colors)
<b>Signal Type</b>	5x DVI-I via DVI-I Connector	<b>Sampling Rate</b>	162MHz
<b>Digital DVI-D Format:</b>		<b>Digital Sampling</b>	24-bit, 4:4:4 format
Max HD Resolution	1080p@60Hz	<b>Firmware Memory</b>	Flash, Upgradeable via RS-232
Max PC Resolution	1920x1200@60Hz	<b>Analog Video Adjust</b>	R-G-B Levels Contrast, Phase
<b>Analog DVI-A Format:</b>		<b>Control Methods</b>	
Max HDTV Resolution	1080p@60Hz	Local	via Front Panel Buttons & LCD
Max PC Resolution	2048x2048	RS-232/RS-485/RS-422	via D9 Female Connector
Max Horiz Scan Rate	150KHz	Ethernet (TCP/IP)	RJ45
Signal Format	RGBHV, RGBS, RGsB, YPbPr	<b>Warranty</b>	
Sync	TTL Level, 10KΩ, Pos or Neg	Limited Warranty	2 Years Parts and Labor
Termination	75Ω	<b>Regulatory Compliance</b>	
R-G-B Level Range	0.5-2.0 Vp-p	Main Units	FCC, CE, RoHS
Scan Rate Detection	Automatic	Power Supply	UL, CUL, CE, PSE, GS, RoHS
<b>Output</b>		<b>Mechanical</b>	
<b>Signal Type</b>	1x DVI-I via DVI-I Connector	Desktop Case (HWD)	44x420x200mm (1.75"x17"x7.9")
<b>Digital DVI-D Format:</b>		With Rack Ears (HWD)	44x482x200mm (1.75"x19"x7.9")
Max HD Resolution	1080p@60Hz	Weight (Net)	TBA
Max PC Resolution	1920x1200@60Hz	<b>Environmental</b>	
<b>Analog DVI-A Format:</b>		Operating Temperature	0° to +50° C (+32° to +122° F)
Max HDTV Resolution	1080p@60Hz	Operating Humidity	10% to 85%, Non-condensing
Max PC Resolution	2048x2048	Storage Temperature	-10° to +70° C (+14° to +158° F)
Vertical Refresh Rate	Any to 250Hz	Storage Humidity	10% to 85%, Non-condensing
Signal Format	RGBHV, RGBS, RGsB, YPbPr	<b>Power Requirement</b>	
R-G-B Level	0.7 Vp-p	Internal Power Supply	100-240VAC, 50-60Hz, 50W
<b>General</b>		<b>Accessories Included</b>	
Size and Position	Automatic via AutoSet or Manual	1x AC Power Cord	6' (2m) US, UK or Euro
Image Size	User-Definable Presets	2x VGA to DVI Adapters	
Image Freeze	One Video Frame	1x Operations Manual	
Settings Memory	Non-Volatile	1x Rack mount Kit	2 Ears and 4 Screws
Zoom Range	Variable to 10X Zoom	1x Control Software	Downloadable from website
Shrink Range	Variable to 10%	<b>Product Item Numbers</b>	
Image Mirroring	Horizontal and/or Vertical	CORIOview C2-6104	DVI-I Multiviewer
Horizontal Filtering	Full Digital	<b>Optional Accessories</b>	
YPbPr de-interlacing	Motion adaptive + noise reduction	RM110	Rear rack rail supports for 24" to 32" deep racks
Film Mode (525i/1080i)	3:2 Pull Down Detection	ZDH-2038	DVI-I Male to 5-BNC Female
Conversion Technology	Proprietary - CORIO®2	ZDH-2040	DVI-I Male to VGA Female
Frame Rate Conversion	Frame add/drop	C2M-TALLY	Tally module
		C2M-CLOCK	Clock module



C2-6104



# CX-750-4

## 4-Window DVI-I Multiviewer system



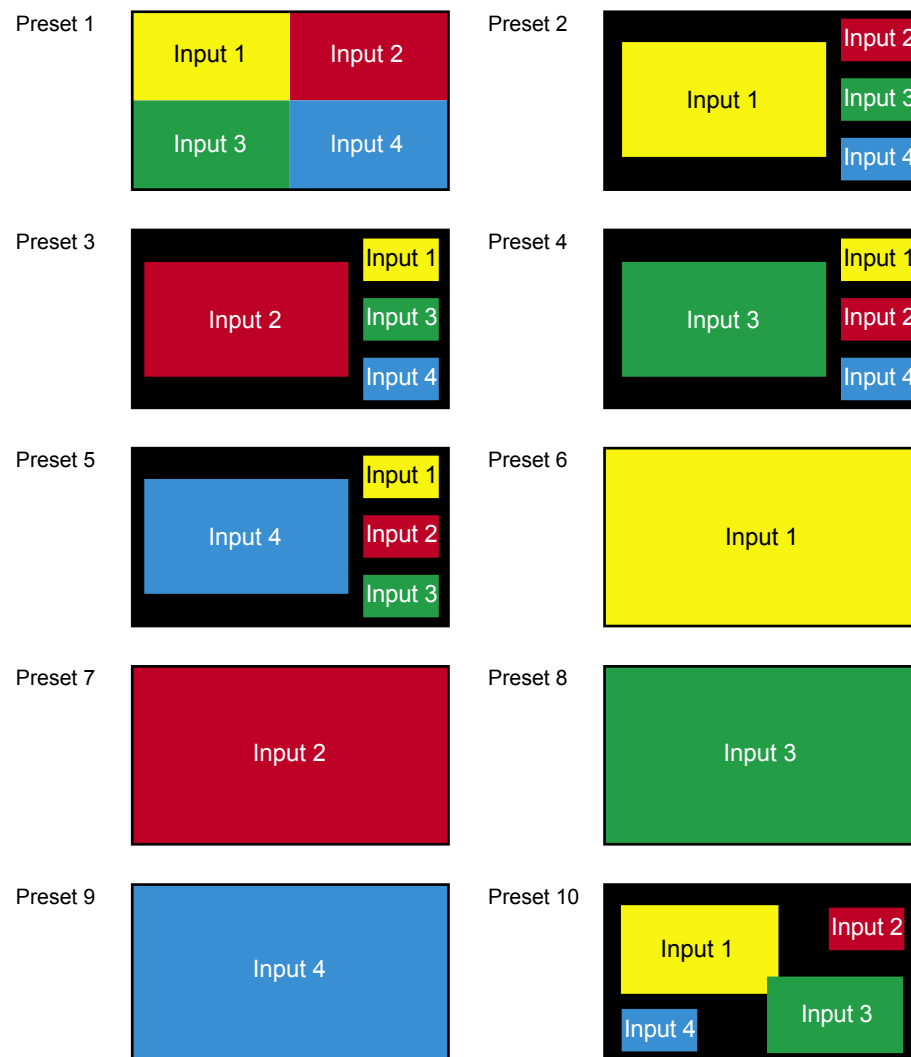
### Key Features CX-750-4

- 4-Window Processor System
- 4x DVI-I Inputs
- DVI-D I/O support to 1920x1200, 1080p/60
- DVI-A I/O support to 2048x2048, 1080p/60
- Analog supports RGBHV, RGBS, RGsB & YPbPr
- Control via RS-232, IR or Front Panel
- CORIOtool Suite compatible
- Autoset - Auto analog picture sizing

**CX-750-4** 4-Window DVI-I Processor is an economical alternative to the C2-6104 Multi-Window Processor. It comprises of 3x 1T-C2-750 Scalers and is based on TV One's exclusive CORIO@2 technology. Using high quality graphic scalers capable of working at full DVI video rates, the scalers can accommodate DVI-D resolutions up to 1920x1200@60Hz and 1080p, along with analog DVI-A (or HD15 via optional adaptor) resolutions up to 2048x2048 at virtually any refresh rate. Virtually all computer signal formats are supported

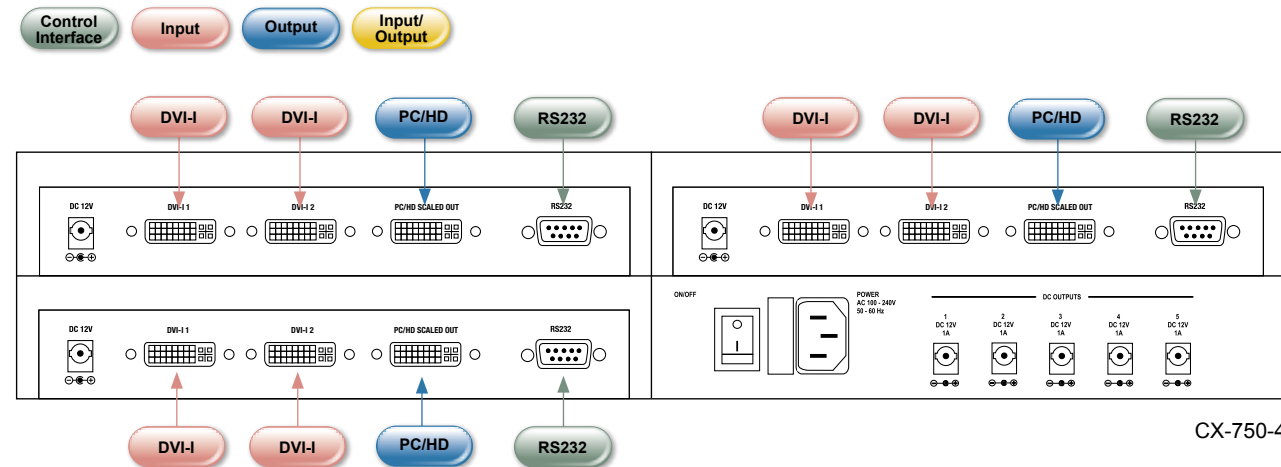
The unit is pre-loaded with 10 presets providing 10 common multiviewer layouts. The layouts can be recalled using the CORIOtools Suite and new layouts can be downloaded from the TV One web site and programmed using the CORIOtools Suite.

### 10 Pre-loaded Presets



### 1T-CX750-4 Specifications

<b>Inputs</b>	Signal Type	4x DVI-I via DVI-I Connector	Frame Rate Conversion	Frame add/drop	24-bit (16.8 Million Colors)
<b>Digital DVI-D Format:</b>	Max HD Resolution	1080p@60Hz	Color Resolution	24-bit (16.8 Million Colors)	
	Max PC Resolution	1920x1200@60Hz	Sampling Rate	162MHz	
<b>Analog DVI-A Format:</b>	Max HDTV Resolution	1080p@60Hz	Digital Sampling	24-bit, 4:4:4 format	
	Max PC Resolution	2048x2048	Firmware Memory	Flash, Upgradeable via RS-232	
	Max Horiz Scan Rate	150KHz	Analog Video Adjust	R-G-B Levels Contrast, Phase	
	Signal Format	RGBHV, RGBS, RGsB, YPbPr	<b>Control Methods</b>		
	Sync	TTL Level, 10KΩ, Pos or Neg	Local	via Front Panel Buttons & OSD	
	Termination	75Ω	RS-232 Interface	via D9 Female Connector	
	R-G-B Level Range	0.5-2.0 Vp-p	Infrared Remote	via IRC-5 Remote Unit	
	Scan Rate Detection	Automatic	<b>Warranty</b>		
<b>Output</b>	Signal Type	1x DVI-I via DVI-I Connector	Limited Warranty	2 Years Parts and Labor	
	Max HD Resolution	1080p@60Hz	<b>Mechanical</b>		
	Max PC Resolution	1920x1200@60Hz	Size (H-W-D)	88x482x200mm (3.5"x19"x7.9")	
<b>Analog DVI-A Format</b>	Max HDTV Resolution	1080p@60Hz	Weight (Net)	TBA	
	Max PC Resolution	2048x2048	<b>Regulatory Compliance</b>		
	Vertical Refresh Rate	Any to 250Hz	Main Units	FCC, CE, RoHS	
	Signal Format	RGBHV, RGBS, RGsB, YPbPr	Power Supplies	UL, CUL, CE, PSE, GS, RoHS	
	R-G-B Level	0.7 Vp-p	<b>Environmental</b>		
<b>General</b>	Size and Position	Automatic via AutoSet or Manual	Operating Temperature	0° to +50° C (+32° to +122° F)	
	Image Size	User-Definable Presets	Operating Humidity	10% to 85%, Non-condensing	
	Image Freeze	One Video Frame	Storage Temperature	-10° to +70° C (+14° to +158° F)	
	Settings Memory	Non-Volatile	Storage Humidity	10% to 85%, Non-condensing	
	Zoom Range	Variable to 10X Zoom	<b>Power Requirement</b>		
	Shrink Range	Variable to 10%	P2-105 Power Adapter	100-240VAC, 50-60Hz	
	Image Mirroring	Horizontal and/or Vertical	<b>Items Included</b>		
	Horizontal Filtering	Full Digital	3x 1T-C2-750	Scaler Units	
	Conversion Technology	Proprietary – CORIO@2	2x RM-230	Rackmount Kits	
			2x Interconnects	DVI Cables	
			1x P2-105	Power Adapter	
			1x Operations Manual		
			<b>Product Item Number</b>		
			CX-750-4	4-Window Processor System	
			<b>Optional Accessories</b>		
			ZDH-2038	DVI Male to 5-BNC Female	
			ZDH-2040	DVI Male to VGA Female	



## 1T-C2-750

### 2 Window DVI-I Multiviewer System



The 1T-C2-750 Dual DVI Scaler PLUS includes two scaling engines that can scale or convert between DVI, RGB and YPbPr formats. The unit also provides extra features such as dual picture-in-picture windowing, seamless switching, keying and overlaying, 10 editable presets and Flash memory for the storage of 10 user loadable images such as testcards and logos (for full details see page 58).

### Editable Preset examples

