C2-2855 / C2-2755 / C2-2655

Scaling with Speed and Agility





A new generation of Scalers

tvONE's evolutionary development of our renowned CORIO®2 scaler technology continues to provide commercial integrators with unsurpassed image quality in nearly any installation situation. Now, to further improve upon the core technology, we are introducing a new generation of scalers that are extremely intuitive & user-friendly and provide greater flexibility.

These new designs have more input/output flexibility than any other previous tvONE scaler. They can be set up and managed using a new, innovative front panel or via computer-based control panel that allows setup in less than ½ the time of the previous generation. The interface provides two distinct sections for unrivaled ease of use; one for system setup and another for live, real-time operations. The front panel helps with setup time through color modulated soft-buttons, intuitive categorized menus, and simple recall of up to 12 presets. Control software is available on several Windows platforms & interfaces directly with the unit. IP and RS-232 serial interfaces are also provided for use with 3rd party control systems.

These scalers provide high quality bi-directional conversion between a variety of analog and digital video formats. Inputs and Outputs include SD/ HD/3G-SDI, HDMI, 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. Twelve user-defined presets are available to customize settings for various applications. The high resolution RGB/YPbPr output is selectable at virtually any PC or HDTV resolution. NTSC, PAL, PAL-M, and PAL-N standards are supported. SECAM is supported for input.

tvONE's Calibrate feature automatically sizes and positions computer images to fit exactly on the video display, and the 10X Variable Zoom can enlarge and position any part of an input to fill the entire video output display. Variable Shrink with as much as 90% size reduction allows almost any image to fit on the tiniest screen. Both high sampling rate and the advanced Digital Flicker Elimination circuitry on CV & YC outputs ensure

crisp, clear images, while full bandwidth chroma sampling ensures faithfully reproduced, high resolution colors. Motion compensation, diagonal interpolation and a 3:2 Pulldown feature for NTSC greatly improve the image quality. Temporal interpolation greatly improves frame-rate conversion by merging successive frames. Pixel Level Motion Adaptive Diagonal Interpolation ensures high quality de-interlacing of PAL & NTSC signals.

Advanced Features - Keying allow s one input to be keyed over a second input. The keyed image may be faded in and out. Due to the 4:4:4 sampling format for RGB sources, precise keying at the pixel level can be achieved. Transitions permit Seamless Cut, Fade or Wipe transitions between input sources. The Picture-In-Picture (PIP) functionality allow s an input to be inset in a window over a second input or vice versa. The PIP window may be placed anywhere on the screen. The Genlock feature ensures precise synchronization of the incoming signals by providing a w ide subcarrier lock range with subcarrier phase adjust.

Basic Integral Stereo Audio switching is provided by an integral 4x1 audio routing switcher. The four impedance-independent unbalanced inputs follow the video input selection. A rear panel terminal block and a 3.5mm jack-socket provides access. Embedded Audio Support allow s any audio input to be embedded on all outputs which support embedded audio data (HDMI/DVI-U/SDI).

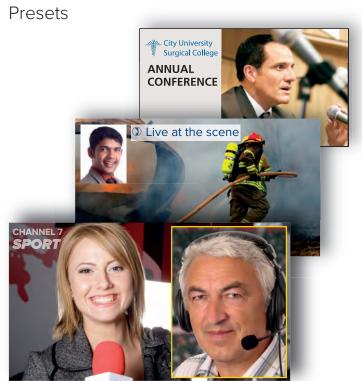
The units are housed in desktop cases and can be rack-mounted with an optional 19-inch rackmount kit that holds one or two units.

Remote control

The computer based remote control enables fast set-up of the unit, ie network connections, transitions, keying etc. Main menus can be accessed via a series of shortcut keys.



Using the 2 step preset setup configurations can be stored to enable quick screen changes at the touch of a button.



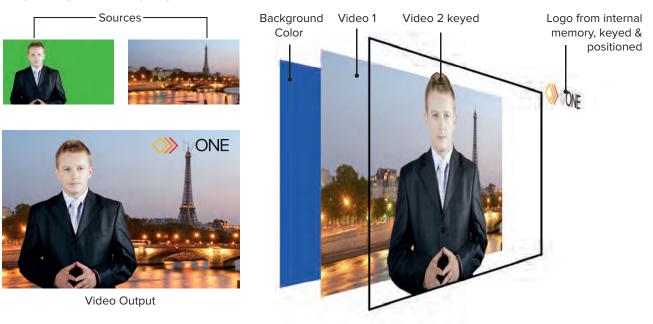
Picture-in-Picture capability - any size, any position

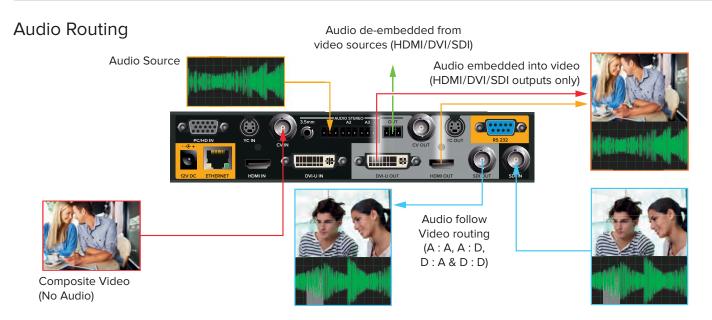
Up/Down/Cross Conversion



Please note these are only examples of Up, Down & Cross Conversion. In usage only a single output resolution is possible at one time.

Video Layering with Keying





Video I/O Interfaces

Connector	C2-2855	C2-2755	C2-2655	
HDMI In	•	•	•	
Universal DVI In	•	•	•	
YC In	•	•	•	
CV In	•	•	•	
SDI In	•	•		
PC/HD In	•	•	•	
HDMI Out	•	•	•	
Universal DVI Out	•	DVI-I only	•	
YC Out	•		•	
CV Out	•		•	
SDI Out	•		•	

Video Resolutions

ALL models support ALL the resolutions below for input.

For output, different models support different resolutions as indicated by the model columns.

Resolution	C2-2855	C2-2755	C2-2655	Resolution	C2-2855	C2-2755	C2-2655	Resolution	C2-2855	C2-2755	C2-2655
NTSC 525i	•			1280x720 23.98Hz	•	•	•	1360x768 60Hz	•	•	
PAL 625i				1280×720 24Hz	•	•	•	1365x1024 75Hz	•	•	
640x480 60Hz	•			1280×720 25Hz	•	•	•	1400x900 60Hz	•	•	
640x480 67Hz	•			1280×720 29.97Hz	•	•	•	1400x1050 60Hz Rb#	•	•	
640x480 72Hz	•		•	1280×720 30Hz	•	•	•	1400x1050 60Hz	•	•	
640x480 75Hz				1280×720 50Hz		•	•	1400x1050 75Hz	•	•	
640x480 85Hz				1280×720 59.94Hz	•	•	•	1600x1200 60Hz	•	•	
640x480 117Hz				1280×720 60Hz		•	•	1680x1050 60Hz	•	•	
640x480 138Hz	•			1280×768 60Hz Rb#	•	•		1920x1080i 47.96Hz	•	•	•
720x480 59.94Hz	•			1280×768 60Hz	•	•		1920x1080i 48Hz	•	•	•
720x576 50Hz	•			1280×768 75Hz	•	•		1920x1080i 50Hz	•	•	•
800x600 56Hz	•			1280×768 85Hz	•	•		1920x1080i 59.94Hz	•	•	•
800x600 60Hz	•		•	1280×800 60Hz Rb#	•	•		1920x1080i 60Hz	•	•	•
800x600 72Hz	•			1280×800 60Hz	•	•		1920x1080 23.98Hz	•	•	•
800x600 75Hz	•		•	1280×800 75Hz	•	•		1920x1080 24Hz	•	•	•
800x600 85Hz	•			1280×800 85Hz	•	•		1920x1080 25Hz	•	•	•
800x600 95Hz	•			1280×960 60Hz	•	•		1920x1080 29.97Hz	•	•	•
800x600 112Hz	•			1280×960 72Hz	•	•		1920x1080 30Hz	•	•	•
1024x768 60Hz	•	•	•	1280x960 85Hz	•	•		1920x1080 50Hz	•	•	•
1024x768 70Hz				1280x1024 60Hz	•	•		1920x1080 59.94Hz	•	•	•
1024x768 75Hz	•	•	•	1280x1024 70Hz	•	•		1920x1080 60Hz	•	•	•
1024x768 85Hz	•			1280x1024 75Hz		•		1920x1200 50Hz Rb#	•	•	
1024x768 89Hz	•	•	•	1280×1024 85Hz	•	•		1920x1200 60Hz Rb#	•	•	

[#] Rb = reduced blanking





C2-2855 Specifications

Video Input	
Television Standards	NTSC, PAL
Composite Video	1x via BNC & 1x via DVI-U*
YC (S-Video)	1x via 4-Pin Mini-DIN & 1x via DVI-U*
HDTV	1x via HDMI (DVI 1.0, HDCP 1.4) & 1x via DVI-U*
SD/HD/3G-SDI	1x via BNC
Computer Inputs	
Signal Type	1x Analog via PC/HD HD15, 1x DVI-U*
Format	RGBHV, RGBS, RGsB, YPbPr, YUV
Sync	TTL Level, 10K , Pos or Neg
Termination	75 Ω
R-G-B Level Range	
Scan Rate Detection	0.5-2.0 Vp-p Automatic
Analog Signals	PC to 1920x1080, HD to 1080p/60
DVI & HDMI signals	PC to 1920x1200, HD to 1080p/60
Max Horiz Scan Rate	150kHz
Computer Compatibility	PC, Mac, Workstations
Video Outputs	
Television Standards	NTSC, PAL
Impedance	75 Ω
Composite Video	1x via BNC
YC (S-Video)	1x via 4-PIN Mini-DIN
YUV, YPbPr	1x via DVI-U*
HDTV	1x via HDMI CEC pass-through for HDMI In to Out
SD/HD/3G-SDI	1x via BNC
Maximum Latency	1-2 Frames
Computer Outputs	
Signal Type	1x DVI-U* & 1 x HDMI
Format	RGBHV, RGBS, RGsB, YPbPr
R-G-B Level	0.7 Vp-p
Analog Signals	PC to 1920x1080, HD to 1080p/60
DVI & HDMI Signals	PC to 1920x1200, HD to 1080p/60
Image Processing features	
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
	Variable to 10% 200111
Shrink Range	
Image Mirroring	Horizontal and/or Vertical
Horizontal Filtering	Full Digital
Conversion Technology	Proprietary - CORIO®2
Framerate Conversion	Temporal
Color Resolution	24-bit (16.8 Million Colors)
Sampling Rate	LACOMUL-
	162MHz
Digital Sampling	24-bit, 4:4:4 or 4:2:2 format subject to input source
Digital Sampling Firmware Memory	
	24-bit, 4:4:4 or 4:2:2 format subject to input source
Firmware Memory	24-bit, 4:4:4 or 4:2:2 format subject to input source Flash upgradeable via RS-232 or IP
Firmware Memory Video Encoder & Decoder	24-bit, 4:4:4 or 4:2:2 format subject to input source Flash upgradeable via RS-232 or IP 8-bit Digital
Firmware Memory Video Encoder & Decoder De-Interlacing (NTSC-PAL)	24-bit, 4:4:4 or 4:2:2 format subject to input source Flash upgradeable via RS-232 or IP 8-bit Digital Pixel-level Motion Adaptive, Diagonal Interpolation
Firmware Memory Video Encoder & Decoder De-Interlacing (NTSC-PAL) Film Mode (NTSC)	24-bit, 4:4:4 or 4:2:2 format subject to input source Flash upgradeable via RS-232 or IP 8-bit Digital Pixel-level Motion Adaptive, Diagonal Interpolation 3:2 Pulldown 1-2 frames
Firmware Memory Video Encoder & Decoder De-Interlacing (NTSC-PAL) Film Mode (NTSC) Maximum Latency	24-bit, 4:4:4 or 4:2:2 format subject to input source Flash upgradeable via RS-232 or IP 8-bit Digital Pixel-level Motion Adaptive, Diagonal Interpolation 3:2 Pulldown 1-2 frames
Firmware Memory Video Encoder & Decoder De-Interlacing (NTSC-PAL) Film Mode (NTSC) Maximum Latency Video Adjustments	24-bit, 4:4:4 or 4:2:2 format subject to input source Flash upgradeable via RS-232 or IP 8-bit Digital Pixel-level Motion Adaptive, Diagonal Interpolation 3:2 Pulldown 1-2 frames
Firmware Memory Video Encoder & Decoder De-Interlacing (NTSC-PAL) Film Mode (NTSC) Maximum Latency Video Adjustments Audio Input/Output	24-bit, 4:4:4 or 4:2:2 format subject to input source Flash upgradeable via RS-232 or IP 8-bit Digital Pixel-level Motion Adaptive, Diagonal Interpolation 3:2 Pulldown 1-2 frames CV/YC: Contrast, Brightness, Saturation, Hue (NTSC)
Firmware Memory Video Encoder & Decoder De-Interlacing (NTSC-PAL) Film Mode (NTSC) Maximum Latency Video Adjustments Audio Input/Output	24-bit, 4:4:4 or 4:2:2 format subject to input source Flash upgradeable via RS-232 or IP 8-bit Digital Pixel-level Motion Adaptive, Diagonal Interpolation 3:2 Pulldown 1-2 frames CV/YC: Contrast, Brightness, Saturation, Hue (NTSC) 3x Unbalanced via Terminals,
Firmware Memory Video Encoder & Decoder De-Interlacing (NTSC-PAL) Film Mode (NTSC) Maximum Latency Video Adjustments Audio Input/Output	24-bit, 4:4:4 or 4:2:2 format subject to input source Flash upgradeable via RS-232 or IP 8-bit Digital Pixel-level Motion Adaptive, Diagonal Interpolation 3:2 Pulldown 1-2 frames CV/YC: Contrast, Brightness, Saturation, Hue (NTSC) 3x Unbalanced via Terminals, 1x Unbalanced via 3.5mm jack,

and
ued
Impedance-Independent
1 stereo pair at 32 kHz, 44.1 kHz, 48kHz from HDMI, 48kHz SDI
1 stereo pair at 48kHz
Chromakey or Lumakey
PC to/from Video and SIS
Variable Window Size & Position
(270Mbps: 525/625Line) Jitter < 0.1 UI
(1.485/1.4835Gbps: 720p, 1035i, 1080i, 1080p) Jitter < 0.2 UI
(2.97/2.967Gbps: 1080p50/60) Jitter < 0.3 UI
on (under optimal conditions)
300m
166m
100m
259M-C (SD-SDI)
59.94Hz
50Hz
292M (HD-SDI)
23.98, 24, 25, 29.97, 30, 50, 59.94, 60Hz
50, 59.94, 60Hz
23.98, 24, 25, 29.97, 30Hz
424M (3G-SDI)
50, 59.94, 60Hz
via Front Panel Buttons & OLED
via D9 Female Connector
RJ45 Connector
5 Years Parts and Labor
FCC Class B, CE, RoHS, UL, cUL
UL, cUL, CE, PSE, GS, RoHS
42 x 218 x 189mm (1.63" x 8.6" x 7.4")
1.26 Kg (2.78 lbs) excluding PSU
0° to +40°C (+32° to +104°F) Ambient
0° to +40°C (+32° to +104°F) Ambient 10% to 85%, Non-condensing
10% to 85%, Non-condensing
10% to 85%, Non-condensing -10° to +70°C (+14° to +158°F)
10% to 85%, Non-condensing -10° to +70°C (+14° to +158°F)
10% to 85%, Non-condensing -10° to +70°C (+14° to +158°F) 10% to 85%, Non-condensing
10% to 85%, Non-condensing -10° to +70°C (+14° to +158°F) 10% to 85%, Non-condensing
10% to 85%, Non-condensing -10° to +70°C (+14° to +158°F) 10% to 85%, Non-condensing 12V DC @ 1.5A
10% to 85%, Non-condensing -10° to +70°C (+14° to +158°F) 10% to 85%, Non-condensing 12V DC @ 1.5A 1x Operations Manual on USB stick
10% to 85%, Non-condensing -10° to +70°C (+14° to +158°F) 10% to 85%, Non-condensing 12V DC @ 1.5A 1x Operations Manual on USB stick 1x PC Control Software (Microsoft Vista and above)
10% to 85%, Non-condensing -10° to +70°C (+14° to +158°F) 10% to 85%, Non-condensing 12V DC @ 1.5A 1x Operations Manual on USB stick 1x PC Control Software (Microsoft Vista and above) 1x Quick Start Guide
10% to 85%, Non-condensing -10° to +70°C (+14° to +158°F) 10% to 85%, Non-condensing 12V DC @ 1.5A 1x Operations Manual on USB stick 1x PC Control Software (Microsoft Vista and above) 1x Quick Start Guide 1x Universal Power Supply ('brick' type)
10% to 85%, Non-condensing -10° to +70°C (+14° to +158°F) 10% to 85%, Non-condensing 12V DC @ 1.5A 1x Operations Manual on USB stick 1x PC Control Software (Microsoft Vista and above) 1x Quick Start Guide 1x Universal Power Supply ('brick' type)
10% to 85%, Non-condensing -10° to +70°C (+14° to +158°F) 10% to 85%, Non-condensing 12V DC @ 1.5A 1x Operations Manual on USB stick 1x PC Control Software (Microsoft Vista and above) 1x Quick Start Guide 1x Universal Power Supply ('brick' type) 1x Regional Power Cable

Specifications subject to change The C2-2855 replaces the C2-2355A





C2-2755 Specifications

Video Input	
Television Standards	NTSC, PAL, PAL-M, PAL-N, SECAM
Composite Video	1x via BNC & 1x via Universal DVI*
YC (S-Video)	1x via 4-Pin Mini-DIN & 1x via Universal DVI*
HDTV	1x via HDMI (DVI 1.0, HDCP 1.4) & 1x via Universal DVI
SD/HD/3G-SDI	1x via BNC
Computer Inputs	
Signal Type	1x Analog via PC/HD HD15, 1x Universal DVI*
Format	RGBHV, RGBS, RGsB, YPbPr, YUV
Sync	TTL Level, 10K , Pos or Neg
Termination	75 Ω
R-G-B Level Range	0.5-2.0 Vp-p
Scan Rate Detection	Automatic
Analog Signals	PC to 1920x1080, HD to 1080p/60
DVI & HDMI signals	PC to 1920x1200, HD to 1080p/60
Max Horiz Scan Rate	150kHz
Computer Compatibility	PC, Mac, Workstations
Video Outputs	
Television Standards	720p, 1080i, 1080p
YUV, YPbPr	1x via DVI-I**
HDTV	1x via HDMI CEC pass-through for HDMI In to Out
Maximum Latency	1-2 Frames
Computer Outputs	1211umes
Signal Type	1x DVI-I & 1 x HDMI
Format	RGBHV, RGBS, RGsB, YPbPr
R-G-B Level	0.7 Vp-p
Analog Signals	
Alialog Signals	PC; 800x600/60 to 1920x1080, HD; 720p/24 to
	1080p/60
DVI & HDMI Signals	PC; 800x600/60 to 1920x1200, HD; 720p/24 to 1080p/60
DVI & HDMI Signals Image Processing features	PC; 800x600/60 to 1920x1200, HD; 720p/24 to 1080p/60
	PC; 800x600/60 to 1920x1200, HD; 720p/24 to 1080p/60
Image Processing features	PC; 800x600/60 to 1920x1200, HD; 720p/24 to 1080p/60
Image Processing features Size and Position	PC; 800x600/60 to 1920x1200, HD; 720p/24 to 1080p/60 Automatic via Calibrate or Manual
Image Processing features Size and Position Image Size	PC; 800x600/60 to 1920x1200, HD; 720p/24 to 1080p/60 Automatic via Calibrate or Manual User-Definable Presets
Image Processing features Size and Position Image Size Image Freeze	PC; 800x600/60 to 1920x1200, HD; 720p/24 to 1080p/60 Automatic via Calibrate or Manual User-Definable Presets One Video Frame
Image Processing features Size and Position Image Size Image Freeze Settings Memory	PC; 800x600/60 to 1920x1200, HD; 720p/24 to 1080p/60 Automatic via Calibrate or Manual User-Definable Presets One Video Frame Non-Volatile
Image Processing features Size and Position Image Size Image Freeze Settings Memory Zoom Range Shrink Range	PC; 800x600/60 to 1920x1200, HD; 720p/24 to 1080p/60 Automatic via Calibrate or Manual User-Definable Presets One Video Frame Non-Volatile Variable to 10X Zoom
Image Processing features Size and Position Image Size Image Freeze Settings Memory Zoom Range Shrink Range Image Mirroring	PC; 800x600/60 to 1920x1200, HD; 720p/24 to 1080p/60 Automatic via Calibrate or Manual User-Definable Presets One Video Frame Non-Volatile Variable to 10X Zoom Variable to 10% Horizontal and/or Vertical
Image Processing features Size and Position Image Size Image Freeze Settings Memory Zoom Range Shrink Range Image Mirroring Horizontal Filtering	PC; 800x600/60 to 1920x1200, HD; 720p/24 to 1080p/60 Automatic via Calibrate or Manual User-Definable Presets One Video Frame Non-Volatile Variable to 10X Zoom Variable to 10% Horizontal and/or Vertical Full Digital
Image Processing features Size and Position Image Size Image Freeze Settings Memory Zoom Range Shrink Range Image Mirroring Horizontal Filtering Conversion Technology	PC; 800x600/60 to 1920x1200, HD; 720p/24 to 1080p/60 Automatic via Calibrate or Manual User-Definable Presets One Video Frame Non-Volatile Variable to 10X Zoom Variable to 10% Horizontal and/or Vertical Full Digital Proprietary - CORIO®2
Image Processing features Size and Position Image Size Image Freeze Settings Memory Zoom Range Shrink Range Image Mirroring Horizontal Filtering Conversion Technology Framerate Conversion	PC; 800x600/60 to 1920x1200, HD; 720p/24 to 1080p/60 Automatic via Calibrate or Manual User-Definable Presets One Video Frame Non-Volatile Variable to 10X Zoom Variable to 10% Horizontal and/or Vertical Full Digital Proprietary - CORIO®2 Temporal
Image Processing features Size and Position Image Size Image Freeze Settings Memory Zoom Range Shrink Range Image Mirroring Horizontal Filtering Conversion Technology Framerate Conversion Color Resolution	PC; 800x600/60 to 1920x1200, HD; 720p/24 to 1080p/60 Automatic via Calibrate or Manual User-Definable Presets One Video Frame Non-Volatile Variable to 10X Zoom Variable to 10% Horizontal and/or Vertical Full Digital Proprietary - CORIO®2 Temporal 24-bit (16.8 Million Colors)
Image Processing features Size and Position Image Size Image Freeze Settings Memory Zoom Range Shrink Range Image Mirroring Horizontal Filtering Conversion Technology Framerate Conversion Color Resolution Sampling Rate	PC; 800x600/60 to 1920x1200, HD; 720p/24 to 1080p/60 Automatic via Calibrate or Manual User-Definable Presets One Video Frame Non-Volatile Variable to 10X Zoom Variable to 10% Horizontal and/or Vertical Full Digital Proprietary - CORIO®2 Temporal 24-bit (16.8 Million Colors) 162MHz
Image Processing features Size and Position Image Size Image Freeze Settings Memory Zoom Range Shrink Range Image Mirroring Horizontal Filtering Conversion Technology Framerate Conversion Color Resolution Sampling Rate Digital Sampling	PC; 800x600/60 to 1920x1200, HD; 720p/24 to 1080p/60 Automatic via Calibrate or Manual User-Definable Presets One Video Frame Non-Volatile Variable to 10X Zoom Variable to 10% Horizontal and/or Vertical Full Digital Proprietary - CORIO*2 Temporal 24-bit (16.8 Million Colors) 162MHz 24-bit, 4:4:4 or 4:2:2 format subject to input source
Image Processing features Size and Position Image Size Image Freeze Settings Memory Zoom Range Shrink Range Image Mirroring Horizontal Filtering Conversion Technology Framerate Conversion Color Resolution Sampling Rate Digital Sampling Firmware Memory	PC; 800x600/60 to 1920x1200, HD; 720p/24 to 1080p/60 Automatic via Calibrate or Manual User-Definable Presets One Video Frame Non-Volatile Variable to 10X Zoom Variable to 10X Zoom Variable to 10% Horizontal and/or Vertical Full Digital Proprietary - CORIO®2 Temporal 24-bit (16.8 Million Colors) 162MHz 24-bit, 4:4:4 or 4:2:2 format subject to input source Flash upgradeable via RS-232 or IP
Image Processing features Size and Position Image Size Image Freeze Settings Memory Zoom Range Shrink Range Image Mirroring Horizontal Filtering Conversion Technology Framerate Conversion Color Resolution Sampling Rate Digital Sampling Firmware Memory Video Encoder & Decoder	PC; 800x600/60 to 1920x1200, HD; 720p/24 to 1080p/60 Automatic via Calibrate or Manual User-Definable Presets One Video Frame Non-Volatile Variable to 10X Zoom Variable to 10% Horizontal and/or Vertical Full Digital Proprietary - CORIO®2 Temporal 24-bit (16.8 Million Colors) 162MHz 24-bit, 4:4:4 or 4:2:2 format subject to input source Flash upgradeable via RS-232 or IP 8-bit Digital
Image Processing features Size and Position Image Size Image Freeze Settings Memory Zoom Range Shrink Range Image Mirroring Horizontal Filtering Conversion Technology Framerate Conversion Color Resolution Sampling Rate Digital Sampling Firmware Memory Video Encoder & Decoder De-Interlacing (NTSC-PAL)	PC; 800x600/60 to 1920x1200, HD; 720p/24 to 1080p/60 Automatic via Calibrate or Manual User-Definable Presets One Video Frame Non-Volatile Variable to 10X Zoom Variable to 10% Horizontal and/or Vertical Full Digital Proprietary - CORIO*2 Temporal 24-bit (16.8 Million Colors) 162MHz 24-bit, 4:4:4 or 4:2:2 format subject to input source Flash upgradeable via RS-232 or IP 8-bit Digital Pixel-level Motion Adaptive, Diagonal Interpolation
Image Processing features Size and Position Image Size Image Freeze Settings Memory Zoom Range Shrink Range Image Mirroring Horizontal Filtering Conversion Technology Framerate Conversion Color Resolution Sampling Rate Digital Sampling Firmware Memory Video Encoder & Decoder De-Interlacing (NTSC-PAL) Film Mode (NTSC)	PC; 800x600/60 to 1920x1200, HD; 720p/24 to 1080p/60 Automatic via Calibrate or Manual User-Definable Presets One Video Frame Non-Volatile Variable to 10X Zoom Variable to 10X Horizontal and/or Vertical Full Digital Proprietary - CORIO®2 Temporal 24-bit (16.8 Million Colors) 162MHz 24-bit, 4:4:4 or 4:2:2 format subject to input source Flash upgradeable via RS-232 or IP 8-bit Digital Pixel-level Motion Adaptive, Diagonal Interpolation 3:2 Pulldown
Image Processing features Size and Position Image Size Image Freeze Settings Memory Zoom Range Shrink Range Image Mirroring Horizontal Filtering Conversion Technology Framerate Conversion Color Resolution Sampling Rate Digital Sampling Firmware Memory Video Encoder & Decoder De-Interlacing (NTSC-PAL)	PC; 800x600/60 to 1920x1200, HD; 720p/24 to 1080p/60 Automatic via Calibrate or Manual User-Definable Presets One Video Frame Non-Volatile Variable to 10X Zoom Variable to 10X Toom Variable to 10% Horizontal and/or Vertical Full Digital Proprietary - CORIO®2 Temporal 24-bit (16.8 Million Colors) 162MHz 24-bit, 4:4:4 or 4:2:2 format subject to input source Flash upgradeable via RS-232 or IP 8-bit Digital Pixel-level Motion Adaptive, Diagonal Interpolation 3:2 Pulldown 1-2 frames CV/YC: Contrast, Brightness, Saturation, Hue (NTSC)
Image Processing features Size and Position Image Size Image Freeze Settings Memory Zoom Range Shrink Range Image Mirroring Horizontal Filtering Conversion Technology Framerate Conversion Color Resolution Sampling Rate Digital Sampling Firmware Memory Video Encoder & Decoder De-Interlacing (NTSC-PAL) Film Mode (NTSC) Maximum Latency Video Adjustments	PC; 800x600/60 to 1920x1200, HD; 720p/24 to 1080p/60 Automatic via Calibrate or Manual User-Definable Presets One Video Frame Non-Volatile Variable to 10X Zoom Variable to 10% Horizontal and/or Vertical Full Digital Proprietary - CORIO®2 Temporal 24-bit (16.8 Million Colors) 162MHz 24-bit, 4:4:4 or 4:2:2 format subject to input source Flash upgradeable via RS-232 or IP 8-bit Digital Pixel-level Motion Adaptive, Diagonal Interpolation 3:2 Pulldown 1-2 frames
Image Processing features Size and Position Image Size Image Freeze Settings Memory Zoom Range Shrink Range Image Mirroring Horizontal Filtering Conversion Technology Framerate Conversion Color Resolution Sampling Rate Digital Sampling Firmware Memory Video Encoder & Decoder De-Interlacing (NTSC-PAL) Film Mode (NTSC) Maximum Latency Video Adjustments Audio Input/Output	PC; 800x600/60 to 1920x1200, HD; 720p/24 to 1080p/60 Automatic via Calibrate or Manual User-Definable Presets One Video Frame Non-Volatile Variable to 10% Zoom Variable to 10% Horizontal and/or Vertical Full Digital Proprietary - CORIO®2 Temporal 24-bit (16.8 Million Colors) 162MHz 24-bit, 4:4:4 or 4:2:2 format subject to input source Flash upgradeable via RS-232 or IP 8-bit Digital Pixel-level Motion Adaptive, Diagonal Interpolation 3:2 Pulldown 1-2 frames CV/YC: Contrast, Brightness, Saturation, Hue (NTSC), Analog RGB/YPbPr levels
Image Processing features Size and Position Image Size Image Freeze Settings Memory Zoom Range Shrink Range Image Mirroring Horizontal Filtering Conversion Technology Framerate Conversion Color Resolution Sampling Rate Digital Sampling Firmware Memory Video Encoder & Decoder De-Interlacing (NTSC-PAL) Film Mode (NTSC) Maximum Latency Video Adjustments	PC; 800x600/60 to 1920x1200, HD; 720p/24 to 1080p/60 Automatic via Calibrate or Manual User-Definable Presets One Video Frame Non-Volatile Variable to 10% Horizontal and/or Vertical Full Digital Proprietary - CORIO®2 Temporal 24-bit (16.8 Million Colors) 162MHz 24-bit, 4:4:4 or 4:2:2 format subject to input source Flash upgradeable via RS-232 or IP 8-bit Digital Pixel-level Motion Adaptive, Diagonal Interpolation 3:2 Pulldown 1-2 frames CV/YC: Contrast, Brightness, Saturation, Hue (NTSC), Analog RGB/YPbPr levels
Image Processing features Size and Position Image Size Image Freeze Settings Memory Zoom Range Shrink Range Image Mirroring Horizontal Filtering Conversion Technology Framerate Conversion Color Resolution Sampling Rate Digital Sampling Firmware Memory Video Encoder & Decoder De-Interlacing (NTSC-PAL) Film Mode (NTSC) Maximum Latency Video Adjustments Audio Input/Output	PC; 800x600/60 to 1920x1200, HD; 720p/24 to 1080p/60 Automatic via Calibrate or Manual User-Definable Presets One Video Frame Non-Volatile Variable to 10% Horizontal and/or Vertical Full Digital Proprietary - CORIO®2 Temporal 24-bit (16.8 Million Colors) 162MHz 24-bit, 4:4:4 or 4:2:2 format subject to input source Flash upgradeable via RS-232 or IP 8-bit Digital Pixel-level Motion Adaptive, Diagonal Interpolation 3:2 Pulldown 1-2 frames CV/YC: Contrast, Brightness, Saturation, Hue (NTSC), Analog RGB/YPbPr levels 3x Unbalanced via Terminals, 1x Unbalanced via Terminals,
Image Processing features Size and Position Image Size Image Freeze Settings Memory Zoom Range Shrink Range Image Mirroring Horizontal Filtering Conversion Technology Framerate Conversion Color Resolution Sampling Rate Digital Sampling Firmware Memory Video Encoder & Decoder De-Interlacing (NTSC-PAL) Film Mode (NTSC) Maximum Latency Video Adjustments Audio Input/Output	PC; 800x600/60 to 1920x1200, HD; 720p/24 to 1080p/60 Automatic via Calibrate or Manual User-Definable Presets One Video Frame Non-Volatile Variable to 10% Horizontal and/or Vertical Full Digital Proprietary - CORIO®2 Temporal 24-bit (16.8 Million Colors) 162MHz 24-bit, 4:4:4 or 4:2:2 format subject to input source Flash upgradeable via RS-232 or IP 8-bit Digital Pixel-level Motion Adaptive, Diagonal Interpolation 3:2 Pulldown 1-2 frames CV/YC: Contrast, Brightness, Saturation, Hue (NTSC), Analog RGB/YPbPr levels

Audio Input/Output contin	าued
I/O Impedance	Impedance-Independent
De-embedding support	1 stereo pair at 32 kHz, 44.1 kHz, 48kHz from HDMI, 48kHz SDI
Embedded support	1 stereo pair at 48kHz
Operational Modes	
Key	Chromakey or Lumakey
Mix	PC to/from Video and SIS
PIP	Variable Window Size & Position
SDI Input Cable Equalizat	ion (under optimal conditions)
SMPTE259M-C (SD-SDI)	300m
SMPTE292M (HD-SDI)	166m
SMPTE424M (3G-SDI)	100m
Input Vertical Rates - SMF	
525i (720x487)	59.94Hz
625i (720x576)	50Hz
Input Vertical Rates - SMF	PTE292M (HD-SDI)
720p (1280x720)	29.97, 30, 50, 59.94, 60Hz
1080i (1920x1080)	50, 59.94, 60Hz
1080p (1920x1080)	23.98, 24, 25, 29.97, 30Hz
Input Vertical Rates - SMF	
1080p (1920x1080)	50, 59.94, 60Hz
Control Methods	30, 33.31, 33112
Local	via Front Panel Buttons & OLED
RS-232 Interface	via D9 Female Connector
IP Interface	RJ45 Connector
Control Software included	No 10 Confidence
Warranty	
Limited Warranty	5 Years Parts and Labor
Regulatory Compliance	o reals rate and Eason
Main Units	FCC Class B, CE, RoHS
Power Supplies	UL, cUL, CE, PSE, GS, RoHS
Mechanical	02, 602, 62, 132, 63, 16113
Size (H-W-D)	42 x 218 x 189mm (1.63" x 8.6" x 7.4")
Weight (Net)	1.26 Kg (2.78 lbs) excluding PSU
Environmental	1.20 Kg (2.70 lb3) excluding 1 30
Operating Temperature	0° to +40°C (+32° to +104°F) Ambient
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	10% to 03%, Non-condensing
External Power Supply	12V DC @ 1.5A
Accessories Included	
	1x Operations Manual on USB stick
	1x PC Control Software (Microsoft Vista and above)
	1x Quick Start Guide
	1x Universal Power Supply ('brick' type)
	1x Regional Power Cable
Product Item Number	
	C2-2755
Optional Accessories	
RM-220	Single/Dual Rackmount Kit

Specifications subject to change The C2-2755 replaces the C2-2255A





C2-2655 Specifications

Video Input	
Television Standards	NTSC, PAL, PAL-M, PAL-N, SECAM
Composite Video	1x via BNC & 1x via Universal DVI*
YC (S-Video)	1x via 4-Pin Mini-DIN & 1x via Universal DVI*
HDTV	1x via HDMI (DVI 1.0, HDCP 1.4) & 1x via Universal DVI
Computer Inputs	
Signal Type	1x Analog via PC/HD HD15, 1x Universal DVI*
Format	RGBHV, RGBS, RGsB, YPbPr, YUV
Sync	TTL Level, 10K, Pos or Neg
Termination	75 Ω
R-G-B Level Range	0.5-2.0 Vp-p
Scan Rate Detection Analog Signals	Automatic PC to 1920x1080, HD to 1080p/60
	·
DVI & HDMI signals	PC to 1920x1200, HD to 1080p/60
Max Horiz Scan Rate	150kHz
Computer Compatibility	PC, Mac, Workstations
Video Outputs	
Television Standards	NTSC, PAL, PAL-M, PAL-N
Impedance	75 Ω
Composite Video	1x via BNC
YC (S-Video)	1x via 4-PIN Mini-DIN
YUV, YPbPr	1x via Universal DVI*
HDTV	1x via HDMI CEC pass-through for HDMI In to Out
SD/HD/3G-SDI	1x via BNC
Maximum Latency	1-2 Frames
Computer Outputs	
Signal Type	1x Universal DVI* & 1 x HDMI
Format	RGBHV, RGBS, RGsB, YPbPr
R-G-B Level	0.7 Vp-p
Analog Signals	PC to 1024x768, HD to 1080p/60
DVI & HDMI Signals	PC to 1024x768, HD to 1080p/60
Image Processing features	
Size and Position	Automatic via Calibrate or Manual
Image Size	User-Definable Presets
Image Freeze	One Video Frame
Settings Memory	Non-Volatile
	Variable to 10X Zoom
Zoom Range	Variable to 10% 200111
Shrink Range	
Image Mirroring	Horizontal and/or Vertical
Horizontal Filtering	Full Digital
Conversion Technology	Proprietary - CORIO®2
Framerate Conversion	Temporal
Color Resolution	24-bit (16.8 Million Colors)
Sampling Rate	
Digital Sampling	162MHz
Firmware Memory	24-bit, 4:4:4 or 4:2:2 format subject to input source
	24-bit, 4:4:4 or 4:2:2 format subject to input source Flash upgradeable via RS-232 or IP
Video Encoder & Decoder	24-bit, 4:4:4 or 4:2:2 format subject to input source Flash upgradeable via RS-232 or IP 8-bit Digital
Video Encoder & Decoder De-Interlacing (NTSC-PAL)	24-bit, 4:4:4 or 4:2:2 format subject to input source Flash upgradeable via RS-232 or IP 8-bit Digital Pixel-level Motion Adaptive, Diagonal Interpolation
Video Encoder & Decoder De-Interlacing (NTSC-PAL) Film Mode (NTSC)	24-bit, 4:4:4 or 4:2:2 format subject to input source Flash upgradeable via RS-232 or IP 8-bit Digital Pixel-level Motion Adaptive, Diagonal Interpolation 3:2 Pulldown
Video Encoder & Decoder De-Interlacing (NTSC-PAL)	24-bit, 4:4:4 or 4:2:2 format subject to input source Flash upgradeable via RS-232 or IP 8-bit Digital Pixel-level Motion Adaptive, Diagonal Interpolation
Video Encoder & Decoder De-Interlacing (NTSC-PAL) Film Mode (NTSC)	24-bit, 4:4:4 or 4:2:2 format subject to input source Flash upgradeable via RS-232 or IP 8-bit Digital Pixel-level Motion Adaptive, Diagonal Interpolation 3:2 Pulldown
Video Encoder & Decoder De-Interlacing (NTSC-PAL) Film Mode (NTSC) Maximum Latency	24-bit, 4:4:4 or 4:2:2 format subject to input source Flash upgradeable via RS-232 or IP 8-bit Digital Pixel-level Motion Adaptive, Diagonal Interpolation 3:2 Pulldown 1-2 frames CV/YC: Contrast, Brightness, Saturation, Hue (NTSC),
Video Encoder & Decoder De-Interlacing (NTSC-PAL) Film Mode (NTSC) Maximum Latency Video Adjustments	24-bit, 4:4:4 or 4:2:2 format subject to input source Flash upgradeable via RS-232 or IP 8-bit Digital Pixel-level Motion Adaptive, Diagonal Interpolation 3:2 Pulldown 1-2 frames CV/YC: Contrast, Brightness, Saturation, Hue (NTSC),
Video Encoder & Decoder De-Interlacing (NTSC-PAL) Film Mode (NTSC) Maximum Latency Video Adjustments Audio Input/Output	24-bit, 4:4:4 or 4:2:2 format subject to input source Flash upgradeable via RS-232 or IP 8-bit Digital Pixel-level Motion Adaptive, Diagonal Interpolation 3:2 Pulldown 1-2 frames CV/YC: Contrast, Brightness, Saturation, Hue (NTSC), Analog RGB/YPbPr levels

Audio Input/Output Continued				
Outputs	Unbalanced via Terminals,			
	1x HDMI, 1x Universal DVI*, 1x SDI			
I/O Impedance	Impedance-Independent			
De-embedding support	1 stereo pair at 32 kHz, 44.1 kHz, 48kHz from HDMI			
Embedded support	1 stereo pair at 48kHz			
Operational Modes				
Key	Chromakey or Lumakey			
Mix	PC to/from Video and SIS			
PIP	Variable Window Size & Position			
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: 1080p50/60) Jitter < 0.3 UI			
Output Vertical Rates - SI				
525i (720x487)	59.94Hz			
625i (720x576)	50Hz			
Output Vertical Rates - SI				
720p (1280x720)	29.97, 30, 50, 59.94, 60Hz			
1080i (1920x1080)	50, 59.94, 60Hz			
1080p (1920x1080)	23.98, 24, 25, 29.97, 30Hz			
Output Vertical Rates - SI				
1080p (1920x1080)	50, 59.94, 60Hz			
Control Methods	30, 33.34, 00112			
Local	via Front Panel Buttons & OLED			
RS-232 Interface	via D9 Female Connector			
IP Interface	RJ45 Connector			
Control Software included				
Warranty	E.V Do do H. do			
Limited Warranty	5 Years Parts and Labor			
Regulatory Compliance	500 CL			
Main Units	FCC Class B, CE, RoHS			
Power Supplies	UL, cUL, CE, PSE, GS, RoHS			
Mechanical				
Size (H-W-D)	42 x 218 x 189mm (1.63" x 8.6" x 7.4")			
Weight (Net)	1.26 Kg (2.78 lbs) excluding PSU			
Environmental				
Operating Temperature	0° to +40°C (+32° to +104°F) Ambient			
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	12V DC @ 1.5A			
Accessories Included				
	1x Operations Manual on USB stick			
	1x PC Control Software (Microsoft Vista SP2 & above)			
	1x Quick Start Guide			
	1x Universal Power Supply ('brick' type)			
	1x Regional Power Cable			
Product Item Number				
	C2-2655			
Optional Accessories				
RM-220	Single/Dual Rackmount Kit			

Specifications subject to change The C2-2655 replaces the C2-2155A, C2-2100A and C2-2105A

The New CORIO®2 C2-2000 Series

C2-2855



The C2-2855 Universal Scaler Plus was the first in our new generation of high performance scalers that provides best-inclass video scaling and format conversion along with revolutionary, intuitive user interface tools. Living up to its designation as a "Universal Scaler" the C2-2855 supports SD/HD/3G-SDI, HDMI, DVI, Composite Video, YC, YUV, YPbPr or RGB, on both inputs and outputs.

- Up/Down/Cross Conversion
- Digital Inputs: SD/HD/3G-SDI, Universal DVI*, HDMI (DVI 1.0, HDCP 1.4)
- Analog Inputs: YUV/YPbPr, RGB/YPbPr, CV, YC
- Digital Outputs: SD/HD/3G-SDI, Universal DVI*, HDMI (DVI 1.0, HDCP 1.4)
- Analog Outputs: Universal DVI* (RGB/YPbPr/YUV), CV, YC
- Analog: PC to 1920x1080, HDTV to 1080p/60
- HDMI & DVI : PC to 1920x1200, HDTV to 1080p/60
- Supports: NTSC, PAL, PAL-M, PAL-N
- Motion Compensation & 3:2 Pulldown
- Temporal Interpolation & Diagonal Interpolation
- Automatic Incoming Resolution Detection
- Calibrate Automatic picture sizing of PC inputs
- 4:4:4 Full bandwidth Chroma Sampling for RGB sources. 4:2:2 for SDI, YC and CV sources. HDMI YUV support for either 4:4:4 or 4:2:2 sampling
- · Video signal parameter adjustments
- Integral 4x1 Stereo Analog Audio Routing Switcher, fully integrated with digital audio
- Stereo Audio Embedding on capable outputs (Universal DVI*, HDMI, SDI)
- RS-232 and IP Interface for Control Software
- Variable Image Zoom to 10X and Shrink to 10%
- Genlock
- Framelock
- PIP, Chromakey and Lumakey
- · Optional Single/Dual Rackmount Kit

C2-2755



Living up to its designation as a "Video Scaler" the C2-2755 Video Scaler PLUS supports SD/HD/3G-SDI, HDMI, DVI, Composite Video, YC, YUV, YPbPr or RGB, on inputs and HDMI & DVI-I outputs, the signal parameters of the incoming video may be adjusted.

- Up/Down/Cross Conversion
- Digital Inputs: SD/HD/3G-SDI, Universal DVI*, HDMI (DVI 1.0, HDCP 1.4)
- Analog Inputs: YUV/YPbPr, RGB/YPbPr, CV. YC
- Digital Outputs: DVI-I, HDMI (DVI 1.0, HDCP 1.4)
- Analog Outputs: DVI-I (RGB/YPbPr/YUV)
- Analog I/O: PC to 1920x1080, HDTV to 1080p/60
- HDMI & DVI I/O: PC to 1920x1200, HDTV to 1080p/60
- · Supports: NTSC, PAL, PAL-M, PAL-N
- Motion Compensation & 3:2 Pulldown
- Temporal Interpolation & Diagonal Interpolation
- Automatic Incoming Resolution Detection
- Calibrate Automatic picture sizing of PC inputs
- 4:4:4 Full bandwidth Chroma Sampling for RGB sources. 4:2:2 for SDI, YC and CV sources. HDMI YUV support for either 4:4:4 or 4:2:2 sampling
- Video signal parameter adjustments
- Integral 4x1 Stereo Analog Audio Routing Switcher, fully integrated with digital audio
- Stereo Audio Embedding on capable outputs (DVI-I, HDMI)
- RS-232 and IP Interface for Control Software
- Variable Image Zoom to 10X and Shrink to 10%
- Genlock
- Framelock
- PIP, Chromakey and Lumakey
- · Optional Single/Dual Rackmount Kit

C2-2655



The C2-2655 Scan Converter Plus lives up to its designation as a "Scan Converter", it supports HDMI, DVI, Composite Video, YC, YUV, YPbPr or RGB, on both inputs and outputs, and SD/HD/3G-SDI on output only and the signal parameters of the incoming video may be adjusted.

- · Up/Down/Cross Conversion PC to Video
- Digital Inputs: Universal DVI*, HDMI (DVI 1.0, HDCP 1.4)
- Analog Inputs: YUV/YPbPr, RGB/YPbPr, CV, YC
- Digital Outputs: SD/HD/3G-SDI, Universal DVI*, HDMI (DVI 1.0, HDCP 1.4)
- Analog Outputs: Universal DVI* (RGB/YPbPr/YUV), CV, YC
- Analog Input: PC to 1920x1080, HDTV to 1080p/60
- Analog Output: PC to 1024x768, HDTV to 1080p/60
- HDMI & DVI Input: PC to 1920x1080, HDTV to 1080p/60
- HDMI & DVI Output: PC to 1024x768, HDTV to 1080p/60
- · Supports: NTSC, PAL, PAL-M, PAL-N
- Motion Compensation & 3:2 Pulldown
- Temporal Interpolation & Diagonal Interpolation
- · Automatic Incoming Resolution Detection
- Calibrate- Automatic picture sizing of PC inputs
- 4:4:4 Full bandwidth Chroma Sampling for RGB sources. 4:2:2 for YC and CV sources. HDMI YUV support for either 4:4:4 or 4:2:2 sampling
- Video signal parameter adjustments
- Integral 4x1 Stereo Analog Audio Routing Switcher, fully integrated with digital audio
- Stereo Audio Embedding on capable outputs (Universal DVI*, HDMI, SDI)
- RS-232 and IP Interface for Control Software
- Variable Image Zoom to 10X and Shrink to 10%
- Genlock
- Framelock
- PIP, Chromakey and Lumakey
- · Optional Single/Dual Rackmount Kit

