



VWP-2090  
VWP-2110  
VWP-2040  
VWX-2090

VWX-2110  
VGC-DP-4  
VGC-HD-4-D  
VGC-HD-4-H

VCC-SD-HD-A-2  
VCC-SD-HD-3  
VCC-SDI-SD-HD-3  
VCC-HD-4

VCC-DP-2  
VCC-HD-4-H  
VCC-HD-4-D  
VCC-SDI-4

VWS-2001  
VWS-2002  
VWS-2003

## Product Data Sheet

# Radian Video Wall Processor



VWP-2110,  
front view



VWP-2040,  
top view, cover removed

### Overview

- Expandable with multiple chassis configuration.
- Supports up to 64 video outputs.
- Supports hundreds of video inputs.
- Available in 4, 9, and 11-slot frames.
- Expandable with additional frames.
- Freely position any source anywhere on the video wall.
- Easy to use—drag, drop, resize, and scale.
- True 4K60 input and output support via DisplayPort.
- Wide range of input cards for any video format: Component, composite, SDI, HDMI, VGA, DP, DVI, IP (H.264).
- Mix live capture, IP streams, and local media in one application.
- Outputs include DisplayPort, DVI, and HDMI.
- Real-time, multi-user wall control.
- Provides the ability to run software applications on the wall control processor.

# Radian Video Wall Processor Data Sheet

## Radian Video Wall Processor Components

Chassis		
Product Code	Number of Slots	Signal Format
VWP-2040	4-slot chassis	Depends on cards installed
VWP-2090	9-slot chassis	Depends on cards installed
VWP-2110	11-slot chassis	Depends on cards installed
Video Capture Cards		
Product Code	Inputs	Signal Format
VCC-SD-HD-A-2	(1) HD channel + (1) SD channel + AM2 + cable, full height	HD, SD
VCC-SD-HD-3	(2) HD channels + (1) SD channel, full height	HD, SD
VCC-SDI-SD-HD-3	(1) HD channel + (1) HD-SDI channel + (1) SD channel, full height	HD, HD-SDI, SD
VCC-HD-4	(4) channel DVI/RGB/HD capture card	DVI, RGB, HD
VCC-DP-2	(2) channels DisplayPort 4K card	DisplayPort 4K
VCC-HD-4-H	(4) channels HD capture card with HDMI splitter cables	HD, HDMI
VCC-HD-4-D	(4) channels HD capture card with DVI splitter cables	HD, DVI
VCC-SDI-4	(4) channels 3G-SDI capture card	3G-SDI
VCC-STREAM		
Video Graphics Cards		
Product Code	Outputs	Signal Format
VGC-DP-4	4-port DisplayPort graphics card	DisplayPort
VGC-HD-4-D	4-port DisplayPort graphics card with DVI adapters	DisplayPort, DVI
VGC-HD-4-H	4-port DisplayPort graphics card with HDMI adapters	DisplayPort, HDMI
Radian Video Wall Processor Expansion Cards		
Product Code	Number of Slots	Signal Format
VWX-2090	9-slot, 600 W expansion chassis; connects to processor chassis	Depends on cards installed
VWX-2110	11-slot, 800 W expansion chassis; connects to processor chassis	Depends on cards installed
Video Wall Control Software		
Product Code	Description	
VWS-2001	Wall Control Software (VWS-2001)	
VWS-2002	Wall Control Software (VWS-2002)	
VWS-2003	Wall Control Software upgrade (VWS-2003)	

## Product photos: Chassis (VWP-2040, VWP-2090, VWP-2110)



VWP-2110,  
front view,  
door open



VWP-2040,  
back view



VWP-2110,  
front view,  
close-up #1



VWP-2110,  
front view,  
close-up #2



VWP-2040,  
back view

# Radian Video Wall Processor Data Sheet

## Specifications: Radian Video Wall Processor Chassis, VWP-2040, VWP-2090, VWP-2110

<b>Motherboard</b>	
Type	VWP-2040: ASUS Z97-WS-LGA 1150 Intel® ATX; VWP-2090, VWP-2110: SBC4, Portwell ROBOB112 Q87
Processor	VWP-2040: Intel Core i5 Haswell processor; VWP-2090, VWP-2110: Intel Core i7 4770s
Clock Speed	3.1 GHz
Memory	16 GB RAM
Ethernet	VWP-2040: Dual 10/100/1000BASE-T PCI Express x1 interface based Gb Ethernet; Dual RJ-45 connectors with (2) LED indicators; VWP-2090, VWP-2110: Dual 10/100/1000BASE-T
On-board Graphics	VWP-2040: DisplayPort or HDMI connection; VWP-2090, VWP-2110: DVI connection for control screen
RS-232	For control
<b>Disk Storage</b>	
HDD	(2) Western Digital RED 750 GB
Optical Drive	DVD/RW combo drive
<b>Connectivity</b>	
USB	VWP-2040: No; VWP-2090, VWP-2110: (2) USB 3.0 on back panel; (6) USB 2.0 connectors, (2) front, (2) back, (2) internal* <i>NOTE: Internal ports are used for security dongles.</i>
<b>Operating System</b>	
	Windows Ultimate 64 bit
<b>Backplane/Expansion</b>	
Backplane	VWP-2090, VWP-2110: 3rd generation PCIe switched fabric; VWP-2090:(1) x8 slot, 8-Gbps uplink and downlink, (8) x4 slots, 4 Gbps uplink and downlink; VWP-2110: (11) x8 slots, 8-Gbps uplink and downlink
Expansion	VWP-2040: (4) PCIe 3.0/2.0 connectors; (16) dual x16 or x16/x8/x8 or (8) quad, Factory configured for (4) x8 slots
<b>Power</b>	
Type	
Consumption	VWP-2040: 600 watts; VWP-2090: 600 watts; VWP-2110: 800 watts
<b>Environment</b>	
Operating Temperature	32 to 95° F (0 to 35° C)
Storage Temperature	-4 to +158° F (-20 to +70° C)
Relative Humidity	5 to 90%, noncondensing
Noise	48.6 dB (A) up to 67.9 dB (A)

### Specifications (continued): Radian Video Wall Processor Chassis, VWP-2040, VWP-2090, VWP-2110

Physical	
Indicators	(1) PWR LED (red)
Number of Card Slots	VWP-2040: (4); VWP-2090: (9); VWP-2110: (11)
Dimensions	6.8"H x 19"W x 19.7"D (17.5 x 48.2 x 50 cm), Including handles
Weight	Product: 41.8–55 lb. (19–25 kg); Shipping: 66–72.6 lb. (30–33 kg)
Compliance	VWP-2040: CE, RoHS; VWP-2090, VWP-2110: FCC, CE, RoHS, UL, CCC

# Radian Video Wall Processor Data Sheet

## Video Capture Card (VCC-SD-HD-A-2): (1) HD channel + (1) SD channel + AM2 + cable, full height



Physical	
Connectors	Main board: DVI-I, RCA female; Audio board: HD15 male, used to connect audio breakout cable (included): Stereo line in: (2) RCA; Stereo balanced in:(2) XLR; Stereo line out: (2) RCA For connection to main board: 16-way header
Performance	
HDMI Capture	<ul style="list-style-type: none"> <li>• Supports HDMI 1.3 to 225 MHz (including deep color modes);</li> <li>• Audio streaming source: HDMI audio;</li> <li>• TMDS equalizer supports up to 20 m cables</li> </ul>
DVI Capture	<ul style="list-style-type: none"> <li>• Supports DVI 1.0 RGB 24-bit capture to 165 MHz;</li> <li>• TMDS equalizer supports up to 20 m cables</li> </ul>
VGA/YPbPr Capture	Sampling: Triple ADCs up to 170 Msp, Full 4:4:4, 8 bits per color; Formats: 5-wire, 4-wire, or sync-on-green signal
Composite Video Capture	Sampling: CCIR601, automatically detects PAL, NTSC, SECAM formats
Audio Capture	Stereo Line-In/Stereo balanced inputs with programmable gain ( $\pm 12$ dB); 16-bit sampling at 44.1/48/96 kHz; Analog stereo line-out for direct passthrough of selected input at up to 64 kHz sampling, sourced from analog input or HDMI channel; Analog stereo line-out for direct passthrough of selected input at up to 64 kHz sampling, sourced from analog input or HDMI channel
Video Capture Memory	256 MB high-bandwidth frame buffer supports triple buffering of HD and SD video; Local storage of complex scatter-gather tables for DMA engine (eliminates read overhead)
Video Processing	Polyphase FIR scaling engine (7x5) for hardward downscaling and and upscaling; Color space conversion allows captured data to be transferred in any format: <ul style="list-style-type: none"> <li>• RGB: 16-bit (5:5:5, 5:6:5), 24-bit (8:8:8), or 32-bit (8:8:8 alpha,</li> <li>• YUV: 16-bit (4:2:2)</li> <li>• Mono: 8-bit</li> </ul>
DMA Engine	Direct DMA to physical or virtual memory buffers with full scatter-gather support; DMA bandwidth: Up to 800 Mbps; 16 independent DMA streams: Any mix of HD and SD sources, color space, cropping, and scaling parameters
Operating System Support	Windows® XP, Windows Server 2003/2008/2012, Windows Vista, Windows 7/8, and Linux support
Environmental	
Operating Temperature	32 to 96° F (0 to 35° C)
Storage Temperature	-4 to +158° F (-20 to +70° C)
Relative Humidity	5 to 90%, noncondensing

## Video Capture Card (VCC-SD-HD-3): (2) HD channels + (1) SD channel, full height



<b>Physical</b>	
Connectors	Main board: (2) DVI-I, (1) RCA female
<b>Performance</b>	
HDMI Capture	<ul style="list-style-type: none"> <li>• Supports HDMI 1.3 to 225 MHz (including deep color modes);</li> <li>• Audio streaming source: HDMI audio;</li> <li>• TMDS equalizer supports up to 20 m cables</li> </ul>
DVI Capture	<ul style="list-style-type: none"> <li>• Supports DVI 1.0 RGB 24-bit capture to 165 MHz;</li> <li>• TMDS equalizer supports up to 20 m cables</li> </ul>
VGA/YPbPr Capture	Sampling: Triple ADCs up to 170 Msp, Full 4:4:4, 8 bits per color; Formats: 5-wire, 4-wire, or sync-on-green signal
Composite Video Capture	Sampling: CCIR601, automatically detects PAL, NTSC, SECAM formats
Audio Capture	Stereo Line-In/Stereo balanced inputs with programmable gain ( $\pm 12$ dB); 16-bit sampling at 44.1/48/96 kHz; Analog stereo line-out for direct passthrough of selected input at up to 64 kHz sampling, sourced from analog input or HDMI channel; Analog stereo line-out for direct passthrough of selected input at up to 64 kHz sampling, sourced from analog input or HDMI channel
Video Capture Memory	256 MB high-bandwidth frame buffer supports triple buffering of HD and SD video; Local storage of complex scatter-gather tables for DMA engine (eliminates read overhead)
Video Processing	Polyphase FIR scaling engine (7x5) for hardward downscaling and and upscaling; Color space conversion allows captured data to be transferred in any format: <ul style="list-style-type: none"> <li>• RGB: 16-bit (5:5:5, 5:6:5), 24-bit (8:8:8), or 32-bit (8:8:8 alpha),</li> <li>• YUV: 16-bit (4:2:2)</li> <li>• Mono: 8-bit</li> </ul>
DMA Engine	Direct DMA to physical or virtual memory buffers with full scatter-gather support; DMA bandwidth: Up to 800 Mbps; 16 independent DMA streams: Any mix of HD and SD sources, color space, cropping, and scaling parameters
Operating System Support	Windows® XP, Windows Server 2003/2008/2012, Windows Vista, Windows 7/8, and Linux support
<b>Power</b>	
Current (maximum)	1 A @ 12 V; 1 A @ 3.3 V
Thermal Dissipation	15.5 W
<b>Environmental</b>	
Operating Temperature	32 to 96° F (0 to 35° C)
Storage Temperature	-4 to +158° F (-20 to +70° C)
Relative Humidity	5 to 90%, noncondensing

# Radian Video Wall Processor Data Sheet

Video Capture Card (VCC-SDI-SD-HD-3): (1) HD channels + (1) HD-SDI channel + (1) SD channel, full height



Physical	
Board Format	Main board: (4) PCI-Express half-length, full-height card, 4.3" x 6.7" (11 x 17 cm)
Connectors	(1) DVI-I, (1) RCA, (2) BNC
Indicators	(1) input LED (green); (1) Loophrough output LED (blue)
Performance	
HDMI Capture	<ul style="list-style-type: none"> <li>• Supports HDMI 1.3 to 225 MHz (including deep color modes);</li> <li>• Audio streaming source: HDMI audio;</li> <li>• TMDS equalizer supports up to 20 m cables</li> </ul>
DVI Capture	<ul style="list-style-type: none"> <li>• Supports DVI 1.0 RGB 24-bit capture to 165 MHz;</li> <li>• TMDS equalizer supports up to 20 m cables</li> </ul>
VGA/YPbPr Capture	Sampling: Triple ADCs up to 170 Msps, Full 4:4:4, 8 bits per color; Formats: 5-wire, 4-wire, or sync-on-green signal
Composite Video Capture	Sampling: CCIR601, automatically detects PAL, NTSC, SECAM formats
SDI Capture	SD-SDI: 480i/576i; HD-SDI: Up to 1080i; 3G-SDI: Up to 1080p;;Digital cinema modes: 2 K; Audio streaming source: SDI audio
Analog Audio Capture	Balanced and unbalanced analog audio capture (through optional audio module)
Video Capture Memory	256 MB high-bandwidth frame buffer supports triple buffering of HD and SD video; Local storage of complex scatter-gather tables for DMA engine (eliminates read overhead)
Video Processing	Polyphase FIR scaling engine (7x5) for hardward downscaling and and upscaling; Color space conversion allows captured data to be transferred in any format: <ul style="list-style-type: none"> <li>• RGB: 16-bit (5:5:5, 5:6:5), 24-bit (8:8:8), or 32-bit (8:8:8 alpha),</li> <li>• YUV: 16-bit (4:2:2)</li> <li>• Mono: 8-bit</li> </ul>
DMA Engine	Direct DMA to physical or virtual memory buffers with full scatter-gather support; DMA bandwidth: Up to 800 Mbps; 16 independent DMA streams: Any mix of HD and SD sources, color space, cropping, and scaling parameters
Operating System Support	Windows® XP, Windows Server 2003/2008/2012, Windows Vista, Windows 7/8, and Linux support (not audio)
Power	
Current (maximum)	0.5 A @ 12 V; 0.9 A @ 3.3 V
Thermal Dissipation	15.5 W (typical)
Environmental	
Operating Temperature	32 to 96° F (0 to 35° C)
Storage Temperature	-4 to +158° F (-20 to +70° C)
Relative Humidity	5 to 90%, noncondensing



## Video Capture Card (VCC-HD-4): (4) channel DVI/RGB/HD capture card



<b>Physical</b>	
Board Format	Full-size, 8-lane PCIe 3.0 interface; PCI Express card: 4.3" x 12.3" (11.1 x 31.2 cm)
Connectors	(2) MDS59 high-density video connectors
<b>Performance</b>	
Maximum Data Rate	800 Mbps bandwidth per capture processor, 3.2 Gbps for the card
Video Sampling	24 bits per pixel/8:8:8 format
Video Capture Memory	256 MB high-bandwidth frame buffer supports triple buffered
Analog RGB Mode Support	640 x 480, 800 x 600, 1024 x 768, 1280 x 1024, 1600 x 1200, 1920 x 1080, 1920 x 1200, and custom modes
DVI Single Link Mode Support	640 x 480, 800 x 600, 1024 x 768, 1280 x 1024, 1600 x 1200, 1920 x 1080, 1920 x 1200, and custom modes
HD Modes	1080i, 1080p, 720p, 576p, 480p, and 480i using a Component DVI connector; For HDCP support, contact Black Box Technical Support at 877-877-2269 or info@blackbox.com
Input Mode Detection	Automatically detects input modes in hardware, enabling tracking of mode changes in the source signal. DirectShow streams are maintained at a fixed resolution across mode changes.
Pixel Transfer Formats	RGB: 5:5:5, 5:6:5, or 8:8:8 (24-bit/32-bit) pixels; YUV: 4:2:2; Mono: 8-bit
Update Rate	User-defined, captured frame rate will match the source as long as the maximum data rate (800 Mbps) is not exceeded.
Video Format Options	Analog RGB plus HSync and VSync (5-wire); Analog RGB with Composite Sync (4-wire); Analog RGB with Sync on Green/YpPr (3-wire); DVI single link: HDMI 1.3
Operating System Support	Windows® XP, Windows Server 2003/2008/2012, Windows Vista, Windows 7/8, and Linux support (not audio)
<b>Power</b>	
Current (maximum)	1.9 A @ 12 V; 1.5 A @ 3.3 V
Thermal Dissipation	31 W (typical)
<b>Environmental</b>	
Operating Temperature	32 to 96° F (0 to 35° C)
Storage Temperature	-4 to +158° F (-20 to +70° C)
Relative Humidity	5 to 90%, noncondensing

# Radian Video Wall Processor Data Sheet

## Video Capture Card (VCC-DP-2): (2) channel DisplayPort 4K capture card



<b>Physical</b>	
Board Format	PCIe x 8 plug-in card
Connectors	Locking dual DisplayPort 1.2
<b>Performance</b>	
Maximum Capture Resolution	616 Mpps capture bandwidth per channel; Captures up to 4096 x 2160p @ 60 Hz per input
Frame Buffer	768 MB
Input Mode Detection	Decodes Main Stream Attribute (MSA) data to determine video geometry
Pixel Transfer Formats	RGB: 5:5, 5:6:5 (16-bit) or 8:8:8 (24-bit); YUV: 4:2:2 (16-bit); Mono: 8-bit
Pixel Capture Format	RGB with 18, 24 bits per pixel
Update Rate	User-defined. Captured frame rate will match the source providing max. data rate (6.4 Gbps) is not exceeded. Multi-buffered to eliminate tearing artefacts
Operating System Support	Windows® XP, Windows Server 2003/2008/2012, Windows Vista, Windows 7/8, and Linux support (not audio)
<b>Power</b>	
Current (maximum)	12 V @ 1.0 A
Thermal Dissipation	12 W
<b>Environmental</b>	
Operating Temperature	32 to 96° F (0 to 35° C)
Storage Temperature	-4 to +158° F (-20 to +70° C)
Relative Humidity	5 to 90%, noncondensing

Video Capture Card (VCC-HD-4-H): (4) channel HD capture card with (2) HDMI splitter cables



<b>Physical</b>	
Board Format	8-lane PCIe interface; PCI Express card: 4.3" x 6.9" (11.0 x 17.7 cm), including heat sink
Connectors	(2) DSM59 high-density video connectors plus (2) HDMI adapters
<b>Performance</b>	
Update Rate	Channels 1 and 3: 297 Mpps; Channels 2 and 4: 165 Mpps
Maximum Capture Resolution	Channels 1 and 3: (2) 3840 x 2160p @ 30 Hz; Channels 2 and 4: (2) 1920 x 1080p @ 60 Hz
Frame Buffer	768 MB
Pixel Transfer Formats	RGB: 5:5:5, 5:6:5, or 8:8:8 (24-bit/32-bit); YUV: 4:2:2; Mono: 8-bit
Video Modes	HDMI 1.4, HDMI 1.3, DVI
Operating System Support	Windows® XP, Windows Server 2003/2008/2012, Windows Vista, Windows 7/8/8.1, and Linux support (not audio)
<b>Power</b>	
Current (maximum)	3.3 V @ 0.45 A; 12 V @ 0.85 A
Thermal Dissipation	18 W, maximum
<b>Environmental</b>	
Operating Temperature	32 to 96° F (0 to 35° C)
Storage Temperature	-4 to +158° F (-20 to +70° C)
Relative Humidity	5 to 90%, noncondensing

# Radian Video Wall Processor Data Sheet

## Video Capture Card (VCC-HD-4-D): (4) channel HD capture card with (2) DVI splitter cables



<b>Physical</b>	
Board Format	8-lane PCIe interface; PCI Express card: 4.3" x 6.9" (11.0 x 17.7 cm), including heat sink
Connectors	(2) DSM59 high-density video connectors plus (2) DVI adapters
<b>Performance</b>	
Update Rate	Channels 1 and 3: 297 Mpps; Channels 2 and 4: 165 Mpps
Maximum Capture Resolution	Channels 1 and 3: (2) 3840 x 2160p @ 30 Hz; Channels 2 and 4: (2) 1920 x 1080p @ 60 Hz
Frame Buffer	768 MB
Pixel Transfer Formats	RGB: 5:5:5, 5:6:5, or 8:8:8 (24-bit/32-bit); YUV: 4:2:2; Mono: 8-bit
Video Modes	HDMI 1.4, HDMI 1.3, DVI
Operating System Support	Windows® XP, Windows Server 2003/2008/2012, Windows Vista, Windows 7/8/8.1, and Linux support (not audio)
<b>Power</b>	
Current (maximum)	3.3 V @ 0.45 A; 12 V @ 0.85 A
Thermal Dissipation	18 W, maximum
<b>Environmental</b>	
Operating Temperature	32 to 96° F (0 to 35° C)
Storage Temperature	-4 to +158° F (-20 to +70° C)
Relative Humidity	5 to 90%, noncondensing

## Video Capture Card (VCC-SDI-4): (4) channel 3G-SDI capture card



<b>Physical</b>	
Board Format	8-lane PCIe interface
Connectors	(4) BNC
Dimensions	4.3" x 6.9" (11 x 17.7 cm)
<b>Performance</b>	
Maximum Capture Resolution	2.97 Gbps bandwidth per channel; (4) x 1920 x 1080p @ 60 Hz
Frame Buffer	768 MB
Input Mode Detection	Supports SMTPE-352 payload identifiers
Sample Formats	RGB: 4:4:4 (+A); YUV: 4:2:2 (+A), 4:4:4 (+A)
SMPTPE Standards	ST-259, 272, 291, 292, 293, 296, 299, 352, 424, 425, 2048
Update Rate	User-defined. Captured frame rate will match the source as long as the maximum data rate (2,9 Gbps per channel) is not exceeded. Multi-buffered to eliminate tearing artifacts.
Video Modes	480i, 576i, 720p, 1080i, 1080p, 1080psF, 2048 x 1080p, 2048 x 1080psF
Supported Frame Rates	23.98, 24, 25, 29.97, 30, 50, 59.94, and 60 Hz
Operating System Support	Windows® XP, Windows Server 2003/2008/2012, Windows Vista, Windows 7/8/8.1, and Linux support (not audio)
<b>Power</b>	
Current (maximum)	3.3 V @ 0.45 A; 12 V @ 0.85 A
Thermal Dissipation	18 W, maximum
<b>Environmental</b>	
Operating Temperature	32 to 96° F (0 to 35° C)
Storage Temperature	-4 to +158° F (-20 to +70° C)
Relative Humidity	5 to 90%, noncondensing

# Radian Video Wall Processor Data Sheet

## Video Capture Card (VCC-STREAM), Dedicated Decoding Card



<b>Physical</b>	
Board Format	PCIe x4 gen.2 plug-in card, half-length, full-height
Connectors	(2) RJ-45, (1) DisplayPort output connector (reserved for future use)
<b>Performance</b>	
Ethernet	(2) 1000BASE-T Ethernet ports, DHCP or Static IP support, IPv4 and IPv6
Streaming Protocols	HTTP, RTSP, MPEG2-TS support, Multicast and Unicast support
Codec Support	H.264 (Mpeg4 Part 10 AVC), VC-1 (WMV), and MPEG2 Part 2 and MJPEG
Decode Density	Up to (3) 4096 x 2160p at 30 fps or (6) 1920 x 1080p @ 60 fps/12 @ 30 fps, 50 + D1 @ 30 fps
De-Interlacing	Supported
Stream Authentication	Basic and Digest Stream Authentication
Video Capture Memory	4 GB
H.264 Profiles	Constrained Baseline Profile (CBP), Main Profile (MP), High Profile (HP)
H.264v Levels	Level 3, 3.1, 4, 4.1, 5, 5.1, 5.2
Color Format	NV12 4:2:0
DMA Engine	Direct DMA to physical or virtual memory buffers with full scatter-gather support DMA bandwidth up to 1.3 Gbps
Scaling	Hardware downscaling prior to DMA transfer. One to one (1:1) transfer for upscale after DMA
Carousel	IP Window carousel supported including the hardware based pre-buffering of IP decodes for smoother playback
Operating System Support	Windows® 7, 64-bit/Server 2012
<b>Power</b>	
Current (maximum)	3.3 V @ 1.9 A; 12 V @ 1.9 A
Thermal Dissipation	14 W, average
<b>Environmental</b>	
Operating Temperature	32 to 96° F (0 to 35° C)
Storage Temperature	-4 to +158° F (-20 to +70° C)
Relative Humidity	5 to 90%, noncondensing

Video Graphics Card (VGC-DP-4): (4) port DisplayPort graphics card



<b>Physical</b>	
Board Format	16-lane PCI Express
Connectors	(4) DisplayPort
Dimensions	4.3" x 6.9" (11 x 17.7 cm), including heat sink
<b>Performance</b>	
Maximum Output Resolution	(4) 2560 x 1600 @ 60 Hz (max. 359 Mpixels or (2) 3840 x 2160 @ 30 Hz
Maximum Cards per System	(16) (64 display channels)
Graphic Card Memory	512 MB total
<b>Power</b>	
Current (maximum)	3.3 V @ 0.25 A (1.8 A when powering four channels); 12 V @ 1.2 A
Thermal Dissipation	15 W, maximum
<b>Environmental</b>	
Operating Temperature	32 to 96° F (0 to 35° C)
Storage Temperature	-4 to +158° F (-20 to +70° C)
Relative Humidity	5 to 90%, noncondensing
MTBF	Over 180,000 hours

# Radian Video Wall Processor Data Sheet

## Video Graphics Card (VGC-HD-4-D): (4) port DisplayPort graphics card with DVI adapters



Physical	
Board Format	16-lane PCI Express
Connectors	(4) DisplayPort on card, (4) DisplayPort to DVI on included adapters
Dimensions	4.3" x 6.9" (11 x 17.7 cm), including heat sink
Performance	
Maximum Output Resolution	(4) 2560 x 1600 @ 60 Hz (max. 359 Mpixels or (2) 3840 x 2160 @ 30 Hz
Maximum Cards per System	(16) (64 display channels)
Graphic Card Memory	512 MB total
Power	
Current (maximum)	3.3 V @ 0.25 A (1.8 A when powering four channels); 12 V @ 1.2 A
Thermal Dissipation	15 W, maximum
Environmental	
Operating Temperature	32 to 96° F (0 to 35° C)
Storage Temperature	-4 to +158° F (-20 to +70° C)
Relative Humidity	5 to 90%, noncondensing
MTBF	Over 180,000 hours



Video Graphics Card (VGC-HD-4-H): (4) port DisplayPort graphics card with HDMI adapters



<b>Physical</b>	
Board Format	16-lane PCI Express
Connectors	(4) DisplayPort on card, (4) DisplayPort to HDMI on included adapters
Dimensions	4.3" x 6.9" (11 x 17.7 cm), including heat sink
<b>Performance</b>	
Maximum Output Resolution	(4) 2560 x 1600 @ 60 Hz (max. 359 Mpixels or (2) 3840 x 2160 @ 30 Hz
Maximum Cards per System	(16) (64 display channels)
Graphic Card Memory	512 MB total
<b>Power</b>	
Current (maximum)	3.3 V @ 0.25 A (1.8 A when powering four channels); 12 V @ 1.2 A
Thermal Dissipation	15 W, maximum
<b>Environmental</b>	
Operating Temperature	32 to 96° F (0 to 35° C)
Storage Temperature	-4 to +158° F (-20 to +70° C)
Relative Humidity	5 to 90%, noncondensing
MTBF	Over 180,000 hours

# Radian Video Wall Processor Data Sheet

## Expansion Chassis (VWX-2090): Express9 Gen3 expansion chassis + 600 W RPSU



Backplane/Expansion	
Backplane	VWP-2090, VWP-2110: 3rd generation PCIe switched fabric; VWP-2090:(1) x8 slot, 8-Gbps uplink and downlink, (8) x4 slots, 4 Gbps uplink and downlink; VWP-2110: (11) x8 slots, 8-Gbps uplink and downlink
Expansion	VWP-2040: (4) PCIe 3.0/2.0 connectors; (16) dual x16 or x16/x8/x8 or (8) quad, Factory configured for (4) x8 slots
Power	
Thermal Dissipation	600 W

## Expansion Chassis (VWX-2110): Express11 Gen3 expansion chassis + 800 W RPSU



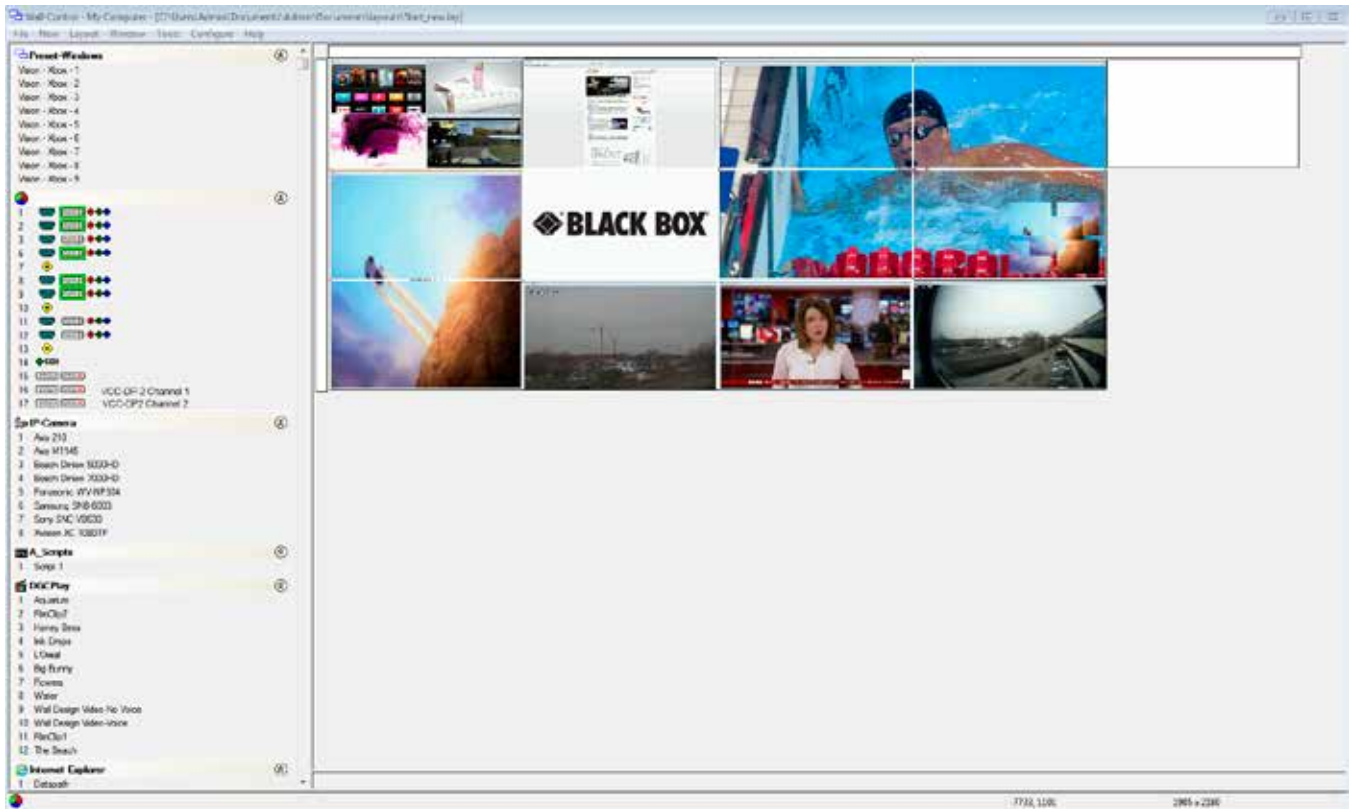
Backplane/Expansion	
Backplane	VWP-2090, VWP-2110: 3rd generation PCIe switched fabric; VWP-2090:(1) x8 slot, 8-Gbps uplink and downlink, (8) x4 slots, 4 Gbps uplink and downlink; VWP-2110: (11) x8 slots, 8-Gbps uplink and downlink
Expansion	VWP-2040: (4) PCIe 3.0/2.0 connectors; (16) dual x16 or x16/x8/x8 or (8) quad, Factory configured for (4) x8 slots
Thermal Dissipation	800 W

# Radian Video Wall Processor Data Sheet

## Video Wall Control Software

The Video Wall Controller software takes video and encodes it for streaming or remote storage and to decodes compressed data for use on a video wall or monitor. Three versions are available:

- VWS-2001
- VWS-2002
- VWS-2003



## Ordering Information

Item	Code
Radian Video Wall Processor	
600 W, 4-Slot	<b>VWP-2040</b>
600 W, 9-Slot	<b>VWP-2090</b>
800 W, 11-Slot	<b>VWP-2110</b>
Video Capture Cards	
1 Channel HD + 1 Channel SD +AM2	<b>VCC-SD-HD-A-2</b>
2 Channel HD + 1 Channel SD	<b>VCC-SD-HD-3</b>
1 Channel HD + 1 Channel SD	<b>VCC-SDI-SD-HD-3</b>
4 Channel DVI/RGB/HD	<b>VCC-HD-4</b>
2 Channel DisplayPort 4K	<b>VCC-DP-2</b>
4 Channel HD with HDMI Splitter Cables	<b>VCC-HD-4-H</b>
4 Channel HD with DVI Splitter Cables	<b>VCC-HD-4-D</b>
4 Channel 3G-SDI	<b>VCC-SDI-4</b>
	<b>VCC-STREAM</b>
Video Graphics Cards	
4-Port DisplayPort	<b>VGC-DP-4</b>
4-Port DisplayPort with DVI Adapters	<b>VGC-HD-4-D</b>
4-Port DisplayPort with HDMI Adapters	<b>VGC-HD-4-H</b>
Video Expansion Cards	
600 W, 9-Slot	<b>VWX-2090</b>
800 W, 11-Slot	<b>VWX-2110</b>
Video Wall Control Software	
	<b>VWS-2001</b>
	<b>VWS-2002</b>
Upgrade	<b>VWS-2003</b>

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