



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

Motherboard	
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
Disk Storage	
HDD	(2) Western Digital RED 750 GB
Optical Drive	DVD/RW combo drive
Connectivity	
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>
Operating System	
	Windows Ultimate 64 bit
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	
Type	
Consumption	VWP-2040: 600 watts; VWP-2090: 600 watts; VWP-2110: 800 watts
Environment	
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"> • Supports HDMI 1.3 to 225 MHz (including deep color modes); • Audio streaming source: HDMI audio; • TMDS equalizer supports up to 20 m cables
DVI Capture	<ul style="list-style-type: none"> • Supports DVI 1.0 RGB 24-bit capture to 165 MHz; • TMDS equalizer supports up to 20 m cables
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 (± 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"> • RGB: 16-bit (5:5:5, 5:6:5), 24-bit (8:8:8), or 32-bit (8:8:8 alpha, • YUV: 16-bit (4:2:2) • Mono: 8-bit
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



Physical	
Connectors	Main board: (2) DVI-I, (1) RCA female
Performance	
HDMI Capture	<ul style="list-style-type: none"> • Supports HDMI 1.3 to 225 MHz (including deep color modes); • Audio streaming source: HDMI audio; • TMDS equalizer supports up to 20 m cables
DVI Capture	<ul style="list-style-type: none"> • Supports DVI 1.0 RGB 24-bit capture to 165 MHz; • TMDS equalizer supports up to 20 m cables
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 (± 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"> • RGB: 16-bit (5:5:5, 5:6:5), 24-bit (8:8:8), or 32-bit (8:8:8 alpha), • YUV: 16-bit (4:2:2) • Mono: 8-bit
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
Power	
Current (maximum)	1 A @ 12 V; 1 A @ 3.3 V
Thermal Dissipation	15.5 W
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

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"> • Supports HDMI 1.3 to 225 MHz (including deep color modes); • Audio streaming source: HDMI audio; • TMDS equalizer supports up to 20 m cables
DVI Capture	<ul style="list-style-type: none"> • Supports DVI 1.0 RGB 24-bit capture to 165 MHz; • TMDS equalizer supports up to 20 m cables
VGA/YPbPr Capture	Sampling: Triple ADCs up to 170 Msp/s, 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 hardware downscaling and upscaling; Color space conversion allows captured data to be transferred in any format: <ul style="list-style-type: none"> • RGB: 16-bit (5:5:5, 5:6:5), 24-bit (8:8:8), or 32-bit (8:8:8 alpha), • YUV: 16-bit (4:2:2) • Mono: 8-bit
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



Physical	
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
Performance	
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/YPbPr (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)
Power	
Current (maximum)	1.9 A @ 12 V; 1.5 A @ 3.3 V
Thermal Dissipation	31 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

Radian Video Wall Processor Data Sheet

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



Physical	
Board Format	PCIe x 8 plug-in card
Connectors	Locking dual DisplayPort 1.2
Performance	
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)
Power	
Current (maximum)	12 V @ 1.0 A
Thermal Dissipation	12 W
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-H): (4) channel HD capture card with (2) HDMI splitter cables



Physical	
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
Performance	
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)
Power	
Current (maximum)	3.3 V @ 0.45 A; 12 V @ 0.85 A
Thermal Dissipation	18 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

Radian Video Wall Processor Data Sheet

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



Physical	
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
Performance	
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)
Power	
Current (maximum)	3.3 V @ 0.45 A; 12 V @ 0.85 A
Thermal Dissipation	18 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

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



Physical	
Board Format	8-lane PCIe interface
Connectors	(4) BNC
Dimensions	4.3" x 6.9" (11 x 17.7 cm)
Performance	
Maximum Capture Resolution	2.97 Gbps bandwidth per channel; (4) x 1920 x 1080p @ 60 Hz
Frame Buffer	768 MB
Input Mode Detection	Supports SMPTE-352 payload identifiers
Sample Formats	RGB: 4:4:4 (+A); YUV: 4:2:2 (+A), 4:4:4 (+A)
SMPTE 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 artefacts.
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)
Power	
Current (maximum)	3.3 V @ 0.45 A; 12 V @ 0.85 A
Thermal Dissipation	18 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

Radian Video Wall Processor Data Sheet

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



Physical	
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)
Performance	
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
Power	
Current (maximum)	3.3 V @ 1.9 A; 12 V @ 1.9 A
Thermal Dissipation	14 W, average
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 Graphics Card (VGC-DP-4): (4) port DisplayPort graphics card



Physical	
Board Format	16-lane PCI Express
Connectors	(4) DisplayPort
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

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



Physical	
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
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

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



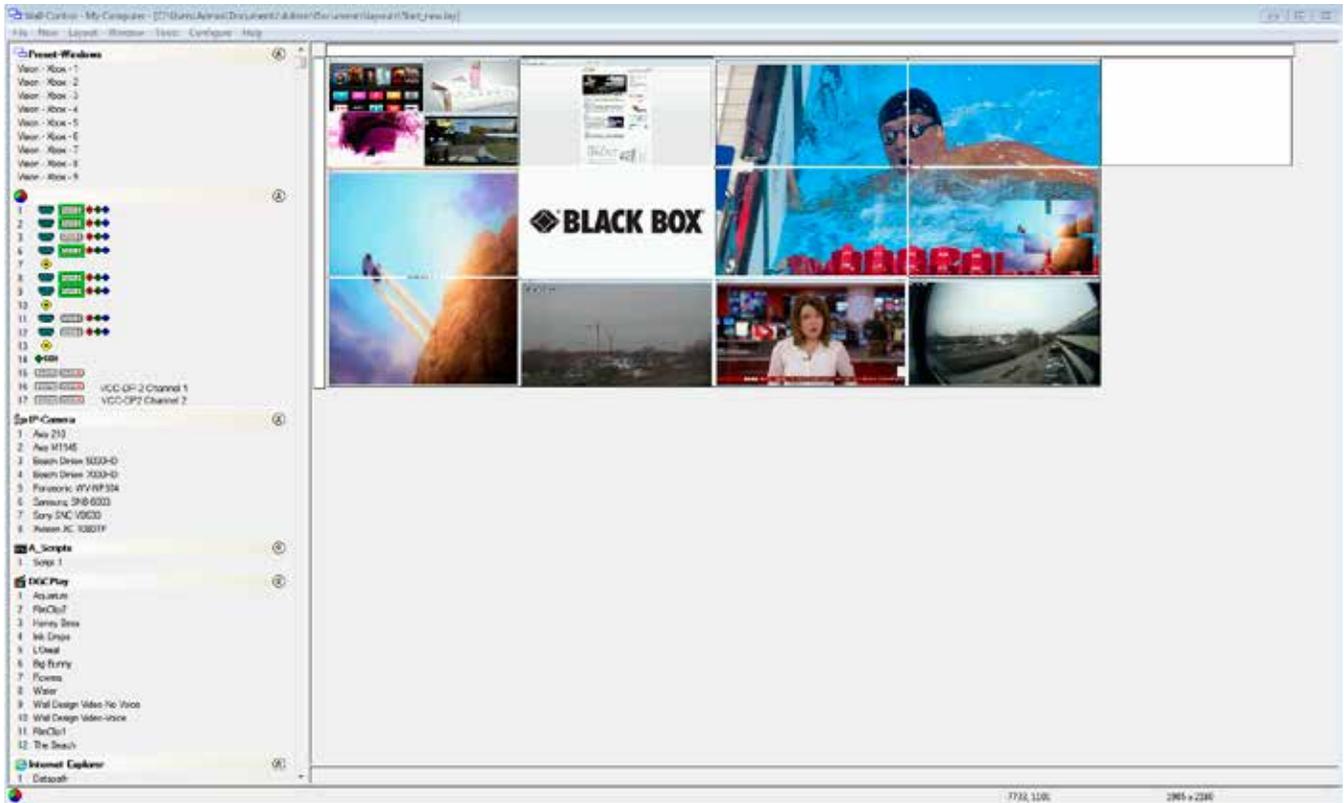
Backplane/Expansion	
Backplane	VWP-2090, VWP-2110: 3rd generation PCIe switched fabric; VWP-2090:(1) x8 slot, 8-Gbps uplink and downlink, (8) x4 slots, 4 Gbps uplink and downlink; VWP-2110: (11) x8 slots, 8-Gbps uplink and downlink
Expansion	VWP-2040: (4) PCIe 3.0/2.0 connectors; (16) dual x16 or x16/x8/x8 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	VWP-2040
600 W, 9-Slot	VWP-2090
800 W, 11-Slot	VWP-2110
Video Capture Cards	
1 Channel HD + 1 Channel SD +AM2	VCC-SD-HD-A-2
2 Channel HD + 1 Channel SD	VCC-SD-HD-3
1 Channel HD + 1 Channel SD	VCC-SDI-SD-HD-3
4 Channel DVI/RGB/HD	VCC-HD-4
2 Channel DisplayPort 4K	VCC-DP-2
4 Channel HD with HDMI Splitter Cables	VCC-HD-4-H
4 Channel HD with DVI Splitter Cables	VCC-HD-4-D
4 Channel 3G-SDI	VCC-SDI-4
	VCC-STREAM
Video Graphics Cards	
4-Port DisplayPort	VGC-DP-4
4-Port DisplayPort with DVI Adapters	VGC-HD-4-D
4-Port DisplayPort with HDMI Adapters	VGC-HD-4-H
Video Expansion Cards	
600 W, 9-Slot	VWX-2090
800 W, 11-Slot	VWX-2110
Video Wall Control Software	
	VWS-2001
	VWS-2002
Upgrade	VWS-2003

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About Black Box:

Black Box is a leading technology product solutions provider that helps customers build, manage, optimize, and secure their professional audio/video, signal distribution, and digital signage networks. The company is a single source for digital signage content managers, networked digital signage players, professional audio/visual equipment, including controllers, extenders, splitters, converters, and presentation systems. Black Box provides its customers with free, 24/7 pre- and post-sales technical support.

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