

# CHRISTIE PANDORAS BOX SERVER R5 SPECS



Rental Staging | Cruiseships | Fixed Install | Themeparks | Concert/Touring |  
Houses of Worship | Digital Signage | Museums | Corporate Shows

## Creative. Scalable. Reliable.

The award winning Christie® Pandoras Box® Server system offers the best high performance link between visual displays and digital image compositing.

It is a turnkey solution that perfectly unites state of the art rendering technology with intuitive media and show control. Featuring an incredibly powerful and versatile render-engine, this high-quality server offers real-time compositing in 3D and allows for projection onto any shape or surface as well as high resolution displays at high frame rates.

It is totally customizable to your needs and features an intuitive design based on how you work. Easily arrange videos and images freely, change colour, form and position. Pandoras Box synchronizes all video and audio sources. On-site 3D rendering, composition and editing – even on the fly in the preview mode – make Pandoras Box the perfect choice for any live event or multi-media show.



**CHRISTIE®**

# Server R5 technical specs



Server-grade hardware components built for 24/7 use

General hardware specifications	Front panel OLED display	• Yes		
	Physical dimensions	<ul style="list-style-type: none"> <li>• 42,2cm x 17,7cm x 59,6cm (W x H x D without handles)</li> <li>• 48,2cm x 17,7cm x 63,6cm (W x H x D with handles)</li> </ul>		
	Weight	• Approximately 30kg / 66lbs		
	Power supply - voltage	• 100-240V AC, 12-6A, 47-63Hz		
	Power supply - wattage	• 850W		
	Operating system	• Windows 10		
	USB ports	• USB3.1: 2 back (1x Type C) / USB 3.0: 2 front + 4 back		
	10GbE Ethernet	• 1x onboard (additional ports optional)		
	1GbE Ethernet	• 1x onboard (additional ports optional)		
	IPMI	• Dedicated IPMI LAN port		
	Mouse / keyboard	• Yes / Yes		
	Noise emissions / sound	• SPL: 41.9 dBA (average in 1m dist.) / SWL: 51.45 dBA (according to ISO 3744)		
	Operating temperature	• 10° to 35°C (50° to 95°F)		
Relative humidity	• 10% to 90% non-condensing			
Hardware configurations - performance kits	Performance kit options	<b>PK1</b>	<b>PK2</b>	<b>PK3</b>
	Intel Xeon processor	• Yes	• Yes	• Yes
	Separate SSD for operating system	• 480GB	• 480GB	• 480GB
	SSD RAID capacity for content	• 960GB	• 7,68TB	• 30.72TB
	RAID-level	• RAID-0	• RAID-0	• RAID-0
	Number of physical drives in RAID	• 2	• 4	• 4
	System memory	• 24GB	• 48GB	• 48GB
Nvidia graphics card	Graphics card options	<b>RTX A4000</b>		<b>RTX A6000</b>
	Maximum number of graphics cards per system	• 2		• 1
	Physical outputs per card	• 4x DP1.4		• 4x DP1.4
	Maximum number of simultaneous displays per card	• 4x 4096 × 2160 at 120 Hz (arbitrary resolutions and frame rates possible)		• 4x 4096 × 2160 at 120 Hz (arbitrary resolutions and frame rates possible)
	Sync board	• Optional		• Optional
Video input cards	FLEX Gateway Card 4	• Optional		
	Dual HDMI 2.0 / DP 1.2 input	• Optional		
	12G/Quad 3G SDI, HDMI/DP input	• Optional		
	Quad 3G/HD SDI input	• Optional		
	Dual 3G/HD SDI input	• Optional		
	Single 3G/HD SDI input	• Optional		
	Terra® / SDVoE Fiber input Card	• Optional		
ASIO audio cards	Sound card 8CH ADAT	• Optional		
	Sound card Dante 128x128CH	• Optional		
Audio / video playback	Render outputs	• Depending on V8 Software License. Up to 8 physical ports.		
	Video layers	• Unlimited		
	Effects per layer	• Unlimited		
	Particle systems	• Unlimited		
	ASIO tracks in software	• Unlimited		
	Playback resolution	<ul style="list-style-type: none"> <li>• Playback up to and above 8K possible; performance depends on codecs, compression (where applicable), etc. Special image ratios with up to 16K or 32K resolution are possible with image sequences, depending on overall pixel measurements. If in doubt, please consult with the Pandoras Box support team. <a href="mailto:support.pandorasbox@christiedigital.com">support.pandorasbox@christiedigital.com</a></li> </ul>		
Recommended media formats Please keep in mind that different types of content will work better with different types of codecs.	<ul style="list-style-type: none"> <li>• DPX Image Sequences, TIF Image Sequences, BMP Image Sequences, DDS Image Sequences, DDSA Image Sequences, YCoCg Image Sequences, HAP, HAP Alpha, HAP Q, 4K MXL, MPEG-2, MPEG-1</li> </ul>			

# Server R5 performance specs



Different video codecs or uncompressed content demand different resources from the system. The graphics card can also make a huge difference depending on the nature of the codec. Therefore, the playback of video files differs depending on the codec and the hardware specs.

The performance results are approximate values, tested under the following conditions:

- Pandoras Box Version 8.3
- 4x 3840x2160 @60 outputs
- graphics cards and performance kits as specified in tables

The below chart lists the maximum amount of video files per codec which can be used **simultaneously** and can **flexibly be loaded** and unloaded during a show, without interfering already displayed clips. Even more video files might be played back, once loaded and started.

Uncompressed content				Performance kits		
Graphics card	Codec	Format	Resolution / Framerate	PK1	PK2	PK3
<b>RTX A6000</b>	DPX / TIF / BMP	RGB 8bit	8192x4320 @60	–	–	1
			3840x2160 @60	3	4	4
			1920x1080 @60	12	14	14
	DPX	RGB 10bit	4096x2160 @60	2	3	3
			1920x1080 @60	8	12	12
<b>RTX A4000</b>	DPX / TIF / BMP	RGB 8bit	8192x4320 @60	–	–	1
			3840x2160 @60	3	3	4
			1920x1080 @60	12	12	12
	DPX	RGB 10bit	4096x2160 @60	2	3	3
			1920x1080 @60	8	10	12
<b>Quadro P4000</b>	DPX / TIF / BMP	RGB 8bit	8192x4320 @60	–	–	–
			3840x2160 @60	2	2	2
			1920x1080 @60	6	8	10
	DPX / TIF / BMP	RGBA 8bit	3840x2160 @60	1	2	2
			1920x1080 @60	6	6	8
DPX	RGB 10 bit	4096x2160 @60	1	1	1	
		1920x1080 @60	6	6	6	

Compressed content has been tested with the weakest graphics card for reference. Depending on the codec, higher values are expected for RTX cards.

Compressed content				Performance kits		
Graphics card	Codec	Format	Resolution / Framerate	PK1	PK2	PK3
<b>Quadro P4000</b>	DDS / HAP	RGB	3840x2160 @60	6	12	16
			1920x1080 @60	36	56	60
	DDSA / HAP Alpha	RGBA	3840x2160 @60	6	8	8
			1920x1080 @60	20	28	28
	YCoCg / HAP Q	RGB	3840x2160 @60	6	8	8
			1920x1080 @60	20	28	28
	MPEG	RGB	1920x1080 @30	12	22	26

# Server R5 performance specs



The following chart lists the maximum amount of video inputs which can be used at a time. To provide an understanding of how busy the overall system is at that point, the number of additional video playbacks are specified.

The performance results are approximate values of selected hardware combinations and help provide an understanding of other possible combinations. The following conditions were applied:

- Pandoras Box Version 8.3
- 4x 3840x2160 @60 outputs
- FLEX Gateway card 4
- graphics cards, performance kits and FLEX modules as specified in table

DELTACAST FLEX solution			Performance kits / Graphics cards			
Input module	Format	Resolution / Framerate	PK1 P4000	PK2 P4000	PK3 P4000	PK3 A6000
HDMI 2.0 / DisplayPort 1.2	RGB 8bit, 4:4:4	3840x2160 @60	2	3	3	4
files in parallel:						
DPX / TIF / BMP	RGB 8bit	3840x2160 @60	–	–	–	1
HDMI 2.0 / DisplayPort 1.2	RGB 8bit, 4:4:4	3840x2160 @60	2	3	3	4
files in parallel:						
DDS / HAP	RGB	3840x2160 @60	4	–	–	5
HDMI 2.0 / DisplayPort 1.2	YUV 8bit, 4:2:2	3840x2160 @60	4	4	4	4
files in parallel:						
DDS / HAP	RGB	3840x2160 @60	–	6	6	Untested
12G / Quad 3G SDI	YUV 8bit, 4:2:2	3840x2160 @60	4	4	4	4
files in parallel:						
DDS / HAP	RGB	3840x2160 @60	–	5	5	Untested
12G / Quad 3G SDI	YUV 8bit, 4:2:2	1920x1080 @60	14	16	16	16
files in parallel:						
DDS / HAP	RGB	3840x2160 @60	–	3	4	Untested
12G / Quad 3G SDI	YUV 8bit, 4:2:2	1920x1080 @60	8	10	12	12
files in parallel:						
DPX / TIF / BMP	RGB 8bit	3840x2160 @60	1	1	1	1
12G / Quad 3G SDI	YUV 8bit, 4:2:2	1920x1080 @60	10	14	16	16
files in parallel:						
DDS / HAP	RGB	3840x2160 @60	1	1	1	1

For the most current specification information, please visit [christiedigital.com](http://christiedigital.com)

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