



# PIXERA two Gen. 2

Basic technical specifications



<b>Product</b>	<b>PIXERA two</b>
Available models	Pixera two Gen.2 Dual Quad
Art. Nr.	PX2-2-G2 PX2-4-G2
<b>Physical</b>	
Case Dimension (WxDxH)	445 x 468 x 88,9mm
Max. Product Dimension*	484 x 493 x 88,9mm
Product Weight	13,1kg
<b>Hardware</b>	
Server Grade Hardware Components	Yes
CPU Type	Intel Xeon SP
CPU Performance Index	24   50   64
CPU # of Cores / # of Threads	12/24   24/48   32/64
CPU Min/Max Frequency	2,1/3,9GHz   2,1/3,9GHz   2,0/3.4GHz
RAM	128GB
RAM Channels used	8
ECC RAM	Yes
<b>Power</b>	
Power Supply	100-240VAC, 50-60Hz
Power Consumption Peak	800W
<b>Operating System Storage</b>	
Operating System Amount of Physical SSDs	1
Operating System Capacity (Net)	256GB
<b>Data Storage NVMe SSD</b>	
Data NVMe Capacity (Net)	1,92TB (Optional up to 30,72TB)
Data NVMe Max. Read Rate	5GB/s (Optional up to 10GB/s)
Uncompressed Content Playback	YES

<b>Video Outputs</b>	
Licensed Video Outputs	PIXERA Director   2   4
Physical Video Outputs	4
Video Output Standard	DP1.4a
Video Output Resolution (max. per Output)	5120x2880 @60Hz
EDID Management	Yes
Genlock	Optional
Framelock	Optional
<b>GUI Outputs</b>	
GUI Outputs	Optional
GUI Output Standard	Optional (2x mDP1.4)
Max GUI Output Resolution	Optional (4096x2160)
<b>Connection</b>	
USB	2x USB3 Front, 2x USB3 Rear, 2x USB2 Rear
Network	2x 10Gbps
IPMI	1x IPMI LAN
<b>Video Inputs (Not all configs possible*)</b>	
HDMI 2.0	Optional
3G-SDI	Optional
12G-SDI	Optional
<b>Audio Outputs (Not all configs possible*)</b>	
Analog Balanced	Stereo balanced (quarter-inch TRS jack)
SPDIF	Optional
AES/EBU	Optional
ADAT	Optional
DANTE Virtual Soundcard	Optional
<b>Environmental Specifications - Operating</b>	
Temperature (altitude less than 1000m, no direct sunlight)	10°C to 30°C
Maximum Temperature Gradation	10°C per hour
Temperature De-Rating (altitude more than 1000m)	Reduce max. temp. by 1°C per 300m
Maximum Altitude	3000m
Relative Humidity (noncondensing)	20% RH to 80% RH
Maximum Humidity Gradation	10% RH per hour
<b>Environmental Specifications -Storage</b>	
Temperature (no direct sunlight)	-30°C to 55°C
Maximum Temperature Gradation	20°C per hour
Relative Humidity (noncondensing)	5% RH to 95% RH
Maximum Humidity Gradation	10% RH per hour
<b>General</b>	
Warranty	2 years
Optional Warranty	Total 3   4   5 years

<b>Software</b>	
<b>Software - OS</b>	
Operating System	Windows 10 IoT x64
<b>Software - PIXERA</b>	
PIXERA Software License	Pixera Director   PIXERA Server
Vioso Camera Calibration	Optional
Layers	Unlimited
Playout	Unlimited
Local Editing	Yes (GUI Output recommended)
3D Visualisation	Yes (GUI Output recommended)
Network Master / Manager	Yes
Rendering (Output, Visu)	Yes (GUI Output recommended)
PIXERA control	PIXERA control GATE

FHD	=	1920x1080, Uncompressed Datarate at 60fps	=	375MB/s
UHD	=	3840x2160, Uncompressed Datarate at 60fps	=	1,5GB/s
4K	=	4096x2160, Uncompressed Datarate at 60fps	=	1,6GB/s

- \* Power Consumption Average with High Load = Tested with very high CPU, GPU and SSD workload
- \* Heat Dissipation Average with High Load = Calculated with very high CPU, GPU and SSD workload
- \* Not all configs possible = Not all configurations of video input, network, audio cards are possible. Please ask.
- \* Max. Product Dimension = Product dimension incl. front handles, back handles, rubber bumpers, etc.  
Handles can not be removed on all products!
- \* Case Dimensions, Product Dimensions: Please note that due to the production process there may be deviations in the dimensions.
- \* Value higher with optional upgrades: depending on the selected options the value can be higher - please check manual for exact value.



# PIXERA MEDIA SERVER PERFORMANCE CHARTS

## PIXERA two Gen. 2

This overview shows the maximum number of content streams per codec, that can be played back at the same time.

FHD@60fps	Codec		Content Data Rate	X24		X50		X64	
				1 SSD	2 SSD	1 SSD	2 SSD	1 SSD	2 SSD
	Videoformats	HAP	477 Mbit/s	45	45	45	45	45	45
HAPQ		984 Mbit/s	30	30	30	30	30	30	
NotchLC		1170 Mbit/s	20	25	20	25	20	25	
H264		42.4 Mbit/s	15	15	22	22	22	22	
H265		19 Mbit/s	13	13	13	13	16	16	
Image Sequences	TIFF 8 Bit	2917 Mbit/s	13	20	13	20	13	20	
	PNG 8 Bit	1392 Mbit/s	4	4	8	8	10	10	
	DPX 10 Bit	3892 Mbit/s	10	10	10	10	10	10	
	DDS 8 Bit	487 Mbit/s	30	35	30	35	30	35	

UHD@60fps	Codec		Content Data Rate	X24		X50		X64	
				1 SSD	2 SSD	1 SSD	2 SSD	1 SSD	2 SSD
	Videoformats	HAP	1871 Mbit/s	16	16	16	16	16	16
HAPQ		3775 Mbit/s	7	7	7	7	7	7	
NotchLC		3980 Mbit/s	7	7	7	7	7	7	
H264		90.4 Mbit/s	6	6	10	10	10	10	
H265		44.4 Mbit/s	3	3	5	5	6	6	
Image Sequences	TIFF 8 Bit	11664 Mbit/s	3	6	3	6	3	6	
	PNG 8 Bit	4608 Mbit/s	1	1	2	2	2	2	
	DPX 10 Bit	15556 Mbit/s	2	5	2	5	2	5	
	DDS 8 Bit	1945 Mbit/s	20	20	20	20	20	20	

All videos had a frame rate of 60 fps, four framelocked outputs with 3840x2160px @60Hz were used for this test.  
 One UHD GUI-Monitor was used. Pixera workspace rendering was disabled.  
 Please note that the kind of content used may influence the performance of individual video codecs. The test results are approximate values.  
 Performance results will differ when using VIOSO or FRAMEBLENDING.



# PIXERA MEDIA SERVER PERFORMANCE CHARTS

## PIXERA two Gen. 2 ADA

This overview shows the maximum number of content streams per codec, that can be played back at the same time.

FHD@60fps	Codec		Content Data Rate	X24		X50		X64	
				1 SSD	2 SSD	1 SSD	2 SSD	1 SSD	2 SSD
	Videoformats	HAP	477 Mbit/s	45	45	46	46	46	46
HAPQ		984 Mbit/s	30	30	32	32	32	32	
NotchLC		1170 Mbit/s	20	25	20	26	20	26	
H264		42.4 Mbit/s	15	15	25	25	25	25	
H265		19 Mbit/s	13	13	18	18	18	18	
Image Sequences	TIFF 8 Bit	2917 Mbit/s	13	20	13	20	13	20	
	PNG 8 Bit	1392 Mbit/s	4	4	8	8	10	10	
	DPX 10 Bit	3892 Mbit/s	10	11	10	11	10	11	
	DDS 8 Bit	487 Mbit/s	35	38	35	40	35	40	

UHD@60fps	Codec		Content Data Rate	X24		X50		X64	
				1 SSD	2 SSD	1 SSD	2 SSD	1 SSD	2 SSD
	Videoformats	HAP	1871 Mbit/s	16	16	16	16	16	16
HAPQ		3775 Mbit/s	8	8	8	8	8	8	
NotchLC		3980 Mbit/s	9	9	9	10	9	10	
H264		90.4 Mbit/s	6	6	10	10	10	10	
H265		44.4 Mbit/s	3	3	6	6	6	6	
Image Sequences	TIFF 8 Bit	11664 Mbit/s	3	5	3	6	3	6	
	PNG 8 Bit	4608 Mbit/s	1	1	2	2	2	2	
	DPX 10 Bit	15556 Mbit/s	2	5	2	5	2	5	
	DDS 8 Bit	1945 Mbit/s	20	20	20	22	20	22	

All videos had a frame rate of 60 fps, four framelocked outputs with 3840x2160px @60Hz were used for this test.  
 One UHD GUI-Monitor was used. Pixera workspace rendering was disabled.  
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# PIXERA MEDIA SERVER PERFORMANCE CHARTS

## PIXERA two Octo Gen. 2

This overview shows the maximum number of content streams per codec, that can be played back at the same time.

			2x Mosaic 7680x4320	
FHD@60fps	Codec		X50	
	Content Data Rate		1 SSD	2 SSD
	Videoformats	HAP	477 Mbit/s	30
HAPQ		984 Mbit/s	18	18
NotchLC		1170 Mbit/s	20	20
H264		42.4 Mbit/s	15	15
H265		19 Mbit/s	12	12
Image Sequences	TIFF 8 Bit	2917 Mbit/s	13	18
	PNG 8 Bit	1392 Mbit/s	9	9
	DPX 10 Bit	3892 Mbit/s	10	10
	DDS 8 Bit	487 Mbit/s	30	35

			X50	
UHD@60fps	Codec		1 SSD	2 SSD
	Content Data Rate		1 SSD	2 SSD
	Videoformats	HAP	1871 Mbit/s	16
HAPQ		3775 Mbit/s	6	6
NotchLC		3980 Mbit/s	6	6
H264		90.4 Mbit/s	8	8
H265		44.4 Mbit/s	4	4
Image Sequences	TIFF 8 Bit	11664 Mbit/s	3	5
	PNG 8 Bit	4608 Mbit/s	1	1
	DPX 10 Bit	15556 Mbit/s	2	4
	DDS 8 Bit	1945 Mbit/s	20	20

All videos had a frame rate of 60 fps, eight framelocked outputs ( four physical outputs per GPU assigned ) with 3840x2160px @60Hz were used for this test.  
 One UHD GUI-Monitor was used. Pixera workspace rendering was disabled.  
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# PIXERA MEDIA SERVER PERFORMANCE CHARTS

## PIXERA two Octo Gen. 2 ADA

This overview shows the maximum number of content streams per codec, that can be played back at the same time.

			2x Mosaic 7680x4320	
FHD@60fps	Codec		X50	
	Content Data Rate		1 SSD	2 SSD
	Videoformats	HAP	477 Mbit/s	30
HAPQ		984 Mbit/s	19	19
NotchLC		1170 Mbit/s	20	21
H264		42.4 Mbit/s	15	15
H265		19 Mbit/s	12	12
Image Sequences	TIFF 8 Bit	2917 Mbit/s	13	18
	PNG 8 Bit	1392 Mbit/s	9	9
	DPX 10 Bit	3892 Mbit/s	10	10
	DDS 8 Bit	487 Mbit/s	30	35

			X50	
UHD@60fps	Codec		1 SSD	2 SSD
	Content Data Rate		1 SSD	2 SSD
	Videoformats	HAP	1871 Mbit/s	17
HAPQ		3775 Mbit/s	9	9
NotchLC		3980 Mbit/s	7	7
H264		90.4 Mbit/s	8	8
H265		44.4 Mbit/s	4	4
Image Sequences	TIFF 8 Bit	11664 Mbit/s	3	5
	PNG 8 Bit	4608 Mbit/s	1	1
	DPX 10 Bit	15556 Mbit/s	2	4
	DDS 8 Bit	1945 Mbit/s	20	20

All videos had a frame rate of 60 fps, eight framelocked outputs ( four physical outputs per GPU assigned ) with 3840x2160px @60Hz were used for this test.  
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# PIXERA MEDIA SERVER CAPTURE CARDS LATENCY

## Input

The following table provides an overview of the latency from capture to output.

Capture Cards	Input	Delay in Frames
PXO-IH2	2x HDMI 2.0	3 frames
PXO-CT2H1	1x 12G-SDI/4x 3G-SDI	2 frames
	1x HDMI 2.0	3 frames
PXO-IS2	2x 3G-SDI	2 frames
PXO-IS4	4x 3G-SDI	3 frames
PXO-CS4	4x 3G-SDI	3 frames
PXO-CS8	8x 3G-SDI	3 frames
PXO-CT4	4x 12G-SDI/8x 3G-SDI	3 frames
PXO-IS1	1x 3G SDI	2 frames

