# Matrox<sup>®</sup> LUMA Pro Series



## Key features and benefits.

#### **8Kp60 HDR support**

Be 8K HDR ready and power up to two synchronized high-resolution displays from a single LUMA Pro A310/A380 Quad card.

#### **5K resolution support**

Power up to two 5Kp120 or four 5Kp60 displays from a single LUMA Pro Quad Series board. Double the number of 5K60 displays with the LUMA Pro A380 Octal card.

### DisplayPort™ 2.0

Deliver the best display density, resolution, and performance for demanding multi-monitor applications with PCle® 4.0 cards featuring Mini DisplayPorts or DisplayPorts.

#### Synchronized video outputs

Drive up to sixteen synchronized 5K displays and reduce tearing by framelocking up to four LUMA Pro A310/A380 Quad or two LUMA Pro A380 Octal cards with the included board-to-board framelock cables—and save slot space as a separate card isn't needed for the synchronization. Option to drive up to 64 Full HD displays by pairing Matrox LUMA Series with Matrox QuadHead2Go.

### **HDCP** compliant

Display protected content, or capture and display protected content, when paired with Matrox Mura IPX HDMI and Mura C4K Series capture cards.

### Low-profile form factor

Install low-profile LUMA Pro A310 Quad cards in a wide range of small form factor and standard-height systems, and use only a single slot—thanks to their low-profile design.

### Long product lifecycle and dedicated support

Benefit from a product longevity of five years and dedicated customer support. Your product carries a three-year warranty and has an available extended warranty to ensure maximum protection.

#### **Custom control**

Manage your video walls with the intuitive Matrox MuraControl  $^{\text{TM}}$  software or develop custom functions and applications for any video wall installation using the complete range of APIs, SDKs, and libraries.

#### TAA compliant SKU available

Integrated design, engineering, and manufacturing based in a TAA-designated country for guaranteed quality and reliability.



# DisplayPort boards to drive powerful IP-based video walls.



#### LUMA Pro A310 Quad

Low-profile PCle® Gen4 x16 (x8 electrical) quad-output graphics card delivers increased performance for small form factor systems.



#### LUMA Pro A380 Quad

Standard height single slot PCIe® Gen4 x16 (x8 electrical) quad-output graphics card delivers the best display density, resolution, and performance for demanding multi-monitor applications.



#### LUMA Pro A380 Octal

Standard height single slot PCIe Gen4 x16 eight-output graphics card with 12GB of memory delivers extreme performance for multi-display applications.

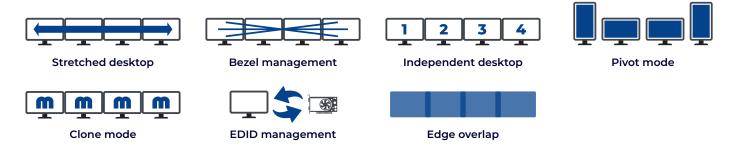
## Markets and applications.

- Retail
- · Commercial gaming
- Education
- · Healthcare

- Industrial
- Transportation

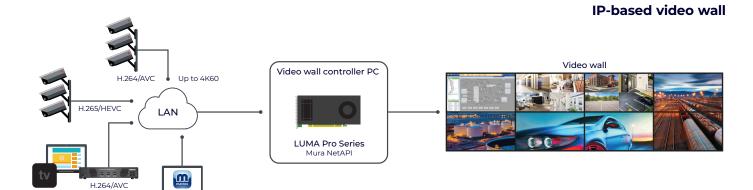
## Matrox PowerDesk software and API.

Leverage the stability of PowerDesk software to quickly configure enterprise-wide multi-monitor deployments. PowerDesk offers a comprehensive set of tools to easily deploy and control a variety of display configurations. Create your custom multi-monitor desktop/output management software with the PowerDesk API.

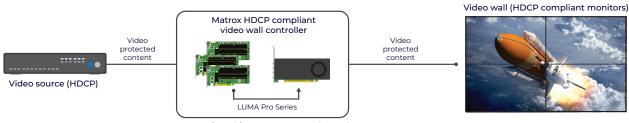


## Workflows.

MuraControl for Window

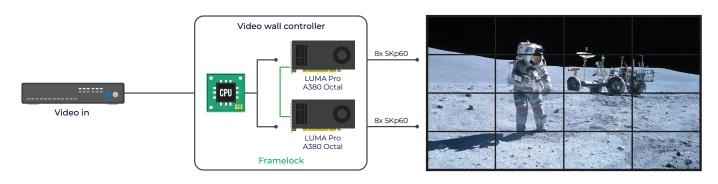


#### **HDCP workflow**



## Data transferred from Mura IPX card over the PCIe bus to the LUMA Pro card

### 2 boards video wall



## **Technical specifications**

14	Product	LUMA Pro A310 Quad	LUMA Pro A380 Quad	LUMA Pro A380 Octal
Author of video outputs   -4	Part number	· LUMA-A310FP	· LUMA-A380P	• LUMA-A380P8
	Bus type	• PCIe 4.0 x16 (x8 electrical)	PCle 4.0 x16 (x8 electrical)	• PCIe 4.0 x16
DisplayPort specification   -2.0 UHBRIO	Number of video outputs	. 4	. 4	.8
Additional Features	/ideo output connectors	· 4x Mini DisplayPort (secure)	· 4x DisplayPort	· 8x Mini DisplayPort (secure)
14	DisplayPort specification	· 2.0 UHBR10	· 2.0 UHBR10	· 2.0 UHBR10
	Maximum number of cards n a system	. 4	. 4	. 2
Up to 36 bpp (bits per pixel)  - VCDCR 4:24 - VCDCR 4:20 - ROB  - VCDCR 4:20 - V	Performance			
VCDCR 4:20	Maximum resolution	· 2x 8K60/5K120 or 4x 5K60 HDR 12b	· 2x 8K60/5K120 or 4x 5K60 HDR 12b	· 8x 5K60 HDR 12b
## Intel® Arc™ A310E	Bit depth and color space	YCbCR 4:4:4     YCbCR 4:2:0		
Additional features  OisplayPort features  VVESA DSC 11, and Adaptive Sync  DisplayPort features  Over connector  - 23	Memory	· 4GB GDDR6	· 6GB GDDR6	· 12GB GDDR6
Additional features    VESA DSC 1.1, and Adaptive Sync	JPU	· Intel® Arc™ A310E	· Intel® Arc™ A380E	· 2x Intel® Arc™ A380E
VESA DSC 11, and Adaptive Sync	Multi-stream audio	· High-definition audio streams on fo	our digital ports simultaneously	
1.00   1.00	Additional features			
Power connector — — . 6-pin PCIe	DisplayPort features	· VESA DSC 1.1, and Adaptive Sync		
As of 4 cards	HDCP compliance	· 2.3	· 2.3	· 2.3
Supported graphics API - DirectX 12 Ultimate, OpenCL 4.6, OpenCL 3.0, Vulkan 1.3, oneAPI, OpenVINO - Hardware video encode/decode - H264/H265/AV1/VP9 - Hardware - Orm factor - Low profile single slot - Standard height single slot - Length: 16.76 cm (6.6") - Height: 6.86 cm (2.7") - Height: 12.68 cm (4.99") - Height:	Power connector	_	_	· 6-pin PCle
Hardware video encode/decode Hardware  Form factor Low profile single slot Length: 16.76 cm (6.6") Height: 6.86 cm (6.9") Height: 6.86 cm	Board-to-board framelock	· Max of 4 cards	• Max of 4 cards	• Max of 2 cards
Form factor	Supported graphics API	· DirectX 12 Ultimate, OpenGL 4.6, O	penCL 3.0, Vulkan 1.3, oneAPI, OpenVIN	0
Form factor  - Low profile single slot - Standard height single slot - Length: 16.76 cm (6.6") - Height: 6.86 cm (2.7") - Height: 12.68 cm (4.99") - Standard height (mounted) - Low profile (in the box)  - Standard height - Height: 12.68 cm (4.99") - Height: 12.68 cm (4.99"	Hardware video encode/decode	· H264/H265/AVI/VP9		
Length: 16.76 cm (6.6")   Length: 25.38 cm (9.99")   Length: 26.45 cm (10.41")   Height: 6.86 cm (2.7")   Length: 25.38 cm (9.99")   Length: 26.45 cm (10.41")   Height: 12.68 cm (4.99")   Length: 12.68 cm (4.99")   Height: 12.68 cm (4.99")   Length: 12.68 cm (4.	-lardware			
- Height: 6.86 cm (2.7") - Height: 12.68 cm (4.99") - Height: 12.68 cm (4.9	Form factor	· Low profile single slot	Standard height single slot	· Standard height single slot
- Low profile (in the box) - Standard neight - S	Dimensions			
Cooling . Active	Bracket		· Standard height	· Standard height
Power consumption  - 50W  - 75W  - 130W  Deparating temperature  - 0 to 45 °C (32 to 113 °F)  - CE (EU) Class A, FCC (US) Class A, ICES-003 (Canada) Class A, KC (S. Korea) Class A, RCM (Aus/NZ) Class A, UKCA (UK) Class A, CSA/UL 62368-1, IEC 62368-1  Environmental compliance  - China RoHS, EU RoHS, REACH, WEEE  Warranty¹  - 3 years  Software & API  Matrox PowerDesk for Windows  - Yes  - Single available PCle 4.0 (or newer) x8 slot - Intel Core Processor from 10th Gen to 14th Gen, - Intel Xeon W-35xx/25xx/34xx/24xx processor for workstations - Resizable BAR (reBAR) or Smart Access Memory (SAM)  - CAB-MDP-DPF³  - CAB-MDP-DPF³	Environmental & power consum	ption		
Derating temperature  - 0 to 45 °C (32 to 113 °F)  - CE (EU) Class A, FCC (US) Class A, ICES-003 (Canada) Class A, KC (S. Korea) Class A, RCM (Aus/NZ) Class A, UKCA (UK) Class A, CSA/UL 62368-1, IEC 62368-1  Environmental compliance  - China RoHS, EU RoHS, REACH, WEEE  - Warranty¹  - 3 years  - Yes  - Operating systems  - Windows 10 64-bit & LTSC (version 21H2 and up) / Windows 11 up to 24H2 and 64-bit LTSC (version 24H2)  - Single available PCle 4.0 (or newer) x8 slot - Intel Core Processor from 10th Gen to 14th Gen, - Intel Xeon W-35xx/25xx/34xx/24xx processor for workstations - Resizable BAR (reBAR) or Smart Access Memory (SAM)  - CAB-MDP-DPF  - CAB-MDP-DPF  - CAB-MDP-DPF3	Cooling	· Active		
CE (EU) Class A, FCC (US) Class A, ICES-003 (Canada) Class A, KC (S. Korea) Class A, RCM (Aus/NZ) Class A, UKCA (UK) Class A, CSA/UL 62368-1, IEC 62368-1  China RoHS, EU RoHS, REACH, WEEE  Warrantyl .3 years  Software & API  Matrox PowerDesk for Windows . Yes . Yes . Yes  Operating systems . Windows 10 64-bit & LTSC (version 21H2 and up) / Windows 11 up to 24H2 and 64-bit LTSC (version 24H2)  Single available PCIe 4.0 (or newer) x8 slot . Intel Core Processor from 10th Gen to 14th Gen, . Intel Xeon W-35xx/25xx/34xx/24xx processor for workstations . Resizable BAR (reBAR) or Smart Access Memory (SAM)  Accessories (sold separately)  Mini DisplayPort to DisplayPort adapter . CAB-MDP-DPF	Power consumption	· 50W	· 75W	· 130W
UKCA (UK) Class A, CSA/UL 62368-1, IEC 62368-1  Environmental compliance  China RoHS, EU RoHS, REACH, WEEE  Warranty¹  3 years  Software & API  Matrox PowerDesk for Windows  Yes  Yes  Yes  Yes  Yes  Yes  Yes  Y	Operating temperature	· 0 to 45 °C (32 to 113 °F)		
Warranty¹  Software & API  Matrox PowerDesk for Windows  Yes  Yes  Yes  Yes  Yes  Yes  Yes  Y	Regulatory compliance			
Matrox PowerDesk for Windows  Yes  Yes  Yes  Yes  Yes  Yes  Yes  Y	Environmental compliance	· China RoHS, EU RoHS, REACH, WEEE		
Matrox PowerDesk for Windows  Yes  Yes  Yes  Yes  Yes  Yes  Yes  Y	Warranty <sup>1</sup>	· 3 years		
Accessories (sold separately)  Wind Developer tools  • Yes  • Windows 10 64-bit & LTSC (version 21H2 and up) / Windows 11 up to 24H2 and 64-bit LTSC (version 24H2)  • Single available PCle 4.0 (or newer) x8 slot • Intel Core Processor from 10th Gen to 14th Gen, • Intel Xeon W-35xx/25xx/34xx/24xx processor for workstations • Resizable BAR (reBAR) or Smart Access Memory (SAM)  • CAB-MDP-DPF  • CAB-MDP-DPF3	Software & API			
Operating systems  • Windows 10 64-bit & LTSC (version 21H2 and up) / Windows 11 up to 24H2 and 64-bit LTSC (version 24H2)  • Single available PCle 4.0 (or newer) x8 slot • Intel Core Processor from 10th Gen to 14th Gen, • Intel Xeon W-35xx/25xx/34xx/24xx processor for workstations • Resizable BAR (reBAR) or Smart Access Memory (SAM)  Accessories (sold separately)  Mini DisplayPort to DisplayPort daapter  • CAB-MDP-DPF  • CAB-MDP-DPF3	Matrox PowerDesk for Windows	·Yes	· Yes	·Yes
Single available PCle 4.0 (or newer) x8 slot     Intel Core Processor from 10th Gen to 14th Gen,     Intel Xeon W-35xx/25xx/34xx/24xx processor for workstations     Resizable BAR (reBAR) or Smart Access Memory (SAM)  Accessories (sold separately)  Mini DisplayPort to DisplayPort adapter      CAB-MDP-DPF      CAB-MDP-DPF3	Mura Developer tools	·Yes	·Yes	· Yes
- Intel Core Processor from 10th Gen to 14th Gen, - Intel Xeon W-35xx/25xx/34xx/24xx processor for workstations - Resizable BAR (reBAR) or Smart Access Memory (SAM)  - Accessories (sold separately)  Mini DisplayPort to DisplayPort adapter  - CAB-MDP-DPF - CAB-MDP-DPF3	Operating systems	· Windows 10 64-bit & LTSC (version	21H2 and up) / Windows 11 up to 24H2	and 64-bit LTSC (version 24H2)
Mini DisplayPort to OisplayPort adapter  CAB-MDP-DPF  CAB-MDP-DPF <sup>3</sup>	System requirements <sup>2</sup>	Intel Core Processor from 10th Gen to 14th Gen,     Intel Xeon W-35xx/25xx/34xx/24xx processor for workstations		
Mini DisplayPort to OisplayPort adapter  CAB-MDP-DPF  CAB-MDP-DPF3	Accessories (sold separately)			
	Mini DisplayPort to DisplayPort adapter	· CAB-MDP-DPF	_	· CAB-MDP-DPF³
	Secure cable solution	· SK-SLNB-4F	_	· SK-SLNB-4F

<sup>1.</sup> Extended two-year warranty available.

<sup>3.</sup> Eight CAB-MDP-DPF adapters are included with the LUMA Pro A380 Octal card.



#### **Contact Matrox Video**

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<sup>2.</sup> Please refer to the Luma Pro system validation guide for more information.