Matrox® **LUMA Pro Series**

Drive 8K HDR IP-based video walls with extraordinary performance.

Drive up to two 8K displays or up to eight synchronized 5K displays or projectors from a single Matrox® LUMA Pro Series graphics card. Designed and built for reliability, stability, and ease of deployment, these PCI Express® 4.0 boards are ideal for powering demanding IP-based video wall systems and digital signage applications in commercial and critical environments. OEMs, system integrators, AV installers, and developers can also benefit from a complete range of software, APIs, SDKs, and libraries to create custom control functions and applications for any multi-display installation. TAA-compliant SKUs are available. Matrox LUMA Pro Series is powered by Intel® Arc™ graphics.

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 PCIe® 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.

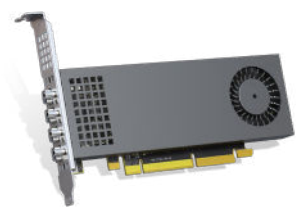
Long product lifecycle and dedicated support
Benefit from a product longevity of five years and dedicated customer support. Your product carries a three-year warranty and has an available extended warranty to ensure maximum protection.

Custom control
Manage your video walls with the intuitive Matrox MuraControl™ 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.

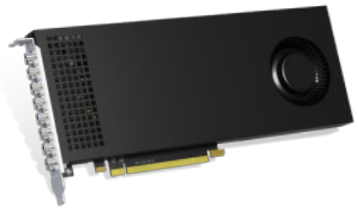
TAA COMPLIANT

DisplayPort boards to drive powerful IP-based video walls.



LUMA Pro A310 Quad
Low-profile PCIe® 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.

Stretched desktop

Bezel management

Independent desktop

Pivot mode

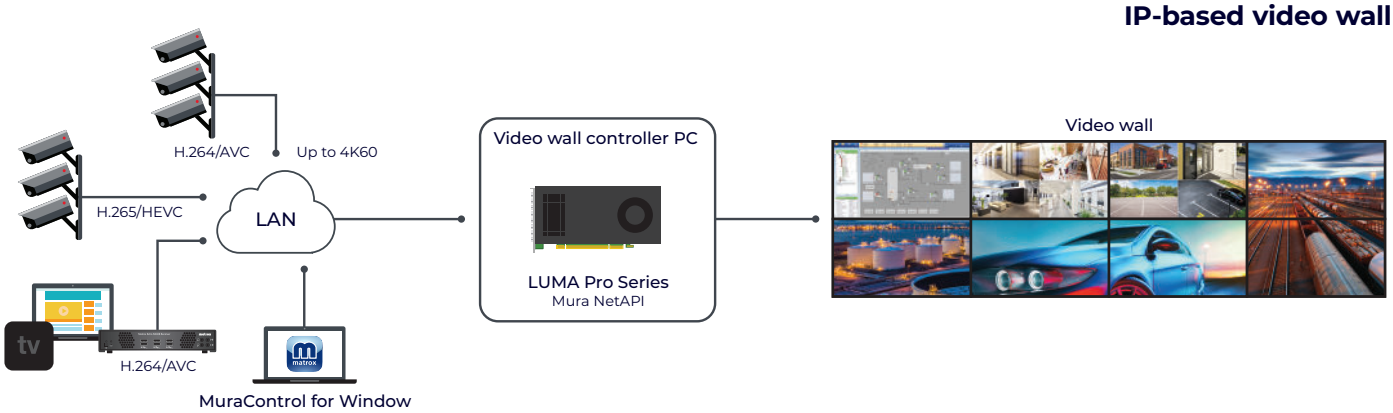
Clone mode

EDID management

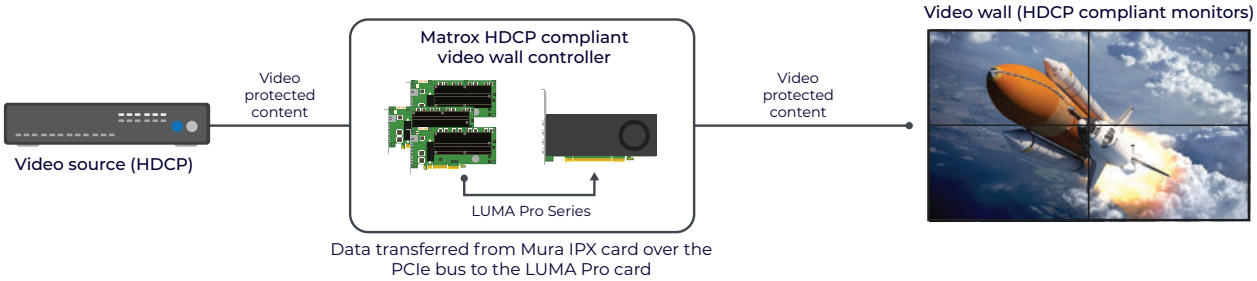
Edge overlap

Workflows.

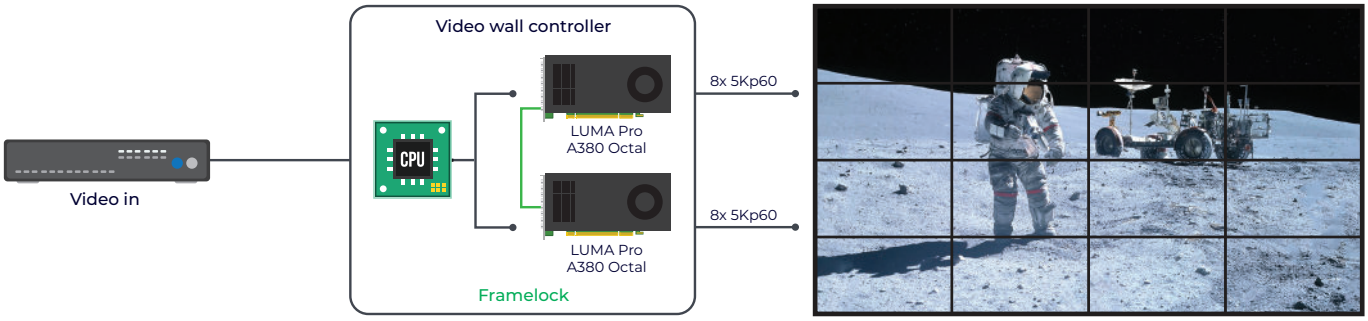
IP-based video wall



HDCP workflow



2 boards video wall



Technical specifications

Product	LUMA Pro A310 Quad	LUMA Pro A380 Quad	LUMA Pro A380 Octal
Part number	• LUMA-A310FP	• LUMA-A380P	• LUMA-A380P8
Bus type	• PCIe 4.0 x16 (x8 electrical)	• PCIe 4.0 x16 (x8 electrical)	• PCIe 4.0 x16
Number of video outputs	• 4	• 4	• 8
Video output connectors	• 4x Mini DisplayPort (secure)	• 4x DisplayPort	• 8x Mini DisplayPort (secure)
DisplayPort specification	• 2.0 UHBR10	• 2.0 UHBR10	• 2.0 UHBR10
Maximum number of cards in a system	• 4	• 4	• 2
Performance			
Maximum resolution	• 2x 8K60/5K120 or 4x 5K60 HDR 12b	• 2x 8K60/5K120 or 4x 5K60 HDR 12b	• 8x 5K60 HDR 12b
Bit depth and color space	• Up to 36 bpp (bits per pixel) • YCbCR 4:4:4 • YCbCR 4:2:0 • RGB		
Memory	• 4GB GDDR6	• 6GB GDDR6	• 12GB GDDR6
GPU	• Intel® Arc™ A310E	• Intel® Arc™ A380E	• 2x Intel® Arc™ A380E
Multi-stream audio	• High-definition audio streams on four digital ports simultaneously		
Additional features			
DisplayPort features	• VESA DSC 1.1, and Adaptive Sync		
HDCP compliance	• 2.3	• 2.3	• 2.3
Power connector	—	—	• 6-pin PCIe
Board-to-board framelock	• Max of 4 cards	• Max of 4 cards	• Max of 2 cards
Supported graphics API	• DirectX 12 Ultimate, OpenGL 4.6, OpenCL 3.0, Vulkan 1.3, oneAPI, OpenVINO		
Hardware video encode/decode	• H264/H265/AV1/VP9		
Hardware			
Form factor	• Low profile single slot	• Standard height single slot	• Standard height single slot
Dimensions	• Length: 16.76 cm (6.6”) • Height: 6.86 cm (2.7”)	• Length: 25.38 cm (9.99”) • Height: 12.68 cm (4.99”)	• Length: 26.45 cm (10.41”) • Height: 12.68 cm (4.99”)
Bracket	• Standard height (mounted) • Low profile (in the box)	• Standard height	• Standard height
Mini DisplayPort to DisplayPort adapter	• CAB-MDP-DPF (sold separately)	—	• 8 CAB-MDP-DPF adapters included
Environmental & power consumption			
Cooling	• Active		
Power consumption	• 50W	• 75W	• 130W
Operating temperature	• 0 to 45 °C (32 to 113 °F)		
Regulatory compliance	• 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		
Warranty[1]	• 3 years		
Software & API			
Matrox PowerDesk for Windows	• Yes	• Yes	• Yes
Mura Developer tools	• 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)		
System requirements[2]	• 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)			
Secure cable solution	• SK-SLNB-4F	—	• SK-SLNB-4F

1. Extended two-year warranty available.
2. Please refer to the Luma Pro system validation guide for more information.

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