



# PRODUCT LINE-UP

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**GeoBox** Projector Edge blending, Warping, Stacking controller

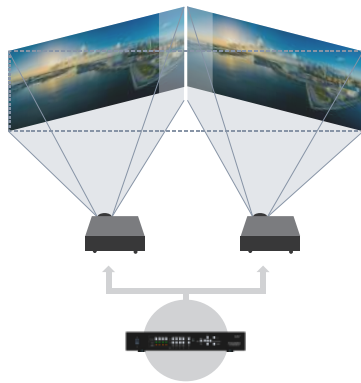
2021 Spring





## Projector edge blending, warping and stacking controller

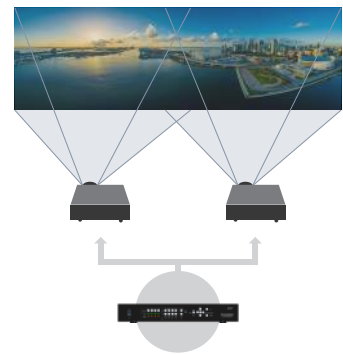
### Application



1.Geometry adjustment



2.Image crop overlap pixel creation



3.Edge Blend

<https://www.youtube.com/watch?v=yPGxlqzHDL4&t=16s>

## Functions and features

### Input and output resolution

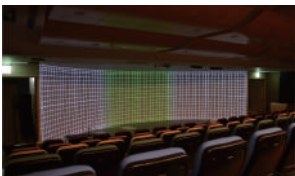
- Support input up to 8K2K@30hz or 4K2K@60hz, RGB4:4:4. Non-VESA standard resolution.
- Output up to 4K2K@60hz.
- \* Please refer to P.4 for max. resolution support of each model.

### PC-free, pure hardware design

- With complete functions control and setup via IR remote, Ethernet, RS232, USB PC tool.
- Utilizing any digital input from any device.

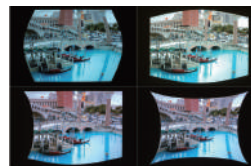
### Built-in Edge Blending

- Edge blending on flat & curved surface up to H=1920 Px, V=1200 Px.
- Discrete RGB gamma correction.



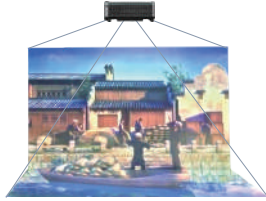
### Advanced warp and Geometry alignment technology

- Sophisticated geometry alignment.
- Real time geometry alignment through IR remote, USB or Web Gui to get optimized result.
- Flexible grid patterns.



### Corner wall Alignment

- Geometry alignment at corner wall in both horizontal and vertical direction at any location.



### Image rotation, flip

- Individual 90/180/270 rotation, flip, cropping, scaling & color adjustment in each channel.



### Selectable Frame-Sync

- User can select Frame Lock, Phase Lock or Free Run based on system requirements.
- 50Hz in / 50Hz out.
- Perfect synchronization can be achieved.

### Programmable EDID

- Selectable output resolution and programmable EDID to optimize video quality.

### Super low latency

- 2 frames system latency: 33ms (@V=60Hz).

### High end 10-bit video processing

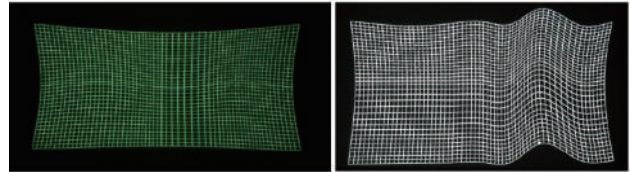
- 3D motion adaptive de-interlace, low angle smooth algorithm and 3:2/2:2 film mode detect and recovery function.

### Multi-unit cascade

- HDMI2.0 loop-out port for multiple units cascade

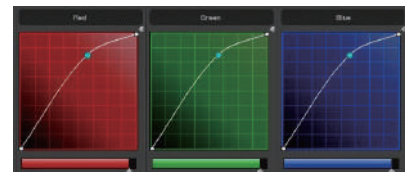
### Linear grid line adjustment to get perfect image

- To compensate different scaling factors when projecting on surface wall with edge blending or warping alignment.



### RGB gamma adjustment

- Independent RGB gamma correction to get optimized image quality.



### 9-region Black level uplift

- Nine region precise Black Level Uplift to compensate light leakage from projectors.



### Profile saving

- All customized settings can be saved into profile.
- Up to 5 profiles can be saved and recalled by remote controller, RS232, USB or Ethernet.

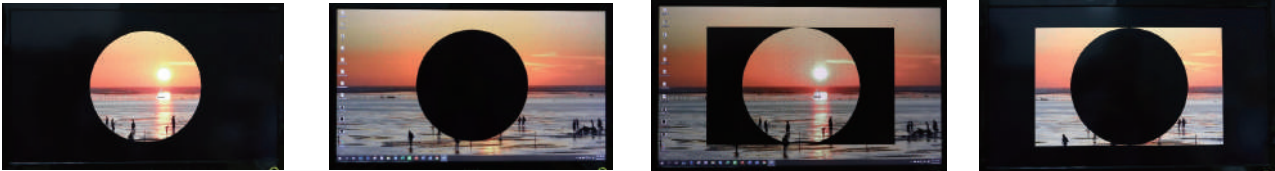


## Digital mapping (projection mapping)

- 10 patterns (images) can be input into M800Ex in each channel for projection mapping.



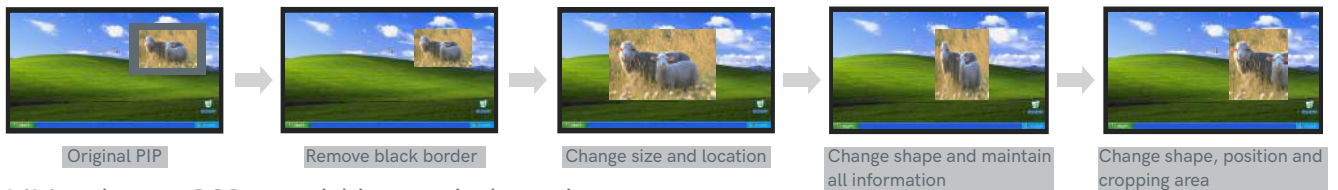
- User can use any signal source and select up to 4 display styles in each pattern without pre-mask at input source.



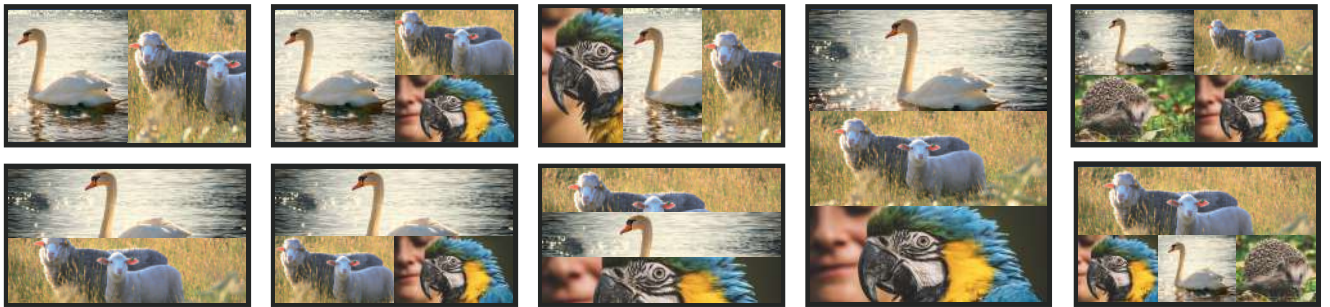
\*Only available in some models. Please refer to P.4 Key specification comparison for models with digital mapping feature.

## PIP/POP, Multi-viewer

- Flexible position and adjustable aspect ratio.



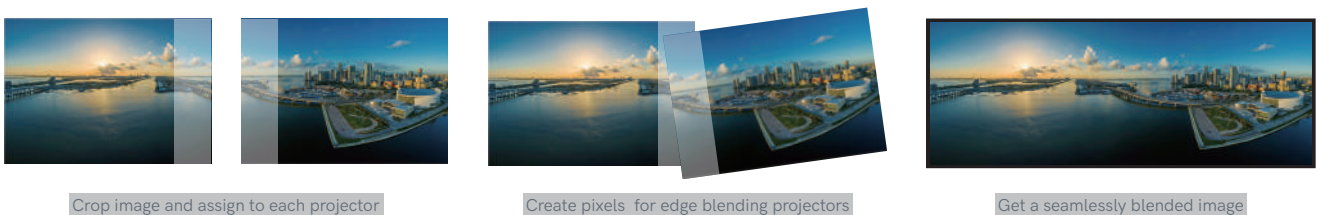
- 2/3/4 split view POP is available in each channel.



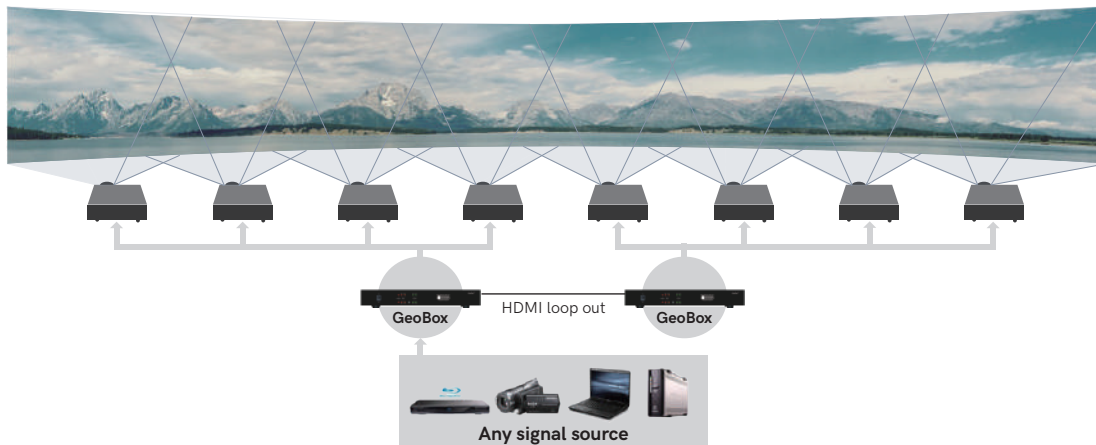
\*Only available in some models. Please refer to P.4 Key specification comparison for models with PIP/POP and Multi-viewer feature.

## Use GeoBox Video wall controller series to control projectors

- If your projectors have edge blending and warping functions already built in, you can use GeoBox video wall controller for image rotation, cropping, scaling and color adjustment for each projector.



## System configuration



## Key specification comparison

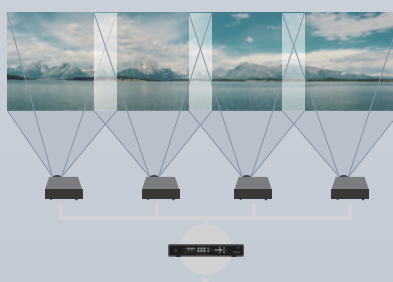
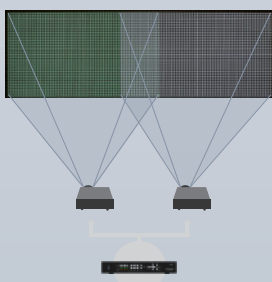
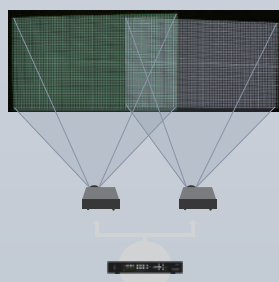
Model name	Module configuration				Max. input resolution	Max. Output resolution	Edge blending	Geometric adjustment	Digital mapping	PIP/POP	Multi-viewer
	Input	Output	Loop-out	Q'ty of module							
UD104	HDMI2.0x3 DP1.4x1	HDMI 2.0x1	HDMI 2.0x1	4	4096*2400@60Hz/ 7680*2160@30Hz (RGB4:4:4)	4096*2160@60Hz	O	33x33 (Gwarp) 17x17 (IR remote)	X	O	O
UD103				3			O		X	O	O
UD102				2			O		X	O	O
UD101				1			O		X	O	O
UD101Lite				1			X		X	O	O
M804	HDMI2.0x2 DP1.2x1 VGAx1	HDMI 1.4x1	HDMI 2.0x1	4	4096x2160@60Hz/ 5760x1200@60hz/ 7680x2160@30hz (RGB4:4:4)	2048*1200@60Hz	O	17x17 (Gwarp) 9x5 (IR remote)	X	O	X
M803				3			O		X	O	X
M802				2			O		X	O	X
M801				1			O		X	O	X
G116				1			X		X	O	X
M804EX	HDMI2.0x2 DP1.2x1 VGAx1	HDMI 1.4x1	HDMI 2.0x1	4	4096x2160@60Hz/ 7680x1200@30hz (RGB4:4:4)	2048*1200@60Hz	O	17x17 (Gwarp) 9x5 (IR remote)	O	O	X
M803EX				3			O		O	O	X
M802EX				2			O		O	O	X
M801EX				1			O		O	O	X
G804	HDMI2.0x2 DP1.2x1 VGAx1	HDMI 1.4x4	HDMI 2.0x1	2	4096x2160@60Hz/ 7680x1200@30hz (RGB4:4:4)	2048*1200@60Hz	O	17x17 (Gwarp) 9x5 (IR remote)	X	X	X
G802				1			O		X	X	X

Before geometry alignment

After geometry alignment

Before Edge Blending

After Edge Blending





VNS Inc. was founded in year 2000, Taipei, Taiwan, engaged in the research, development and manufacturing of video processing products. GeoBox is own brand video processors for professional AV applications.



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MatrixWorks Europe BV is exclusive sales and distribution partner of VNS GeoBox in Europe. For more information please visit website: [www.matrix-works.eu](http://www.matrix-works.eu) , or watch videos on YouTube channel: MatrixWorks Europe B.V.

