



PRODUCT LINE-UP

GeoBox Multi-display Controller

2019 Autumn





Input, Output

- Input supports HDMI 2.0, HDCP 2.2, and up to 4096*2160/60Hz and 7680*1080/30Hz with 4:4:4 full color sampling
- Output supports up to 2048*1080/60Hz.
- 4k/60Hz loop out port for multiple unit cascade & daisy chain connection.

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 up to 17x17 grids.
- Real time geometry alignment through IR remote, USB or Web Gui to get optimized result.
- Flexible grid patterns.

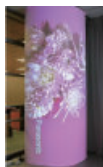
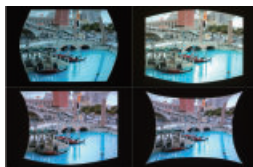


Image rotation, flip

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



Original image



Flip



Upside Down



Rotate 180

M800/ G800

New generation DCi/UHD 60fps seamless Edge blender



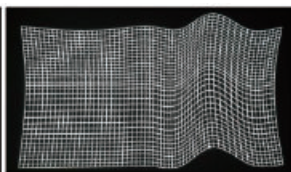
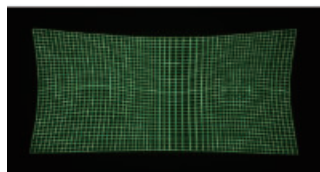
Corner wall Alignment

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



Linear grid line adjustment to get perfect image

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



9-region Black level uplift

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



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

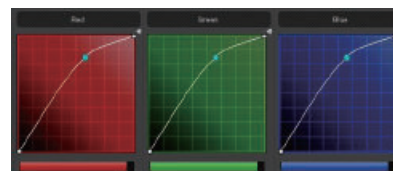
- Selectable output resolution and programmable EDID to optimize video quality.

Pure hardware, simple, reliable

- With complete functions for seamless edge blending, easy setup via IR, front keypad, USB RS232 or Ethernet. No PC is required.

RGB gamma adjustment

- Independent RGB gamma correction to get optimized image quality.



M800 highlights

Modularized design

- User can select different model based on the number of the projector: M801 (1-CH), M802 (2-CH), M803 (3-CH), M804 (4-CH).
- All edge blending processors can be cascaded through loop out port daisy chain connection.

Color uniformity and Projection mapping

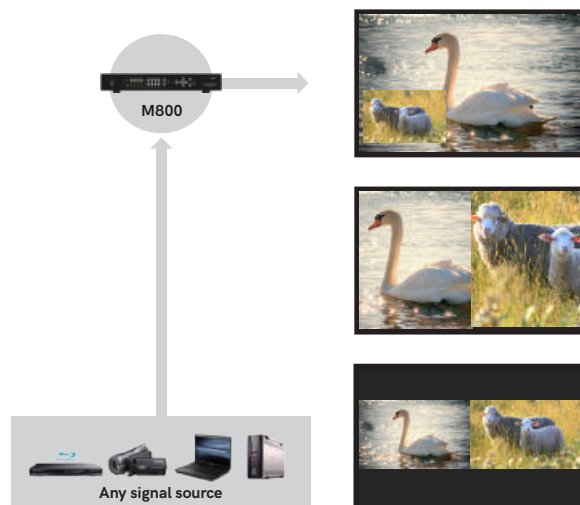
* Only for M800EX version

- Image mask at any location of the image to provide professional projection mapping



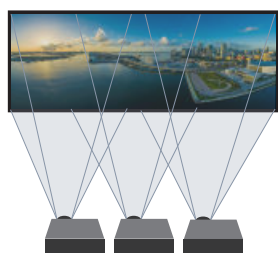
PIP/ POP

- PIP/ POP at landscape and portrait position.
- Flexible PIP location & size up to 1920*1200.



Flexible configuration

- example of 3 projectors



All-in-one



2+1

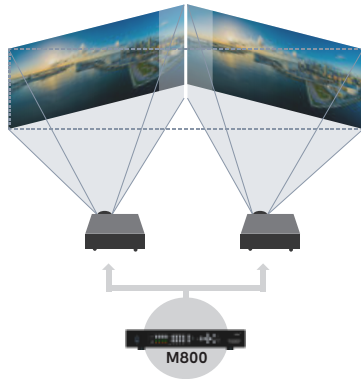


1+1+1

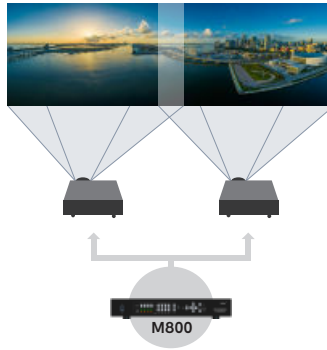


All-in-one with PIP

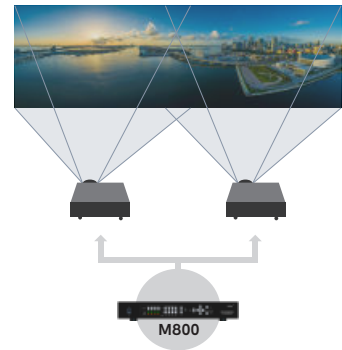
Application



1.Geometry adjustment



2.Image crop overlap pixel creation

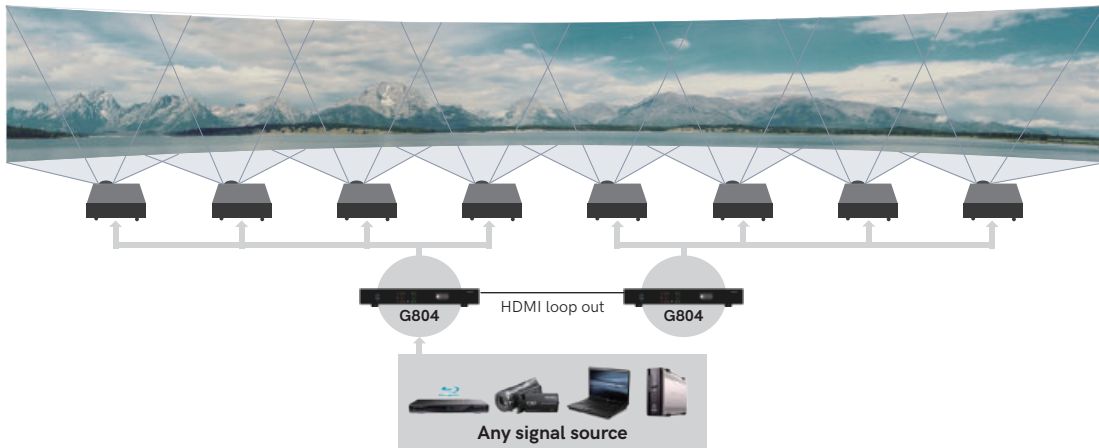


3.Edge Blend



Scan here to watch edge blending processor demonstration video

Configuration



Spec comparison of edge blending processors

Model name		G802	G804	M801	M802	M803	M804
Video input	HDMI	2	4	2	4	6	8
	DisplayPort	1	2	1	2	3	4
	VGA	1	2	1	2	3	4
Video output	HDMI	2	4	1	2	3	4
	HDMI Loop out	1	2	1	2	3	4
Multi-window display	Max. no. of content	2	4	2	4	6	8
	Input	HDMI + DP or HDMI+VGA		PIP/ POP	Any Video input + PIP/ POP		
Edge blending with multiple input sources			2	*	*	*	*
PIP/ POP				*	*	*	*
Image mask at any location for projection mapping (Note)				*	*	*	*
Gamma correction	Independent RGB gamma correction	*	*	*	*	*	*
	Gamma correction at different brightness level (Note)			*	*	*	*

Note: Only in EX version.



G408/ G406 / G406L /G406S

New generation DCi/UHD 60fps video wall controller



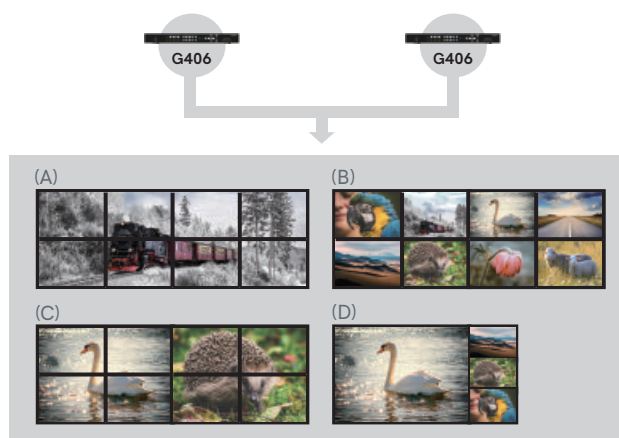
G406 Matrix switcher function

- Matrix switcher function to allow multiple window display. A/ B/ C/ D independent contents on four LCD video wall.



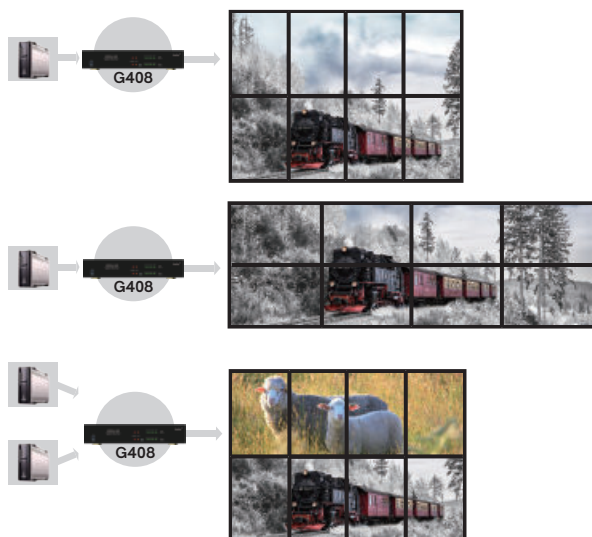
Multi-units cascade

- HDMI 2.0 loop-through port for multiple units cascade.



G408 2 quad channel processors

- One G408 can be used as 2 quad channel processors or a 8-channel processor to build video wall at both landscape & portrait position.



Flexible aspect ratio adjustment

- User can adjust image in all directions up to 1800 pixels to compensate the aspect ratio difference between video wall and the content.

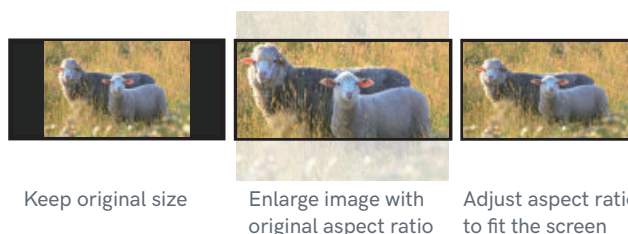
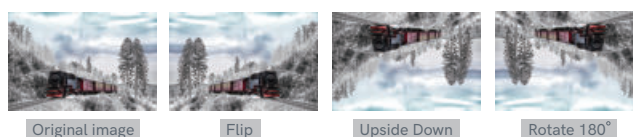


Image rotation, flip

- Each channel can execute individual image 90/180/270 rotation, flip, cropping, scaling and color adjustment.



10 bits high quality processor

- 3D motion adaptive de-interlace.
- 3:2/2:2 film mode detecting and recovery.
- Low angle smooth algorithm (similar to DCDi).
- Support non-VESA standard input.
- Programmable EDID

Easy setup

- All function can be operated through IR, front panel Keypad, USB, RS232 & Ethernet. No PC is required.

Multiple synchronization modes

- Frame Lock/Phase Lock/Free-run sync modes.
- Selectable output frame rate to avoid frame repeat or frame loss.

Bezel compensation

- Pixel base image location alignment for precise bezel compensation at any direction.



After bezel compensation



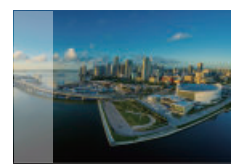
Without bezel compensation

True 4K/60Hz

- Support up to 4096*2160/60Hz and 7680*1080/30Hz with 4:4:4 full color sampling
- Support sRGB, xvYCC 8/10/12 bit deep color.
- HDMI 2.0, HDCP 2.2, HDR ready.

Projector edge blending application

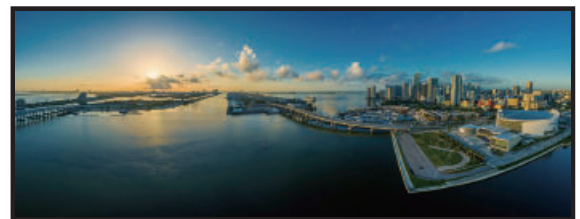
- Cropping specific region and set overlap pixel for projector with edge blending function.



Crop image and create overlap region

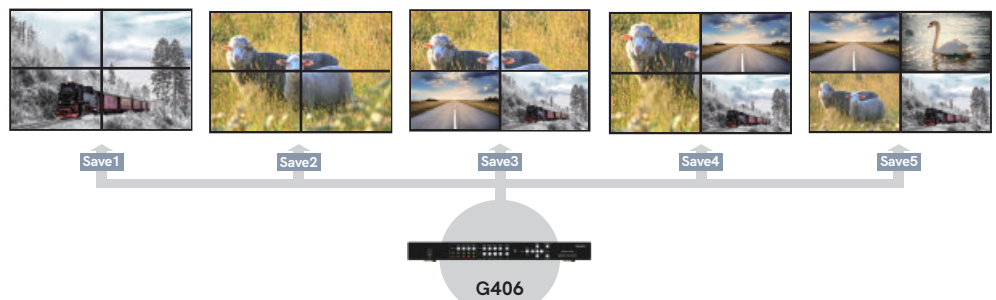


Get one seamlessly blended image

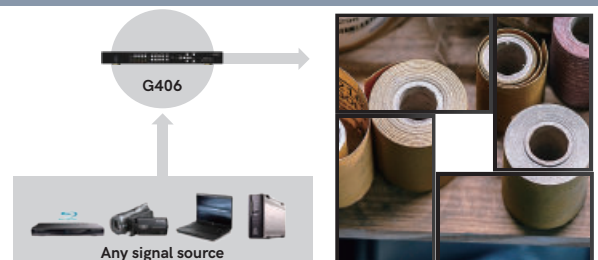
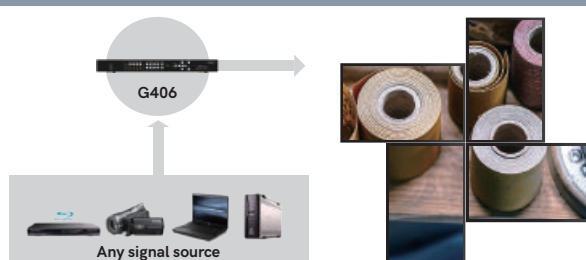


Five system setting SAVE modes

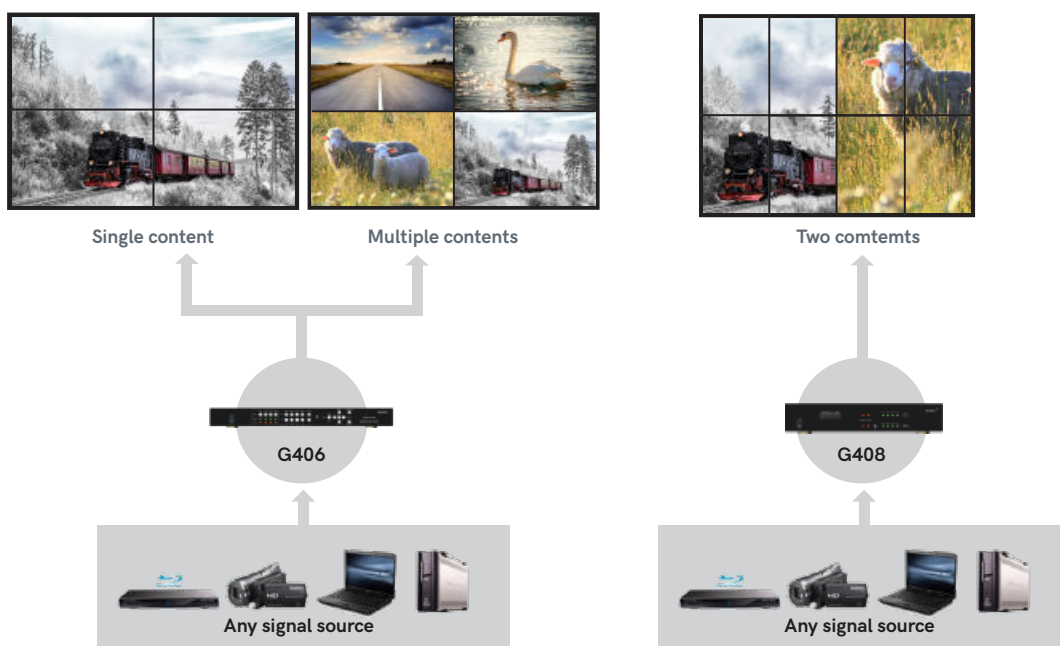
- Up to five different display modes can be saved and recalled through RS232, Remote controller, USB or Ethernet.



Creative / Asymmetric video wall



G406/ G408 Configuration



Spec comparison of G408/ G406/ G406L / G406S

Model name		G406	G406S	G406L	G408
Video input	HDMI	2	1	1	2
	DP	2			
Video output	HDMI	4	2	4	8
	HDMI Loop out	2	1	1	2
Max. display contents		4	1	1	2
Input Matrix function		*			
Front panel button		*			
Selectable input after cascade		*			
System setup & control		RS232, USB, IR, Ethernet, button	RS232, USB, IR, Ethernet		
Rack Mount		1U			1.3U
Dimensions(W*H*D, mm)		440x44.5x188	220x37x162	330x37x162	330x58x162

Front / Back panel

G406S



G406L



G408



G406





Image rotation at any angle

- 360° image rotation with 1 degree interval.



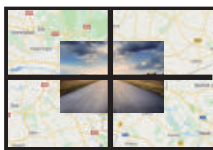
Crop image at any location

- Cropping image from any location.
- Save up to 10 cropped images.
- Seamless looping playback for cropped image.

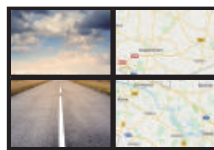


PIP/POP

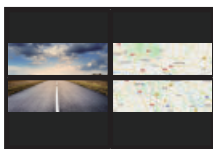
- PIP/POP can be implemented across 4 outputs with different PIP size and location.



PIP with 2 TV at top/ down flip



POP full screen display



POP with original aspect ratio



Creative TV wall with PIP

EDID

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

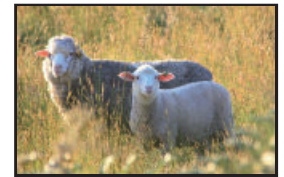
G413/ G116/ G901

New generation creative multi-function videowall controller

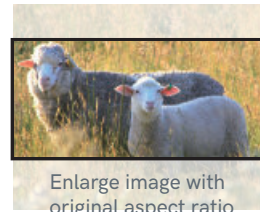


Flexible aspect ratio adjustment

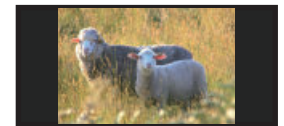
- User can adjust image in specific direction to compensate the aspect ratio difference between video wall and the content.



Original image (16:9)

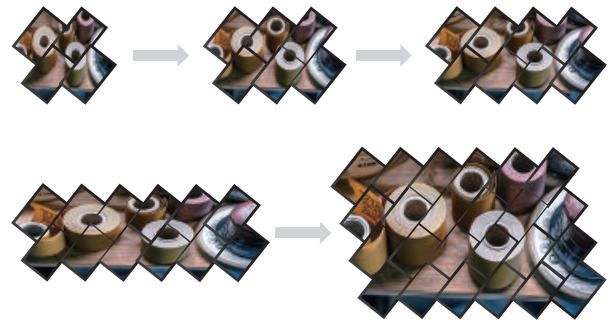


Enlarge image with original aspect ratio



Keep original size

Unlimited number of cascades



Auto looping playback

- User can set up to 10 display modes from the same display content and looping playback with selectable time interval.



Scan QR code to watch application video

<https://www.youtube.com/watch?v=hEVI3RkL4LM>

Easy Setup

- All functions can be operated via IR, front panel Keypad, USB, RS232 & Ethernet. No PC is required.

G413 highlights

Input, output

- Input support up to 4096*2160/60Hz and 7680*1080/30Hz with 4:4:4 full color sampling.
- Output supports up to 1920x1080@60Hz.
- HDMI 4K/60Hz loop out port for multiple unit cascade and daisy chain connection.

Create irregular video wall

- Create irregular video wall via Pre-defined mode or manual mode for LCD at any location and display angle.

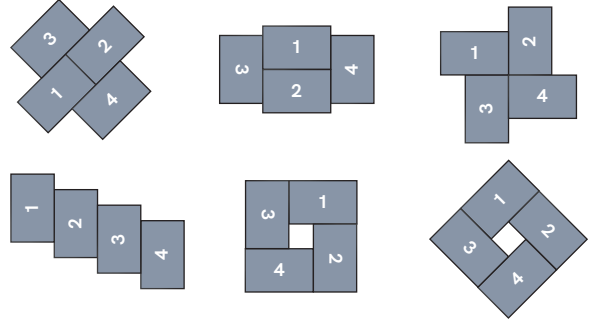


G901 true 4K resolution output

- Single channel with 4K/ 60Hz input & output Process 4K image rotation, scaling, conversion.
- PIP/ POP and output to other GeoBox controller for various application.

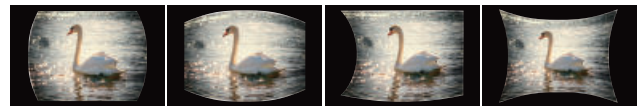
Predefined display modes

- More than 20 pre-defined creative display modes that can be selected by OSD.
- User can modify from preset mode to get the required configuration with ease.



G116 High end warp and geometry alignment

- Geometry alignment up to 17X17 control grids.
- Keystone, Pincushion/barrel adjustment.
- image + _ 180 degree rotation with one degree interval.



Configuration

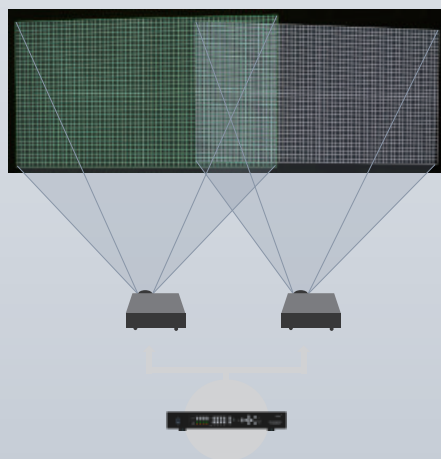


Spec comparison of G403/ G105

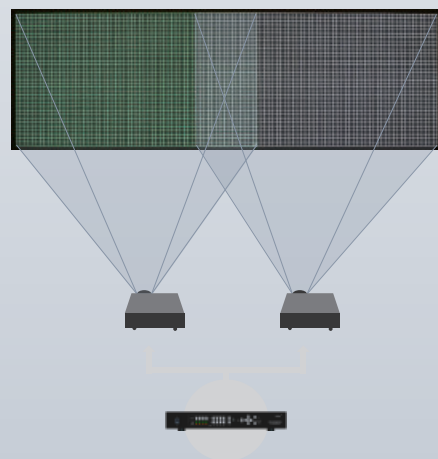
Model name		G413	G116	G901
Video input	HDMI	2	2	2
	DisplayPort	1	1	1
	VGA	1	1	
Video output	HDMI	4(FHD)	1(2048x1080)	1(4k /60)
	HDMI Loop out	1	1	1(DP)
Warp & Geometry Alignment			17*17 grids	Landscape and Portrait
Creative video wall		LCD at any angle	Landscape and Portrait	
PIP/ POP		Landscape and Portrait	Landscape only	Landscape and Portrait
Image cropping		Any location & Angle	Landscape and Portrait	
Image rotation and flip		Any angle	90/ 180/ 270	
Dimension (WxHxD, mm)		440x162x44	303x180x45	250x162x37

Category		Edge blending processor				
Model name		G802	G804	M801	M802	M803
Video input	HDMI	2	4	2	4	6
	DisplayPort	1	2	1	2	3
	VGA	1	2	1	2	3
Video output	HDMI	2	4	1	2	3
	HDMI Loop Out	1	2	1	2	3
Max. input 4K/60 (4:4:4)		*	*	*	*	*
Max. output 2048*1080		*	*	*	*	*
Front panel button				*	*	*
Latency		32ms				
HDCP 1.4/2.2		*	*	*	*	*
Main Function	Image split	*	*	*	*	*
	Geometry alignment	*	*	*	*	*
	Edge Blending	*	*	*	*	*
	Rotation and flip	*	*	*	*	*
	PIP/ POP			*	*	*
PC Tool	Gwarp 3	*	*	*	*	*
	Galigh					
	UHD Wall Manager					
Warranty period		2 years				

Before geometry alignment



After geometry alignment

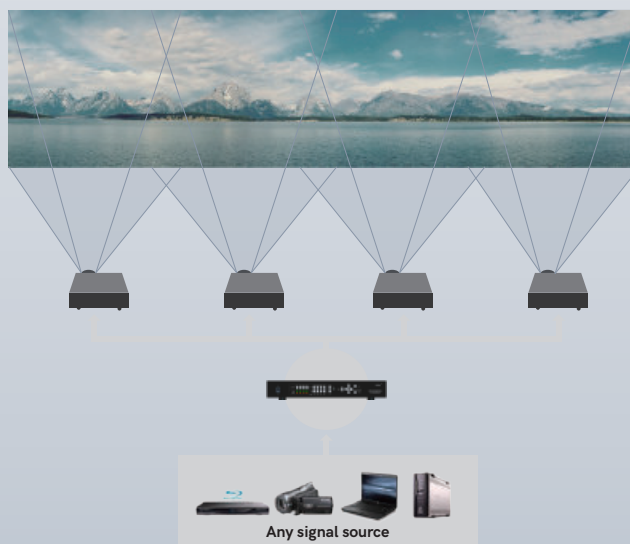


	Video wall controller					Video processor	
M804	G406	G406S	G406L	G408	G413	G116	G901
8	2	1	1	2	2	2	2
4	2				1	1	1
4					1	1	
4	4	2	1	2	4	1	1
4	2	1	1	2	1	1	1(DP)
*	*	*	*	*	*	*	*
*	*	*	*	*	1080p	*	4k/60
*	*					*	
	16ms				32ms	32ms	16ms
*	*	*	*	*	*	*	*
*	*	*	*	*	*	*	*
*						*	*
*							
*	*	*	*	*	*	*	*
*					*	*	*
*						*	
					*		
	*	*	*	*			*
2 years							

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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