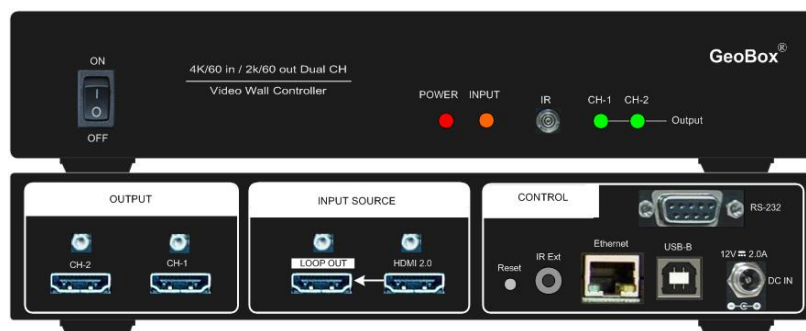*The absolute opposite of ordinary*

G406s Video Wall Controller Datasheet

Dual Channel 4K/30 Video Wall Controller

*Support up to 7680*1200 30 fps input*

*1 in / 2 out in one box, HDMI 2.0 / HDCP 2.2, input up to 4K/2k @60Hz, 7680*1200 @30Hz,*

10-bit processor, 4:4:4 Chroma sampling, Independent rotation/ scaling/ cropping

Sales & Technical support

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Designed and manufactured in Taiwan

DCi/UHD 4k/60/4:4:4	HDMI 2.0	HDCP 2.2/1.4	10-bit High-end scaler	Cadence Film 3:2 / 2:2	3D Motion De-interlace	Deep Color xvYCC/12-bit

Mosaic Irregular wall	Multi-Unit Cacade	Flexible Aspect Ratio Bezel Correction	Rotation Landscape Protrait	Loop Out Daisy chain	Control IR/USB/RS232 /Ethernet	Projector Output overlap	RoHS CE FCC
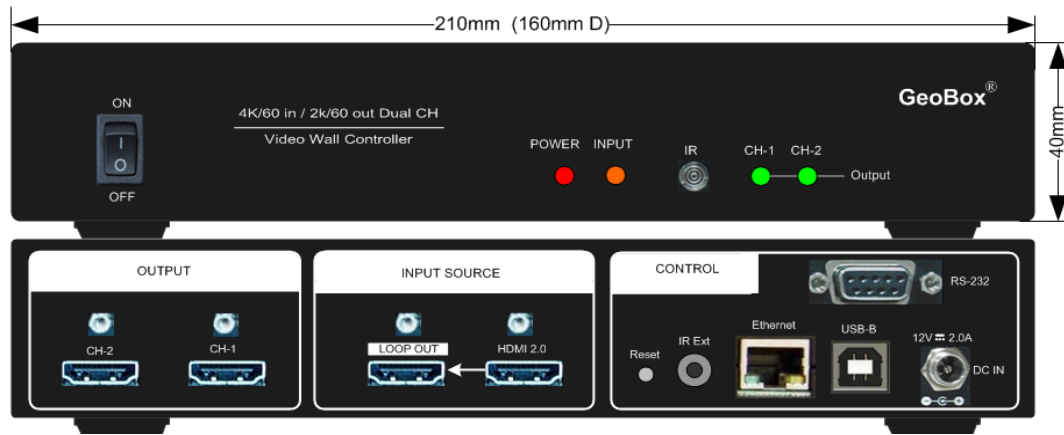
G406s Dual channel controller

GeoBox G406s is simplified version of G406L Video Wall controller. It incorporates 1x HDMI 2.0 input and 1x HDMI 2.0 loop out port to support up to DCi/UHD 60 fps input signal as well as two synchronized Full HD outputs. Each output has independent image rotation/flip, scaling, cropping and color adjustment to allow great freedom in creating overlap pixels for projector edge blending and any scale video wall.

It is pure hardware, standalone system with easy-of-use. All operations can be implemented through IR remote controller, USB, RS232 or Ethernet. No additional PC or appropriate software tool is required.

Infinite creative configuration

- ✧ 1x HDMI 2.0 input, 2x HDMI 1.4 output up to 2048x1080 @60Hz with flexible multi-unit cascade.
- ✧ Support up to 4096x2160@60Hz, 7680x1200 @30Hz input.
- ✧ Input supports HDCP 1.4/2.2 and output supports HDCP 1.4.
- ✧ One Loop-through port for multiple unit cascade in any scale display.
- ✧ Pixel base position alignment up to +_ 1800 pixels in H&V for flexible image capture, cropping, position alignment, bezel compensation & irregular video wall.
- ✧ Set overlap output up to 1800 pixels for projector edge blending application.
- ✧ Decode 3D signal for RH/LH eye frames for passive 3D display.
- ✧ Independent Image color adjustment in each channel.
- ✧ Independent image rotation and flip/mirror in each channel for variable landscape, portrait and irregular video wall display.
- ✧ Selectable output resolution and programmable EDID to optimize video quality.
- ✧ Flexible aspect ratio adjustment in each edge up t0 +_ 1800 pixels.
- ✧ Frame rate conversion and 50Hz in / 50Hz out to keep video quality without artifact.
- ✧ Frame-Lock function to get perfect synchronization among output channels.
- ✧ Green product with low power consumption--only 6.6w.
- ✧ Easy setup via IR, USB, RS232 & Ethernet. No PC is required.
- ✧ Ready for 24/7 working environment.


Specifications

- ✧ Input: 1x HDMI 2.0b
- ✧ Output: 2x HDMI 1.4
- ✧ 1x HDMI 2.0b loop out port for multiple unit cascade & daisy chain connection.
- ✧ HDCP compliance: Input: HDCP V2.2/V1.4. output: HDCP V1.4
- ✧ Max. input resolution: 4096x2160 @60Hz, 7680x1200 @30Hz. 4:4:4 Chroma sampling, 30 Color bits.
- ✧ Support non-VESA STD input timings.
- ✧ 18 selectable output modes up to 2048x1080 60Hz in each independent output port.
- ✧ Selectable 8/10-bit output color depth.
- ✧ One frame latency: 16.7ms (V=60Hz)
- ✧ Support xvYCC color processing & 8/10-bit deep color output.
- ✧ Video Wall overlap setting in each edge up to +_ 1800 Pixels.
- ✧ 3:2/2:2 cadence, low angle smooth algorithm, high quality scaling engine.
- ✧ 3D motion adaptive de-interlace.
- ✧ 10-bit processor, frame rate conversion.

- ✧ 50Hz in/out in FHD to avoid video artifact.
- ✧ Frame lock for synchronized outputs.
- ✧ Support HDR input signal but no HDR effect in the output.
- ✧ Individual 90/180/270 rotation, flip, cropping, scaling & color adjustment in each channel.
- ✧ When image rotation at 90/270 degrees, the maximum input is 4k/2k 30 fps.
- ✧ Decode 3D signal for RH/LH eye frames for passive 3D display.
- ✧ Embedded HDMI audio in each output.
- ✧ Selectable and programmable EDID.
- ✧ ESD Protection: ±8kV (Air-gap discharge), ±4kV (Contact discharge).
- ✧ DC 12V/0.55A, max. 6.6w, (100-240 VAC PSU)
- ✧ Working environment: 45° C, 10-90% RH
- ✧ Control: IR, RS232, USB, Ethernet
- ✧ Dimensions (Body only): 220mm*161mm*41mm (without protruding parts). 220mm*168mm*46mm (including protruding part)
- ✧ Weight: 0.86kg (body only)
- ✧ CE/FCC/RoHS Certified
- ✧ 2 Year Warranty, extension package is available up to 5 years.
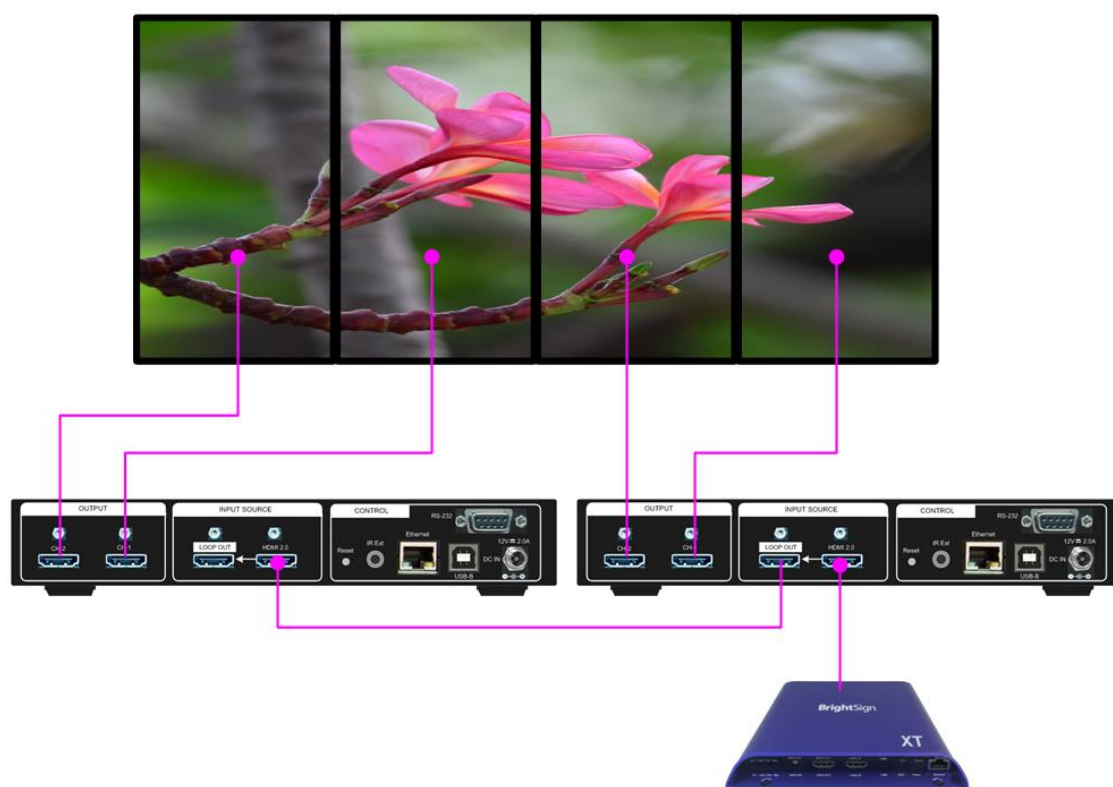
Application examples

A. Video wall

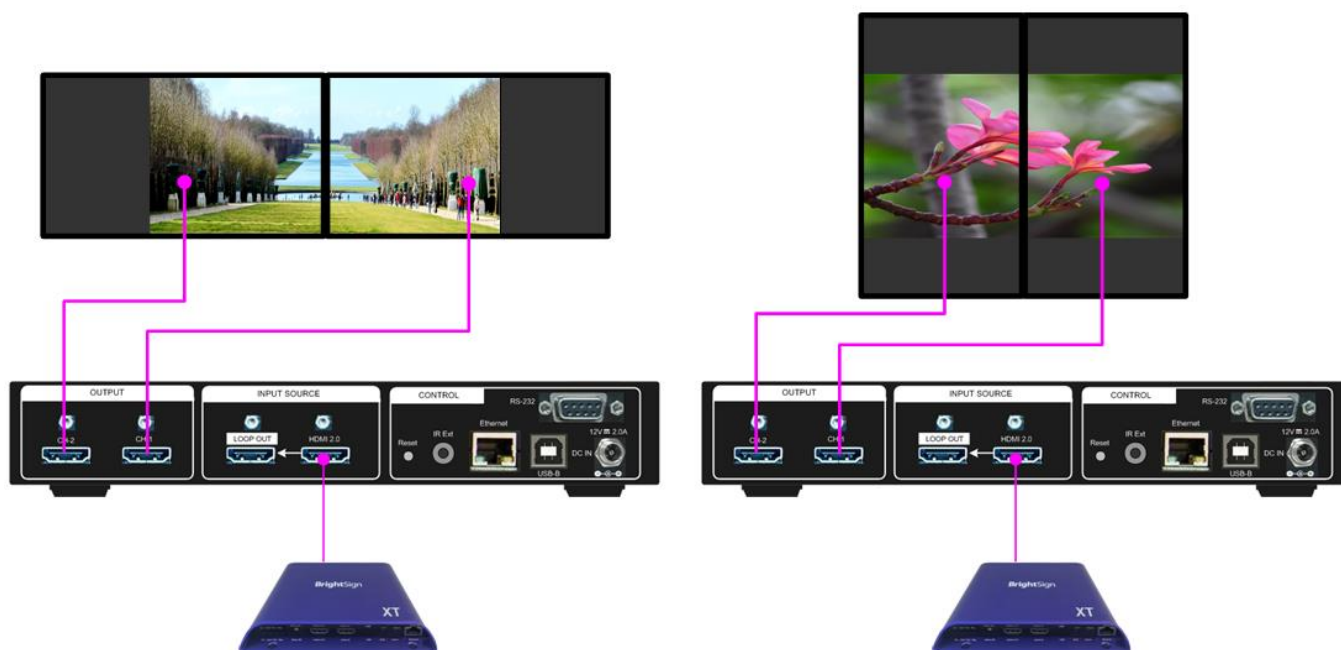

B. Irregular video wall
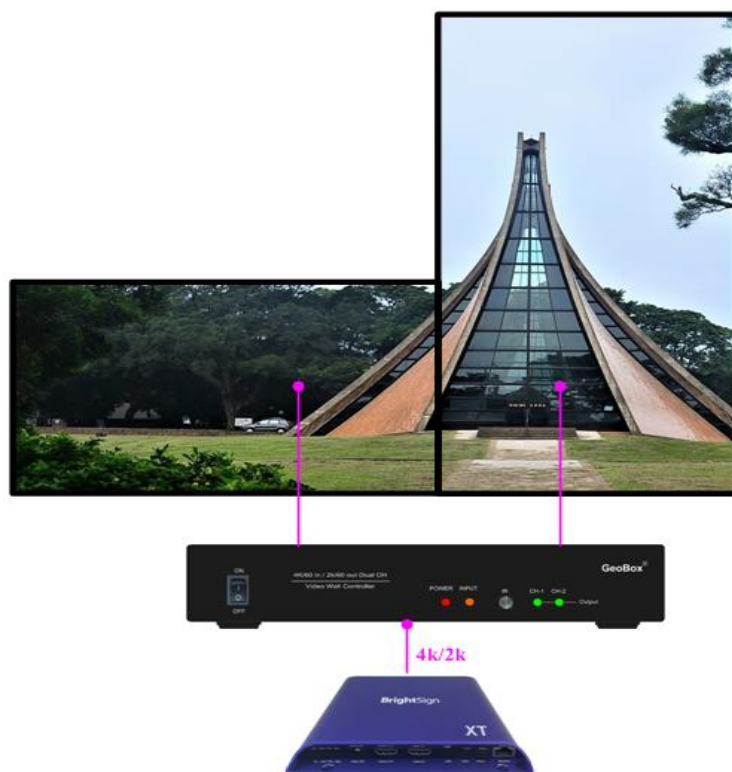
C.   Multiple G406s daisy chain connection
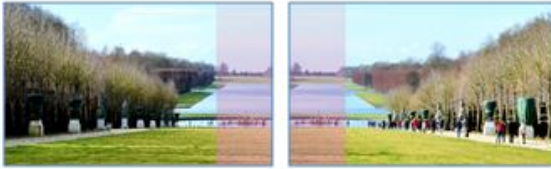

D.   Flexible aspect ratio adjustment

The background color can be either black or blue color.

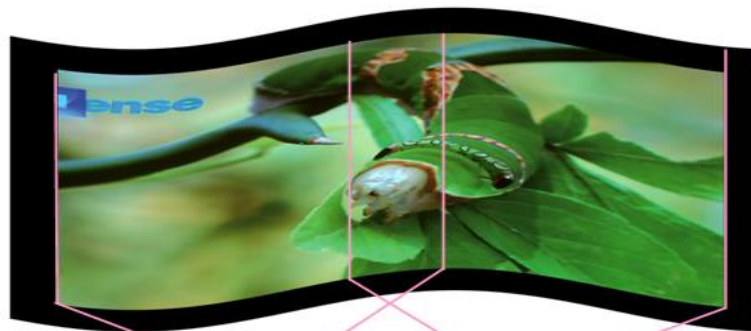## E.   Split source image and set overlap pixel for projector edge blending

Two outputs from G406s with
redundant pixels in overlap area

Projected images are overlapped
and blended by projectors

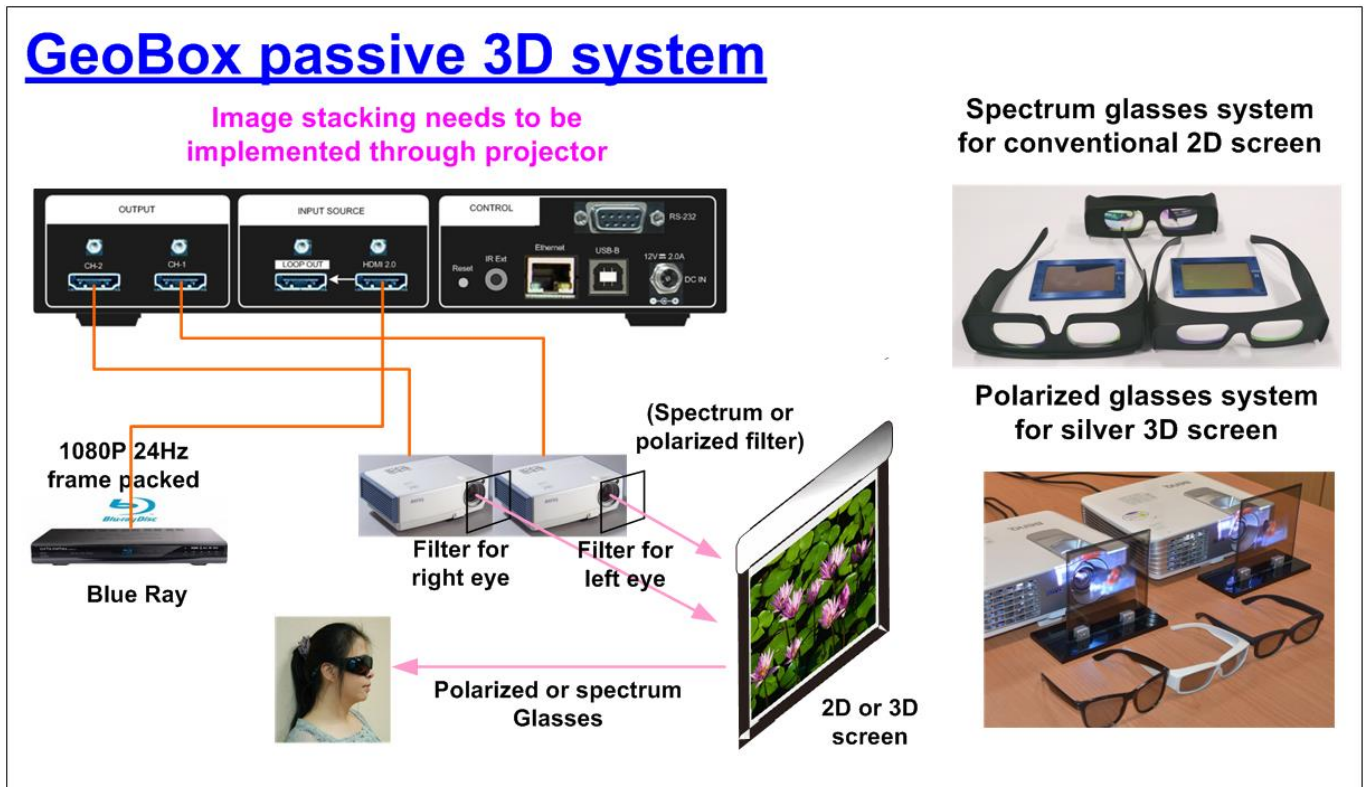After projector
edge blending,
resulting seamless
image

G406s can split image and
set overlap for projector
edge blending

4k/2k or 4k/1k

F.   Passive 3D

G406s can decoded side by side, Top/Bottom and frame packed 3D from DVD player into RH/LH eye frames for passive 3D display. User needs to do image stacking through projector warp function.

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