

D4

4K HDR Scaler & Switcher



RGBlink[®]

D4

The standard in multi-format 4K presentation switching

D4 is a very flexible video switching and scaling solution for 4K signals featuring multiple output modes, a comprehensive on board feature set and acclaimed RGBlink modular design.

Truly multi-signal, D4 may be fitted with a wide range of input signals including HDMI 2.0m DisplayPort 1.2 and 12G-SDI along with conventional 2K signals.

In the tradition of previous generation 2K solutions signals can be converted, scaled, transcoded to 4K output. Dual channel 4K HDMI 2.0 output are standard while these two channels may be duplicated for output via the option slot .

There is full 4:4:4 colour space,12 bit on board processing and support for HDR signals to meet the highest performance standards.

EDID management is built in and D4 is also HDCP 2.X compliant.

Across a range of applications requiring scan conversion, scaling or seamless presentation switching, D4 is ideal for high performance and broadcast workloads.

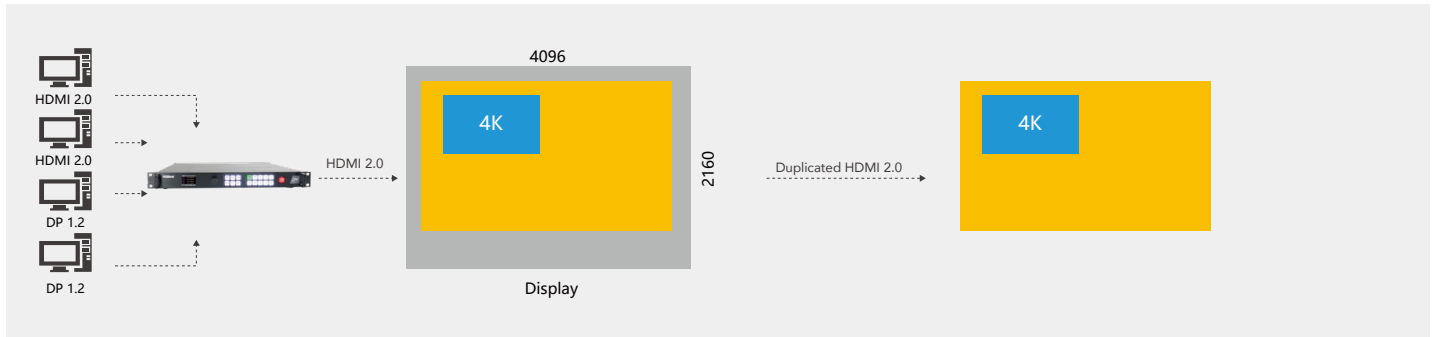
Features

- Resolution up to 4K2K@60 or 8K1K@60
- Full YUV 4:4:4 Color Space
- 12bit internal processing
- Low latency
- HDMI 2.0, DP1.2 In & Out
- UHD and HDR compliant
- HDCP 2.X compliant
- 4K EDID Management
- 4K test pattern
- SmartSlot™ input and output modules
- H.264 Preview streaming
- Genlock In & Loop
- Multiple 4K input seamless switching
- 4K Picture in Picture (4K PIP)
- Multi-layer presentation switching
- Cut & variable time alpha fade
- Mirror/Flip
- Rotation including 90°,180°, 270°
- Support for multiple device cascade



Standard Mode

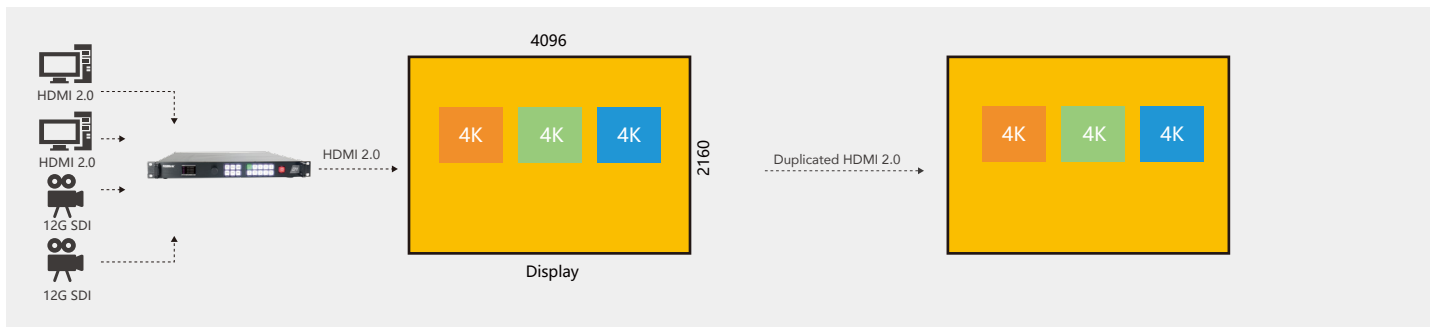
Both output channels are duplicated offering the same output as program and monitor. PiP's are available in this mode with PiP/layer count dependent on output resolution and layer arrangement.



Example: 4K input scaled across a 4K output with 4K PIP source overlaid

Presentation Mode

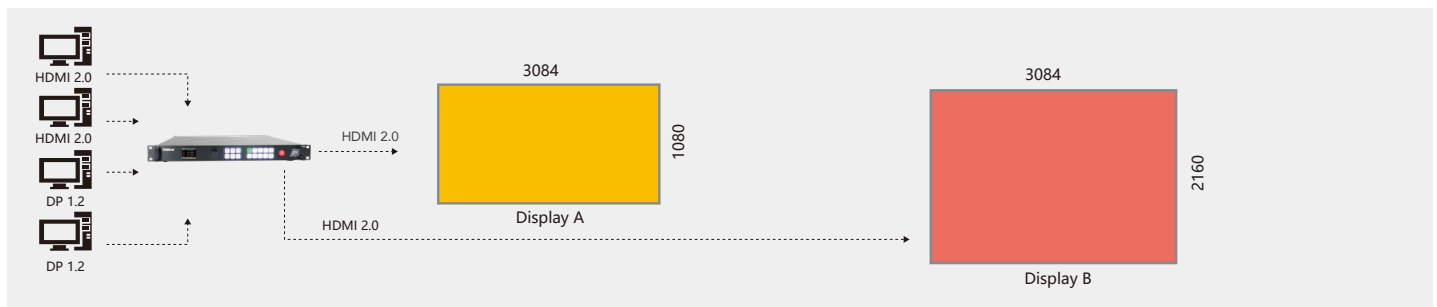
Up to three 4K inputs may be used as PiPs over a 4K background video source.



Example: Three 4K source as PIP, 1 4K source as background

Independent (Dual 4K) Mode

Each of output channels separately configured for image, resolution, scale and other attributes.

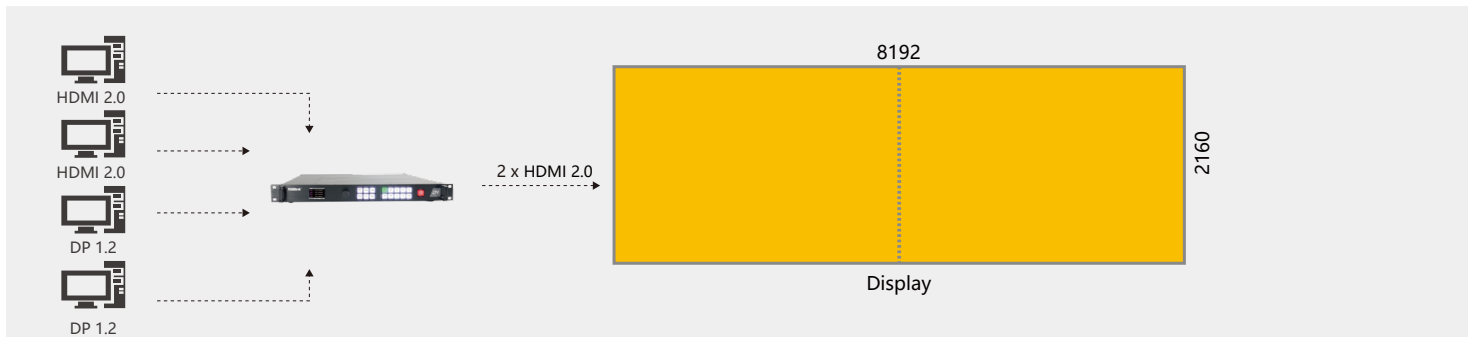


Example: Two separate inputs to two separate outputs, each at different resolution

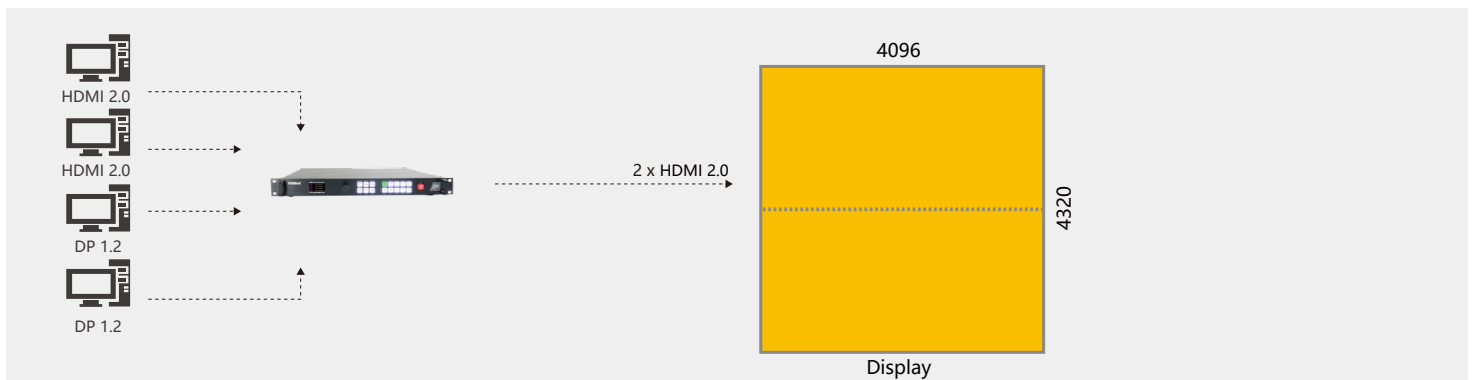


Splicing Mode

Output channels are utilised to stitch or splice input source(s) to create large seamless fully synchronised display surfaces.



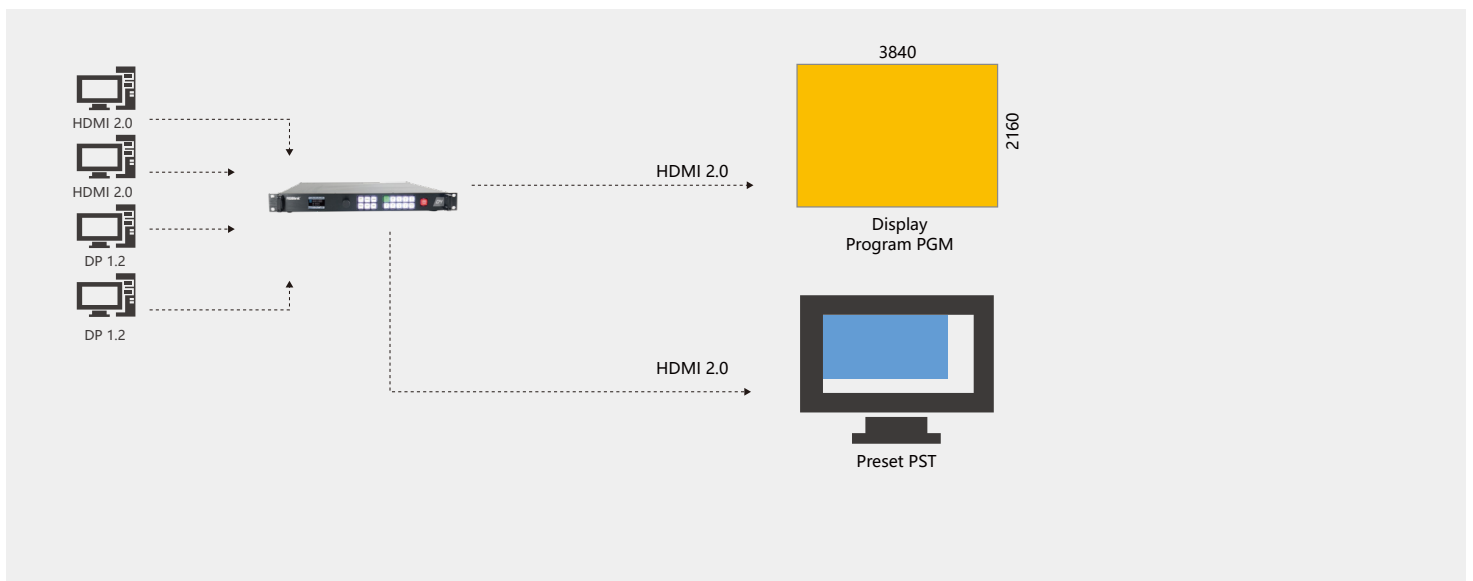
Example: 4K input scaled across 8K x 2K display area using two outputs, forming panoramic or wide screen display



Example: 4K input scaled across 4K x 4K display area using two outputs, forming a seamless portrait display of

Switcher (Preview) Mode

Both outputs are set to the same resolution, whether 2K or 4K, with one channel serving as program (PGM), and the other channel as preset preview (PST) for full seamless alpha switching between preset and programme. All adjustment made on PST prior to switching to live PGM display output.



Example: One HDMI source on PGM output with a second HDMI source scaled and configure via output as PST

*shown with optional input and output modules – refer specification and options. 90deg rotation not available at launch

HDR

Signals with High Dynamic Range are supported for processing via the processor with high bandwidth and wide gamut 12bit grey level processing.



Visual Enhancements

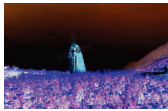
Apply a range of visual effects and enhancements with fine grain controls.



Chroma



Brightness



Invert



Contrast



Hue



Sharpen



Gamma



Color Temperature



Noise Reduction

Scale

Scale output(s) to any size within the selected resolution range.

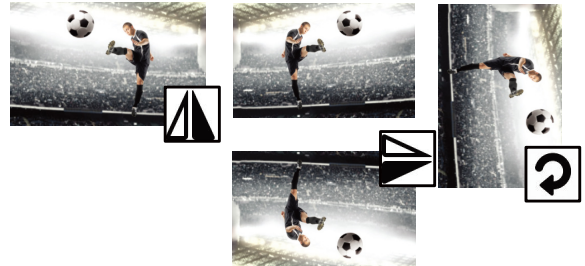


Format

D4 accepts all common 2K & 4K input formats, with EDID management built in. Output to any 2K or 4K format with custom resolutions able to be specified to down stream requirements.

Rotation & Flip

Support image rotation and flip including horizontal and vertical flip/mirror.



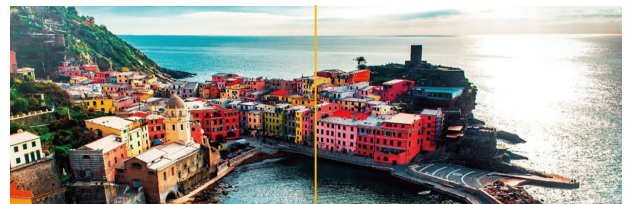
Crop & Position

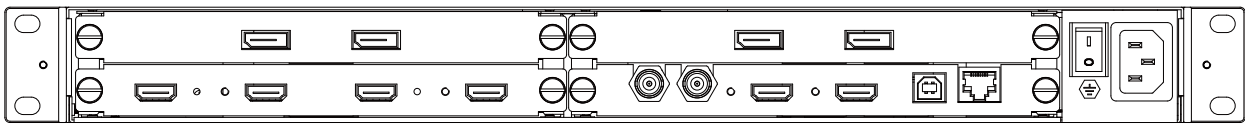
Select X and Y offsets along with width and height to select any image part for output.



Output Splicing

Split output across the dual output channels providing an 8K x 2K display canvas and seamless pixel to pixel hard edge blend.





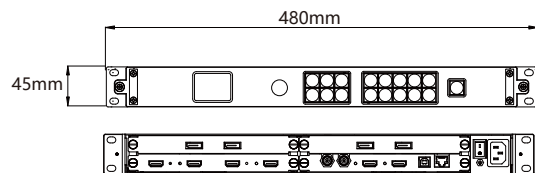
Specifications

Connections	Input	2 slots up to 4 inputs	
		Select from	4K HDMI Module 4 x HDMI-A (2 In/2 Loop) DP 1.2 Module 2 x DisplayPort 3G SDI Module 4 x BNC (2 In/2 Loop) 12G SDI Module 4 x BNC (2 In/2 Loop)
		Standard with	HDMI 2.0 2 x HDMI-A
		1 slot up to 2 duplicated outputs	
	Output	Select from	DP 1.2 Module 2 x DisplayPort
	Communication		Genlock 2 x BNC
			LAN 1 x RJ45
			Serial USB In 1 x USB Type B
	Power		1 x IEC
Performance	Input Resolution	12G SDI	
		SMPTE	480i 576i 720p@25/30/50/60 1080i@50/59.94/60 1080p@23.98/24/25/29.97/30/50/59.94/60
		DP 1.2	
	SMPTE	720p@25/30/50/60 1080i@50/59.94/60 1080p@23.98/24/25/29.97/30/50/59.94/60 2160p@30/50/60	
	VESA	1920x1200@60 2560x1600@60 3840x2160@23.98/24/25/29.97/30/50/60 4096x2160@50/60	
	HDMI 2.0		
	SMPTE	720p@25/30/50/60 1080p@23.98/24/25/29.97/30/50/59.94/60 2160p@30/50/60	
	VESA	800x600@60 1024x768@60 1280x768@60 1280x800@60 1280x1024@60 1360x768@60 1366x768@60 1400x900@60 1600x1050@60 1600x1200@60 1680x1050@60 1920x1080@23.98/24/25/29.97/30/50/59.94/60 1920x1200@60 2048x1152@60 2560x812@60 2560x816@60 2560x1600@60 3840x1080@60 3840x2160@23.98/24/25/29.97/30/50/60 4096x2160@50/60 7680x1080@60	
	Output Resolution	Select from below or configure customized	
		DP 1.2	
SMPTE		480i 576i 720p@25/30/50/60 1080i@50/59.94/60 1080p@23.98/24/25/29.97/30/50/59.94/60 2160p@30/50/60	
HDMI 2.0			
SMPTE	720p@25/30/50/60 1080p@23.98/24/25/29.97/30/50/59.94/60 2160p@30/50/60		
VESA	800x600@60 1024x768@60 1280x768@60 1280x800@60 1280x1024@60 1360x768@60 1366x768@60 1400x900@60 1600x1050@60 1600x1200@60 1680x1050@60 1920x1080@23.98/24/25/29.97/30/50/59.94/60 1920x1200@60 2048x1152@60 2560x812@60 2560x816@60 2560x1600@60 3840x1080@60 3840x2160@23.98/24/25/29.97/30/50/60 4096x2160@50/60		
Supported Standards	SDI SMPTE ST 2082-1, SMPTE ST 2081-1, SMPTE ST 424, SMPTE ST 292-1, SMPTE ST 259, DVB-ASI, MADI	DP 1.2	
Grey Level	12 bit		
Color space	4:4:4		
Features	Splicing	8K2K	
	Effects	Noise Reduction Deinterlace Sharpness Gamma	
	Audio	Supported for embedded audio	
	Invert/Mirror	Yes	
Power	EDID Management	Yes	
	Input	AC 85-264V, 50/60Hz	
Environment	Max Power	100W	
	Temperature	0°C ~ 45°C	
Physical	Humidity	10%~85%	
	Weight	Net	7.2kg
		Package	8.5kg
	Dimension	Net	480mm x 474mm x 45 mm
Package		535mm x 530mm x 130mm	

Order Codes

Product Code	Item
120-0004-01-0	D4
191-0004-01-0	Dual DP 1.2 Input Module
191-0004-02-0	Dual HDMI 2.0 Input Module
191-0004-03-0	Dual 3G SDI Input Module
191-0004-04-0	Dual 12G SDI Input Module
191-0004-21-0	Dual DP 1.2 Output Module
191-0004-22-0	Dual 12G SDI Output Module
191-0004-23-0	Quad DVI Output Module

Dimensions



HDMI® HDCP™

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