4K HDR 1:8 1U Rack-Mount HDMI Splitter with Scaling Outputs, Audio Breakout & EDID Management

SP-618

WyreStorm

Quickstart Guide

💡 WyreStorm recommends reading through this document in its entirety to become familiar with the product's features prior to starting the installation process.

4K HDR **2160p 4:4:4 60** **HDMI®** **HDCP 2.2**

⚠️ **IMPORTANT! Installation Requirements**

- Visit the product page to download the latest firmware, document version, additional documentation, and configuration tools.
- Read through the Wiring and Connections section for important wiring guidelines before creating or choosing premade cables.
- While this product supports CEC, WyreStorm cannot guarantee compatibility with all forms of CEC communication.
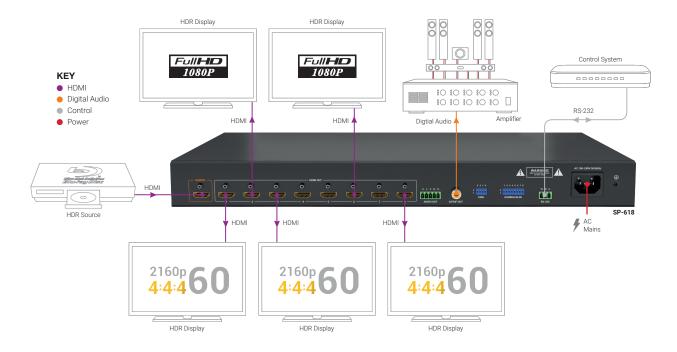
In the Box

1x SP-618
1x AC Power Cord (UK/US/EU/AU)
1x 3-pin Terminal Block
1x 5-pin Terminal Block
2x Mounting Brackets with screws
1x Quickstart Guide (this document)

Basic Wiring Diagram

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Wiring and Connections

WyreStorm recommends that all wiring for the installation is run and terminated prior to making connections to the switcher. Read through this section in its entirety before running or terminating the wires to ensure proper operation and to avoid damaging equipment.

⚠️ **IMPORTANT! Wiring Guidelines**

- The use of patch panels, wall plates, cable extenders, kinks in cables, and electrical or environmental interference will have an adverse effect on signal transmission which may limit performance. Steps should be taken to minimize or remove these factors completely during installation for best results.

- WyreStorm recommends using pre-terminated HDMI due to the complexity of these connector types. Using pre-terminated cables will ensure that these connections are accurate and will not interfere with the performance of the product.
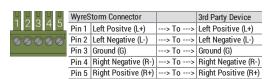
RS-232 Wiring

The device uses a 3-pin phoenix with no hardware flow control. Most control systems and computers are DTE where pin 2 is RX, this can vary from device to device. Refer to the documentation for the connected device for pin functionally to ensure that the correct connections can be made.

WyreStorm Connector			3rd Party Device
Pin 1	TX (Transmit)	---> To --->	RX (Receive)
Pin 2	RX (Receive)	---> To --->	TX (Transmit)
Pin 3	G (Ground)	---> To --->	G (Ground)

Audio Wiring

This splitter contains audio connections for Analog Audio as well as S/PDIF digital.

WyreStorm Connector			3rd Party Device
Pin 1	Left Positve (L+)	---> To --->	Left Positive (L+)
Pin 2	Left Negative (L-)	---> To --->	Left Negative (L-)
Pin 3	Ground (G)	---> To --->	Ground (G)
Pin 4	Right Negative (R-)	---> To --->	Right Negative (R-)
Pin 5	Right Positive (R+)	---> To --->	Right Positive (R+)

Tip: Signal (+)
Shield: Ground/Return (-)
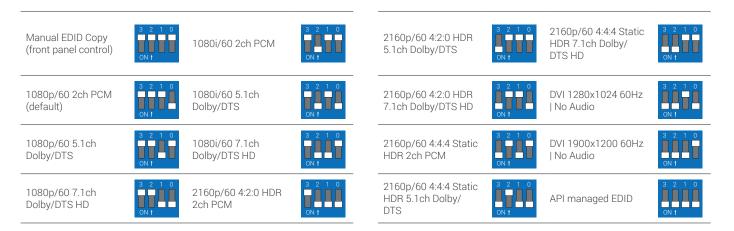
Setup and Configuration

EDID and Scaling

EDIDs can be configured to request the correct content from the source device. It is recommended that you set an EDID appropriate to the maximum capability of the source device then configure the video & audio output settings to match the connected TV, projector or AVR.

- When set to Auto-scale, the scaler will scan the EDID of the device connected to HDMI OUT 1, then dynamically adjust the output to the optimum resolution.
- When EDID settings are changed, ensure the source device is connected but powered off, then power on once all DIP switches have been set.
- Ensure that a display or AVR is connected and powered on before copying EDIDs or the copy will fail.
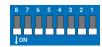- Power to the scaler must be cycled (Off/On) after changing dip switches in order for the setting to take effect.

EDID Switch Location

Setting EDIDs

1. Ensure the SP-618 and connected source devices are powered OFF
2. Set the desired switch configuration according to the illustrations below or the EDID table which is printed on the base of the unit.
3. Power ON the SP-618
4. Power ON the source device

Manual EDID Copy (front panel control)		1080i/60 2ch PCM		2160p/60 4:2:0 HDR 5.1ch Dolby/DTS		2160p/60 4:4:4 Static HDR 7.1ch Dolby/DTS HD	
1080p/60 2ch PCM (default)		1080i/60 5.1ch Dolby/DTS		2160p/60 4:2:0 HDR 7.1ch Dolby/DTS HD		DVI 1280x1024 60Hz | No Audio	
1080p/60 5.1ch Dolby/DTS		1080i/60 7.1ch Dolby/DTS HD		2160p/60 4:4:4 Static HDR 2ch PCM		DVI 1900x1200 60Hz | No Audio	
1080p/60 7.1ch Dolby/DTS HD		2160p/60 4:2:0 HDR 2ch PCM		2160p/60 4:4:4 Static HDR 5.1ch Dolby/DTS		API managed EDID	

Each HDMI output has its own corresponding scaling switch: HDMI output 1 is connected to switch 1, etc. The scaling function can be independently turned on or off for each output. Turn scaling on by placing the switch in the down (1) position. To turn scaling off, place the switch in the up (0) position.

Specifications

Audio and Video		
Inputs	1x HDMI In: 19-pin type A	
Outputs	8x HDMI Out: 19-pin type A	
Video Encoding	Uncompressed 18Gbps	
End to End Latency	None	
Audio Formats	2ch PCM | Multichannel: LPCM and Up to DTS-X and Dolby Atmos	
	Video Resolution	**HDMI**
Video Resolutions (Max)	1920x1080p @60Hz 16bit	7m/23ft
	3840x2160p @60Hz 10bit 4:2:2 HDR10/10+	5m/16ft
	3840x2160p @60Hz 12bit 4:2:0 Dolby Vision	5m/16ft
	3840x2160p @50Hz 10bit 4:2:0 HLG	5m/16ft
	4096x2160p @60Hz 8bit 4:4:4	5m/16ft
Supported Standards	DCI | RGB | HDR10 | HDR 10+ | Dolby Vision | HLG | BT.2020	
Maximum Pixel Clock	600MHz	
Communication and Control		
HDMI	HDCP 2.2 | EDID | DVI-D supported with adapter (not included)	
RS-232	1x 3-pin Phoenix connection	
Power		
Power Supply	100~240V AC 50/60Hz	
Max Power Consumption	60W	
Environmental		
Operating Temperature	32°F ~ 113°F (0°C ~ 45°C) | 10% ~ 90%, non-condensing	
Storage Temperature	-4°F to ~ 158°F (-20°C ~ +70°C) | 10% ~ 90%, non-condensing	
Maximum BTU	205 BTU/hr	
Dimensions and Weight		
Rack Units/Wall Box	1U	
Height	44.4mm/1.7in	
Width	438mm/17.25in	
Depth	184mm/7.25in	
Weight	2.17kg/4.80lbs	
Regulatory		
Safety and Emission	CE | FCC | RoHS | RCM | EAC	

Troubleshooting

No or Poor-Quality Audio or Video (snow or noisy image)
- Verify that power is being supplied to the source and receiving device and they are not in standby mode
- Verify that all HDMI connections are not loose and are functioning properly.
- Verify that the output resolution of the source and display is supported by this splitter.
- If transmitting 3D or 4K, verify that suitable HDMI cables are being used.

No or Intermittent 3rd party Device Control
- Verify that the RS-232 cables are properly terminated following the Wiring and Connections section.

Troubleshooting Tips:
- WyreStorm recommends using a cable tester or connecting the cable to other devices to verify functionality.

Note: WyreStorm reserves the right to change product specification, appearance or dimensions of this product at any time without prior notice.

Warranty Information

WyreStorm Technologies LLC warrants that its products to be free from defects in material and workmanship under normal use for a period of five (5) years from the date of purchase. Refer to the Product Warranty page on wyrestorm.com for more details on our limited product warranty.