

8K 1×2 HDMI 2.1 Splitter with Auto Downscaling

48Gbps, HDCP 2.3, HDR → SDR Converting, Dolby Atmos/DTS:X, EDID DIP

Split one 8K HDMI 2.1 source to two displays with automatic downscaling and HDR-to-SDR conversion. The SP-HD1X28K delivers 48Gbps bandwidth, 8K@60Hz 4:2:0 12-bit and 4K@120Hz 4:4:4 12-bit. Auto downscaling independently adjusts each output based on display capabilities. HDR → SDR conversion ensures legacy SDR display compatibility.

Surge Protection Recommended — This product contains sensitive electrical components that may be damaged by surges or lightning strikes.

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FEATURES

- ✓ HDCP 2.3 compliant
- ✓ 48Gbps FRL and 18Gbps TMDS bandwidth
- ✓ Up to 8K@60Hz 4:2:0 12-bit, 4K@120Hz 4:4:4 12-bit
- ✓ VRR, ALLM, QMS, QFT, SBTM supported
- ✓ HDR, HDR10, HDR10+, Dolby Vision, HLG pass-through
- ✓ LPCM 7.1CH, Dolby TrueHD, Atmos, DTS-HD MA, DTS:X
- ✓ 8K → 4K or 8K/4K → 1080p auto downscaling on all outputs
- ✓ HDR → SDR auto converting on all outputs
- ✓ Advanced EDID management (8-mode DIP switch)
- ✓ Compact metal enclosure with USB-C service port

PACKAGE CONTENTS

1× 48Gbps 1×2 Splitter • 1× 5V/2A Multinational PSU • 1× User Manual



Specifications

TECHNICAL	
HDMI	HDMI 2.1
HDCP	HDCP 2.3
Bandwidth	48Gbps FRL + 18Gbps TMDS
Resolution	8K@60Hz 4:2:0 12-bit, 4K@120Hz 4:4:4 12-bit
Color	RGB, YCbCr 4:4:4/4:2:2/4:2:0 • 8/10/12-bit
HDR	HDR10, HDR10+, Dolby Vision, HLG
Audio	LPCM 7.1, Dolby TrueHD, Atmos, DTS-HD MA, DTS:X, DSD
ESD	±8kV (air-gap) & ±4kV (contact)

CONNECTION	
Input	1 × HDMI IN • 1 × SERVICE (USB-C)
Output	2 × HDMI OUT

MECHANICAL	
Housing	Metal • Black
Dimensions	95mm (W) × 68mm (D) × 18mm (H)
Weight	177g
Power	DC 5V/2A • 4.3W max
Temp	0°C – 40°C operating

Operation Controls

No.	Name	Function
1	Power LED	Red = powered on.
2	IN LED	Green = active source.
3	OUT 1-2 LEDs	Green = active output (independently downscaled).
4	DC 5V	5V/2A power input.
5	SERVICE	USB-C firmware update.
6	HDMI IN	Source input.
7	OUT 1-2	Two HDMI outputs with auto downscaling.
8	EDID DIP	8-mode DIP switch (see below).

EDID DIP SETTINGS

DIP	Mode
111	Copy OUT1 EDID (default)
110	4K60 4:4:4, 2.0CH
101	FRL12G 8K HDR, 2.0CH
100	FRL12G 8K HDR, 5.1CH
011	FRL12G 8K HDR, 7.1CH
010	FRL10G 8K HDR, 2.0CH
001	FRL10G 8K HDR, 5.1CH
000	FRL10G 8K HDR, 7.1CH



Auto Downscaling & Converting

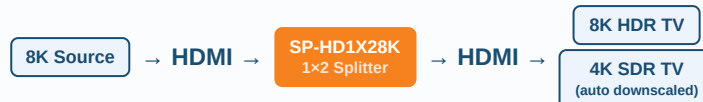
The splitter supports independent auto downscaling and HDR → SDR converting on all outputs. It compares each connected display's EDID and selects the appropriate resolution and HDR mode per output.

Examples: 8K HDR source → OUT 1 (8K HDR TV): 8K HDR bypass. OUT 2 (4K SDR TV): 4K SDR (downscaled + converted). • 4K HDR source → OUT 1 (4K HDR TV): 4K HDR bypass. OUT 2 (1080p TV): 1080p SDR (downscaled + converted).

Note: Downscaling does not work with 8K DSC format or resolutions not supported by the splitter. DVI displays receiving downscaled 1080p will output without sound.

Application Example

8K Mixed-Resolution Distribution



How it works: Connect one source to HDMI IN. Connect two displays to OUT 1 and OUT 2. The splitter reads each display EDID and independently delivers native resolution + HDR/SDR per output. No manual configuration needed.

TROUBLESHOOTING

Q: No signal on one or both outputs?

A: 1) Verify Ultra High Speed HDMI cables (3m max for 8K). 2) Try different EDID DIP setting. 3) Power-cycle. 4) Check display resolution support.

Q: Downscaling not working?

A: 1) Downscaling does not work with 8K DSC input. 2) Verify the display EDID is being read correctly (try EDID DIP 111/default). 3) Power-cycle both the splitter and displays.

Q: No audio on downscaled output?

A: DVI-mode displays receiving downscaled 1080p will not output audio. Ensure the display supports HDMI audio at the downscaled resolution.

