SP-H2-0208-10

NETVIO

# 48GBPS 2X8 (DUAL INPUT) 8K HDMI SPLITTER





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## Safety Information

Do not attempt to remove the product casing, as this may result in electrical shock. Repairs should not be attempted by anyone other than qualified personnel. For any service or repair needs, please contact Netvio Ltd or an authorized reseller to follow the proper service procedures. Any unauthorized repairs or the use of non-approved components will void the product warranty. For complete warranty terms and conditions, please visit: www.netvio.co.uk.

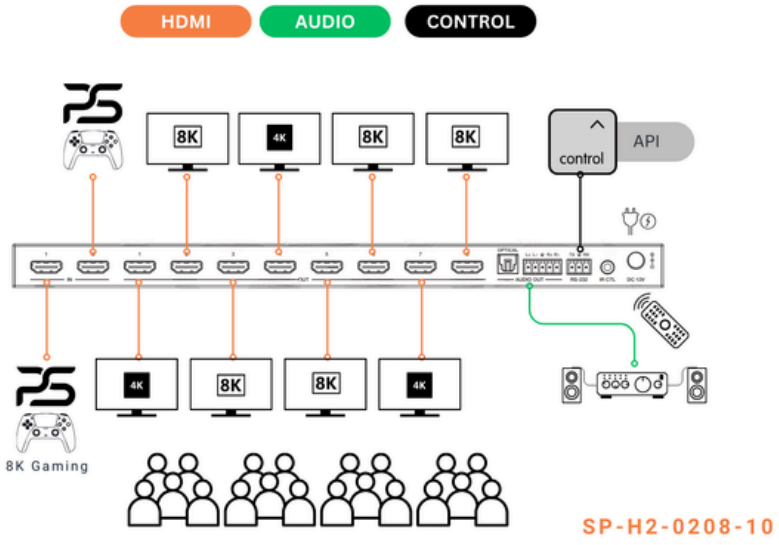
**The Netvio SP-H2-0208-10 is a professional-grade 8K60 4:2:0 HDMI splitter, engineered for high-performance AV applications. Featuring dual HDMI inputs and eight outputs, it ensures seamless signal distribution with advanced scaling, EDID management, and API integration for enhanced system control.**

**Designed for commercial installations, digital signage, and high-resolution presentations, the SP-H2-0208-10 delivers uncompromising clarity, reliability, and flexibility in demanding environments.**

## IMPORTANCE OF HDMI CABLES

The performance of the SP-H2-0208-10 relies heavily on the quality of HDMI cables used.

To ensure optimal functionality, high-quality, high-speed HDMI cables are required. For extended distances, we recommend using active HDMI extenders or active optical cables to maintain signal integrity and performance.




## WARRANTY

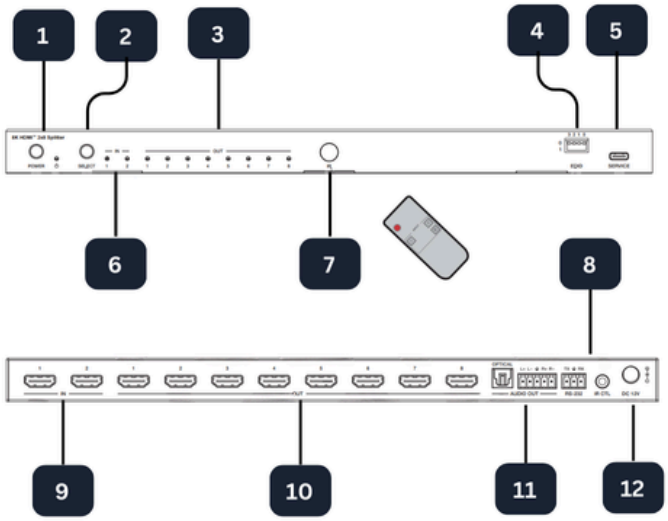
- Standard 5-Year warranty. Details available at www.netvio.co.uk

## IN-THE-BOX

- SP-H2-0208-10
- 1.5m IR Receiver Cable
- RS-232 Phoenix Connector
- Mounting brackets
- IR remote
- Regionalized UK/EU/US/AUS DC 12V/2.5A power input port

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## SP CONNECTIONS




1. Power button & LED Status | Green On | Red Standny
2. Manual source selection
3. Connected display status | Green shows active connectio
4. EDID management (see user guide for settings)
5. Service
6. Active source indicator | Green indicates selected input
7. IR receiving window
8. RS-232 serial port for API control & IR extension port.
9. HDMI input port
10. HDMI output port
11. Audio output connections
12. PSU | DC 12V/2.5A power input port.

SP-H2-0208-10

# INSTALLATION NOTES

### EDID DIP SWITCHES SETTINGS

- DIP_0000: EDID pass-through (Copy from Sink 1) (default)
- DIP_0001: HDMI 1080p@60Hz, Audio 2CH PCM
- DIP_0010: HDMI 1080p@60Hz, Audio 5.1CH DTS/DOLBY
- DIP_0011: HDMI 4K@60Hz 4:4:4, 8-bit, Audio 2ch PCM
- DIP_0100: HDMI 4K@60Hz 4:4:4, 8-bit, Audio 5.1CH DTS/DOLBY
- DIP_0101: HDMI 4K@120Hz 4:4:4, 10-bit HDR/DV, Audio 2ch PCM
- DIP_0110: HDMI 4K@120Hz 4:4:4, 10-bit HDR/DV, Audio 5.1CH DTS/DOLBY
- DIP_0111: HDMI 4K@120Hz 4:4:4, 12-bit HDR/DV, Audio 2ch PCM
- DIP_1000: HDMI 4K@120Hz 4:4:4, 12-bit HDR/DV, Audio 5.1CH DTS/DOLBY
- DIP_1001: HDMI 8K@60Hz 4:2:0, 10-bit HDR/DV, Audio 2ch PCM
- DIP_1010: HDMI 8K@60Hz 4:2:0, 10-bit HDR/DV, Audio 5.1CH DTS/DOLBY
- DIP_1011: HDMI 8K@60Hz 4:2:0, 12-bit HDR/DV, Audio 2ch PCM
- DIP_1100: HDMI 8K@60Hz 4:2:0, 12-bit HDR/DV, Audio 5.1CH DTS/DOLBY
- DIP_1101: HDMI 8K@60Hz 4:2:0, 12-bit HDR/DV, Audio 2ch PCM- Inc VRR/DSC
- DIP_1110: HDMI 8K@60Hz 4:2:0, 12-bit HDR/DV, Audio 5.1CH DTS/DOLBY- Inc VRR/DSC
- DIP_1111: EDID Software if possible or HDMI 1080p@60Hz, Audio 2ch PCM

A power cycle after setting switches will be required.

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# FEATURES

- Dual 8K HDMI inputs up to 48Gbps
- Independent 8K to 4K/2K downscaling including HDR to SDR
- 5-Year Warranty (2-Years Advanced Replacement).
- Digital & analog audio outputs including gain control via API
- Auto or manual switching between sources
- Front panel switching or direct IR (or extended)
- API for control system integration
- Library of EDID settings via DIP switch settings
- 5-year warranty (2-year advanced replacement)

# SPECIFICATIONS

- Compliances include HDMI2.1, HDCP2.3
- Video bandwidth upto 48Gbps
- Video resolution | 8K@60Hz 4:2:0 12bit, 8K@30Hz 4:4:4 12bit, 4K@120Hz 4:4:4 12bit
- Compatible with HDR10+, Dolby Vision LLM & HLG
- Multi-Channel audio formats upto Dolby True DH & DTS-HD Master Audio

# MECHANICAL

- **Weights & Dimensions**
  - 320mm (W) 100mm (D) 21.5 (H) | Weight 810
- **Power Supply**
  - DC 12V/2.5A  (US/EU/UK/AUS standard, CE/FCC/UL/C-Tick certified)
- **Power Consumption**
  - 9.6W (Max)
- **Operating Temperature**
  - 32 - 104°F / 0 - 40°C
- **Storage Temperature**
  - -4 - 140°F / -20 - 60°C
- **Relative Humidity**
  - 20 - 90% RH (no condensation)
- **Product Certifications**
  - CE, UKCA, FCC

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| ASCII Commands | | | | |
|---|---|---|---|---|
| 1. Service port (USB-C virtual RS-232) communication protocol (Internal debug)<br>Baud rate: 115200 (fixed), Data bit: 8, Stop bit: 1, Parity bit: none<br>The end mark of command is "<CR><LF>"<br>2. Phoenix RS-232 port communication protocol (Connect to control system)<br>Baud rate: 4800~115200 (configurable), Data bit: 8, Stop bit: 1, Parity bit: none<br>The end mark of command is "<CR><LF>" | | | | |
| **Commands** | **Function** | **Example** | **Feedback** | **Default** |
| ? | Get the list of all commands | ? | | |
| help | Get the list of all commands | help | | |
| get fw version | Get firmware version | get fw version | 1.0.0 | |
| set power on/off | Set device power on/off | set power on<br>set power off | Power on…<br>System Initializing...<br>Initialization Finished!<br>FW: 1.0.0<br>Power off… | |
| get power | Get device power status | get power | Power on | |
| set reboot | Reboot the device | set reboot | Reboot…<br>System Initializing...<br>Initialization Finished!<br>FW: 1.0.0 | |
| set reset | Reset to factory defaults | set reset | Sure to RESET to default settings? Type "Yes" after next prompt to confirm… | |
| get status | Get system status | get status | Please refer to the note at the end of the list. | |
| set IR on/off | Set IR on/off | set IR on<br>set IR off | Set IR on<br>Set IR off | on |
| get IR | Get IR on/off status | get IR | IR on | |

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| Commands | Function | Example | Feedback | Default |
|---|---|---|---|---|
| set key on/off | Set front panel key on/off | set key on<br>set key off | Set key on<br>Set key off | on |
| get key | Get front panel key on/off status | get key | Key on | |
| set baud x | Set RS-232 baud rate to x bps<br>x=1: 4800<br>x=2: 9600<br>x=3: 19200<br>x=4: 38400<br>x=5: 57600<br>x=6: 115200 | set baud 6 | Set baud rate 115200 | 115200 |
| get baud | Get RS-232 baud rate | get baud | Baud rate 115200 | |
| set input x | Set input video (x=0~2)<br>x=0: Off<br>x=1~2: HDMI input 1~2 | set input 1 | Set input HDMI 1 | 1 |
| get input | Get input port | get input | Input HDMI 1 | |
| get hdmi5v | Get input HDMI 5V | get hdmi5v | HDMI 1: 5V<br>HDMI 2: none | |
| set autoswitch x | Set auto-switching on/off (HDMI 5V detection)<br>x=On, Off | set autoswitch on | Set autoswitch on | on |
| get autoswitch | Get auto-switching status | get autoswitch | Autoswitch on | |
| set output x downscale y | Set output (x=0~8) downscaling mode (y=0~2)<br>x=0: all outputs<br>x=1~8: HDMI output 1~8<br>y=0: Automatically according to display's capability<br>y=1: Bypass video<br>y=2: Force 1080p | set output 0 downscale 0 | Set all outputs downscale auto | 0 |
| get output x downscale | Get output (x=0~8) downscaling mode | get output 0 downscale | HDMI output 1 downscale auto<br>HDMI output 2 downscale auto<br>HDMI output 3 downscale auto<br>HDMI output 4 downscale auto<br>HDMI output 5 downscale auto<br>HDMI output 6 downscale auto<br>HDMI output 7 downscale auto<br>HDMI output 8 downscale auto | |

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| Commands | Function | Example | Feedback | Default |
|---|---|---|---|---|
| set output x display y | Set output (x=0~8) display mode (y=0~3)<br>x=0: all outputs<br>x=1~4: HDMI output 1~8<br>y=0: Off (disable TMDS output)<br>y=1: Input video<br>y=2: AVMUTE<br>y=3: Internal pattern | set output 0 display 2 | Set all outputs display internal pattern | 1 |
| get output x display | Get output (x=0~8) display mode | get output 0 display | HDMI output 1 display internal pattern<br>HDMI output 2 display internal pattern<br>HDMI output 3 display internal pattern<br>HDMI output 4 display internal pattern<br>HDMI output 5 display internal pattern<br>HDMI output 6 display internal pattern<br>HDMI output 7 display internal pattern<br>HDMI output 8 display internal pattern | |
| set output x HDCP y | Set output (x=0~8) HDCP mode (y=0~4)<br>x=0: all outputs<br>x=1~4: HDMI output 1~8<br>y=0: Reserved<br>y=1: Follow sink<br>y=2: Follow source<br>y=3: Force HDCP 1.4<br>y=4: Force HDCP 2.2 | set output 0 HDCP 1 | Set all outputs HDCP follow sink | 1 |
| get output x HDCP | Get output (x=0~8) HDCP mode | get output 0 HDCP | HDMI output 1 HDCP follow sink<br>HDMI output 2 HDCP follow sink<br>HDMI output 3 HDCP follow sink<br>HDMI output 4 HDCP follow sink<br>HDMI output 5 HDCP follow sink<br>HDMI output 6 HDCP follow sink<br>HDMI output 7 HDCP follow sink<br>HDMI output 8 HDCP follow sink | |
| get generator | Get internal signal generator output resolution and pattern | get generator | Generator 8K30Hz color bar | |

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| Commands | Function | Example | Feedback | Default |
|---|---|---|---|---|
| set generator x y | Set internal signal generator resolution (x=1~15) pattern (y=1~13)<br>x=01: 8K30Hz<br>x=02: 4K120Hz<br>x=03: 4K100Hz<br>x=04: 5K60Hz<br>x=05: 5K50Hz<br>x=06: 5K30Hz<br>x=07: 5K25Hz<br>x=08: 5K24Hz<br>x=09: 4K60Hz<br>x=10: 4K50Hz<br>x=11: 4K25Hz<br>x=12: 4K24Hz<br>x=13: 1080P60Hz<br>x=14: 480P60Hz<br>x=15: 576P50Hz<br>y=01: Color bar<br>y=02: Checkboard<br>y=03: Strip<br>y=04: Red<br>y=05: Green<br>y=06: Blue<br>y=07: White<br>y=08: Ramp<br>y=09: Red ramp<br>y=10: Green ramp<br>y=11: Blue ramp<br>y=12: PRBS<br>y=13: Black | set generator 1 1 | Set generator 8K30Hz color bar | |
| set analog mute x | Set analog audio mute on/off<br>x=On, Off | set analog mute on | Set analog mute on | off |
| get analog mute | Get analog audio mute status | get analog mute | off | |
| set analog gain x | Set analog audio gain (x=0dB ~ -79dB) | set analog gain -79dB | Set analog gain -79dB | 0dB |
| get analog gain | Get analog audio gain value | get analog gain | Analog gain -79dB | |
| set edid x to y | Set input ports (x=0~2) to EDID (y=0~32)<br>x=0: all inputs<br>x=1~2: HDMI input 1~2<br>y=00: HDMI 1080p@60Hz, Audio 2CH PCM (default) | set edid 0 to 0 | Set all inputs EDID to SDF_00: HDMI 1080p@60Hz, Audio 2CH PCM (default) | 0 |

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| Commands | Function | Example | Feedback | Default |
|---|---|---|---|---|
| set edid x to y | (Continued)<br>y=01: HDMI 1080p@60Hz, Audio 5.1CH DTS/DOLBY<br>y=02: HDMI 1080p@60Hz, Audio 7.1CH DTS/DOLBY/HD<br>y=03: HDMI 4K@60Hz 4:4:4, 8-bit, Audio 2ch PCM<br>y=04: HDMI 4K@60Hz 4:4:4, 8-bit, Audio 5.1CH DTS/DOLBY<br>y=05: HDMI 4K@60Hz 4:4:4, 8-bit, Audio 7.1CH DTS/DOLBY/HD<br>y=06: HDMI 4K@120Hz 4:4:4, 8-bit, Audio 2ch PCM<br>y=07: HDMI 4K@120Hz 4:4:4, 8-bit, Audio 5.1CH DTS/DOLBY<br>y=08: HDMI 4K@120Hz 4:4:4, 8-bit, Audio 7.1CH DTS/DOLBY/HD<br>y=09: HDMI 4K@120Hz 4:4:4, 10-bit HDR/DV, Audio 2ch PCM<br>y=10: HDMI 4K@120Hz 4:4:4, 10-bit HDR/DV, Audio 5.1CH DTS/DOLBY<br>y=11: HDMI 4K@120Hz 4:4:4, 10-bit HDR/DV, Audio 7.1CH DTS/DOLBY/HD<br>y=12: HDMI 4K@120Hz 4:4:4, 12-bit HDR/DV, Audio 2ch PCM<br>y=13: HDMI 4K@120Hz 4:4:4, 12-bit HDR/DV, Audio 5.1CH DTS/DOLBY<br>y=14: HDMI 4K@120Hz 4:4:4, 12-bit HDR/DV, Audio 7.1CH DTS/DOLBY/HD<br>y=15: HDMI 4K@120Hz 4:4:4, 12-bit HDR/DV, Audio 2ch PCM - Inc VRR/DSC<br>y=16: HDMI 4K@120Hz 4:4:4, 12-bit HDR/DV, Audio 5.1CH DTS/DOLBY - Inc VRR/DSC<br>y=17: HDMI 4K@120Hz 4:4:4, 12-bit HDR/DV, Audio 7.1CH DTS/DOLBY/HD - Inc VRR/DSC<br>y=18: HDMI 8K@60Hz 4:2:0, 10-bit HDR/DV, Audio 2ch PCM<br>y=19: HDMI 8K@60Hz 4:2:0, 10-bit HDR/DV, Audio 5.1CH DTS/DOLBY<br>y=20: HDMI 8K@60Hz 4:2:0, 10-bit HDR/DV, Audio 7.1CH DTS/DOLBY/HD<br>y=21: HDMI 8K@60Hz 4:2:0, 12-bit HDR/DV, Audio 2ch PCM | set edid 0 to 0 | Set all inputs EDID to SDF_00: HDMI 1080p@60Hz, Audio 2CH PCM (default) | 0 |

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| Commands | Function | Example | Feedback | Default |
|---|---|---|---|---|
| | (Continued)<br>y=22: HDMI 8K@60Hz 4:2:0, 12-bit HDR/DV, Audio 5.1CH DTS/DOLBY<br>y=23: HDMI 8K@60Hz 4:2:0, 12-bit HDR/DV, Audio 7.1CH DTS/DOLBY/HD<br>y=24: HDMI 8K@60Hz 4:2:0, 12-bit HDR/DV, Audio 2ch PCM - Inc VRR/DSC<br>y=25: HDMI 8K@60Hz 4:2:0, 12-bit HDR/DV, Audio 5.1CH DTS/DOLBY - Inc VRR/DSC<br>y=26: HDMI 8K@60Hz 4:2:0, 12-bit HDR/DV, Audio 7.1CH DTS/DOLBY/HD - Inc VRR/DSC<br>y=27: DVI 1920x1080@60Hz, Audio None<br>y=28: DVI 1920x1200@60Hz, Audio None<br>y=29: HDMI 1920x1200@60Hz, Audio 2ch PCM<br>y=30: User EDID 1<br>y=31: User EDID 2<br>y=32: EDID pass-through (Copy from Sink 1) | | | |
| get edid x | Get input ports EDID<br>x=0: all inputs<br>x=1~2: HDMI input 1~2 | get edid 0 | HDMI input 1 EDID SDF_00: HDMI 1080p@60Hz, Audio 2CH PCM (default)<br>HDMI input 2 EDID SDF_00: HDMI 1080p@60Hz, Audio 2CH PCM (default) | |
| get edid data x | Get input ports EDID data<br>x=0: all inputs<br>x=1~2: HDMI input 1~2 | get edid data 0 | HDMI input 1 EDID <00 FF FF FF….><br>HDMI input 2 EDID <00 FF FF FF….> | |
| set user edid x <y> | Set user defined EDID (x=1~2)<br>x=1: User Defined 1<br>x=2: User Defined 2<br>y = 00 FF FF FF …..<br>(y is 256 bytes EDID data) | set user edid 1 <00 FF FF FF….> | User defined 1 EDID is loaded successfully | |

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| Commands | Function | Example | Feedback | Default |
|---|---|---|---|---|
| get user edid x | Get user defined EDID (x=1~2)<br>x=1: User Defined 1<br>x=2: User Defined 2 | get user edid 1 | User defined 1 EDID<br><00 FF FF FF….> | |

**Note:** The feedback of the command of "get status" is as follow. (The middle line ends with <LF><CR> and the last line ends with <CR><LF>.)

```
==========================================================================
Status Info 8K 2x8 Splitter
FW 1.0.0

Power     Key       IR        Baud      Autoswitch
On        On        On        115200    On

Input     Cable             EDID
01        Connected         DIP_0000:EDID pass-through
02        Connected         DIP_0000:EDID pass-through

Output  FromIn  Cable      Resolution       ColorSpace  ColorDepth  Scaler  HDCP
01      01      Connected  3840x2160p60Hz   YUV 4:2:0   12bit       Off     Sink
02      01      Connected  3840x2160p60Hz   YUV 4:2:0   12bit       Off     Sink
03      01      Connected  3840x2160p60Hz   YUV 4:2:0   12bit       Off     Sink
04      01      Connected  3840x2160p60Hz   YUV 4:2:0   12bit       Off     Sink
05      01      Connected  1920x1080p60Hz   YUV 4:4:4   8bit        On      Sink
06    AVMUTE    Connected  3840x2160p60Hz   YUV 4:2:0   12bit       Off     Sink
07    Pattern   Connected  7680x4320p30Hz   RGB 4:4:4   8bit        Off     Sink
08      01      None       None             None        None        Off     Sink
==========================================================================
```

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