
PRODUCT DATASHEET

iSwitch 8K104

48Gbps 1x4 HDMI Splitter



48 Gbps	8K@60Hz 4:2:0	HDCP 2.3
FRL VIDEO BANDWIDTH	4K@120Hz / 8K@30Hz 4:4:4	HDMI 2.1 COMPLIANT

OVERVIEW

The iSwitch 8K104 is a 1x4 HDMI splitter that distributes one HDMI source signal to four display devices, with video resolution up to 8K@60Hz 4:2:0 12-bit. It supports data rates up to 48Gbps to comply with HDMI 2.1 and HDCP 2.3 requirements.

The splitter includes several features for ease of integration, including EDID management and cable equalization, along with resolution auto-downscaling and auto-converting on each output port. It transmits audio to any sound system with 5.1/2.0CH support.

This multi-functional product can be widely applied in scenarios such as demonstrations, video conferencing, multimedia teaching, and other AV distribution use cases.

KEY FEATURES

- **HDCP 2.3 compliant**
- **48Gbps FRL and 18Gbps TMDS** — video bandwidth support
- **Resolution up to 8K@60Hz 4:2:0 12bit, 4K@120Hz 4:4:4 12bit, 8K@30Hz 4:4:4 12bit** — as specified in HDMI 2.1
- **VRR, ALLM, QMS, QFT, SBTM** — supported
- **HDR, HDR10, HDR10+, Dolby Vision, HLG** — pass-through
- **HDMI audio formats** — LPCM 7.1CH, Dolby TrueHD, Atmos, DTS-HD Master Audio
- **Auto downscaling and converting** — on each output port
- **Advanced EDID management** — via DIP switch

SPECIFICATIONS

TECHNICAL	
HDMI Compliance	HDMI 2.1
HDCP Compliance	HDCP 2.3, HDCP 1.4
Video Bandwidth	48Gbps FRL and 18Gbps TMDS
Video Resolution	Up to 8K@60Hz 4:2:0 12bit, 4K@120Hz 4:4:4 12bit, 8K@30Hz 4:4:4 12bit
Color Space	RGB, YCbCr 4:4:4 / 4:2:2, YUV 4:2:0
Color Depth	8/10/12-bit
HDR	HDR, HDR10, HDR10+, Dolby Vision, HLG

Audio Formats (HDMI in/out)	LPCM, Dolby Digital/Plus/EX, Dolby True HD, Dolby Atmos, DTS, DTS-EX, DTS-96/24, DTS High Res, DTS-HD Master Audio, DSD
Audio De-embedding (Optical)	LPCM/Dolby/DTS 5.1CH
Audio De-embedding (Analog)	LPCM 2CH
ESD Protection	IEC 61000-4-2: ±8kV (Air-gap discharge) & ±4kV (Contact discharge)
CONNECTIONS	
Input	1 x HDMI IN [Type A, 19-pin female]
Output	4 x HDMI OUT [Type A, 19-pin female], 1 x OPTICAL [S/PDIF], 1 x L/R [3.5mm Stereo Mini-jack]
Control	1 x SERVICE [USB Type C, Update port], EDID DIP switch
MECHANICAL	
Housing	Metal Enclosure
Color	Black
Dimensions	176mm (W) × 68mm (D) × 18mm (H)
Weight	295g
POWER	
Power Supply	Input: AC 100-240V 50/60Hz, Output: DC 5V/2A (US/EU standards, CE/FCC/UL certified)
Power Consumption	6W (Max)
ENVIRONMENTAL	
Operating Temperature	0°C ~ 40°C / 32°F ~ 104°F
Storage Temperature	-20°C ~ 60°C / -4°F ~ 140°F
Relative Humidity	20~90% RH (non-condensing)
COMPLIANCE	

Compliance	CE, FCC, UL (power adapter certified CE/FCC/UL; unit-level RoHS not stated in source — TBD)
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APPLICATION EXAMPLE

Typical signal flow: a single 8K/4K HDMI source split to four independent displays with automatic downscaling and audio de-embedding.

A typical iSwitch 8K104 deployment places the splitter between a single HDMI source (e.g., DVD or Blu-ray player) and up to four display devices. Before downscaling, the unit compares the EDID of all connected displays and selects the minimum common resolution to downscale and output, so mixed 8K/4K/1080P display sets are automatically reconciled.

- Source device (Blu-ray player, PC, set-top box) connects to the single HDMI IN port.
- HDMI OUT 1-4 connect independently to up to four 8K/4K/1080P TVs or monitors.
- OPTICAL or L/R output feeds an audio amplifier driving 2.0 speakers for de-embedded audio.
- EDID DIP switch selects between copying the OUT port sink EDID (factory default) or one of six fixed EDID profiles (4K60 4:4:4 up to FRL12G 8K HDR 7.1CH).
- SERVICE port (USB Type-C) is used for firmware updates only.

ORDERING INFORMATION

Model	Description
iSwitch 8K104	48Gbps 1x4 HDMI Splitter — includes 5V/2A multinational power supply and user manual

Specifications are subject to change without notice. For the latest product information, visit www.infobitav.com or contact your Infobit AV representative.