



KA280 18GBPS 2X8 HDMI SPLITTER 8K



Introduction

This 2x8 splitter features 2 HDMI inputs switching and distributing to 8 HDMI outputs synchronously, with video resolution up to 8K@60 4:2:0 12bit. Each output port supports 8K->4K/2K downscaling and HDR to SDR conversion independently. Audio de-embedding is supported to digital optical audio and balanced/unbalanced analog audio with gain adjustment. Auto or manual input switching and EDID management are also included. Built-in HDMI signal generator can easily diagnose the connection status of the external HDMI devices or cables. This product also can be controlled by front panel buttons, IR remote and API commands.

Features

- HDCP 2.3 compliant
- Support 48Gbps video bandwidth
- Support resolution up to 8K@60Hz 4:2:0 12bit, 8K@30Hz 4:4:4 12bit, 4K@120Hz 4:4:4 12bit, as specified in HDMI 2.1
- Support HDR, HDR10, HDR10+, Dolby Vision, ALLM/VRR pass-through
- Support 8K->4K/2K downscaling on each output for legacy display
- Support HDR to SDR conversion on each output for legacy display
- Support digital or analog audio de-embedding, and analog audio outputs with gain control
- Support auto switching and manual switching
- Support input switching via front panel buttons, IR remote, API commands
- Built-in equalizer, retiming and driver
- Advanced EDID management
- Controlled by front panel buttons, IR remote and API commands.

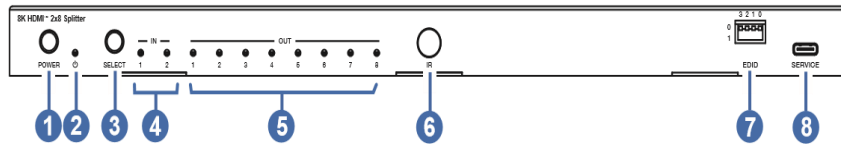
Specifications

Technical		
HDMI Compliance	HDMI 2.1	
HDCP Compliance	HDCP 2.3	
Video Bandwidth	48Gbps	
Video Resolution	Up to 8K@60Hz 4:2:0 12bit, 8K@30Hz 4:4:4 12bit, 4K@120Hz 4:4:4 12bit	
Color Depth	8/10/12-bit	
Color Space	RGB, YCbCr_4:4:4, YCbCr_4:2:2, YCbCr_4:2:0	
HDR	HDR, HDR10, HDR10+, Dolby Vision, HLG	
Audio Formats	<p>HDMI input/output: LPCM, Dolby Digital/Plus/EX, Dolby True HD, Dolby Atmos, DTS, DTS-EX, DTS-96/24, DTS High Res, DTS-HD Master Audio, DSD</p> <p>Audio de-embedding output: Optical: Up to LPCM/Dolby/DTS 5.1CH L/R Out: LPCM 2CH</p>	
Audio Parameters	Output Impedance	300 Ohm
	Output Level (Maximum)	8.2dBu(2Vrms) @balanced audio 2.2dBu(1Vrms) @unbalanced audio
	Frequency Response	(+0.5dB, -1dB) 20Hz to 20KHz
	Audio Output Sync Delay	0 to 2.2ms
	Audio S/N Ratio	99dB@2Vrms, 1KHz, A-weighted
	Audio THD+N	<0.2%@0dBV, 1KHz
IR Level	12Vp-p	
IR Frequency	Wideband 20K-60KHz	
Transmission Distance	3m/9.8ft over HDMI cable	
ESD Protection	IEC 61000-4-2: ±8kV (Air-gap discharge) & ±4kV (Contact discharge)	
Connection		
Input	2× IN [HDMI type A, 19-pin female]	
Output	8× OUT [HDMI type A, 19-pin female] 1× OPTICAL [S/PDIF] 1× L/R [5pin-3.5mm phoenix connector]	
Control	1× RS-232 [3pin-3.5mm phoenix connector] 1× IR CTL [3.5mm stereo mini-jack] 1× SERVICE [USB type C, upgrade port]	
Mechanical		
Housing	Metal Enclosure	
Color	Black	
Dimensions	320mm [W] × 100mm [D] × 21.5mm [H]	

Weight	810g
Power Supply	DC 12V/2.5A
Power Consumption	9.6W (Max)
Operation Temperature	0°C ~ 40°C / 32°F ~ 104°F
Storage Temperature	-20°C ~ 60°C / -4°F ~ 140°F
Operating Humidity	20%~80% relative humidity, non-condensing
Storage Humidity	10%~90% relative humidity, non-condensing

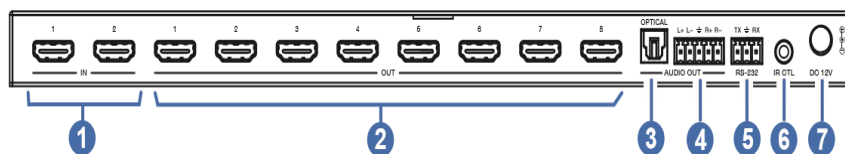
Operation Controls and Functions

Front Panel



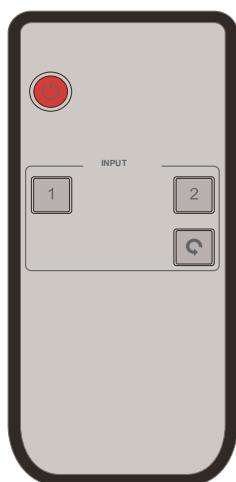
No.	Name	Function Description
1	POWER button	Press to power on; Press and hold to enter standby mode.
2	POWER LED	When the device is powered on, the power LED is green; When the device is standby, the power LED is red.
3	SELECT button	Press to select input source IN 1/IN 2 circularly.
4	IN LED (1~2)	When the IN 1/IN 2 port is selected as an input channel, the corresponding green LED will be on.
5	OUT LED (1~8)	When the OUT 1/2/3/4/5/6/7/8 port is connected to an active display device, the corresponding green LED will be on.
6	IR	IR signal receiving window.
7	EDID DIP switch	Use the DIP switch to set EDID. *EDID list is as follow.
8	SERVICE	USB-C port, used for firmware update.


Rear Panel




No.	Name	Function Description
1	IN (1~2)	HDMI signal input ports, connected to source devices such as PC or PS5 with HDMI cable.
2	OUT (1~8)	HDMI signal output ports, connected to display devices such as TV or Monitor with HDMI cable.
3	OPTICAL (AUDIO OUT)	Digital audio output port, connected to an audio device.
4	L/R (AUDIO OUT)	Analog audio output port, supporting balanced audio output (with a maximum support of 2Vrms) and unbalanced audio output (with a maximum support of 1Vrms). Balanced connection method: L+, L -, -, R+, R Unbalanced connection method: L+, -, R+
5	RS-232	RS-232 serial port, connected to a PC or control system for API command control.
6	IR CTL	12V IR input port, connected with the IR receiver cable.
7	DC 12V	DC 12V/2.5A power input port.

IR Remote



 : Power on the product or set it to standby mode.

1/2: Press 1/2 button to select HDMI signal source IN 1/2.

 : Press this button to cyclically switch HDMI signal source IN 1/2.

Application Example

