HDMI 4X1 SWITCHER WITH AUDIO EXTRACTION

Quick Installation Guide
Ver. 1.0

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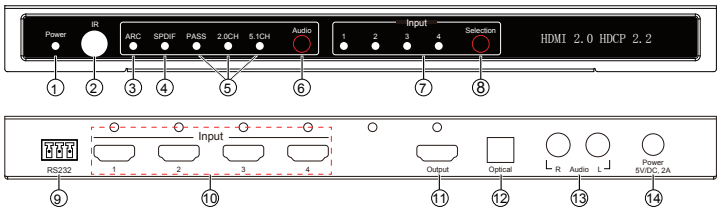
INTRODUCTION:

4 Port HDMI Swith & Audio Extractor SPDIF/RCA stereo outputs with Ultra HD 4K ARC EDID setting allows you to connect four HDMI input to one HDMI output. It also allows you to connect to a 7.1 channel digital surround on HDMI output or 5.1 channel digital surround sound on the Toslink digtital output or 2.0 channel PCM audio on the RCA stereo output.

FEATURES:

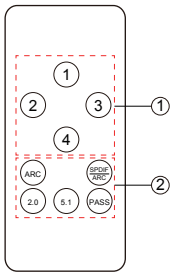
- Input: HDMI x 4.
- Output: HDMI x 1, Toslink/SPDIF x 1, Stereo RCA x 1.
- Supports Ultra HD 4Kx2K@60Hz.
- Supports Full HD.
- Supports 3D.
- Supports HDMI2.0, HDCP2.2.
- Supports 12-bit Deep Color per channel, maximum 36-bit all channels.
- Supports 6.0Gbps TMDS/600MHz pixel clock rate per channel, maximum total TMDS through outputs 18Gbps.
- Supports uncompressed audio such as LPCM.
- Supports compressed audio such as DTS Digital, Dolby Digital, DTS-HD, and Dolby TrueHD.
- Supports HDMI pass-through.
- Supports up to 7.1CH digital surround on HDMI output.
- Supports up to 5.1CH digital surround on Toslink output.
- Supports up to 2.0 channel analog stereo on Stereo output.
- Supports Standard Audio,DSD Audio, and HD(HBR) Audio.
- Supports ARC(Audio Return Channel).

PRODUCT OVERVIEW:



1. Power LED
2. Infrared Red Sensor for Remote Control
3. Audio Return Channel(ARC) LED Indicator
4. Optical Digital Audio Output LED Indicator
5. HDMI Pass-through/2.0CH/5.1CH Audio Channel LED Indicators
6. Audio Button
7. HDMI Input LED Indicators
8. Selection Button
9. RS232 Communication Port
10. HDMI Input Ports
11. HDMI Output Port
12. Optical Digital Audio Outptu Port
13. L/R Analog Stereo Audio Output Port
14. Power Input Port

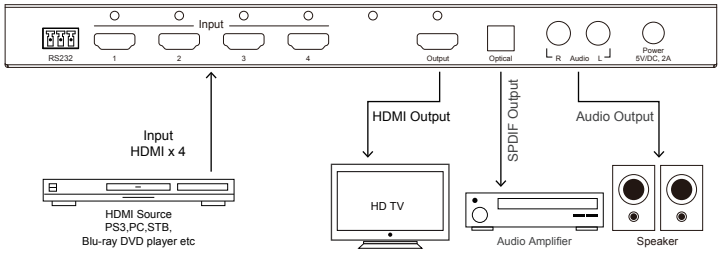
Remote Control



1. HDMI Input Source Selector: Select an input source.

2. Audio Output Selector: Defaults to HDMI pass-through.
   Press SPDIF/ARC button to select SPDIF/ARC.
   Press 2.0, 5.1, PASS button to switch audio mode. Press ARC button to Switch ARC ON /OFF.
   ARC: Enable or disable Audio Return Channel.
   PASS: Let the switch decide the best audio output mode.
   2.0: Sets audio output mode to 2.0 channel.
   5.1: Sets audio output mode to 5.1 channel.

CONNECTION DIAGRAM:



How to Connect

1. Use a HDMI cable to connect a HD source to the HDMI Input Port.
2. Use a HDMI cable to connect a HD display to the HDMI Output Port.
3. For audio connection, choose one from the following options.
   a. To use HDMI pass-through, use the HDMI cable from step 2 to connect audio receiver to the HDMI Output Port. Your audio receiver will have to output video signal to your HD display.
   b. To use Toslink, use a Toslink cable to connect to audio equipment. (Note: Toslink does not support Dolby Digital plus please change the input source's audio output to a different setting, if needed.)
   c. To use R/L, use a R/L cable to connect a stereo audio equipment.
4. Connect the power adapter.
5. RS232:Connect to a PC or Laptop via RS232 terminal to D-Sub 9-pin cable for the transmission of RS-232 commands.
6. Note: If using Toslink cable, please make sure the rubber protective tip cover has already been removed from both ends before connecting them to devices.

SPECIFICATIONS:

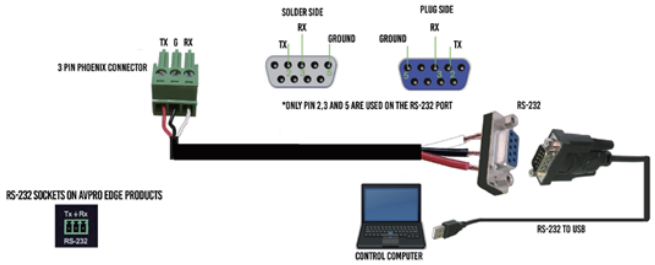
Videoand Audio	
HDMI resolution	4Kx2K@24/25/30/60fps@60Hz,3D(1080P @24/60/120Hz),1080P/1080i/720P/576P/ 576i/480P/480i@24/30/50/60fps@120Hz
HDMI version	HDMI2.0, HDCP2.2
Support video color format	36-bit Deep Color all channels maximum
Audio output	HDMI pass-through Up to 7.1CH Toslink output up to 5.1 ch RCA L/R out put stereo audio
Max bandwidth per channel	600MHz
Max baud rate per display	18Gbps
Input/Output TMDS signal	0.5~1.5V p-p(TTL)
Input/Output DDC signal	5V p-p(TTL)
Input cable distance	⩽50ft/15m 24 AWG HDMI high speed Cable at1080P@24bit 60Hz
Output cable distance	⩽50ft/15m 24 AWG HDMI high speed Cable at1080P@24bit 60Hz
Environmental	
Operating Temperature range	5°F to 131°F / -15°C to 55°C
Operating Humidity range	5% to 90% RH(No Condensation)
Power Requirement	
Max working current	1A
External Power Supply	Input: AC(50/60Hz) 100V-240V Output: DC5V/2A

PACKAGE CONTENTS:

- 1x Main unit
- 1x Remote Control
- 1x User Manual
- 1x Power adapter

RS-232 CONTROL:

The matrix can be controlled with either RS-232 commands. Certain switching or format configurations can only be done using these commands. We recommend using either the MyUART app as it is very easy to use for sending commands to the machine.The connection diagram is as follow



For correct communication,set the RS232 parameters to the following setting:
Baudrate: 19200
Data Bits: 8
Parity: None
Stop Bits: 1

CONTROL COMMANDS:

ASCII Commands	
Command	functional description
r help#	Get the HELP information
r type#	Get the TYPE information
r status#	Get the current status information
r fw#	Get the firmware version
s reboot#	Reboot the unit
s reset#	Restore default Settings
s power x#	x=0 , power off
	x=1 , power on
r power#	Get the power current status
s av in x#	x=1,switch the Output to Input1
	x=2,switch the Output to Input2
	x=3,switch the Output to Input3
	x=4,switch the Output to Input4
r av in#	Gets the current channel selection status
r in connect x#	x=0,Get the all Input ports connected status
	x=1,Get the Input1 connected status
	x=2,Get the Input2 connected status
	x=3,Get the Input3 connected status
	x=4,Get the Input1 connected status
r out connect#	Get the Output connected status
s arc x#	x=0,Disable the ARC
	x=1,Enable the ARC
r arc#	Get the ARC status
s edid x#	X=1,switch the EDID to Pass
	X=2,switch the EDID to 2CH
	X=3,switch the EDID to 5.1CH
r edid#	Gets the current EDID selection status
s auto x#	x=0,Disable the Auto switch function
	x=1,Enable the Auto switch function
r auto#	Gets the current Auto switch status
s audio spdif x#	x=0, Optical port Output from ARC
	x=1, Optical port Output from Audio extraction
r audio spdif#	Gets the Optical port Output status