

4K-18G HDMI Switcher 4x1



SH41-220

USER MANUAL v3.5



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Introduction

This is a high performance HDMI 4x1 switcher that supports HDTV formats up to 4Kx2K@60Hz and all HDMI 3D TV formats. It can extract HDMI stream audio to separate digital and analog audio output. This product supports HDCP repeater/CEC/ARC functions. Select any of the inputs by front panel button or IR Remote, the corresponding indicator LED on the front panel will be illuminated.

Features

- Compliant with HDMI 2.0a, DVI 1.0 standards
- HDCP 2.2 and HDCP 1.4 compliant
- Video formats up to 4Kx2K@60 and all HDMI 3D video formats
- Supports PCM, Dolby TrueHD, DTS-HD Master Audio up to 7.1CH
- Digital and analog audio output
- Support Smart EDID management (Auto/2CH/5.1CH/7.1CH selectable)
- Support input port auto switching or manual switching mode
- Supports Audio Return Channel (ARC)

Package Contents

- HDMI 4x1 Switcher - (1x)
- 5V/1A Power Adapter - (1x)
- 38KHz IR Rx cable - (1x)
- Optical convert header (for SPDIF audio output) - (1X)
- HDMI 4x1 IR Remote - (1x) **[Battery CR2025 Not Included]**
- Operation Manual - (1x)



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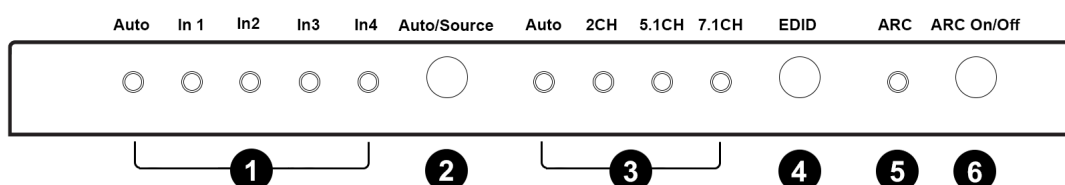
Technical Specifications

Technical	
Frequency Bandwidth	4Kx2K@60 18Gbps
HDMI Audio Output	PCM2.1/5.1/7.1CH,Dolby5.1, DTS5.1, Dolby-TrueHD, DTS-HD
ESD Protection	Human Body Model: $\pm 8\text{kV}$ (air-gap discharge) $\pm 4\text{kV}$ (contact discharge)
Transmitter Connections	
Inputs	4x HDMI Female 1x IR Receiver 1x RS232
Outputs	1x HDMI Female 1x Audio output (including L/R analog and optical audio out) 1x Optical Port
Mechanical	
Housing	Metal Enclosure
Color	Black
Dimensions	7in (D) x 3.4in (W) .45in (H) (180 (D) x 85 (W) x 11.6 (H))
Weight	300g
Power Supply	DC 5V/1A
Power Consumption	2.5W (Max)
Operation Temperature	0°C ~ 40°C / 32°F ~ 104°F
Storage Temperature	-20°C ~ 60°C / -4°F ~ 140°F

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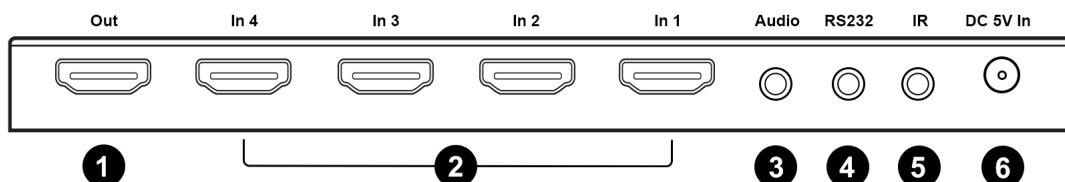
Operation Controls and Functions

Front Panel



- 1. Input Indicator LED:** Corresponding port LED will be illuminated when the port is in use.
- 2. Auto/Manual Select Button:** Press this button >2 seconds to select auto switching or manual switching mode. Under manual switching mode, short pressing this button to select input port.
- 3. EDID Status LED:** When LED is illuminated, TV EDID is in use
- 4. EDID Select Button:** Press button to select EDID mode (Auto/2.1CH/5.1CH/7.1CH)
- 5. ARC status LED:** When LED is illuminated if ARC is successfully enabled
- 6. ARC Function Button:** Turn ARC function on or off

Rear Panel



- 1. HDMI Output Port**
- 2. HDMI Input Ports (4)**
- 3. Audio output**
- 4. RS232 port**
- 5. IR receiver port**
- 6. DC 5V input port**

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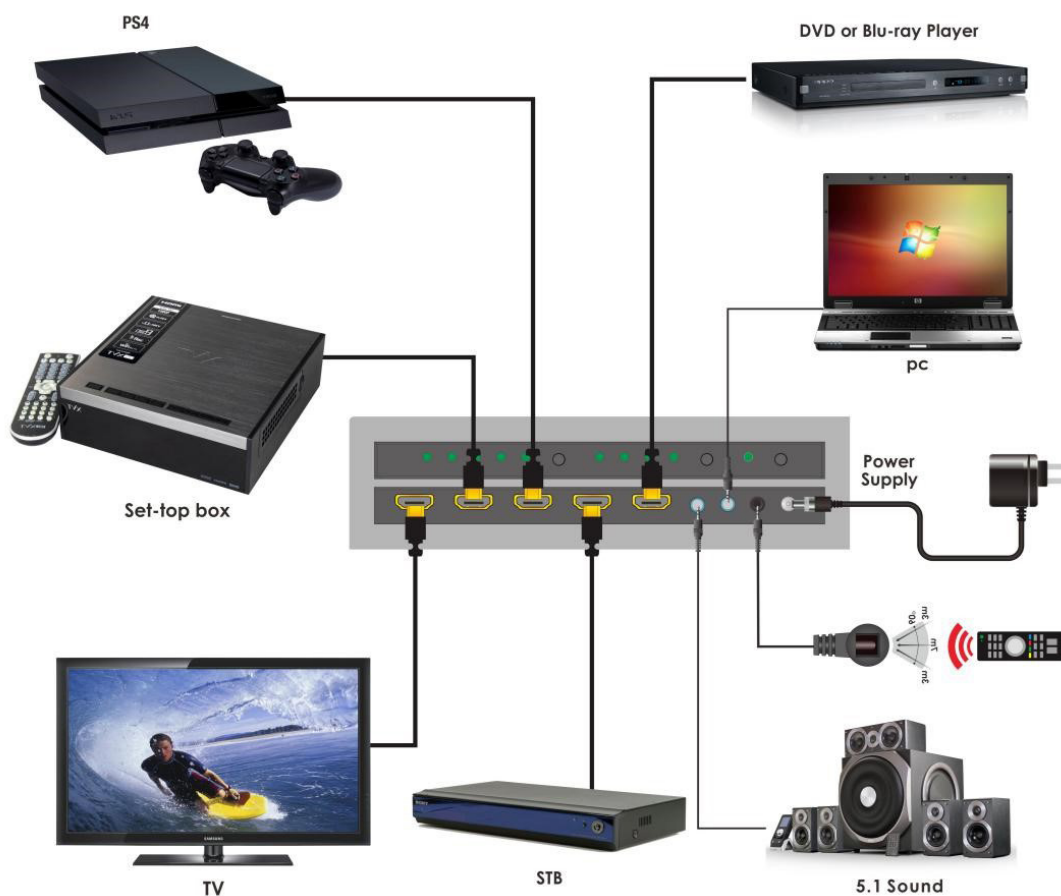
IR Remote

1. **ARC:** Press this button to enable or disable ARC function. ARC LED on front panel will be illuminated if ARC function is enabled successfully.
2. **Auto/2.1ch/5.1ch/7.1ch:** Press these buttons to select different EDID setting and corresponding LED on front panel will be illuminated.
3. **Auto Source:** Press this button to select auto switching or manual switching mode.
4. **In1/In2/In3/In4:** Under manual switching mode, press this button to select input port.



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Application Example



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RS-232 Command

Default Baudrate: 19200

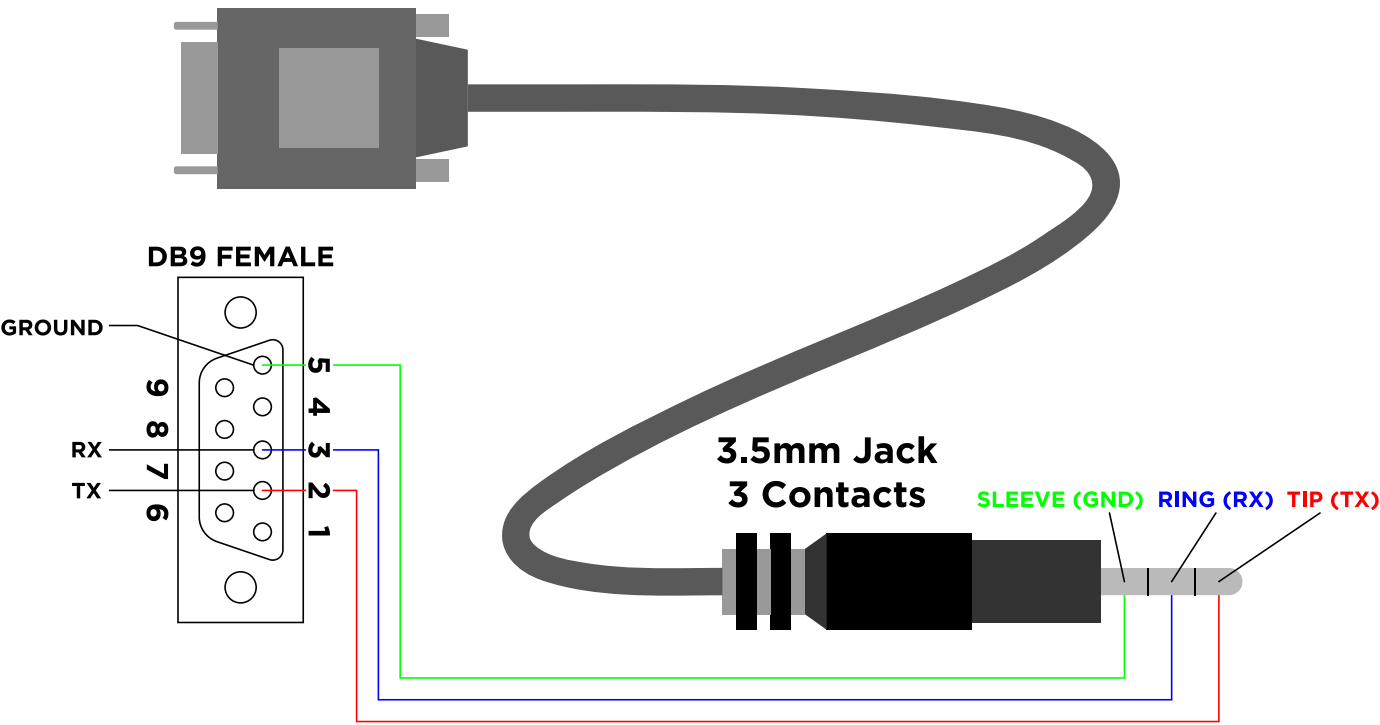
Data width: 8bit

Parity: none

Stop: 1bit

	Current HEX Commands		ASCII Commands	
	Command	Feedback	Command	Feedback
Input switching command				
Input 1	A5 5B 02 03 01 00 01 00 00 00 00 00 F9	A5 5B 02 03 00 00 01 00 00 00 00 00 FA	IN1!	OK
Input 2	A5 5B 02 03 02 00 01 00 00 00 00 00 F8	A5 5B 02 03 00 00 01 00 00 00 00 00 FA	IN2!	OK
Input 3	A5 5B 02 03 03 00 01 00 00 00 00 00 F7	A5 5B 02 03 00 00 01 00 00 00 00 00 FA	IN3!	OK
Input 4	A5 5B 02 03 04 00 01 00 00 00 00 00 F6	A5 5B 02 03 00 00 01 00 00 00 00 00 FA	IN4!	OK
Audio EDID switch				
Audio auto	A5 5B 03 02 01 00 01 00 00 00 00 00 F9	A5 5B 03 02 00 00 01 00 00 00 00 00 FA	A1!	OK
Stereo Audio 2.0	A5 5B 03 02 02 00 01 00 00 00 00 00 F8	A5 5B 03 02 00 00 01 00 00 00 00 00 FA	A2!	OK
Dolby/DTS 5.1	A5 5B 03 02 03 00 01 00 00 00 00 00 F7	A5 5B 03 02 00 00 01 00 00 00 00 00 FA	A3!	OK
HD Audio 7.1	A5 5B 03 02 04 00 01 00 00 00 00 00 F6	A5 5B 03 02 00 00 01 00 00 00 00 00 FA	A4!	OK
Auto switch				
On	A5 5B 02 05 0F 00 00 00 00 00 00 00 EA	A5 5B 02 05 00 00 00 00 00 00 00 00 F9	ONAUTO!	OK
Off	A5 5B 02 05 00 00 00 00 00 00 00 00 09	A5 5B 02 05 00 00 00 00 00 00 00 00 F9	OFFAUTO!	OK
ARC				
On	A5 5B 10 01 0F 00 01 00 00 00 00 00 DF	A5 5B 10 01 00 00 01 00 00 00 00 00 EE	ONARC!	OK
Off	A5 5B 10 01 00 00 01 00 00 00 00 00 FE	A5 5B 10 01 00 00 01 00 00 00 00 00 EE	OFFARC!	OK
Device information query				
HDMI In1	A5 5B 01 04 01 00 00 00 00 00 00 00 FA	A5 5B 01 04 01 00 FF 00 00 00 00 00 FB	IN1?	
HDMI In2	A5 5B 01 04 02 00 00 00 00 00 00 00 F9	A5 5B 01 04 02 00 FF 00 00 00 00 00 FA	IN2?	
HDMI In3	A5 5B 01 04 03 00 00 00 00 00 00 00 F8	A5 5B 01 04 03 00 FF 00 00 00 00 00 F9	IN3?	
HDMI In4	A5 5B 01 04 04 00 00 00 00 00 00 00 F7	A5 5B 01 04 04 00 FF 00 00 00 00 00 F8	IN4?	
HDMI Out	A5 5B 01 05 01 00 00 00 00 00 00 00 F9	A5 5B 01 05 01 00 00 00 00 00 00 00 F9	OUT1?	
Set RS232 Baudrate	N/A	N/A	s uart baudrate xxx! (19200 / 115200...)	set uart baudrate to xxx ok

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Warranty

Parts and labor warranty time is three year and from the date of original shipment. This warranty shall be void if a serial number has been removed from the product.

Upon determination of a legitimate defect covered by this warranty and at COVID's sole discretion, user should bear the transport cost during the warranty.

If product is out of warranty then repair charge is required. Out of warranty repairs will only be made after cost has been approved by Customers and proper financial arrangements are made. Customer must cover round trip shipment expenses.

Safety Information



To reduce the risk of electric shock, do not expose this product to rain or moisture.



Do not modify the wall plug. Doing so will void the warranty and safety features.



If the wall plug does not fit into your local power socket, hire an electrician to replace your obsolete socket.



This equipment should be installed near the socket outlet and the device should be easily accessible in the case it requires disconnection.

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