HDMI 4X2 MATRIX SWITCHER WITH AUDIO EXTRACTION

Quick Installation Guide
Ver. 1.0

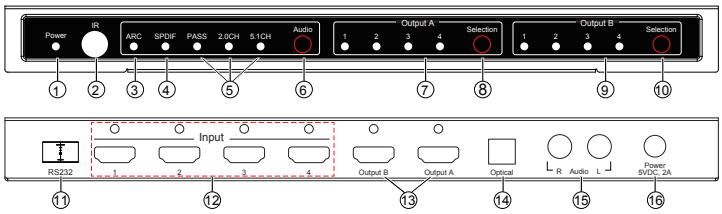
INTRODUCTION:

HM-MT402H is a true 4K60 4:4:4 4x2 HDMI matrix switch. Supporting HDMI 2.0, HDCP 2.2, HDR and up to 18 Gbps bandwidth. This switch allows any source (Blu-ray, UHD Blu-ray, satellite receiver, game consoles, PCs, etc...) to be shown on any of the connected displays.

FEATURES:

- Input: HDMI x 4.
- Output: HDMI x 2, Toslink/SPDIF x 1, Stereo RCA x 1.
- Supports Ultra HD 4Kx2K@60Hz.
- Supports 3D.
- Supports Standard Audio,DSD Audio, and HD(HBR) Audio.
- Supports HDMI2.0, HDCP2.2, HDR Signal format
- 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 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.
- Support the ARC (Audio Return Channel).

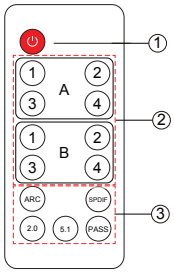
PRODUCT OVERVIEW:



1. Power LED
2. Infrared for Remote Control
3. Audio Return Channel(ARC) LED Indicator, switch on or off via remote control
4. Optical Digital Output LED Indicator,switch on or off via remote control
5. HDMI Pass-through/2.0CH/5.1CH Audio Channel LED Indicators
6. Audio mode selection Button,switch among “PASS”, “2.0 CH” and “5.1CH”

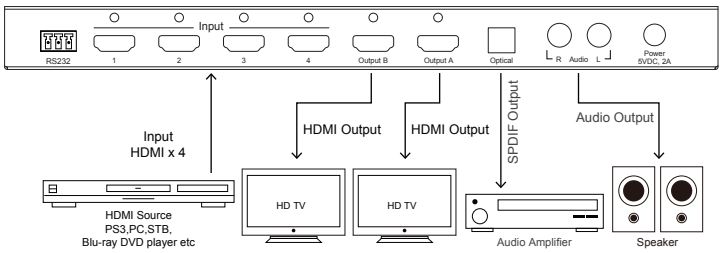
7/9. HDMI Input LED Indicators
8/10. Input Port selection Button
11.RS232 Communication Port
12. HDMI Input Ports
13. HDMI Output Port Audio Output
14. Optical Digital Audio Outptu Port
15. L/R Analog Stereo Port
16. Power Input Port

Remote Control



1. Power ON/OFF button.
2. HDMI Input Source Selector: Select an input source.
3. Audio Output control buttons.
   ARC: Enable or disable Audio Return Channel.
   SPDIF: Enable or disable Optical Digital Audio output.
   2.0: Sets audio output mode to 2.0 channel.
   5.1: Sets audio output mode to 5.1 channel.
   PASS: Use the AUDIO EDID from Display device.

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. 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:

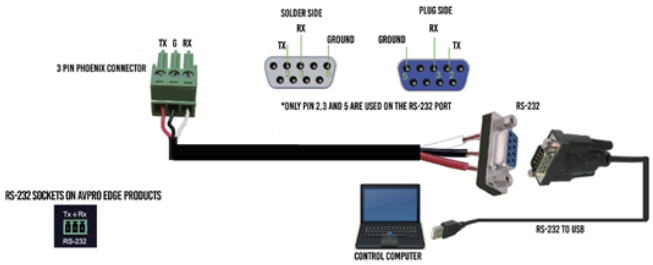
Video and audio	
HDMI resolution	4Kx2K@24/25/30/60fps@60Hz,3D(1080P @24/60/120Hz),1080P/1080i/720P/576P/ 576i/480P/480i@24/30/50/60fps@120Hz
HDMI version	HDMI2.0, HDCP2.2
Support video color format	36-bit Deep Color all channels maximum
Audio output	HDMI pass-through Up to 7.1CH Toslink output up to 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 Requiremnt	
Max working current	1A
External Power Supply	DC5V/2A

PACKAGE CONTENTS:

- 1x Main unit
- 1x Remote Control
- 1x User Manual
- 1x Power adapter
- 1 x Phoenix Plug for RS232 cable Termination

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

RS-232 CONTROL COMMANDS:

ASCII Commands	
Command	functional description
r type#	Get the type information
r status#	Get the current status information
r fw#	Get the firmware version
s power x#	x=0 , power off
	x=1 , power on
r power#	Get the power current status
s hdmi in x out y#	y=1,x=1,switch the OutputA to Input1
	y=1,x=2,switch the OutputA to Input2
	y=1,x=3,switch the OutputA to Input3
	y=1,x=4,switch the OutputA to Input4
	y=2,x=1,switch the OutputB to Input1
	y=2,x=2,switch the OutputB to Input2
	y=2,x=3,switch the OutputB to Input3
	y=2,x=4,switch the OutputB to Input4
r hdmi in#	Gets the current channel selection status
s arc x#	x=0,Disable the ARC
	x=1,Enable the ARC
r arc#	Get the ARC status
s audio spdif x#	x=0, Disable the Optical signal output
	x=1, Enable the Optical signal output
r audio spdif#	Gets the Optical signal output 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#	