

*View*HD[®]

Prosumer UltraHD HDMI True Matrix 6x2

Support 4K / Audio EDID / ARC / PIP /
Audio Extractor

Model : VHD-HM6X2
VHD-HM6X2i

Enjoy the View

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Dear customer

Thank you for purchasing ViewHD VHD-HM6X2, Prosumer HDMI True Matrix 6x2. For optimum performance and safety, please read these instructions carefully before connecting, operating or adjusting this product. Please keep this manual for future reference.

The matrix unit has one year manufacture warranty against manufacturing defects. The warranty doesn't cover damages due to acts of God, such as power surge, ESD, water and physical impacts. For technical support and support and warranty service, please contact www.U9LTD.com at U9LTD@U9LTD.com

VHD-HM6X2 can support up to six HDMI sources and two HDMI displays, any input to any output.

The 6x2 HDMI Matrix supports the feature of PIP "Picture in Picture", ARC "Audio Return Channel", 4K / Ultra HD (HDMI v1.4: 4096x2160@24fps or 3820x2160@30fps) and 3D, as well as HDMI audio extraction for SPDIF/Toslink and an integrated stereo Digital to Analog audio converter.

Audio Extraction supports audio extraction for either output A or B for whatever inputs selected for output A or output B. To select the desired output for audio extraction, use the "A-B" button on the remote; there is a blue LED indicator light on the front panel of the matrix labeled by "A-B", when output A is selected, this blue LED light is off; when output B is selected, the blue LED light is on.

The 3.5mm headphone output supports incoming HDMI audio format of 2CH LPCM stereo audio formats; the 3.5mm headphone output will not work if the incoming HDMI audio format is higher than 2CH LPCM.

The SPDIF audio extractor and the built-in digital stereo to analog converter are always on, as long as the incoming audio format is supported by them.

Regarding Audio Format: this matrix does not change audio format HDMI output audio will be identical to the audio signal in the selected HDMI input. SPDIF audio output signal will be identical to the HDMI audio input or ARC audio up to DD5.1 and DTS5.1. SPDIF does not support more advanced audio such as Dolby Digital Plus, Dolby TrueHD, DTS-HD MA, PCM5.1 and beyond; for the more advanced audio signals, use HDMI output directly. The 3.5mm analog audio output will have sound only if the incoming audio signal from HDMI input is 2CH stereo

LPCM format; the 3.5mm port will not have audio if the incoming audio format is higher than 2CH.

- a. Regarding SPDIF and 3.5mm Audio Outputs: The SPDIF and 3.5mm audio outputs are audio extension of the selected HDMI output A or B; they provide additional audio output to support audio application. SPDIF audio is identical to audio in HDMI output when the audio signal can be supported by SPDIF; 3.5mm audio analog output is identical to digital audio in HDMI output when the audio signal is 2CH / stereo. The SPDIF and 3.5mm audio ports are always on and can't be disabled.
- b. Regarding the Three EDID Settings 2CH, 5.1CH and ADV
 - i. One of these three EDID settings can be enabled by the audio button on the front panel or the remote
 - ii. The 2CH and 5.1CH settings only apply to HDMI output A when output A and output B are not sharing the same HDMI input; if output A and output B are sharing the same HDMI input and the ADV LED is not on, then the audio EDID obtained by the HDMI source will be the lower

format of output A and output B. For example, the final audio EDID will be 2CH if 2CH LED light is on, and output B is connected to 5.1CH receiver; or the final audio EDID will be 2CH if the 5.1CH LED light is on and output B is connected to a stereo TV. HDMI output B's audio EDID will be passed through if output A and output B are not sharing the same HDMI input, regardless the status of the three EDID settings.

- iii. About Audio EDID: It is the speaker unit's audio so that HDMI source device can send audio in a compatible format for audio reproduction. Most HDMI sources (such as cable & satellite boxes) follow HDMI protocol correctly, but it is up to source material as well. For example, if the source material only has audio in 2CH or 5.1CH, then the HDMI source will not send audio in 5.1CH or 2CH even if it is requested by the matrix when the 5.1CH or 2CH LED light is on. Many HDMI sources, in particular PCs, may not process HDMI protocol, the HDMI audio format used by such source is controlled by the user / PC settings.

iv. ADV Setting is an unique and advanced audio feature.

1. When the ADV LED light is on, and output A and output B are NOT sharing the same HDMI input, the audio EDID for both output A and output B are in pass through mode, the audio EDID of the HDMI unit connected to output A and output B will be passed to their HDMI source devices separately. No EDID overwrite occurs in this case.
2. When the ADV LED light is on, and output A and output B are sharing the SAME HDMI input, the audio EDID of both output A and output B will be merged together to obtain the highest audio format. This is to support more advanced audio formats (for HDMI AV receiver application) that are not supported by SPDIF because they can only be supported by HDMI. For example, output A goes to a stereo TV, and output B goes to an advanced audio receiver with HDMI input, using this setting, the EDID of the highest audio format (such as

TrueHD, DTS-HD MA or PCM7.1) supported by this audio receiver can be passed to the HDMI source unit, so that the HDMI source unit can send audio in the highest supported format for the receiver to produce the best available sound. In this case, one HDMI output is used for video, and the other HDMI output is used for audio.

ARC function is supported by HDMI output A only, an ARC enabled HDMI display, HDMI v1.4 or later cable and a surround sound audio receiver capable of supporting Dolby Digital 5.1CH / AC3 and DTS 5.1CH is required. ARC audio is available from the SPDIF optical audio output port. ARC audio is not supported by 3.5mm analog stereo headphone output. ARC function is enabled / disabled by the "ARC" button on the front panel of the matrix or the remote. When ARC function is enabled, the red LED indicator light on the front panel is on.

To use ARC function, please make sure the CEC function is enabled for the involved devices. CEC (Consumer Electronics Control) is the control protocol found in HDMI. Trade names for CEC are Anynet+ (Samsung); Aquos

Link (Sharp); BRAVIA Link and BRAVIA Sync (Sony); HDMI-CEC (Hitachi); E-link (AOC); Kuro Link (Pioneer); CE-Link and Regza Link (Toshiba); RIHD (Remote Interactive over HDMI) (Onkyo); RuncoLink (Runco International); SimpLink (LG); HDAVI Control, EZ-Sync, VIERA Link (Panasonic); EasyLink (Philips); and NetCommand for HDMI (Mitsubishi).

PIP feature enables user to monitor all the active HDMI inputs and select the desired input. In PIP mode, both HDMI output A and output B will share the same HDMI input selected by HDMI output A, effectively change the matrix in to a splitter mode. Both HDMI outputs will share the same video image, and all the active inputs will be shown on the screen at the same time. Push the "PIP" button on the remote to enter the PIP mode, use the "Select" button on the remote to pick the desired HDMI input signal, then use the "Enter" button to confirm the selection, then use the "PIP" button again to exit the PIP mode. PIP function supports input video signal with format at 1080P or lower.

Features :

- Six HDMI inputs to two HDMI outputs A and B; can be the same input or different inputs for both outputs

- HDMI supports full HD, 3D and 4K (HDMI V1.4 4096x2160@24fps or 3820x2160@30fps)
- Audio of the selected output can be extracted to SPDIF and/or 3.5mm headphone output port as long as the audio format is supported by SPDIF or 3.5mm analog stereo output port
- Support three custom audio modes: 2.0 / 5.1 / ADV for different audio applications
- HDMI output A supports ARC function; ARC audio is available from the SPDIF port ONLY
- SPDIF audio output port supports digital audio formats upto Dolby digital 5.1Ch (AC3) and DTS 5.1CH
- Support PIP function: have one main picture and up to five small pictures covering all active HDMI inputs
- Support IR remote control and front panel push button operating control
- LED Status Lights display the input selections and settings of the matrix
- Power-off memory
- Comes with DC5V/2A (AC: 100V - 240V) universal power adapter

Package Includes :

1. VHD-HM6X2 main unit
2. 5V2A power adapter
3. Remote Control
4. User manua

Front and Back Panel Illustration:



Figure 1.0 Front Panel Showing Picture

HDMI IN6: HDMI input interface

HDMI IN5: HDMI input interface

A (1- 6): 1-6 input led status light when output from A

B (1- 6): 1-6 input led status light when output from B

A-B: HDMI output A, output B audio extractor Led
Status Light

ARC : ARC status Indicator Led Light

LED On: ARC turn on, then output TV audio by
optical port.

LED off: ARC turn off, then output HDMI audio by
optical and 3.5mm Headphone ports.

2.0: 2CH Audio Led Status Light

5.1: 5CH Audio Led Status Light

ADV: Advance Audio Led Status Light

IR: IR Receiver

OUT A : HDMI A output switch button

OUT B: HDMI B output switch button

ARC: ARC Turn on/off key (TV must support ARC,
this button will take effect. ARC audio is
available from the optical output port)

Audio : Switch button for Audio output mode, it can
choose 2.0, 5.1, ADV [Advance Audio] three custom
audio output settings by circulate switching

ⓘ : Standby Led Light

⏻: Power On/Off Button

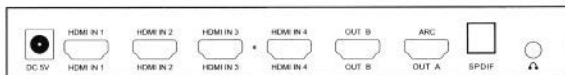


Figure 1.1 rear panel showing picture

DC5V: 5V DC-DC Power Interface

HDMI IN 1 - HDMI IN 4: HDMI input interface

OUT B: HDMI B output interface

OUT A: HDMI A output interface (supports ARC
function) 。

SPDIF: SPDIF optical output interface

🔊 : 3.5mm audio signal output

SPECIFICATIONS:	VHD-HM6x2
FMR P/N.....	HDMX0006M1
HDMI resolution	4Kx2K/3D/1080p /1080i/720p/576p/576i/480p/480i
Support HDMI audio format.....	DTS-HD /Dolby-trueHD/LPCM/DTS/Dolby-AC3/DSD
Digital Audio Output Supported Audio Format.....	LPCM2.0/Dolby AC3/ DTS
Digital Audio Output Sampling Rate.....	32KHz, 44.1KHz, 48KHz,88.2KHz, 96KHz, 176.4KHz, 192KHz
Max transmission bandwidth	300MHz
Max baud rate	9.0Gbps
Input/Output TMDS signal	0.5~1.5Volts p-p
Input/Output DDC signal	5Volts p-p (TTL)
Input cable distance.....	≤10m(1080P)/5M(4K) AWG26 HDMI standard cable
Output cable distance.....	≤15m(1080P)/5M(4K) AWG26 HDMI standard cable
Max working current.....	700mA
Power adapter format.....	Input: AC (50HZ, 60HZ) 100V-240V; Output: DC5V/2A
Operating Temperature range.....	-0 to +40℃
Storage Temperature range.....	-20 to +60℃
Operating Humidity range.....	5 to 85%RH (No Condensation)

Storage Humidity range.....5 to 95%RH
(No Condensation)
Dimension (L x W x H).....205x74x26 (mm)
Weight.....440g

IR Remote Operating Instruction

⏻ Power standby/Power on

Audio: 2.0、5.1、ADV Circulating Switch Key

ARC: ARC Function On/Off Button

PIP: PIP ON/OFF Button.

Select: PIP Input signal source selection key

Enter: PIP Input Source Confirmation Button



Figure 1.2 Remote Panel View

OUT A

- 1: output A Select HDMI IN1 for the input port
- 2: output A Select HDMI IN2 for the input port
- 3: output A Select HDMI IN3 for the input port
- 4: output A Select HDMI IN4 for the input port

5: output A Select HDMI IN5 for the input port

6: output A Select HDMI IN6 for the input port

OUT B

1: output B Select HDMI IN1 for the input port

2: output B Select HDMI IN2 for the input port

3: output B Select HDMI IN3 for the input port

4: output B Select HDMI IN4 for the input port

5: output B Select HDMI IN5 for the input port

6: output B Select HDMI IN6 for the input port

OUT A: Output A port ON/OFF key

A-B: The Switch Button for Output A,

Output B Audio Extract

OUT B: Output B port ON/OFF key