Brief Catalog

MIX 4K Series

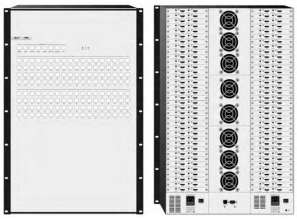
Modular Matrix Switcher

Content

AVCiT®

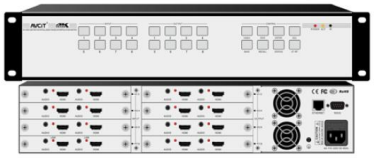
1. Options of Enclosure

HD144-4K



HD72-4K

HD36-4K



HD08-4K

HD04-4K

AVCIT's 4K Modular Matrix Switcher is modular structure, there are currently 6 option of the matrix chassis/enclosure: HD144-4K is the enclosure for max 144x144matrix, while HD72-4K, HD36-4K, HD08-4K and HD04-4K are for max 72x72, 36x36, 8x8 and 4x4 matrix.

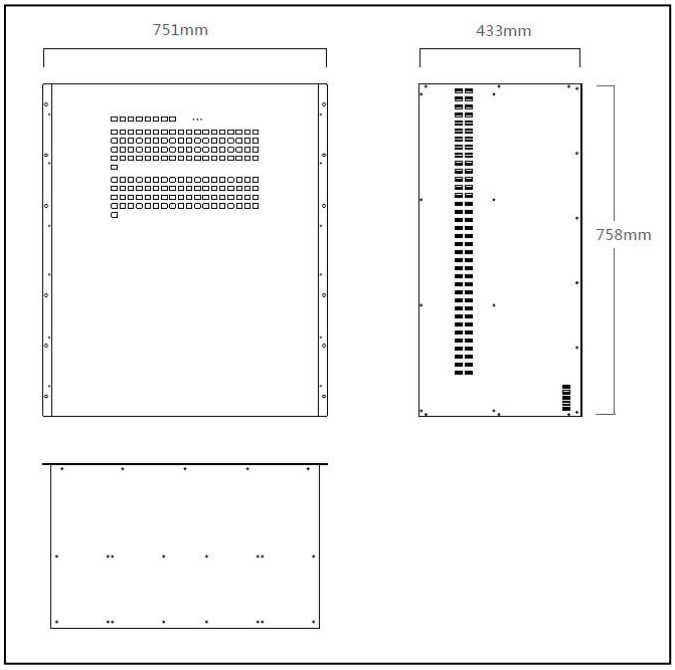
All series enclosure are modular design with share same series input&output module card, which support all digital and analog formats, such as HDMI, DVI, VGA, SDI, SFP, HDBaseT.

All of them support Seamless Switching, EDID Management, Hot Swap.
It support HDMI 2.0(partly), HDCP, and DVI 1.0. Support 4K@30, auto scaling between 4K@30 and 1920x1080P@60~80x600@60.

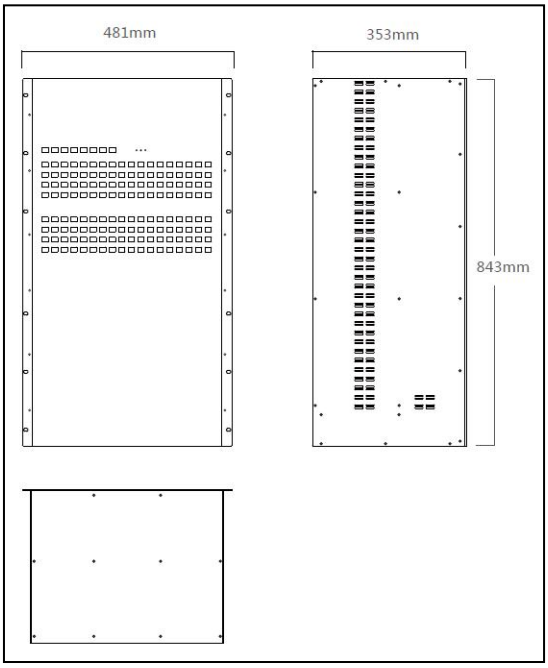
1.1. Specification of Enclosure

Model No.	**No. of Input slots**	**No. Of Output slot**	**No. Of Input channel**	**No. Of Output channel**	**Rack Unit**
HD04-4K	2	2	4	4	1U
HD08-4K	4	4	8	8	2U
HD36-4K	18	18	36	36	8U
HD72-4K	36	36	72	72	19U
HD144-4K	72	72	144	144	17U

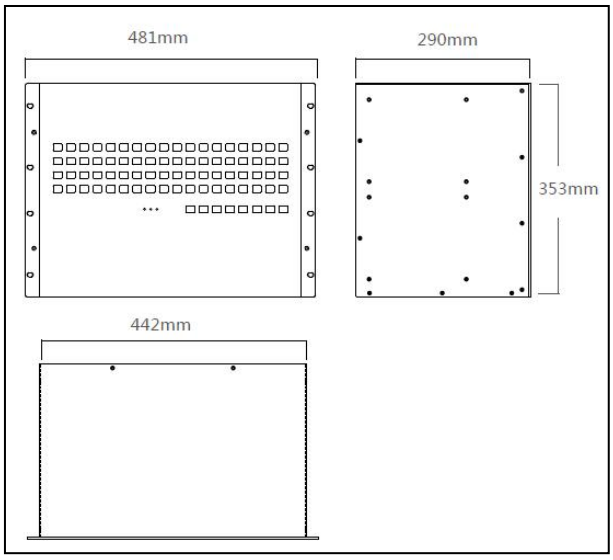
1.2. Layout of Enclosure



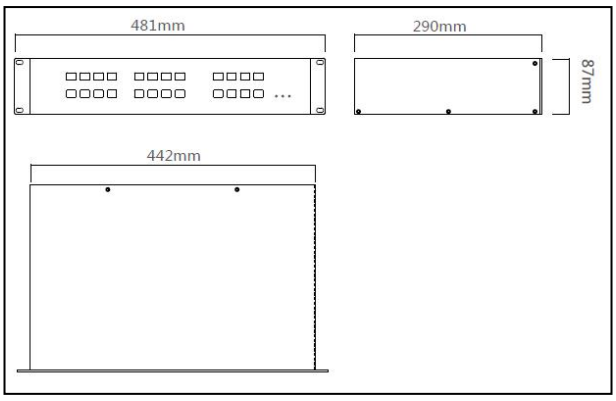
HD144-4K



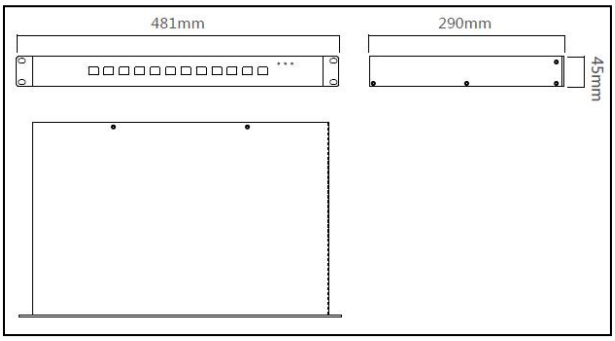
HD72-4K



HD36-4K



HD08-4K



HD04-4K

2. Options of Input/Output Card

 HDMI Input Card	 DVI Input Card	 SDI Input Card
 HDMI Output Card	 DVI Output card	 SDI Output Card
 VGA Input Card	 SFP Input Card	 HDBaseT Input Card
 VGA Output Card	 SFP Output Card	 HDBaseT Output Card

AVCIT input and output card for 4K Modular Matrix Switcher are all 2-channel per card, which support following digital and analog input card HDMI, DVI, SDI, VGA, SFP, HDBaseT.

3. Features of 4K Modular Matrix Switcher

AVCIT's 4K Modular Matrix Switcher, is modular structure, there are currently 6 option of the matrix chassis/enclosure: HD144-4K, HD72-4K, HD36-4K, HD18-4K, HD08-4K and HD04-4K.
Features of AVCIT 4K Modular Matrix Switcher:

- Modular structure: Input and output signal support following digital and analog formats: HDMI, DVI, SDI, VGA, SFP, HDBaseT;
- Processing ability: use FPGA for processing and switching signal, RGB444 format, lossless color, 1-Channel signal bandwidth up to 18G;
- Long distance driver feature: Input with automatic equalization, effectively reducing ISI due to long distance transmission; Output with pre-emphasis for signals; Input support receiving delay, apply for the time compensation when the differential pair of lines are with unequal length;
- LED indicating light for all channels: Input and output modules are with LED indicating light;
- Support UHD: support 4K@30 lossless switching, and auto scaling between 4K@30 and 1920*1080p@60~800*600@60;
- Compatible with HDCP: Make sure that protected media content from Blue-ray DVD, Game box etc;
- Automatic EDID calculation: Automatically calculating the EDID intersection of any output display information, when signal to be switched to display devices with different resolutions, it can obtain the best resolution in real-time and implement automatically;
- Memory function for interruption of power supply: Support Memory function for interruption of power supply, Max 18 status can be saved and recalled;
- Transparent silicone keypad with back lighting, the current status can be displayed directly through the back lighting;
- Support HDMI 2.0(partly) ,compatible with DVI 1.0, each channel bandwidth up to 6G, total bandwidth up to 18G/channel;
- Support HD seamless switching. no black screen, fully compatible with all signals, parameters of each output channel (resolution, vertical and horizontal size) is automatically adaptable, and can be manually adjusted independently;
- Redundant power supply: once a power module fails, the other power supply module will succeed immediately, to make sure it work properly;
- Hot swap feature.

4. Specification of Input/output Card

AVCiT®

4.1. Input Module Card

4.1.1.HDMI Input Card

- 2-Channel HDMI input;
- Resolution support 3840x2160@30Hz 4:4:4, 1080p@60 4:4:4 and downward compatibility;
- Support 2-Channel stereo input, and de-embeding;
- Modular structure, plug and play.

4.1.2.DVI Input Card

- 2-Channel DVI input;
- Resolution support 3840x2160@30Hz 4:4:4, 1080p@60 4:4:4 and downward compatibility;
- Support 2-Channel stereo input;
- Modular structure, plug and play.

4.1.3.SDI Input Card

- 2-Channel 3G/HD/SDI input, BNC 75-5 port;
- Support SMPTE-259/292/424/425 signal standard;
- Support 3G/HD SDI signal input, convert to digital HD signal output;
- Modular structure, plug and play.

4.1.4.VGA Input Card

- 2-Channel VGA input, 2-Channel stereo input;
- Convert VGA input to digital HD output;
- Support all usual resolution under 1920x1200@60;
- Modular structure, plug and play.

4.1.5. SFP (optic) Input Card

- 2-Channel SFP input, single-mode and single-core optic fiber, transmit Max. 25km, 1-Channel bandwidth up to 10G;
- Support 4K@30Hz 4:4:4/1080p@60 4:4:4 signal transmission;
- Support HDCP;
- Modular structure, plug and play.

4.1.6. HDBaseT Input Card

- 2-Channel HDBT input, 1-Channel bandwidth up to 6G;
- Support 4K@30Hz 4:4:4/1080p@60 4:4:4 signal transmission;
- 2-Channel 2-way RS232;
- 2-Channel IR input and 2-Channel IR output;
- Support HDCP;
- Modular structure, plug and play.

4.2. Output Module Card

4.2.1. HDMI Output Card

- 2-Channel HDMI output, 2-Channel stereo audio de-embeded;
- Support HDMI output with 7.1 sound channel;
- Support HDMI2.0(partly), 3D, HDCP, 4K@30Hz;
- Available to adjust resolution and refresh rate by
- each channel.
- Seamless switching, optional resolution 4K@30Hz 4:4:4/1080p@60 4:4:4 and downward compatibility;
- Modular structure, plug and play.

4.2.2. DVI Output Card

- 2-Channel DVI output, 2-Channel stereo audio de-embeded;
- Support stereo audio output by 3.5 mm audio port.
- Support DVI 1.0 and compatible with HDMI 1.4(partly),
- 4K@30Hz 4:4:4/1080p@60 4:4:4 losses output;
- Available to adjust resolution and refresh rate by each channel;
- Optional resolution from 800*600p@60Hz~1080p@60Hz, 4K@30Hz and other normal resolution, available to choose any one as output card's resolution;
- Seamless switching;
- Modular structure, plug and play.

4.2.3. VGA Output Card

- 2-Channel VGA output, 2-Channel stereo audio output via 3.5 mm audio port.

- VESA standard, Support any resolution from 800*600@60Hz~1080p@60Hz, 1920*1200@60Hz and other normal resolution, ;
- Each channel support de-emdeding one analogue audio
- Seamless switching;
- Modular structure, plug and play.

4.2.4. SDI Output Card

- 2-Channel 3G/HD/SDI output, BNC 75-5 port;
- 12-digit phoenix port audio output
- Support resolution 720P@50/60Hz, 1080P@25/30/50/60Hz and 1080i@25/30/50/60Hz, available to choose any one as output card's resolution;
- Available to adjust resolution and refresh rate by each channel;
- Seamless switching;
- Modular structure, plug and play.

4.2.5. SFP (optic) Output Card

- 2-Channel SFP output, single-mode and single-core optic fiber, transmission distance Max. 25km, 1-Channel bandwidth up to 10G;
- Support resolution max.4K@30Hz 4:4:4
- 1080p@60 4:4:4 and downward compatibility, available to choose any one as output card's resolution;
- Support seamless switching, HDCP;
- Modular structure, plug and play.

4.2.6. HDBaseT Output Card

- 2-Channel HDBT output, 1-Channel bandwidth up to 6G;
- Support 4K@30Hz 4:4:4 signal transmission;
- 2-Channel 2-way RS232, 2-Channel IR input and 2-Channel IR output;
- Transmission distance: 1080p@60 4:4:4 up to 100 meters, 4K@30 4:4:4 up to 70 meters;
- Support HDCP;
- Seamless switching;
- Modular structure, plug and play.

4.3. 4K Extender

4.3.1. HDBaseT Extender

- HDMI extension supporting all resolution up to 1080p or 1920x1080,4K and 3D
- Extends HDMI + Ethernet + IR over CATx cable up to 100 m distance
- 2 ports 10/100 Ethernet transmission
- Bi-directional IR
- Reserved for Bi-directional RS-232
- HDCP compliant, CEC, EDID transparent
- HDBaseT technology.
- Uncompressed video/audio up to 9 Gbps
- Supports all HDMI 1.4 resolutions
- TX can work with HDBaseT Input Card, RX can work with HDBaseT Output Card

4.3.2. Two-Channel Optic/SFP Extender

- Support two-channel 4K/2K video + audio signal lossless transmission simultaneously;
- Support output resolution and framerate adaptation capabilities;
- Compatible with HDMI 1.4B/DVI;
- Remote infrared control function;
- Audio signal be digital audio / analog audio;
- Single-mode fiber, transmission distance up to 25KM;
- TX can work with SFP (optic) Input Card;
- RX can work with SFP (optic) Output Card.