

# HDMI HD Matrix

## Functional characteristics

### 1.HD input&output

The device supports HDMI1.3a and each channel supports: 1080p@24/30/50/60Hz;

Image color enhancement

Deep Color supports 48/36/30/24-bit to enhance the depth of signal color flowing through the HDMI;

### 2. Audio and video synchronization switch

Support embedded Audio, support LPCM 7.1CH, Dolby True HD, Dolby Digital + and DTS-HD Master Audio transmission, support audio and video signal synchronization switch;

### 3. Broadcasting grade switching chip

The use of American radio and television grade switching 6.5GHZ chip, more stable operation, higher integration;

### 4. LCD display

The LCD screen on the front panel can display the matrix signal switching state and system configuration in real time.

### 5. Multiple chassis specifications are available

A standard rack chassis is adopted, and chassis specifications are selected according to the number of input and output signals. Currently, the 1U and 2U chassis specifications are supported. For a 1U chassis, you can select 4 in and 4 out, 8 in and 8 out, and for a 2U chassis, you can select 16 in and 16 out.

### 6. Multiple control modes

Support key, RS-232, remote control and TCP/IP control mode; (Optional)

### 7. Multi-user control

It supports 16 PC clients in the same LAN to control an HDMI matrix at the same time, and the signal switching state between the clients and the matrix can be synchronized in real time.

### 8 . EDID read and write

Support EDID adaptive function, better adapt to diverse display devices, improve compatibility, completely eliminate dissatisfaction screen, black edge and other problems;

### 9. HDCP resolution

Each input supports HDCP parsing, and supports legitimate Blu-ray DVD, set-top box and other encrypted HD signal source equipment;

### 10. Secondary development

Adopt open control code, support a variety of protocols, support their own secondary development;

### 11.ESD electrostatic protection design

ESD electrostatic protection design, can withstand human body discharge mode:  $\pm 8\text{kV}$  (air gap discharge),  $\pm 4\text{kV}$  (contact discharge), effectively avoid electrostatic interference and damage to equipment;

HDMI HD Matrix product parameters						
Name	HDMI HD Matrix					
Model	QM-HD4V4HD	QM-HD8V8HD	QM-HD8V16HD	QM-HD16V16HD	QM-HD8V32HD	QM-HD16V32HD
Input port	4×HDMI,	8×HDMI,	8×HDMI,	16×HDMI	8×HDMI	16×HDMI,
Output port	4×HDMI	8×HDMI,	16×HDMI,	16×HDMI	32×HDMI	32×HDMI,
Height of equipment	1U		2U			
Support video resolution	480i, 576i, 480p, 576p, 720p ,1080i, 1080p@24/30/50/60/120Hz,					
Baud rate protocol	Baud rate: 9600 Data bit: 8, parking space: 1, no parity bit					
Interface bandwidth	13.5 Gbps					
Control interface	One RS-232 IN, one RS-232 OUT, and one RJ-45					
Protocol standard	Supports HDMI1.3a, EDID management and erasability, and HDCP resolution					
Color space	Support RGB444, YUV444, YUV422 color space, support X.v.Cruor extended color gamut standard					
Electrostatic protection	Human body discharge mode: ± 8kV (air gap discharge) ± 4kV (contact discharge)					
Control mode	Key, RS232, IR					
Input voltage	Power 100VAC ~ 260VAC, 50/60 Hz					
Size (mm)	438×250×45 (mm)		438×250×87 (mm)			
weight	4kg		5Kg			
Operating temperature	0 °C~40 °C/32 °F~104 °F					
Storage temperature	-20 °C to 60 °C/-4 °F to 140 °F					

Technical specification	Input interface	Output interface
agreement	Hdmi 1.3A standard,HDCP1.3 protocol,DVI1.0 protocol;	
gain	0dB	
Pixel bandwidth	165MHz, all digital	
Interface bandwidth	225Gbps. All digital	
Support maximum resolution	HDPC:1920x1200@60; HDTV:1920x1080@60hz	
Bit clock jitter	< 0.15 Tbit	
Bit rise time	< 0.3Tbit (20%-80%)	
Bit drop time	< 0.3Tbit (20%-80%)	
Maximum transmission delay	5nS(soil lnS)	
Signal strength	T.M.D.S. + / - 0.4 Vpp	
Minimum/maximum level	T.M.D.S. 2.9 V / 3.3 V	
impedance	100 Q2	
EDID	EDID read function	N/A
Maximum input/output distance	Input less than 35 meters	The output is less than 20 meters
Storage temperature	-20 °C~60 °C/-4 °F~140 °F	

