

## MM4-8C / MM4-16C Multi Format Matrix Switcher

**User Manual** 





# User manual

### operation guide

#### 1 • power source

MM4-8C/MM4-16C signal management platform using 100-250v ac voltage power s upply. Power on when push the button<] >, Power off when push the button<0>.



#### 2 · capacitive touch screen

MM4-8C/MM4-16C signal management platform uses a 5" capacitive touch screen,w hich have a resolution of 800x480,the layout of system is shown in figure.



button	function
	Video switch select
	Audio switch select
	EDIE management
Menter C	System Settings
TO ALL	All switch to select
CLOSE	Close the output channel selection
SAVE SCENE	Save selection key scene
CALL SCENE	Call select key scenes
06 OUT 07 NoSignal	Output channel
05 IN 06 NeSignal	Input channel
🗸 Audio sync	Audio and video synchronization switching
<-HOME	Main interface

#### Each particular function button as shown in form

#### 3 Signal switching

MM4-8C/MM4-16C signal management platform use hot plug input/output card slots; Slots 13 ~ 16 are fixed to output, slots 1 ~ 12 are configurable for input or output.

#### Switch a input to all output channel

Simply choose the Video input and touch the screen interface:touch <Input channel number> + <TO All>button,input channel number will be displayed in the top left c orner angle of the output channel.

for example , <IN6> + <TO All> key · Switch successful, at the upper left of the ou tput channel Angle IN4 will be shown.



#### Switch any one input to any or all output channels

Select a input andswitchto any output channel. For example , IN4 + OUT7 + OUT 9 + OUT15 + OUT16. Switch successful, IN4 will be shownat the upper left of the output channel angle.



#### 4、 Close the output channel

MM4-8C/MM4-16C signal management platform provides a function of closing a cha nnel output or multiplex channels output, output channel which was closed will hav e no signal output. If users need to closean output channel, just click the close but tonon touch screen, choose the corresponding channel.When close channel success fully, the output interface on touch screen will become gray, the upper left corner i nput channel number is 00. Such as the figure below.



#### 5 . Check the output channel state

MM4-8C/MM4-16C signal management platform provides a function of checking all channelsstatus.Can be View the output channel video switchingstatus, Audio switching status, EDID input channel switchingstatus and output channel identification EDID status, display equipmentin Videointerface and so on.

For example, audio switching state.

<-H	HOME		VIDEO		AUD	10	TO AL	L.	CLOS	SE	SAVE SCENE	CALL SCENE
Outp	out: 6	B to A	ALL.									
65 07A	65 07B	65 09A	55 098	65 015A	65 015B	63 016A	66 016B					
	t: 6B	6A 16A	69 16 B	)								
in total												

#### 6 . Scene save and call

Save the current status of input and output channels are also called save the current scene, MM4-8C/MM4-16C signal management platform supports up to 32 scenes. If the current status of corresponding video input and output is to be preserved. The capacitive touch in Video Swicher to <Save scene>+<Storage unit number> . For example, to save input and output corresponding state 02 unit, <SAVE SCENE> + <Scene 02>.

	<-HOME	VIDEO	AUDIO	TO ALL	CLOSE	SAVE SCENE CALL SCEN	IE
	Please sele	ct a scenari	o save	San Re	10 30	ANN MARKA	
	9ALL		Scene 02	Sc	ene 03	Scene 04	
	Scene 05		Scene 06	Sc	ene 07	Scene 08	
	Scene 09	E	Scene 10	Sc	ene 11	Scene 12	
SCENE	Scene 13		Scene 14	Sc	ene 15	Scene 16	
The second s	Scene 17	E	Scene 18	Sc	ene 19	Scene 20	
	Scene 21		Scene 22	Sc	ene 23	Scene 24	
	Scene 25	E	Scene 26	Sc	ene 27	Scene 28	
	Scene 29		Scene 30	Sc	ene 31	Scene 32	1 al

To invoke the saved scene, <CALL SCENE> + < Storage unit number>, For example, to invoke the saved in 02 storage unit

	<-HOME	VIDEO	AUDIO	TO ALL	CLOSE	SAVE SCENE CALL	SCENE
	Please sele	ct a scenari	o save		14.5		
	9ALL	E	Scene 02	Sc	ene 03	Scene 04	
	Scene 05	E	Scene 06	Sc	ene 07	Scene 08	
	Scene 09	E	Scene 10	Sc	ene 11	Scene 12	
CALL SCENE	Scene 13	E	Scene 14	Sc	ene 15	Scene 16	
	Scene 17	E	Scene 18	Sc	ene 19	Scene 20	
	Scene 21	E	Scene 22	Sc	ene 23	Scene 24	
	Scene 25		Scene 26	Sc	ene 27	Scene 28	
	Scene 29	- C	Scene 30	Sc	ene 31	Scene 32	

#### 7 • EDID management

MM4-8C/MM4-16C signal management platform to provide EDID read, reset, storage, and other functions, the previous generation of signal management platform in the update

EDID would be more convenient and quick operation.

Each output channel will automatically identify the EDID of display devices, and will feedback the EDID information corresponding to the touch screen output channel. Update EDID to input port, also displays the same input EDID information, Updates to the input port from output EDID. Select EDID switcher, click on the output channel and click need update EDID input channel. Input channel EDID information same as the output channel identification EDID. For example, <OUT1> + <IN1>.Output channel 1 EDID information update to the input channel 1, 2, 3. For example, <OUT1> + <IN1> + <IN2> + <IN3>.

<-H01	ME	EXTERNAL EDID	INTERNAL EDID	SAVE EDID	TO ALL
Input:					
IN D4	IN DE				
Please s	elect ED	ID			
OUT 07	OUT	000 OUT 15	OUT 16		

MM4-8C/MM4-16C signal EDID data management platform support store 16 group, may at any time Save the EDID data updates to the input channel. In an INTERNAL EDID state, select save EDID, then click on the corresponding input channel

<-HOI	ME	EXTERNAL ED			SAVE ED	ID	TO ALL
nput:		Service II		in the second			
ATV IN 04	MITV IN 06						
	1						
Please s	elect EDI	D					
SHARP HOMI	SHARP HOMI	MITY .	SHARP HOME	EPSON PJ	VIIV	M TV	MITV
SYS 01	SYS 02	SYS 03	SYS 04	SYS 05	SYS 06	SYS 07	SYS 08
SHARP HDMI	SHARP HDMI	SHARP HOME	EPSON PJ	EPSON PJ	MITV	Maty	METV
. SYS 09	SYS 10	SYS 11	SYS 12	SYS 13	SYS 14	SYS 15	SYS 16
						10-10-10-10-10-10-10-10-10-10-10-10-10-1	

If you need to one output channel EDID information stored. In the SAVE EDID state, select output to click to save the location of the EDID.

<-HON	ME	EXTERNAL ED		NAL EDID	SAVE ED	ID	TO ALL
System:							
SHARP HOME SYS 01	SHARP HOME SY'S D	IZ SYS 03	SHARP HOME SYS 04	ERSON PJ SY'S 05	SYS 06	SYS 07	SYS 08
SHASPIHOMIC SYS 09	SHARP HOME SYS 1	ID SHARP HOME ID SYS 11	SYS 12	EPSON PJ SYS 13	SYS 14	M TV SYS 15	SYS 16
Please s	elect ED	ID				1	
OUT 07	OUT O	09 OUT 15	0UT 16				
•							

#### 8 Internet network communication Settings

On entering the system Settings menu, select NETWORK menu options. Into the next sub menu view or change the IP address, protocol, port, setting as shown in the figure.

	<-HOME	GENERAL	DISPLAY	NETWORK	UART	RESET	ABOUT HOST
	1.Network A	ddress Co	nfig				Em usines
	IP Address	192	2 168 2 222				
6	Subnet Ad	dress 25	5 255 255.0				
	Gateway A	ddress 193	2.168.2.1				
O	Server Por	<b>t</b> 100	01				
<del>উ</del> পুৰবেন	DHCP	**	10 OYE	s			
-							22

#### 9、RS232 setting

RS232 communication parameters including Baud Rate, Data Bits, Stop bit, Parity.If you want to change these parameters can click on the System into the System Settings menu,elect UART into RS232 Set the Visual Design.

	-HOME GENERAL DISPLAY NETWORK WART PEEPT MIDUTHOST
	1.Baud Rate + 115200 _ 54400 _ 115208 _ 94600
1	2 Data bits #99
9	3.3kop.bets #1 015 02
2 Satan	4 Parity bits
	a None C Old C Ibleh

#### 10 · Version information query

In the system Settings in the options ABOUT HOST to enter submenu interface can see the Main control board (Main - Version), and the exchange the Back (Back - Version), and the Version information etc. for example,

	<-HOME	GENERAL	DISPLAY	NETWORK	UART	RESET	ABOUT HOST
	Host					М	VP-16C
	IP Add	Iress		192.168.88.229			
	Main-V	/ersion	1.0.0				
	Back-	Version			1.0.0		
<u> </u>	System	n Update Tin	ne			20	17.1.16

#### 11 • system reset

MM4-8C/MM4-16C signal management platform support system restore factory Settings, and setup system. Elect RESET interface, click on ENTER. for example,

	<-HOME	GENERAL	DISPLAY	NETWORK	UART	RESET	ABOUT HOST
	1.Restore	factory setti	ngs, will los	e all of the use	er to set da	ta	
	and rest	tart the syste	im.				
S S		1					
	Ewicel	Die					
0	1						
	1 and						
হ সম্বাদ্ধা	Stand Sec.						

#### 12 • RS232 and WAL control command

When MM4-8C/MM4-16C signal management platform and the external control devices through RS232 connection, and set can be used after the external control Settings to control the

Examp1 Nu Basic Example Action ASCII Variables Example String mb Settin Response er String Video switch input Switch a = input (1  $^{\sim}$ into input 1 multip >Catob,c matrix max) <C1to2, 3<C 1 to >C1to2, 3<CR> R> le or <CR> b c = output (1  $^{\sim}$ output matrix max or ALL) single 2,3 channe 1 output Switch Video input 1 switch to corres a c = output (1  $^{\sim}$ output pondin matrix max) 3 <CR1:3,2:4 >CRa:b,c 2 >CR1:3, 2:4<CR> g :d<CR> b d = input (1  $^{\sim}$ Switch <CR> relati matrix max) input 2 ons to betwee output n 4 Video select input( <CSWI:2<CR  $a = input (1 \sim matrix)$ starti >CSWI:a< Select 3 >CSWI:2<CR> ng up CR> max) input 2 > Off by defaul t) Select input Video the >CSW0:a< a = output  $(1^{\sim})$ <CSW0:2,3< switch 4 switch >CSW0:2, 3<CR> CR> matrix max) CR> to the to the output output 2,3

operation. RS232 default setting of Baud 115200bps, 8 data bits, 1 stop bit, no parity.

5	Video query corres pondin g relati ons betwee n	#CR <cr></cr>	NULL	Query corres pondin g relati ons betwee n	#CR <cr></cr>	<cr1:3,2:4 <cr></cr></cr1:3,2:4 
6	Audio switch input into multip le or single channe l output	>Tatob,c <cr></cr>	<pre>a = input(1 ~ matrix max) + A/B b c = output(1 ~ matrix max or ALL) + A/B Note:A=Internal audio B=External audio</pre>	IN1 video intern al embed audio switch OUT2 intern al or extern al	>T1Ato2A,2B <cr></cr>	<t1ato2a,2 B<cr></cr></t1ato2a,2 
7	Audio switch corres pondin g relati ons betwee n	>TRa:b,c :d <cr></cr>	a c = output(1 ~ matrix max) + A/B b d = input(1 ~ matrix max or ALL) + A/B Note:A=Internal audio B=External audio	Switch input 1A to output 2A Switch input 1B to output 2B	>TR1A:2A,1B:2B< CR>	<tr1a:2a, 1<br="">B:2B<cr></cr></tr1a:2a,>
8	Audio select input( starti ng up Off by defaul t)	>TSWI:a< CR>	a = input(1 ~ matrix max) + A/B Note:A=Internal audio B=External audio	Select input 2A	>TSWI:2A <cr></cr>	<tswi:2<cr< td=""></tswi:2<cr<>
9	Audio switch to the output	>TSWO:a< CR>	a = output(1 ~ matrix max) + A/B Note:A=Internal audio B=External audio	Select input the switch to the	>TSWO:3A,3B <cr></cr>	<tsw0:2,3< CR&gt;</tsw0:2,3< 

				output 3A,3B		
10	Audio query corres pondin g relati ons betwee n	#TR <cr></cr>	NULL	Query corres pondin g relati ons betwee n	#TR <cr></cr>	<tr1a:3a,2 A:4B<cr></cr></tr1a:3a,2 
11	Save the scene	>Sa <cr></cr>	a = Scene location (1~32max)	Save the curren t state to 10	>S10 <cr></cr>	<cr1:3,2:4 ,<cr></cr></cr1:3,2:4 
12	Call scenar io switch	>Ra <cr></cr>	a = Scene location (1~32max)	Call scenar io 10	>R10 <cr></cr>	<cr1:3,2:4 ,<cr></cr></cr1:3,2:4 
13	Switch the audio and video synchr onizat ion	>SYNC:a< CR>	a = 0:no synchronous 1:synchronous	Switch synchr onous	>SYNC:1 <cr></cr>	<sync:1<cr< td=""></sync:1<cr<>
14	Query the audio and video synchr onizat ion	#SYNC <cr &gt;</cr 	NULL	Query synchr onous	#SYNC <cr></cr>	<sync:1<cr< td=""></sync:1<cr<>

15	Set the scene name	>SNAMEa: b <cr></cr>	<pre>a = Scene location  (1~32max) b = scene name(15English char)</pre>	Set the scenel O name "Meeti ng"	>SNAME10:Meetin g <cr></cr>	<sname10:m eeting<cr></cr></sname10:m 
16	Query the scene name	#SNAMEa< CR>	a = Scene location (1~32max)	Query the scene1 O name	#SNAME10 <cr></cr>	<sname10:m eeting<cr></cr></sname10:m 
17	Set the scene use	>SUSEa:b <cr></cr>	<pre>a = Scene location  (1~32max) b = scene use(0=no 1=yes)</pre>	Set the scene1 O use	>SUSE10:1 <cr></cr>	<suse10:1< CR&gt;</suse10:1< 
18	Query the scene use	#SUSEa <c R&gt;</c 	a = Scene location (1~32max)	Query the scene1 O use	#SUSE10 <cr></cr>	<suse10:1< CR&gt;</suse10:1< 
19	Uart switch	>CUARTat ob,c <cr></cr>	a = RX(1 $\sim$ matrix max) b c = TX(1 $\sim$ matrix max or ALL)	Uart switch rx1 to tx1\2	>CUART1to1,2 <cr &gt;</cr 	<cuart1to1 ,2<cr></cr></cuart1to1 
20	Query the all uart switch state	#CRUART< CR>	NULL	Query the all uart switch state	#CRUART <cr></cr>	<cruart1:1 ,2:1,<c R&gt;</c </cruart1:1 
21	Set the IP addres s	>IP:a.b. c.d <cr></cr>	a b c d = address(0~255)	set IP addres s 192.16 8.2.22 9	>IP:192.168.2.2 29 <cr></cr>	<ip:192.16 8.2.229<cr &gt;</cr </ip:192.16 
22	Set the Subnet	>SUBNET: a.b.c.d< CR>	a b c d = address(0~255)	set Subnet 255.25 5.255. 0	>SUBNET:255.255 .255.0 <cr></cr>	<subnet:25 5.255.255. 0<cr></cr></subnet:25 

23	Set the Gatewa y	>GATEWAY :a.b.c.d <cr></cr>	a b c d = address(0~255)	set Gatewa y 255.25 5.255. 0	>GATEWAY:192.16 8.2.1 <cr></cr>	<gateway:1 92.168.2.1 <cr></cr></gateway:1 
24	Set the Socket Server port	>PORT:a< CR>	a = Server port	Set the Socket Server port 1001	>PORT:1001 <cr></cr>	<port:1001 <cr></cr></port:1001 
25	Set Networ k DHCP	>DHCP:a< CR>	1= 0:no 1:yes	Set Networ k DHCP	>DHCP:1 <cr></cr>	<dhcp:1<cr< td=""></dhcp:1<cr<>
26	Query the networ k inform ation	#NETWORK <cr></cr>	NULL	Query the networ k inform ation	#NETWORK <cr></cr>	<ip:192.16 8.2.229<cr &gt; <subnet:25 5.255.255. 0<cr> <gateway:1 92.168.2.1 <cr> <port:1001 <cr></cr></port:1001 </cr></gateway:1 </cr></subnet:25 </cr </ip:192.16 
27	Set the serial port	>UART:a, b,c,d <cr &gt;</cr 	<pre>a = Baud Rate(115200 38400 19200 9600) b = Data bits(8 9) c = Stop bits(1 1.5 2) d = Parity bits(None Odd Even)</pre>	Set the serial 9600,8 ,1,Non e	>UART:9600,8,1, None <cr></cr>	<uart:9600 ,8,1,None&lt; CR&gt;</uart:9600 
28	Query the serial port	#UART <cr &gt;</cr 	NULL	Query the serial port	#UART <cr></cr>	<uart:9600 ,8,1,None&lt; CR&gt;</uart:9600 

29	Comman d can make	>CMDEN:a <cr></cr>	a = 0:no make 1:make	Set comman d can make	>CMDEN:1 <cr></cr>	<cmden:1<c R&gt;</cmden:1<c 
30	Query Comman d can make	#CMDEN <c R&gt;</c 	NULL	Query comman d can make	#CMDEN <cr></cr>	<cmden:1<c R&gt;</cmden:1<c 
31	Comman d notice sound	>CSOUND: a <cr></cr>	a = 0:no sound 1:sound	Set comman d notice sound	>CSOUND:1 <cr></cr>	<csound:1< CR&gt;</csound:1< 
32	Query comman d notice sound	#CSOUND< CR>	NULL	Query comman d notice sound	#CSOUND <cr></cr>	<csound:1< CR&gt;</csound:1< 
33	switch EDID output to input	>EDIDato b <cr></cr>	a = output(1 ~ matrix max) b = input(1 ~ matrix max or ALL)	Switch output 1 to input 2	>EDID1to2 <cr></cr>	<edid1to2< CR&gt;</edid1to2< 
34	switch EDID system to input	>SYSEato b <cr></cr>	a = system(1 ~ 16) b = input(1 ~ matrix max or ALL)	Switch system 1 to input 2	>SYSE1to2 <cr></cr>	<syse1to2< CR&gt;</syse1to2< 
35	switch EDID output to system	>SEDIDat ob <cr></cr>	a = output(1 ~ matrix max) b = system(1 ~ 16)	Switch output 1 to system 2	>SEDID1to2 <cr></cr>	<sedid1to2 <cr></cr></sedid1to2 
36	Set the HDMI output format	>HDMODE: a,b <cr></cr>	a = output(1 ~ matrix max) b = 0:DVI 1:HDMI	Output :2 set HDMI format	>HDMODE:2,1 <cr></cr>	<hdmode:2, 1<cr></cr></hdmode:2, 

37	Set card the hdcp switch	>HDCP:a, b <cr></cr>	a = port(1 ~ matrix max) b = 0:OFF 1:ON	Set port:2 the hdcp off	>HDCP:2,0 <cr></cr>	<hdcp:2,0< CR&gt;</hdcp:2,0< 
38	Daught er card power manage ment	>CPOWER: a,b <cr></cr>	a = port(1 ~ matrix max) b = 0:OFF 1:ON	Close port 2 power supply	>CPOWER:2,0 <cr></cr>	<cpower:2, O<cr></cr></cpower:2, 
39	The query card power state	#CPOWER: a <cr></cr>	a = port(1 ~ matrix max)	Query port 2 power state	#CPOWER:2 <cr></cr>	<cpower:2, O<cr></cr></cpower:2, 
40	Set manage ment user name and passwo rd	>MUNP:a, b <cr></cr>	<pre>a = name(15 the English characters) b = password(15 the English characters)</pre>	ser user:M ain passwo rd:123 456	>MUNP:Main,1234 56 <cr></cr>	<munp:main ,123456<cr &gt;</cr </munp:main 
41	Query manage ment user name and passwo rd	#MUNP <cr &gt;</cr 	NULL	Query manage ment user name and passwo rd	#MUNP <cr></cr>	<munp:main ,123456<cr &gt;</cr </munp:main 
42	Send comman ds to contro 1 card	>COMa <cr &gt;</cr 	a = control card command	send "-TEST " string	>COM-TEST <cr></cr>	NULL(you don't online returns the ERROR)
43	Query whethe r centra l online	#COM <cr></cr>	NULL	Query whethe r centra 1 online	#COM <cr></cr>	<com:1<cr></com:1<cr>

44	To TCP Socket server send data	>SEND-SS :a:b,c <c R&gt;</c 	a = IP b = Server port c = data	To 192.16 8.88.1 00: 1001 send "TEST "	>SEND-SS:192.16 8.88.100:1001,T EST <cr></cr>	>SEND-SS:4 <cr></cr>
45	Query status inform ation Return ed in JSON format	#JSON:a, b <cr></cr>	<pre>a =  ("video", "scene", "  system", "weburl", "  cont") b = mark(Status  update version, 0=  Request all data)</pre>	Query the state of the video	>JSON:video,O <c R&gt;</c 	<pre>{     "system":     {         "run":         "Run         000:01:15"     ,     "temp":         "20~35",         "ip":         "192.168.8         8.151:8020         ",         "wcolor":         "#66ff00",         "mark": 55,         "ahpd": 1,         "uhpd": 1,         "uhp</pre>

46	Set the system langua ge	>LANG:a< CR>	a = 0: English 1: Chinese	Set the system langua ge is Chines e	>LANG:1 <cr></cr>	<lang:1<cr< th=""></lang:1<cr<>
47	Query system langua ge	#LANG <cr &gt;</cr 	NULL	Query system langua ge	#LANG <cr></cr>	<lang:1<cr< td=""></lang:1<cr<>
48	Restar t the system	>SOF-RES TART <cr></cr>	NULL	Restar t the system	>SOF-RESTART <cr &gt;</cr 	<sof-resta RT<cr></cr></sof-resta 
49	Restor e the factor y Settin gs	>SYS-RES ET <cr></cr>	NULL	Restor e the factor y Settin gs	>SYS-RESET <cr></cr>	<sys-reset <cr></cr></sys-reset 
50	Query all the daught er card types	#RCID <cr< td=""><td><u>NULL(return data</u> <u>reference link)</u></td><td>Query all the daught er card types</td><td>#RCID<cr></cr></td><td><rcid:1:i1 ,2:N/A&lt; CR&gt;</rcid:1:i1 </td></cr<>	<u>NULL(return data</u> <u>reference link)</u>	Query all the daught er card types	#RCID <cr></cr>	<rcid:1:i1 ,2:N/A&lt; CR&gt;</rcid:1:i1 
51	Query main softwa re versio n	#SVER <cr &gt;</cr 	NULL	Query main softwa re versio n	#SVER <cr></cr>	<sver:1.0. 0<cr></cr></sver:1.0. 
52	Query hardwa re versio n	#HVER <cr< td=""><td>NULL</td><td>Query hardwa re versio n</td><td>#HVER<cr></cr></td><td><hver:1.0. 0<cr></cr></hver:1.0. </td></cr<>	NULL	Query hardwa re versio n	#HVER <cr></cr>	<hver:1.0. 0<cr></cr></hver:1.0. 

53	Query back softwa re versio n	#BVER <cr &gt;</cr 	NULL	Query back softwa re versio n	#BVER <cr></cr>	<bver:1.0. 0<cr></cr></bver:1.0. 
54	Query matrix type	#MO <cr></cr>	NULL	Query matrix type	#MO <cr></cr>	<mvp-16c<c R&gt;</mvp-16c<c 
55	Query instru ction set head	#CMD <cr></cr>	NULL	Query instru ction set head	#CMD <cr></cr>	
Upo	date t	;ime:201	17-1-17			
> - <cf< td=""><td>- Comn <math>R &gt; = 0_X</math></td><td>and, # .0D Hex /</td><td>- Query, &lt; - / 13 Decimal</td><td>Respo</td><td>onse</td><td></td></cf<>	- Comn $R > = 0_X$	and, # .0D Hex /	- Query, < - / 13 Decimal	Respo	onse	
<b>No</b> t add	<b>te:</b> The ress:19	default co 2.168.88.	mmunication setti 229 Socket Serv	ngs are er port:1	115200 8N1 Nor 1001	ne. IP

#### 13 · Web management

MM4-8C/MM4-16C signal management platform support Ethernet web management, in the browser enter the IP address of the MM4-8C/MM4-16C signal management platform, user name and password login to enter the web management interface. For example,

用户登录		
	用户名:	
	密码:	
	<del>保護</del>	

When LAN ports connection if the direct connect. Need to set equipment of IP network segment and MM4-8C/MM4-16C in the same network segment. The default user and password for user and 123456. The factory default Settings segment for 192.168.88.229

#### WEB management option

Enter into WEB management option can choose video management, audio management, EDID management, scene calls, system Settings.

Frit user									
Eatt. ustr				VIDEO	AUDIO	UART	SCENARIO	EDID	SYSTEM
All switch	Close channel	Close all	Scene save	Scene call			⊠Audio sync	0	

(1) Video switch : switch input channel video signal to output channel, click on the input channel selection switch output channel or click All switch. For example, input 1 to all the output channel. Click input 1 to all switch, upper left corner of the output boards display NI4 channel, said it had four input signal switching to all outlets.

					_		_	
All switch	Close channel	Close all	Scene save	Scene call		 ⊠Audio sync	٥	
Output	10			172				
HDBT_70M	HDBT_70M	HDMI	HDBT_70M	10				
<ul> <li>HPD OFF</li> <li>1920x1080p54</li> <li>NULI</li> </ul>	<ul> <li>HPD OFF</li> <li>1920x1080p54</li> <li>NULT</li> </ul>	<ul> <li>HPD ON</li> <li>1920x1080p54</li> <li>NULL</li> </ul>	<ul> <li>HPD OFF</li> <li>1920x1080p54</li> <li>NET I</li> </ul>					
Input: 6								
Input: 6	6 HDMI							
Input: 6 HDMI HDMO ON	6 HDMI • HPD OFF							

(2). The input video signal switching to one or more Output , first clicking one input , then clicking one or more output . The upper right corner of the display corresponds to the input channel switch said success (3) . Elect Audio sync , when switching the interface audio and video synchronization switching.

- (4) Clicking <sup>Q</sup>, Set interface will pop up the card.
- A . Can be set up the board power supply switch.
- B · Elect output HDMI\DVI format.
- C 、 HDCP on-off
- (5) Scene save and cal. Elect scene save, then click save channel, scene can be OK.

Elect Scene call, then click on the corresponding storage channel before it can be scene calls out.

All switch	Close channel	Close all	Scene save	Scene call	🖂 Audio sync 🔅
Output: 6 to	o 15				
7 • Power • OFF OON • Format • DV1 OHDMI	9 • Power • OFF OON • Format • DVI OHDMI	15 • Power • OFF OON • Format • DVI OHDMI	16 • Power ●OFF ●ON • Format ●DVI ●HDMI		
Input: 6					
4 • Power ●OFF ●ON • Hdcp ●OFF ●ON	6 ● Power ● OFF ● ON ● Hdcp ● OFF ● ON				

(6) · Audio switch: A for internal audio, B for external audio.

□click A, then clicking All switch, for Internal audio switch to both external and internal

□click B, then clicking All switch, for external audio switch to both external and internal □click A, then clicking A or B, for internal audio switch to A or B.

- (4) click B, then clicking A or B, for internal audio switch to A or B.

#### **EDID** options

(1) < Input EDID for input port save of EDID;

(2) • Please select EDID, for output port read interface display device EDID;

(3) Internal EDID, for the system built-in save EDID. Most save 16 group EDID.As shown in figure,

EXIL: USET VIDEO AUDIO UART SCENARIO EDID OTo ALL ©SwitchEdid □SaveEdid Input: Ipun F9 0 P2 0 Input:	VIDEO AUDIO UART SCENARIO EDID OTO ALL ©SwitchEdid ©SsveEdid Input: tronva © fraona 19 Please select EDID To Oto Oto Oto Oto Oto Oto Oto Oto Oto Ot	EXII: USEP VIDEO AUDIO UART SCENARIO EDID OTO ALL ©SwitchEdid SaveEdid Input: Please select EDID Truck © Nuk © ISL Nuk © ISL									
OTo ALL SwitchEdid SaveEdid	OTo ALL ESwitchEdid SaveEdid	Input:       Impose	Exit: user				VIDEO	AUDIO	UART	SCENARIO	EDID
Input:	Input:	Input:            \$             Provr p3             \$             \$							OTo ALL	⊠SwitchEdid □Sa	veEdid
	Please select EDID	Please select EDID	Input:	6 EPSON PJ							
	Please select EDID	Please select EDID		9	9						
	Please select EDID	Please select EDID									
ver											
NTL NTL NTL			1 EPSON PJ	2 EPSON PJ	3 EPSON PJ	epson pj	5 EPSON PJ	6 EPSON PJ	7 EPSON PJ	8 EPSON PJ	
NTLL NTLL NTLL NTLL NTLL NTLL NTLL NTLL	1. 2. Son FJ Stan FJ S	I 1 JESON F2 S S S S S S S S S S S S S S S S S S	9 EPSON PJ	0 10 EPSON PJ	0 11 epson pj	● 12 ● EPSON PJ	● 13 ● EPSON PJ	0 14 ∰ EPSON PJ	15 PEPSON PJ	0 16 PSON PJ	
NELL NELL NELL NELL NELL NELL NELL NELL	1 LENGON PJ 2 EFSON PJ 2FSON PJ 4FSON PJ 5 EFSON PJ 10 PSON PJ 11 EFSON PJ 11 EFSON PJ 12 EFSON PJ 14 EFSON PJ 15 EFSON PJ 14 EFSON PJ 15 EFSON PJ 14 EFSON PJ 15 EFSON PJ 14 EFSON PJ 15 EFSON PJ 15	1 1 0 2 2 0 7 0 FISON FJ 0 14 0 5 6 6 7 7 8 8 FISON FJ 0 15 0 14 0 15 0 FI									
NULL NULL NULL NULL NULL NULL NULL NULL	1 1 FISON FJ 2	1 1 PSON PJ 2 PSON PJ 3 PSON PJ 4 PSON PJ 1 PSON PJ 2 P									

#### (4) · EDID update and save

EDID update: Elect output channel or system EDID option, click input channel will can EDID switch to input boards. TO ALL will the EDID update to all input board. As shown in figure,



EDID save : Enter on Save EDID interface, elect output channel EDID, then Select system save EDID channel. Corresponding storage channel EDID display and output channel consistent said saved successfully. As shown in figure,

Exit: user VIDEO AUDIO UART SCENARIO EDID CSwitchEdid ESaveEdid System:									
System:         2         2         5         5         5         5         5         5         7         6         7         7         5         7         7         7         5         7 </th <th>Exit: user</th> <th></th> <th></th> <th></th> <th>VIDEO</th> <th>AUDIO</th> <th>UART</th> <th>SCENARIO</th> <th>EDID</th>	Exit: user				VIDEO	AUDIO	UART	SCENARIO	EDID
System:           L         2         3         4         5         5         4         5         6         6         7         7         8         8         7         9         8         7         9         8         7         9         8         7         9         8         7         9         8         7         9         9         9         9         9         9         9         10         12         13         9         14         9         15         16 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>⊡SwitchEdid ⊡Sa</td> <td>veEdid</td>								⊡SwitchEdid ⊡Sa	veEdid
1     2     2     3     3     4     5     5     6     6     7     7     9     8     9       1 <td>System</td> <td>:</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	System	:							
9 2 PSON P3 1 D 1 D 1 D 1 D 1 D 1 D 1 D 1 D		2 EPSON PJ	O 3 EPSON PJ	4 EPSON PJ	5 EPSON PJ	0 6 EPSON PJ	0 7 EPSON PJ	0 8 EPSON PJ	
	9 EPSON PJ	0 EPSON PJ	11 EPSON PJ	12 NULL	O 13 EPSON PJ	14 EPSON PJ	15 EPSON PJ	0 16 EPSON PJ	
NULL NULL NULL NULL NULL NULL		3	3	9	3		3	9	
NULL 7 VEL VILL IS NEL VILL									
NULL PULL ISLAND NULL	NULL								
		9 NULL	15 NULL	16 NULL	•				

#### **UART** option

In this option through HDBT input board and HDBT output board of Serial port communication ; It can realize RS232 passthrough control function ; first choose RX, then choose tx contact.

(1)TX : output boards option

(2)RX : input boards option.

As shown in figure,

System							⊔SwitchEdid ⊠S	aveEdid
1 EPSON PJ	2 EPSON PJ	3 EPSON PJ	4     EPSON PJ	5 EPSON PJ	6 EPSON PJ	0 7 EPSON PJ	8     EPSON PJ	
9 EPSON PJ	0 EPSON PJ	11     EPSON PJ	12 NULL	13     EPSON PJ	14 EPSON PJ	15 EPSON PJ	16     EPSON PJ	•
	-	-		~				
NULL								
	9 NULL	15 NULL	16	•				
	<b>T</b>							

#### System Update 🚞

System Management		
General 1.Open control sound •NO •YES 2.Receiving external command •NO •YES 3.Modify administrator user	NetworkIP Address:192.168.88.228 ×Subnet Address:255 255 255 0Gateway Address:192.168.88.1ServerPort:1001DHCP:•NO •YES	UART 1.Baud Rate 0115200 \$38400 \$19200 \$9600 2.Data bits 08 \$9 3.Stop bits 01 \$1.5 \$2 4.Parity bits •None \$Odd \$Even
User Data Backup	About Host HOST : MVP-16C Main-Version : 1.0.0 Back-Version : 1.0.0 Update time : 2017.01.16	

#### System option

Protect system settings: General settings, Network settings, UART settings, User data, About host, System Update.

- (1) 
  General: Buzzer, external command, account password to modify Settings.
- (2) Network : IP address, gateway, subnet mask, port, DHCP Settings.
- (3)  $\vee$  UART : Baud rate, data bits, stop bits, parity bits.

(4)  $\checkmark$  USER DATA : Data backup, data recovery.

(5) · About host : A host name, main control board version number, exchange back version number, the system updated time to see.

(6) System Update : The main control board, exchange version, burn card program As shown in figure,

System Update 👼



## board card guide

MM4-8C/MM4-16C signal management platform for the modular design, the user can choose different main body, according to the site environment and flexible with different input and output interface card of a MM4-8C/MM4-16C signal management platform.MM4-8C/MM4-16C signal management platform support asymmetric configuration, input and output interface card at the same time, all the input and output sockets support hot plug function, when the card is abnormal when need to be replaced, can directly replace, do not affect the normal board.

#### 1、HDBaseT board card

The HDBaseT board card can 16C signal management platform Switch and compatibility between transmitter and receiver to realize long distance transmission of audio signals and control signals.Use single CAT 6 cable shielding will transfer to video, audio, control signal and power supply support furthest 90 m. HDBaseT board card can the separation of embedded digital audio into analog stereo, support audio embedded solution, can the independent switch. HDBaseT board card support EDID management functions and accord with standard of HDCP, and support 1080p/60Hz < 1920×1200 and 4K the transmission of signals. Board support bi-directional RS232 passthrough and KVM functions, can be realized through control channel signal management platform to remote device control of the equipment.

#### **Technical parameters**

number/Signal types	A HDBase	T audio and video	o signals and con	trol signals		
The connector type		RJ-45 8P li	ne terminal			
Recommend the cable type		STP CAT6/CA	T6A and above			
1080P Maximum transmission distance	≤ 6	0m	≤ 9	0m		
4KMaximum transmission distance	≤ 30m((	CAT6A)	≤60m(	CAT6A)		
Support video standard	HDTV 10	80p @60Hz;VE	SA 1920×1200;	4K 30Hz		
Support color space		RGB;YCbCr(4:2	2:2) YCbCr(4:4:4)	)		
Seamless switching	No support					
EDID management	DDC channels, EDID manager					
HDCP management	Settings HDCPauthorization or not					
Board type	HDBT1 input HDBT2 input HDBT1 output HDBT2 out					
Audio embedded		sup	port			
Port hotplug	support					
Power supply	Single channel transceiver power supply DC +28V or standard PSE					
Storage temperature/humid ity		-20□ ~ 85□ /	5%~40% RH			
Work temperature/humid ity		0 - 50 / 1	0%∼70% RH			
Note	Support RS	S232 passthrough	n, terminal blocks	, more flow		

#### Appearance of the structure

HDBT1 input/HDBT2input as shown in the figure



#### HDBT1 output/HDBT2 output as shown in the figure



#### Light is state

light	describe	function
STA	Signal light	Often destroyed — The corresponding channel no signal input Normally on - the corresponding channel signal input
PWR	Power light	Often destroyed - power corresponding interface card does not work Normally on - board electricity work accordingly

#### 2、 HDMI board card

The HDMI boards interface embedded digital audio separated into analog stereo, support for audio embedded solution, can independent switch. The HDMI boards support HDCP standard, support 4K \HDTV 1080p/60 \VESA 1920×1200 and below the resolution of the standard signal input and out.Input board support EDID information update operations at the same time, can be convenient and fast to solve the problem for EDID information incompatible problem.

#### **Technical parameters**

The board type	HDMI input	HDMI output			
number/Signal types	A HDMI signal	A HDMI signal			
The connector	HDMI Type A	HDMI Type A			
type	terminal	terminal			
Recommend the	The standard 26AW/G HDMI 1.4				
cable type					
Maximum					
transmission	≤ 10m				
distance					

Support video standard	HDTV 1080p @60Hz;VESA 1920x1200;4K
Support color space	RGB; YCbCr(4:2:2) YCbCr(4:4:4)
Seamless switching	No support
EDID management	DDC channels, EDID manager
HDCP management	Settings HDCP authorization or not
Support video standard	support
Support color space	support
Seamless switching	Single channel transceiver power supply DC +28V or standard PSE
EDID management	$-20^{\circ}$ C $\sim$ $85^{\circ}$ C / $5\%{\sim}40\%$ RH
HDCP management	0°C ∼ 50°C / 10%~70% RH

#### Appearance of the structure

HDMI inputas shown in the figure



HDMI output as shown in the figure



#### **Technical parameters**

light	describe	function
STA	Signal light	Often destroyed — The corresponding channel no signal input Normally on - the corresponding channel signal input
PWR	Power light	Often destroyed - power corresponding interface card does not work Normally on - board electricity work accordingly

## System diagram



## **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 and electrician to replace

your obsolete socket.



This equipment should be install near the

socket outlet and the device should be easily

accessible in the case it required disconnection

## <u>Warranty</u>

Warranty time is one 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, user should bear the transport cost during the warranty. If product is out of warranty then repair charge is required. Minimum repair charge: 10% of the retail price plus the cost of failed components. We will repair the failed product after repair cost has been approved by Customers and proper financial arrangements are made. Customer must cover round trip shipment expenses.

## **Return and RMA Policies**

Shipments will not be receiver and processed for warranty repair/replacement without an RMA (Return Materials Authorization).