

Keypad Control:



Key	Description
0~9	Enter number
+	Increase value
-	Reduce value
. or #	Previous value
Enter	Confirm
* or Esc or Clear	Cancel
/	Call MENU
Press Clear four times then press Enter	Call MENU

You can use RS232 Keypad or terminal program with number key to emulate IR remote operation. Before using RS232 keypad you have to select Keypad by **Menu 50 RS232 Select**, and set keypad baudrate by **Menu 54 Auxiliary Baudrate**.

RS232 Control:

In RS232 extender mode, user could use RS232 port of transmitters to operate/setup the receivers at same channel by program like Hyper Terminal which built-in Windows XP and before version.

Hyper Terminal setting: [**115200 bps (8-N-1), Flow control: None**] (Properties -> Settings -> ASCII Setup... and select “**Send line ends with line feeds**” & “**Echo typed characters locally**”)

★We recommend set the RS232 routing for all receivers to one transmitter to avoid RS232 connection broken by video channel switching.

Command format: >CMD_Address> Command Parameters

Address, command and parameters are char, not hex code

Enter (LF or CR+LF) is required to execute the command

All accord receivers will run the command and parameters, we also add 3 kinds of user defined numbers except MAC & IP (Device No, Group No, Party No) for flexible application:

Mxxxxxx	The last 6 digits of MAC Address of receiver	e.g.: 2218688612AB = M8612AB
Ixxxx	The last 2 column of IP Address (HEX) of receiver	e.g.: 169.254.012.034 = I0C22
Dxxx	Device No	e.g.: Device No 123 = D123
Gxx	Group No	e.g.: Group No 12 = G12
Pxx	Party No	e.g.: Party No 34 = P34
Cxxx	Channel No	e.g.: Channel 123 = C123
ALL	All receivers	
TX	Transmitter which connected to RS232 port currently.	
RX	Receiver which connected to RS232 port currently.(for Auxiliary mode)	

Response format: <ACK_Address< Response character

Receivers will response message to transmitter as above format and send Newline after

When send command to multiple receivers(address as Gxx, Pxx, Cxxx, and ALL) they will not response.

Example:

>CMD_M8612AB> CHANNEL 12

(Set receiver which last 6 digits MAC Address is 8612AB to Channel 12)

<ACK_M8612AB< OK

(Receiver which last 6 digits MAC Address is 8612AB response “OK”)

RS232 Command and Parameters List:

Command	Parameters	Description	Remark
CHANNEL	?	Show current channel number	Transmitter not support parameter NAME Receiver not support parameter CHECK
	[0~999]	Switch to specified channel	
	[0~999] NAME ?	Check current channel name	
	[0~999] NAME "string"	Set channel name, 28 character MAX	
	NAME ?	Show channel name setting	
	NAME [ENABLE DISABLE]	Enable/disable channel name	
	NAME CLR	Clear all channel name	
	NAME IMPORT	Import channel name	
	FAST ?	Status of current fast switch	
	FAST [ENABLE DISABLE]	Enable/disable fast switch	
FAVORITE	CHECK ?	Status of channel conflict check	Transmitter not support parameter FAVORITE
	CHECK [ENABLE DISABLE]	Enable/disable channel conflict check	
	?	Usage of favorite channel (MAX.32)	
	ADD	Add current to favorite channel	
	ADD [0~999]	Add specified channel to favorite	
	DEL	Delete current from favorite channel	
	DEL [0~999]	Delete specified channel from favorite	
	CLR	Clear favorite channel list	
	ONLY ?	Status of favorite channel only	
	ONLY [ENABLE DISABLE]	Enable/disable favorite channel only	
VIDEO	AUTO ?	Status of auto sort favorite channel	Transmitter not support parameter ROUTING, SCALER, CUSTOMIZE, RESUME, PAUSE, and BLACK Receiver not support parameter QUALITY and DITHER Parameter SELECT for VDKM02B only
	AUTO [ENABLE DISABLE]	Enable/disable auto sort favorite	
	SORT	Sort favorite channel immediately	
	FUNC ?	Status of video extension	
	FUNC [ENABLE DISABLE]	Enable/disable video extension	
	ROUTING ?	Status of video routing	
	ROUTING [FOLLOW 0~999]	Set video routing follow or specified	
	SELECT ?	Status of video input / output mode	
	SELECT [0~2]	Set input / output, 0=DVI, 1=VGA, 2=DVI+VGA	
	SCALER ?	Status of video output resolution	
	SCALER [0~4 5]	Set output resolution, 5=customize	
	CUSTOMIZE ?	Status of customize resolution	
	CUSTOMIZE integer	Set customize resolution	
	QUALITY ?	Status of video quality	
	QUALITY [0 1~5 6]	Set video quality	
	VIDEOWALL	DITHER ?	
DITHER [0 1~2]		Set video dither	
EDID		Update EDID from TX or monitor of RX	
RESUME		Resume stream	
PAUSE		Pause stream	
BLACK		Stop stream and send black screen	
FUNC ?		Status of video wall function	
FUNC [ENABLE DISABLE]		Enable/disable video wall	
MODE ?		Status of video wall mode	
MODE [ENABLE DISABLE]		Set video wall mode/single mode	
LOAD 0~15		Load video wall setting (all)	
LAYOUT 0~15		Load video wall layout (MAX Row/MAX Column/Row/Column)	
SAVE 0~15		Save video wall setting (all)	
OW ?		Show outer width of monitor	
OW [0~65535]		Set outer width of monitor	
OH ?		Show outer height of monitor	
OH ? [0~65535]		Set outer height of monitor	
VW ?		Show width of viewable area	
VW ? [0~65535]		Set width of viewable area	
VH ?		Show height of viewable area	
VH ? [0~65535]		Set height of viewable area	
MAX_ROW ?		Show maximum row of video wall	
MAX_ROW 0~7		Set the row 1~8 of video wall	
MAX_COLUMN ?		Show maximum column of video wall	
MAX_COLUMN [0~15]		Set the column 1~16 of video wall	
ROW?		Show position in row	
ROW [0~7]		Set position in row	
COLUMN ?		Show position in column	
COLUMN [0~15]		Set position in column	
STRETCH ?		Status of stretch type	
STRETCH [0~2]		Set stretch, 0 = Auto, 1 = Stretch Out, 2 = Fit In	
ROTATE ?		Status of rotate type	
ROTATE [0~7]		Set rotate, 0 = default	
SHIFT_V		Status of vertical shift	
SHIFT_V [0~399 400 401~801]	0~399: up, 400:default, 401~801: down		
SHIFT_H ?	Status of horizontal shift		
SHIFT_H [0~399 400 401~801]	0~399: up, 400:default, 401~801: down		
SCALE_V ?	Status of vertical scale		
SCALE_V [0~255]	Set vertical scale		
SCALE_H ?	Status of horizontal scale		
SCALE_H [0~255]	Set horizontal scale		
ENABLE %1_%2_%3_%4	%1 = MAX_ROW, %2 = MAX_COLUMN, %3 = ROW, %4 = COLUMN		
MONITOR_INFO %1_%2_%3_%4	%1 = VW, %2 = OW, %3 = VH, %4 = OH		

AUDIO	FUNC ?	Status of audio extension	Transmitter not support parameter ROUTING
	FUNC [ENABLE DISABLE]	Enable/disable audio extension	
	ROUTING ?	Status of audio routing	
	ROUTING [FOLLOW 0~999]	Set audio routing follow or specified	
	SELECT ?	Status of audio setting	
	SELECT [0~2]	Select audio of TX input or RX output (0=Digital, 1=Analog, 2=Auto)	
	IN ?	Status of audio input volume	
	IN [0 1~100]	Set audio input volume (%), 0 = Mute	
	OUT ?	Status of audio output volume	
OUT [0 1~100]	Set audio output volume (%), 0 = Mute		
USB	FUNC ?	Status of USB extension	Transmitter not support parameter ROUTING and REQUEST
	FUNC [ENABLE DISABLE]	Enable/disable USB extension	
	ROUTING ?	Status of USB routing	
	ROUTING [FOLLOW 0~999]	Set USB routing follow or specified	
	REQUEST	Request USB access (multicast only)	
	KM FUNC ?	Status of keyboard mouse extension	
KM FUNC [ENABLE DISABLE]	Enable/disable keyboard mouse extension		
RS232	FUNC ?	Status of RS232 extension	Transmitter not support parameter ROUTING
	FUNC [ENABLE DISABLE]	Enable/disable RS232 extension	
	ROUTING ?	Status of RS232 routing	
	ROUTING [FOLLOW 0~999]	Set RS232 routing follow or specified	
	SELECT ?	Status of RS232 setting	
	SELECT [0~4]	0=Disable, 1=Extender, 2=Keypad, 3=Auxiliary, 4=Console	
	CTRL ?	Status of RS232 control setting	
	CTRL [0~2]	0=disable, 1=enable, 2=insensitive	
	BAUD ?	Status of baud rate	
	BAUD [0~9]	0=115200, 1=57600, 2=38400... 9=300	
	NEWLINE ?	Status of newline format	
	NEWLINE [0~3]	0=Linux, 1=Windows, 2=Mac, 3=Other	
TRIGGER ?	Status of trigger	Transmitter not support parameter ROUTING	
TRIGGER [0~3]	0=Linux, 1=Windows, 2=Mac, 3=Other		
FUNC ?	Status of IR extension		Transmitter not support parameter ROUTING
FUNC [ENABLE DISABLE]	Enable/disable IR extension		
ROUTING ?	Status of IR routing		
ROUTING [FOLLOW 0~999]	Set IR routing follow or specified		
CTRL ?	Status of IR control setting		
CTRL [ENABLE DISABLE]	Enable/disable IR control		
ID ?	Status of IR remote ID		
ID [0~10]	Set IR remote ID		
KEY [0~32] ?	Status of IR key setting		
KEY [0~32] = address, command	Set mapping of third party IR remote		
KEY IMPORT	Import IR key setting		
BLOCK ?	Status of IR quick block	Support 4K model only	
BLOCK [ENABLE DISABLE]	Enable/disable IR quick block		
FUNC ?	Status of CEC function	Transmitter not support parameter ROUTING, CTRL and TV	
FUNC [ENABLE DISABLE]	Enable/disable CEC function		
ROUTING ?	Status of CEC routing		
ROUTING [FOLLOW 0~999]	Set CEC routing follow or specified		
CTRL ?	Status of CEC control		
CTRL [ENABLE DISABLE]	Enable/disable CEC control		
TV [ON OFF]	Turn on/off TV	Transmitter not support parameter ROUTING	
CTRL ?	Status of button control		
CTRL [ENABLE DISABLE]	Enable/disable button control		
LOCK ?	Status of button lock		
LOCK [ENABLE DISABLE]	Enable/disable button lock	HKM02BT/VDKM02BT only	
? [ENABLE DISABLE]	Enable/disable rotary switch		
HDCP	Status of HDCP Always On	Transmitter not support parameter UPDATE, only HKM02BT support loop out Receiver not support parameter SELECT and Mode	
0~2	0=Disable, 1=HDCP 1.4, 2=HDCP 2.2		
UPDATE	Update EDID from monitor of RX	Transmitter not support parameter UPDATE, only HKM02BT support loop out Receiver not support parameter SELECT and Mode	
SELECT ?	Status of TX default EDID setting		
SELECT [0~3]	0=HDMI, 1=DVI, 2=VGA, 3=Loop Out		
MODE ?	Status of EDID process	Transmitter not support parameter CTRL	
MODE [0~1]	0=normal, 1= Patch EDID		
CTRL ?	Status of HDMI 5V control	Transmitter not support parameter CTRL	
CTRL [ENABLE DISABLE]	Enable/disable HDMI 5V control		
? [ON OFF]	Status of screen settings	Transmitter not support this command	
SAVER ?	Status of screen saver		
SAVER [ENABLE DISABLE]	Enable/disable screen saver		
OPTION ?	Status of behavior after screen off		
OPTION [0~2]	Set behavior after screen off		
ON "string"	Show "string" on screen (30 seconds)	Transmitter not support this command	
OFF	Turn off OSD immediately		
OFF ?	Status of OSD duration (ms)		
OFF [0~65535]	Set duration of OSD (ms)		
? [ENABLE DISABLE]	Status of free routing	Transmitter not support parameter LOAD and SAVE	
[ENABLE DISABLE]	Enable/disable free routing		
LOAD [0~3]	Load free routing setting		
SAVE [0~3]	Save free routing setting		

DEVICE	?	Status of device number	Transmitter not support this command
	[0~999]	Set device number	
GROUP	?	Status of group number	Transmitter not support this command
	[0~99]	Set group number	
PARTY	?	Status of party number	Transmitter not support this command
	[0~99]	Set party number	
NET	RECONNECT	Reconnect with TX/RX	Transmitter not support parameter DISCONNECT
	DISCONNECT	Disconnection (keep routing channel)	
	STOP	Stop all connection (Include routing channel)	
	MULTICAST ?	Status of multicast	
	MULTICAST [ENABLE DISABLE]	Disable=unicast	
	JUMBO_FRAME ?	Status of Jumbo Frame	
	JUMBO_FRAME [ENABLE DISABLE]	Enable/disable Jumbo Frame	
	IP_MODE ?	Status of IP mode	
	IP_MODE [0~2]	0=Auto, 1=static, 2=DHCP	
	IP ?	Status of static IP address	
	IP [xxx.xxx.xxx.xxx]	Set static IP address	
	NETMASK ?	Status of subnet mask (static IP mode)	
	NETMASK [xxx.xxx.xxx.xxx]	Set subnet mask (static IP mode)	
GATEWAY ?	Status of gateway (static IP mode)		
GATEWAY [xxx.xxx.xxx.xxx]	Set gateway (static IP mode)		
QUERY	IP	Status of current IP address	
	MAC	Status of MAC address	
	RESOLUTION	Status of video resolution	
	VERSION	Status of firmware version	
AUXILIARY	BAUD ?	Status of auxiliary baudrate	
	BAUD [0~9]	0=115200, 1=57600, 2=38400... 9=300	
	NEWLINE ?	Status of auxiliary newline	
	NEWLINE [0~3]	0=Linux, 1=Windows, 2=Mac, 3=Other	
	TRIGGER ?	Status auxiliary trigger	
	TRIGGER [0~3]	0=Linux, 1=Windows, 2=Mac, 3=Other	
LOAD	VERSION	Status of auxiliary versions	
	DEFAULT	Load default to current setting	
	[0~3]	Load system setting from bank 0~4	
SAVE	PRESET 0~15	Load preset 0~15 to set RX group ID	PRESET for OEM version RX only
	[0~3]	Save current system setting	
REBOOT		Reboot	
CONSOLE	string	Run console API command	
SYSTEM	[0~255] ?	Status of system function	For debug using, if input incorrect value will cause unpredictable problem, adjust by professional installer only.
	[0~255]	Set system function	
APPLICATION	[0~255] ?	Status of application function	
	[0~255]	Set application function	

※RS232 command not support backspace, delete or up, down, left, right to modification. If you enter command or parameters with wrong typing, please enter newline and re-enter full command and parameters again.

※Parameters with gray shading means need to reboot to take effect.

※ The maximum of OSD_ON is 30 characters per line, maximum 127 characters, not support comma sign「,」, colon「:」 and double quotation marks「"」, some characters must use \x### format to display, ### means the characters number in ASCII HEX code

e.g.: \x0a is line feed, \x28 is (brackets sign, \x22 is “ sign

Example:

>CMD_M861234> CHANNEL 12 (Set receiver which last 6 digits MAC Address is 861234 to Channel 12)
(HEX code: 3E 43 4D 44 5F 4D 38 36 31 32 33 34 3E 20 43 48 41 4E 4E 45 4C 20 31 32 0D 0A)

<ACK_M861234< OK (Receiver which last 6 digits MAC Address is F01234 response “OK”)
(HEX code: 3C 41 43 4B 5F 4D 38 36 31 32 33 34 3C 20 4F 4B 0D 0A)

>CMD_I0A12> CHANNEL 3 (Set receiver which IP Address is 169.254.10.18 to Channel 3)
(HEX code: 3E 43 4D 44 5F 49 30 41 31 32 3E 20 43 48 41 4E 4E 45 4C 20 33 0D 0A)

<ACK_I0A12< OK (Receiver which IP Address is 169.254.10.18 response “OK”)
(HEX code: 3C 41 43 4B 5F 49 30 41 31 32 3C 20 4F 4B 0D 0A)

>CMD_G34> CHANNEL 5 (Set receivers which Group No is 34 to Channel 5)
(HEX code: 3E 43 4D 44 5F 47 33 34 3E 20 43 48 41 4E 4E 45 4C 20 35 0D 0A) (No response from multiple receivers)

>CMD_ALL> OSD ON “Hello! \x28123\x29 \x22ABC\x22” (Show 「Hello! (123) “ABC”」 to all monitor and send response)
(HEX code: 3E 43 4D 44 5F 41 4C 4C 3E 20 4F 53 44 20 4F 4E 20 22 48 65 6C 6C 6F 21 20 5C 78 32 38 31 32 33 5C 78 32 39 20 5C 78 32 32 41 42 43 5C 78 32 32 22 0D 0A) (No response from multiple receivers)

>CMD_ALL> OSD OFF 10000 (All receiver turn off OSD after 10 seconds)
(HEX code: 3E 43 4D 44 5F 41 4C 4C 3E 20 4F 53 44 20 4F 46 46 20 31 30 30 30 30 0D 0A)