LINK-MI®
LINK-MULTIMEDIA INTERFACE

Video Wall Controller
LM-TV04

User Manual

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1st. Installation instructions

For the safety of your equipment, please read the safety instructions carefully before using this device.If you are in doubt, please read this manual first. In this manual list has detailed description of the equipment operation. If you are still have a question, please contact us, we will give you a satisfactory answer as soon as possible.

If there is any change in the specification, Please forgive us for not informing you.

When equipment is installing, please note the following:

1. Power:

This equipment uses 12V/3A external power supply, power supply supports 100-240V AC voltage input, please do not easily change other brand power supply.

2. Power off:

Please make sure power off when you connect cables or carry the equipment,and others.

3. Cables:

Don't squeeze the wire,Separate the power cables and signal cables,Prevent interference.

4. Cooling hole:

There are some cooling hole of the Equipment outside surface , do not plug these holes, so as to avoid heat accumulation, damage to equipment or cause fire and other hazards.

5.Equipment placement:

Should be reasonable placement equipment, such as the load standard rack, chassis, cabinets, or placed in a solid flat on the table, to prevent the device from falling.

6.Environment:

Equipment working environment should pay attention to dust, moisture, in particular, to prevent the liquid immersion and splash into the device.

7. Repairs:

All maintenance work should be done by professional maintenance personnel, and not to try to repair the equipment without training. To prevent electric shock, do not open the shell.

Safety precautions:

1. The equipment has a high voltage power, non professional maintenance personnel shall not open the case, so as to avoid dangerous;

2, No water or water splashing, It is strictly prohibited on the device to put any containers of liquid containers;

3. In order to prevent the fire, the prohibition of equipment near the fire source;

4. In order to fully ventilation, the front and rear panels should be kept at least 20cm of the gap;

5. The equipment such as strange noise, smoke or smell, immediately unplug the power plug, by professional repair personnel;

6. In the case of thunder and lightning, or not, please unplug the power plug;

7. Do not plug into any object from the ventilation holes of the device, so as not to cause damage to equipment or electric shock;

8. Do not put the equipment on the water or other wet places;

9. Not to be placed in the vicinity of the heat sink or other high temperature;

10. Please be careful put the power line, to prevent damage;

The following circumstances, should unplug the power plug, by professional maintenance personnel:

1) plug power cord is damaged or worn out;

2) liquid is spilled into the device;

3) when the equipment is dropped or the case is damaged;

4) the device has a distinct function or performance change.

5) check whether the normal operation of the fan, if the fan does not work should immediately unplug the power supply, by

professional personnel;
This device is not suitable for non professional operation and commissioning, users must receive professional training and guidance.
Please read the instruction carefully before use, and the instruction should be kept for use.

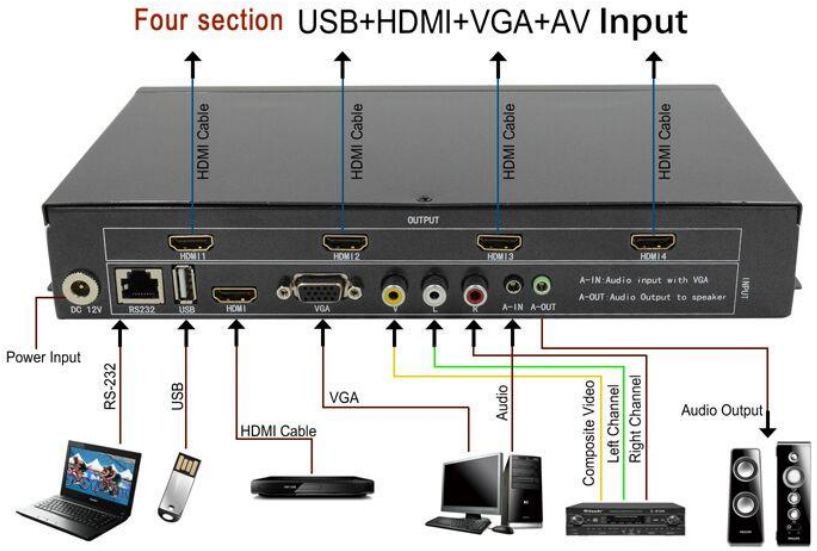
2nd . Product overview

1. overview:

This video wall controller is for LCD TV, ultra narrow side LCD screen, projector and so on,high-definition picture mosaic processor can be customized according to user needs 2 to 4 HDMI output splicing. Products with high definition processing chip, support 1080P signal input and output, supports 1 composite video, 1 VGA, 1 USB model, 1 HDMI input, all input signals can be switched to the large screen display, and audio and video synchronization output.

Product design infrared remote control, users operate the mosaic processor is more simple, intuitive, it can also be controlled through RS-232. The user through the remote fast control and full function control, the operation is more humane, more simple.

2.System topology diagram



3.Machine pictures and dimensions

Size: 289mm(L)*157mm(w)*43mm(D) (with Tripod)
269mm(L)*157mm(w)*43mm(D) (without Tripod)

3rd . Remote control

1. Remote control function:

User operate the remote control the mosaic screen, it can setting full function by remote,like user operate remote for TV,very easy and simple.

2. remote control buttons function diagram:

4th . Equipment installation

1. Open the package

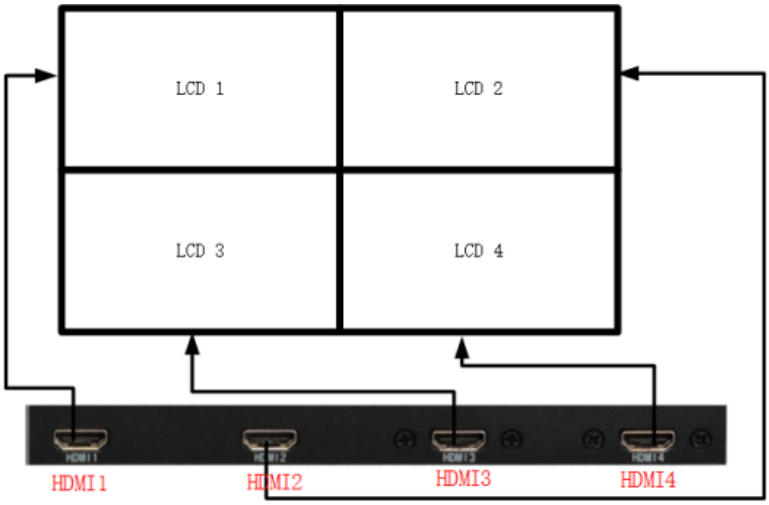
Check host and accessories. Including mainframe, power, remote control, warranty card, certificate, manual.

2. Installation machine

2.1. TV set: the LCD TV or other display device input signal is set into the corresponding HDMI channel;

2.2. HDMI Output and TV connection

HDMI1 connect to LCD1(Display 1);
HDMI2 connect to LCD2(Display 2);
HDMI3 connect to LCD3(Display 3);
HDMI4 connect to LCD4(Display 4);
as shown In the following diagram



2.3. Input signal interface

This machine support 1 USB, 1 HDMI, 1 VGA, 1 AV input, all inputs are embedded or bound to audio input, user can access all the signals or access to some of the signal, the input interface such as:

USB interface: can be directly inserted into the USB disk, embedded audio, you can play video, pictures, TXT documents, MP3 inside of the USB disk ;
HDMI interface: can be connected to the computer, players and other HDMI output device, embedded audio;
VGA interface: a device that can be connected to a computer or other device with a VGA A-IN is an audio interface with a VGA binding;
Video interface: V-video signal, R and L are respectively connected with the left and right channel audio signal of video binding;

2.4. Audio connection

A-OUT for the audio output of the machine, it can connect with speaker or others.

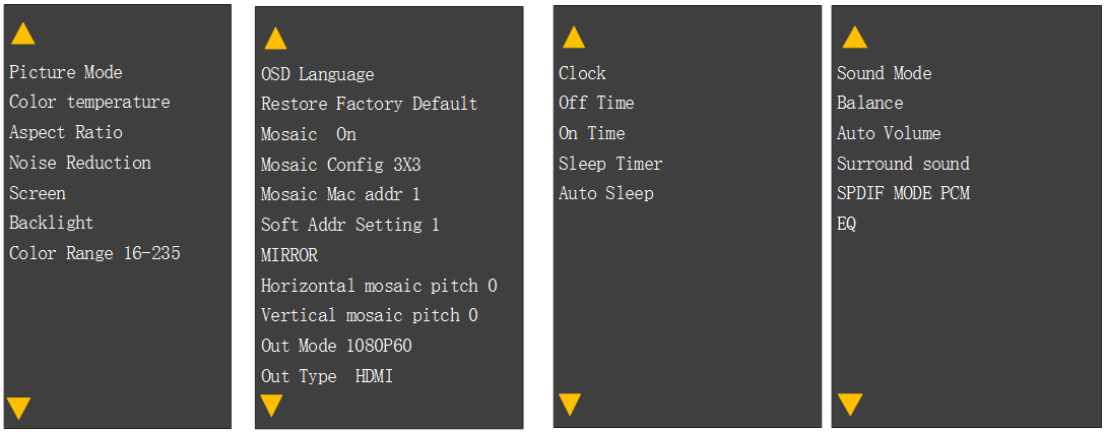
2.5. Power on

After all cable is connected, insert the AC power supply, turn on the power switch, the power indicator light is green, that the device is working.

5th. Parameter setting

Complete splicing device installation and connection, open the switch will appear or display a black screen image signal. If black signal, need by remote control or button to switch to the corresponding signal source, such as: then the HDMI signal and ual switch directly to the HDMI signal source. After the image is out, it is possible that some of the LCD screen image is inverted, or when the film because of the LCD screen frame caused by image distortion and other issues, this time we also need to set up the parameters of the mosaic through the menu keys (MENU), so we need to be familiar with the operation of the menu.

Press the MENU key, then press the left button to press the left button to come out a few different



Menu 1, 3, 4 categories of the factory has been set as the best recognized state, do not need to change, we need only to set menu 2:

1. OSD Language

Move the cursor to OSD Language, press left or right, then user can choose OSD language.

2. Restore Factory default

Usually do not need to set up, if the user debugging is more messy, you can try to use the reset factory settings.

3. Mosaic on

Move the cursor to the Mosaic, press left or right to choose open mosaic or off, same as switch on the remote.

4. Mosaic config 2X2

Press left or right choose different mosaic mode, like 1X2, 1X3, 1X4, 2X1, 2X2, 3X1, 4X1. such as 1X2 mode, this is meaning line 1 and row 2.

5. Mosaic mac address 1

The mac address is the machine output interface, if this display unit connect to the HDMI1 interface, user move the cursor to the mosaic mac address and press left or right, this display unit will display mosaic mac address:1

6. Soft Address setting 1

This address can be changed, change the one display unit soft address, the display unit display different video.

Such as 2*2 mode:

this display information Mac address：1 Soft address：1	this display information Mac address：2 Soft address：2
this display information Mac address：3 Soft address：3	this display information Mac address：4 Soft address：4

7. Mirror

That is the rotation of 180 degrees, a lot of LCD TV due to the narrow width of the border, a row when the wall is a row of flip upside down, through the mirror function can be individually set each screen is rotated 180 degrees. First set the cursor to the mac address of the corresponding screen, and then put the cursor to the mirror,and press the left or right to the rotation of the screen can be real.

8. Horizontal 0 and Vertical mosaic pitch 0

LCD screen of the physical gap lead to complete image is strong pull off a moment, make the image deformation, distortion, use for adjusting the size of the jointing horizontal and vertical assembly size the image loss of a part of, but keep images without distortion and distortion, as shown below:

9. Out mode

Can be set 1080P60, 720P60, 1024x768@60 three resolution output to adapt to different display devices. You can press “7” on the remoter choose different resolution.

10. Out Type

Can be set HDMI or DVI model. if you set HDMI model, the HDMI port will output audio; if you set DVI model, the HDMI port will not output audio. But A-out is analog audio output port, no mater HDMI or DVI model, it have audio output. If your monitor only support DVI model, you must choose DVI output, if your monitor only support HDMI model, you must choose HDMI output. you can press “9” on the remoter choose DVI or HDMI output model.

6th . USB function

This video wall controller can decoding video, audio, picture, TXT file of USB disk signal

Video:Decoding a lot of different formats of video files, like *. mp4/*. avi/*. mpeg/*. wmv/*rmvb and so on, video file up to 1920*1080

Audio: decoding MP3 and other formats audio files.

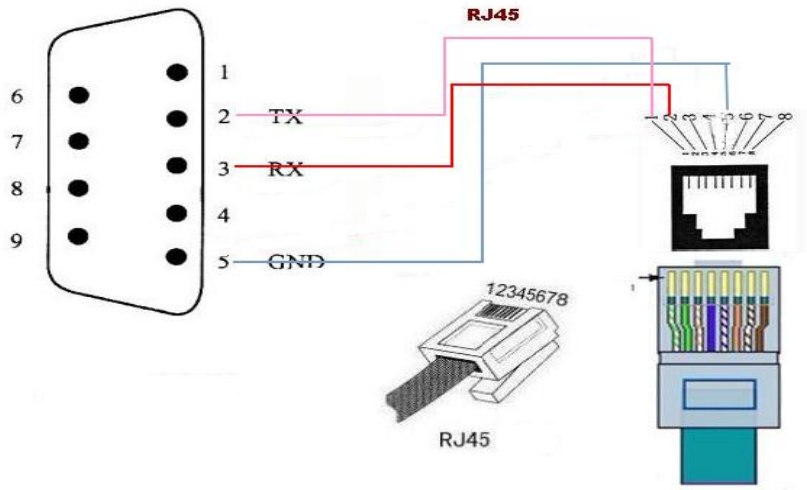
Photo: decoding JPG and others.

TXT: decoding , TXT file.

play all the video or need to play the picture, TXT document, MP3 content, you can press the remote control to return the keys and then re enter the play folder, press the play / pause button to play all of the content, or through the navigation keys to select some of the contents of the OK.

Normal playback state according to the remote OK key can be transferred out of the fast forward, slow progress, a song, a song pause, image playback mode.

7th . RS232 Controller



Band rate:115200 Data Bit:8

Check Bit:None Stop Bit:1

AV:	0Xff,0Xf7,0x5a,0x00,0x30,0x00,0x80
VGA:	0Xff,0Xf7,0x5a,0x00,0x31,0x00,0x81
HDMI:	0Xff,0Xf7,0x5a,0x00,0x32,0x00,0x82
USB:	0Xff,0Xf7,0x5a,0x00,0x33,0x00,0x83
HDMI output 1080P:	0Xff,0Xf7,0x5a,0x00,0x34,0x00,0x84
HDMI output 720P:	0Xff,0Xf7,0x5a,0x00,0x35,0x00,0x85
HDMI output 1024*768:	0Xff,0Xf7,0x5a,0x00,0x3b,0x00,0x8b
Mosaic display mode:	0Xff,0Xf7,0x5a,0x00,0x36,0x00,0x86
Unit display mode:	0Xff,0Xf7,0x5a,0x00,0x37,0x00,0x87

8th . Specification

Name	Spec
HDMI input	
Interface	HDMI（support HDCP1.3 and DVI1.0）
Resolution	Up to 1920*1080@60Hz
Color	24bit,16.77M
VGA input	
Interface	DB15
Resolution	800*600 to 1920*1080@60Hz
AV input	
Interface	RCA
Identification	Auto
Standard	PAL,NTSC
USB	
Video	Mpeg1,2,4(Up to1920x1080@30P); Divx,Xvid(Up to1920x1080@30P); RM,RMVB(Upto1920x1080@25P);MJPEG(Upto640x480@30P);H.264(Upto 1920x1080@30P); VC-1(Up to1920x1080@30P)
Audio	MP3、WMA、FLAC and so on
Picture	JPG、BMP、PNG
Text	TXT
Audio in	**Fit for VGA video**
Audio output	**Fit for output video**
HDMI output	**1024*768@60hz,720P@60Hz,1080P@60Hz**
Input interface	USBx1、HDMIx1、VGAx1、AVx1
Output interface	HDMIx4
Controller	Remote,button,RS232
Power	Input: AC 100-240V
Operating Ambient Temperature	0℃~60℃
Storage Temperature	-20℃~70℃
Humidity	＜75%
Dimension	269mm(L)x157mm(W)x43mm(H)