LVP40X
LED HD Video Wall Processor

USER'S MANUAL

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I.   Safety Precautions

Danger!

There is high voltage in the processor, to prevent any unexpected hazard, unless you are maintenance, please do not open the cover of the device.

Warning!

1. This device shall not encounter water sprinkle or splash, please do not place anything containing water on this device.
2. To prevent fire, keep this device far from any fire source.
3. If this device gives out any strange noise, smoke or smell, please immediately unplug the power cord from receptacle, and contact local dealer.
4. **Please do not plug or unplug DVI signal cable if the device is powered on.**

Caution!

1. Please thoroughly read this manual before using this device, and keep it well for future reference.
2. In the event of lighting or when you are not going to use the device for a long time, please pull the power plug out of receptacle.
3. Nobody other than professional technicians can operate the device, unless they have been appropriately trained or under guidance of technicians.
4. To prevent equipment damage or electric shock, please don't fill in anything in the vent of the device.
5. Do not place the device near any water source or anywhere damp.
6. Do not place the device near any radiator or anywhere under high temperature.
7. To prevent rupture or damage of power cords, please handle and keep them properly.
8. Please immediately unplug power cord and have the device repaired, when
   1) Liquid splashes to the device.
   2) The device is dropped down or cabinet is damaged.
   3) Obvious malpractice is found or performance degrades.

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II. Connections of hardware

1. Rear view
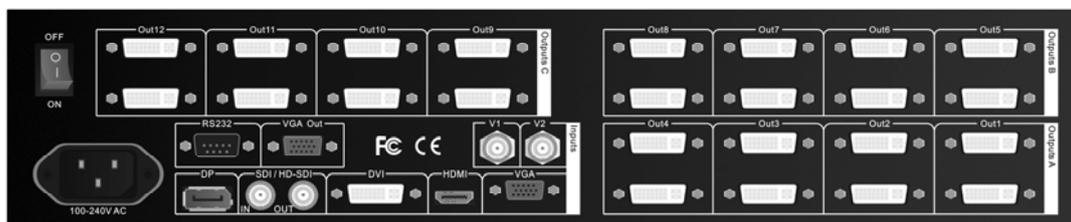
2. Port description

1）Video Input

LVP40X supports 7-channel signal input, including:

Port name	Description
V1~V2	2-channel PAL/NTSC composite video input
VGA	1-channel computer analog signal input
DP(DisplayPort)	1-channel DisplayPort digital HD signal input
DVI	1-channel computer digital signal input
HDMI	1-channel HDMI digital HD signal input
SDI/HDSDI (IN)	1-channel digital video signal input (SD/HD)

2）Video Output
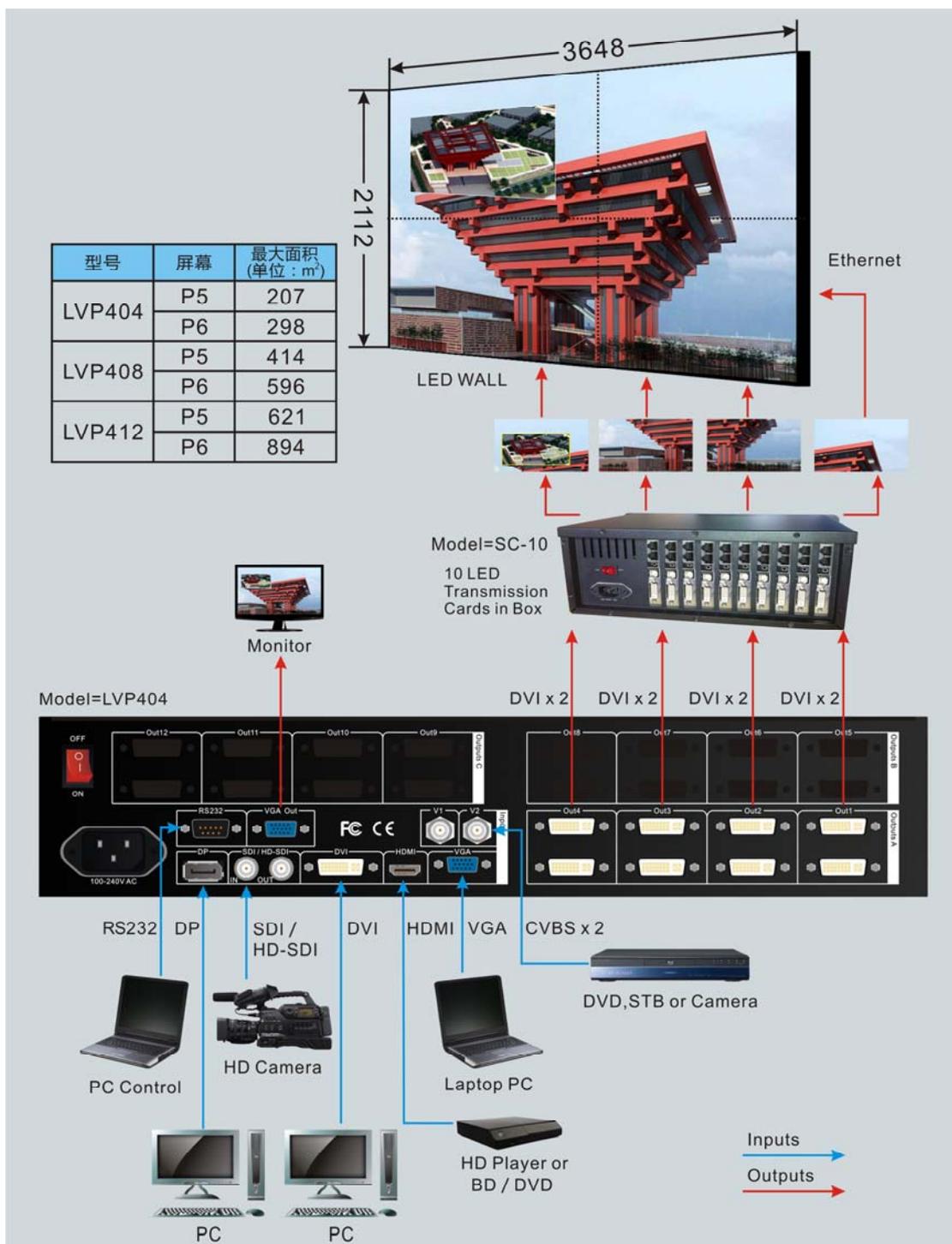
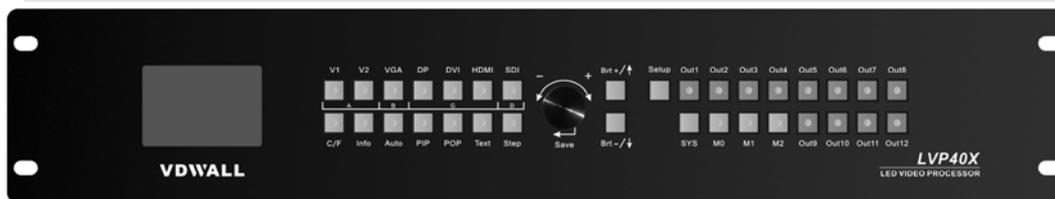| Port name	Description
DVI	Each DVI out controls a piece of small LED, the image to be imported can be any part cut from the input image. LVP404: 4x2DVI OUT LVP408: 8x2DVI OUT LVP412: 12x2DVI OUT
SDI/HD SDI (0UT)	1-channel digital video signal loop output

3）Signals of other ports

RS232 serial communication port

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3. Connection diagram

The connection diagram shows an LED WALL with dimensions 3648 × 2112, connected via Ethernet.

型号	屏幕	最大面积 (单位：㎡)
LVP404	P5	207
	P6	298
LVP408	P5	414
	P6	596
LVP412	P5	621
	P6	894

Model=SC-10
10 LED Transmission Cards in Box

Model=LVP404

Monitor

DVI x 2 DVI x 2 DVI x 2 DVI x 2

RS232 DP SDI / HD-SDI DVI HDMI VGA CVBS x 2

PC Control

HD Camera

Laptop PC

DVD, STB or Camera

HD Player or BD / DVD

PC   PC

Inputs
Outputs

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III. Frontal panel operations

1. Diagram of frontal panel

2. Button instructions (operation mode):

There are 33 buttons and one knob on the frontal panel of LVP40X, all these buttons will be operable after start. they have the following functions as described below:

1) Select input video source

Port name	Description
V1~V2	2-channel PAL/NTSC composite video input
VGA	1-channel computer analog signal input
DP(Display Port)	1-channel DisplayPort digital HD signal input
DVI	1-channel computer digital signal input
HDMI	1-channel HDMI digital HD signal input
SDI/HDSDI (IN)	1-channel digital video signal input (SD/HD)

After user has selected input signal, the current input signal source that you selected, e.g.: INPUT=**HDMI** will appear in the LCD. In the meantime, the indicator above the corresponding button will indicate the status of current input signal source. If there is no valid signal input, the indicator will blink and dark screen appears; if the signal is valid, the indicator will illuminate normally.

2) VGA input auto adjustment (Auto)

When the current VGA input source of **LVP40X** is a valid signal, press this button, **LVP40X** will automatically adjust the sampling parameters of the VGA signals, so as to make VGA picture clean and complete.

In general, this operation is made only when new VGA signal source is to be connected in. Sometimes user need repetitively do

such adjustment till VGA picture looks clean, complete and stable.

3) Select output brightness

Button names	Description
BRT -	Decrease output image brightness of **LVP40X,** the lowest brightness is 0.
BRT +	Increase output image brightness of **LVP40X,** the highest brightness is 32.

LVP40X supports 8 levels of output Brightness, "0" represents the lowest brightness, and 32 represents the highest brightness. To ensure full gray level of output image, normally the output brightness is set as 32!

4) Information display (Info)

This button can be operated to display the following two status information:

Current settings of LVP40X: Press "Info" button to display current settings and information of **LVP40X**. There are total 29 items of information. Press "Info" button again before the information disappears in LCD, the next entry of information will appear in LCD.

Status of current input signal source: press current input selection button, then Press "Info" immediately, the input signal source selected, e.g.: "In: HDMI", will appear in line 1 in LCD, and the status of current input signal source will appear in line 2 in LCD. If no valid signal is input, "No Input" will appear in LCD; if the signal is valid, its input signal format such as "**1080p_60Hz**" will appear in LCD.

5) Information display of DVI output ports (**Out1，Out2，Out3，Out4，Out5，Out6，Out7，Out8，Out9，Out10，Out11，Out12，**)
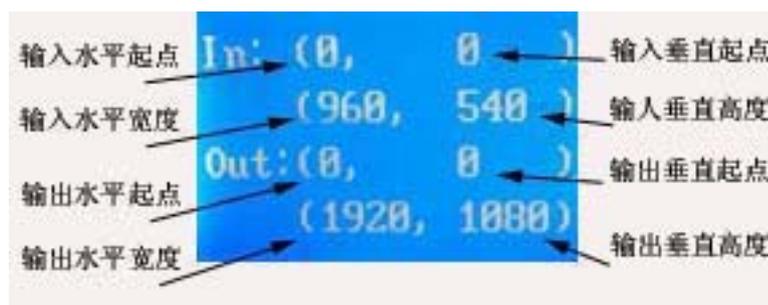
While in operation mode, press "Out1", the input and output parameters of current DVI Out1 will appear in LCD at the location as shown in above figure.

Press "Out2", the input and output parameters of current DVI Out2 will appear in LCD at the location as shown in above figure.

Press "Out3", the input and output parameters of current DVI Out3 will appear in LCD at the location as shown in above figure.

Press "Out4", the input and output parameters of current DVI Out4 will appear in LCD at the location as shown in above figure.

Press "Out5", the input and output parameters of current DVI Out5 will appear in LCD at the location as shown in above figure.

Press "Out6", the input and output parameters of current DVI Out6 will appear in LCD at the location as shown in above figure.

Press "Out7", the input and output parameters of current DVI Out7 will appear in LCD at the location as shown in above figure.

Press "Out8", the input and output parameters of current DVI Out8 will appear in LCD at the location as shown in above figure.

Press "Out9", the input and output parameters of current DVI Out9 will appear in LCD at the location as shown in above figure.

Press "Out10", the input and output parameters of current DVI Out10 will appear in LCD at the location as shown in above figure.

Press "Out11", the input and output parameters of current DVI Out11 will appear in LCD at the location as shown in above figure.

Press "Out12", the input and output parameters of current DVI Out12 will appear in LCD at the location as shown in above figure.

6) Select Cut / Fade mode

LVP40X can realize seamless switching effect (Cut) or fading in/out switching effect (Fadr\e) between any two signals from different groups as listed below. But if the signals come from the same group, LVP40X can only realize freezing seamless switching effect.

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A	B	C	D
V1, V2	**VGA**	**DP, DVI, HDMI**	**SDI**

Cut: the moment the LED indicator above the button is off. In this mode, user can transiently shift picture seamlessly without flickering, tremble, stasis, delay, black screen occurring. Cut is the default special effect switching mode of LVP40X.

Fade (Fading-in/out mode): the moment the LED indicator above the button is on. In this mode, user can shift the picture coming from different input signal groups in fading-in/out mode without flickering, tremble, stasis, delay, black screen occurring.

Freezing seamless switching: the pictures coming from the same group can only be shifted in freezing seamless switching mode. That is to say, after you select another input signal which belongs to the same group with that of currently displayed signal, current signal will first be frozen, then be superseded transiently by the signal you selected.

7) PIP / POP

PIP mode of LVP40X allows user to insert a PIP window in current picture, and the size and location of the PIP window can be changed freely. The signals to be displayed in PIP window can either be signals coming from other groups or be current signal itself. Here we call current picture "background", and call the picture to be overlaid "PIP".

Operating procedures:

Enter PIP display mode: Press PIP button, the indicator above the button is on, LVP40X will enter **PIP** mode, in the meantime, the corresponding input signal codes of background and PIP will appear in LCD, e.g.: "background=V1, PIP=DVI".

Change PIP: while in PIP mode, press buttons to select another input signal coming from other groups or current signal itself, this picture will be set as PIP.

Change the background: you must first press PIP button to disable PIP mode. Select appropriate input signal as background, then press PIP button to switch to PIP mode, then select a new PIP picture.

Enter POP mode: press POP button while in PIP mode, the indicator above the button is ON, and LVP40X will enter POP mode. The moment the LED is divided into two sectors respectively on the

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left and on the right, which display the input signals of background and PIP respectively. The information "Left=V1, Right =DVI" appears in LCD. User can shift PIP and POP modes by pressing POP button.

8) Text Overlay mode(Text)

LVP40X can add text, company logo or animation onto current picture, while current picture is normally displayed, press Text button to go to text adding mode, then select the signal source of text. The texts can be made by office software such as Powerpoint.

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IV. Setup

The following settings must be made by relevant qualified technicians. For ordinary users, unless they have received adequate technical training, they shouldn't attempt to make the following settings!

There are 29 items in 6 categories available for you to set in **LVP40X**. Technicians can set these items as necessary, for details see the table below:

Type of setup		Setup items	
1	Select language	1	*Language*
2	Output resolution mode setup	2	*Output resolution*
3	Color / definition	7	*Color*
		15	*Definition*
4	PIP / POP setup	4	*PIP horizontal start*
		5	*PIP width*
		6	*PIP vertical start*
		7	*PIP height*
		8	*PIP frame*
		9	*POP height*
5	Text overlay setup	10	*Text mode*
		11	*Text threshold RGB*
		12	*Text threshold R*
		13	*Text threshold G*
		14	*Text threshold B*
6	Device ID	16	*Device ID*
6	Splicing setup	16	*Input horizontal width*
		17	*Input horizontal start*
		18	*Input vertical height*
		19	*Input vertical start*
		20	*Output horizontal width*
		21	*Output horizontal start*
		22	*Output vertical height*
		23	*Output vertical start*
		24	*Exit setup*
7	Factory district setup	25	*DVI HDCP set*
		26	*Low gray bias device reset*
		27	*White balance adjustment*

1. Enter Setup of LVP40X

Press "Setup" for consecutive 8 times while in operation mode, "Password**: 8 Enter Setup …**" will appear in LCD, **LVP40X** will enter the No.1 setup item.

2. Select language

Item 1: "*Language* "

After entering setting mode, **LVP40X** will enter the first setting item "*Language* ". **LVP40X** supports Chinese and English display, Press "knob" to select either of them, then Press "**Enter**" to save and validate the setting.

If you press "SYS" in any setup mode, the system will directly skip to item No. 1.

3. Output resolution setup

LVP40X has four DVI output ports, i.e.: OUT1, OUT2, OUT3, OUT4, OUT5, OUT6, OUT7, OUT8, each output port has 4 output formats. User can enter item No.2 "*Output Resolution"* to setup it.

	Format
1	1024×768_60
2	1280×1024_60

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3	1600×1200_60
4	1920×1080_60

Item 2: "*Output definition"*

Press "knob" key to select 1 output format listed under this option, then Press "**Enter**" to save and validate the setting.

If you select "**1920x1080_60**", the output resolution of **LVP40X** will be 1920x1080; the vertical refresh rate is 60Hz.

4. Color / *Definition*

Item 3: "*Color"*

For V1, V2, DP, HDMI and SDI video input source, **LVP40X** can set color saturation for them ranging from 22 to 38. The lower this value is, the weaker the color looks; the higher this value is, the stronger the color looks. Press "knob" to increase or decrease the values of color saturation. Press "**Enter**" to save the settings.

Normally the value of color saturation is set as **30**!

Item 15: "*Definition"*

LVP40X provides two definition options, i.e.: "sharp" and "normal". In sharp mode, the picture edge looks clearly, and image has higher definition; while in "normal" mode, the picture looks milder. Normally the value of *Definition* saturation is set as "normal" !

5. PIP/POP Output Image Setup

Items 4~7: "*PIP image output setup*"
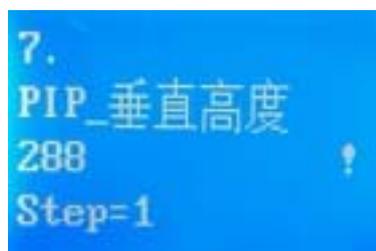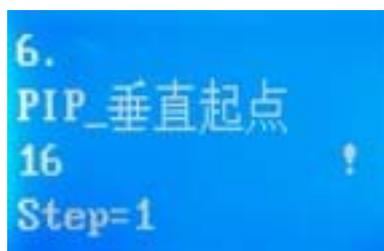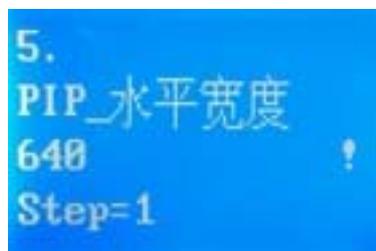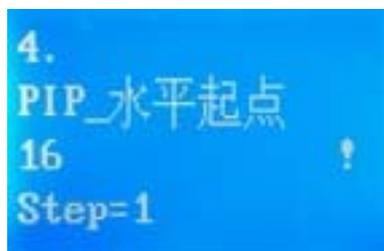
After LVP40X enters "PIP" mode, relevant setup information will appear in LCD in the format as shown in the figure below:
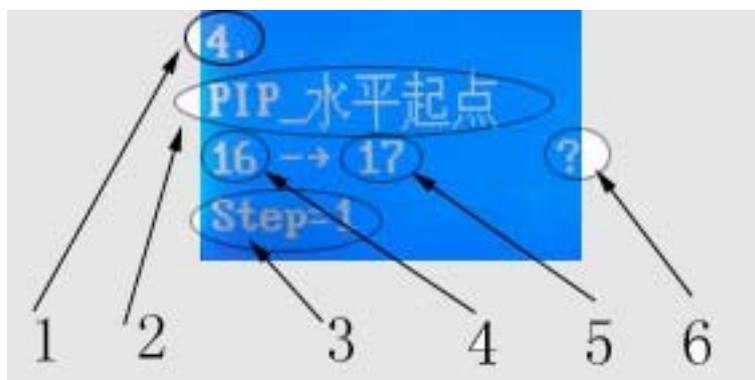
As above figure shows, the LCD consists of 6 sectors, table below lists the representations of each sector:

| Sector	Description
1	No. of current setup item
2	Description of current setup item
3	Step value for number setup, it can be 1, 10 or 100
4	Current value
5	New value
6	? : it is asking you whether to save the

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	New value; or ﹗: it means New value has been saved

LVP40X PIP image window is located in LED screen. As in PIP mode the PIP image is to be zoomed-in/out after being added to background, it means that 4 values listed in items 9~12 in the table below don't represent their pixels in LED, but represent the width and height value of output resolution "*Out_Format*" in the 6th option of setting menu. For details see figure below (provided "*Out_Format*" adopts 1920×1080 mode).

9	*PIP_ H_Start*	*PIP horizontal start*
10	*PIP_H_Width*	*PIP width*
11	*PIP_V_Start*	*PIP vertical start*
12	*PIP_V_Heigh*	*PIP height*

Note: the minimum values of *PIP_H_Width* and *PIP_V_Heigh* are both 128.
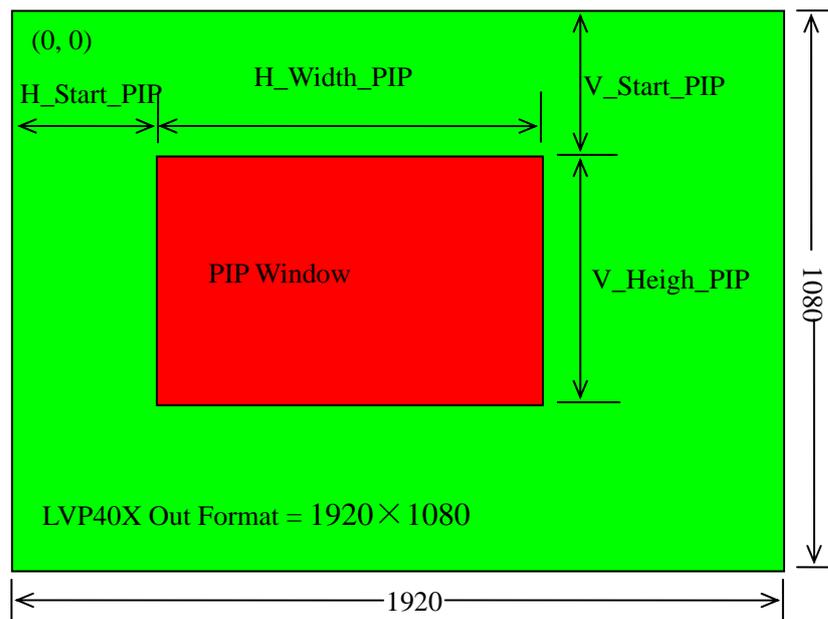
Item 8: " *PIP_Frame*"

    User can customize frame mode in PIP image window of LVP40X.
There are 4 setting options, i.e.: "No frame", "black 2 lines",
"white 2 lines" and "blue 2 lines".

Item 19: " *POP_Height*"

    LVP40X allows users to set **POP** image height by themselves. Like
items 9~12, this value doesn't represent the actual LED pixels. Its
minimum value is 128. When this value is less than the maximum
value, the image will be located in the centre of display as the figure
below shows:

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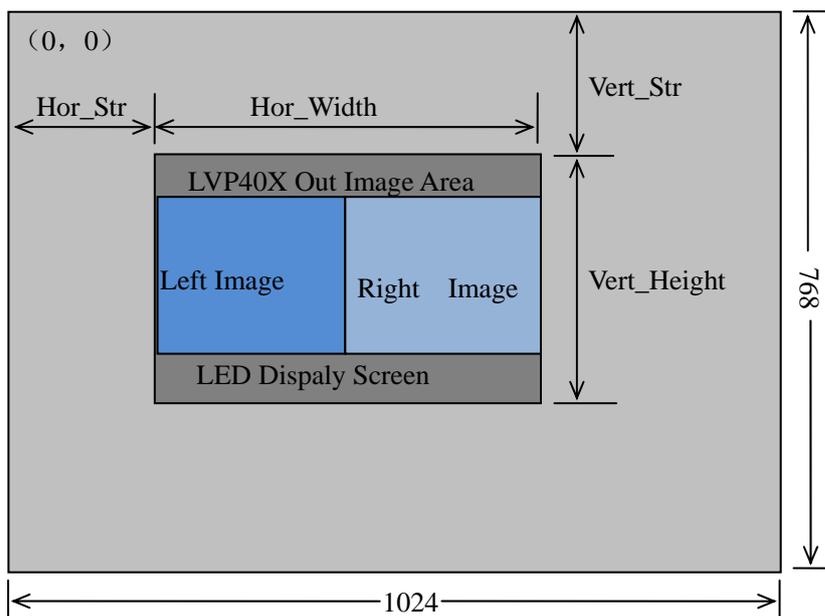
6. Text Overlay Setup

10	*Text Mode*
11	*Text_Thd_RGB*
12	*Text_Thd_R*
13	*Text_Thd_G*
14	*Text_Thd_B*

Item 10: *"Text Mode"*

LVP40X allows user to set text knock-out "< threshold" or ">threshold" . If it is less than threshold value, it means that the image of text signal less than current color threshold value will be added to background, while the part greater than threshold will be automatically filtered. If it is greater than threshold value, it means that the image of text signal greater than current color threshold value will be added to background.

Item 11: " *Text_Thd_RGB*"

LVP40X users can set R, G, B values of text threshold value by themselves, the three values can be set to be the same within 0~252.

Item 12~14: " *Text_Thd_R/G/B*"

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The three options are used to set R, G, B values respectively as a certain value within 0~252.

The following figure shows an example of text adding function. The text document in this sample is made using Powerpoint. Its parameters are set as below:

10	*Text knock-out mode*	*<Threshold*
11	*Text threshold RGB*	*235*
12	*Text threshold R*	*Default*
13	*Text threshold G*	*Default*
14	*Text threshold B*	*Default*

Background	Text	Text Overlay
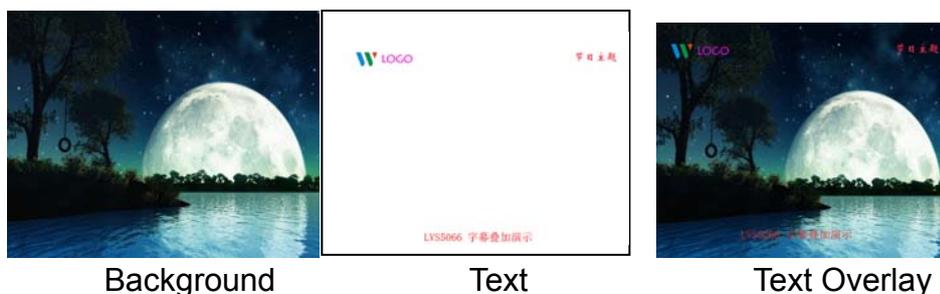
7. Device ID

Each LVP40X can define an Device ID, ID range is 1-255. With the software control debugging LVP40X, Software in the Device ID and the same ID of LVP40X equipment, and equipment to establish a communication software side.

If more than one LVP40X set different Device ID, can be achieved by a series of RS232 data line can be the implementation and control.

8. Splicing setup

LVP40X supports splicing 4 pieces of Leds of maximum 1920x1080 pixels into one big Led. A single set of **LVP40X** supports Led of maximum 7680x1080,1600*4800 or 3840x2160 pixels.

It supports 3 splicing modes, i.e.: Mode0, Mode1, Mode2. User can seamlessly switch between three preset modes quickly by pressing the buttons "Mode0", " Mode1", "Mode2".

Below is an example of 2×2 splicing for **LVP40X**, in which 4 small pieces of LED screens make up a large screen. In this example, provided the definition of each small LED is 1728×960, you can save it as "Mode0".

Output of **LVP40X**: OUT1 controls 1# LED,
OUT2 controls 2# LED,
OUT3 controls 3# LED,
OUT4 controls 4# LED

If so, please first setup **LVP40X** splicing setup as below:

The two setup items: *Output definition mode setup*
Output definition = 1920×1080

Mode0--- OUT1：   Mode0--- OUT2：

Input horizontal width =960   *Input horizontal width* =960
Input horizontal start =0   *Input horizontal start* =960
Input vertical height =540   *Input vertical height* =540
Input vertical start =0   *Input vertical start* =0
Output horizontal width =1728   *Output horizontal width* =1728
Output horizontal start =0   *Output horizontal start* =0
Output vertical height =960   *Output vertical height* =960
Output vertical start =0   *Output vertical start* =0

Mode0--- OUT3：   Mode0--- OUT4：

Input horizontal width =960   *Input horizontal width* =960
Input horizontal start =0   *Input horizontal start* =960
Input vertical height =540   *Input vertical height* =540
Input vertical start =540   *Input vertical start* =540
Output horizontal width =1728   *Output horizontal width* =1728
Output horizontal start =0   *Output horizontal start* =0
Output vertical height =960   *Output vertical height* =960
Output vertical start =0   *Output vertical start* =0

Then, we can setup **LVP40X**. As the figure below shows, to make up a large integrated picture, you should cut the corresponding parts from the input image.

1#   2#

Input image

(0,0)   (960,0)

(0,540)   (960,540)

1080

1920

3#   4#

LED display

960

1728
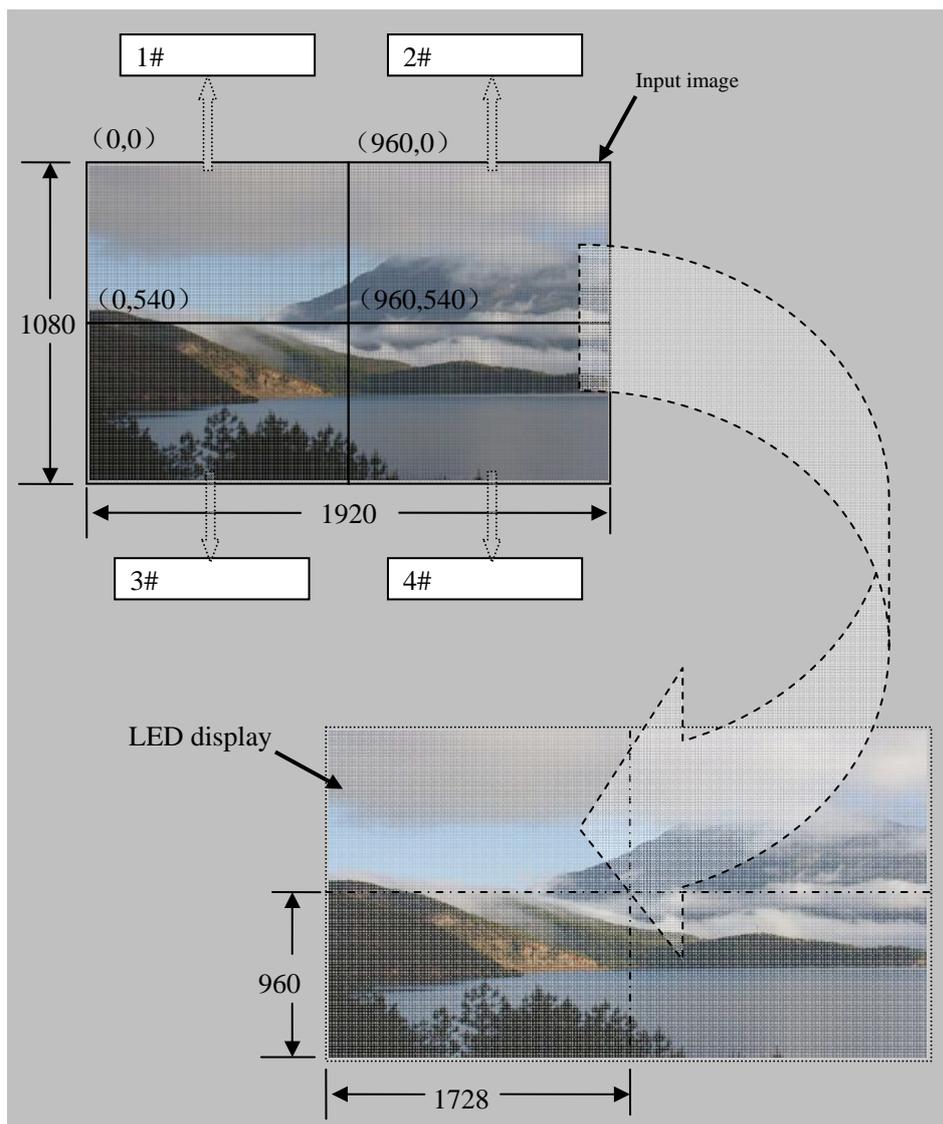
Item No. 16:   "*Input horizontal width* "

After **LVP40X** enters "Splicing Setup" mode, relevant setup information will appear in LCD display in the format as shown in figure below:

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As above figure shows, the LCD consists of 8 sectors, table below lists the representations of each sector:

Sector	Description
1	No. of current setup item
2	Description of current setup item
3	Current value
4	Save mode of current setup
5	New value
6	Step value for number setup, it can be 1, 10 or 100
7	？：it is asking you whether to save the New value; or ！: it means New value has been saved
8	DVI output port for current setup.

In this item, user can Press "Mode0" "Mode1" "Mode2" to select *"Save mode of current setup"*; Press "Out1" "Out2" "Out3" "Out4" to select *"DVI output port for current setup"*; Press "knob" to select *"New value"*, when the value you desire appears, Press "Enter" to save the setting, Press "Step" to select *"Step value for number setup"*.

While in any setup mode, Press "**Out1**", "**Out2**", "**Out3**" or "**Out4**", the system will directly skip to Item No. 16.

As above example shows, Press "Mode0" to select *Save mode of current setup=* Mode0,

Press "Out1" to select *DVI output port for current setup=Out1,* set *Input horizontal width =960;*

Press "Out2" to select *DVI output port for current setup=Out2,* set Input *horizontal width =960;*

Press "Out3" to select *DVI output port for current setup=Out3,*

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set Input *horizontal width =960;*

Press "Out4" to select *DVI output port for current setup=Out4,* set Input *horizontal width =960;*

Item No. 17: " *Input horizontal start* "

In this item, user can Press "Mode0" "Mode1" "Mode2" to select *"Save mode of current setup"*; Press "Out1" "Out2" "Out3" "Out4" to select *"DVI output port for current setup"* ; Press "knob" to select *"New value"* , when the value you desire appears, Press " Enter" to save the setting, Press "Step" to select *"Step value for number setup"* .

As above example shows, Press "Mode0" to select *Save mode of current setup=* Mode0,

Press "Out1" to select *DVI output port for current setup=Out1,* set Input *horizontal start =0;*

Press "Out2" to select *DVI output port for current setup=Out2,* set Input *horizontal start =960;*

Press "Out3" to select *DVI output port for current setup=Out3,* set Input *horizontal start =0;*

Press "Out4" to select *DVI output port for current setup=Out4,* set Input *horizontal start =960;*

Item No. 18: " *Input vertical height* "

In this item, user can Press "Mode0" "Mode1" "Mode2" to select *"Save mode of current setup"*; Press "Out1" "Out2" "Out3" "Out4" to select *"DVI output port for current setup"* ; Press "knob" to select *"New value"* , when the value you desire appears, Press " Enter" to save the setting, Press "Step" to select *"Step value for number setup"* .

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As above example shows, Press "Mode0" to select *Save mode of current setup=* Mode0,

Press "Out1" to select *DVI output port for current setup=Out1,* set Input *vertical height =540;*

Press "Out2" to select *DVI output port for current setup=Out2,* set Input *vertical height =540;*

Press "Out3" to select *DVI output port for current setup=Out3,* set Input *vertical height =540;*

Press "Out4" to select *DVI output port for current setup=Out4,* set Input *vertical height =540;*

Item No. 19: " *Input vertical start* "

In this item, user can Press "Mode0" "Mode1" "Mode2" to select *"Save mode of current setup"*; Press "Out1" "Out2" "Out3" "Out4" to select *"DVI output port for current setup"* ; Press "knob" to select *"New value"* , when the value you desire appears, Press " Enter" to save the setting, Press "Step" to select *"Step value for number setup"* .

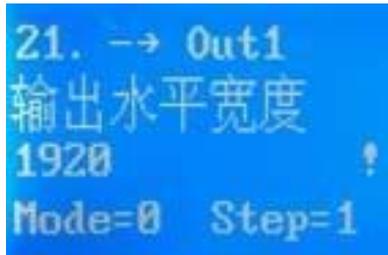As above example shows, Press "Mode0" to select *Save mode of current setup=* Mode0,

Press "Out1" to select *DVI output port for current setup=Out1,* set Input *vertical start =0;*

Press "Out2" to select *DVI output port for current setup=Out2,* set Input *vertical start =0;*

Press "Out3" to select *DVI output port for current setup=Out3,* set Input *vertical start =540;*

Press "Out4" to select *DVI output port for current setup=Out4,* set Input *vertical start =540;*

Item No. 20: " *Output horizontal width* "

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In this item, user can Press "Mode0" "Mode1" "Mode2" to select *"Save mode of current setup"*; Press "Out1" "Out2" "Out3" "Out4" to select *"DVI output port for current setup"* ; Press "knob" to select *"New value"* , when the value you desire appears, Press " Enter" to save the setting, Press "Step" to select *"Step value for number setup" .*

As above example shows, Press "Mode0" to select *Save mode of current setup=* Mode0,

Press "Out1" to select *DVI output port for current setup=Out1,* set Output *horizontal width =1728;*

Press "Out2" to select *DVI output port for current setup=Out2,* set Output *horizontal width =1728;*

Press "Out3" to select *DVI output port for current setup=Out3,* set Output *horizontal width =1728;*

Press "Out4" to select *DVI output port for current setup=Out4,* set Output *horizontal width =1728;*

Item No. 21: " *Output horizontal start* "

In this item, user can Press "Mode0" "Mode1" "Mode2" to select *"Save mode of current setup"*; Press "Out1" "Out2" "Out3" "Out4" to select *"DVI output port for current setup"* ; Press "knob" to select *"New value"* , when the value you desire appears, Press " Enter" to save the setting, Press "Step" to select *"Step value for number setup" .*

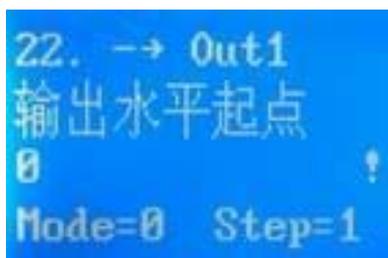As above example shows, Press "Mode0" to select *Save mode of current setup=* Mode0,

Press "Out1" to select *DVI output port for current setup=Out1,* set Output *horizontal start =0;*

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Press "Out2" to select **DVI output port for current setup=Out2, set Output horizontal start =0;**

Press "Out3" to select **DVI output port for current setup=Out3, set Output horizontal start =0;**

Press "Out4" to select **DVI output port for current setup=Out4, set Output horizontal start =0;**

Item No. 22: " **Output vertical height** "

```
23. -→ Out1
输出垂直高度
1080            !
Mode=0   Step=1
```

In this item, user can Press "Mode0" "Mode1" "Mode2" to select **"Save mode of current setup"**; Press "Out1" "Out2" "Out3" "Out4" to select **"DVI output port for current setup"** ; Press "knob" to select **"New value"** , when the value you desire appears, Press " Enter" to save the setting, Press "Step" to select **"Step value for number setup"** .

As above example shows, Press "Mode0" to select **Save mode of current setup=** Mode0,

Press "Out1" to select **DVI output port for current setup=Out1, set Output vertical height =960;**

Press "Out2" to select **DVI output port for current setup=Out2, set Output vertical height =960;**

Press "Out3" to select **DVI output port for current setup=Out3, set Output vertical height =960;**

Press "Out4" to select **DVI output port for current setup=Out4, set Output vertical height =960;**

Item No. 23: " **Output vertical start** "

```
24. -→ Out1
输出垂直起点
0               !
Mode=0   Step=1
```

In this item, user can Press "Mode0" "Mode1" "Mode2" to select **"Save mode of current setup"**; Press "Out1" "Out2" "Out3" "Out4" to select **"DVI output port for current setup"** ;

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Press "knob" to select **"New value"**, when the value you desire appears, Press "Enter" to save the setting, Press "Step" to select **"Step value for number setup"**.

As above example shows, Press "Mode0" to select **Save mode of current setup=** Mode0,

Press "Out1" to select **DVI output port for current setup=Out1,** set Output **vertical start =0;**

Press "Out2" to select **DVI output port for current setup=Out2,** set Output **vertical start =0;**

Press "Out3" to select **DVI output port for current setup=Out3,** set Output **vertical start =0;**

Press "Out4" to select **DVI output port for current setup=Out4,** set Output **vertical start =0;**

9. Exit setup

Item 24: "**Exit Setup** "

Press "↑" to move to the last item: "**Exit setup** ", then Press "knob" to select "**YES** ", then Press "**Enter**" to exit setup mode.

If you Press "**Setup**" key while in any setup mode, the system will skip to the No.27 item.

10. Factory district setup

The following are factory district setups, which are recommended to be made under the guidance of manufacturer's technicians, any improper setting or operation may result in abnormal happening to the device.

Item 25: "**DVI HDCPsetup**"

After entering item No.24 from item No. 23, press "Preselect V1" for 5 times, then press "↑" to move to Item No.25: "DVI/HDCP setup", click "knob" to select "Yes" or "No", then click "Enter" to select whether to set DVI HDCP.

Item 26: "*Device_Init*"

Click "knob" to select "Yes", then click "Enter" to reset the factory settings, the moment the system will remind you *"The device is resetting, please restart the machine"*, just follow the instruction.

Item 27: "*White Balance Adjustment*"

After inputting the analog signal to the video processor who's white balance has not been calibrated, the picture on the display may appear some bad phenomena, such as color cast, extreme-darkness. **LVP606** can solve the above problems by automatically calibrating white balance based on the input analog signals (CBS, VGA). Operating procedures:

Switch to the corresponding analog input signal, enter Item No. 27 after the processor detects input signals and exports the signals to the display, press " **Enter**" to calibrate white balance.

Caution: The white balance of all video processors have been calibrated using standard signals in the factory, please don't set this item unless necessary!

V. Specifications

Inputs		
Nums/Type	2×Composite video 1×DP(DisplayPort) 1×VGA (RGBHV) 1×DVI 1×HDMI 1×SDI (HDSDI)	
Video system	PAL/NTSC	
Composite Video Scope/Impedance	1V (p_p) / 75Ω	
VGA Format	PC (VESA)	≤1600x1200 @60HZ
VGA Scope/Impedance	R, G, B = 0.7 V (p_p) / 75Ω	
DVI Format	SD/HD（CEA-861）	≤1920x1080P @60HZ
	PC(VESA)	≤1600x1200 @60HZ
HDMI Format (HDCP)	SD/HD（CEA-861）	≤1920x1080P @60HZ
	PC(VESA)	≤1600x1200 @60HZ
DP Format	SD/HD（CEA-861）	≤1920x1080P @60HZ
	PC(VESA)	≤1600x1200 @60HZ
SDI format	SDI-SMPTE 259M-C	576i @50HZ 480i @60HZ
HDSDI 3GSDI format	HDSDI-SMPTE 292M SMPTE 274M/296M SMPTE 424M/425M	≤1080P @50Hz/60Hz
Input Connectors	VGA：15pin D_Sub(Female) DVI：24+1 DVI_D Composite video：BNC DP: DisplayPort SDI/HDSDI: BNC	
Outputs		
Nums/Type		
DVI Format	1024×768@60Hz 1280×1024@60Hz 1600×1200@60Hz 1920×1080p@60Hz	
VGA Scope/Impedance	R, G, B = 0.7 V (p_p) / 75Ω	
Output Connectors	LVP404: 4*x2 pcs DVI-D LVP408: 8*x2 pcs DVI-D LVP412: 12*x2 pcs DVI-D	

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Others	
Control	Panel Button,RS232
Power	100-240VAC 60W 50/60Hz
Operating Temp	5-40 ℃
Humidity	15-85%
dimensions	190 mm (height) ×400mm (width) ×525mm (length)
Weight	Net Weight :3.8 Kg Gross Weight：6.2Kg

Note:LVP40X contains the following 4 models。
    LVP404
    LVP408
    LVP412

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