

OVP-K 视频控制器

双画面 OVP-K6P / K10P / K16P

快速指南



1. 简介

OVP-K6P /K10P /K16P是由仰邦科技最新推出的3款操作简便、功能丰富的双画面LED视频控制器。集专业的LED显示屏控制技术与强大的视频处理能力于一体，分别集成6/10/16千兆网口输出，最大带载393/655/1000万像素。设备采用1U标准工业机箱设计，适应各种复杂应用环境。广泛应用于商场、酒店、展览展示、会议室、电视演播中心等多种场合的LED显示屏。

特性

- 支持双画面显示和任意布局
- 标配320×240彩色液晶屏
- 支持多语言菜单界面（中文、英文、俄文、越南语）
- 标配RS232控制接口，可接入中控设备
- 标配4路视频输入接口：DVI*1、HDMI2.0*1、DP1.2*1、VGA*1，支持2路4K*2K@60Hz
OVP-K6P/K10P带载宽度≤8192，高度≤3840； OVP-K16P带载宽度≤16000，高度≤3840
- 支持外置独立音频输入/输出
- 支持窗口位置、大小调整和窗口截取功能
- 支持输入分辨率预设及自定义调节
- 支持输入自适应信号源分辨率
- 支持输出自适应显示屏参数配置
- 支持全屏缩放、点对点显示、画面截取三种模式
- 支持快捷点屏，简单操作即可完成屏体配置
- 支持输入源一键切换
- 支持输入源定时自动切换
- 可预存16种用户模式供用户快速调用
- 可通过液晶菜单、面板按键及USB端口控制设备

2. 应用场景



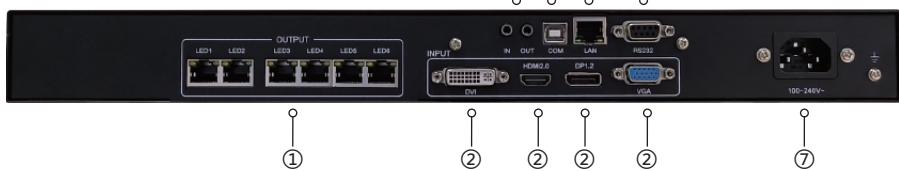
3. 外观

▶ 前面板



按键说明	
1	关键 : 设备电源开关。
2	320×240彩色液晶屏 : 用于显示操作菜单和设备工作状态。
3	旋钮[OK]键 : 按下旋钮，表示确认或者进入下级菜单。选择旋钮表示选择菜单或调节参数。
4	[ESC]键 : 返回键，退出当前菜单或操作。
5	输入源按键说明 HDMI: 按下选择HDMI输入信号源。 DP: 按下选择DP输入信号源。 DVI: 按下选择DVI输入信号源。 VGA: 按下选择VGA输入信号源。 IMG1: 按下选择画面窗口1。 IMG2: 按下选择画面窗口2。
6	[BRIGHT]键 : 按下进入亮度调节菜单。 [MODE]键 : 按下进入模式调用菜单。

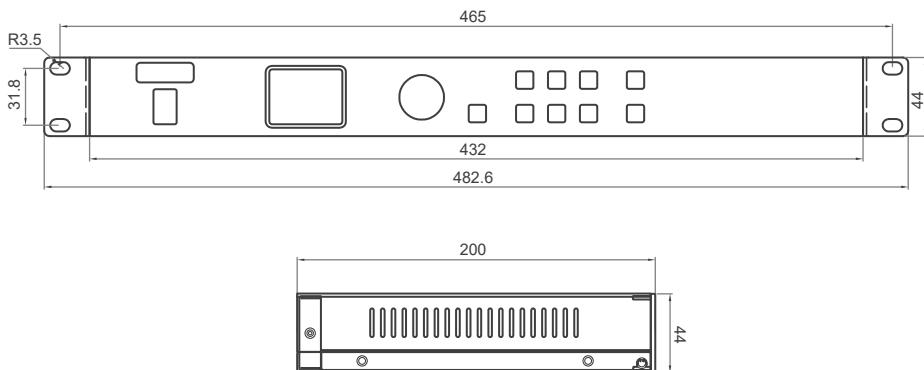
▶ 后面板



接口说明

1	千兆网口: 6/10/16路千兆网口输出接口, 连接至接收卡。
2	DVI /HDMI2.0 /DP1.2 /VGA: 视频输入接口
3	AUDIO IN /OUT: 音频输入输出接口
4	COM: USB控制接口
5	LAN: 网络控制接口
6	RS232: 中控接口
7	电源: 100-240V~50/60Hz

4.设备尺寸(mm)



5.产品使用

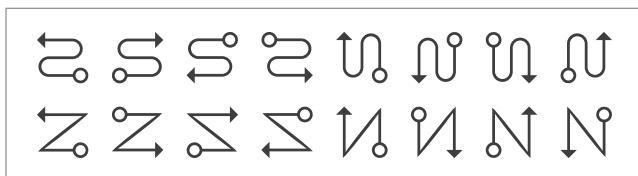
5.1 快捷点屏

旋钮选择【OK】键进入主菜单，然后选择“智能调屏”下的“快捷点屏”。



前提条件：

- 显示屏为规则的显示屏，非异形屏。
- 显示屏箱体为规则箱体，且各箱体分辨率大小一致。
- 显示屏箱体之间的连线为以下几种方式，每个网口的走线能顺着同一个方向向下连接，不能随意走线。



操作步骤：

- 步骤 1：对 OVP 设备和 LED 显示屏进行上电操作；
- 步骤 2：在主界面按下旋钮进入菜单界面；
- 步骤 3：旋转旋钮选择“智能调屏 → 快捷点屏”，进入“快捷点屏”界面；
- 步骤 4：根据界面引导分三步进行“箱体设置”、“选择网口”、“屏参设置”；
- 步骤 5：点击“发送”按钮后完成操作。



5.2 输入信号源切换

用户根据实际情况自行设置具体的输入信号源，直接点击前面板对应的输入信号源按键即可。

输入分辨率设置

步骤 1：旋钮选择【OK】键进入主菜单，然后选择“高级选项”，进入菜单；

步骤 2：在“高级选项”里选择输入分辨率，进入输入分辨率菜单；

步骤 3：旋钮选择参数后，再旋钮选中“应用”后短按【OK】键进行设置。

输入分辨率	
画面选择	画面1
水平宽度	1920
垂直高度	1080
刷新率	60Hz
<input type="button" value="应用"/>	<input type="button" value="取消"/>
提示: 当前输入源: HDMI	

5.3 画面设置

画面布局

步骤 1：旋钮选择【OK】键进入主菜单，然后选择“画面布局”；

步骤 2：旋钮选择对应画面后，短按【OK】键进入参数设置界面；

步骤 3：旋钮选择参数值后，短按【OK】键进行设置。

画面布局		
画面1 (顶部)	画面开关	开启
	垂直高度	1024
画面2 (底部)	垂直高度	1024
	水平起始	0
	垂直起始	0

图像截取

旋钮选择【OK】键进入主菜单，然后选择“图像截取”，进入图像截取菜单：

- 截取画面：选择需要截取的画面，默认为画面 1。
- 截取开关：输入图像截取功能开启或关闭，默认为关闭。
- 截取宽度：设置截取的画面的整体宽度。
- 截取高度：设置截取的画面的整体高度。
- 水平起始：截取画面的横向的起始位置，以画面的左上角为参考点。
- 垂直起始：截取画面的纵向的起始位置，以画面的左上角为参考点。

图像截取	
截取画面	画面1
截取开关	关闭
截取宽度	1024
截取高度	53
水平起始	0
垂直起始	0
提示: 当前被截取信源: HDMI 1920x1080@60Hz	

5.4 图像效果

步骤 1：旋钮选择【OK】键进入主菜单，然后选择“高级选项”进入菜单；

步骤 2：在“高级选项”里选择“图像效果”，进入图像效果菜单；

步骤 3：旋钮选择参数值后，短按【OK】键进行设置。

图像效果	
亮度	1
锐度	5
对比度	53
饱和度	50
动态对比度	1
色温	→
OK:进入	←:返回

5.5 用户模式保存与调用

模式保存

步骤 1：旋钮选择【OK】键进入主菜单，选择“模式设置”进入菜单；

步骤 2：旋钮选择“模式保存”后，短按【OK】键进入模式保存菜单；

步骤 3：旋钮选择 1 个模式后，短按【OK】键保存该模式。

模式保存		
<input checked="" type="checkbox"/> 模式1	画面1	开启 HDMI
<input type="checkbox"/> 模式2	画面大小	512 x 256
<input type="checkbox"/> 模式3	画面起始	(0, 0)
<input type="checkbox"/> 模式4		
<input type="checkbox"/> 模式5	画面2	开启 HDMI
<input type="checkbox"/> 模式6	画面大小	512 x 256
<input type="checkbox"/> 模式7	画面起始	(0, 0)

模式调用

步骤 1：旋钮选择【OK】键进入主菜单，选择“模式设置”进入菜单；

步骤 2：旋钮选择“模式保存”后，短按【OK】键进入模式调用菜单；

步骤 3：旋钮选择 1 个模式后，短按【OK】键保存该模式。

模式调用		
<input checked="" type="checkbox"/> 模式1	画面1	开启 HDMI
<input type="checkbox"/> 模式2	画面大小	512 x 256
<input type="checkbox"/> 模式3	画面起始	(0, 0)
<input type="checkbox"/> 模式4		
<input type="checkbox"/> 模式5	画面2	开启 HDMI
<input type="checkbox"/> 模式6	画面大小	512 x 256
<input type="checkbox"/> 模式7	画面起始	(0, 0)

常见问题

问题现象	检查、调校项目明细
液晶屏幕无显示，无图像输出。	<ul style="list-style-type: none">● 检查电源线是否接触不良。● 检查电源开关是否为打开。
液晶屏有信息显示，但没有图像输出。	<ul style="list-style-type: none">● 检查是否正确连接输入信号，并且已经切换到对应的信号源。● 检查显示终端是否支持本设备输出分辨率及刷新率。● 检查亮度和对比度是否设置得太低。
LED 屏上图像不能全屏显示。	<ul style="list-style-type: none">● 检查“LED 屏宽度、LED 屏高度”是否与 LED 屏分辨率一致。进入“图像输出”菜单设置参数。
LED 屏图像居中显示，四周有黑边。	<ul style="list-style-type: none">● 使用电脑显卡作为 VGA/DVI/HDMI 输入源，偶尔会出现这个异常现象。如果是 VGA 信号源，在 BXsetpro 调试软件中打开“VGA 校正”进行调整。如果是 DVI/HDMI 信号源，在显卡控制面板点击“调整桌面尺寸和设置”，选择“全屏”。
面板按键功能操作无响应。	<ul style="list-style-type: none">● 查看液晶屏提示信息按键锁是否处于锁定状态 (④)。此时，进入主菜单，在“高级”菜单里设置按键锁为解锁状态即可 (⑤)。

① 安全须知

本产品内有高压，非专业维修人员不得打开机箱或者自行对本设备进行维修，以免发生危险。

本产品交流电源的输入电压范围是100~240VAC 50/60Hz，请您使用正确的电源。

本产品通过电源线接地。为了避免电流冲击，在连接产品输入或输出端口前请将电源线插入接有地线的插座。电源线中接地导体的保护性接地在安全操作中是必不可少的。

当您要连接或者拔除任何信号线或者控制线时，请先关闭LED视频控制器电源。

请在干净、干燥、通风的环境中使用，不要将本产品放入高温、潮湿等环境中使用。

本产品为电子类产品，请远离火源、水源以及易燃、易爆的危险品。

如发现有怪异噪音、冒烟或异味等异常情况，应立即拔掉电源插头。

OVP-K video controller

OVP-K6P /K10P /K16P (Two windows)

Quick guide



1. Description

OVP-K6P /K10P /K16P is the latest easy-to-use, feature-rich dual-screen LED video controllers from shanghai ONBON Technology. Set professional LED display control technology and powerful video processing capabilities in one, respectively integrated 6/10/16 gigabit network port output, the maximum load 3.93/6.55/10 million pixels. The equipment adopts 1U standard industrial chassis design to adapt to various complex application environments. Widely used in shopping malls, hotels, exhibitions, conference rooms, TV studios and other occasions of LED display.

Features

- Support two windows display and arbitrary layout
- 320×240 LCD panel
- Support multiple language (Chinese,English,Russia,Vietnam,other language updating)
- Standard RS232 control interface to access the central control equipment
- 4 video input interfaces: DVI*1, HDMI2.0*1, DP1.2*1, VGA*1, support two 4K*2K@60Hz OVP-K6P/K10P loading width ≤8192, height ≤3840; OVP-K16P with loading width ≤16000, height ≤3840
- Support external independent audio input/output
- Support window position, size, and crop functions
- Support input resolution preset and custom adjustment
- Supports the input adaptive signal source resolution
- Supports adaptive display parameter configuration
- Supports full-screen zooming, point-to-point display, and image capture
- Supports quick start screen , simple operation can set the screen configuration
- Supports one-click switching of input sources
- Automatic switchover of input sources is supported periodically can be prestored 16 user modes for users to call quickly
- The device can be controlled through the LCD menu, panel keys and USB port

2. Application



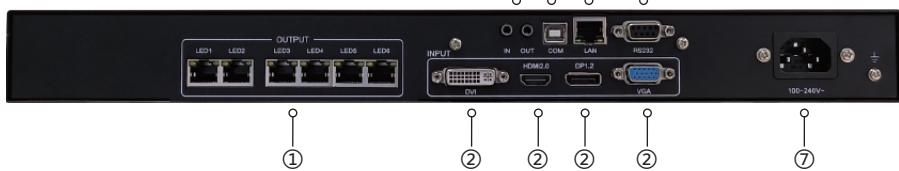
3. Appearance

- Front panel



Key instruction	
1	On/off: Device switch
2	320x240 LCD: Display the operation menu and device status.
3	Knob[OK]: Press the knob to confirm or enter the subordinate menu. Select the knob to select a menu or adjust parameters.
4	[ESC] key: Back key to exit the current menu or operation.
5	Enter the input source key HDMI: Press to select the HDMI input signal source. DP: Press to select the DP input signal source. DVI: Press to select a DVI input signal source. VGA: Press to select a VGA input signal source. IMG1: Press to select window 1. IMG2: Press to select window 2.
6	[BRIGHT] key: Press to enter the brightness adjustment menu. [MODE] key: Press to enter the mode menu.

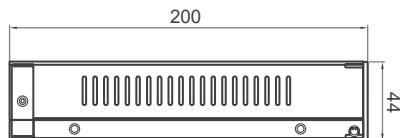
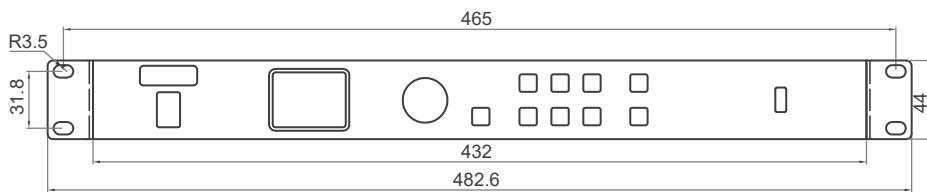
► Back panel



Interface

1	Gigabit network port: 6/10/16 channels of Gigabit network port output, connect with receiving card
2	DVI /HDMI2.0 /DP1.2 /VGA: Video input interface
3	AUDIO IN /OUT: Audio input/output interface
4	COM: USB control
5	LAN: LAN control
6	RS232: Central control
7	Power: 100-240V~50/60Hz

4. Dimension(mm)



5. User manual

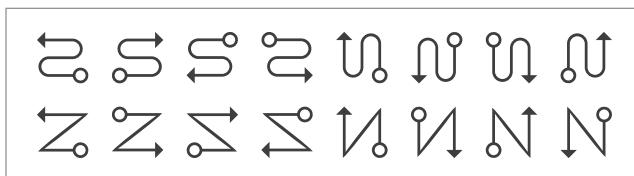
5.1 Quick debugging screen

Knob select [OK] to enter the main menu, and then select "Quick debugging screen" under "smart debugging screen" menu.



Prerequisites:

- The display screen is regular design, not a special-shaped screen.
- The cabinet is regular, and the resolution of each cabinet is the same.
- The cables between the cabinets are connected in the following ways. The cables of each network port can be connected downward in the same direction.



Operation:

Step 1: Power on OVP devices and LED screen.

Step 2: Press the knob on the main screen to enter the menu.

Step 3 :Rotate the knob and choose smart debugging screen → quick debugging screen.

Step 4: Cabinet settings, select port and screen parameters.

Step 5: Click the "send" to finish the operation.

SMART DEBUGGING SCREEN	Step 1 Cabinet Setting	Step 2 Select port	Step 3 Screen parameter setting
Quick debugging screen →	Cabinet width 128	Select port LAN1	Number of Cabinet in rows 1
Load scan →	Cabinet height 96		Number of Cabinet in lines 1
Curing parameter →			Screen wiring method Line1
Mapping →			Horizontal offset 0
			Vertical offset 0
		<input type="button" value="Previous"/> <input type="button" value="Next step"/>	<input type="button" value="Previous"/> <input type="button" value="Send"/>
OK:Enter ↺:Back			Max pixels: 3640(H), 2600(V)

5.2 Switch the input signal source

The user can set the specific input signal source according to the actual situation, and directly click the input signal source button corresponding to the front panel.

Input EDID

Step 1: Knob select 【OK】 to enter the main menu, and then select "Advanced " to enter the advanced menu.

Step 2: Select the input EDID in "Advanced " to enter the input EDID menu.

Step 3: After selecting parameters on the knob, select and press the [OK] to set the parameters.

INPUT EDID	
Image selections	Image1
Height	1080
Height	1080
Refresh rate	60Hz
OK	Cancel
Current signal: HDMI no signal	

5.3 Image set

Layout

Step 1: Knob select [OK] to enter the main menu, then select "Layout".

Step 2: Select "layout" to set the parameter.

Step 3: After selecting the parameter value, press the [OK] to set.

LAYOUT		
Image1 (Top)	Switch	OPEN
	Width	1024
	Height	1024
Image2 (Bottom)	X	0
	Y	0

Image crop

Knob Select [OK] to enter the main menu, and then select "Crop" to enter the image crop menu:

- Crop the image screen: Select the image you want to crop. The default is image1.
- Switch: Set image crop function on or off, the default is off.
- Crop width: Set the overall width of the cropped image.
- Crop height: Set the overall height of the cropped image.
- Crop X: Crop the horizontal starting position of the image, the top left corner of the image as the reference point.
- Crop Y: Crop the vertical starting position of the image, the top left corner of the image as the reference point.

CROP	
Crop image	Image1
Switch	Close
Crop width	5
Crop height	53
Crop x	0
Crop y	0

Current crop signal: HDMI 1920x1080@60Hz

5.4 Image quality

Step 1: Knob select 【OK】 to enter the main menu, and then select "advanced " to the menu.

Step 2: Select "Image quality" in "Advanced" to the menu.

Step 3: After selecting the parameter value, press the [OK] to set.

IMAGE QUALITY	
Brightness	1
Sharpness	5
Contrast	53
Saturation	50
Dynamic contrast	1
Color temperature	→
OK:Enter	←:Back

5.5 User mode save and switch

Mode save

Step 1: Knob select [OK] to enter the main menu.

Step 2: Knob select "mode save" and press the[OK] to enter the mode save menu.

Step 3: Knob select the mode you want to save and press the [OK] to set.

MODE SAVE		
<input checked="" type="checkbox"/> MODE1	Image1	Open HDMI
<input type="checkbox"/> MODE2	Size	512 x 256
<input type="checkbox"/> MODE3	Coordinate	(0, 0)
<input type="checkbox"/> MODE4		
<input type="checkbox"/> MODE5	Image2	Open HDMI
<input type="checkbox"/> MODE6	Size	512 x 256
<input type="checkbox"/> MODE7	Coordinate	(0, 0)

User mode switch

Step 1: Knob select [OK] to enter the main menu.

Step 2: Knob select "mode switch" and press the[OK] to enter the mode switch menu.

Step 3: Knob select the mode you want to save and press the [OK] to set.

USER MODE SWITCH		
<input checked="" type="checkbox"/> MODE1	Image1	Open HDMI
<input type="checkbox"/> MODE2	Size	512 x 256
<input type="checkbox"/> MODE3	Coordinate	(0, 0)
<input type="checkbox"/> MODE4		
<input type="checkbox"/> MODE5	Image2	Open HDMI
<input type="checkbox"/> MODE6	Size	512 x 256
<input type="checkbox"/> MODE7	Coordinate	(0, 0)

FAQ

Problem	Check and adjust project details
No display or image output on the LCD screen	<ul style="list-style-type: none">Check whether the power cable is in poor connection.Check whether the power switch is on.
Info display but no image output on the LCD screen	<ul style="list-style-type: none">Check whether the input signal is correctly connected and switched to the corresponding signal source.Check whether the display terminal supports the output resolution and refresh rate of the device.Check whether the brightness and contrast are set too low.
The image on the LED screen cannot be displayed in full screen	<ul style="list-style-type: none">Check whether "LED screen width, LED screen height" is consistent with the LED screen resolution. Set parameters in the "Image Output" menu.
The LED screen image is displayed in the center with black edges around it	<ul style="list-style-type: none">Using a computer graphics card as a VGA/DVI/HDMI input source, this anomaly occasionally occurs. If it is a VGA signal source, open "VGA correction" in the BXsetpro debugging software to adjust it. For a DVI/HDMI signal source, click "adjust desktop size and settings" on the graphics card control panel and select "full screen".
Panel buttons do not respond to operation	<ul style="list-style-type: none">Check whether the key lock is locked () on the LCD. At this time, enter the main menu, set the key lock to unlock in the "Advanced" menu ().

Safety notice

This product has high pressure, non-professional maintenance personnel are not allowed to open the chassis or maintain the equipment by themselves, so as to avoid danger.

The input voltage range of AC power supply of this product is 100~240VAC 50/60Hz, please use the correct power supply.

This product is grounded through the power cable. To avoid current shocks, insert the power cable into a ground socket before connecting the input or output ports of the product. The protective grounding of the ground conductor in the power cable is essential for safe operation.

When you want to connect or unplug any signal or control cable, please turn off the LED video controller power first.

Please use in a clean, dry and ventilated environment. Do not put this product into a high temperature, humid environment.

This product is an electronic product. Please keep away from fire, water and inflammable and explosive dangerous goods.

If you find strange noise, smoke or odor and other abnormal conditions, should immediately unplug the power plug.