Video Wall Controller

For Big Screen Display Application

VWBOX-E122

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To buy a large display for advertisement, for example 64 or 84 inches LCD, is too high to afford. A video wall is a group of smaller displays tiled together in a matrix to create one large display. IEI provides the controller box that drives the display over a multi-screens.

IEI's VWBOX-E122 is the display wall box for four (2 x 2) LCD monitor displays. The VWBOX-E122 receives and displays the image on any size LCD monitor with selectable display mode.One VWBOX-E122 can supports maximum resolution up to 1920 x 1200 per display. The compact fanless design box is suitable for the installation in any kind of business implementation.Compatible with any size, any brand LCD monitor, the VWBOX-E122 is the cost-effective solution.

Features:

- Fanless design for any implementations.
- Provide 1 image source input (DVI / Component) and 4 DVI outputs to four (2 x 2) monitors.
- Support various display mode
- Up to 1920 x 1200 pixel input / output per display
- OSD / Remote control functions for
  - Display mode selection
  - Output resolution selection
  - Border mask enable/ disable and frame wideness adjustment
- RS-232 communication for remote control
- Easy-to-DIY the video wall display

Support Various Display Modes

Display Modes Selection :

Clone Mode

- Clone mode (1x1):
The VWBOX-E122 box displays the same content on the four screens.

Full Mode

- Full mode (2x2):
The VWBOX-E122 box divides the input image into four sections and stretch the ¼ image to fit to the selected resolution each monitor. The full display also support mask enable and disable.

Vertical Replication Mode

- Vertical Replication mode (1x2):
The IEI VWBOX-E122 can project the same image on the top two LCD panels and bottom two LCD panels. Customers can require only two LCD panels to create a larger display.

PIP Mode

Mode 1 Mode 2 Mode 3 Mode 4

- PIP mode (Mode 1~4):
The VWBOX-E122 box allows the 3/4 image displayed on three screen and full image displayed on the fourth screen. The VWBOX-E122 provides four display modes.

Selection	Description
Mode 1	Full image display on the left-upper screen
Mode 2	Full image display on the right-upper screen
Mode 3	Full image display on the left-lower screen
Mode 4	Full image display on the right-lower screen

Video Wall Solution System Architecture

Input Source

iSignager series
digital signage

DVD Player

TV box

1 x Component Input	
1 x DVI Input	
4 x DVI Outputs	

Output Display

VWBOX-E122

Support Any Size LCD Monitor

The VWBOX-E122 is an cost-effective video wall box solution. It's compatible with LCD monitor in any size and any brand. The maximum resolution supported is up to 1920 x 1200 per LCD monitor.

	Source	Resolution
Input	DVI/ VGA/ Component	720x350, 640x400, 720x400, 640x480, 800x 600, 832x624, 1024x768, 1152x864, 1152x 870, 1152x900, 1280x768, 1280x960, 1280x 1024, 1600x1200, 1680x1050, 1920x1200, 480i/p, 720i/p, 1080i/p
Output	DVI	1024x768, 1360x768, 1280x1024, 1400x 1050, 1680x1050, 1600x1200, 1920x1200

Bezel Mask Function

The VWBOX-E122 supports mask enabled and disabled functions control. When enable the mask function, the image is overlaid for each grid space. Users can easily adjust the image to fit in the monitor with mask enabled or disabled via a remote control.

Comparison

Mask Disabled

Mask Enabled

Remote Control / OSD Function

The VWBOX-E122 is packed with a remote control for easy setting. The support functions are
- Output resolution selection
- Display mode selection
- Bezel mask adjustment
- Input source selection
- Power on/off

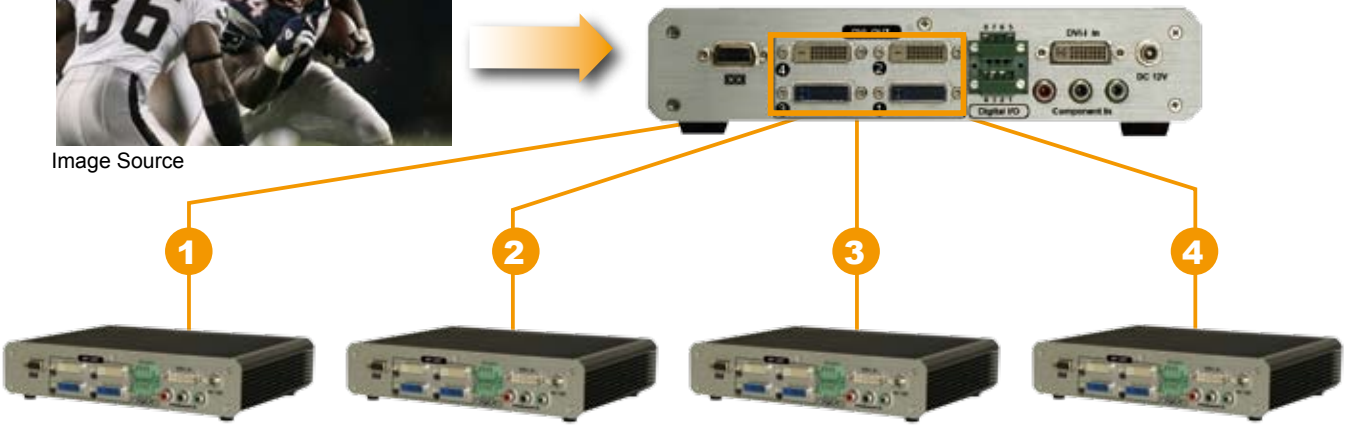
SmartOSD for Remote Management / Digital IO Setting

IEI introduces the SmartOSD software for remote manage and control VWBOX-E122 via RS-232 or DDC interface. SmartOSD supports all the remote control function, and it also allow the GPIO high/ low voltage setting.

SCALABLE VIDEO WALL SYSTEM BLOCK DIAGRAM

In addition to 2x2 video wall display, IEI's VWBOX-E122 provides extra unique feature to expand the video wall architecture up to 16 screens. Serial connect five VWBOX-E122 boxes, you can easily build up the large scale video wall in the cost-effective solution.

Image Source



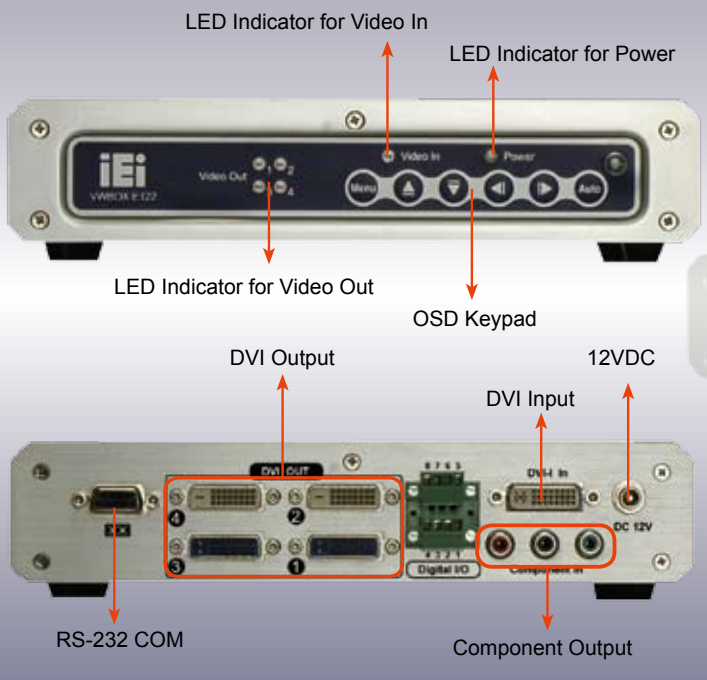
Specifications

Model Name		VWBOX-E122 Series
Front Panel	LED Indicator	1x Video Input 4x Video Output 1x Power
	Keypad Control	Menu, Up, Down, Left, Right, Auto
I/O Interface	Video Input	1 x DVI-I, 1 x Component
	Video Output	4 x DVI-D Output
	Power	1 x Power Switch
	Serial Port	1 x RS-232
Resolution	Input	720x350, 640x400, 720x400, 640x480, 800x 600, 832x624, 1024x768, 1152x864, 1152x 870, 1152x900, 1280x768, 1280x960, 1280x 1024, 1600x1200, 1680x1050, 1920x1200, 480i/p (720 x 480), 720i/p (1280 x 720), 1080i/p (1920 x 1080)
	Output	1024x768, 1360x768, 1280x1024, 1400x 1050, 1680x1050, 1600x1200, 1920x1200
Power	Power Input	12V DC in
	Power Adapter	90VAC to 264VAC / 47Hz to 63Hz
	Power Consumption	20W
OSD/ Remote Control		1. Display mode selection 2. Output resolution selection 3. Border mask enable/ disable
Operating Temperature		0~40°C
Dimension		178.2 x 229.5 x 47 mm
Safety		UL, CE, FCC

Ordering Information

Model Name	Descriptions
VWBOX-E122-R10	Video Wall Control Box, 1 x DVI Input, 1 x Component Input, 4 x DVI Output, 2 by 2 display
VWBOX-E122/DVI-R10	Video Wall Control Box, 1 x DVI Input, 4 x DVI Output, 2 by 2 display

I/O Interface



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