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DB-VWC3

3RD GENERATION VIDEO WALL CONTROLLER



www.digibirdtech.com

Overview

VWC3 is 3rd generation of video wall controller which is designed and manufactured by DigiBird.

Following previous generation, VWC3 maintains hardware-based processing and applies DigiBird self-developed FPGA piling structure.

With integration of video wall controller, matrix switcher and LED sending controller, VWC3 delivers unparalleled performance in various verticals such as control room, command center, operating center and broadcasting center.

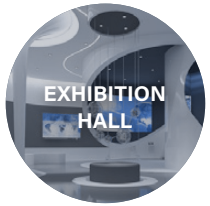




APPLICATIONS

















ADAPTIVE SLOT

Adaptive slot can be configured as input slot or output slot against demand. It offers more flexibility for system configuration and reduces cost in the meantime.

UP TO 8X PORTS PER CARD

With options of 8x ports per card, VWC3 delivers more powerful processing capabilities and offers more cost-effective options by reducing input card quantities and chassis size.



INTELLIGENT 4K60 PROCESSING

4K60

4K60 processing at 4:4:4, without any compression.

16

16x sharable layers per card, each layer can be displayed anywhere at any size.

Vertical synchronization to eliminate image distortion and tearing among displays.

Supports stepless zooming to retain all details of original sources when zooming, presenting a better visual experience on LED display.





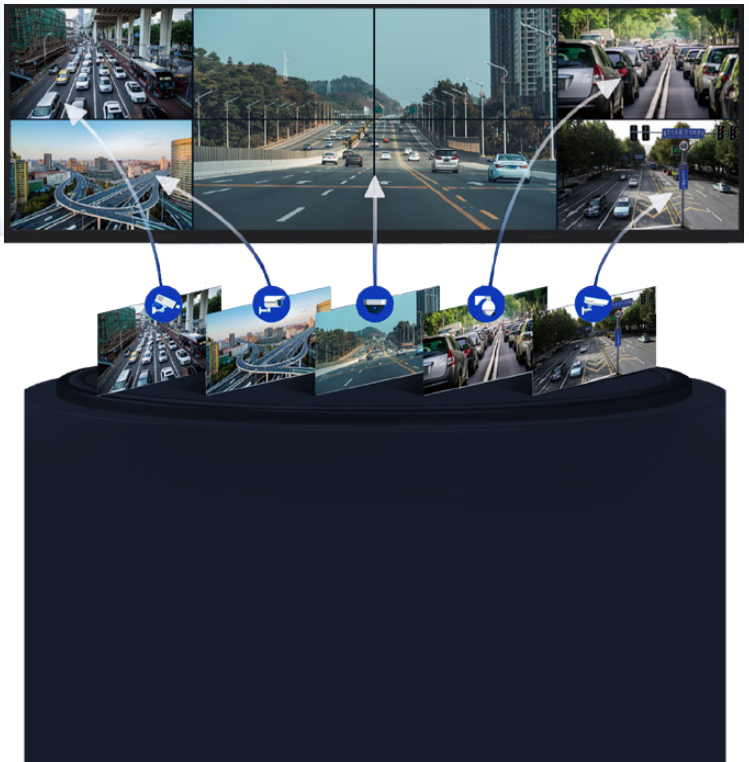


EMBEDDED LED SENDING CARD

To meet growing demand of LED controllers, DigiBird has launched LED sending card. This card will work with VWC3 chassis as output card and connect to DigiBird receiving cards over Cat5/6 cables to power LED wall directly.

INTELLIGENT IP SOURCE MANAGEMENT

When there are numerous IP camera sources in the system, VWC3 offers an intelligent way to manage them by working with IP decoding card. Operator is able to select target signal with live preview and display to the wall in despite of their physical connection between IP camera with decoding cards.



ALL-IN-ONE CONTROL CARD

VWC3 upgrades the control card by integrating preview card, control card and confidence monitoring card into one enhanced control card.



MULTIPLE CONTROL METHODS

VWC3 controllers can be managed by control PC, android/iOS tablets through web browser, or by front touch panel of controller. The controller supports multiple control methods simultaneously, and any operations will synchronize to other control platform in real time.



POWERFUL DISPLAY

Multiple types of signals can be displayed on the video wall, such as IP cameras, cropped signals, input labels, background, scrolling text, and banners.



SOURCE CROPPING

Crop original sources to display desired contents.

PIP & OVERLAY

Picture in picture, overlay, roaming and zooming are supported, each source can be displayed anywhere and in any size of the video wall.

MULTIPLE LAYERS

Up to 16x layers per display.

INPUT LABEL

Customize input source with input label and display on video wall, helping to identify input source when there are numerous input sources.

IP CAMERA

IP camera sources can be displayed on video wall directly. There are 4x working modes, single view, quad-view, nine-view and sixteen-view.

BACKGROUND

VWC3 supports upload image to the system and display the image to entire video wall as background. If there are no created windows, video wall will display background image instead of blank screen.

MULTIPLE VIDEO WALL GROUPS

Single unit controller can power multiple video wall groups, each video wall can be different size and resolution.

SCROLLING TEXT

Supports scrolling text to display notifications, scrolling speed and text font are customizable.

COMPREHENSIVE COMPATIBILITY

MODULAR-BASED DESIGN

Input/Output cards, fans, and PSUs are all modular based which offers flexibility for configuration.

4K@60

Supports up to 4K@60, at 4:4:4 without compression.



VERSATILE INTERFACES

HDMI, DVI, SDI, DP, VGA, CVBS, YPbPr, Fiber, HDBaseT, IP, LED network port.

MULTIPLE DISPLAY

Support LCD wall, LED wall, and DLP wall in different size and different resolution.

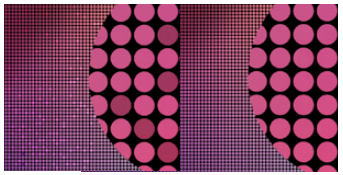
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LED DISPLAY MANAGEMENT



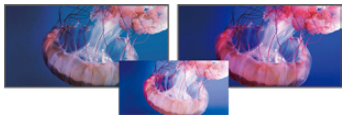
FINE GRAYSCALE ADJUSTMENT

Using unique PWM grayscale adjustment algorithm, each level of grayscale can be delicately presented and smoothly transitioned from low gray to high gray.



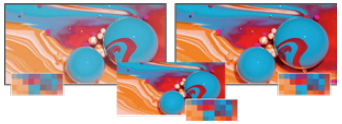
POINT BY POINT CALIBRATION

Using a high-precision correction algorithm to eliminate chromatic aberration, the brightness and color are consistent from low gray to high gray. Through unique technology, calibration data can be delivered quickly to avoid long waits.



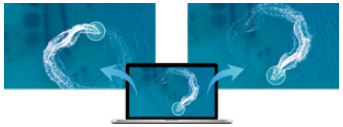
INDEPENDENT GAMMA ADJUSTMENT

Supports independent Gamma adjustment of R, G, and B on the LED screen, allowing for finer color temperature adjustment, wider color gamut display, and restoration of the true nature of the three colors.



COLOR MANAGEMENT

Unified color gamut conversion of video signals of different formats and standards allows the LED screen to display the true colors of various video sources.



ULTRA LOW LATENCY

Ultra-low latency video transmission allows the LED video wall to smoothly present signal images in real time, allowing you to enjoy wonderful visual experience.



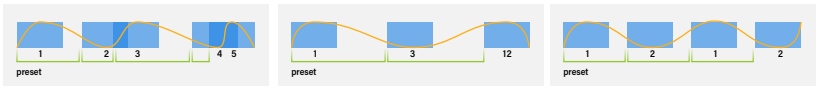
LED SCREEN MANAGEMENT

Parameters of LED screen can be set through UniLic, such as color temperature, brightness, screen temperature, humidity and operating status.

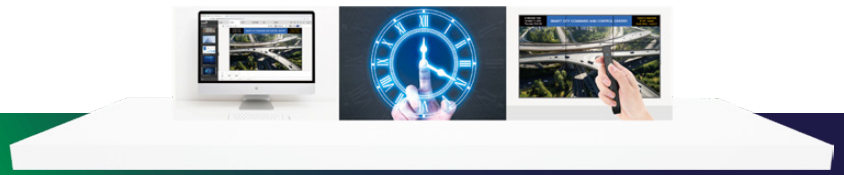
SCENARIO MANAGEMENT

Configuration of video wall layout, matrix switching correlation, and scrolling text can be saved as scenarios to be recalled by a single click upon request.





scenario 1 scenario 2 scenario 3



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COMBINED CONTROL

By providing control protocols, VWC3 running status and alarm information can be accessed by 3rd party controllers. Meanwhile, VWC3 can manage 3rd devices through IP or RS232.



Centralized Controller



DMIS



Environmental Devices



IP/ R232 Commands

Matrix Switching



Power On / Off

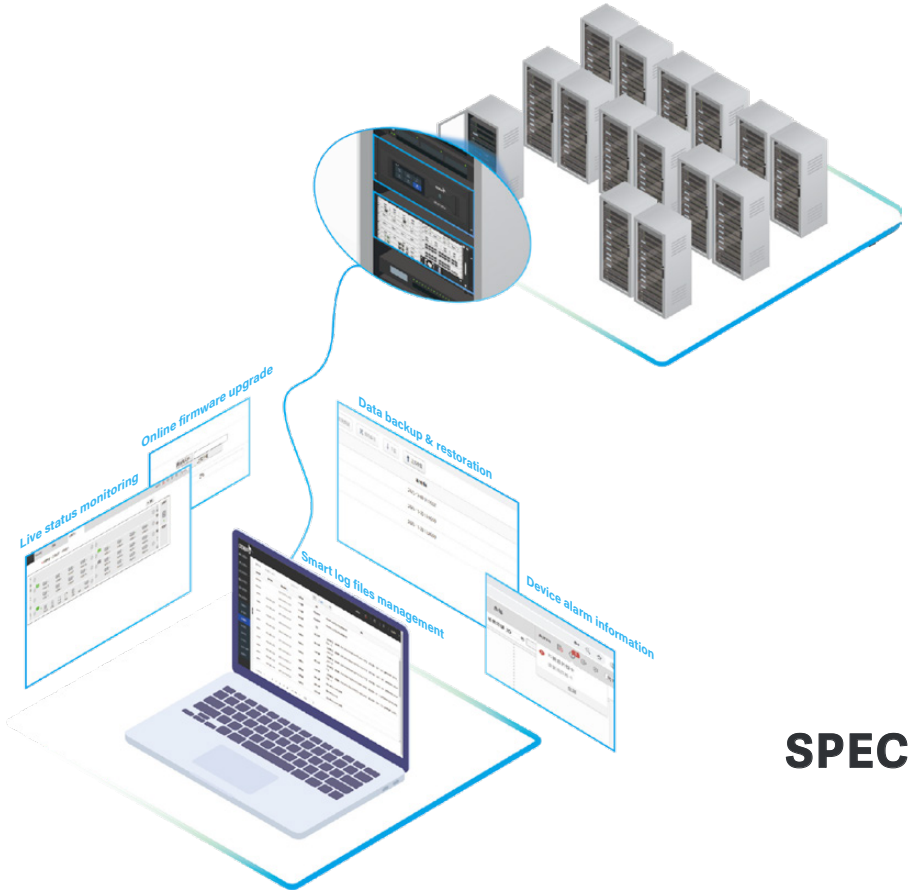


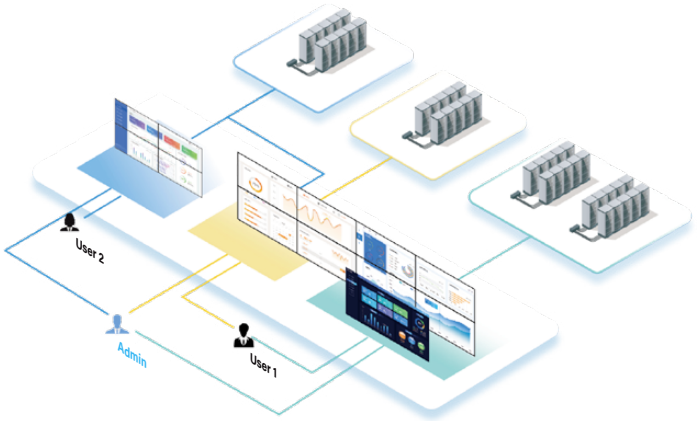
Curtain



COMPLETE MAINTENANCE MANAGEMENT

The maintenance combined with real-time monitoring, online upgrades, data protection, fault alarms, and intelligent log management ensures the stability, security, and efficiency of the system.





SPECIFIED USER ACCESS MANAGEMENT

User access management is essential in mission critical cases. VWC3 allows the administrator to authorize certain users access for video wall management based on user role and business, i.e., authorities for specific input, displays, and functions, etc

SPECIFICATIONS

Items	VWC3-H-C2	VWC3-H-C5	VWC3-H-C9	VWC3-H-C14
Chassis Size	2U	5U	9U	14U
Resolution	4096× 2160@60	4096× 2160@60	4096× 2160@60	4096× 2160@60
Max Input Slot	4	16	30	38
Max Output Slot	4	8	16	20
Load Capacity (Pixels)	26 Million	52 Million	104 Million	130 Million
Adaptive Slot	1	8	14	18
Layers	Up to 16x layers per card			
Multiple Group VW	●	●	●	●
Scrolling Text	●	●	●	●
Scenario	●	●	●	●
Background	●	●	●	●
Combined Control	●	●	●	●
Enhanced Control Card	●	●	●	●
Intelligent Roaming	●	●	●	●
LED Management	●	●	●	●

Input Card

Description	Resolution
4x Channels DVI Input Card	1920x 1080@60
8x Channels DVI Input Card	1920x 1080@60
4x Channels HDMI Input Card	1920x 1080@60
8x Channels HDMI Input Card	1920x 1080@60
4x Channels SDI Input Card	1920x 1080@60
4x Channels VGA Input Card	1920x 1080@60
4x Channels 4K HDMI Input Card	3840x 2160@30
4x Channels 4K HDBaseT Input Card	3840x 2160@30
4x Channels 4K DP Input Card	3840x 2160@30
2x Channels 4K60 HDMI Input Card	3840x 2160@60
2x Channels 4K60 DP Input Card	3840x 2160@60
IP Decoding Card	H.265

Output Card

Description	Resolution
4x Channels DVI Output Card	1920x 1080@60
8x Channels DVI Output Card	1920x 1080@60
4x Channels HDMI Output Card	1920x 1080@60
8x Channels HDMI Output Card	1920x 1080@60
4x Channels SDI Output Card	1920x 1080@60
4x Channels VGA Output Card	1920x 1080@60
4x Channels 4K HDMI Output Card	3840x 2160@30
4x Channels 4K HDBaseT Output Card	3840x 2160@30
4x Channels 4K DP Output Card	3840x 2160@30
2x Channels 4K60 HDMI Output Card	3840x 2160@60
2x Channels 4K60 DP Output Card	3840x 2160@60
N16F2 LED Output Card	1.04M Pixels
N20 LED Output Card	1.30M Pixels
IP Encoding Card	H.265

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www.digibirdtech.com

contact us
sales@digibirdtech.com