

MA2000-02A

LCD Video Wall Controller

Data Sheet

Introduction

MA2000-02A series is a professional image splicing control device for LCD splicing display, using pure hardware FPGA arrays and DSP high-speed signal processing substrate computing exchange technology, FPGA image high-fidelity interpolation algorithms, does not require any operating system support, safe and stable. Support RS232 serial port, network, tablet PC, provide SDK docking center control and other control methods. Can meet the needs of a large number of pictures and video processing, widely used in: monitoring, command, scheduling systems, public security, fire, meteorology, railroads, aviation and other scenes.

Features

- Is designed with modularized structure, and the input module, output module and control module of the system all support hot-swapping.
- Single signal can be spliced and displayed on any $M \times N (> 0)$ display units.
- Supports input signal arbitrary splicing, windowing, picture-in-picture, overlay, roaming, scaling, cross-screen, etc. A single channel supports opening 2 layers;
- Can be configured with computer multi-screen graphics card, received from the processor 2K/4K input card to achieve non-stretching, non-deformation point-to-point oversized image splicing, the largest single card can support 8K@30HZ (7680X2160@30HZ), that is, an 8K graphics card input to achieve 7680X2160 resolution point-to-point image splicing (optional).
- Can support full 4K input and output, input support 3840X2160@30H, 3840X2160@30HZ input is compatible with 1920x1080@60HZ, output support 3840X2160@30HZ output is compatible with 1920x1080@60HZ, the image reproduction is high and the visual impact is stronger.

- Degree high, stronger visual impact, bring immersive experience, no lag, no frame loss, visually can achieve perfect smoothness, combination of 4K physical screen, can achieve 16K extreme visual effect (optional).
- Supports VGA, DVI, HDMI, SDI, BNC, IPC, Ypbpr (adapter), DP (adapter), miniDP (adapter), CVBS (adapter) and other interface inputs.
- Supports built-in Dante's Audio dual-channel audio access and separation output, input self-sustaining built-in HDMI audio, output support external 3.5MM audio interface, high-fidelity dual-channel surround sound (optional).
- Support DVI, HDMI, VGA (adapter,) BNC (adapter), DP (adapter), back to show the pre-monitoring output.
- Support webcam access function, the device can be accessed IP decoding card, support for 4K, 500W,300W, 1080P, 720P, D1 pixel webcam decoding, support for Hikvon, Dahua, Yushu, Huawei and other mainstream brands of the standard onvif protocol for real-time decoding of webcams, the signal window can be arbitrarily stretched, compressed, splicing, Picture-in-picture, overlay, roaming and other functions (optional).
- Single IP card comes with two input nodes, maximum support for 36 divisions, and support for unequal 1/4/6/8/9/10/16/25/36 split screen, a single card to support the decoding of 72 rounds of images, a single IP card, direct decoding 2-way 4K, 8-way 500W \ 400W \ 300W, 18-way 1080P, 32-way 720P, 72-way D1 (optional). Road D1 (optional).
- Support onvif protocol, RTSP, GB28181 national standard protocol IPC and NVR access decoding on the wall (optional).
- IP decoding card can be more than one access system expansion of multiple IPC decoding, to

achieve large-scale audio and video decoding, and support for streaming media servers concurrently to achieve cross-area, WAN network camera decoding on the wall (optional).

- IPC decoding business card supports decoding mainstream brands such as Hikvision, Dahua, Xiongmai, YUVAD, etc. NVR, DVR, XVR real-time video decoding and video playback (control point).
- Supports wireless screen casting business card built-in functions, but can change a key computer wireless screen casting, cell phones (Android\ios system) and tablet mixed casting and other functions, while supporting the computer and cell phone 2 split-screen mixed casting (optional). input and output images support millisecond seamless switching (optional).
- Control models with tablet, PC client visualization pre-monitoring back to the display function (optional).
- Splicing processor supports output port mapping function, the output port of the processor can be customized in accordance with the user's mixing and insertion of the line sequence to set the output port of the screen position.
- Support mobile APP can be changed control and support cell phone voice semantic recognition control system pre-program (optional).
- Support isometric 4K input card access, and support resolution EDID penetration, maximum support up to 7680X1080@30HZ resolution input, maximum with multi-screen graphics card can support 61440X30720 pixel point-to-point non-stretching and non-deformation visual splicing effect (optional).
- Support KVM keypad automatic switching sliding screen function, single board KVM board at the same time to support 4-way mouse sliding screen, can increase the motherboard, support

multi-channel KVM automatic switching sliding screen function (optional).

- Supports virtual LED scrolling subtitles, ultra-high-definition point-to-point vector subtitles, dynamic subtitles and static subtitles, you can edit the display content, fonts, colors and other parameters at will, and set the welcome message.
- Supports multiple scene profiles function, can save up to 256 scene modes, supports automatic rounds, can be customized to set rounds

Specification

Chassis (Standard)					
Chassis size	2U	3U	6U	12U	24U
Number of Inputs	8	16	36	72	144
Number of Outputs	12	20	36	72	144
Dimensions (mm)	480*330*100	480*330*160	480*350*265	485*445*530	485*445*935
Supply Voltage	AC110-400V				
Supply Frequency	50/60Hz				
Operating temperature	-15-60℃				
Main control board	1*RS-232 serial port, 1*10/100 Mbps self-adaptive Ethernet port				

Service Board (Optional)			
Name	Signal Type	Ports Qty	Description
HDMI input board	HDMI1.3	2	1920x1080/60hz & EDID Management
SDI input board	3G SDI	4	1080i/60hz、1080P/60hz、720P/60hz

DVI input board	DVI-D	4	1920x1080/60hz & EDID Management
DP(adapter) input board	DPI. 1	2	3840x2160/30hz & EDID Management
4K30 HDMI input board	HDMI2.0	2	3840x2160/30hz & EDID Management
4K60 HDMI input board	HDMI2.0	1	3840x2160/60hz & EDID Management
8K30 HDMI input board	HDMI2.0	1	7680x2160/30hz & EDID Management
VGA input board	RGBHV	4	1080P/60hz
IP Decoder board	H.264/H.265	4	4K、1080P、720P、D1
BNC input board	Analogue coaxial	4	D1
Wireless screen casting board	RJ45	4	Simultaneously supports 4 cell phones and computer mixed casting
Information Release board	RJ45	4-9	Supports 4-9 applications to capture and push PPT, documents, web browsers, software, local videos and images.
HDMI output board	HDMI1.0	2/4	1920x1080/60Hz. 1440x1440/60Hz &Customized
4K HDMI output board	HDMI2.0	2	3840x2160/30Hz. 1920X1080/60hz. 2560X816/60Hz. 1440X1440/60Hz &Customized
DVI output board	DVI-D	2/4	1920X1080/60Hz.1440X1440/60Hz & Customized
Preview board	H.265	2	Signal preview display back

System Diagram

