LED-F802/F804

Video Control Server

User Manual V1.0

⚠ Before using this LED video processor, please read this instruction manual carefully and keep it for future reference.

MAGNIMAGE

Document Version：V1.0　Document Release Date：2023/10/20

Statement

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Revision History

Version	Revise Date	Revised Content
V1.0	2023-10-20	First release

Directory

Introduction

Thank you for purchasing our company's LED all-in-one video controller. Hope you can enjoy the excellent performance of this product. The design of this LED all-in-one video controller complies with international and industry standards, but improper operation may still cause personal injury and property damage. In order to avoid the possible dangers caused by the equipment, and to benefit from your equipment as much as possible, please follow the relevant instructions in this manual when installing and operating the product.

Trademark Credit

- VESA is a trademark of the Video Electronics Standards Association.
- HDMI, the HDMI logo and High-Definition Multimedia Interface are trademarks or registered trademarks of HDMI Licensing LLC.
- Even if the company or product trademark is not specifically stated, the trademark has been fully recognized.

About the software

It is illegal to modify, decompile, disassemble, decrypt or reverse engineer to the software installed on this product.

Product Features

- Standard multiple input interfaces：HDMI×1、DVI×1 、CVBS×1、VGA×1、USB×1
- Supports 2-way or 4-way gigabit network port output, and supports custom output resolution
- Single network port standard load 0.98 million pixels
- Single machine can carry maximum width 3840 pixels and maximum height 3840 pixels
- Support quick light screen, no need PC software to configure the screen
- Support image capture functions
- Support connection to MAGNIMAGE C-Link series receiving cards
- Support free wiring function
- Support single machine network port backup
- Support receiving card serial number calibration, switch on the intelligent serial number to visually check the position of the box
- Support RS232 central control
- Support for wireless screen adjust
- Support external independent audio input
- Support the read and load of configuration files from native U disks

Safety Notice

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

When you want to connect or unplug any signal cable or control cable, please make sure that all power cables have been unplugged beforehand.

When you want to add hardware devices to this product or remove

hardware devices from this product, please make sure that all signal cables and power cables have been unplugged in advance.

Before performing any hardware operations, power off the LED video processor and discharge static electricity from your body by touching a grounded surface.

Please use it in a clean, dry and ventilated environment, and do not use this product in a high temperature, humid environment.

This product is an electronic product, please keep it away from fire, water and flammable and explosive dangerous goods.

There are high-voltage components in this product, please do not open the case or repair the device by yourself.

If you find any abnormality such as smoke or odor, please Function off the power switch immediately and contact the dealer.

Features

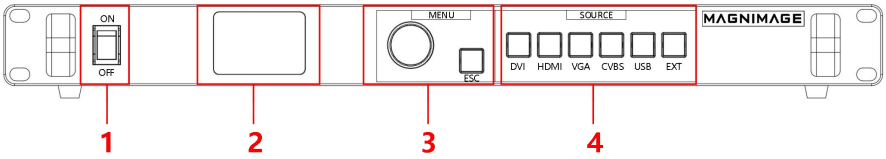
Overview

LED-F802/F804 is a video controller launched by Maipu Shitong that integrates a video processor and sending card, with a complete video image input interface, including 1 × VGA, 1 × DVI, 1 × HDMI, 1 × CVBS, 1 × USB, supporting full HD signal input;The LED-F802 single machine carries 1.96 million pixels and supports 2 gigabit network ports for output; The LED-F804 single machine carries 3.92 million pixels and supports 4 gigabit network ports for output; The LED-F802/F804 machine has a maximum horizontal resolution of 3840 pixels and a maximum vertical resolution of 3840 pixels.

We have adopted industry-leading image processing chips and internal 12 bit digital processing, resulting in clearer images and richer colors. Advanced interlaced motion image adaptive processing technology eliminates motion tailing and aliasing in video images. For ordinary PAL/NTSC videos, the output image is clearer and more delicate, with rich details, full colors, and image quality at the industry leading level.

Support for quick screen tapping function, without the need for computer software to configure screen connection, greatly simplifying on-site debugging steps.

LED-F802/F04 Front Panel:



1 — Power switch

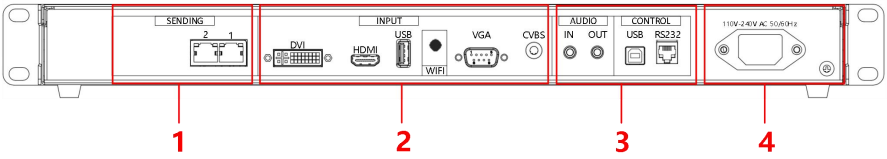
2 — LCD screen, displaying menu content

3 — Knob buttons and return buttons

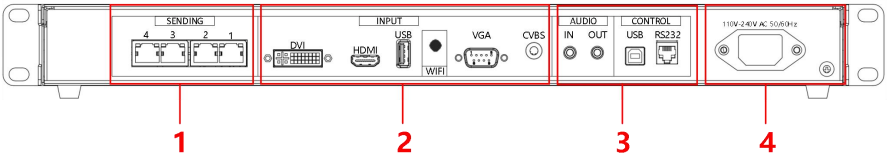
4 — Input button:DVI、HDMI、VGA、CVBS、USB、EXT

LED-F802/F804 Back Panel:

LED-F802:



LED-F804:



1 — 2 Way /4 Way Gigabit Ethernet port output

2 — Input interface：DVI、HDMI、USB、WIFI（opt）、VGA、CVBS

3 — Audio IN/OUT、Square USB、RS232 interface

4 — Power interface and ground interface

Technical Specifications

Input Information		
Port	Quantity of	Resolution Specification
DVI	1	VESA standard
HDMI	1	EIA/CEA-861 standard，Compliant HDMI-1.3 standard
VGA	1	VESA standard
CVBS	1	PAL/NTSC
USB	1	1920×1080 30Hz
EXT	1	/
AUDIO IN	1	PAL/NTSC

Output Information		
Port	Quantity Of	Resolution Specification
Gigabit Ethernet Port	2/4	Single port load 0.98 million pixels， The LED-F802 machine carries 1.96 million pixels； The LED-F804 machine carries 3.92 million pixels； A single machine can carry maximum width 3840 pixels and maximum height 3840 pixels；
AUDIO OUT	1	Output HDMI, USB flash drive audio

Control Port	
Square USB Port	Used to connect to the host computer
RS232 Port	For central control

Machine Specification	
Input Voltage	100-240V AC~50/60Hz 0.6A
Operating	0-45℃
Dimensions	482.6×248.15×43.4 mm
Net Weight	2.9 KG
Power Consumption	30W

Use Menu

Using the product menu system can easily and intuitively set the machine to meet the user's use requirements

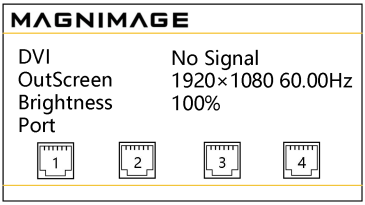
The all-in-one video controller uses a full-color LCD display to display the entire user menu. When the user does not operate or the operation times out, the default state will be displayed on the LCD screen. If you use the buttons on the front panel of the machine to set the machine, the LCD screen will display the corresponding menu according to the user's operation to prompt the user to operate better, faster and more intuitively.

The following will combine the button functions and the display of the LCD screen to introduce the menu system of the all-in-one video controller in detail.

Introduction to Default State

After turning on the power of the all-in-one video controller, during the system boot process, the boot interface will be displayed on the LCD screen of the front panel. After the startup is completed, the default state of the current machine will be displayed on the screen, as shown in the figure below:

LED-F804:



The information in the above figure is explained as follows:

Symbol	Description
Input Information	Machine input signal status
Output Resolution	Machine output resolution

Screen Brightness	Display screen brightness percentage
Network Interface	Serial number of network port 1-4. When the network port is connected to a network cable, the network port icon on this interface displays green

Main Menu

The information in the above figure is explained as follows:

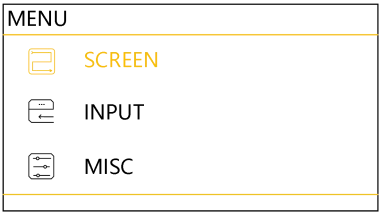
Symbol	Description
	Press the "Menu/Confirm" button to enter the detailed settings page, or directly perform the operation
▼	After this page, there is another page. Rotate the knob down on the last item on this page to enter the next page
▲	There is still a previous page before this page. Rotate the knob up on the first item of this page to return to the previous page

In the main menu, users use the three buttons "Menu/Confirm", "Return", and "Knob" to select and adjust each item. The operation has a fixed mode, as shown in the table below:

Operate	Button
Open The Main Menu	Press the 'Menu/Confirm' button in a non menu state
Select Each Project	The knob can be rotated clockwise or counterclockwise, and when it encounters the "▼" or "▲" symbol, there will be a page flipping action.
Adjust Parameters	When there is a numerical parameter or option parameter on the right side of the project, select it by pressing the "Menu/Confirm" button, and turn the knob left or right to change the parameter.
Enter The Next Level Menu	When the right end of the project is the symbol "▶", press the "Menu/Confirm" button.
Execute A Specific Function	When the project is indicated by the symbol "▶" on the right side, press the "Menu/Confirm" button.
Return To The Previous Menu	Press the "return" button

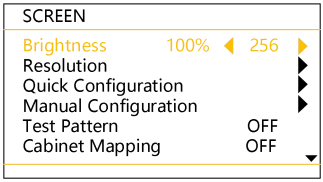
Main menu

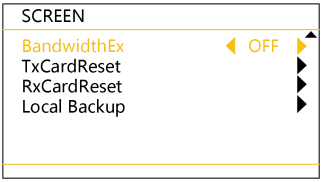
In non-menu status, press the "Menu/Confirm" button, and the menu system will enter the main menu status. The LCD screen will display as shown in the figure below:



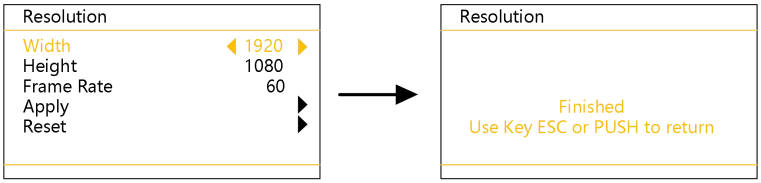
The main menu has 3 submenu items. Rotate the knob left or right to select one of the 3 submenu titles listed above, then press the "Menu/Confirm" button to enter the selected item. Press the "Return" button to go back.

SCREEN

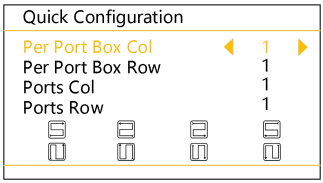




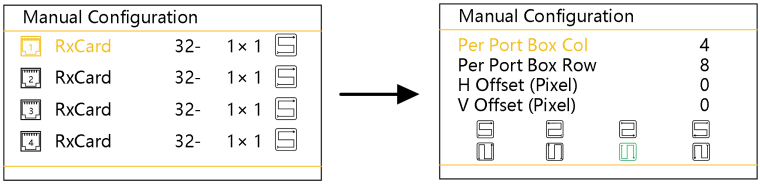
Resolution:



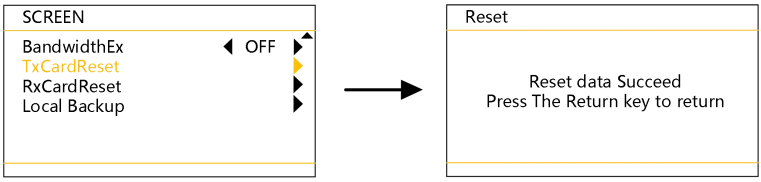
Quick Configuration:



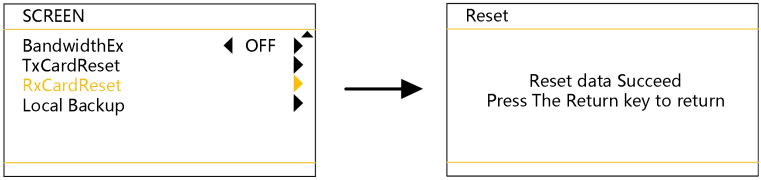
Manual Configuration:



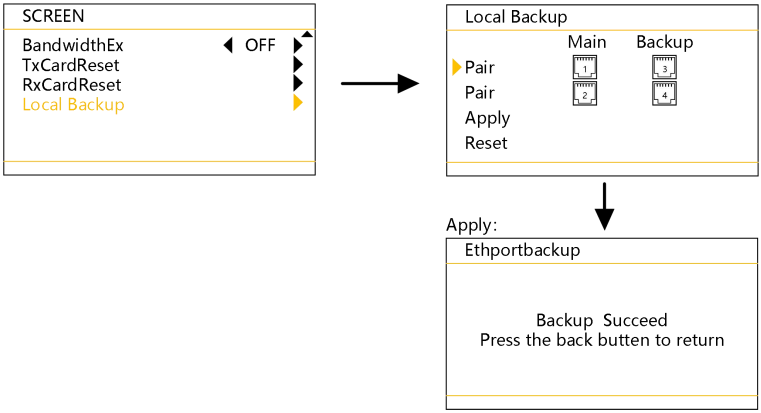
TxCardReset:



RxCardReset:



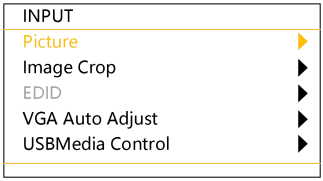
Local Backup:



Screen Brightness	Adjust screen brightness, values range from 0 to 256 (0% to 100%).

Output Resolution	Custom output resolution, maximum width of 3840 pixels, maximum height of 3840 pixels.	
	Horizontal resolution	The minimum value is 128, screen horizontal width in pixels.
	Vertical resolution	The minimum value is 128, screen vertical width in pixels.
	Refresh rate	Range 23~60Hz
	Application	Apply the current set parameters for output
	Reset	Restore default 1920 × 1080 60Hz output resolution
Quick Screen Configuration	When all the network ports are routed in the same way, light the screen quickly according to the number of cabinets, the connection of the network cable, the arrangement and other information. Through the built-in quick splicing function of the machine, copy and light up multiple sending card screens	
Manual Screen Configuration	When the wiring method of each network port is inconsistent with the width and height quantity of a single network loaded box, it is necessary to set the corresponding wiring method, box width and height quantity, and network line offset value for each network port	
Test Patten	Default to off state, test screen 1-10 options	
Cabinet Mark	When the cabinet label function is on, the led screen will display the serial number of the network port and the serial number of the receiving card of each cabinet, so that the connection diagram can be made intuitively	
Bandwidth Extension	The default state is off. This function requires the receiving card to support bandwidth expansion in order to be used. After bandwidth expansion, a single network port can carry up to 0.98 million pixels	
Sending Card reset	Reset sending card connection screen parameters	
Receiving Card Reset	Reset receiving card parameters	
Local Backup	Single machine can specify any network port for backup.	

INPUT



Picture:

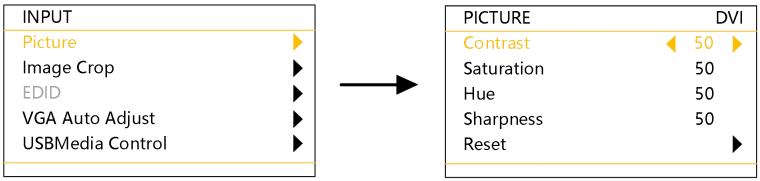
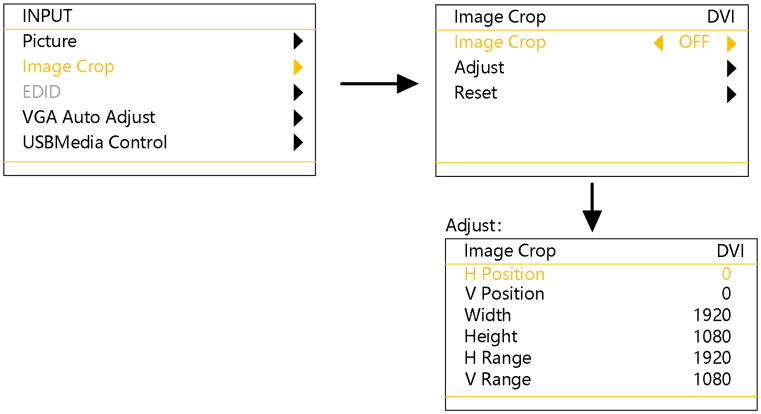


Image Crop:



USBMedia Control:

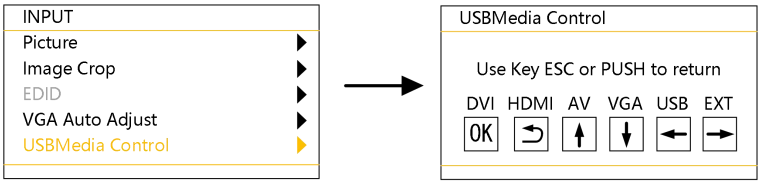


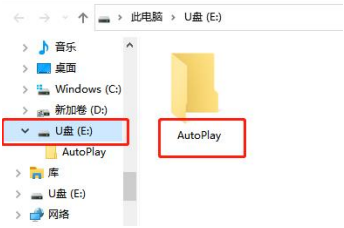
Image Setting	Adjust the four options of "Contrast", "Saturation", "Hue", and "Sharpness", with a default parameter of 50 and a range of 0-100

Image Crop	Horizontal Position	The minimum value is 0, and the maximum value is the difference between "width of horizontal reference" and "horizontal width"
	Vertical Position	The minimum value is 0, and the maximum value is the difference between "vertical reference height" and "vertical height"
	Horizontal Width	The maximum value is' width of horizontal reference '
	Vertical Height	The maximum value is' height of vertical reference '
	Horizontal Base	Configure the width of input resolution
	Vertical Base	Configure the height of input resolution
EDID Setting	Grey option, does not support EDID configuration function	
VGA Automatic Calibration	Automatically correct VGA input image position	
USB Media Control	The DVI button is OK confirm button	
	The HDMI button is the return to previous step button	
	The AV (CVBS) button is the up button	
	The VGA button is the down button	
	The USB button is the left arrow button	
	The EXT button is the right arrow button	
RGB Color Gamut Range	Input debugging RGB values, divided into "Full" and "Limited"	

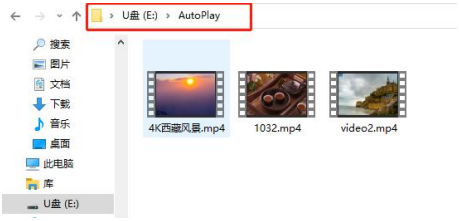
Operating process for playing USB flash drives:

1. The USB drive format must be one of three formats: FAT16, FAT32, and NTFS;

2. Create a new folder in the root directory of the USB drive and name it "AutoPlay";

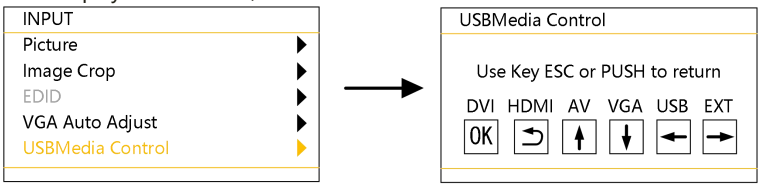


3. Copy the required playback materials to the "AutoPlay" folder;



4. Insert the USB drive into the USB interface on the F802/F804 back panel;

5. On the front panel of F802/F804, enter the button to select the USB input button, and then enter the USB media control function in the menu to adjust the playback order of the materials according to the displayed material position on the screen. All materials will continue to be played in rotation;



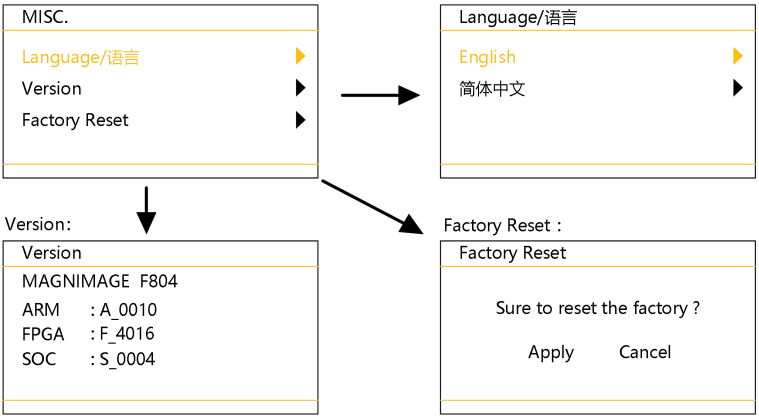
6. The audio of the USB flash drive material can be synchronously output to the power amplifier through Audio Out;

Advert:

USB drive playback support 1080P@30fps video file

Picture Format	bmp、png、jpeg、jpe、jpg
Video Format	avi、mpg、mpeg、vob、dat、m1v、m2v、mp4、mpeg4、m4v、wmv、rm、rv、rmvb、mkv
Audio Format	MPEG-1/2 Layer I、MPEG-1/2 Layer II、MPEG-1/2 Layer III、AAC-LC、WMA8、PCM、FLAC

MISC.



语言/Language	Set the display language of the menu system to English or Simplified Chinese
Version Information	Display the machine model, ARM, and FPGA program versions
Restore Factory Setting	Restore the machine to its factory settings, confirm to continue, and prompt "Reset completed, please restart". Power off and restart

Warranty

Machine Warranty Period

- 24 months from the date of the user's purchase invoice;
- If the user's purchase invoice is lost, the 60th day after the production date of this product is the start date of the warranty for this product.

Non Warranty

- Faults or damages caused by abnormal use reasons such as stains or surface scratches caused by machine immersion, collision, or use;
- Dismantling or modification without our company's consent;
- Failure or damage caused by use in a working environment other than that specified by the product (such as excessive temperature, low temperature, or unstable voltage);
- Faults or damages caused by force majeure (such as fires, earthquakes, etc.) or natural disasters (such as lightning strikes, etc.);
- The product has exceeded the warranty period.