

KYSTAR control system

Instructions

VERSION: V2.1

Beijing Kystar Technology Co., Ltd | 24-HOUR SERVICE HOTLINE 400-0000-26

Attention



Warning

• This equipment is not waterproof equipment, please do waterproof treatment in wet environment;

• This device is not allowed to get close to fire or high temperature environment;

• If the device emits strange noise, smoke or strange smells, unplug the power plug immediately and contact the dealer.



Attention

1. Please read this manual carefully before use ,and keep it for future;

this equipment is not suitable for non-professionals to operate and debug, please use under the guidance of professionals;

 2_{γ} this equipment is not suitable for non-professionals to operate and debug, please use under the guidance of professionals;

 3_{\sim} Do not insert anything into the vent hole of the device to avoid damage or accidents to the device;

- 4. It is not appropriate to place the device on a heat sink or other high-temperature place;
- 5. It is not suitable to place this equipment in near water or other damp places;

6. Please properly organize and place the power cord to prevent damage;

, the power plug of the device should be unplugged and commissioned for maintenance:

7. If the following conditions exist, the power plug of the device should be unplugged and commissioned for maintenance;

- When liquid splashes into the device
- When the device is dropped or the chassis is damaged
- When the device has obvious abnormality or performance is significantly deteriorated

Version Change Record

version number	time	Version change details
V1.0	2018-1-1	1.Complete control Card Settings
V1.1	2018-5-20	1.Adding MFC-related Settings Software to Build
		Interface
V2.0	2018-10-1	1.Remove green card related settings:
		2.New Brightness Control Gamma Adjustment
		3.Adjust the interface of MF630
V2.1	2018-12-12	1. Added advanced settings page content.
		2. New method of splicing light and dark wires

Safety precautions	
Version Change Record	1
1 Software introduction	
2 Software installation	5
3 Introduction of Software Interface	6
4 Screen configuration	7
4.1Wizard screen adjustment	7
4.1.1 setup wizard	
4.1.2 Confirm the number of receiving cards	
4.1.3 Selection of Module Manufacturers and Types:	
4.1.4 each receiving card load	
4.1.5 Screen Pixel	
4.1.6 Receiving card connect mode	
4.1.7 Advanced Effect Settings	
4.1.8 Curing system parameters	
4.2 Expert setup	
4.2.1 Sending card	
4.2.2 Receving card	
4.2.3 Screeen connection	
4.2.4 Curing parameter	
4.2.5 Other parameter processing	
5 Brightness control:	
5.1 Brightness setting	
5.2 Color temperature regulation	
5.3 Gamma adjust	
6 Multifunction card control	
6.1 introduction	
6.2 Power management	43
6.3 Monitoring data	

Catalog

6.4 Brightness adjustment	47
7 video processing	49
7.1 Settings and Tools Menu	49
7.2 Analog display area	50
7.3Property parameter setting	50
7.4 Console operation	
8 Advanced setting	52
8.1 Initialize sending card parameters	
8.2 Initialization of multifunction card parameters	53
8.3 Upgrade Gold Card Program	53
8.4 one key repair	55
8.4.1 repair sending card	
8.4.2 repair receving card	
9 More function	59
9.1 Image Testing Tool	64
9.2 Changing Software Language	
9.3 Replacement of display interface	
9.4 Viewing Software Information	67
9.5 Software Operating Environment Monitoring	67
9.5 Detect new versions	68

1 Software introduction

KYSTAR control system software is customized for the debugging and control of the main control system. It supports the debugging of a class of video control equipment, sending card, receiving card and multi-function card.

Unique wizard adjusting screen mode, convenient and fast debugging in a set environment, brings unprecedented pleasant debugging experience to users; at the same time, highly professional expert adjusting screen, including sending equipment, receiving card, display screen connection three major professional screen lighting, at the same time with debugging control for environmental monitoring multi-function card function. In addition, the video processing part with visual picture control is also included. This interface covers all functions, intuitive, concise and atmospheric.

The default skin of the system is technically black, and the professionalism of the colleagues also has a sense of mystery. In addition, there are two types of skin can be selected, one is pure white, better looking skin continues to increase...

2 Software installation

Put the attached CD-ROM into the computer CD-ROM, or download the latest version of the gold card control software from the official website, double-click setup, install and open the software according to the prompt.

The first installation process may encounter the installation of NET environment, Winpcap environment and USB driver. It can be installed directly. The second installation may encounter the problem that Winpcap does not support overlay installation. At this time, choose to ignore it.

With random distribution of USB connection line, one end is connected to the COM port of the sending card, and the other end is connected to the USB port of the PC. After opening the software, the device will automatically connect to the device as follows:



3 Introduction of Software Interface

Open the software, after booting, the following software main interface appears.

Image: Constraint of the second s	izard debugging Expert del		ance control Camera calibration Screen monitor More functions Video processing
Izard debugging Expert debugging Luminance control Camera calibration Screen monitor More functions Video processing -tardware information No information No device is connected now No device is connected now	izard debugging Expert del	ougging Lumina	ance control Camera calibration Screen monitor More functions Video processing
isard debugging Expert debugging Luminance control Camera calibration Screen monitor More functions Video processing -lardware information Topology structure No information No device is connected now	izard debugging Expert del	ougging Lumina	ance control Camera calibration Screen monitor More functions Video processing
Hardware information No information No device is connected now			
Image: second			
No information Topology structure No device is connected now	and shares the product of the		
No information	Hardware information	(
No device is connected now	No information		Topology structure
			No device is connected now
Pold oard mode Export list District			

Main function area: The main function area includes seven main function points: guide screen adjustment, expert screen adjustment, brightness control, camera calibration, screen monitoring, multi-function card, video processing.

Hardware information: The hardware information is that the sending card is a display unit, showing the current type of sending card and the type of receiving card, and the number of receiving cards per network port of the sending card. Blue connection position can be used to display the connection status between software and sending card, and can also be used to switch multiple sending cards.

Topology diagram: Topology structure shows program version information of sending device, receiving card, multi-function card and ID number of receiving card by tree diagram. The "Export List" button can save the current topology information as Excel file in the form of topology graphics for easy viewing and saving. The refresh button is used to refresh the topology information.

Other functional areas: The other functions in the upper right corner include test charts, skin change, environmental monitoring, software version information, etc. " \blacklozenge " The upward arrow can hide the hardware information and the topology map, leaving a refreshing main function interface.

4 Screen configuration

Screen configuration includes wizard screen adjustment and expert screen adjustment.

4.1 wizard screen adjustment

Select the wizard to adjust the screen, you can enter the wizard to adjust the screen page, through the guidance of the system to quickly complete the screen debugging.

Kystar G6 V1.0		B		- 3
Vizard debugging	Luminance control Camera calibration Screen monitor More functions Video pro	Dicessing		+
Hardware Information	Topology structure No device is connected now			
Gold card mode	Ex	oort list	R	efresh

4.1.1 setup wizard

Click the wizard of the main interface to adjust the screen and enter the LED Setup Wizard Welcome Interface. Click Next.



4.1.2 Confirm the number of receiving cards

After clicking the "Next" button, the system will prompt whether the number of received cards detected is correct, the correct number of received cards clicked "Yes", incorrect, click "No", and check the network connection.



4.1.3 Select module manufacturer and type:

LED setting wizard		×
ED setting wizard		
Advanced setting		
Module manufacturer 111 +	Search Search manufacturer P	
Module type Number: 1	Module information	
P4_64x32_16scan	Module size: 64W x 32H Drive chip: FM6124	Add
	Scan mode: 16scan Data group number: 2	
	Group type: Three parallel lines OE polarity: Low effective	Edit
	LED polarity: Highly effective	Delete module
		Delete module
Not detected the receiving card	< last step Next	t > Cancel

The module library file contains the module lighting configuration file of the current mainstream manufacturers on the market. It can select the module manufacturer in the drop-down menu or search through the search box on the right side.

After choosing the module manufacturer, you can see the current included module configuration file in the list box below. When selected, you can see the detailed module information in the right box, including module size, driver chip, scanning mode, data array, array type, OE polarity, LED polarity and other information.

Select the module manufacturer and module type, if not, you can use the right "Intelligent Settings Add Modules" function button for intelligent settings.

In addition, this interface can manually add or delete module files.

4.1.3.1 Intelligent Settings Add Module

Click on the "Edit Add Module" button for intelligent settings. Step 1 into Intelligent Settings

Smart point parameter configurat	tion			-		x
©						
Basic parameter						
Module width	40	Driver chip	ICN2038S *			
Module height	20	Decoding mode	SM5266P -			
Number of data sets	2	Grouping	王线并行			
			Next] c	ancel	

Fill in the module corresponding information correctly:

- ◆ The module width: refers to the actual width of each module
- ◆ The module height: refers to the actual height of each module.
- The number of data group: each wire interface (data interface) contains several groups of RG/RGB (red green blue) data
- ◆ Driver chip: look at the LED driver chip on the cell board, the general MB15024,74HC595 and other chips are similar or alternative to the use of general chip, such as PWM (pulse width modulation) chip please contact us
- ◆ The way of decoding is to see if there are 4953 rows of LED drivers (8 pins of small chips). If not, the static screen will be selected for direct output.

If there are 4953 rows of tubes (1), see if there are 74HC138 or related decoding chips. If not, then choose the direct drive line with OE or direct drive line without OE option.

If there are 74HC138 or related decoding chips, 138 decode will be selected. (the general decoding chip is 74HC138).

4.1.3.2 data polarity selection

According to the template response status and prompt in the right state, then click on the next step to do OE polarity selection.

Smart point parameter configuration		-		x
${}^{\scriptsize igodol }$				
Data polarity selection				
Click status 1, status 2, observe the LED module, and select the full light status:				
Status 1 Status 2				
Last	: step Next	C	ancel	

4.1.3.3 OE polarity selection

Select the brighter state according to the template state and click next to determine the number of rows.

Smart point parameter configurati	on		-		x
©					
OE polarity selection					
Click status 1, status 2, o	bserve the LED module, and select the full ligi	ht status:			
✓ Status 1	Status 2				
		Last step Next		Cancel	

4.1.3.4 scan line number

According to the number of rows between the lines of the module, select the number of rows, then click the next step to choose the color of the data line.

smart point pa	ameter configuration						-		x
©									
Scanning l	nes								
Cor	nfirm the number of rows i	in a bright lir	ne according to r	numbers of sca	nning lines				
	Lines of light								
	1	*							
	Tips								
									-
						Last step Next		Cancel	

4.1.3.5 RGB color

Click on the 3 state in turn, select the color according to the display of the module, and click next to trace.

Cable color					
Click the following sta	atus in order to select th	e corresponding color a	cording to the module	color.	
🗸 Status1	✓ Red	Green	Blue	Black	_
Status2	Red	🗸 Green	Blue	Black	
Status3	Red	Green	✓ Blue	Black	

4.1.3.6 intelligent tracing point

Starting from the point where the module starts to blink, we mark the point according to the location of the location of the module flash. We will give the following prompts as we finish the drawing point.

smart	poin	ic pai	GITTI	eter	con	ngur	ation	1																		-		
)																												
Ca	ble o	colo	r																									
	Sele	ect th	e cor	respo	ondin	g col	or ba	ised	on th	ne m	Тір																	
	\checkmark	Statu	s1				\checkmark	Red	ł			?	Do	auto	proced	ure?					B	llack						
		Statu	s2					Red	ł			Ye	es		N)					B	llack						
		Statu	s3					Red	ł			G	Green	ı		✓ E	Blue				В	llack						
																									_			
																				La	st st	ер		Nex	t		Cano	el
mart p	point (paran	neter	con	figura	ation																					-	
mart (point turn	paran	neter	cont	figura	ation	5	h	Ins	sert vi	irtual	1			Resta	t										-	- 1	
mart p Ret	point turn 5 37	paran	neter () 39	cont	figura	ation 42	43	44	In:	sert vi 46	irtual 47	1 48	49	50	Resta	t 2 53	54	55	56	57	58	59	60	61	62	63	64	
Ret	point (turn 5 37	paran 38	neter @	con (0)	figura	ation 42	43	44	Ins 45	sert vi 46	irtual 47	1 48	49	50	Resta	t 2 53	54	55	56	57	58	59	60	61	62	63	64 519	19
Ret	point turn 5 37	paran 38	neter @	cont	figura	42	43	44	In: 45	sert vi 46	irtual 47	1 48	49	50	Resta	t 2 53	54	55	56	57	58	59	60	61	62	63	64 519 520	19 20
Ret	turn	paran 38	neter @	cont	figura	42	43	44	In: 45	sert vi	irtual 47	1 48	49	50	Resta	t 2 53	54	55	56	57	58	59	60	61	62	63	64 519 520 521	19 20 21
Ret	point turn 5 37	paran 38	aneter 39	 cont 40 	figura	42	43	44	In: 45	sert vi	irtual 47	1 48	49	50	Resta	t 2 53	54	55	56	57	58	59	60	61	62	63	64 519 520 521 522	19 20 21 22
Ret	point turn	paran	39	40	figura	42	43	44	45	46	irtual	1 48 Tip	49	50	Resta	t 53	54	55	56	57	58	59	60	61	62	63	64 519 520 521 522 523 524	19 20 21 22 23 24
Ret	point p turn 5 37	paran 38	39	40	figura	42	43	44	Ins 45	46	47	1 48 Tip	49	50	Resta	t 2 53	54	55	56	57	58	59	60	61	62	63	64 519 520 521 522 523 523 524	19 20 21 22 23 24 25
Ret	5 37	paran 38 38	39	40	figura	42	43	44	In: 45	46	47	1 48 Tip	49	50 End	Resta	t 2 53	54	55	56	57	58	59	60	61	62	63	64 519 520 521 522 523 524 525 526	19 20 21 22 23 24 25 26
mart (Ret 36 37 36 37 37 37 37 37 37 37 37 37 37	5 37	paran 38 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	39	40	figura	42	43	44	Instant	46	47	1 48 Tip	49	50 End	Resta	t 53	54	55	56	57	58	59	60	61	62	63	64 519 520 521 522 523 523 524 525 526 527	19 20 21 22 23 24 25 26 27
mart (Ret 36 9 1 2 3 4 5 7 3	5 37 5	paran 38 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	39	40	41	42	43	44	45	46	47	1 48 Tip	49)]	50 End OK	Resta	t 2 53	54	55	56	57	58	59	60	61	62	63	64 519 520 521 522 523 524 525 526 527 528	19 20 21 22 23 24 25 26 27 28
mart (Ret 36 37 3 3 3 3 3 3 3 3 3 3 3 3 3	5 37 5 37 6 1 7 1 8 1 9 1 10 1 11 1 12 1 13 1 14 1 15 1 16 1 17 1 18 1 19 1 10 1 10 1 11 1 12 1 13 1 14 1 15 1 16 1 17 1 18 1 19 1 10 1 10 1 11 1 12 1 13 1 14 1 15 1 16 1	paran 38	39	40	41	42	43	44	45	46	47	1 48	49) []	50 End OK	Resta	t 53	54	55	56	57	58	59	60	61	62	63	64 519 520 521 522 523 524 525 526 527 528 529	19 20 21 22 23 24 25 26 27 28 29
A construction of the second s	5 37 5 37	paran 38 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	39	40	41	42	43	44	45	46	47	1 48 Tip	49) []	50 End	Resta	t 53	54	55	56	57	58	59	60	61	62	63	64 519 520 521 522 523 524 525 526 526 527 528 529 530	19 20 21 22 23 24 25 26 27 28 29 30
imart (Ret 36 9 1 2 3 4 5 7 3 3 1 2 3 4 5 7 3 3 1 2 2 3 4 5 7 3 1 2 3 1 2 3 1 2 3 4 5 5 7 3 1 2 3 1 2 3 1 3 1 3 1 3 1 3 1 3 1 1 3 1 1 3 1 1 3 1	5 37 5 37 4 5 5 5 5 5 5 5 5 7 7 7 7 7 7 7 7 7 7	paran 38 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	39	40	figura	42 42	43	44	45	46	47	1 48	49)	50 End OK	Resta	t 53	54	55	56	57	58	59	60	61	62	63	64 519 520 521 522 523 524 525 526 527 528 529 530 531	19 20 21 22 23 24 25 26 27 28 27 28 29 30 31
imart (Ret 36 9 1 2 3 4 5 5 7 3 9 1 1 2 3 4 5 5 7 3 9 1 1 1 1 1 1 1 1 1 1 1 1 1	000111 1 1 1 <td>paran 38 38 2 2 2 2 2 2 2 2 2 2 2 2 3 3 4 4 5 5 6 6 7 7 8 8 9 9 10 10 10 11 12 12 13 14 14 15 16 16 17 17 18 17 17 18 18 17 17 18 18 18 18 18 18 18 18 18 18 18 18 18 18 18 18 18<td>39</td><td>40</td><td>figura 2</td><td>42 42</td><td>43</td><td>44</td><td>45</td><td>46</td><td>irtual 47</td><td>1 48 Tip</td><td>49</td><td>50 End OK</td><td>Resta</td><td>t 53</td><td>54</td><td></td><td>56</td><td>57</td><td>58</td><td>59</td><td></td><td></td><td>62</td><td>63</td><td>64 519 520 521 522 523 524 525 526 527 528 529 530 531</td><td> 19 20 21 22 23 24 25 26 27 28 29 30 31 32 </td></td>	paran 38 38 2 2 2 2 2 2 2 2 2 2 2 2 3 3 4 4 5 5 6 6 7 7 8 8 9 9 10 10 10 11 12 12 13 14 14 15 16 16 17 17 18 17 17 18 18 17 17 18 18 18 18 18 18 18 18 18 18 18 18 18 18 18 18 18 <td>39</td> <td>40</td> <td>figura 2</td> <td>42 42</td> <td>43</td> <td>44</td> <td>45</td> <td>46</td> <td>irtual 47</td> <td>1 48 Tip</td> <td>49</td> <td>50 End OK</td> <td>Resta</td> <td>t 53</td> <td>54</td> <td></td> <td>56</td> <td>57</td> <td>58</td> <td>59</td> <td></td> <td></td> <td>62</td> <td>63</td> <td>64 519 520 521 522 523 524 525 526 527 528 529 530 531</td> <td> 19 20 21 22 23 24 25 26 27 28 29 30 31 32 </td>	39	40	figura 2	42 42	43	44	45	46	irtual 47	1 48 Tip	49	50 End OK	Resta	t 53	54		56	57	58	59			62	63	64 519 520 521 522 523 524 525 526 527 528 529 530 531	 19 20 21 22 23 24 25 26 27 28 29 30 31 32
imart (Ret 36 9 0 1 2 3 4 5 7 3 9 0 1 2 3 4 5 7 3 9 0 1 1 1 1 1 1 1 1 1 1 1 1 1	5 37 5 37 6 37 7 37 8 37 9 37	Jase Jase <td>39</td> <td>40</td> <td>figura 2</td> <td>42</td> <td>43</td> <td>44</td> <td>45</td> <td>46</td> <td>irtual 47</td> <td>1 48 Tip</td> <td>49</td> <td>50 50 End 0K</td> <td>Resta</td> <td>t 53</td> <td>54</td> <td>55</td> <td>56</td> <td></td> <td>58</td> <td>59</td> <td>60</td> <td>61</td> <td>62</td> <td>63</td> <td>64 519 520 521 522 523 524 525 526 527 528 529 530 531</td> <td>19 20 21 22 23 24 25 26 27 28 29 30 31 32</td>	39	40	figura 2	42	43	44	45	46	irtual 47	1 48 Tip	49	50 50 End 0K	Resta	t 53	54	55	56		58	59	60	61	62	63	64 519 520 521 522 523 524 525 526 527 528 529 530 531	19 20 21 22 23 24 25 26 27 28 29 30 31 32
imart (Ret 36 9 1 2 3 4 5 7 3 9 0 1 2 3 4 5 7 3 9 0 1 2 3 4 5 7 3 9 0 1 2 3 4 5 7 7 3 9 7 7 8 9 9 7 7 8 9 9 9 9 9 9 9 9 9 9 9	55 37 55 37 6 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	paran 38 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	39	40	figura 4 1	42 42 2	43	44	45	46		1 48 Tip	49	50 End OK	Resta	t 53	54		56	57 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	58	59	60	61	62		64 519 520 521 522 524 525 526 527 528 529 530 531 532	□ 19 20 21 22 23 24 25 26 27 28 29 30 31 32 20 19

4.1.3.7 Add module

Click finish, add the module next, and enter the name of the manufacturer so that the next module can be called.

Manufac	-
Name: P4_40x20_10scan	
Module information	
Drive chip: ICN2038S Scan mode: 10scan Data group number: 2 Group type: 三线并行 OE polarity: Low effective LED polarity: Highly effective	

4.1.4 Load of each receiving card

According to the maximum load setting of the receiving card

Load of each receiving	g card
Number of horizontal modules 2 🌲	JP1
Number of vertical modules 5 🗘	- JP2
Module cascading From right 👻	- JP3
(Face to large screen observation)	- JP4
Multiple open sett Nothing 🔹 🔻	ID5
Loaded pixel 80x120	- JFJ
Advanced	→ JP6

Data Group Exchange: Click on the "Advanced" button to enter the data group exchange interface, drag and drop the Yellow module for data group exchange, and then click the "OK" button to complete the data group exchange. If the data group is more complex, you can enter the "Intelligent Search" page to view the detailed data group.



Intelligent search page, you need to check "enabled" before it can take effect, C represents columns, R represents rows, according to the number displayed on the screen, corresponding to write into the software. Quick sorting refers to the entry order of 1, which can be sorted quickly by preselecting the upper left and upper right below.

4.1.5 screen pixel

Select according to the actual cascading mode of the module, then click next to set the number of big screen points (the actual size of the LED screen on the current sending card).

LED setting wizard	l			×
ED setting wizar	d			
Pixels				
Calculate	the screen pixels by	module quant Calco	ulate the screen pixels by n	nodule pixels
Columns	2 🌲	Wid	th 128 🌲	
Rows	6 🗘	Heig	ht 384 🌲	
✓ Screen of	ffset (setting the off	set of screen display (content relative to video inp	put)
Screen h	orizonta offset	0 ‡		
Screen v	ertical offsset	0 🌲		
Not detected t	he receiving card	Í.	< last step	Next > Cancel

Screen points: can be set according to the number of modules, can also be set according to the number of real pixels.

Sarge screen offset: A single sending card is used to offset the coordinates, thus completing the mosaic display of multiple sending cards.

4.1.6 Receiving card string method

According to the actual number of large screen to fill in, then click on the next step, set the receiving card string mode.



4.1.6.1 intelligent connect receiving card

If the conventional string display is incorrect, you can choose the smart string and click on the big screen flashing.

Big screen layout settings						-	x
< < ∕2							
Тір				×			
0	Observe the big so	creen, click on the b	linking area step by	step			
		Confirm					
	4	5	6				
		Ů					

Big screen layout settings		- 0	×
P ₁₁ x,y 🗌 ⇄ P1 P2 P3 P4	🛓 🗽 🛹 🙉 🍭 🎯 🥱 Finish		
	P1.1 P1.2 P1.3 0,0 00,0 160,0		
	60x120 80x120 60x120		
	Click "Yes" to exit settings Click "Yes" to exit settings Click "No" to manually adjust		
	Yes No		
	807120 807120 807120		

4.1.6.2 modifies the receiving card properties

If the receiving load and so on cassette in different words, you can use the "Edit" button to modify the load receiving cassette.

Big screen layout settings			_		-	x
P1.1 x,y 🔤 ⇄ ₽1 ₽2 ₽3 ₽4	Modify	the receiving card p	arameters 5	Finish		
		P1.2 80,0 80x120	P1.3 160,0 80x120			
	P1.6 0,120 80×120	P1.5 80,120 80+120	P1.4 160,120 80×120			

Big screen layout settings	-	×
P _{1.1} x,y → P1 P2 P3 P4 😺 < → 🔍 🔍 🕥 与 Finish		
Receiing card parameter ×		
Horizontal mo 2 🗘		
Vertical modu 6 🌩		
Horizontal pos 🛽		
P1.6 0.120 Vertical positic		
Confirm Cancel		

4.1.6.3 observed whether the effect of LED screen was satisfactory

According to the actual line selection mode of the receiving card, select the big screen after normal display, then click the next step.



4.1.7 Advanced effect setting

If you are satisfied with the display effect, point "yes"; if you are not satisfied, point "no" into the "Advanced Effect Settings" interface.

Complete s	etting				
			70 000		
Refresh rate	660 +	Lumi efficiency	/0.00%	Apply	
Grayscale leve	14 *	Multi-Freq Num	11 multi-Freq	•	
Data clock Fre	q 15.63M ·	Data CLK phase	50	*	
Min OE width	16 Actual:24ns	Duty cycle	50	*	
Wrap time	1000 ns	Wrap position	500	ns	
Input Fps	60Hz *				
✓ Color rendi	tion V Force increase				

4.1.8 Curing system parameters

Click on the solidification system parameters, and the configuration information of the control system is solidified into the hardware.



Solidification system parameters: Solidification system parameters to hardware, and complete the operation of hardware system backup, easy to achieve a key repair data backup.

Backup system parameters to the computer: save the system configuration file screen file to the computer for easy re-import and system maintenance.

Click Finish to complete the wizard screen adjustment.

4.2 expert setting

Expert screen adjustment is divided into three parts, sending device debugging, receiving card data debugging, and display screen connection. The basic order of debugging is setting the parameters of receiving card, setting the connection of display screen, confirming the information of sending card and solidifying it.

4.2.1 Sending device

xpert debug	gging										
🔌 Sending de	evice	Re	eceiving card	Screen cor	nnection (fac	e to the screen)					
Setup mode											
		Routine s	etting	O Graphic edi	iting						
Source info	rmation			Input set	tings						
Source resol	lution N	I/A		Offset X		0 🌲					
Frame rate	N	J/A		Offset V		0 *					
The second		.,		Shoce		~ +					
			Refresh								
ettings											
		X	Y	Width	Height	Audio switch	Backup switch				
- Iti	Port1	0	0	128	384	Start	Start				
all.	Port2	0	0	512	512	Start	Start				
al.	Port3	0	0	512	512	Start	Start				
al.	Port4	0	0	512	512	Start	Start				
									Apply	Save	8

Device selection: The sending device has two parts: the sending card and the network card. A series of two-in-one devices only have screen parameter settings.

Source information: The resolution and frame rate of the current input signal source can be displayed by clicking "refresh".

Input Settings: Position offset for the current signal source.

Advanced settings: a single location offset/width, height change for a certain network port of the sending card, each way can be checked for audio and backup switch.

4.2.2 receiving card

	g										- □	
Nending device	e il f	Receiving card	Screen	connection (face	e to the scr	een)						
🗄 Module informat	ion											
Drive chip:	Common ch	ip Module	width: 64	Scanning	number: 32	Cable co	olor:Red Green Blu	ie	Select			
Decoding n	node: 138 d	ecode Module	height: 64	Data array	: 2				Setting			
Single card load	ing pixels											
Width 12	8	Multiple	open setting	Nothing 🔹	Ø							
Height 38	34	Cascad	e direction F	From right 🔻					Exchange			
Effect debuggin	g											
Refresh rate	660		Lumi efficiency	70.00%	- N	Iodify						
Gravscale level	14		Multi-Freq Nun	11 multi-Freq	*							
	14		The Freq Her	11 main rog								
Data clock Free	9 15.63M	*	Data CLK phase	e	50 🤤							
Min OE width	16	Actual:24ns	Duty cycle		50 ‡							
Min OE width Wrap time	16	Actual:24ns	Duty cycle Wrap position	500	50 ‡				Mada			
Min OE width Wrap time Input Eps	16 1000 60Hz	Actual:24ns	Duty cycle Wrap position	500	50 ‡				Mode			
Min OE width Wrap time Input Fps	16 1000 60Hz	Actual:24ns ns	Duty cycle Wrap position	500	50 ‡				Mode Optimize			
Min OE width Wrap time Input Fps ✓ Color rendit	16 1000 60Hz tion	Actual:24ns ns Force increase he signal is lost	Duty cycle Wrap position	500	50 \$				Mode Optimize	Apply	Save	e

Receiving card interface is used to debug the parameters of receiving card. It can be set quickly through module selection or add module configuration information through intelligent settings. If there is a previously saved configuration file, it can also be loaded on this page and sent to receiving card parameters.

4.2.2.1 Module information

🖷 Module information				
Drive chip: Common chip	Module width: 64	Scanning number: 32	Cable color:Red Green Blue	Select
Decoding mode: 138 decod	le Module height: 64	Data array: 2		Setting

Module width: The actual width of a single module pixels.

Module height: The actual height of a single module.

Number of data groups: Information display of the number of data groups of the current module.

Driver chip: The information display of the driver chip of the current module.

Decoding mode: Information display of current module decoding mode.

Scan Number: The number of data scans for the current module.

Module selection (Step Refer to "4.1.3 Selection of Module Manufacturers and Types")

Intelligent settings (Step refer to "4.1.3.1 Intelligent Settings Add Module")

4.2.2.2 Single card loading

ingle card l	oading pixels —					
Width	128	Multiple open setting	Nothing	٠	Ø	
Height	384	Cascade direction	From right	Ŧ		Exchange

The single card information part contains the single card information of the receiving card. It can adjust the information of the receiving card, multi-open mode, module cascade direction and data group exchange through this part.

Data Group Exchange: (Step Reference 4.1.4.1 Advanced Settings)

Cascade direction: Modify the direction of module data entry.

Multiple open setting:The right help sign is displayed graphically to help users understand the multiple wiring rules. As shown in the following figure, more devices are set up, the front view screen is set up, the JP1 of the receiving card is connected to the upper right corner module, and the JP12 is connected to the upper left corner module.

Single receiving card loading – ×						
Tip:face to the screen						
JP 12	JP1					
JP 11	JP2					
JP 10 JP3						
JP9	JP4					
JP8	JP5					
JP7	JP6					

4.2.2.3Effect debugging

Effect debugging is used to debug the overall screen display effect. The screen display effect can be adjusted by adjusting output gray level, frequency doubling and data clock frequency.

Refresh rate	840	*	Lumi efficiency	70.00%		- N	Modify				
Grayscale level	14	×	Multi-Freq Num	14 multi-Freq		Ŧ					
Data clock Freq	15.63M	*	Data CLK phase		50	÷					
Min OE width	16 A	ctual:24ns	Duty cycle		50	÷					
Wrap time	1000	ns	Wrap position	500		ns				Mode	
Inout Fee	60117	-								Mode	

Mode Selection:Mode selection is used to display screen effects using recommended configurations for dual latches and PWM chips. The first step is to select the chip type.

Series ICN	Series SM	Series LS	Series MBI	Series SUM	Others
1CN2028	SM16017S		MBI5124	SUM2017TD	DP5220X
ICN2037	SM16207S				FM6124
ICN2038	SM16227S				LYD6126
ICN20385	SM16237DS				
ICN2088	SM16237S				
ICND2045					

The second step is to adjust the registers. Generally speaking, there is no need to adjust them.

More settings			-	x
Blanking mo Advanced 🔻	Manual adjustme Open	eters		
Blanking grade R G	16 ‡ 16 ‡	Current gain R G	100	%
B	16 🌲	B	100	%
R Low gray compensation ~	G	B 0 ~		
Advanced mode Effect setting	Send		Apply Car	ncel

The third step is to click on "Effect Settings", select the effect settings 1, 2, 3, 4, and then click "Determine" to complete the application of the preset effect settings, and select the better state of the screen effect.

Effect setting			_ >
Setting 1	Setting 2	Setting 3	Setting 4
			OK Cancel

Low-gray optimization: Used to optimize the low-gray effect of screen display, check the enablement, set the level of low-gray brightness measurement, click on "calculation" and "application" to complete the use of low-gray optimization. This adjustment needs to be used according to the actual situation of the site, and does not need to be adjusted under the conventional mode.

Luminance Enable				Enable
Black		I 0	0	Apply
Lv1		1	0	Cancel
Lv2	Go 🕞	2	0	
Lv3			0	-
Lv4	X Clear	3	0	-
Lv5		4	0	
Lv6		5	0	

Brightness adjustment:This function uses a patent algorithm to ensure that reducing the screen brightness efficiency will not affect the image display effect. The left slider is the adjustment slider, which is used to reduce the system brightness efficiency adjustment, and the right side will have numerical changes. The right slider is the maximum luminance efficiency of the system, following the change of system configuration parameters. After adjustment, real-time display, click "OK" to complete.

ip: patented algorithm ensures that rec	ducing luminance effic	iency does	n't affect image r	res
-			70. 2 %	,
			70. \$ %	0

Color Restoration and Primary Ashing: Adjust the display effect of the current screen, check it and send it to the receiving card.

Color restoration can effectively eliminate reddish facial appearance and make skin color more real. First-level gray, improve the effect of low-gray display, from the first-level gray start gray display.

✓ Color rendition ✓ Force increase

4.2.2.4 Keep the last frame

The final frame is reserved by default in the receiving card manufacturer program. If it is not needed, it can be adjusted by slider. The last frame or black screen can be reserved when the receiving card has no signal.

4.2.2.5 Receiving Card Data Sending

Receiving card data transmission, click on the application, you can complete all the data application of receiving card, right-click on the "application" button, you can enter the detailed sending data page, as shown below.

		Specified	data option
Port:	P1		Apply only effect parameters
	P1		Sending the receiving card location
NO.:	0	*	Reset receiving card location

Select all receiving cards or designated receiving cards, network slogans are identified by P1, P2, P3, P4, card serial number is identified by 0, 1, 2, 3, etc., 0 identifies all receiving cards of the current network port, 1, 2, 3 represents the specific receiving card serial number of the current network port, and the serial number is sorted according to the direction of the signal. The following picture is a reminder.

Tip	x
0	The card number is 0 indicating all cards sent / solidified at the net port Reset card Position: Modify/solidify the position of all receiving cards to (0,0) Sending the card location: sending position of the specified receiving card according to the wiring diagram Application effect only: only send / solidify the effect parameters of the designated receiving card
	ОК

4.2.3 Screen connection

Sending device Receiving card	s	creen connection	(face to the scree	n)			
creen1						c	Quantity of screens 1
Receiving card information	4		. Q	Columns	5 ‡ Rows	4 🌲 🛛 Hide lines	Complex LED scre
Vidth 128 🗘 Height 384 🌲		1	2	3	4	5	
Ethernet ports selection	1	Netport: P1 Card: C1 Width: 128 Height: 384	Netport: P1 Card: C2 Wreth: 128 Height: 384	Netport: P1 Card: C3 Wreth: 128 Height: 384	Netport: P1 Card: C4 Width: 128 Height: 384	Netport: P1 Card: C5 Wrdth: 128 Height: 384	
orizontal connecting lines	2	Netport: P2 Card: C1 Width: 128 Height: 384	Netport: P2 Card: C2 Wight: 128 Height: 384	Netport: P2 Card: C3 Wwith: 128 Height: 384	Netport: P2 Card: C4 Wildh: 128 Height: 384	Netport: P2 Card: C5 Wilefh: 128 Height: 384	
ertical connecting lines	3	Netport: P3 Card: C1 Width: 128 Height: 384	Netport: P3 Card: C2 Wildth: 128 Height: 384	Netport: P3 Card: C3 Width: 128 Height: 384	Netport: P3 Card: C4 Width: 128 Height: 384	Netport: P3 Card: C5 Wieff: 128 Height: 384	
Setting	٩	Netport: P4 Card: C1 Width: 128 Height: 384	Netport: P4 Card: C2 Width: 128 Height: 384	Netport: P4 Card: C3 Width: 128 Height: 384	Netport: P4 Card: C4 Wröth: 128 Height: 384	Netport: P4 Card: C5 Wi0th: 128 Height: 384	
							Apply Sava

Display screen connection is used to connect the debugged single receiving card into a whole through a certain series of lines, so as to achieve the effect of continuous screen display.

4.2.3.1 Receiving Card Information

ht 384 ‡
n
4

Receiving card information includes receiving card load information, and this window is automatically consistent with receiving card page load. After the screen is wired, if you need to change the receiving card load, you can modify it at this location.

4.2.3.2 Quick connection

Ethern	et ports se	lection —	4
Horizontal c	onnecting	lines	2
Vertical con	necting line		ЦŢ

By choosing the network slogan, the fast serial connection of all the receiving cards on the screen can be completed by choosing the fast serial mode. At the same time, the intelligent serial connection can be used to complete the screen connection.

Expert debugging Sending device Receiving card Screen connection (face to the screen) Screen1 Quantity of screens 1 Receiving card information 4 ‡ 🗆 5 2 Rows Hide li Complex LED scre 9 H. * 🔆 Single card setting 128 🗘 Height 384 ‡ Width Ethernet ports selection 4 Horizontal connecting lines ectina lin Tips>>> Apply Save 🛞 Equipment not connected Save box file .oad from file Save to file Total save Read back Backups

4.2.3.3 Standard Screen Connection

According to the actual situation of the screen, the number of rows and columns of the receiving card is set, and then the network slogan is selected for the serial connection.

There are three ways of string: click the left mouse button, string the direction key, hold the left mouse button and drag the receiving card to complete the string.

Leave space: After the normal string, click the blank button, the button in the red box below, you can complete the blank setting.



HUB offset:In the connection of the standard display screen, first select the receiving card that needs position offset, then click on the HUB offset button of the tool menu. In the red box position in the following figure, set the HUB port offset in the pop-up box. After clicking on "Application", the original receiving card position appears a broken line mark. After the HUB offset interface "clears zero", the page is closed and the broken line disappears.

1	2		3		4		5		6
网口: P1 卡号: C3 宽度: 128 高度 <mark>: 384</mark>	网口: Pf 卡号: C4 苋 <u>尽</u> : 128 高度 <mark>:</mark> 384	1 3	网口P1	,卡4		-	×	8	网口: P2 卡号: C9 宽厚: 128 高度 <mark>:</mark> 384
		-	Hub口	偏移量	Hub□	偏移量			
网口 <mark>: P1</mark> 卡号: C2	网口 <mark>:P1</mark> 卡号,C5	I	12	0	1	64			网口: P2 卡号: C8
宽度: 128 高度: 384	贯度: 128 高度: 384		11î:	0	2	0		8 4	宽度: 128 高度: 384
		-	10	0	\$	0		_	
网口: P1 卡号· C1	网口 <mark>: P1</mark> 卡罗 C6		Ŧ	0	4	0			口: P2 - - - - - - - - - - - - -
宽度: 128 高度: 384	宽度: 128 高度: 384		9	0	4	0		8	苋痘: 128 高度: 384
			7	0	6	0			

4.2.3.4 Complex Display Screen Connection

Complex screen connection page, switch from standard screen to complex screen, data will be imported automatically. By setting the number of receiving cards, and modifying the column starting point, row starting point, width, height of each receiving card, after setting, application, click on the solidified screen connection to complete the data transmission of complex screen connection.

Sendin	ng device	Rec	eiving card		Screen con	nection (face to	the screen)						
creen1												Quantity of s	creens 1
eceiving ca	rd informati	on								<i>1</i> 7		10	
🔆 Single c	ard setting			Q	lantity of re	ceiving card	2	Clea	r list Hub	offset		⊻ Cor	npiex LED sc
/idth	128 🗘	Height	384 🌲		NO.	Sending c	Net port	Card numb	er X	Y	Width	Height	Hub offset?
				•	1	1	1	1	0	1152	128	384	
Etherne	t ports sele	ction	_		2	1	1	2	0	768	128	384	
1	2	3	4		3	1	1	3	0	384	128	384	
			-		4	1	1	4	0	0	128	384	
					5	1	1	5	128	384	128	384	
					6	1	1	6	128	768	128	384	
rizontal co	nnectina lin	65			7	1	1	7	128	1152	128	384	
	~~~		-		8	1	1	8	256	768	128	384	
	L	L			9	1	1	9	256	384	128	384	
_			هه		10	1	1	10	256	0	128	384	
artical conn	ecting lines				11	1	2	1	384	1152	128	384	
		-			12	1	2	2	384	768	128	384	
		111	111		13	1	2	3	384	384	128	384	
_ + _	+ 💶 +	1 til	L 🖌 🖡		14	1	2	4	384	0	128	384	
					15	1	2	5	512	384	128	384	
Setting					16	1	2	6	512	768	128	384	
					17	1	2	7	512	1152	128	384	
					18	1	2	8	640	768	128	384	
<u>>>>></u>					19	1	2	9	640	384	128	384	
										-			1
												Apply	Save

4.2.4 Curing parameter

Single curing: the connection settings of sending card, receiving card and display screen are completed, and the corresponding parameters can be cured separately by clicking the curing button of each page.

Full solidification: Ensure that the connection parameters of sending card, receiving card and display screen are sent correctly, click on all solidification, and the solidification of control system can be completed quickly.

4.2.5 Other parameter processing

Expert debug	gging								×
Sending de	evice Receiving card	Screen connection (face to	o the screen)						
🛅 Module infor	mation								
Drive ch	nip: Common chip Modul	e width: 64 Scanning nur	mber: 32	Cable color:Red Green Bl	ue	Select			
Decodin	ng mode: 138 decode Modul	e height: 64 Data array: 2	1			Setting			
Single card lo	oading pixels								
Width	128 Multip	le open setting Divide into 🝷 🦸	D						
Height	384 Cascad	de direction From right 🔻				Exchange			
🔮 Effect debug	gging								
Refresh rat	te 840 *	Lumi efficiency 70.00%	 Modify 						
Grayscale le	evel 14 ·	Multi-Freq Num 14 multi-Freq	*						
Data clock	Freq 15.63M -	Data CLK phase 5	io ‡						
Min OE wid	ith 16 Actual:24ns	Duty cycle 5	io ‡						
Wrap time	1000 ns	Wrap position 500	ns			Mode			
Input Fps	60Hz 👻					Ontimize			
Color re	endition 🗹 Force increase					opunitze			
nk screen if no	signal						Apply	Save	
Equipmen	nt not connected		Save	box file .oad from file	Save to file	Backups	Total save	Read ba	ack

4.2.5.1 From file load:

Load saved configuration files

打开		×				
- → ◇ ↑ 🔮 > 此电脑 > 文档 >	> ひ 搜索"文档"	Q				
组织 ▼ 新建文件夹		•	d Green Blue	Select		
■ 此电脑 へ 名称	^ 修改日期	英	ŧ	Setting		
🧊 3D 对象 🗧 Tencent Files	2019/2/26 10:21	Ż	ζŧ			
🚪 视频 💦 WeChat Files	2019/2/25 9:39	Ż	24			
New Section Control Files	2019/2/15 21:11	Ż	21			
● 文档 ■ 暴风影视库	2019/2/15 17:16	Ż		Exchange		
↓ 下载	2019/2/26 21:50	S	CI			
▶ 音乐						
桌面						
🏪 本地磁盘 (C:)						
🕳 本地磁盘 (D:)						
🔜 本地磁盘 (E:)						
本地磁盘 (F:) ∨ <		3	>			
文件名(N);	✓ Screen文件(*.screen)	~				
		ж.				
		H		Mode		
Input Fps 60Hz *						
Input Fps 60Hz ▼ ✓ Color rendition ✓ Force increase				Optimize		
Input Fps 60Hz Color rendition Force increase R screen if no signal				Optimize	Apply	Save

4.2.5.2 Save to file

If you want to save the current receiving card/sending card/display connection wiring diagram, you can choose "save to file" to save to the local computer, convenient for later maintenance at any time call.

ע/ דוכד			×			
→ ◇ ↑ 📋 > 此电脑 > 文档 >	∨ ひ 搜索"	文档"	<u>م</u>			
且织 ▼ 新建文件夹			d Green	Blue	Select	
■ 此电脑 へ 名称	^	修改日期	类		Setting	
		2019/2/26 10:21	文化			
I 视频 WeChat Files		2019/2/25 9:39	文			
■ 图片 WpsPrint Files		2019/2/15 21:11	文作			
■ 文档		2019/2/15 17:16	文作		Exchange	
L 下我		2019/2/26 21:50	SC			
1 音乐						
- 「 - - - - - - - - - -						
- 木地磁盘 (D·)						
v <			>			
文件名(N):			~			
			~			
保存举型(T): Screen文件(*.screen)						
保存类型(T): Screen文件(*.screen)						
保存类型(T): Screen文件(*.screen) 隐藏文件夹	G	存(S) 取消				
保存类型(T): Screen文件(*.screen) 隐藏文件夹	G	存(S) 取消			Mode	
保存类型(T): Screen文件(*.screen) 隐藏文件夹 Input Fps 60Hz *	6	存(S) 取消			Mode	
保存类型(T): Screen文件(*.screen) 隐藏文件夹 Input Fps 60Hz *	6	存(S) 取消			Mode	
保存类型(T): Screen文件(*.screen) 隐藏文件夹 Input Fps 60Hz ▼ ✓ Color rendition ✓ Force increase	¢.	存(S) 取消			Mode Optimize	

4.2.5.3Backup (provided it is solidified):

Each receiving card has parameters of sending card/receiving card, and each sending card has parameters of sending card/receiving card.

Sending device	Receiving ca	rd Scree	en connection (face	e to the s	creen)				
Module informat	ion								
Drive chip:	Common chip Mod	lule width: 64	Scanning	number: 3	Cable co	olor:Red Green Blu	ie	Select	
Decoding m	node: 138 decode Mod	lule height: 64	Data array	: 2				Setting	
Single card loadi	ng pixels								
Width 12	8 Mult	ti <mark>ple open setting</mark>	Divide into 🔻	Ø					
Height 38	4 Case	cade direction	From right 🔻					Exchange	
Grayscale level	14	Multi-Freq N	um 14 multi-Freq	٠					
Grayscale level	14	Multi-Freq N	um 14 multi-Freq	Ŧ					
Data clock Free	15.63M	 Data CLK ph 	ase	50 ‡					
Min OE width	16 Actual:24r	ns Duty cycle		50 ‡					
Wrap time	1000 n	s Wrap positio	n 500	ns				Mode	
Input Fps	60Hz	•							
Color rendit	ion 🗹 Force increa	se						Optimize	
Color renuic									

4.2.5.6 Read back

After successfully connecting the device, you can read back the connection parameters of the last solidified sending/receiving card/display screen.

It can also be read back through the expert screen adjustment page.

5 Brightness control:

The brightness control page contains brightness settings, color temperature adjustments and Gamma adjustments.

Click on the brightness control in the main interface to enter the detailed settings page of brightness control.

KYSTAR						۰. ب	\$ C	-	×
			-		(ل) الم الم الم				
Guide	Expert	Brightness	Calibration	Monitoring	Multi-function	Video process	sing		
Hardware inform	nation								+
No information		Topology st Image: No device	ructure te connected						
						Expo	rt list	Ref	iresh

5.1 Brightness setting

cuminance secong	Color adjustment	Gamma adjus	tment	
Brightn 25 Contrast 6	5 \$	0		0

The brightness setting includes brightness setting, contrast adjustment and screen display. The range of brightness adjustment is from 0 to 255, and the default value is 255. Contrast adjustments range from 1 to 255, with a default value of 64. The screen display includes normal display, lock screen and black screen. Note: After setting the brightness or contrast, you need to click "curing".

5.2 Color temperature regulation

亮度设置	色彩调整	Gammaì周节	
色温调整	开启		
红:	32768 🌻		
绿:	32768 🗘	C	0
蓝:	32768 🗘		0
			固化

The color temperature regulation can be divided into three separate adjustments: red, green and blue. The adjusting range is from 0 to 32768, and the default value is 32768.

Note: Color temperature regulation is effective.

5.3 Gamma adjust

Gamma regulation mainly includes two parts: Gamma value and Gamma curve.

Modifying some values in gamma value table can improve the uniformity of gray level of screen display.

1. First click on the brightness control to select gamma adjustment. The following picture will appear.

uminance setting	Color adjustment	Gamma adjustment		
Grayscale: .4		Gamma:	2.8	H Load
X: 0	255	Gamma table Mode	Generate	Save
Y: 0	16383	O Standard Increase	Normal Manual	Send
Dark lines Bright	ness control: 10	0 🗘 %		Fixed
383			x	у
			0	0
			1	1
			2	2
			3	3
			4	4
			5	5
			6	6
			7	7
			8	8
			9	9
			10	10
			11	11
			12	12
			13	13
			14	14
			15	15
			16	16
			17	17

2 The X-axis represents 256 brightness values of the signal source (optional, not necessarily 256), and the Y-axis represents the PWM gray value of the LED. Generally, the X-axis ranges from 0 to 255, while the Y-axis ranges from 0 to 65535 (the specific number depends on the gray level in the debugging of the receiving card). As shown below, the gray level is 14, ranging from 0 to 16383.

Grays	cale: .4	Ŧ
X:	0	 255
Y:	0	 16383

3、Gamma table adjustment

Modifying the gray value of Y region can adjust the gray value of signal source brightness corresponding to display. Adjust the "Send" button, and then solidify the Gamma value will be adjusted to apply to the screen display.

arrantee sectoring	Color a	djustment	Gamma adjustment			
Grayscale: .4		~	Gamma:	0	- 2.8	Load
X: 0		255	Gamma table Mode	Generate	ole Er	Save
Y: 0		16383	🔿 Standard 🖲 Increa	se Normal O	tanual E	Send
Dark lines Brigh	tness cont	rol: 100) 🗘 %		Gamr	Fixed
83				x	У	
				0	0	
				1	1	
				2	2	
				3	3	
				4	4	
				5	5	
				6	6	
				7	7	
				8	8	
				9	9	
				10	10	
				11	11	
				12	12	
				12 13	12	
				12 13 14	12 13 14	
				12 13 14 15	12 13 14 15	
				12 13 14 15 16	12 13 14 15 16	
				12 13 14 15 16 17	12 13 14 15 16 17	
				12 13 14 15 16 17 18	12 13 14 15 16 17 18	

5. Loading and saving

The revised Gamma table values can be saved as files, and the previously saved files can also be loaded into the software for use.

4.6 multi-function card

6.1 brief introduction

The multi-function card can realize power management, data monitoring and brightness control.

Click on the "multi-function card" in the main interface to enter the multi-function card settings page. If the multi-function card is not detected, the system will pop up the window

prompt.

Kystar G6 V1.0		÷.	311 - ×
izard debugging Expert debu	ging Luminance control Camera calibr	ration Screen monitor More functions Video processing	
Hardware information	Topology structure No device is connected	now	
Gold card mode		Export list	Refresh

6.2 Power management

Chcek all	Power Management	t 🚲 Monitor data 🤤	Brightness adjustment			
No device connected	- Power management	time				
	20	000-01-01 00:00:00	Read	Setting	Set notes	Set delay
	000	000	0 0	Refresh	All started	Shut down
	Manual control	Automatic control	O Software control		Group start	Group stop
	Relay1	Start Str	0p			
	Relay2	Start Sta	qq			
	Relay3	Start Sta	op			
	Relay4	Start Sta	90			
	Relay5	Start Sta	qc			
	Relay6	Start Sta	qq			
	Relay7	Start Sta	q			
	Relay8	Start Sta	qq			
				Read back	Save all	Check Logs

In this interface, the eight-way relay of multi-function card can be controlled manually, automatically and by software.

Setting and reading: Click the "Settings" button to write the local time of the computer to the multi-function card FPGA.

Click the "Read" button to read back the time in the multi-function card, more precise timing switch

Set Notes:The name of each relay can be labeled. For example, the first relay is "large screen power supply" and the second relay is "fan", which facilitates the management and control of the power supply.

Start-up delay:Set the delay of starting time of relay by default of 1 second. The delay can be modified by oneself, so that there is a certain time interval between click-on and relay connection.

All start-up:All 8-way relays are placed in the open state, so the relay switch can be controlled uniformly, which is convenient and fast.

Urgent cessation: Close 8-way relay at the same time with one key to deal with emergencies easily.

Manual control:8-way relay has corresponding "start" and "stop" buttons, which can control each relay

hcek all	Power Management	t 🛞 Monitor data	💡 Brightness ac	djustment			
no dence connected	Power management	time				Set notes	Set deby
	2	000-01-01 00:00:00		Read	Setting		
	000				Refresh	All started	Shut down
	Manual control	Automatic control	Software	e control		Group start	Group stop
	Relay1	Start	Stop				
	Relay2	Start	Stop				
	Relay3	Start	Stop				
	Relay4	Start	Stop				
	Relay4	Start Start	Stop				
	Relay4 Relay5 Relay6	Start Start Start	Stop Stop Stop				
	Relay4 Relay5 Relay6 Relay7	Start Start Start Start	Stop Stop Stop				
	Relay4 Relay5 Relay6 Relay7 Relay8	Start Start Start Start Start	Stop Stop Stop Stop				
	Relay4 Relay5 Relay6 Relay7 Relay8	Start Start Start Start Start	Stop Stop Stop Stop		Read back	Save all	Check Logs
	Relay4 Relay5 Relay6 Relay7 Relay8	Start Start Start Start Start	Stop Stop Stop Stop		Read back	Save all	Check Logs

individually and conveniently.

Auto-Control:Under the power automatic control interface, the start and stop time can be set for each relay, which is valid on the same day. Click the send button and send it to the multi-function card to realize offline control.

Chcek all	Power Management	Monitor data	💡 Brightness adjustment			
No device connected	Power management t	ime				Cat data
	20	00-01-01 00:00:00	Read	Setting	Set notes	Set delay
	000	000	0 0	Refresh	All started	Shut down
	Manual control	Automatic control	O Software control		Group start	Group stop
	Relay1	Start	Stop			
	Relay2	Start	Stop			
	Relay3	Start	Stop			
	Relay4	Start	Stop			
	Relay5	Start	Stop			
	Relay6	Start	Stop			
	Relay7	Start	Stop			
	Relay8	Start	Stop			
				Read back	Save all	Check Logs

Software control: Click Edit to pop up the dialog box "Power Custom Operation List Edit"

Powe	er Management	Monitor da	ta 🍟 Luminanc	e adjustment			-
Pow	Power user-	defined Action Li	st Edit			×	4.1.
2	week	lefined control lists - Start-up time	Close time	User-defined edit	ting area of power Relay2	Relay3	: dow
Ma Werl Weel				Relay4	Relay5	Relay6	
				Week Monday	 Tuesday Friday 	Wednesday	
				Time Start-up time Closing time	00:00:00 \$		E dit
						Add	Logs
		Del	ete Empty		Confirm	Cancel	

"Custom Editorial Area"

- "Power Circuit Number" chooses to control the number of power supply routes, which can be checked by single or multiple routes.
- "Week" is a cycle of seven days a week. Check the opening and closing days of the week (seven days a day).
- 3、 "Time" sets a specific time for the power supply to turn on and off.

After editing, click Add and the specific information will be displayed in the left "Power Custom Control List". The "Delete" and "Clean" buttons below can operate on the added information.

Click "OK" to complete software control editing

6.3 Monitoring data

Chcek all	Power Management Monitor data	💡 Brightness adjustment		
No device connected	Onboard monitoring data.			
	Image: Consecute memory decard Image: Temperature Image: Temperature Image: Temperature Image: Humidity Image: Humidity	Temperature Fan Open CH1 CH1 CH1 CH1 CH1 CH1 CH1 CH1 CH1 CH1 CH1	Air conditioner Open CH2 Automatic Tempera us OFF Turn off po AutomaTempera JS OFF Turn off scr	wer when alert
	Probe 4 Disconnected Cascade access	Alarm 100 Alarm statu	us OFF Turn off all	power when a
			Start monitoring	Refresh
		Read back	Save all	Check Logs

"On-board monitoring data" can monitor the temperature, humidity, brightness and smoke of the environment in real time.

The four-way probe is an adaptive identification probe interface.

Check to enable the cascade port to realize the unified use of multi-card cascade.

Fan - Select the relay corresponding to the control fan, such as CH1; click the button "Open" to manually open the switch of relay 1, ON/OFF indicates the state of the relay on/off. Check the automatic control and set the opening temperature. The fan switch can be automatically controlled by the temperature sensor reading back.

Air conditioning - select the relay that controls the air conditioning, such as CH2; click the button to "turn on" to manually turn on the switch of relay 2. ON/OFF indicates the state of relay opening/closing. Check the automatic control, and set the opening temperature, through the temperature sensor read back the temperature automatic control air conditioning switch for cooling.

Set the temperature alarm value, and check "turn off the large screen power supply when the alarm value is reached", when the temperature reaches the alarm value, automatically turn off the large screen power supply, the software pops up the alarm dialog box and emits sound.

Humidity - Select the relay corresponding to the control fan, such as CH1; click the button "Open" to manually open the switch of relay 1, ON/OFF indicates the state of the relay on/off. Check the automatic control and set the opening humidity. The humidity can be automatically controlled by the fan switch read back by the humidity sensor to remove the humidity. Set the humidity alarm value, and check "Turn off the large screen power supply when the alarm value is reached". When the humidity reaches the alarm value, turn off the large screen power automatically. The software pops up the alarm dialog box and makes a sound.

Humidity - Select the relay corresponding to the control fan, such as CH1; Click on Smoke to set the humidity alarm value, and check "Turn off all power supply when alarm" to automatically turn off all power supply when humidity reaches the alarm value. The software pops up the alarm dialog box and emits sound.

Turn off the power when there is no signal - check the option. When there is no signal source, the multi-function card will automatically power off; when the signal is restored, the multi-function card will automatically power on.

After editing, click the application button to monitor the alarm settings.

6.4 Brightness adjustment



Switching to Brightness Adjustment in Multifunction Card Management Interface

Through the external light sensor, the curve can be set at the brightness adjustment interface (the abscissa is the brightness of the large screen, the ordinate is the environmental brightness), and the brightness of the large screen can be adjusted according to the environmental brightness detected by the light probe.

There are three curves in the software, which can be selected directly. According to the actual situation,

the curve can be set manually and the brightness curve can be set by clicking. In the dialog box, the screen brightness corresponding to 11 levels of A-K can be filled in (the screen brightness is expressed by 0-255 numerical value).



After filling in, click OK, go back to the brightness adjustment interface, tick "Allow automatic adjustment", click OK, and the automatic brightness control is set up.

7 Video Processing

Attribute	
Window1 Width Heig	ht
Size: 1920x1080 Size 1920 108	0
Horizontal Vert	ical
Window 0 0	
width Heig	ht
1920 108	.0
Horizontal Vert	ical
Console	
Tevice not connected	
CV1) CV2) (VGA) (DVI) (HDMI) (USB)	art
CV1 CV2 VGA DVI HDMI USB	Jam)
Mode1 Mode2 Mode3 Mode4 Mode5 128	

7.1 Settings and Tools Menu



Settings: including synchronization, factory settings, VGA adjustment, USB settings, image effects settings, sound settings, switching effects and other functions.

Tools: Contains box file management, import font library, import configuration, export configuration functions.

7.2 Simulation display area

KS600Plus - Se	etting Tool							- ×
						lttribute		
	Window1 Location:0.0						Width	Height
	Size:1920x1080					Size	1920	1080
							Horizontal	Vertical
						Window	0	0
							width	Height
							1920	1080
							Horizontal	Vertical
Console							Tioneonical	
Device not co	nnected							
•								
		NGA		m)	HDM		(ISR)	Part
					O			-
CV1	CV2	VGA		DVI	HDMI		USB	Eltem
					<i>6</i> 3 -			- (SHI)
Mode1	Mode2	Mode3	Mode4	Mode5	128			
					120			

The analog operation area can display the information of the window number, position and size of the screen, and support the dragging and pulling of the screen in the range of the number of points on the screen.

7.3 Property parameter setting

	Width	Height
Size	1920	1080
	Horizontal	Vertical
Window	0	0
	width	Height
	1920	1080
	Horizontal	Vertical
Part displa	y O	0
	Width	Height
	0	0

Property parameters include screen number settings, window size and location settings, local display size and location settings, and a backup button for system data backup.

After modifying the value, the current value will become Bold Italic number, click on the green coupler below, and the application will take effect. Click Back, cancel the current modification, and restore to the previous state.

7.4 Console operation

Console							
Tevice not connect	ted						Save mode
						Part	Mode 1
CVI		VGA	UN	HUMIN	USB		Mode 2
CV1	CV2	VGA	DVI	HDMI	USB	Elem	Mode 3
				<i>—</i>		III	Mode 4
Mode1	Mode2	Mode3 Mo	de4 Mode5	128		Sull	Mode 5
				120			

Device Connection State: Blue Connection State indicates that the upper computer software and hardware equipment are connected normally; Grey Connection State indicates that the upper computer software and hardware equipment are connected abnormally.

Signal source switching: support the switching of CV1, CV2, VGA, DVI, HDMI, USB signal source, red flicker indicates abnormal signal connection, green long light indicates normal signal access.

Mode invocation: supports five modes of invocation.

Preservation mode: supports five modes of preservation.

Other functions: brightness adjustment, panoramic local, black screen, static.

8 Advanced setting

Blindly tap 666888 on the main interface to enter the Advanced menu interface. The specific use of each function is described in turn below.

KYSTAR					🌣 🎄 🛛 –	×
Guide	Expert	Brightne	ss Calibration	Monitoring	Multi-function Video processing	
Hardware inform	ation	Topo	logy structure o device connected		Initializing the sending card parameter Initialize multifunction card parameters Upgrade gold card program One-Click Fix EDID programme Module management Setting packet interval Communication test Stitching light dark line Sending card auto brightness adjust Check the program version status	
					Export list Refr	esh

8.1 Initialize send card parameters

Restore the configuration parameters of the current sending card to the program loaded by default. It can quickly restore the abnormal display status of the sending card.



8.2 Initialization of multifunction card parameters

Restore the configuration parameters of the current multifunction card to the program loaded by default. It can quickly restore the abnormal state of multi-function card.



8.3 Upgrade Gold Card Program

Upgrading gold card program includes upgrading receiving card program, sending card program and multi-function card program. Upgrade operation should be cautious, consult our technical staff before use.

Upgrade Receive Card Information:



Upgrade Receiver Card Program: Select the type of upgrade program, universal, PWM.

Upgrade mode: Upgrade by sending card or network card.

Receiving Card Upgrade Range: By changing the network interface and the serial number of the receiving card, designate the upgrading of the receiving card; Detecting the receiving card can check whether the number of receiving cards detected by the current system is correct.

Upgrade Default Program: Software with Receiver Card program, Click to view the current version of the program in the software.

Mode Selection: When upgrading the receiving card program, check to erase Flash and write Flash.

After doing the preparatory work, click "download" to upgrade the program. After the upgrade, the system will prompt whether to reboot, and click "reboot" to complete the reboot of the receiving card.

Clear Configuration: This function can clear the configuration information of the receiving card.

Upgrade the sending card program:

Upgrade the receiving card program	Upgrade the sending card program	Upgrade th
type		
Gold card program	O User-defined	
Program type		
	Update default program>>>	
Addr. 0x000000 Length 1k	File	

Upgrade multi-function card program:

Upgrade the sending card program	Upgra	ade the multifunction card program	4
Upgrade mode			
Upgrade via a sending card		Opprade via a ethernet card	
Туре			
Gold card		O User-defined	
File selection			
		<u>Update default program>>></u>	
Addr. 0x000000 Length 1k	File		
		Check Download	Ouerv

8.4 One key repair

Before using one-click repair, be sure to use the wizard screen to finally solidify, or use expert screen to backup data.

8.4.1 Repair Sending Card

Select repair Sending Card.



Select the receiving card that provides backup data, and specify the receiving card by network password and card serial number.

Repair sending ca Select the rece data	ard eiving card to	provide back	up
Port: Card:	N/A	•	

Click on the repair button to press the repair button.



8.4.2 Repair Receiving Card

Select Fix Receiver Card.

One-Click Fix	_ ×
K	Please select the type of card that needs to be repaired
	 Repair sending card Repair Receiving card
< last s	step Next > Cancel

Confirm the address of the receiving card that needs to be repaired, automatically detect and manually fill in the receiving card that needs to be repaired.

Confirm that nee	the addres	s of the re epaired	ceiving card	
Automati				
Manually	Network	Port:	Ŧ	
	Card:	N/A	Ŧ	

Select the sending card or receiving card that provides the data.

Repair receiving Select receiving provide backup o	card card or send card to data)	
✓ Sending ca	ar		
Receiving	5		
Networ	'k Port:	-	
Card:	N/A		

Click the one-click repair button to complete one-click repair.



8.5 EDID write

ser-defined EDID	Fixed EDID
Select the count of EDID 1	
First resolution 1920x1080	Programme single link fixed EDID
	Programme single link audio fixed EDID
	Programme 4KHDMI fixed EDID
Programme user-defined EDID	

Setting EDID can effectively adjust the resolution of the output of the computer graphics card when the computer graphics card is directly connected to the sending card, which is generally used for non-standard resolution.

8.6 Module Management

Module manufacturer:	Module name:	Module information:
强力巨彩(匹配) 高科彩亮 强力力彩 高力力彩电 海佳彩亮 华杰光电 皇家 系彩 利亚德 天合光电 成电 思料 思 男	P1.83_174x87_29持_SUM203 P10_32x16_2持_ICND2045_I P10_32x16_2持_SM16237DS P10_32x16_4持_ICN2038S_i P10_32x16_4持_ICND2045_I P10_32x16_4持_SM16207S_I P10_32x16_4持_SM16207S_I P10_32x16_4持_SM16227S_I P10_32x16_4持_SM16227S_I P10_32x16_4持_SM16237DS P2.5_128x64_32持_SM16237 P2.5_128x64_32持_SM16237 P2.5_64x64_32持_ICN2053_I P2.5_64x64_32持_ICN2053_I	Module size: 174W x 87H Drive chip: SUM2035 Scan mode: 29scan Data group number: 3 Group type: Three parallel lines OE polarity: Low effective LED polarity: Highly effective
Un Down Delete	Add module Delete module	Import Export

Module management can set the order of module manufacturers, add and delete modules, import and export module libraries and other functions. The module file is *. module and the module library file is *. mlst.

8.7 Package interval setting

Clock interval number —		
Reduces display packe		

Setting method: Click "Read" to read the current packet interval, and set the packet interval to the number of receiving cards loaded on a single wire + 3, then click "Set" and "Solidify" in turn.

8.8 Communication test

Communication test				×
Setting Time: 10秒 ▼ Detect Cose<<< Local: 0 ¢	Port name	NO.	Information	State

Communication detection can detect the communication status of current network lines and receiving cards, and solve communication problems by replacing network lines or receiving cards in case of false alarm or packet loss.

8.9 Stitching light and dark lines

Select the splicing light and dark lines to enter the sewing interface as shown in the following figure (you can choose to operate on the main screen or on the expansion screen). This function can be operated for each module, of course, it can also be sewn for each box, and the three colors can be independently adjusted, the default gray value is 200;

In addition, in order to have a better operation experience, the screen simulation and receiving card correction are specially added. The screen simulation is the analog operation of splicing light and dark lines. The data will not be sent to the receiving card. The real-time effect can be viewed by clicking on the sending to apply to the receiving card (which can adjust multiple lines at one time and then send them uniformly). Similarly, the calibration of the receiving card needs to apply the set parameters. Only when receiving card is sent down can the stitching be modified (and not displayed on the analog screen of the computer display, but directly modified on the large screen of the LED). If more stitches need to be modified, it is suggested that the brightness of the stitching be uniformly modified by the simulation of the screen.

"Clean up": The last solidified data that has been modified before clearing. When the screen first uses this function, it is recommended that the data be cleared first to ensure the primitiveness of the data.

"Readback": Readback the last solidified data;

"Curing": It is to save all the modified data of the current sewing;

"Export": If you want to save the current sewing data, you can choose "Export" to save to the local computer,

convenient for later maintenance at any time access;

"Import": Modify the exported seam data before loading (usually used in later maintenance);

"Display Coding": Number each module (or box) to facilitate the identification of the physical location of the lines that need to be modified when sewing.

Select the edge line that needs to be modified (currently only one line can be debugged separately). The line will turn red. Check the value of adjusting coefficient of seam fitting function to make brightness modification (at this time, data will be sent out only by selecting receiving card correction). Make sure that the modified parameters meet the needs of the screen, solidify, and read the last solidification automatically when the interface is opened next time. On this basis, the parameters can be repaired again. If the requirements are not satisfied after the application, the parameters of the last solidification can be read back to debug.

Stitching bright dark lines						- ×
Mode selection		display setting				
Box O Module		White Red	Green Blue	Grayscale 200 🌲	Main screen	Extended screen
Splicing topology						
Adjustment:	0			Open seam	Clear	Display number
advanced settings				Picture simulation	ReadBack	import export
Median:	0		→ ↓ ↓	O Card correction	Save	Apply Cancel

1: The brightness change of the selected line is mainly changed by adjusting the coefficient value, which is gamma value. This coefficient value is a specific ratio of the brightness of the edge line and the brightness of the middle module. When this value is greater than 1, it means that the brightness of the edge line is higher than that of the module. Similarly, when this value is less than 1, it means that the brightness of the edge line is lower than that of the middle module.

2: The middle coefficient value is also the same principle (generally for all modules, and for single module), specifically expressed as the ratio of the brightness of the middle module to the brightness of the edge line under specific circumstances. When this value is greater than 1, it means that the brightness of the middle module is higher than that of the edge line. Similarly, when this value is less than 1, it means that the brightness of the middle module is lower than that of the edge line.

3: Advanced settings: Set the brightness of the starting point and the end point to deal with the inconsistency of the module stitching density (such as wider left stitching and narrower right stitching, which will lead to darker to brighter stitching from left to right).



8.10 Automatic brightness adjustment of sending card

Automatic control requires light probe cooperation, so only LS2Box and LS4 support automatic control of large screen brightness with ambient brightness.

Debugging method: 1) The optical probe is connected to the LIGHT SENSOR interface of the device.

②Blind tapping "666888" on the main interface of the software and automatic brightness control on the pop-up interface are selected.

③Set the brightness curve and the maximum ambient brightness.

(4) Check "Allow brightness adjustment" and click OK.

Notes: If you need to control the brightness of multiple sending cards at the same time, you need to connect the two devices through cascade interface, and check "Adjust all sending cards".

8.11 Detect device version status



Detection device program version can check whether the sending card and receiving card are up-to-date, and label them with different colors on the topology map; green label is the latest version of the program, and red label is not the latest version of the program.

9 More function

9.1 Image Testing Tool

Click on the top right corner of the software main interface \$\Overline\$, Select the test, you can enter the test graphics generator interface.



Test pattern generator - × Gray Test Grid Test Color Bars Test Check Setting	Test pattern generator - × Grav Test Grid Test Color Bars Test Check Setting • Multi Osingle Spots Debug Mode Line Color R:255 G:255 B:255 Line 20 Auto Slow Shift Horizoi Use left or right key can be change grid postion Left diagc Single V V Postion I Right dia Right dia
Send to: Control All v Port All v	Single H HPoston 1 BgColor R:0 B:0 G:0 Send to: Control All V Port All V
Gray Test Grid Test Color Bars Test Check Setting ● R G B W ○ Ribbon ○ R+G ○ R+G+B Use Left or Right key can be change the color bar Horizontal postion > 26 128 文度現刻 ● 256 128 64 32	Grav Test Grid Test Color Bars Test Check Setting
Send to: Control All 🗸 Port All 🗸	Send to: Control All 🗸 Port All 🧹

Gray Test Grid Test Color Bars	Test Check Setting		
Auto Slow	Swift Increment ~		
Color 15	lindow Satting	/	
Use left or right key can		`	
Change	Х 🚺 Ү 🛛		
	Width 384 Heigh 384		
Send to: Control A	Exit		

9.2 Changing Software Language

Click on the top right corner of the software main interface (2), Choose language, English, software that is to switch to English version.



9.3 Change the software interface



The second icon from left to right is skin change.

9.4 Viewing Software Information

About Kystar control system		×
$(K)^{\circ}$	Kystar control system Version 1.1.50.1803 Copyright © 2018 Beijing Kystar Technologies Co	
KYSTAR	ОК	Ŷ

The software information includes the name and version information of the current KVIDA control system software, as well as 400 consulting hotline.

9.5 Software Operating Environment Monitoring

	^
PC: DESKTOP-6I5U2EF User name: dell Windows version: Microsoft Windows NT 6.2.9200.0 CPU: Intel(R) Core(TM) i7-8550U CPU @ 1.80GHz USB driver: uninstall WinPcap: Install resolution: 1280x720 Whether connected to the network: No Physical memory: 26	*
48%memory is being used	

Software running environment monitoring is used to monitor whether the current computer software running environment is normal, whether the drivers have been installed properly, and whether the hardware configuration of the computer meets the minimum standard of software use.

9.5 Detect new versions

KYSTAR					0	- 	0 -	×
	٢		-)		
Guide	Expert	Brightness	Calibration	Monitoring	Multi-function Video proces	ssing		
Hardware inform	nation							+
No information		Topology s No dev	Tip	×				_
			Not dete	ect new vertion				
					Exp	oort list	Re	fresh

The new version function is used to upgrade the debugging software of Kaishida control system online. The final version of the software update is consistent with the official website. At the same time, the latest KYSTAR control system debugging software can be obtained from the download center of KYSTAR official website. More services and support, please pay attention to Beijing KYSTAR technology official website!

