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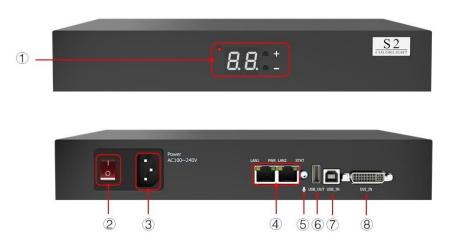
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1. Introduction

As a new generation of sender, S2 Sender has updated its core chips, and the performance significantly improved. It adopts dual USB2.0 as the communication interface to achieve high speed communication between the PC and senders. S2 Sender realizes cascading between multiple senders and much more convenient. S2 Sender can be applied to small display perfectly.

2. Interface Description

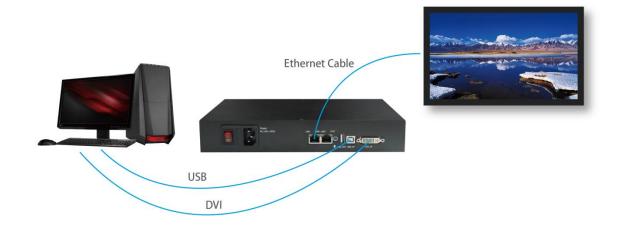




No	Name	Function	Remarks
1	Indicator panel and Configuration button	Adjust the brightness of the entire screen (16 levels); Display the whole screen test mode conversion	Press "+"and "-"together to switch between brightness adjustment and testing mode.
2	Power Switch	On/off	
3	Power Socket	AC 100~240V	
4	Output Ports	RJ45, to transmit network signals	The control area of the two outputs can be separately set.
5	Audio input	Input audio signal via Ethernet cable	
6	USB OUT	USB-A output, cascading among multiple senders	
7	USB IN	USB-B input, connecting PC for configuring parameters	
8	DVI Input	DVI output interface, connect to the graphics card	



3. Hardware Connection



1) Power Supply (PCI):

Match with computer PCI slot, or DC 3.8-12V for power supply.

2) Video Signal Input (DVI):

Connect PC with S2 via proper DVI/HDMI cable via DVI interface.

3) Screen Configuration (USB):

Use a standard USB A/B cable to connect S2 with PC for S2 configuration.

4) Ethernet Cable (RJ45):

Connect S2 sender with the receiving card via Ethernet cable for controlling receiving card and the screen (Note: The Ethernet cable must be CAT5E or CAT6).



4. LEDVISION Installation and Preliminary Configuration

4.1 Computer Configurations

- CPU Frequency>= 2.0GHZ
- Host Memory>=1G
- Graphic card with DVI/HDMI interface: Memory ≥512MB
- The resolution of PC's graphic card should be equal to or larger than the actual LED display's.

Computer configuration can be adjusted according to the actual situation. Adjustment mainly aims at total pixels of LED display, the complexity of playing contents and whether playing HD video or not.



4.2 USB Driver Installation

First download the installation package of LEDVISION software from Colorlight's official website <u>www.colorlightinside.com</u>, and complete the installation according to the diagrams shown below.

1. Run the software package, and select **[English]** for installer language. Click **[OK]** to move on.



Note: Run LEDVISION version 4.18 or higher while using S2.

2. After selecting a language, an installation wizard like below will appear. Click [Next];

Then choose installation location, click [Browse] to change default target location, then click [Next] after completing.

Choose components according to your own computer status, click [Install] to complete.

e LEDVISION Setup – 🗆 🗙	🔸 LEDVISION Setup – 🗆 🗙
Choose Install Location Choose the folder in which to install LEDVISION .	Choose Components Choose which features of LEDVISION you want to install.
Setup will install LEDVISION in the following folder. To install in a different folder, dick Browse and select another folder. Click Next to continue.	Check the components you want to install and uncheck the components you don't want to install. Click Install to start the installation.
Destination Folder C:\Program Files (x86)\LEDVISION Browse	Select components to install: V Common Files Description Position your mouse over a component to see its description. Winpcap V Usb Driver For Sending Ca
Space required: 100.8MB Space available: 239.9GB	Space required: 100.8MB
< <u>B</u> ack <u>N</u> ext > Cancel	< Back Install Cancel

After the installation is complete you are ready to use LEDVISION.



4.3 Graphic Card Settings

Set up the working mode of the computer graphic card after completing hardware connection and powering S2 on, you can select **Duplicate** mode or **Extend** mode according to the different requirements.

• **Duplicate Mode:** That the contents displayed on LED screen are consistent with computer, that is to say, copy the computer contents onto LED screen, as pic below.



PC Screen

LED Screen



• Extend Mode: That the contents displayed on LED screen are inconsistent with computer's, that is, to extend a display image from the right side of PC screen, which was consistent with LED display's, we also call it "background playing", as pic below.

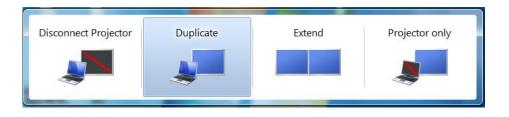


For different computers, there are different ways to change the mode. Take WIN 7/8 system + NVIDIA graphics cards as an

example, please read the following settings ways.

• Method 1: Hold down the WIN and P keys at the same time, and select the mode as you want in the pop-up

window.



• Method 2: Right-click and select "Screen resolution" to enter the page of "modify the display appearance"; if your graphics card is not NVIDIA and cannot find the setting interface please refer to the description of the graphics card.





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Change the appearance of your displays	
	Detect
Display: 1. Mobile PC Display Resolution: 1366 × 768 (recommended)	
Orientation: Landscape Multiple displays: Extend these displays Duplicate these displays This is currently you Extend these displays Show desktop only on 1	Advanced settings
Connect to a projec Show desktop only on 2 tap P) Make text and other items larger or smaller What display settings should I choose?	

Note: As for other kinds of graphic cards, if there is no corresponding window, please refer to the user manual of the graphic card.



5. Parameter Configuration

First of all, please make sure the software under i Series

Mode before setting.

Click the **"Setting"** > **"Software Setting"** to enter the Software Management window, change the mode by inputting password: **168**.

C-0 M			X
Software Manageme	ent		
Mode Settings	Mode Settings	○ Classic Mode	Â
		i Series Mode	
Play Settings			E
Startup Settings	Play Settings	Play Mode	
LED Play Screen		Default Decode Self Decoding First 🔻	
LED Huy bucch		Removable Disk Plug and Play	
Timer Settings		Copy The Program Into	
		Record Play Log	
Network Settings			
		Enable Trundle Smooth Processing(High Graphics Requirements)	
Shortcut Settings			
Other Settings	Startup Settings	Run When System Starts	
-			
		Play When Software Starts	
		Minimize After Start	
		Wait for 30 seconds if system start up less than 2 minutes	
		Permit Multi-Instance	
		Note: Allowed to run one instance each directory!	
			-





5.1 Confirmation on Hardware Connection

Please make sure the correctness of the hardware connection before setting, use LEDVISION to detect sender and all

receiving cards.

5.1.1 Detect Sender and receiving card

Run LEDVISION, click the "Control" > "Screen Control" to enter the Screen Control window.



Select [Sender Card] for sending device, Click [Detect Sender Cards] in Sender Card Settings. Please check the hardware connection or the installation of relevant driver if cannot detect sender cards.

Select network port and click "**Detect Receiver Cards**" respectively, the software will automatically acquire the Receiver (Receiving card) quantity for each network port of the sender. Please check corresponding cable if the numbers of receiving card are inconsistent with actual status.

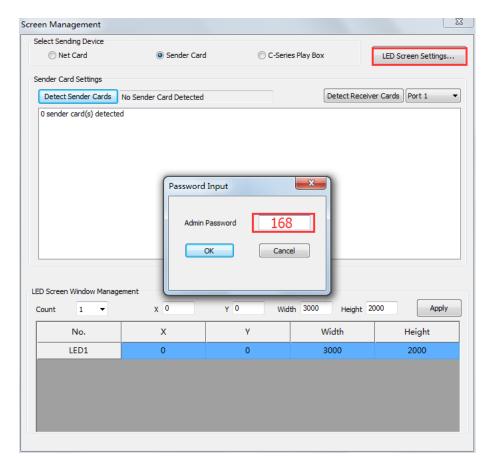
Screen Management			×
Select Sending Device	Sender Card	🔘 C-Series Play Box	LED Screen Settings
Sender Card Settings Detect Sender Cards	No Sender Card Detected	Detect Rec	ceiver Cards Port 1 👻
0 sender card(s) detecte	d		



5.2 LED Screen Setting

Click "LED Screen Settings" and input password [168] to enter the LED Screen Setting interface, and set up "Sending

device", "Screen parameters", "Connection parameters".





5.2.1 Sending Device Setting

Configure on the relevant parameters of the sender card.

	LED	Screen Setting LE	D1			_ 🗆
ending Device Screen Parameters Connection Parameters(L	ook From Front)					
Select Sending Device) C-Series Play Box	Detect Rece	ver Cards	All 1	2 3	4
Toatal: 0 No Sender Card Detected	Detect	Port Index	Index	Version	Run Time	Support Chips
Input Signal Information						
Type No Signal Frame Rate						
Width Height						
Sender Card Resolution(EDID) Resolution 800 x 600 V	Set					
	Standard 🗸					
Loop Backup Frame Output	Every Frame 🗸					
Enable HDCP Input Bit Depth	8 bit 🗸 🗸					
Auto Switch (DVI,HDMI) Input Type	HDMI V					
Better Graylevel On Low Brightness Sync Method	Auto 🗸					
	Send					
Test Mode Off 🗸 🗸	Write Logo					
Work Mode Normal Mode V	3D Setting					
Restore Factory Settings						

Sender Card Resolution: Generally, sender card resolution must be consistent with the graphic card's.

Input Signal Information: Display the sender info that auto acquired via the software, which only provided for reference, and did not support personally set up.

Advanced: Prepare for professionals for special applications settings, no operation allowed for non-professionals.

Advanced settings include the parameters listed below:

Zero Frame Delay: Default uncheck, and should be enabled by technician under special status.

Auto Switch DVI/HDMI: The sender only identifies the video signal that has been set up when unchecked; Auto identify the signal that has been connected first when checked.

Brightness adjustment via multi-function card: Auto adjusts screen brightness via the sensor of multi-function card when checked.

Maximum Transmission Unit (MTU): Default "Standard", and consult with the technician if you need to apply to "Long Frame".

Frame Output: Default "Every Frame", and consult with the technician if you need to apply to "Every Other Frame".

Input Bit Depth: Default "8bit".

Input Type: DVI/HDMI, according to the actual using status.

Sync Method: Default "Auto"

Write logo: Custom, display before video signal input. The image formats should be bmp, jpg or png.

3D Setting: Works only for the function setting of 3D sender, did not apply for S2.



5.2.2 Screen Parameters

Observe the display screen with single cabinet as unit, if all cabinets display normally (it is normal circumstance even the picture between cabinets is not continuous), please ignore this step and directly go to the next step.

Otherwise, enter the following configuration:

Click [Load], choose the correct parameter file.

Click **[Send]**, to send the loading parameter to the receiving card. Each cabinet should display normally (it is normal circumstance even the picture between cabinets is not continuous), then click **[Save To Receiver]** to save the parameters to the receiver card.

If each cabinet cannot display normally, then contact with the LED screen engineers.

•			LED Scre	en Setting LED1				- • ×
Sending Device Screen	Parameters Connec	tion Parameters(Look Fr	om Front)					
Module Information								
Chip Type	Normal Chip	Width	64	Inverted Data	No	Reverse		
Scan Mode	16 scan	Height	16	OE Active High	No	Reverse		
Box Setting								
Width	64	<=146 Cascade	Left To Right	✓ Data Group	Normal 20 gro	ups 🗸		
Height	64	<=512 Fold Count	No Split	v	Data Grou	up Swap		
Performance Setting								
Refresh Rate	1920 🗸	Multiple	Refresh x 16	✓ Calibration Mode	Disable	~	Blanking Phase	
Gray Level	8192 🗸	Gray Mode	Balanced Low Gray	✓ Calibration	From Receiver	r Cards →	SCK Duty Ratio	
Serial Clock	13.9 MHz 🗸 🗸	Display Mode	Gray-level First	V No Signal Action	Keep the Last	Frame V	White Balance Setting	
Blanking Value	0	(×100ns) Brightness	8	✓ Input Bit Depth	8bit	~	Intelligent Module Setting	
Brightne	ess Percent: 71%	Minimum Ol	E: 90.8 ns	Enable Gradual	Disable	~	Custom Gamma Table	
164-	Advanced Settings			Gamma Value	2.8	~	Other Settings	
nue	Auvanced Setungs							
Intelligen	t Setting	Screen Test		end After Modify				
Intelligen	coctang	Succinics	∀ 5	Seriu Arter Modity				激沽 W 转到"电脑i
Read	Load	Save	Send Sav	ve To Receiver				구는 그의 우모/14



5.2.3 Connection Parameters (Look from front)

You don't need to set up the control area of each net port respectively under i series mode, but set up the connection relationship of the receiver card aiming at each net port loading via the sender, and the software will auto calculate and set up the control area according to the connection relationship. Detailed Setting Steps as follows:

1) Set up the quantity of receiving card

Set how many Receiver (Receiving card) that one port manages in Row Count and Col Count (6*6 as an example), how many pixels that one Receiver (Receiving card) manages in Width and Height (128*128 as an example), you will see led display mapping area from the right side (Viewing from the front of led display).

nding Device Screen Parameters Connection Para	meter	s(Loo	k From Front)						
Sender Card Information		1	A No.	⊞ 3 (Shov	v Connection Line	es 🔘 Standard	○ Complex	
			1	2	3	4	5	6	Receiver Card Layout
Port		+	Port: No.: 0 Width: 128 Height: 128	Col Count 6 🔶 Row Count 6 🜩					
Itel Itel <th< td=""><td></td><td>2</td><td>Port: No.: 0 Width: 128 Height: 128</td><td>Port: No.: 0 Width: 128 Height: 128</td><td>Selected Card Informatio</td></th<>		2	Port: No.: 0 Width: 128 Height: 128	Selected Card Informatio					
Calculate Auto Calculation Manual Edit Sender Port X Y Width Height		e	Port: No.: 0 Width: 128 Height: 128	Port: No.:0 Width:128 Height:128	Width 128 Height 128				
		4	Port: No.: 0 Width: 128 Height: 128	Port: No.: 0 Width: 128 Height: 128	Port: No.: 0 Width: 128 Height: 128	Port: No.:0 Width:128 Height:128	Port: No.: 0 Width: 128 Height: 128	Port: No.: 0 Width: 128 Height: 128	Operation Guide
	•	5	Port: No.: 0 Width: 128 Height: 128	Port No.: 0 Width: 128 Height: 128	Port: No.: 0 Width: 128 Height: 128				
		9	Port: No.: 0 Width: 128 Height: 128						
()									
Connection is modified									
	ave		Send		Receiver				



2) Receiver Card Parameters Setting

Select the target sender and the net port from the left side, then select the corresponding cabinets of net port actual control area and set the connection lines in the mapping area.

•		I	ED Screen	Setting LED	01			- 🗆 🗙
Sending Device Screen Parameters Connection Parameters	ters(Lool	From Front)						
Sender Card Information	~	~ <u>No.</u>	⊞ 2 0	Shov	v Connection Line	es 💿 Standard	○ Complex	
2 3		1	2	3	4	5	6	Receiver Card Layout
	-	Port: 1-1 No.: 1 Widtl <mark>S</mark> 128 Height: 128	Port: 1-1 No.: 2 Width: 128 Height: 128	Port: 1-1 No.: 3 Width 128 Height: 128	Port: No.: 0 Width: 128 Height: 128	Port: No.: 0 Width: 128 Height: 128	Port: No.: 0 Width: 128 Height: 128	Col Count 6
Reset the Current Port Number	2	Port: 1-1 No.: 6 Width 128 Height: 128	Port: 1-1 No.: 5 Width: 128 Height: 128	Port: 1-1 No.: 4 Width: 128 Height: 128	Port: No.:0 Width:128 Height:128	Port: No.: 0 Width: 128 Height: 128	Port: No.: 0 Width: 128 Height: 128	Selected Card Information No. 9
Calculate Auto Calculation Manual Edit Sender Port X Y Width Height	ю	Port: 1-1 No.: 7 Width: 128 Height: 128	Port: 1-1 No.: 8 Width: 128 Height: 128	Port: 1-1 No.: 9 Widtl 128 Height: 128	Port: No.: 0 Width: 128 Height: 128	Port: No.: 0 Width: 128 Height: 128	Port: No.: 0 Width: 128 Height: 128	Width 128 Height 128
1 1 0 0 384 384	4	Port: No.: 0 Width: 128 Height: 128	Port: No.: 0 Width: 128 Height: 128	Port: No.: 0 Width: 128 Height: 128	Port: No.:0 Width:128 Height:128	Port: No.: 0 Width: 128 Height: 128	Port: No.: 0 Width: 128 Height: 128	Operation Guide
	م ۹	Port: No.: 0 Width: 128 Height: 128	Port: No.: 0 Width: 128 Height: 128	Port: No.:0 Width:128 Height:128	Port: No.:0 Width:128 Height:128	Port: No.:0 Width:128 Height:128	Port: No.: 0 Width: 128 Height: 128	
	9	Port: No.: 0 Width: 128 Height: 128	Port: No.: 0 Width: 128 Height: 128	Port: No.:0 Width:128 Height:128	Port: No.:0 Width:128 Height:128	Port: No.:0 Width:128 Height:128	Port: No.: 0 Width: 128 Height: 128	
< >								
Connection is modified								
Read Load Save	·	Send	Save to	Receiver				

There are two methods to set up:

1. Use mouse to select one by one

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A. In the mapping area, select the first receiving card based on the actual connection of the net port (view from the front), and then set up the actual loading width and height of the target receiving card in the right side (128*128 as an example).

B. Click the Receiver (Receiving card) one by one until the last one for this network port loads.

2. Connection Pattern

A. Aiming at the LED screen with standard connection lines.

B. First set up the receiving card information according to the actual loading width and height (128*128 as an example).

C. Select the connection line you want from the right side, then cover the corresponding area of net port loading in the mapping area, finally complete setting.

As the cabinets have multiple specification (that is the inconsistent capacity of the receiving card), you can select the different one to adjust separately after completing setting.

Ser	nding Dev	rice S	creen Pa	rameters	Conne	ction Para	meter	rs(Lool	(From Front)						
	Sender		nder Car	d Inform	ation			h	여 No.	⊞ 3 (Shov Shov	v Connection Line	es 💿 Standard	○ Complex	:
Γ	1	กไ ไ							1	2	3	4	5	6	Receiver Card Layout
L									Port: 1-1	Port 1-1	Port: 1-1	Port: 1-2	Port: 1-2	Port: 1-2	Col Count 6
	Port							-	No.: 1 Widtl <mark>S</mark> 128	No.: 2 Width: 128	No.: 3 Width 128	No.: 1 Widtl.: 128	No.: 2 Width: 128	No.: 3 Width 128	Row Count 6
Г	11	1	1-2	1-		1-4		_	Height 128 Port 1-1	Height: 128 Port: 1-1	Height: 128 Port: 1-1	Height 128 Port: 1-2	Height: 128 Port: 1-2	Height: 128 Port: 1-2	Reset All
L								0	No.: 6 Width 128	No.: 5 Width: 128	No.: 4 Width: 128	No.: 6 Width 128	No.: 5 Width: 128	No.: 4 Width: 128	Selected Card Informatio
		Reset	the Curr	ent Port	Number				Height: 128	Height: 128	Height: 128	Height: 128	Height: 128	Height: 128	No. 1
	Color Inte			A	<u></u>				Port: 1-1 No.: 7	Port: 1-1 No.: 8	Port: 1-1 No.: 9	Port: 1-2 No.: 7	Port: 1-2 No.: 8	Port: 1-2 No.: 9	Width 128
Li	Calculate		uto Calc		-	ual Edit		e	Width: 128 Height: 128	Width: 128 Height: 128	Width 128 Height: 128	Width: 128 Height: 128	Width: 128 Height: 128	Width-128 Height: 128	Height 128
	Sender	Port 1	X 0	Y 0	Width 384	Height 384			Port: 1-3	Port 1-3	Port: 1-3	Port	Port	Port:	Operation Guide
	1	2	384	0	384	384		4	No.: 7 Width 128	No.: 8 Width: 128	No.: 9 Widtl 128	No.: 0 Width: 128	No.: 0 Width: 128	No.: 0 Width: 128	
		3	0	384	384	384		_	Height 128 Port 1-3	Height: 128 Port: 1-3	Height: 128 Port: 1-3	Height 128 Port	Height: 128 Port:	Height: 128 Port:	
							•	ы	No.: 6 Width: 128	No.: 5 Width: 128	No.: 4 Width 128	No.: 0 Width: 128	No.: 0 Width: 128	No.: 0 Width: 128	
									Height 128	Height: 128	Height: 128	Height 128	Height: 128	Height 128	
								9	Port: 1-3 No.: 1	Port: 1-3 No.: 2	Port: 1-3 No.: 3	Port: No.: 0	Port: No.: 0	Port: No.: 0	
								9	Widtl 128 Height 128	Width: 128 Height: 128	Width: 128 Height: 128	Width: 128 Height: 128	Width: 128 Height: 128	Width: 128 Height: 128	↓U U•
									-			-	-		
	۲					>									



3) Send to Receiver Cards & Save to Receiver Cards

Set up all the receiving card parameters and connection line respectively, click [Send] to send the correct parameter to the receiving card, and the screen should display normally about this time.

Then click [Save to Receiver] to save parameters to corresponding receiving card after confirming.

								L	ED Screen	Setting LED	1			_ □
nding Device	e Sor	een Pa	rameters	Conne	ection Para	ameter	rs(Loo	k From Front)						
- Sender Np		der Car	d Inform	ation			1	~ <mark>No.</mark>	⊞ 3	Shor	w Connection Line	es 💿 Standard	Comple:	x
	2		3					1	2	3	4	5	6	Receiver Card Layout
, ,	<u> </u>							Port: 1-1	Port: 1-1	Port: 1-1	Port: 1-2	Port: 1-2	Port: 1-2	Col Count 6
Port							-	No.: 1 Widtl.: 128	No.: 2 Width: 128	No.: 3 Width 128	No.: 1 Widtl.S 128	No.: 2 Width: 128	No.: 3 Width 128	Row Count 6
1-1		1-2	1	3	1-4			Height: 128 Port: 1-1	Height: 128 Port: 1-1	Height: 128 Port: 1-1	Height: 128 Port: 1-2	Height: 128 Port: 1-2	Height: 128 Port: 1-2	Reset All
							2	No.: 6 Width 128	No.: 5 Width: 128	No.: 4 Width: 128	No.: 6 Width 128	No.: 5 Width: 128	No.: 4 Width: 128	Selected Card Information
R	leset t	he Curr	ent Port	Number				Height: 128	Height: 128	Height: 128	Height: 128	Height: 128	Height: 128	No. 9
Caladate		_	A	<u></u>				Port: -1 No.: 7	Port: 1-1 No.: 8	Port: 1-1 No.: 9	Port: -2 No.: 7	Port: 1-2 No.: 8	Port: 1-2 No.: 9	Width 128
		ito Calc			nual Edit		e	Width: 128 Height: 128	Width: 128 Height: 128	Widtl Height: 128	Width: 128 Height: 128	Width: 128 Height: 128	Widtl 128 Height: 128	Height 128
Sender P	ort 1	X 0	Y 0	Width 384	Height 384			Port: 1-3	Port: 1-3	Port: 1-3	Port: 1-4	Port: 1-4	Port: 1-4	Operation Guide
	2	384	0	384	384		4	No.: 1 Widtl.: 128	No.: 2 Width: 128	No.: 3 Width 128	No.: 1 Widtl.: 128	No.: 2 Width: 128	No.: 3 Width 128	
1 –	3	0	384	384	384			Height: 128 Port: 1-3	Height: 128 Port: 1-3	Height: 128 Port: 1-3	Height: 128 Port: 1-4	Height: 128 Port: 1-4	Height: 128 Port: 1-4	
	4	384	384	384	384	•	ы	No.: 6 Width 128	No.: 5 Width: 128	No.: 4 Width: 128	No.: 6 Width: 128	No.: 5 Width: 128	No.: 4 Width: 128	
								Height: 128	Height: 128	Height: 128	Height: 128	Height: 128	Height: 128	ŤΠ ΠŤ
								Port: -3 No.: 7	Port: 1-3 No.: 8	Port: 1-3 No.: 9	Port: -4 No.: 7	Port: 1-4 No.: 8	Port: 1-4 No.: 9	
							9	Width: 128 Height: 128	Width: 128 Height: 128	Widtl 128 Height: 128	Width: 128 Height: 128	Width: 128 Height: 128	Widtl128 Height: 128	↓U U ↓
<					>		۲.						>	
Connection	is mod	dified							_					
Rea	d		Load			Save		Send	Save to	Receiver				



Visual Future

Colorlight (Shenzhen) Cloud Technology Co., Ltd.

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