Installation & Operation Manual

LED DISPLAY

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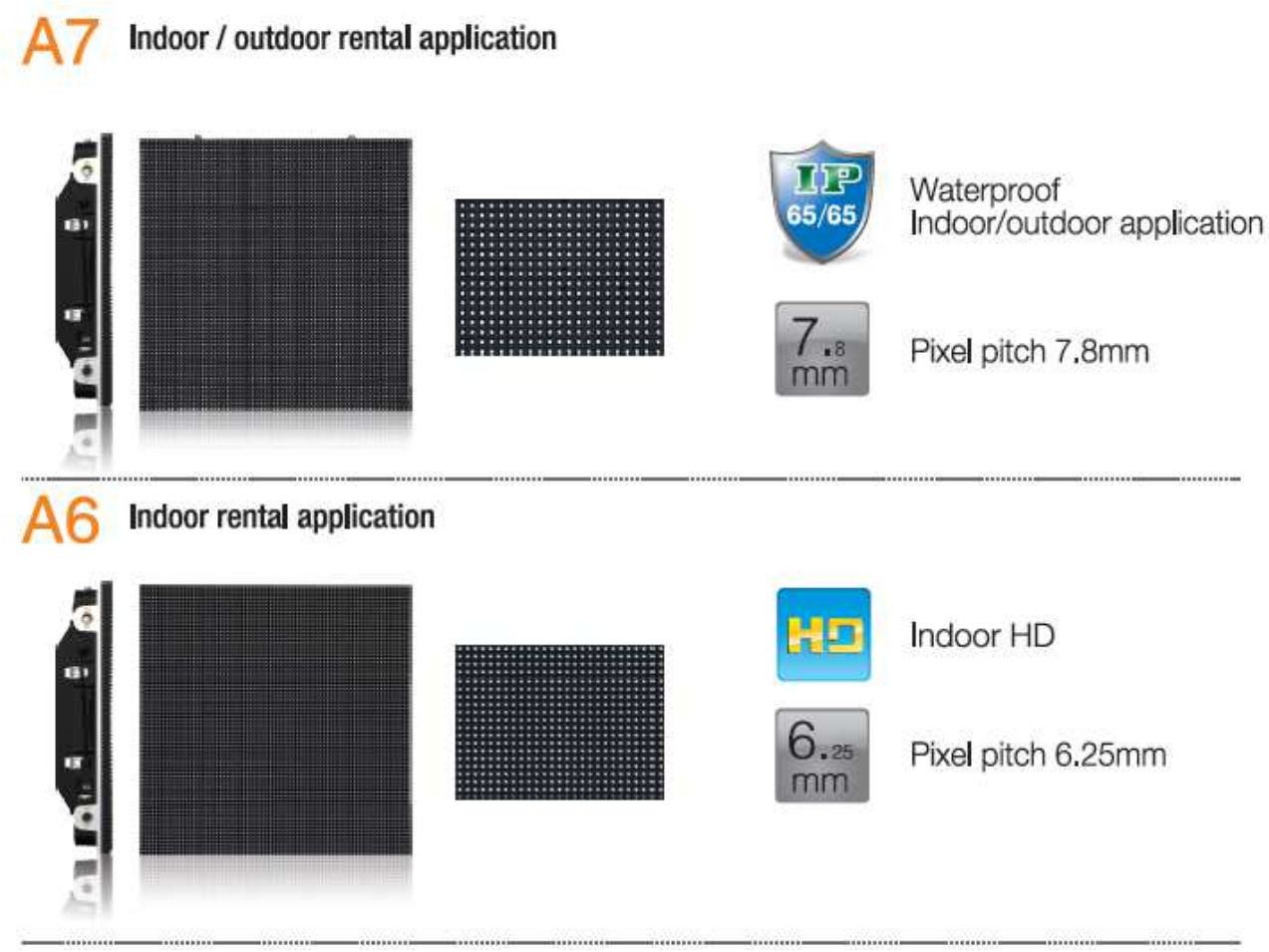
Contents

Section 1: Overview of the Display

Absen A serial die-casting products A3,A5,A6,A7,A10 are designed for the rental applications.A3,A5 and A6 are for indoor rental application; A7 andA10 are for outdoor rental application. The unique design makes the installation fast and easy; it will save the installation and transportation cost, The high refresh rate can work with all kinds of camera do the living show; the great color depth contributes great display effect. The following different figures show details. Figure 1 shows the individual module and panel pictures; figure 2 shows the signal diagram of the display; figure 3 shows the front and back view of the display for hanging installation; figure 4 shows the front and back view of the display for stack foot installation.

The module is the smallest unit of LED display; individual modules can be easily removed from the front of display if needed.

Panel With fast operation connectors of power and signal the screen can be assembled and dismantled very easily; panel and the specially designed mechanical connectors can minimize the gas of the screen and leads a fast assembly and dismantle. The same panel design and hanging beam, A3,A5,A6,A7 and A10 can be cross assembled. s typical display system consists of a windows-based computer running XMplayer software. Xmplayer is software package that runs under window XP, Vista home, Window 7 or Window 8 operation system on a compatible computer or lap top. XMplayer can set up the hard ware of the display, edit the video content, play video and manager the video on the display.



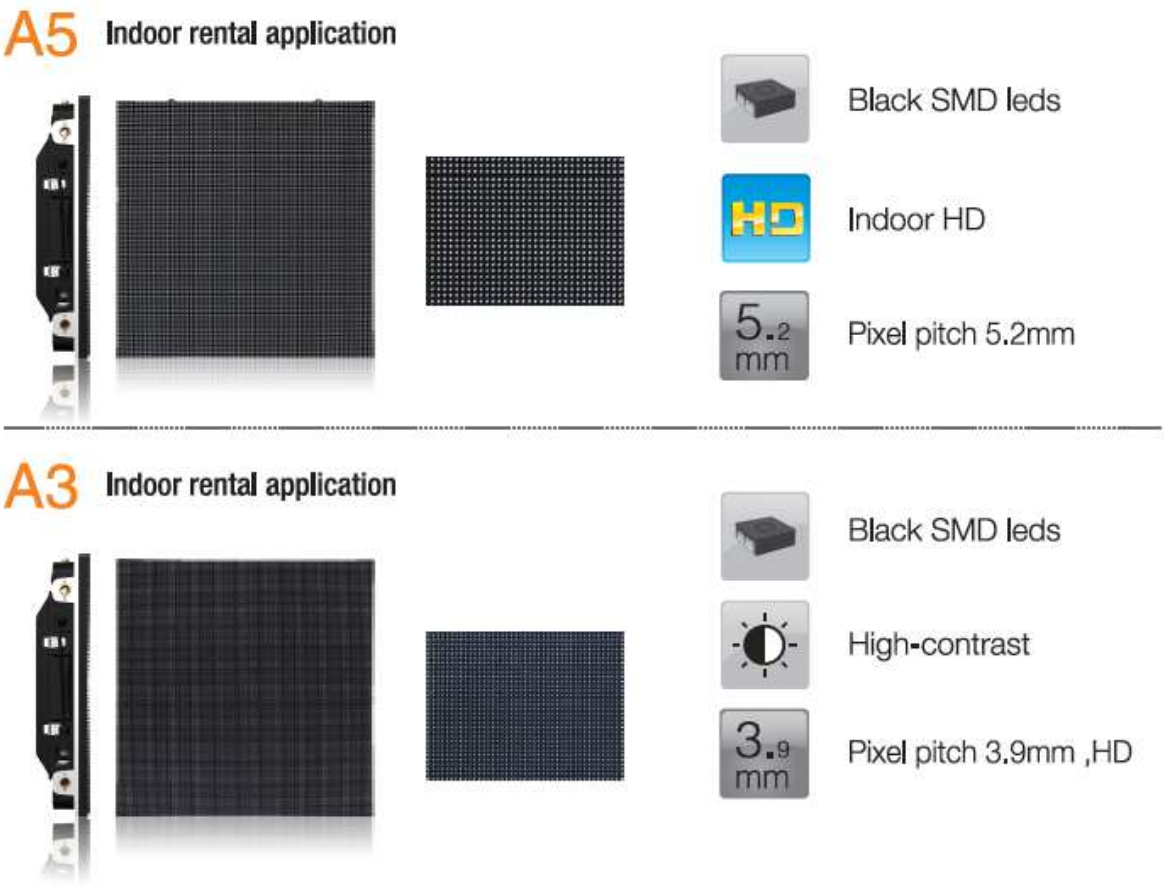


Figure 1 Individual module and panel picture

There are several ways to control LED screen. Usually, Laptop and PC are used to program the LED screen and feed the basic video sources. While for more various video sources, a video processor is required.

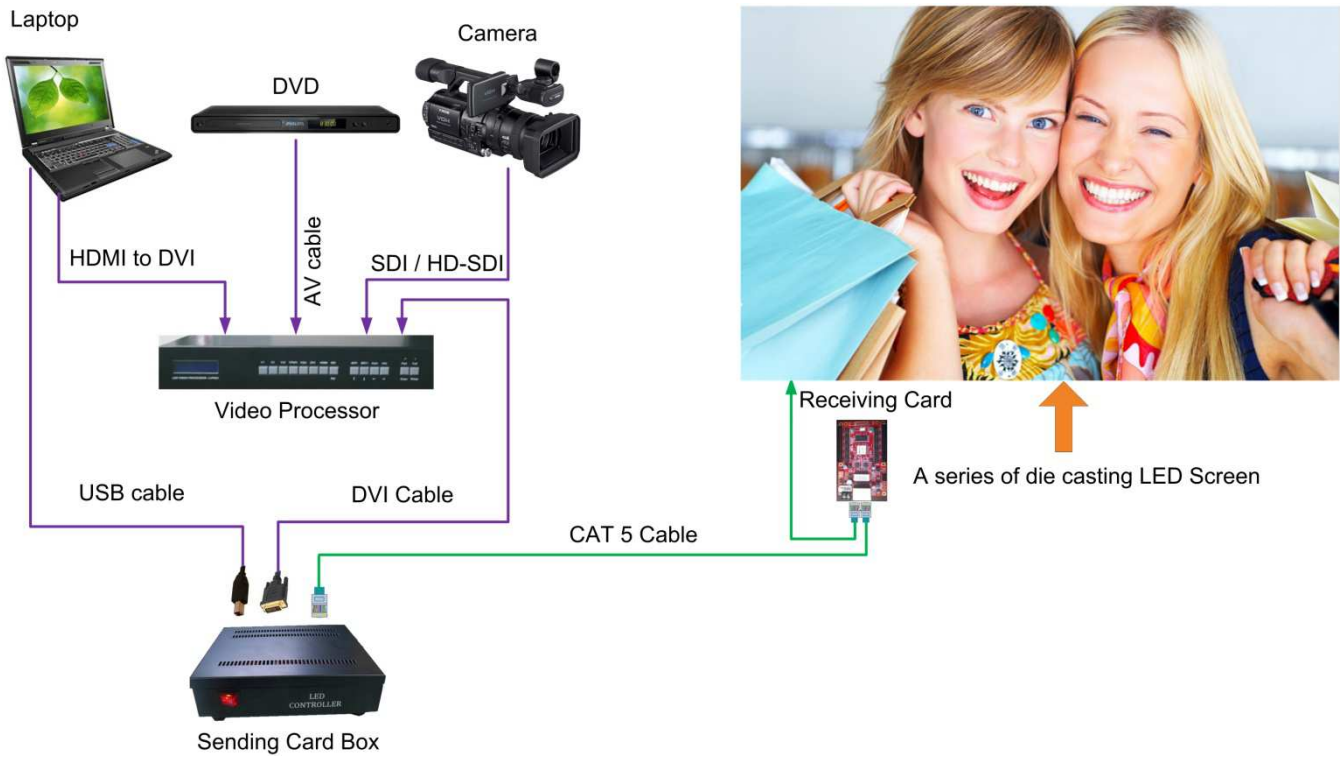
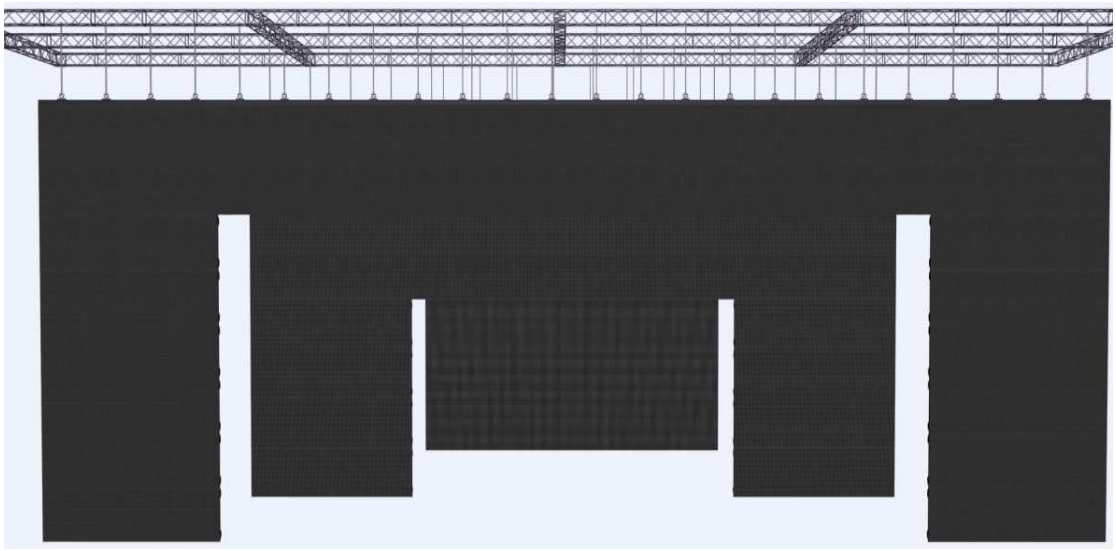


Figure 2 Signal diagram of display

Hanging installation is the typical installation type for A serial product. It is usually completed by truss, hoist, wire rope and hanging beam. Sometime, the creative shape can be achieved by creative architecture.



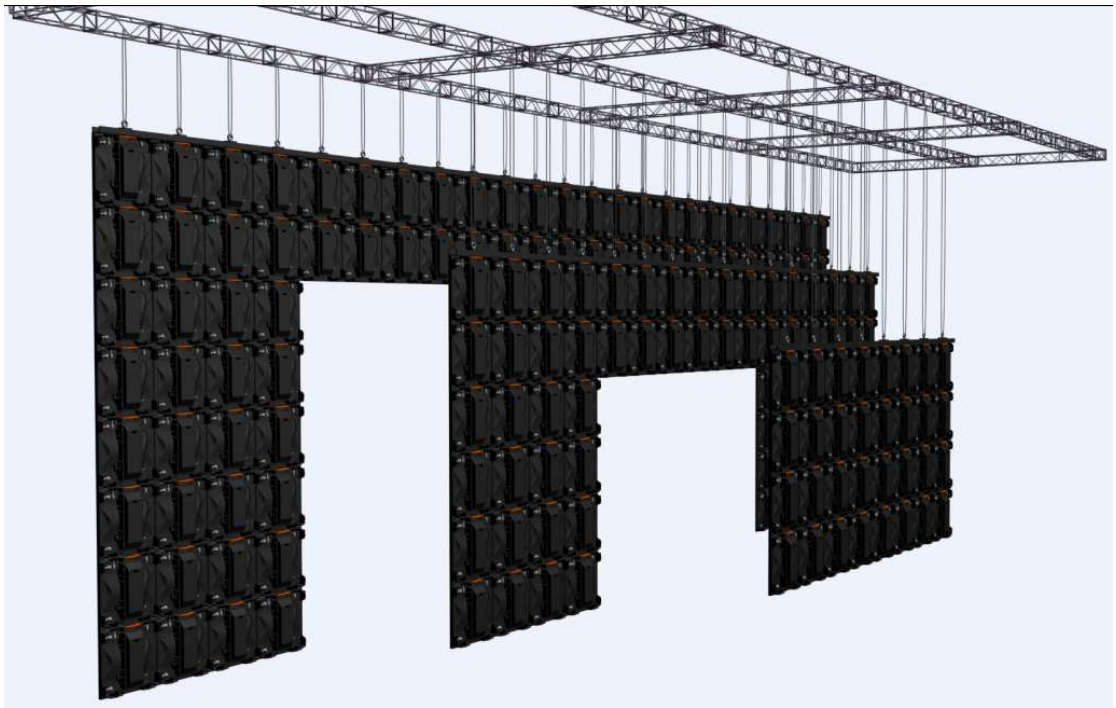


Figure 3 Hanging installation

The stack foot is an optional installation type for A serial products. It facilitates screen sitting on ground simply. The stack foot is assembled by portable frame and easy to be dismantled without tools.

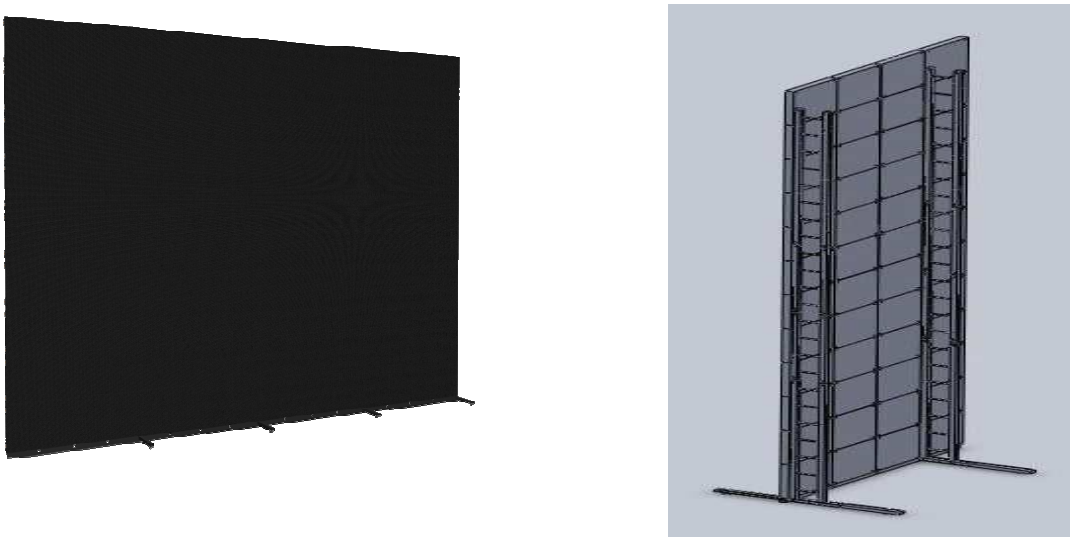


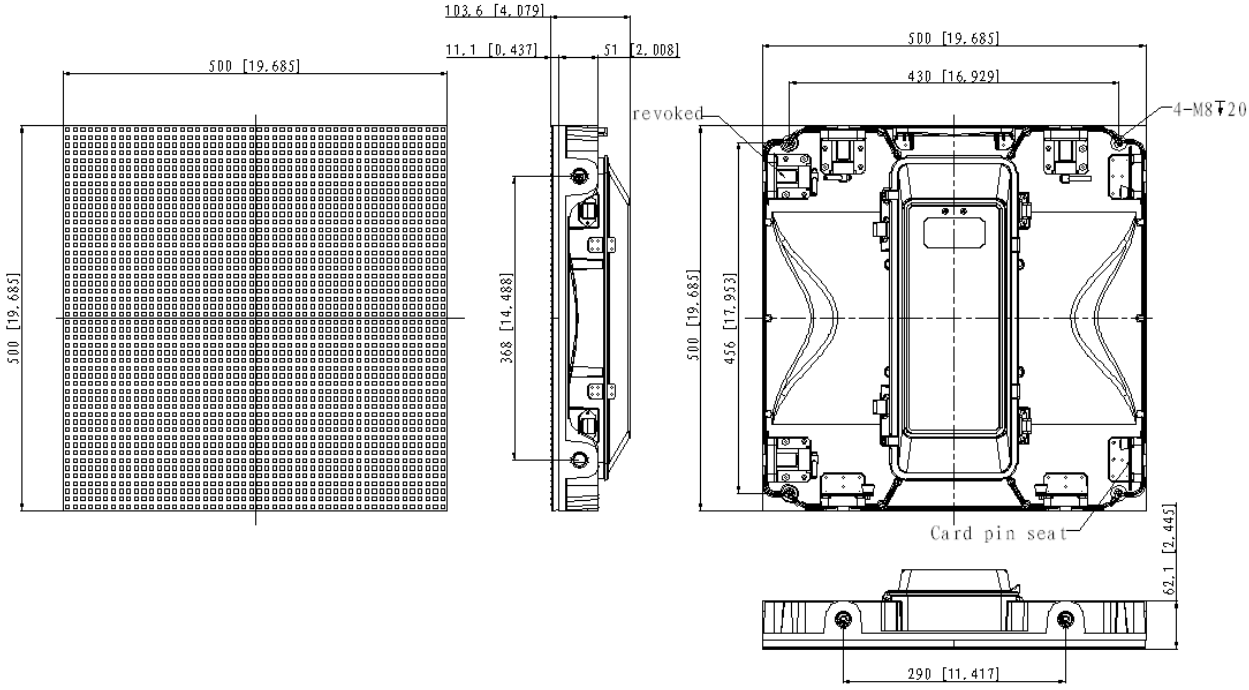
Figure 4 Stack foot installation

Section 2: Mechanical Introduction

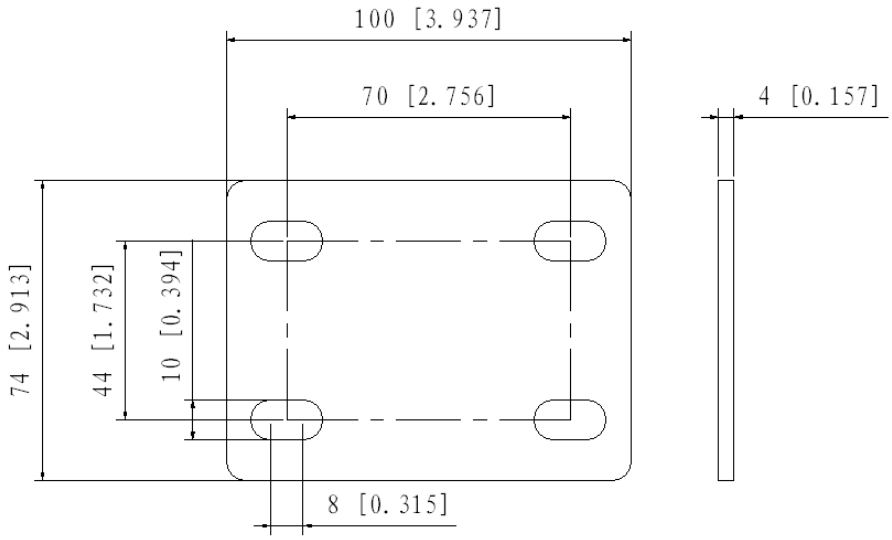
2.1 Panel/ Connecting Plate and Flight Cases

2.1.1 A serial die-casting products

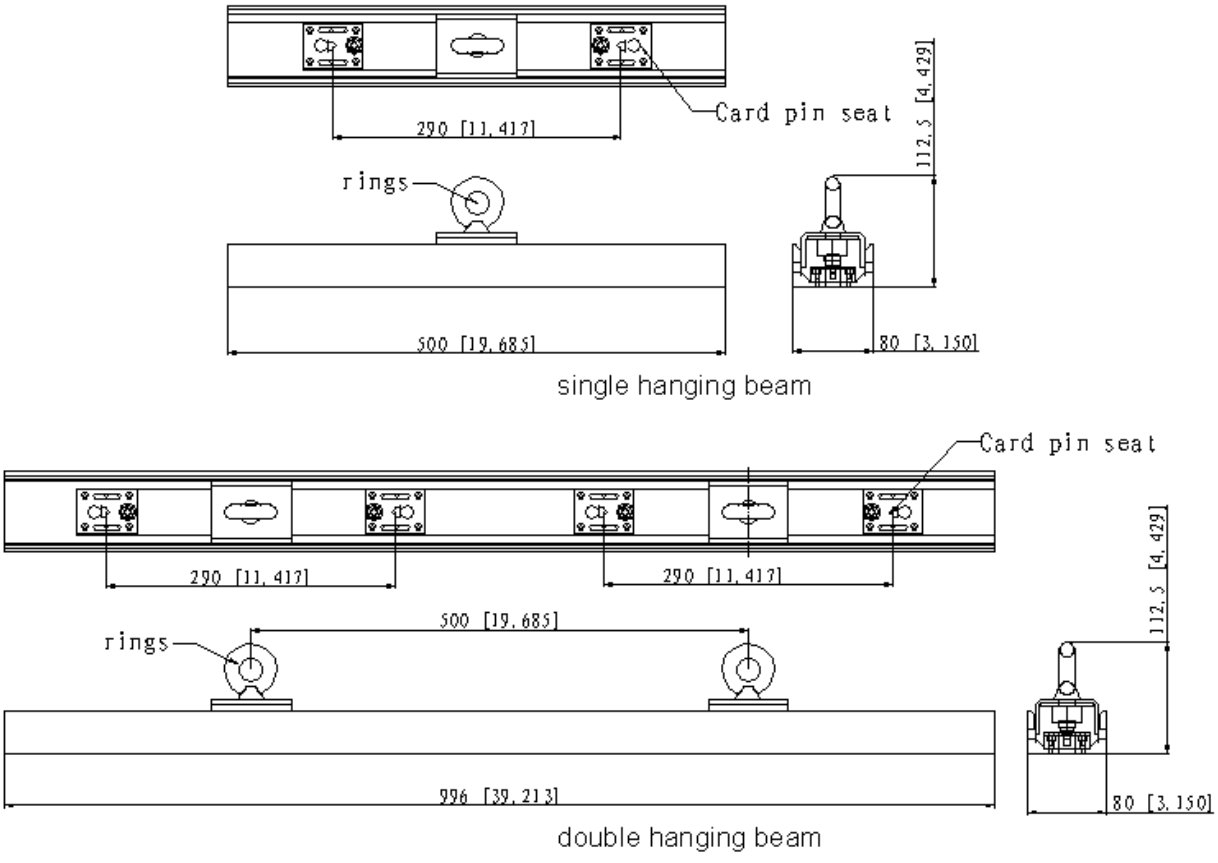
Panel:



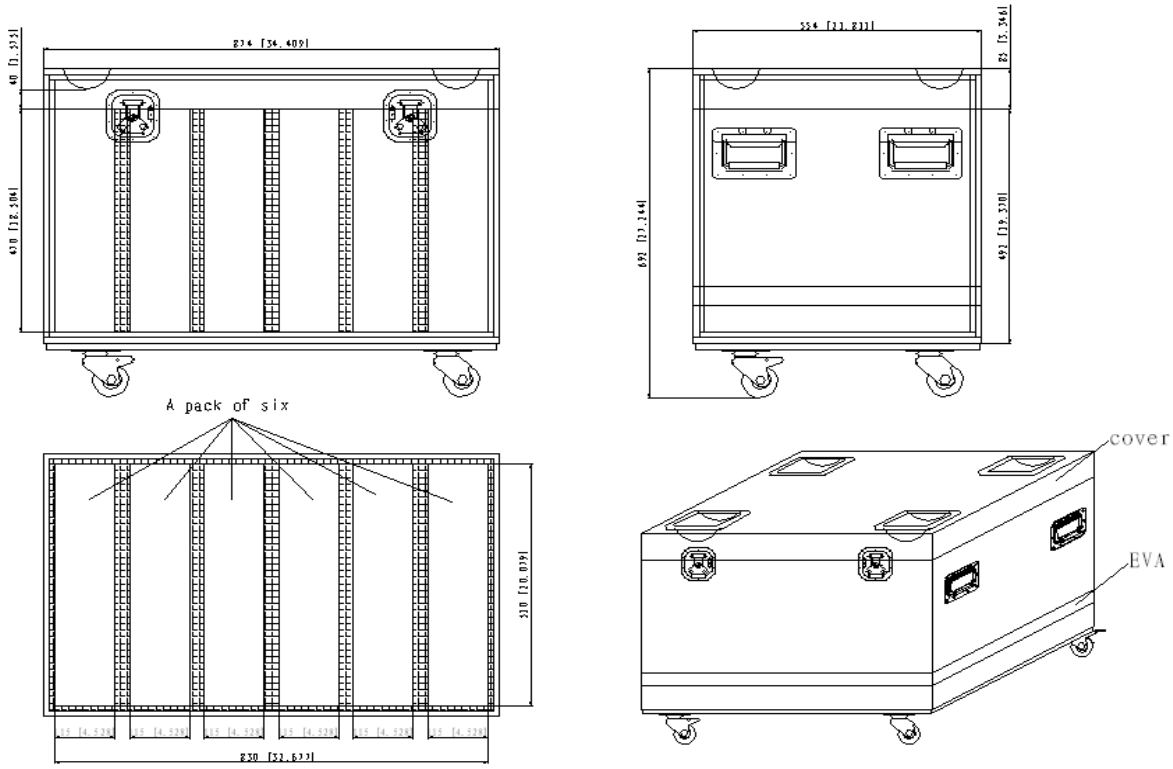
Connecting plate：



Hanging beam：

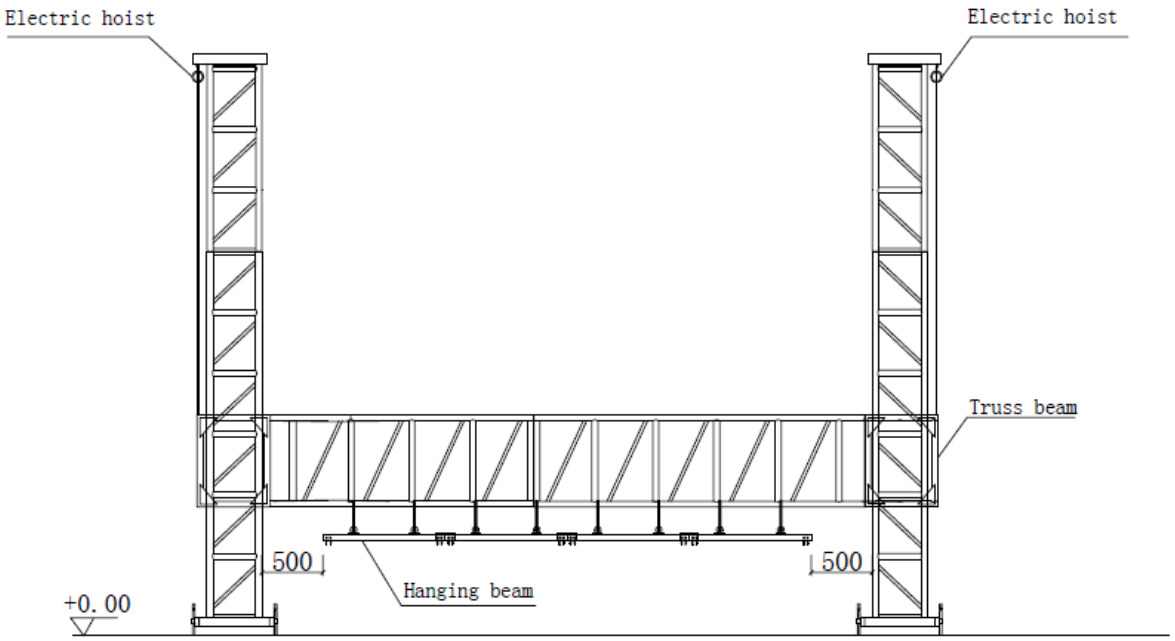


Flight case(Six units per case)：



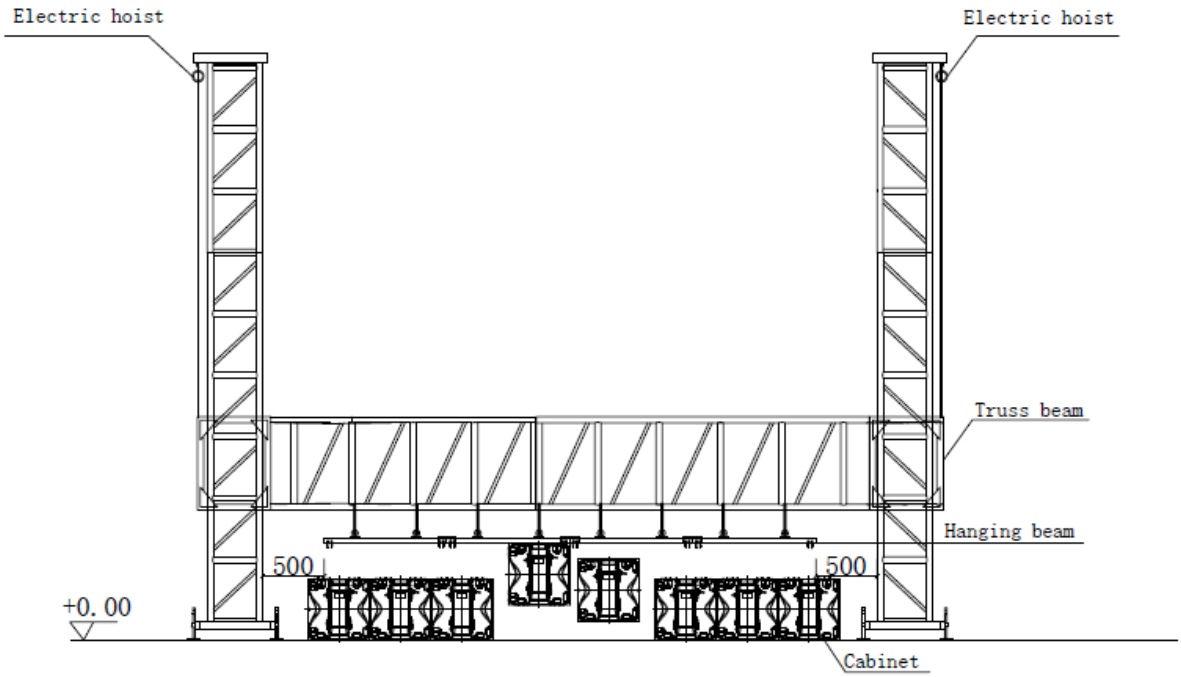
2.2 Structure

2.2.1 Truss



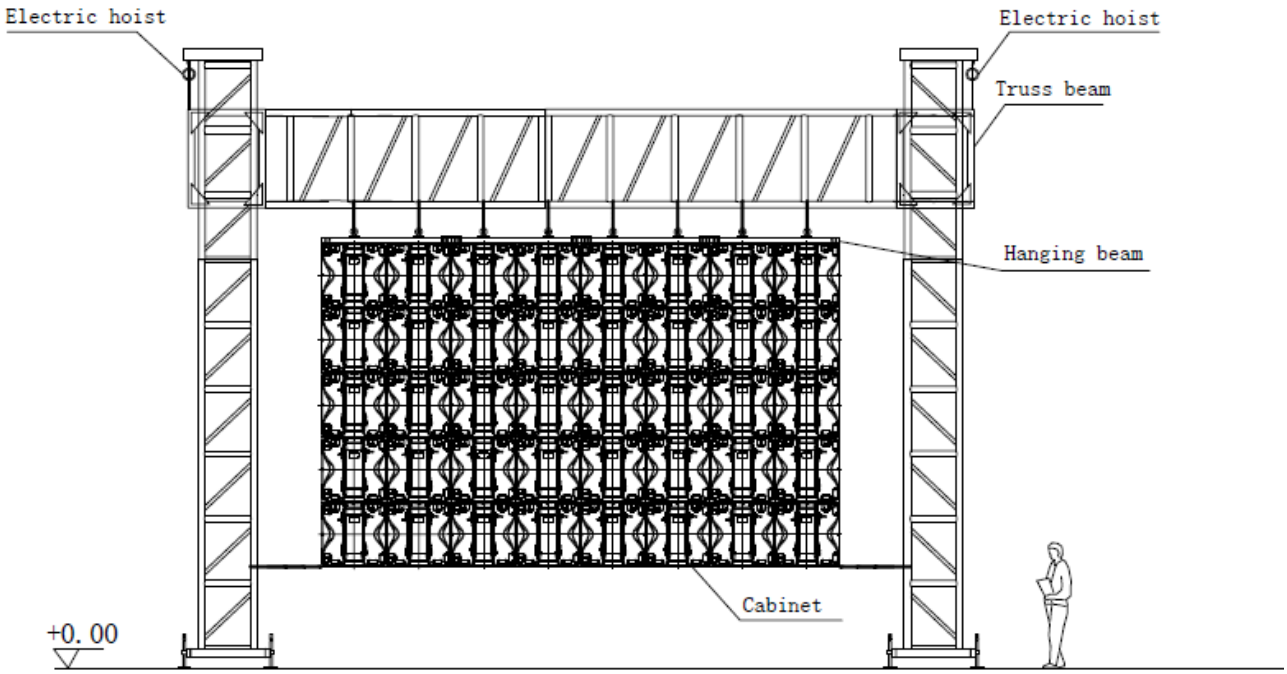
Step 1: The truss structures is fixed ready, keep the overall stability, truss beam by electric hoist control lift.

Step 2: Will truss adjustment to slightly higher than a cabinet height, the hanging beam fixed on the truss beam, must keep hanging beam in level.



Step 3:First need to install the chamber placed in truss below, installation panels,from middle to both sides to start the installation.Every installed a housing,will connect fitting.

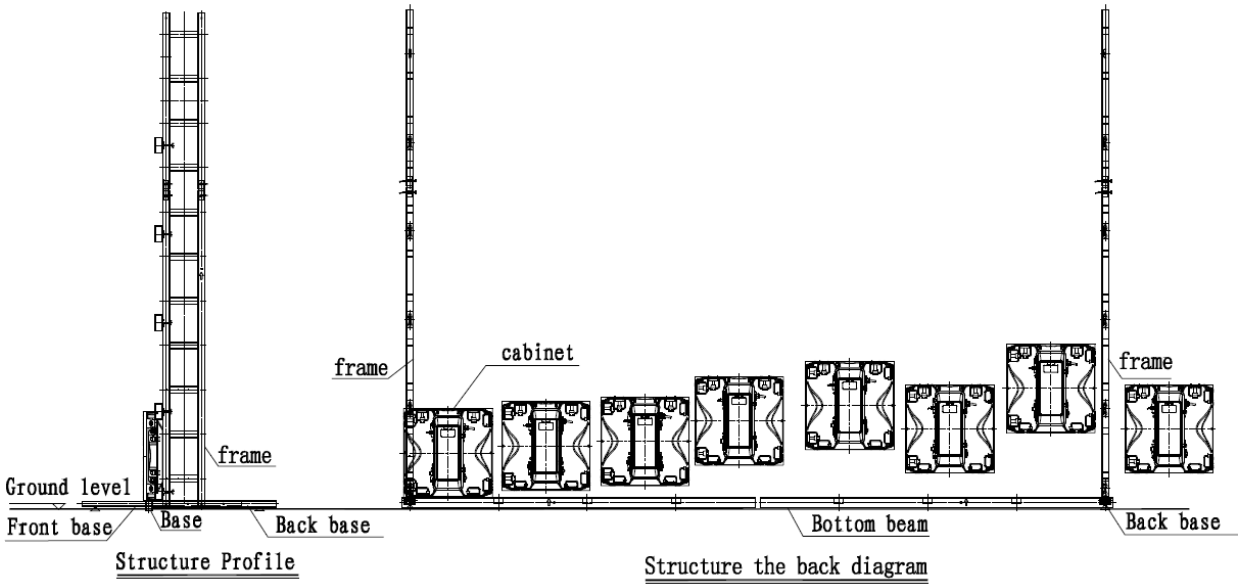
Step 4:The truss beam rise two box height, so that the installation of the second row. The following installation steps with the third step, until after installation.



Suggestion:

1. Screen distance from bottom ground height 2.0 meters, so that the audience sat down to watch. The height can be adjusted according to the visual effect;
2. to prevent screen after includes swing, can be in screen bottom ends with wire rope fixed in the truss.

2.2.2 Stack foot installation

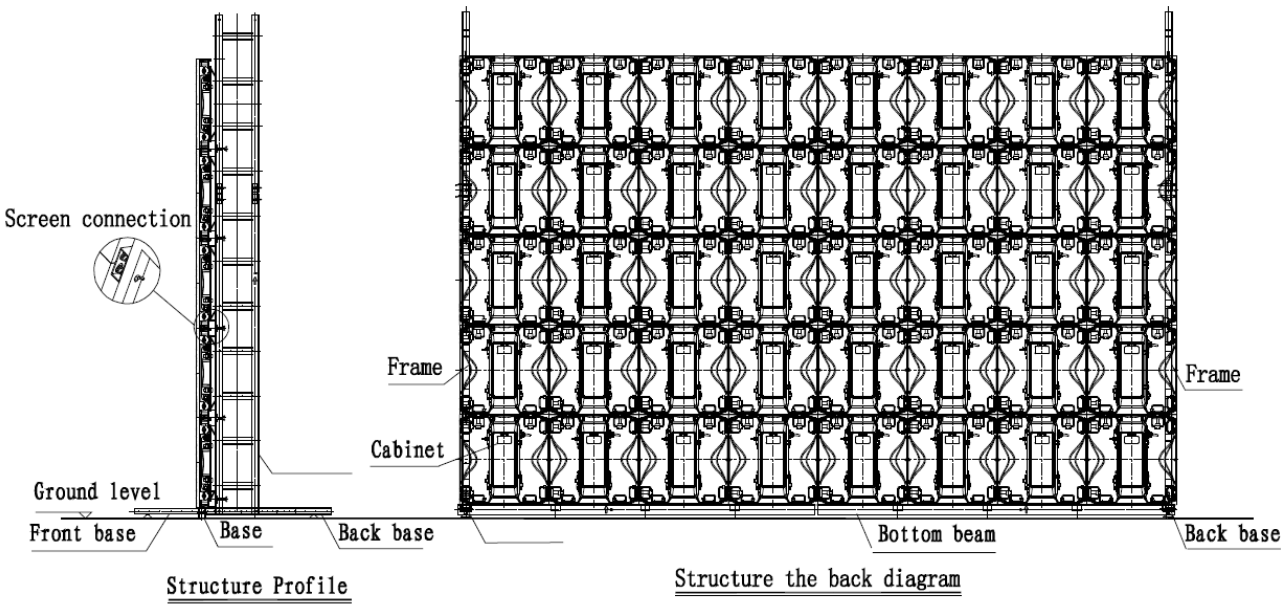


Step 1: The structure material move to installation location, reference material list, and check member is complete.

Step 2:In material under the condition of complete, according to the member function splicing mounting bracket, the installation area should be flat.

Step 3: Housing fittings installed in support corresponding hole location, and screw down the bolt.

Step 4:With bolt will be left (right side) the first panel and the support housing fittings connection, from the left (right) to the right (left) installed in turn, each installed a housing, eccentric on complementing.



Step 5: When the first floor panel after the installation, first make sure that all the fittings are connection well, and then began to install the second floor, all the installation steps to step 4 is same, until all the panel installation ends.

Section 3: Electrical Introduction

3.1Panel Power consumption

Maximum Power Consumption: the maximum power consumed by the screen on the full white working condition.
Average Power Consumption: the average power consumed by the screen on the working condition of playing video.
The wire gauge and power distribution panel capacity is depended by the screen maximum power consumption.

Power consumption of Absen A series product

model	pixel pitch (mm)	Current per panel at 120V (A)	Current per panel at 240V(A)	Maximum power consumption per panel (W)	Average power consumption per panel W	Power consumption per sqm, max/avg W/m2
A3	3.9	1.5	0.82	180	60	720/240
A5	5.2	1.13	0.6	135	45	540/180
A6	6.25	1.25	0.68	150	50	600/200
A7	7.8	1.59	0.86	190	65	760/260
A10	10.4	1.54	0.84	185	60	720/240

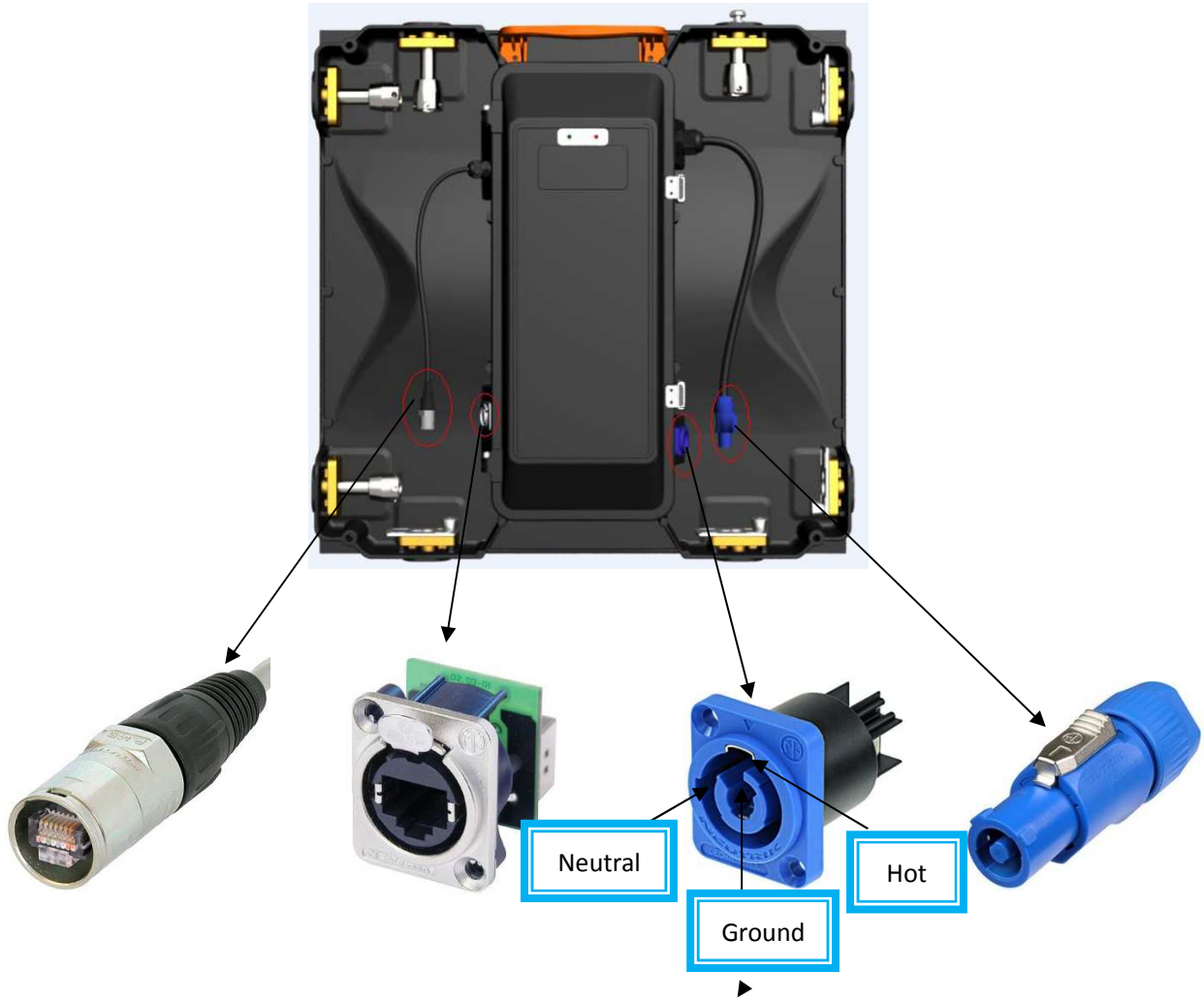
Take a 20sqm A3 screen as an example：
The maximum power consumption is 14.4KW. Therefore, a 15KW power distribution box is suitable for this screen.
The power wire from distribution panel to screen is usually AWG12. Its current load is 29A.

Take A3 as an example:
An AWG12 wire can support 19 A3 panels when the input voltage is 120V, single phase;
While it can support 35 panels when the input voltage is doubled.

3.2 Cable connection point

Rental display requires convenience and safety of the assembly and dismantles. Therefore, air plugs of power and data are required.
Hardware: LED panel, power wire, data cable, air plug and socket for power and data,
Absen A serial air plug and socket are imported from Europe, which guarantees stable and high qualified connection for LED display.

3.2.1Neutrik Air Connectors



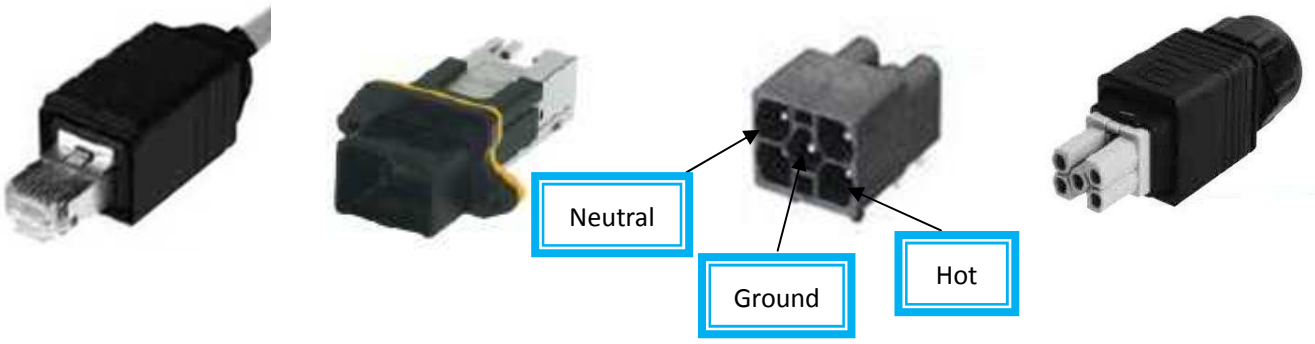
NE8MC-1-neutrik NE8FDP-neutrik NAC3MPA-neutrik NAC3FCA-neutrik

Air plug for data Air socket for data Air socket for power Air plug for power

Air connector：rated voltage：250VAC rated current：20A

Neutrik air connectors are for these products：A3、A5、A6.

2.2 Harting air connectors are for outdoor rental (A7 & A10)



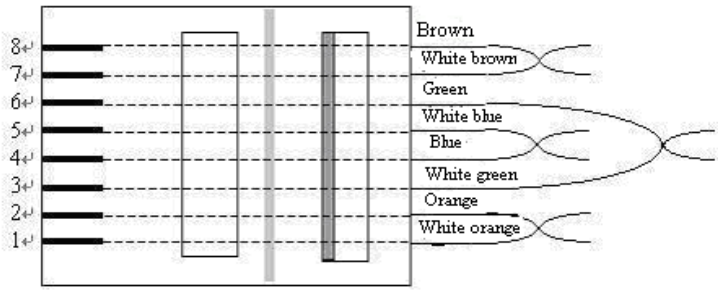
HARTING 09451451500 HARTING 09452451560 HARTING 09352310423 HARTING 09352310333

Air plug for data　　Air socket for data　　Air plug for power　　Air socket for power

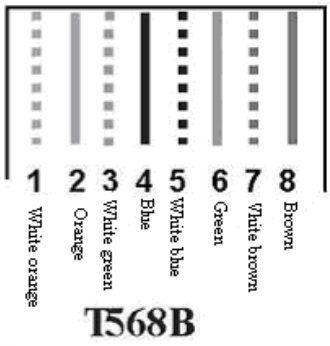
Air connectors for power：rated voltage：250VAC　rated current：16A

Harting air connectors are for these products：A7、A10 suppression method of RJ45 is according to TIA568B. Refer to figure ：

RJ-45 Connector



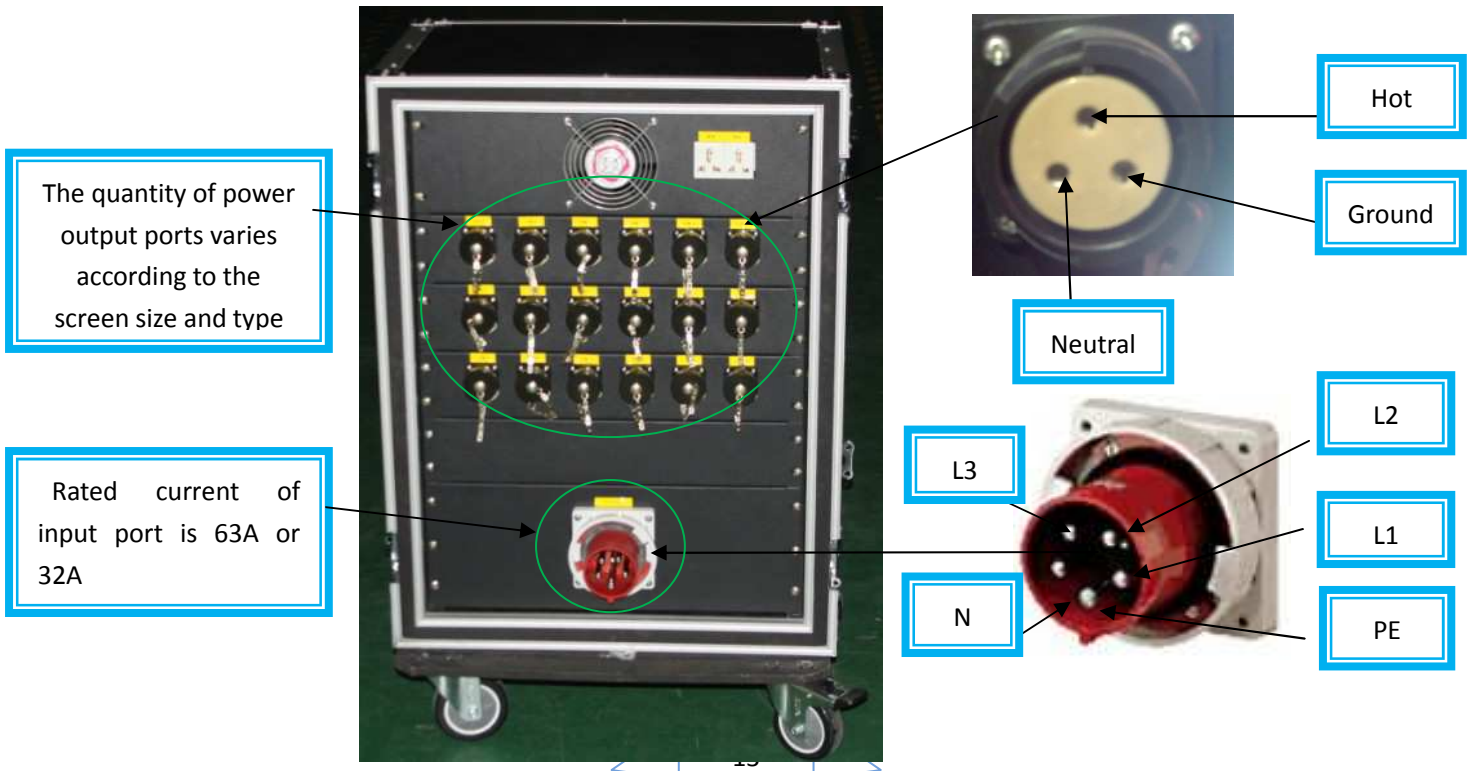
RJ45 Connector TIA/EIA 568B Criterion



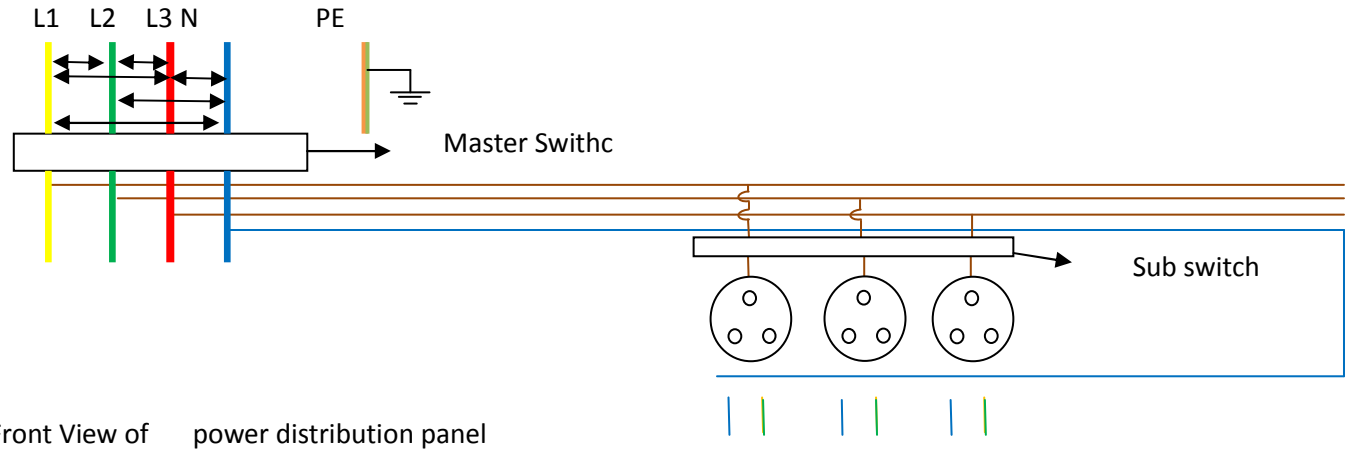
Remarks: make the two ends same.

Figure

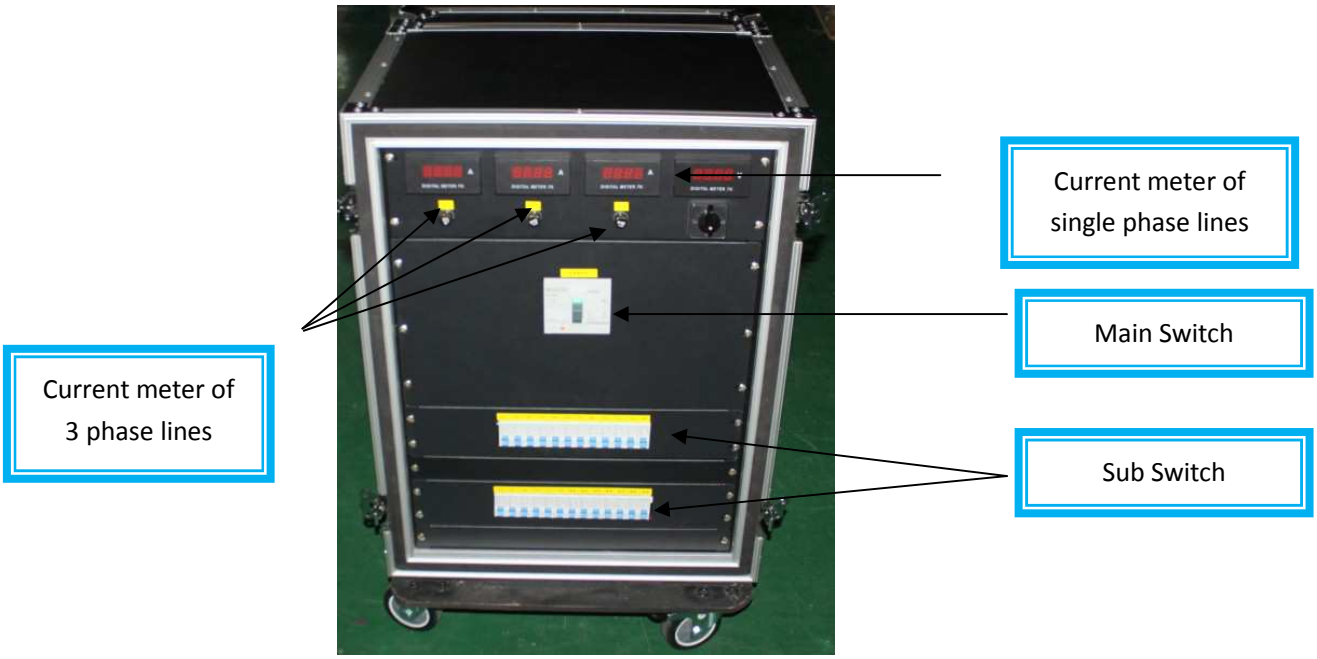
3.3 Power distribution panel



Wiring diagram：



Front View of power distribution panel



Power wire Item	Screen power（Kw）	Screen current (25℃)(A)	Main switch size（A）	AWG	Power distritutino panel size（KW）
1	10-15	16-23	40	4x12+1x14	15
2	16-25	25-38	63	4x10+1x12	30
3	26-30	40-45	63	4x7+1x10	30

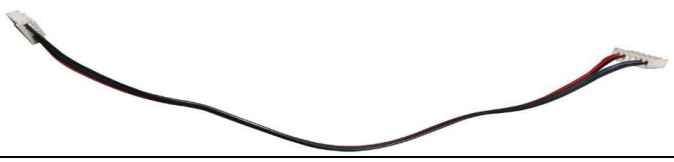
3phase 208V and single phase 120V,

Item	Screen power（Kw）	Screen current (25℃)(A)	Main switch size（A）	AWG	Power distritutino panel size（KW）
1	10-15	27-41	63	4x10+1x12	15
2	16-25	44-69	80	4x5+1x7	30
3	26-30	72-83	100	4x5+1x7	30

Reference table of AWG to International wire

American Wire Gauge(AWG)	Diameter (inches)	Diameter (mm)	Cross Sectional Area(mm2)
0000（4/0）	0.46	11.68	107.16
000（3/0）	0.4096	10.4	84.97
00（2/0）	0.3648	9.27	67.4
0（1/0）	0.3249	8.25	53.46
1	0.2893	7.35	42.39
2	0.2576	6.54	33.61
3	0.2294	5.83	26.65
4	0.2043	5.19	21.14
5	0.1819	4.62	16.76
6	0.162	4.11	13.29
7	0.1443	3.67	10.55
8	0.1285	3.26	8.36
9	0.1144	2.91	6.63
10	0.1019	2.59	5.26
11	0.0907	2.3	4.17
12	0.0808	2.05	3.31
13	0.072	1.83	2.63
14	0.0641	1.63	2.08
15	0.0571	1.45	1.65
16	0.0508	1.29	1.31
17	0.0453	1.15	1.04
18	0.0403	1.02	0.82
19	0.0359	0.91	0.65
20	0.032	0.81	0.52
21	0.0285	0.72	0.41
22	0.0254	0.65	0.33
23	0.0226	0.57	0.26
24	0.0201	0.51	0.2
25	0.0179	0.45	0.16
26	0.0159	0.4	0.13

3.4 Cable introduction

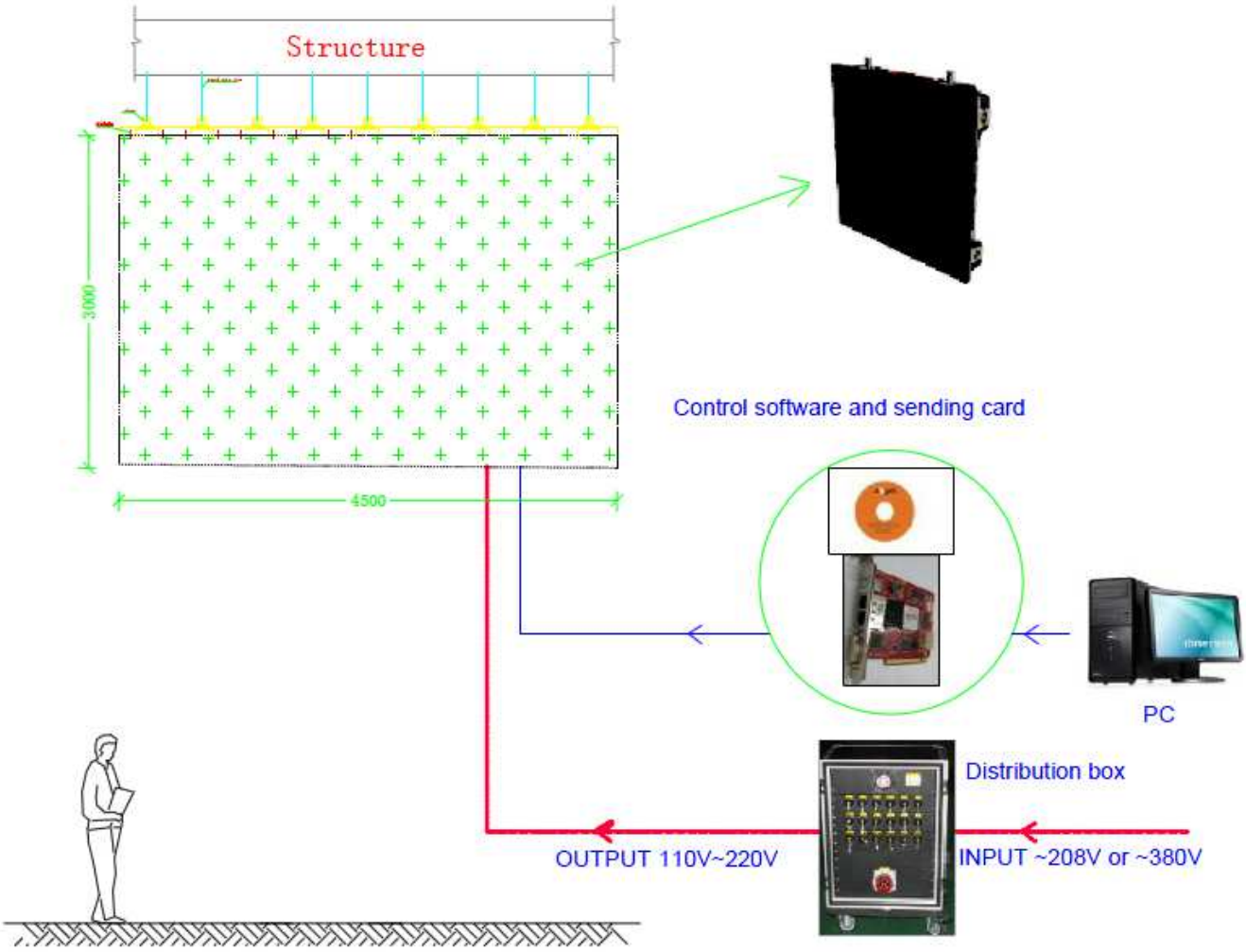
Item	Power wire	Photo	remark
1	3X2.5mm2 AWG 12		110V power wire from powr distribution panel to LED screen for A3/A5/A6
			110V or 220V power wire from powr distribution panel to LED screen for A7/A10：
2	Electronic wire BVR 1x2.5mm2		5V power wire for Hub board of A6/A7
			5V power wire for Hub board of A3
3	Net cable CAT-5		Net cable for A3,A5,A6,A7, A10 panel
4	Net cable CAT-5		Net cable for A3 panel：
5	XH4		Electronic wire for indicator lights on A3,A5,A6,A7 panel

3.5 Cable layout

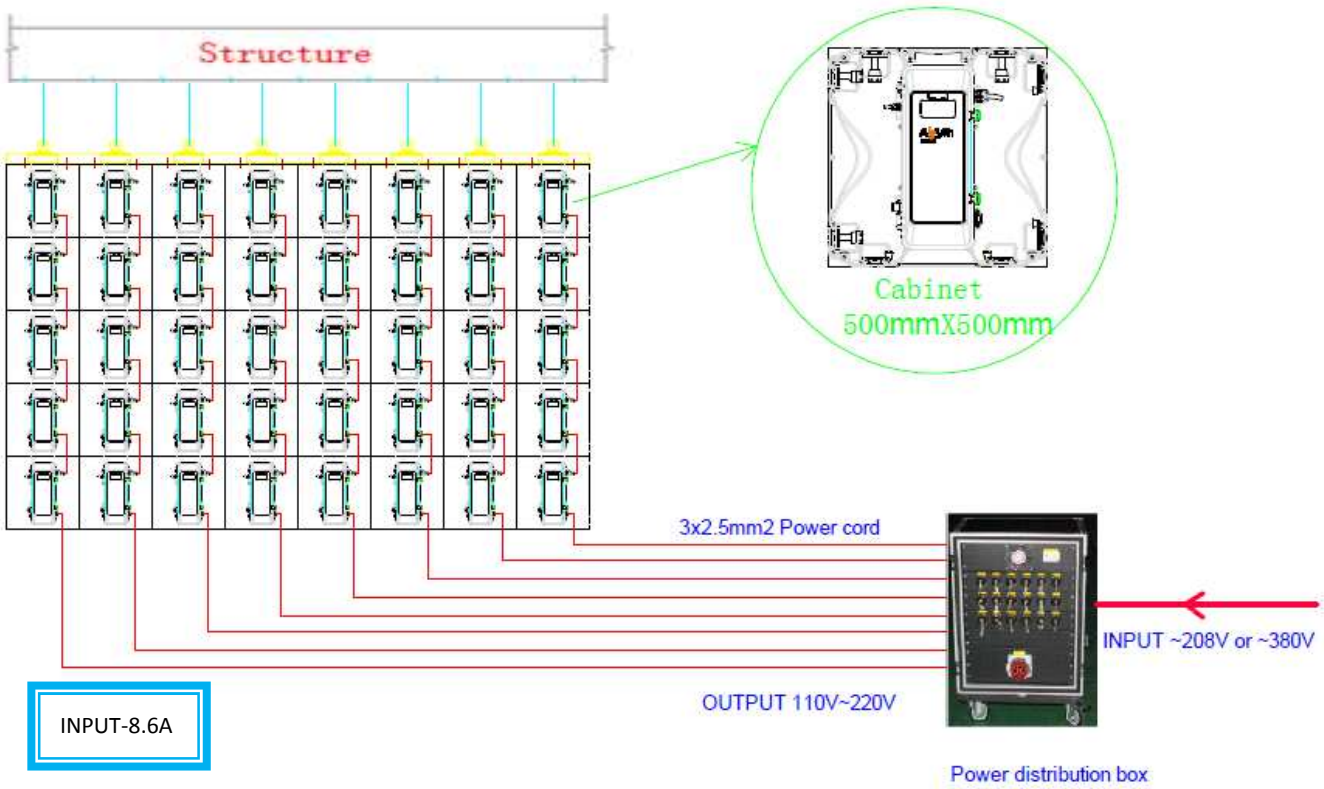
3.5.1 Absen A7 8 by 5 panels LED screen control system total diagram -1

A7 screen total size 10 square meters

Model: A7
Brightness : 5000nit
Environment: Indoor and outdoor rental



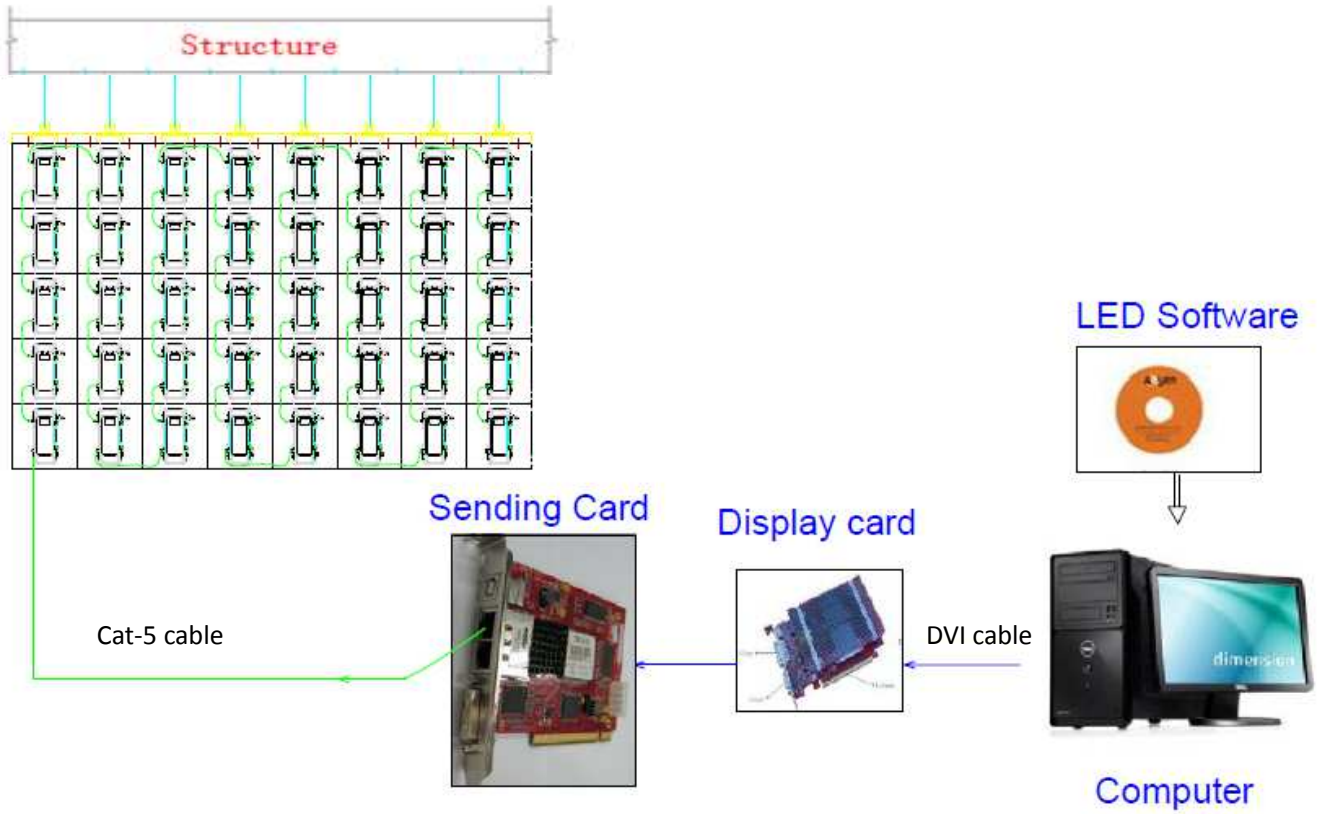
3.5.2 Absen A7 (8 by 5 panels) LED screen power cord connection diagram -2



Instruciton:

1. The LED screen A7 includes 40 panels of rent-panels.
2. We connected 5 panels (one group) to distribution box, Each group electric current about 8.6 A input.

3.5.3. Absen A7 (8 by 5 panels) LED screen signal cable connection diagram -3



Instruction:

1. LED software installed in the computer , it be used edit program to play files.
2. The computer be controlled the A7 LED screen.
3. We the display card and sending be installed inside computer. The sending card transfer signal to receiving card .

Section 4: Control System Introduction

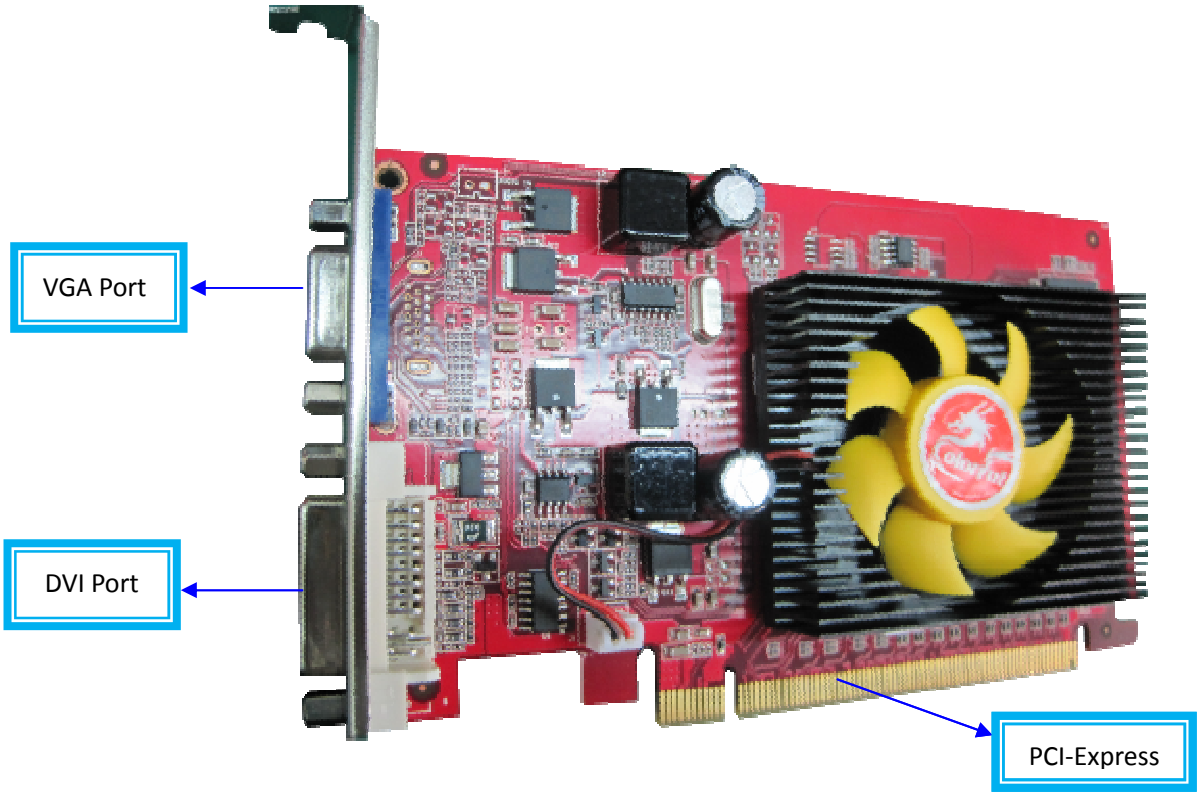
4.1 PC configuration (including Laptop/IPC)

LED display is most frequently controlled by computer, either Desktop PC or Laptop or Industrial PC.

4.1.1 Desktop PC

Configurations:
CPU Speed: 1.8 GHz above
Graphics Card: GPU Higher than NVIDIA GT210 (including 2 video interfaces. One of them is DVI, which communicate computer and sending card. The other one is an interface from computer to monitor. NVIDIA is strongly recommended)
Memory: More than 2GB
Main board: FSB Higher than 1333MHz, must have a PCI-E socket(For display card) and PCI socker
HDD: SATA more than 250G
Monitor: 19'' LCD with VGA and DVI interfaces; Usually, 768x1024 resolution monitor is recommended. However, higher resolution monitor is required for LED display with more pixels than 768x1024.
Computer case： Motherboard Compatibility Micro ATX / ATX
Power Supplies： Maximum Power More than 400W

1.1 The diagram of the Graphic card GeForce GF210



1-1 **Graphic card GeForce GF210**
Our graphic card has to be installed in PCI-E socket.

Configurations

GPU	• Brand：NVIDIA • Model：GeForce G210 • Serial：NVIDIA GT200 series • Mfg craft：40nm • Core Code：GT218
SDRAM	• Graphics RAM Type：GDDR3 • Graphics Card Ram Size：1024MB • BIT：64bit • Maximum resolution：2560×1600
Heat Radiation	• radiation fin(silent)
Interface	• Bus Interface：PCI Express 2.0 16X • I/O interface：HDM /DVI /VGA
Physical Characteristics	• 3D API：DirectX 10.1 • Transistor volume：2.6 亿个
Other Characteristics	• HDCP Support • Support PhysX and power-saving technology

4.1.2 Laptop

Laptop control is implemented by exterior sending card or by video processor imbedded with sending card. The Laptop should has discrete graphic card, which has duplicate mode.

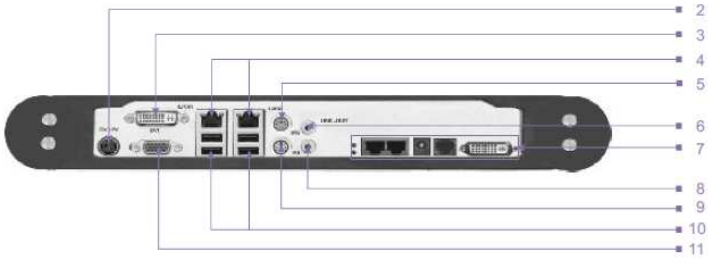
ConfigurationsCPU Speed：Intel Core i3 above
Memory: More than 2GB
HDD: SATA more than 250G
Display Ports：HDMI
Graphics Card： NVIDIA graphic
Monitor: 1Usually, 768x1024 resolution monitor is recommended. However, higher resolution monitor is required for LED display with more pixels than 768x1024.

4.1.3 IPC

Configurations CPU Speed： 1.8 GHz above
Memory: More than 2GB
HDD: SATA more than 250G
Display Ports：Dual DVI or DVI+VGA
Graphics Card： NVIDIA
Screen: resolution 1024X768 IPC interfaces

1、Power Switch
2、DC 12V Power input
3、DVI Port
4、2x Gigabit LAN
5、PS/2 Mouse
6、LINE-OUT
7、LED Controller
8、MIC
9、PS/2 Keyboard
10、4x USB 2.0
11、VGA Port

Rear View:



4.2 Video processor

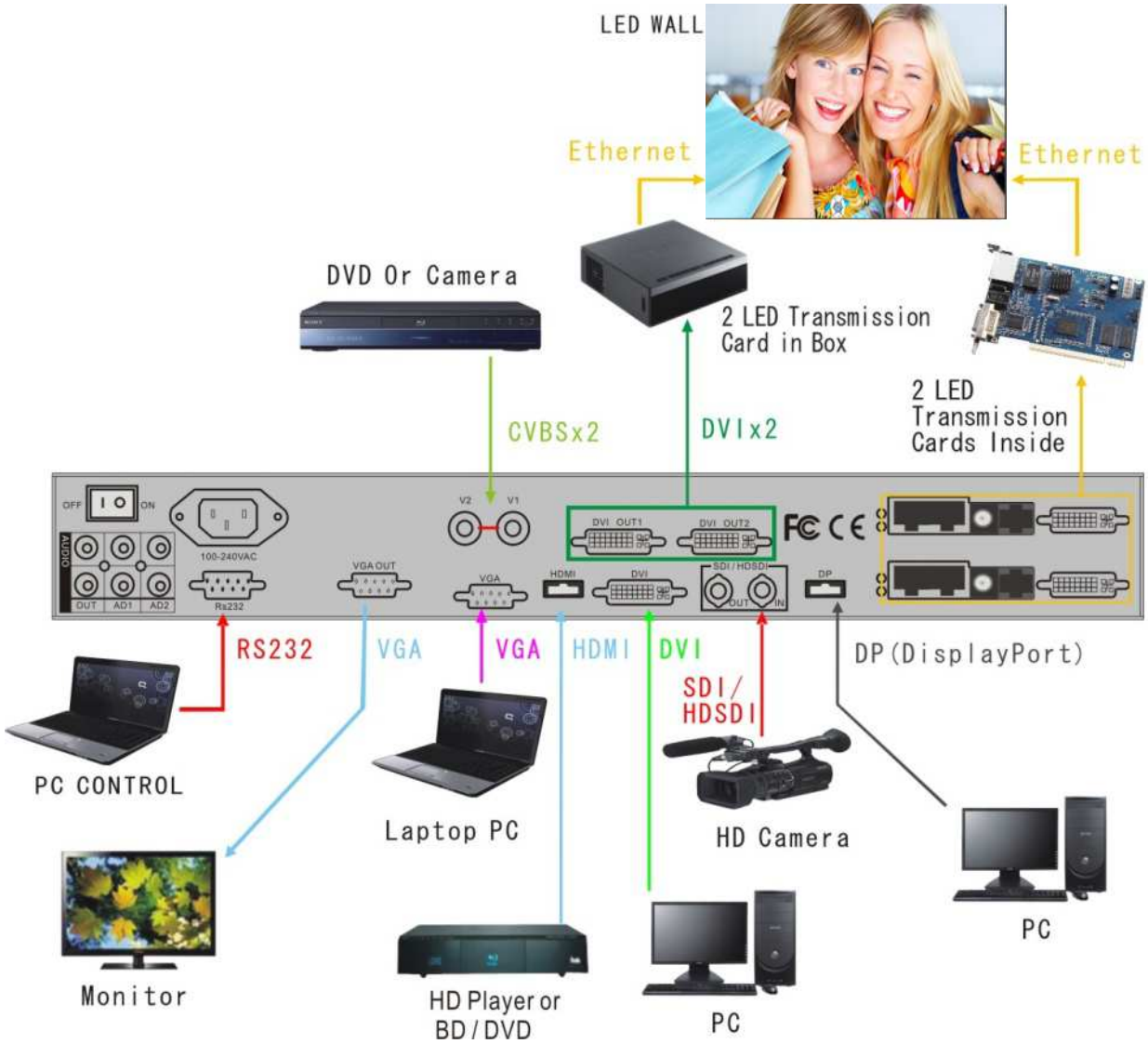
4.2.1 Overview

Video processor is used for switching different signal inputs and converting them to the LED sending card.

1.able to convert camera signal into LED screen signal 2. able to convert DVD and VCR signas into LED screen signal

3. able to read kinds of video and image signals and switching kinds of such signals input into LED screen。

4.2.2 Connection Diagram



4.2.3 Port description

4.2.3.1 Video Input

LVP603S supports 7-channel signal input, including:

Port name	Description
V1~V2	2-channel PAL/NTSC composite video input
VGA	1-channel computer analog signal input
DP(DisplayPort)	1-channel DisplayPort digital hd signal input
DVI	1-channel computer digital signal input
HDMI	1-channel HDMI digital HD signal input
SDI/HDSDI (IN)	1-channel digital video signal input (SD/HD)

4.2.3.2 Audio Input

LVP603S supports 5-channel stereo audio switch. Of which, 3 channels are DP, HDMI and SDI audios, the other 2 channels are AD1, AD2 external input audio. AD1 and AD2 can be mapped to the any one of all video inputs, and will be switched synchronous to the selection of video input signals.

4.2.3.3 Video Output

Port name	Description
VGA OUT	1-channel analog RGBHV signal output, it can be connected to a local display device and used as monitor (it is strongly recommended to use this port when operating and setting **LVP603S**).
DVI OUT 1 / DVI OUT 2	2 same DVI digital graphic signal output, it can be connected with external LED transmission card or LED transmission box
SDI/HD SDI (0UT)	1-channel digital video signal loop output

4.2.4 Audio Output (AUDIO OUT)

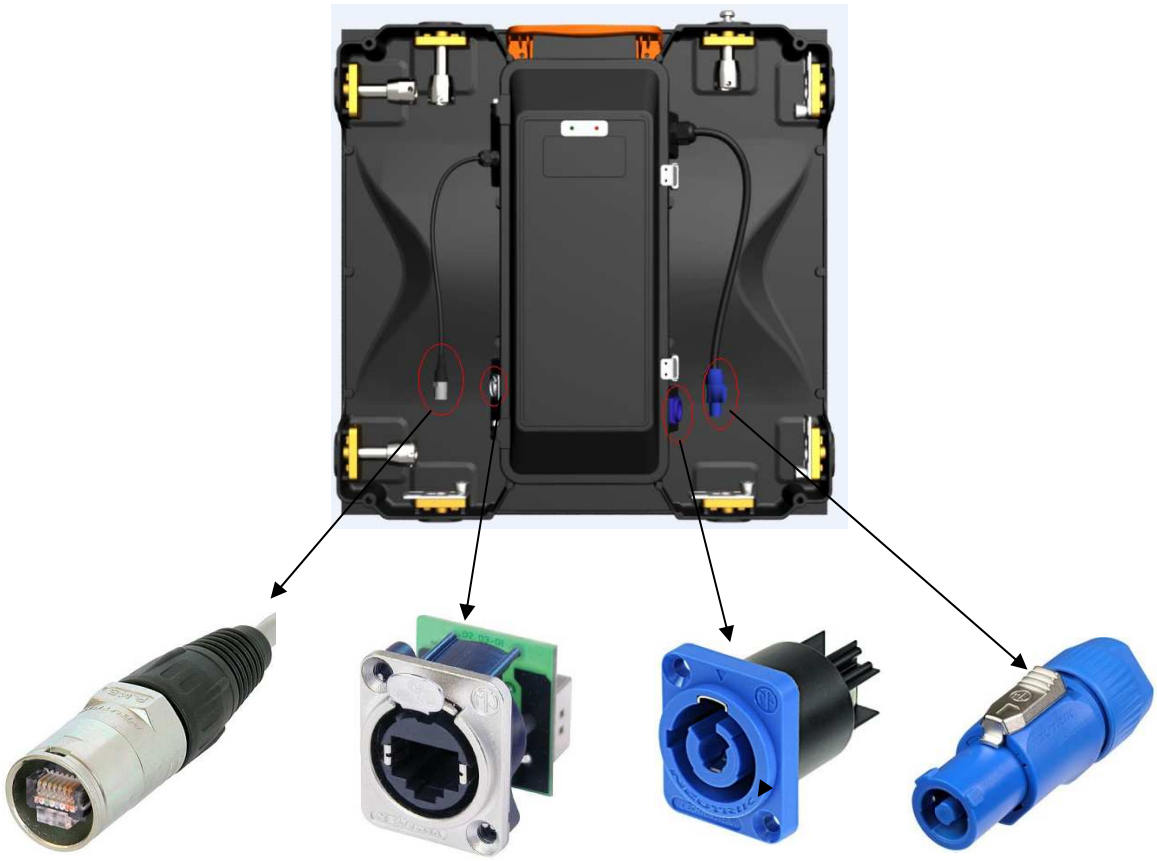
Corresponds to the selected video input signal, output this channel audio input signals.

4.2.5 Signals of other ports

RS232 serial communication po

4.3 Signal cable and Connectors Introduction

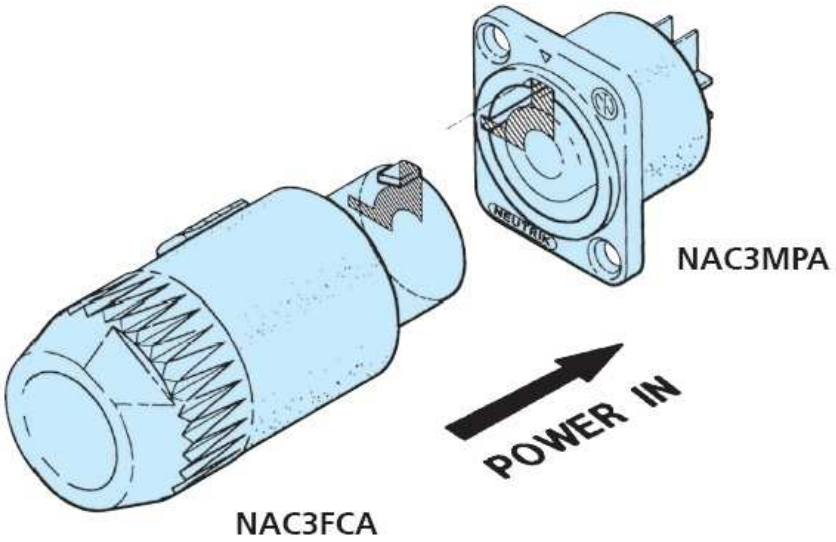
Generally, connector included power connector and data cable connector on LED screen. All kinds of brand also are not identical. Our rental products A3,A5,A6 use NEUTRIK connector and A7 use HARTING connector.



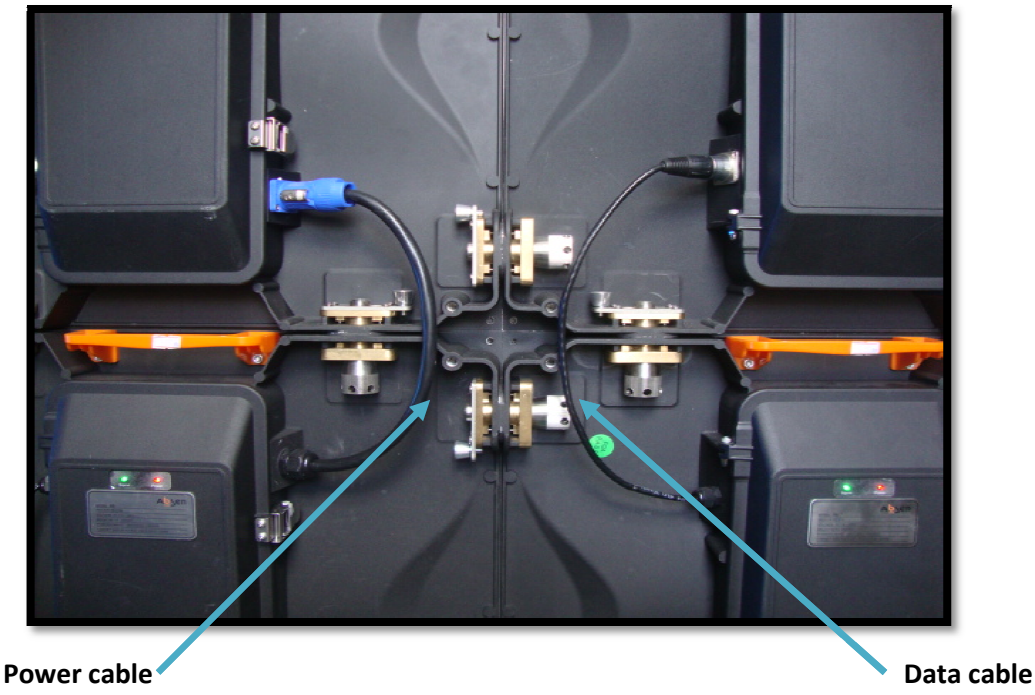
Data plug TYPE（Neutrik）: NE8MC-1	Data socket TYPE（Neutrik）: NE8FDP	Power socket TYPE（Neutrik）: NAC3MPA	Power plug TYPE（Neutrik）: NAC3FCA

Interface type:RJ-45
Interface line sequence：TIA568B
Ingress protection ：IP54
Power Connectors
Electrical parameters: 20 A / 250 V ac
Power cable diameter：6-11mm

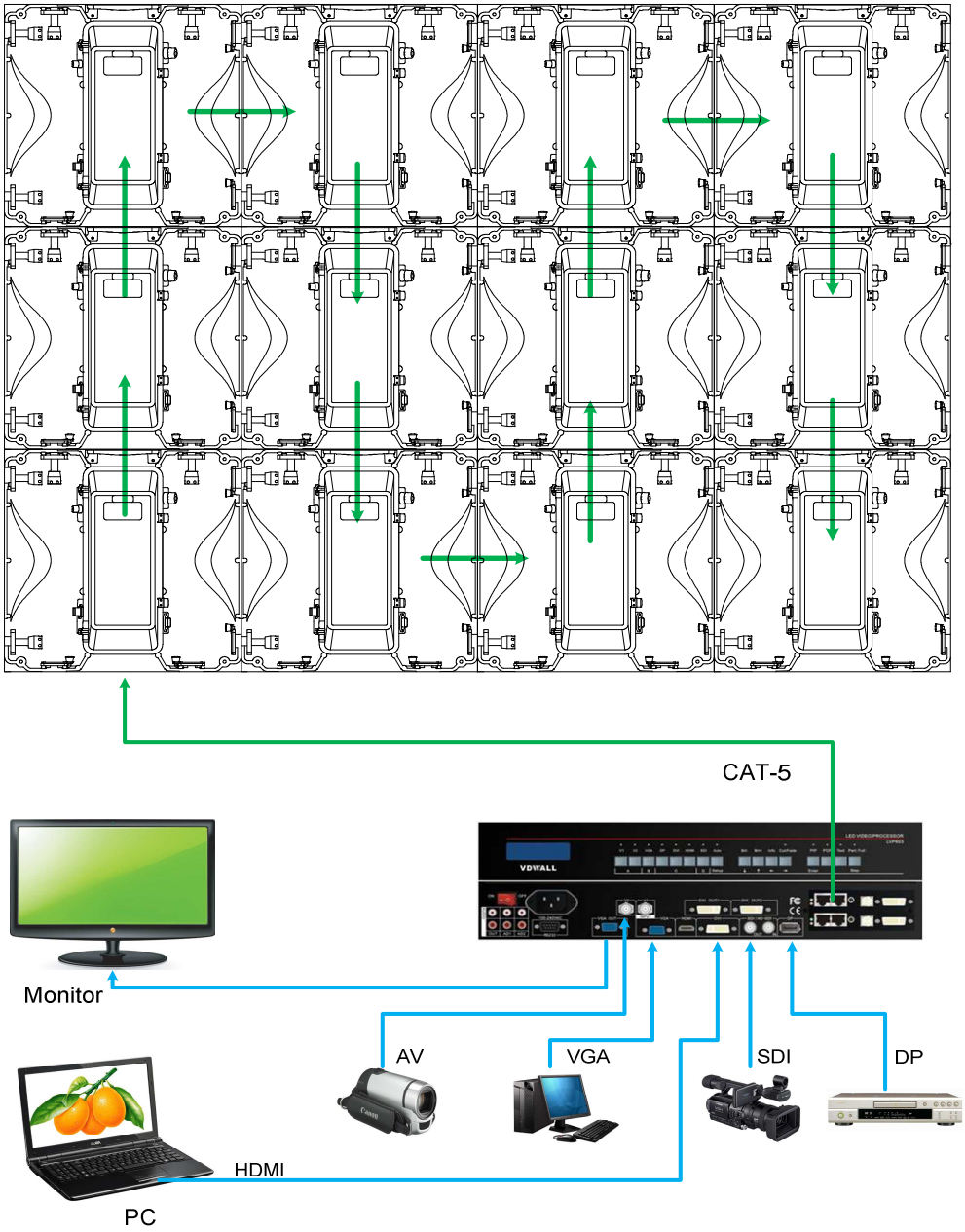
Use Method：



LOCK: According to the graphic position make the plug insert to the socket then rotate right 90 °.
UNLOCK: Pull back the button on the plug ,rotate the plug left 90 degrees then pull out from socket.
Physical Diagram:



4.4 Signal cable layout

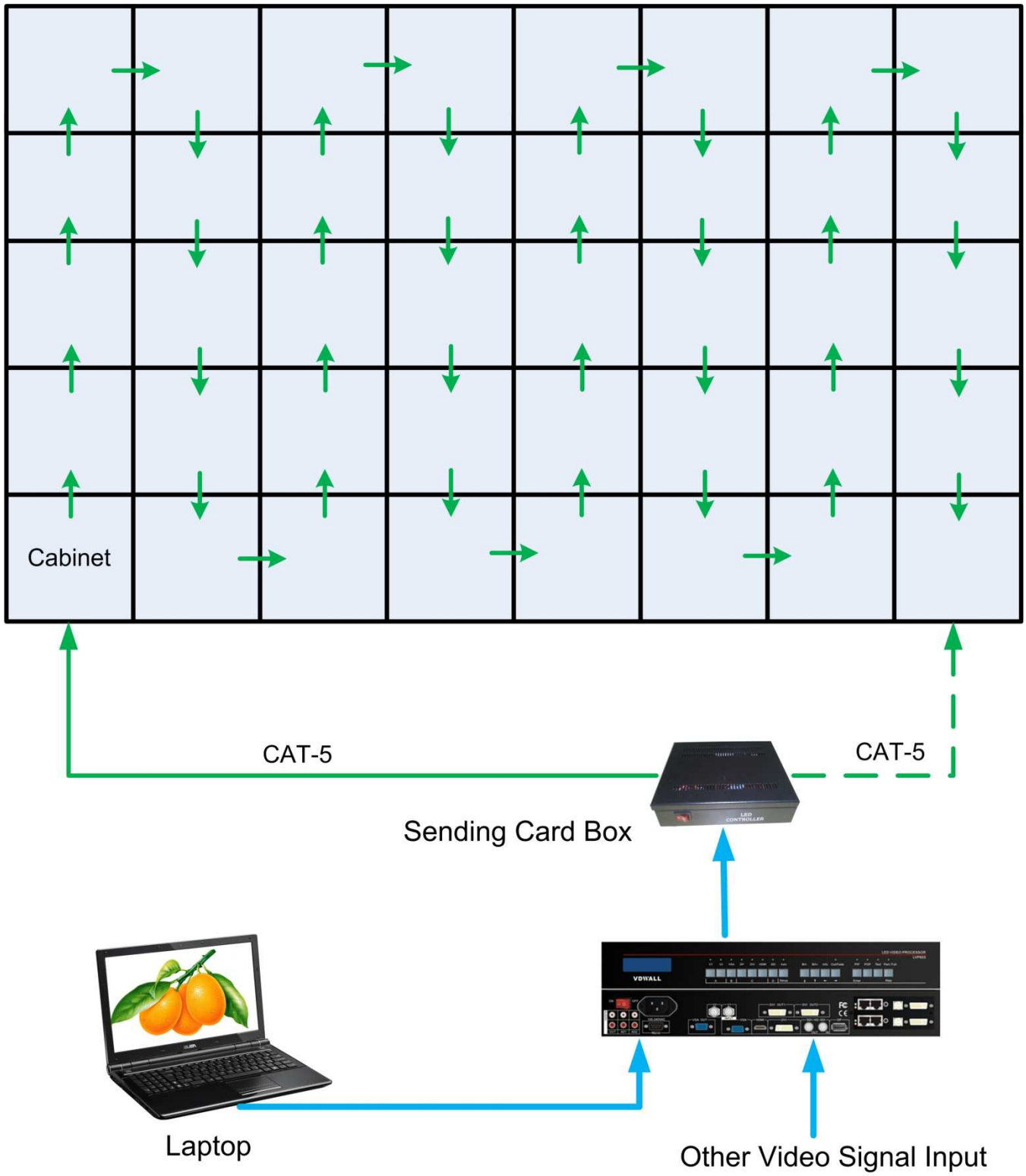


Signal Cable Layout

1. The devices with videos processor input interface can be used as input video source。
2. LED video processor maximum output resolution is 1920 x1080, if LED display resolution more than this value, need choice other control scheme.
3. Network line layout not fixed mode, you can start from any a panel, connecting all panels, but software Settings should keep consistent and practical layout. Generally we suggest that "S" type or "∽" type layout.
4. Network line use CAT-5 or CAT-5E.If Transmission distance more than 100 m you can use optical fiber.

4.5 Signal backup system

4.9.1 Single card double line spare scheme

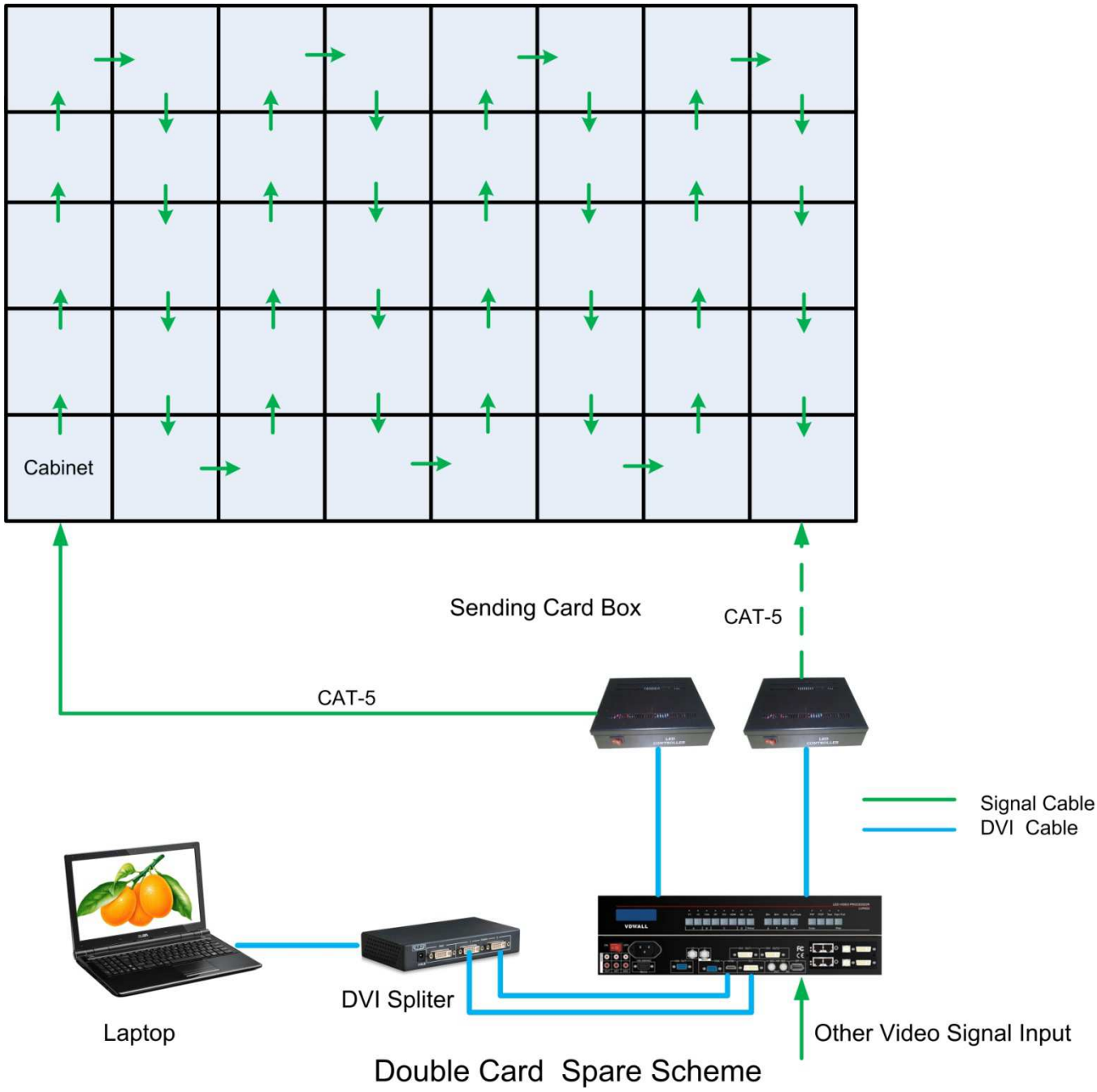


Single Card Double Line Spare Scheme

Instruction:

1. One Network line can load the screen resolution.
2. This scheme just spare the parts which from PC to the screen data cable.

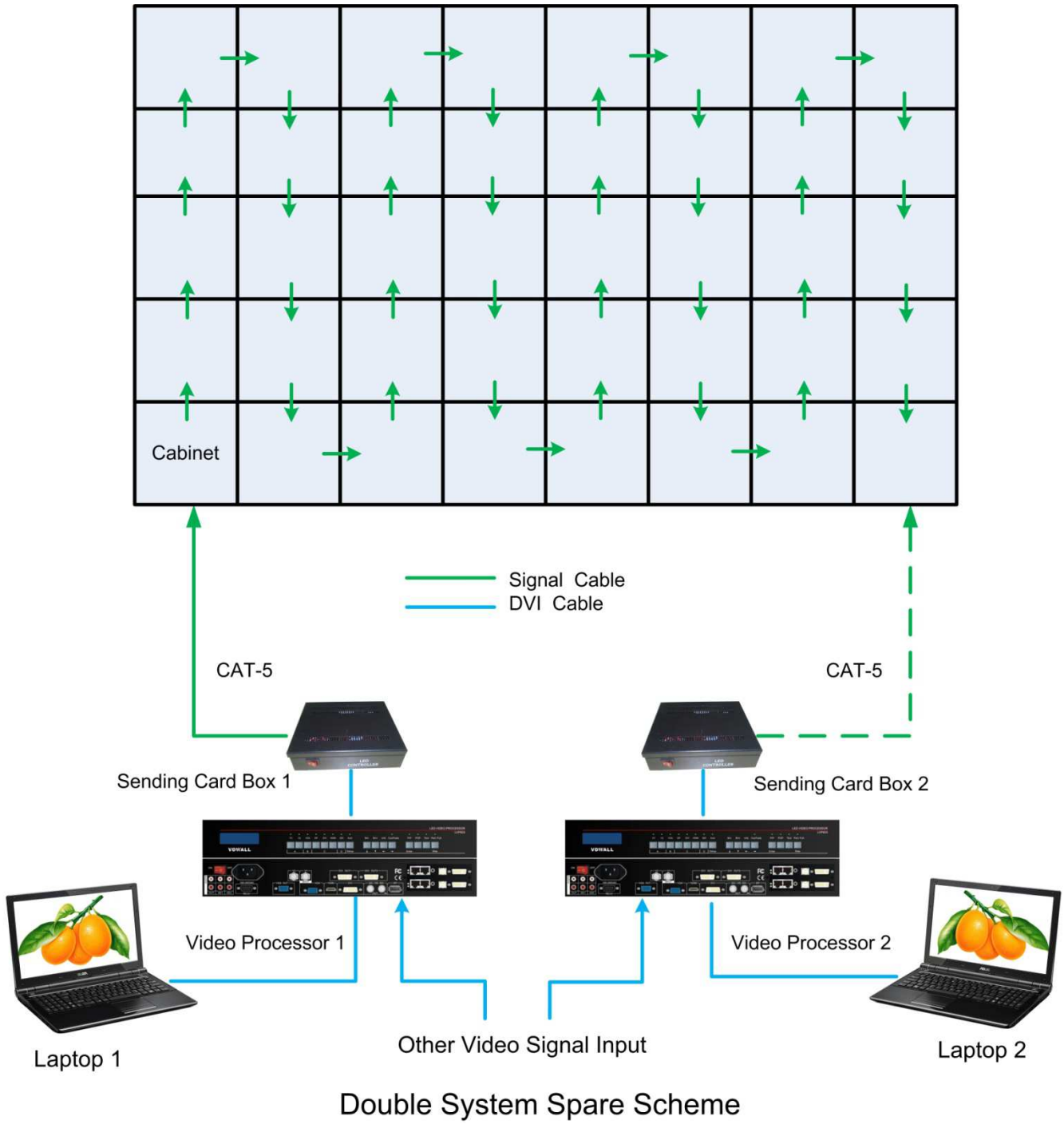
4.9.2 Double card double line spare scheme.



Instruction:

1. The LED screen need double network cable to work;
2. This scheme to spare sending box and cable of from sending box to screen;
3. When a sending box failed another sending box automatic continue work.

4.9.3 Double system spare scheme



Double System Spare Scheme

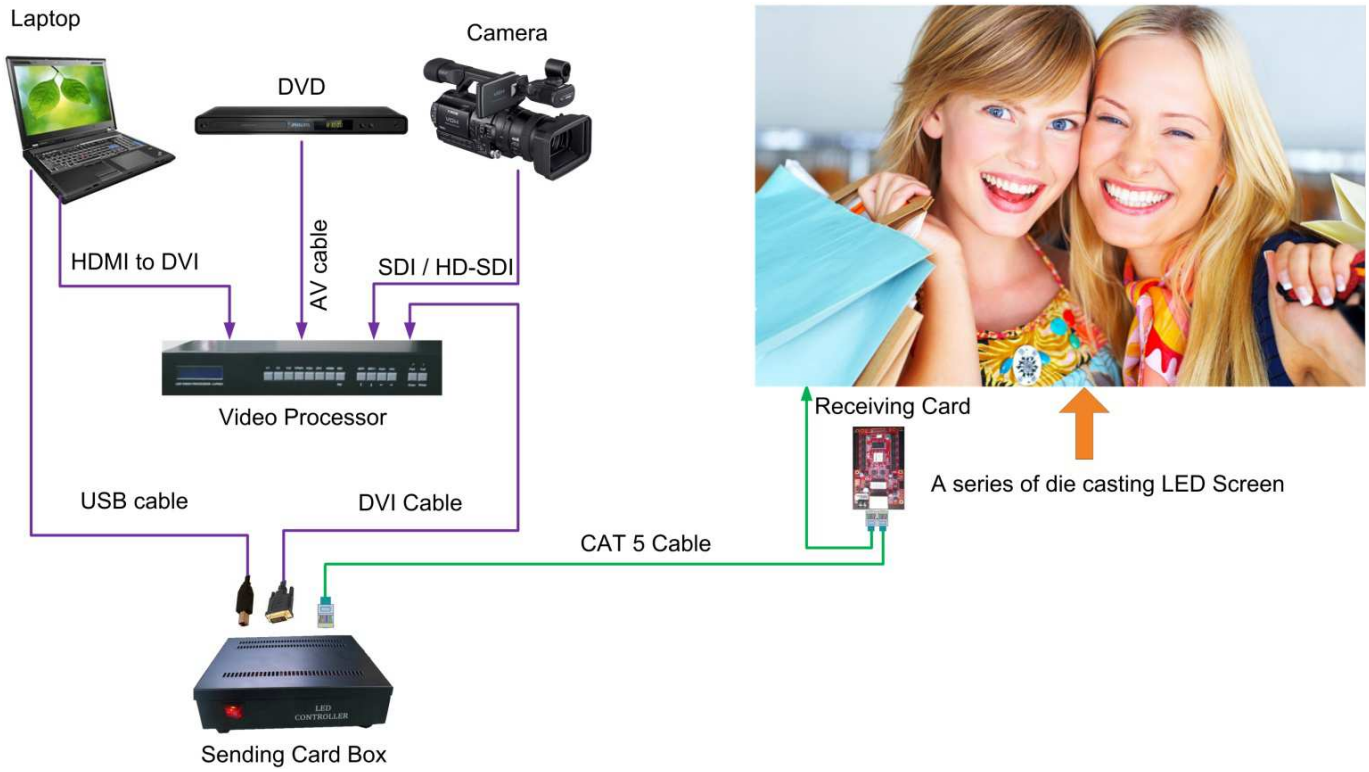
Instruction:

1. This scheme applicable any LED screen;

2. Except screen body all parts be spare.

Section 5: Communication Mode

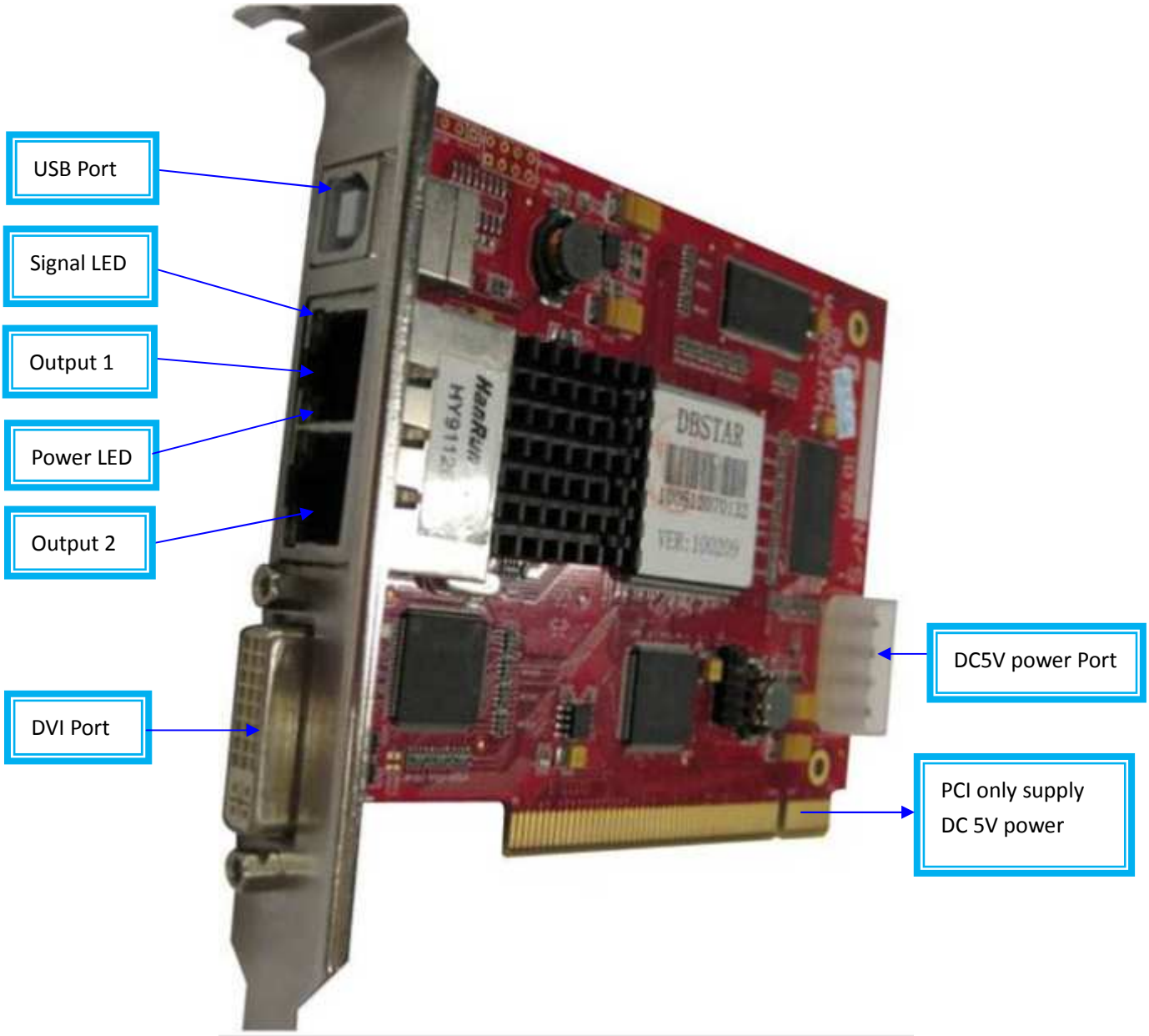
5.1 CAT-5



Section 6: Hardware & Software Setup

6.1 Hardware Installation/ Introduction/Setup

6.1.1 The diagram of the Sending card



Our sending card is installedin the PCI socket.

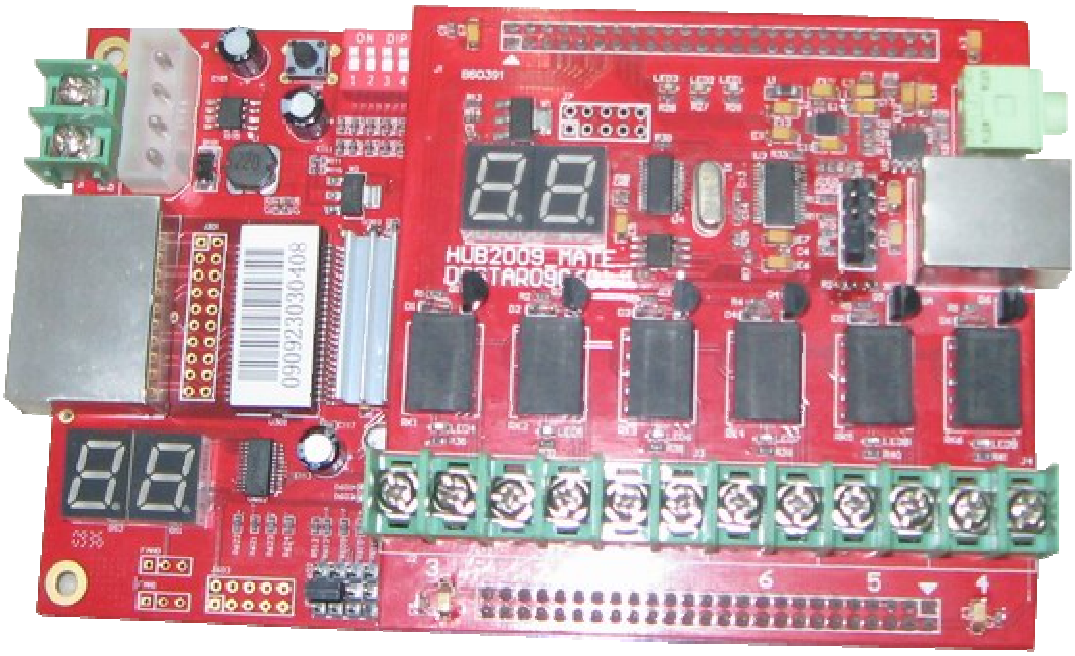
Pixels Load Capacity of Sending Card

Video Card Modes(W x H)	Sending Card Display Modes (W x H)	oad Capacity of a sending card with single net cable	Load Capacity of a sending card with dual net cable
1024*768	1024*768	1024*640 768*768	1024*768
1280*1024	1280*1024	1280*512 512*1024	1280*1024
1366*768	1366*768	1344*448 768*768	1344*768
1440*900	1440*900	1408*448 512*900	1408*896
1600*900	1600*900	1600*384 512*900	1600*768
1680*1050	1680*1050	1664*384 512*1024	1664*1024
1600*1200	1600*1200	1600*384 512*1024	1600*768 1024*1200
1920*1080	1920*1080	1920*256 512*1024	1920*512 1024*1080
1920*1200	1920*1200	1920*256 512*1024	1920*512 1024*1200
2048*1152	Standard	1920*256 1024*640 512*1024	1920*512 1024*1152

6.1.2 Environment card

6.1.2.1 Power- auto control

A、Hardware



1、There are 6 pcs single contactor switches which is used for low power, each road connecting to the power supply high-power contactor (Power open into automatic)，

2、Power of supply : 5V.

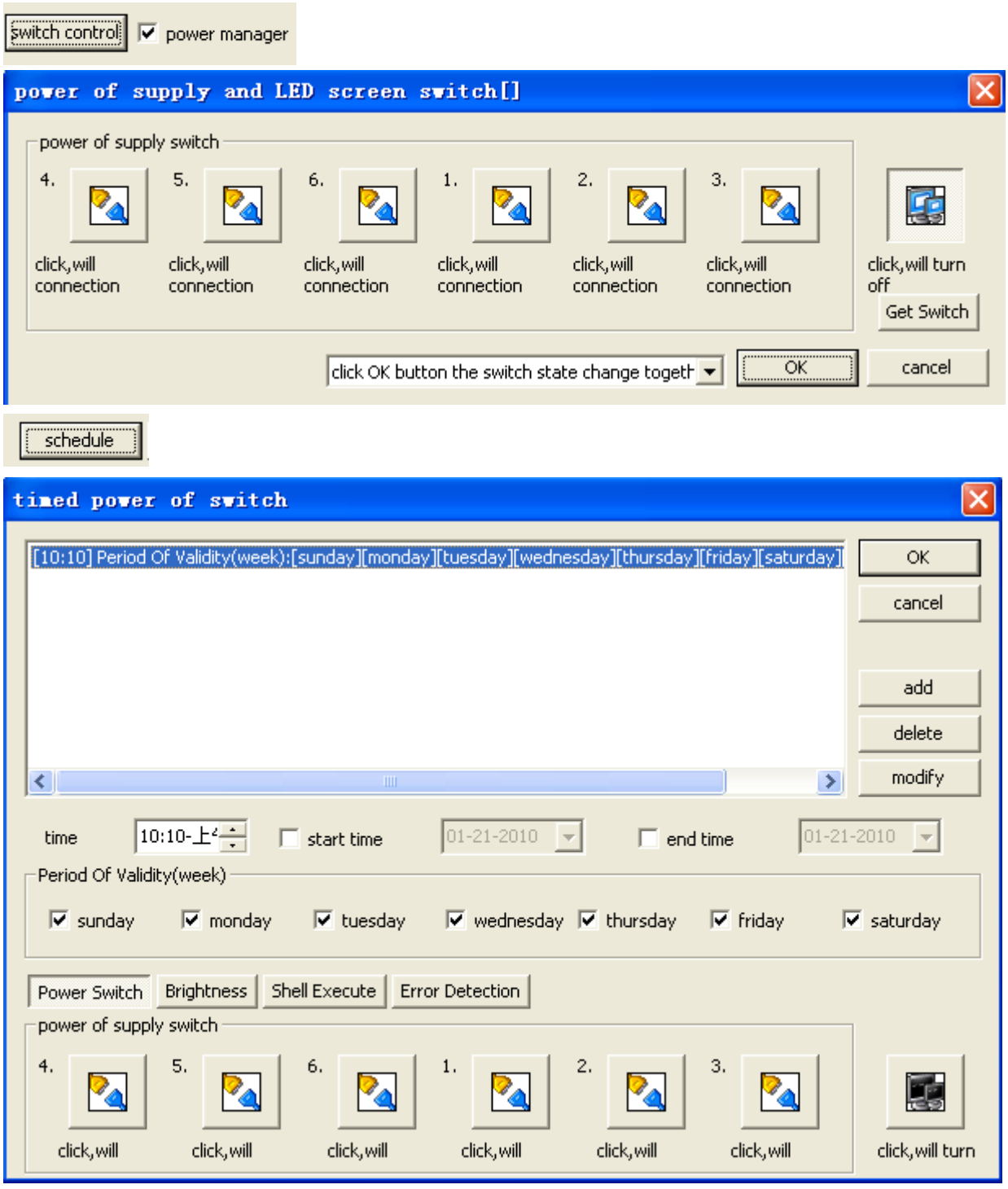
3、the digital display：  the controller temperature，

 Acquisition temperature display

（2）way of connection：RJ45 one input, one output. connecting to the first receiving card position

（3）**Attention**：220V is the alternating current connector coil voltage（alternating current contactor may introduce）

B 、software



1， there are 6pcs switches can be used, click the icon, it can work, when you click close screen ,it may open, click the icon close screen again ,it may cut the power supply and close screen

2， you can build timetable, the screen may close or open according to the timetable

C sound introduction：

1.Sound box port plug, is connecting to the power amplifier or sound box

Brightness sensor ：

1,the above picture is the function card connector, the following picture is the brightness ,temperature sensor（after connected the brightness, temperature sensor, it may work）

Two way of brightness sensor connections

【 1 】temperature, brightness, RJ45 way of making ：

MATE function card：

(1)white orange (2)orange(3)white blue(4)blue(5)white green(6)green(7)white brown(8)brown

The header of sensor[SENSERout1.1]：

(1)white orange(2)orange(3)white green(4)blue(5)white blue(6)green(7)white brown(8)brown <will not support SHT1X humidity>

【 2 】temperature, humidity, brightness RJ45 way of making :

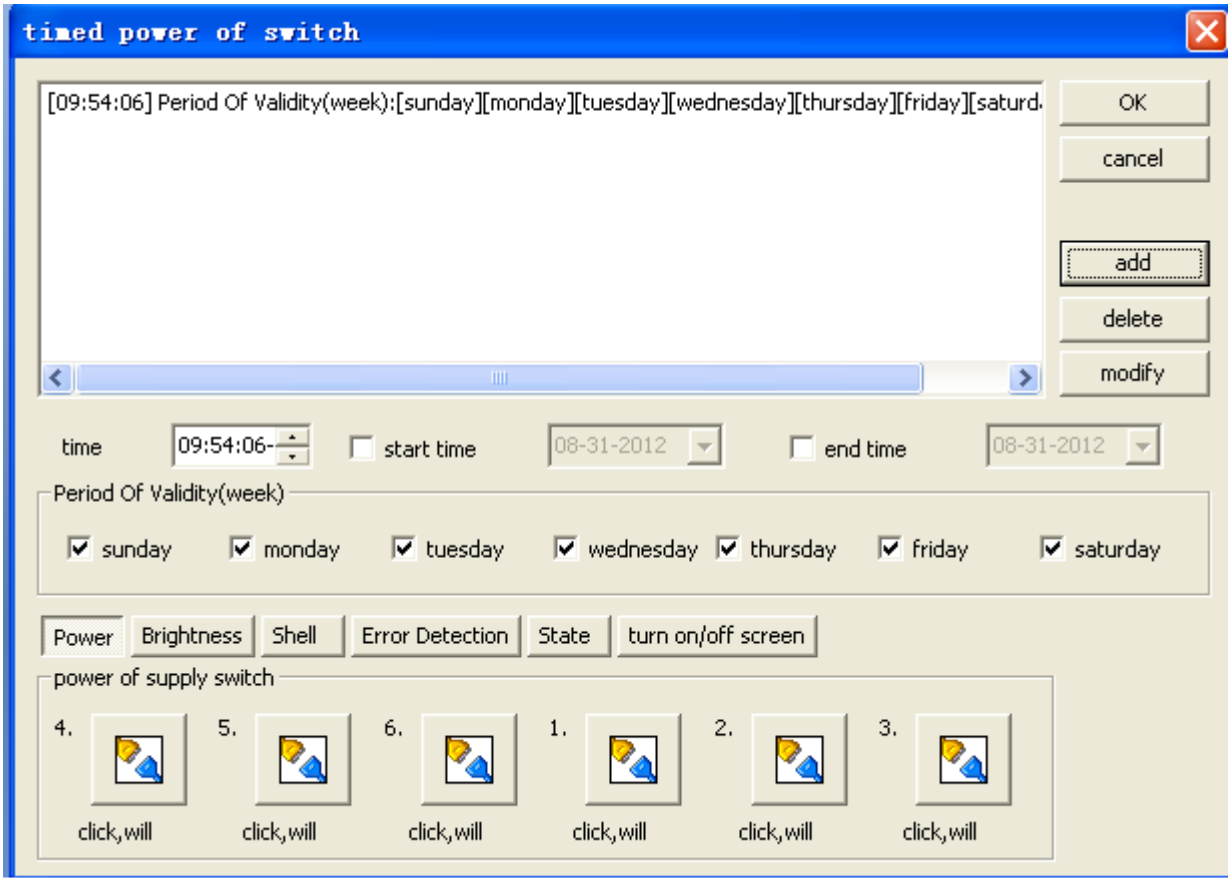
MATE function card：

(1)white green(2)orange(3)white blue(4)blue(5)white orange(6)green(7)white brown(8)brown

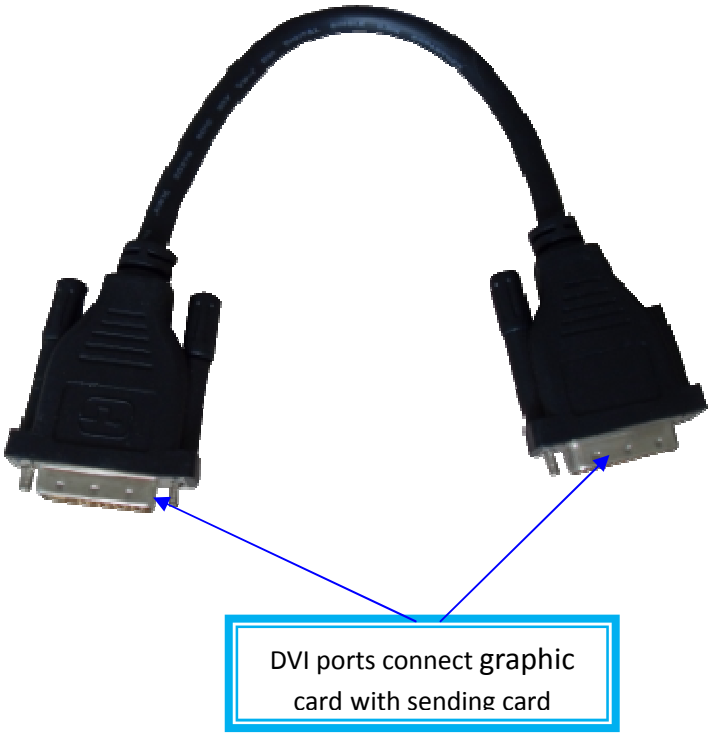
The header of sensor[SENSERout1.1]：

(1) white orange(2)orange(3) white green(4)blue(5) white blue(6)green(7)white brown(8)brown <will not support DS18B20>

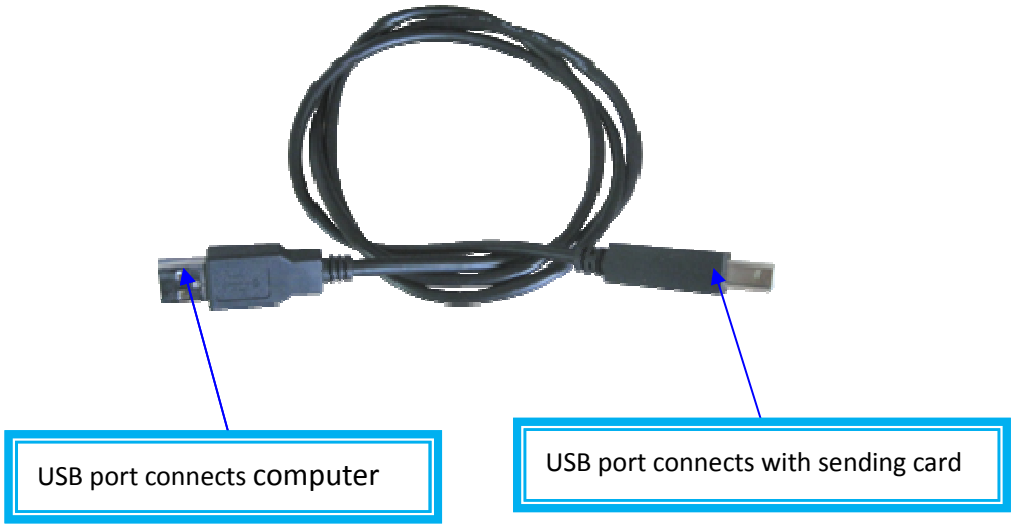
Attention：the function card R24，R25 should be welded 1K Resistance respectively ,SCM PIN25 and PIN26 short-circuit



6.1.3 The picture of DVI cable：



6.1.4 The picture of USB cable:



DVI cable must connect sending card with graphic card.

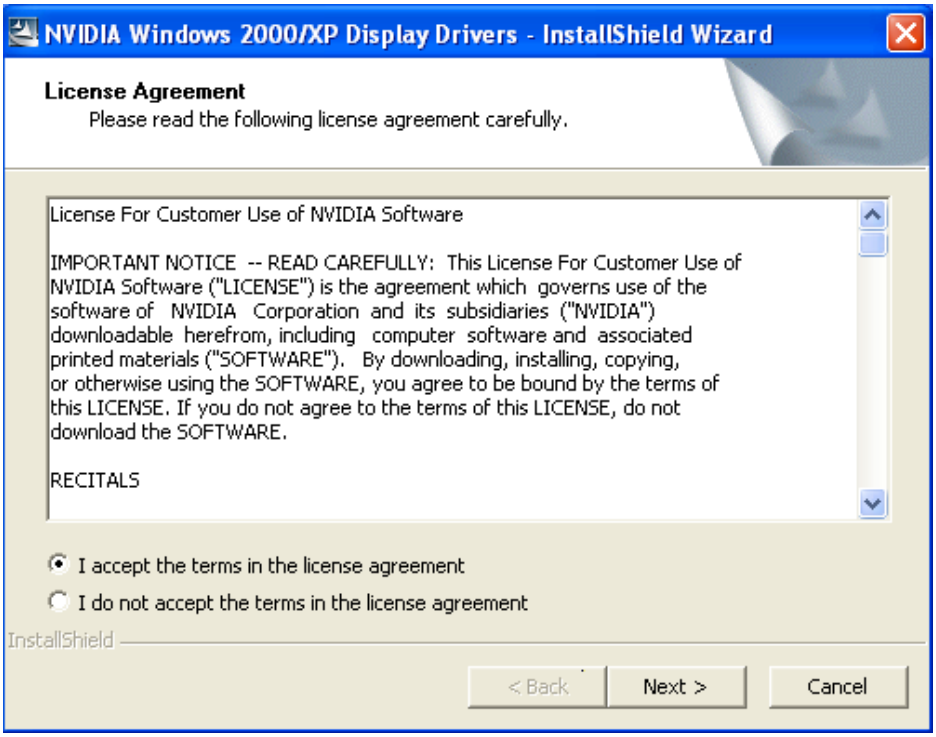
USB cable connects sending card with PC main board.

6.2 Software Install and Set up Introduction

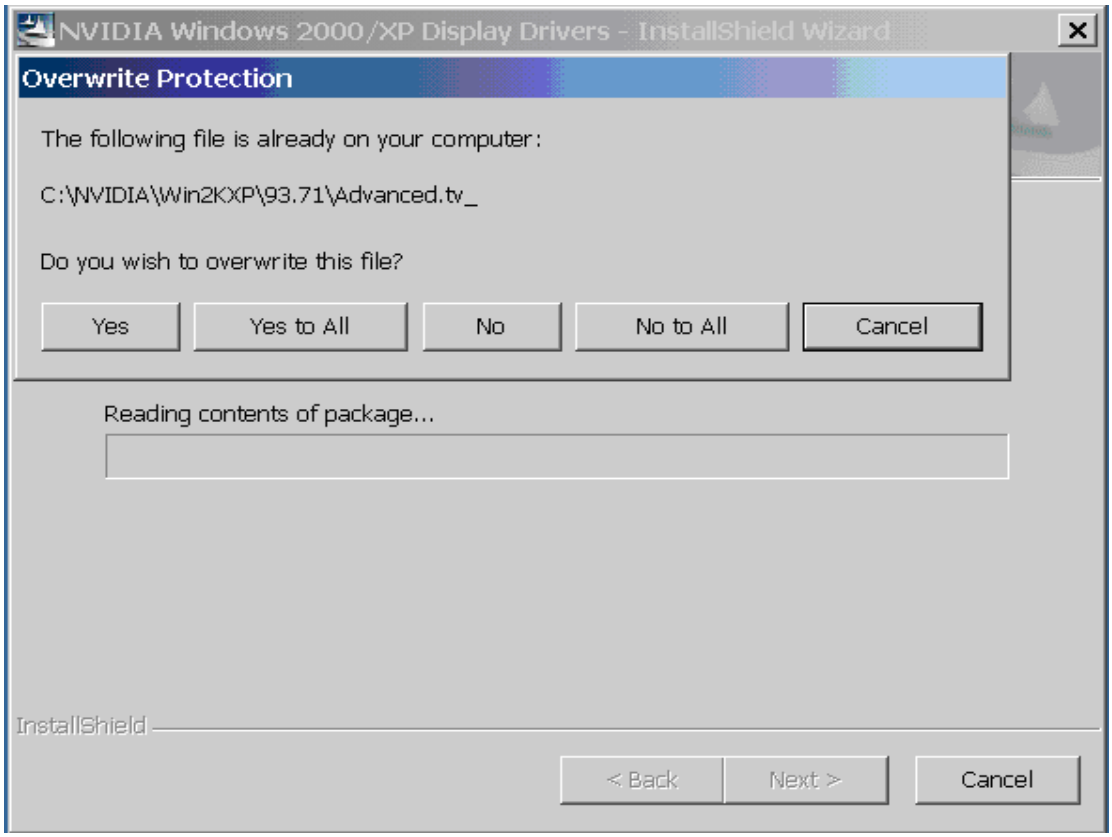
6.2.1 Install and Set up Display Card Driver

Step 1: Please put the “COLORFUL GRAPHICS CARD DRIVER” CD disk in CD-ROM， then the window box as below appears automatically. Or browse the CD and find the setup driver file to install.

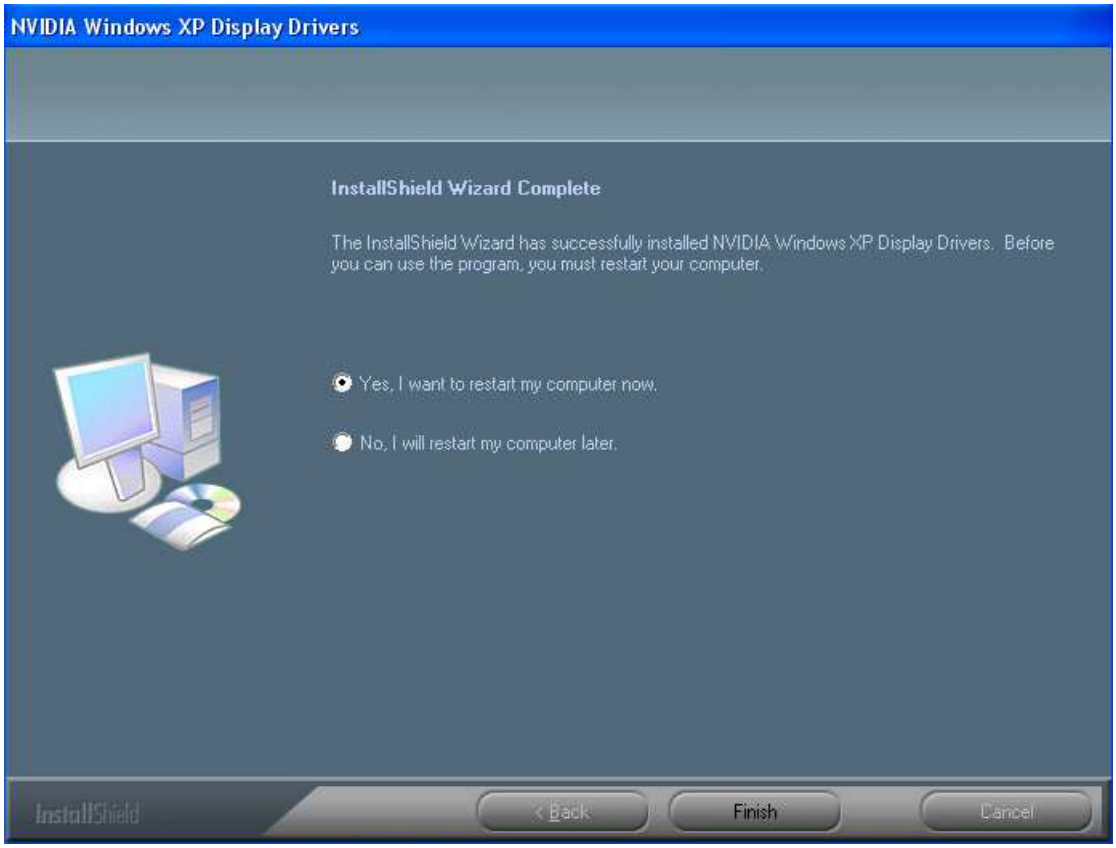
Step 2:Select “I accept the terms in the license agreement”, and click “Next”.



Step 3:Select Yes to All

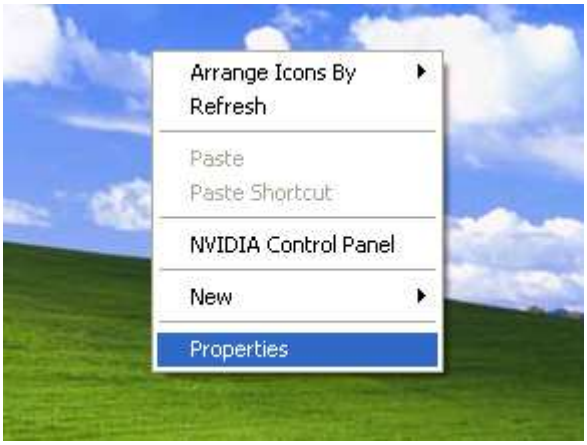


Step 4: After graphic card driver is installed, restart the PC.

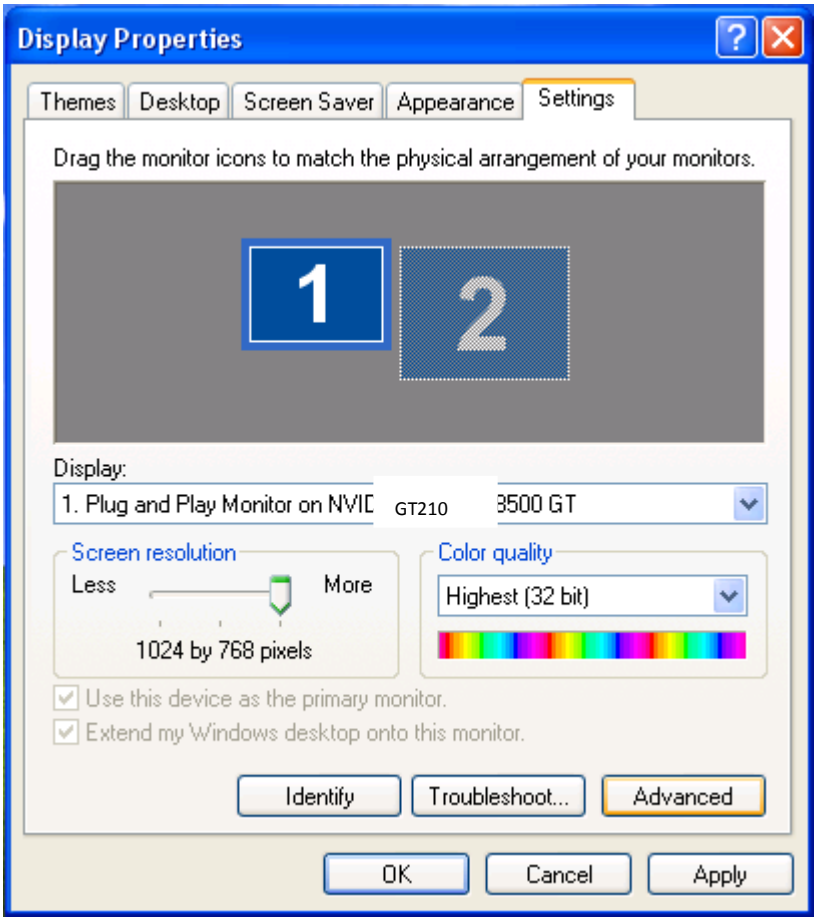


6.2.2 Setup Display card properties

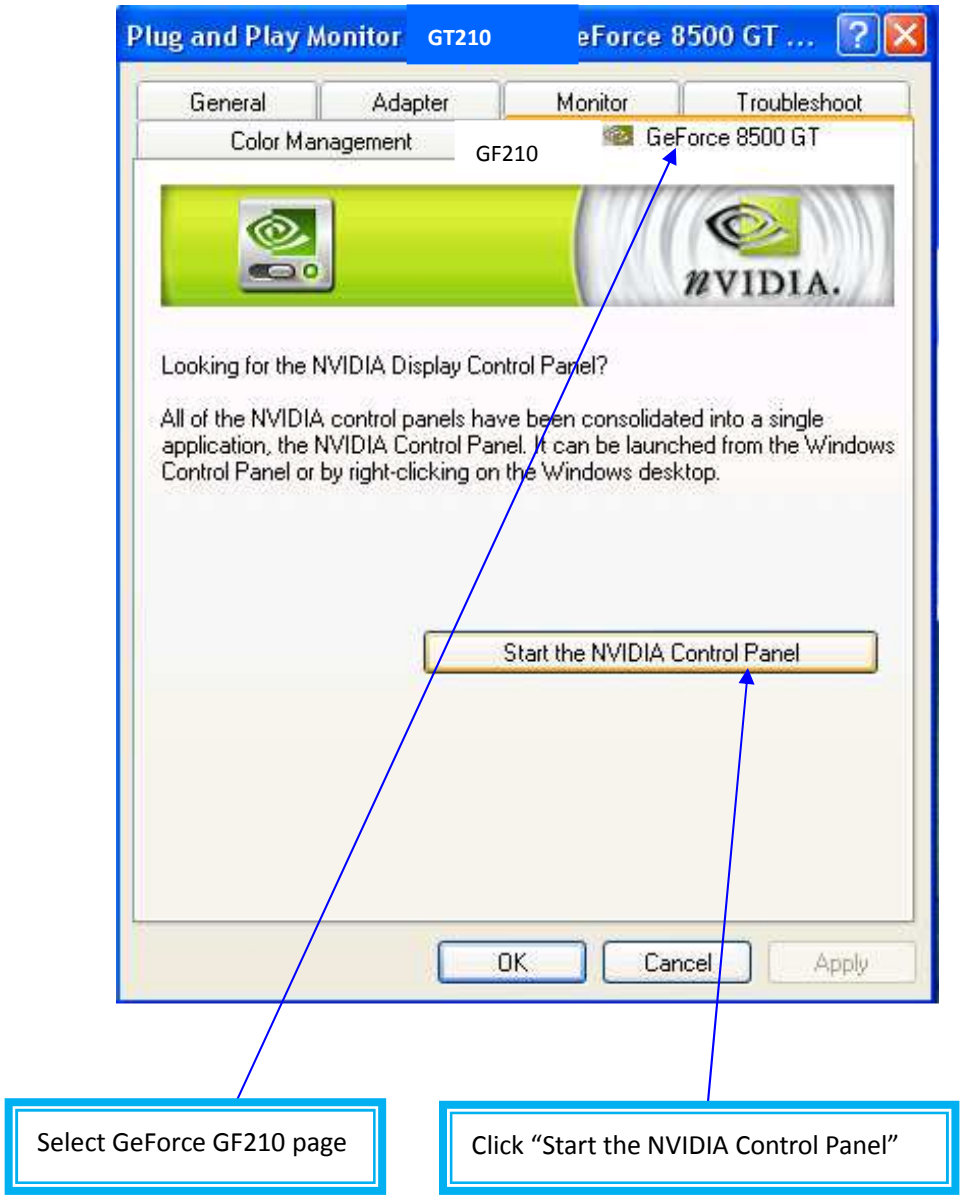
Step 1: Click the right button of the mouse on the desktop space, and select “properties”

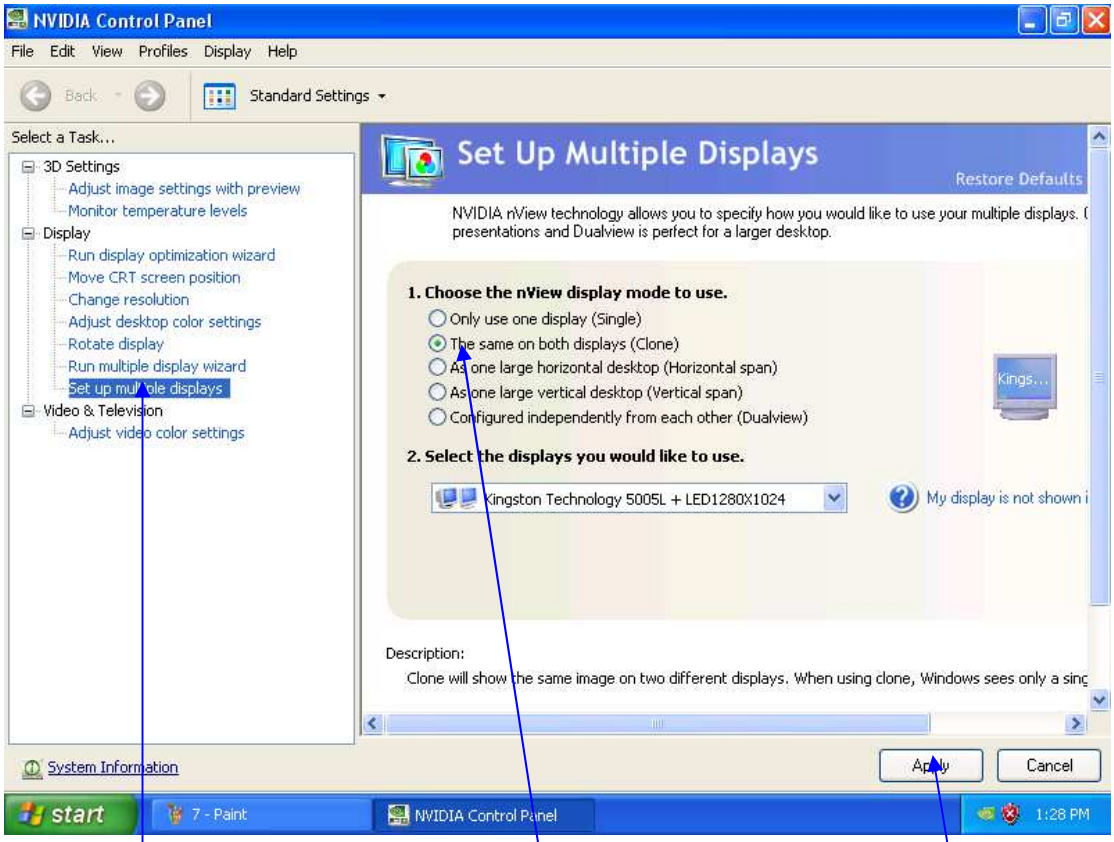


Step 2:Select “Settings” page, and click “Advanced” button.



Step 3:Click “GeForce GT210” button.





Select “Set up multiple displays”

For nView display mode, select “The same on both displays(Clone)

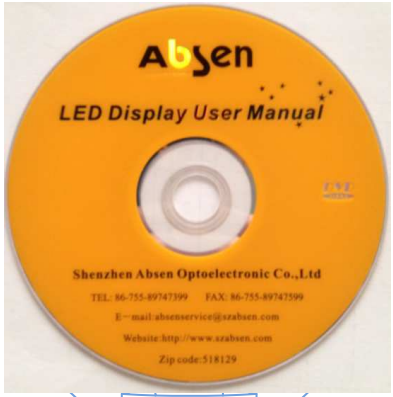
ck “Apply” and ick “Yes”.

After this step is finished, the signal LED (the green one) in sending card is flicker

Section 7: Software Operation Guide

7.1 Software Installation

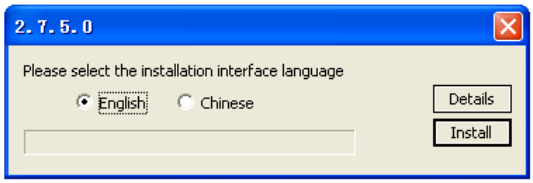
Step1: Open the ABSEN CD.



Step 2: Unfold " Software" file

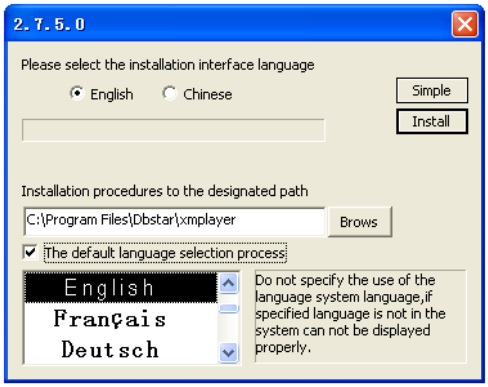
Step3: Install "XmplayerSetup"

Step 4:If only English language needs to install, installation can be carried out after selecting [English]

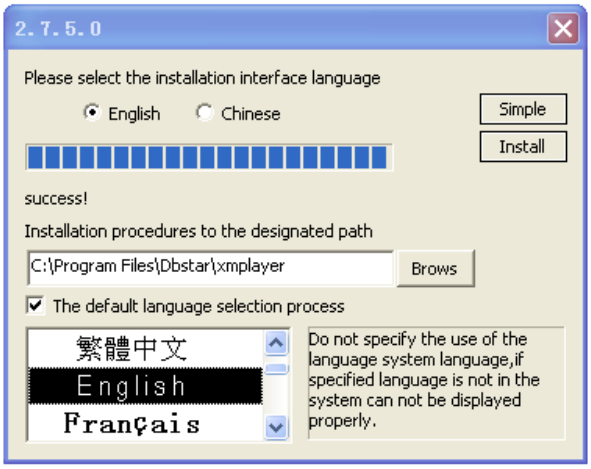


Step 5: If you intend to change the installation catalogue or other languages, select Details button and the following procedure will appear:select the installation path

Step 6: Select the language category

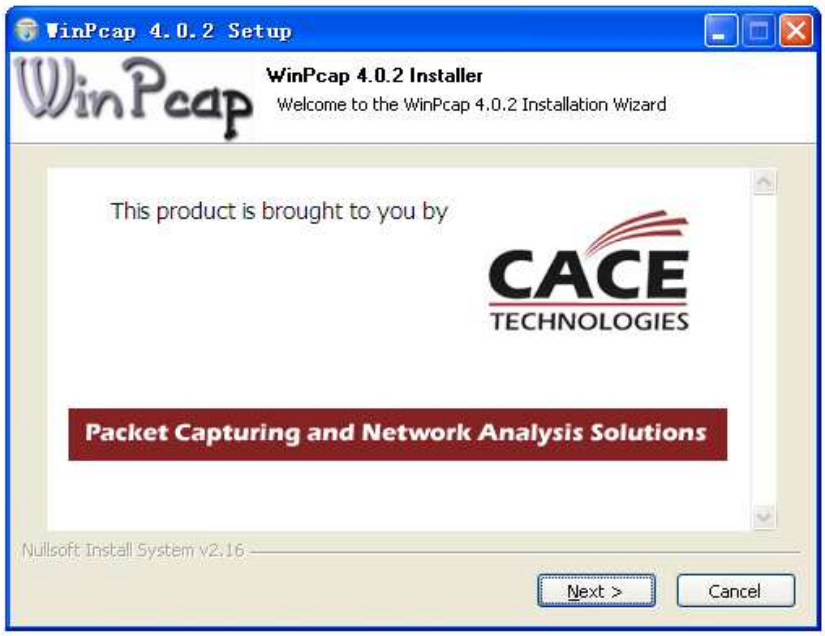


Step 7: Select the installation button 

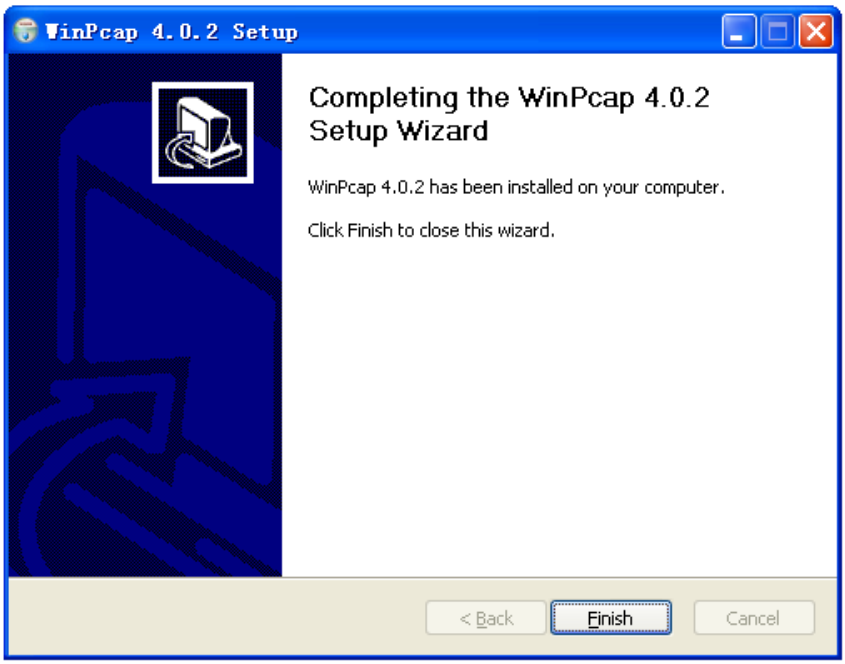


Step 8: Click OK when Wincap warning window shows up

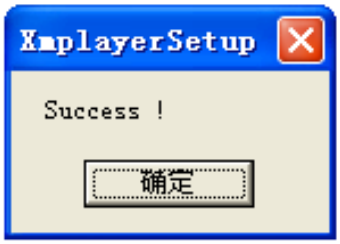
Step 9: next



Step 10: WinCap installation completed



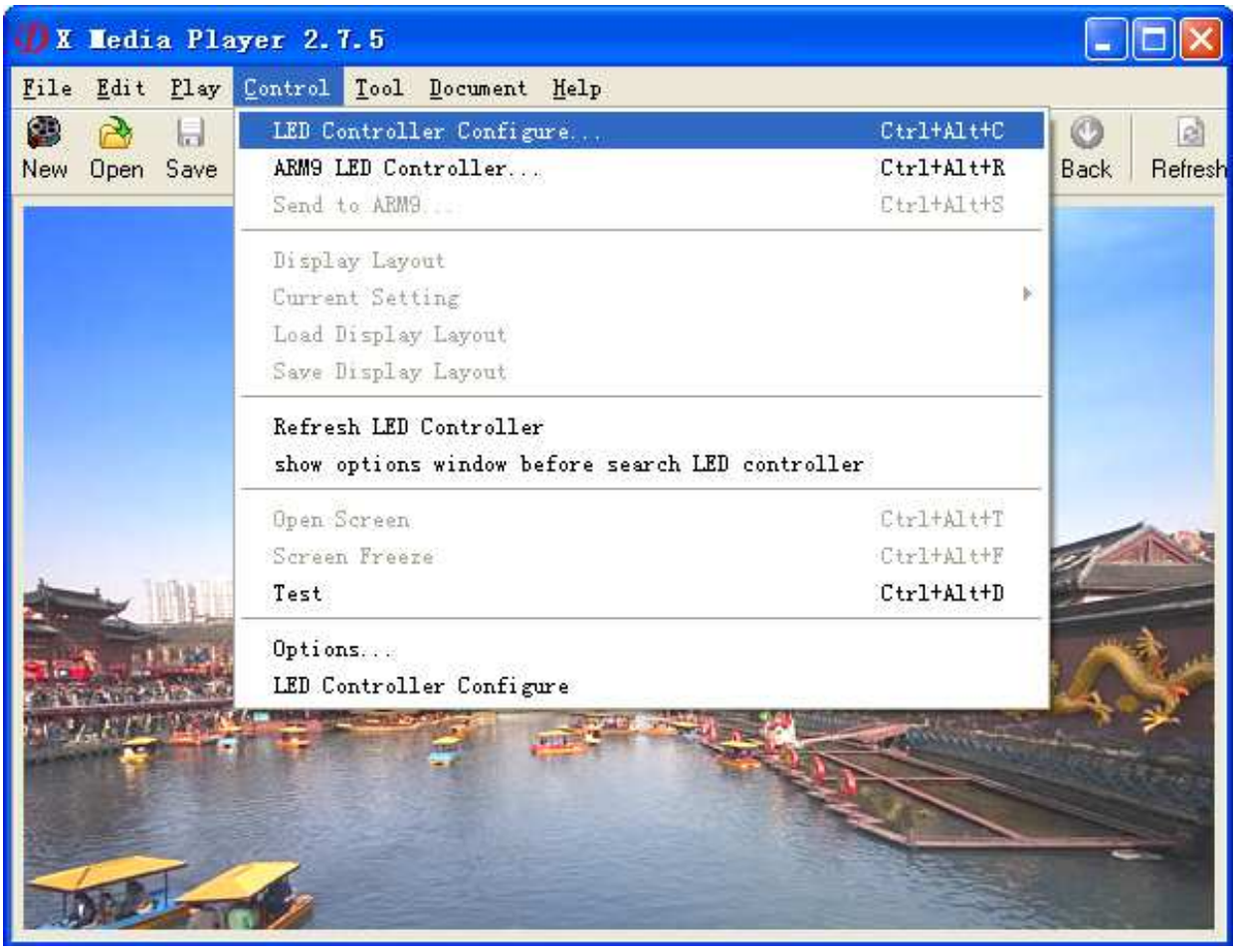
Step 11: XMplayer installation completed



Step 12: XMplayer shortcut shows up in the desktop.

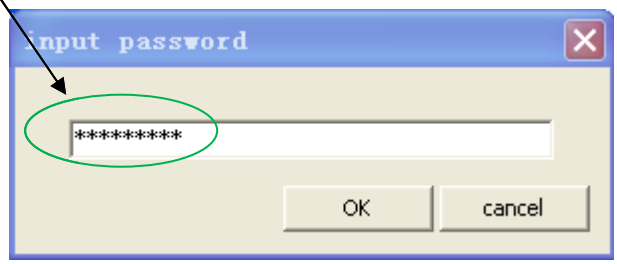
7.2 Load from file

Step 1: Open Dbstarled software, select “Control”, and then select “ LED Controller Configure... ”.

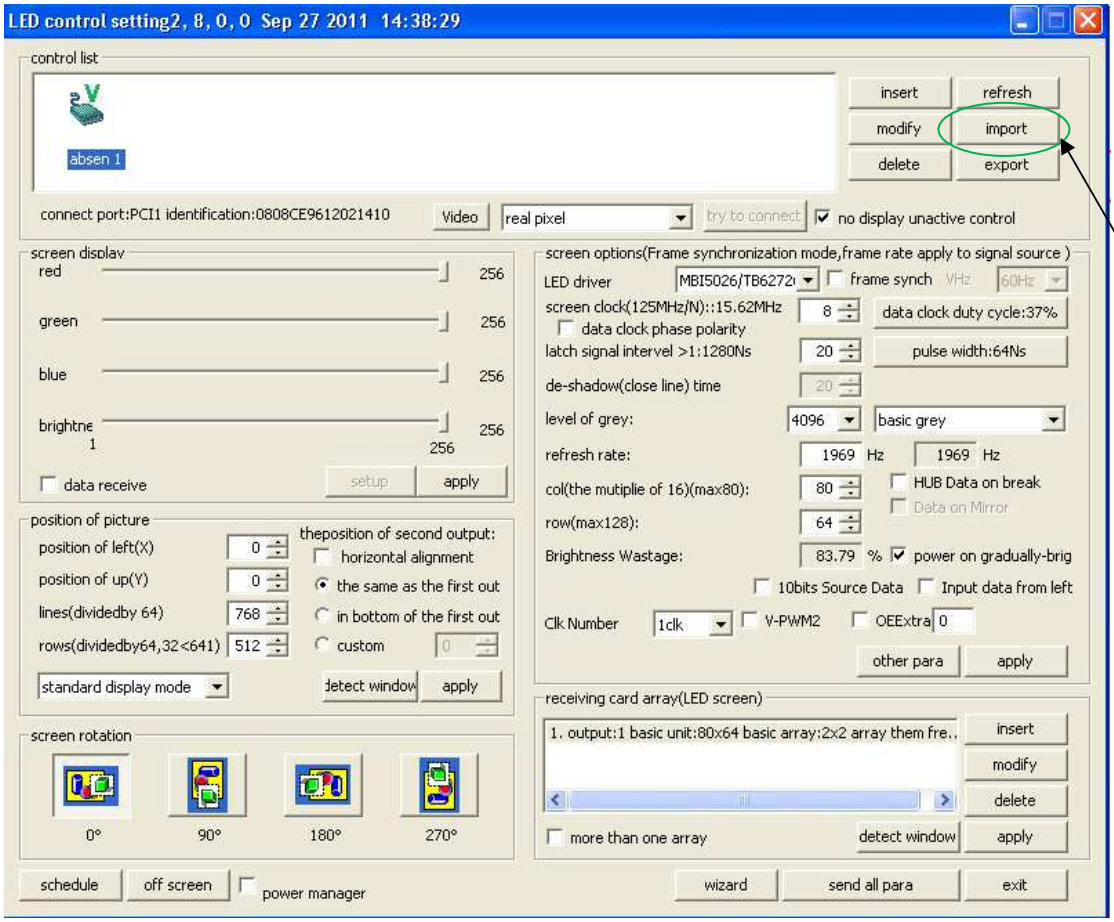


Step 2: Click 

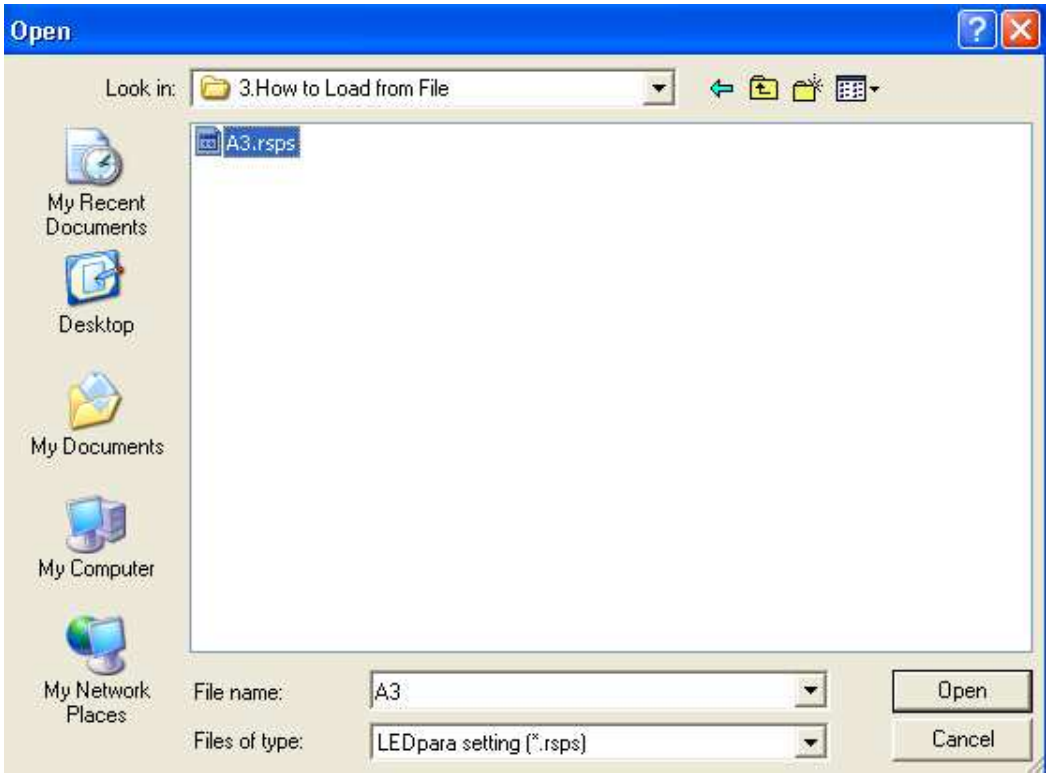
Step 3: Input password "**dbstarled**", Then click "OK"



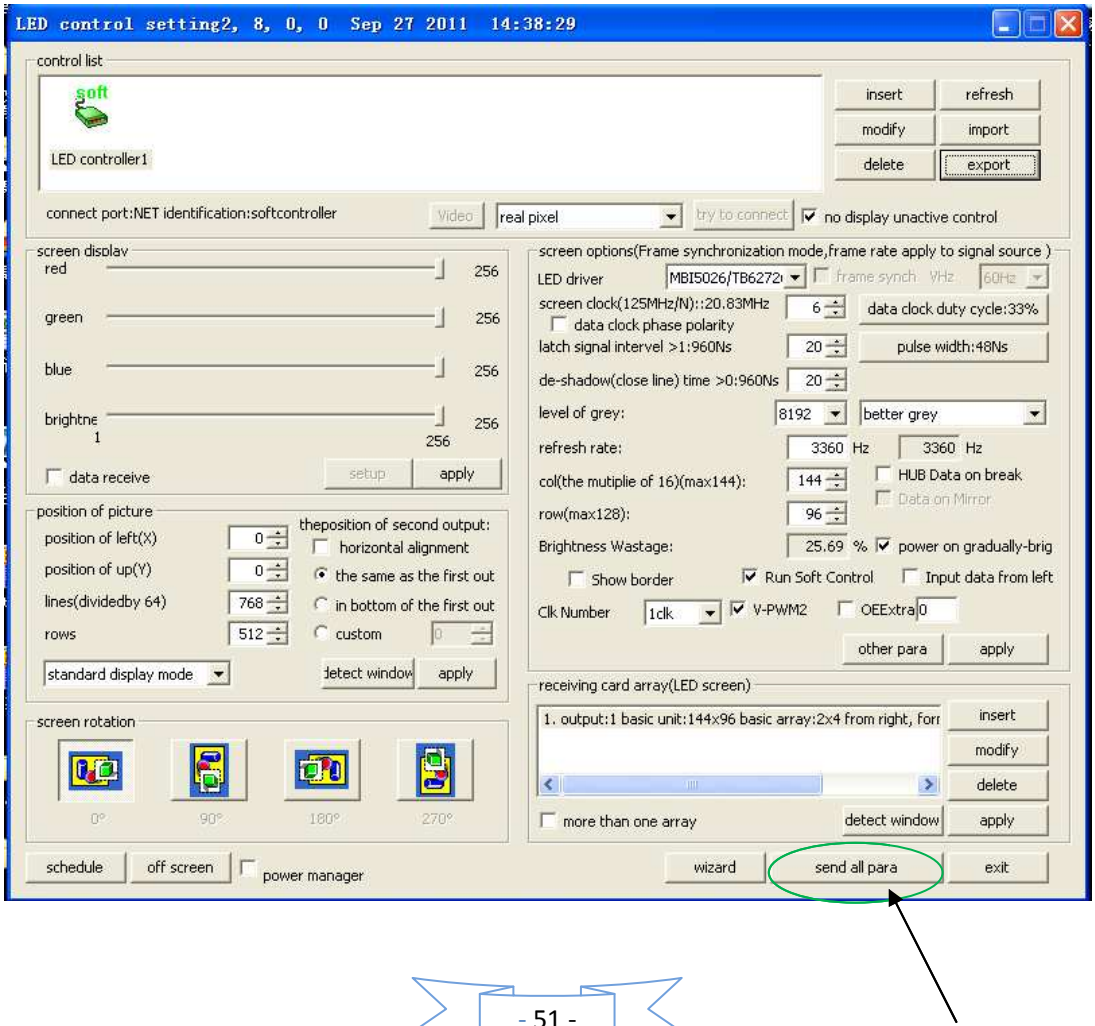
Step 4: Click" import "



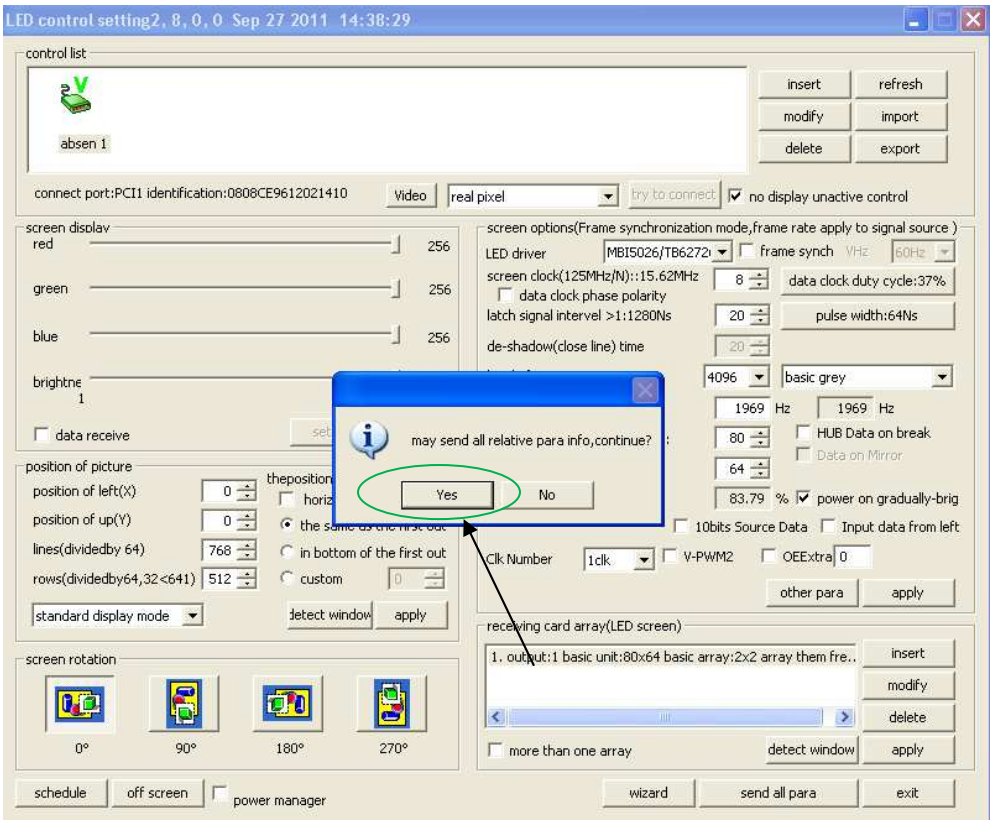
Step 5: Choose the corresponding receiving card file "**.rsps**"(in the ABSEN CD) of the LED screen. And open it.



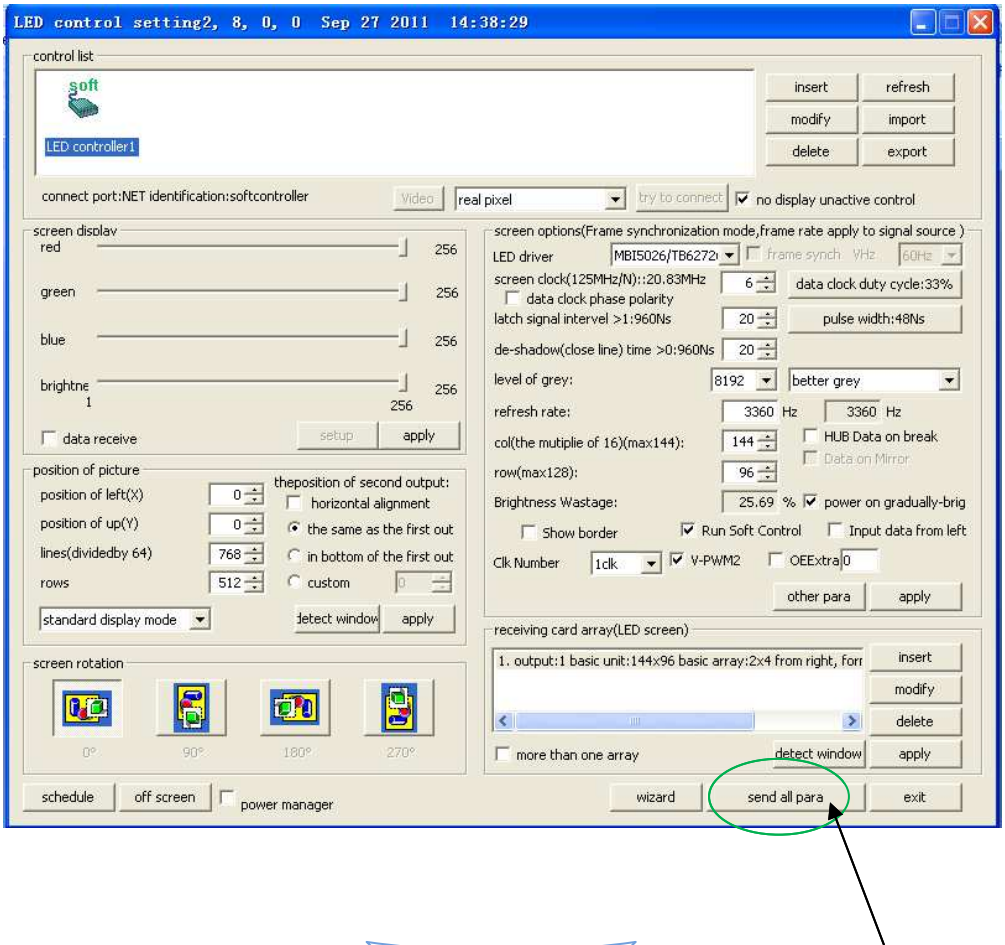
Step 6: Click “send all para”.



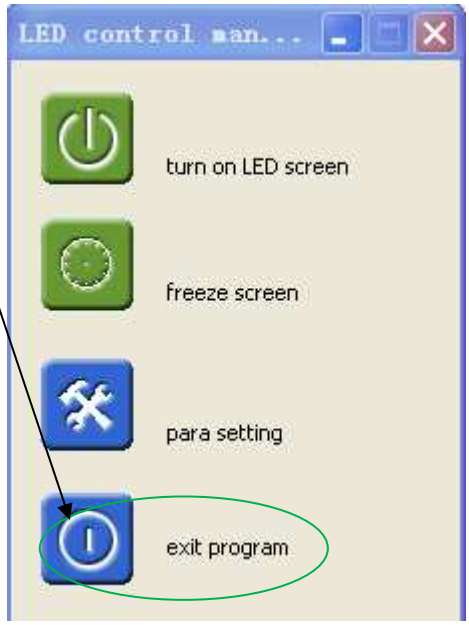
Step 7: Click “Yes”.



Step 8: Send complete. Click “exit”.

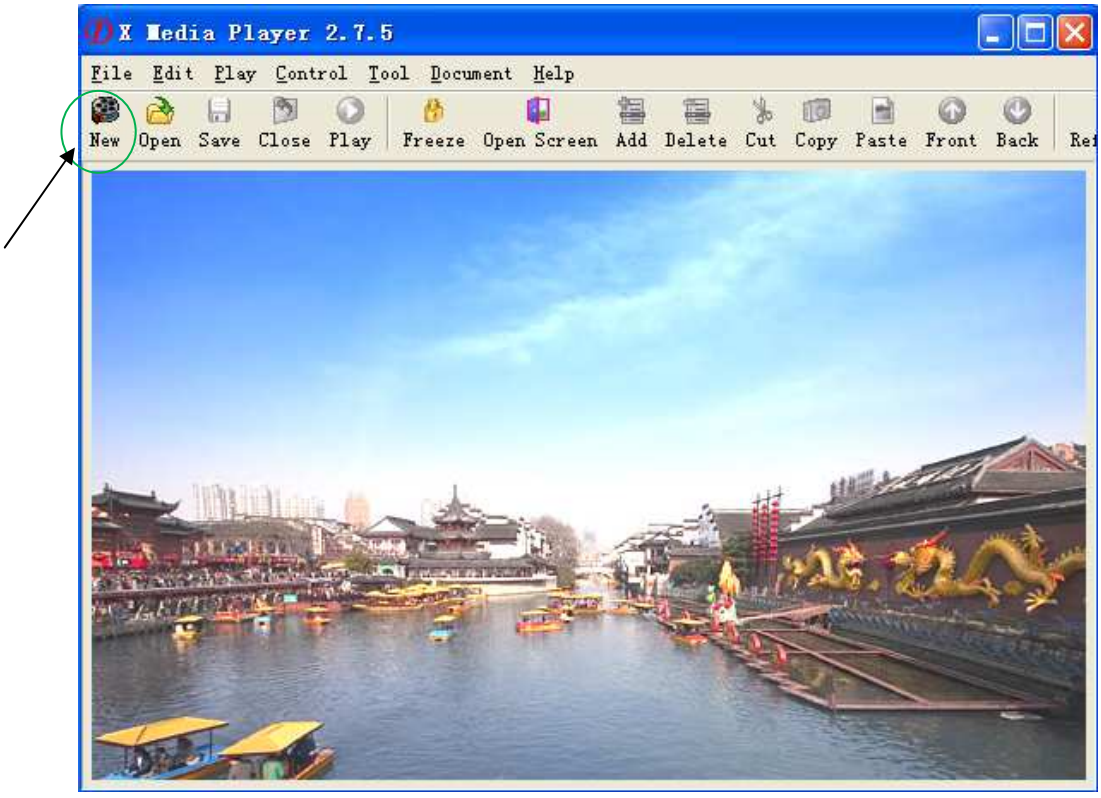


Step 9: Click “ exit program ”.

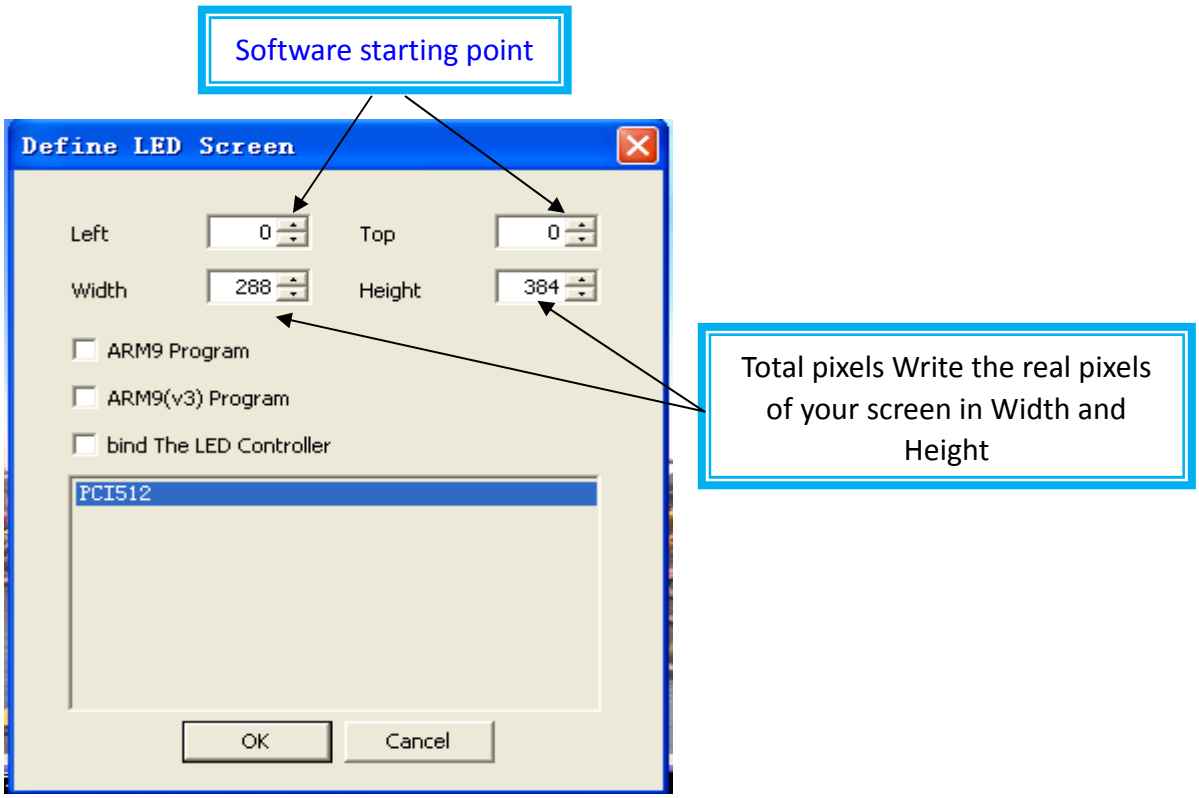


7.3 Program Editing

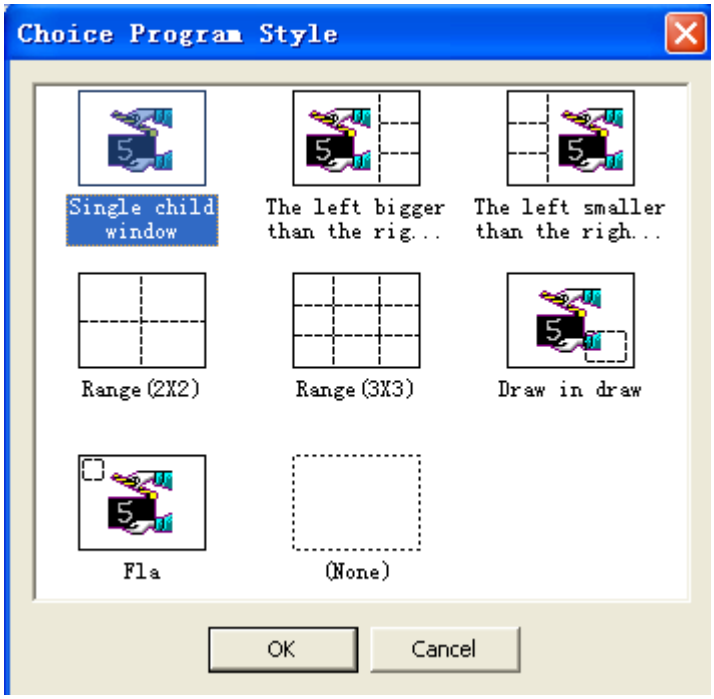
Step 1: Click on the “ New ” button.



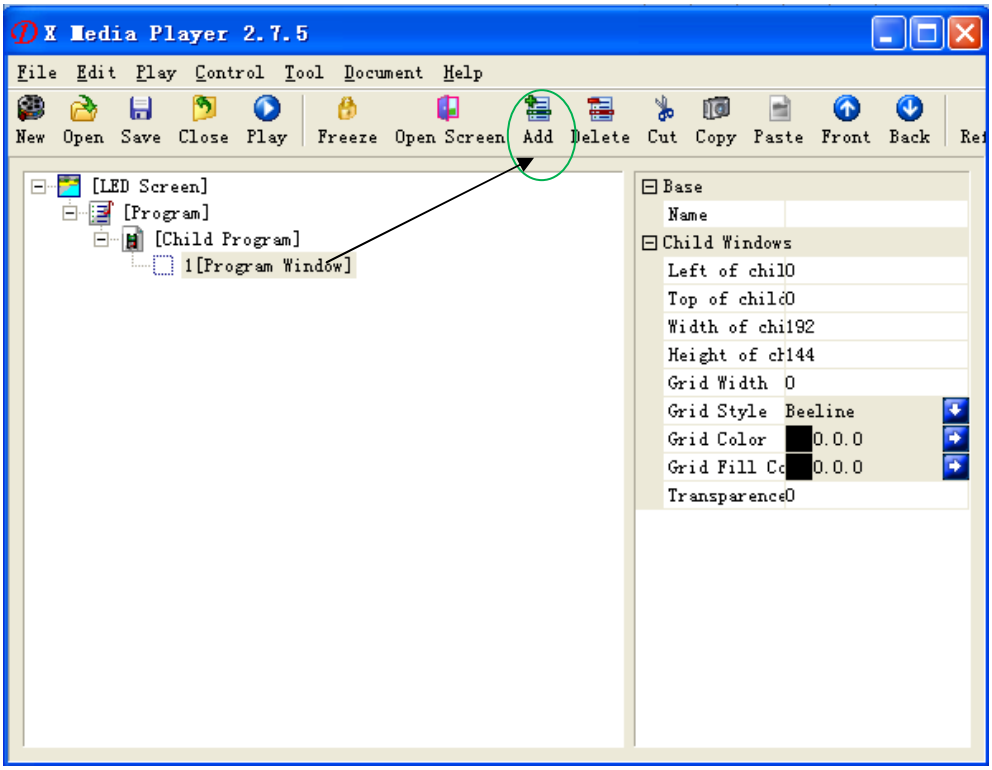
Step 2: Set up starting point and LED display Width, Height. Click “OK”



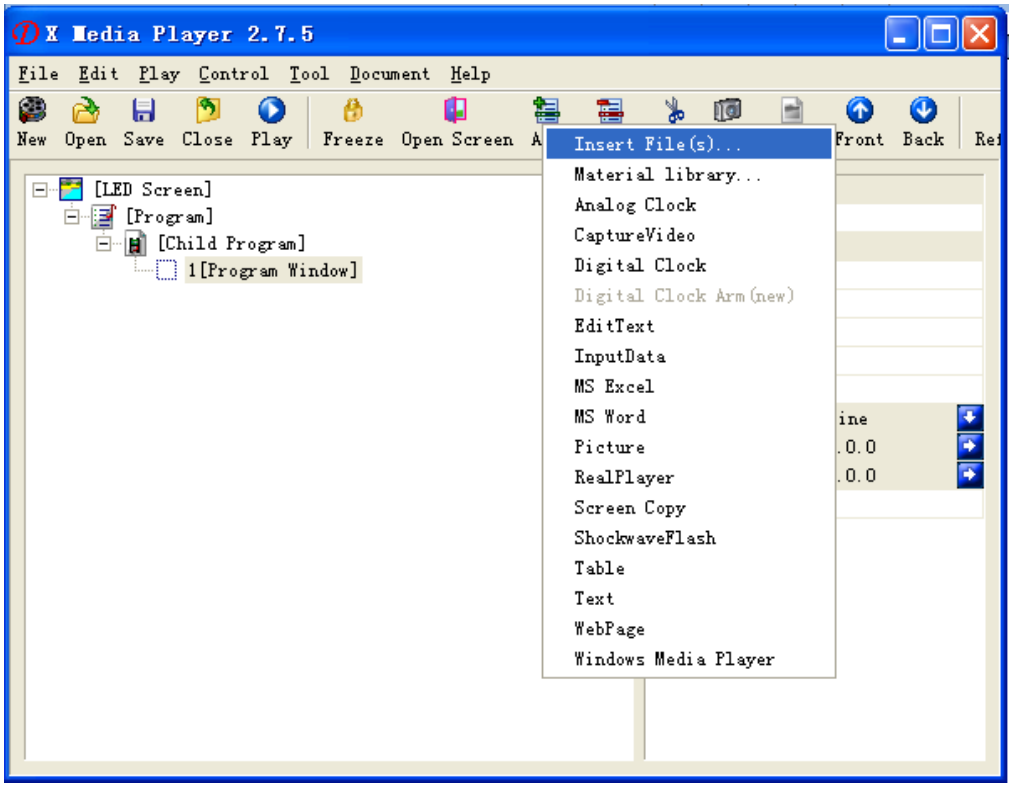
Step 3: Choose the need of the interface. Click”OK”



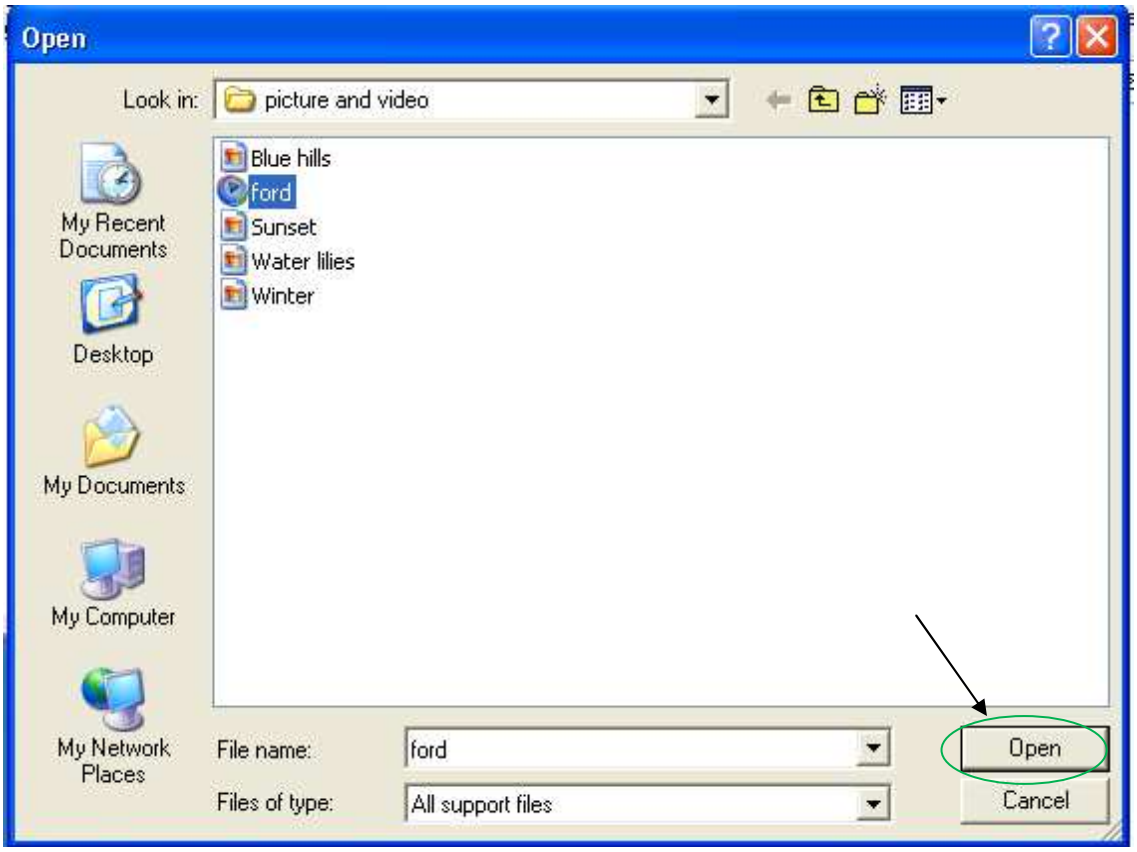
Step 4: Click 



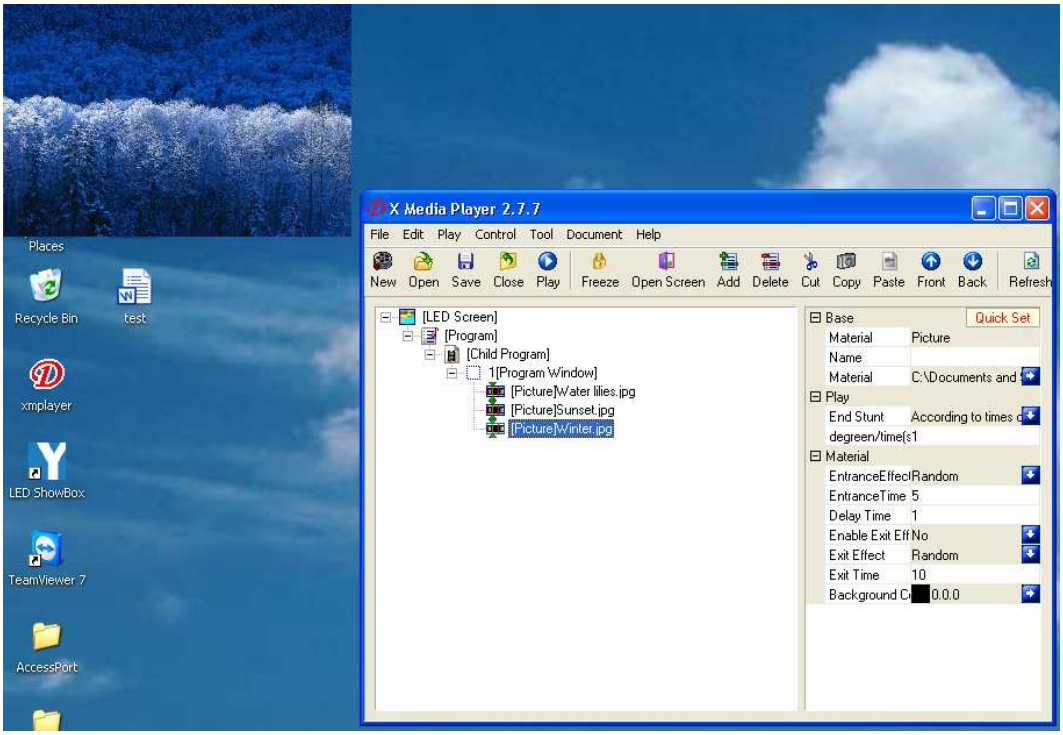
Step 5: Click”Insert file…”



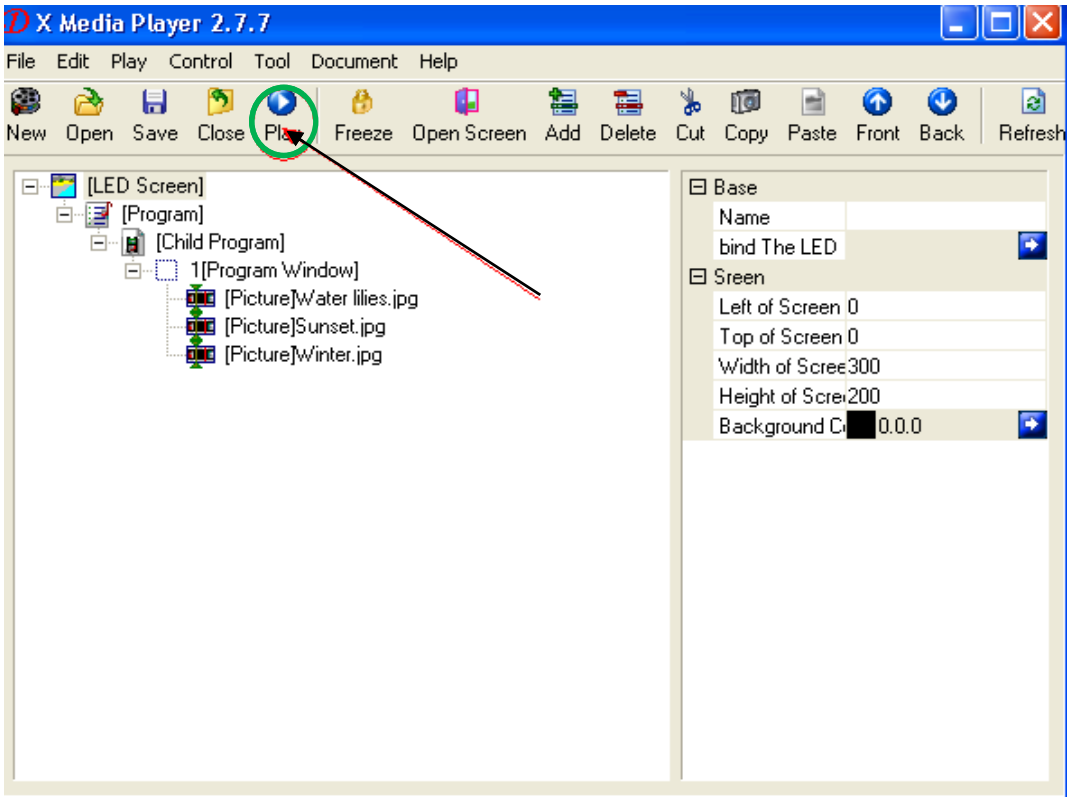
Step 6: Open the program file which you want to play.



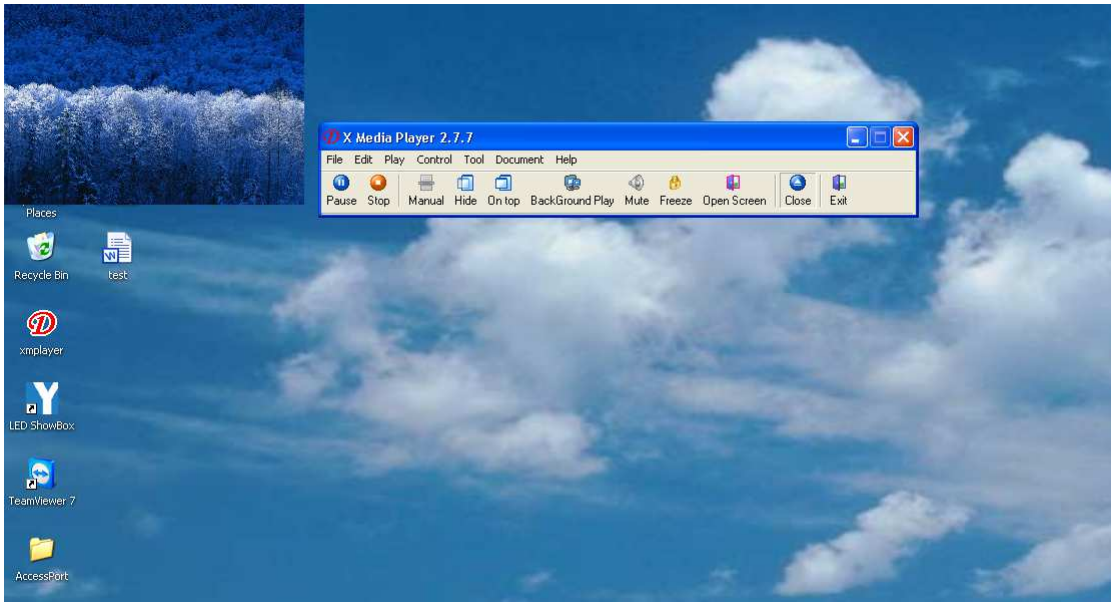
Step 7: You can insert more videos or pictures to play.



Step 8: After finished inserting the videos you want to play. click"play"button to play the program.



Step 9: At last, the screen can play the program.



Section 8: Maintance and Trouble Shooting

8.1 A Series of die casting Trouble shooting

During LED display working time, there may be some problems with LED display, so we need to find out the problem and try to solve, we provide some common problems and solution.

8.1.1 The whole screen doesn’t show, but the indicator green light for signal of the sending card is flashing

Possible reasons:

1) No AC power input
2) The network cable doesn’t connect well
3) The first receiving card no power input or the voltage is very low
4) The sending card is out of order
5) Locked the play content of the screen in the software and the content is black

Solutions:

1) Check the power of first receiving card
2) Check RJ45 connector and network cable connection from sending card to receiving card.

8.1.2 The whole screen and the indicator green light for signal of the sending card don't flicker.

Possible reasons:

1) DVI cable doesn’t connect well.
2) The setting of the Graphic card working mode is not correct.
3) Selected turn off LED screen power.
4) The sending card is out of order.

Solutions:

5) Check DVI connection
6) Re-setup the working mode of graphic card
7) Select turn on LED screen power
8) Change the sending card

8.1.3 LED screen system not found

Possible reasons:

1) USB cable doesn’t connect well with the sending card
2) USB port of the PC is broken
3) USB cable is broken
4) The sending card is out of order

Solutions:

1) Re-connect the USB cable
2) Change the control PC
3) Change the USB cable
4) Change the sending card

8.1.4 One row of module don’t work

Possible reasons:

1) Flat cable doesn’t connect well
2) The signal output of the former module is out of order or the module input port is out of order

Solutions:

1) Re-plug or change the flat cable
2) Change module

8.1.5 Some of module don't work in one panel

Possible reasons:

1) The power supply is in protection mode
2) The power supply is broken
3) AC power cable doesn’t connect well

Solutions:

1) Turn off the power, remove the fault condition of the power supply, then turn on the power again
2) Change the power supply
3) Re-connect the power cable and tight the screws

8.1.6 The whole screen is flickering

Possible reasons:

1) 220V power cable doesn’t connect well
2) The network cable which input to the receiving card is out of order
3) The receiving card is out of order

Solutions:

1) Check the AC power cable, and reconnect
2) Change the network cable
3) Change the receiving card

8.1.7 Each panel shows the same picture

Possible reasons:

1) There is something wrong on the setup of software

Solutions:

1) Re-setup the “display connection” with LED software. When do this setup, the network cable output from sending card must in the output port near to the LED of sending card.

Section 9: Main Parts & Parts Replacement

9.1 Introduce the power supply connecting cable

Pay attentions:

A. Must be turn off the power before replace the power supply;
B. Be careful、Be gently;
C. When change the power supply, don’t forget to check again.

Section 10: Service Introduction & Contact Number

10.1 Contact of After-sale Service

You could contact our After-sale Service Dep. by the following ways:

Work time（8：30-12：00，13：30-17：30）

After-sale service tel：0755-89747873

Online Contact:

After-sale service e-mail：absenservice@szabsen.com、service@szabsen.com

MSN：absenservice@szabsen.com，service@szabsen.com

10.2 Ways of After-sale Service

You can reach the after-sale service in the following ways:

A. Telephone Service

You will have our 24 hour telephone service. Please inform us the following information when you contact us:

1）Your contact person & tel

2）No. Of your warranty card

3）Detailed failure information (as for display problem, please enclose the photo of the problem if possible)

You will be provided with technical support and direction according to your feedback.

B. Real Time Service

You will be served in the ways of TM, e-mail, MSN, etc., such as, sending video direction of software using and display card setting by TM.

C. Remote Control Service

Through our remote control service, you will have our help on software setup and setting, and system software failure dispelling.

D. Mail Service

Within the warranty period, you could send the failure part to our company by mail, before mail, please confirm the mail address with sale manager, and we will mail the repaired one back to you when we finish the repair and testing.

Response Time for Usual Spare Parts

Spare Part	Response Time
Display Card	Mail back within 2 workdays
Sending Card	Mail back within 2 workdays
Receiving Card	Mail back within 2 workdays
Power Supply	Mail back within 2 workdays
Module Driving Card	Mail back within 3 workdays

E. Onsite Service

If necessary, we will provide you onsite service to meet your requirement.

10.3 Scope of After-sale Service

The scope of our after-sale service includes: failures of the hardware, socket and connectors, control system, control software and other ancillary facilities of the display. Within the

1.Failures of the module, power supply and fan of the display 2.Failures of the display control system(including Graphic card, sending card and receiving card) 3.Failures of the panel cables 4.Failures of the software	Service for free within the warranty period
1.Display failures caused by other reasons except construction of our company(for example, structural renovation, etc.) 2. Man-made display failures 3. Display failures caused by nature	Paid service within the warranty period

warranty period, we will provide the service for free or paid as the followings:

10.4 Failure rank judging and dealing

The methods of failure rank judging and dealing are provided as followings according to the

characters of display failures：

Failure Rank	Rank Judging Standard	Dealing Methods
Rank A	Failures of socket, connectors and control software	Remote tel or online service
Rank B	Broken module, power supply, receiving card, sending card and display card	Mail service
Rank C	Large-scale broken modules or power supplies	onsite service
Rank D	Burning power lines or large-scale modules	onsite service

10.5 Time Limit and Report Formality of Failure Confirmation

Time Limit	Failure Rank			
	Rank A	Rank B	Rank C	Rank D
1 hour				Customer Service Manager
4 hours		Customer Service Engineer	Customer Service Director	Vice President
12 hours	Customer Service Engineer	Customer Service Director	Customer Service Manager	General Manager
24 hours	Customer Service Director	Customer Service Manager	Vice President	
48 hours	Customer Service Manager			
72 hours				

Notice: The time limit of failure rank D is measured by running days while that of failure rank A, B, C is measured by workdays. The process of failure judging is executed by both of you and us, which asks for your cooperation. We will not be able to confirm the above formality without your working together.

10.6 Special Event Support

Engineers of our company could be dispatched for onsite technical support on your expense, if it is necessary for you in the important event.

10.7 Service Confirmation Formality

1. Please show your warranty card when the door-to-door service is provided. After the repairing, the engineer will fill in a piece of onsite repairing form which needs your sign for confirmation. In order to offer you timely service, please keep your warranty card appropriately. And reapply for a new one if the warranty card is lost.

2. If it is not within the warranty period, service will be provided as paid one

10.8 Notice on After-sale Maintenance

1. Untrained technician is not allowed to do any parameter setting of the display (maintenance setting and intelligent software upgrading could be conducted under the direction of our engineer)

2. Background play in the software is prohibited.

3. Spare part changing with power is prohibited.

4. When powering on the display, turn on the control computer first and then turn on the display after the computer operates stably. When powering off the display, turn off the display first and then turn off the control computer.

5. White image play for a long time is prohibited.

6． Indoor display is not allowed to be installed in wet environment. Water entering inside the d isplay or steam on the surface of the display is prohibited. Touch on the surface of the display is also prohibited.

7． After the installation, water leakage should be checked at the first several rains. Regular check is required.

8. The operating temperature of the display is -20°C-30°C（inside the display）. Air-conditioner of different power consumption should be installed according to the size of the display. And regular check on the operation of the air-conditioner should be conducted to make sure timely trouble shooting and equipment changing.

9. Regular clearing of the display is required. Below is the clearing standard:

A. If the front side of the display is dusty, it could be washed by running water. However, please prevent the water from in pouring.

B. The inside of the panel and the structure requires dust clearing every half a year

10.9 Service Supervision

Please do not hesitate to contact with the service supervision dept., if you are dissatisfied by the service:

Email: absen137@szabsen.com, cs@szabsen.com

Tel: 400886069