Specification For

55 Inch LCD Monitor

Buyer:

Model: LT55BN93L

December, 2014

CONTENT

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Warning: Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

☐ Reorient or relocate the receiving antenna.
☐ Increase the separation between the equipment and receiver.
☐ Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
☐ Consult the dealer or an experienced radio/TV technician for help.

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1. General Description

This product is used to display an image, using a DVI cable to connect the game console.
This product uses DC 24V(6A) and DC 12V(2A) power supply.

The main components	
AD Board	M.RT2261.5B
LCD Module	LG Display LC550DUN/DUE
Frame	SECC 1.2mm thickness

2. Product Specification

Panel	Display type	TFT LCD
	Backlight type	WLED Light bar
	Dead dot	Less than 3
	Aspect ratio	16:9
	Pixel Format	1920 horiz. by 1080 vert. Pixels
	Luminance, White	300 cd/m2 (Center 1 point ,Typ.)
	Contrast Ratio	1200:1(Typ.)
	View angle(CR>10)	R/L 178 (Min.),U/D 178 (Min.)
	Surface Treatment	Hard coating(2H), Anti-glare treatment of the front polarizer (Haze < 1%)
	Response Time(Gray to Gray)	6ms(typ.)
	Color Depth	8bit, 16.7Million colors
Signal Input	VGA （D-Sub 15）	640x480/720x400/800x600/1024x768/ 1280x1024/1280x720/1280x768/ 1360x768/1920x1080 Refresh rate 60Hz
	DVI-D	
Power Supply	Power Consumption	Less than 2 Watt (Standby) 110 Watt (typ) Less than 120 Watt (max)
	Power Input	DC12V±10%/ 2A & DC24V±10%/ 6A
Outline Dimension (mm)		1274.6(L)x748.9(H)x92(D)
Net Weight		28.5Kg
Operating Temperature		0~50°C
Storage Temperature		0~60°C
Operating Ambient Humidity		10%RH to 90%RH
Storage Humidity		10%RH to 90%RH

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3. Power supply connector

Connector type: YLR-06V
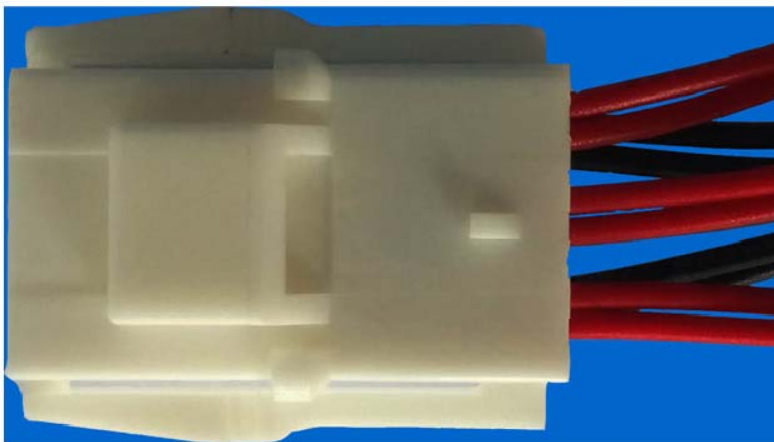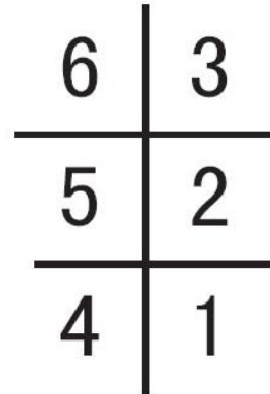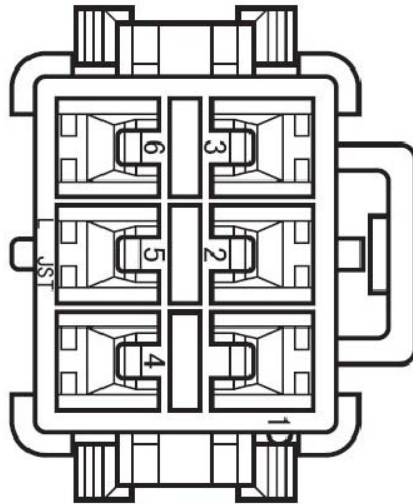
Pin configuration

No	Description	Color of wire
1	+12V	RED
2	+24V	RED
3	+24V	RED
4	GND(12V)	BLACK
5	GND(24V)	BLACK
6	GND(24V)	BLACK

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4. Image signal input interface

DVI-I input

VGA input

AD Board box

VGA (DSUB-15)

DVI-I
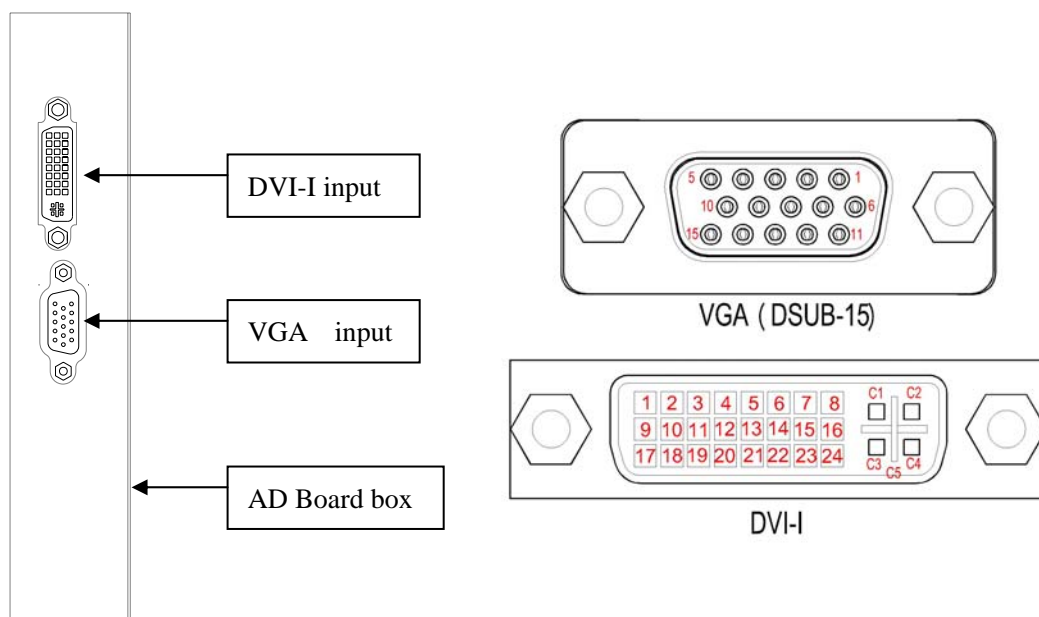
Pin configuration of VGA interface

Pin No.	Pin description	Pin No.	Pin description
1	Red	9	DDC 5V
2	Green	10	GND for Sync.
3	Blue	11	ID0
4	ID2	12	ID1(SDA)
5	GND for Data	13	H. Sync.
6	GND for Red	14	V. Sync
7	GND for Green	15	ID3(SCL)
8	GND for Blue		

Pin configuration of VGA interface

Pin No.	Pin description	Pin No.	Pin description	Pin No.	Pin description
1	D2-	9	D1-	17	D0-
2	D2+	10	D1+	18	D0+
3	D2/D4 Shield	11	D1/D3 Shield	19	D0/D5 Shield
4	D4-	12	D3-	20	D5-
5	D4+	13	D3+	21	D5+
6	DDC Clock	14	+5V	22	Clock Shield
7	DDC Data	15	GND for +5v	23	Clock+
8	Analog V._Sync.	16	Hot Plug Detect	24	Clock-
C1	Analog Red	C2	Analog Green	C3	Analog Blue
C4	Analog H._Sync.	C5	Analog GND		

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5. Keyboard Operations Guide
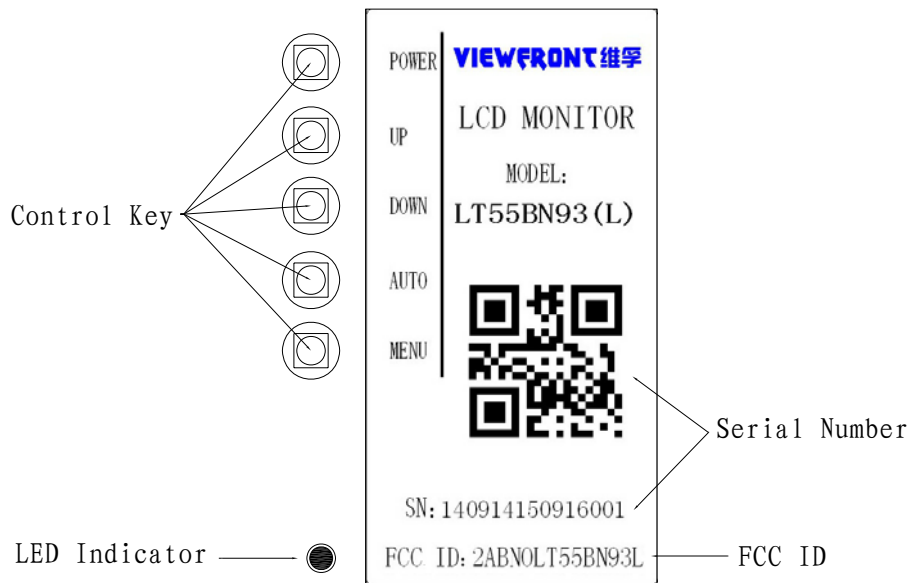
a. Auto configuration (VGA input only valid)

When monitor connected to the VGA signal and power on, it will automatically adjust the image to the optimum image center / magnitude / phase and so on. If the center of the image and the magnitude is not the best, press the "Auto" key, the monitor will automatically adjust the image again.

b. Auto color management (VGA input only valid)

When replacing the VGA signal source, VGA tricolor input reference level changes. Then monitor need to automatic color correction. When the image is black and white content, press the "Menu" key three times.

c. Contrast adjustment (if no necessary, it is recommended not to adjust)

Press "Menu" key twice, followed by press "left / down" key twice, press the "Menu" key once, the OSD of contrast bar will turn yellow background, then press the "right / up" key can be added big contrast value, press the "left / down" key to decrease the contrast value. After adjustment, press the "Auto" key three times to exit the menu (Or automatically exit after 10 seconds).

d. Brightness adjustment

Press "Menu" key twice, followed by press "left / down" key once, press the "Menu" key once, the OSD of brightness bar will turn yellow background, then press the "right / up" key can be added big contrast value, press the "left / down" key to decrease the contrast value. After adjustment, press the "Auto" key three times to exit the menu (Or automatically exit after 10 seconds).

e. Status Indicator

Key board has an LED indicator shows working status，the indicator has three states:

LED is red-------------No signal input or signal frequency is out of range

LED is green---------- The monitor is working properly

LED is dark------------ Shutdown or no power supply

f. Power on/of

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Press the "power" key can switch on or shutdown the monitor. This monitor can store switch state before the power supply failure.
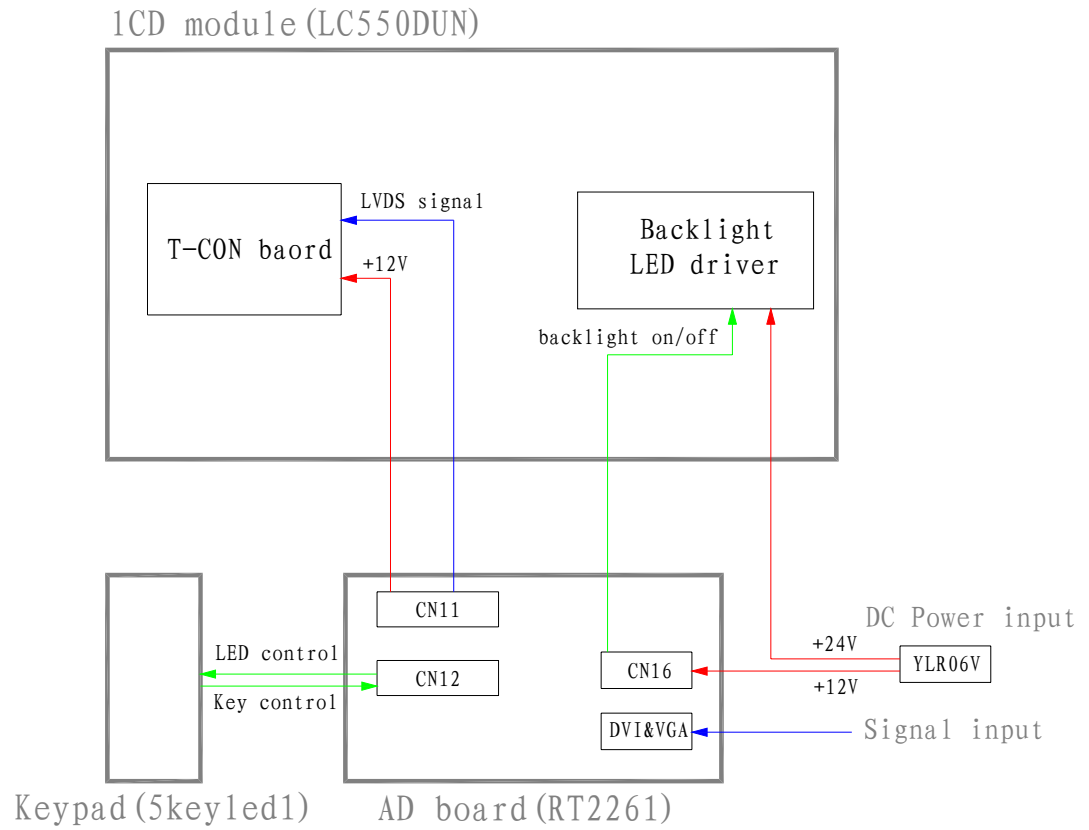
g. Other adjustments

The monitor is shipped, has all image adjustment parameters set to default the best value, in addition to brightness/contrast should be adjusted according to the actual signal status and user requirements, other project proposals no necessary adjustment.
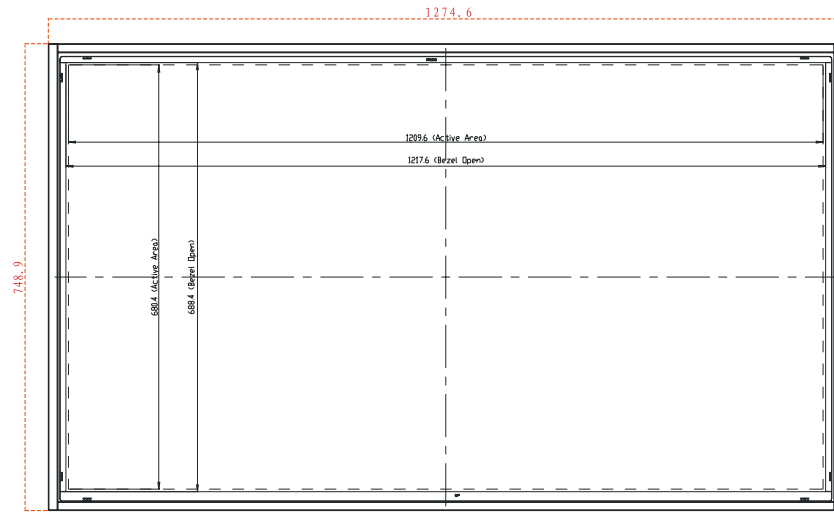
If you do need to change the adjustment parameters, accordance with OSD, adjust the following manner:

1. Press "Menu" key to enter the OSD menu, press the "Left / Down" key or "right /" key to change menu items, frame color selected menu item turns yellow, then press the "Menu" key to confirm the adjustment, confirmed adjustments will turn yellow background color, press the "left / Down" key or "right /" key to adjust the value of the selected item, press the "Auto" key to return to the previous menu.

2. If you adjust the project mess, according to the method described above to select "Reset" in the OSD menu, you can restore the factory default settings. (Tips: Press the "Menu" key once, then press the "Left / Down" key twice, then press "Menu" key once, then press the "Left / Down" key four times, then press the "Menu" key once complete reset)
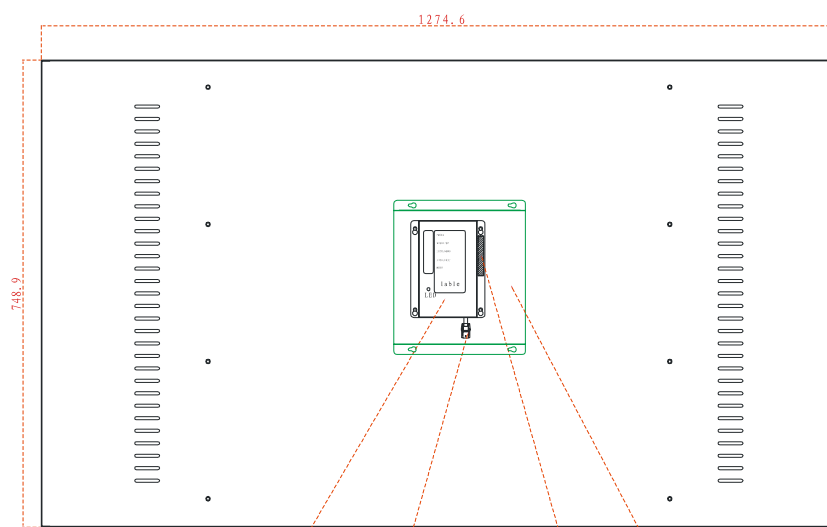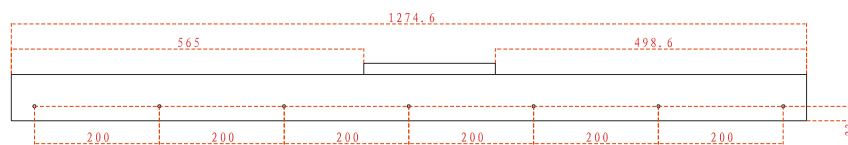
6. Block diagram

lCD module(LC550DUN)

```
                    LVDS signal
  ┌─────────────┐                    ┌─────────────┐
  │             │◄─────────          │             │
  │ T-CON baord │   +12V             │  Backlight  │
  │             │◄─────              │ LED driver  │
  └─────────────┘                    └─────────────┘

                                    backlight on/off
```

```
  ┌──────────┐      ┌──────────────────────────────────┐
  │          │      │   ┌────────┐                       │
  │          │      │   │  CN11  │                        │      DC Power input
  │          │  LED control                              │        +24V
  │          │──────│   ┌────────┐       ┌────────┐       │──────  ┌────────┐
  │          │      │   │  CN12  │       │  CN16  │◄──────│        │ YLR06V │
  │          │──────│                    └────────┘       │        └────────┘
  │          │  Key control                               │        +12V
  │          │      │                    ┌────────┐       │      Signal input
  │          │      │                    │DVI&VGA │◄──────│
  └──────────┘      └──────────────────────────────────┘
Keypad(5keyled1)        AD board(RT2261)
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6. Mechanical Characteristics

FRONT VIEW

REAR VIEW

AD board box   Power input   Signal input Rear cover

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