

# VIDEOLOGY

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## Instruction Manual 45S10SL



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**For technical assistance with this product, please contact the supplier from whom the product was purchased.**

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# Table of Contents

- 1. Document History .....3
- 2. Scope of Work.....3
- 3. Specifications.....3
- 4. Optical Specifications .....3
- 5. Block Diagram.....4
- 6. Input Terminal Pin Assignment.....4
- 7. Inspection Standard.....5
  - 7.1. Inspection environment conditions .....5
  - 7.2. Classification of Defects .....5
- 8. Reference Drawings .....6
  - 8.1. Drive Board w/Input Connectors .....6
  - 8.2. LED Backlight Board .....7
  - 8.3. Function Key /IR LED Board .....7
- 9. Remote control operation .....8
- 10. OSD Function .....9
  - 10.1. Source .....9
  - 10.2. Item (Hot key, simple operation) .....9
  - 10.3. OSD Menu .....9
  - 10.4. PICTURE.....9
  - 10.5. SOUND.....10
  - 10.6. PIP .....11
  - 10.7. Display.....11
  - 10.8. Image Optimize.....12
  - 10.9. Function .....13
  - 10.10. Exit.....13
- 11. Outline Dimension of LCD Panel .....14
- 12. Contact Information .....15

## 1. Document History

Revision	Issue Date	Reason	CN#
Rev A	01-12-12	Initial release	11-0120

## 2. Scope of Work

This specification shall be applied to model: 45S10SL, 10.4" TFT sunlight readable LCD module with 3D comb filter, 3D De-interlace, and noise reduction.

## 3. Specifications

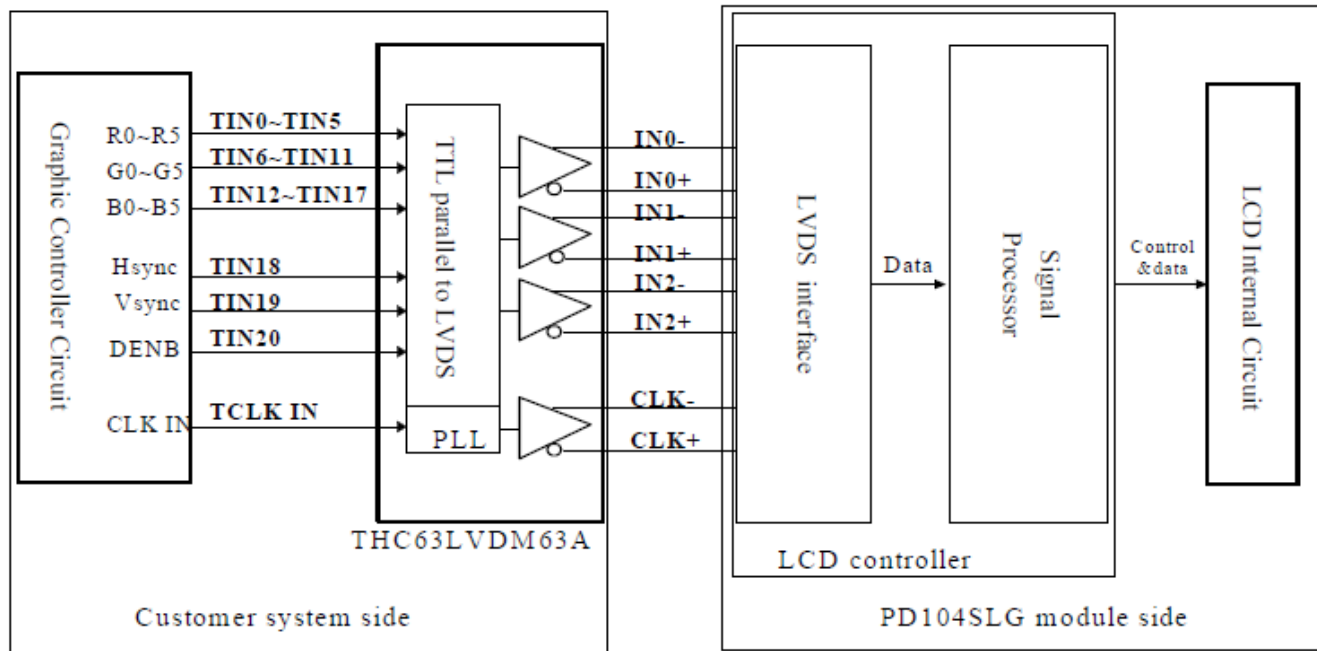
Display	10.4" color TFT LCD
Number of dots	800 x 600
Active Area	211.2(H) x 158.4(V)
Dot Pitch	0.264(H) x 0.264(V)
Color Configurations	RGB Stripe
Display Color	262K
Back Light	LED
Input/output Signal/Connector	NTSC/PAL Auto Switchable. 1 CH Composite video Input/Output (BNC x 2) Input Impedance Auto Termination. 1CH S-Video Input (4P Mini-Din X1) 1CH PC Analog RGB Input (D-sub 15P) 1CH Audio L/R Input (RCAX2) 1CH PC Audio Phone jack , 3.5ψ x1 Speaker 2WX2(option)
Power Input Voltage	DC12±10%
Power Consumption	19W max
External Control	OSD Function Control
Operating Temperature	0°C~50°C
Storage Temperature	-10°C~60°C
Overall Dimension	243.0(W) x 185..1(H) x 10.5D) (Panel only)
Weight	470g (Panel only)

## 4. Optical Specifications

Lamp Life-time	20,000hr min. (at Temp =25°C)
Viewing Angle (min.)	Right 75 degrees
	Left 75 degrees
	Up 60 degrees
	Down 50 degrees
Brightness	1200 nit
Contrast Ratio	600:1 typical
Response Time	Tr: 15 ms Tf: 25ms (Typ)

## 5. Block Diagram

LVDS Interface Block Diagram



## 6. Input Terminal Pin Assignment

Pin No.	Symbol	Function	Remark
1	VDD	Power supply : +3.3V	
2	VDD	Power supply : +3.3V	
3	GND	Ground	
4	GND	Ground	
5	IN0-	Pixel data Transmission pair 0 (negative -)	
6	IN0+	Pixel data Transmission pair 0 (positive +)	
7	IN1-	Pixel data Transmission pair 1 (negative -)	
8	IN1+	Pixel data Transmission pair 1 (positive +)	
9	IN2-	Pixel data Transmission pair 2 (negative -)	
10	IN2+	Pixel data Transmission pair 2 (positive +)	
11	CLK-	Sampling Clock (negative -)	
12	CLK+	Sampling Clock (positive +)	
13	GND	Ground	
14	GND	Ground	

## 7. Inspection Standard

### 7.1. Inspection environment conditions

Room temperature 20~25°C

Humidity 65±5% RH

The viewing line should be perpendicular to the surface screen.

### 7.2. Classification of Defects

#### Dot defect

##### A. Inspection condition

Inspection distance: 35±5cm

Inspection illumination: 100~150Lux

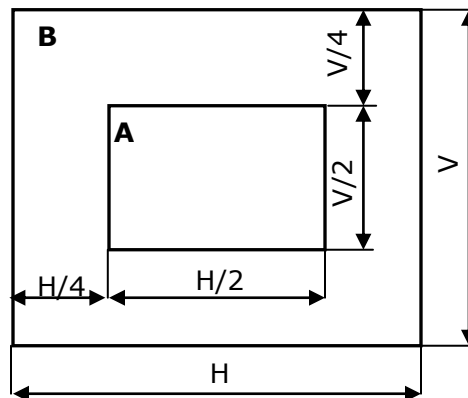
Panel temperature: 30±5°C

Inspection pattern: Full white, full black, red, green and blue screens.

##### B. Acceptable

Item	Area		Total
	A	B	
Blue Black	2	3	4
Red Green White	1	3	3
Total	2	5	7

##### C. The definitions of A and B zone



#### Scratch on the polarizer

Number = 3 max.

Width  $\leq$  0.1 mm, Length  $\leq$  6 mm

#### Dent on the polarizer

Number = 3 max., Average Diameter  $\leq$  0.3 mm

#### Foreign material on the polarizer

Number = 2 max, Average Diameter  $\leq$  0.5 mm

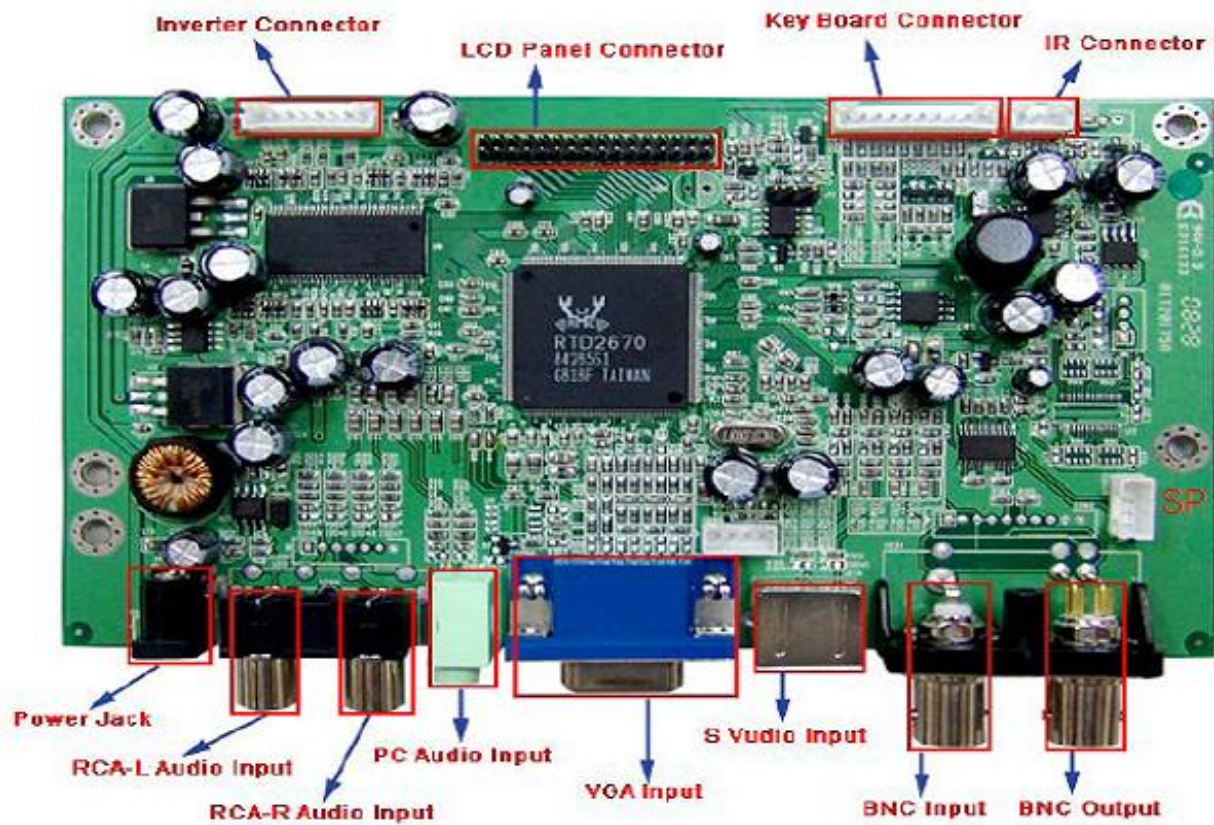
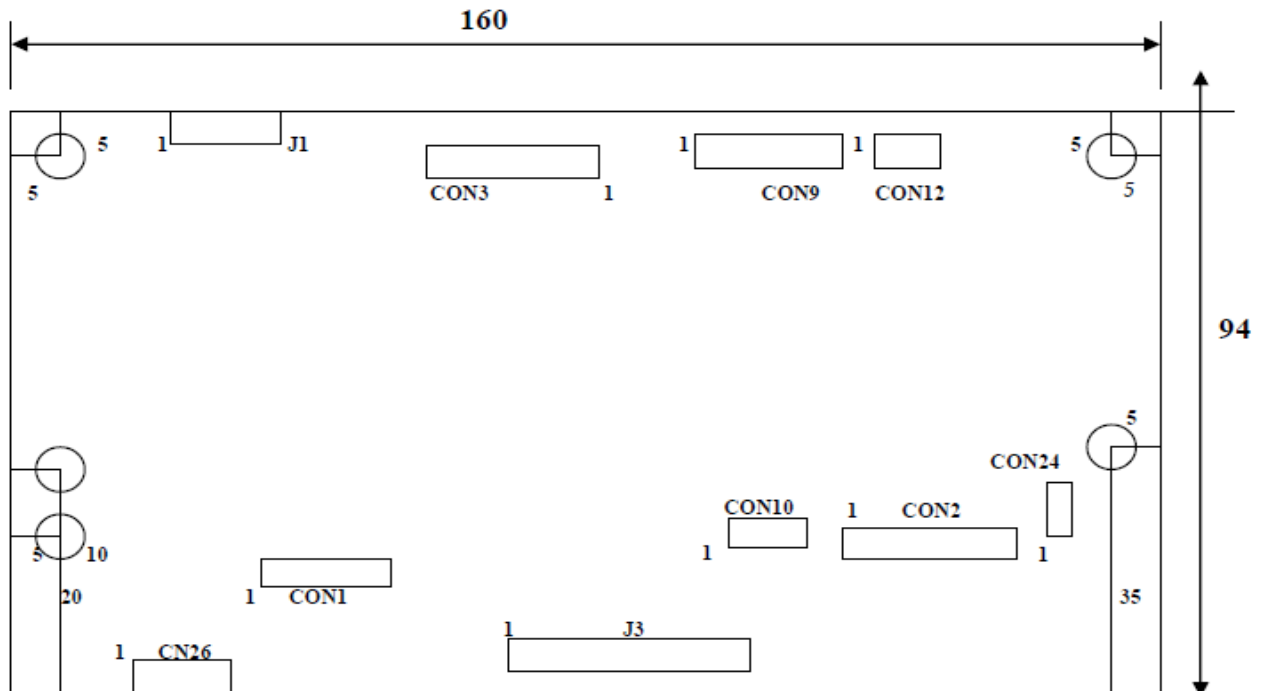
#### Afterimage

After displaying a pattern for 5 seconds then switch to a different pattern, the previous pattern should disappear within 10 seconds.

## 8. Reference Drawings

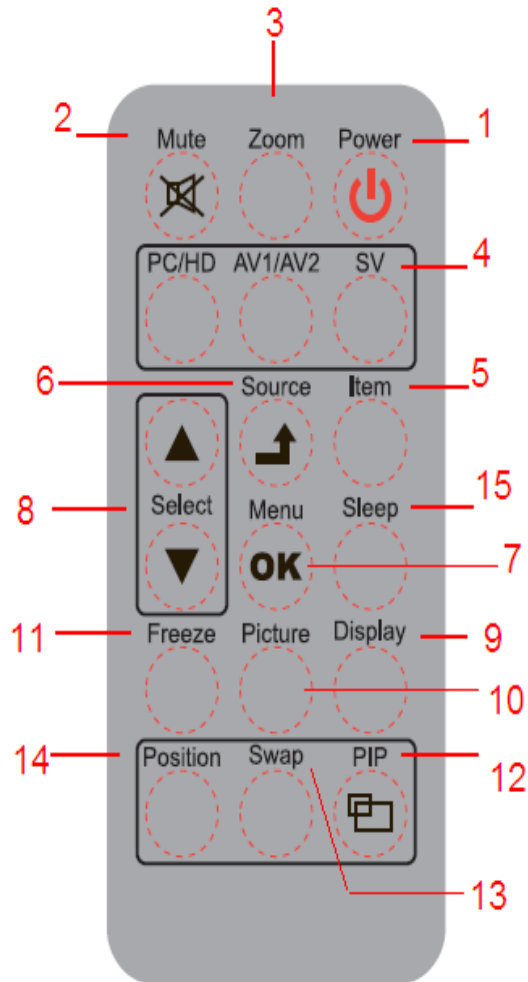
### 8.1. Drive Board w/Input Connectors

Board Dimension : 160mm \* 94mm





## 9. Remote control operation



press again to restore.

1. **Power**: Push to turn on and turn off the unit.
2. **Mute**: Disable the unit's sound output, press the button again or the Volume +/- button to restore the volume.
3. **Zoom**: Toggle between the image ratios. (4:3/16:9/14:9/Movie/Panorama)
4. **PC/HD, AV1/AV2, SV**: Press to choose the desired signal source directly.
5. **Item**: As hot key selection for Brightness/Contrast/Backlight/Sharpness/Hue/Color /Volume > adjust
6. **Source/ (Exit)** : Push to select input signal. Used as "Return/Exit" function in OSD menu.
7. **OK/Menu**: Push to call out OSD menu. Used as "Confirm / OK" function in OSD menu.
8. **Select▲/▼**: Change the function up or down.
9. **Display**: Press to display the information on the screen, such as resolution, signal source etc.
10. **Picture**: Toggle between the different picture modes. Standard /Soft/Personal /Bright.
11. **Freeze**: Press to freeze the picture(AV1,AV2,SVideo),

12. **PIP**: Press to activate the PIP function and select the size of sub-picture Small/ Medium/ Large/ 1+1/ Off. Off means PIP function is turned off.

13. **Swap**: In the PIP mode, press the button to switch the main picture and sub-picture. (This function works only when sub-picture exists.)

14. **Position**: PIP mode Press to select the position of sub-picture. (4 corners and center)

15. **Sleep**: Select the Automatic turn off time.

## 10.OSD Function

### 10.1. Source

Push <**Source**>button to selection the channel.  
AV/SVIDEO/PC

### 10.2. Item (Hot key, simple operation)

Use the < **Item** > button as a hot key to call out the Adjust bar. Then use the +/- button to increase/decrease the menu bar.

(Brightness/Contrast/Backlight/Sharpness/Hue/Color/Volume)



### 10.3. OSD Menu

Push <**Menu**>button to display the **Main menu**.

Main menu includes (Picture), (Sound), (PIP), (Display), (Function) and (Exit)- 6 categories.

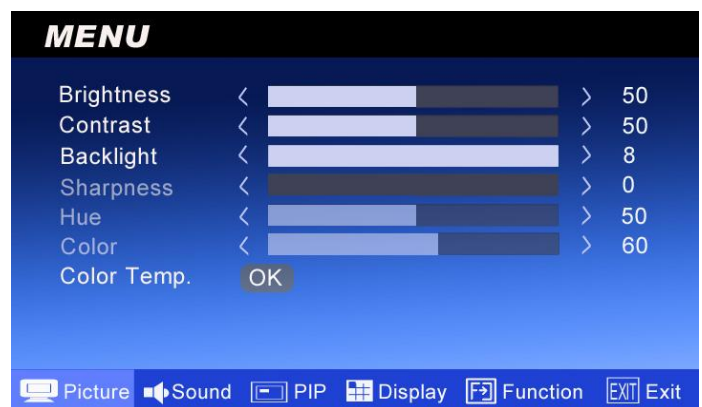
Use **Select** (▲▼) button to select the function category to be adjusted.

Push the **Menu/OK** button to enter the selected category.

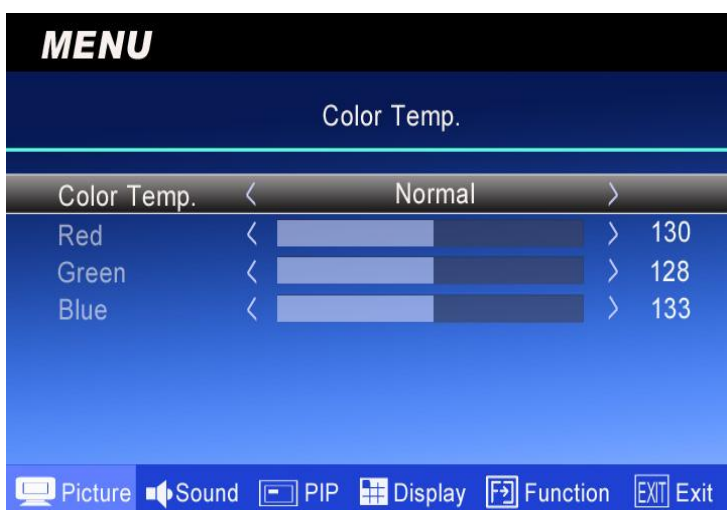
### 10.4. PICTURE



(Mode: AV, S-VIDEO, HD)



(Mode: PC D-Sub)

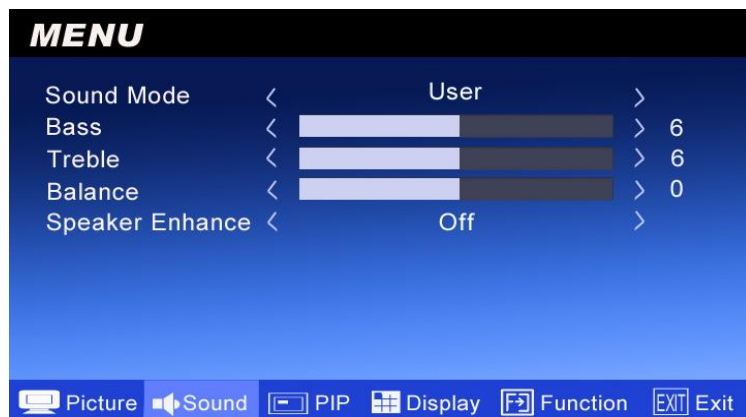


#### (Color Temp.)

Use **Select** (▲▼) button to select the item to be adjusted. Push <**Menu**> to confirm the selected item; use **Select** (▲▼) button to adjust and then push <**Source**> button to return.

MENU	FUNCTION	MODE
Brightness	Use Select (▲▼) button to increase/decrease the screen brightness.	all
Contrast	Use Select (▲▼) button to increase/decrease the screen contrast.	all
Back light	Use Select (▲▼) button to increase/decrease the screen backlight.	all
Sharpness	Use Select (▲▼) button to adjust the sharpness of the image.	AV/S-video
Hue	Use Select (▲▼) button to adjust the hue of the image.	AV/S-video
Color	Use Select (▲▼) button to increase/decrease the image color saturation.	AV/S-video
Color Temp.	Use Select (▲▼) button to select the desired color temperature. There are <b>Normal / Warmer / Warm / Cool / Cooler / User- 6</b> modes. In User mode, push <MENU> button to enter and adjust the <b>Red/Green/Blue</b> color separately.	all

## 10.5. SOUND

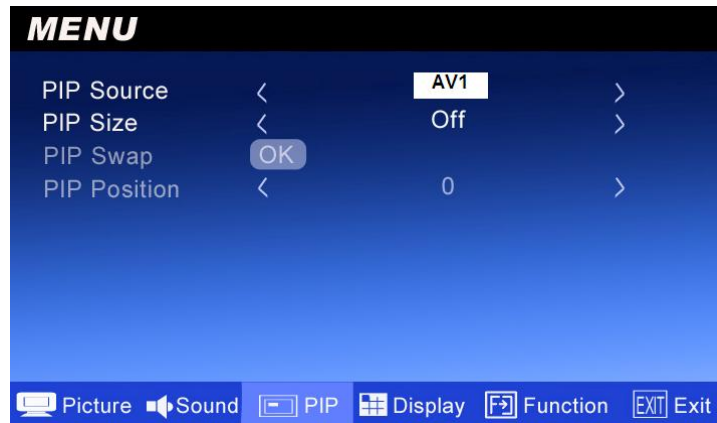


Use **Select** (▲▼) button to select the item to be adjusted. Push **Menu** to confirm the selected item, use **Select** (▲▼) button to adjust and then push <**Source**> button to return.

MENU	FUNCTION	MODE
Sound Mode	Use Select (▲) (▼) button to select <b>Theater//Music/News/Original/User- 5</b> kinds of modes.	all
Bass	Use Select (▲) (▼) button to adjust the Bass.	all
Treble	Use Select (▲) (▼) button to adjust the Treble.	all
Balance	Use Select (▲) (▼) button to adjust the left / right balance.	all
Speaker Enhance	Use Select (▲) (▼) button to select On/Off	all

## 10.6. PIP

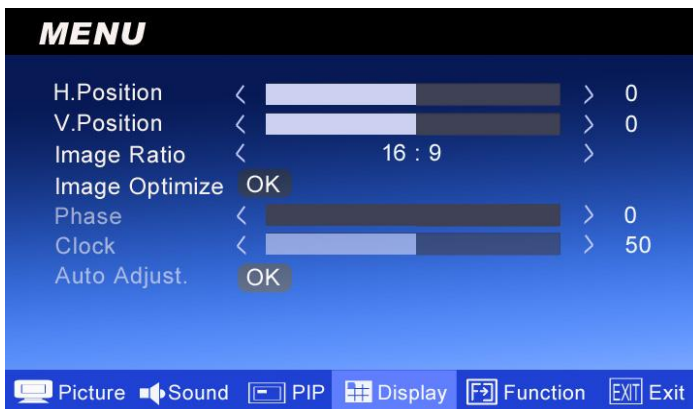
Use Select (▲▼) button to select the item to be adjusted. Push Menu to confirm the selected item, use Select (▲▼) button to adjust and then push <Source> button to return.



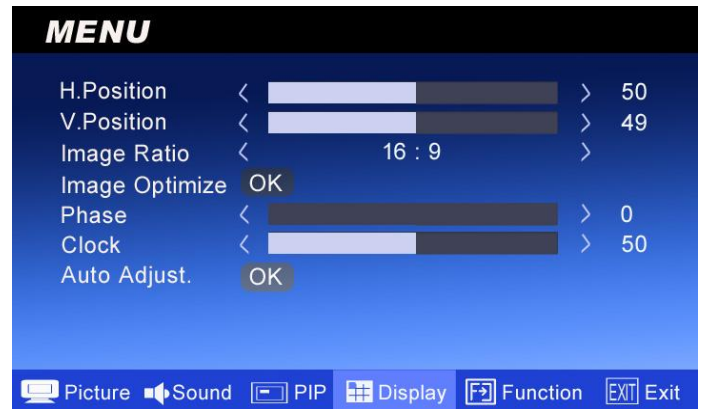
MENU	FUNCTION
PIP Source	Use Select (▲▼) button to select the source of sub-picture.
PIP Size	Use Select (▲▼) button to select the size of sub-picture Small/Medium/Large/1+1/Off. Off means PIP function is turned off.
PIP Swap	Push <MENU> button to switch the main picture and sub-picture. (This function works only when sub-picture exists )
PIP Position	Use Select (▲▼) button to select the position of sub-picture(0~5) 4 corners and center.(This function works only when sub-picture exists)

## 10.7. Display

Use **Select** (▲▼) button to select the item to be adjusted. Push **Menu** to confirm the selected item , use **Select** (▲▼) button to adjust and then push <**Source**> button to return.



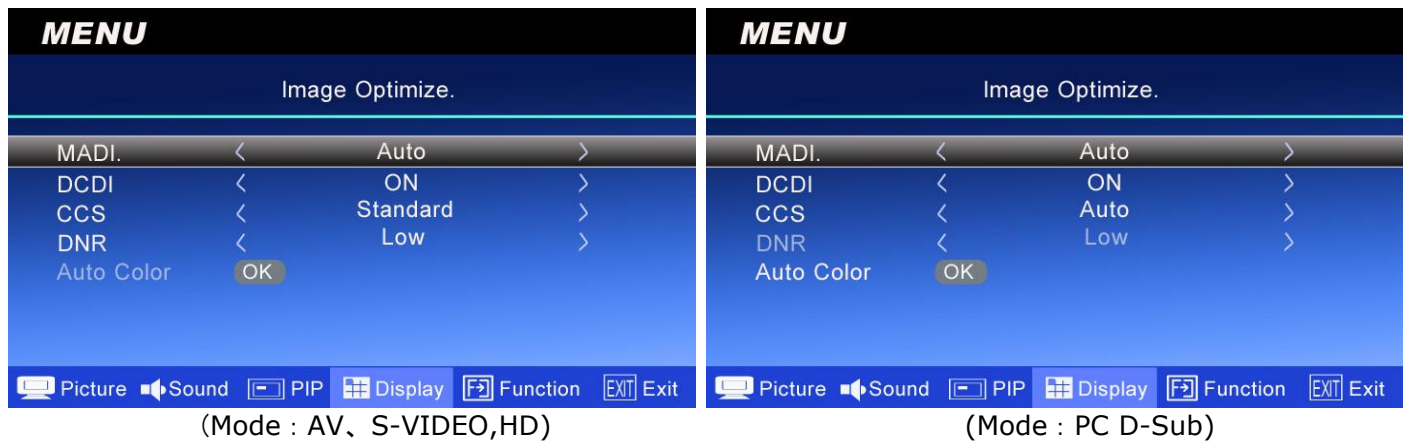
(Mode : AV、S-VIDEO,HD)



(Mode : PC D-Sub)

MENU	FUNCTION	MODE
H. Position	Use Select (▲▼) button to adjust the horizontal position of the image.	all
V. Position	Use Select (▲▼) button to adjust the vertical position of the image.	all
Image Ratio	Use Select (▲▼) button to select the image ratio. PC mode : 4:3/16:9 AV/S-VIDEO mode : 4:3/16:9/14:9/Movie/Panorama	all
Image Optimize	Push <MENU> button to enter the sub-menu and use Select (▲▼) button to adjust/select	all
Phase	Use Select (▲▼) button to increase/decrease the noise on the screen.	PC
Clock	Use Select (▲▼) button to increase/decrease the snowflake noise on the screen.	PC
Auto Adjust	Push <MENU> button to adjust the best image.	PC

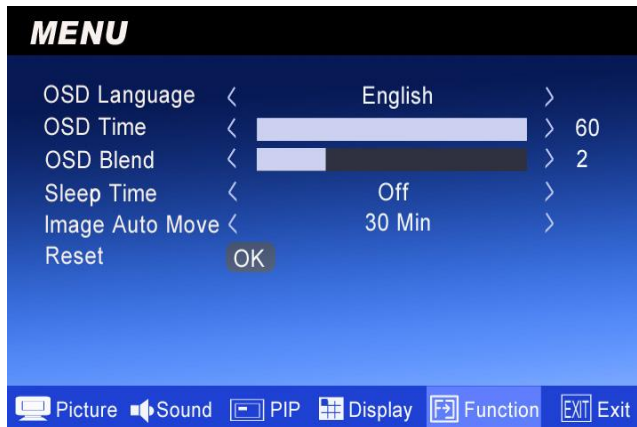
### 10.8. Image Optimize



MENU	FUNCTION	MODE
MADI	Use Select (▲▼) button to select Auto/Off/Standard 3 kinds of modes.	all
DCDI	Use Select (▲▼) button to select On/Off.	all
CCS	Use Select (▲▼) button to select Auto/Off/Standard 3 kinds of modes.	all
DNR	Use Select (▲▼) button to select Low/ Medium/ High/ Off 4 kinds of modes.	AV/S-video
Auto Color	Push <MENU> button to adjust the best image color.	PC

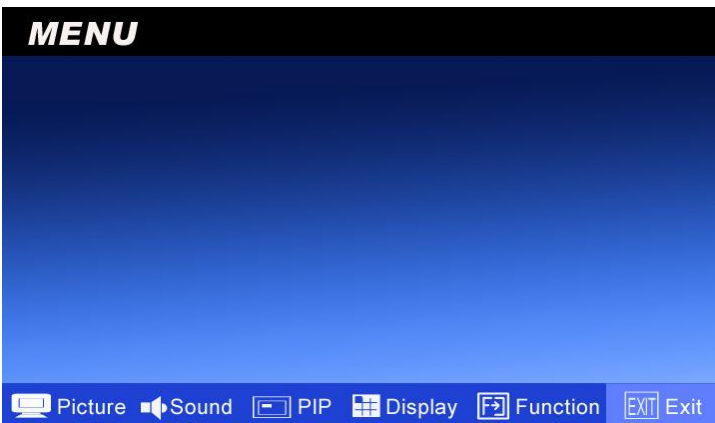
## 10.9. Function

Use **Select** (▲▼) button to select the item to be adjusted. Push **MENU** to confirm the selected item, Use **Select** (▲▼) button to adjust and then push <**Source**> button to return.



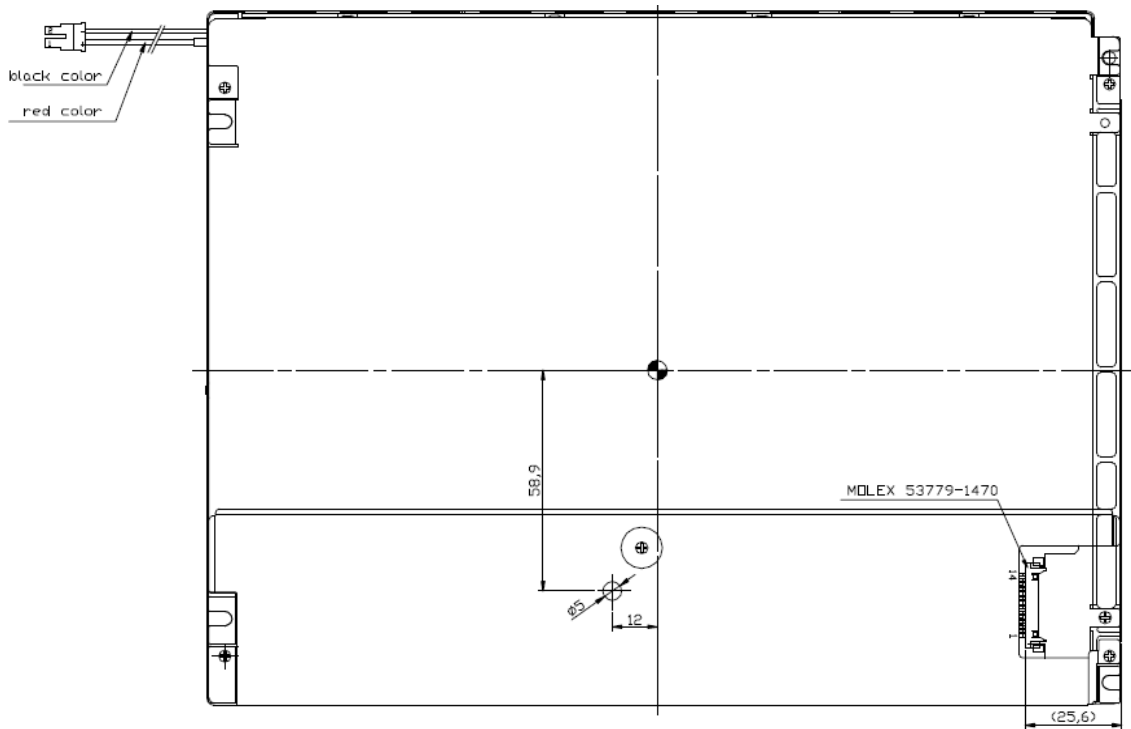
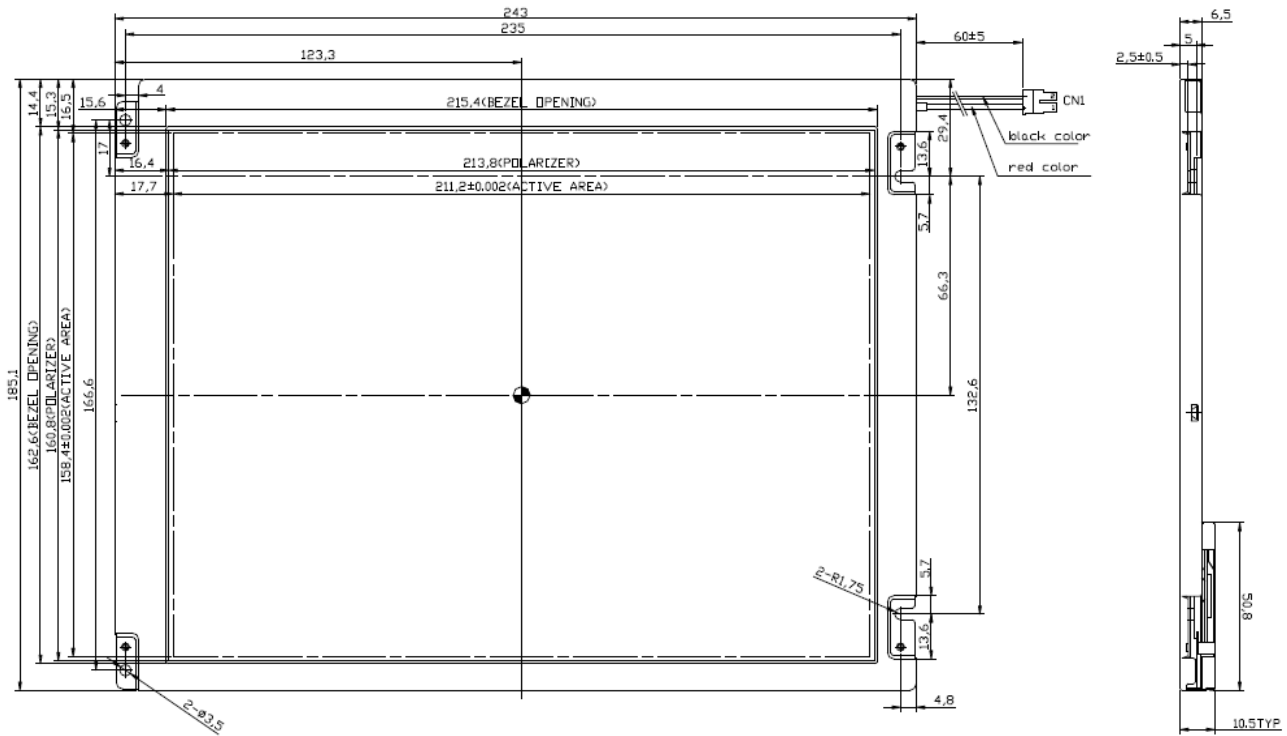
MENU	FUNCTION	MODE
OSD Language	Use Select (▲▼)button to select the desired language.	all
OSD Time	Use Select (▲▼) button to increase/decrease the OSD display time.	all
OSD Blend	Use Select (▲▼) button to increase/decrease the transparent degree of the OSD display.	all
Sleep Time	Use Select (▲▼) button to select the automatic turn off time. Off/10/20/30/60/90/120/150/180 Min.	all
Image Auto Move	Use Select (▲▼) button to select the image move time. Off/30/60/90/120/180 Min.	all
Reset	Push <MENU> button to return to factory default setting.	all

## 10.10.Exit



Push <**MENU**>to exit the OSD menu.

# 11. Outline Dimension of LCD Panel



## 12.Contact Information

**For technical assistance with this product, please contact the supplier from whom the product was purchased.**

For OEM inquiries, contact Videology Imaging Solutions:

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