



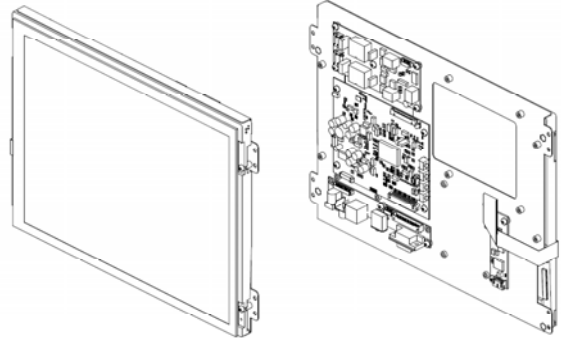
FLAT DISPLAY TECHNOLOGY

12.1" Digital TFT-LCD Module
Model Number: LP121G4S~~xx~~-F~~x~~R



This product is RoHS compliant

SPEC No.: SAS-0903005
Version: 0.0
Issue Date: March 21, 2012



1. Introduction:

1.1 About the Product

The LP121G4S~~xx~~-F~~x~~R 12.1" TFT-LCD Module series are rugged, high performance Industrial LCD Monitors, designed for commercial and industrial applications, such as kiosks, arcade games, ATM Machines, aviation simulators, military, medical, marine, security, industrial equipment, and instrumentation equipment. This product can provide high brightness and contrast to achieve better viewing effect.

1.2 Features

- 12.1inch SVGA Active Matrix Color TFT LCD Monitor
- High Contrast 450:1 Typical
- Recommend resolution:800x600(SVGA)
- OSD controls: Allow on-screen adjustments of Brightness, Contrast, RGB Auto Color Balance, H-Position, V-position
- Multi system Video Input and auto detection video system.
- Quick and easy integrations for Client solutions
- Universal AC Power input
- Touch screen function of USB or RS232 (option)
- Multimedia Player (option)

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3. Specifications

Parameter	Specifications	Unit	Remark
Model Name	LP121G4Sxx-FxR		
Screen Size	12.1" (diagonal)	inch	
Display Format	800 x (R.G.B) x 600	dot	
TFT-LCD Active Area	246 (H) x 184.5 (V)	mm	
Pixel Pitch	0.3075 (H) x 0.3075 (V)	mm	
Contrast Ratio	450:1(Typ.)		
Brightness	370(Typ.)	Cd/m ²	
Viewing Angle	-70~70(H); -60~50(V)(Typ.)	deg	
Input/Output Interface	Video and S-video / D-Sub 15 pin female for VGA / USB or RS-232 (DB9 Female) for Touch Screen Driver (Option)		
Power Source	100-240V _{AC} 50-60Hz, Universal / +12V _{DC} @ 3A		
Power Consumption	< 13.5W		
Touch Screen Controller	USB/ RS232 (Option)		
Operating Temperature	-10~60	°C	
Storage Temperature	-20~70	°C	
Lamp Life Time	50000(Min)	Hr	

4. Ordering Information

Parameter	LP121G4STT-FDR	LP121G4STS-FDR	LP121G4STR-FDR	Unit
CVBS	1	1	1	
S-Video	1	1	1	
VGA	SVGA (800x600)	SVGA (800x600)	SVGA (800x600)	
Touch Panel Type	-	5W Resistive	5W Resistive	
Touch Screen Interface	-	USB	RS232	
Outline Dimension	290(W) x 210.6(H) x 28.7(D)	290(W) x 210.6(H) x 31(D)	290(W) x 210.6(H) x 31(D)	mm
AC to DC Adapter 12V/3A	⊙	⊙	⊙	
Power Cord	⊙	⊙	⊙	
Video Cable	⊙	⊙	⊙	
S-Video Cable	⊙	⊙	⊙	
VGA Cable	⊙	⊙	⊙	
USB Cable	-	⊙	-	
RS-232 Cable	-	-	⊙	
Touch Screen Driver CD Disk	-	⊙	⊙	
Bracket	⊙	⊙	⊙	
Weight (Include Accessory)	1.07(1.87)	1.37(2.17)	1.37(2.17)	Kg

Note: Weight \pm 15%

Parameter	LP121G4SCT-FDR	LP121G4SCS-FDR	LP121G4SCS-FXR	Unit
CVBS	-	-	-	
S-Video	-	-	-	
VGA	SVGA (800x600)	SVGA (800x600)	SVGA (800x600)	
Touch Panel Type	-	5W Resistive	5W Resistive	
Touch Screen Interface	-	USB	USB	
Outline Dimension	290(W) x 210.6(H) x 28.2(D)	290(W) x 210.6(H) x 30.5(D)	290(W) x 210.6(H) x 30.5(D)	mm
AC to DC Adapter 12V/3A	⊙	⊙	-	
Power Cord	⊙	⊙	-	
Video Cable	-	-	-	
S-Video Cable	-	-	-	
VGA Cable	⊙	⊙	-	
USB Cable	-	⊙	-	
RS-232 Cable	-	-	-	
Touch Screen Driver CD Disk	-	⊙	⊙	
Bracket	⊙	⊙	⊙	
Weight (Include Accessory)	1.07(1.87)	1.37(2.17)	1.37	Kg

Note: Weight \pm 15%

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5. VGA Supported Timing

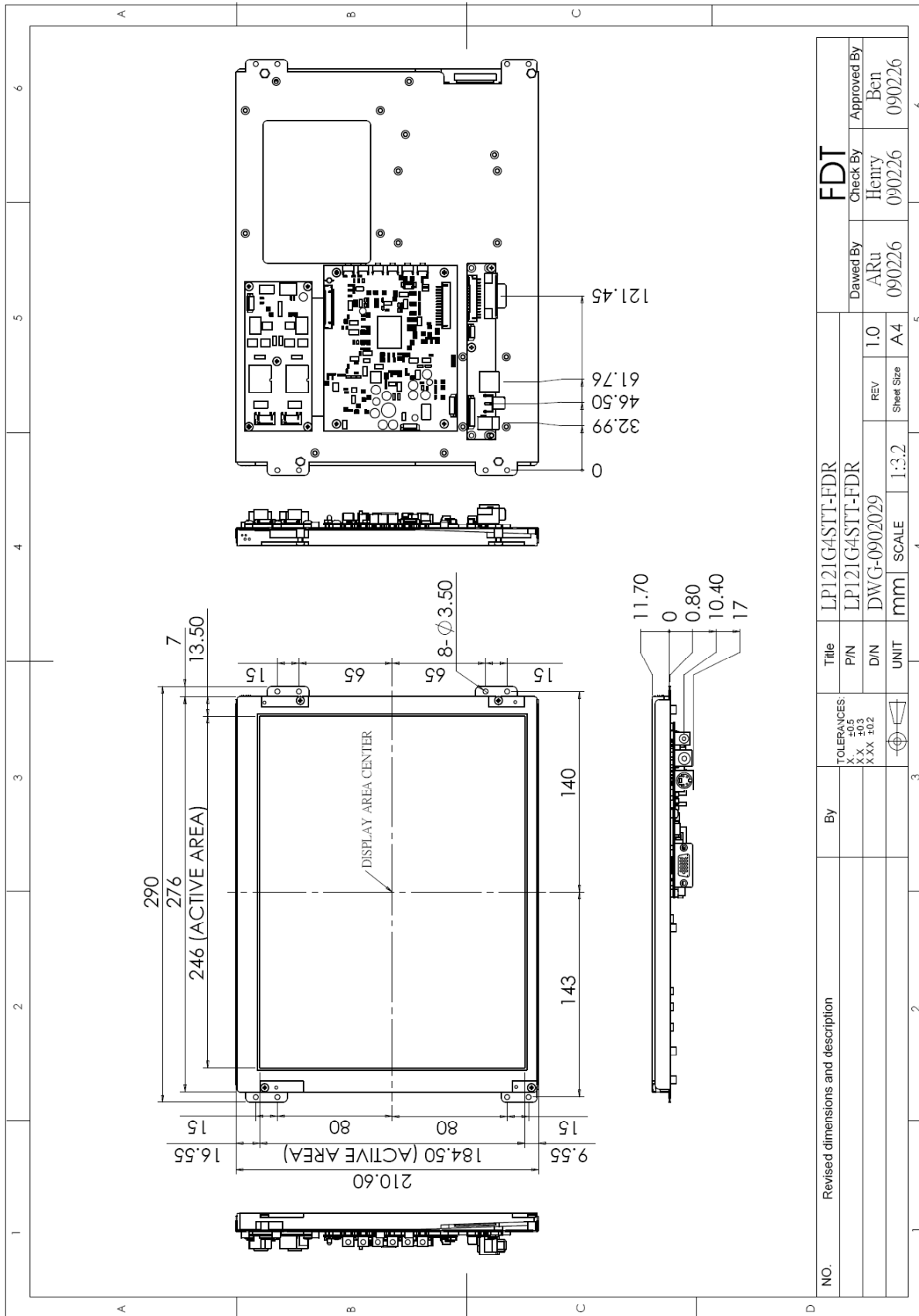
	Mode	Family	Resolution	H-Freq. (KHz)		V-Freq. (KHz)	
1	Mode 1	PC	720x350	31.47	(+)	70.1	(-)
2	Mode 2	PC	720x400	31.47	(-)	70.1	(+)
3	Mode 3	PC	640x480	31.47	(-)	59.9	(-)
4	Mode 4	VESA	640x480	37.86	(-)	72.8	(-)
5	Mode 5	VESA	640x480	37.50	(-)	75.0	(-)
6	Mode 6	VESA	640x480	43.27	(-)	85.0	(-)
7	Mode 7	VESA	800x600	35.16	(+)	56.3	(+)
8	Mode 8	VESA	800x600	37.88	(+)	60.3	(+)
9	Mode 9	VESA	800x600	48.08	(+)	72.2	(+)
10	Mode 10	VESA	800x600	46.88	(+)	75.0	(+)
11	Mode 11	VESA	800x600	53.67	(+)	85.1	(+)
12	Mode 12	VESA	1024x768	48.36	(-)	60.0	(-)
13	Mode 13	VESA	1024x768	56.48	(-)	70.1	(-)
14	Mode 14	VESA	1024x768	60.02	(+)	75.0	(+)
15	Mode 15	VESA	1024x768	68.68	(+)	85.0	(+)
16	Mode 16	VESA	1280x1024	63.98	(+)	60.0	(+)

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6. Mechanical Drawing

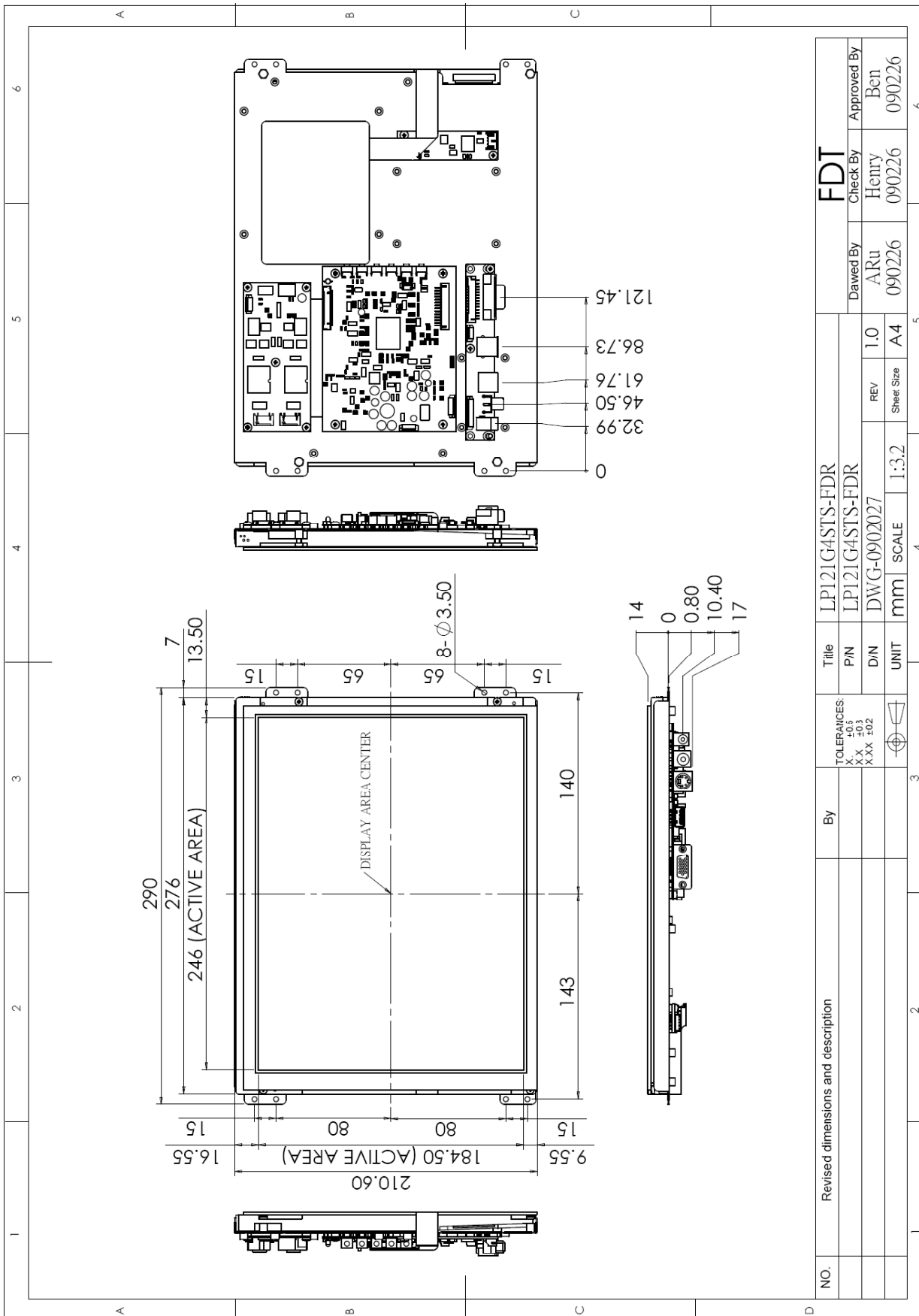
6.1 LP121G4STT-FDR



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■ LP121G4Sxx-FxR V0.0

6.2 LP121G4STS-FDR

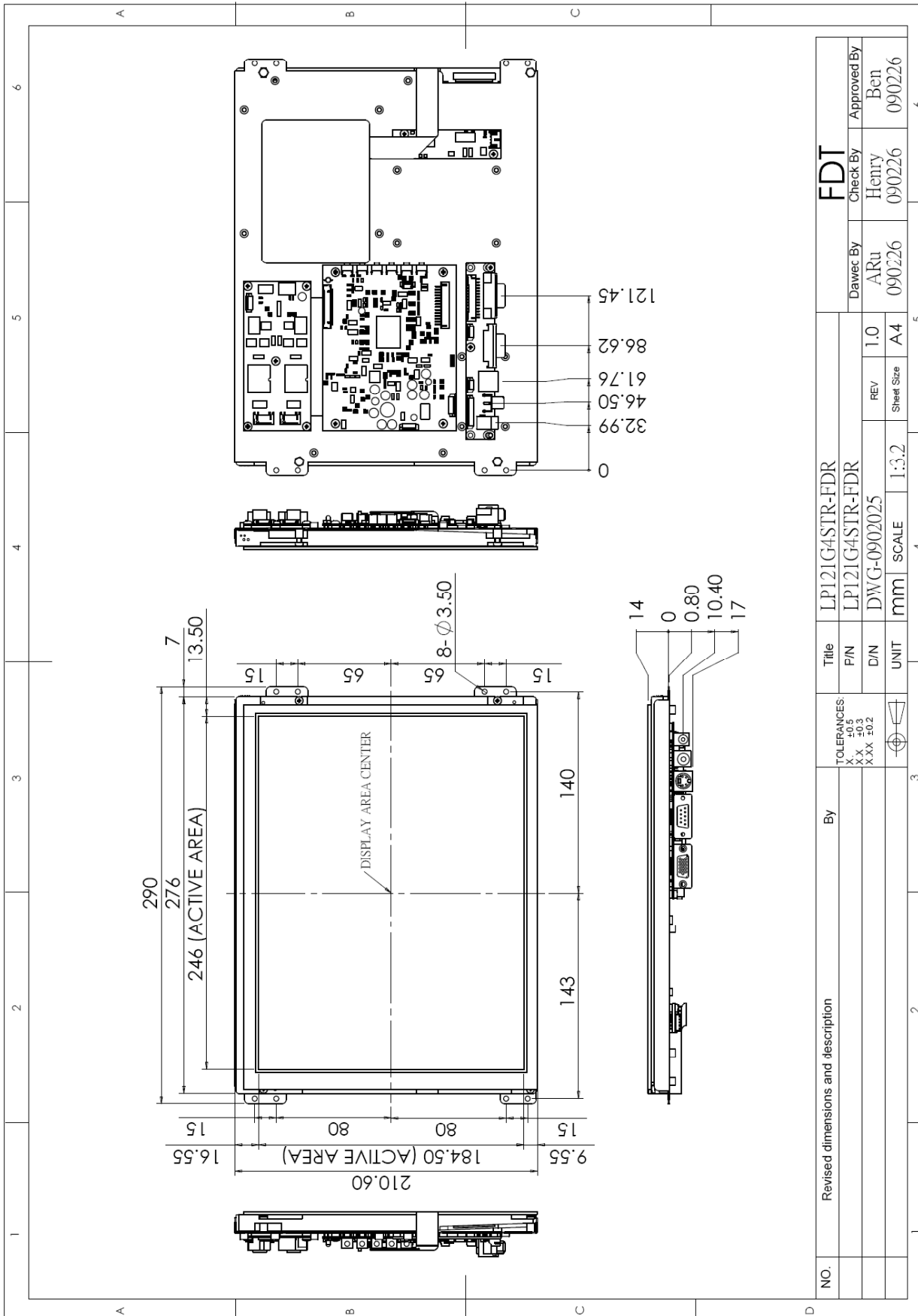


NO.	Revised dimensions and description	By	Title		Dated By		Check By		Approved By	
			LP121G4STS-FDR	ARu	Henry	090226	090226	Ben	090226	
			LP121G4STS-FDR	DIN	DWG-0902027	REV	1.0	Sheet Size	A4	
			TOLERANCES: X.X ±0.5 X.X ±0.3 X.XX ±0.2	UNIT	mm	SCALE	1:3.2			

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■ LP121G4Sxx-FxR V0.0

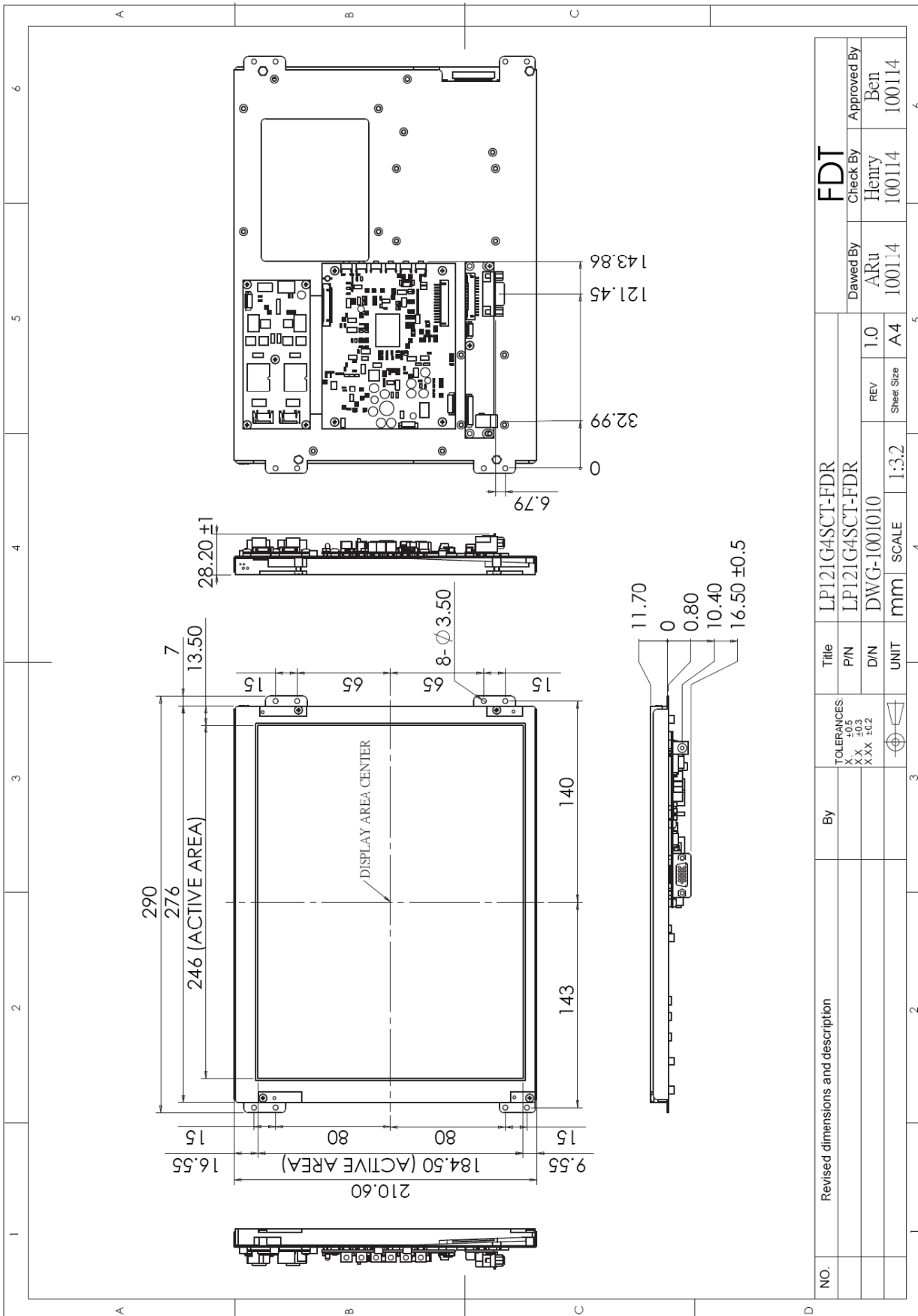
6.3 LP121G4STR-FDR



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■ LP121G4Sxx-FxR V0.0

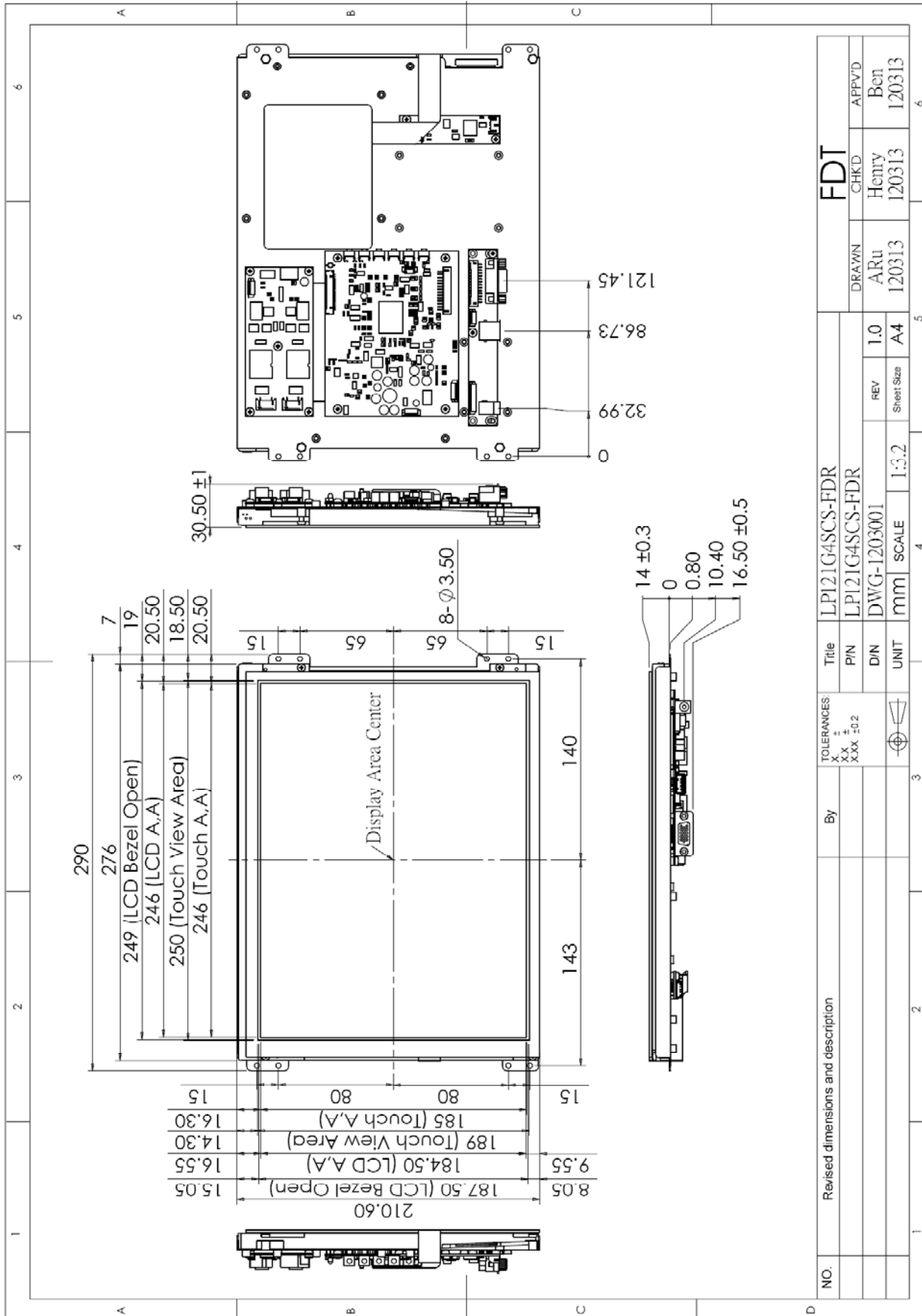
6.4 LP121G4SCT-FDR



FLAT DISPLAY TECHNOLOGY

■ LP121G4Sxx-FxR V0.0

6.5 LP121G4SCS-FDR



7. Packing List

Before you begin installing the TFT-LCD Module, please make sure that the following materials have been shipped:



- A. AC to DC Adapter (L:1500mm, 100-240V_{AC} 50-60Hz or +12V_{DC} @ 3A)
- B. Power Cord (L:1800mm)
- C. Video Cable (L:1800mm ,LP121G4ST_x-FDR Only)
- D. S-Video Cable (L:1800mm,LP121G4ST_x-FDR Only)
- E. VGA Cable (L:1600mm)
- F. USB Cable (L:1800mm ,LP121G4S_x-FDR Only)
- G. RS-232 Cable (L:1800mm ,LP121G4STR-FDR Only)
- H. Touch Screen Driver CD Disk
(LP121G4S_x-FDR & LP121G4STR-FDR & LP121G4SCS-FXR Only) / User Manual

If any of these items are missing or damaged, contact your distributor or sales representative immediately.

8. Installing the Monitor

8.1 Power cable connection:

Connect the power cord to the AC outlet, and connect the power to the monitor through the AC/DC adapter.

8.2 VGA signal cable connection:

Plug one end of the 15-pin signal cable to the VGA connector at the rear of the PC system and the other end to the TFT-LCD Module.

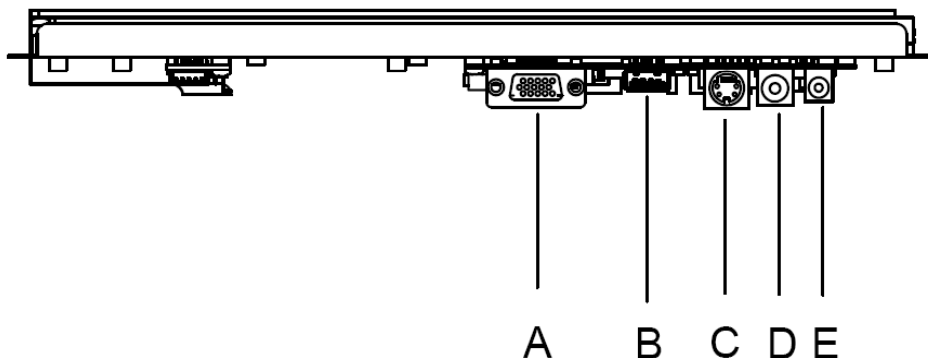
Secure the connectors with the screws on the cable connector at both ends.

8.3 Video / S-Video Cable connection:

If required, connect Video / S-Video Cable from the TFT-LCD Module to the DVD or CCD Camera.

8.4 Switch on the power:

Switch on the power switch on the rear cover of the TFT-LCD Module.



- A. VGA D-sub 15 (Female)
- B. USB / RS-232 Port (For Controller)
- C. S-Video (Y/C Video) In
- D. Video (CVBS) In
- E. DC-In (+12V_{DC} The DC jack ID: 5.5 ϕ OD: 2.1 ϕ core is positive)

9. OSD Control

9.1 Menu Operation

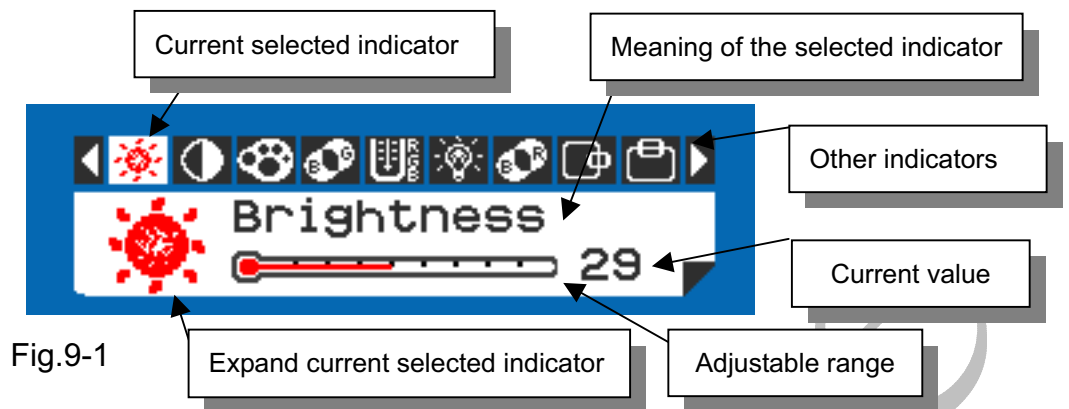
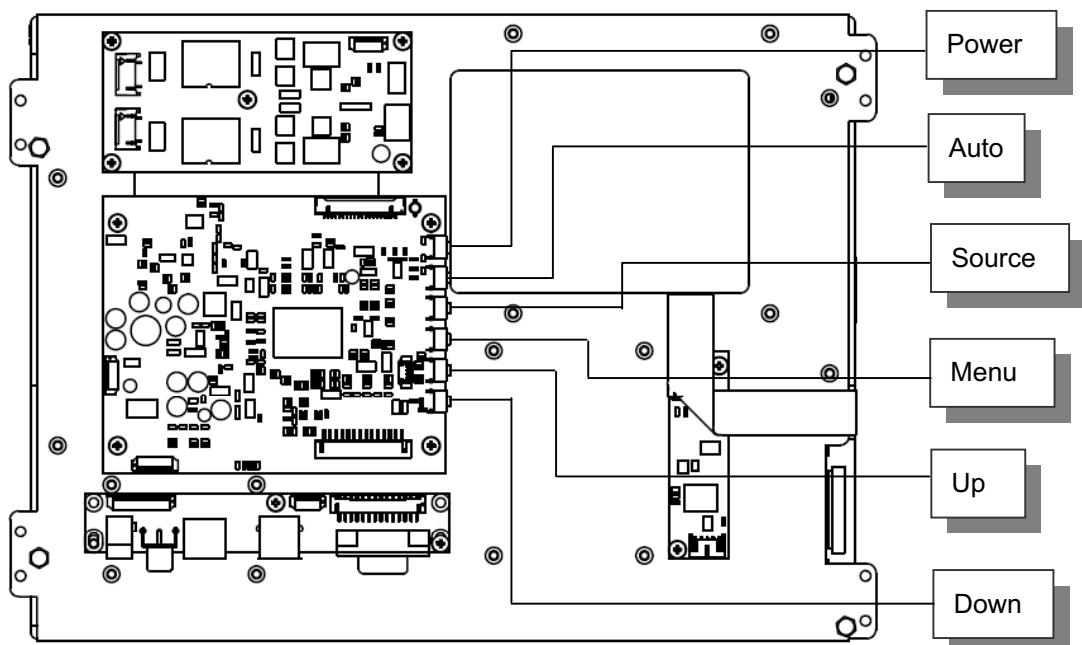


Fig.9-1



Operations of key board :

1. To navigate the menu, press [MENU]. (Fig.9-1)
2. The indicator lighting up in white color is the selected adjustment item.
3. To Next Item of the menu, press [MENU] again.
4. The operations below are only available when "Menu" is started.
5. Press [UP] / [DOWN] to adjust the value of the selected item.

Overview of the menu :

Firmware must be \geq VER 0.26

















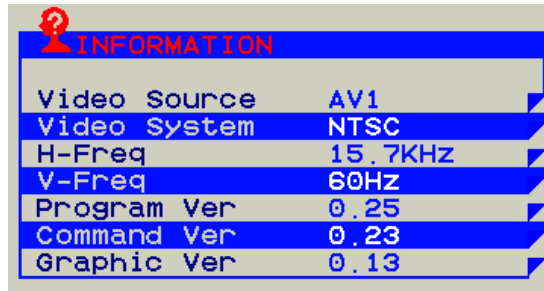
Indicator	Meaning	Adjustable range	For	Remark
	Brightness	0 ~ 64	AV / S-Video / VGA	Adjust-Bar
	Contrast	0 ~ 64	AV / S-Video / VGA	Adjust-Bar
	Color	0 ~ 64	AV / S-Video	Adjust-Bar
	Tint	0 ~ 32	AV / S-Video	Adjust-Bar
	Sharpness	0 ~ 16	AV / S-Video	Adjust-Bar
	Dimmer	0 ~ 9	AV / VGA	
	Color Tone	Normal / Warm / Cool	AV / S-Video / VGA	
	Reverse	OFF / ON	AV / TV / S-Video / VGA / YPbPr	
	H-Position	-25 ~ +25	AV / S-Video / VGA	Balance-Bar
	V-Position	-10 ~ +10	AV / S-Video / VGA	Balance-Bar
	Auto		VGA	
	Scan	Over Scan / Under Scan	AV / S-Video	
	Information		AV / S-Video / VGA	Fig.9-2
	Setup		AV / S-Video / VGA	Fig.9-3
	Factory Set		AV / S-Video / VGA	
	Exit		AV / S-Video / VGA	

Fig.9-2



Setup Menu :



Fig.9-3

Indicator	Meaning	Adjustable range	Function	Remark
	Show Status	ON / OFF	Show signal status.	ON: Show OFF: Hidden
	Blue Screen	ON / OFF	If loss signal will put on the blue or black screen.	ON: Blue OFF: Black
	Auto Power On	ON / OFF	Power input module will be auto turn on.	ON: Auto OFF: Manual
	Auto Saving	OFF / 3s / 5s / 15s / 30s	If signal lost over setting times will be power off.	ON: Auto OFF: Normal
	Detect Source	ON / OFF	Auto detection which source is existence and change.	ON: Auto OFF: Normal
	Return			

Note : VGA only type don't have Detect Source function.

9.2 Operations

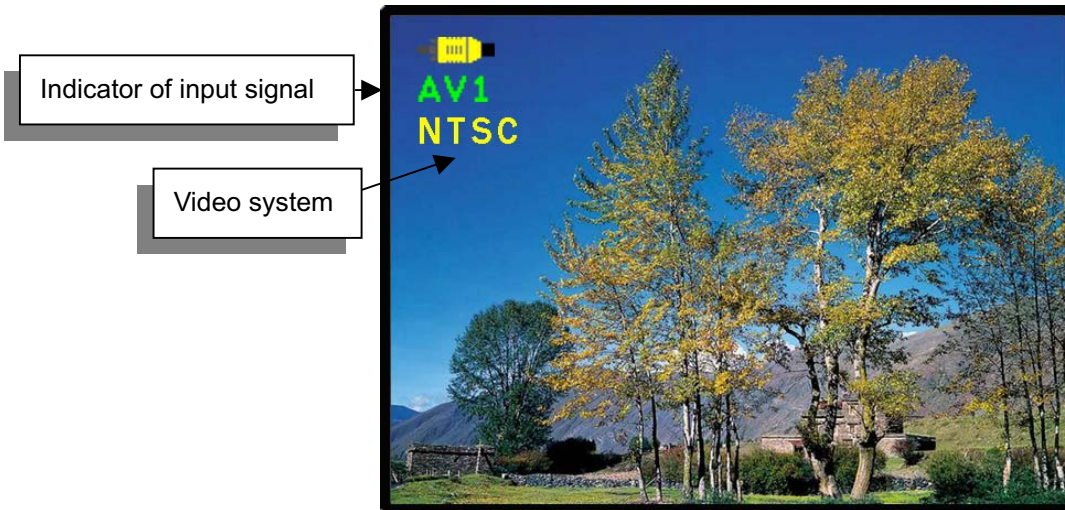





Fig.9-4

[Power] : Monitor power on / off

[Source] : Input signal switch

Overview of input signals :

Indicator	Input signal	Interface	Video system
	AV1	Composite	NTSC / PAL / SECAM
	S-Video1	Y/C	NTSC / PAL / SECAM
	VGA	Analog RGB	640x480_60 / 800x600_60 / 1024x768_60 / 1280x1024_60

10. Trouble Shooting

If experiencing trouble with the monitor, or it fails to operate correctly, please refer to the following instructions before calling for repairs.

Condition	Check Point
1. The picture does not appear	<ul style="list-style-type: none">● Check to see that all the I/O and power cables is firmly seated in the socket.● Check the Power LED is Lighting When the monitor was turned ON.● Check if the brightness control is at the appropriate position, not at the minimum.
3. The screen is not synchronized	<ul style="list-style-type: none">● Check if the I/O signal cable is firmly seated in the socket.● Check if the output level matches the input level.● Make sure the signal timings of the computer system are with in the specification of the monitor.
4. The position of the screen is not in the center	<ul style="list-style-type: none">● Adjust the H-position, and V-position, or perform the auto adjustment Or Factory Set.
5. The screen is too bright (too dark).	<ul style="list-style-type: none">● Check if the brightness or contrast control is at the appropriate position, not at the Maximum (Minimum).
6. The Screen is shaking or waving	<ul style="list-style-type: none">● Press the Auto adjustment control to adjust. Moving all objects which emit a magnetic field such as motor or transformer, away from the monitor. Check if the specific voltage is applied.● Check if the signal timing of the computer system is within the specification of monitor.

If you are unable to correct the fault by using this chart, stop using your monitor and contact us.