

TFT LCD Preliminary Specification

MODEL NO.: LSA40AT9001

Customer : _____ Approved by : _____ Note :

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Record of Revision

Version	Date	Page (New)	Section	Description
1.0	2009/8/14	All	All	New Creation
1.1	2009/12/8	5	5	Modify Electrical Characteristics
		15	11	Modify Quality Assurance
		17	13	Modify Package Form

1. Summary

LSA40AT9001 is a transmissive type color active matrix liquid crystal display (LCD), which uses amorphous thin film transistor (TFT) as switching devices. This panel has a 10.4 inches diagonally measured active display area with SVGA (800 RGB x 600) resolution. The following describes the features of this product.

2. Features

- 10.4” (diagonal) inch configuration
- SVGA (800x600 pixels) resolution

3. General Specifications

No.	Item	Specification	Unit
1	Screen Size	10.4 (Diagonal)	inch
2	Display Resolution	800 RGB x 600	pixel
3	Dot Pitch	0.088 (H) x 0.264 (V)	mm
4	Pixel Pitch	0.264 (H) x 0.264 (V)	mm
5	Active Area	211.2(H) x 158.4(V)	mm
6	Outline Dimension	228.4 (H) x 175.4 (V) x 5.9 (D)	mm
7	Pixel Configuration	RGB-Stripe	--
8	Color Depth	16.2M	colors
9	LCD Type	TM TN	--
10	Interface Type	Digital 24bit RGB	--
11	Surface Treatment	3H	--
12	View direction (Gray inversion)	6 o'clock	--
13	Weight	390	g

4. Absolute Maximum Rating

(Ta = 25 ± 2°C)

Item	Symbol	Values		Unit	Note
		Min.	Max.		
Storage Temperature	T _{ST}	-30	80	°C	
Operation Temperature	T _{OP}	-20	70	°C	
Digital Supply Voltage	VCC	-0.3	5	V	(2)
Analog Power Supply Voltage	AVDD	-0.5	15	V	(3)
TFT Device on voltage	V _{GH}	-0.3	42	V	(4)
TFT Device off voltage	V _{GL}	V _{GH} - 42	0.3	V	(4)

Note:

- (1) All of the voltages listed above are with respective to GND= 0V
- (2) Device is subject to be damaged permanently if stresses beyond those absolute maximum ratings listed above.

5. Electrical Characteristics

5-1. Operating Conditions:

(Ta = 25 ± 2°C)

Item	Symbol	Values			Unit	Note
		Min.	Typ.	Max.		
Digital Power Supply Voltage	VCC	3.0	3.3	3.6	V	
Digital Supply Current	I _{CC}	24	30	45	mA	Black Pattern
Analog Power Supply Voltage	AVDD	11.5	12	12.5	V	
Analog Supply Current	I _{AVDD}	32	40	60	mA	Black Pattern
TFT Device on voltage	V _{GH}	-	(18)	-	V	
TFT Device off voltage	V _{GL}	-	(-7)	-	V	
Common Electrode Driving Voltage	VCOM	-	5.3	-	V	
LED Reverse Voltage	V _r			1.5	V	For single LED
LED Forward Current	I _f		20	30	mA	For single LED

5-2. Backlight Driving Conditions:

(Ta = 25 ± 2°C)

Item	Symbol	Values			Unit	Note
		Min.	Typ.	Max.		
Power Consumption	P _{BL}	--	2.304	2.52	W	--
LED Current	I _F	--	240	--	mA	--
Backlight Voltage	V _{BL}	--	9.6	10.5	V	--
Life Time	--	10000	--	--	hrs	(1)

Note:

(1) Brightness to be decreased to 50% of the initial value



