Product Specification

8.4” COLOR TFT-LCD MODULE

MODEL NAME: C084XAT01.0

Model Name:	**C084XAT01.0**

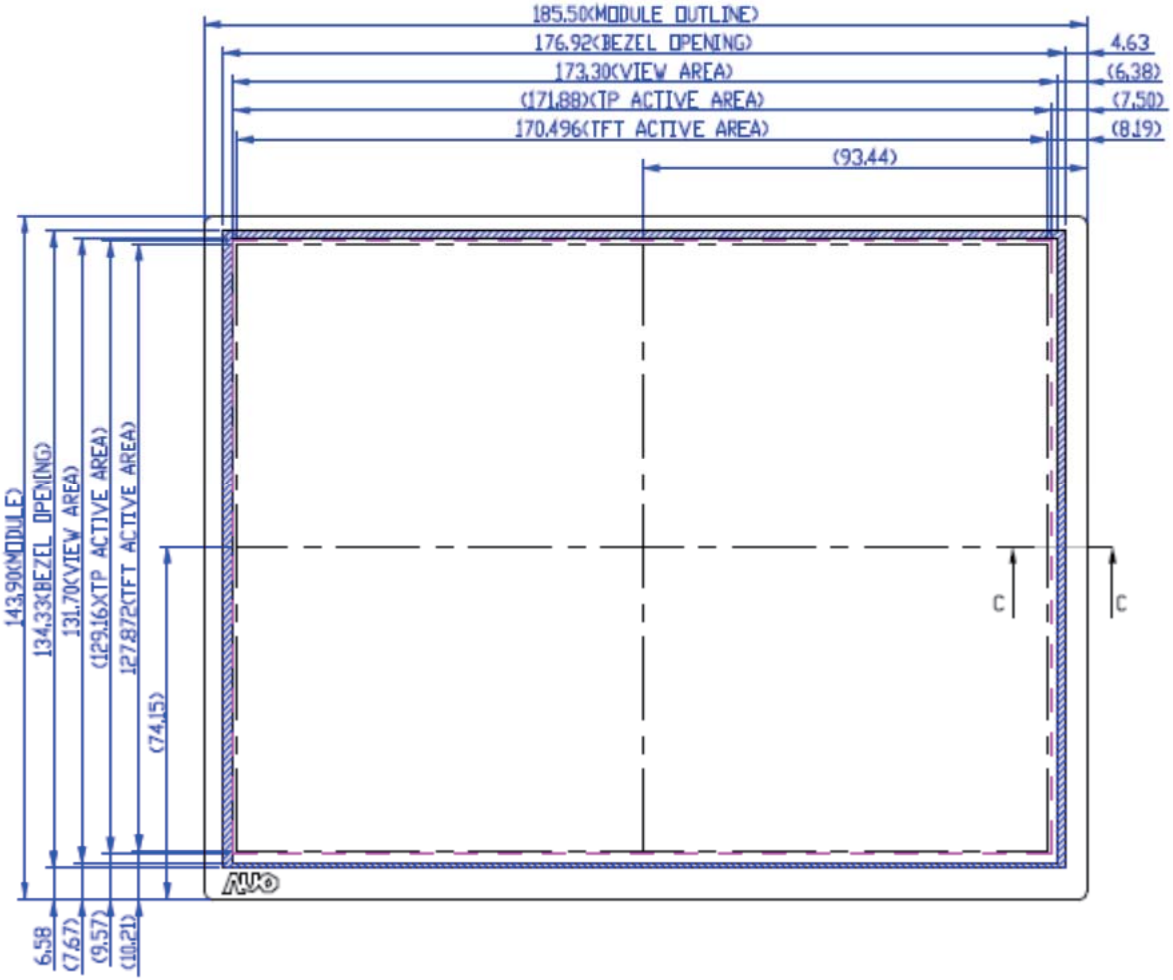
C. Physical Specifications

1. TFT LCD Panel

NO.	Item	Unit	Specification	Remark
1	**Display Resolution**	dot	1024 (H) x 768 (V)	
2	**Active Area**	mm	170.496 (H) x 127.872 (V)	
3	**Screen Size**	inch	8.4 (Diagonal)	
4	**Dot Pitch**	μm	166.5	
5	**Color Configuration**	–	R. G. B. Stripe	
6	**Color Depth**	–	16.7M colors	
7	**Overall Dimension**	mm	185.5 (H) x 143.9 (V) x 9.5 (T)	Note. 1
8	**Weight**	g	420 g +/-10%	
9	**Display Mode**	–	Normally Black	Note. 2
10	**Surface Treatment**	–	AGLR	
11	**Surface Reflection**	–	<3.2% (SCI)	Note. 3

Note 1: PCBA is excluded

Note 2: Below figure shows absorbing axis


185.50(MODULE OUTLINE)
176.92(BEZEL OPENING)
173.30(VIEW AREA)
(171.88)(TP ACTIVE AREA)
170.496(TFT ACTIVE AREA)
(93.44)
4.63
(6.38)
(7.50)
(8.19)
143.90(MODULE)
134.33(BEZEL OPENING)
131.70(VIEW AREA)
(129.16)(TP ACTIVE AREA)
127.872(TFT ACTIVE AREA)
(74.15)
6.58
(7.67)
(9.57)
(10.21)
C
C

E. Electrical Specifications

1. TFT LCD Panel Pin Assignment

Recommended Connector: **FH52-40S-0.5SH**
TP IC: **ATMXT641TATES**

No.	Pin Name	I/O	Description	Remarks
1	**VCC_D**	PI	Display power (3.3 V)	
2	**VCC_D**	PI	Display power (3.3 V)	
3	**VCC_D**	PI	Display power (3.3 V)	
4	**VCC_T**	PI	CTP power (3.3 V)	
5	**VCC_T**	PI	CTP power (3.3 V)	
6	**GRB**	I	Global reset	
7	**GND**	G	GND	
8	**GND**	G	GND	
9	**GND**	G	GND	
10	**GND**	G	GND	
11	**GND**	G	GND	
12	**RESET**	I	CTP Controller Reset	
13	**C_SCL**	I	CTP I2C Clock	
14	**C_SDA**	I/O	CTP I2C Data	
15	**CHG**	O	CTP State change interrupt	
16	**GND**	G	GND	
17	**GND**	G	GND	
18	**GND**	G	GND	
19	**GND**	G	GND	
20	**AB_IND**	O	Abnormal signal detection. Combine the source driver & gate driver detection result. AB_IND = "H", IC is at normal operation. AB_IND = "L", IC is at abnormal states.	Note 1

21	**VESA_EN**	I	JEIDA/VESA format setting VESA_EN = "H", VESA format.(Default) VESA_EN = "L", JEIDA format.	
22	**GND**	G	GND	
23	**NIND0**	I	Negative LVDS differential data input	
24	**PIND0**	I	Positive LVDS differential data input	
25	**GND**	G	GND	
26	**NIND1-**	I	Negative LVDS differential data input	
27	**PIND1+**	I	Positive LVDS differential data input	
28	**GND**	G	GND	
29	**NIND2-**	I	Negative LVDS differential data input	
30	**PIND2+**	I	Positive LVDS differential data input	
31	**GND**	G	GND	
32	**CLKN-**	I	Negative LVDS differential clock input	
33	**CLKP+**	I	Positive LVDS differential clock input	
34	**GND**	G	GND	
35	**NIND3-**	I	Negative LVDS differential data input (Odd data)	
36	**PIND3+**	I	Positive LVDS differential data input (Odd data)	
37	**GND**	G	GND	
38	**SHLR**	I	Horizontal scan direction control. "H" Left to Right; "L" Right to Left.	Note 2
39	**UPDN**	I	Vertical scan direction control. "H" Down to Up; "L" Up to Down.	Note 2
40	**GND**	G	GND	

F. Optical specifications (Note 1, 2)

Item	Symbol	Condition	Min.	Typ.	Max.	Unit	Remark
Response Time (25 °C)	Tr +Tf	$\theta = 0°$	-	-	30	ms	Note 3, 4
Response Time (-30 °C)	Tr +Tf	$\theta = 0°$	-	-	400	ms	
Contrast ratio	CR	$\theta = 0°$	800	-	-		Note 5, 6,
Viewing Angle Top Bottom Left Right		$\theta = 20°, \Phi = 90°$ $\theta = 20°, \Phi = 270°$ $\theta = 40°, \Phi = 180°$ $\theta = 40°, \Phi = 0°$	CR ≥ 600	-	-	deg.	Note 5, 6, 7, 9
Viewing Angle Top Bottom Left Right		$\theta = 60°, \Phi = 90°$ $\theta = 60°, \Phi = 270°$ $\theta = 60°, \Phi = 180°$ $\theta = 60°, \Phi = 0°$	CR ≥ 100	-	-	deg.	Note 5, 6, 7, 9

G. Reliability Test Items (Note 1 – 5)

No.	Test items	Conditions		Remark
1	High temperature storage	Ta = 95 °C	240 Hrs	
2	Low temperature storage	Ta = -40 °C	240 Hrs	
3	Low temperature operation	Ta = -30 °C	240 Hrs	
4	High temperature operation	Ta = 85 °C	1000 Hrs	Note 5
5	High temperature and high humidity	Ta= 65 °C, 90% RH	1000 Hrs	Note 5
6	Thermal Shock	-40 °C ~ 85 °C / 632 cycles 1 Hrs/cycle		Note 5
7	Power Temperature Cycling	-30 °C ~ 85 °C / 3hr/cycle / 211 hrs		Note 5
8	Humid Heat Cyclic	-10 °C / +65 °C, 10 days		Note 5