

Specification

Model:GLH008HA1

USER			MANUFACTURER		
QA	Project	Approved by	Prepared by	Checked by	Approved by

Catalogue

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Version

Date	Version	Content
2009-12-18	RD001	The First Version
2010-4-20	VER:1.00	The Second Version

1. Profile:

GLH008HA1 VER:1.00-AT070TN92 color tft lcd module is compose by GLH008HA1 VER:1.00 driver board and 7" Innolux (AT070TN92) digital panel. It can input MD CVBS,S-VIDEO,VGA signal, OSD menu display, and adopt IC to control power.

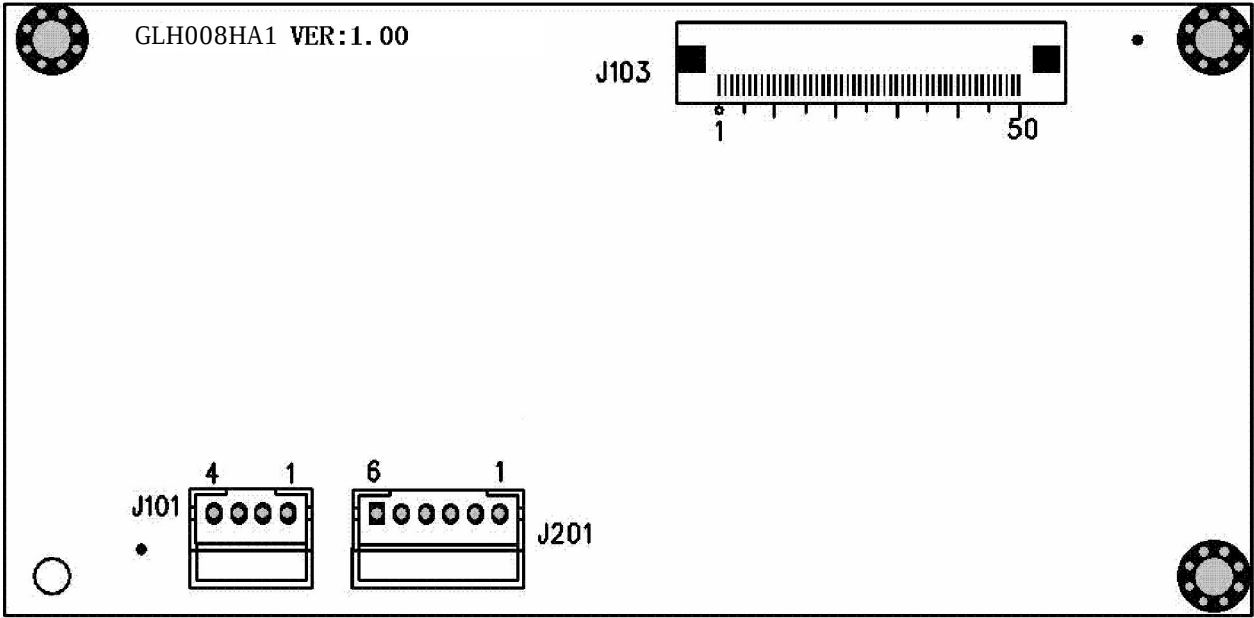
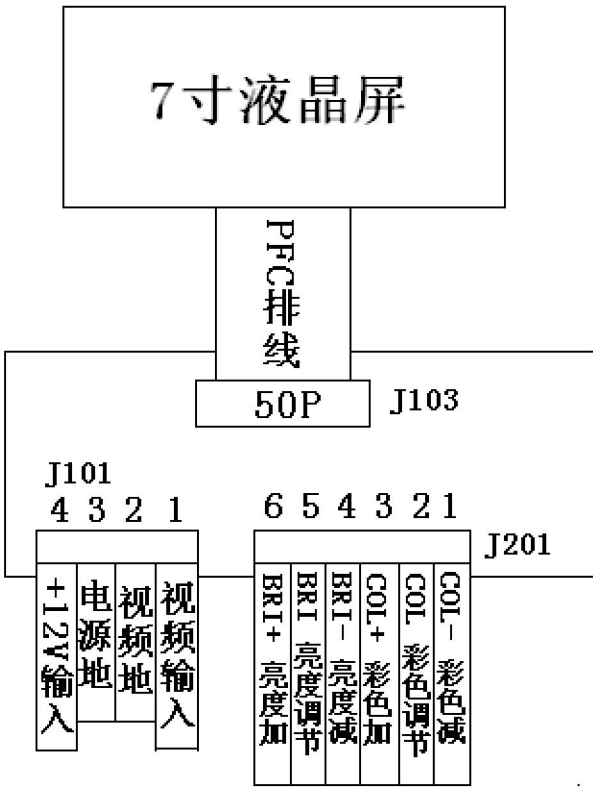
2.Main Parameter:

- Name: 7" Digital TFT-LCD Module
- Model: GLH008HA1 VER:1.00-AT070TN92
- Panel: 7" TFT-LCD (Innolux)
- Backlight: LED
- Resolution: 800×3RGB×480
- Brightness: 250 cd/m² (take FPC line down, only light the backlight to test)
- View angle (U/D/L/R): (50/70/70/70)
- Power input: DC9~15V (Type12V 290mA±20mA)
- Rated power: 3.5W
- Dimension of panel(mm): 154.08 (H) × 85.92 (V)
- Overall dimension of panel(mm): 164.9(W)×100 (H) × 5.7(D)
- Structural dimension of PCB(mm): 102.0(W)×50.0 (H) × 8.2(D)
- Operation temperature: -10~60℃
- Relative humidity: 5~95% RH
- Storage temperature: -20℃~+70℃

3.Product Picture:



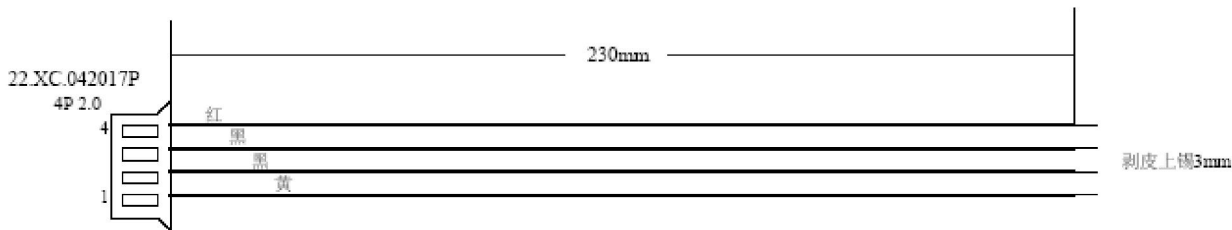
4. Wiring Diagram:



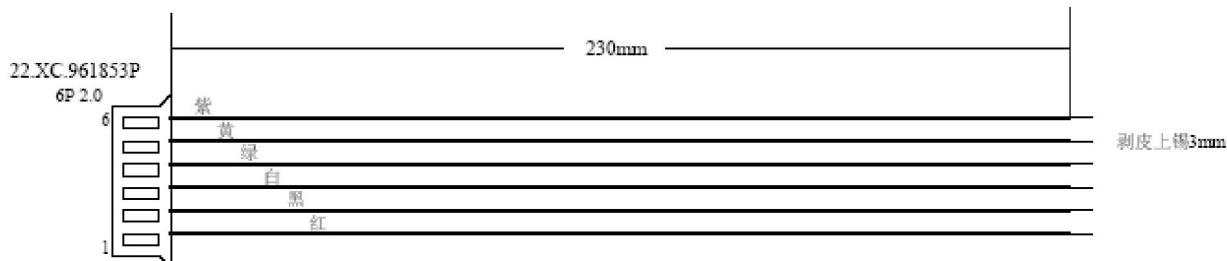
Cables:

Back cable:

22.XC.042017P 4PIN(2.0mm)without jack length for 230mm(yellow, black, black,red)ROHS.



22.XC.961853P(2.0)230mm without jack ROHS.



5. The connection definition of driver board:

5.1 J101:

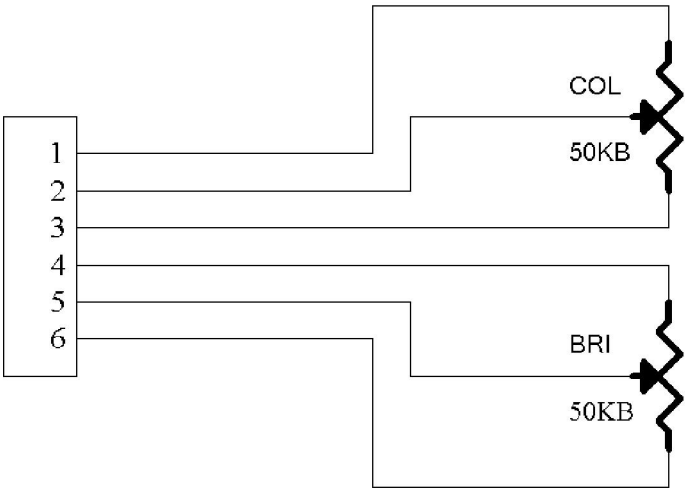
Pin No.	Symbol	I/O	Description	Remark
1	VIDEO	I	Video input	
2	GND	-	Ground	
3	GND	-	Ground	
4	+12V	I	DC12V input	

5.2 J201:

Pin No.	Symbol	I/O	Description	Remarks
1	COL-	O	Color reduce	
2	COL	I	Color adjustment	
3	COL+	O	Color plus	

4	BRI-	O	Brightness reduce	
5	BRI	I	Brightness adjustment	
6	BRI+	O	Brightness plus	

VR spec. 10KB/50KB(beeline type)



5.3 J103 :

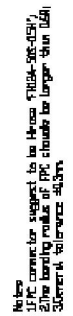
Pin No.	Symbol	I/O	Function	Remark
1	LED +	P	LED Anode	

2	LED +	P	LED Anode	
3	LED -	P	LED Cathode	
4	LED -	P	LED Cathode	
5	GND	P	Power ground	
6	VCOM	I	Common voltage	
7	VCC	P	Power for Digital circuit	
8	MODE	I	DE/SYNC mode select	Note3
9	DE	I	Data Input Enable	
10	VS	I	Vertical Sync Input	
11	HS	I	Horizontal Sync Input	
12	B7	I	Blue data(MSB)	
13	B6	I	Blue data	
14	B5	I	Blue data	
15	B4	I	Blue data	
16	B3	I	Blue data	
17	B2	I	Blue data	
18	B1	I	Blue data	
19	B0	I	Blue data(LSB)	
20	G7	I	Green data (MSB)	
21	G6	I	Green data	
22	G5	I	Green data	
23	G4	I	Green data	
24	G3	I	Green data	
25	G2	I	Green data	
26	G1	I	Green data	
27	G0	I	Green data (LSB)	
28	R7	I	Red data (MSB)	
29	R6	I	Red data	
30	R5	I	Red data	
31	R4	I	Red data	
32	R3	I	Red data	
33	R2	I	Red data	
34	R1	I	Red data	
35	R0	I	Red data (LSB)	
36	GND	P	Power ground	
37	DCLK	I	Sample clock	
38	GND	P	Power ground	
39	L/R	I	Right/ left selection	Note2,5

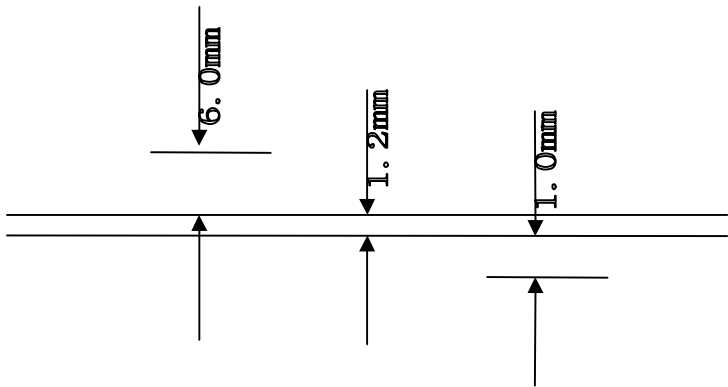
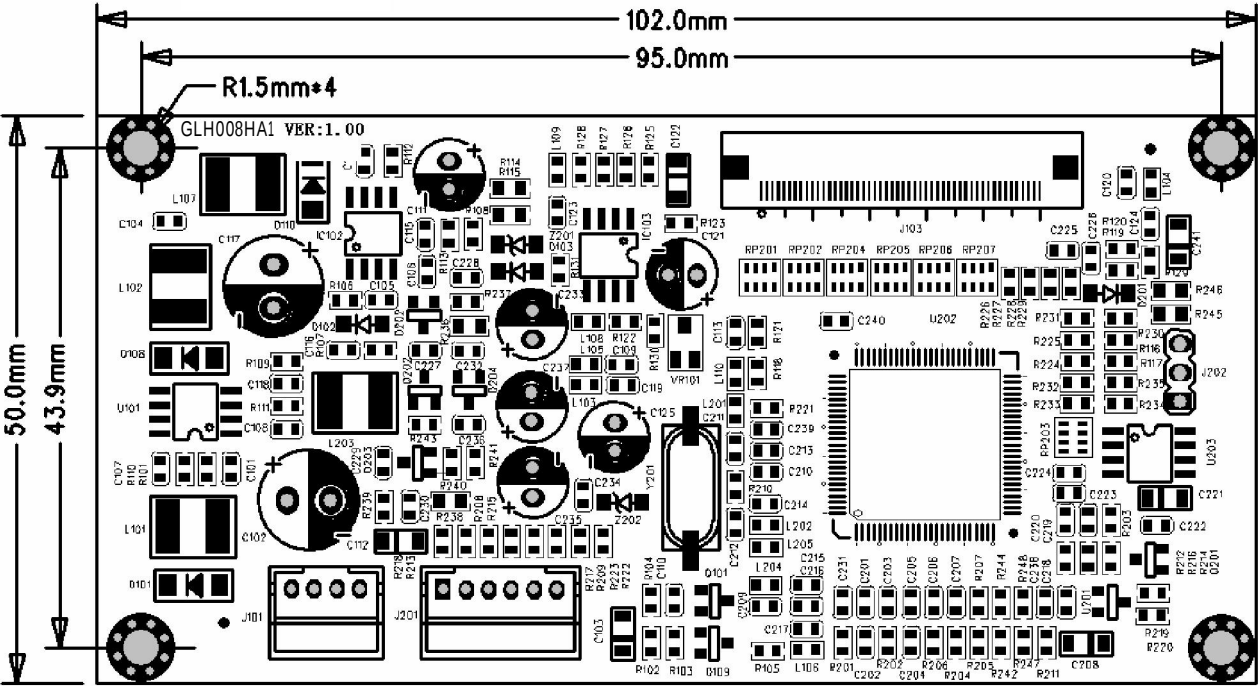
40	U/D	I	Up/down selection	Note2,5
41	VGH	P	Gate ON voltage	
42	VGL	P	Gate OFF voltage	
43	AVDD	P	Power for Analog circuit	
44	RESET	I	Global reset pin.	Note1
45	NC	-	No connection	
46	VCOM	I	Common voltage	
47	DITHB	I	Dithering function	Note 4
48	GND	P	Power ground	
49	NC	-	No connection	
50	NC	-	No connection	

6.1 LCD Panel:

6.1 LCD Panel:



6.2 PCB dimension: 102.0 (W)×50.0 (H) ×8.2 (D)



7.Product sign:

AT070TN92

8. Packing:

- a. 1unit/box volume:23x13x4cm weight:0.244kg
- b. One carton volume:52x49x39cm One carton pack quantity:56units
weight:15.421kg

9.Attention:

1. Voltage don't exceed upper limit.
2. The connector can't connect board in reverse, or will burn the board and influence the product.
3. Please don't touch it in order to keep your skin non-burn when you electrify the board(high voltage on the board).
4. 7"TFT LCD Panel is a electronic product, so you need to take anti-static measure when you operate it.
5. 7"TFT-LCD Panel is a glasswork, place carefully ,broken for fear.
6. The connection is "FPC", which connect 7"TFT-LCD panel with PCB, Please operate it carefully, in order to keep it well.
7. Don't touch VR's pin feet when you adjust VR, due to Person have resistance, you will effect VR's function when touch it.

10. 7" TFT- LCD PANEL Inspection Standard:

Aim: Establishing the standard of PANLE for inspecting material & progress and for clients' inspection.

Scope: Apply to 7" TFT LCD

Content:

8.1. Inspection standard and method:

8.1.1. The method and determinant of inspecting the nick of panel of LCD:

9.1.1.1. Inspect vertically (or at 45° angle from left/right) under the light tube (the power is 20 W) in the distance of 30cm to the panel. If there is no nick, it is "OK". Otherwise "NG".

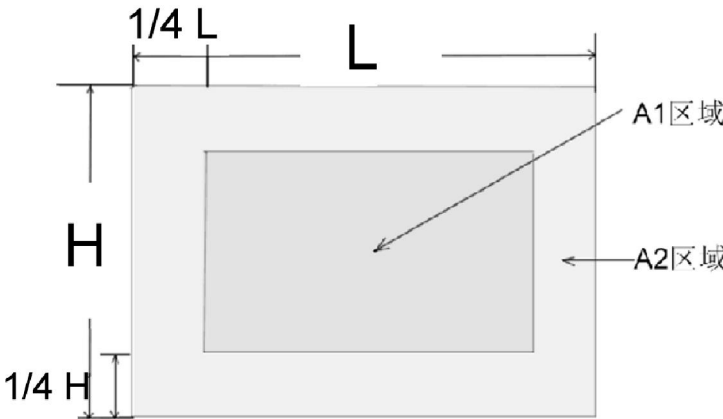
8.1.2. The method and determinative for black & white & color spots for the Panel of LCD:

8.1.2.1. Inspection methods

8.1.2.1.1. Black spots: under status of denote light, set the MASK of black spot inspection near the black spot then compare the big and small by eyes.

8.1.2.1.2. White & Color spots: under status of denote light, set the Mask of black spot inspection on the white spot(or color spot) then inspect them by eyes if it can hide.

8.1.2.2. Division of LCD Panel



Remark: A1: The center of the available area for the picture

A2: The edge of the available area for the picture (around the central area)

8.1.3. Determinant Choice

Spot Diameter (mm)		Allowed Area	
		A1	A2
Black Spot	$d \leq 0.15$	Irrespective	Irrespective
	$0.15 < d \leq 0.3$	4	4
	$0.3 < d \leq 0.5$	2	3
	$0.5 < d \leq 0.8$	0	2
White or color	$d \leq 0.15$	Irrespective	Irrespective
	$0.15 < d \leq 0.3$	3	3

spot	0.3<d≤0.5	1	2
	0.5<d≤0.8	0	1

Remark: 1. Size: Average Diameter= (Max. Diameter + Min. Diameter) /2

2. Using information above as a standard in order to judge while the spot is are dense.

3. Black & White spot: To judge the obvious spots through the change of voltage by comparison.

4. Total quantity of Black & white & color spot: $A1+A2 \leq 4$.