

Specification

Driver board model: LD43M06

Driver board version: RD001

LCD screen's model: HSD043-07A

USER			MANUFACTURER		
Quality by	Engineer by	Authorized by	Prepared by	Check by	Approval by

Catalogue

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Version

[illegible]

1、Profile:

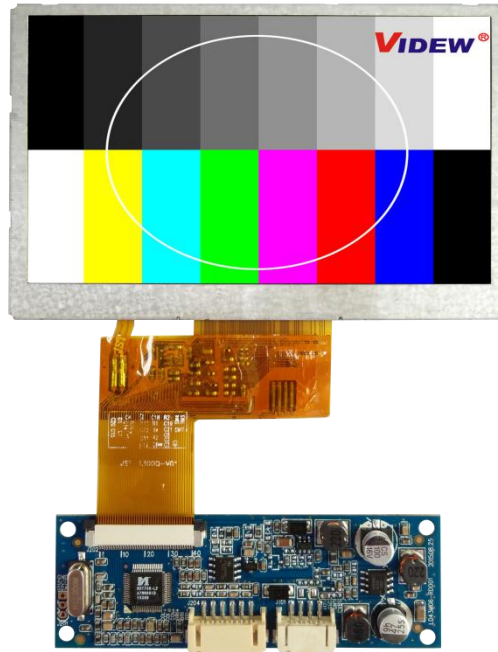
LD43M06 RD001–HSD043-07A Color Digital Module is comprised by LD43M06 RD001 driver board and (HSD043-07A) screen. The LCD module supports CVBS signal input ,NTSC and PAL formats which two formats applies to auto identification. Potentiometer adjust to color,brightness with the OSD menu display.It's suitable for display electronics assembly,such as Video door phone &video phone,building talk-back system etc.

2、Basic parameters:

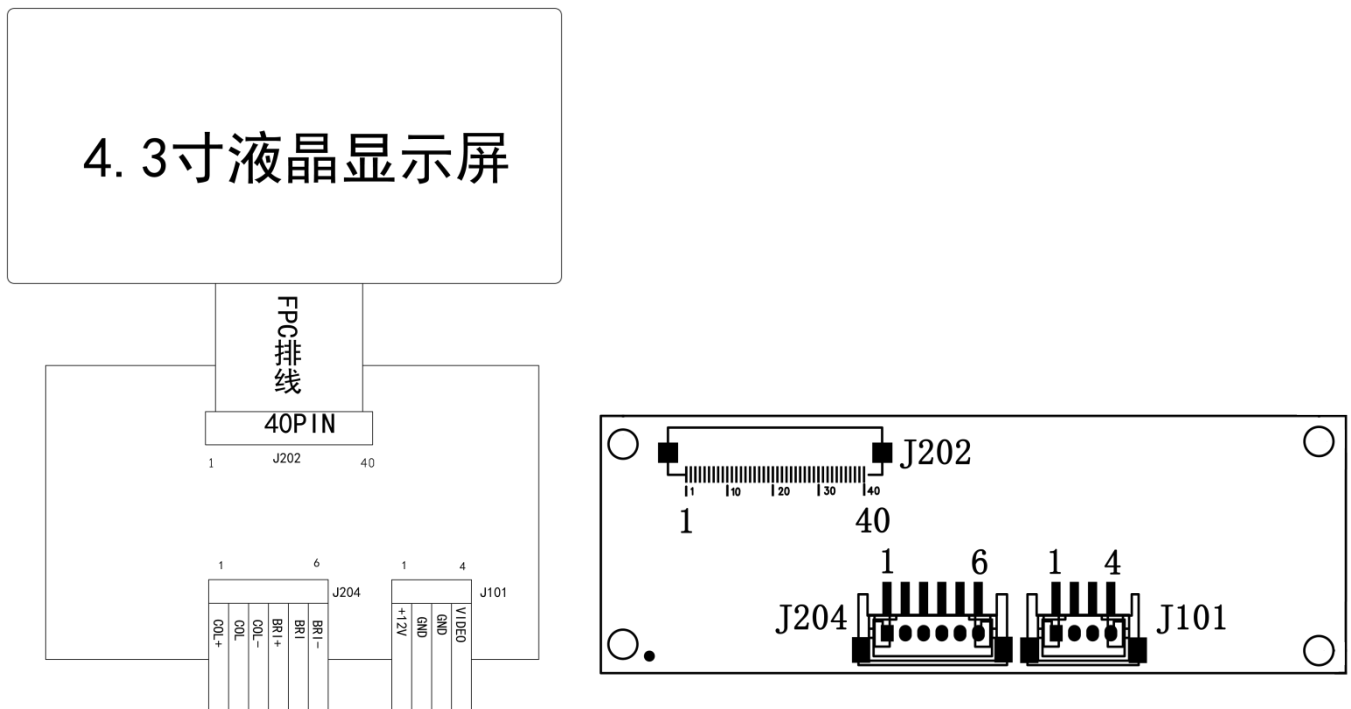
Serial no.	Items	Descriptions	Remarks
1	LCD screen display size	4.3inch	
2	Display ratio	16:9	
3	Back-Light Type	LED	
4	Brightness	140~180 cd/m ²	
5	Resolution	480(RGB)×272	
6	Viewing angle(up/down/left/right)	(40/60/60/60)	
7	LCD screen size	105.5 (W) ×67.2 (H) ×2.9 (D) mm	
8	Effective display range	95.04 (H) ×53.856 (V) mm	
9	Driver board size	81.7 (W) ×28.1 (H) ×7.0 (D) mm	
10	Working voltage (power supply ripple <0.3VP-P)	Min: DC9V; Standard: DC12V; Max: DC18V;	
11	Working current (DC 12V when supplying)	DC120mA±20mA	
12	Power consumption	1.44W (TYP)	
13	Starting time	≤2.0s	
14	Working temperature range	0℃~60℃	
15	Storage temperature range	-20℃~70℃	
16	Environment relative humidity	5~95%RH	

Note1: The test result of screen brightness values is adopted by BM-7 machine.

3、Product pictures:



4、Wiring diagram:



5、Connector definition of driver board:

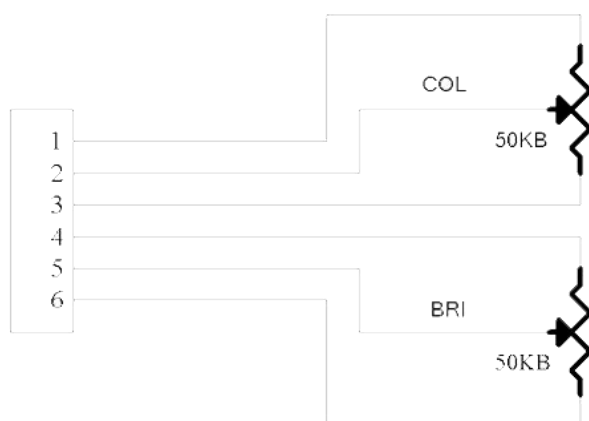
5、1 J101 connector definition: (4PIN 2.0mm)

Serial no.	Pin connection	I/O/P	connector definition	Remarks
1	+12V	I	DC power input	9-15V
2	GND	P	Ground	
3	GND	P	Ground	
4	VIDEO	I	Video signal input	0.3-1.8V _{P-P}

5.2、J204 connector definition: (6PIN 2.0mm)

Serial no.	Pin connection	I/O	connector definition	Remarks
1	COL+	I	Color+	
2	COL	I	Color adjustment	0-3.3V
3	COL-	I	Color-	
4	BRI+	I	Brightness+	
5	BRI	I	Brightness adjustment	0-3.3V
6	BRI-	I	Brightness-	

5.2.1、Potentiometer Spec.: 50KB (Line type)



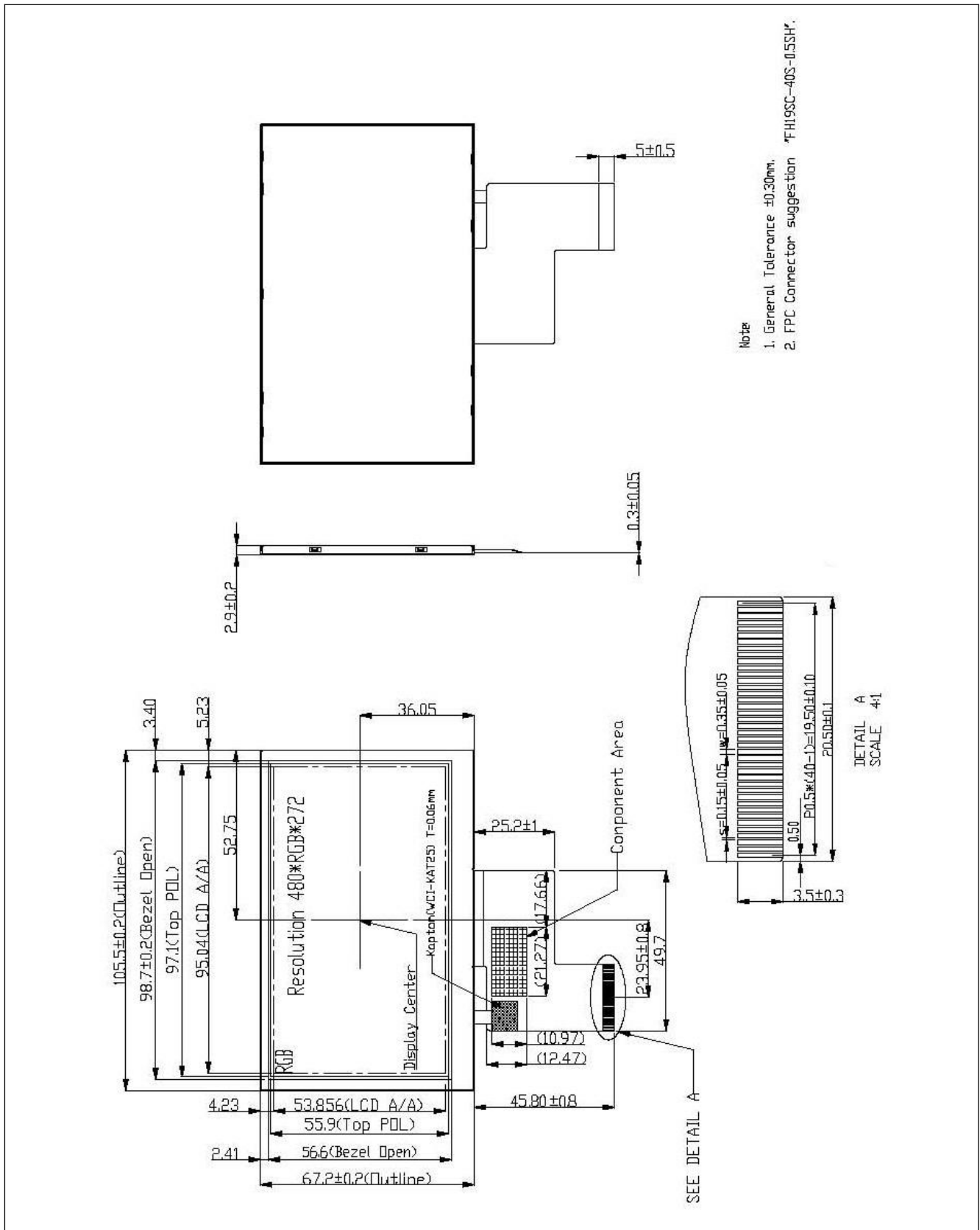
5.3、J202 connector definition: (50PIN 0.5mm)

Pin No.	Symbol	Functional	Notes
1	LED K	LED Cathode	
2	LED A	LED Anode	
3	GND	Digital Ground	
4	VDD	Digital Power	
5-12	R0-R7	Red data input	
13-20	G0-G7	Green data input	
21-28	B0-B7	Blue data input	
29	GND	Digital Ground	
30	DCLK	Clock input	
31	DISP	Display on/off	
32	HSYNC	Horizontal sync input Negative polarity	
33	VSYNC	Vertical sync input Negative polarity	
34	DE	Data enable signal	
35	NC	Not connect	
36	GND	Digital Ground	
37	XR	TPX-Right	
38	YD	TPY.Bottom	
39	XL	TPX.Left	
40	YU	TPY-Up	

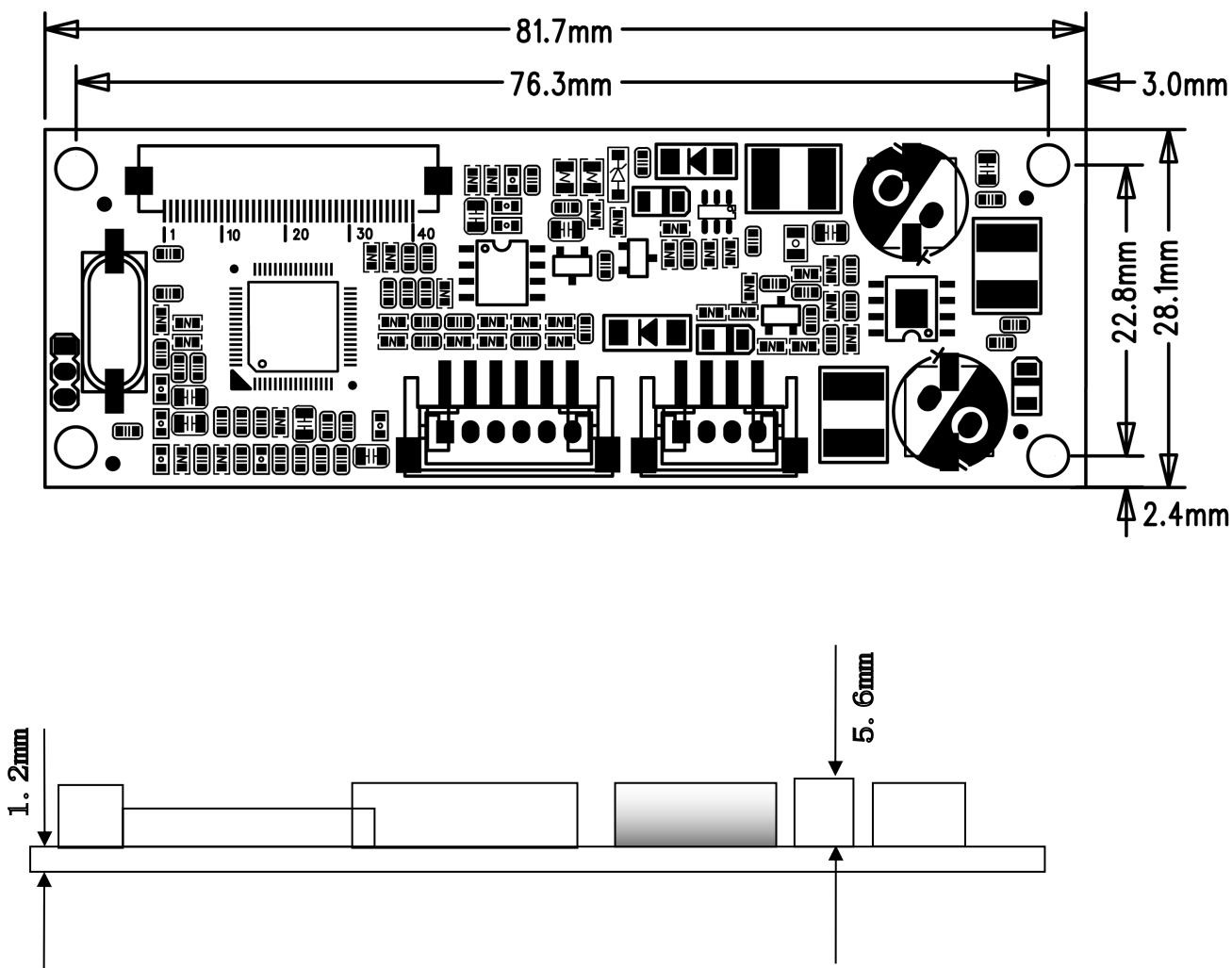
I/O: I: input, O: output, P: power

6、Stucture drawing:

6.1、TFT LCD Panel:



6.2、PCB dimension: 81.7 (W)×28.1(H) ×7.0(D)mm



7、Product label:

HSD043-07A

8、Packing /Shipping/ Storage

1、Packing

TBD

2、Shipping/ Storage

Pls avoid to collision or get wet by snow and rain in transportation, It is strictly prohibited to storage with chemicals and wet goods together.

9、 LD43M06 Debugging precautions

- 1、 TFT products had been precision debugged,aged,tested with special instrument before shipment, so there's no need to adjust again.
- 2、 Before adjustment, pls correctly connect power and video signal.Should be turn off/on power and video signal for checking image situation repeatedly.
- 3、 Because TFT module is a electronic product, pls pay attention to avoid anti-static.
- 4、 4.3"TFT- LCD PANEL is made of glass, pls place carefully to avoid breakage.
- 5、 Don't touch the Potentiometer's pin feet when you use the keyboard control the module. Because person have resistance, you will affect function of potentiometer when touch it.

10、4.3"TFT- LCD PANEL Inspection standard:

Purpose: Establish the standard of PANLE for inspecting material & progress and for clients' inspection.

Scope: suitable for 4.3"TFT LCD product.

Content:

10.1、Inspection standard and method

10.1.1、LCD display scar detection method and judge:

10.1.1.1、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 scratch, it is "OK". Otherwise "NG".

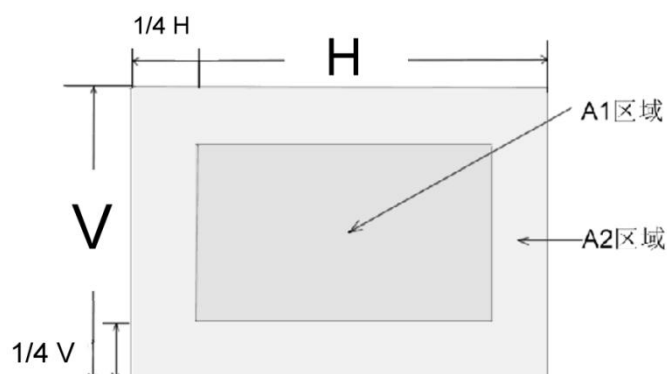
10.1.2、Inspection method and judgment of LCD display's black spot,white spot,color spot.

10.1.2.1. Inspection method

10.1.2.1.1、Black spot: under status of denote light, pls place MASK to near the LCD black spots and then compare with the size through visual observation.

10.1.2.1.2、White spot/color spot: under status of denote light, pls place MASK to overlay on white spot of LCD,judge that white spot(color spot) wether can hidden or not

10.1.2.2、Division of LCD Panel



Note: A1 area: The center of the available area for the picture.

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

10.1.3、The inspection standard for the spots:

Spot Diameter(mm)		Acceptable range	
		A1 area	A2 area
Black spot	$d \leq 0.15$	Irrespective	Irrespective
	$0.15 < d \leq 0.3$	4	4
	$0.3 < d \leq 0.5$	2	3
	$0.5 < d < 0.8$	0	2
White spot/ color spot	$d \leq 0.15$	Irrespective	Irrespective
	$0.15 < d \leq 0.3$	3	3
	$0.3 < d \leq 0.5$	1	2
	$0.5 < d < 0.8$	0	1

Note: 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 spot/white spot: To judge the obvious spots through the change of voltage by comparison.
- 4、 Total amount of black spot/white/color spots: $A1+A2 \text{ area} \leq 4\text{pcs}$.