产品规格书
Specification

产品名称 (Product) : 4.3 寸液晶显示模组/4.3inch TFT LCD Module

驱　动　板 (Driver board): JDLC4318001

版　本　号 (Version): RD001

液　晶　屏 (TFT LCD): HSD043-07A

客 户 名 称 (Customer):

客 户 型 号 (Cust.P/N):

日　　期 (Date):

客户 CUSTOMER			承制方 MANUFACTURER		
品质 Quality	工程 Engineer	审批 Approved	审核 Checked	批准 Approved	销售 Sales

目 录 Contents

版本更改 Version

日期/Date	版本/Ver.	修改版本/Modification
2018-07-20	RD001	第一版(First Version)

1. 概况 Profile:

JDLC4318001 RD001－HSD043-07A 彩色液晶驱动模组，由 JDLC4318001 RD001 驱动板和（HSD043-07A）屏组成。支持 PAL 和 NTSC 制 CVBS 信号输入，可实现制式自动识别。电位器调节彩色、亮度。它主要用于可视门铃、楼宇对讲、可视电话等其它显示电子设备。

JDLC4318001 RD001－HSD043-07A Color Digital Module is comprised by JDLC4318001 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,brighteness 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. 基本参数 Specifications:

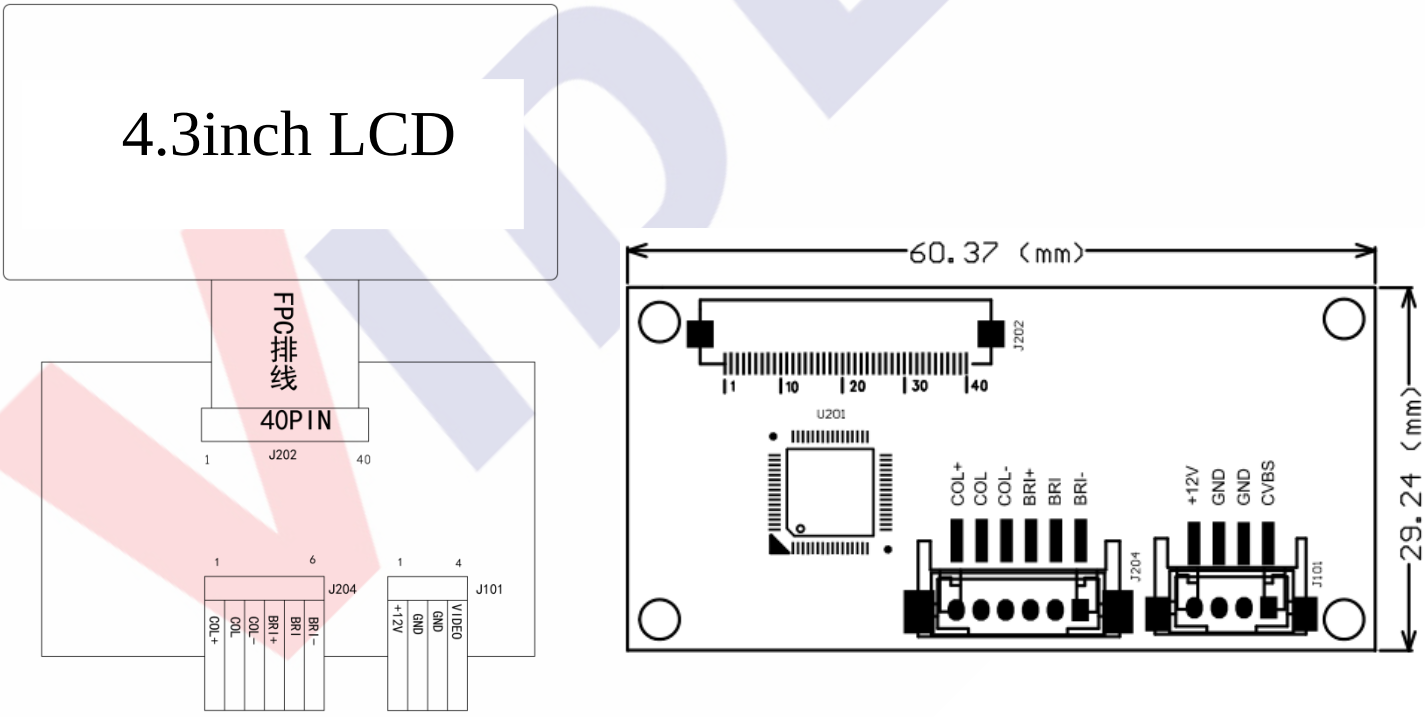
No.	项目/Item	说明/Description	Note
1	液晶屏显示尺寸/LCD Display	4.3 英寸/4.3inch	
2	液晶屏显示比/LCDDisplay Ratio	4:3	
3	背光方式/Backlight	LED	
4	亮度/Brightness	140-180cd/m^2	
5	解析度/Resolution	480×3(RGB)×272	
6	视角范围/View angle	(40/60/60/60)up/down/left/right	
7	液晶屏尺寸/LCD dimension	105.5（W）×67.2（H）×3.0（D）mm	
8	有效显示范围/Effect area	95.04（H）×53.86（V）mm	
9	驱动板尺寸/Driver board size	60.37（W）×29.24（H）×1.2（D）mm	
10	工作电压（纹波小于 0.3VP-P） Working Voltage (Wave<0.3VP-P)	最小：DC9V；标准：DC12V；最大：DC18V； Min:DC9V; Standard: DC12V; Max: DC18V;	
11	工作电流（DC 12V 供电时） Working Current (DC 12V supply)	DC120mA±20mA	
12	消耗功率/Power Consumption	1.44W（TYP）	
13	启动时间/Start Time	≤2.0 秒 ≤2.0 S	
14	工作温度范围/Working Temp.	0℃~60℃	
15	储存温度范围/Storage Temp.	-20℃~70℃	
16	环境相对湿度/ENV. Humidity	5~95％RH	

注 1：屏幕亮度值的测试结果，采用 BM-7 仪器测试。

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

3. 产品图片/Product Picture:

4. 连线示意图/Wiring Diagram:



5. 驱动板接口定义/Interface Definition：

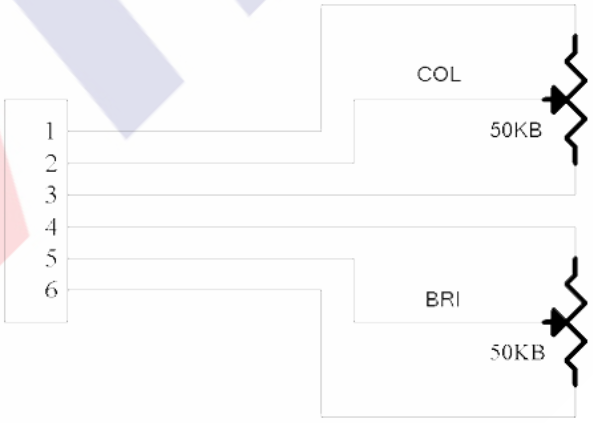
5.1. J101 接口定义/J101 Interface Definition：(4PIN 2.0mm)

PIN	Function	I/O/P	脚位定义说明/PIN Definition	Note
1	+12V	I	直流电源输入/DC power input	9-15V
2	GND	P	地/ Ground	
3	GND	P	地/ Ground	
4	VIDEO	I	视频信号输入/Video Signal input	0.3-1.8VP-P

5.2. J204 接口定义/J204 Interface Definition：（6PIN 2.0mm）

PIN	Function	I/O	脚位定义说明/PIN Definition	Note
1	COL+	I	彩色加/ Color+	
2	COL	I	彩色调节/ Color adjustment	0-3.3V
3	COL-	I	彩色减/ Color-	
4	BRI+	I	亮度加/ Brightness+	
5	BRI	I	亮度调节/ Brightness adjustment	0-3.3V
6	BRI+	I	亮度减/ Brightness-	

5.2.1. 电位器规格： 50KB（直线型）/ Potentiometer Spec.： 50KB（Line type）



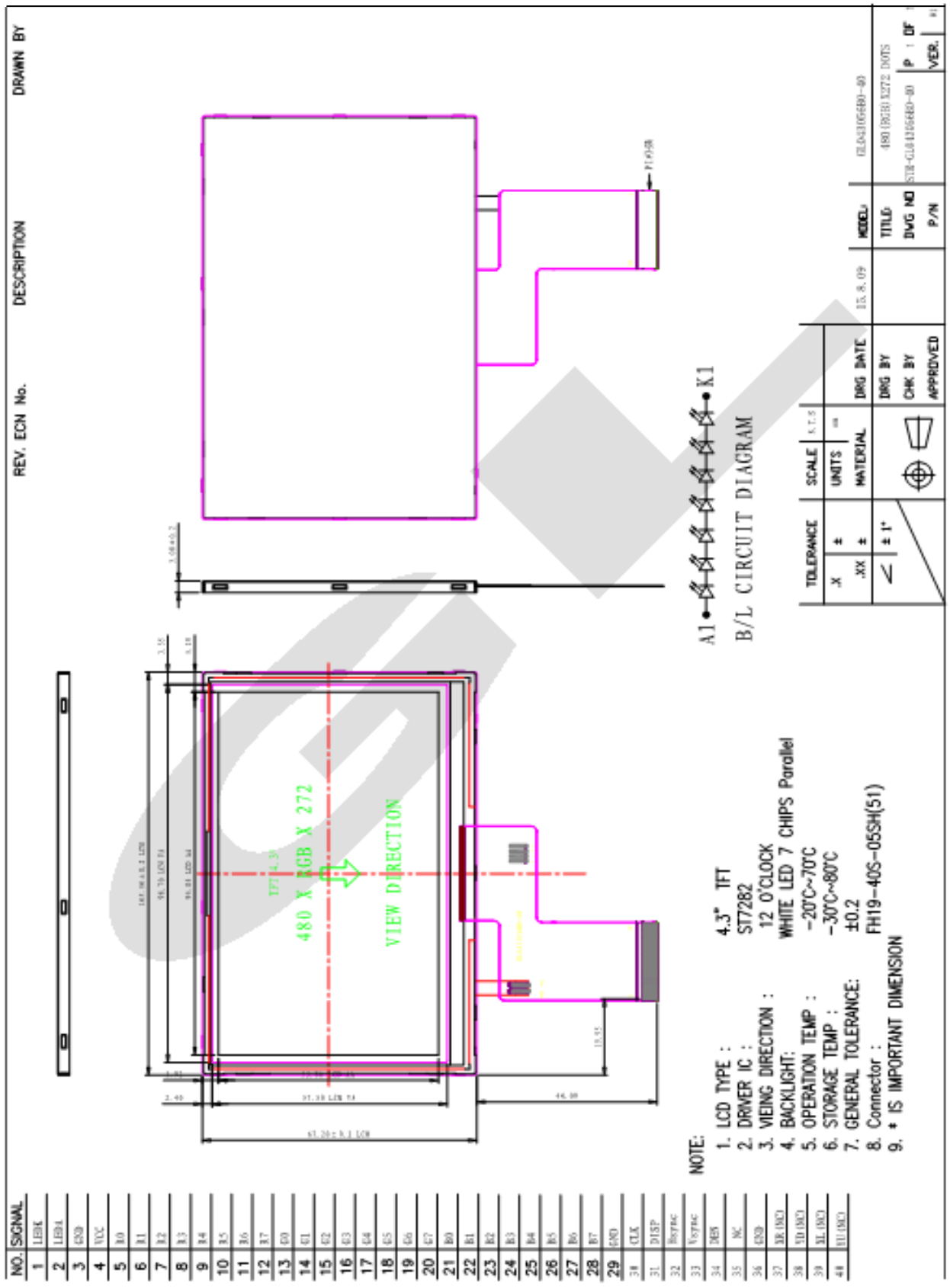
5.3、J202 接口定义/ J202 connector definition:（50PIN 0.5mm）

Pin N_O.	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	

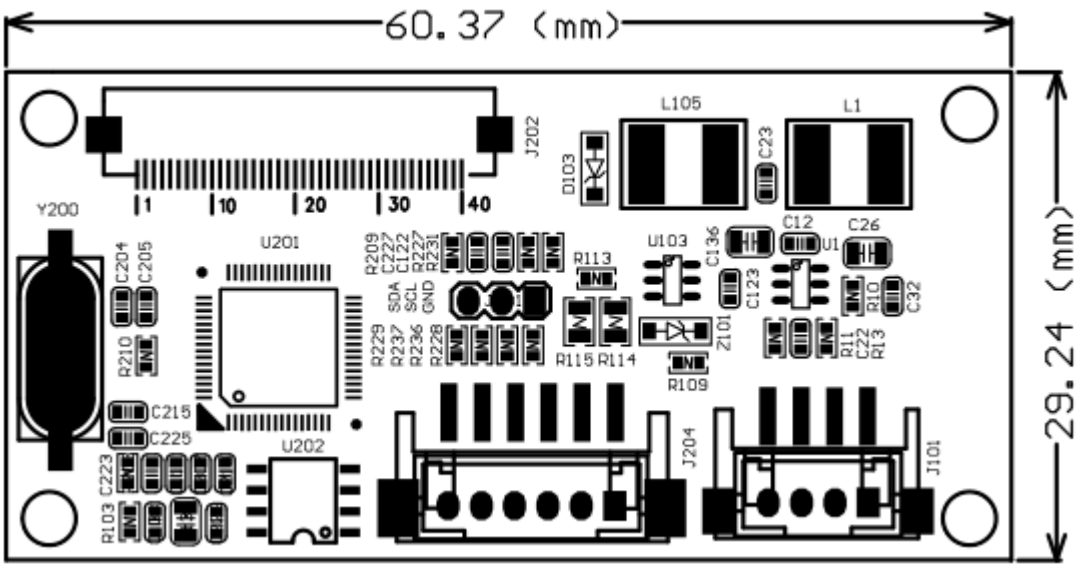
I/O: I: input, O: output, P: power

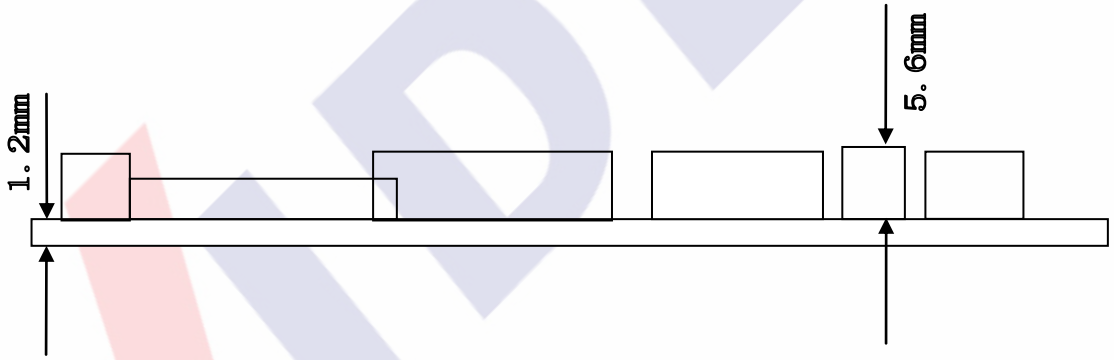
6. 结构图/Structure:

6.1. TFT LCD Panel:



6.2. PCB 尺寸/PCB size：81.7 (W)×28.1(H) ×7.0(D)mm





7. 产品标示/Product Label:

HSD043-07A

8. 包装、运输及贮存/Packing Shipping

8.1. 供货包装/Packing

TBD

8.2. 运输及贮存/Shipping

运输过程避免碰撞和雨雪淋袭；严禁与化学物品及潮湿物品同库贮存。

Don’t hit and rain when transportation: Don’t storage with chemic goods and wet goods together.

9. JDLC4318001 调试注意事项/ JDLC4318001 Debugging precautions

9.1. TFT 出厂前已用专用仪器进行精密调试和老化、测试，一般不需要再做调整。

TFT have used by special instrument to adjust precision and aging, test before leave factory, no need adjust again.

9.2. 调整前，应正确连接电源、视频信号，应数次开关电源以及视频信号检查图像情况。

Please correctly connect power, video signal before you adjust, should be on/off power and video signal to check the image’s effect.

9.3. 因为此产品为电子产品，请注意防静电。

Due to this product is electronic product, please notice prevent static.

9.4. 4.3"TFT- LCD PANEL 为玻璃制品，小心拿放，以免破裂。

4.3”TFT-LCD Panel is a glasswork, place carefully ,broken for fear

9.5. 调节电位器时需注意不能让手碰到按键引脚，因人体有一定的电阻，如触摸到会对按键功能造成影响。

Don’t touch pushbutton’s pin feet when you adjust potentiometers, due to person have resistance, you will effect pushbutton’s function when touch it.

10. 4.3"TFT- LCD PANEL 判定标准:/4 .3"TFT- LCD PANEL Inspection standard :

目的：制定 PANEL 的标准供进料检查、制程检查、客户检查的依据.

Aim: Make the panel standards to material purchasing, process inspecting and customer checking.

范围：适用于 4.3″TFT LCD 产品.

Ranges: apply to 4.3″TFT LCD modules

作业内容/ Determinant standard and method:

10.1. 判定标准及方法:

Judgment standard and method:

10.1.1. LCD 显示屏伤痕检测方法与判定：

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

在 20W 萤光灯下，距离 PANEL 30CM 处垂直（或左、右 45 度）观察，如果没有看见异物、伤痕，则判定 OK，否则 NG。

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 determines “OK”, otherwise “NG”.

10.1.2. LCD 显示屏黑点，白点，色点检测方法与判定：

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

10.1.2.1 检查方法/Inspection Method:

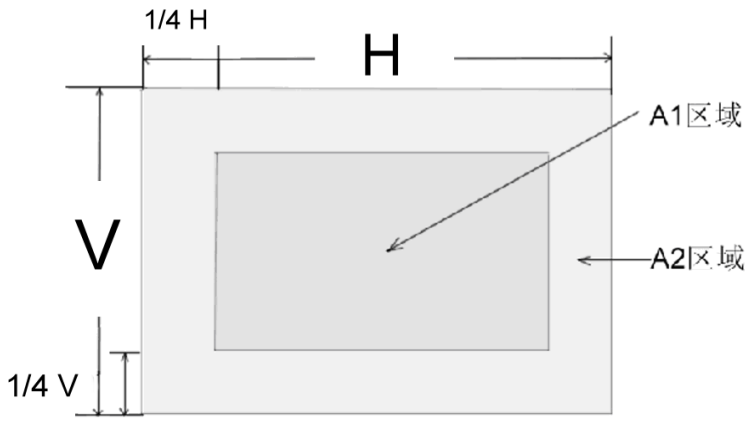
黑点：在表示点灯状况下，把检查黑点的 MASK 摆在 LCD 黑点的附近，目视观察比较大小.

Black spots：under the situation of “turn on the light”, set the MASK of black spot inspection near the black spot then compare the big and small by eyes.

白点，色点：在表示点灯状况下，把检查黑点的 MASK 重叠在 LCD 白点（色点）处，目视观察判断白点（色点）否可以隐藏.

White & Color spots: under situation of “turn on the light”, set the Mask of black spot inspection on the white spot (or color spot) then observe them by eyes if it can hide.

10.1.2.2 显示屏区域划分/ Division of LCD Panel：



注/Note: A1 区域：图像有效区域中心范围.
A1 area: The center of the available area for the picture
A2 区域：图像有效区域边缘范围（四周的区域）。
A2 Area: The edge of the available area for the picture

10.2. 判定选择/Judgment:

欠点直径（mm） Spot Diameter		允收范围/Accept Range	
		A1 区域/A1 area	A2 区域/A2 area
黑点 Black spot	d≤0.15	不计/Disregard	不计/Disregard
	0.15<d≤0.3	4	4
	0.3<d≤0.5	2	3
	0.5<d<0.8	0	2
白点或色点 White spot or Color spot	d≤0.15	不计/Disregard	不计/Disregard
	0.15<d≤0.3	3	3
	0.3<d≤0.5	1	2
	0.5<d<0.8	0	1

注/Note：

1. 大小：平均直径=（最长直径+最小直径）/2

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

2. 关于小欠点密集的时候，用上述的基准判断。

   Using information above as a standard in order to judge while the e spots are dense.

3. 黑斑、白斑：通过电压的变化来看，用对比的方法，对于明显斑点用点规格判断。

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

4. 总的黑点、白点、色点个数：A1+A2 区≤4 个。

   Total quantity of Black & white & color spot: A1+A2≤4.