产品规格书
Specification

产品名称 (Product) ： 3.5 寸液晶显示模组/3.5inch TFT LCD Module

驱　动　板 (Driver board): JD40M05

版　本　号 (Version): VER1.02

液　晶　屏 (TFT LCD): JD035I54D06A1-32CKT(56)

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
2010-11-14	RD001	第一版(The First Version)
2011-1-4	VER:1.02	第二版(The Second Version)

1. 概况 Profile:

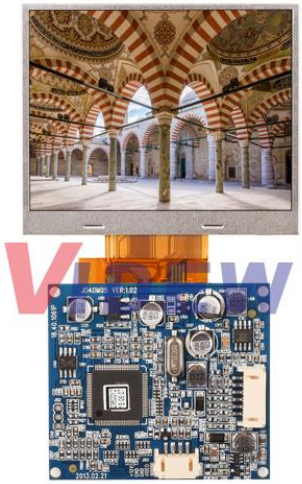
JD40M05 VER:1.02–JD035I54D06A1-32CKT(56)彩色液晶驱动模组，由 JD40M05 VER:1.02 驱动板和 JD035I54D06A1-32CKT(56)屏组成。输入 CVBS 信号，有 PAL 制和 NTSC 两种制式，可实现自动识别。电位器调节彩色、亮度或带 OSD 菜单显示。它主要用于可视电话，也可用于其他显示电子设备。

JD40M05 VER:1.02–JD035I54D06A1-32CKT(56) Color Digital Module is comprised by JD40M05 VER:1.02 driver board and（JD035I54D06A1-32CKT(56)）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.

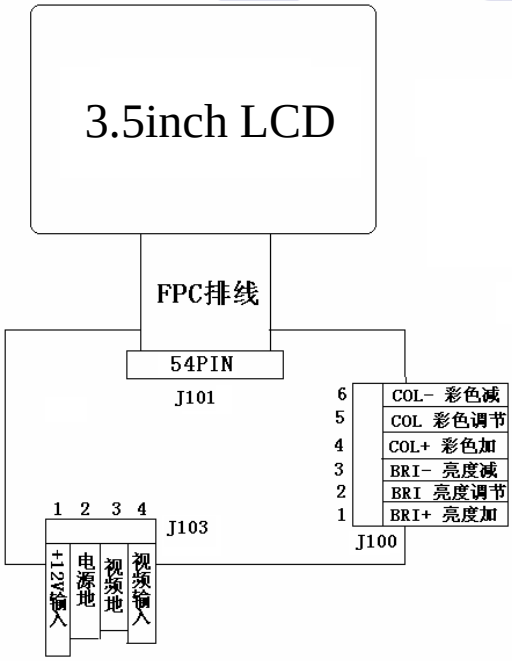
2. 基本参数 Specifications:

No.	项目/Item	说明/Description	Note
1	液晶屏显示尺寸/LCD Display	3.5 英寸/3.5inch	
2	液晶屏显示比/LCDDisplay Ratio	4:3	
3	背光方式/Backlight	LED	
4	亮度/Brightness	300 cd/m^2	
5	解析度/Resolution	320(RGB)×240	
6	视角范围/View angle	(40/60/60/60) up/down/left/right	
7	液晶屏尺寸/LCD dimension	76.9（W）×63.9（H）×3.2（D）mm	
8	有效显示范围/Effect area	70.8（H）×52.56（V）mm	
9	驱动板尺寸/Driver board size	62.0（W）×55.2（H）×9.0（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：DC15V； Min:DC9V; Standard: DC12V; Max: DC15V;	
11	工作电流（DC 12V 供电时） Working Current (DC 12V supply)	DC110mA ±20mA	
12	消耗功率/Power Consumption	1.32W（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	

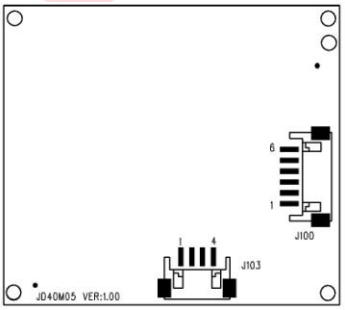
3. 产品图片/Product Picture:



4. 连线示意图/Wiring Diagram:



正面：



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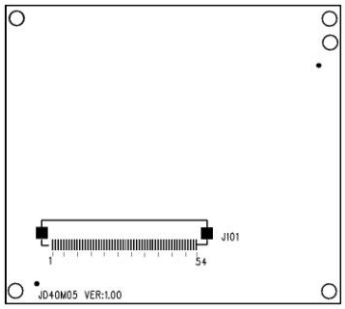
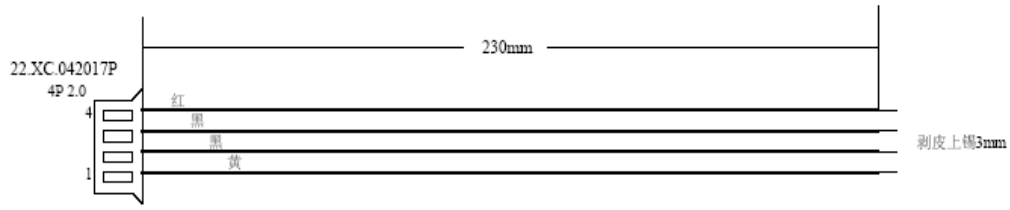


配线：

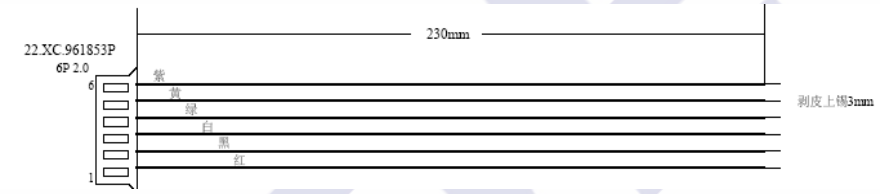
①电源、视频配线 22.XC.042017P 4PIN(2.0 ㎜)不带头长 230 ㎜单头线（黄、黑、黑、红）ROHS

Power supply, video wiring 22. XC. 042017 p 4 pin (2.0 ㎜) do not take the lead in 230 ㎜ long single head lines (yellow, black, black, red) ROHS



②电位器连接配线 22.XC.961853P 6P(2.0)230 ㎜单头线 ROHS

Potentiometer connected wiring 22. XC. 961853 p 6 p (2.0) 230 ㎜ ROHS single head line



序号	线材颜色	功能/ function	备注
1	黄/ Yellow	视频信号输入/ Video signal input	CVBS
2	黑/ Black	视频地/ VGND	GND
3	黑/ Black	电源地/ GND	GND
4	红/Red	+12V 电源输入/+12DC power input	+12V

5. 驱动板接口定义/Interface Definition：

5.1 J103 接口定义/ J103 connector definition:

PIN	Function	I/O/P	脚位定义说明/PIN Definition	备注/Note
1	+12VIN	I	直流电源输入/DC power input	
2	GND	-	地/ Ground	
3	GND	-	地/ Ground	

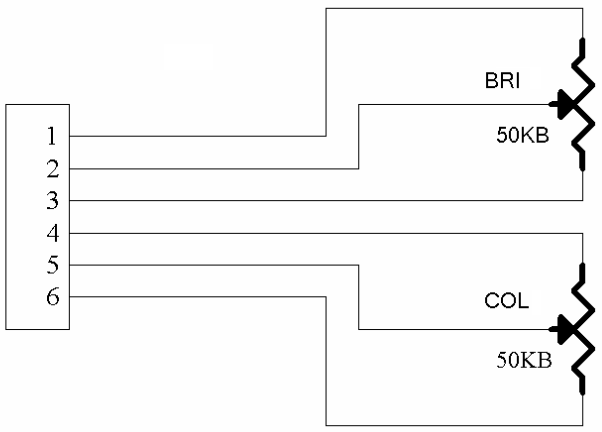
1	红/ Red	接彩色减/ Decrease Color	
2	黑/ Black	接彩色调节/ Color control	
3	白/ White	接彩色加/Increase Color	
4	绿/ Green	接亮度减/ Decrease Brightness	
5	黄/ Yellow	接亮度调节/ Brightness Control	
6	紫/Purple	接亮度加/ Increase Brightness	

5.2 J100 接口定义/ J100 Interface Definition：

序号	Function	I/O/P	脚位定义说明/ PIN Definition	备注
1	BRI+	I	亮度加/ Increase Brightness	
2	BRI	I	亮度调节/ Brightness adjusting	
3	BRI-	I	亮度减/ Brightness Decrease	
4	COL+	I	彩色加/ Color Increase	
5	COL	I	彩色调节/ Color Adjustment	
6	COL-	I	彩色减/ Color Decrease	

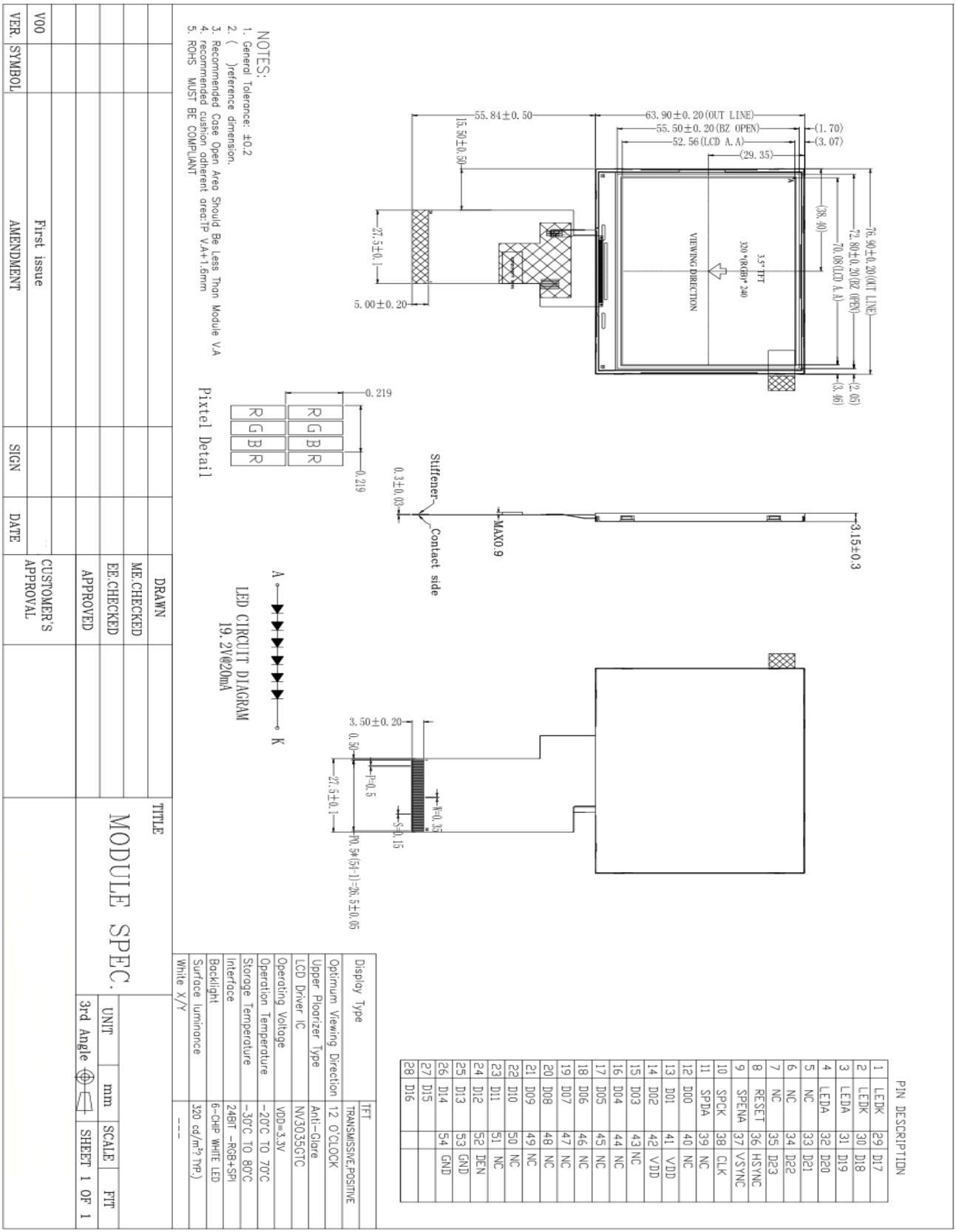
电位器规格：10KB/50KB（直线型）

Potentiometer Specification: 50KB (linear)



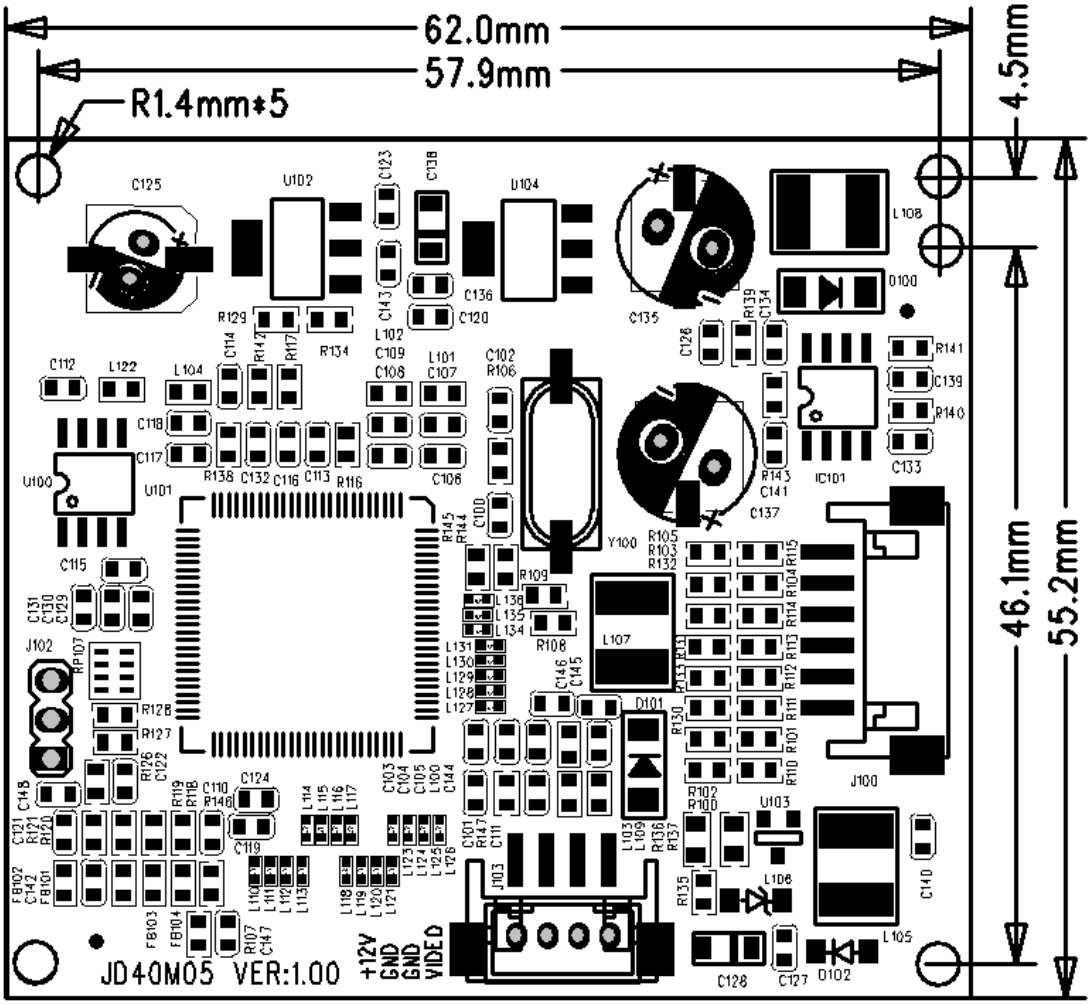
6. 结构图/Structure:

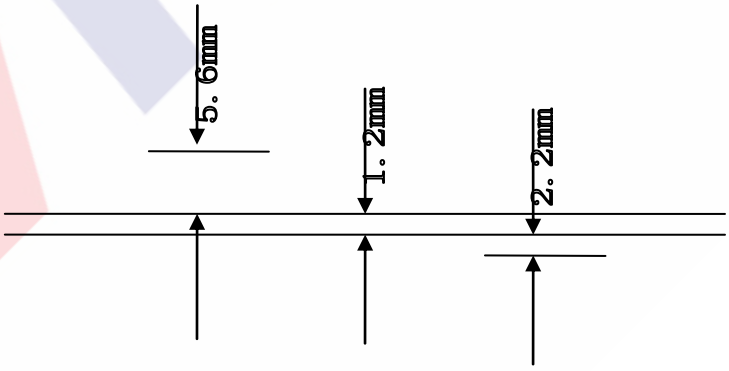
6.1. TFT LCD Panel:



1	LEDK	29	D17	57	NC	85	NC	113	NC
2	LEDK	30	D18	58	NC	86	NC	114	NC
3	LEDA	31	D19	59	NC	87	NC	115	NC
4	LEDA	32	D20	60	NC	88	NC	116	NC
5	NC	33	D21	61	NC	89	NC	117	NC
6	NC	34	D22	62	NC	90	NC	118	NC
7	NC	35	D23	63	NC	91	NC	119	NC
8	RESET	36	HSYNC	64	NC	92	NC	120	NC
9	SPENA	37	VSYNC	65	NC	93	NC	121	NC
10	SPCK	38	CLK	66	NC	94	NC	122	NC
11	SPDA	39	NC	67	NC	95	NC	123	NC
12	D00	40	NC	68	NC	96	NC	124	NC
13	D01	41	VDD	69	NC	97	NC	125	NC
14	D02	42	VDD	70	NC	98	NC	126	NC
15	D03	43	NC	71	NC	99	NC	127	NC
16	D04	44	NC	72	NC	100	NC	128	NC
17	D05	45	NC	73	NC	101	NC		
18	D06	46	NC	74	NC	102	NC		
19	D07	47	NC	75	NC	103	NC		
20	D08	48	NC	76	NC	104	NC		
21	D09	49	NC	77	NC	105	NC		
22	D10	50	NC	78	NC	106	NC		
23	D11	51	NC	79	NC	107	NC		
24	D12	52	DEN	80	NC	108	NC		
25	D13	53	GND	81	NC	109	NC		
26	D14	54	GND	82	NC	110	NC		
27	D15			83	NC	111	NC		
28	D16			84	NC	112	NC		

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





7. 产品标示/Product Label:

JD035I54D06A1-32CKT(56)

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、 JD40M05 调试注意事项/ JD40M05 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. 3.5"TFT- LCD PANEL 为玻璃制品，小心拿放，以免破裂。

3.5”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. 3.5"TFT- LCD PANEL 判定标准:/3.5"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 3.5″TFT LCD 产品.

Ranges: apply to 3.5″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:

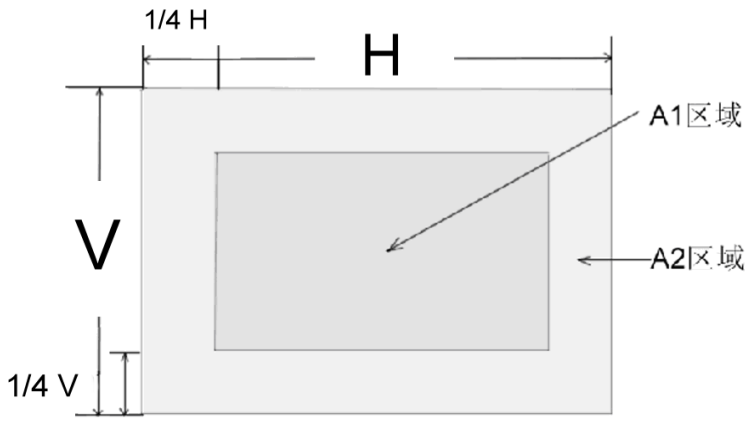
黑点：在表示点灯状况下，把检查黑点的 MASK 摆在 LCD 黑点的附近，目视观察比较大小.

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.