

规格书

SPECIFICATION

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版本履历

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A0	2020/06/03	全部 All	Draft

一、触摸参数 (TOUCH SPECIFICATIONS)

项目 Item	规格 Specification
驱动方案 Driver method	Driver free
常规尺寸 Active Area (Display Device)	31.5"~65"
触控点数 Touch points	20
书写点数 Writing points	2 Point 6mm(90% Active Area 2 Point 3mm)
插值分辨率 Interpolation resolution	32767 (W)×32767 (D)
响应速度 Response Time	≤ 6ms
上传帧率 Frame Rate	≥ 167Hz
触摸精度 Touch Accuracy	± 1 mm (90% Active Area)
最小触摸物体 Minimum Object Sizes For Touch	6mm (90% Active Area 3mm)
双笔间隙 Minimum Gap(2 Pen)	25mm
接口类型 Interface	USB2.0 +UART

二、电气参数 (ELECTRICAL SPECIFICATIONS)

项目 Item	规格 Specification
工作电压 Working Voltage	DC 5V±200mV
平均电流 Average Current	≤ 300mA

三、存储条件 (STORAGE CONDITIONGS)

项目 Item	规格 Specification
存储温度 Storage temperature	-20℃ ~ 60℃
存储湿度 Storage humidity	10% ~ 90% RH
储存时间 Storage Time	六个月 6 Months

四、兼容系统(OPERATING SYSTEM)

OS Support List				
OS		Test version	Single Touch	Multitouch
Ubuntu	Ubuntu 14.04 or above	Ubuntu 18.04	√	√
Windows	Windows 7 Home Basic		√	×
	Windows 7 Home Premium		√	√
	Windows 7 Ultimate		√	√
	Windows 7 Professional		√	√
	Windows 8/8.1		√	√
	Windows 8/8.1 Pro		√	√
	Windows 8/8.1 Enterprise		√	√
	Windows 10 Enterprise		√	√
	Windows 10 Education		√	√
	Windows 10 Professional		√	√
	Windows 10 Home		√	√
Mac OS X	Mac OS X 10.12 or above	Mac OS X 10.14	√	√ (Using UPDD)
Chrome	Chrome 54 or above	Chrome 56	√	√
	Using HDMI/VGA line to support Chrome OS			
Android	Android 4.0 or above (Kernel2.6.32~3.5)	Android 7.0	√(Need to add *.idc file)	√(Need Patch in kernel code, and add *.idc file)
	Android 4.0 or above (Kernel3.6+)	Android 7.0	√	√

五、功能测试方案 (TEST METHOD FOR TOUCH FUNCTION)

5.1 测试条件

Test condition

- 将触摸框拼装至整机结构中进行测试

Assembly the touch frame into the system for testing.

- Android平台, Android版信号测试软件

Android platform and signal test software on Android.

- 手写笔二支，笔头直径为8mm

2 styluses with nib diameter of 8mm.

5.2 测试要求

Test requirements

- 拼装过程中需做好防静电措施，戴静电手套或手环

Take anti-static measures during assembly, wear static gloves or bracelets

- 测试时周围不可有正在工作的大功率电器，避免受到干扰

There must be no high-power electrical appliances working around when testing, to avoid interference

- 测试时周围不可有其它正在工作的红外触摸框设备，避免互相干扰

There should be no other active infrared touch frame devices around the test to avoid mutual interference.

- 若整机同时连接鼠标，画线测试过程中，请勿移动鼠标

If the whole machine is connected to the mouse at the same time, do not move the mouse during the line test.

5.3 测试步骤

Test steps

5.3.1 Signal test

5.3.1.1 运行 Android 版信号测试软件

Run signal test software on Android

5.3.1.2 测试软件找到设备后点击“开始”，开始进行测试

(开始测试后，请不要触摸或移动整机，不可在触摸框上放置异物)

After the test software finds the device, click "Start" to start the test.

(Do not touch, move the machine or place objects on the touch frame when test begins)

5.3.1.3 测试软件的每一个检测项均显示为 PASS，表示此触摸框信号正常

Each test item of the test software is displayed as PASS, indicating that the touch frame signal is normal.

5.3.1.4 任何一个检测项出现 NG，表示信号不符合要求，需记录 NG 项并将相关 NG log 信息发送至相关人员

以便快速进行解决

If any of the detection items shows NG, it indicates that the signal does not meet the requirements. The NG item needs to be recorded and the relevant NG log information is required to be sent to the relevant personnel for quick resolution.

5.3.2 画线测试

Line test

5.3.2.1 画线要求

Line test requirement

- ◆ 画线时，笔和玻璃面垂线的偏角 $\leq 20^\circ$ ，如图 5.1 为正确的画线方法，图 5.2 为错误的画线方法

When drawing the line, the declination angle of the pen and the glass surface perpendicular line is $\leq 20^\circ$, for the correct line drawing method is as shown in Figure 6.1, and Figure 6.2 is the wrong line drawing method.

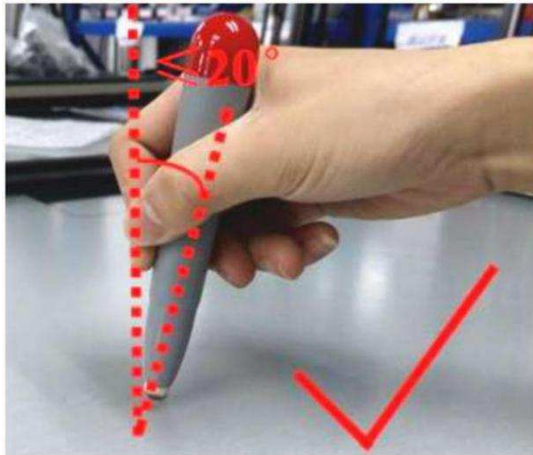
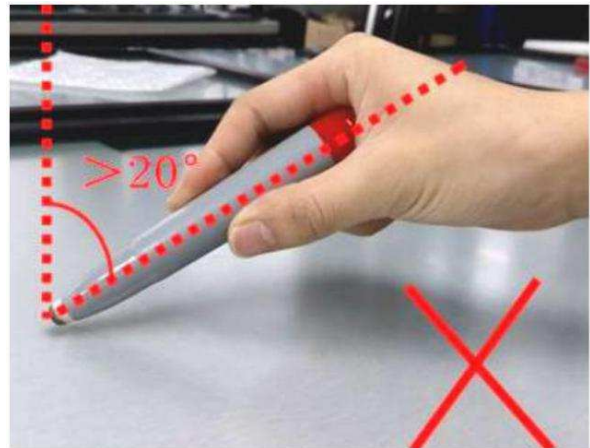


Figure 5.1



5.3.2.2 单点边缘画直线

Single point edge drawing straight line

- ◆ 用一支手写笔沿触摸框 AA 区的四边画直线，无断线、跳线、凸起、锯齿等现象，即为测试正常

Use a stylus to draw a straight line along the four sides of the AA area of the touch frame. There is no broken, jumper, bump, sawtooth, jitter lines, etc.

- ◆ 若出现断线、跳线、凸起、锯齿（图 5.3）以上任何一种现象均为 NG，需重新测试一次以验证触摸框是否正常，若仍有 NG 现象的触摸框则为不合格品

If any of the above phenomena such as broken, jumper, bump, sawtooth, jitter lines (Fig. 6.3), it is NG. You need to test again to verify if the touch frame is normal. If there is still a NG phenomenon, the touch frame is a non-conforming product.

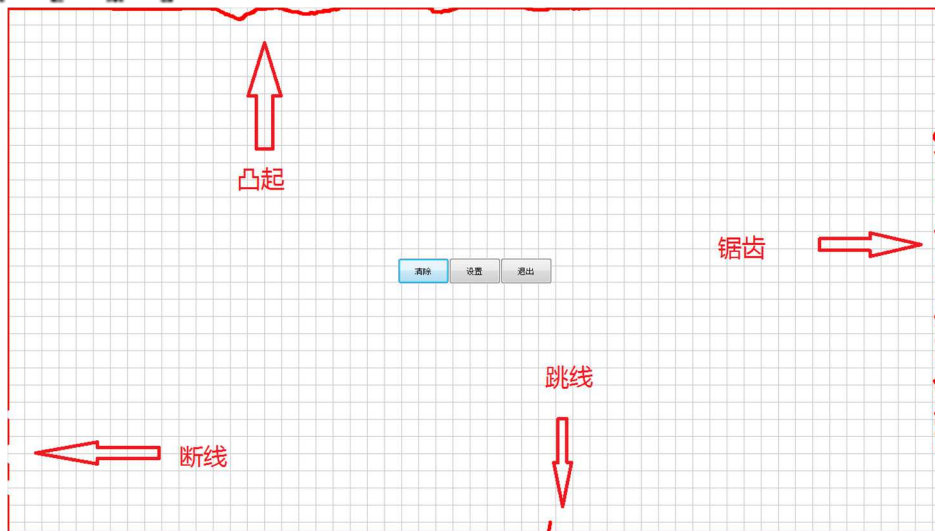


Figure 5.3

5.3.2.3 两点画线

2 points drawing

- ◆ 使用两支触摸笔进行全屏画线（触摸笔中心间距 40mm）（图 5.4）

Use two styluses to draw lines on full screen (the distance between the center of the touch pen is 40mm) (Fig. 5.4)

- ◆ 无断线、跳线等现象为 OK；否则为 NG

No broken, jumper lines, etc. is OK; otherwise NG

- ◆ 若出现 NG 现象，则在触摸框同一位置重复测试以验证是否出现相同问题，仍有 NG 现象的触摸框为不合格品

If NG phenomenon occurs, repeat the test at the same position in the touch frame to verify whether the same problem occurs. The touch frame with NG phenomenon is a non-conforming product.

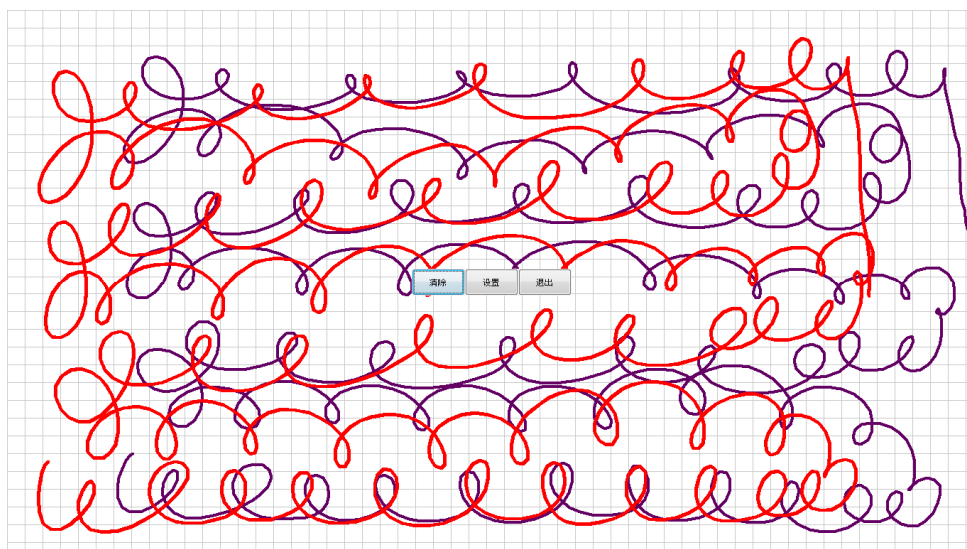


Figure 5.4

六、注意事项 (PRECAUTIONS)

- 依照组装指南进行触摸屏安装，避免连接器连接错位以及元器件碰撞。
Assemble the PCBA follow the Instruction guidance, avoid connectors being misplaced and avoid component colliding with section.
- 请不要将 PCBA 重叠堆放一起。
Don't place PCBA overlapped.
- 生产工厂、测试夹具和工具必须要连接至大地。
Operating area, fixtures, tools and all related facility shall be grounding.
- 不要长时间将触摸屏暴晒阳光下，否则其电子元器件会被损坏。
Don't expose the touch panel directly to the sun or other heat source for a long time. otherwise the electronic components maybe damaged.
- 任何用户不允许复制和反编译触摸屏软件，请正确使用触摸屏。
Not allow to copy and decompile our touch software without our authorization in written.