

触摸屏规格书

Touch Screen Specifications Book

深圳市永兴盛科技有限公司

公司网站 <http://www.bvslcd.cn>

联系方式 0755-23059953

生效日期 2013-1-28

制作内容 8英寸四线电阻触摸屏资料信息

版本/修订号 CMGGS20130128

制作者 陈鸿钊

批准者 刘颖

8 英寸四线电阻触摸屏

• 引言(Introduction).....	3
• Part1 产品特征及技术规格 (Product features and technical specifications).....	3
1.1 产品特性 Product Characteristics.....	3
1.2 产品规格 Product Specification.....	4
• Prat2 产品结构材料(Material applied).....	5
• Prat3 产品特性(Product Characteristics)	5
3.1 环境特性 Environmental characteristics.....	5
3.2 电气特性 Electrical characteristics.....	5
3.3 机械特性 Mechanical characteristics.....	6
• Prat4 环境(Environment).....	6
4.1 信赖性测试 Reliability test.....	6
4.2 抗化学成份 Resistance to chemical composition.....	7
4.3 表面硬涂层 Surface hard coating.....	7
• Prat5 质量检查标准(Quality Examine Standard).....	7
5.1 检测环境 Detection.....	7
5.2 标准 Criterion.....	7
5.3 产品保修期 Product Warranty Period.....	8
• Prat6 注意事项(Attention).....	8
6.1 储存 Storage.....	8
6.2 拆包装 Remove pack.....	8
6.3 操作 Operation.....	8
6.4 装配 Assembly.....	9
• Prat7 附件-产品实物图(Annex-product figure).....	10

• 引言(Introduction)

我司生产的触摸屏机种编号 Product (Model No.) :8 英寸四线电阻触摸屏

贵公司的产品料号 Customer(P/N):SCN-0800-W4W-TFT (11092)

我司生产的透明轻触开关严格按照 ITO TOUCH PANEL 标准规范制作,经检验其性能均满足贵司的要求。在此,我们征求贵公司对我们产品的进一步确认,并请求回签此确认书以作确认依据。

Our Touch screen is strictly manufactured according to your request. We promise it's performance meet the following standard specifications. Hereon, We need your company approval to our product. Please sign the file as your technical approval.

• Part1 产品特征及技术规格 (Product features and technical specifications)

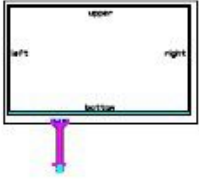
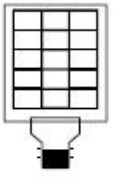
1.1 产品特性 Product Characteristics

- A. 高品质的原料 High quality raw materials
- B. 高定位精准 High precision positioning
- C. 高超的稳定性 Excellent stability
- D. 寿命高 High life
- E. 高性能的密封性对外界完全隔离的工作环境

High performance sealing completely isolated on the outside of the work environment

1.2 产品规格 Product Specification

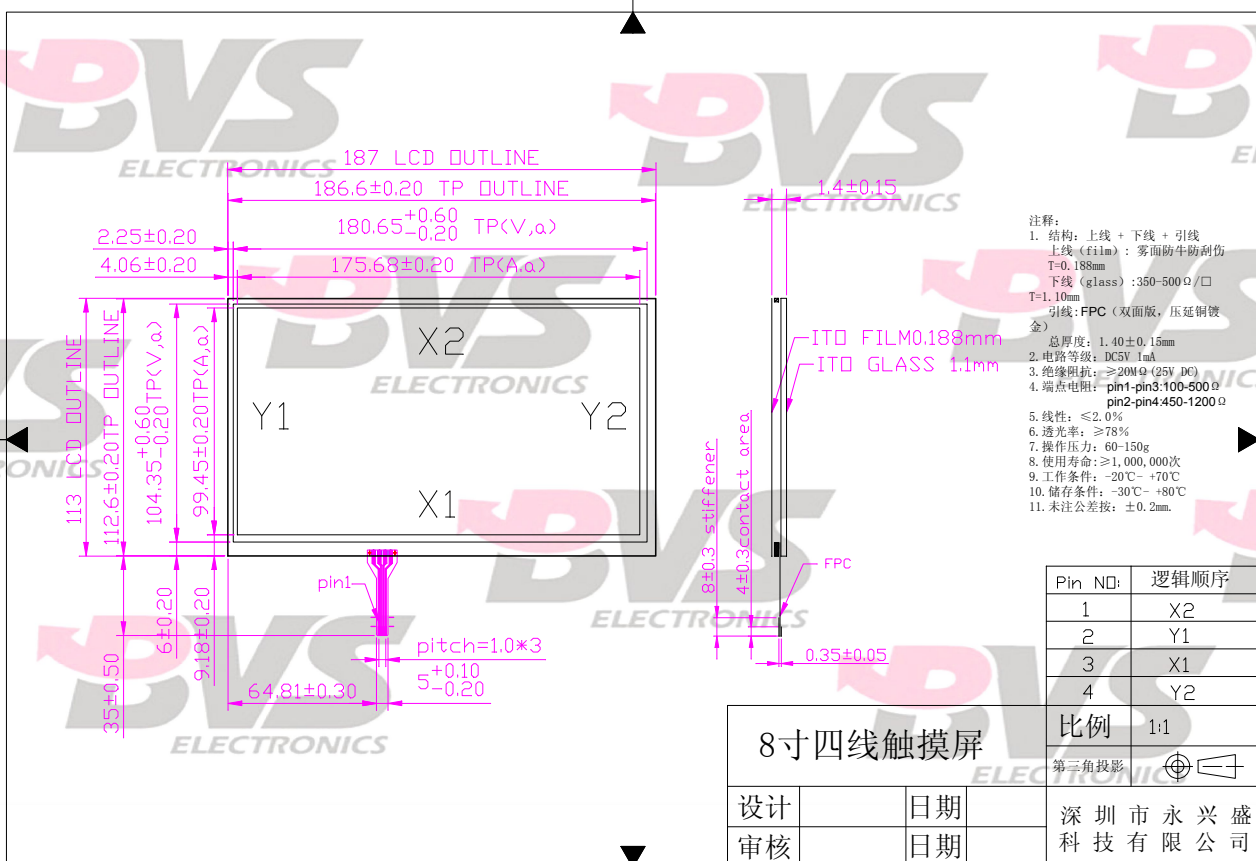
1.2.1 类别 Classification

<input checked="" type="checkbox"/> Analog 	<input type="checkbox"/> Digital 
---	---

1.2.2 机械尺寸 Mechanical size

NO.	项目 Item	规格 Specification	单位 unit
1	外形 Outline	186.6±0.20×112.6±0.20	mm
2	可视区 View area	180.65+0.60/-0.20×104.35+0.60/-0.20	mm
3	动作区 Active area	175.68±0.20×99.45±0.20	mm
4	厚度 Total thickness	1.4±0.15	mm

1.2.3 产品机械制图 Product mechanical picture



备注 Note:

①可在网站上或者根据客户的要求提供所有产品的技术图纸。

Available on the website or according to customer requirements to provide technical drawings of all products.

②触摸屏的尺寸可以根据客户的特殊要求定做：包括引线的长短及从屏体出线的位置。

Touch screen size can be customized according to customer special requirements : including wire length and position of the outlet from the screen body.

• Prat2 产品结构材料(Material applied)

NO.	产品结构 Product structure	材质 Material	备注 Remarks
1	上电极 upper circuit	ITO FILM	0.188mm
2	下电极 lower circuit	ITO GLASS	1.10mm
3	线 键 spacer	Adhesive	0.1mm
4	连接线 tail	FPC	双面板, 压延铜镀金
5	引出线长度 wire length		35±0.50mm

• Prat3 产品特性(Product Characteristics)

3.1 环境特性 Environmental characteristics

NO.	项目 Item	规格 Specification
1	操作温度 Operation temperature	-20℃~+70℃
2	保存温度 Storage temperature	-30℃~+80℃

3.2 电气特性 Electrical characteristics

NO.	项目 Item	规格 Specification	备注 Remarks
1	额定电压 Rated Voltage	DC 5V 1mA	
2	线性度 Linearity	≤2.0%	Load 120gf
3	端点阻抗 Resistance	Pin1-Pin3: 100 Ω ~ 550 Ω	FPC 连接端测量 At connector
		Pin2-Pin4: 450 Ω ~ 1200 Ω	
4	绝缘阻抗 Insulation Resistance	≥20 MΩ	DC 25V

3.3 机械特性 Mechanical characteristics

NO.	项目 Item	规格 Specification	备注 Remarks
1	操作荷重 Operating force	60-150g	R0.8 手写笔
2	表面硬度 Hardness of surface	≥3H	JISK5400
3	透光率 Light Transmission	≥78%	
4	FPC 弯折 Bending	弯曲半径 1.0mm, 3 次以上	满足 3.2
5	FPC 剥离强度 FPC peeling strength	水平 180 度方向, 0.5kgf 10 分钟不剥离	满足 3.2

• Pr4 环境 (Environment)

4.1 信赖性测试 Reliability test

NO.	项目 Item	规格 Specification	备注 Remarks
1	高温测试 High temperature storage	70°C, 120hr	可靠性试验 24 小时后, 电性能要符合 3.2, 机械性能要符合 3.3 24 hours after the reliability test, electrical properties to meet the 3.2, the mechanical properties to meet the 3.3
2	低温测试 Low temperature storage	-30°C, 120hr	
3	高温高湿测试 High temperature high Humidity storage	70°C, 90%RH, 120hr	
4	温度冲击测试 Temperature Cycling	-20±2°C — 70±2°C (1.0hr each), 20cycles	
5	打点寿命 Input life	≥1,000,000 次 (Tip R0.8mm)	
6	划线测试 lineation test	≥100,000 次 (Tip R0.8mm)	

备注 Note:

①在高温或低温中测试时, 把样品放在 70±2°C 或 -30±2°C 的容器里 120 小时。然后, 取出, 再放入室温 12 小时或者更长时间, 在测试。

In the test of high or low temperature of the sample, placed at 70±2°C or -30±2°C in 120 hours of container. Then, take out, put in the room temperature for 12 hours or longer, in the test.

②在湿度测试时, 把样品放在 70±2°C 和 90-95% 相对湿度的容器里 120 小时。然后, 取出, 放入室温 12 小时后再测试。

In the humidity test, the container sample at 70±2°C and 90-95% relative humidity at 120 hours. Then, take out, put in room temperature for 12 hours after the test.

③在冷热交替测试时, 把样品放在 -20°C 下 30 分钟, 然后再放在 70°C 下 30 分钟。此过程往返 20 次。然后, 取出, 放入室温下 24 小时后再测试。

In contrast test, the sample is placed in a -20°C for 30 minutes, and then placed in 70°C for 30 minutes. This process and from the 20 times. Then, take out, put in the room temperature for

24 hours after the test.

4.2 抗化学成份 Resistance to chemical composition

丙酮、二氯甲烷、甲乙酮、异丙醇、正己烷、松节油、无铅汽油、柴油、电动机软化油、传输液、防冻液等。

Acetone, dichloromethane, ethyl, isopropyl alcohol, n-hexane, turpentine, gasoline, diesel oil, motor oil, transmission fluid, softening of antifreeze.

4.3 表面硬涂层 Surface hard coating

用甲醇，人造除汗剂和家庭清洁剂轻轻擦拭表面，外观没有变化。

Methanol, artificial antiperspirant agents and household cleanser gently wipe the surface, appearance has not changed.

• Prt5 质量检查标准(Quality Examine Standard)

5.1 检测环境 Detection

A. 光源的要求：500 勒克斯

Requirements: 500 lux light source

B. 离眼睛 30CM 的地方，屏体必须在透光的环境下检测。

From the eye of 30CM, detected in the photic environment must screen.

C. 视觉:>60°C

Vision:>60°C

D. 光源：自然太阳光

Source: natural sunlight

5.2 标准 Criterion

以下适用于可视区，绝缘区除外。

The following are applied to viewing area, except dot space.

项目名称 Project Name	规格 Specification	影响程度 Effect
污点 Stain	$R \leq 0.25\text{mm}$	忽略 Neglect
	$0.25 \leq R \leq 0.4\text{mm}$ (点数 ≤ 3 , 距离 $\leq 20\text{mm}$)	允许 Permit
	$R > 0.4\text{mm}$	不允许 Inadmissibility
线状异物 Linear Foreign Body	$W \leq 0.05\text{mm}$ 和 $L \leq 3$	忽略 Neglect
	$0.05 < W \leq 0.1$ 和 $L \leq 5$ (点数 ≤ 3 , 距离 $\leq 20\text{mm}$)	允许 Permit
	$W > 0.1\text{mm}$	不允许 Inadmissibility
刮伤 Scrape	$W \leq 0.05\text{mm}$ 和 $L \leq 3\text{mm}$	忽略 Neglect
	$0.05 < W \leq 0.1\text{mm}$ (点数 ≤ 3 , 距离 $\leq 20\text{mm}$)	允许 Permit

	W>0.1mm	不允许 Inadmissibility
--	---------	---------------------

备注 Note:

①R 代表直径；W 代表宽度；L 代表长度。

R represents the diameter; W represents the width ;L represents the length.

②当颗粒异物可以被擦拭，则可以忽略存在的异常现象。

When the particles can be wiped, you can ignore abnormal phenomenon.

5.3 产品保修期 Product Warranty Period

触摸屏保修期限一年。

Touch screen warranty period of one year.

• Prat6 注意事项 (Attention)

为了防止不正当的使用，并保证产品的性能，请用户遵守以下事项：

In order to prevent improper use, and ensure product performance, please observe the following items:

6.1 储存 Storage

存储产品，在此规格书限定的温度和湿度范围内保存。

Storage products, this specification defines a range of temperature and humidity preservation.

6.1.1 将产品存放于符合规格中注明的温度环境；

Store the products at the temperature mentioned in the specification.

6.1.2 产品呈原始包装状态储存；

Store the products at the aboriginality.

6.1.3 避免将产品置于日光直射的环境中。

Do not to expose the products in direct sunlight.

6.2 拆包装 Remove pack

6.2.1 拿取触摸屏时请勿从 FPC 拿取；

Do not lift touch panel by cable(FPC).

6.2.2 阅读“上/下”标识后打开包装箱。

Read up or down marking before open the box.

6.3 操作 Operation

6.3.1 本产品是使用玻璃所制，因为玻璃的边、角是锐利的，在使用触摸屏时请多注意。在使用产品时请戴手套作业。

Since Touch Panel is consist of glass, please be careful your hands to be injured During handing. You must wear gloves during handing.

6.3.2 本产品是使用玻璃所制，在使用时，请注意不要施加强力冲击。

Do not strike touch panel.

6.3.3 保存时请勿重叠放置。特别是请勿用重物压着。

Do not stack the touch panels together. Do not put heavy objects on touch panels.

6.3.4 FPC 请勿弯折，有可能使回路线断裂。特别是对于连接器的插入部分，因为贴有补强板，在插入连接器时请勿施加过多的力量。

Do not bend the cable (FPC) of touch panel to prevent the circuit broken.

Please don't use following method to insert the FPC tail to connector.

6.4 装配 Assembly

在实际组装设计时，请注意以下事项。

Please pay attention for the matters stated below at mounting design of touch Panel & enclosure.

6.4.1 触摸屏的上壳支撑物请设定在可视区外侧。（上壳请勿压在可视区上，会有误动作的情况发生）

Enclosure support to fix touch panel must be out of view (transparent) area. (Do not design enclosure presses the view area to protect from miss input)

6.4.2 触摸屏上下部的压合，请使用橡胶等弹性材质。

Elastic materials are recommended as a support to fix touch panel.

6.4.3 使用时，触摸屏的上面 (FILM) 请勿与上壳粘着固定。

Do not use an adhesive tape to bond the top surface (film side) of touch panel with enclosure.

6.4.4 触摸屏上部的边角，因为玻璃导电层有传导性，在组装设计时请注意不要与金属材质接触。

The corners and edges of touch panel (fig.*) may be conductive. Do not touch it with metal components after mounting.

6.4.5 有防水需求时，请考虑用橡胶等材料对回路周边做防水。

Special design is required for water resistance.

6.4.6 必须在靠近 FPC 位置处预留 FPC 线路空间, 绝对避免外壳或其它零件碰触或挤压 FPC, 造成 FPC 脱落。

The mounting structure must has a reserved space for the FPC tail and never touch or squeeze the FPC by case or another components preventing FPC to peel off.

• Prtat7 附件-产品实物图 (Annex-product figure)

1. 8 英寸四线电阻触摸屏实物图 8 inch 4-Wires Resistive Touch Screen

