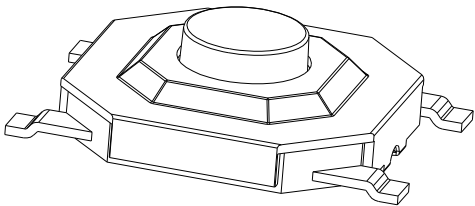
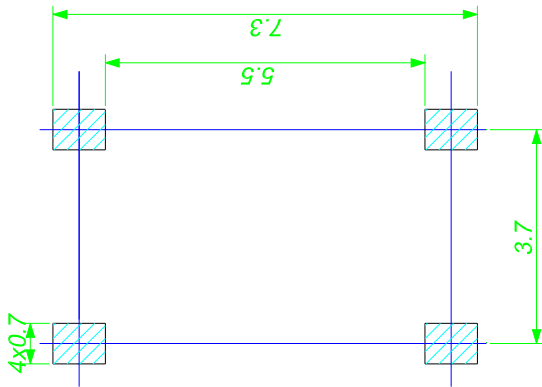
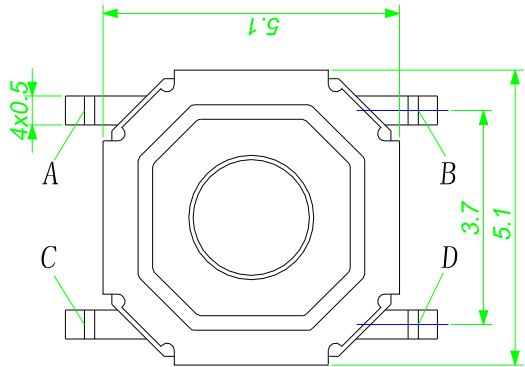
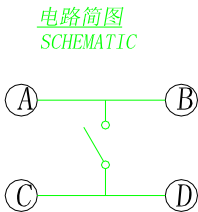
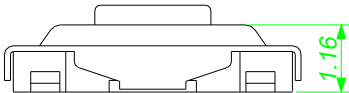
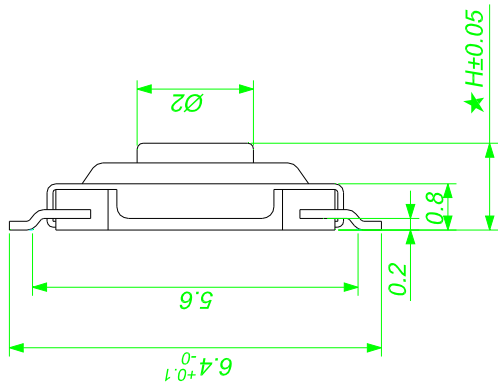


印制线路板  
P.C.B layout



- 1. Rating:DC 12V 50mA.
- 2. Travel:0.2±0.1mm.
- 3. Operating Force:250±100gf.
- 4. Contact Resistance:50mΩ Max.
- 5. Life:>50,000 Cycles Min.



5	嵌件	1	H62YT δ=0.15mm	镀银	
4	基座	1	LCP	黑色	
3	弹片	1	不锈钢 (?3.9)	—	
2	按钮	1	黄铜H59	酸洗	
1	盖板	1	不锈钢(180) δ=0.10	—	
序号 NO.	名称 NAME	数量 Q'TY	材料 MATERIAL	颜色 COLOR	备注 REMARK

深圳市逸致电子有限公司

							Angle	±2°	DESIGN	設 計	方 兴 生	2011. 05. 25.	品 名 ITEM NO.		4*4拉伸輕觸開關								
							30~	±0.3	CHECH	校 對			料 號 PART NO.		YZA-O44								
							10~30	±0.2	VERIFY	審 核		2011. 05. 25.	圖 號 DRAWING NO.		B 狀態碼								
							~ 10	±0.15					SCALE								UNIT		mm
工程變更通知單 ECN(DCN) NO.		版 次 REV	日 期 DATE	說 明 DESCRIPTION		改 變 CHANGE	承 認 APPRO.	未注公差 GENERAL TOLERANCE UNLESS OTHERWISE NOTED				APPROVAL		批 准									

# 承認書

APPROVE

SHEET

客户名称

CUSTOMER: \_\_\_\_\_

贵公司制品名

本公司制品名: **4X4XH 轻触开关**

CUSTOMER PN: \_\_\_\_\_

PRODUCT PN: \_\_\_\_\_

贵公司规格

本公司规格:

APPROVAL DAT: \_\_\_\_\_

PRODUCT CODE : **YZA-044**

客户料号

本公司规格书编号:

Customer NO: \_\_\_\_\_

PRODUCT DRAWING NO: **130416**

☐ 新品承认

NEW APPROVE

☐ 规格变更再承认

CHANGE CODE APPROVE  
AGAIN

☐ 材料变更再承认

CHANGE MATERIAL APPROVE  
AGAIN

DESIGN

设计:

DATE:

CHECK

审核

DATE:

APPROVAL

批准

DATE:

贵公司承认栏

APPROVAL SIGNATURE

印章

TACT SWITCH SPECIFICATION(轻触开关说明书)

1. General specification 基本说明

1.1 Scope 范围 This specification covers the requirements for single key switches which have no keytop (TACT SWITCHES:MECHANICAL CONTACT). 此规范含盖单推柄和无推柄的轻触开关要求。

11.2 Operating Temperature Range 使用温度范围  
-20 to 70 °C (normal humidity, normal press). 正常湿度，标准压力

1.3 Storage Temperature Rang 保存温度范围： -20 to 80 °C (normal humidity, normal press).

1.4 Test Conditions 测试条件  
Tests and measurements shall be made in the following standard cnditions unless otherwise specified:  
测试和计量按下列标准条件除非特殊说明

Normal temperature (temperature 5 to 35°C) 标准温度

Normal humidity (relative humidity 45 to 85%) 正常湿气

Normal pressure (pressure860 to 1060 mbars ) 标准压力

In case any question arises from the judgement made, tests shall be conducted in the following conditions:

Temperature (20±2°C) 温度

Relative humidity (65±5%) 相对湿度

Pressure (860 to 1060 mbars) 压力

2. APPEARNCE, STYLE, AND DIMENSIONS 外形，类型和尺寸

2.1 Appearance 外形  
There shall be no defects that affect the serviceability of the product 外形必须无缺陷才不影响产品适用性

2.2 Style and Dimensions 类型和尺寸  
Shall conform to the assembly drawings. 符合装配图

3. TYPE OF ACTUATION 动作类型

Tactile feedback 轻触返回

4. CONTACT ARRANGEMENT 1 poles 1 throws 接触形式 1 接点 1 回路

(Details of contact arrangement are given in the assembly drawings).

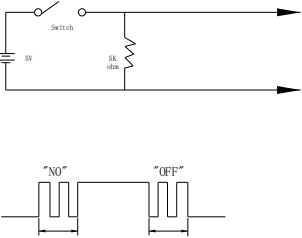
细接点形式在装配图中

5. MAXOMUM RATINGS 最大额定值 DC 12 V 50 mA

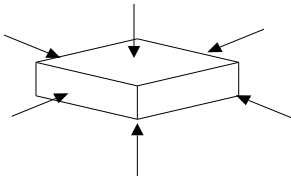
									2/9	

## 6.2 Mechanical 机械特性

[illegible]

<b>6.PERFORMANCE 性能</b>									
<b>6.1 Electrical 电气</b>									
<b>Item 项目</b>		<b>Test Condition 试验条件</b>						<b>Requirements 要求</b>	
6.1.1. Contact Resistance 接触电阻		Applying a static load twice the actuating force to the center of the stem, measurements shall be made with a 1 kHz small-current contact resistance meter. 用两倍的动作用作静负载施加于按钮的中心，并用 1 千赫小电流接触电阻仪测量						<u>100</u> mΩMax.	
6.1.2. Insulation Resistance 绝缘电阻		Measurements shall be made following application of <b>DC 100 V</b> potential across terminals and across terminals and frame for one minute. 在端子之间，端子与外壳之间施加 DC100V，一分种						<u>100</u> MΩMin	
6.1.3. Dielectric Withstanding voltage 电气耐压		AC250V (50Hz or 60Hz) shall be applied across terminals and across terminals and frame for one minute. 在端子与端子之间，端子与外壳之间施加 AC250V(50Hz or 60Hz)						There shall be no breakdown 没有击穿	
6.1.4. Bounce 抖动		Lightly striking the center of the stem at a rate encountered in normal use ( 3 to 4 operations per sec ), Bounce shall be tested at “ON” and “OFF” 在正常使用中(以每秒 3-4 次周期)轻轻地在手柄中心加力，在通与断瞬间测 试抖动。 						<u>5</u> m sec max .	
									3/9
<b>TACT SWITCH SPECIFICATION( 轻 触 开 关 说 明 书 )</b>									
<b>6.3 Environmental 环境</b>									
<b>Item 项目</b>		<b>Test Condition 试验条件</b>						<b>Requirements 要求</b>	

6. 3. 1. Resistance to Low Temperatures 耐低温		Following the test set forth below the sample shall be left in normal temperature and humidity conditions for one hour before measurements are made: 样品按下列条件进行耐低温试验，测试前在正常温度和湿度条例上放置 1 小时 (1) Temperature: $-25\pm5^{\circ}\text{C}$ 温度 (2) Time: 96 hours                                              时间 (3) Water drops shall be removed      擦除水珠						Item 6.1 Item 6.2.1 Item 6.2.2	
6. 3. 2. Heat Resistance 耐 热		Following the test set forth below the sample shall be left in normal temperature and humidity conditions for one hour before measurements are made: 样品按下列条件进行耐热试验，测试前在正常温度和湿度条件下放置 1 小时 (1) Temperature: $80\pm10^{\circ}\text{C}$ 温度 (2) Time: 96 hours                                              时间						Item 6.1 Item 6.2.1 Item 6.2.2	
6. 3. 3. Moisture Resistance 耐潮湿		Following the test set forth below the sample shall be left in normal temperature and humidity conditions for one hour before measurements are made: 样品按下列条件进行耐潮湿试验，测试前在正常温度和湿度条件下放置 1 小时 (1) Temperature: $60\pm2^{\circ}\text{C}$ 温度 (2) Relative humidity: 90 to 95%                      相对湿度 (3) Time: 96 hours                                              时间 (4) Water drops shall be removed      擦除水珠						Item 6.1 Item 6.2.1 Item 6.2.2	
6. 3. 4. Temperature Cycling 温度循环		Following the test set forth below the sample shall be left in normal temperature and humidity conditions for one hour before measurements are made. 样品按下列条件进行温度循环试验，测试前在正常温度和湿度条件下放置 1 小时 During this test, water drops shall be removed, 在试验期间，擦除水珠。 <div><div>1 Cycle</div><div><div><div><div><div></div><div></div></div><div><div></div><div></div></div></div><div><div><div><div></div><div></div></div><div><div></div><div></div></div></div><div><div><div><div></div><div></div></div><div><div></div><div></div></div></div><div><div><div><div></div><div></div></div><div><div></div><div></div></div></div></div><div><div><div><div></div><div></div></div><div><div></div><div></div></div></div><div><div><div><div></div><div></div></div><div><div></div><div></div></div></div></div><div><div><div><div></div><div></div></div><div><div></div><div></div></div></div></div><div><div><div><div></div><div></div></div><div><div></div><div></div></div></div></div><div><div><div><div></div><div></div></div><div><div></div><div></div></div></div></div><div><div><div><div></div><div></div></div><div><div></div><div></div></div></div></div><div><div><div><div></div><div></div></div><div><div></div><div></div></div></div></div><div><div><div><div></div><div></div></div><div><div></div><div></div></div></div></div><div><div><div><div></div><div></div></div><div><div></div><div></div></div></div></div><div><div><div><div></div><div></div></div><div><div></div><div></div></div></div></div><div><div><div><div></div><div></div></div><div><div></div><div></div></div></div></div><div><div><div><div></div><div></div></div><div><div></div><div></div></div></div></div><div><div><div><div></div><div></div></div><div><div></div><div></div></div></div></div><div><div><div><div></div><div></div></div><div><div></div><div></div></div></div></div><div><div><div><div></div><div></div></div><div><div></div><div></div></div></div></div><div><div><div><div></div><div></div></div><div><div></div><div></div></div></div></div><div><div><div><div></div><div></div></div><div><div></div><div></div></div></div></div><div><div><div><div></div><div></div></div><div><div></div><div></div></div></div></div><div><div><div><div></div><div></div></div><div><div></div><div></div></div></div></div><div><div><div><div></div><div></div></div><div><div></div><div></div></div></div></div><div><div><div><div></div><div></div></div><div><div></div><div></div></div></div></div><div><div><div><div></div><div></div></div><div><div></div><div></div></div></div></div><div><div><div><div></div><div></div></div><div><div></div><div></div></div></div></div><div><div><div><div></div><div></div></div><div><div></div><div></div></div></div></div><div><div><div><div></div><div></div></div><div><div></div><div></div></div></div></div><div><div><div><div></div><div></div></div><div><div></div><div></div></div></div></div><div><div><div><div></div><div></div></div><div><div></div><div></div></div></div></div><div><div><div><div></div><div></div></div><div><div></div><div></div></div></div></div><div><div><div><div></div><div></div></div><div><div></div><div></div></div></div></div><div><div><div><div></div><div></div></div><div><div></div><div></div></div></div></div><div><div><div><div></div><div></div></div><div><div></div><div></div></div></div></div><div><div><div><div></div><div></div></div><div><div></div><div></div></div></div></div><div><div><div><div></div><div></div></div><div><div></div><div></div></div></div></div><div><div><div><div></div><div></div></div><div><div></div><div></div></div></div></div><div><div><div><div></div><div></div></div><div><div></div><div></div></div></div></div><div><div><div><div></div><div></div></div><div><div></div><div></div></div></div></div><div><div><div><div></div><div></div></div><div><div></div><div></div></div></div></div><div><div><div><div></div><div></div></div><div><div></div><div></div></div></div></div><div><div><div><div></div><div></div></div><div><div></div><div></div></div></div></div><div><div><div><div></div><div></div></div><div><div></div><div></div></div></div></div><div><div><div><div></div><div></div></div><div><div></div><div></div></div></div></div><div><div><div><div></div><div></div></div><div><div></div><div></div></div></div></div><div><div><div><div></div><div></div></div><div><div></div><div></div></div></div></div><div><div><div><div></div><div></div></div><div><div></div><div></div></div></div></div><div><div><div><div></div><div></div></div><div><div></div><div></div></div></div></div><div><div><div><div></div><div></div></div><div><div></div><div></div></div></div></div><div><div><div><div></div><div></div></div><div><div></div><div></div></div></div></div><div><div><div><div></div><div></div></div><div><div></div><div></div></div></div></div><div><div><div><div></div><div></div></div><div><div></div><div></div></div></div></div><div><div><div><div></div><div></div></div><div><div></div><div></div></div></div></div><div><div><div><div></div><div></div></div><div><div></div><div></div></div></div></div><div><div><div><div></div><div></div></div><div><div></div><div></div></div></div></div><div><div><div><div></div><div></div></div><div><div></div><div></div></div></di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6. 4. 1. Operating Life 动作寿命		Measurements shall be made following the test set fourth below: (1)DC 5V 5mA resistive load . DC 5V 5mA 阻性负载 (2) Rate of operation : 2 to 3 operations per second 动作频率: 2-3 次/每秒 (3)Depression : <b>260</b> gf 动作力 (4) Cycles of operation 50, 000cycles 动作次数 <b>50</b> , 000 次						Contact resistance: 100mΩ Max 接触电阻 Insulation resistance 100MΩ Min.绝缘电阻 Actuating force: 动作力 <b>260+ 30</b> or <b>-30</b> of initial force. <b>260±30</b> 初始动作力  Item 6.1.3 Item 6.2.2		
6. 4. 2. Vibration Resistance 耐振动		Measurements shall be made following the test set forth below: 按下列条件进行抗振动试验 (1) Range of oscillation : 10 to 55 Hz 频率范围 (2) Amplitude,pk-to -pk : 1.5mm 振幅: 峰 - 峰 1.5mm (3) Cycle of sweep : 10-55-10Hz in one minute, approx (4) Mode of sweep : Logarithmically sweep or (5) uniform sweep. 扫描周期: 10-55-10-Hz 约一分钟内 (6) 振动方向: 3 个相互垂直方向, 包括推柄行程方向 (7) Duration of testing 持续时间 2 hours each ,for a total of 6hours. 每方向 2 小时, 共 6 小时						Item 6.1 Item 6.2.1 Item 6.2.2		
6. 4. 3. Impact Shock Resistance 抗冲击		Measurements shall be made following the test set forth below: 按下列条件进行冲击试验 (1) Acceleration : 80g 加速度 (2) Cycles of test :3 cycles each in 6 directions, (3) for a total of 18cycles 试验次数: 每个方向 3 次, 6 个方向共 18 次 <div></div>						Item 6.1 Item 6.2.1 Item 6.2.2		
										6/9





# TACTING SWITCH SPECIFICATION

## 7.1 Other precautions 其他注意事项

- (1) Following the soldering process,do not try to clean the switch with a solvent or the like .**

进行焊接过程中，不可以用溶剂或类似品清洗开关

- (2) Safeguard the switch assembly against flux penetration from its topside.**

防止助焊剂从开关的顶端渗入。

- (3) Please have the products keep in close status and the storage time is 90 days guaranty after delivering the goods at most.**

交货后保证开关处于封密状态并库存时间不超过 90 天以上

[illegible]

TACT SWITCH SPECIFICATION( 轻 触 开 关 说 明 书 )

8.

★ ★ ★ SWITCH HANDLING PRECAUTION ★ ★ ★

使用开关时注意事项

1. IN CASE AN AUTOMATIC FLOW SOLDERING APPARATUS IS USE FOR SOLDERING  
用自动焊接设备焊接时应参照如下条件

ITEM 项 目	SOLDERING CONDITIONS 焊接条件
(1)PREHEAT TEMPERATURE 预热温度	100℃ MAX (AMBIENT TEMPERATURE OF PRINTED CIRCUIT BOARD ON ITS SOLDERING SIDE) (电路板周围焊锡面的温度)
(2)PREHEAT TIME 预热时间	45 SEC MAX 45 秒 MAX
(3)FLUX FOAMING 助焊剂浸泡	TO SUCH AN EXTENT THAT FLUX WILL BE KEPT FLUSH WITH THE PRINTED CIRCUIT BOARDS, TOP SURFACE ON WHICH COMPONENTS ARE MOUNTED. PRDPARATORY FLUX MUST NOT BE APPLIED TO THAT SODE OF PRINTED CIRCUIT BOARD ON WHICH COMPONENTS ARE MOUNTED AND TO THE AREA WHERE TERMINALS ARE LOCATED. 助焊剂应涂在电路板上组装开关的印刷面上半部位,应防止 助焊剂过量到电路板.
(4)SOLDERIN TEMPERATURE 焊锡温度	240℃ MAX 240℃ MAX
(5)DURATION OF SOLDER IMMERSION 焊接时间	5 SEC MAX 5 秒 MAX
(6)ALLOWABLE PREQUENCY 允许重焊次数	2 TIMES MAX 2 次 MAX

2. OTHER PRECAUTIONS 其他注意事项

(1) FOLLOWING THE SOLDERING PROCESS,DO NOT TRY TO CLEAN THE SWITCH SOLVENT OR THE LIKE  
进行焊接工艺时不应使用不整洁的东西对开关进行清洁。

(2) SAFEGUARD THE SWITCH ASSEMBLY AGAINST FLUX PENETRA TION FROM ITS TOP SIDE  
在组装开关时应防止助焊剂从开关的上部流入到开关内部

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