

### 1. 适用范围 Scope:

此作业规范适用于: 0.5/1.0Pitch FPC/FFC ZIF 卧式掀盖式高1.25mm SMT 系列

This product specifications is applied for: 0.5/1.0 FPC/FFC ZIF, Front side flip, H1.25 SMT Series  
与 FPC/FFC 连接方式 Connected to the FPC/FFC : ZIF

FPC/FFC 适合厚度 FPC/FFC is suitable for thickness : 0.30±0.03mm

### 2. 关联规格 Related specifications:

EIA-364 :电子连接器及接插件测试程序 Electronic connectors and connector test procedure

UL STD-94 :关于塑材设备零配件及器材阻燃性测试规范 On the plastic material and equipment spare parts and equipment flame retardancy test specification

### 3. 构造 尺寸 材料 Configurations dimensions and materials :

参见结构图 Reference the drawing.

序号 No.	部 位 Position	原材料供应商 material suppliers	材料名/Type名 Materials	防火等级 FLAME CLASS	UL 编号 FILE NO.
1	主体 (HOUSING)	宝理/住友 POLYPLASTICS CO., LTD	LCP Liquid crystal polymer473i(自然色 Natural)	V-0	E106764
2	推杆 (ACTUATOR)	可乐丽 KURARAY CO., LTD	PA9T Polyamide 9T GP2450(黑色 Black)	V-0	

### 4. 标准状态:

4.1 额定电压 Rating voltage: AC/DC 50V

4.2 额定电流 Rating current: 0.5A

4.3 温湿度范围 Temperature and humidity range

4.3.1 使用温度范围 operation temperature: -40℃~+85℃;

4.3.2 储存温度范围 storage temperature: -40℃~+85℃;

4.3.3 开封使用温度范围 Kaifeng temperature range: +5℃~+35℃;

开封使用湿度 Kaifeng Humidity 60%RH MAX.;

4.3.4 保存湿度范围: 相对湿度 45~80%RH; Keep humidity range: Relative humidity45~80%RH;

### 5. 性能 Performance

#### 5.1 构造 Structure

序号 NO.	项 目 Item	测试方法 Test conditions	规格要求 Specifications
1	外观 Appearance	目视 Visual	无损坏 No physical damage

#### 5.2 电气性能 Electrical Performance

序号 NO.	项 目 Item	测试方法 Test conditions	规格要求 Specifications
1	接触阻抗 Contact Resistance	适配 FFC 标准线, 开放电压: 20mV 以下, 短路电流: 10mA 以下 Mate applicable FPC, measure by dry circuit, 20mV MAXIMUM, 10mA MAXIMUM	30mΩ Max.
2	绝缘阻抗 Insulation Resistance	相邻端子间 DC 500V, 1 分钟。 DC 500V between adjacent terminals, 1 minutes	500MΩ Min.
3	耐电压 Dielectric withstanding voltage	相邻端子间 AC 500V, 感度电流 2mA, 1 分钟。 AC 500V between adjacent terminals, sensitivity of current 2mA, 1 minutes	无击穿, 无短路 No Breakdown.
4	温度上升 Temperature rise	端子在额定电压·电流下工作时测量端子上升的温度 The rising temperature measurement terminal terminal at rated current under.	30℃ max

本制品不含 SS-00259 和 ROHS 禁止使用的环境物质

This product does not contain SS-00259 and ROHS banned the use of environmental substances

制品仕様书 Product specification	Part name	0.5/1.0pitch FPC/FFC Conn.ZIF, Front side flip H1.25 SMT Series		
Amphenol Aorora Technology (Huizhou) Co.,Ltd	Part No.	F31E-1A7H1-210** F51E-1A7H1-210** F31T-1A7H1-210** F51T-1A7H1-210**	1/4	
Document No.: IS.EQC.042	Date:2016/01/30	Rev.: C	Written by: May	Checked by: Rain Approved by: Hongkui.liu

### 5.3 机械性能 Mechanical performance

序号 NO.	项 目 Item	测试方法 Test conditions	规格要求 Specifications
1	FFC/FPC 保持力 FFC/FPC Retention Force	FFC/FPC(标配厚度 0.30MM)插入 FPC 连接器产品后, 以 25~100mm/分匀速垂直拔出, 第四次作为测量资料的记录. FFC/FPC(T=0.30) insert FPC connector products, pushed into the slider, Pull out vertically at 25~100mm/ min average speed, The fourth time is recorded as measurement data.	20gf/Terminal Min.
2	端子保持力 Terminal Retention Force	将端子 25~100mm/分匀速垂直从胶芯槽内拔出 Apply axial pull out force on the terminal assembled in the housing at the speed rate of 25~100mm per minute.	50gf/terminal Min.
3	固定片保持力 Anchor-Plate Retention Force	将固定片 25~100mm/分匀速垂直从胶芯槽内拔出 Apply axial pull out force on the Anchor-Plate assembled in the housing at the speed rate of 25~100mm per minute.	50gf/terminal Min.
4	插拔耐久性 Durability	以下动作进行 30 次巡回: FPC 插入、SLIDER 插入、SLIDER 拔出、FPC 拔出 The following action 30 Tour FPC insert, Slider insert, Slider withdraw, FPC withdraw	接触阻抗 Contact Resistance 50mΩ Max. 无变形 No deformation
5	掀盖拉断强度 Breaking strength of Actuator	对掀盖以 25~100mm/分匀速从中间施力, 测出破断力 Apply the force from the middle at a constant speed of 25~100mm/ min to the Actuator and measure the breaking force	80gf/min.
6	掀盖动作力 Actuating force	将 FFC 插入主体装好后, 以 25~100mm/分匀速将掀盖拉起, 测量其作用力 After mated FFC/FPC, lift the cover at a uniform speed of 25~100mm/ min and measure its force	100gf/min.

### 5.4 环境性能和其它 Environmental Performance and Others

序号 NO.	项 目 Item	测试方法 Test conditions	规格要求 Specifications
1	耐振性 Vibration	配合合适的 FPC, 按以下条件, X、Y、Z 方向各 2 小时, 共 6 小时在测试过程中通过直流 1mA, 振幅 1.5mm, 频率 10~55~10Hz/分。 Mate applicable FPC, according to the following conditions, X, Z, Y direction of each 2 hours, a total of 6 hours passing DC 1mA during the test. Amplitude : 1.5mm P-P Frequency : 10~55~10 Hz Shall be traversed in 1 minute.	接触阻抗初始规格的 2 倍以下 The contact Resistance shall not exceed twice the initial value
2	耐冲击性 Shock	配合合适的 FPC, 按以下条件, X, Y, Z 方向各 11ms, 各 3 回, 共 18 回, 在测试过程中通过直流 1mA, 加速度 490m/s <sup>2</sup> , Mate applicable FPC, according to the following conditions, X, Z, Y direction of the 11ms, the 3 times, a total of 18 times during the test process by DC 1mA. Test pulse : Half Sine Peak value : 490m/s <sup>2</sup> {50G} Duration : 11 milliseconds	瞬断 1μs 以内; Discontinuity: 1μs Max. 外观无异常 No abnormal appearance
3	耐寒性 Cold Resistance	配合合适的 FPC, -40±3℃中放置时间 48H 后取出, 1~2 小时常温放置后进行测试。 Mate applicable FPC, after -40±3℃, the time of 48H was removed, and the test was conducted at room temperature for 1~2 hours.	1. 接触阻抗: 30mΩ Max. 2. 绝缘阻抗: 100 MΩ Min. 3. 耐电压: 无击穿, 短路 4. 外观: 无异常
4	耐热性 Heat Resistance	配合合适的 FPC, 85 ± 2℃中放置时间 96H 后取出, 1~2 小时常温放置后进行测试。 Mate applicable FPC, after 85±2℃, the time of 96H was removed, and the test was conducted at room temperature for 1~2 hours.	1. Contact Resistance: 30mΩ Max. 2. Insulation Resistance : 100 MΩ Min.
5	耐湿性 Humidity	配合合适的 FPC, 40±3℃、相对湿度 90~95%中放置时间 96H 后取出, 1~2 小时常温放置后进行测试。 Mate applicable FPC, 40±3℃, relative humidity 90~95% in the time of 96H after removal, 1~2 hours after room temperature for testing.	3. Dielectric withstanding voltage: No Breakdown. 4. No abnormal appearance

本制品不含 SS-00259 和 ROHS 禁止使用的环境物质

This product does not contain SS-00259 and ROHS banned the use of environmental substances

制 品 仕 样 书 Product specification		Part name	0.5/1.0pitch FPC/FFC Conn.ZIF, Front side flip H1.25 SMT Series		
Amphenol Aorora Technology (Huizhou) Co.,Ltd		Part No.	F31E-1A7H1-210** F51E-1A7H1-210** F31T-1A7H1-210** F51T-1A7H1-210**	2/4	
Document No. : IS.EQC.042	Date: 2016/01/30	Rev. : C	Written by: May	Checked by: Rain	Approved by: Hongkui.liu



## 6. 包装 Packing

参见捆包图。See the drawing

## 7. 修改内容 Change content

版本 Rev.	改正日期 Modify date	改正内容 Modifications	Written by	Checked by
A	2013/09/16	New	Enhai.he	Roy
B	2016/01/20	更新为中英对照及增加操作说明 Update for the Chinese and English and increase the operating instructions	May	Rain
C	2016/01/30	更新耐寒性温度为-40℃	May	Rain

本制品不含 SS-00259 和 ROHS 禁止使用的环境物质

This product does not contain SS-00259 and ROHS banned the use of environmental substances

制 品 仕 样 书 Product specification	Part name	0.5/1.0pitch FPC/FFC Conn.ZIF, Front side flip H1.25 SMT Series			
Amphenol Aorora Technology (Huizhou) Co.,Ltd	Part No.	F31E-1A7H1-210** F51E-1A7H1-210** F31T-1A7H1-210** F51T-1A7H1-210**	4/4		
Document No. : IS.EQC.042	Date: 2016/01/30	Rev. : C	Written by: May	Checked by: Rain	Approved by: Hongkui.liu