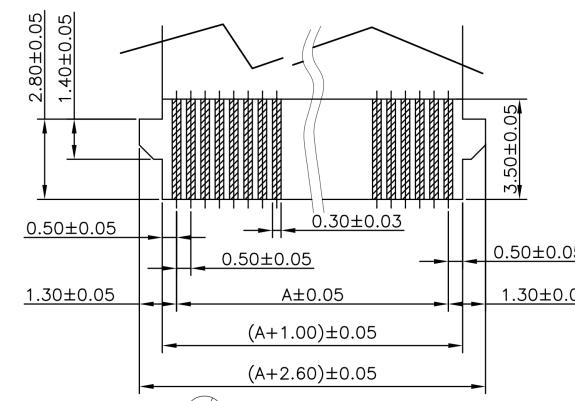
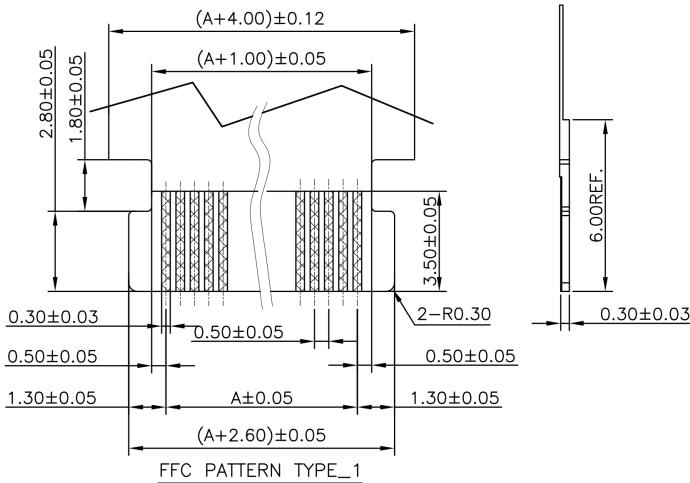
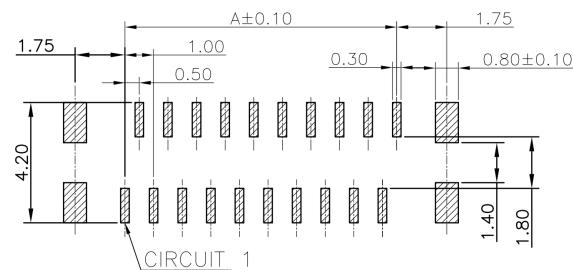


1. FFC PATTERN DIMENSION



2. P.C.B LAYOUT, TOL: ± 0.05



DIMENSION LIST:

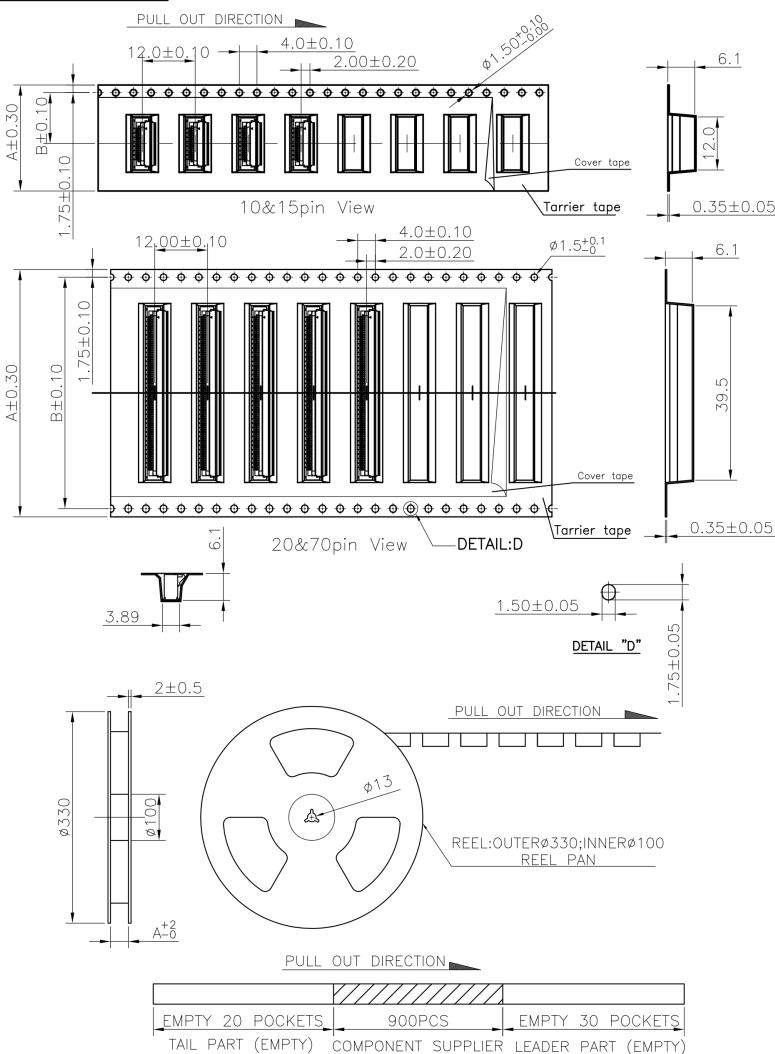
NO. OF POS.	A	B	$1\frac{1}{2}C$	$2\frac{1}{2}D$	$1\frac{1}{2}E$
10	4.50	9.20	7.12	5.60	7.04
20	9.50	14.20	12.12	10.60	12.04
30	14.50	19.20	17.12	15.60	17.04
40	19.50	24.20	22.12	20.60	22.04
50	24.50	29.20	27.12	25.60	27.04
60	29.50	34.20	32.12	30.60	32.04
70	34.50	39.20	37.12	35.60	37.00

UNLESS OTHERWISE SPECIFIED TOLERANCES

X.	± 0.30	X.	$\pm 5'$		
X.X	± 0.25	X.X	$\pm 4'$		
X.XX	± 0.20	X.XX	$\pm 3'$		
X.XXX	± 0.15	X.XXX	$\pm 2'$		
LINEAR DIMS		ANGLES DIMS			
DOC TYP	Customer Drw	ANGLE OF PROJECTION			
DRAWN DATE	May 2019-01-07				
DESIGN DATE	May 2019-01-07	TITLE:			
DWG NO.	A-S0127	Assembly Drawing For 0.5 PITCH FPC CONN. ZIF			
MATERIAL	SEE NOTES	SMT TYPE STRAIGHT			
FINISHED	SEE NOTES	SIZE			
APPROVED DATE	Hongkui.Liu 2019-01-07	PART NUMBER:	A4 HRS-F31S-1A7*1-110**	REV.	H
SCALE	1:1	UNIT : mm	SHEET 2 OF 3		

Horus Int. Electronics Co., LTD.
 Horustech Electronics Co., LTD.

1. PACKING INTO REEL:



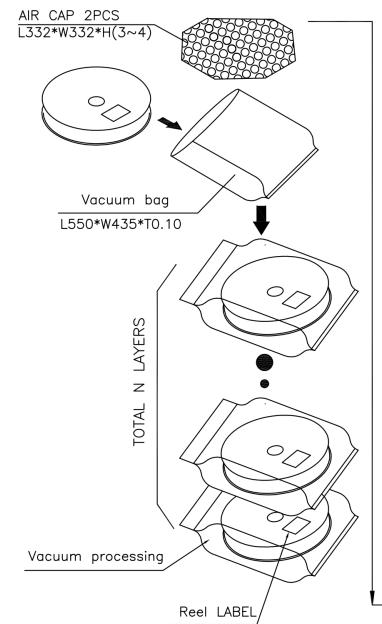
5. QTY LIST:

DIM NO.	10&15pin	20&30pin	40&50pin	60&70pin
A	24.00	32.00	44.00	56.00
B	14.20	28.40	40.40	52.40
N	10	8	6	5
TOTAL(PCS)	9000	7200	5400	4500

NOTES:

- MATERIAL:
 - CARRY TAPE:HIPS,T=0.35mm,CLEAR
 - REEL:HIPS,BLUE.
 - SHIM:PE,CLEAR.
- PRIMARY PACKING:900PCS/REEL.
- SECONDARY PACKING:"N"REELS/CARTON ("TOTAL"=N*900/CARTON).
- PEELING RESISTANCE: 0.1N~0.7N(10~70gf);
PEELING ANGLE: 165°~180°;
PEELING SPEED: 300mm/minutes.

2:PACKING INTO OUTER BOX



UNLESS OTHERWISE SPECIFIED
TOLERANCES

X.	±0.30	X.	± 5'
X.X	±0.25	X.X	± 4'
X.XX	±0.20	X.XX	± 3'
X.XXX	±0.15	X.XXX	± 2'



DOC TYP

Customer Drw

DRAWN DATE

May

2019-01-07

DESIGN DATE

May

2019-01-07

CHECKED DATE

Rain.Han

2019-01-07

FINISHED DATE

Leo.Liu

2019-01-07

APPROVED DATE

1. 适用范围 Scope:

适用于: 0.5Pitch FPC/FFC 立式掀盖式系列 SMT H5.8

此规格书适用于: Pitch0.5 FPC/FFC vertical lift cover type SMT H5.8 series

连接方式 Connected to the FPC/FFC : ZIF

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 : 关于塑料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 POLYPLASTICS CO., LTD	LCP Liquid crystal polymer 473i(自然色 Natural)	V-0	E106764
2	推杆 (ACTUATOR)	宝理 POLYPLASTICS CO., LTD	LCP Liquid crystal polymer473i(黑色 Black)	V-0	E106764

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°C~+105°C;

4.3.2 储存温度范围 storage temperature: -40°C~+105°C;

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

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 humidity 45~80%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

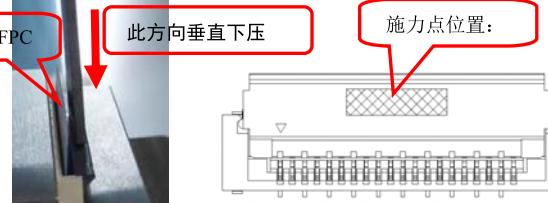
序号 NO.	项目 Item	测试方法 Test conditions	规格要求 Specifications
1	接触阻抗 Contact Resistance	适配 FFC 标准线, 开放电压: 20mV 以下, 短路电流: 10mA 以下 Mate applicable FPC, measure by dry circuit, 20mV MAXIMUM, 10mA MAXIMUM	30mΩ Max.
2	绝缘阻抗 Insulation Resistance	相邻端子间 DC 500V, 1 分钟。 DC 500V between adjacent terminals, 1 minutes	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 at rated current under.	30°C max

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制品仕样书 Product specification		Part name	Pitch0.5 FPC/FFC vertical lift cover type SMT H5.8 series		
Horus Int. Electronics. Co., LTD. HorusTech Electronics. Co., LTD.		Part No.	HRS-F31S-1A7*1-110**		1/6
Document No.: IS.EQC.034	Date: 2017/03/22	Rev.: F	Written by: May	Checked by: Rain	Approved by: Xiaohong. Zhu

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 插入 FPC 连接品后, 以 25~100mm/分匀速垂直拔出, 此动作重复三次后, 第四次才作测量资料的记录。 FFC insert the FPC connection with a 25~100mm/ product, uniform vertical pull, this action is repeated three times, fourth times for measurement data records.	20gf/p
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.	100gf/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.	500gf/terminal Min.
4	掀盖作用力 (不含 FFC/FPC) Slider Force (Not Include FFC/FPC)	FFC 线未插入主体, 测量 SLIDER 首次下压作用力。 FFC line not inserted into the main body, the measurement of the SLIDER down force for the first time 	掀盖下压力: 10~20PIN: 180gf Min 30~40pin: 300gf Min 50~70pin: 400gf Min
	掀盖作用力 (含 FFC/FPC) Slider Force (Include FFC/FPC)	将 FFC 线插入主体, 掀盖下压入, 掀盖拔起, 此动作重复三次后, 第四次才做测量数据的记录。 Insert the FFC line the main body, lift the lid down into the lift cover pull up, repeat the action after three times, for the fourth time to do the measurement data record. 	掀盖下压力: 3200gf Max Open the slider force: 3200gf Max. 掀盖拔起力 (Close the slider Force): 10~30PIN: 150gf Min. 40~70PIN: 500gf Min.
5	插拔耐久性 Durability	以下动作进行 30 次巡回: FPC 插入、打开掀盖、关闭掀盖、FPC 拔出 The following action 30 Tour FPC insert, Open the Slider, Close the slider, FPC withdraw	接触阻抗 Contact Resistance 50mΩ Max. 端子无变形, 无裂痕 Terminal no deformation, No cracks

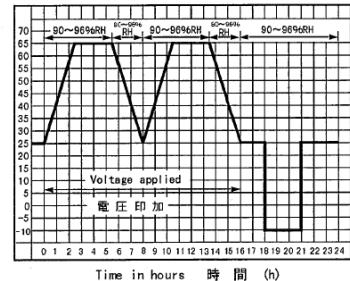
5.4 环境性能和其它 Environmental Performance and Others

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 50mΩ Max. Contact Resistance: 50mΩ Max.
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/s², 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/s² {50G} Duration : 11 milliseconds	瞬断 1 μ s 以内; Discontinuity: 1 μ s Max. 外观无异常 No abnormal appearance

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制品仕样书 Product specification	Part name	Pitch0.5 FPC/FFC vertical lift cover type SMT H5.8 series	
Horus Int. Electronics. Co., LTD. Horustech Electronics. Co., LTD.	Part No.	HRS-F31S-1A7*1-110**	2/6
Document No.: IS.EQC.034	Date: 2017/03/22	Written by: May	Checked by: Rain
			Approved by: Xiaohong.Zhu

序号 NO.	项目 Item	测试方法 Test conditions	规格要求 Specifications
	接触阻抗 Contact Resistance	配合合适的FPC, -40±3℃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 -40±3℃, the time of 96H was removed, and the test was conducted at room temperature for 1~2 hours.	1. 接触阻抗: 50mΩ Max. 2. 绝缘阻抗: 500 MΩ Min. 3. 耐电压: 无击穿, 短路 4. 外观: 无异常
	Resistance	配合合适的FPC, 105±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 105±2℃, the time of 96H was removed, and the test was conducted at room temperature for 1~2 hours.	1. Contact Resistance: 50mΩ Max. 2. Insulation Resistance : 500 MΩ Min. 3. Dielectric withstand voltage: No Breakdown. 4. No abnormal appearance
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.	1. Contact Resistance: 50mΩ Max. 2. Insulation Resistance : 500 MΩ Min. 3. Dielectric withstand voltage: No Breakdown. 4. No abnormal appearance
6	盐雾试验 Salt Spray	配合合适的FPC, 温度35±2℃; 盐水比重5±1%喷雾试验, 试验后常温水洗干净后进行测试。 A: 镀金 48h B: 镀锡 24h C: 单pin端子 48h Mate applicable FPC, the temperature of 35±2℃, the proportion of salt water was 5±1% the test was carried out at room temperature after washing and drying. A: gold plating 48H B: tin 24h C: single pin terminal 48H	1. 接触阻抗: 50mΩ Max. 2. 绝缘阻抗: 500 MΩ Min. 3. 耐电压: 无击穿, 短路 4. 外观: 无异常
7	冷热冲击 Thermal Shock	配合合适的FPC, -55±3℃; 85±2℃的温度下各放置30分钟, 共进行5次循环 Mate applicable FPC, -55±3℃, 85±2℃, 30 minutes, 5 cycles were performed. 1: -55℃ 30 minutes 2: +85℃ 30 minutes	1. Contact Resistance: 50mΩ Max. 2. Insulation Resistance : 500 MΩ Min. 3. Dielectric withstand voltage: No Breakdown. 4. No abnormal appearance
8	耐湿性 (温湿度循环) Humidity (Temperature and Humidity Cycle)	配合合适的FPC, 依照下面曲线完成5次循环试验。 Mate applicable FPC, complete the 5 cycle test according to the curve below. 	1. Contact Resistance: 50mΩ Max. 2. Insulation Resistance : 500 MΩ Min. 3. Dielectric withstand voltage: No Breakdown. 4. No abnormal appearance
9	沾锡性 Solderability	端子焊脚和固定片前端0.3mm, 沾锡温度245±5℃ (Sn: Lead Free); 时间3±0.5S Terminal welding feet and fitting nail front 0.3mm, soldering temperature 245±5℃ (Sn: Lead Free); time 3±0.5S	吃锡饱满, 在95%以上 95% of immersed area must show no voids, pin holes
10	焊锡耐热性 Resistance to Soldering Heat	端子焊脚和固定片前端0.3mm, 烙铁温度350±10℃ (Sn: Lead Free); 时间10+1/-0 S Terminal welding feet and fitting nail front 0.3mm, soldering Iron temperature 350±10℃ (Sn: Lead Free), time: 10+1/-0 S	共面度0.10mm Max. 满足电气性能, 外观无异常, Coplanar degree 0.10mm Max.
11	Reflow	预备加热时间 Pre-heating time: 170°C~190°C 60~180s。 焊锡温度时间 Soldering Temperature Time: 260°C 10sMAX.	Meet the electrical properties , No abnormal appearance.
12	耐溶剂 Solvent	将产品放入异丙基酒精容器中90秒后取出。 Product into the isopropyl alcohol container removed after 90 seconds.	满足电气性能, 外观无异常。 Meet electrical performance No abnormal appearance.

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制品仕样书 Product specification		Part name	Pitch0.5 FPC/FFC vertical lift cover type SMT H5.8 series		
Horus Int. Electronics. Co., LTD. HorusTech Electronics. Co., LTD.		Part No.	HRS-F31S-1A7*1-110**		3/6
Document No.: IS.EQC.034	Date: 2017/03/22	Rev.: F	Written by: May	Checked by: Rain	Approved by: Xiaohong Zhu

6. 包装 Packing

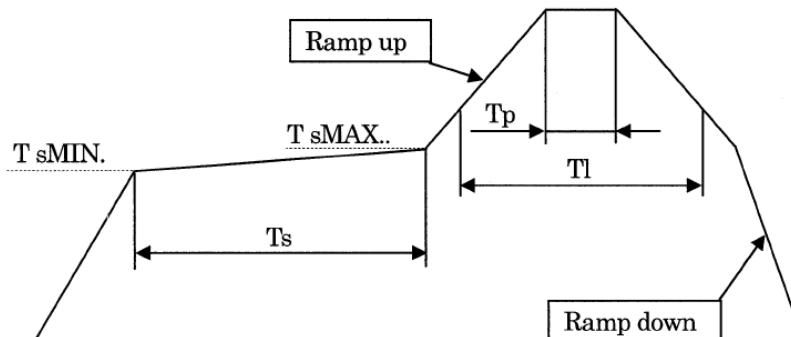
参见捆包图。See the drawing

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	2014/07/10	New	May	Rain
B	2014/11/08	增加操作说明 (Increase operation instructions)	May	Rain
C	2015/12/29	更新为中英对照版本	May	Rain
D	2016/04/07	修正接触电阻参数 Modify contact resistance parameters	May	Rain
E	2016/06/30	增加掀盖作用力测试操作示意图及注意事项 Increase lift force test operation schematic diagram and matters needing attention	May	Rain
F	2017/3/22	修正焊锡温度条件及耐热性测试条件 Modify the test conditions	Mat	Rain

Reflow Condition:

Profile Feature	Lead-free Eutectic Assembly
温度上升 Ramp up Rate(Tsmax to Tp)	:1~4°C/S
. Pre-heat Ts MIN. Ts MAX. Time(Ts MIN. TO Ts MAX.)	:170°C MIN :190°C MAX :60~180S
T 1 温度 (temperature) 时间 (time)	:225°C MIN :60~150S
T p(Peak) 温度 (temperature) 时间 (time)	:260°C MAX(255°C MIN.) :10S MAX

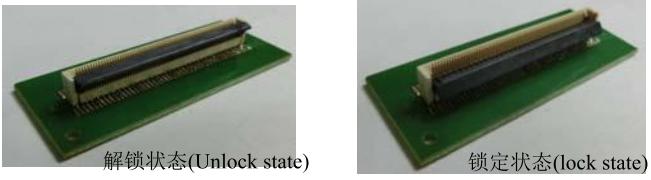
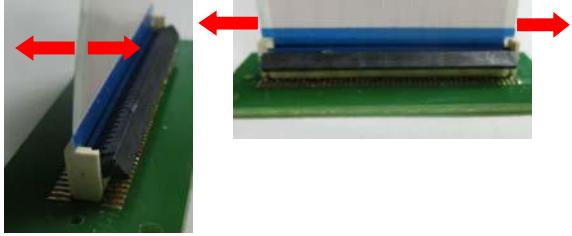
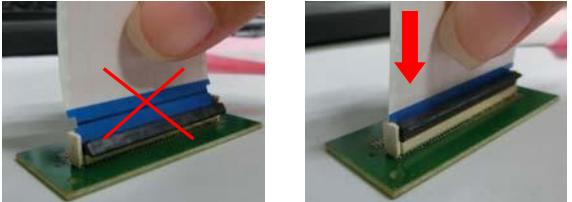
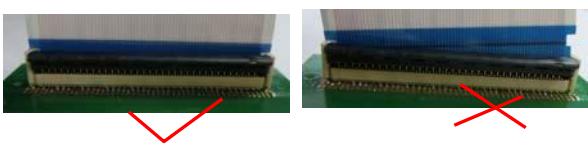
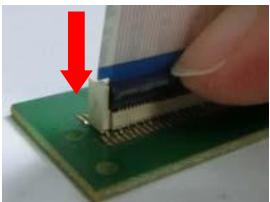
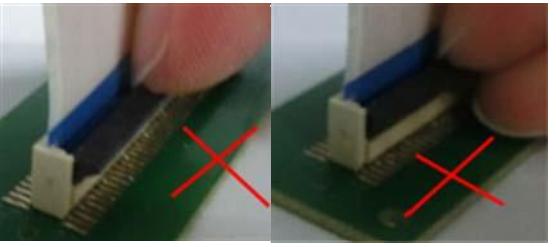


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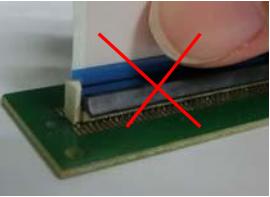
制品仕样书 Product specification	Part name	Pitch0.5 FPC/FFC vertical lift cover type SMT H5.8 series		
Horus Int. Electronics. Co., LTD. Horustech Electronics. Co., LTD.		Part No.	HRS-F31S-1A7*1-110**	4/6
Document No.: IS.EQC.034	Date: 2017/03/23	Rev.: F	Written by: May	Checked by: Rain
				Approved by: Xiaohong.Zhu

操作说明和注意事项 Operating instructions and matters needing attention

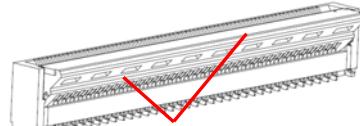
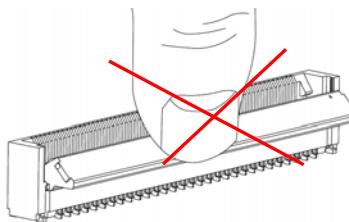
操作说明 (Operating instructions):	注意事项 (Matters needing attention)
<p>解锁状态 盖向上拔动为解锁状态, 即产品装贴后 初始状态</p> <p>Unlock state: lose the slider is unlocked, namely the Product after installation initial sata</p> <p>锁定状态: 掀盖向下压为锁定状态, 靠人的食指和拇指甲向 下拔动, 可以很简单的操作.</p> <p>Lock state: Open the slider is locked, By the thumb and index finger to pull down, it can be a very simple operation.</p>  <p>解锁状态(Unlock state) 锁定状态(lock state)</p> <p>以上必需在连接器已装贴在电路板上的状态下实施 Above must be implemented in a state that the connector is mounted on the circuit board.</p>	<p>1) : 对 FFC, 请在其左右方不要施加拉力, 或在其端子 间距方向施加撬动力.</p> <p>For FFC, please do not pull the pull force on the left or the right side, or in the direction of the terminal spacing.</p> 
<p>2) : 插入 FFC: 请在掀盖未打开 (解锁) 状态下进行, FFC 的导体面朝掀盖的反方向, FPC 相对于连接器垂直插入, 要确认 FFC 插到顶住本体的底部. 本产品在结构设计上, 掀盖不能打开, 所以在其上面不要施加超出此范围的力, 否则会出现 FFC 不能插入或 插入不到底或插入倾斜现象。</p> <p>Insert the FPC: Please do not open the slider is not opened (lock state), FFC the opposite direction of the conductor face lift, FPC relative to the connector vertical insertion, to confirm the FFC plug into the bottom of the body. This product in the structure design, lift the lid can not be opened, so in the above, do not apply force beyond this range, otherwise it will appear FFC can not insert or insert into the tilt phenomenon.</p> 	<p>2) : 请将 FFC 正确地插入连接器的插入口. 要确认 FFC 插到顶住本体的底部, 如果不正确的插入, 会导致短路, 导通不良. 插入 FFC 时, 不要用力擦蹭连接器插入口的 下面, 否则端子会与 FFC 强烈碰撞, 导致端子变形, FFC 导体剥落等的不良.</p> <p>Please insert the FFC correctly into the insertion port of the connector to confirm that the FFC inserted into the bottom of the body, if not properly inserted, will lead to short circuit, lead to bad. Insert FFC, do not rub the connector into the mouth, or the terminal will be strongly impact with FFC, resulting in terminal distortion, FFC conductor peeling off and so on.</p> 
<p>3) : 锁 FFC: 向下按掀盖的中间部位, FFC 半插入、或插入错位 极大时, 掀盖的卡住状态不佳, 会浮起。此时, 要按 4) 的拔出 方法取出 FFC, 再次从 1) 开始操作。同时, 进行锁定作业时, 要 固定好连接器。</p> <p>Down by the middle part of the lift slider, FFC semi insert, or insert a great when the lift slider of the stuck state is not good, will float.</p> 	<p>3) : 请避免用手指捏或拔掀盖 (特别是用指甲拔动) 等 的操作</p> <p>Please do not use your fingers to pinch or pull off the slider (especially with the nail), and so on.</p> 

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	Pitch0.5 FPC/FFC vertical lift cover type SMT H5.8 series		
Horus Int. Electronics. Co., LTD. Horustech Electronics. Co., LTD.	Part No.	HRS-F31S-1A7*1-110** 5/6		
Document No. : IS.EQC.034	Date: 2017/03/23	Rev.: F	Written by: May	Checked by: Rain Approved by: Xiaohong. Zhu

操作说明 (Operating instructions):	注意事项 (Matters needing attention)
<p>4) : 拔出 FFC: 依照 1 的方法进行关闭掀盖; 在拔出 FFC 时, 请在掀盖完全关闭 (解锁) 状态下进行. 万一在掀盖未完全关闭的状态下, 拔出 FFC, 重新装入 FFC 时, 请确认触点部位是否有附着物.</p>	<p>4) : 如果是大 PIN 数的时候请用双手大母指及食指相互配合按盖子的两端进行下压掀盖进入锁定状态.</p> <p>If this is a big pin number when you use both hands thumb refers to the index finger and cooperate with each other according to the two ends of the cover pressure lift cover into the locking state.</p>
<p>PULL OUT FFC: Close the lift off the slider at 1. When the FFC is pulled, the FFC is pulled out, and if the FFC is not completely closed, the contact area is to be attached.</p> 	

5) : 未焊板前, 产品掀盖不可随意翻转, 保持初始状态.
Before welding plate, product lift cover an optional flip maintain the initial state



初始状态 (掀盖未翻转)

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