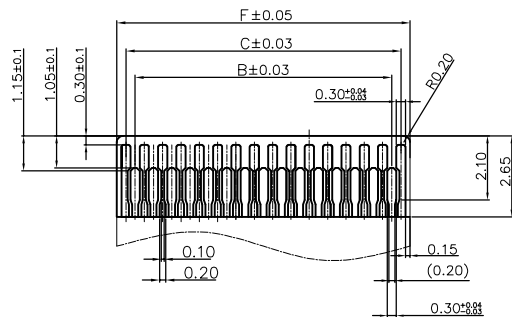
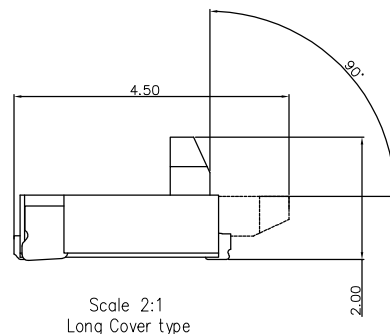
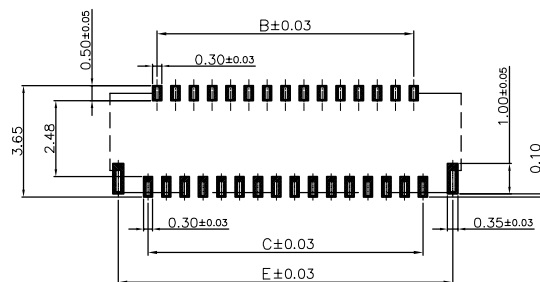
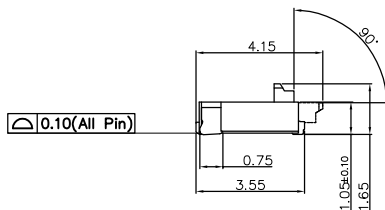
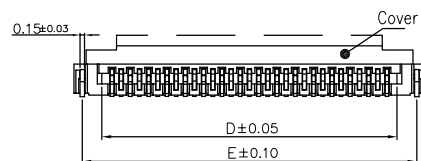
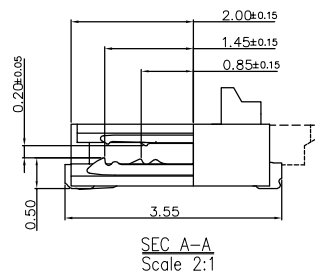
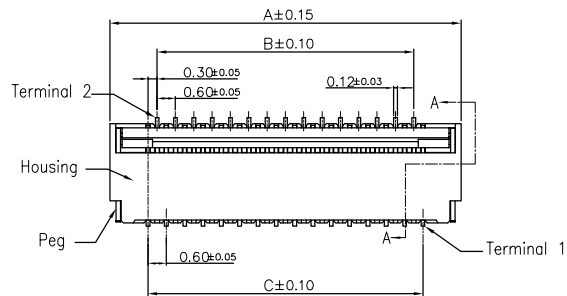


Note:

1.Material

- 1.1: Housing: LCP UL94-V0 Color: White
- 1.2: Actuator: PA UL94-V0 Color:Black.
- 1.3: Contact: Phosphor Bronze.
- 1.4: LEG: Phosphor Bronze.

2.Plating

- 2.1: Contact: See Part Number.
- 2.2: LEG: Matte Tin Plating Over Nickel.

3.Rating:

- 3.1: Operating Voltage: 30V AC/DC.
- 3.2: Current Rating: 0.2A AC/DC.
- 3.3: Operating Temperature: -55°C~+85°C.

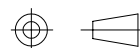
4.Pater Number:

FPC 03 09- xx RL- TA G

- G=Gold flash
- TA: Tape Rell Packing
- Right Angle Double Contact Type
- NO. of contacts : 51
- Series name
- Pitch=0.3mm
- FPC Series

No. of Contacts	Dimension						
	A	B	C	D	E	F	
11	5.50	2.40	3.00	3.63	4.95	3.60	
13	6.10	3.00	3.60	4.23	5.55	4.20	
15	6.70	3.60	4.20	4.83	6.15	4.80	
17	7.30	4.20	4.80	5.43	6.75	5.40	
19	7.90	4.80	5.40	6.03	7.35	6.00	
21	8.50	5.40	6.00	6.63	7.95	6.60	
23	9.10	6.00	6.60	7.23	8.55	7.20	
25	9.70	6.60	7.20	7.83	9.15	7.80	
31	11.50	8.40	9.00	9.63	10.95	9.60	
33	12.10	9.00	9.60	10.23	11.55	10.20	
35	12.70	9.60	10.20	10.83	12.15	10.80	
39	13.90	10.80	11.40	12.03	13.35	12.00	
41	14.50	11.40	12.00	12.63	13.95	12.60	
45	15.70	12.60	13.20	13.83	15.15	13.80	
51	17.50	14.40	15.00	15.63	16.95	15.60	Long Cover type

山谷道 深圳市山谷道电子有限公司



TITLE: 0.3Pitch 1.0H
品名: ZIF/前插后掀式

一般公差 (TOLERANCE)

APPD: ZHONGJIAN

DWG NO: FPC0309-xxRL-TAG

核准: LIWEI

DATE SCALE UNIT PAGE

校对: WANGHAO

20130618 1:1 mm 1/1

繪圖: WANGHAO

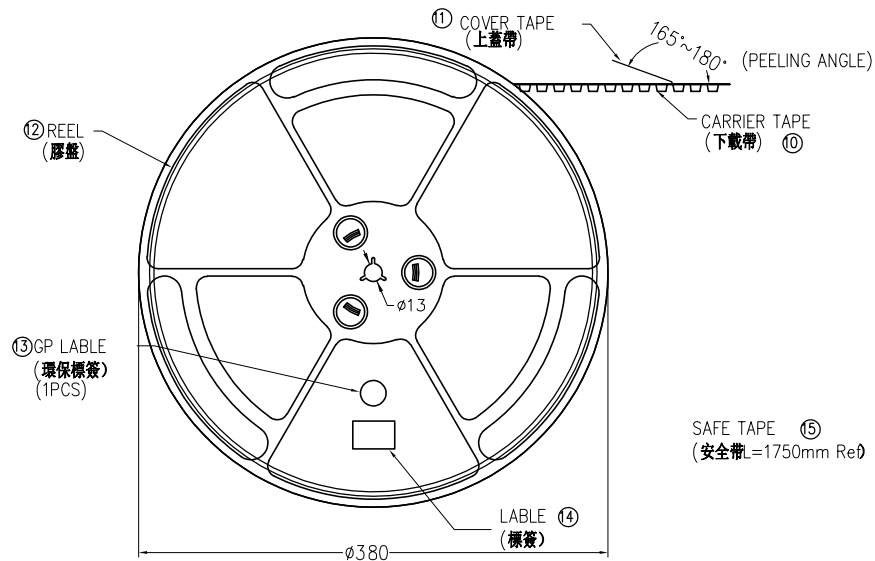
REV	DESCRIPTION	ECN.NO	SL	DATE
B	底部隔栏加胶0.13mm	-----	liu	23/10'10

本产品需符合 ☒ RoHS ☐ SONY00259 ☒ HF ☐ 其他
※禁止使用本公司所禁用有毒物质

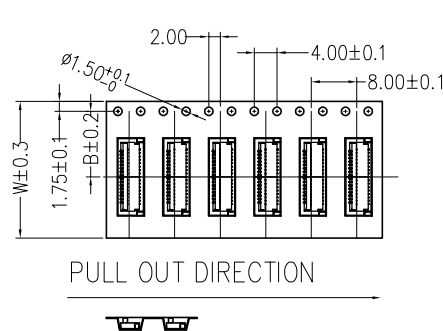
EMBOSSED TAPE PACKING

FPC 0.3Pitch 1.0H ZIF R/A Double Contact
Connector SMT Type

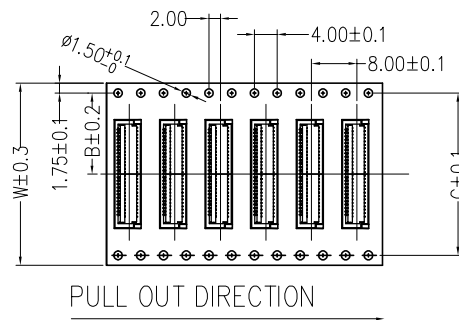
PULL OUT DIRECTION



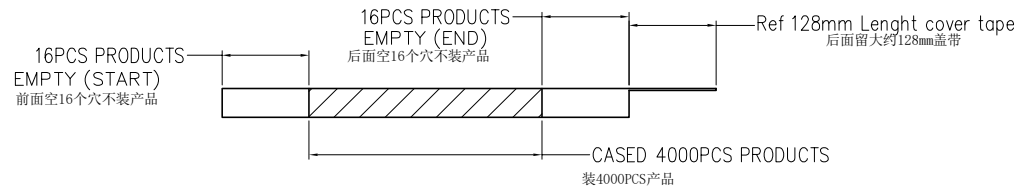
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PULL OUT DIRECTION

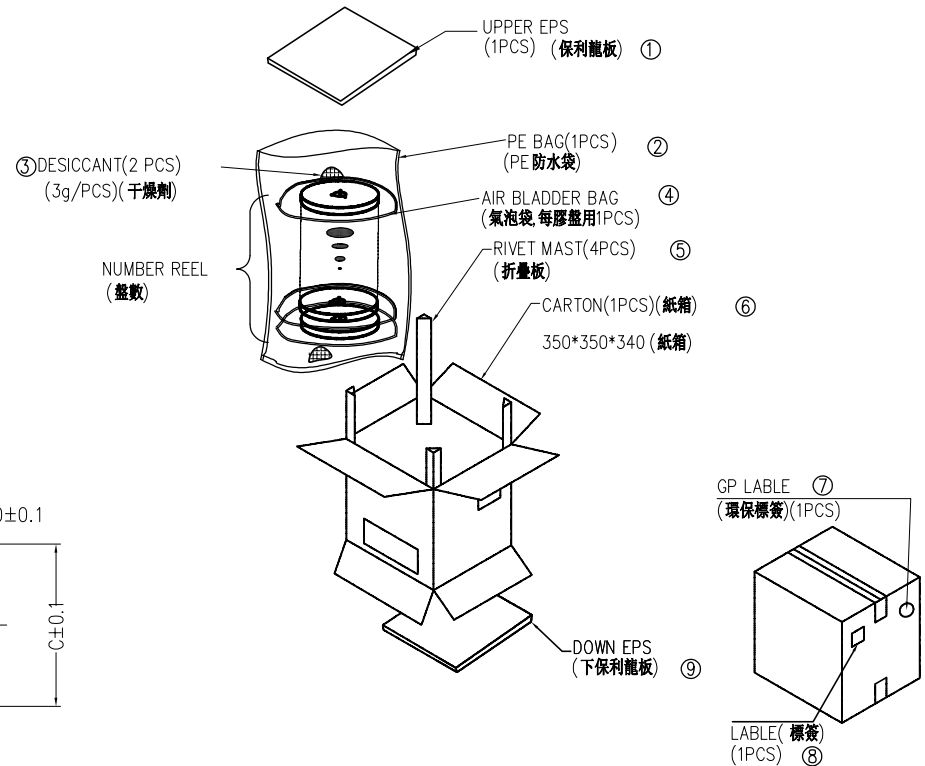


PULL OUT DIRECTION



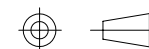
NOTE:

- 1.10 Sprocket hole pitch cumulative tolerance ± 0.20 .
- 2.Carrier camber is within 1mm in 100mm.
- 3.Material: black conductive polystyrene alloy.
- 4.Material Thickness: 0.3 ± 0.05 mm.
- 5.All dimensions meet EIA-481-B requirements.
- 6.4000pcs Pef Reel.
- 7.For tape width(dim W)12,16 and 24mm pilot holes are provided on one sides.
For tape width(dim W)32, 44mm pilot holes are provided on both sides.



PIN NO.	W	A	B	C	PCS /REEL	REEL/CARTON	SUM(PCS)
9PIN~21PIN	16	20.5	7.50	-	4000	14	56000
23PIN~45PIN	24	28.5	11.5	-	4000	10	40000
51PIN	32	36.5	14.2	28.4	4000	8	32000

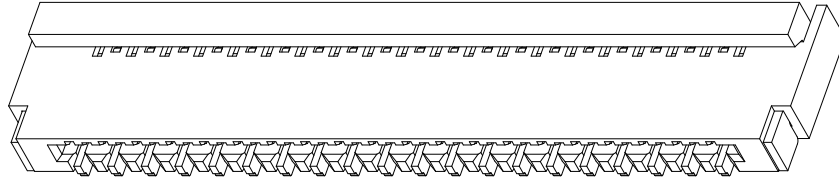
山谷道 深圳市山谷道电子有限公司



TITLE: 0.3Pitch 1.0H
品名: ZIF/前插后掀式

一般公差 (TOLERANCE)		APPD: ZHONGJIAN 核准:	DWG NO: FPC0309-xxRL-TAG 產品料號:			
X.X : ± 0.30	X.X* : $\pm 5^{\circ}$	CHECK: LiWEI 校對:	DATE	SCALE	UNIT	PAGE
X.XX : ± 0.20	X.XX* : $\pm 2^{\circ}$	DRAW: WANGHAO 繪圖:	20130618	1:1	mm	1/1

本产品需符合 ☒ RoHS ☐ SONY00259 ☒ HF ☐ 其他
※禁止使用本公司所禁用有毒物质



Update List:

Item	Update Description	Rev.	Issued Date	Revisor
1	New Edit	A	2022/02/21	

Prepared By: 张开国

Rechecked By: 张开国

Approved By: 钟健

FPC Connector 0.3mm Pitch	Product Specification	Issued Date 2022-02-21
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1. SCOPE

This specification covers the FPC0309 Series Connector.

2. ORDERING INFORMATION

PART NO.: **FPC** **03** **09** - **xx** **RL** - **TA** **G** **X**

1 **2** **3** **4** **5** **6** **7** **8**

1	Series name	FPC Connector
2	Pitch between	0.3 mm Pitch
3	Series Number	10
4	Number of terminals	11~51
5	Assembly style	Right Angle Double Contact SMT Type
6	Packaging	TA :Tape Reel
7	Plating	Gold flash over Nickel
8	Colour	B:Black N=Natural

3. CONNECTOR DIMENSIONS

See attached drawings.

4. MATERIAL

Housing :	LCP Color : Black.
	Flammability Rating (UL94V-0)HF
Actuator	PA Color : Black.
	Flammability Rating (UL94V-0)HF
Contact :	Phosphor Bronze
Leg :	Phosphor Bronze
Contact Plating	See Ordering Information
Leg Plating:	Tin over Nickel

5. ACCOMMODATED P.C.B. LAYOUT

See attached drawings.

6. RATING.

ITEM	STANDARD
Operating Voltage (Max.)	30V AC
Current Rating (Max.)	0.2A DC
Operating Temperature	-55°C ~ +85°C (Including terminal temperature rise)
Operating Humidity range	Relative humidity 90%Max
Storage temperature range	-10°C ~ +50°C
Storage Humidity range	Relative humidity 90%Max.

7. PERFORMANCE

项目 ITEM	测试条件 TEST CONDITION	规格 REQUIRMENT
电气特性 (ELECTRICAL PERFORMANCE)		
接触阻抗 Contact Resistance	将样品与适合之 FPC 连接，测试电压 20mV，限电流 10mA 下进行阻抗测试。 (JIS C5402 5.4) Mate applicable FPC and measure by dry circuit, 20mV Max, 10mA. (JIS C5402 5.4)	100 mΩ 以下. 100 mΩ Max.
绝缘阻抗 Insulation Resistance	将样品与适合之 FPC 连接，提供相邻端子间测试电压 500V DC 进行绝缘阻抗测试。 (JIS C5402 5.2 / MIL-STD-202 Method 302) Mate applicable FPC and apply 500V DC between adjacent terminal or ground. (JIS C5402 5.2 / MIL-STD-202 Method 302)	50 MΩ 以上. 50 MΩ Min.
耐电压 Dielectric Strength	将样品与适合之 FPC 连接，相邻端子间需可承受 250V AC(rms) 1 分钟。 (JIS C5402 5.1 / MIL-STD-202 Method 301) Mate applicable FPC, apply 250V AC(rms) for 1 minute between adjacent terminal or ground. (JIS C5402 5.1 / MIL-STD-202 Method 301)	目视外观无任何损坏异状 No Breakdown
机械特性 (MECHANICAL PERFORMANCE)		
FPC 保持力 FPC Retention Force	将盖子盖上，与 FPC 连接，以操作速度每分钟位移 25±3mm 进行 FPC 保持力测试。 Insert the actuator, pull the FPC at a rate of 25±3mm per minute.	Pos. x 0.15N 以上 Pos. x 0.15N Min.
端子保持力 Terminal Retention Force	端子与 Housing 组装后，以操作速度每分钟位移 25±3mm 将端子拔出 Housing，进行端子保持力测试。 Apply axial pull out force at the rate of 25±3 mm/minute on the terminal assembled in the housing.	Pos. x 0.08Kgf {0.8N} 以上 Pos. x 0.08Kgf {0.8N} Min.

FPC Connector 0.3mm Pitch	Product Specification	Issued Date
		2022-02-21

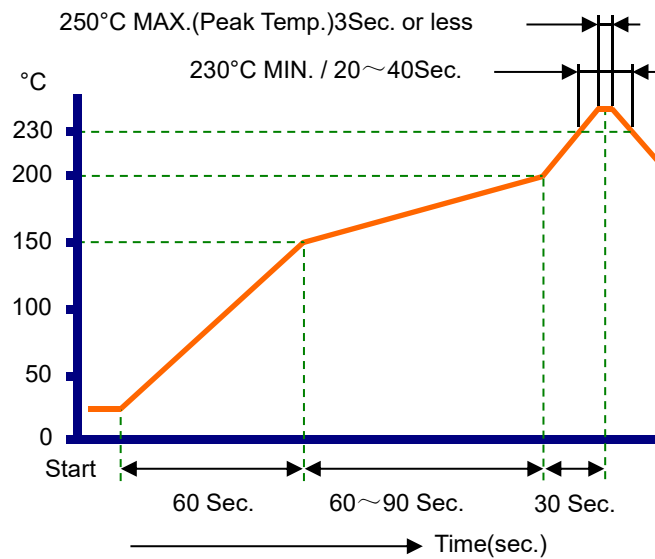
项目 ITEM	测试条件 TEST CONDITION	规格 REQUIREMENT	
盖子往返操作测试 Repeated Actuator Insertion/ Withdrawal	将盖子与 FPC 反复连接, 以每分钟小于 10 cycles 连续操作 20 次。 Insert and withdraw actuator up to 20 cycles at the speed rate of less than 10 cycles/minute.	接触阻抗 Contact Resistance	100 mΩ以下. 100 mΩ Max.
温升 Temperature Rise	量测通过 FPC 最大容许电流时, 样品接触点之温升。 (UL498) Mate applicable FPC and measure the temperature rise of contact when the maximum AC rated current is passed. (UL498)	温升 Temperature rise	30°C 以下. 30°C Max.
耐振性 Vibration	通过 DC 电流 1mA, 位移相对距离 1.5mm, 振动周期10~ 55~ 10 Hz 在 1 分钟内, 持续 2 小时, 方向在 X,Y,Z轴做测试。 (MIL-STD-202 Method 201) Mate connectors and subject to the following vibration conditions, for period of 2 hours in each of 3 mutually perpendicular axes, passing DC 1mA during the test. Amplitude : 1.5mm P-P Frequency : 10 ~ 55 ~ 10 Hz in 1 minute.	外观 Appearance	目视外观无任何损坏异状 No Damage
		接 触 阻 抗 Contact Resistance	100 mΩ以下. 100 mΩ Max.
		瞬间断电 Discontinuity	1 μsec 以下. 1 μsec Max.
耐冲击性 Shock	Duration : 2 hours in each of X,Y,Z axes. (MIL-STD-202 Method 201) 将样品与适合之 FPC 连接, 通过 DC 1 mA 测试条件, 连续测试 3 次。在 X、Y、Z 3 轴 6 个垂直方向施予重力加速度.490m/s ² {50G} 冲击。 (JIS C0041/MIL-STD-202 Method 213) Mate applicable FPC and subject to the following shock conditions. 3 times of shocks shall be applied for each 6 directions along 3 mutually perpendicular axes, passing DC 1 mA current during the test. (JIS C0021 / MIL-STD-202 Method 108)	外观 Appearance	目视外观无任何损坏异状 No Damage
		接 触 阻 抗 Contact Resistance	100 mΩ以下. 100 mΩ Max.
		瞬间断电 Discontinuity	1 μsec 以下. 1 μsec Max.
耐热性 Heat Resistance	将样品与适合之 FPC 连接置于环境温度 85±2°C 测试时间 96 小时, 再置放于室温下 1~2 小时。 Mate applicable FPC and expose to 85±2°C for 96 hours. Upon completion of the exposure period, the test specimens shall be conditioned at ambient room conditions for 1 to 2 hours, after which the specified measurements shall be performed. (JIS C0021 / MIL-STD-202 Method 108)	外观 Appearance	目视外观无任何损坏异状 No Damage
		接 触 阻 抗 Contact Resistance	100 mΩ以下. 100 mΩ Max.
耐寒性 Cold Resistance	将样品与适合之 FPC 连接, 置于环境温度-40±2°C, 测试时间 96 小时, 再置放于室温下 1~2 小时。 (JIS C0020) Mate applicable FPC and expose to -40±2°C for 96 hours. Upon completion of the exposure period, the test specimens shall be conditioned at ambient room conditions for 1 to 2 hours, after which the specified measurements shall be performed.(JIS C0020)	外观 Appearance	目视外观无任何损坏异状 No Damage
		接 触 阻 抗 Contact Resistance	100 mΩ以下. 100 mΩ Max.

项目 ITEM	测试条件 TEST CONDITION	规格 REQUIREMENT
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FPC Connector 0.3mm Pitch		Product Specification		Issued Date 2022-02-21	
耐湿性 Humidity	将样品与适合之 FPC 连接，置于环境温度 60±2℃，相对湿度 90～95%，测试时间 96 小时，再置放于室温 下 1～2 小时。 (JIS C0022 / MIL-STD-202 Method 103) Mate applicable FPC and expose to 60 ± 2℃, relative humidity 90 to 95% for 96 hours. Upon completion of the exposure period, the test specimens shall be conditioned at ambient room conditions for 1 to 2 hours, after which the specified measurements shall be performed. (JIS C0022 / MIL-STD-202 Method 103)	外观 Appearance	目视外观无任 何 损坏异状 No Damage		
		接 触 阻 抗 Contact Resistance	100 mΩ以下. 100 mΩ Max.		
		耐电压 Dielectric Strength	需能符合耐电 压 测试 No Breakdown		
		绝 缘 阻 抗 Insulation Resistance	50 MΩ 以上. 50 MΩ Min.		
冷热冲击 Temperature Cycling	将样品与适合之 FPC 连接 承受 5 cycles 冷热冲击后， 置放于室温下 1～2 小时。 1 cycle time 如下 a) -55±3℃ 30 分钟 b) +85±3℃ 30 分钟 (JIS C0025) Mate applicable FPC and subject to the following conditions for 5 cycles. Upon completion of the exposure period, the test specimens shall be conditioned at ambient room conditions for 1 to 2 hours, after which the specified measurements shall be performed. 1 cycle a) -55±3℃ 30minutes b) +85±3℃ 30minutes (Transit time shall be with in 3 minutes) (JIS C0025)	外观 Appearance	目视外观无任 何 损坏异状 No Damage		
		接触阻抗 Contact Resistance	100 mΩ以下. 100 mΩ Max.		
盐水喷雾 Salt Spray	将样品与适合之 FPC 连接，使用 5±1%浓度盐水，测试温度 35±2℃, 测试时间 48±4 小时,后于室温下使用清水 冲洗后再干燥。 (JIS C0023 / MIL-STD-202 Method 101) Mate applicable FPC and expose to the following salt mist conditions. Upon completion of the exposure period, salt deposits shall be removed by a gentle wash or dip in running water, after which the specified NaCl solution Concentration : 5 ± 1% Spray time : 48 ± 4 hours Ambient temperature : 35 ± 2℃ (JIS C0023 / MIL-STD-202 Method 101)	外观 Appearance	目视外观无任 何 损坏异状		
		接触阻抗 Contact Resistance	100 mΩ以下. 100 mΩ Max.		

FPC Connector 0.3mm Pitch		Product Specification		Issued Date	
				2022-02-21	
项目 ITEM		测试条件 TEST CONDITION		规格 REQUIRMENT	
二氧化硫(气体) SO ₂ Gas	将样品与适合之 FPC 连接, 将其置放于 50±5 ppm 浓度二氧化硫气体中, 测试温度 40±2°C, 测试时间 24 小时。 Mate applicable FPC and expose them to the following SO ₂ gas atmosphere. Temperature 40 ± 2°C Gas Density 50 ± 5 ppm Duration 24 hours	外观 Appearance	目视外观无任 何 损坏异状 No Damage		
		接 触 阻 抗 Contact Resistance	100 mΩ以下. 100 mΩ Max.		
氨(气体) NH ₃ Gas	暴露来自浓度 28%阿摩尼亚之蒸发气体 NH ₃ 中, 测试时间 40 分钟。 40 minutes exposure to NH ₃ gas evaporating from 28% Ammonia solution.	外观 Appearance	目视外观无任 何 损坏异状 No Damage		
		接 触 阻 抗 Contact Resistance	100 mΩ以下. 60 mΩ Max.		
焊锡性 Solderability	锡温 245±5°C, 将导电端子浸入锡炉液面至 Housing距离锡面 0.1mm 位置, 焊锡时间 3±0.5 秒。 Tip of solder tails and fitting nails into the molten solder (held at 245±5°C) up to 0.1mm from the bottom of the housing for 3±0.5 seconds.	润湿性 Solder Wetting	润湿面积 95%以 上, 并不得有漏焊 针孔现象 95% of immersed area must show no voids, pin holes.		
焊锡耐热性 Resistance to Soldering Heat	使用红外线回焊时请参考第 8 点 When reflowing...Refer to paragraph 8.	外观 Appearance	目视外观无任 何 损坏异状 No Damage		
	使用烙铁手焊时须可符合下述焊锡条件 <u>Soldering iron method</u> 0.2mm from terminal tip and fitting nail tip. Soldering time: 5 seconds Max. Solder temperature : 370 ~ 400°C				

8. INFRARED REFLOW CONDITION



NOTE: Please check the re-flow soldering condition by your own devices beforehand .
Because the condition changes by the soldering devices, p.c. boards, and so on.

9. TAPE AND REEL PACKAGE SPECIFICATION

9-1.Tape and Reel Dimensions: See attached drawings.

9-2. Specification.

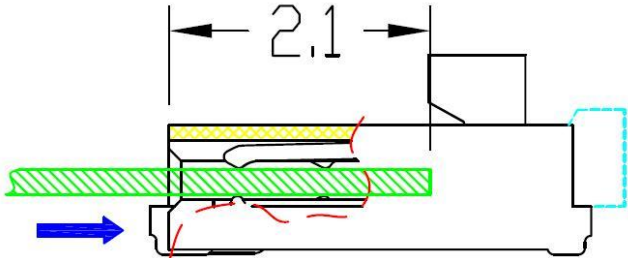
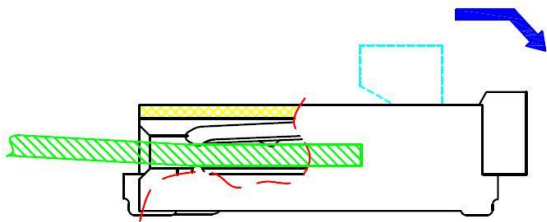
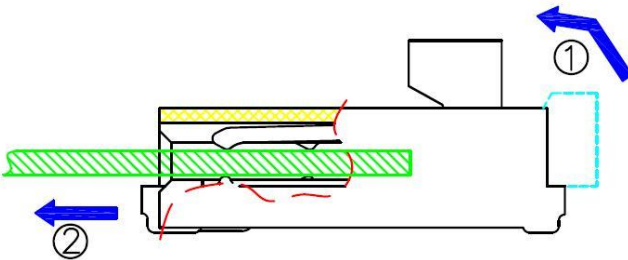
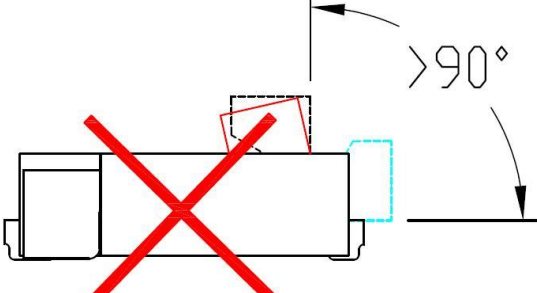
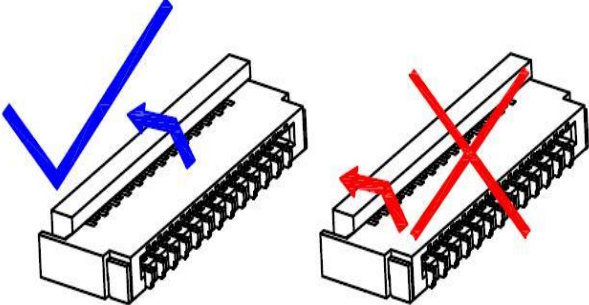
No. of Contacts	Width	Pcs / Reel	Reels / Carton
11~25	16	4K/1	14
27~49	24	4K/1	10
51	32	4K/1	8

Export Carton Layer: 3 Layers

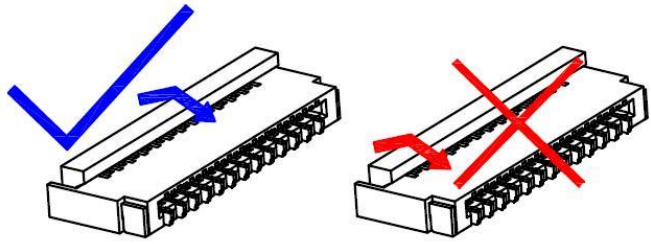
Carton Size: 350x350x290mm

FPC Connector 0.3mm Pitch	Product Specification	Issued Date
		2022-02-21

10.操作指示Instruction upon usage

步骤1: Joining step 1: 当上盖呈打开状态时, 将FPC插入连接器中。 Insert the FPC with the actuator opened.	
步骤 2: Joining step 2: FPC完全插入且没有移动, 压上盖往下旋转至定位。 FPC is totally inserted and not moved. press the actuator and rotate down to make a reservation .	
步骤 3: Joining step 3: FPC removal FPC退出。 掀起上盖, 将PFC退出 Lift the actuator, withdraw FPC .	
警告 Warning!! 旋转的角度不可大于 90 度。 The whirling angle can't be greater than 90 degrees.	
警告 Warning!! 施压的力量应该要平均且要压盖的中心部位 The strength of exerting pressure should be average and pushing actuator at the center .	

警告
Warning!!
掀盖要掀盖的中心部位。
To lift actuator at the center.



警告
Warning!!
PCB板平整度必须在0.1mm max 。
The roughness of PCB board must be in
0.1mm max.

