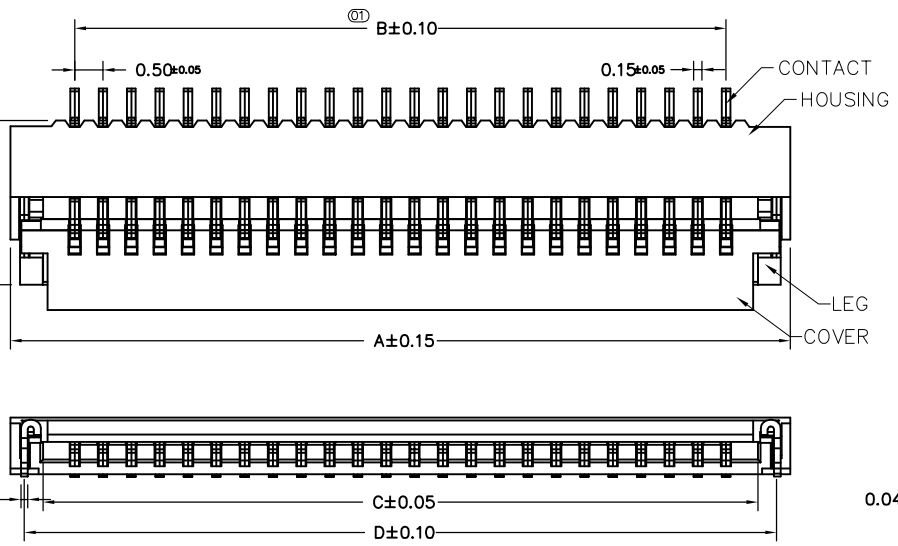
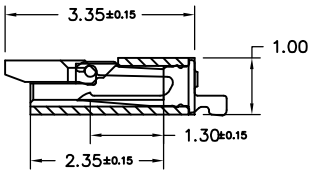
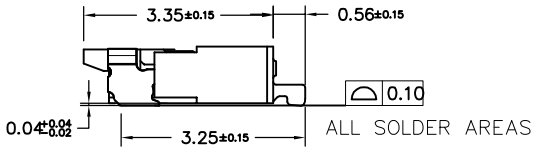


3D Drawing



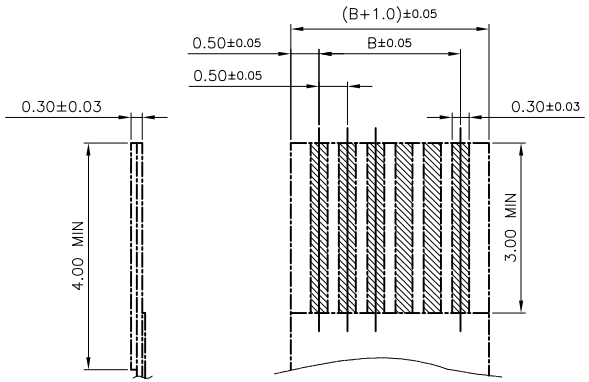




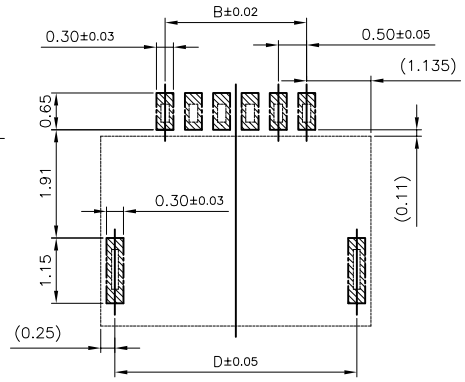
NOTES:
1. MATERIAL:
   HOUSING: HIGHT-TEMP PLASTIC,UL 94-V0,COLOR: WHITE;
   COVER: HIGHT-TEMP PLASTIC,UL 94-V0,COLOR: BROWN;
   CONTACT: COPPER ALLOY;
   LEG: COPPER ALLOY;
2. PLATING:
   CONTACT: GOLD OR TIN PLATED ON NICKEL OVERALL.
   LEG: TIN PLATED ON NICKEL OVERALL.
3. RATING:
   CURRENT RATING: 0.4A AC/DC
   VOLTAGE RATING: 50V AC/DC
   TEMPERATURE RANGE: -55°C~+85°C;
4. PART NO:

G=Gold flash
TA: Tape Rell Packing
MA: Tape&Mylar Packing
Right Angle Lower Contact Type
NO. of contacts
Series name
Pitch=0.5mm
FPC Series

PIN NO.	DIM. A	DIM. B	DIM. C	DIM. D	PIN NO.	DIM. A	DIM. B	DIM. C	DIM. D
04	**3.77**	**1.50**	**2.60**	**3.27**	23	13.27	11.00	12.10	12.77
05	4.27	2.00	3.10	3.77	**24**	**13.77**	**11.50**	**12.60**	**13.27**
06	**4.77**	**2.50**	**3.60**	**4.27**	25	14.27	12.00	13.10	13.77
07	5.27	3.00	4.10	4.77	26	14.77	12.50	13.60	14.27
08	5.77	3.50	4.60	5.27	27	15.27	13.00	14.10	14.77
09	6.27	4.00	5.10	5.77	28	15.77	13.50	14.60	15.27
10	6.77	4.50	5.60	6.27	29	16.27	14.00	15.10	15.77
11	7.27	5.00	6.10	6.77	30	16.77	14.50	15.60	16.27
12	**7.77**	**5.50**	**6.60**	**7.27**	31	17.27	15.00	16.10	16.77
13	8.27	6.00	7.10	7.77	32	17.77	15.50	16.60	17.27
14	8.77	6.50	7.60	8.27	33	18.27	16.00	17.10	17.77
15	9.27	7.00	8.10	8.77	34	18.77	16.50	17.60	18.27
16	9.77	7.50	8.60	9.27	35	19.27	17.00	18.10	18.77
17	10.27	8.00	9.10	9.77	36	19.77	17.50	18.60	19.27
18	10.77	8.50	9.60	10.27	37	20.27	18.00	19.10	19.77
19	11.27	9.00	10.10	10.77	38	20.77	18.50	19.60	20.27
20	11.77	9.50	10.60	11.27	39	21.27	19.00	20.10	20.77
21	12.27	10.00	11.10	11.77	40	21.77	19.50	20.60	21.27
22	12.77	10.50	11.60	12.27	n	n*0.5+1.77	(n-1)*0.5	n*0.5+0.6	n*0.5+1.27



Applicable FPC



RECOMMEND PCB LAYOUT
TOLERANCE: ±0.05

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

一般公差(TOLERANCE)	
X.X : ±0.30	X.X° : ±5°
X.XX : ±0.20	X.XX°: ±2°

WFD CONN 深圳市旺富达电子有限公司
SHEN ZHEN WFD ELECTRONICS CO.LTD

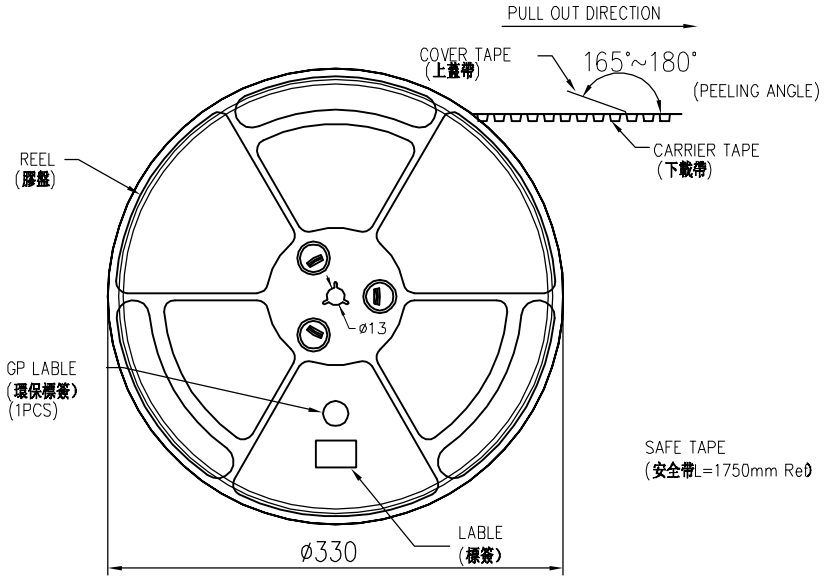
APPD: 核准:	DAVID
CHECK: 校對:	SIMON
DRAW: 繪圖:	Liu Miao

TITLE: 品名: 0.5Pitch 1.0H ZIF/前掀式
DWG NO: 產品料號: CFPC0510-xxRL-TAG

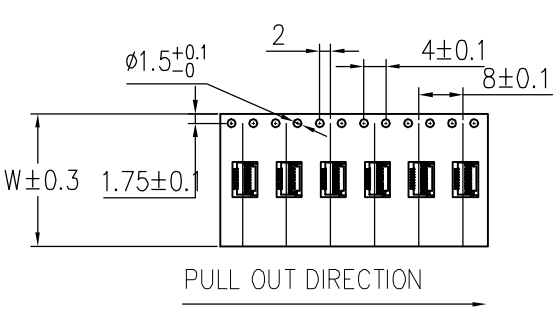
DATE	SCALE	UNIT	PAGE
20130618	1:1	mm	1/1

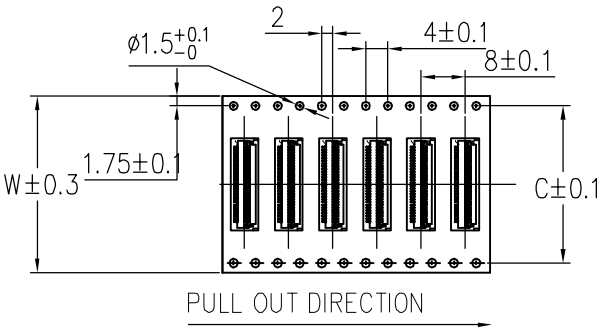
NOTE:

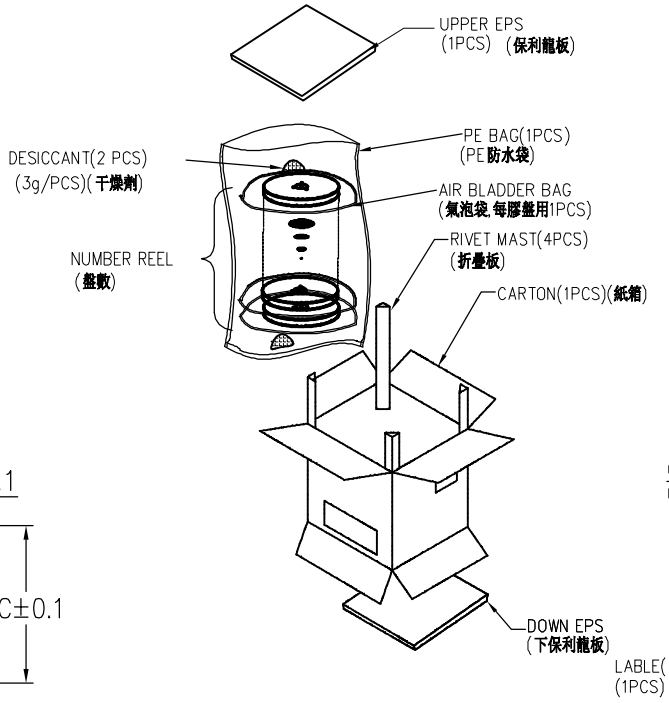
1.10 Sprocket hole pitch cumulative tolerance ±0.20.
2.Carrier camber is within 1mm in 100mm.
3.Material: black conductive polystyrene alloy.
4.Material Thickness: 0.3±0.05mm.
5.All dimensions meet EIA-481-B requirements.
6.5000pcs Pef Reel.
7.For tape width(dim W)16 and 24mm pilot holes are provided on one sides.
For tape width(dim W)32, 44 and 56mm pilot holes are provided on both sides.



SCALE 1:4







PIN NO.	W	C	PCS /REEL	REEL/CARTON	SUM(PCS)
04PIN~8PIN	12	–	5000	11	55000
9PIN~13PIN	16	–	5000	9	45000
14PIN~30PIN	24	–	5000	7	35000
31Pin~40PIN	32	28.4	5000	6	30000

REV	DESCRIPTION	ECN.NO	BY	DATE
A	New Drawing		Liu	04/21'13

-TOLERANCES-
UNLESS OTHERWISE SPECIFIED
公差參考表

X.X : ±0.30	X.X° : ±5°
X.XX : ±0.20	X.XX° : ±2°
X.XXX : ±0.10	X.XXX°: ±1°

WFD CONN 深圳市旺富达电子有限公司
SHEN ZHEN WFD ELECTRONICS CO., LTD

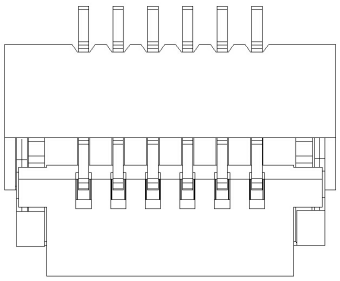
TITLE: 產品名稱: 0.5mm Pitch 1.0H ZIF R/A FPC Connector

APPD: 核准: DAVID
CHECK: 校對: SIMON
DRAW: 繪圖: Liu Miao

DWG NO: 產品料號: CFPC0510-xxRL-TAG

DATE	SCALE	UNIT	PAGE
20110907	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



FPC 0.5 Pitch Right Angle
ZIF SMT TYPE Connector

Update List:				
Item	Update Description	Rev.	IssuedDate	Revisor
1	New Edit	A	2012/05/25	HZX

Prepared By：HZX

Rechecked By：HZX

Approved By：WY

1. SCOPE

This specification covers the CFPC0510 Series Connector.

2. ORDERING INFORMATION

PART NO.: **FPC 05 10 - xx R - TA X**

1 2 3 4 5 6 7

1	Series name	FPC Connector
2	Pitch between	0.5 mm Pitch
3	Series Number	10
4	Number of terminals	4~40
5	Assembly style	Right Angle /Low Contact SMT
6	Packaging	TA :Tape Reel
7	Plating	G:Gold flash 0:Matte Tin

3. CONNECTOR DIMENSIONS

See attached drawings.

4. MATERIAL

Housing :	LCP Color : White
	Flammability Rating (UL94V-0) HF
Actuator	LCP Color : Black.
	Flammability Rating (UL94V-0)
Contact :	COPPER ALLOY
Leg :	COPPER ALLOY
Contact Plating	Gold Flash
	50u”-100u” Nickel Underplating
Leg Plating:	Tin over Nickel

5. ACCOMMODATED P.C.B. LAYOUT

See attached drawings.

6. RATING.

ITEM	STANDARD
Operating Voltage (Max.)	50V AC
Current Rating (Max.)	0.4A 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.

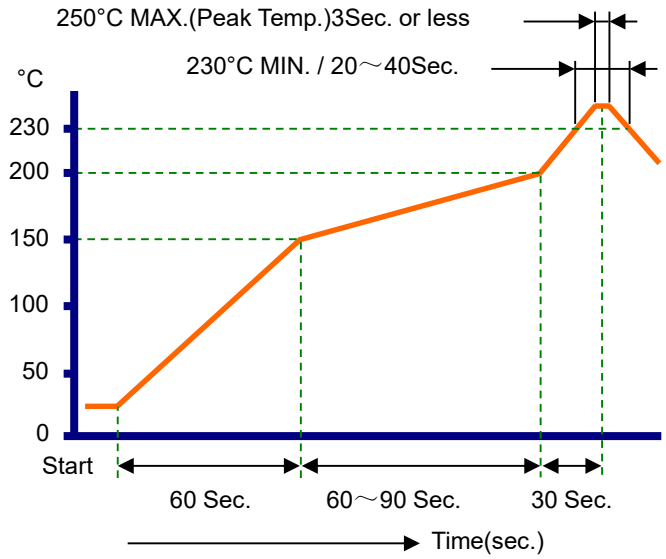
7. PERFORMANCE

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)	40 mΩ 以下. 40 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.

项目 ITEM	测试条件 TEST CONDITION	规格 REQUIRMENT	
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	60 mΩ 以下. 60 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	60 mΩ 以下. 60 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	60 mΩ 以下. 60 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	60 mΩ 以下. 60 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	60 mΩ 以下. 60 mΩ Max.

项目 ITEM	测试条件 TEST CONDITION	规格 REQUIRMENT	
耐湿性 Humidity	将样品与适合之 FPC 连接，置于环境温度 60±2°C， 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°C, 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	60 mΩ 以下. 60 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°C 30 分钟 b) +85±3°C 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°C 30minutes b) +85±3°C 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	60 mΩ 以下. 60 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°C, 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°C (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	60 mΩ 以下. 60 mΩ Max.

8. INFRARED REFLOW CONDITION

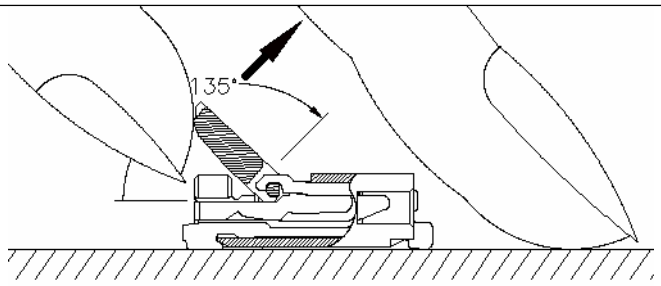
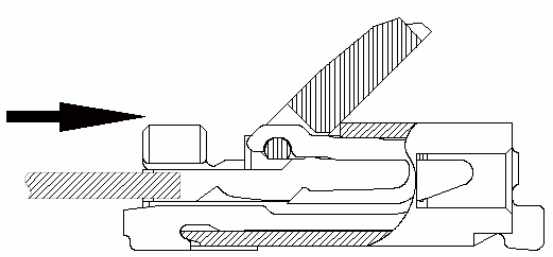
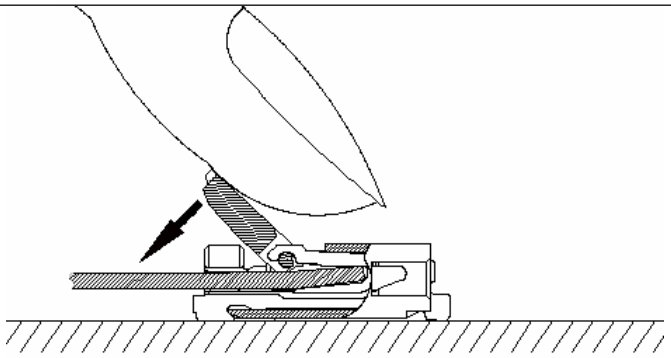
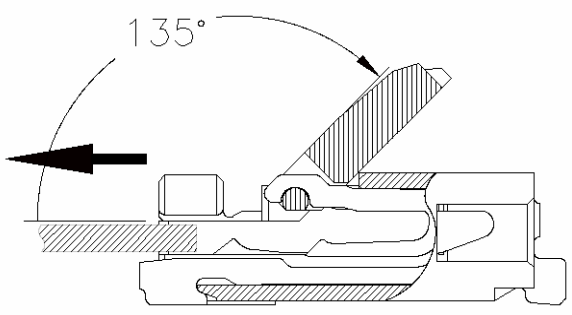
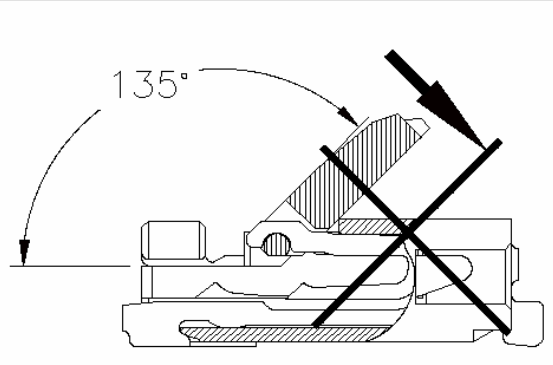


NOTE: Please check the re-flow soldering condition by your own devices beforehand .
Because the condition changes by the soldering devices, p.c. boards, and so on.

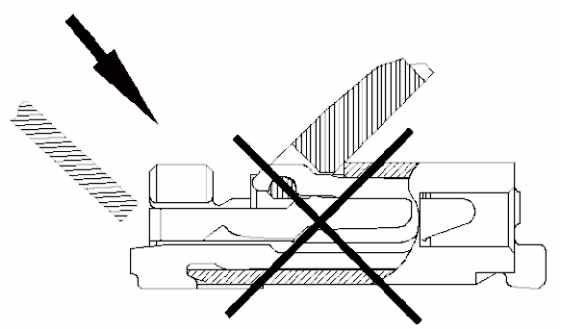
9. TAPE AND REEL PACKAGE SPECIFICATION

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

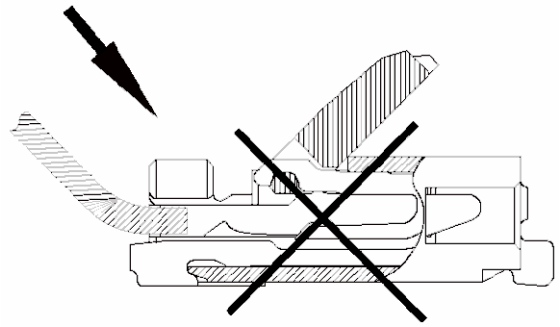
10.操作指示Instruction upon usage

步骤 1: Joining step 1： 使用拇指或食指，将上盖往上掀开。 Use the thumb or the forefinger, raise the top cover up.	
步骤 2: Joining step 2： FPC 导电处朝下，平行的插入连接器中。 FPC gets along with conductivly down. The parallel one inserts it in the connector .	
步骤 3: Joining step 3： 轻压上盖中间往下旋转至定位，直到 FPC 完全插入且没有移动。 Press the top cover lightly and rotate down to make a reservation , until FPC is totally inserted and not moved .	
步骤 4: Joining step 4： FPC removal FPC 退出 小心 掀起上盖，将 FPC 退出. Lift the top cover carefully, withdraw FPC from .	
警告 Warning!! 旋转的角度不可大于 135 度。 The whirling angle can't be greater than 135 degrees.	

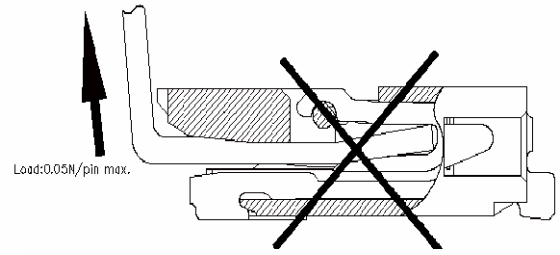
警告
Warning!!
当 FPC 插入的角度偏斜时可能会引起导通不良
When the angle that FPC inserts in is askew, may cause and lead openly and badly .



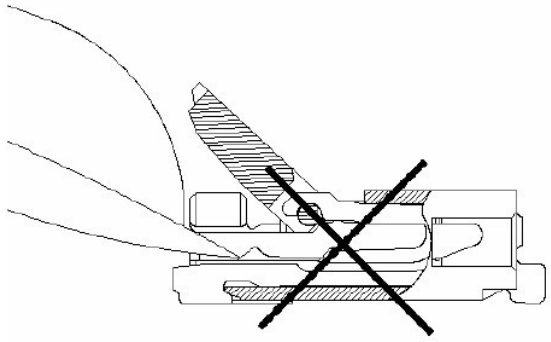
警告
Warning!!
当 FPC 插入的角度偏斜时可能会引起导通不良
When the angle that FPC inserts in is askew, may cause and lead openly and badly .



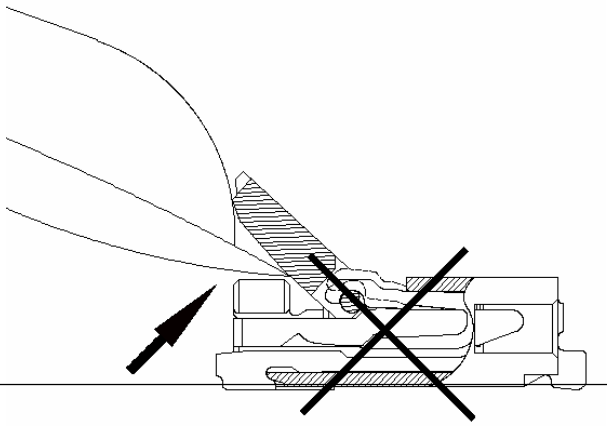
警告
Warning!!
向上拉扯的力量不要超过 0.05N/pin max.
The strength of dragging upwards don't exceed 0.05N/pin max .

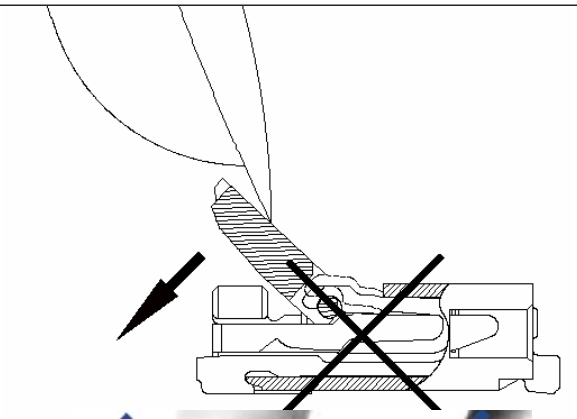
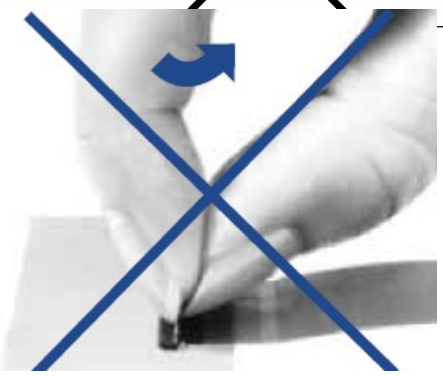


警告
Warning!! 开启连接器掀盖时，不要使用过度的力量及避免接触到端子。
covering , don't use excessive strength and avoid touching the end son .



警告
Warning!!
当在开启 FPC 时，不要使用过度的力量及避免接触到端子。
Don't use excessive strength and avoid touching the end son when open FPC.



警告 Warning!! 施压的力量，应该要平均. The strength of exerting pressure should be average. 如图所示，不要试着做移动或重新确定盖子位置。 As illustrated, do not attempt removal or re-positioning of the actuator.	
警告 Warning!! 掀盖的面积，应该要平均. Lift the area overlayed, should be average. 如图所示， 不要试着做移动或重新确定盖子的位置。 As illustrated, do not attempt removal or re-positioning of the actuator.	
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.	