

东莞市高钺达电子有限公司

DONGGUAN GYUEDA ELECTRONICS CO.,LTD

承 认 书 SPECIFICATION FOR APPROVAL

Customer : _____

Description : FPC0.3*1.0*15P前翻黑色

Part No. : FPC15-BKS1-4023-A

Customer P/N : _____

高钺达电子有限公司		客 户	
工程 承认章		工程 承认章	
品管 承认章		品管 承认章	

TAIWAN FACTORY: 協昌精密工業股份有限公司

ADD: NO. 95 Twopart Southharbour road, Taipei, Taiwan. CHINA

地址: 中国臺灣台北市南港路二段 95 號

TEL: 02-27884666 FAX: 02-26535492

<http://www.twshetime.com>

CHINA FACTORY: 东莞市高钺达电子科技有限公司

地址 东莞市虎门镇路东长元一路 2 号

TEL: 0769-85108085 FAX: 0769-6891569

E-mail: szgaosuda@163.com

东莞市高钺达电子科技有限公司

FPC
0.3mmPitch A

Product Specification

1. SCOPE

This specification covers the CFPC0310 Series Connector.

2. ORDERING INFORMATION

3. CONNECTOR DIMENSIONS

See attached drawings.

4. MATERIAL

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

5. ACCOMMODATED P.C.B. LAYOUT

See attached drawings.

东莞市高钺达电子科技有限公司

FPC 0.3mmPitch A	Product Specification	
---------------------	------------------------------	--

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)	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
------------	------------------------	------------------

东莞市高钺达电子科技有限公司

FPC 0.3mmPitch A	Product Specification	
---------------------	------------------------------	--

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
------------	------------------------	------------------

东莞市高钺达电子科技有限公司

FPC 0.3mmPitch A	Product Specification	
---------------------	------------------------------	--

耐湿性 Humidity	将样品与适合之 FPC 连接, 置于环境温度 $60\pm 2^{\circ}\text{C}$, 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 $60 \pm 2^{\circ}\text{C}$, 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	20 MΩ 以上. 20 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) $-55\pm 3^{\circ}\text{C}$ 30 分钟 b) $+85\pm 3^{\circ}\text{C}$ 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) $-55\pm 3^{\circ}\text{C}$ 30minutes b) $+85\pm 3^{\circ}\text{C}$ 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 $5\pm 1\%$ 浓度盐水, 测试温度 $35\pm 2^{\circ}\text{C}$, 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 : $5 \pm 1\%$ Spray time : 48 ± 4 hours Ambient temperature : $35 \pm 2^{\circ}\text{C}$ (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.

项目 ITEM	测试条件 TEST CONDITION	规格 REQUIRMENT
------------	------------------------	------------------

东莞市高钺达电子科技有限公司

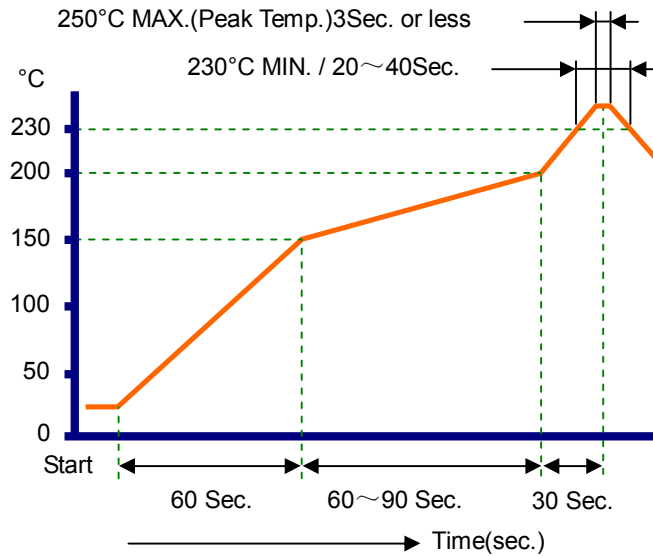
FPC 0.3mmPitch A		Product Specification	
二氧化硫(气体) SO ₂ Gas	将样品与适合之 FPC 连接, 将其置放于 50±5 ppm 浓度二氧化硫气体中, 测试温度 40±2°C, 测试时间 24 小时。 Mate applicable FPC and expose them to the following SO ₂ gas atmosphere. Temperature 40 ± 2°C Gas Density 50 ± 5 ppm Duration 24 hours	外观 Appearance	目视外观无任 何 损坏异状 No Damage
		接 触 阻 抗 Contact Resistance	60 mΩ 以下. 60 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	60 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 75%以 上, 并不得有漏焊 针孔现象 75% 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

东莞市高钺达电子科技有限公司

FPC
0.3mmPitch A

Product Specification



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.

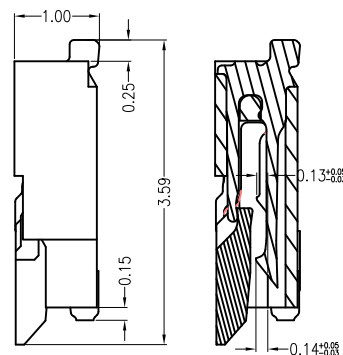
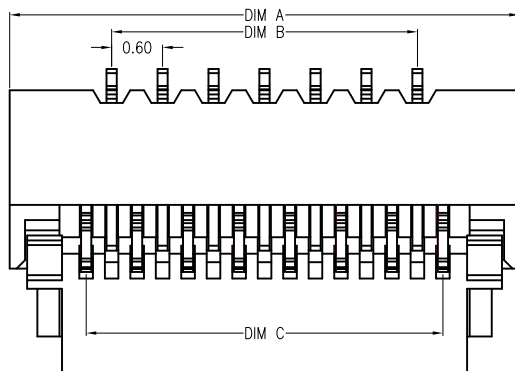
9-2. Specification.

No. of Contacts	Width	? Pcs / Reel	? Reels / Carton
13~25	16	5K/1	9
27~49	24	5K/1	7
51~61	32	5K/1	6
24~30	44	5K/1	5

Export Carton Layer: 3 Layers

Carton Size: 350x350x290mm

REV.	DESCRIPTION	APPD	DATE



NOTES:

1.MATERIAL:

HOUSING: HIGH TEMPERATURE THERMOPLASTIC
UL94V_0,COLOR:BLACK.

CONTACT: COPPER ALLOYS.

COVER: COPPER ALLOYS OR STEEL.

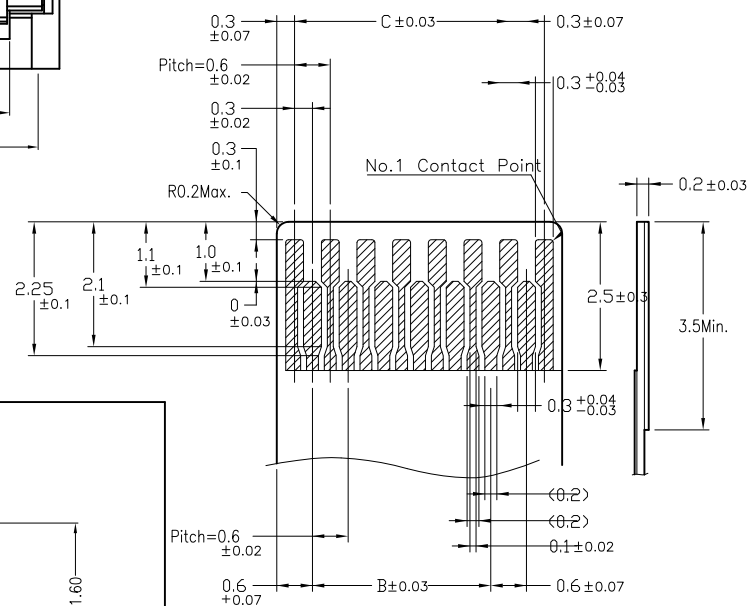
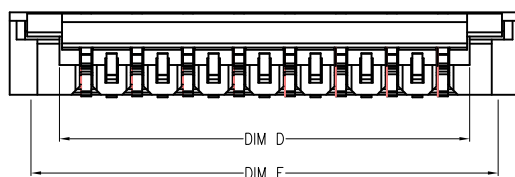
2.PLATING:

UNDERPLATE: NICKEL.

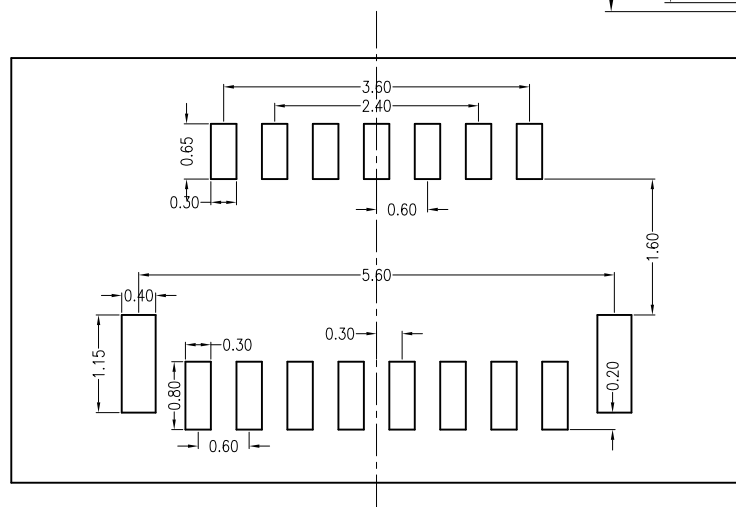
CONTACT AREA: GOLD OVER NICKEL.

SOLDER AREA: TIN OVER NICKEL.

3. MULTIMEDIA CARD COMPATIBLE



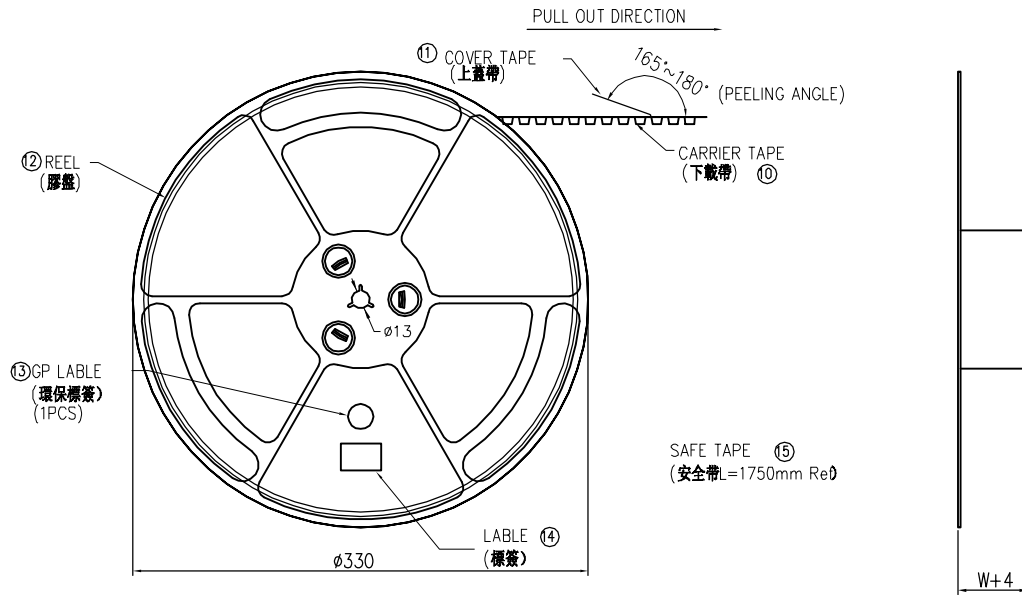
NO. OF CONTACTS	DIM. A	DIM. B	DIM. C	DIM. D	DIM. E
09	4.2	1.8	2.4	3.03	3.7
11	4.8	2.4	3.0	3.63	4.3
13	5.4	3.0	3.6	4.23	4.9
15	6.0	3.6	4.2	4.83	5.5
17	6.6	4.2	4.8	5.43	6.1
19	7.2	4.8	5.4	6.03	6.7
21	7.8	5.4	6.0	6.63	7.3
23	8.4	6.0	6.6	7.23	7.9
25	9.0	6.6	7.2	7.83	8.5
27	9.6	7.2	7.8	8.43	9.1
29	10.2	7.8	8.4	9.03	9.7
31	10.8	8.4	9.0	9.63	10.3
33	11.4	9.0	9.6	10.23	10.9
35	12.0	9.6	10.2	10.83	11.5
37	12.6	10.2	10.8	11.43	12.1
39	13.2	10.8	11.4	12.03	12.7
41	13.8	11.4	12.0	12.63	13.3
43	14.4	12.0	12.6	13.23	13.9
45	15.0	12.6	13.2	13.83	14.5
49	16.2	13.8	14.4	15.03	15.7
51	16.8	14.4	15.0	15.63	16.3
57	18.6	16.2	16.8	17.43	18.1
61	19.8	17.4	18.0	18.63	19.3
67	21.6	19.2	19.8	20.43	21.1
71	22.8	20.4	21.0	21.63	22.3



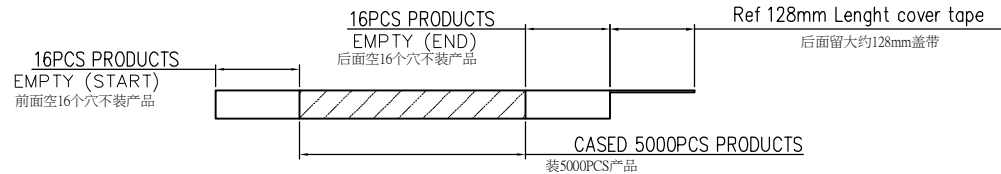
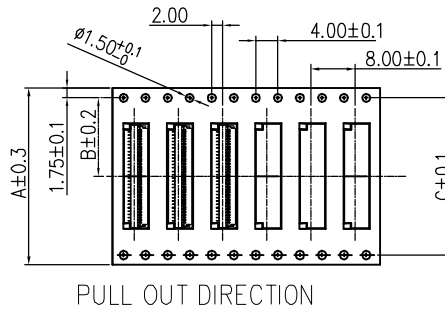
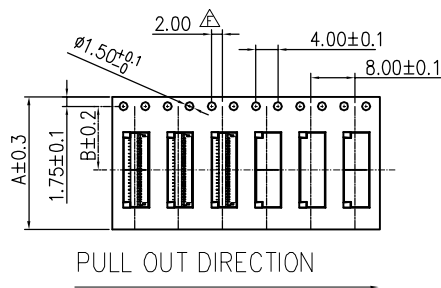
PART NO:		MATERIAL:		东莞市高钺达电子科技有限公司	
LOT NO:		FINSH:			
UNIT: MM	SIZE: A4	COLOR:		TITLE:	
TOLERANCES: X.X=±0.35 X.XX=±0.25 X.XXX=±0.15		GENERAL ANGLE: X.X=±3.0° X.XX=±2.0°		FPC0.3*1.0*XXP前翻黑色	
		DR:		DWG NO: FPC39-BKS1-4023-A	
		CHK:		REV: C/0	
APP:		SCALE: 1 : 1		SHEET: 1 OF 1	

EMBOSSED TAPE PACKING

0.3mm Pitch FPC Connector, ZIF R/A SMT Type

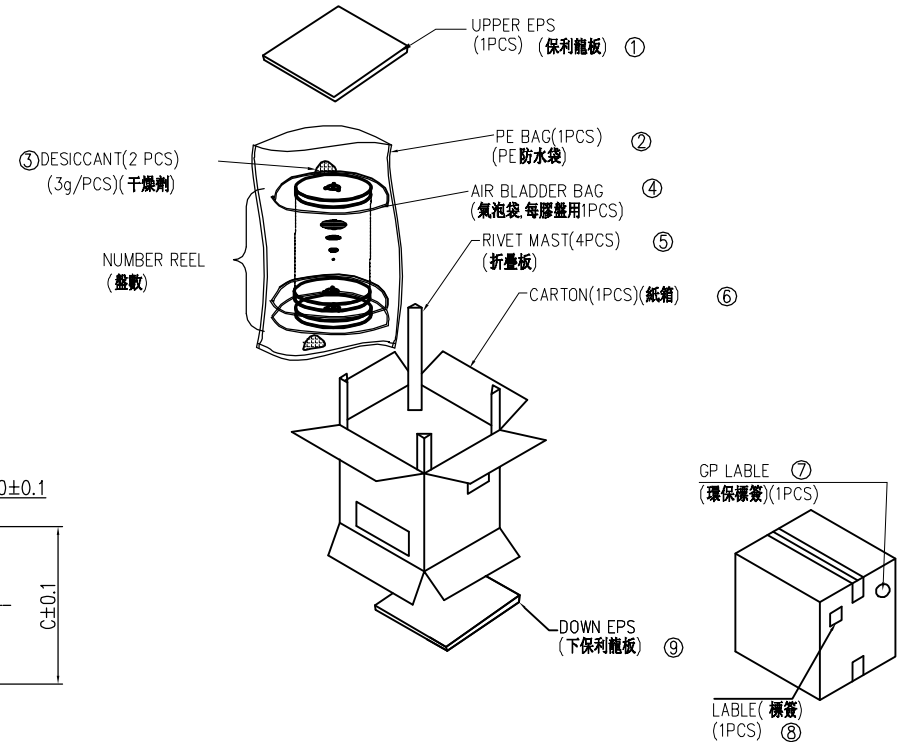


SCALE 1:4



NOTE:

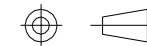
- 1.10 Sprocket hole pitch cumulative tolerance ± 0.20 .
- 2.Carrier camber is within 1mm in 100mm.
- 3.Material: black conductive polystyrene alloy.
- 4.Material Thickness: 0.3 ± 0.05 mm.
- 5.All dimensions meet EIA-481-B requirements.
- 6.5000pcs Pef Reel.
- 7.For tape width(dim W)16 and 24mm pilot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



PIN NO.	W	A	B	C	PCS /REEL	REEL/CARTON	SUM(PCS)
13PIN~25PIN	20.5	16	7.50	—	5000	15	75000
27PIN~49PIN	28.5	24	11.5	—	5000	10	50000
51PIN~61PIN	36.5	32	14.2	28.4	5000	8	40000
67~73PIN	48.5	44	20.2	40.4	5000	6	30000

— TOLERANCES —
UNLESS OTHERWISE SPECIFIED
公差參考表

东莞市高钺达电子科技有限公司



TITLE:
產品名稱: FPC0. 3*1. 0H前翻包裝規範

APPD:
核准:

DWG NO:
產品料號:

CHECK:
校對:

DATE SCALE UNIT PAGE

DRAW:
繪圖:

20111208 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

REV	DESCRIPTION	ECN.NO	BY	DATE
A	-----	-----	Liu	02/18'13