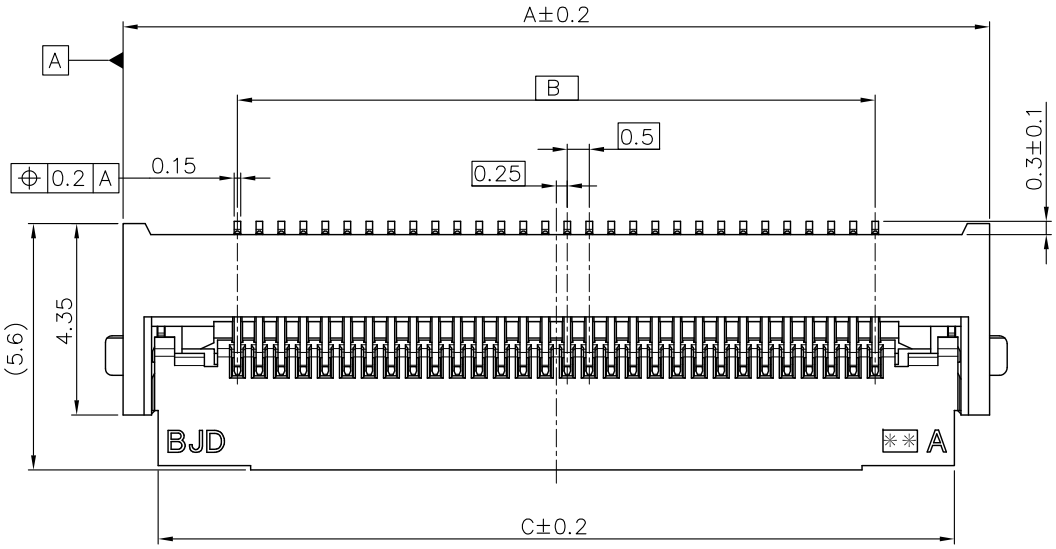
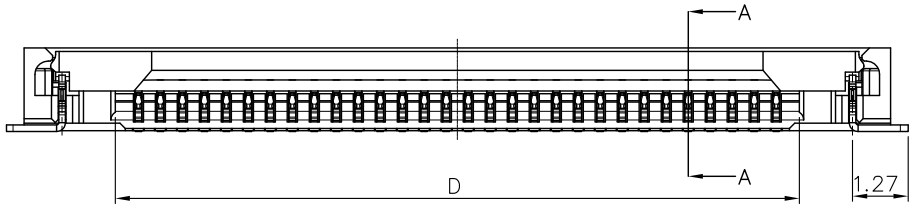
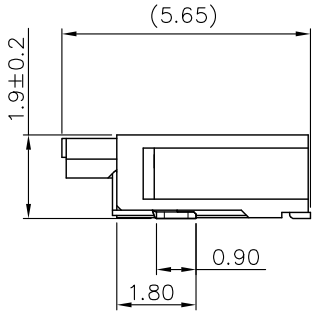
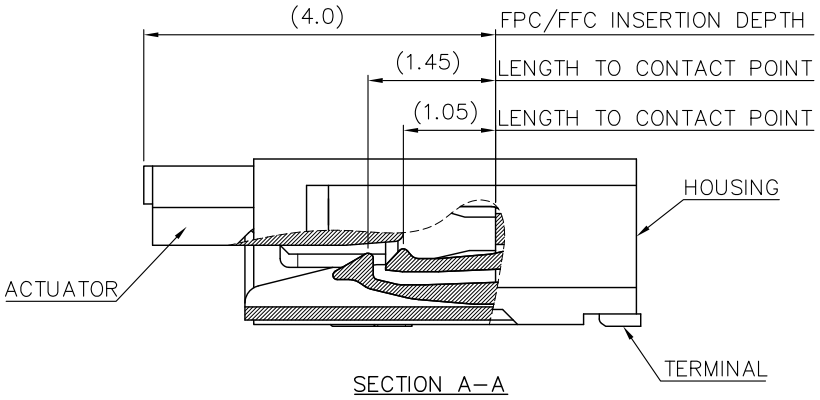
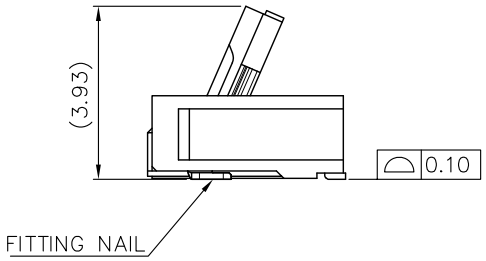








SECTION A–A



NOTES:

1. HOUSING MATERIAL: HEAT RESISTANT PLASTIC UL94V-0
2. ACTUATOR MATERIAL: HEAT RESISTANT PLASTIC UL94V-0
3. TERMINAL MATERIAL: COPPER ALLOY
4. FITTING NAIL MATERIAL: BRASS
5. PLATING:
   TERMINAL: NICKEL UNDER PLATED OVERALL
   GOLD PLATING ON CONTACT AREA AND ONSOLDER AREA
   FITTING NAIL: MATTE TIN OVERALL NICKEL UNDER PLATED
6. PART NO. SPECIFICATION: 906003-10XX50

No. of Contacts

Plating

50: 3u"GOLD ON CONTACT AREA AND ONSOLDER AREA

No. of	Dimensions				No. of	Dimensions			
Contacts(n)	A	B	C	D	Contacts(n)	A	B	C	D
4	6.70	1.50	5.10	2.55	33	21.20	16.00	19.60	17.05
5	7.20	2.00	5.60	3.05	34	21.70	16.50	20.10	17.55
6	7.70	2.50	6.10	3.55	35	22.20	17.00	20.60	18.05
7	8.20	3.00	6.60	4.05	36	22.70	17.50	21.10	18.55
8	8.70	3.50	7.10	4.55	37	23.20	18.00	21.60	19.05
9	9.20	4.00	7.60	5.05	38	23.70	18.50	22.10	19.55
10	9.70	4.50	8.10	5.55	39	24.20	19.00	22.60	20.05
11	10.20	5.00	8.60	6.05	40	24.70	19.50	23.10	20.55
12	10.70	5.50	9.10	6.55	41	25.20	20.00	23.60	21.05
13	11.20	6.00	9.60	7.05	42	25.70	20.50	24.10	21.55
14	11.70	6.50	10.10	7.55	43	26.20	21.00	24.60	22.05
15	12.20	7.00	10.60	8.05	44	26.70	21.50	25.10	22.55
16	12.70	7.50	11.10	8.55	45	27.20	22.00	25.60	23.05
17	13.20	8.00	11.60	9.05	46	27.70	22.50	26.10	23.55
18	13.70	8.50	12.10	9.55	47	28.20	23.00	26.60	24.05
19	14.20	9.00	12.60	10.05	48	28.70	23.50	27.10	24.55
20	14.70	9.50	13.10	10.55	49	29.20	24.00	27.60	25.05
21	15.20	10.00	13.60	11.05	50	29.70	24.50	28.10	25.55
22	15.70	10.50	14.10	11.55	51	30.20	25.00	28.60	26.05
23	16.20	11.00	14.60	12.05	52	30.70	25.50	29.10	26.55
24	16.70	11.50	15.10	12.55	53	31.20	26.00	29.60	27.05
25	17.20	12.00	15.60	13.05	54	31.70	26.50	30.10	27.55
26	17.70	12.50	16.10	13.55	55	32.20	27.00	30.60	28.05
27	18.20	13.00	16.60	14.05	56	32.70	27.50	31.10	28.55
28	18.70	13.50	17.10	14.55	57	33.20	28.00	31.60	29.05
29	19.20	14.00	17.60	15.05	58	33.70	28.50	32.10	29.55
30	19.70	14.50	18.10	15.55	59	34.20	29.00	32.60	30.05
31	20.20	15.00	18.60	16.05	60	34.70	29.50	33.10	30.55
32	20.70	15.50	19.10	16.55					

SER	REVISIONS	CHK	DATE

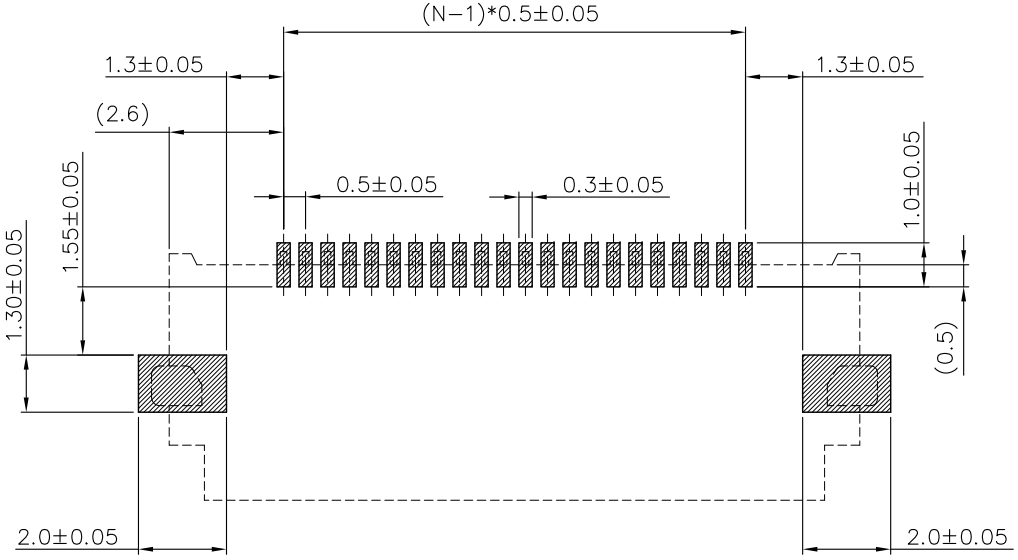
UNLESS OTHERWISE SPECIFIED TOLERANCES ARE
X.
X.X ±0.3
X.XX ±0.2
X.XXX
ANG. ±2°

UNIT MM

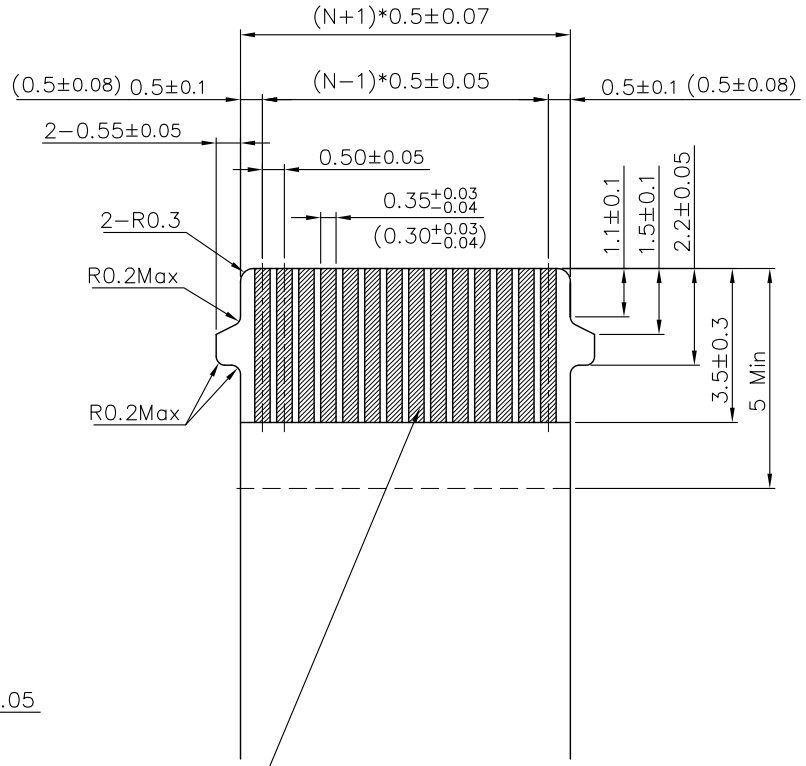
Customer Drawings

北极大电子科技有限公司
BEIJIDA ELECTRONICS TECHNOLOGY CO. LIMITED

APPROVED	DATE	COMPUTER NO
		906003-10XX50
CHECKED	DATE	NAME
lorenlu	2024-04-25	FPC0519A _FRONT FLIP_SMT
DRAWN	DATE	SIZE / SHEET / REV
Kevin	2024-04-25	A4 / 1/2 / A0

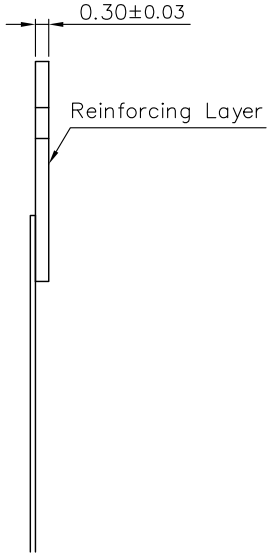


APPLICABLE P.C.B DIMENSION(REF.)



RECOMMENDED FFC/FPC DIMENSION

( )APPLY TO FFC



SER	REVISIONS	CHK	DATE

UNLESS OTHERWISE SPECIFIED TOLERANCES ARE
X.
X.X ±0.3
X.XX ±0.2
X.XXX
ANG. ±2°

UNIT MM

Customer Drawings	北极大电子科技有限公司 BEIJIDA ELECTRONICS TECHNOLOGY CO. LIMITED		
APPROVED	DATE	COMPUTER NO	
		906003-10XX50	
CHECKED	DATE	NAME	
lorenlu	2024-04-25	FPC0519A _FRONT FLIP_SMT	
DRAWN	DATE	SIZE	SHEET / REV
Kevin	2024-04-25	A4	2/2 AO

产品规格书
PRODUCT SPECIFICATION

【1】 参考文献 References：
EIA-364 JIS C5402 JIS C 60068-2
ELECTRONICS INDUSTRIES ASSOCIATION

【2】产品适用范围 Scope of product application
本规范使用于 FPC0409A 系列 FPC 连接器，包含了产品的性能、试验方法和要求。
This specification applies to FPC0409A series FPC connector,contains the product performance,test methods and requirements.

Product Name	Customer P/N	BJD/PN
FPC0519 Series	/	906003-10XX50

【3】形状，尺寸，及材料 Configuration，Dimension，and Material
参考图面 Refer to Drawings

【4】额定值 Ratings

项目 Item	规格 Standard	
最大容许电压 Maximum allowable voltage	50V	[AC(有效值 rms)/DC]
最大容许电流 Maximum allowable current	0.5A	
使用温度范围 Temperature range	-40℃ ～ +125℃	

＊包含电流通过所产生的上升温度 Including terminal temperature rise

【4】保管条件 Sorage condition（reference item）

项目 Item	规格内容 Standard
储存温度 Storage temperature	-10℃ ～ +50℃
储存湿度 Storage humidity	65% Max
储存期限 Storage life	1 年(焊接贴板最佳时段为 6 个月内) one year

【5】性能 Performance

5.1.电气性能
Electrical Performance

NO.	试验项目 Items	试验条件 Test Condition	规格 Requirement
5.1.1	接触电阻 Contact Resistance	适合 FPC/FFC 嵌合；开放电压 20mV 以下；短路电流 10mA 的状态下测定。 Mate applicable FPC/FFC and measured by dry circuit,20mV MAX., 10mA	40 mΩ Max
5.1.2	绝缘电阻 Insulation Resistance	适合 FPC/FFC 嵌合；相邻端子间或端子与地面间加 DC 125V 下测定。 Mate applicable FPC/FFC and apply 125V DC between adjacent terminal or ground.	50 MΩ Min

5.1.3	耐电压 Voltage resistance	适合 FPC/FFC 嵌合；相邻端子间或端子与地面间加 AC 125V（有效值）历时 1 分钟下测定。 Mate applicable FPC/FFC and apply 125V AC (rms) for 1 minute between adjacent terminal or ground.	无击穿现象 No breakdown

5.2.机械性能
Mechanical Performance

NO.	试验项目 Items	试验条件 Test Condition	规格 Requirement
5.2.1	FPC 保持力 (不带卡扣) FPC Retention Force (without tabs)	适合 0.3mm 厚的 FFC；后盖锁好,用每分钟 25±3mm 的速度；平行地拔出 。 Mate applicable thick 0.3mm FFC/FPC, Insert the actuator, pull the FPC at the speed rate of 25±3mm/minute	参考值： 0.3*n (N) Min
5.2.2	FPC 保持力 (带卡扣) FPC Retention Force (with tabs)	适合 0.3mm 厚的 FFC；后盖锁好,用每分钟 25±3mm 的速度；平行地拔出 。 Mate applicable thick 0.3mm FFC/FPC, Insert the actuator, pull the FPC at the speed rate of 25±3mm/minute	参考值： 12N+0.3*n (N) Min
5.2.3	重复插拔 Repeated pluggable	无通电状态,以 10 次/分钟的速度插拔 20 次 The power is off, Insert and withdraw actuator up to 20 cycles at the speed rate of less than 10 cycles/minute.	60 mΩ Max

5.3.环境性能
Environment Performance

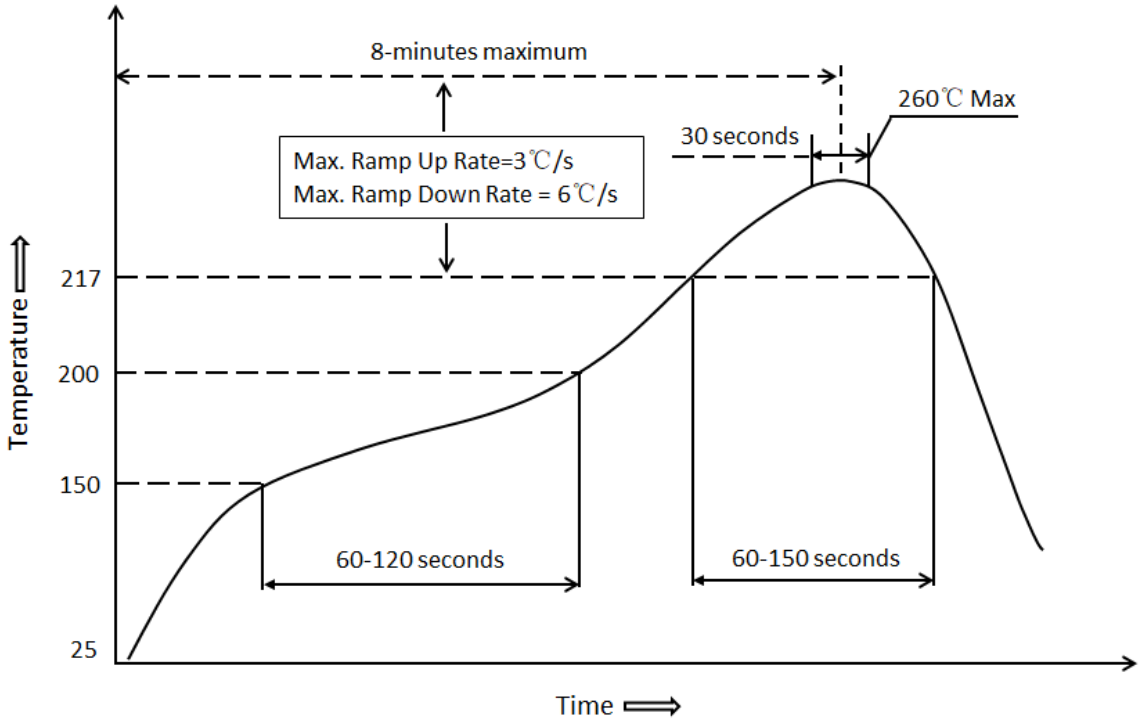
NO.	试验项目 Items	试验条件 Test Condition	规格 Requirement	
5.3.1	耐振动性 Vibration	DC 1mA 通电状态下；嵌合轴沿 XYZ 三个方向振动；振幅 1.5mm ；频率 10-55-10Hz/分；历时 2 小时 The power is on with Current: DC 1mA Amplitude: 1.5mm P-P Sweep time:10-55-10Hz in 1 minute Duration:2 hours in each X.Y.Z. axes	外观 Appearance	无损坏 No damage
			接触抵抗 Contact resistance	60mΩ Max
			瞬断 Transient breaking	1 μs .Max.
5.3.2	耐冲击性 Shock	在 DC 1 ma 通电的状态下，嵌合沿相互垂直的 6 个方向； 3 次 加速度 490 米/s2 {50g}。 Mate applicable FPC and subject to the following	外观 Appearance	无损坏 No damage

		shock conditions. 3 times of shocks shall beapplied for each 6 directions along 3 mutuallyperpendicular axes, passing DC 1mA currentduring the test.(Total of 18 shocks)Test pulse : Half SinePeak value : 490m/s2 {50G}Duration : 6 milliseconds.	接触抵抗 Contact resistance	60mΩ Max
			瞬断 Transient breaking	1 μs .Max.

NO.	试验项目 Items	试验条件 Test Condition	规格 Requirement	
5.3.3	耐热性 Heat resistance	适合 FPC/FFC 嵌合；125±2℃的空气中；放置 12 小时；再回到室温中放置 1-2 小时 Mate applicable FPC/FFC. in the air 125 ± 2 ℃ for 96 hours; to return to room temperature for 1-2 hours in the place	外观 Appearance	无损坏 No damage
			接触抵抗 Contact resistance	60 mΩ Max
5.3.4	耐寒性 cold resistance	适合 FPC/FFC 嵌合；-40±3℃的空气中；放置 96 小时；再回到室温中放置 1-2 小时 Mate applicable FPC/FFC, in the air -40 ± 2 ℃ for 96 hours;to return to room temperature for 1-2 hours in the place	外观 Appearance	无损坏 No damage
			接触抵抗 Contact resistance	60 mΩ Max
5.3.5	耐湿性 Humidity	适合 FPC/FFC 嵌合；60±2℃、相对湿度 90-95%的空气中；放置 96 小时；再回到室温中 1-2 小时内测定 in the air of Temperature 60 ± 2 ℃ and 90-95% relative humidity for 96 hours; to return to room temperature for 1-2 hours in the place	外观 Appearance	无损坏 No damage
			耐电压 Dielectric Strength	满足 5.1.3
			绝缘抵抗 Insulation resistance	50 MΩ Min
			接触抵抗 Contact resistance	60 mΩ Max

5.3.6	温度循环 Temperature cycling	适合 FPC/FFC 嵌合：-40±3℃ 30 分钟；常温常湿 10-15 分钟；125±2℃ 30 分钟；常温常湿 10-15 分钟，循环 5 次。 5 cycles of: A)-40±3℃ 30 minutes B)Room temperature and humidity from 10 to 15 minutes C)125±2℃ 30 minutes D)Room temperature and humidity from 10 to 15 minute	外观 Appearance	无损坏 No damage
			接触抵抗 Contact resistance	60 mΩ Max
5.3.7	耐盐雾性 Salt Spray	适合 FPC/FFC 嵌合；35±2℃、5±1%的盐水喷雾(Sn 24H Au 48H)；试验后常温水洗；再室温干燥，常温常湿放置 1-2 小时。 Mate applicable FPC/FFC. (Sn 24 Au 48H)exposure to a salt spray from 5±1% solution at 35±2℃ . Use water at room temperature to wash ;To dry at room temperature Keep wet for 1-2 hours.	外观 Appearance	无损坏 No damage
			接触抵抗 Contact resistance	60 mΩ Max
5.3.8	耐亚硫酸 SO2 Gas	适合 FPC/FFC 嵌合；40±2℃、25±5ppm 的亚硫酸中放置 24 小时 Mate applicable FPC/FFC. 24H exposure to 25±5ppm SO2 Gas at 40±2℃	接触抵抗 Contact resistance	60 mΩ Max
5.3.10	可焊性 Solderability	端子前端基准面 0.2mm 处浸入 250±5℃的锡槽中；历时 2±0.5 sec。 Soldering time: 2±0.5 sec Soldering temperature: 250±5℃	沾敷性 Solder Wetting	沾锡面积 95%以上 Soldering area more than 95%
5.3.11	耐焊热 Resistance to soldering Heat	高温烤箱 260±5℃,60 秒。 Soldering temperature 260±5℃,60sec。	外观 Appearance	无损坏 No damage

【6】SMT 回流条件 SMT REFLOW CONDITION



IR/Convection Reflow Profile (IPC/EDEC J-STD-020D.1)
(Temperature on the product surface)