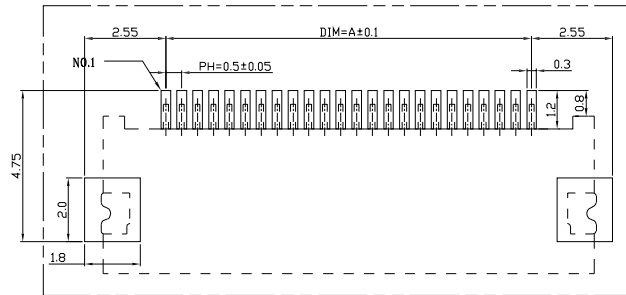
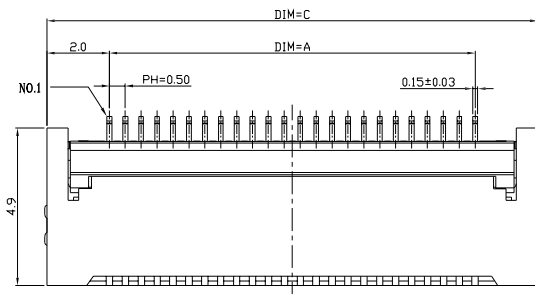
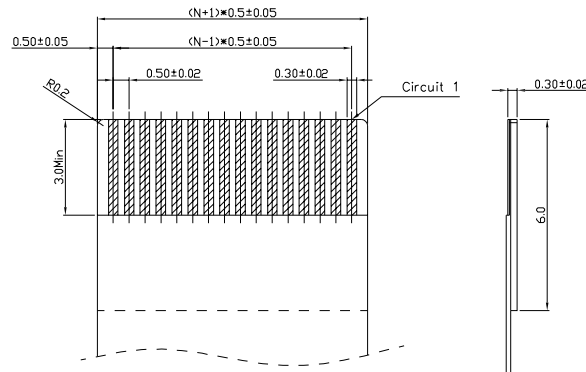
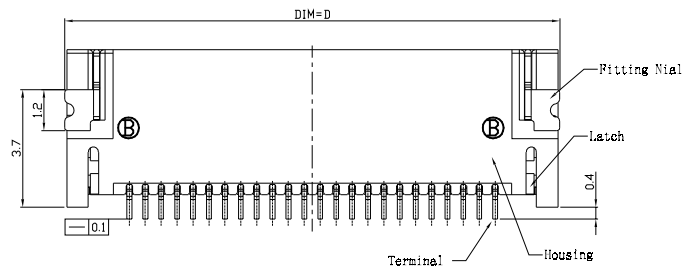
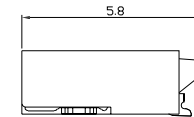
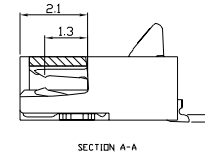
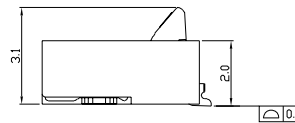
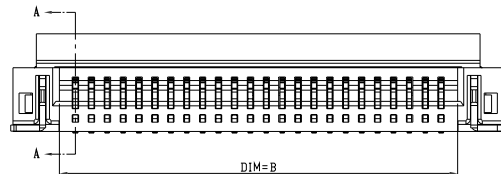


REV.	DATE	ECN NO.	MODIFICATION	APPROVER
A	2014/07/07	/	NEW	Jason
B	2019/12/17	RD00319121701	依实物修正图面	Jason



RECOMMENDED P.C.B PATTERN LAYOUT  
REFERENCE TOLERANCE:±0.05



RECOMMENDED FPC/FPC DIMENSION

PIN NO.	A	B	C	D
4	1.5	2.60	5.50	5.70
5	2.0	3.10	6.00	6.20
6	2.5	3.60	6.50	6.70
7	3.0	4.10	7.00	7.20
8	3.5	4.60	7.50	7.70
9	4.0	5.10	8.00	8.20
10	4.5	5.60	8.50	8.70
11	5.0	6.10	9.00	9.20
12	5.5	6.60	9.50	9.70
13	6.0	7.10	10.00	10.20
14	6.5	7.60	10.50	10.70
15	7.0	8.10	11.00	11.20
16	7.5	8.60	11.50	11.70
17	8.0	9.10	12.00	12.20
18	8.5	9.60	12.50	12.70
19	9.0	10.10	13.00	13.20
20	9.5	10.60	13.50	13.70
21	10.0	11.10	14.00	14.20
22	10.5	11.60	14.50	14.70
23	11.0	12.10	15.00	15.20
24	11.5	12.60	15.50	15.70
25	12.0	13.10	16.00	16.20
26	12.5	13.60	16.50	16.70
27	13.0	14.10	17.00	17.20
28	13.5	14.60	17.50	17.70
29	14.0	15.10	18.00	18.20
30	14.5	15.60	18.50	18.70
31	15.0	16.10	19.00	19.20
32	15.5	16.60	19.50	19.70
33	16.0	17.10	20.00	20.20
34	16.5	17.60	20.50	20.70
35	17.0	18.10	21.00	21.20
36	17.5	18.60	21.50	21.70
37	18.0	19.10	22.00	22.20
38	18.5	19.60	22.50	22.70
39	19.0	20.10	23.00	23.20
40	19.5	20.60	23.50	23.70
41	20.0	21.10	24.00	24.20
42	20.5	21.60	24.50	24.70
43	21.0	22.10	25.00	25.20
44	21.5	22.60	25.50	25.70
45	22.0	23.10	26.00	26.20
46	22.5	23.60	26.50	26.70
47	23.0	24.10	27.00	27.20
48	23.5	24.60	27.50	27.70
49	24.0	25.10	28.00	28.20
50	24.5	25.60	28.50	28.70
51	25.0	26.10	29.00	29.20
52	25.5	26.60	29.50	29.70
53	26.0	27.10	30.00	30.20
54	26.5	27.60	30.50	30.70
55	27.0	28.10	31.00	31.20
56	27.5	28.60	31.50	31.70
57	28.0	29.10	32.00	32.20
58	28.5	29.60	32.50	32.70
59	29.0	30.10	33.00	33.20
60	29.5	30.60	33.50	33.70

#### SPECIFICATION:

#### MATERIALS:

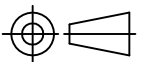
- 1.Housing: Thermoplastic,UL94V-0,color:Natural.
- 2.Actuator: Thermoplastic,UL94V-0,color:black.
- 3.Contacts: copper alloy,Gold or Tin plated on Nickel overall.
- 4.Fitting nail: copper alloy,Tin plated on Nickel overall.

#### PERFORMANCE:

- 1.Rating current:0.5A;
- 2.Rating voltage: 50V, AC/DC;
- 3.Contact Resistance:30mΩ max;
- 4.Insulation Resistance:500MΩ min;
- 5.Withstand voltage: 500V, AC/minute;
- 6.Temperature range: -45°C~+85°C.
- 7.PRODUCT MEET FOR ROHS STANDARD

PART NO:  
FPC 050 \*\* - 17 \* \*\*

产品代码:FPC  
产品类型码 (PITCH:0.5mm)  
PIN数码 (4PIN~60PIN)  
4P:04  
60P:60  
预留码  
包装方式代码 (1表示吸塑管;2表示卷带;3代表盘装)  
产品特性码:  
17:前插后压 (H=2.0)

GENERAL TOLERANCE				UNITS mm		NAME: FPC		ATOM® 深圳市爱特姆科技有限公司 SHENZHEN ATOM TECHNOLOGY CO., LTD.			
SELECT	✓			MAT'L	PART NO: FPC050**-17***	TITLE: FPC0.5mm XP SMT 前插后压 H=2.0mm (Customer drawing)					
TOL. ON.	1	2	3								
X.XXX		±0.05 ±0.15		FINISH	APPD: Jason	DWG NO. ATOM-A03920					
X.XX	±0.10	±0.13 ±0.25			CHKD: Vicky						
X.X	±0.20	±0.25 ±0.50		Q'TY	DR: Jillian		SCALE	SHEET	REV		
X.		±0.38 ±1.00					1:1	1/1	B		
ANGLE	±2°										

# PRODUCT SPECIFICATION

## 1. SCOPE

This specification covers the FPC Series Connector.

## 2. CONNECTOR DIMENSIONS

See attached drawings.

## 3. MATERIALS

ITEM	DISCRIPTION
Housing	High-temp Plastic; Color : White. Flammability Rating :UL94 V-0
Actuator	High-temp Plastic; Color : Black. Flammability Rating :UL94 V-0
Contact;	Phosphor Bronze
Leg :	Brass
Contact Plating	See Ordering Information
Leg Plating:	See Ordering Information

## 4. RATING

ITEM	STANDARD
Operating Voltage (Max.)	50V DC
Current Rating (Max.)	0.5A DC
Operating Temperature	-45°C ~ +85°C

## 5. PERFORMANCE

项目 (Item)	规格(Requirement)	测试方式/条件(Test Condition)
电气特性 (Electrical Requirement)		
1	接触阻抗 Contact Resistance	30 mΩ 以下. 30 mΩ Max.
2	绝缘阻抗 Insulation Resistance	500 MΩ 以上. 500 MΩ Min.

Product Description	FPC0.5mm SMT 前插后压 H=2.0mm		Product NO:		
			REVISION	DATE	SHEET NO
APPROVED BY	CHECKED BY	MADE BY	A/0	2014.07.07	1/5
Jason	David	Jillian	DOCUMENT NO	FPC-E-027	

## PRODUCT SPECIFICATION

项目( Item)		规格(Requirement)		测试方式/条件(Test Condition)
3	耐电压 Dielectric withstanding Voltage	目视外观无任何损坏异状 No Breakdown		将样品与适合之 FPC 连接，相邻端子间需可承受 500V AC(rms) 1 分钟。 Mate applicable FPC, apply 500V AC(rms) for 1 minute between adjacent terminal or ground. (EIA-364-20)
机械特性 (Mechanical Requirement)				
1	FPC 保持力 FPC Retention Force	Pos. x 0.3N 以上 Pos. x 0.3N Min.		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 Cover; pull the FPC at a rate of 25 ± 3mm per minute (EIA-364-13)
2	端子保持力 Terminal Retention Force	1.5N 以上 1.5N Min.		端子 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+/-3mm/minute on the terminal assembled in the housing
3	盖子往返操作测试 Repeated Actuator Insertion/ Withdrawal Test	接触阻抗 Contact Resistance	30mΩ以下. 30mΩ Max.	将盖子与 FPC 反复连接，以每分钟小于 30cycles 连续操作 30 次。 Insert and withdraw actuator up to 20 cycles at the speed rate of less than 10 Cycles/Minute.
4	耐振性 Vibration (按需测试)	外观 Appearanc e	目视外观无 任何损坏异 状 No Damage	通过 DC 电流 1mA, 位移相对距离 1.5mm，振动周期 10~55~10Hz 在 1 分钟内，持续 2 小时，方向在 X，Y，Z 轴做测试。 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. Duration:2 hours in each of X,Y,Z axes. (EIA-364-28)
		接触阻抗 Contact Resistance	30mΩ以下. 30mΩ Max.	
		瞬间断电 Discontinu ity	1μ sec 以下. 1μ sec Max.	

Product Description	FPC0.5mm SMT 前插后压 H=2.0mm		Product NO:		
			REVISION	DATE	SHEET NO
APPROVED BY	CHECKED BY	MADE BY	A/0	2014.10.18	2/5
Jason	David	Jillian	DOCUMENT NO	FPC-E-027	

PRODUCT SPECIFICATION						
项目( Item)		规格(Requirement)		测试方式/条件(Test Condition)		
环境特性及其它性能 (Environment Performance and Others)						
1	耐热性 Heat Resistance (按需测试)	外观 Appearance	目视外观无任何损坏异状 No Damage	将样品与适合之FPC连接至于环境温度85±2℃测试时间96小时，再放置与室温下1~2小时 Mate applicable FPC and expose to 85±2℃, 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. (EIA-364-17)		
		接触阻抗 Contact Resistance	30mΩ 以下. 30mΩ Max.			
2	耐寒性 Cold Resistance (按需测试)	外观 Appearance	目视外观无任何损坏异状 No Damage	将样品与适合之 FPC 连接至于环境温度-45±3℃测试时间96 小时，再放置于温室下 1~2 小时 Mate applicable FPC and expose to -45± 3℃, 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. performed.		
		接触阻抗 Contact Resistance	30mΩ 以下. 30mΩ Max.			
3	耐湿性 Humidity (按需测试)	外观 Appearance	目视外观无任何损坏异状 No Damage	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，再放置于室温下1~2小时  Mate applicable FPC and expose to 60± 2℃, relative humidity90 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. (EIA-364-31)		
		接触阻抗 Contact Resistance	30 mΩ 以下. 30 mΩ Max.			
		耐电压 Dielectric strength	需符合耐电压测试 NO Breakdown			
		绝缘阻抗 Insulation Resistance	500 MΩ 以上. 500 MΩ Min			
Product Description		FPC0.5mm SMT 前插后压 H=2.0mm		Product NO:		
				REVISION	DATE	SHEET NO
APPROVED BY		CHECKED BY	MADE BY	A/0	2014.10.18	3/5
Jason		David	Jillian	DOCUMENT NO	FPC-E-027	



PRODUCT SPECIFICATION					
项目( Item)		规格(Requirement)		测试方式/条件(Test Condition)	
4	盐水喷雾 Salt Spray	外观 Appearance	目视外观无任何损坏异状 No Damage	35±2℃、5±1%的盐水喷雾 1. 镀锡区至少 12 小时 2. 镀金区 1-3u"至少 24 小时 3. 镀金区 5u"以上至少 48 小时  试验后常温水洗；再室温干燥。 35±2℃、5±1% salt spray 1. Sn plated area at least 12 hours 2. Au plated area 1-3u" for at least 24 hours 3. Au plated area 5u" for at least 48 hours  Clean by normal-temperature water after test and then dry under room temperature.	
		接触阻抗 Contact Resistance	30mΩ 以下. 30mΩ Max.		
5	焊锡性 Solder ability	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.	锡温 245±5℃，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℃) up to 0.1mm from the bottom of the housing for 3±0.5 seconds. (EIA-364-52)	



PRODUCT SPECIFICATION

项目(Item)		规格(Requirement)		测试方式/条件(Test Condition)
7	耐焊接热 Resistance to soldering heat	外观 Appearance	目视外观无任何损坏异状 No Damage	<div>1). Reflow part 260±5℃ Peak 220℃ MIN. 60sec.MAX.</div> <div>2). Pre-heat part 180℃, 0~120sec.</div> <div>* Refer to reflow temperature profile.</div> <div><div>265℃ MAX. (Peak temperature)</div><div>Average range up:1.8℃/s MAX</div><div><div>90-120 秒 90-120 sec</div><div>(预热 150~180℃) (Pre-heat 150~180℃)</div><div><div>40-60 秒 40-60sec.</div><div>(220℃ MIN.) (220℃ 以上)</div></div></div></div>

Product Description	FPC0.5mm SMT 前插后压 H=2.0mm		Product NO:		
			REVISION	DATE	SHEET NO
APPROVED BY	CHECKED BY	MADE BY	A/0	2014.10.18	5/5
Jason	David	Jillian	DOCUMENT NO	FPC-E-027	