承认书

SPECIFICATION FOR APPROVAL Rev.A

FILE NO. AS-FPC311-2S09F19-01

客户名称 CUSTOMER NAME.	
客户料号 CUSTOMER PART NO.:	
型 号 Model Type:	PITCH0.3 DUAL CONTACT SIDE FPC
制造者系列号 Maker Series No.:	FPC311-2S09Fn-01
制造者料号 Maker Part No.:	FPC311-2S09F19-01
日 期 DATE	2019.05.31

Approved by Customer:

香港春生实业有限公司

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工程部

Zhejiang Chunsheng Electronics CO.,LTD.

浙 江 春 生 电 子 有 限 公 司

Specifications

Model Type:	PITCH0.3 DUAL CONTACT SIDE FPC	Designed	Checked	Approved
Maker Series No.:	FPC311-2S09Fn-01	Linda.Chen	Paul.Wei	Paul.Wei
Maker Part No.:	FPC311-2S09F19-01			
Customer Ref.:				

1.SCOPE

This specification covers the 0.3mm Pitch FPC/PFC Connectors series.

2. RATINGS AND APPLICABLE WIRES

Rated Current :0.2A

Rated Voltage: 30V AC/DC

Operating Temperature : -40℃～+ 85℃

3. PERFORMANCE

3-1 ELECTRICAL PERFORMANCE

Item		Test Condition	Requirement
3-1-1	Contact Resistance	Mate applicable FPC/FFC and measure by dry circuit,20mV MAX., 1mA Max.	100mΩ Max.
3-1-2	Insulation Resistance	Mate applicable FPC/FFC and apply 100V DC between adjacent terminals or ground.	50MΩ Min.
3-1-3	Dielectric Strength	Mate applicable FPC/FFC and apply 100V AC(rms) for 1 minute between adjacent terminal or ground.	No Breakdown and flashover

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3-2 MECHANICAL PERFORMANCE

Item		Test Condition	Requirement
3-2-1	Retention Force of single Pin	Apply axial pull out force at the rate of 25~100mm/Min.	0.2N / PIN Min.
3-2-2	Retention force of GND Pin	Apply axial pull out force at the rate of 25~100mm/Min.	0.3N / PIN Min.
3-2-3	Retention force of FFC/FPC	Inserted FFC into connector, apply axial pull out force at the rate of 20~100mm/Min.	0.2N Min./Pin

3-3 Environmental Performance and Others.

Item		Test Condition	Requirement	
3-3-1	Repeated Insertion/ Withdrawal	Lock/dis-lock 20times with free loading and lock/dis-lock 5 times with loading.	Contact Resistance	100 milliohm Max.
3-3-2	Vibration	Amplitude : 1.52mm P-P Sweep time : 10-55-10 Hz in 1 minute Duration : 2 hours in each x.y.z. axes	Appearance	No Damage
			Contact Resistance	100 milliohm Max.
			Discontinuity	1.0 microsecond Max.
3-3-3	Shock	490m/s² {50G}, 3 strokes in each X. Y. Z axlals .	Appearance	No Damage
			Contact Resistance	100 milliohm Max.
			Discontinuity	1.0 microsecond Max.

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Item		Test Condition	Requirement	
3-3-4	Heat Resistance	85±2℃, 96 hours	Appearance	No Damage
			Contact Resistance	100 milliohm Max.
3-3-5	Humidity	Temperature : 40±3℃ Relative Humidity :: 90～95% Duration : 96 hours	Appearance	No Damage
			Contact Resistance	100 milliohm Max.
			Dielectric Strength	To meet 3-1-3
			Insulation Resistance	50 Megohm Min.
3-3-6	Temperature Cycling	5 cycles: a)-55±3℃ 30minutes b)25±2℃ 5minutes c)85±3℃ 30minutes c)25±2℃ 5minutes	Appearance	No Damage
			Contact Resistance	100 milliohm Max.
			Discontinuity	1.0 microsecond Max.
			Retention force is above 0.2N/Pin	
3-3-7	Salt Spray	48 hours exposure to a salt spray from the 5±1% solution at 35±2℃	Appearance	No Damage
			Contact Resistance	100 milliohm Max.

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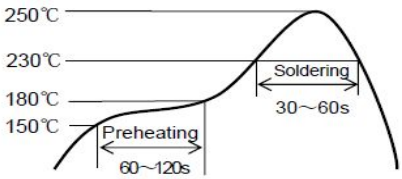
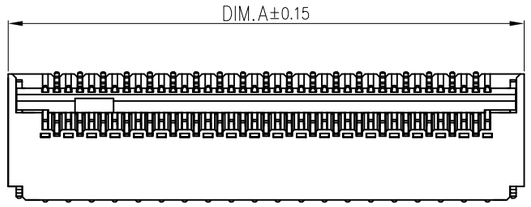
<table>
<tr><th colspan="2">Item</th><th>Test Condition</th><th colspan="2">Requirement</th></tr>
<tr><td>3-3-8</td><td>Solderability</td><td>Solder Temperature : 245±5℃
Soldering Time : 3 sec.</td><td>Solder Wetting</td><td>90% of immersed area must show no voids,pin holes</td></tr>
<tr><td rowspan="3">3-3-9</td><td>Soldering Heat</td><td>Heating temperature profile: 150 ~ 180 ℃ 60~120Sec.,Peak temperature: 250±5℃, over 230℃ last 30±5Sec.</td><td>Appearance</td><td>No Damage</td></tr>
<tr><td rowspan="2">Recommend Temperature profile</td><td rowspan="2">Heating temperature profile: 150 ~ 180 ℃ 60~120Sec.,Peak temperature: 250±5℃, over 225℃ last 30±5Sec. the profile is only for reference, lock cover shall be opened when proceed IR reflow
 

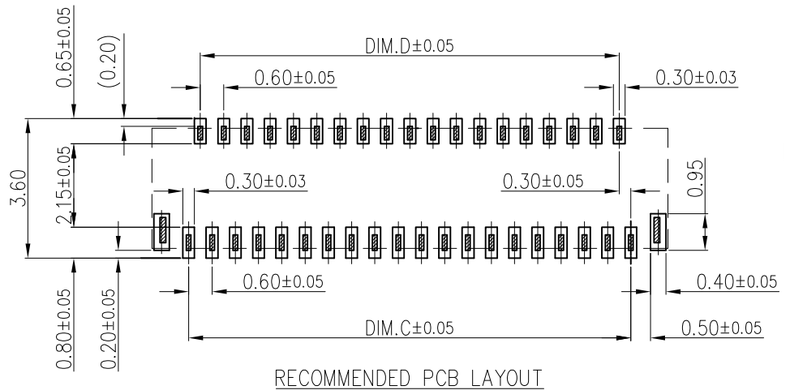
Temperature profile</td><td>Contact Resistance</td><td>100 milliohm Max.</td></tr>
<tr><td colspan="2">Retention force is above 0.2N/Pin</td></tr>
</table>

4.PRODUCT SHAPE AND DIMENSIONS

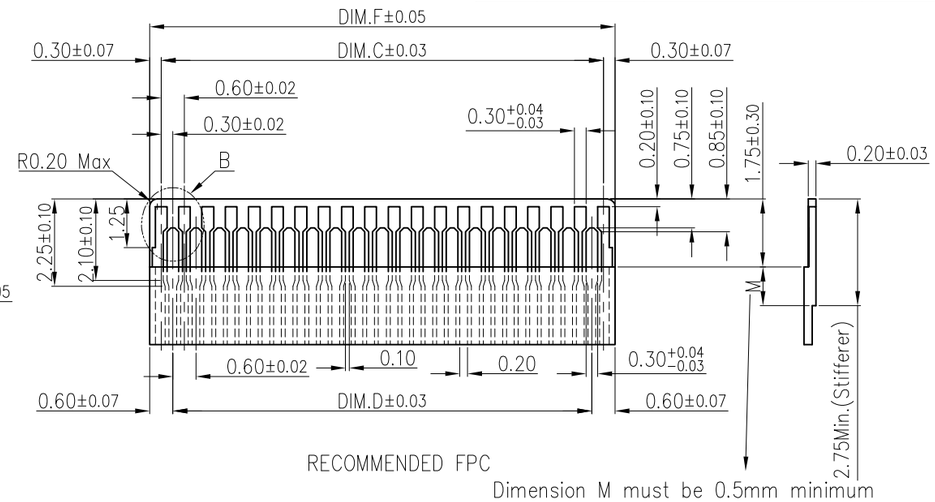
Refer to the drawing.

REV.	ECN NO.	MODIFIED MARK	APPROVED
A	JC-1606012	FIRST RELEASE	David Li



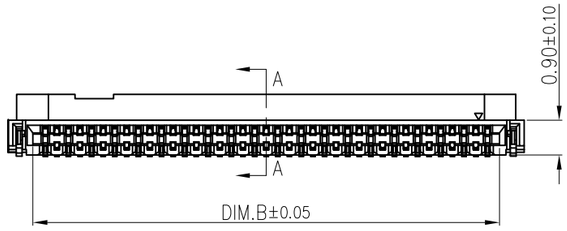


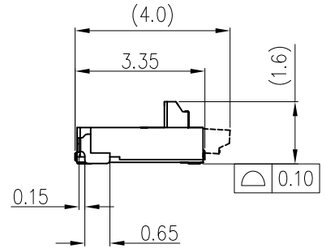
RECOMMENDED PCB LAYOUT
TOP VIEW (TOL: ±0.05)

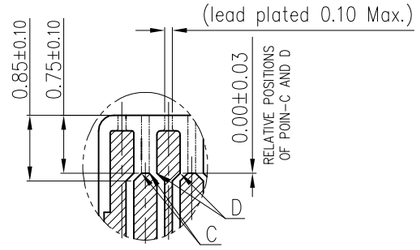


RECOMMENDED FPC

Dimension M must be 0.5mm minimum when the stiffener than 2.75mm

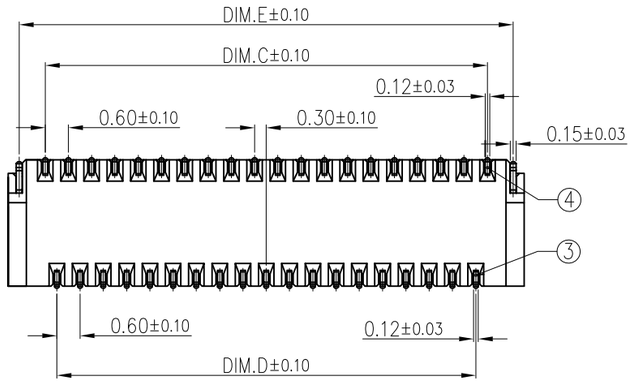


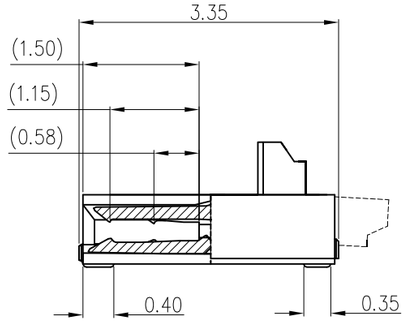




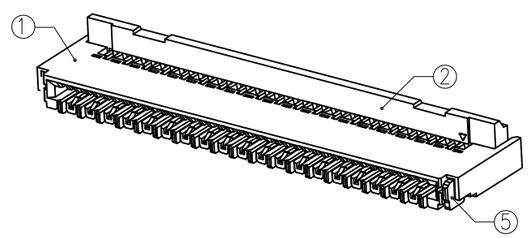
DETAIL B
SCALE: 2:1

PINS	DIM.A	DIM.B	DIM.C	DIM.D	DIM.E	DIM.F
9	4.30	3.03	2.40	1.80	3.73	3.00
11	4.90	3.63	3.00	2.40	4.33	3.60
13	5.50	4.23	3.60	3.00	4.93	4.20
15	6.10	4.83	4.20	3.60	5.53	4.80
17	6.70	5.43	4.80	4.20	6.13	5.40
19	7.30	6.03	5.40	4.80	6.73	6.00
21	7.90	6.63	6.00	5.40	7.33	6.60
23	8.50	7.23	6.60	6.00	7.93	7.20
25	9.10	7.83	7.20	6.60	8.53	7.80
27	9.70	8.43	7.80	7.20	9.13	8.40
31	10.90	9.63	9.00	8.40	10.33	9.60
33	11.50	10.23	9.60	9.00	10.93	10.20
35	12.10	10.83	10.20	9.60	11.53	10.80
37	12.70	11.43	10.80	10.20	12.13	11.40
39	13.30	12.03	11.40	10.80	12.73	12.00
41	13.90	12.63	12.00	11.40	13.33	12.60
45	15.10	13.83	13.20	12.60	14.53	13.80
49	16.30	15.03	14.40	13.80	15.73	15.00
51	16.90	15.63	15.00	14.40	16.33	15.60
57	18.70	17.43	16.80	16.20	18.13	17.40
61	19.90	18.63	18.00	17.40	19.33	18.60





SECTION A–A
SCALE: 2:1



SPECIFICATIONS:
1、RATED CURRENT: 0.2A/PIN;
2、RATED VOLTAGE: 30V AC/DC;
3、CONTACT RESISTANCE: 100mΩ Max.(INITIAL);
4、INSULATION RESISTANCE: 50MΩ Min.;
5、DIELECTRIC WITHSTANDING VOLTAGE: 100V AC/60s;
6、DURABILITY: 20 CYCLES Min.;
7、OPERATING TEMPERATURE: −40℃~+85℃;

5	SOLDER TAB	2	PHOSPHOR BRONZE	Tin PLATED	RoHS COMPLIANT
4	TERMINAL-2	(n+1)/2	PHOSPHOR BRONZE	GOLD FLASH PLATED	
3	TERMINAL-1	(n−1)/2	PHOSPHOR BRONZE	GOLD FLASH PLATED	
2	LOCK	1	PA9T,UL94 V-0	BLACK	
1	HOUSING	1	LCP,UL94 V-0	NATURAL	
No.	PART NAME	QTY	MATERIAL	FINISH/COLOR	REMARK

X. ±0.35	X.° ±5°	PART NAME:	PITCH0.3 DUAL CONTACT SIDE FPC
.X ±0.25	.X° ±3°	PART No.:	FPC311-2S09Fn-01
.XX ±0.15	.XX° ±1°	MAT'L: SEE TABLE	DESIGN: Y.Y.Su 06/12'16
.XXX ±0.05	TOL TABLE:	FINISH: SEE TABLE	CHECKED: Paul.Wei 06/12'16
		Q'TY: N/A	APPROVED: David.Li 06/12'16

浙江春生电子有限公司
Zhejiang Chunsheng Electronics Co., Ltd.

TITLE: FPC CONNECTOR CUSTOMER DRAWING

DWG NO.: Q/CS.QW-001W-FPC311-2S09Fn-01 REV.: A

UNIT: mm | VIEW: | SCALE: N/A | SHEET: 1/1 | SIZE: A3