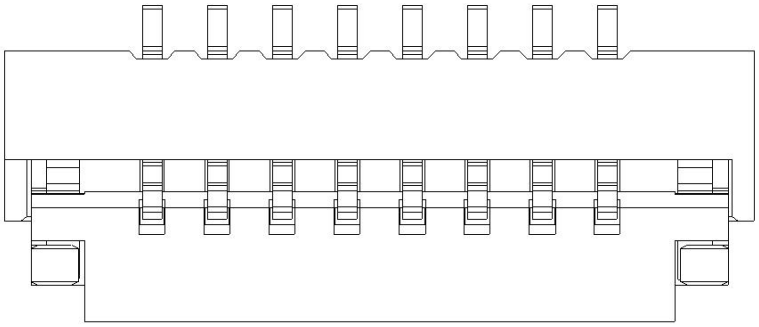
Product Specification



FPC Connector 0.5 Pitch R/A ZIF SMT TYPE

Item	Update Description	Rev.	Issued Date	Revisor
1	New Edit	A	2013/04/25	Liu

Prepared By:**Liu**

Rechecked By:**Liu**

Approved By:**Gao**

1. SCOPE

1.1 Contents

This specification covers the performance, tests and quality requirements for the FFC/FPC Connector.

1.2 Qualification

When tests are performed on the subject product line, the procedures specified in VM inspection plan and product drawings.

2. ORDERING INFORMATION

PART NO.: CFPC(1) 05(2) 11(3) - xx(4) RL(5) - xx(6) x(7)

1	Series name	FPC Connector
2	Pitch between	0.5 mm Pitch
3	Series Number	11
4	Number of terminals	04~50
5	Assembly style	Right Angle /Low Contact SMT Type
6	Packaging	TA :Tape Reel MA:Mylar and Tape Reel
7	Plating	0=Tin over Nickel G=Gold flash over Nickel 1= Au:1u" 3=Au:3u" 5=Au:5u" 10=Au:10u"

3. CONNECTOR DIMENSIONS

See attached drawings.

4. MATERIAL

Housing :	Hight -Temp plastic Color : .White
	Flammability Rating (UL94V-0) HF
Actuator	Hight -Temp plastic Color : Brown.
	Flammability Rating (UL94V-0) HF
Contact :	Copper alloy
Leg :	Copper alloy
Contact Plating	See Ordering Information
Leg Plating:	Tin over Nickel

5. ACCOMMODATED P.C.B. LAYOUT

See attached drawings.

6. RATING.

ITEM	STANDARD
Operating Voltage (Max.)	50V AC/DC
Current Rating (Max.)	0.4A DC
Operating Temperature	-55°C ~ +85°C (Including terminal temperature rise)

7. PERFORMANCE

	Test Item	Requirement	Procedure
1	Examination of Product	Meets requirements of product drawing. No physical damage.	Visual inspection.
	Electrical Requirement		
2	Contact Resistance	[40] m Ohm Max(Initial)	Subject mated contacts assembled in housing to 20mV Max open circuit at 10mA Max. Refer to Fig.3
3	Dielectric withstanding Voltage	No creeping discharge or flashover shall occur. Current leakage: 0.5 mA MAX	[500]VAC for 1minute Test between adjacent circuits of unmated connector.
4	Insulation Resistance	[50] M Ohm Min.(Initial)	Impressed voltage 500 VDC. Test between adjacent circuits of unmated connector.
	Mechanical Requirement		
5	Contact / Peg Retention Force	0.080 kgf Min.	Apply axial pull out force at the rate of [25.4±3] mm/min on the terminal assembled in the housing.
6	FPC/FFC Retention Force	0.0150 kgf/Pin Min.	Operation Speed：[25.4±3] mm/min Measure the force required to unmate connector.
7	Durability	Contact Resistance: [60] m Ohm Max(Final)	Operation Speed：[10] cycle-max./min Durability Cycles：50 Cycles
8	Vibration	No electrical discontinuity greater than 0.1 or 1 μ sec shall occur. See Note.	Subject mated connectors to 10-55-10 Hz traversed in 1minutes at 1.52mm amplitude 2 Hours each of 3 mutually perpendicular planes. 100mA Max. Applied.
9	Mechanical Shock	No electrical discontinuity greater than 0.1 or 1 μ sec shall occur. See Note.	Accelerate Velocity：490m/s2 （50G） Waveform ： Half-sine shock plus Duration：11msec No. of Drops：3 drops each to normal and reversed directions of X, Y and Z axes, totally 18 drops, passing DC 100mA max. Current during the test.

Test Item		Requirement	Procedure
Environmental Requirements			
10	Temperature Rising	30℃ Max. Under loaded rating current	Contact series-wired, apply test current of loaded rating current to the circuit, and measure the temperature rising by probing on soldered areas of contacts, after the temperature becomes stabilized deduct ambient temperature from the measured value.
11	Solder ability	The inspected area of each lead must have 95% solder coverage minimum.	Steam Aging Preconditioning: Intended for no-tin lead and no-tin lead -alloy finished for 93+3/-5℃、8hrs. Solder pot temperature: 245±5℃, 3~5sec
12	Resistance to Reflow Soldering Heat	No physical damage shall occur.（Lead-Free）	Pre Heat：150~180℃, 90±30sec. Heat：230℃ Min., 30±10sec. Peak Temp.：260+0/-5℃, 10sec. or less Duration：3 cycles Refer to Fig.4
13	Thermal Shock	Contact Resistance: [60] m Ohm Max(Final)	Mated Connector -55+/-3℃(30 min.), +85+/-2℃(30 min) Perform this a cycle, repeat 5 cycles
14	Humidity-Temperature Cycle	Contact Resistance: [60] m Ohm Max(Final)	Mated Connector 25~65℃, 90~95% RH, 10 Cycles
15	Temperature Life (Heat Aging)	Contact Resistance: [60] m Ohm Max(Final)	Mated Connector 85℃, 250 hours,
16	Salt Spray	No detrimental corrosion allowed in contact area and base metal exposed. Contact Resistance: [60] m Ohm Max(Final)	Subject mated connectors to 35+/-2℃ and 5+/-1% salt condition for 48hours. After test, rinse the sample with water and recondition the room temperature for 1 hour. EIA-364-26B, Condition B

Figure 1（End）

NOTE：Shall meet visual requirements, show no physical damage, and meet requirement of additional tests as specified in the test sequence in Figures 2

7.1. Product Qualification and Requalification test.

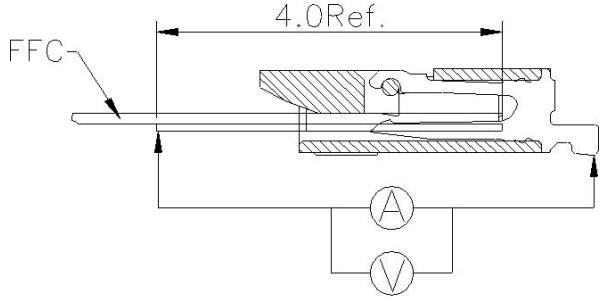
Test or Examination	Test Group									
	A	B	C	D	E	F	G	H	I	J
	Test Sequence（a）									
Examination of Product	1, 7	1, 9	1, 6	1, 5	1, 5	1, 5	1, 5	1, 3	1, 3	1, 3
Contact Resistance		2, 8	2, 5	2, 4	2, 4	2, 4	2, 4			
Dielectric withstanding Voltage	3, 6									
Insulation Resistance	2, 5									
Contact/ Peg Retention Force		3, 7								
FPC/FFC Retention Force		4, 6								
Durability		5								
Vibration			3							
Mechanical Shock			4							
Temperature Rising								2		
Solder ability										2
Resistance to Soldering Heat									2	
Thermal Shock				3						
Humidity Temperature Cycling	4				3					
Temperature Life						3				
Salt Spray							3			

Figure 2

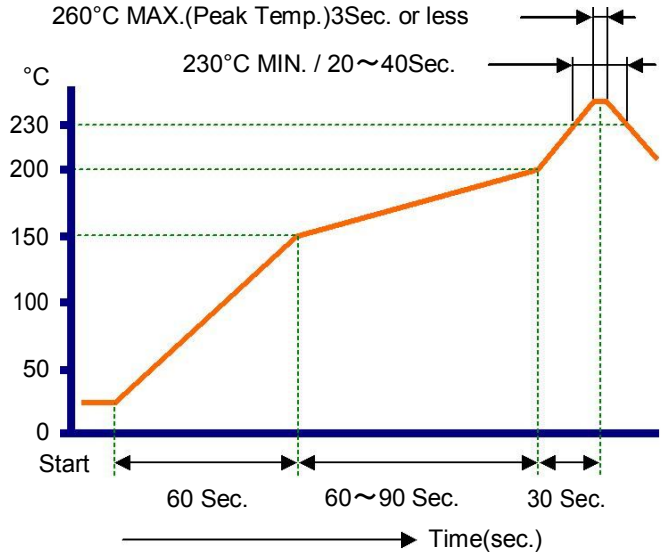
NOTE：（**a**）**Numbers indicate sequence in which tests are performed.**

（**b**）**Discontinuities shall not take place in this test group, during tests.**

Figure 3. Contact Resistance



8. INFRARED REFLOW CONDITION



9. TAPE AND REEL PACKAGE SPECIFICATION

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

9-2.Specification

No. of Contacts	R TYPE		
	Width	? Pcs／Reel	? Reels／Carton
04~08	12	5000／1	11／1
09~13	16	5000／1	9／1
14~30	24	5000／1	7／1
31~40	32	5000／1	6／1
41~50	44	5000／1	5／1

Export Carton Layer：3 Layers　　Carton Size：350x350x290mm