

1.0 mm Pitch FPC Connector, SMT Type.

1. INTRODUCTION

1.1. PURPOSE

Testing was performed on 1.0 mm Pitch FPC Connector, SMT Type to determine its conformance to the requirements of AMP Product Specification 108-57080 Rev. B.

1.2. SCOPE

This report covers the electrical, mechanical and environmental performance of the 1.0 mm Pitch FPC Connector, SMT Type.

1.3. CONCLUSION

1.0 mm Pitch FPC Connector, SMT Type is listed in paragraph 1.5, meet the electrical, mechanical and environmental performance requirements of AMP Product Specification 108-57080 Rev. B.

1.4. PRODUCT DESCRIPTION

1.0 mm Pitch FPC Connector, SMT Type is applied at printed circuit board (PCB). The contacts are made from Copper Alloy with tin/lead under-plating all over the contact. The housing material is thermoplastic, UL94V-0.

1.5. TEST SAMPLES

The test samples were randomly selected from normal current production lots, and the following part numbers were used for test:

Test Group	Quantity	Description
1, 2, 3, 4, 5	5EA.	1.0 mm Pitch FPC Connector, SMT Type

DR	DATE	APVD	DATE
Samuel Hou	16-Aug-2005	Wei-Jer Ke	16-Aug-2005

1.6. QUALIFICATION TEST SEQUENCE

Test or Examination	Test Group				
	1	2	3	4	5
	Test Sequence (a)				
Examination of Product	1,5	1,7	1,6	1,4	1, 3
Contact Resistance		6	3	3	
Insulation Resistance	2		4		
Dielectric Withstanding Resistance	3		5		
Actuator Mating Force		2			
Actuator Unmating Force		3			
FPC Retention Force		4			
Vibration Test				2	
Durability		5			
Thermal Shock			2		
Solderability Test	4				
Resistance to Reflow Soldering Heat					2

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

2. TEST RESULT

GP	TEST	SPEC	DATA			
			Mean	σ	Max.	Min.
1	Insulation Resistance	100M Ω min.	OK	—	OK	OK
	DWV	500V/1min	OK	—	OK	OK
	Solder ability	95%Min. coverage	OK	—	OK	OK
	Appearance	NO DAMAGE	OK	—	OK	OK
2	Mating Force	See SPEC	OK	—	OK	OK
	Unmating Force	See SPEC	OK	—	OK	OK
	FPC Retention Force	See SPEC	OK	—	OK	OK
	Durability	30 cycles	OK	—	OK	OK
	Contact Resistance	20m Ω max.	6.18	-	7.84	4.76
	Appearance	NO DAMAGE	OK	—	OK	OK
3	Thermal Shock	-55~85 $^{\circ}$ C, 5cycles	OK	—	OK	OK
	Contact Resistance	40m Ω max.	8.27	-	9.0	6.90
	Insulation Resistance	100M Ω min.	OK	—	OK	OK
	DWV	500V/1min	OK	—	OK	OK
	Appearance	NO DAMAGE	OK	—	OK	OK
4	Vibration	10-55-10Hz, 1u sec Max.	OK	—	OK	OK
	Contact Resistance	40m Ω max.	6.69		8.74	4.80
	Appearance	NO DAMAGE	OK	—	OK	OK
5	Resistance to Reflow Soldering Heat	150~180 $^{\circ}$ C, 90 \pm 30sec 230 $^{\circ}$ C Min., 30 \pm 10sec Peak Temp. : 260+0/-5 $^{\circ}$ C	OK	—	OK	OK
	Appearance	NO DAMAGE	OK	—	OK	OK