1.0mm Pitch FPC Connector, SMT Type.

1. SCOPE

This specification covers performance, tests and quality requirements for 1.0mm Pitch FPC Connector, SMT Type.

2. APPLICABLE DOCUMENT

The following documents form a part of this specification to the extent specified herein. In the event of conflict between the requirements of this specification and the product drawing, the product drawing shall take precedence. In the event of conflict between the requirements of this specification and the referenced documents, this specification shall take precedence.

Test Report：501-57199

3. REQUIREMENTS

3.1. DESIGN AND CONSTRUCTION

Product shall be of the design, construction and physical dimensions specified on the applicable product drawing.

3.2. MATERIALS

A. Housing : Thermoplastic High Temperature ,UL94V-0, White Color.

B. Slider : Thermoplastic High Temperature ,UL94V-0, Black Color.

C. Contact : Copper Alloy , Tin-lead plated, Nickel underplated all over.

3.3. RATINGS

A. Current Rating : 0.5 A

B. Voltage Rating : 200 V

C. Operating temperature : -40℃ to +80℃.

3.4. TEST CONDITION

The product is designed to meet the electrical, mechanical and environmental performance requirements specified in Figure 1.

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3.5. TEST REQUIREMENTS AND PROCEDURES SUMMARY

TEST DESCRIPTION	REQUIREMENT	PROCEDURED
Examination of product	Meets requirements of product drawing and AMP Specification.	Visual inspection No physical damage
ELECTRICAL		
Contact Resistance	20mΩ Max.(Initial)	10mA Max. EIA- 364-23A
Insulation Resistance	100MΩ Min.	Impressed voltage 500VDC. Test between adjacent contacts of unmated sample. EIA- 364-21B
Dielectric Withstanding Resistance	No creeping discharge or flashes occur.	500VAC, 1 minute. Test between adjacent contacts of unmated sample. EIA- 364-20A
MECHANICAL		
Slider Operating Force	1.96N*n (0.2Kgf*n) Max. (n:pin)	After FPC is inserted, lower slider.
FPC Retention Force	0.49N*n (0.05 Kgf*n)Min. (n:pin)	Measured after FPC is inserted and slider is lowered.
PIN Retention Force	0.5 kgf Min.	Measure by the tensile test.
Durability	Contact resistance：40mΩ Max.	Mate & Unmate with applicable FPC for 20 times. EIA- 364-09
ENVIRONMENTAL		
Humidity-Cycling Test	**Contact resistance: 40mΩ max.** Insulation resistance: **50MΩmin.**	At a temperature of 40±2° C and relative humidity of 90~95% for 96 hours. EIA- 364-31, condition A, method Ⅲ
Thermal Shock	**Contact resistance: 40mΩ max.** Insulation resistance: **50MΩmin.**	-55±3° C 30min. ~ +85±2° C 30min. for 5 cycles EIA- 364-32, condition Ⅰ
PHYSICAL		
Solderability	Solder was covered with more than 95% area dipped.	Dip in flux & dip in Sn/Pb solder (60/40), 230±5° C for 3±0.5 sec. MIL-STD-202F Method 208G

Figure 1

NOTE: (a) Shall meet visual requirements, show no physical damages.

3.6. PRODUCT QUALIFICATION AND REQUALIFICATION TEST SEQUENCE

Test or Examination	Test Group		
	A	B	C
	Test Sequence (a)		
Examination of Product	1,10	1,11	1,3
Contact Resistance	5,7,9		
Insulation Resistance		4,7,10	
Dielectric Withstanding Resistance		3,6,9	
Durability	4		
Slider Operating Force	2		
Humidity-Cycling Test	8	8	
Thermal Shock	6	5	
Solderability		2	
FPC Retention Force	3		
PIN Retention Force			2

Figure 2

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