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**USB Connector, Series A, DIP Type**

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**1. INTRODUCTION****1.1. PURPOSE**

Testing was performed on the TE Connectivity USB Connector, A Type, DIP Type to determine its conformance to the requirements of Product Specification 108-57874, Revision A.

**1.2. SCOPE**

This report covers the electrical, mechanical, and environmental performance of the TE Connectivity USB Connector.

**1.3. CONCLUSION**

The TE Connectivity USB Connector meets the electrical, mechanical, and environmental performance requirements of Product Specification 108-57874, Revision A.

**1.4. PRODUCT DESCRIPTION**

The USB Connector is designed for printed circuit board applications of PC industry.

**1.5. TEST SAMPLES**

Test specimens were randomly selected from normal current production lots, and the following Product were used for test :

Test Group	Quantity	Description	Part Number
A, B, C, D, E, F, G	5 EA.	USB Connector, A Type, Receptacle Assy, DIP Type, H=6.22mm	2006737-1

**1.6. QUALIFICATION TEST SEQUENCE**

Test or Examination	Test Group						
	A	B	C	D	E	F	G
	Test Sequence ( a )						
Examination of Product	1, 9	1, 5	1, 8	1, 3	1, 5	1, 3	1, 3
Contact Resistance	3, 7	2, 4			2, 4		
Dielectric withstanding Voltage			3, 7				
Insulation Resistance			2, 6				
Temperature Rising				2			
Mating Force	2						
Un-mating Force	8						
Durability	4						
Vibration	6						
Mechanical Shock	5						
Solderability						2	
Thermal Shock			4				
Humidity			5				
Temperature Life		3					
Salt Spray					3		
Resistance to Soldering Heat							2

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

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

Figure 1

**2. TEST RESULT**

GP	TEST	Requirement	TEST DATA				Judgment
			Max.	Min.	Mean	Std. Dev.	
A	Examination of Product	No abnormalities	PASSED				ACCEPTED
	Mating force.	35N Max.	13.20	10.50	11.98	1.24	ACCEPTED
	Low level contact resistance	30 mΩ Max	16.32	14.00	14.88	0.66	ACCEPTED
	Durability.	10000 cycles	PASSED				ACCEPTED
	Mechanical shock.	No electrical discontinuity greater than 1 μsec shall occur.	PASSED				ACCEPTED
	Vibration.	No electrical discontinuity greater than 1 μsec shall occur.	PASSED				ACCEPTED
	Low level contact resistance	30 mΩ Max	18.73	14.28	15.43	0.93	ACCEPTED
	Unmating force.	10N Min.	8.90	6.10	7.18	1.05	ACCEPTED
	Examination of Product	No abnormalities	PASSED				ACCEPTED
B	Examination of Product	No abnormalities	PASSED				ACCEPTED
	Low level contact resistance	30 mΩ Max	16.09	13.99	14.92	0.56	ACCEPTED
	Temperature Life	85°C, 500Hrs	PASSED				ACCEPTED
	Low level contact resistance	30 mΩ Max	15.37	13.69	14.63	0.46	ACCEPTED
	Examination of Product	No abnormalities	PASSED				ACCEPTED
C	Examination of Product	No abnormalities	PASSED				ACCEPTED
	Insulation resistance.	1,000 MΩ min.	PASSED				ACCEPTED
	Dielectric withstanding voltage.	500 VAC, 1 Minute	PASSED				ACCEPTED
	Thermal shock.	10 cycles, -55°C.to 85°C.	PASSED				ACCEPTED
	Humidity.	25°C to 65°C, 90% to 98% RH, 168 hours	PASSED				ACCEPTED
	Insulation resistance.	1,000 MΩ min.	PASSED				ACCEPTED
	Dielectric withstanding voltage.	500 VAC, 1 Minute	PASSED				ACCEPTED
	Examination of Product	No abnormalities	PASSED				ACCEPTED
D	Examination of Product	No abnormalities	PASSED				ACCEPTED
	Temperature rise.	30°C Max.	PASSED				ACCEPTED
	Examination of Product	No abnormalities	PASSED				ACCEPTED

GP	TEST	Requirement	DATA				Judgment
			Max.	Min.	Mean	Std. Dev.	
E	Examination of Product	No abnormalities	PASSED				ACCEPTED
	Low level contact resistance	30 mΩ Max	15.65	13.95	14.83	0.51	ACCEPTED
	Salt Spray	35°C, 5% Salt, 48hours	PASSED				ACCEPTED
	Low level contact resistance	30 mΩ Max	16.14	13.61	14.88	0.64	ACCEPTED
	Examination of Product	No abnormalities	PASSED				ACCEPTED
F	Examination of Product	No abnormalities	PASSED				ACCEPTED
	Solderability	95% Min. coverage	PASSED				ACCEPTED
	Examination of Product	No abnormalities	PASSED				ACCEPTED
G	Examination of Product	No abnormalities	PASSED				ACCEPTED
	Resistance to Soldering Heat	260+0/-5°C, 20~40sec 3 cycles	PASSED				ACCEPTED
	Examination of Product	No abnormalities	PASSED				ACCEPTED