AMPLIMITE HD-22, 15POS. R/A

1. INTRODUCTION

1.1. Purpose

Testing was performed on the AMPLIMITE HD-22 connector to determine its conformance to the requirements of Product Specification 108-57154 Rev O.

1.2. Scope

This report covers the electrical, mechanical, and environmental performance of AMPLIMITE HD-22 connector.

1.3. Conclusion

AMPLIMITE HD-22 connector meets the electrical, mechanical, and environmental performance requirements of Product Specification 108-57154 Rev O.

1.4. Product Description

AMPLIMITE HD-22 connector is designed for printed circuit board applications. The contacts are copper alloy, gold plated on the contact interface and tin-lead plating on the soldertail, all over nickel under-plated. The housing material is glass filled insulating polymer, 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
A , B , C , D , E	6 each	AMPLIMITE HD-22 Connector

1.6. Qualification Test Sequence

Test or Examination	Test Group				
	A	B	C	D	E
	Test Sequence (a)				
Examination of Product	1	1,5	1,7	1,5	1,3
Contact Resistance	2,6,8	2,4	3,6	2,4	
Insulation Resistance	3,9				
Dielectric Withstanding Resistance	4,10				
Durability			4		
Contact Insertion Force			2		
Contact Withdrawal Force			5		
Humidity-Cycling Test	7				
Thermal Shock	5				
High Temperature Life		3			
Salt Spray				3	
Solderability					2

Figure 2

NOTE :

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

2. TEST RESULT

GP	TEST	SPEC.	DATA			
			Mean	σ	Max.	Min.
A	Contact Resistance	**20mΩ max.**	11.3	0.86	12.2	7.9
	Insulation Resistance	**1000 MΩ min. Initial**	OK	—	OK	OK
	DWV	500VAC, 1 minute	OK	—	OK	OK
	Thermal shock	See note (a)	OK	—	OK	OK
	Contact Resistance	**30mΩ max.**	12.5	0.94	14.2	8.8
	Humidity-Cycling	See note (a)	OK	—	OK	OK
	Contact Resistance	**30mΩ max.**	12.6	0.95	13.4	8.8
	Insulation Resistance	**1000 MΩ min. Initial**	OK	—	OK	OK
	DWV	500VAC, 1 minute	OK	—	OK	OK
	Appearance	No damage	OK	—	OK	OK
B	Contact Resistance	**20mΩ max.**	11.7	0.89	12.3	7.8
	High Temperature Life	See note (a)	OK	—	OK	OK
	Contact Resistance	**30mΩ max.**	12.1	0.9	13.2	8.2
	Appearance	No damage	OK	—	OK	OK
C	Contact Insertion Force	300g max.	198.2	1.23	223	163
	Contact Resistance	**20mΩ max.**	11.2	0.88	13.2	8.6
	Durability	500cycles	OK	—	OK	OK
	Contact Withdrawal Force	20g min	53	1.02	73	42
	Contact Resistance	**30mΩ max.**	12.1	0.93	13.7	8.8
	Appearance	No damage	OK	—	OK	OK
D	Contact Resistance	**20mΩ max.**	11.8	0.92	12.8	8.7
	Salt spray	See note (a)	OK	—	OK	OK
	Contact Resistance	**30mΩ max.**	12.3	0.94	13.4	9.6
	Appearance	No damage	OK	—	OK	OK
E	Solderability	Coverage 95%	OK	—	OK	OK
	Appearance	No damage	OK	—	OK	OK

Figure 2