BOX HEADER, 2.0 PITCH, RIGHT ANGLE, SMT TYPE.

1. INTRODUCTION

1.1. Purpose

Testing was performed on the **BOX HEADER, 2.0 PITCH, RIGHT ANGLE, SMT TYPE** to determine its conformance to the requirements of Product Specification 108-57250 Rev O.

1.2. Scope

This report covers the electrical, mechanical, and environmental performance of **BOX HEADER, 2.0 PITCH, RIGHT ANGLE, SMT TYPE** manufactured by the Global Personal Computer Division.

1.3. Conclusion

BOX HEADER, 2.0 PITCH, RIGHT ANGLE, SMT TYPE connector meets the electrical, mechanical, and environmental performance requirements of Product Specification 108-57250 Rev O.

1.4. Product Description

BOX HEADER, 2.0 PITCH, RIGHT ANGLE, SMT TYPE 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, F, G, H	5 ea.	**BOX HEADER, 2.0 PITCH, RIGHT ANGLE, SMT TYPE.**

1.6. Qualification Test Sequence

Test or Examination	Test Group							
	A	B	C	D	E	F	G	H
	Test Sequence (a)							
Examination of Product	1,5	1,7	1,3	1,5	1,3	1,5	1,7	1,5
Contact Resistance	2,4	2,6		2,4		2,4	2,6	2,4
Insulation Resistance								
Dielectric Withstanding Voltage		3,5						
Mating Force							3	
Unmating Force							4	
Contact Retention Force							5	
Vibration								3
Humidity		4						
Resistance to solder heat						3		
Salt Spray			2					
Thermal Shock	3							
Temperature Life				3				
Solderability					2			

Figure 1.

NOTE: (a) The numbers indicate sequence in which tests were performed.

2. TEST RESULT

GP	TEST	SPEC.	DATA			
			Mean	σ	Max.	Min.
A	Contact Resistance	20mΩ max.	6.63 mΩ	--	7.26 mΩ	6.17 mΩ
	Thermal Shock	+85℃/ -55℃ , 5cycles	OK	--	OK	OK
	Contact Resistance	30mΩ max.	7.19 mΩ	--	8.95 mΩ	6.51 mΩ
	Appearance	No Damage	OK	--	OK	OK
B	Insulation Resistance	5000MΩ min.	214.7TΩ	--	227.6TΩ	207.3TΩ
	Dielectric Withstanding Voltage	500VAC for 1minute	OK	--	OK	OK
	Humidity	90~95%,40℃± 2℃ for 96 hours.	OK	--	OK	OK
	Dielectric Withstanding Voltage	500VAC for 1minute	OK	--	OK	OK
	Insulation Resistance	5000MΩ min.	211.3TΩ	--	218.3TΩ	201.5TΩ
	Appearance	No Damage	OK	--	OK	OK
C	Contact Resistance	20mΩ max.	6.40mΩ	--	7.66mΩ	6.05mΩ
	Salt Spray	35℃± 2℃ for 24 hours	OK	--	OK	OK
	Contact Resistance	30mΩ max.	7.09mΩ	--	9.81mΩ	6.35mΩ
	Appearance	No Damage	OK	--	OK	OK
D	Contact Resistance	20mΩ max.	6.78 mΩ	--	8.28mΩ	5.77mΩ
	Temperature Life	105± 3℃ for 250 hours	OK	--	OK	OK
	Contact Resistance	30mΩ max.	7.71mΩ	--	9.96mΩ	6.80mΩ
	Appearance	No Damage	OK	--	OK	OK
E	Solder ability	245± 5℃, 4~5sec	OK	--	OK	OK
	Appearance	No Damage	OK	--	OK	OK
F	Contact Resistance	20mΩ max.	5.38 mΩ	--	7.20mΩ	4.17mΩ
	Resistance to solder heat	260± 5℃,10± 1sec	OK	--	OK	OK
	Contact Resistance	30mΩ max.	6.84 mΩ	--	9.1mΩ	5.33mΩ
	Appearance	No Damage	OK	--	OK	OK

G	Contact Resistance	20mΩ max.	5.38 mΩ	--	7.20mΩ	4.17mΩ
	Mating Force	200g Max. per pin.	68g	--	94g	55g
	Unmating Force	20g Min. per pin.	37	--	44g	31
	Contact Retention Force	250gf Min Per Contact	494g	--	798g	364g
	Contact Resistance	30mΩ max.	10.21mΩ	--	12.33mΩ	58.46mΩ
	Appearance	No Damage	OK	--	OK	OK
H	Contact Resistance	20mΩ max.	6.91mΩ	--	8.62mΩ	6.03mΩ
	Vibration	10-55-10 Hz/min, 3 axis/2 hours.	OK	--	OK	OK
	Contact Resistance	30mΩ max.	8.26mΩ	--	9.53mΩ	7.09mΩ
	Appearance	No Damage	OK	--	OK	OK

Figure 2