
**AMPMODU, 2.0mm PITCH BOARD-TO-BOARD
CONNECTOR**

1. INTRODUCTION

1.1. Purpose

Testing was performed on the **AMPMODU, 2.0mm PITCH BOARD-TO-BOARD CONNECTOR** to determine its conformance to the requirements of Product Specification 108-57197 Rev B.

1.2. Scope

This report covers the electrical, mechanical, and environmental performance of **AMPMODU, 2.0mm PITCH BOARD-TO-BOARD CONNECTOR** type manufactured by the Global Personal Computer Division.

1.3. Conclusion

AMPMODU, 2.0mm PITCH BOARD-TO-BOARD CONNECTOR Connector type connector meets the electrical, mechanical, and environmental performance requirements of Product Specification 108-57197 Rev B.

1.4. Product Description

AMPMODU, 2.0mm PITCH BOARD-TO-BOARD CONNECTOR Connector type connector is designed for printed circuit board applications. The contacts are copper alloy, gold plated on the contact interface and Gold or Tin 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, I, J	5ea.	AMPMODU, 2.0mm PITCH BOARD-TO-BOARD CONNECTOR

DR	DATE	CHK	DATE
Oblic Hu	24-Mar-2006	Wei-Jer Ke	24-Mar-2006

1.6. Qualification Test Sequence

Para Ref	Test of Examination	Test Group									
		A	B	C	D	E	F	G	H	I	J
		Test Sequence (a)									
3.5.1	Examination of Product	1,5	1,9	1,6	1,5	1,5	1,4	1,3	1,3	1,5	1,3
3.5.2.1	Termination Resistance	2,4	8		2,4	2,4				2,4	
3.5.2.2	Insulation Resistance			2,5							
3.5.2.3	Dielectric Withstanding Voltage			3							
3.5.3.1	Individual Insert Force		2,5								
3.5.3.1	Individual Extraction Force		3,6								
3.5.3.2	Receptacle Contact Retention Force							2			
3.5.3.3	Post Retention Force								2		
3.5.3.4	Solderability						2				
3.5.4.1	Vibration									3	
3.5.4.2	Temperature Life					3					
3.5.4.3	Humidity, Steady State			4							
3.5.4.4	Thermal Shock	3									
3.5.4.5	Resistance to Soldering Heat						3				
3.5.4.6	Durability		4,7								
3.5.4.7	Salt Spray				3						
3.5.4.8	Resistance to Soldering Heat										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	Appearance	No Damage	OK	--	OK	OK
	Termination Resistance	20 m Ω max.	6.16	0.820	7.88	4.37
	Thermal Shock	-55 $^{\circ}$ C/+80 $^{\circ}$ C,5 cycles	OK	--	OK	OK
	Termination Resistance	30 m Ω max.	7.20	0.857	8.98	6.45
	Appearance	No Damage	OK	--	OK	OK
B	Appearance	No Damage	OK	--	OK	OK
	Individual Insert Force	0.2kgf Max	0.08	0.019	0.12	0.06
	Individual Extraction Force	0.01kgf Min.	0.05	0.013	0.08	0.03
	Durability	10cycles	OK	--	OK	OK
	Individual Insert Force	0.2kgf Max	0.07	0.015	0.11	0.05
	Individual Extraction Force	0.01kgf Min.	0.04	0.013	0.07	0.03
	Durability	10cycles	OK	--	OK	OK
	Termination Resistance	30 m Ω max.	5.35	0.615	6.62	4.24
	Appearance	No Damage	OK	--	OK	OK
C	Appearance	No Damage	OK	--	OK	OK
	Insulation Resistance	1000M Ω min	4620M Ω	--	5078M Ω	4315M Ω
	Dielectric Withstanding Voltage	650VAC FOR 1min	OK	--	OK	OK
	Humidity	90~95%,40 \pm 2 $^{\circ}$ C for 96hr	OK	--	OK	OK
	Termination Resistance	40 m Ω max.	6.62	0.767	8.28	5.69
	Insulation Resistance	1000M Ω min	4711M Ω	--	5152M Ω	4408M Ω
	Appearance	No Damage	OK	--	OK	OK
D	Appearance	No Damage	OK	--	OK	OK
	Termination Resistance	20 m Ω max.	6.81	0.719	8.12	4.39
	Salt Spray	5%, 35 $^{\circ}$ C 24hr	OK	--	OK	OK
	Termination Resistance	30 m Ω max.	7.43	0.834	9.15	6.25
	Appearance	No Damage	OK	--	OK	OK
E	Appearance	No Damage	OK	--	OK	OK
	Termination Resistance	20 m Ω max.	6.48	0.768	8.07	5.79
	Temperature Life	85 \pm 2 $^{\circ}$ C for 96hr	OK	--	OK	OK
	Termination Resistance	30 m Ω max.	7.64	0.820	8.93	6.88
	Appearance	No Damage	OK	--	OK	OK

Figure 2 (Con.)

GP	TEST	SPEC	DATA			
			Mean	σ	Max.	Min.
F	Appearance	No Damage	OK	--	OK	OK
	Solder ability	265°C±5°C For 3sec	OK	--	OK	OK
	Resistance to soldering heat	260±5°C For 10 sec	OK	--	OK	OK
	Appearance	No Damage	OK	--	OK	OK
G	Appearance	No Damage	OK	--	OK	OK
	Contact Retention Force	0.25kgf Min/per pin	0.50	0.043	0.62	0.45
	Appearance	No Damage	OK	--	OK	OK
H	Appearance	No Damage	OK	--	OK	OK
	Post Retention Force	0.5kgf Min	1.36	0.109	1.56	1.24
	Appearance	No Damage	OK	--	OK	OK
I	Appearance	No Damage	OK	--	OK	OK
	Termination Resistance	20 mΩ max.	6.70	0.787	8.24	5.82
	Vibration	10-55-10hz for1min Am 1.52mm for 2hours	OK	--	OK	OK
	Termination Resistance	30 mΩ max.	7.26	0.812	8.67	6.51
	Appearance	No Damage	OK	--	OK	OK
J	Appearance	No Damage	OK	--	OK	OK
	Resistance to Wave Soldering Heat	265±5°C, 10±0.5sec	OK	--	OK	OK
	Resistance to Reflow Soldering Heat	260+0/-5°C, 20~40sec	OK	--	OK	OK
	Appearance	No Damage	OK	--	OK	OK

Figure 2 (End)