



TEST SUMMARY

USB DUAL STACKED A TYPE RECEPTACLE6

1.0 SCOPE

This Specification Covers the USB series product

2.0 PRODUCT DESCRIPTION

The following parts were used in the testing described in this document.

2.1 PRODUCT NAME AND PART NUMBER (S)

<u>Part Numbers</u>	<u>Product Name</u>
67298- 309*	USB CONNECTOR
67298- 409*	USB CONNECTOR

2.2 DIMENSIONS, MATERIALS, PLATINGS AND MARKINGS

Refer to Sales Drawing No.SD-67298-008;

2.3 PRODUCT SPECIFICATION TITLE AND DOCUMENT NUMBER

TITLE: USB CONNECTOR

Document Number: PS-67298-001

3.0 APPLICABLE DOCUMENTS AND SPECIFICATIONS

TESTING PROCEDURES AND SEQUENCES

Testing is performed sequentially in product specification number "PS-67298-001", Section A.

OTHER DOCUMENTS AND SPECIFICATIONS

EIA-364 Electrical Connector/Socket Test Procedures including Environmental Classification

MIL-STD-1344 Test Method for Electrical Connectors (Military Standard)

4.0 QUALIFICATION

Laboratory conditions and sample selection are in accordance with **EIA-364**.

<u>REVISION:</u> A	<u>EGR/ECN INFORMATION:</u> EC No: SH2005-0297 DATE: 2003/04/20	<u>TITLE:</u> USB DUAL STACKED A TYPE RECEPTACLE	<u>SHEET No.</u> 1 of 4
<u>DOCUMENT NUMBER:</u> TS-67298-008	<u>CREATED / REVISED BY:</u> JEFF	<u>CHECKED BY:</u> ARTHUR CHANG	<u>APPROVED BY:</u> ERICK LAN



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5.0 PERFORMANCE

5.1 ELECTRICAL PERFORMANCE RESULTS

ITEM	DESCRIPTION	TREATMENT	REQUIREMENT	MEAN	MINIMUM	MAXIMUM	
1	Contact Resistance (Low Level)	Initial	30 milliohms MAXIMUM	10.8mΩ	5.8mΩ	17.8mΩ	
		After Durability	30 milliohms MAXIMUM	15.2mΩ	8.1mΩ	20.9mΩ	
		After Vibration	30 milliohms MAXIMUM	12.5mΩ	6.3mΩ	16.9mΩ	
			No Discontinuity	Discontinuity < 1 microsecond			
		After Shock (Mechanical)	30 milliohms MAXIMUM	10.6mΩ	5.9mΩ	20.5mΩ	
			No Discontinuity	Discontinuity < 1 microsecond			
		After Shock (Thermal)	30 milliohms MAXIMUM	12.7mΩ	6.4mΩ	19.8mΩ	
			No Damage	No Visual or Dimensional Change			
		After Thermal Aging	30 milliohms MAXIMUM	14.6mΩ	7.2mΩ	18.6mΩ	
			No Damage	No Visual or Dimensional Change			
2	Insulation Resistance	After Humidity 1(Steady State)	30 milliohms MAXIMUM	12.4mΩ	6.5mΩ	22.7mΩ	
			No Damage	No Visual or Dimensional Change			
		Initial	1000 Meg ohms MINIMUM	> 1000 Meg ohms			
3	Dielectric Withstanding Voltage	After Humidity (Steady State)	500 Volts DC MINIMUM	PASS			
			No Damage	No Visual or Dimensional Change			
		Initial	750 Volts AC MINIMUM	PASS			
			No Damage	No Visual or Dimensional Change			
4	Capacitance	After Humidity (Steady State)	750 Volts AC MINIMUM	PASS			
			No Damage	No Visual or Dimensional Change			
5	Temperature Rise	Initial	2picofarad MAXIMUM	< 2picofarad			
5	Temperature Rise	Final	+30 °C MAXIMUM RISE	9.0°C	8.9°C	9.3°C	

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5.2 MECHANICAL PERFORMANCE RESULTS

ITEM	DESCRIPTION	TREATMENT	REQUIREMENT	MEAN	MINIMUM	MAXIMUM
6	Connector Mate and Un-mate Force	Initial Insertion	3.57Kg MAXIMUM	1.52Kg	1.16Kg	1.71Kg
		Initial un-mating	1.02Kg MINIMUM	2.05Kg	1.86Kg	2.53Kg
7	Terminal Retention Force	Individual	0.8Kg MINIMUM	1.20Kg	1.15Kg	1.29Kg
8	Durability	See ITEM 1 [TREATMENT: After Durability]				
9	Vibration (Random)	See ITEM 1 [TREATMENT: After Vibration]				
10	Shock (Mechanical)	See ITEM 1 [TREATMENT: After Shock(Mechanical)]				

5.3 ENVIRONMENTAL PERFORMANCE RESULTS

ITEM	DESCRIPTION	TREATMENT	REQUIREMENT	
11	Shock (Thermal)	See ITEM 1 [TREATMENT: After Shock(Thermal)]		
12	Thermal Aging	See ITEM 1 [TREATMENT: After Thermal Aging]		
13	Humidity (Steady State)	See ITEM 1 [TREATMENT: After Humidity (Steady State)]		
14	Solder ability	Final	95% Coverage MINIMUM	Coverage > 95%
15	Solder Resistance	Final	No damage	No Visual or Dimensional Change

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6.0 FIXTURES AND TEST EQUIPMENT

ITEM	DESCRIPTION	MANUFACTURING	MODEL
1	Milliohm Meter	GW	GOM-801G
2	Withstanding Voltage/insulation Analyzer	GW	GPI-735
3	Automatic mat and unmated test equipment	AIKOH	AIKOH MODEL-1310N
4	DC POWER SUPPLY	GW	GPS-3030D
5	TEMPERATURE TESTER	KSON	THS-D4C-150
6	SHOCK TESTER	KSON	TSK-D4C-150
7	OVEN TESTER	ETQI	9721
8	VIBRATION TEST SYSTEM	UD	AS15-S452/ST

7.0 OTHER INFORMATION

The samples meet the product specification.

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