



# TEST SUMMARY

## USB A TYPE RECEPTACLE SINGLE ,RIGHT ANGLE,THROUGH HOLE

### 1.0 SCOPE

This Product Specification Covers the USB connector series with terminal tin plating and cover selective plating for IR reflow process.

### 2.0 PRODUCT DESCRIPTION

#### 2.1 PRODUCT NAME AND SERIES NUMBER (S)

USB A TYPE RECEPTACLE SINGLE,RIGHT ANGLE,THROUGH HOLE W/O FLANGE:  
67643-2910 ; 67643-3910 ; 67643-2911; 67643-3911 ; 67643-1930 ;

#### 2.2 DIMENSIONS, MATERIALS, PLATINGS AND MARKINGS

See the appropriate sales drawings (SD-67643-003) for information on dimensions, materials, plating and markings.

#### 2.3 PRODUCT SPECIFICATION TITLE AND DOCUMENT NUMBER

Title.: USB A TYPE RECEPTACLE SINGLE. RIGHT ANGLE, THROUGH HOLE

Document Number: PS-67643-002

### 3.0 APPLICABLE DOCUMENTS AND SPECIFICATIONS

#### TESTING PROCEDURES AND SEQUENCES

Testing is performed sequentially and is divided into two groups, which are illustrated in product specification number "PS-67643-002", Section 1.

#### 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**.

### 5.0 PERFORMANCE

#### 5.1 ELECTRICAL PERFORMANCE RESULTS

ITEM	DESCRIPTION	TREATMENT	REQUIREMENT	MEAN	MINIMUM	MAXIMUM
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REVISION:	ECR/ECN INFORMATION:	TITLE:	SHEET No.		
<b>C</b>	EC No: SH2014-0418 DATE: 2014/04/09	<b>USB A TYPE RECEPTACLE SINGLE. RIGHT ANGLE THROUGH HOLE</b>	<b>1 of 3</b>		
DOCUMENT NUMBER:		CREATED / REVISED BY:	CHECKED BY:	APPROVED BY:	
<b>TS-67643-002</b>		<b>FYANG05</b>	<b>RZAHNG</b>	<b>AYIN</b>	



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1	Contact Resistance (Low Level)	Initial	30 milliohms MAXIMUM	8.3mΩ	7.5mΩ	9.4mΩ
		After Durability	30 milliohms MAXIMUM	8.5mΩ	8.1mΩ	8.9mΩ
		After Vibration	30 milliohms MAXIMUM	20.9mΩ	19.2mΩ	22.2mΩ
			No Discontinuity	Discontinuity < 1 microsecond		
		After Shock (Mechanical)	30 milliohms MAXIMUM	21.8mΩ	19.6mΩ	23.4mΩ
			No Discontinuity	Discontinuity < 1 microsecond		
		After Shock (Thermal)	30 milliohms MAXIMUM	13.5mΩ	12.1mΩ	16.9mΩ
		After Thermal Aging	30 milliohms MAXIMUM	5.9mΩ	4.8mΩ	6.7mΩ
		After Humidity 1(Steady State)	30 milliohms MAXIMUM	18.6mΩ	15.3mΩ	22.9mΩ
2	Insulation Resistance	Initial	1000 Meg ohms MINIMUM	> 1000 Meg ohms		
3	Dielectric Withstanding Voltage	Initial	750 Volts AC MINIMUM	PASS		
4	Capacitance	Initial	2picofarad MAXIMUM	1.5pf	1.3 pf	1.8 pf
5	Temperature Rise	Final	+30 °C MAXIMUM RISE	5.35°C	5.3°C	5.4°C

## 5.2 MECHANICAL PERFORMANCE RESULTS

ITEM	DESCRIPTION	TREATMENT	REQUIREMENT	MEAN	MINIMUM	MAXIMUM
6	Connector Mate and Un-mate Force	Initial Insertion	3.57Kg MAXIMUM	0.78Kg	0.53Kg	0.91Kg
		Initial un-mating	1.02Kg MINIMUM	1.08Kg	1.06Kg	1.12Kg
7	Terminal Retention Force	Individual	0.8Kg MINIMUM	0.95Kg	0.87Kg	1.09Kg
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

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C	EC No: SH2014-0418 DATE: 2014/04/09	USB A TYPE RECEPTACLE SINGLE. RIGHT ANGLE THROUGH HOLE	2 of 3
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		APPROVED BY:	
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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

## 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	LCR Meter	AGILENT	4263B
4	Automatic mat and unmated test equipment	AIKOH	AIKOH MODEL-1310N
5	DC POWER SUPPLY	GW	GPS-3030D
6	TEMPERATURE TESTER	HOLINK	H-TH-1BP-DHR
7	SHOCK TESTER	KSON	TSK-D4C-150
8	OVEN TESTER	ETQI	9721
9	VIBRATION TEST SYSTEM	UD	AS15-S452/ST

## 7.0 OTHER INFORMATION

N/A

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DOCUMENT NUMBER: <b>TS-67643-002</b>		CREATED / REVISED BY: <b>FYANG05</b>	CHECKED BY: <b>RZAHNG</b>
		APPROVED BY: <b>AYIN</b>	