



# PRODUCT SPECIFICATION

## USB DUAL STACKED A TYPE RECEPTACLE

### 1.0 SCOPE

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

### 2.0 PRODUCT DESCRIPTION

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

USB DUAL STACKED A TYPE RECEPTACLE

67298-309\* ; 67298-409\*

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

See the appropriate sales drawings for information on dimensions, materials, plating and markings.

### 3.0 APPLICABLE DOCUMENTS AND SPECIFICATIONS

MIL-STD-1344A

EIA-STD- 202

EIA-364

### 4.0 RATINGS OF CONNECTOR

- Rate Voltage: 30 V DC  
Rate Current: 1.5 A DC
- Operating temperature: 0°C to +50°C  
Storage temperature : -20°C to +60°C

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## 5.0 PERFORMANCE

### 5.1 ELECTRICAL REQUIREMENTS

	DESCRIPTION	TEST CONDITION	REQUIREMENT
	<b>Contact Resistance</b>	Mate connectors: apply a maximum voltage of <b>20 mV</b> and a current of <b>100 mA</b> .	<b>30 milliohms MAXIMUM</b>
	<b>Insulation Resistance</b>	Unmated connector, mounted to a PCB: apply a voltage of <b>500 VDC</b> between adjacent terminals and between terminals to ground.	<b>1000 Megohms MINIMUM</b>
	<b>Dielectric Withstanding Voltage</b>	<b>750 VAC rms (1mA cutoff current)</b> for <b>60</b> seconds duration between adjacent terminals and terminals.	<b>No Breakdown</b>
	<b>Capacitance</b>	Test between adjacent contacts to 1 Megahertz max per EIA-364.	<b>2 picofarad MAXIMUM</b>
	<b>Current Temperature Rating</b>	Mate connector and measure the temperature rise at the rated current ( <b>1.5Amps</b> ).	<b>30°C rise MAXIMUM</b> from initial

### 5.2 MECHANICAL REQUIREMENTS

	DESCRIPTION	TEST CONDITION	REQUIREMENT
	<b>Connector Mate and Unmate Force</b>	Mate connector at a rate of <b>25 ± 6 mm (1 ± ¼ inch)</b> per minute.	<b>3.57Kgf (35 N) MAXIMUM</b> mate force <b>1.02 Kgf (10 N) MINIMUM</b> unmate force
	<b>Terminal Retention</b>	Apply a pull out force in the axial direction of the contact per Mil-STD-1344A method 2007.1	<b>0.8 Kgf minimum</b>
	<b>Vibration</b>	Mated connector and subject to the following vibration condition, for a period of 15 minutes in each 3 mutually perpendicular axes. Per EIA-364-28, Test condition V, Test letter A.	Contact Resistance <b>30 milliohms MAXIMUM</b> Discontinuity ≤ <b>1usec</b>
	<b>Mechanical Shock</b>	Subject mated connector to 30 G half sine in 11 msec according to EIA-364-27.	Contact Resistance <b>30 milliohms MAXIMUM</b> Discontinuity ≤ <b>1usec</b>

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	<b>Durability</b>	Mate this connector with it's mating part of 1500 cycles. Other conditions follow per EIA-364-09.	Contact Resistance <b>30</b> milliohms MAXIMUM
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## 5.3 ENVIRONMENTAL REQUIREMENTS

	DESCRIPTION	TEST CONDITION	REQUIREMENT
	<b>Steady State Humidity</b>	Mate connectors; Temperature: <b>40±2°C</b> Relative humidity: <b>90-95%</b> Duration time: <b>168</b> hours	Contact Resistance <b>30</b> milliohms MAXIMUM
	<b>Solderability</b>	Dip solder tails into the molten solder (held at <b>245 ± 5°C</b> ) up to 1.0mm from the bottom of the housing for <b>3 ± 0.5</b> seconds	Solderable area shall have minimum of <b>95%</b> solder coverage
	<b>Temperature Life (Thermal Aging)</b>	Subject mated connector to ambient temperature 125°C for 250 hours. Per Mil-STD-1344A method 1005.1 condition B	Contact Resistance <b>30</b> milliohms MAXIMUM
	<b>Thermal Shock</b>	Subject mated connector to 10 cycles of exposure at -55°C and 85°C per EIA-364-32.	Contact Resistance <b>30</b> milliohms MAXIMUM
	<b>Solder Resistance</b>	Dip connector terminal tails in solder: Solder Duration: <b>5±0.5</b> seconds Solder Temperature: <b>260±5°C</b> Solder Iron Duration: <b>4-5</b> seconds Solder Iron Temperature: <b>350±10°C</b> per MIL-STD-202F	Appearance : No damage

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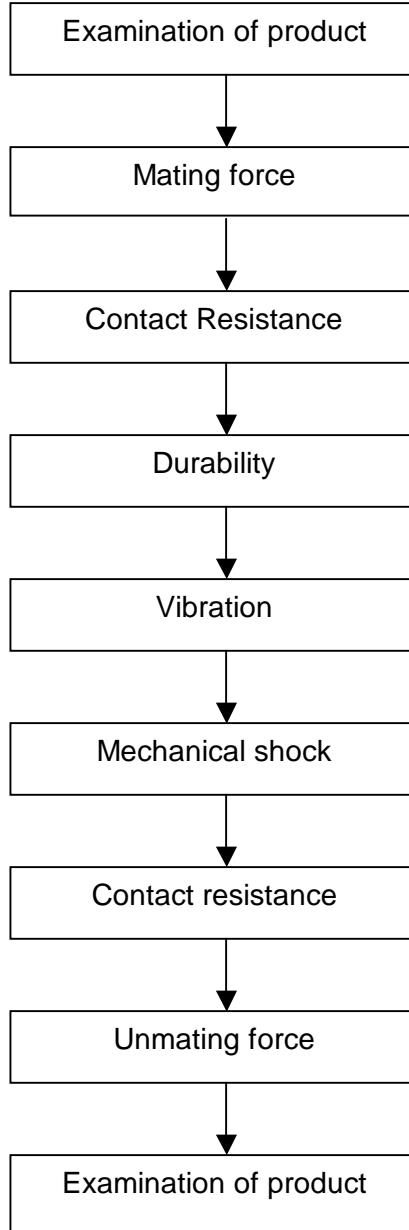
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## 5.4 TEST GROUP

### GROUP I

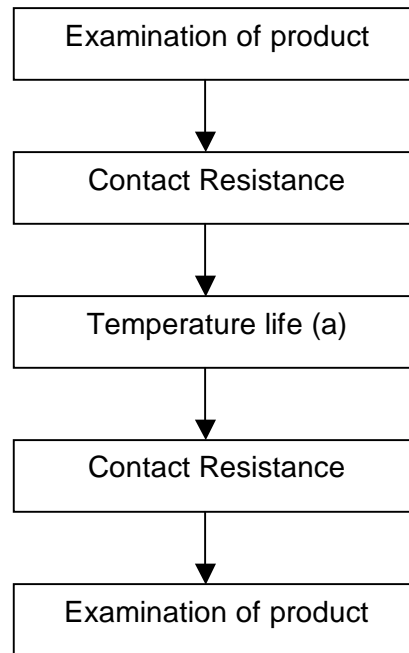


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GROUP II



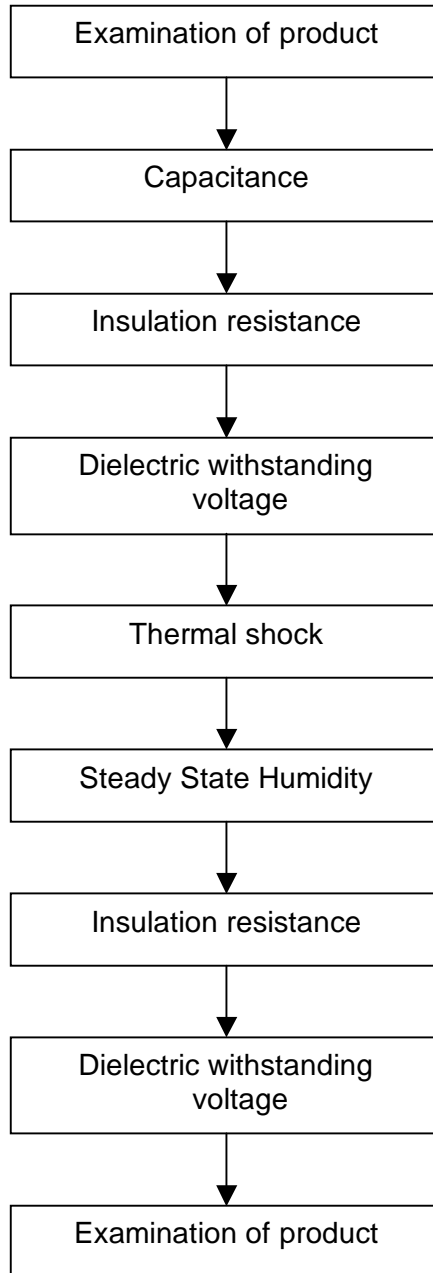
(a): pre-mating and unmating 10 cycles

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GROUP III



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## 6.0 PACKAGING

Parts shall be packaged to protect against damage during handling, transit and storage.  
See appropriate sales drawings.

## 7.0 OTHER INFORMATION

N/A

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