PRODUCT SPECIFICATION

Part Number	USB1125		**Rev**	A		**Date**	12/06/20
Product Description	USB 2.0 Receptacle, Type A, 4 Pin, Through Hole, Horizontal, Top Mount, without Flange					**Page**	1
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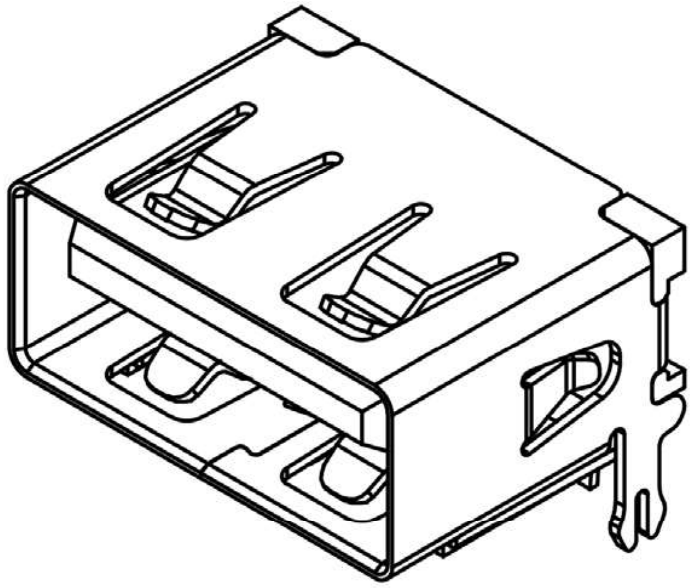

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1.0 SCOPE.

This specification covers performance, tests and quality requirements for the USB Receptacle USB1125 (Type A, 4 Pin, Through Hole, Horizontal, without Flange).

2.0 PRODUCT NAME AND PART NUMBER.

USB Receptacle, Type A, 4 Pin, Through Hole, Horizontal, USB1125

3.0 PRODUCT SHAPE, DIMENSIONS AND MATERIAL.

Please refer to drawings.

4.0 RATINGS.

4.1 Current rating …….. 3.0 A

4.2 Voltage rating …… 30 V rms max.

4.3 Operating Temperature Range …… -30°C to +85°C

5.0 TEST AND MEASUREMENT CONDITIONS.

Product is designed to meet electrical, mechanical and environmental performance requirements specified in Paragraph 6.0. All tests are performed in ambient conditions unless otherwise specified.

6.0 PERFORMANCE.

Item	Test Condition	Requirement
Examination of Product	Visual, dimensional and functional inspection as per quality plan.	Product shall meet requirements of product drawing and specification.

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6.1 Electrical Performance.

Item	Test Condition	Requirement
Low level Contact Resistance	Subject mated contacts assembled in housing to 20mV Max open circuit at 100mA Max. In accordance with EIA-364-23.	30 mΩ Max.
Insulation Resistance	Impressed voltage 500 VDC. Test between adjacent circuits of unmated connector. In accordance with EIA-364-21.	1000 MΩ Min.
Dielectric withstanding Voltage	500V AC for 1minute Test between adjacent circuits of unmated connector. In accordance with EIA-364-20.	No breakdown or flashover

6.2 Mechanical Performance.

Item	Test Condition	Requirement
Mating/Un-mating Force	Mate/Un-mated at a rate of 12.5mm/min. In accordance with EIA-364-13.	Mating force: 35N Max. Un-Mating force: 10N Min.
Durability	Operation Speed: 500 cycle/Hour Durability Cycles: 5000 Cycles In accordance with EIA-364-09.	Appearance: No Damage. Mating force: 35N Max. Un-Mating force: 10N Min. Contact Resistance: 40mΩ Max.
Vibration	Mate connectors and subject to 5.35 Gs RMS. For a period of 15 minutes in each of the 3 mutually perpendicular axes. In accordance with EIA-364-28 Test condition V test letter A.	Appearance: No Damage. Contact Resistance: 40 mΩ Max. Discontinuity: 1.0 μ second Max.
Mechanical Shock	Mate connectors and subject to the following shock conditions, 3 shocks shall be applied along 3 mutually perpendicular axis (Total of 18 shocks). Test Pulse at Half Sine Peak Value: 294 m/s² (30G) Duration: 11ms. In accordance with EIA-364-27. Test condition H.	Appearance: No Damage. Contact Resistance: 40 mΩ Max. Discontinuity: 1.0 μ second Max.
Contact Retention Force	Measure the contact retention force with Tensile strength tester.	4N Min.

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6.3 Environmental Performance and Others.

Item	Test Condition	Requirement
Thermal Shock	Mated Connector -55°C and +85°C Perform this a cycle, repeat 10 cycles. In accordance with EIA-364-32.	Appearance: No Damage. Insulation Resistance: 1000 MΩ Min. Dielectric Strength: No Breakdown.
Humidity-Temperature Cycle	Mated Connector 40°C, 90~95% RH, 168hours. In accordance with EIA-364-31.	Appearance: No Damage. Insulation Resistance: 1000 MΩ Min. Dielectric Strength: No Breakdown.
Salt Spray	Subject mated connectors to 35+/-2°C and 5+/-1% salt condition for 48hours. After test, rinse the sample with water and recondition the room temperature for 1 hour. In accordance with EIA-364-26.	No detrimental corrosion allowed in contact area and base metal exposed.
Temperature Life	Subject mated connectors to temperature life at +85ºC for 500hours. In accordance with EIA-364-17. Test condition 4 Method A.	Appearance: No Damage. Contact Resistance: 40 mΩ Max.
Temperature Rise	Mate connector and measure the temperature rise of contact when the maximum rated current is passed. In accordance with EIA-364-70.	+30°C Max. Change allowed.
Solderability	Solder pot temperature: 265±5°C, 5sec	The inspected area of each lead must have 95% solder coverage minimum.
Resistance to Solder Heat (Wave Soldering)	Heat: 260±5°C, 10+2/-0 sec. In accordance with EIA-364-56	Sample mounted on PCB and subject to wave soldering. Without deformation of case or excessive looseness of the terminals/pin (DIP only).
Resistance to Solder Heat (Hand Soldering)	Solder iron method solder temperature: 350±10°C Immersion time: 3±1 seconds, however excessive pressure shall not be applied to the terminal	Without deformation of case or excessive looseness of the terminals/pin.

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7.0 PRODUCT QUALIFICATION AND TEST SEQUENCE

Test Item	Test Group								
	A	B	C	D	E	F	G	H	I
Examination of Product	1,9	1,8	1,3	1,3	1, 5	1, 3	1,3	1, 3	1, 3
Contact Resistance	3,7				2,4				
Dielectric Withstanding Voltage		2,7							
Insulation Resistance		3,6							
Mating/ Unmating Force	2,8								
Durability	4								
Vibration	6								
Mechanical Shock	5								
Thermal Shock		4							
Humidity Temperature Cycling		5							
Contact Retention Force			2						
Salt Spray				2					
Temperature Life					3				
Temperature Rise						2			
Resistance to Wave Soldering Heat							2		
Resistance to Hand Soldering Heat								2	
Solderability									2

Notes: Numbers indicate sequence in which tests are performed. Discontinuities shall not take place in this test group, during tests.

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Revision details

Revision	Information	Page	Release Date
A	Specification Released	-	12/06/2020