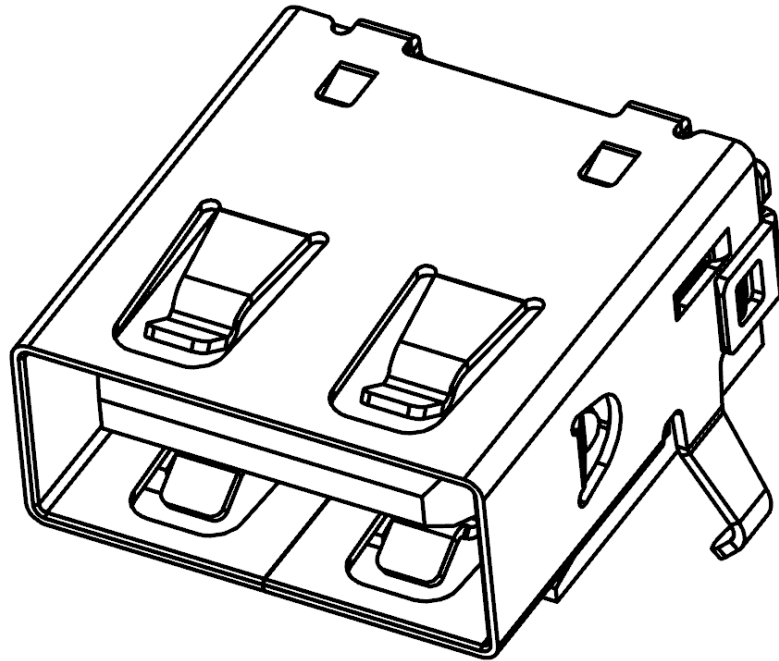


# PRODUCT SPECIFICATION

<b>Part Number</b>	USB1130	<b>Rev</b>	A1	<b>Date</b>	10/01/23		
<b>Product Description</b>	USB 2.0 Receptacle, Type A, 4 Pin, Through Hole, Horizontal, Top Mount, without Flange			<b>Page</b>	1		
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## 1.0 SCOPE.

This specification covers performance, tests and quality requirements for the USB Receptacle USB1130 (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, USB1130

## 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 ..... -40°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: 10000 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/s <sup>2</sup> (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.

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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 24hours. 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 +85°C 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. (on solder tails only) 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 (on solder tails only) 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
Examination of Product	1,9	1,8	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						
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	-	29/06/2020
A1	Operating temp. range updated	2	10/01/2023