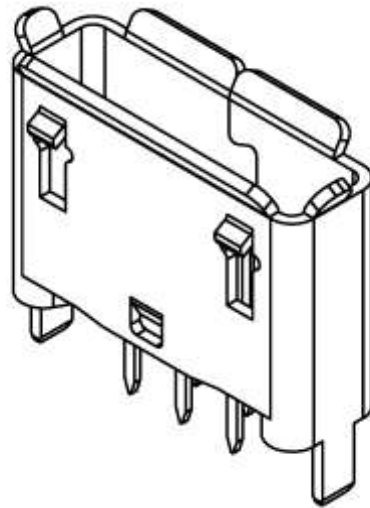


# PRODUCT SPECIFICATION

<b>Part Number</b>	USB3130	<b>Rev</b>	A	<b>Date</b>	24/10/11		
<b>Product Description</b>	Micro USB Receptacle, Type B, 5 Pin, TH, Vertical, with Through Hole Shell Stakes				<b>Page</b>	1	
<b>Doc Number</b>	USB3130	<b>Prepared</b>	<b>ASE</b>	<b>Checked</b>	<b>DR</b>	<b>Approved</b>	<b>LH</b>



# GCT

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<b>Part Number</b>	USB3130	<b>Rev</b>	A	<b>Date</b>	24/10/11		
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## 1.0 SCOPE.

This specification covers performance, tests and quality requirements for the Micro USB Receptacle USB3130 (Type B, 5-Pin, Through Hole, Vertical).

## 2.0 PRODUCT NAME AND PART NUMBER.

Micro USB Receptacle, 5 Pin, Type B: USB3130.

## 3.0 PRODUCT SHAPE, DIMENSIONS AND MATERIAL.

Please refer to drawings.

## 4.0 RATINGS.

- 4.1 Current rating: Signal (Pins 2, 3, 4).    1.0 A
- Power (Pins1, 5) .....    1.8A
- 4.2 Voltage rating .....    30 V
- 4.3 Operating Temperature Range .....    -55°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-signal 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	Mate/Un-mate connectors, apply 100V DC for 1 minute between adjacent terminal or ground. In accordance with EIA-364-21.	1000 MΩ Min.
Dielectric Withstanding Voltage	100V AC for 1minute. Test between adjacent circuits of unmated connector. In accordance with EIA-364-20.	No creeping discharge or flashover shall occur. Current leakage: 0.5 mA Max.

## 6.2 Mechanical Performance.

Item	Test Condition	Requirement
Mating Force	Operation Speed: 12.5 mm/min. Measure the force required to mate connector. In accordance with EIA-364-13.	3.57 KGf (35N) Max.
Un-mating Force	Operation Speed: 12.5mm/min. Measure the force required to unmate connector. In accordance with EIA-364-13.	Initial: 1.02 KGf(10N) Min. Final: 0.81 KGf(8N) Min.
Durability	Operation Speed: 500 cycle/Hour (automatically) or 200 cycle/Hour (manual cycle) Durability Cycles: 10,000 Cycles In accordance with EIA-364-09.	Contact Resistance: 30 mΩ. Shall meet visual requirements, show no physical damage and meet requirement of additional tests.
Vibration	Subject mated connectors to 10-55-10 Hz traversed in 1minutes at 1.52mm amplitude 2 Hours each of 3 mutually perpendicular planes. 100mA Max. Applied. In accordance with EIA-364-28D.	No electrical discontinuity greater than 1μsec shall occur. Shall meet visual requirements, show no physical damage and meet requirement of additional tests.

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Item	Test Condition	Requirement
Mechanical Shock	Accelerate Velocity: 30Gs Waveform: Half-sine shock plus Duration: 11msec Three shocks in each direction applied along three mutually perpendicular planes for a total of 18 shocks. In accordance with EIA-364-27.	No electrical discontinuity greater than 1µsec shall occur. Shall meet visual requirements, show no physical damage and meet requirement of additional tests.

## 6.3 Environmental Performance and Others.

Item	Test Condition	Requirement
Thermal Shock	Subject the mated connectors to 10 cycles between -55°C to +85°C. In accordance with EIA364-32, Test Condition I.	No evidence of mechanical or electric defects and shall meet visual requirements
Humidity	Mated Connector 40°C, 90~95% RH, 168 hours. In accordance with EIA-364-31.	Contact Resistance: 30 mΩ Max. Shall meet visual requirements, show no physical damage and meet requirement of additional tests.
Salt Spray	Subject mated connectors to 35+/-2°C and 5+/-1% salt condition for 48 hours. 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 the mated connectors to temperature environment at +85°C for 500 hours. In accordance with EIA-364-17 Test Condition III, Method A.	No evidence of mechanical or electric defects and shall meet visual requirements.
Solderability	The inspected area of each lead must have 95% solder coverage minimum.	Solder pot temperature: 265 ±5°C, 5 sec.
Resistance to Soldering Heat	1. Reflow Solder Method: Pre-soak condition, 85°C/85% RH for 168 hours. Pre Heat: 150~180°C, 90+30sec. Heat: 230°C Min., 30+10sec. Peak Temp.:260+0/-5°C,20~40sec. Duration:3 cycles 2. Solder iron method: Solder temperature: 350 +/- 10 °C Immersion time: 3 +/- 1 second.	No physical damage shall occur. (Lead-Free.)

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## 7.0 PRODUCT QUALIFICATION AND TEST SEQUENCE

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

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