

GENESIS ELECTRO-MECHANICAL LTD.

PRODUCT SPECIFICATION
GENESIS PN: 210-10134-01



SPECIFICATION FOR APPROVAL

CUSTOMER:

CUSTOMER PART NO:

PART NO: **210-10134-01**

REVISION: **PSB**

DESCRIPTION: **USB 3.2 C TYPE FEMALE R/A SMT**

	MANUFACTURE SIGNATURE	CUSTOMER SIGNATURE
APPROVED BY:	Ethan	
DATE:	2022.06.09	

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1 SCOPE

This specification covers the performance requirements of the USB 3.2 C TYPE FEMALE R/A SMT

2 APPLICATION DOCUMENT

This following documents form a part of this specification to this extent specified herein. In the event of conflict between the requirements of the specification and the product drawing, the product drawing shall take precedence. In the event of conflict between the requirements of this specification and the referenced documents, this specification shall take precedence.

- EIA-364

3 REQUIREMENTS

3.1 DESIGN AND CONSTRUCTION

Product shall be of the design, construction and physical dimensions specified on the applicable product drawing

3.2 MATERIAL

See GENESIS drawing

4. Standard Data 標準定額值

- 4.1 Rating current: 5.0A for VBUS (i.e.,pins A4,A9,B4,B9)
1.25A for Vconn and GND (i.e.,pins B5,A1,A12,B1,B12)
0.25A for all the other contacts.

額定電流: 5.0A for VBUS (即是 pins A4,A9,B4,B9)
1.25A for Vconn and GND (即是 pins B5,A1,A12,B1,B12)
0.25A 應用於其它 PIN 位.

- 4.2 Operating temperature: -55°C ~ +85°C (Humidity range 85%RH MAX.)

使用溫度範圍: -55°C ~ +85°C (相對濕度 85%RH 以下)

- 4.3 Storage temperature: -20°C ~ +85°C (Humidity range 85%RH MAX.)

保存溫度範圍: -20°C ~ +85°C (相對濕度 85%RH 以下)

5. Test condition 試驗條件

The test and measurement, unless otherwise specified, shall be carryout at a temperature of 15 to 35°C, relative humidity of 45 to 85%, and atmospheric pressure of 86 to 106kPa.

However, when any doubt arises on the judgment value under it, the test and measurement shall be carry out at a temperature of 20 ±2°C, relative humidity of 60 to 70%, and atmospheric pressure of 86 to 106kPa.

除非特別說明之外，一般試驗及測量將於溫度 15~35°C，相對濕度 45~85%，大氣壓力 86 ~ 106kPa 之條件下完成，但若於上述條件下有任何影響判定值的疑慮，可考慮在溫度 20±2°C，相對濕度 60~70%及大氣壓力 86~106kPa 之條件下完成試驗。

Appearance: By looking, there shall not be any abnormality such as deformity, exfoliation of plating, etc., which can

GENESIS ELECTRO-MECHANICAL LTD.

PRODUCT SPECIFICATION
 GENESIS PN: 210-10134-01

reduce performance. No defect such as cracks scratches or blemishes.
 外觀: 經目視觀察, 外觀不可有變形, 電鍍脫落等會降低其功能的異常現象, 也不可有破裂、刮傷或污損之缺點。

6. Electrical efficiency 電氣特性

No. 編號	Item 項目	Test method 試驗方法	Requirement 性能要求
6.1	Insulation Resistance 絕緣電阻	250V DC is applied between any open contacts. 各獨立之端子施加 250V DC 電壓	• 100MΩ Min./以上
6.2	Withstanding Voltage 耐電壓	100V AC is applied between an open contacts for 1 minute. (Interrupting current : 2mA) 對各端子施加 100V AC 之電壓持續 1 分鐘 (斷續電流 2mA)	• No breaking insulation. • 不可破壞絕緣體
6.3	Contact resistance 接觸電阻	Using a mate connector and mill-ohm meter. (Measurement current: 100mA Max.) 使用一組結合之連接器及一組毫歐姆電阻 計算 (測定電流: 100mA 以下)	• initial 40 mΩ Max. • 初始值 40 毫歐以下 • After 50 mΩ Max. • 測試完之後接觸電阻: 50 毫歐以下

7. Mechanical efficiency 機械特性

No. 編號	Item 項目	Test method 試驗方法	Requirement 性能要求
7.1	Mating force 插入力	Measure forces necessary to mate connector. 測量一組結合之連結器所需之插入力	5~20N (0.51~2.04kgf)
7.2	Unmating force 拔出力	Measure forces necessary to mate connector. 測量一組結合之連結器之拔出力	Initial 8~20N 初始值 0.81~2.04kgf After 1000cycles 6~20N 10000 次測試後 0.6~2.04kgf
7.3	Durability 耐久性	Connecting and disconnecting 10000 Cycle., Cycle Rate of 200 Cycles per hour Max. 10000 次的插拔次數後測量, 速度: 最快每小時 200 次循環.	• No damage • After Contact resistance: 50 mΩ Max. • 測試完之後接觸電阻: 50 毫歐以下

8. Environmental efficiency 環境特性

No. 編號	Item 項目	Test method 試驗方法	Requirement 性能要求
8.1	Humidity test 濕度試驗	25~65°C in temperature and 90~95%RH for 48 hours. After testing connector shall be left alone for 1 to 2 hours in a room ambient. 溫度 25~65°C, 相對濕度 90~95%, 持續 48 小時。經試驗後, 連接器須於室溫中放置 1~2 小時, 再測定其值。	• No damage • Item 6.1, 6.2, 6.3 shall be satisfied • 外觀不可破壞 • 需滿足項目 6.1, 6.2, 6.3

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PRODUCT SPECIFICATION
GENESIS PN: 210-10134-01

<p>8.2</p>	<p>Salt mist test 鹽水噴霧試驗</p>	<p>Similar to MIL-STD-1344, Method 1001.1, Condition B. Salt concentration: 5% Testing time: 1. shell: 24±2 hours 2. contact Gold-plated area: 8±2 hours Temperature: 35±2°C After salt is removed by running water and a drop is removed, it is measured. 鹽水比重：5% 試驗時間： 1. 鐵殼：24±2 小時 2. 端子鍍金區：8±2 小時 溫度：35±2°C 用清水將殘留鹽份清洗並將水滴清除後，才可測量。</p>	<ul style="list-style-type: none"> • No damage • Item 6.1, 6.2, 6.3 shall be satisfied • 外觀不可破壞 • 需滿足項目 6.1, 6.2, 6.3
<p>8.3</p>	<p>Thermal Shock 熱衝擊</p>	<p>-55°C to +85°C, 15 Minutes at each Temperature, and 10 cycles -55°C ~ +85°C, 10 個周期, 每個周期 15 分鐘</p>	<ul style="list-style-type: none"> • No breaking insulation. • 不可破壞絕緣體
<p>8.4</p>	<p>Solderability 沾錫性測試</p>	<p>Soldered at temperature 255°C±5°C For immersion duration 5S 在 255°C±5°C 的焊料持續浸 5 秒</p>	<p>Solder shall cover a minimum of 95% of the surface being immersed 焊接端需吃錫面積需達 95% 以上</p>
<p>8.5</p>	<p>Solder condition 焊錫性</p>	<div style="text-align: center;"> <p><u>TEMPERATURE CONDITION GRAPH</u> (TEMPERATURE ON BOARD PATTERN SIDE)</p> <p>temp (°C)</p> <p>Peak temp 260°C Max. 10 sec. Max.</p> <p>200 °C Min</p> <p>40 sec. Min</p> <p>230 °C Min</p> <p>Slope < 3°C / Sec</p> <p>Pre-heat Hold time for 150 ~ 180 °C is 60 ~ 120 sec.</p> </div> <p>THERE SHALL BE NO DEFECT AT CONDITION. 在此溫度範圍內將不會受到損壞。</p>	

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