

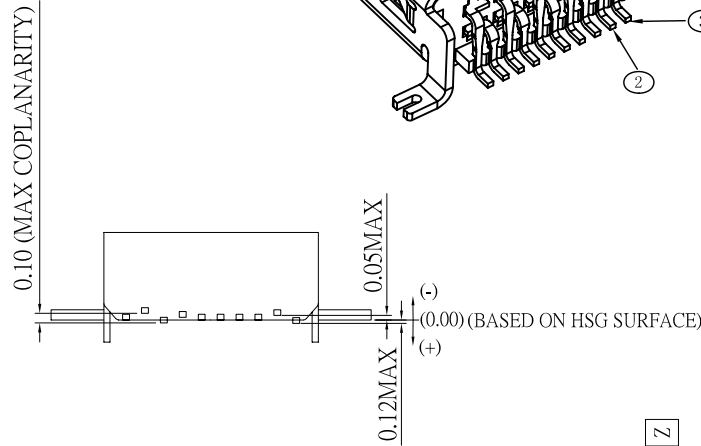
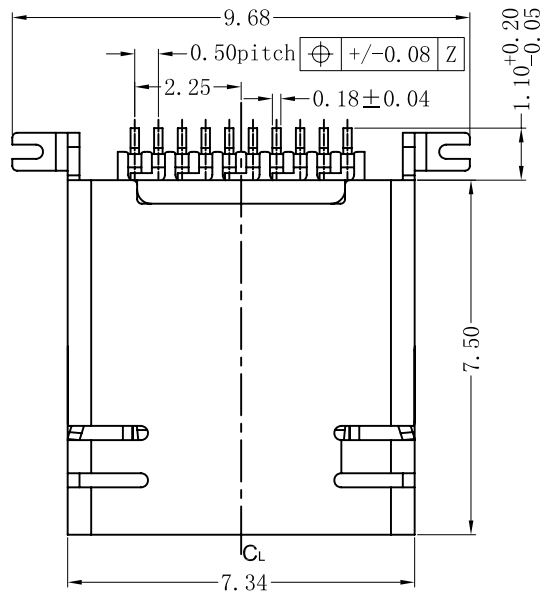
承認書

SPECIFICATION FOR APPROVAL

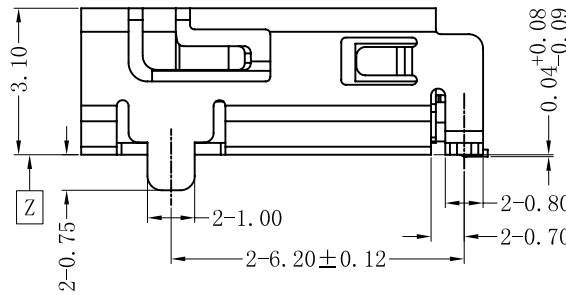
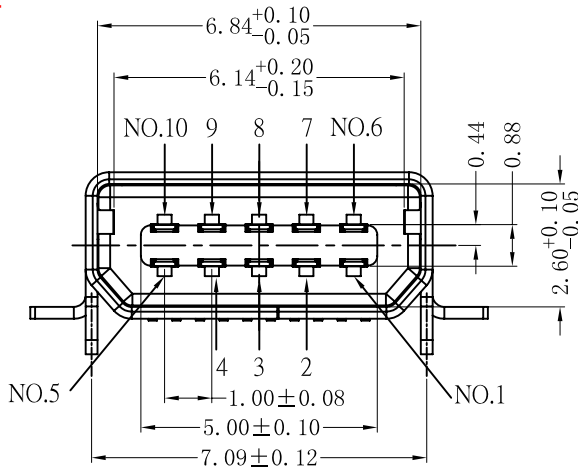
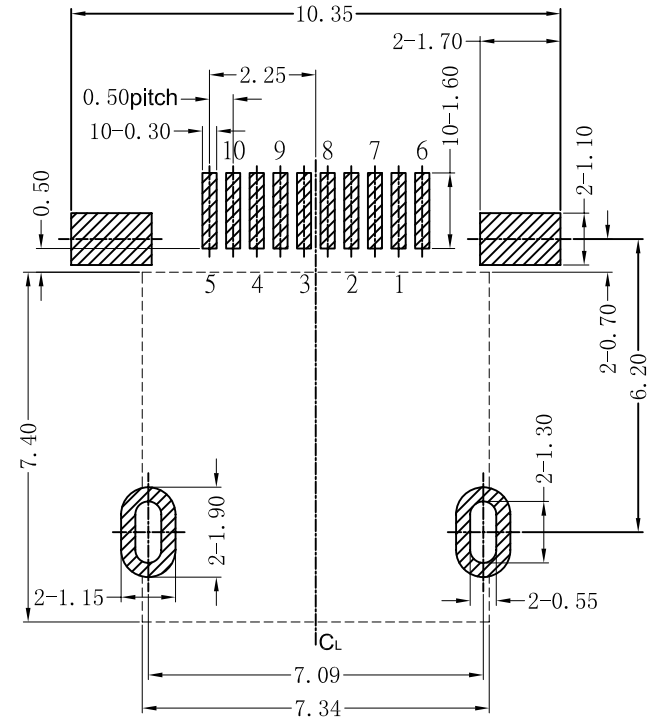
客戶名稱: (CUSTOMER)	
產品名稱: (DESCRIPTION)	
客戶料號: (CUSTOMER P/N)	
內部料號: (INTERIOR P/N)	
送樣日期: (SENDING DATE)	
承認書編號: (APPROVED NO.)	

客戶承認 (APPROVED SIGNATURES)			內部承認 (INTERIOR APPROVAL)		
核准 (APPROVAL)	工程 (ENGINEERING)	品管 (QC)	核准 (APPROVAL)	工程 (ENGINEERING)	制作 (FACTURE)
客戶承認結果:	<input type="checkbox"/> 承認	<input type="checkbox"/> 不承認	<input type="checkbox"/> 重新送樣		

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Recommended P.C.B Layout (Top Side)
 Tolerance = ±0.05



NO.	品名	数量	材 質
1	HOUSING	1	HIGH TEMPERATURE THERMOPLASTIC. (UL94-V0).BLACK
2	CONTACT 3	5	COPPER ALLOY T=0.15mm UNDER PLATED 50u" MIN. NICKEL OVER ALL, 3u" GOLD OVER ALL
3	CONTACT 4	5	COPPER ALLOY T=0.15mm UNDER PLATED 50u" MIN. NICKEL OVER ALL, 3u" GOLD OVER ALL
4	SHELL	1	COPPER ALLOY T=0.25mm UNDER PLATED 50u" MIN. NICKEL OVER ALL 80-120U" Tin OVER ALL

REV	DATE	MODIFICATION DESCRIPTION	CHANGE	APPROVE	OPERATION	DRAW	DATE	SCALE	SHEET	PART NO.	TITLE:	DRAWING NO.
A0	06/12/27	NEW			~ 10	DESIGN	06/12/27	8:1	1/1	001-01-04001	MINIUSB 10P Female SMD TYPE2(锡脚长1.1)	
					10 ~ 30	CHECK		UNIT				
					30 ~	APPROVE		mm				
					Angle			A4				
					± 2'			SIZE				
					± 0.15			SHEET				
					± 0.30			PROJ.				
					± 0.40							
					DIM							
					TOL							

1. SCOPE [適用範圍]

This specification covers the **MINI USB FeMale Connector** series.

[本規範適用於 **MINI USB 母座连接器** 系列產品。]

2. CONSTRUCTION & COMPONENTS [構造&組成零件]

Based on construction drawing. [依照工程圖]。

3. RATINGS [標準定額值]

Item [項目]	Standard [規格]	
Rated Voltage (MAX.)最大許容電壓	30V	AC
Rated Current(MAX.)最大許容電流	0.3A	
Ambient Temperature Range [使用溫度範圍]	-25°C ~ +70°C (Humidity range 70%RH MAX.)	

4. 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 25 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 25~85%，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 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，也不可有嚴重破裂、刮傷或污損之缺點。]

A0	ECN-06111701	NEW REVISION	JAMES	唐建民	2006/11/17
REV.	ECN. NO.	REVISION	APPROVED	DRAWN	DATE

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5. ELECTRICAL EFFICIENCY [電氣特性]

No. [編號]	Item [項目]	Test Condition [條件]	Requirement [規格]
5.1	Contact Resistance [接觸阻抗]	開放電壓: 50mV 以下 短絡電流: 10mA 以下 Mate dummy card, measure by dry circuit,20mV MAXIMUM,10mA MAXIMUM.	Signal Contact 50 mΩ Max(Initial)
5.2	Insulation Resistance [絕緣阻抗]	Mate connectors, apply 500V DC between adjacent terminal or ground. [結合後對獨立之端子施加 500V DC 電壓測試]	500MΩ Min.(Initial)
5.3	Withstanding Voltage [耐電壓]	Mate connectors, apply 500AC for 1 minute between adjacent terminal or ground. [對各端子施加 500AC 之電壓持續 1 分鐘]	No Breakdown. [不可故障]

6. MECHANICAL EFFICIENCY [機械特性]

No. 編號	Item 項目	Test Condition [條件]	Requirement [規格]	
6.1	Insertion/With drawal Force 插入及拔出力	Push the actually card at the speed rate of 25±3mm/minute 推進的速度為每分鐘 25±3mm	Lock force 插入力	2.4kg Max.
			Lock release force 拔出力	0.20kg Min
6.2	Terminal retention Force [端子保持力]	Apply axial pull out force on the Terminal assembled in the housing.(Speed: 25±3mm/minute) [測量將端子由塑膠本體內同軸向外拉出可承受之保持力]	3.0N(0.30kgf) Min. Only per terminal [單一端子]	
6.3	Durability [耐久性]	Mate and unmate samples for 10000 cycles at maximum rate of 600 cycles per hour. [連接器必須承受 10000 次的插拔循環；每小時最大 600 次]	Appearance [外觀]	No Damage 不可破壞
			Contact Resistance [接觸阻抗]	100mΩ Max.
6.4	Vibration [耐振動性]	Mate dummy card and subject to the following vibration conditions, for a period of 2hours in each of mutually perpendicular axes, passing DC 1mA during the test. Amplitude: 1.50mm Max Frequency: 10-55-10Hz Shall be traversed in 1minute [振幅: 1.50mm Max; 頻率: 10~55~10 Hz, 1min (一個循環), X、Y、Z、軸, 每軸 2 小時, 共 6 小時。]	Appearance [外觀]	No damage [不可損傷]
			[瞬斷] Discontinuity	1.0microsec ond MAX

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7. ENVIRONMENTAL EFFICIENCY AND OTHERS [環境及其他特性]

No. 編號	Item 項目	Test Condition [條件]	Requirement [規格]	
7.1	Humidity [耐濕性試驗]	40±2°C in temperature and 90~95%RH for 96 hours. After testing connector shall be left alone for 1 to 2 hours in a room ambient. [溫度 40±2°C，相對濕度 90~95%，持續 96 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。]	Appearance [外觀]	No damage 不可破壞
			Contact Resistance [接觸阻抗]	100 mΩ Max.
			Insulation Resistance [絕緣阻抗]	100 mΩ MIN.
7.2	Temperature Rise [耐高溫]	70°C in temperature 96hours. After testing connector shall be left alone for 3 hours in a room ambient. [溫度 70°C，持續 96 小時。經試驗後，連接器須於室溫中放置 3 小時，再測定其值。]	Appearance [外觀]	No damage [不可損傷]
			Contact Resistance [接觸阻抗]	100 mΩ Max..
			Insulation Resistance [絕緣阻抗]	100 mΩ MIN.
7.3	Temperature Low [耐低溫]	-25°C in temperature 96hours. After testing connector shall be left alone for 3 hours in a room ambient. [溫度 -25°C，持續 96 小時。經試驗後，連接器須於室溫中放置 3 小時，再測定其值。]	Appearance [外觀]	No damage [不可損傷]
			Contact Resistance [接觸阻抗]	100 mΩ Max..
			Insulation Resistance [絕緣阻抗]	100 mΩ MIN.
7.4	Salt spray [鹽水噴霧]	Salt concentration: 5±1% / Temperature: 35±2°C Testing time: 24±4hours, After salt is removed by running water and a drop is removed, it is measured. [鹽水比重： 5±1%/ 溫度： 35±2°C] [試驗時間： 24±4 小時，用清水將殘留鹽份清洗並將水滴清除後，才可測量。]	Appearance [外觀]	No damage [不可破壞]
			Contact Resistance [接觸阻抗]	100 mΩ Max.
7.5	Solderability [銲錫性]	Soldering time: 5~10 second (Use flux) Solder Temperature: 235±5°C [銲錫時間： 4-5 秒 (使用助溶劑)] [銲錫溫度： 235±5°C]	95% min. of solder area [銲錫面積的 95%]	

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7.6	Resistance to Soldering heat	The connector shall be tested resistance. To soldering heat in the following conditions. (Refer fig. 2)	Appearance [外觀]	No damage [不可破壞]
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Temperature profile of Infrared Reflow Soldering

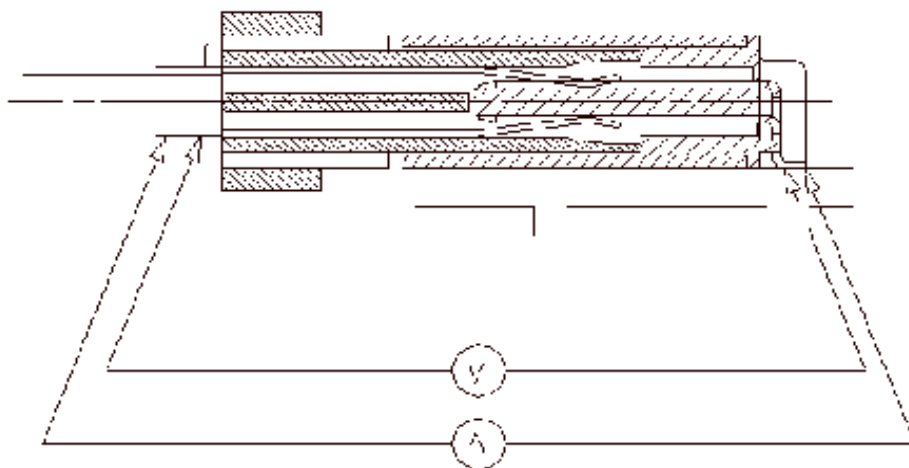
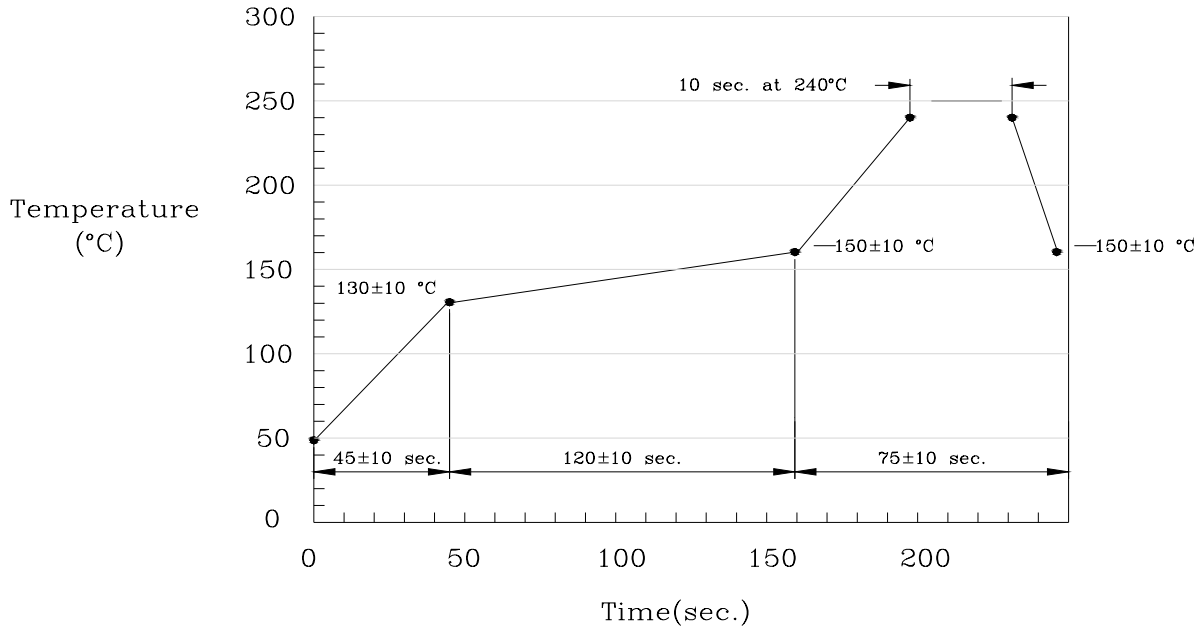


Fig.2 Termination Resistance Measuring points

8. Qualification Test Procedure:

NO.	Test Item	Test Sequence(10PCS/Group)									
		A	B	C	D	E	F	G	H	I	J
4	Visual Examination	1	1	1	1	1	1	1	1	1	1
		3	5	3	4	4	7		5	7	7
5.1	Contact Resistance (Low level)		2								
			4		3		2	2	2	2	2
5.2	Insulation Resistance										
							3			3	3
5.3	Dielectric Withstanding Voltage										
		2									
6.1	Mating Force & Unmating Force										
				2							
6.2	Terminal retention Force										
						2					
6.3	Durability (Male /Female)										
			3								
6.4	Vibration										
					2						
7.1	Humidity Resistance										
							4				
7.2	Temperature Life (Heat)										
										4	
7.3	Temperature Life (Cold)										
											4
7.4	Salt Spray										
								3			
7.5	Solderability										
						3					
7.6	Resistance to Soldering heat										
									3		

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