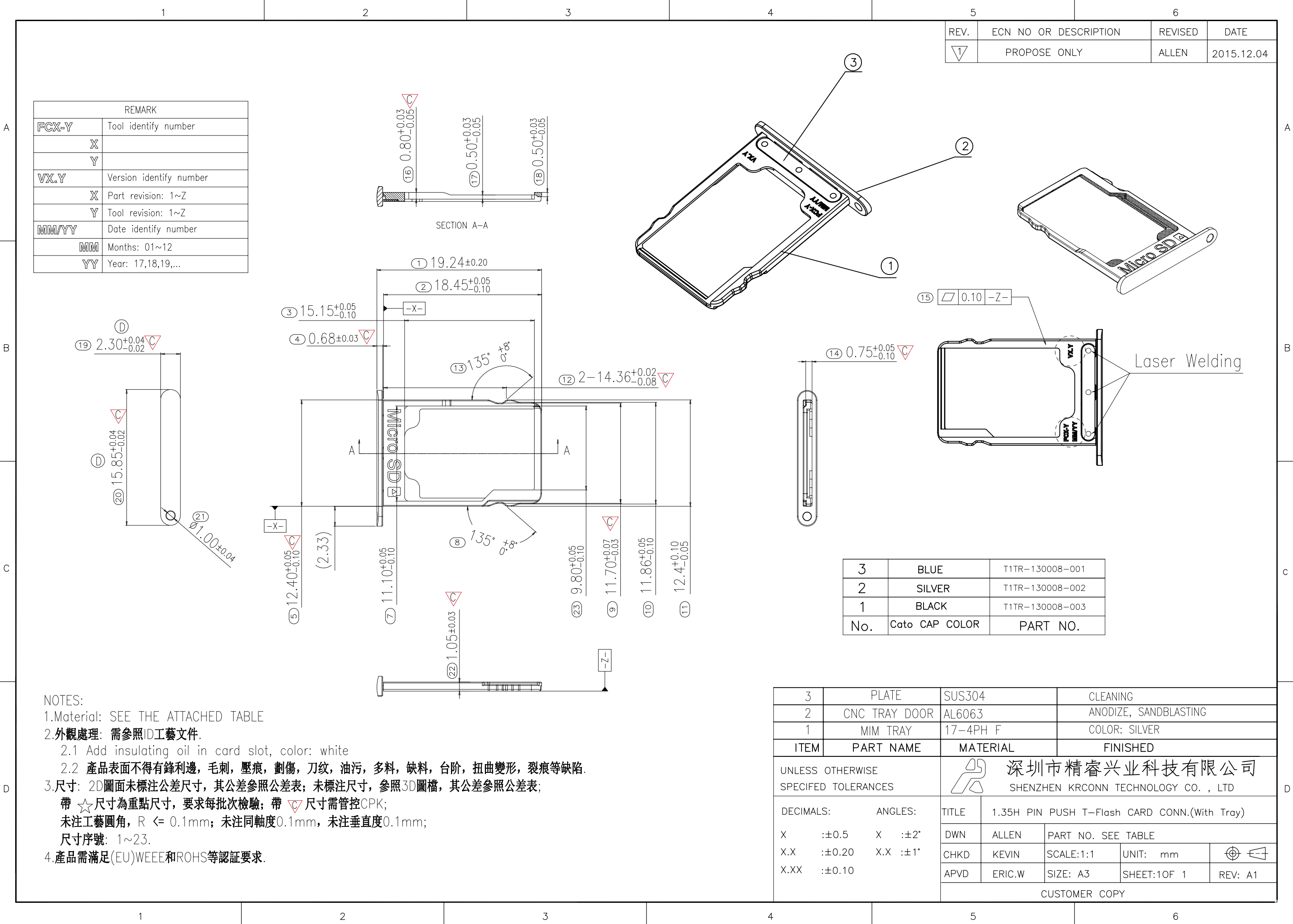
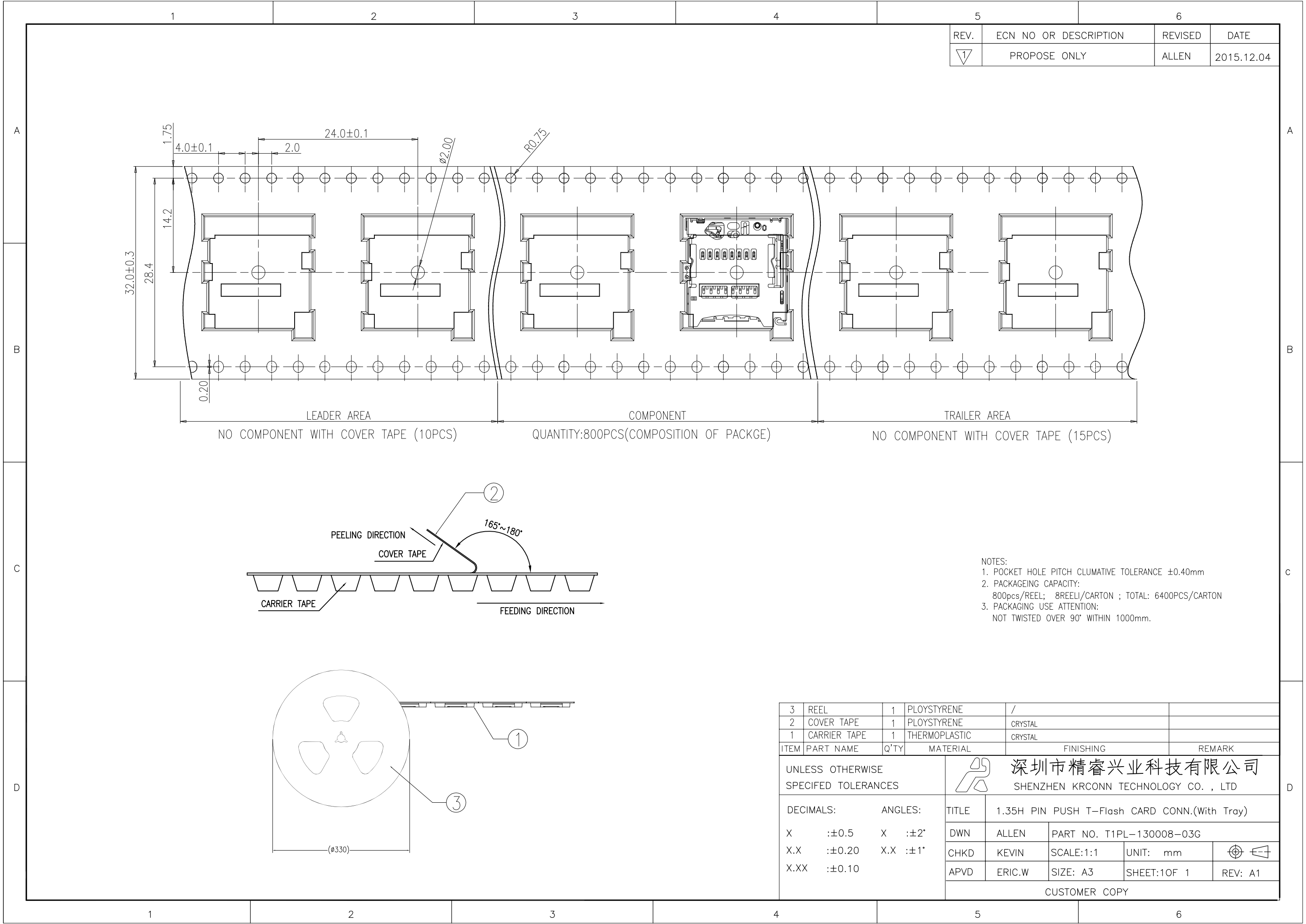






REV.	ECN NO OR DESCRIPTION	REVISED	DATE
1	PROPOSE ONLY	ALLEN	2015.12.04

NOTES:
1. POCKET HOLE PITCH CLUMATIVE TOLERANCE $\pm 0.40\text{mm}$
2. PACKAGEING CAPACITY:
800pcs/REEL; 8REEL/CARTON ; TOTAL: 6400PCS/CARTON
3. PACKAGING USE ATTENTION:
NOT TWISTED OVER 90° WITHIN 1000mm.

3	REEL	1	PLOYSTYRENE	/	
2	COVER TAPE	1	PLOYSTYRENE	CRYSTAL	
1	CARRIER TAPE	1	THERMOPLASTIC	CRYSTAL	
ITEM	PART NAME	Q'TY	MATERIAL	FINISHING	REMARK
UNLESS OTHERWISE SPECIFIED TOLERANCES				深圳市精睿兴业科技有限公司 SHENZHEN KRCONN TECHNOLOGY CO. , LTD	
DECIMALS:		ANGLES:		TITLE	1.35H PIN PUSH T-Flash CARD CONN.(With Tray)
X	: ± 0.5	X	: $\pm 2^\circ$	DWN	ALLEN PART NO. T1PL-130008-03G
X.X	: ± 0.20	X.X	: $\pm 1^\circ$	CHKD	KEVIN SCALE:1:1 UNIT: mm
X.XX	: ± 0.10			APVD	ERIC.W SIZE: A3 SHEET:1OF 1 REV: A1
CUSTOMER COPY					

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	APPROVED	CHECKED	PREPARED	ISSUED BY:
BY	Seven	Y.Nakase	Feiping Long	
DATE	08/05'15	08/05'15	08/05'15	

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1. SCOPE

1.1 Content

This product specification defines the product performance of the Micro SD CARD CONNECTOR for T1PL-130008-03G, which is designed and manufactured by KRCONN international Inc.

1.2 Qualification

Tests are to be performed per the procedures stated in this specification. All inspections shall be conducted using the inspection plan for this product and the product drawing T1PL-130008-03G.

2. Document

MIL-STD-1344A	Test methods for electrical connector
MIL-STD-202F	Test methods for electrical components
EIA364	Test methods for electrical components

3. Requirement

3.1 Design

The product shall be as specified by the product drawing.

3.2 Materials

Material used in the construction of this product shall be as specified on the applicable product drawing T1PL-130008-03G

- 3.2.1 Contact: Copper Alloy
- 3.2.2 Housing: Thermoplastic, Black
- 3.2.3 Shell: SUS
- 3.2.4 Lever: SUS
- 3.2.5 Cam: SUS
- 3.2.6 Switch: Copper Alloy

Harmful material control please follows the DOC.“EPI12”.

3.3 Marking

Laser/Print of manufacturer's name, industry recognized logo, or customer approved marks.

3.4 Test Description

Unless otherwise specified, the test and measurement shall be performed at ambient environment conditions.

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3.5 Operating & Storage Temperature

Parameter	Requirement	Unit	Additional Info
Operating Temperature Range	-30... +85	° C	
Storage Temperature Range	-40... +85	° C	
Storage Humidity Range	+10... +80	%RH	

4. Performance Requirement

4.1 Visual Examination

Items	Requirements	Test Methods
4.1.1 Visual Examination	Visual inspection samples shall be free from defects such as damage, deformation, blister and burrs that are detrimental to the function and appearance	Visually, functionally inspected per applicable product drawing

4.2 Electrical Characteristics

Items	Requirements	Test Methods
4.2.1 Low Level Contact Resistance (Contact & Switch)	Contact resistance: 50mΩ max. 100mΩ after test. Switch resistance: 100mΩ max. 150mΩ after test.	Comply with IEC 60512-2-1 , Apply a closed-circuit current of 100 mA maximum at an open-circuit voltage of 20mV maximum on contact point and solder pad of PCB.
4.2.2 Insulation Resistance	1000 MΩ minimum.	Comply with IEC 60512-3-1, Apply 500 VDC ±10VDC on the adjacent contacts for 1 minute ± 5 seconds.
4.2.3 Dielectric Withstanding Voltage	No shorting, breakdown, flashover or other damage.	Comply with IEC 60512-3-1. Apply 500 VAC for 1 minute at sea level on unmated connectors, less than 1 mA leakage current.

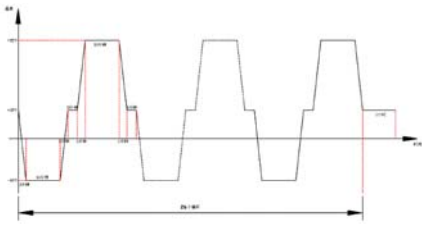
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4.3 Mechanical Characteristics

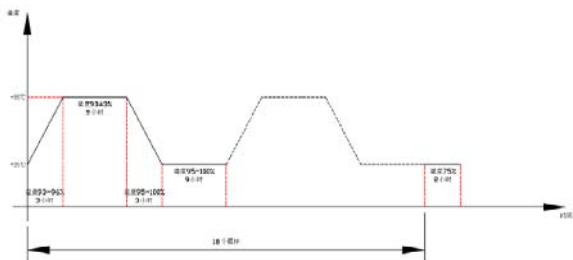
Items	Requirements	Test Methods
4.3.1 Tray Insertion Force	1.0~15.0N (Without Card) (25mm/minute)	Applicable 0.80 & 0.6 TF CARD. Push the tray
4.3.2 Tray Extraction Force	3.0~15.0N. (Without Card) (25mm/minute). 2.0N min after Durability.	MIL-STD-1344, Method 2013.1 Only tray without Card test
4.3.3 Operating Force	Ejecting force :3.0~15.0N. (With Card) (25mm/minute)	Applicable 0.80 & 0.6 micro SD. Push the lever about 1.3mm with Thimble..
4.3.4 Contact Normal Force	Initial: 25gf Min./per Pin After test: 20gf Min./per Pin	0.70mm Gap to Shell up surface deference Speed of 10±3 mm/minute
4.3.5 Bounce	Without mechanical damage and electrical discontinuity greater then 1 μ sec (s) shall occur. The electrical performances should meet the spec. specified.	Mate dummy card applying each terminal shall be connected in series and then 5V DC shall be applied. High:0.1m. Two cycle each of 6 direction.
4.3.6 Reverse insertion	Reverse force :16N min	Applicable tray without card reverse insertion
4.3.7 Durability (Mating / Unmating)	No evidence of damage The electrical & Mechanical performances should meet the spec. specified.	1.Mating and unmating connector for 3000 cycle; 2.Applicable micro SD (T=0.80mm) for test. 3.Check point: every 100 cycles 4.Cycle Rate: 500 cycles/Hr
4.3.8 Breaking strength	No evidence of damage The electrical & Mechanical performances should meet the spec. specified.	1. Six directions test 2. Test force :20N 3. test time: 10s

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4.4 Environment Characteristics

Items	Requirements	Test Methods
4.4.1 Vibration	micro SD contact & switch contact without mechanical damage and electrical discontinuity greater than 1 μ sec (s) shall occur. The electrical performances should meet the spec. specified.	EC 60068-2-64 ; Mate dummy card applying each terminal shall be connected in series and then 0.1A DC shall be applied. Amplitude: 1.5 mm Random Vibration: Frequency :10~100Hz 3m2/s3 100~500Hz , -3dB/Oct For 1 hours each of 3 mutually Sinusoidal Vibration : Frequency: 10-55 Hz and 55-10Hz, Traversed in 1 minute For 2 hours each of 3 mutually
4.4.2 High Temperature Resistance	No evidence of damage The electrical performances should meet the spec. specified.	Mate dummy card and exposed to $85 \pm 3 ^\circ \text{C}$ for 96 hours. It shall be maintained at standard atmospheric condition for 30 min after measurement shall be made.
4.4.3 Low Temperature Resistance	No evidence of damage The electrical performances should meet the spec. specified.	Mate dummy card and exposed to $-40 \pm 3 ^\circ \text{C}$ for 96 hours. It shall be maintained at standard atmospheric condition for 30 min after measurement shall be made.
4.4.4 Thermal Shock	No evidence of damage The electrical performances should meet the spec. specified.  The diagram shows a temperature profile over time. It starts at -40°C, ramps up to +85°C, holds for 30 minutes, ramps down to -40°C, holds for 30 minutes, and repeats this cycle. The total duration is 180 minutes.	Subject mated connector to 26 cycles between $-40 \pm 3 ^\circ \text{C}$ / 30 minutes and $+85 \pm 3 ^\circ \text{C}$ / 30 minutes, as follow fig: It shall be maintained at standard atmospheric condition for 60 min after measurement shall be made.
4.4.5 Mechanical Shock	No electrical discontinuity greater than 1 μ sec. shall occur. The electrical performances should meet the spec. specified.	IEC 60068-2-27 Pulse shape: half-sine Duration:11ms Acceleration:50G Ambient temperature RH three successive mechanical shocks should be in both opposing direction in each of the three mutually perpendicular axes. The total number of shocks is 18 cycles

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Items	Requirements	Test Methods
4.4.7 Heat test operational	No evidence of damage The electrical performances should meet the spec. specified.	IEC 60068-2-2 , 1.Humidity: 95%~100%RH 2.Duration time: 108 hours.
4.4.8 Solder Ability	Minimum solder wetting: 95% of immersion area.	EIA-364-52 Solder temp. $230 \pm 5^{\circ}\text{C}$ Immersion time: 5 ± 0.5 sec.
4.4.9 Humidity-Temperature Cycling	No evidence of damage The electrical performances should meet the spec. specified.	Mate dummy card and subject to 10 cycles of humidity-temperature changes between $25^{\circ}\text{C} \sim 65^{\circ}\text{C}$; 90%~95% RH; 10 Cycles; No damage to parts 
4.4.10 Salt Spray	No evidence of damage The electrical performances should meet the spec specified.	Temperature: $35 \pm 2^{\circ}\text{C}$ NaCl: 5% Duration: 48H
4.4.11 Resistance to Soldering Heat	No evidence of damage The electrical performances should meet the spec. specified.	EIA-364-56 Temp. $217 \pm 5^{\circ}\text{C}$. Max time for 60 ± 0.5 sec. Peak temp. $260 +0/-5^{\circ}\text{C}$. Max time for 30 sec. (Refer to figure 1.)

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過爐回流曲線要求

Figure 1 illustrates the thermal profile of a solder reflow process. The main graph shows Temperature (°C) on the Y-axis versus Time (s) on the X-axis. The profile starts at 25°C, ramps up to a peak temperature T_p , and then ramps down. Key parameters include: T_p (Peak Temperature), T_L (Liquidus Temperature), T_{smax} (Solidus Maximum Temperature), T_{smin} (Solidus Minimum Temperature), t_s (Soak Time), t_L (Liquidus Time), and t_p (Peak Time). The area between T_{smax} and T_{smin} is labeled 'Preheat Area'. Two inset graphs show the temperature profile at the Supplier ($T_p \geq T_c$) and User ($T_p \leq T_c$) locations, with T_c being the critical temperature. The temperature difference between T_c and T_p is 5°C.

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5 Test Sequence

Table II: Products qualification test sequence										
Test Description	Test Group and Sequence									
	1	2	3	4	5	6	7	8	9	10
1. Visual inspection	1,16	1,3	1,10	1,10	1,9	1,9	1,9	1,9	1,3	1,3
2. Low level contact resistance	2,10		2,7	2,7	2,6	2,6	2,6	2,6		
3. Insulation Resistance	3,11		3,8	3,9	3,7	3,7	3,7	3,7		
4. Dielectric Withstanding Voltage	4,12		4,9	4,9	4,8	4,8	4,8	4,8		
5. Tray Insertion Force	5,13									
6. Tray Extraction Force	6,14									
7. Operating Force	7,15									
8. Contact Normal Force	8									
9. Bounce			5	5						
10. Durability	9									
11. Reverse insertion		2								
12. Vibration			6							
13. High Temperature Resistance					5					
14. Low Temperature Resistance						5				
15. Thermal Shock							5			
16. Mechanical Shock				6						
17. Humidity-Temperature Cycling								5		
18. Salt Spray									2	
19. Resistance to Soldering Heat										2
Sample Size	5	5	5	5	5	5	5	5	5	5

检测报告

(Test Report)

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日期: 2018 年 7 月 3 日
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申请单号(Application Number): 00026247

申请单位(Applicant): ABS RD

地址(Address):

以下测试之样品及样品信息由申请者提供并确认(The following sample(s) was/were submitted and identified on behalf of the client as):

样品名称(Sample Name): B1210

样品型号/料号(Style/Part No.): T1PL-130008-03G

样品描述(Sample Description): 见附图(Please refer to Attached Image)

批号(Lot No.): /

厂商名称(Vender Name): /

样品数量(Sample Quantity): 50 个

收件日期(Sample Receiving Date): 2018 年 05 月 24 日

检测日期(Test Period): 2018 年 05 月 25 日 ~ 2018 年 07 月 03 日

检测项目(Test Items): Q-Test

检测要求(Test Requested): 根据客户要求测试(As specified by client)

检测方法(Test Method): 请参见下一页(Please refer to next page)

检测结果(Test Results): 请参见下一页(Please refer to next page)

结论(Conclusion): 合格(Pass)

检测:

(Operator)

陆培培

审核:

(Checked by)

李凡

批准:

(Approved by)

缪春燕

(实验室报告签署人: 缪春燕博士)

检 测 报 告
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检测结果(Test Results)

环境条件(Test Environment Conditions):温度(Temperature): 21.2~26.9℃
湿度(Humidity): 58~75%RH

检测仪器(Test Equipment):

序号	测试项目	检测仪器	仪器编号
1	Low Level Contact Resistance	数字万用表	BKJC-W-38
2	Insulation Resistance	高阻计测试仪	BKJC-W-37
3	Dielectric Withstanding Voltage	耐电压测试仪	BKJC-W-36
4	Mating Force	力量分析仪	BKJC-W-56
5	Unmating Force	力量分析仪	BKJC-W-56
6	Normal Force	力量分析仪	BKJC-W-56
7	Operating Force	力量分析仪	BKJC-W-56
8	Durability	力量分析仪	BKJC-W-101
9	Reverse insertion	力量分析仪	BKJC-W-56
10	High Temperature Resistance	精密烘箱	BKJC-W-32
11	Low Temperature Resistance	恒温恒湿箱	BKJC-W-03
12	Thermal Shock	冷热冲击箱	BKJC-W-27
13	Humidity-Temperature Cycling	恒温恒湿箱	BKJC-W-06
14	*Vibration	振动试验机	*
15	*Mechanical Shock (Half-Sine with electrical discontinuity)	机械冲击试验机	*
16	Salt Spray	盐雾试验机	BKJC-W-83
17	Reaiatance to Soldering Heat	IR 炉	---
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Group 1

Item	Test Description	Procedure method /Failure Criteria	Test Result			P/F
1	Visual Inspection	The test samples shall be free from defects such as damage, creep, deformation, blister and burrs that are detrimental to functions and appearances of test samples.	Passed the specified requirement.			Pass
2	Low Level Contact Resistance	Contact: 50mΩ Max. Switch: 100mΩ Max.	Contact			Pass
			Min	Max	AVG	
			11.38	20.41	14.91	
			Switch			
			Min	Max	AVG	
			19.66	25.12	22.57	
			Unit: mΩ.			
3	Insulation Resistance	A500VDC is applied for 1minute. Minimum insulation resistance requirement is 1000megaohms for test samples.	Min	Max	AVG	Pass
			1758	94860	36007	
			Unit: MΩ.			
4	Dielectric Withstanding Voltage	A500VAC was applied between two adjacent contacts of the test samples for 1minute. While applying the voltage, the leakage current was monitored and shall be the less than 1mA. There shall be no evidence of arcing or breakdown during the test.	Passed the specified requirement.			Pass
5	Mating Force	1~15N.	Min	Max	AVG	Pass
			3.7	4.4	4.0	
			Unit: N.			
6	Unmating Force	3~15N.	Min	Max	AVG	Pass
			3.4	4.6	4.0	
			Unit: N.			
7	Operating Force	3~15N.	Min	Max	AVG	Pass
			5.1	6.2	5.6	
			Unit: N.			

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8	Normal Force	25gf Min./per Pin. 0.70mm Gap to Shell up surface deference Speed of 10±3 mm/minute.	Min	Max	AVG	Pass
			32	53	43	
			Unit: N.			
9	Durability	Upon completion 2000cycles of durability test. There shall be no physical damage to the samples and the samples shall pass the requirements of following test item(s).	See next items.			---
10	Low Level Contact Resistance	Contact: 100mΩ Max. Switch: 150mΩ Max.	Contact			Pass
			Min	Max	AVG	
			14.65	19.57	17.06	
			Switch			
			Min	Max	AVG	
			23.55	25.29	24.51	
			Unit: mΩ.			
11	Insulation Resistance	A500VDC is applied for 1minute. Minimum insulation resistance requirement is 1000megaohms for test samples.	Min	Max	AVG	Pass
			5153	64340	30412	
			Unit: MΩ.			
12	Dielectric Withstanding Voltage	A500VAC was applied between two adjacent contacts of the test samples for 1minute. While applying the voltage, the leakage current was monitored and shall be the less than 1mA. There shall be no evidence of arcing or breakdown during the test.	Passed the specified requirement.			Pass
13	Mating Force	1~15N.	Min	Max	AVG	Pass
			5.1	6.2	5.6	
			Unit: N.			
14	Unmating Force	3~15N.	Min	Max	AVG	Pass
			4.7	7.1	5.5	
			Unit: N.			
15	Operating Force	3~15N.	Min	Max	AVG	Pass
			11.1	14.6	12.3	
			Unit: N.			

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16	Visual Inspection	The test samples shall be free from defects such as damage, creep, deformation, blister and burrs that are detrimental to functions and appearances of test samples.	Passed the specified requirement.	Pass
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Group 2

Item	Test Description	Procedure method /Failure Criteria	Test Result			P/F
1	Visual Inspection	The test samples shall be free from defects such as damage, creep, deformation, blister and burrs that are detrimental to functions and appearances of test samples.	Passed the specified requirement.			Pass
2	Reverse Insertion	16N Min.	Min	Max	AVG	Pass
			16.9	23.8	20.3	
			Unit: N.			
3	Dielectric Withstanding Voltage	A500VAC is applied for 1 minute. There shall be no evidence of arcing or breakdown during the test.	Passed the specified requirement.			Pass

Group 3*

Item	Test Description	Procedure method /Failure Criteria	Test Result			P/F
1	Visual Inspection	The test samples shall be free from defects such as damage, creep, deformation, blister and burrs that are detrimental to functions and appearances of test samples.	Passed the specified requirement.			Pass
2	Low Level Contact Resistance	Contact: 50mΩ Max. Switch: 100mΩ Max.	Contact			Pass
			Min	Max	AVG	
			27.23	39.12	33.07	
			Switch			
			Min	Max	AVG	
			25.55	26.99	26.54	
			Unit: mΩ.			

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3	Insulation Resistance	A500VDC is applied for 1 minute. Minimum insulation resistance requirement is 1000megaohms for test samples.	Min	Max	AVG	Pass
			572000	2360000	1370000	
			Unit: MΩ.			
4	Dielectric Withstanding Voltage	A500VAC was applied between two adjacent contacts of the test samples for 1 minute. While applying the voltage, the leakage current was monitored and shall be the less than 1mA. There shall be no evidence of arcing or breakdown during the test.	Passed the specified requirement.			Pass
5	Bounce Time	Mate dummy card applying each terminal shall be connected in series and then 5V DC shall be applied. High: 0.1m. Two cycle each of 6direction. Without mechanical damage and electrical discontinuity greater then 1 μ sec (s) shall occur. The electrical performances should meet the spec. specified.	There are no loosened parts or electrical discontinuity greater than 1 μ sec (s) during the test.			Pass
6	Random Vibration with electrical discontinuity	Throughout the Random vibration test: 1. Frequency: 10-100Hz, 3m ² /s ³ ; 100-500Hz, -3dB/Oct. 2. Test duration for 1hour in each of three mutually perpendicular directions (total of 3hours).	There are no loosened parts or electrical discontinuity greater than 1 μ sec (s) during the test.			Pass
7	Sine-Sweep Vibration with electrical discontinuity	Throughout the Sine-Sweep vibration test: 1. Frequency: 10-55Hz and 55-10Hz, Traversed in 1minute. 2. Amplitude: 1.5mm. 3. Test duration for 2hours in each of three mutually perpendicular directions (total of 6hours).	There are no loosened parts or electrical discontinuity greater than 1 μ sec (s) during the test.			Pass
8	Low Level Contact Resistance	Contact: 100mΩ Max. Switch: 150mΩ Max.	Contact			Pass
			Min	Max	AVG	
			27.28	39.95	33.46	
			Switch			
			Min	Max	AVG	
			24.49	25.65	25.20	
			Unit: mΩ.			

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9	Insulation Resistance	A500VDC is applied for 1minute. Minimum insulation resistance requirement is 1000megaohms for test samples.	Min	Max	AVG	Pass
			13100	25600000	4630000	
			Unit: MΩ.			
10	Dielectric Withstanding Voltage	A500VAC was applied between two adjacent contacts of the test samples for 1minute. While applying the voltage, the leakage current was monitored and shall be the less than 1mA. There shall be no evidence of arcing or breakdown during the test.	Passed the specified requirement.			Pass
11	Visual Inspection	The test samples shall be free from defects such as damage, creep, deformation, blister and burrs that are detrimental to functions and appearances of test samples.	Passed the specified requirement.			Pass

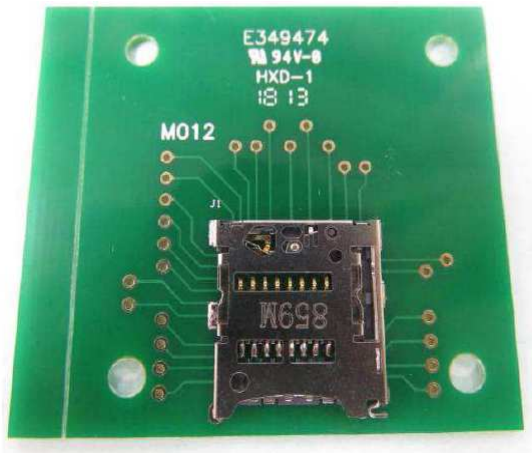


Fig.1 Test Sample

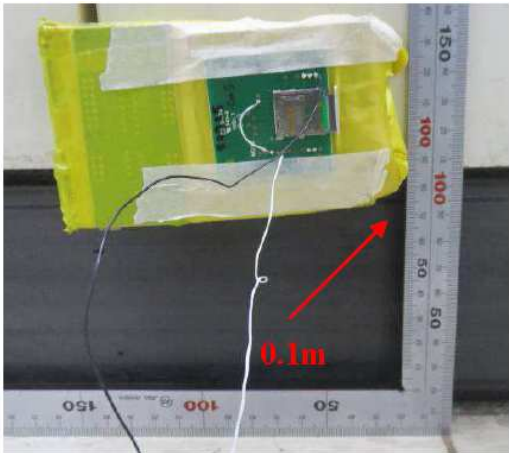


Fig.2 Set up of Bounce Time Test

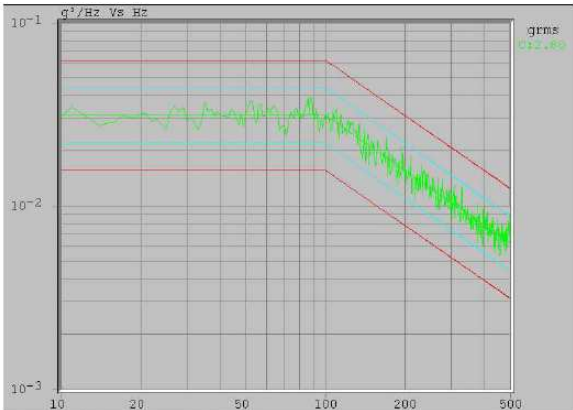


Fig.3 Test condition of Random Vibration

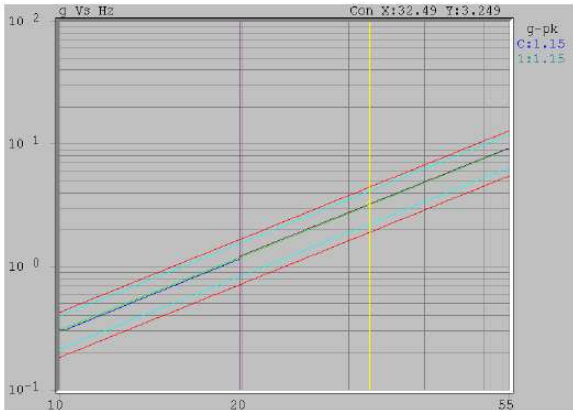


Fig.4 Test condition of Sine-Sweep Vibration

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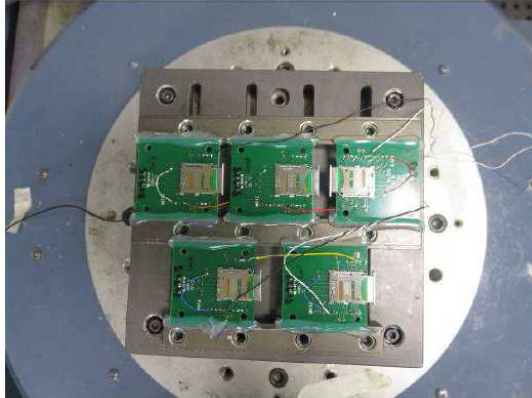


Fig. 5 Set up of Vibration (Z axis)



Fig. 6 Set up of Vibration (X axis)

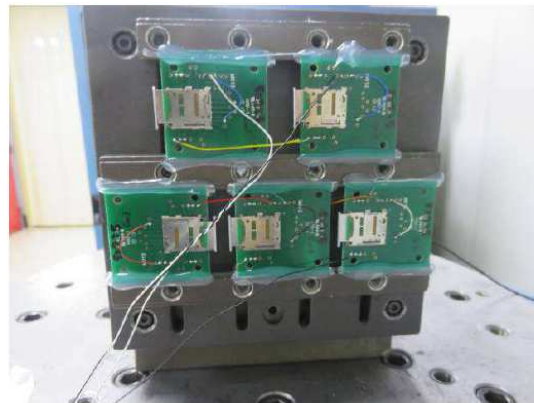


Fig. 7 Set up of Vibration (Y axis)

Group 4*

Item	Test Description	Procedure method /Failure Criteria	Test Result			P/F
1	Visual Inspection	The test samples shall be free from defects such as damage, creep, deformation, blister and burrs that are detrimental to functions and appearances of test samples.	Passed the specified requirement.			Pass
2	Low Level Contact Resistance	Contact: 50mΩ Max. Switch: 100mΩ Max.	Contact			Pass
			Min	Max	AVG	
			27.12	41.51	32.31	
			Switch			
			Min	Max	AVG	
			25.16	27.96	26.34	
			Unit: mΩ.			

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3	Insulation Resistance	A500VDC is applied for 1minute. Minimum insulation resistance requirement is 1000megaohms for test samples.	Min	Max	AVG	Pass
			498000	4090000	1020000	
			Unit: MΩ.			
4	Dielectric Withstanding Voltage	A500VAC was applied between two adjacent contacts of the test samples for 1minute. While applying the voltage, the leakage current was monitored and shall be the less than 1mA. There shall be no evidence of arcing or breakdown during the test.	Passed the specified requirement.			Pass
5	Bounce Time	Mate dummy card applying each terminal shall be connected in series and then 5V DC shall be applied. High: 0.1m. Two cycle each of 6direction. Without mechanical damage and electrical discontinuity greater then 1 μ sec (s) shall occur. The electrical performances should meet the spec. specified.	There are no loosened parts or electrical discontinuity greater than 1 μ sec (s) during the test.			Pass
6	Mechanical Shock (Half-Sine with electrical discontinuity)	No electrical discontinuities of 1microsecond or longer duration when mated samples are subjected to 11ms duration 50Gs peak level half-sine shock pulse. Three shocks in each direction applied along three mutually perpendicular planes for 18shocks.	No loosened parts or electrical discontinuity.			Pass
7	Low Level Contact Resistance	Contact: 100mΩ Max. Switch: 150mΩ Max.	Contact			Pass
			Min	Max	AVG	
			27.54	38.32	32.11	
			Switch			
			Min	Max	AVG	
			24.34	27.05	25.60	
			Unit: mΩ.			
8	Insulation Resistance	A500VDC is applied for 1minute. Minimum insulation resistance requirement is 1000megaohms for test samples.	Min	Max	AVG	Pass
			19300	5470000	1750000	
			Unit: MΩ.			

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9	Dielectric Withstanding Voltage	A500VAC was applied between two adjacent contacts of the test samples for 1 minute. While applying the voltage, the leakage current was monitored and shall be the less than 1mA. There shall be no evidence of arcing or breakdown during the test.	Passed the specified requirement.	Pass
10	Visual Inspection	The test samples shall be free from defects such as damage, creep, deformation, blister and burrs that are detrimental to functions and appearances of test samples.	Passed the specified requirement.	Pass

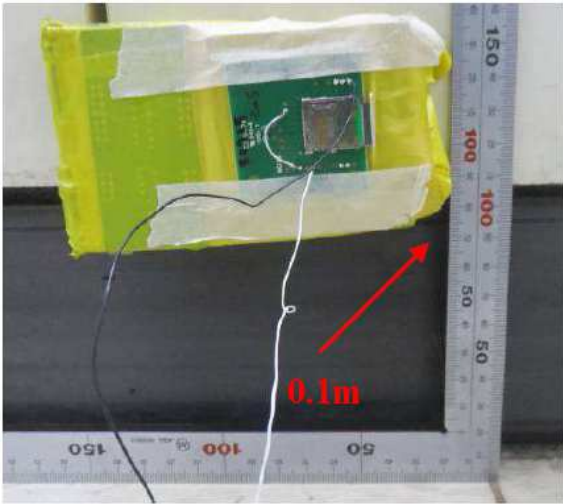


Fig.8 Set up of Bounce Time Test

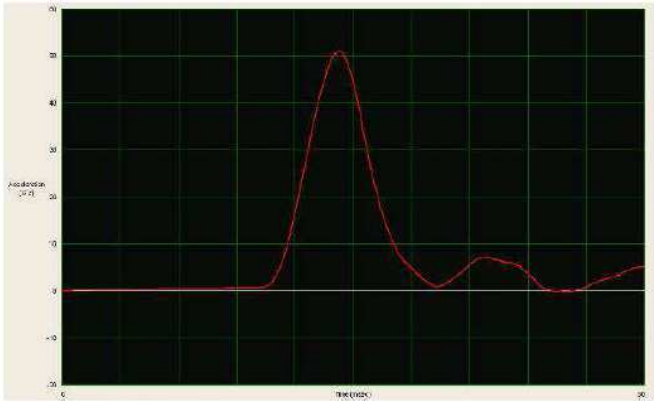


Fig. 9 Test condition of Mechanical shock

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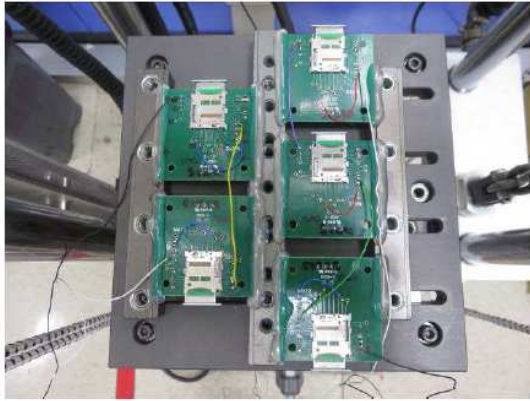


Fig. 10 Set up of Mechanical shock (Z axis)



Fig. 11 Set up of Mechanical shock (-Z axis)

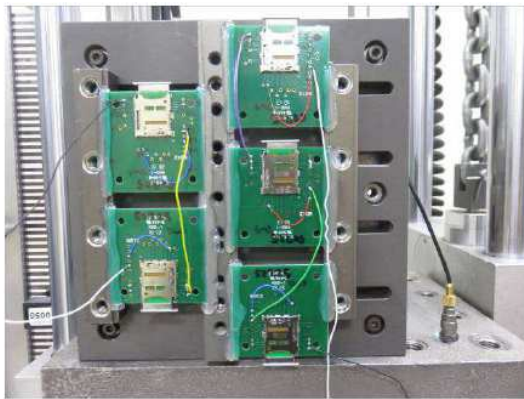


Fig. 12 Set up of Mechanical shock (X,-X axis)

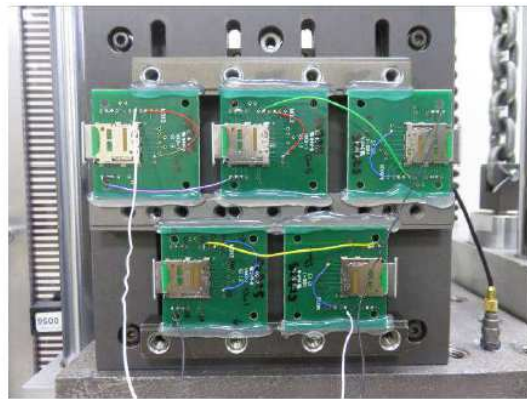


Fig. 13 Set up of Mechanical shock (Y,-Y axis)

Group 5

Item	Test Description	Procedure method /Failure Criteria	Test Result			P/F
1	Visual Inspection	The test samples shall be free from defects such as damage, creep, deformation, blister and burrs that are detrimental to functions and appearances of test samples.	Passed the specified requirement.			Pass
2	Low Level Contact Resistance	Contact: 50mΩ Max. Switch: 100mΩ Max.	Contact			Pass
			Min	Max	AVG	
			12.90	19.80	15.74	
			Switch			
			Min	Max	AVG	
			20.10	26.60	23.54	
			Unit: mΩ.			

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3	Insulation Resistance	A500VDC is applied for 1minute. Minimum insulation resistance requirement is 1000megaohms for test samples.	Min	Max	AVG	Pass
			2305	279700	80655	
			Unit: MΩ.			
4	Dielectric Withstanding Voltage	A500VAC was applied between two adjacent contacts of the test samples for 1minute. While applying the voltage, the leakage current was monitored and shall be the less than 1mA. There shall be no evidence of arcing or breakdown during the test.	Passed the specified requirement.			Pass
5	High Temperature Resistance	Mate dummy card and exposed to 85±3℃ for 96 hours.	See next items.			---
6	Low Level Contact Resistance	Contact: 100mΩ Max. Switch: 150mΩ Max.	Contact			Pass
			Min	Max	AVG	
			16.14	21.81	18.93	
			Switch			
			Min	Max	AVG	
			25.52	26.36	25.97	
			Unit: mΩ.			
7	Insulation Resistance	A500VDC is applied for 1minute. Minimum insulation resistance requirement is 1000megaohms for test samples.	Min	Max	AVG	Pass
			1235	254100	48814	
			Unit: MΩ.			
8	Dielectric Withstanding Voltage	A500VAC was applied between two adjacent contacts of the test samples for 1minute. While applying the voltage, the leakage current was monitored and shall be the less than 1mA. There shall be no evidence of arcing or breakdown during the test.	Passed the specified requirement.			Pass
9	Visual Inspection	The test samples shall be free from defects such as damage, creep, deformation, blister and burrs that are detrimental to functions and appearances of test samples.	Passed the specified requirement.			Pass

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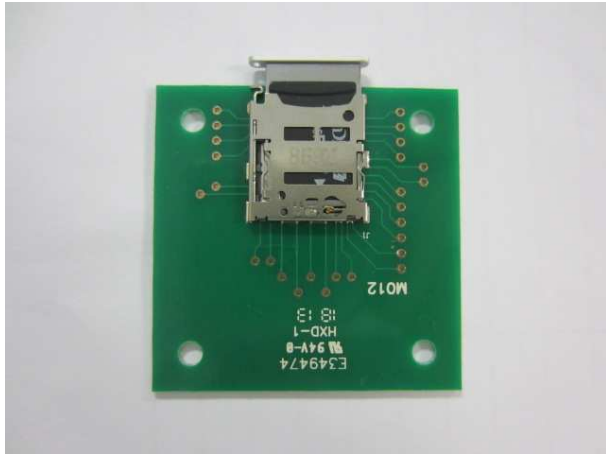


Fig.14 Initial



Fig.15 After High Temperature Resistance Test

Group 6

Item	Test Description	Procedure method /Failure Criteria	Test Result			P/F
1	Visual Inspection	The test samples shall be free from defects such as damage, creep, deformation, blister and burrs that are detrimental to functions and appearances of test samples.	Passed the specified requirement.			Pass
2	Low Level Contact Resistance	Contact: 50mΩ Max. Switch: 100mΩ Max.	Contact			Pass
			Min	Max	AVG	
			12.80	18.85	14.93	
			Switch			
			Min	Max	AVG	
			21.20	23.90	23.10	
			Unit: mΩ.			
3	Insulation Resistance	A500VDC is applied for 1minute. Minimum insulation resistance requirement is 1000megaohms for test samples.	Min	Max	AVG	Pass
			1187	117900	45227	
			Unit: MΩ.			

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4	Dielectric Withstanding Voltage	A500VAC was applied between two adjacent contacts of the test samples for 1minute. While applying the voltage, the leakage current was monitored and shall be the less than 1mA. There shall be no evidence of arcing or breakdown during the test.	Passed the specified requirement.			Pass
5	Low Temperature Resistance	Mate dummy card and exposed to -40±3℃ for 96 hours.	See next items.			---
6	Low Level Contact Resistance	Contact: 100mΩ Max. Switch: 150mΩ Max.	Contact			Pass
			Min	Max	AVG	
			14.28	21.66	17.12	
			Switch			
			Min	Max	AVG	
			24.89	30.11	27.22	
			Unit: mΩ.			
7	Insulation Resistance	A500VDC is applied for 1minute. Minimum insulation resistance requirement is 1000megaohms for test samples.	Min	Max	AVG	Pass
			4061	22890	9658	
			Unit: MΩ.			
8	Dielectric Withstanding Voltage	A500VAC was applied between two adjacent contacts of the test samples for 1minute. While applying the voltage, the leakage current was monitored and shall be the less than 1mA. There shall be no evidence of arcing or breakdown during the test.	Passed the specified requirement.			Pass
9	Visual Inspection	The test samples shall be free from defects such as damage, creep, deformation, blister and burrs that are detrimental to functions and appearances of test samples.	Passed the specified requirement.			Pass

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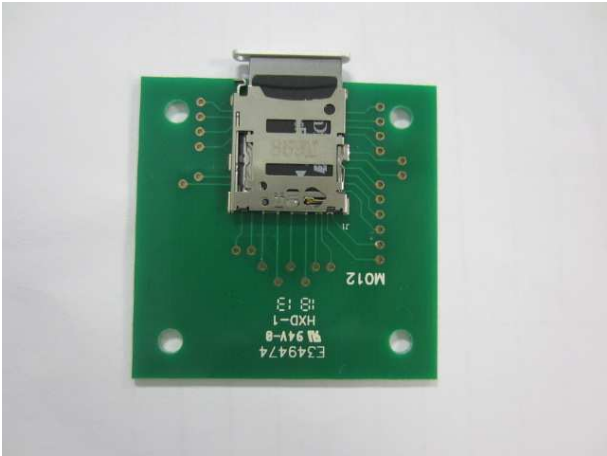


Fig.16 Initial



Fig.17 After Low Temperature Resistance Test

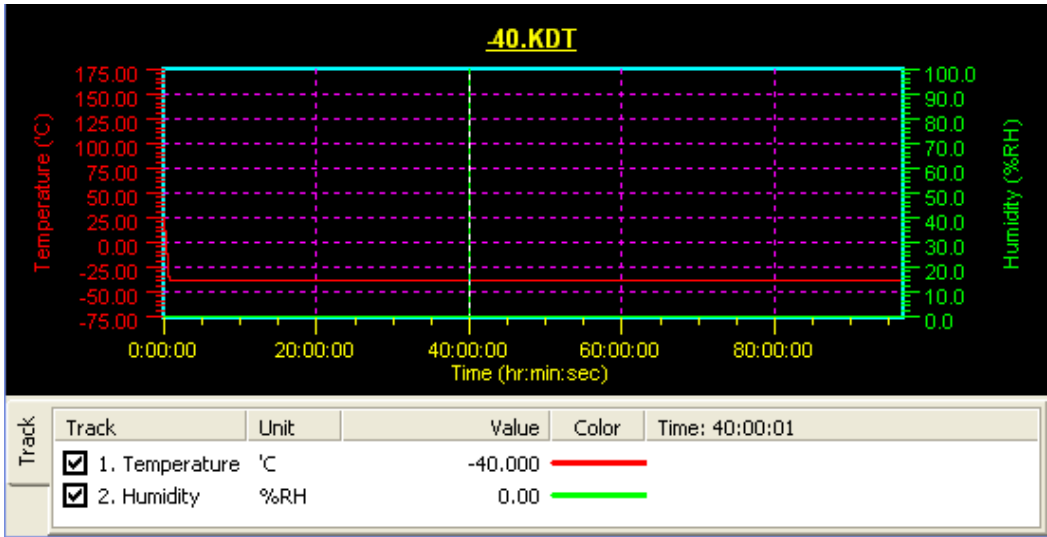


Fig.18 Low Temperature Resistance Test Graph

Group 7

Item	Test Description	Procedure method /Failure Criteria	Test Result	P/F
1	Visual Inspection	The test samples shall be free from defects such as damage, creep, deformation, blister and burrs that are detrimental to functions and appearances of test samples.	Passed the specified requirement.	Pass

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2	Low Level Contact Resistance	Contact: 50mΩ Max. Switch: 100mΩ Max.	Contact			Pass
			Min	Max	AVG	
			11.70	21.90	14.45	
			Switch			
			Min	Max	AVG	
			19.60	24.60	22.04	
			Unit: mΩ.			
3	Insulation Resistance	A500VDC is applied for 1minute. Minimum insulation resistance requirement is 1000megaohms for test samples.	Min	Max	AVG	Pass
			18330	213600	78746	
			Unit: MΩ.			
4	Dielectric Withstanding Voltage	A500VAC was applied between two adjacent contacts of the test samples for 1minute. While applying the voltage, the leakage current was monitored and shall be the less than 1mA. There shall be no evidence of arcing or breakdown during the test.	Passed the specified requirement.			Pass
5	Thermal Shock	Subject mated connector to 26 cycles between -40±3℃ / 30 minutes and +85±3℃ / 30 minutes.	See next items.			---
6	Low Level Contact Resistance	Contact: 100mΩ Max. Switch: 150mΩ Max.	Contact			Pass
			Min	Max	AVG	
			14.12	28.05	18.78	
			Switch			
			Min	Max	AVG	
			25.29	27.44	26.30	
			Unit: mΩ.			
7	Insulation Resistance	A500VDC is applied for 1minute. Minimum insulation resistance requirement is 1000megaohms for test samples.	Min	Max	AVG	Pass
			2655	56220	18328	
			Unit: MΩ.			
8	Dielectric Withstanding Voltage	A500VAC was applied between two adjacent contacts of the test samples for 1minute. While applying the voltage, the leakage current was monitored and shall be the less than 1mA. There shall be no evidence of arcing or breakdown during the test.	Passed the specified requirement.			Pass

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9	Visual Inspection	The test samples shall be free from defects such as damage, creep, deformation, blister and burrs that are detrimental to functions and appearances of test samples.	Passed the specified requirement.	Pass
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Fig.19 Initial



Fig.20 After Thermal Shock Test

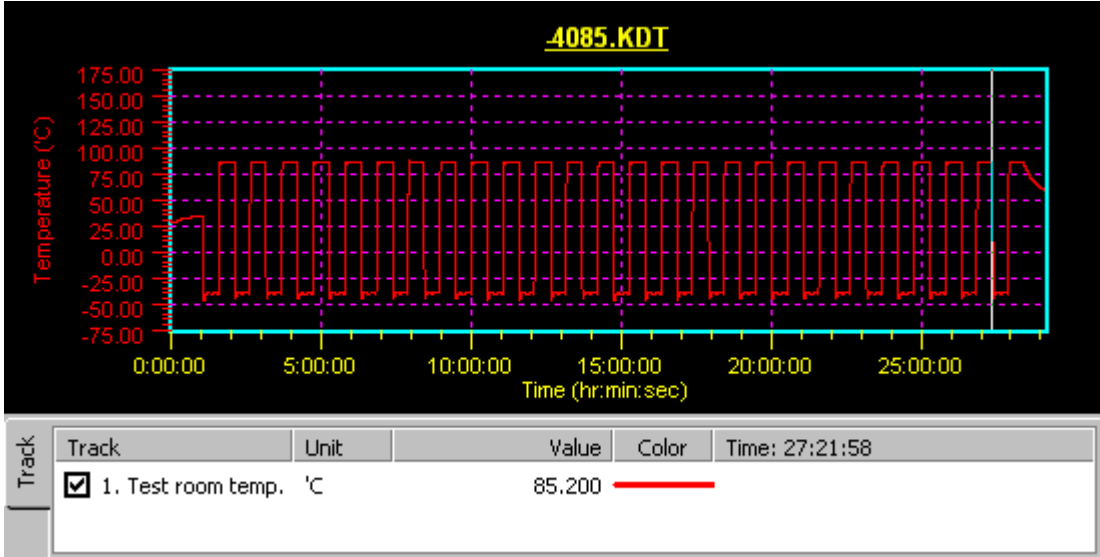
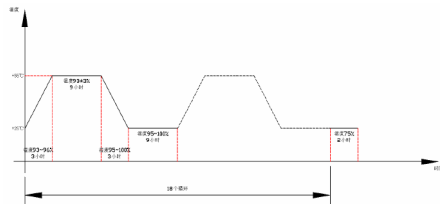


Fig.21 Thermal Shock Test Graph

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Group 8

Item	Test Description	Procedure method /Failure Criteria	Test Result			P/F
1	Visual Inspection	The test samples shall be free from defects such as damage, creep, deformation, blister and burrs that are detrimental to functions and appearances of test samples.	Passed the specified requirement.			Pass
2	Low Level Contact Resistance	Contact: 50mΩ Max. Switch: 100mΩ Max.	Contact			Pass
			Min	Max	AVG	
			11.35	23.80	15.86	
			Switch			
			Min	Max	AVG	
			21.10	24.30	22.66	
			Unit: mΩ.			
3	Insulation Resistance	A500VDC is applied for 1minute. Minimum insulation resistance requirement is 1000megaohms for test samples.	Min	Max	AVG	Pass
			2778	65060	31243	
			Unit: MΩ.			
4	Dielectric Withstanding Voltage	A500VAC was applied between two adjacent contacts of the test samples for 1minute. While applying the voltage, the leakage current was monitored and shall be the less than 1mA. There shall be no evidence of arcing or breakdown during the test.	Passed the specified requirement.			Pass
5	Humidity-Temperature Cycling	Mate dummy card and subject to 10 cycles. of humidity-temperature changes between 25℃~55℃; 90%~95% RH; 10 Cycles; No damage to parts. 	See next items.			---

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6	Low Level Contact Resistance	Contact: 100mΩ Max. Switch: 150mΩ Max.	Contact			Pass
			Min	Max	AVG	
			16.12	25.80	20.32	
			Switch			
			Min	Max	AVG	
			24.16	25.61	25.02	
			Unit: mΩ.			
7	Insulation Resistance	A500VDC is applied for 1minute. Minimum insulation resistance requirement is 1000megaohms for test samples.	Min	Max	AVG	Pass
			2015	198000	75914	
			Unit: MΩ.			
8	Dielectric Withstanding Voltage	A500VAC was applied between two adjacent contacts of the test samples for 1minute. While applying the voltage, the leakage current was monitored and shall be the less than 1mA. There shall be no evidence of arcing or breakdown during the test.	Passed the specified requirement.			Pass
9	Visual Inspection	The test samples shall be free from defects such as damage, creep, deformation, blister and burrs that are detrimental to functions and appearances of test samples.	Passed the specified requirement.			Pass



Fig.22 Initial

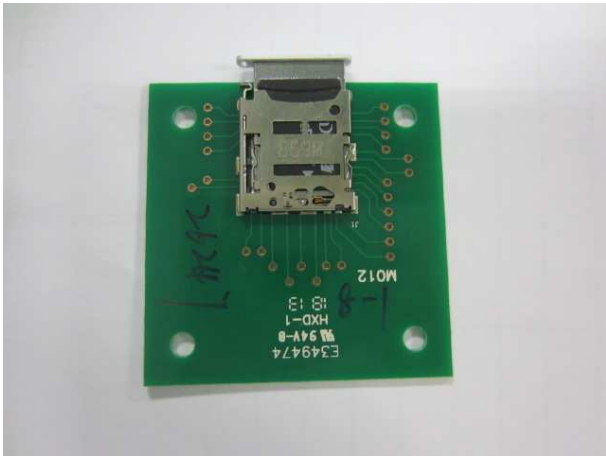


Fig.23 After Humidity-Temperature Cycling

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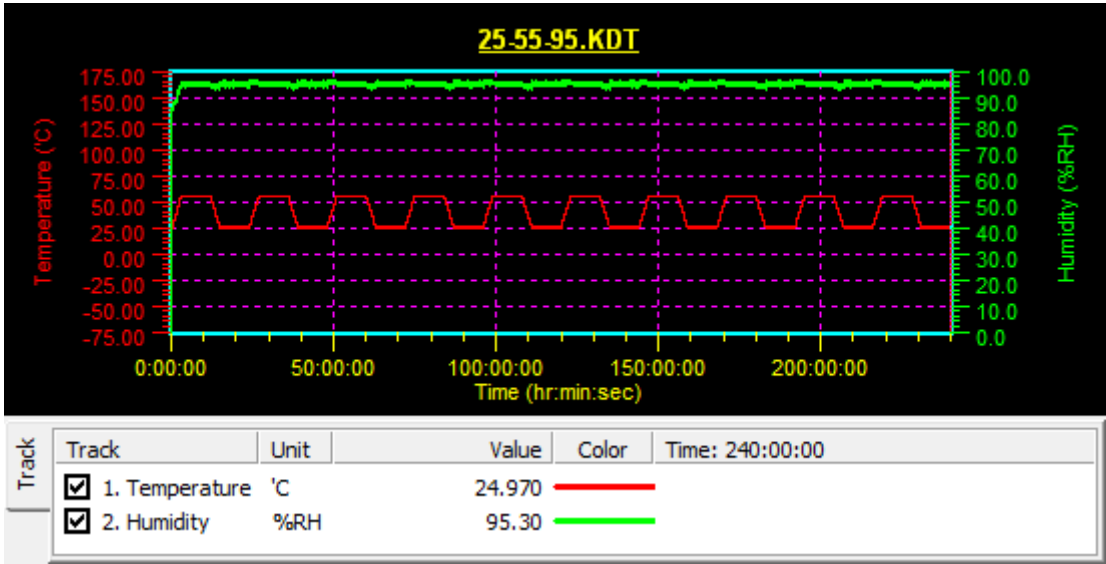


Fig.24 Humidity-Temperature Cycling Test Graph

Group 9

Item	Test Description	Procedure method /Failure Criteria	Test Result	P/F
1	Visual Inspection	The test samples shall be free from defects such as damage, creep, deformation, blister and burrs that are detrimental to functions and appearances of test samples.	Passed the specified requirement.	Pass
2	Salt Spray	Temperature: 35±2℃. NaCl: 5%. Duration: 48H.	See next items.	---
3	Visual Inspection	The test samples shall be free from defects such as damage, creep, deformation, blister and burrs that are detrimental to functions and appearances of test samples.	Passed the specified requirement.	Pass

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Fig.25 Initial



Fig.26 After Salt Spray Test

Group 10

Item	Test Description	Procedure method /Failure Criteria	Test Result	P/F
1	Visual Inspection	The test samples shall be free from defects such as damage, creep, deformation, blister and burrs that are detrimental to functions and appearances of test samples.	Passed the specified requirement.	Pass
2	Resistance to Soldering Heat	EIA-364-56E Temp. 217±5℃. Max time for 60±0.5 sec. Peak temp.260+0/-5℃.Max time for 30 sec. 	See next item.	---

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3	Visual Inspection	The test samples shall be free from defects such as damage, creep, deformation, blister and burrs that are detrimental to functions and appearances of test samples.	Passed the specified requirement.	Pass
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Fig.27 Initial



Fig.28 After Resistance to Soldering Heat Test

All group test result is OK, Please refer to the summary of test results for the conclusion.

The asterisk group is completed test in taipei laboratory.

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ITEM	Test Group and Sequence									
	1	2	3*	4*	5	6	7	8	9	10
Visual Inspection	1,16	1,3	1,11	1,10	1,9	1,9	1,9	1,9	1,3	1,3
Low Level Contact Resistance	2,10		2,8	2,7	2,6	2,6	2,6	2,6		
Insulation Resustance	3,11		3,9	3,8	3,7	3,7	3,7	3,7		
Dielectric Withstanding Voltage	4,12		4,10	4,9	4,8	4,8	4,8	4,8		
Mating Force	5,13									
Unmating Force	6,14									
Operating Force	7,15									
Normal Force	8									
Bounce Time			5	5						
Reverse insertion		2								
Durability	9									
High Temperature Resistance					5					
Low Temperature Resistance						5				
Thermal Shock							5			
Humidity-Temperature Cycling								5		
Random Vibration with electrical discontinuity			6							
Sine-Sweep Vibration with electrical discontinuity			7							
Mechanical Shock (Half-Sine with electrical discontinuity)				6						
Salt Spray									2	
Resistance to Soldering Heat										2
Sample Size	5	5	5	5	5	5	5	5	5	5

***** 报告结束(End of Report) *****