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品赞电子(东莞)有限公司

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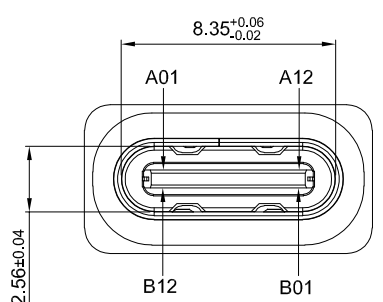
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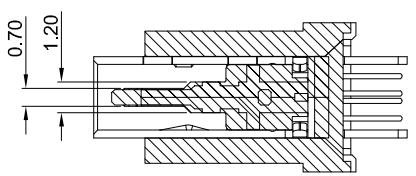
Pinzan Electronics(Dongguan) Co., Ltd

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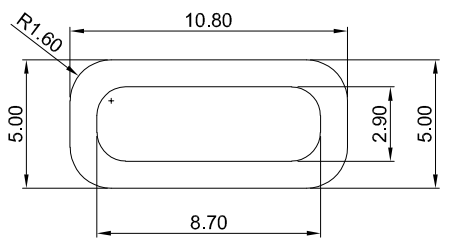
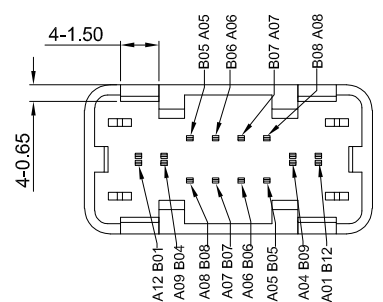
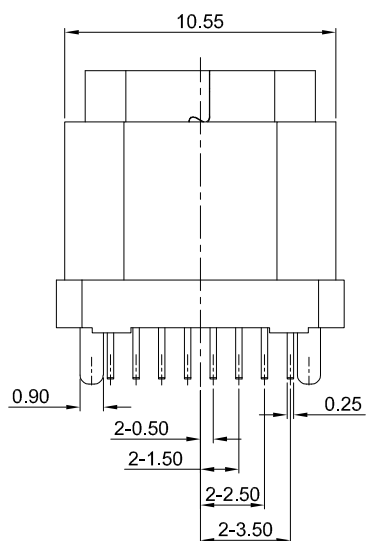
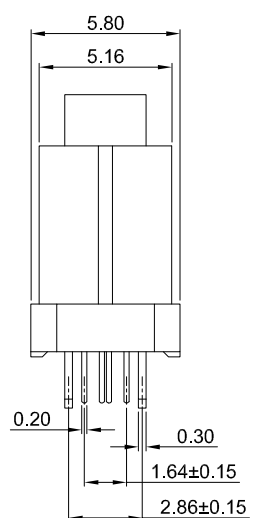
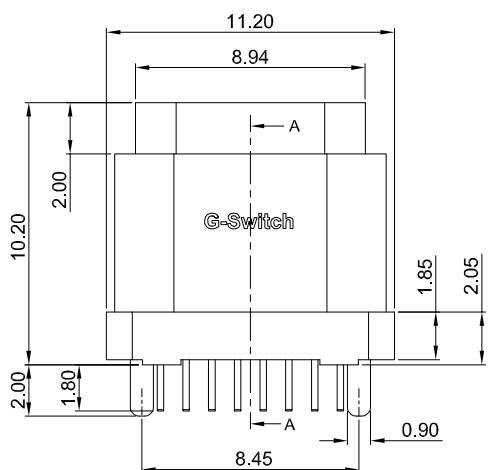
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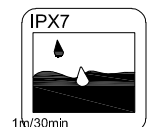
H=10.2mm	GT-USB-9069B
H=13.3mm	GT-USB-9069C
H=11.3mm	GT-USB-9069D
H=12.2mm	GT-USB-9069E



SECTION A-A



USB IF
TID:11807



SUGGESTED RUBBER RING SIZE

1	COVER SHELL	HIGH TEMPERATURE PLASTIC	PA BLACK
2	SHELL	STAINLESS STEEL	Ni30u"Min PLATED
3	MID PLATE	STAINLESS STEEL	CLEAN
4	HOUSING	HIGH TEMPERATURE PLASTIC	PA BLACK UL 94 V-0
5	TERMINALS	COPPER ALLOY	Au1u"Min PLATING ON CONTACT AREA
6	RUBBER	SILICA GEL	BLACK
NO.	PARTS	MATERIAL	REMARKS



SCALE: 1:1	UNIT: mm	Title: Vertical Type-c 16P Female DIP H=10.2mm			
SIZE: A4		Molde Code: GT-USB-9069B			
Unless otherwise General Tolerance: X..x ±0.30 X..xx ±0.20 X..xxx ±0.10 X..x° ±3° X..xx° ±2°		DRAWN	CHECKED	APPROVED	DATE
		Xia	Chen	Chen	2023.02.01



REV: A0	SHEET: 1/2
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G-Switch USB-C Specification:

- 1.Current rated: 5A on vbus/1.25A on vconn/0.25A on other
- 2.Voltage rating: 24V AC
- 3.Withstanding voltage: 100V AC/minute
- 4.Contact resistance: 40mΩ Max
- 5.Insulation resistance: 100MΩ Min
- 6.Operating temperature: -40°C ~ +85°C
- 6.Mating force: 5N~20N
- 7.Unmating force: 8N~20N
- 8.Durability cycle:10,000 cycles
- 9.Waterproof grade: IP-X7.
- 10.Compliant with:IEC62680-1-3

A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	A11	A12
GND			VBUS	CC1	D+	D-	SBU1	VBUS			GND
First			First	Second	Second	Second	Second	First			First
B12	B11	B10	B9	B8	B7	B6	B5	B4	B3	B2	B1
GND			VBUS	SBU2	D-	D+	CC2	VBUS			GND
First			First	Second	Second	Second	Second	First			First

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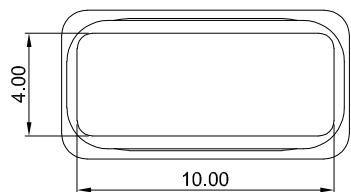
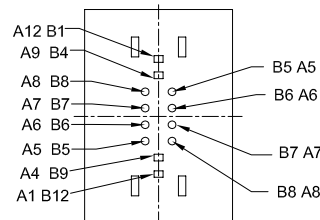
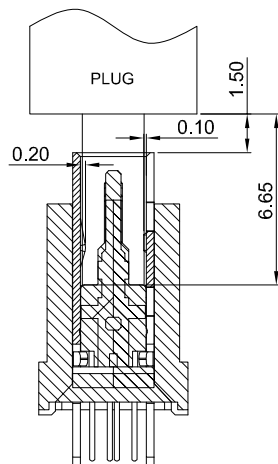
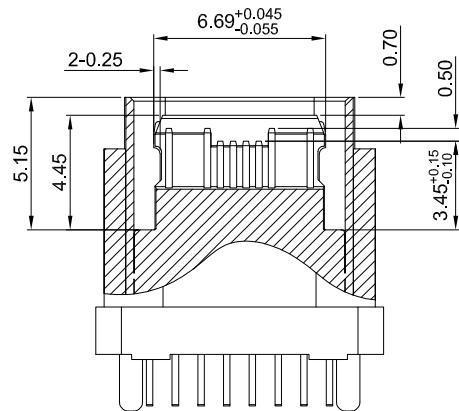
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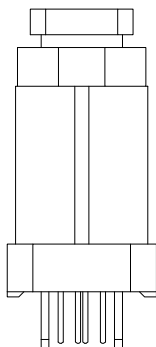
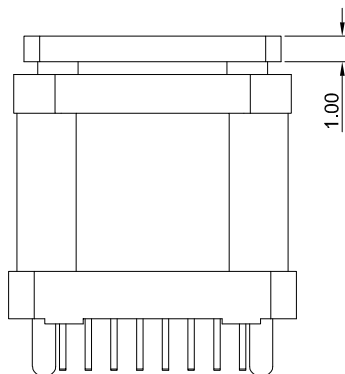
Pinzan Electronics(Dongguan) Co., Ltd

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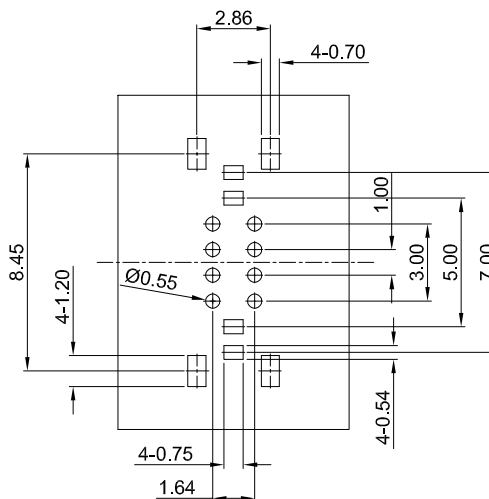
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WITH CAP



AFTER MATING

RECOMMENDED PCB LAYOUT
TOLERANCE:±0.05**G-Switch USB-C Specification:**

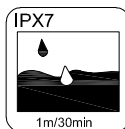
- 1.Current rated: 5A on vbus/1.25A on vconn/0.25A on other
- 2.Withstanding voltage: 24V AC
- 3.Contact resistance: 40mΩ Max
- 4.Insulation resistance: 100MΩ Min
- 5.Operating temperature: -40°C ~ +85°C
- 6.Mating force: 5N~20N
- 7.Unmating force: 8N~20N
- 8.Durability cycle:10,000 cycles
- 9.Waterproof grade: IP-X7.
- 10.Compliant with:IEC62680-1-3

A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	A11	A12
GND			VBUS	CC1	D+	D-	SBU1	VBUS			GND
First			First	Second	Second	Second	Second	First			First

B12	B11	B10	B9	B8	B7	B6	B5	B4	B3	B2	B1
GND			VBUS	SBU2	D-	D+	CC2	VBUS			GND
First			First	Second	Second	Second	Second	First			First

USB IF
TID:11807

NO.	PARTS	MATERIAL	REMARKS
1	COVER SHELL	HIGH TEMPERATURE PLASTIC	PA BLACK
2	SHELL	STAINLESS STEEL	Ni30u"Min PLATED
3	MID PLATE	STAINLESS STEEL	CLEAN
4	HOUSING	HIGH TEMPERATURE PLASTIC	PA BLACK UL 94 V-0
5	TERMINALS	COPPER ALLOY	Au1u"Min PLATING ON CONTACT AREA
6	RUBBER	SILICA GEL	BLACK



SCALE: 1:1	UNIT: mm	Title: Vertical Type-c 16P Female DIP H=10.2mm			
SIZE: A4		Molde Code: GT-USB-9069B			
Unless otherwise General Tolerance: X..x ±0.30 X..xx ±0.20 X..xxx ±0.10 X..x° ±3° X..xx° ±2°		DRAWN	CHECKED	APPROVED	DATE
		Xia	Chen	Chen	2023.02.01



REV: A0 SHEET: 2/2



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国际互认
检测
TESTING
CNAS L13628

EN IEC 62680-1-3 Test Report

24B01N002016-001-COM

For

Type-C Receptacle Connector

Company Name: Pinzan Electronics (Dongguan) Co., Ltd

Product Name: Vertical Type-c 16P Female DIP

H=10.2/13.3/11.3/12.2mm

Model Name: GT-USB-9069

Hardware Version: A0

Issued Date: 2024-09-01

Note:

The test results in this test report relate only to the devices specified in this report. This report shall not be reproduced except in full without the written approval of SAICT.

Test Laboratory:

SAICT, Shenzhen Academy of Information and Communications Technology

Building G, Shenzhen International Innovation Center, No.1006 Shennan Road, Futian District, Shenzhen, Guangdong, P. R. China 518000.

Tel: +86(0)755-33322000, Fax: +86(0)755-33322001

Email: yewu@saict.ac.cn, www.saict.ac.cn



NO.24B01N002016-001-COM

REPORT HISTORY

Report Number	Revision	Description	Issue Date
24B01N002016-001-COM	V1	First release	2024-09-01

Note: the latest revision of the test report supersedes all previous versions.



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1. Test Laboratory

1.1. Testing Location

Location: SAICT

Address: Building G, Shenzhen International Innovation Center, No.1006 Shennan Road, Futian District, Shenzhen, Guangdong, P. R. China 518000

1.2. Testing Environment

Normal Temperature: 15-35℃

Relative Humidity: 25-85%RH

Atmospheric pressure 86-106kPa

1.3. Project Data

Testing Start Date: 2024-07-04

Testing End Date: 2024-08-07

1.4. Signature

Su Kun

Prepared this test report

Wang Yang

Reviewed this test report

Wei Ming

Approved this test report

2. Client Information

2.1. Applicant Information

Company Name: Pinzan Electronics (Dongguan) Co., Ltd
Address : Room 701, Workshop 2, Optical Technology Innovation Center,
Xinhong, Marina Bay New District, Dongguan City
City: Dongguan
Country: China
Telephone: 0769-82388879
Email: feng@g-switch.cn

2.2. Manufacturer Information

Company Name: Pinzan Electronics (Dongguan) Co., Ltd
Address : Room 701, Workshop 2, Optical Technology Innovation Center,
Xinhong, Marina Bay New District, Dongguan City
City: Dongguan
Country: China
Telephone: 0769-82388879
Email: feng@g-switch.cn



3. Unit Under Test (UUT) Information

3.1. About UUT

Description:	USB2.0 Type-C Receptacle Connector
Brand Name:	Pinzan Electronics (Dongguan) Co., Ltd
Marketing Name:	Vertical Type-c 16P Female DIP H=10.2/13.3/11.3/12.2
Model Name:	GT-USB-9069
Hardware Version:	A0

3.2. Sample Coding

Test Group	Number of Plug/Receptacle	Qty of Specimen
Group A-1	UT01aa to UT10aa	10 pcs
Group A-2	UT11aa to UT20aa	10 pcs
Group A-3	UT21aa to UT30aa	10 pcs
Group A-4	UT31aa to UT50aa	20 pcs
Group A-7	UT51aa to UT60aa	10 pcs
Group B-1	UT61aa to UT68aa	8 pcs
Group B-5	UT69aa to UT71aa	3 pcs
Group B-6	UT72aa to UT74aa	3 pcs

4. Reference Documents

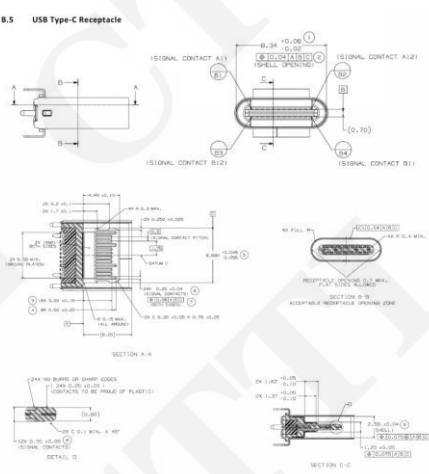
1. EN IEC 62680-1-3:2022, Universal serial bus interfaces for data and power _ Part 1-3 Common components-USB Type-C(r) cable and connector specification

5. USB Type-C Compliance Requirements

5.1. DC Electrical

Clause	Test Item	Test Procedure	Requirement
3.7.8.1	Low Level Contact Resistance (LLCR)	EIA 364-23 The low level contact resistance (LLCR) measurement is made across the plug and receptacle mated contacts and does not include any internal paddle cards or substrates of the plug or receptacle. The test boards shall be provided with the connectors to be tested. • Measure at 20 mV (max) open, circuit at 100 mA.	The following requirements apply to the power and signal contacts: • 40 mΩ (max) initial for VBUS, GND and all other contacts. • 50 mΩ maximum after initial easurement.
3.7.8.2	Dielectric Withstanding Voltage	EIA 364-20 Applicable to both receptacle and plug. • Measurement per Method B.	The dielectric shall withstand 100 VAC (RMS) for one minute at sea level after the environmental stress defined in Table 4-8, Test Group A-7.
3.7.8.3	Insulation Resistance	EIA 364-21 Applicable to both receptacle and plug. See Table 4-8 Test Group A-7.	A minimum of 100 MΩ insulation resistance is required between adjacent contacts of unmated and mated connectors.
3.7.8.4	Contact Current Rating	A current of 5 A shall be applied collectively to VBUS pins (i.e., pins A4, A9, B4, and B9) and 1.25 A shall be applied to the VCONN pin (i.e., B5) as applicable, terminated through the corresponding GND pins (i.e., pins A1, A12, B1, and B12). A minimum current of 0.25 A shall also be applied individually to all the other contacts, as applicable.	The temperature rise of the outside shell surface of the mated pair above the VBUS and GND contacts shall not exceed 30°C above the ambient temperature.

5.2. Mechanical

Clause	Test Item	Test Procedure	Requirement																																								
3.2.1	Critical Dimensions	B.5 USB Type-C Receptacle  Figure B-5 USB Type-C Receptacle Using SECTION A-A	Table B-5 Receptacle Critical Dimensions for Receptacles Using SECTION A-A in Figure B-5 <table border="1"> <thead> <tr> <th>Description</th><th>Dimension</th><th>+ Tol.</th><th>- Tol.</th></tr> </thead> <tbody> <tr> <td>1. Receptacle inside opening</td><td>8.38</td><td>0.06</td><td>0.02</td></tr> <tr> <td>2. Receptacle inside opening position tolerance</td><td>0.04 with datum A/B/C</td><td>n/a</td><td>n/a</td></tr> <tr> <td>3. Receptacle signal pin length</td><td>3.50</td><td>0.15</td><td>0.15</td></tr> <tr> <td>4. Pin length datum</td><td>0.50</td><td>0.20</td><td>0.20</td></tr> <tr> <td>5. Tongue width</td><td>6.000</td><td>0.045</td><td>0.055</td></tr> <tr> <td>6. Contact width</td><td>0.25</td><td>0.04</td><td>0.04</td></tr> <tr> <td>7. Contact width position tolerance</td><td>0.08 with datum A/B/C</td><td>n/a</td><td>n/a</td></tr> <tr> <td>8. Tongue thickness</td><td>0.70</td><td>0.05</td><td>0.05</td></tr> <tr> <td>9. Receptacle inside thickness</td><td>2.56</td><td>0.05</td><td>0.04</td></tr> </tbody> </table> Notes: 1. All values are in millimeters.	Description	Dimension	+ Tol.	- Tol.	1. Receptacle inside opening	8.38	0.06	0.02	2. Receptacle inside opening position tolerance	0.04 with datum A/B/C	n/a	n/a	3. Receptacle signal pin length	3.50	0.15	0.15	4. Pin length datum	0.50	0.20	0.20	5. Tongue width	6.000	0.045	0.055	6. Contact width	0.25	0.04	0.04	7. Contact width position tolerance	0.08 with datum A/B/C	n/a	n/a	8. Tongue thickness	0.70	0.05	0.05	9. Receptacle inside thickness	2.56	0.05	0.04
Description	Dimension	+ Tol.	- Tol.																																								
1. Receptacle inside opening	8.38	0.06	0.02																																								
2. Receptacle inside opening position tolerance	0.04 with datum A/B/C	n/a	n/a																																								
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7. Contact width position tolerance	0.08 with datum A/B/C	n/a	n/a																																								
8. Tongue thickness	0.70	0.05	0.05																																								
9. Receptacle inside thickness	2.56	0.05	0.04																																								
3.8.1.1	Insertion force	EIA 364-13 The insertion force test shall be done at a maximum speed of 12.5 mm (0.492") per minute.	Within the range from 5 N to 20 N. This requirement does not apply to the plugs that are used for direct docking without a cable.																																								
3.8.1.2	Extraction force	EIA 364-13 The extraction force test shall be done at a maximum speed of 12.5 mm (0.492") per minute.	Within the range of 8 N to 20 N, measured after a preconditioning of five insertion/extraction cycles (i.e., the sixth extraction). After an additional twenty-five insertion/extraction cycles, the extraction force shall be measured again (i.e., the thirtysecond extraction) and the extraction force shall be within: a) 33 % of the initial reading, and b) within the range of 8 N to 20 N. The extraction force shall be within the range of 6 N to 20 N after 10,000 insertion/extraction cycles. This requirement does not apply to the plugs that are used for direct docking without a cable.																																								
3.8.1.3	Durability	EIA 364-09	10,000 cycles minimum. Low level contact resistance and dielectric withstanding voltage shall be checked to be within spec after the 10,000 durability cycles according to Table 4-8, Test Group A-7.																																								
3.8.1.6	4-Axis Continuity	See Appendix D for detailed test fixtures and procedures. Plug and Receptacle: Subject the mating interface to the moments defined in appendix D for at least 10 seconds.	No discontinuities greater than 1 microsecond duration in any of the four orientations tested.																																								

5.3. Environmental

Clause	Test Item	Test Procedure	Requirement
3.8.2	Temperature life	EIA 364-17, Method A. 105° C without applied voltage for 120 hours. 105° C without applied voltage for 72 hours when used as preconditioning.	Low level contact resistance meets spec before and after the Temperature Life test.
3.8.2	Vibration	EIA 364-28 Test Condition VII, Test Letter D	No evidence of physical damages and no discontinuity longer than 1 microsecond. Low level contact resistance meets spec before and after the Vibration test.
3.8.2	Cyclic temperature and humidity	EIA 364-31	Low level contact resistance meets spec before and after the Cyclic Temperature and Humidity test.
3.8.2	Thermal shock	EIA 364-32, Test Condition I 10 Cycles –55°C and +85°C.	No evidence of any physical damage. Low level contact resistance meets spec before and after the Thermal Shock test.
3.8.2	Mixed flowing gas	IA 364-65, Class II A Samples should be placed in an environmentally controlled 'test chamber' that is monitored by a gas analyzing system for controlled concentrations of the specified gas mixture. Test coupons shall also be used and the weight gain reported. Test duration is 7 days.	Low level contact resistance meets spec before and after the Mixed Flowing Gas test.

6. Test Procedure

For the DC electrical, Mechanical and Environmental compliance requirements of Type-C connector, refer to the grouping and test methods in the EIA364.1000.01 standard to implement the test.

Group A-1	
No.	Test Item
A-1-1	Low level contact resistance
A-1-2	Durability (preconditioning)
A-1-3	Temperature life
A-1-4	Low level contact resistance
A-1-5	Reseating
A-1-6	Low level contact resistance
Group A-2	
No.	Test Item
A-2-1	Low level contact resistance
A-2-2	Durability (preconditioning)
A-2-3	Thermal shock
A-2-4	Low level contact resistance
A-2-5	Cyclic temperature and humidity
A-2-6	Low level contact resistance
A-2-7	Reseating
A-2-8	Low level contact resistance
Group A-3	
No.	Test Item
A-3-1	Low level contact resistance

A-3-2	Durability (preconditioning)
A-3-3	Temperature life (preconditioning)
A-3-4	Low level contact resistance
A-3-5	Vibration
A-3-6	Low level contact resistance
Group A-4	
No.	Test Item
A-4-1	Low level contact resistance
A-4-2	Durability (preconditioning)
A-4-3	Temperature life (preconditioning)
A-4-4	Low level contact resistance
A-4-5	Mixed flowing gas
A-4-6	Low level contact resistance
A-4-7	Thermal disturbance
A-4-8	Low level contact resistance
A-4-9	Reseating
A-4-10	Low level contact resistance
Group A-7	
No.	Test Item
A-7-1	Dielectric withstanding voltage
A-7-2	Low level contact resistance
A-7-3	Durability (preconditioning)
A-7-4	Insertion force
A-7-5	Extraction force

A-7-6	Durability
A-7-7	Extraction force
A-7-8	Durability
A-7-9	Extraction force
A-7-10	Low level contact resistance
A-7-11	Dielectric withstanding voltage
A-7-12	Insulation Resistance
Group B-1	
No.	Test Item
B-1-4	4-Axis Continuity
Group B-5	
No.	Test Item
B-5-1	Critical Dimensions
Group B-6	
No.	Test Item
B-6-1	Contact Current Rating

7. Test Result Summary

Test Item	Clause	Result
Construction	3.2.1 (6)	Pass
Critical Dimensions	3.2.1 (8)	Pass
Low level contact resistance	3.7.8.1	Pass
Dielectric withstanding voltage	3.7.8.2	Pass
Insulation Resistance	3.7.8.3	Pass
Contact Current Rating	3.7.8.4	Pass
Insertion force	3.8.1.1	Pass
Extraction force	3.8.1.2	Pass
Durability	3.8.1.3	Pass
Reseating	3.8.1.3	Pass
4-Axis Continuity	3.8.1.6	Pass
Temperature life	3.8.2	Pass
Thermal shock	3.8.2	Pass
Cyclic temperature and humidity	3.8.2	Pass
Vibration	3.8.2	Pass
Mixed flowing gas	3.8.2	Pass
Thermal disturbance	3.8.2	Pass



8. Test Detail

8.1. Clause 3.2.1 (6) Construction

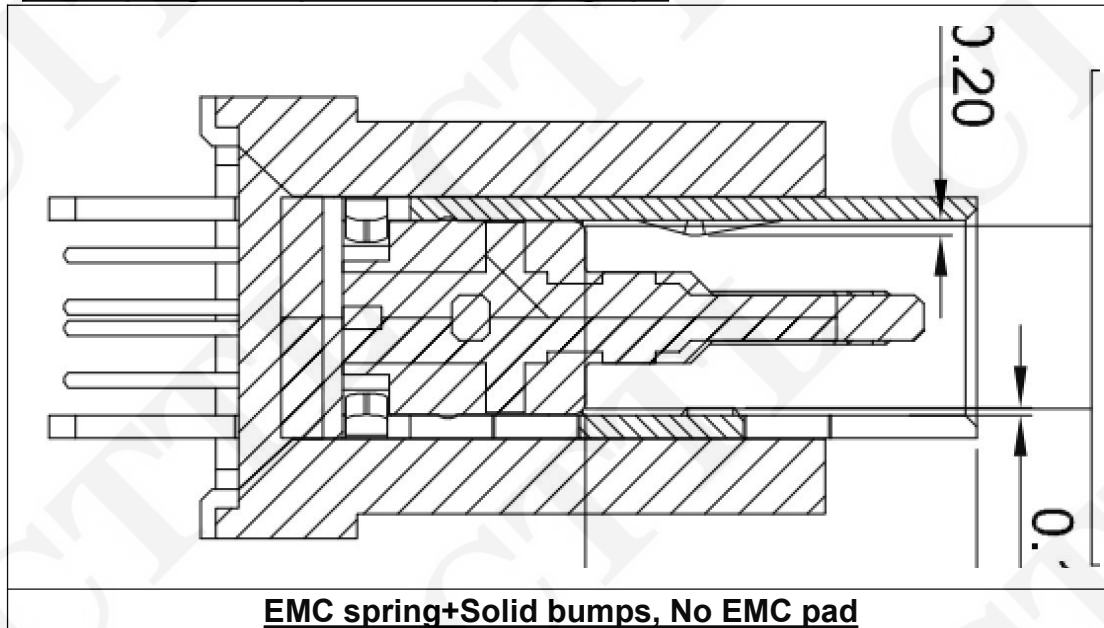
Construction				
Testing Period	Measure environment		Test Engineer	Test Result
2024/07/27	Temperature(°C)	24.5	Huang Siwei	Pass
	Humidity (RH)	74.4 %		

EMC ground return path			
Description	Sample Coding		
	UT69aa	UT70aa	UT71aa
1.EMC spring	Y	Y	Y
2.EMC pad	N	N	N
3.Solid bumps	Y	Y	Y
4.Distance between the bumps $\geq 2.43\text{mm}$	N/A	N/A	N/A
Result	Pass	Pass	Pass
Note: Receptacle configurations with a conductive shell. The requirements apply to the receptacle contact dimensions shown in ALTERNATE SECTION A-A Figure B-5. Receptacle configuration with respect to mounting surface: Vertical.			

Number of pins: 16

<u>A1</u>	<u>A2</u>	<u>A3</u>	<u>A4</u>	<u>A5</u>	<u>A6</u>	<u>A7</u>	<u>A8</u>	<u>A9</u>	<u>A10</u>	<u>A11</u>	<u>A12</u>
✓	N/A	N/A	✓	✓	✓	✓	✓	✓	N/A	N/A	✓
<u>B12</u>	<u>B11</u>	<u>B10</u>	<u>B9</u>	<u>B8</u>	<u>B7</u>	<u>B6</u>	<u>B5</u>	<u>B4</u>	<u>B3</u>	<u>B2</u>	<u>B1</u>
✓	N/A	N/A	✓	✓	✓	✓	✓	✓	N/A	N/A	✓

EMC Springs/bumps/EMC Pad photograph



8.2. Clause 3.2.1 (8) Critical Dimensions

B-5-1 Critical Dimensions				
Testing Period	Measure environment		Test Engineer	Test Result
2024/07/27	Temperature(°C)	24.5	Huang Siwei	Pass
	Humidity (RH)	74.4 %		

Test data: (Unit:mm)			
B-5-1 Critical Dimensions – Receptacle			
Description	Sample Coding		
	UT69aa	UT70aa	UT71aa
1.Receptacle inside opening (8.32~8.40)	8.3497	8.3619	8.3488
2.Receptacle insider opening position tolerance (0.04 with datum A/B/C)	0.0184	0.0258	0.0074
3.Receptacle signal pin length (3.35~3.65)	3.3722	3.3700	3.3762
4.Pin length delta (0.30~0.70)	0.5392	0.5383	0.5472
5.Tongue width (6.635~6.735)	6.6716	6.6473	6.6593
6.Contact width (0.21~0.29)	0.2529	0.2649	0.2742
7.Contact width position tolerance (0.08 with datum A/B/C)	0.0332	0.0642	0.0725
8. Tongue thickness (0.65~0.75)	0.7176	0.7206	0.7129
9.Receptacle inside thickness (2.52~2.60)	2.5734	2.5800	2.5741
Decision result	Pass	Pass	Pass

8.3. Clause 3.7.8.1 Low level contact resistance

A-1-1 Low level contact resistance				
Testing Period	Measure environment		Test Engineer	Test Result
2024/07/04	Temperature(℃)	25.7	Zhan Weilong	Pass
	Humidity (RH)	66.4 %		
Test condition	Mated; Maximum open circuit voltage 20 mV; Test current 100 mA.			
Criteria	≤40 mΩ （Initial）			

A-1-1 Low Level Contact Resistance (mΩ)												
Sample Coding	A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	A11	A12
UT01aa	22.5	N/A	N/A	22.6	22.8	22.5	23.9	20.9	17.4	N/A	N/A	15.2
UT02aa	21.8	N/A	N/A	20.9	21.3	22.6	20.8	20.6	16.9	N/A	N/A	14.2
UT03aa	22.6	N/A	N/A	23.7	23.7	20.3	20.9	23.1	18.5	N/A	N/A	15.4
UT04aa	18.7	N/A	N/A	21.7	23.2	21.7	22.7	22.2	16.6	N/A	N/A	15.2
UT05aa	18.6	N/A	N/A	21.7	21.8	23.2	21.1	22.7	16.5	N/A	N/A	15.2
UT06aa	20.7	N/A	N/A	22.6	21.4	21.1	23.4	23.3	20.3	N/A	N/A	17.4
UT07aa	20.7	N/A	N/A	22.6	21.4	21.9	22.7	20.6	20.3	N/A	N/A	17.4
UT08aa	20.7	N/A	N/A	22.6	20.5	23.0	22.2	20.8	20.3	N/A	N/A	17.4
UT09aa	21.0	N/A	N/A	27.7	22.0	21.2	23.3	20.8	15.0	N/A	N/A	15.6
UT10aa	21.0	N/A	N/A	27.6	21.3	22.8	20.0	21.8	15.0	N/A	N/A	15.6
Sample Coding	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10	B11	B12
UT01aa	20.2	N/A	N/A	20.8	22.5	23.6	22.8	22.6	17.7	N/A	N/A	18.1
UT02aa	18.1	N/A	N/A	19.7	20.2	21.8	20.6	22.7	17.4	N/A	N/A	16.6
UT03aa	19.5	N/A	N/A	20.8	23.2	21.4	21.4	23.0	19.1	N/A	N/A	19.4
UT04aa	20.3	N/A	N/A	18.2	24.0	23.4	21.3	21.1	19.4	N/A	N/A	17.7
UT05aa	20.3	N/A	N/A	18.2	21.7	20.4	21.7	21.8	19.3	N/A	N/A	17.7
UT06aa	18.4	N/A	N/A	19.6	21.4	20.3	23.2	21.1	19.7	N/A	N/A	20.4
UT07aa	18.4	N/A	N/A	19.6	22.2	22.5	21.9	23.2	19.7	N/A	N/A	20.5
UT08aa	18.4	N/A	N/A	19.6	21.4	20.0	22.7	20.6	19.7	N/A	N/A	20.5
UT09aa	20.2	N/A	N/A	18.9	20.1	22.7	22.4	22.1	18.2	N/A	N/A	15.8
UT10aa	20.1	N/A	N/A	19.2	21.6	20.8	21.7	22.3	18.2	N/A	N/A	16.4

A-1-4 Low level contact resistance				
Testing Period	Measure environment		Test Engineer	Test Result
2024/07/18	Temperature(℃)	27.5	Zhan Weilong	Pass
	Humidity (RH)	67.4 %		
Test condition	Mated; Maximum open circuit voltage 20 mV; Test current 100 mA.			
Criteria	≤50 mΩ			

A-1-4 Low Level Contact Resistance (mΩ)												
Sample Coding	A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	A11	A12
UT01aa	22.4	N/A	N/A	22.6	22.8	22.6	24.0	20.9	17.5	N/A	N/A	15.2
UT02aa	21.8	N/A	N/A	21.0	21.4	22.5	20.9	20.6	16.9	N/A	N/A	14.2
UT03aa	22.6	N/A	N/A	23.7	23.8	20.4	20.8	23.1	18.5	N/A	N/A	15.4
UT04aa	18.6	N/A	N/A	21.7	23.2	21.7	22.7	22.3	16.5	N/A	N/A	15.2
UT05aa	18.6	N/A	N/A	21.6	21.7	23.1	21.0	22.8	16.4	N/A	N/A	15.2
UT06aa	20.8	N/A	N/A	22.6	21.4	21.0	23.5	23.4	20.2	N/A	N/A	17.3
UT07aa	20.7	N/A	N/A	22.7	21.3	21.8	22.6	20.6	20.3	N/A	N/A	17.3
UT08aa	20.7	N/A	N/A	22.7	20.5	22.9	22.3	20.8	20.3	N/A	N/A	17.4
UT09aa	21.0	N/A	N/A	27.6	22.0	21.2	23.3	20.9	14.9	N/A	N/A	15.7
UT10aa	21.0	N/A	N/A	27.7	21.4	22.8	20.1	21.7	15.0	N/A	N/A	15.5
Sample Coding	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10	B11	B12
UT01aa	20.2	N/A	N/A	20.8	22.5	23.6	22.8	22.5	17.6	N/A	N/A	18.0
UT02aa	18.1	N/A	N/A	19.8	20.3	21.8	20.5	22.8	17.4	N/A	N/A	16.7
UT03aa	19.5	N/A	N/A	20.8	23.2	21.4	21.4	23.1	19.2	N/A	N/A	19.4
UT04aa	20.3	N/A	N/A	18.3	23.9	23.4	21.2	21.2	19.4	N/A	N/A	17.7
UT05aa	20.4	N/A	N/A	18.2	21.7	20.5	21.7	21.8	19.4	N/A	N/A	17.8
UT06aa	18.4	N/A	N/A	19.7	21.5	20.2	23.2	21.0	19.7	N/A	N/A	20.5
UT07aa	18.3	N/A	N/A	19.7	22.1	22.6	21.8	23.2	19.8	N/A	N/A	20.5
UT08aa	18.5	N/A	N/A	19.7	21.4	20.1	22.7	20.6	19.7	N/A	N/A	20.5
UT09aa	20.1	N/A	N/A	18.9	20.1	22.8	22.5	22.2	18.3	N/A	N/A	15.8
UT10aa	20.1	N/A	N/A	19.2	21.6	20.9	21.8	22.2	18.2	N/A	N/A	16.5

A-1-6 Low level contact resistance				
Testing Period	Measure environment		Test Engineer	Test Result
2024/07/18	Temperature(℃)	27.5	Zhan Weilong	Pass
	Humidity (RH)	67.4 %		
Test condition	Mated; Maximum open circuit voltage 20 mV; Test current 100 mA.			
Criteria	≤50 mΩ			

A-1-6 Low Level Contact Resistance (mΩ)												
Sample Coding	A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	A11	A12
UT01aa	22.5	N/A	N/A	22.6	22.9	22.6	24.0	20.8	17.6	N/A	N/A	15.2
UT02aa	21.8	N/A	N/A	20.9	21.4	22.5	20.8	20.6	17.0	N/A	N/A	14.2
UT03aa	22.5	N/A	N/A	23.8	23.8	20.5	20.9	23.1	18.4	N/A	N/A	15.3
UT04aa	18.7	N/A	N/A	21.8	23.2	21.7	22.8	22.3	16.5	N/A	N/A	15.3
UT05aa	18.6	N/A	N/A	21.6	21.6	23.1	20.9	22.8	16.4	N/A	N/A	15.2
UT06aa	20.8	N/A	N/A	22.6	21.4	21.0	23.4	23.4	20.2	N/A	N/A	17.4
UT07aa	20.6	N/A	N/A	22.7	21.4	21.8	22.7	20.7	20.2	N/A	N/A	17.3
UT08aa	20.8	N/A	N/A	22.6	20.5	22.8	22.3	20.9	20.2	N/A	N/A	17.5
UT09aa	21.0	N/A	N/A	27.6	22.0	21.2	23.3	20.9	14.8	N/A	N/A	15.7
UT10aa	20.9	N/A	N/A	27.7	21.3	22.7	20.2	21.7	14.9	N/A	N/A	15.5
Sample Coding	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10	B11	B12
UT01aa	20.2	N/A	N/A	20.8	22.6	23.5	22.7	22.5	17.5	N/A	N/A	18.1
UT02aa	18.2	N/A	N/A	19.8	20.2	21.9	20.5	22.8	17.4	N/A	N/A	16.7
UT03aa	19.6	N/A	N/A	20.7	23.2	21.3	21.3	23.1	19.1	N/A	N/A	19.5
UT04aa	20.4	N/A	N/A	18.4	24.0	23.3	21.2	21.3	19.4	N/A	N/A	17.6
UT05aa	20.3	N/A	N/A	18.2	21.8	20.5	21.7	21.9	19.5	N/A	N/A	17.8
UT06aa	18.4	N/A	N/A	19.8	21.4	20.1	23.2	21.1	19.6	N/A	N/A	20.6
UT07aa	18.2	N/A	N/A	19.7	22.1	22.7	21.8	23.2	19.8	N/A	N/A	20.5
UT08aa	18.5	N/A	N/A	19.6	21.3	20.2	22.6	20.6	19.8	N/A	N/A	20.4
UT09aa	20.0	N/A	N/A	18.9	20.0	22.8	22.4	22.2	18.3	N/A	N/A	15.7
UT10aa	20.2	N/A	N/A	19.1	21.7	20.9	21.8	22.1	18.3	N/A	N/A	16.6

A-2-1 Low level contact resistance				
Testing Period	Measure environment		Test Engineer	Test Result
2024/08/01	Temperature(℃)	22.1	Huang Siwei	Pass
	Humidity (RH)	71.5 %		
Test condition	Mated; Maximum open circuit voltage 20 mV; Test current 100 mA.			
Criteria	≤40 mΩ （Initial）			

A-2-1 Low Level Contact Resistance (mΩ)												
Sample Coding	A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	A11	A12
UT11aa	22.1	N/A	N/A	22.3	26.8	27.7	28.3	26.2	17.4	N/A	N/A	16.7
UT12aa	15.8	N/A	N/A	22.5	29.4	29.9	26.6	26.9	15.7	N/A	N/A	16.1
UT13aa	17.9	N/A	N/A	23.5	26.1	28.1	28.9	27.6	17.8	N/A	N/A	16.6
UT14aa	15.7	N/A	N/A	22.0	28.6	27.8	27.1	27.0	16.5	N/A	N/A	17.4
UT15aa	19.2	N/A	N/A	22.3	26.6	26.2	29.2	28.6	16.8	N/A	N/A	16.0
UT16aa	21.6	N/A	N/A	21.0	27.5	26.7	26.1	27.5	17.3	N/A	N/A	18.7
UT17aa	20.6	N/A	N/A	19.9	28.2	27.8	28.4	27.4	17.3	N/A	N/A	16.1
UT18aa	16.6	N/A	N/A	21.8	26.6	28.7	27.0	28.2	17.0	N/A	N/A	16.3
UT19aa	19.1	N/A	N/A	21.8	28.4	29.4	28.3	29.4	13.0	N/A	N/A	15.7
UT20aa	19.1	N/A	N/A	20.9	28.0	27.6	27.7	29.6	17.1	N/A	N/A	16.7
Sample Coding	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10	B11	B12
UT11aa	19.8	N/A	N/A	12.9	29.9	28.6	26.2	26.1	22.2	N/A	N/A	13.0
UT12aa	20.2	N/A	N/A	9.3	28.5	28.2	26.2	29.8	19.4	N/A	N/A	10.7
UT13aa	24.7	N/A	N/A	24.0	26.5	27.4	27.1	26.5	20.6	N/A	N/A	11.7
UT14aa	19.6	N/A	N/A	13.7	28.9	27.7	27.1	28.3	19.6	N/A	N/A	13.2
UT15aa	19.1	N/A	N/A	13.2	27.9	29.1	26.6	26.0	19.8	N/A	N/A	11.2
UT16aa	18.3	N/A	N/A	19.8	27.1	26.2	27.4	29.7	17.0	N/A	N/A	10.9
UT17aa	17.7	N/A	N/A	19.3	28.4	26.5	28.9	28.5	18.5	N/A	N/A	12.9
UT18aa	19.5	N/A	N/A	11.9	28.3	30.0	27.4	26.0	20.8	N/A	N/A	13.8
UT19aa	18.9	N/A	N/A	21.9	27.6	27.2	27.2	27.0	18.0	N/A	N/A	11.1
UT20aa	18.7	N/A	N/A	14.2	27.0	27.9	27.9	28.3	20.1	N/A	N/A	12.4

A-2-4 Low level contact resistance				
Testing Period	Measure environment		Test Engineer	Test Result
2024/08/02	Temperature(℃)	23.3	Huang Siwei	Pass
	Humidity (RH)	71.3 %		
Test condition	Mated; Maximum open circuit voltage 20 mV; Test current 100 mA.			
Criteria	≤50 mΩ			

A-2-4 Low Level Contact Resistance (mΩ)												
Sample Coding	A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	A11	A12
UT11aa	19.4	N/A	N/A	22.2	27.6	28.6	26.9	29.9	17.3	N/A	N/A	15.5
UT12aa	16.5	N/A	N/A	21.8	27.9	28.4	27.0	27.1	15.3	N/A	N/A	15.9
UT13aa	19.9	N/A	N/A	22.0	28.6	29.7	27.0	29.9	15.6	N/A	N/A	15.7
UT14aa	20.0	N/A	N/A	21.1	28.7	26.1	27.0	27.8	17.7	N/A	N/A	16.4
UT15aa	16.7	N/A	N/A	21.0	26.3	27.1	29.9	28.3	16.9	N/A	N/A	15.5
UT16aa	20.0	N/A	N/A	23.0	28.0	29.7	27.0	29.7	15.2	N/A	N/A	16.9
UT17aa	16.1	N/A	N/A	21.5	27.0	28.2	28.7	26.4	15.2	N/A	N/A	17.2
UT18aa	19.8	N/A	N/A	21.1	28.5	27.6	26.2	27.5	16.3	N/A	N/A	15.6
UT19aa	20.1	N/A	N/A	22.6	29.5	28.6	28.5	29.4	17.5	N/A	N/A	15.5
UT20aa	20.3	N/A	N/A	21.3	26.6	29.0	29.8	28.1	18.0	N/A	N/A	15.1
Sample Coding	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10	B11	B12
UT11aa	20.4	N/A	N/A	15.3	28.7	26.3	29.4	26.1	19.6	N/A	N/A	13.8
UT12aa	18.6	N/A	N/A	13.8	27.7	26.1	27.0	27.8	19.2	N/A	N/A	13.7
UT13aa	18.8	N/A	N/A	15.2	29.4	28.4	26.2	29.7	19.3	N/A	N/A	10.8
UT14aa	20.2	N/A	N/A	14.9	27.1	26.8	29.6	26.7	20.7	N/A	N/A	11.8
UT15aa	18.2	N/A	N/A	14.8	28.4	28.1	29.0	28.2	18.9	N/A	N/A	13.4
UT16aa	18.6	N/A	N/A	13.3	29.7	29.0	26.1	29.5	19.3	N/A	N/A	12.3
UT17aa	19.1	N/A	N/A	13.8	28.3	27.9	26.1	26.2	20.5	N/A	N/A	12.4
UT18aa	18.5	N/A	N/A	12.3	28.5	29.7	29.6	26.6	21.5	N/A	N/A	13.8
UT19aa	20.1	N/A	N/A	13.7	29.3	26.3	27.2	28.6	21.8	N/A	N/A	12.2
UT20aa	18.4	N/A	N/A	14.4	26.2	27.5	26.4	26.8	20.7	N/A	N/A	11.1

A-2-6 Low level contact resistance				
Testing Period	Measure environment		Test Engineer	Test Result
2024/08/07	Temperature(℃)	23.1	Huang Siwei	Pass
	Humidity (RH)	70.2 %		
Test condition	Mated; Maximum open circuit voltage 20 mV; Test current 100 mA.			
Criteria	≤50 mΩ			

A-2-6 Low Level Contact Resistance (mΩ)												
Sample Coding	A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	A11	A12
UT11aa	17.0	N/A	N/A	22.6	29.7	26.9	26.7	29.4	17.3	N/A	N/A	15.6
UT12aa	18.9	N/A	N/A	21.5	29.6	28.1	29.5	29.0	16.1	N/A	N/A	15.9
UT13aa	20.2	N/A	N/A	21.3	28.8	28.1	27.2	26.3	16.8	N/A	N/A	15.8
UT14aa	17.2	N/A	N/A	22.1	26.3	29.6	27.9	28.1	16.7	N/A	N/A	17.8
UT15aa	16.9	N/A	N/A	22.3	26.6	28.3	29.8	26.5	15.0	N/A	N/A	17.5
UT16aa	20.6	N/A	N/A	21.5	26.8	27.3	26.4	29.5	17.0	N/A	N/A	15.1
UT17aa	16.4	N/A	N/A	21.4	27.2	28.5	26.8	26.8	16.4	N/A	N/A	15.2
UT18aa	18.2	N/A	N/A	21.4	29.5	26.2	29.3	26.4	15.1	N/A	N/A	16.4
UT19aa	18.5	N/A	N/A	22.5	27.1	29.4	26.1	29.9	16.1	N/A	N/A	17.1
UT20aa	20.2	N/A	N/A	22.8	27.8	27.0	29.0	27.1	17.2	N/A	N/A	16.3
Sample Coding	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10	B11	B12
UT11aa	19.7	N/A	N/A	12.6	28.9	28.3	27.1	26.7	18.4	N/A	N/A	12.5
UT12aa	18.8	N/A	N/A	12.7	26.6	27.9	28.1	28.2	18.7	N/A	N/A	10.0
UT13aa	18.8	N/A	N/A	12.2	27.7	29.4	30.0	27.2	19.2	N/A	N/A	10.1
UT14aa	18.7	N/A	N/A	16.0	29.4	29.5	26.4	29.8	18.8	N/A	N/A	10.5
UT15aa	20.7	N/A	N/A	13.3	27.7	27.3	26.7	29.1	21.0	N/A	N/A	13.6
UT16aa	18.1	N/A	N/A	14.5	28.6	28.6	27.3	30.0	19.7	N/A	N/A	10.3
UT17aa	21.0	N/A	N/A	14.1	29.3	26.1	29.1	26.5	18.3	N/A	N/A	11.3
UT18aa	20.4	N/A	N/A	12.8	28.0	29.8	29.9	28.4	20.8	N/A	N/A	11.7
UT19aa	18.2	N/A	N/A	12.7	29.5	28.7	29.8	29.5	21.0	N/A	N/A	11.4
UT20aa	19.9	N/A	N/A	14.3	26.2	27.6	26.7	28.8	21.3	N/A	N/A	13.2

A-2-8 Low level contact resistance				
Testing Period	Measure environment		Test Engineer	Test Result
2024/08/07	Temperature(℃)	23.1	Huang Siwei	Pass
	Humidity (RH)	70.2 %		
Test condition	Mated; Maximum open circuit voltage 20 mV; Test current 100 mA.			
Criteria	≤50 mΩ			

A-2-8 Low Level Contact Resistance (mΩ)												
Sample Coding	A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	A11	A12
UT11aa	18.9	N/A	N/A	22.2	27.7	30.0	29.8	28.7	16.8	N/A	N/A	17.9
UT12aa	17.2	N/A	N/A	21.1	26.4	28.0	26.8	28.8	17.9	N/A	N/A	16.3
UT13aa	16.0	N/A	N/A	22.1	27.3	29.6	27.8	26.9	15.2	N/A	N/A	17.6
UT14aa	18.2	N/A	N/A	22.1	28.6	28.1	30.0	29.7	15.7	N/A	N/A	17.4
UT15aa	16.4	N/A	N/A	21.6	27.0	26.6	29.7	28.3	17.9	N/A	N/A	17.5
UT16aa	20.7	N/A	N/A	22.1	28.8	27.0	29.1	27.4	15.4	N/A	N/A	15.2
UT17aa	18.1	N/A	N/A	22.2	28.7	29.5	27.9	27.7	17.6	N/A	N/A	16.8
UT18aa	20.9	N/A	N/A	21.8	28.6	26.5	27.4	26.6	16.7	N/A	N/A	15.7
UT19aa	20.3	N/A	N/A	22.6	29.5	29.6	27.6	27.1	17.1	N/A	N/A	17.1
UT20aa	16.3	N/A	N/A	21.5	27.7	27.2	27.0	27.1	17.4	N/A	N/A	15.9
Sample Coding	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10	B11	B12
UT11aa	20.7	N/A	N/A	14.1	29.8	27.5	27.6	28.7	21.2	N/A	N/A	12.1
UT12aa	20.2	N/A	N/A	15.7	26.1	26.6	27.4	29.3	20.2	N/A	N/A	11.9
UT13aa	20.1	N/A	N/A	13.6	27.7	27.7	29.0	26.5	18.0	N/A	N/A	13.2
UT14aa	19.5	N/A	N/A	15.4	27.4	29.2	27.1	28.2	21.9	N/A	N/A	10.5
UT15aa	20.3	N/A	N/A	15.0	28.1	27.2	27.6	29.8	21.6	N/A	N/A	11.4
UT16aa	20.2	N/A	N/A	14.5	28.9	28.3	30.0	29.8	19.9	N/A	N/A	12.6
UT17aa	20.2	N/A	N/A	12.8	29.4	28.1	29.0	28.0	18.9	N/A	N/A	10.8
UT18aa	20.3	N/A	N/A	15.8	28.2	26.8	27.0	27.7	20.5	N/A	N/A	11.5
UT19aa	18.9	N/A	N/A	13.7	26.8	29.1	26.7	26.4	18.0	N/A	N/A	13.0
UT20aa	18.1	N/A	N/A	14.5	27.4	30.0	27.1	28.5	21.5	N/A	N/A	13.7

A-3-1 Low level contact resistance				
Testing Period	Measure environment		Test Engineer	Test Result
2024/07/23	Temperature(℃)	23.6	Su Kun	Pass
	Humidity (RH)	67.7 %		
Test condition	Mated; Maximum open circuit voltage 20 mV; Test current 100 mA.			
Criteria	≤40 mΩ （Initial）			

A-3-1 Low Level Contact Resistance (mΩ)												
Sample Coding	A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	A11	A12
UT21aa	20.9	N/A	N/A	21.2	29.0	30.9	27.5	24.1	18.8	N/A	N/A	16.4
UT22aa	20.4	N/A	N/A	19.8	25.3	24.6	25.5	25.1	17.3	N/A	N/A	15.4
UT23aa	23.4	N/A	N/A	24.1	25.5	24.4	26.3	24.1	17.6	N/A	N/A	15.2
UT24aa	22.9	N/A	N/A	21.5	25.3	25.5	25.5	25.2	16.8	N/A	N/A	14.8
UT25aa	22.6	N/A	N/A	20.9	25.1	24.2	25.3	25.3	18.1	N/A	N/A	16.2
UT26aa	21.4	N/A	N/A	22.3	25.6	24.6	25.4	24.6	17.3	N/A	N/A	16.1
UT27aa	16.6	N/A	N/A	20.0	26.3	25.3	25.8	25.5	17.6	N/A	N/A	16.2
UT28aa	19.6	N/A	N/A	20.0	25.4	25.6	24.4	25.7	15.6	N/A	N/A	15.3
UT29aa	22.0	N/A	N/A	20.9	24.5	25.1	24.9	25.7	16.7	N/A	N/A	14.5
UT30aa	20.9	N/A	N/A	19.8	24.9	25.3	25.1	25.9	17.5	N/A	N/A	15.4
Sample Coding	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10	B11	B12
UT21aa	19.1	N/A	N/A	20.1	28.9	26.6	26.1	25.6	20.9	N/A	N/A	24.4
UT22aa	18.0	N/A	N/A	19.8	25.6	26.3	25.5	25.2	18.3	N/A	N/A	19.6
UT23aa	23.0	N/A	N/A	24.2	26.6	26.2	25.5	25.3	18.9	N/A	N/A	21.0
UT24aa	18.6	N/A	N/A	20.8	26.6	25.5	26.6	25.5	17.7	N/A	N/A	18.7
UT25aa	19.9	N/A	N/A	20.7	26.3	26.5	25.6	25.2	19.4	N/A	N/A	20.4
UT26aa	19.8	N/A	N/A	20.9	26.4	25.6	26.6	25.3	22.7	N/A	N/A	22.0
UT27aa	18.6	N/A	N/A	19.9	25.6	26.1	26.1	25.1	18.1	N/A	N/A	20.9
UT28aa	17.9	N/A	N/A	19.8	25.8	25.3	25.6	25.8	18.2	N/A	N/A	19.8
UT29aa	18.5	N/A	N/A	20.1	25.5	25.1	25.3	24.3	17.2	N/A	N/A	18.6
UT30aa	18.7	N/A	N/A	18.8	26.5	26.7	25.7	25.9	19.4	N/A	N/A	16.3

A-3-4 Low level contact resistance				
Testing Period	Measure environment		Test Engineer	Test Result
2024/08/04	Temperature(℃)	25.4	Su Kun	Pass
	Humidity (RH)	64.0 %		
Test condition	Mated; Maximum open circuit voltage 20 mV; Test current 100 mA.			
Criteria	≤50 mΩ			

A-3-4 Low Level Contact Resistance (mΩ)												
Sample Coding	A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	A11	A12
UT21aa	20.6	N/A	N/A	20.9	28.5	33.2	28.1	25.2	18.1	N/A	N/A	15.7
UT22aa	20.9	N/A	N/A	19.9	26.5	25.3	26.5	24.3	17.6	N/A	N/A	15.7
UT23aa	23.7	N/A	N/A	23.0	25.0	23.1	27.1	25.1	17.4	N/A	N/A	15.1
UT24aa	22.4	N/A	N/A	22.0	27.6	27.2	24.3	24.8	16.9	N/A	N/A	15.5
UT25aa	22.8	N/A	N/A	21.7	28.3	25.6	24.8	25.2	18.6	N/A	N/A	15.9
UT26aa	23.6	N/A	N/A	23.4	32.1	27.1	26.4	25.1	20.8	N/A	N/A	19.8
UT27aa	20.8	N/A	N/A	20.0	28.0	25.4	27.3	24.3	19.0	N/A	N/A	16.2
UT28aa	21.8	N/A	N/A	20.4	24.3	25.1	25.1	27.8	18.0	N/A	N/A	15.8
UT29aa	22.8	N/A	N/A	22.4	25.1	25.6	25.3	29.1	17.1	N/A	N/A	15.0
UT30aa	21.4	N/A	N/A	19.8	27.3	25.0	24.1	24.2	17.0	N/A	N/A	15.1
Sample Coding	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10	B11	B12
UT21aa	18.1	N/A	N/A	19.7	30.2	29.2	28.8	27.2	19.0	N/A	N/A	20.5
UT22aa	18.4	N/A	N/A	19.9	28.7	31.6	27.2	28.4	19.1	N/A	N/A	20.3
UT23aa	21.7	N/A	N/A	22.5	25.2	25.0	26.6	27.1	18.5	N/A	N/A	20.2
UT24aa	19.9	N/A	N/A	20.8	28.1	29.4	25.4	26.0	17.8	N/A	N/A	17.4
UT25aa	28.5	N/A	N/A	21.0	27.2	28.3	29.0	27.1	20.1	N/A	N/A	20.5
UT26aa	20.1	N/A	N/A	21.9	27.0	27.1	31.2	26.2	26.5	N/A	N/A	23.1
UT27aa	18.4	N/A	N/A	19.8	29.3	28.0	30.1	28.9	19.8	N/A	N/A	21.3
UT28aa	17.8	N/A	N/A	19.6	28.1	27.3	28.3	28.0	18.5	N/A	N/A	20.2
UT29aa	19.4	N/A	N/A	18.6	27.3	23.8	24.1	23.4	18.2	N/A	N/A	15.5
UT30aa	18.5	N/A	N/A	19.9	25.2	27.4	27.3	27.3	19.0	N/A	N/A	19.2

A-3-6 Low level contact resistance				
Testing Period	Measure environment		Test Engineer	Test Result
2024/08/06	Temperature(℃)	25.7	Su Kun	Pass
	Humidity (RH)	76.0 %		
Test condition	Mated; Maximum open circuit voltage 20 mV; Test current 100 mA.			
Criteria	≤50 mΩ			

A-3-6 Low Level Contact Resistance (mΩ)												
Sample Coding	A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	A11	A12
UT21aa	22.8	N/A	N/A	20.6	25.6	26.5	27.7	27.1	18.0	N/A	N/A	16.1
UT22aa	23.1	N/A	N/A	20.6	26.6	25.6	26.5	27.6	5.4	N/A	N/A	16.1
UT23aa	24.6	N/A	N/A	29.7	26.2	25.5	26.2	27.1	17.6	N/A	N/A	19.4
UT24aa	28.3	N/A	N/A	29.4	26.8	26.5	27.6	25.7	23.2	N/A	N/A	18.9
UT25aa	30.0	N/A	N/A	22.1	25.1	26.1	26.1	26.1	19.2	N/A	N/A	16.3
UT26aa	21.4	N/A	N/A	22.6	27.8	25.6	25.6	26.3	18.9	N/A	N/A	18.1
UT27aa	21.0	N/A	N/A	20.2	24.5	25.7	25.6	26.5	19.0	N/A	N/A	16.9
UT28aa	21.4	N/A	N/A	20.1	25.1	27.1	27.6	25.1	18.4	N/A	N/A	15.7
UT29aa	22.9	N/A	N/A	27.5	25.5	27.8	26.1	25.8	17.1	N/A	N/A	19.4
UT30aa	28.9	N/A	N/A	20.7	26.2	25.6	25.5	26.6	17.2	N/A	N/A	15.7
Sample Coding	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10	B11	B12
UT21aa	18.2	N/A	N/A	19.6	26.7	28.7	27.7	26.1	19.0	N/A	N/A	20.3
UT22aa	19.1	N/A	N/A	20.2	26.6	28.9	26.6	25.6	19.3	N/A	N/A	20.9
UT23aa	44.5	N/A	N/A	22.5	26.1	30.9	27.6	26.6	19.8	N/A	N/A	20.9
UT24aa	11.7	N/A	N/A	20.8	28.4	28.9	26.1	26.7	23.3	N/A	N/A	21.8
UT25aa	13.5	N/A	N/A	20.5	26.7	28.7	27.8	26.2	22.1	N/A	N/A	21.1
UT26aa	18.8	N/A	N/A	21.0	27.9	26.8	26.3	27.1	29.9	N/A	N/A	22.3
UT27aa	18.8	N/A	N/A	19.6	27.0	27.7	26.6	26.8	18.9	N/A	N/A	21.2
UT28aa	18.2	N/A	N/A	20.0	26.8	27.1	25.7	27.9	22.3	N/A	N/A	20.8
UT29aa	21.9	N/A	N/A	20.7	27.1	28.4	26.1	28.1	22.1	N/A	N/A	21.7
UT30aa	18.4	N/A	N/A	22.9	26.9	27.6	26.8	27.8	20.4	N/A	N/A	19.9



A-4-1 Low level contact resistance				
Testing Period	Measure environment		Test Engineer	Test Result
2024/07/26	Temperature(℃)	22.3	Huang Siwei	Pass
	Humidity (RH)	71.3 %		
Test condition	Mated; Maximum open circuit voltage 20 mV; Test current 100 mA.			
Criteria	≤40 mΩ （Initial）			

A-4-1 Low Level Contact Resistance (mΩ)												
Sample Coding	A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	A11	A12
UT31aa	19.3	N/A	N/A	22.9	27.4	26.4	26.2	27.8	16.9	N/A	N/A	15.9
UT32aa	19.2	N/A	N/A	21.2	29.7	29.2	28.6	27.7	17.8	N/A	N/A	16.6
UT33aa	18.2	N/A	N/A	22.8	26.7	26.4	29.7	29.9	15.3	N/A	N/A	17.8
UT34aa	20.6	N/A	N/A	21.8	29.2	28.5	26.8	28.7	15.3	N/A	N/A	17.4
UT35aa	18.9	N/A	N/A	21.2	29.8	28.6	28.7	26.2	17.8	N/A	N/A	15.5
UT36aa	18.8	N/A	N/A	21.0	29.2	29.3	27.7	26.2	15.6	N/A	N/A	17.7
UT37aa	18.1	N/A	N/A	22.9	26.4	28.2	26.9	29.4	16.2	N/A	N/A	17.9
UT38aa	17.5	N/A	N/A	22.1	29.8	27.4	27.0	26.4	16.1	N/A	N/A	16.1
UT39aa	20.6	N/A	N/A	22.1	27.6	26.1	28.7	28.0	15.6	N/A	N/A	15.7
UT40aa	19.2	N/A	N/A	21.5	27.9	28.5	29.1	26.2	16.4	N/A	N/A	16.1
UT41aa	20.5	N/A	N/A	22.5	28.5	29.5	28.5	29.4	17.6	N/A	N/A	17.6
UT42aa	20.8	N/A	N/A	21.7	26.8	26.8	28.3	28.2	17.7	N/A	N/A	15.9
UT43aa	17.4	N/A	N/A	22.8	27.6	27.2	30.0	28.3	16.6	N/A	N/A	16.8
UT44aa	17.5	N/A	N/A	22.9	28.9	29.3	29.2	26.9	16.0	N/A	N/A	17.9
UT45aa	20.9	N/A	N/A	22.4	27.9	27.0	29.7	28.0	16.2	N/A	N/A	17.7
UT46aa	19.6	N/A	N/A	22.8	26.1	26.9	26.8	27.1	16.8	N/A	N/A	16.8
UT47aa	20.7	N/A	N/A	21.3	26.6	27.6	28.0	28.8	16.4	N/A	N/A	15.2
UT48aa	19.2	N/A	N/A	21.5	26.2	27.6	27.9	29.8	16.1	N/A	N/A	17.8
UT49aa	19.4	N/A	N/A	22.3	27.3	27.2	29.6	29.2	16.4	N/A	N/A	16.6
UT50aa	20.1	N/A	N/A	22.2	26.4	27.5	26.5	29.5	15.8	N/A	N/A	15.8

A-4-1 Low Level Contact Resistance (mΩ)												
Sample Coding	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10	B11	B12
UT31aa	18.8	N/A	N/A	13.2	27.0	27.1	29.8	29.1	19.0	N/A	N/A	12.6
UT32aa	19.6	N/A	N/A	15.0	29.4	26.4	29.4	27.9	19.3	N/A	N/A	12.8
UT33aa	18.3	N/A	N/A	13.1	26.3	30.0	27.6	27.2	18.6	N/A	N/A	12.2
UT34aa	18.3	N/A	N/A	13.0	28.0	29.6	29.8	28.7	21.9	N/A	N/A	13.2
UT35aa	19.5	N/A	N/A	15.7	26.7	26.3	27.4	28.1	21.0	N/A	N/A	11.8
UT36aa	18.5	N/A	N/A	13.9	26.3	26.9	27.1	27.9	19.2	N/A	N/A	10.9
UT37aa	18.5	N/A	N/A	14.5	27.0	29.1	27.5	26.6	19.1	N/A	N/A	12.9
UT38aa	19.6	N/A	N/A	14.6	27.8	29.7	29.0	26.9	20.0	N/A	N/A	12.9
UT39aa	20.6	N/A	N/A	12.8	29.4	29.6	27.6	28.8	20.4	N/A	N/A	12.3
UT40aa	18.9	N/A	N/A	13.6	26.8	28.0	29.8	26.6	19.0	N/A	N/A	13.5
UT41aa	20.2	N/A	N/A	15.9	27.9	27.2	29.9	27.9	20.6	N/A	N/A	11.0
UT42aa	18.3	N/A	N/A	12.4	27.0	29.2	28.9	29.2	19.9	N/A	N/A	13.1
UT43aa	19.7	N/A	N/A	14.9	28.1	27.5	29.1	28.6	21.3	N/A	N/A	10.2
UT44aa	18.8	N/A	N/A	13.4	27.7	27.2	26.6	27.8	18.7	N/A	N/A	13.6
UT45aa	20.4	N/A	N/A	12.4	27.6	27.6	26.2	27.0	21.3	N/A	N/A	11.5
UT46aa	19.3	N/A	N/A	12.7	26.7	29.7	27.5	28.8	21.9	N/A	N/A	13.2
UT47aa	18.9	N/A	N/A	14.4	29.2	26.2	26.3	27.7	20.2	N/A	N/A	12.8
UT48aa	20.2	N/A	N/A	14.5	26.3	26.7	26.4	29.1	21.6	N/A	N/A	13.8
UT49aa	19.6	N/A	N/A	12.3	28.9	28.3	26.7	29.3	21.5	N/A	N/A	12.2
UT50aa	20.1	N/A	N/A	15.5	29.9	26.7	28.1	26.5	19.9	N/A	N/A	11.5

A-4-4 Low level contact resistance				
Testing Period	Measure environment		Test Engineer	Test Result
2024/07/29	Temperature(℃)	22.9	Huang Siwei	Pass
	Humidity (RH)	71.5 %		
Test condition	Mated; Maximum open circuit voltage 20 mV; Test current 100 mA.			
Criteria	≤50 mΩ			

A-4-4 Low Level Contact Resistance (mΩ)												
Sample Coding	A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	A11	A12
UT31aa	18.4	N/A	N/A	22.0	28.9	29.1	27.3	29.1	16.2	N/A	N/A	15.5
UT32aa	16.0	N/A	N/A	22.0	26.6	28.9	29.2	26.5	17.1	N/A	N/A	15.4
UT33aa	18.8	N/A	N/A	21.9	28.4	27.1	29.0	28.8	15.8	N/A	N/A	17.9
UT34aa	19.0	N/A	N/A	21.6	29.6	26.8	26.4	26.9	15.2	N/A	N/A	17.8
UT35aa	16.7	N/A	N/A	22.6	27.3	27.8	28.4	28.0	17.0	N/A	N/A	17.6
UT36aa	16.5	N/A	N/A	21.7	27.7	29.6	29.6	28.2	17.6	N/A	N/A	17.4
UT37aa	18.7	N/A	N/A	22.0	28.0	26.4	29.8	29.9	16.2	N/A	N/A	17.6
UT38aa	18.0	N/A	N/A	21.5	27.6	26.4	26.5	29.0	17.7	N/A	N/A	18.0
UT39aa	20.7	N/A	N/A	21.9	28.7	26.1	29.3	29.5	16.6	N/A	N/A	16.3
UT40aa	20.0	N/A	N/A	21.2	29.3	29.3	28.9	27.2	17.4	N/A	N/A	15.0
UT41aa	20.4	N/A	N/A	23.0	27.9	26.1	28.8	27.9	15.8	N/A	N/A	15.3
UT42aa	16.6	N/A	N/A	22.3	27.9	26.6	27.0	28.2	15.5	N/A	N/A	16.9
UT43aa	18.3	N/A	N/A	21.1	26.4	28.6	28.1	29.3	17.1	N/A	N/A	15.6
UT44aa	20.5	N/A	N/A	21.5	28.3	28.9	27.7	29.1	15.9	N/A	N/A	16.8
UT45aa	17.4	N/A	N/A	22.6	28.4	27.1	28.7	27.4	15.4	N/A	N/A	15.5
UT46aa	17.9	N/A	N/A	22.4	27.9	29.9	27.0	28.2	16.3	N/A	N/A	16.0
UT47aa	17.4	N/A	N/A	22.0	29.3	26.3	28.6	26.4	17.4	N/A	N/A	15.2
UT48aa	17.0	N/A	N/A	22.6	27.8	28.5	28.8	26.7	16.7	N/A	N/A	16.0
UT49aa	18.1	N/A	N/A	22.6	26.4	26.7	26.3	27.0	16.1	N/A	N/A	17.6
UT50aa	19.7	N/A	N/A	22.6	28.8	28.3	29.0	29.7	17.5	N/A	N/A	16.4

A-4-4 Low Level Contact Resistance (mΩ)												
Sample Coding	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10	B11	B12
UT31aa	20.6	N/A	N/A	13.8	28.7	28.3	26.6	26.5	21.0	N/A	N/A	13.1
UT32aa	19.9	N/A	N/A	14.9	29.5	28.4	29.3	26.5	21.2	N/A	N/A	12.3
UT33aa	19.0	N/A	N/A	12.3	26.3	26.1	28.0	29.6	19.4	N/A	N/A	14.0
UT34aa	20.6	N/A	N/A	13.4	27.5	27.5	29.6	27.1	20.7	N/A	N/A	11.9
UT35aa	19.8	N/A	N/A	13.2	27.4	29.6	29.2	26.7	18.6	N/A	N/A	11.4
UT36aa	18.4	N/A	N/A	15.7	28.4	29.2	28.8	27.6	20.1	N/A	N/A	11.8
UT37aa	19.9	N/A	N/A	14.0	30.0	26.6	29.1	28.9	21.4	N/A	N/A	10.1
UT38aa	19.5	N/A	N/A	12.0	26.5	29.1	26.1	29.5	18.4	N/A	N/A	11.4
UT39aa	19.6	N/A	N/A	12.3	26.7	29.5	27.8	29.7	20.6	N/A	N/A	11.7
UT40aa	20.7	N/A	N/A	12.7	28.4	28.8	26.7	27.6	20.9	N/A	N/A	12.4
UT41aa	18.9	N/A	N/A	15.9	27.6	26.1	28.2	26.4	19.3	N/A	N/A	11.3
UT42aa	18.3	N/A	N/A	15.3	29.0	28.6	29.3	26.5	20.4	N/A	N/A	11.6
UT43aa	20.7	N/A	N/A	12.0	28.7	29.5	26.6	26.2	21.5	N/A	N/A	11.2
UT44aa	19.1	N/A	N/A	12.4	29.6	26.3	29.5	28.3	18.6	N/A	N/A	11.2
UT45aa	20.5	N/A	N/A	15.4	26.2	27.7	26.9	28.0	19.4	N/A	N/A	12.3
UT46aa	19.1	N/A	N/A	12.2	26.9	26.9	28.5	29.4	19.3	N/A	N/A	11.6
UT47aa	19.6	N/A	N/A	15.5	29.7	27.3	28.6	29.9	18.0	N/A	N/A	10.2
UT48aa	19.8	N/A	N/A	15.4	26.9	29.1	26.7	28.0	20.2	N/A	N/A	11.1
UT49aa	18.8	N/A	N/A	12.2	26.2	26.9	29.3	29.7	21.5	N/A	N/A	10.2
UT50aa	20.3	N/A	N/A	12.9	29.4	27.3	26.4	28.7	21.0	N/A	N/A	13.4

A-4-6 Low level contact resistance				
Testing Period	Measure environment		Test Engineer	Test Result
2024/08/05	Temperature(℃)	23.2	Huang Siwei	Pass
	Humidity (RH)	70.9 %		
Test condition	Mated; Maximum open circuit voltage 20 mV; Test current 100 mA.			
Criteria	≤50 mΩ			

A-4-6 Low Level Contact Resistance (mΩ)												
Sample Coding	A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	A11	A12
UT31aa	20.1	N/A	N/A	20.4	29.3	27.5	29.1	27.9	17.4	N/A	N/A	15.1
UT32aa	20.4	N/A	N/A	22.9	29.6	27.6	26.1	26.4	18.0	N/A	N/A	15.1
UT33aa	21.2	N/A	N/A	20.7	27.3	28.4	28.7	26.3	17.8	N/A	N/A	14.3
UT34aa	21.4	N/A	N/A	22.2	26.4	27.4	26.1	27.0	17.4	N/A	N/A	15.5
UT35aa	20.8	N/A	N/A	28.0	28.8	26.4	29.8	29.5	17.1	N/A	N/A	15.9
UT36aa	20.6	N/A	N/A	27.9	26.6	29.5	29.1	29.5	17.1	N/A	N/A	15.9
UT37aa	22.0	N/A	N/A	21.6	27.4	27.6	29.1	27.8	16.9	N/A	N/A	14.8
UT38aa	20.4	N/A	N/A	20.5	28.7	29.2	28.8	27.6	17.6	N/A	N/A	14.9
UT39aa	20.2	N/A	N/A	22.2	26.3	27.4	26.2	27.0	17.4	N/A	N/A	14.9
UT40aa	21.2	N/A	N/A	20.5	27.8	28.7	26.3	28.0	17.1	N/A	N/A	16.2
UT41aa	21.9	N/A	N/A	21.1	27.7	29.8	28.1	26.6	18.0	N/A	N/A	14.9
UT42aa	20.5	N/A	N/A	21.6	29.0	28.7	29.6	28.6	16.0	N/A	N/A	14.9
UT43aa	20.0	N/A	N/A	21.7	28.1	27.9	28.7	28.5	17.8	N/A	N/A	15.9
UT44aa	21.7	N/A	N/A	22.4	26.2	27.4	27.3	29.3	16.2	N/A	N/A	15.4
UT45aa	20.6	N/A	N/A	21.9	27.4	29.7	28.6	28.1	17.0	N/A	N/A	14.7
UT46aa	21.1	N/A	N/A	21.7	28.5	28.2	29.7	26.1	18.0	N/A	N/A	14.2
UT47aa	21.7	N/A	N/A	22.2	26.4	26.2	27.8	27.2	17.8	N/A	N/A	15.8
UT48aa	21.5	N/A	N/A	21.8	28.1	29.8	28.8	29.2	17.8	N/A	N/A	15.8
UT49aa	21.9	N/A	N/A	21.9	29.4	26.1	27.5	26.6	16.9	N/A	N/A	15.5
UT50aa	20.7	N/A	N/A	22.7	26.3	27.6	29.6	28.8	16.5	N/A	N/A	15.7

A-4-6 Low Level Contact Resistance (mΩ)												
Sample Coding	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10	B11	B12
UT31aa	17.6	N/A	N/A	15.6	29.2	28.1	26.7	27.4	20.9	N/A	N/A	9.8
UT32aa	19.1	N/A	N/A	18.7	29.1	27.1	29.4	26.5	21.2	N/A	N/A	10.6
UT33aa	19.6	N/A	N/A	17.1	26.5	27.7	26.2	27.2	20.2	N/A	N/A	12.2
UT34aa	19.8	N/A	N/A	22.7	26.3	29.6	28.4	26.1	20.3	N/A	N/A	21.1
UT35aa	20.3	N/A	N/A	21.9	28.5	28.4	28.0	29.9	19.6	N/A	N/A	13.7
UT36aa	20.3	N/A	N/A	21.4	29.7	27.1	28.5	29.1	19.9	N/A	N/A	13.4
UT37aa	18.9	N/A	N/A	16.9	28.5	29.6	26.3	28.4	18.3	N/A	N/A	10.9
UT38aa	19.5	N/A	N/A	19.6	28.2	27.8	28.4	28.0	18.2	N/A	N/A	10.3
UT39aa	19.1	N/A	N/A	20.8	27.2	29.8	28.3	28.1	21.3	N/A	N/A	10.2
UT40aa	19.6	N/A	N/A	18.1	26.9	29.6	29.7	28.4	18.0	N/A	N/A	19.7
UT41aa	18.1	N/A	N/A	20.6	27.2	26.2	26.2	30.0	18.0	N/A	N/A	13.3
UT42aa	21.0	N/A	N/A	20.2	27.7	26.6	28.6	27.5	21.8	N/A	N/A	13.8
UT43aa	20.3	N/A	N/A	16.4	30.0	28.2	29.1	27.3	19.2	N/A	N/A	12.2
UT44aa	18.2	N/A	N/A	20.4	26.6	26.3	26.3	26.2	18.9	N/A	N/A	12.5
UT45aa	20.0	N/A	N/A	17.3	26.3	26.8	27.1	26.5	21.5	N/A	N/A	12.4
UT46aa	20.8	N/A	N/A	18.3	26.0	26.4	28.2	29.9	20.2	N/A	N/A	12.2
UT47aa	20.9	N/A	N/A	19.3	28.9	29.0	28.2	29.2	19.4	N/A	N/A	11.7
UT48aa	18.5	N/A	N/A	16.2	27.0	28.5	29.9	26.6	20.1	N/A	N/A	12.0
UT49aa	19.7	N/A	N/A	17.3	28.8	26.1	29.7	27.1	21.8	N/A	N/A	11.5
UT50aa	20.2	N/A	N/A	19.5	27.0	29.6	26.1	29.0	18.3	N/A	N/A	13.8

A-4-8 Low level contact resistance				
Testing Period	Measure environment		Test Engineer	Test Result
2024/08/06	Temperature(℃)	23.5	Huang Siwei	Pass
	Humidity (RH)	71.2 %		
Test condition	Mated; Maximum open circuit voltage 20 mV; Test current 100 mA.			
Criteria	≤50 mΩ			

A-4-8 Low Level Contact Resistance (mΩ)												
Sample Coding	A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	A11	A12
UT31aa	20.8	N/A	N/A	22.6	29.9	29.1	27.2	27.1	17.7	N/A	N/A	15.2
UT32aa	20.6	N/A	N/A	22.9	27.7	27.1	27.7	29.1	17.1	N/A	N/A	14.8
UT33aa	20.7	N/A	N/A	22.6	27.9	28.9	29.8	26.5	17.3	N/A	N/A	15.1
UT34aa	21.7	N/A	N/A	22.9	27.9	29.9	29.7	27.0	16.8	N/A	N/A	15.2
UT35aa	20.2	N/A	N/A	21.8	29.7	27.1	28.0	28.4	16.3	N/A	N/A	15.0
UT36aa	21.9	N/A	N/A	21.8	27.4	27.5	27.5	29.0	16.5	N/A	N/A	14.0
UT37aa	20.5	N/A	N/A	21.4	26.1	29.7	28.5	28.4	16.7	N/A	N/A	16.0
UT38aa	20.4	N/A	N/A	21.3	27.6	28.8	27.6	27.3	17.4	N/A	N/A	15.6
UT39aa	20.4	N/A	N/A	21.6	26.9	26.6	28.8	27.2	17.4	N/A	N/A	14.5
UT40aa	20.5	N/A	N/A	22.5	27.3	28.6	28.5	27.0	16.8	N/A	N/A	15.1
UT41aa	20.2	N/A	N/A	22.7	27.8	28.6	29.7	29.9	16.3	N/A	N/A	14.9
UT42aa	21.3	N/A	N/A	22.1	28.7	29.4	28.7	27.8	16.9	N/A	N/A	14.6
UT43aa	21.9	N/A	N/A	22.6	29.0	26.5	29.2	26.9	17.6	N/A	N/A	15.9
UT44aa	21.1	N/A	N/A	21.6	28.4	27.9	29.0	27.1	16.1	N/A	N/A	15.3
UT45aa	20.6	N/A	N/A	21.5	29.5	27.7	28.1	27.2	16.7	N/A	N/A	14.0
UT46aa	21.3	N/A	N/A	22.8	27.9	29.4	27.3	28.0	16.1	N/A	N/A	14.8
UT47aa	20.8	N/A	N/A	22.6	27.4	29.3	27.0	29.2	17.4	N/A	N/A	15.1
UT48aa	21.6	N/A	N/A	21.9	26.5	26.7	29.5	26.4	17.0	N/A	N/A	14.8
UT49aa	21.5	N/A	N/A	22.1	27.3	26.4	29.4	26.8	17.3	N/A	N/A	15.1
UT50aa	21.6	N/A	N/A	22.9	29.3	28.3	27.4	28.9	17.5	N/A	N/A	15.4

A-4-8 Low Level Contact Resistance (mΩ)												
Sample Coding	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10	B11	B12
UT31aa	19.2	N/A	N/A	15.2	27.3	28.9	28.6	28.0	21.2	N/A	N/A	13.1
UT32aa	20.3	N/A	N/A	12.6	28.2	27.6	27.9	26.1	18.9	N/A	N/A	13.5
UT33aa	20.2	N/A	N/A	14.9	27.3	29.3	27.2	26.9	22.0	N/A	N/A	13.9
UT34aa	19.9	N/A	N/A	12.4	27.1	29.7	28.5	28.0	20.1	N/A	N/A	11.3
UT35aa	20.1	N/A	N/A	14.6	26.9	28.8	29.0	28.2	19.9	N/A	N/A	10.8
UT36aa	20.3	N/A	N/A	12.8	28.0	27.6	26.1	28.0	19.5	N/A	N/A	13.8
UT37aa	20.5	N/A	N/A	15.7	28.4	29.6	29.9	28.6	18.8	N/A	N/A	12.0
UT38aa	20.6	N/A	N/A	15.3	27.2	28.6	28.2	27.9	21.5	N/A	N/A	13.0
UT39aa	18.4	N/A	N/A	12.7	29.5	28.1	28.6	28.7	20.3	N/A	N/A	10.7
UT40aa	18.1	N/A	N/A	14.8	28.0	27.2	29.7	28.6	19.4	N/A	N/A	10.6
UT41aa	20.3	N/A	N/A	14.3	30.0	28.6	29.6	27.4	19.7	N/A	N/A	10.8
UT42aa	20.4	N/A	N/A	14.5	28.8	26.2	29.6	28.4	19.5	N/A	N/A	13.9
UT43aa	18.2	N/A	N/A	13.8	27.9	28.2	27.8	27.0	20.1	N/A	N/A	11.9
UT44aa	19.4	N/A	N/A	13.6	28.5	28.6	29.1	29.6	18.1	N/A	N/A	12.5
UT45aa	19.8	N/A	N/A	13.5	29.3	29.4	29.4	27.9	22.0	N/A	N/A	12.4
UT46aa	19.8	N/A	N/A	13.0	26.1	28.8	27.6	28.6	21.4	N/A	N/A	11.1
UT47aa	18.5	N/A	N/A	14.5	28.4	28.0	29.6	28.6	18.7	N/A	N/A	11.7
UT48aa	19.3	N/A	N/A	13.1	27.7	27.7	26.1	27.5	20.1	N/A	N/A	13.3
UT49aa	18.2	N/A	N/A	13.3	29.7	29.5	26.1	26.6	19.7	N/A	N/A	13.0
UT50aa	20.8	N/A	N/A	13.9	27.2	29.1	28.8	28.4	21.4	N/A	N/A	10.6



A-4-10 Low level contact resistance				
Testing Period	Measure environment		Test Engineer	Test Result
2024/08/06	Temperature(℃)	23.5	Huang Siwei	Pass
	Humidity (RH)	71.2 %		
Test condition	Mated; Maximum open circuit voltage 20 mV; Test current 100 mA.			
Criteria	≤50 mΩ			

A-4-10 Low Level Contact Resistance (mΩ)												
Sample Coding	A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	A11	A12
UT31aa	20.9	N/A	N/A	22.9	27.8	29.8	29.4	27.6	17.1	N/A	N/A	15.2
UT32aa	21.2	N/A	N/A	21.9	29.4	27.5	27.2	26.1	17.5	N/A	N/A	15.3
UT33aa	20.9	N/A	N/A	21.8	27.1	27.4	29.0	29.1	16.2	N/A	N/A	14.2
UT34aa	22.0	N/A	N/A	21.7	26.7	29.9	27.2	29.0	17.9	N/A	N/A	14.6
UT35aa	20.4	N/A	N/A	21.9	29.1	28.7	27.1	28.0	17.0	N/A	N/A	15.8
UT36aa	21.0	N/A	N/A	22.7	27.9	28.1	28.4	29.3	16.9	N/A	N/A	15.4
UT37aa	21.9	N/A	N/A	21.5	28.7	28.9	27.2	27.3	17.9	N/A	N/A	14.9
UT38aa	21.2	N/A	N/A	21.9	27.6	26.6	28.4	29.6	17.5	N/A	N/A	15.3
UT39aa	20.1	N/A	N/A	22.7	26.6	26.8	28.1	27.3	17.8	N/A	N/A	15.7
UT40aa	20.5	N/A	N/A	22.2	28.8	29.1	27.2	27.9	17.9	N/A	N/A	14.7
UT41aa	21.4	N/A	N/A	21.9	28.3	29.8	28.4	26.7	17.2	N/A	N/A	15.5
UT42aa	20.3	N/A	N/A	22.8	26.0	27.5	27.9	29.4	16.3	N/A	N/A	14.9
UT43aa	21.3	N/A	N/A	21.5	29.8	28.9	27.8	26.2	16.3	N/A	N/A	15.8
UT44aa	20.7	N/A	N/A	23.0	29.5	26.3	27.6	27.8	17.8	N/A	N/A	14.9
UT45aa	20.6	N/A	N/A	22.1	27.4	29.7	27.7	28.5	17.4	N/A	N/A	14.2
UT46aa	20.1	N/A	N/A	21.5	29.5	27.6	28.7	28.1	16.3	N/A	N/A	15.7
UT47aa	20.8	N/A	N/A	22.3	29.4	27.2	28.3	28.1	17.9	N/A	N/A	15.2
UT48aa	21.4	N/A	N/A	22.8	27.6	28.4	29.3	28.7	17.0	N/A	N/A	14.8
UT49aa	21.8	N/A	N/A	21.3	28.1	26.4	27.1	27.4	16.8	N/A	N/A	14.1
UT50aa	21.8	N/A	N/A	22.0	26.9	28.3	28.6	28.9	17.8	N/A	N/A	15.9

A-4-10 Low Level Contact Resistance (mΩ)												
Sample Coding	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10	B11	B12
UT31aa	18.0	N/A	N/A	14.2	26.9	26.1	27.0	27.7	19.2	N/A	N/A	11.1
UT32aa	20.4	N/A	N/A	15.3	27.3	28.8	27.3	27.1	20.0	N/A	N/A	13.2
UT33aa	20.3	N/A	N/A	15.8	28.8	26.9	27.1	27.5	20.3	N/A	N/A	10.7
UT34aa	18.8	N/A	N/A	12.1	29.9	27.2	28.4	27.4	20.9	N/A	N/A	13.1
UT35aa	20.9	N/A	N/A	13.8	28.3	28.3	27.9	29.4	21.3	N/A	N/A	10.2
UT36aa	19.7	N/A	N/A	12.9	28.8	26.7	28.7	29.0	21.6	N/A	N/A	12.9
UT37aa	20.9	N/A	N/A	15.7	27.4	27.9	29.6	27.3	18.8	N/A	N/A	14.0
UT38aa	19.3	N/A	N/A	13.3	28.3	29.5	29.6	26.2	18.7	N/A	N/A	10.5
UT39aa	20.3	N/A	N/A	12.3	28.0	27.3	28.3	28.3	20.7	N/A	N/A	14.0
UT40aa	18.5	N/A	N/A	15.4	27.8	29.7	26.6	26.8	20.4	N/A	N/A	10.7
UT41aa	19.5	N/A	N/A	12.5	28.7	27.2	27.4	29.0	21.0	N/A	N/A	10.9
UT42aa	18.2	N/A	N/A	14.5	29.8	27.8	28.9	28.4	21.4	N/A	N/A	12.1
UT43aa	19.1	N/A	N/A	12.5	28.0	26.8	29.2	28.5	21.3	N/A	N/A	13.7
UT44aa	19.7	N/A	N/A	14.4	26.4	27.2	28.0	28.2	20.2	N/A	N/A	12.2
UT45aa	18.6	N/A	N/A	14.7	27.0	26.2	26.4	26.7	18.3	N/A	N/A	12.1
UT46aa	19.0	N/A	N/A	12.2	29.8	26.9	26.1	28.5	20.6	N/A	N/A	12.7
UT47aa	19.0	N/A	N/A	14.0	28.1	28.7	28.3	27.8	20.8	N/A	N/A	12.0
UT48aa	18.6	N/A	N/A	13.8	29.3	29.9	29.1	29.3	21.7	N/A	N/A	13.0
UT49aa	18.7	N/A	N/A	13.2	26.4	29.5	27.1	28.3	21.1	N/A	N/A	13.5
UT50aa	20.4	N/A	N/A	14.3	29.3	29.4	26.6	28.0	18.5	N/A	N/A	14.0

A-7-2 Low level contact resistance				
Testing Period	Measure environment		Test Engineer	Test Result
2024/07/24	Temperature(℃)	21.6	Su Kun	Pass
	Humidity (RH)	71.0 %		
Test condition	Mated; Maximum open circuit voltage 20 mV; Test current 100 mA.			
Criteria	≤40 mΩ （Initial）			

A-7-2 Low Level Contact Resistance (mΩ)												
Sample Coding	A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	A11	A12
UT51aa	20.9	N/A	N/A	20.1	25.6	26.8	23.2	24.2	17.8	N/A	N/A	14.9
UT52aa	18.2	N/A	N/A	19.9	26.5	24.4	24.5	24.4	13.6	N/A	N/A	14.7
UT53aa	21.9	N/A	N/A	21.2	24.7	26.9	26.5	27.1	16.1	N/A	N/A	15.7
UT54aa	19.4	N/A	N/A	25.1	25.9	27.1	26.3	26.8	16.3	N/A	N/A	15.1
UT55aa	20.2	N/A	N/A	19.6	25.6	25.5	23.8	25.4	16.9	N/A	N/A	15.3
UT56aa	21.4	N/A	N/A	20.5	25.0	24.9	26.9	26.6	16.2	N/A	N/A	14.2
UT57aa	19.3	N/A	N/A	21.1	25.6	25.8	24.6	27.3	14.4	N/A	N/A	15.1
UT58aa	16.2	N/A	N/A	21.2	24.8	26.7	24.7	24.8	10.5	N/A	N/A	14.0
UT59aa	13.6	N/A	N/A	21.4	26.3	26.6	25.1	26.6	14.5	N/A	N/A	14.6
UT60aa	20.5	N/A	N/A	20.7	25.2	27.0	26.6	25.4	17.7	N/A	N/A	15.9
Sample Coding	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10	B11	B12
UT51aa	17.6	N/A	N/A	19.1	25.6	25.3	25.8	26.6	17.8	N/A	N/A	20.9
UT52aa	17.4	N/A	N/A	19.0	26.4	27.1	23.8	27.4	17.9	N/A	N/A	19.1
UT53aa	20.7	N/A	N/A	15.4	25.3	26.6	27.1	26.3	17.6	N/A	N/A	7.7
UT54aa	18.2	N/A	N/A	11.7	25.8	25.9	24.4	27.7	18.2	N/A	N/A	16.4
UT55aa	17.9	N/A	N/A	19.6	24.8	24.8	26.0	24.1	18.1	N/A	N/A	19.5
UT56aa	19.1	N/A	N/A	20.4	27.7	22.5	24.7	25.5	17.4	N/A	N/A	18.1
UT57aa	18.1	N/A	N/A	19.1	26.5	26.8	28.9	25.9	18.6	N/A	N/A	19.7
UT58aa	18.8	N/A	N/A	19.5	26.3	25.3	25.6	25.1	17.2	N/A	N/A	18.2
UT59aa	19.6	N/A	N/A	19.8	25.5	27.1	23.8	25.5	17.2	N/A	N/A	18.6
UT60aa	17.2	N/A	N/A	19.1	25.2	25.4	24.5	25.3	17.5	N/A	N/A	19.9

A-7-10 Low level contact resistance				
Testing Period	Measure environment		Test Engineer	Test Result
2024/08/01	Temperature(℃)	23.0	Su Kun	Pass
	Humidity (RH)	72.3 %		
Test condition	Mated; Maximum open circuit voltage 20 mV; Test current 100 mA.			
Criteria	≤50 mΩ			

A-7-10 Low Level Contact Resistance (mΩ)												
Sample Coding	A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	A11	A12
UT51aa	22.5	N/A	N/A	19.9	26.5	26.8	24.1	26.3	18.5	N/A	N/A	14.9
UT52aa	21.4	N/A	N/A	20.2	27.4	25.4	25.8	25.5	16.6	N/A	N/A	15.6
UT53aa	22.4	N/A	N/A	24.3	28.3	26.6	25.7	27.7	17.0	N/A	N/A	14.9
UT54aa	23.1	N/A	N/A	28.2	34.1	29.1	28.8	27.4	17.9	N/A	N/A	16.8
UT55aa	20.2	N/A	N/A	21.2	25.2	24.7	28.1	29.1	15.8	N/A	N/A	14.7
UT56aa	20.2	N/A	N/A	19.9	26.0	28.4	27.2	26.6	16.4	N/A	N/A	15.3
UT57aa	22.4	N/A	N/A	20.2	26.7	25.5	26.3	28.9	16.6	N/A	N/A	16.3
UT58aa	21.2	N/A	N/A	21.1	25.5	27.1	25.4	25.8	18.1	N/A	N/A	14.7
UT59aa	19.4	N/A	N/A	21.1	25.9	26.6	24.8	27.7	14.8	N/A	N/A	17.1
UT60aa	22.2	N/A	N/A	22.1	24.3	25.8	25.5	26.2	17.8	N/A	N/A	15.1
Sample Coding	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10	B11	B12
UT51aa	18.9	N/A	N/A	20.3	26.1	26.6	29.2	27.7	19.4	N/A	N/A	18.9
UT52aa	19.3	N/A	N/A	19.2	28.7	27.4	25.3	28.4	21.1	N/A	N/A	16.5
UT53aa	20.3	N/A	N/A	22.5	26.8	28.0	28.3	27.1	19.2	N/A	N/A	17.7
UT54aa	19.9	N/A	N/A	19.3	25.4	29.1	27.6	29.0	17.7	N/A	N/A	18.1
UT55aa	18.4	N/A	N/A	20.2	29.3	29.0	27.1	24.7	18.3	N/A	N/A	19.4
UT56aa	20.2	N/A	N/A	19.4	28.7	28.8	25.5	28.8	19.4	N/A	N/A	20.2
UT57aa	17.7	N/A	N/A	19.7	27.7	23.4	29.7	26.9	18.8	N/A	N/A	19.9
UT58aa	18.9	N/A	N/A	21.1	30.3	27.1	23.1	26.6	17.8	N/A	N/A	19.0
UT59aa	19.7	N/A	N/A	22.4	26.6	26.6	24.6	24.8	17.4	N/A	N/A	21.1
UT60aa	18.8	N/A	N/A	20.2	24.5	28.2	25.5	27.1	18.9	N/A	N/A	23.3

8.4. Clause 3.7.8.2 Dielectric withstanding voltage

A-7-1 Dielectric withstanding voltage				
Testing Period	Measure environment		Test Engineer	Test Result
2024/07/18	Temperature(℃)	24.2	Su Kun	Pass
	Humidity (RH)	69.3 %		
Test condition	Mated; 100 VAC (RMS), 1 min. The test voltage shall be applied between adjacent contacts.			
Criteria	A failure is the occurrence of adisruptive discharge as evidenced by flashover (surface discharge), sparkover (air discharge), breakdown (puncture discharge) or leakage in excess of 5 mA			

A-7-11 Dielectric withstanding voltage				
Testing Period	Measure environment		Test Engineer	Test Result
2024/08/01	Temperature(℃)	25.4	Su Kun	Pass
	Humidity (RH)	71.7 %		
Test condition	Mated; 100 VAC (RMS), 1 min. The test voltage shall be applied between adjacent contacts.			
Criteria	A failure is the occurrence of adisruptive discharge as evidenced by flashover (surface discharge), sparkover (air discharge), breakdown (puncture discharge) or leakage in excess of 5 mA			

8.5. Clause 3.7.8.3 Insulation Resistance

A-7-12 Insulation Resistance				
Testing Period	Measure environment		Test Engineer	Test Result
2024/08/01	Temperature(℃)	25.4	Su Kun	Pass
	Humidity (RH)	71.7 %		
Test condition	Mated and Unmated, 500 Vdc, 2min. The test voltage shall be applied between adjacent contacts.			
Criteria	≥100MΩ			

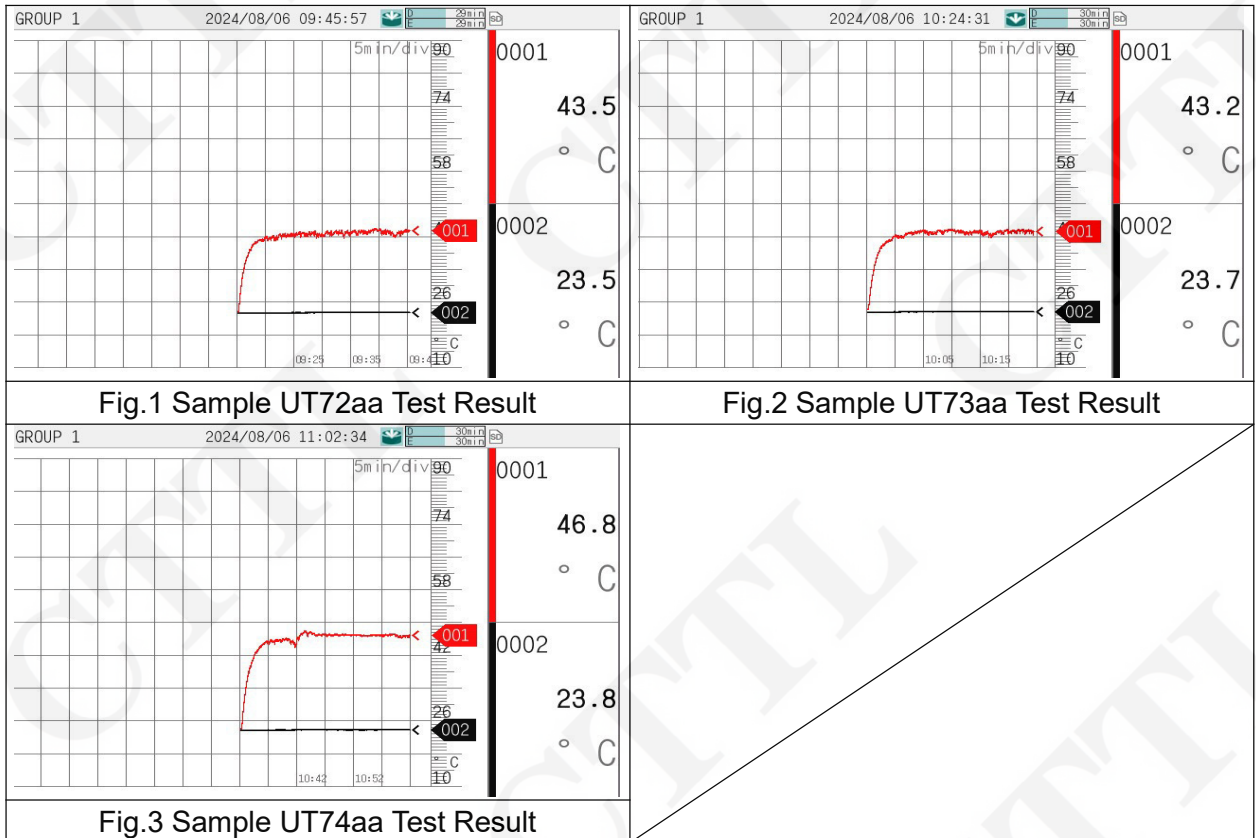
A-7-12 Insulation Resistance (GΩ)					
Sample Coding	UT51aa	UT52aa	UT53aa	UT54aa	UT55aa
Test contacts					
A4 to A5	11.9	11.9	11.9	11.9	11.9
A5 to A6	3.6	3.6	3.6	3.6	3.6
A6 to A7	6.6	6.6	6.6	6.6	6.6
B4 to B5	10.9	10.9	10.9	10.9	10.9
B5 to B6	6.9	6.9	6.9	6.9	6.9
Sample Coding	UT56aa	UT57aa	UT28aa	UT59aa	UT60aa
Test contacts					
A4 to A5	11.9	11.9	11.9	11.9	11.9
A5 to A6	3.6	3.6	3.6	3.6	3.6
A6 to A7	6.6	6.6	6.6	6.6	6.6
B4 to B5	10.9	10.9	10.9	10.9	10.9
B5 to B6	6.9	6.9	6.9	6.9	6.9
Note: Followed by the specific resistance value.					

8.6. Clause 3.7.8.4 Contact Current Rating

B-6-1 Contact Current Rating				
Testing Period	Measure environment		Test Engineer	Test Result
2024/08/06	Temperature(℃)	22.9	Su Kun	Pass
	Humidity (RH)	71.2 %		
Test condition	1、 5A applied collectively to VBUS pins（i.e.,pins A4,A9,B4,and B9）. 2、 1.25A applied to the Vconn pin（i.e.,B5）,terminated. 3、 0.25 A applied individually to all the other contacts.			
Criteria	The temperature rise shall not exceed 30℃ at the outside surface of the shell.			

B-6-1 Contact Current Rating			
Sample Coding	Ambient temperature (°C)	Thermocouple temperature (°C)	Temperature rise (°C)
UT72aa	23.5	43.5	20.0
UT73aa	23.7	43.2	19.5
UT74aa	23.8	46.8	23.0
Note: Temperature rise of sample = Thermocouple temperature - Ambient temperature.			

B-6 Temperature Rise Curve



8.7. Clause 3.8.1.1 Insertion force

A-7-4 Insertion Force				
Testing Period	Measure environment		Test Engineer	Test Result
2024/07/29	Temperature(℃)	24.1	Su Kun	Pass
	Humidity (RH)	65.4 %		
Test condition	Speed: 12.5mm/min; Insertion depth: 5.1mm.			
Criteria	Insertion force:5N~20N			

A-7-4 Insertion Force					
Sample Coding	UT51aa	UT52aa	UT53aa	UT54aa	UT55aa
Insertion force (N)	14.3	14.1	13.5	14.0	14.4
Sample Coding	UT56aa	UT57aa	UT58aa	UT59aa	UT60aa
Insertion force (N)	14.7	14.3	14.9	14.5	15.3

8.8. Clause 3.8.1.1 Extraction force

A-7-5 Extraction Force				
Testing Period	Measure environment		Test Engineer	Test Result
2024/07/29	Temperature(℃)	24.1	Su Kun	Pass
	Humidity (RH)	65.4 %		
Test condition	Speed: 12.5mm/min; Extraction depth: 5.1mm.			
Criteria	Extraction force: 8N~20N(Initial reading)			

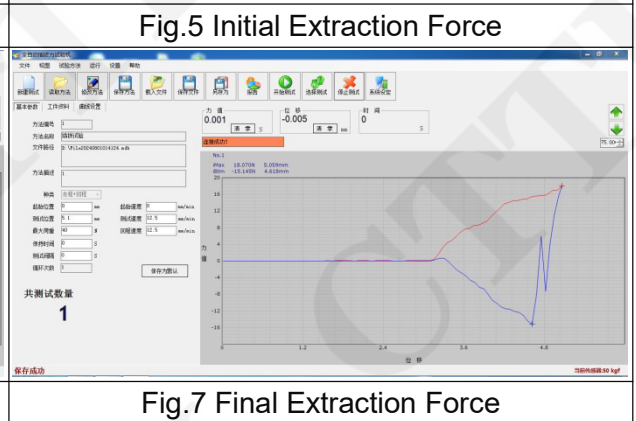
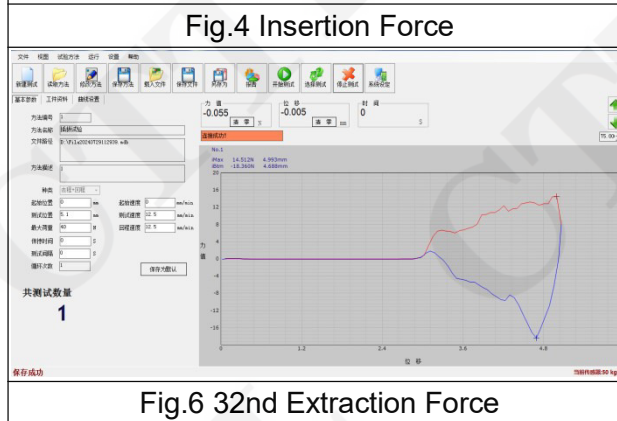
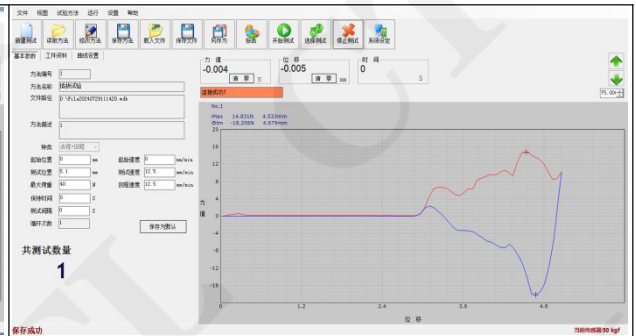
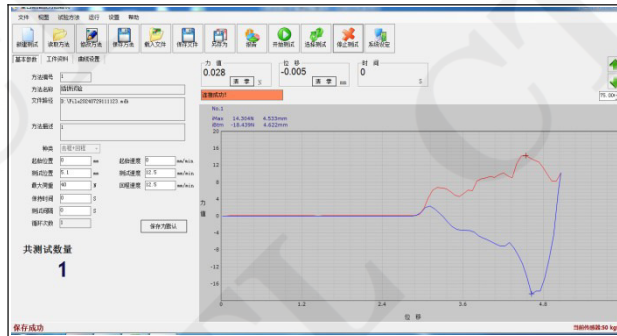
A-7-7 Extraction Force				
Testing Period	Measure environment		Test Engineer	Test Result
2024/07/29	Temperature(℃)	24.1	Su Kun	Pass
	Humidity (RH)	65.4 %		
Test condition	Speed: 12.5mm/min; Extraction depth: 5.1mm.			
Criteria	Extraction force: 8N~20N; 33% of the initial reading.			

A-7-9 Extraction Force				
Testing Period	Measure environment		Test Engineer	Test Result
2024/08/01	Temperature(℃)	23.0	Su Kun	Pass
	Humidity (RH)	72.3 %		
Test condition	Speed: 12.5mm/min; Extraction depth: 5.1mm.			
Criteria	Extraction force: 6N~20N.			

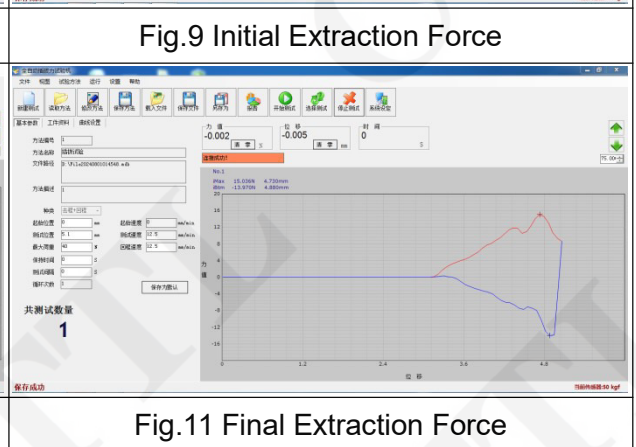
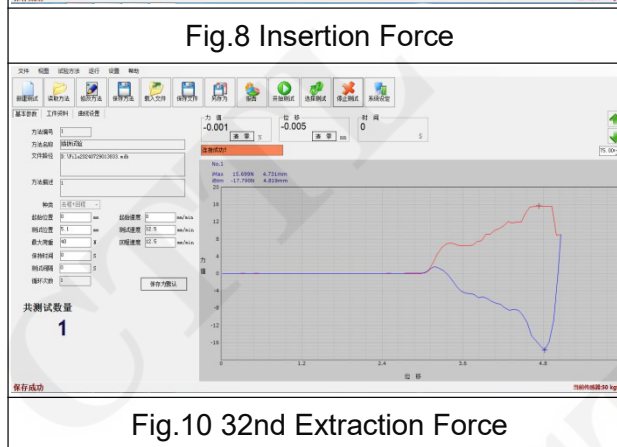
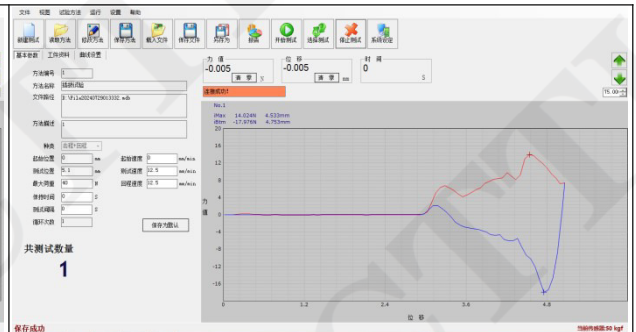
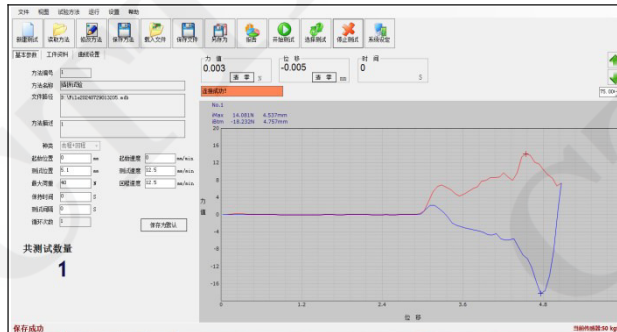
A-7-5 Extraction Force					
Sample Coding	UT51aa	UT52aa	UT53aa	UT54aa	UT55aa
Extraction force (N)	18.2	18.0	17.2	17.2	19.0
Sample Coding	UT56aa	UT57aa	UT58aa	UT59aa	UT60aa
Extraction force (N)	18.1	17.7	18.4	18.9	18.3
A-7-7 Extraction Force					
Sample Coding	UT51aa	UT52aa	UT53aa	UT54aa	UT55aa
Extraction force (N)	18.4	17.8	16.3	16.5	16.7
$\frac{ (A-7-7)-(A-7-5) }{(A-7-5)} * 100\%$	1.10%	1.11%	5.23%	4.07%	12.11%
Sample Coding	UT56aa	UT57aa	UT58aa	UT59aa	UT60aa
Extraction force (N)	17.3	17.5	18.9	19.5	19.3
$\frac{ (A-7-7)-(A-7-5) }{(A-7-5)} * 100\%$	4.42%	1.13%	2.72%	3.17%	5.46%
A-7-9 Extraction Force					
Sample Coding	UT51aa	UT52aa	UT53aa	UT54aa	UT55aa
Extraction force (N)	15.1	14.0	19.5	19.0	12.9
Sample Coding	UT56aa	UT57aa	UT58aa	UT59aa	UT60aa
Extraction force (N)	14.6	18.9	18.1	17.2	14.7

A-7 Mechanical Curve

Sample UT51aa



Sample UT52aa



Sample UT53aa

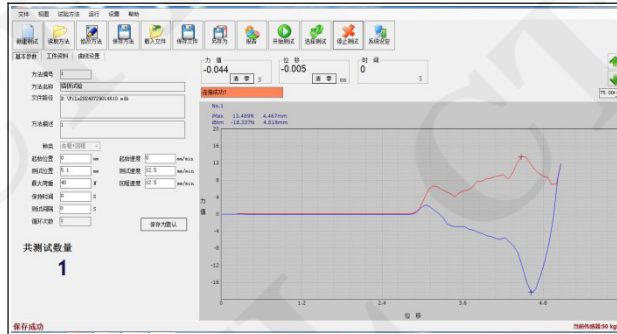


Fig.12 Insertion Force

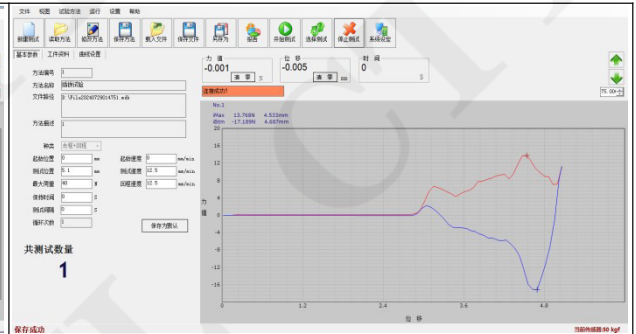


Fig.13 Initial Extraction Force

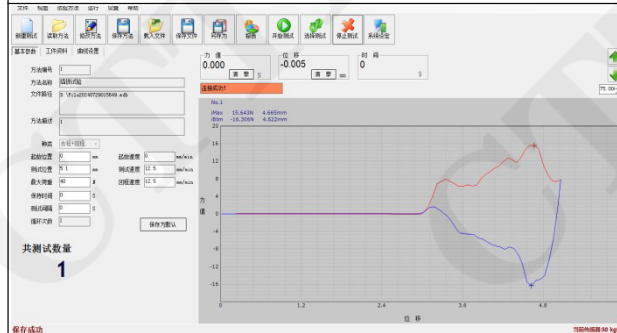


Fig.14 32nd Extraction Force

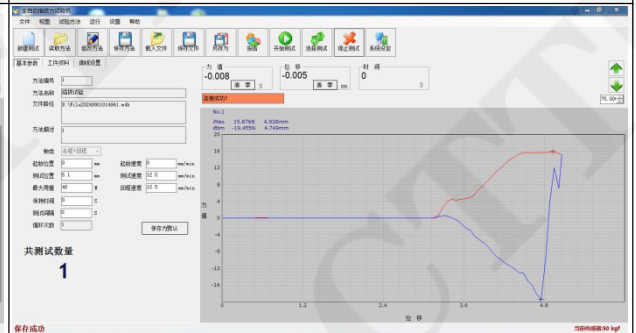


Fig.15 Final Extraction Force

Sample UT54aa

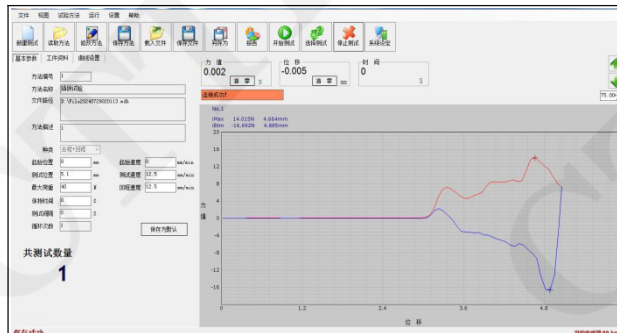


Fig.16 Insertion Force

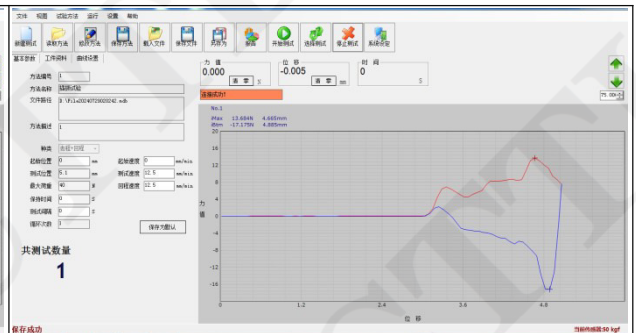


Fig.17 Initial Extraction Force

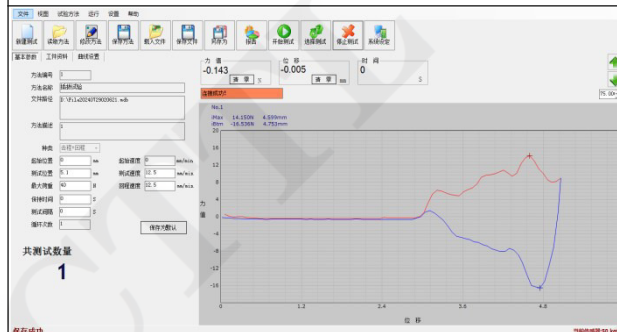


Fig.18 32nd Extraction Force

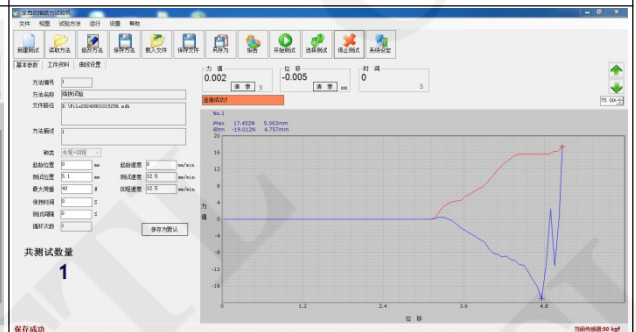


Fig.19 Final Extraction Force

Sample UT55aa

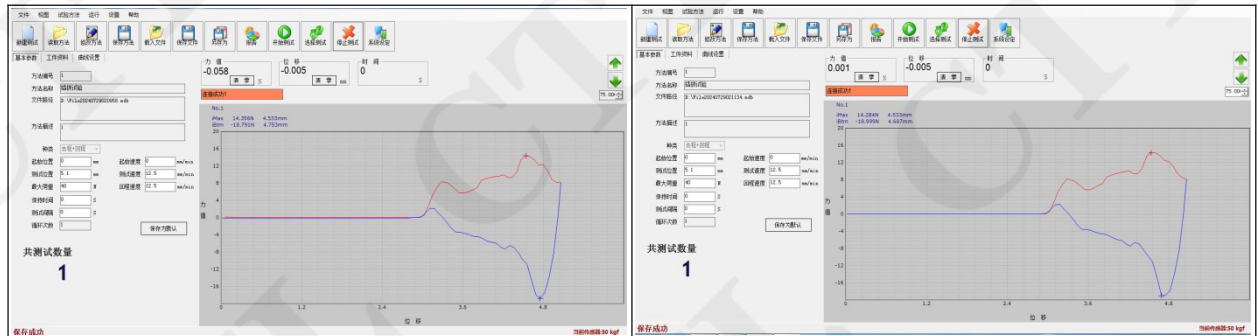


Fig.20 Insertion Force

Fig.21 Initial Extraction Force

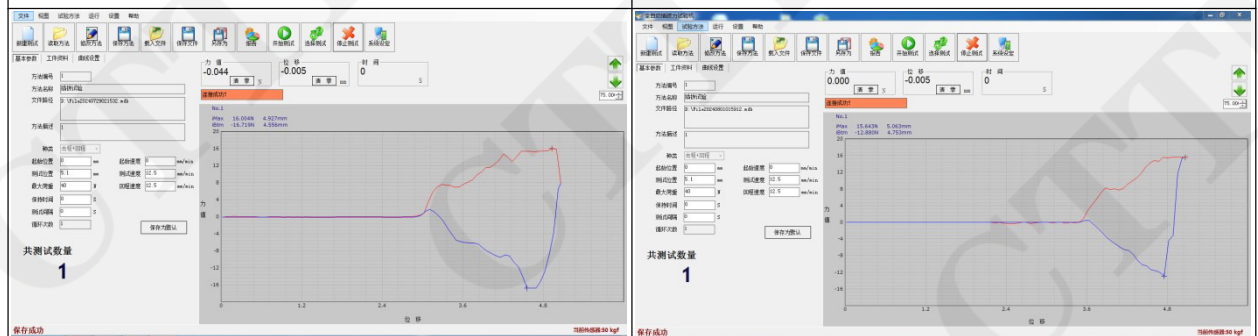


Fig.22 32nd Extraction Force

Fig.23 Final Extraction Force

Sample UT56aa

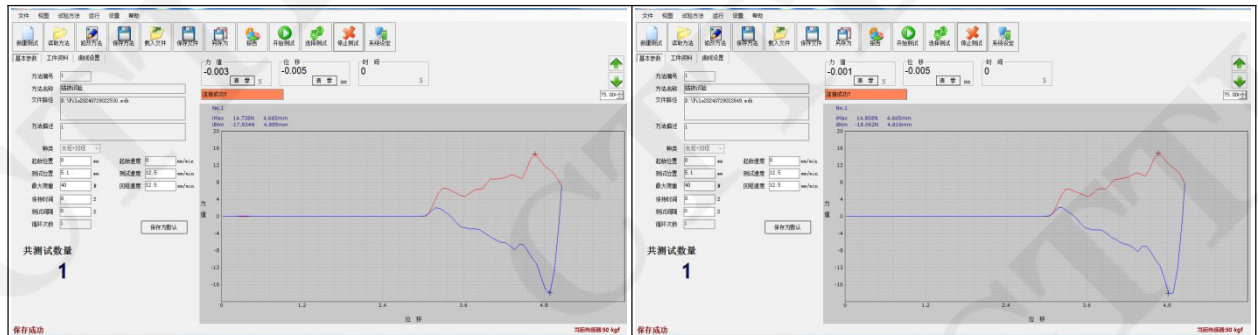


Fig.24 Insertion Force

Fig.25 Initial Extraction Force

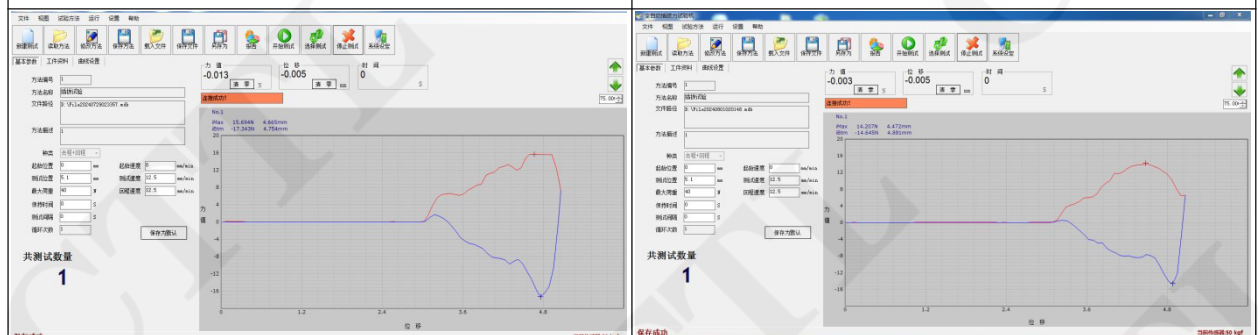
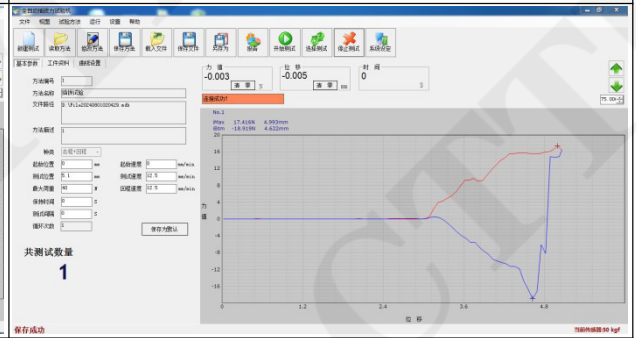
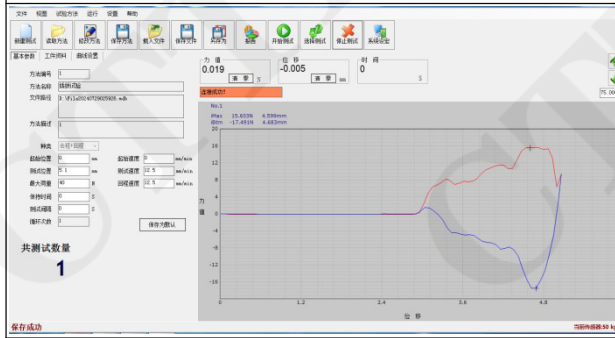
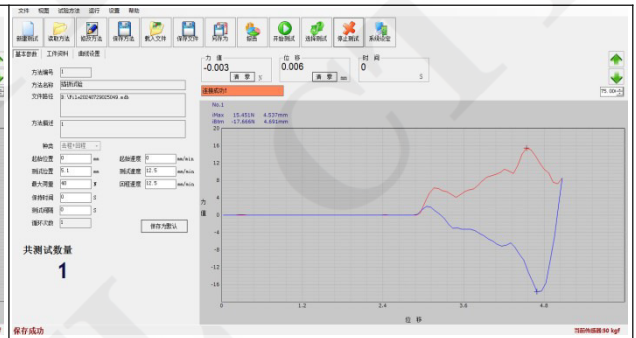
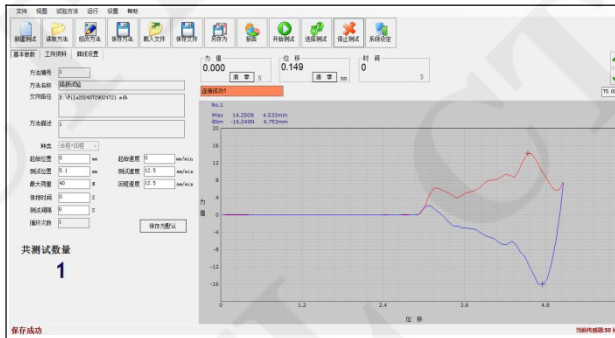


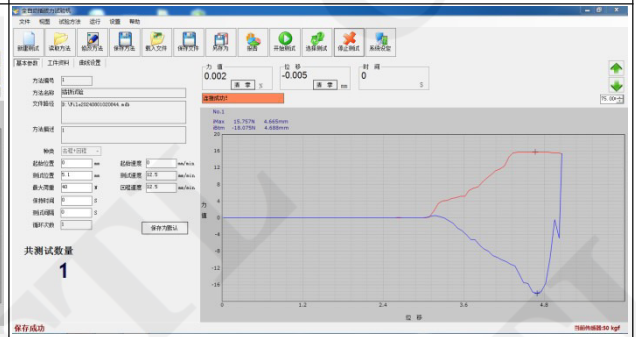
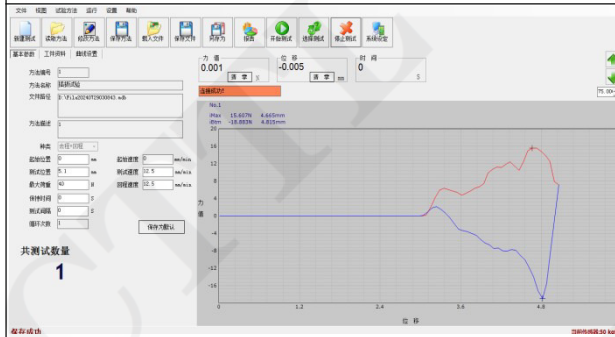
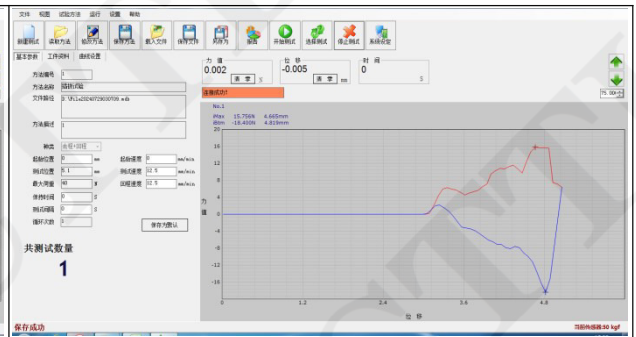
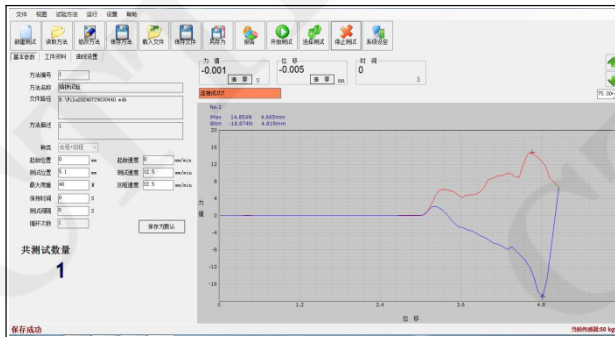
Fig.26 32nd Extraction Force

Fig.27 Final Extraction Force

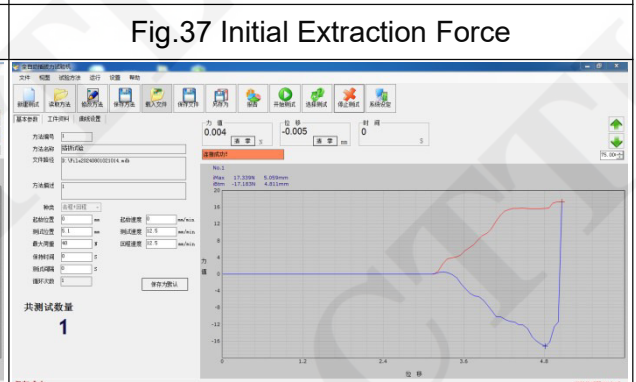
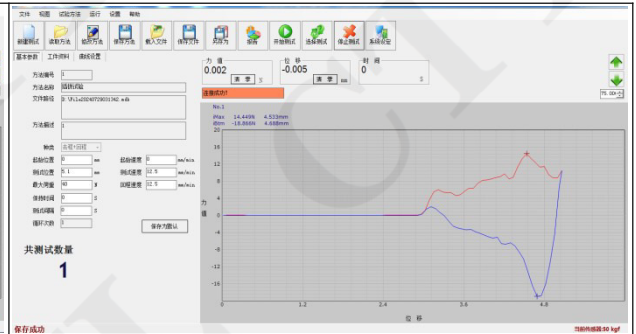
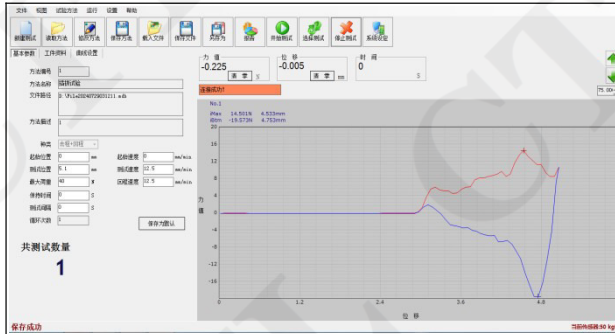
Sample UT57aa



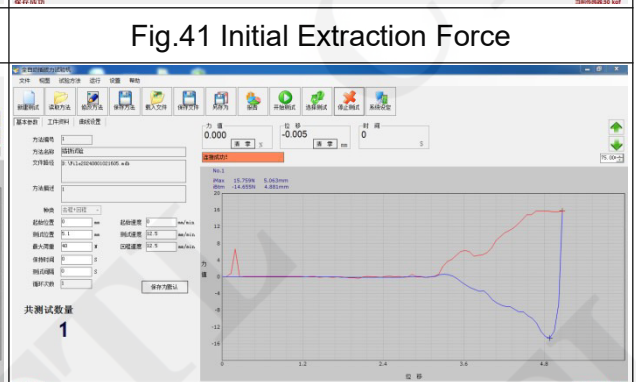
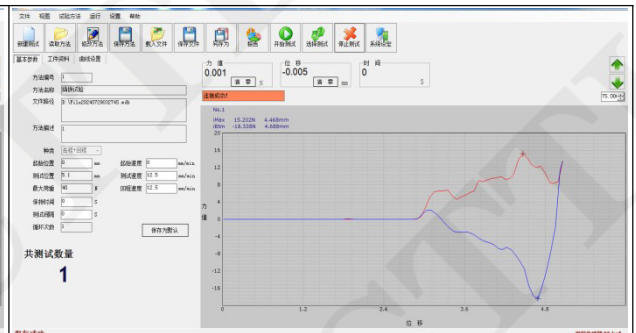
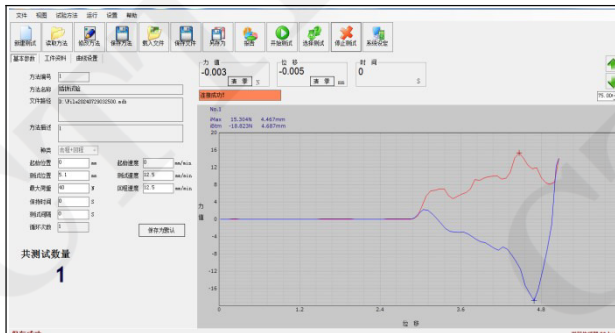
Sample UT58aa



Sample UT59aa



Sample UT60aa



8.9. Clause 3.8.1.3 Durability

A-1-2 Durability				
Testing Period	Measure environment		Test Engineer	Test Result
2024/07/04	Temperature(℃)	25.7	Zhan Weilong	Pass
	Humidity (RH)	66.4 %		
Test condition	Auto cycle; cycle rate: 500±50/h; Number of cycles: 50.			
Criteria	No evidence of physical damages.			

A-2-2 Durability				
Testing Period	Measure environment		Test Engineer	Test Result
2024/08/01	Temperature(℃)	22.1	Huang Siwei	Pass
	Humidity (RH)	71.5 %		
Test condition	Auto cycle; cycle rate: 500±50/h; Number of cycles: 50.			
Criteria	No evidence of physical damages.			

A-3-2 Durability				
Testing Period	Measure environment		Test Engineer	Test Result
2024/07/23	Temperature(℃)	23.6	Su Kun	Pass
	Humidity (RH)	67.7 %		
Test condition	Auto cycle; cycle rate: 500±50/h; Number of cycles: 50.			
Criteria	No evidence of physical damages.			

A-4-2 Durability				
Testing Period	Measure environment		Test Engineer	Test Result
2024/07/26	Temperature(℃)	22.3	Huang Siwei	Pass
	Humidity (RH)	71.3 %		
Test condition	Auto cycle; cycle rate: 500±50/h; Number of cycles: 50.			
Criteria	No evidence of physical damages.			

A-7-3 Durability				
Testing Period	Measure environment		Test Engineer	Test Result
2024/07/18	Temperature(℃)	22.6	Su Kun	Pass
	Humidity (RH)	66.1 %		
Test condition	Manual mating/unmating 4 cycles.			
Criteria	No evidence of physical damages.			



A-7-6 Durability				
Testing Period	Measure environment		Test Engineer	Test Result
2024/07/29	Temperature(℃)	24.1	Su Kun	Pass
	Humidity (RH)	65.4 %		
Test condition	Manual mating/unmating 25 cycles.			
Criteria	No evidence of physical damages.			

A-7-8 Durability				
Testing Period	Measure environment		Test Engineer	Test Result
2024/07/30-2024/08/01	Temperature(℃)	22.0 - 23.8	Su Kun	Pass
	Humidity (RH)	65.7 - 75.5 %		
Test condition	Auto cycle, cycle rate: 500±50/h; Number of cycles: 10000. 2468 cycles (normal) + 2500 cycles (Rotate the receptacle 180°) + 2500 cycles (normal) + 2500 cycles (Rotate the receptacle 180°)			
Criteria	No evidence of physical damages.			

8.10. Clause 3.8.1.3 Reseating

A-1-5 Re-seating				
Testing Period	Measure environment		Test Engineer	Test Result
2024/07/18	Temperature(℃)	27.5	Zhan Weilong	Pass
	Humidity (RH)	67.4 %		
Test condition	Manual mating/unmating 3 cycles.			
Criteria	No evidence of physical damages.			

A-2-7 Re-seating				
Testing Period	Measure environment		Test Engineer	Test Result
2024/08/07	Temperature(℃)	23.1	Huang Siwei	Pass
	Humidity (RH)	70.2 %		
Test condition	Manual mating/unmating 3 cycles.			
Criteria	No evidence of physical damages.			

A-4-9 Re-seating				
Testing Period	Measure environment		Test Engineer	Test Result
2024/08/06	Temperature(℃)	23.5	Huang Siwei	Pass
	Humidity (RH)	71.2 %		
Test condition	Manual mating/unmating 3 cycles.			
Criteria	No evidence of physical damages.			

8.11. Clause 3.8.1.6 4-Axis Continuity

B-1-4 4-Axis Continuity				
Testing Period	Measure environment		Test Engineer	Test Result
2024/08/07	Temperature(℃)	22.3	Su Kun	Pass
	Humidity (RH)	73.0 %		
Test condition	Mated, 8N Force at 15 mm from receptacle shell mating edge. Duration: 10 seconds; Direction: 0, 90, 180, 270.			
Criteria	No discontinuities greater than 1.0 microsecond during 10 seconds at each axis.			

B-1-4 Mechanical Curve

Sample UT61aa

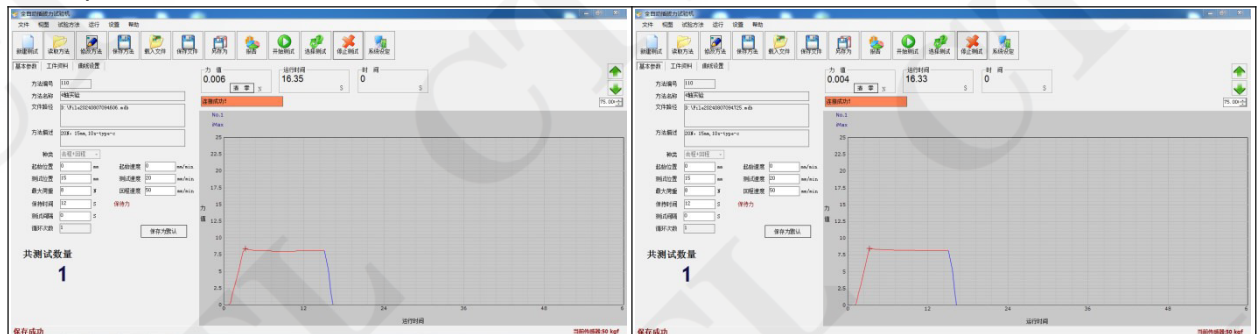


Fig.44 0 degree

Fig.45 180 degree

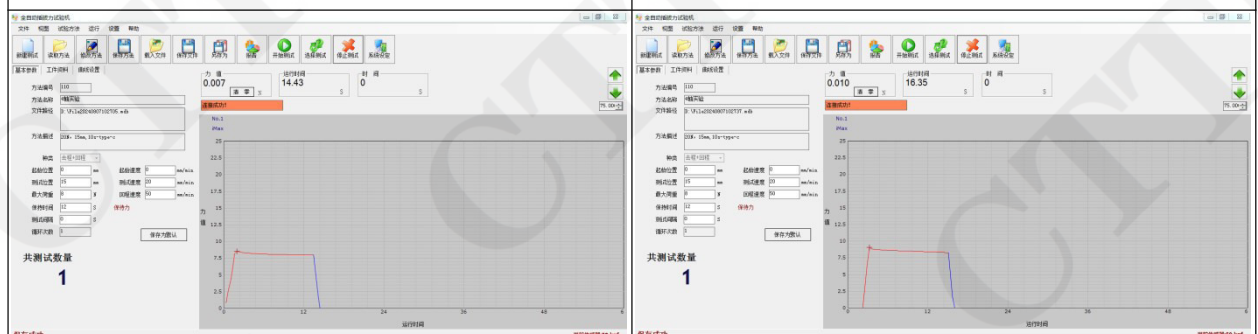


Fig.46 90 degree

Fig.47 270 degree

Sample UT62aa

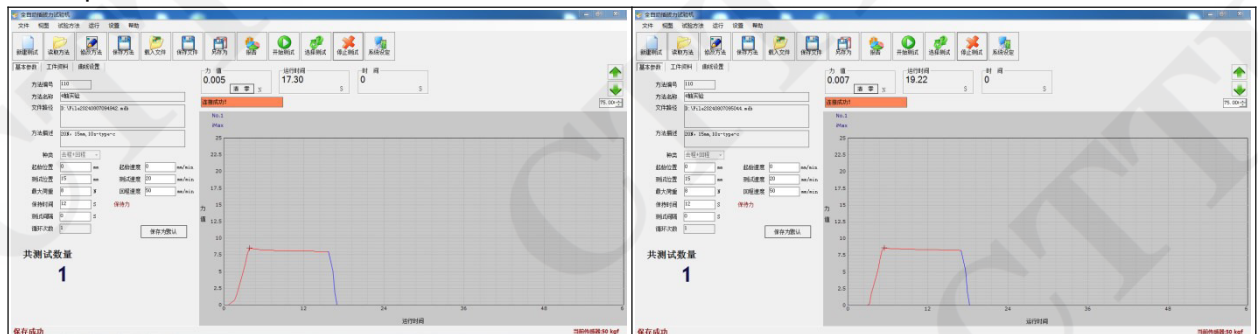


Fig.48 0 degree

Fig.49 180 degree

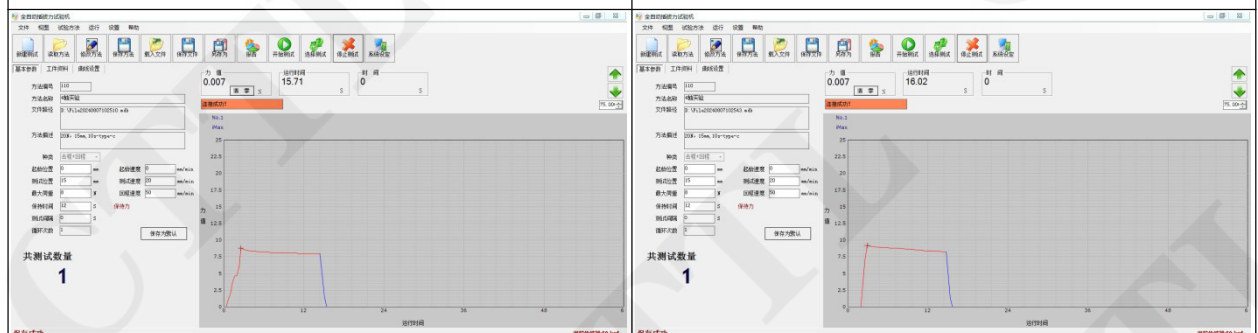


Fig.50 90 degree

Fig.51 270 degree

Sample UT63aa

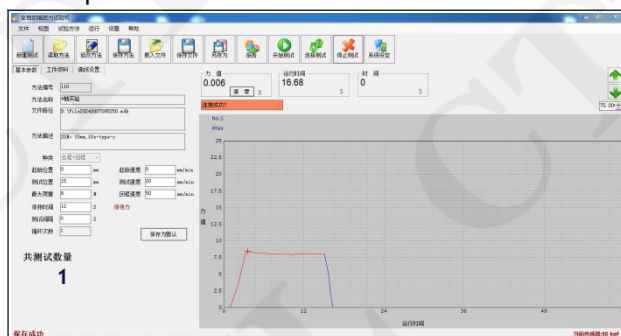


Fig.52 0 degree

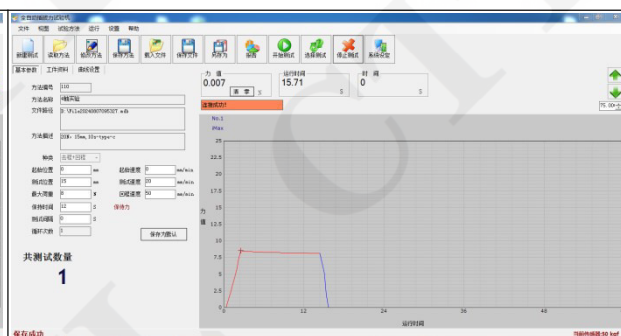


Fig.53 180 degree

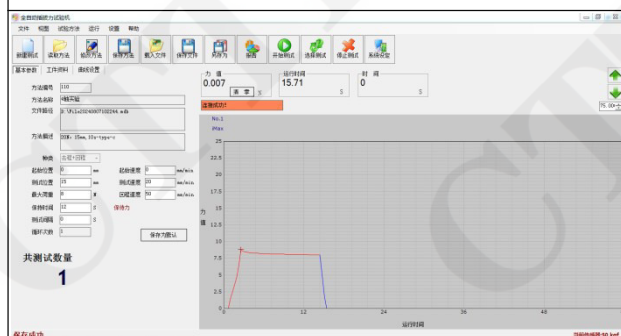


Fig.54 90 degree

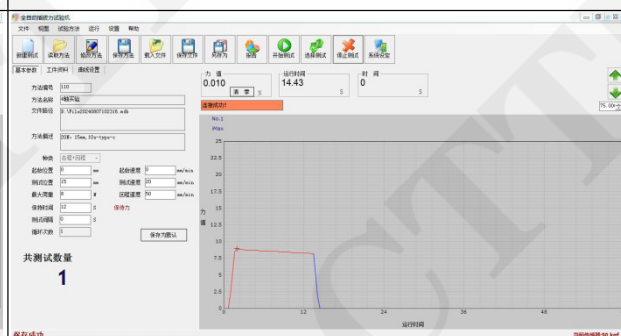


Fig.55 270 degree

Sample UT64aa

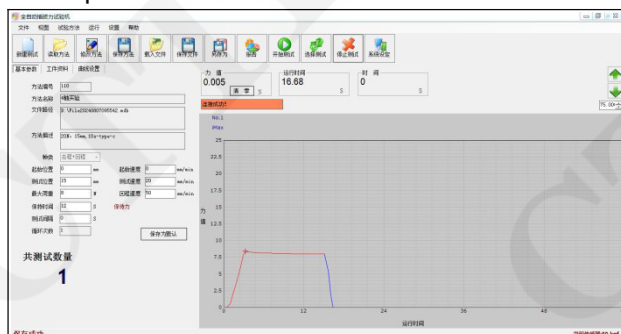


Fig.56 0 degree

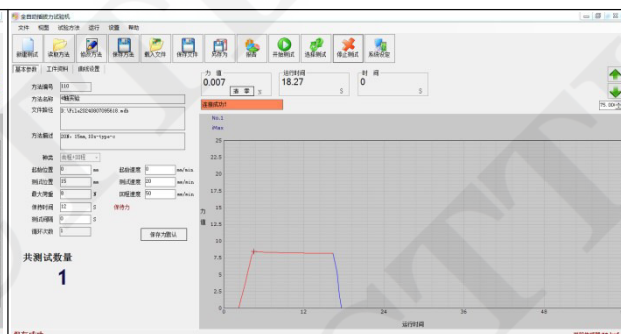


Fig.57 180 degree

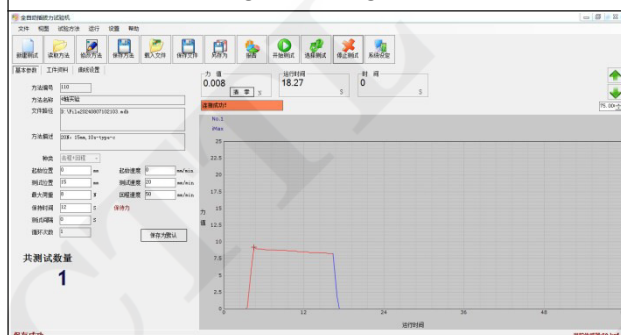


Fig.58 90 degree

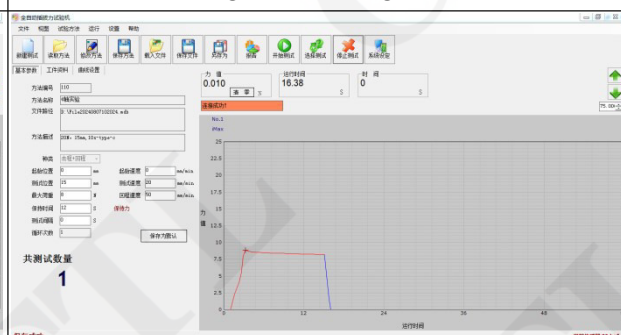
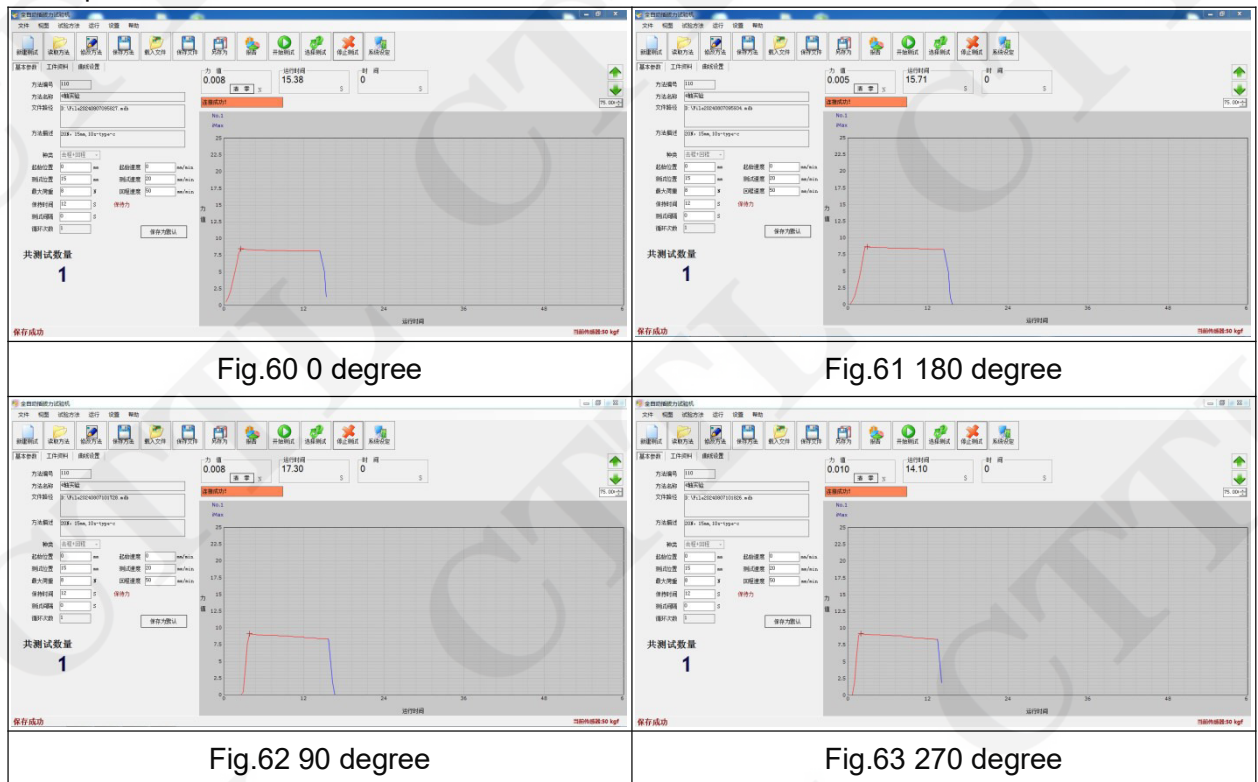
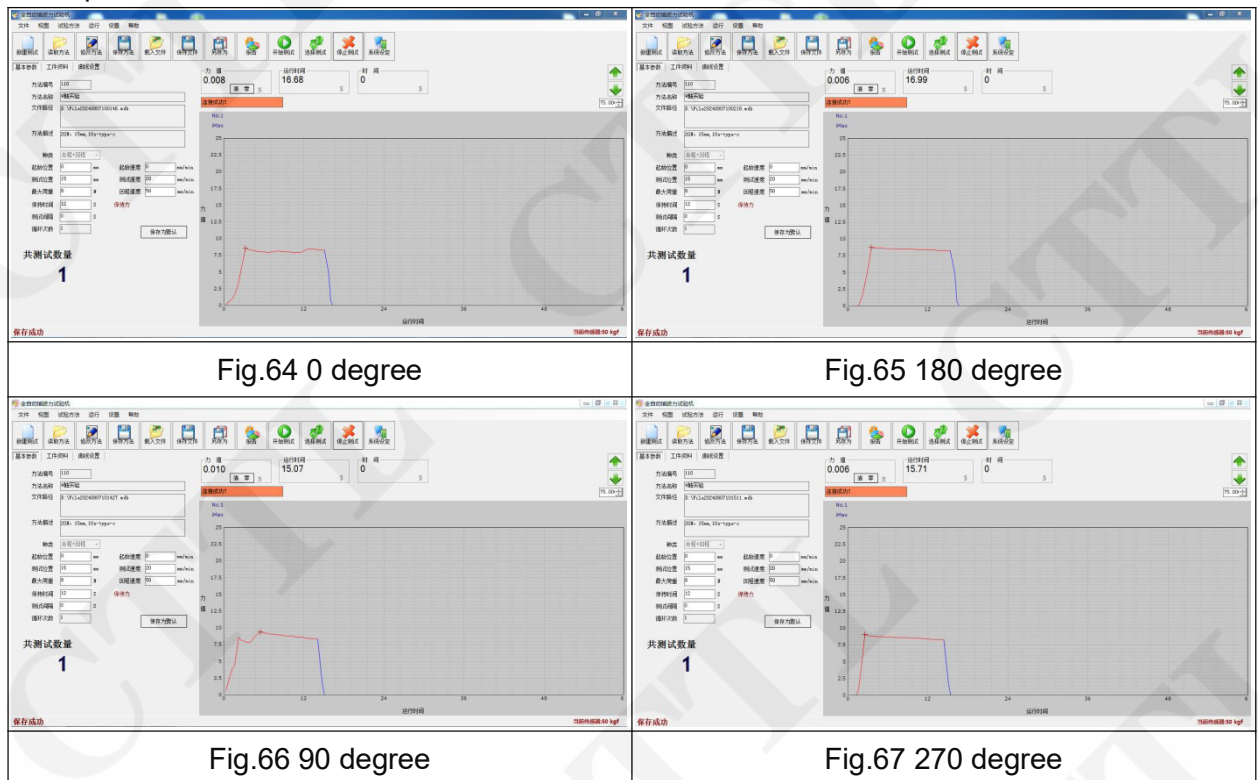


Fig.59 270 degree

Sample UT65aa



Sample UT66aa



Sample UT67aa

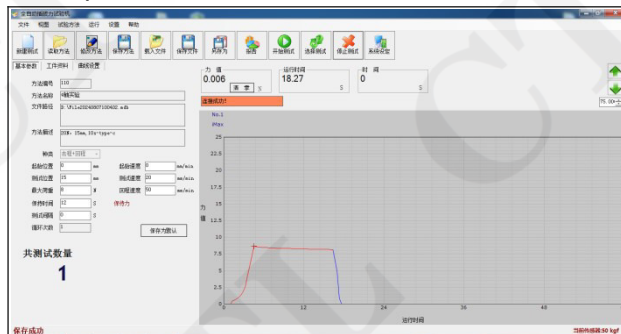


Fig.68 0 degree

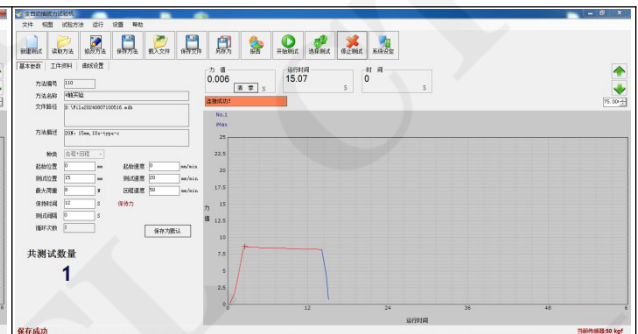


Fig.69 180 degree

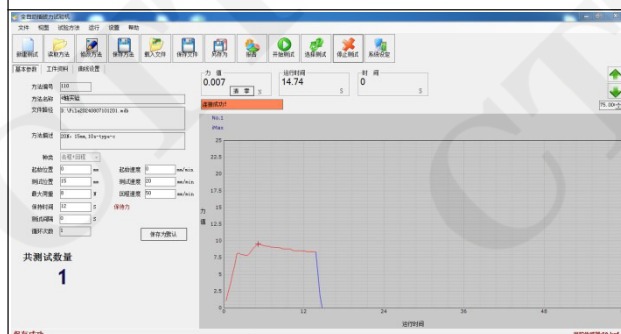


Fig.70 90 degree

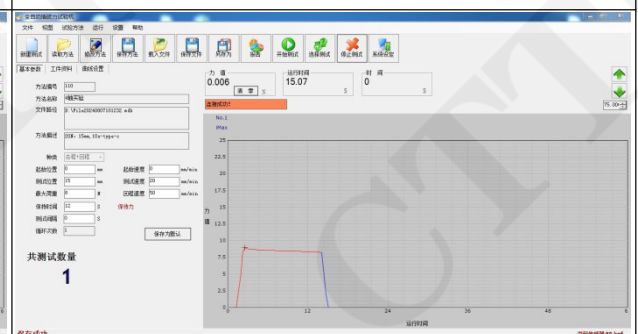


Fig.71 270 degree

Sample UT68aa

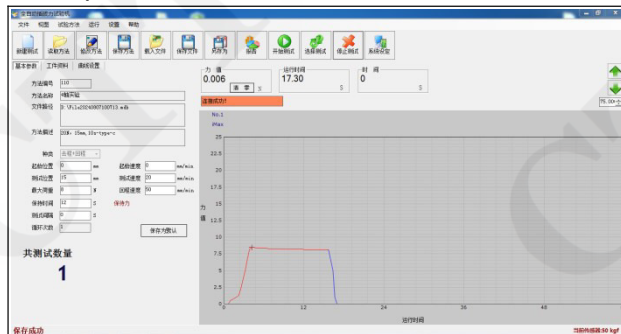


Fig.72 0 degree

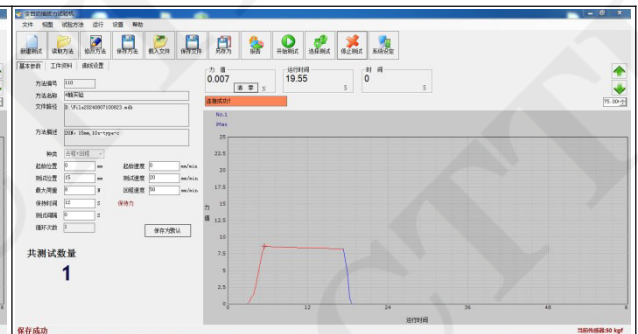


Fig.73 180 degree

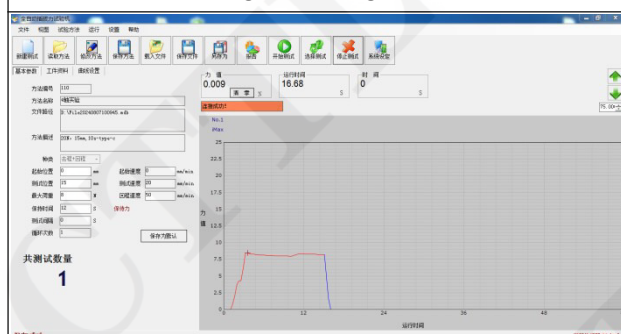


Fig.74 90 degree

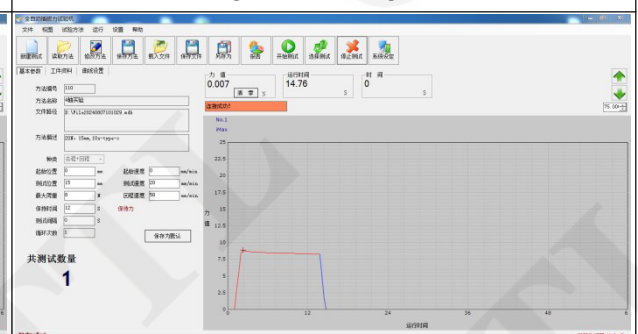


Fig.75 270 degree

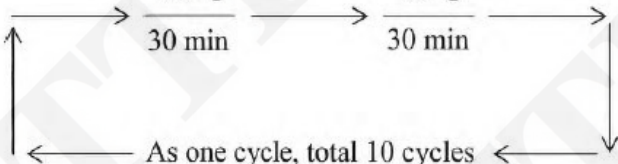
8.12. Clause 3.8.2 Temperature life

A-1-3 Temperature Life				
Testing Period	Measure environment		Test Engineer	Test Result
2024/07/04-2024/07/09	Temperature(℃)	24.2 - 26.8	Zhan Weilong	Pass
	Humidity (RH)	57.7 - 67.1 %		
Test condition	Mated; Temperature: 105±2℃; Duration: 120h.			
Criteria	No evidence of physical damages.			

A-3-3 Temperature Life				
Testing Period	Measure environment		Test Engineer	Test Result
2024/07/23-2024/07/26	Temperature(℃)	22.5 - 25.1	Su Kun	Pass
	Humidity (RH)	63.0 - 72.0 %		
Test condition	Mated; Temperature: 105±2℃; Duration: 72h.			
Criteria	No evidence of physical damages.			

A-4-3 Temperature Life				
Testing Period	Measure environment		Test Engineer	Test Result
2024/07/26-2024/07/29	Temperature(℃)	22.3 - 23.7	Huang Siwei	Pass
	Humidity (RH)	70.2 - 72.8 %		
Test condition	Mated; Temperature: 105±2℃; Duration: 72h.			
Criteria	No evidence of physical damages.			

8.13. Clause 3.8.2 Thermal shock

A-2-3 Thermal Shock				
Testing Period	Measure environment		Test Engineer	Test Result
2024/08/01-2024/08/02	Temperature(°C)	22.8 - 23.6	Huang Siwei	Pass
	Humidity (RH)	71.2 - 72.5 %		
Test condition	Mated: $-55_{-5}^0\text{ }^{\circ}\text{C}$  $85_{+2}^0\text{ }^{\circ}\text{C}$, 10 cycles. High/low temperature transfer time within 5 min.			
Criteria	No evidence of physical damages.			

8.14. Clause 3.8.2 Cyclic temperature and humidity

A-2-5 Cyclic temperature and humidity				
Testing Period	Measure environment		Test Engineer	Test Result
2024/08/02-2024/08/05	Temperature(℃)	23.7 - 24.6	Huang Siwei	Pass
	Humidity (RH)	71.2 - 72.1 %		
Test condition	Mated: Temperature of 25℃±3℃ relative humidity of 80% ±3% to Temperature of 65℃±3℃ relative humidity of 50% ±3% , Thermal ramp time 0.5 hour , maintain 1 hour, 24 cycles.			
	Temperature 65℃ 25℃ Humidity 80 %R.H. 50 %R.H. Time 1.0 h 0.5 h 1.0 h 0.5 h ← As one cycle, total 24 cycles →			
Criteria	No evidence of physical damages.			

8.15. Clause 3.8.2 Vibration

A-3-5 Vibration				
Testing Period	Measure environment		Test Engineer	Test Result
2024/08/06	Temperature(℃)	23.9	Su Kun	Pass
	Humidity (RH)	63.0 %		
Test condition	Mated; random vibration; Frequency:20-500Hz; 15min./axis for 3 axis (X,Y,Z); Power spectral density:0.02g ² /Hz, Acceleration:3.1grms.			
Criteria	No evidence of physical damages. No discontinuities of 1us or greater duration happened			

A-3-5 Vibration Curve

Sample UT21aa to UT25aa

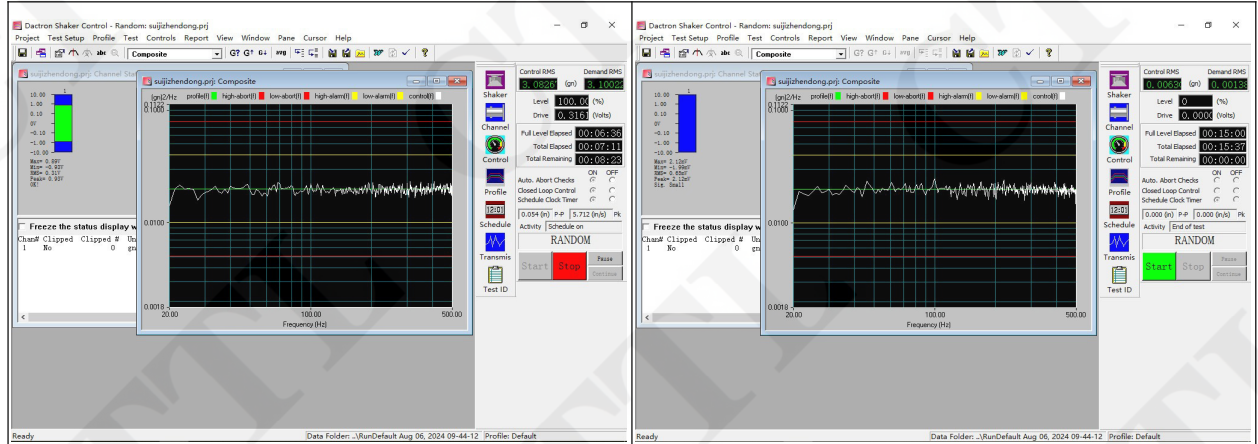


Fig.76 X-axis Under Testing

Fig.77 X-axis After Testing

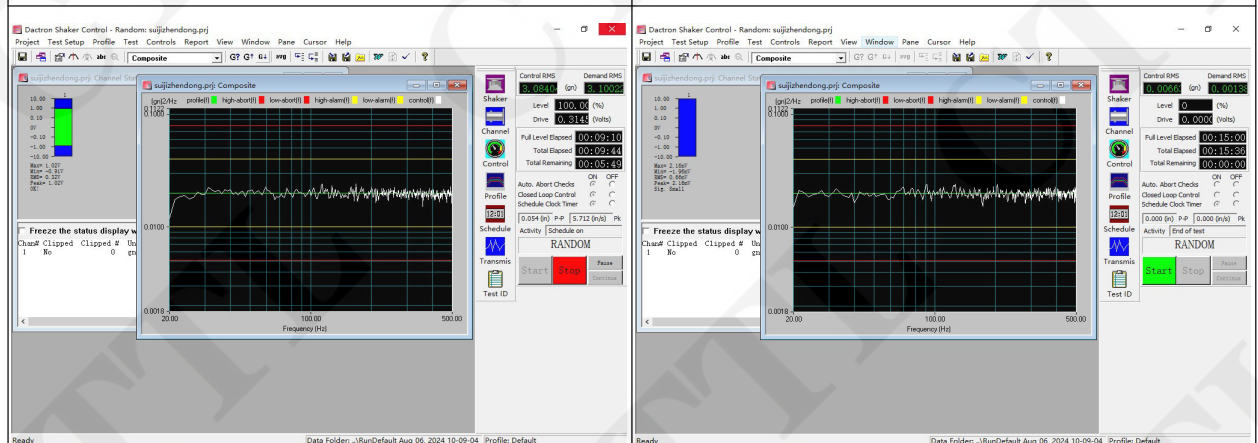


Fig.78 Y-axis Under Testing

Fig.79 Y-axis After Testing

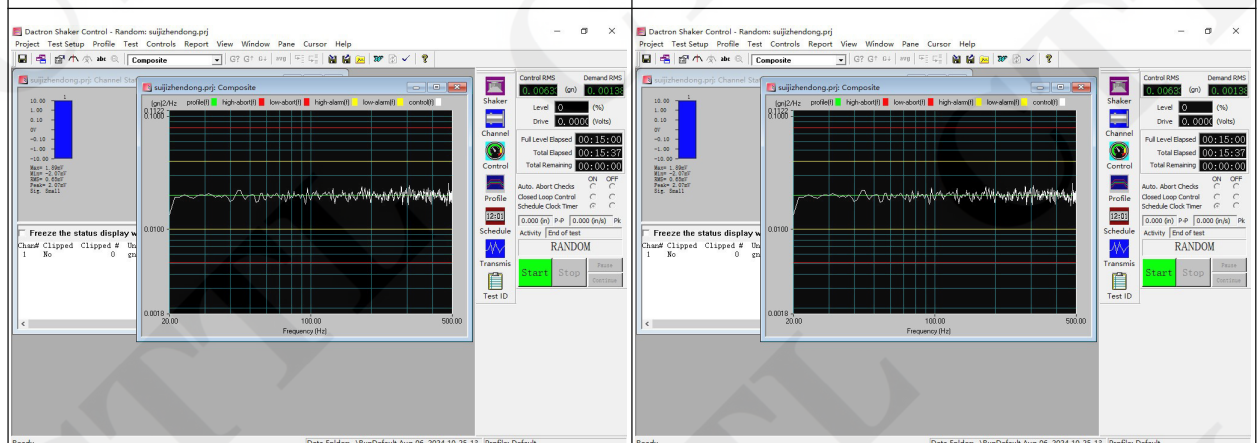


Fig.80 Z-axis Under Testing

Fig.81 Z-axis After Testing

Sample UT26aa to UT30aa

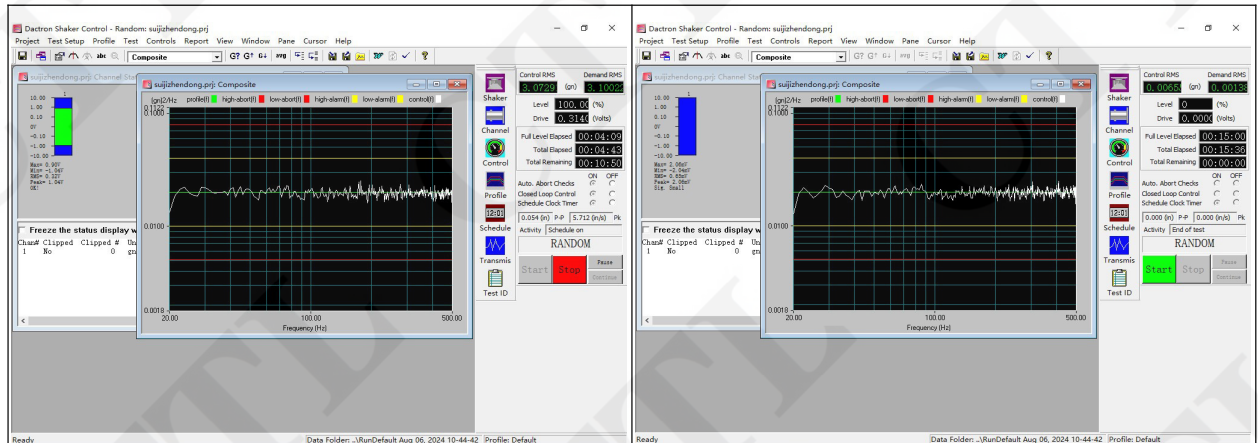


Fig.82 X-axis Under Testing

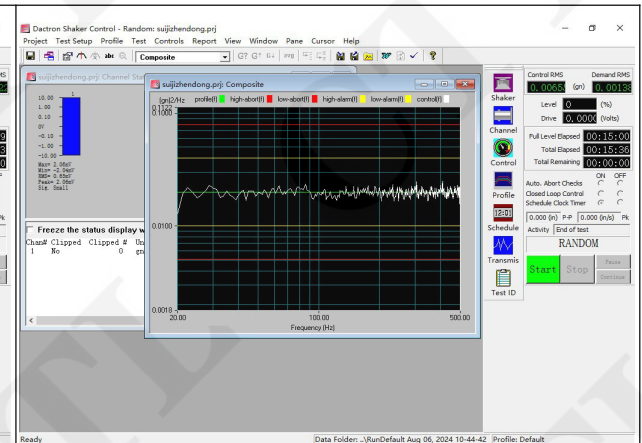


Fig.83 X-axis After Testing

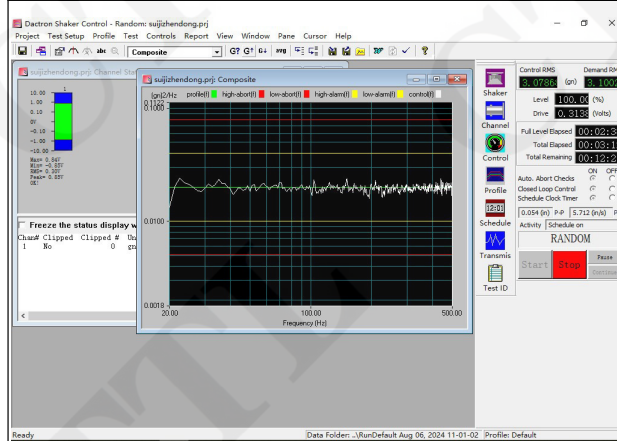


Fig.84 Y-axis Under Testing

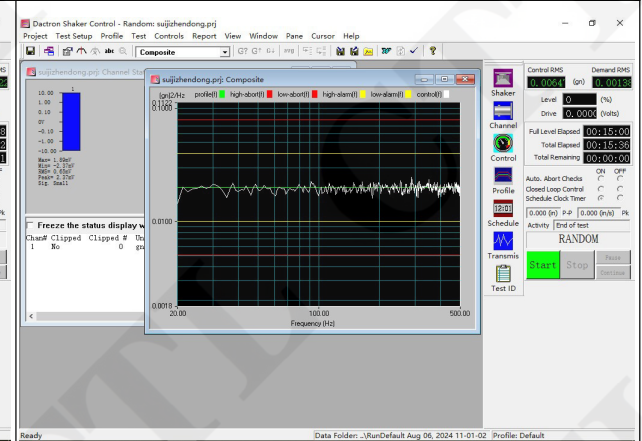


Fig.85 Y-axis After Testing

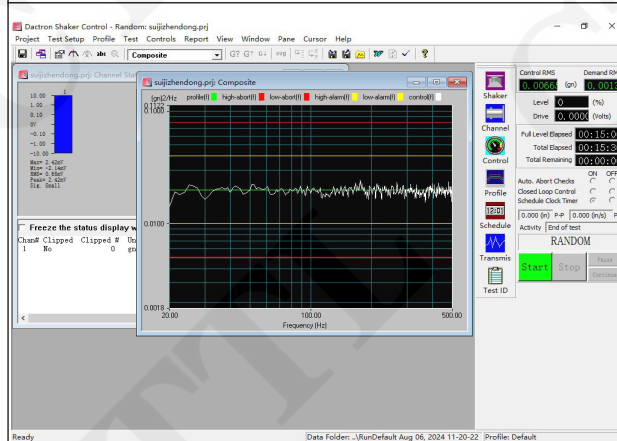


Fig.86 Z-axis Under Testing

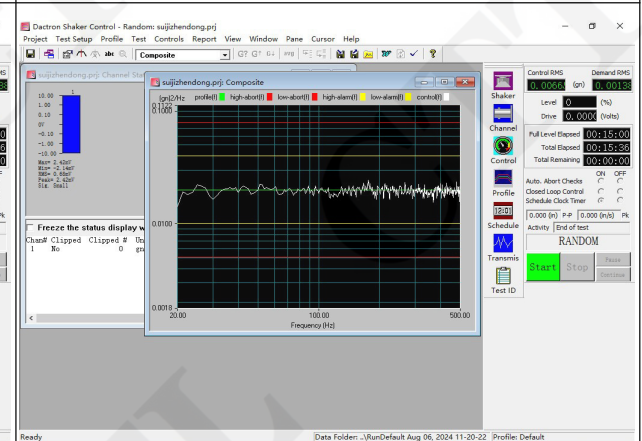


Fig.87 Z-axis After Testing

8.16. Clause 3.8.2 Mixed flowing gas

A-4-5 Mixed flowing gas				
Testing Period	Measure environment		Test Engineer	Test Result
2024/07/29-2024/08/05	Temperature(℃)	23.6 - 24.7	Huang Siwei	Pass
	Humidity (RH)	70.1 - 71.9 %		
Test condition	CL2:(10±3) ppb; No2:(200±50) ppb; H2S:(10±5) ppb SO2:(100±20) ppb; Temperature:(30±1)℃; Humidity:(70±2)%RH 1/3 days and then unmated for 2/3 days. The others are exposed mated for full 7 days test period.			
Criteria	No evidence of physical damages.			

8.17. Clause 3.8.2 Thermal disturbance

A-4-7 Thermal disturbance				
Testing Period	Measure environment		Test Engineer	Test Result
2024/08/05-2024/08/06	Temperature(℃)	23.1 - 24.2	Huang Siwei	Pass
	Humidity (RH)	70.2 - 71.3 %		
Test condition	Mated Cycle the connector or socket between 15 °C ± 3 °C and 85 °C ± 3 °C, as measured on the part. Ramps should be a minimum of 2 °C per minute, and dwell times should insure that the contacts reach the temperature extremes (a minimum of 5 minutes). Humidity is not controlled. Perform 10 such cycles.			
Criteria	No evidence of physical damages.			

9. Test Equipments Utilized

Name	Model	Serial number	Calibration Date	Expire Date
Oven Machine (ESPEC)	LC-213	1010170285	2023.11.24	2024.11.23
Thermal Shock Chamber(ESPEC)	TSE-12-A	161003228	2023.12.05	2024.12.04
Temperature & Humidity Chamber	GPL-2	0010-003613	2023.11.24	2024.11.23
Mixed Flow Gas Chamber(Yamasaki)	GH-180/VL	705	2023.12.05	2024.12.04
Vibration machine	V455-PAL1000 L	1020385-1	2023.11.24	2024.11.23
Durability Tester	YH-8816USDT	17068816077	2023.11.27	2024.11.26
Durability Tester	YH-8816USDT	17068816079	2023.11.27	2024.11.26
4-axis Tester	YH-8812WEXT	17068812429	2023.11.27	2024.11.26
4-axis Tester	YH-8812WEXT	17068812430	2023.11.27	2024.11.26
Microscope	MM-400/L	3413948	2023.11.27	2024.11.26
Micro-ohmmeter	RM3545	170938239	2023.11.27	2024.11.26
Electronic load meter	63610-80-20	636001001093	2023.11.27	2024.11.26
Electronic load meter	63610-80-20	636001001094	2023.11.27	2024.11.26
DC power supply	9202B	652E22230	2023.11.27	2024.11.26
Temperature rise test system	GP10	S5T909482	2023.11.27	2024.11.26
Moment disconnection tester	NM11B	20010112	2023.11.29	2024.11.28



NO.24B01N002016-001-COM

Electrical Safety Analyzer	TOS9201	XK002479	2023.11.27	2024.11.26
AVO meter	87VC	37980325WS	2023.11.27	2024.11.26

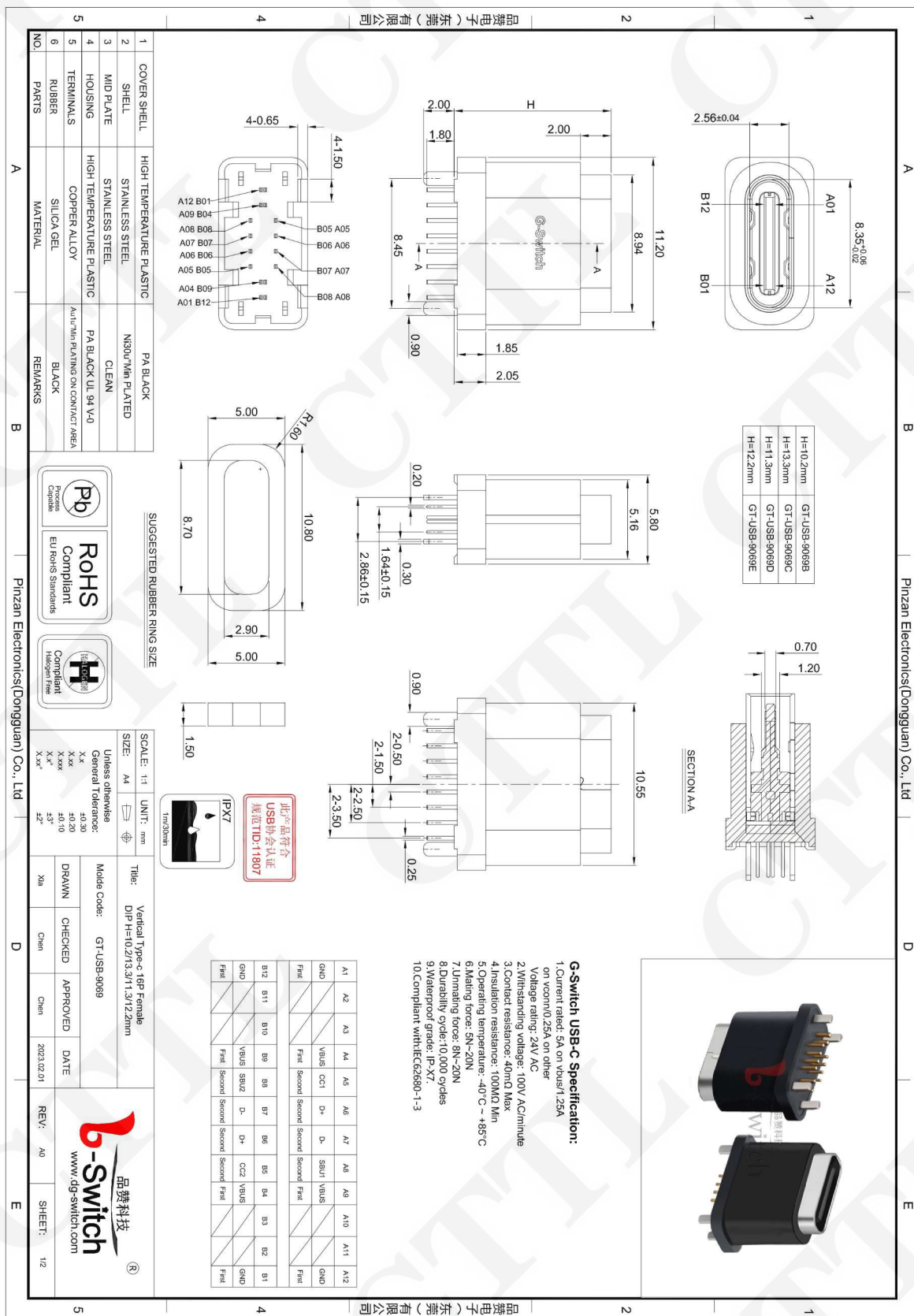
ANNEX A: UUT photograph

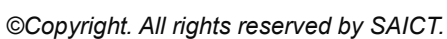
Top



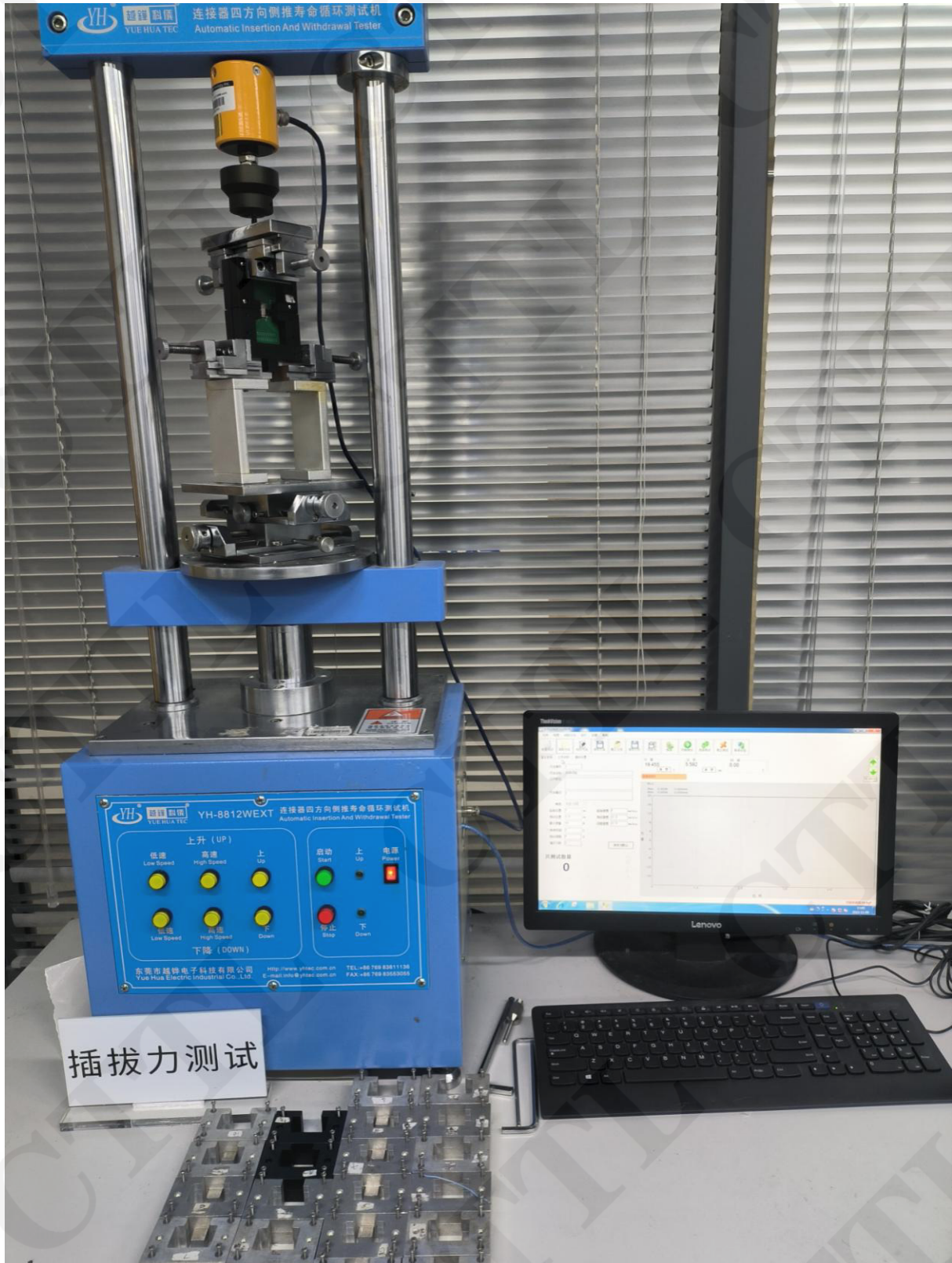
Bottom

ANNEX B: Drawing





ANNEX C: Insertion Force & Extraction Force Test Layout



ANNEX D: Durability Test Layout



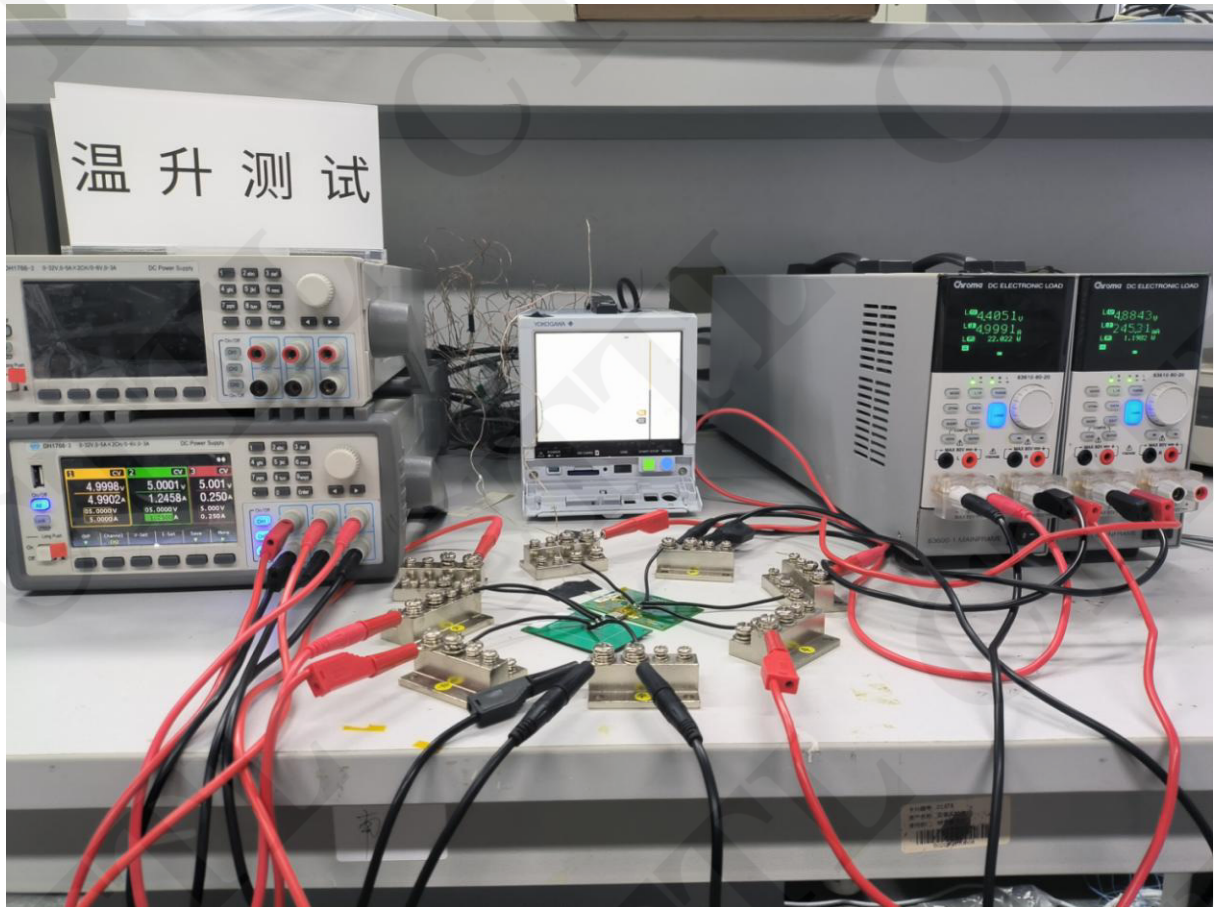
ANNEX E: Dielectric withstanding voltage Test Layout



ANNEX F: Vibration Test Layout



ANNEX G: Contact Current Rating Test Layout



END OF REPORT