



# USB-IF Compliance Test Report for USB 2.0 Type-C Connector

**Report Number:** I22N01337-CON

**Company Name:** Guangdong Jinshengxin Industry Share Co., Ltd.

**Product Name:** Plug: USB TYPE-C PLUG 16PIN CLIP PCB

Receptacle: USB TYPE C FEMALE 16PIN 180° TYPE

**Model Name:** Plug: JSX-CM-003

Receptacle: JSX-CF-009

**Hardware Version:** Plug: A

Receptacle: A

**TID:** Plug: 7826

Receptacle: 7827

**Issued Date:** 2022-07-25

**Test Result:** Pass

**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:**

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## **REPORT HISTORY**

<b>Report Number</b>	<b>Revision</b>	<b>Description</b>	<b>Issue Date</b>
I22N01337	V1	First release	2022-07-25

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



## **CONTENTS**

<b>1. Summary of Test Report</b> .....	<b>1</b>
<b>1.1. Test Standards</b> .....	<b>1</b>
<b>1.2. Test Result</b> .....	<b>2</b>
VISUAL INSPECTION .....	2
GROUP A-1 .....	2
GROUP A-2 .....	2
GROUP A-3 .....	2
GROUP A-4 .....	3
GROUP A-7 .....	3
GROUP B-1 .....	4
GROUP B-5 .....	4
GROUP B-6 .....	4
GROUP B-7 .....	4
<b>1.3. Testing Location</b> .....	<b>5</b>
<b>1.4. Project Data</b> .....	<b>5</b>
<b>1.5. Signature</b> .....	<b>5</b>
<b>2. Client Information</b> .....	<b>6</b>
<b>3. Equipment Under Test (EUT) and Ancillary Equipment (AE)</b> .....	<b>7</b>
<b>4. Test Data</b> .....	<b>8</b>
<b>4.1. Testing Environment</b> .....	<b>8</b>
<b>4.2. Test Data</b> .....	<b>8</b>
GROUP A-1 .....	8
GROUP A-2 .....	9
GROUP A-3 .....	14
GROUP A-4 .....	16
GROUP A-7 .....	20
GROUP B-1 .....	25
GROUP B-5 .....	26
GROUP B-6 .....	31
GROUP B-7 .....	32
<b>5. Test Equipments Utilized</b> .....	<b>34</b>
<b>ANNEX A: EUT photograph</b> .....	<b>35</b>
<b>ANNEX B Drawing</b> .....	<b>36</b>



# **1. Summary of Test Report**

## **1.1. Test Standards**

1. Universal Serial Bus Type-C Connectors and Cable Assemblies Compliance Document Revision 2.1b:2021
2. EIA-364-09D:2018 Durability Test Procedure for Electrical Connectors and Contacts
3. EIA-364-13E:2011 Mating and Unmating Force Test Procedure for Electrical Connectors and Sockets
4. EIA-364-17C:2011 Temperature Life With or Without Electrical Load Test Procedure for Electrical Connectors and Sockets
5. EIA-364-20E:2015 Withstanding Voltage Test Procedure for Electrical Connectors, Sockets and Coaxial Contacts
6. EIA-364-21E:2014 Insulation Resistance Test Procedure for Electrical Connectors, Sockets and Coaxial Contacts
7. EIA-364-23C:2012 Low Level Contact Resistance Test Procedure For Electrical Connectors and Sockets
8. EIA-364-28F:2006 Vibration Test Procedure for Electrical Connectors and Sockets
9. EIA-364-31E:2017 Humidity Test Procedure for Electrical Connectors and Sockets
10. EIA-364-32G:2014 Thermal Shock (Temperature Cycling) Test Procedure for Electrical Connectors and Sockets
11. EIA-364-65B:2009 Mixed Flowing Test Procedure for Electrical Connectors Contacts and Sockets
12. EIA-364-1000A-2016 Environmental Test Methodology for Assessing the Performance of Electrical Connectors and Sockets Used in Controlled Environment Applications



## 1.2. Test Result

<b>Visual Inspection</b>			
<b>Test Group/Test</b>	<b>SPEC/Requirement</b>	<b>EIA 364</b>	<b>Result</b>
Connector	USB2.0 Type-C Receptacle:16 USB2.0 Type-C Plug:16	NA	<b>Pass</b>
<b>Group A-1</b>			
<b>Test Group/Test</b>	<b>SPEC/Requirement</b>	<b>EIA 364</b>	<b>Result</b>
A-1-1 Low level contact resistance	40 milliohms max for all contacts.	23C	<b>Pass</b>
A-1-2 Durability (preconditioning)	No evidence of physical damage.	09D	<b>Pass</b>
A-1-3 Temperature life	No evidence of physical damage.	17C	<b>Pass</b>
A-1-4 Low level contact resistance	50 milliohms max.	23C	<b>Pass</b>
A-1-5 Reseating	No evidence of physical damage.	NA	<b>Pass</b>
A-1-6 Low level contact resistance	50 milliohms max.	23C	<b>Pass</b>
<b>Group A-2</b>			
<b>Test Group/Test</b>	<b>SPEC/Requirement</b>	<b>EIA 364</b>	<b>Result</b>
A-2-1 Low level contact resistance	40 milliohms max for all contacts.	23C	<b>Pass</b>
A-2-2 Durability (preconditioning)	No evidence of physical damage.	09D	<b>Pass</b>
A-2-3 Thermal shock	No evidence of physical damage.	32G	<b>Pass</b>
A-2-4 Low level contact resistance	50 milliohms max.	23C	<b>Pass</b>
A-2-5 Cyclic temperature and humidity	No evidence of physical damage.	31E	<b>Pass</b>
A-2-6 Low level contact resistance	50 milliohms max.	23C	<b>Pass</b>
A-2-7 Reseating	No evidence of physical damage.	N/A	<b>Pass</b>
A-2-8 Low level contact resistance	50 milliohms max.	23C	<b>Pass</b>
<b>Group A-3</b>			
<b>Test Group/Test</b>	<b>SPEC/Requirement</b>	<b>EIA 364</b>	<b>Result</b>
A-3-1 Low level contact resistance	40 milliohms max for all contacts.	23C	<b>Pass</b>
A-3-2 Durability (preconditioning)	No evidence of physical damage.	09D	<b>Pass</b>
A-3-3 Temperature life (preconditioning)	No evidence of physical damage.	17C	<b>Pass</b>
A-3-4 Low level contact resistance	50 milliohms max.	23C	<b>Pass</b>
A-3-5 Vibration	Discontinuity less than 1µs and no physical damage.	28F	<b>Pass</b>
A-3-6 Low level contact resistance	50 milliohms max.	23C	<b>Pass</b>



<b>Group A-4</b>			
<b>Test Group/Test</b>	<b>SPEC/Requirement</b>	<b>EIA 364</b>	<b>Result</b>
A-4-1 Low level contact resistance	40 milliohms max for all contacts.	23C	<b>Pass</b>
A-4-2 Durability (preconditioning)	No evidence of physical damage.	09D	<b>Pass</b>
A-4-3 Temperature life (preconditioning)	No evidence of physical damage.	17C	<b>Pass</b>
A-4-4 Low level contact resistance	50 milliohms max.	23C	<b>Pass</b>
A-4-5 Mixed flowing gas	No evidence of physical damage.	65B	<b>Pass</b>
A-4-6 Low level contact resistance	50 milliohms max.	23C	<b>Pass</b>
A-4-7 Thermal disturbance	No evidence of physical damage.	NA	<b>Pass</b>
A-4-8 Low level contact resistance	50 milliohms max.	23C	<b>Pass</b>
A-4-9 Reseating	No evidence of physical damage.	N/A	<b>Pass</b>
A-4-10 Low level contact resistance	50 milliohms max.	23C	<b>Pass</b>
<b>Group A-7</b>			
<b>Test Group/Test</b>	<b>SPEC/Requirement</b>	<b>EIA 364</b>	<b>Result</b>
A-7-1 Dielectric withstanding voltage	No disruptive discharge.	20E	<b>Pass</b>
A-7-2 Low level contact resistance	40 milliohms max for all contacts.	23C	<b>Pass</b>
A-7-3 Durability (preconditioning)	No evidence of physical damage.	NA	<b>Pass</b>
A-7-4 Insertion force	Within the range of 5 N to 20 N.	13E	<b>Pass</b>
A-7-5 Extraction force	Within the range of 8 N to 20 N. Initial reading.	13E	<b>Pass</b>
A-7-6 Durability	No evidence of physical damage.	NA	<b>Pass</b>
A-7-7 Extraction force	Within: a) 33% of the initial reading, and b) 8 N to 20 N.	13E	<b>Pass</b>
A-7-8 Durability	No evidence of physical damage.	09D	<b>Pass</b>
A-7-9 Extraction force	Within 6 N to 20 N.	13E	<b>Pass</b>
A-7-10 Low level contact resistance	50 milliohms max.	23C	<b>Pass</b>
A-7-11 Dielectric withstanding voltage	No disruptive discharge .	20E	<b>Pass</b>
A-7-12 Insulation Resistance	A minimum of 100 MΩ insulation resistance is required between adjacent contacts of unmated and mated connectors.	21E	<b>Pass</b>



<b>Group B-1</b>			
<b>Test Group/Test</b>	<b>SPEC/Requirement</b>	<b>EIA 364</b>	<b>Result</b>
B-1-4 4-Axis Continuity	No discontinuities greater than 1 microsecond duration in any of the four orientations tested.	NA	<b>Pass</b>
<b>Group B-5</b>			
<b>Test Group/Test</b>	<b>SPEC/Requirement</b>	<b>EIA 364</b>	<b>Result</b>
B-5-1 Critical Dimensions	Meet all critical dimension requirements.	NA	<b>Pass</b>
B-5-2 EMC Shielding Spring Inspection	Tip of EMC Shielding spring finger not exposed in plug housing opening.	NA	<b>Pass</b>
<b>Group B-6</b>			
<b>Test Group/Test</b>	<b>SPEC/Requirement</b>	<b>EIA 364</b>	<b>Result</b>
B-6-1 Contact Current Rating	Not exceed 30°C.	NA	<b>Pass</b>
<b>Group B-7</b>			
<b>Test Group/Test</b>	<b>SPEC/Requirement</b>	<b>EIA 364</b>	<b>Result</b>
B-7-1 Wrenching Strength-a	No damage has occurred that causes discontinuity or shorting.	NA	<b>Pass</b>
B-7-2 Continuity	No discontinuities or shorts allowed.	NA	<b>Pass</b>
B-7-3 Dielectric withstanding voltage	No disruptive discharge.	20E	<b>Pass</b>
B-7-4 Wrenching Strength-b	The plug shall disengage from the test fixture or mechanically fail when a moment of 2.0 Nm is applied in the up and down directions and a moment 3.5 Nm is applied in the left and right directions.	NA	<b>Pass</b>



### 1.3. Testing Location

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

### 1.4. Project Data

Testing Start Date: 2022-06-23

Testing End Date: 2022-07-25

### 1.5. Signature

Handwritten signature of Liu BaoMing in black ink.

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**Liu BaoMing**

**Prepared this test report**

Handwritten signature of Wang Yang in black ink.

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**Wang Yang**

**Reviewed this test report**

Handwritten signature of Wei Ming in black ink.

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**Wei Ming**

**Approved this test report**



## 2. Client Information

<b>Applicant Information</b>	
Company Name:	Guangdong Jinshengxin Industry Share Co., Ltd.
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<b>Manufacturer Information</b>	
Company Name:	Guangdong Jinshengxin Industry Share Co., Ltd.
Contact Name:	Eric
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Address:	158 Quan Tong Road DalangTown Dongguan City Guangdong Province
City:	Dongguan
Country:	China
Telephone:	0769-82913101



### 3. Equipment Under Test (EUT) and Ancillary Equipment (AE)

<b>Plug</b>		
Manufacturer's Name	Guangdong Jinshengxin Industry Share Co., Ltd.	
Product Marketing Name	USB TYPE-C PLUG 16PIN CLIP PCB	
Model/Part Number	JSX-CM-003	
Product Revision	A	
USB-IF TID Number	7826	
Condition of EUT as received	No abnormality in appearance	
<b>Receptacle</b>		
Manufacturer's Name	Guangdong Jinshengxin Industry Share Co., Ltd.	
Product Marketing Name	USB TYPE C FEMALE 16PIN 180° TYPE	
Model/Part Number	JSX-CF-009	
Product Revision	A	
USB-IF TID Number	7827	
Condition of EUT as received	No abnormality in appearance	
<b>Sample Coding</b>		
Test Group	Number of Plug/Receptacle	Qty of Specimen
Group A-1	A1_1 to A1_10	10 pcs
Group A-2	A2_1 to A2_10	10 pcs
Group A-3	A3_1 to A3_10	10 pcs
Group A-4	A4_1 to A4_20	20 pcs
Group A-7	A7_1 to A7_10	10 pcs
Group B-1	B1_1 to B1_8	8 pcs
Group B-5	B5_1 to B5_3	3 pcs
Group B-6	B6_1 to B6_3	3 pcs
Group B-7	B7_1 to B7_15	15 pcs



## 4. Test Data

### 4.1. Testing Environment

Normal Temperature: 15-35°C  
 Relative Humidity: 25-85%RH  
 Atmospheric pressure 86-106kPa

### 4.2. Test Data

#### Group A-1

A-1-1 Low level contact resistance			
Testing Period	Measure environment	Test Engineer	Test Result
2022/07/11-2022/07/11	Temp. 22.1 °C/ 69.9 %RH	Zhan Xingcheng	Pass
<b>Test condition</b>	Mated; Maximum open circuit voltage 20 mV; Test current 100 mA.		
<b>Criteria</b>	≤40 mΩ (Initial)		
Equipment			
Equipment Name	Model Name	Serial Number	Expire Date
Micro-ohmmeter	RM3545-02	170938239	2022.11.30
Digital hygrometer	WS508C	1708193087	2022.12.02

A-1-2 Durability			
Testing Period	Measure environment	Test Engineer	Test Result
2022/07/11-2022/07/11	Temp. 22.1 °C/ 69.9 %RH	Zhan Xingcheng	Pass
<b>Test condition</b>	Auto cycle; cycle rate: 500±50/h; Number of cycles: 50.		
<b>Criteria</b>	No evidence of physical damages.		
Equipment			
Equipment Name	Model Name	Serial Number	Expire Date
Digital hygrometer	WS508C	1708193087	2022.12.02



A-1-3 Temperature Life			
Testing Period	Measure environment	Test Engineer	Test Result
2022/07/11-2022/07/16	Temp. 21.2 °C/ 69.9 %RH	Zhan Xingcheng	Pass
<b>Test condition</b>	Mated; Temperature: 105±2°C; Duration: 120h.		
<b>Criteria</b>	No evidence of physical damages.		
Equipment			
Equipment Name	Model Name	Serial Number	Expire Date
Oven Machine (ESPEC)	LC-213	1010170285	2022.12.11
Digital hygrometer	WS508C	1708193010	2022.12.02

A-1-4 Low level contact resistance			
Testing Period	Measure environment	Test Engineer	Test Result
2022/07/18-2022/07/18	Temp. 22.6 °C/ 78.8 %RH	Zhan Xingcheng	Pass
<b>Test condition</b>	Mated; Maximum open circuit voltage 20 mV; Test current 100 mA.		
<b>Criteria</b>	≤50 mΩ		
Equipment			
Equipment Name	Model Name	Serial Number	Expire Date
Micro-ohmmeter	RM3545-02	170938239	2022.11.30
Digital hygrometer	WS508C	1708193087	2022.12.02

A-1-5 Re-seating			
Testing Period	Measure environment	Test Engineer	Test Result
2022/07/18-2022/07/18	Temp. 22.6 °C/ 78.8 %RH	Zhan Xingcheng	Pass
<b>Test condition</b>	Manual mating/unmating 3 cycles.		
<b>Criteria</b>	No evidence of physical damages.		
Equipment			
Equipment Name	Model Name	Serial Number	Expire Date
Digital hygrometer	WS508C	1708193087	2022.12.02

A-1-6 Low level contact resistance			
Testing Period	Measure environment	Test Engineer	Test Result
2022/07/18-2022/07/18	Temp. 22.6 °C/ 78.8 %RH	Zhan Xingcheng	Pass
<b>Test condition</b>	Mated; Maximum open circuit voltage 20 mV; Test current 100 mA.		
<b>Criteria</b>	≤50 mΩ		
Equipment			
Equipment Name	Model Name	Serial Number	Expire Date
Micro-ohmmeter	RM3545-02	170938239	2022.11.30
Digital hygrometer	WS508C	1708193087	2022.12.02

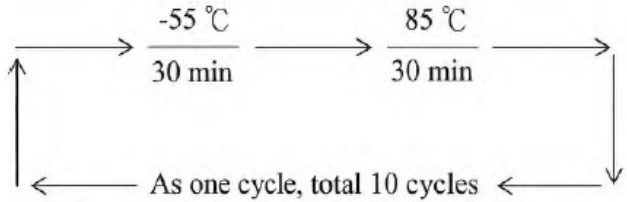
### Group A-2



A-2-1 Low level contact resistance			
Testing Period	Measure environment	Test Engineer	Test Result
2022/07/11-2022/07/11	Temp. 22.2°C/ 75.8 %RH	Ge Xinglin	Pass
<b>Test condition</b>	Mated; Maximum open circuit voltage 20 mV; Test current 100 mA.		
<b>Criteria</b>	≤40 mΩ (Initial)		
Equipment			
Equipment Name	Model Name	Serial Number	Expire Date
Micro-ohmmeter	RM3545-02	170938239	2022.11.30
Digital hygrometer	WS508C	1708193087	2022.12.02

A-2-2 Durability			
Testing Period	Measure environment	Test Engineer	Test Result
2022/07/11-2022/07/11	Temp. 22.2°C/ 75.8 %RH	Ge Xinglin	Pass
<b>Test condition</b>	Auto cycle; cycle rate: 500±50/h; Number of cycles: 50.		
<b>Criteria</b>	No evidence of physical damages.		
Equipment			
Equipment Name	Model Name	Serial Number	Expire Date
Digital hygrometer	WS508C	1708193087	2022.12.02



A-2-3 Thermal Shock			
Testing Period	Measure environment	Test Engineer	Test Result
2022/07/11-2022/07/12	Temp. 22.3 °C/ 67.8 %RH	Zhan Xingcheng	Pass
<b>Test condition</b>	Mated; $-55_{-5}^0$ °C to $85_{+3}^0$ °C, 10 cycles. High/low temperature transfer time within 5 min. 		
<b>Criteria</b>	No evidence of physical damages.		
Equipment			
Equipment Name	Model Name	Serial Number	Expire Date
Thermal Shock Chamber(ESPEC)	TSE-12-A	161003228	2022.12.11
Digital hygrometer	WS508C	1708193010	2022.12.02

A-2-4 Low level contact resistance			
Testing Period	Measure environment	Test Engineer	Test Result
2022/07/15-2022/07/15	Temp. 22.0 °C/ 76.0 %RH	Ge Xinglin	Pass
<b>Test condition</b>	Mated; Maximum open circuit voltage 20 mV; Test current 100 mA.		
<b>Criteria</b>	≤50 mΩ		
Equipment			
Equipment Name	Model Name	Serial Number	Expire Date
Micro-ohmmeter	RM3545-02	170938239	2022.11.30
Digital hygrometer	WS508C	1708193087	2022.12.02



A-2-5 Cyclic temperature and humidity			
Testing Period	Measure environment	Test Engineer	Test Result
2022/07/15-2022/07/18	Temp. 21.2 °C/ 67.9 %RH	Zhan Xingcheng	Pass
<b>Test condition</b>	Mated: Temperature of 25°C ±3°C relative humidity of 80% ±3% to Temperature of 65°C ±3°C relative humidity of 50% ±3% , Thermal ramp time 0.5 hour , maintain 1 hour , 24 cycles.		
<b>Criteria</b>	No evidence of physical damages.		
Equipment			
Equipment Name	Model Name	Serial Number	Expire Date
Temperature & Humidity Chamber	GPL-2	0010-003613	2022.12.13
Digital hygrometer	WS508C	1708193010	2022.12.02

A-2-6 Low level contact resistance			
Testing Period	Measure environment	Test Engineer	Test Result
2022/07/21-2022/07/21	Temp. 23.0 °C/ 72.1 %RH	Ge Xinglin	Pass
<b>Test condition</b>	Mated; Maximum open circuit voltage 20 mV; Test current 100 mA.		
<b>Criteria</b>	≤50 mΩ		
Equipment			
Equipment Name	Model Name	Serial Number	Expire Date
Micro-ohmmeter	RM3545-02	170938239	2022.11.30
Digital hygrometer	WS508C	1708193087	2022.12.02

A-2-7 Re-seating			
Testing Period	Measure environment	Test Engineer	Test Result
2022/07/21-2022/07/21	Temp. 23.0 °C/ 72.1 %RH	Ge Xinglin	Pass
<b>Test condition</b>	Manual mating/unmating 3 cycles.		
<b>Criteria</b>	No evidence of physical damages.		
Equipment			
Equipment Name	Model Name	Serial Number	Expire Date
Digital hygrometer	WS508C	1708193087	2022.12.02



A-2-8 Low level contact resistance			
Testing Period	Measure environment	Test Engineer	Test Result
2022/07/21-2022/07/21	Temp. 23.0 °C / 72.1 %RH	Liu Baoming Ge Xinglin	<b>Pass</b>
Test condition	Mated; Maximum open circuit voltage 20 mV; Test current 100 mA.		
Criteria	≤50 mΩ		
Equipment			
Equipment Name	Model Name	Serial Number	Expire Date
Micro-ohmmeter	RM3545-02	170938239	2022.11.30
Digital hygrometer	WS508C	1708193087	2022.12.02



**Group A-3**

A-3-1 Low level contact resistance			
Testing Period	Measure environment	Test Engineer	Test Result
2022/07/11-2022/07/11	Temp. 22.2 °C/ 75.8 %RH	Liu Baoming Ge Xinglin	<b>Pass</b>
<b>Test condition</b>	Mated; Maximum open circuit voltage 20 mV; Test current 100 mA.		
<b>Criteria</b>	≤40 mΩ (Initial)		
Equipment			
Equipment Name	Model Name	Serial Number	Expire Date
Micro-ohmmeter	RM3545-02	170938239	2022.11.30
Digital hygrometer	WS508C	1708193087	2022.12.02

A-3-2 Durability			
Testing Period	Measure environment	Test Engineer	Test Result
2022/07/11-2022/07/11	Temp. 22.2 °C/ 75.8 %RH	Ge Xinglin	<b>Pass</b>
<b>Test condition</b>	Auto cycle; cycle rate: 500±50/h; Number of cycles: 50.		
<b>Criteria</b>	No evidence of physical damages.		
Equipment			
Equipment Name	Model Name	Serial Number	Expire Date
Digital hygrometer	WS508C	1708193087	2022.12.02

A-3-3 Temperature Life			
Testing Period	Measure environment	Test Engineer	Test Result
2022/07/11-2022/07/14	Temp. 21.2.X °C/ 71.2 %RH	Zhan Xingcheng	<b>Pass</b>
<b>Test condition</b>	Mated; Temperature: 105±2°C; Duration: 72h.		
<b>Criteria</b>	No evidence of physical damages.		
Equipment			
Equipment Name	Model Name	Serial Number	Expire Date
Oven Machine (ESPEC)	LC-213	1010170285	2022.12.11
Oven Machine (ESPEC)	LC-213	1010170239	2022.12.11
Digital hygrometer	WS508C	1708193010	2022.12.02



A-3-4 Low level contact resistance			
Testing Period	Measure environment	Test Engineer	Test Result
2022/07/18-2022/07/18	Temp. 22.9 °C/ 78.8 %RH	Liu Baoming Ge Xinglin	Pass
<b>Test condition</b>	Mated; Maximum open circuit voltage 20 mV; Test current 100 mA.		
<b>Criteria</b>	≤50 mΩ		
Equipment			
Equipment Name	Model Name	Serial Number	Expire Date
Micro-ohmmeter	RM3545-02	170938239	2022.11.30
Digital hygrometer	WS508C	1708193087	2022.12.02

A-3-5 Vibration			
Testing Period	Measure environment	Test Engineer	Test Result
2022/07/19-2022/07/19	Temp. 28.0 °C/ 78.8 %RH	Ge Xinglin	Pass
<b>Test condition</b>	Mated; random vibration; Frequency:20-500Hz; 15min./axis for 3 axis (X,Y,Z); Power spectral density:0.02g <sup>2</sup> /Hz, Acceleration:3.1grms.		
<b>Criteria</b>	No evidence of physical damages. No discontinuities of 1us or greater duration happened		
Equipment			
Equipment Name	Model Name	Serial Number	Expire Date
Vibration machine	V455-PAL1000L	1020385/1	2022.11.30
Moment disconnection tester	NM11B	20010112	2022.12.05
Digital hygrometer	WS508C	1708194010	2022.12.02

A-3-6 Low level contact resistance			
Testing Period	Measure environment	Test Engineer	Test Result
2022/07/20-2022/07/20	Temp. 23.3 °C/ 74.6 %RH	Liu Baoming Ge Xinglin	Pass
<b>Test condition</b>	Mated; Maximum open circuit voltage 20 mV; Test current 100 mA.		
<b>Criteria</b>	≤50 mΩ		
Equipment			
Equipment Name	Model Name	Serial Number	Expire Date
Micro-ohmmeter	RM3545-02	170938239	2022.11.30
Digital hygrometer	WS508C	1708193087	2022.12.02



**Group A-4**

A-4-1 Low level contact resistance			
Testing Period	Measure environment	Test Engineer	Test Result
2022/07/08-2022/07/08	Temp. 21.2 °C/ 68.9 %RH	Zhan Xingcheng	Pass
<b>Test condition</b>	Mated; Maximum open circuit voltage 20 mV; Test current 100 mA.		
<b>Criteria</b>	≤40 mΩ (Initial)		
Equipment			
Equipment Name	Model Name	Serial Number	Expire Date
Micro-ohmmeter	RM3545-02	170938239	2022.11.30
Digital hygrometer	WS508C	1708193087	2022.12.02

A-4-2 Durability			
Testing Period	Measure environment	Test Engineer	Test Result
2022/07/08-2022/07/08	Temp. 21.2 °C/ 68.9 %RH	Zhan Xingcheng	Pass
<b>Test condition</b>	Auto cycle; cycle rate: 500±50/h; Number of cycles: 50.		
<b>Criteria</b>	No evidence of physical damages.		
Equipment			
Equipment Name	Model Name	Serial Number	Expire Date
Durability Tester	YH-8816USDT	17068816076	2022.11.30
Durability Tester	YH-8816USDT	17068816077	2022.11.30
Durability Tester	YH-8816USDT	17068816078	2022.11.30
Durability Tester	YH-8816USDT	17068816079	2022.11.30
Digital hygrometer	WS508C	1708193087	2022.12.02

A-4-3 Temperature Life			
Testing Period	Measure environment	Test Engineer	Test Result
2022/07/08-2022/07/11	Temp. 21.2 °C/ 67.8 %RH	Zhan Xingcheng	Pass
<b>Test condition</b>	Mated; Temperature: 105±2°C; Duration: 72h.		
<b>Criteria</b>	No evidence of physical damages.		
Equipment			
Equipment Name	Model Name	Serial Number	Expire Date
Oven Machine (ESPEC)	LC-213	1010170285	2022.12.11
Oven Machine (ESPEC)	LC-213	1010170239	2022.12.11
Digital hygrometer	WS508C	1708193010	2022.12.02



A-4-4 Low level contact resistance			
Testing Period	Measure environment	Test Engineer	Test Result
2022/07/13-2022/07/13	Temp. 21.2 °C/ 67.1 %RH	Zhan Xingcheng	Pass
<b>Test condition</b>	Mated; Maximum open circuit voltage 20 mV; Test current 100 mA.		
<b>Criteria</b>	≤50 mΩ		
Equipment			
Equipment Name	Model Name	Serial Number	Expire Date
Micro-ohmmeter	RM3545-02	170938239	2022.11.30
Digital hygrometer	WS508C	1708193087	2022.12.02

A-4-5 Mixed flowing gas			
Testing Period	Measure environment	Test Engineer	Test Result
2022/07/13-2022/07/20	Temp. 24.8 °C/ 70.4 %RH	Zhan Xingcheng	Pass
<b>Test condition</b>	CL2:(10±3) ppb; No2:(200±50) ppb; H2S:(10±5) ppb SO2:(100±20) ppb; Temperature:(30±1)°C; 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.		
<b>Criteria</b>	No evidence of physical damages.		
Equipment			
Equipment Name	Model Name	Serial Number	Expire Date
Mixed Flow Gas Chamber(Yamasaki)	GH-180	705	2022.12.11
Digital hygrometer	WS508C	1708193021	2022.12.02

A-4-6 Low level contact resistance			
Testing Period	Measure environment	Test Engineer	Test Result
2022/07/21-2022/07/21	Temp. 23.0 °C/ 73.2 %RH	Zhan Xingcheng	Pass
<b>Test condition</b>	Mated; Maximum open circuit voltage 20 mV; Test current 100 mA.		
<b>Criteria</b>	≤50 mΩ		
Equipment			
Equipment Name	Model Name	Serial Number	Expire Date
Micro-ohmmeter	RM3545-02	170938239	2022.11.30
Digital hygrometer	WS508C	1708193087	2022.12.02



A-4-7 Thermal disturbance			
Testing Period	Measure environment	Test Engineer	Test Result
2022/07/21-2022/07/22	Temp. 21.2 °C/ 67.9 %RH	Zhan Xingcheng	Pass
<b>Test condition</b>	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.		
<b>Criteria</b>	No evidence of physical damages.		
Equipment			
Equipment Name	Model Name	Serial Number	Expire Date
Temperature & Humidity Chamber	GPL-2	0010-003613	2022.12.13
Digital hygrometer	WS508C	1708193010	2022.12.02

A-4-8 Low level contact resistance			
Testing Period	Measure environment	Test Engineer	Test Result
2022/07/22-2022/07/22	Temp. 22.6 °C/ 71.2 %RH	Zhan Xingcheng	Pass
<b>Test condition</b>	Mated; Maximum open circuit voltage 20 mV; Test current 100 mA.		
<b>Criteria</b>	≤50 mΩ		
Equipment			
Equipment Name	Model Name	Serial Number	Expire Date
Micro-ohmmeter	RM3545-02	170938239	2022.11.30
Digital hygrometer	WS508C	1708193087	2022.12.02

A-4-9 Re-seating			
Testing Period	Measure environment	Test Engineer	Test Result
2022/07/22-2022/07/22	Temp. 22.6 °C/ 71.2 %RH	Zhan Xingcheng	Pass
<b>Test condition</b>	Manual mating/unmating 3 cycles.		
<b>Criteria</b>	No evidence of physical damages.		
Equipment			
Equipment Name	Model Name	Serial Number	Expire Date
Digital hygrometer	WS508C	1708193087	2022.12.02



A-4-10 Low level contact resistance			
Testing Period	Measure environment	Test Engineer	Test Result
2022/07/22-2022/07/22	Temp. 22.6 °C/ 71.2 %RH	Zhan Xingcheng	Pass
Test condition	Mated; Maximum open circuit voltage 20 mV; Test current 100 mA.		
Criteria	≤50 mΩ		
Equipment			
Equipment Name	Model Name	Serial Number	Expire Date
Micro-ohmmeter	RM3545-02	170938239	2022.11.30
Digital hygrometer	WS508C	1708193087	2022.12.02



**Group A-7**

A-7-1 Dielectric withstanding voltage			
Testing Period	Measure environment	Test Engineer	Test Result
2022/07/20-2022/07/20	Temp. 26.7 °C/ 75.6 %RH	Ge Xinglin	Pass
<b>Test condition</b>	Mated; 100 VAC (RMS), 1 min. The test voltage shall be applied between adjacent contacts.		
<b>Criteria</b>	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		
Equipment			
Equipment Name	Model Name	Serial Number	Expire Date
Electrical Safety Analyzer	TOS9201	XK002479	2022.11.30
Digital hygrometer	WS508C	1708194010	2022.12.02

A-7-2 Low level contact resistance			
Testing Period	Measure environment	Test Engineer	Test Result
2022/07/20-2022/07/20	Temp. 23.3 °C/ 74.6 %RH	Ge Xinglin Liu Baoming	Pass
<b>Test condition</b>	Mated; Maximum open circuit voltage 20 mV; Test current 100 mA.		
<b>Criteria</b>	≤40 mΩ (Initial)		
Equipment			
Equipment Name	Model Name	Serial Number	Expire Date
Micro-ohmmeter	RM3545-02	170938239	2022.11.30
Digital hygrometer	WS508C	1708193087	2022.12.02

A-7-3 Durability			
Testing Period	Measure environment	Test Engineer	Test Result
2022/07/20-2022/07/20	Temp. 23.3 °C/ 74.6 %RH	Ge Xinglin	Pass
<b>Test condition</b>	Manual mating/unmating 4 cycles.		
<b>Criteria</b>	No evidence of physical damages.		
Equipment			
Equipment Name	Model Name	Serial Number	Expire Date
Digital hygrometer	WS508C	1708193087	2022.12.02



A-7-4 Insertion Force			
Testing Period	Measure environment	Test Engineer	Test Result
2022/07/20-2022/07/20	Temp. 23.3 °C/ 74.6 %RH	Ge Xinglin	Pass
<b>Test condition</b>	Speed: 12.5mm/min; Insertion depth: 4.8mm.		
<b>Criteria</b>	Insertion force:5N~20N		
Equipment			
Equipment Name	Model Name	Serial Number	Expire Date
4-axis Tester	YH-8812WEXT	17068812430	2022.11.30
Digital hygrometer	WS508C	1708193087	2022.12.02

A-7-5 Extraction Force			
Testing Period	Measure environment	Test Engineer	Test Result
2022/07/20-2022/07/20	Temp. 23.3 °C/ 74.6 %RH	Ge Xinglin	Pass
<b>Test condition</b>	Speed: 12.5mm/min; Extraction depth: 4.8mm.		
<b>Criteria</b>	Extraction force: 8N~20N(Initial reading)		
Equipment			
Equipment Name	Model Name	Serial Number	Expire Date
4-axis Tester	YH-8812WEXT	17068812430	2022.11.30
Digital hygrometer	WS508C	1708193087	2022.12.02

A-7-6 Durability			
Testing Period	Measure environment	Test Engineer	Test Result
2022/07/20-2022/07/20	Temp. 23.3 °C/ 74.6 %RH	Ge Xinglin	Pass
<b>Test condition</b>	Manual mating/unmating 25 cycles.		
<b>Criteria</b>	No evidence of physical damages.		
Equipment			
Equipment Name	Model Name	Serial Number	Expire Date
Digital hygrometer	WS508C	1708193087	2022.12.02

A-7-7 Extraction Force			
Testing Period	Measure environment	Test Engineer	Test Result
2022/07/20-2022/07/20	Temp. 23.3 °C/ 74.6 %RH	Ge Xinglin	Pass
<b>Test condition</b>	Speed: 12.5mm/min; Extraction depth: 4.8mm.		
<b>Criteria</b>	Extraction force: 8N~20N; 33% of the initial reading.		
Equipment			
Equipment Name	Model Name	Serial Number	Expire Date
4-axis Tester	YH-8812WEXT	17068812430	2022.11.30
Digital hygrometer	WS508C	1708193087	2022.12.02



A-7-8 Durability			
Testing Period	Measure environment	Test Engineer	Test Result
2022/07/20-2022/07/20	Temp. 24.1 °C/ 76.2%RH	Ge Xinglin	Pass
<b>Test condition</b>	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°)		
<b>Criteria</b>	No evidence of physical damages.		
Equipment			
Equipment Name	Model Name	Serial Number	Expire Date
Durability Tester	YH-8816USDT	17068816077	2022.11.30
Durability Tester	YH-8816USDT	17068816079	2022.11.30
Digital hygrometer	WS508C	1708193087	2022.12.02

A-7-9 Extraction Force			
Testing Period	Measure environment	Test Engineer	Test Result
2022/07/22-2022/07/22	Temp. 22.8 °C/ 74.1 %RH	Ge Xinglin	Pass
<b>Test condition</b>	Speed: 12.5mm/min; Extraction depth: 4.8mm.		
<b>Criteria</b>	Extraction force: 6N~20N.		
Equipment			
Equipment Name	Model Name	Serial Number	Expire Date
4-axis Tester	YH-8812WEXT	17068812430	2022.11.30
Digital hygrometer	WS508C	1708193087	2022.12.02

A-7-10 Low level contact resistance			
Testing Period	Measure environment	Test Engineer	Test Result
2022/07/22-2022/07/22	Temp. 22.8 °C/ 74.1 %RH	Ge Xinglin	Pass
<b>Test condition</b>	Mated; Maximum open circuit voltage 20 mV; Test current 100 mA.		
<b>Criteria</b>	≤50 mΩ		
Equipment			
Equipment Name	Model Name	Serial Number	Expire Date
Micro-ohmmeter	RM3545-02	170938239	2022.11.30
Digital hygrometer	WS508C	1708193017	2022.12.02



A-7-11 Dielectric withstanding voltage			
Testing Period	Measure environment	Test Engineer	Test Result
2022/07/25-2022/07/25	Temp. 29.1 °C/ 64.2 %RH	Ge Xinglin	Pass
<b>Test condition</b>	Mated; 100 VAC (RMS), 1 min. The test voltage shall be applied between adjacent contacts.		
<b>Criteria</b>	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		
Equipment			
Equipment Name	Model Name	Serial Number	Expire Date
Electrical Safety Analyzer	TOS9201	XK002479	2022.11.30
Digital hygrometer	WS508C	1708194010	2022.12.02

A-7-12 Insulation Resistance			
Testing Period	Measure environment	Test Engineer	Test Result
2022/07/25-2022/07/25	Temp. 29.1 °C/ 64.2 %RH	Ge Xinglin	Pass
<b>Test condition</b>	Mated and Unmated, 500 Vdc, 2min. The test voltage shall be applied between adjacent contacts.		
<b>Criteria</b>	≥100MΩ		
Equipment			
Equipment Name	Model Name	Serial Number	Expire Date
Electrical Safety Analyzer	TOS9201	XK002479	2022.11.30
Digital hygrometer	WS508C	1708194010	2022.12.02

Test data:					
A-7-4 Insertion Force					
Sample Coding	A7_1	A7_2	A7_3	A7_4	A7_5
Insertion force (N)	10.1	10.5	12.0	10.1	10.2
Sample Coding	A7_6	A7_7	A7_8	A7_9	A7_10
Insertion force (N)	7.7	10.6	11.8	9.8	11.5
A-7-5 Extraction Force					
Sample Coding	A7_1	A7_2	A7_3	A7_4	A7_5
Extraction force (N)	19.8	18.5	19.6	18.4	19.0
Sample Coding	A7_6	A7_7	A7_8	A7_9	A7_10
Extraction force (N)	14.2	18.8	18.0	19.2	19.0



<b>A-7-7 Extraction Force</b>					
Sample Coding	A7_1	A7_2	A7_3	A7_4	A7_5
Extraction force (N)	19.6	13.7	15.0	14.2	19.8
$\frac{ (A-7-7)-(A-7-5)  * 100\%}{(A-7-5)}$	1.0%	25.9%	23.5%	22.8%	0.4%
Sample Coding	A7_6	A7_7	A7_8	A7_9	A7_10
Extraction force (N)	12.8	16.6	14.6	16.0	16.2
$\frac{ (A-7-7)-(A-7-5)  * 100\%}{(A-7-5)}$	9.9%	7.8%	18.9%	16.7%	14.7%
<b>A-7-9 Extraction Force</b>					
Sample Coding	A7_1	A7_2	A7_3	A7_4	A7_5
Extraction force (N)	12.3	6.4	7.6	6.1	6.4
Sample Coding	A7_6	A7_7	A7_8	A7_9	A7_10
Extraction force (N)	6.1	6.1	6.2	6.0	13.8

<b>A-7-12 Insulation Resistance (GΩ) Mated</b>					
Sample Coding	A7_1	A7_2	A7_3	A7_4	A7_5
Test contacts					
A6 to A7 (Mated)	99.9	99.9	99.9	99.9	99.9
A7 to A8 (Mated)	99.9	99.9	99.9	99.9	99.9
A8 to A9 (Mated)	99.9	99.9	99.9	99.9	99.9
B6 to B7 (Mated)	99.9	99.9	99.9	99.9	99.9
B7 to B8 (Mated)	99.9	99.9	99.9	99.9	99.9
Sample Coding	A7_6	A7_7	A7_8	A7_9	A7_10
Test contacts					
A6 to A7 (Mated)	99.9	99.9	99.9	99.9	99.9
A7 to A8 (Mated)	99.9	99.9	99.9	99.9	99.9
A8 to A9 (Mated)	99.9	99.9	99.9	99.9	99.9
B6 to B7 (Mated)	99.9	99.9	99.9	99.9	99.9
B7 to B8 (Mated)	99.9	99.9	99.9	99.9	99.9
Note: Followed by the specific resistance value.					



**Group B-1**

B-1-4 4-Axis Continuity			
Testing Period	Measure environment	Test Engineer	Test Result
2022/07/25-2022/07/25	Temp. 21.2°C/ 76.9%RH	Liu Baoming	<b>Pass</b>
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.		
Equipment			
Equipment Name	Model Name	Serial Number	Expire Date
4-axis Tester	YH-8812WEXT	17068812429	2022.11.30
Moment disconnection tester	NM11B	20010112	2022.12.05
Digital hygrometer	WS508C	1708193087	2022.12.02



**Group B-5**

B-5-1 Critical Dimensions			
Testing Period	Measure environment	Test Engineer	Test Result
2022/06/23-2022/06/23	Temp. 20.5 °C/ 73.4 %RH	Liu Baoming	Pass
Equipment			
Equipment Name	Model Name	Serial Number	Expire Date
Microscope	MM-400/L	3413948	2022.11.30
Digital hygrometer	WS508C	1708193087	2022.12.02

B-5-2 EMC Shielding Spring Inspection			
Testing Period	Measure environment	Test Engineer	Test Result
2022/06/28-2022/06/28	Temp. 21.6 °C/ 72.3 %RH	Liu Baoming	Pass
Equipment			
Equipment Name	Model Name	Serial Number	Expire Date
Microscope	MM-400/L	3413948	2022.11.30
Digital hygrometer	WS508C	1708193087	2022.12.02

Test data:			
B-5-1 Critical Dimensions – Plug			
Description	Sample Coding		
	B5_1	B5_2	B5_3
2.EMC finger location (1.72min.)			
1)	1.761	1.742	1.736
2)	1.787	1.753	1.745
3)	1.772	1.736	1.733
4)	1.786	1.744	1.748
3.EMC middle finger width (0.530±0.025)			
1)	0.517	0.522	0.519
2)	0.521	0.528	0.524
4.EMC finger position tolerance (0.08 with datum A/B/C)			
1)	0.034	0.032	0.038
2)	0.028	0.022	0.044
5.Plug opening in y-direction (6.830±0.025)			
6.Plug width (8.25±0.03)	8.278	8.274	8.276
7.Plug width (centerline) position tolerance (0.04 with datum A/B/C)			
	0.036	0.038	0.034
8.Contact point of EMC finger (0.71~0.96)			
1)	0.842	0.917	0.863
2)	0.851	0.882	0.892



3)	0.874	0.902	0.875
4)	0.832	0.911	0.883
5)	0.875	0.875	0.876
6)	0.894	0.922	0.878
9.EMC finger contact height (0.18 min.)			
1)	0.181	0.181	0.182
2)	0.182	0.182	0.184
3)	0.186	0.181	0.182
4)	0.182	0.184	0.183
5)	0.184	0.182	0.181
6)	0.183	0.182	0.183
10.Signal contact height (Top and bottom contacts shall not touch) (0.27 min.)			
1)	0.331	0.307	0.318
2)	0.309	0.302	0.311
3)	0.329	0.313	0.312
4)	0.351	0.322	0.321
5)	0.338	0.308	0.315
6)	0.316	0.315	0.318
7)	0.332	0.321	0.322
8)	0.321	0.318	0.317
9)	0.319	0.294	0.288
10)	0.286	0.287	0.292
11)	0.302	0.284	0.294
12)	0.319	0.288	0.289
13)	0.321	0.281	0.285
14)	0.318	0.285	0.293
15)	0.324	0.291	0.282
16)	0.331	0.286	0.287
11.Signal contact width (0.140~0.245)			
1)	0.226	0.218	0.211
2)	0.219	0.221	0.216
3)	0.221	0.219	0.214
4)	0.224	0.216	0.213
5)	0.220	0.217	0.218
6)	0.223	0.215	0.216
7)	0.218	0.223	0.212
8)	0.216	0.218	0.214
9)	0.221	0.219	0.217
10)	0.224	0.222	0.222



11)	0.226	0.221	0.219
12)	0.221	0.216	0.218
13)	0.223	0.217	0.217
14)	0.221	0.219	0.218
15)	0.219	0.217	0.224
16)	0.223	0.218	0.219
12.Signal contact width position tolerance (0.08 with datum A/B/C)			
1)	0.060	0.064	0.052
2)	0.058	0.048	0.034
3)	0.046	0.058	0.038
4)	0.024	0.050	0.058
5)	0.028	0.048	0.056
6)	0.074	0.038	0.052
7)	0.068	0.052	0.068
8)	0.048	0.062	0.072
9)	0.026	0.044	0.050
10)	0.028	0.048	0.038
11)	0.056	0.070	0.048
12)	0.044	0.034	0.064
13)	0.054	0.028	0.062
14)	0.030	0.052	0.052
15)	0.026	0.038	0.036
16)	0.024	0.034	0.046
13.Outer EMC finger width (0.79~1.09)			
1)	0.845	0.839	0.844
2)	0.841	0.832	0.835
3)	0.847	0.842	0.847
4)	0.853	0.836	0.837
16.Plug thickness (2.40±0.03)	2.381	2.379	2.382
17.Plug opening in thickness direction (1.300±0.025)	1.3117	1.2776	1.2811
18.Plug opening position tolerance (0.05 with datum A/B/C)	0.026	0.028	0.036
19.Plug tongue opening (0.800±0.025)	0.7890	0.7924	0.7962
20.Metal opening (1.78~2.10)	1.781	1.784	1.782



**B-5-1 Critical Dimensions – Receptacle**

Description	Sample Coding		
	B5_1	B5_2	B5_3
1.Receptacle inside opening (8.32~8.40)	8.323	8.324	8.321
2.Receptacle insider opening position tolerance (0.04 with datum A/B/C)	0.028	0.016	0.024
3.Receptacle signal pin length (3.35~3.65)			
1)	3.377	3.362	3.376
2)	3.379	3.368	3.378
3)	3.379	3.366	3.378
4)	3.376	3.366	3.375
5)	3.384	3.378	3.369
6)	3.386	3.374	3.371
7)	3.384	3.375	3.368
8)	3.383	3.375	3.372
4.Pin length delta (0.30~0.70)			
1)	0.378	0.382	0.382
2)	0.382	0.380	0.388
3)	0.379	0.381	0.385
4)	0.378	0.382	0.381
5)	0.352	0.377	0.377
6)	0.357	0.372	0.373
7)	0.348	0.374	0.374
8)	0.352	0.376	0.375
5.Tongue width (6.635~6.735)	6.7142	6.7086	6.7079
6.Contact width (0.21~0.29)			
1)	0.269	0.244	0.253
2)	0.263	0.246	0.257
3)	0.235	0.241	0.246
4)	0.243	0.235	0.243
5)	0.237	0.237	0.246
6)	0.239	0.241	0.247
7)	0.251	0.244	0.261
8)	0.247	0.242	0.256
9)	0.253	0.247	0.260
10)	0.248	0.246	0.259
11)	0.241	0.241	0.241
12)	0.242	0.242	0.244
13)	0.235	0.239	0.246



14)	0.239	0.240	0.245
15)	0.242	0.243	0.257
16)	0.246	0.242	0.256
7.Contact width position tolerance (0.08 with datum A/B/C)			
1)	0.028	0.044	0.056
2)	0.036	0.028	0.030
3)	0.016	0.034	0.052
4)	0.030	0.026	0.044
5)	0.028	0.028	0.042
6)	0.046	0.016	0.030
7)	0.024	0.042	0.056
8)	0.018	0.026	0.052
9)	0.028	0.008	0.046
10)	0.032	0.038	0.036
11)	0.012	0.044	0.024
12)	0.046	0.036	0.050
13)	0.026	0.026	0.052
14)	0.010	0.044	0.024
15)	0.034	0.022	0.034
16)	0.032	0.022	0.038
8. Tongue thickness (0.65~0.75)			
1)	0.735	0.733	0.739
2)	0.734	0.728	0.723
3)	0.723	0.721	0.726
4)	0.718	0.716	0.724
5)	0.720	0.718	0.728
6)	0.722	0.717	0.725
7)	0.727	0.726	0.727
8)	0.731	0.729	0.733
9.Receptacle inside thickness (2.52~2.60)			
	2.592	2.597	2.596



**Group B-6**

<b>B-6-1 Contact Current Rating</b>			
<b>Testing Period</b>	<b>Measure environment</b>	<b>Test Engineer</b>	<b>Test Result</b>
2022/07/13-2022/07/13	Temp. 23.8°C/ 67.7 %RH	Zhan Xingcheng	<b>Pass</b>
<b>Test condition</b>	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.		
<b>Criteria</b>	The temperature rise shall not exceed 30°C at the outside surface of the shell.		
<b>Equipment</b>			
<b>Equipment Name</b>	<b>Model Name</b>	<b>Serial Number</b>	<b>Expire Date</b>
DC power supply	DH1766-2	1059101120047	
Electronic load meter	63610-80-20	636001001093	2022.12.05
Electronic load meter	63610-80-20	636001001094	2022.12.05
Temperature rise test system	GP10+20CH	S5T909482	2022.12.01
Digital hygrometer	WS508C	17081930821	2022.12.02
AVO meter	87VC	37980325WS	2022.12.09

<b>Test data:</b>			
<b>B-6-1 Contact Current Rating</b>			
<b>Sample Coding</b>	<b>Ambient temperature (°C)</b>	<b>Thermocouple temperature (°C)</b>	<b>Temperature rise (°C)</b>
B6_1	23.8	48.7	24.9
B6_2	23.8	49.1	25.3
B6_3	23.8	48.1	24.3
Note: Temperature rise of sample = Thermocouple temperature - Ambient temperature.			



**Group B-7**

B-7-1 Wrenching Strength -a			
Testing Period	Measure environment	Test Engineer	Test Result
2022/07/25-2022/07/25	Temp. 21.2°C/ 76.9 %RH	Liu Baoming	Pass
<b>Test condition</b>	1、 Perpendicular forces are applied to the plug in four direction (i.e., left, right, up and down) . 2、 50N at 15 mm from the edge of the receptacle. 3、 10s at each axis. 4、 5mm ball tipped probe.		
<b>Criteria</b>	No damaged and Stay at 0.75Nm for 10 sec.		
Equipment			
Equipment Name	Model Name	Serial Number	Expire Date
4-axis Tester	YH-8812WEXT	17068812429	2022.11.30
Digital hygrometer	WS508C	1708193087	2022.12.02

B-7-2 Continuity			
Testing Period	Measure environment	Test Engineer	Test Result
2022/07/25-2022/07/25	Temp. 21.2°C/ 76.9 %RH	Liu Baoming	Pass
<b>Criteria</b>	No discontinuities or shorts allowed.		
Equipment			
Equipment Name	Model Name	Serial Number	Expire Date
AVO meter	87VC	37980325WS	2022.12.09
Digital hygrometer	WS508C	1708193087	2022.12.02

B-7-3 Dielectric withstanding voltage			
Testing Period	Measure environment	Test Engineer	Test Result
2022/07/25-2022/07/25	Temp. 21.6°C/ 74.8 %RH	Liu Baoming	Pass
<b>Test condition</b>	Mated; 100 VAC (RMS), 1 min. The test voltage shall be applied between adjacent contacts.		
<b>Criteria</b>	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		
Equipment			
Equipment Name	Model Name	Serial Number	Expire Date
Electrical Safety Analyzer	TOS9201	XK002479	2022.11.30
Digital hygrometer	WS508C	1708194010	2022.12.02



B-7-4 Wrenching Strength -b			
Testing Period	Measure environment	Test Engineer	Test Result
2022/07/25-2022/07/25	Temp. 21.2°C/ 76.9 %RH	Liu Baoming	Pass
<b>Test condition</b>	1、 Perpendicular forces are applied to the plug in four direction (i.e.,left,right,up,and down) . 2、 Force at 15 mm from the edge of the receptacle. 3 The plug shall disengage from the test fixture or mechanically fail. 4、 5mm ball tipped probe.		
<b>Criteria</b>	A moment of 2.0 Nm is applied in the up and down directions. A moment of 3.5Nm is applied in the left and right directions.		
Equipment			
Equipment Name	Model Name	Serial Number	Expire Date
4-axis Tester	YH-8812WEXT	17068812429	2022.11.30
Digital hygrometer	WS508C	1708193087	2022.12.02

Test data:				
B-7-4 Wrenching Strength -b				
Sample Coding	Direction	Force(N)	Moment(Nm)	Limit(Nm)
B7_4	UP	67.68	1.01	2.0
B7_5	DOWN	84.96	1.27	2.0
B7_6	LEFT	113.35	1.70	3.5
B7_7	RIGHT	122.10	1.83	3.5
B7_8	UP	61.71	0.93	2.0
B7_9	DOWN	96.04	1.44	2.0
B7_10	LEFT	113.29	1.70	3.5
B7_11	RIGHT	120.33	1.80	3.5
B7_12	UP	61.01	0.91	2.0
B7_13	DOWN	57.07	0.85	2.0
B7_14	LEFT	125.46	1.88	3.5
B7_15	RIGHT	127.06	1.90	3.5

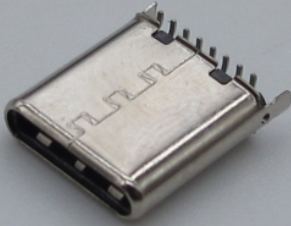



Note: The arm of force = 15mm.



## 5. Test Equipments Utilized

Name	Model	Serial number	Expire Date
Oven Machine (ESPEC)	LC-213	1010170285	2022.12.11
Thermal Shock Chamber(ESPEC)	TSE-12-A	161003228	2022.12.11
Temperature & Humidity Chamber	GPL-2	0010-003613	2022.12.13
Mixed Flow Gas Chamber(Yamasaki)	GH-180	705	2022.12.11
Vibration machine	V455-PAL1000L	1020385/1	2022.11.30
Durability Tester	YH-8816USDT	17068816077	2022.11.30
Durability Tester	YH-8816USDT	17068816079	2022.11.30
4-axis Tester	YH-8812WEXT	17068812429	2022.11.30
4-axis Tester	YH-8812WEXT	17068812430	2022.11.30
Microscope	MM-400/L	3413948	2022.11.30
Micro-ohmmeter	RM3545-02	170938239	2022.11.30
Electronic load meter	63610-80-20	636001001093	2022.12.05
Electronic load meter	63610-80-20	636001001094	2022.12.05
DC power supply	DH1766-2	1059101120019	
Temperature rise test system	GP10+20CH	S5T909482	2022.12.01
Moment disconnection tester	NM11B	20010112	2022.12.05
Electrical Safety Analyzer	TOS9201	XK002479	2022.11.30
AVO meter	87VC	37980325WS	2022.12.09
Digital hygrometer	WS508C	1708193087	2022.12.02
Digital hygrometer	WS508C	1708193010	2022.12.02
Digital hygrometer	WS508C	1708194010	2022.12.02
Digital hygrometer	WS508C	1708193021	2022.12.02

**ANNEX A: EUT photograph**

	
<p>Fig.1 Plug</p>	<p>Fig.2 Plug</p>
	
<p>Fig.3 Receptacle</p>	<p>Fig.4 Receptacle</p>



