

IX-UC2000

Part No. Receptacle: 30112

Test Report

Product Specification no. PRS-2508

1	T21099	October 22, 2021	S. Suzuki		Y. Hashimoto
0	T18097	August 23, 2018	S. Suzuki		T. Hirakawa
Rev.	ECN	Date	Prepared by	Checked by	Approved by

1. Purpose

To evaluate the performance of IX-UC series Connector in accordance with PRS-2508.

2. Specimen

(1) IX-UC2000 RECEPTACLE TOP MOUNT TYPE (Part No. 30112-024E-01)

3. Test Sequence

All the evaluations were performed in accordance with Table 1. Test Sequence.

4. Result

See the data, Graph 1 to 7. For the details of the testing conditions and requirements, see PRS-2508.
The "n" in the tables show the number of measurement points.

5. Conclusion

All the specimens met the requirements of PRS-2508.

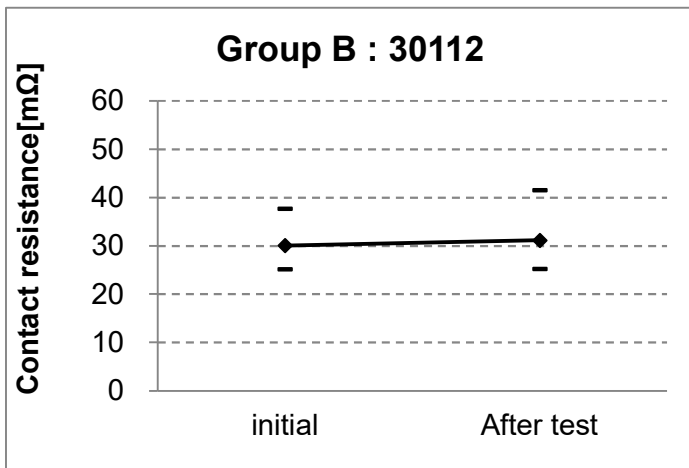
Table 1 Test Sequence and Sample Quantity

Test Item	Group							
	A	B	C	D	E	F	G	H
Contact resistance		2,7	1,4,6	1,4,6	1,4, 6,8	1,4, 6,8,10		
Insulation resistance		1,8						
Dielectric withstanding voltage		9						
Temperature rising	1							
Mating force		3						
Unmating force		4,6						
Durability(preconditioning)			2	2	2	2		
Durability		5						
Vibration				5				
Reseating			5		7	9		
High temperature life (preconditioning)				3		3		
High temperature life			3					
Thermal shock					3			
Thermal disturbance						7		
Cyclic temperature and humidity					5			
Mixed flowing gas						5		
Solder ability							1	
Soldering heat resistance								1
Specimen quantity.	5 pcs.	5 pcs.	5 pcs.	5 pcs.	5 pcs.	5 pcs.	5 pcs.	5 pcs.

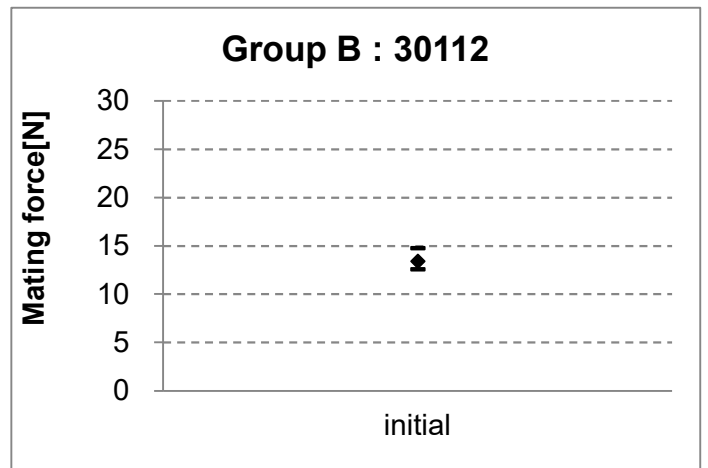
※Numbers indicate sequence in which tests are performed.

Group	Contents of measurement		Spec.	Unit	Q'ty	n	Data					Judge.
							AVE.	MAX.	MIN.	S	X±3s	
A	Temperature rising											
	30112	After test	ΔT 30 MAX.	°C	5	-			19.6	Max.		PASS
B	Durability											
	Contact resistance											
	30112	Initial	40 MAX.	mΩ	5	120	30.07	37.7	25.2	2.73	38.25	PASS
		After 10000 cycles	50 MAX.				31.19	41.6	25.3	3.79	42.54	PASS
	Mating force											
	30112	Initial	20 MAX. 5 MIN.	N	5	-	13.41	14.8	12.6	-	-	PASS
	Unmating force											
	30112	Initial	20 MAX. 8 MIN.	N	5	-	13.41	14.8	12.6	-	-	PASS
		After 10000 cycles	20 MAX. 6 MIN.				8.62	9.0	8.3	-	-	PASS
	Insulation resistance											
	30112	Initial	100 MIN.	MΩ	5	-	100 Min.					PASS
		After test	100 MIN.				100 Min.					PASS
	Dielectric withstanding voltage											
30112	Initial	No abnormalities such as creeping discharge, flashover, insulator breakdown occur.	-	5	-	No abnormality					PASS	
	After test					No abnormality					PASS	
Appearance												
30112	After test	No abnormality adversely affecting the performance shall occur.	-	5	-	No abnormality					PASS	
C	High temperature life											
	Contact resistance											
	30112	Initial	40 MAX.	mΩ	5	120	35.62	38.6	32.8	1.08	38.88	PASS
		After high temp.	50 MAX.				34.35	39.6	27.8	1.93	40.13	PASS
		After reseating	50 MAX.				33.40	38.7	29.0	1.87	39.00	PASS
Appearance												
30112	After test	No abnormality adversely affecting the performance shall occur.	-	5	-	No abnormality					PASS	
D	High temperature life(preconditioning)→Vibration											
	Contact resistance											
	30112	Initial	40 MAX.	mΩ	5	120	29.68	35.7	25.0	2.97	38.60	PASS
		After high temp.	50 MAX.				30.81	39.7	25.2	3.00	39.81	PASS
		After vibration	50 MAX.				30.18	35.9	25.1	2.69	38.25	PASS
Electrical discontinuity												
30112	During vib. test	1 MAX.	μs	5	-	No discontinuity					PASS	
Appearance												
30112	After test	No abnormality adversely affecting the performance shall occur.	-	5	-	No abnormality					PASS	
E	Thermal shock→Cyclic temperature and humidity											
	Contact resistance											
	30112	Initial	40 MAX.	mΩ	5	120	32.61	36.8	28.1	1.95	38.46	PASS
		After thermal shock	50 MAX.				32.59	37.2	25.9	2.10	38.88	PASS
		After humidity	50 MAX.				35.71	39.7	32.6	1.50	40.21	PASS
After reseating		50 MAX.	35.56				39.9	31.1	1.75	40.81	PASS	
Appearance												
30112	After test	No abnormality adversely affecting the performance shall occur.	-	5	-	No abnormality					PASS	

F	High temperature life(preconditioning)→Mixed flowing gas→Thermal disturbance												
	Contact resistance												
	30112	Initial	40	MAX.	mΩ	5	120	29.59	37.2	25.1	2.98	38.53	PASS
		After high temp.	50	MAX.				30.26	37.6	25.3	3.14	39.68	PASS
		After gas	50	MAX.				30.70	37.5	25.0	2.90	39.38	PASS
		After thermal disturbance	50	MAX.				29.26	35.3	25.1	2.78	37.60	PASS
After reseating		50	MAX.	29.85				36.9	25.0	2.96	38.72	PASS	
Appearance													
30112	After test	No abnormality adversely affecting the performance shall occur.			-	5	No abnormality				PASS		
J	Solder ability												
	Solder wetting area												
30112	After test	95	MIN.	%	10	-	95 MIN.				PASS		
K	Resistance to reflow soldering heat												
	Appearance												
30112	After test	No deformation or defect adversely affecting the performance occur.			-	10	No abnormality				PASS		



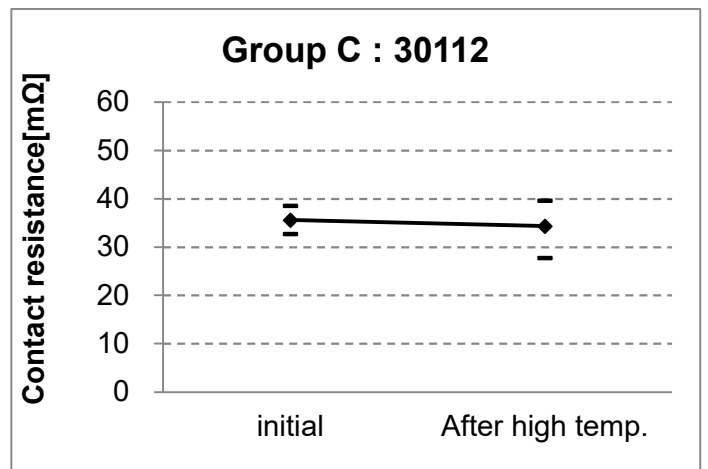
Graph1. Part No.30112 contact resistance



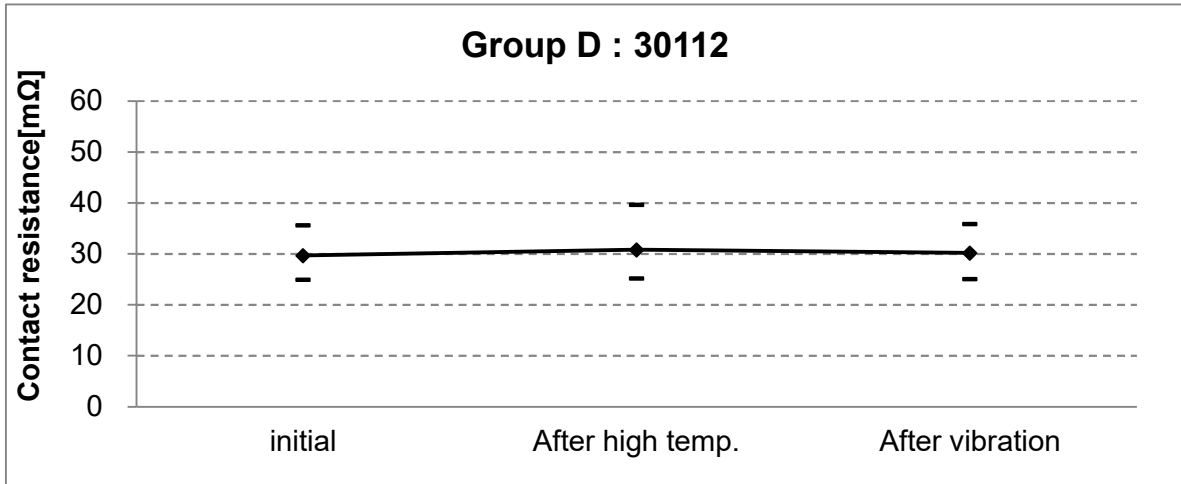
Graph2. Part No.30112 mating force



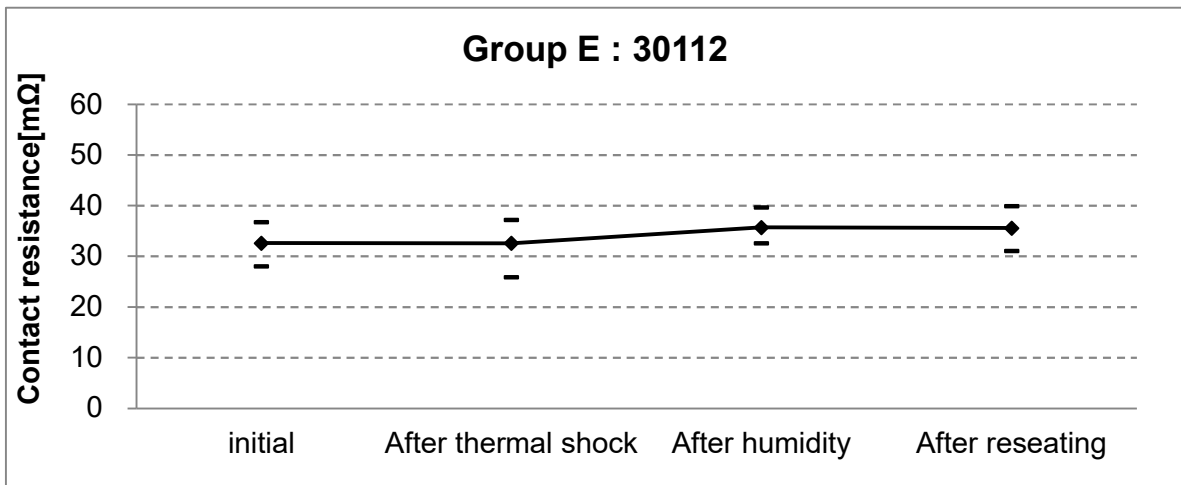
Graph3. Part No.30112 unmating force



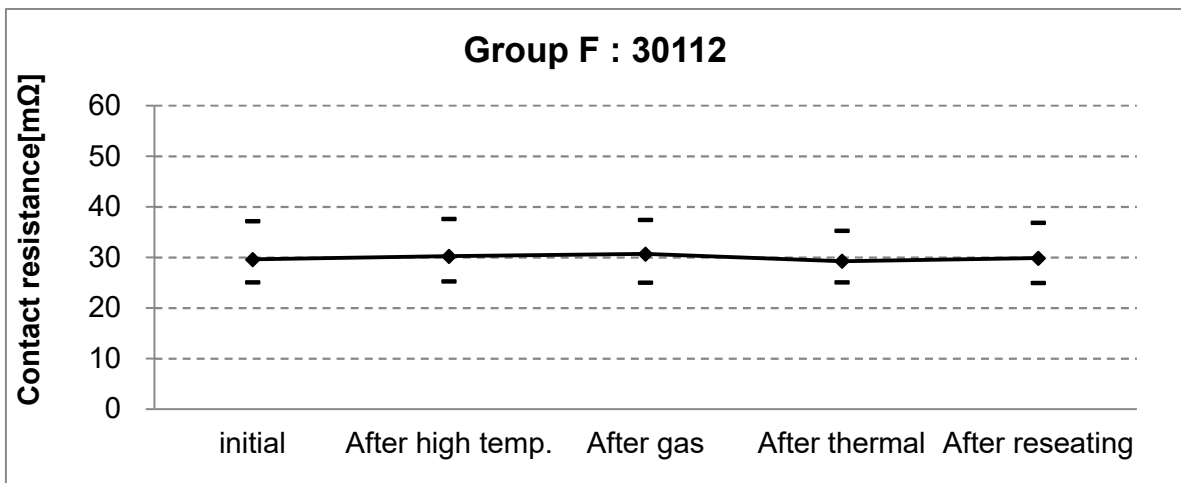
Graph4. Part No.30112 contact resistance



Graph5. Part No.30112 contact resistance



Graph6. Part No.30112 contact resistance



Graph7. Part No.30112 contact resistance