AP-TSS10 / AP-LT10

AP-TSS10: 3782-000* AP-LT10: 3571-0081-0*T

Test Report

Product Specification no. PRS-2845

2	T24013	April 4, 2024	W. Lau	Y. Shimizu	M. Takemoto
1	T23062	December 13, 2023	T.Ito	S.Kamada	Y.Hashimoto
0	T23046	September 1, 2023	S.Kamada	-	Y.Hashimoto
Rev.	ECN	Date	Prepared by	Checked by	Approved by

1. Purpose

To evaluate the performance of the AP-TSS10 and AP-LT10 in accordance with PRS-2845.

2. Specimen

AP-TSS10(3782-000*)
AP-LT10(3571-0081-0*T)

3. Test Sequence

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

4. Result

See Table A to L, Graph 1～8. For the details of the testing conditions and requirements, see PRS-2845.
The “n” in the tables show the number of measurement points.

5. Conclusion

All the specimens met the requirements of PRS-2845.

Table 1 Test Sequence and Sample Quantity

Test Item	Group										
	A	B	C	D	E	F	G	H	J	K	L
Contact Resistance		1,3	1,3	1,3	1,3	1,3	1,3	1,3			
Temperature rising	1										
Vibration		2									
High Temperature Life			2								
High Temperature Life (Energization)				2							
High Temperature and humidity					2						
High Temperature and humidity (Energization)						2					
Temperature cycling							2				
SO_2 Gas								2			
Soldering Heat Resistance									1		
Solder ability										1	
Solder junction life											1
Specimen Quantity.	5 pcs.	5 pcs.	5 pcs.	5 pcs.	5 pcs.	5 pcs.	5 pcs.	5 pcs.	5 pcs.	5 pcs.	5 pcs.

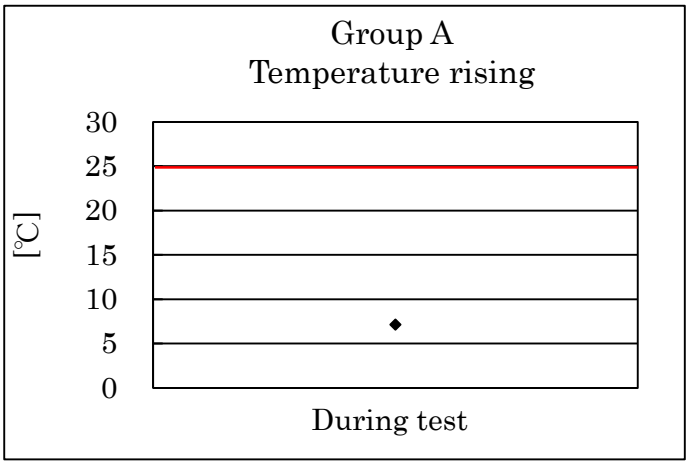
※Numbers indicate sequence in which tests are performed.

Table.2-1 Test result

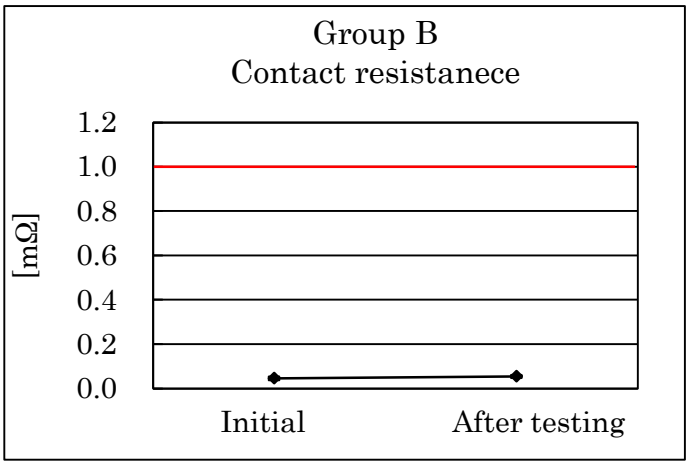
Group	Test items / Measurements	Pass criteria	n	Unit	AVE.	MAX.	MIN.	Judgement
A	Temperature rising							
	During test	⊿T25℃ MAX.	5	℃	-	7.2	-	Pass
B	Vibration							
	Contact resistance							
	Initial	1mΩ MAX.	5	mΩ	0.0462	0.049	0.042	Pass
	After testing				0.0546	0.057	0.052	Pass
	Electrical discontinuity							
	During test	No discontinuity greater than 1μs.	5	-	No discontinity			Pass
	Appearance							
	Pass criteria: No abnormality adversely affecting the performance shall not occur.							
	After testing	No abnormality	5	-	No abnormality			Pass
C	High Temperature Life							
	Contact resistance							
	Initial	1mΩ MAX.	5	mΩ	0.0472	0.051	0.044	Pass
	After testing				0.0530	0.055	0.051	Pass
	Appearance							
	Pass criteria: No abnormality adversely affecting the performance shall not occur.							
	After testing	No abnormality	5	-	No abnormality			Pass
D	High Temperature Life (Energization)							
	Contact resistance							
	Initial	1mΩ MAX.	5	mΩ	0.0456	0.048	0.044	Pass
	After testing				0.0544	0.056	0.053	Pass
	Appearance							
	Pass criteria: No abnormality adversely affecting the performance shall not occur.							
	After testing	No abnormality	5	-	No abnormality			Pass
E	High Temperature and humidity							
	Contact resistance							
	Initial	1mΩ MAX.	5	mΩ	0.0456	0.048	0.044	Pass
	After testing		5		0.0540	0.055	0.052	Pass
	Appearance							
	Pass criteria: No abnormality adversely affecting the performance shall not occur.							
	After testing	No abnormality	5	-	No abnormality			Pass
F	High Temperature and humidity (Energization)							
	Contact resistance							
	Initial	1mΩ MAX.	5	mΩ	0.0474	0.050	0.044	Pass
	After testing				0.0534	0.057	0.050	Pass
	Appearance							
	Pass criteria: No abnormality adversely affecting the performance shall not occur.							
	After testing	No abnormality	5	-	No abnormality			Pass

Table.2-2 Test result

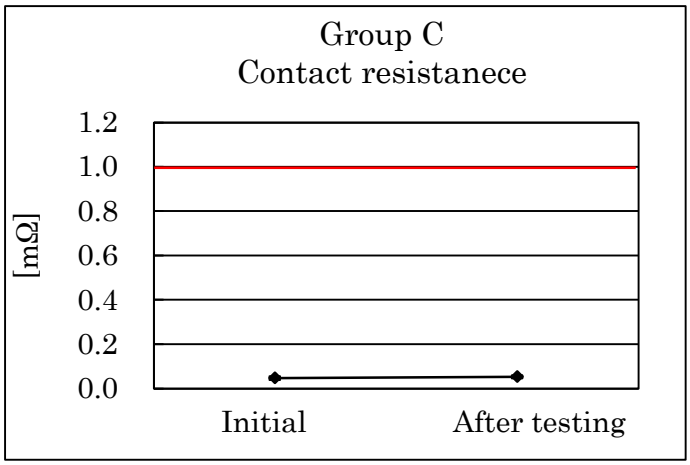
Group	Test items / Measurements	Pass criteria	n	Unit	AVE.	MAX.	MIN.	Judgement
G	Temperature cycling							
	Contact resistance							
	Initial	1mΩ MAX.	5	mΩ	0.0474	0.050	0.042	Pass
	After testing				0.0534	0.057	0.051	Pass
	Appearance							
	Pass criteria: No abnormality adversely affecting the performance shall not occur.							
	After testing	No abnormality	5	-	No abnormality			Pass
H	SO2 Gas							
	Contact resistance							
	Initial	1mΩ MAX.	5	mΩ	0.0464	0.047	0.046	Pass
	After testing				0.0508	0.053	0.048	Pass
	Appearance							
	Pass criteria: No abnormality adversely affecting the performance shall not occur.							
	After testing	No abnormality	5	-	No abnormality			Pass
J	Soldering Heat Resistance							
	Pass criteria: No abnormality adversely affecting the performance shall not occur.							
	After testing	No abnormality	5	-	No abnormality			Pass
K	Solder ability							
	Pass criteria: More than 95% of the dipped surface shall be evenly wet.							
	After testing	No abnormality	5	-	No abnormality			Pass
L	Solder junction life							
	Pass criteria: Electrical continuity is confirmed after the test.							
	After testing	Electrical continuity is confirmed.	5	-	Electrical continuity is confirmed.			Pass



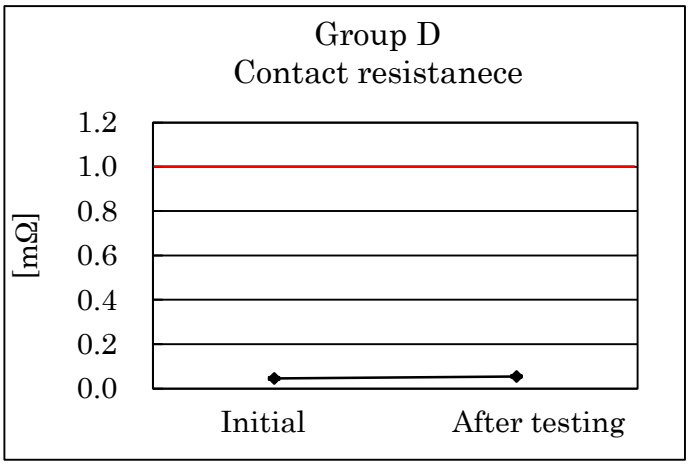
Graph-1.Temperature rising



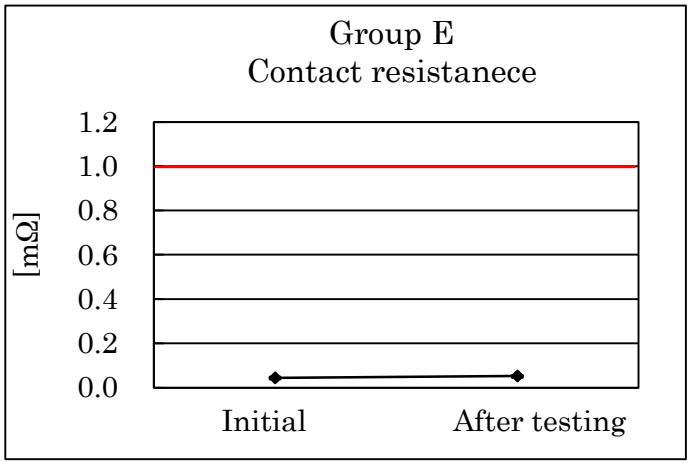
Graph-2.Vibration



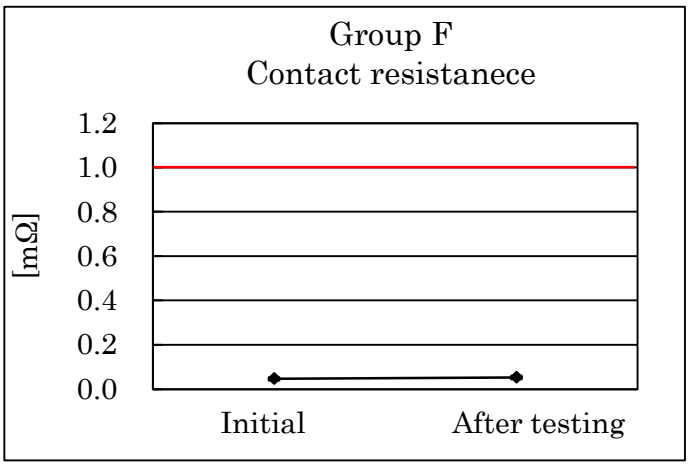
Graph-3.High Temperature Life



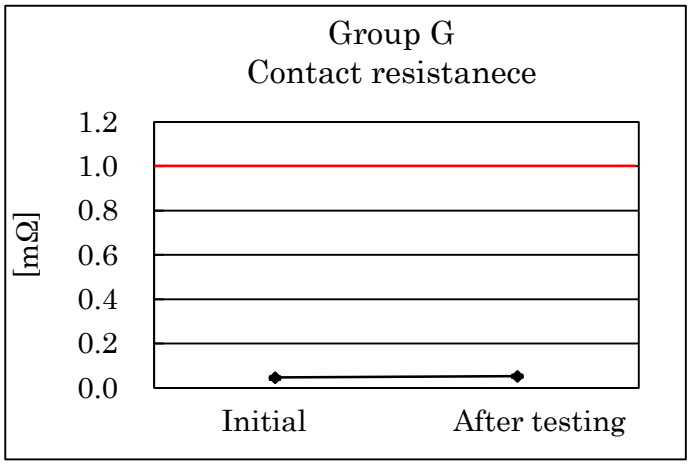
Graph-4. High Temperature Life (Energization)



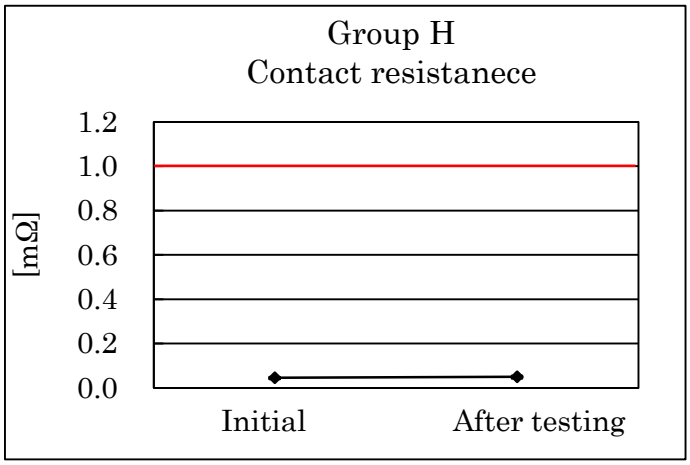
Graph-5.High Temperature and humidity



Graph-6.High Temperature and humidity (Energization)



Graph-7.Temperature cycling



Graph-8.SO_2 Gas