

SMA Jack Connector

Part No. 60380 (O.D. 1.13) / 60381 (O.D. 1.37)

Test Report

Product Specification no. PRS-2941

0	T25025	March 27, 2025	T. Takuno	-	K. Yufu
Rev.	ECN	Date	Prepared by	Checked by	Approved by

1. Purpose

To evaluate the performance of SMA JackConnector in accordance with PRS-2941.

2. Specimen

(1) SMA Jack : 60380 (O.D. 1.13) / 60381 (O.D. 1.37)

3. Test Sequence

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

4. Result

See Table 2-1 to 2-2, Graph 1 to 4. For the details of the testing conditions and requirements, see PRS-2941.

The “n” in the tables show the number of measurement points.

5. Conclusion

All the specimens met the requirements of PRS-2941.

Table 1 Test Sequence and Sample Quantity

No.		Test Item	Testing Groups						
			A	B	C	D	E	F	G
4.1 Electrical Performance	1	Contact resistance				1,3	1,3		1,3
	2	Insulation resistance	1						
	3	Dielectric withstanding voltage		1					
	4	VSWR			1				
4.2 Mechanical Performance	1	Durability				2			
	2	Shock					2		
	3	Cable retention force						1	
4.3 Environmental Performance	1	Saltwater spray							2
Specimen quantity			5	5	5	5	5	5	5

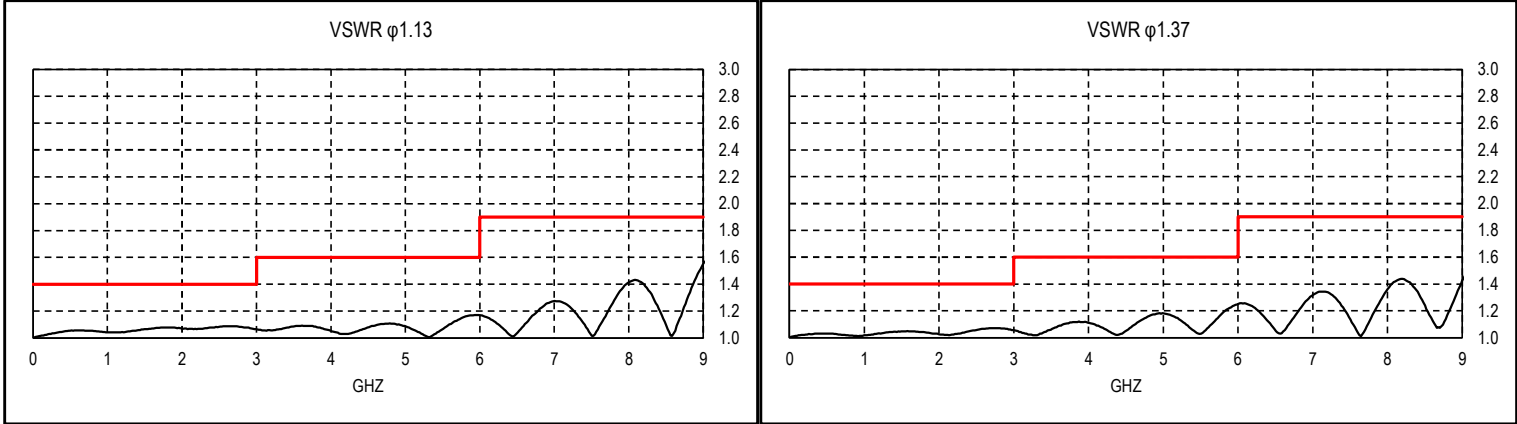
※Numbers indicate test sequences

Table 2-1 Test Result

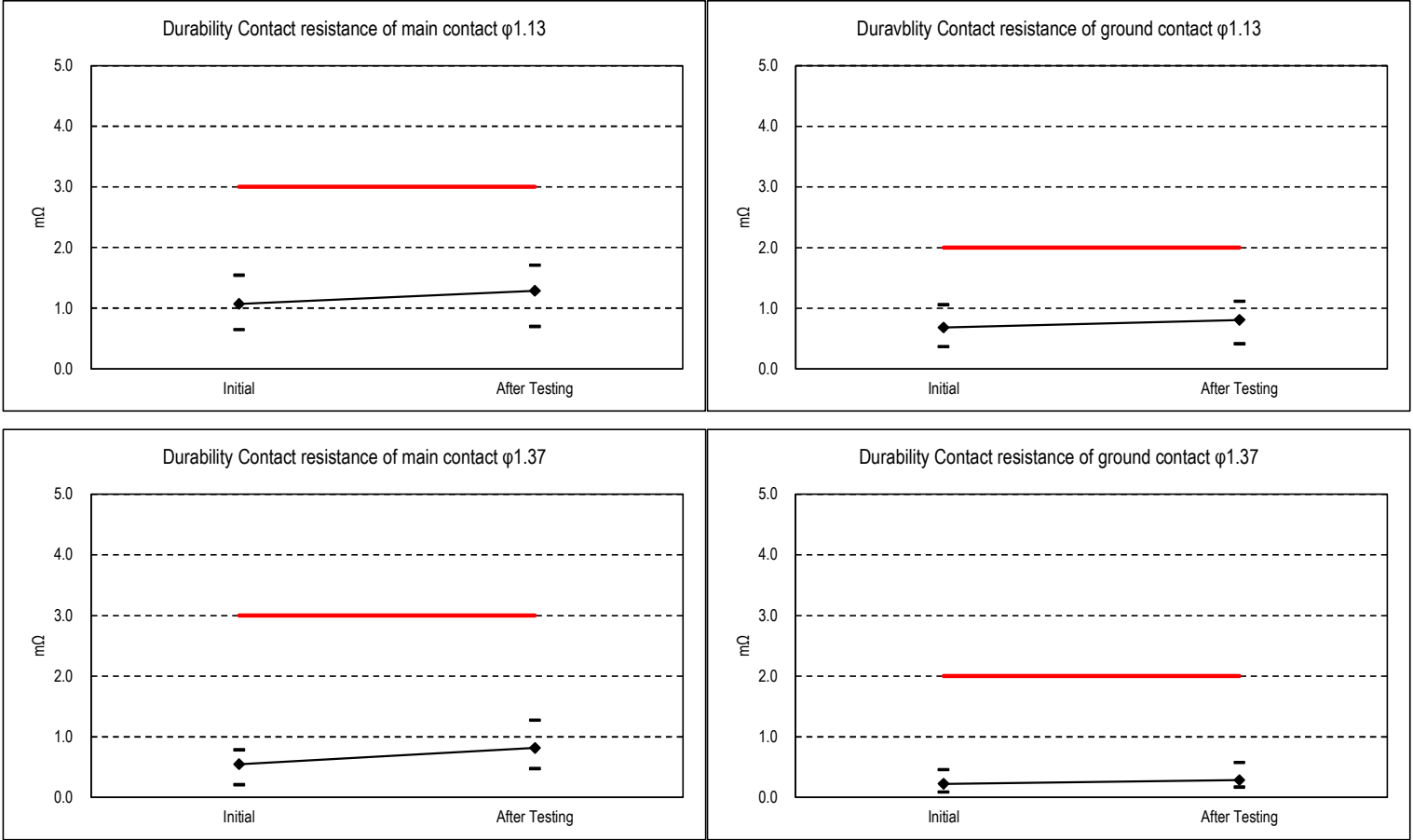
Group	Test items	Measurements	Specification	N	Unit	AVE.	MAX.	MIN.	S	Judgement
A	Insulation resistance									
	φ1.13									
	Initial	500MΩ MIN	5	-	100000MΩ MIN				Pass	
	φ1.37									
	Initial	500MΩ MIN	5	-	100000MΩ MIN				Pass	
B	Dielectric withstanding voltage									
	φ1.13									
	Spec. No abnormalities such as creeping discharge, flashover, insulator breakdown occur.									
	After testing	-	5	-	No abnormality				Pass	
	φ1.13									
	合格基準：沿面放電、空中放電、絶縁破壊等の異常無きこと。									
	After testing	-	5	-	No abnormality				Pass	
C	VSWR									
	φ1.13 MHF I-O CABLE113-7 +SMA(J) 100mm									
	0.1～3.00GHz	1.40 Max	5	-	1.12	1.19	1.09	0.02	Pass	
	3.01～6.00GHz	1.60 Max			1.22	1.31	1.16	0.04	Pass	
	6.01～9.00GHz	1.90 Max			1.56	1.65	1.49	0.05	Pass	
	φ1.37 MHF I-O CABLE137-7 +SMA(J) 100mm									
	0.1～3.00GHz	1.40 Max	5	-	1.07	1.11	1.04	0.02	Pass	
3.01～6.00GHz	1.60 Max	1.23			1.28	1.19	0.03	Pass		
6.01～9.00GHz	1.90 Max	1.50			1.67	1.41	0.09	Pass		
D	Durability									
	φ1.13									
	Contact resistance of main contact									
	Initial	3mΩ MAX.	5	mΩ	1.07	1.55	0.64	0.37	Pass	
	After testing	3mΩ MAX.			1.29	1.71	0.70	0.37	Pass	
	Contact resistance of ground contact									
	Initial	2mΩ MAX.	5	mΩ	0.68	1.06	0.37	0.27	Pass	
	After testing	2mΩ MAX.			0.81	1.11	0.41	0.33	Pass	
	Appearance									
	Initial	No abnormality adversely affecting the performance shall occur.	5	-	No abnormality				Pass	
	After testing				No abnormality				Pass	
	φ1.37									
	Contact resistance of main contact									
	Initial	3mΩ MAX.	5	mΩ	0.55	0.78	0.21	0.22	Pass	
	After testing	3mΩ MAX.			0.81	1.27	0.47	0.35	Pass	
	Contact resistance of ground contact									
	Initial	2mΩ MAX.	5	mΩ	0.22	0.46	0.09	0.15	Pass	
After testing	2mΩ MAX.	0.28			0.57	0.17	0.17	Pass		
Appearance										
Initial	No abnormality adversely affecting the performance shall occur.	5	-	No abnormality				Pass		
After testing				No abnormality				Pass		

Table 2-2 Test Result

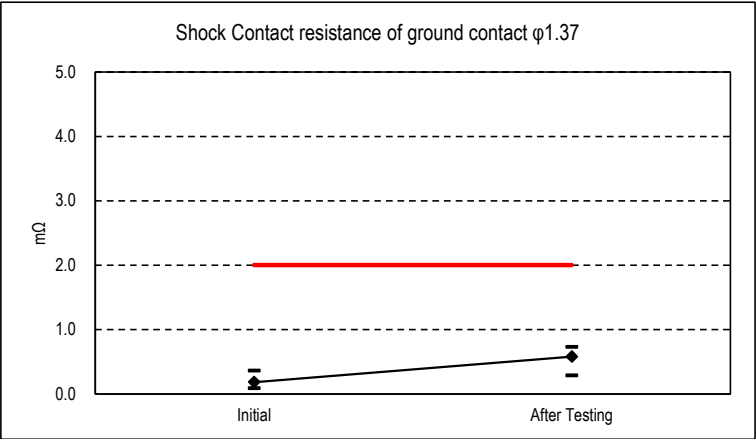
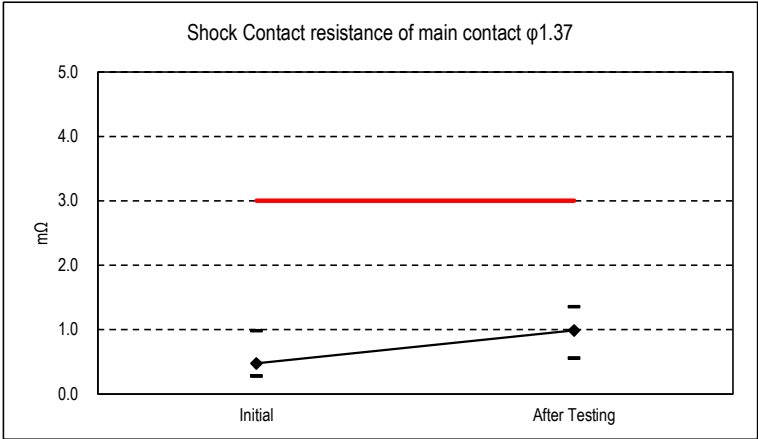
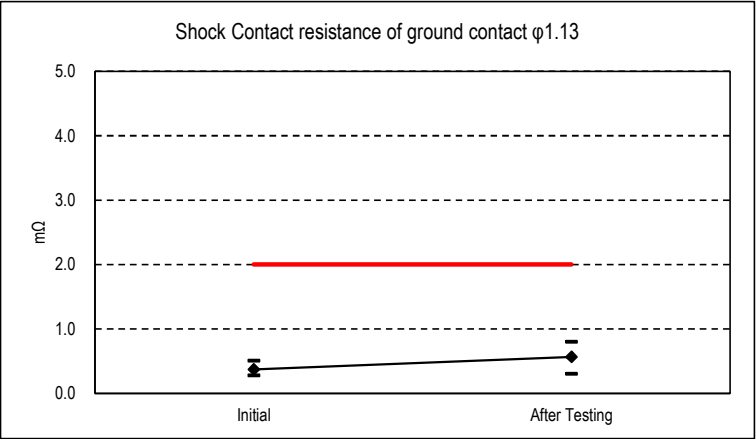
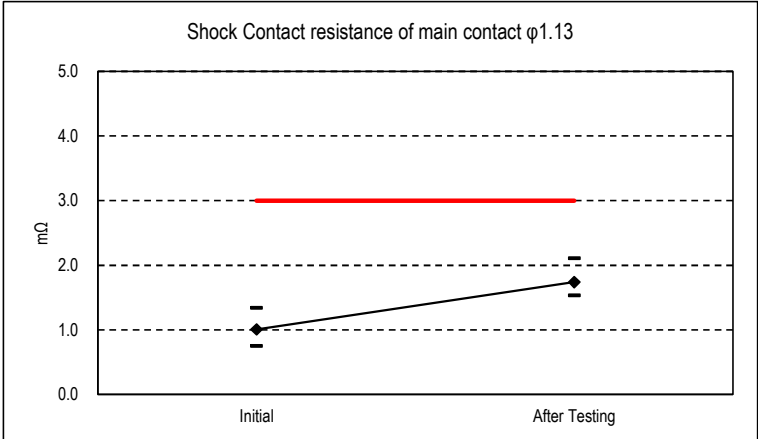
Group	Test items	Measurements	Specification	N	Unit	AVE.	MAX.	MIN.	S	Judgement
E	Shock									
	φ1.13									
	Contact resistance of main contact									
		Initial	3mΩ MAX.	5	mΩ	1.01	1.34	0.75	0.24	Pass
		After testing	3mΩ MAX.			1.74	2.11	1.53	0.22	Pass
	Contact resistance of ground contact									
		Initial	2mΩ MAX.	5	mΩ	0.37	0.51	0.28	0.11	Pass
		After testing	2mΩ MAX.			0.57	0.80	0.30	0.19	Pass
	Electrical discontinuity									
		Spec.No electrical discontinuity greater than 1μs shall occur.								
		under test	-	5	-	No abnormality				Pass
	Appearance									
		Initial	No abnormality adversely affecting the performance shall occur.	5	-	No abnormality				Pass
		After testing				No abnormality				Pass
	φ1.37									
	Contact resistance of main contact									
		Initial	3mΩ MAX.	5	mΩ	0.47	0.98	0.28	0.30	Pass
		After testing	3mΩ MAX.			0.99	1.35	0.56	0.30	Pass
	Contact resistance of ground contact									
		Initial	2mΩ MAX.	5	mΩ	0.19	0.36	0.09	0.11	Pass
		After testing	2mΩ MAX.			0.58	0.73	0.29	0.18	Pass
	Electrical discontinuity									
		Spec.No electrical discontinuity greater than 1μs shall occur.								
		under test	-	5	-	No abnormality				Pass
	Appearance									
		Initial	No abnormality adversely affecting the performance shall occur.	5	-	No abnormality				Pass
		After testing				No abnormality				Pass
F	Cable retention force									
	φ1.13									
		Initial	20N Min	5	N	51.94	55.00	48.90	2.60	Pass
	φ1.37									
		Initial	20N Min	5	N	56.04	59.10	48.70	4.45	Pass
G	Saltwater spray									
	φ1.13									
	Contact resistance of main contact									
		Initial	3mΩ MAX.	5	mΩ	1.07	1.51	0.64	0.36	Pass
		After testing	3mΩ MAX.			1.52	2.05	1.22	0.33	Pass
	Contact resistance of ground contact									
		Initial	2mΩ MAX.	5	mΩ	0.26	0.43	0.18	0.11	Pass
		After testing	2mΩ MAX.			0.61	0.87	0.47	0.18	Pass
	Appearance									
		Initial	No abnormality adversely affecting the performance shall occur.	5	-	No abnormality				Pass
		After testing				No abnormality				Pass
	φ1.37									
	Contact resistance of main contact									
		Initial	3mΩ MAX.	5	mΩ	0.43	0.58	0.25	0.15	Pass
		After testing	3mΩ MAX.			0.85	1.31	0.46	0.31	Pass
	Contact resistance of ground contact									
		Initial	2mΩ MAX.	5	mΩ	0.26	0.47	0.13	0.14	Pass
		After testing	2mΩ MAX.			0.39	0.58	0.19	0.17	Pass
	Appearance									
		Initial	No abnormality adversely affecting the performance shall occur.	5	-	No abnormality				Pass
		After testing				No abnormality				Pass



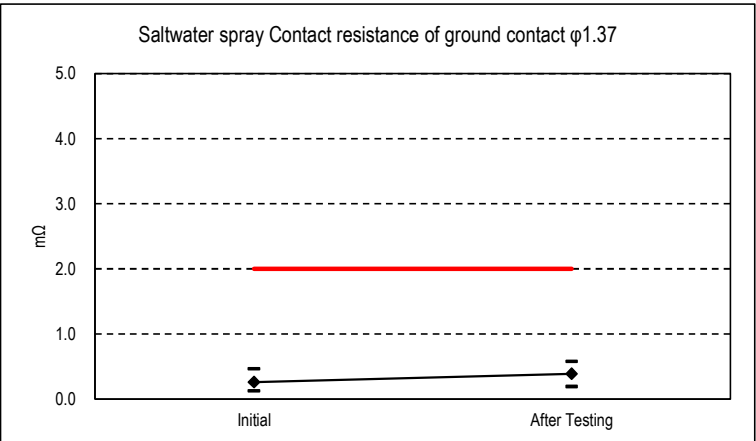
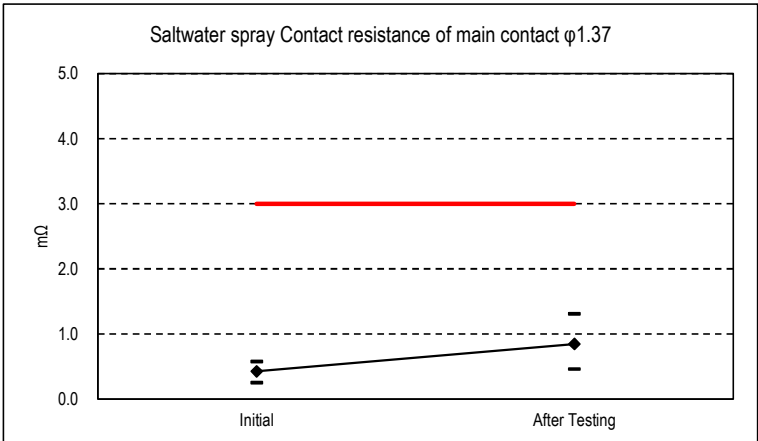
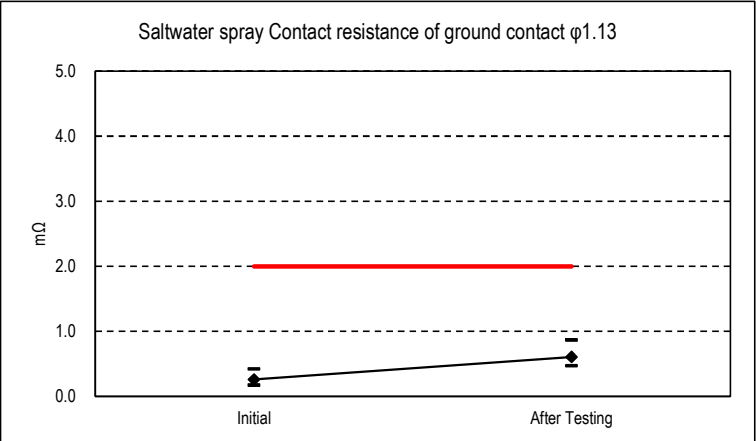
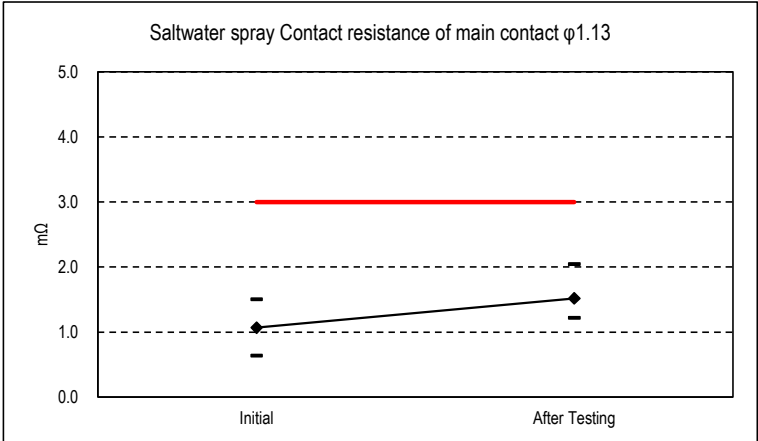
Graph 1 VSWR



Graph 2 Durability



Graph 3 Shock



Graph 3 Saltwater spray