

MHF® I Connector

Ground contact gold plating (Anti-static reel version)

Test Report

Product Specification no. PRS-1676

15	T22087	June 7, 2022	S. Tsuboki	K. Yufu	Y. Hashimoto
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13	T20094	November 11, 2020	S. Taguchi		M. Takemoto
12	T20057	August 6, 2020	K. Ikeshita	J. Tonai	M. Takemoto
Rev.	ECN	Date	Prepared by	Checked by	Approved by
Confident	ial C		I-PEX Inc.		QKE-DFFDE07-07 REV.10

1. Purpose

To evaluate the performance of MHF I Connector in accordance with PRS-1676

2. Specimen

- (1) MHF I PLUG (Part No. 20278-112R-**)
- 1-1. Part No.20278-112R-08 (20278-102R-08) Cable: AWG#36 coaxial cable (jacket diameter 0.81mm)
- 1-2. Part No.20278-112R-13 (20278-102R-13) Cable: AWG#32 coaxial cable (jacket diameter 1.13mm)
- 1-3. Part No.20278-112R-32 (20278-102R-32) Cable: AWG#32 coaxial cable (jacket diameter 1.32mm)
- 1-4. Part No.20278-112R-18 (20278-102R-18) Cable: AWG#30 coaxial cable (jacket diameter 1.80mm)
- * Part No.20278-112R-**、20278-102R-** are different in the wire connection method Only,
- so we tested part No. 20278-112R-** as representative.
- (2) MHF I RECEPTACLE (Part No. 20279-001E-01(Anti-static reel version))
 - * Part No.20279-001E-01、20279-001E-03、20279-001E-05 are different in the packing style only, so we tested part No. 20279-001E-01 as representative.

3. Test Sequence

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

4. Result

See Table 2 and sheet from 12 to 22. For the details of the testing conditions and requirements, see PRS-1676. The "n" in the tables show the number of measurement points.

5. Conclusion

All the specimens met the requirements of PRS-1676.

Document No.
TR-12044-15EN

Table 1 Test Sequence and Sample Quantity

Та								Gro	oup						
Ie	st Item	А	В	С	D	E	F	G	Н	J	К	L	М	Ν	Р
Contact Resi	stance					1,3	1,3	1,3	1,3	1,4	1,4	1,3	1,3		
Insulation Re	sistance									2,5	2,5				
Dielectric Withstand	ing Voltage	1													
VSWR			1												
Unmating For	rce			1											
Crimp Streng	th				1										
Durability						2									
Cable Retent	ion Force						2								
Vibration								2							
Shock									2						
Thermal Sho	ck									3					
Humidity (Stead	dy State)										3				
Salt Water Sp	oray											2			
High Tempera	ature Life												2		
Solder ability														1	
Soldering Heat	Resistance														1
Sample	Plug		10		10									-	-
Quantity	Receptacle	10	5	10	-	10	10	10	10	10	10	10	10	10	10

Numbers indicate sequence in which tests are performed.

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Group	Testitems	Specification	n	Unit	AVE.	MAX.	MIN.	s	Judgemen
	Measurements			0	/				ea agemen
А	Dielectric withstanding voltage								
		such as creeping discharge		r, insu			occur.		
	20278-112R-08	-	10	-	No abno				Pass
	20278-112R-13	-	10	-	No abno				Pass
	20278-112R-32	-	10	-	No abno	,			Pass
	20278-112R-18	-	10	-	No abno	ormality			Pass
В	VSWR								
	Plug 20278-112R-08								
	$0.1 \sim 3 \text{GHz}$	1.30 MAX.	10	-	1.079	1.09	1.07	0.008	Pass
	3~6GHz	1.50 MAX.	10	-	1.156	1.20	1.14	0.016	Pass
	$6{\sim}9{ m GHz}$	1.90 MAX.	10	-	1.223	1.27	1.19	0.024	Pass
	Plug 20278-112R-13	-			-			-	
	0.1~3GHz	1.30 MAX.	10	-	1.075	1.10	1.06	0.011	Pass
	3∼6GHz	1.50 MAX.	10	-	1.126	1.15	1.09	0.016	Pass
	6~9GHz	1.90 MAX.	10	-	1.204	1.25	1.17	0.027	Pass
	Plug 20278-112R-32	·							
	0.1~3GHz	1.30 MAX.	10	-	1.094	1.10	1.09	0.003	Pass
	3~6GHz	1.50 MAX.	10	-	1.181	1.19	1.17	0.008	Pass
	$6{\sim}9{ m GHz}$	1.60 MAX.	10	-	1.207	1.22	1.19	0.011	Pass
	Plug 20278-112R-18	•	-					•	•
	0.1~3GHz	1.30 MAX.	10	-	1.172	1.19	1.15	0.011	Pass
	3~6GHz	1.50 MAX.	10	-	1.368	1.40	1.34	0.017	Pass
	$6{\sim}9{ m GHz}$	1.90 MAX.	10	-	1.428	1.46	1.36	0.025	Pass
	Receptacle 20279-001E-01								
	0.1~3GHz	1.30 MAX.	5	-	1.085	1.09	1.08	0.006	Pass
	3∼6GHz	1.40 MAX.	5	-	1.233	1.27	1.18	0.033	Pass
	6~9GHz	1.80 MAX.	5	-	1.515	1.60	1.41	0.068	Pass
С	Unmating force	•	•	•	•		•	•	
-	Total force (20278-112R-**)								
	Initial	5 MIN.	10	Ν	16.11	17.4	14.8	0.77	Pass
	30 cycles	3 MIN.	10	N	11.04	11.9	10.2	0.56	Pass
	Inner contact (20278-112R-**)								
	Initial	0.15 MIN.	10	Ν	0.369	0.39	0.35	0.014	Pass
	30 cycles	0.10 MIN.	10	N	0.230	0.25	0.22	0.011	Pass
D	Crimp strength								
0	20278-112R-08								
	-	10N MIN.	10	Ν	16.91	19.0	15.3	1.10	Pass
	20278-112R-13				10101	1010	10.0		1 400
	-	10N MIN.	10	Ν	16.85	18.6	15.2	0.97	Pass
	20278-112R-32				10.00	10.0	.0.2	0.01	
	-	10N MIN.	10	Ν	19.52	20.9	18.3	0.86	Pass
	20278-112R-18		10		10.02	20.0	.0.0	0.00	
	-	15N MIN.	10	Ν	24.92	27.4	22.9	1.31	Pass
dential					27.02	21.7	22.5	1	1 433

Test Result Table 2

Document No. TR-12044-15EN

	Testitems								
Group	Measurements	Specification	n	Unit	AVE.	MAX.	MIN.	S	Judgement
E	Durability								
	20278-112R-08								
	Contact resistance of ma	in contact							
	Initial	20 MAX.	40		13.25	13.9	12.3	0.45	Pass
	After testing	25 MAX.	10	mΩ	12.98	13.4	11.9	0.43	Pass
	Contact resistance of gro	und contact							
	Initial	10 MAX.	40		5.21	7.1	4.4	0.97	Pass
	After testing	15 MAX.	10	mΩ	5.78	7.2	4.8	0.82	Pass
	Appearance	ļ	<u> </u>	<u></u>	ļ			<u> </u>	
	Initial	No abnormality adversely affecting	40		No abno	ormality			Pass
	After testing	the performance shall occur.	10	-	No abno	•			Pass
	20278-112R-13	·				,			
	Contact resistance of ma	in contact							
	Initial	20 MAX.	4.0	_	6.45	7.1	6.1	0.30	Pass
	After testing	25 MAX.	10	mΩ	6.40	6.8	6.1	0.23	Pass
	Contact resistance of gro	und contact							
	Initial	10 MAX.	10		5.29	6.8	3.5	0.82	Pass
	After testing	15 MAX.	10	mΩ	5.46	6.0	4.1	0.59	Pass
	Appearance								
	Initial	No abnormality adversely affecting	10		No abno	Pass			
	After testing	the performance shall occur.	10	-		ormality	******	****	Pass
	20278-112R-32	ļ	<u> </u>	<u></u>	ļ				
	Contact resistance of ma	in contact							
	Initial	20 MAX.	4.0		6.77	7.0	6.5	0.22	Pass
	After testing	25 MAX.	10	mΩ	7.27	7.8	6.9	0.28	Pass
	Contact resistance of gro	und contact							
	Initial	10 MAX.	40		4.96	5.5	4.5	0.26	Pass
	After testing	15 MAX.	10	mΩ	6.53	7.6	4.9	0.80	Pass
	Appearance								
	Initial	No abnormality adversely affecting	40		No abno	ormality			Pass
	After testing	the performance shall occur.	10	-	No abno	ormality			Pass
	20278-112R-18				1				
	Contact resistance of ma	in contact							
	Initial	20 MAX.	40		8.52	9.0	8.3	0.22	Pass
	After testing	25 MAX.	10	mΩ	9.12	9.4	8.5	0.28	Pass
	Contact resistance of gro	und contact	1	1	1			1	1
	Initial	10 MAX.	40		4.87	5.5	4.2	0.40	Pass
	After testing	15 MAX.	10	mΩ	5.74	8.0	3.2	1.65	Pass
	Appearance	1	1	L	1			1	1
	Initial	No abnormality adversely affecting	40		No abno	ormality			Pass
	After testing	the performance shall occur.	10	-		ormality			Pass
fidantia			L						

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			1		1	1		1	T
Group	Testitems	Specification	n	Unit	AVE.	MAX.	MIN.	S	Judgement
•	Measurements							_	
F	Cable retention force								
	20278-112R-08								
	Contact resistance of ma	-				1			
	Initial	20 MAX.	10	mΩ	12.98	13.9	12.2	0.61	Pass
	After testing	25 MAX.	_		14.30	15.0	13.6	0.56	Pass
	Contact resistance of gro					•			1
	Initial	10 MAX.	10	mΩ	5.09	5.7	4.4	0.48	Pass
	After testing	15 MAX.			6.00	7.0	5.2	0.51	Pass
	Electrical discontinuity								
	Spec: No creeping disc	harge, flashover, no insulator b	reakdo	wn sha	all occur.				
	After testing	-	10	-	No abno	ormality			Pass
	Appearance		-	•					
	Initial	No abnormality adversely affecting	10	_	No abno	ormality			Pass
	After testing	the performance shall occur.	10		No abno	ormality			Pass
	20278-112R-13								
	Contact resistance of ma	in contact							
	Initial	20 MAX.	10	mΩ	6.84	7.8	5.6	0.74	Pass
	After testing	25 MAX.		11152	6.67	7.7	6.0	0.53	Pass
	Contact resistance of gro	und contact							
	Initial	10 MAX.	10	mΩ	4.19	4.8	4.0	0.26	Pass
	After testing	15 MAX.		11122	4.32	5.0	4.0	0.26	Pass
	Electrical discontinuity					•			
	Spec: No creeping disc	harge, flashover, no insulator b	reakdo	wn sha	all occur.				
	After testing	-	10	-	No abno	ormality			Pass
	Appearance								1
	Initial	No abnormality adversely affecting	10		No abno	ormality			Pass
	After testing	the performance shall occur.	10	-	No abno	ormality			Pass
	20278-112R-32								1
	Contact resistance of ma	in contact							
	Initial	20 MAX.	10		6.90	7.5	6.1	0.41	Pass
	After testing	25 MAX.	10	mΩ	7.20	8.2	6.6	0.43	Pass
	Contact resistance of gro	und contact	1	1	1		l	1	1
	Initial	10 MAX.	40		4.85	6.0	3.4	0.92	Pass
	After testing	15 MAX.	10	mΩ	5.51	6.3	4.9	0.49	Pass
	Electrical discontinuity		1	1		1			
	, ,	harge, flashover, no insulator b	reakdo	wn sha	all occur.				
	After testing	-	10	-	No abno				Pass
	Appearance	1	1	1		, . ,			
		No abnormality adversely affecting		I	No abno	ormality			Pass
	After testing	the performance shall occur.	10	-	No abno				Pass
				1		onnunty			1 433

Group	Testitems	Specification	n	Unit	AVE.	MAX.	MIN.	S	Judgeme
Sidup	Measurements				, w				
F	Cable retention force			-		-			
	20278-112R-18								
	Contact resistance of m	ain contact							
	Initial	20 MAX.	10	mΩ	8.49	9.3	6.0	0.96	Pass
	After testing	25 MAX.	10	11152	8.85	9.8	6.6	0.89	Pass
	Contact resistance of gr	ound contact				•		•	
	Initial	10 MAX.	10	mΩ	5.05	5.7	4.5	0.47	Pass
	After testing	15 MAX.	10	11122	5.37	6.3	4.2	0.80	Pass
	Electrical discontinuity	1							
	Spec: No creeping dis	charge, flashover, no insulator bi	reakdo	wn sha	all occur.				
	After testing	-	10	-	No abno	ormality			Pass
	Appearance			1	ł				Į
	Initial	No abnormality adversely affecting	40		No abno	ormality			Pass
	After testing	the performance shall occur.	10	-		ormality			Pass
G	Vibration	- I		1	1	,			1
9	20278-112R-08								
	Contact resistance of m	ain aantaat							
	Initial	20 MAX.		I I	13.49	15.0	12.7	0.70	Pass
			10	mΩ					
	After testing	25 MAX.			13.74	14.9	13.0	0.57	Pass
	Contact resistance of gr	•		1	L C 04	70	4.0	4.00	Deer
	Initial	10 MAX.	10	mΩ	5.24	7.6	4.3	1.06	Pass
	After testing	15 MAX.			4.96	6.9	3.8	1.13	Pass
	Electrical discontinuity								
		charge, flashover, no insulator bi		wn sha					
	After testing	-	10	-	No abno	ormality			Pass
	Appearance			1	1				
	Initial	No abnormality adversely affecting	10	-		ormality	*****		Pass
	After testing	the performance shall occur.			No abno	ormality			Pass
	20278-112R-13								
	Contact resistance of m					-			
	Initial	20 MAX.	10	mΩ	6.90	7.5	6.6	0.30	Pass
	After testing	25 MAX.			6.76	7.4	6.5	0.27	Pass
	Contact resistance of gr								
	Initial	10 MAX.	10	mΩ	4.71	6.6	4.0	0.87	Pass
	After testing	15 MAX.			4.66	6.5	4.0	0.79	Pass
	Electrical discontinuity								
	Spec: No creeping dis	charge, flashover, no insulator bi	reakdo	wn sha	all occur.				
	After testing	-	10	-	No abno	ormality			Pass
	Appearance			•		-			
	Initial	No abnormality adversely affecting	40		No abno	ormality			Pass
	After testing	the performance shall occur.	10	-		ormality			Pass
				I					1 . 2.00

iroup	Testitems	Specification	n	Unit	AVE.	MAX.	MIN.	S	Judgeme
	Measurements			•					genie
G	Vibration								
	20278-112R-32								
	Contact resistance of ma								1
	Initial	20 MAX.	10	mΩ	6.67	7.2	6.1	0.37	Pass
	After testing	25 MAX.			6.67	7.1	6.1	0.37	Pass
	Contact resistance of gro			-					
	Initial	10 MAX.	10	mΩ	5.03	5.7	4.6	0.38	Pass
	After testing	15 MAX.			5.17	6.5	4.5	0.62	Pass
	Electrical discontinuity								
	Spec: No creeping disc	harge, flashover, no insulator bi	reakdov	wn sha	all occur.	i.			
	After testing	-	10	-	No abno	ormality			Pass
	Appearance	•							•
	Initial	No abnormality adversely affecting	10	_	No abno	ormality			Pass
	After testing	the performance shall occur.	10	-	No abno	ormality			Pass
	20278-112R-18			.	•				
	Contact resistance of ma	in contact							
	Initial	20 MAX.	40		8.83	10.1	7.8	0.74	Pass
	After testing	25 MAX.	10	mΩ	8.50	9.4	7.7	0.50	Pass
	Contact resistance of gro	und contact							1
	Initial	10 MAX.	4.0		5.18	6.3	4.4	0.63	Pass
	After testing	15 MAX.	10	mΩ	5.20	6.0	4.5	0.45	Pass
	Electrical discontinuity								I
		harge, flashover, no insulator bi	reakdov	wn sha	all occur.				
	After testing	-	10	-	No abno				Pass
	Appearance								
	Initial	No abnormality adversely affecting			No abno	ormality			Pass
	After testing	the performance shall occur.	10	-	No abno				Pass
Н	Shock								
	20278-112R-08	in a sub-st							
	Contact resistance of ma			<u> </u>	40.40	450	407	0.70	Dees
	Initial	20 MAX.	10	mΩ	13.49	15.0	12.7	0.70	Pass
	After testing	25 MAX.			13.04	15.0	12.0	0.87	Pass
	Contact resistance of gro			r	5.04	7.0	4.0	4.00	
	Initial	10 MAX.	10	mΩ	5.24	7.6	4.3	1.06	Pass
	After testing	15 MAX.			5.12	7.9	3.9	1.15	Pass
	Electrical discontinuity								
		harge, flashover, no insulator bi		wn sha	r				1
	After testing	-	10	-	No abno	ormality			Pass
	Appearance								
	Initial	No abnormality adversely affecting	10	_	No abno	ormality			Pass
	After testing	the performance shall occur.	10	1 -	No abnormality				Pass

Group	Testitems	Specification	n	Unit	AVE.	MAX.	MIN.	S	Judgement
	Measurements	opeenieddon			/₩∟.	1017 V.	ivinit.		oudgement
Н	Shock			-		-			
	20278-112R-13								
	Contact resistance of mai	n contact							
	Initial	20 MAX.	10	mΩ	6.90	7.5	6.6	0.30	Pass
	After testing	25 MAX.		11132	7.07	8.0	6.7	0.37	Pass
	Contact resistance of grou	ind contact		•		•			
	Initial	10 MAX.	10	mΩ	4.71	6.6	4.0	0.87	Pass
	After testing	15 MAX.		11152	5.01	8.3	4.3	1.19	Pass
	Electrical discontinuity			Į	ļ		ļ		•
	Spec: No creeping disch	arge, flashover, no insulator b	reakdov	wn sha	all occur				
	After testing	-	10	-	No abn	ormality			Pass
	Appearance								
	Initial	No abnormality adversely affecting	10		No abn	ormality			Pass
	After testing	the performance shall occur.	10	-		ormality			Pass
	20278-112R-32								L
	Contact resistance of mai	n contact							
	Initial	20 MAX.			6.67	7.2	6.1	0.37	Pass
	After testing	25 MAX.	10	mΩ	6.73	7.4	6.4	0.39	Pass
	Contact resistance of grou								
	Initial	10 MAX.		1	5.03	5.7	4.6	0.38	Pass
	After testing	15 MAX.	10	mΩ	5.19	6.0	4.7	0.48	Pass
	Electrical discontinuity				••			••	
		arge, flashover, no insulator b	reakdov	wn sha	all occur				
	After testing	-	10	-	No abn				Pass
	Appearance								
	Initial	No abnormality adversely affecting		<u> </u>	No abn	ormality			Pass
	After testing	the performance shall occur.	10	-		ormality			Pass
	20278-112R-18					onnanty			1 400
	Contact resistance of mai	n contact							
	Initial	20 MAX.			8.83	10.1	7.8	0.74	Pass
	After testing	25 MAX.	10	mΩ	8.79	9.3	8.0	0.47	Pass
	Contact resistance of grou				0.75	0.0	0.0	0.47	1 4 3 3
	Initial	10 MAX.		1	5.18	6.3	4.4	0.63	Pass
	After testing	15 MAX.	10	mΩ	5.22	5.9	4.4	0.03	Pass
	Electrical discontinuity				J.22	0.9	+.J	0.00	1 033
	, <u> </u>	arge, flashover, no insulator b	roakda	wn cho					
		arge, ilasilover, no insulator d	10		1				Pass
	After testing	-	10	-	No abn	unnailty			F 855
	Appearance	No observed the other states of the		<u> </u>	Noshi	ormalit.			Dees
	Initial After testing	No abnormality adversely affecting	10	-		ormality			Pass
	After testing	the performance shall occur.			INO abh	ormality			Pass

	Testitems		[1		1			I
Group	Measurements	Specification	n	Unit	AVE.	MAX.	MIN.	S	Judgemen
J	Thermal shock								
J	20278-112R-08								
	Contact resistance of ma	in contact							
	Initial	20 MAX.		1	13.59	14.5	12.8	0.50	Pass
	After testing	25 MAX.	10	mΩ	13.71	14.3	13.3	0.34	Pass
	Contact resistance of gro				13.71	14.5	10.0	0.54	1 435
	Initial	10 MAX.		1	5.20	6.2	3.6	0.84	Pass
	After testing	15 MAX.	10	mΩ	5.52	7.0	4.0	0.04	Pass
	Insulation residence	TO IVIAA.			J.JZ	7.0	4.0	0.95	Pass
	Initial	500MΩ MIN.		1	10 0001	MΩ MIN.			Pass
			10	MΩ					
	After testing	100MΩ MIN.			10,000	MΩ MIN.			Pass
	Appearance			1	N 1 1				
		No abnormality adversely affecting	10	-		ormality			Pass
	After testing	the performance shall occur.			No abno	ormality			Pass
	20278-112R-13								
	Contact resistance of ma			1					
	Initial	20 MAX.	10	mΩ	7.05	7.7	6.5	0.48	Pass
	After testing	25 MAX.			6.94	7.8	6.3	0.52	Pass
	Contact resistance of gro	1	-			1		1	1
	Initial	10 MAX.	10	mΩ	4.61	5.0	4.0	0.33	Pass
	After testing	15 MAX.	-		4.84	5.7	4.1	0.44	Pass
	Insulation residence								
	Initial	500MΩ MIN.	10	МΩ	, 	MΩ MIN.			Pass
	After testing	100MΩ MIN.			10,000	MΩ MIN.			Pass
	Appearance								
	Initial	No abnormality adversely affecting	10	_	No abno	ormality			Pass
	After testing	the performance shall occur.	10		No abno	ormality			Pass
	20278-112R-32								
	Contact resistance of ma	in contact							
	Initial	20 MAX.	10	mΩ	6.62	8.0	6.1	0.54	Pass
	After testing	25 MAX.	10	11132	6.61	7.6	5.9	0.52	Pass
	Contact resistance of gro	und contact							
	Initial	10 MAX.	10	mΩ	4.98	6.5	4.2	0.70	Pass
	After testing	15 MAX.	10	11152	5.26	6.4	4.3	0.75	Pass
	Insulation residence	•	•						•
	Initial	500MΩ MIN.	10	MO	10,000	MΩ MIN.			Pass
		100MΩ MIN.	10	MΩ	10,000				Pass
	After testing					1 400			
	After testing Appearance				,				1 400
		No abnormality adversely affecting	10	I	No abno	ormality			Pass

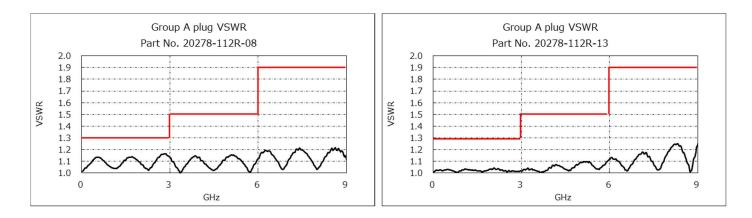
	Testitems			1					
Group	Measurements	Specification	n	Unit	AVE.	MAX.	MIN.	S	Judgemer
J	Thermal shock			<u> </u>	ļ			<u> </u>	ļ
-	20278-112R-18								
	Contact resistance of m	ain contact							
	Initial	20 MAX.			8.88	9.2	8.6	0.15	Pass
	After testing	25 MAX.	10	mΩ	8.92	10.2	8.4	0.53	Pass
	Contact resistance of gr				0.01		••••		
	Initial	10 MAX.			4.65	5.7	3.9	0.62	Pass
	After testing	15 MAX.	10	mΩ	4.67	5.9	4.1	0.69	Pass
	Insulation residence				1.07	0.0		0.00	1 400
	Initial	500MΩ MIN.			10 000	MΩ MIN.			Pass
	After testing	100MΩ MIN.	10	MΩ		$M\Omega MIN.$			Pass
	Appearance	10000122 101114.			10,0001	VISZ IVIIIN.			1 435
		No abnormality adversely affecting		1	No ahn	ormality			Pass
	After testing	the performance shall occur.	10	-		ormality			Pass
					NU abili	Jinnanty			1 435
K	Humidity(Steady State)								
	20278-112R-08								
	Contact resistance of m				-	•		1	1
	Initial	20 MAX.	10	mΩ	13.51	14.0	12.8	0.40	Pass
	After testing	25 MAX.			13.06	14.1	12.6	0.48	Pass
	Contact resistance of gr	ound contact							
	Initial	10 MAX.	10	mΩ	5.35	6.8	4.1	0.90	Pass
	After testing	15 MAX.	10	11132	4.81	6.2	4.1	0.80	Pass
	Insulation residence								
	Initial	500MΩ MIN.	10	MΩ	10,000	MΩ MIN.			Pass
	After testing	100MΩ MIN.	10	10122	10,000	MΩ MIN.			Pass
	Appearance								
	Initial	No abnormality adversely affecting	10		No abno	ormality			Pass
	After testing	the performance shall occur.	10	-	No abno	ormality			Pass
	20278-112R-13								•
	Contact resistance of m	ain contact							
	Initial	20 MAX.	10		5.48	5.9	5.1	0.29	Pass
	After testing	25 MAX.	10	mΩ	6.39	7.2	5.8	0.45	Pass
	Contact resistance of gr	ound contact	L		1		L	1	1
	Initial	10 MAX.	40		5.78	6.8	5.0	0.53	Pass
	After testing	15 MAX.	10	mΩ	5.99	7.1	4.7	0.87	Pass
	Insulation residence							1	1
	Initial	500MΩ MIN.			10.000	MΩ MIN.			Pass
	After testing	100MΩ MIN.	10	MΩ	10,000	Pass			
	Appearance			1	.,				
	Initial	No abnormality adversely affecting		No abnormality					Pass
	After testing	the performance shall occur.	10	-		ormality			Pass
				<u> </u>		annunty			1 400

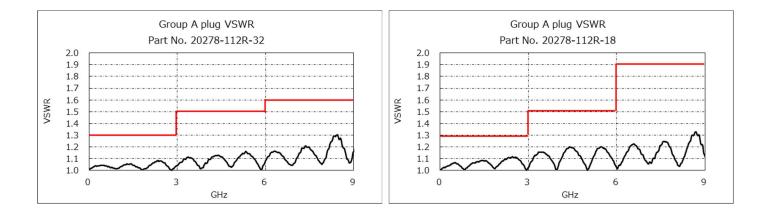
<u>^</u>	Testitems								1
Group	Measurements		n	Unit	AVE.	MAX.	MIN.	S	Judgeme
K	Humidity(Steady State)		I	1	I	I	I	I	1
	20278-112R-32								
	Contact resistance of ma	ain contact							
	Initial	20 MAX.	40		6.76	7.2	6.4	0.27	Pass
	After testing	25 MAX.	10	mΩ	6.41	6.9	6.0	0.26	Pass
	Contact resistance of gro	ound contact	I	1				1	
	Initial	10 MAX.	40		4.55	6.5	3.3	1.08	Pass
	After testing	15 MAX.	10	mΩ	4.97	6.8	4.2	0.78	Pass
	Insulation residence		I	1				1	
	Initial	500MΩ MIN.	40		10,000	MΩ MIN.			Pass
	After testing	100MΩ MIN.	10	MΩ	10,000	MΩ MIN.			Pass
	Appearance			1					
	Initial	No abnormality adversely affecting	40		No abn	ormality			Pass
	After testing	the performance shall occur.	10	-	No abn	ormality			Pass
	20278-112R-18		I	1	1				
	Contact resistance of ma	ain contact							
	Initial	20 MAX.	40		8.79	9.6	8.2	0.36	Pass
	After testing	25 MAX.	10	mΩ	8.83	9.3	8.3	0.30	Pass
	Contact resistance of gro	ound contact		1	1		1		
	Initial	10 MAX.	40		4.79	5.7	4.3	0.41	Pass
	After testing	15 MAX.	10	mΩ	4.47	5.5	4.0	0.42	Pass
	Insulation residence			1			1		
	Initial	500MΩ MIN.	40		10,000	MΩ MIN.			Pass
	After testing	100MΩ MIN.	10	MΩ	10,000	MΩ MIN.			Pass
	Appearance			1					
	Initial	No abnormality adversely affecting	40		No abn	ormality			Pass
	After testing	the performance shall occur.	10	-	No abn	ormality			Pass
L	Salt water spray			1					
-	20278-112R-08								
	Contact resistance of ma	ain contact							
	Initial	20 MAX.							Pass
	After testing	25 MAX.	10	mΩ					Pass
	Contact resistance of gro								1 400
	Initial	10 MAX.							Pass
	After testing	15 MAX.	10	mΩ					Pass
	Appearance								1 1 4 3 5
		No abnormality adversely affecting		1	No ahr	ormality			Pass
	After testing		10	-		ormality			Pass
		the performance shall occur.			ino aun	ormanity			Pass

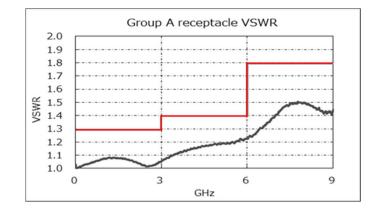
Group	Testitems	Specification	n	Unit	AVE.	MAX.	MIN.	S	Judgemer	
Oroup	Measurements	opeenieddon		Unit	∧v∟.	IVI <i>T</i> VA.	IVI IIN.	5	Judgemer	
L	20278-112R-13									
	Contact resistance of main contact									
	Initial	20 MAX.	10 mΩ					Pass		
	After testing	25 MAX.		11152				*****	Pass	
	Contact resistance of ground contact									
	Initial	10 MAX.	10 mΩ						Pass	
	After testing	15 MAX.					******	Pass		
	Appearance	•			<u> </u>	<u>I</u>	ļļ		ļ	
	Initial	No abnormality adversely affecting	10	Τ	No abn	Pass				
	After testing	the performance shall occur.	10 -	-	No abn	Pass				
	20278-112R-32									
	Contact resistance of main contact									
	Initial	20 MAX.	40						Pass	
	After testing	25 MAX.	10	mΩ					Pass	
	Contact resistance of ground contact									
	Initial	10 MAX.	10 mΩ						Pass	
	After testing	15 MAX.		mΩ					Pass	
	Appearance									
	Initial	No abnormality adversely affecting	40		No abn	No abnormality			Pass	
	After testing	the performance shall occur.	10	-	No abn	Pass				
	20278-112R-18								_ I	
	Contact resistance of main contact									
	Initial	20 MAX.	10						Pass	
	After testing	25 MAX.	10 m	mΩ					Pass	
	Contact resistance of ground contact									
	Initial	10 MAX.	10						Pass	
	After testing	15 MAX.	10	mΩ					Pass	
	Appearance									
	Initial	No abnormality adversely affecting	40		No abnormality				Pass	
	After testing	the performance shall occur.	10	-	No abn	Pass				

Group	Testitems	Specification	n	Unit	AVE.	MAX.	MIN.	S	Judgemen		
	Measurements										
М	High Temperature Life										
	20278-112R-08										
	Contact resistance of main contact										
	Initial	20 MAX.	10	mΩ	13.40	15.4	12.8	0.76	Pass		
	After testing	25 MAX.	10		13.17	14.2	12.4	0.49	Pass		
	Contact resistance of ground contact										
	Initial	10 MAX.	10	mΩ	4.97	6.3	4.2	0.67	Pass		
	After testing	15 MAX.	10		5.20	6.4	4.1	0.66	Pass		
	Appearance										
	Initial	No abnormality	10		No abno	Pass					
	After testing		10	_	No abno	Pass					
	20278-112R-13										
	Contact resistance of ma	ain contact									
	Initial	20 MAX.	10	mΩ	5.93	7.5	5.3	0.69	Pass		
	After testing	25 MAX.			6.94	7.8	6.3	0.45	Pass		
	Contact resistance of ground contact										
	Initial	10 MAX.	10	mΩ	5.72	7.6	4.6	1.08	Pass		
	After testing	15 MAX.		11152	7.19	8.9	6.1	1.14	Pass		
	Appearance										
	Initial	No abnormality	10		No abno	Pass					
	After testing	ino abriormanty	10	-	No abno	Pass					
	20278-112R-32										
	Contact resistance of main contact										
	Initial	20 MAX.	10		6.97	7.5	6.4	0.35	Pass		
	After testing	25 MAX.		mΩ	7.34	8.2	6.6	0.50	Pass		
	Contact resistance of ground contact										
	Initial	10 MAX.	10	mΩ	5.00	5.9	4.4	0.41	Pass		
	After testing	15 MAX.			5.97	7.4	5.3	0.67	Pass		
	Appearance										
			- T	1	NI						
	Initial	No abnormality	10		No abno	ormality			Pass		

Group	Testitems	Specification	n	Unit	AVE.	MAX.	MIN.	S	Judgement			
Oroup	Measurements											
М	High Temperature Life		•	•	•	•			•			
	20278-112R-18											
	Contact resistance of main contact											
	Initial	20 MAX.	10	mΩ	8.86	9.4	8.5	0.29	Pass			
	After testing	25 MAX.	10		9.61	10.5	9.2	0.40	Pass			
	Contact resistance of ground contact											
	Initial	10 MAX.	10	mΩ	4.56	5.1	3.8	0.45	Pass			
	After testing	15 MAX.	10		5.14	5.8	4.5	0.43	Pass			
	Appearance											
	Initial	No abnormality	10		No abnormality				Pass			
	After testing	No abriormanty	10		No abno	Pass						
Ν	Solder ability											
	Spec: More than 95% of the dipped surface shall be evenly wet.											
	After testing	-	10	-	No abno	Pass						
Р	Reflow soldering heat resistance											
	Appearance											
	Spec: No abnormality adversely affecting the performance shall occur.											
	After testing	-	10	-	No abno	ormality			Pass			







I-PEX

