



GI 3.5W TPA (2P and 3P) Resin change

1. INTRODUCTION

1.1 Purpose

The purpose of this test is to evaluate GI 3.5 TPA's performance made of the condition (I & II) for 1565089-1(Material PN # 704924-1, 2136919-1),5-1565089-1 (Material PN #704654-3, 1573551-2), 1565090-1(Material PN # 704924-1, 2136919-1), 5-1565090-1(Material PN # 704654-3, 1573551-2), 2391898-1 (Material PN # 704924-1, 2136919-1)

1.2 Scope

This report covers the electrical, mechanical, environment performance of the GI 3.5W TPA (2P and 3P). Testing was performed at TE Connectivity Shanghai Electrical Test Laboratory (Building ID 554) between 2023-12-21 and 2024-01-18. The associated test number is TP-23-03703.

1.3 Conclusion

The items listed in Clause 1.5 conformed to performance requirements of criteria described in Clause 2. The testing results are only responsible for the specimens tested.

1.4 Test Specimens

Specimens with the following part numbers were used for test:

Test Group	Set group	Part No.	Rev.	Description	Qty. (pcs)
1	SG1_5-1565090-1_3p_ (704654-3 Condition I)	1565082-1	C	GRACE INERTIA CONNECTOR 3.5 3P	5
		1565086-1	C	GRACE INERTIA CONNECTOR 3.5 3P	5
		1565079-1	B	GRACE INERTIA 3.5 REC CONTACT(L)	15
		1565080-1	B	GRACE INERTIA 3.5 TAB CONTACT(L)	15
		5-1565090-1	B	GRACE INERTIA CONNECTOR 3POS DOUBLE LOCK PLATE	10
	SG2_5-1565090-1_3p_ (704654-3 Condition II)	1565082-1	C	GRACE INERTIA CONNECTOR 3.5 3P	5
		1565086-1	C	GRACE INERTIA CONNECTOR 3.5 3P	5
		1565079-1	B	GRACE INERTIA 3.5 REC CONTACT(L)	15
		1565080-1	B	GRACE INERTIA 3.5 TAB CONTACT(L)	15
		5-1565090-1	B	GRACE INERTIA CONNECTOR 3POS DOUBLE LOCK PLATE	10
	SG3_5-1565090-1_3p_ (1573551-2 Condition II)	1565082-1	C	GRACE INERTIA CONNECTOR 3.5 3P	5
		1565086-1	C	GRACE INERTIA CONNECTOR 3.5 3P	5
1565079-1		B	GRACE INERTIA 3.5 REC CONTACT(L)	15	
1565080-1		B	GRACE INERTIA 3.5 TAB CONTACT(L)	15	



Test Group	Set group	Part No.	Rev.	Description	Qty. (pcs)
		5-1565090-1	B	GRACE INERTIA CONNECTOR 3POS DOUBLE LOCK PLATE	10

Test Group	Set group	Part No.	Rev.	Description	Qty. (pcs)
1	SG4_5-1565090-1_3p_ (1573551-2 Condition I)	1565082-1	C	GRACE INERTIA CONNECTOR 3.5 3P	5
		1565086-1	C	GRACE INERTIA CONNECTOR 3.5 3P	5
		1565079-1	B	GRACE INERTIA 3.5 REC CONTACT(L)	15
		1565080-1	B	GRACE INERTIA 3.5 TAB CONTACT(L)	15
		5-1565090-1	B	GRACE INERTIA CONNECTOR 3POS DOUBLE LOCK PLATE	10
	SG5_1565090-1_3p_ (704924-1 Condition I)	1565082-1	C	GRACE INERTIA CONNECTOR 3.5 3P	5
		1565086-1	C	GRACE INERTIA CONNECTOR 3.5 3P	5
		1565079-1	B	GRACE INERTIA 3.5 REC CONTACT(L)	15
		1565080-1	B	GRACE INERTIA 3.5 TAB CONTACT(L)	15
		1565090-1	A	GRACE INERTIA CONNECTOR 3POS DOUBLE LOCK PLATE	10
	SG6_1565090-1_3p_ (704924-1 Condition II)	1565082-1	C	GRACE INERTIA CONNECTOR 3.5 3P	5
		1565086-1	C	GRACE INERTIA CONNECTOR 3.5 3P	5
		1565079-1	B	GRACE INERTIA 3.5 REC CONTACT(L)	15
		1565080-1	B	GRACE INERTIA 3.5 TAB CONTACT(L)	15
		1565090-1	A	GRACE INERTIA CONNECTOR 3POS DOUBLE LOCK PLATE	10
	SG7_1565090-1_3p_ (2136919-1 Condition II)	1565082-1	C	GRACE INERTIA CONNECTOR 3.5 3P	5
		1565086-1	C	GRACE INERTIA CONNECTOR 3.5 3P	5
		1565079-1	B	GRACE INERTIA 3.5 REC CONTACT(L)	15
		1565080-1	B	GRACE INERTIA 3.5 TAB CONTACT(L)	15
		1565090-1	A	GRACE INERTIA CONNECTOR 3POS DOUBLE LOCK PLATE	10
	SG8_1565090-1_3p_ (2136919-1 Condition I)	1565082-1	C	GRACE INERTIA CONNECTOR 3.5 3P	5
		1565086-1	C	GRACE INERTIA CONNECTOR 3.5 3P	5
		1565079-1	B	GRACE INERTIA 3.5 REC CONTACT(L)	15
		1565080-1	B	GRACE INERTIA 3.5 TAB CONTACT(L)	15
		1565090-1	A	GRACE INERTIA CONNECTOR 3POS DOUBLE LOCK PLATE	10
	SG9_5-1565089-1_2p_ (704654-3 Condition I)	1565081-1	J	GRACE INERTIA CONNECTOR 3.5 2P	5
		1565085-1	H	GRACE INERTIA CONNECTOR 3.5 2P	5
		1565079-1	B	GRACE INERTIA 3.5 REC CONTACT(L)	10
		1565080-1	B	GRACE INERTIA 3.5 TAB CONTACT(L)	10



		5-1565089-1	C	GRACE INERTIA CONNECTOR 3.5 2POS DOUBLE LOCK PLATE	10
	SG10_5-1565089-1_2p_ (704654-3 Condition II)	1565081-1	J	GRACE INERTIA CONNECTOR 3.5 2P	5
		1565085-1	H	GRACE INERTIA CONNECTOR 3.5 2P	5
		1565079-1	B	GRACE INERTIA 3.5 REC CONTACT(L)	10
		1565080-1	B	GRACE INERTIA 3.5 TAB CONTACT(L)	10
		5-1565089-1	C	GRACE INERTIA CONNECTOR 3.5 2POS DOUBLE LOCK PLATE	10

Test Group	Set group	Part No.	Rev.	Description	Qty. (pcs)
1	SG11_5-1565089-1_2p_ (1573551-2 Condition II)	1565081-1	J	GRACE INERTIA CONNECTOR 3.5 2P	5
		1565085-1	H	GRACE INERTIA CONNECTOR 3.5 2P	5
		1565079-1	B	GRACE INERTIA 3.5 REC CONTACT(L)	10
		1565080-1	B	GRACE INERTIA 3.5 TAB CONTACT(L)	10
		5-1565089-1	C	GRACE INERTIA CONNECTOR 3.5 2POS DOUBLE LOCK PLATE	10
	SG12_5-1565089-1_2p_ (1573551-2 Condition I)	1565081-1	J	GRACE INERTIA CONNECTOR 3.5 2P	5
		1565085-1	H	GRACE INERTIA CONNECTOR 3.5 2P	5
		1565079-1	B	GRACE INERTIA 3.5 REC CONTACT(L)	10
		1565080-1	B	GRACE INERTIA 3.5 TAB CONTACT(L)	10
		5-1565089-1	C	GRACE INERTIA CONNECTOR 3.5 2POS DOUBLE LOCK PLATE	10
	SG13_1565089-1_2p_ (704924-1 Condition I)	1565081-1	J	GRACE INERTIA CONNECTOR 3.5 2P	5
		1565085-1	H	GRACE INERTIA CONNECTOR 3.5 2P	5
		1565079-1	B	GRACE INERTIA 3.5 REC CONTACT(L)	10
		1565080-1	B	GRACE INERTIA 3.5 TAB CONTACT(L)	10
		1565089-1	B	GRACE INERTIA CONNECTOR 3.5 2POS DOUBLE LOCK PLATE	10
	SG14_1565089-1_2p_ (704924-1 Condition II)	1565081-1	J	GRACE INERTIA CONNECTOR 3.5 2P	5
		1565085-1	H	GRACE INERTIA CONNECTOR 3.5 2P	5
		1565079-1	B	GRACE INERTIA 3.5 REC CONTACT(L)	10
		1565080-1	B	GRACE INERTIA 3.5 TAB CONTACT(L)	10
		1565089-1	B	GRACE INERTIA CONNECTOR 3.5 2POS DOUBLE LOCK PLATE	10
SG15_1565089-1_2p_ (2136919-1 Condition I)	1565081-1	J	GRACE INERTIA CONNECTOR 3.5 2P	5	
	1565085-1	H	GRACE INERTIA CONNECTOR 3.5 2P	5	
	1565079-1	B	GRACE INERTIA 3.5 REC CONTACT(L)	10	
	1565080-1	B	GRACE INERTIA 3.5 TAB CONTACT(L)	10	



	SG16_1565089-1_2p_ (2136919-1 Condition II)	1565089-1	B	GRACE INERTIA CONNECTOR 3.5 2POS DOUBLE LOCK PLATE	10
		1565081-1	J	GRACE INERTIA CONNECTOR 3.5 2P	5
		1565085-1	H	GRACE INERTIA CONNECTOR 3.5 2P	5
		1565079-1	B	GRACE INERTIA 3.5 REC CONTACT(L)	10
		1565080-1	B	GRACE INERTIA 3.5 TAB CONTACT(L)	10
		1565089-1	B	GRACE INERTIA CONNECTOR 3.5 2POS DOUBLE LOCK PLATE	10
2	SG1_5-1565090-1_3p_ (704654-3 Condition I)	1565082-1	C	GRACE INERTIA CONNECTOR 3.5 3P	5
		1565086-1	C	GRACE INERTIA CONNECTOR 3.5 3P	5
		1565079-1	B	GRACE INERTIA 3.5 REC CONTACT(L)	15
		1565080-1	B	GRACE INERTIA 3.5 TAB CONTACT(L)	15
		5-1565090-1	B	GRACE INERTIA CONNECTOR 3POS DOUBLE LOCK PLATE	10

Test Group	Set group	Part No.	Rev.	Description	Qty. (pcs)
2	SG2_5-1565090-1_3p_ (704654-3 Condition II)	1565082-1	C	GRACE INERTIA CONNECTOR 3.5 3P	5
		1565086-1	C	GRACE INERTIA CONNECTOR 3.5 3P	5
		1565079-1	B	GRACE INERTIA 3.5 REC CONTACT(L)	15
		1565080-1	B	GRACE INERTIA 3.5 TAB CONTACT(L)	15
		5-1565090-1	B	GRACE INERTIA CONNECTOR 3POS DOUBLE LOCK PLATE	10
	SG3_5-1565090-1_3p_ (1573551-2 Condition II)	1565082-1	C	GRACE INERTIA CONNECTOR 3.5 3P	5
		1565086-1	C	GRACE INERTIA CONNECTOR 3.5 3P	5
		1565079-1	B	GRACE INERTIA 3.5 REC CONTACT(L)	15
		1565080-1	B	GRACE INERTIA 3.5 TAB CONTACT(L)	15
		5-1565090-1	B	GRACE INERTIA CONNECTOR 3POS DOUBLE LOCK PLATE	10
	SG4_5-1565090-1_3p_ (1573551-2 Condition I)	1565082-1	C	GRACE INERTIA CONNECTOR 3.5 3P	5
		1565086-1	C	GRACE INERTIA CONNECTOR 3.5 3P	5
		1565079-1	B	GRACE INERTIA 3.5 REC CONTACT(L)	15
		1565080-1	B	GRACE INERTIA 3.5 TAB CONTACT(L)	15
		5-1565090-1	B	GRACE INERTIA CONNECTOR 3POS DOUBLE LOCK PLATE	10
	SG5_1565090-1_3p_ (704924-1 Condition I)	1565082-1	C	GRACE INERTIA CONNECTOR 3.5 3P	5
		1565086-1	C	GRACE INERTIA CONNECTOR 3.5 3P	5
		1565079-1	B	GRACE INERTIA 3.5 REC CONTACT(L)	15
		1565080-1	B	GRACE INERTIA 3.5 TAB CONTACT(L)	15



		1565090-1	A	GRACE INERTIA CONNECTOR 3POS DOUBLE LOCK PLATE	10
	SG6_1565090-1_3p_ (704924-1 Condition II)	1565082-1	C	GRACE INERTIA CONNECTOR 3.5 3P	5
		1565086-1	C	GRACE INERTIA CONNECTOR 3.5 3P	5
		1565079-1	B	GRACE INERTIA 3.5 REC CONTACT(L)	15
		1565080-1	B	GRACE INERTIA 3.5 TAB CONTACT(L)	15
		1565090-1	A	GRACE INERTIA CONNECTOR 3POS DOUBLE LOCK PLATE	10
	SG7_1565090-1_3p_ (2136919-1 Condition II)	1565082-1	C	GRACE INERTIA CONNECTOR 3.5 3P	5
		1565086-1	C	GRACE INERTIA CONNECTOR 3.5 3P	5
		1565079-1	B	GRACE INERTIA 3.5 REC CONTACT(L)	15
		1565080-1	B	GRACE INERTIA 3.5 TAB CONTACT(L)	15
		1565090-1	A	GRACE INERTIA CONNECTOR 3POS DOUBLE LOCK PLATE	10
	SG8_1565090-1_3p_ (2136919-1 Condition I)	1565082-1	C	GRACE INERTIA CONNECTOR 3.5 3P	5
		1565086-1	C	GRACE INERTIA CONNECTOR 3.5 3P	5
		1565079-1	B	GRACE INERTIA 3.5 REC CONTACT(L)	15
		1565080-1	B	GRACE INERTIA 3.5 TAB CONTACT(L)	15
		1565090-1	A	GRACE INERTIA CONNECTOR 3POS DOUBLE LOCK PLATE	10

Test Group	Set group	Part No.	Rev.	Description	Qty. (pcs)
2	SG9_5-1565089-1_2p_ (704654-3 Condition I)	1565081-1	J	GRACE INERTIA CONNECTOR 3.5 2P	5
		1565085-1	H	GRACE INERTIA CONNECTOR 3.5 2P	5
		1565079-1	B	GRACE INERTIA 3.5 REC CONTACT(L)	10
		1565080-1	B	GRACE INERTIA 3.5 TAB CONTACT(L)	10
		5-1565089-1	C	GRACE INERTIA CONNECTOR 3.5 2POS DOUBLE LOCK PLATE	10
	SG10_5-1565089-1_2p_ (704654-3 Condition II)	1565081-1	J	GRACE INERTIA CONNECTOR 3.5 2P	5
		1565085-1	H	GRACE INERTIA CONNECTOR 3.5 2P	5
		1565079-1	B	GRACE INERTIA 3.5 REC CONTACT(L)	10
		1565080-1	B	GRACE INERTIA 3.5 TAB CONTACT(L)	10
		5-1565089-1	C	GRACE INERTIA CONNECTOR 3.5 2POS DOUBLE LOCK PLATE	10
	SG11_5-1565089-1_2p_ (1573551-2 Condition II)	1565081-1	J	GRACE INERTIA CONNECTOR 3.5 2P	5
		1565085-1	H	GRACE INERTIA CONNECTOR 3.5 2P	5
		1565079-1	B	GRACE INERTIA 3.5 REC CONTACT(L)	10
		1565080-1	B	GRACE INERTIA 3.5 TAB CONTACT(L)	10



		5-1565089-1	C	GRACE INERTIA CONNECTOR 3.5 2POS DOUBLE LOCK PLATE	10
	SG12_5-1565089-1_2p_ (1573551-2 Condition I)	1565081-1	J	GRACE INERTIA CONNECTOR 3.5 2P	5
		1565085-1	H	GRACE INERTIA CONNECTOR 3.5 2P	5
		1565079-1	B	GRACE INERTIA 3.5 REC CONTACT(L)	10
		1565080-1	B	GRACE INERTIA 3.5 TAB CONTACT(L)	10
		5-1565089-1	C	GRACE INERTIA CONNECTOR 3.5 2POS DOUBLE LOCK PLATE	10
	SG13_1565089-1_2p_ (704924-1 Condition I)	1565081-1	J	GRACE INERTIA CONNECTOR 3.5 2P	5
		1565085-1	H	GRACE INERTIA CONNECTOR 3.5 2P	5
		1565079-1	B	GRACE INERTIA 3.5 REC CONTACT(L)	10
		1565080-1	B	GRACE INERTIA 3.5 TAB CONTACT(L)	10
		1565089-1	B	GRACE INERTIA CONNECTOR 3.5 2POS DOUBLE LOCK PLATE	10
	SG14_1565089-1_2p_ (704924-1 Condition II)	1565081-1	J	GRACE INERTIA CONNECTOR 3.5 2P	5
		1565085-1	H	GRACE INERTIA CONNECTOR 3.5 2P	5
		1565079-1	B	GRACE INERTIA 3.5 REC CONTACT(L)	10
		1565080-1	B	GRACE INERTIA 3.5 TAB CONTACT(L)	10
		1565089-1	B	GRACE INERTIA CONNECTOR 3.5 2POS DOUBLE LOCK PLATE	10
	SG15_1565089-1_2p_ (2136919-1 Condition I)	1565081-1	J	GRACE INERTIA CONNECTOR 3.5 2P	5
		1565085-1	H	GRACE INERTIA CONNECTOR 3.5 2P	5
		1565079-1	B	GRACE INERTIA 3.5 REC CONTACT(L)	10
		1565080-1	B	GRACE INERTIA 3.5 TAB CONTACT(L)	10
		1565089-1	B	GRACE INERTIA CONNECTOR 3.5 2POS DOUBLE LOCK PLATE	10

Test Group	Set group	Part No.	Rev.	Description	Qty. (pcs)
2	SG16_1565089-1_2p_ (2136919-1 Condition II)	1565081-1	J	GRACE INERTIA CONNECTOR 3.5 2P	5
		1565085-1	H	GRACE INERTIA CONNECTOR 3.5 2P	5
		1565079-1	B	GRACE INERTIA 3.5 REC CONTACT(L)	10
		1565080-1	B	GRACE INERTIA 3.5 TAB CONTACT(L)	10
		1565089-1	B	GRACE INERTIA CONNECTOR 3.5 2POS DOUBLE LOCK PLATE	10



1.5 Test Sequence

Test Item	Test Group ^a	
	1	2
	Test Sequence ^b	
Low Level Contact Resistance	1,3	
Retention Force		3
TPA Mating & Unmating		2
TPA Mating Force		1
Humidity and Temperature Cycling	2	

Note: a). Test group defined per customer requirement.

b). Numbers indicate sequence in which tests are performed.

1.6 Environmental Conditions

Unless otherwise stated, the following environmental conditions prevailed during testing:

Temperature: 15°C to 35°C
Relative Humidity: 25% RH to 75% RH

2. Test Procedures and Requirements

No.	Test Item	Requirement	Procedure	Method
2.1	Low Level Contact Resistance	10 mΩ Max. (Initial) 20 mΩ Max. (Final)	Measure and record the contact resistance with a test current of 100 mA maximum and 20 mV open circuit (source) voltage maximum.	Customer Requirement
2.2	Retention Force	34.3 N Min	Apply an axial pull-off load to crimped wire. Operation Speed: 100 mm / min.	Customer Requirement
2.3	TPA Mating & Unmating	No physical damage.	Manually mate/unmate sample 3 times to check if TPA is crack or broken	Customer Requirement
2.4	TPA Mating Force	Judged by client	Measure force necessary to mate TPA at maximum rate of 25.4 mm a minute.	Customer Requirement
2.5	Humidity and Temperature Cycling	No physical damage.	Subject mated specimens to 10 cycles of humidity-temperature cycling. Each cycle consists of temperature between 25 °C and 65 °C and humidity between 80% RH-98% RH.	MIL-STD-202 H-2015

3. SUMMARY OF TEST

TL-F311 Rev: A

7 of 17



Group	SN	Description	Test Item	Qty (pcs)	Test Result				Requirement	Conclusion
					Max.	Min.	Avg.	Unit		
1	1	SG1_5-1565090-1_3P_ (704654-3 Condition I)	Low Level Contact Resistance	5	1.69	1.37	1.52	mΩ	Max: 10 mΩ.	Meet Spec.
		SG2_5-1565090-1_3P_ (704654-3 Condition II)		5	1.77	1.41	1.58	mΩ	Max: 10 mΩ.	Meet Spec.
		SG3_5-1565090-1_3P_ (1573551-2 Condition II)		5	1.81	1.53	1.64	mΩ	Max: 10 mΩ.	Meet Spec.
		SG4_5-1565090-1_3P_ (1573551-2 Condition I)		5	1.76	1.51	1.62	mΩ	Max: 10 mΩ.	Meet Spec.
		SG5_1565090-1_3P_ (704924-1 Condition I)		5	1.69	1.46	1.58	mΩ	Max: 10 mΩ.	Meet Spec.
		SG6_1565090-1_3P_ (704924-1 Condition II)		5	1.81	1.50	1.60	mΩ	Max: 10 mΩ.	Meet Spec.
		SG7_1565090-1_3P_ (2136919-1 Condition II)		5	1.79	1.56	1.67	mΩ	Max: 10 mΩ.	Meet Spec.
		SG8_1565090-1_3P_ (2136919-1 Condition I)		5	1.76	1.56	1.64	mΩ	Max: 10 mΩ.	Meet Spec.
		SG9_5-1565089-1_2P_ (704654-3 Condition I)		5	1.67	0.49	1.43	mΩ	Max: 10 mΩ.	Meet Spec.
		SG10_5-1565089-1_2P_ (704654-3 Condition II)		5	1.75	1.44	1.62	mΩ	Max: 10 mΩ.	Meet Spec.
		SG11_5-1565089-1_2P_ (1573551-2 Condition II)		5	1.71	1.45	1.63	mΩ	Max: 10 mΩ.	Meet Spec.
		SG12_5-1565089-1_2P_ (1573551-2 Condition I)		5	1.88	1.49	1.74	mΩ	Max: 10 mΩ.	Meet Spec.

Group	SN	Description	Test Item	Qty (pcs)	Test Result				Requirement	Conclusion
					Max.	Min.	Avg.	Unit		
1	1	SG13_1565089-1_2P_ (704924-1 Condition I)	Low Level Contact Resistance	5	1.88	1.43	1.73	mΩ	Max: 10 mΩ.	Meet Spec.
		SG14_1565089-1_2P_ (704924-1 Condition II)		5	1.82	1.45	1.60	mΩ	Max: 10 mΩ.	Meet Spec.
		SG15_1565089-1_2P_ (2136919-1 Condition I)		5	1.85	1.39	1.58	mΩ	Max: 10 mΩ.	Meet Spec.
		SG16_1565089-1_2P_ (2136919-1 Condition II)		5	1.88	1.40	1.64	mΩ	Max: 10 mΩ.	Meet Spec.
	2	All Samples	Humidity and Temperature	80	No physical damage.				/	No physical damage.



		Cycling									
3		SG1_5-1565090-1_3P_ (704654-3 Condition I)	Low Level Contact Resistance	5	2.91	1.67	2.13	mΩ	Max: 20 mΩ.	Meet Spec.	
		SG2_5-1565090-1_3P_ (704654-3 Condition II)		5	2.45	1.69	2.05	mΩ	Max: 20 mΩ.	Meet Spec.	
		SG3_5-1565090-1_3P_ (1573551-2 Condition II)		5	2.66	1.65	2.11	mΩ	Max: 20 mΩ.	Meet Spec.	
		SG4_5-1565090-1_3P_ (1573551-2 Condition I)		5	2.61	1.67	2.00	mΩ	Max: 20 mΩ.	Meet Spec.	
		SG5_1565090-1_3P_ (704924-1 Condition I)		5	2.17	1.68	1.92	mΩ	Max: 20 mΩ.	Meet Spec.	
		SG6_1565090-1_3P_ (704924-1 Condition II)		5	2.69	1.68	2.12	mΩ	Max: 20 mΩ.	Meet Spec.	
		SG7_1565090-1_3P_ (2136919-1 Condition II)		5	2.60	1.73	2.20	mΩ	Max: 20 mΩ.	Meet Spec.	

Group	SN	Description	Test Item	Qty (pcs)	Test Result				Requirement	Conclusion
					Max.	Min.	Avg.	Unit		
1	3	SG8_1565090-1_3P_ (2136919-1 Condition I)	Low Level Contact Resistance	5	2.78	1.58	2.02	mΩ	Max: 20 mΩ.	Meet Spec.
		SG9_5-1565089-1_2P_ (704654-3 Condition I)		5	2.16	1.71	1.97	mΩ	Max: 20 mΩ.	Meet Spec.
		SG10_5-1565089-1_2P_ (704654-3 Condition II)		5	2.14	1.66	1.97	mΩ	Max: 20 mΩ.	Meet Spec.
		SG11_5-1565089-1_2P_ (1573551-2 Condition II)		5	2.40	1.70	1.94	mΩ	Max: 20 mΩ.	Meet Spec.
		SG12_5-1565089-1_2P_ (1573551-2 Condition I)		5	2.43	1.75	2.12	mΩ	Max: 20 mΩ.	Meet Spec.
		SG13_1565089-1_2P_ (704924-1 Condition I)		5	2.51	1.67	2.02	mΩ	Max: 20 mΩ.	Meet Spec.
		SG14_1565089-1_2P_ (704924-1 Condition II)		5	2.62	1.81	2.26	mΩ	Max: 20 mΩ.	Meet Spec.
		SG15_1565089-1_2P_ (2136919-1 Condition I)		5	2.60	1.97	2.12	mΩ	Max: 20 mΩ.	Meet Spec.
		SG16_1565089-1_2P_ (2136919-1 Condition II)		5	2.48	1.71	2.16	mΩ	Max: 20 mΩ.	Meet Spec.
2	1	SG1_5-1565090-1_3P_ (704654-3 Condition I)	TPA Mating force with housing	5	2.86	1.85	2.11	N	Judged by client	/
		SG1_5-1565090-1_3P_ (704654-3 Condition I)		5	2.16	1.84	2.02	N	Judged by client	/



		SG2_5-1565090-1_3P_ (704654-3 Condition II)		5	1.98	1.80	1.90	N	Judged by client	/
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Group	SN	Description	Test Item	Qty (pcs)	Test Result				Requirement	Conclusion
					Max.	Min.	Avg.	Unit		
2	1	SG2_5-1565090-1_3P_ (704654-3 Condition II)	TPA Mating force with housing	5	1.98	1.79	1.87	N	Judged by client	/
		SG3_5-1565090-1_3P_ (1573551-2 Condition II)		5	2.53	2.40	2.47	N	Judged by client	/
		SG3_5-1565090-1_3P_ (1573551-2 Condition II)		5	2.70	2.44	2.54	N	Judged by client	/
		SG4_5-1565090-1_3P_ (1573551-2 Condition I)		5	3.33	2.43	2.66	N	Judged by client	/
		SG4_5-1565090-1_3P_ Regrind 35%-(New resin #1573551-2 C)_Female		5	4.01	2.53	3.05	N	Judged by client	/
		SG5_1565090-1_3P_ (704924-1 Condition I)		5	2.76	2.00	2.36	N	Judged by client	/
		SG5_1565090-1_3P_ (704924-1 Condition I)		5	2.98	1.86	2.19	N	Judged by client	/
		SG6_1565090-1_3P_ (704924-1 Condition II)		5	1.94	1.80	1.86	N	Judged by client	/
		SG6_1565090-1_3P_ (704924-1 Condition I)		5	2.26	1.86	2.01	N	Judged by client	/
		SG7_1565090-1_3P_ (2136919-1 Condition II)		5	2.14	1.71	1.85	N	Judged by client	/
		SG7_1565090-1_3P_ (2136919-1 Condition II)		5	2.33	1.85	2.06	N	Judged by client	/
		SG8_1565090-1_3P_ (2136919-1 Condition I)		5	1.97	1.73	1.86	N	Judged by client	/

Group	SN	Description	Test Item	Qty (pcs)	Test Result				Requirement	Conclusion
					Max.	Min.	Avg.	Unit		
2	1	SG8_1565090-1_3P_ (2136919-1 Condition I)	TPA Mating force with housing	5	2.25	1.85	2.00	N	Judged by client	/
		SG9_5-1565089-1_2P_ (704654-3 Condition I)		5	3.56	2.24	2.72	N	Judged by client	/
		SG9_5-1565089-1_2P_ (704654-3 Condition I)		5	3.08	2.67	2.86	N	Judged by client	/



		SG10_5-1565089-1_2P_ (704654-3 Condition II)		5	2.59	2.20	2.31	N	Judged by client	/
		SG10_5-1565089-1_2P_ (704654-3 Condition II)		5	2.55	2.25	2.39	N	Judged by client	/
		SG11_5-1565089-1_2P_ (1573551-2 Condition II)		5	4.18	2.97	3.37	N	Judged by client	/
		SG11_5-1565089-1_2P_ (1573551-2 Condition II)		5	4.93	3.18	4.12	N	Judged by client	/
		SG12_5-1565089-1_2P_ (1573551-2 Condition I)		5	4.30	2.96	3.48	N	Judged by client	/
		SG12_5-1565089-1_2P_ (1573551-2 Condition I)		5	5.43	3.63	4.39	N	Judged by client	/
		SG13_1565089-1_2P_ (704924-1 Condition I)		5	2.97	2.19	2.47	N	Judged by client	/
		SG13_1565089-1_2P_ (704924-1 Condition I)		5	4.09	2.54	3.01	N	Judged by client	/
		SG14_1565089-1_2P_ (704924-1 Condition II)		5	3.62	2.10	2.74	N	Judged by client	/

Group	SN	Description	Test Item	Qty (pcs)	Test Result				Requirement	Conclusion	
					Max.	Min.	Avg.	Unit			
2	1	SG14_1565089-1_2P_ (704924-1 Condition II)	TPA Mating force with housing	5	3.05	1.68	2.48	N	Judged by client	/	
		SG15_1565089-1_2P_ (2136919-1 Condition I)		5	15.95	13.20	14.44	N	Judged by client	/	
		SG15_1565089-1_2P_ (2136919-1 Condition I)		5	14.86	11.36	12.63	N	Judged by client	/	
		SG16_1565089-1_2P_ (2136919-1 Condition II)		5	15.86	12.46	14.42	N	Judged by client	/	
		SG16_1565089-1_2P_ (2136919-1 Condition II)		5	19.71	12.73	15.11	N	Judged by client	/	
	2	All Samples	TPA mating/unmating	80	No physical damage.			/	No physical damage.	Meet Spec.	
	3		SG1_5-1565090-1_3P_ (704654-3 Condition I)	Contact retention force with TPA	3	103.06	76.4	90.07	N	34.3 N Min	Meet Spec.
			SG1_5-1565090-1_3P_ (704654-3 Condition I)		3	88.96	80.15	85.31	N	34.3 N Min	Meet Spec.
			SG2_5-1565090-1_3P_ (704654-3 Condition II)		3	86.54	74.17	81.14	N	34.3 N Min	Meet Spec.



		SG2_5-1565090-1_3P_ (704654-3 Condition II)		3	89.75	82.85	85.67	N	34.3 N Min	Meet Spec.
		SG3_5-1565090-1_3P_ (1573551-2 Condition II)		3	92.65	85.21	89.1	N	34.3 N Min	Meet Spec.
		SG3_5-1565090-1_3P_ (1573551-2 Condition II)		3	88.03	81.74	85.16	N	34.3 N Min	Meet Spec.

Group	SN	Description	Test Item	Qty (pcs)	Test Result				Requirement	Conclusion
					Max.	Min.	Avg.	Unit		
2	3	SG4_5-1565090-1_3P_ (1573551-2 Condition I)	Contact retention force with TPA	3	87.12	83.5	85.04	N	34.3 N Min	Meet Spec.
2	3	SG4_5-1565090-1_3P_ (1573551-2 Condition I)	Contact retention force with TPA	3	91.26	86.43	88.59	N	34.3 N Min	Meet Spec.
2	3	SG5_1565090-1_3P_ (704924-1 Condition I)	Contact retention force with TPA	3	88.44	79.31	83.59	N	34.3 N Min	Meet Spec.
2	3	SG5_1565090-1_3P_ (704924-1 Condition I)	Contact retention force with TPA	3	91.95	86.39	89.56	N	34.3 N Min	Meet Spec.
2	3	SG6_1565090-1_3P_ (704924-1 Condition II)	Contact retention force with TPA	3	94.46	78.89	86.39	N	34.3 N Min	Meet Spec.
2	3	SG6_1565090-1_3P_ (704924-1 Condition II)	Contact retention force with TPA	3	91.73	90.76	91.11	N	34.3 N Min	Meet Spec.
2	3	SG7_1565090-1_3P_ (2136919-1 Condition II)	Contact retention force with TPA	3	94.87	73.68	85.81	N	34.3 N Min	Meet Spec.
2	3	SG7_1565090-1_3P_ (2136919-1 Condition II)	Contact retention force with TPA	3	95.17	89.2	92.05	N	34.3 N Min	Meet Spec.
2	3	SG8_1565090-1_3P_ (2136919-1 Condition I)	Contact retention force with TPA	3	104.5	72.86	90.65	N	34.3 N Min	Meet Spec.
2	3	SG8_1565090-1_3P_ (2136919-1 Condition I)	Contact retention force	3	93.71	66.53	82.43	N	34.3 N Min	Meet Spec.



			with TPA							
2	3	SG9_5-1565089-1_2P_ (704654-3 Condition I)	Contact retention force with TPA	3	95.06	69.89	83.93	N	34.3 N Min	Meet Spec.
2	3	SG9_5-1565089-1_2P_ (704654-3 Condition I)	Contact retention force with TPA	3	95.14	69.33	82.71	N	34.3 N Min	Meet Spec.

Group	SN	Description	Test Item	Qty (pcs)	Test Result				Requirement	Conclusion
					Max.	Min.	Avg.	Unit		
2	3	SG10_5-1565089-1_2P_ (704654-3 Condition II)	Contact retention force with TPA	3	83.14	74.48	79.39	N	34.3 N Min	Meet Spec.
2	3	SG10_5-1565089-1_2P_ (704654-3 Condition II)	Contact retention force with TPA	3	90.61	87.21	89.29	N	34.3 N Min	Meet Spec.
2	3	SG11_5-1565089-1_2P_ (1573551-2 Condition II)	Contact retention force with TPA	3	90.18	79.23	85.07	N	34.3 N Min	Meet Spec.
2	3	SG11_5-1565089-1_2P_ (1573551-2 Condition II)	Contact retention force with TPA	3	92.07	87.65	89.83	N	34.3 N Min	Meet Spec.
2	3	SG12_5-1565089-1_2P_ (1573551-2 Condition I)	Contact retention force with TPA	3	99.48	76.73	86.22	N	34.3 N Min	Meet Spec.
2	3	SG12_5-1565089-1_2P_ (1573551-2 Condition I)	Contact retention force with TPA	3	88.76	86.31	87.49	N	34.3 N Min	Meet Spec.
2	3	SG13_1565089-1_2P_ (704924-1 Condition I)	Contact retention force with TPA	3	99.66	86.35	93.2	N	34.3 N Min	Meet Spec.
2	3	SG13_1565089-1_2P_ (704924-1 Condition I)	Contact retention force with TPA	3	89.81	84.48	86.4	N	34.3 N Min	Meet Spec.
2	3	SG14_1565089-1_2P_ (704924-1 Condition II)	Contact retention force with TPA	3	90.97	83.97	87.85	N	34.3 N Min	Meet Spec.
2	3	SG14_1565089-1_2P_ (704924-1 Condition II)	Contact retention force	3	95.71	88.59	90.99	N	34.3 N Min	Meet Spec.



			with TPA							
2	3	SG15_1565089-1_2P_ (2136919-1 Condition I)	Contact retention force with TPA	3	96.39	88.8	91.87	N	34.3 N Min	Meet Spec.
2	3	SG15_1565089-1_2P_ (2136919-1 Condition I)	Contact retention force with TPA	3	95.13	69.62	80.04	N	34.3 N Min	Meet Spec.

Group	SN	Description	Test Item	Qty (pcs)	Test Result				Requirement	Conclusion
					Max.	Min.	Avg.	Unit		
2	3	SG16_1565089-1_2P_ (2136919-1 Condition II)	Contact retention force with TPA	3	97.33	88	92.31	N	34.3 N Min	Meet Spec.
2	3	SG16_1565089-1_2P_ (2136919-1 Condition II)	Contact retention force with TPA	3	86.47	71.88	77.56	N	34.3 N Min	Meet Spec.
2	3	SG1_5-1565090-1_3P_ (704654-3 Condition I)	Contact retention force without TPA	2	73.06	64.12	68.63	N	34.3 N Min	Meet Spec.
2	3	SG1_5-1565090-1_3P_ (704654-3 Condition I)	Contact retention force without TPA	2	76.06	51.43	63.65	N	34.3 N Min	Meet Spec.
2	3	SG2_5-1565090-1_3P_ (704654-3 Condition II)	Contact retention force without TPA	2	70.58	64.57	68.39	N	34.3 N Min	Meet Spec.
2	3	SG2_5-1565090-1_3P_ (704654-3 Condition II)	Contact retention force without TPA	2	78.93	67.98	73.76	N	34.3 N Min	Meet Spec.
2	3	SG3_5-1565090-1_3P_ (1573551-2 Condition II)	Contact retention force without TPA	2	69.94	66.18	68.19	N	34.3 N Min	Meet Spec.
2	3	SG3_5-1565090-1_3P_ (1573551-2 Condition II)	Contact retention force without TPA	2	82.54	76.06	79.75	N	34.3 N Min	Meet Spec.
2	3	SG4_5-1565090-1_3P_ (1573551-2 Condition I)	Contact retention force without TPA	2	77.22	68.91	72.6	N	34.3 N Min	Meet Spec.
2	3	SG4_5-1565090-1_3P_ (1573551-2 Condition I)	Contact retention force	2	67.5	56.7	62.64	N	34.3 N Min	Meet Spec.



			without TPA							
2	3	SG5_1565090-1_3P_ (704924-1 Condition I)	Contact retention force without TPA	2	73.69	66.92	69.67	N	34.3 N Min	Meet Spec.
2	3	SG5_1565090-1_3P_ (704924-1 Condition I)	Contact retention force without TPA	2	72.95	68.2	71.38	N	34.3 N Min	Meet Spec.

Group	SN	Description	Test Item	Qty (pcs)	Test Result				Requirement	Conclusion
					Max.	Min.	Avg.	Unit		
2	3	SG6_1565090-1_3P_ (704924-1 Condition II)	Contact retention force without TPA	2	70.45	64.57	67.53	N	34.3 N Min	Meet Spec.
2	3	SG6_1565090-1_3P_ (704924-1 Condition II)	Contact retention force without TPA	2	91.63	68.75	77.72	N	34.3 N Min	Meet Spec.
2	3	SG7_1565090-1_3P_ (2136919-1 Condition II)	Contact retention force without TPA	2	70.45	67.16	68.75	N	34.3 N Min	Meet Spec.
2	3	SG7_1565090-1_3P_ (2136919-1 Condition II)	Contact retention force without TPA	2	74.96	55.42	66.88	N	34.3 N Min	Meet Spec.
2	3	SG8_1565090-1_3P_ (2136919-1 Condition I)	Contact retention force without TPA	2	88.91	67.45	73.92	N	34.3 N Min	Meet Spec.
2	3	SG8_1565090-1_3P_ (2136919-1 Condition I)	Contact retention force without TPA	2	82.73	64.89	74.57	N	34.3 N Min	Meet Spec.
2	3	SG9_5-1565089-1_2P_ (704654-3 Condition I)	Contact retention force without TPA	2	74.37	65.94	69.31	N	34.3 N Min	Meet Spec.
2	3	SG9_5-1565089-1_2P_ (704654-3 Condition I)	Contact retention force without TPA	2	68.56	64.77	67.49	N	34.3 N Min	Meet Spec.
2	3	SG10_5-1565089-1_2P_ (704654-3 Condition II)	Contact retention force without TPA	2	69.44	61.98	66.33	N	34.3 N Min	Meet Spec.
2	3	SG10_5-1565089-1_2P_ (704654-3 Condition II)	Contact retention force	2	73.54	65.76	68.68	N	34.3 N Min	Meet Spec.



			without TPA							
2	3	SG11_5-1565089-1_2P_ (1573551-2 Condition II)	Contact retention force without TPA	2	73.99	70.04	71.5	N	34.3 N Min	Meet Spec.
2	3	SG11_5-1565089-1_2P_ (1573551-2 Condition II)	Contact retention force without TPA	2	88.76	86.31	87.49	N	34.3 N Min	Meet Spec.

Group	SN	Description	Test Item	Qty (pcs)	Test Result				Requirement	Conclusion
					Max.	Min.	Avg.	Unit		
2	3	SG12_5-1565089-1_2P_ (1573551-2 Condition I)	Contact retention force without TPA	2	74.78	68.88	72.12	N	34.3 N Min	Meet Spec.
2	3	SG12_5-1565089-1_2P_ (1573551-2 Condition I)	Contact retention force without TPA	2	70.59	65.6	67.84	N	34.3 N Min	Meet Spec.
2	3	SG13_1565089-1_2P_ (704924-1 Condition I)	Contact retention force without TPA	2	74.79	69.42	72.79	N	34.3 N Min	Meet Spec.
2	3	SG13_1565089-1_2P_ (704924-1 Condition I)	Contact retention force without TPA	2	70.2	64.11	67.82	N	34.3 N Min	Meet Spec.
2	3	SG14_1565089-1_2P_ (704924-1 Condition II)	Contact retention force without TPA	2	73.41	64.72	69.28	N	34.3 N Min	Meet Spec.
2	3	SG14_1565089-1_2P_ (704924-1 Condition II)	Contact retention force without TPA	2	69.61	63.99	66.2	N	34.3 N Min	Meet Spec.
2	3	SG15_1565089-1_2P_ (2136919-1 Condition I)	Contact retention force without TPA	2	63.22	52.98	58.16	N	34.3 N Min	Meet Spec.
2	3	SG15_1565089-1_2P_ (2136919-1 Condition I)	Contact retention force without TPA	2	65.23	60.75	63	N	34.3 N Min	Meet Spec.
2	3	SG16_1565089-1_2P_ (2136919-1 Condition II)	Contact retention force without TPA	2	63.19	55.74	59.06	N	34.3 N Min	Meet Spec.
2	3	SG16_1565089-1_2P_ (2136919-1 Condition II)	Contact retention force	2	69.7	60.5	65.46	N	34.3 N Min	Meet Spec.



			without TPA							
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4. VALIDATION

Requested by:

Kambali, Santosh

2023-10-30

TE Connectivity Product Engineering

Prepared by:

Luke.

2024-02-07

TE Connectivity Shanghai Electrical Components Test Lab.

Approved by:

Colo

2024-02-20

Test Manager

TE Connectivity Shanghai Electrical Components Test Lab.

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