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**Tab, Poke-In, Mag-Mate**

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**1. INTRODUCTION**

1.1 Purpose

Testing was performed on the TAB, POKE-IN, MAG-MATE to determine if it conformance to the requirements of Product Specification 108-22045 Rev.A

1.2 Scope

This report covers the electrical, mechanical, environmental performance requirements of the TAB, POKE-IN, MAG-MATE. The testing was performed between January 17, 2017 and March 08, 2017.

1.3 Test Samples

The test samples were randomly selected from normal current production lots.

P/N	Description
2312000-1	TAB, POKE-IN, MAG-MATE
928770-2	MAG-MATE LEAF TERMINAL (300 Box HSG)

1.4 Conclusion

The TAB, POKE-IN, MAG-MATE meets the electrical, mechanical and environmental performance requirements of Product Specification 108-22045 Rev.A

1.5 Attachment

- 1) Test Sequence
- 2) Requirements and Test Procedure
- 3) Test Result
- 4) Photograph of Test

**1) Test Sequence**

TEST OR EXAMINATION	TEST GROUP (a)		
	1	2	3
	TEST SEQUENCE (b)		
Initial examination of product	1	1	1
Termination resistance, dry circuit	2		
Current cycling		2	
Thermal shock	5		
Humidity-Temperature cycling	4		
Temperature life	3		
Crimp tensile			2

## 2) Requirements and Test Procedure

TEST DESCRIPTION	REQUIREMENT	PROCEDURE	
Initial examination of product	Meets requirements of product drawing and Specification 114-2046	Visual, dimensional and functional per applicable inspection plan	
<b>ELECTRICAL</b>			
Termination Resistance Dry Circuit	See Figure 3	Subject terminals assembled in housing to 50mV open circuit at 100 mA maximum, see Figure 4; Spec. 109-6-7	
Current Cycling	Termination resistance at stated test current, see Figures 3 and 4	Subject termination to 480 cycles, 15 minutes 'ON' and 15 minutes 'OFF'. See Figure 3 for test current; Spec. 109-51, method 2, read initially and after 96, 192, 384 and final	
<b>MECHANICAL</b>			
Crimp Tensile	Wire Size	Crimp Tensile (N.Min.)	Determine crimp tensile at a rate of 50mm/minute, Spec. 109-16
	0.35 mm <sup>2</sup>	60	
	0.75 mm <sup>2</sup>	100	
	18 AWG	90	
	16 AWG	135	
	14 AWG	225	
<b>ENVIRONMENTAL</b>			
Thermal Shock	Termination resistance, dry circuit See Figures 3 and 4	Subject terminations to 25 cycles between -65°C and 125°C; Spec. 109-22.  Measure termination resistance initially and every 5 cycles	
Humidity-Temperature Cycling	Termination resistance, dry circuit See Figures 3 and 4	Subject terminations to 10 humidity-temperature cycles between 25°C and 65°C at 95% RH; Spec. 109-23, method III, cond. B, less steps 7a and 7b.  Measure termination resistance initially; 2, 5, 8 and 10 cycles	
Temperature Life, Heat Age	Termination resistance, dry circuit See Figures 3 and 4	Subject terminations to 118 °C for 33 days; Spec. 109-43, test level 9, test duration I.  Measure termination resistance initially after 2, 4 ,8 ,16 and 33 days	

	Test Current Amperes	After Current Cycling, Temperature Life, Humidity-Temperature and Thermal shock
Crimp	-	Resistance Milliohms max. Final
0.35 mm <sup>2</sup>	3	4.0
0.75 mm <sup>2</sup>	8	3.5
14 AWG	15	2.5
Connection	-	2.5

3) Test Result  
- Test Group 1

NO.	Test Items	Test Condition	Acceptance criteria	Unit	Wire (AWG)	Judgment
1	Examination of product	Initial	Meets requirements of product drawing and AMP Specification 114-2046	-	-	OK
2	Temperature Life	Initial	2.5 mΩ Max.	mΩ	#14	OK
		2days				OK
		4days				OK
		8days				OK
		16days				OK
		33days				OK
3	Humidity Temperature cycling	After Temperature Life				-
		2days				OK
		5days				OK
		8days				OK
		10days				OK
4	Thermal shock	After Humidity				-
		After 5cycle				OK
		After 10cycle	OK			
		After 15cycle	OK			
		After 20cycle	OK			
		Final	OK			

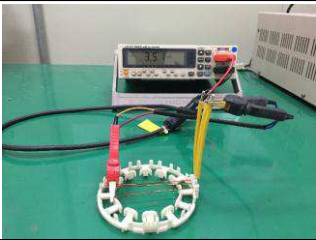

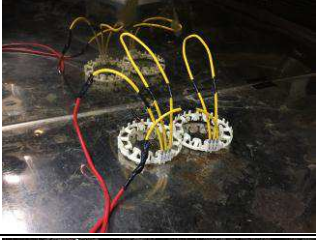
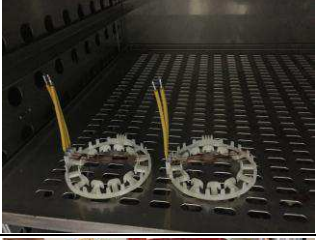


## - Test Group 2

NO.	Test Items	Test Condition	Acceptance criteria	Unit	Wire (AWG)	Judgment
1	Current Cycling	Initial	2.5 mΩ Max.	mΩ	#14	OK
		After 96cycle				OK
		After 192cycle				OK
		After 384cycle				OK
		Final				OK

## - Test Group 3

NO.	Test Items	Test Condition	Acceptance criteria	Unit	Wire (AWG)	Judgment
1	Crimp Tensile	Initial	90 N Min.	N	#18	OK
			135 N Min.		#16	OK
			225 N Min.		#14	OK

4) Photograph of Test

NO.	Test Items	Photograph	Remark	NO.	Test Items	Photograph	Remark
1	Termination Resistance		-	4	Humidity Temperature Cycling		-
2	Current Cycling		-	5	Temperature Life		-
3	Thermal Shock		-	6	Crimp Tensile Strength		-