Product Change Notification
Current Date: 09-Aug-2019

TE Connectivity

Product Change Notification: P-19-017742 **PCN Date:** 08-AUG-19

Customer: Future Electronics(0000080100) **Location:** WORLDWIDE **Agreement:** Agreement Unknown

TE would like to inform you of the following change(s) to the listed TE Connectivity Product. In case of any further questions about this change(s), please contact your TE Connectivity Sales Engineer. Affected part, drawing and/or specification numbers are listed on the attached sheet(s).

General Product Description:
AMPMODU System 50 Assemblies

Description of Changes
To provide flexibility to our manufacturing processes, we are allowing the manufacturing plants, when possible, to utilize regrind resin, up to the allowable limit specified on the UL Yellow Card, in the molding process. **Other attachments:** Evaluation of AMPMODU System 50 with 0% and 50% regrind material

Reason for Changes:	
Product improvement.There is no change to parts or drawings, therefore there is no revision level change. This is an option of when enough regrind is obtained, Manufacturing can add it to the production. The material is the same formulation as currently used.	
Estimated Dates:	
Last Order Date (Obsolete Parts Only):	**First Date To Ship** (Changed Parts Only):
	08-NOV-2019
Last Ship Date (Obsolete Parts Only):	**Last Date for Mixed Shipments:** (Changed Parts Only):
	31-DEC-2020

Part Number(s) being Modified:

Part Number	Part Discontinued per PCN	Customer Drawing	Customer Part Number	Alias Part Number(s)	Substitute Part Number	Substitute Alias Part Number(s)	Description Of Difference
104068-1	NO						
104068-6	NO						
104069-6	NO						
5-103911-2	NO						
5-103911-5	NO			"2-42938-4376"			
5-104068-1	NO						
5-104068-2	NO						
5-104068-3	NO						
5-104068-4	NO						
5-104068-5	NO						
5-104068-6	NO						
5-104069-1	NO						
5-104069-2	NO						
5-104069-4	NO						
5-104069-5	NO						
5-104069-6	NO						
5-104069-7	NO						
5-104071-1	NO						
5-104071-3	NO						
5-104071-4	NO						
5-104071-6	NO						
5-104071-7	NO						
5-104071-8	NO						
5-104074-1	NO						
5-104074-3	NO						
5-104074-4	NO						
5-104074-6	NO						
5-104074-7	NO						
5-104074-8	NO						
5-104076-3	NO						
5-104078-2	NO						
5-104078-3	NO						
5-104666-1	NO						
5-104746-2	NO						
6-104068-1	NO						

Part Number	Part Discontinued per PCN	Customer Drawing	Customer Part Number	Alias Part Number(s)	Substitute Part Number	Substitute Alias Part Number(s)	Description Of Difference
6-104068-3	NO						
6-104068-7	NO						
6-104069-0	NO						
6-104069-2	NO						
6-104071-0	NO						
6-104071-1	NO						
6-104074-1	NO						
6-104074-7	NO						

The documents listed below are being modified. Related parts that are not explicitly listed on this PCN are not being modified or discontinued as per the PCN. The Last Order Date, Last Ship Date, First Date to Ship Changed Parts and last date for Mixed Shipments apply only to parts explicitly listed on this PCN.

Customer Drawing(s) Being Modified:

Drawing Number	Related Part Number	Customer Part Number	Current Revision	New Revision
103911	5-103911-5, 5-103911-2		N	
104068	104068-1, 5-104068-3, 5-104068-4, 104068-6, 5-104068-5, 6-104068-7, 5-104068-6	104068-1	R1	
104069	104069-6, 5-104069-4, 5-104069-6, 5-104069-1	104069-1-LF	AB1	
104071	5-104071-4, 5-104071-1, 5-104071-8, 6-104071-0		R	
104074	5-104074-1, 5-104074-4, 5-104074-7		V	
104076	5-104076-3		V	
104078	5-104078-2		W	
104666	5-104666-1		AC	
104746	5-104746-2		J	

Customer: Future Electronics Ltd (1273129) **Location:** Egham **Agreement Number:** Agreement Unknown

Part Number(s) being Modified:

Part Number	Part Discontinued per PCN	Customer Drawing	Customer Part Number	Alias Part Number(s)	Substitute Part Number	Substitute Alias Part Number(s)	Description Of Difference
104068-1	NO		104068-1				
5-103911-2	NO						
5-103911-5	NO			"2-42938-4376"			
5-104068-1	NO		104068-1-LF				
5-104069-1	NO		104069-1-LF				
5-104069-4	NO						
5-104071-1	NO						
5-104071-8	NO		104071-8-LF				
5-104074-1	NO						
5-104074-7	NO						
6-104069-0	NO						
6-104074-1	NO						
6-104074-7	NO						

The documents listed below are being modified. Related parts that are not explicitly listed on this PCN are not being modified or discontinued as per the PCN. The Last Order Date, Last Ship Date, First Date to Ship Changed Parts and last date for Mixed Shipments apply only to parts explicitly listed on this PCN.

Customer Drawing(s) Being Modified:

Drawing Number	Related Part Number	Customer Part Number	Current Revision	New Revision
103911	5-103911-2		N	
104068	104068-1	104068-1	R1	
104069	5-104069-1	104069-1-LF	AB1	
104071	5-104071-1		R	
104074	5-104074-1		V	

Customer: Future Electronics Asia Pacific (2923061) **Location:** Singapore **Agreement Number:** Agreement Unknown

Part Number(s) being Modified:

Part Number	Part Discontinued per PCN	Customer Drawing	Customer Part Number	Alias Part Number(s)	Substitute Part Number	Substitute Alias Part Number(s)	Description Of Difference
5-103911-5	NO			"2-42938-4376"			
5-104069-1	NO						
5-104071-4	NO						
5-104071-8	NO						
5-104074-4	NO						
5-104074-7	NO						

Part Number	Part Discontinued per PCN	Customer Drawing	Customer Part Number	Alias Part Number(s)	Substitute Part Number	Substitute Alias Part Number(s)	Description Of Difference
6-104068-7	NO						
6-104069-0	NO						
6-104074-7	NO						

The documents listed below are being modified. Related parts that are not explicitly listed on this PCN are not being modified or discontinued as per the PCN. The Last Order Date, Last Ship Date, First Date to Ship Changed Parts and last date for Mixed Shipments apply only to parts explicitly listed on this PCN.

Customer Drawing(s) Being Modified:

Drawing Number	Related Part Number	Customer Part Number	Current Revision	New Revision
103911	5-103911-5		N	
104068	6-104068-7		R1	
104069	5-104069-1		AB1	
104071	5-104071-4		R	
104074	5-104074-4		V	

Customer: Future Electronics Inc. (1319888) **Location:** Singapore **Agreement Number:** Agreement Unknown

Part Number(s) being Modified:

Part Number	Part Discontinued per PCN	Customer Drawing	Customer Part Number	Alias Part Number(s)	Substitute Part Number	Substitute Alias Part Number(s)	Description Of Difference
5-103911-2	NO						
5-103911-5	NO			"2-42938-4376"			
5-104068-3	NO						
5-104068-4	NO						
5-104068-4	NO						
5-104068-5	NO						
5-104068-6	NO						
5-104069-6	NO						
5-104071-8	NO						
5-104074-1	NO						
5-104074-6	NO						
5-104074-7	NO						
5-104074-7	NO						
5-104076-3	NO						
5-104666-1	NO						
5-104746-2	NO						
6-104068-1	NO						
6-104068-3	NO						
6-104068-3	NO						
6-104071-0	NO						
6-104071-1	NO						

The documents listed below are being modified. Related parts that are not explicitly listed on this PCN are not being modified or discontinued as per the PCN. The Last Order Date, Last Ship Date, First Date to Ship Changed Parts and last date for Mixed Shipments apply only to parts explicitly listed on this PCN.

Customer Drawing(s) Being Modified:

Drawing Number	Related Part Number	Customer Part Number	Current Revision	New Revision
103911	5-103911-5, 5-103911-2		N	
104068	5-104068-3, 5-104068-4		R1	
104069	5-104069-6		AB1	
104071	5-104071-8, 6-104071-0		R	
104074	5-104074-1, 5-104074-7		V	
104076	5-104076-3		V	
104666	5-104666-1		AC	
104746	5-104746-2		J	

Customer: Future Electronics Inc. (2883079) **Location:** Singapore **Agreement Number:** Agreement Unknown

Part Number(s) being Modified:

Part Number	Part Discontinued per PCN	Customer Drawing	Customer Part Number	Alias Part Number(s)	Substitute Part Number	Substitute Alias Part Number(s)	Description Of Difference
5-103911-5	NO			"2-42938-4376"			
5-104068-3	NO						
5-104068-4	NO						
5-104068-5	NO						
5-104068-6	NO						
5-104069-6	NO						

Part Number	Part Discontinued per PCN	Customer Drawing	Customer Part Number	Alias Part Number(s)	Substitute Part Number	Substitute Alias Part Number(s)	Description Of Difference
5-104071-8	NO						
5-104074-1	NO						
5-104074-6	NO						
5-104074-7	NO						
5-104074-7	NO						
5-104074-7	NO						
6-104068-1	NO						
6-104068-3	NO						
6-104068-3	NO						
6-104071-1	NO						

The documents listed below are being modified. Related parts that are not explicitly listed on this PCN are not being modified or discontinued as per the PCN. The Last Order Date, Last Ship Date, First Date to Ship Changed Parts and last date for Mixed Shipments apply only to parts explicitly listed on this PCN.

Customer Drawing(s) Being Modified:

Drawing Number	Related Part Number	Customer Part Number	Current Revision	New Revision
104074	5-104074-7		V	

Customer: Future Electronics Inc. (1319888) **Location:** Singapore **Agreement Number:** Agreement Unknown

Part Number(s) being Modified:

Part Number	Part Discontinued per PCN	Customer Drawing	Customer Part Number	Alias Part Number(s)	Substitute Part Number	Substitute Alias Part Number(s)	Description Of Difference
5-103911-2	NO						
5-103911-5	NO			"2-42938-4376"			
5-104068-3	NO						
5-104068-4	NO						
5-104068-4	NO						
5-104068-5	NO						
5-104068-6	NO						
5-104069-6	NO						
5-104071-8	NO						
5-104074-1	NO						
5-104074-6	NO						
5-104074-7	NO						
5-104074-7	NO						
5-104076-3	NO						
5-104666-1	NO						
5-104746-2	NO						
6-104068-1	NO						
6-104068-3	NO						
6-104068-3	NO						
6-104071-0	NO						
6-104071-1	NO						

The documents listed below are being modified. Related parts that are not explicitly listed on this PCN are not being modified or discontinued as per the PCN. The Last Order Date, Last Ship Date, First Date to Ship Changed Parts and last date for Mixed Shipments apply only to parts explicitly listed on this PCN.

Customer Drawing(s) Being Modified:

Drawing Number	Related Part Number	Customer Part Number	Current Revision	New Revision
103911	5-103911-5, 5-103911-2		N	
104068	5-104068-3, 5-104068-4		R1	
104069	5-104069-6		AB1	
104071	5-104071-8, 6-104071-0		R	
104074	5-104074-1, 5-104074-7		V	
104076	5-104076-3		V	
104666	5-104666-1		AC	
104746	5-104746-2		J	

Customer: Future Electronics Inc (1290208) **Location:** Southaven **Agreement Number:** FUTAGR001

Part Number(s) being Modified:

Part Number	Part Discontinued per PCN	Customer Drawing	Customer Part Number	Alias Part Number(s)	Substitute Part Number	Substitute Alias Part Number(s)	Description Of Difference
104068-6	NO						
104069-6	NO						
5-104068-1	NO						

Part Number	Part Discontinued per PCN	Customer Drawing	Customer Part Number	Alias Part Number(s)	Substitute Part Number	Substitute Alias Part Number(s)	Description Of Difference
5-104068-2	NO						
5-104068-3	NO						
5-104068-5	NO						
5-104068-6	NO						
5-104069-1	NO						
5-104069-2	NO						
5-104069-4	NO						
5-104069-5	NO						
5-104069-6	NO						
5-104069-7	NO						
5-104071-1	NO						
5-104071-3	NO						
5-104071-4	NO						
5-104071-6	NO						
5-104071-7	NO						
5-104071-8	NO						
5-104074-1	NO						
5-104074-3	NO						
5-104074-4	NO						
5-104074-7	NO						
5-104074-8	NO						
5-104078-2	NO						
5-104078-3	NO						
5-104666-1	NO						
6-104068-7	NO						
6-104069-2	NO						
6-104071-1	NO						
6-104074-1	NO						

The documents listed below are being modified. Related parts that are not explicitly listed on this PCN are not being modified or discontinued as per the PCN. The Last Order Date, Last Ship Date, First Date to Ship Changed Parts and last date for Mixed Shipments apply only to parts explicitly listed on this PCN.

Customer Drawing(s) Being Modified:

Drawing Number	Related Part Number	Customer Part Number	Current Revision	New Revision
104068	104068-6		R1	
104069	104069-6		AB1	
104071	5-104071-1		R	
104074	5-104074-1		V	
104078	5-104078-2		W	
104666	5-104666-1		AC	

Customer: Future Electronics UK (2833922) **Location:** Hayes **Agreement Number:** Agreement Unknown

Part Number(s) being Modified:

Part Number	Part Discontinued per PCN	Customer Drawing	Customer Part Number	Alias Part Number(s)	Substitute Part Number	Substitute Alias Part Number(s)	Description Of Difference
5-104069-4	NO						
5-104071-1	NO						
5-104071-4	NO						
5-104071-8	NO						
5-104074-1	NO						
6-104068-7	NO						

The documents listed below are being modified. Related parts that are not explicitly listed on this PCN are not being modified or discontinued as per the PCN. The Last Order Date, Last Ship Date, First Date to Ship Changed Parts and last date for Mixed Shipments apply only to parts explicitly listed on this PCN.

Customer Drawing(s) Being Modified:

Drawing Number	Related Part Number	Customer Part Number	Current Revision	New Revision
104068	6-104068-7		R1	
104069	5-104069-4		AB1	
104071	5-104071-1		R	
104074	5-104074-1		V	

Customer: Future Electronics EDC Services (2944409) **Location:** Leipzig **Agreement Number:** Agreement Unknown

Part Number(s) being Modified:

Part Number	Part Discontinued per PCN	Customer Drawing	Customer Part Number	Alias Part Number(s)	Substitute Part Number	Substitute Alias Part Number(s)	Description Of Difference
5-103911-2	NO						
5-104068-6	NO						
5-104071-4	NO						

The documents listed below are being modified. Related parts that are not explicitly listed on this PCN are not being modified or discontinued as per the PCN. The Last Order Date, Last Ship Date, First Date to Ship Changed Parts and last date for Mixed Shipments apply only to parts explicitly listed on this PCN.

Customer Drawing(s) Being Modified:

Drawing Number	Related Part Number	Customer Part Number	Current Revision	New Revision
103911	5-103911-2		N	
104068	5-104068-6		R1	
104071	5-104071-4		R	

Customer: Future Electronics Inc. (2883079) **Location:** Singapore **Agreement Number:** Agreement Unknown

Part Number(s) being Modified:

Part Number	Part Discontinued per PCN	Customer Drawing	Customer Part Number	Alias Part Number(s)	Substitute Part Number	Substitute Alias Part Number(s)	Description Of Difference
5-103911-5	NO			"2-42938-4376"			
5-104068-3	NO						
5-104068-4	NO						
5-104068-5	NO						
5-104068-6	NO						
5-104069-6	NO						
5-104071-8	NO						
5-104074-1	NO						
5-104074-6	NO						
5-104074-7	NO						
5-104074-7	NO						
5-104074-7	NO						
6-104068-1	NO						
6-104068-3	NO						
6-104068-3	NO						
6-104071-1	NO						

The documents listed below are being modified. Related parts that are not explicitly listed on this PCN are not being modified or discontinued as per the PCN. The Last Order Date, Last Ship Date, First Date to Ship Changed Parts and last date for Mixed Shipments apply only to parts explicitly listed on this PCN.

Customer Drawing(s) Being Modified:

Drawing Number	Related Part Number	Customer Part Number	Current Revision	New Revision
104074	5-104074-7		V	

Customer: Future Electronics Ltd (2895038) **Location:** Leipzig **Agreement Number:** Agreement Unknown

Part Number(s) being Modified:

Part Number	Part Discontinued per PCN	Customer Drawing	Customer Part Number	Alias Part Number(s)	Substitute Part Number	Substitute Alias Part Number(s)	Description Of Difference
104068-1	NO		104068-1				
5-103911-2	NO						
5-103911-5	NO			"2-42938-4376"			
5-104068-1	NO		104068-1-LF				
5-104069-1	NO		104069-1-LF				
5-104069-4	NO						
5-104071-1	NO						
5-104071-8	NO		104071-8-LF				
5-104074-1	NO						
5-104074-7	NO						
6-104069-0	NO						
6-104074-1	NO						
6-104074-7	NO						

Customer: Future Electronics Inc (184927) **Location:** Pointe Claire **Agreement Number:** FUTAGR002

Part Number(s) being Modified:

Part Number	Part Discontinued per PCN	Customer Drawing	Customer Part Number	Alias Part Number(s)	Substitute Part Number	Substitute Alias Part Number(s)	Description Of Difference
104068-6	NO						
104069-6	NO						
5-104068-1	NO						
5-104068-2	NO						
5-104068-3	NO						
5-104068-5	NO						
5-104068-6	NO						
5-104069-1	NO						
5-104069-2	NO						
5-104069-4	NO						
5-104069-5	NO						
5-104069-6	NO						
5-104069-7	NO						
5-104071-1	NO						
5-104071-3	NO						
5-104071-4	NO						
5-104071-6	NO						
5-104071-7	NO						
5-104071-8	NO						
5-104074-1	NO						
5-104074-3	NO						
5-104074-4	NO						
5-104074-8	NO						
5-104078-2	NO						
5-104078-3	NO						
6-104068-7	NO						
6-104069-2	NO						
6-104071-1	NO						
6-104074-1	NO						

The documents listed below are being modified. Related parts that are not explicitly listed on this PCN are not being modified or discontinued as per the PCN. The Last Order Date, Last Ship Date, First Date to Ship Changed Parts and last date for Mixed Shipments apply only to parts explicitly listed on this PCN.

Customer Drawing(s) Being Modified:

Drawing Number	Related Part Number	Customer Part Number	Current Revision	New Revision
104068	5-104068-5		R1	
104071	5-104071-1		R	

Evaluation of AMPMODU* System 50 with 0% and 50% Regrind Material

1. INTRODUCTION

1.1 Purpose

Testing was performed on the TE Connectivity AMPMODU System 50 vertical receptacle and right angle header to determine its conformance to the requirements of Product Specification 108-1093 Rev D when molded with 0% and 50% regrind material.

1.2 Scope

This report covers the electrical, mechanical, and environmental performance of the AMPMODU System 50. Testing was performed at the Norwood Electrical Components Test Laboratory between May 30, 2019 and June 13, 2019. Detailed test data is on file and maintained at the Harrisburg Electrical Components Laboratory under test number EA20190154T.

1.3 Conclusion

All specimens in Test Sets 1 and 2 met the requirements for insulation resistance, dielectric withstanding voltage and contact retention found in Product Specification 108-1093, Rev D.

1.4 Test Specimens

Refer to Table 1 for the allocation and description of submitted test specimens.

Table 1 – Test Specimens

Test Group	Test Set	Qty	Part Number	Description
3	1	3	5-104078-8	AMPMODU System 50 Vertical Receptacle - 50% Regrind
		3	6-104069-7	AMPMODU System 50 Right Angle Header - 50% Regrind
	2	3	5-104078-8	AMPMODU System 50 Vertical Receptacle - 0% Regrind
		3	6-104069-7	AMPMODU System 50 Right Angle Header - 0% Regrind
4	3	3	5-104078-8	AMPMODU System 50 Vertical Receptacle – 50% Regrind
	4	3	6-104069-7	AMPMODU System 50 Right Angle Header – 50% Regrind
	5	3	5-104078-8	AMPMODU System 50 Vertical Receptacle - 0% Regrind
	6	3	6-104069-7	AMPMODU System 50 Right Angle Header - 0% Regrind

1.5 Test Sequence

Refer to Table 2 for the sequence of testing performed on the specimens listed in Table 1.

Table 2 – Performed Test Sequence

Test or Evaluation	Test Set	
	1 and 2	3 thru 6
	Test Sequence (a)	
Examination of Product	1,8	1
Insulation Resistance	2,6	
Dielectric Withstanding Voltage	3,7	
Thermal Shock	4	
Humidity	5	
Contact Retention		2

(a) Numbers indicate sequence in which tests were performed.

1.6 Environmental Conditions

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

Temperature: 15℃ to 35℃
Relative Humidity: 20% to 80%

2. SUMMARY OF TESTING

2.1 Initial Examination of Product - Test Sets 1 thru 6

No damage detrimental to product performance was observed initially.

2.2 Insulation Resistance - Test Sets 1 and 2

All mated specimens exceeded the 5000 megohm minimum requirement for initial insulation resistance and the 1000 megohm minimum requirement for final insulation resistance found in Product Specification 108-1093, Rev D.

2.3 Dielectric Withstanding Voltage - Test Sets 1 and 2

All mated specimens met the 500Vac dielectric withstanding voltage requirement found in Product Specification 108-1093, Rev D initially and after environmental exposure. No flashover or leakage current greater than 0.5mA was detected.

2.4 Thermal Shock - test Sets 1 and 2

No evidence of physical damage was visible as a result of exposure to thermal shock.

2.5 Humidity - Test Sets 1 and 2

No evidence of physical damage was visible as a result of exposure to humidity.

2.6 Contact Retention

2.6.1 Contact Retention (Receptacle) - Test Sets 3 and 5

All contacts met the 1lbf minimum contact retention force requirement found in Product Specification 108-1093, Rev D. Contact retention force summary data is shown in Table 3.

Table 3 – Receptacle Contact Retention Force (lbf)

Statistic	Test Set 3 50% Regrind	Test Set 5 0% Regrind
Max	3.68	5.46
Mean	1.84	2.14
Min	1.15	1.02
Std Dev	0.63	1.16
N	36	36

2.6.2 Contact Retention (Header) - Test Sets 4 and 6

All contacts met the 1lbf minimum contact retention force requirement found in Product Specification 108-1093, Rev D. Contact retention force summary data is shown in Table 4.

Table 4 – Header Contact Retention Force (lbf)

Statistic	Test Set 4 50% Regrind	Test Set 6 0% Regrind
Max	4.67	4.85
Mean	3.60	3.47
Min	2.45	2.06
Std Dev	0.54	0.75
N	10	10

2.7 Final Examination of Product - Test Sets 1 and 2

No damage detrimental to product performance was observed.

3. TEST METHODS

3.1 Initial Visual Examination

Specimens were visually examined per EIA-364-18B for any defects detrimental to product performance.

3.2 Insulation Resistance

Testing was performed according to EIA-364-21E by applying a test voltage of 500Vdc for a period of 2 minutes across all adjacent contacts of a mated connector pair. A secondary header was wired in an alternating polarity fashion and used to apply the test voltage to the connector pair. Measurements were recorded within 1 hour of specimens being removed from the humidity chamber after step 7 of the final cycle. Refer to Figure 1 for a view of the test setup.

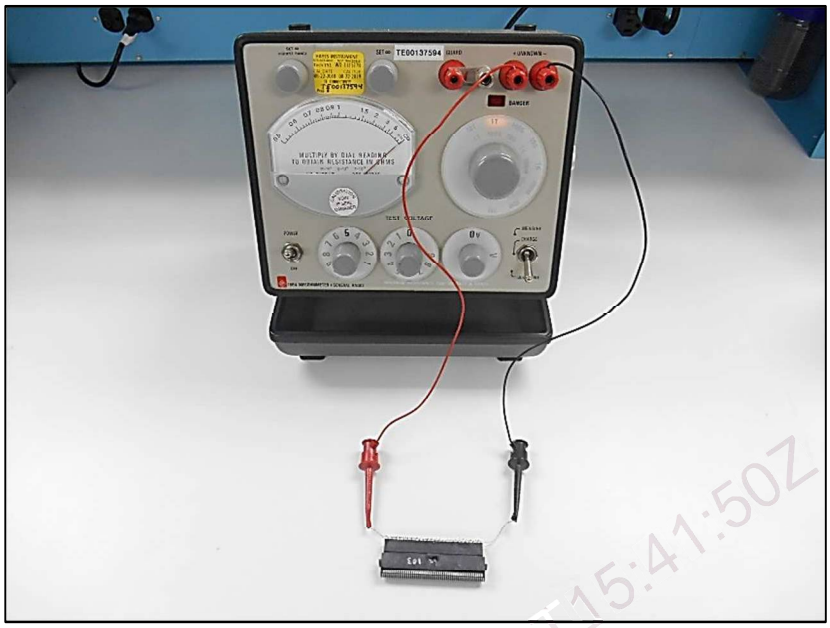

Figure 1 – Insulation Resistance Test Setup

3.3 Dielectric Withstanding Voltage

Testing was performed according to EIA-364-20E by applying a test voltage of 500Vdc for a period of 2 minutes across all adjacent contacts of a mated connector pair. A secondary header was wired in an alternating polarity fashion and used to apply the test voltage to the connector pair. Final measurements were recorded within 1 hour of specimens being removed from the humidity chamber after step 7 of the final cycle. Refer to Figure 2 for a view of the test setup.

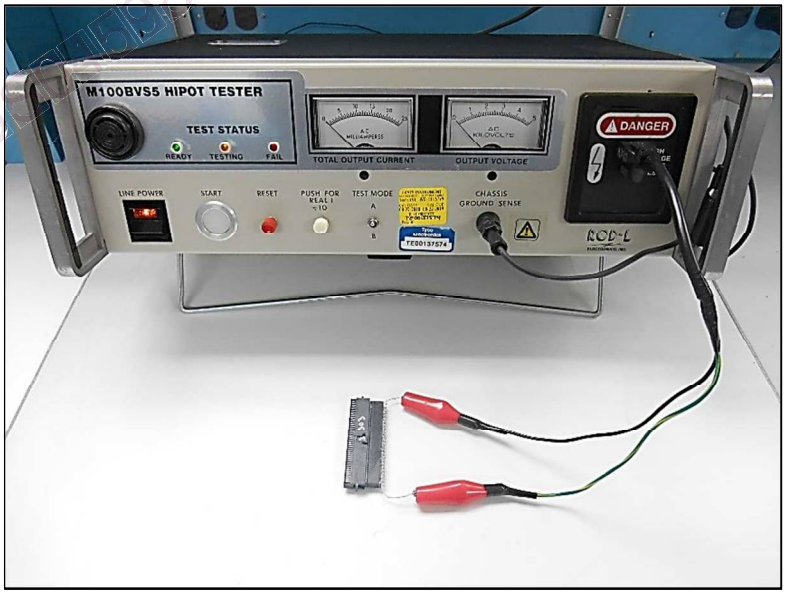

Figure 2 – Dielectric Withstanding Voltage Test Setup

3.4 Thermal Shock

Mated specimens were subjected to 5 cycles of thermal shock between the temperatures of -65℃ and 105° C in accordance with EIA-364-32G. The time at each temperature was 30 minutes. Refer to Figure 3 for a view of the test setup.

Figure 3 – Thermal Shock Test Setup

3.5 Humidity

Mated test specimens were subjected to 10 cycles (10 days) of humidity with temperature cycling between the temperature range of 25℃ to 65℃, and humidity ran ge of 80-98%RH in accordance with EIA-364-31F, Method IV as illustrated in Figure 4. Step 7a (cold exposure) was omitted. Refer to Figure 5 for a view of the test setup.

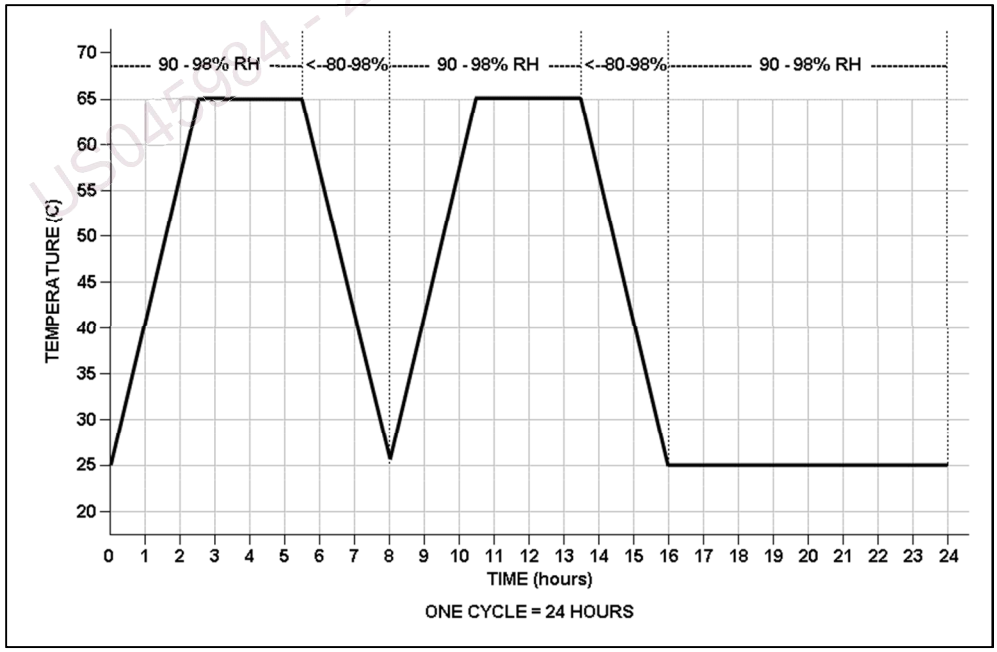

Figure 4 – Temperature/Humidity Profile for 1 Cycle

Figure 5 – Humidity Test Setup

3.6 Contact Retention

Testing was performed in accordance with EIA-364-29C, Method C with the exception of pulling on the specimen terminals for the receptacle specimens in Test Sets 3 and 5. Those specimens were held in a vise attached to a free floating table. A miniature clamp fixture attached to a load cell grasped the terminal and pulled upward a rate of 1 inch per. Refer to Figure 6 for a view of the test setup.

Figure 6 – Contact Retention Force Test Setup for Receptacles

Header specimens in Test Sets 4 and 6 were placed on a non-floating table. A test probe with a hollow point was placed over the contact pin and pushed at a rate of 1 inch per minute. Refer to Figure 7 for a view of the test setup.

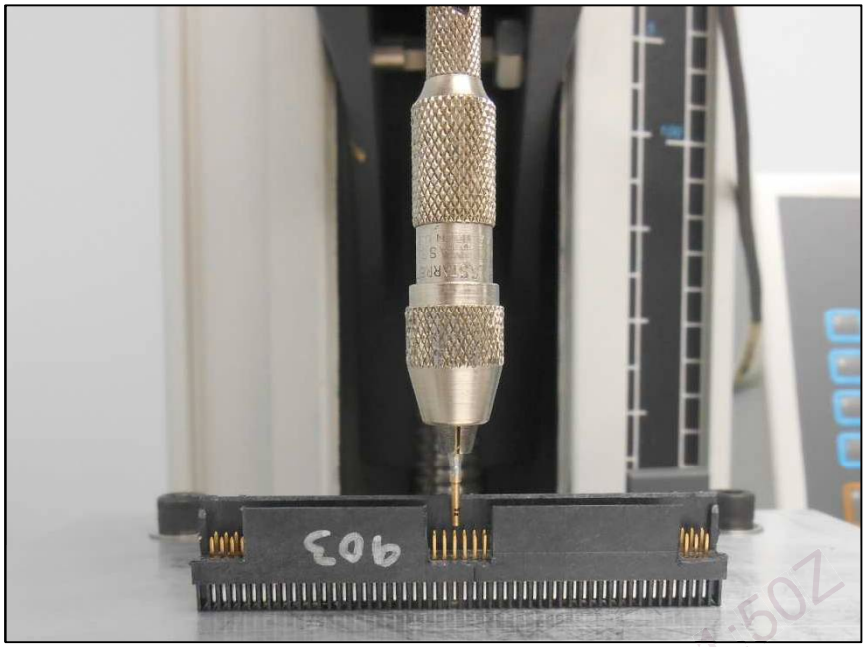

Figure 7 – Contact Retention Force Test Setup for Headers

The positions tested are shown in Figures 8 and 9.

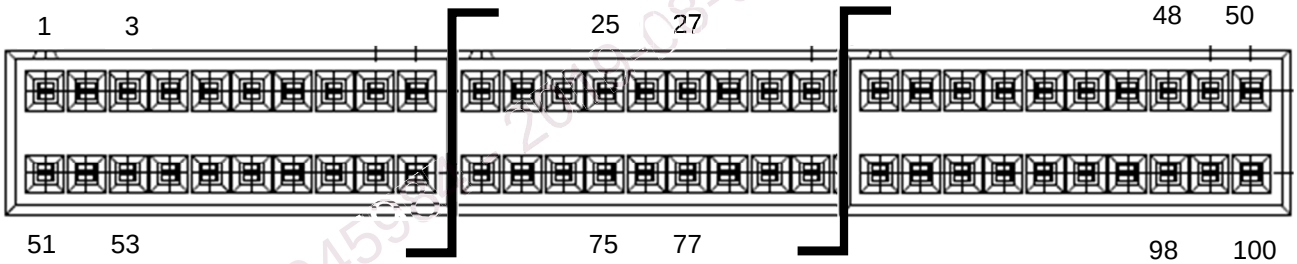

Figure 8 - Contact Retention Test Positions for Receptacles

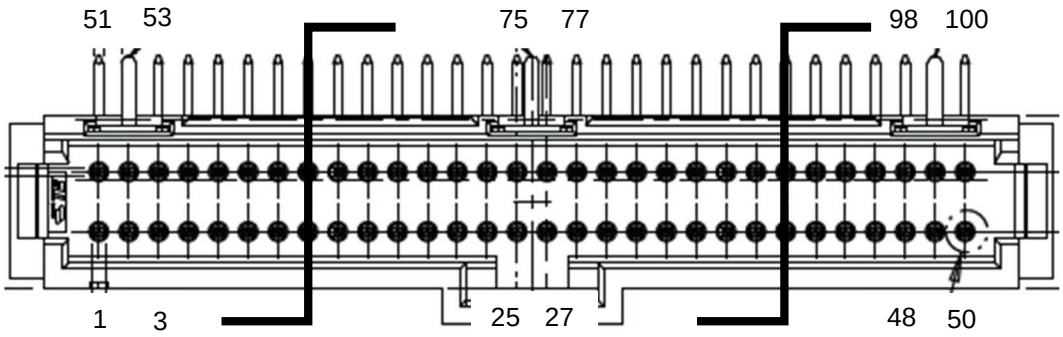

Figure 9 - Contact Retention Test Positions for Headers