



# TEST SUMMARY

## PROTECTIVE NATURE OF NYE NYOGEL 760 G LUBRICANT

### ON MINIFIT SR. TIN PLATED TERMINALS

#### 1.0 SCOPE

This test summary covers the MiniFit Sr. Tin plated terminals used in the presence of Vibration with and without lubricant.

#### 2.0 PRODUCT DESCRIPTION

##### 2.1 PRODUCT NAME AND PART NUMBER(S)

<u>Product Name</u>	<u>Part Number</u>
Female Crimp Terminal	42815-0011
Male Crimp Terminal	42817-0011
Receptacle Housing (6 pos)	42816-0612
Plug Housing (6 pos)	42818-0612

#### DIMENSIONS, MATERIALS, PLATINGS AND MARKINGS

Female Terminal Material: Copper Alloy 151

Male Terminal Material: Copper Alloy 151

Receptacle Housing Material: Polyester , PBT, UL94V-0, Color: Black

Plug Housing Material: Polyester , PBT, UL94V-0, Color: Black

Plating: Overall Tin over Nickel.

See the appropriate Sales Drawings for the information on Dimensions.

#### 3.0 APPLICABLE DOCUMENTS AND SPECIFICATIONS

SD-42815-\*

SD-42817-\*

PS-42815-001

#### 4.0 QUALIFICATION

All testing is performed in accordance with **EIA-364-1000**.

<u>REVISION:</u> <b>A</b>	<u>ECR/ECN INFORMATION:</u> EC No: <b>UCP2012-2415</b> DATE: <b>2012 / 02 / 03</b>	<u>TITLE:</u> <b>Test Summary The Use Of Nye Nyogel 760G Lubricant On M/F Sr. Tin Plated Terminals</b>	<u>SHEET No.</u> <b>1 of 3</b>
<u>DOCUMENT NUMBER:</u> <b>TS-6547-001</b>	<u>CREATED / REVISED BY:</u> <b>AElhag</b>	<u>CHECKED BY:</u> <b>JBell</b>	<u>APPROVED BY:</u> <b>FSmith</b>



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## 5.0 PERFORMANCE

### 5.1 Test Results:

	Tin Plating (No Lubricant) Thermal Shock ( $\Delta m\Omega$ )	Tin Plating (W / Lubricant) Thermal Shock ( $\Delta m\Omega$ )
<b>Minimum</b>	0.76	0.08
<b>Maximum</b>	377.54	0.80
<b>Average</b>	29.02	0.37
<b>Criteria</b>	2m $\Omega$ Max.	2m $\Omega$ Max.
<b>Result</b>	Fail	Pass

### 6.0 Conclusion:

Fretting Corrosion on the non-lubricated sample was the main cause for the failure during the Thermal Shock Testing. It appears that the use of the NYE Nyogel 760G Lubricant aided in the delay of any resistance degradation, and effectively minimized the impact of any oxidation / corrosion in the contact area.

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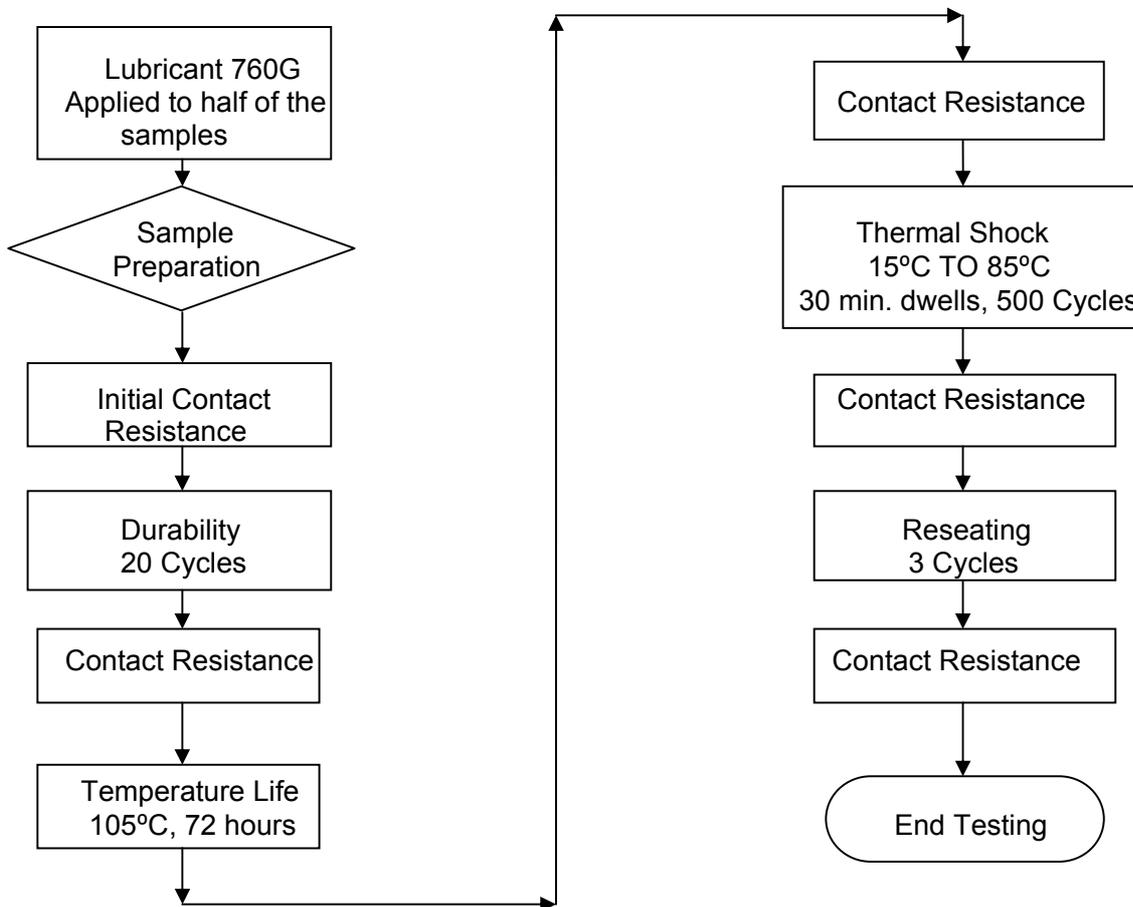
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## 7.0 TEST PROCEDURES / SEQUENCE

### 7.1 Procedure: Thermal Shock:

Samples were placed in chamber and subjected to 500 cycles. High temperature was 85°C and low temperature was 15°C. Exposure time @ each temperature was 30 minutes. The samples were allowed to return to room ambient conditions prior to further measurements / tests.

### 7.2 Test Sequence:



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