



Retention
QUALIFICATION TEST REPORT

Uninsulated Solid Taper Pin Contacts

501-17

Rev. 0

Product Specification: 108-7054, Rev. 0
CTL Number: CTL5300-500-001
Date: June 3, 1985
Distribution: 07

©COPYRIGHT 19 85
BY AMP INCORPORATED HARRISBURG, PA. ALL INTERNATIONAL
RIGHTS RESERVED. AMP PRODUCTS MAY BE COVERED BY U.S. AND
FOREIGN PATENTS AND/OR PATENTS PENDING.

Corporate Test Laboratory Harrisburg, Pennsylvania

Table of Contents

1.	Introduction	Page 1
1.1	Purpose	Page 1
1.2	Scope	Page 1
1.3	Conclusion	Page 1
1.4	Sample Description	Page 2
1.5	Test Samples	Page 2
1.6	Test Sequence	Page 2
2.	Summary of Testing	Page 2
2.1	Examination of Product	Page 2
2.2	Vibration	Page 2
2.3	Thermal Shock	Page 2
2.4	Termination Resistance	Page 3
3.	Validation	Page 4

RAG/kd
CTL5300-500-001/LABREP



HARRISBURG, PENNSYLVANIA 17105 • PHONE: 717-564-0100 • TWX 510-657-4110

CORPORATE TEST LABORATORY

Retention of Qualification
Solid Taper Pin Contact

1. Introduction

1.1 Purpose

Testing was conducted to determine product compliance to AMP Specification 108-7054, Rev. 0, retention of qualification sequence.

1.2 Scope

This report covers the mechanical and electrical performance of the uninsulated solid Taper Pin Contact. The product is produced by the Electron Devices Division of the Connector and Electronic Products Group. Testing was performed between April 15, 1985 and April 30, 1985.

1.3 Conclusion

The uninsulated solid Taper Pin Contact conforms to the retention of qualification requirements of AMP 108-7054, Rev. 0.

1.4 Sample Description

Uninsulated solid Taper Pin Contacts are self-wedging and self-cleaning. The parts tested were gold plated pins crimped on #16 AWG wire and were used in "53" series connector blocks.

1.5 Test Samples

<u>Part Number</u>	<u>Description</u>	<u>Quantity</u>
66053-3	Gold Plated Solid Taper Pins	60
480064-3	10 Position Taper Block	2
480065-3	20 Position Taper Block	1
480107-9	30 Position Taper Block	1
581173-3	60 Position Taper Block	1

1.6 Test Sequence

<u>Test</u>	<u>Sequence</u>
Examination of Product	1
Vibration	2
Termination Resistance	3
Thermal Shock	4
Termination Resistance	5

2. Summary of Testing

2.1 Examination of Product

All samples provided for testing were drawn from current inventory produced under manufacturing control and have passed QIP inspection.

2.2 Vibration

Unmated Taper Pins were subjected to a simple harmonic motion having an amplitude of 0.03 inch (0.06-inch double amplitude). The frequency was varied uniformly between 10 and 55 Hz and returned to 10 Hz. This frequency range was traversed in approximately 1 minute. Samples were subjected to this vibration for two hours in each of three mutually perpendicular planes (six hours total vibration).

Test Results

There was no evidence of physical damage to any of the pins following test. All samples measured less than two milliohms termination resistance after test.

2.3 Thermal Shock

The test pins were subjected to temperature extremes of -65°C and +125°C. The samples were at each extreme for one-half hour. The transition time between each extreme was less than 3 minutes. A total of 5 cycles was performed on the samples.

Test Results

There was no evidence of physical damage to any of the pins following test. All samples measured less than two milliohms termination resistance after test.

2.4 Termination Resistance

Mated contacts were measured for potential drop using a current of 22 amperes d.c. Points of measurement were as indicated in Figure 1. Resistance was calculated from this value.

Test Results

All samples measured after vibration and after thermal shock met the specification requirement of less than 2 milliohms.

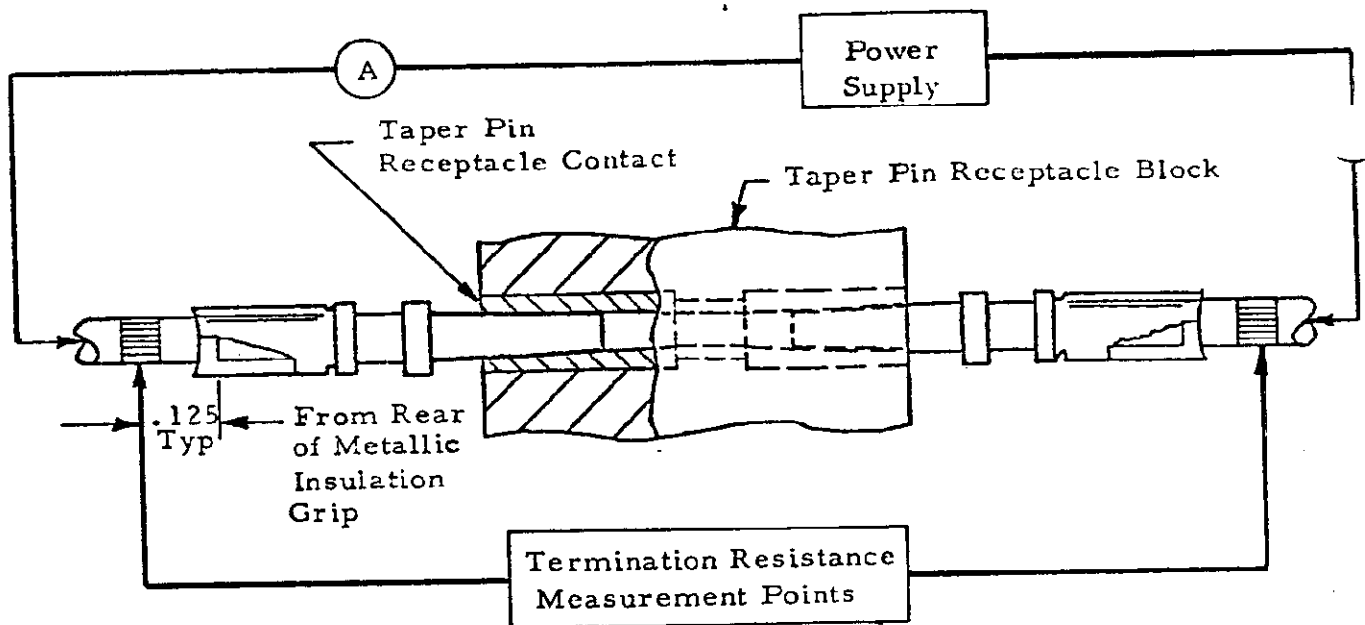



Figure 1

3. Validation

Test Report Prepared by,



Richard A. Groft
Test Engineer
Design Assurance Testing
Corporate Test Laboratory

5/13/85

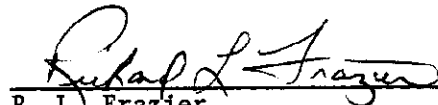
Reviewed by,



J. J. Edwards
Supervisor
Design Assurance Testing
Corporate Test Laboratory

5/13/85

Approved by,



R. L. Frazier
Manager, Quality Assurance
Electron Devices Division
Connector and Electronic Products Group

5/14/85