AMP*

QUALIFICATION TEST REPORT

CONTACT, AMP-IN*, MINIATURE

501-176 Rev. 0

Product Specification:	108-1081 Rev. 0
Test No:	ACL1326-025
	ACL1326-026
Date:	June 8, 1992
Classification:	Unrestricted
Prepared By:	Terrance M. Shingara

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Corporate Test Laboratory Harrisburg, Pennsylvania

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(R1326TS)

AMP

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CORPORATE TEST LABORATORY

Qualification Test Report
AMP-IN, Miniature Contact

1. Introduction

1.1 Purpose

Testing was performed on AMP's AMP-IN Miniature Contact to determine its conformance to the requirements of AMP Product Specification 108-1081 Rev.0.

1.2 Scope

This report covers the electrical, mechanical, and environmental performance of the AMP-IN Contact manufactured by the Commercial Products Business Unit of the Automotive/Consumer Business Group. All testing was performed by the A/CB Group Test Laboratory. The testing was performed between April 29, 1992 and June 2, 1992.

1.3 Conclusion

The AMP-IN Miniature Contact meets the electrical, mechanical, and environmental performance requirements of AMP Product Specification 108-1081 Rev. 0.

1.4 Product Description

The AMP-IN miniature contacts are designed to facilitate lead preparation for printed circuit boards prior to wave soldering. Through their use, support is gained in the wire insulation area assuring a reliable solder connection with resistance to wire flexing and vibration.

1.5 Test Samples

The test samples were randomly selected from normal current production lots, and the following part numbers were used for test:

Test Group	Quantity	Part Number	Description
1,2,3	90	770565-2	AMP-IN Contact

1.6 Qualification Test Sequence

	Test Groups		
Test or Examination	1	2	3
Examination of Product	1	1	1
Contact Insertion Force	2		
Contact Retention	3		
Crimp Tensile		2	
Solderability			2

The numbers indicate sequence in which tests were performed.

2. Summary of Testing

2.1 Examination of Product - All Groups

All samples submitted for testing were selected from normal current production lots. They were inspected and accepted by the Product Assurance Department of the Automotive/Consumer Business Group.

2.2 Contact Insertion Force - Group 1

The force required to insert each contact into a printed circuit board was less than 7.0 pounds.

2.3 Contact Retention - Group 1

No physical damage occurred to the contacts, and no contacts dislodged from the printed circuit boards as a result of applying an axial load of 0.5 pounds to each contact.

2.4 Crimp Tensile - Group 3

All tensile values were greater than 2.0 pounds.

2.5 Solderability - Group 2

The contact leads had a minimum of 95% solder coverage.

3. Test Methods

3.1 Examination of Product

Product drawings and inspection plans were used to examine the samples. They were examined visually and functionally.

3.2 Contact Insertion

A force required to insert each contact into a printed circuit board with nominal size holes was measured.

3.3 Contact Retention

An axial load of 0.5 pounds was applied to each contact and held for 60 seconds. The force was applied in a direction to cause removal of the contacts from the printed circuit board.

3.4 Crimp Tensile

An axial load was applied to each contact at a crosshead rate of 1.0 inch per minute.

3.5 Solderability

Each contact was subjected to a solderability test by immersing them in a active rosin flux for 5 to 10 seconds, allowed to drain for 10 to 60 seconds, then held over molten solder without contact for 2 seconds. The solder tails were then immersed in the molten solder, at a rate of approximately one inch per second, held for 3 to 5 seconds, then withdrawn. After cleaning in isopropyl alcohol, the samples were visually examined for solder coverage. The solder used for testing was 60/40 tin lead composition and was maintained at a temperature of 245°C.

4. Validation

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