PRODUCT SPECIFICATION

1. SCOPE

1.1. Content

This specification covers the performance, tests and quality requirements for the AMP* COAXICON* permanent mount, pick type printed circuit board contacts. These contacts are designed to provide a positive solder connection between the outer shield and a printed circuit board pad. The contact also contains a center conductor termination with a solder tab for connection to a p.c. board.

1.2. Definitions

For the purpose of this specification, the following definitions shall apply:

A. Test Board Assembly: Consists of a printed circuit board as illustrated in Figure 3, containing the COAXICON p.c. contacts, crimped to the appropriate type and length cables, and soldered to the p.c. board for testing.

B. Test Board: A printed wiring circuit board constructed as illustrated in Figure 4.

1.3. Qualification

When tests are performed on the subject product line, the procedures specified in AMP 109 series specifications shall be used. All inspections shall be performed using the applicable inspection plan and product drawing.

2. APPLICABLE DOCUMENTS

The following documents constitute a part of this specification to the extent specified herein. In the event of conflict between requirements of this specification and the product drawing, the product drawing shall take precedence. In the event of conflict between the requirements of this specification and the referenced documents, this specification shall take precedence.

2.1. AMP Specifications

A. 109-1: General Requirements for Test Specifications

B. 109 Series: Test Specifications as indicated in Figure 1. (Comply with MIL-STD-202, MIL-STD-1344 and EIA RS-364, see Figure 5)

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SHEET 1 OF 7

TITLE: COAXICON P.C. BOARD CONTACT (PERMANENT MOUNT, PICK TYPE)

3. REQUIREMENTS

3.1. Design and Construction

Contacts shall be of the design, construction and physical dimensions specified on the applicable product drawing.

3.2. Materials

The materials used in the construction of this product and the finish or plating shall be as specified on the Applicable product drawing.

3.3. Ratings

A. Current/Voltage: 200 vac rms at sea level at 1 ampere maximum
B. Operating Temperature: -55° to +80°C

3.4. Performance and Test Description

Contacts shall be designed to meet the electrical, mechanical and environmental performance requirements specified in Figure 1.

3.5. Test Requirements and Procedures Summary

Test Description	Requirement	Procedure
Examination of Product	Meets requirements of product drawing.	Visual, dimensional and functional per applicable inspection plan.
ELECTRICAL		
Termination Resistance, Specified Current	5 milliohms maximum center and outer contacts.	Measure potential drop of contacts assembled in PC boards, see Figure 3; AMP Spec 109-25, calculate resistance.
Dielectric Withstanding Voltage	1000 vac dielectric withstanding voltage, one minute hold. No breakdown or flashover.	Test between center and outer conductors of test specimens; AMP Spec 109-29-1.
Insulation Resistance	5000 megohms minimum.	Test between center and outer conductors of test specimens; AMP Spec 109-28-4.

Figure 1 (cont)

Test Description	Requirement	Procedure
	MECHANICAL	
Vibration (a)	No discontinuities greater than 1 micro-second.	Subjected test board assemblies to 10-55-10 Hz traversed in 1 minute at .06 inches total excursion; 4 hours in each of 3 mutually perpendicular planes; AMP Spec 109-21-1. Except 4 hours instead of 2. Monitor discontinuities at test points A and B with test points C and D jumpered, see Figure 3.
Physical Shock (a)	No discontinuities greater than 1 micro-seconds.	Subject test board assemblies to 100G's sawtooth in 6 milliseconds; 3 shocks in each direction applied along the 3 mutually perpendicular planes total 18 shocks; AMP Spec 109-26-9, monitor as for Vibration.
Crimp Tensile	10 pound minimum.	Determine crimp tensile at a rate of 1 inch/minute; AMP Spec 109-16. Cable can be cut midway between contacts to facilitate testing.
Thermal Shock (a)	No physical damage.	Subject test board assemblies to 5 cycles between -55° and +80°C; AMP Spec 109-22.

(a) Shall show no evidence of physical damage, cracking or chipping.

Figure 1 (end)

3.6. Contact Tests and Sequences

Test or Examination	Test Group (a) 1 Test Sequence (b)
Examination of Product	1
Termination Resistance, Specified Current	2-8
Dielectric Withstanding Voltage	4-10
Insulation Resistance	3-9
Vibration	6
Physical Shock	7
Crimp Tensile	11
Thermal Shock	5

Figure 2

4. QUALITY ASSURANCE PROVISIONS

4.1. Qualification Testing

A. Sample Selection

Contacts shall be prepared in accordance with applicable Instruction Sheets. They shall be selected at random from current production. Testing shall be performed on 8 contacts crimped 1 to each end of four 8-inch lengths of RG-180/u or RG-174/u as applicable and mounted on the printed circuit board of Figure 4 as illustrated in Figure 3.

B. Test Sequence

Qualification inspection shall be verified by testing samples as specified in Figure 2.

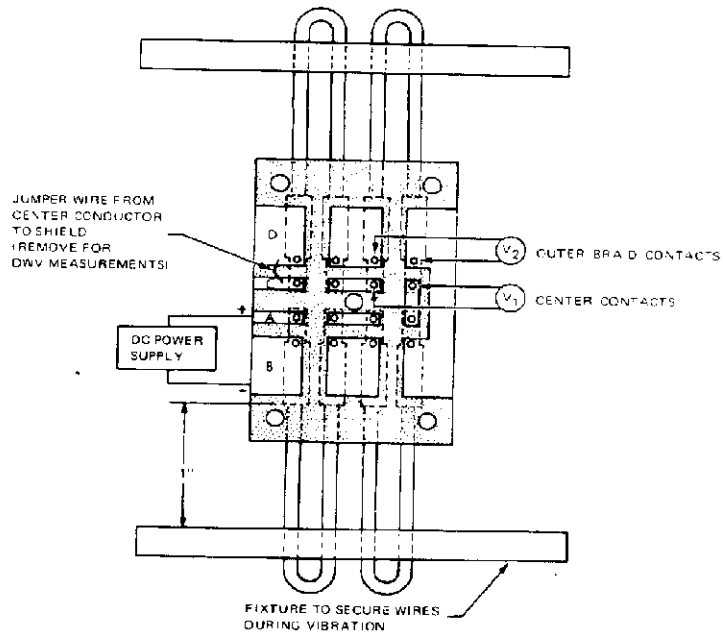
C. Acceptance

(1) All samples tested in accordance with this specification shall meet the stated tolerance limit.

(2) Failures attributed to equipment, test setup, or operator deficiencies shall not disqualify the product. When product failure occurs, corrective action shall be taken and samples resubmitted for qualification.

4.2. Quality Conformance Inspection

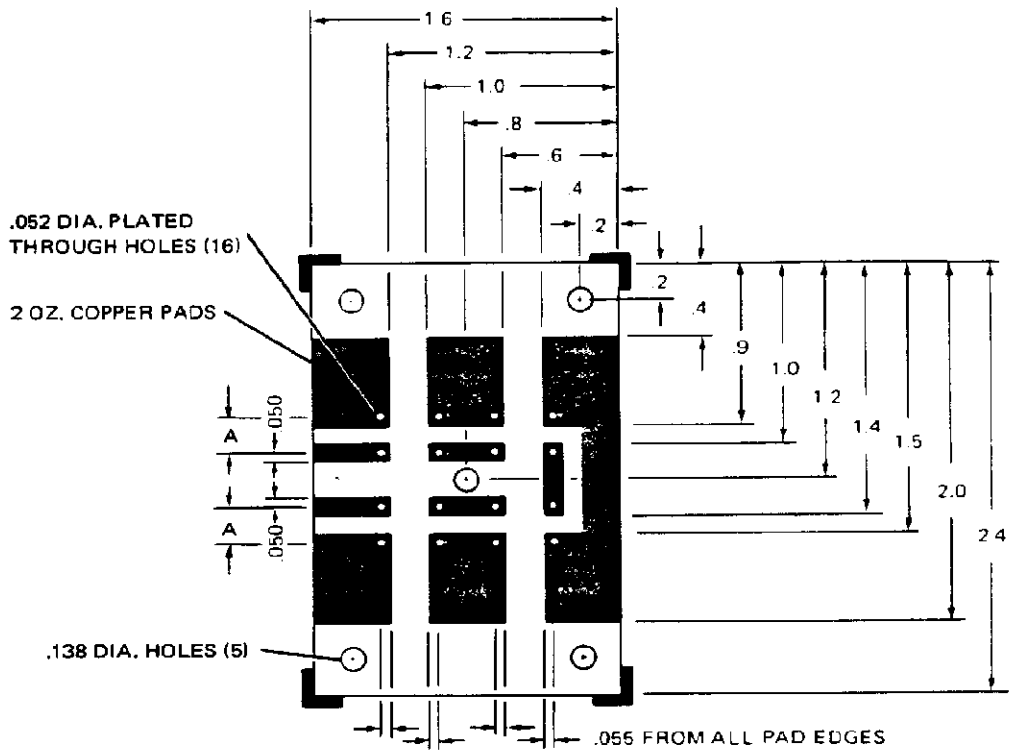
The applicable AMP inspection plan will specify the sampling acceptable quality level to be used. Dimensional and functional requirements shall be in accordance with the applicable product drawing and this specification.



Note: (a) Measure resistance at 1 ampere DC.
(b) Also measure equal length of cable resistance and subtract from actual measurements.

Figure 3

Test Board Assembly



"A" dimension -- .200 or .250 inch between hole centerlines, as applicable for contacts being used.

Figure 4

Test Board Dimensions

AMP Test Spec No	Title	Commercial Reference	Military Reference
109-16	Crimp Tensile Strength Test Procedure for Electrical Connectors	EIA RS-364, TP-8	MIL-STD-1344, Method 2003
109-21	Vibration Test Procedure for Electrical Connectors	EIA RS-364, TP-28	MIL-STD-1344, Method 2005 MIL-STD-202, Method 201 MIL-STD-202, Method 204
109-22	Thermal Shock Test Procedure for Electrical Connectors	EIA RS-364, TP-32	MIL-STD-1344, Method 1003 MIL-STD-1344, Method 1010 MIL-STD-202, Method 107
109-25	Rated Current Termination Resistance Test Procedure for Electrical Connectors	EIA RS-364, TP-6 IPC-3.1	MIL-STD-1344, Method 3004
109-26	Mechanical Shock, Specified Pulse Test Procedure for Electrical Connectors	EIA RS-364, TP-27	MIL-STD-1344, Method 2004 MIL-STD-202, Method 213
109-28	Insulation Resistance Test Procedure for Electrical Connectors	EIA RS-364, TP-21	MIL-STD-1344, Method 3003 MIL-STD-202, Method 302
109-29	Withstanding Voltage Test Procedure for Electrical Connectors	EIA RS-364, TP-20	MIL-STD-1344, Method 3001 MIL-STD-202, Method 301

Figure 5