
Connector, AMP-LATCH* Header, .100 X .100 Inch Grid

1. SCOPE**1.1. Content**

This specification covers performance, tests and quality requirements for AMP-LATCH* universal and low profile .100 X .100 inch grid headers, right angle and vertical assemblies.

1.2. Qualification

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

2. APPLICABLE DOCUMENTS

The following documents form a part of this specification to the extent specified herein. Unless otherwise specified, latest edition of the document applies. In the event of conflict between requirements of this specification and product drawing, product drawing shall take precedence. In the event of conflict between requirements of this specification and referenced documents, this specification shall take precedence.

2.1. AMP Documents

- 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)
- C. Corporate Bulletin 401-76: Cross-reference between AMP Test Specifications and Military or Commercial Documents
- D. 501-325: Test Report

3. REQUIREMENTS**3.1. Design and Construction**

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

3.2. Materials

- A. Contact: Phosphor bronze, brass
- B. Housing: PBT, nylon or polyester, thermoplastic, UL94V-0, red, black and gray

3.3. Ratings

- A. Voltage: 250 vac
- B. Current: Signal application only, 1 ampere maximum per contact
- C. Temperature: -65 to 105°C

3.4. Performance and Test Description

Product is designed to meet electrical, mechanical and environmental performance requirements specified in Figure 1. Unless otherwise specified, all tests shall be performed at ambient environmental conditions per AMP Specification 109-1.

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 quality inspection plan.
ELECTRICAL		
Insulation resistance.	5000 megohms minimum initial. 1000 megohms minimum final.	AMP Spec 109-28-4. Test between adjacent contacts of unmated samples.
Dielectric withstanding voltage.	1000 vac at sea level.	AMP Spec 109-29-1. Test between adjacent contacts of unmated samples.
MECHANICAL		
Solderability.	Solderable area shall have minimum of 95% solder coverage.	AMP Spec 109-11-1. Subject contacts to solderability.
Contact retention.	Post shall not dislodge from normal position.	AMP Spec 109-30. Apply axial load of 2 pounds to contacts and hold for 1 minute. See Figure 3.
ENVIRONMENTAL		
Thermal shock.	See Note (a).	AMP Spec 109-22. Subject unmated samples to 5 cycles between -65 and 105°C.
Humidity-temperature cycling.	See Note (a).	AMP Spec 109-23-4, Condition B. Subject unmated samples to 10 cycles between 25 and 65°C at 95% RH with cold shock.

- (a) Shall meet visual requirements, show no physical damage and shall meet requirements of additional tests as specified in Test Sequence in Figure 2.

Figure 1 (end)

3.6. Product Qualification and Requalification Test Sequence

Test or Examination	Test Group (a)		
	1	2	3
	Test Sequence (b)		
Examination of product	1,3	1,3	1,8
Insulation resistance			2,6
Dielectric withstanding voltage			3,7
Solderability		2	
Contact retention	2		
Thermal shock			4
Humidity-temperature cycling			5

- (a) See Para 4.1.A.
- (b) Numbers indicate sequence in which tests are performed.

Figure 2

4. QUALITY ASSURANCE PROVISIONS

4.1. Qualification Testing

A. Sample Selection

Samples shall be prepared in accordance with applicable Instruction Sheets and shall be selected at random from current production. All test groups shall each consist of a minimum of 5 headers of each type.

B. Test Sequence

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

4.2. Requalification Testing

If changes significantly affecting form, fit or function are made to product or manufacturing process, product assurance shall coordinate requalification testing, consisting of all or part of original testing sequence as determined by development/product, quality and reliability engineering.

4.3. Acceptance

Acceptance is based on verification that product meets requirements of Figure 1. Failures attributed to equipment, test setup or operator deficiencies shall not disqualify product. When product failure occurs, corrective action shall be taken and samples resubmitted for qualification. Testing to confirm corrective action is required before resubmittal.

4.4. Quality Conformance Inspection

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

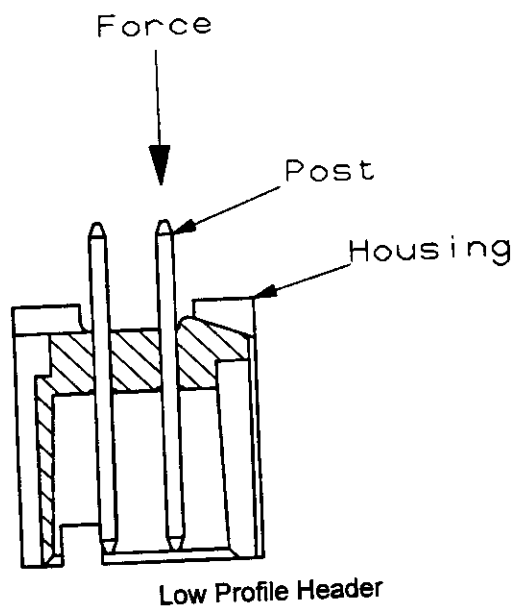
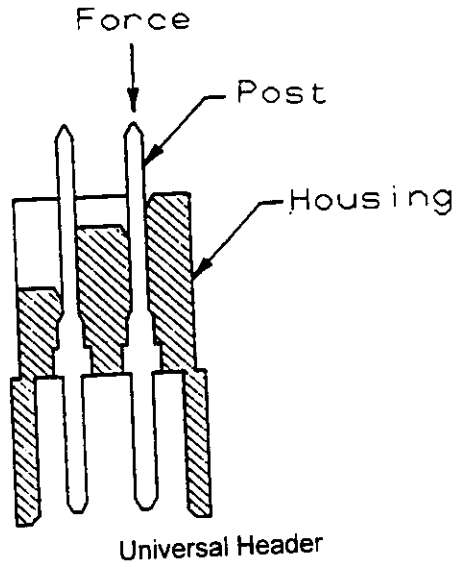


Figure 3
Contact Retention