

AMP SECURITY CLASSIFICATION
 Customer Release
 IMPARTIAL 108-5265

DESIGN OBJECTIVES

The product described in this document has not been fully tested to ensure conformance to the requirements outlined below. Therefore, AMP (Japan) Ltd makes no representation or warranty, express or implied, that the product will comply with these requirements. Further, AMP (Japan) Ltd. may change these requirements based on the results of additional testing and evaluation. Contact AMP Engineering for further details.

In case when "product specification" is referred to in this document, it should be read as "design objectives" for all times as applicable.

1. Scope:

This specification covers requirements of AMP-LATCH Action Pin Header Connector to be inserted into and used with a printed circuit board, and its description and part number are shown in Table 1.

Table 1

Description	Part No.
AMP-LATCH Action Pin Header	□-174584-□

2. Requirements:

2.1 Construction, Material and Finish:

Products indicated in this specification shall conform to the construction, dimensions, materials and finish specified in the applicable product drawing(s).

2.2 Rating:

- 1) Current : 1 A max. per position
- 2) Voltage : 250 V AC
- 3) Temperature: -20°C ~ 85°C (inclusive of temperature rising)

2.3 General Performance:

The product shall satisfy all of general performance requirements shown in Table 2.


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01 Design Objectives		KNM/T	10-15 '88	J	A	108-5265	REV	01	
0 Released RFA-1266		<i>[Signature]</i> 6/1/88		SHEET				NAME	Design Objectives
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Table 2 General Performance

Para.#	Test Item	Specified Requirements	Test Methods
2.3.1	Termination Resistance (Low Level)	8 m Ω max.	Measure millivolt drop of the test circuit shown in Fig.1, by applying closed circuit current of 100 mA max. at open circuit voltage of 50 mV max.
2.3.2	Dielectric Strength	There shall be no evidence of insulation breakdown or flashover.	The test shall be done in accordance with Test Method 301 of MIL-STD-202E by applying test potential of AC 1,000 V between the adjacent contacts for one minute. The connector shall be mounted on a printed circuit board.
2.3.3	Insulation Resistance	Initial: 5,000 M Ω min. After test: 1,000 M Ω min.	The test shall be done in accordance with Condition B, Test Method 302 of MIL-STD-202E by applying test potential of DC 500 V between adjacent contacts. The connector shall be mounted on a printed circuit board.
2.3.4	Vibration	There shall be no evidence of physical damage.	The test shall be done in accordance with Condition A, Test Method 204C of MIL-STD-202E. The connector shall be mounted on a printed circuit board.
2.3.5	Physical Shock	There shall be no evidence of physical damage.	The test shall be done in accordance with Condition I, Test Method 213B of MIL-STD-202E. The connector shall be mounted on a printed circuit board.

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Para.#	Test Item	Specified Requirements	Test Methods
2.3.6	Insertion Force of Action Pin	22.7 kg max.	The insertion force shall be measured by inserting the action pin into every position of printed circuit board which conforms to the standard test board as shown in Fig.2.
2.3.7	Retention Force of Action Pin	3 kg min.	The retention force shall be measured by pushing, from opposite side of insertion, the action pin inserted in a printed circuit board which conforms to the standard test board as shown in Fig.2.
2.3.8	Retention Force of Pin inside Housing	0.5 kg min.	The retention force shall be measured by pushing the pin from opposite side of its insertion. (See Fig.3.)
2.3.9	Thermal Shock	Requirements of dielectric strength test shall be met.	The test shall be done in accordance with Condition A, Test Method 107D of MIL-STD-202E. The connector shall be mounted on a printed circuit board.
2.3.10	Humidity	Insulation resistance shall be greater than 1,000 M Ω .	The test shall be done in accordance with Test Method 106D of MIL-STD-202E. The connector shall be mounted on a printed circuit board.
2.3.11	Salt Spray	There shall be no evidence of physical damage.	The test shall be done in accordance with Condition B, Test Method 101D of MIL-STD-202E. The connector shall be mounted on a printed circuit board.

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Para.#	Test Item	Specified Requirements	Test Methods
2.3.12	Sulphurous Acid Gas	There shall be no evidence of physical damage.	The test shall be done by exposing the sample to the gas concentration of 10+3PPM and humidity of 90% at the room temperature for 24 hours. The connector shall be mounted on a printed circuit board.

2.4 Test Sequence:

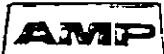
Table 3

Para No.	Test Item	Test Group	
		1	2
2.3.1	Termination Resistance (Low Level)	① ⑫	
2.3.2	Dielectric Strength	③ ⑤	
2.3.3	Insulation Resistance	② ⑨	
2.3.4	Vibration	⑥	
2.3.5	Physical Shock	⑦	
2.3.6	Insertion Force of Action Pin		②
2.3.7	Retention Force of Action Pin		③ ⑤
2.3.8	Retention Force of Pin inside Housing		①
2.3.9	Thermal Shock	④	④
2.3.10	Humidity	⑧	
2.3.11	Salt Spray	⑩	
2.3.12	Sulphurous Acid Gas	⑪	

3. Quality Assurance Provisions:

3.1 Test Specimens:

Test specimens to be used for the test shall be the products placed under strict quality control requirements and the printed circuit board shall conform to those recommended to use with this connector.

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3.2 Test Conditions:

The test shall be performed under the following environmental conditions.

Temperature: 15 ~ 35°C

Humidity : 45 ~ 75%

Atmospheric Pressure (mercury): 650 ~ 800 mmHg

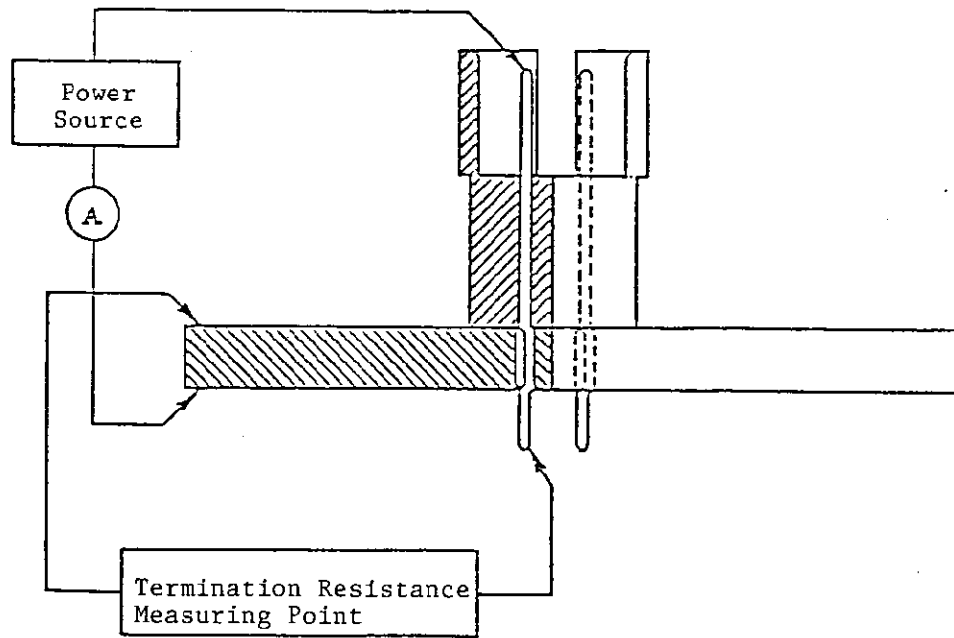


Fig.1 Termination Resistance Measuring Point

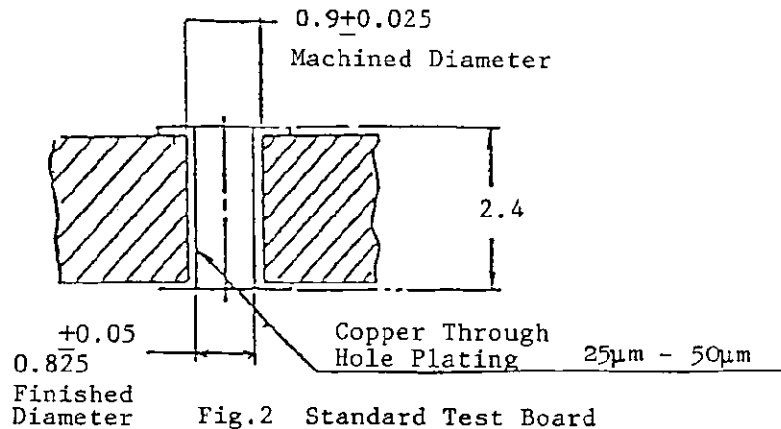


Fig.2 Standard Test Board

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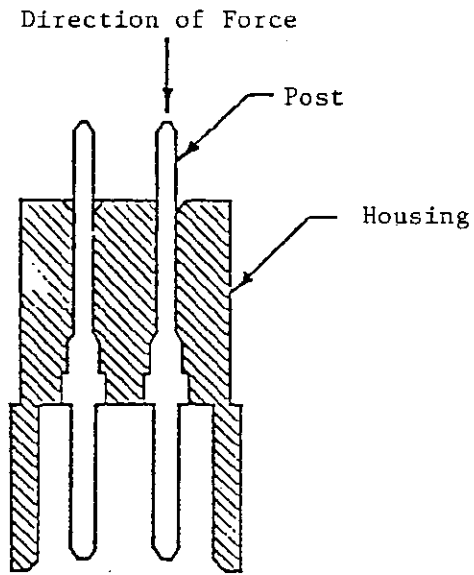



Fig.3 Test of Retention Force of Pin inside Housing

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