

AMP SECURITY CLASSIFICATION
 CUSTOMER Release
 NUMBER 108-

Product Specification
(Preliminary)
108-5181
AMP "EI" Series Connector
Post Header Assembly
w/PCB Hole Holding Function

1. Scope:

This product specification provides requirements for product performance capability and test methods of AMP "EI" series connector post header assembly with PCB hole holding function of the following part numbers.

Part Number Post Header Ass'y	Part Number PVC Case Enclosed	Descriptions
X - 172732 - X	X - 172800 - X	AMP "EI" Series Connector, Post Header Assembly with PCB Hole Holding Function

2. Material and Finish:

2.1 Post, Vertical Type:

2.1.1 Material: 0.64mm (.025") Square brass post, pretinned 0.8µm minimum thick, over 0.5µm minimum thick copper underplate

3. Quality Assurance Provisions:

3.1 Test Conditions:

Unless otherwise specified, all the tests shall be performed under any combination of the following test conditions.

Temperature:	15	-	35°C
Relative Humidity:	45	-	75%
Atmospheric Pressure:	650	-	800mmHg

3.2 Test Specimens:

3.2.1 Preparation:

The test specimens to be employed for the tests, shall be selected at random from current production system. They must be conforming to the requirements of applicable product drawing(s).

3.2.2 Reuse for Test:

No sample product shall be reused for the tests, unless otherwise specified.

				DR	AMP		AMP (Japan), Ltd. TOKYO, JAPAN	
				CHK				
				APP	LOC	NO	REV	
01 Revised RFA-1481					J	A	108-5181	01
0 Released RFA-629					NAME Product Specification AMP "EI" Series Connector, Post Header Assembly w/PCB Hole Holding Function			
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4. Product Performance Capability:

When tested in accordance with the test conditions and test methods specified in the applicable paragraphs, the product post header assembly shall meet the requirements specified in this specification.

The following product specifications shall be used for determining criteria of product performance capability.

108-5130 Product Specification, Mass-Termination, AMP "EI" Series Connector
108-5118 Product Specification, AMP "EI" Series Connector

4.1 Summary of Performance Requirements:

Test Items (Paragraph Number)	Specified Requirements	Test Methods
Appearance (Confirmation of Products) (Para. 4.1.1)	Products shall show no abnormalities such as cracks, blister and discoloration that are detrimental to connector functions.	Visually and tactually inspected
Post Retention Force: (Para. 4.1.2)	Post retention force shall be not less than 2.0 kg (4.41 lbs.) per contact.	Securely hold the post header on the fixture, and apply an axial push-in load to the tip end of post. Measure the force required to push-out the post from the header housing.
Post Solderability (Para. 4.1.3)	More than 95% of tested contact area shall be covered with fresh uniform and sufficiently working coverage of solder.	After immersing soldering area of post contact of header into Alpha 100, GX-5 or GX-7, Flux for 5 - 10 seconds, immerse into soldering tub which is controlled at $230 \pm 5^{\circ}\text{C}$ filled with 60% tin, 40% lead solder for 3 ± 0.5 seconds. Then, inspect the sample for evaluation.
Soldering Heat Resistivity: (Para. 4.1.4)	After test exposure, no abnormalities such as deformation and defects that are detrimental to connector functions, shall be evident.	With the post header mounted on PCB, immerse soldering area of posts of header into soldering tub which is controlled at $260 \pm 5^{\circ}\text{C}$, for 10 ± 0.5 seconds to expose the sample under soldering heat.
Mounting Force and Retention Force on PCB: (Para. 4.1.5)	Mounting force shall be not exceeding 3.0 kg (6.61 lbs.) and retention force before soldering shall be just enough to sustain holding on into PCB holes at the reversed position after insertion.	Fasten post header assembly on the head of tensile testing machine, and operate the head to insert and extract the posts of header into and from the PCB holes prepared by drilling in the specified dimensional layout according to the drawing(s). PCB shall be 1.6mm thk paper-based epoxy laminated. After insertion, turn over PCB and pat it to confirm holding function.

Table 1 (End)

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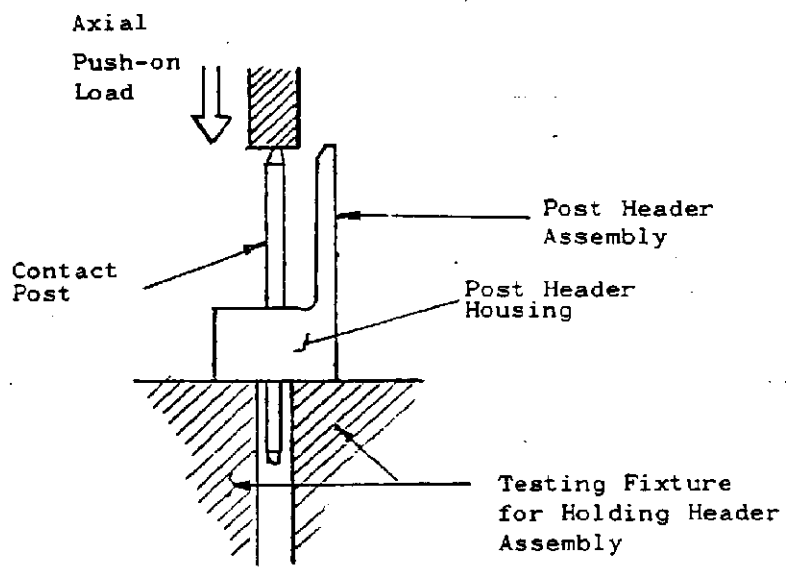


Fig. 1 Post Retention Force Test Method

5. Test Sequence:

Evaluation testing shall be performed in the sequence specified in Table 2.

Test Item	Sample Groups					
	1	2	3	4	#	#
4.1.1 Appearance, Confirmation of Product	1	1	1	1	#	#
4.1.2 Post Retention Force	2				#	#
4.1.3 Post Solderability		2			#	#
4.1.4 Post, Soldering Heat Resistivity			2		#	#
4.1.5 Mounting Force and Retention Force on PCB				2	#	#

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