

PRODUCT SPECIFICATION
108 - 61051
AIR BAG 75P CONNECTOR

1. Scope :

This specification covers the requirements for product performance, test methods and quality assurance provisions of AIR BAG 75P CONNECTOR.

2. Applicable Documents :

The following documents form a part of this specification to the extent specified herein. In the event of conflict between the 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. Drawings

2.1.1 AMP Drawings

A. Header Part

- 75 Pos Header Ass'y : P/N 0-936082-1/2/3/4/5/6/7/8
- 75 Pos Header Housing : P/N 0-936083-1/2/3/4/5/6/7/8
- MODU II Contact Pin (WITH SWAGE) SHORT : P/N 7-968455-7
- MODU II Contact Pin (WITH SWAGE) LONG : P/N 8-965981-9

B. Harness Part

2.2 AMP Specification

- A. 109-1 : Test Specification, General Requirements for Test Methods.
- B. 109 SERIES : Test Specification, Requirements for Test Methods.
- C. 114- : Application Specification.
- D, 501- : Test Report

				ORG JW JUNG	AMP	AMP MFG KOREA	
				CHK BM JANG			
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LTR	REVISION RECORD	APP	DATE	1 OF 7		AIR BAG 75P CONNECTOR	

3. Requirements

3.1 Design and Construction:

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

3.2 Materials

A. Contacts : □0.63 SQ

Material :PHOS Bronze

■ Finish

Mating Area : >0.8um Au over 3±1um Ni

Soldering Area : >3±1um SnPb 10 over 2±1um Ni

- Pin retention force 40N at operation speed V = 100mm/min,
25N at operation speed V = 25mm/min

- Pin connector free of cadmium(< 50ppm)

B. Housing

- Material : PBT GF20

- Allowed Recycled Material < 25%

4. Performance Test Descriptions:

The product is designed to meet the electrical, mechanical and environmental Performance requirements specified in Fig.1. All tests are performed at ambient Temperature of AMP Test Spec unless otherwise specified

4.1 Test Requirements and Procedures Summary:

Test Items	Requirements	Procedures
Confirmation of Product	Product shall be conforming to the requirements of applicable product drawing and Application Specification.	Visually, dimensionally and functionally inspected per applicable quality inspection plan.
Electrical Test		
Termination Resistance (Specified Current)	10m V/A Max.(Initial) 20m V/A(Final)	Measure by applying 1 A at 12 VDC to contacts in mated connectors by Probing at 75 mm apart from wire crimp after temperature becomes stabilized AMP Spec. 109-5311-2
Dielectric Strength	No creeping discharge and no Flashover shall occur.	Measured after applying 1.0 KVAC for 1 minute. Test between adjacent circuits of Mated connectors. AMP Spec. 109-5301
Insulation Resistance	100 Mega Ohm MIN (Final)	Measured after applying 500VDC to Adjacent connected circuit and mated connector ass'y. AMP Spec. 109-5302
Current Cycling	20m V/A Max.(Final) No ignition is allowed during The test.	45 minutes "ON" 15 minutes "OFF" 300 cycles. AMP SPEC : 109-5308 Specified Current : Refer to Table I, II
Temperature Rising	30°C May under loaded Specified Current Initial : 30°C Max. After : 40°C Max.	Measure temperature rising by Energized current AMP Spec : 109-5310 Specified Current : Refer to Table I, II

Fig 1.(to be continued)

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MECHANICAL TEST

Test Items	Requirements	Procedures
Vibration (High Frequency)	No electrical discontinuity Greater than 10 μ s. Shall occur. 20m V/A Max.(Final)	Vibration frequency : 20-200 Hz/3min Accelerated Velocity : 4.5 G Vibration Direction : XYZ Cycle : 4hours (Y) 2hours each (X,Z) AMP SPEC : 109-5202 Current : 5V, 1mA Continuous Loading
Connector Mating Force	100N MAX.	Operation speed : 25mm/min Measure the force required to mate Connectors. AMP SPEC : 109-5206 Condition
Pin Retention Force	40N Min	Apply an axial pull-off load to crimped wire Operation speed : 100mm/min AMP SPEC : 109-5212

Fig. 1

ENVIRONMENTAL TEST

Test Items	Requirements	Procedures
Temperature Life (Heat Aging)	20m V/A Max.(Final)	Duration : 5 days AMP SPEC : 109-5104 Condition : 120hrs for 120 °C
Resistance to Cold	20m V/A Max.(Final)	-40 °C ± 3 °C, 120 hours AMP SPEC : 109-5108 Condition
Humidity Steady State	Current leakage 3mA Max. Termination resistance 20 mV/A Max.(Final)	Mated connectors at 90~ 95% RH: 80 ± 3 °C 96 hours AMP Spec : 109-51 Fig. 9
Salt Spray	20m V/A Max.(Final)	Subject mated connectors to 15% salt Concentration for 24 hours : Hours : 4 cycle MIL-STD-202, Method 101 AMP Spec : 109-5101 Condition
Porosity(Gold Plated Part Only)	No Corrosion shall occur	Gold plating part. AMP Spec : 109-146 Condition
Soldering Test	Wet Solder Coverage 95% Min on Soldering Test Surface	Soldering TEMP : 240 ± 5 °C Immersion Duration : 3 ± 0.5sec AMP Spec : 109-61001 Condition

4.2 Product Qualification Test Sequence

Test or Examination	Test Group												
	1	2	3	4	5	6	7	8	9	10	11	12	13
	Test Sequence(a)												
Confirmation of Product	1,3	1,3	1,5	1,3	1,3	1,3	1,3	1,5	1,5	1,5	1,5	1,3	1,3
Termination Resistance (Specified Current)			2,4					2,4	2,4	2,4	2,4		
Dielectric Strength	2												
Insulation Resistance		2											
Current Cycling			3										
Temperature Rising				2									
Vibration (High Frequency)					2								
Connector Mating Force						2							
Pin Retention Force							2						
Temperature Life (Heat Aging)								3					
Resistance to Cold									3				
Humidity, Steady State										3			
Salt Spray											3		
Porosity Test												2	
Soldering Test													2

5. Ratings

5.1 Voltage : 6 ~ 18V

5.2 Temperature : -40°C to 125 °C

5.3 Relative Humidity : up to 95 %

Table I

Wire size (SQ)	Current (A) (I _o)
0.3	Signal : 4 A
0.5	Signal : 5 A

Table II

Nbr. Of Position	Reduction Factor (C)
1	1
2,3	0.75
2,4	0.6
6 ~ 8	0.55
9 min.	0.5

$I = I_o \times C$ (Based on wire SQ)