

Product Specification
108-60039
AMP 0.8MM Faxmodem Connector
Lead Free Version

1. Scope:

1.1 Contents:

This specification covers the requirements for product performance test methods and quality assurance provisions of Fax modem socket Combine to Gold Flash Plating Fax modem module. Applicable product description and part numbers are as shown in Appendix 1.

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 AMP Specification:

- A. 109-5000 Test Specification, General Requirements for Test Methods
- B. 501-60011 Test Report

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A	REVISED FB00-0017-05	C.W	31JAN 05	DR	C. WANG	tyco <i>Electronics</i>	Tyco Electronics AMP Shanghai Ltd				
				CHK	S. YAO						
				APP	I. ENOMOTO	NO	108-60039	REV	A	LOC	ES
				PAGE 1 of 6		TITLE AMP Connector, 0.8mm Faxmodem Connector Lead Free Version					
LTR	REVISION RECORD	DR	DATE								

3. Requirements:

3.1 Design and Construction:

Product shall be to the design, construction and physical dimension specified in the applicable product drawing.

3.2 Materials:

A. Contact: Copper Alloy

Contact area:Gold Flash 0.00005min

Tine area :Gold Flash 0.00005min

Underplate :Nickel Plated

B. Housing: Thermo plastic UL 94 V-0 Rated

C. Latch: Stainless Steal,Tin Plated

3.3 Ratings:

A. Voltage Rating: 50VAC

B. Current Rating: 0.5A

C. Temperature Rating: -55°C to +85°C

3.4 Performance and Test Descriptions:

The product shall be designed to meet the electrical, mechanical and environmental performance requirements specified in Fig. 1. All tests are performed in the room temperature unless otherwise specified.

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3.5 Test Requirements and Procedures Summary:

Para.	Test Items	Requirements	Procedures
3.5.1	Examination of Product	Meets requirements of product drawing	Visual inspection No physical damage
Electrical Requirements			
3.5.2	Termination Resistance (Low Level)	30 mΩ Max. (Initial) ΔR=20 mΩ Max. (Final)	Subject mated contacts assembled in housing to closed circuit current of 10 mA Max. at open circuit voltage of 20mV Max. obtain resistance value by dividing the measured reading into two. Fig. 3-1. AMP Spec. 109-5311-1
3.5.3	Dielectric withstanding Voltage	No creeping discharge nor flashover shall occur. Current leakage : 0.5 mA Max.	0.25 kVAC for 1 minute. Test between adjacent circuits of unmated connectors. AMP Spec. 109-5301
3.5.4	Insulation Resistance	500MΩ Min.(Initial) 100MΩ Min.(Final)	Impressed voltage 500 V DC. Test between adjacent circuits of unmated connectors. AMP Spec. 109-5302
Mechanical Requirements			
Para.	Test Items	Requirements	Procedures
3.5.5	Vibration (Low Frequency)	No electrical discontinuity greater than 0.1 μ sec. shall occur. ΔR=20 mΩ Max. (Final)	Subject mated connectors to 10-55-10 Hz traversed in 1 minute at 1.52 mm amplitude 2 hours each of 3 mutually perpendicular planes. 100 mA applied. AMP Spec. 109-5201
3.5.6	Physical Shock	No electrical discontinuity greater than 0.1 μ sec. shall occur. ΔR=20 mΩ Max. (Final)	Accelerated Velocity : 490 m/s ² (50 G) Waveform : Half sine Duration : 11 m sec. Number of Drops : 3 drops each to normal and reversed directions of X, Y and Z axes, totally 18 drops. AMP Spec. 109-5208 Condition A
3.5.7	P.C.Board Mating Force	124pos: 51.5N (5.3kgf) Max.	Operation Speed : 100 mm/min. Measure the force required to mate connectors.(In this test,the force required to turn PCB before it engages on lacking,is excluded.) AMP Spec. 109-5206 Condition B

Fig. 1 (to be continued)

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Para.	Test Items	Requirements	Procedures
3.5.8	Durability (Repeated Mate/Unmating)	$\Delta R=20 \text{ m}\Omega$ Max. (Final)	Repeated insertion and extraction of P.C.B to and from the connector with the turns to lock it and then unlock it for 50 cycles.
3.5.9	Solderability	Wet Solder Coverage : 95 % Min.	Solder Temperature : $230 \pm 5 \text{ }^\circ\text{C}$ Immersion Duration : 3 ± 0.5 seconds Flux : Alpha 100 AMP Spec. 109-5203
Environmental Requirements			
Para.	Test Items	Requirements	Procedures
3.5.10	Resistance to Reflow Soldering Heat	No physical damage shall occur	Test connector on P.C.Board Pre-Heat $150\sim 180^\circ\text{C}$: $60\pm 30\text{sec}$.Max. Heat 230°C Min. : $30\pm 10\text{sec}$.Max Heat Peak 255°C Max
3.5.11	Thermal Shock	$\Delta R=20 \text{ m}\Omega$ Max. (Final)	Mated connector -55°C / 30 min., 85°C / 30 min. Making this a cycle, repeat 5 cycles. AMP Spec. 109-5103 Condition A
3.5.12	Humidity- Temperature Cycling	Insulation resistance 100 M Ω Min. (final) $\Delta R=20 \text{ m}\Omega$ Max. (Final)	Mated connector, $25\sim 65^\circ\text{C}$, $90\sim 95\%$ R. H. 5 cycles Cold shock -10°C performed AMP Spec. 109-5106
3.5.13	Salt Spray	$\Delta R=20 \text{ m}\Omega$ Max. (Final)	Subject mated connectors to 5 % salt concentration for 24 hours : AMP Spec. 109-5101 Condition A
3.5.14	Industrial Gas (SO ₂)	$\Delta R=20 \text{ m}\Omega$ Max. (Final)	Mated connector SO ₂ Gas : 10 ppm, 95 % R. H. 25°C , 24 hours AMP Spec. 109-5107 Condition A
3.5.15	Temperature Life (Heat Aging)	$\Delta R=20 \text{ m}\Omega$ Max. (Final)	Mated connector 85°C , Duration : 2 days AMP Spec. 109-5104-2

Fig. 1 (End)

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4. Product Qualification Test Sequence

Test Examination	Test Group											
	1	2 (b)	3 (b)	4	5	6	7	8	9	10	11	12
	試驗順序/Test Sequence (a)											
Examination of Product	1, 7	1, 5	1, 5	1, 3	1, 5	1, 3	1, 3	1, 5	1, 5	1, 5	1, 5	1, 5
Termination Resistance (Low Level)		2, 4	2, 4		2, 4			2, 4	2, 4	2, 4	2, 4	2, 4
Dielectric withstanding Voltage	3, 6											
Insulation Resistance	2, 5											
Vibration (Low Frequency)		3										
Physical Shock			3									
Connector Mating Force				2								
Durability (Repeated Mate/Unmating)					3							
Solderability						2						
Resistance to Reflow Soldering Heat							2					
Thermal Shock								3				
Temperature Humidity Cycling	4											3
Salt Spray									3			
Industrial SO ₂ Gas										3		
Temperature Life (Heat Aging)											3	

FIG.2

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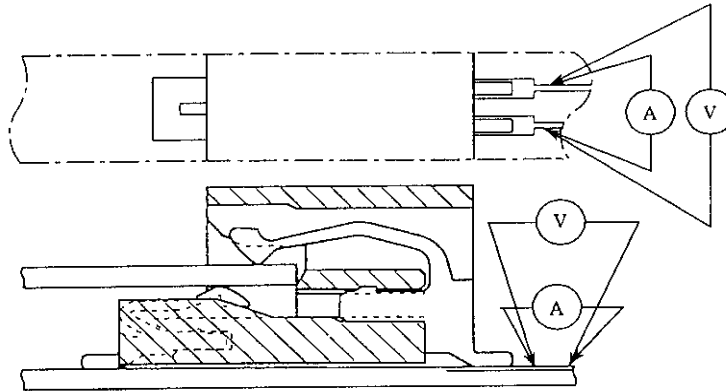


Fig3-1 Termination Resistance Measuring points

The applicable product descriptions and part numbers are as shown in Appendix 1.

Appendix 1

Prod. P/N	Descriptions
6318228-1	Fax modem socket 124 positions
6318916-1	Fax modem socket 124 positions
6565605-1	Fax modem socket 122 positions