

SPECIFICATION AND PERFORMANCE

Series	115G-AAAA-R	File	115G-AAAA-R_Spec_2	Date	2016/3/31
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Scope:

This specification covers the requirements for product performance, test methods and quality assurance provisions of 115G-AAAA-R

Performance and Descriptions:

The product is designed to meet the electrical, mechanical and environmental performance requirements specification. Unless otherwise specified, all tests are performed at ambient environmental conditions.

RoHS:

All material in according with the RoHS environment related substances list controlled.

MATERIAL AND FINISH		
INSULATOR	Material	Housing: LCP UL 94V-0 , Black
CONTACT	Material	Contact: Phosphor Bronze C5210, 0.15T
	Plating	Contact Area: 3u" Gold on Contact Area, Gold Flash on Solder Tails, 50u" Min. Nickel Under-Plating
SHELL	Material	Shell: Stainless Steel
	Plating	
RATING	Current Rating: 1 A / per pin Min. Voltage Rating: 30V DC/per pin Max. Storage Temperature : -40°C to +85°C Operating Temperature: -40°C to +85°C	

ELECTRICAL		
Item	Requirement	Test Condition
Low Level Contact Resistance	1). Initial: 50 mΩ Max. 2). After Test: 50 mΩ Max.	Subject mated contacts assembled in housing to 20mA maximum open circuit at 100mA. The object of this test is to detail a standard method to measure the electrical resistance across a pair of mated contacts such that the insulating films, if present will not be broken or asperity melting will not occur (EIA-364-23 or MIL-STD-1344A, Method 3002.1, Test Condition B)
Insulation Resistance	Insulation Resistance: 1000 MΩ Min.	Apply a 500V DC between adjacent terminals and between terminals to ground. (EIA-364-21 or MIL-STD-202F, Method 302, Test Condition B)
Dielectric Withstanding Voltage	500V AC for one minute at sea level No flashover or insulation breakdown	Apply a voltage 500/530V AC for 1 minute between adjacent terminals and between terminals to ground. (EIA-364-20 or MIL-STD-202F, Method 301, Test Condition B)

MECHANICAL		
Item	Requirement	Test Condition
Connector Mating Force	0.3±0.15Kgf	Shall be measured with TENSION GAUGE or TENSION TESTER. Measure force necessary to mate assemblies at maximum rate of 25mm per minute. The object of this test is to detail a standard method for determining the mechanical forces required for inserting a sim card connector. (EIA-364-13)
Connector Unmating Force	0.3±0.15Kgf	Shall be measured with TENSION GAUGE or TENSION TESTER. Measure force necessary to mate assemblies at maximum rate of 25mm per minute. The object of this test is to detail a standard method for determining the mechanical forces required for inserting a sim card connector.



Durability	1).Shall meet visual requirement, show no physical damage. 2).Shall meet requirements of additional tests as specified in TEST SEQUENCE in Section 5	Insertion and extraction are repeated 5000 cycles with the actually card at the speed rate of 400 ~ 600 cycles/hour. Exchange the actually card every 2000 cycles. (EIA 364-09)
Contact Retention Force	0.3±0.15Kgf	Shall be measured with TENSION GAUGE or TENSION TESTER in same direction (EIA 364-35)

ENVIRONMENTAL

Item	Requirement	Test Condition
Thermal Shock	1).No evidence of damage 2).The electrical performances should meet the spec. Specified.	Subject mated connectors should be tested according to the condition listed below: Temperature: -55 to +85°C Cycles: 5 cycles Exposure time at temp. Extremes: 30 minutes.
Salt Spray	Shall meet visual requirement, show no physical damage.	Subject mated connectors to 8 hours Min. at 35°C with 5% Salt solution concentration.
Humidity	No appearance damaged Contact resistance: 5.2.1 Max. Meet Dielectric strength 5.2.3 Test. Insulation resistance: 5.2.2 Min.	Mate a dummy card and expose to 60±2°C for 96 hours relative humidity 90. Upon completion of the exposure period, the test specimens shall be conditioned at ambient room conditions for 1 to 2 hours, after which the specified measurements shall be performed. (EIA-364-31, Test Condition A Method III, or MIL-202F, Method 103B Test Condition B.)
Heat Resistance	No appearance damaged Contact resistance: 5.2.1 Max.	Mate a dummy card and expose to 70±2°C for 96 hours. Upon completion of the exposure period, the test specimens shall be conditioned at ambient room conditions for 1 to 2 hours, after which the specified measurements shall be performed. (EIA 364-17 Test Condition 3 Method A)

SOLDER ABILITY		
Item	Requirement	Test Condition
Solderability	The surface of the portion to be soldered shall at least 95% covered with new solder coating.	After 1 hour steam aging. The object of test procedure is to detail a uniform test methods for determining sim card connector solderability. The test procedure contained here utilizes the solder dip technique. It is not intended to test or evaluate solder cup, solder eyelet, other hand-soldered type or SMT type terminations.
Resistance to Soldering Heat	No mechanical defect on housing or other parts	1).For Wave Soldering Pre-Heat: 80°C, 60 sec. Temperature: 260±5°C Immersion duration: 3±0.5sec. (MIL-STD-202F, Method 210A, Test Condition B)
		2).For Manual Soldering Pre-Heat: No. Temperature: 380±10°C Immersion duration: 3±0.5sec. (MIL-STD-202F, Method 210A, Test Condition A)
		3).For Reflow Soldering Pre-Heat: 150(Min.)~200(Max.)°C, 60~180sec. Temperature: 260±5°C Immersion duration: 10~40 sec. (EIAJ RCX-0101/102)

