



1. Scope

1.1. Content

This specification describes characteristic, tests and quality requirements for the **RF, RECEPTACLE CONNECTOR GENERATION 1 (P/N: 2337019-1)**

1.2. Qualification

When testing the named products the following specified specifications and standards shall be used. All tests have to be done using the applicable inspection plan and product drawing.

2. Applicable Documents

The following mentioned documents, if they are referred, are part of this specification. In case of conflict between the requirements of this specification and the product drawing or in conflict between the requirements of this specification and the referenced documents, this specification has got precedence.

2.1. Tyco Electronics Document

501-78720 Test Report

3. Requirements

3.1 Design and Construction

The product described in this paper is a RF, RECEPTACLE CONNECTOR GENERATION 1, whose

Part name in our Comply is USS RF REC. It is special for Microchip-to-Coaxial adapter in RF circuit, Such as Mobile Phone, Wireless Net, Mini PCI, Bluetooth, PDA, GPS, Electric Measurement Instruments and so on.

3.2 Materials

HOUSING : High Temp Plastic UL94-V0, Black. CONTACT/SHELL : Copper Alloy

3.3 Rating

Rated Voltage: 60VAC (R.M.S)
Frequency Range: 0 ~ 6GHz
Character Impedance: 50 Ω
Operate Temperature: -40°C ~ +90°C
Storage Temperature Limit : -10 ~ 40°C
Operate Humidity: 90% MAX
Guaranty Number of time for Reflow : 2 times

3.4 Performance Requirement and Test Description

The Product shall be designed to meet the electrical, mechanical and environmental performance requirement specified in Table.1. All test shall be performed in the room temperature, unless otherwise specified.



3.5 Test Requirements and Procedures Summary

Para.	Test Items	Requirements	Procedures
3.5.1	Examination of Product	Meets applicable requirements specified, customer drawing, and application specification.	Visual inspection No physical damage.
Electric Performance			
3.5.2	Insulation resistance (shielded version only)	Test voltage: 100 VDC. Duration: 1 minute.	100 VDC for 1 minute. Test between adjacent circuits of mated connectors.
3.5.3	Dielectric Withstand Voltage	Test voltage: 200 VAC. Duration: 1 minute.	200 VAC for 1 minute. Test between adjacent circuits of mated connectors.
3.5.4	Contact Resistance	Inner Contact Initial: 20 m Ω MAX. After: 25 m Ω MAX. Outer Contact Initial: 10 m Ω MAX. After: 15 m Ω MAX.	Solder the receptacle connector to the test board and mate the plug connector together.
3.5.5	V.S.W.R	VSWR<1.3 , at 0~6GHz	Measured 50Ω system of network analyzer under mating condition with plug connector. See Fig-1
Meannical Performance			
3.5.6	Shock test	No electrical discontinuity greater than 1 μ sec. shall occur. Must be met the electrical spec(3.5.4) before and after the test	Peak acceleration 735m/s ² , Duration of pulse: 11ms (Time) , Waveform : Half-wave waveform, 6 Cycles In Each X-Y-Z axis
3.5.7	Vibration	No electrical discontinuity greater than 1 μ sec. shall occur. Must be met the electrical spec(3.5.4) before and after the test	Frequency:10-100Hz,single amplitude of 1.5mm,acceleration of 59m/s ² .for 5cycles in the direction of each of the 3axis.
Environment Performance			
3.5.8	Temperature & Humidity Cycling	Must be met the electrical spec (3.5.4) before and after the test.	TEM. : 60°C Relative Humidity : 95% RH Time : 96 hours
3.5.9	Solder ability	The Sn Immersed Area must beyond by 95%.	Solder Temperature: 250+/-5°C

Table. 1

3.6 Qualification and Requalification Test Sequence

Test Examination	Test Group							
	A	B	C	D	E	F	G	H
	(a)							
Contact resistance		1,3	1,3	1,3	1,5	1,5	1,3	
Withstanding Voltage					2,6	2,6		
Insulation resistance					3,7	3,7		
VSWR	1							
Mechanical life		2						
Attack			2					
vibration				2				
Steady heat					4			
Thermal shock						4		
Salt spray test							2	
Can solder								1
Number of test samples	5	5	5	5	5	5	5	5

(a) Numbers indicate sequence in which tests are performed.

4. Figure

4.1 Measurement Method of VSWR

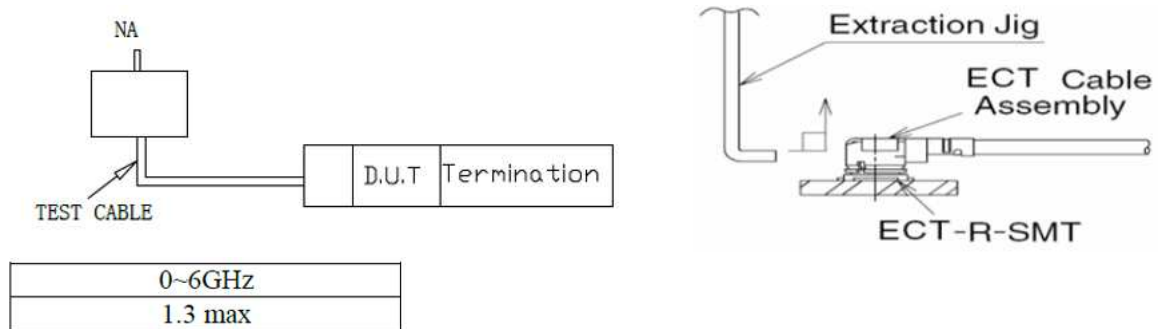
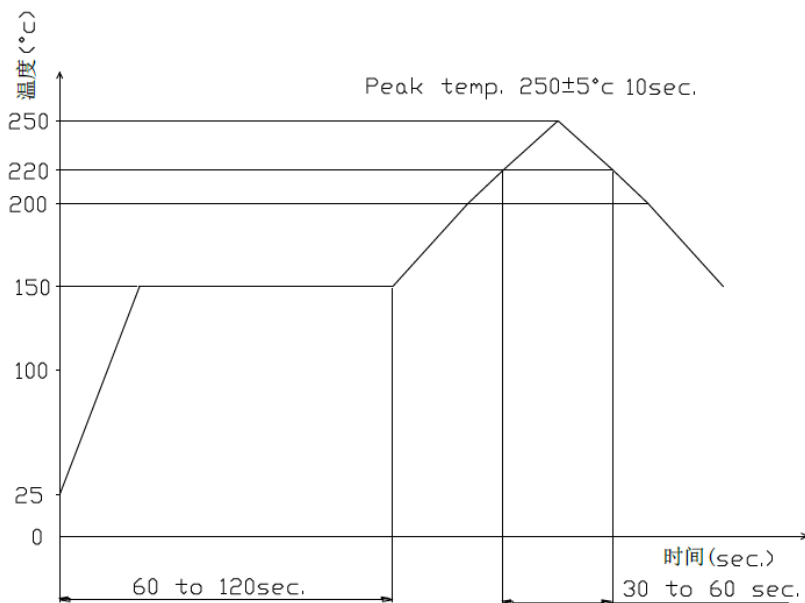


Fig-1 VSWR Test

4.2 Temperature profile of reflow soldering

4.2.1 Recommended tem. & time relative curve of Re-flow.



4.2.2 Extreme tem. & time curve of Re-flow

