

Thermal Shock Test for Coax Termination

DC-67 GHz, 2 Watts, 1.85mm Male

1. Test Purpose

To evaluate the Coax Terminations are able to operate properly within specifications after thermal shock 10 cycles (-55 $^{\circ}$ C to +100 $^{\circ}$ C) in accordance with method 107 of MIL-STD-202.

2. DUT Product Information

Product Name	Coaxial Termination	
	DC-67 GHz, 2 Watts, 1.85mm Male	
Specs	DC-67GHz, VSWR 1.3 max	
P/N	RFT67021852A	
Qty	5 PCS	

3. Test Instrument

No.	Instrument	Model
1	Hot And Cold Test Chamber	Shanghai Zhichou ZH/GDJS-50L
2	VNA	Ceyear VNA 3672E

4. Test Description

4.1 Before the thermal shock test, the DUT shall be measured by VNA in VSWR at 67GHz.

4.2 The DUT Terminations RFT67021852A shall be tested in accordance with method 107 of MIL-STD-202 in below procedures.



Two thermal conditioning chambers were used, one set to -55°C and the other set to 100°C. The DUT were placed into the 100°C chamber first and conditioned for a minimum of 30 minutes. DUT were then transferred to the -55°C chamber within 120 seconds. The DUT were transferred between two (2) thermal conditioning chambers for 10 cycles.





4.3 After thermal shock test, repeat the step of 4.1.

4.4 After thermal shock test, perform visual and mechanical inspection to verify the dimensions and workmanship are in accordance with specification requirements.



5. Test Results

Before and after thermal shock, VSWR measurement of the 5 pcs RFT67021852A coax terminations showed minimum change.

RFT67021852A	Max VSWR measurement 10MHz to 67GHz	
S/N	Before Thermal Shock Test	After Thermal Shock Test
1	1.24	1.25
2	1.16	1.16
3	1.23	1.25
4	1.24	1.26
5	1.19	1.19