REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	--	Original Release- Preliminary	02/22/08	DWB

REV STATUS	REV	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SHEETS	SHEET	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

REV STATUS	REV																
SHEETS	SHEET	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32

CONTRACT No.:			Planar Monolithics Industries, Inc. 7311-G Grove Road, Frederick, MD 21704		
		DATE			
DRAWN	D. Bruder	2/22/08			
CHECK			SCREENING TEST PROCEDURE MODEL: RFFD-618-730049 PART No. T0737SOCN730049-001 RF, FILTER DETECTOR ASSEMBLY		
APPD.					
ENGR.					
PROD.					
QC.					
			SIZE: A	FSCM: 0ZXZ8	DRAWING No 180-R000-000
			REV: -	SCALE: N/A	SHEET 1 OF 6

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ISO 9001:2000 CERTIFIED

SCREENING

TEST PROCEDURE
(SCTP)

FOR

PMI MODEL NUMBER: RFDD-618-730049

HERMETICALLY SEALED
RF, FILTER DETECTOR ASSEMBLY

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1.0 SCOPE

The purpose of this document is to provide a description of the Qualification Tests to be performed on PMI Model RFFD-618-730049 the hermetically sealed RF, Filter Detector Assembly. These tests are designed to meet the Screening Test requirements outlined in the Microwave Electronic Systems Source Control Drawing 730049 Rev. 1.

2.0 SCREENING TESTS

All units will initially be screened in accordance with the table shown below:

TABLE OF SCREENING TESTS

TABLE I

Item Number	SCD PARA.	TEST	WHERE PERFORMED	HOW DOCUMENTED
1.	4.4	Internal Visual	PMI QA	Traveler Sign-Off
2	4.5.4	Hermetic Seal	Litron, MA	Litron Test Data and C of C
3	4.5.7	Fine and Gross Leak Tests	Litron, MA	Litron Test Data and C of C
4	4.5 (Implied)	Electrical “Flash” Test	PMI	Traveler Sign-Off
5	4.5.3.A.1	Stabilization Bake	PMI	Chart Record
6	4.5 (Implied)	Electrical “Flash” Test	PMI	Traveler Sign-Off
7	4.5.3.A.2	Thermal Shock	PMI	Chart Record
8	4.5 (Implied)	Electrical “Flash” Test	PMI	Traveler Sign-Off
9	4.5.3.A.3	Mechanical Shock	Qual-Test, Florida	Qual-Test Report
10	4.5.3.A.4	Vibration	Qual-Test, Florida	Qual-Test Report
11	4.5 (Implied)	Initial Electrical Testing	PMI Test Lab	Test Data Sheet
12	4.5.3.B	Temperature Cycling	PMI	Chart Record
13	4.5.5	Final Electrical Testing	PMI Test Lab	Test Data Sheet

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3.0 SCREENING TEST METHODS

SCREENING TEST METHODS

TABLE II

ITEM	SCD PARA.	TEST	METHOD
1	4.4	Internal Visual	MIL-STD-883, Method 2017
2	4.5.4	Hermetic Seal	MIL-STD-202, Method 112
3	4.5.7	Fine and Gross Leak Tests	MIL-STD-202, Method 112, Condition C
4	4.5 (Implied)	Electrical "Flash" Test	Network Analyzer sweep to assure operation.
5	4.5.3.A.1	Stabilization Bake	MIL-STD-883, Method 1008, Condition C (125ºC/168 hrs)
6	4.5 (Implied)	Electrical "Flash" Test	Network Analyzer sweep to assure operation.
7	4.5.3.A.2	Thermal Shock	MIL-STD-202, Method 107, Test Condition B-1 (25 cycles -65ºC to +125ºC)
8	4.5 (Implied)	Electrical "Flash" Test	Network Analyzer sweep to assure operation.
9	4.5.3.A.3	Mechanical Shock	MIL-STD-883, Method 2002, Condition B, Y1 axis only.
10	4.5.3.A.4	Random Vibration	MIL-STD-883, Method 2026, Table 1, Test Condition E, 10 minutes. One axis perpendicular to mounting plane.
11	4.5 (Implied)	Electrical "Flash" Test	Network Analyzer sweep to assure operation.
12	4.5.3.B	Temperature Cycling	24 cycles; 30 min @ -54ºC, 2.5 hrs @ +95ºC. Transition time not to exceed 30 minutes. Max. D.C. supply voltage and logic signals applied during the transition to and "hot" part of cycle. Power off during the transition to and "cold" part of cycle.
13	4.5.5	Final Electrical Testing	Per PMI ATP

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3.1 Refer to ¶ 3.4 of and Figure 1 of ATP, Drawing 140-R000-000 for process and block diagram for performing "flash" tests. Figure 1 of ATP is attached on page 7 of this procedure.

3.2 Initial and Final Electrical Testing will be performed as indicated in the ATP.

4.0 SCREENING TEST OUTPUT

4.1 If the unit fails to pass any Screening Test, it must be repaired and the re-screening tests performed as follows:

A. If failure occurs during Thermal Shock – Repeat all tests except Stabilization Bake.

B. If failure occurs during Mechanical Shock or Random Vibration – Repeat all tests except Stabilization Bake and conduct 10 Thermal Shock cycles.

C. If failure occurs during Temperature Cycling – Repeat a minimum of 10 Thermal Shock cycles, the Random Vibration Test and continue Temperature Cycling at the point of failure or for three consecutive failure free cycles, whichever is greater.

D. If any electrical component is replaced, stabilization bake must be repeated.

E. A Screening Test Report will be prepared including all documentation listed in Table I of this procedure.

F. If the repair requires that active devices be replaced with a non-screened replacement, the entire temperature cycling burn-in shall be repeated.

ATP FIGURE 1

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