## M/A-COM, INC. Revisions PROPRIETARY DOCUMENT Rev Date Approved Description The information contained in this document or item is the property of DDR 6473 Initialed DWG 6/27/94 C.R. -M/A-COM, Inc., d.b.a. Microwave Associates, Inc., and or its subsidiaries, and shall be kept in strict confidence except with written C.R. А Rev Per ECN W00106 1/28/95 permission of M/A-COM. Such information or items shall not be published, disclosed to others, or used for manufacture or sale, or for Rev Per ECN W00177 В 2/22/95 C.R. any purpose; and this document or item shall not be reproduced in whole or in part. If permission is granted for reproduction, this legend 4/7/95 С Rev Per ECN W00233 C.R. shall be included in any such reproduction. This document or item shall be returned to M/A-COM upon request, or completion of use for which it was made available to recipient, or termination of relationship with recipient, whichever first occurs. Any recipient so agrees by acceptance of this document or item



MICROELECTRONICS DIVISION 100 CHELMSFORD STREET LOWELL, MASSACHUSETTS 01851

Authored By:	<u>Allan Douglas</u> Date: 07 Engineering	7/28/94		
Prepared By:	Christina Robinson Date: <u>10/1</u> Documentation Control	2/94		
Approved By:	Steve Cousineau Date: 0 Production Test	<u>9/21/94</u>		
Approved By:	Al Imhoff Date: 08 Manufacturing	3/23/94		
Approved By:	Dana Crowe Date: 0	99/20/94		
PRODUCTION TEST PROCEDURE				
CAGE	CODE DWG. NO.:	REV.: C		
963	341 TPAM55-0001	SHEET NO. 1 OF 3		

## **Production Test Procedure**



DUT Pin Number	DUT Pin Name	Handler PCB DC Connector	Manual PCB DC Connector	Sample PCB DC Connector	
1	VGG	2	12	2, 11	
2	TR CTRL	8	7	8, 10	
3	RX OUT	N/A	N/A	N/A	
4	GND	Odd pins	1, 20	3, 7, 13, 17	
		3 - 17			
5	PA OUT	N/A	N/A	N/A	
6	VDD PA	1	2	1	
7	GND	N/A	N/A	N/A	
8	ATTN CTRL	4	3	4, 6	
9	GND	N/A	N/A	N/A	
10	ANT COMMON	N/A	N/A	N/A	
11	GND	N/A	N/A	N/A	
12	ANT 2	N/A	N/A	N/A	
13	ANT 1	N/A	N/A	N/A	
14	GND	N/A	N/A	N/A	
15	ANT CTRL	18	17	16, 18	
16	GND	N/A	N/A	N/A	
17	VDD 2	20	19	20	
18	GND	N/A	N/A	N/A	
19	VDD 1	19	6	5, 9, 17, 19	
20	GND	N/A	N/A	N/A	
21	GND	N/A	N/A	N/A	
22	RF IN	N/A	N/A	N/A	
23	GND	N/A	N/A	N/A	
24	PA CTRL	14	13	12, 14	

MACCH	CAGE CODE NO.: 96341	DWG. NO.: TPAM55-0001
100 Chelmsford Street Lowell, Massachusetts 01851	SHEET 2 OF 3	REV.: <b>C</b>

Test No.	Parameter	Conditions	Min.	Max.
1	Gain (HI Power) Small Signal	RF Drive ≤ -15 dBm @ 23.0 dB   Freq = 2450 MHz 23.0 dB		
1a	VGG Currect	VGG = -5V		
2	Gain (Low Power) Small Signal	RF Drive ≤ -15 dBm @ Freq = 2450 MHz	12 dB	
3	TR Switch Loss	RF Drive = -3 dBm $\pm$ 5 dB @ Freq = 2450 MHz		2.0 dB
4	TR Switch Iso.	RF Drive = -3 dBm $\pm$ 5 dB @ Freq = 2450 MHz	10 dB	
5	Diversity Switch Loss (1)	RF Drive = +20 dBm $\pm$ 5 dB @ Freq = 2450 MHz		1.7 dB
6	Diversity Switch Iso. (1)	RF Drive = +20 dBm $\pm$ 5 dB @ Freq = 2450 MHz	10 dB	
7	Diversity Switch Loss (2)	RF Drive = +20 dBm $\pm$ 5 dB @ Freq = 2450 MHz		1.7dB
8	Diversity Switch Iso. (2)	RF Drive = +20 dBm $\pm$ 5 dB @ Freq = 2450 MHz	10 dB	
9	P1dB (HI Power)	RF Drive = -3 dBm @ Freq = 2450 MHz	19 dBm	
9a	Current	VDD1 + VDD2 + VDDPA		200 mA
10	P1dB (Low Power)	RF Drive = -3 dBm @ Freq = 2450 MHz	9 dBm	
11	Second Harmonic (High Power)	RF Drive = -3 dBm @ Freq = 2450 MHz	-12 dBc	
12	Third Harmonic (High Power)	RF Drive = -3 dBm @ Freq = 2450 MHz	-12 dBc	
13 *	Current	VDD1 + VDD2 + VDDPA		5 mA

\* Create Bin #2 for parts that fail this parameter, and pass all others.

			Control / Bias							
Test	RF Input	RF Output	T/R Ctrl	Attn Ctrl	Ant Ctrl	PA Ctrl	VDD1	VDD2	VDD PA	VGG
1, 9, 11	PA In	PA Out	Gnd	Gnd	Х	Gnd	+5 V	+5 V	+5 V	-5 V
2, 10, 12	PA In	PA Out	Gnd	+5 V	Х	Gnd	+5 V	+5 V	+5 V	-5 V
3, 13	PA Out	RX Out	+5 V	Х	Х	-5 V	+5 V	+5 V	+5 V	-5 V
4	PA Out	RX Out	Gnd	Х	Х	-5 V	+5 V	+5 V	+5 V	-5 V
5	Ant Common	Ant 1	Х	Х	Gnd	-5 V	+5 V	+5 V	+5 V	-5 V
6	Ant Common	Ant 1	Х	Х	+5 V	-5 V	+5 V	+5 V	+5 V	-5 V
7	Ant Common	Ant 2	Х	Х	+5 V	-5 V	+5 V	+5 V	+5 V	-5 V
8	Ant Common	Ant 2	Х	Х	Gnd	-5 V	+5 V	+5 V	+5 V	-5 V

X = Don't Care

MACCH	CAGE CODE NO.: 96341	DWG. NO.: TPAM55-0001
100 Chelmsford Street Lowell, Massachusetts 01851	SHEET 3 OF 3	REV.: <b>C</b>