



MOTOROLA

Cellular Networks

APPLICANT: MOTOROLA

FCC ID: IHET7HM1

Motorola Test Report

Applicant: Motorola
5555 N. Beach Street
Fort Worth, TX 76137
USA

Equipment Under Test: WAP25600 MOTOwi4™
Diversity Access Point @ 2.5GHz

In Accordance With: FCC PART 27, Subpart M
Broadband Radio Service and Educational Broadband
Service

Tested By: Motorola
5555 N. Beach Street
Fort Worth, TX 76137
USA

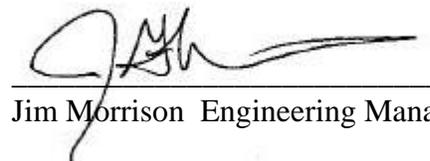
TESTED BY:



Solomon Chis Test Engineer

DATE: 26 July 2007

APPROVE BY:



Jim Morrison Engineering Manager

DATE: 26 July 2007

Total Pages:

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Section 1 Summary of Test Results

Manufacturer: Motorola
Model No.: WAP25600 MOTOwi4™ Diversity Access Point @ 2.5GHz
Serial No.: 170G7L02DH
General: All measurements are traceable to national standards

These tests were conducted on a sample of the equipment for the purpose of demonstrating compliance with FCC Part 27,

New Submission Production Unit
 Class II Permissive Change Pre-Production Unit

THIS TEST REPORT RELATES ONLY TO THE ITEM(S) TESTED.

THE FOLLOWING DEVIATIONS FROM, ADDITIONS TO, OR EXCLUSIONS FROM THE TEST SPECIFICATIONS HAVE BEEN MADE: NONE



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NAME OF TEST	PARA. NO.	SPEC. LIMIT	RESULTS
RF Power Output	2.1046	33 dBW + 10log(X/Y) dBW	Complies
Occupied Bandwidth	2.1049	Not Specified	Complies
Spurious Emissions at Antenna Terminals	2.1051	-13 dBm	Complies
Field Strength of Spurious Radiation	2.1053	-13 dBm	Complies
Frequency Stability	2.1055	Must remain within authorized bandwidth	Complies



Section 2

General Equipment Specification

Power Supply: 54 VDC

Frequency Range: 2498.5 to 2687.5MHz (center to center) for 5MHz
 Frequency Range: 2501 to 2685MHz (center to center) for 10MHz

Type(s) of Modulation: F3E (Voice) F1D F2D W7D F9W
 _____ X _____

Emissions Designator: 10M0W7D and 5M00W7D

Output Impedance: 50 ohms

RF Power Output: 40dBm Conducted

Duty Cycle: 75% to 30% on or 75% on (max)

Selection of Operating Frequency: Selectable by operator

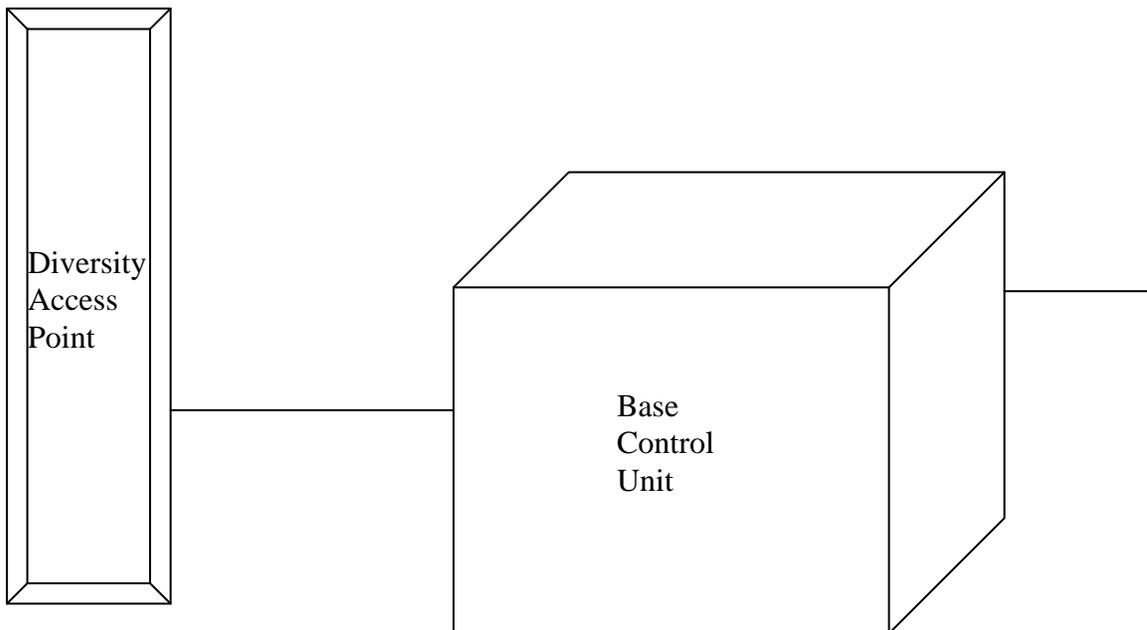
Power Output Adjustment Capability: 28dBm minimum power



Description of EUT

The WAP25600 MOTOwi4™ Diversity Access Point @ 2.5GHz is a Base Station transceiver.

System Diagram





Section 3 RF Power Output

NAME OF TEST: RF Power Output	PARA. NO.: 2.1046
TESTED BY: Solomon Chis	DATE: July 26, 2007

Test Result: Complies

Measurement Data: See Tables

Test Equipment: 13, 15, 16

MAX RF POWER OUTPUT

10MHz Mode		
Frequency (MHz)	RMS Power (dBm)	RMS Power (Watts)
2501	40.4	11.0
2600	40.6	11.5
2685	40.5	11.2

5MHz Mode		
Frequency (MHz)	RMS Power (dBm)	RMS Power (Watts)
2498.5	40.3	10.7
2600	40.4	11.0
2687.5	40.3	10.7



Section 4 Occupied Bandwidth

NAME OF TEST: Occupied Bandwidth	PARA. NO.: 2.1049
TESTED BY: Solomon Chis	DATE: July 26, 2007

Test Result: Complies

Measurement Data: See Attached Tables and Plots

Test Equipment: 13, 15, 16

OCCUPIED BANDWIDTH

10MHz Mode		
Frequency (MHz)	Occupied BW (MHz)	Maximum Limit (MHz)
2501	9.95	10
2600	9.97	10
2685	9.96	10

5MHz Mode		
Frequency (MHz)	Occupied BW (MHz)	Maximum Limit (MHz)
2498.5	4.77	5
2600	4.78	5
2687.5	4.78	5



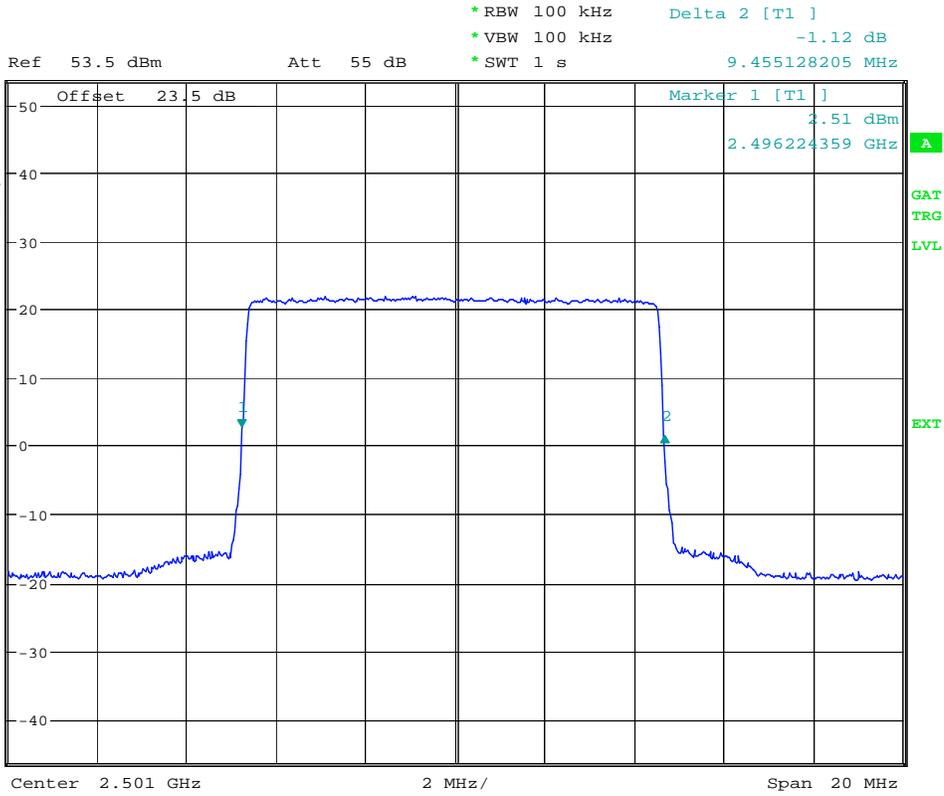
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APPLICANT: MOTOROLA

FCC ID: IHET7HM1

Occupied Bandwidth 2501MHz in 10MHz mode



Date: 27.JUL.2007 22:00:27



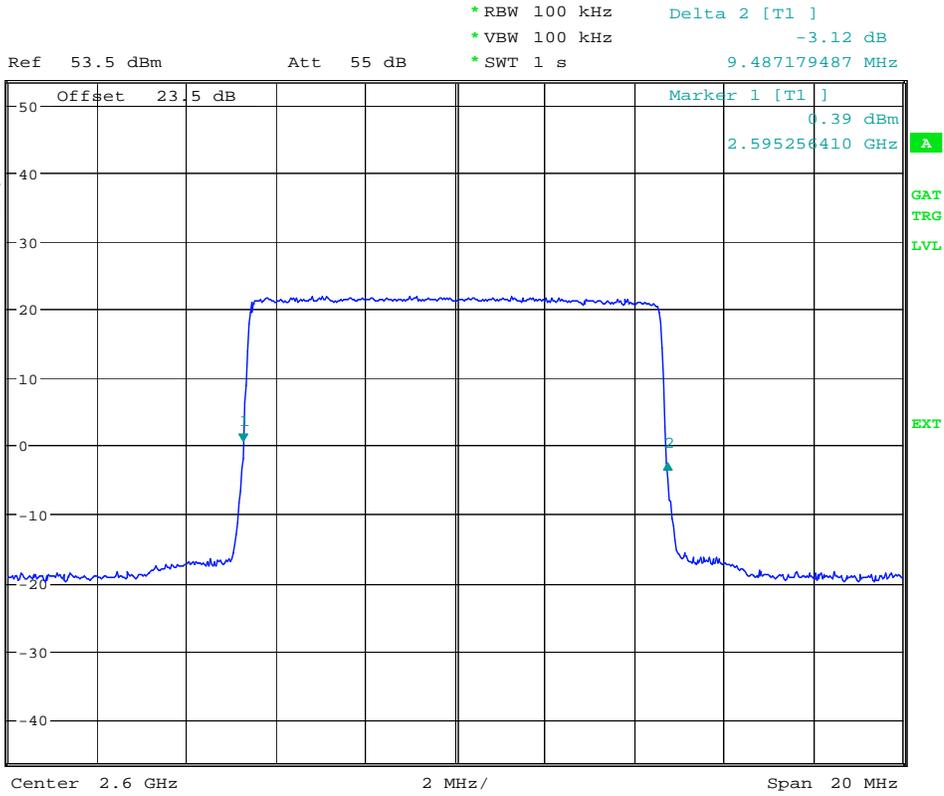
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APPLICANT: MOTOROLA

FCC ID: IHET7HM1

Occupied Bandwidth 2600MHz in 10MHz mode



Date: 27.JUL.2007 21:48:37



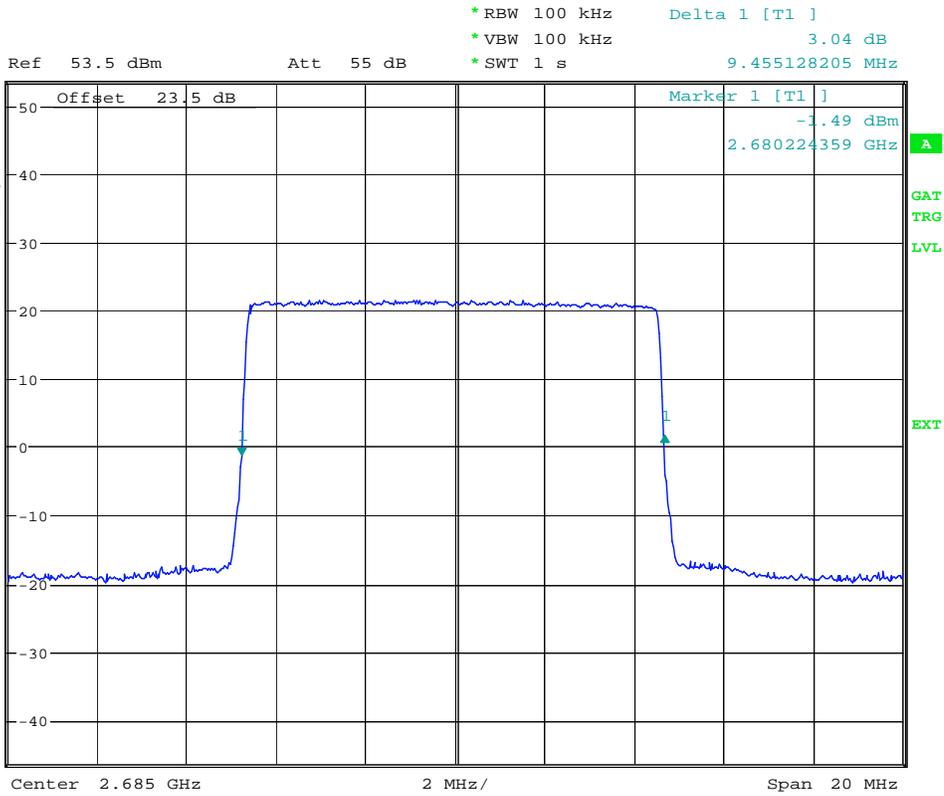
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APPLICANT: MOTOROLA

FCC ID: IHET7HM1

Occupied Bandwidth 2685MHz in 10MHz mode



Date: 27.JUL.2007 23:19:35



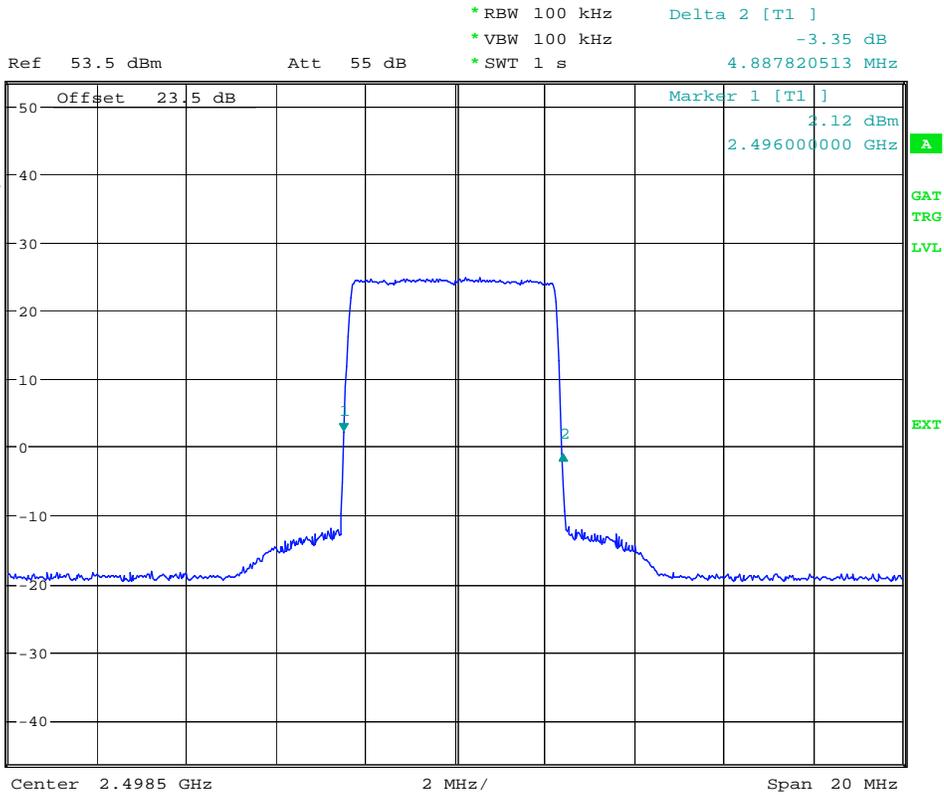
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APPLICANT: MOTOROLA

FCC ID: IHET7HM1

Occupied Bandwidth 2498.5MHz in 5MHz mode



Date: 27.JUL.2007 22:38:17



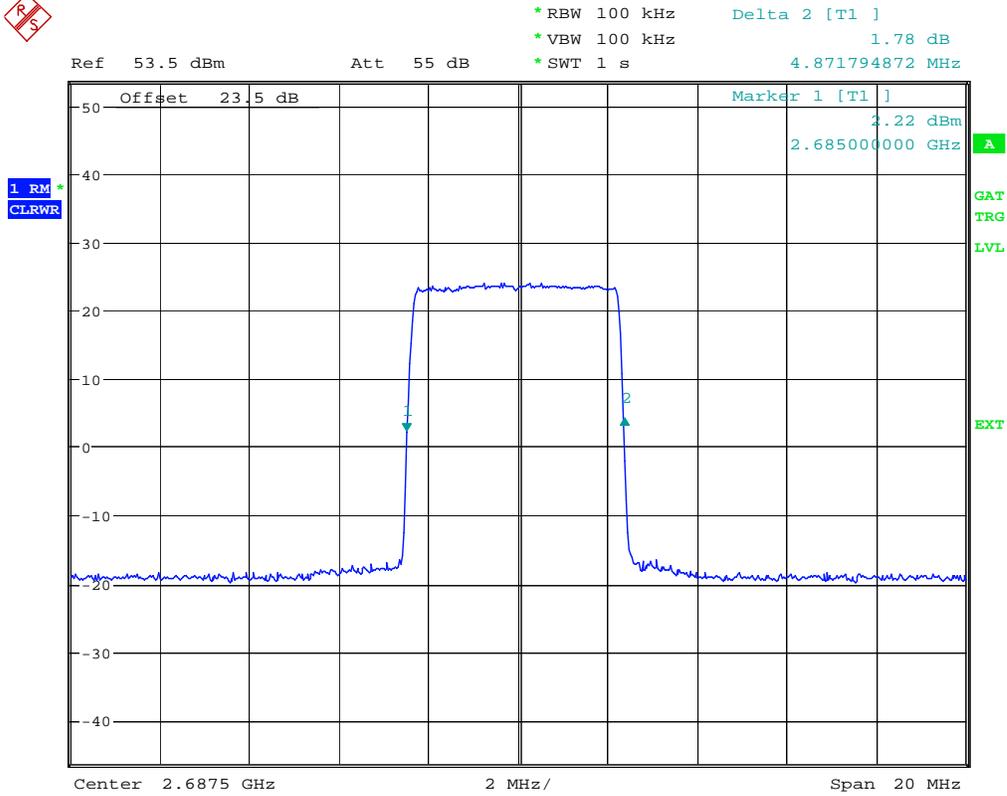
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APPLICANT: MOTOROLA

FCC ID: IHET7HM1

Occupied Bandwidth 2687.5MHz in 5MHz mode



Date: 27.JUL.2007 22:44:30



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APPLICANT: MOTOROLA

FCC ID: IHET7HM1

Section 5 Spurious Emissions at Antenna Terminals

NAME OF TEST: Spurious Emissions at Antenna Terminals PARA. NO.: 2.1051

TESTED BY: Solomon Chis

DATE: July 26, 2007

Test Result: Complies

Measurement Data: See Attached Plots

Test Equipment: 13, 15, 16, 17

SPURIOUS EMISSIONS AT ANTENNA TERMINALS



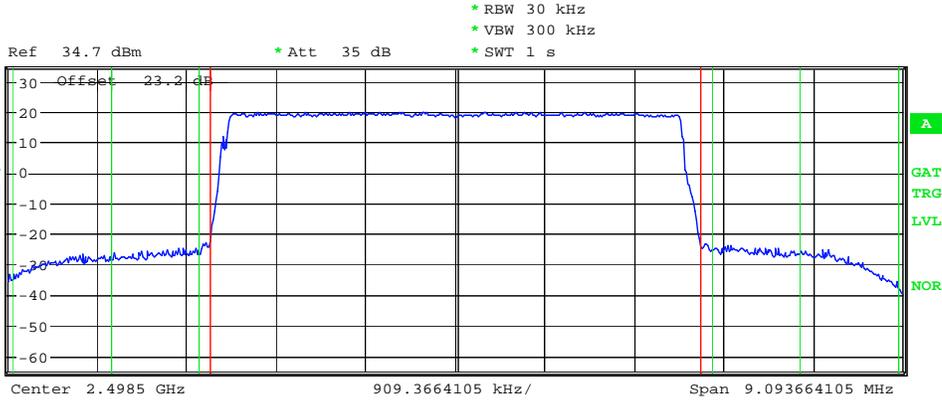
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APPLICANT: MOTOROLA

FCC ID: IHET7HM1

Lower Band Edge 5MHz



Tx Channel				EXT
Bandwidth	5 MHz	Power	40.18 dBm	
Adjacent Channel				
Bandwidth	100 kHz	Lower	-19.64 dBm	
Spacing	2.55 MHz	Upper	-19.62 dBm	
Alternate Channel				
Bandwidth	1 MHz	Lower	-14.85 dBm	
Spacing	4 MHz	Upper	-14.46 dBm	

Date: 10.JUL.2007 17:00:13



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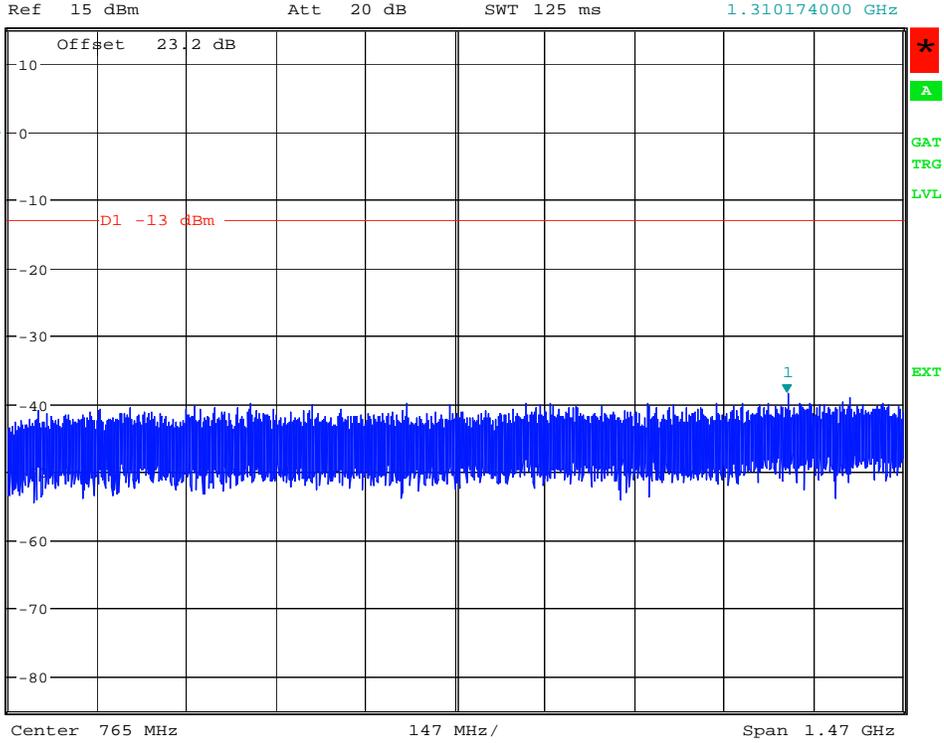
APPLICANT: MOTOROLA

FCC ID: IHET7HM1

Low Channel 10MHz Spurious 30MHz to 1.5GHz



*RBW 1 MHz Marker 1 [T1]
 *VBW 1 MHz -38.55 dBm
 SWT 125 ms 1.310174000 GHz



Date: 10.JUL.2007 13:00:43



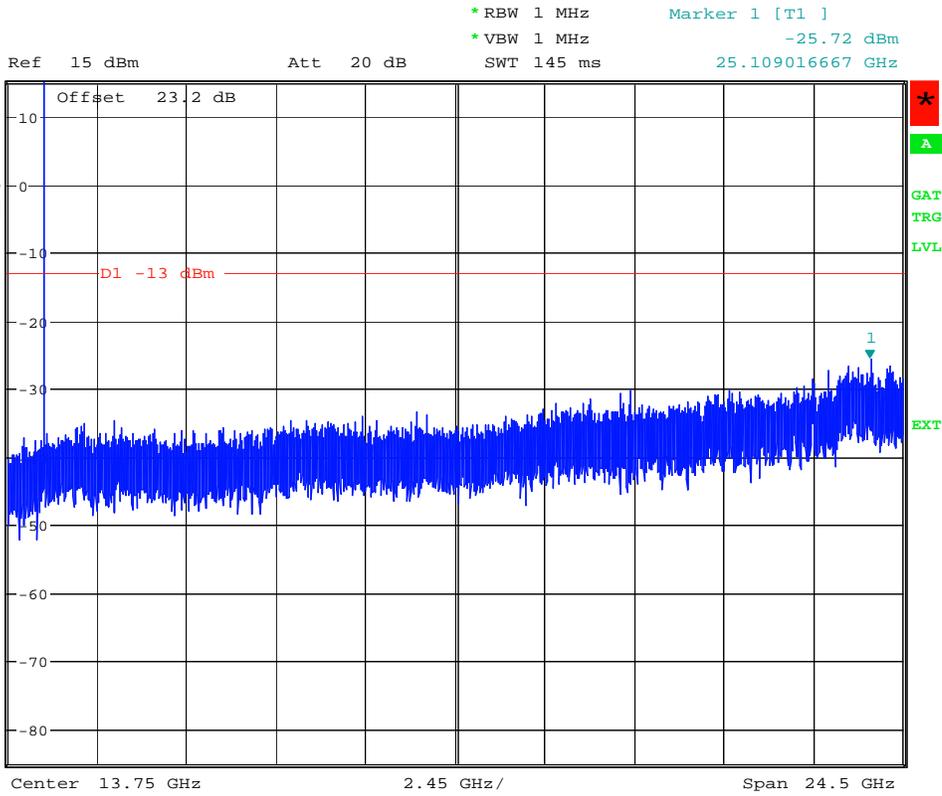
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APPLICANT: MOTOROLA

FCC ID: IHET7HM1

Low Channel 10MHz Spurious 1.5GHz to 26GHz



Date: 10.JUL.2007 13:01:55



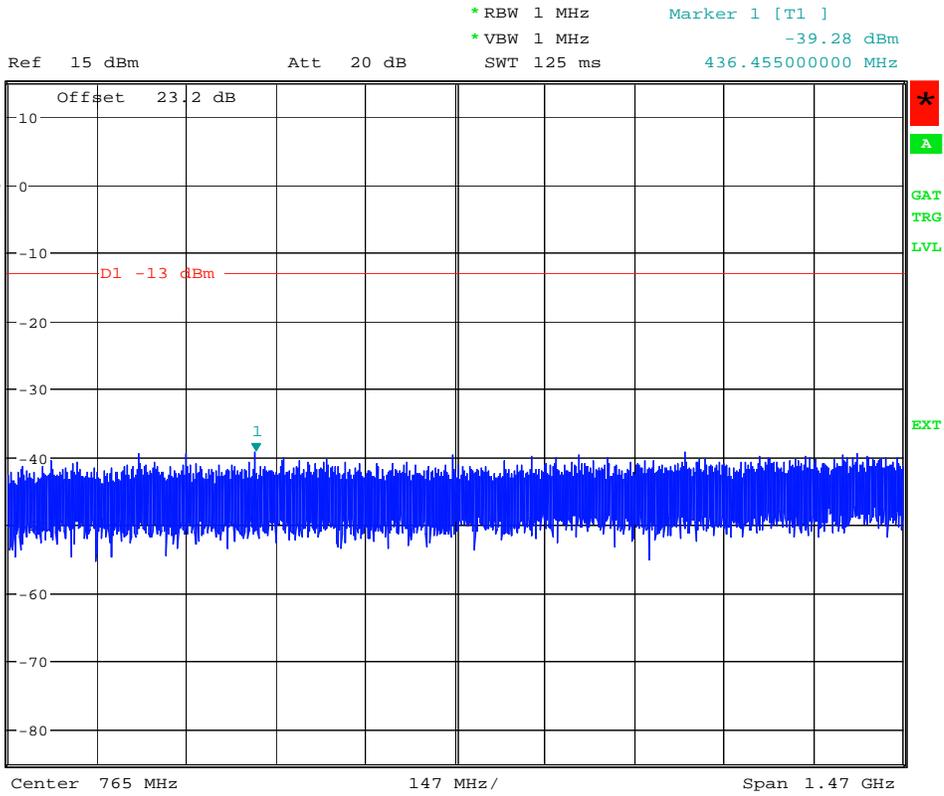
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APPLICANT: MOTOROLA

FCC ID: IHET7HM1

High Channel 10MHz Spurious 30MHz to 1.5GHz



Date: 10.JUL.2007 12:42:47



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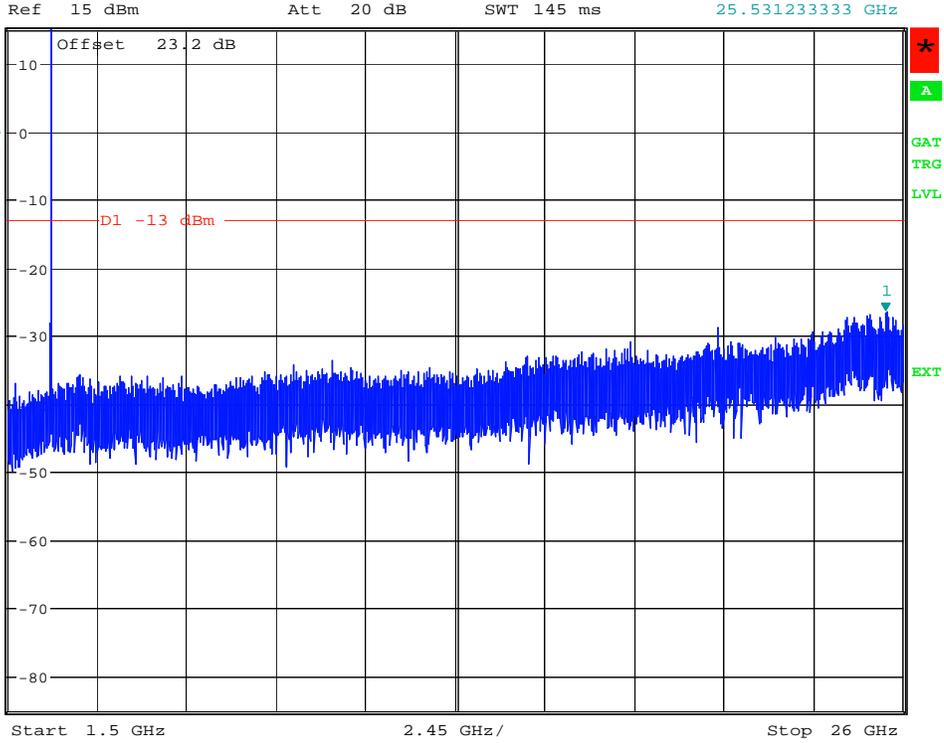
APPLICANT: MOTOROLA

FCC ID: IHET7HM1

High Channel 10MHz Spurious 1.5GHz to 26GHz



*RBW 1 MHz Marker 1 [T1]
 *VBW 1 MHz -26.46 dBm
 SWT 145 ms 25.531233333 GHz



Date: 10.JUL.2007 12:44:16



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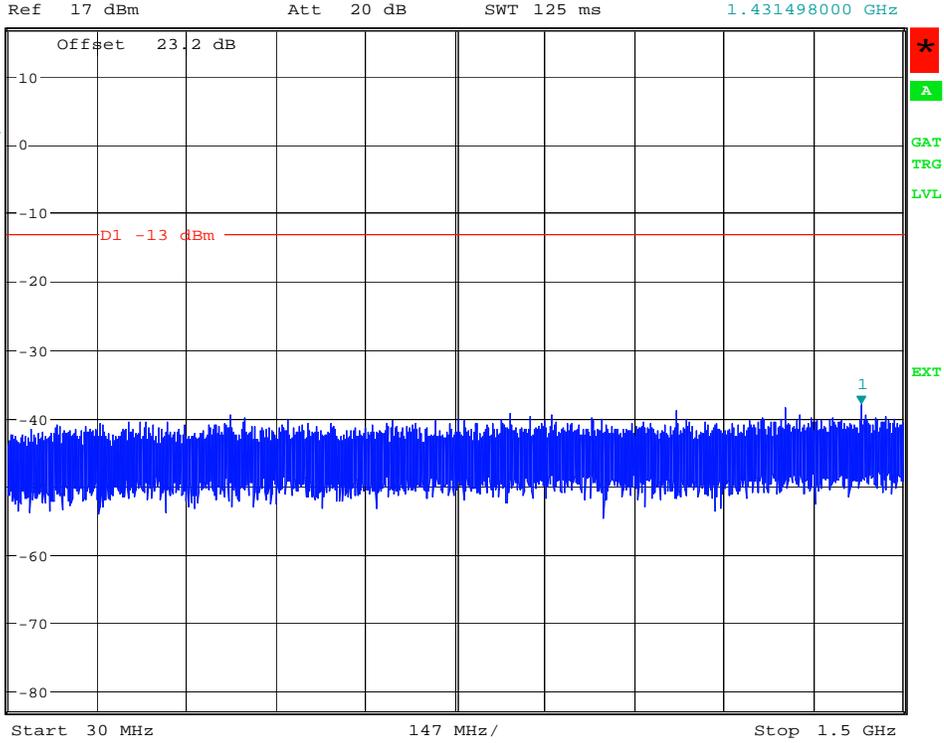
APPLICANT: MOTOROLA

FCC ID: IHET7HM1

Low Channel 5MHz Spurious 30MHz to 1.5GHz



*RBW 1 MHz Marker 1 [T1]
 *VBW 1 MHz -38.22 dBm
 SWT 125 ms 1.431498000 GHz



Date: 10.JUL.2007 10:52:08



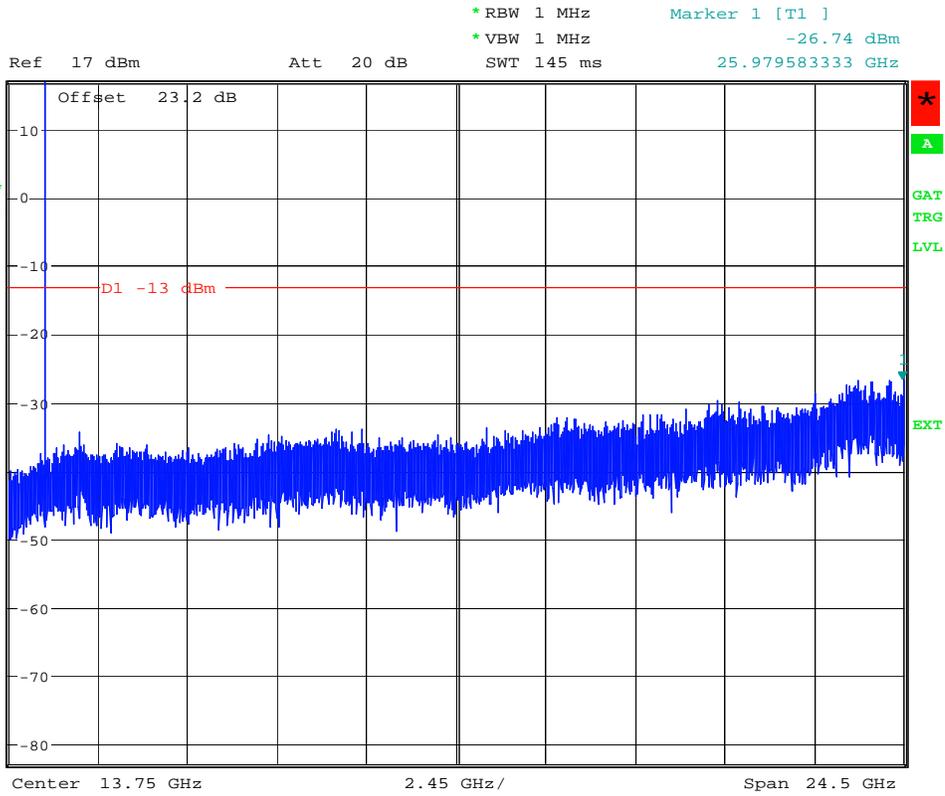
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APPLICANT: MOTOROLA

FCC ID: IHET7HM1

Low Channel 5MHz Spurious 1.5GHz to 26GHz



Date: 10.JUL.2007 10:49:13



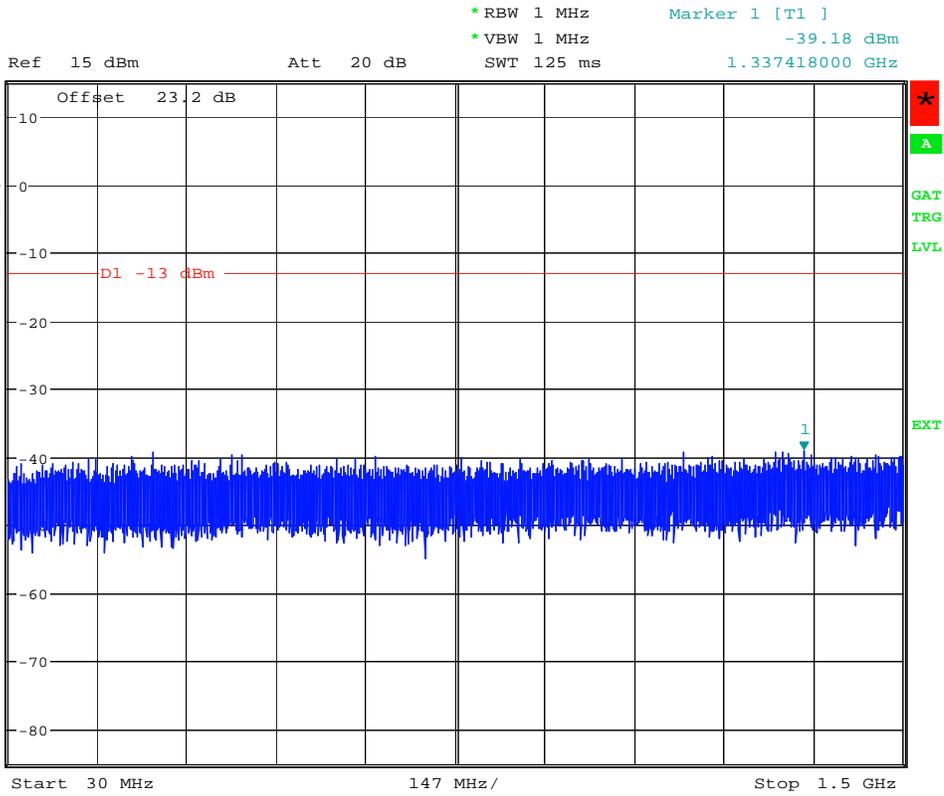
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APPLICANT: MOTOROLA

FCC ID: IHET7HM1

High Channel 5MHz Spurious 30MHz to 1.5GHz



Date: 9.JUL.2007 16:19:40



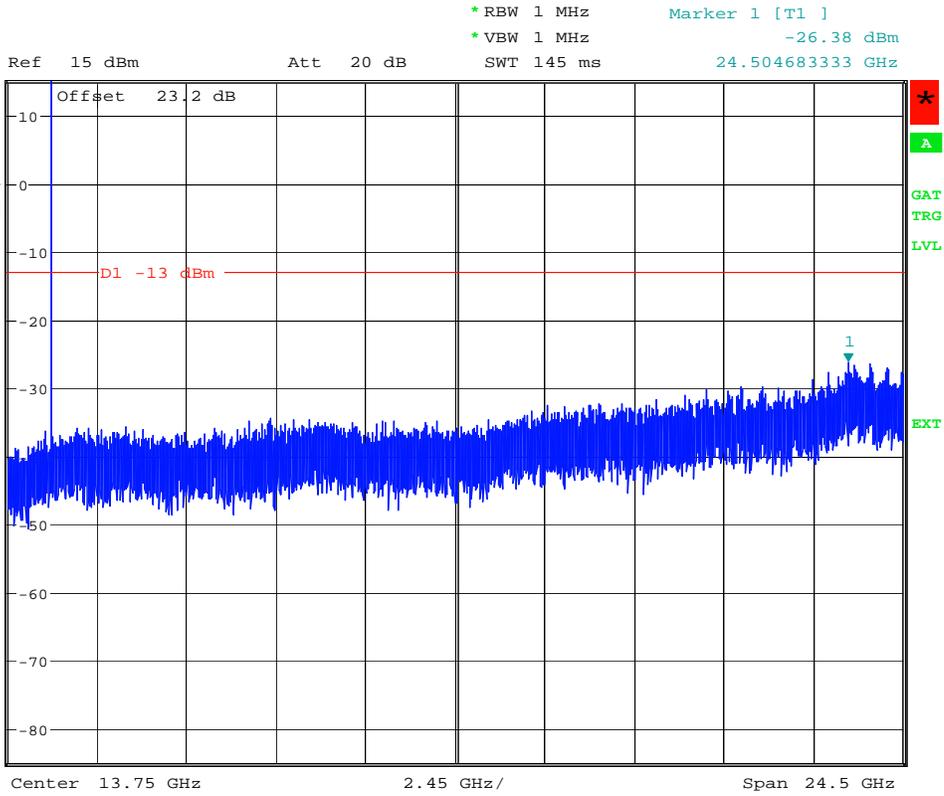
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APPLICANT: MOTOROLA

FCC ID: IHET7HM1

High Channel 5MHz Spurious 1.5GHz to 26GHz



Date: 9.JUL.2007 16:16:51



Section 6 Field Strength of Spurious

NAME OF TEST: Field Strength of Spurious	PARA. NO.: 2.1053
TESTED BY: Solomon Chis	DATE: July 26, 2007

Test Result: Complies

Measurement Data: See Attached Table

Test Equipment: 1,2,3,4,5,6,7,8,9,10,11,12,14

FIELD STRENGTH OF SPURIOUS

The spectrum was searched from 30MHz to the 10th harmonic of the carrier

SPUR FREQUENCY (GHz)	DISTANCE MEASURED (meters)	WORST CASE SPUR LEVEL MEASURED (dBuV/meter)	WORST CASE SPUR LEVEL MEASURED (dBm)	FCC MAX LIMIT (dBm)
5.37	3	70.2	-25	-13



Section 7 Frequency Stability

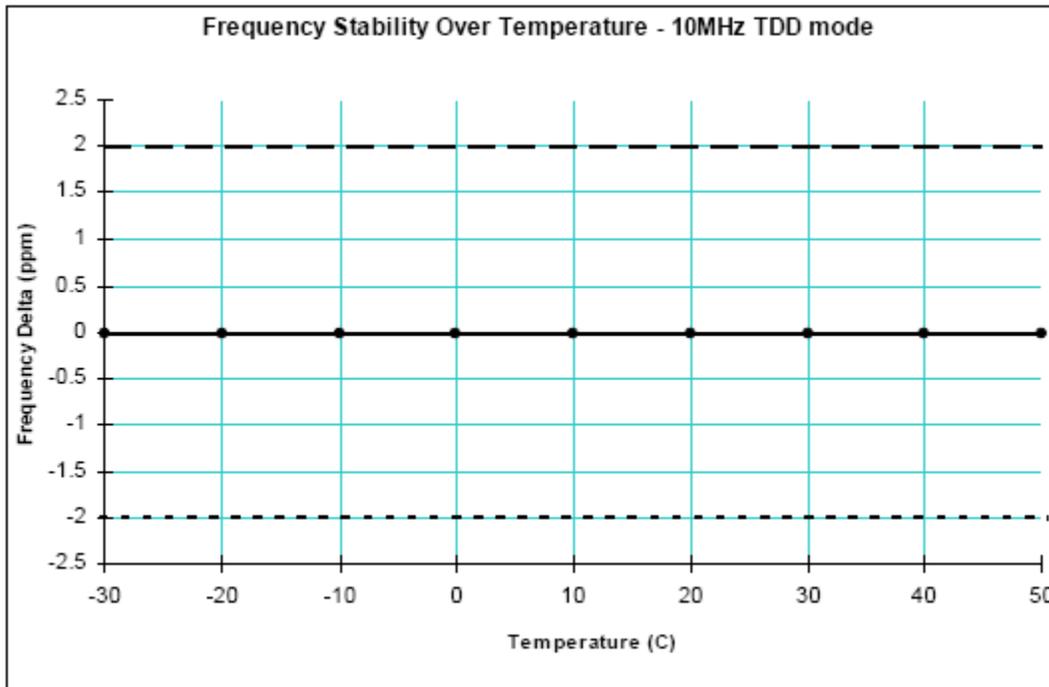
NAME OF TEST: Frequency Stability	PARA. NO.: 2.1055
TESTED BY: Solomon Chis	DATE: July 26, 2007

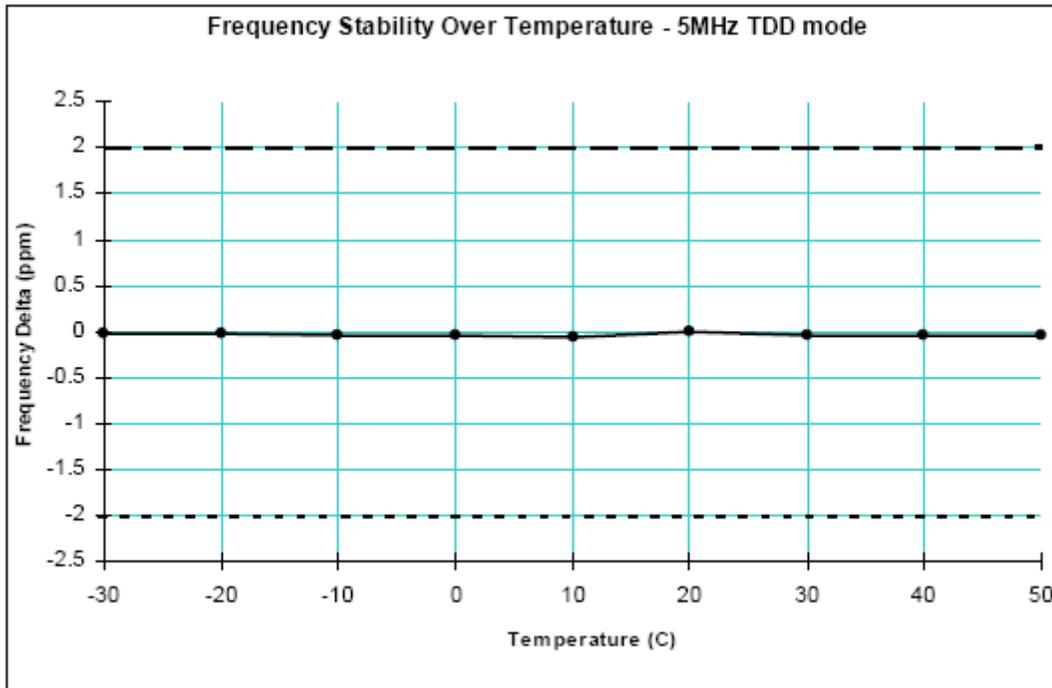
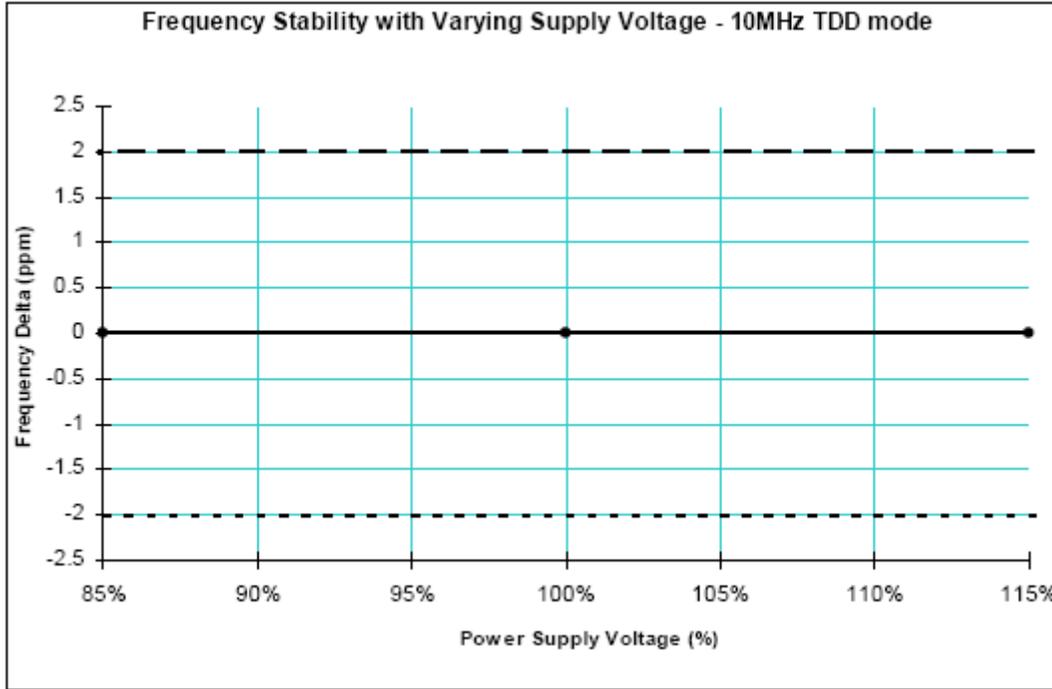
Test Result: Complies

Measurement Data: See Plots

Test Equipment: 13, 15, 16

FREQUENCY STABILITY





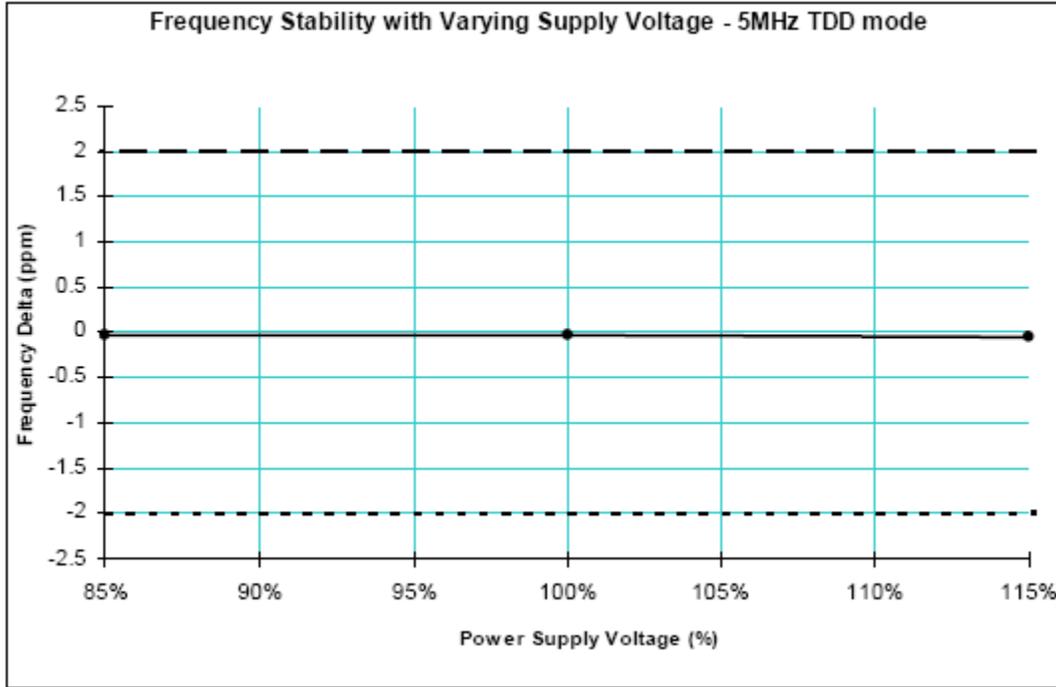


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Section 8 Test Equipment List

Item #	Motorola ID	Description	Model	Serial No.	Cal Date	Cal Due Date
1	118938	Pre-Amp	HP83006A	3950M0013 6	N/A	N/A
2	118937	Pre-Amp	HP83006A	3950M0013 5	N/A	N/A
3	505082	Antenna, Log Periodic	EMCO 3146	9303-3597	10/26/2006	5/21/2008
4	500301	Antenna, Biconnical	EMCO 3104C	8905-3974	10/26/2006	5/1/2008
5	502512	Antenna, Double Ridged Guide	EMCO 3115	2021	10/26/2006	5/21/2008
6	112019	Spectrum Analyzer	HP8593EM	3628A00164	4/3/2007	4/3/2008
7	508768	Power Meter	HP438A	3513U03967	3/29/2007	3/29/2008
8	116232	Power Sensor	HP8481A	2702A61832	3/30/2007	3/30/2008
9	509002	Signal Generator	HP83712A	3429A00422	3/27/2006	4/2/2008
10	N/A	Cable, Heliax 1/2" - 100 feet	Andrew	N/A	N/A	N/A
11	N/A	Cable, Coax - 6 feet	Microcoax	N/A	N/A	N/A
12	N/A	Cable, Coax - 6 feet	Microcoax	N/A	N/A	N/A
13	N/A	Cable, Coax - 6 feet	Microcoax	N/A	N/A	N/A
14	N/A	Cable, Reel - 20 feet	Emco	N/A	N/A	N/A
15	122804	Spectrum Analyzer	FSQ26	200123	12/18/2006	12/18/2007
16	N/A	Attenuator, 20dB	Wienschel	N/A	N/A	N/A
17	N/A	Low Pass Filter	Teledyne	N/A	N/A	N/A



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Section 9

Test Setup Picture

