Flom Test Labs
EMI, EMC, RF Testing Experts Since 1963
toll-free: (866) 311-3268
fax: (480) 926-3598
http://www.flomlabs.com
info@flomlabs.com

Date: October 11, 2006

Federal Communications Commission
Via: Electronic Filing

Attention: Authorization & Evaluation Division

Applicant: Digital Wireless Corporation
Equipment: DM-3010
FCC ID: OHN-M3010
FCC Rules: 22 and 90

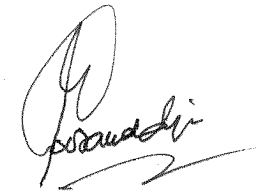
Gentlemen:

On behalf of the Applicant, enclosed please find Application Form 731, Engineering Test Report and all pertinent documentation, the whole for approval of the referenced equipment as shown.

Filing fees are attached.

We trust the same is in order. Should you need any further information, kindly contact the writer who is authorized to act as agent.

Sincerely yours,



Hoosamuddin S. Bandukwala, Lab Director

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Transmitter Certification

of

FCC ID: OHN-M3010
Model: DM-3010

to

Federal Communications Commission

Rule Part(s) 22 and 90

Date of revised report: January 15, 2007

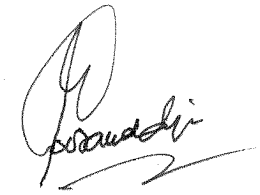
On the Behalf of the Applicant:

Digital Wireless Corporation

At the Request of:

Digital Wireless Corporation
696 Moulton Ave, Unit E
Los Angeles, CA 90031

Attention of: Brent Jaybush
323-276-5311
Email: bjay@digitalwireless.com



Supervised by: Hoosamuddin S. Bandukwala, Lab Director

List of Exhibits

(FCC **Certification** (Transmitters) - Revised 9/28/98)

Applicant: Digital Wireless Corporation

FCC ID: OHN-M3010

By Applicant:

1. Letter of Authorization
2. Confidentiality Request: 0.457 And 0.459
3. Part 90.203(e) & (g) Attestation
4. Identification Drawings, 2.1033(c)(11)
   - Label
   - Location of Label
   - Compliance Statement
   - Location of Compliance Statement
5. Photographs, 2.1033(c)(12)
6. Documentation: 2.1033(c)
   - (3) User Manual
   - (9) Tune Up Info
   - (10) Schematic Diagram
   - (10) Circuit Description
     - Block Diagram
     - Parts List
     - Active Devices
7. MPE Report

By FTL Inc.:

A. Testimonial & Statement of Certification

The Applicant has been cautioned as to the following:

15.21 **Information to the User**.

The users manual or instruction manual for an intentional radiator shall caution the user that changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

15.27(a) **Special Accessories**.

Equipment marketed to a consumer must be capable of complying with the necessary regulations in the configuration in which the equipment is marketed. Where special accessories, such as shielded cables and/or special connectors are required to enable an unintentional or intentional radiator to comply with the emission limits in this part, the equipment must be marketed with, i.e. shipped and sold with, those special accessories. However, in lieu of shipping or packaging the special accessories with the unintentional or intentional radiator, the responsible party may employ other methods of ensuring that the special accessories are provided to the consumer, without additional charge.

Information detailing any alternative method used to supply the special accessories for a grant of equipment authorization or retained in the verification records, as appropriate. The party responsible for the equipment, as detailed in § 2.909 of this chapter, shall ensure that these special accessories are provided with the equipment. The instruction manual for such devices shall include appropriate instructions on the first page of text concerned with the installation of the device that these special accessories must be used with the device. It is the responsibility of the user to use the needed special accessories supplied with the equipment.

Table of Contents

Required information per ISO/IEC Guide 25-1990, paragraph 13.2:

a) **Test Report**

b) Laboratory: M. Flom Associates, Inc.
(FCC: 31040/SIT) 3356 N. San Marcos Place, Suite 107
(Canada: IC 2044) Chandler, AZ 85225

c) Report Number: d06a0011

d) Client: Digital Wireless Corporation
696 Moulton Ave, Unit E
Los Angeles, CA 90031

e) Identification: DM-3010
FCC ID: OHN-M3010

EUT Description: UHF Mobile Transceiver

f) EUT Condition: Not required unless specified in individual tests.

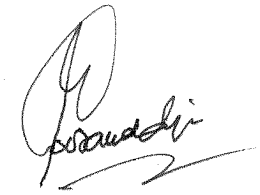
g) Report Date: October 11, 2006
EUT Received:

h, j, k): As indicated in individual tests.

i) Sampling method: No sampling procedure used.

l) Uncertainty: In accordance with MFA internal quality manual.

m) Supervised by:



Hoosamuddin S. Bandukwala, Lab Director

n) Results: The results presented in this report relate only to the item tested.

o) Reproduction: This report must not be reproduced, except in full, without written permission from this laboratory.

Sub-part 2.1033(c)(14):

Test and Measurement Data

All tests and measurement data shown were performed in accordance with FCC Rules and Regulations, Volume II; Part 2, Sub-part J, Sections 2.947, 2.1033(c), 2.1041, 2.1046, 2.1047, 2.1079, 2.1051, 2.1053, 2.1055, 2.1057 and the following individual Parts:

_____	21 – Domestic Public Fixed Radio Services
x	22 – Public Mobile Services
_____	22 Subpart H - Cellular Radiotelephone Service
_____	22.901(d) - Alternative technologies and auxiliary services
_____	23 – International Fixed Public Radiocommunication services
_____	24 – Personal Communications Services
_____	74 Subpart H - Low Power Auxiliary Stations
_____	80 – Stations in the Maritime Services
_____	80 Subpart E - General Technical Standards
_____	80 Subpart F - Equipment Authorization for Compulsory Ships
_____	80 Subpart K - Private Coast Stations and Marine Utility Stations
_____	80 Subpart S - Compulsory Radiotelephone Installations for Small Passenger Boats
_____	80 Subpart T - Radiotelephone Installation Required for Vessels on the Great Lakes
_____	80 Subpart U - Radiotelephone Installations Required by the Bridge-to-Bridge Act
_____	80 Subpart V - Emergency Position Indicating Radio Beacons (EPIRB'S)
_____	80 Subpart W - Global Maritime Distress and Safety System (GMDSS)
_____	80 Subpart X - Voluntary Radio Installations
_____	87 – Aviation Services
x	90 – Private Land Mobile Radio Services
_____	94 – Private Operational-Fixed Microwave Service
_____	95 Subpart A - General Mobile Radio Service (GMRS)
_____	95 Subpart C - Radio Control (R/C) Radio Service
_____	95 Subpart D - Citizens Band (CB) Radio Service
_____	95 Subpart E - Family Radio Service
_____	95 Subpart F - Interactive Video and Data Service (IVDS)
_____	97 - Amateur Radio Service
_____	101 – Fixed Microwave Services

Standard Test Conditions and Engineering Practices

A2LA

"A2LA has accredited Flom Test Labs, Inc. Chandler, AZ for technical competence in the field of Electrical Testing. The accreditation covers the specific tests and types of tests listed on the agreed scope of accreditation. This laboratory meets the requirements of ISO 17025:2005 'General Requirements for the Competence of Testing and Calibration Laboratories' and any additional program requirements in the identified field of testing."

Please refer to www.a2la.org for current scope of accreditation.

Certificate Number: **2152.01**

List of General Information Required for Certification

In Accordance with FCC Rules and Regulations,
Volume II, Part 2 and to

22 and 90

Sub-part 2.1033

(c)(1): **Name and Address of Applicant**:

Digital Wireless Corporation
696 Moulton Ave, Unit E
Los Angeles, CA 90031

Manufacturer:

Digital Wireless Corporation
696 Moulton Ave, Unit E
Los Angeles, CA 90031

(c)(2): **FCC ID**: OHN-M3010

Model Number: DM-3010

(c)(3): **Instruction Manual(s):**

Please see attached exhibits

(c)(4): **Type of Emission**: 11K2F1E, 11K7F1D, 8K10F1E, 8K10F1D, 10K7F1E, 10K7F1D, 6K00F1E, 6K00F1D, 11K7F1E

(c)(5): **Frequency Range, MHz**: 406 to 470

(c)(6): **Power Rating, Watts**: 25

____ Switchable ____ Variable x N/A

(c)(7): **Maximum Power Rating, Watts**: 25 Watts

DUT Results: Passes x Fails _____

Subpart 2.1033 (continued)

(c)(8): Voltages & currents in all elements in final RF stage, including final transistor or solid-state device:

Collector Current, A	=	per manual
Collector Voltage, Vdc	=	per manual
Supply Voltage, Vdc	=	13.4

(c)(9): **Tune-Up Procedure**:

Please see attached exhibits

(c)(10): **Circuit Diagram/Circuit Description**:

Including description of circuitry & devices provided for determining and stabilizing frequency, for suppression of spurious radiation, for limiting modulation and limiting power.

Please see attached exhibits

(c)(11): **Label Information**:

Please see attached exhibits

(c)(12): **Photographs**:

Please see attached exhibits

(c)(13): **Digital Modulation Description**:

___ Attached Exhibits
_x_ N/A

(c)(14): **Test and Measurement Data**:

Follows

(c)(14): **Test and Measurement Data**:

Follows

Name of Test: Carrier Output Power (Conducted)

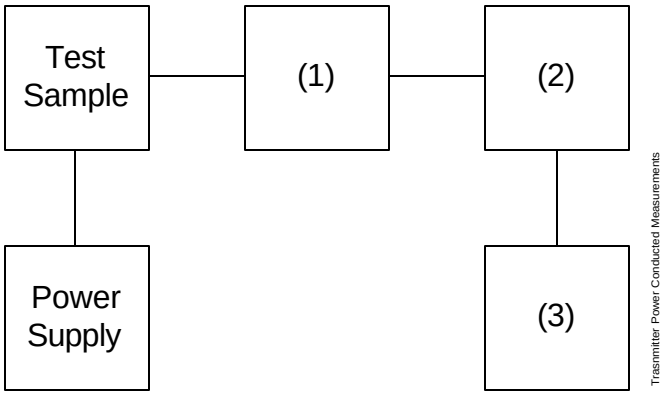
Specification: 47 CFR 2.1046(a)

Measurement Procedure

A) The EUT was connected to a resistive coaxial attenuator of normal load impedance, and the unmodulated output power was measured by means of an RF Power Meter.

B) Measurement accuracy is ±3%.

Transmitter Test Set-Up: RF Power Output



	Asset	Description	s/n	Cycle	Last Cal
(1)	**Coaxial Attenuator**				
X	i00231/2	PASTERNACK PE7021-30 (30 dB)	231 or 232	NCR	
	i00122/3	NARDA 766 (10 dB)	7802 or 7802A	NCR	
(2)	**Power Meters**				
X	i00321	HP 8901A Power Mode	2239A02170	12 mo.	Sep-06
(3)	**Frequency Counter**				
X	i00321	HP 8901A Frequency Mode	2239A02170	12 mo.	Sep-06

Name of Test: Carrier Output Power (Conducted)

Measurement Results
(Worst case)

Frequency of Carrier, MHz	=	438
Ambient Temperature	=	23°C ± 3°C

Power Setting	RF Power, Watts
Mid	25

Performed by: Michael Wyman

Flom Test Labs
3356 North San Marcos Place, Suite 107
Chandler, Arizona 85225-7176
(866) 311-3268 phone, (480) 926-3598 fax

Name of Test: Unwanted Emissions (Transmitter Conducted)

Specification: 47 CFR 2.1051

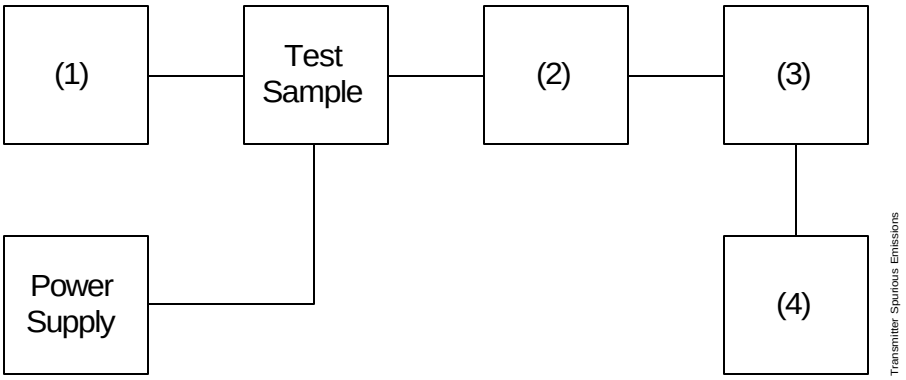
Guide: ANSI/TIA/EIA-603-1992, Paragraph 2.2.13

Measurement Procedure

A) The emissions were measured for the worst case as follows:
   1). within a band of frequencies defined by the carrier frequency plus and minus one channel.
   2). from the lowest frequency generated in the EUT and to at least the 10th harmonic of the carrier frequency, or 40 GHz, whichever is lower.

B) The magnitude of spurious emissions that are attenuated more than 20 dB below the permissible value need not be specified.

Transmitter Test Set-Up: Spurious Emission



	Asset	Description	s/n		
(1) **Audio Oscillator/Generator**					
X	i00017	HP 8903A Audio Analyzer	2216A01753	12 mo.	Aug-06
	i00002	HP 3336B Synthesizer / Level Gen.	1931A01465	12 mo.	May-06
(2) **Coaxial Attenuator**					
X	i00231/2	PASTERNACK PE7021-30 (30 dB)	231 or 232	NCR	
	i0012/3	NARDA 766 (10 dB)	7802 or 7802A	NCR	
(3) **Filters; Notch, HP, LP, BP**					
		None required			
(4) **Spectrum Analyzer**					
X	i00048	HP 8566B Spectrum Analyzer	2511A01467	12 mo.	Aug-07
	i00029	HP 8563E Spectrum Analyzer	3213A00104	12 mo.	Jan-07

Name of Test: Unwanted Emissions (Transmitter Conducted)

Measurement Results
(Worst Case)

Summary:

Frequency of carrier, MHz	=	438
Spectrum Searched, GHz	=	0 to 10 x F_C
All Other Emissions	=	= 20 dB Below Limit
Limit(s), dBc		
	-(43+10xLOG P) =	-57 (25 Watts)

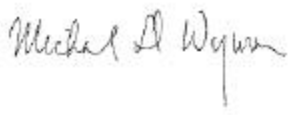
Measurement Results

g0680007: 2006-Aug-21 Mon 17:39:00
State: 2:High Power Ambient Temperature: 23°C ± 3°C

Frequency Tuned, MHz	Frequency Emission, MHz	Level, dBm	Level, dBc	Margin, dB
438.000000	875.824000	-70.5	-70.5	-57.5
438.000000	1313.968000	-70.5	-70.5	-57.5
438.000000	1751.756000	-70.2	-70.2	-57.2
438.000000	2189.758000	-68.9	-68.9	-55.9
438.000000	2628.028000	-68	-68	-55
438.000000	3066.228000	-68.3	-68.3	-55.3
438.000000	3503.652000	-69.2	-69.2	-56.2
438.000000	3942.190000	-69.6	-69.6	-56.6
438.000000	4379.548000	-68.4	-68.4	-55.4
438.000000	21097.330000	-49.7	-49.7	-36.7
438.000000	21117.960000	-49.7	-49.7	-36.7
438.000000	21171.920000	-49.7	-49.7	-36.7
438.000000	21227.970000	-49.5	-49.5	-36.5
438.000000	21294.470000	-48.9	-48.9	-35.9
438.000000	21324.620000	-49.3	-49.3	-36.3
438.000000	21401.680000	-48.9	-48.9	-35.9
438.000000	21457.730000	-49	-49	-36
438.000000	21523.680000	-48.5	-48.5	-35.5
438.000000	21550.910000	-48.9	-48.9	-35.9
438.000000	21623.790000	-48.3	-48.3	-35.3
438.000000	21672.640000	-48.5	-48.5	-35.5
438.000000	21717.960000	-48.3	-48.3	-35.3
438.000000	21781.880000	-46.9	-46.9	-33.9
438.000000	21836.660000	-47.3	-47.3	-34.3
438.000000	21896.780000	-48.2	-48.2	-35.2
438.000000	21909.160000	-48.5	-48.5	-35.5
438.000000	21995.130000	-48.2	-48.2	-35.2
438.000000	22032.370000	-48.5	-48.5	-35.5
438.000000	22063.340000	-48.6	-48.6	-35.6
438.000000	22102.120000	-48.3	-48.3	-35.3

Name of Test: Unwanted Emissions (Transmitter Conducted) (Continued)

Frequency Tuned, MHz	Frequency Emission, MHz	Level, dBm	Level, dBc	Margin, dB
438.000000	22189.740000	-48.5	-48.5	-35.5
438.000000	22219.500000	-47.8	-47.8	-34.8
438.000000	22301.790000	-48.6	-48.6	-35.6
438.000000	22336.550000	-48.3	-48.3	-35.3
438.000000	22373.240000	-48.4	-48.4	-35.4
438.000000	22433.580000	-48.6	-48.6	-35.6
438.000000	22456.520000	-48	-48	-35
438.000000	22550.190000	-48	-48	-35
438.000000	22571.040000	-48.1	-48.1	-35.1
438.000000	22602.340000	-48.9	-48.9	-35.9
438.000000	22660.590000	-48.2	-48.2	-35.2
438.000000	22723.790000	-48.3	-48.3	-35.3
438.000000	22800.190000	-48.3	-48.3	-35.3
438.000000	22852.060000	-48.3	-48.3	-35.3
438.000000	22875.880000	-48.8	-48.8	-35.8
438.000000	22933.310000	-48.3	-48.3	-35.3
438.000000	22984.130000	-48.1	-48.1	-35.1
438.000000	23003.000000	-48.9	-48.9	-35.9
438.000000	23100.080000	-48.2	-48.2	-35.2
438.000000	23124.070000	-48.3	-48.3	-35.3
438.000000	23171.260000	-48.1	-48.1	-35.1
438.000000	23215.760000	-48.6	-48.6	-35.6
438.000000	23251.350000	-48.9	-48.9	-35.9
438.000000	23310.430000	-48.4	-48.4	-35.4
438.000000	23366.090000	-48.5	-48.5	-35.5
438.000000	23420.490000	-48.3	-48.3	-35.3
438.000000	23500.800000	-48.7	-48.7	-35.7
438.000000	23514.990000	-48.6	-48.6	-35.6
438.000000	23594.360000	-48.5	-48.5	-35.5
438.000000	23615.100000	-48.1	-48.1	-35.1
438.000000	23666.200000	-48.5	-48.5	-35.5
438.000000	23747.880000	-48.4	-48.4	-35.4
438.000000	23801.620000	-47.9	-47.9	-34.9
438.000000	23831.000000	-48.4	-48.4	-35.4
438.000000	23873.680000	-48.5	-48.5	-35.5
438.000000	23926.980000	-48.5	-48.5	-35.5
438.000000	23987.050000	-48.9	-48.9	-35.9
438.000000	23999.999966	-48.1	-48.1	-35.1



Performed by: Michael Wyman

Name of Test: Field Strength of Spurious Radiation

Specification: 47 CFR 2.1053(a)

Guide: ANSI/TIA/EIA-603-1992/2001, Paragraph 1.2.12 and Table 16, 47 CFR 22.917

Measurement Procedure

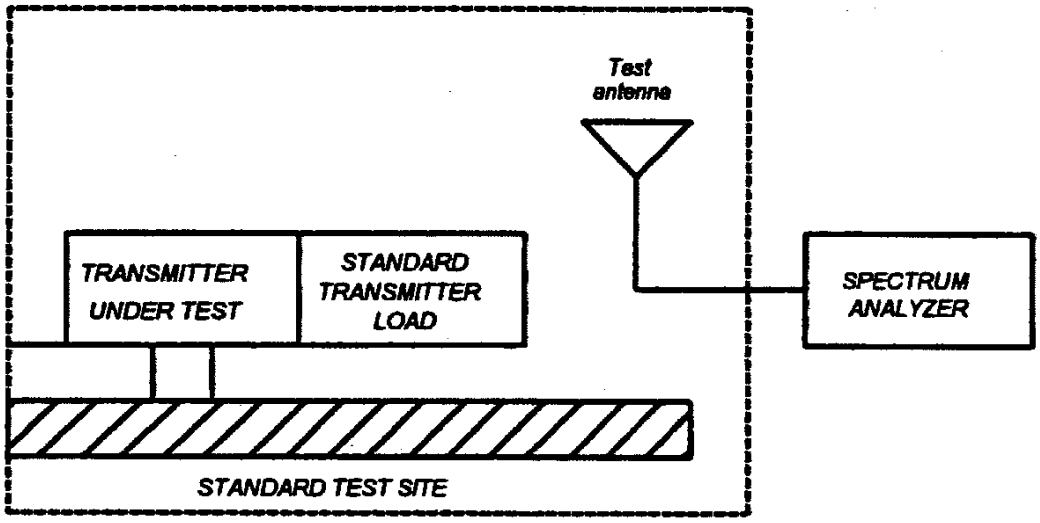
Definition:
Radiated spurious emissions are emissions from the equipment when transmitting into a non-radiating load on a frequency or frequencies which are outside an occupied band sufficient to ensure transmission of information of required quality for the class of communications desired.

Method of Measurement:

A) Connect the equipment as illustrated

B) Adjust the spectrum analyzer for the following settings:
   1) Resolution Bandwidth 100 kHz (<1 GHZ), 1 MHZ (> 1GHz).
   2) Video Bandwidth = 3 times Resolution Bandwidth, or 30 kHz (22.917)
   3) Sweep Speed ≤2000 Hz/second
   4) Detector Mode = Mean or Average Power

C) Place the transmitter to be tested on the turntable in the standard test site. The transmitter is transmitting into a non-radiating load that is placed on the turntable. The RF cable to this load should be of minimum length.

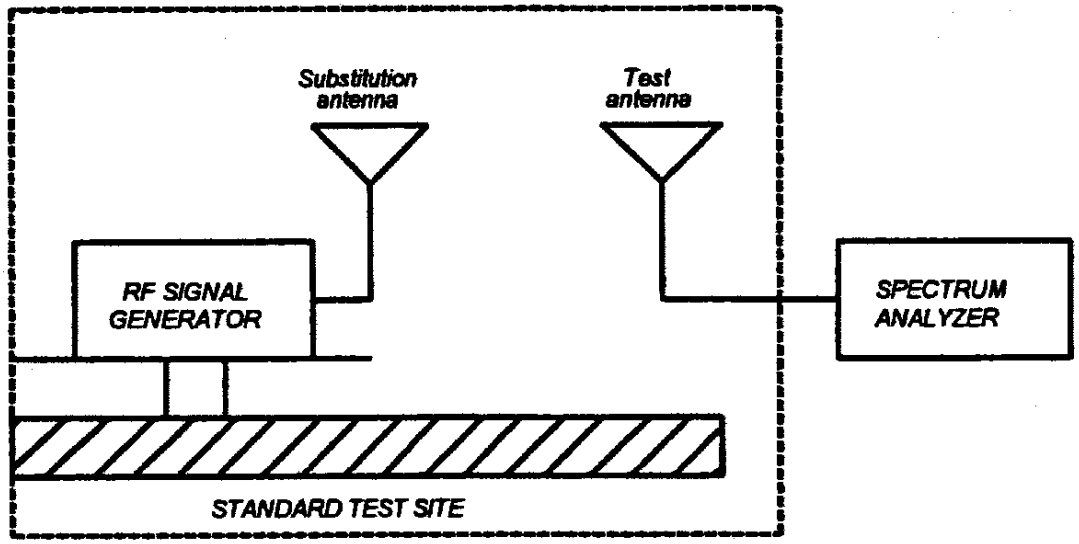


Name of Test: Field Strength of Spurious Radiation (Cont.)

D) For each spurious measurement the test antenna should be adjusted to the correct length for the frequency involved. This length may be determined from a calibration ruler supplied with the equipment. Measurements shall be made from the lowest radio frequency generated in the equipment to the tenth harmonic of the carrier, except for the region close to the carrier equal to ± the test bandwidth (see section 1.3.4.4).

E) For each spurious frequency, raise and lower the test antenna from 1 m to 4 m to obtain a maximum reading on the spectrum analyzer with the test antenna at horizontal polarity. Repeat this procedure to obtain the highest possible reading. Record this maximum reading.

F) Repeat step E) for each spurious frequency with the test antenna polarized vertically.



G) Reconnect the equipment as illustrated.

H) Keep the spectrum analyzer adjusted as in step B).

I) Remove the transmitter and replace it with a substitution antenna (the antenna should be half-wavelength for each frequency involved). The center of the substitution antenna should be approximately at the same location as the center of the transmitter. At lower frequencies, where the substitution antenna is very long, this will be impossible to achieve when the antenna is polarized vertically. In such case the lower end of the antenna should be 0.3 m above the ground.

Name of Test: Field Strength of Spurious Radiation (Cont.)

J) Feed the substitution antenna at the transmitter end with a signal generator connected to the antenna by means of a non-radiating cable. With the antennas at both ends horizontally polarized and with the signal generator tuned to a particular spurious frequency, raise and lower the test antenna to obtain a maximum reading at the spectrum analyzer. Adjust the level of the signal generator output until the previously recorded maximum reading for this set of conditions is obtained. This should be done carefully repeating the adjustment of the test antenna and generator output.

K) Repeat step J) with both antennas vertically polarized for each spurious frequency.

L) Calculate power in dBm into a reference ideal half-wave dipole antenna by reducing the readings obtained in steps J) and K) by the power loss in the cable between the generator and the antenna and further corrected for the gain of the substitution antenna used relative to an ideal half-wave dipole antenna.

M) The levels recorded in step L) are absolute levels of radiated spurious emissions in dBm. The radiated spurious emissions in dB can be calculated by the following:

Radiated spurious emissions dB =

$10\log_{10}$(TX power in watts/0.001) – the levels in step l)

NOTE: It is permissible that other antennas provided can be referenced to a dipole.

Test Equipment

	Asset	Description	s/n	Cycle	Last Cal
Transducer					
	i00088	EMCO 3109-B 25MHz-300MHz	2336	12 mo.	Oct-07
X	i00089	Aprel 2001 200MHz-1GHz	001500	12 mo.	Oct-07
X	i00103	EMCO 3115 1GHz-18GHz	9208-3925	12 mo.	Sep-08
Amplifier					
X	i00028	HP 8449A	2749A00121	12 mo.	Dec-06
Spectrum Analyzer					
X	i00029	HP 8563E	3213A00104	12 mo.	Jan-07
X	i00033	HP 85462A	3625A00357	12 mo.	Nov-07
Substitution Generator					
X	i00067	HP 8920A Communication TS	3345U01242	12 mo.	Jun-07
	i00207	HP 8753D Network Analyzer	3410A08514	12 mo.	May-07

Microphone, Antenna Port, and Cabling

Microphone	X	Cable Length	2	Meters	
Antenna Port Terminated		Load		Antenna Gain	
All Ports Terminated by Load		Peripheral			

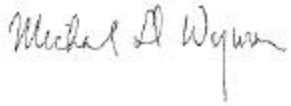
Name of Test: Field Strength of Spurious Radiation

Measurement Results

STATE: Ambient Temperature: 23°C ± 3°C

Frequency Tuned, MHz	Frequency Emission, MHz	ERP, dBm	ERP, dBc
0			

No Spurious Emissions were found.



Performed by: Michael Wyman

Name of Test: Emission Masks (Occupied Bandwidth)

Specification: 47 CFR 2.1049(c)(1)

Guide: ANSI/TIA/EIA-603-1992, Paragraph 2.2.11

Measurement Procedure

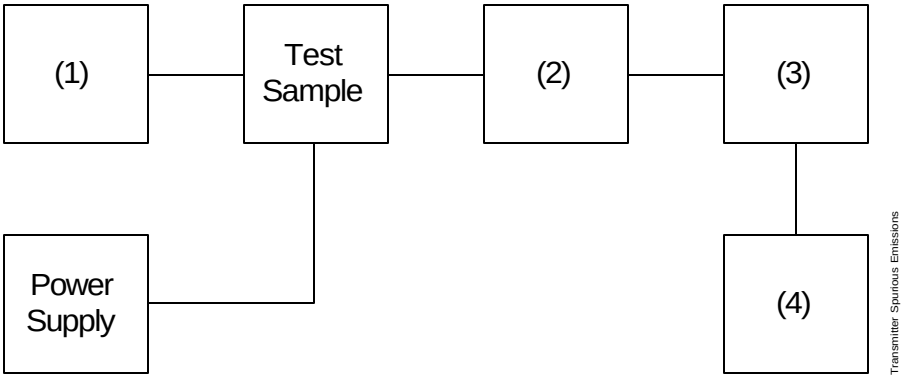
A) The EUT and test equipment were set up as shown below

B) For EUTs supporting audio modulation, the audio signal generator was adjusted to the frequency of maximum response and with output level set for ±2.5/±1.25 kHz deviation (or 50% modulation). With level constant, the signal level was increased 16 dB.

C) For EUTs supporting digital modulation, the digital modulation mode was operated to its maximum extent.

D) The Occupied Bandwidth was measured with the Spectrum Analyzer controls set as shown on the test results.

Transmitter Test Set-Up: Occupied Bandwidth



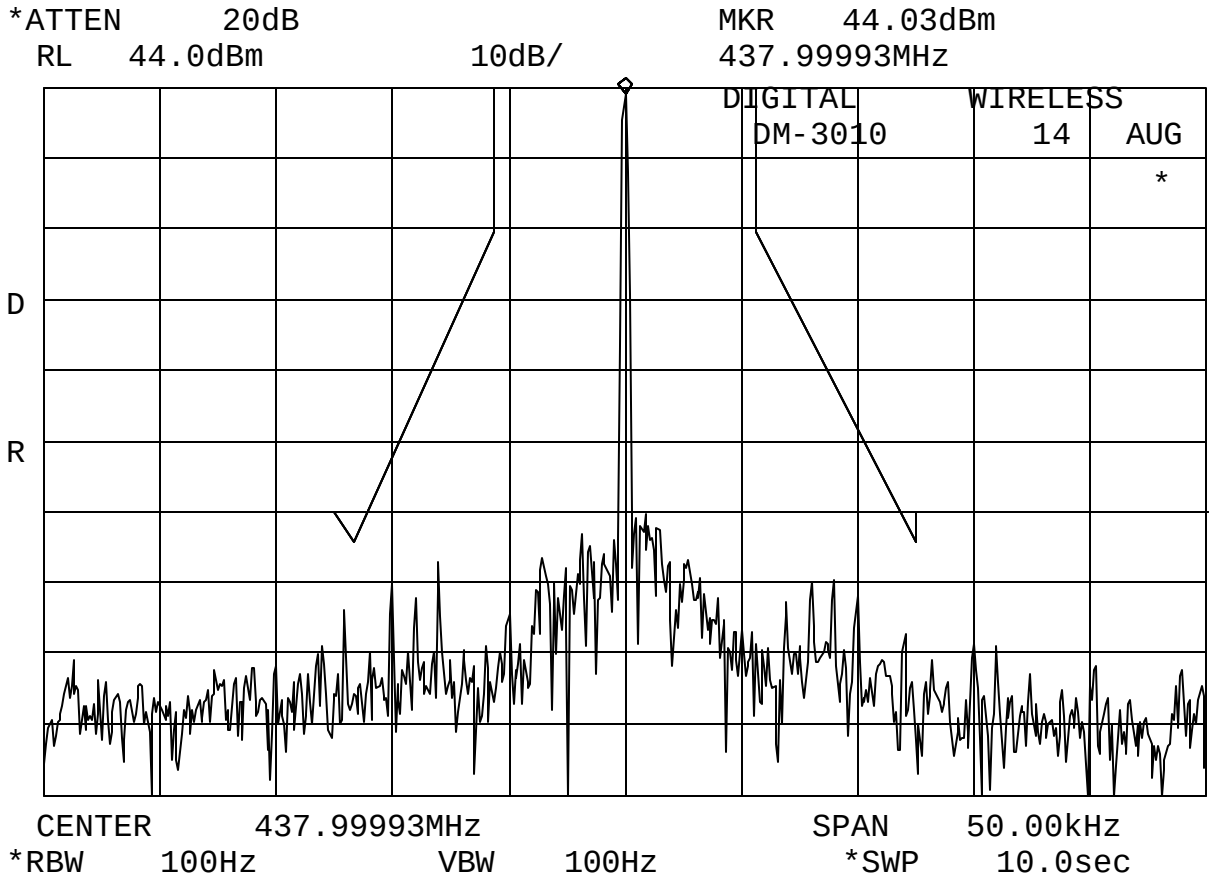
	Asset	Description	s/n	Cycle	Last Cal
(1) **Audio Oscillator/Generator**					
X	i00017	HP 8903A Modulation Meter	2216A01753	12 mo.	Aug-06
(2) **Coaxial Attenuator**					
X	i00231/2	PASTERNACK PE7021-30 (30 dB)	231 or 232	NCR	
	i00123	NARDA 766 (10 dB)	7802A	NCR	
(3) **Interface**					
X	i00021	HP 8954A Transceiver Interface	2146A00159	NCR	
(4) **Spectrum Analyzer**					
X	i00048	HP 8566B Spectrum Analyzer	2511A01467	12 mo.	Aug-07
	i00029	HP 8563E Spectrum Analyzer	3213A00104	12 mo.	Jan-07

Name of Test: RF Output Power (CW)

Measurement Results

g0680127: 2006-Aug-14 Mon 17:12:00
State: 2:High Power

Ambient Temperature: 23°C ± 3°C



Power: HIGH
Modulation: NONE
MASK: D,438 Mid Channel

Performed by: Michael Wyman

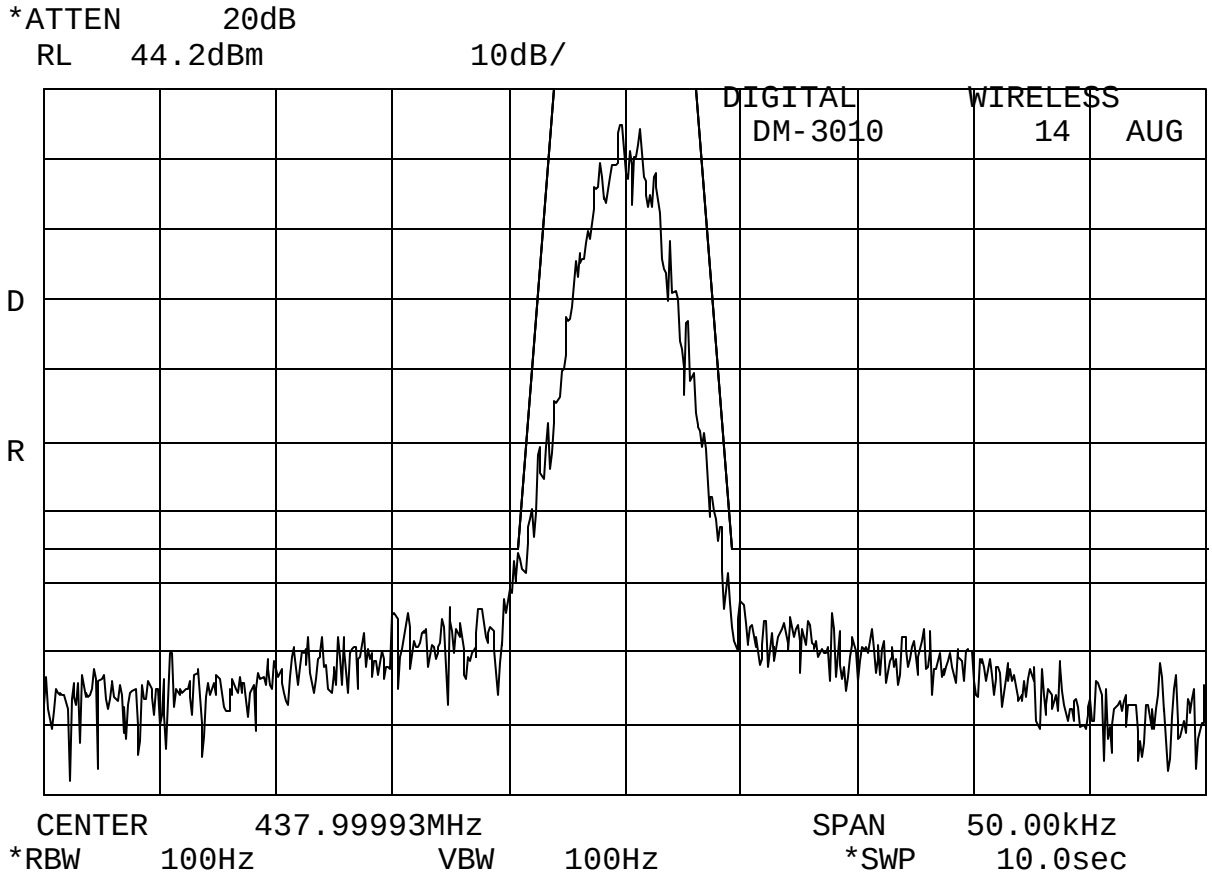
Flom Test Labs
3356 North San Marcos Place, Suite 107
Chandler, Arizona 85225-7176
(866) 311-3268 phone, (480) 926-3598 fax

Name of Test: Emission Masks (Occupied Bandwidth)

Measurement Results

g0680128: 2006-Aug-14 Mon 17:25:00
State: 2:High Power

Ambient Temperature: 23°C ± 3°C



Power: HIGH
Modulation: 6.25 kHz Channel Spacing
MASK: E,438 Mid Channel

Performed by: Michael Wyman

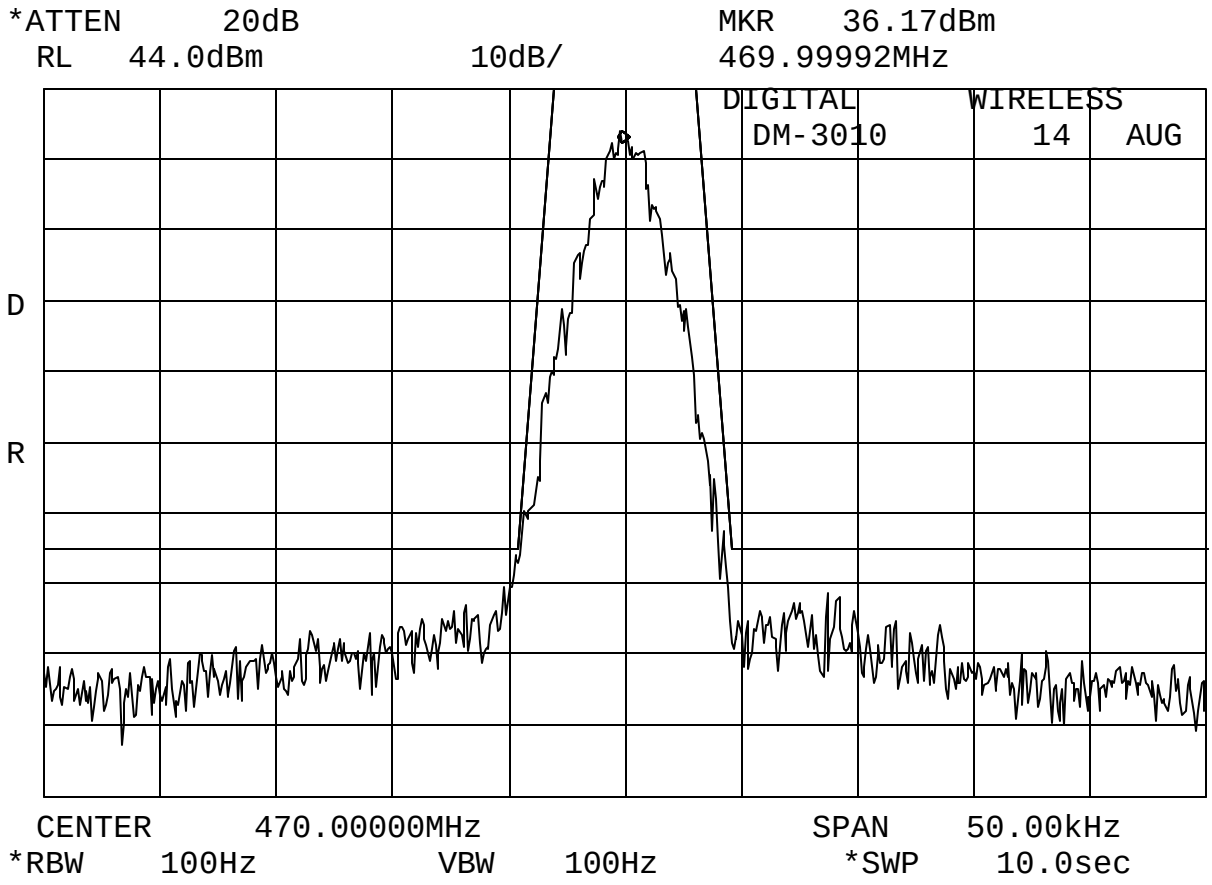
Flom Test Labs
3356 North San Marcos Place, Suite 107
Chandler, Arizona 85225-7176
(866) 311-3268 phone, (480) 926-3598 fax

Name of Test: Emission Masks (Occupied Bandwidth)

Measurement Results

g0680130: 2006-Aug-14 Mon 17:41:00
State: 2:High Power

Ambient Temperature: 23°C ± 3°C



Power: HIGH
Modulation: 6.25 kHz Channel Spacing
MASK: E,470 MHZ High Channel

Performed by: Michael Wyman

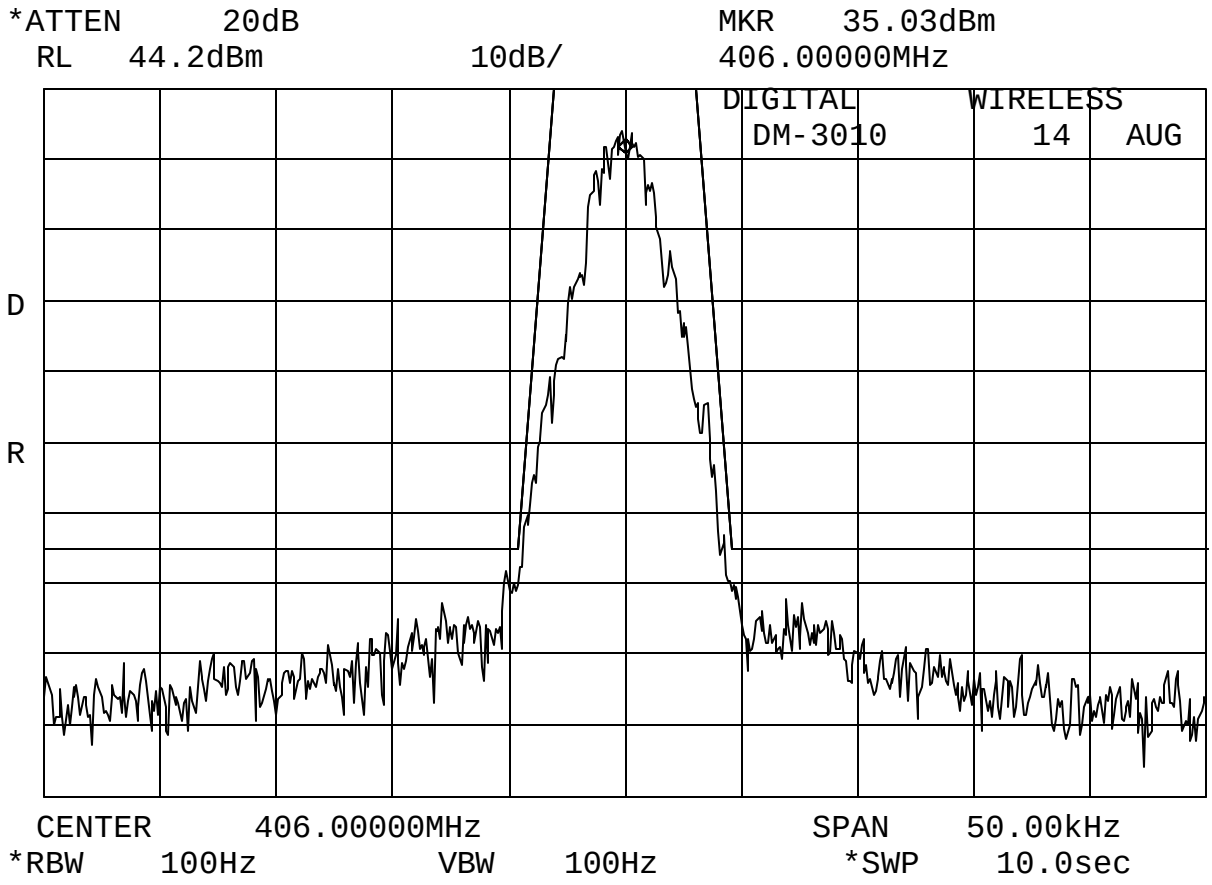
Flom Test Labs
3356 North San Marcos Place, Suite 107
Chandler, Arizona 85225-7176
(866) 311-3268 phone, (480) 926-3598 fax

Name of Test: Emission Masks (Occupied Bandwidth)

Measurement Results

g0680131: 2006-Aug-14 Mon 17:46:00
State: 2:High Power

Ambient Temperature: 23°C ± 3°C



Power: HIGH
Modulation: 6.25 kHz Channel Spacing
MASK: E,406 MHZ Low Channel

Performed by: Michael Wyman

Flom Test Labs
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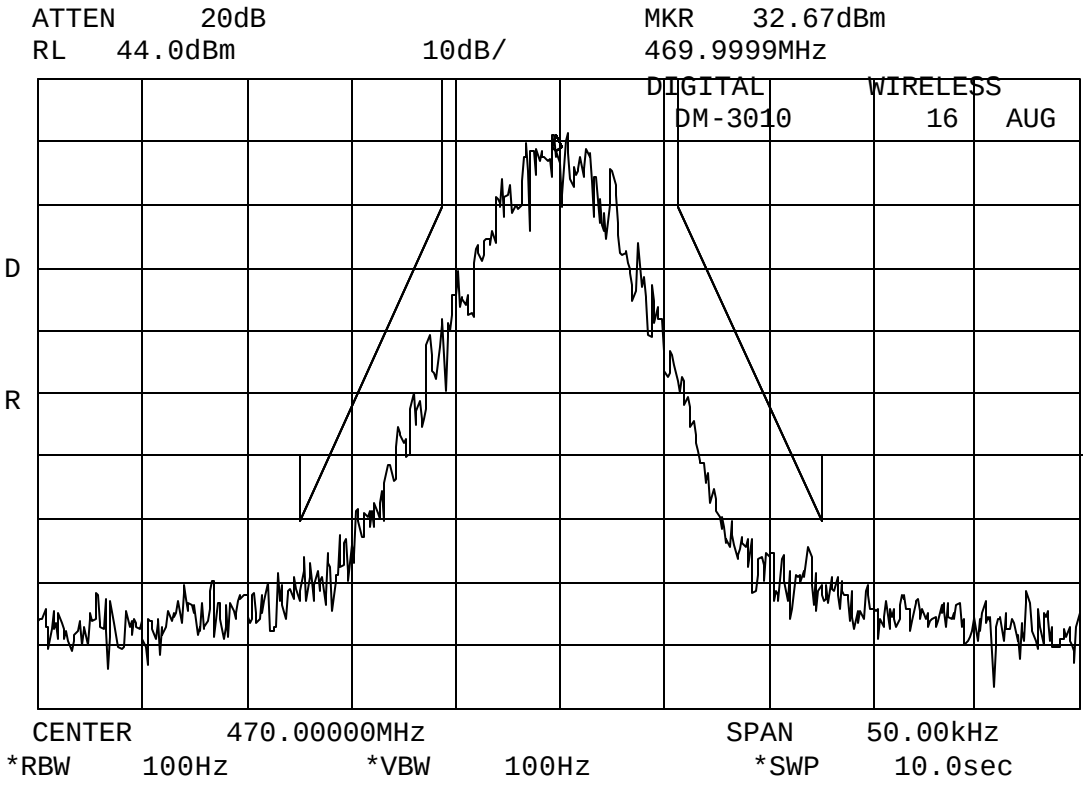
Chandler, Arizona 85225-7176
(866) 311-3268 phone, (480) 926-3598 fax

Name of Test: Emission Masks (Occupied Bandwidth)

Measurement Results

g0680003: 2006-Aug-16 Wed 16:46:00
State: 2:High Power

Ambient Temperature: 23°C ± 3°C



Power: HIGH
Modulation: 12.5 kHz Channel Spacing
MASK: D,470 High Channel

Performed by: Michael Wyman

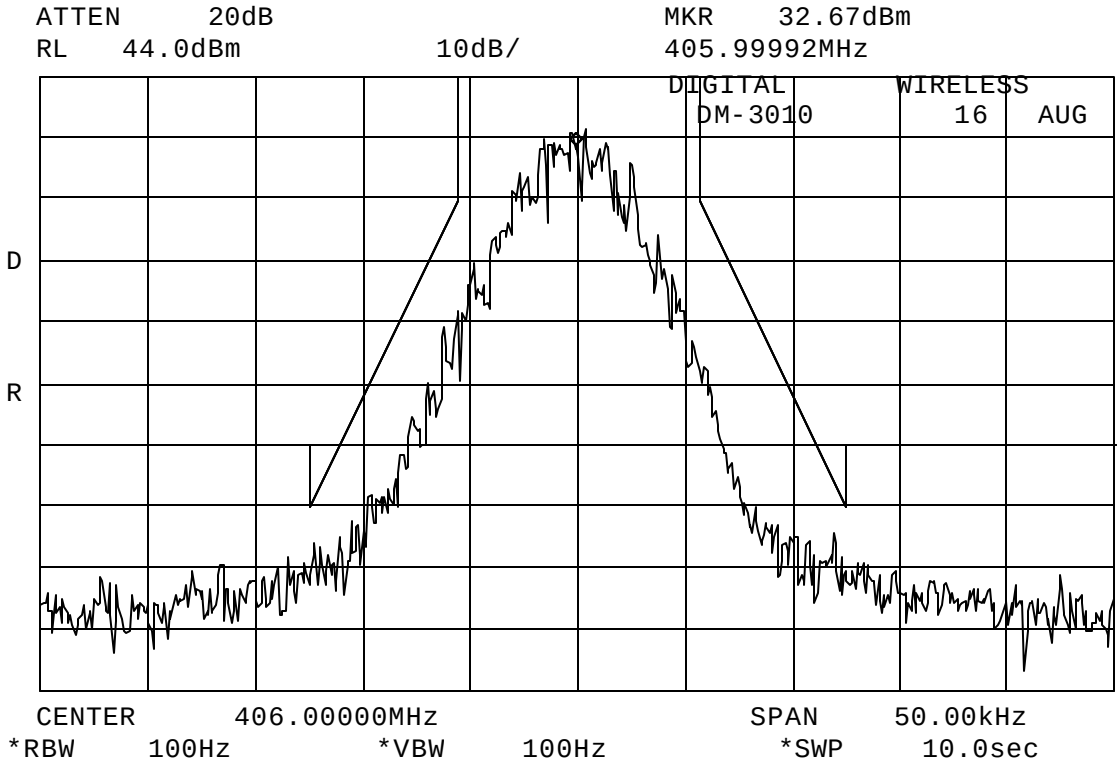
Flom Test Labs
3356 North San Marcos Place, Suite 107
Chandler, Arizona 85225-7176
(866) 311-3268 phone, (480) 926-3598 fax

Name of Test: Emission Masks (Occupied Bandwidth)

Measurement Results

g0680003: 2006-Aug-16 Wed 16:46:00
State: 2:High Power

Ambient Temperature: 23°C ± 3°C



Power: HIGH
Modulation: 12.5 kHZ Channel Spacing
MASK: D,406 Low Channel

Performed by: Michael Wyman

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Chandler, Arizona 85225-7176
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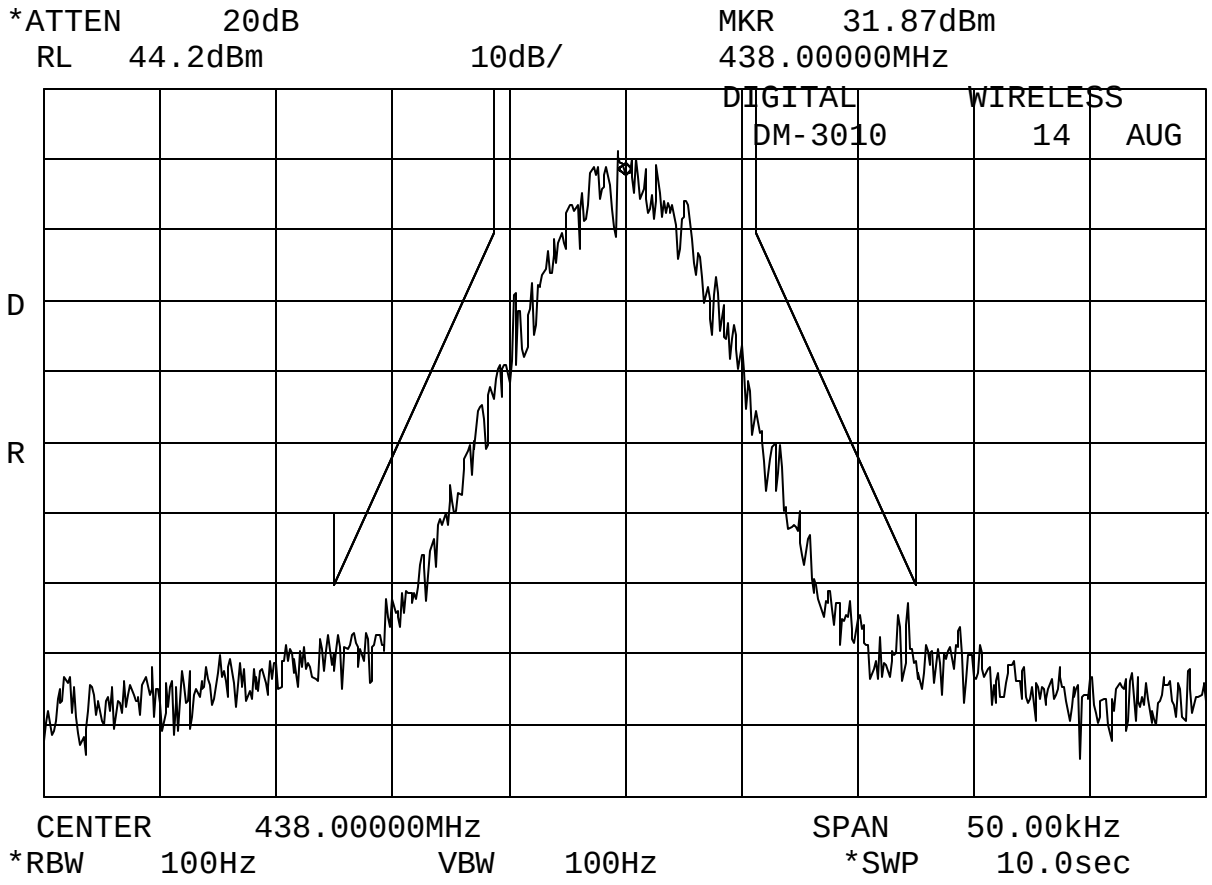
Name of Test: Emission Masks (Occupied Bandwidth)

Measurement Results

g0680132: 2006-Aug-14 Mon 17:50:00
State: 2:High Power

Ambient Temperature: 23°C ± 3°C



Power: HIGH
Modulation: 12.5 kHz Channel Spacing
MASK: D,438 Mid Channel

Performed by: Michael Wyman

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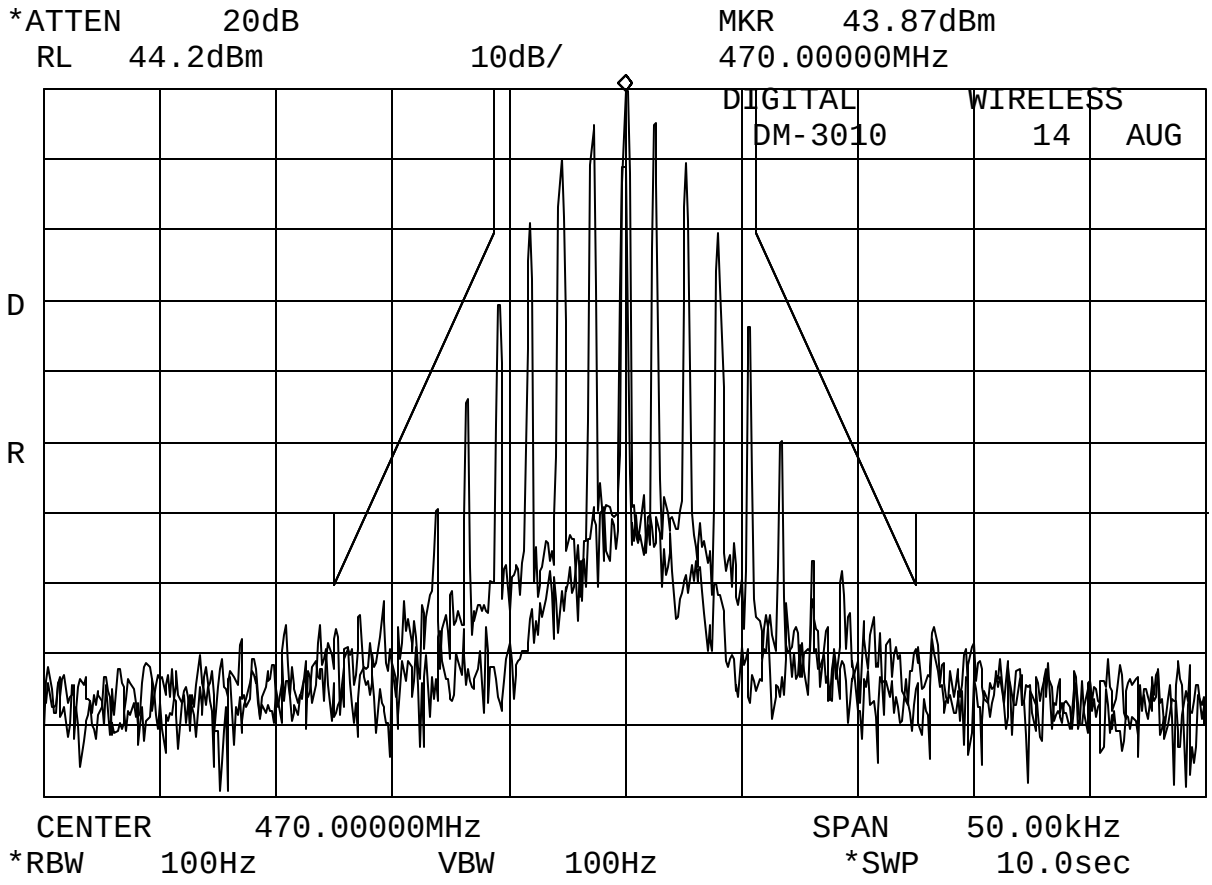
Name of Test: Emission Masks (Occupied Bandwidth)

Measurement Results

g0680133: 2006-Aug-14 Mon 17:56:00
State: 2:High Power

Ambient Temperature: 23°C ± 3°C



Power:	HIGH
Modulation:	12.5 kHz Channel Spacing MASK: D 470 MHZ High Channel

Performed by: Michael Wyman

Flom Test Labs
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Chandler, Arizona 85225-7176
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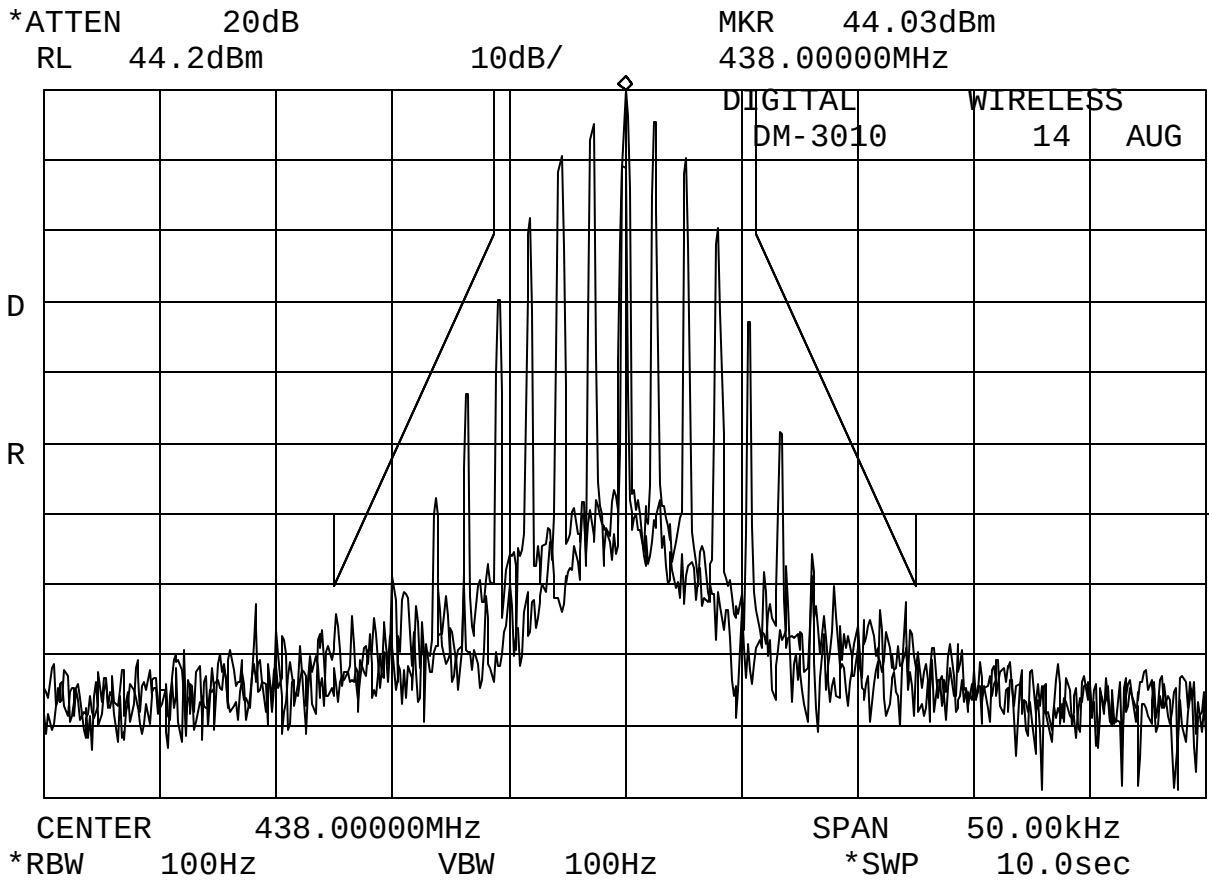
Name of Test: Emission Masks (Occupied Bandwidth)

Measurement Results

g0680136: 2006-Aug-14 Mon 18:04:00
State: 2:High Power

Ambient Temperature: 23°C ± 3°C



Power:	HIGH
Modulation:	12.5 kHz Channel spacing MASK: D,438 Mid Channel

Performed by: Michael Wyman

Flom Test Labs
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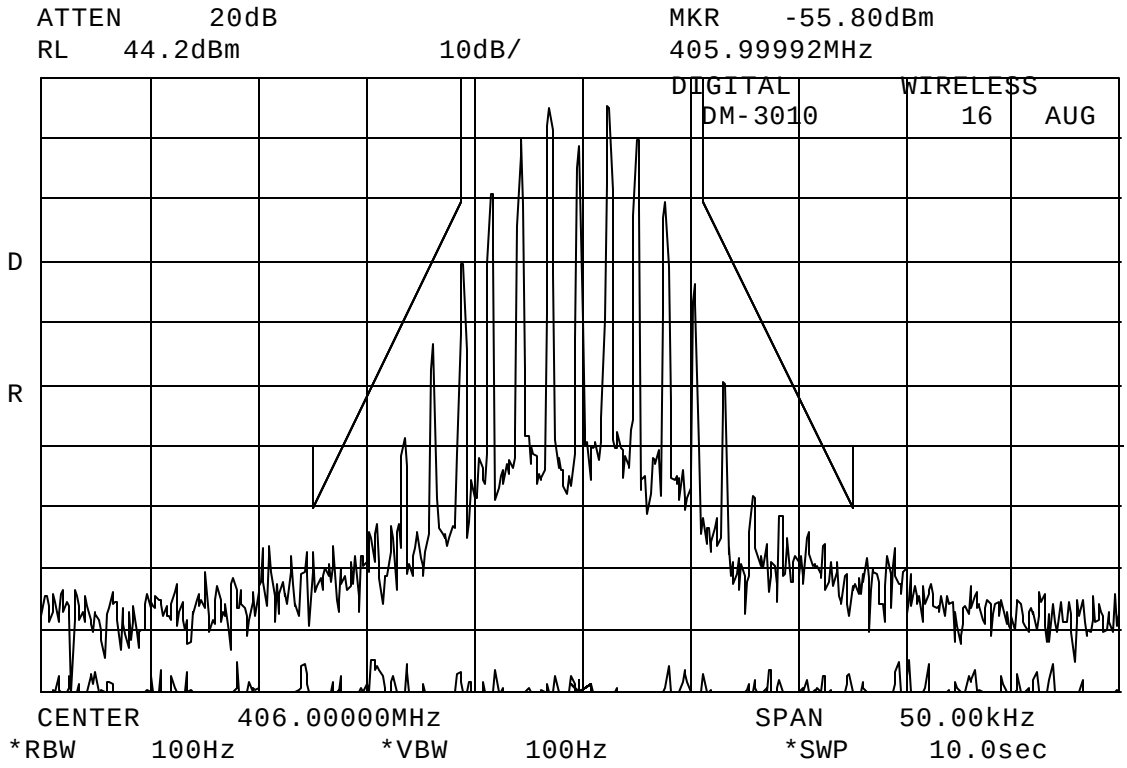
Chandler, Arizona 85225-7176
(866) 311-3268 phone, (480) 926-3598 fax

Name of Test: Emission Masks (Occupied Bandwidth)

Measurement Results

g0680006: 2006-Aug-16 Wed 16:58:00
State: 2:High Power

Ambient Temperature: 23°C ± 3°C



Power:	HIGH
Modulation:	12.5 kHz Channel Spacing MASK: D,406 Low Channel

Performed by: Michael Wyman

Flom Test Labs
3356 North San Marcos Place, Suite 107
Chandler, Arizona 85225-7176
(866) 311-3268 phone, (480) 926-3598 fax

Name of Test: Transient Frequency Behavior

Specification: 47 CFR 90.214

Guide: ANSI/TIA/EIA-603-1992, Paragraph 2.2.19

Measurement Procedure

A) The EUT was setup as shown on the attached page, following TIA/EIA-603 steps a, b, and c as a *guide*.

B) The transmitter was turned on.

C) Sufficient attenuation was provided so that the transmitter carrier level measured at the output of the combiner was 40 dB below the maximum input level of the test receiver. This level was recorded.

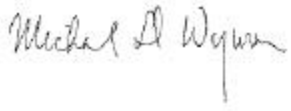
D) The transmitter was turned off.

E) An RF signal generator (1) modulated with a 1 kHz tone at either 25, 12.5, or 6.25 kHz deviation, and set to the same frequency as the assigned transmitter frequency, (2) was adjusted to a level -20 dB below the level recorded for step C) above, measured at the output of the combiner. This level was then fixed for the remainder of the test.

F) The oscilloscope was setup using TIA/EIA-603 steps j and k as a guide, and to either 10 ms/div (UHF) or 5 ms/div (VHF).

G) The 30 dB attenuator was removed, the transmitter was turned on, and the level of the carrier at the output of the combiner was recorded.

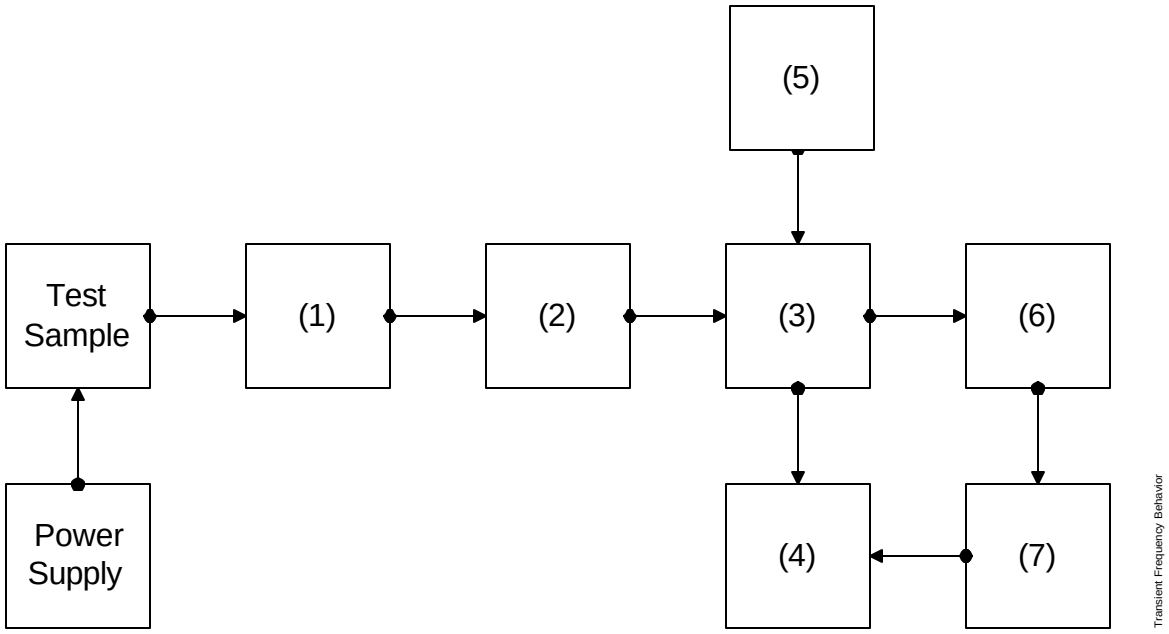
H) The carrier on-time as referenced in TIA/EIA-603 steps m, n, and o was captured and plotted. The carrier off-time as referenced in TIA/EIA-603 steps p, q, r, and s was captured and plotted.



Performed by: Michael Wyman

Name of Test: Transient Frequency Behavior

Transmitter Set-Up

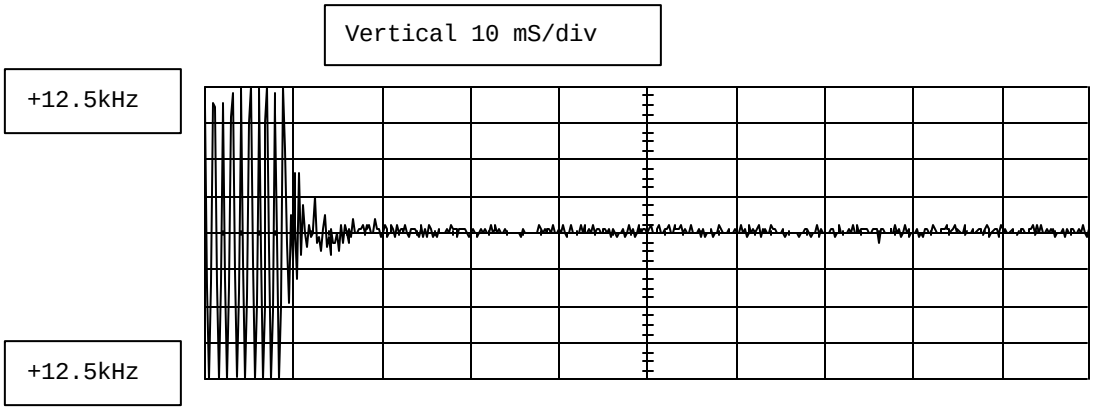


	Asset	Description	s/n	Cycle	Last Cal
(1) **Attenuator** (Removed after 1st step)					
X	i00231/2	PASTERNACK PE7021-30 (30 dB)	231 or 232	NCR	
(2) **Attenuator**					
X	i00231/2	PASTERNACK PE7021-30 (30 dB)	231 or 232	NCR	
	i00122/3	NARDA 766 (10 dB)	7802 or 7802A	NCR	
(3) **Combiner**					
X	i00154	4 x 25 Ω Combiner	154	NCR	
(4) **Crystal Decoder**					
X	i00159	HP 8470B Crystal Detector	1822A10054	NCR	
(5) **RF Signal Generator**					
X	i00067	HP 8920A Communication TS	3345U01242	12 mo.	Jun-07
(6) **Modulation Analyzer**					
X	i00020	HP 8901A Modulation Meter	2105A01087	12 mo.	May-06
(7) **Oscilloscope**					
X	i00030	HP 54502A Digital Oscilloscope	2927A00209	12 mo.	Jan-06

Name of Test: Transient Frequency Behavior

g0710020: 2007-Jan-09 Tue 12:37:00
State: 2:High Power

Ambient Temperature: 23°C ± 3°C



Power:	HIGH 438 MHZ
Modulation:	12.5 KHZ 10MS
Description:	CARRIER ON

Performed by: Michael Wyman

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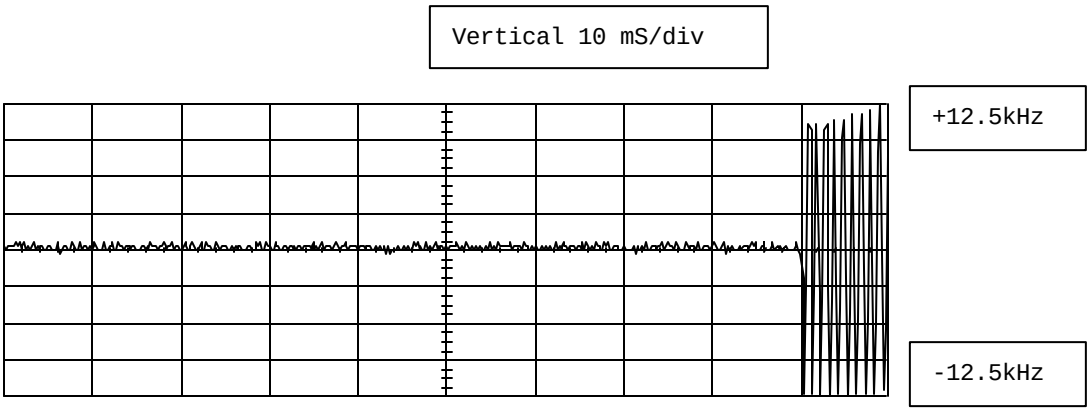
Name of Test: Transient Frequency Behavior

g0710021: 2007-Jan-09 Tue 12:41:00
State: 2:High Power

Ambient Temperature: 23°C ± 3°C



Power:	HIGH 438 MHZ
Modulation:	12.5 KHZ 10MS
Description:	CARRIER OFF

Performed by: Michael Wyman

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Chandler, Arizona 85225-7176
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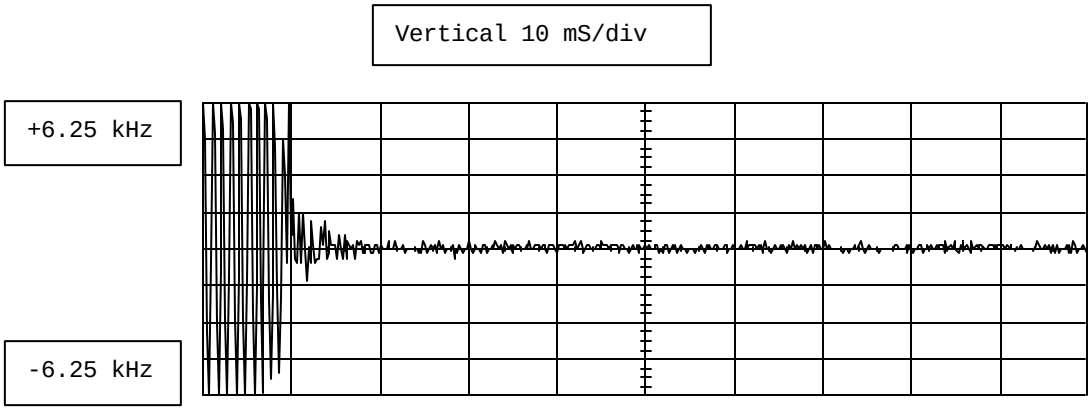
Name of Test: Transient Frequency Behavior

g0710022: 2007-Jan-09 Tue 12:42:00
State: 2:High Power

Ambient Temperature: 23°C ± 3°C



Power:	HIGH 438 MHZ
Modulation:	6.25 KHZ 10MS
Description:	CARRIER ON

Performed by: Michael Wyman

Flom Test Labs
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Chandler, Arizona 85225-7176
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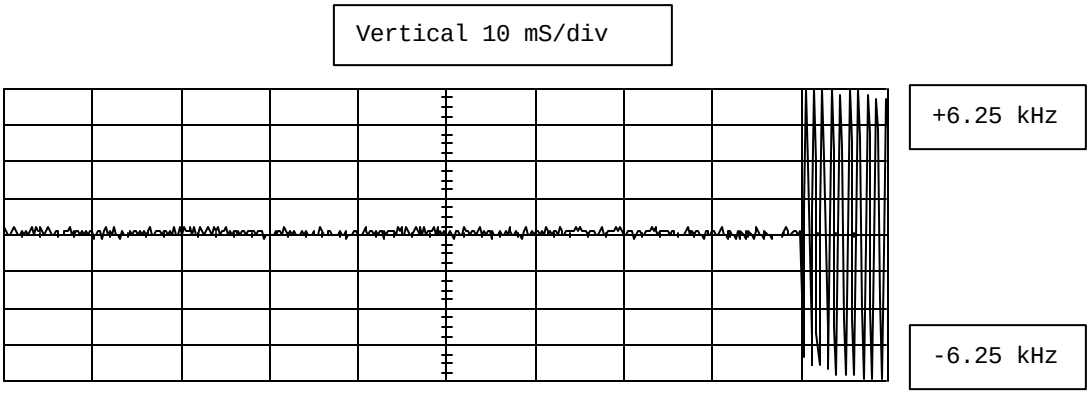
Name of Test: Transient Frequency Behavior

g0710023: 2007-Jan-09 Tue 12:43:00
State: 2:High Power

Ambient Temperature: 23°C ± 3°C



Power:	HIGH 438 MHZ
Modulation:	6.25 KHZ 10MS
Description:	CARRIER OFF

Performed by: Michael Wyman

Flom Test Labs
3356 North San Marcos Place, Suite 107
Chandler, Arizona 85225-7176
(866) 311-3268 phone, (480) 926-3598 fax

Name of Test: Frequency Stability (Temperature Variation)

Specification: 47 CFR 2.1055(a)(1)

Guide: ANSI/TIA/EIA-603-1992, Paragraph 2.2.2

Measurement Procedure

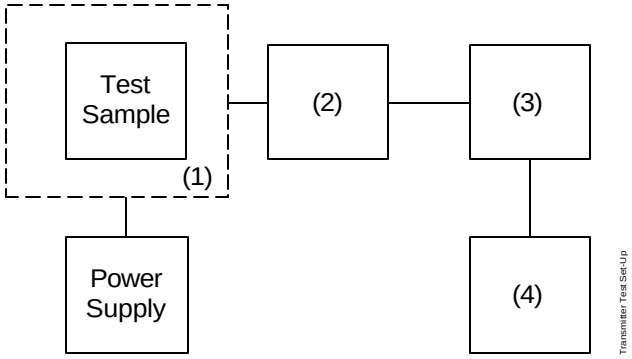
A) The EUT and test equipment were set up as shown on the following page.

B) With all power removed, the temperature was decreased to -30°C and permitted to stabilize for three hours. Power was applied and the maximum change in frequency was noted within one minute.

C) With power OFF, the temperature was raised in 10°C steps. The sample was permitted to stabilize at each step for at least one-half hour. Power was applied and the maximum frequency change was noted within one minute.

D) The temperature tests were performed for the worst case.

Transmitter Test Set-Up: Temperature Variation



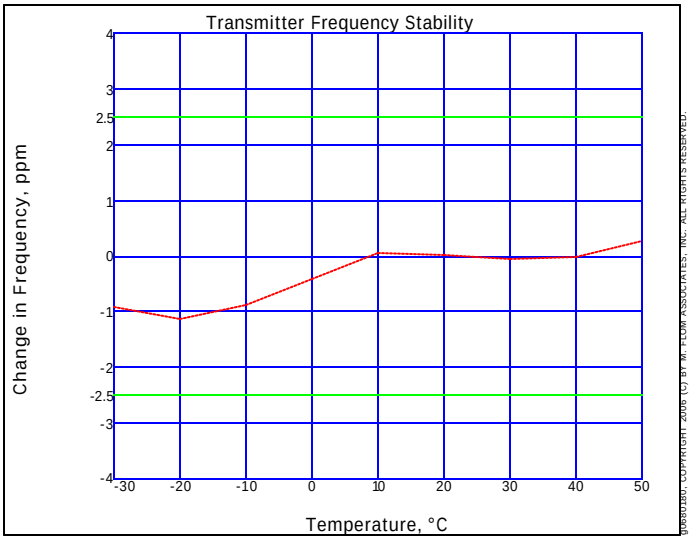
	Asset	Description	s/n	Cycle	Last Cal
(1) **Temperature, Humidity, Vibration**					
X	i00027	Tenney Temp. Chamber	9083-765-234	NCR	
(2) **Coaxial Attenuator**					
X	i00231/2	PASTERNACK PE7021-30 (30 dB)	231 or 232	NCR	
	i00122/3	NARDA 766 (10 dB)	7802 or 7802A	NCR	
(3) **RF Power**					
X	I00067	HP 8920A Communications TS	3345U01242	12 mo.	Jun-07
(4) **Frequency Counter**					
X	i00067	HP 8920A Communications TS	3345U01242	12 mo.	Jun-07

Name of Test: Frequency Stability (Temperature Variation)

Measurement Results

g0680180: 2006-Aug-25 Fri 15:59:33
State: 0:General

Ambient Temperature: 23°C ± 3°C



Temperature Stability for 12.50kHz Modulation
Limit 2.5 PPM

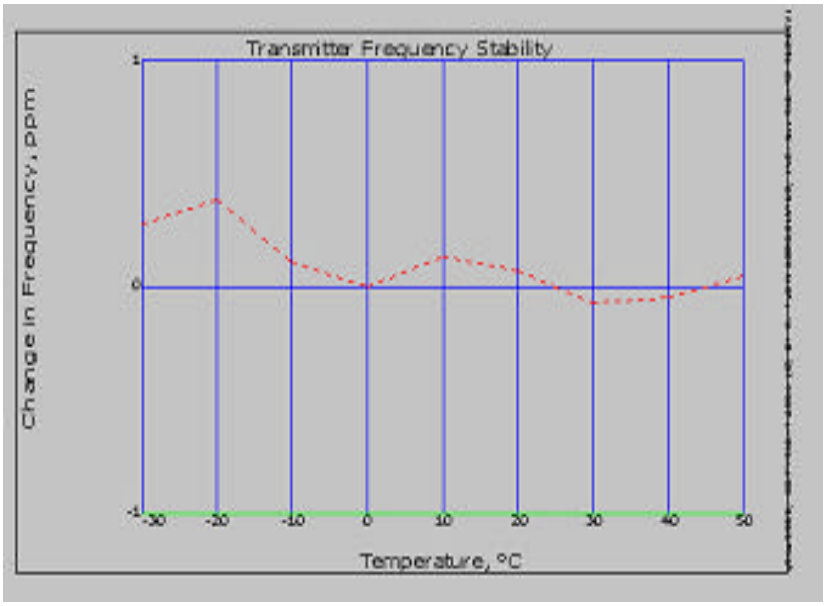
Performed by: Michael Wyman

Flom Test Labs
3356 North San Marcos Place, Suite 107
Chandler, Arizona 85225-7176
(866) 311-3268 phone, (480) 926-3598 fax

Measurement Results

g0680180: 2006-Aug-25 Fri 15:59:33
State: 0:General

Ambient Temperature: 23°C ± 3°C



Temperature Stability for 6.25kHz Modulation
Limit 1.0 PPM

Performed by: Michael Wyman

Flom Test Labs
3356 North San Marcos Place, Suite 107
Chandler, Arizona 85225-7176
(866) 311-3268 phone, (480) 926-3598 fax

Name of Test: Frequency Stability (Voltage Variation)

Specification: 47 CFR 2.1055(d)(1)

Guide: ANSI/TIA/EIA-603-1992, Paragraph 2.2.2

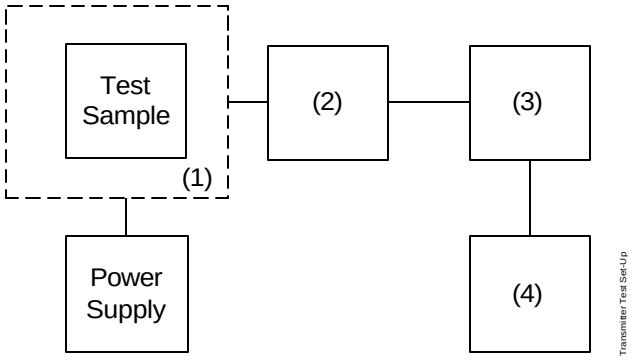
Measurement Procedure

A) The EUT was placed in a temperature chamber (if required) at 25±5°C and connected as shown below.

B) The power supply voltage to the EUT was varied from 85% to 115% of the nominal value measured at the input to the EUT.

C) The variation in frequency was measured for the worst case.

Transmitter Test Set-Up: Voltage Variation



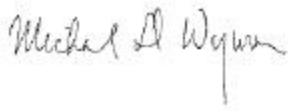
	Asset	Description	s/n	Cycle	Last Cal
(1) **Temperature, Humidity, Vibration**					
	i00027	Tenney Temp. Chamber	9083-765-234	N/A	NCR
(2) **Coaxial Attenuator**					
X	i00231/2	PASTERNACK PE7021-30 (30 dB)	231 or 232	N/A	NCR
	i00122/3	NARDA 766 (10 dB)	7802 or 7802A	N/A	NCR
(3) **RF Power**					
X	i00321	HP 8901A Power Mode	2239A02170	12 mo.	Sep-06
(4) **Frequency Counter**					
X	i00321	HP 8901A Frequency Mode	2239A02170	12 mo.	Sep-06

Results: Frequency Stability (Voltage Variation)

State: Ambient Temperature: 23°C ± 3°C

Limit, ppm	=	1
Limit, Hz	=	438 Hz
Battery End Point (Voltage)	=	12.20

% of STV	Voltage	Frequency, MHz	Change, Hz	Change, ppm
115	16.56	437.99965	4	.001
100	14.40	437.99969	-	-
85	12.24	437.99966	3	.000684



Performed by: Michael Wyman

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Chandler, Arizona 85225-7176
(866) 311-3268 phone, (480) 926-3598 fax

Testimonial
and
Statement of Certification

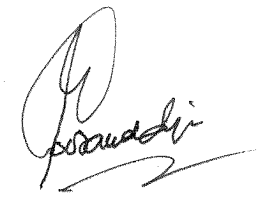
This is to Certify:

1. **That** the application was prepared either by, or under the direct supervision of, the undersigned.

2. **That** the technical data supplied with the application was taken under my direction and supervision.

3. **That** the data was obtained on representative units, randomly selected.

4. **That**, to the best of my knowledge and belief, the facts set forth in the application and accompanying technical data are true and correct.



Certifying Engineer: Hoosamuddin S. Bandukwala, Lab Director