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: February 15, 2007

Federal Communications Commission
Via: Electronic Filing

Attention: Authorization & Evaluation Division

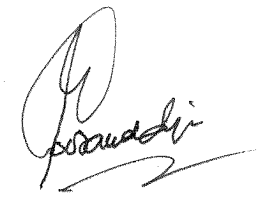
Applicant: Artaflex, Inc.
Equipment: AWP24S
FCC ID: UP2AWP24S
FCC Rules: 15.247

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.

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

enclosure(s)
cc: Applicant
HSB/je

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

Applicant: Artaflex, Inc.

FCC ID: UP2AWP24S

By Applicant:

1. Letter Of Authorization

2. Identification Drawings
   - __ Id Label
   - __ Location Info
   - __ Attestation Statement(S)
   - __ Location of Compliance Statement

3. Documentation: 2.1033(B)
   - (3) User Manual(S)
   - (4) Operational Description
   - (5) Block Diagram
   - (5) Schematic Diagram
   - (7) External Photographs
   - Internal Photographs
   - Parts List
   - Tune Up Info
   - Active Devices

By F.T.L. Inc.

A. Testimonial & Statement of Certification

B. Statement of Qualifications

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Transmitter Certification

of

FCC ID: UP2AWP24S
Model: AWP24S

to

Federal Communications Commission

Rule Part(s) 15.247

Date Of Report: February 15, 2007

On the Behalf of the Applicant:

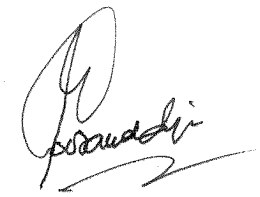
Artaflex, Inc.

At the Request of:

Artaflex, Inc.
215 Konrad Crescent
Markham, Ontario L3R8T9
Canada

Attention of:

Donald Lem
Donald_Lem@artaflex.com
(905)479-0148 X230



Supervised By: Hoosamuddin S. Bandukwala, Lab Director

The applicant has been cautioned as to the following:

15.21 Information to 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.

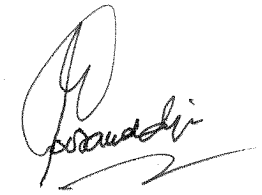
Equipment marketed to a consumer must be capable of complying with the necessary regulations in the configuration in which the equipment is marketed. Where special accessories, such as shielded cables and/or special connectors are required to enable an unintentional or intentional radiator to comply 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.

Testimonial And Statement Of Certification

This is to certify that:

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.

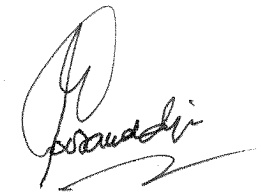


Certifying Engineer: Hoosamuddin S. Bandukwala, Lab Director

Table Of Contents

Required information per ISO/IEC Guide 25-1990, paragraph 5.10:

a) **Test Report**

b) Laboratory: (FCC: 31040/SIT) (Canada: IC 2044)	Flom Test Labs, Inc. 3356 N. San Marcos Place, Suite 107 Chandler, AZ 85225
c) Report Number:	d0720020
d) Client:	Artaflex, Inc. 215 Konrad Crescent Markham, Ontario L3R8T9 Canada
e) Identification: Description:	AWP24S FCC ID: UP2AWP24S
f) EUT Condition:	Not required unless specified in individual tests.
g) Report Date: EUT Received:	February 15, 2007
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.

List Of General Information Required For Certification

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

15.247

Sub-Part 2.1033

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

Artaflex, Inc.
215 Konrad Crescent
Markham, Ontario L3R8T9
Canada

Manufacturer:

(c)(2): **FCC ID**: UP2AWP24S

Model Number: AWP24S

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

Please See Attached Exhibits

(c)(4): **Type of Emission**: DTS

(c)(5): **FREQUENCY RANGE, MHz**: 2402 to 2481

(c)(6): **Power Rating, W**: 190 mW

____ Switchable ____ Variable __X__ N/A

(c)(7): **Maximum Power Rating, W**: 1.0

15.203: **Antenna Requirement**:

Integral antenna
- __X__ The antenna is permanently attached to the EUT
- _____ The antenna uses a unique coupling
- _____ The EUT must be professionally installed
- _____ The antenna requirement does not apply

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	=	0
Collector Voltage, Vdc	=	0
Supply Voltage, Vdc	=	2.4V - 3.6V DC

(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

Sub-part 2.1033(b):

Test And Measurement Data

All tests and measurement data shown were performed in accordance with FCC Rules and Regulations, Volume II; Part 2, and the following individual Parts:

_____ 15.247 Operation within bands 2400-2483.5 MHz (spread spectrum)

Standard Test Conditions and Engineering Practices

Except as noted herein, the following conditions and procedures were observed during the testing:

In accordance with ANSI C63.4-1992/2003, section 6.1.9, and unless otherwise indicated in the specific measurement results, the ambient temperature of the actual EUT was maintained within the range of 10° to 40°C (50° to 104 °F) unless the particular equipment requirements specify testing over a different temperature range. Also, unless otherwise indicated, the humidity levels were in the range of 10% to 90% relative humidity.

Prior to testing, the EUT was tuned up in accordance with the manufacturer's alignment procedures. All external gain controls were maintained at the position of maximum and/or optimum gain throughout the testing.

Measurement results, unless otherwise noted, are worst-case measurements.

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

ACCREDITED
CERT NO: 2152-01

Test Results Summary

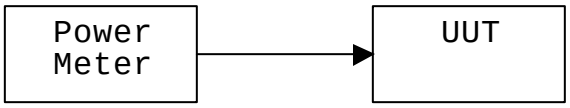
Specification	Test Name	Pass, Fail, N/A	Comments
15.247(b)	Peak Output Power	Pass	
15.247(d), 15.209(a), 15.205	Out of Band Emissions	Pass	
15.247(d), 15.209(a), 15.205	Emissions At Band Edges	Pass	
15.247(a)(2)	Occupied Bandwidth	Pass	
15.247(e)	Transmitter Power Spectral Density	Pass	
15.207	A/C Powerline Conducted Emissions	N/A	Unit is DC battery powered

Name of Test: Peak Output Power
Specification: 15.247(b)
Test Equipment Utilized i00228, i00317

Test Procedure

The UUT was connected directly to a power meter with the correct duty cycle factor (3.4%) input. The peak readings were taken and the result was then compared to the limit.

Test Setup



Transmitter Conducted Measurements

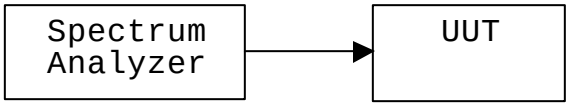
Tuned Frequency MHz	Recorded Measurement	Specification Limit	Result
2402	190 mW	1 W	Pass
2441	125 mW	1 W	Pass
2481	180 mW	1 W	Pass

Name of Test: Conducted Spurious Emissions
Specification: 15.247(d)
Spec. Limit: -20 dBC
Test Equipment Utilized i00290

Test Procedure

The UUT was connected directly to a spectrum analyzer to verify that the UUT met the requirements for spurious emissions. The reference level was offset for the peak power output the resolution bandwidth was then set for 100 KHz. The highest out of band spurious emission was recorded in each plot.

Test Setup

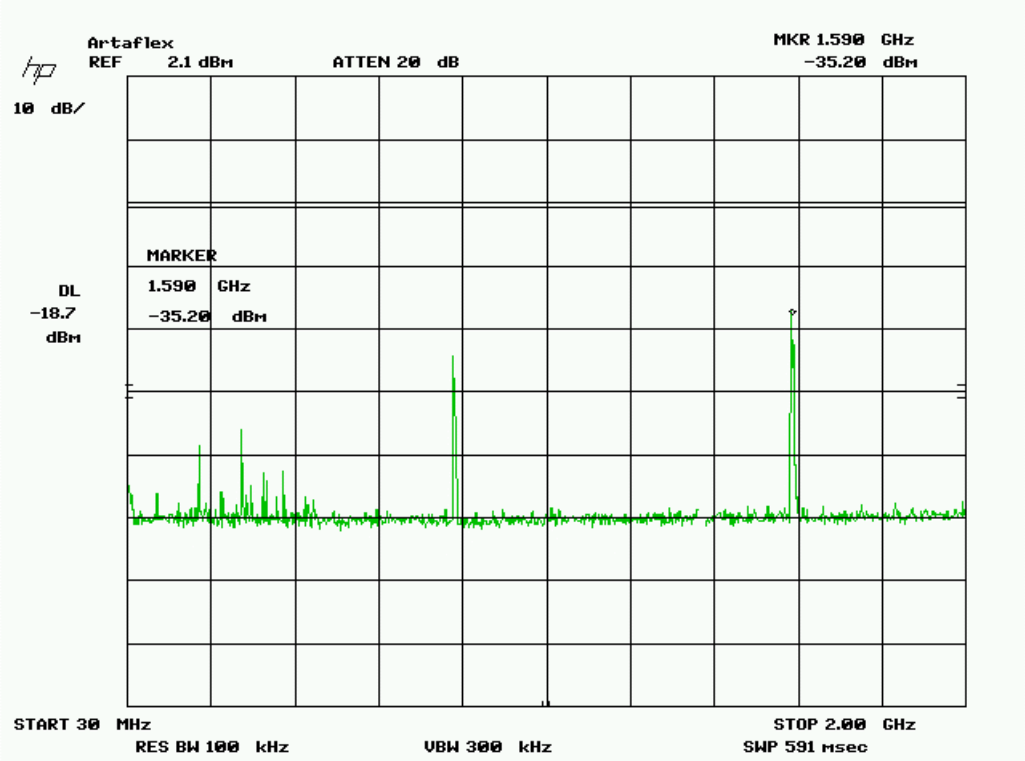


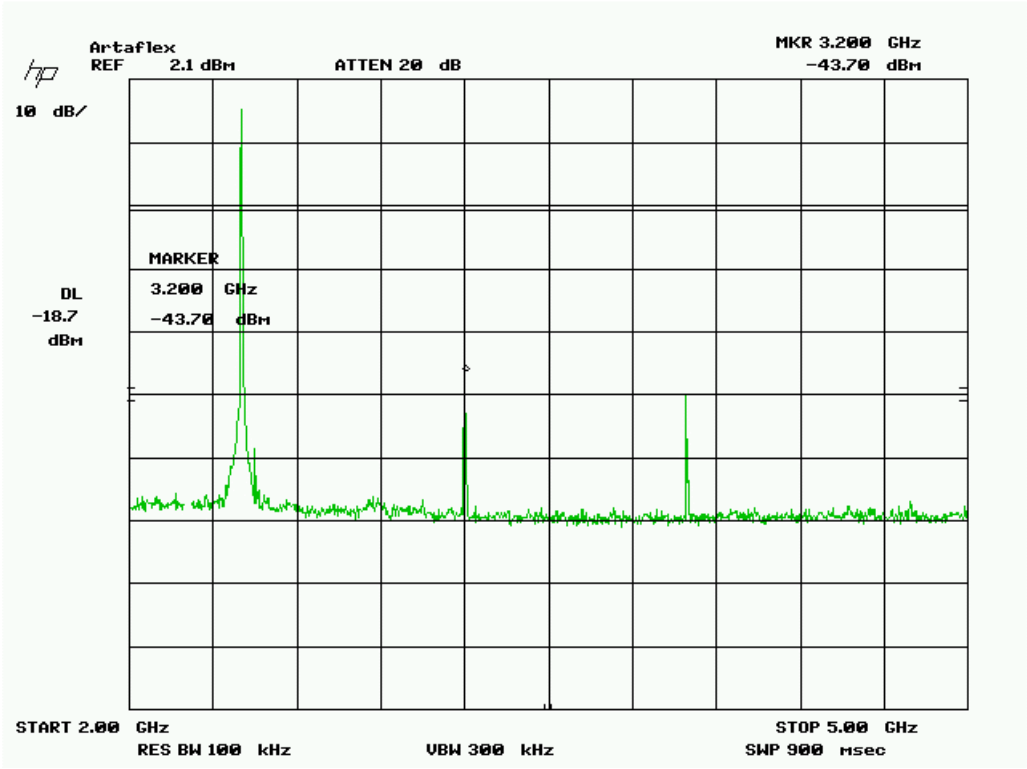
Conducted Spurious Emissions Summary Test Table

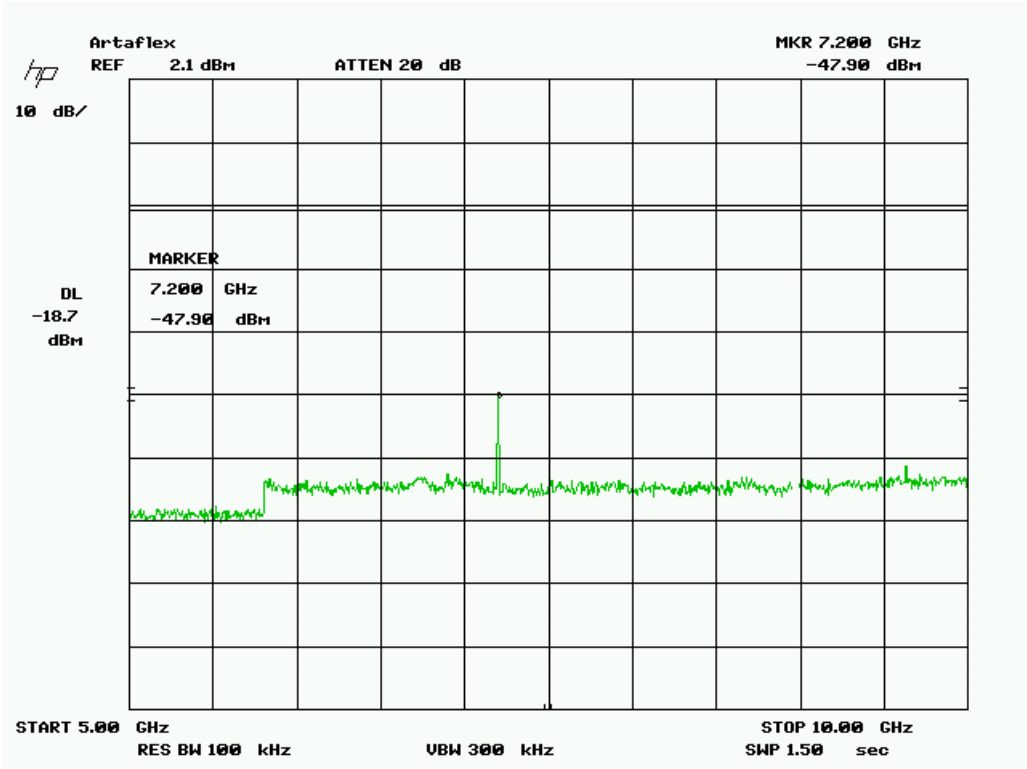
Tuned Frequency MHz	Recorded Measurement (Worst Case)	Specification Limit	Result
2402	-37.3 dBC	-20 dBC	Pass
2441	-31.3 dBC	-20 dBC	Pass
2481	-41.1 dBC	-20 dBC	Pass

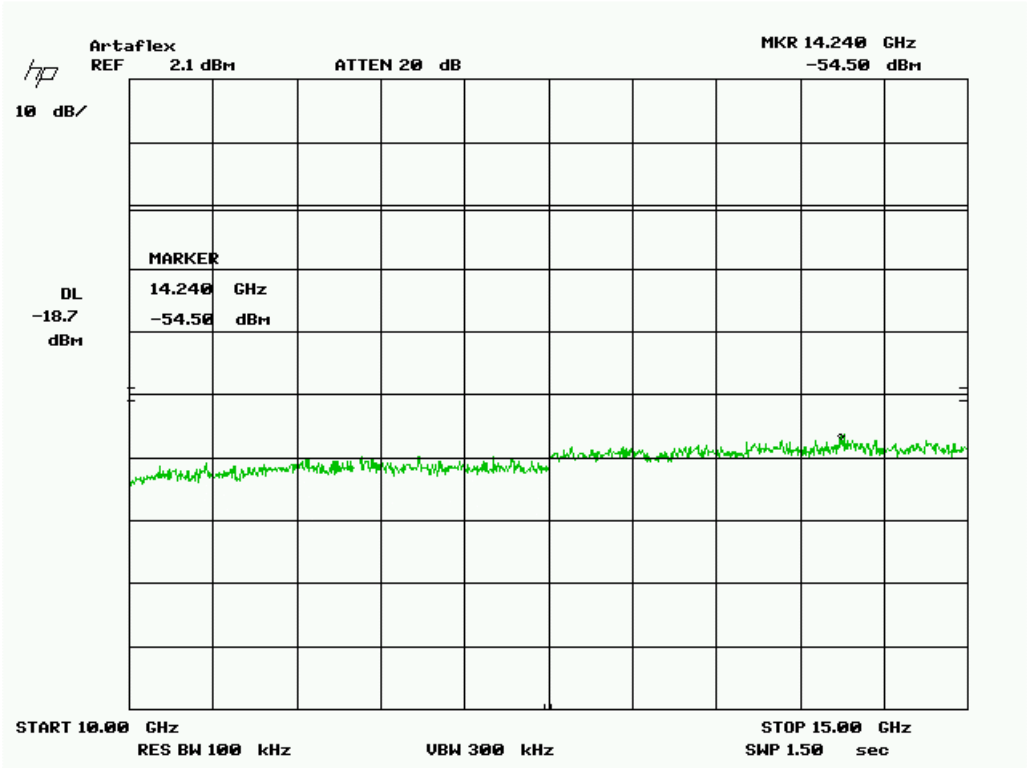
No conducted emissions were detected above 24 GHz.

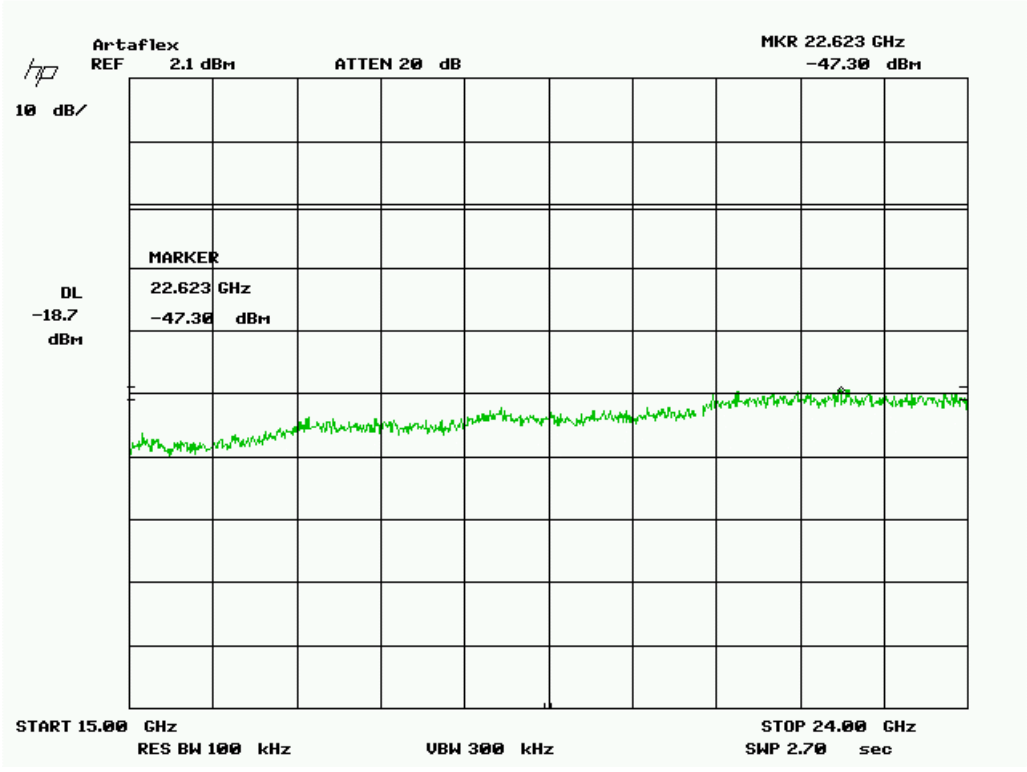
Conducted Spurious Emissions 2402 MHz



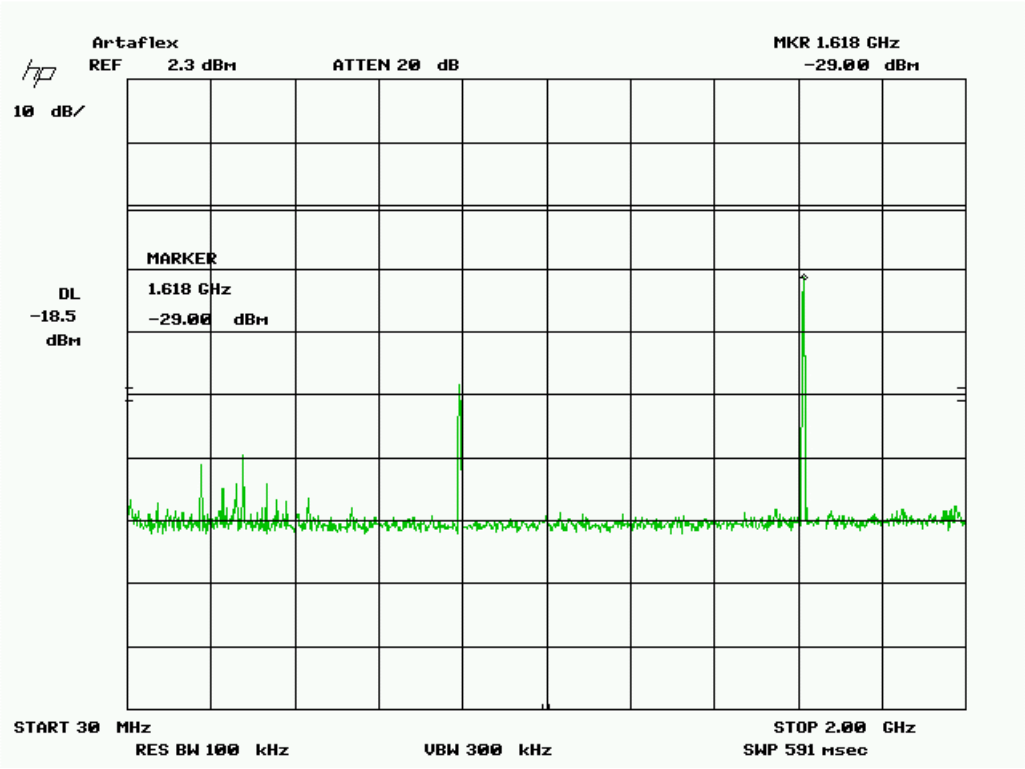

Artaflex
REF 2.1 dBm
ATTEN 20 dB
MKR 3.200 GHz
-43.70 dBm
10 dB/
MARKER
3.200 GHz
-43.70 dBm
DL
-18.7
dBm
START 2.00 GHz
RES BW 100 kHz
VBW 300 kHz
STOP 5.00 GHz
SWP 900 msec

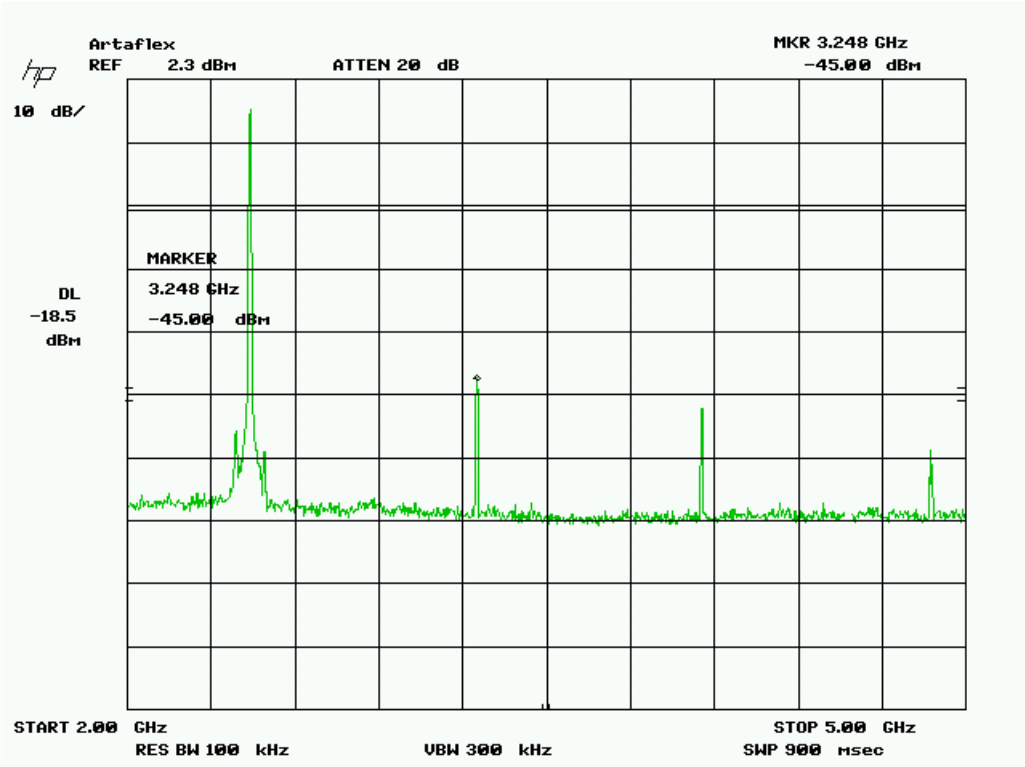

Artaflex
REF 2.1 dBm
ATTEN 20 dB
MKR 7.200 GHz
-47.90 dBm
10 dB/
MARKER
7.200 GHz
-47.90 dBm
DL
-18.7
dBm
START 5.00 GHz
RES BW 100 kHz
VBW 300 kHz
STOP 10.00 GHz
SWP 1.50 sec

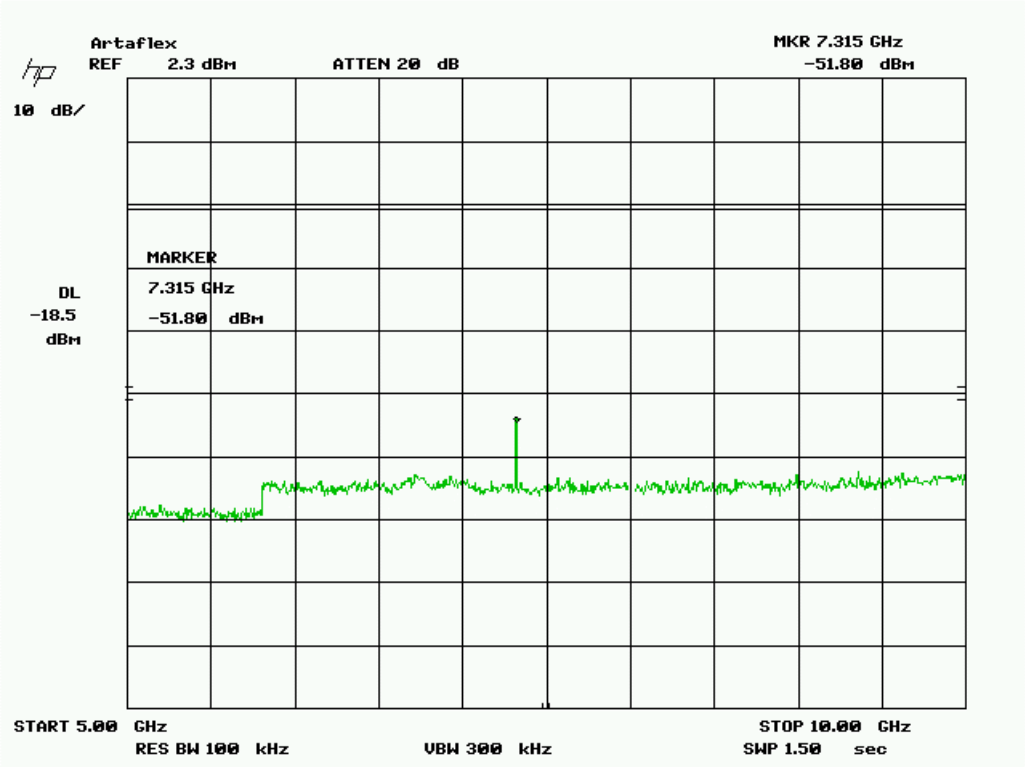

Artaflex
REF 2.1 dBm
ATTEN 20 dB
MKR 14.240 GHz
-54.50 dBm
10 dB/
MARKER
14.240 GHz
-54.50 dBm
DL
-18.7
dBm
START 10.00 GHz
RES BW 100 kHz
VBW 300 kHz
STOP 15.00 GHz
SWP 1.50 sec

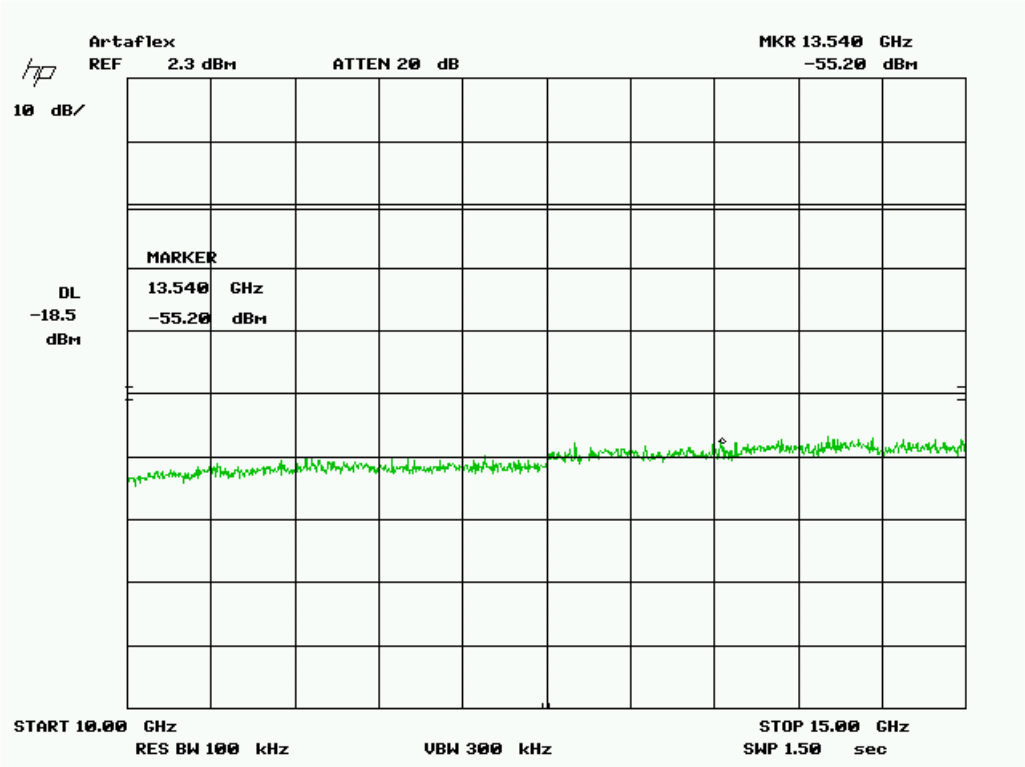

Artaflex
REF 2.1 dBm
ATTEN 20 dB
MKR 22.623 GHz
-47.30 dBm
10 dB/
MARKER
22.623 GHz
-47.30 dBm
DL
-18.7
dBm
START 15.00 GHz
RES BW 100 kHz
VBW 300 kHz
STOP 24.00 GHz
SWP 2.70 sec

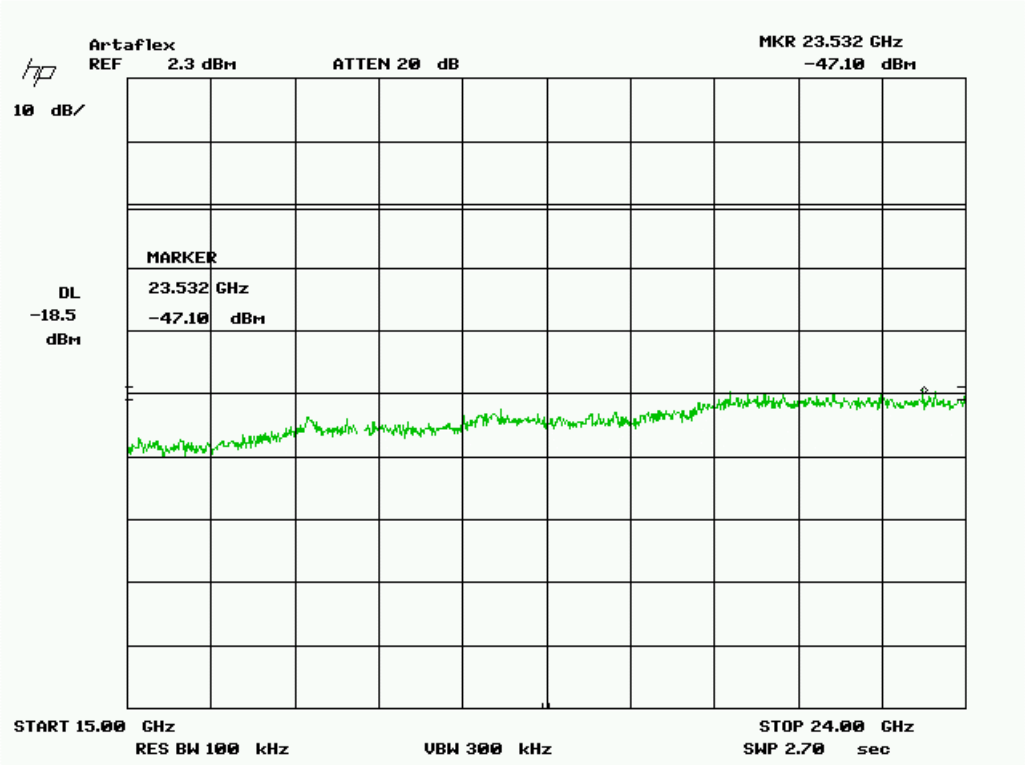
Conducted Spurious Emissions 2441 MHz



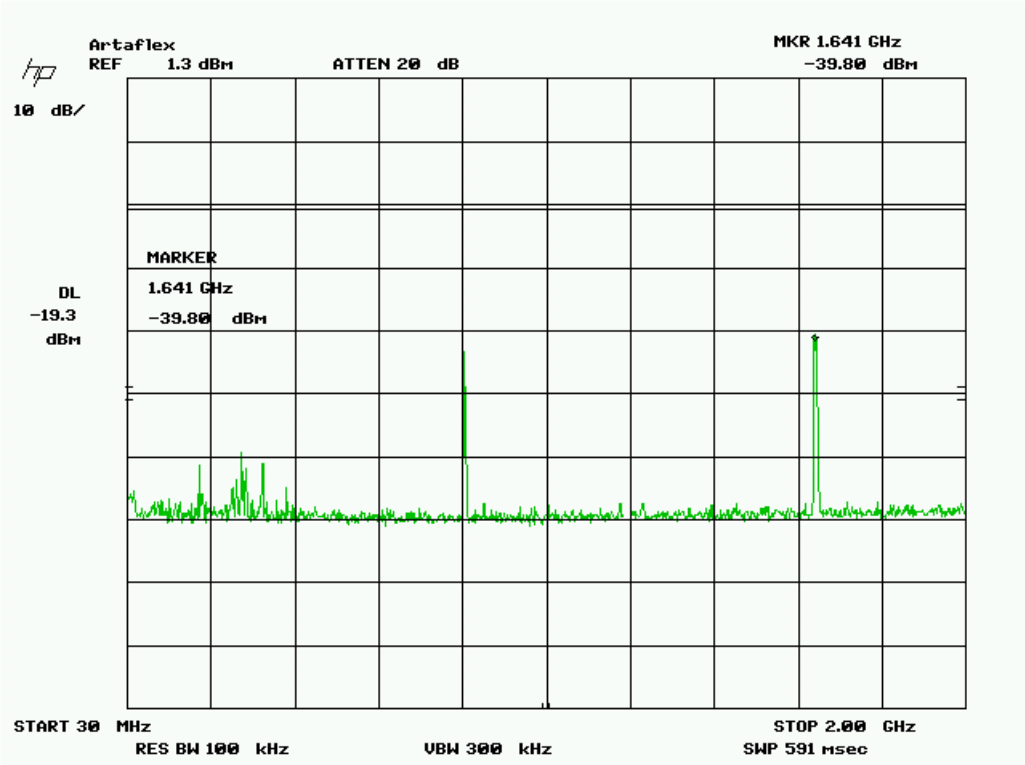


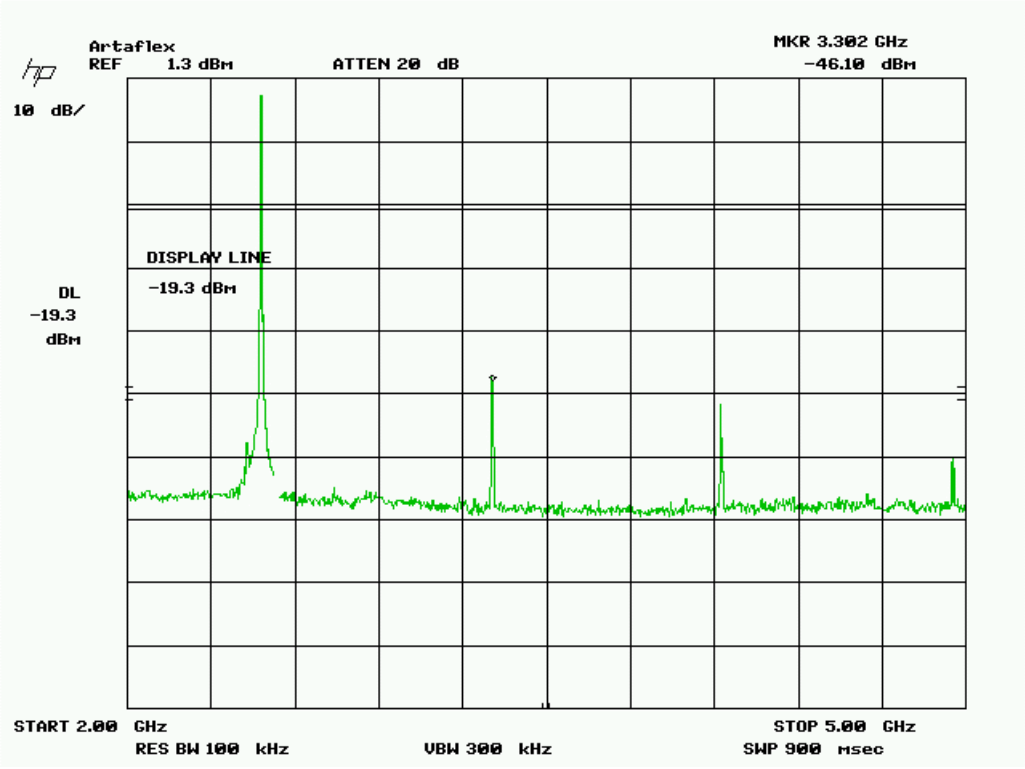

Artaflex
REF 2.3 dBm
ATTEN 20 dB
MKR 7.315 GHz
-51.80 dBm
10 dB/
MARKER
7.315 GHz
-51.80 dBm
DL
-18.5
dBm
START 5.00 GHz
RES BW 100 kHz
VBW 300 kHz
STOP 10.00 GHz
SWP 1.50 sec

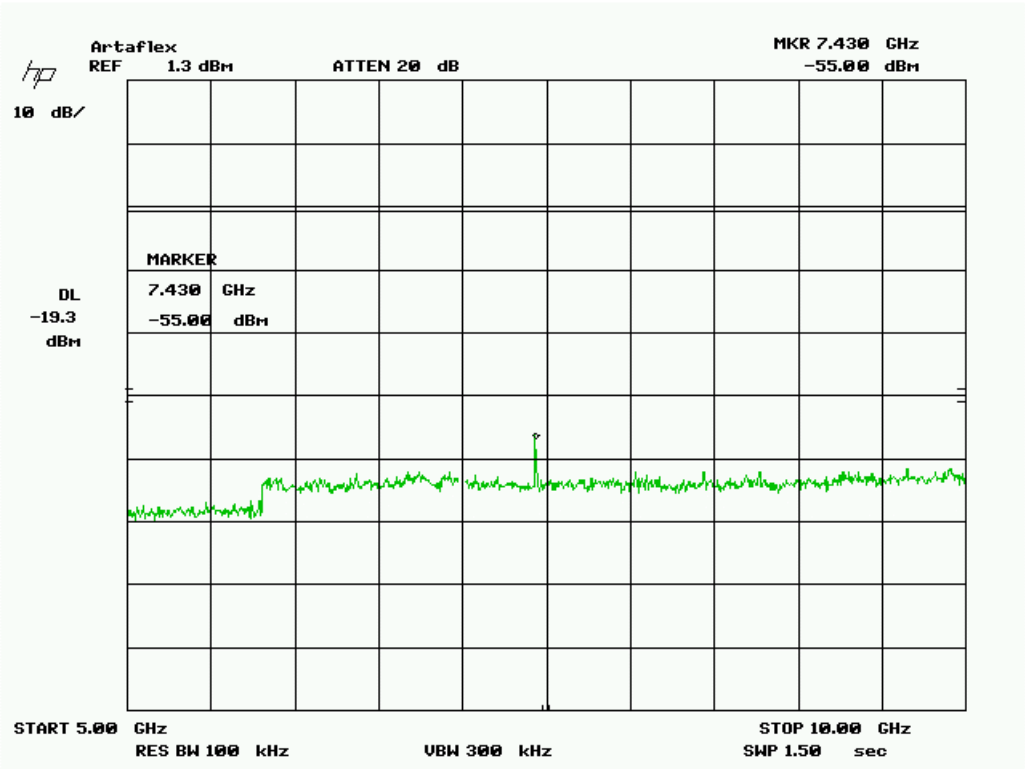

Artaflex
REF 2.3 dBm
ATTEN 20 dB
MKR 13.540 GHz
-55.20 dBm
10 dB/
MARKER
13.540 GHz
-55.20 dBm
DL
-18.5
dBm
START 10.00 GHz
RES BW 100 kHz
VBW 300 kHz
STOP 15.00 GHz
SWP 1.50 sec

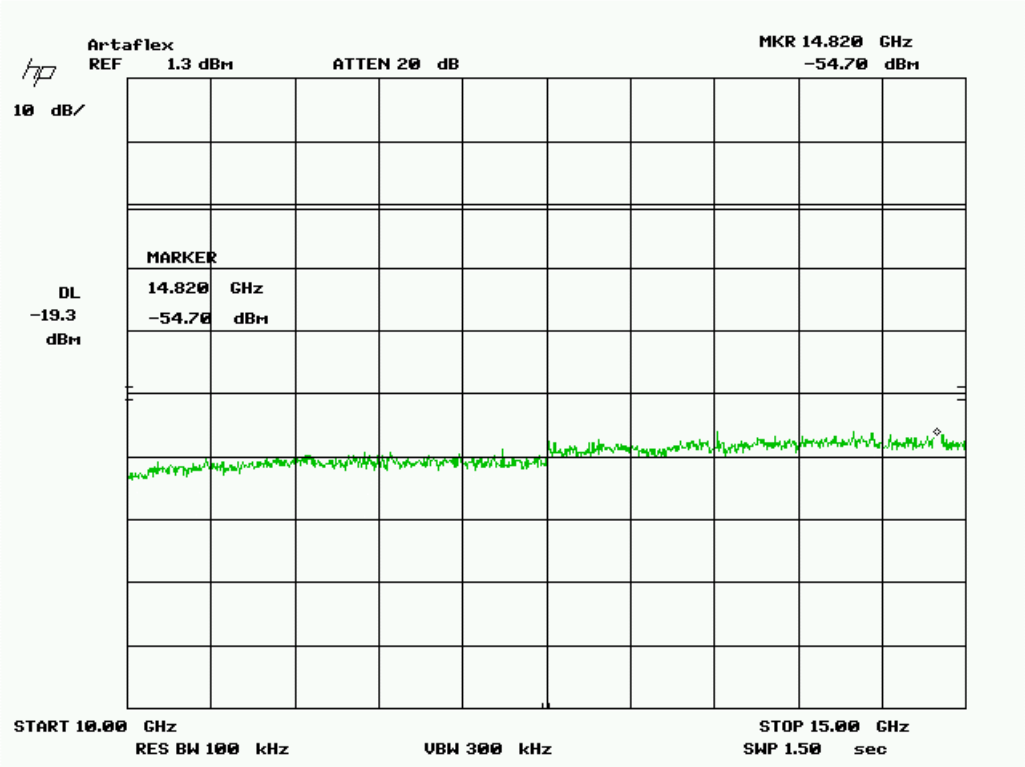


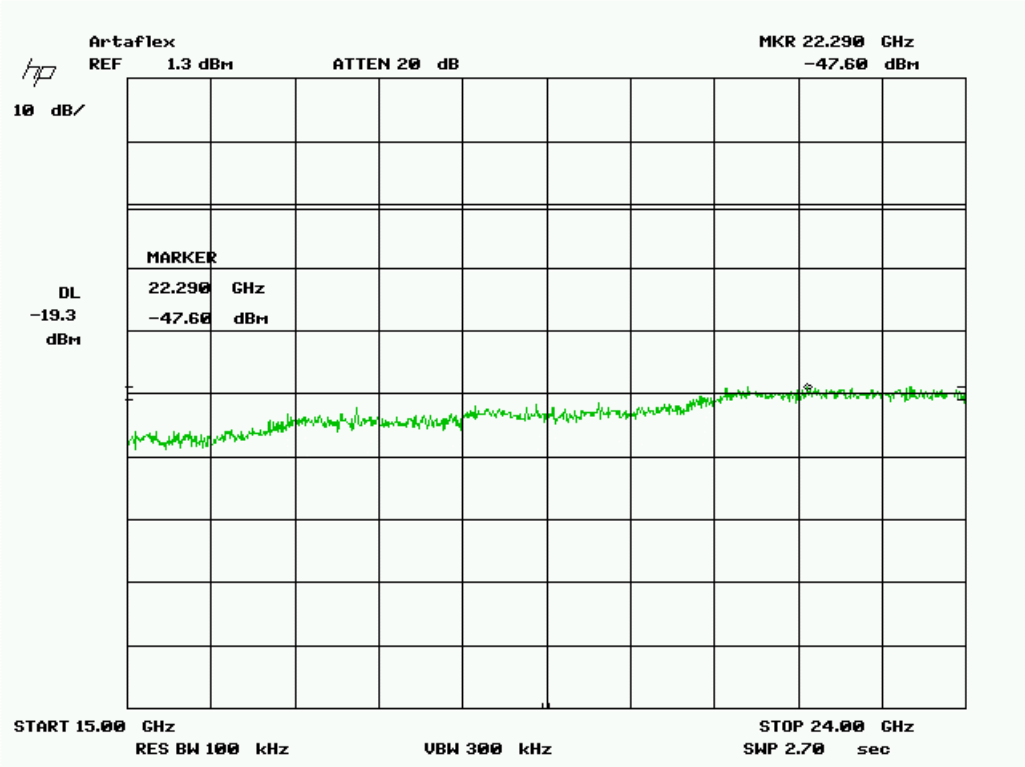
Conducted Spurious Emissions 2481




Artaflex
REF 1.3 dBm
ATTEN 20 dB
MKR 3.302 GHz
-46.10 dBm
10 dB/
DISPLAY LINE
-19.3 dBm
DL
-19.3
dBm
START 2.00 GHz
RES BW 100 kHz
VBW 300 kHz
STOP 5.00 GHz
SWP 900 msec


Artaflex
REF 1.3 dBm
ATTEN 20 dB
MKR 7.430 GHz
-55.00 dBm
10 dB/
MARKER
7.430 GHz
-55.00 dBm
DL
-19.3
dBm
START 5.00 GHz
RES BW 100 kHz
VBW 300 kHz
STOP 10.00 GHz
SWP 1.50 sec


Artaflex
REF 1.3 dBm
ATTEN 20 dB
MKR 14.820 GHz
-54.70 dBm
10 dB/
MARKER
14.820 GHz
-54.70 dBm
DL
-19.3
dBm
START 10.00 GHz
RES BW 100 kHz
VBW 300 kHz
STOP 15.00 GHz
SWP 1.50 sec

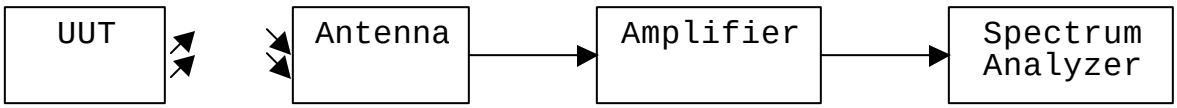

Artaflex
REF 1.3 dBm
ATTEN 20 dB
MKR 22.290 GHz
-47.60 dBm
10 dB/
MARKER
22.290 GHz
-47.60 dBm
DL
-19.3
dBm
START 15.00 GHz
RES BW 100 kHz
VBW 300 kHz
STOP 24.00 GHz
SWP 2.70 sec

Name of Test: Radiated Spurious Emissions
Specification: 15.247(d), 15.209(a), 15.205
Spec. Limit: -20 dBC and for restricted band 54 dBuV average and 74 dBuV peak
Test Equipment Utilized i00033, i00088, i00089, i00103

Test Procedure

The UUT was tested in an Open Area Test Site (OATS) set 3m from the receiving transducer. A spectrum analyzer was used to verify that the UUT met the requirements for Radiated Spurious Emissions.

Test Setup



Radiated Spurious Emissions 2402 MHz

Tuned Freq (MHz)	Emission Freq (MHz)	Monitored Level (dBuV)	Correction Factor (dB)	Corrected Value (dBuV)	Limit (dBuV)	Result
2402	35.999964	16.3	14.7	31.0	54	Pass
2402	49.864950	16.4	14.3	30.7	54	Pass
2402	199.991919	13.2	19.0	32.2	54	Pass
2402	799.624988	15.6	27.1	42.7	54	Pass
2402	4806.388334	1.9	32.7	34.6	54	Pass
2402	7206.053333	-2.5	35.6	33.1	54	Pass

Radiated Spurious Emissions 2441 MHz

Tuned Freq (MHz)	Emission Freq (MHz)	Monitored Level (dBuV)	Correction Factor (dB)	Corrected Value (dBuV)	Limit (dBuV)	Result
2441	36.045	13.8	14.7	28.5	54	Pass
2441	48.00021	13.7	14.4	28.1	54	Pass
2441	201.672651	14.1	19.1	33.3	54	Pass
2441	798.525	14.7	27.1	41.8	54	Pass
2441	4882.00	.3	44.3	44.6	54	Pass
2441	7323.00	-2.2	50.3	48.1	54	Pass

Radiated Spurious Emissions 2481 MHz

Tuned Freq (MHz)	Emission Freq (MHz)	Monitored Level (dBuV)	Correction Factor (dB)	Corrected Value (dBuV)	Limit (dBuV)	Result
2481	36.002128	16.0	14.7	28.5	54	Pass
2481	48.01125	13.3	14.4	27.8	54	Pass
2481	200.425	17.3	19.0	36.4	54	Pass
2481	800.375	14.8	27.1	42.0	54	Pass
2481	4961.386667	3.0	33.1	36.1	54	Pass
2481	7443	-0.8	36.3	25.3	54	Pass

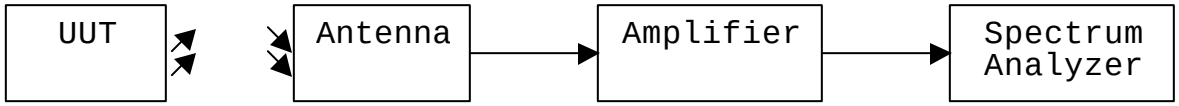
No conducted emissions were detected above 24 GHz.

Name of Test: Emissions At Band Edges
Specification: 15.247(d), 15.209(a), 15.205
Limit: -20 dBC and for restricted band 54 dBuV average and 74 dBuV peak
Test Equipment Utilized i00033, i00103

Test Procedure

The UUT was tested in an Open Area Test Site (OATS) set 3m from the receiving transducer. A spectrum analyzer was used to verify that the UUT met the requirements for band edge with both peak and average measurements. The cable and transducer correction factors were input into the analyzer as a reference level offset to ensure accurate readings were obtained.

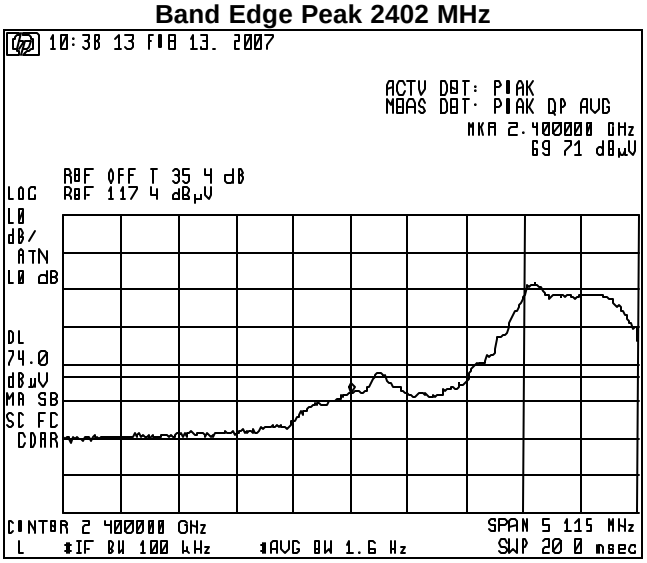
Test Setup



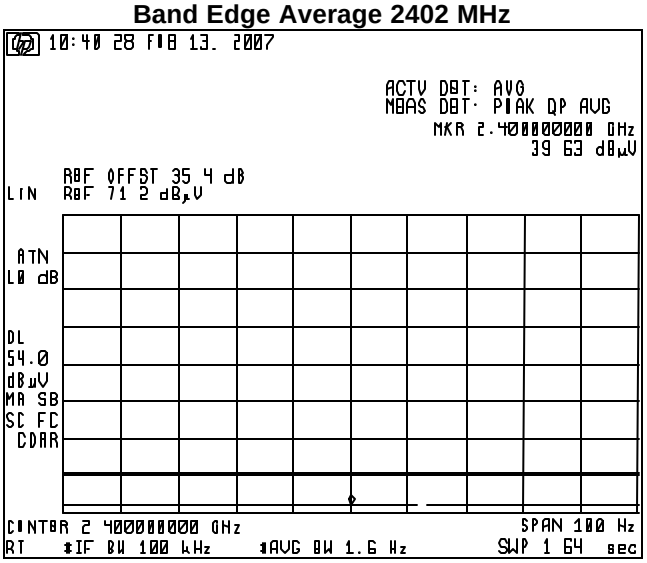
Band Edge Emissions Summary

Tuned Freq (MHz)	Emission Freq (MHz)	Monitored Level (dBuV)	Correction Factor (dB)	Corrected Value (dBuV)	Detector	Limit (dBuV)	Result
2402	2400	34.31	35.4	69.71	Peak	74	Pass
2402	2400	4.23	35.4	39.63	Average	54	Pass
2481	2483.5	24.80	35.4	60.20	Peak	74	Pass
2481	2483.5	5.13	35.4	40.53	Average	54	Pass

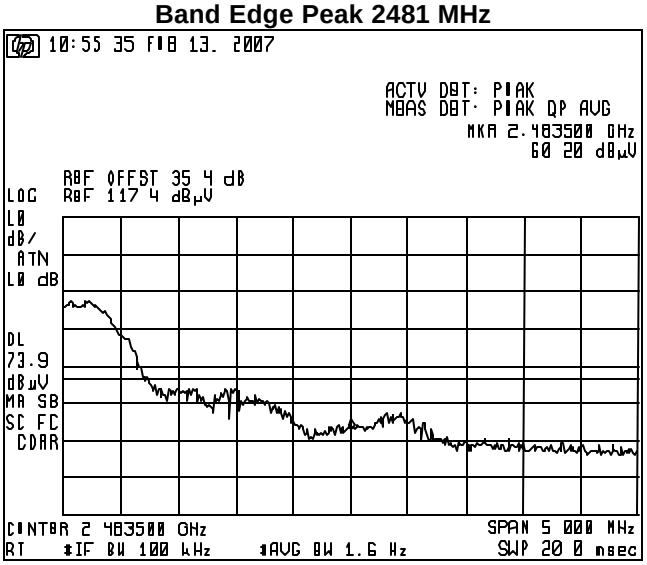
Band Edge Peak 2402 MHz



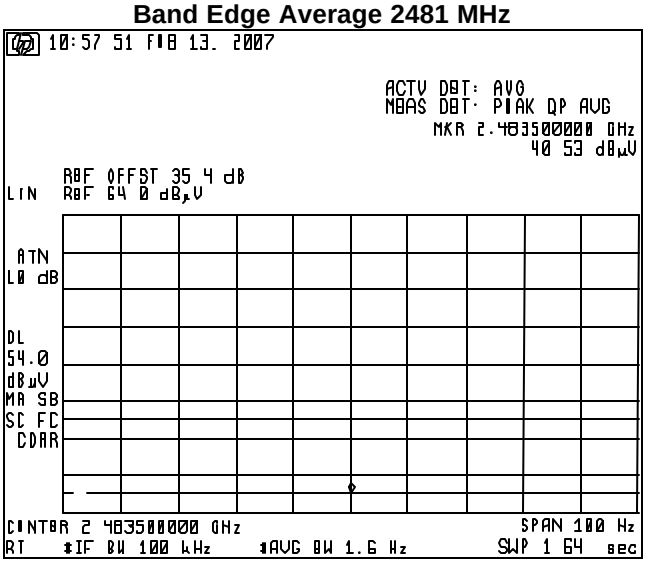
Band Edge Average 2402 MHz



Band Edge Peak 2481 MHz



Band Edge Average 2481 MHz

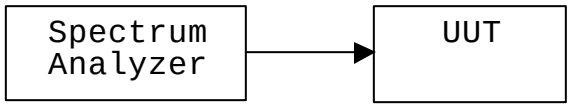


Name of Test: Occupied Bandwidth
Specification: 15.247(a)(2)
Limit: 6 dB BW = 500 KHz
Test Equipment Utilized i00029, i00290

Test Procedure

The UUT was connected directly to a spectrum analyzer. The Span was set wide enough to capture the entire transmit spectrum and the resolution bandwidth was set to at least 1% of the span. The analyzer was set to max hold and when the entire spectrum was captured the 6dB and 99% bandwidths were measured to verify the bandwidth met the specification.

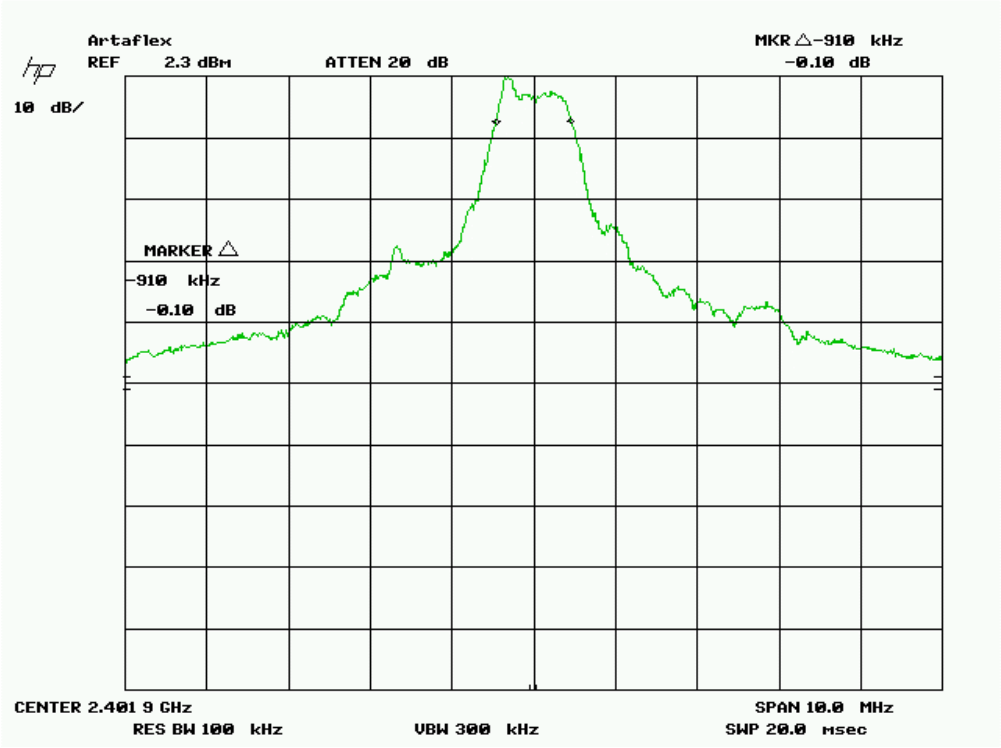
Test Setup



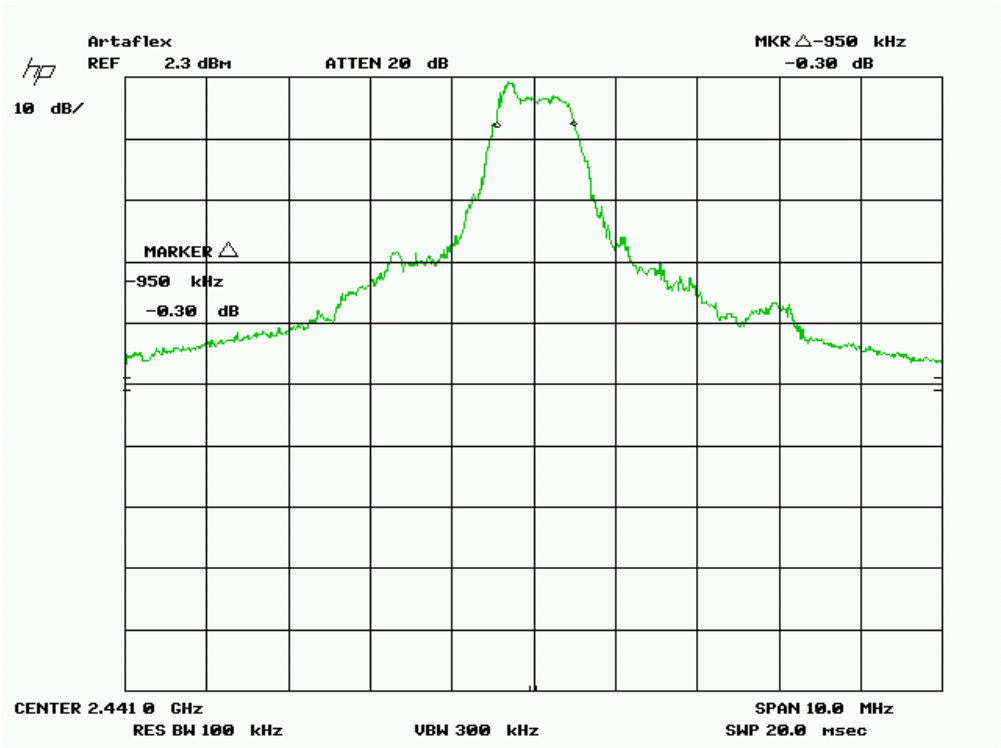
Occupied Bandwidth Summary

Tuned Frequency MHz	Recorded Measurement	Specification Limit	Result
2402	910 KHz	= 500 KHz	Pass
2441	950 KHz	= 500 KHz	Pass
2481	990 KHz	= 500 KHz	Pass

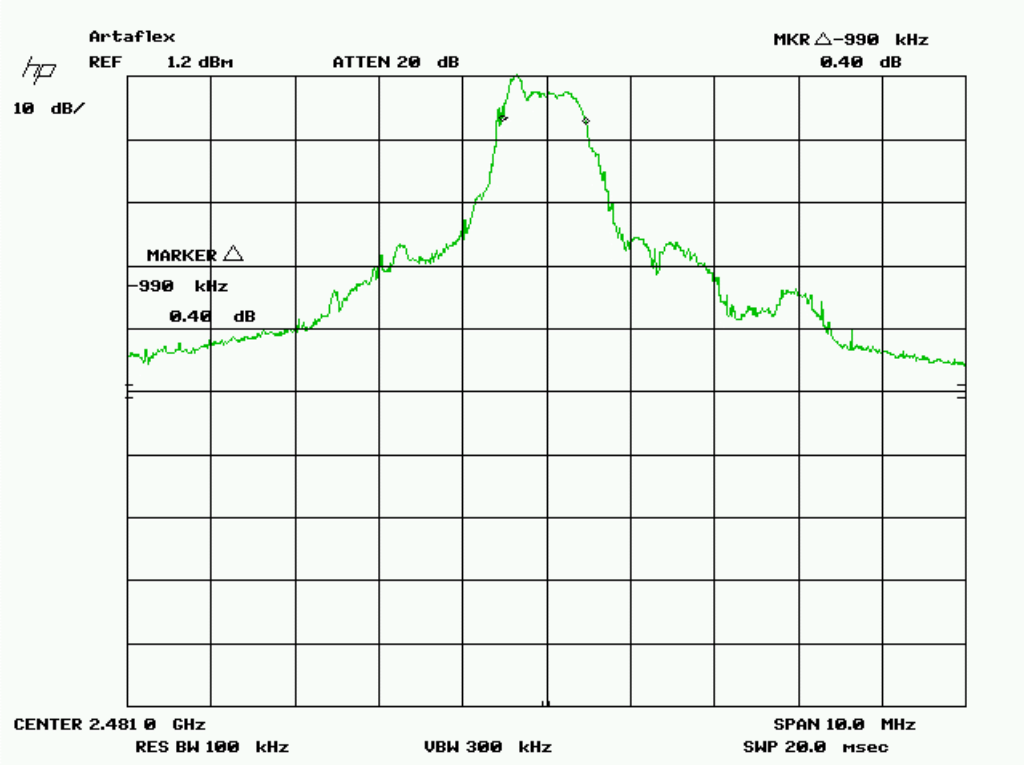
Occupied Bandwidth 2402 MHz



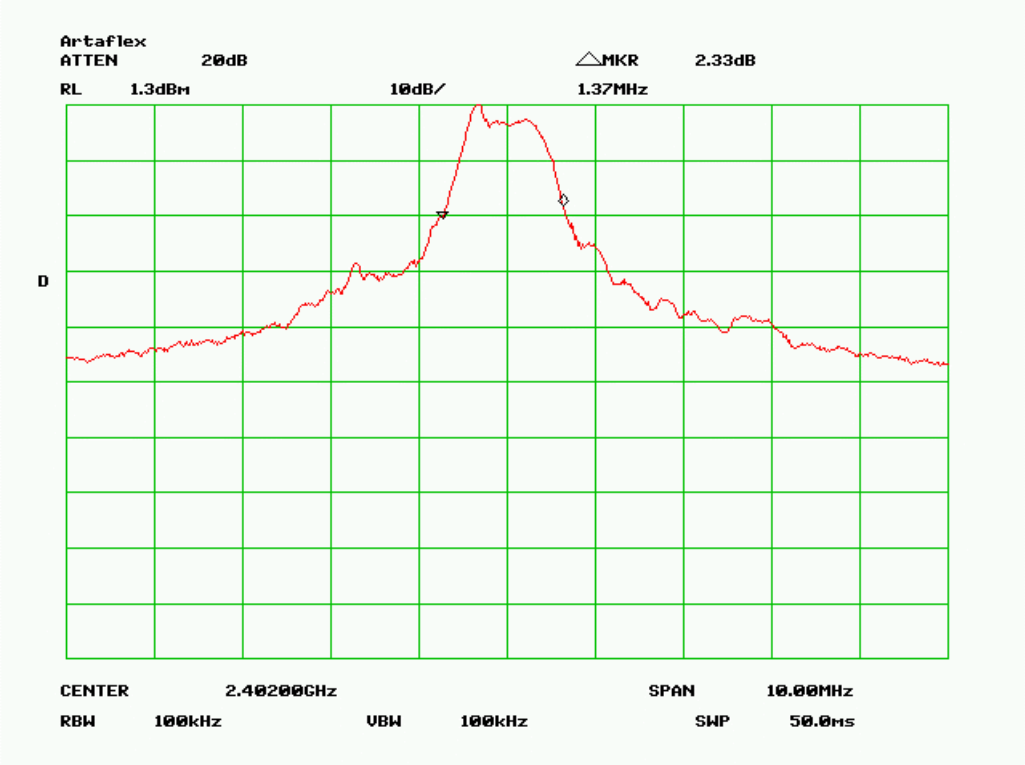
Occupied Bandwidth 2441 MHz



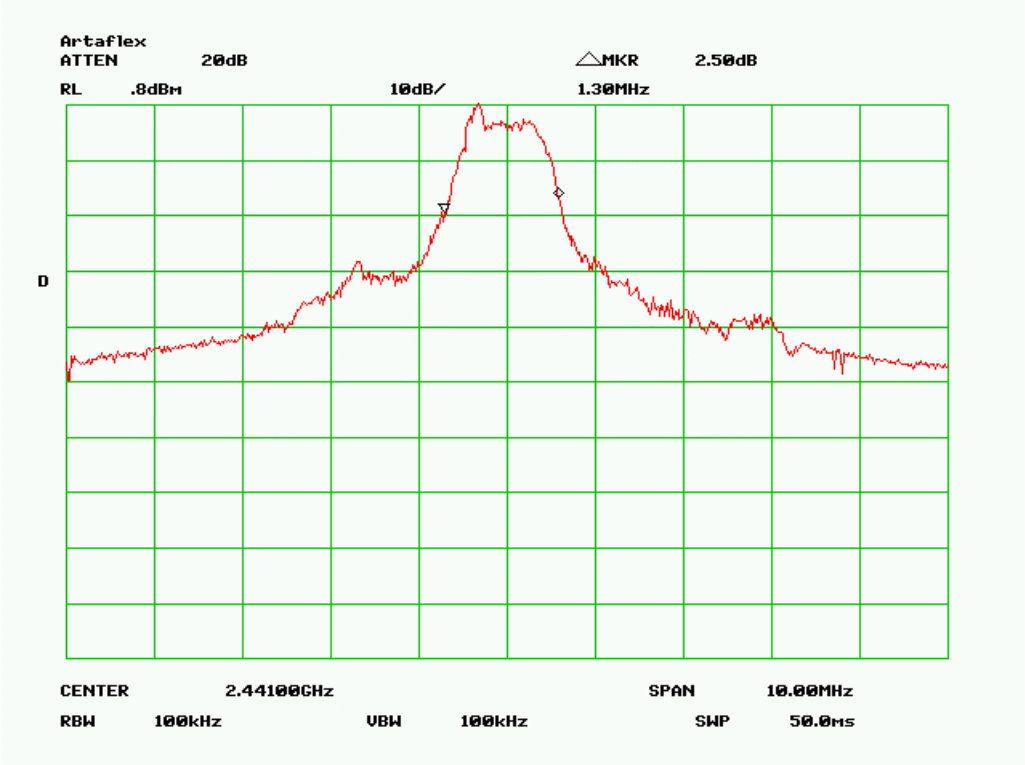
Occupied Bandwidth 2481 MHz



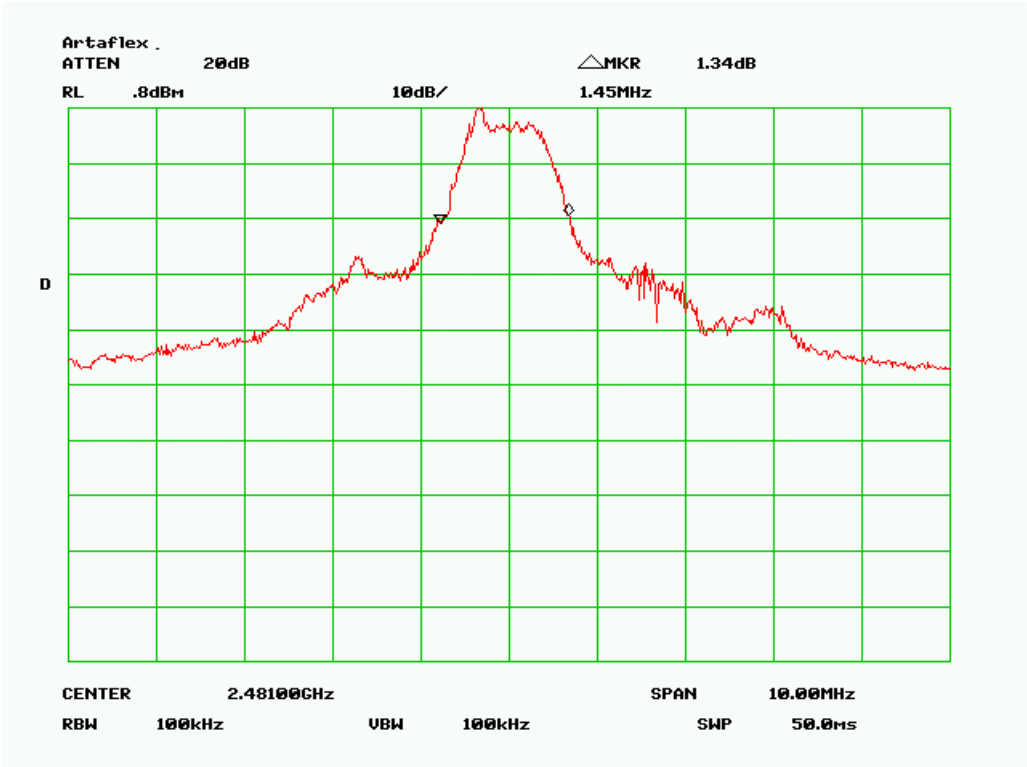
99% Bandwidth 2402 MHz



99% Bandwidth 2441 MHz



99% Bandwidth 2481 MHz

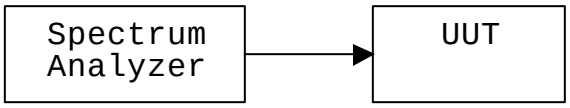


Name of Test: Transmitter Power Spectral Density (PSD)
Specification: 15.247(e)
Limit: 8 dBm in any 3 kHz Bandwidth
Test Equipment Utilized i00290

Test Procedure

The UUT was connected directly to a spectrum analyzer. The Span was set to 1.5 MHz and the resolution bandwidth was set to 3 KHz. The analyzer was set for a sweep time of 500 seconds. When the entire spectrum was captured the marker peak function of the analyzer was utilized to verify the PSD met the specification.

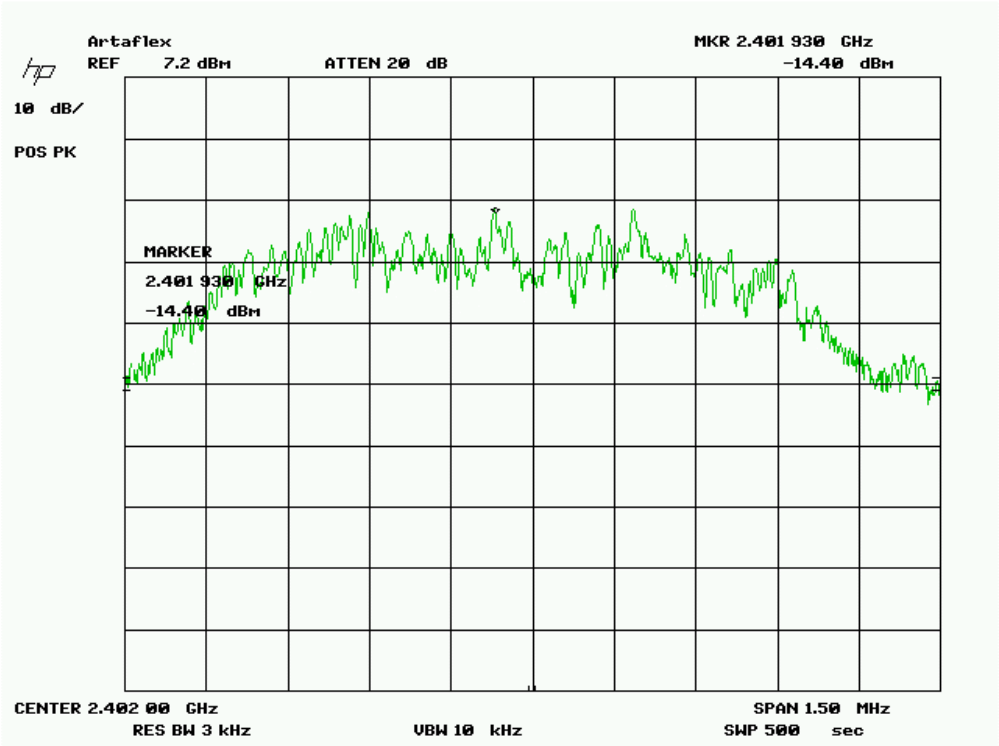
Test Setup



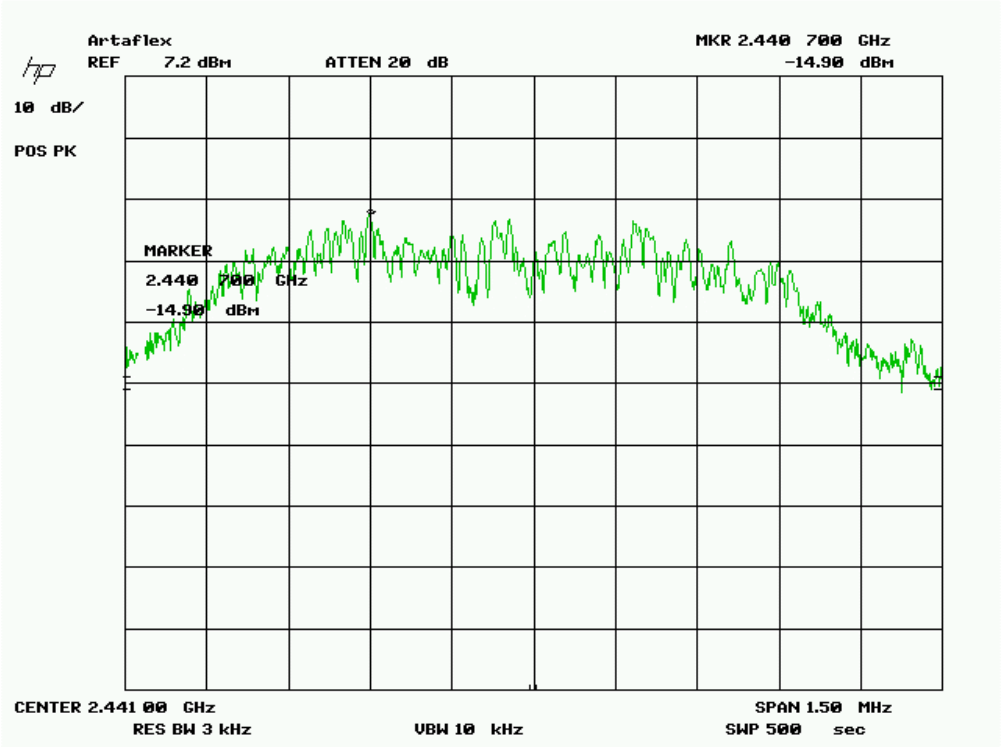
PSD Summary

Frequency MHz	Recorded Measurement	Specification Limit	Result
2402	-14.4 dBM	8 dBm	Pass
2441	-14.9 dBM	8 dBm	Pass
2481	-16.6 dBM	8 dBm	Pass

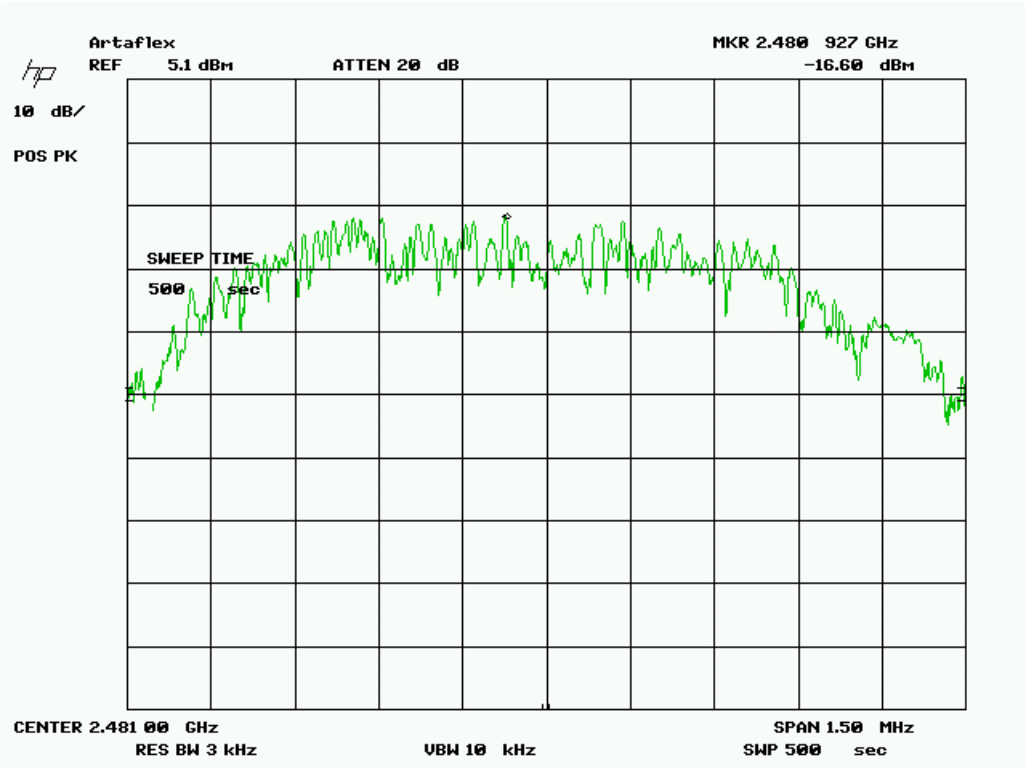
PSD 2402 MHz



PSD 2441 MHz



PSD 2481 MHz



Name of Test: A/C Powerline Conducted Emissions
Specification: 15.207
Test Equipment Utilized N/A

Result N/A

Test Procedure

Not applicable as the unit is DC powered from a battery.

Test Equipment Utilized

Description	Manufacturer	Model Number	FTL Asset Number	Last Calibration Date	Calibration Due Date
RF Pre-Amplifier	HP	8449	i00028	1/23/07	1/23/09
Spectrum Analyzer	HP	8563E	i00029	1/26/06	1/26/07
Spectrum Analyzer	HP	85462A	i00033	11/03/06	11/03/07
Bi-conical Antenna	EMCO	3109B	i00088	10/14/05	10/14/07
Log Periodic Antenna	Aprel	2001	i00089	10/20/05	10/20/07
Horn Antenna	EMCO	3115	i00103	9/5/06	9/5/07
Power Sensor	HP	E4418B	i00228	8/1/06	8/1/07
Horn Antenna	ARA	DRG-1181A	i00271	2/1/04	2/1/07
Spectrum Analyzer	HP	8566B	i00290	6/16/06	6/16/07
Power Meter	HP	8481A	i00317	10/1/06	10/1/07

In addition to the above listed equipment standard RF connectors and cables were utilized in the testing of the described equipment. Prior to testing these components were tested to verify proper operation.

END OF TEST REPORT