



**FCC CFR47 PART 15 SUBPART C
INDUSTRY CANADA RSS-247 ISSUE 1**

**BLUETOOTH LOW ENERGY
CERTIFICATION TEST REPORT**

FOR

DIGITAL WIRELESS ASSAY

MODEL NUMBER: FRPTK1

FCC ID: 2AEKXFRPTK1

IC ID: 20260-FRPTK1

REPORT NUMBER: 15U20694-E1V3

ISSUE DATE: SEPTEMBER 23, 2015

Prepared for

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Prepared by

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NVLAP LAB CODE 200065-0

Revision History

Issue			
Rev.	Date	Revisions	Revised By
V1	09/15/15	Initial Issue	
V2	09/22/15	Updated Section 1, 2, 5.3-5.4, 10.1, 11 & 13	D. Corona
V3	09/23/15	Updated antenna gain information; page 7	D. Corona

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1. ATTESTATION OF TEST RESULTS

COMPANY NAME: CHURCH & DWIGHT CO., INC.
EUT DESCRIPTION: DIGITAL WIRELESS ASSAY
MODEL: FRPTK1
SERIAL NUMBER: N10L36XCV (Radiated), N10L36YHK (Conducted)
DATE TESTED: MAY 12 – SEPTEMBER 21, 2015

APPLICABLE STANDARDS	
STANDARD	TEST RESULTS
CFR 47 Part 15 Subpart C	Pass
INDUSTRY CANADA RSS-247 Issue 1	Pass
INDUSTRY CANADA RSS-GEN Issue 4	Pass

UL Verification Services Inc. tested the above equipment in accordance with the requirements set forth in the above standards. All indications of Pass/Fail in this report are opinions expressed by UL Verification Services Inc. based on interpretations and/or observations of test results. Measurement Uncertainties were not taken into account and are published for informational purposes only. The test results show that the equipment tested is capable of demonstrating compliance with the requirements as documented in this report.

Note: The results documented in this report apply only to the tested sample, under the conditions and modes of operation as described herein. This document may not be altered or revised in any way unless done so by UL Verification Services Inc. and all revisions are duly noted in the revisions section. Any alteration of this document not carried out by UL Verification Services Inc. will constitute fraud and shall nullify the document. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, any agency of the Federal Government, or any agency of any government.

Approved & Released For

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2. TEST METHODOLOGY

The tests documented in this report were performed in accordance with FCC CFR 47 Part 2, FCC CFR 47 Part 15, and KDB 558074 D01 v03r03, ANSI C63.10-2009 for FCC and ANSI C63.10-2013 for IC, RSS-GEN Issue 4, and RSS-247 Issue 1.

ANSI C63.10-2009 Deviation

Radiated spurious emission above 1GHz was performed with the EUT elevated at 1.5m instead of 0.8m. 1.5m is the required height in ANSI C63.10:2013 as referenced by RSS GEN issue 4.

3. FACILITIES AND ACCREDITATION

The test sites and measurement facilities used to collect data are located at 47173 and 47266 Benicia Street, Fremont, California, USA. Line conducted emissions are measured only at the 47173 address. The following table identifies which facilities were utilized for radiated emission measurements documented in this report. Specific facilities are also identified in the test results sections.

47173 Benicia Street	47266 Benicia Street
<input checked="" type="checkbox"/> Chamber A(IC: 2324B-1)	<input type="checkbox"/> Chamber D(IC: 2324B-4)
<input type="checkbox"/> Chamber B(IC: 2324B-2)	<input type="checkbox"/> Chamber E(IC: 2324B-5)
<input type="checkbox"/> Chamber C(IC: 2324B-3)	<input type="checkbox"/> Chamber F(IC: 2324B-6)
	<input type="checkbox"/> Chamber G(IC: 2324B-7)
	<input type="checkbox"/> Chamber H(IC: 2324B-8)

UL Verification Services Inc. is accredited by NVLAP, Laboratory Code 200065-0. The full scope of accreditation can be viewed at <http://ts.nist.gov/standards/scopes/2000650.htm>.

4. CALIBRATION AND UNCERTAINTY

4.1. MEASURING INSTRUMENT CALIBRATION

The measuring equipment utilized to perform the tests documented in this report has been calibrated in accordance with the manufacturer's recommendations, and is traceable to recognized national standards.

4.2. SAMPLE CALCULATION

Where relevant, the following sample calculation is provided:

$$\begin{aligned}\text{Field Strength (dBuV/m)} &= \text{Measured Voltage (dBuV)} + \text{Antenna Factor (dB/m)} + \text{Cable} \\ &\text{Loss (dB)} - \text{Preamp Gain (dB)} \\ 36.5 \text{ dBuV} + 18.7 \text{ dB/m} + 0.6 \text{ dB} - 26.9 \text{ dB} &= 28.9 \text{ dBuV/m}\end{aligned}$$

4.3. MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the apparatus:

PARAMETER	UNCERTAINTY
Conducted Disturbance, 0.15 to 30 MHz	3.52 dB
Radiated Disturbance, 30 to 26000 MHz	4.94 dB

Uncertainty figures are valid to a confidence level of 95%.

5. EQUIPMENT UNDER TEST

5.1. DESCRIPTION OF EUT

The First Response Ultimate Digital pregnancy test is a light activated disposable electronic device with an integrated chemistry strip seal in a foil pouch that qualitatively determines the presence or absence of hCG as an aid in the diagnosis of pregnancy. The device includes a Bluetooth Low Energy (BLE) radio, which pairs with an app on a smartphone or tablet. The device supports BLE over 2.4 GHz frequency band in compliance with the Bluetooth 4.0 specification.

5.2. MAXIMUM OUTPUT POWER

The transmitter has a maximum peak conducted output power as follows:

Frequency Range (MHz)	Mode	Output Power (dBm)	Output Power (mW)
2402-2480	BLE	3.71	2.35

5.3. DESCRIPTION OF AVAILABLE ANTENNAS

The radio utilizes a WIFA antenna, with a maximum gain of 1.87dBi.

5.4. WORST-CASE CONFIGURATION AND MODE

Radiated emission was performed with the EUT set to transmit at the channel with highest output power as worst-case scenario.

The fundamental of the EUT was investigated in three orthogonal orientations X, Y, Z it was determined that X orientation was worst-case orientation; therefore, all final radiated testing was performed with the EUT in X orientation.

5.5. DESCRIPTION OF TEST SETUP

SUPPORT EQUIPMENT

Support Equipment List				
Description	Manufacturer	Model	Serial Number	FCC ID
N/A	N/A	N/A	N/A	N/A

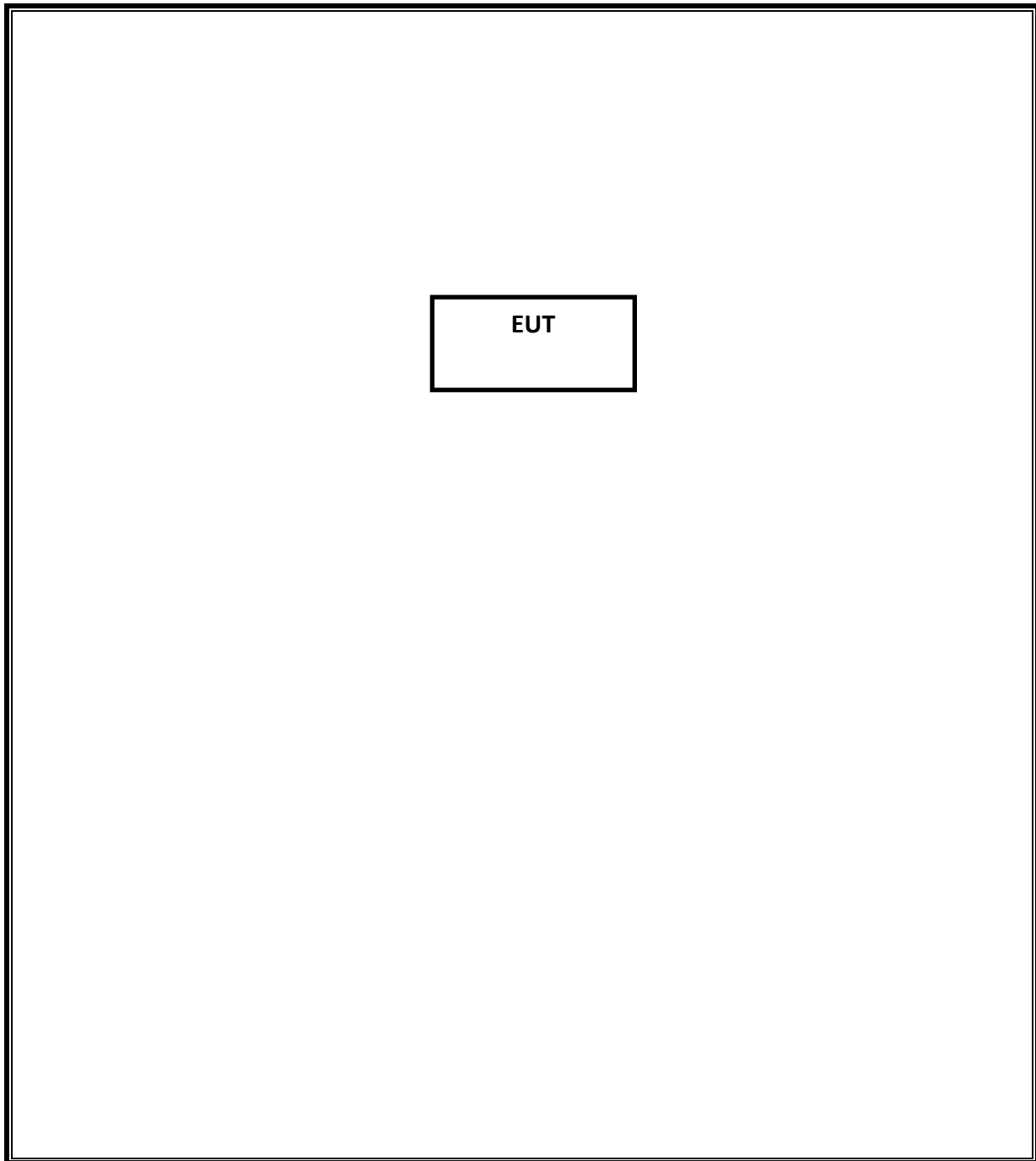
I/O CABLES

I/O Cable List						
Cable No	Port	# of identical ports	Connector Type	Cable Type	Cable Length (m)	Remarks
1	N/A	N/A	N/A	N/A	N/A	N/A

TEST SETUP

The EUT is a stand-alone unit during the tests. Test Laptop software exercised the radio card.

SETUP DIAGRAM FOR TESTS



6. TEST AND MEASUREMENT EQUIPMENT

The following test and measurement equipment was utilized for the tests documented in this report:

Test Equipment List				
Description	Manufacturer	Model	Tnumber	Cal Due
Spectrum Analyzer, 44 GHz	Agilent / HP	E4446A	99	6/10/2016
Spectrum Analyzer, 26.5 GHz	Agilent / HP	E4440A	198	2/6/2016
EMI Test Receiver, 30 MHz	R & S	ESHS 20	31	8/8/2015
Preamplifier, 1000 MHz	Agilent / HP	8447D	15	8/16/2015
Preamplifier, 26.5 GHz	Agilent / HP	8449B	402	10/4/2015
Antenna, Bilog, 30MHz-1 GHz	Sunol Sciences	JB1	185	2/18/2016
Antenna, Horn, 18 GHz	ETS	3117	346	2/10/2016
Antenna, Horn, 26.5 GHz	ARA	MWH-1826	89	12/17/2015
Peak Power Meter	Agilent / HP	E4416A	84	1/26/2016
Peak / Average Power Sensor	Agilent / HP	E9327A	117	3/9/2016
LISN, 30 MHz	FCC	50/250-25-2	24	1/16/2016

Test Software List			
Description	Manufacturer	Model	Version
Radiated Software	UL	UL EMC	Version 9.5, 07/22/14
Conducted Software	UL	UL EMC	Version 9.5, 05/17/14
CLT Software	UL	UL RF	Version 1.0, 02/02/15
Antenna Port Software	UL	UL RF	Version 2.1.1.1, 1/20/15

7. ON TIME, DUTY CYCLE AND MEASUREMENT METHODS

LIMITS

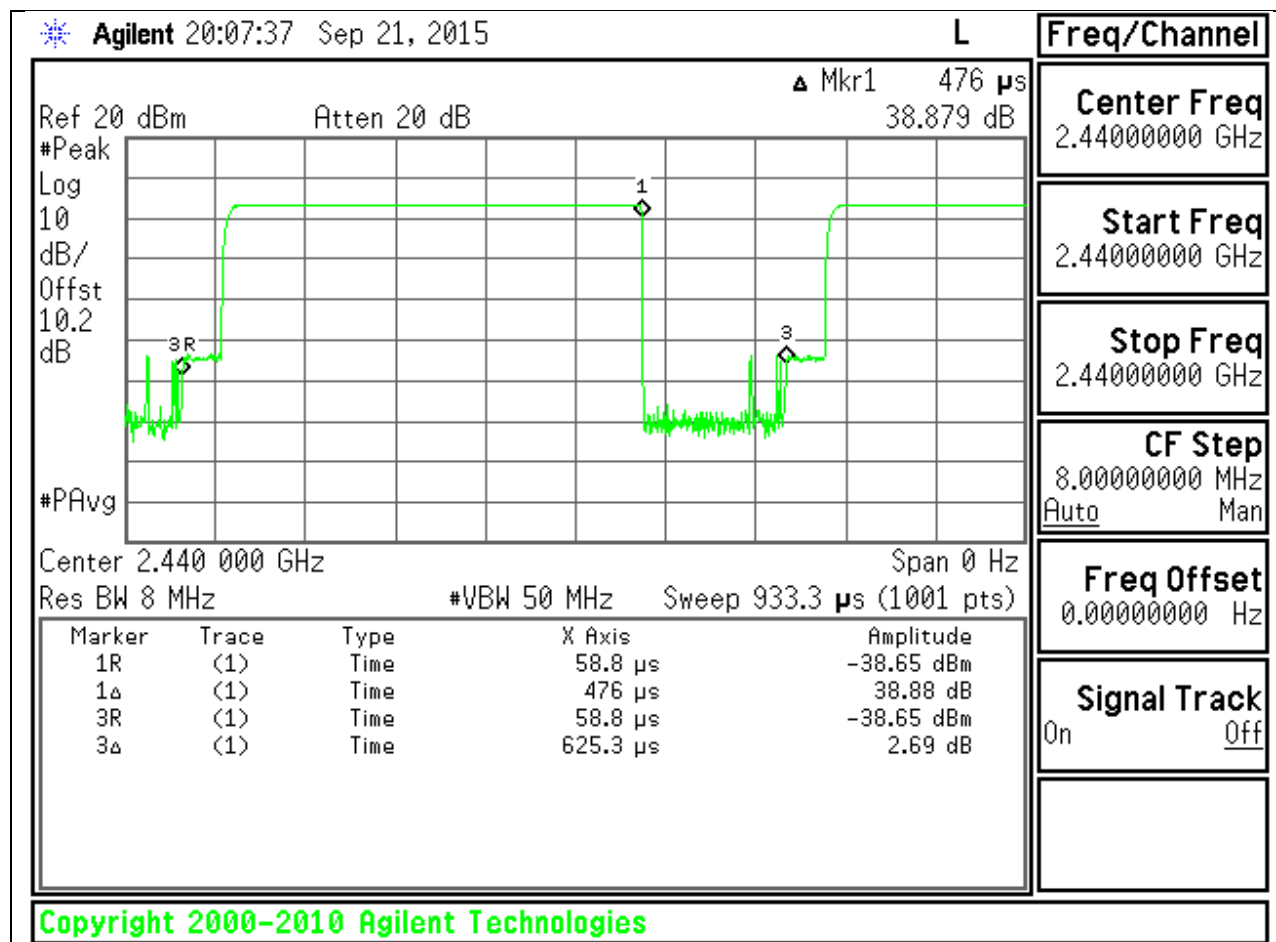
None; for reporting purposes only.

PROCEDURE

KDB 789033 Zero-Span Spectrum Analyzer Method.

7.1.1. ON TIME AND DUTY CYCLE RESULTS

Mode	ON Time B (msec)	Period (msec)	Duty Cycle x (linear)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)	1/T Minimum VBW (kHz)
BLE	0.476	0.625	0.762	76.2%	1.18	2.101



8. SUMMARY TABLE

FCC Part Section	RSS Section(s)	Test Description	Test Limit	Test Condition	Test Result	Worst Case
15.247 (a)(2)	RSS-247 5.2.1	Occupied Band width (6dB)	>500KHz	Conducted	Pass	0.6380 MHz
2.1051, 15.247 (d)	RSS-247 5.5	Band Edge / Conducted Spurious Emission	-20dBc		Pass	-35.88dBm
15.247	RSS-247 5.4.4	TX conducted output power	<30dBm		Pass	3.71 dBm
15.247	RSS-247 5.2.2	PSD	<8dBm		Pass	-11.26dBm
15.205, 15.209	RSS-GEN 8.9/7	Radiated Spurious Emission	< 54dBuV/m	Radiated	Pass	48.85 dBuV/m

10. ANTENNA PORT TEST RESULTS

10.1. 6 dB BANDWIDTH

LIMITS

FCC §15.247 (a) (2)

IC RSS-247 5.2 (1)

The minimum 6 dB bandwidth shall be at least 500 kHz.

TEST PROCEDURE

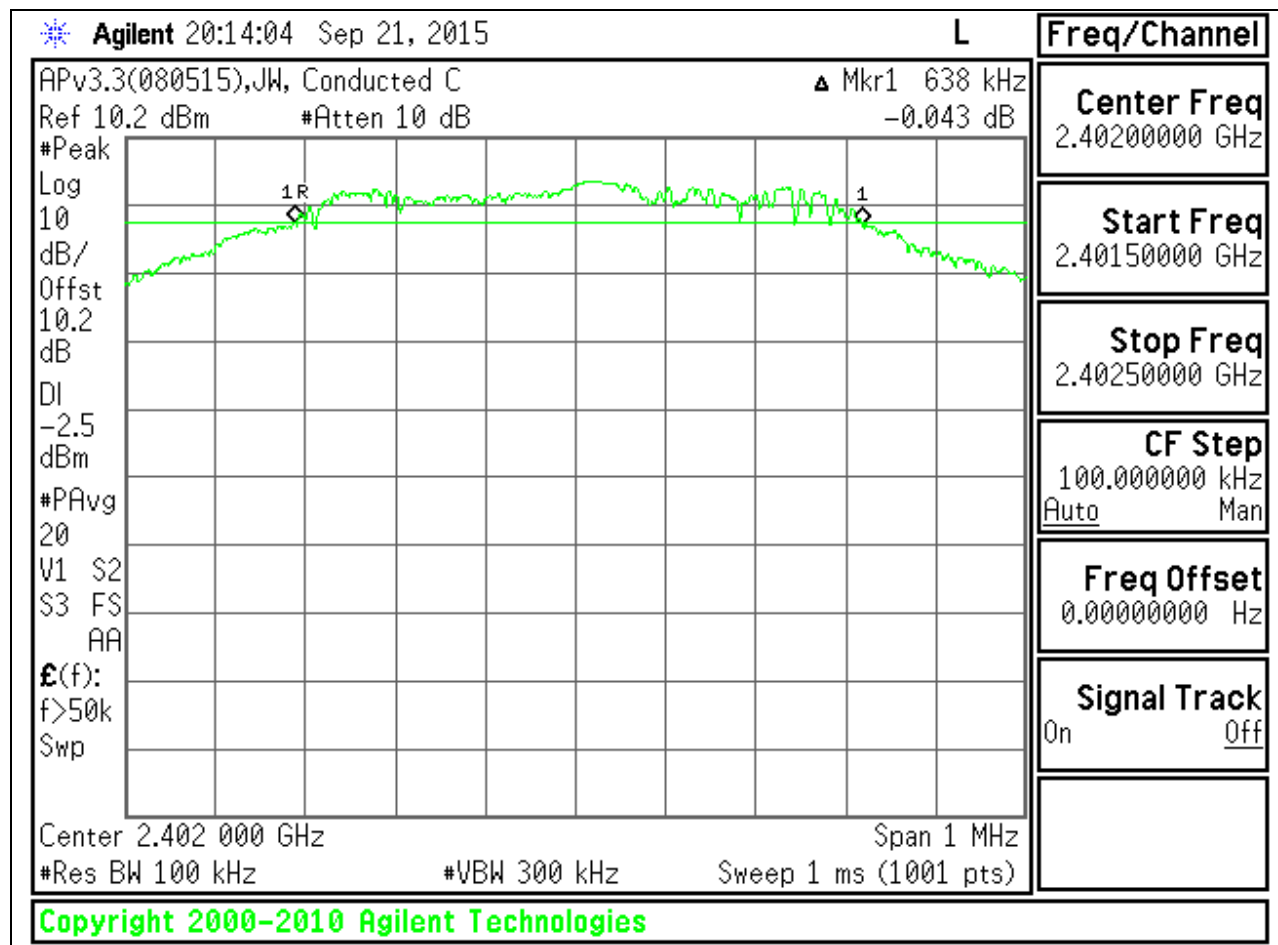
The transmitter output is connected to a spectrum analyzer. The RBW is set to 100 kHz and the VBW is set to 300 kHz. The sweep time is coupled.

RESULTS

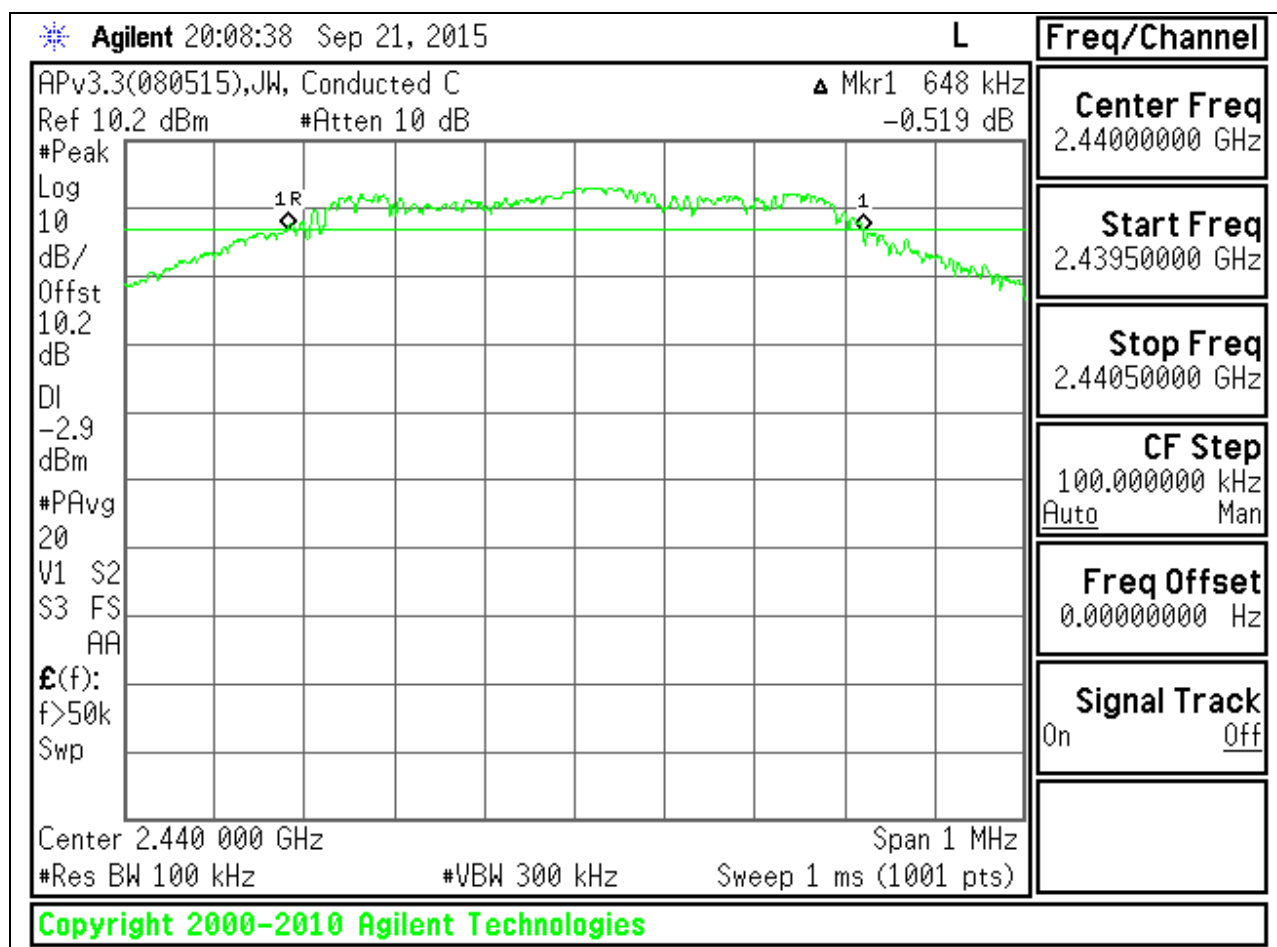
Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Minimum Limit (MHz)
Low	2402	0.6380	0.5
Middle	2440	0.6480	0.5
High	2480	0.6630	0.5

6 dB BANDWIDTH PLOTS

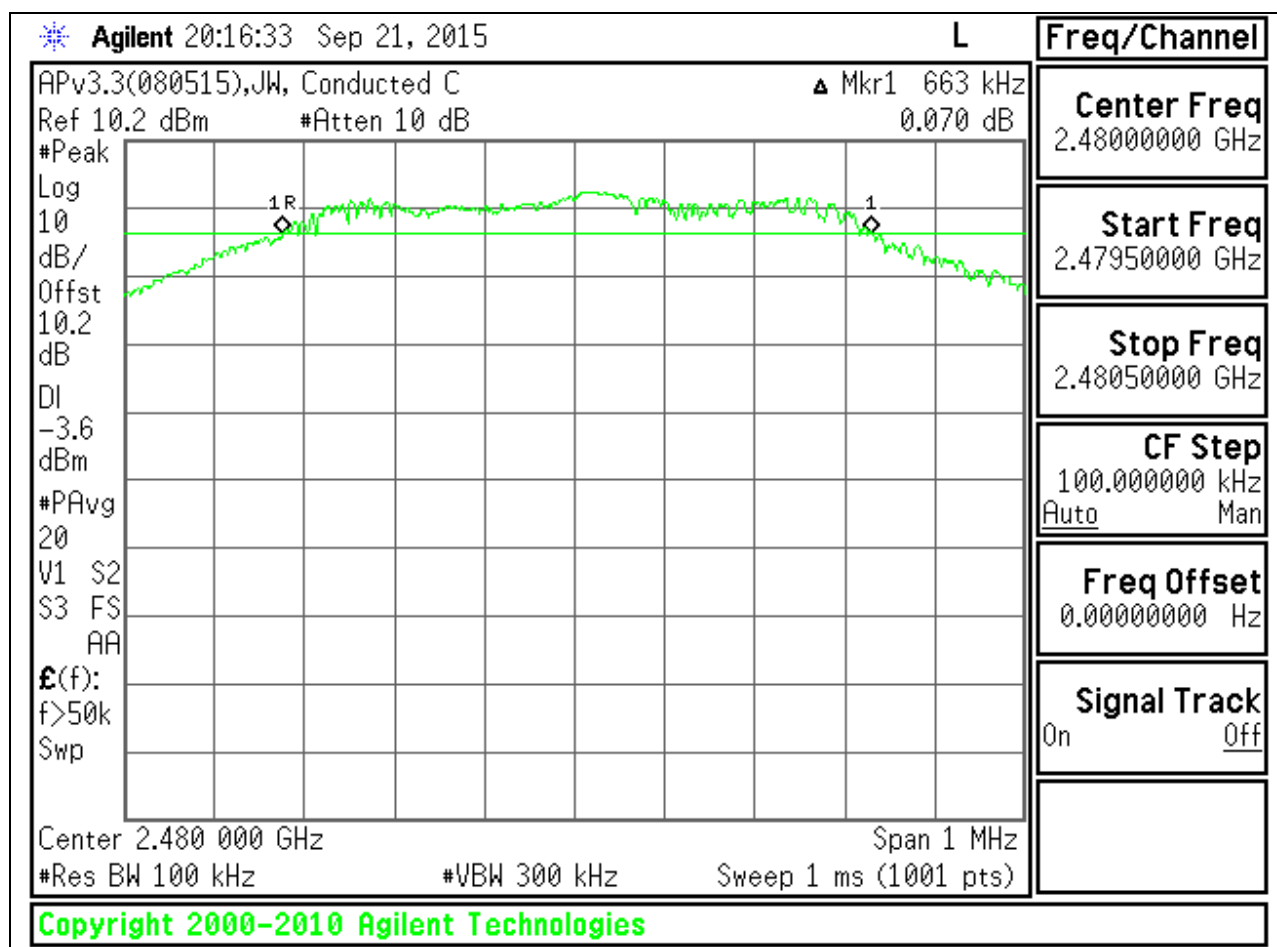
LOW CHANNEL



MID CHANNEL



HIGH CHANNEL



10.2. 99% BANDWIDTH

LIMITS

None; for reporting purposes only.

TEST PROCEDURE

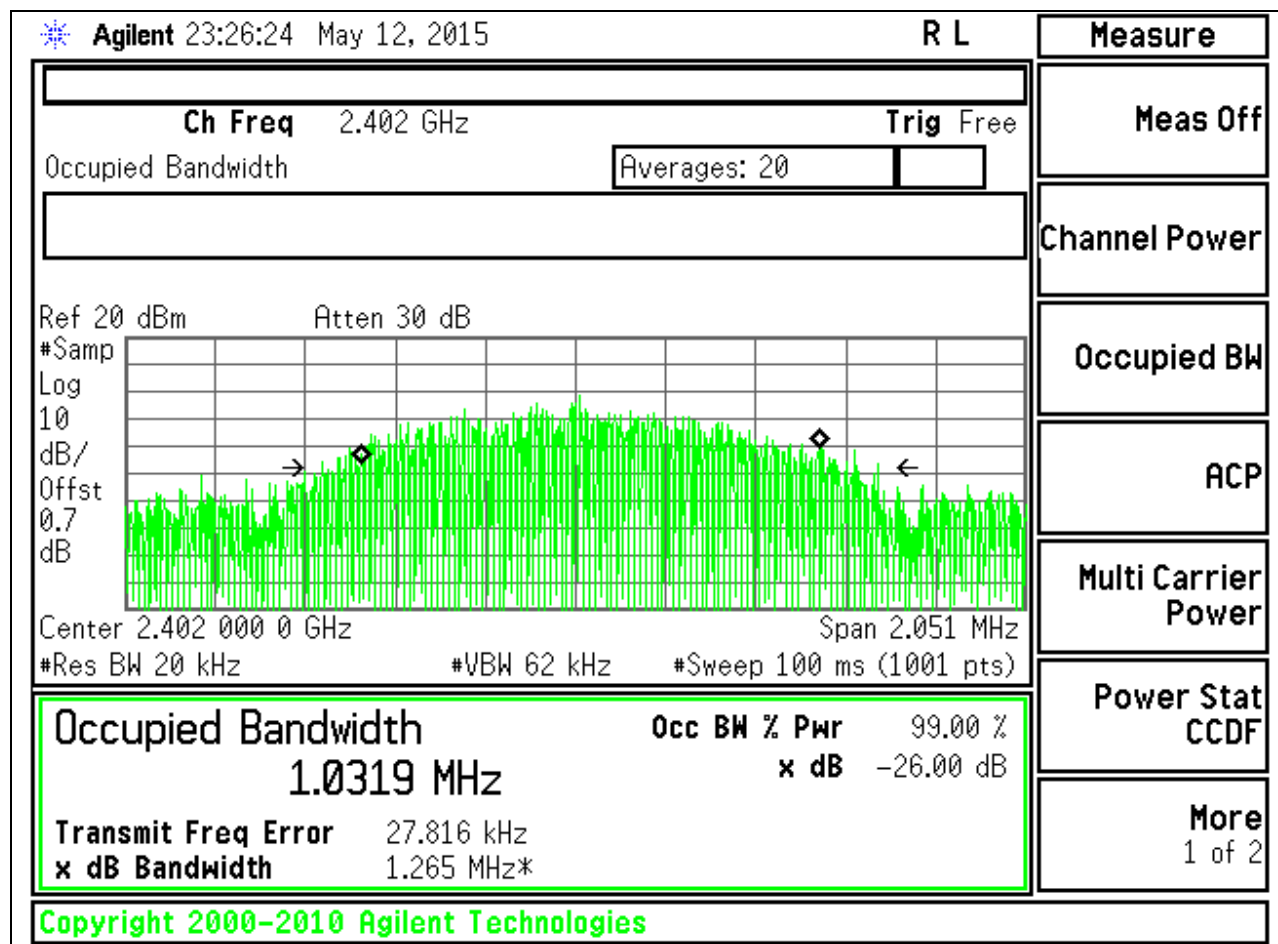
Reference to KDB558074 D01 DTS Meas Guidance v03r03: The transmitter output is connected to the spectrum analyzer. The RBW is set to 1% to 3% of the 99 % bandwidth and to 1% of the span. The VBW is set to 3 times the RBW. The sweep time is coupled. The spectrum analyzer internal 99% bandwidth function is utilized.

RESULTS

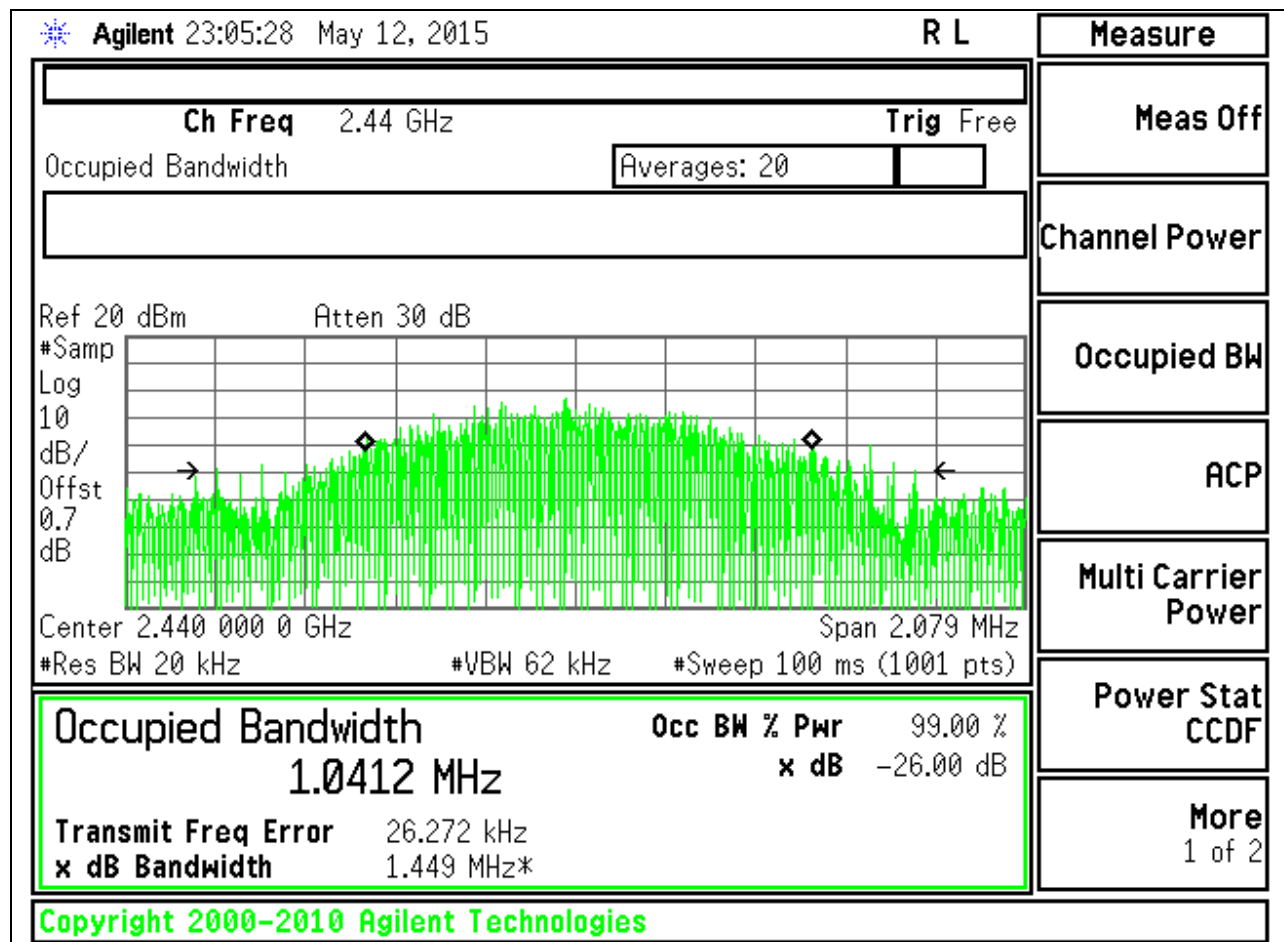
Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	2402	1.0319
Middle	2440	1.0412
High	2480	1.0433

99% BANDWIDTH PLOTS

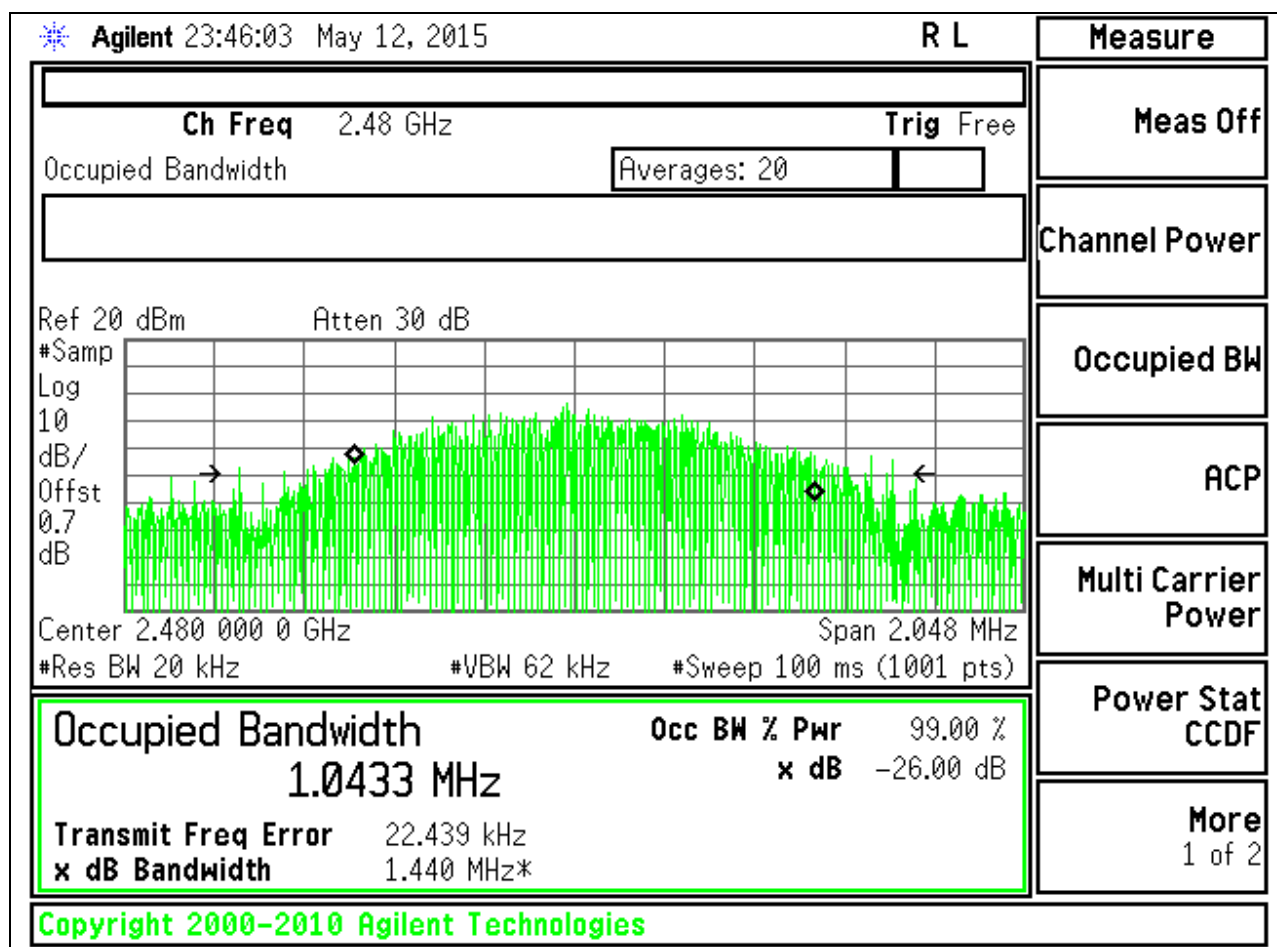
LOW CHANNEL



MID CHANNEL



HIGH CHANNEL



10.3. OUTPUT POWER

LIMITS

FCC §15.247 (b)
IC RSS-247 5.4 (4)

The maximum antenna gain is less than or equal to 6 dBi, therefore the limit is 30 dBm.

TEST PROCEDURE

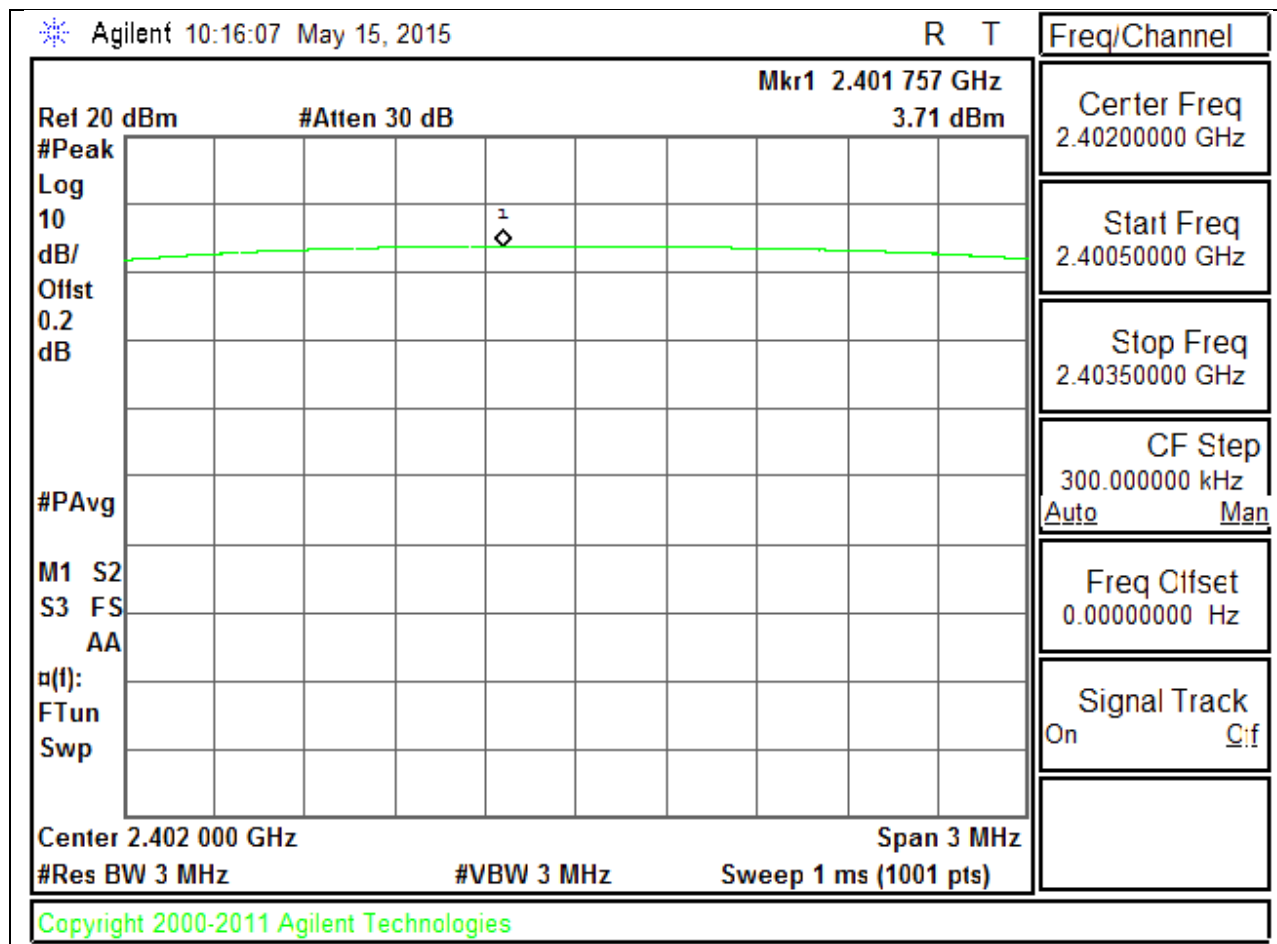
Peak power is measured using KDB558074 D01 DTS Meas Guidance v03r03 under section 9.1.1 utilizing spectrum analyzer.

RESULTS

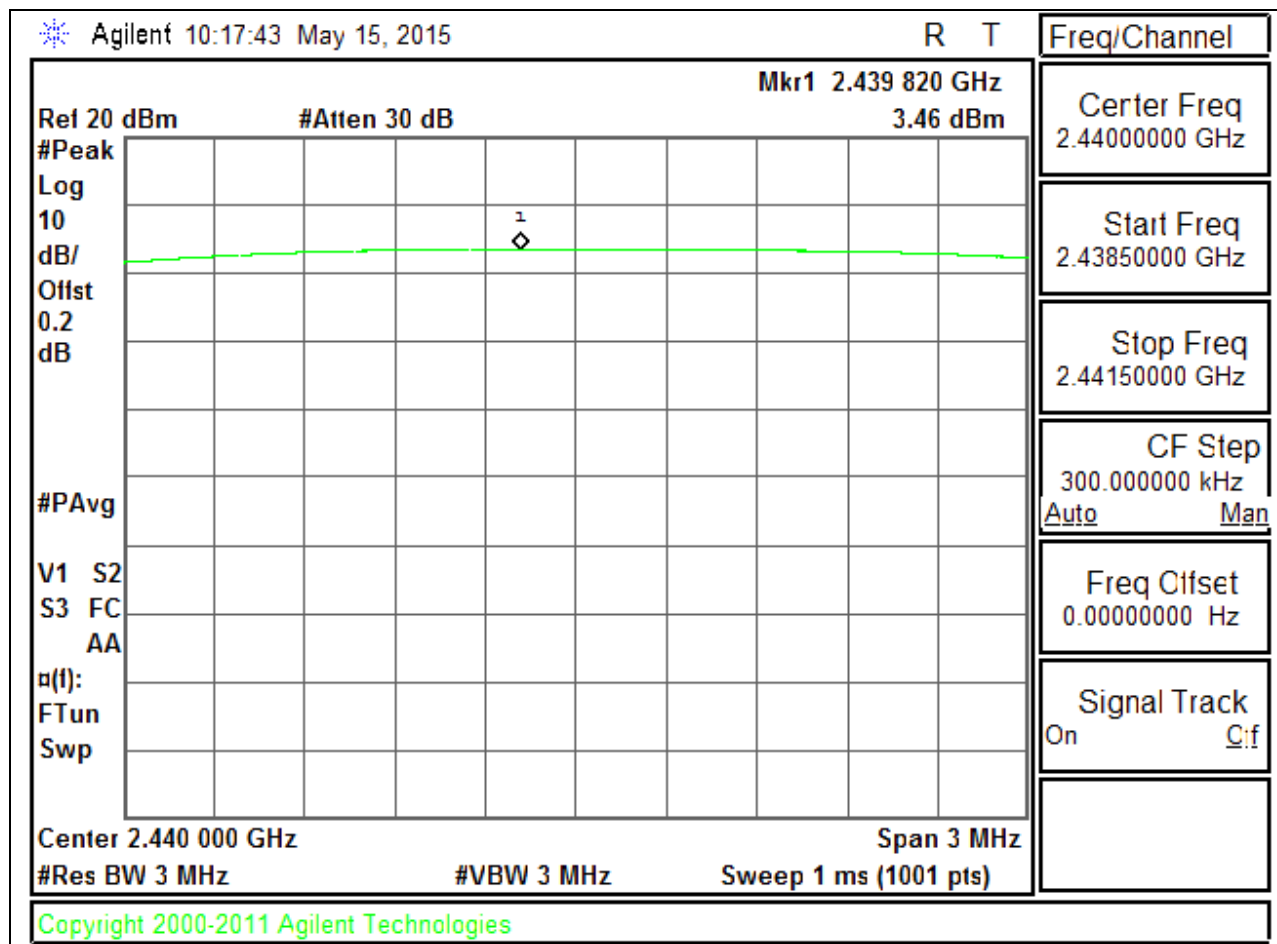
Channel	Frequency (MHz)	Peak Power Reading (dBm)	Limit (dBm)	Margin (dB)
Low	2402	3.710	30	-26.290
Middle	2440	3.460	30	-26.540
High	2480	2.770	30	-27.230

OUTPUT POWER PLOTS

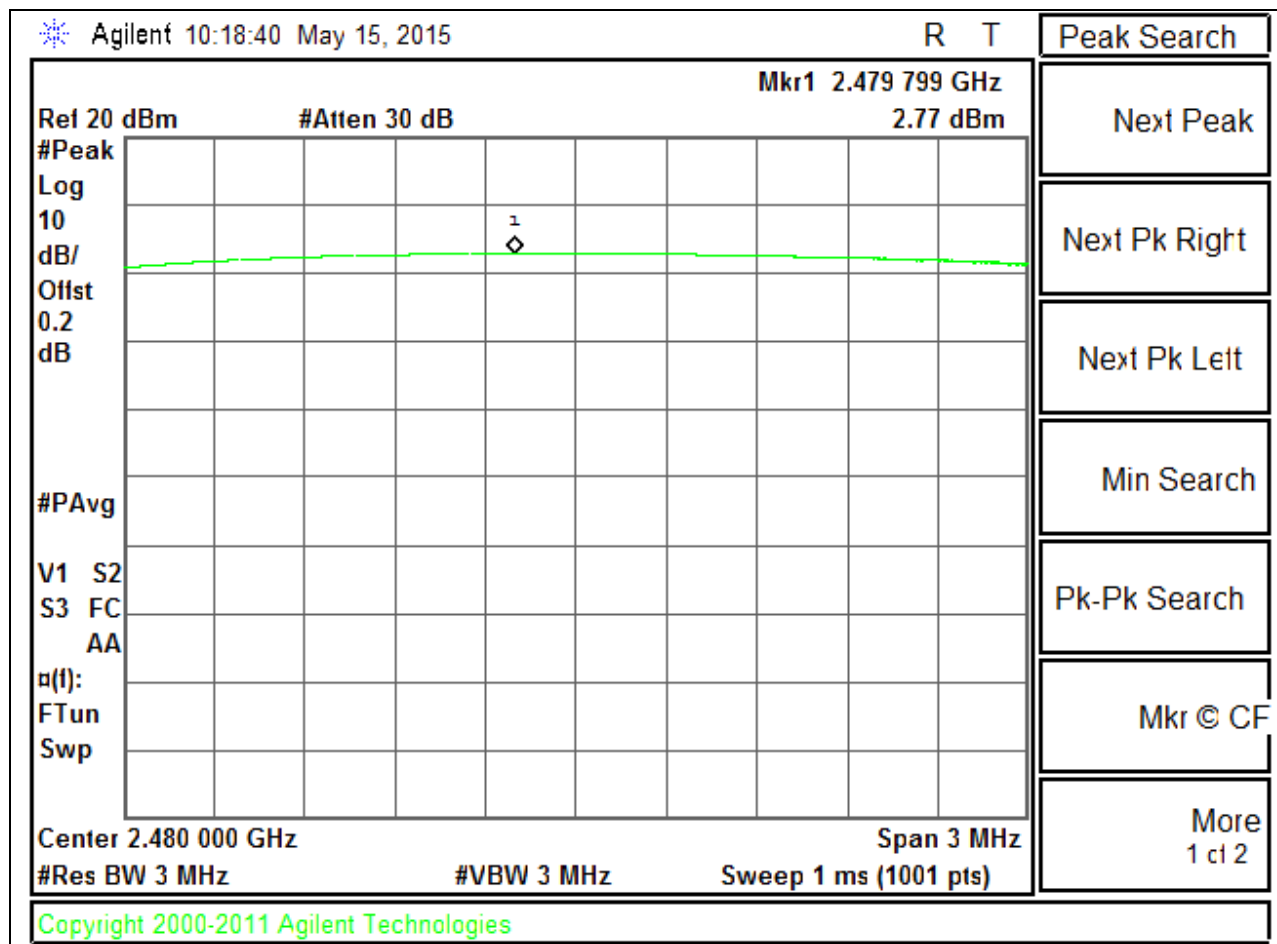
LOW CHANNEL



MID CHANNEL



HIGH CHANNEL



10.4. AVERAGE POWER

LIMITS

None; for reporting purposes only.

TEST PROCEDURE

The transmitter output is connected to a power meter.

RESULTS

The cable assembly insertion loss of 0.2 dB (0.2dB cable) was entered as an offset in the power meter to allow for direct reading of power.

Channel	Frequency (MHz)	AV power (dBm)
Low	2402	3.6
Middle	2440	3.3
High	2480	2.7

10.5. POWER SPECTRAL DENSITY

LIMITS

FCC §15.247 (e)
IC RSS-247 5.2 (2)

The power spectral density conducted from the transmitter to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission.

TEST PROCEDURE

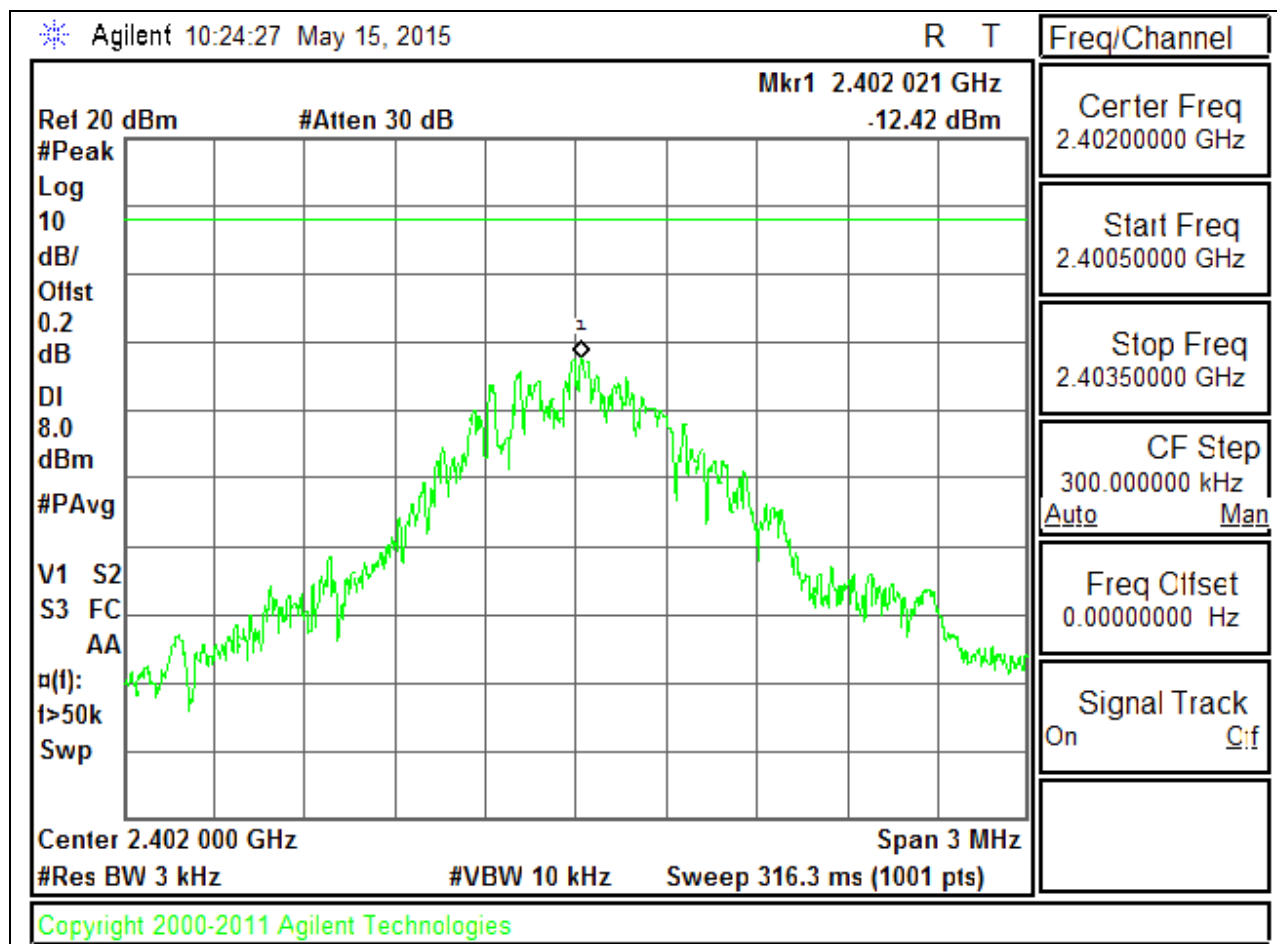
Power Spectral Density was performed utilizing the "Method PKPSD (Peak PSD)" under KDB558074 D01 DTS Meas Guidance v03r03.

RESULTS

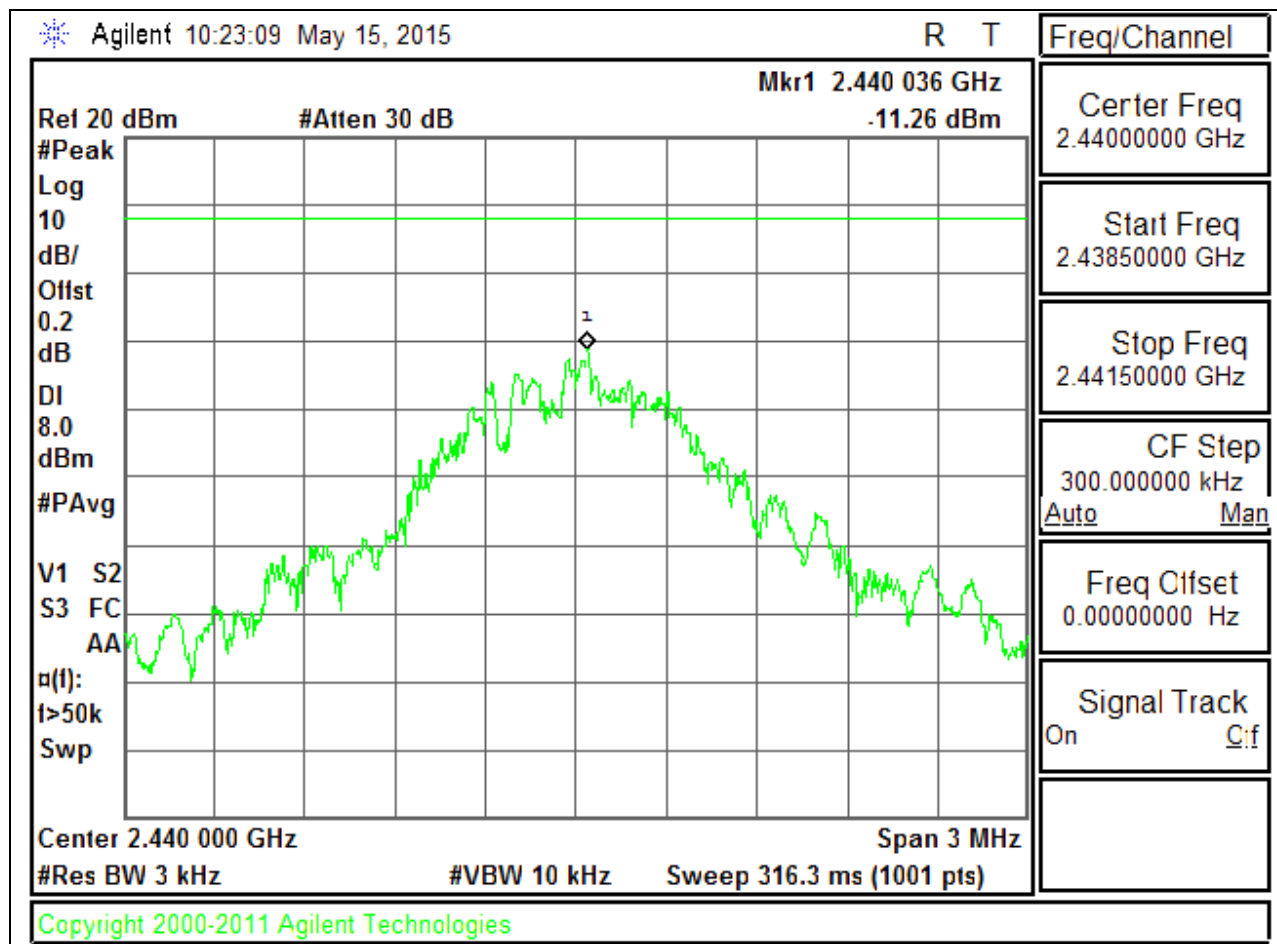
Channel	Frequency (MHz)	PSD (dBm)	Limit (dBm)	Margin (dB)
Low	2402	-12.42	8	-20.42
Middle	2440	-11.26	8	-19.26
High	2480	-11.92	8	-19.92

POWER SPECTRAL DENSITY PLOTS

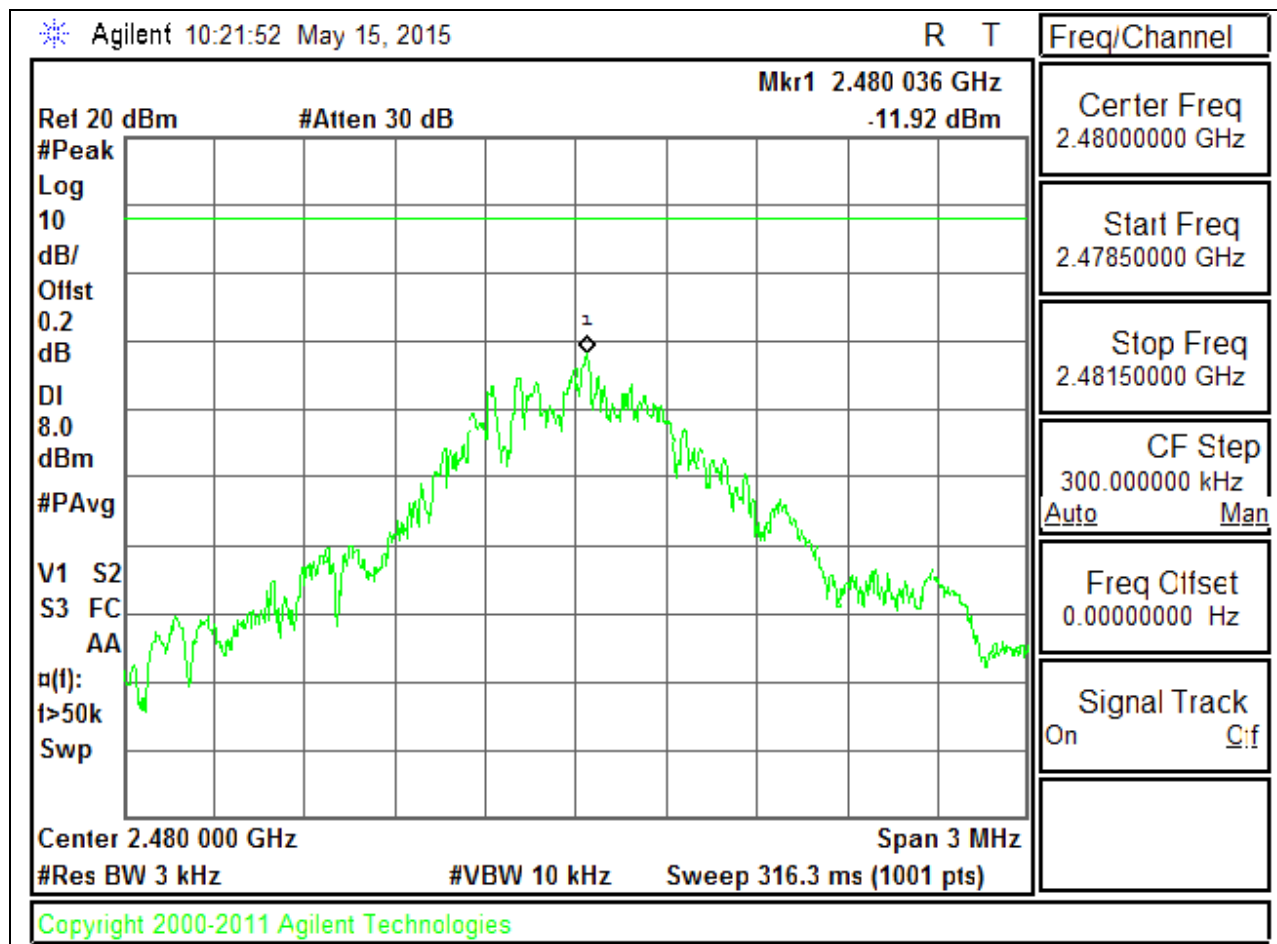
LOW CHANNEL



MID CHANNEL



HIGH CHANNEL



10.6. CONDUCTED SPURIOUS EMISSIONS

LIMITS

FCC §15.247 (d)
IC RSS-247 5.5

Output power was measured based on the use of a peak measurement, therefore the required attenuation is 20dB.

TEST PROCEDURE

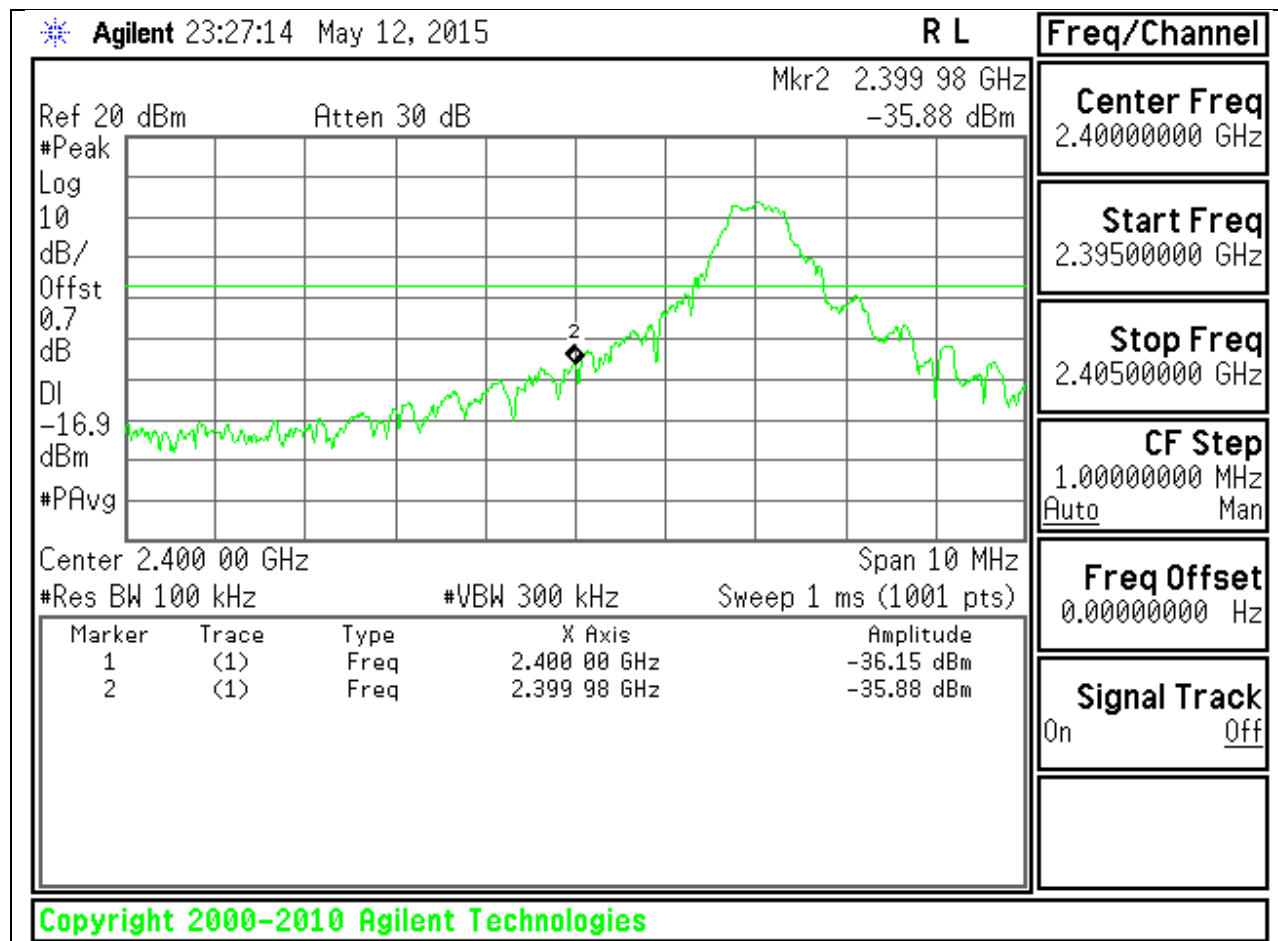
The transmitter output is connected to a spectrum analyzer. The resolution bandwidth is set to 100 kHz. The video bandwidth is set to 300 kHz.

The spectrum from 30 MHz to 26 GHz is investigated with the transmitter set to the lowest, middle, and highest channels.

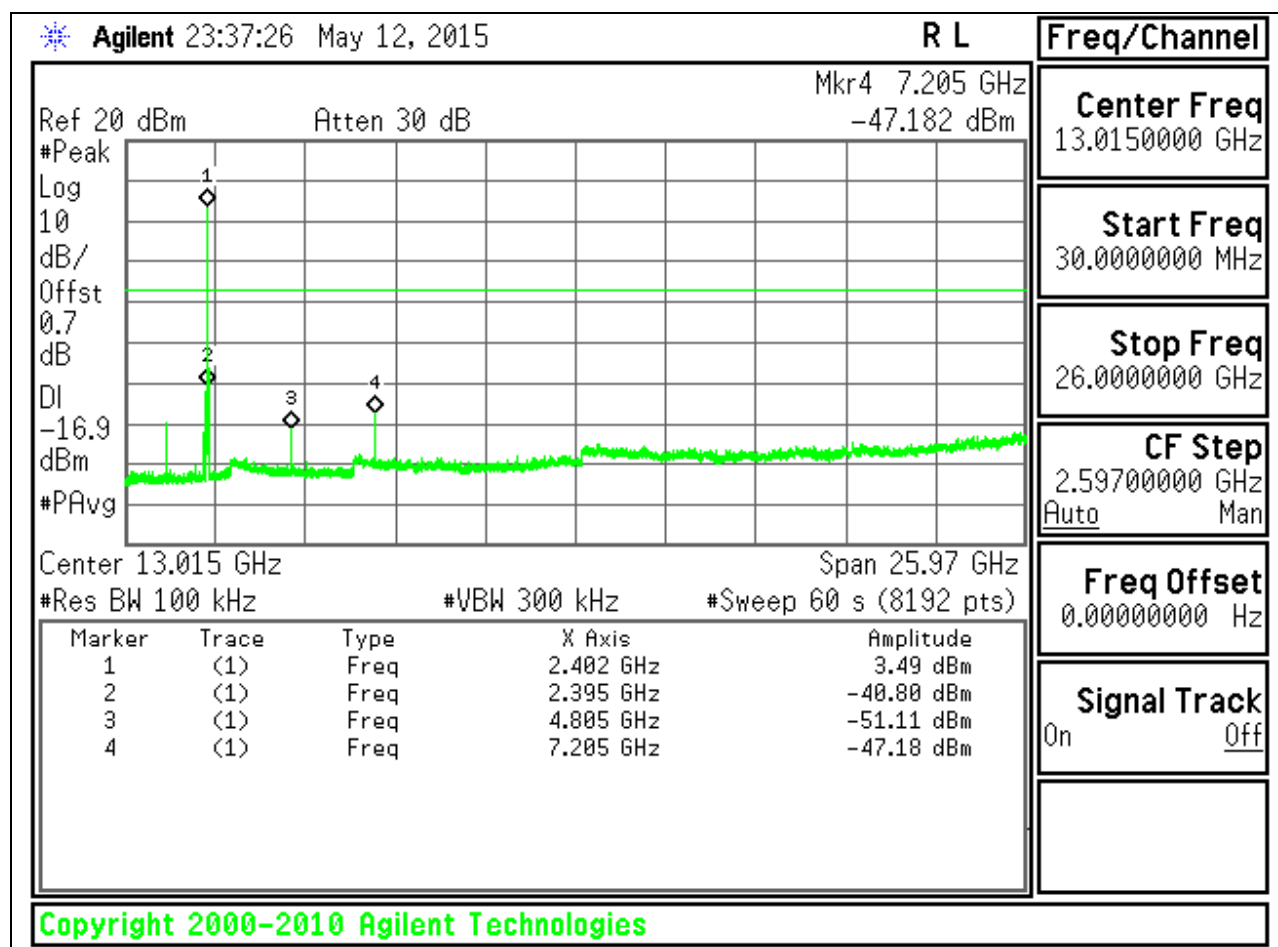
RESULTS

SPURIOUS EMISSIONS, LOW CHANNEL

LOW CHANNEL BANDEDGE

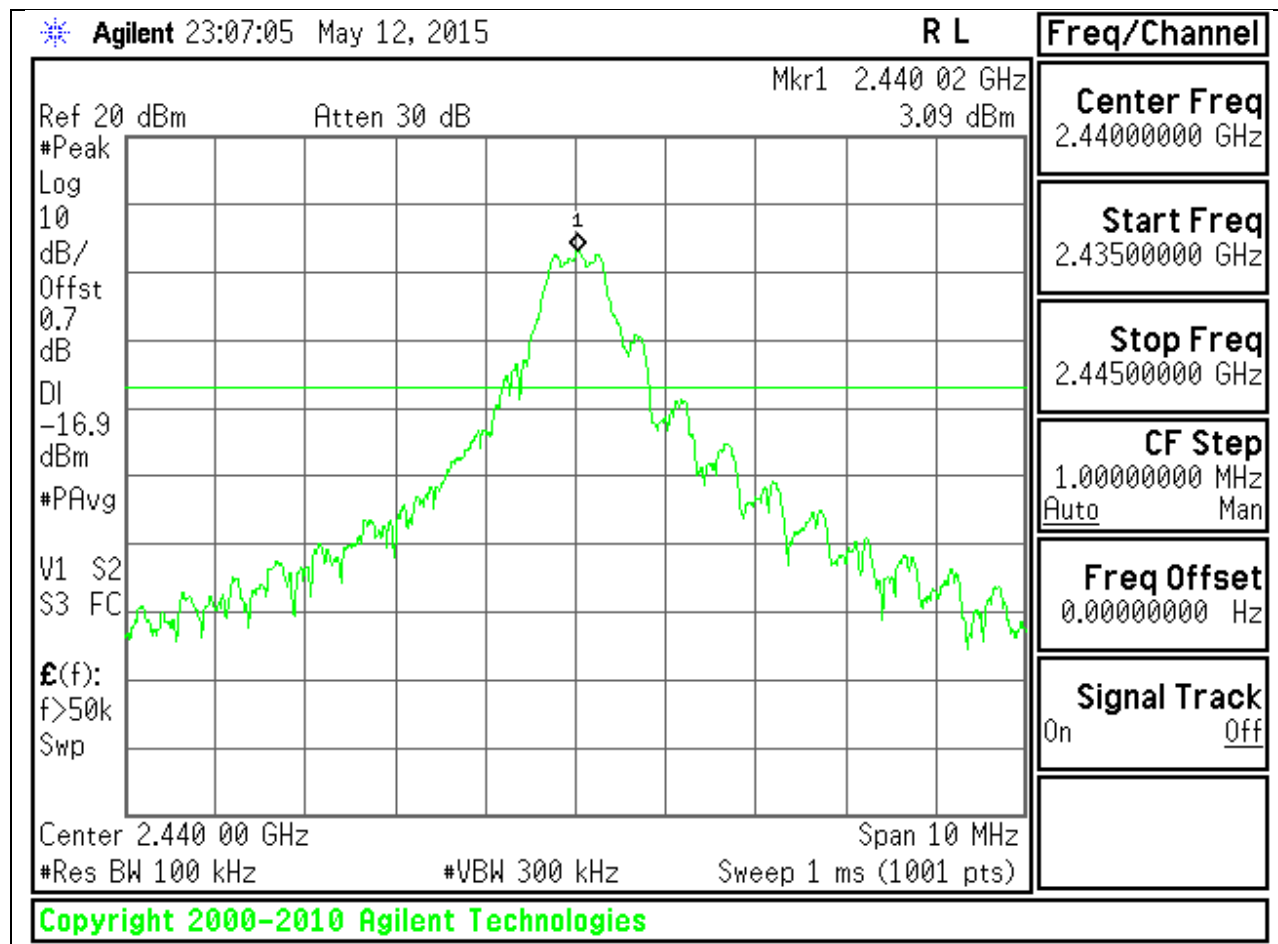


LOW CHANNEL SPURIOUS

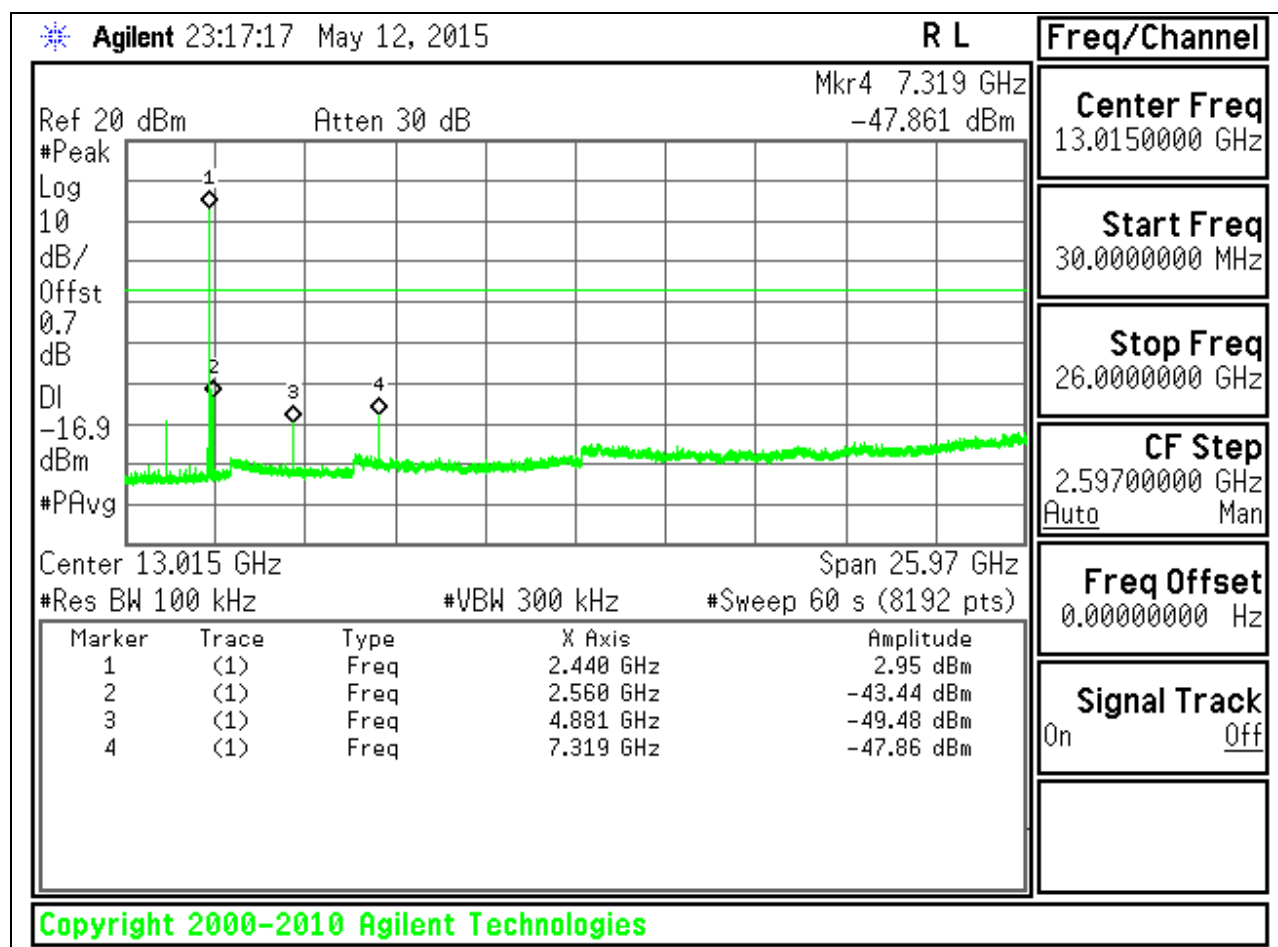


SPURIOUS EMISSIONS, MID CHANNEL

MID CHANNEL REFERENCE

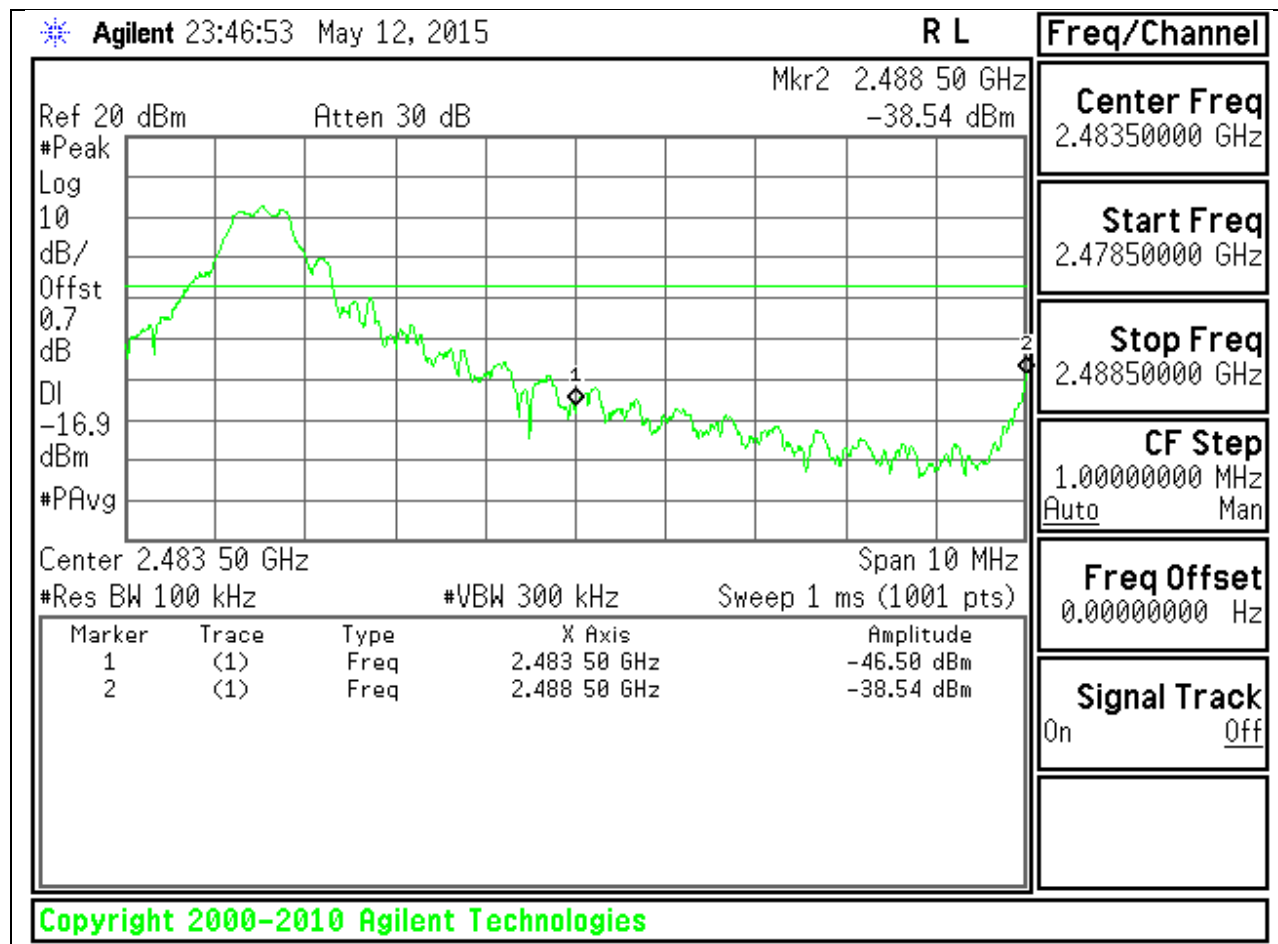


MID CHANNEL SPURIOUS

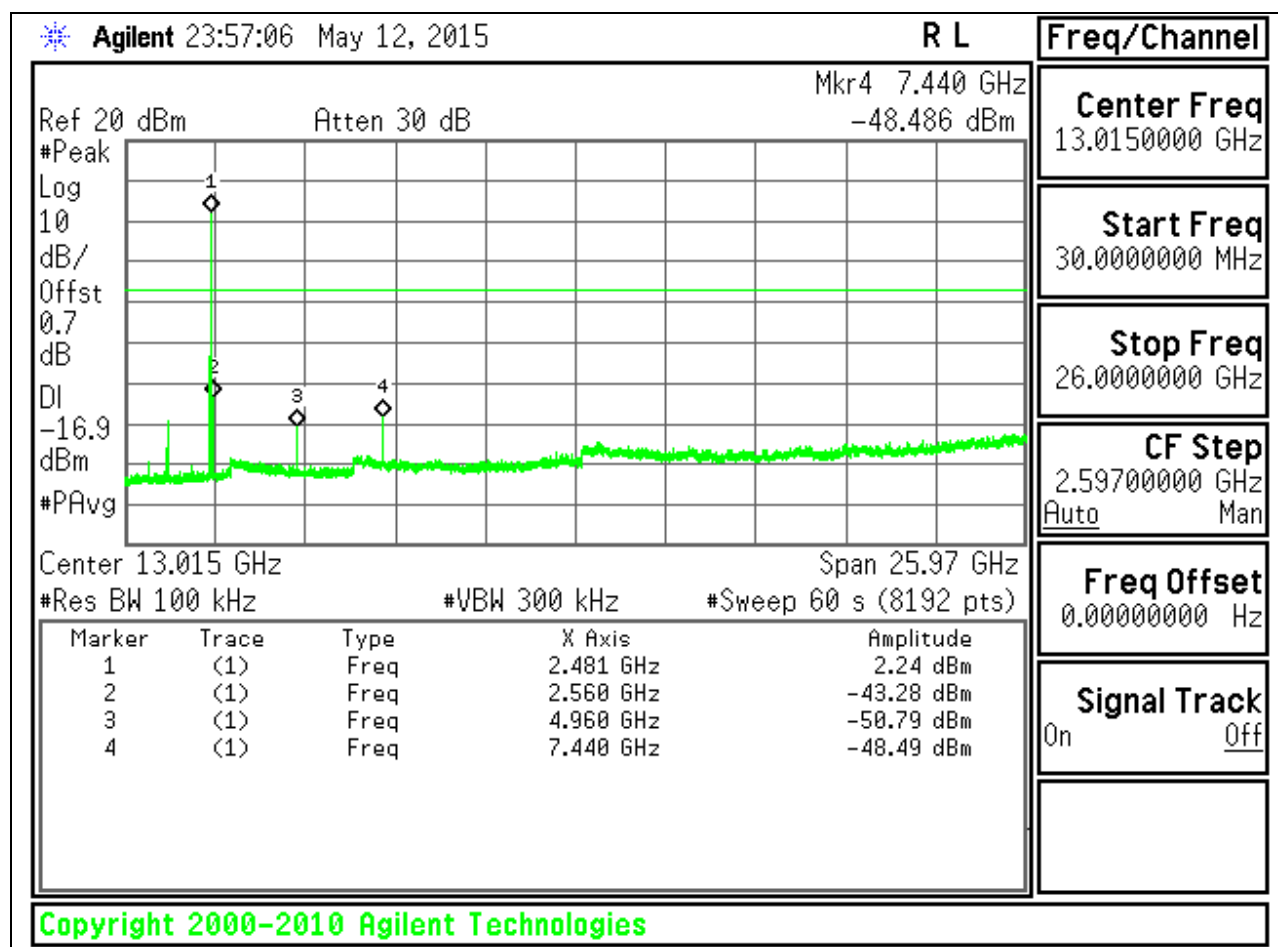


SPURIOUS EMISSIONS, HIGH CHANNEL

HIGH CHANNEL BANDEDGE



HIGH CHANNEL SPURIOUS



11. RADIATED TEST RESULTS

11.1. LIMITS AND PROCEDURE

LIMITS

FCC §15.205 and §15.209

IC RSS-GEN Clause 8.9 (Transmitter)

IC RSS-GEN Clause 7 (Receiver)

Frequency Range (MHz)	Field Strength Limit ($\mu\text{V/m}$) at 3 m	Field Strength Limit (dB $\mu\text{V/m}$) at 3 m
30 - 88	100	40
88 - 216	150	43.5
216 - 960	200	46
Above 960	500	54

TEST PROCEDURE

The EUT is placed on a non-conducting table 80 cm above the ground plane. The antenna to EUT distance is 3 meters. The EUT is configured in accordance with ANSI C63.10. The EUT is set to transmit in a continuous mode.

For measurements below 1 GHz the resolution bandwidth is set to 100 kHz for peak detection measurements or 120 kHz for quasi-peak detection measurements. Peak detection is used unless otherwise noted as quasi-peak.

For measurements above 1 GHz the resolution bandwidth is set to 1 MHz, then the video bandwidth is set to 1 MHz for peak measurements and add duty cycle factor for average measurements. Duty cycle factor = $10 \log(1/x)$. For this sample: DCF = $10 \log(1/0.762) = 1.18\text{dB}$

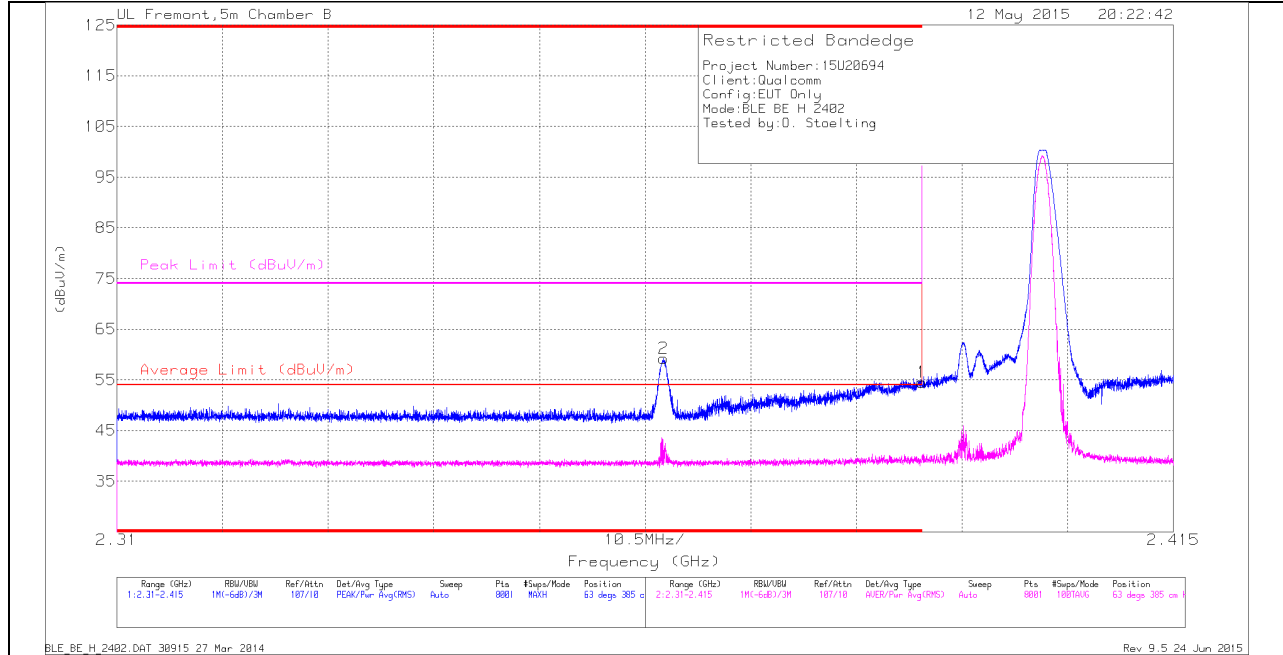
The spectrum from 30 MHz to 26 GHz is investigated with the transmitter set to the lowest, middle, and highest channels in the 2.4 GHz band.

The spectrum from 30 MHz to 40 GHz is investigated with the transmitter set to the lowest, middle, and highest channels in each applicable band.

The frequency range of interest is monitored at a fixed antenna height and EUT azimuth. The EUT is rotated through 360 degrees to maximize emissions received. The antenna is scanned from 1 to 4 meters above the ground plane to further maximize the emission. Measurements are made with the antenna polarized in both the vertical and the horizontal positions.

11.2. TRANSMITTER ABOVE 1 GHz RESTRICTED BANDEDGE (LOW CHANNEL)

HORIZONTAL PEAK AND AVERAGE PLOT



HORIZONTAL DATA

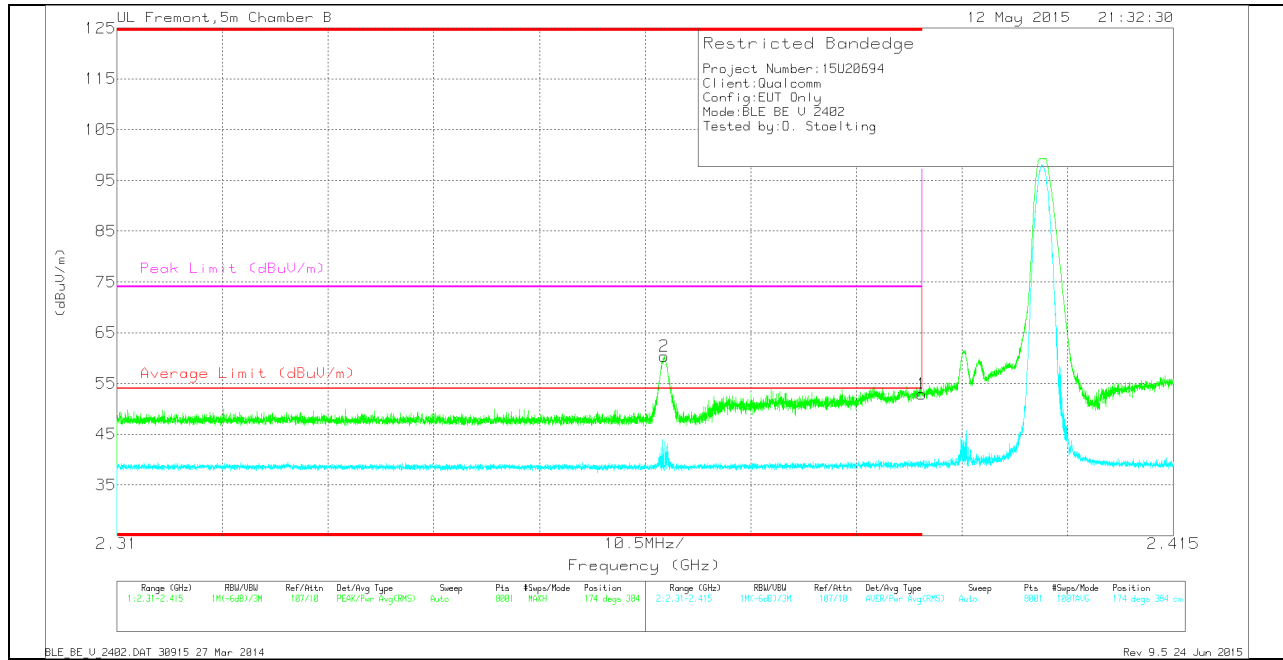
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T136 (dB/m)	Amp/Cb/Filter/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.39	47.46	PK	32	-24.9	0	54.56	-	-	74	-19.44	63	385	H
2	* 2.364	52.18	PK	31.9	-24.9	0	59.18	-	-	74	-14.82	63	385	H
3	* 2.39	31.17	RMS	32	-24.9	1.18	39.45	54	-14.55	-	-	63	385	H
4	* 2.364	35.4	RMS	31.9	-24.9	1.18	43.58	54	-10.42	-	-	63	385	H

* - indicates frequency in CFR 47, Part 15 and Industry Canada RSS-Restricted Band.

PK - Peak detector

RMS - RMS detection

VERTICAL PEAK AND AVERAGE PLOT

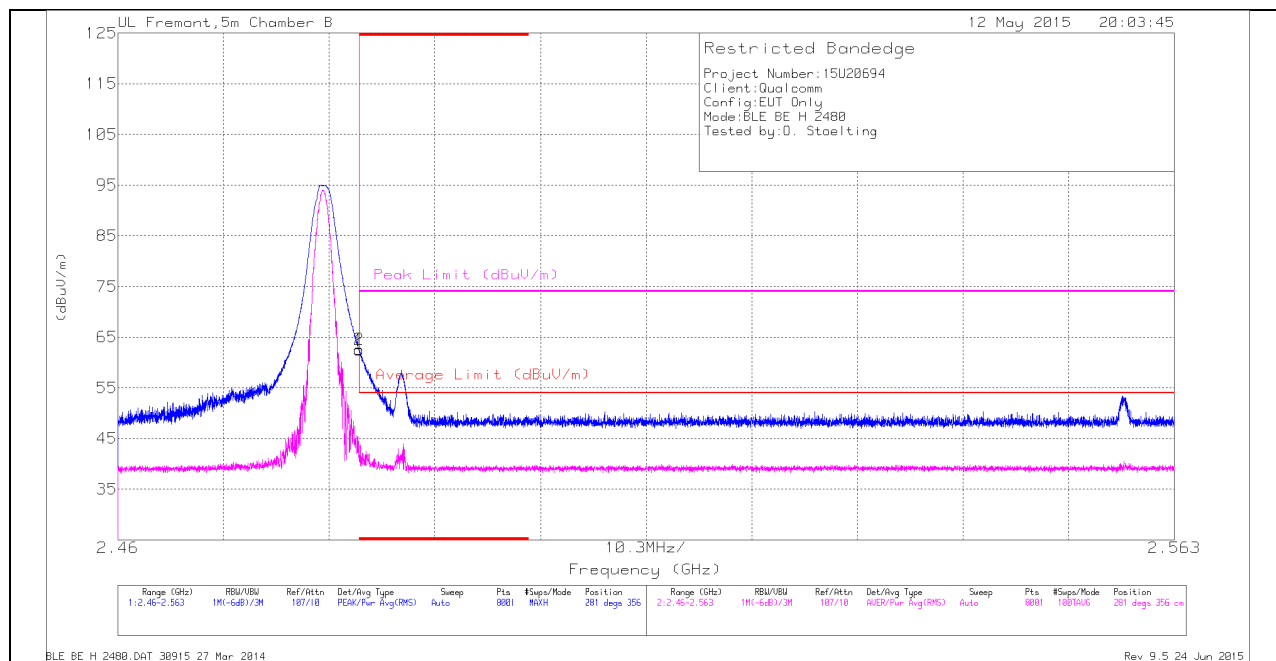


VERTICAL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T136 (dB/m)	Amp/Cbl/Fit r/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	* 2.364	53.31	Pk	31.9	-24.9	0	60.31	-	-	74	-13.69	174	384	V
4	* 2.364	35.77	RMS	31.9	-24.9	1.18	43.95	54	-10.05	-	-	174	384	V
1	* 2.39	45.81	Pk	32	-24.9	0	52.91	-	-	74	-21.09	174	384	V
3	* 2.39	31.04	RMS	32	-24.9	1.18	39.32	54	-14.68	-	-	174	384	V

AUTHORIZED BANDEDGE (HIGH CHANNEL)

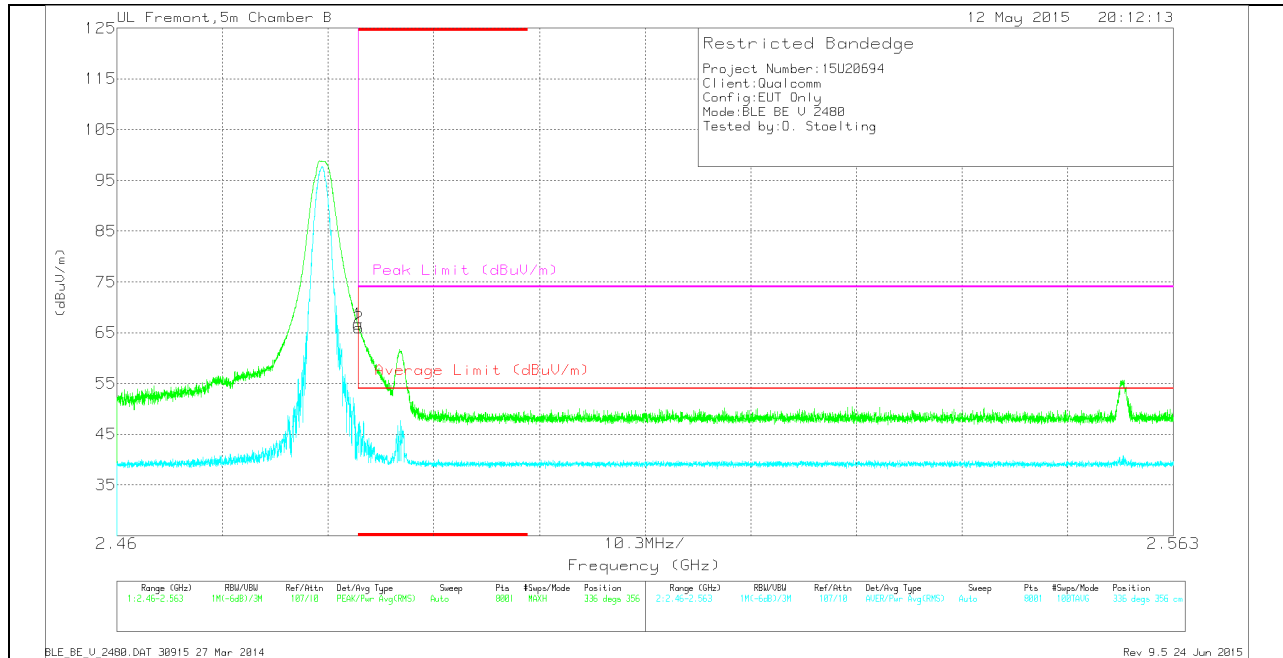
HORIZONTAL PEAK AND AVERAGE PLOT



HORIZONTAL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T136 (dB/m)	Amp/Cb/Filter/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.484	55.11	Pk	32.1	-24.8	0	62.41	-	-	74	-11.59	281	356	H
2	* 2.484	55.32	Pk	32.1	-24.8	0	62.62	-	-	74	-11.38	281	356	H
3	* 2.484	33.24	RMS	32.1	-24.8	1.18	41.72	54	-12.28	-	-	281	356	H
4	* 2.488	35.49	RMS	32.1	-24.8	1.18	43.97	54	-10.03	-	-	281	356	H

VERTICAL PEAK AND AVERAGE PLOT

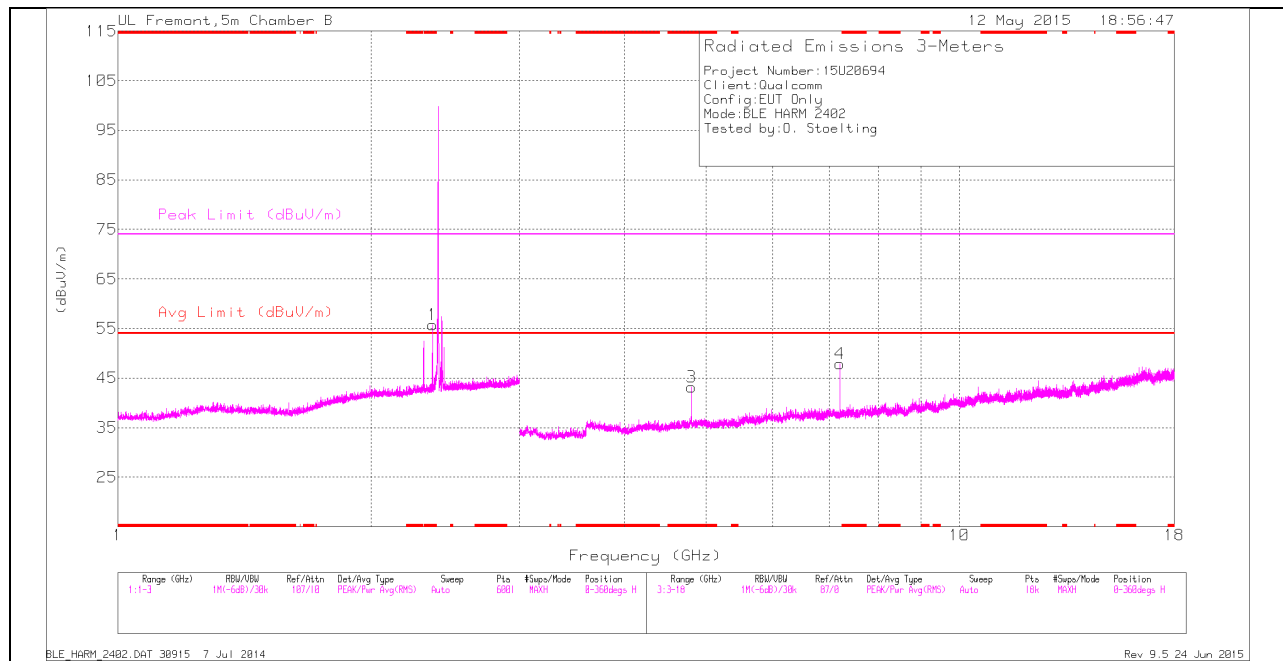


VERTICAL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AFT136 (dB/m)	Amp/Cbl/Fit r/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.484	59.39	Pk	32.1	-24.8	0	66.69	-	-	74	-7.31	336	356	V
2	* 2.484	58.65	Pk	32.1	-24.8	0	65.95	-	-	74	-8.05	336	356	V
3	* 2.484	38.46	RMS	32.1	-24.8	1.18	46.94	54	-7.06	-	-	336	356	V
4	* 2.488	39.25	RMS	32.1	-24.8	1.18	47.73	54	-6.27	-	-	336	356	V

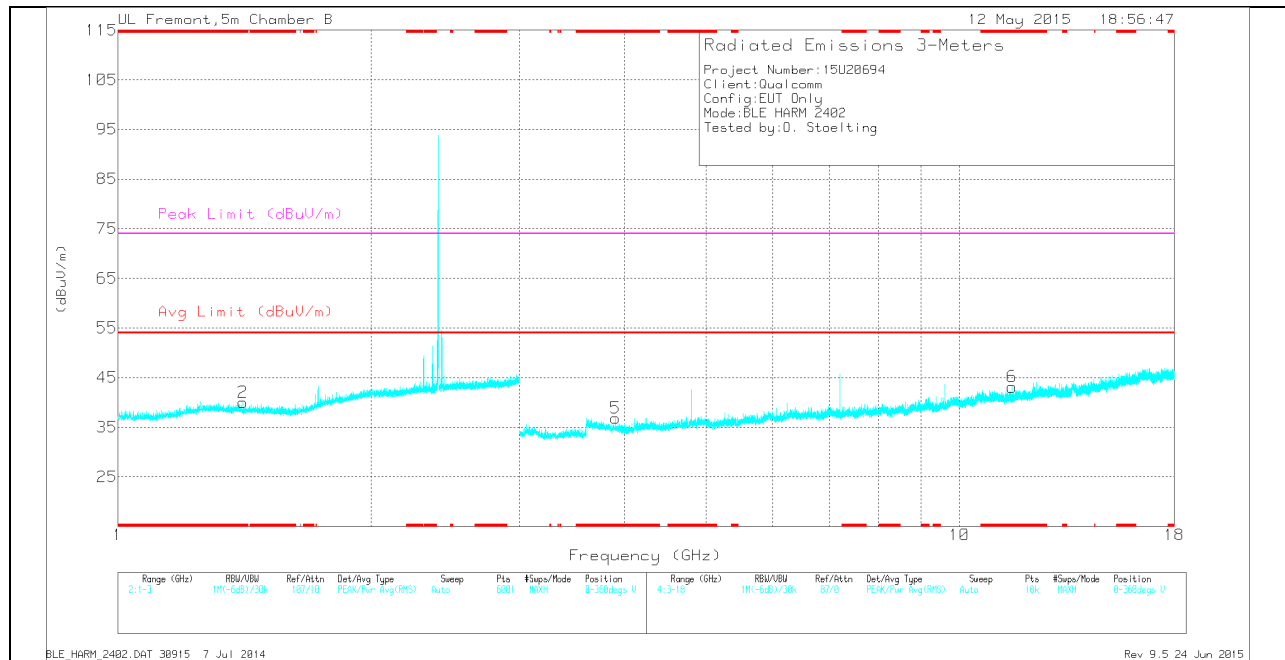
HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL HORIZONTAL



Note: Emission was scanned up to 26GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

LOW CHANNEL VERTICAL



Note: Emission was scanned up to 26GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

LOW CHANNEL DATA

TRACE MARKERS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T136 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	* 1.408	37.52	Pk	28.5	-26	0	40.02	-	-	74	-33.98	0-360	100	V
6	* 11.551	28.23	Pk	38.1	-23.2	0	43.13	-	-	74	-30.87	0-360	201	V
1	* 2.364	48.78	Pk	31.9	-24.9	0	55.78	-	-	74	-18.22	0-360	201	H
5	* 3.902	35.42	Pk	33.5	-32.1	0	36.82	-	-	74	-37.18	0-360	100	V
3	* 4.803	40.41	RMS	34	-31.2	1.18	44.39	54	-9.61	-	-	0-360	201	H
4	7.206	39.7	RMS	35.5	-27.3	1.18	49.08	54	-4.92	-	-	0-360	100	H

* - indicates frequency in CFR 47, Part 15 and Industry Canada RSS-Restricted Band.

PK - Peak detector

Radiated Emissions

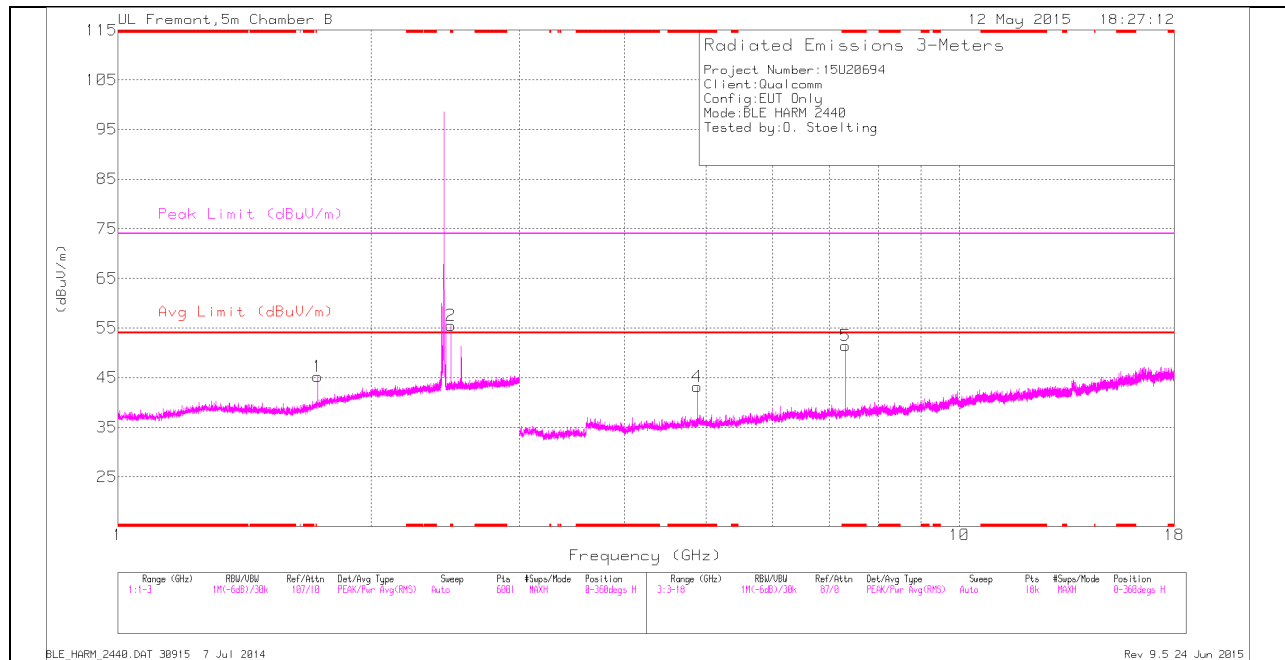
Frequency (GHz)	Meter Reading (dBuV)	Det	AF T136 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 2.364	53.76	PK2	31.9	-24.9	0	60.76	-	-	74	-13.24	134	254	H
* 2.364	34.95	MAV1	31.9	-24.9	1.18	43.13	54	-10.87	-	-	134	254	H
* 4.803	46.77	PK2	34	-31.2	0	49.57	-	-	74	-24.43	3	312	H
* 4.804	39.42	MAV1	34	-31.1	1.18	43.5	54	-10.5	-	-	3	312	H
7.206	38.77	MAV1	35.5	-27.3	1.18	48.15	54	-5.85	-	-	154	301	H
7.207	45.71	PK2	35.5	-27.3	0	53.91	-	-	74	-20.09	154	301	H

* - indicates frequency in CFR 47, Part 15 and Industry Canada RSS-Restricted Band.

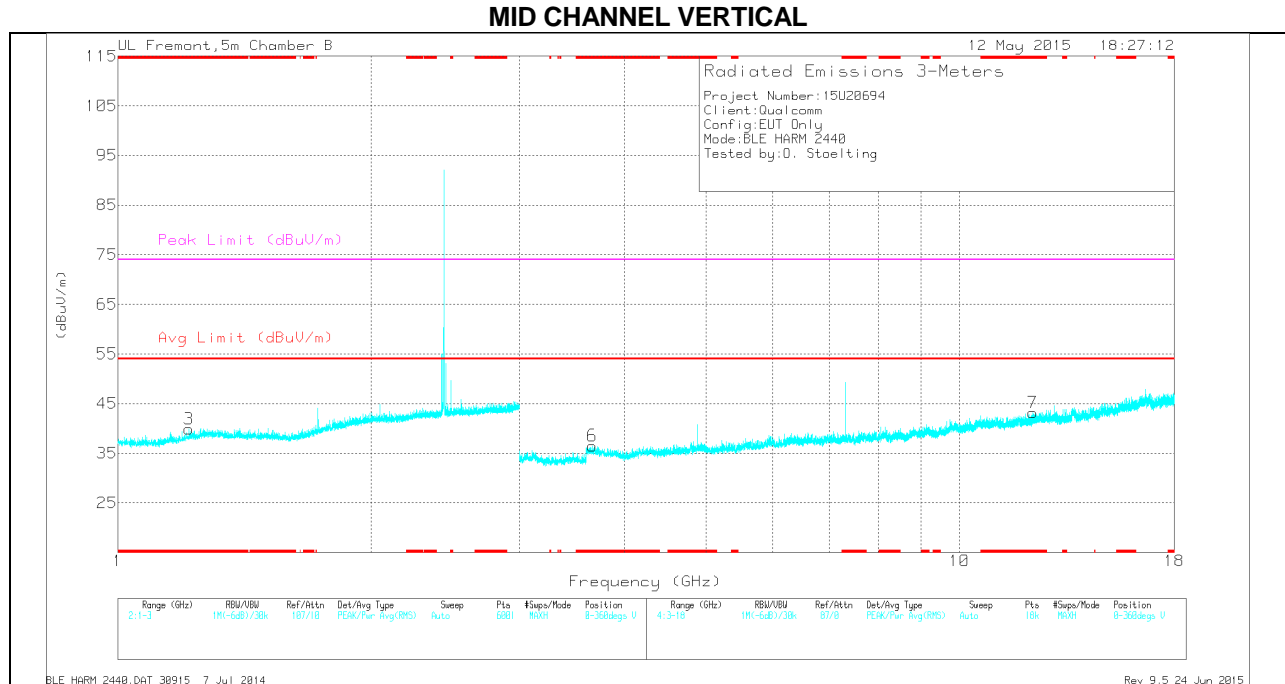
PK2 - KDB558074 Method: Maximum Peak

MAV1 - KDB558074 Option 1 Maximum RMS Average

MID CHANNEL HORIZONTAL



Note: Emission was scanned up to 26GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.



Note: Emission was scanned up to 26GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

MID CHANNEL DATA

TRACE MARKERS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T136 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	* 2.488	48.16	Pk	32.1	-24.8	0	55.46	-	-	74	-18.54	0-360	100	H
3	* 1.214	37.91	RMS	28.1	-26.1	1.18	41.09	54	-12.91	-	-	0-360	201	V
4	* 4.879	39.24	RMS	33.9	-30	1.18	44.32	54	-9.68	-	-	0-360	201	H
5	* 7.32	42.29	Pk	35.5	-26.4	0	51.39	-	-	74	-22.61	0-360	100	H
6	* 3.662	35.62	Pk	33.2	-32.3	0	36.52	-	-	74	-37.48	0-360	100	V
7	* 12.223	27.35	Pk	38.9	-23.1	0	43.15	-	-	74	-30.85	0-360	201	V
1	1.728	41.72	Pk	29	-25.5	0	45.22	-	-	74	-28.78	0-360	100	H

* - indicates frequency in CFR 47, Part 15 and Industry Canada RSS-Restricted Band.

PK - Peak detector

Radiated Emissions

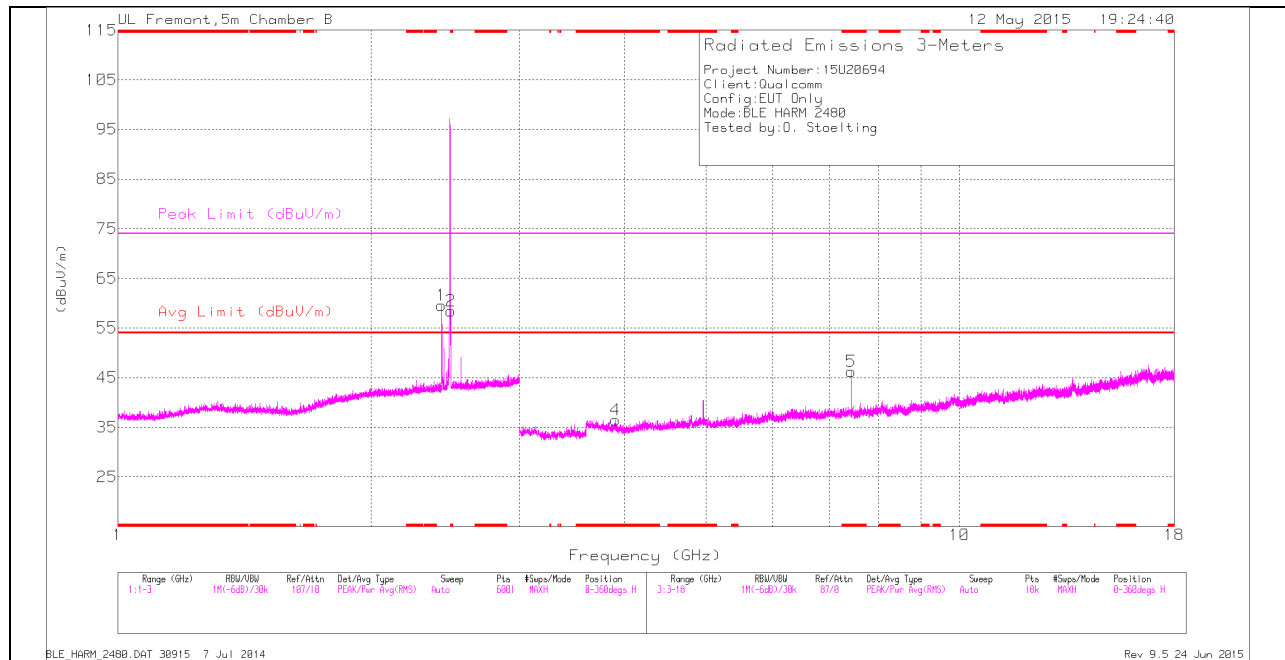
Frequency (GHz)	Meter Reading (dBuV)	Det	AF T136 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 2.488	54.55	PK2	32.1	-24.8	0	61.85	-	-	74	-12.15	122	187	H
* 2.488	36.08	MAV1	32.1	-24.8	1.18	44.56	54	-9.44	-	-	122	187	H
* 4.88	45.05	PK2	33.9	-30	0	48.95	-	-	74	-25.05	353	248	H
* 4.88	37.15	MAV1	33.9	-30	1.18	42.23	54	-11.77	-	-	353	248	H
* 7.321	45.51	PK2	35.5	-26.4	0	54.61	-	-	74	-19.39	16	158	H
* 7.32	38.51	MAV1	35.5	-26.4	1.18	48.79	54	-5.21	-	-	16	158	H

* - indicates frequency in CFR 47, Part 15 and Industry Canada RSS-Restricted Band.

PK2 - KDB558074 Method: Maximum Peak

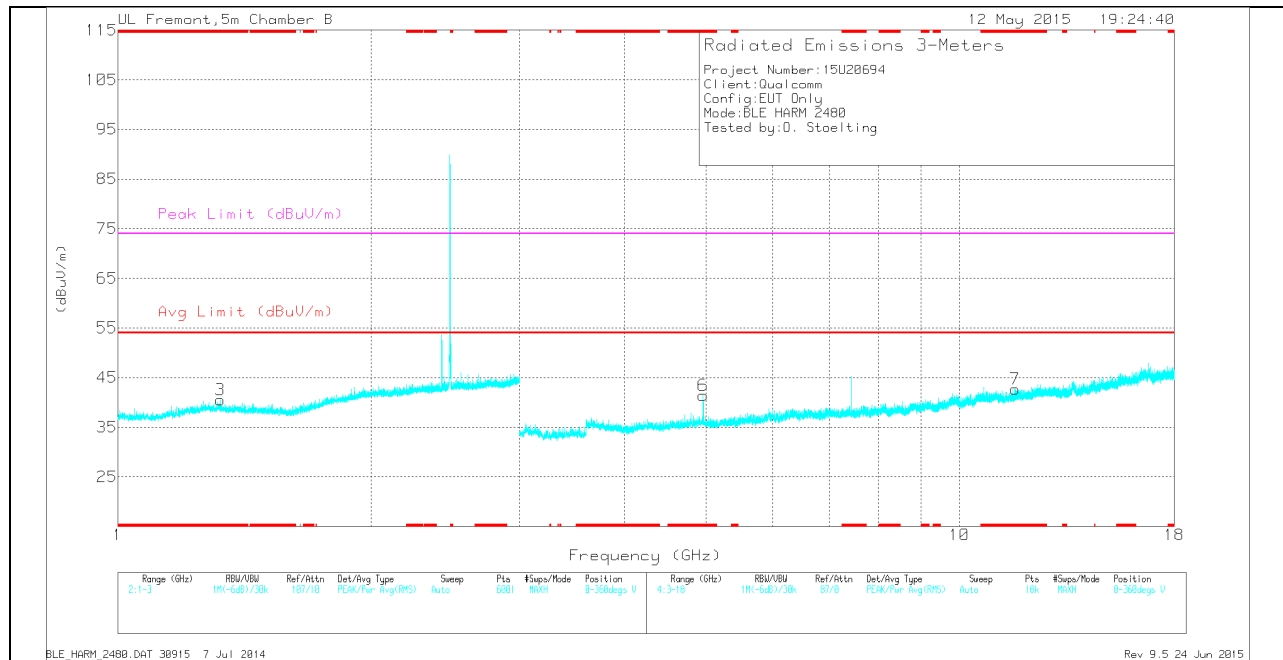
MAV1 - KDB558074 Option 1 Maximum RMS Average

HIGH CHANNEL HORIZONTAL



Note: Emission was scanned up to 26GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

HIGH CHANNEL VERTICAL



Note: Emission was scanned up to 26GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

HIGH CHANNEL DATA

TRACE MARKERS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T136 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	* 2.487	51.15	Pk	32.1	-24.8	0	58.45	-	-	74	-15.55	0-360	100	H
3	* 1.324	37.81	RMS	28.8	-26.1	1.18	41.69	54	-12.31	-	-	0-360	100	V
4	* 3.903	35.05	RMS	33.5	-32.1	1.18	37.63	54	-16.37	-	-	0-360	100	H
5	* 7.439	36.88	Pk	35.5	-26.2	0	46.18	-	-	74	-27.82	0-360	201	H
6	* 4.96	37.36	Pk	33.9	-29.9	0	41.36	-	-	74	-32.64	0-360	201	V
7	* 11.651	27.39	Pk	38.2	-22.9	0	42.69	-	-	74	-31.31	0-360	100	V
1	2.425	52.51	Pk	32	-24.9	0	59.61	-	-	74	-14.39	0-360	100	H

* - indicates frequency in CFR 47, Part 15 and Industry Canada RSS-Restricted Band.

PK - Peak detector

Radiated Emissions

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T136 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 2.488	50.76	PK2	32.1	-24.8	0	58.06	-	-	74	-15.94	3	228	H
* 2.488	34.85	MAV1	32.1	-24.8	1.18	43.33	54	-10.67	-	-	3	228	H
* 7.441	42.27	PK2	35.5	-26.2	0	51.57	-	-	74	-22.43	288	182	H
* 7.44	33.91	MAV1	35.5	-26.2	1.18	44.39	54	-9.61	-	-	288	182	H
* 4.959	44.12	PK2	33.9	-29.9	0	48.12	-	-	74	-25.88	304	317	V
* 4.96	35.37	MAV1	33.9	-29.9	1.18	40.55	54	-13.45	-	-	304	317	V
2.426	56.2	PK2	32	-24.9	0	63.3	-	-	74	-10.7	54	295	H
2.426	40.57	MAV1	32	-24.9	1.18	48.85	54	-5.15	-	-	54	295	H

* - indicates frequency in CFR 47, Part 15 and Industry Canada RSS-Restricted Band.

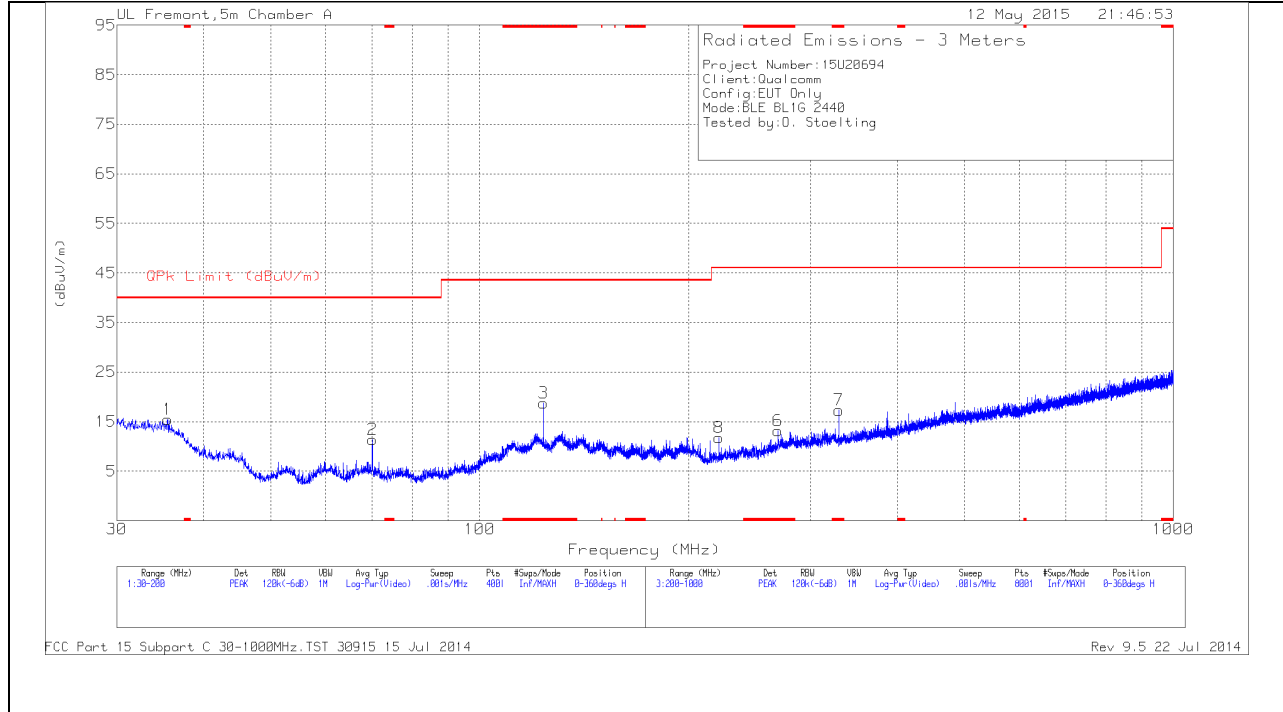
PK2 - KDB558074 Method: Maximum Peak

MAV1 - KDB558074 Option 1 Maximum RMS Average

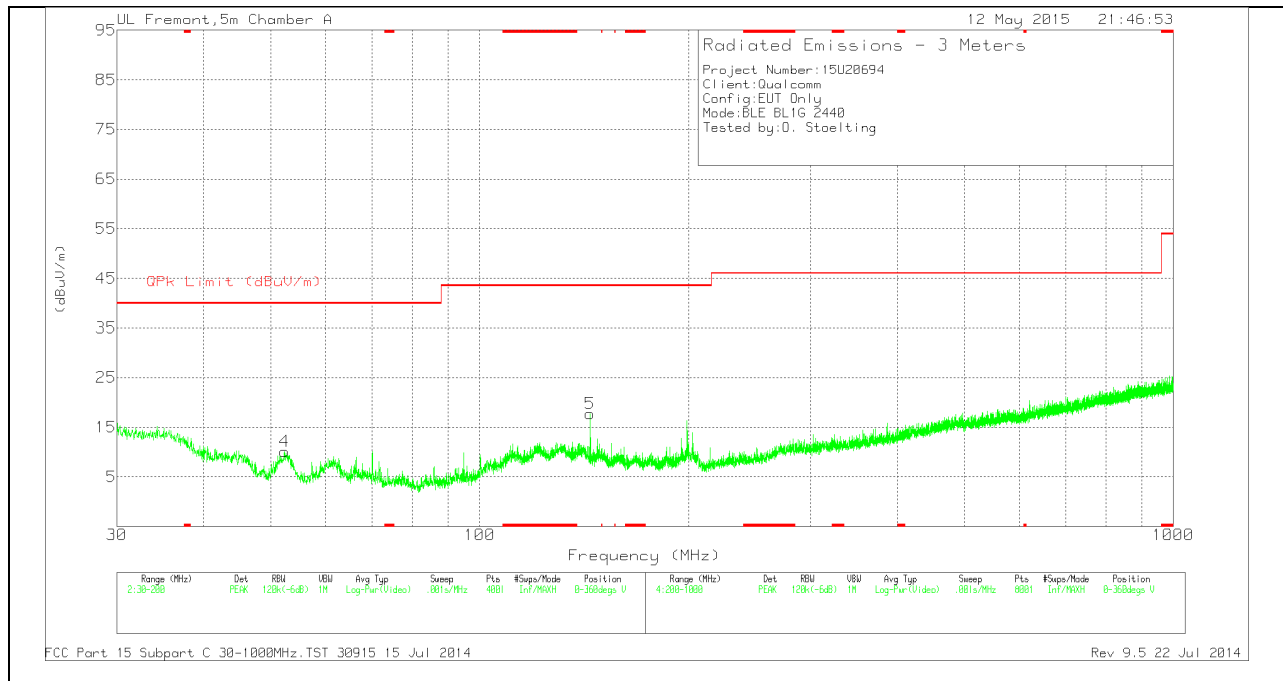
11.3. WORST-CASE BELOW 1 GHz

SPURIOUS EMISSIONS 30 TO 1000 MHz (WORST-CASE CONFIGURATION)

HORIZONTAL PLOT



VERTICAL PLOT



BELOW 1 GHz TABLE

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	AF T130 (dB/m)	Amp/Cbl (dB/m)	DC Corr (dB)	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
3	* 123.7125	35.04	PK	14.1	-30.4	0	18.74	43.52	-24.78	0-360	300	H
6	* 269.3	29.63	PK	13	-29.5	0	13.13	46.02	-32.89	0-360	101	H
7	* 329.3	32.69	PK	13.9	-29.3	0	17.29	46.02	-28.73	0-360	200	H
1	35.4825	29.24	PK	17.4	-31.2	0	15.44	40	-24.56	0-360	300	H
4	52.355	33.59	PK	7.4	-30.9	0	10.09	40	-29.91	0-360	101	V
2	70.035	34.05	PK	8.1	-30.8	0	11.35	40	-28.65	0-360	200	H
5	144.41	34.89	PK	13.1	-30.3	0	17.69	43.52	-25.83	0-360	101	V
8	221.3	30.89	PK	10.7	-29.8	0	11.79	46.02	-34.23	0-360	400	H

* - indicates frequency in CFR 47, Part 15 and Industry Canada RSS-Restricted Band.

PK - Peak detector

Radiated Emissions

Frequency (MHz)	Meter Reading (dBuV)	Det	AF T130 (dB/m)	Amp/Cbl (dB/m)	DC Corr (dB)	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 123.5051	39.15	PK	14.1	-30.4	0	22.85	43.52	-20.67	215	364	H
* 329.4867	40.78	PK	13.9	-29.3	0	25.38	46.02	-20.64	237	217	H
70.2164	41.21	PK	8.1	-30.8	0	18.51	40	-21.49	154	130	H

* - indicates frequency in CFR 47, Part 15 and Industry Canada RSS-Restricted Band.

PK - Peak detector

12. AC POWER LINE CONDUCTED EMISSIONS

LIMITS

FCC §15.207 (a)
RSS-Gen 808

Frequency of Emission (MHz)	Conducted Limit (dBuV)	
	Quasi-peak	Average
0.15-0.5	66 to 56 [*]	56 to 46 [*]
0.5-5	56	46
5-30	60	50

^{*} Decreases with the logarithm of the frequency.

TEST PROCEDURE

ANSI C63.10: 2009

RESULT: N/A

EUT is a Battery Operated Device.