FCC 47 CFR PART 15 SUBPART C
INDUSTRY CANADA RSS-210 ISSUE 8

CERTIFICATION TEST REPORT

FOR

802.11 a/b/g/n WLAN+ Bluetooth PCI-E Mini Card

MODEL NUMBER: BCM94352Z

FCC ID: QDS-BRCM1076
IC: 4324A-BRCM1076

REPORT NUMBER: 13U15029-3

ISSUE DATE: July 15, 2013

Prepared for

BROADCOM CORPORATION
190 MATHILDA PLACE
SUNNYVALE, CA 94086, U.S.A.

Prepared by

UL VERIFICATION SERVICES INC.
47173 BENICIA STREET
FREMONT, CA 94538, U.S.A.
TEL: (510) 771-1000
FAX: (510) 661-0888

NVLAP LAB CODE 200065-0

Revision History

Rev.	Issue Date	Revisions	Revised By
--	07/15/13	Initial Issue	Bob Delisi

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UL VERIFICATION SERVICES INC. FORM NO: CCSUP4701I
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 771-1000 FAX: (510) 661-0888

1. ATTESTATION OF TEST RESULTS

COMPANY NAME: BROADCOM CORPORATION
190 MATHILDA PLACE
SUNNYVALE, CA 94086, U.S.A.

EUT DESCRIPTION: 802.11 a/b/g/n WLAN+ Bluetooth PCI-E Mini Card

MODEL: BCM94352Z

SERIAL NUMBER: P203SN0032 & P203SN0033

DATE TESTED: July 07 to 15, 2013

APPLICABLE STANDARDS	
STANDARD	**TEST RESULTS**
CFR 47 Part 15 Subpart C	Pass
INDUSTRY CANADA RSS-210 Issue 8 Annex 8	Pass
INDUSTRY CANADA RSS-GEN Issue 3	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
UL Verification Services Inc. By:

BOB DELISI
WiSE Principal Engineer
UL Verification Services Inc.

Tested By:

VIEN TRAN
WiSE Senior Engineer
UL Verification Services Inc.

2. TEST METHODOLOGY

The tests documented in this report were performed in accordance with ANSI C63.10-2009, FCC CFR 47 Part 2, FCC CFR 47 Part 15, RSS-GEN Issue 3, and RSS-210 Issue 8.

3. FACILITIES AND ACCREDITATION

The test sites and measurement facilities used to collect data are located at 47173 Benicia Street, Fremont, California, USA.

UL Verification Services Inc. is accredited by NVLAP, Laboratory Code 200065-0. The full scope of accreditation can be viewed at http://www.ccsemc.com.

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:

Field Strength (dBuV/m) = Measured Voltage (dBuV) + Antenna Factor (dB/m) + Cable Loss (dB) – Preamp Gain (dB)
36.5 dBuV + 18.7 dB/m + 0.6 dB – 26.9 dB = 28.9 dBuV/m

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 1000 MHz	4.94 dB

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

5. EQUIPMENT UNDER TEST

5.1. DESCRIPTION OF EUT

The EUT is an 802.11 a/b/g/n WLAN+ Bluetooth PCI-E Mini Card

The radio module is manufactured by Broadcom.

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	-0.049	0.99

5.3. DESCRIPTION OF AVAILABLE ANTENNAS

No.	Antenna Manufacturer	Antenna Type	Model	Peak gain (2400 - 2462 MHz) @2462MHz
1	Ethertronics	802.11bgn WLAN Antenna	1000802	3.8

5.4. SOFTWARE AND FIRMWARE

The firmware installed in the EUT during testing was Broadcom, rev. 5.6.0.3200.

The EUT driver software installed during testing was Broadcom, Ver. 5.1.0.1400

The test utility software used during testing was Broadcom Bluetooth, Ver.: 1.5.28

5.5. WORST-CASE CONFIGURATION AND MODE

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

The EUT was tested as an external module installed in a test jig board connected to a host Laptop PC. The EUT was oriented in a flat orientation, similar to the orientation it would have in real installations; see setup photos for details.

5.6. DESCRIPTION OF TEST SETUP

SUPPORT EQUIPMENT

Description	Manufacturer	Model	Serial Number
Laptop	DELL	LATITUDE E6400	GP3L9K1
AC/DC adapter	DELL	LA65NSO -00	CN-ODF262-71615-775-605A
5V AC/DC Adapter	CONDOR	HK-C113-A05	N/A

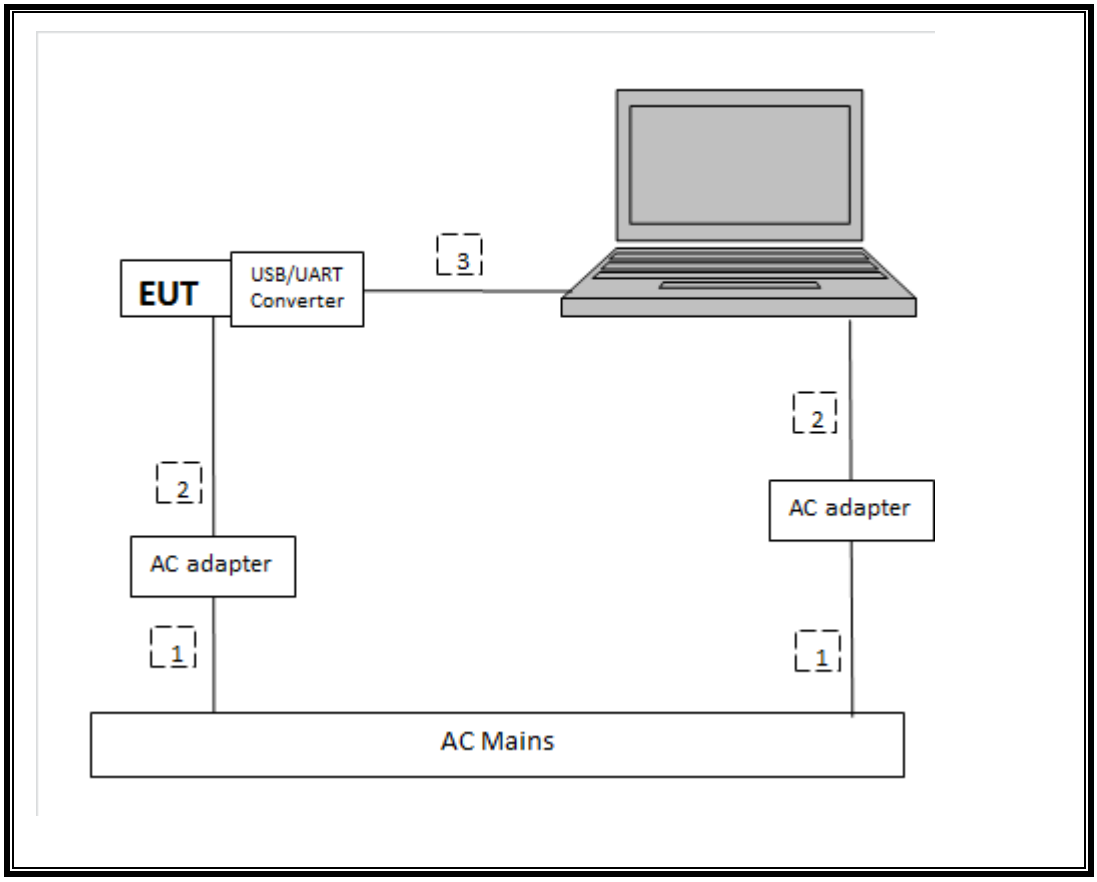
I/O CABLES

I/O Cable List						
Cable No	Port	# of identical ports	Connector Type	Cable Type	Cable Length (m)	Remarks
1	AC	2	US 115V	Shielded	1.5m	NA
2	DC	2	DC	Un-shielded	1.5m	NA
3	USB	1	USB	Un-shielded	1.0m	NA

TEST SETUP

The EUT was tested as an external module that installed on an USB to UART board connected to a host Laptop PC via USB cable. Test 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:

Description	Manufacturer	Model	Asset	Cal Date	Cal Due
Spectrum Analyzer, 44 GHz	Agilent / HP	E4446A	C01069	12/13/11	12/13/13
Spectrum Analyzer, 44 GHz	Agilent / HP	E4446A	C00986	04/01/13	04/01/14
EMI Test Receiver, 9 kHz-7 GHz	R & S	ESCI 7	1000741	08/21/12	08/21/13
EMI Test Receiver, 30 MHz	R & S	ESHS 20	N02396	08/08/12	08/08/13
Peak Power Meter	Agilent / HP	E4416A	C00963	12/13/11	12/13/13
Peak / Average Power Sensor	Agilent / HP	E9327A	C00964	12/13/11	12/13/13
Antenna, Horn, 18 GHz	ETS	3117	C01022	01/00/00	CNR
Antenna, Horn, 26.5 GHz	ARA	MWH-1826/B	C00946	11/12/12	11/12/13
Antenna, Bilog, 30MHz-1 GHz	Sunol Sciences	JB1	C00885	08/14/12	08/14/13
Preamplifier, 1300 MHz	Agilent / HP	8447D	C01016	01/16/13	01/16/14
Preamplifier, 26.5 GHz	Agilent / HP	8449B	C01052	10/22/12	10/22/13
LISN, 30 MHz	FCC	50/250-25-2	N02396	08/08/12	08/08/13
Reject Filter, 2.4-2.5 GHz	Micro-Tronics	BRM50702	N02685	CNR	CNR

7. ANTENNA PORT TEST RESULTS

7.1. 6 dB BANDWIDTH

LIMITS

FCC §15.247 (a) (2)

IC RSS-210 A8.2 (a)

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

TEST PROCEDURE

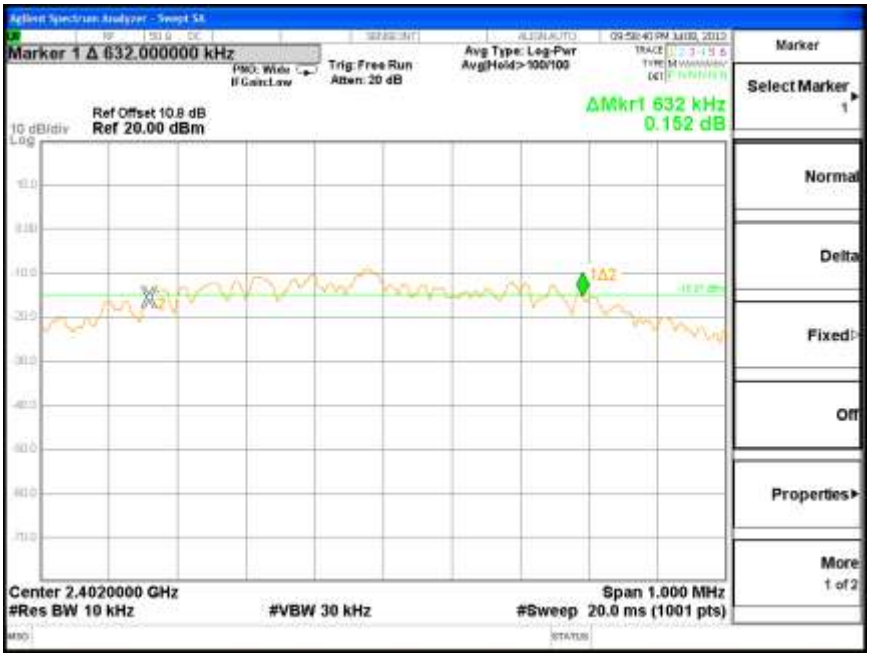
KDB 558074 D01 v02 “Guidance for Performing Compliance Measurements on Digital Transmission Systems (DTS) Operating Under 15.247”.

RESULTS

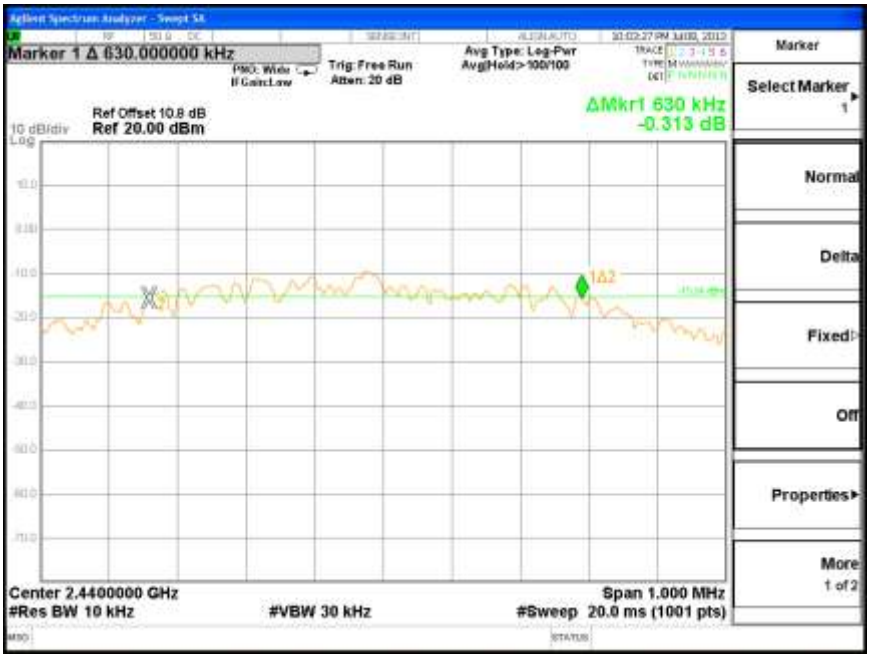
Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Minimum Limit (MHz)
Low	2402	0.6320	0.5
Middle	2440	0.6300	0.5
High	2480	0.6290	0.5

6 dB BANDWIDTH

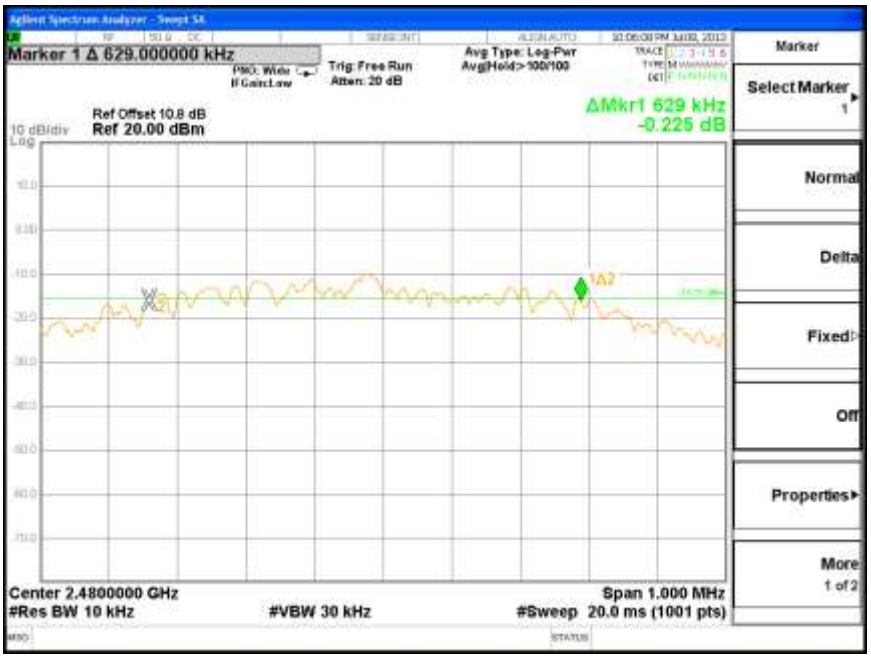
6 dB BANDWIDTH LOW CH



6 dB BANDWIDTH MID CH



6 dB BANDWIDTH HIGH CH



7.2. 99% BANDWIDTH

LIMITS

None; for reporting purposes only.

TEST PROCEDURE

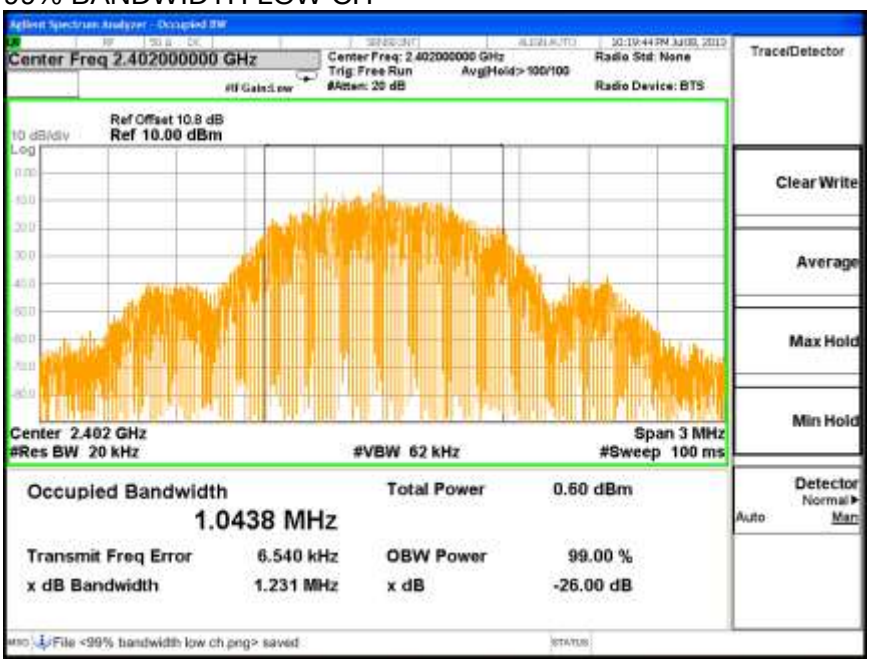
The transmitter output is connected to the spectrum analyzer. The RBW is set to 1% to 3% of the 99 % bandwidth and to 1% of the span. The VBW is set to 3 times the RBW. The sweep time is coupled. The spectrum analyzer internal 99% bandwidth function is utilized.

RESULTS

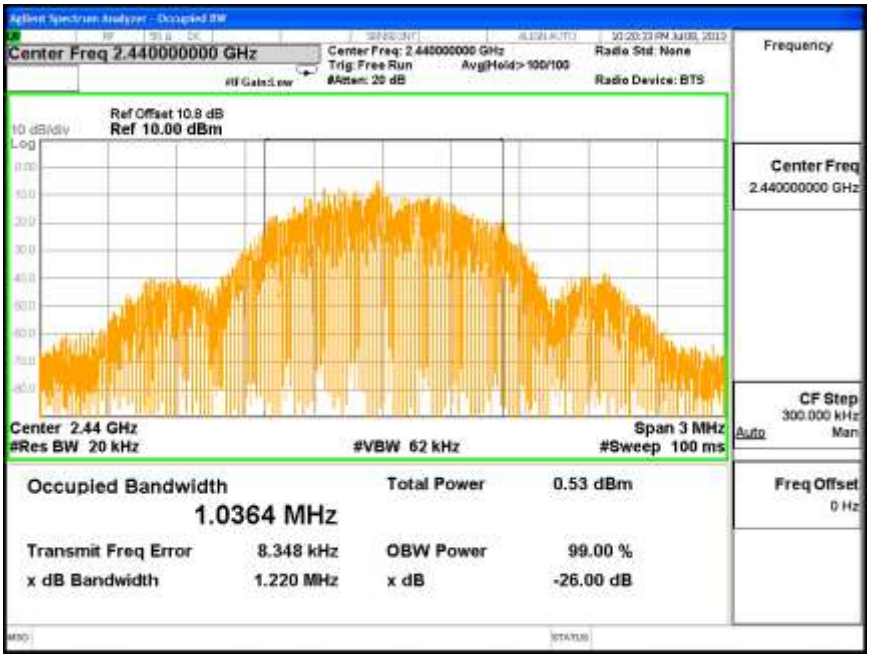
Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	2402	1.0438
Middle	2440	1.0364
High	2480	1.0378

99% BANDWIDTH

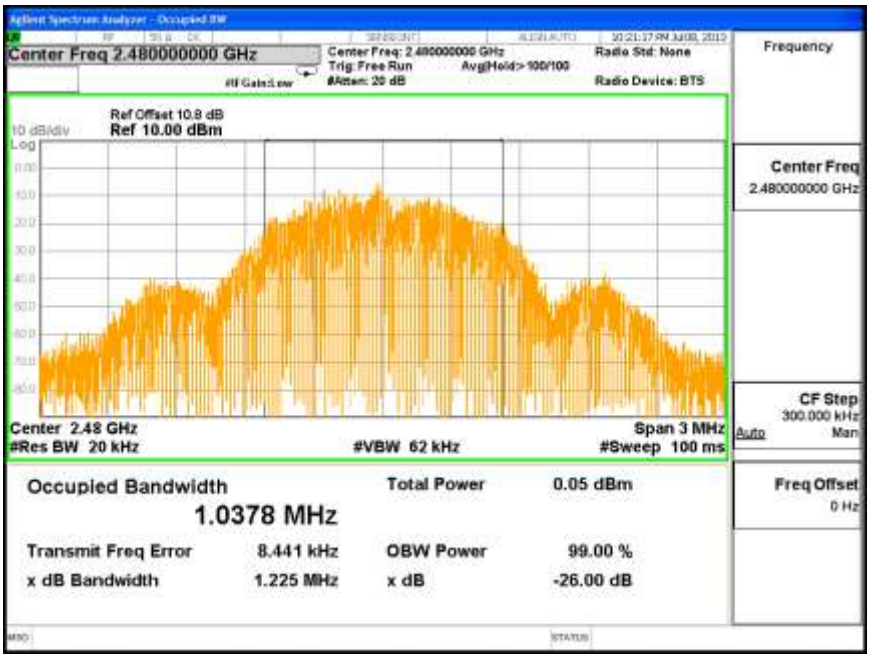
99% BANDWIDTH LOW CH



99% BANDWIDTH MID CH



99% BANDWIDTH HIGH CH



7.3. OUTPUT POWER

LIMITS

FCC §15.247 (b)

IC RSS-210 A8.4

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

TEST PROCEDURE

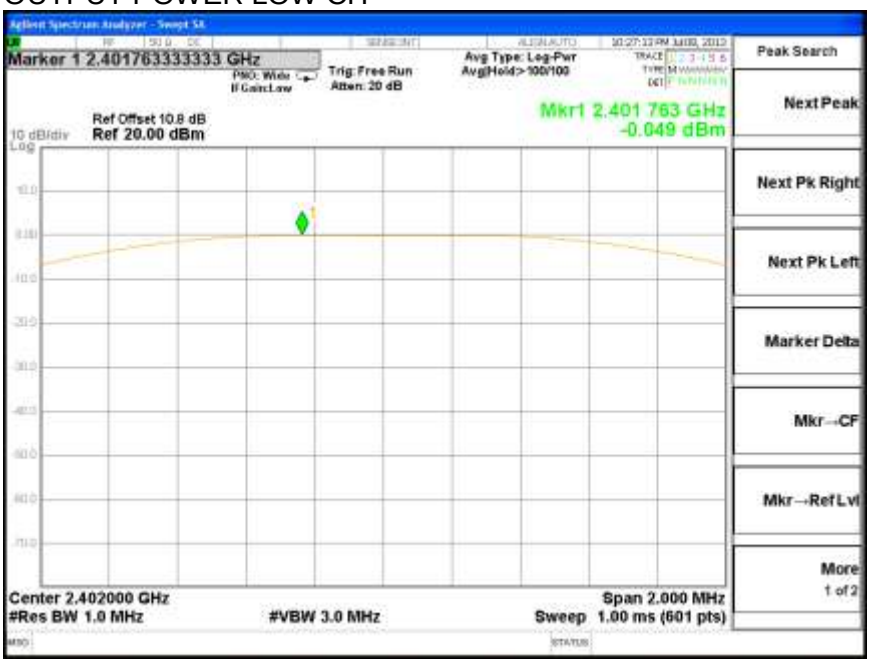
KDB 558074 D01 v02 “Guidance for Performing Compliance Measurements on Digital Transmission Systems (DTS) Operating Under 15.247”.

RESULTS

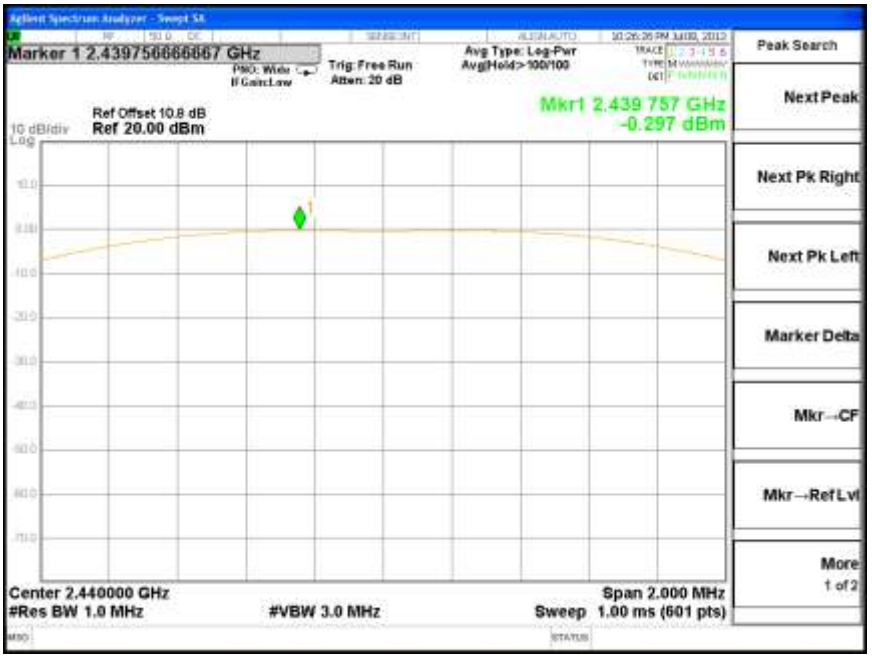
Channel	Frequency (MHz)	Peak Power Reading (dBm)	Limit (dBm)	Margin (dB)
Low	2402	-0.049	30	-30.05
Middle	2440	-0.297	30	-30.30
High	2480	-0.741	30	-30.74

OUTPUT POWER

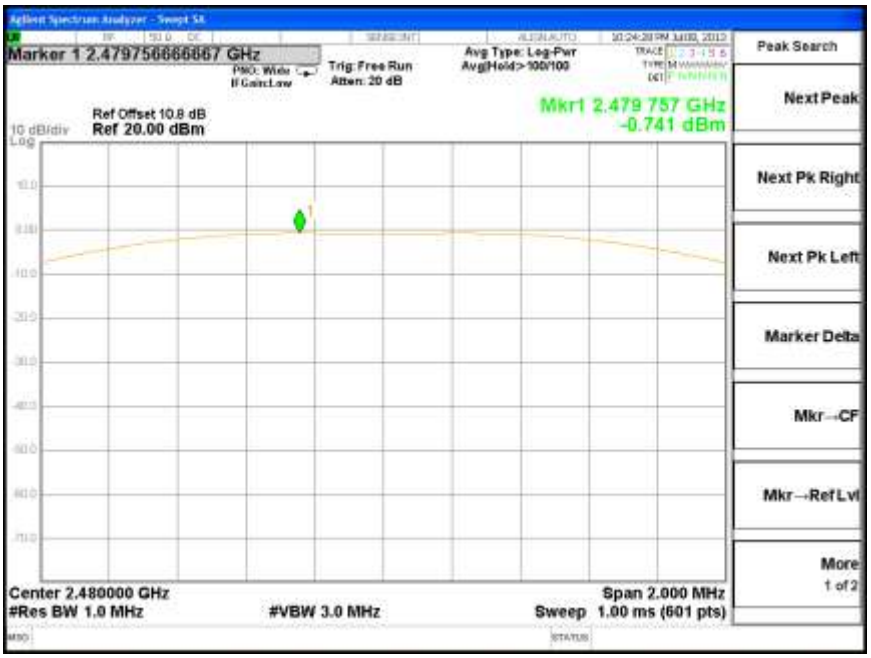
OUTPUT POWER LOW CH



OUTPUT POWER MID CH



OUTPUT POWER HIGH CH



7.4. AVERAGE POWER

LIMITS

None; for reporting purposes only.

TEST PROCEDURE

KDB 558074 D01 v02 “Guidance for Performing Compliance Measurements on Digital Transmission Systems (DTS) Operating Under 15.247”.

RESULTS

The cable assembly insertion loss of 0.8dB (including 0 dB pad and 0.8 dB 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	-2.17
Middle	2440	-2.46
High	2480	-2.89

7.5. POWER SPECTRAL DENSITY

LIMITS

FCC §15.247 (e)

IC RSS-210 A8.2 (b)

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

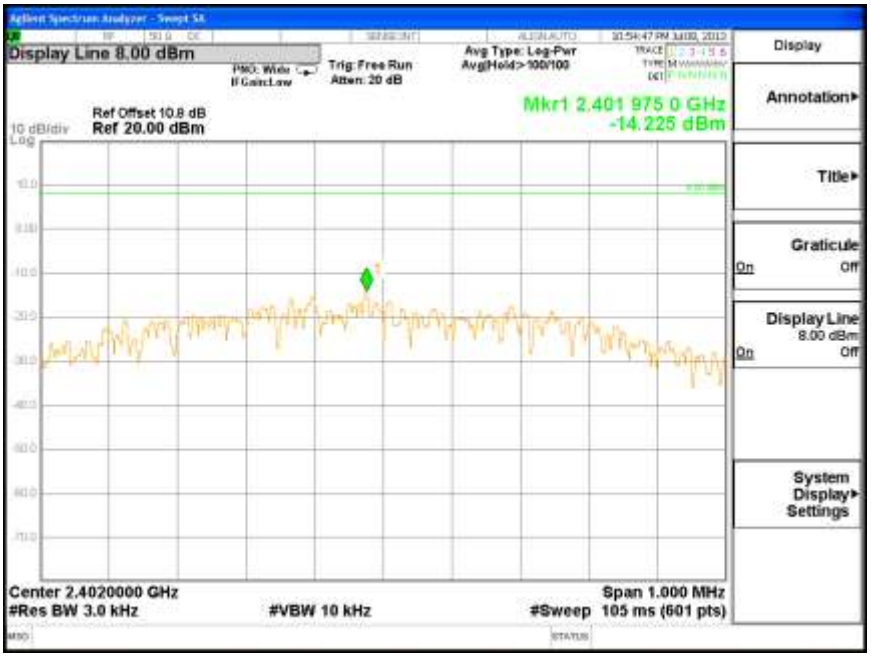
KDB 558074 D01 v02 “Guidance for Performing Compliance Measurements on Digital Transmission Systems (DTS) Operating Under 15.247”.

RESULTS

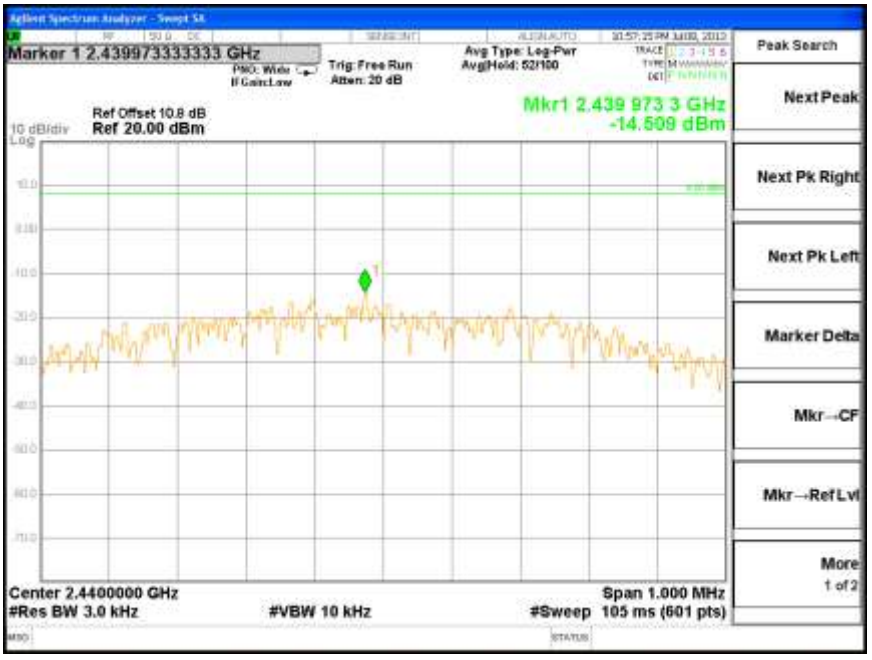
Channel	Frequency (MHz)	PSD (dBm)	Limit (dBm)	Margin (dB)
Low	2402	-14.225	8	-22.23
Middle	2440	-14.509	8	-22.51
High	2480	-15.142	8	-23.14

POWER SPECTRAL DENSITY

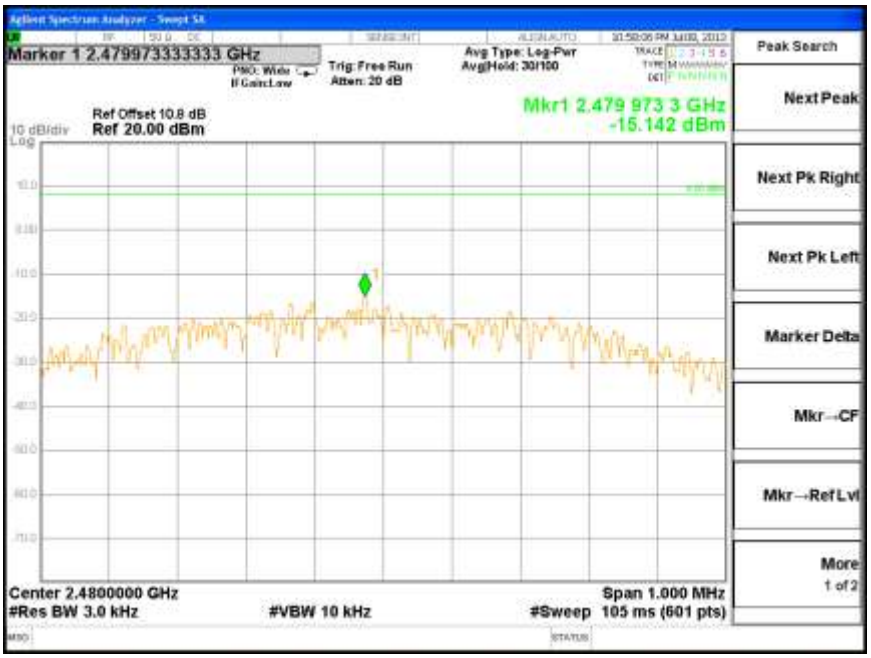
PSD LOW CH



PSD MID CH



PSD HIGH CH



7.6. CONDUCTED SPURIOUS EMISSIONS

LIMITS

FCC §15.247 (d)

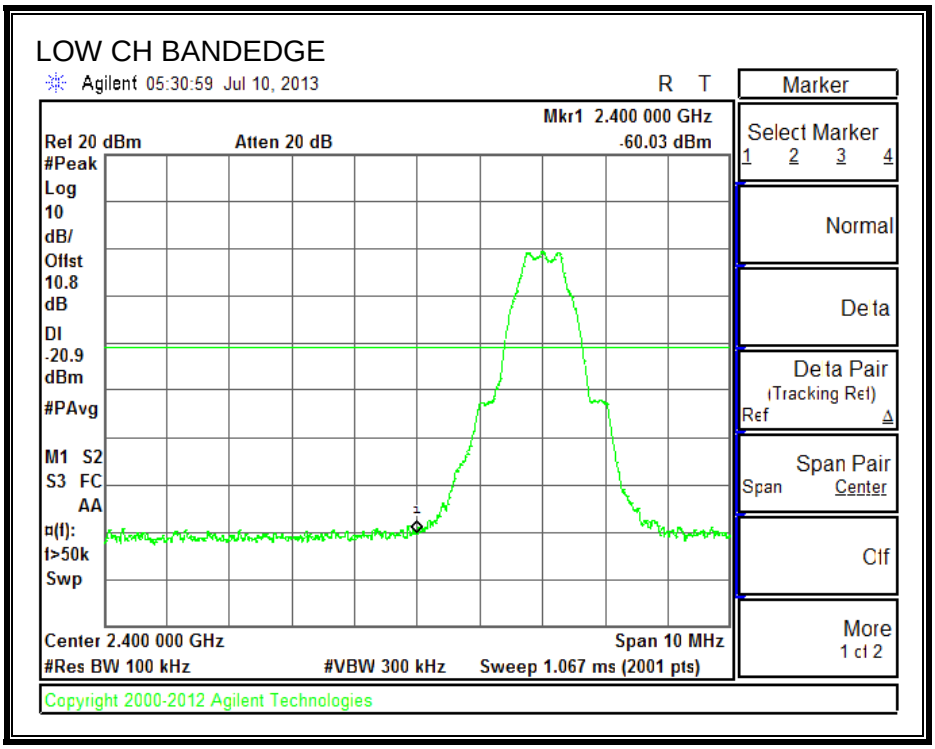
IC RSS-210 A8.5

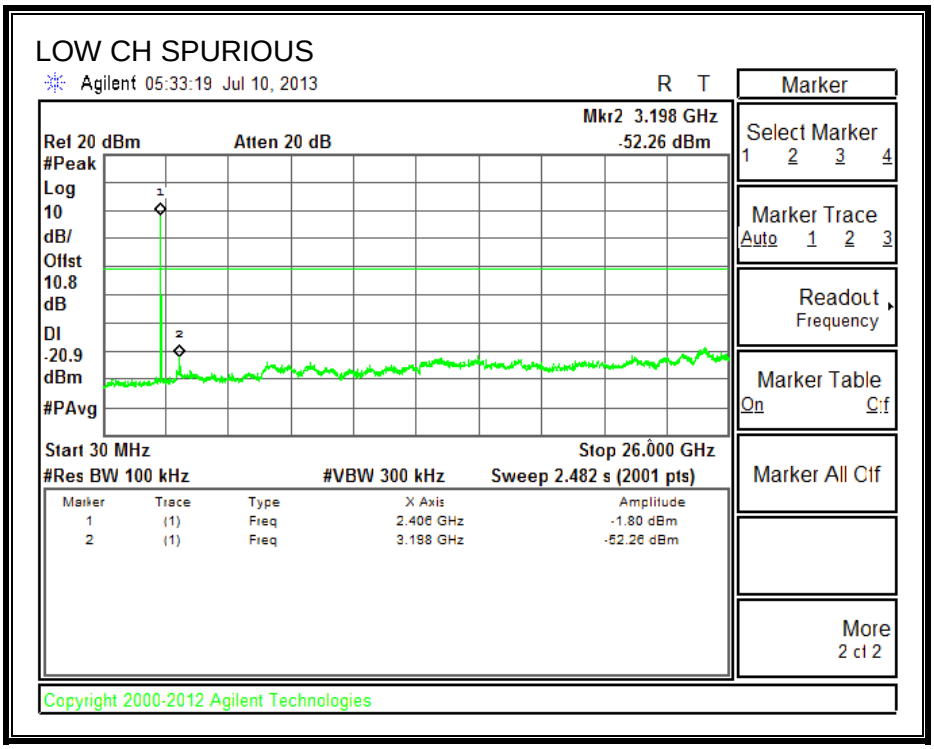
Output power was measured based on the use of a peak measurement, therefore the required attenuation is 20 dB.

TEST PROCEDURE

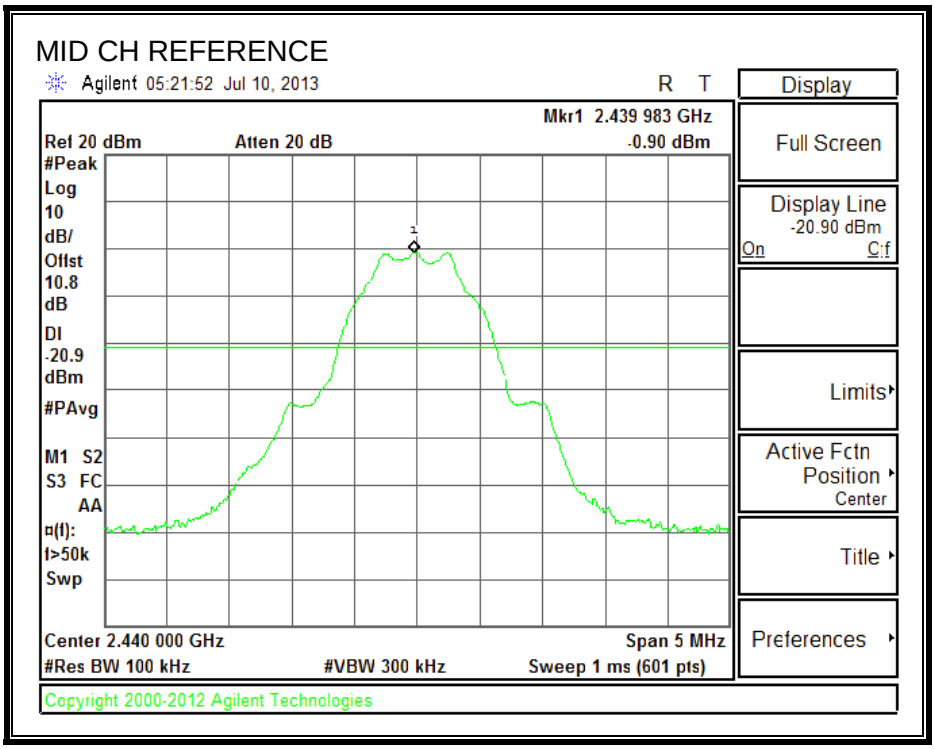
KDB 558074 D01 v02 “Guidance for Performing Compliance Measurements on Digital Transmission Systems (DTS) Operating Under 15.247”.

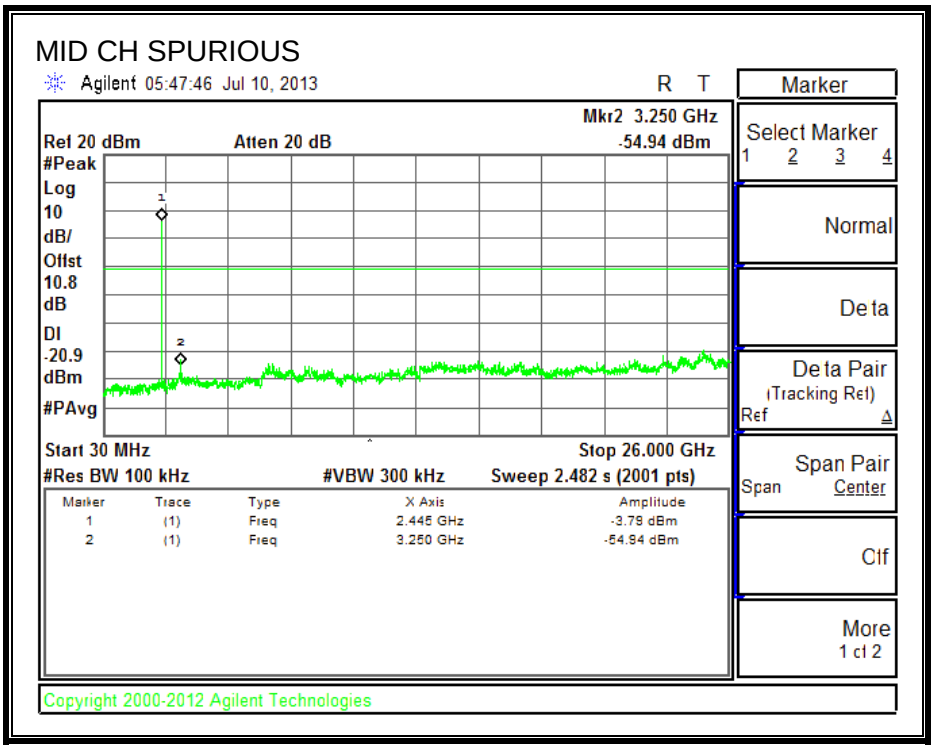
SPURIOUS EMISSIONS, LOW CHANNEL



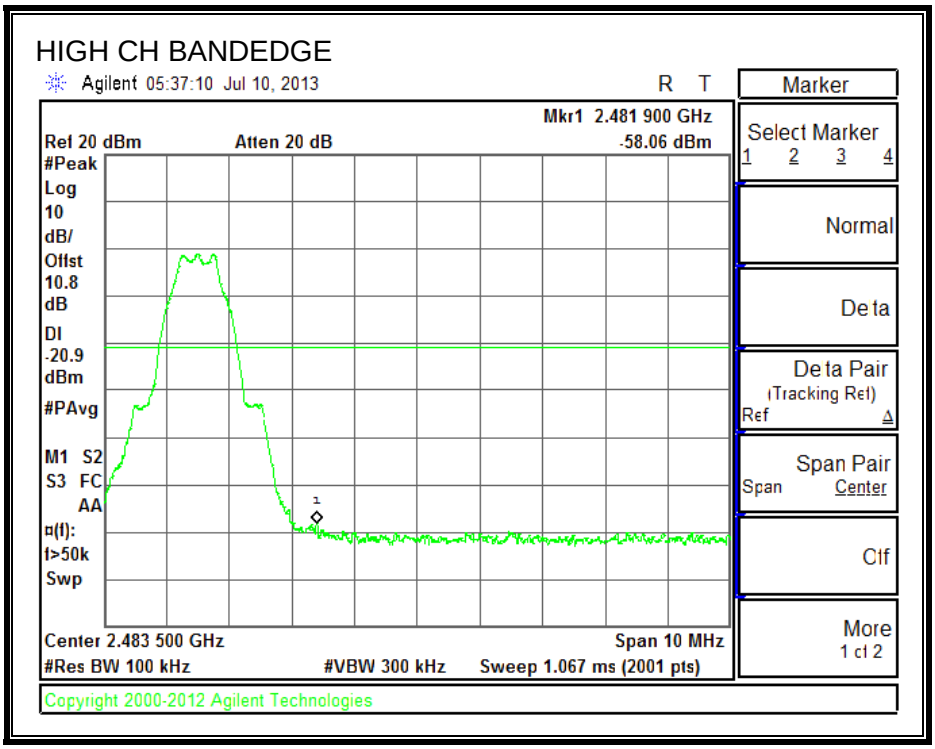


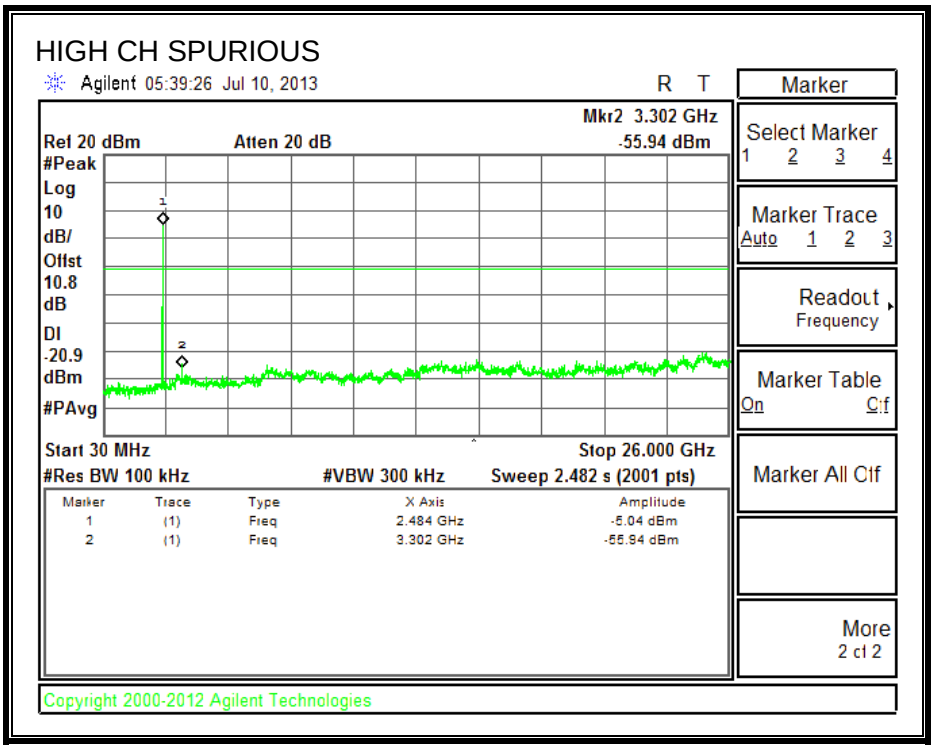
SPURIOUS EMISSIONS, MID CHANNEL





SPURIOUS EMISSIONS, HIGH CHANNEL





8. RADIATED TEST RESULTS

8.1. LIMITS AND PROCEDURE

LIMITS

FCC §15.205 and §15.209

IC RSS-210 Clause 2.6 (Transmitter)

IC RSS-GEN Clause 6 (Receiver)

Frequency Range (MHz)	Field Strength Limit (uV/m) at 3 m	Field Strength Limit (dBuV/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 C63.4. 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, video bandwidth is set to 3 MHz, then Peak detection mode is set for peak measurements and Avg detection mode is used for average measurements.

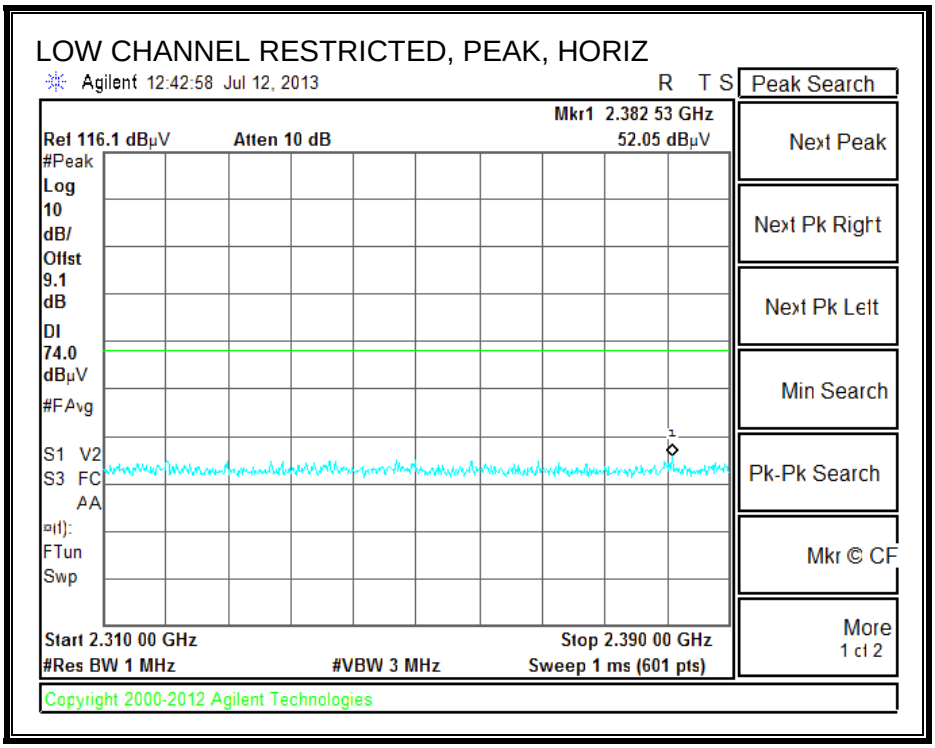
The spectrum from 30 MHz to 26 GHz is investigated with the transmitter set to the lowest, middle, and highest channels in the 2.4 GHz band.

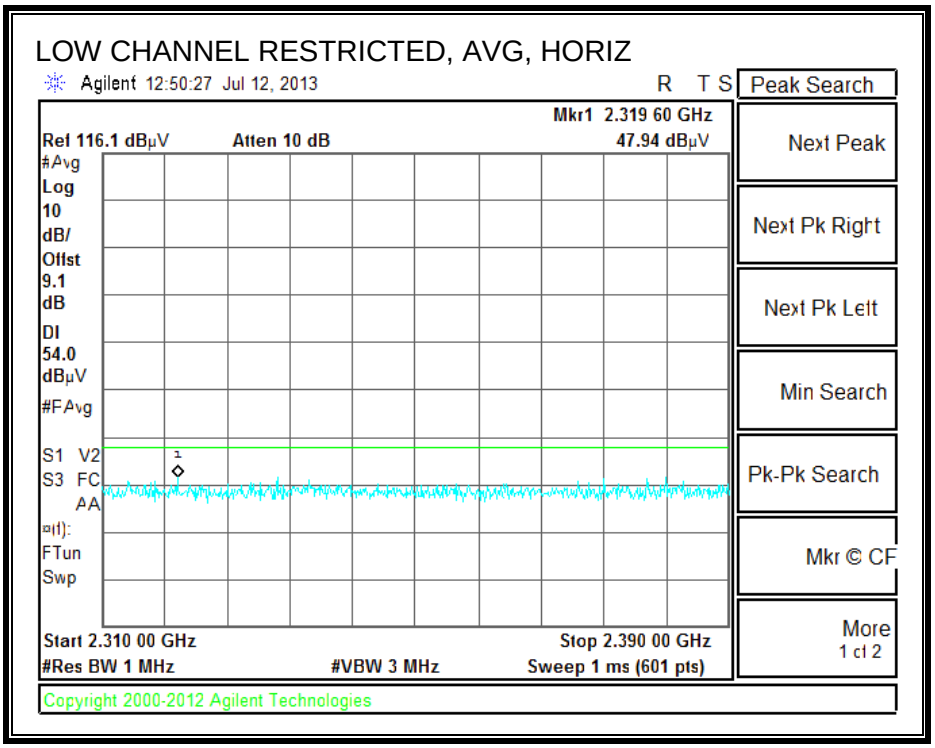
The spectrum from 30 MHz to 40 GHz is investigated with the transmitter set to the lowest, middle, and highest channels in each applicable band.

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.

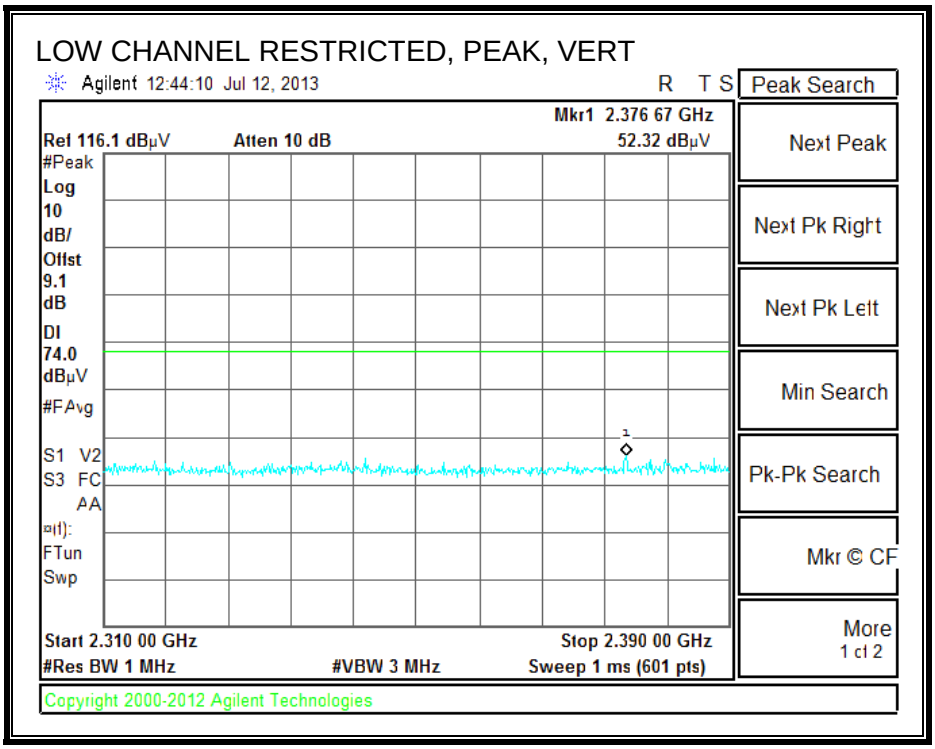
8.2. BLUETOOTH LOW ENERGY MODE IN THE 2.4 GHz BAND

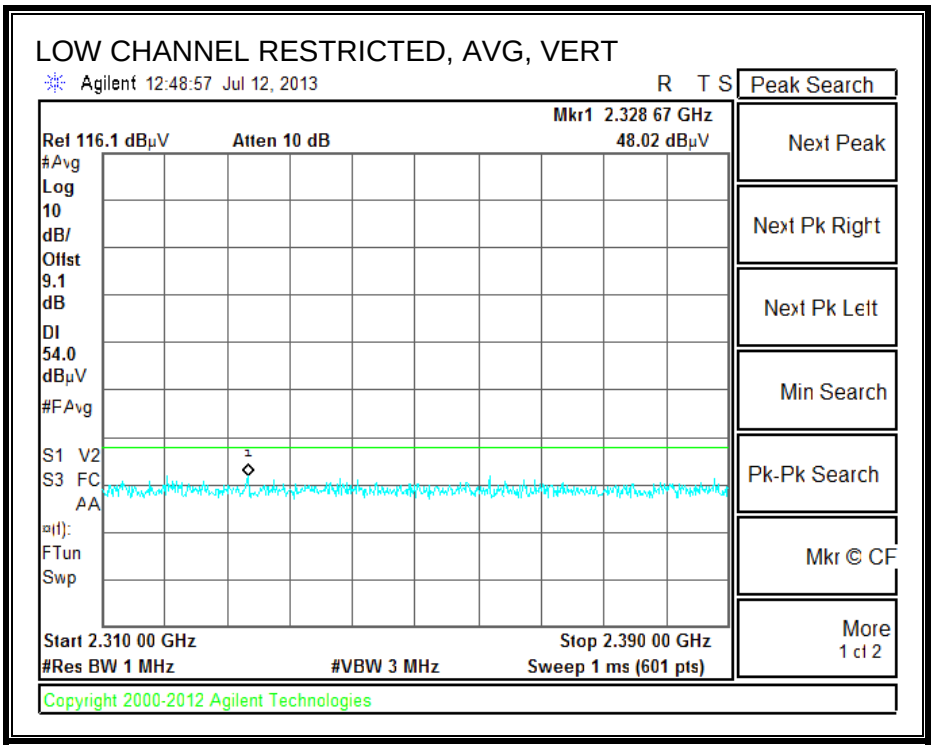
RESTRICTED BANDEDGE (LOW CHANNEL, HORIZONTAL)



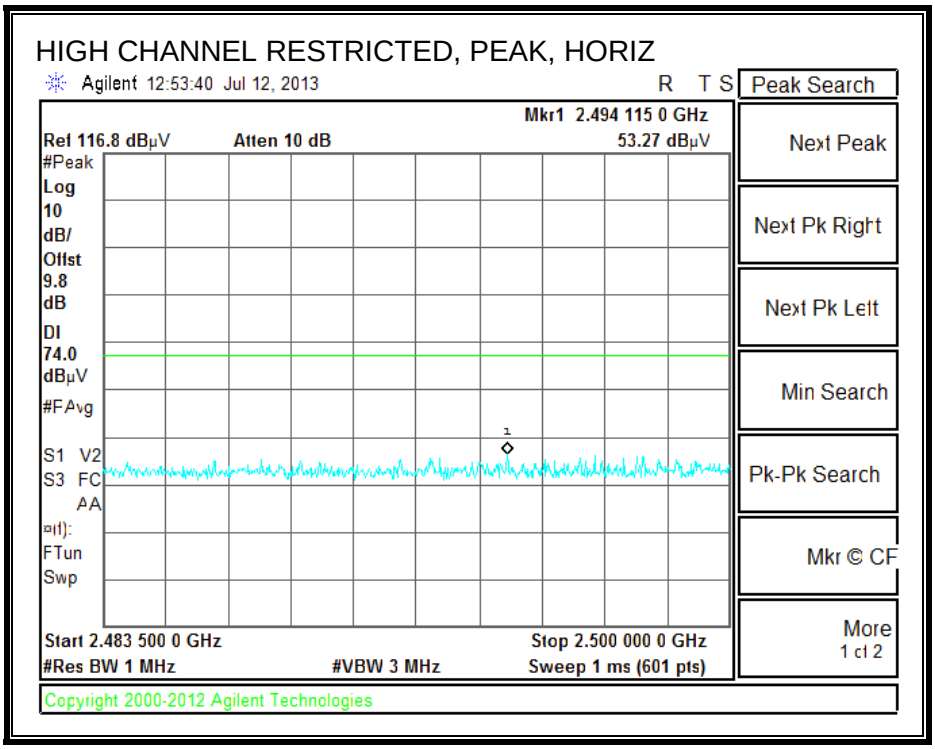


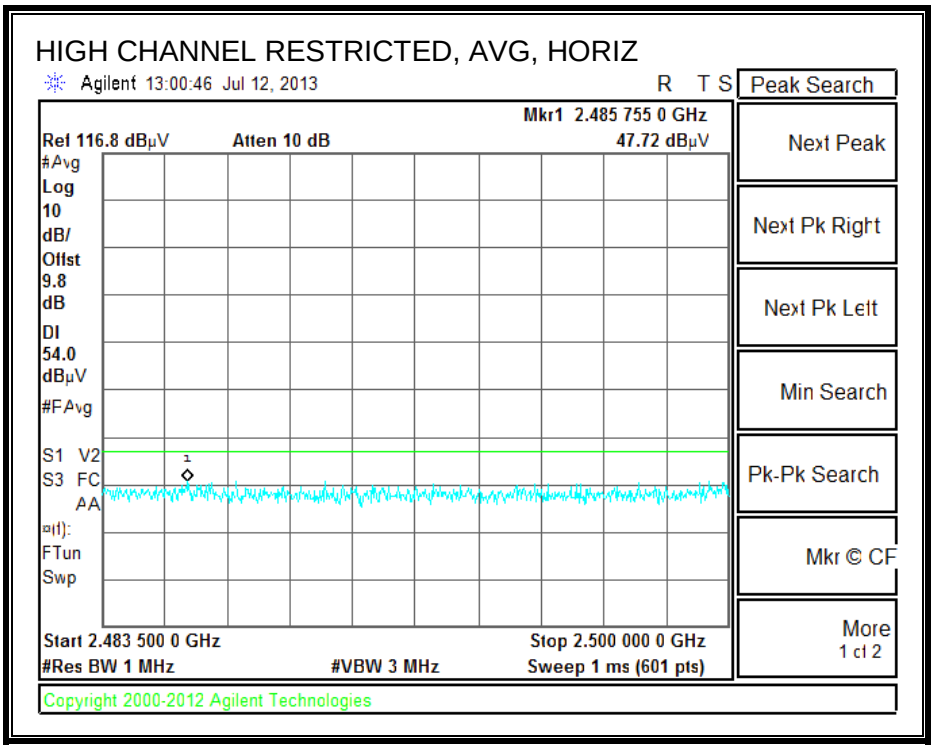
RESTRICTED BANDEDGE (LOW CHANNEL, VERTICAL)



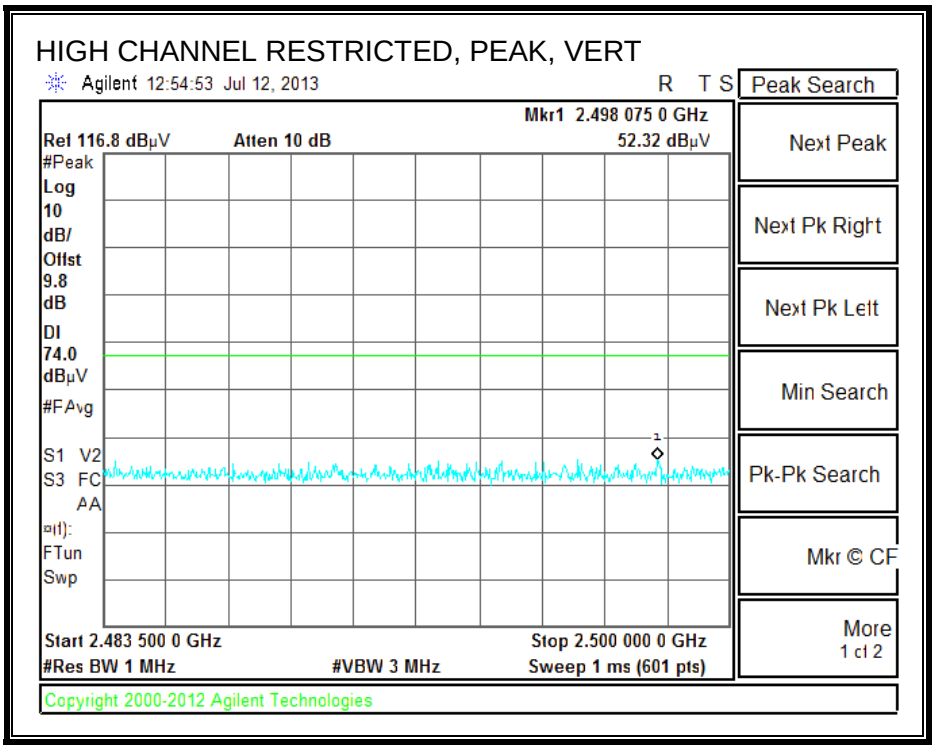


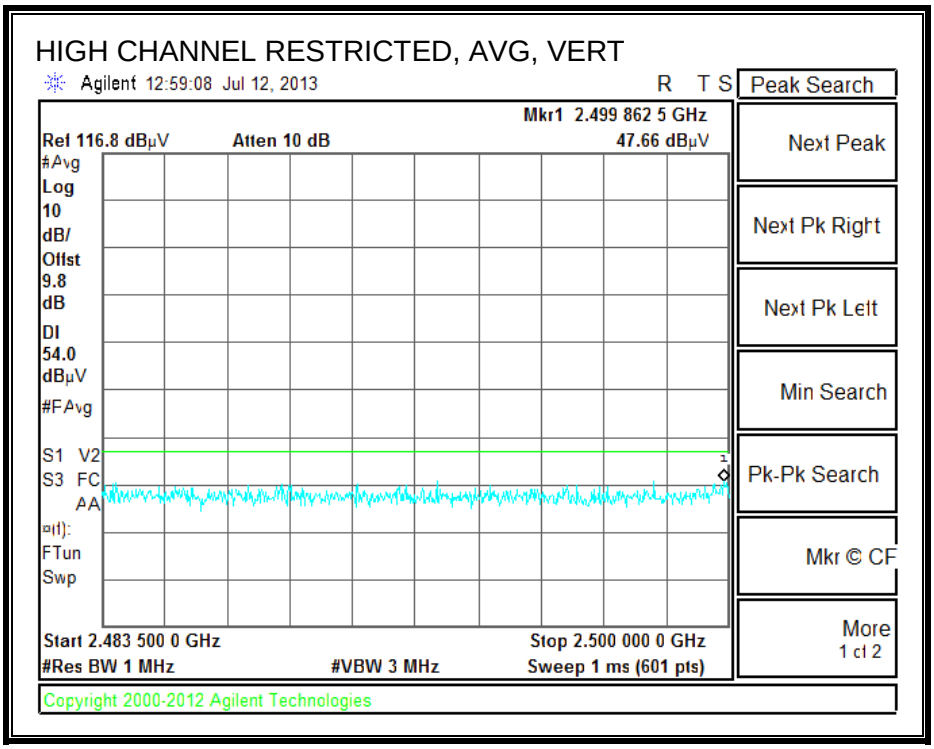
RESTRICTED BANDEDGE (HIGH CHANNEL, HORIZONTAL)





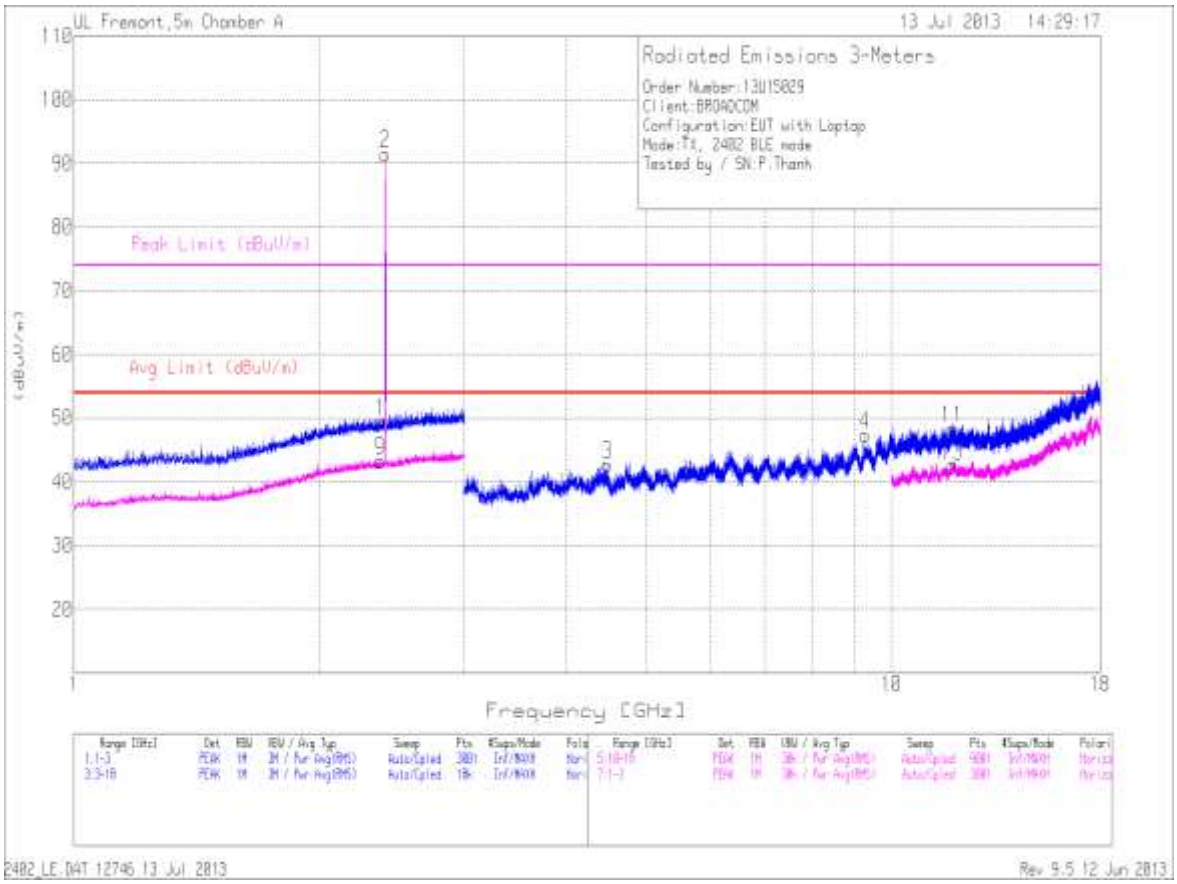
RESTRICTED BANDEDGE (HIGH CHANNEL, VERTICAL)



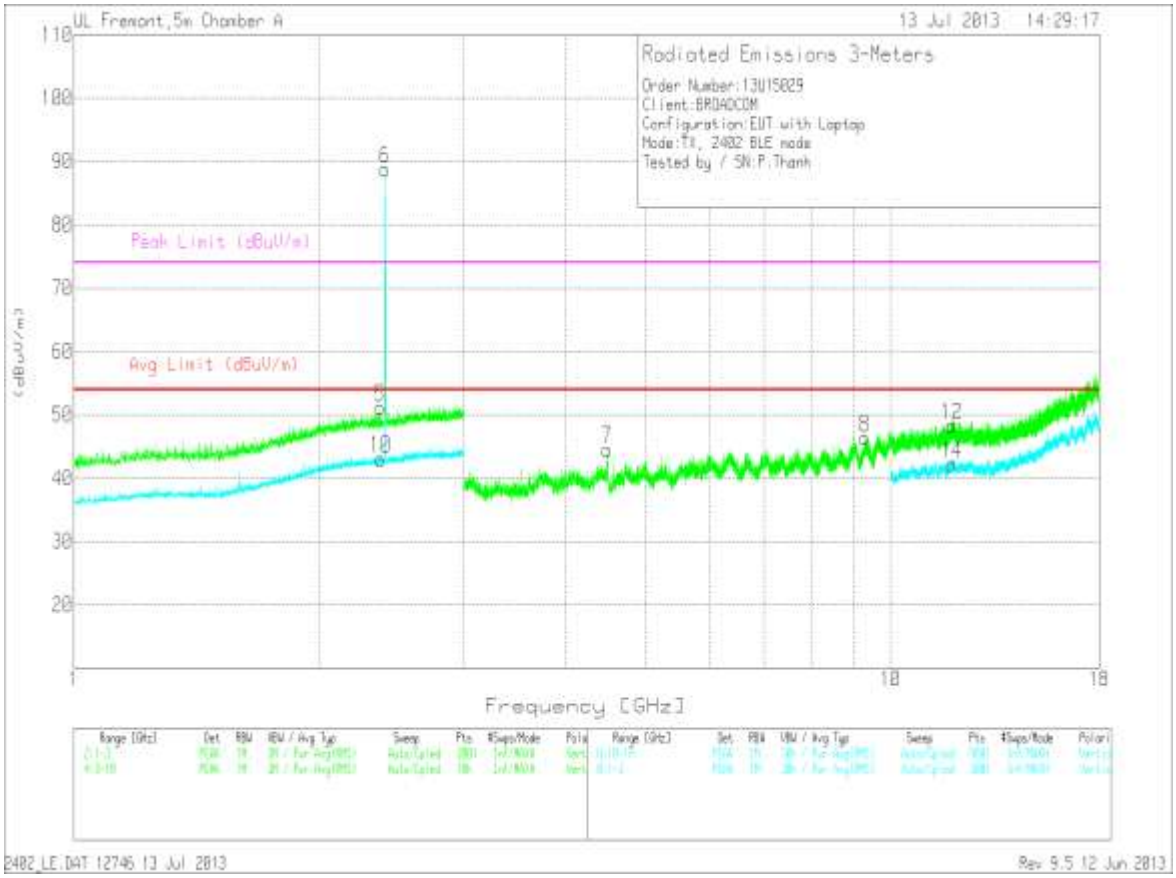


HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL HORIZONTAL



LOW CHANNEL VERTICAL



LOW CHANNEL DATA

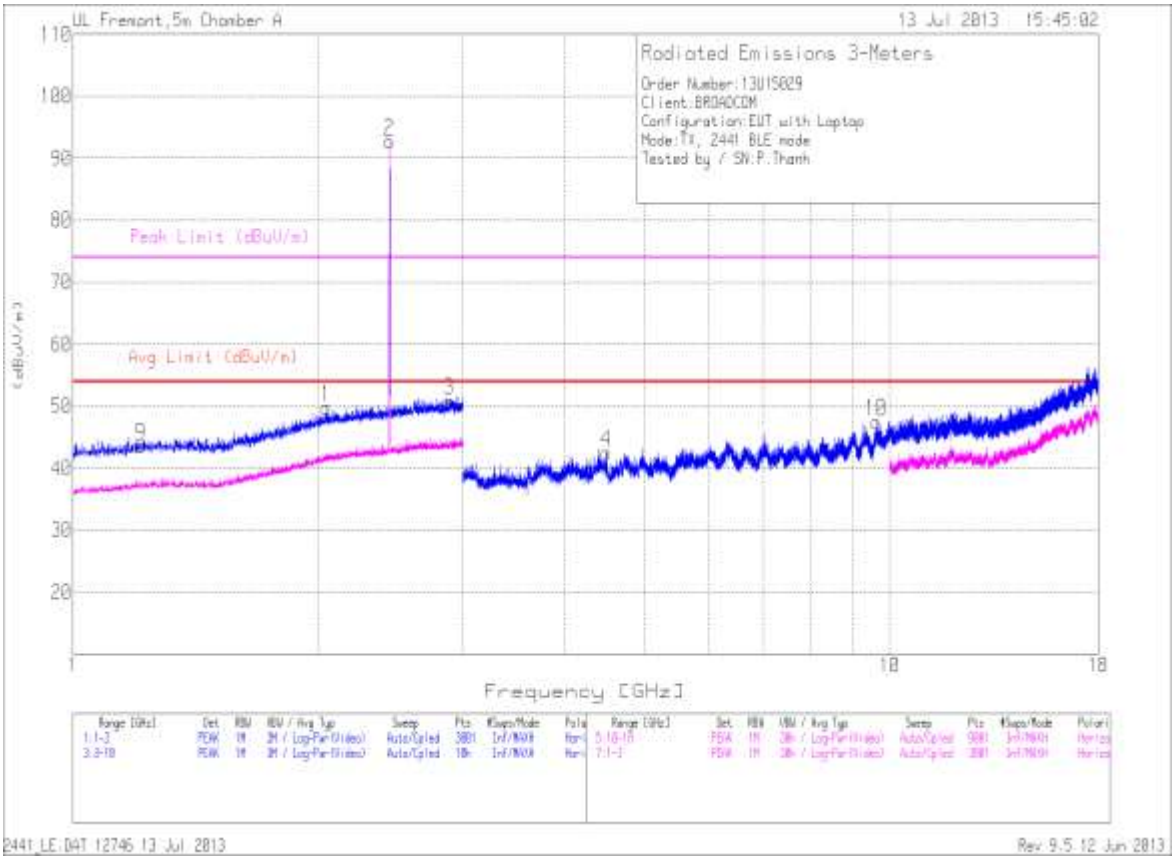
Frequency (GHz)	Meter Reading (dBuV)	Det	T344 Ant Factor [dB/m]	Amp/Cbl/Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2.371	41.4	PK	32.4	-24.4	49.4	53.97	-4.57	74	-24.6	0-360	400	H
*2.403	83.27	PK	32.4	-24.2	91.47	_	_	_	_	0-360	200	H
2.371	43.12	PK	32.4	-24.4	51.12	53.97	-2.85	74	-22.88	0-360	201	V
*2.403	80.6	PK	32.4	-24.2	88.8	_	_	_	_	0-360	301	V
4.496	40.36	PK	34.2	-31.9	42.66	53.97	-11.31	74	-31.34	0-360	400	H
9.285	35.88	PK	36.9	-25.4	47.38	53.97	-6.59	74	-26.62	0-360	400	H
11.861	34.41	PK	39	-25	48.41	53.97	-5.56	74	-25.59	0-360	400	H
4.496	42.25	PK	34.2	-31.9	44.55	53.97	-9.42	74	-29.45	0-360	100	V
9.29	34.86	PK	36.9	-25.4	46.36	53.97	-7.61	74	-27.64	0-360	301	V
11.875	34	PK	39	-24.7	48.3	53.97	-5.67	74	-25.7	0-360	201	V
11.864	28.4	PK	39	-24.9	42.5	53.97	-11.47	74	-31.5	0-360	401	H
11.871	27.86	PK	39	-24.7	42.16	53.97	-11.81	74	-31.84	0-360	100	V
2.37	35.29	PK	32.4	-24.4	43.29	53.97	-10.68	74	-30.71	0-360	400	H
2.374	35.04	PK	32.4	-24.4	43.04	53.97	-10.93	74	-30.96	0-360	400	V

PK - Peak detector
VB1 - KDB 789033 v01r02 Method: VB Alternative Reduced Video
2402_LE.DAT 12746 13 Jul 2013 Rev 9.5 12 Jun 2013

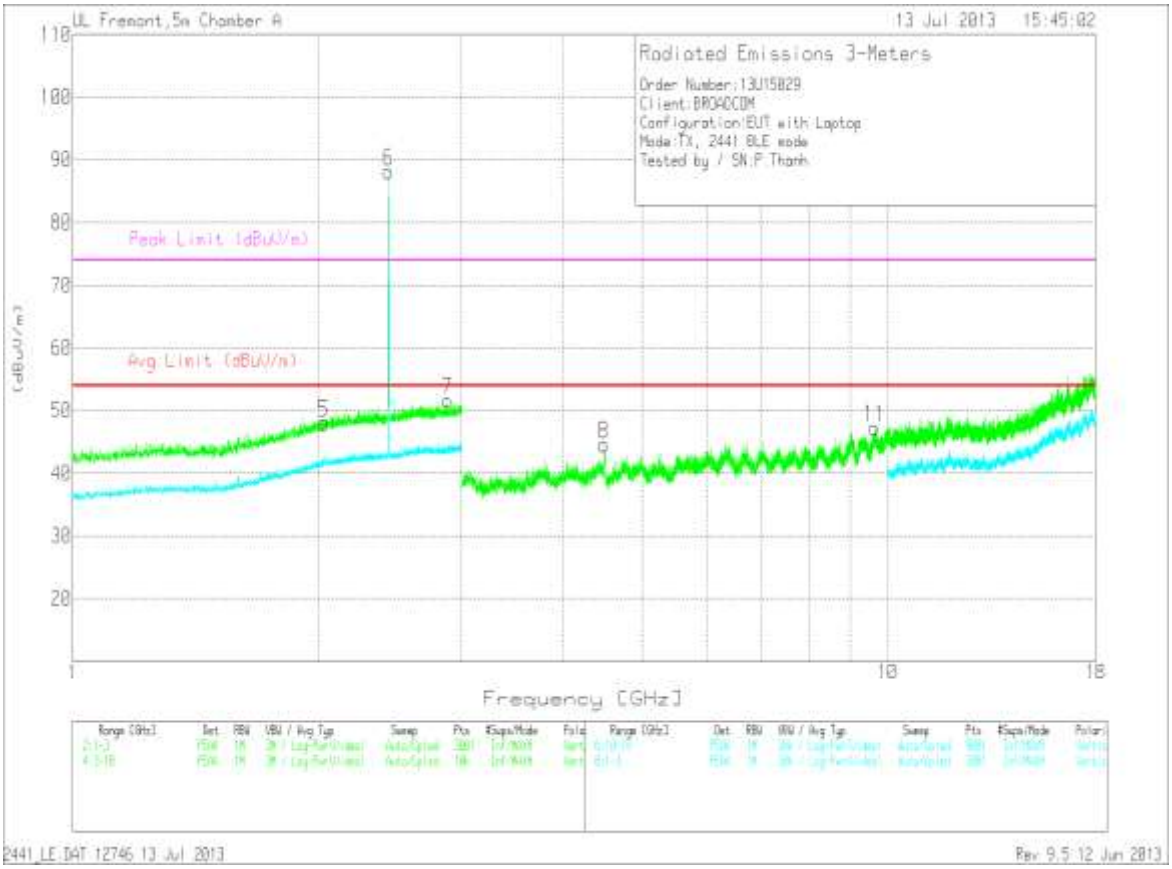
Note: *: Fundamental

No emissions found above noise floor from 18 – 26GHz.

MID CHANNEL HORIZONTAL



MID CHANNEL VERTICAL



MID CHANNEL DATA

Frequency (GHz)	Meter Reading (dBuV)	Det	T344 Ant Factor [dB/m]	Amp/Cbl/Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2.043	42.5	PK	31.8	-24.5	49.8	53.97	-4.17	74	-24.2	0-360	400	H
*2.441	84.5	PK	32.4	-24.2	92.7	_	_	_	_	0-360	201	H
2.887	41.82	PK	33	-23.9	50.92	53.97	-3.05	74	-23.08	0-360	201	H
12.12	40.91	PK	28.5	-25.8	43.61	53.97	-10.36	74	-30.39	0-360	400	H
2.035	40.85	PK	31.8	-24.6	48.05	53.97	-5.92	74	-25.95	0-360	100	V
*2.441	79.95	PK	32.4	-24.2	88.15	_	_	_	_	0-360	301	V
2.885	42.63	PK	33	-23.9	51.73	53.97	-2.24	74	-22.27	0-360	200	V
4.498	40.26	PK	34.2	-31.9	42.56	53.97	-11.41	74	-31.44	0-360	401	H
9.62	35.52	PK	37.3	-25.3	47.52	53.97	-6.45	74	-26.48	0-360	200	H
4.483	42.22	PK	34.2	-31.8	44.62	53.97	-9.35	74	-29.38	0-360	100	V
9.634	35.2	PK	37.3	-25.2	47.3	53.97	-6.67	74	-26.7	0-360	301	V

PK - Peak detector

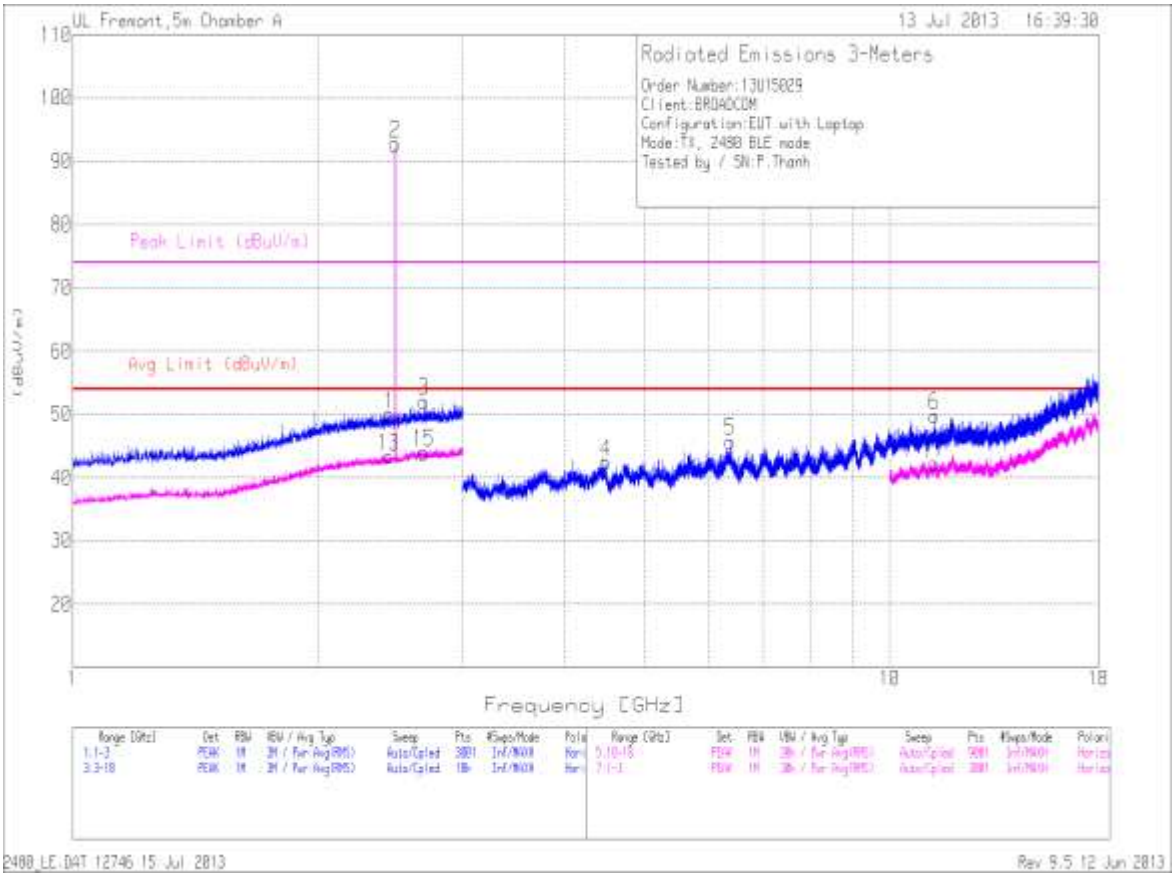
2441_LE.DAT 12746 13 Jul 2013 Rev 9.5 12 Jun 2013

*: Fundamental

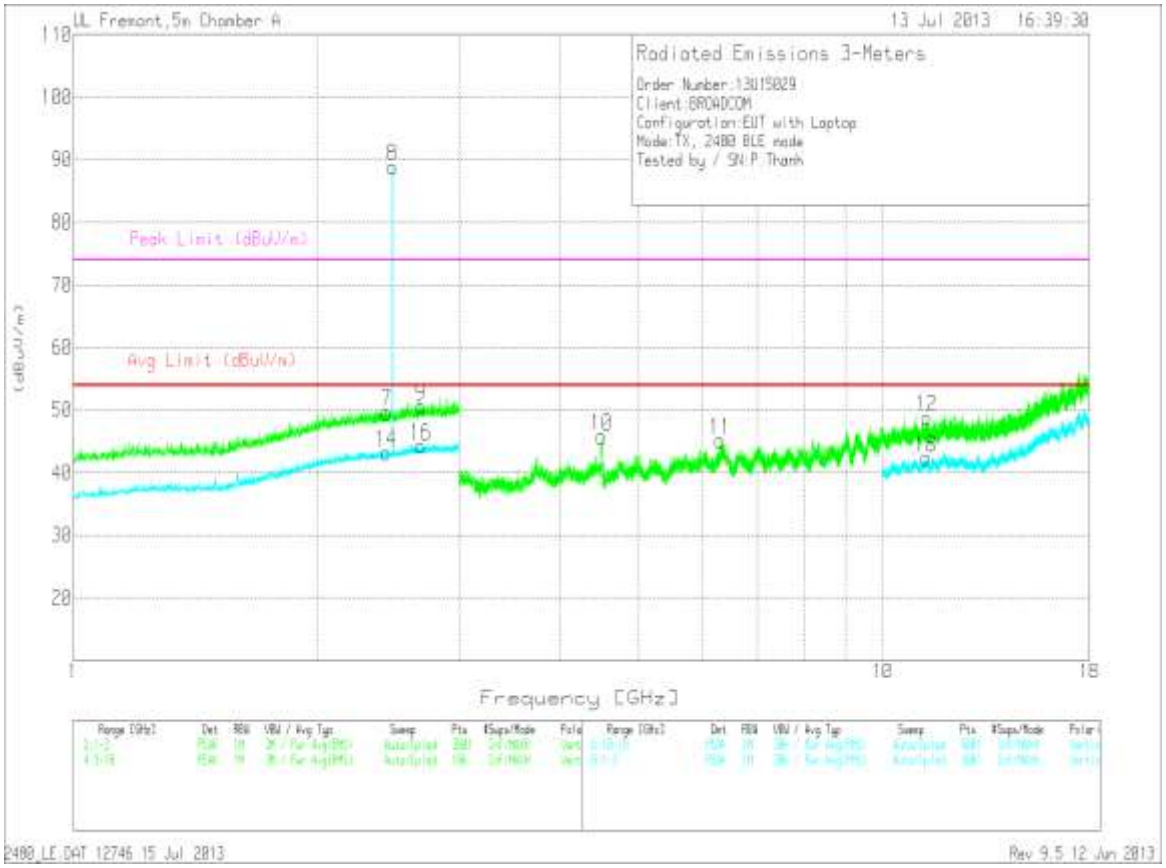
Note: *: Fundamental

No emissions found above noise floor from 18 – 26GHz.

HIGH CHANNEL HORIZONTAL



HIGH CHANNEL VERTICAL



HIGH CHANNEL DATA

Frequency (GHz)	Meter Reading (dBuV)	Det	T344 Ant Factor [dB/m]	Amp/Cbl/Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2.439	41.76	PK	32.4	-24.2	49.96	53.97	-4.01	74	-24.04	0-360	301	H
*2.481	84.5	PK	32.4	-24.1	92.8	_	_	_	_	0-360	201	H
2.689	43.21	PK	32.8	-23.9	52.11	53.97	-1.86	74	-21.89	0-360	400	H
2.441	41.44	PK	32.4	-24.2	49.64	53.97	-4.33	74	-24.36	0-360	401	V
*2.481	80.62	PK	32.4	-24.1	88.92	_	_	_	_	0-360	401	V
2.689	41.74	PK	32.8	-23.9	50.64	53.97	-3.33	74	-23.36	0-360	401	V
4.495	40.13	PK	34.2	-31.9	42.43	53.97	-11.54	74	-31.57	0-360	401	H
6.376	38.86	PK	35.9	-29	45.76	53.97	-8.21	74	-28.24	0-360	301	H
11.33	35.73	PK	38.5	-24.4	49.83	53.97	-4.14	74	-24.17	0-360	100	H
4.497	43.49	PK	34.2	-31.9	45.79	53.97	-8.18	74	-28.21	0-360	100	V
6.298	38.73	PK	36	-29.6	45.13	53.97	-8.84	74	-28.87	0-360	301	V
11.339	34.5	PK	38.5	-24.2	48.8	53.97	-5.17	74	-25.2	0-360	301	V
11.331	28.17	PK	38.5	-24.4	42.27	53.97	-11.7	74	-31.73	0-360	300	H
11.315	28.45	PK	38.5	-24.6	42.35	53.97	-11.62	74	-31.65	0-360	301	V
2.436	35.16	PK	32.4	-24.2	43.36	53.97	-10.61	74	-30.64	0-360	301	H
2.687	35.07	PK	32.8	-23.9	43.97	53.97	-10	74	-30.03	0-360	401	H
2.436	35.02	PK	32.4	-24.2	43.22	53.97	-10.75	74	-30.78	0-360	100	V
2.687	35.36	PK	32.8	-23.9	44.26	53.97	-9.71	74	-29.74	0-360	401	V

PK - Peak detector

2480_LE.DAT 12746 15 Jul 2013 Rev 9.5 12 Jun 2013

Note: ***Fundamental**

No emissions found above noise floor from 18 – 26GHz.

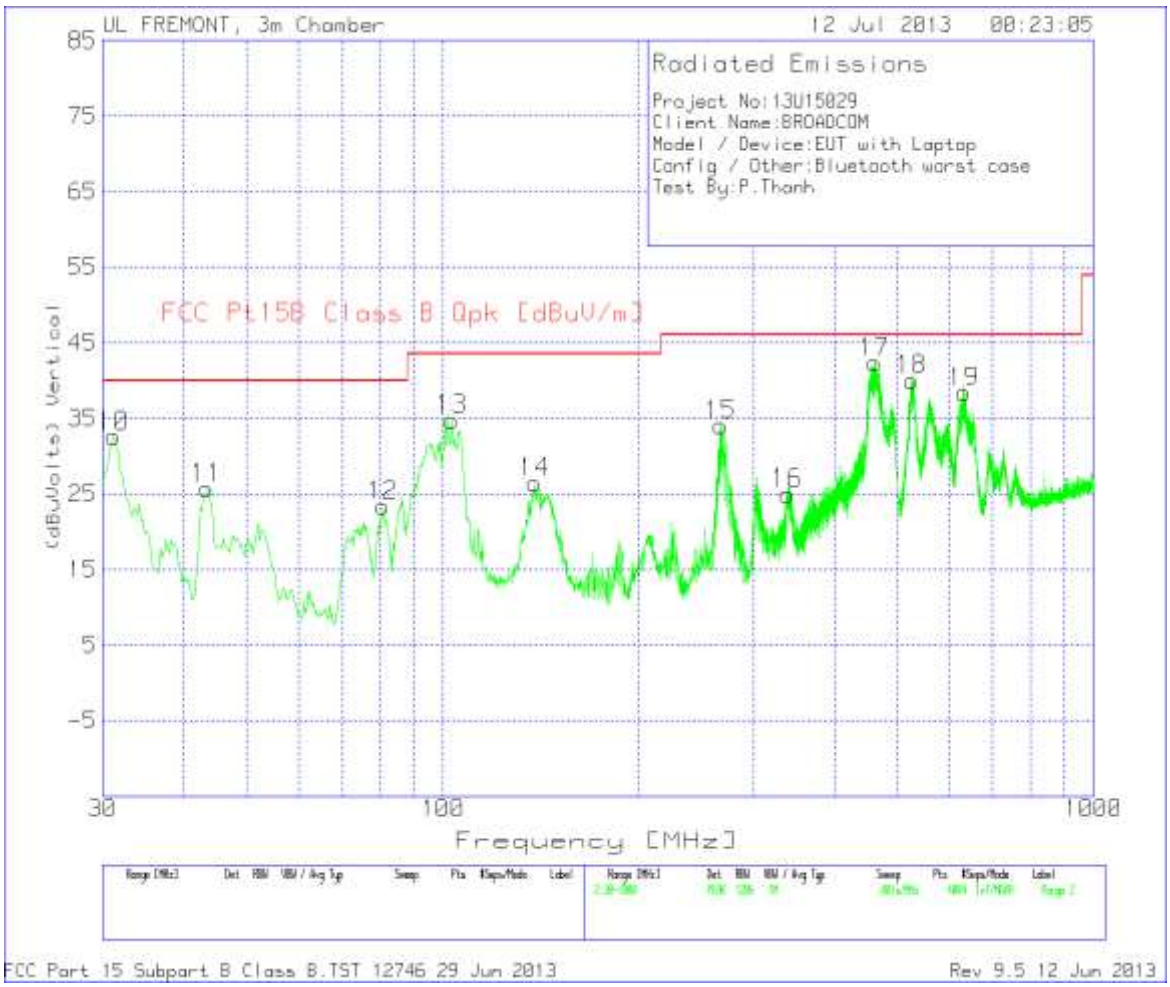
8.3. WORST-CASE BELOW 1 GHz

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

HORIZONTAL PLOT

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

VERTICAL PLOT



EMISSIONS DATA

HORIZONTAL AND VERTICAL DATA

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	T185	T10 preamp/Cable loss [dB]	Corrected Reading (dBuVolts)	FCC Pt15B Class B Qpk [dBuV/m]	Margin (dB)	Height (cm)	Polarity
1	314539	30.6	PK	20.1	-29.1	21.6	40	-18.4	102	Horz
2	52.051	42.65	PK	7.2	-28.9	20.95	40	-19.05	301	Horz
3	96.3952	50.54	PK	9.1	-28.4	31.24	43.52	-12.28	200	Horz
4	139.5279	41.07	PK	13.1	-27.9	26.27	43.52	-17.25	301	Horz
5	270.622	44.81	PK	13.2	-26.7	31.31	46.02	-14.71	102	Horz
6	336.5326	41.71	PK	13.9	-26.3	29.31	46.02	-16.71	102	Horz
7	470.2923	45.72	PK	17.4	-26.5	36.62	46.02	-9.4	200	Horz
8	630.9493	48.48	PK	19.5	-25.9	42.08	46.02	-3.94	102	Horz
9	727.8766	41.69	PK	20.4	-25.2	36.89	46.02	-9.13	102	Horz
10	312116	41.4	PK	20.3	-29.1	32.6	40	-7.4	98	Vert
11	43.3275	43.43	PK	11.2	-28.9	25.73	40	-14.27	98	Vert
12	80.8868	44.41	PK	7.6	-28.6	23.41	40	-16.59	98	Vert
13	103.1801	52.18	PK	10.9	-28.3	34.78	43.52	-8.74	98	Vert
14	138.5586	41.27	PK	13.1	-27.9	26.47	43.52	-17.05	98	Vert
15	267.2296	47.78	PK	13	-26.7	34.08	46.02	-11.94	98	Vert
16	338.4711	37.32	PK	14	-26.3	25.02	46.02	-21	98	Vert
17	460.5996	51.85	PK	17	-26.5	42.35	46.02	-3.67	98	Vert
18	525.5408	48.53	PK	17.8	-26.3	40.03	46.02	-5.99	98	Vert
19	633.1302	44.74	PK	19.6	-25.9	38.44	46.02	-7.58	98	Vert

- Peak detector

9. AC POWER LINE CONDUCTED EMISSIONS

LIMITS

FCC §15.207 (a)

RSS-Gen 7.2.2

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

The EUT is placed on a non-conducting table 40 cm from the vertical ground plane and 80 cm above the horizontal ground plane. The EUT is configured in accordance with ANSI C63.4.

The receiver is set to a resolution bandwidth of 9 kHz. Peak detection is used unless otherwise noted as quasi-peak or average.

Line conducted data is recorded for both NEUTRAL and HOT lines.

RESULTS

6 WORST EMISSIONS

Project No:13U15029
Client Name:BROADCOM
Model/Device:BCM94352Z
Test Volt/Freq:115AC / 60Hz
Test By: Thanh Pham

Line-L1 .15 - 30MHz

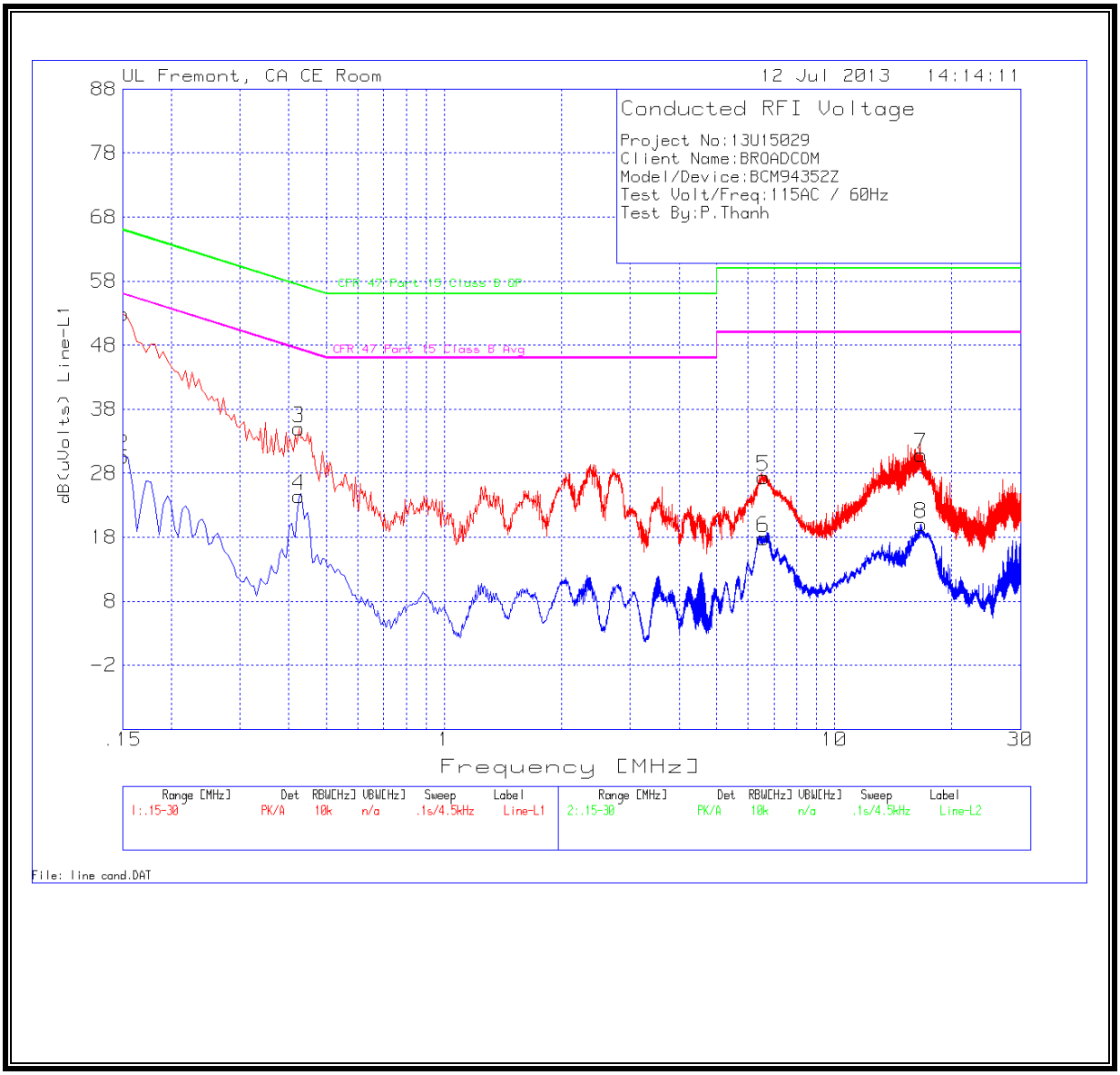
Test Frequency (MHz)	Meter Reading (dBuV)	Detector	T24 IL L1.TXT (dB)	LC Cables 1&3.TXT (dB)	dB(uVolts)	CFR 47 Part 15 Class B	Margin (dB)	CFR 47 Part 15 Class B	Margin (dB)
0.15	52.83	PK	0.1	0.0	52.93	66.0	-13.1	-	-
0.15	30.55	Av	0.1	0.0	30.65	-	-	56.0	-25.35
0.4245	34.90	PK	0.1	0.0	35.00	57.4	-22.4	-	-
0.4245	24.31	Av	0.1	0.0	24.41	-	-	47.4	-22.99
6.5715	27.26	PK	0.1	0.1	27.46	60.0	-32.5	-	-
6.5715	17.64	Av	0.1	0.1	17.84	-	-	50.0	-32.16
16.71	30.51	PK	0.2	0.2	30.91	60.0	-29.1	-	-
16.71	19.67	Av	0.2	0.2	20.07	-	-	50.0	-29.93

Line-L2 .15 - 30MHz

Test Frequency (MHz)	Meter Reading (dBuV)	Detector	T24 IL L1.TXT (dB)	LC Cables 1&3.TXT (dB)	dB(uVolts)	CFR 47 Part 15 Class B	Margin (dB)	CFR 47 Part 15 Class B	Margin (dB)
0.15	52.59	PK	0.1	0.0	52.69	66.0	-13.31	-	-
0.15	33.18	Av	0.1	0.0	33.28	-	-	56.0	-22.72
0.4245	39.61	PK	0.1	0.0	39.71	57.4	-17.69	-	-
0.4245	29.50	Av	0.1	0.0	29.60	-	-	47.4	-17.80
6.513	29.45	PK	0.1	0.1	29.65	60.0	-30.35	-	-
6.513	16.34	Av	0.1	0.1	16.54	-	-	50.0	-33.46
16.755	27.96	PK	0.2	0.2	28.36	60.0	-31.64	-	-
16.755	16.85	Av	0.2	0.2	17.25	-	-	50.0	-32.75

PK - Peak detector
QP - Quasi-Peak detector
Av - Average detector
Text File: LC.TXT
File: line cond.DAT

LINE 1 RESULTS



LINE 2 RESULTS