FCC 47 CFR PART 15 SUBPART C
INDUSTRY CANADA RSS-247 ISSUE 1

BLUETOOTH LOW ENERGY CERTIFICATION TEST REPORT

FOR

TABLET DEVICE

MODEL NUMBER: A1673

FCC ID: BCGA1673

IC: 579C-A1673

REPORT NUMBER: 15U22427-E2V2

ISSUE DATE: FEBRUARY 16, 2016

Prepared for
APPLE, INC.
1 INFINITE LOOP
CUPERTINO, CA 95014, U.S.A.

Prepared by
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NVLAP LAB CODE 200065-0

Revision History

Rev.	Issue Date	Revisions	Revised By
V1	02/03/2016	Initial Issue	C. Pang
V2	02/16/2016	Revised report to address TCB's questions	T. Chu

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1. ATTESTATION OF TEST RESULTS

COMPANY NAME: APPLE, INC.
1 INFINITE LOOP
CUPERTINO, CA 95014, U.S.A.

EUT DESCRIPTION: TABLET DEVICE

MODEL: A1673

SERIAL NUMBER: DLXQT001H35T (Conducted); DLXQT004H369 (Radiated)

DATE TESTED: NOVEMBER 15, 2015 – JANUARY 20, 2016

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
UL Verification Services Inc. By:

CHIN PANG
SENIOR ENGINEER
UL VERIFICATION SERVICES INC.

Tested By:

ERIC YU
EMC ENGINEER
UL VERIFICATION SERVICES INC.

2. TEST METHODOLOGY

The tests documented in this report were performed in accordance with FCC CFR 47 Part 2, FCC CFR 47 Part 15, KDB 558074 D01 v03r04, ANSI C63.10-2013, RSS-GEN Issue 4, and RSS-247 Issue 1.

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
☐ Chamber A	☒ Chamber D
☐ Chamber B	☐ Chamber E
☐ Chamber C	☒ Chamber F
	☐ Chamber G
	☐ Chamber H

The above test sites and facilities are covered under FCC Test Firm Registration # 208313. Chambers A through H are covered under Industry Canada company address code 2324B with site numbers 2324B -1 through 2324B-8, respectively.

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:

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
Radiated Disturbance, 1 to 6 GHz	± 3.86 dB
Radiated Disturbance, 6 to 18 GHz	± 4.23 dB
Radiated Disturbance, 18 to 26 GHz	± 5.30 dB
Radiated Disturbance, 26 to 40 GHz	± 5.23 dB

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

5. EQUIPMENT UNDER TEST

5.1. DESCRIPTION OF EUT

The EUT is a tablet with multimedia functions (music, application support, and video), IEEE 802.11a/b/g/n/ac radio, and Bluetooth radio. The rechargeable battery is not user accessible.

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 Antenna B High Power Mode	17.05	50.70
	BLE Antenna B Low Power Mode	8.97	7.89
	BLE Antenna C High Power Mode	15.87	38.64
	BLE Antenna C Low Power Mode	7.67	5.85

5.3. DESCRIPTION OF AVAILABLE ANTENNAS

Frequency Band (GHz)	Antenna Gain (dBi)	
	Antenna B	Antenna C
2.4	-1.75	1.06

5.4. SOFTWARE AND FIRMWARE

The software installed in the EUT during testing was 13E31820k.

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

Worst-case data rates as provided by the client were:
Based on the baseline scan, the worst-case data rates were:

BLE: 1 Mbps.

There are two vendors of the WiFi/Bluetooth radio modules: variant 1 and variant 2. The Wi-Fi/Bluetooth radio modules have the same mechanical outline (e.g., the same package dimension and pin-out layout), use the same on-board antenna matching circuit, have an identical antenna structure, and are built and tested to conform to the same specifications and to operate within the same tolerances.

Baseline testing was performed on the two variants to determine the worst case on all conducted power and radiated emissions.

For simultaneous transmission of multiple channels from the same antenna in the 2.4GHz and 5GHz bands, tests were conducted for various configurations having the highest power. No noticeable new emission was found.

5.6. DESCRIPTION OF TEST SETUP

SUPPORT EQUIPMENT

Description	Manufacturer	Model	Serial Number	FCC ID
Laptop	Dell	Latitude 3540	6LNG802	N/A
Laptop AC/DC adapter	Dell	FA90PE1-00	CN-0CM889-73245-95L-4954-A00	N/A
Earphone	Apple	NA	NA	N/A
EUT AC/DC adapter	Apple	A1385	D293062F3WVDHLHCF	N/A

I/O CABLES (CONDUCTED TEST)

I/O Cable List						
Cable No	Port	# of identical ports	Connector Type	Cable Type	Cable Length (m)	Remarks
1	Antenna	1	SMA	Un-Shielded	0.2	To spectrum Analyzer
2	USB	1	USB	Shielded	1	N/A
3	AC	1	AC	Un-shielded	3	N/A

I/O CABLES (RADIATED ABOVE 1 GHZ)

I/O Cable List						
Cable No	Port	# of identical ports	Connector Type	Cable Type	Cable Length (m)	Remarks
None Used						

I/O CABLES (RADAITED BELOW 1 GHZ)

I/O Cable List						
Cable No	Port	# of identical	Connector Type	Cable Type	Cable Length (m)	Remarks
1	Headphones Jack	1	3.5mm Audio	Shielded	0.9	N/A
2	AC	1	AC	Un-shielded	3	N/A

I/O CABLES (AC LINE CONDUCTED: AC/DC ADAPTER)

I/O Cable List						
Cable No	Port	# of identical	Connector Type	Cable Type	Cable Length (m)	Remarks
1	Headphones Jack	1	3.5mm Audio	Shielded	0.9	N/A
2	AC	1	AC	Un-shielded	3	N/A

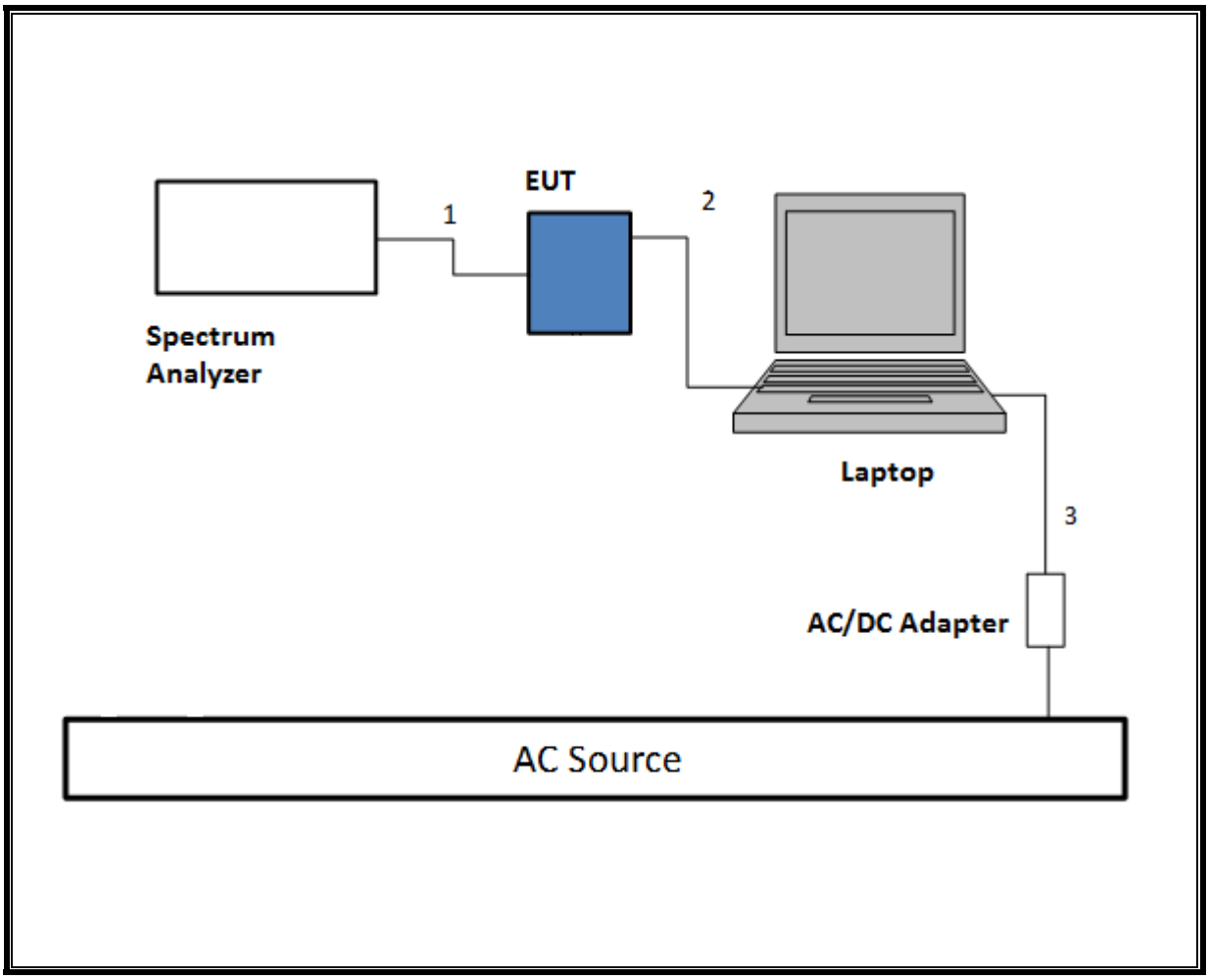
I/O CABLES (AC LINE CONDUCTED: LAPTOP CONFIGUARTION)

I/O Cable List						
Cable No	Port	# of identical	Connector Type	Cable Type	Cable Length (m)	Remarks
1	Headphones Jack	1	3.5mm Audio	Shielded	0.9	N/A
2	USB	1	USB	Shielded	1	N/A
3	AC	1	AC	Un-shielded	3	N/A

TEST SETUP - CONDUCTED TESTS

The EUT was tested connected to a host Laptop via USB cable adapter and spectrum analyzer to antenna port. Test software exercised the EUT.

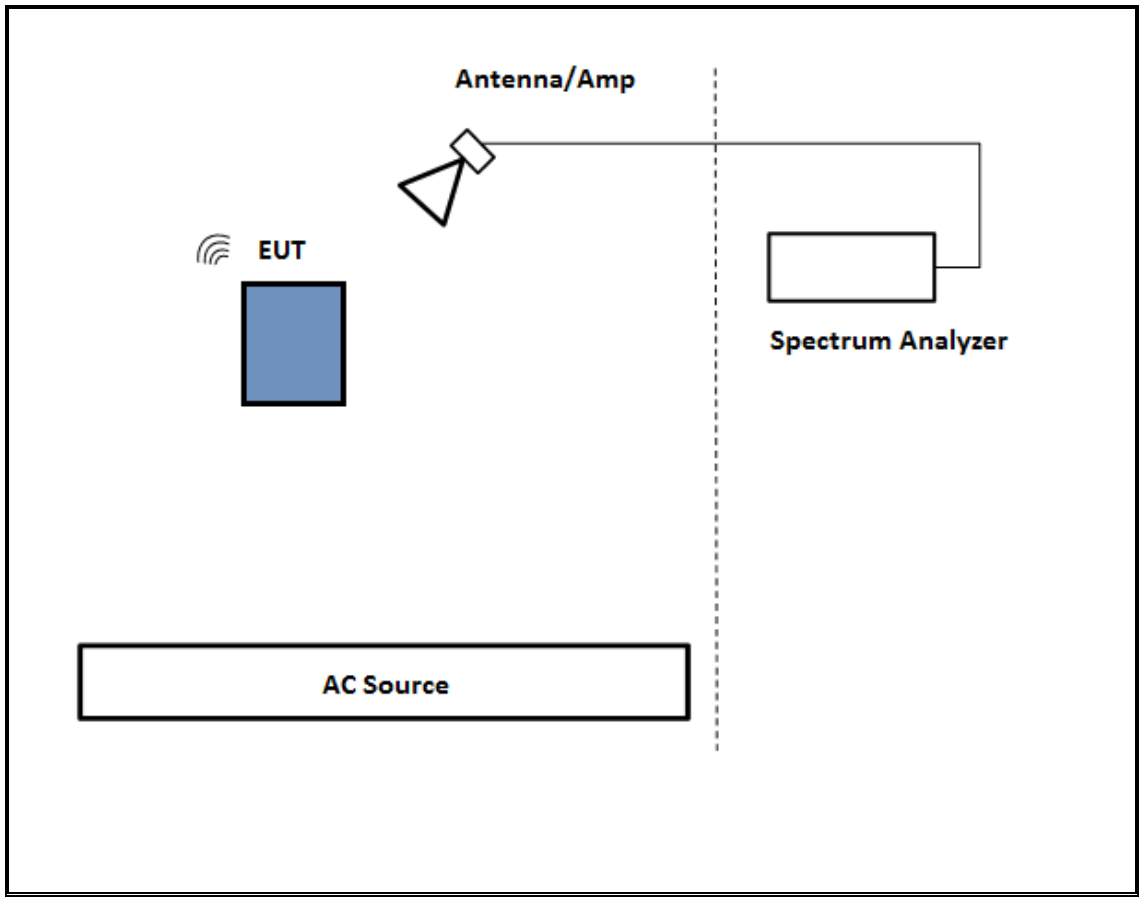
SETUP DIAGRAM



TEST SETUP- RADIATED-ABOVE 1 GHZ

The EUT was tested battery powered. Test software exercised the EUT.

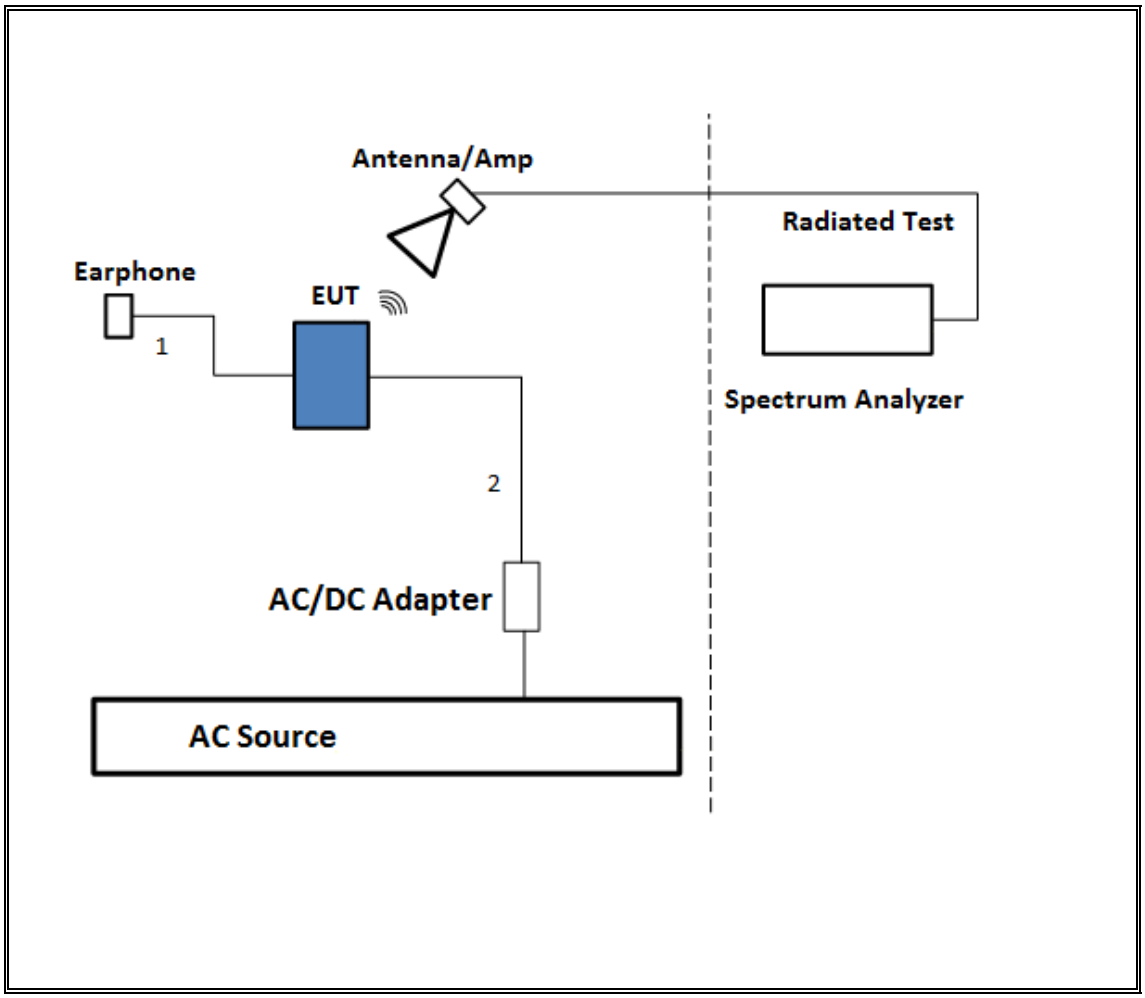
SETUP DIAGRAM



TEST SETUP- BELOW 1GHz

The EUT was tested with earphone connected and powered by AC adapter. Test software exercised the EUT.

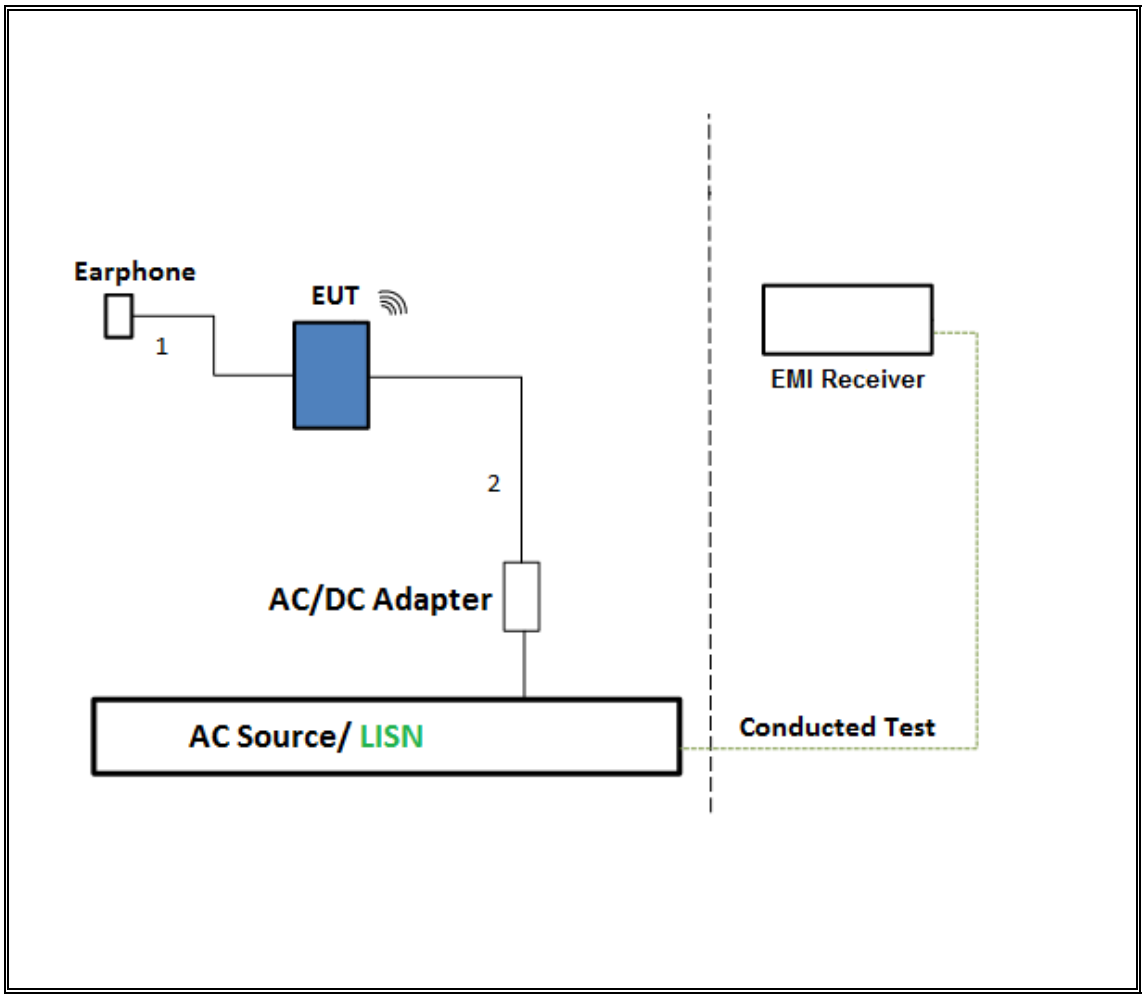
SETUP DIAGRAM



TEST SETUP- AC LINE CONDUCTED: AC/DC ADAPTER

The EUT was tested with earphone connected and powered by AC/DC adapter via USB cable. Test software exercised the EUT.

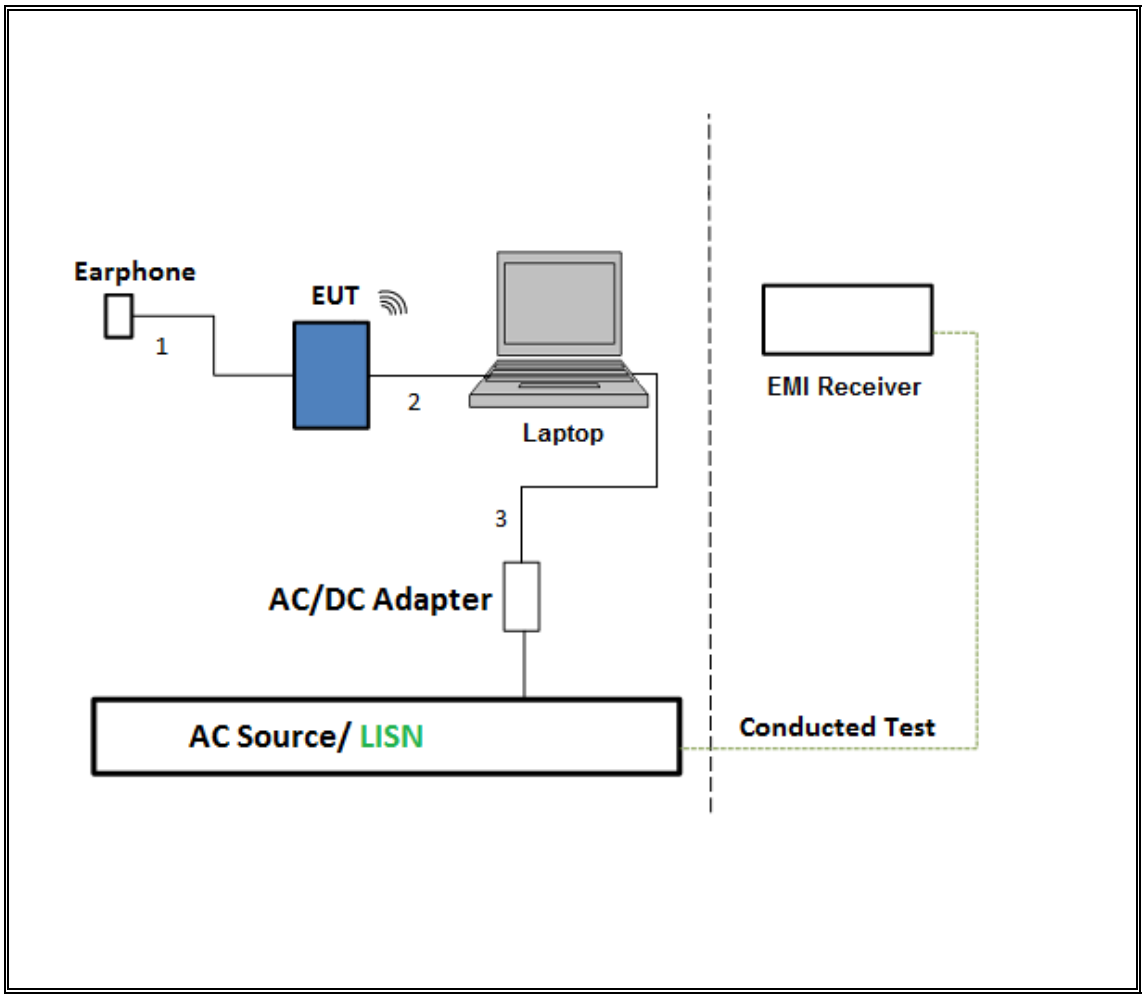
SETUP DIAGRAM



TEST SETUP- AC LINE CONDUCTED: LAPTOP CONFIGURATION

The EUT was tested with earphone connected and powered by host PC via USB cable. Test software exercised the EUT.

SETUP DIAGRAM



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**	**Cal Date**	**Cal Due**
Antenna, Horn 1-18GHz	ETS Lindgren	3117	2/10/2015	2/10/2016
Antenna, Broadband Hybrid, 30MHz to 2000MHz	Sunol Sciences	JB1	3/5/2015	3/5/2016
Amplifier, 1 - 18GHz	Miteq	AFS42-00101800-25-S-42	1/26/2015	1/26/2016
Amplifier, 10KHz to 1GHz, 32dB	Sonoma	310N	5/7/2015	5/7/2016
Spectrum Analyzer, PXA, 3Hz to 44GHz	Agilent	N9030A	11/16/2015	11/16/2016
Spectrum Analyzer, PXA, 3Hz to 44GHz	Agilent	N9030A	11/19/2015	11/19/2016
Power Meter, P-series single channel	Agilent	N1911A	4/7/2015	4/7/2016
Power Sensor, P - series, 50MHz to 18GHz, Wideband	Agilent	N1921A	2/27/2015	2/27/2016
Antenna, Horn 18 to 26.5GHz	ARA	MWH-1826	5/12/2015	5/12/2016
Spectrum Analyzer, 40 GHz	Agilent	8564E	8/14/2015	8/14/2016
Amplifier, 1 to 26.5GHz, 23.5dB Gain minimum	Agilent	8449B	6/29/2015	6/29/2016
AC Line Conducted				
EMI Test Receiver 9Khz-7GHz	Rohde & Schwarz	ECSI7	08/07/15	08/07/16
LISN for Conducted Emissions CISPR-16	FCC	50/250-25-2	01/16/15	01/16/16
LISN for Conducted Emissions CISPR-16	Fisher	50/250-2-01	09/16/15	09/16/16
Power Cable, Line Conducted Emissions	U L	PG1	7/28/2015	7/28/2016
UL SOFTWARE				
* Radiated Software	UL	UL EMC	Ver 9.5, July 22, 2014	
* Conducted Software	UL	UL EMC	Ver 2.2, March 31, 2015	
* AC Line Conducted Software	UL	UL EMC	Ver 9.5, April 3, 2015	

Note: * indicates automation software version used in the compliance certification testing

7. ANTENNA PORT TEST RESULTS

7.1. MEASUREMENT METHODS

6 dB BW: KDB 558074 D01 v03r04, Section 8.1.

Output Power: KDB 558074 D01 v03r04, Section 9.1.2.

Power Spectral Density: KDB 558074 D01 v03r04, Section 10.2.

Out-of-band emissions in non-restricted bands: KDB 558074 D01 v03r04, Section 11.0.

Out-of-band emissions in restricted bands: KDB 558074 D01 v03r04, Section 12.1.

Band-edge: KDB 558074 D01 v03r04, Section 12.1.

7.2. ON TIME, DUTY CYCLE

LIMITS

None; for reporting purposes only.

PROCEDURE

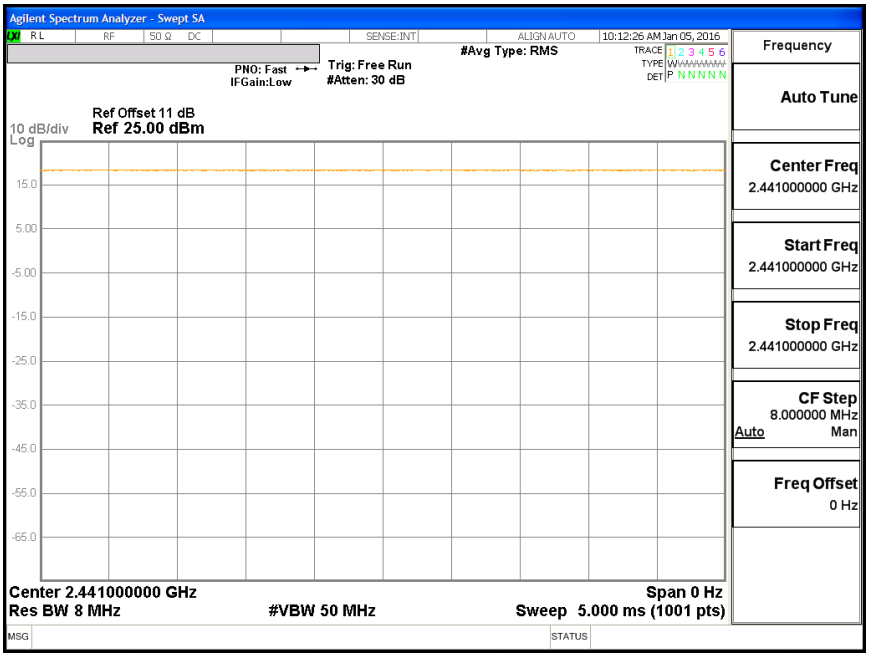
KDB 558074 Zero-Span Spectrum Analyzer Method.

ON TIME AND DUTY CYCLE RESULTS

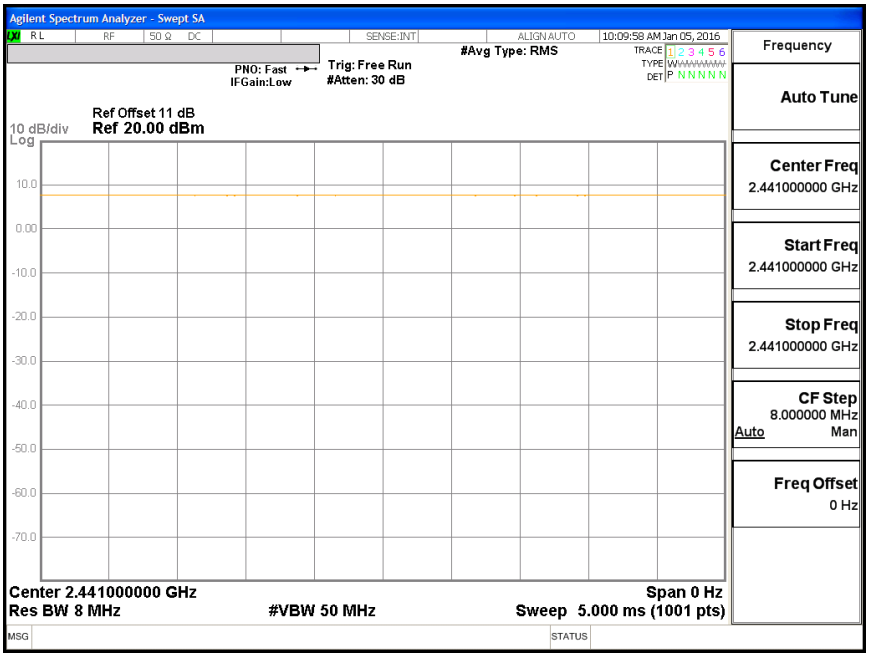
Mode	ON Time B (msec)	Period (msec)	Duty Cycle x (linear)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)	1/B Minimum VBW (kHz)
BLE Low Power Mode	1.000	1.000	1.000	100.00%	0.00	0.010
BLE High Power Mode	1.000	1.000	1.000	100.00%	0.00	0.010

DUTY CYCLE PLOTS

DUTY CYCLE BLE LOW POWER MODE



DUTY CYCLE BLE HIGH POWER MODE



7.3. ANTENNA B HIGH POWER MODE

7.3.1. 6 dB BANDWIDTH

LIMITS

FCC §15.247 (a) (2)

IC RSS-247 (5.2) (1)

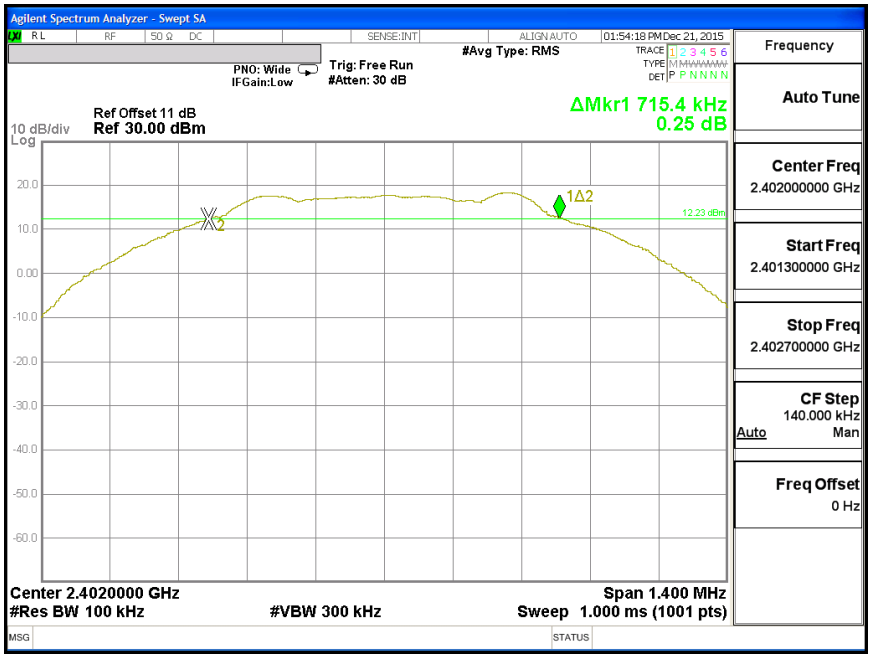
The minimum 6 dB bandwidth shall be at least 500 kHz.

RESULTS

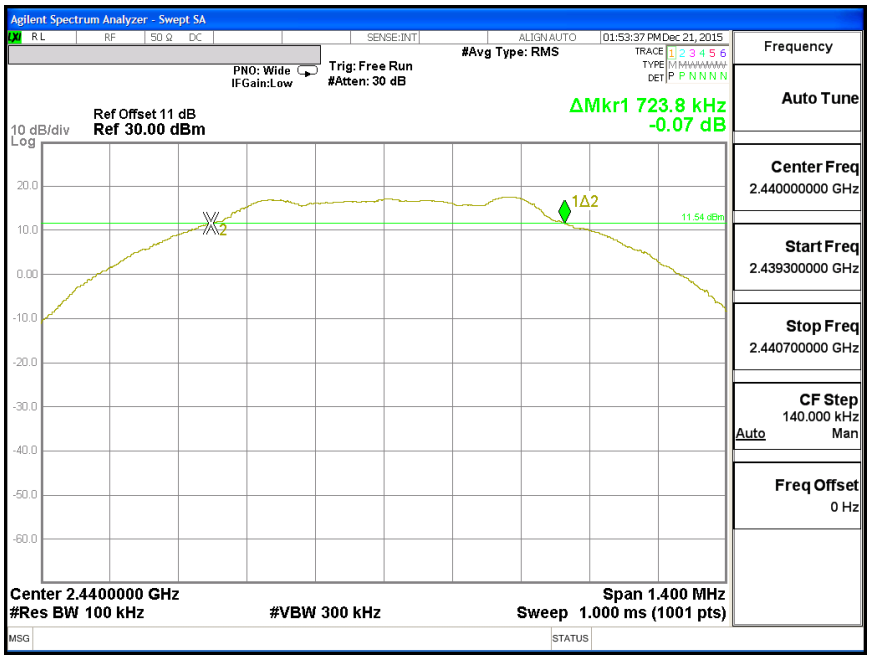
Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Minimum Limit (MHz)
Low	2402	0.715	0.5
Middle	2440	0.724	0.5
High	2480	0.714	0.5

6 dB BANDWIDTH

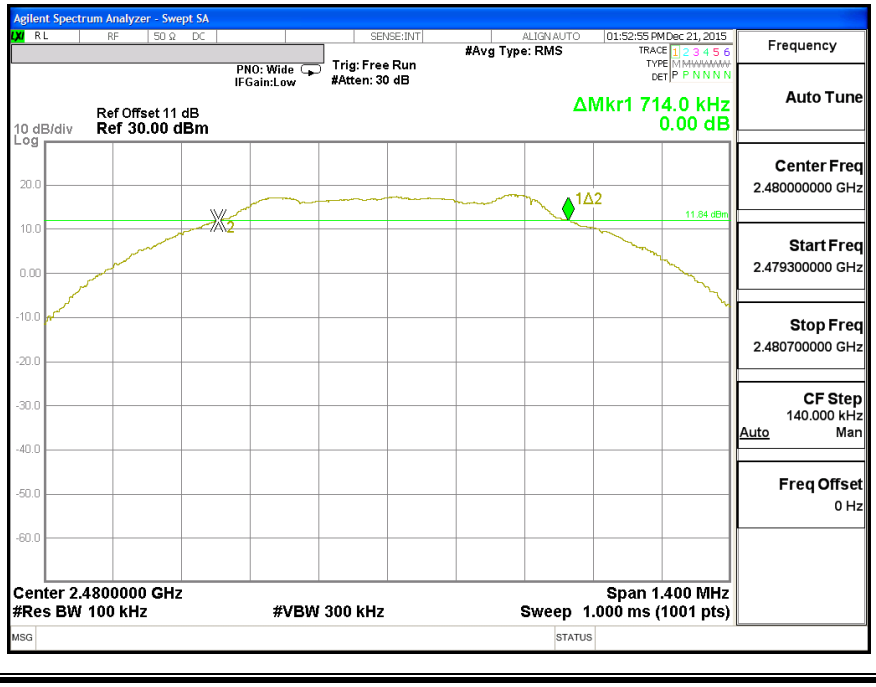
6 dB BANDWIDTH LOW CH



6 dB BANDWIDTH MID CH



6 dB BANDWIDTH HIGH CH



7.3.2. 99% BANDWIDTH

LIMITS

None; for reporting purposes only.

TEST PROCEDURE

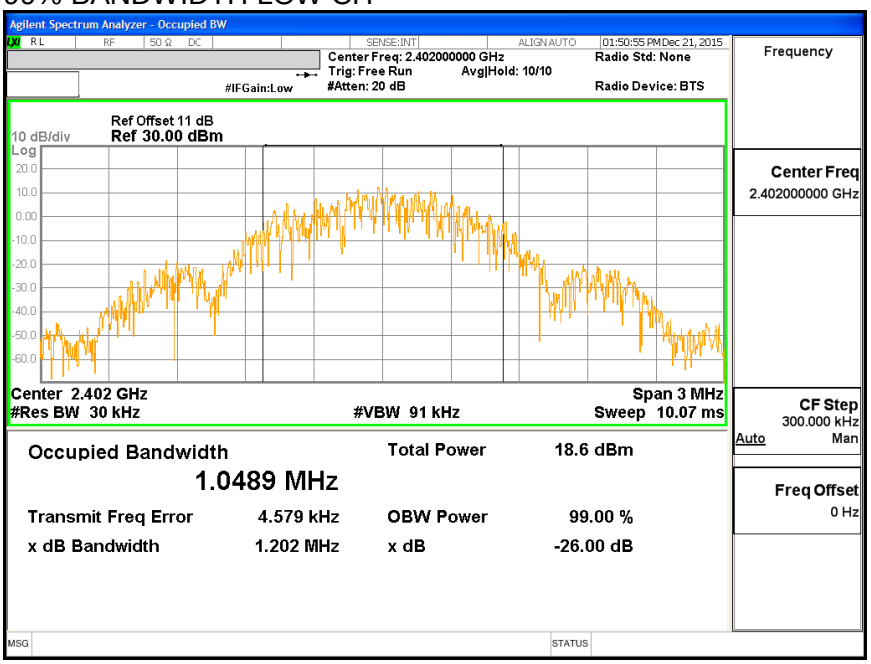
The transmitter output is connected to the spectrum analyzer. The RBW is set to 1% to 3% of the 99 % bandwidth and to 1% of the span. The VBW is set to 3 times the RBW. The sweep time is coupled. The spectrum analyzer internal 99% bandwidth function is utilized.

RESULTS

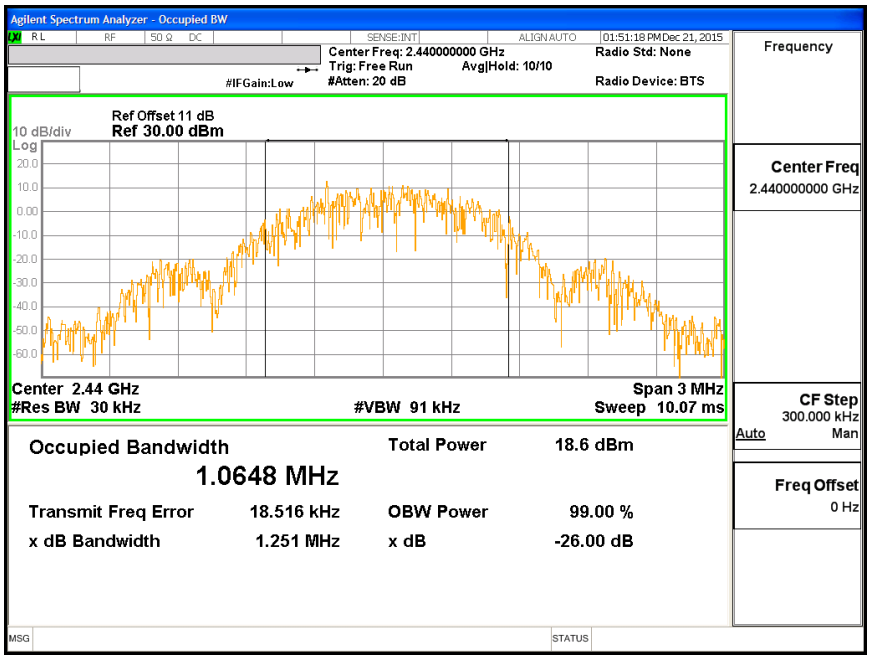
Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	2402	1.0489
Middle	2440	1.0648
High	2480	1.0640

99% BANDWIDTH

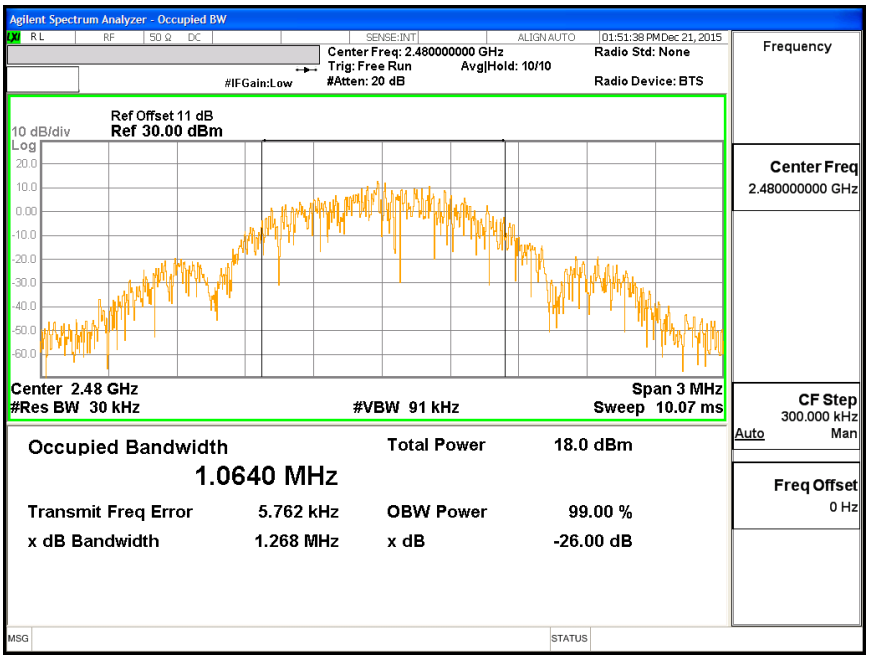
99% BANDWIDTH LOW CH



99% BANDWIDTH MID CH



99% BANDWIDTH HIGH CH



7.3.3. AVERAGE POWER

LIMITS

None; for reporting purposes only.

RESULTS

The cable assembly insertion loss of 11 dB (including 10 dB pad and 1 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	16.70
Middle	2440	16.44
High	2480	16.17

7.3.4. 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.

RESULTS

Channel	Frequency (MHz)	Peak Power Reading (dBm)	Limit (dBm)	Margin (dB)
Low	2402	17.05	30	-12.950
Middle	2440	16.77	30	-13.230
High	2480	16.46	30	-13.540

7.3.5. POWER SPECTRAL DENSITY

LIMITS

FCC §15.247 (e)

IC RSS-247 (5.2) (2)

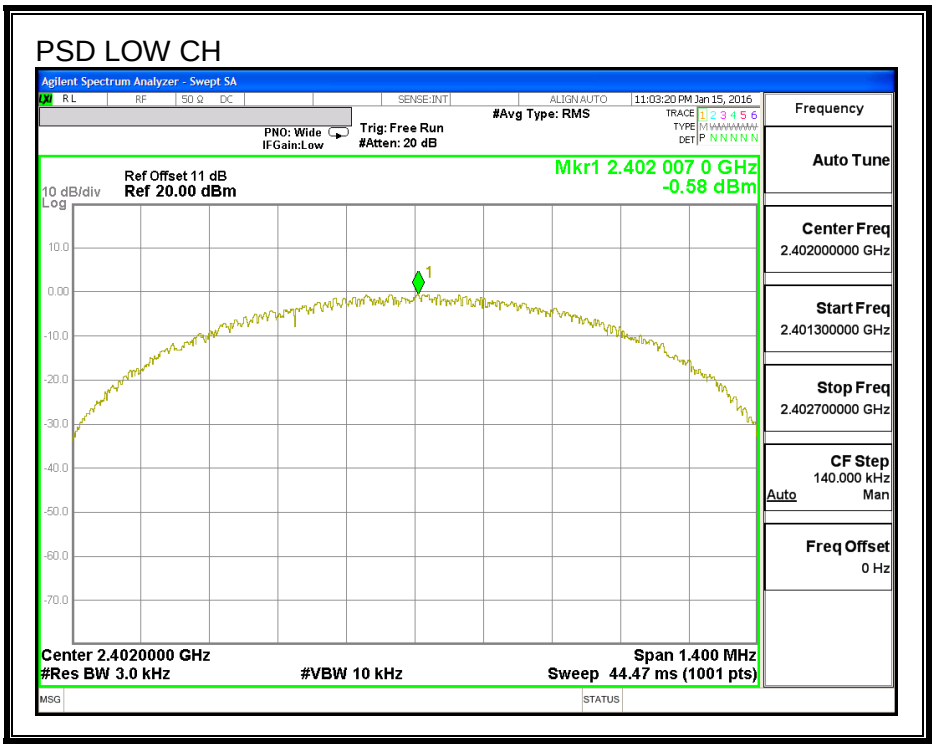
The power spectral density conducted from the transmitter to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission.

RESULTS RESULTS

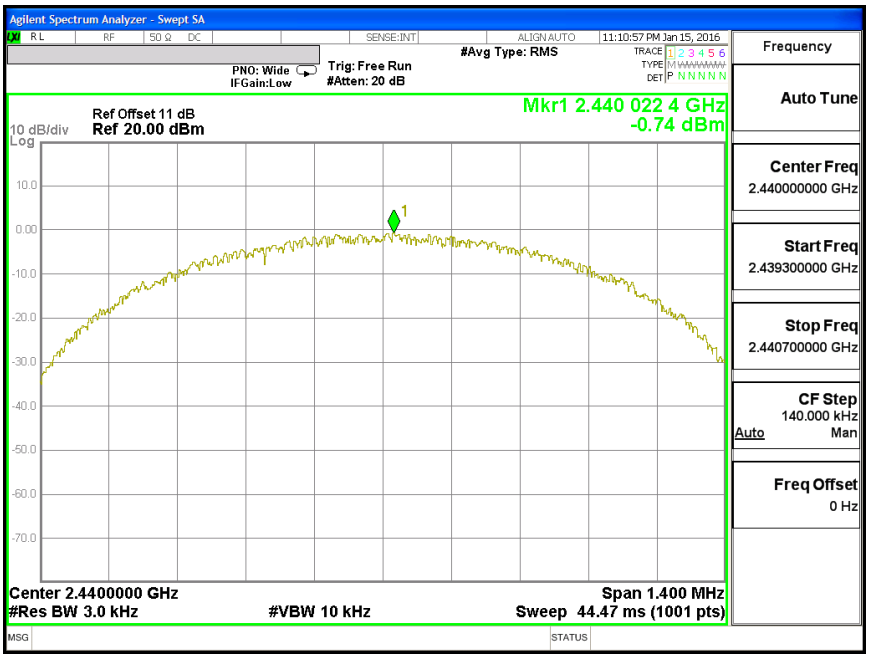
Channel	Frequency (MHz)	PSD (dBm)	Limit (dBm)	Margin (dB)
Low	2402	-0.58	8	-8.58
Middle	2440	-0.74	8	-8.74
High	2480	-1.06	8	-9.06

POWER SPECTRAL DENSITY

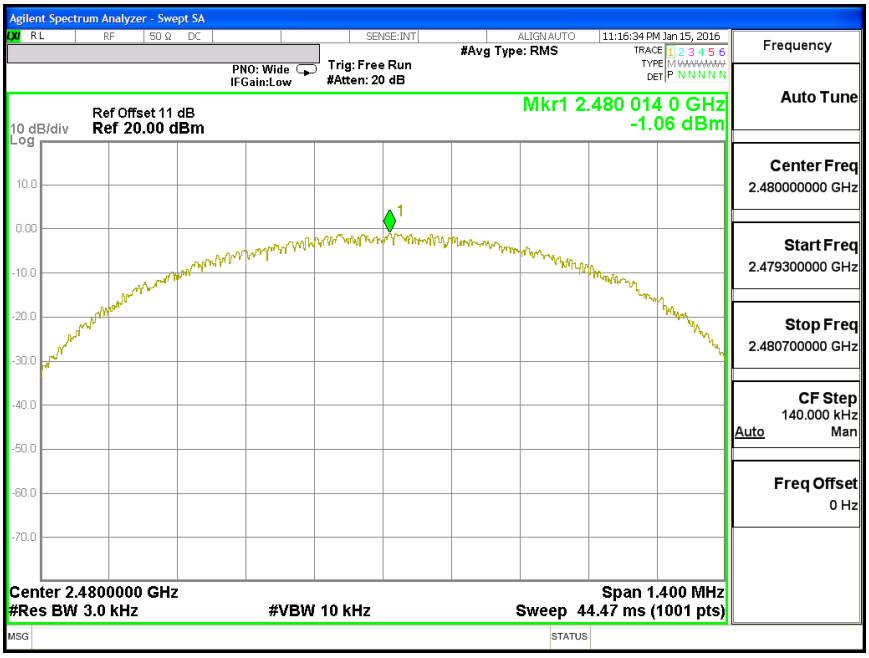
PSD LOW CH



PSD MID CH



PSD HIGH CH



7.3.6. CONDUCTED SPURIOUS EMISSIONS

LIMITS

FCC §15.247 (d)

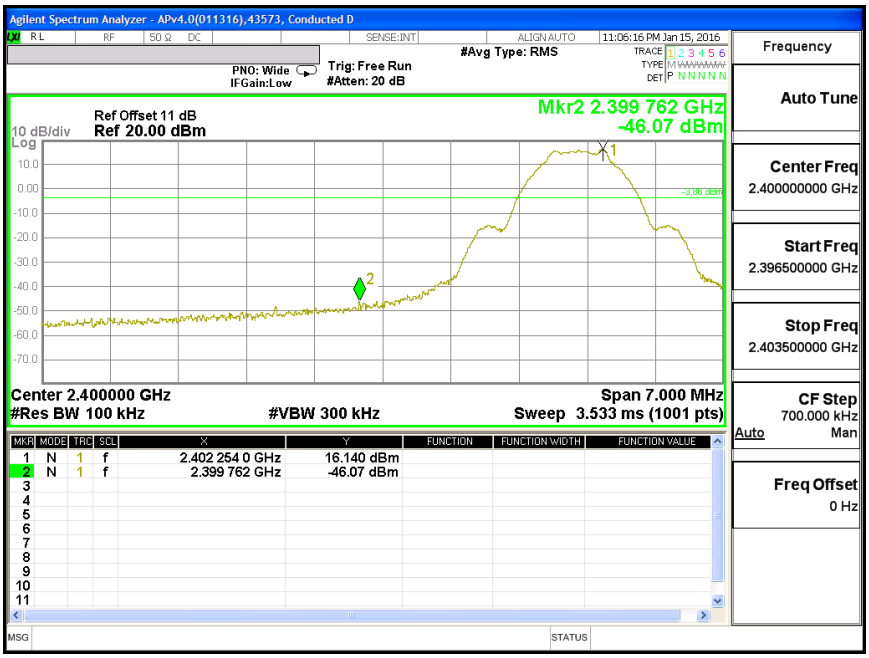
IC RSS-247 (5.5)

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

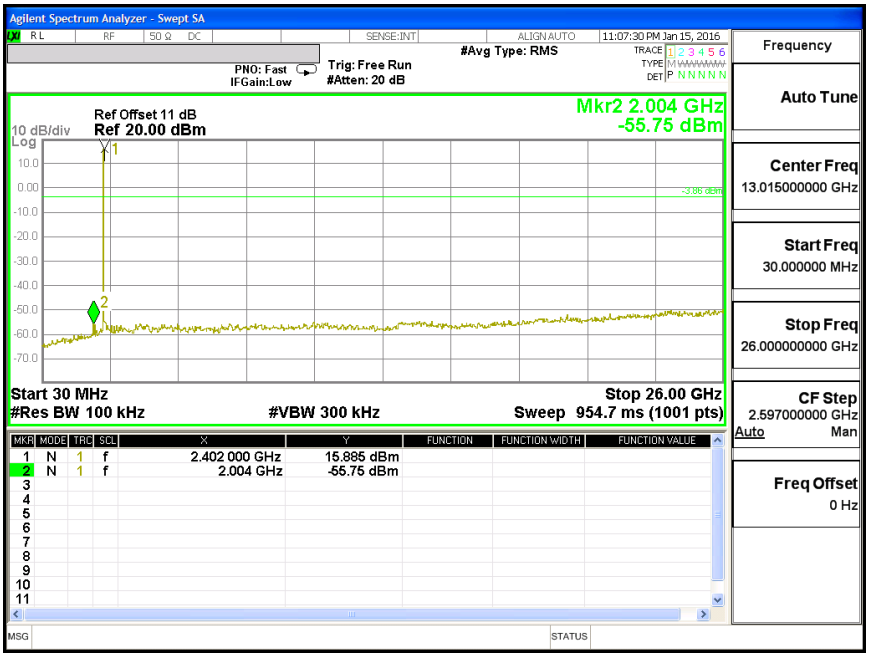
RESULTS

SPURIOUS EMISSIONS, LOW CHANNEL

LOW CH BANDEDGE

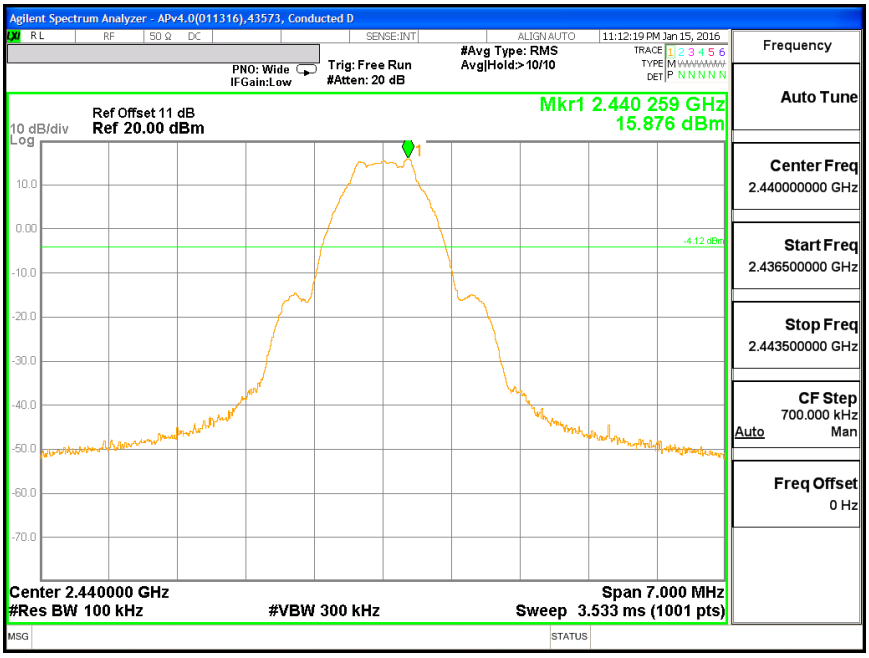


LOW CH SPURIOUS

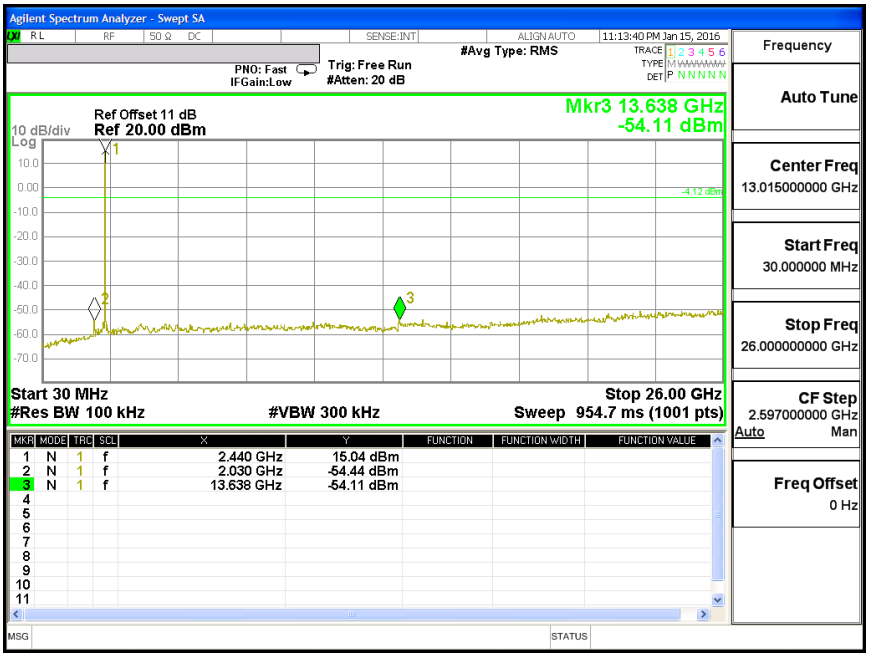


SPURIOUS EMISSIONS, MID CHANNEL

MID CH REFERENCE

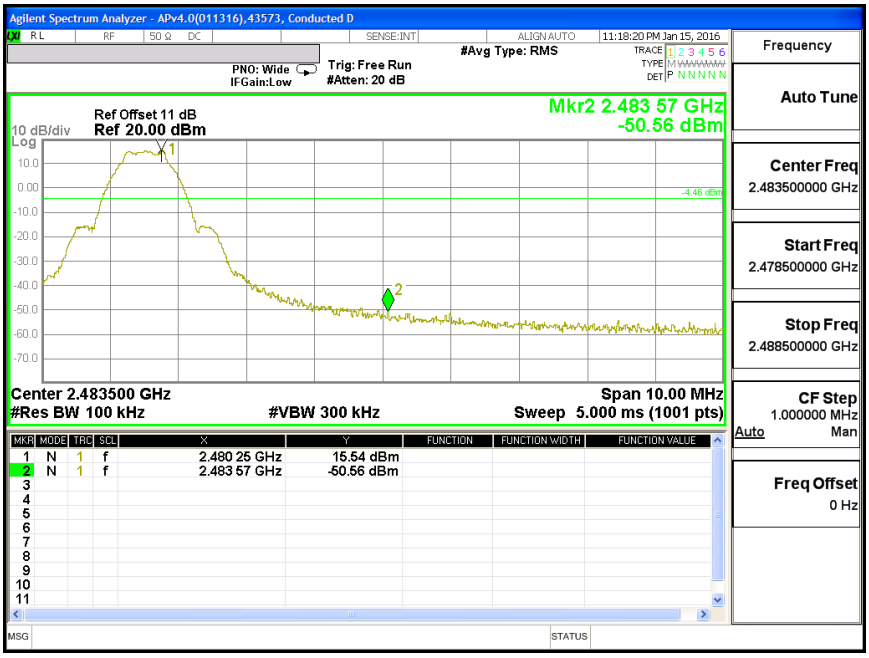


MID CH SPURIOUS

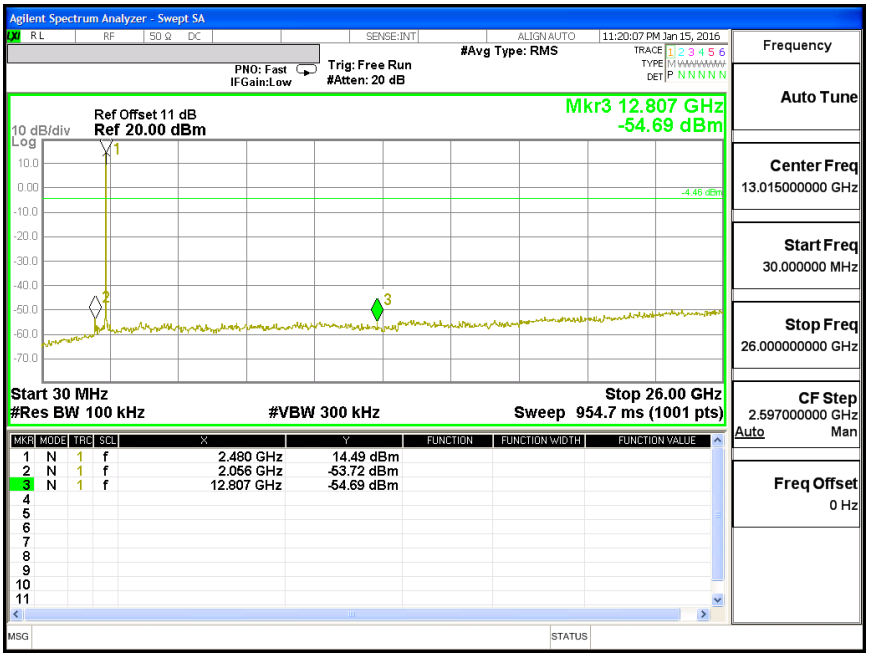


SPURIOUS EMISSIONS, HIGH CHANNEL

HIGH CH BANDEDGE



HIGH CH SPURIOUS



7.4. ANTENNA B LOW POWER MODE

7.4.1. 6 dB BANDWIDTH

LIMITS

FCC §15.247 (a) (2)

IC RSS-247 (5.2) (1)

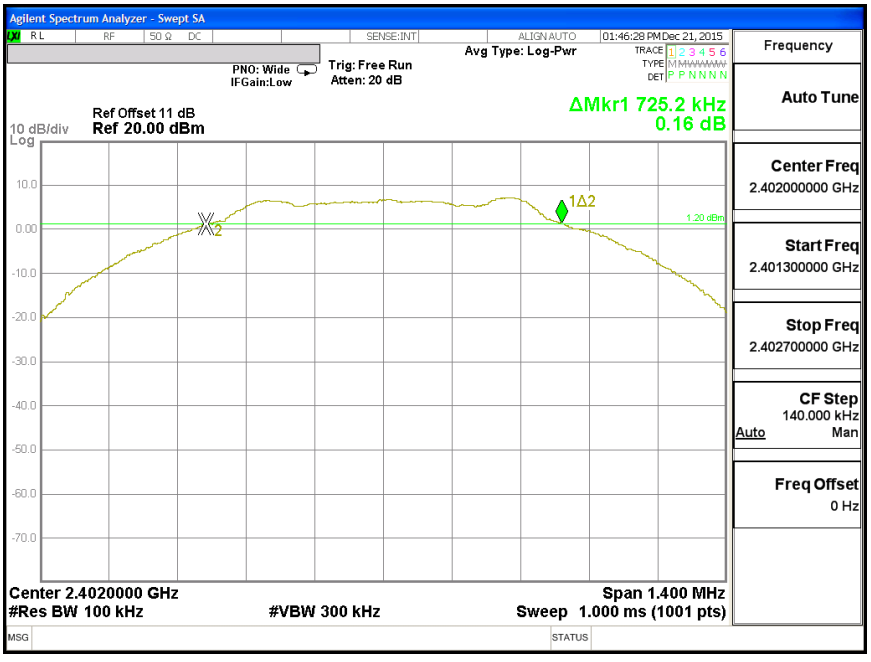
The minimum 6 dB bandwidth shall be at least 500 kHz.

RESULTS

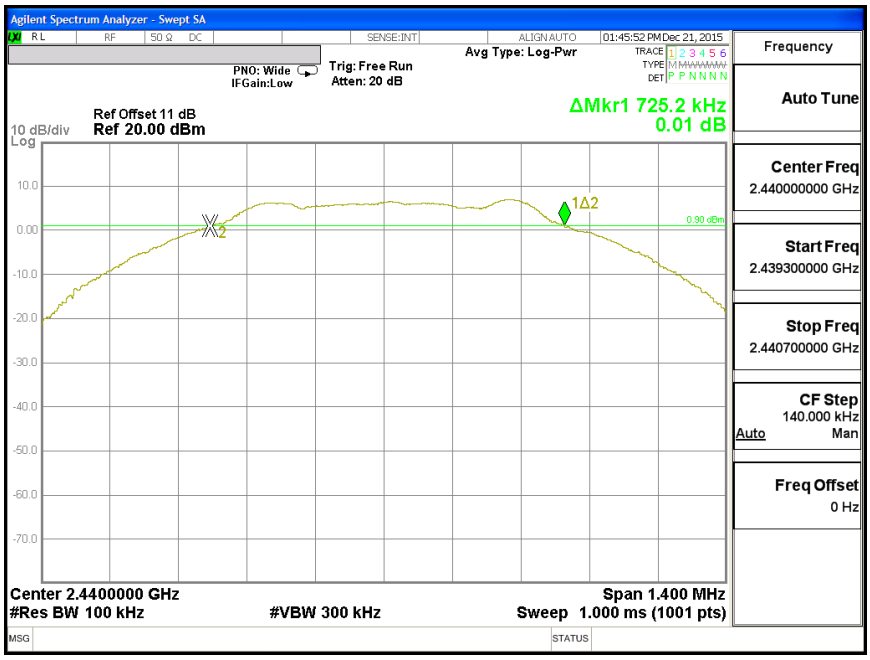
Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Minimum Limit (MHz)
Low	2402	0.725	0.5
Middle	2440	0.725	0.5
High	2480	0.727	0.5

6 dB BANDWIDTH

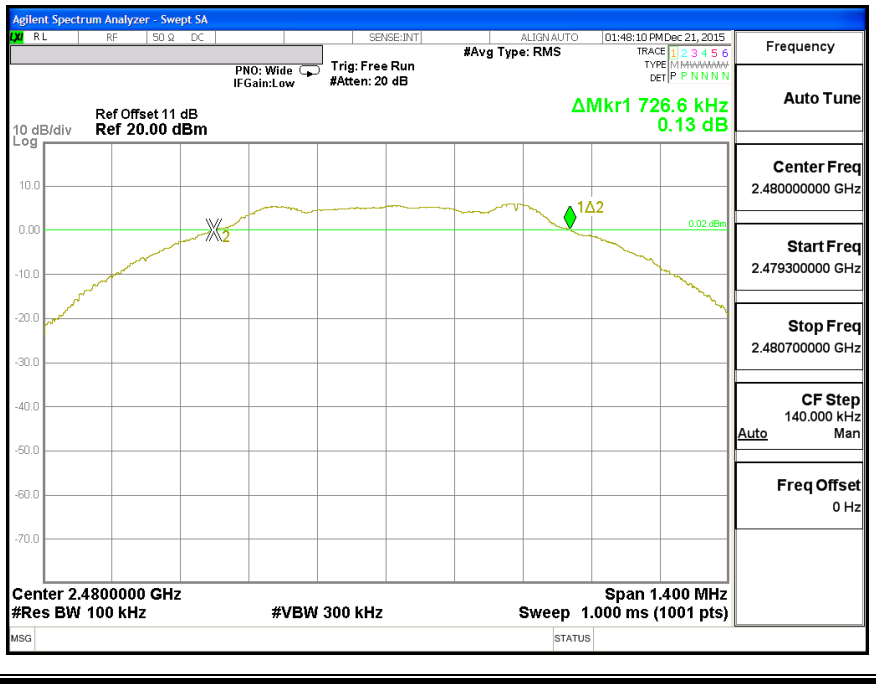
6 dB BANDWIDTH LOW CH



6 dB BANDWIDTH MID CH



6 dB BANDWIDTH HIGH CH



7.4.2. 99% BANDWIDTH

LIMITS

None; for reporting purposes only.

TEST PROCEDURE

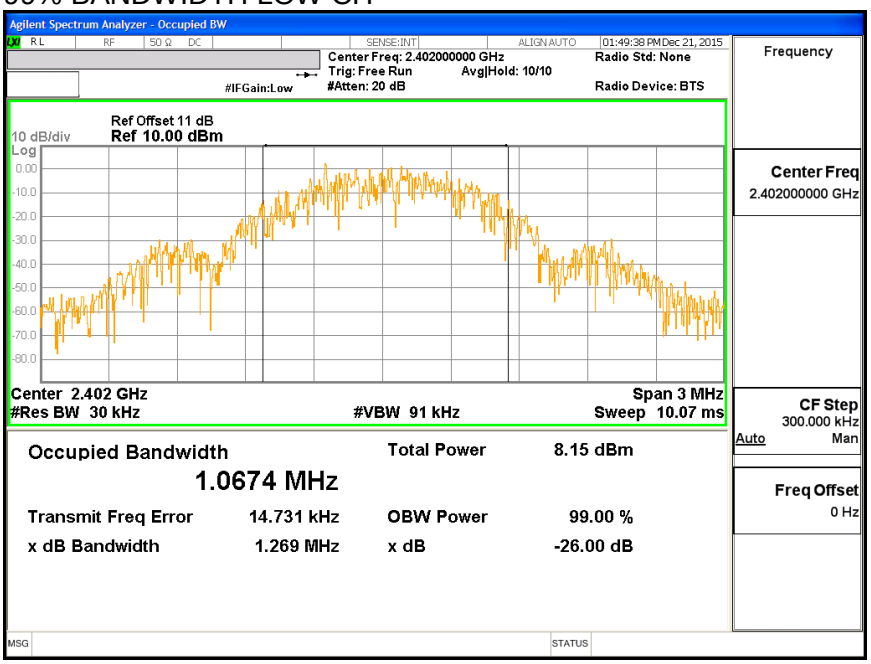
The transmitter output is connected to the spectrum analyzer. The RBW is set to 1% to 3% of the 99 % bandwidth and to 1% of the span. The VBW is set to 3 times the RBW. The sweep time is coupled. The spectrum analyzer internal 99% bandwidth function is utilized.

RESULTS

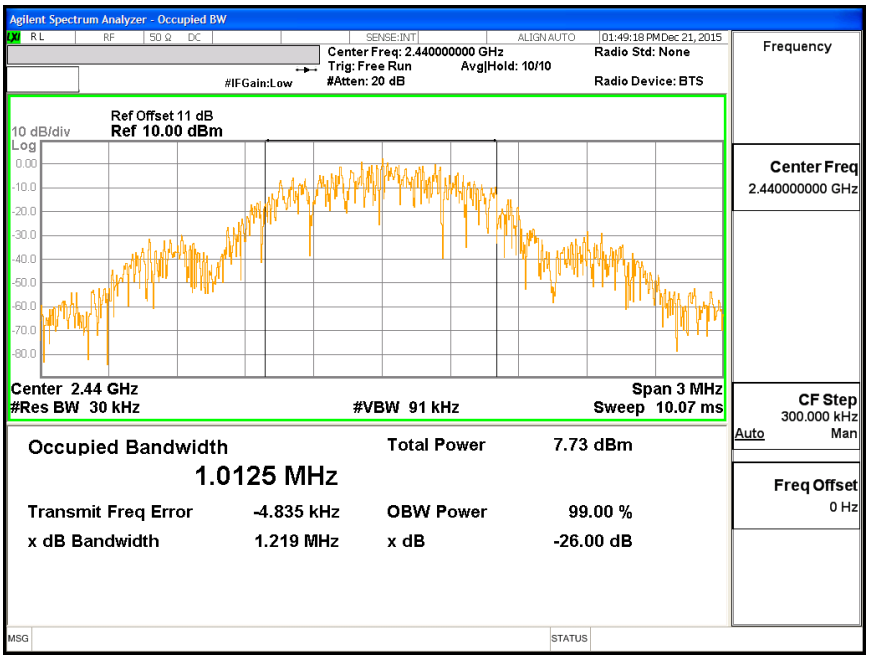
Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	2402	1.0674
Middle	2440	1.0125
High	2480	1.0366

99% BANDWIDTH

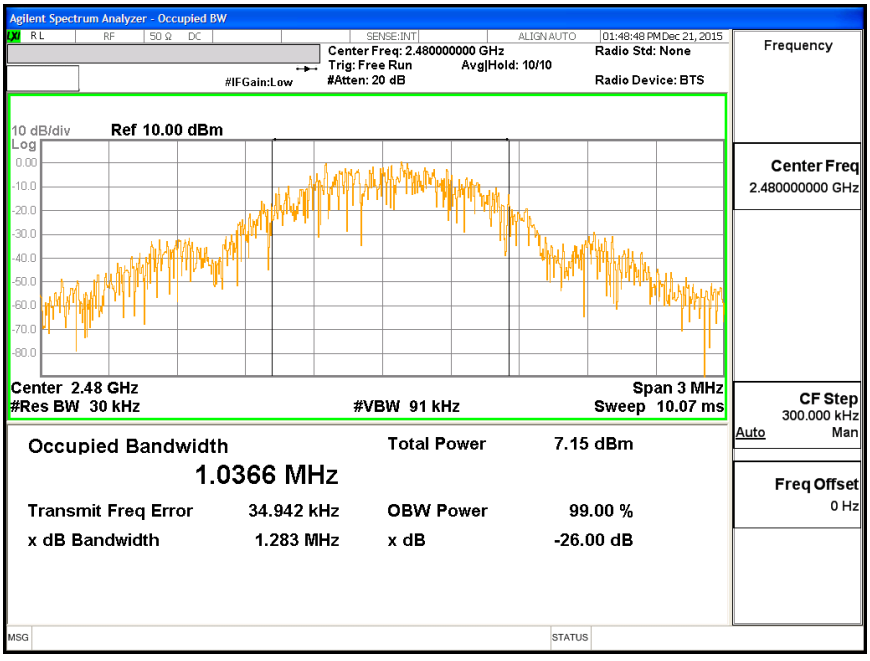
99% BANDWIDTH LOW CH



99% BANDWIDTH MID CH



99% BANDWIDTH HIGH CH



7.4.3. AVERAGE POWER

LIMITS

None; for reporting purposes only.

RESULTS

The cable assembly insertion loss of 11 dB (including 10 dB pad and 1 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	8.68
Middle	2440	8.65
High	2480	8.62

7.4.4. 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.

RESULTS

Channel	Frequency (MHz)	Peak Power Reading (dBm)	Limit (dBm)	Margin (dB)
Low	2402	8.97	30	-21.030
Middle	2440	8.91	30	-21.090
High	2480	8.85	30	-21.150

7.4.5. POWER SPECTRAL DENSITY

LIMITS

FCC §15.247 (e)

IC RSS-247 (5.2) (2)

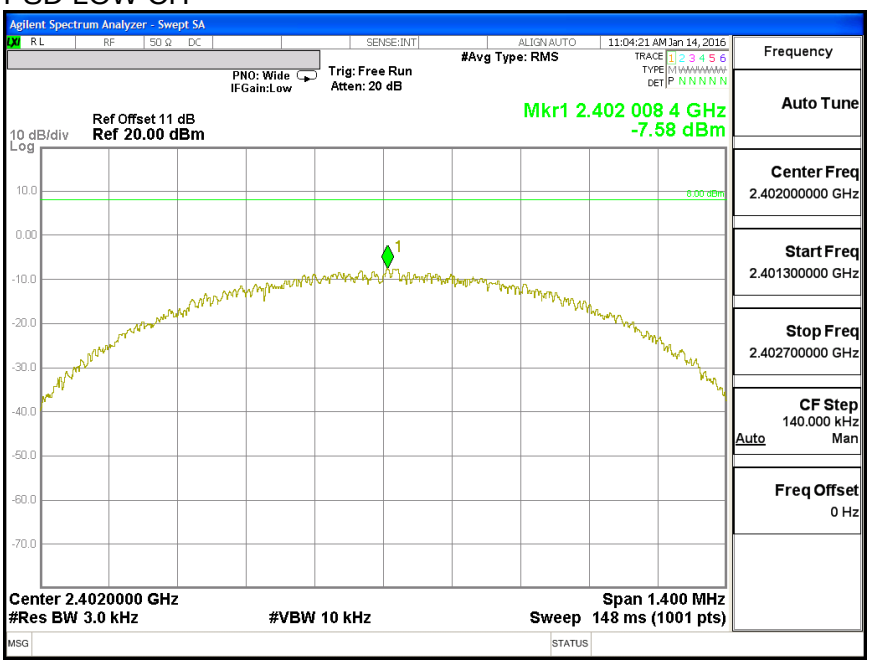
The power spectral density conducted from the transmitter to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission.

RESULTS

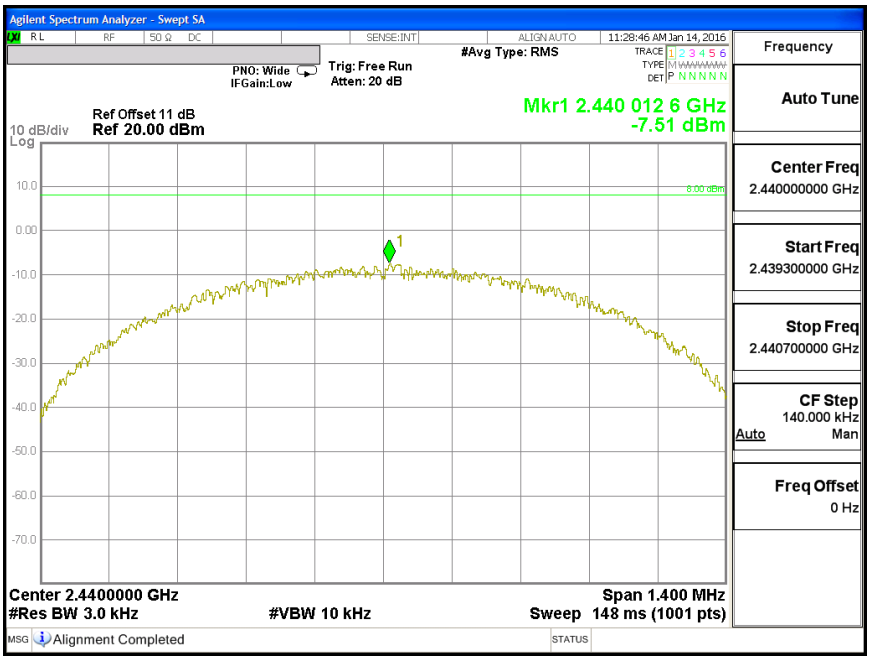
Channel	Frequency (MHz)	PSD (dBm)	Limit (dBm)	Margin (dB)
Low	2402	-7.58	8	-15.58
Middle	2440	-7.51	8	-15.51
High	2480	-7.62	8	-15.62

POWER SPECTRAL DENSITY

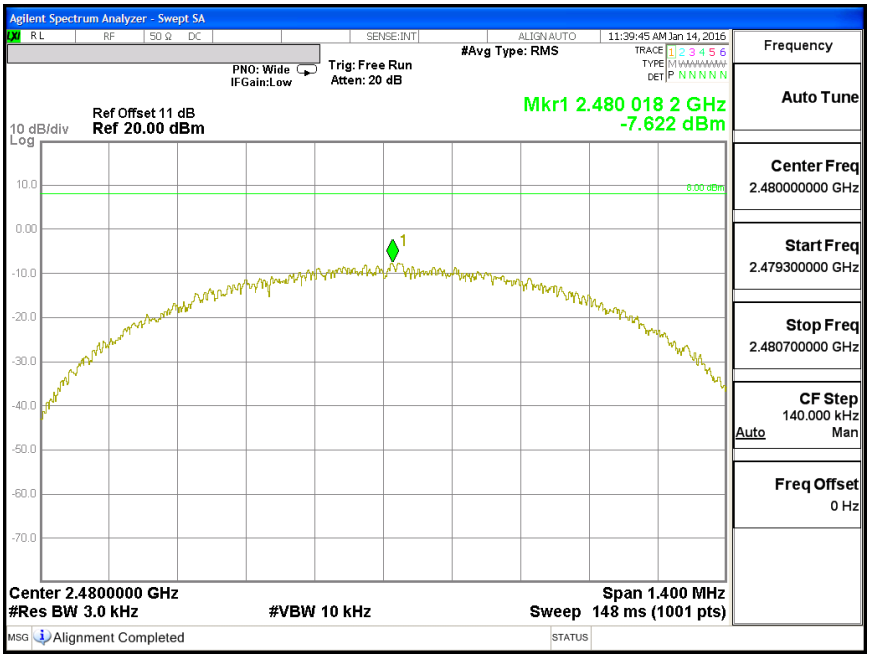
PSD LOW CH



PSD MID CH



PSD HIGH CH



7.4.6. CONDUCTED SPURIOUS EMISSIONS

LIMITS

FCC §15.247 (d)

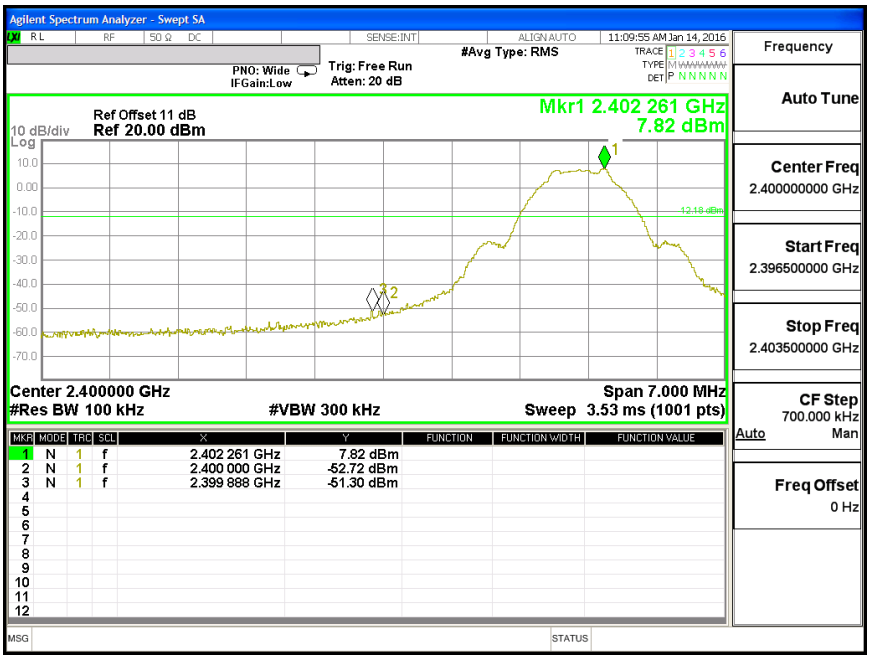
IC RSS-247 (5.5)

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

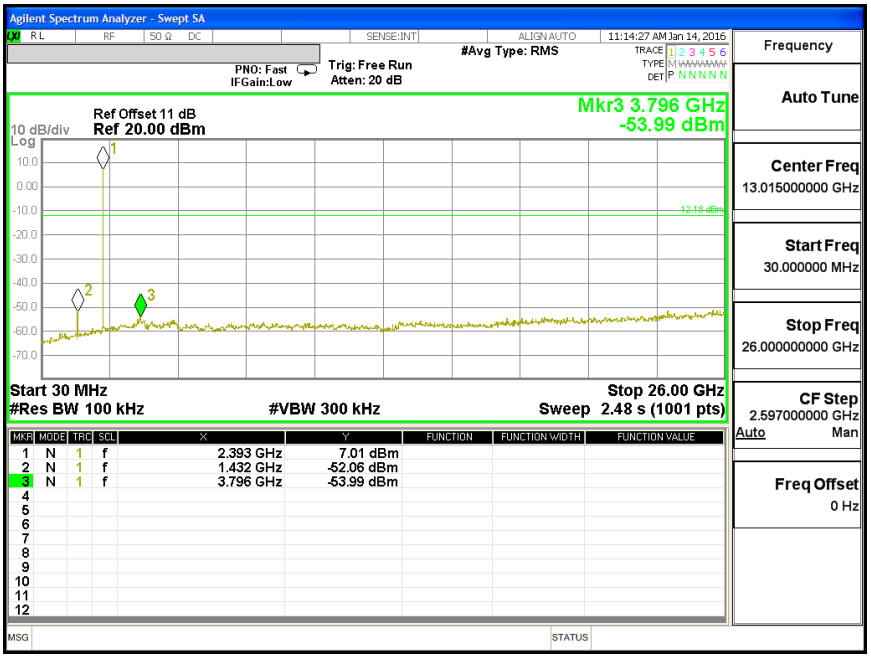
RESULTS

SPURIOUS EMISSIONS, LOW CHANNEL

LOW CH BANDEDGE

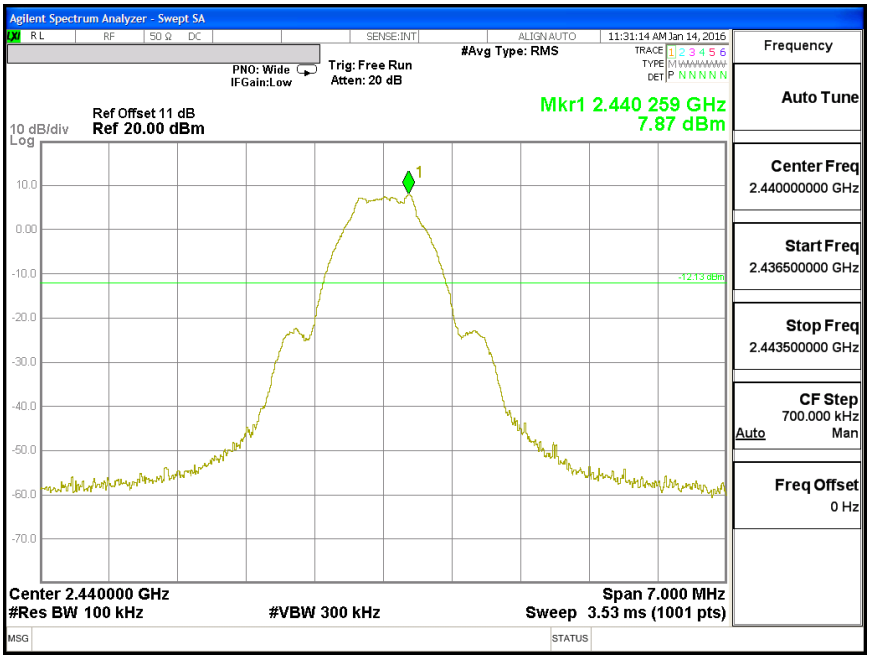


LOW CH SPURIOUS

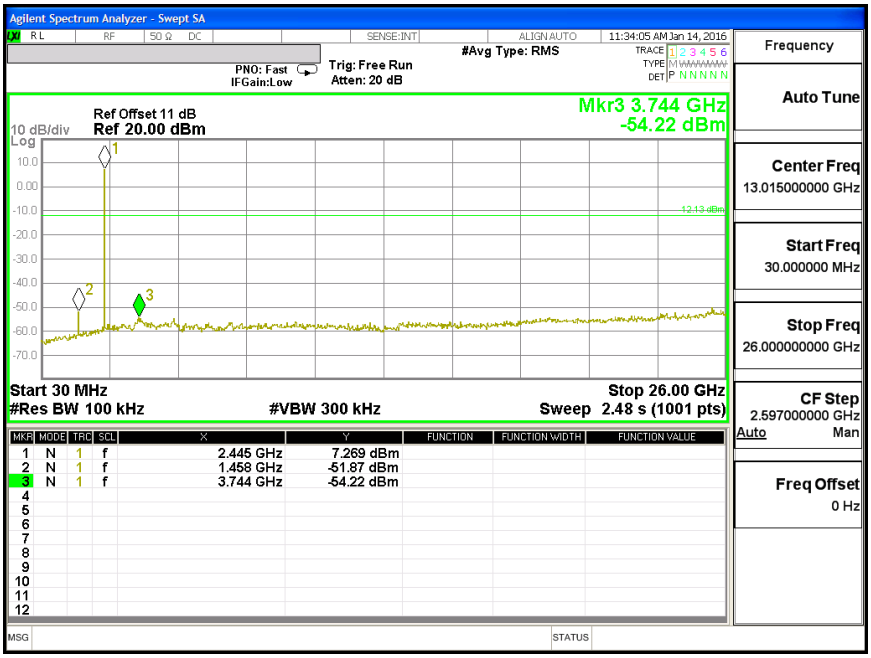


SPURIOUS EMISSIONS, MID CHANNEL

MID CH REFERENCE

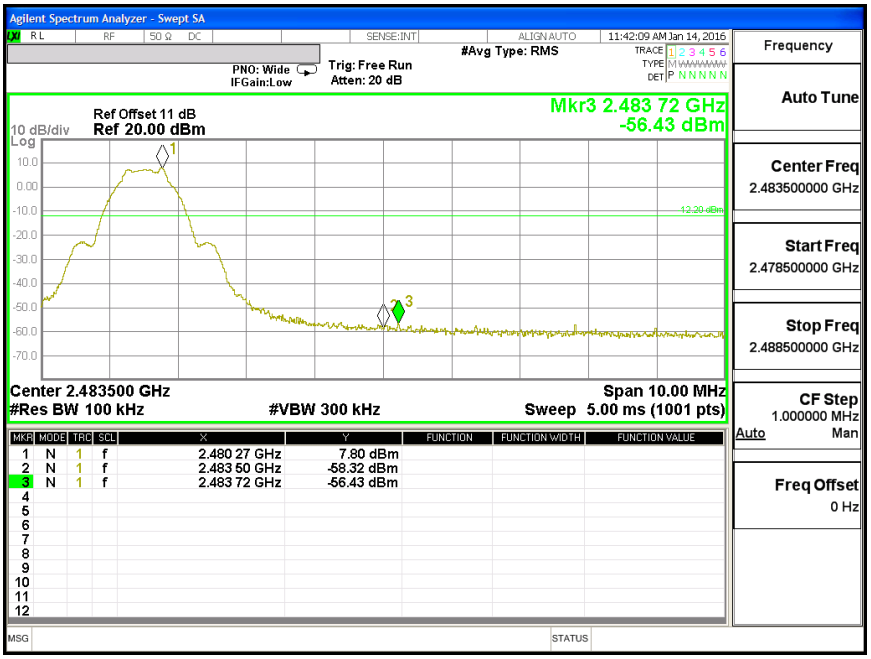


MID CH SPURIOUS

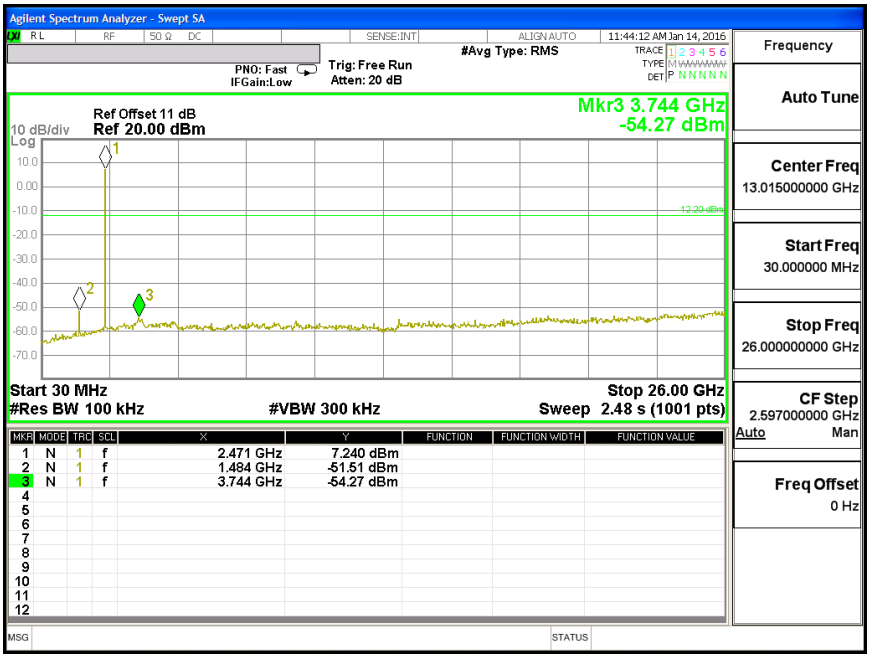


SPURIOUS EMISSIONS, HIGH CHANNEL

HIGH CH BANDEDGE



HIGH CH SPURIOUS



7.5. ANTENNA C HIGH POWER MODE

7.5.1. 6 dB BANDWIDTH

LIMITS

FCC §15.247 (a) (2)

IC RSS-247 (5.2) (1)

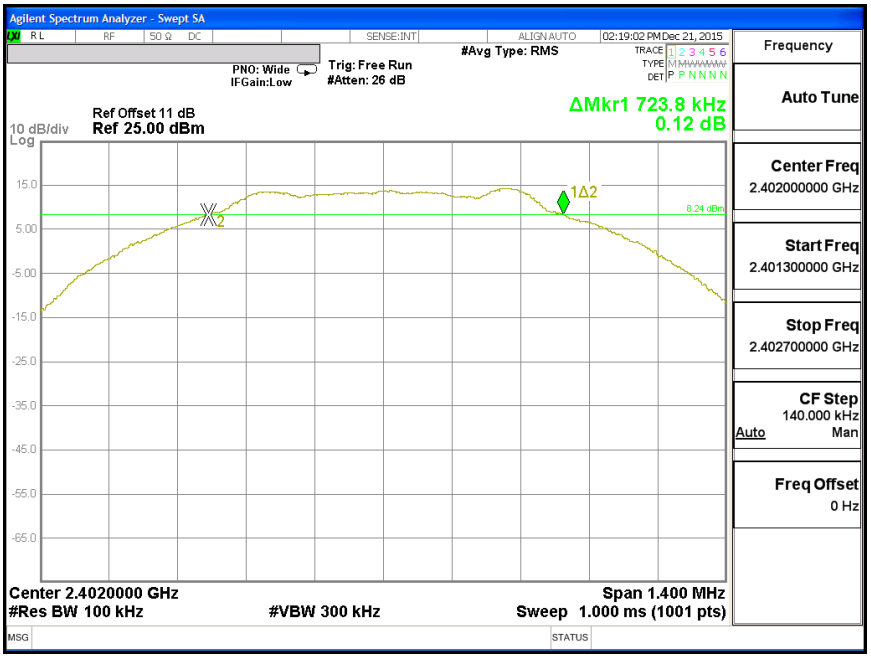
The minimum 6 dB bandwidth shall be at least 500 kHz.

RESULTS

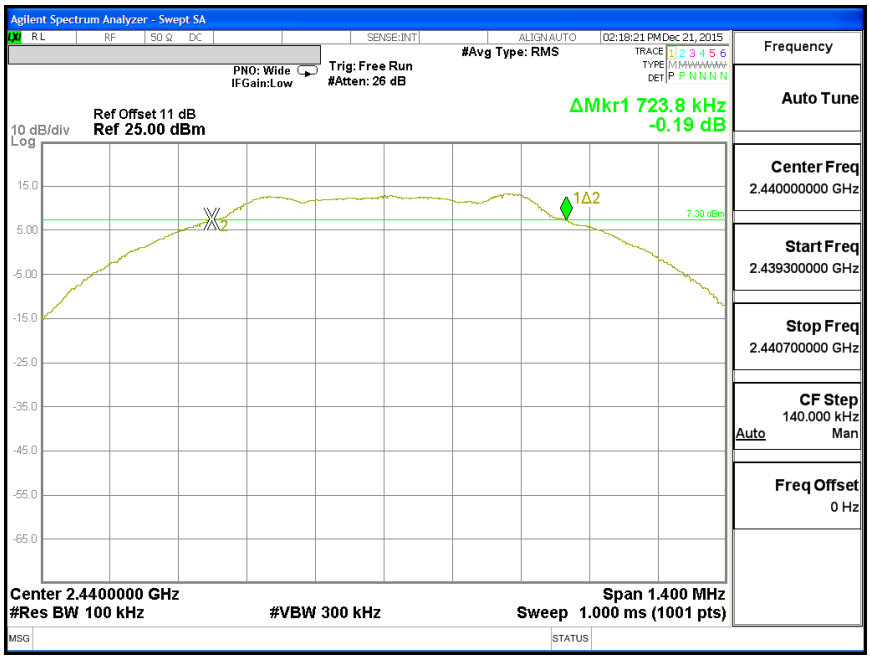
Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Minimum Limit (MHz)
Low	2402	0.724	0.5
Middle	2440	0.724	0.5
High	2480	0.727	0.5

6 dB BANDWIDTH

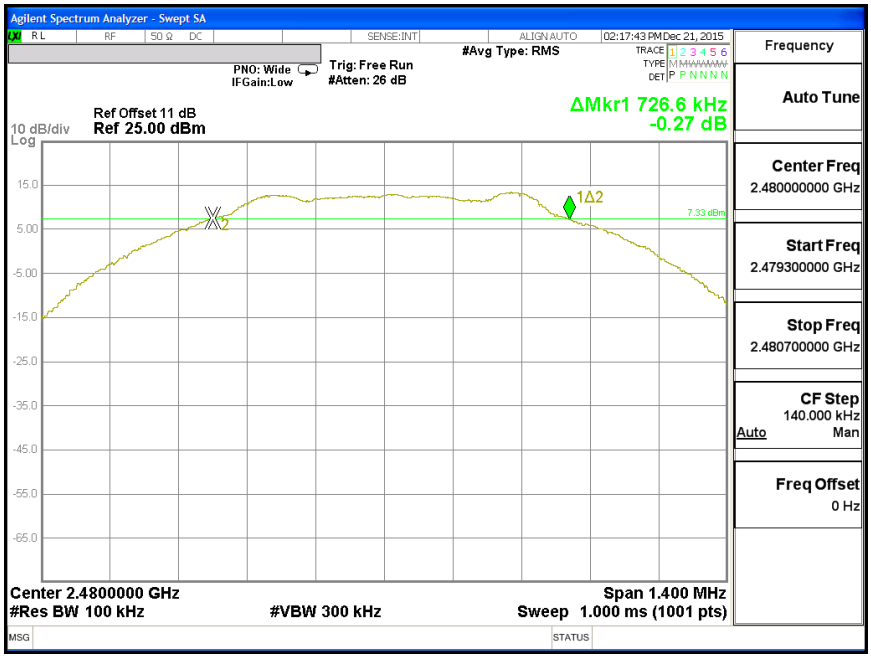
6 dB BANDWIDTH LOW CH



6 dB BANDWIDTH MID CH



6 dB BANDWIDTH HIGH CH



7.5.2. 99% BANDWIDTH

LIMITS

None; for reporting purposes only.

TEST PROCEDURE

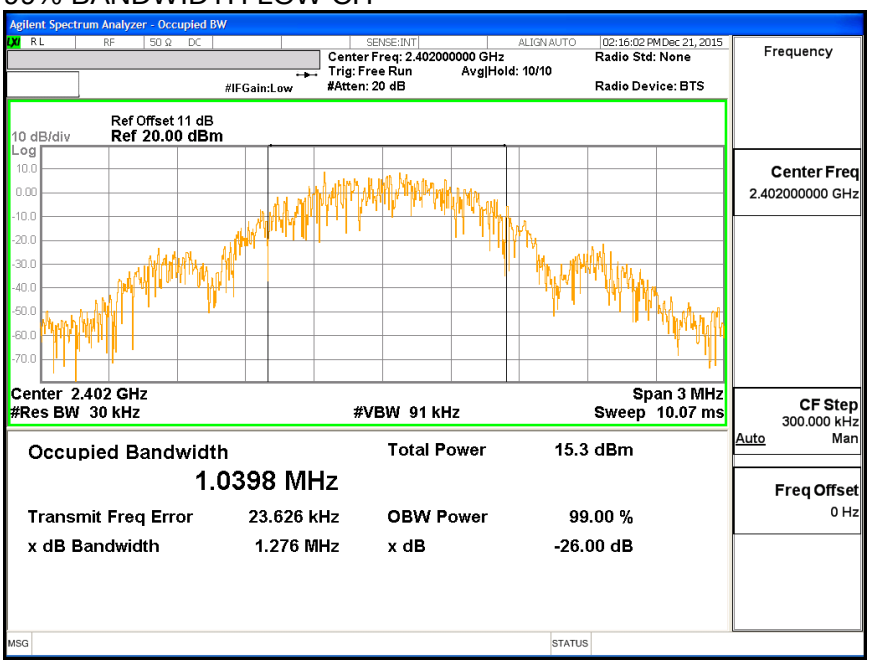
The transmitter output is connected to the spectrum analyzer. The RBW is set to 1% to 3% of the 99 % bandwidth and to 1% of the span. The VBW is set to 3 times the RBW. The sweep time is coupled. The spectrum analyzer internal 99% bandwidth function is utilized.

RESULTS

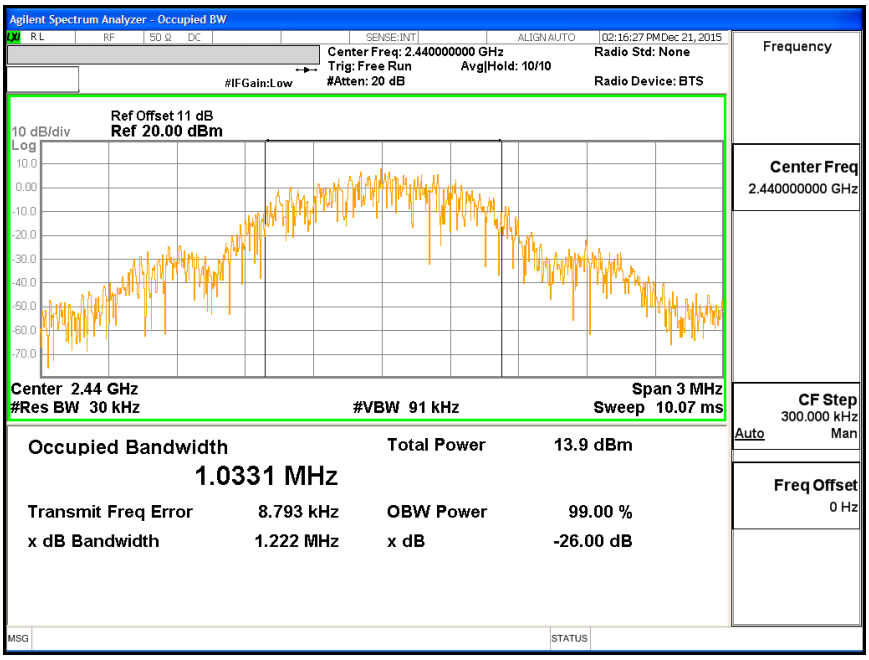
Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	2402	1.0398
Middle	2440	1.0331
High	2480	1.0752

99% BANDWIDTH

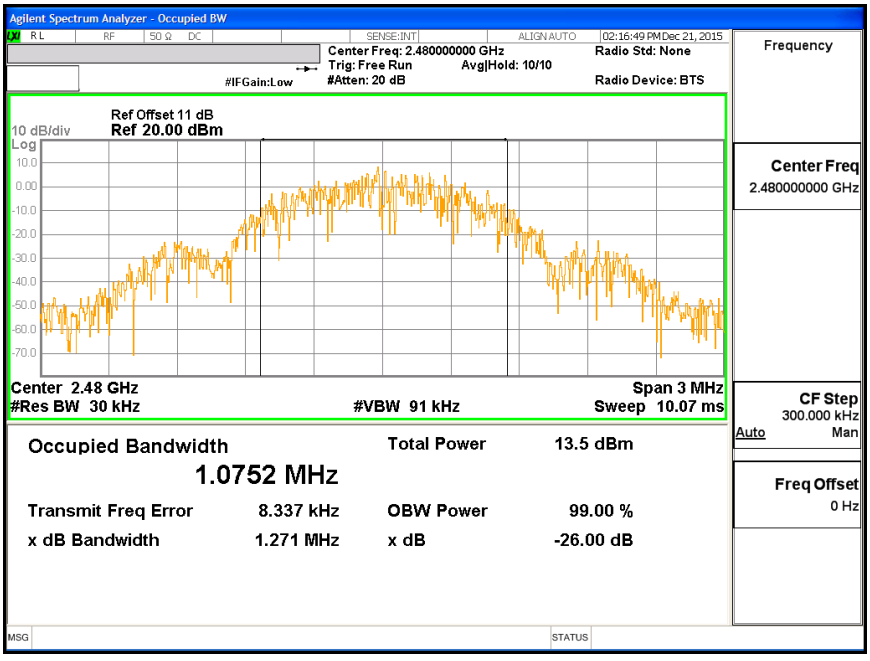
99% BANDWIDTH LOW CH



99% BANDWIDTH MID CH



99% BANDWIDTH HIGH CH



7.5.3. AVERAGE POWER

LIMITS

None; for reporting purposes only.

RESULTS

The cable assembly insertion loss of 11 dB (including 10 dB pad and 1 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	15.49
Middle	2440	15.22
High	2480	15.21

7.5.4. 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.

RESULTS

Channel	Frequency (MHz)	Peak Power Reading (dBm)	Limit (dBm)	Margin (dB)
Low	2402	15.87	30	-14.130
Middle	2440	15.61	30	-14.390
High	2480	15.57	30	-14.430

7.5.5. POWER SPECTRAL DENSITY

LIMITS

FCC §15.247 (e)

IC RSS-247 (5.2) (2)

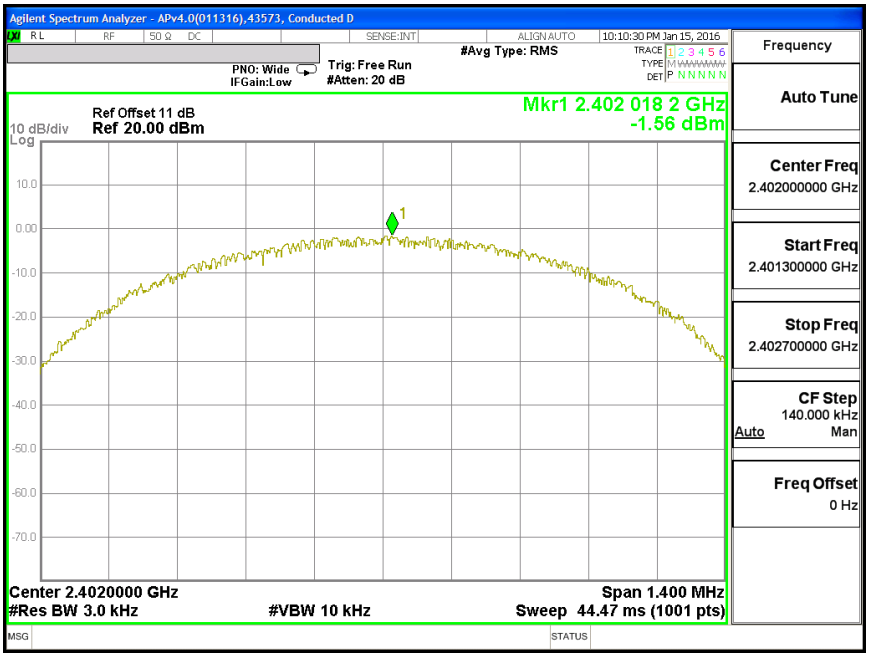
The power spectral density conducted from the transmitter to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission.

RESULTS

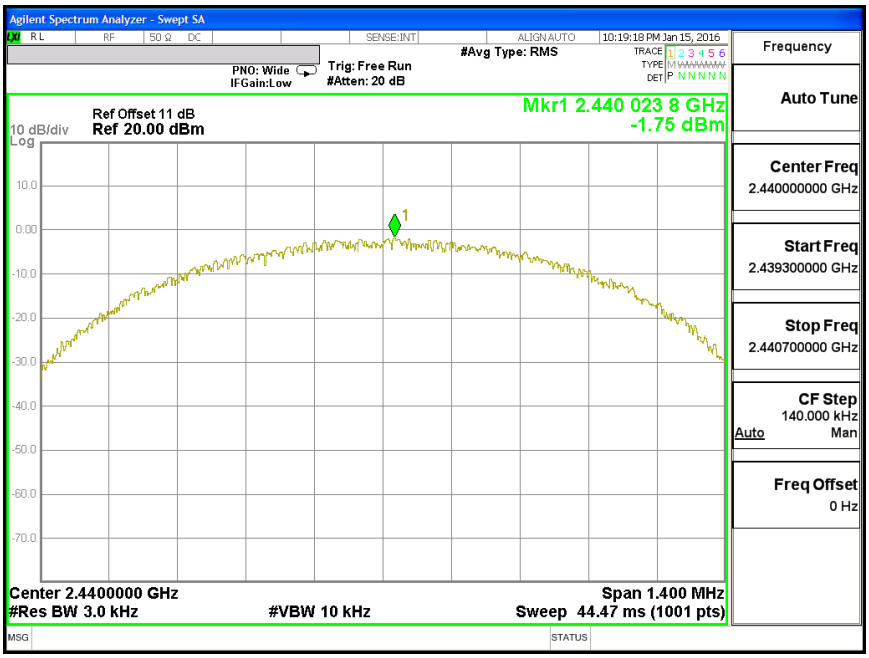
Channel	Frequency (MHz)	PSD (dBm)	Limit (dBm)	Margin (dB)
Low	2402	-1.56	8	-9.56
Middle	2440	-1.75	8	-9.75
High	2480	-1.77	8	-9.77

POWER SPECTRAL DENSITY

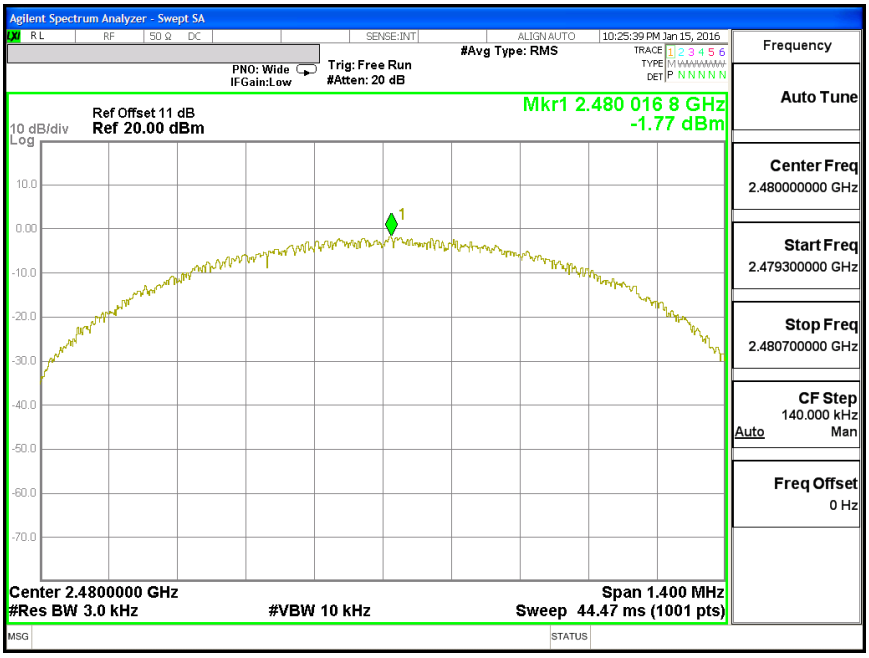
PSD LOW CH



PSD MID CH



PSD HIGH CH



7.5.6. CONDUCTED SPURIOUS EMISSIONS

LIMITS

FCC §15.247 (d)

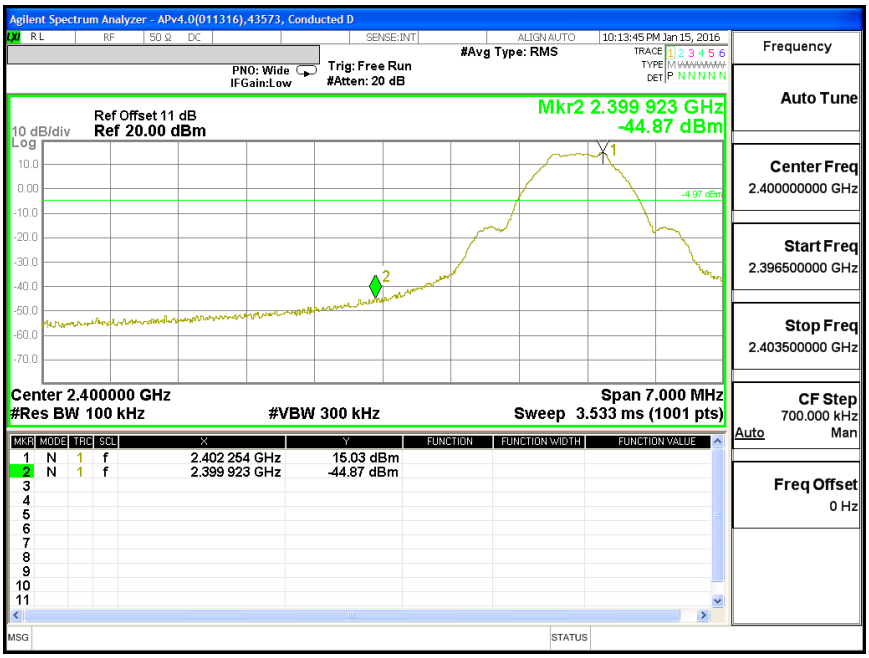
IC RSS-247 (5.5)

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

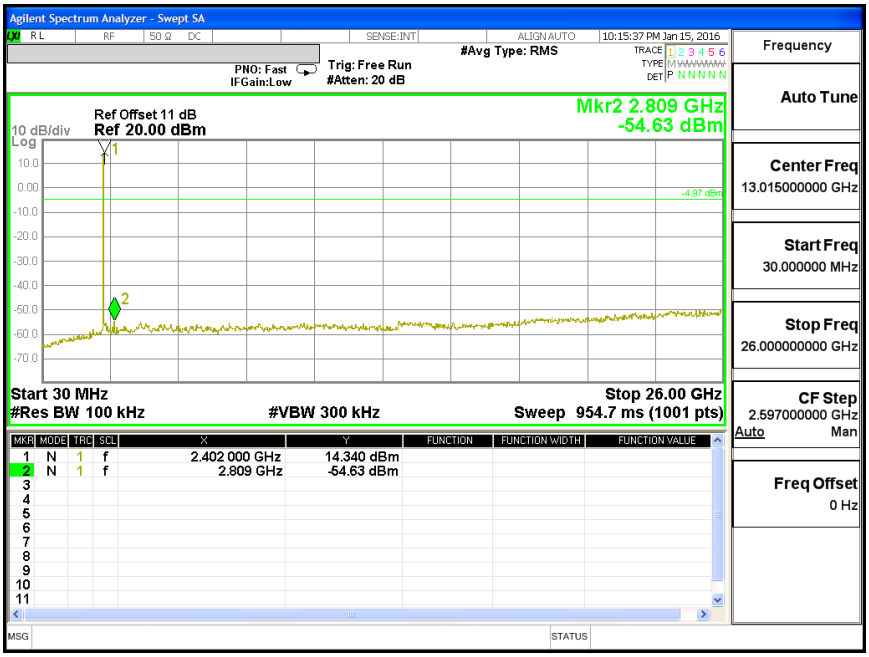
RESULTS

SPURIOUS EMISSIONS, LOW CHANNEL

LOW CH BANDEDGE

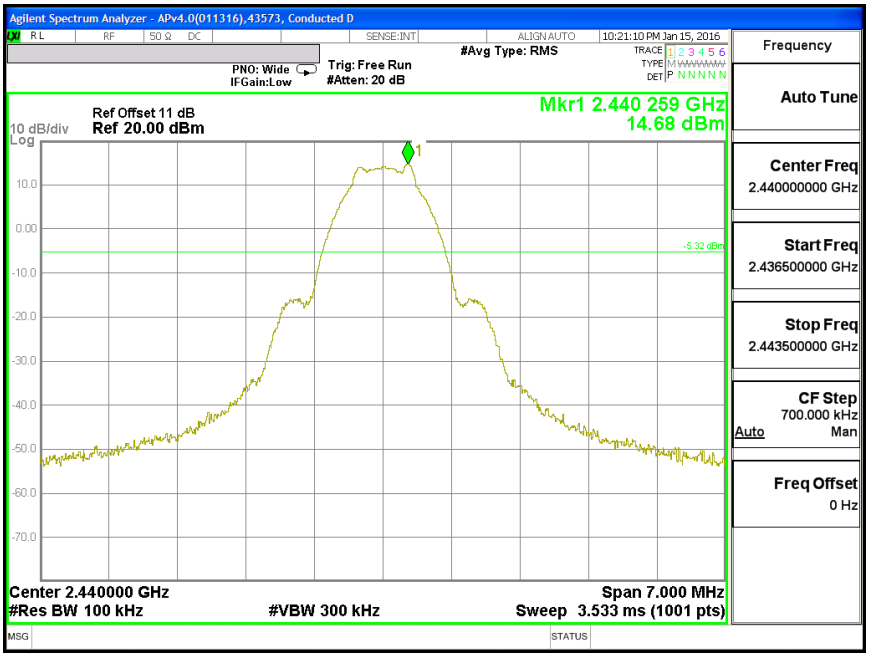


LOW CH SPURIOUS

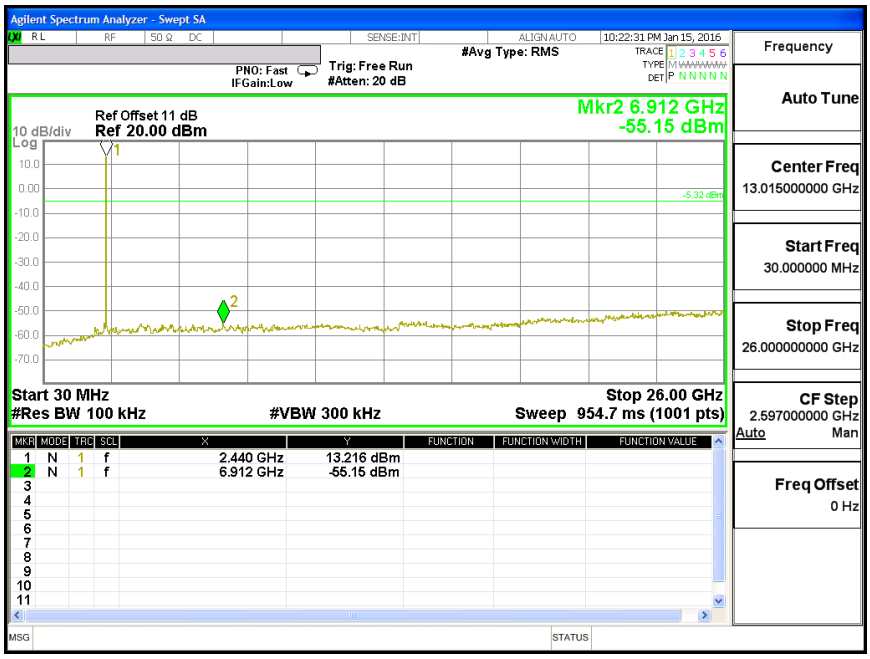


SPURIOUS EMISSIONS, MID CHANNEL

MID CH REFERENCE

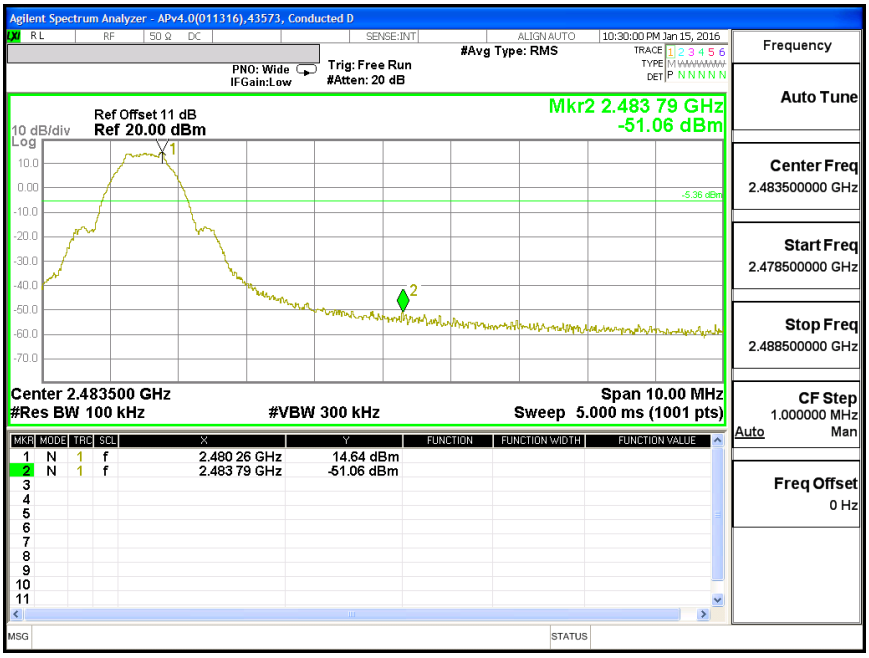


MID CH SPURIOUS

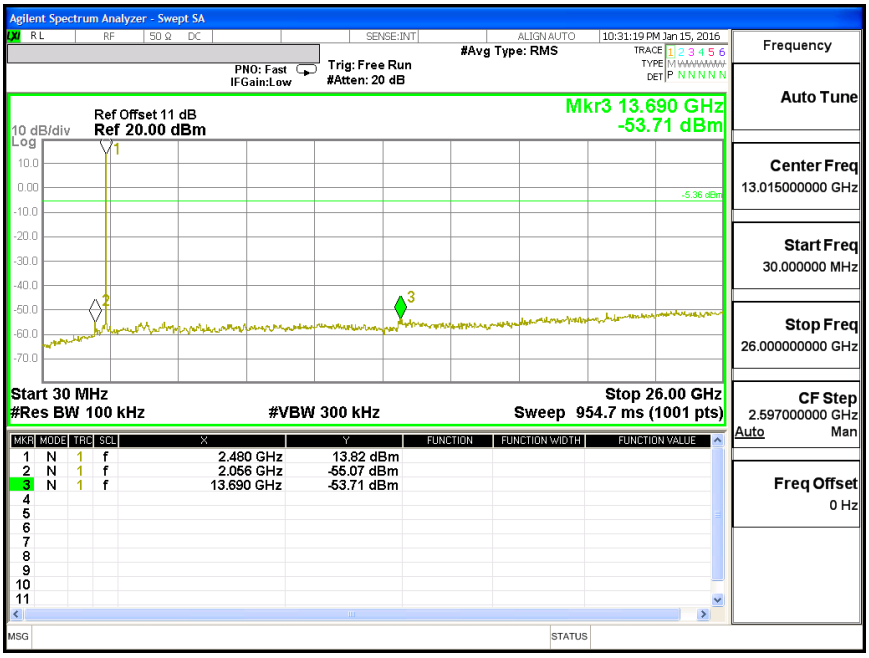


SPURIOUS EMISSIONS, HIGH CHANNEL

HIGH CH BANDEDGE



HIGH CH SPURIOUS



7.6. ANTENNA C LOW POWER MODE

7.6.1. 6 dB BANDWIDTH

LIMITS

FCC §15.247 (a) (2)

IC RSS-247 (5.2) (1)

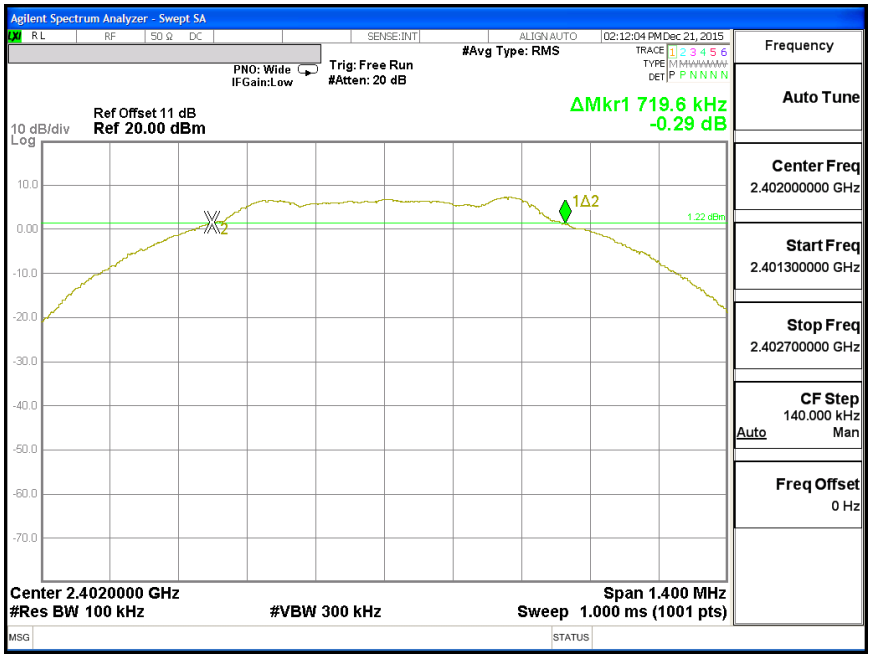
The minimum 6 dB bandwidth shall be at least 500 kHz.

RESULTS

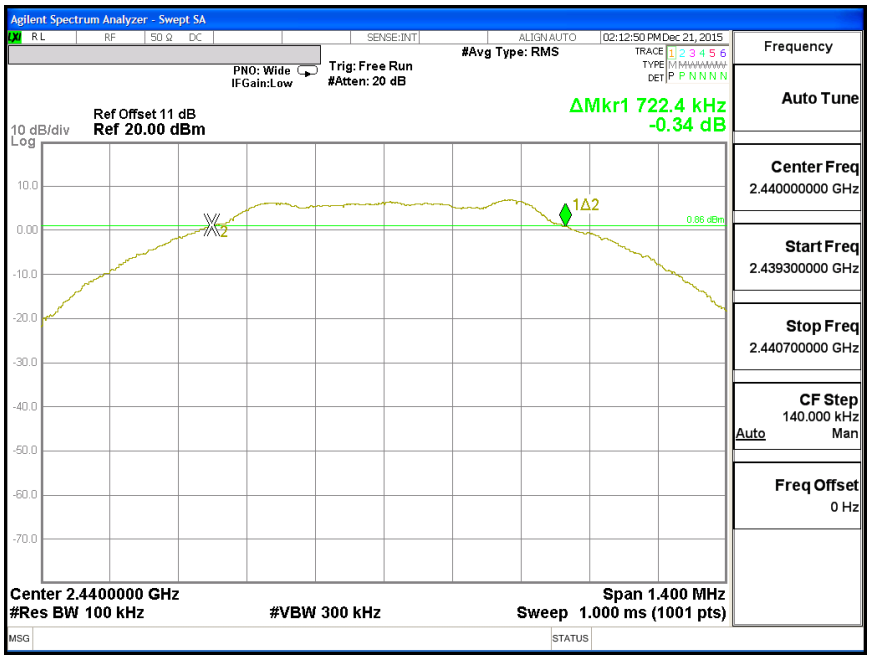
Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Minimum Limit (MHz)
Low	2402	0.720	0.5
Middle	2440	0.722	0.5
High	2480	0.722	0.5

6 dB BANDWIDTH

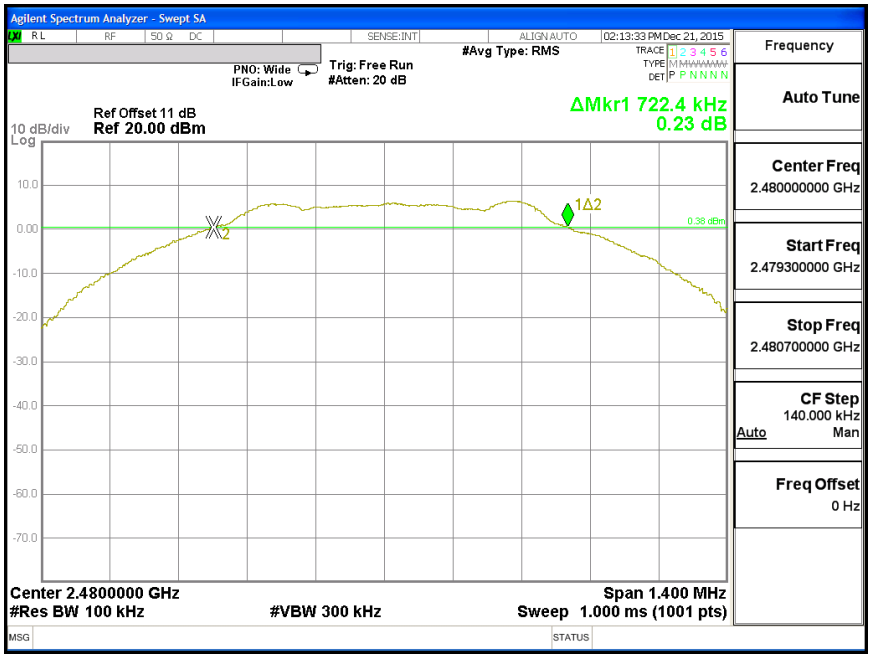
6 dB BANDWIDTH LOW CH



6 dB BANDWIDTH MID CH



6 dB BANDWIDTH HIGH CH



7.6.2. 99% BANDWIDTH

LIMITS

None; for reporting purposes only.

TEST PROCEDURE

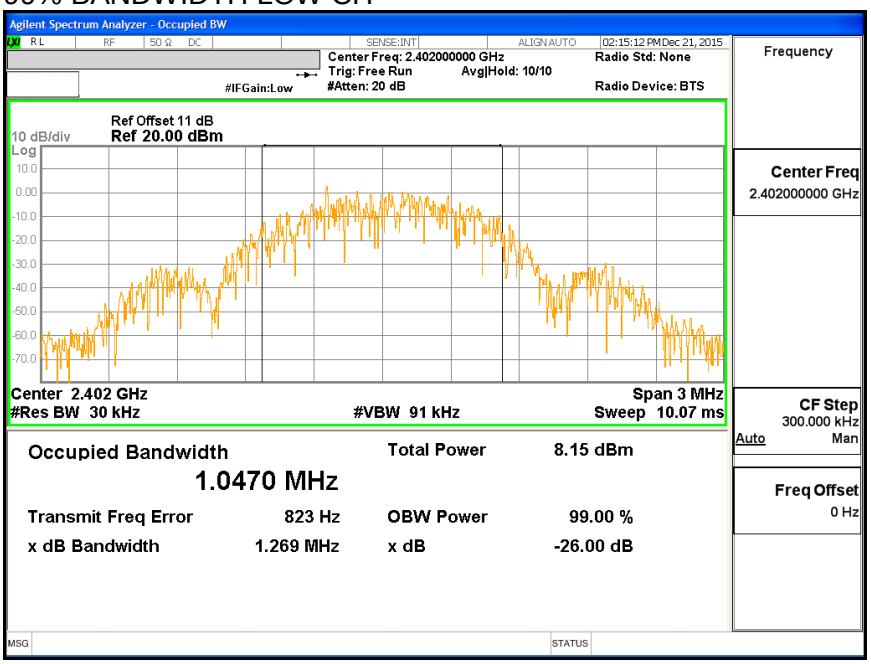
The transmitter output is connected to the spectrum analyzer. The RBW is set to 1% to 3% of the 99 % bandwidth and to 1% of the span. The VBW is set to 3 times the RBW. The sweep time is coupled. The spectrum analyzer internal 99% bandwidth function is utilized.

RESULTS

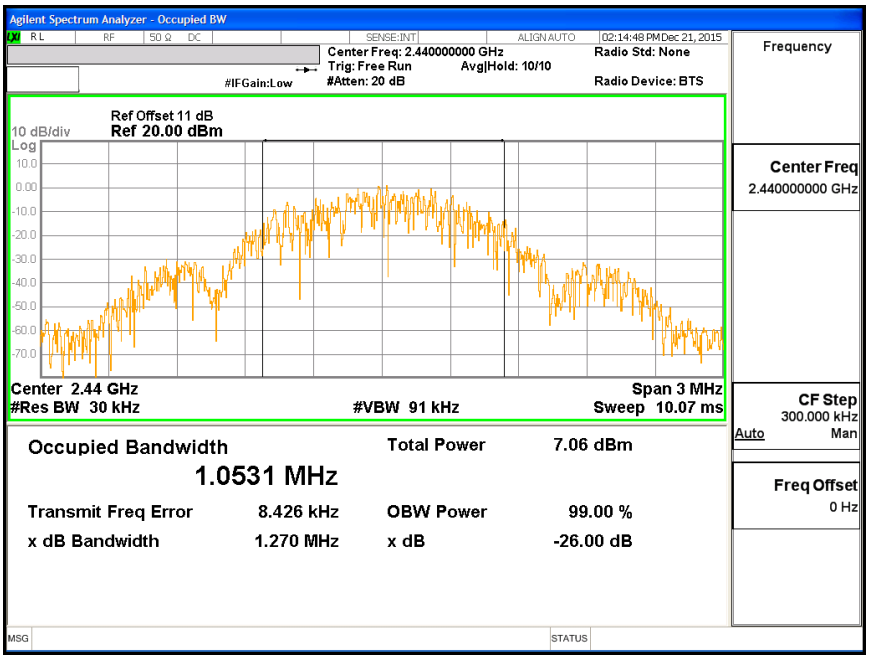
Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	2402	1.0470
Middle	2440	1.0531
High	2480	1.0490

99% BANDWIDTH

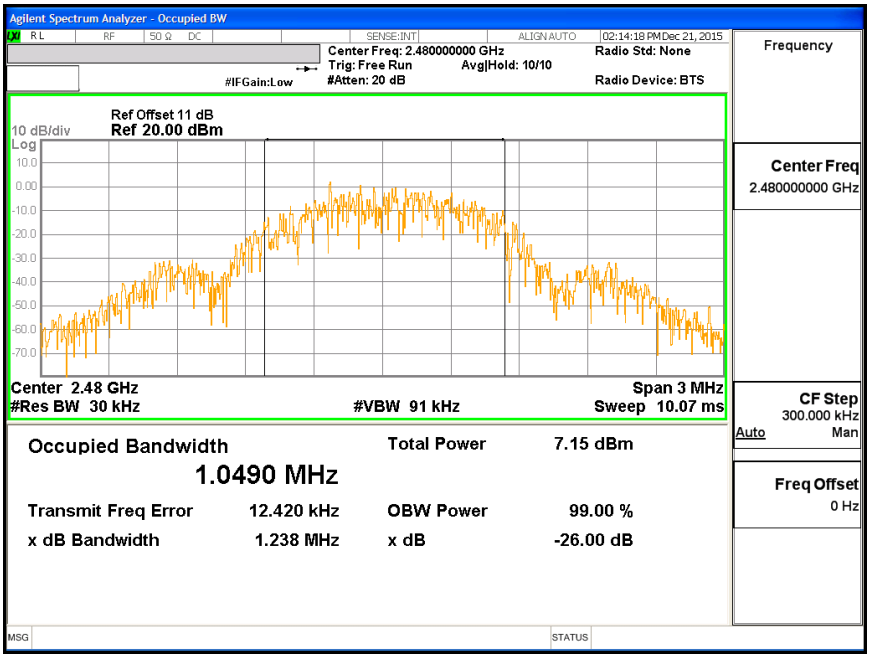
99% BANDWIDTH LOW CH



99% BANDWIDTH MID CH



99% BANDWIDTH HIGH CH



7.6.3. AVERAGE POWER

LIMITS

None; for reporting purposes only.

RESULTS

The cable assembly insertion loss of 11 dB (including 10 dB pad and 1 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	7.44
Middle	2440	7.41
High	2480	7.44

7.6.4. 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.

RESULTS

Channel	Frequency (MHz)	Peak Power Reading (dBm)	Limit (dBm)	Margin (dB)
Low	2402	7.66	30	-22.340
Middle	2440	7.64	30	-22.360
High	2480	7.67	30	-22.330

7.6.5. POWER SPECTRAL DENSITY

LIMITS

FCC §15.247 (e)

IC RSS-247 (5.2) (2)

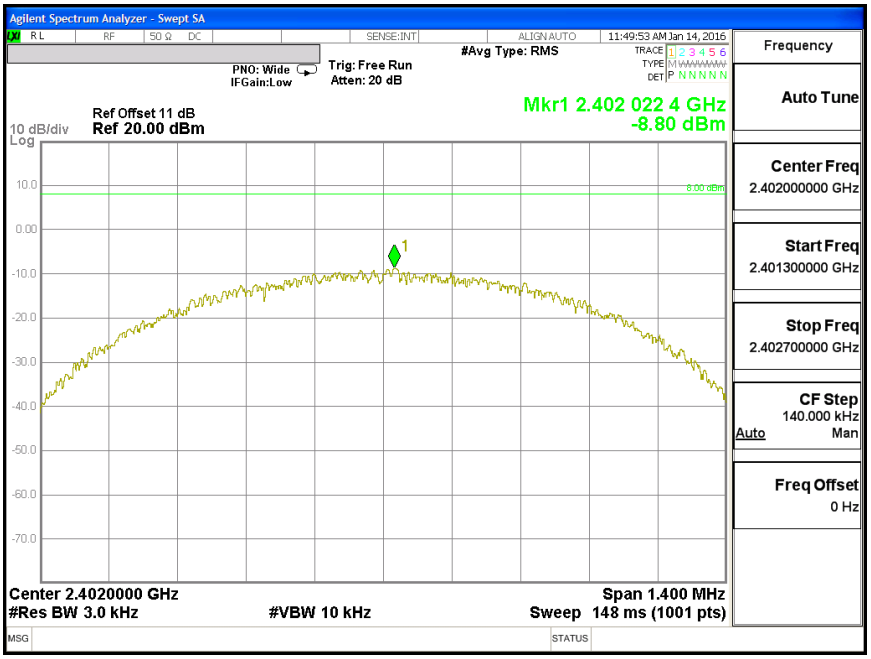
The power spectral density conducted from the transmitter to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission.

RESULTS

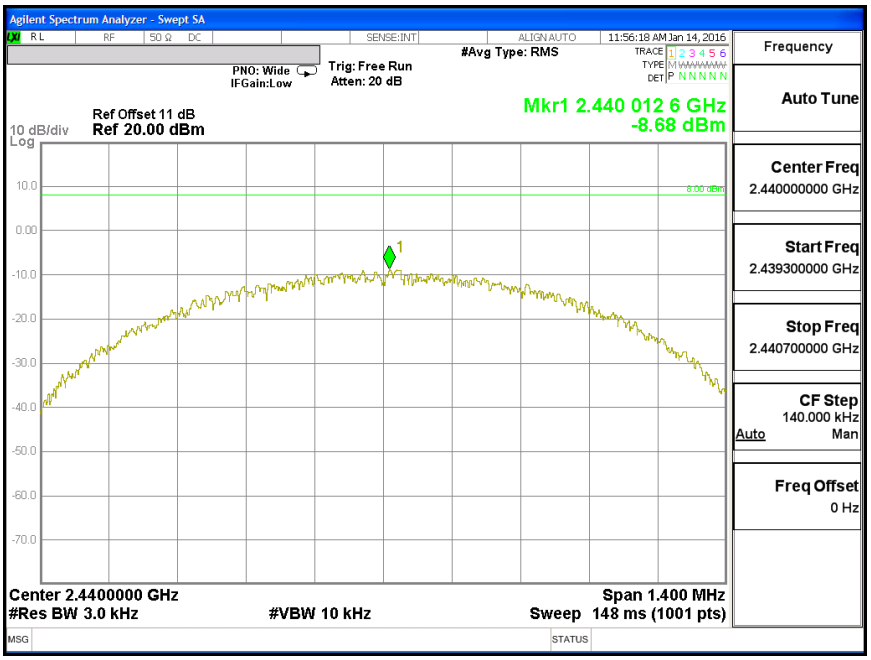
Channel	Frequency (MHz)	PSD (dBm)	Limit (dBm)	Margin (dB)
Low	2402	-8.80	8	-16.80
Middle	2440	-8.68	8	-16.68
High	2480	-8.61	8	-16.61

POWER SPECTRAL DENSITY

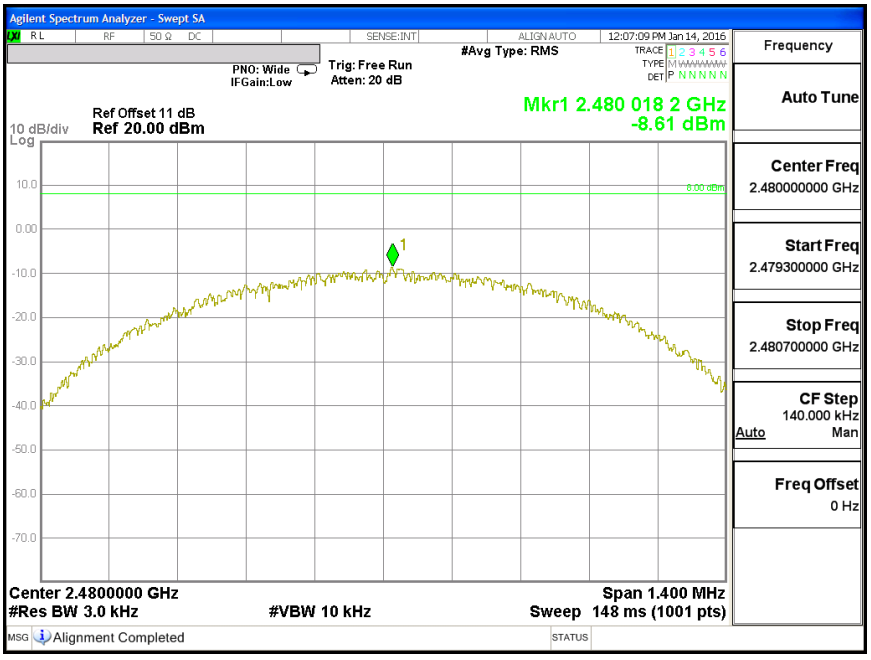
PSD LOW CH



PSD MID CH



PSD HIGH CH



7.6.6. CONDUCTED SPURIOUS EMISSIONS

LIMITS

FCC §15.247 (d)

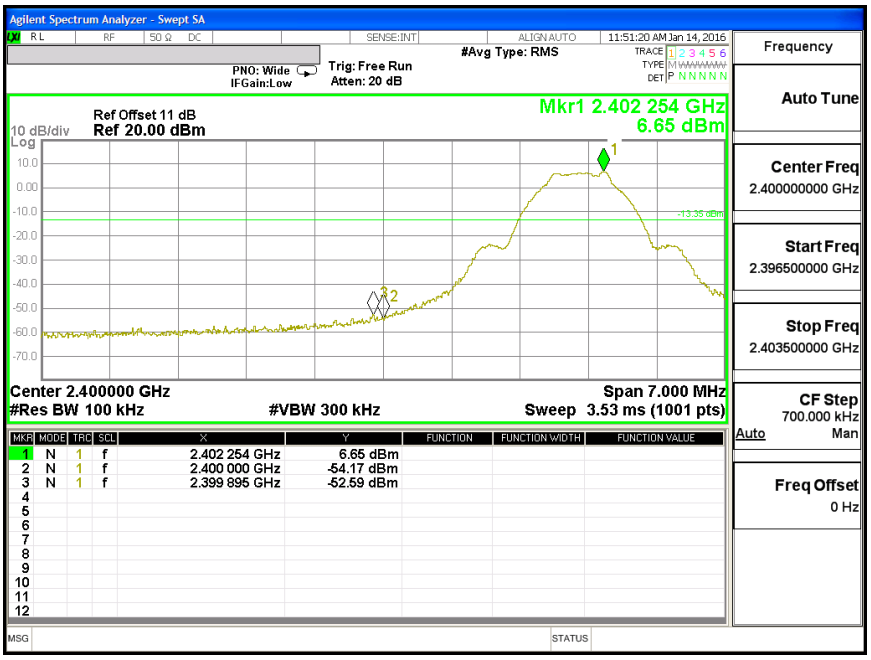
IC RSS-247 (5.5)

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

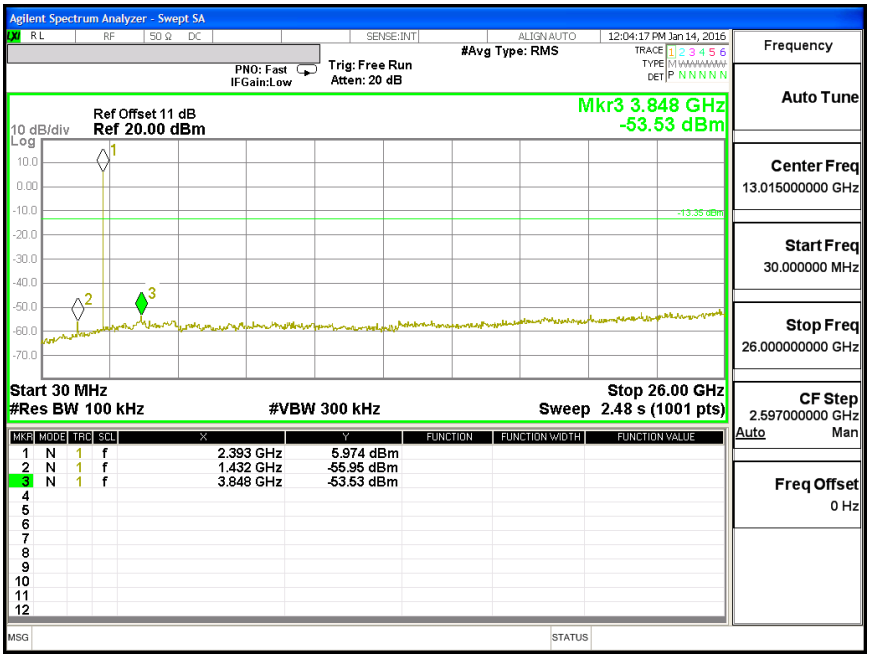
RESULTS

SPURIOUS EMISSIONS, LOW CHANNEL

LOW CH BANDEDGE

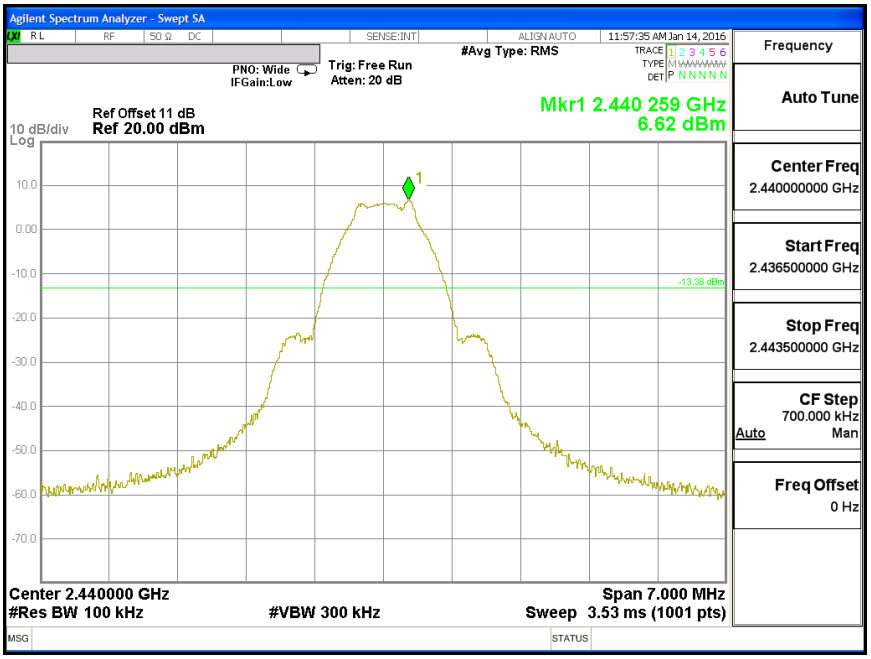


LOW CH SPURIOUS

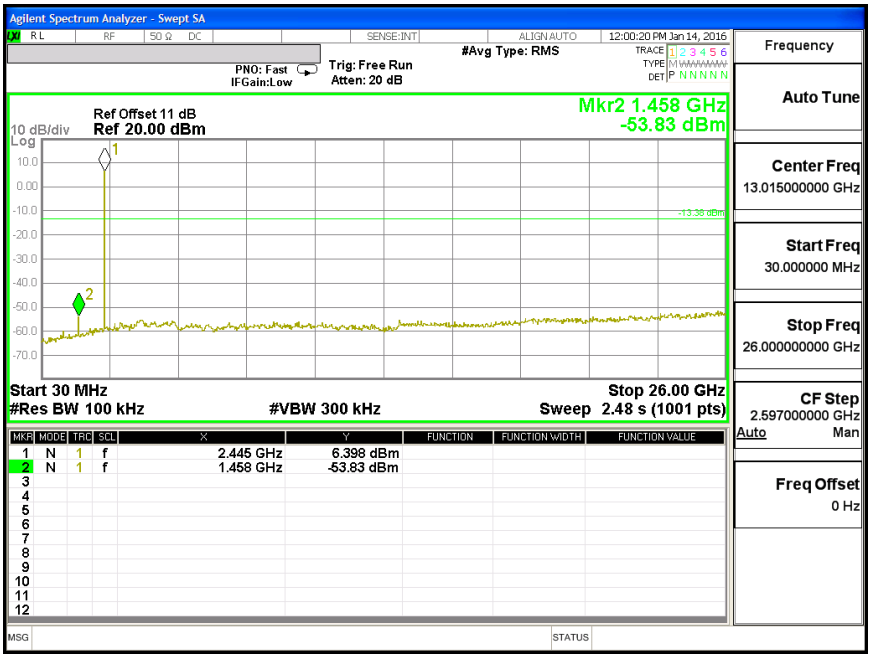


SPURIOUS EMISSIONS, MID CHANNEL

MID CH REFERENCE

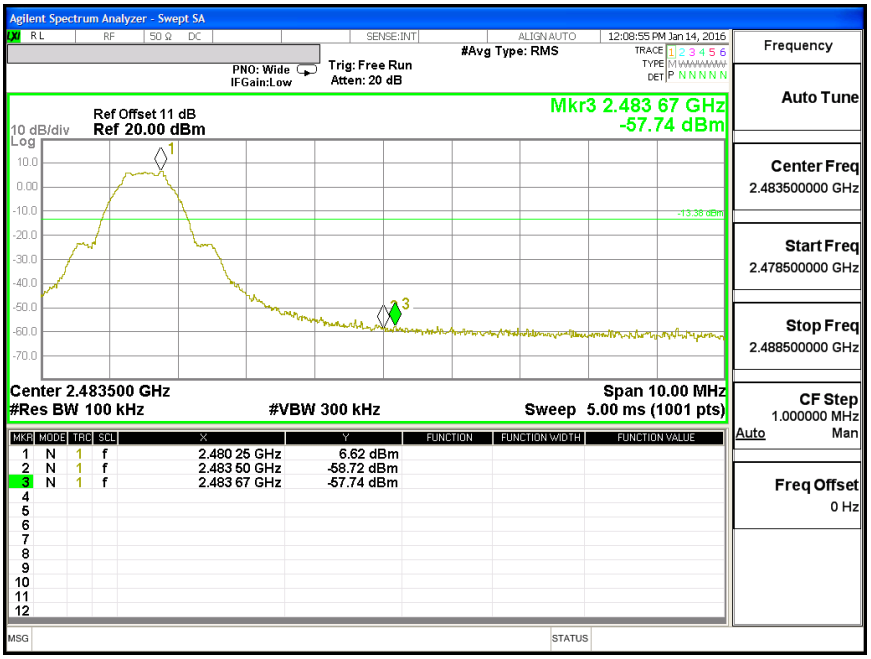


MID CH SPURIOUS

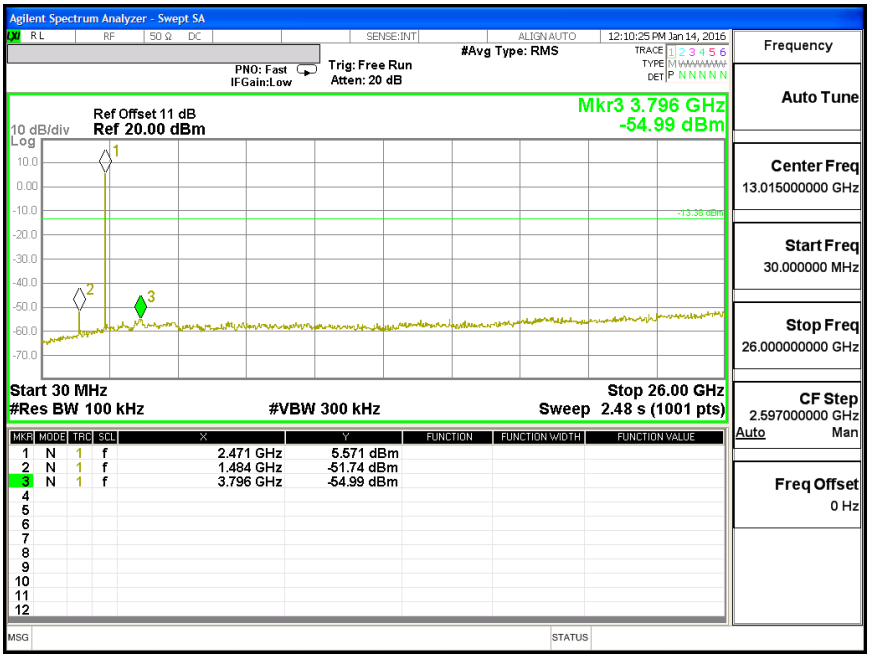


SPURIOUS EMISSIONS, HIGH CHANNEL

HIGH CH BANDEDGE



HIGH CH SPURIOUS



8. RADIATED TEST RESULTS

8.1. LIMITS AND PROCEDURE

LIMITS

FCC §15.205 and §15.209

IC RSS-GEN, Section 8.9 and 8.10.

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 for measurement below 1GHz; 1.5 m above the ground plane for measurement above 1GHz. 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 3 MHz for peak measurements and 1 MHz resolution bandwidth with 3MHz video bandwidth with average detector for average measurements.

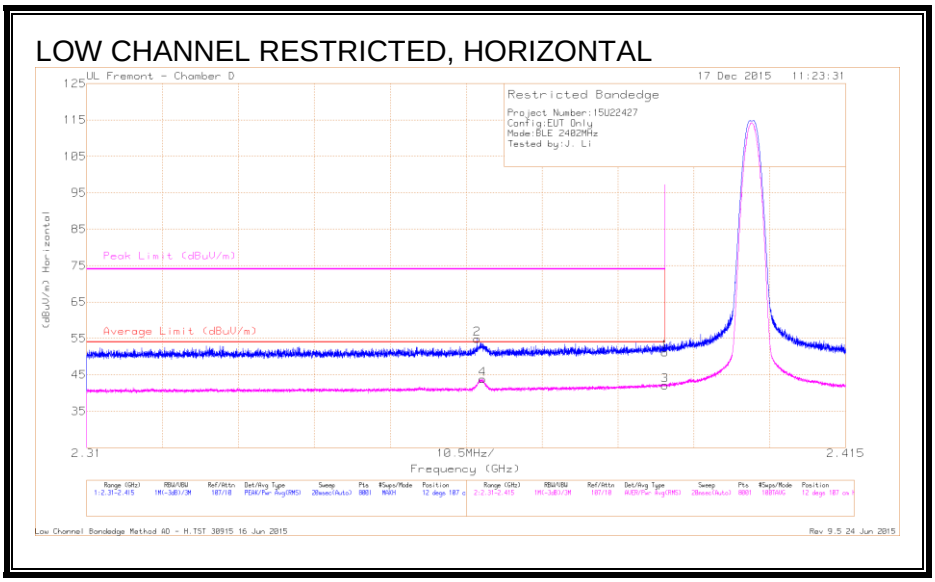
The spectrum from 30 MHz to 26 GHz is investigated with the transmitter set to the lowest, middle, and highest channels in the 2.4 GHz band.

The 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. TRANSMITTER ABOVE 1 GHz

8.2.1. ANTENNA B HIGH POWER MODE

RESTRICTED BANDEDGE



DATA

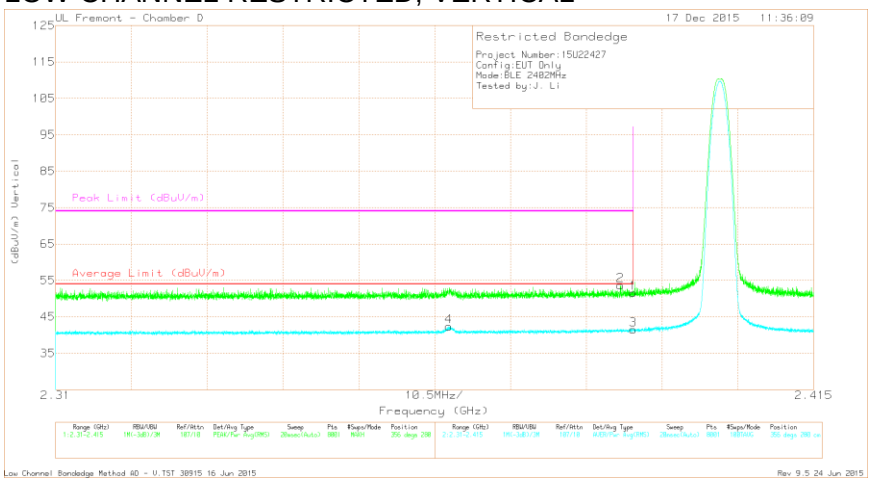
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.39	39.82	Pk	32.1	-20.7	51.22	-	-	74	-22.78	12	107	H
2	* 2.364	43.77	Pk	32	-20.9	54.87	-	-	74	-19.13	12	107	H
3	* 2.39	30.74	RMS	32.1	-20.7	42.14	54	-11.86	-	-	12	107	H
4	* 2.365	32.68	RMS	32	-20.9	43.78	54	-10.22	-	-	12	107	H

* - indicates frequency in CFR15.205/IC8.10 Restricted Band

Pk - Peak detector

RMS - RMS detection

LOW CHANNEL RESTRICTED, VERTICAL



DATA

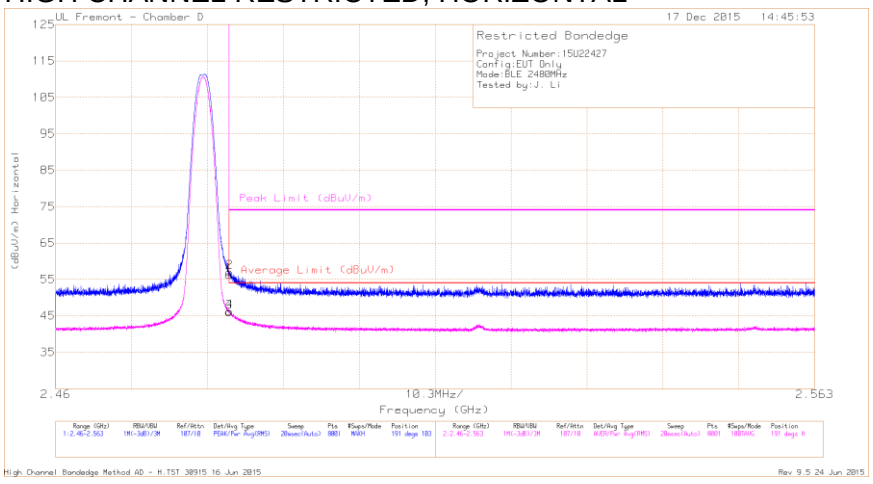
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.39	40.12	Pk	32.1	-20.7	51.52	-	-	74	-22.48	356	280	V
2	* 2.388	42.3	Pk	32.1	-20.8	53.6	-	-	74	-20.4	356	280	V
3	* 2.39	30.04	RMS	32.1	-20.7	41.44	54	-12.56	-	-	356	280	V
4	* 2.364	31.23	RMS	32	-20.9	42.33	54	-11.67	-	-	356	280	V

* - indicates frequency in CFR15.205/IC8.10 Restricted Band

Pk - Peak detector

RMS - RMS detection

HIGH CHANNEL RESTRICTED, HORIZONTAL



DATA

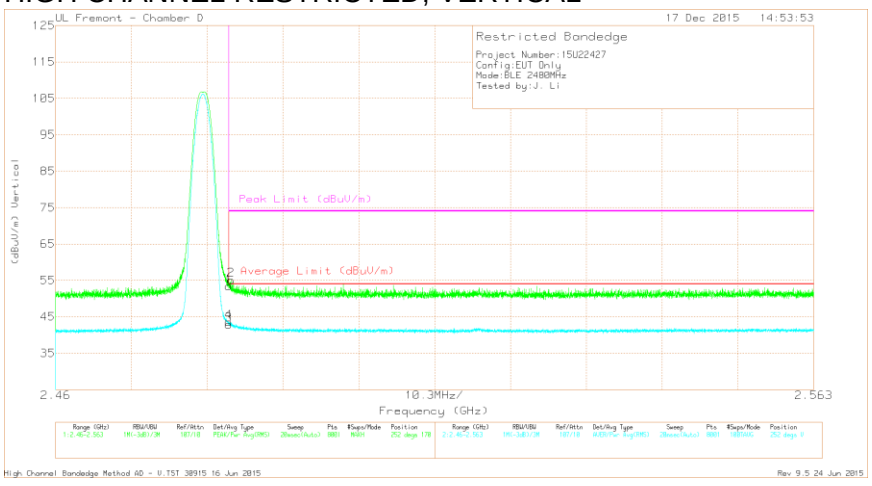
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.484	44.85	Pk	32.2	-20.8	56.25	-	-	74	-17.75	191	103	H
2	* 2.484	45.59	Pk	32.2	-20.8	56.99	-	-	74	-17.01	191	103	H
3	* 2.484	34.67	RMS	32.2	-20.8	46.07	54	-7.93	-	-	191	103	H
4	* 2.484	34.76	RMS	32.2	-20.8	46.16	54	-7.84	-	-	191	103	H

* - indicates frequency in CFR15.205/IC8.10 Restricted Band

Pk - Peak detector

RMS - RMS detection

HIGH CHANNEL RESTRICTED, VERTICAL



DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (dB/m)	Amp/Cbl/ Fltr/Pad (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	41.94	Pk	32.2	-20.8	53.34	-	-	74	-20.66	252	170	V
2	* 2.484	43.78	Pk	32.2	-20.8	55.18	-	-	74	-18.82	252	170	V
3	* 2.484	31.39	RMS	32.2	-20.8	42.79	54	-11.21	-	-	252	170	V
4	* 2.484	32.19	RMS	32.2	-20.8	43.59	54	-10.41	-	-	252	170	V

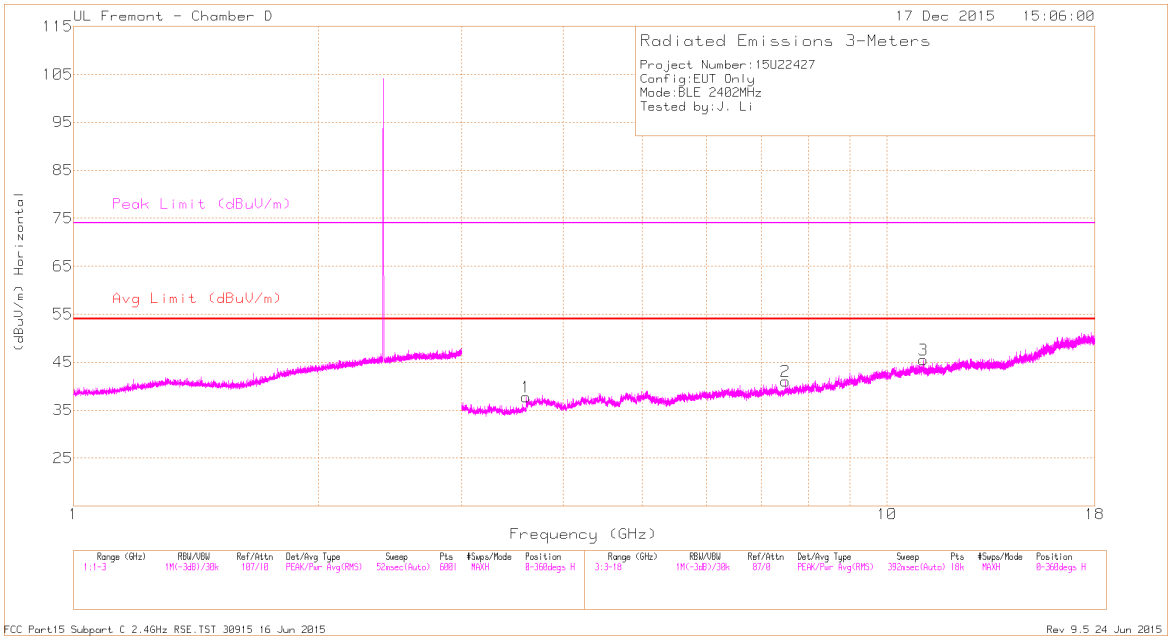
* - indicates frequency in CFR15.205/IC8.10 Restricted Band

Pk - Peak detector

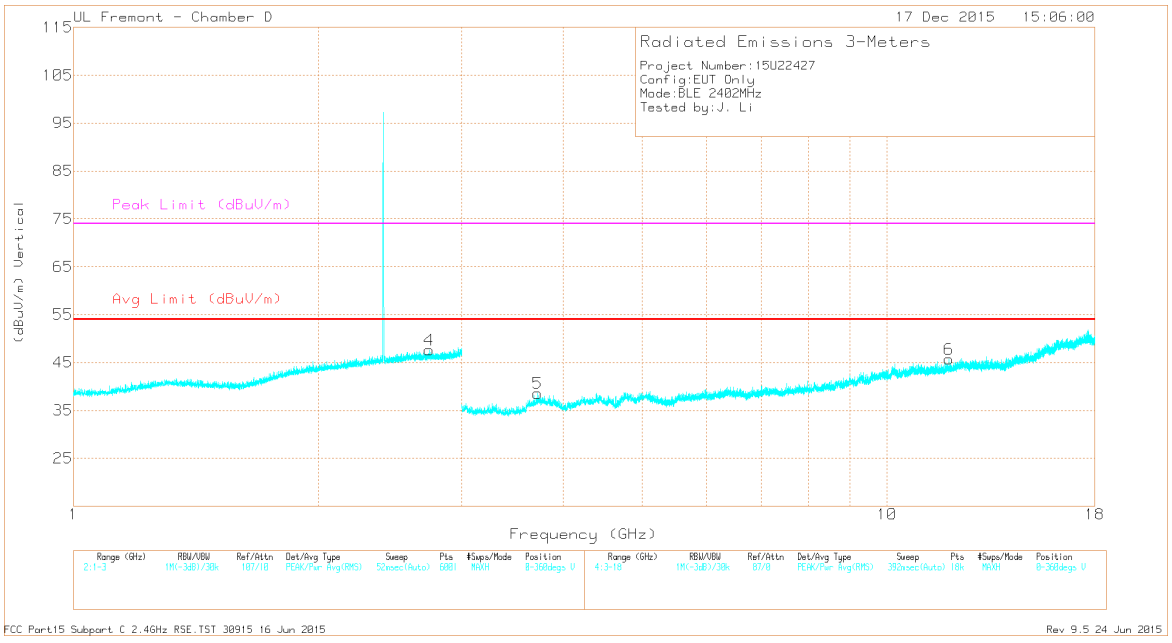
RMS - RMS detection

HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL HORIZONTAL



LOW CHANNEL VERTICAL



DATA

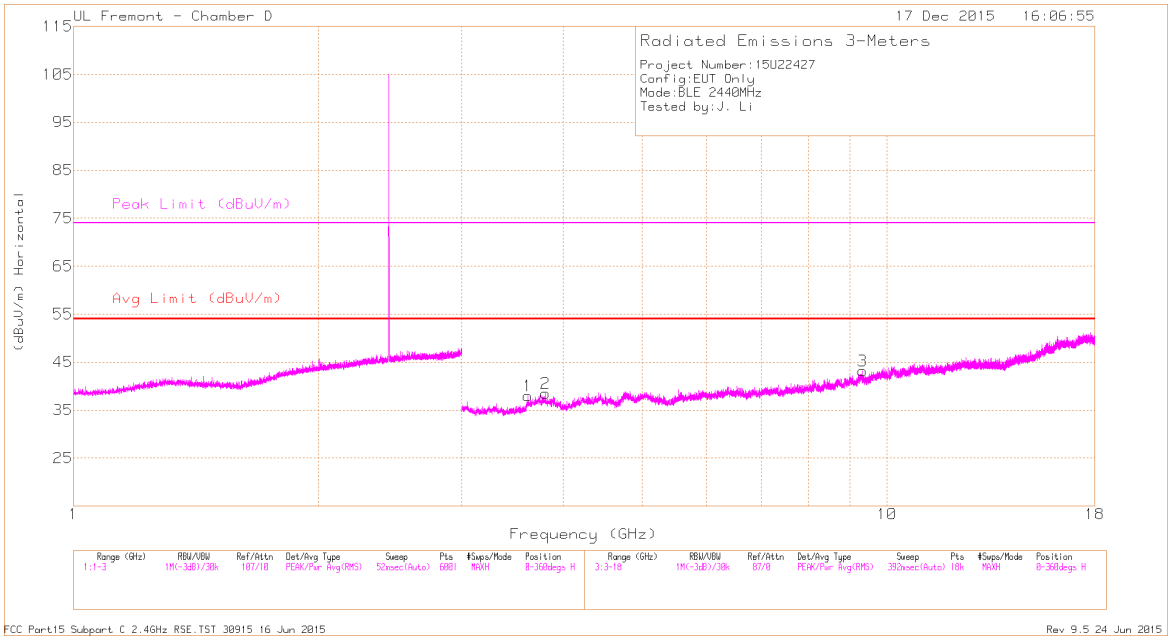
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
4	* 2.736	42.15	PK2	32.5	-20.5	54.15	-	-	74	-19.85	271	240	V
	* 2.737	30.26	MAv1	32.5	-20.5	42.26	54	-11.74	-	-	271	240	V
1	* 3.601	38.72	PK2	33	-28.4	43.32	-	-	74	-30.68	96	124	H
	* 3.598	27.33	MAv1	33	-28.4	31.93	54	-22.07	-	-	96	124	H
2	* 7.502	36.3	PK2	35.5	-25.1	46.7	-	-	74	-27.3	132	147	H
	* 7.501	25.01	MAv1	35.5	-25.1	35.41	54	-18.59	-	-	132	147	H
3	* 11.082	34.78	PK2	38	-21.3	51.48	-	-	74	-22.52	109	310	H
	* 11.082	23.29	MAv1	38	-21.3	39.99	54	-14.01	-	-	109	310	H
5	* 3.723	40.2	PK2	33.2	-28.7	44.7	-	-	74	-29.3	298	106	V
	* 3.723	27.79	MAv1	33.2	-28.7	32.29	54	-21.71	-	-	298	106	V
6	* 11.905	34.74	PK2	38.5	-21.2	52.04	-	-	74	-21.96	355	217	V
	* 11.906	23.37	MAv1	38.5	-21.2	40.67	54	-13.33	-	-	355	217	V

* - indicates frequency in CFR15.205/IC8.10 Restricted Band

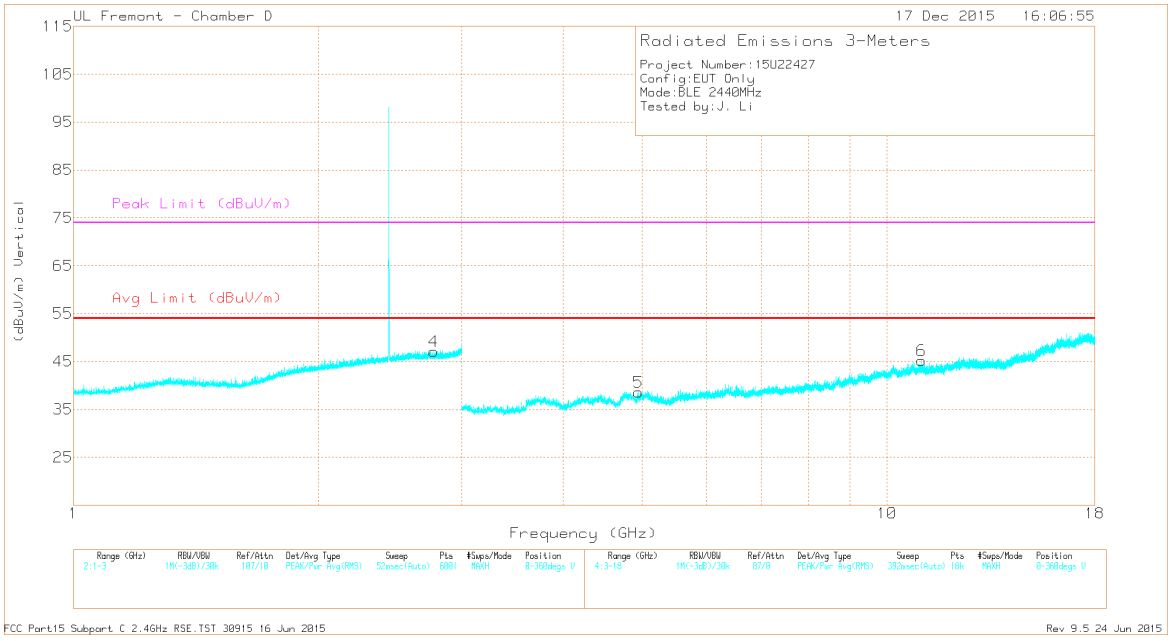
PK2 - KDB558074 Method: Maximum Peak

MAv1 - KDB558074 Option 1 Maximum RMS Average

MID CHANNEL HORIZONTAL



LOW CHANNEL VERTICAL



DATA

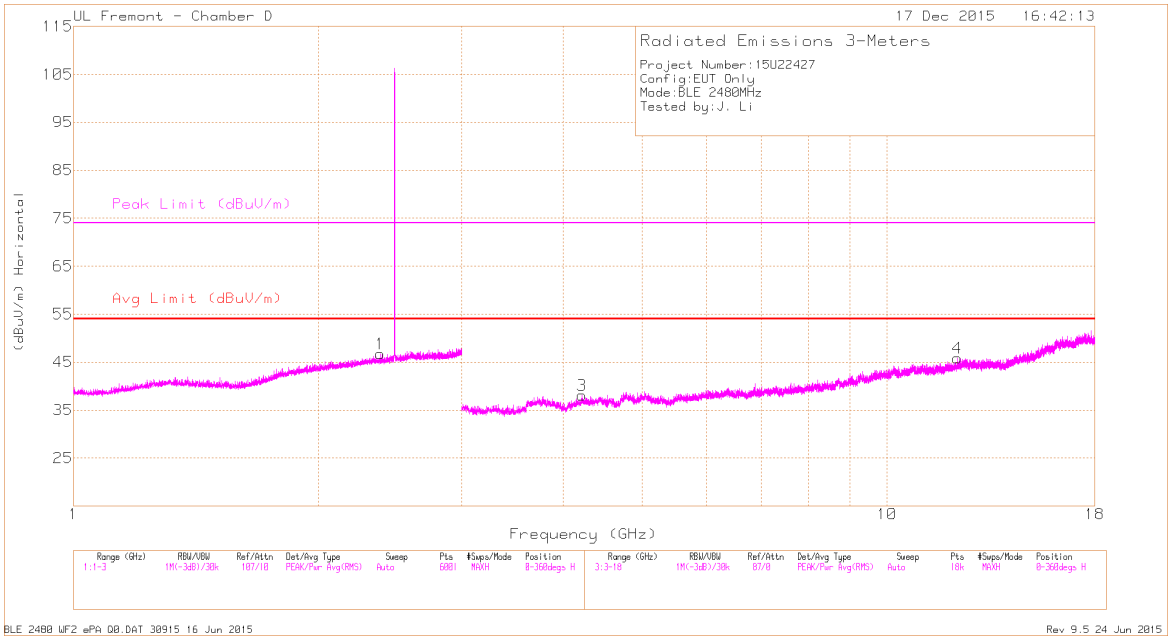
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
4	* 2.774	41.59	PK2	32.5	-20.4	53.69	-	-	74	-20.31	212	157	V
	* 2.771	30.31	MAv1	32.5	-20.4	42.41	54	-11.59	-	-	212	157	V
1	* 3.615	38.92	PK2	33.1	-28.5	43.52	-	-	74	-30.48	301	134	H
	* 3.619	27.43	MAv1	33.1	-28.6	31.93	54	-22.07	-	-	301	134	H
2	* 3.803	38.69	PK2	33.3	-28.4	43.59	-	-	74	-30.41	255	188	H
	* 3.805	27.61	MAv1	33.4	-28.4	32.61	54	-21.39	-	-	255	188	H
3	* 9.333	34.44	PK2	36.4	-21.5	49.34	-	-	74	-24.66	175	140	H
	* 9.334	23.33	MAv1	36.4	-21.4	38.33	54	-15.67	-	-	175	140	H
5	* 4.944	37.7	PK2	34.2	-27.9	44	-	-	74	-30	38	200	V
	* 4.944	26.8	MAv1	34.2	-27.9	33.1	54	-20.9	-	-	38	200	V
6	* 11.023	34.16	PK2	38.1	-21.2	51.06	-	-	74	-22.94	98	231	V
	* 11.024	23.06	MAv1	38.1	-21.2	39.96	54	-14.04	-	-	98	231	V

* - indicates frequency in CFR15.205/IC8.10 Restricted Band

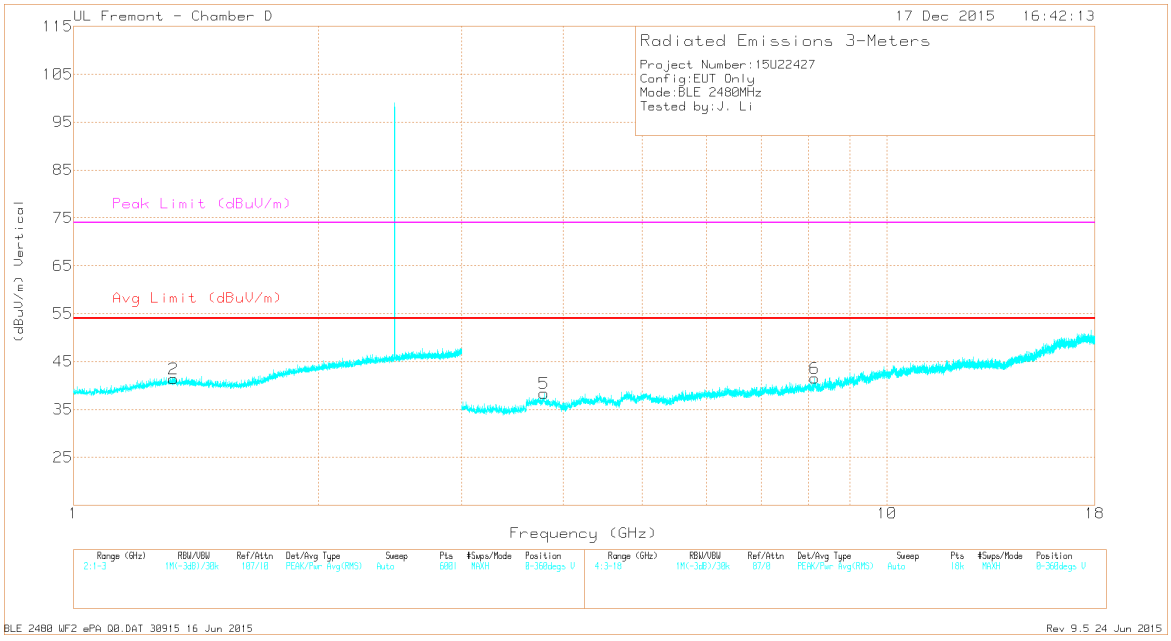
PK2 - KDB558074 Method: Maximum Peak

MAv1 - KDB558074 Option 1 Maximum RMS Average

HIGH CHANNEL HORIZONTAL



HIGH CHANNEL VERTICAL



DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.385	42.2	PK2	32.1	-20.8	53.5	-	-	74	-20.5	67	264	H
	* 2.384	29.76	MAv1	32.1	-20.8	41.06	54	-12.94	-	-	67	264	H
2	* 1.325	41.93	PK2	28.9	-22.2	48.63	-	-	74	-25.37	42	103	V
	* 1.327	30.02	MAv1	28.9	-22.2	36.72	54	-17.28	-	-	42	103	V
3	* 4.216	38.33	PK2	33.5	-27.5	44.33	-	-	74	-29.67	307	103	H
	* 4.214	26.35	MAv1	33.5	-27.6	32.25	54	-21.75	-	-	307	103	H
4	* 12.209	34.33	PK2	38.9	-21.5	51.73	-	-	74	-22.27	269	250	H
	* 12.207	23.44	MAv1	38.9	-21.5	40.84	54	-13.16	-	-	269	250	H
5	* 3.787	38.09	PK2	33.3	-28.2	43.19	-	-	74	-30.81	167	179	V
	* 3.788	27.36	MAv1	33.3	-28.2	32.46	54	-21.54	-	-	167	179	V
6	* 8.145	35.21	PK2	35.6	-23	47.81	-	-	74	-26.19	225	299	V
	* 8.143	24.14	MAv1	35.6	-23	36.74	54	-17.26	-	-	225	299	V

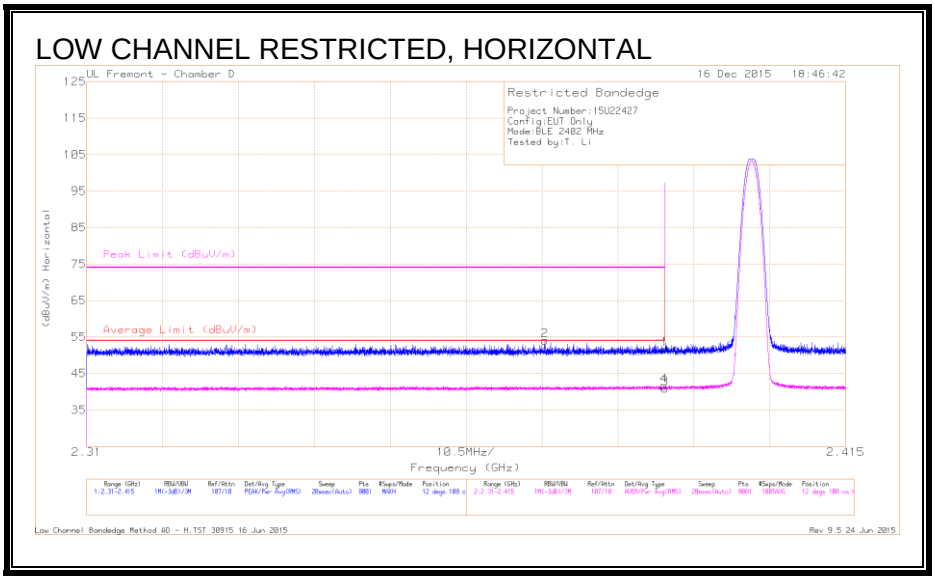
* - indicates frequency in CFR15.205/IC8.10 Restricted Band

PK2 - KDB558074 Method: Maximum Peak

MAv1 - KDB558074 Option 1 Maximum RMS Average

8.2.2. ANTENNA B LOW POWER MODE

RESTRICTED BANDEDGE



DATA

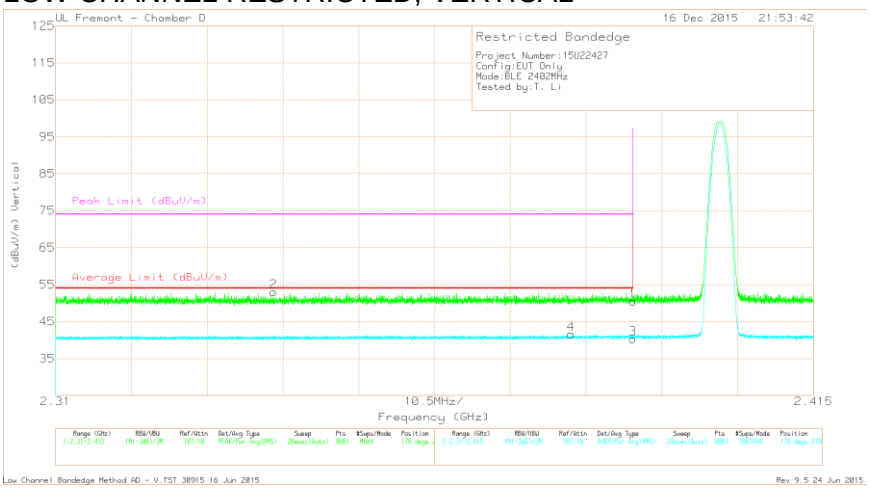
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.39	40.3	Pk	32.1	-20.7	51.7	-	-	74	-22.3	12	108	H
2	* 2.373	42.89	Pk	32	-20.9	53.99	-	-	74	-20.01	12	108	H
3	* 2.39	29.45	RMS	32.1	-20.7	40.85	54	-13.15	-	-	12	108	H
4	* 2.39	30.25	RMS	32.1	-20.7	41.65	54	-12.35	-	-	12	108	H

* - indicates frequency in CFR15.205/IC8.10 Restricted Band

Pk - Peak detector

RMS - RMS detection

LOW CHANNEL RESTRICTED, VERTICAL



DATA

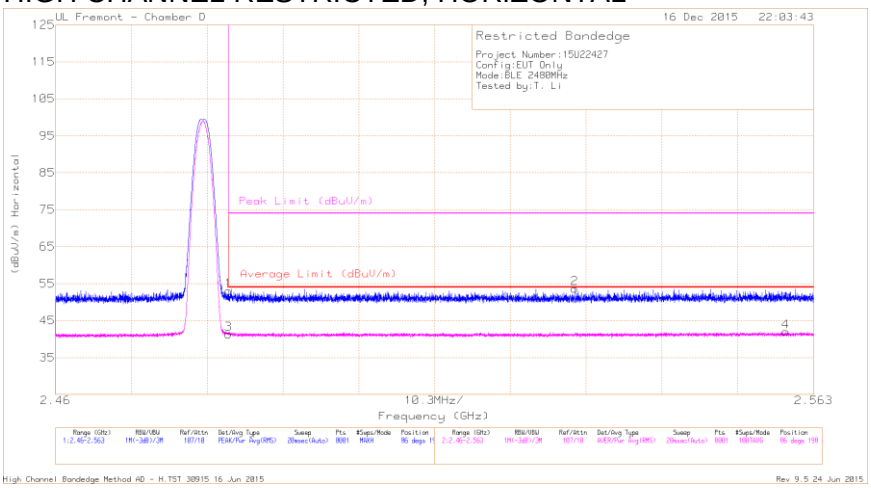
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.39	39.11	Pk	32.1	-20.7	50.51	-	-	74	-23.49	178	278	V
2	* 2.34	41.96	Pk	32	-20.9	53.06	-	-	74	-20.94	178	278	V
3	* 2.39	28.95	RMS	32.1	-20.7	40.35	54	-13.65	-	-	178	278	V
4	* 2.381	30.31	RMS	32.1	-20.8	41.61	54	-12.39	-	-	178	278	V

* - indicates frequency in CFR15.205/IC8.10 Restricted Band

Pk - Peak detector

RMS - RMS detection

HIGH CHANNEL RESTRICTED, HORIZONTAL



DATA

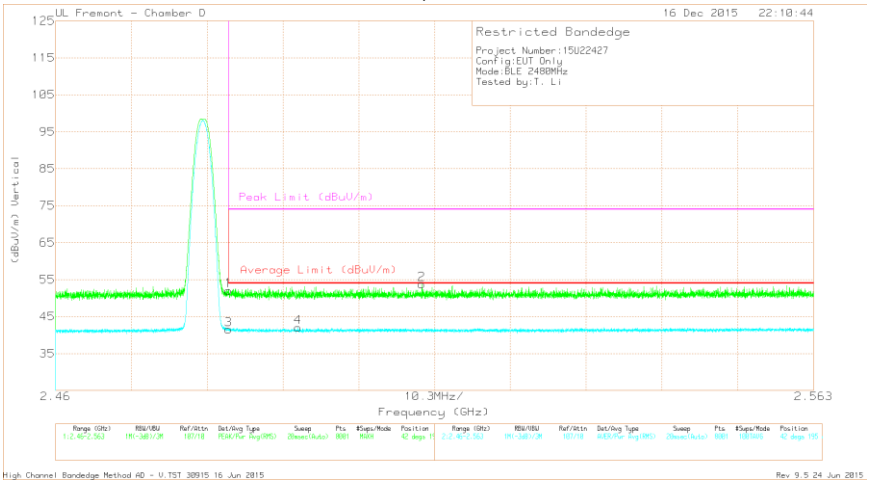
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.484	41.66	Pk	32.2	-20.8	53.06	-	-	74	-20.94	86	198	H
3	* 2.484	29.97	RMS	32.2	-20.8	41.37	54	-12.63	-	-	86	198	H
2	2.531	42.09	Pk	32.3	-20.7	53.69	-	-	74	-20.31	86	198	H
4	2.559	30.41	RMS	32.3	-20.7	42.01	54	-11.99	-	-	86	198	H

* - indicates frequency in CFR15.205/IC8.10 Restricted Band

Pk - Peak detector

RMS - RMS detection

HIGH CHANNEL RESTRICTED, VERTICAL



DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (dB/m)	Amp/Cbl/ Fltr/Pad (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	40.66	Pk	32.2	-20.8	52.06	-	-	74	-21.94	42	195	V
3	* 2.484	30.11	RMS	32.2	-20.8	41.51	54	-12.49	-	-	42	195	V
4	* 2.493	30.68	RMS	32.2	-20.8	42.08	54	-11.92	-	-	42	195	V
2	2.51	42.27	Pk	32.2	-20.7	53.77	-	-	74	-20.23	42	195	V

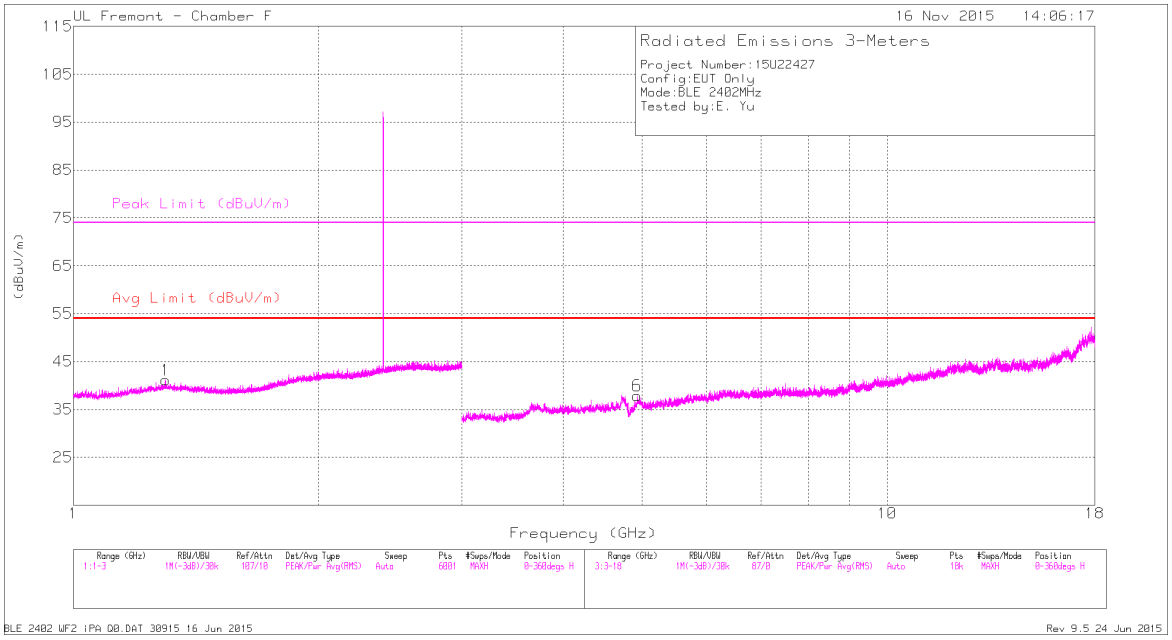
* - indicates frequency in CFR15.205/IC8.10 Restricted Band

Pk - Peak detector

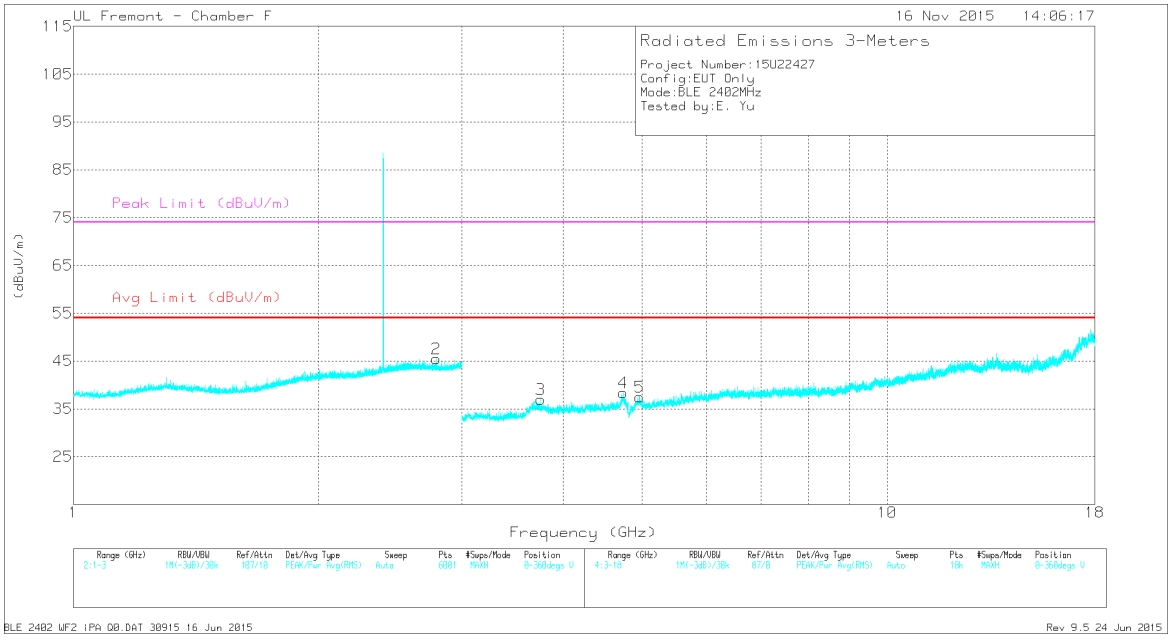
RMS - RMS detection

HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL HORIZONTAL



LOW CHANNEL VERTICAL



DATA

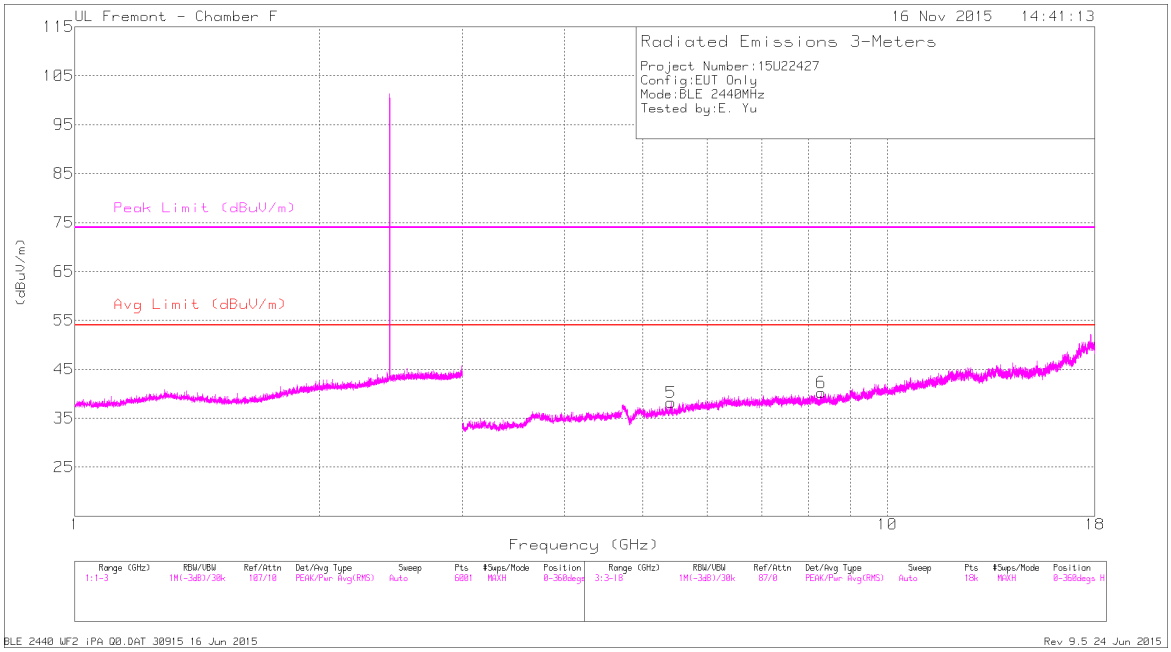
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T862 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.298	44.22	PK2	29.3	-25.6	47.92	-	-	74	-26.08	208	202	H
	* 1.298	32.29	MAv1	29.3	-25.6	35.99	54	-18.01	-	-	208	202	H
2	* 2.793	43.86	PK2	32.3	-24.4	51.76	-	-	74	-22.24	93	173	V
	* 2.793	32.15	MAv1	32.3	-24.4	40.05	54	-13.95	-	-	93	173	V
6	* 4.933	41.63	PK2	34.1	-32.6	43.13	-	-	74	-30.87	130	215	H
	* 4.933	31.05	MAv1	34.1	-32.6	32.55	54	-21.45	-	-	130	215	H
3	* 3.749	41.3	PK2	33.1	-31.8	42.6	-	-	74	-31.4	112	154	V
	* 3.751	30.17	MAv1	33.1	-31.8	31.47	54	-22.53	-	-	112	154	V
4	* 4.743	43.77	PK2	33.9	-32.4	45.27	-	-	74	-28.73	81	249	V
	* 4.741	33.03	MAv1	33.9	-32.3	34.63	54	-19.37	-	-	81	249	V
5	* 4.965	44.4	PK2	34.2	-32.4	46.2	-	-	74	-27.8	99	222	V
	* 4.965	32.09	MAv1	34.2	-32.4	33.89	54	-20.11	-	-	99	222	V

* - indicates frequency in CFR15.205/IC8.10 Restricted Band

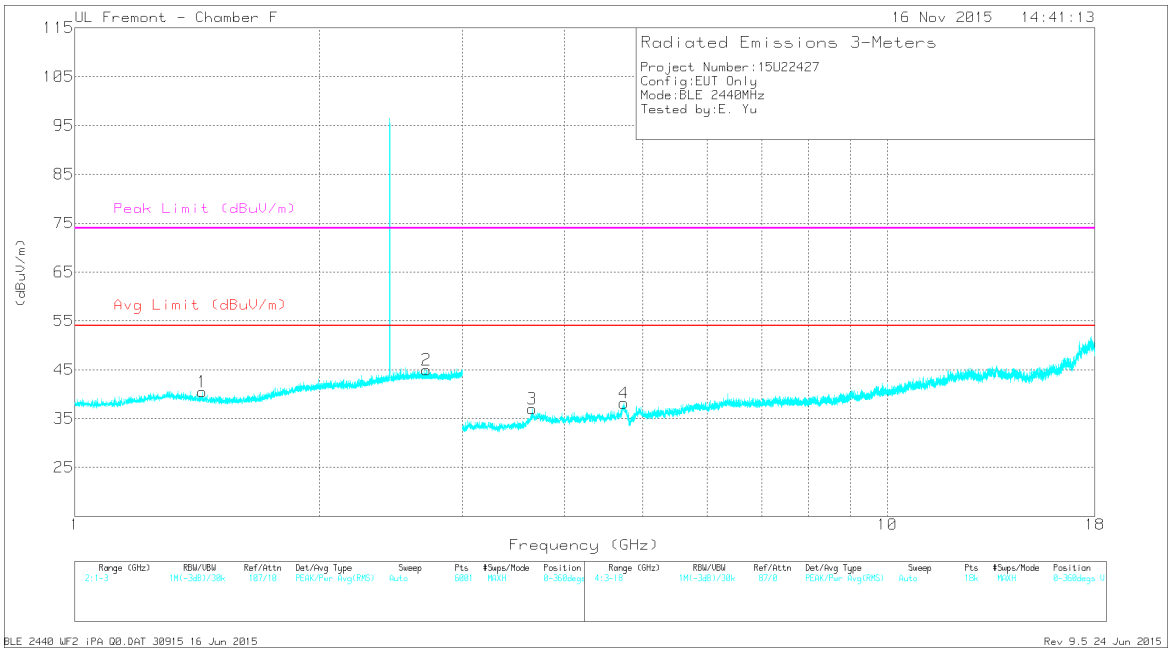
PK2 - KDB558074 Method: Maximum Peak

MAv1 - KDB558074 Option 1 Maximum RMS Average

MID CHANNEL HORIZONTAL



LOW CHANNEL VERTICAL



DATA

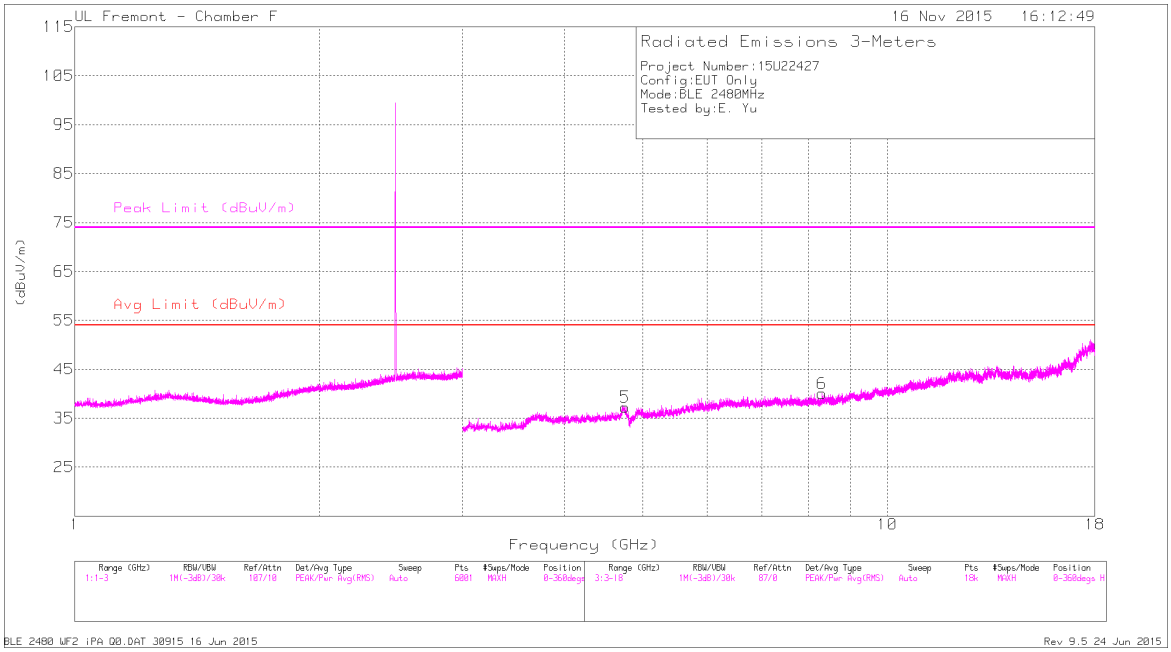
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T862 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.436	44.34	PK2	28.6	-25.3	47.64	-	-	74	-26.36	187	282	V
	* 1.437	31.68	MAv1	28.6	-25.3	34.98	54	-19.02	-	-	187	282	V
2	* 2.709	44.13	PK2	32.4	-24.4	52.13	-	-	74	-21.87	149	240	V
	* 2.711	31.76	MAv1	32.4	-24.4	39.76	54	-14.24	-	-	149	240	V
5	* 5.418	41.26	PK2	34.5	-31.8	43.96	-	-	74	-30.04	230	221	H
	* 5.416	29.87	MAv1	34.5	-31.8	32.57	54	-21.43	-	-	230	221	H
6	* 8.288	40.21	PK2	35.7	-30.2	45.71	-	-	74	-28.29	131	262	H
	* 8.287	28.65	MAv1	35.7	-30.2	34.15	54	-19.85	-	-	131	262	H
3	* 3.654	42.28	PK2	33.1	-31.9	43.48	-	-	74	-30.52	135	175	V
	* 3.654	30.27	MAv1	33.1	-31.9	31.47	54	-22.53	-	-	135	175	V
4	* 4.739	44.17	PK2	33.9	-32.4	45.67	-	-	74	-28.33	261	233	V
	* 4.74	32.39	MAv1	33.9	-32.3	33.99	54	-20.01	-	-	261	233	V

* - indicates frequency in CFR15.205/IC8.10 Restricted Band

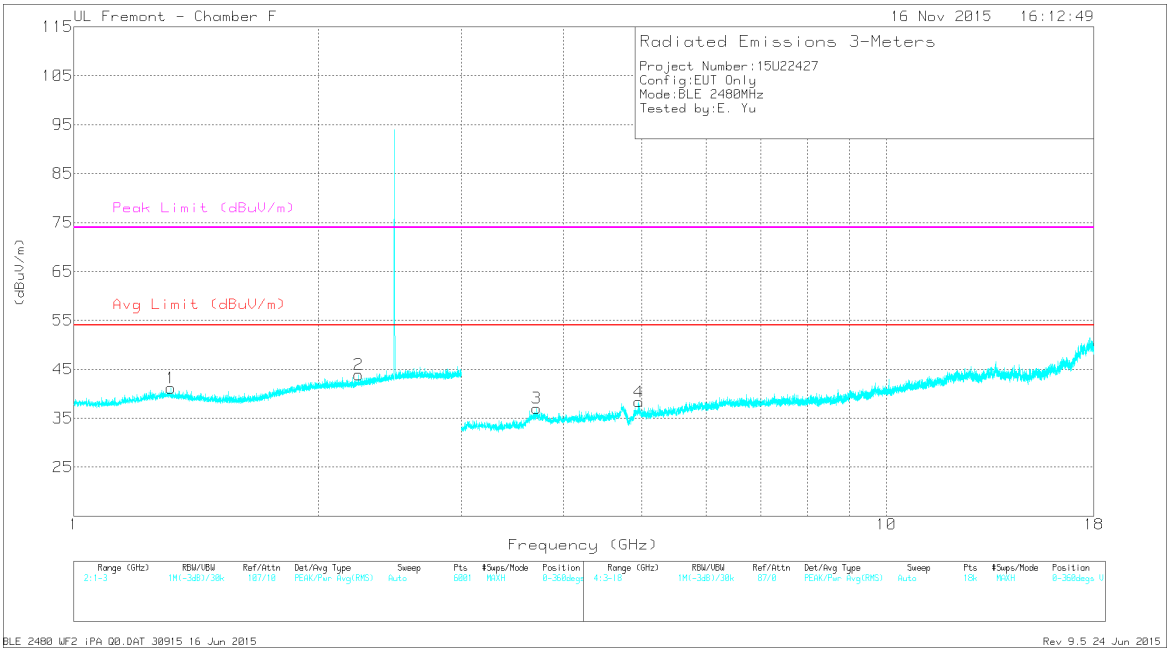
PK2 - KDB558074 Method: Maximum Peak

MAv1 - KDB558074 Option 1 Maximum RMS Average

HIGH CHANNEL HORIZONTAL



HIGH CHANNEL VERTICAL



DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T862 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.317	43.55	PK2	29.3	-25.6	47.25	-	-	74	-26.75	298	158	V
	* 1.318	32.22	MAv1	29.2	-25.6	35.82	54	-18.18	-	-	298	158	V
2	* 2.24	44.46	PK2	31.3	-24.7	51.06	-	-	74	-22.94	113	238	V
	* 2.242	32.44	MAv1	31.3	-24.7	39.04	54	-14.96	-	-	113	238	V
5	* 4.756	43.55	PK2	33.9	-32.5	44.95	-	-	74	-29.05	82	204	H
	* 4.757	32.58	MAv1	33.9	-32.5	33.98	54	-20.02	-	-	82	204	H
6	* 8.31	40.44	PK2	35.7	-29.8	46.34	-	-	74	-27.66	127	215	H
	* 8.31	29.23	MAv1	35.7	-29.8	35.13	54	-18.87	-	-	127	215	H
3	* 3.714	41.35	PK2	33	-31.4	42.95	-	-	74	-31.05	108	192	V
	* 3.712	30.42	MAv1	33	-31.4	32.02	54	-21.98	-	-	108	192	V
4	* 4.959	43.79	PK2	34.1	-32.4	45.49	-	-	74	-28.51	82	223	V
	* 4.96	32.2	MAv1	34.1	-32.4	33.9	54	-20.1	-	-	82	223	V

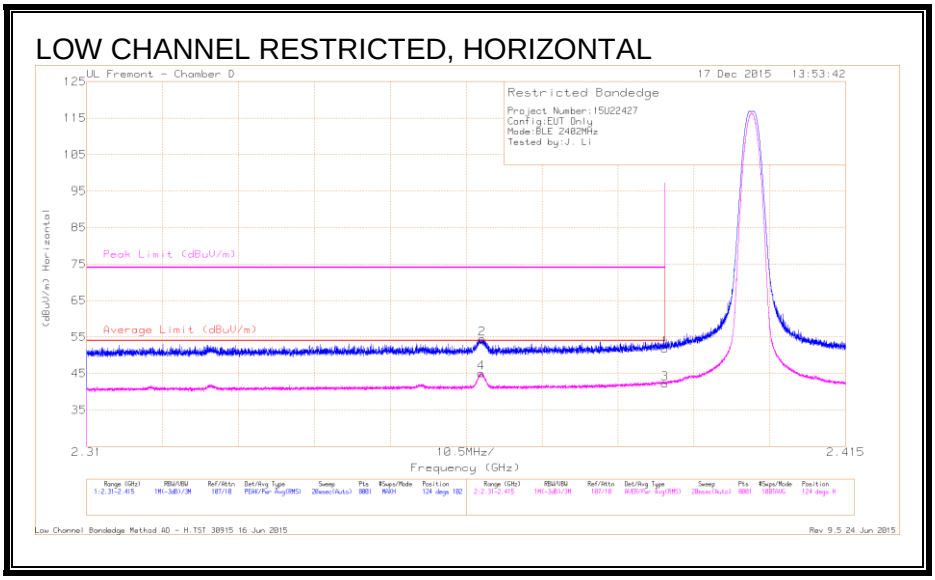
* - indicates frequency in CFR15.205/IC8.10 Restricted Band

PK2 - KDB558074 Method: Maximum Peak

MAv1 - KDB558074 Option 1 Maximum RMS Average

8.2.3. ANTENNA C HIGH POWER MODE

RESTRICTED BANDEDGE



DATA

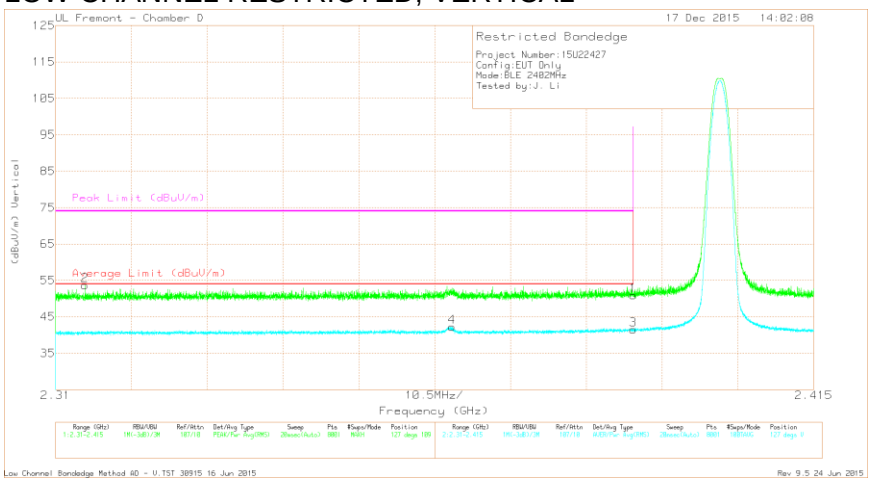
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.39	40.44	Pk	32.1	-20.7	51.84	-	-	74	-22.16	124	102	H
2	* 2.365	43.39	Pk	32	-20.9	54.49	-	-	74	-19.51	124	102	H
3	* 2.39	30.87	RMS	32.1	-20.7	42.27	54	-11.73	-	-	124	102	H
4	* 2.365	34.04	RMS	32	-20.9	45.14	54	-8.86	-	-	124	102	H

* - indicates frequency in CFR15.205/IC8.10 Restricted Band

Pk - Peak detector

RMS - RMS detection

LOW CHANNEL RESTRICTED, VERTICAL



DATA

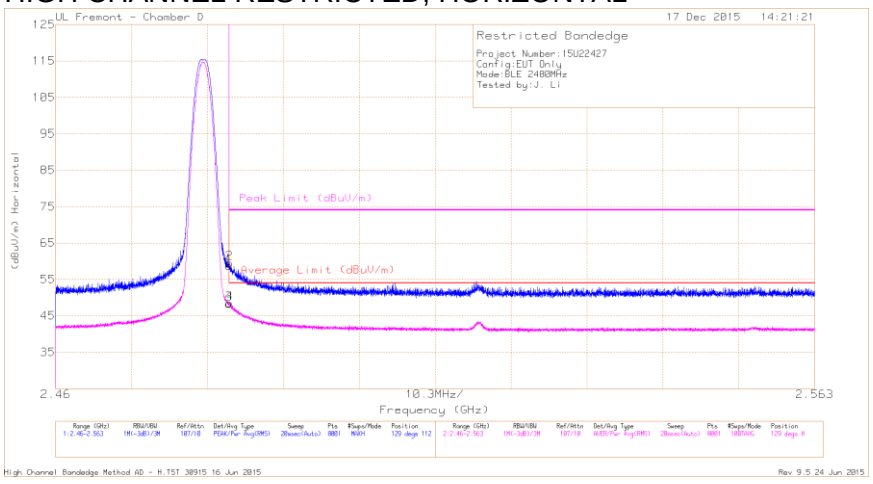
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.39	39.55	Pk	32.1	-20.7	50.95	-	-	74	-23.05	127	109	V
2	* 2.314	42.66	Pk	32	-21	53.66	-	-	74	-20.34	127	109	V
3	* 2.39	30.11	RMS	32.1	-20.7	41.51	54	-12.49	-	-	127	109	V
4	* 2.365	31.15	RMS	32	-20.9	42.25	54	-11.75	-	-	127	109	V

* - indicates frequency in CFR15.205/IC8.10 Restricted Band

Pk - Peak detector

RMS - RMS detection

HIGH CHANNEL RESTRICTED, HORIZONTAL



DATA

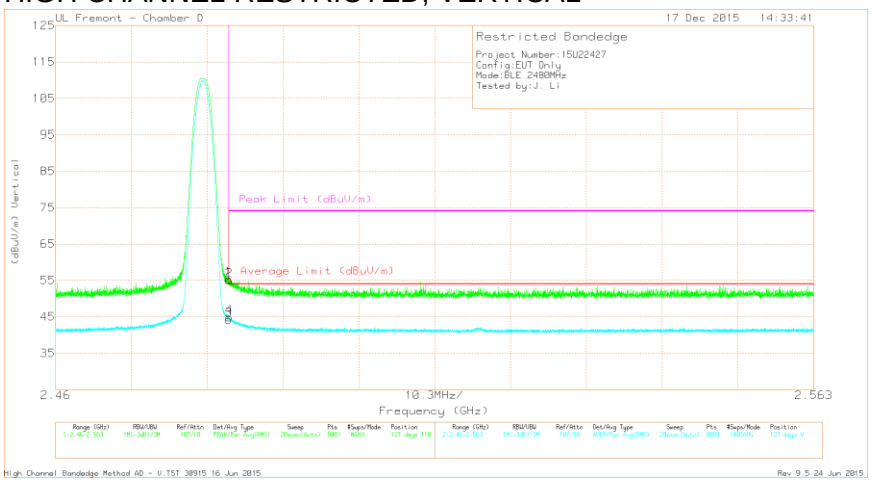
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.484	47.36	Pk	32.2	-20.8	58.76	-	-	74	-15.24	129	112	H
2	* 2.484	48.02	Pk	32.2	-20.8	59.42	-	-	74	-14.58	129	112	H
3	* 2.484	36.9	RMS	32.2	-20.8	48.3	54	-5.7	-	-	129	112	H
4	* 2.484	36.99	RMS	32.2	-20.8	48.39	54	-5.61	-	-	129	112	H

* - indicates frequency in CFR15.205/IC8.10 Restricted Band

Pk - Peak detector

RMS - RMS detection

HIGH CHANNEL RESTRICTED, VERTICAL



DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (dB/m)	Amp/Cbl/ Fltr/Pad (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	43.97	Pk	32.2	-20.8	55.37	-	-	74	-18.63	127	110	V
2	* 2.484	43.59	Pk	32.2	-20.8	54.99	-	-	74	-19.01	127	110	V
3	* 2.484	32.81	RMS	32.2	-20.8	44.21	54	-9.79	-	-	127	110	V
4	* 2.484	33.38	RMS	32.2	-20.8	44.78	54	-9.22	-	-	127	110	V

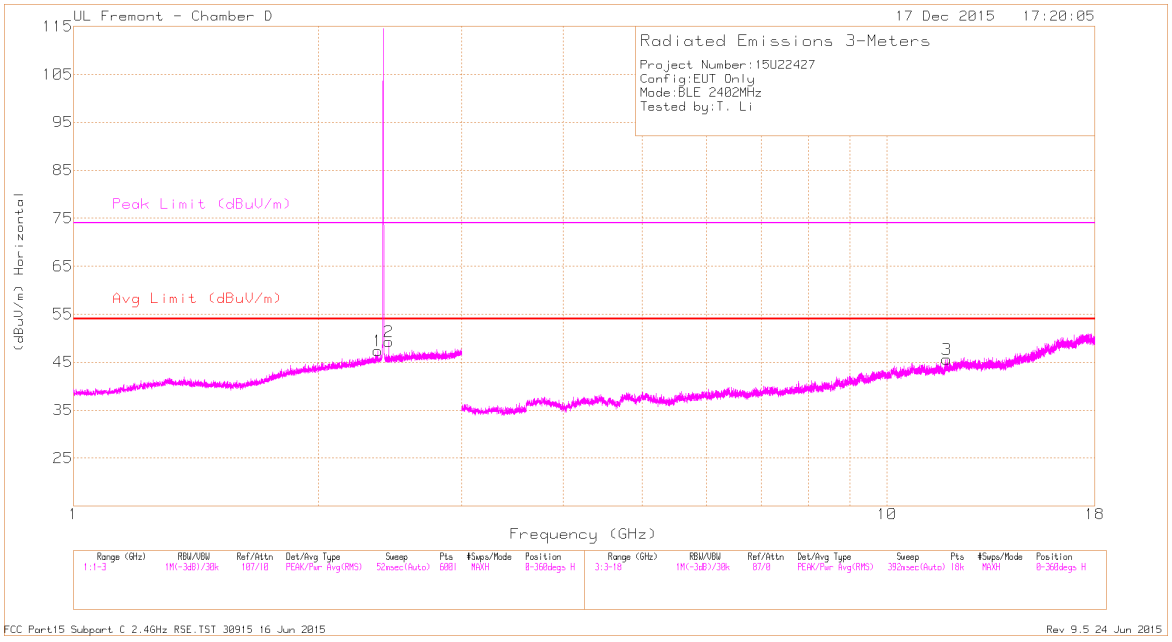
* - indicates frequency in CFR15.205/IC8.10 Restricted Band

Pk - Peak detector

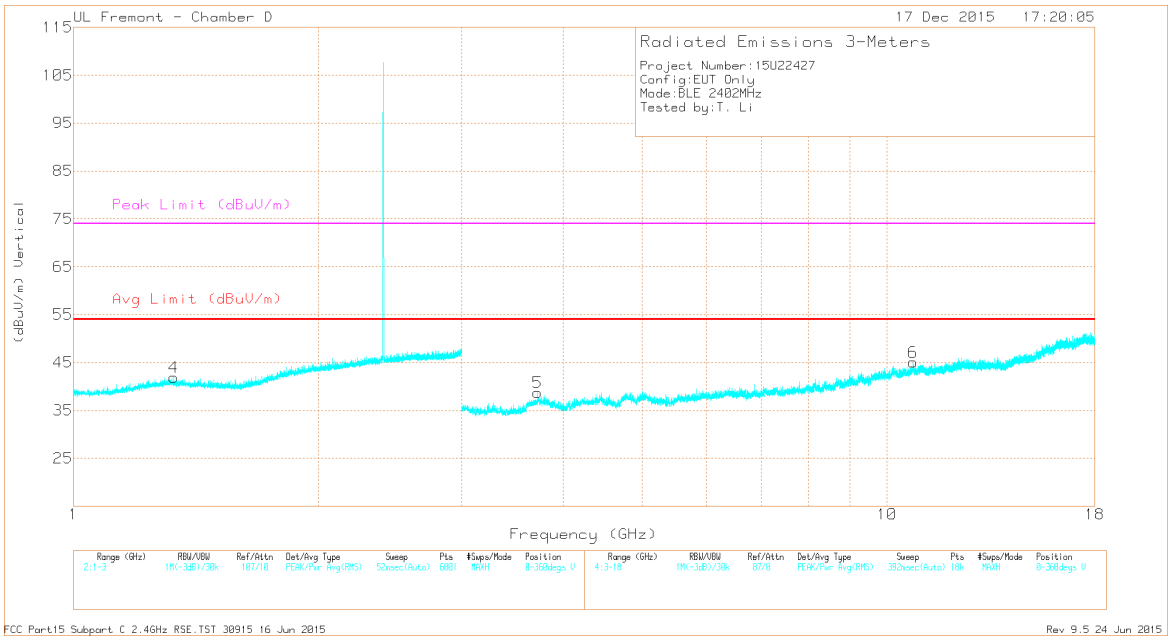
RMS - RMS detection

HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL HORIZONTAL



LOW CHANNEL VERTICAL



DATA

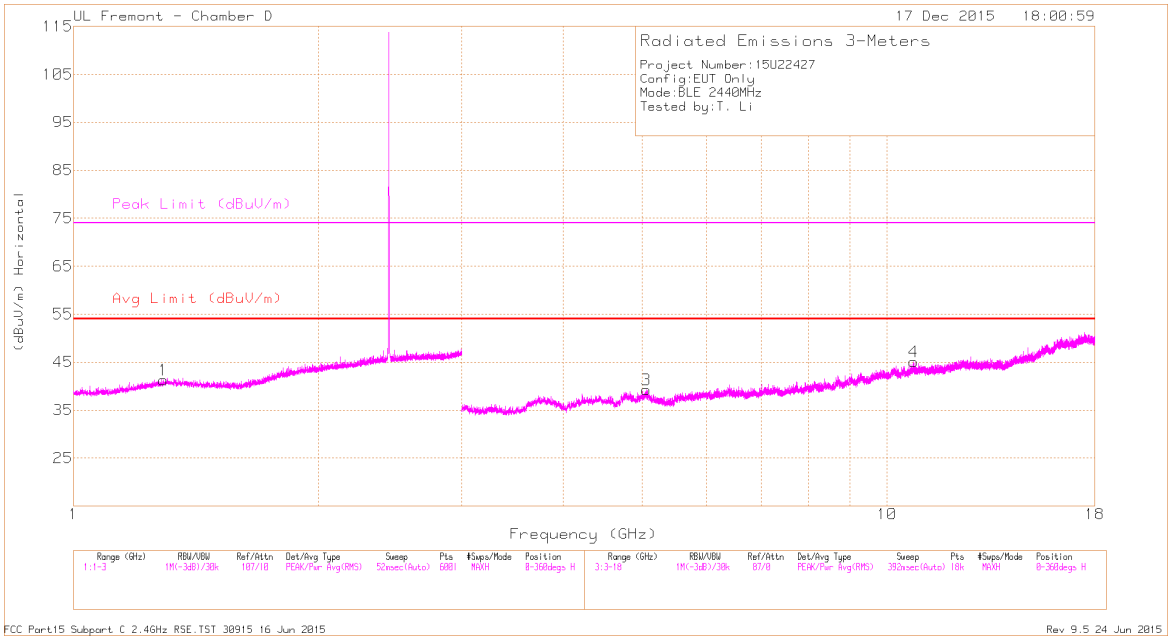
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.364	43.49	PK2	32	-20.9	54.59	-	-	74	-19.41	120	150	H
	* 2.365	32.58	MAv1	32	-20.9	43.68	54	-10.32	-	-	120	150	H
4	* 1.329	41.62	PK2	28.9	-22.2	48.32	-	-	74	-25.68	283	332	V
	* 1.328	30.02	MAv1	28.9	-22.2	36.72	54	-17.28	-	-	283	332	V
3	* 11.839	34.51	PK2	38.3	-21	51.81	-	-	74	-22.19	310	319	H
	* 11.841	22.77	MAv1	38.3	-21	40.07	54	-13.93	-	-	310	319	H
5	* 3.718	39.38	PK2	33.2	-28.8	43.78	-	-	74	-30.22	208	141	V
	* 3.719	27.09	MAv1	33.2	-28.8	31.49	54	-22.51	-	-	208	141	V
6	* 10.754	34.33	PK2	37.9	-20.4	51.83	-	-	74	-22.17	346	166	V
	* 10.753	22.1	MAv1	37.9	-20.4	39.6	54	-14.4	-	-	346	166	V
2	2.439	43.44	PK2	32.1	-20.8	54.74	-	-	-	-	123	102	H
	2.439	33.24	MAv1	32.1	-20.8	44.54	-	-	-	-	123	102	H

* - indicates frequency in CFR15.205/IC8.10 Restricted Band

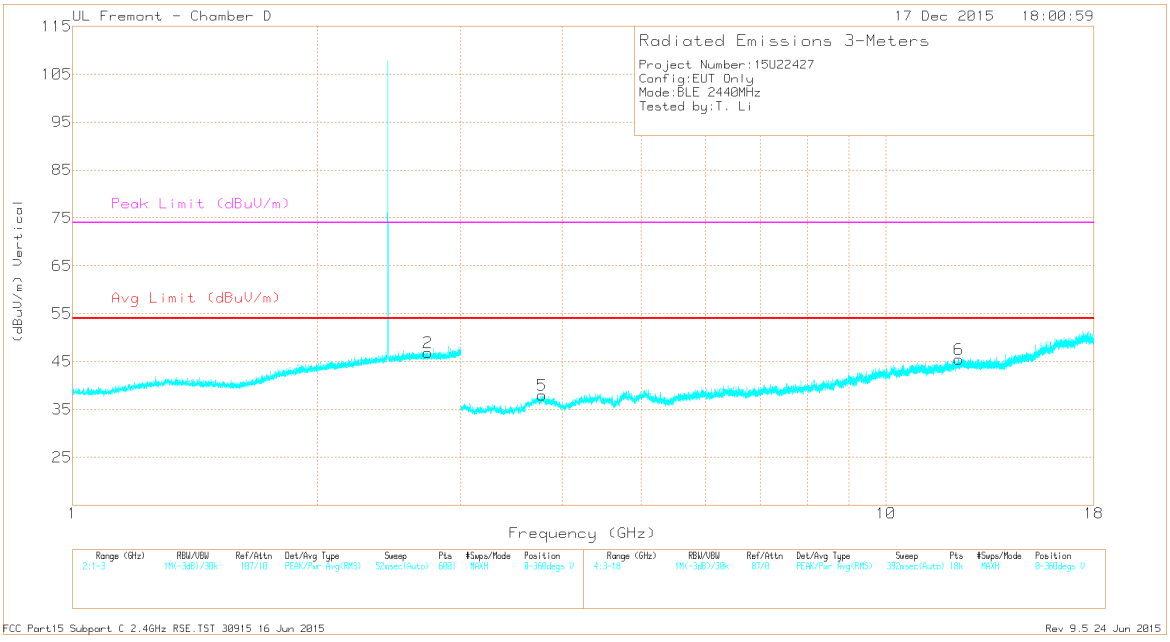
PK2 - KDB558074 Method: Maximum Peak

MAv1 - KDB558074 Option 1 Maximum RMS Average

MID CHANNEL HORIZONTAL



LOW CHANNEL VERTICAL



DATA

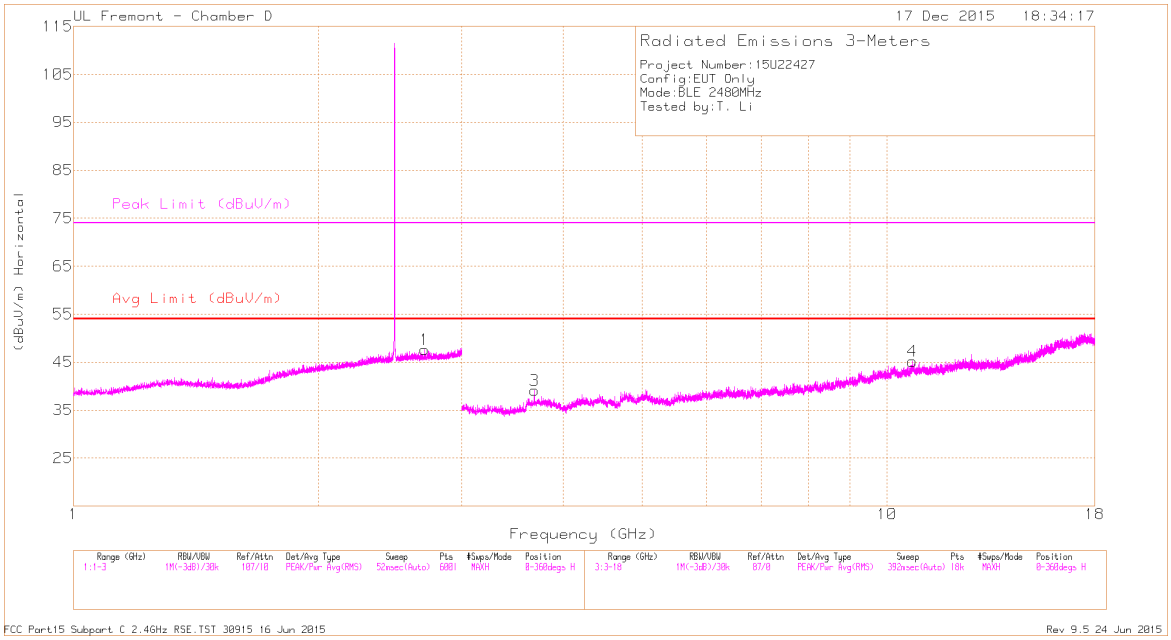
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.292	42.45	PK2	28.9	-22.3	49.05	-	-	74	-24.95	350	313	H
	* 1.289	29.99	MAv1	28.9	-22.3	36.59	54	-17.41	-	-	350	313	H
2	* 2.733	41.74	PK2	32.5	-20.5	53.74	-	-	74	-20.26	317	189	V
	* 2.736	29.86	MAv1	32.5	-20.5	41.86	54	-12.14	-	-	317	189	V
3	* 5.061	37.6	PK2	34.3	-26.7	45.2	-	-	74	-28.8	4	218	H
	* 5.062	26.01	MAv1	34.3	-26.7	33.61	54	-20.39	-	-	4	218	H
4	* 10.778	33.96	PK2	37.9	-20.5	51.36	-	-	74	-22.64	179	234	H
	* 10.78	22.07	MAv1	37.9	-20.6	39.37	54	-14.63	-	-	179	234	H
5	* 3.78	38.7	PK2	33.3	-28.2	43.8	-	-	74	-30.2	232	168	V
	* 3.78	27.49	MAv1	33.3	-28.2	32.59	54	-21.41	-	-	232	168	V
6	* 12.292	34.38	PK2	39	-21.8	51.58	-	-	74	-22.42	289	135	V
	* 12.29	23.83	MAv1	39	-21.8	41.03	54	-12.97	-	-	289	135	V

* - indicates frequency in CFR15.205/IC8.10 Restricted Band

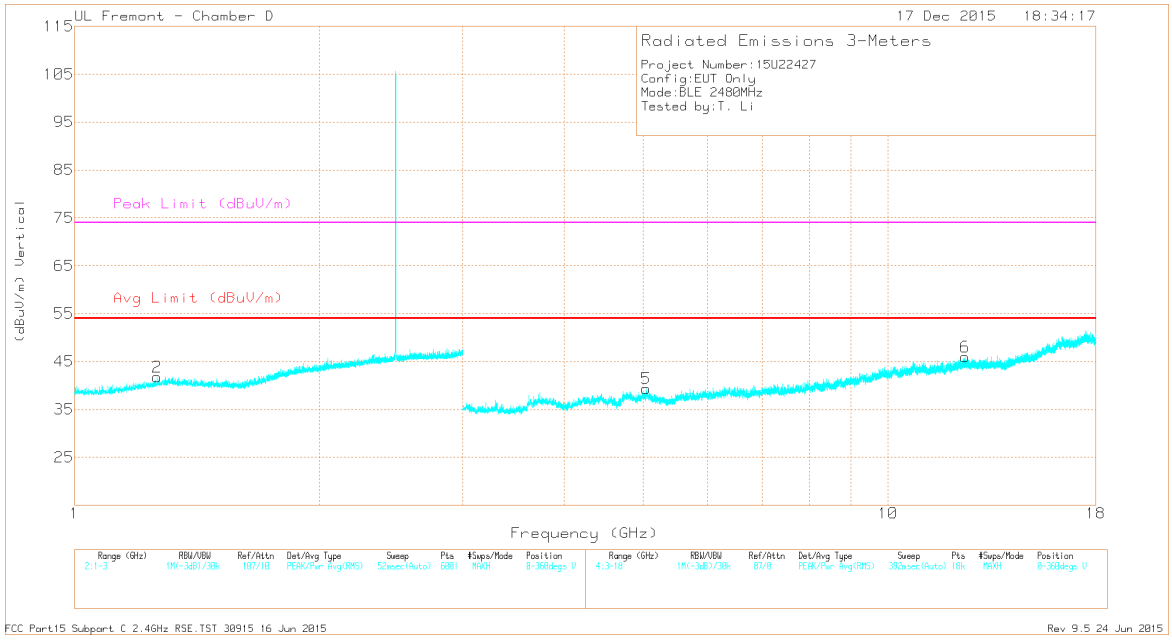
PK2 - KDB558074 Method: Maximum Peak

MAv1 - KDB558074 Option 1 Maximum RMS Average

HIGH CHANNEL HORIZONTAL



HIGH CHANNEL VERTICAL



DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.702	41.65	PK2	32.5	-20.6	53.55	-	-	74	-20.45	215	327	H
	* 2.702	29.84	MAv1	32.5	-20.6	41.74	54	-12.26	-	-	215	327	H
2	* 1.261	42.18	PK2	28.7	-22.3	48.58	-	-	74	-25.42	28	306	V
	* 1.263	30.08	MAv1	28.7	-22.3	36.48	54	-17.52	-	-	28	306	V
3	* 3.685	39.61	PK2	33.2	-29.1	43.71	-	-	74	-30.29	230	348	H
	* 3.684	27.29	MAv1	33.2	-29.1	31.39	54	-22.61	-	-	230	348	H
4	* 10.749	33.73	PK2	37.9	-20.6	51.03	-	-	74	-22.97	124	225	H
	* 10.747	22.15	MAv1	37.9	-20.6	39.45	54	-14.55	-	-	124	225	H
5	* 5.043	37.47	PK2	34.3	-26.7	45.07	-	-	74	-28.93	344	135	V
	* 5.045	26.06	MAv1	34.3	-26.7	33.66	54	-20.34	-	-	344	135	V
6	* 12.423	34.87	PK2	39	-21.1	52.77	-	-	74	-21.23	126	377	V
	* 12.424	22.85	MAv1	39	-21.1	40.75	54	-13.25	-	-	126	377	V

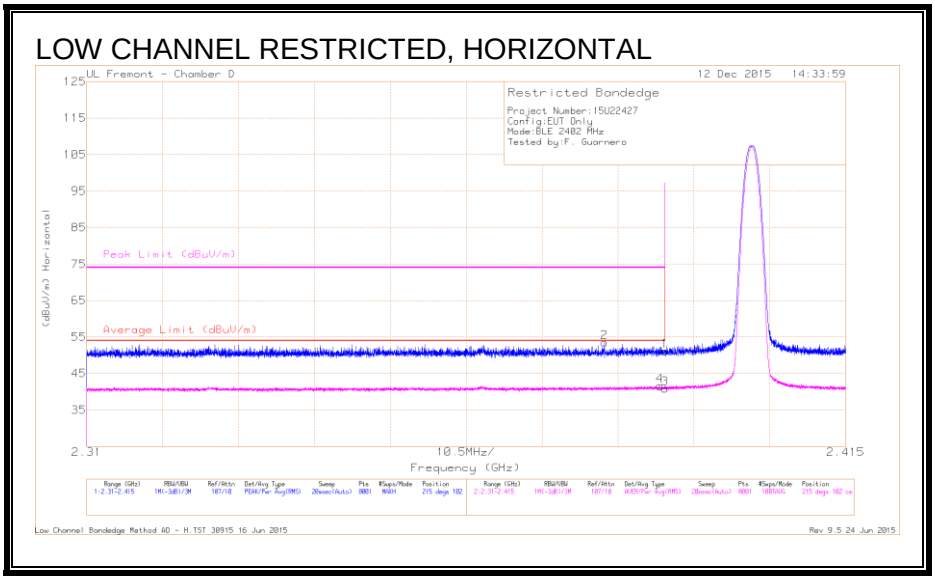
* - indicates frequency in CFR15.205/IC8.10 Restricted Band

PK2 - KDB558074 Method: Maximum Peak

MAv1 - KDB558074 Option 1 Maximum RMS Average

8.2.4. ANTENNA C LOW POWER MODE

RESTRICTED BANDEDGE



DATA

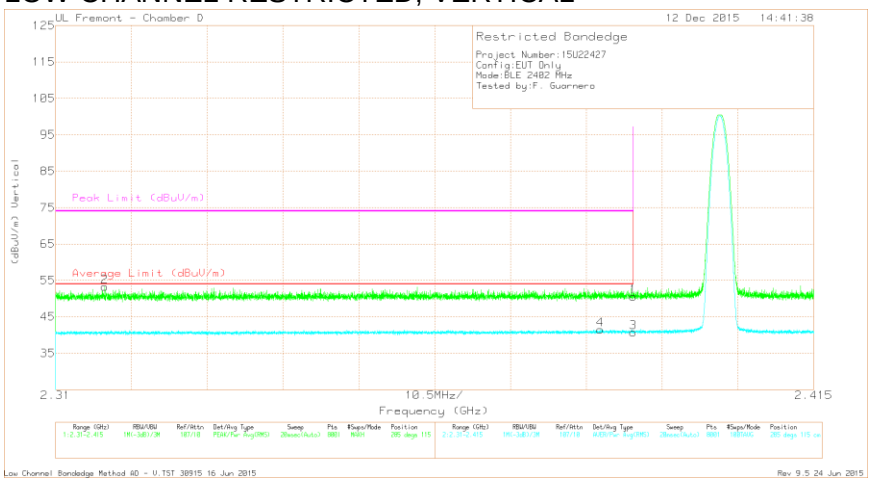
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	* 2.382	42.24	Pk	32.1	-20.8	53.54	-	-	74	-20.46	215	102	H
4	* 2.389	30.17	RMS	32.1	-20.7	41.57	54	-12.43	-	-	215	102	H
1	* 2.39	39.74	Pk	32.1	-20.7	51.14	-	-	74	-22.86	215	102	H
3	* 2.39	29.45	RMS	32.1	-20.7	40.85	54	-13.15	-	-	215	102	H

* - indicates frequency in CFR15.205/IC8.10 Restricted Band

Pk - Peak detector

RMS - RMS detection

LOW CHANNEL RESTRICTED, VERTICAL



DATA

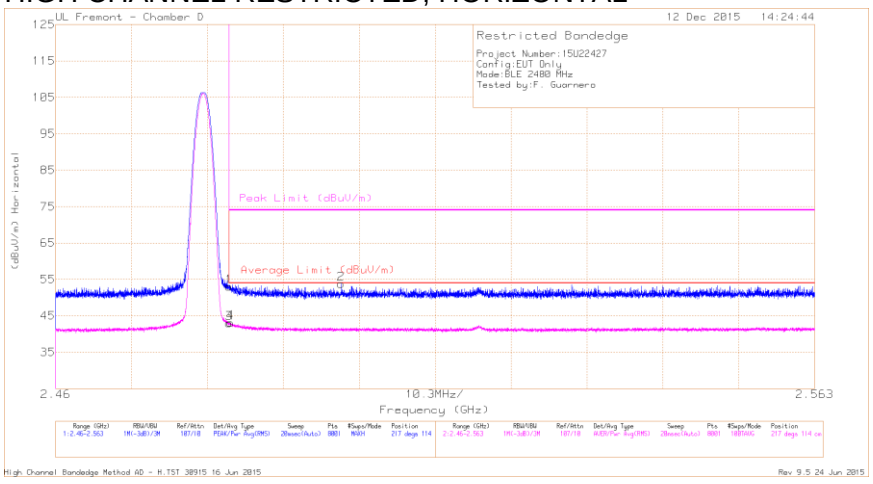
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	* 2.317	42.25	Pk	32	-21	53.25	-	-	74	-20.75	285	115	V
4	* 2.385	30.19	RMS	32.1	-20.8	41.49	54	-12.51	-	-	285	115	V
1	* 2.39	39.13	Pk	32.1	-20.7	50.53	-	-	74	-23.47	285	115	V
3	* 2.39	29.38	RMS	32.1	-20.7	40.78	54	-13.22	-	-	285	115	V

* - indicates frequency in CFR15.205/IC8.10 Restricted Band

Pk - Peak detector

RMS - RMS detection

HIGH CHANNEL RESTRICTED, HORIZONTAL



DATA

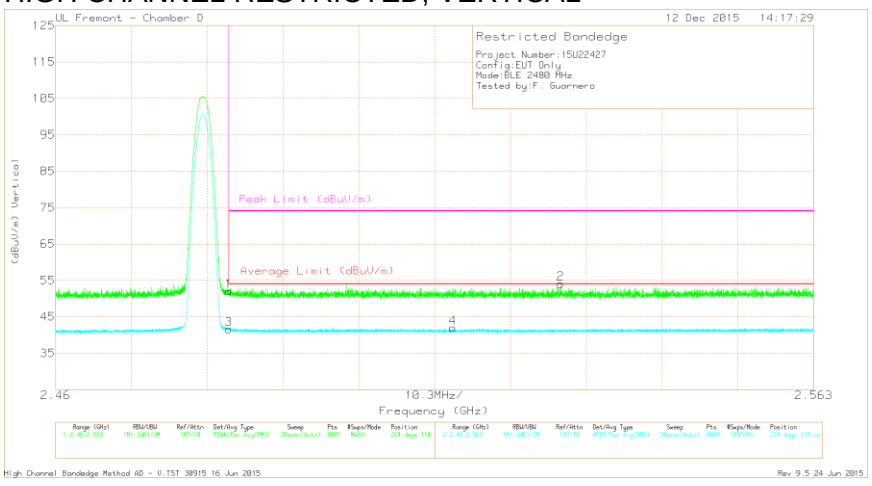
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.484	41.63	Pk	32.2	-20.8	53.03	-	-	74	-20.97	217	114	H
3	* 2.484	31.52	RMS	32.2	-20.8	42.92	54	-11.08	-	-	217	114	H
4	* 2.484	31.75	RMS	32.2	-20.8	43.15	54	-10.85	-	-	217	114	H
2	* 2.499	42.32	Pk	32.2	-20.7	53.82	-	-	74	-20.18	217	114	H

* - indicates frequency in CFR15.205/IC8.10 Restricted Band

Pk - Peak detector

RMS - RMS detection

HIGH CHANNEL RESTRICTED, VERTICAL



DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (dB/m)	Amp/Cbl/ Fltr/Pad (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	40.63	Pk	32.2	-20.8	52.03	-	-	74	-21.97	224	110	V
3	* 2.484	30.24	RMS	32.2	-20.8	41.64	-	-	-	-	224	110	V
4	2.514	30.59	RMS	32.2	-20.8	41.99	-	-	-	-	224	110	V
2	2.529	42.48	Pk	32.3	-20.7	54.08	-	-	74	-19.92	224	110	V

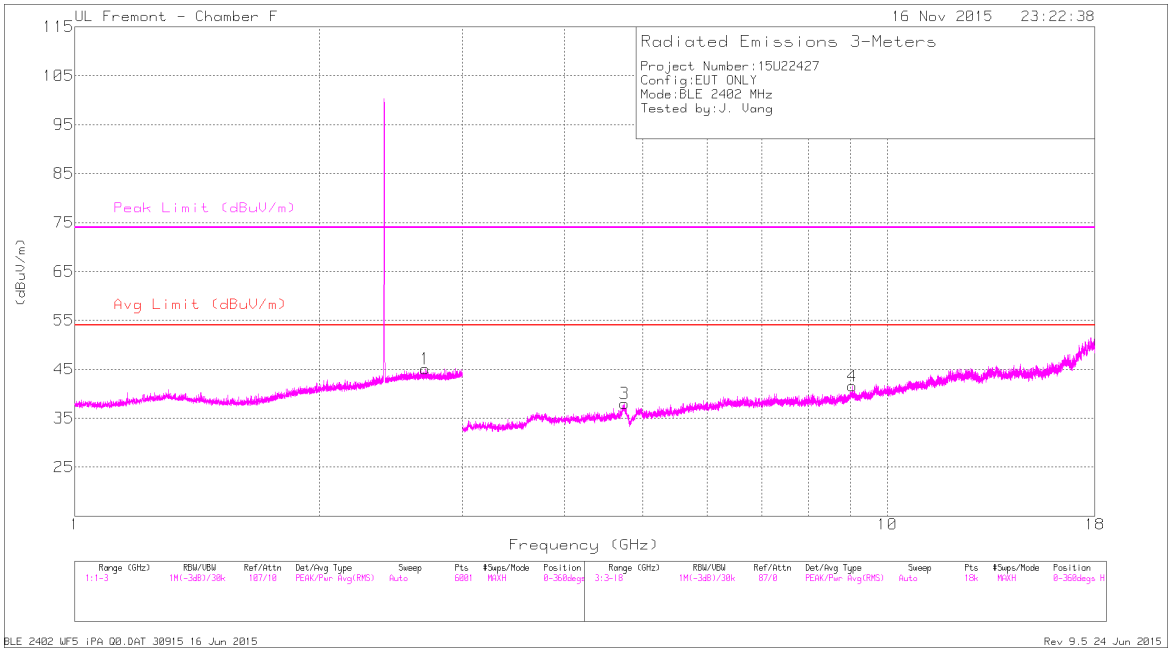
* - indicates frequency in CFR15.205/IC8.10 Restricted Band

Pk - Peak detector

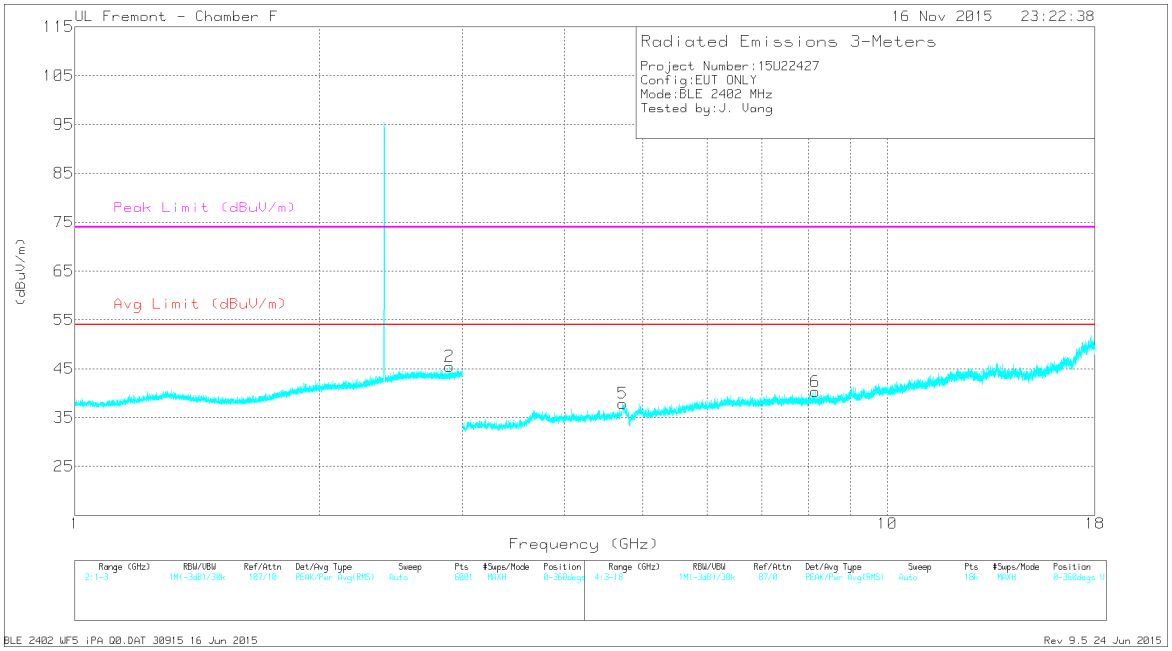
RMS - RMS detection

HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL HORIZONTAL



LOW CHANNEL VERTICAL



DATA

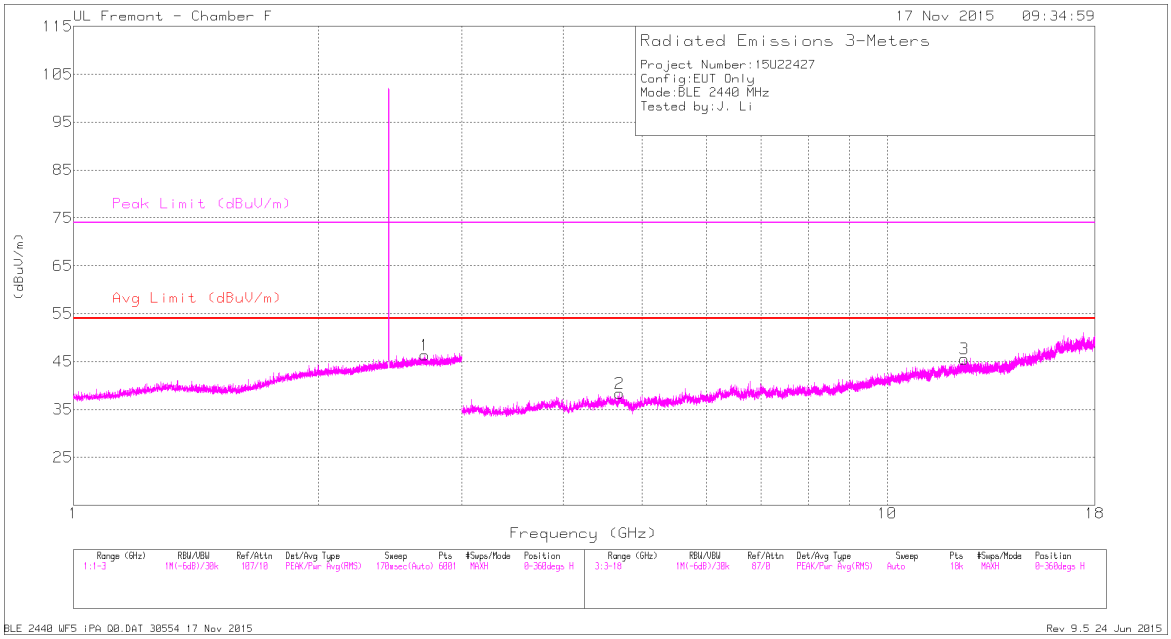
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T862 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.697	43.54	PK2	32.4	-24.4	51.54	-	-	74	-22.46	251	202	H
	* 2.697	31.71	MAv1	32.4	-24.4	39.71	54	-14.29	-	-	251	202	H
2	* 2.889	43.64	PK2	32.2	-24.3	51.54	-	-	74	-22.46	165	156	V
	* 2.891	31.85	MAv1	32.2	-24.3	39.75	54	-14.25	-	-	165	156	V
3	* 4.749	43.85	PK2	33.9	-32.5	45.25	-	-	74	-28.75	70	202	H
	* 4.749	32.57	MAv1	33.9	-32.5	33.97	54	-20.03	-	-	70	202	H
4	* 9.053	39.01	PK2	36.2	-28.2	47.01	-	-	74	-26.99	181	102	H
	* 9.053	27.49	MAv1	36.2	-28.2	35.49	54	-18.51	-	-	181	102	H
5	* 4.726	43.38	PK2	33.9	-32.3	44.98	-	-	74	-29.02	260	201	V
	* 4.728	31.89	MAv1	33.9	-32.3	33.49	54	-20.51	-	-	260	201	V
6	* 8.146	39.92	PK2	35.7	-29.5	46.12	-	-	74	-27.88	310	230	V
	* 8.149	28.47	MAv1	35.7	-29.5	34.67	54	-19.33	-	-	310	230	V

* - indicates frequency in CFR15.205/IC8.10 Restricted Band

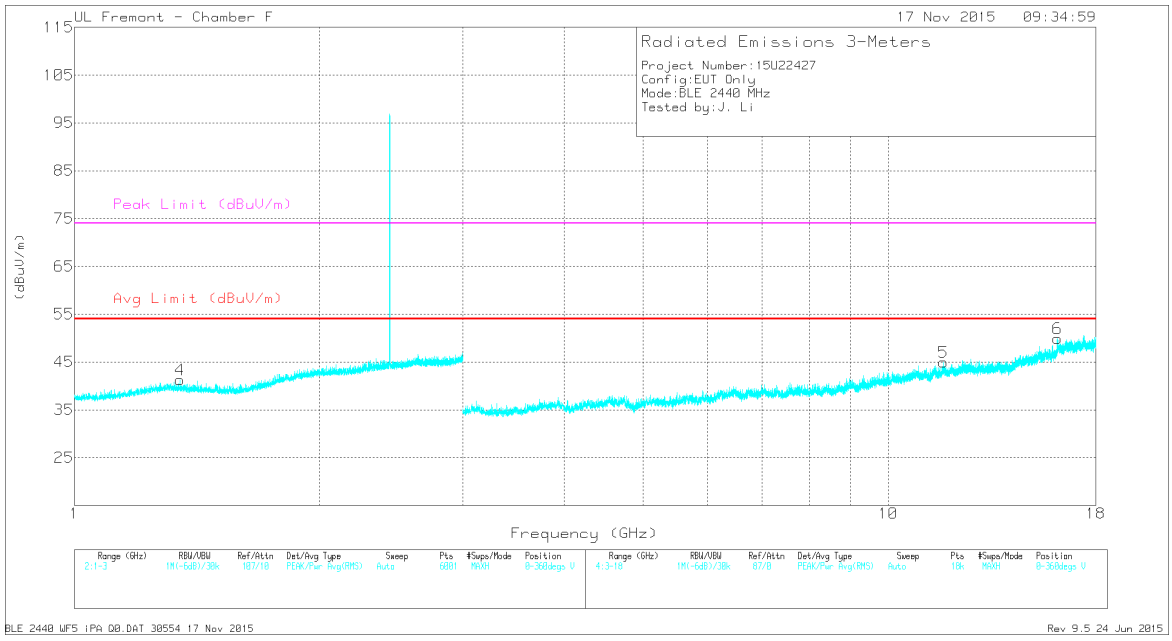
PK2 - KDB558074 Method: Maximum Peak

MAv1 - KDB558074 Option 1 Maximum RMS Average

MID CHANNEL HORIZONTAL



LOW CHANNEL VERTICAL



DATA

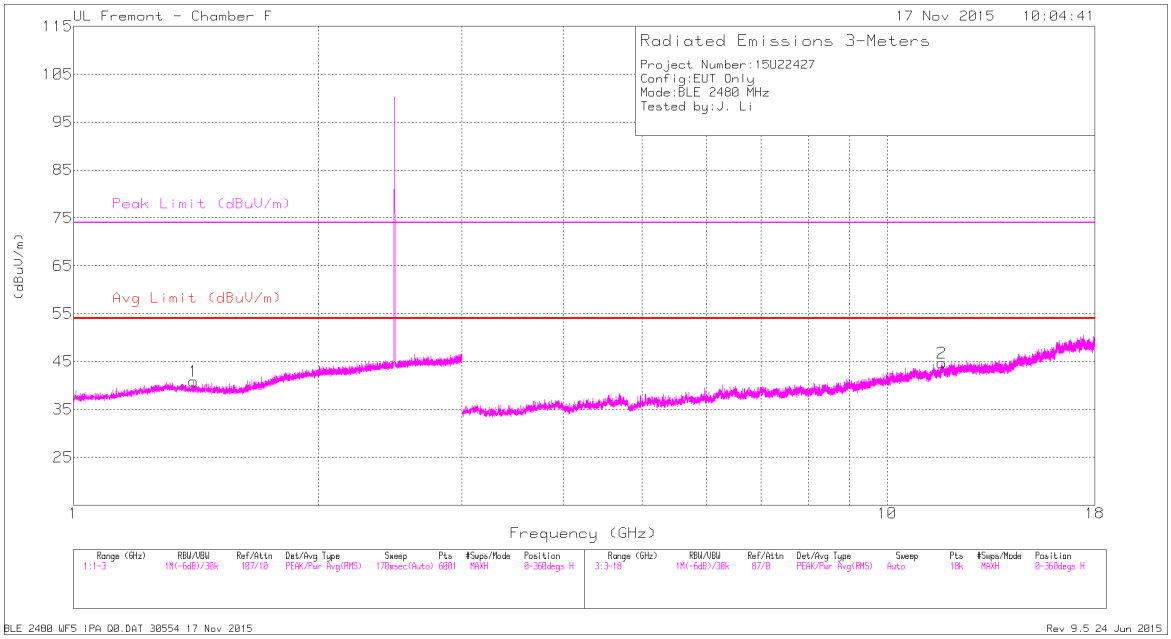
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T346 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.702	41.79	PK2	32.4	-22.5	51.69	-	-	74	-22.31	193	324	H
	* 2.703	30.4	MAv1	32.4	-22.5	40.3	54	-13.7	-	-	193	324	H
4	* 1.347	42.42	PK2	28.8	-25.6	45.62	-	-	74	-28.38	210	294	V
	* 1.346	30.49	MAv1	28.8	-25.6	33.69	54	-20.31	-	-	210	294	V
2	* 4.692	39.13	PK2	34.2	-29.7	43.63	-	-	74	-30.37	237	271	H
	* 4.692	28	MAv1	34.2	-29.7	32.5	54	-21.5	-	-	237	271	H
3	* 12.44	34.85	PK2	38.9	-23.9	49.85	-	-	74	-24.15	215	296	H
	* 12.441	23.84	MAv1	38.9	-23.9	38.84	54	-15.16	-	-	215	296	H
5	* 11.696	34.23	PK2	38.2	-22.5	49.93	-	-	74	-24.07	165	317	V
	* 11.696	23.72	MAv1	38.2	-22.5	39.42	54	-14.58	-	-	165	317	V
6	* 16.144	35.28	PK2	40.8	-20.6	55.48	-	-	74	-18.52	151	308	V
	* 16.145	23.77	MAv1	40.8	-20.6	43.97	54	-10.03	-	-	151	308	V

* - indicates frequency in CFR15.205/IC8.10 Restricted Band

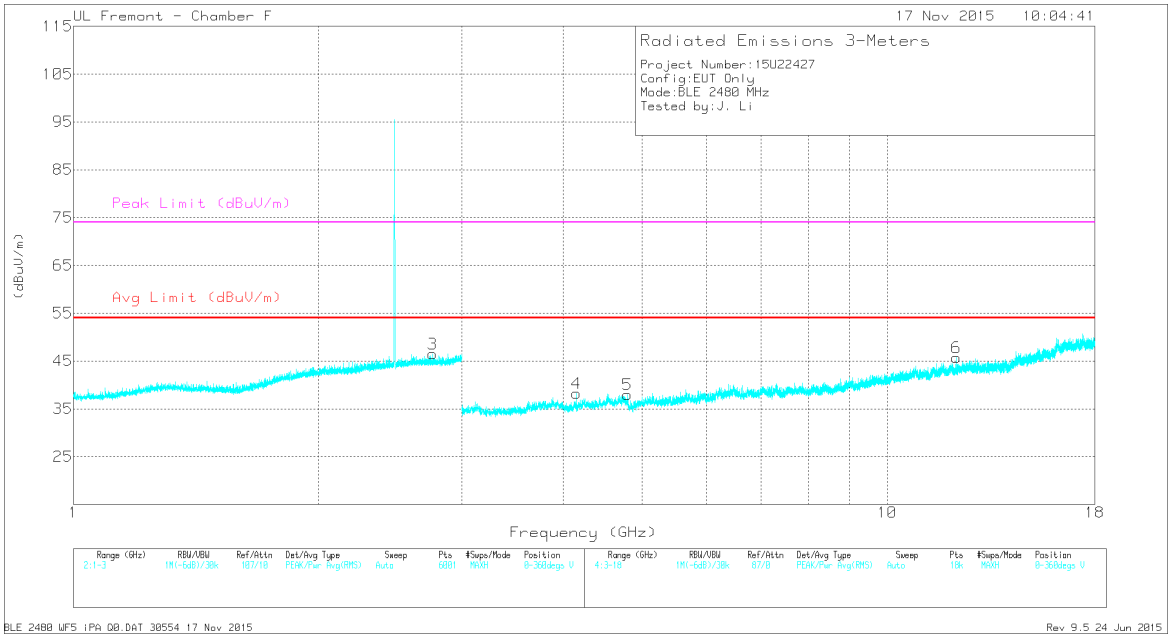
PK2 - KDB558074 Method: Maximum Peak

MAv1 - KDB558074 Option 1 Maximum RMS Average

HIGH CHANNEL HORIZONTAL



HIGH CHANNEL VERTICAL



DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T346 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.403	42.44	PK2	28.5	-25.4	45.54	-	-	74	-28.46	121	269	H
	* 1.404	30.55	MAv1	28.5	-25.4	33.65	54	-20.35	-	-	121	269	H
3	* 2.764	42.33	PK2	32.4	-22.5	52.23	-	-	74	-21.77	12	235	V
	* 2.761	30.36	MAv1	32.4	-22.5	40.26	54	-13.74	-	-	12	235	V
2	* 11.68	34.33	PK2	38.2	-22.3	50.23	-	-	74	-23.77	279	123	H
	* 11.677	23.36	MAv1	38.2	-22.4	39.16	54	-14.84	-	-	279	123	H
4	* 4.153	39.04	PK2	33.4	-30.6	41.84	-	-	74	-32.16	274	155	V
	* 4.151	27.51	MAv1	33.4	-30.6	30.31	54	-23.69	-	-	274	155	V
5	* 4.802	38.93	PK2	34.1	-29.7	43.33	-	-	74	-30.67	20	165	V
	* 4.799	27.19	MAv1	34.1	-29.7	31.59	54	-22.41	-	-	20	165	V
6	* 12.163	34.35	PK2	38.7	-24.2	48.85	-	-	74	-25.15	85	210	V
	* 12.162	23.68	MAv1	38.7	-24.2	38.18	54	-15.82	-	-	85	210	V

* - indicates frequency in CFR15.205/IC8.10 Restricted Band

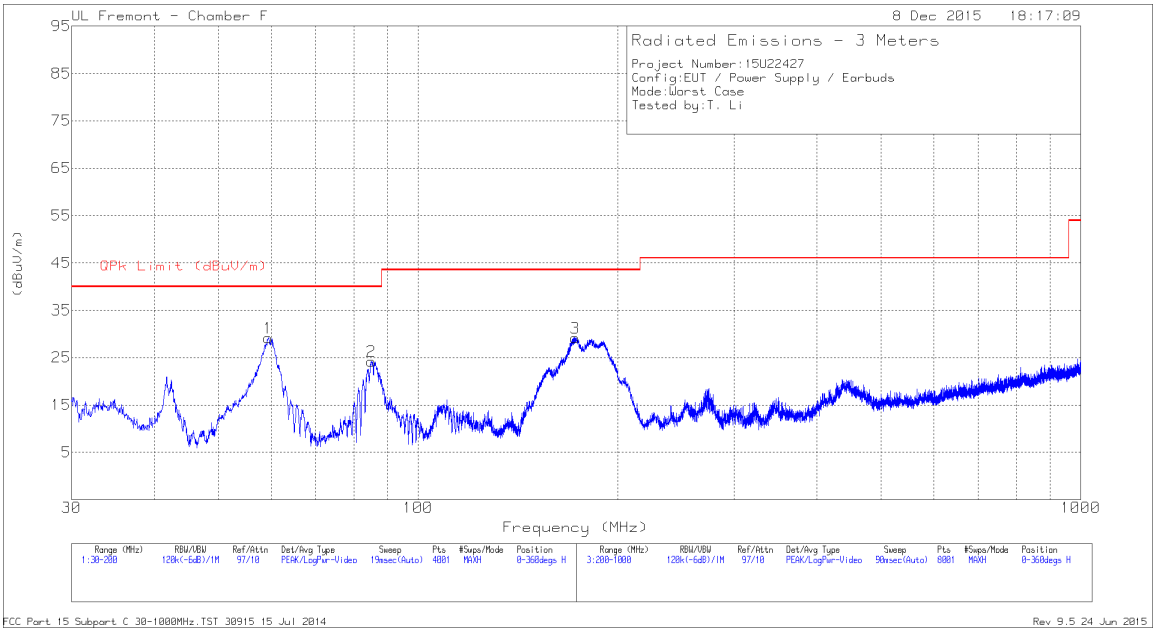
PK2 - KDB558074 Method: Maximum Peak

MAv1 - KDB558074 Option 1 Maximum RMS Average

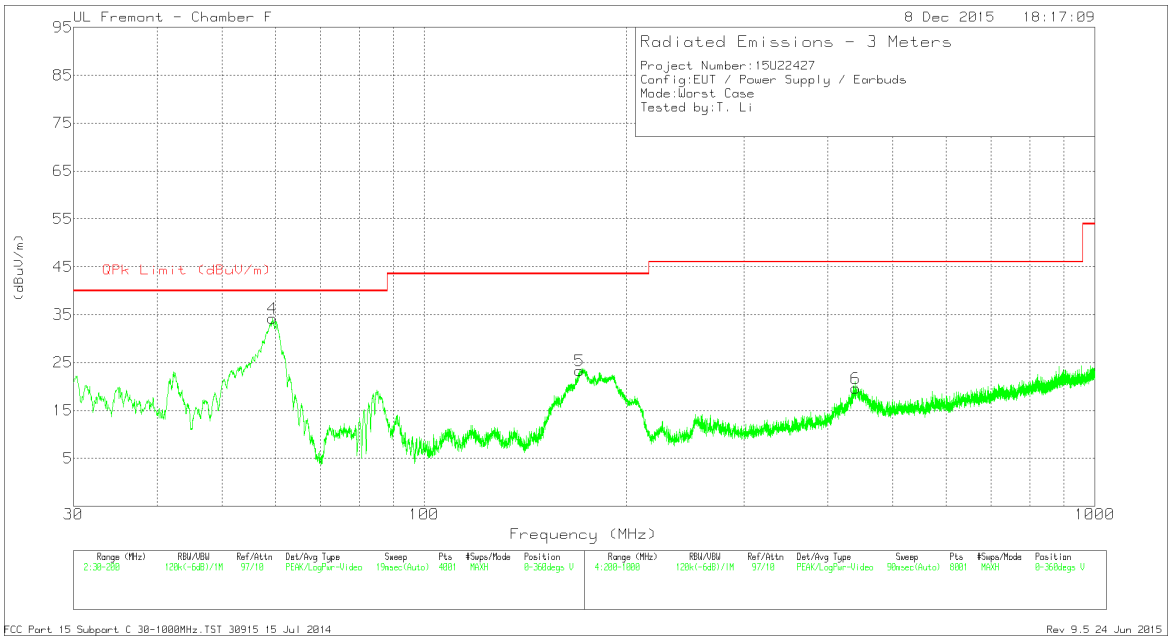
8.3. WORST-CASE BELOW 1 GHz

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

HORIZONTAL PLOT



VERTICAL: PLOT



DATA

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	AF T122 (dB/m)	Amp/Cbl (dB)	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	59.3675	53.41	Pk	7.4	-31.6	29.21	40	-10.79	0-360	301	H
2	84.9525	47.81	Pk	7.7	-31.3	24.21	40	-15.79	0-360	201	H
3	* 172.8	48.2	Pk	11.7	-30.7	29.2	43.52	-14.32	0-360	201	H
4	59.41	58.38	Pk	7.4	-31.6	34.18	40	-5.82	0-360	103	V
5	* 170.5475	42.16	Pk	11.8	-30.7	23.26	43.52	-20.26	0-360	103	V
6	440	32.24	Pk	16.9	-29.5	19.64	46.02	-26.38	0-360	100	V

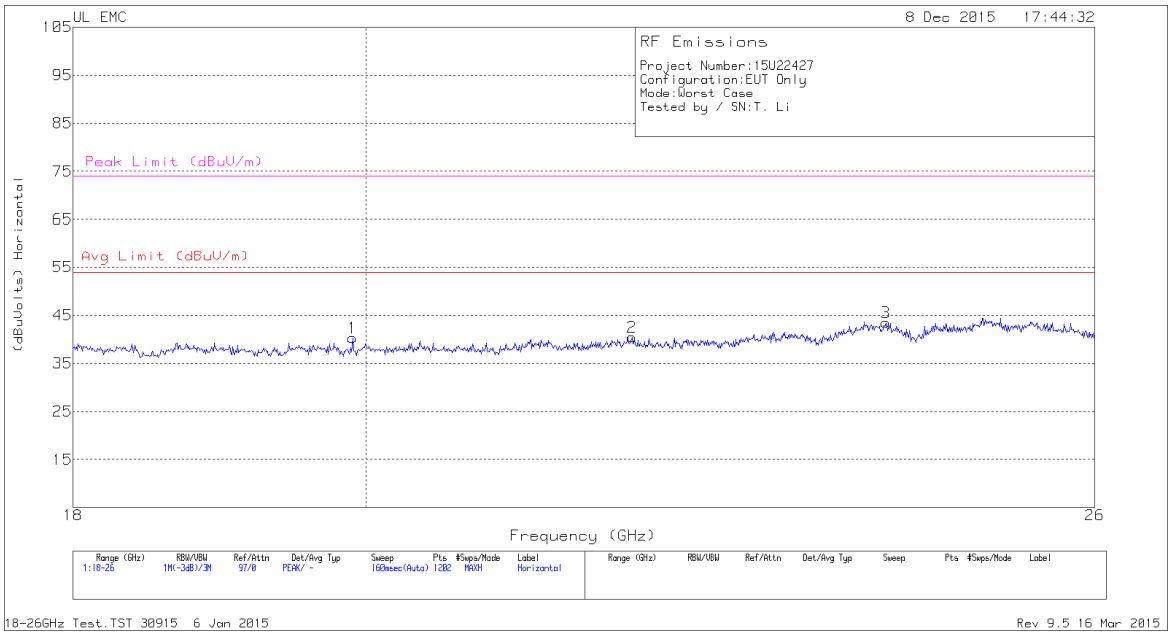
* - indicates frequency in CFR15.205/IC8.10 Restricted Band

Pk - Peak detector

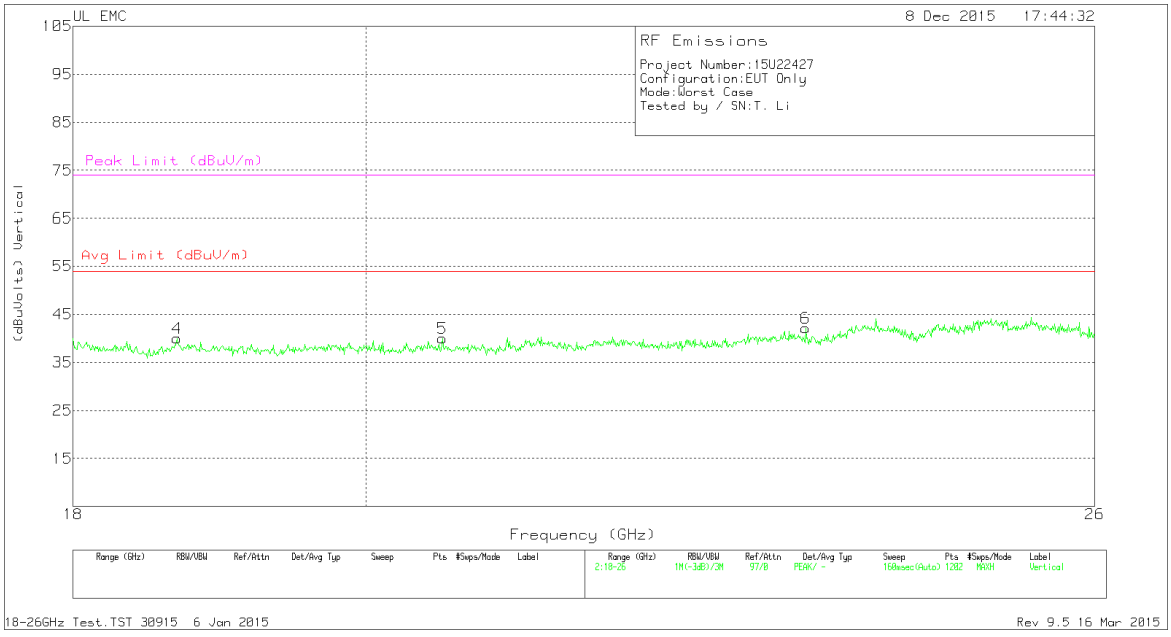
8.4. WORST-CASE 18 to 26 GHz

SPURIOUS EMISSIONS 18 to 26 GHz (WORST-CASE CONFIGURATION)

HORIZONTAL PLOT



VERTICAL PLOT



DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	T89 AF (dB/m)	Amp/Cbl (dB)	Dist Corr (dB)	Corrected Reading (dBuVolts)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)
1	19.905	42.03	Pk	32.9	-25.1	-9.5	40.33	54	-13.66	74	-33.66
2	22.01	42	Pk	33.2	-25.2	-9.5	40.5	54	-13.5	74	-33.5
3	24.115	43.9	Pk	33.4	-24.3	-9.5	43.5	54	-10.5	74	-30.5
4	18.686	41.4	Pk	32.5	-24.4	-9.5	40	54	-14	74	-34
5	20.558	42.2	Pk	32.7	-25.4	-9.5	40	54	-14	74	-34
6	23.429	42.77	Pk	33.3	-24.4	-9.5	42.16	54	-11.83	74	-31.83

Pk - Peak detector

9. AC POWER LINE CONDUCTED EMISSIONS

LIMITS

FCC §15.207 (a)

RSS-Gen 8.8

Frequency of Emission (MHz)	Conducted Limit (dBµV)	
	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 C63.10.

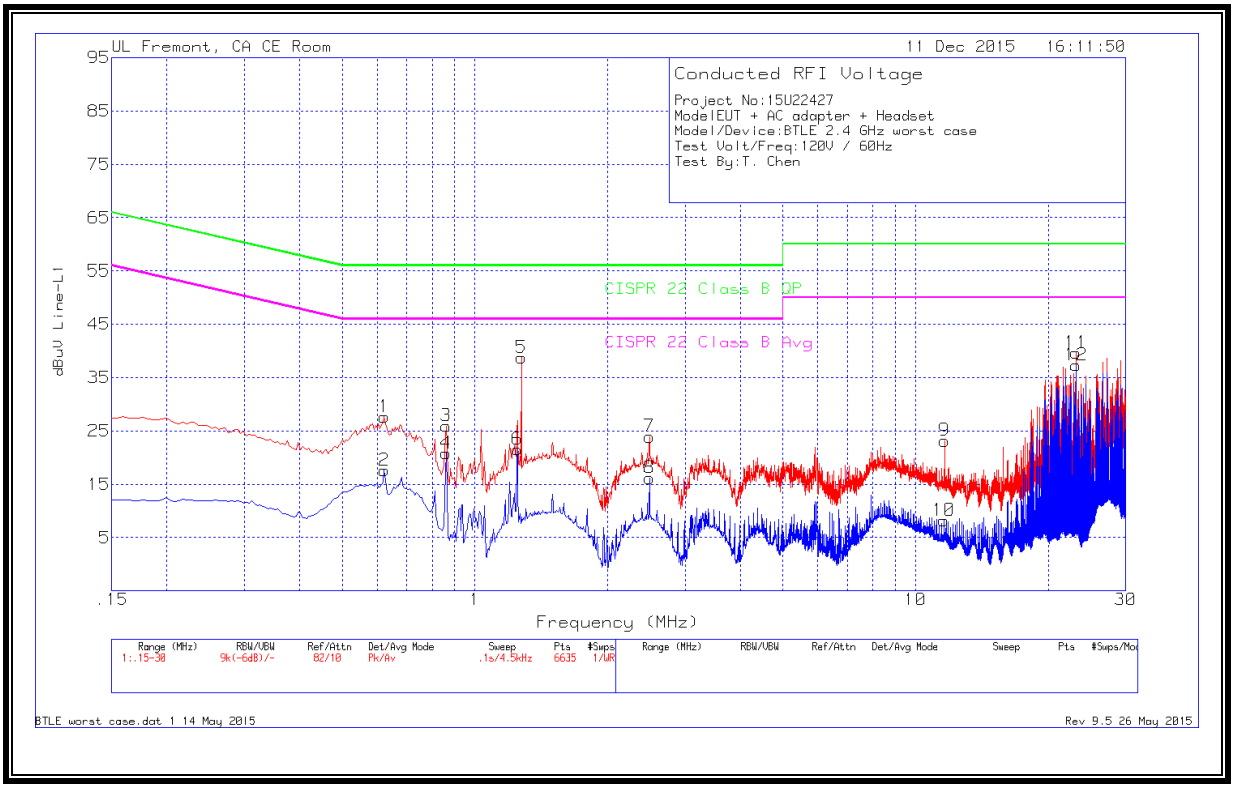
The receiver is set to a resolution bandwidth of 9 kHz. Peak detection is used unless otherwise noted as quasi-peak or average.

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

RESULTS

9.1. EUT POWERED BY AC/DC ADAPTER VIA USB CABLE

LINE 1 RESULTS

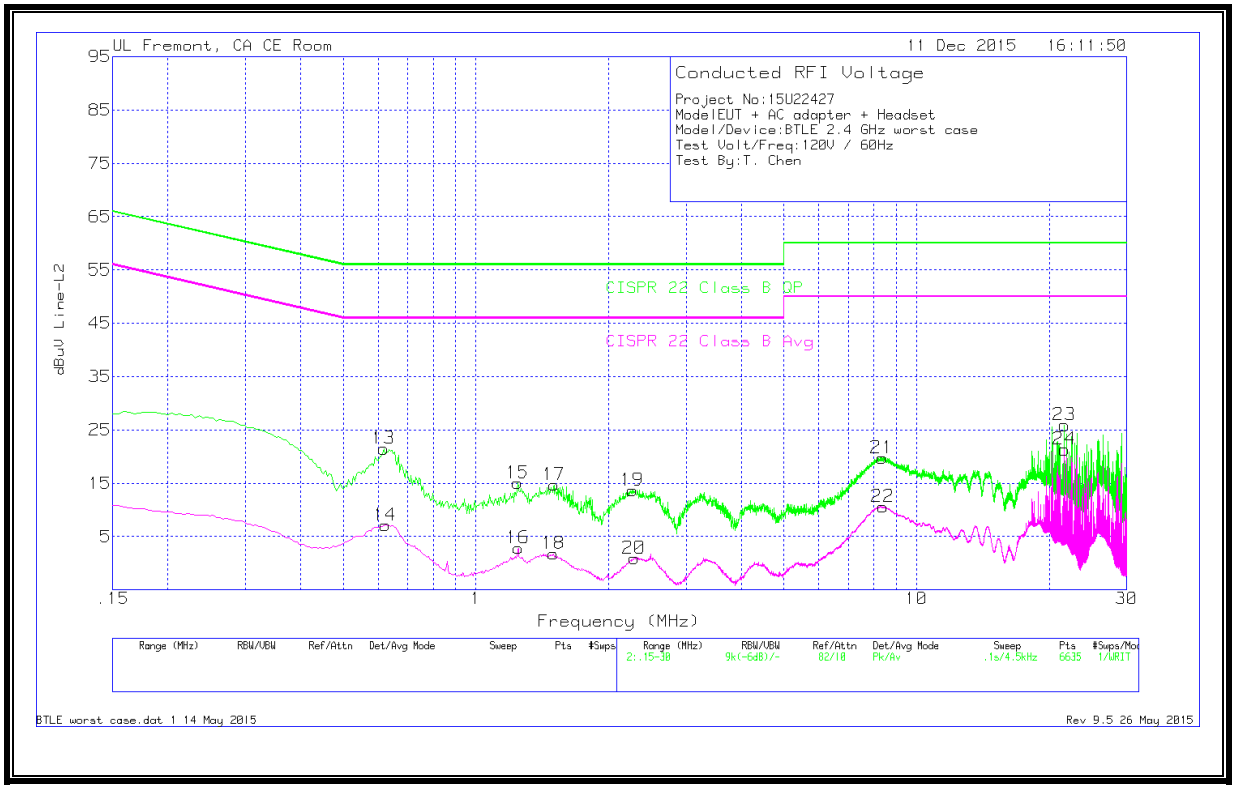


WORST EMISSIONS

Range 1: Line-L1 .15 - 30MHz										
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	T24 IL L1	LC Cables 1&3	Corrected Reading dBuV	CISPR 22 Class B QP	Margin (dB)	CISPR 22 Class B Avg	Margin (dB)
1	.6225	27.33	Pk	.3	0	27.63	56	-28.37	-	-
2	.6225	17.3	Av	.3	0	17.6	-	-	46	-28.4
3	.861	25.63	Pk	.3	0	25.93	56	-30.07	-	-
4	.861	20.5	Av	.3	0	20.8	-	-	46	-25.2
5	1.275	38.43	Pk	.2	.1	38.73	56	-17.27	-	-
6	1.248	21.31	Av	.2	0	21.51	-	-	46	-24.49
7	2.49	23.6	Pk	.2	.1	23.9	56	-32.1	-	-
8	2.49	15.86	Av	.2	.1	16.16	-	-	46	-29.84
9	11.643	22.75	Pk	.2	.2	23.15	60	-36.85	-	-
10	11.589	7.81	Av	.2	.2	8.21	-	-	50	-41.79
11	23.1315	39.17	Pk	.3	.2	39.67	60	-20.33	-	-
12	23.1315	36.82	Av	.3	.2	37.32	-	-	50	-12.68

Pk - Peak detector
Av - Average detection

LINE 2 RESULTS



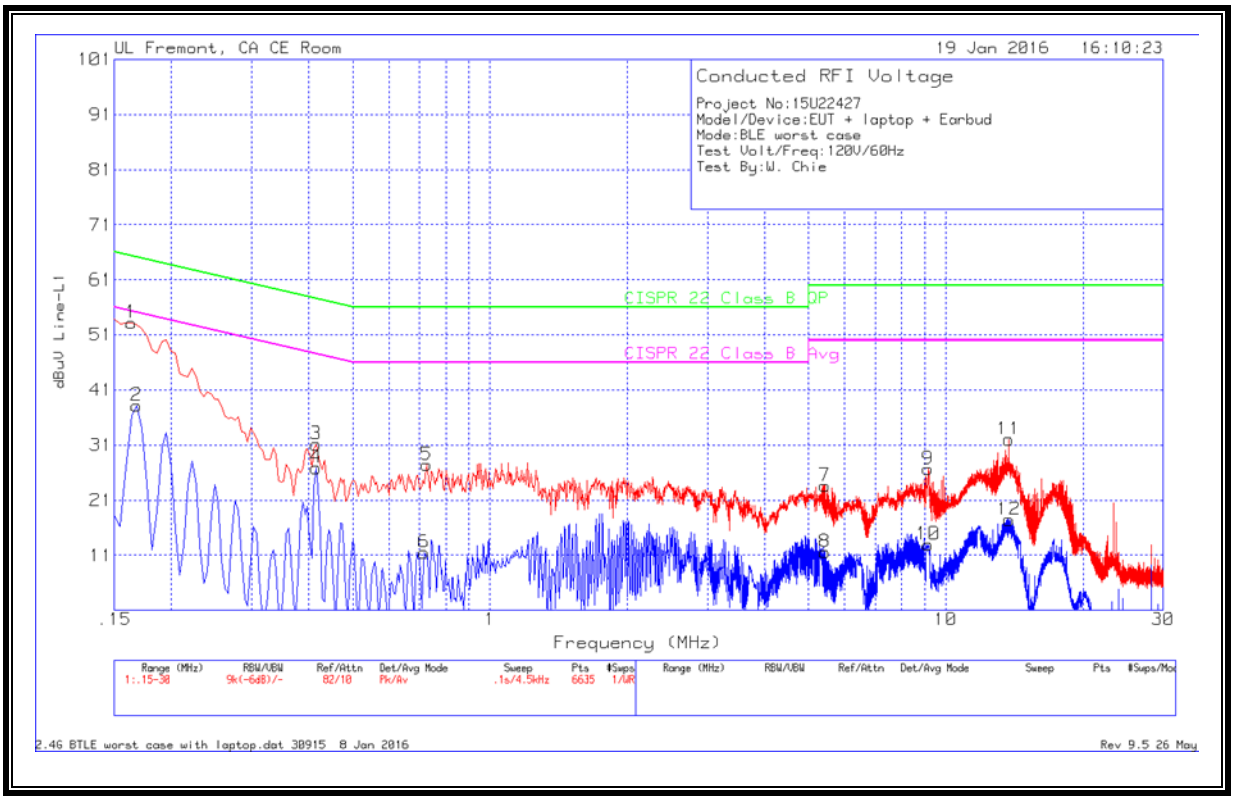
WORST EMISSIONS

Range 2: Line-L2 .15 - 30MHz										
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	T24 IL L2	LC Cables 2&3	Corrected Reading dBuV	CISPR 22 Class B QP	Margin (dB)	CISPR 22 Class B Avg	Margin (dB)
13	.618	21.17	Pk	.3	0	21.47	56	-34.53	-	-
14	.6225	6.86	Av	.3	0	7.16	-	-	46	-38.84
15	1.2435	14.74	Pk	.2	.1	15.04	56	-40.96	-	-
16	1.248	2.63	Av	.2	0	2.83	-	-	46	-43.17
17	1.5045	14.36	Pk	.2	.1	14.66	56	-41.34	-	-
18	1.5	1.46	Av	.2	.1	1.76	-	-	46	-44.24
19	2.265	13.36	Pk	.2	.1	13.66	56	-42.34	-	-
20	2.2875	.6	Av	.2	.1	.9	-	-	46	-45.1
21	8.349	19.44	Pk	.2	.1	19.74	60	-40.26	-	-
22	8.3895	10.29	Av	.2	.1	10.59	-	-	50	-39.41
23	21.6645	25.37	Pk	.3	.2	25.87	60	-34.13	-	-
24	21.6645	20.83	Av	.3	.2	21.33	-	-	50	-28.67

Pk - Peak detector
Av - Average detection

9.2. EUT POWERED BY HOST PC VIA USB CABLE

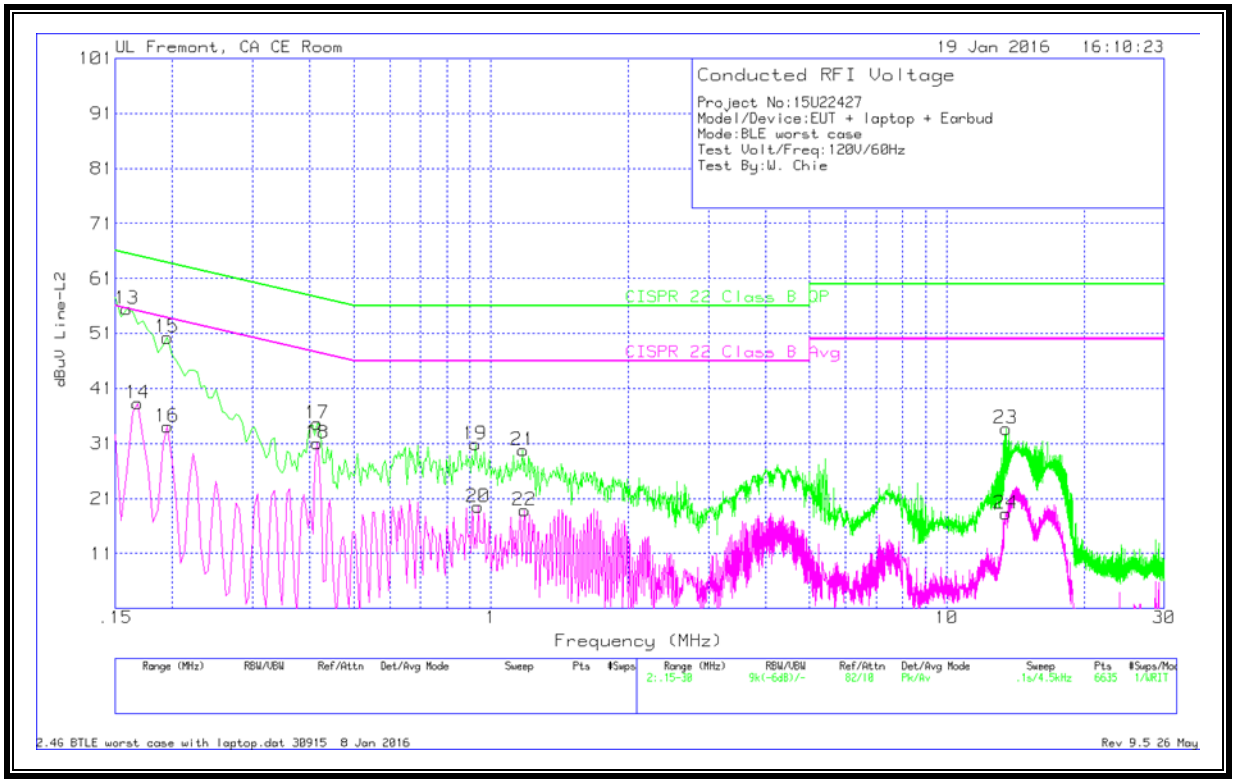
LINE 1 RESULTS



WORST EMISSIONS

Range 1: Line-L1 .15 - 30MHz										
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	T1310 IL L1	LC Cables 1&3	Corrected Reading dBuV	CISPR 22 Class B QP	Margin (dB)	CISPR 22 Class B Avg	Margin (dB)
1	.1635	53.18	Pk	0	0	53.18	65.28	-12.1	-	-
2	.168	38.16	Av	0	0	38.16	-	-	55.06	-16.9
3	.4155	31.11	Pk	0	0	31.11	57.54	-26.43	-	-
4	.4155	26.87	Av	0	0	26.87	-	-	47.54	-20.67
5	.726	27.42	Pk	0	0	27.42	56	-28.58	-	-
6	.717	11.5	Av	0	0	11.5	-	-	46	-34.5
7	5.4375	23.53	Pk	0	.1	23.63	60	-36.37	-	-
8	5.4375	11.46	Av	0	.1	11.56	-	-	50	-38.44
9	9.1455	26.43	Pk	0	.2	26.63	60	-33.37	-	-
10	9.1545	12.71	Av	0	.2	12.91	-	-	50	-37.09
11	13.758	31.71	Pk	.1	.2	32.01	60	-27.99	-	-
12	13.7715	17.13	Av	.1	.2	17.43	-	-	50	-32.57

LINE 2 RESULTS



WORST EMISSIONS

Range 2: Line-L2 .15 - 30MHz										
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	T1310 IL L2	LC Cables 2&3	Corrected Reading dBuV	CISPR 22 Class B QP	Margin (dB)	CISPR 22 Class B Avg	Margin (dB)
13	.159	55.47	Pk	0	0	55.47	65.52	-10.05	-	-
14	.168	38.31	Av	0	0	38.31	-	-	55.06	-16.75
15	.195	50.25	Pk	0	0	50.25	63.82	-13.57	-	-
16	.195	34.1	Av	0	0	34.1	-	-	53.82	-19.72
17	.4155	34.62	Pk	0	0	34.62	57.54	-22.92	-	-
18	.4155	31.05	Av	0	0	31.05	-	-	47.54	-16.49
19	.924	30.86	Pk	0	0	30.86	56	-25.14	-	-
20	.9375	19.5	Av	0	0	19.5	-	-	46	-26.5
21	1.176	29.78	Pk	0	0	29.78	56	-26.22	-	-
22	1.185	18.75	Av	0	.1	18.85	-	-	46	-27.15
23	13.488	33.4	Pk	.1	.2	33.7	60	-26.3	-	-
24	13.4835	17.98	Av	.1	.2	18.28	-	-	50	-31.72

Pk - Peak detector

Av - Average detection