



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

**BLUETOOTH LOW ENERGY
CERTIFICATION TEST REPORT**

FOR

CELLULAR PHONE WITH BLUETOOTH AND WLAN RADIOS

MODEL NUMBERS: A1634, A1687, A1690 AND A1699

**FCC ID: BCG-E2944A
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Revision History

<u>Rev.</u>	<u>Issue Date</u>	<u>Revisions</u>	<u>Revised By</u>
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TABLE OF CONTENTS

1. ATTESTATION OF TEST RESULTS	5
2. TEST METHODOLOGY	6
3. FACILITIES AND ACCREDITATION	6
4. CALIBRATION AND UNCERTAINTY	7
4.1. MEASURING INSTRUMENT CALIBRATION	7
4.2. SAMPLE CALCULATION	7
4.3. MEASUREMENT UNCERTAINTY.....	7
5. EQUIPMENT UNDER TEST	8
5.1. DESCRIPTION OF EUT	8
5.2. MAXIMUM OUTPUT POWER.....	8
5.3. DESCRIPTION OF AVAILABLE ANTENNAS	8
5.4. SOFTWARE AND FIRMWARE.....	8
5.5. WORST-CASE CONFIGURATION AND MODE.....	9
5.6. DESCRIPTION OF TEST SETUP.....	10
6. TEST AND MEASUREMENT EQUIPMENT	14
7. ANTENNA PORT TEST RESULTS (MODEL: A1634)	15
7.1. MEASUREMENT METHODS	15
7.2. ON TIME, DUTY CYCLE	16
7.2.1. HIGH POWER MODE.....	17
7.2.2. LOW POWER MODE	18
7.3. HIGH POWER MODE.....	19
7.3.1. 6 dB BANDWIDTH.....	19
7.3.2. 99% BANDWIDTH.....	22
7.3.3. AVERAGE POWER	24
7.3.4. OUTPUT POWER	25
7.3.5. POWER SPECTRAL DENSITY	26
7.3.6. CONDUCTED SPURIOUS EMISSIONS.....	28
7.4. LOW POWER MODE	32
7.4.1. 6 dB BANDWIDTH.....	32
7.4.2. 99% BANDWIDTH.....	35
7.4.3. AVERAGE POWER	38
7.4.4. OUTPUT POWER	39
7.4.5. POWER SPECTRAL DENSITY	40
7.4.6. CONDUCTED SPURIOUS EMISSIONS.....	43
8. ANTENNA PORT TEST RESULTS (MODEL: A1687)	47
9. RADIATED TEST RESULTS (MODEL: A1634)	48

9.1.	LIMITS AND PROCEDURE.....	48
9.2.	TRANSMITTER ABOVE 1 GHz.....	49
9.2.1.	HIGH POWER MODE.....	49
9.2.2.	LOW POWER MODE.....	59
9.3.	WORST-CASE 18 to 26 GHz.....	69
9.3.1.	HIGH POWER MODE.....	69
9.3.2.	LOW POWER MODE.....	71
9.4.	WORST-CASE BELOW 1 GHz.....	73
9.4.1.	HIGH POWER MODE.....	73
9.4.2.	LOW POWER MODE.....	75
10.	RADIATED TEST RESULTS (MODE: A1687).....	77
10.1.	LIMITS AND PROCEDURE.....	77
10.2.	TRANSMITTER ABOVE 1 GHz.....	78
10.2.1.	HIGH POWER MODE.....	78
10.2.2.	LOW POWER MODE.....	88
10.3.	WORST-CASE 18 to 26 GHz.....	98
10.3.1.	HIGH POWER MODE.....	98
10.3.2.	LOW POWER MODE.....	99
10.4.	WORST-CASE BELOW 1 GHz.....	101
10.4.1.	HIGH POWER MODE.....	101
10.4.2.	LOW POWER MODE.....	103
11.	AC POWER LINE CONDUCTED EMISSIONS.....	105
11.1.	EUT POWERED BY AC/DC ADAPTER VIA USB CABLE.....	106
11.2.	EUT POWERED BY HOST PC VIA USB CABLE.....	109
12.	SETUP PHOTOS.....	112

1. ATTESTATION OF TEST RESULTS

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

EUT DESCRIPTION: CELLULAR PHONE WITH BLUETOOTH AND WLAN RADIOS

MODELS: A1634, A1687, A1690 AND A1699

SERIAL NUMBER: A1634:
C39PV09AGQ73 (RADIATED); C39PV094GQ73 (CONDUCTED)
A1687:
C39PL01LGLJQ (CONDUCTED), C39PL01EGLJW (RADIATED)

DATE TESTED: MAY 21 TO JULY 15, 2015

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

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

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

Approved & Released For
UL Verification Services Inc. By:

Tested By:



CHIN PANG
SENIOR ENGINEER
UL VERIFICATION SERVICES INC.

FRANCISCO GUARNERO
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, 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
<input type="checkbox"/> Chamber A	<input type="checkbox"/> Chamber D
<input type="checkbox"/> Chamber B	<input checked="" type="checkbox"/> Chamber E
<input type="checkbox"/> Chamber C	<input type="checkbox"/> Chamber F
	<input checked="" type="checkbox"/> Chamber G
	<input checked="" type="checkbox"/> 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:

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

4.3. MEASUREMENT UNCERTAINTY

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

PARAMETER	UNCERTAINTY
Conducted Disturbance, 0.15 to 30 MHz	± 3.52 dB
Radiated Disturbance, 30 to 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 mobile phone with multimedia functions (music, application support, and video), cellular GSM/GPRS/EGPRS/WCDMA/HSPA+/DC-HSDPA/CDMA/EVDO/LTE radio, IEEE 802.11a/b/g/n/ac, NFC, Bluetooth and GPS radio. The rechargeable battery is not user accessible.

5.2. MAXIMUM OUTPUT POWER

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

HIGH POWER MODE

Frequency Range (MHz)	Mode	Output Power (dBm)	Output Power (mW)
2402 - 2480	High Power	15.06	32.06

LOW POWER MODE

Frequency Range (MHz)	Mode	Output Power (dBm)	Output Power (mW)
2402 - 2480	Low Power	10.69	11.72

5.3. DESCRIPTION OF AVAILABLE ANTENNAS

Frequency Band (GHz)	Antenna Gain(dBi)
2.4	0.16

5.4. SOFTWARE AND FIRMWARE

The firmware installed in the EUT during testing was Bluetool 1.8.8.6

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 X-Flatbed orientation was worst-case orientation. Therefore, all final radiated testing was performed with the EUT in X-Flatbed orientation.

Worst-case data rate as provided by the client was:

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 BT/BLE 2.4 GHz, 5GHz and Cellular bands; or WLAN 2.4GHz and Cellular bands, tests were conducted for various configurations having the highest power, least separation in frequencies and widest operation bandwidths. No noticeable new emission was found.

Based on the manufacturer's statement Model A1687, A1690 and A1699 are exactly same, except for marketing reasons.

For WLAN/BT mode, all four models use the same WLAN/BT chipset. Therefore, conducted tests on Model A1634 was considered representative of Model A1687. Radiated testing was performed on both models A1634 and A1687.

Delta Items	A1634	A1687	A1690	A1699
Band 30	Yes	No	No	No

5.6. DESCRIPTION OF TEST SETUP

SUPPORT EQUIPMENT

Support Equipment List				
Description	Manufacturer	Model	Serial Number	FCC ID
Laptop AC/DC adapter	Lenovo	92P1160	11S92P1160Z1ZBGH798B12	NA
Laptop	Lenovo	7659	L3-AL664 08/03	NA
EUT AC/DC adapter	Apple	A1385	D293062F3WVDHLHCF	N/A
Earphone	Apple	NA	NA	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						

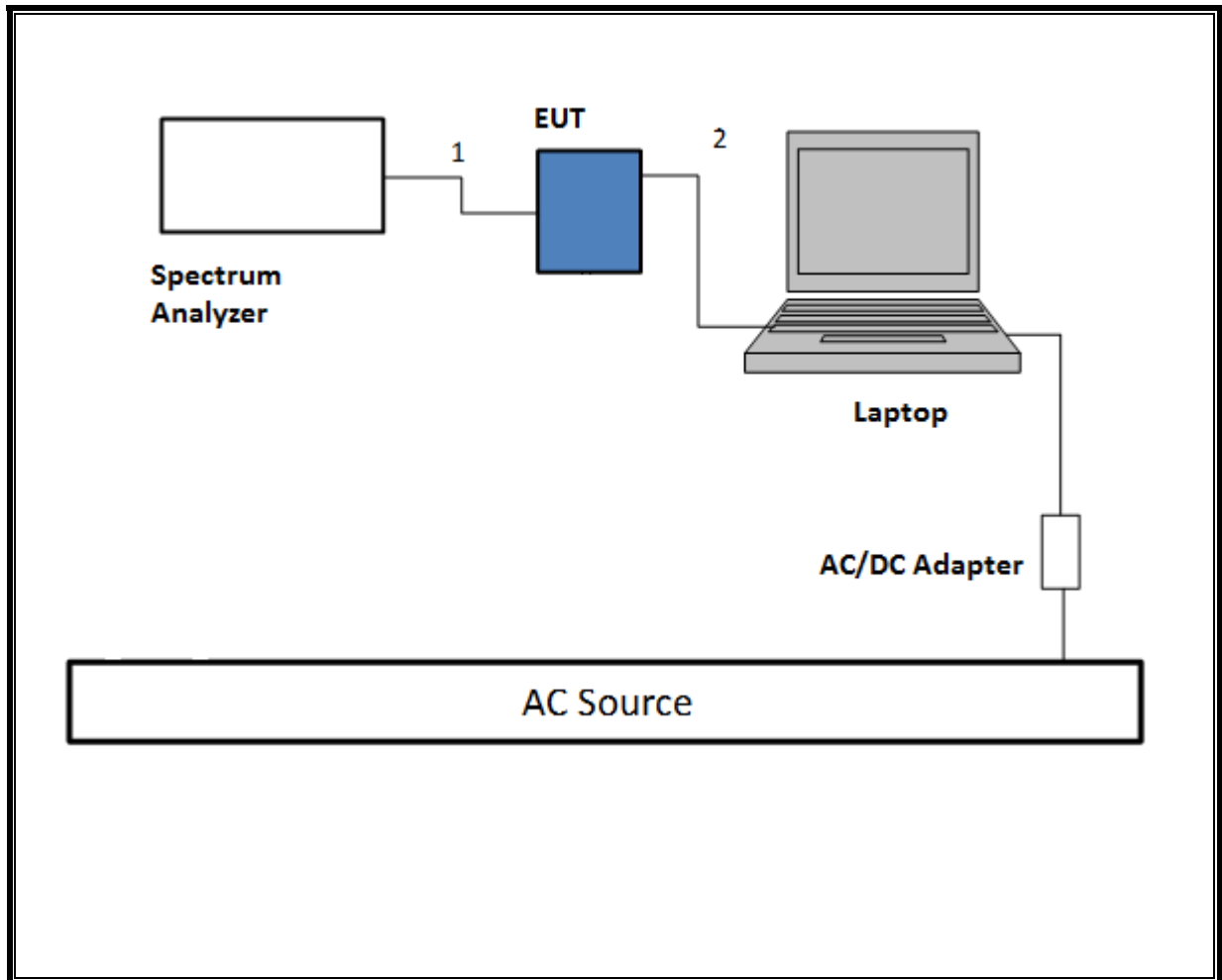
I/O CABLES (AC POWER CONDUCTED TEST AND BELOW 1 GHZ)

I/O Cable List						
Cable No	Port	# of identical ports	Connector Type	Cable Type	Cable Length (m)	Remarks
1	AC	1	AC	Un-shielded	3	N/A
2	Audio	1	Jack	Un-shielded	0.5	NA

TEST SETUP

The EUT was powered by AC cord. Test software exercised the radio card.

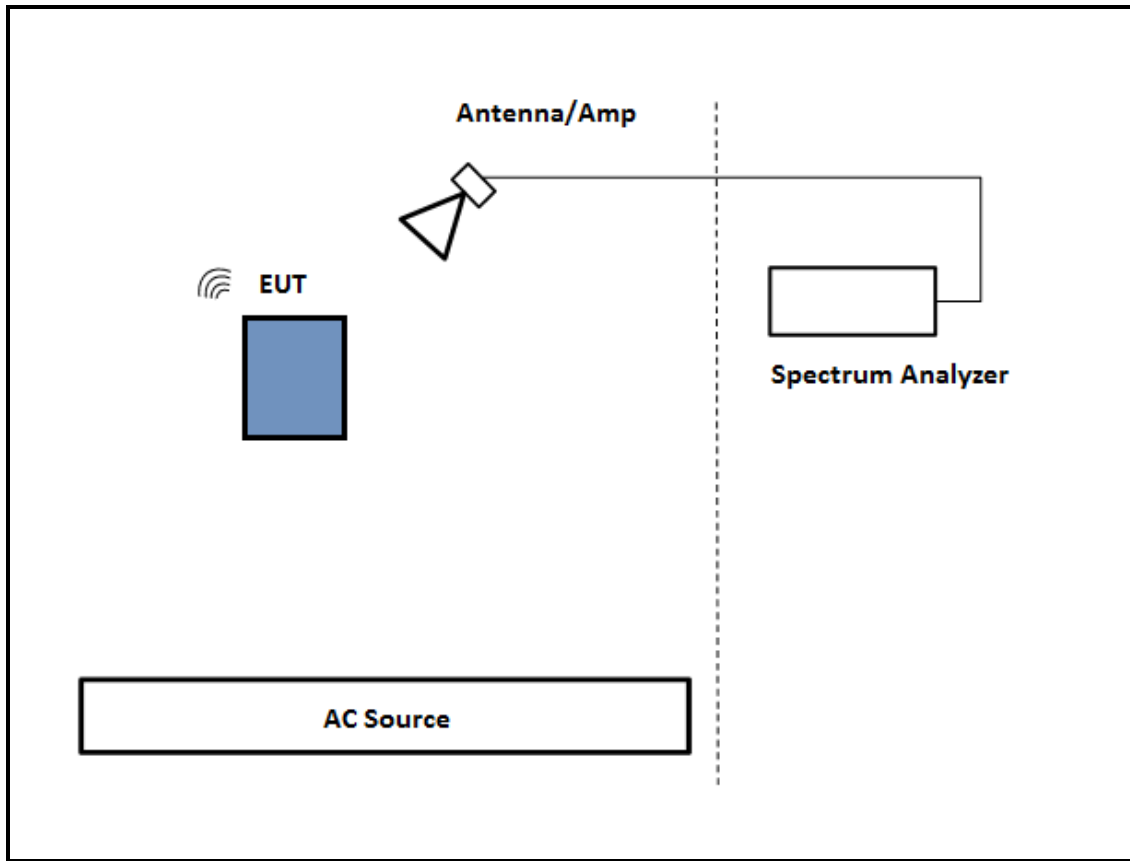
SETUP DIAGRAM



TEST SETUP- RADIATED-ABOVE 1 GHZ

The EUT was powered by AC cord. Test software exercised the EUT.

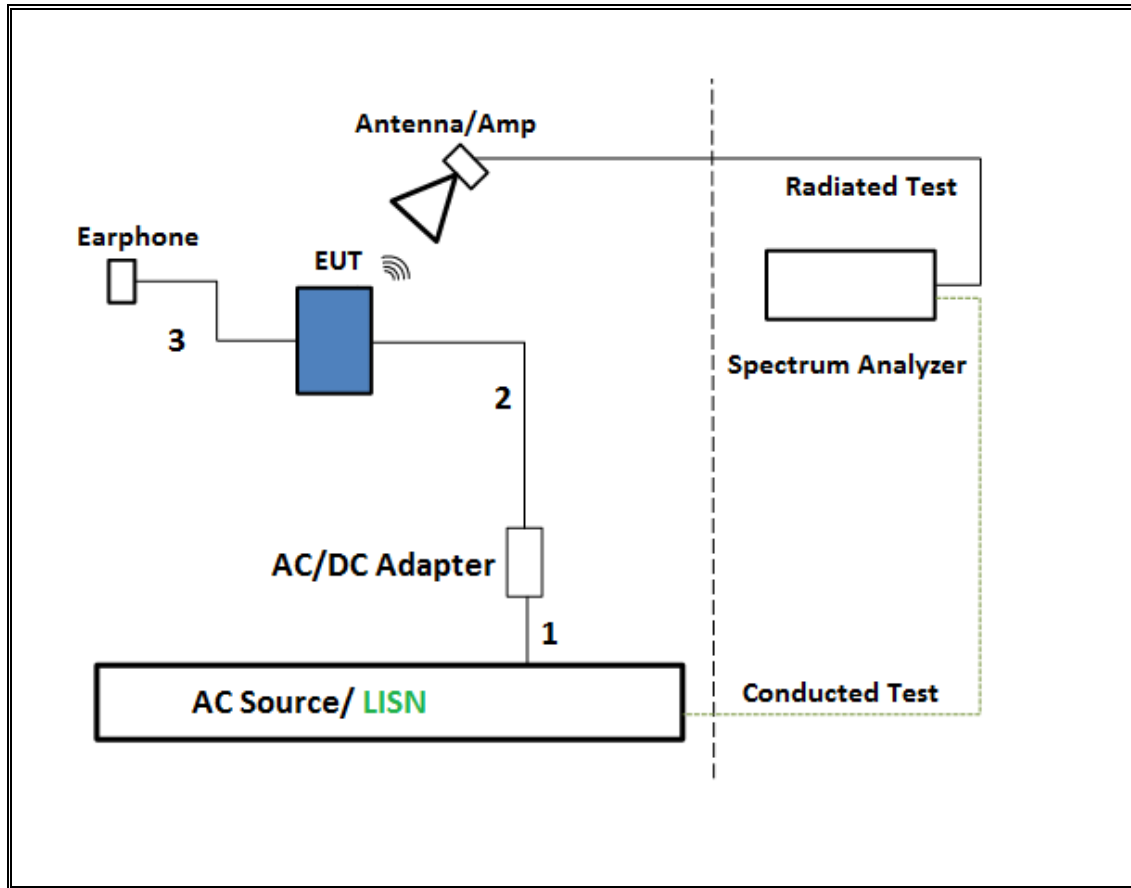
SETUP DIAGRAM



TEST SETUP- BELOW 1GHZ & AC LINE CONDUCTED TESTS

The EUT was powered by AC cord. 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	JB3	1/14/2015	1/14/2016
Amplifier, 1 - 18GHz	Miteq	AFS42-00101800-25-S-42	1/26/2015	1/26/2016
Amplifier, 10KHz to 1GHz, 32dB	Sonoma	310N	11/1/2014	11/1/2015
Spectrum Analyzer, PXA, 3Hz to 44GHz	Agilent	N9030A	12/23/2014	12/23/2015
Antenna, Broadband Hybrid, 30MHz to 2000MHz	Sunol Sciences	JB1	2/13/2015	2/13/2016
Spectrum Analyzer, PXA, 3Hz to 44GHz	Agilent	N9030A	2/20/2015	2/20/2016
Power Meter, P-series single channel	Agilent	N1911A	10/9/2014	10/9/2015
Power Sensor, P - series, 50MHz to 18GHz, Wideband	Agilent	N1921A	7/12/2014	7/12/2016
Antenna, Horn 18 to 26.5GHz	ARA	MWH-1826	12/17/2014	12/17/2015
Amplifier, 1 to 26.5GHz, 23.5dB Gain minimum	Agilent	8449B	10/4/2014	10/4/2015
AC Line Conducted				
EMI Test Receiver 9KHz-7GHz	Rohde & Schwarz	ECSI7	09/16/14	09/16/15
LISN for Conducted Emissions CISPR-16	FCC	50/250-25-2	01/16/15	01/16/16
Power Cable, Line Conducted Emissions ANSI 63.4	UL	PG1	7/28/2014	7/28/2015
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	

7. ANTENNA PORT TEST RESULTS (MODEL: A1634)

7.1. MEASUREMENT METHODS

MEASUREMENT METHODS

6 dB BW: KDB 558074 D01 v03r03, Section 8.1.

Output Power: KDB 558074 D01 v03r03, Section 9.1.2.

Power Spectral Density: KDB 558074 D01 v03r03, Section 10.2.

Out-of-band emissions in non-restricted bands: KDB 558074 D01 v03r03, Section 11.0.

Out-of-band emissions in restricted bands: KDB 558074 D01 v03r03, Section 12.1.

Band-edge: KDB 558074 D01 v03r03, 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

HIGH POWER MODE

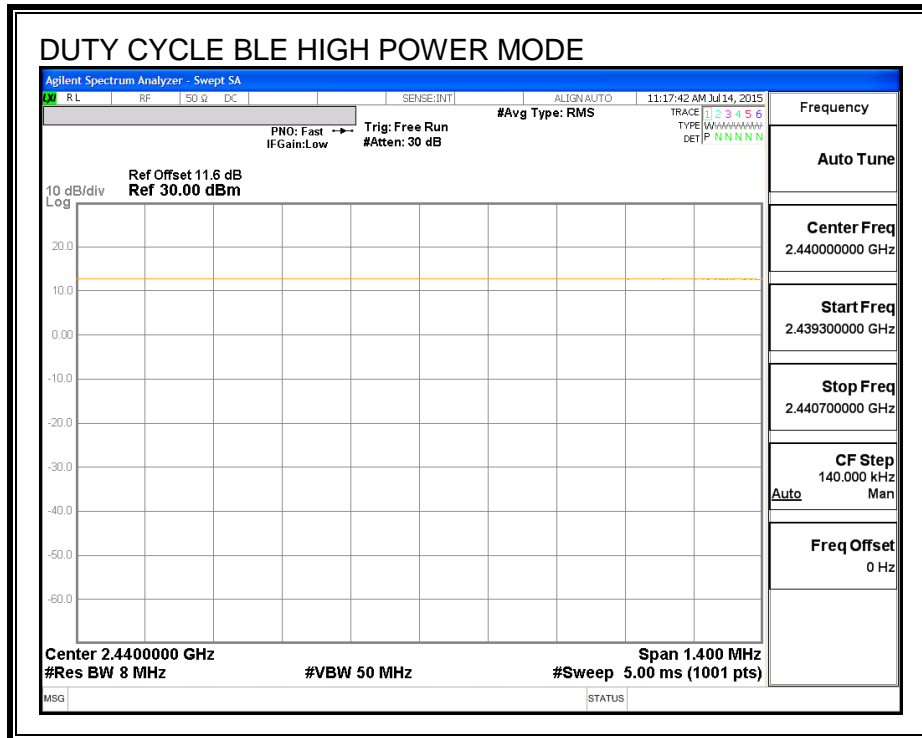
Mode	ON Time B (msec)	Period (msec)	Duty Cycle x (linear)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)	1/B Minimum VBW (kHz)
BLE High Power	5.000	5.000	1.000	100.00%	0.00	0.010

LOW POWER MODE

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	5.000	5.000	1.000	100.00%	0.00	0.010

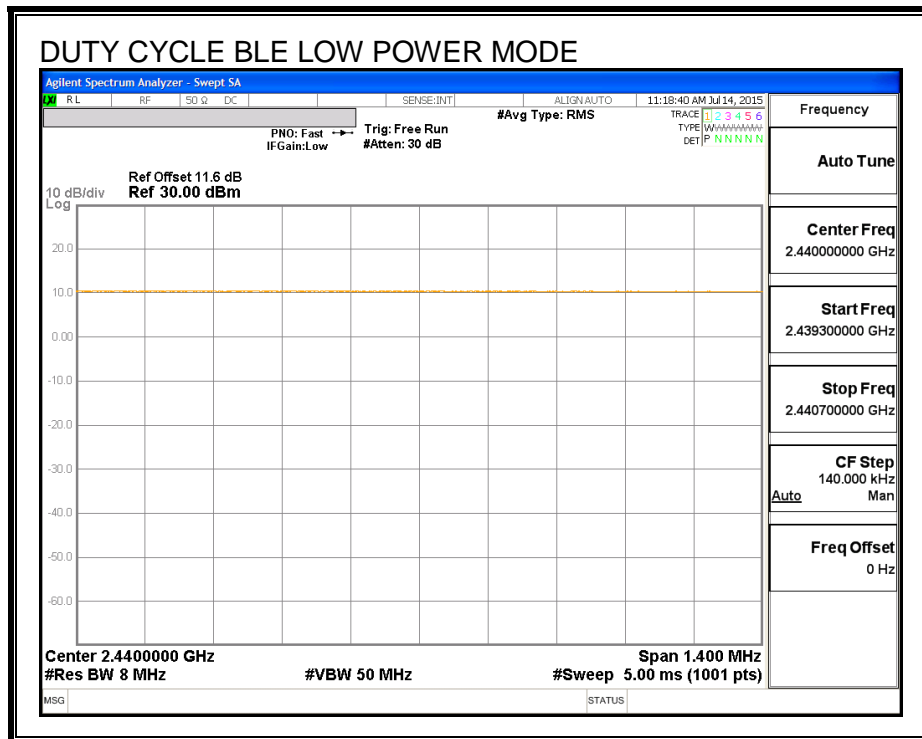
7.2.1. HIGH POWER MODE

DUTY CYCLE PLOTS



7.2.2. LOW POWER MODE

DUTY CYCLE PLOTS



7.3. HIGH POWER MODE

7.3.1. 6 dB BANDWIDTH

LIMITS

FCC §15.247 (a) (2)

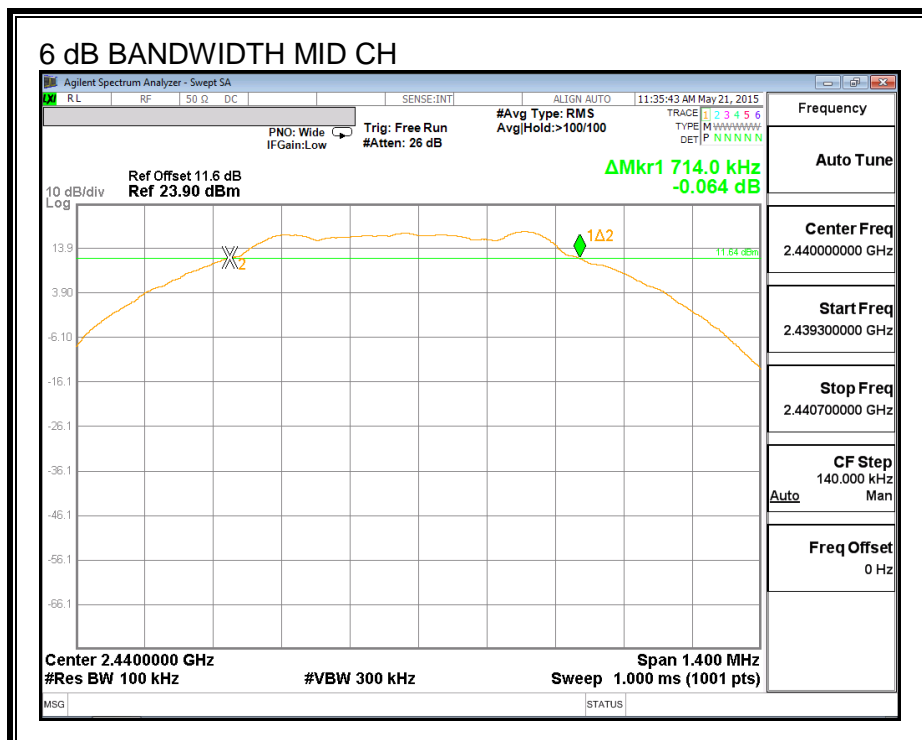
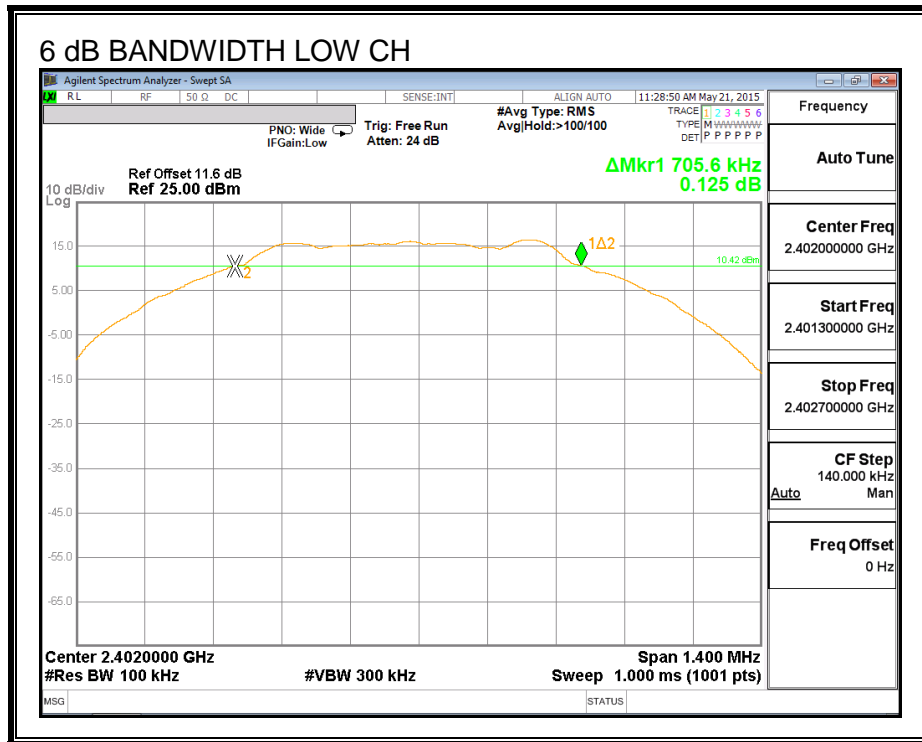
IC RSS-247 (5.2) (1)

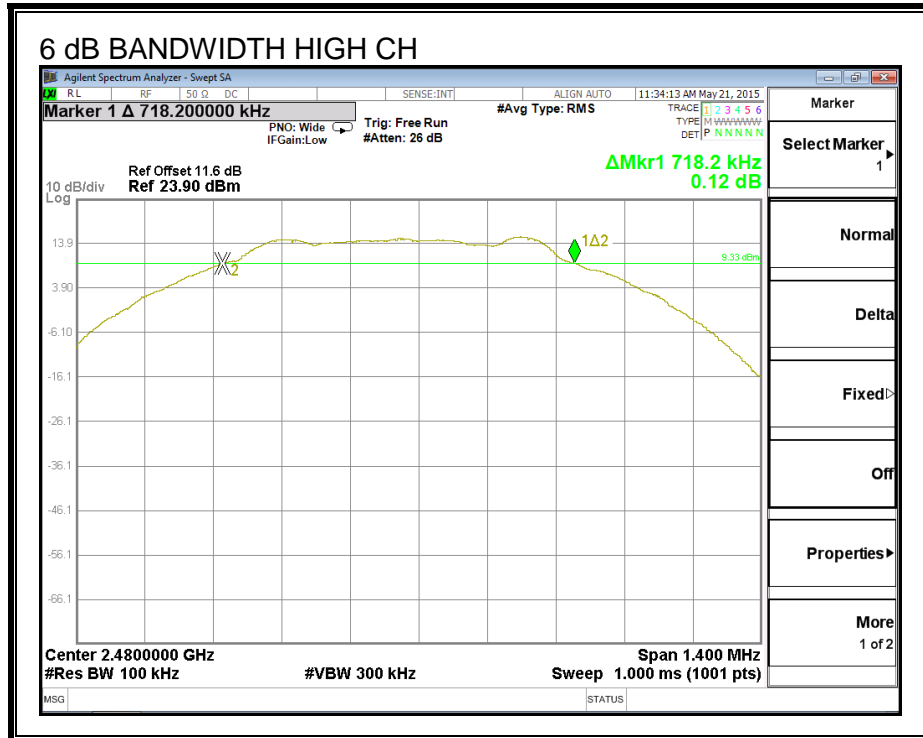
The minimum 6 dB bandwidth shall be at least 500 kHz.

RESULTS

Channel	Frequency (MHz)	6 dB Bandwidth (KHz)	Minimum Limit (MHz)
Low	2402	705.600	0.5
Middle	2440	714.000	0.5
High	2480	718.200	0.5

6 dB BANDWIDTH





7.3.2. 99% BANDWIDTH

LIMITS

None; for reporting purposes only.

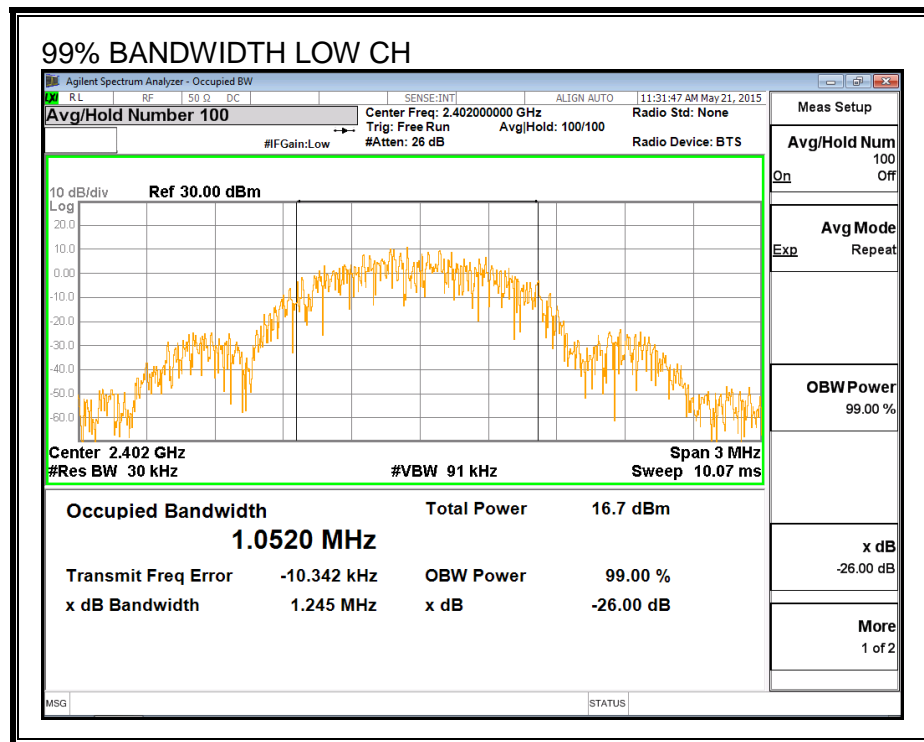
TEST PROCEDURE

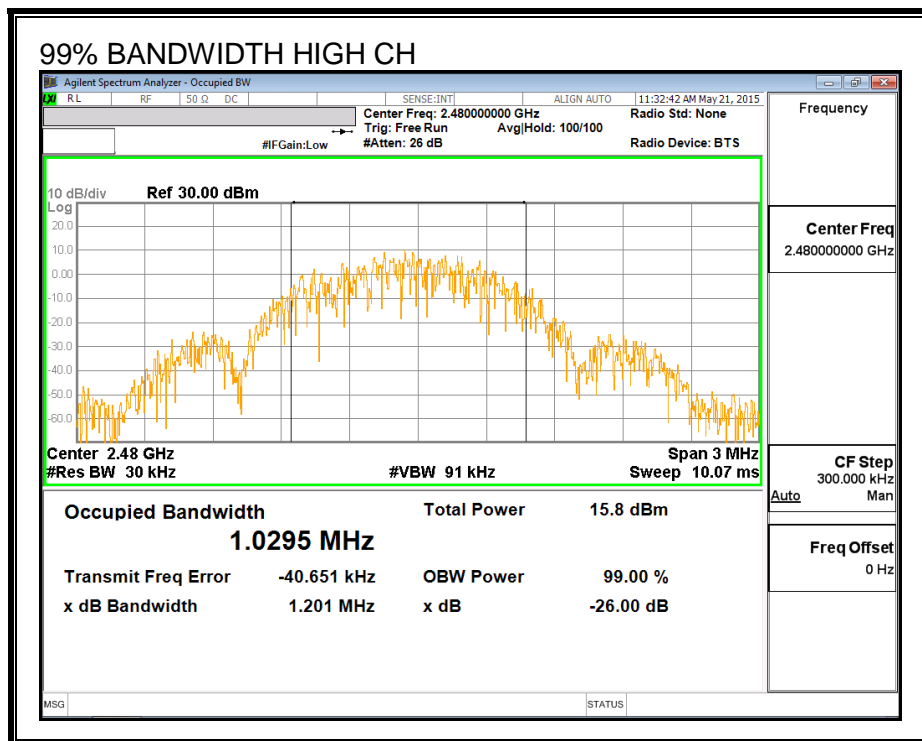
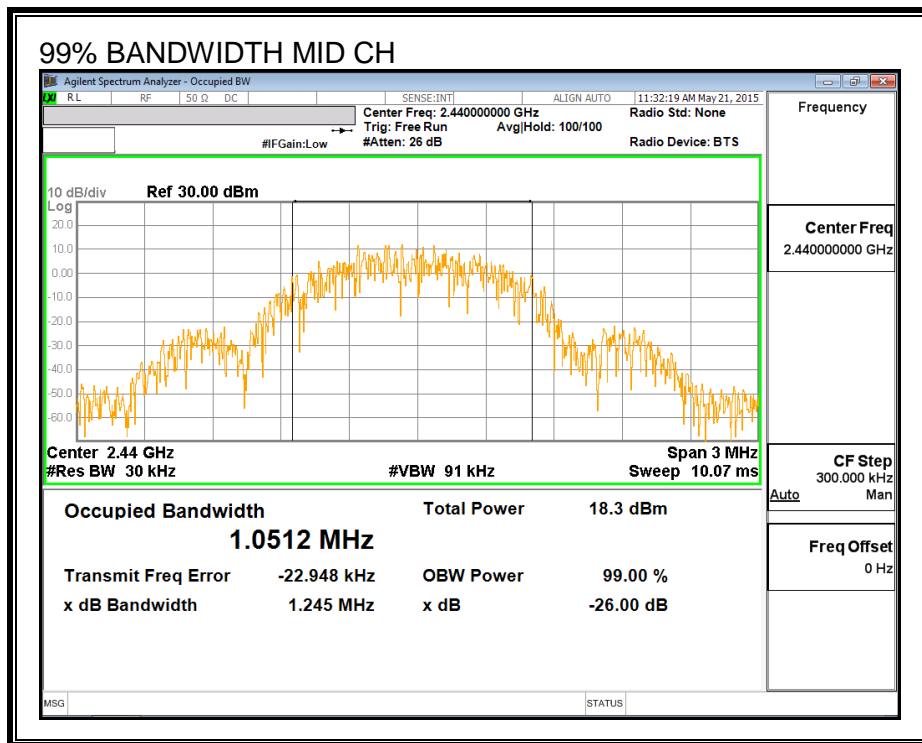
The transmitter output is connected to the spectrum analyzer. The RBW is set to 1% to 3% of the 99 % bandwidth and to 1% of the span. The VBW is set to 3 times the RBW. The sweep time is coupled. The spectrum analyzer internal 99% bandwidth function is utilized.

RESULTS

Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	2402	1.0520
Middle	2440	1.0512
High	2480	1.0295

99% BANDWIDTH





7.3.3. AVERAGE POWER

LIMITS

None; for reporting purposes only.

RESULTS

The cable assembly insertion loss of 11.6 dB (including 10 dB pad and 1.6 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	14.73
Middle	2440	14.79
High	2480	14.84

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	14.95	30	-15.050
Middle	2440	15.02	30	-14.980
High	2480	15.06	30	-14.940

7.3.5. POWER SPECTRAL DENSITY

LIMITS

FCC §15.247 (e)

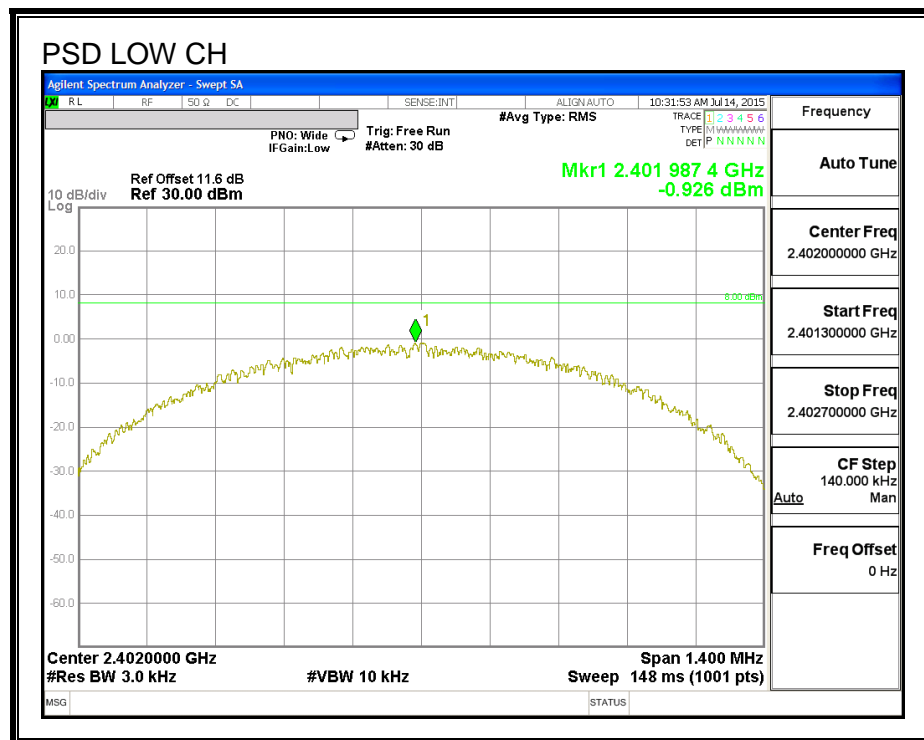
IC RSS-247 (5.2) (2)

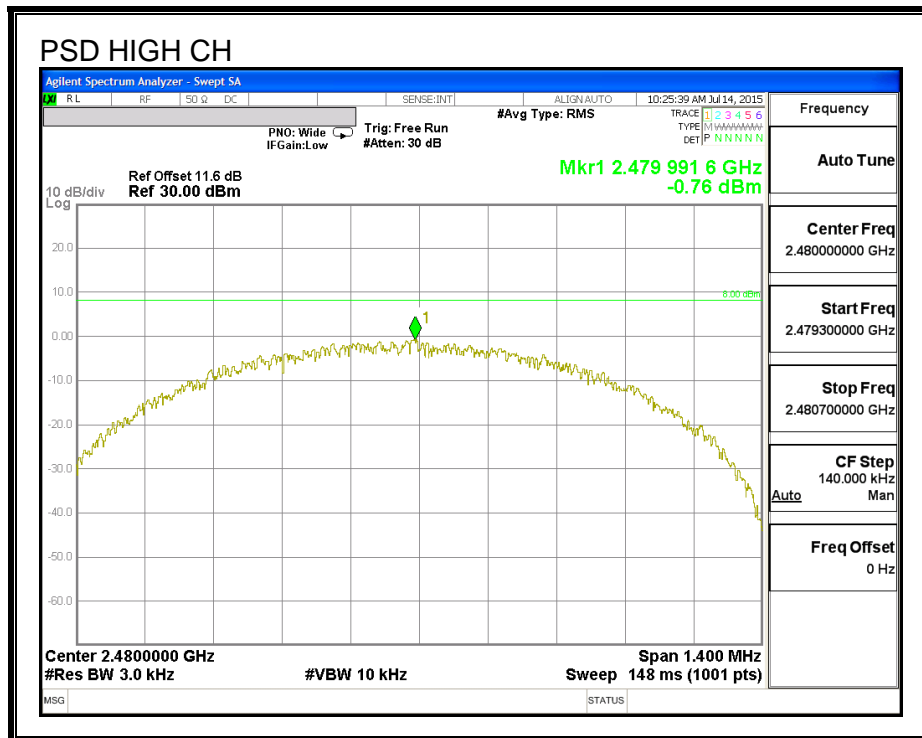
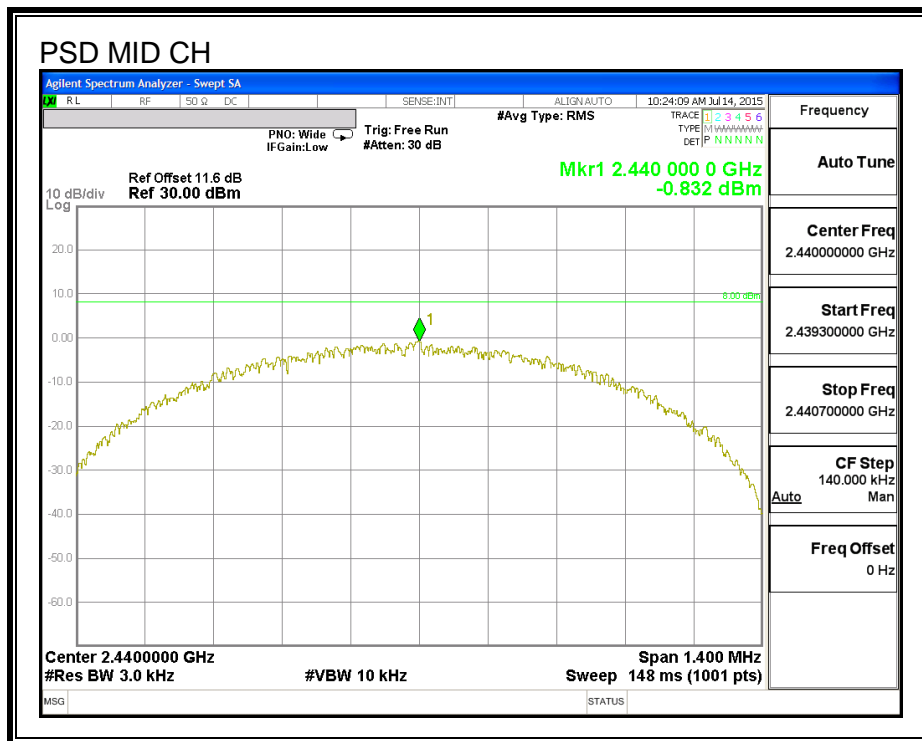
The power spectral density conducted from the transmitter to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission.

RESULTS

Channel	Frequency (MHz)	PSD (dBm)	Limit (dBm)	Margin (dB)
Low	2402	-0.93	8	-8.93
Middle	2440	-0.83	8	-8.83
High	2480	-0.76	8	-8.76

POWER SPECTRAL DENSITY





7.3.6. CONDUCTED SPURIOUS EMISSIONS

LIMITS

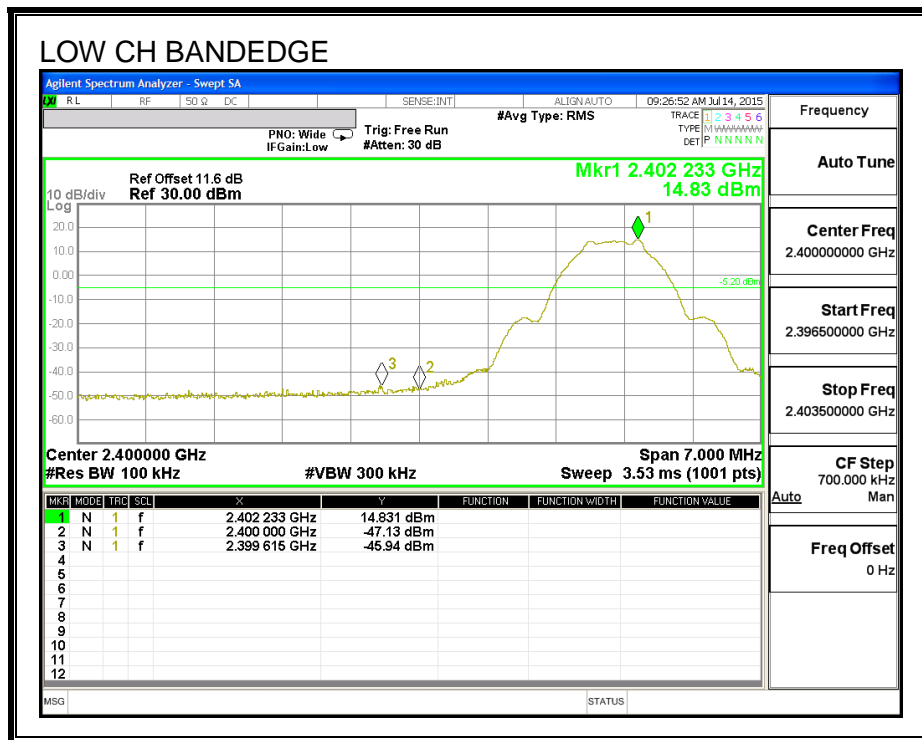
FCC §15.247 (d)

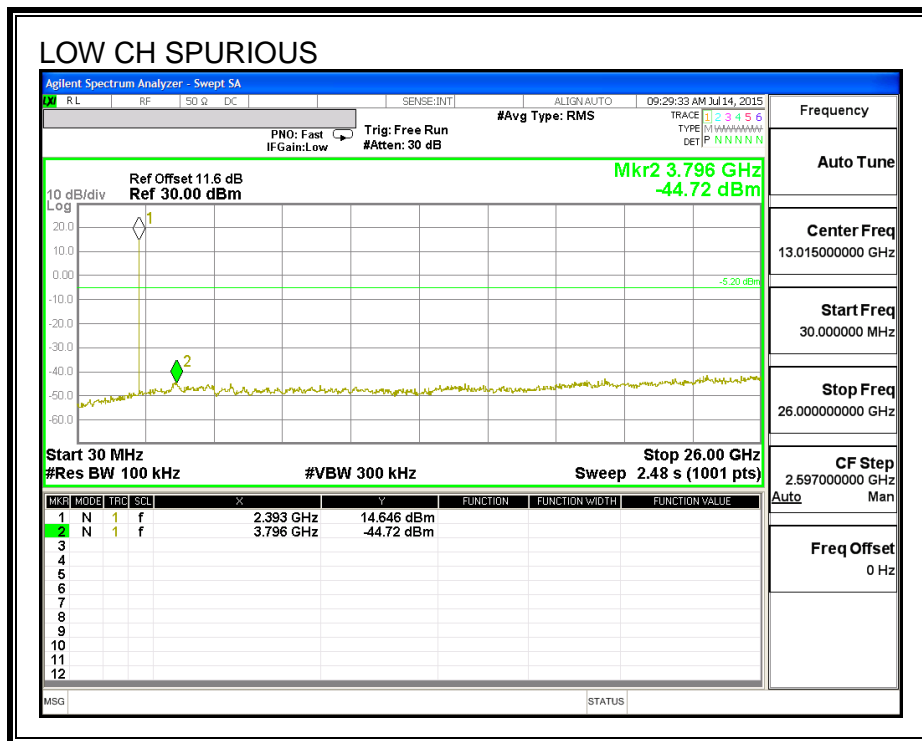
IC RSS-247 (5.5)

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

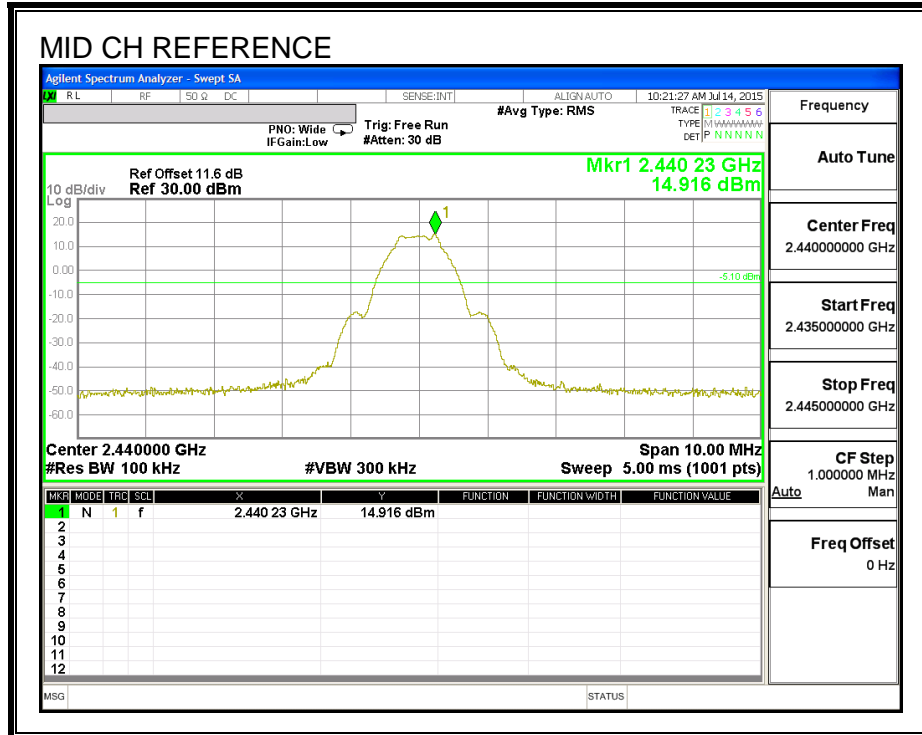
RESULTS

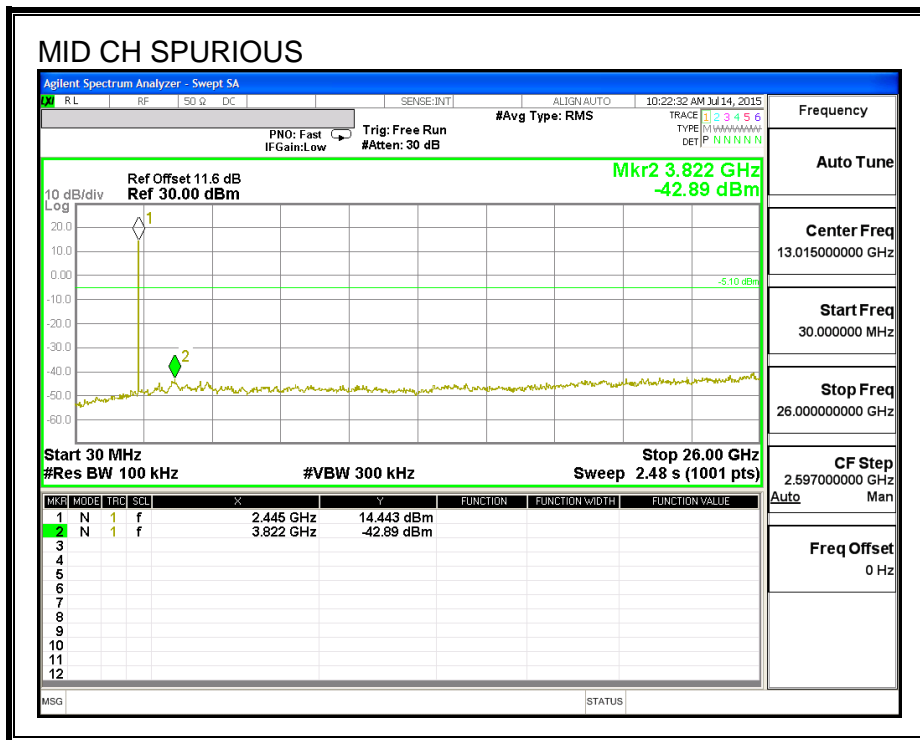
SPURIOUS EMISSIONS, LOW CHANNEL



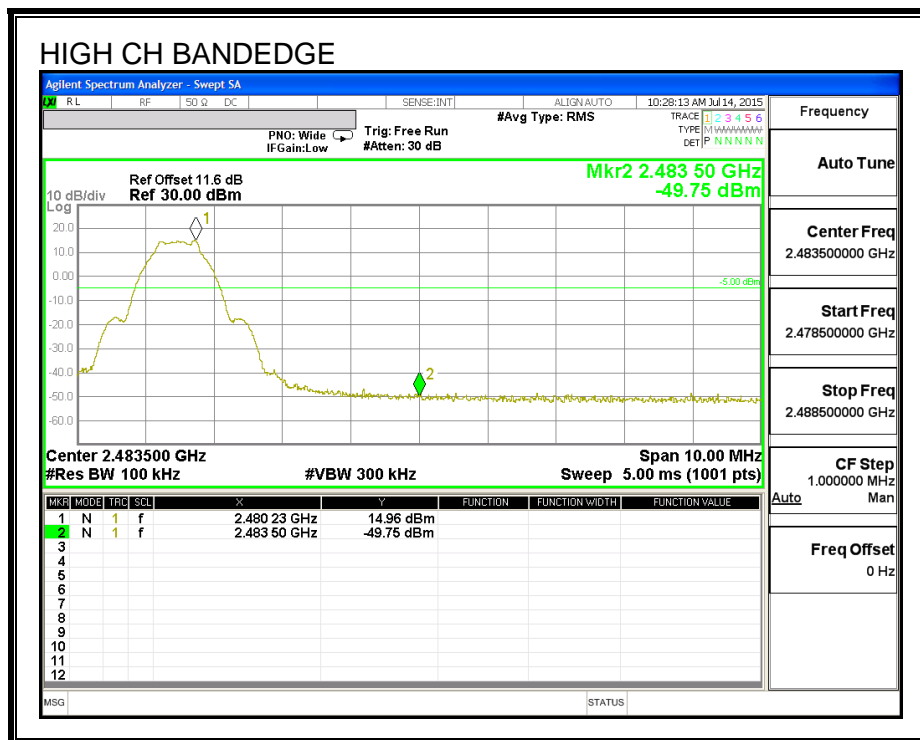


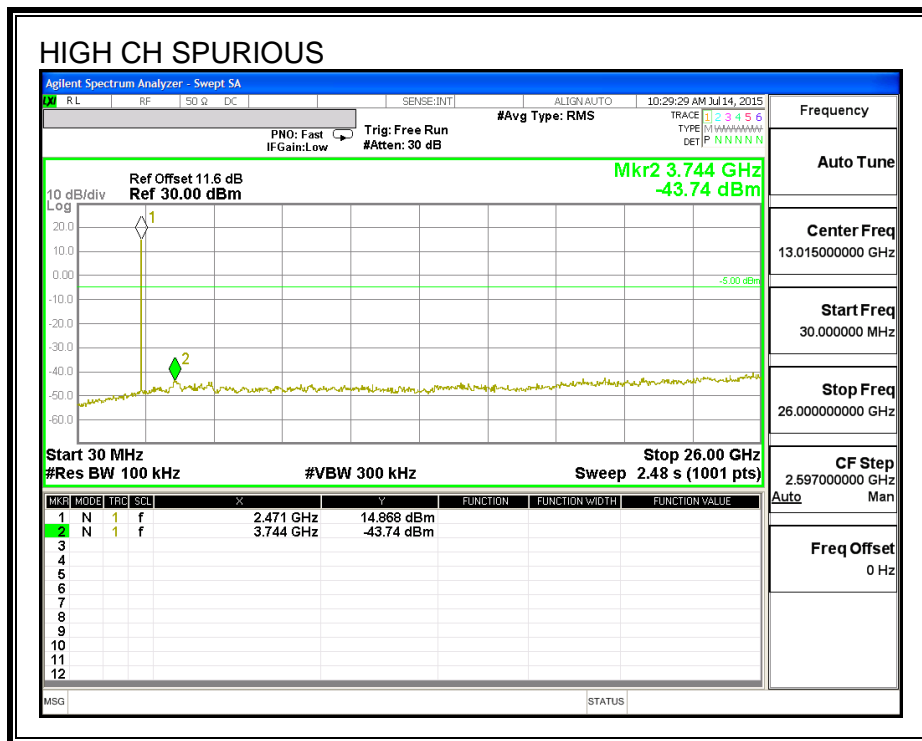
SPURIOUS EMISSIONS, MID CHANNEL





SPURIOUS EMISSIONS, HIGH CHANNEL





7.4. LOW POWER MODE

7.4.1. 6 dB BANDWIDTH

LIMITS

FCC §15.247 (a) (2)

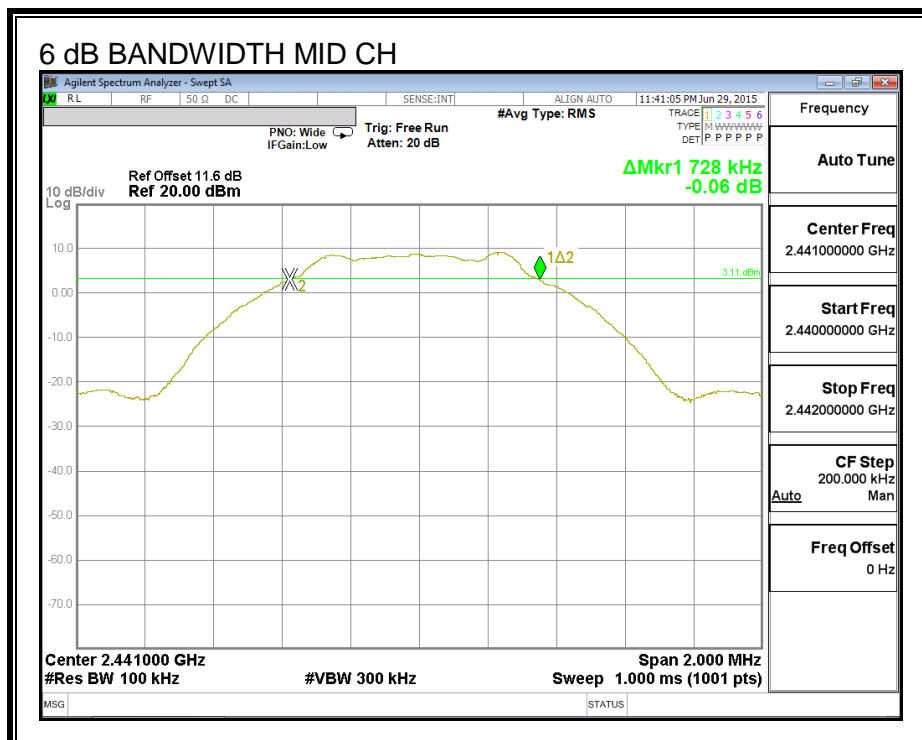
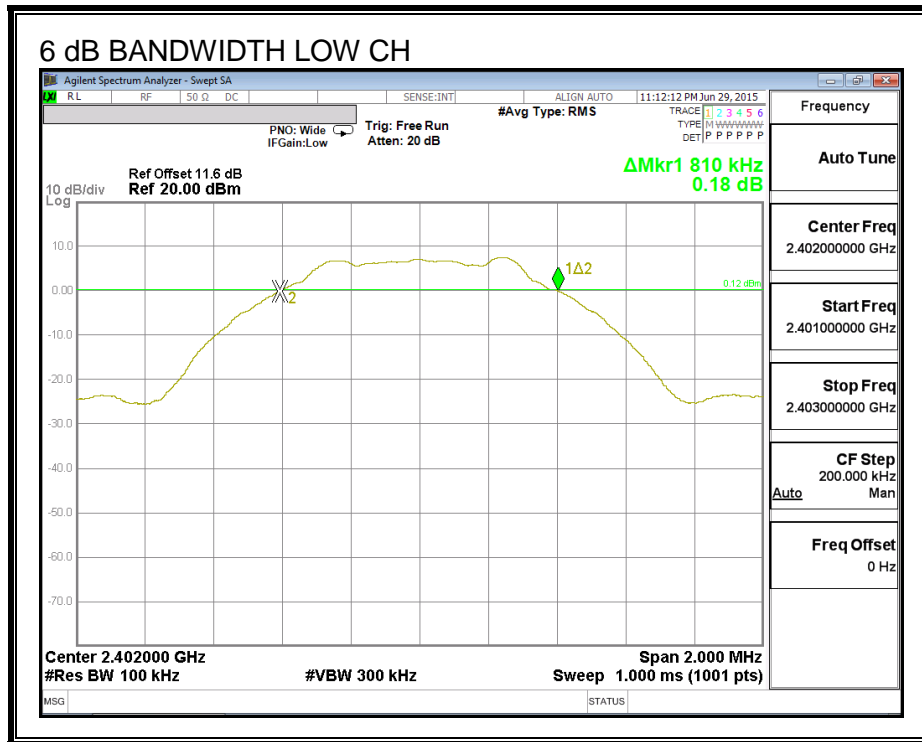
IC RSS-247 (5.2) (1)

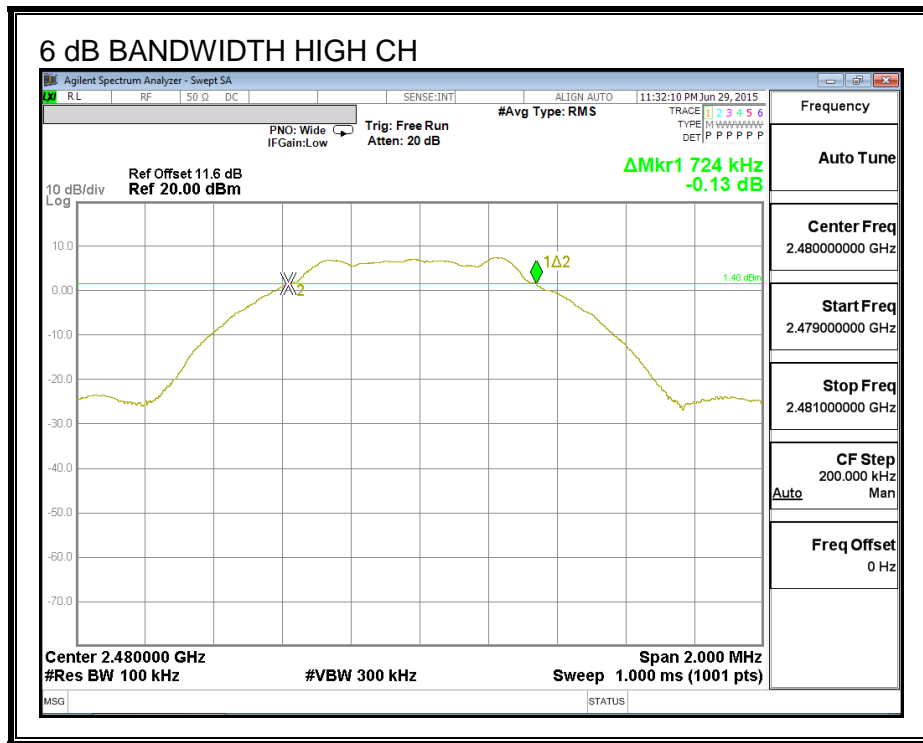
The minimum 6 dB bandwidth shall be at least 500 kHz.

RESULTS

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Minimum Limit (MHz)
Low	2402	0.810	0.5
Middle	2440	0.728	0.5
High	2480	0.724	0.5

6 dB BANDWIDTH





7.4.2. 99% BANDWIDTH

LIMITS

None; for reporting purposes only.

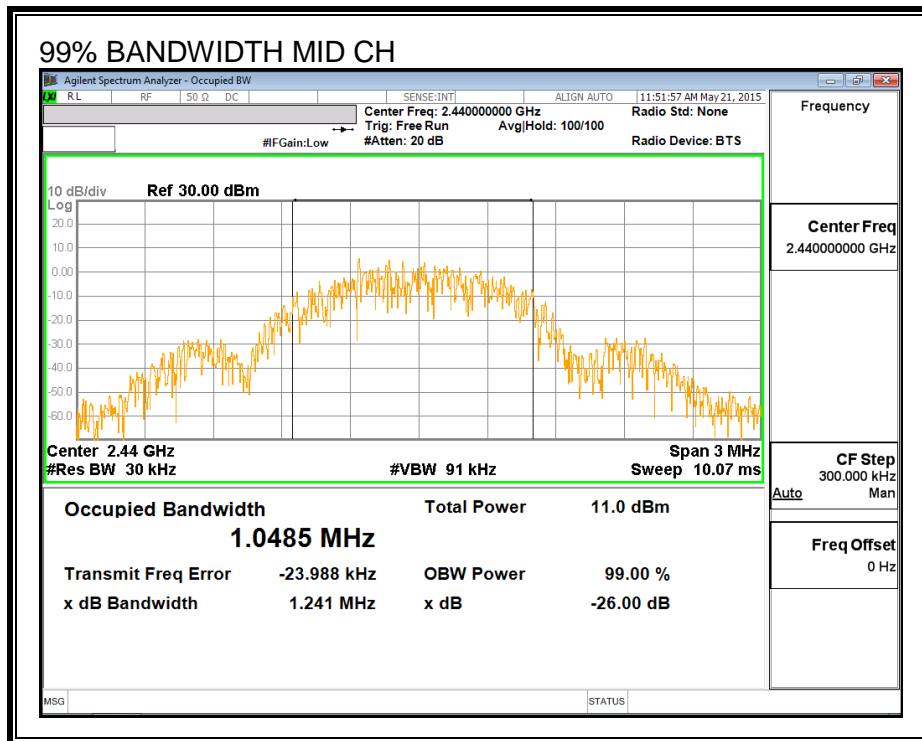
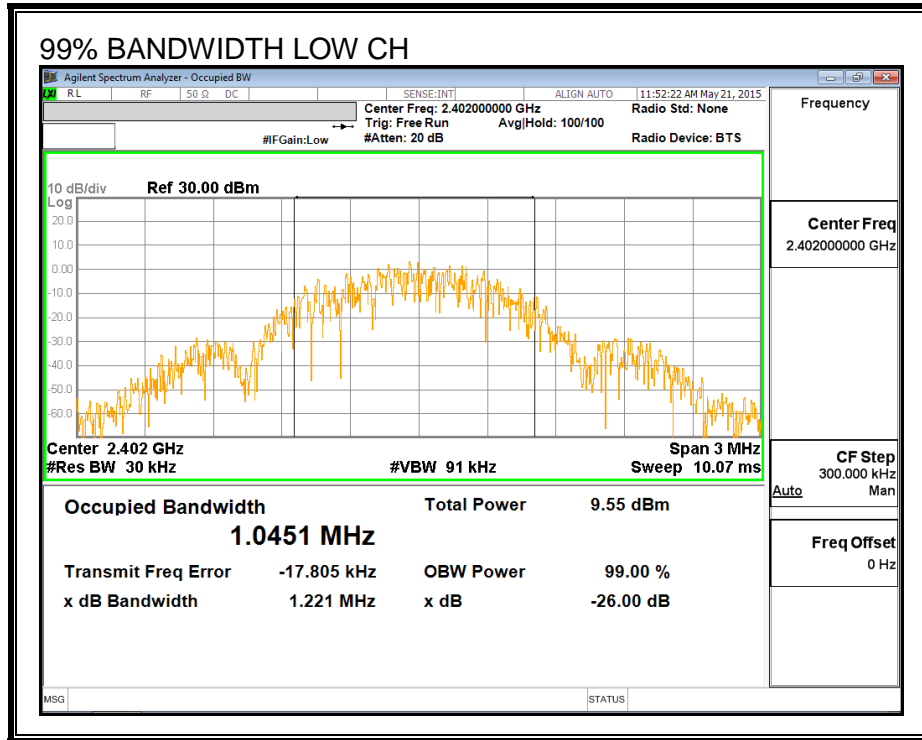
TEST PROCEDURE

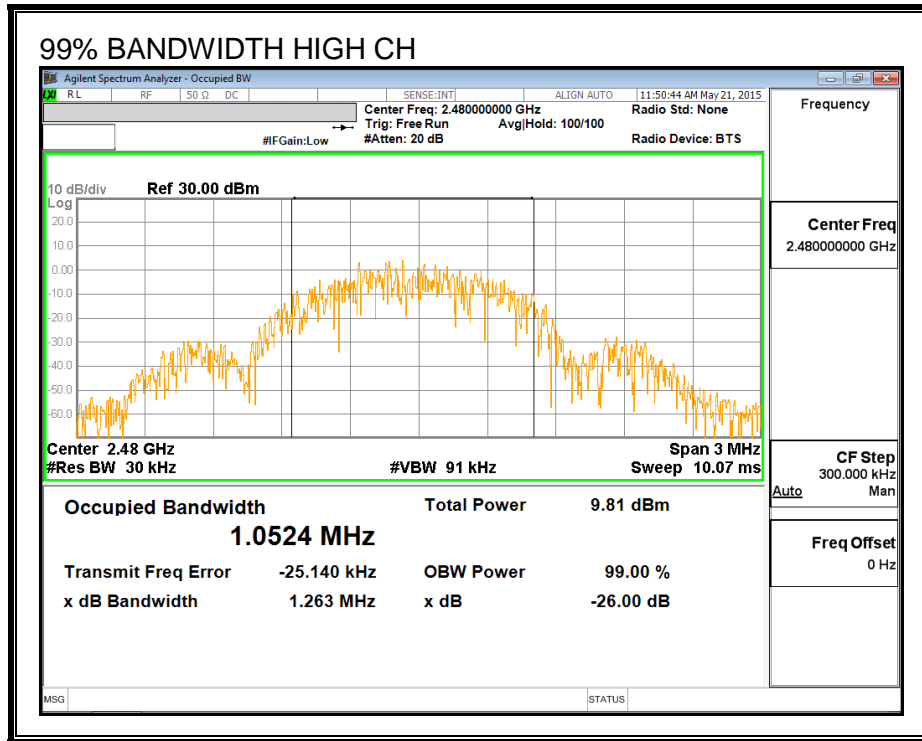
The transmitter output is connected to the spectrum analyzer. The RBW is set to 1% to 3% of the 99 % bandwidth and to 1% of the span. The VBW is set to 3 times the RBW. The sweep time is coupled. The spectrum analyzer internal 99% bandwidth function is utilized.

RESULTS

Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	2402	1.0451
Middle	2440	1.0485
High	2480	1.0524

99% BANDWIDTH





7.4.3. AVERAGE POWER

LIMITS

None; for reporting purposes only.

RESULTS

The cable assembly insertion loss of 11.6 dB (including 10 dB pad and 1.6 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	10.42
Middle	2440	10.38
High	2480	10.31

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	10.69	30	-19.310
Middle	2440	10.64	30	-19.360
High	2480	10.58	30	-19.420

7.4.5. POWER SPECTRAL DENSITY

LIMITS

FCC §15.247 (e)

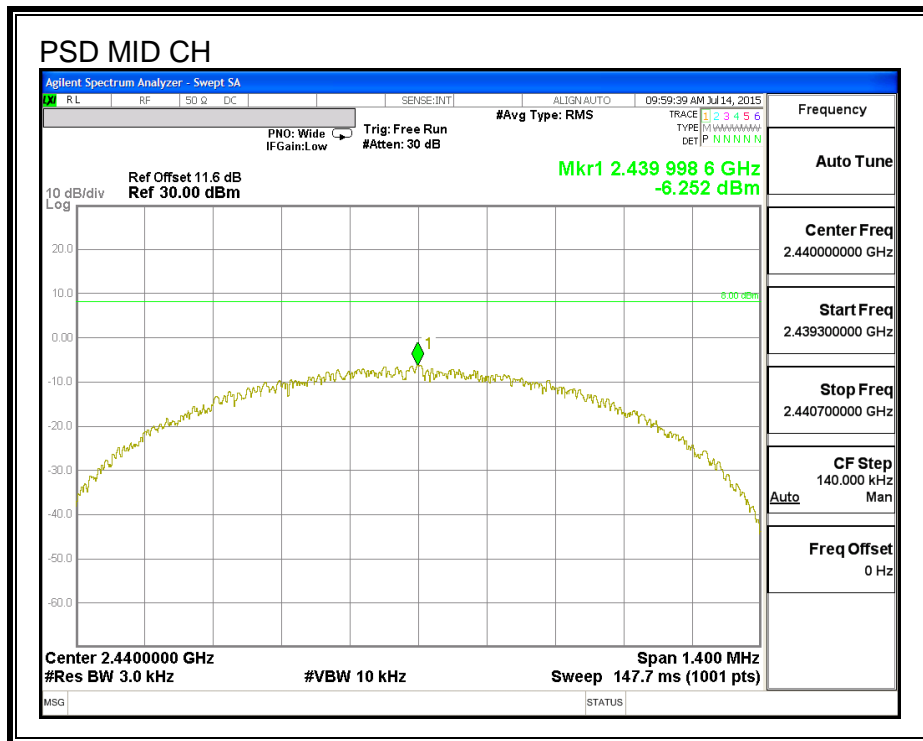
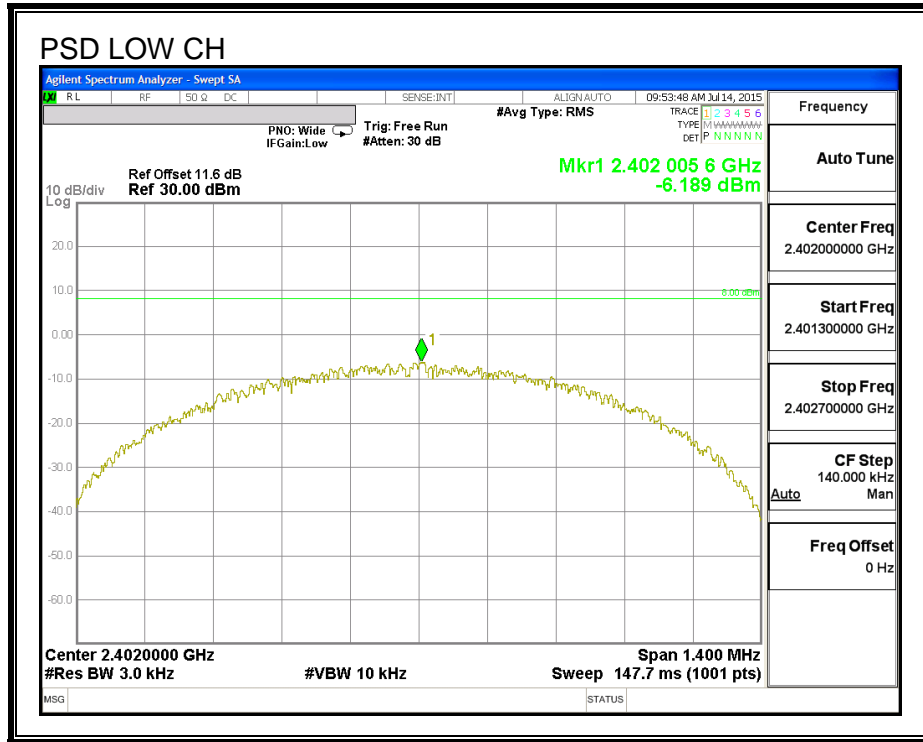
IC RSS-247 (5.2) (2)

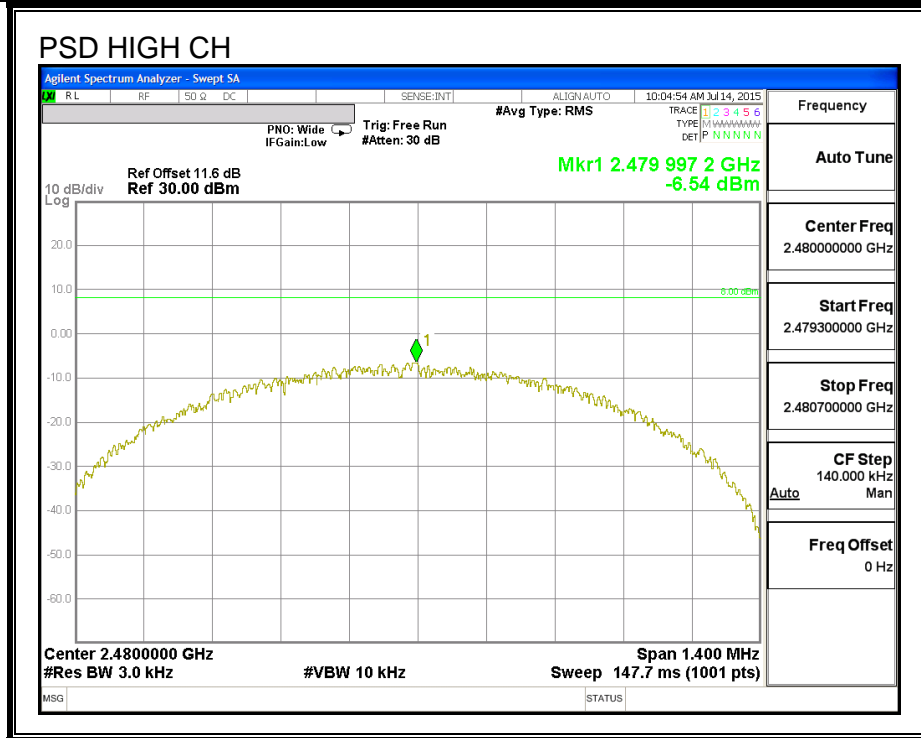
The power spectral density conducted from the transmitter to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission.

RESULTS

Channel	Frequency (MHz)	PSD (dBm)	Limit (dBm)	Margin (dB)
Low	2402	-6.19	8	-14.19
Middle	2440	-6.25	8	-14.25
High	2480	-6.54	8	-14.54

POWER SPECTRAL DENSITY





7.4.6. CONDUCTED SPURIOUS EMISSIONS

LIMITS

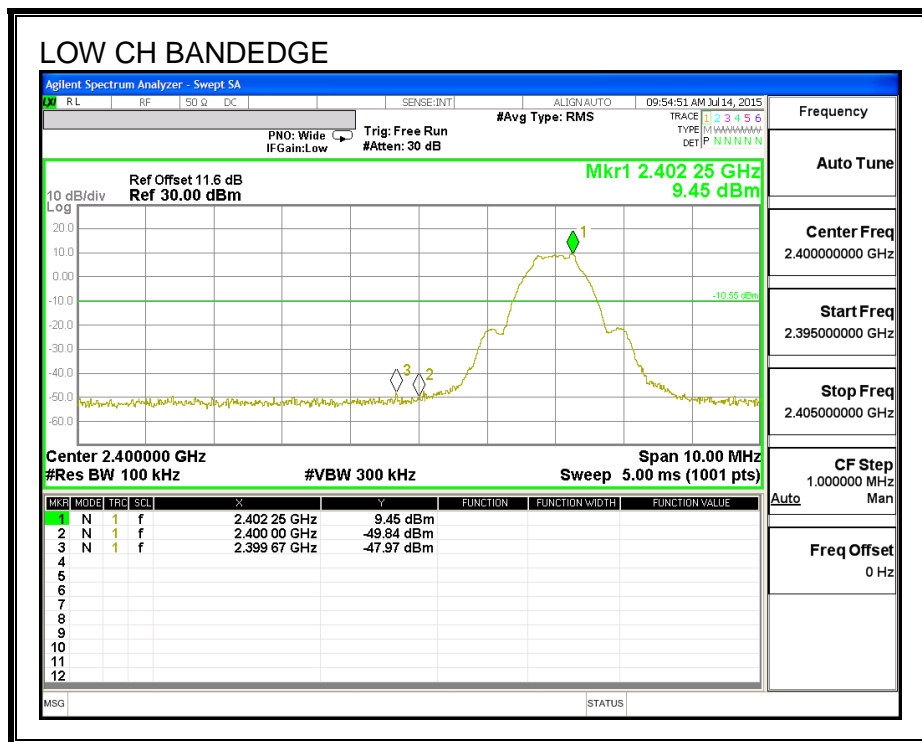
FCC §15.247 (d)

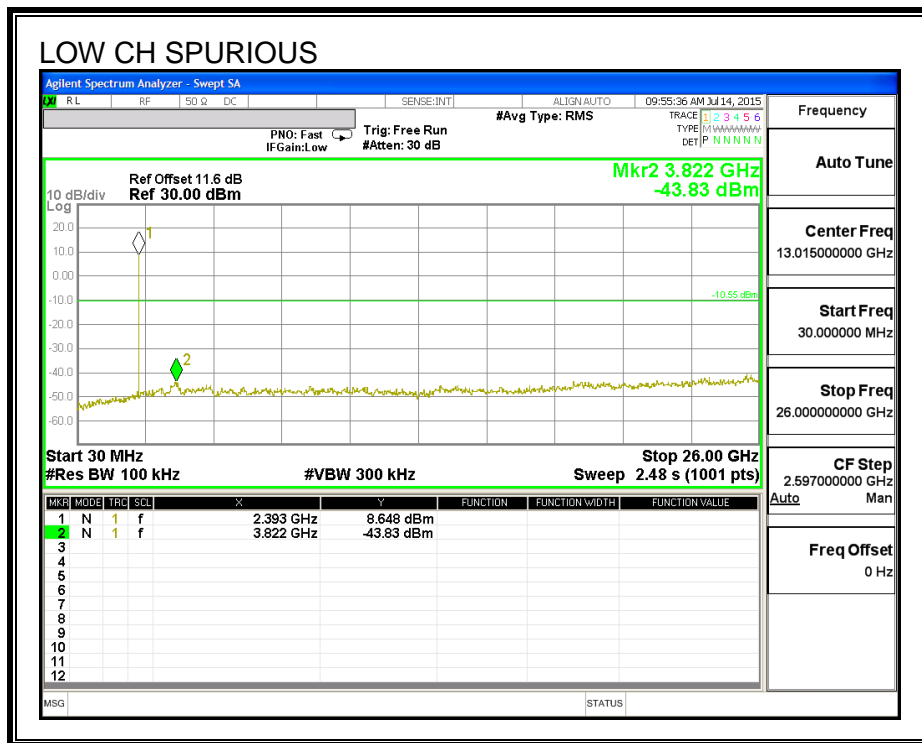
IC RSS-247 (5.5)

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

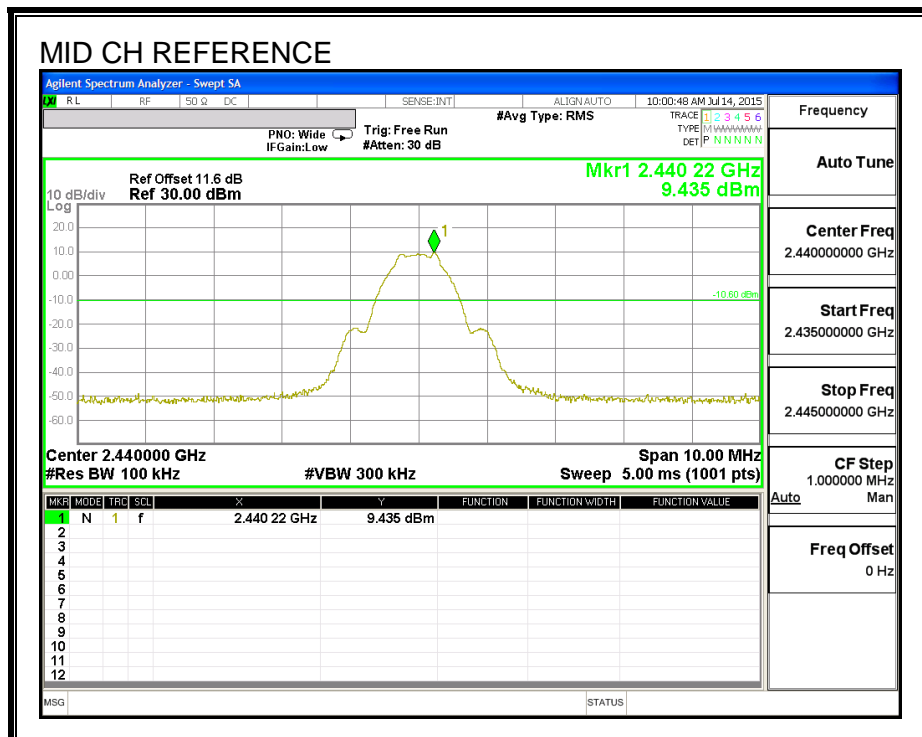
RESULTS

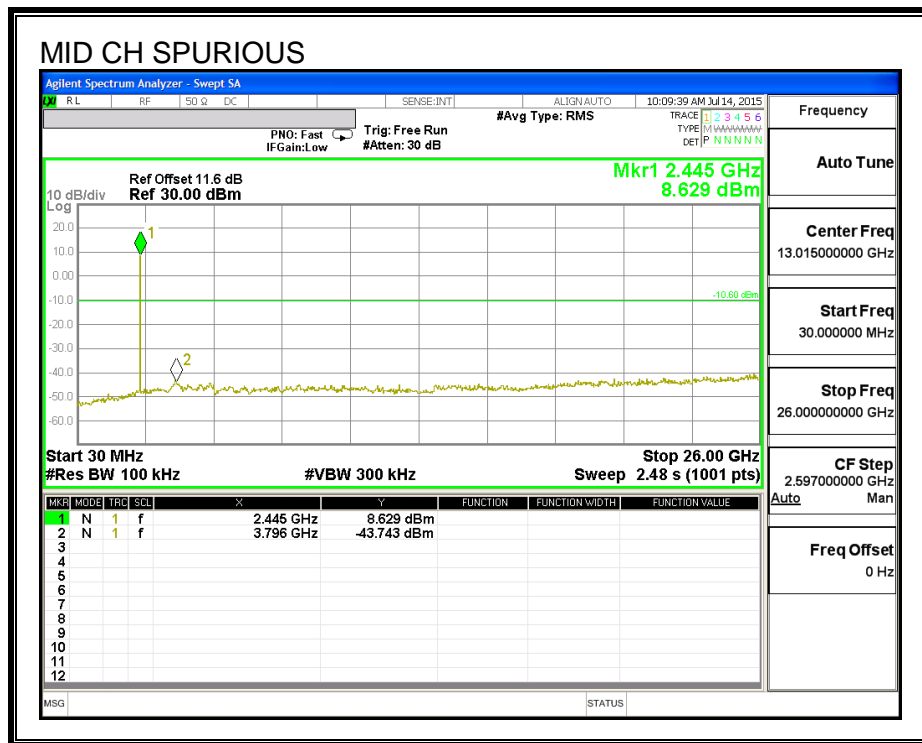
SPURIOUS EMISSIONS, LOW CHANNEL



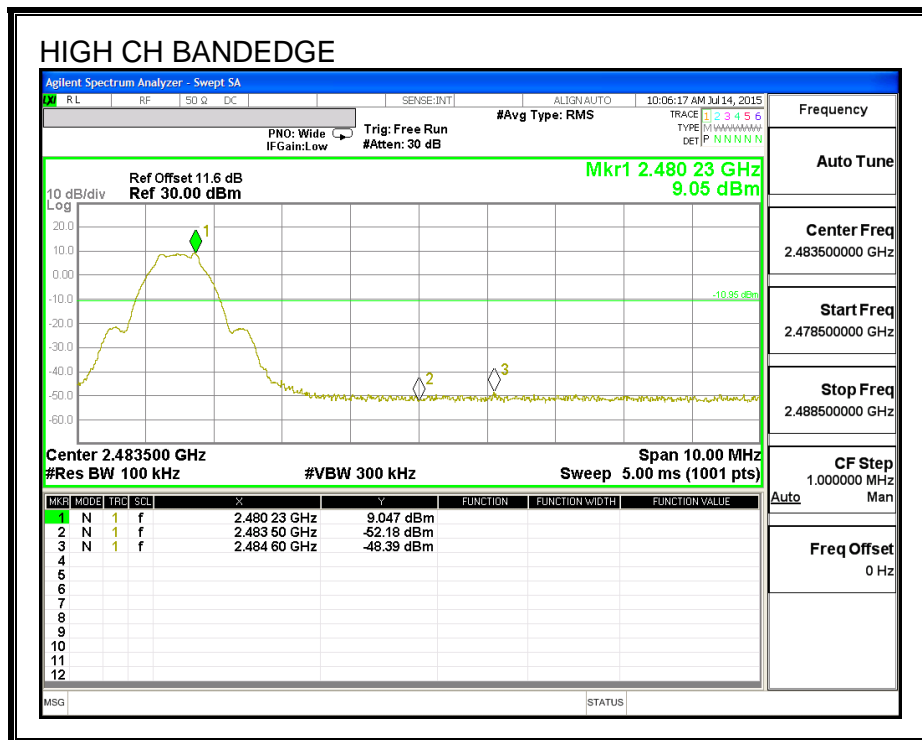


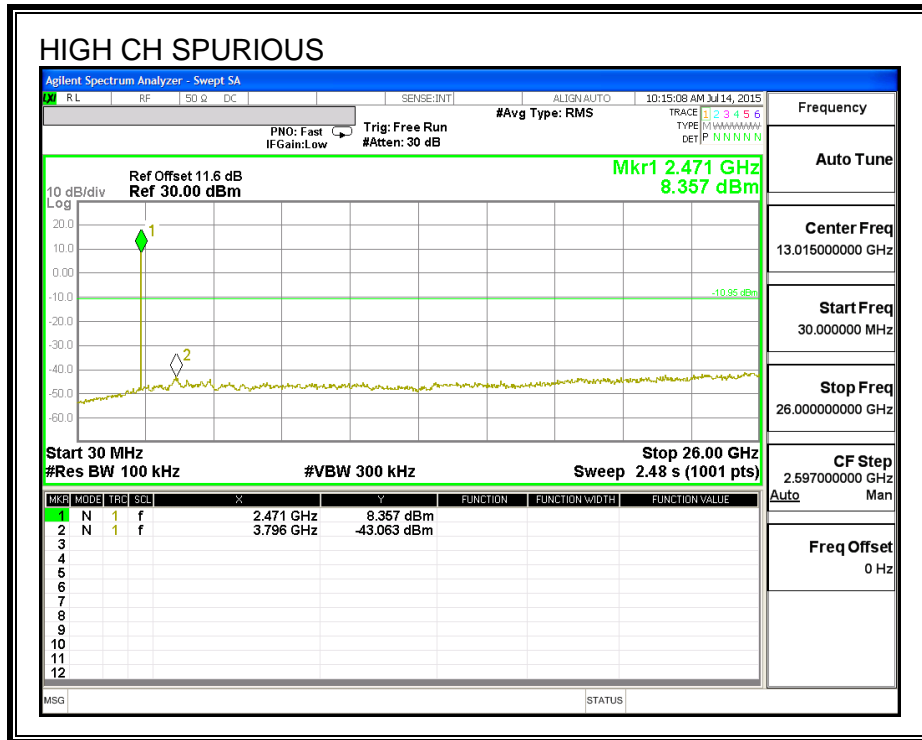
SPURIOUS EMISSIONS, MID CHANNEL





SPURIOUS EMISSIONS, HIGH CHANNEL





8. ANTENNA PORT TEST RESULTS (MODEL: A1687)

For antenna port data, refer to Model A1634.

9. RADIATED TEST RESULTS (MODEL: A1634)

9.1. 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.

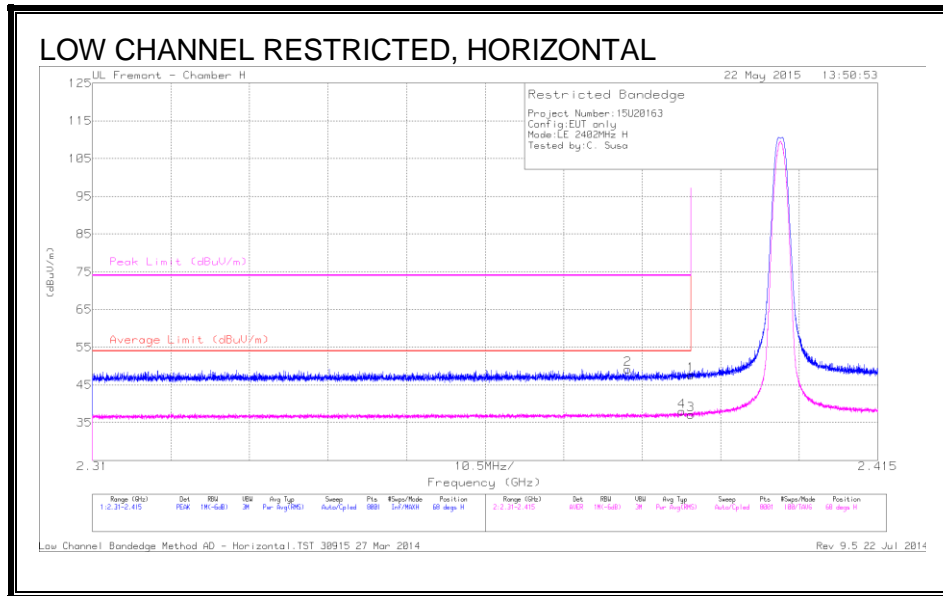
The spectrum from 30 MHz to 26 GHz is investigated with the transmitter set to the lowest, middle, and highest channels in the 2.4 GHz band.

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.

9.2. TRANSMITTER ABOVE 1 GHz

9.2.1. HIGH POWER MODE

RESTRICTED BANDEDGE



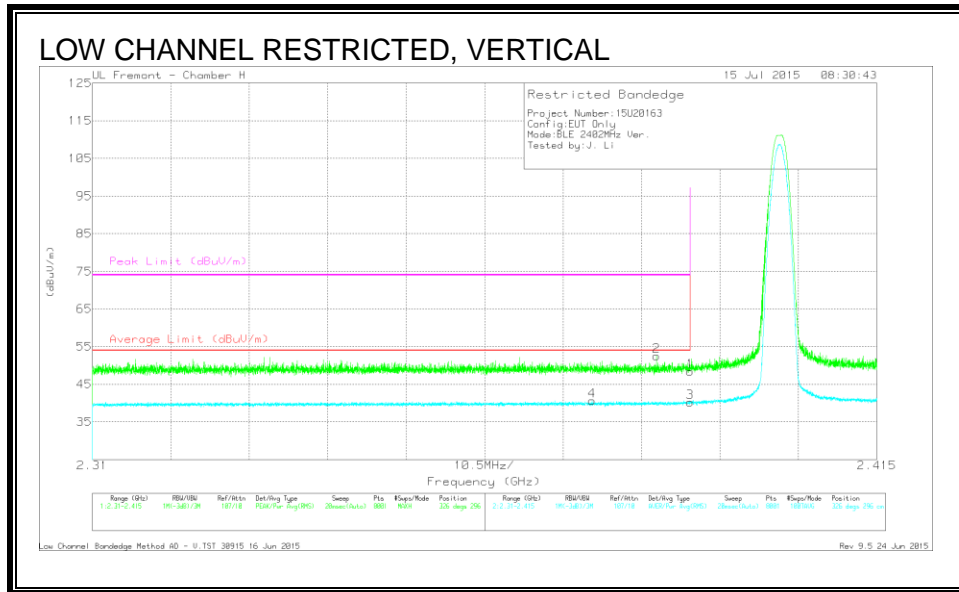
DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cbl/Fitr/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	40.34	PK	32	-24.6	47.74	-	-	74	-26.26	68	296	H
2	* 2.382	41.82	PK	32	-24.6	49.22	-	-	74	-24.78	68	296	H
3	* 2.39	29.77	RMS	32	-24.6	37.17	54	-16.83	-	-	68	296	H
4	* 2.389	30.59	RMS	32	-24.6	37.99	54	-16.01	-	-	68	296	H

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

PK - Peak detector

RMS - RMS detection



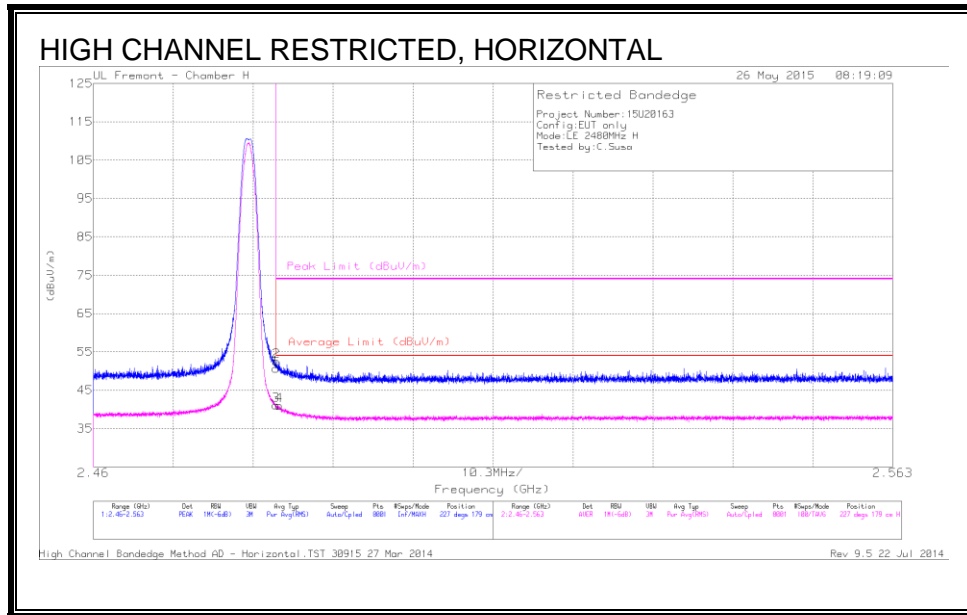
DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cbl/Ftr/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	39.89	Pk	32	-23.5	48.39	-	-	74	-25.61	326	296	V
2	* 2.386	44.03	Pk	32	-23.5	52.53	-	-	74	-21.47	326	296	V
3	* 2.39	31.72	RMS	32	-23.5	40.22	54	13.78	-	-	326	296	V
4	* 2.377	32.16	RMS	32	-23.5	40.66	54	13.34	-	-	326	296	V

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

Pk - Peak detector

RMS - RMS detection



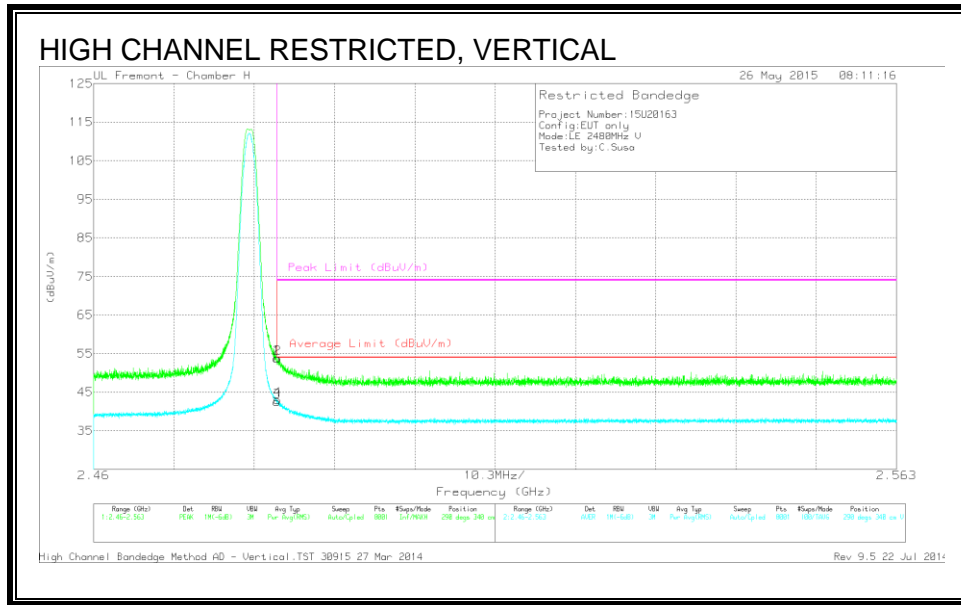
DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cbl/Ftr/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	42.71	PK	32.4	-24.5	50.61	-	-	74	-23.39	227	179	H
2	* 2.484	44.64	PK	32.4	-24.5	52.54	-	-	74	-21.46	227	179	H
3	* 2.484	33.24	RMS	32.4	-24.5	41.14	54	-12.86	-	-	227	179	H
4	* 2.484	33.09	RMS	32.4	-24.5	40.99	54	-13.01	-	-	227	179	H

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

PK - Peak detector

RMS - RMS detection



DATA

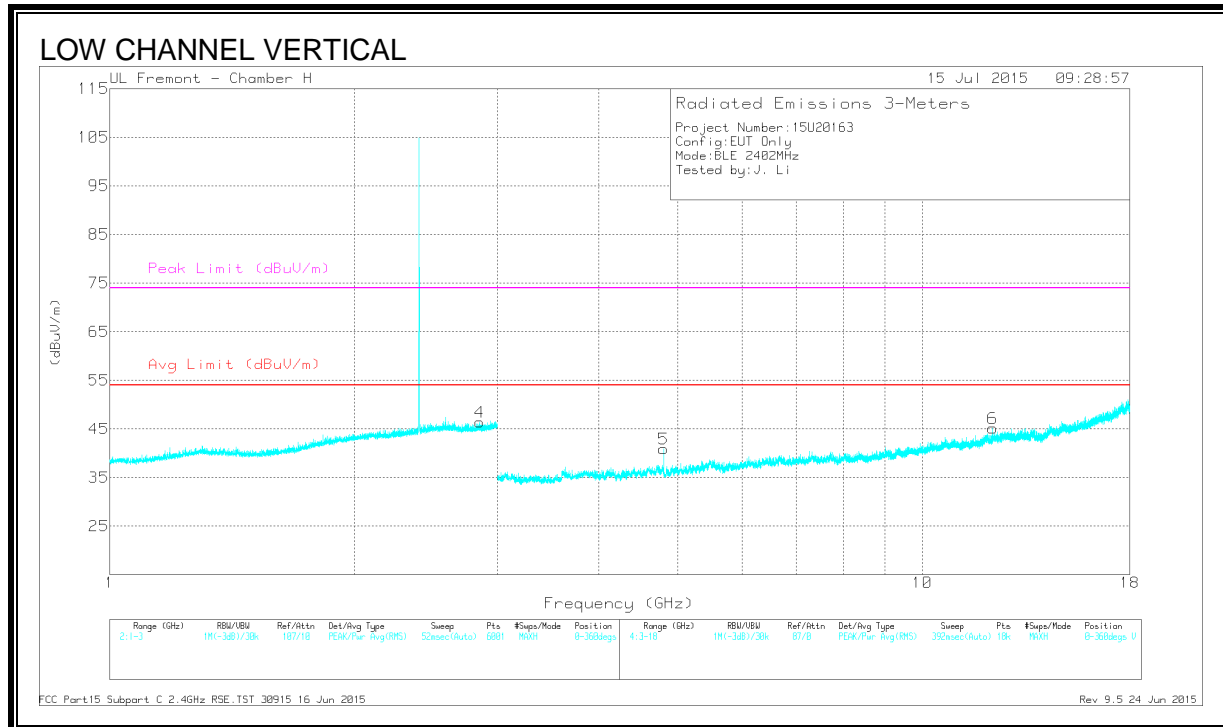
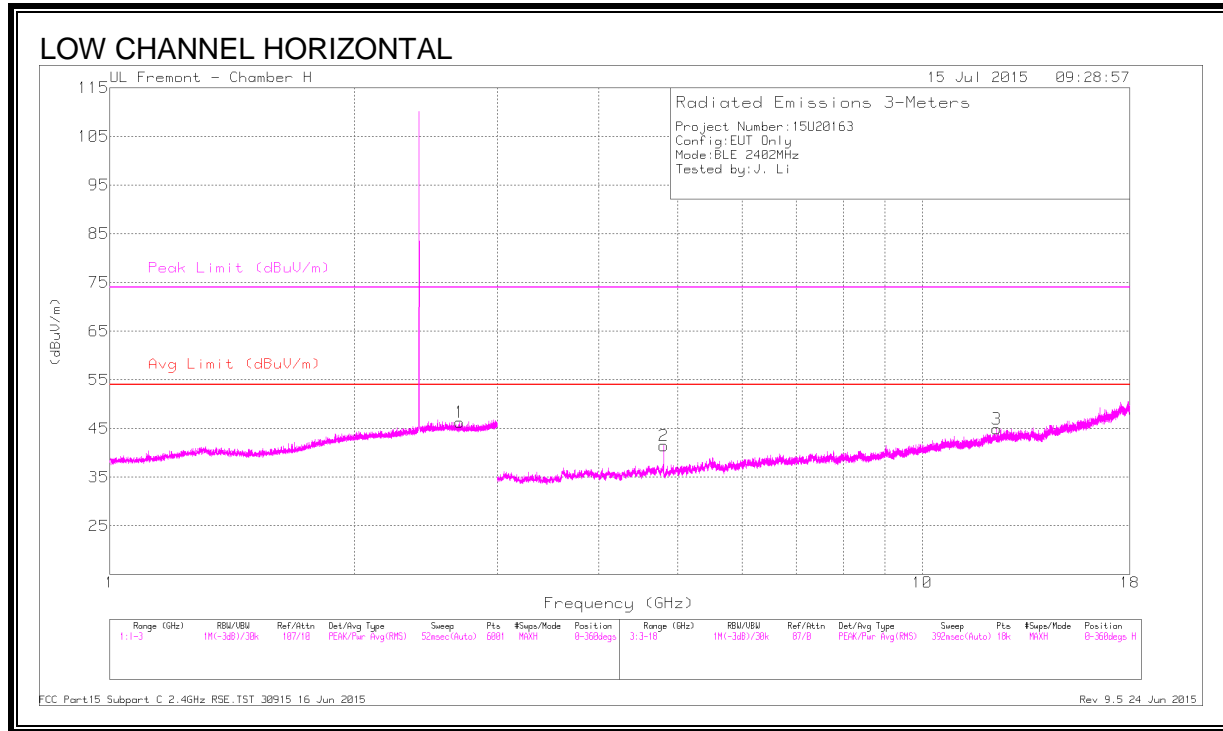
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.484	45.91	PK	32.4	-24.5	53.81	-	-	74	-20.19	290	340	V
2	* 2.484	45.91	PK	32.4	-24.5	53.81	-	-	74	-20.19	290	340	V
3	* 2.484	34.54	RMS	32.4	-24.5	42.44	54	-11.56	-	-	290	340	V
4	* 2.484	35.08	RMS	32.4	-24.5	42.98	54	-11.02	-	-	290	340	V

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

PK - Peak detector

RMS - RMS detection

HARMONICS AND SPURIOUS EMISSIONS



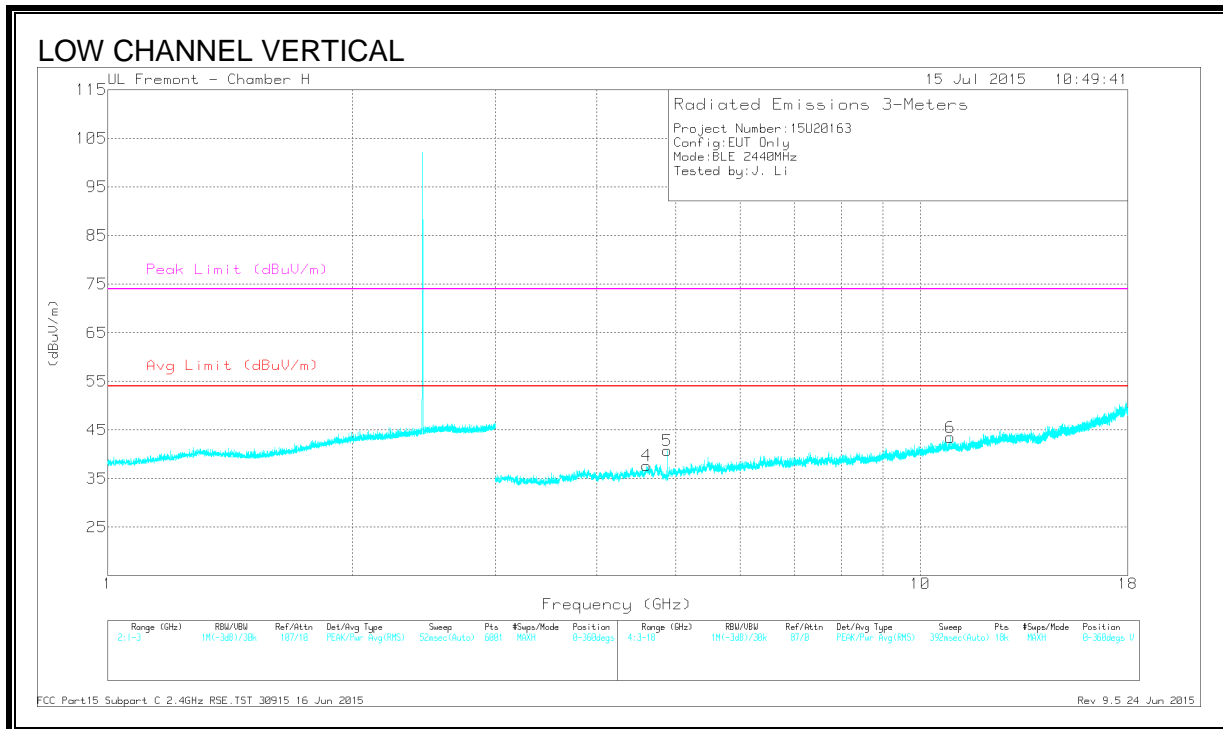
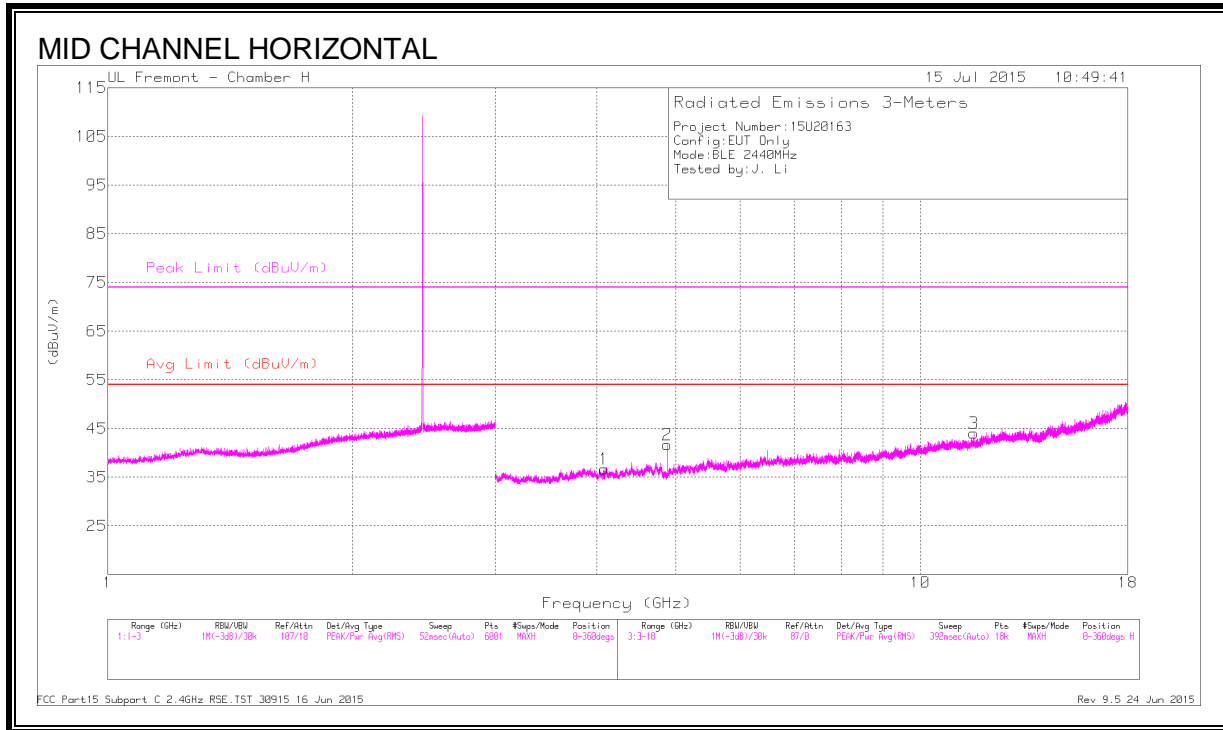
DATA

	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cb/ 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	* 2.694	43.17	PK2	32.3	-23.2	52.27	-	-	74	-21.73	0	202	H
	* 2.695	31.81	MAv1	32.3	-23.2	40.91	54	-13.09	-	-	0	202	H
4	* 2.855	43.47	PK2	32.4	-23.2	52.67	-	-	74	-21.33	301	100	V
	* 2.854	31.37	MAv1	32.4	-23.2	40.57	54	-13.43	-	-	301	100	V
2	* 4.804	45.12	PK2	34.2	-31.4	47.92	-	-	74	-26.08	253	175	H
	* 4.804	37.35	MAv1	34.2	-31.4	40.15	54	-13.85	-	-	253	175	H
3	* 12.352	36.59	PK2	39.1	-25.2	50.49	-	-	74	-23.51	253	100	H
	* 12.351	25.78	MAv1	39.1	-25.2	39.68	54	-14.32	-	-	253	100	H
5	* 4.805	45.28	PK2	34.2	-31.4	48.08	-	-	74	-25.92	57	281	V
	* 4.804	36.9	MAv1	34.2	-31.4	39.7	54	-14.3	-	-	57	281	V
6	* 12.204	36.91	PK2	39.1	-24.9	51.11	-	-	74	-22.89	57	200	V
	* 12.204	25.51	MAv1	39.1	-24.9	39.71	54	-14.29	-	-	57	200	V

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK2 - KDB558074 Method: Maximum Peak

MAv1 - KDB558074 Option 1 Maximum RMS Average



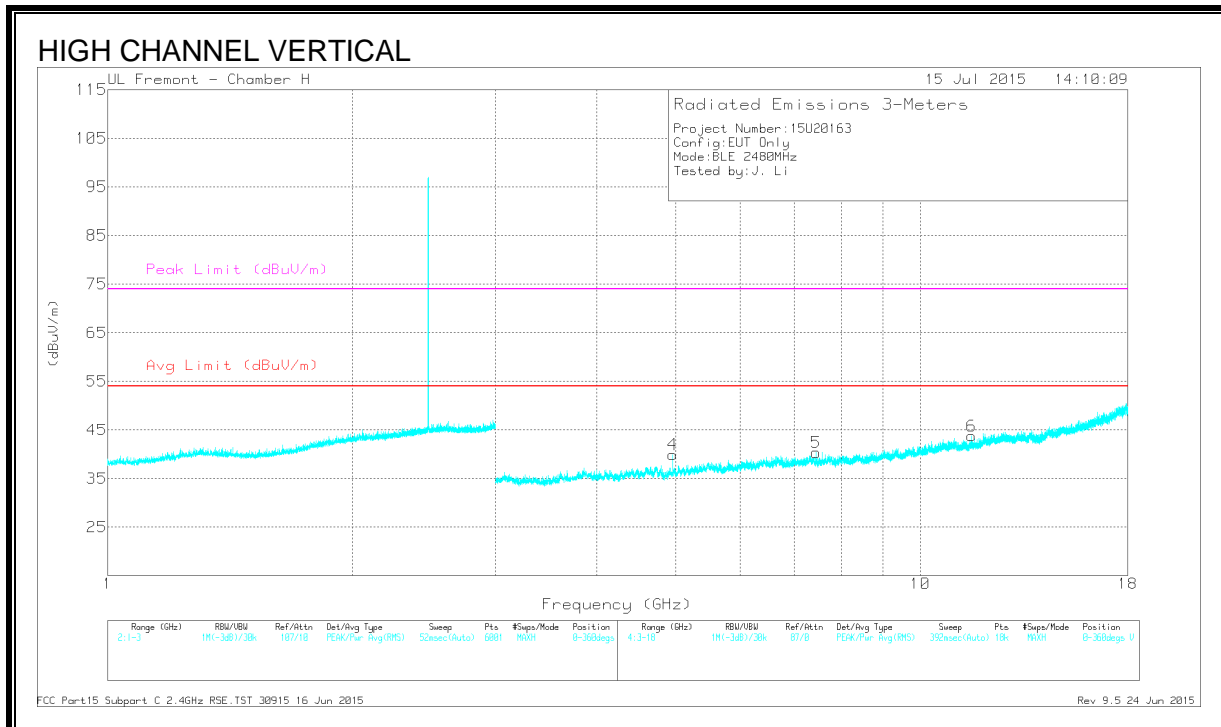
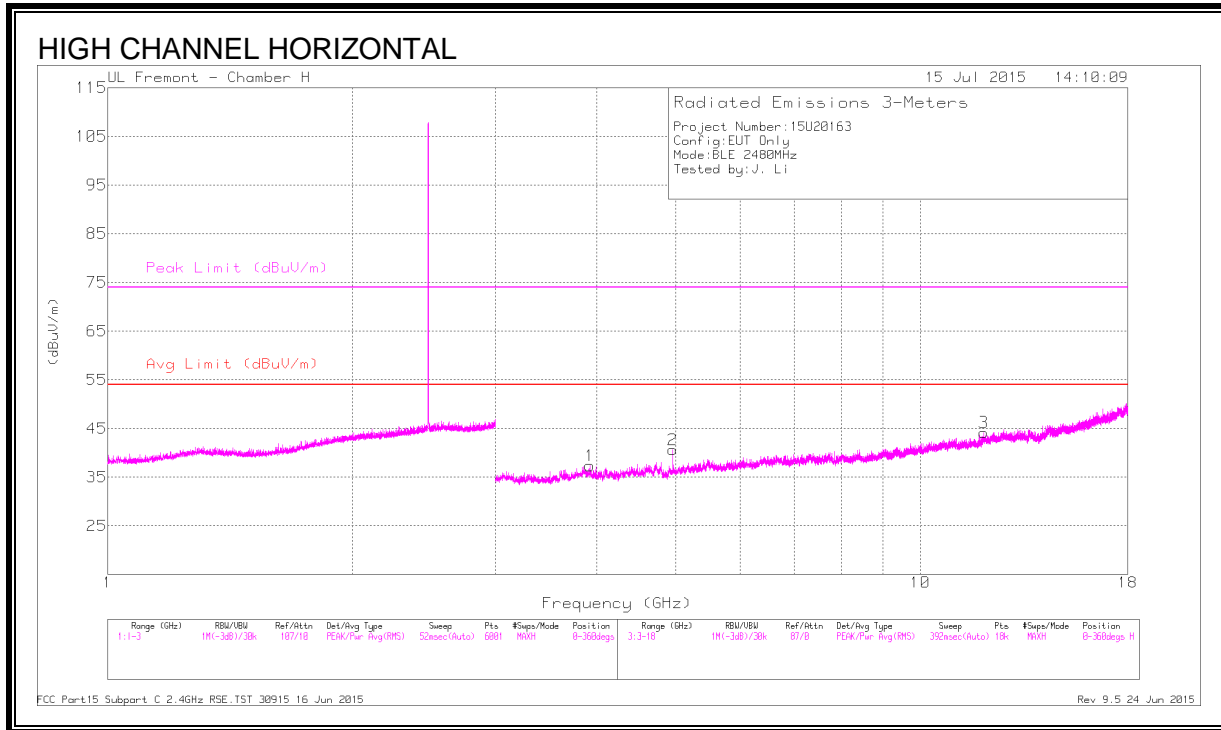
DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cb/ 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	* 4.078	41.58	PK2	33.5	-30.8	44.28	-	-	74	-29.72	312	202	H
	* 4.078	29.9	MAv1	33.5	-30.8	32.6	54	-21.4	-	-	312	202	H
2	* 4.88	43.67	PK2	34.2	-31	46.87	-	-	74	-27.13	184	194	H
	* 4.88	36.11	MAv1	34.2	-31	39.31	54	-14.69	-	-	184	194	H
3	* 11.635	37.25	PK2	38.1	-24.5	50.85	-	-	74	-23.15	231	240	H
	* 11.634	25.41	MAv1	38	-24.5	38.91	54	-15.09	-	-	231	240	H
4	* 4.603	42.16	PK2	34	-31.3	44.86	-	-	74	-29.14	264	218	V
	* 4.602	31.04	MAv1	34	-31.3	33.74	54	-20.26	-	-	264	218	V
5	* 4.88	44.49	PK2	34.2	-31	47.69	-	-	74	-26.31	55	274	V
	* 4.88	35.9	MAv1	34.2	-31	39.1	54	-14.9	-	-	55	274	V
6	* 10.891	36.19	PK2	37.8	-24.7	49.29	-	-	74	-24.71	146	199	V
	* 10.892	25.19	MAv1	37.8	-24.7	38.29	54	-15.71	-	-	146	199	V

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK2 - KDB558074 Method: Maximum Peak

MAv1 - KDB558074 Option 1 Maximum RMS Average



DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cb/ 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	* 3.921	42.9	PK2	33.6	-31.9	44.6	-	-	74	-29.4	89	217	H
	* 3.92	31.62	MAv1	33.6	-31.9	33.32	54	-20.68	-	-	89	217	H
2	* 4.959	43.78	PK2	34.2	-30.8	47.18	-	-	74	-26.82	243	185	H
	* 4.96	35.03	MAv1	34.2	-30.8	38.43	54	-15.57	-	-	243	185	H
3	* 11.965	36.01	PK2	38.7	-24.1	50.61	-	-	74	-23.39	169	231	H
	* 11.964	25.14	MAv1	38.7	-24.1	39.74	54	-14.26	-	-	169	231	H
4	* 4.961	44.18	PK2	34.2	-30.8	47.58	-	-	74	-26.42	271	212	V
	* 4.96	35.54	MAv1	34.2	-30.8	38.94	54	-15.06	-	-	271	212	V
5	* 7.443	39.27	PK2	36	-28.8	46.47	-	-	74	-27.53	281	172	V
	* 7.447	28.09	MAv1	36	-28.8	35.29	54	-18.71	-	-	281	172	V
6	* 11.558	36.26	PK2	38	-24.3	49.96	-	-	74	-24.04	253	207	V
	* 11.556	25.22	MAv1	38	-24.3	38.92	54	-15.08	-	-	253	207	V

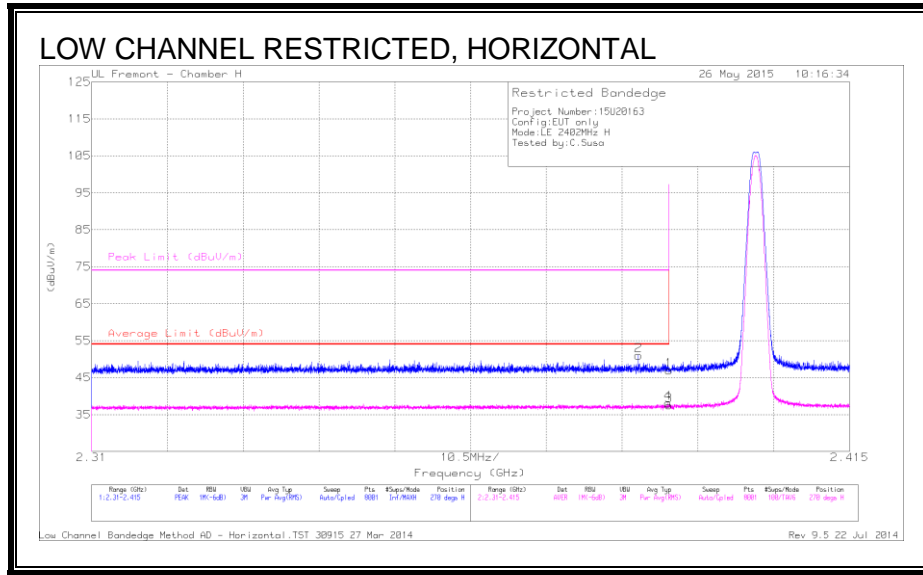
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK2 - KDB558074 Method: Maximum Peak

MAv1 - KDB558074 Option 1 Maximum RMS Average

9.2.2. LOW POWER MODE

RESTRICTED BANDEDGE



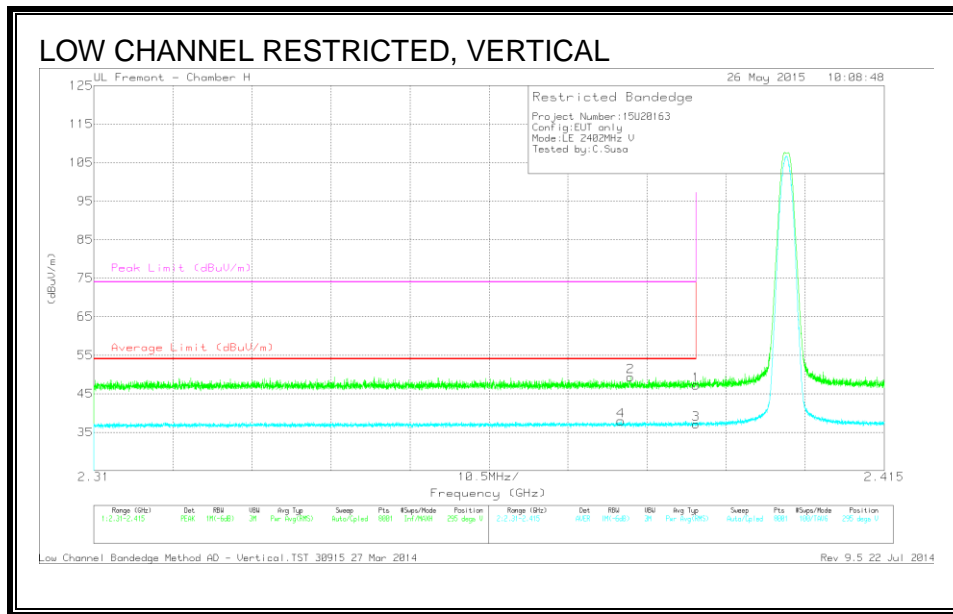
DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cbl/Filtr/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	39.58	PK	32	-24.6	46.98	-	-	74	-27.02	270	143	H
2	* 2.386	43.52	PK	32	-24.5	51.02	-	-	74	-22.98	270	143	H
3	* 2.39	30.07	RMS	32	-24.6	37.47	54	-16.53	-	-	270	143	H
4	* 2.39	30.66	RMS	32	-24.6	38.06	54	-15.94	-	-	270	143	H

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

PK - Peak detector

RMS - RMS detection



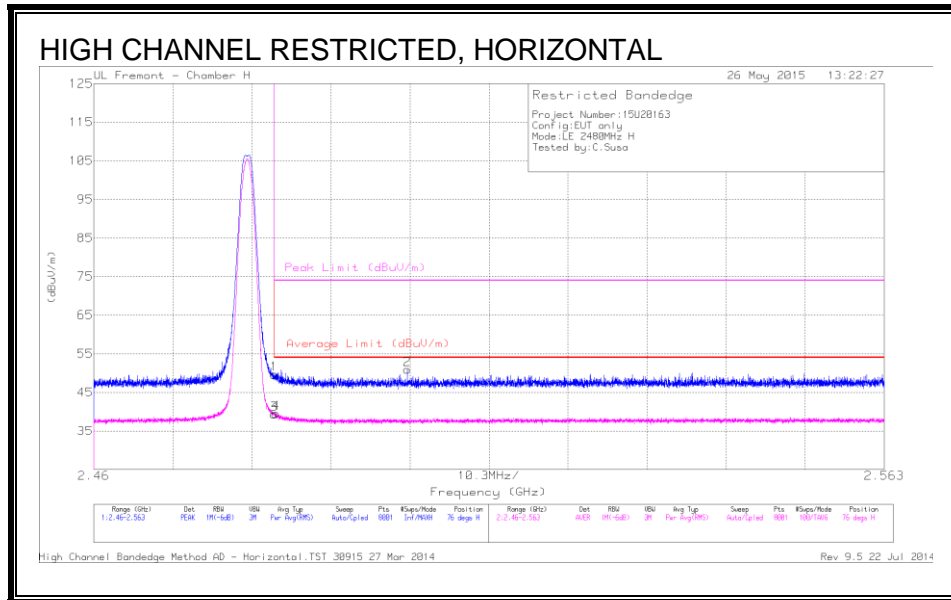
DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cbl/ Fitr/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	-24.6	47.22	-	-	74	-26.78	295	296	V
2	* 2.381	42.01	PK	32	-24.6	49.41	-	-	74	-24.59	295	296	V
3	* 2.39	29.71	RMS	32	-24.6	37.11	54	-16.89	-	-	295	296	V
4	* 2.38	30.54	RMS	32	-24.6	37.94	54	-16.06	-	-	295	296	V

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

PK - Peak detector

RMS - RMS detection



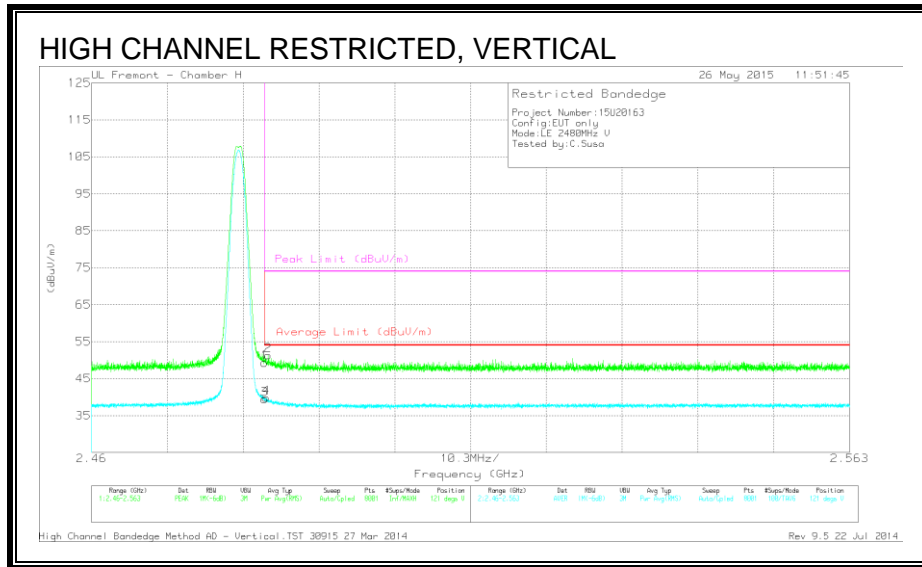
DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cbl/Fitr/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	41.78	PK	32.4	-24.5	49.68	-	-	74	-24.32	76	276	H
3	* 2.484	31.43	RMS	32.4	-24.5	39.33	54	-14.67	-	-	76	276	H
4	* 2.484	31.63	RMS	32.4	-24.5	39.53	54	-14.47	-	-	76	276	H
2	2.501	42.83	PK	32.5	-24.4	50.93	-	-	74	-23.07	76	276	H

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

PK - Peak detector

RMS - RMS detection



DATA

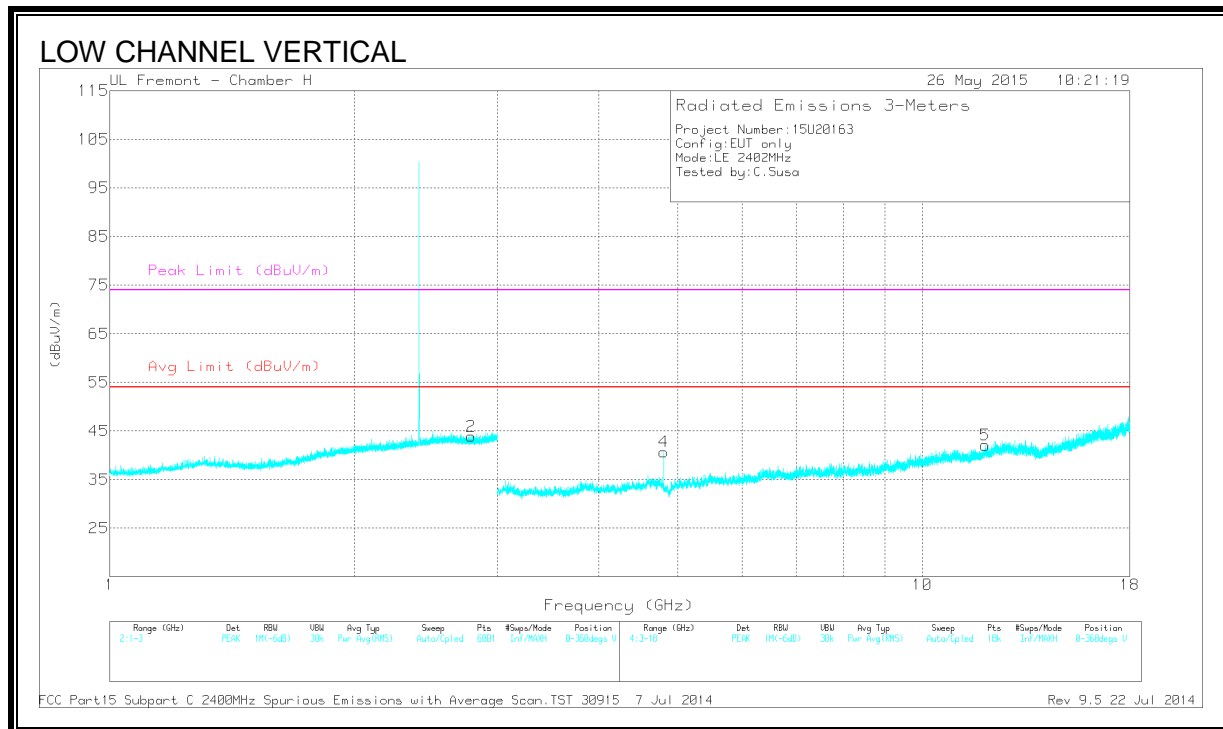
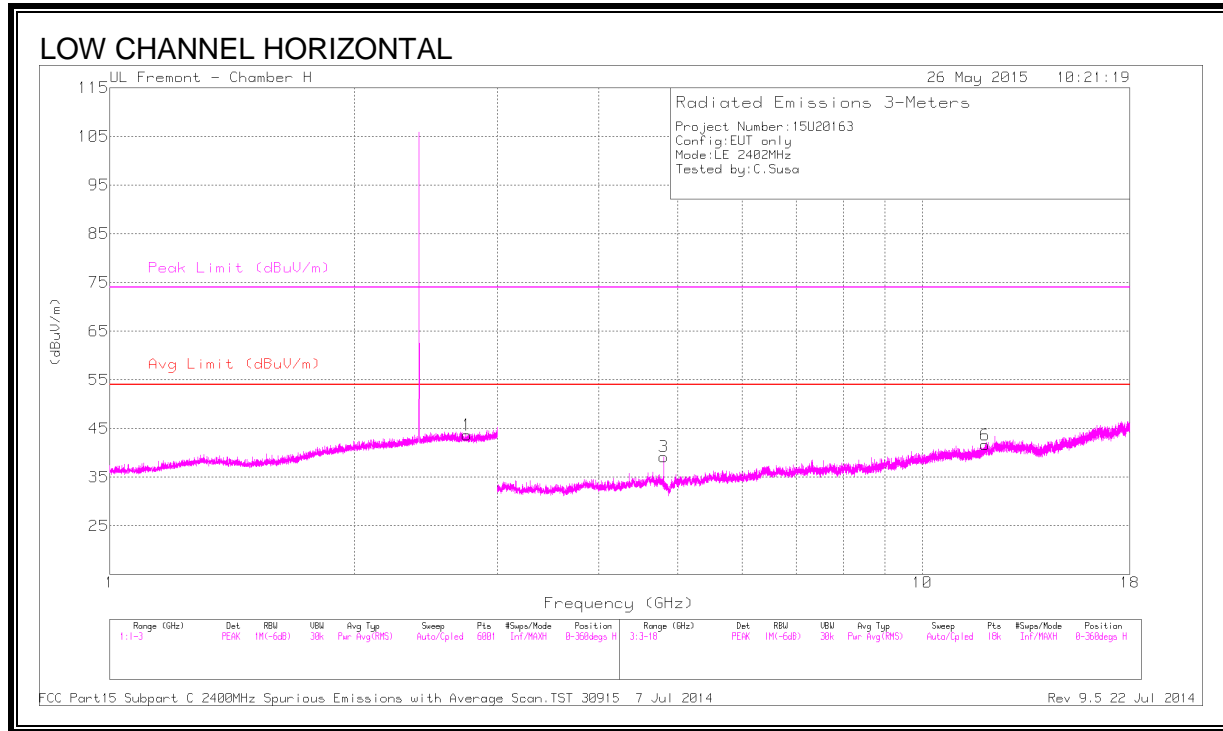
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cbl/Ftr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.484	41.41	PK	32.4	-24.5	49.31	-	-	74	-24.69	121	343	V
2	* 2.484	43.41	PK	32.4	-24.5	51.31	-	-	74	-22.69	121	343	V
3	* 2.484	31.53	RMS	32.4	-24.5	39.43	54	-14.57	-	-	121	343	V
4	* 2.484	31.92	RMS	32.4	-24.5	39.82	54	-14.18	-	-	121	343	V

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

PK - Peak detector

RMS - RMS detection

HARMONICS AND SPURIOUS EMISSIONS



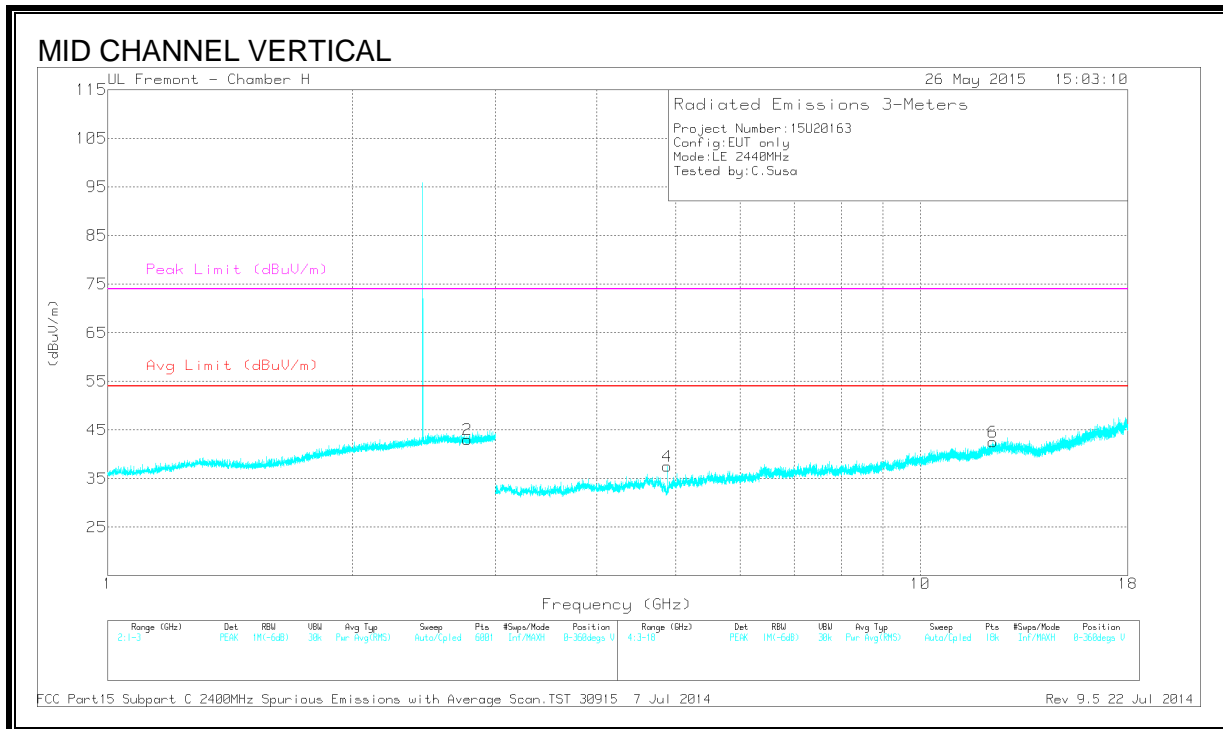
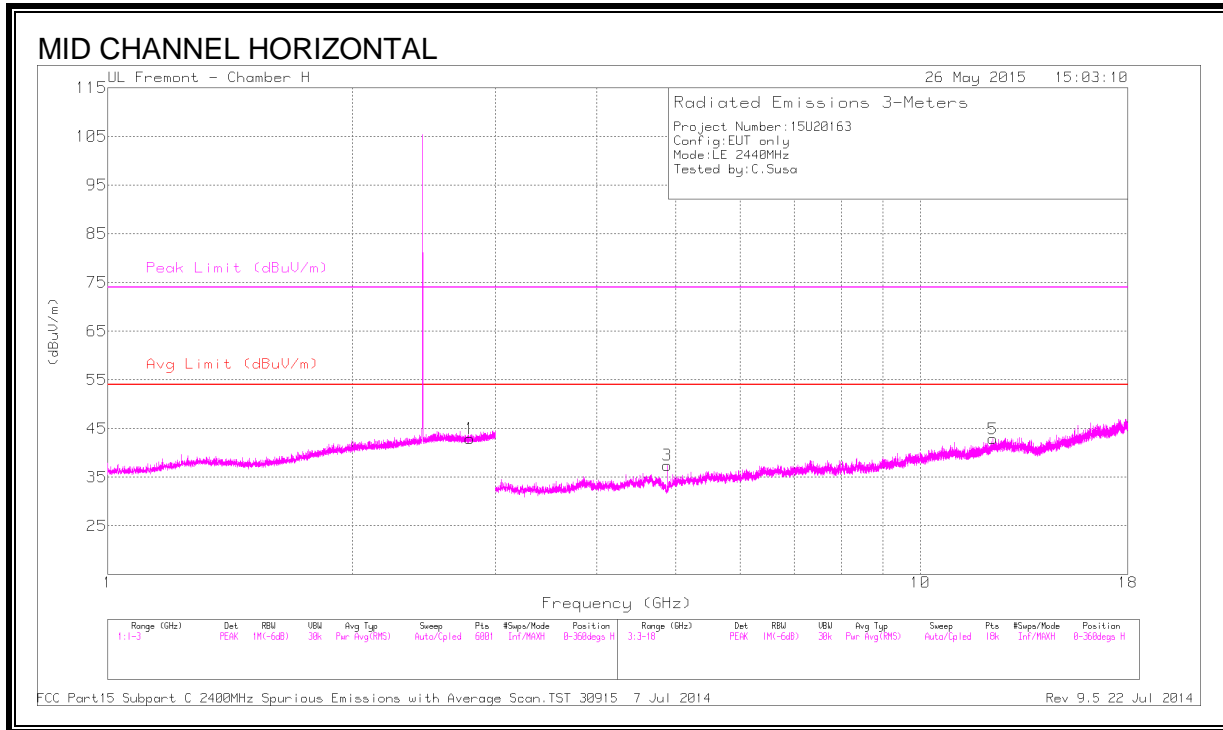
DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cb/ Fitr/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	* 2.755	43.39	PK2	32.3	-24.3	51.39	-	-	74	-22.61	185	226	H
	* 2.754	31.74	MAv1	32.3	-24.3	39.74	54	-14.26	-	-	185	226	H
2	* 2.786	43.51	PK2	32.4	-24.3	51.61	-	-	74	-22.39	234	266	V
	* 2.785	31.71	MAv1	32.4	-24.3	39.81	54	-14.19	-	-	234	266	V
3	* 4.804	44.33	PK2	34.2	-32.5	46.03	-	-	74	-27.97	303	108	H
	* 4.804	36.93	MAv1	34.2	-32.5	38.63	54	-15.37	-	-	303	108	H
4	* 4.803	46.2	PK2	34.2	-32.5	47.9	-	-	74	-26.1	254	249	V
	* 4.804	39.35	MAv1	34.2	-32.5	41.05	54	-12.95	-	-	254	249	V
5	* 11.954	35.97	PK2	38.6	-24.9	49.67	-	-	74	-24.33	174	226	V
	* 11.954	24.86	MAv1	38.6	-24.9	38.56	54	-15.44	-	-	174	226	V
6	* 11.946	35.95	PK2	38.6	-25.2	49.35	-	-	74	-24.65	90	353	H
	* 11.946	24.33	MAv1	38.6	-25.2	37.73	54	-16.27	-	-	90	353	H

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

PK2 - KDB558074 Method: Maximum Peak

MAv1 - KDB558074 Option 1 Maximum RMS Average



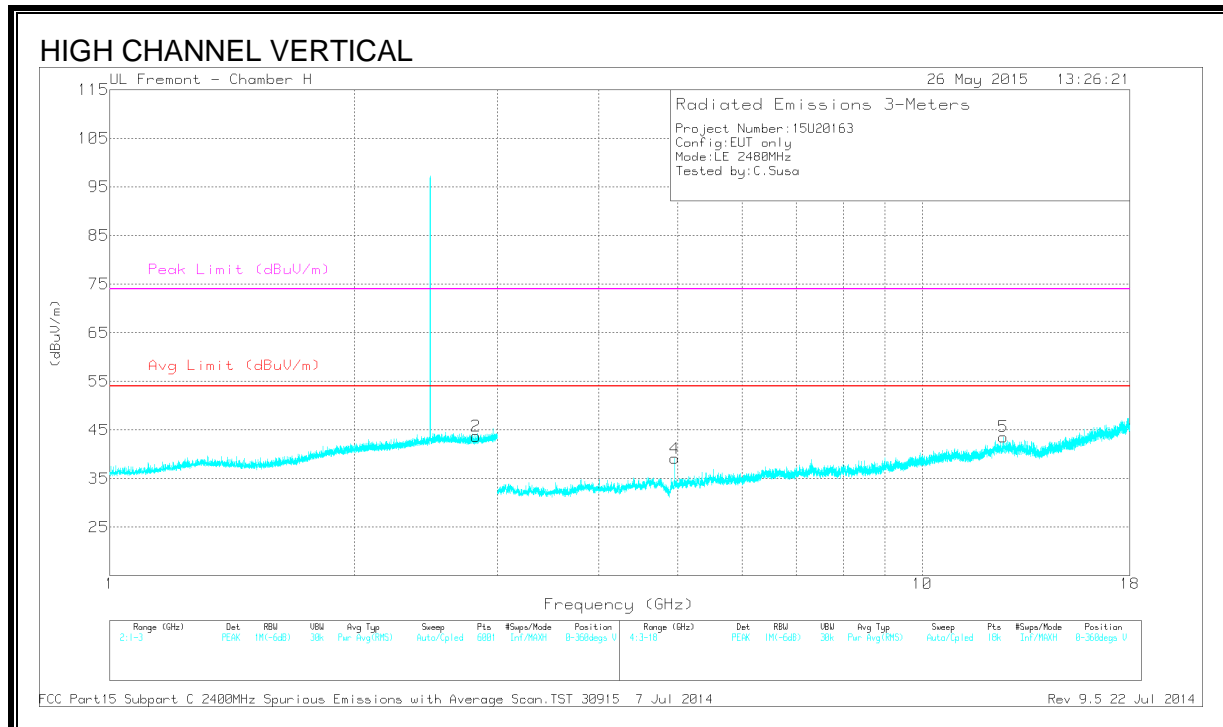
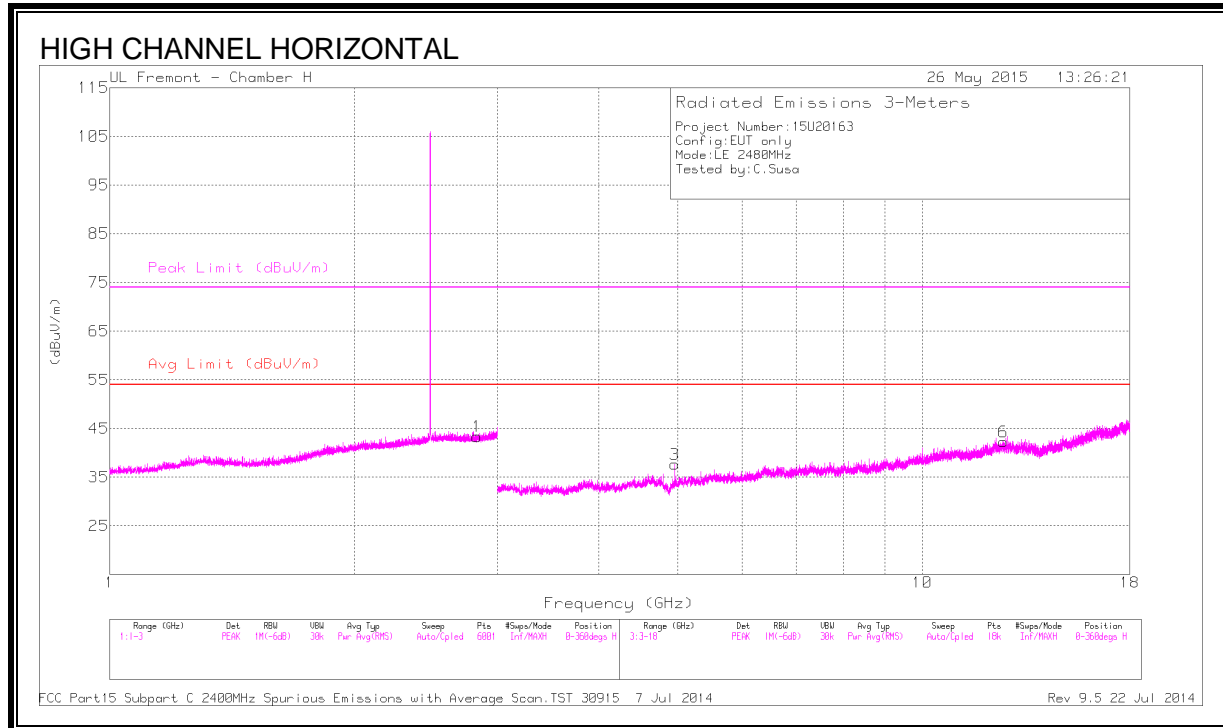
DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cb/ 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	* 2.789	42.98	PK2	32.4	-24.3	51.08	-	-	74	-22.92	180	239	H
	* 2.789	31.44	MAv1	32.4	-24.3	39.54	54	-14.46	-	-	180	239	H
2	* 2.769	43.01	PK2	32.4	-24.3	51.11	-	-	74	-22.89	20	351	V
	* 2.771	31.38	MAv1	32.4	-24.3	39.48	54	-14.52	-	-	20	351	V
3	* 4.881	43.11	PK2	34.2	-32.1	45.21	-	-	74	-28.79	139	182	H
	* 4.88	34.77	MAv1	34.2	-32.1	36.87	54	-17.13	-	-	139	182	H
4	* 4.88	42.15	PK2	34.2	-32.2	44.15	-	-	74	-29.85	261	291	V
	* 4.88	34.4	MAv1	34.2	-32.1	36.5	54	-17.5	-	-	261	291	V
5	* 12.282	35.8	PK2	39.1	-24.9	50	-	-	74	-24	146	227	H
	* 12.283	24.65	MAv1	39.1	-24.8	38.95	54	-15.05	-	-	146	227	H
6	* 12.272	36.08	PK2	39.1	-25	50.18	-	-	74	-23.82	112	121	V
	* 12.272	24.5	MAv1	39.1	-25	38.6	54	-15.4	-	-	112	121	V

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

PK2 - KDB558074 Method: Maximum Peak

MAv1 - KDB558074 Option 1 Maximum RMS Average



DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cb/ 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	* 2.833	43.19	PK2	32.4	-24.3	51.29	-	-	74	-22.71	156	215	H
	* 2.833	31.65	MAv1	32.4	-24.3	39.75	54	-14.25	-	-	156	215	H
2	* 2.824	42.77	PK2	32.4	-24.3	50.87	-	-	74	-23.13	228	318	V
	* 2.825	31.69	MAv1	32.4	-24.3	39.79	54	-14.21	-	-	228	318	V
3	* 4.96	42.15	PK2	34.2	-31.8	44.55	-	-	74	-29.45	130	100	H
	* 4.96	33.23	MAv1	34.2	-31.8	35.63	54	-18.37	-	-	130	100	H
4	* 4.959	43.01	PK2	34.2	-31.8	45.41	-	-	74	-28.59	68	235	V
	* 4.96	35.28	MAv1	34.2	-31.8	37.68	54	-16.32	-	-	68	235	V
5	* 12.587	36.54	PK2	39.4	-25.2	50.74	-	-	74	-23.26	159	270	V
	* 12.586	25.11	MAv1	39.4	-25.3	39.21	54	-14.79	-	-	159	270	V
6	* 12.588	35.99	PK2	39.4	-25.2	50.19	-	-	74	-23.81	79	241	H
	* 12.59	25.03	MAv1	39.4	-25.2	39.23	54	-14.77	-	-	79	241	H

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

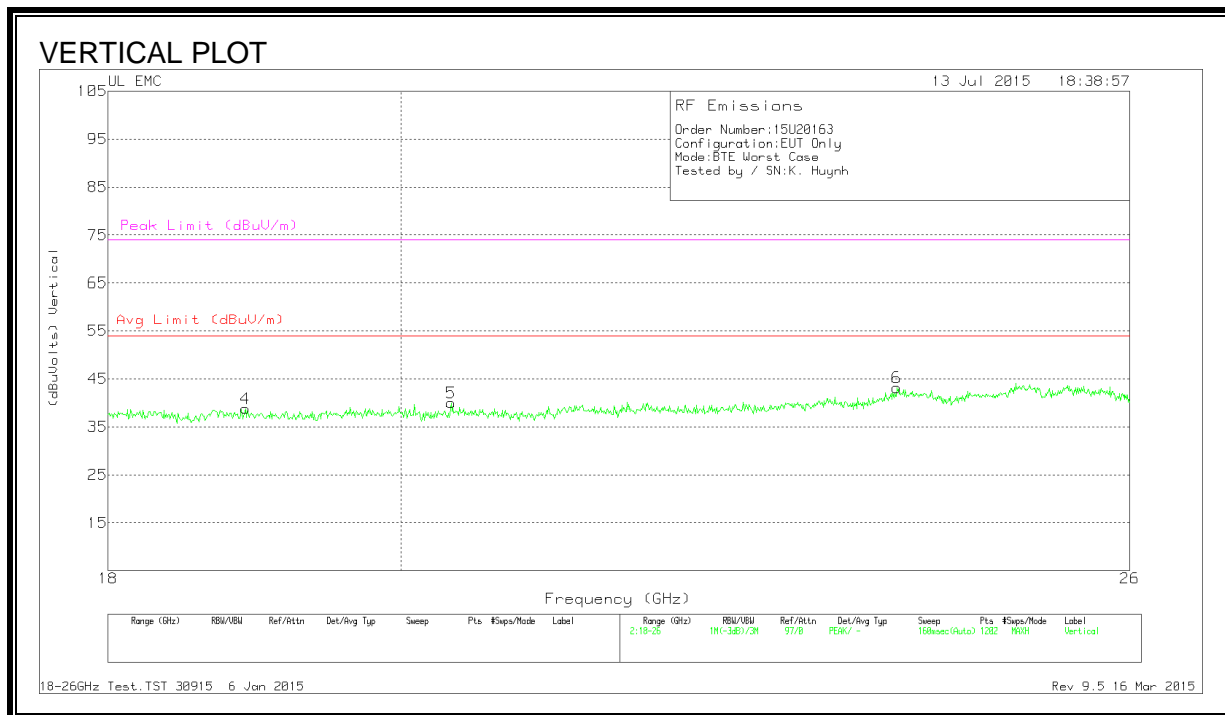
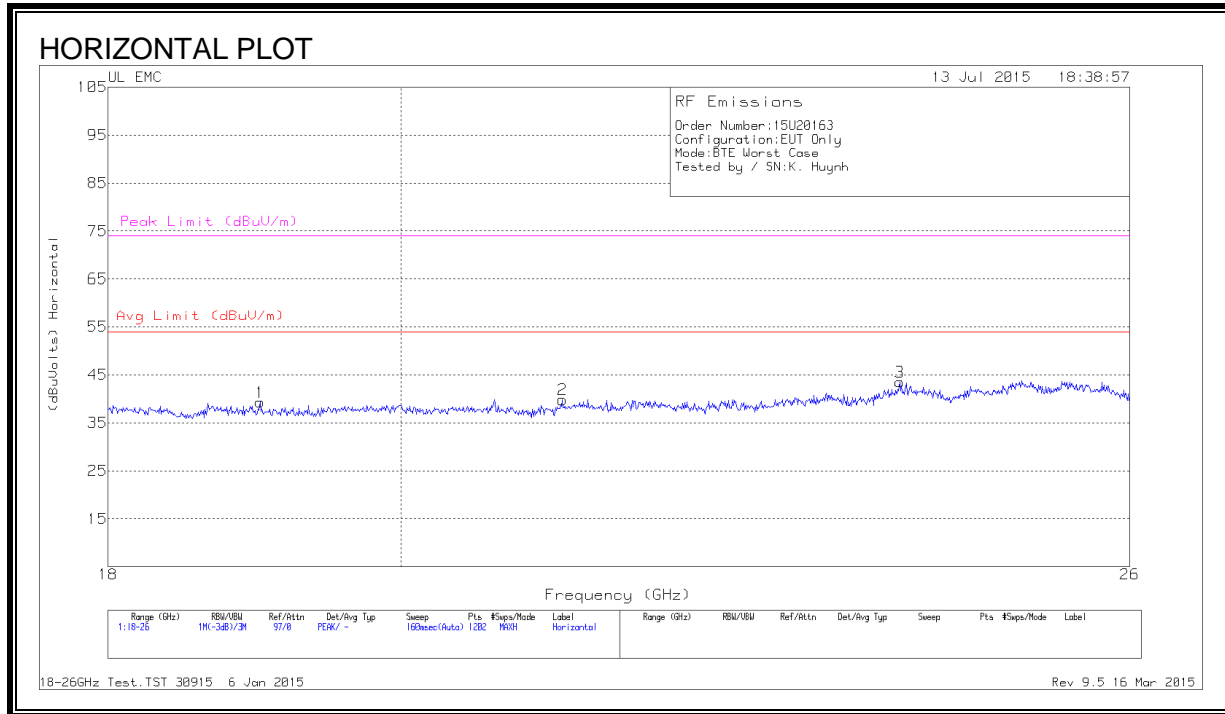
PK2 - KDB558074 Method: Maximum Peak

MAv1 - KDB558074 Option 1 Maximum RMS Average

9.3. WORST-CASE 18 to 26 GHz

9.3.1. HIGH POWER MODE

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



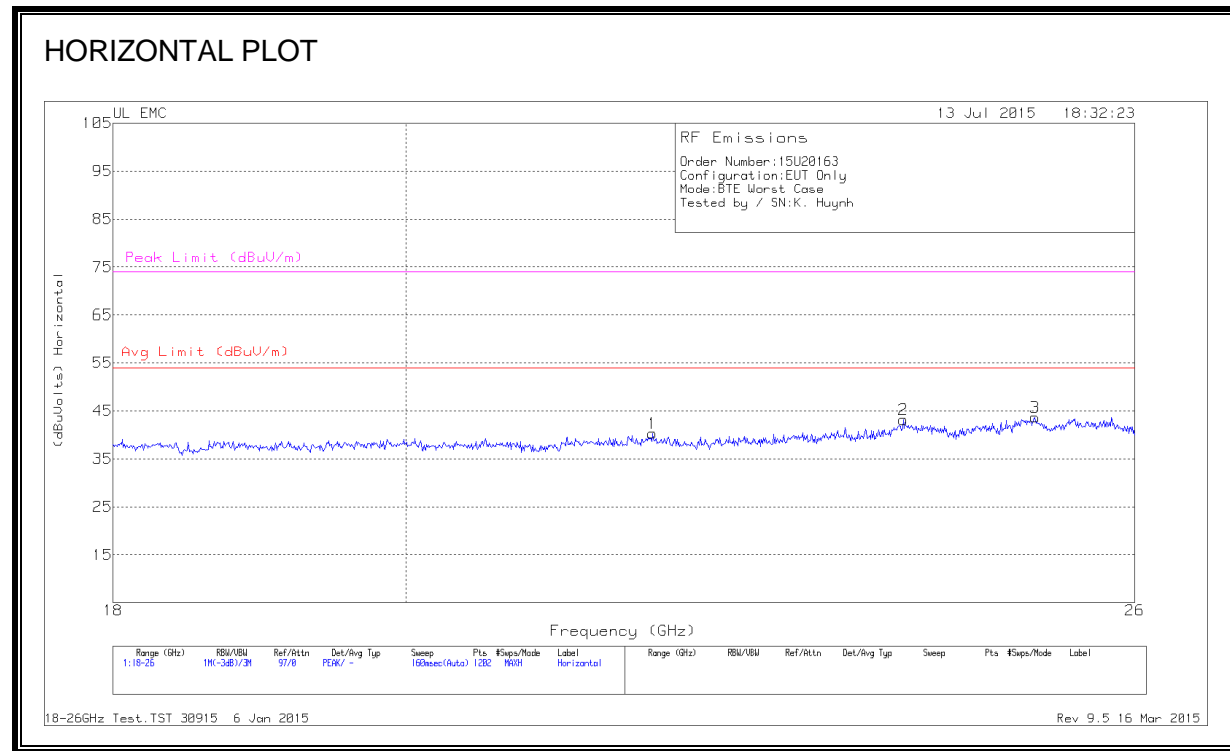
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Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	T89 AF (dB/m)	Amp/Cbl (dB)	Dist Corr (dB)	Corrected Reading (dBuVolts)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)
1	19.012	41.33	Pk	32.2	-24.7	-9.5	39.3	54	-14.67	74	-34.67
2	21.197	41.13	Pk	33	-24.8	-9.5	39.83	54	-14.17	74	-34.17
3	23.935	43.7	Pk	33.4	-24.1	-9.5	43.5	54	-10.5	74	-30.5
4	18.913	41.43	Pk	32.3	-25.4	-9.5	38.83	54	-15.17	74	-35.17
5	20.365	42.1	Pk	32.6	-25.2	-9.5	40	54	-14.00	74	-34
6	23.908	43.17	Pk	33.4	-23.9	-9.5	43.17	54	-10.83	74	-30.83

Pk - Peak detector

9.3.2. LOW POWER MODE

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



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	21.857	41.13	Pk	33.3	-24.6	-9.5	40.33	54	-13.67	74	-33.67
2	23.922	43.17	Pk	33.4	-23.9	-9.5	43.17	54	-10.83	74	-30.83
3	25.081	43.77	Pk	34	-24.6	-9.5	43.67	54	-10.33	74	-30.33
4	20.505	41.9	Pk	32.7	-25.1	-9.5	40	54	-14	74	-34
5	22.17	41.63	Pk	32.9	-24.7	-9.5	40.33	54	-13.67	74	-33.67
6	25.554	44.8	Pk	34	-24.8	-9.5	44.5	54	-9.5	74	-29.5

Pk - Peak detector

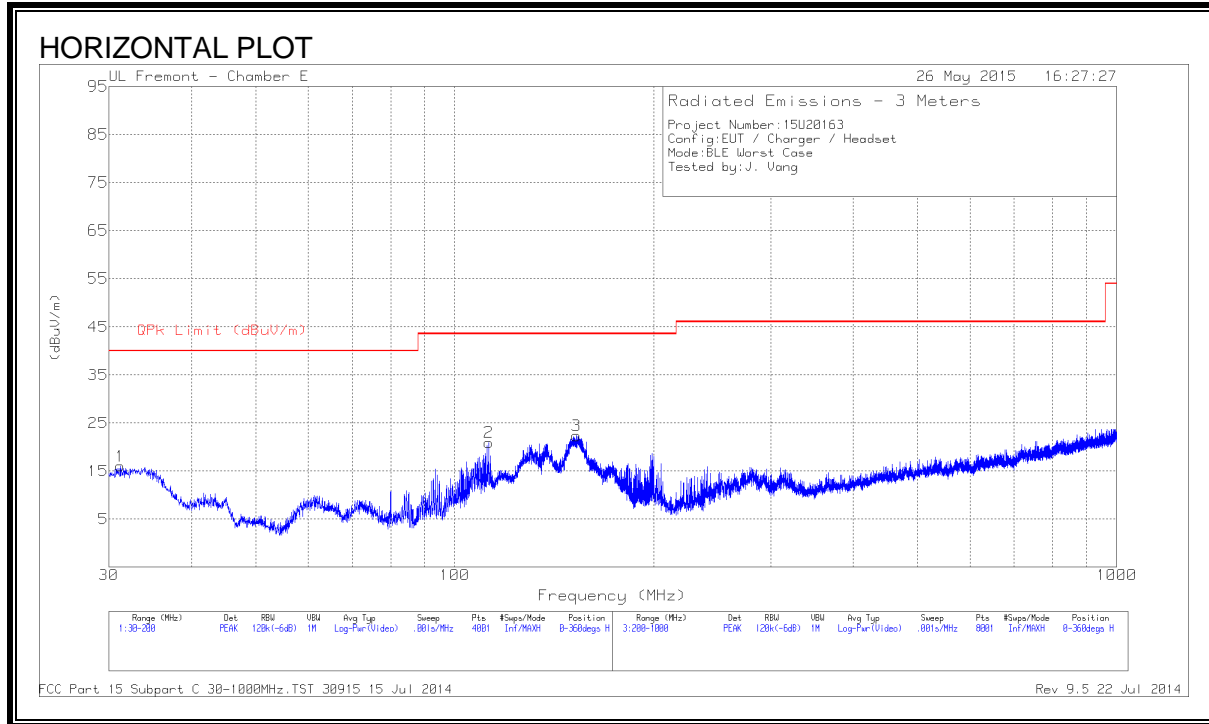
18-26GHz Test.TST 30915 6 Jan 2015

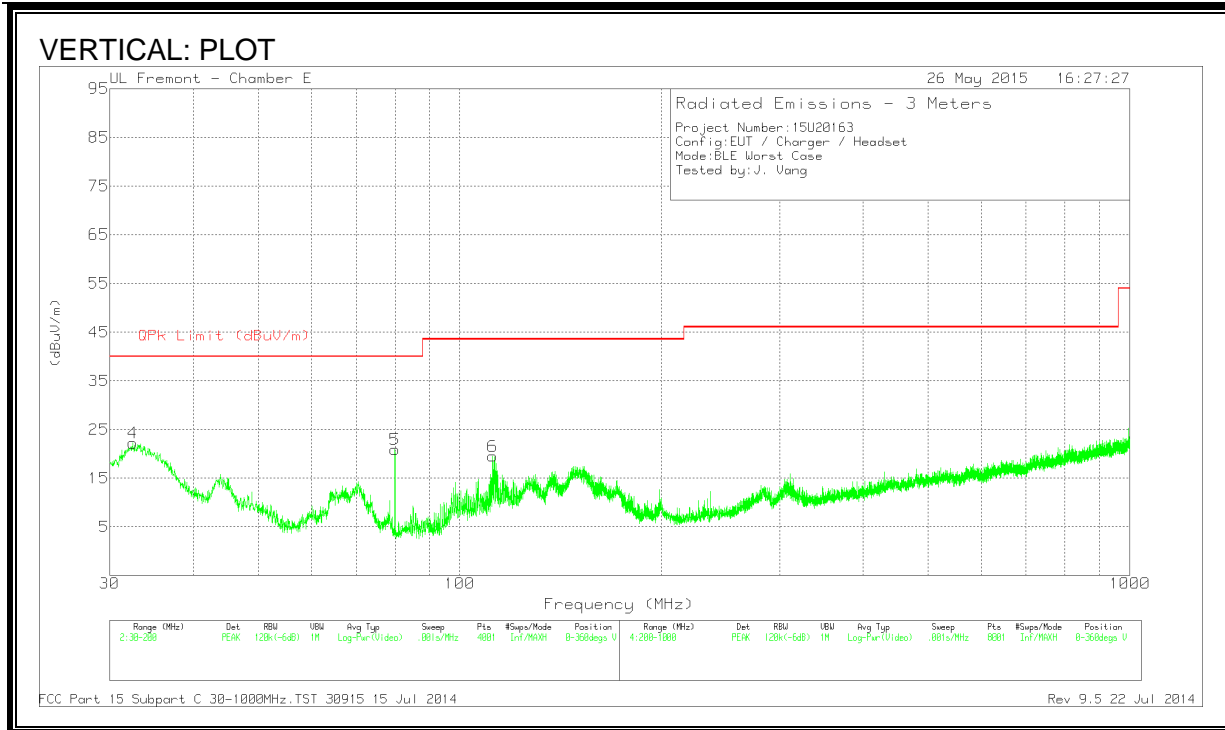
Rev 9.5 16 Mar 2015

9.4. WORST-CASE BELOW 1 GHz

9.4.1. HIGH POWER MODE

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





DATA

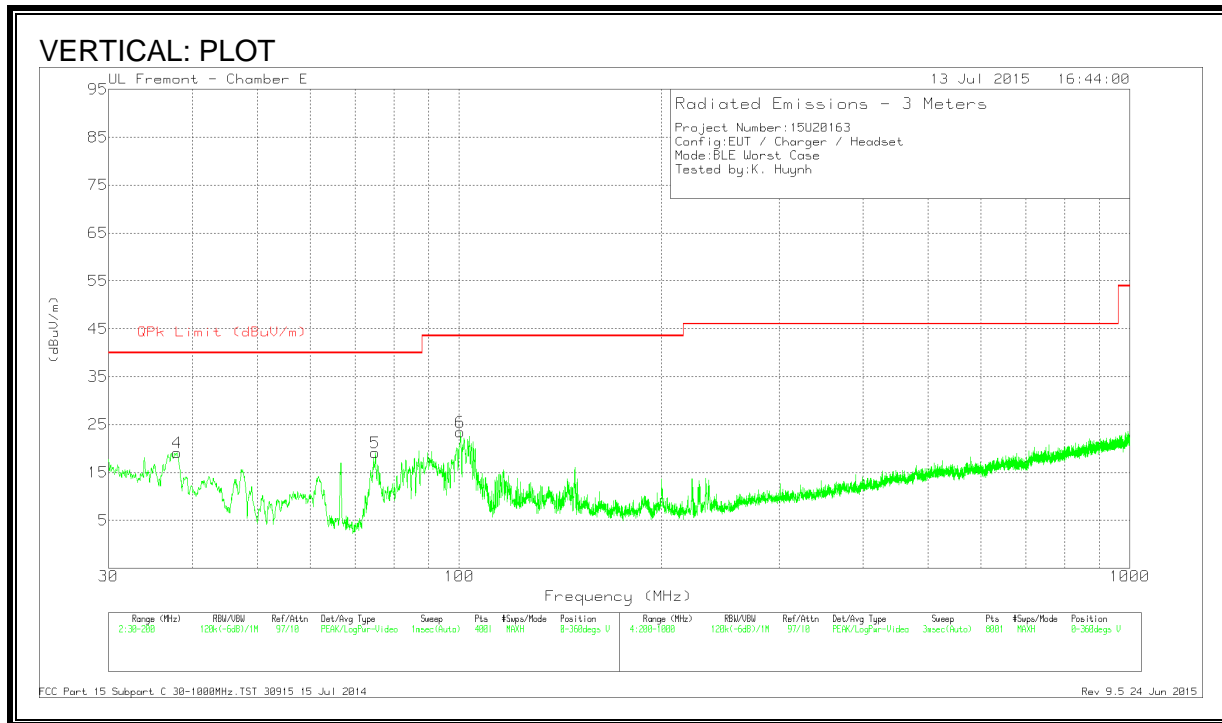
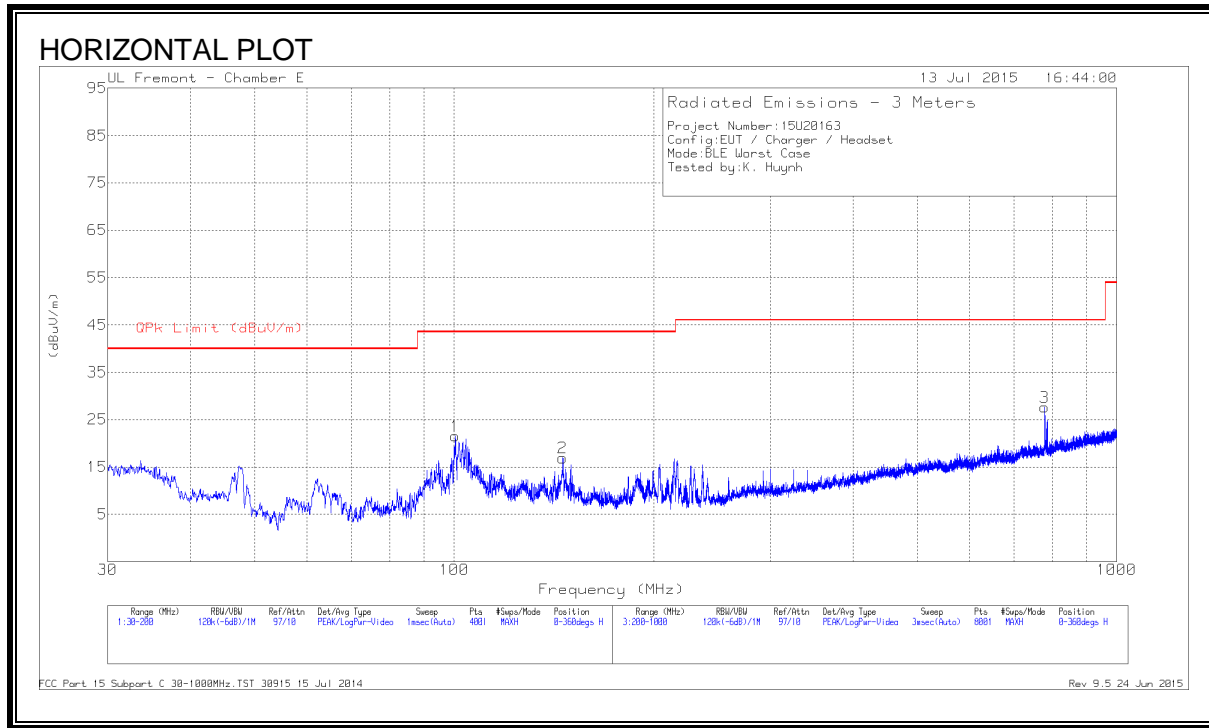
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	AF T408 (dB/m)	Amp/Cbl (dB)	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	* 112.4925	39.37	PK	12.9	-31.3	20.97	43.52	-22.55	0-360	301	H
6	* 111.94	38.02	PK	12.8	-31.3	19.52	43.52	-24	0-360	100	V
1	31.2325	27.24	PK	20.6	-31.8	16.04	40	-23.96	0-360	301	H
4	32.465	34.24	PK	19.8	-31.8	22.24	40	-17.76	0-360	100	V
5	79.98	44.38	PK	8	-31.5	20.88	40	-19.12	0-360	100	V
3	152.57	41.06	PK	12.3	-31	22.36	43.52	-21.16	0-360	201	H

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

PK - Peak detector

9.4.2. LOW POWER MODE

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



DATA

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	AF T408 (dB/m)	Amp/Cbl (dB)	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
4	* 37.99	35.29	Pk	15.6	-31.8	19.09	40	-20.91	0-360	100	V
5	* 74.965	42.12	Pk	8.4	-31.4	19.12	40	-20.88	0-360	100	V
6	100.38	44.42	Pk	10.3	-31.3	23.42	43.52	-20.1	0-360	100	V
1	100.4225	42.57	Pk	10.3	-31.3	21.57	43.52	-21.95	0-360	301	H
2	145.8975	35.41	Pk	12.6	-31.1	16.91	43.52	-26.61	0-360	301	H
3	778.5	35.68	Pk	20.8	-28.9	27.58	46.02	-18.44	0-360	100	H

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

Pk - Peak detector

10. RADIATED TEST RESULTS (MODE: A1687)

10.1. 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.

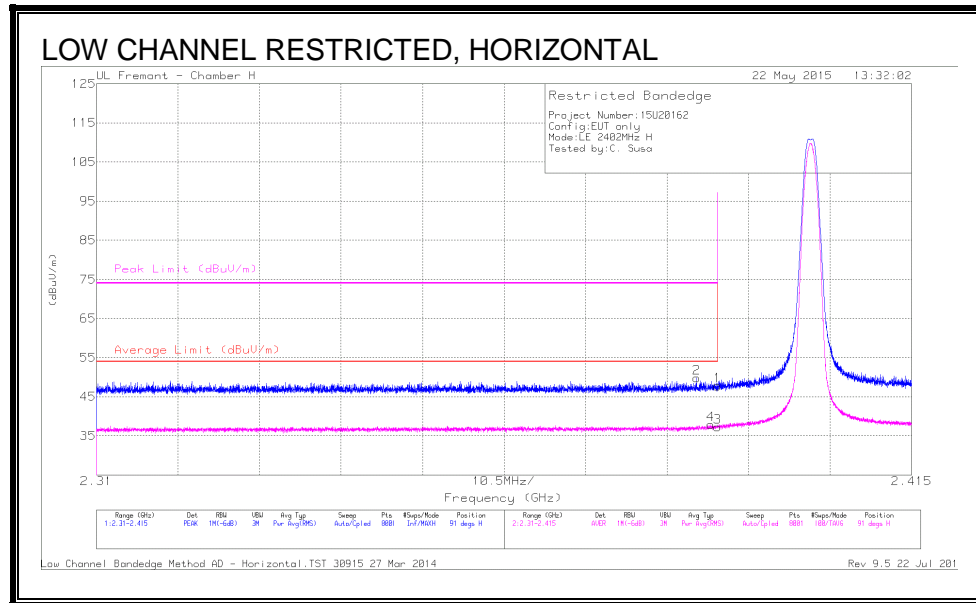
The spectrum from 30 MHz to 26 GHz is investigated with the transmitter set to the lowest, middle, and highest channels in the 2.4 GHz band.

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.

10.2. TRANSMITTER ABOVE 1 GHz

10.2.1. HIGH POWER MODE

RESTRICTED BANDEDGE



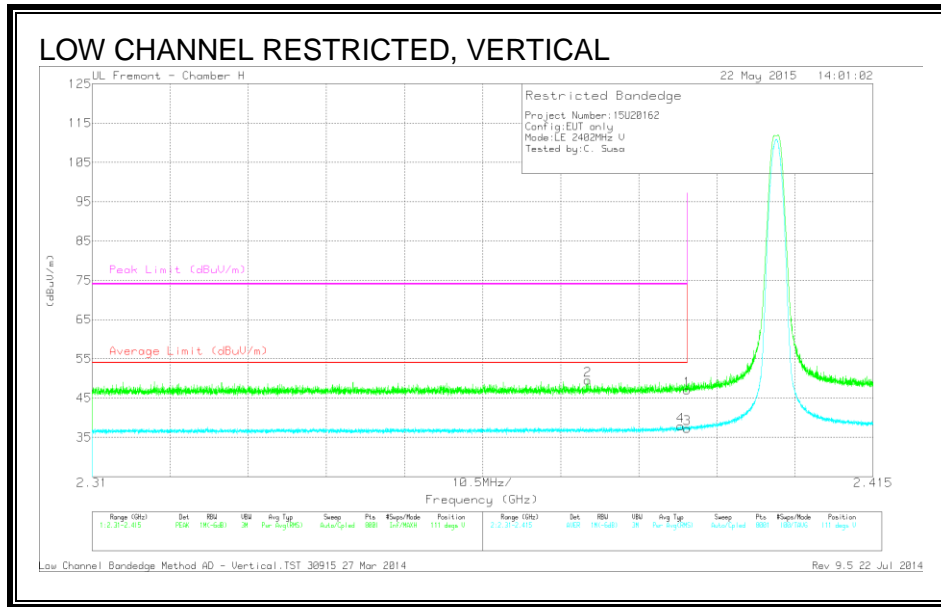
DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cbl/Filtr/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	40.35	PK	32	-24.6	47.75	-	-	74	-26.25	91	299	H
2	* 2.387	42.26	PK	32	-24.5	49.76	-	-	74	-24.24	91	299	H
3	* 2.39	29.88	RMS	32	-24.6	37.28	54	-16.72	-	-	91	299	H
4	* 2.389	30.5	RMS	32	-24.6	37.9	54	-16.1	-	-	91	299	H

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

PK - Peak detector

RMS - RMS detection



DATA

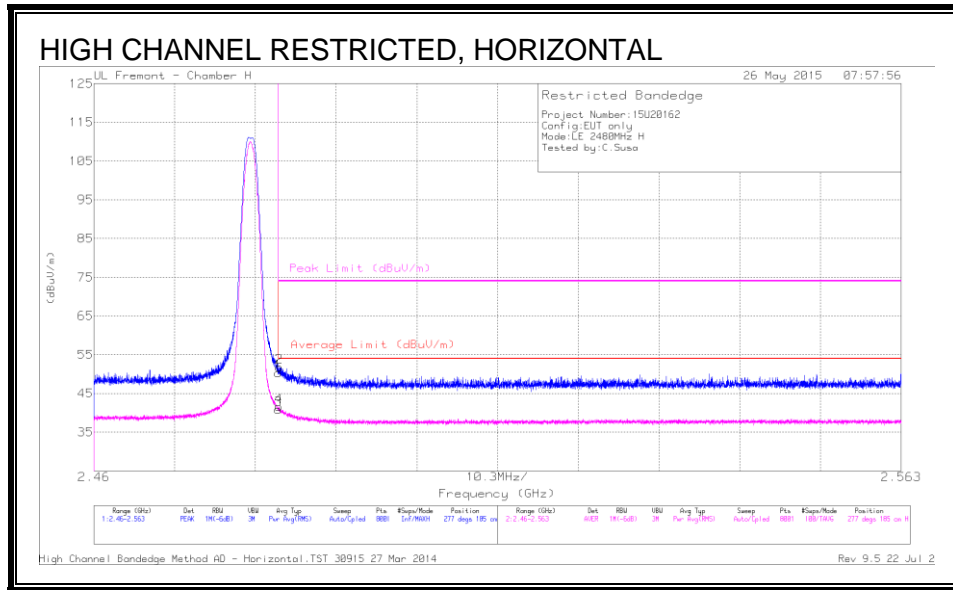
Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cbl/Fitr/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	39.69	PK	32	-24.6	47.09	-	-	74	-26.91	111	362	V
2	* 2.377	42.2	PK	32	-24.6	49.6	-	-	74	-24.4	111	362	V
3	* 2.39	29.81	RMS	32	-24.6	37.21	54	-16.79	-	-	111	362	V
4	* 2.389	30.5	RMS	32	-24.6	37.9	54	-16.1	-	-	111	362	V

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

PK - Peak detector

RMS - RMS detection



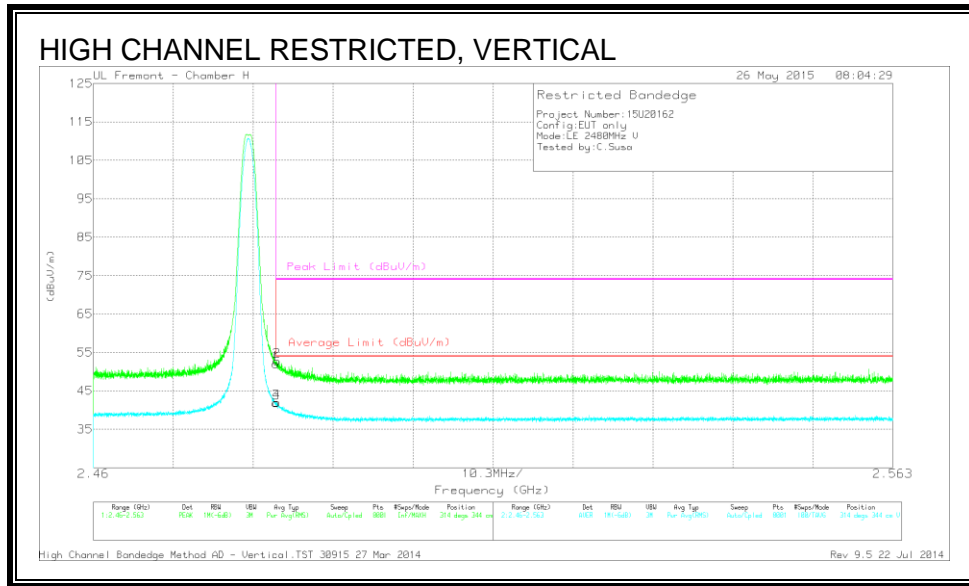
DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cbl/ Fitr/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	42.45	PK	32.4	-24.5	50.35	-	-	74	-23.65	277	185	H
2	* 2.484	43.89	PK	32.4	-24.5	51.79	-	-	74	-22.21	277	185	H
3	* 2.484	32.94	RMS	32.4	-24.5	40.84	54	-13.16	-	-	277	185	H
4	* 2.484	33.65	RMS	32.4	-24.5	41.55	54	-12.45	-	-	277	185	H

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

PK - Peak detector

RMS - RMS detection



DATA

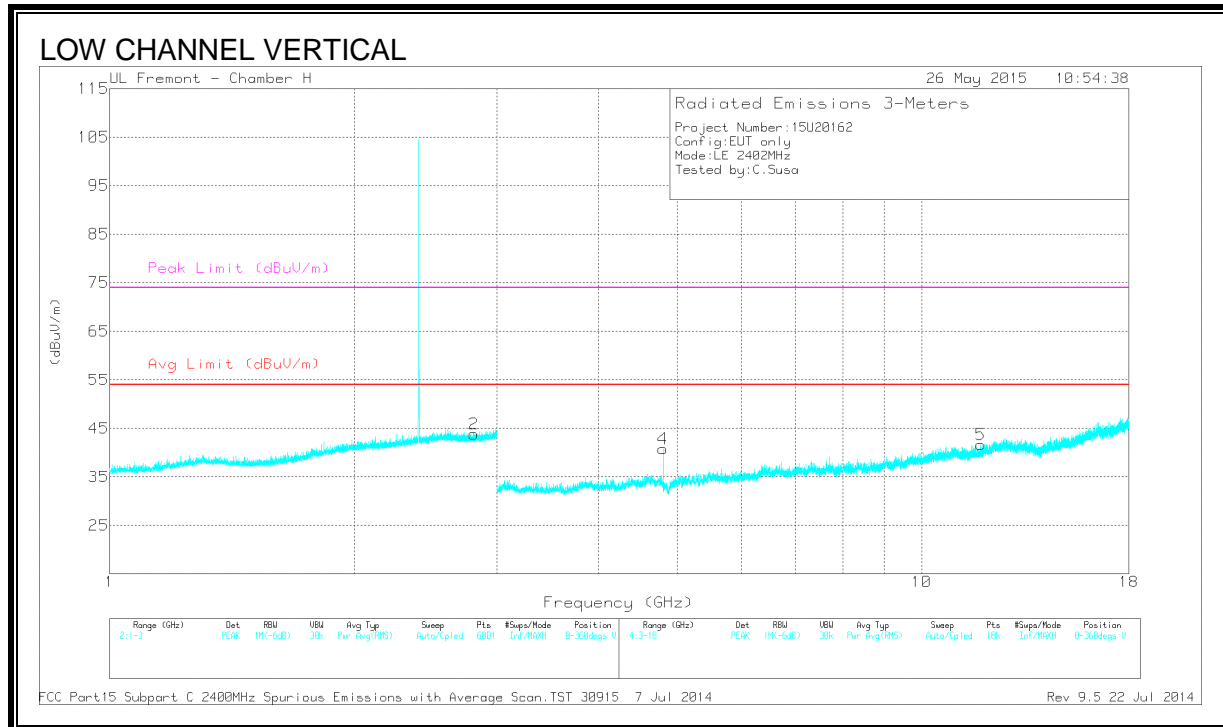
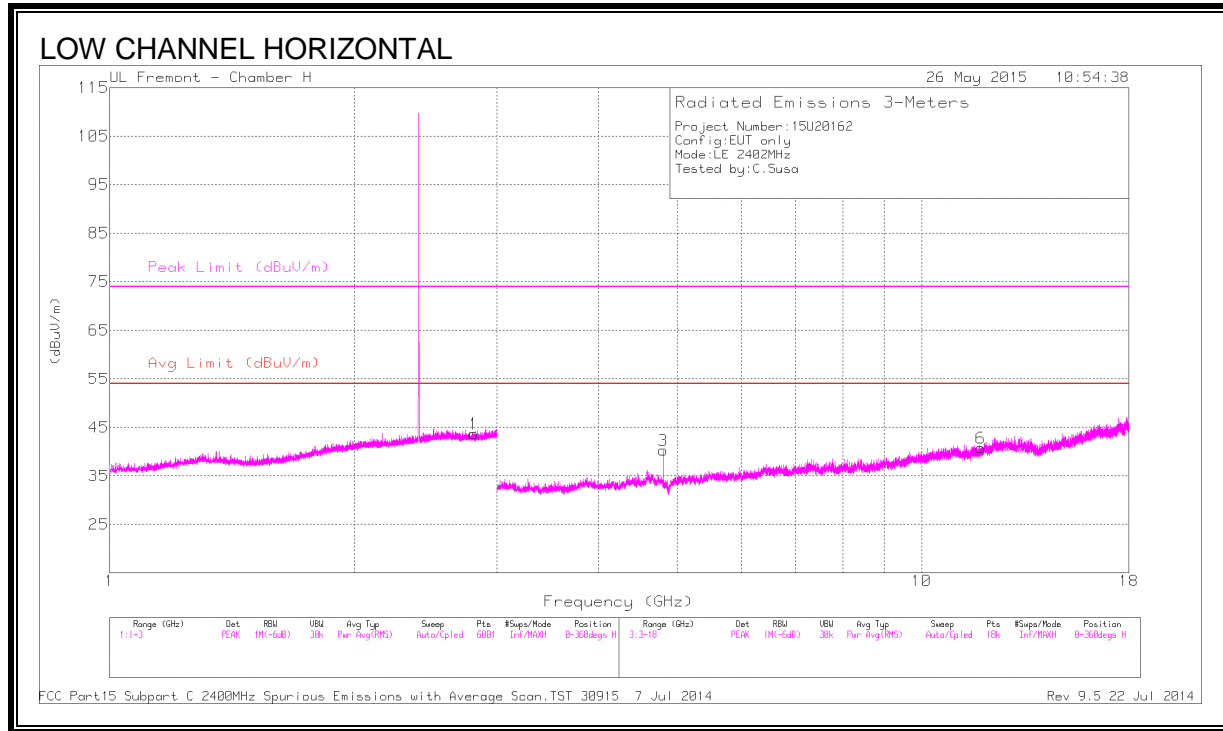
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cbl/Fitr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.484	44.18	PK	32.4	-24.5	52.08	-	-	74	-21.92	314	344	V
2	* 2.484	44.9	PK	32.4	-24.5	52.8	-	-	74	-21.2	314	344	V
3	* 2.484	34.01	RMS	32.4	-24.5	41.91	54	-12.09	-	-	314	344	V
4	* 2.484	34.02	RMS	32.4	-24.5	41.92	54	-12.08	-	-	314	344	V

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

PK - Peak detector

RMS - RMS detection

HARMONICS AND SPURIOUS EMISSIONS (HIGH POWER)



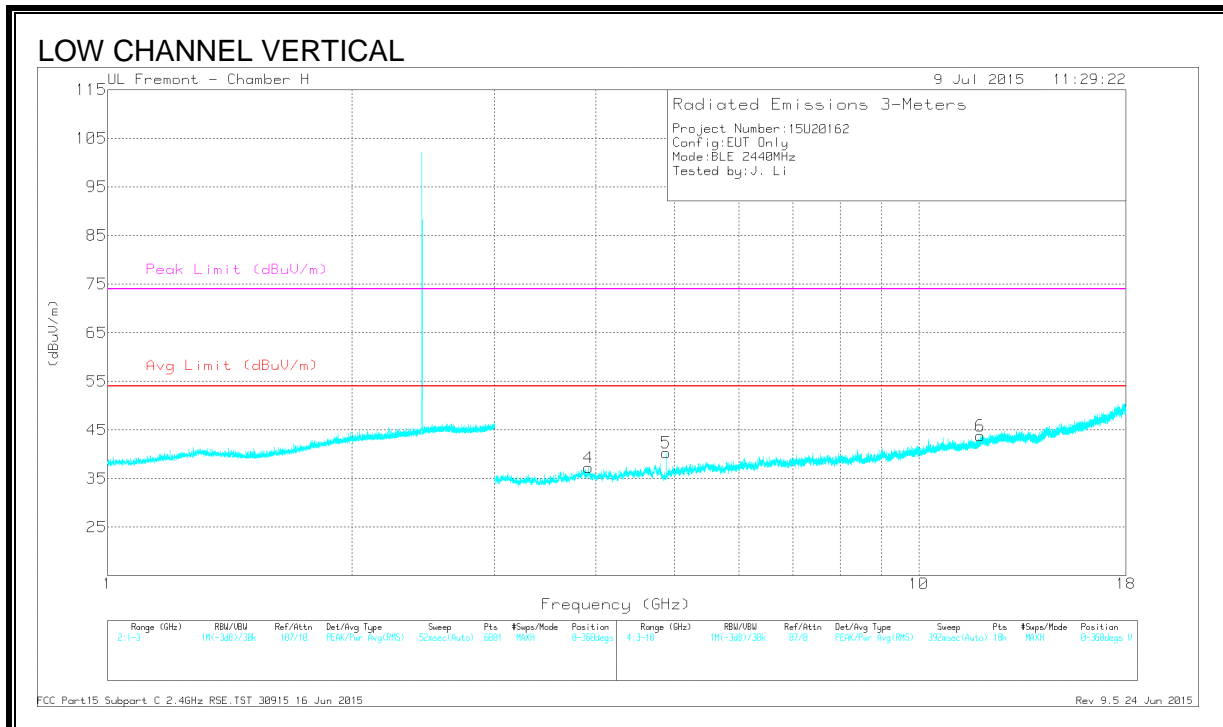
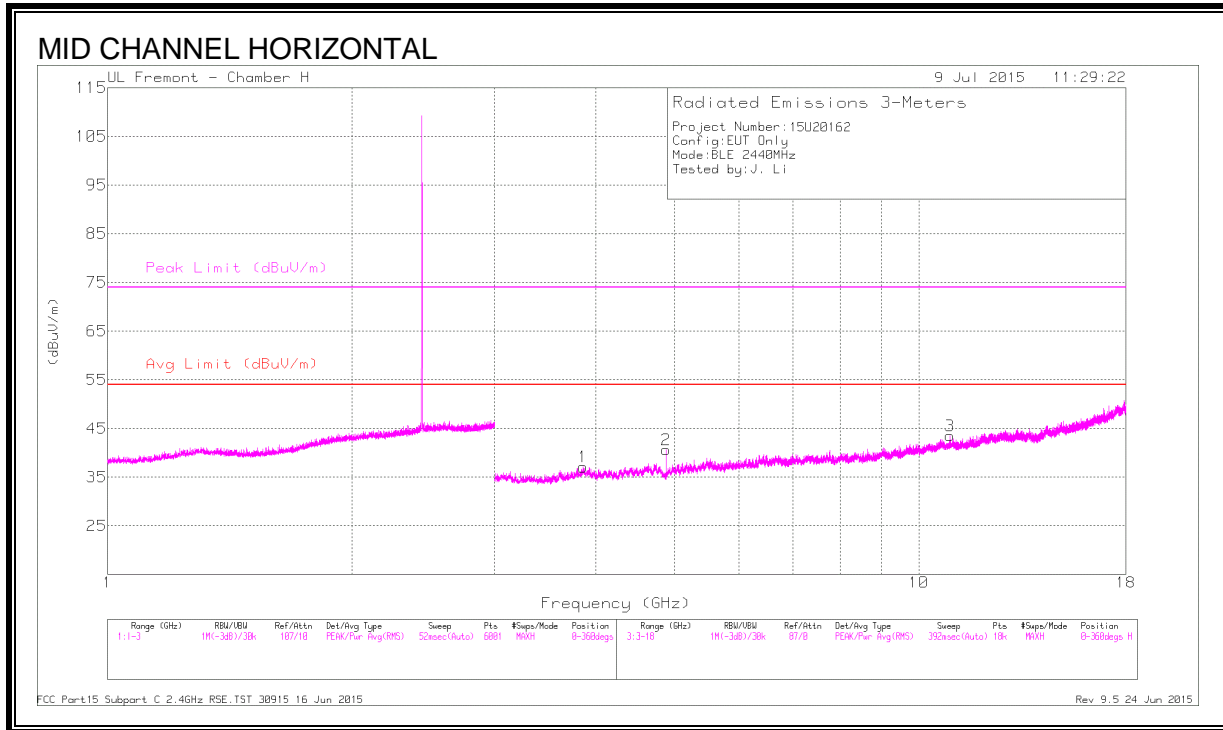
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Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cbl/ Fitr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.809	43.33	PK2	32.4	-24.3	51.43	-	-	74	-22.57	183	192	H
	* 2.806	31.72	MAv1	32.4	-24.3	39.82	54	-14.18	-	-	183	192	H
2	* 2.808	43.18	PK2	32.4	-24.3	51.28	-	-	74	-22.72	5	275	V
	* 2.809	31.3	MAv1	32.4	-24.3	39.4	54	-14.6	-	-	5	275	V
3	* 4.804	44.96	PK2	34.2	-32.5	46.66	-	-	74	-27.34	307	115	H
	* 4.804	37.96	MAv1	34.2	-32.5	39.66	54	-14.34	-	-	307	115	H
4	* 4.804	44.37	PK2	34.2	-32.5	46.07	-	-	74	-27.93	104	151	V
	* 4.804	36.76	MAv1	34.2	-32.5	38.46	54	-15.54	-	-	104	151	V
5	* 11.821	36.04	PK2	38.3	-26	48.34	-	-	74	-25.66	252	290	V
	* 11.82	25.34	MAv1	38.3	-26	37.64	54	-16.36	-	-	252	290	V
6	* 11.828	36.32	PK2	38.4	-25.9	48.82	-	-	74	-25.18	184	203	H
	* 11.831	25.39	MAv1	38.4	-25.8	37.99	54	-16.01	-	-	184	203	H

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

PK2 - KDB558074 Method: Maximum Peak

MAv1 - KDB558074 Option 1 Maximum RMS Average



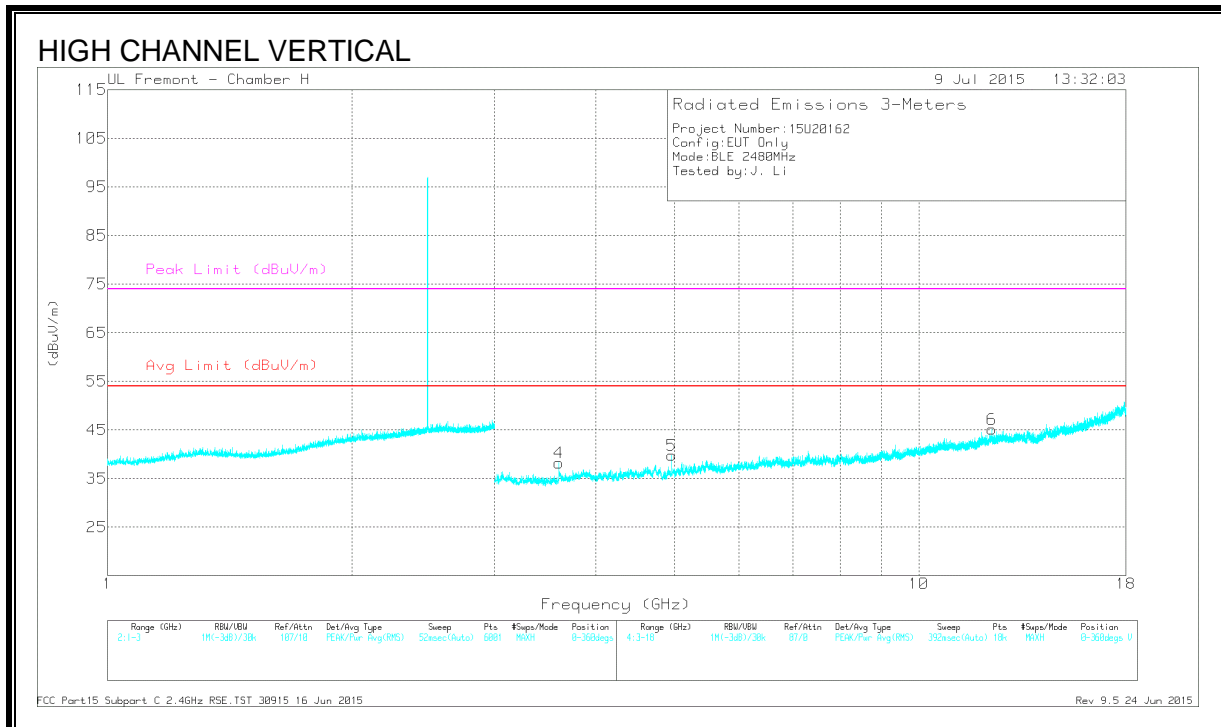
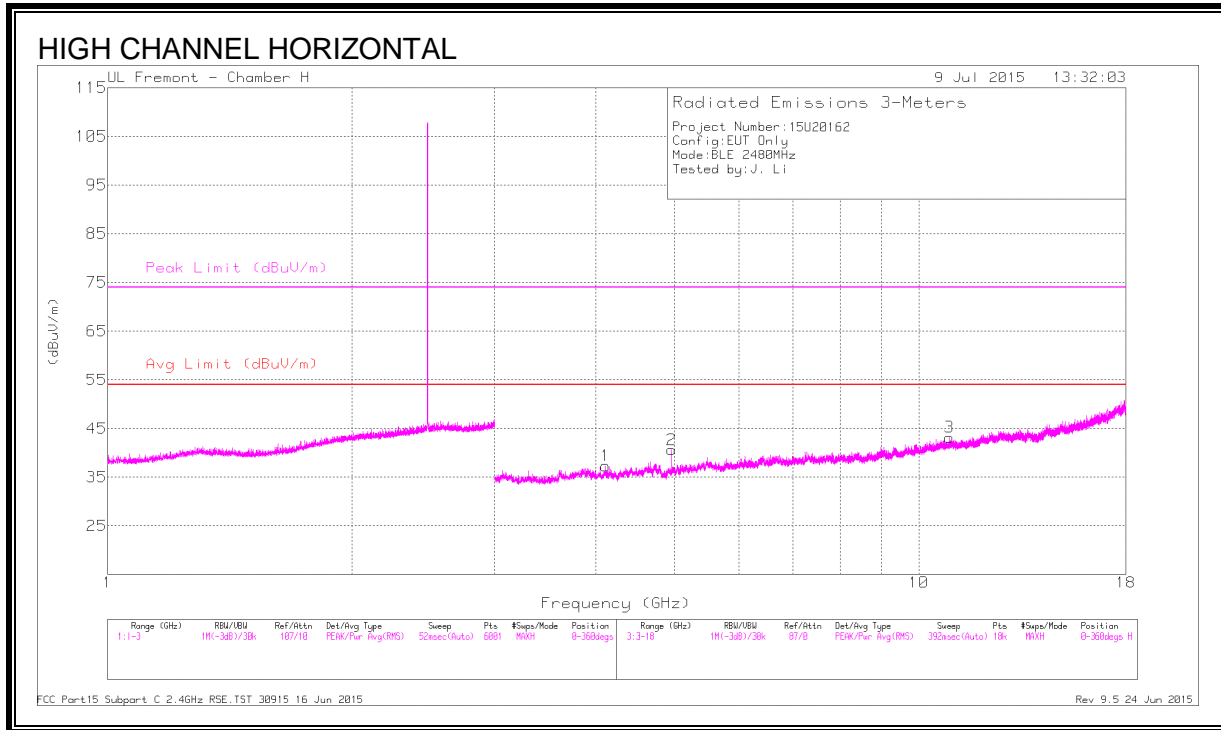
DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cb/ 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	* 3.855	42.61	PK2	33.5	-31.1	45.01	-	-	74	-28.99	194	202	H
	* 3.857	31.14	MAv1	33.5	-31.1	33.54	54	-20.46	-	-	194	202	H
2	* 4.88	43.19	PK2	34.2	-31	46.39	-	-	74	-27.61	240	100	H
	* 4.88	35	MAv1	34.2	-31	38.2	54	-15.8	-	-	240	100	H
3	* 10.93	35.73	PK2	37.8	-24.4	49.13	-	-	74	-24.87	212	2229	H
	* 10.928	24.97	MAv1	37.8	-24.4	38.37	54	-15.63	-	-	212	229	H
4	* 3.916	42.31	PK2	33.6	-31.8	44.11	-	-	74	-29.89	167	241	V
	* 3.917	31.28	MAv1	33.6	-31.8	33.08	54	-20.92	-	-	167	241	V
5	* 4.88	43.56	PK2	34.2	-31	46.76	-	-	74	-27.24	281	172	V
	* 4.88	34.93	MAv1	34.2	-31	38.13	54	-15.87	-	-	281	172	V
6	* 11.908	36.04	PK2	38.5	-24.8	49.74	-	-	74	-24.26	233	218	V
	* 11.908	25.4	MAv1	38.5	-24.8	39.1	54	-14.9	-	-	233	218	V

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK2 - KDB558074 Method: Maximum Peak

MAv1 - KDB558074 Option 1 Maximum RMS Average



DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cb/ 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	* 4.109	40.98	PK2	33.5	-30.7	43.78	-	-	74	-30.22	113	187	H
	* 4.109	30.17	MAv1	33.5	-30.7	32.97	54	-21.03	-	-	113	187	H
2	* 4.96	43.84	PK2	34.2	-30.8	47.24	-	-	74	-26.76	227	118	H
	* 4.96	34.8	MAv1	34.2	-30.8	38.2	54	-15.8	-	-	227	118	H
3	* 10.911	36.04	PK2	37.8	-24.5	49.34	-	-	74	-24.66	277	214	H
	* 10.911	25.06	MAv1	37.8	-24.5	38.36	54	-15.64	-	-	277	214	H
4	* 3.599	42.07	PK2	33	-31.6	43.47	-	-	74	-30.53	301	189	V
	* 3.602	30.25	MAv1	33	-31.7	31.55	54	-22.45	-	-	301	189	V
5	* 4.96	43.99	PK2	34.2	-30.8	47.39	-	-	74	-26.61	273	210	V
	* 4.96	35.64	MAv1	34.2	-30.8	39.04	54	-14.96	-	-	273	210	V
6	* 12.305	36.73	PK2	39.1	-24.6	51.23	-	-	74	-22.77	241	172	V
	* 12.308	25.25	MAv1	39.1	-24.6	39.75	54	-14.25	-	-	241	172	V

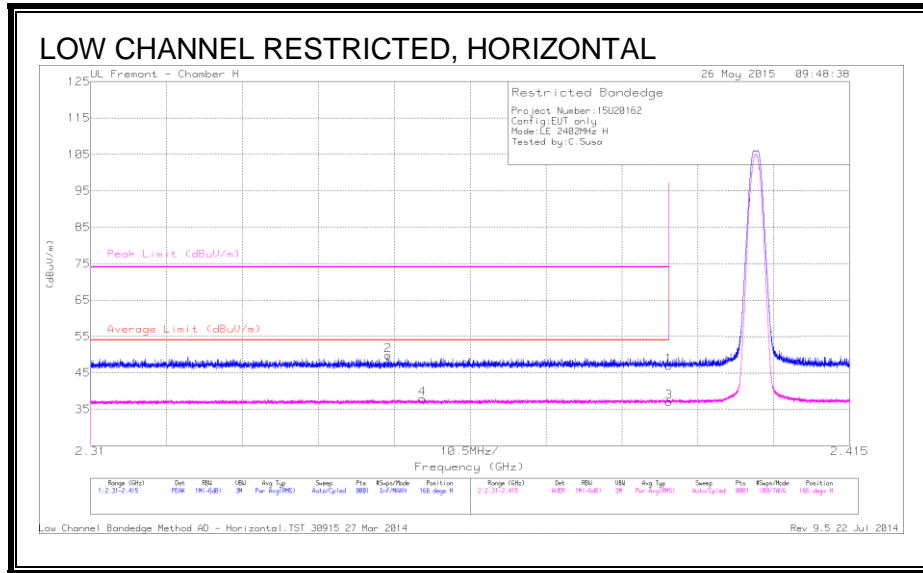
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK2 - KDB558074 Method: Maximum Peak

MAv1 - KDB558074 Option 1 Maximum RMS Average

10.2.2. LOW POWER MODE

RESTRICTED BANDEDGE



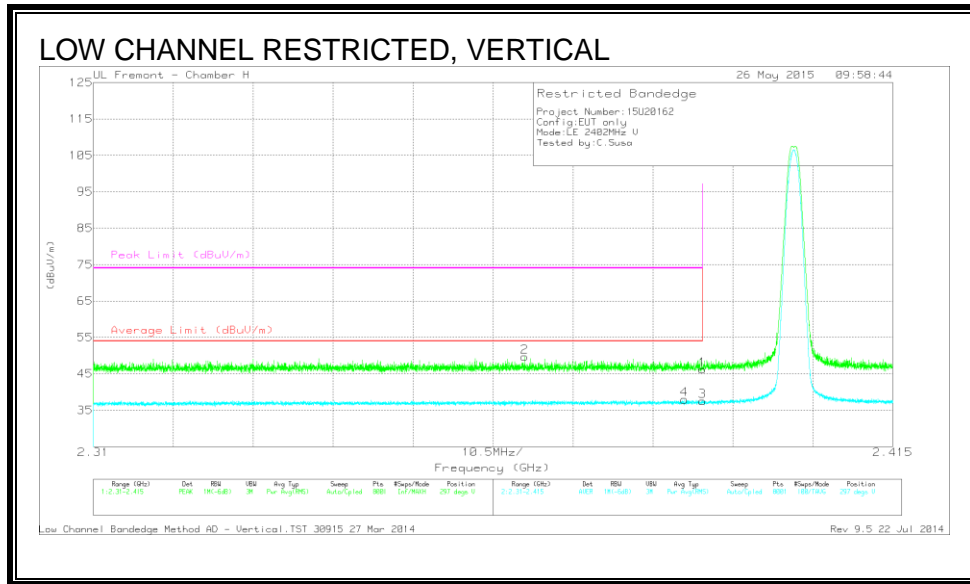
DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cbl/Fitr/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	39.51	PK	32	-24.6	46.91	-	-	74	-27.09	166	351	H
2	* 2.351	42.48	PK	31.9	-24.6	49.78	-	-	74	-24.22	166	351	H
3	* 2.39	29.59	RMS	32	-24.6	36.99	54	-17.01	-	-	166	351	H
4	* 2.356	30.52	RMS	31.9	-24.5	37.92	54	-16.08	-	-	166	351	H

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

PK - Peak detector

RMS - RMS detection



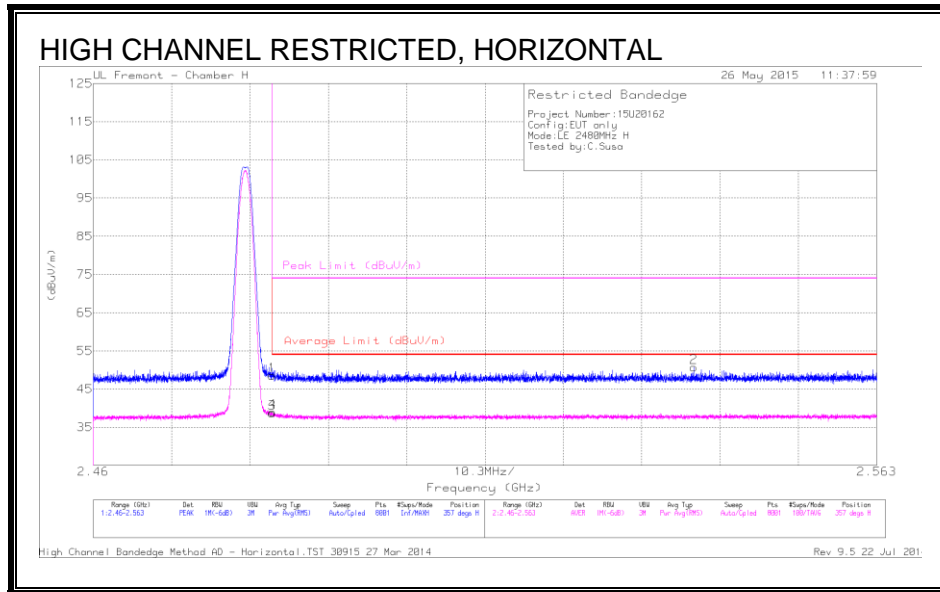
DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cbl/Ftr/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	38.82	PK	32	-24.6	46.22	-	-	74	-27.78	297	295	V
2	* 2.367	42.37	PK	31.9	-24.6	49.67	-	-	74	-24.33	297	295	V
3	* 2.39	30.09	RMS	32	-24.6	37.49	54	-16.51	-	-	297	295	V
4	* 2.388	30.54	RMS	32	-24.6	37.94	54	-16.06	-	-	297	295	V

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

PK - Peak detector

RMS - RMS detection



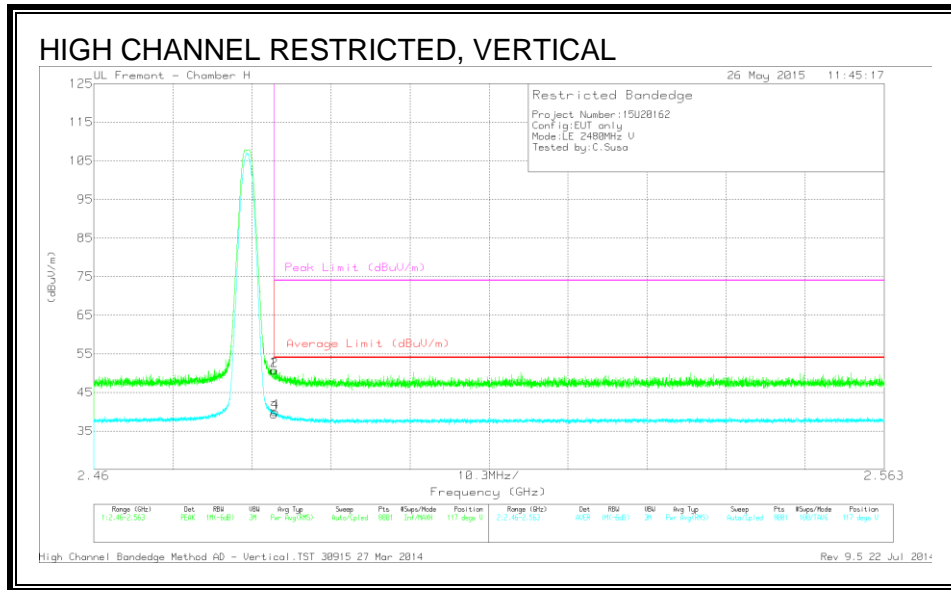
DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cbl/Ftr/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	40.68	PK	32.4	-24.5	48.58	-	-	74	-25.42	357	270	H
3	* 2.484	30.86	RMS	32.4	-24.5	38.76	54	-15.24	-	-	357	270	H
4	* 2.484	31.11	RMS	32.4	-24.5	39.01	54	-14.99	-	-	357	270	H
2	2.539	42.64	PK	32.5	-24.4	50.74	-	-	74	-23.26	357	270	H

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

PK - Peak detector

RMS - RMS detection



DATA

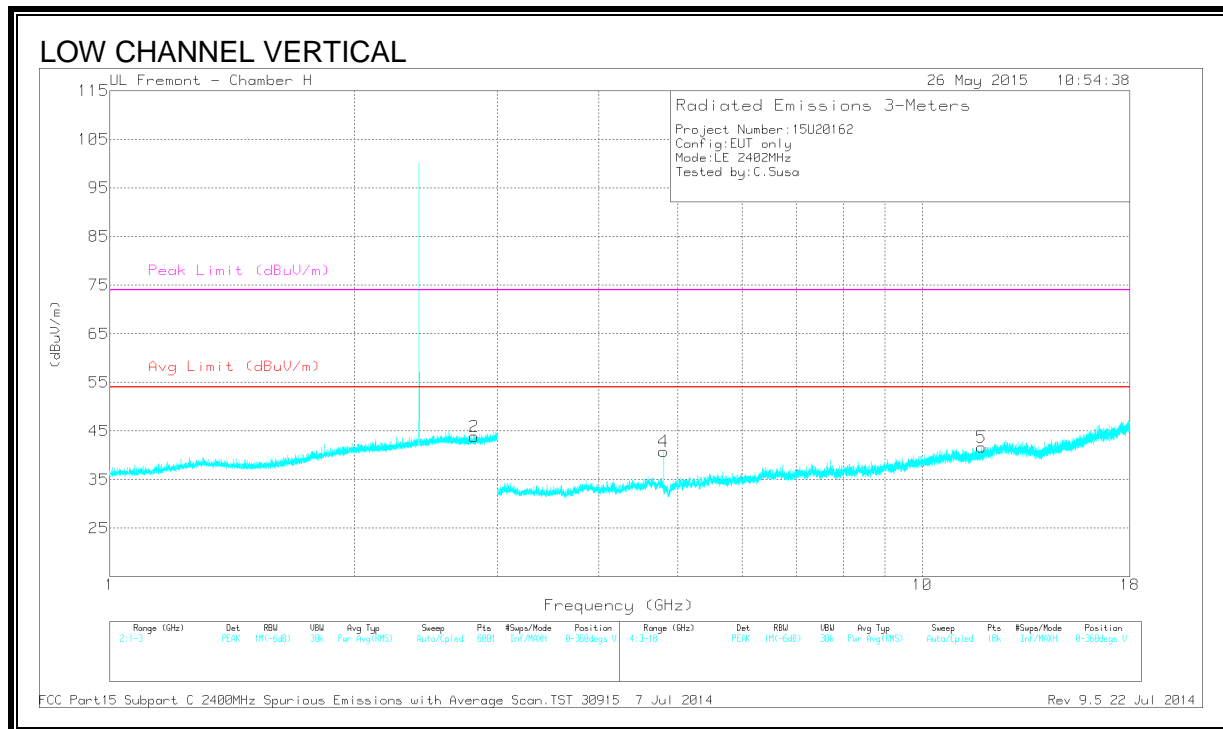
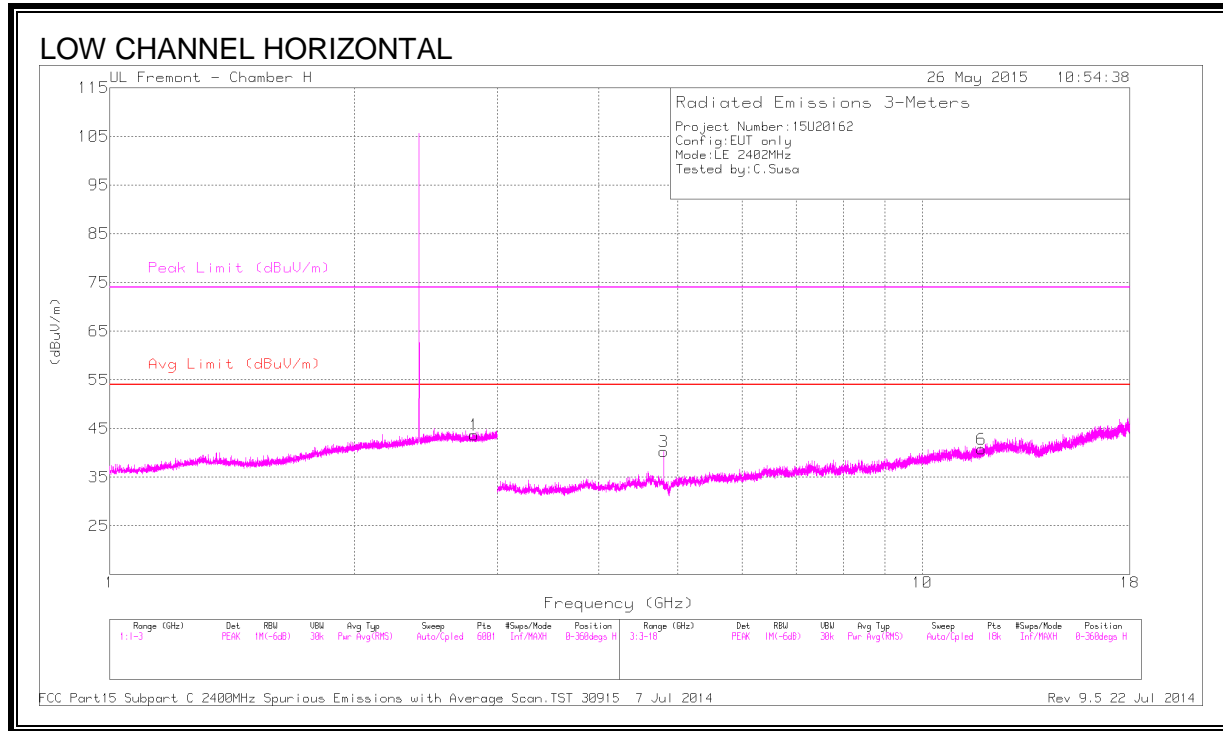
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cbl/ Ftr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.484	42.83	PK	32.4	-24.5	50.73	-	-	74	-23.27	117	341	V
2	* 2.484	42.76	PK	32.4	-24.5	50.66	-	-	74	-23.34	117	341	V
3	* 2.484	31.49	RMS	32.4	-24.5	39.39	54	-14.61	-	-	117	341	V
4	* 2.484	32.04	RMS	32.4	-24.5	39.94	54	-14.06	-	-	117	341	V

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

PK - Peak detector

RMS - RMS detection

HARMONICS AND SPURIOUS EMISSIONS



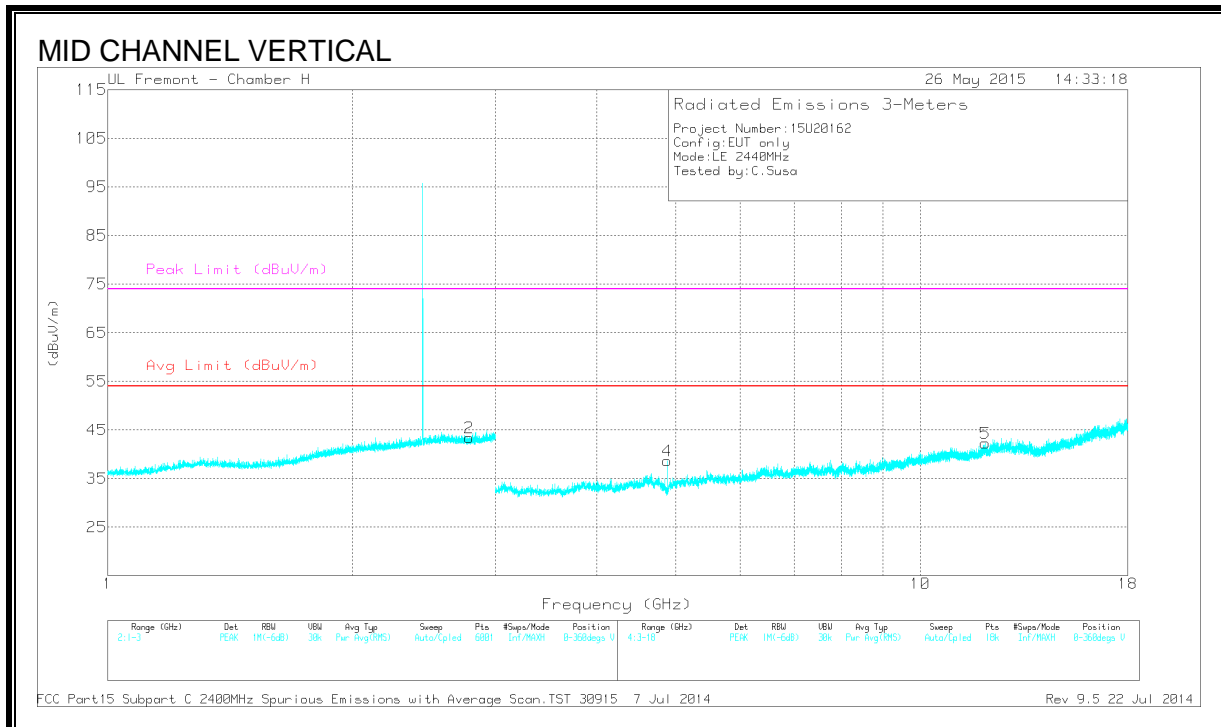
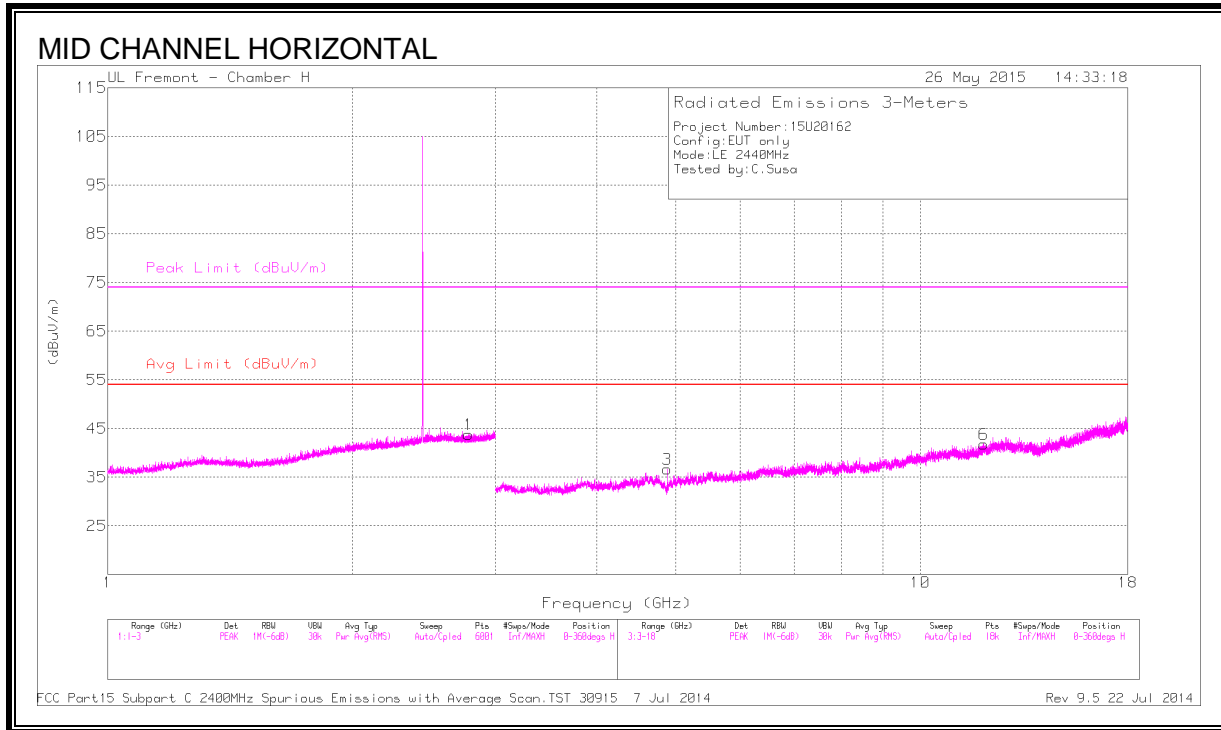
DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cb/ Fitr/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	* 2.809	43.33	PK2	32.4	-24.3	51.43	-	-	74	-22.57	183	192	H
	* 2.806	31.72	MAv1	32.4	-24.3	39.82	54	-14.18	-	-	183	192	H
2	* 2.808	43.18	PK2	32.4	-24.3	51.28	-	-	74	-22.72	5	275	V
	* 2.809	31.3	MAv1	32.4	-24.3	39.4	54	-14.6	-	-	5	275	V
3	* 4.804	44.96	PK2	34.2	-32.5	46.66	-	-	74	-27.34	307	115	H
	* 4.804	37.96	MAv1	34.2	-32.5	39.66	54	-14.34	-	-	307	115	H
4	* 4.804	44.37	PK2	34.2	-32.5	46.07	-	-	74	-27.93	104	151	V
	* 4.804	36.76	MAv1	34.2	-32.5	38.46	54	-15.54	-	-	104	151	V
5	* 11.821	36.04	PK2	38.3	-26	48.34	-	-	74	-25.66	252	290	V
	* 11.82	25.34	MAv1	38.3	-26	37.64	54	-16.36	-	-	252	290	V
6	* 11.828	36.32	PK2	38.4	-25.9	48.82	-	-	74	-25.18	184	203	H
	* 11.831	25.39	MAv1	38.4	-25.8	37.99	54	-16.01	-	-	184	203	H

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

PK2 - KDB558074 Method: Maximum Peak

MAv1 - KDB558074 Option 1 Maximum RMS Average



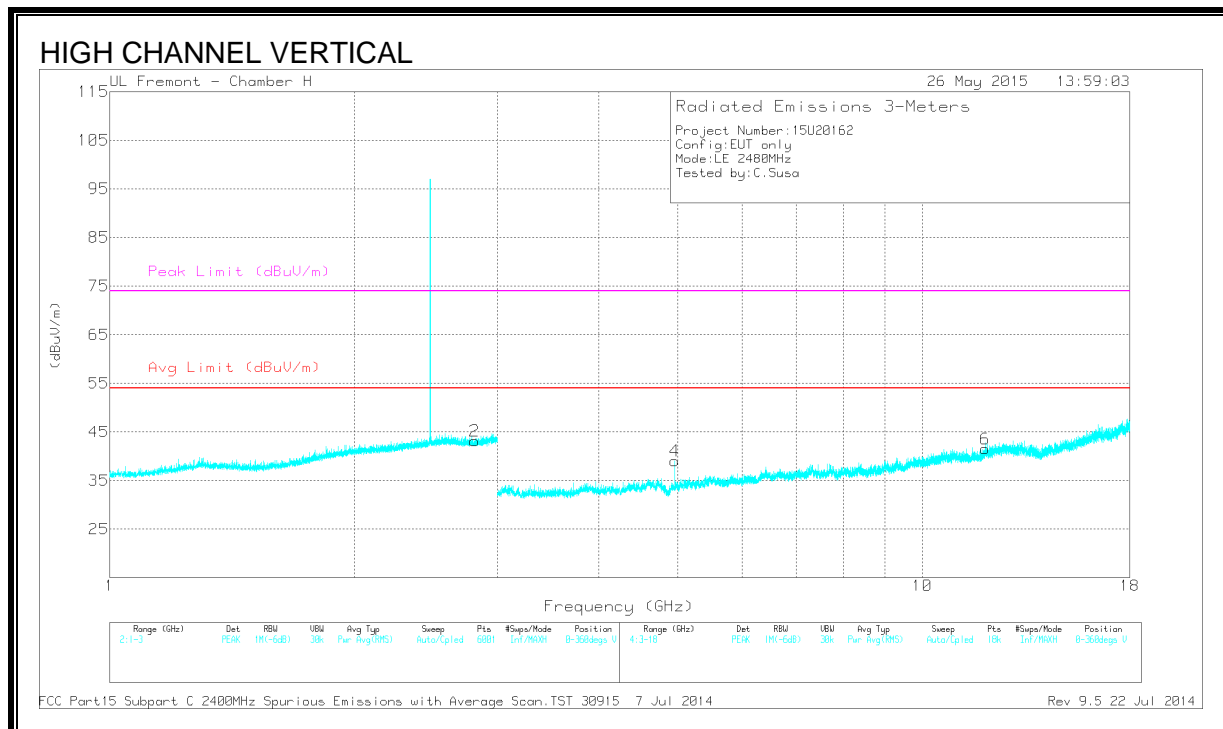
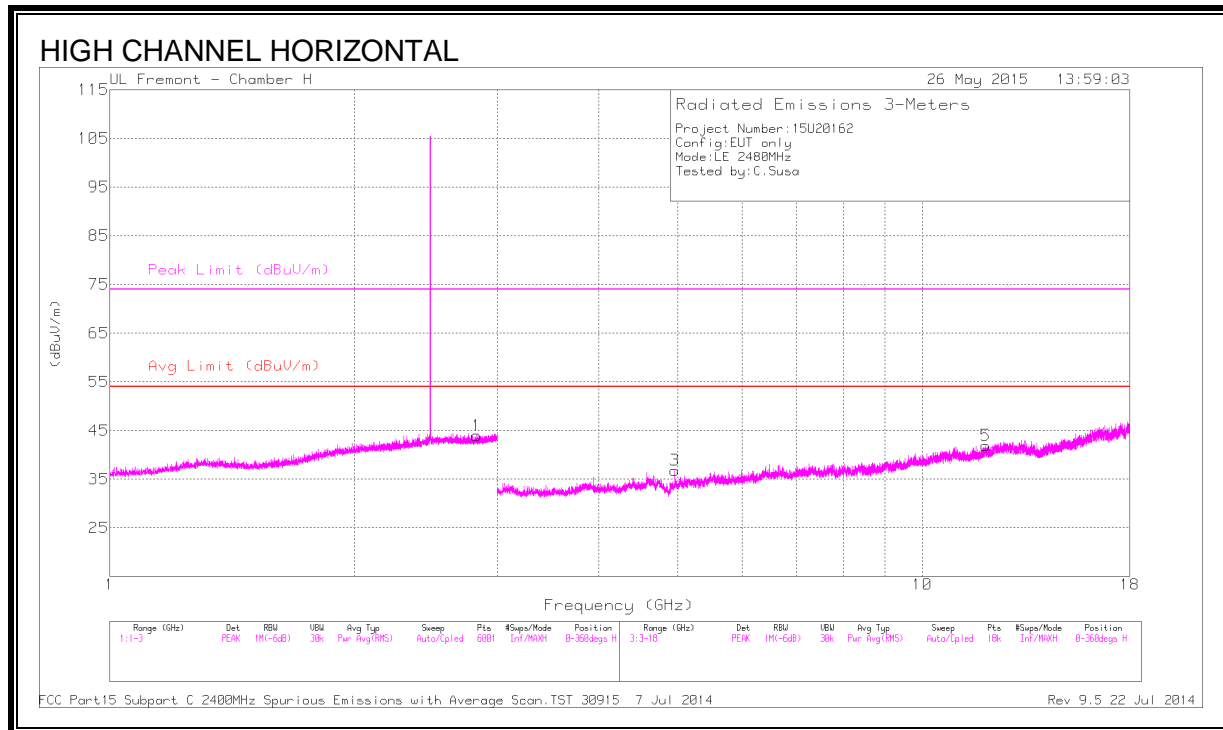
DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cbl/ Fitr/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	* 2.777	43.13	PK2	32.4	-24.3	51.23	-	-	74	-22.77	97	190	H
	* 2.777	31.82	MAv1	32.4	-24.3	39.92	54	-14.08	-	-	97	190	H
2	* 2.788	43.37	PK2	32.4	-24.3	51.47	-	-	74	-22.53	244	249	V
	* 2.785	31.87	MAv1	32.4	-24.3	39.97	54	-14.03	-	-	244	249	V
3	* 4.88	42	PK2	34.2	-32.2	44	-	-	74	-30	135	221	H
	* 4.88	34.22	MAv1	34.2	-32.1	36.32	54	-17.68	-	-	135	221	H
4	* 4.88	43.69	PK2	34.2	-32.1	45.79	-	-	74	-28.21	260	244	V
	* 4.88	35.55	MAv1	34.2	-32.1	37.65	54	-16.35	-	-	260	244	V
5	* 12.021	35.69	PK2	38.8	-25	49.49	-	-	74	-24.51	159	317	V
	* 12.022	24.62	MAv1	38.8	-25	38.42	54	-15.58	-	-	159	317	V
6	* 11.969	35.4	PK2	38.7	-24.8	49.3	-	-	74	-24.7	44	341	H
	* 11.968	24.81	MAv1	38.7	-24.9	38.61	54	-15.39	-	-	44	341	H

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

PK2 - KDB558074 Method: Maximum Peak

MAv1 - KDB558074 Option 1 Maximum RMS Average



DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cbl/ Fitr/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	* 2.826	43.49	PK2	32.4	-24.3	51.59	-	-	74	-22.41	197	218	H
	* 2.828	31.83	MAv1	32.4	-24.3	39.93	54	-14.07	-	-	197	218	H
2	* 2.812	43.11	PK2	32.4	-24.3	51.21	-	-	74	-22.79	146	104	V
	* 2.813	31.85	MAv1	32.4	-24.3	39.95	54	-14.05	-	-	146	104	V
3	* 4.96	41.67	PK2	34.2	-31.8	44.07	-	-	74	-29.93	139	107	H
	* 4.96	31.57	MAv1	34.2	-31.8	33.97	54	-20.03	-	-	139	107	H
4	* 4.959	42.39	PK2	34.2	-31.8	44.79	-	-	74	-29.21	65	224	V
	* 4.96	34.31	MAv1	34.2	-31.8	36.71	54	-17.29	-	-	65	224	V
5	* 11.968	35.53	PK2	38.7	-24.9	49.33	-	-	74	-24.67	196	277	H
	* 11.969	24.78	MAv1	38.7	-24.8	38.68	54	-15.32	-	-	196	277	H
6	* 11.942	35.74	PK2	38.6	-25.2	49.14	-	-	74	-24.86	303	216	V
	* 11.94	25.02	MAv1	38.6	-25.3	38.32	54	-15.68	-	-	303	216	V

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

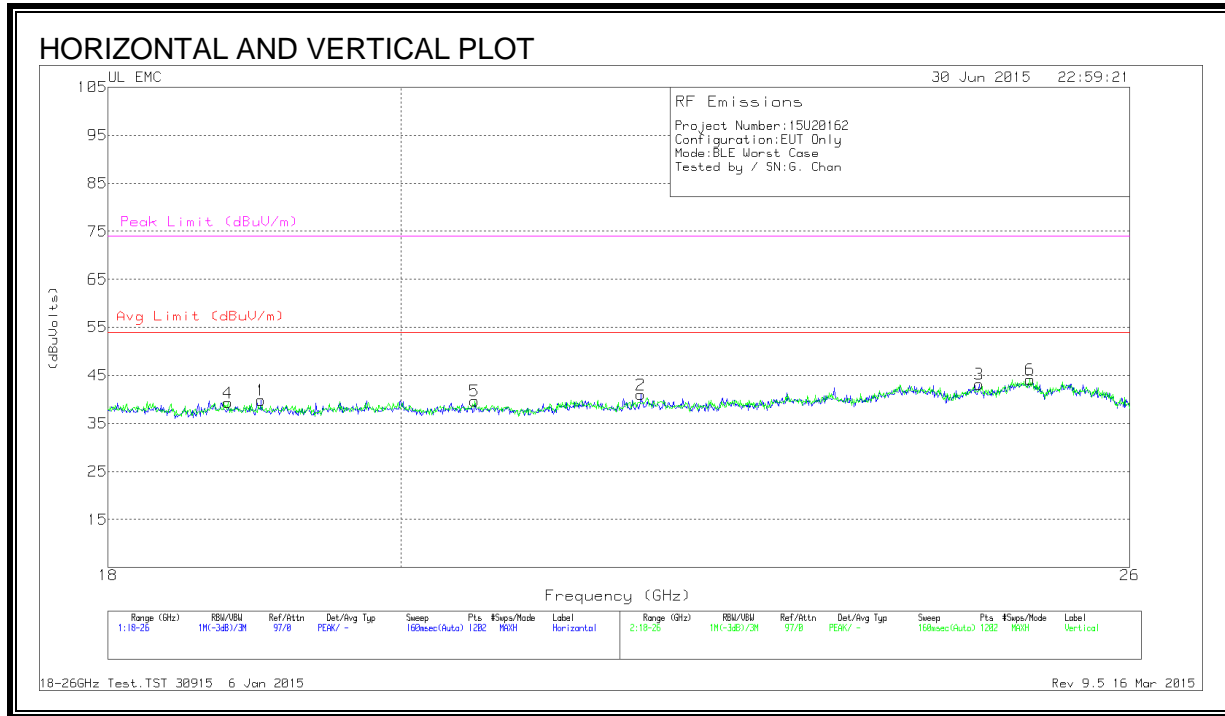
PK2 - KDB558074 Method: Maximum Peak

MAv1 - KDB558074 Option 1 Maximum RMS Average

10.3. WORST-CASE 18 to 26 GHz

10.3.1. HIGH POWER MODE

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



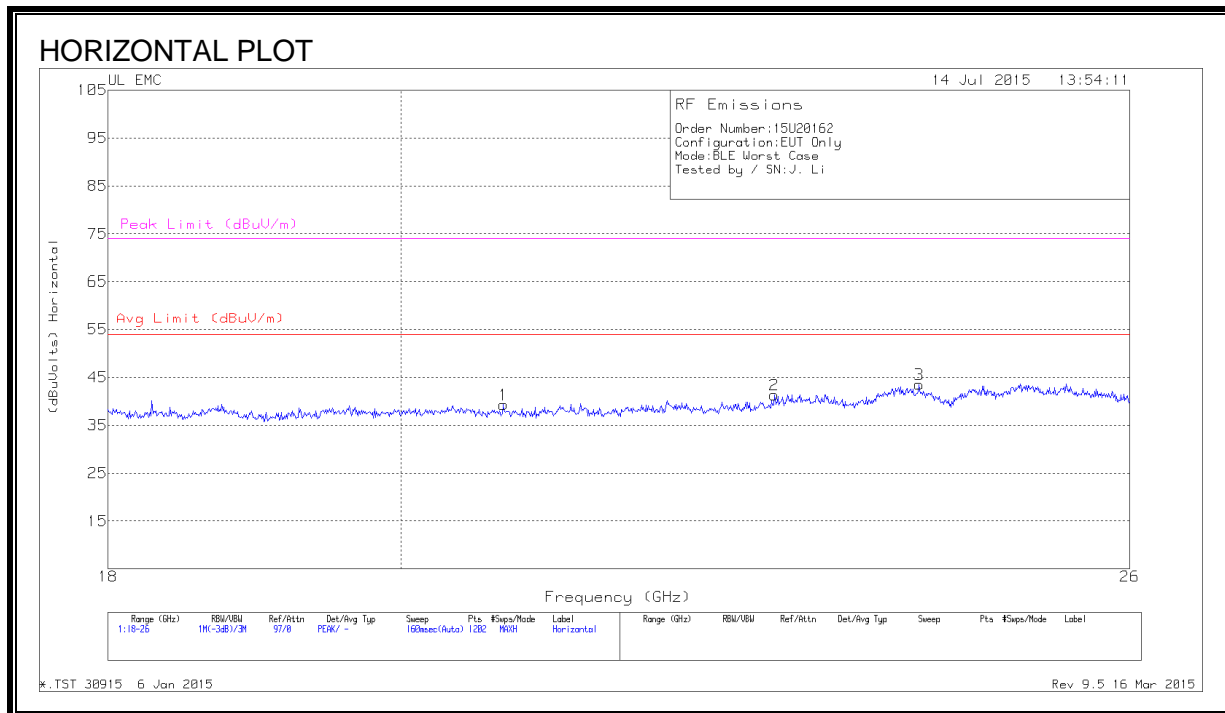
DATA

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	19.019	41.83	Pk	32.2	-24.7	-9.5	39.83	54	-14.17	74	-34.1667
2	21.803	41.6	Pk	33.3	-24.4	-9.5	41	54	-13	74	-33
3	24.628	42.97	Pk	33.9	-24.2	-9.5	43.17	54	-10.83	74	-30.8333
4	18.793	41.23	Pk	32.5	-24.9	-9.5	39.3	54	-14.67	74	-34.6667
5	20.538	41.87	Pk	32.7	-25.4	-9.5	39.67	54	-14.33	74	-34.3333
6	25.081	44.27	Pk	34	-24.6	-9.5	44.17	54	-9.83	74	-29.8333

PK - Peak detector

10.3.2. LOW POWER MODE

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



DATA

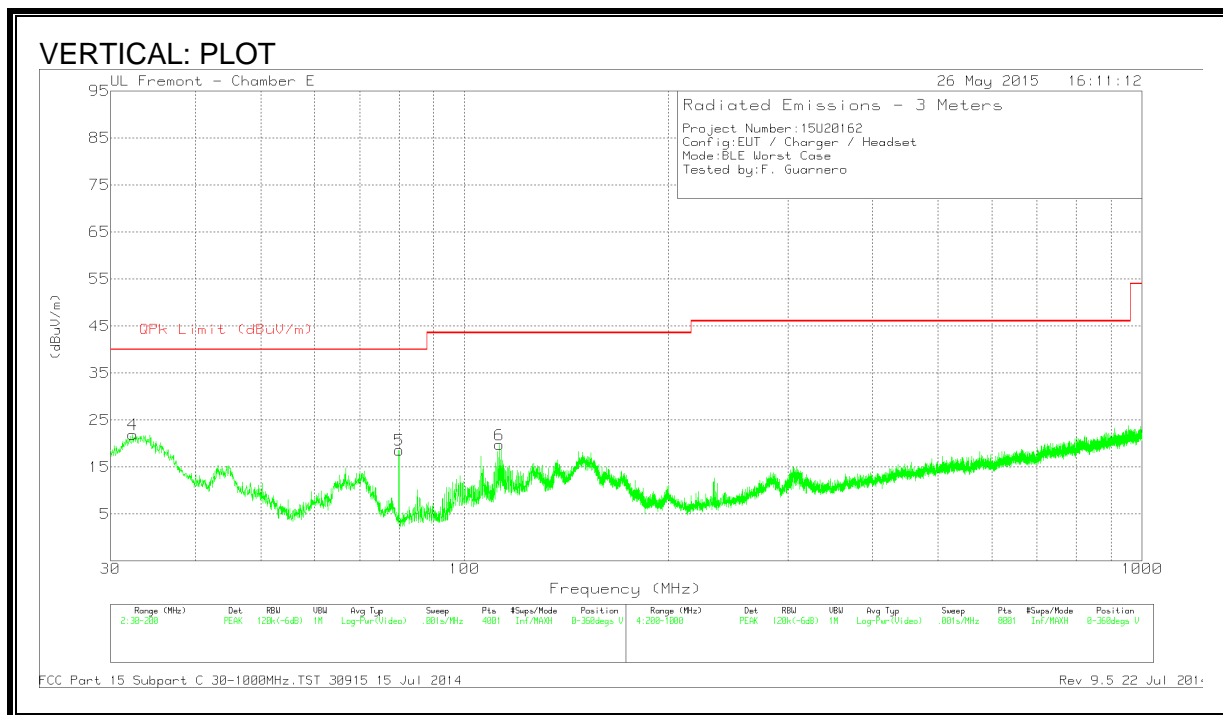
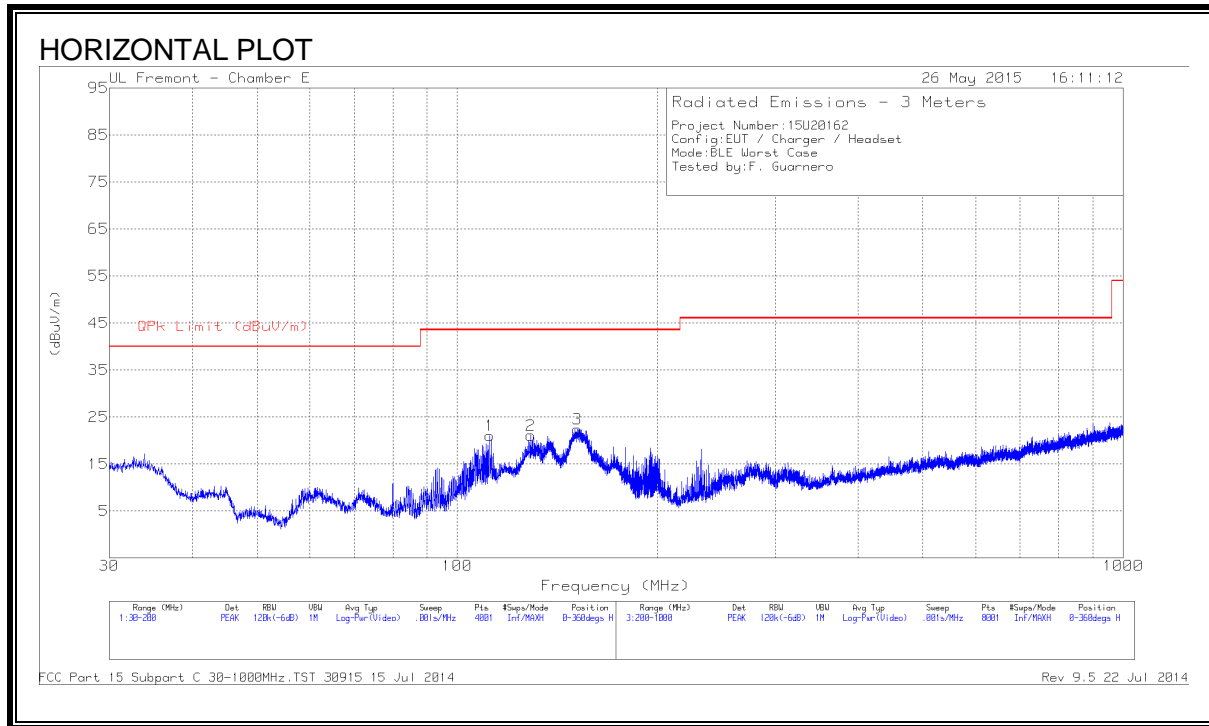
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	T89 AF (dB/m)	Amp/Cbl (dB)	Dist Corr (dB)	Corrected Reading (dBuVolts)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)
1	20.751	41.33	Pk	32.8	-25.3	-9.5	39.33	54	-14.67	74	-34.67
2	22.876	42.33	Pk	33.4	-24.9	-9.5	41.33	54	-12.67	74	-32.67
3	24.102	43.9	Pk	33.4	-24.3	-9.5	43.5	54	-10.5	74	-30.5
4	21.87	41.73	Pk	33.3	-24.7	-9.5	40.83	54	-13.17	74	-33.17
5	23.895	43.3	Pk	33.5	-23.8	-9.5	43.5	54	-10.5	74	-30.5
6	24.968	43.93	Pk	34.1	-24.2	-9.5	44.33	54	-9.67	74	-29.67

Pk - Peak detector

10.4. WORST-CASE BELOW 1 GHz

10.4.1. HIGH POWER MODE

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



DATA

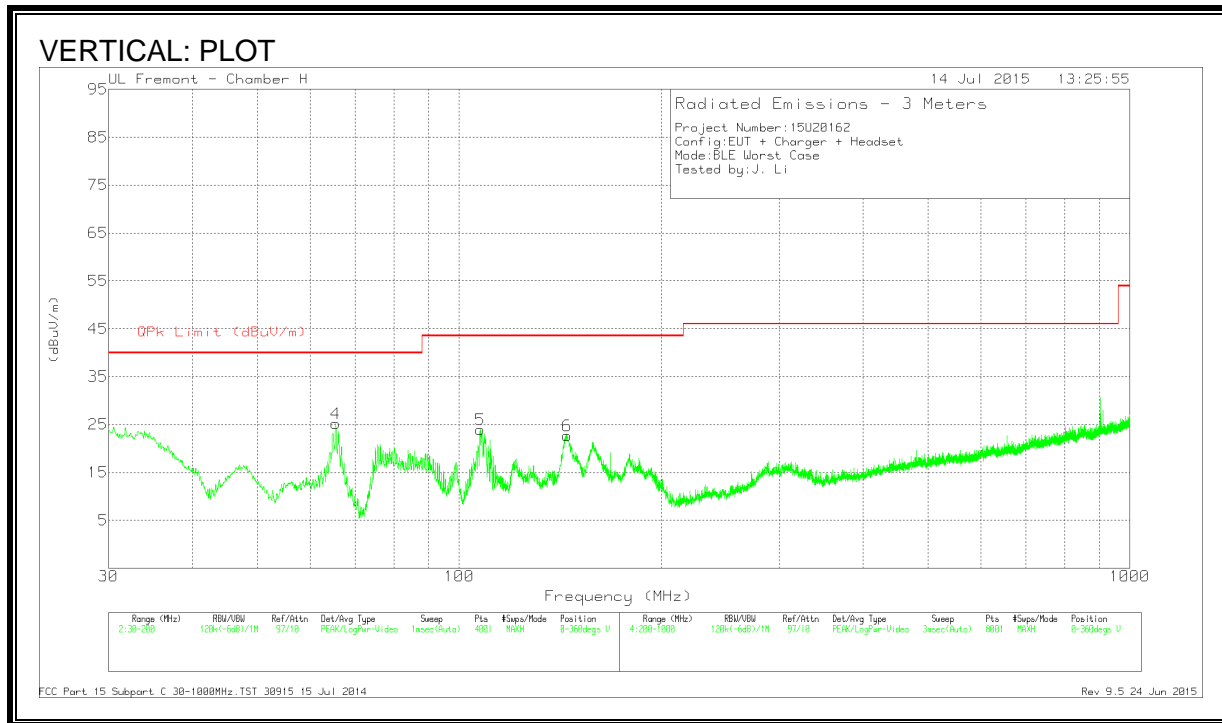
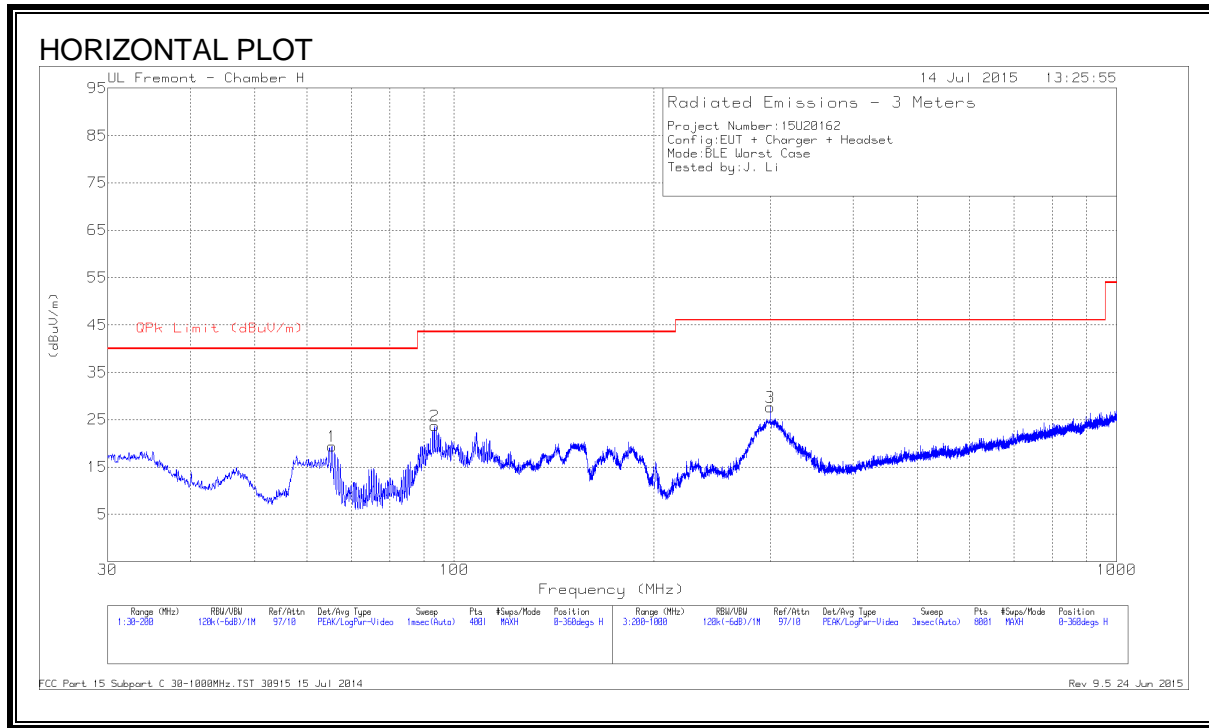
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	AFT408 (dB/m)	Amp/Cbl (dB)	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 111.855	39.49	PK	12.8	-31.2	21.09	43.52	-22.43	0-360	301	H
2	* 128.9825	38.51	PK	13.7	-31.1	21.11	43.52	-22.41	0-360	201	H
3	151.3375	41.17	PK	12.3	-31	22.47	43.52	-21.05	0-360	301	H
4	32.38	33.95	PK	19.8	-31.8	21.95	40	-18.05	0-360	100	V
5	80.0225	42.1	PK	8	-31.5	18.6	40	-21.4	0-360	100	V
6	* 112.4925	38.18	PK	12.9	-31.3	19.78	43.52	-23.74	0-360	100	V

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

PK - Peak detector

10.4.2. LOW POWER MODE

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



DATA

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	AF T900 (dB/m)	Amp/Cbl (dB)	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	65.4025	41.76	Pk	8.4	-30.8	19.36	40	-20.64	0-360	400	H
4	65.445	47.63	Pk	8.4	-30.8	25.23	40	-14.77	0-360	100	V
2	93.41	45.54	Pk	8.6	-30.5	23.64	43.52	-19.88	0-360	302	H
5	107.605	42.46	Pk	12	-30.5	23.96	43.52	-19.56	0-360	100	V
6	144.7925	39.94	Pk	12.9	-30.2	22.64	43.52	-20.88	0-360	100	V
3	300	43.49	Pk	13.2	-29.1	27.59	46.02	-18.43	0-360	100	H

Pk - Peak detector

11. AC POWER LINE CONDUCTED EMISSIONS LIMITS

FCC §15.207 (a)

RSS-Gen 8.8

Frequency of Emission (MHz)	Conducted Limit (dB μ V)	
	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: 2013.

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

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

6 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	.168	45.36	Pk	1.2	0	46.56	65.06	-18.5		
2	.168	25.18	Av	1.2	0	26.38	-	-	55.06	-28.68
3	.2535	42.44	Pk	.7	0	43.14	61.64	-18.5		
4	.2535	22.06	Av	.7	0	22.76	-	-	51.64	-28.88
5	.3345	38.99	Pk	.5	0	39.49	59.34	-19.85		
6	.339	18.18	Av	.5	0	18.68	-	-	49.23	-30.55
7	.7935	40.59	Pk	.3	0	40.89	56	-15.11		
8	.789	26.13	Av	.3	0	26.43	-	-	46	-19.57
9	17.925	28.03	Pk	.3	.2	28.53	60	-31.47		
10	17.889	12.51	Av	.3	.2	13.01	-	-	50	-36.99

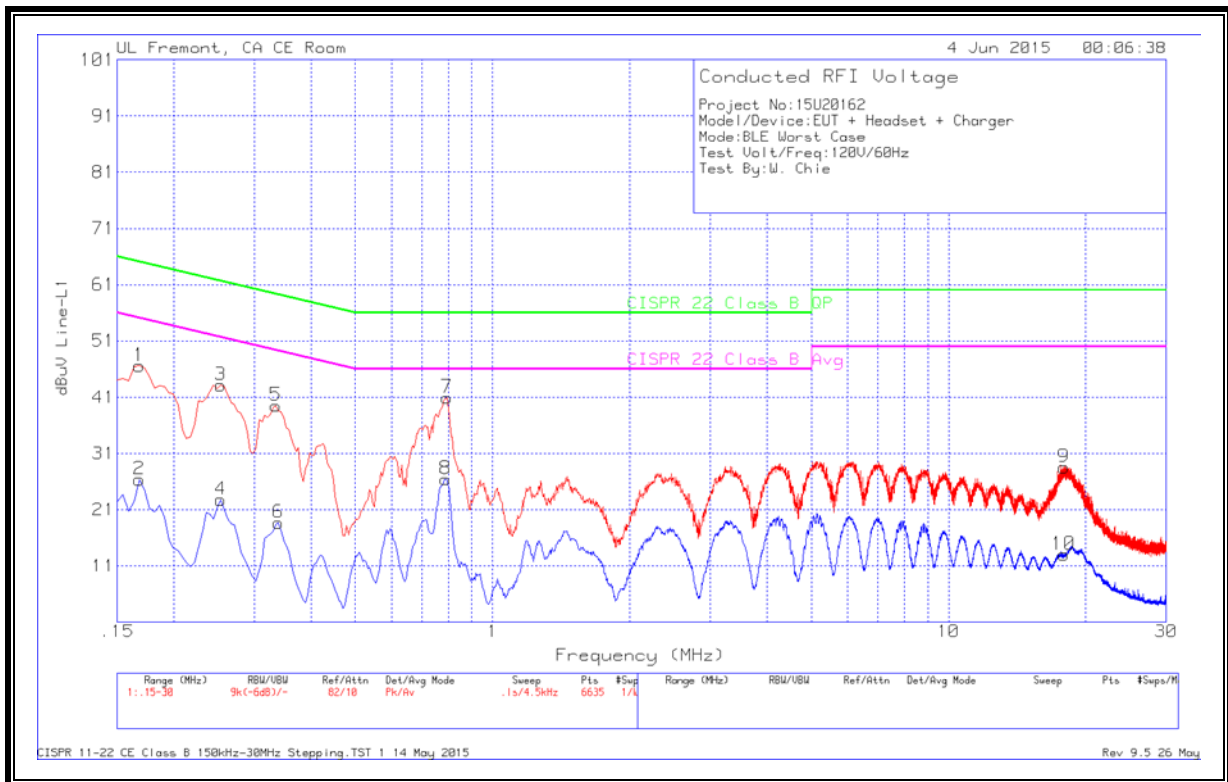
Range 2: Line-L2 .15 - 30MHz

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)
11	.1635	44.86	Pk	1.3	0	46.16	65.28	-19.12		
12	.168	25.22	Av	1.3	0	26.52	-	-	55.06	-28.54
13	.24675	42.08	Pk	.8	0	42.88	61.87	-18.99		
14	.2535	22.3	Av	.7	0	23	-	-	51.64	-28.64
15	.33	38.6	Pk	.5	0	39.1	59.45	-20.35		
16	.339	18.64	Av	.5	0	19.14	-	-	49.23	-30.09
17	.7845	41.11	Pk	.3	0	41.41	56	-14.59		
18	.789	26.1	Av	.3	0	26.4	-	-	46	-19.6
19	18.024	26.07	Pk	.3	.2	26.57	60	-33.43		
20	18.0375	16.27	Av	.3	.2	16.77	-	-	50	-33.23

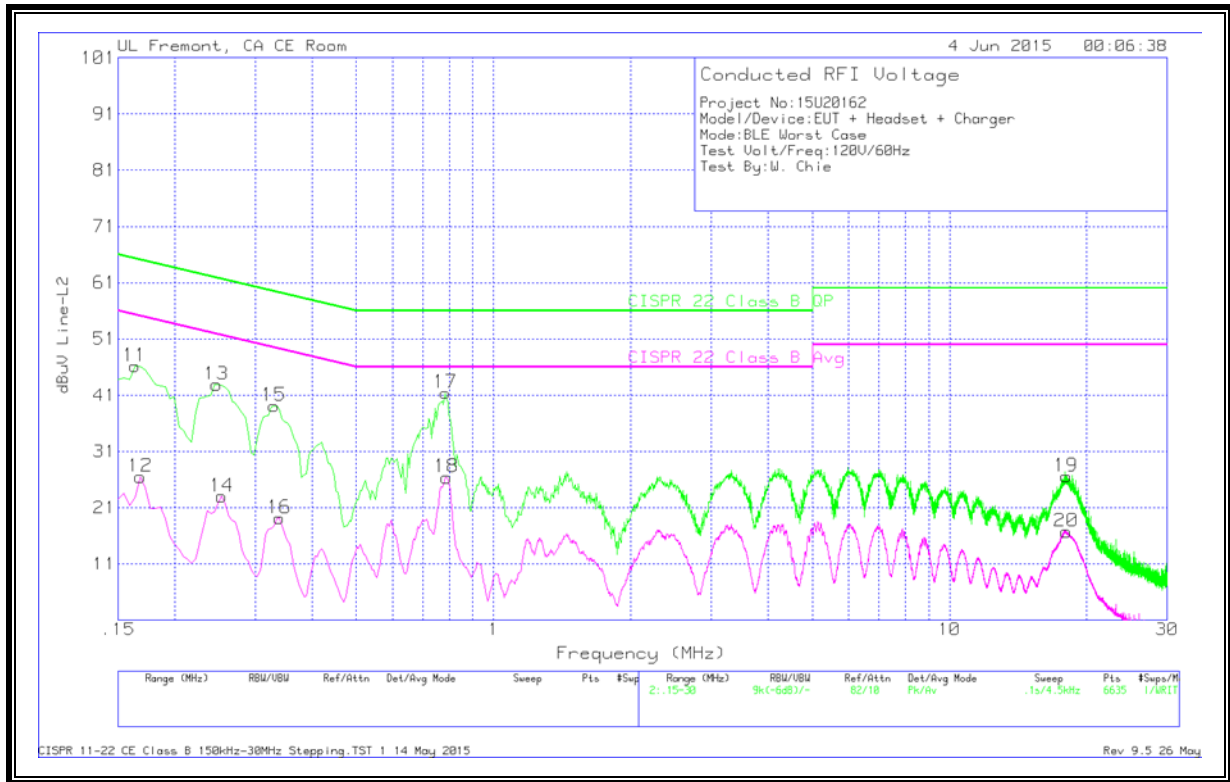
Pk - Peak detector

Av - Average detection

LINE 1 RESULTS



LINE 2 RESULTS



11.2. EUT POWERED BY HOST PC VIA USB CABLE

6 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	.2445	46.28	Pk	.7	0	46.98	61.94	-14.96	-	-
2	.2535	25.33	Av	.7	0	26.03	-	-	51.64	-25.61
3	.3435	33.62	Pk	.5	0	34.12	59.12	-25	-	-
4	.348	20.26	Av	.5	0	20.76	-	-	49.01	-28.25
5	3.4305	33.58	Pk	.2	.1	33.88	56	-22.12	-	-
6	3.525	14.71	Av	.2	.1	15.01	-	-	46	-30.99

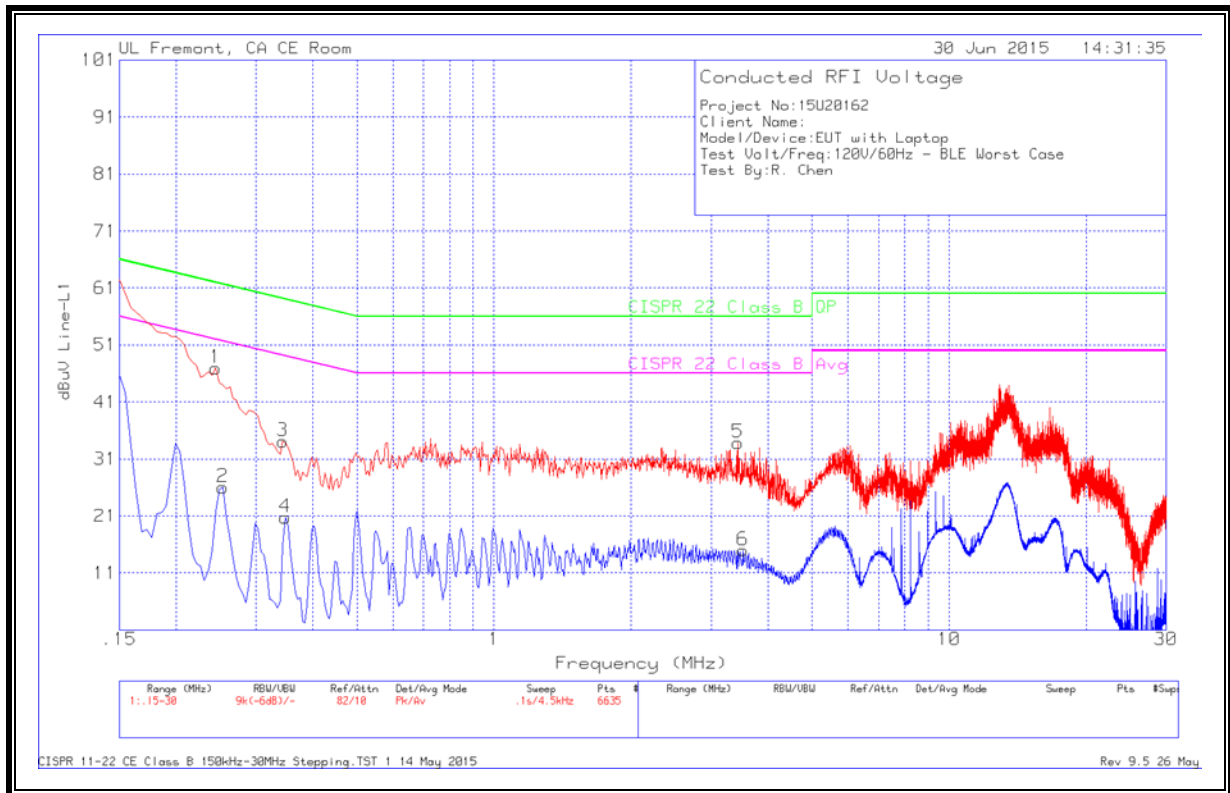
Range 2: Line-L2 .15 - 30MHz

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)
7	.2805	40.83	Pk	.6	0	41.43	60.8	-19.37	-	-
8	.276	24.34	Av	.7	0	25.04	-	-	50.94	-25.9
9	.6675	36.35	Pk	.3	0	36.65	56	-19.35	-	-
10	.645	21.42	Av	.3	0	21.72	-	-	46	-24.28
11	2.355	34.54	Pk	.2	.1	34.84	56	-21.16	-	-
12	2.3325	15.04	Av	.2	.1	15.34	-	-	46	-30.66

Pk - Peak detector

Av - Average detection

LINE 1 RESULTS



LINE 2 RESULTS

