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: A1633, A1688, A1691 AND A1700

FCC ID: BCG-E2946A
IC: 579C-E2946A

REPORT NUMBER: 15U20164-E2, REVISION B

ISSUE DATE: JULY 24, 2015

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

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NVLAP LAB CODE 200065-0

Revision History

Rev.	Issue Date	Revisions	Revised By
--	07/17/2015	Initial Issue	M. Mekuria
A	07/22/2015	Addressed TCB's questions	E. Yu
B	07/24/2015	Addressed TCB's questions	E. Yu

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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: A1633, A1688, A1691 AND A1700

SERIAL NUMBER: A1633:
C7JPH051GKW6 (Radiated); C7JPH02XGKW6 (Conducted)
A1688:
C7JPR061GNPN (Radiated); C7JPR06AGNPN (Conducted)

DATE TESTED: APRIL 21 – JULY15, 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:

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, 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 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	16.74	47.21

LOW POWER MODE

Frequency Range (MHz)	Mode	Output Power (dBm)	Output Power (mW)
2402 - 2480	Low Power	10.83	12.11

5.3. DESCRIPTION OF AVAILABLE ANTENNAS

Frequency Band (GHz)	Antenna Gain(dBi)
2.4	1.38

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 the 2.4 GHz 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 A1688, A1700 and A1691 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 A1633 was considered representative of Model A1688. Radiated testing was performed on both models A1633 and A1688.

Delta Items	A1633	A1688	A1691	A1700
Band 30	Yes	No	No	No

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	2	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						

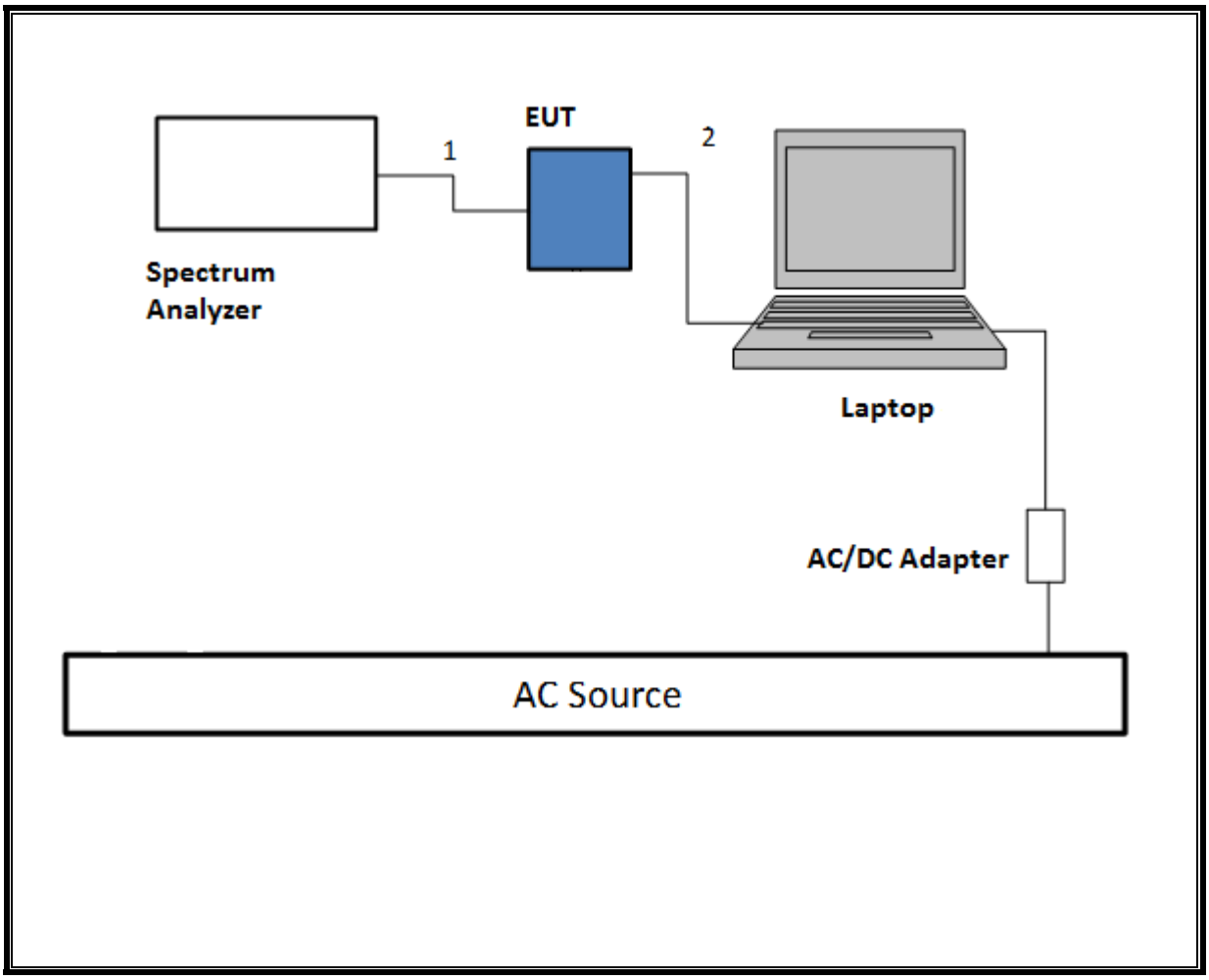
I/O CABLES (AC POWER CONDUCTED TEST AND BELOW 1 GHz)

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 - CONDUCTED PORT

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

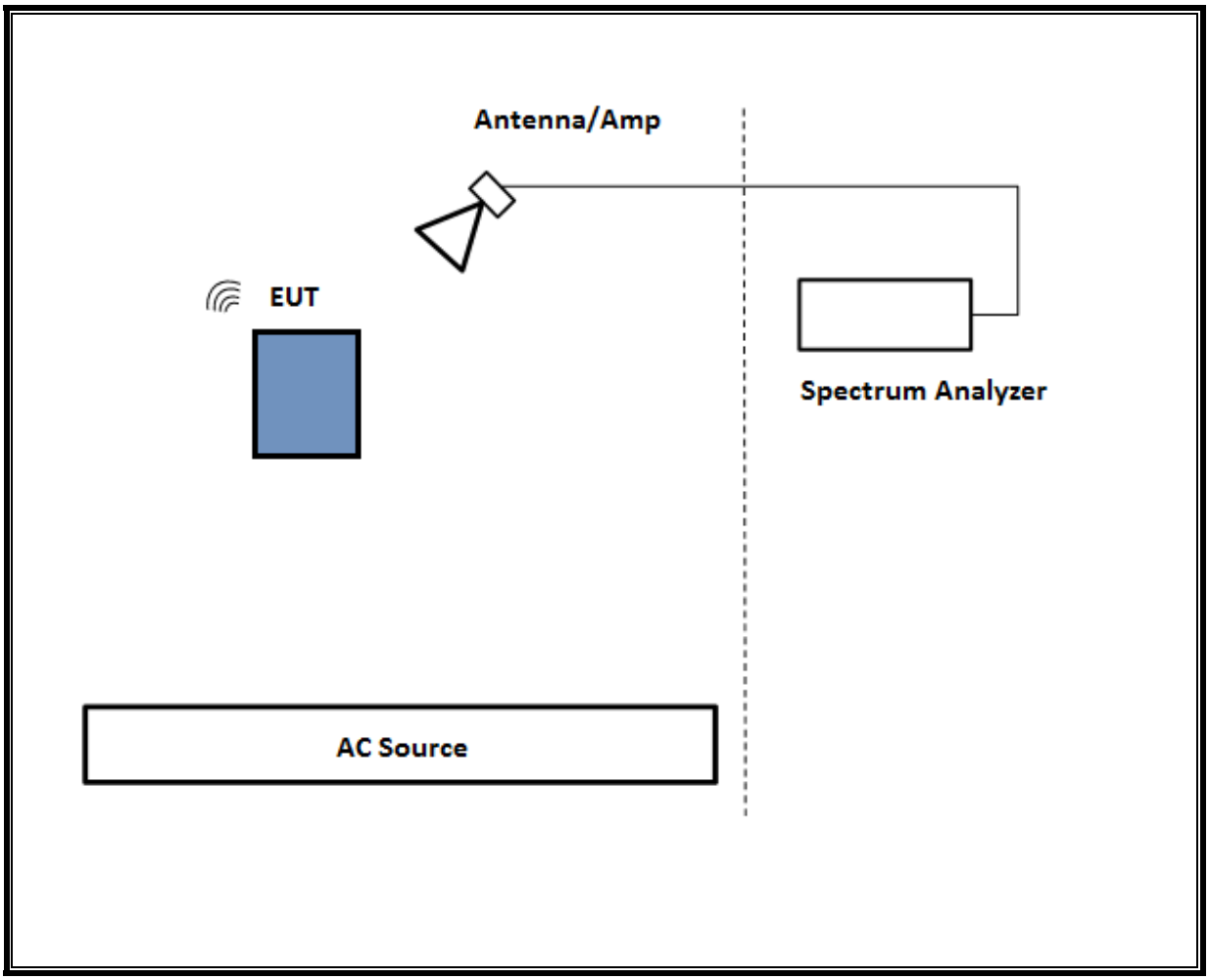
SETUP DIAGRAM



TEST SETUP- RADIATED-ABOVE 1 GHZ

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

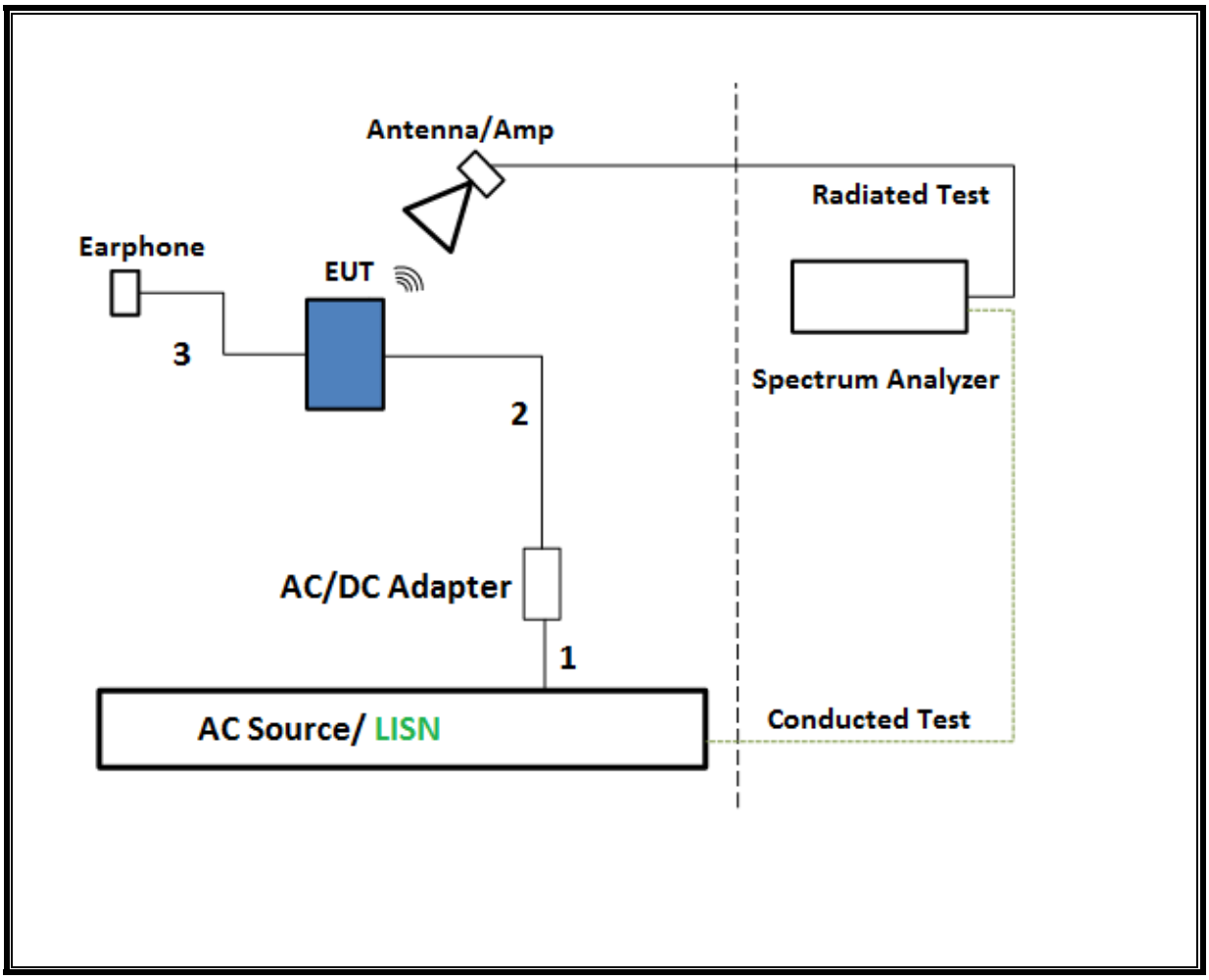
SETUP DIAGRAM



TEST SETUP- BELOW 1GHZ & AC LINE CONDUCTED TESTS

The EUT was tested with earphone connected and powered by AC adapter. 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**	**Asset**	**Cal Due**
Antenna, Horn 1-18GHz	ETS Lindgren	3117	00143448	2/10/2016
Antenna, Broadband Hybrid, 30MHz to 2000MHz	Sunol Sciences	JB3	A022813-1	1/14/2016
Amplifier, 1 - 18GHz	Miteq	AFS42-00101800-25-S-42	1782158	1/26/2016
Spectrum Analyzer, PXA, 3Hz to 50GHz	Agilent	N9030A	MY52350427	9/13/2015
Amplifier, 10KHz to 1GHz, 32dB	Sonoma	310N	171202	11/1/2015
Spectrum Analyzer, PXA, 3Hz to 44GHz	Agilent	N9030A-544	US51160264	12/23/2015
Power Meter, P-series single channel	Agilent	N1911A	GB45100212	10/9/2015
Power Sensor, P - series, 50MHz to 18GHz, Wideband	Agilent	N1921A	MY53260010	7/12/2015
Antenna, Horn 18 to 26.5GHz	ARA	MWH-1826	1049	12/17/2015
Horn Antenna, 40GHz	ARA	MWH-2640/B	1029	7/15/2016
Spectrum Analyzer, 40 GHz	Agilent	8564E	3943A01643	8/6/2015
Amplifier, 1 to 26.5GHz, 23.5dB Gain minimum	Agilent	8449B	3008A01114	10/4/2015
Amplifier, 26 to 40GHz	Miteq	NSP4000-SP2	1029	9/3/2015
AC Line Conducted				
EMI Test Receiver 9Khz-7GHz	Rohde & Schwarz	ESCI7	100935	9/16/2015
LISN for Conducted Emissions CISPR-16	FCC	50/250-25-2	114	1/16/2016
Power Cable, Line Conducted Emissions ANSI 63.4	UL	PG1	N/A	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	

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

7. ANTENNA PORT TEST RESULTS (MODEL: A1633)

7.1. 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

HGH 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

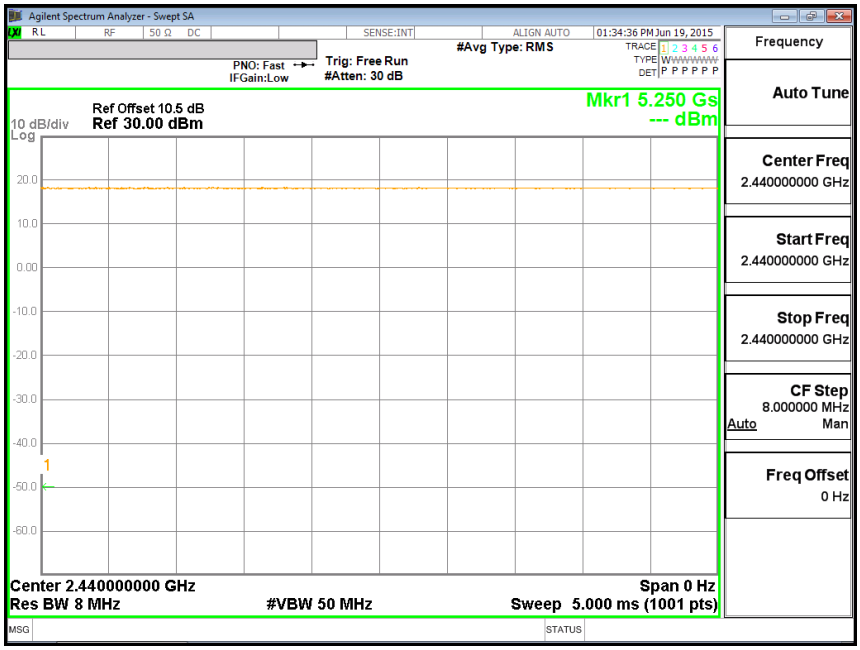
LOW POWER MODE

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

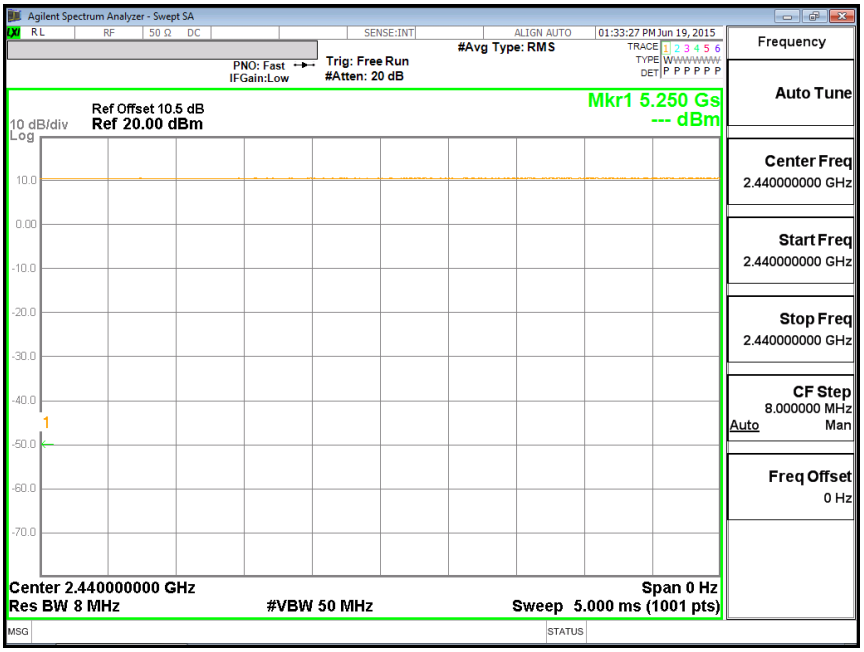
DUTY CYCLE BLE HIGH POWER MODE



7.2.2. LOW POWER MODE

DUTY CYCLE PLOTS

DUTY CYCLE BLE LOW POWER MODE



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

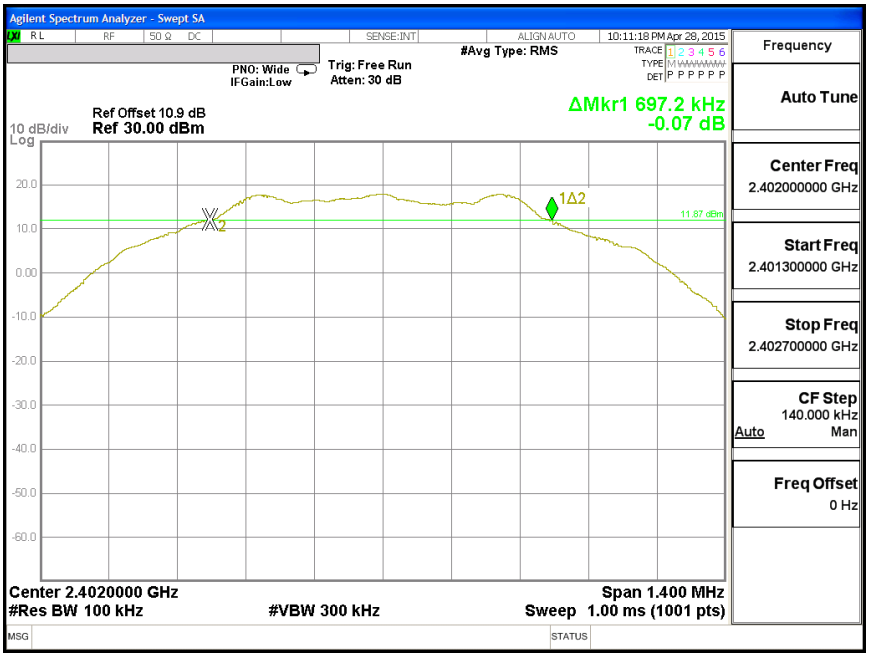
HIGH POWER

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Minimum Limit (MHz)
Low	2402	0.697	0.5
Middle	2440	0.713	0.5
High	2480	0.708	0.5

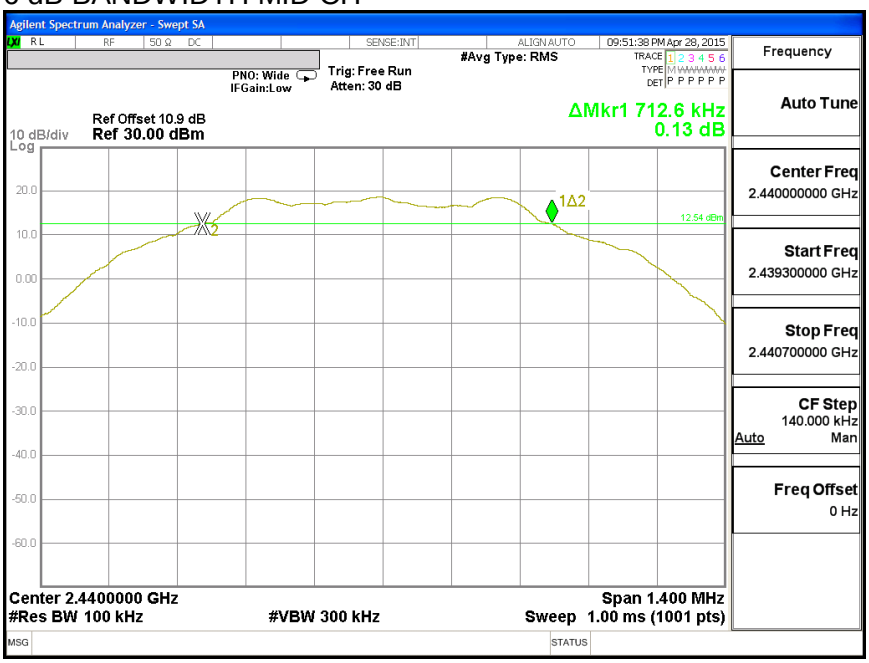
HIGH POWER

6 dB BANDWIDTH

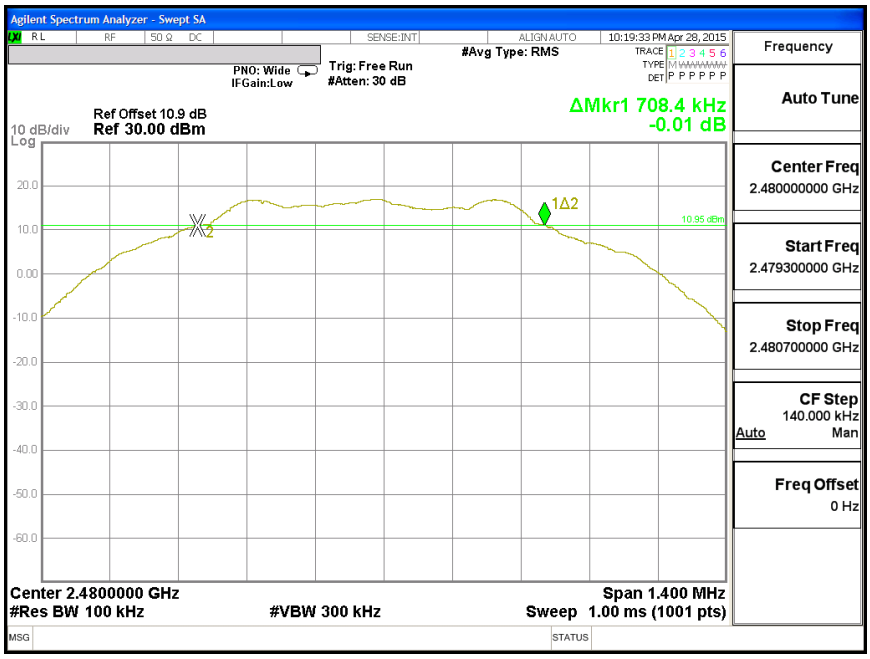
6 dB BANDWIDTH LOW CH



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.

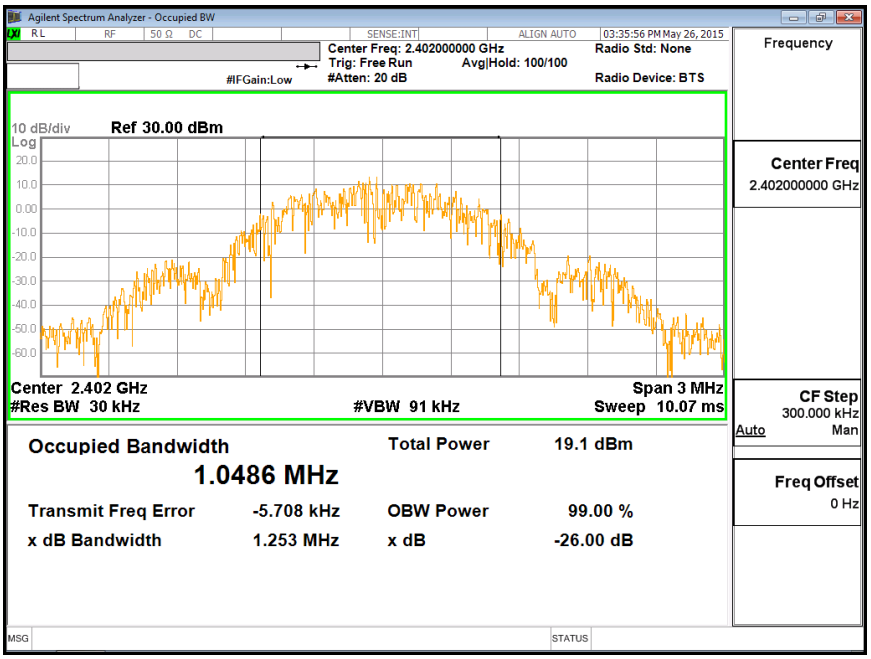
RESULTS

HIGH POWER

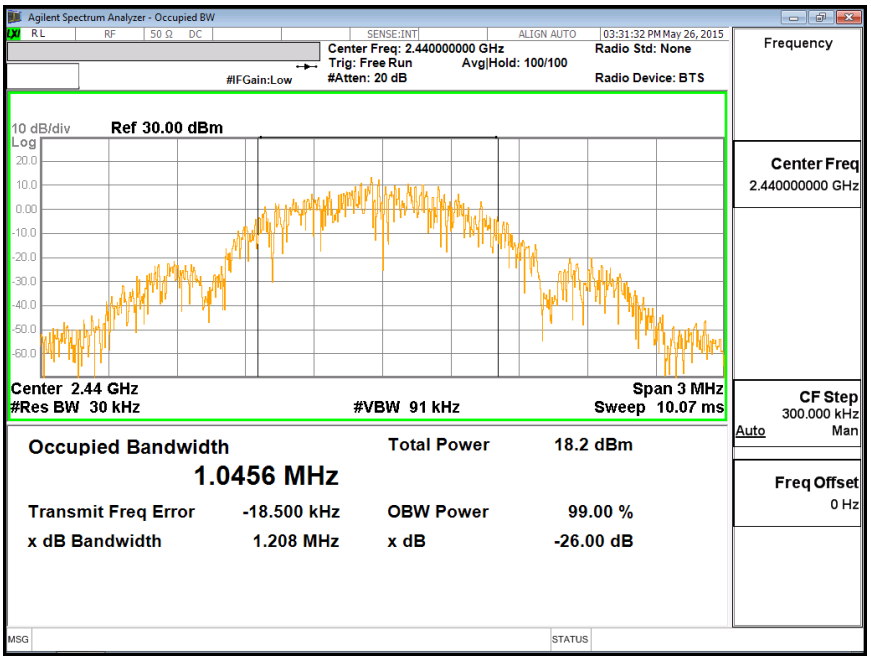
Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	2402	1.0486
Middle	2440	1.0456
High	2480	1.0154

99% BANDWIDTH

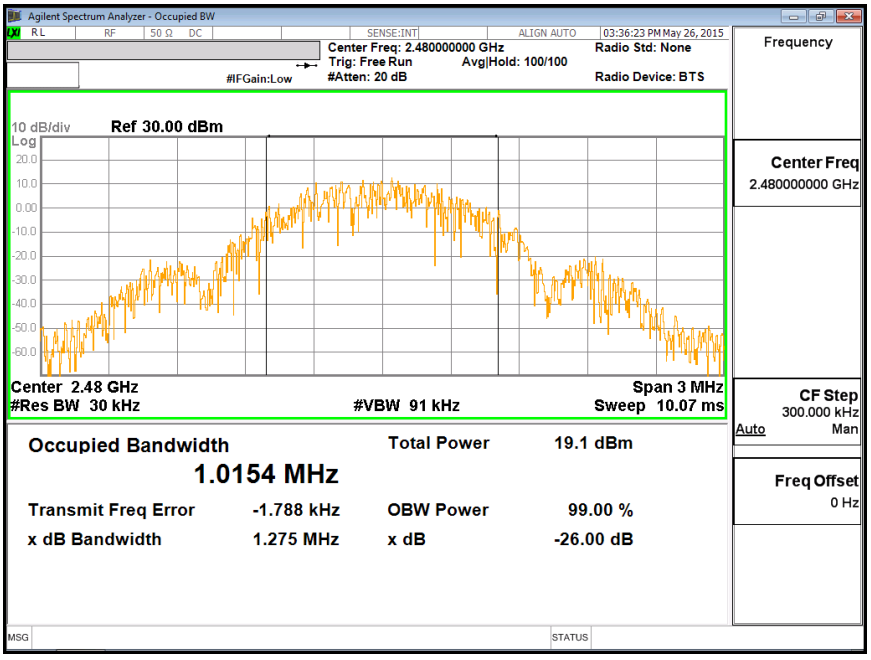
99% BANDWIDTH LOW CH



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.

HIGH POWER

Channel	Frequency (MHz)	AV power (dBm)
Low	2402	16.34
Middle	2440	16.43
High	2480	16.39

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

HIGH POWER

Channel	Frequency (MHz)	Peak Power Reading (dBm)	Limit (dBm)	Margin (dB)
Low	2402	16.56	30	-13.440
Middle	2440	16.74	30	-13.260
High	2480	16.70	30	-13.300

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.

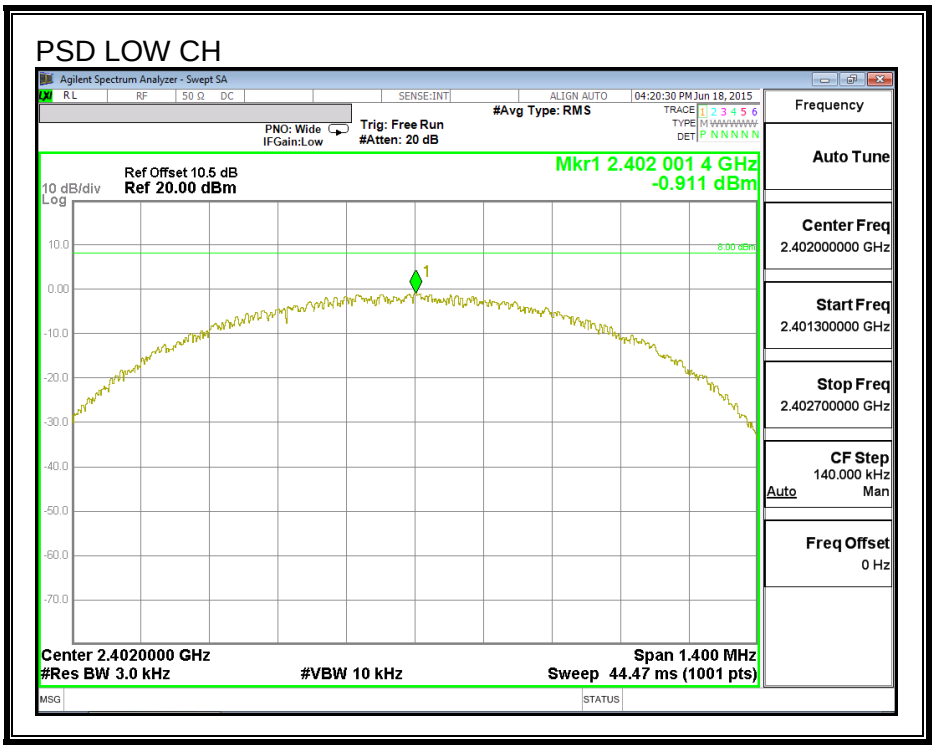
RESULTS

HIGH POWER

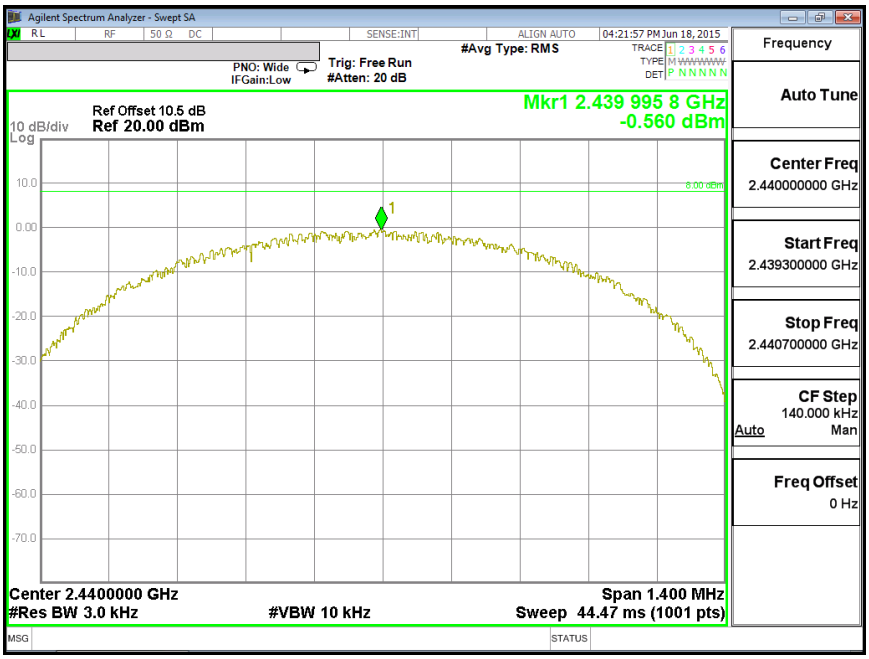
Channel	Frequency (MHz)	PSD (dBm)	Limit (dBm)	Margin (dB)
Low	2402	-0.91	8	-8.91
Middle	2440	-0.56	8	-8.56
High	2480	-0.87	8	-8.87

POWER SPECTRAL DENSITY

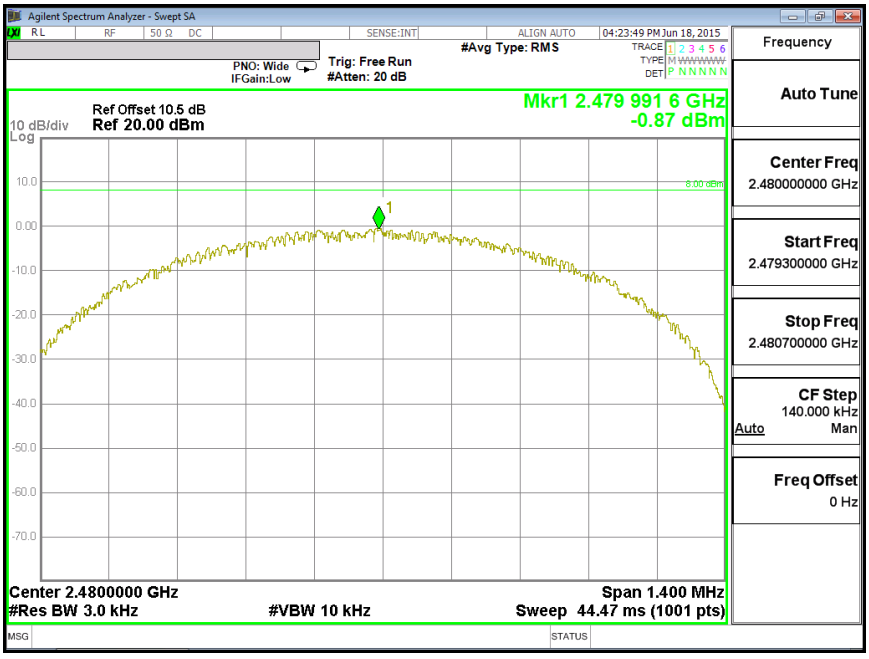
PSD LOW CH



PSD MID CH



PSD HIGH CH



7.3.6. CONDUCTED SPURIOUS EMISSIONS

LIMITS

FCC §15.247 (d)

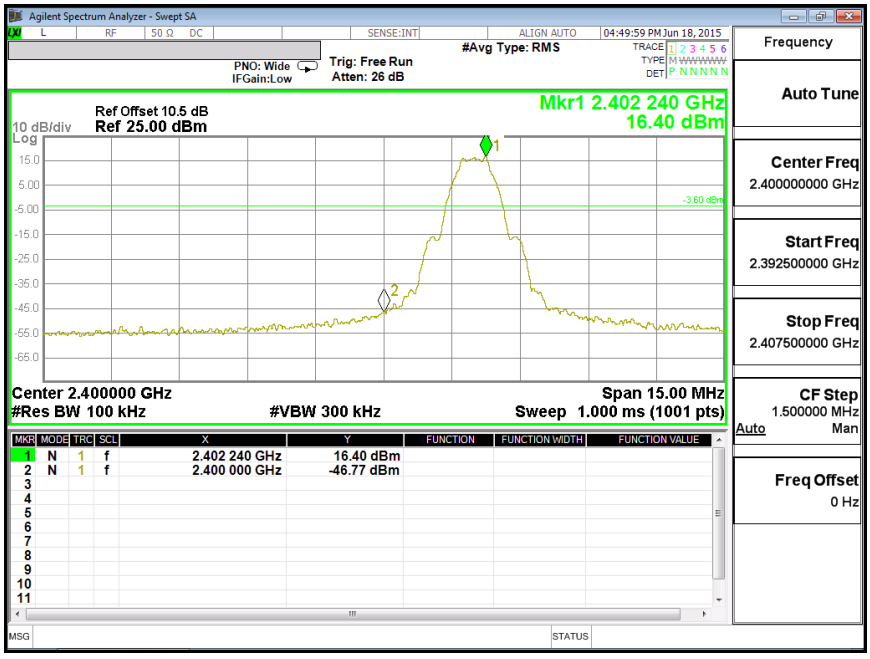
IC RSS-247 (5.5)

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

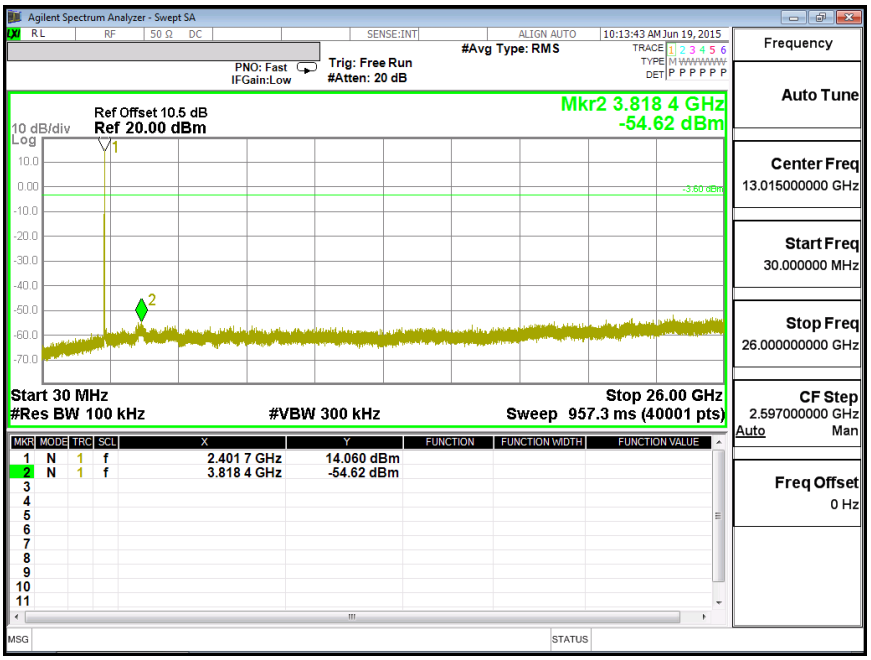
RESULTS

SPURIOUS EMISSIONS, LOW CHANNEL

LOW CH BANDEDGE

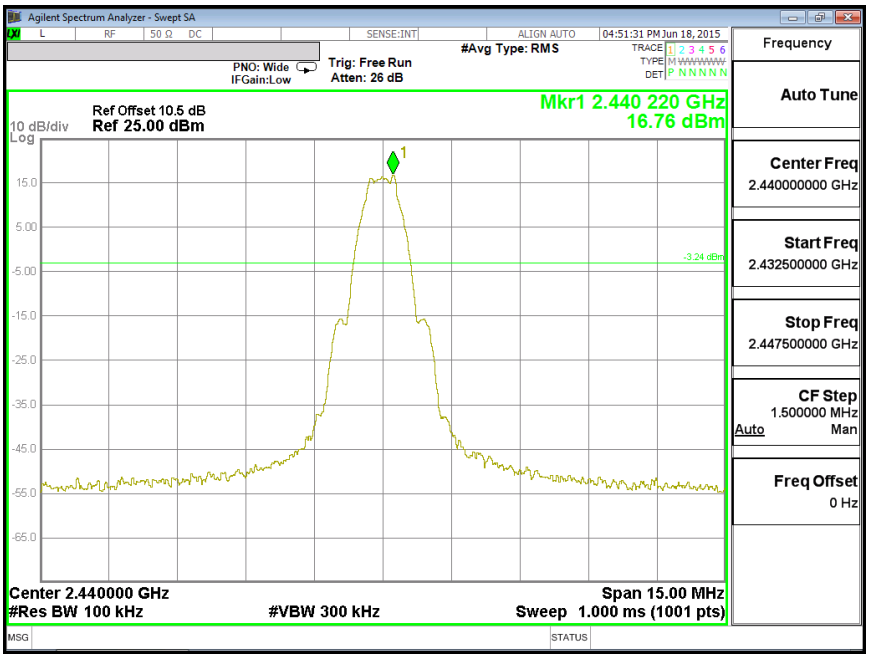


LOW CH SPURIOUS

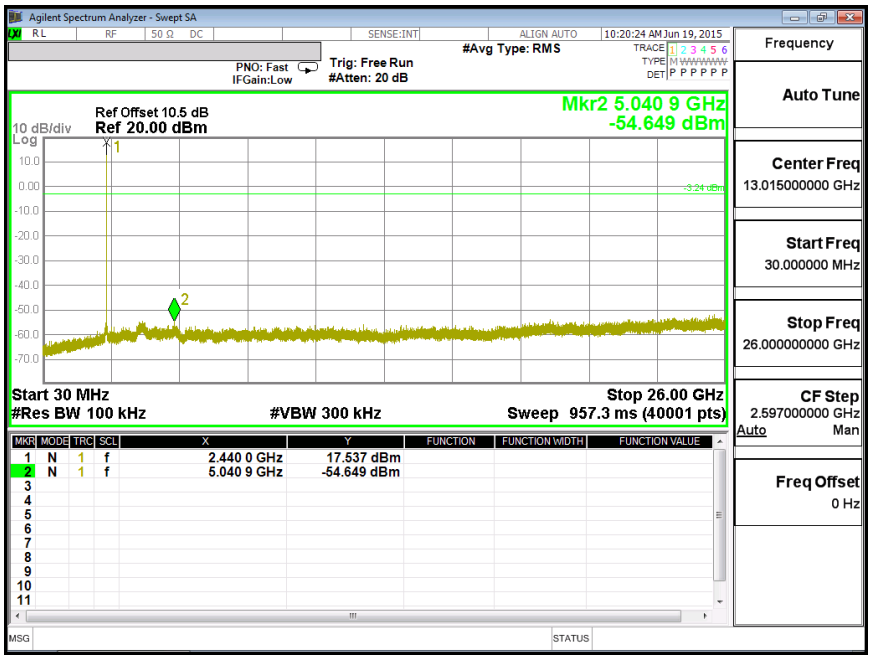


SPURIOUS EMISSIONS, MID CHANNEL

MID CH SPURIOUS

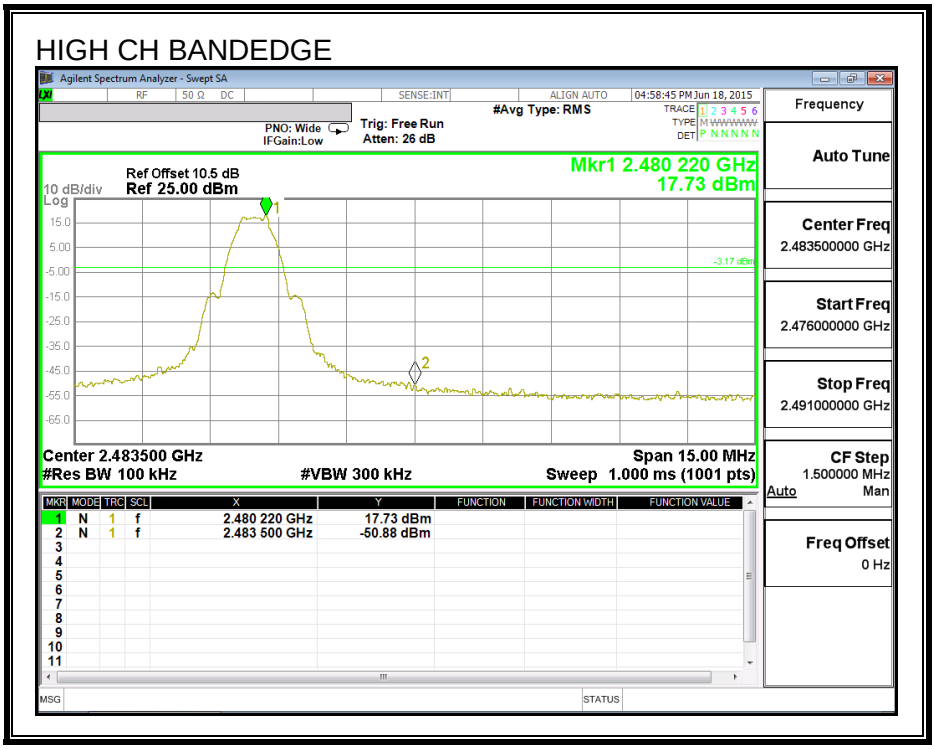


MID CH

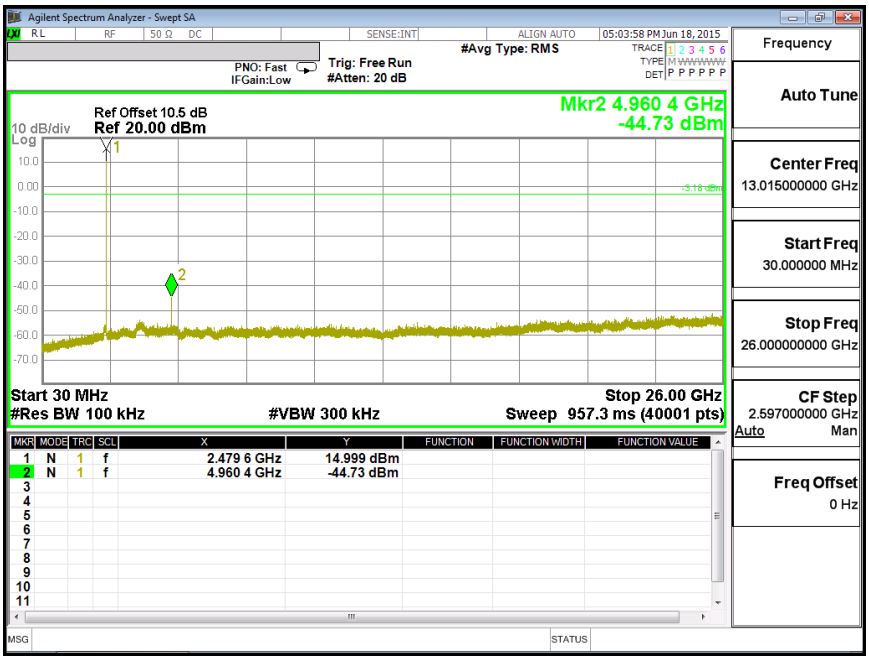


SPURIOUS EMISSIONS, HIGH CHANNEL

HIGH CH BANDEDGE



HIGH CH SPURIOUS



7.4. LOW POWER MODE

7.4.1. 6 dB BANDWIDTH

LIMITS

FCC §15.247 (a) (2)

IC RSS-247 (5.2) (1)

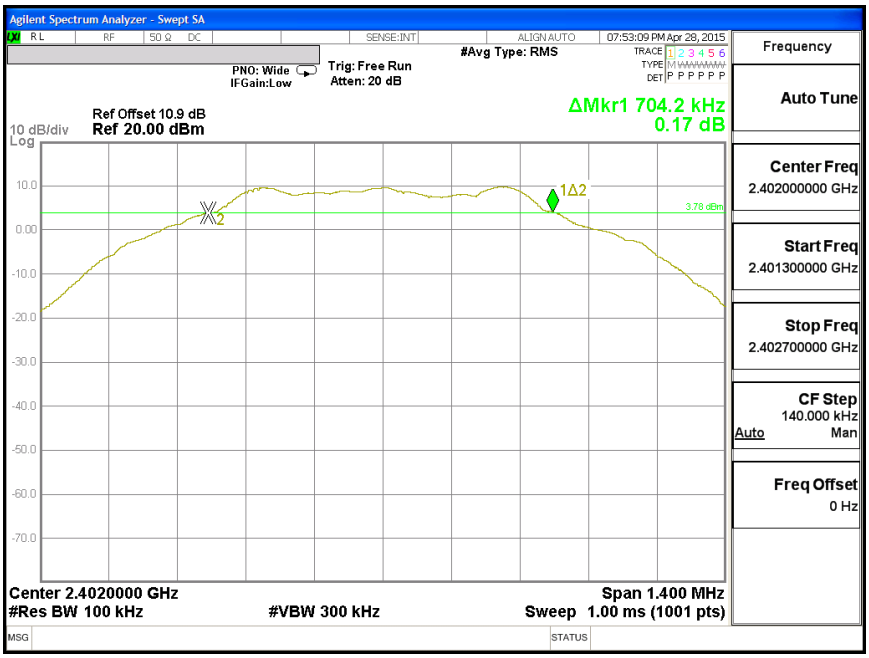
The minimum 6 dB bandwidth shall be at least 500 kHz.

RESULTS

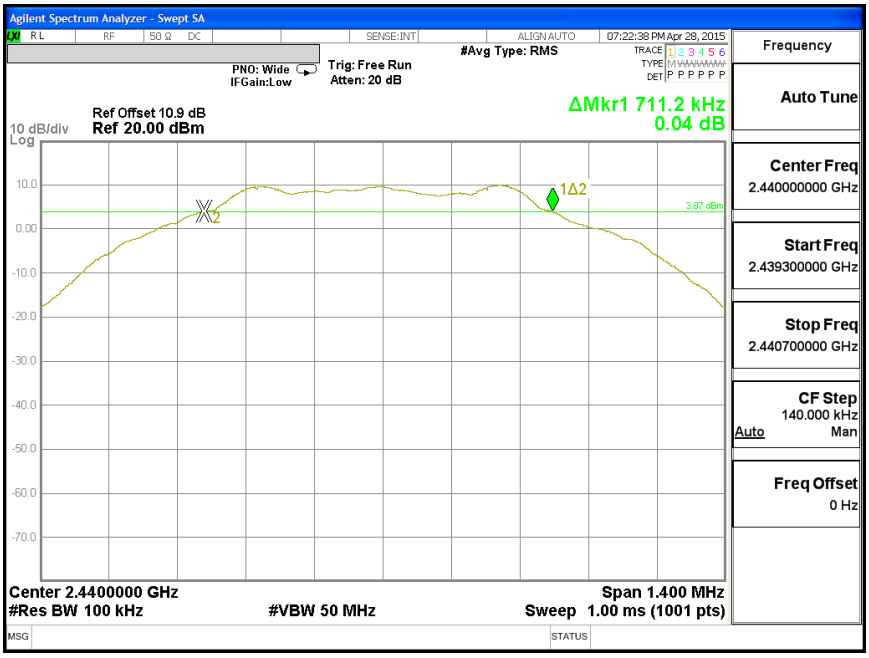
Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Minimum Limit (MHz)
Low	2402	0.704	0.5
Middle	2440	0.711	0.5
High	2480	0.714	0.5

6 dB BANDWIDTH

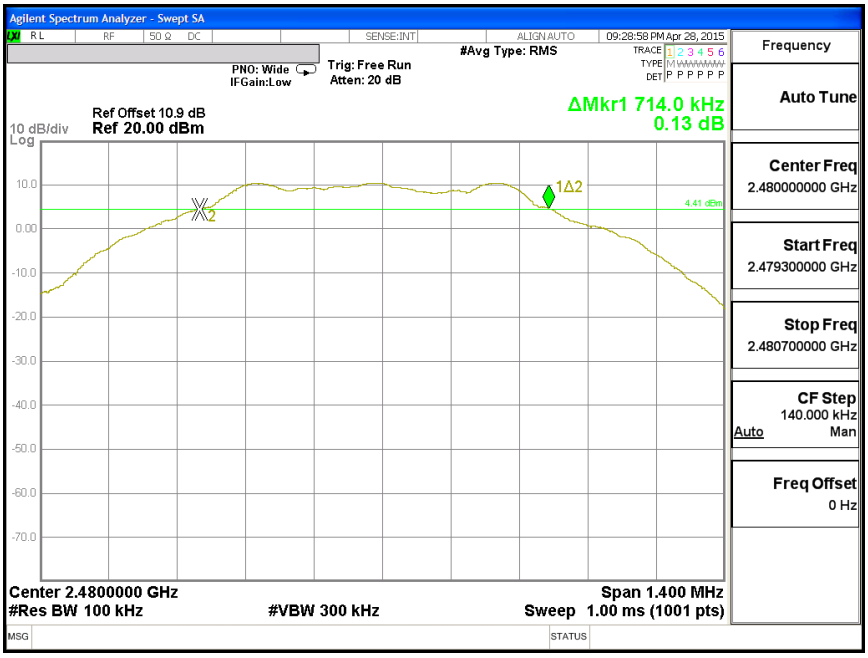
6 dB BANDWIDTH LOW CH



6 dB BANDWIDTH MID CH



6 dB BANDWIDTH HIGH CH



7.4.2. 99% BANDWIDTH

LIMITS

None; for reporting purposes only.

TEST PROCEDURE

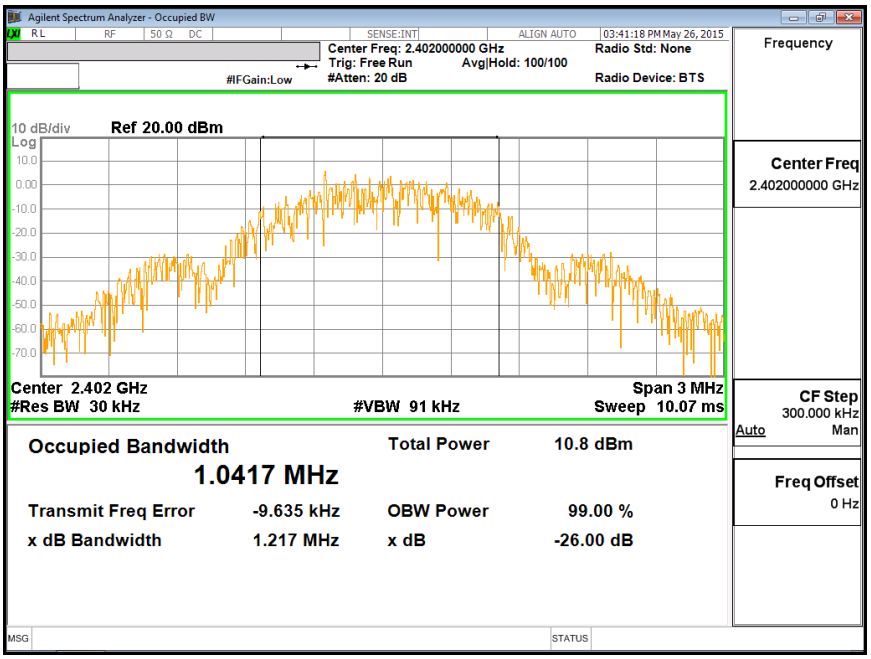
The transmitter output is connected to the spectrum analyzer. The RBW is set to 1% to 3% of the 99 % bandwidth and to 1% of the span. The VBW is set to 3 times the RBW. The sweep time is coupled. The spectrum analyzer internal 99% bandwidth function is utilized.

RESULTS

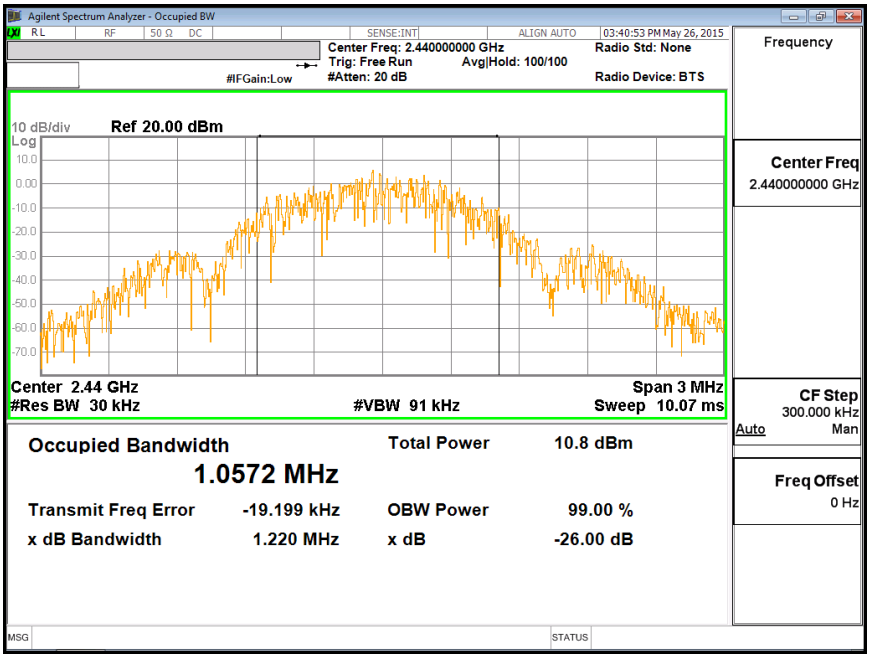
Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	2402	1.0417
Middle	2440	1.0572
High	2480	1.0386

99% BANDWIDTH

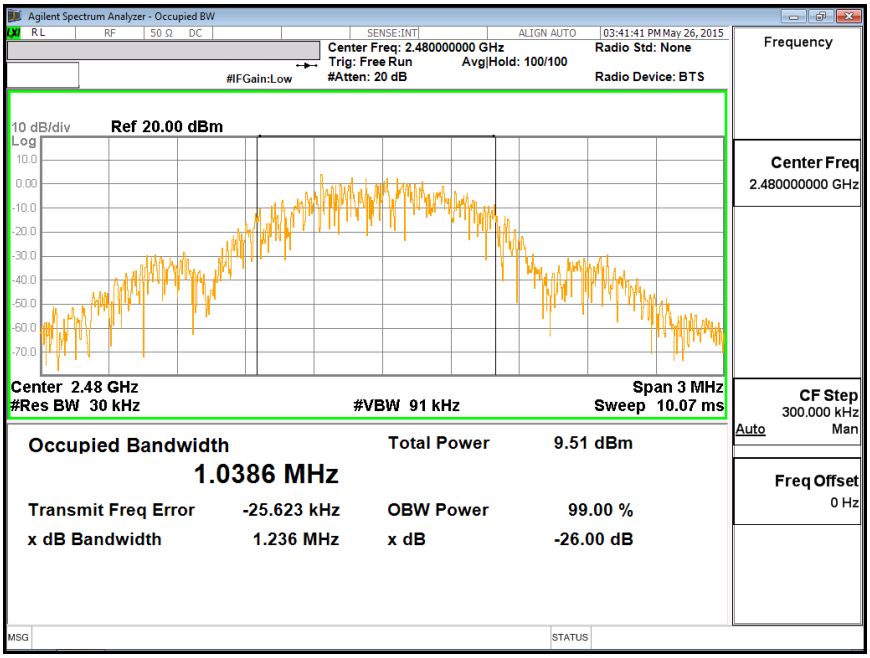
99% BANDWIDTH LOW CH



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 10.9 dB (including 10 dB pad and 0.9 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	10.41
Middle	2440	10.45
High	2480	10.39

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	10.79	30	-19.210
Middle	2440	10.83	30	-19.170
High	2480	10.65	30	-19.350

7.4.5. POWER SPECTRAL DENSITY

LIMITS

FCC §15.247 (e)

IC RSS-247 (5.2) (2)

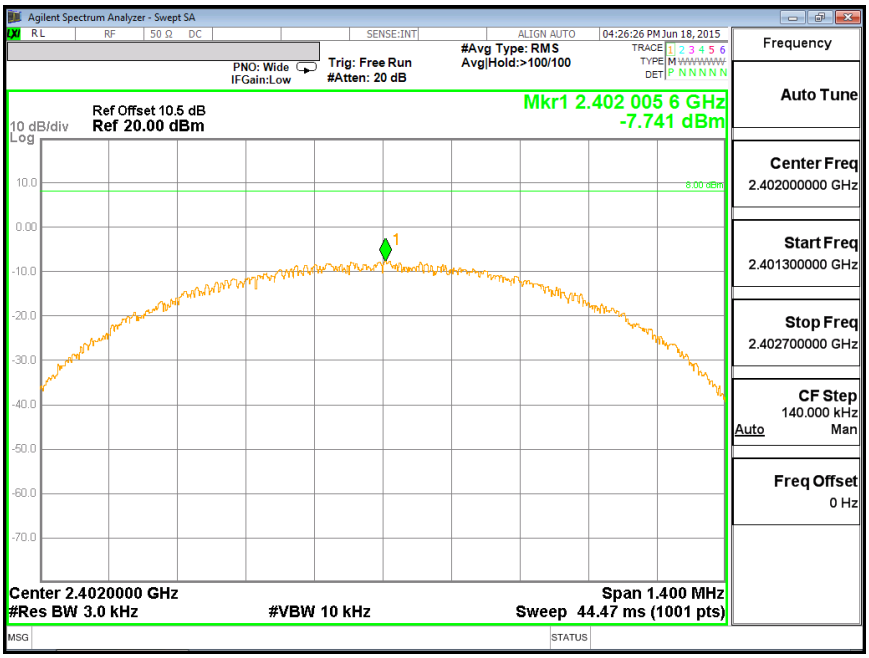
The power spectral density conducted from the transmitter to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission.

RESULTS

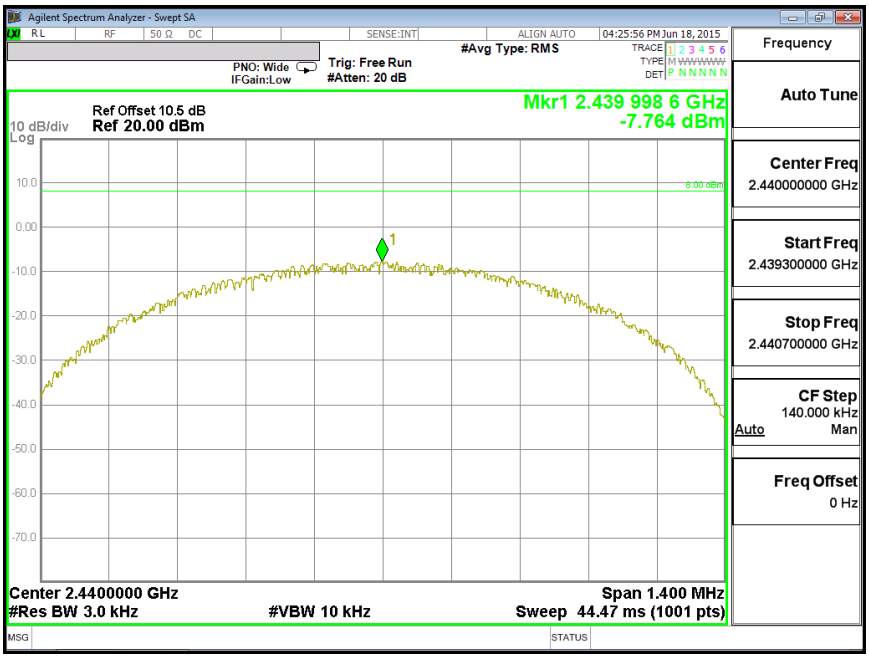
Channel	Frequency (MHz)	PSD (dBm)	Limit (dBm)	Margin (dB)
Low	2402	-7.74	8	-15.74
Middle	2440	-7.76	8	-15.76
High	2480	-7.66	8	-15.66

POWER SPECTRAL DENSITY

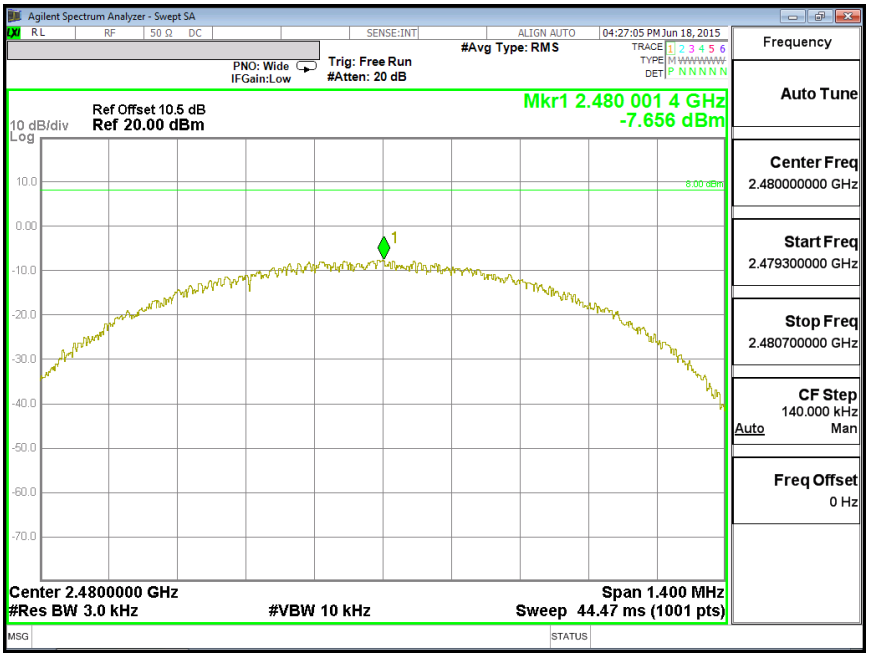
PSD LOW CH



PSD MID CH



PSD HIGH CH



7.4.6. CONDUCTED SPURIOUS EMISSIONS

LIMITS

FCC §15.247 (d)

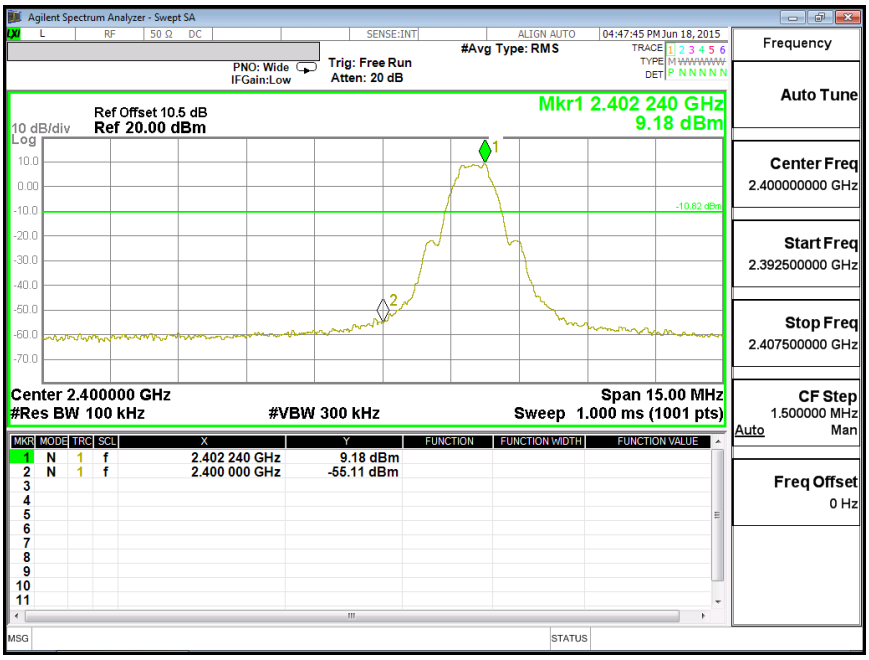
IC RSS-247 (5.5)

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

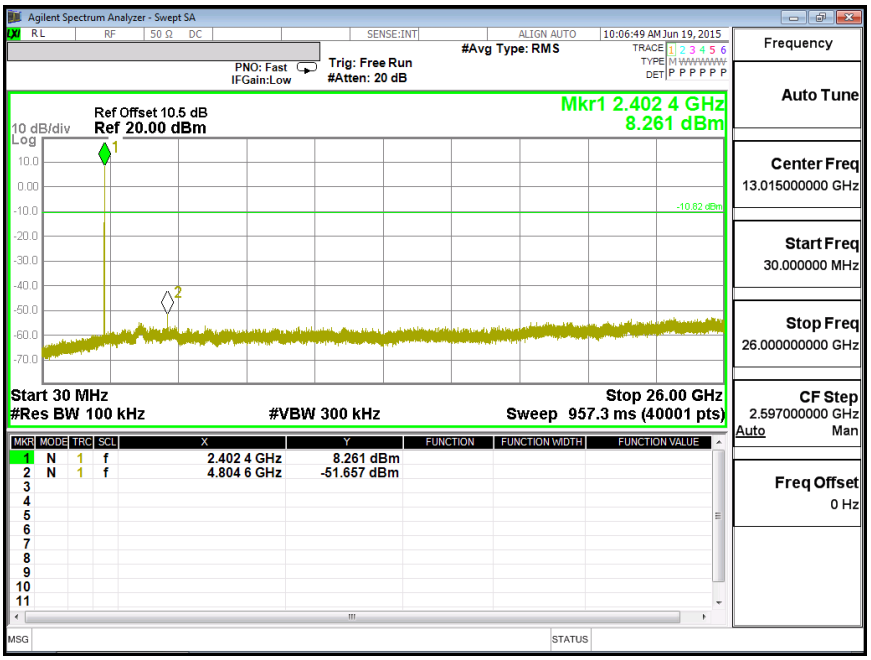
RESULTS

SPURIOUS EMISSIONS, LOW CHANNEL

LOW CH BANDEDGE

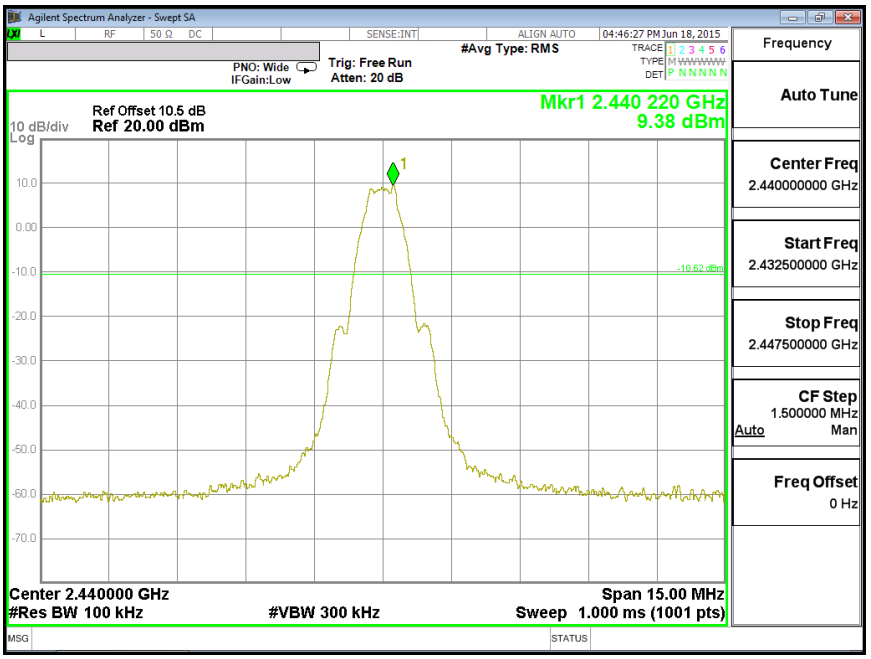


LOW CH SPURIOUS

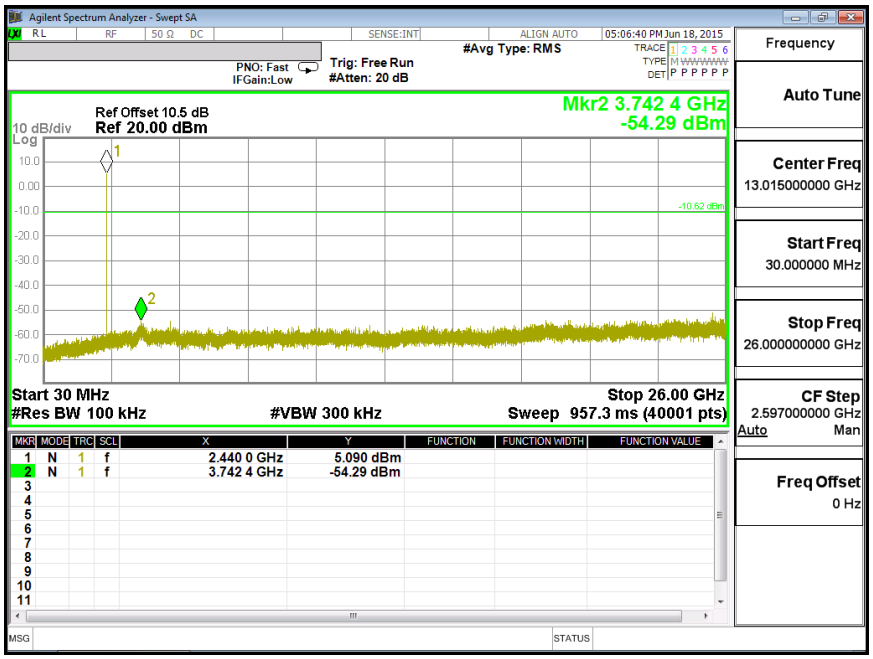


SPURIOUS EMISSIONS, MID CHANNEL

MID CH

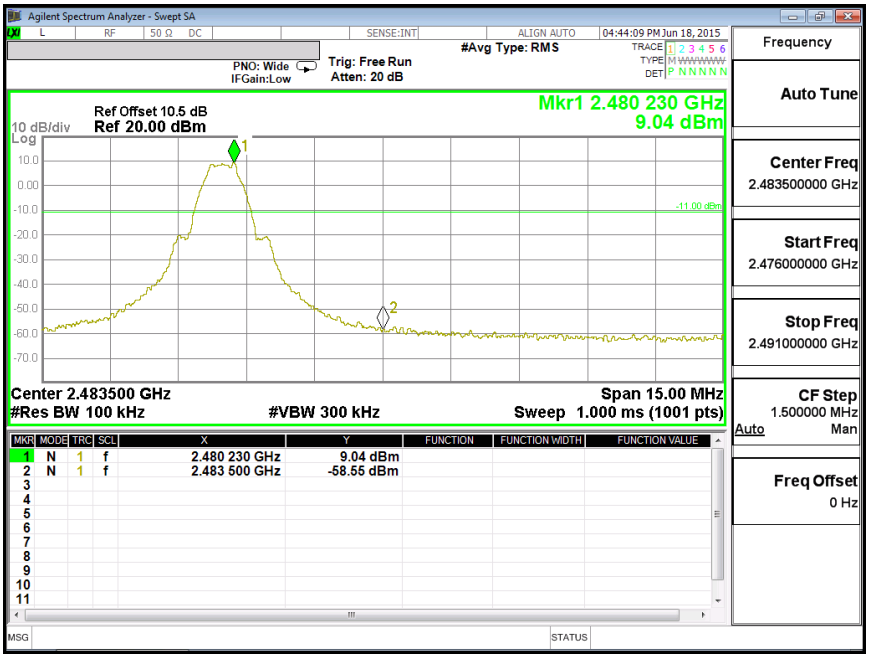


MID CH SPURIOUS

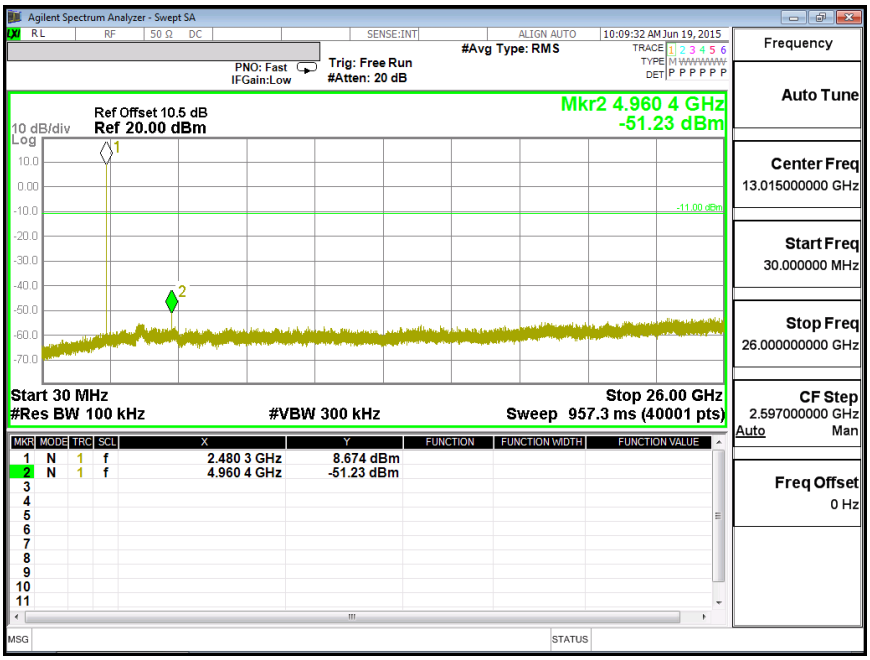


SPURIOUS EMISSIONS, HIGH CHANNEL

HIGH CH BANDEDGE



HIGH CH SPURIOUS



8. ANTENNA PORT TEST RESULTS (MODEL: A1688)

For antenna port data, refer to Model A1633.

9. RADIATED TEST RESULTS(MODEL: A1633)

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.

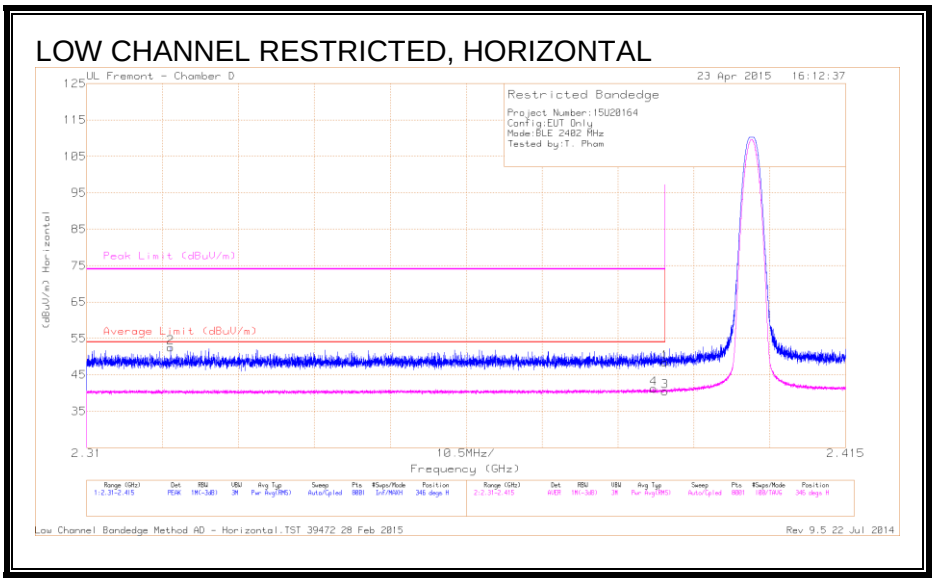
The spectrum from 30 MHz to 26 GHz is investigated with the transmitter set to the lowest, middle, and highest channels in the 2.4 GHz band.

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

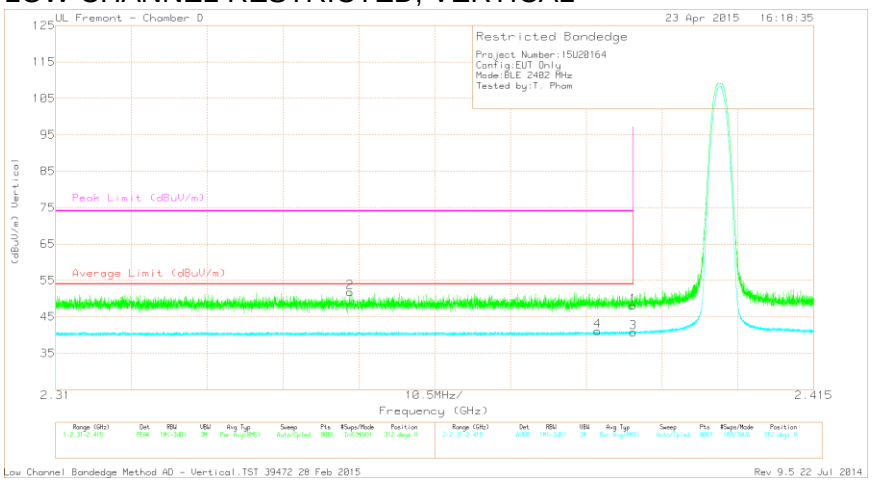
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.39	37	PK	32.1	-20.7	48.4	-	-	74	-25.6	346	277	H
2	* 2.322	41.52	PK	32	-21	52.52	-	-	74	-21.48	346	277	H
3	* 2.39	29.06	RMS	32.1	-20.7	40.46	54	-13.54	-	-	346	277	H
4	* 2.388	29.89	RMS	32.1	-20.8	41.19	54	-12.81	-	-	346	277	H

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

PK - Peak detector

RMS - RMS detection

LOW CHANNEL RESTRICTED, VERTICAL



DATA

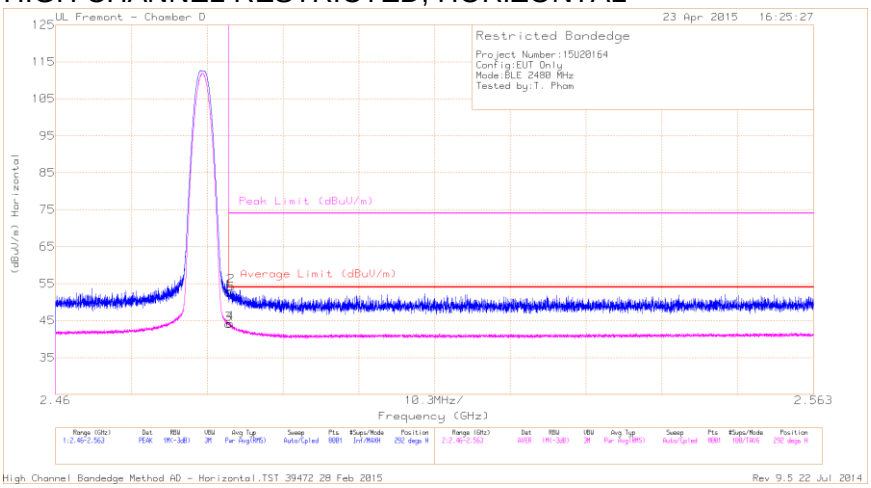
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.39	36.66	PK	32.1	-20.7	48.06	-	-	74	-25.94	312	351	V
2	* 2.351	40.73	PK	32	-20.9	51.83	-	-	74	-22.17	312	351	V
3	* 2.39	29.36	RMS	32.1	-20.7	40.76	54	-13.24	-	-	312	351	V
4	* 2.385	29.85	RMS	32.1	-20.8	41.15	54	-12.85	-	-	312	351	V

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

PK - Peak detector

RMS - RMS detection

HIGH CHANNEL RESTRICTED, HORIZONTAL



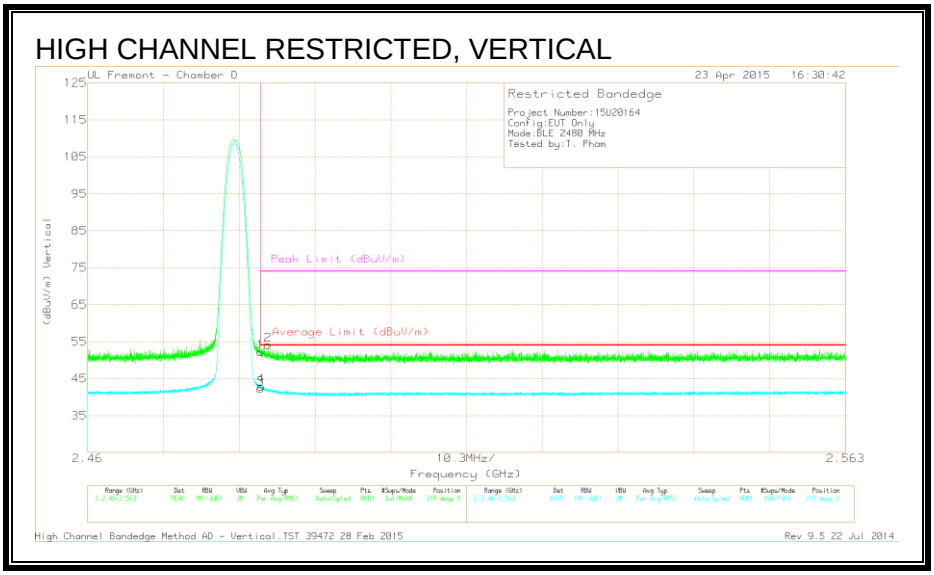
DATA

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	41.32	PK	32.2	-20.8	52.72	-	-	74	-21.28	292	135	H
2	* 2.484	42.91	PK	32.2	-20.8	54.31	-	-	74	-19.69	292	135	H
3	* 2.484	32.67	RMS	32.2	-20.8	44.07	54	-9.93	-	-	292	135	H
4	* 2.484	32.86	RMS	32.2	-20.8	44.26	54	-9.74	-	-	292	135	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 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	40.76	PK	32.2	-20.8	52.16	-	-	74	-21.84	318	260	V
2	* 2.485	42.72	PK	32.2	-20.8	54.12	-	-	74	-19.88	318	260	V
3	* 2.484	30.84	RMS	32.2	-20.8	42.24	54	-11.76	-	-	318	260	V
4	* 2.484	31.53	RMS	32.2	-20.8	42.93	54	-11.07	-	-	318	260	V

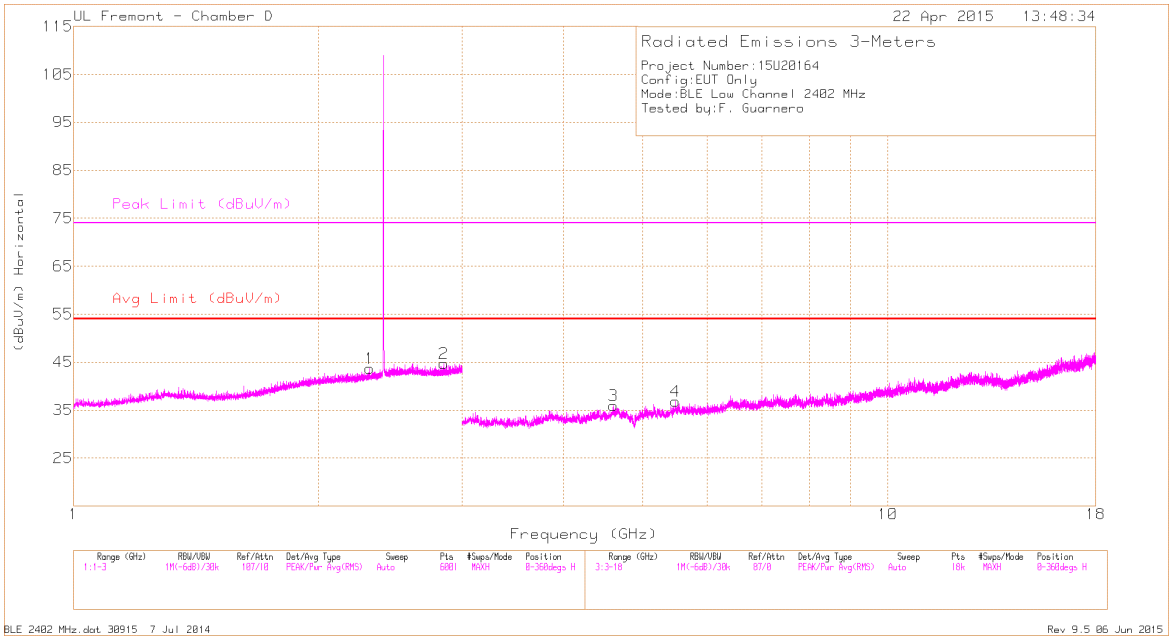
* - indicates frequency in CFR 47, Part 15 and Industry Canada RSS-Restricted Band.

PK - Peak detector

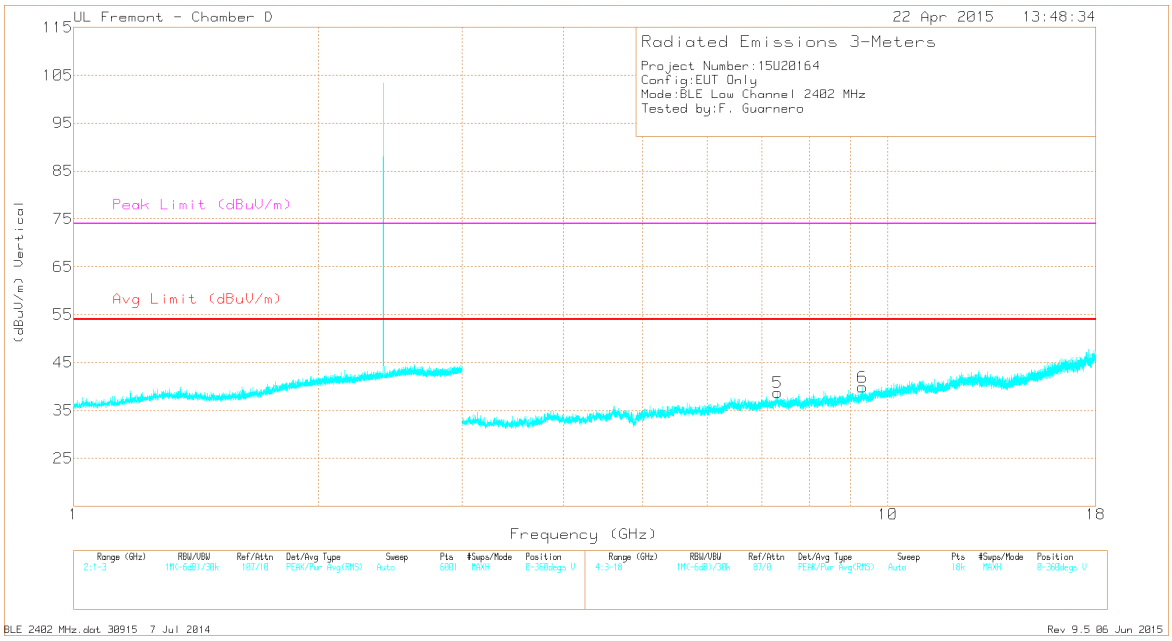
RMS - RMS detection

HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL HORIZONTAL



LOW CHANNEL VERTICAL



DATA

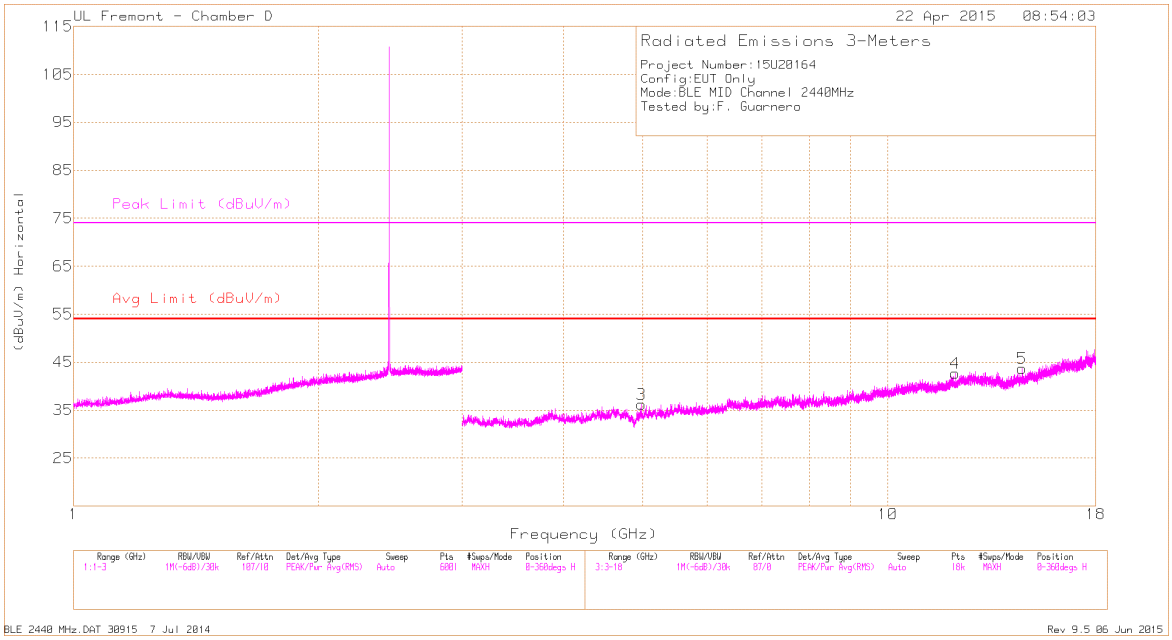
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.851	42.9	PK2	32.4	-24.3	51	-	-	74	-23	333	272	H
	* 2.851	30.16	MVA1	32.4	-24.3	38.26	54	-15.74	-	-	333	272	H
2	2.31	43.11	PK2	31.8	-24.6	50.31	-	-	-	-	117	202	H
3	* 4.598	42.08	PK2	34	-32.4	43.68	-	-	74	-30.32	341	293	H
	* 4.599	29.16	MVA1	34	-32.4	30.76	54	-23.24	-	-	341	293	H
4	5.482	40.53	PK2	35.5	-31.4	44.63	-	-	-	-	294	202	H
5	* 7.32	38.33	PK2	36	-28.9	45.43	-	-	74	-28.57	320	262	V
	* 7.32	25.97	MVA1	36	-28.9	33.07	54	-20.93	-	-	320	262	V
6	* 9.306	36.66	PK2	36.4	-26.4	46.66	-	-	74	-27.34	105	271	V
	* 9.307	23.92	MVA1	36.4	-26.4	33.92	54	-20.08	-	-	105	271	V

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

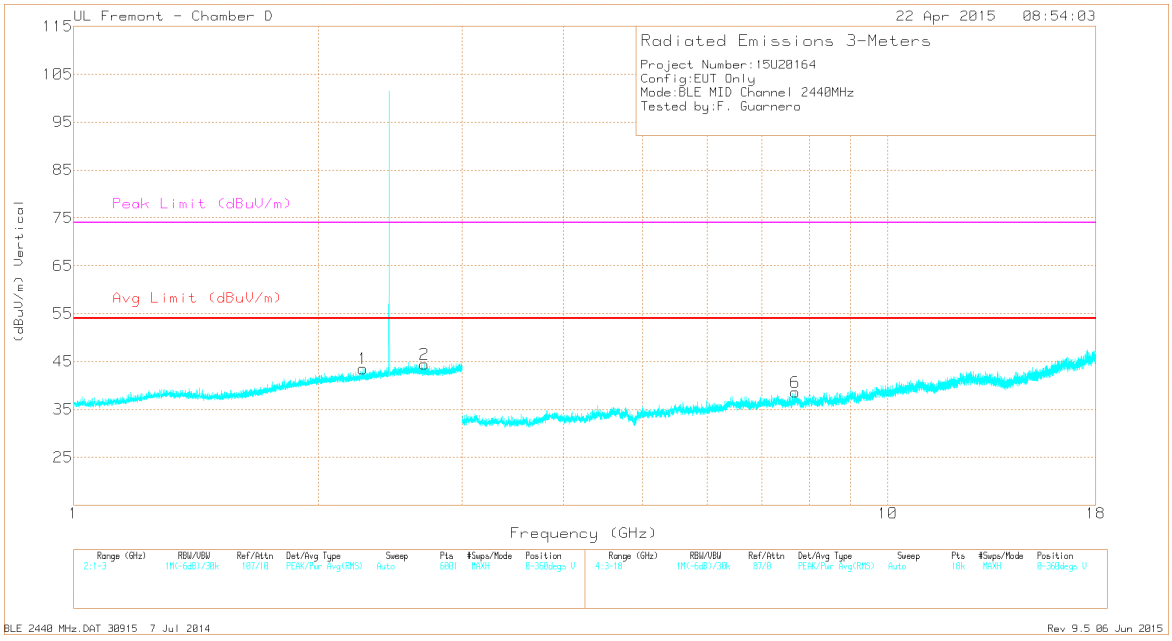
PK2 - KDB558074 Method: Maximum Peak

MAv1 - KDB558074 Option 1 Maximum RMS Average

MID CHANNEL HORIZONTAL



MID CHANNEL VERTICAL



DATA

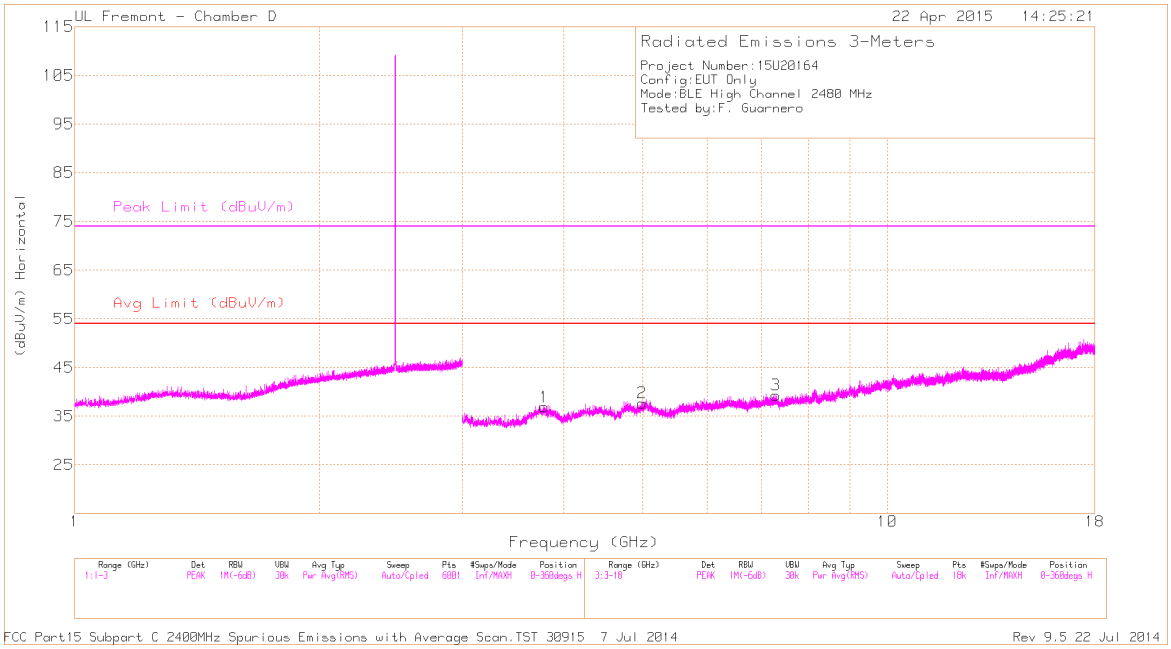
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.265	43.55	PK2	31.7	-24.6	50.65	-	-	74	-23.35	321	216	V
	* 2.265	30.16	MVA1	31.7	-24.6	37.26	54	-16.74	-	-	321	216	V
2	* 2.695	42.79	PK2	32.3	-24.3	50.79	-	-	74	-23.21	110	168	V
	* 2.693	30.09	MVA1	32.3	-24.3	38.09	54	-15.91	-	-	110	168	V
3	* 4.982	40.04	PK2	34.3	-32	42.34	-	-	74	-31.66	36	143	H
	* 4.98	27.67	MVA1	34.3	-31.9	30.07	54	-23.93	-	-	36	143	H
4	* 12.093	36.3	PK2	38.9	-25.6	49.6	-	-	74	-24.4	190	229	H
	* 12.094	23.15	MVA1	38.9	-25.6	36.45	54	-17.55	-	-	190	229	H
5	14.624	36.76	PK2	40.1	-26.9	49.96	-	-	-	-	1	100	H
6	* 7.7	38.63	PK2	35.9	-28.5	46.03	-	-	74	-27.97	5	167	V
	* 7.701	25.71	MVA1	35.9	-28.5	33.11	54	-20.89	-	-	5	167	V

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

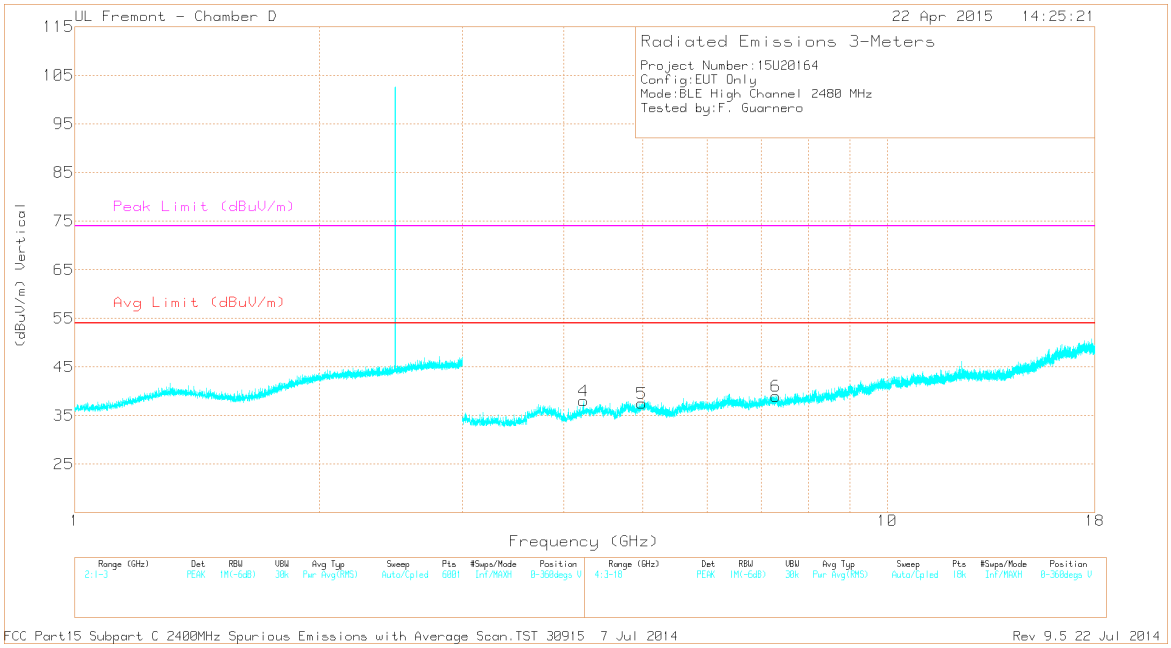
PK2 - KDB558074 Method: Maximum Peak

MAv1 - KDB558074 Option 1 Maximum RMS Average

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	* 3.783	38.88	PK2	33.3	-28.2	43.98	-	-	74	-30.02	158	233	H
	* 3.786	25.73	MAv1	33.3	-28.2	30.83	54	-23.17	-	-	158	233	H
2	* 4.961	41.74	PK2	34.2	-27.7	48.24	-	-	74	-25.76	335	337	H
	* 4.96	29.37	MAv1	34.2	-27.7	35.87	54	-18.13	-	-	335	337	H
3	* 7.439	40.05	PK2	35.5	-25	50.55	-	-	74	-23.45	73	196	H
	* 7.44	27.51	MAv1	35.5	-25	38.01	54	-15.99	-	-	73	196	H
4	* 4.228	42.32	PK2	33.5	-27.5	48.32	-	-	74	-25.68	282	321	V
	* 4.226	29.18	MAv1	33.5	-27.5	35.18	54	-18.82	-	-	282	321	V
5	* 4.96	38.98	PK2	34.2	-27.7	45.48	-	-	74	-28.52	216	252	V
	* 4.96	28.59	MAv1	34.2	-27.7	35.09	54	-18.91	-	-	216	252	V
6	* 7.439	35.3	PK2	35.5	-25	45.8	-	-	74	-28.2	20	395	V
	* 7.438	22.7	MAv1	35.5	-25	33.2	54	-20.8	-	-	20	395	V

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

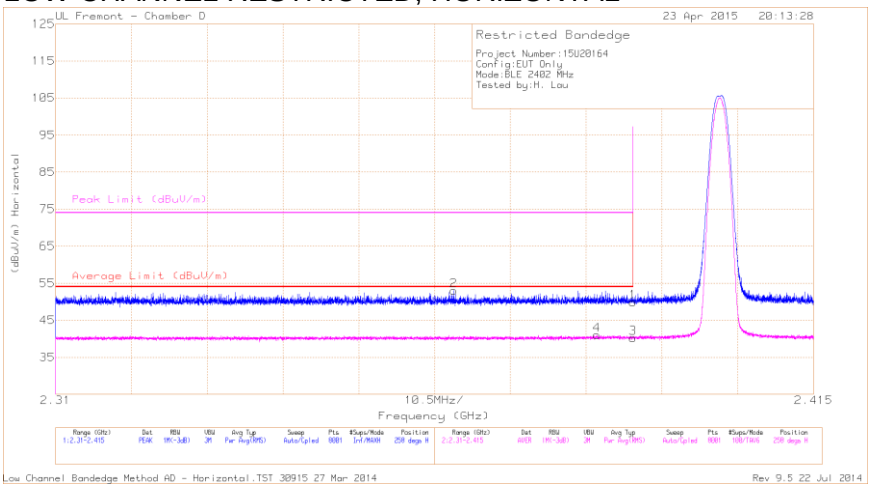
PK2 - KDB558074 Method: Maximum Peak

MAv1 - KDB558074 Option 1 Maximum RMS Average

9.2.2. LOW POWER MODE

RESTRICTED BANDEDGE

LOW CHANNEL RESTRICTED, HORIZONTAL



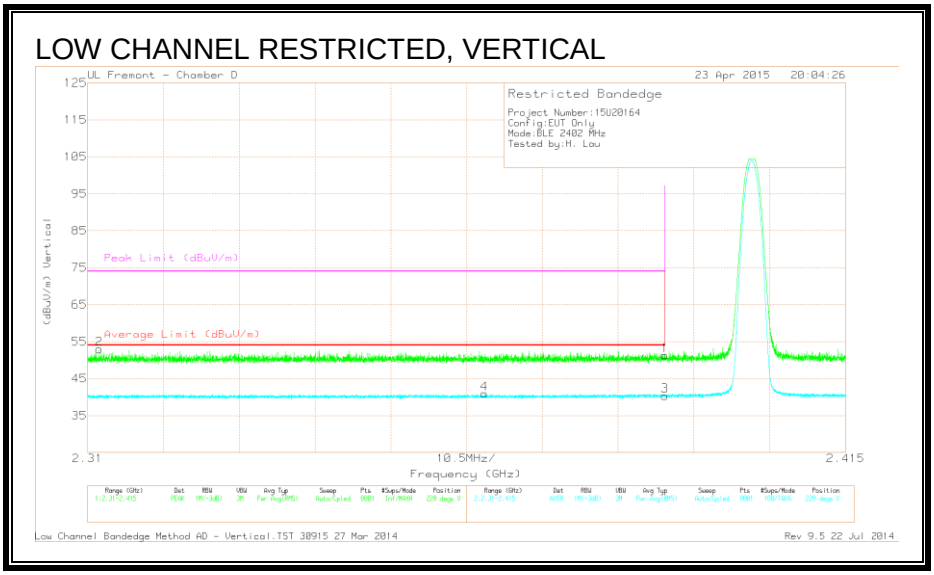
DATA

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	* 2.39	38.47	PK	32.1	-20.7	49.87	-	-	74	-24.13	258	277	H
2	* 2.365	41.92	PK	32	-20.9	53.02	-	-	74	-20.98	258	277	H
3	* 2.39	28.81	RMS	32.1	-20.7	40.21	54	-13.79	-	-	258	277	H
4	* 2.385	29.72	RMS	32.1	-20.8	41.02	54	-12.98	-	-	258	277	H

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

PK - Peak detector

RMS - RMS detection



DATA

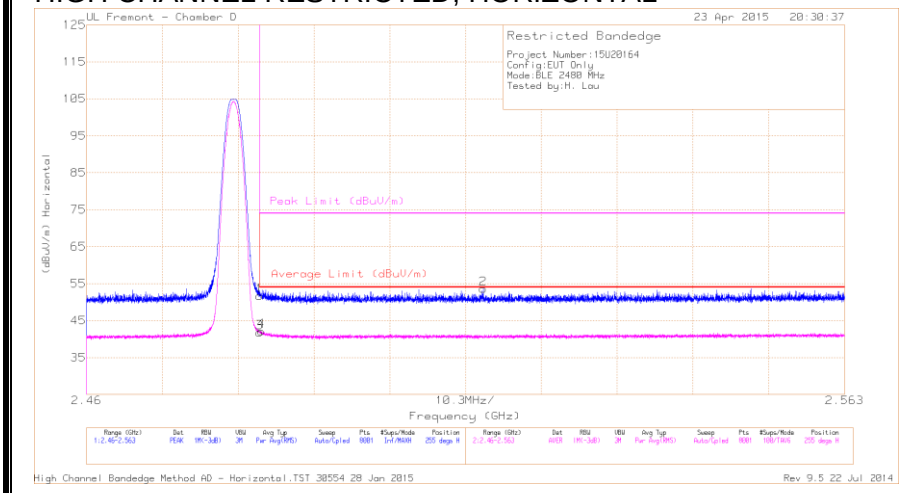
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.39	39.9	PK	32.1	-20.7	51.3	-	-	74	-22.7	228	287	V
2	* 2.312	41.96	PK	32	-21	52.96	-	-	74	-21.04	228	287	V
3	* 2.39	28.96	RMS	32.1	-20.7	40.36	54	-13.64	-	-	228	287	V
4	* 2.365	29.81	RMS	32	-20.9	40.91	54	-13.09	-	-	228	287	V

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

PK - Peak detector

RMS - RMS detection

HIGH CHANNEL RESTRICTED, HORIZONTAL



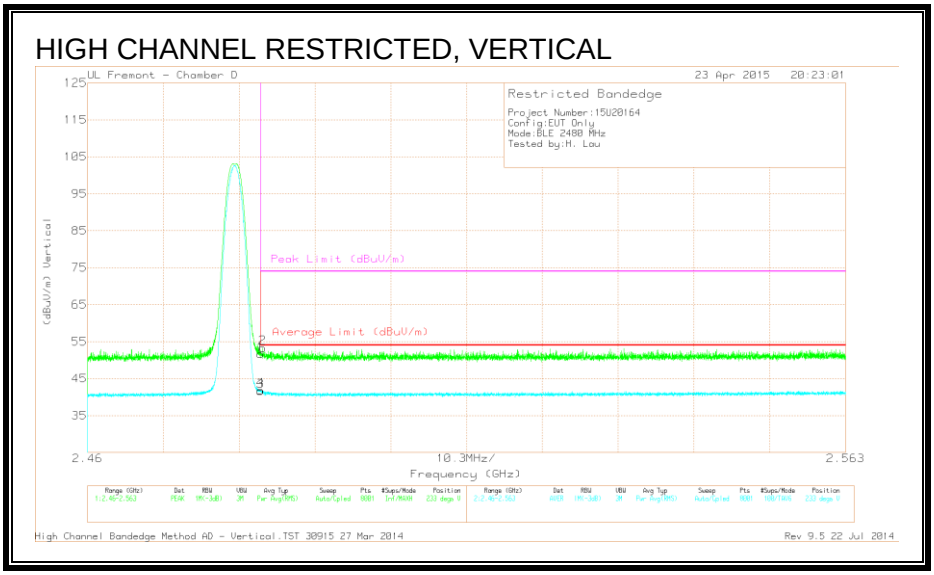
DATA

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	40.29	PK	32.2	-20.8	51.69	-	-	74	-22.31	255	262	H
2	2.514	42.22	PK	32.2	-20.8	53.62	-	-	74	-20.38	255	262	H
3	* 2.484	30.39	RMS	32.2	-20.8	41.79	54	-12.21	-	-	255	262	H
4	* 2.484	30.77	RMS	32.2	-20.8	42.17	54	-11.83	-	-	255	262	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 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	40.25	PK	32.2	-20.8	51.65	-	-	74	-22.35	233	329	V
2	* 2.484	41.9	PK	32.2	-20.8	53.3	-	-	74	-20.7	233	329	V
3	* 2.484	30.23	RMS	32.2	-20.8	41.63	54	-12.37	-	-	233	329	V
4	* 2.484	30.42	RMS	32.2	-20.8	41.82	54	-12.18	-	-	233	329	V

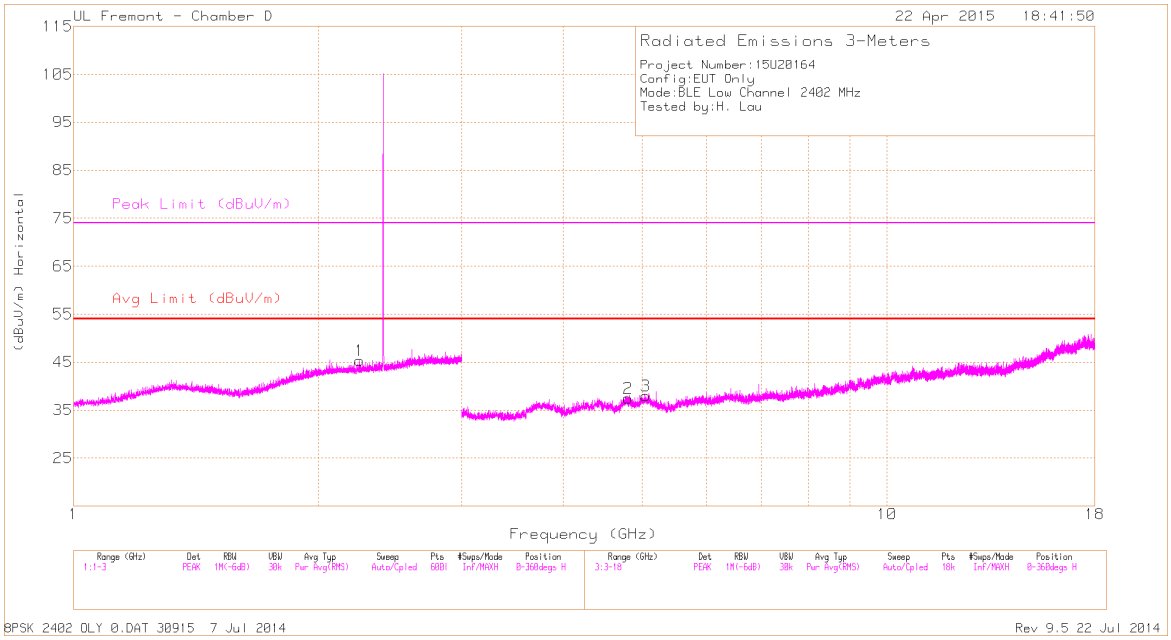
* - indicates frequency in CFR 47, Part 15 and Industry Canada RSS-Restricted Band.

PK - Peak detector

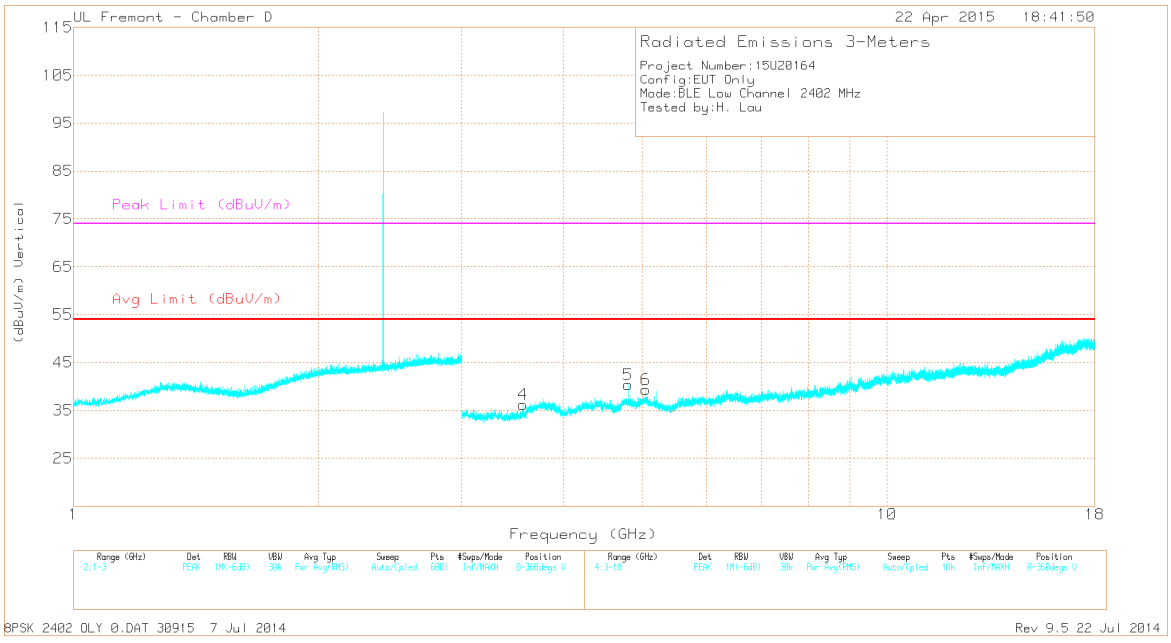
RMS - RMS detection

HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL HORIZONTAL



LOW CHANNEL VERTICAL



DATA

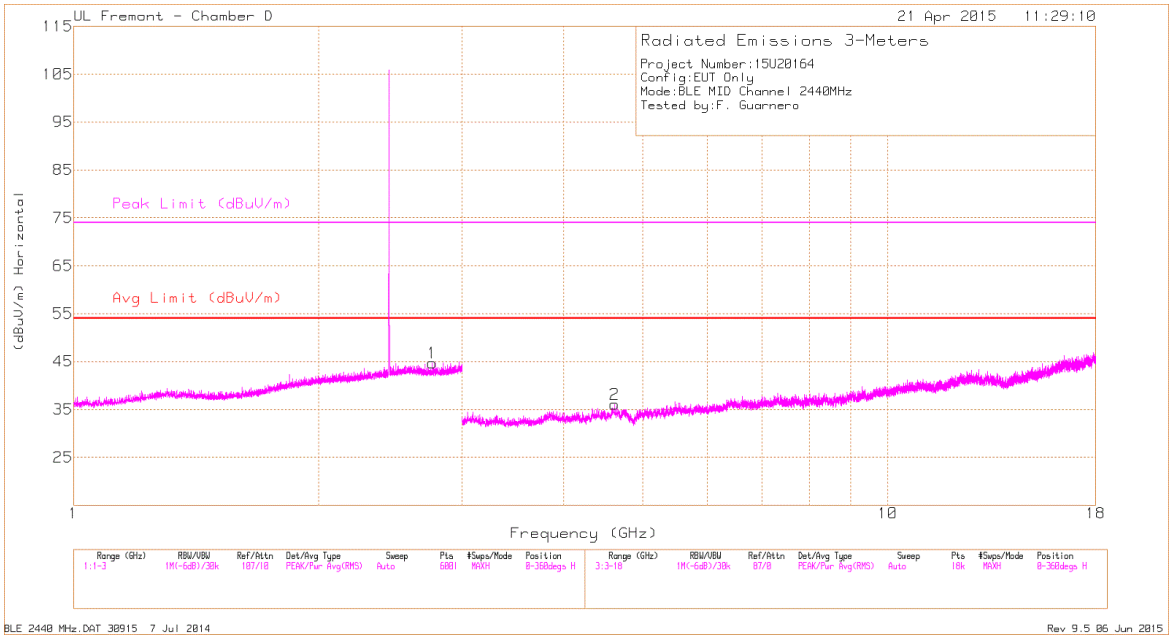
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.248	41.23	PK2	31.8	-21	52.03	-	-	74	-21.97	245	144	H
	* 2.245	29.98	MAv1	31.8	-21	40.78	54	-13.22	-	-	245	144	H
2	* 4.804	39.41	PK2	34.1	-27	46.51	-	-	74	-27.49	77	234	H
	* 4.804	28.13	MAv1	34.1	-27	35.23	54	-18.77	-	-	77	234	H
3	* 5.047	38.22	PK2	34.3	-26.7	45.82	-	-	74	-28.18	152	193	H
	* 5.048	26.6	MAv1	34.3	-26.7	34.2	54	-19.8	-	-	152	193	H
4	* 3.57	38.67	PK2	33	-28.3	43.37	-	-	74	-30.63	229	149	V
	* 3.57	27.62	MAv1	33	-28.3	32.32	54	-21.68	-	-	229	149	V
5	* 4.804	40.61	PK2	34.1	-27	47.71	-	-	74	-26.29	206	267	V
	* 4.804	31.79	MAv1	34.1	-27	38.89	54	-15.11	-	-	206	267	V
6	* 5.048	37.54	PK2	34.3	-26.7	45.14	-	-	74	-28.86	255	219	V
	* 5.047	26.62	MAv1	34.3	-26.7	34.22	54	-19.78	-	-	255	219	V

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

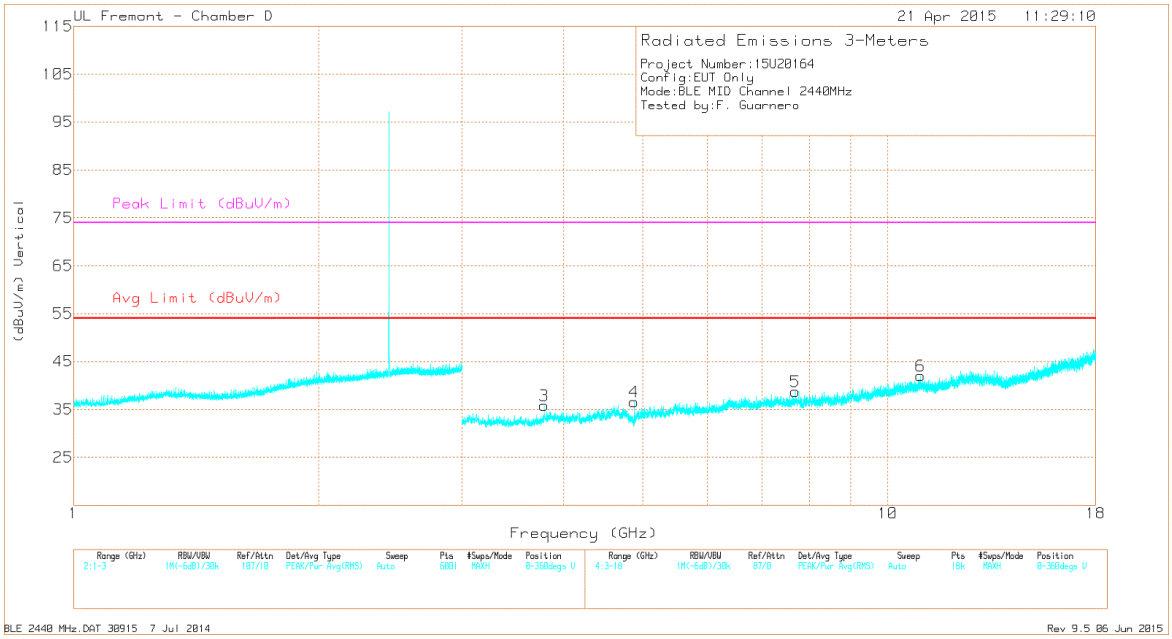
PK2 - KDB558074 Method: Maximum Peak

MAv1 - KDB558074 Option 1 Maximum RMS Average

MID CHANNEL HORIZONTAL



MID CHANNEL VERTICAL



DATA

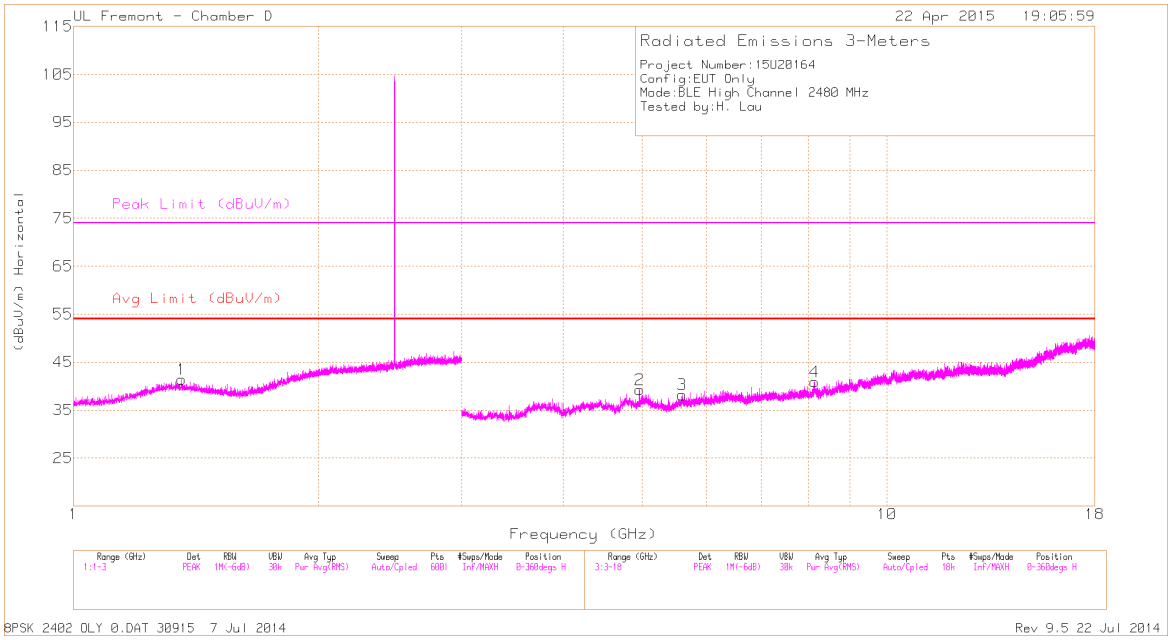
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.755	43.86	PK2	32.3	-24.3	51.86	-	-	74	-22.14	21	121	H
	* 2.755	30.08	MVA1	32.3	-24.3	38.08	54	-15.92	-	-	21	121	H
2	* 4.62	41	PK2	34	-32.2	42.8	-	-	74	-31.2	0	155	H
	* 4.621	28.45	MVA1	34	-32.2	30.25	54	-23.75	-	-	0	155	H
3	* 3.783	42.24	PK2	33.4	-32.6	43.04	-	-	74	-30.96	48	108	V
	* 3.785	28.7	MVA1	33.4	-32.6	29.5	54	-24.5	-	-	48	108	V
4	* 4.88	41.57	PK2	34.2	-32.1	43.67	-	-	74	-30.33	205	267	V
	* 4.88	32.99	MVA1	34.2	-32.1	35.09	54	-18.91	-	-	205	267	V
5	* 7.703	38.31	PK2	35.9	-28.5	45.71	-	-	74	-28.29	71	191	V
	* 7.702	25.74	MVA1	35.9	-28.5	33.14	54	-20.86	-	-	71	191	V
6	* 10.959	36.25	PK2	37.8	-24.8	49.25	-	-	74	-24.75	67	115	V
	* 10.961	23.14	MVA1	37.8	-24.8	36.14	54	-17.86	-	-	67	115	V

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

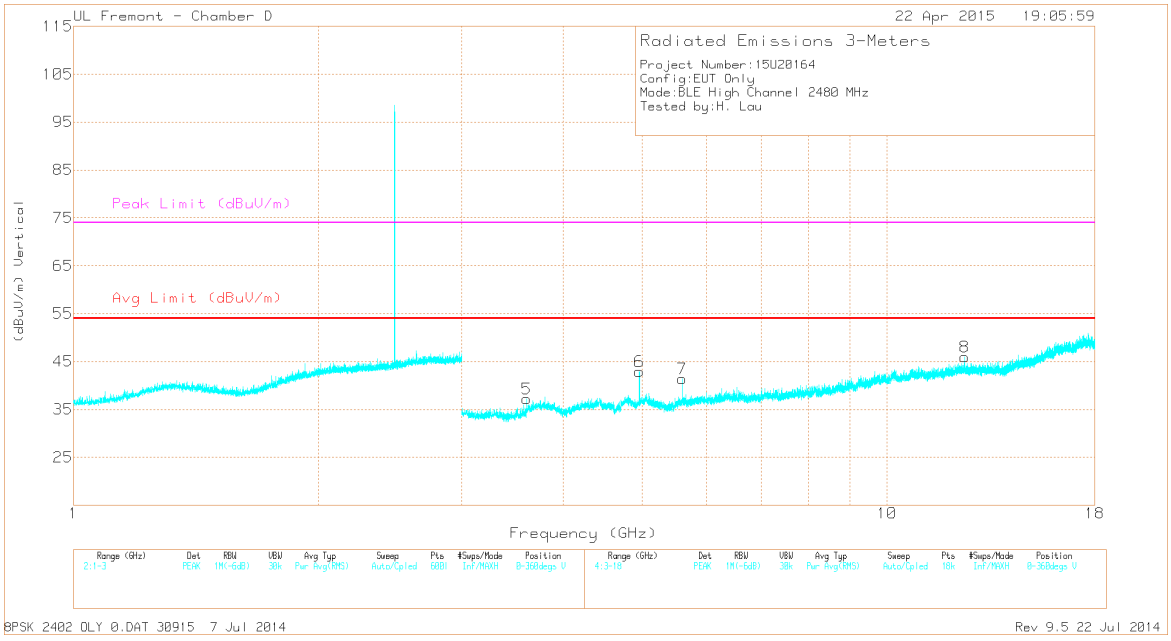
PK2 - KDB558074 Method: Maximum Peak

MAv1 - KDB558074 Option 1 Maximum RMS Average

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	* 1.358	41.89	PK2	28.8	-22.2	48.49	-	-	74	-25.51	245	144	H
	* 1.359	30.58	MAv1	28.8	-22.2	37.18	54	-16.82	-	-	245	144	H
2	* 4.959	40.76	PK2	34.2	-27.7	47.26	-	-	74	-26.74	204	181	H
	* 4.96	31.46	MAv1	34.2	-27.7	37.96	54	-16.04	-	-	204	181	H
3	5.6	38.02	PK2	34.4	-26.8	45.62	-	-	-	-	285	151	H
4	* 8.147	35.32	PK2	35.6	-23	47.92	-	-	74	-26.08	197	117	H
	* 8.149	24.2	MAv1	35.6	-22.9	36.9	54	-17.1	-	-	197	117	H
5	* 3.608	38.81	PK2	33.1	-28.4	43.51	-	-	74	-30.49	78	155	V
	* 3.608	27.23	MAv1	33.1	-28.4	31.93	54	-22.07	-	-	78	155	V
6	* 4.96	40.35	PK2	34.2	-27.7	46.85	-	-	74	-27.15	170	185	V
	* 4.96	31.54	MAv1	34.2	-27.7	38.04	54	-15.96	-	-	170	185	V
7	5.6	38.44	PK2	34.4	-26.8	46.04	-	-	-	-	211	156	V
8	* 12.456	34.5	PK2	39	-21.6	51.9	-	-	74	-22.1	246	205	V
	* 12.455	23.49	MAv1	39	-21.6	40.89	54	-13.11	-	-	246	205	V

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

PK2 - KDB558074 Method: Maximum Peak

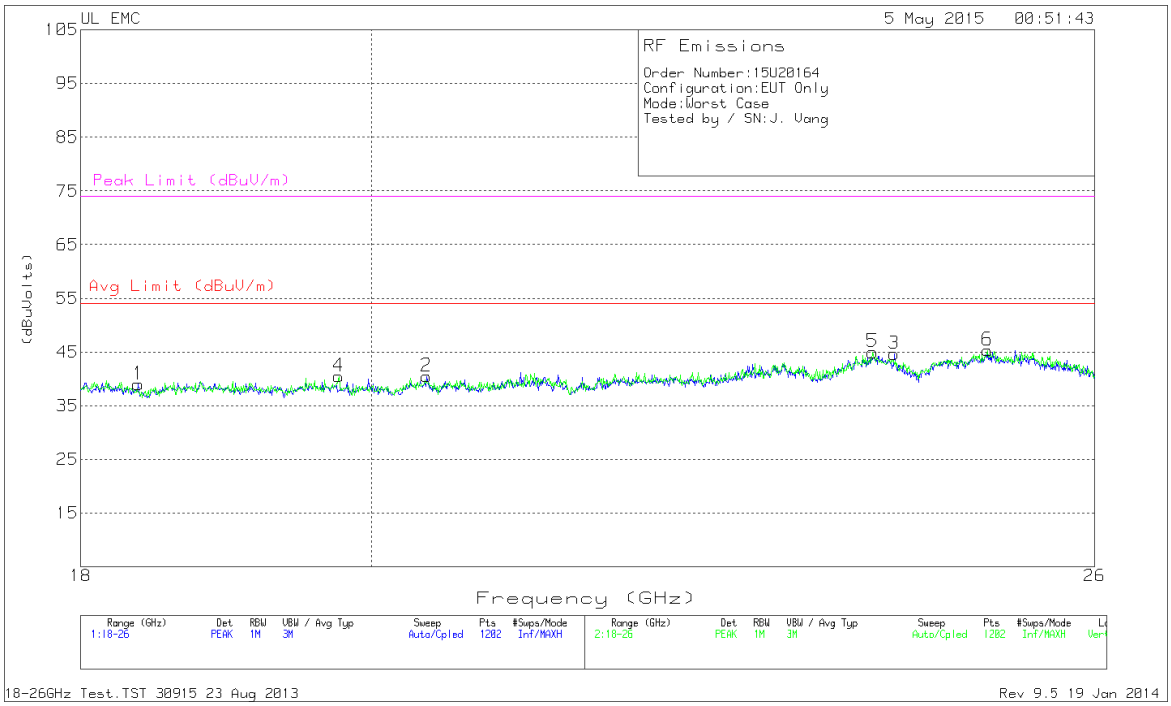
MAv1 - KDB558074 Option 1 Maximum RMS Average

9.3. WORST-CASE 18 to 26 GHz

9.3.1. HIGH POWER MODE

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

HORIZONTAL AND VERTICAL PLOT



DATA

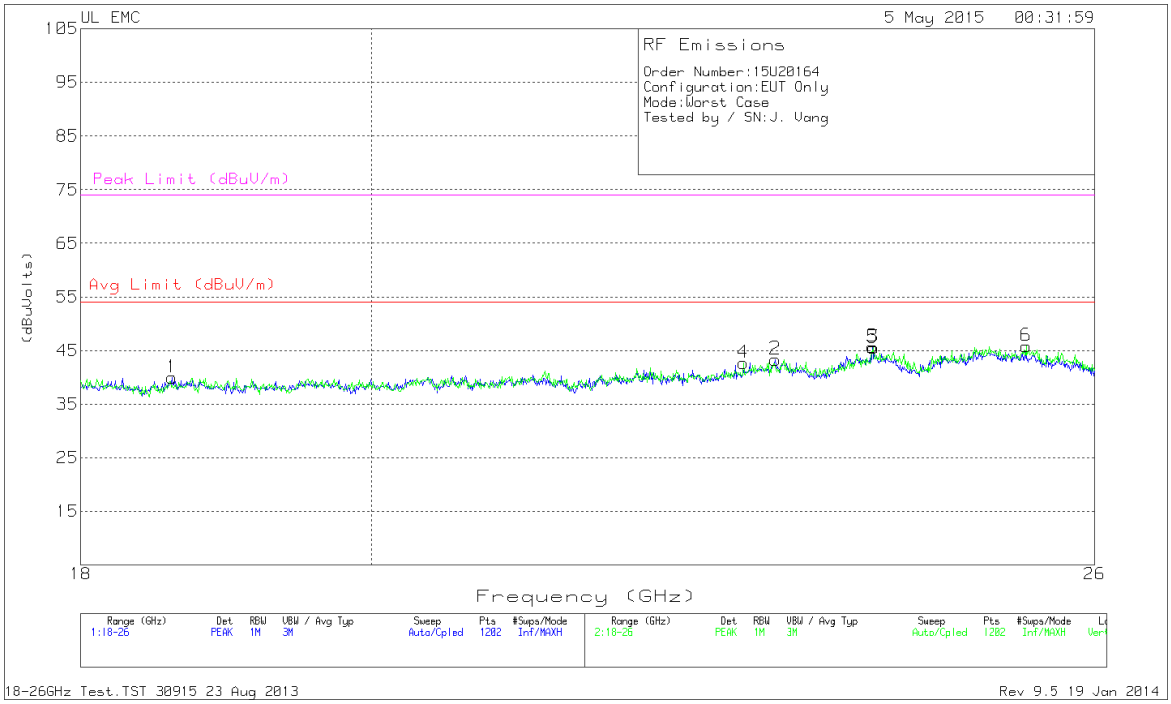
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	T89 AF (dB/m)	Amp/Cbl (dB)	Dist Corr (dB)	Corrected Reading (dBuVolts)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)
1	18.38	41.4	PK	32.5	-25.4	-9.5	39	54	-15	74	-35
2	20.405	41.8	PK	32.9	-24.7	-9.5	40.5	54	-13.5	74	-33.5
3	24.175	43.57	PK	34.2	-23.6	-9.5	44.6	54	-9.3	74	-29.3
4	19.765	42.1	PK	33	-25.1	-9.5	40.5	54	-13.5	74	-33.5
5	23.988	43.6	PK	34.2	-23.3	-9.5	45	54	-9	74	-29
6	25.007	44.03	PK	34.5	-23.7	-9.5	45.3	54	-8.6	74	-28.6

PK - Peak detector

9.3.2. LOW POWER MODE

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

HORIZONTAL AND VERTICAL PLOT



DATA

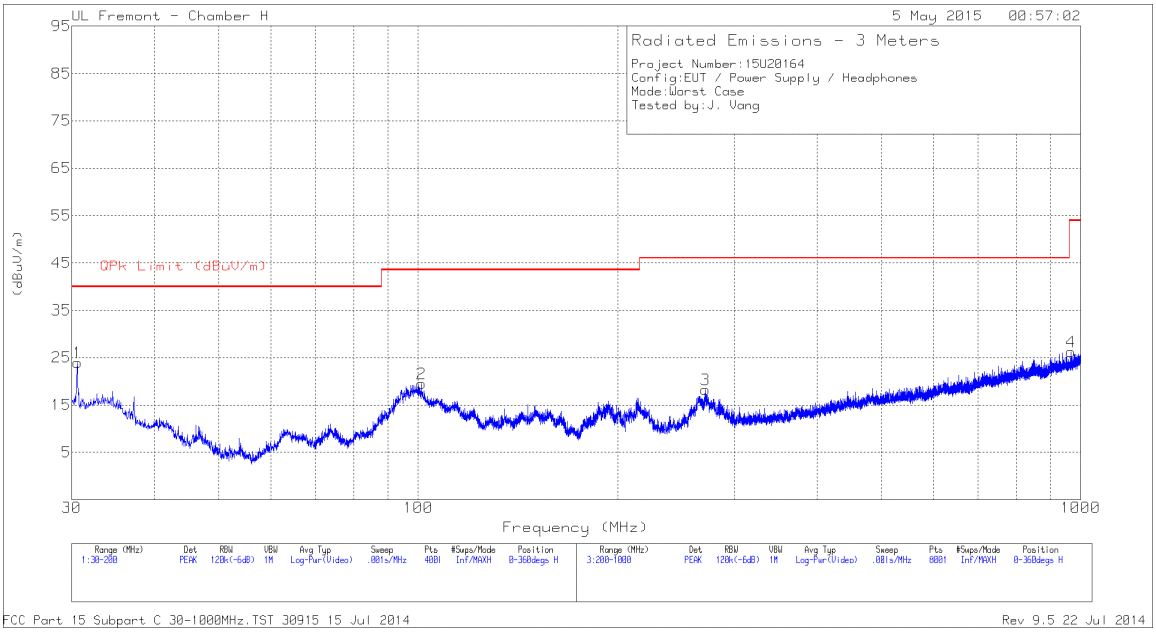
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	T89 AF (dB/m)	Amp/Cbl (dB)	Dist Corr (dB)	Corrected Reading (dBuVolts)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)
1	18.606	41.7	PK	32.6	-24.8	-9.5	40	54	-14	74	-34
2	23.156	42.03	PK	33.9	-23.1	-9.5	43.3	54	-10.6	74	-30.6
3	23.988	44.27	PK	34.2	-23.3	-9.5	45.6	54	-8.3	74	-28.3
4	22.889	42.37	PK	33.9	-24.1	-9.5	42.6	54	-11.3	74	-31.3
5	23.995	44.1	PK	34.2	-23.3	-9.5	45.5	54	-8.5	74	-28.5
6	25.361	44.53	PK	34.6	-23.8	-9.5	45.8	54	-8.1	74	-28.1

PK - Peak detector

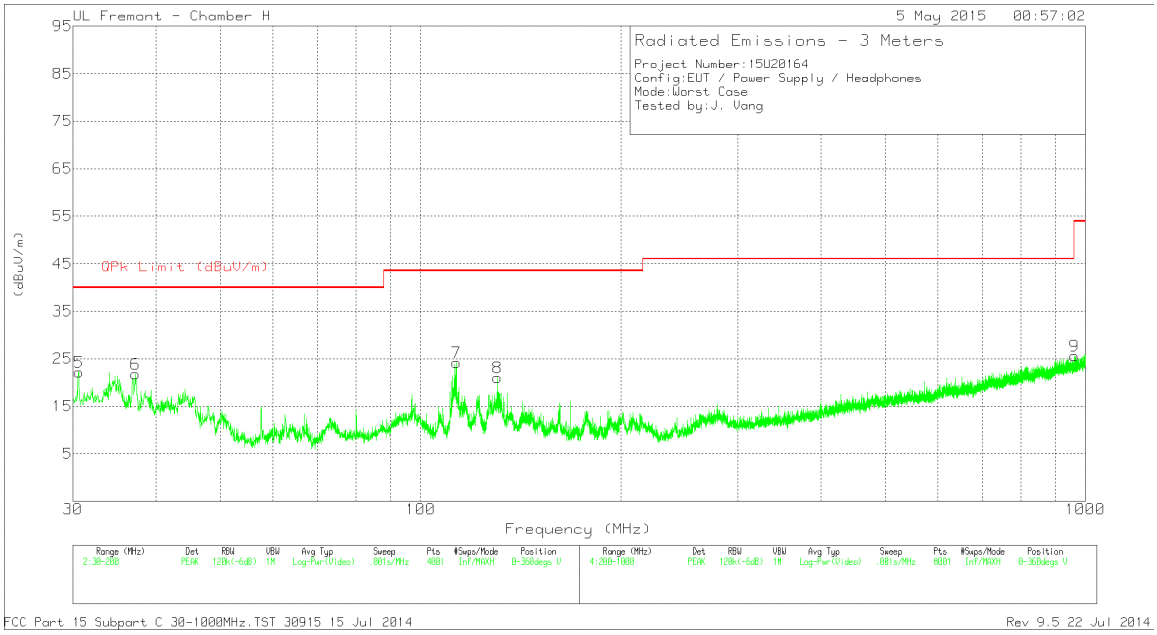
9.4. WORST-CASE BELOW 1 GHz

9.4.1. HIGH POWER MODE

HORIZONTAL PLOT



VERTICAL: PLOT



DATA

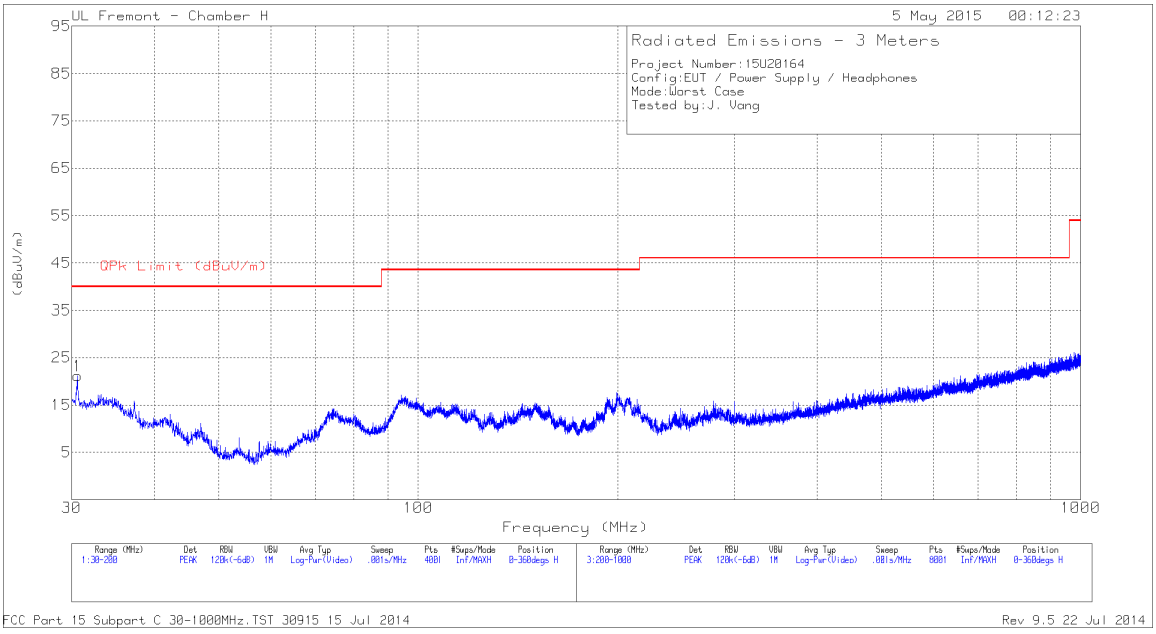
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	AF T900 (dB/m)	Amp/Cbl (dB)	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	30.595	33.96	PK	21.3	-31.3	23.96	40	-16.04	0-360	401	H
2	101.145	39.71	PK	10.3	-30.5	19.51	43.52	-24.01	0-360	301	H
3	* 271.3	34.38	PK	13.2	-29.3	18.28	46.02	-27.74	0-360	99	H
4	* 966.1	29.29	PK	22.7	-25.7	26.29	53.97	-27.68	0-360	301	H
5	30.595	32.18	PK	21.3	-31.3	22.18	40	-17.82	0-360	100	V
6	37.225	36.13	PK	16.9	-31.2	21.83	40	-18.17	0-360	100	V
7	* 113.1725	41.58	PK	13	-30.4	24.18	43.52	-19.34	0-360	100	V
8	* 130.5125	37.43	PK	13.8	-30.2	21.03	43.52	-22.49	0-360	100	V
9	* 963.4	28.62	PK	22.7	-25.7	25.62	53.97	-28.35	0-360	301	V

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

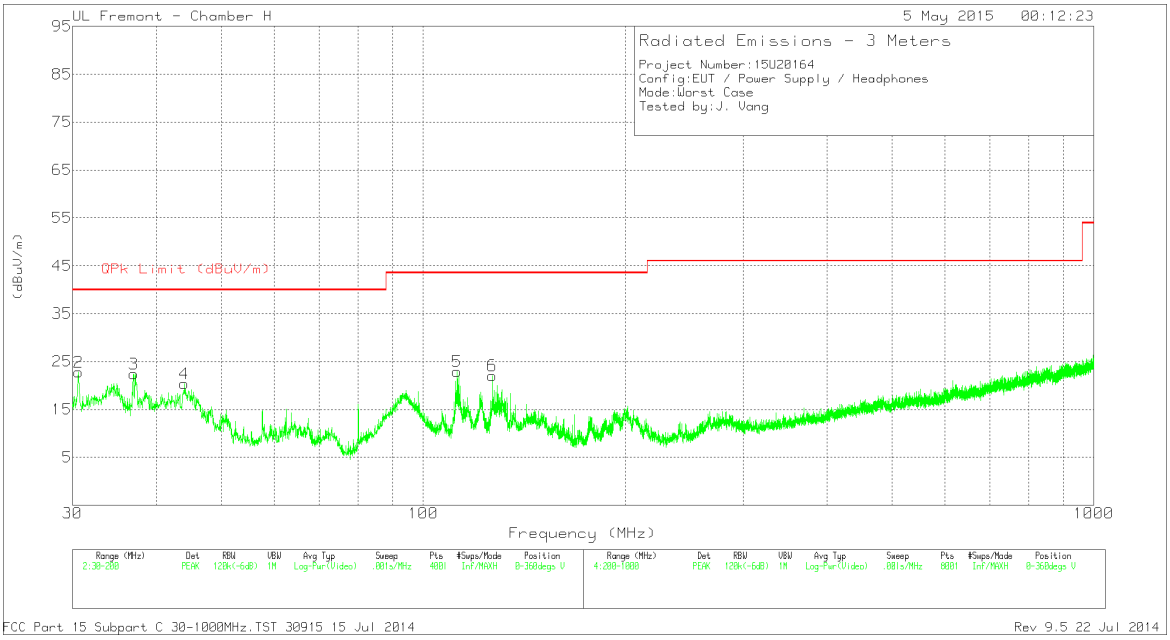
PK - Peak detector

9.4.2. LOW POWER MODE

HORIZONTAL PLOT



VERTICAL: PLOT



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	30.595	31.64	PK	21.3	-31.3	21.64	40	-18.36	0-360	400	H
2	30.595	32.82	PK	21.3	-31.3	22.82	40	-17.18	0-360	100	V
3	37.0125	36.57	PK	17.1	-31.2	22.47	40	-17.53	0-360	100	V
4	44.025	39.76	PK	11.7	-31.1	20.36	40	-19.64	0-360	100	V
5	* 112.365	40.49	PK	12.9	-30.4	22.99	43.52	-20.53	0-360	100	V
6	* 126.73	38.61	PK	13.8	-30.3	22.11	43.52	-21.41	0-360	100	V

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

PK - Peak detector

10. RADIATED TEST RESULTS (MODEL: A1688)

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.

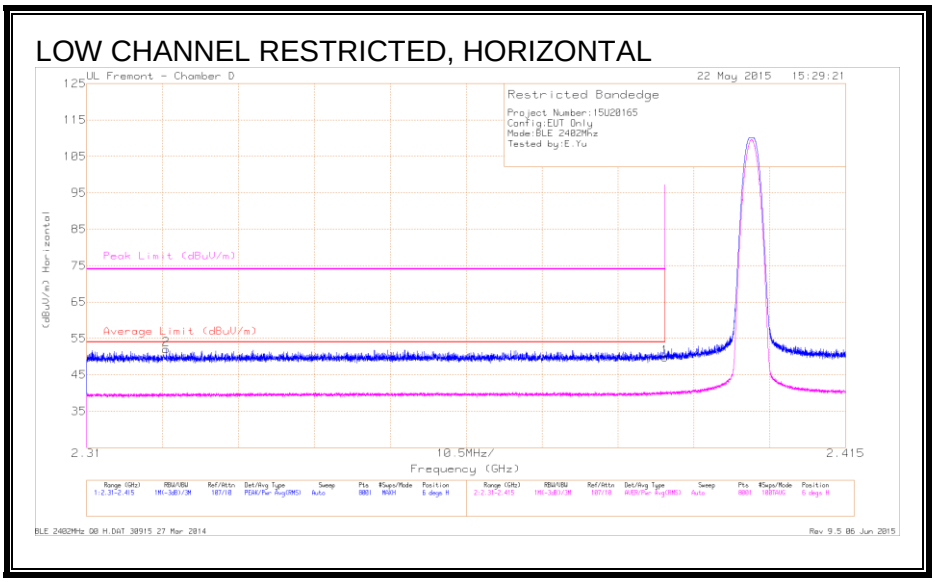
The spectrum from 30 MHz to 26 GHz is investigated with the transmitter set to the lowest, middle, and highest channels in the 2.4 GHz band.

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

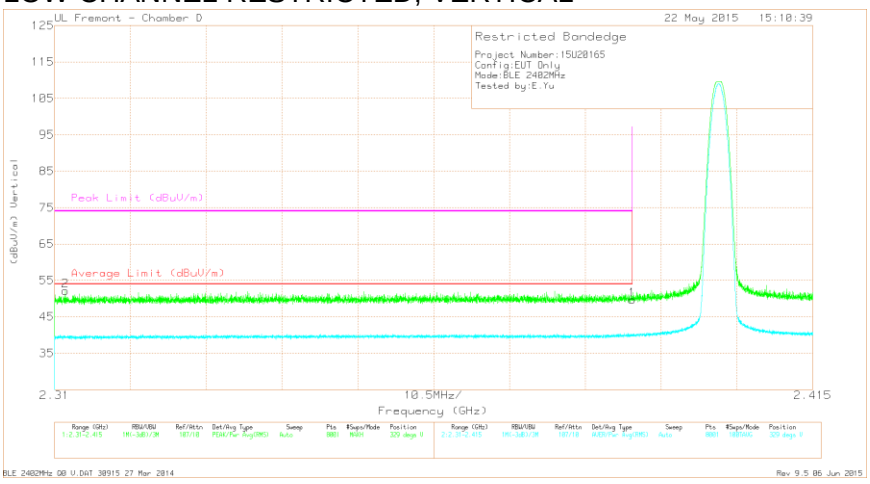
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T346 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.39	41.94	PK	32.1	-24.2	49.84	-	-	74	-24.16	6	280	H
2	* 2.321	44.44	PK	31.9	-24.3	52.04	-	-	74	-21.96	6	280	H
3	* 2.39	31.86	RMS	32.1	-24.2	39.76	54	-14.24	-	-	6	280	H
4	* 2.389	32.55	RMS	32.1	-24.2	40.45	54	-13.55	-	-	6	280	H

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

PK - Peak detector

RMS - RMS detection

LOW CHANNEL RESTRICTED, VERTICAL



DATA

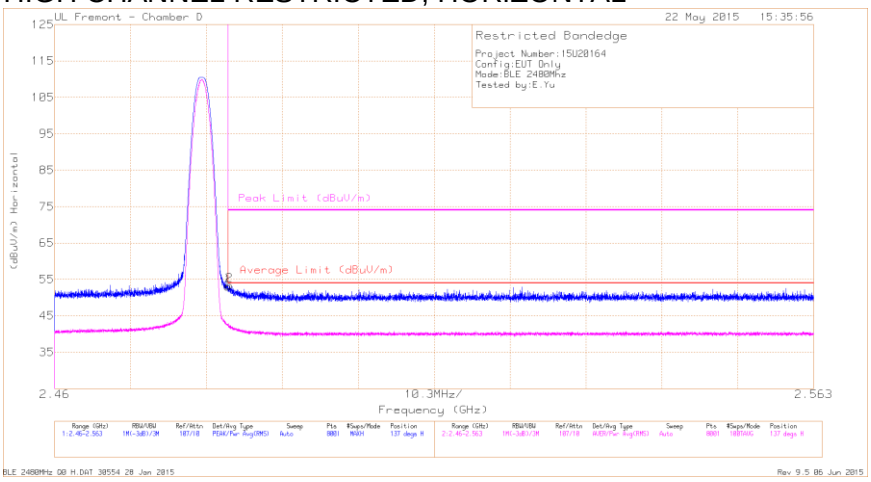
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T346 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.39	41.77	Pk	32.1	-24.2	49.67	-	-	74	-24.33	329	353	V
2	* 2.311	44.7	Pk	31.9	-24.4	52.2	-	-	74	-21.8	329	353	V
3	* 2.39	32.16	RMS	32.1	-24.2	40.06	54	-13.94	-	-	329	353	V
4	* 2.389	32.53	RMS	32.1	-24.2	40.43	54	-13.57	-	-	329	353	V

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

Pk - Peak detector

RMS - RMS detection

HIGH CHANNEL RESTRICTED, HORIZONTAL



DATA

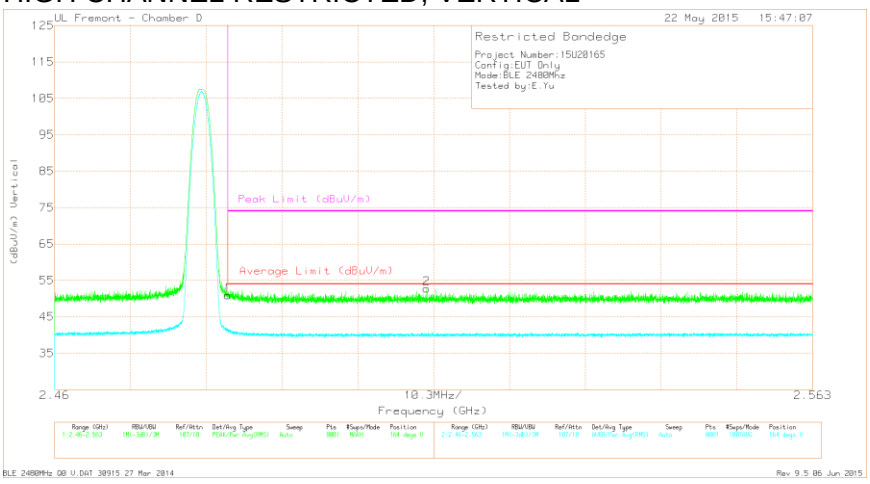
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T346 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.484	44.77	Pk	32.2	-24	52.97	-	-	74	-21.03	137	267	H
2	* 2.484	45.17	Pk	32.2	-24	53.37	-	-	74	-20.63	137	267	H
3	* 2.484	34.02	RMS	32.2	-24	42.22	54	-11.78	-	-	137	267	H
4	* 2.484	34.67	RMS	32.2	-24	42.87	54	-11.13	-	-	137	267	H

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

PK - Peak detector

RMS - RMS detection

HIGH CHANNEL RESTRICTED, VERTICAL



DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T346 (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	42.72	Pk	32.2	-24	50.92	-	-	74	-23.08	164	262	V
2	2.511	44.48	Pk	32.2	-23.9	52.78	-	-	74	-21.22	164	262	V
3	* 2.484	33.49	RMS	32.2	-24	41.69	54	-12.31	-	-	164	262	V
4	* 2.484	33.38	RMS	32.2	-24	41.58	54	-12.42	-	-	164	262	V

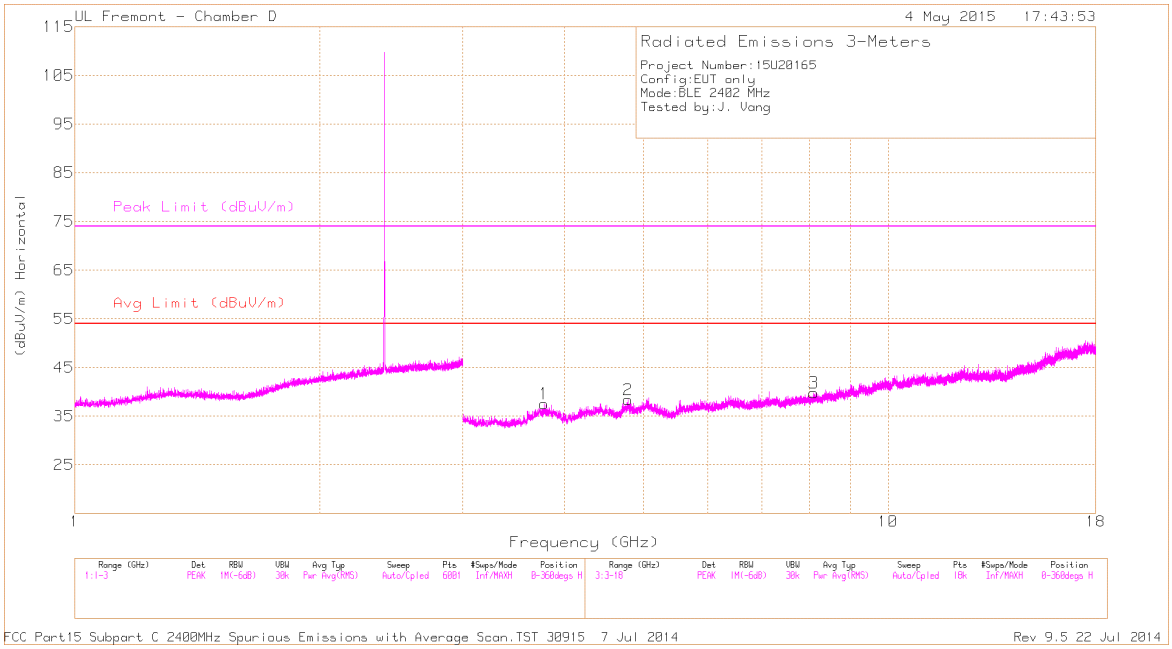
* - indicates frequency in CFR 47, Part 15 and Industry Canada RSS-Restricted Band.

PK - Peak detector

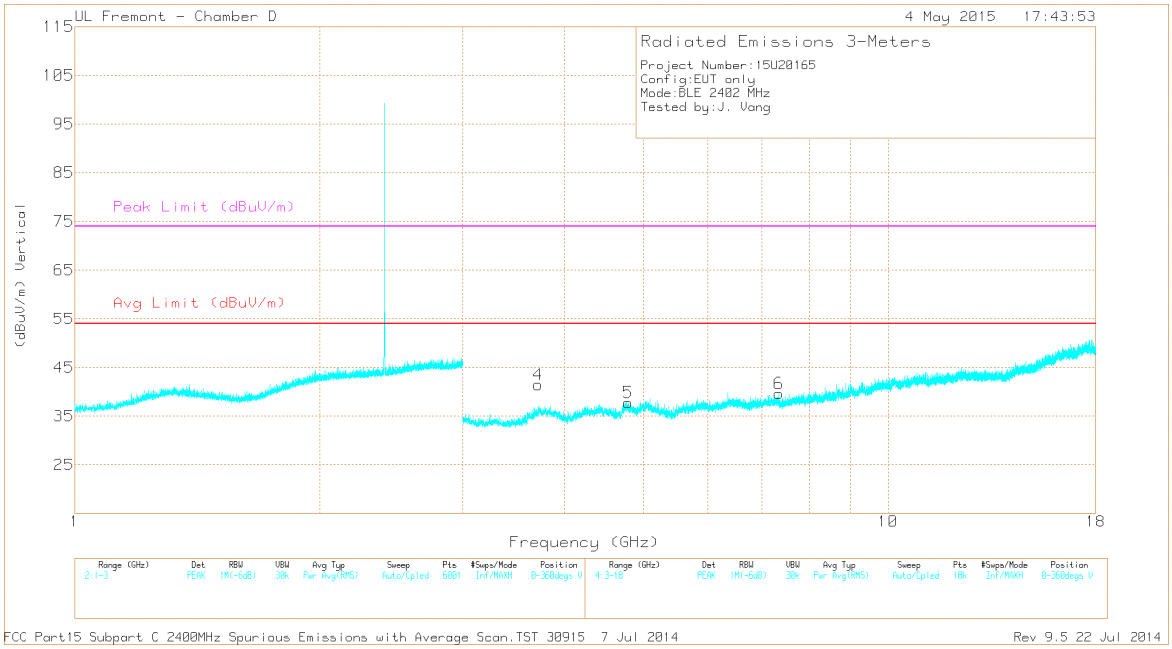
RMS - RMS detection

HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL HORIZONTAL



LOW CHANNEL VERTICAL



DATA

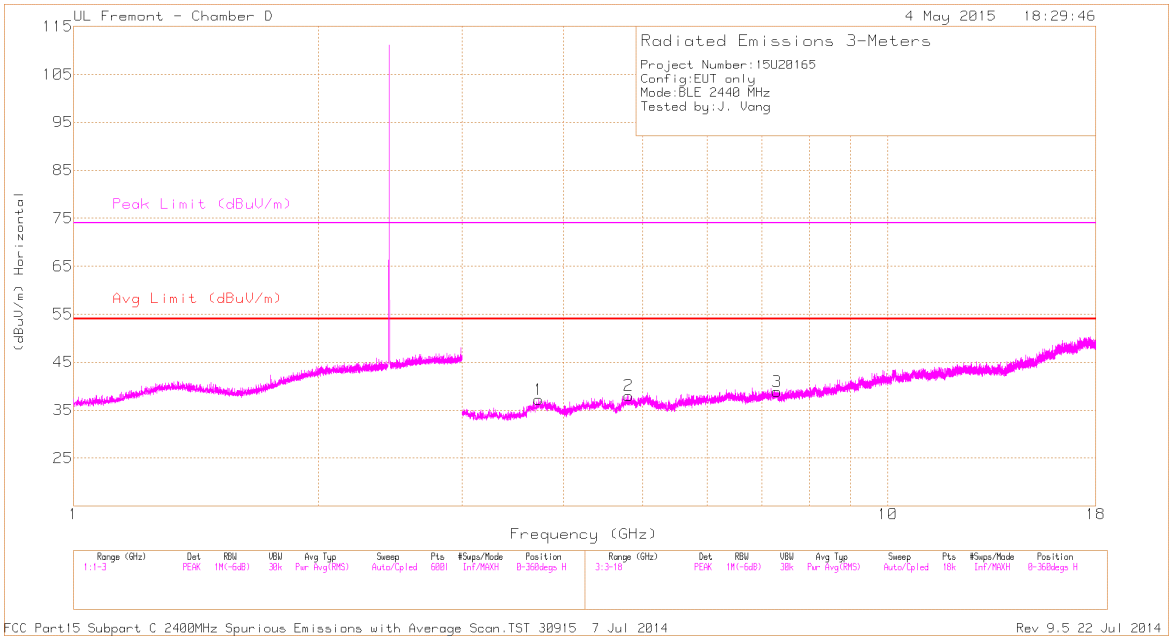
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 3.78	38.25	PK2	33.3	-28.2	43.35	-	-	74	-30.65	218	239	H
	* 3.782	25.68	MAv1	33.3	-28.2	30.78	54	-23.22	-	-	218	239	H
2	* 4.803	42.11	PK2	34.1	-27	49.21	-	-	74	-24.79	151	145	H
	* 4.805	28.98	MAv1	34.1	-27	36.08	54	-17.92	-	-	151	145	H
3	* 8.104	35.31	PK2	35.6	-23.8	47.11	-	-	74	-26.89	320	221	H
	* 8.103	22.68	MAv1	35.6	-23.8	34.48	54	-19.52	-	-	320	221	H
4	* 3.713	38.36	PK2	33.2	-28.9	42.66	-	-	74	-31.34	142	234	V
	* 3.715	25.85	MAv1	33.2	-28.9	30.15	54	-23.85	-	-	142	234	V
5	* 4.805	37.62	PK2	34.1	-27	44.72	-	-	74	-29.28	218	133	V
	* 4.804	26.02	MAv1	34.1	-27	33.12	54	-20.88	-	-	218	133	V
6	* 7.344	37.07	PK2	35.5	-25.2	47.37	-	-	74	-26.63	262	272	V
	* 7.343	23.12	MAv1	35.5	-25.2	33.42	54	-20.58	-	-	262	272	V

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

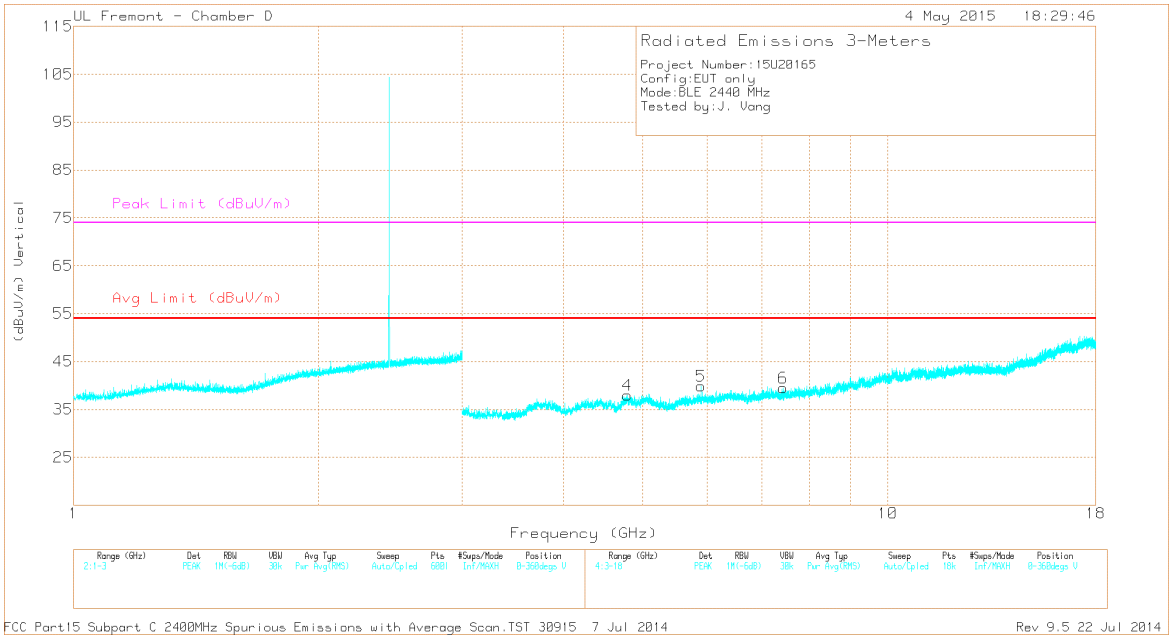
PK2 - KDB558074 Method: Maximum Peak

MAv1 - KDB558074 Option 1 Maximum RMS Average

MID CHANNEL HORIZONTAL



MID CHANNEL VERTICAL



DATA

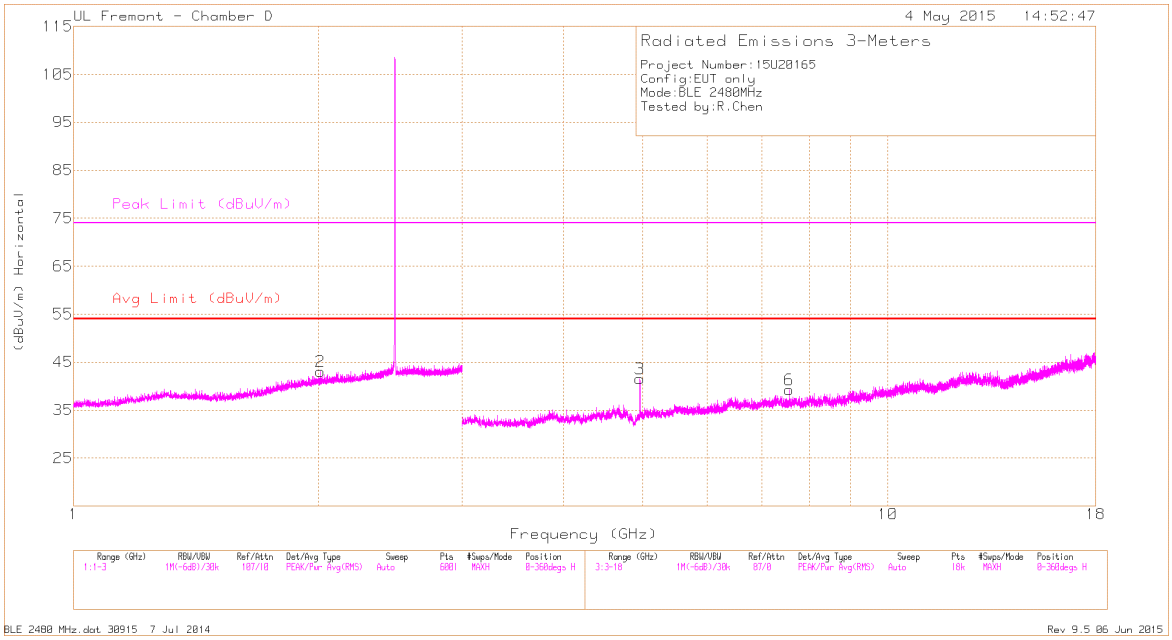
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 3.723	38.5	PK2	33.2	-28.7	43	-	-	74	-31	234	133	H
	* 3.724	25.9	MAv1	33.2	-28.7	30.4	54	-23.6	-	-	234	133	H
2	* 4.881	39.03	PK2	34.1	-28.1	45.03	-	-	74	-28.97	235	306	H
	* 4.88	27.67	MAv1	34.1	-28.1	33.67	54	-20.33	-	-	235	306	H
3	* 7.32	36.29	PK2	35.5	-25.1	46.69	-	-	74	-27.31	0	113	H
	* 7.319	23.86	MAv1	35.5	-25.1	34.26	54	-19.74	-	-	0	113	H
4	* 4.88	38.04	PK2	34.1	-28.1	44.04	-	-	74	-29.96	43	363	V
	* 4.88	26.58	MAv1	34.1	-28.1	32.58	54	-21.42	-	-	43	363	V
5	5.894	37.75	PK2	35	-26.8	45.95	-	-	-	-	40	103	V
6	* 7.321	36.21	PK2	35.5	-25.2	46.51	-	-	74	-27.49	57	367	V
	* 7.32	24.24	MAv1	35.5	-25.1	34.64	54	-19.36	-	-	57	367	V

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

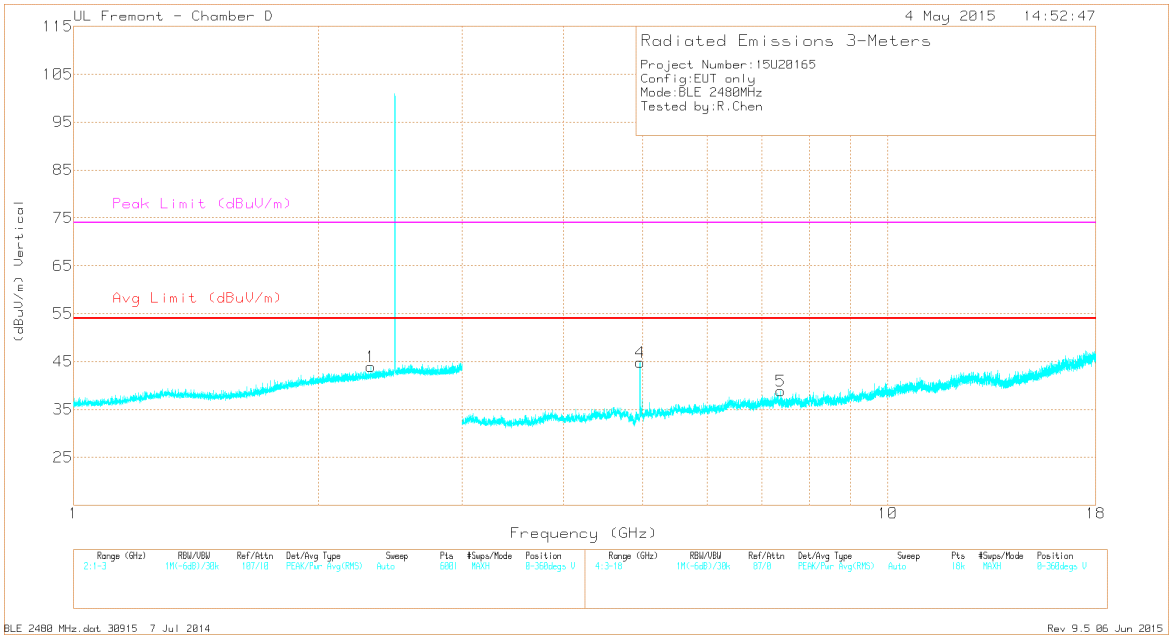
PK2 - KDB558074 Method: Maximum Peak

MAv1 - KDB558074 Option 1 Maximum RMS Average

HIGH CHANNEL HORIZONTAL



HIGH CHANNEL VERTICAL



DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (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	* 2.315	43.35	PK2	31.8	-24.6	50.55	-	-	74	-23.45	117	139	V
	* 2.317	30.21	MVA1	31.8	-24.6	37.41	54	-16.59	-	-	117	139	V
2	2.012	43.23	PK2	31.2	-24.9	49.53	-	-	-	-	196	212	H
3	* 4.959	39.82	PK2	34.2	-31.8	42.22	-	-	74	-31.78	304	127	H
	* 4.959	27.88	MVA1	34.2	-31.8	30.28	54	-23.72	-	-	304	127	H
4	* 4.96	42.91	PK2	34.2	-31.8	45.31	-	-	74	-28.69	111	319	H
	* 4.959	33.97	MVA1	34.2	-31.8	36.37	54	-17.63	-	-	111	319	H
6	* 7.563	39.26	PK2	36	-29.9	45.36	-	-	74	-28.64	339	246	H
	* 7.566	26.54	MVA1	36	-29.8	32.74	54	-21.26	-	-	339	246	H
5	* 7.389	38.07	PK2	36	-29	45.07	-	-	74	-28.93	331	199	V
	* 7.392	25.65	MVA1	36	-29	32.65	54	-21.35	-	-	285	285	V

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

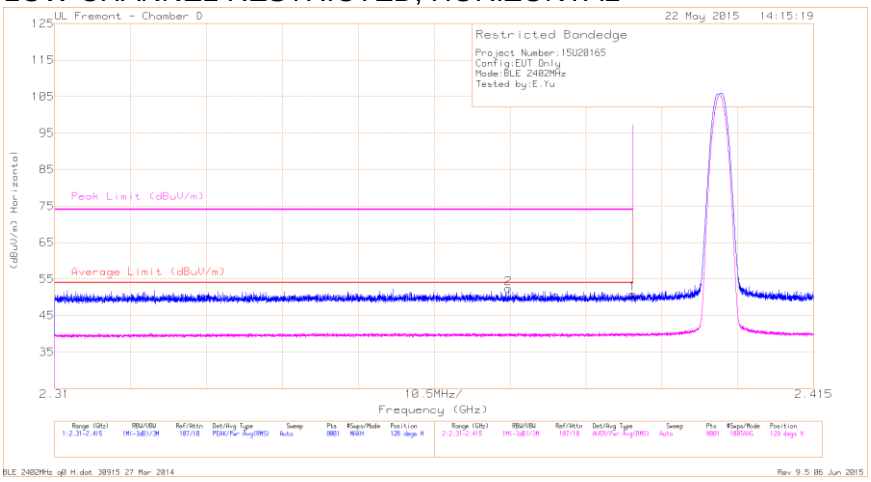
PK2 - KDB558074 Method: Maximum Peak

MAv1 - KDB558074 Option 1 Maximum RMS Average

10.2.2. LOW POWER MODE

RESTRICTED BANDEDGE

LOW CHANNEL RESTRICTED, HORIZONTAL



DATA

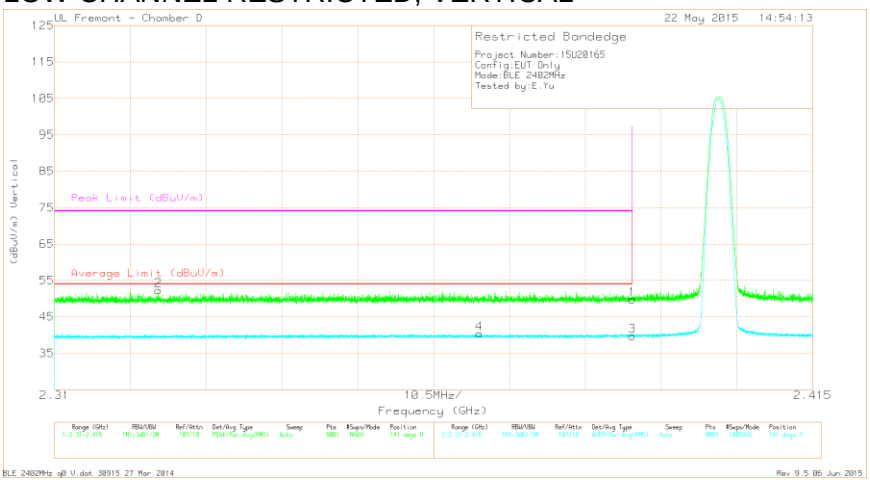
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T346 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.39	43.07	PK	32.1	-24.2	50.97	-	-	74	-23.03	128	106	H
2	* 2.373	44.57	PK	32	-24.2	52.37	-	-	74	-21.63	128	106	H
3	* 2.39	31.8	RMS	32.1	-24.2	39.7	54	-14.3	-	-	128	106	H
4	* 2.346	32.58	RMS	32	-24.2	40.38	54	-13.62	-	-	128	106	H

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

PK - Peak detector

RMS - RMS detection

LOW CHANNEL RESTRICTED, VERTICAL



DATA

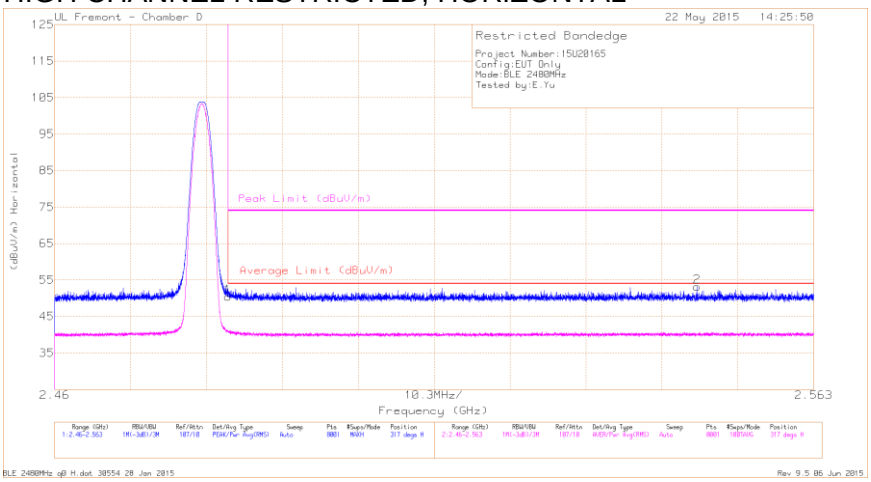
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T346 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.39	41.88	Pk	32.1	-24.2	49.78	-	-	74	-24.22	141	345	V
2	* 2.324	44.71	Pk	31.9	-24.3	52.31	-	-	74	-21.69	141	345	V
3	* 2.39	31.84	RMS	32.1	-24.2	39.74	54	-14.26	-	-	141	345	V
4	* 2.369	32.61	RMS	32	-24.2	40.41	54	-13.59	-	-	141	345	V

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

Pk - Peak detector

RMS - RMS detection

HIGH CHANNEL RESTRICTED, HORIZONTAL



DATA

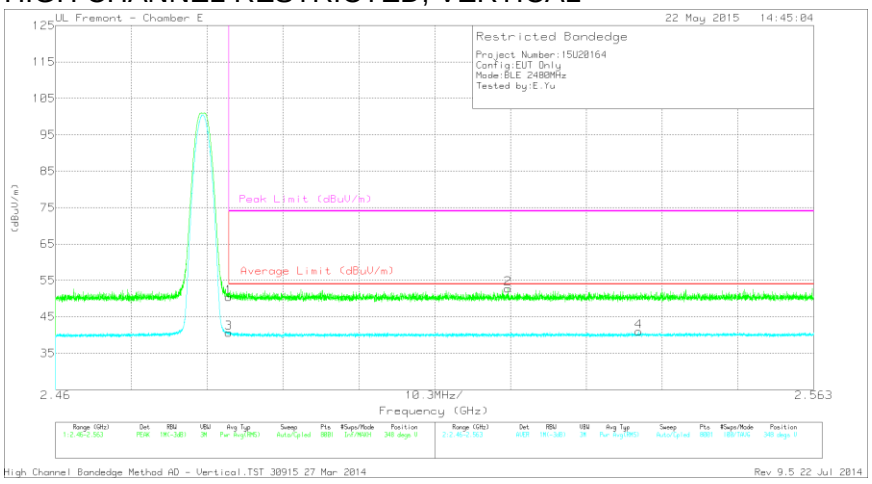
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T346 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.484	42.2	Pk	32.2	-24	50.4	-	-	74	-23.6	317	136	H
2	2.547	44.7	Pk	32.3	-23.9	53.1	-	-	74	-20.9	317	136	H
3	* 2.484	32.73	RMS	32.2	-24	40.93	54	-13.07	-	-	317	136	H
4	* 2.484	32.98	RMS	32.2	-24	41.18	54	-12.82	-	-	317	136	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 T346 (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	42.25	PK	32.2	-24	50.45	-	-	74	-23.55	348	332	V
2	2.521	44.43	PK	32.2	-23.8	52.83	-	-	74	-21.17	348	332	V
3	* 2.484	32.37	RMS	32.2	-24	40.57	54	-13.43	-	-	348	332	V
4	2.539	32.7	RMS	32.2	-23.9	41	54	-13	-	-	348	332	V

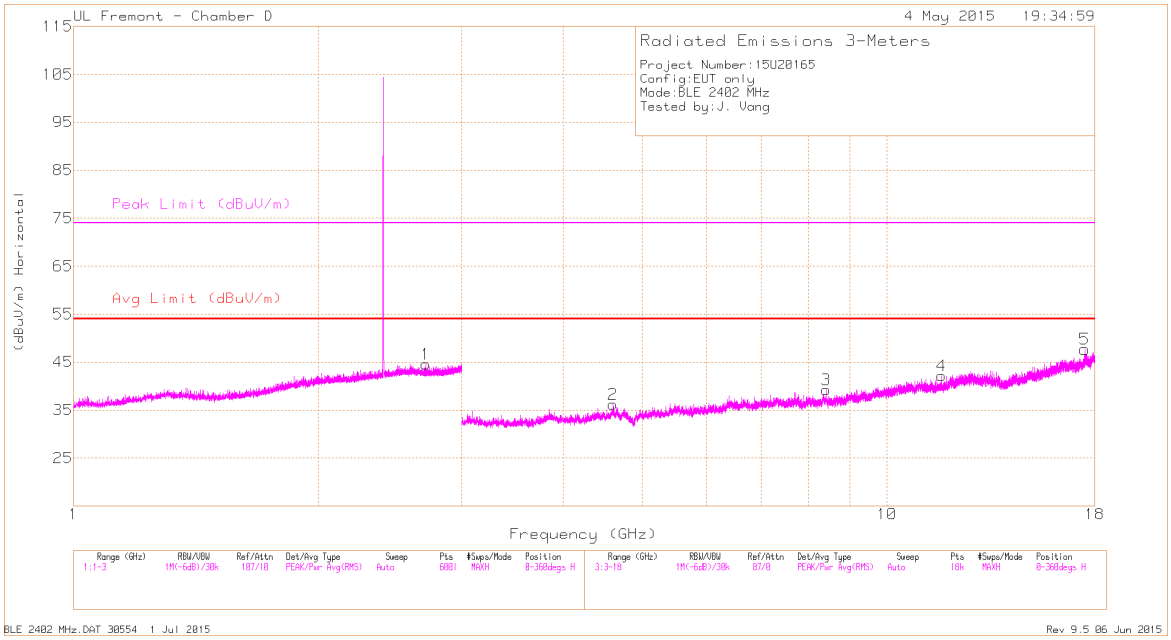
* - indicates frequency in CFR 47, Part 15 and Industry Canada RSS-Restricted Band.

PK - Peak detector

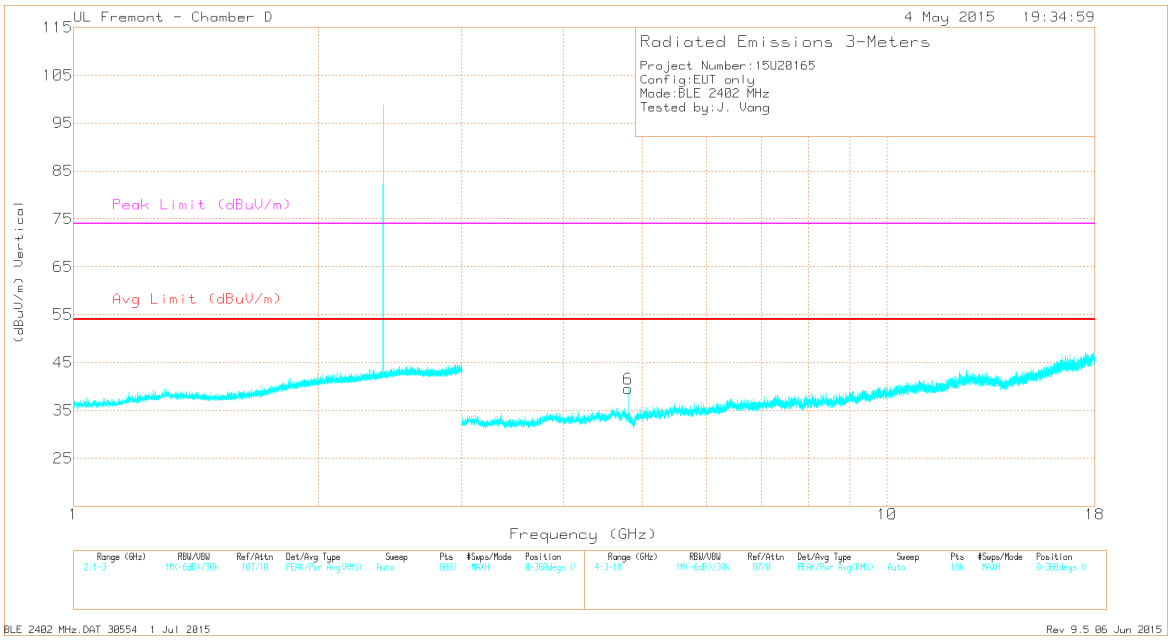
RMS - RMS detection

HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL HORIZONTAL



LOW CHANNEL VERTICAL



DATA

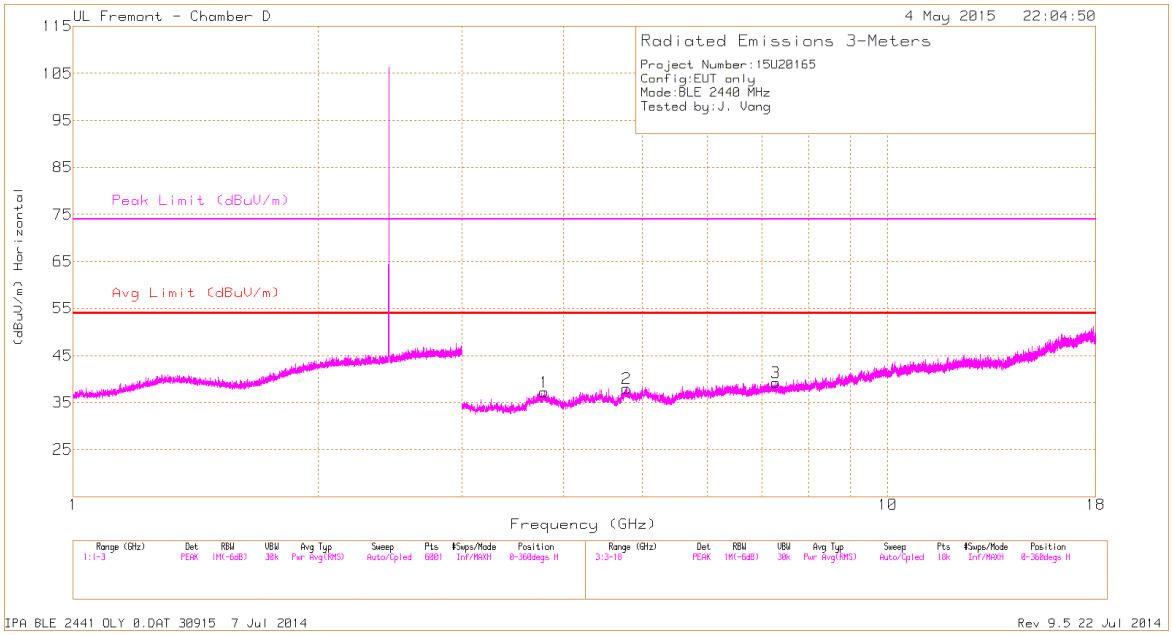
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.711	43.43	PK2	32.3	-24.3	51.43	-	-	74	-22.57	340	117	H
	* 2.713	30.11	MAv1	32.3	-24.3	38.11	54	-15.89	-	-	340	117	H
2	* 4.602	41.58	PK2	34	-32.4	43.18	-	-	74	-30.82	73	329	H
	* 4.602	29.17	MAv1	34	-32.4	30.77	54	-23.23	-	-	73	329	H
3	* 8.412	37.6	PK2	35.9	-27.6	45.9	-	-	74	-28.1	133	288	H
	* 8.413	25	MAv1	35.9	-27.6	33.3	54	-20.7	-	-	133	288	H
4	* 11.671	35.56	PK2	38.1	-25.5	48.16	-	-	74	-25.84	103	282	H
	* 11.669	23.11	MAv1	38.1	-25.5	35.71	54	-18.29	-	-	103	282	H
5	17.492	34.4	PK2	41.9	-22.7	53.6	-	-	-	-	261	100	H
6	* 4.805	45.75	PK2	34.2	-32.5	47.45	-	-	74	-26.55	190	277	V
	* 4.804	38.11	MAv1	34.2	-32.5	39.81	54	-14.19	-	-	190	277	V

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

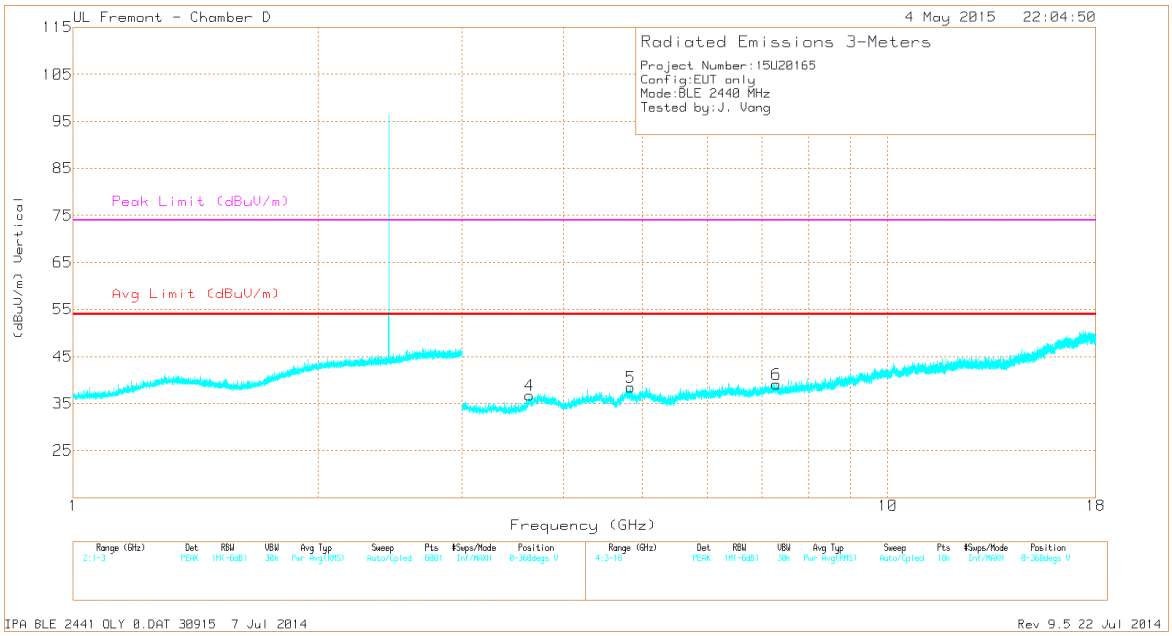
PK2 - KDB558074 Method: Maximum Peak

MAv1 - KDB558074 Option 1 Maximum RMS Average

MID CHANNEL HORIZONTAL



MID CHANNEL VERTICAL



DATA

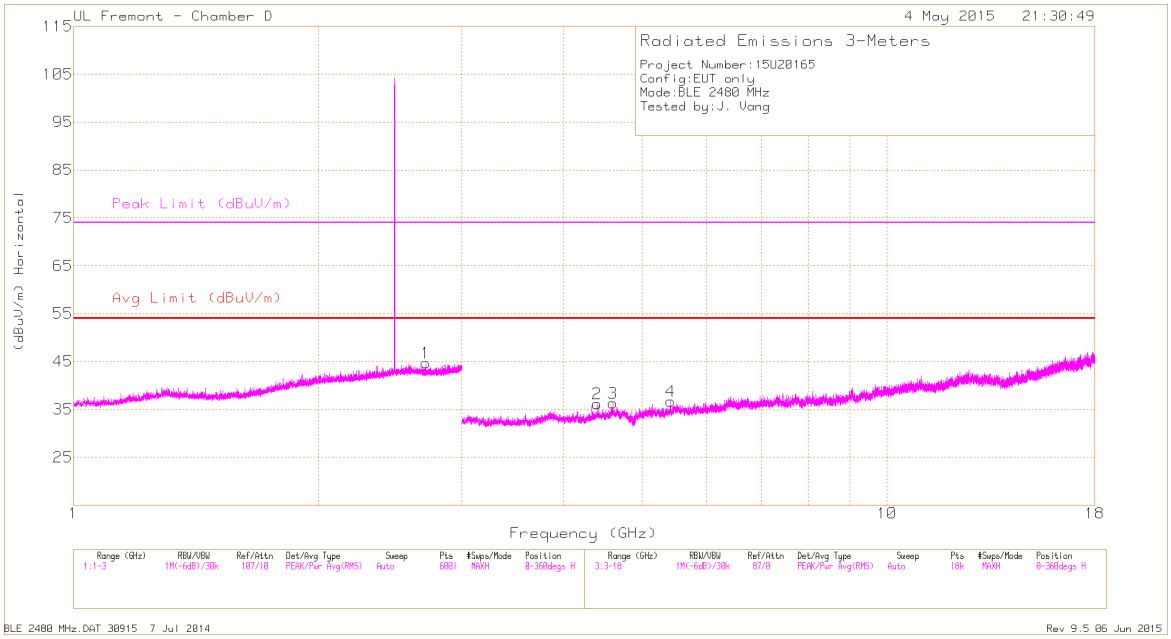
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 4.881	38.08	PK2	34.1	-28.2	43.98	-	-	74	-30.02	27	207	H
	* 4.882	27.67	MAv1	34.1	-28.2	33.57	54	-20.43	-	-	27	207	H
2	* 7.322	36.37	PK2	35.5	-25.2	46.67	-	-	74	-27.33	287	127	H
	* 7.328	23.41	MAv1	35.5	-25.3	33.61	54	-20.39	-	-	287	127	H
3	* 3.788	38.1	PK2	33.3	-28.3	43.1	-	-	74	-30.9	275	130	H
	* 3.791	25.65	MAv1	33.3	-28.3	30.65	54	-23.35	-	-	275	130	H
4	* 4.881	42.21	PK2	34.1	-28.2	48.11	-	-	74	-25.89	276	210	V
	* 4.882	30.43	MAv1	34.1	-28.2	36.33	54	-17.67	-	-	276	210	V
5	* 7.327	35.61	PK2	35.5	-25.3	45.81	-	-	74	-28.19	323	210	V
	* 7.323	23.48	MAv1	35.5	-25.2	33.78	54	-20.22	-	-	323	210	V
6	* 3.634	38.38	PK2	33.1	-28.8	42.68	-	-	74	-31.32	298	147	V
	* 3.636	25.65	MAv1	33.1	-28.8	29.95	54	-24.05	-	-	298	147	V

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

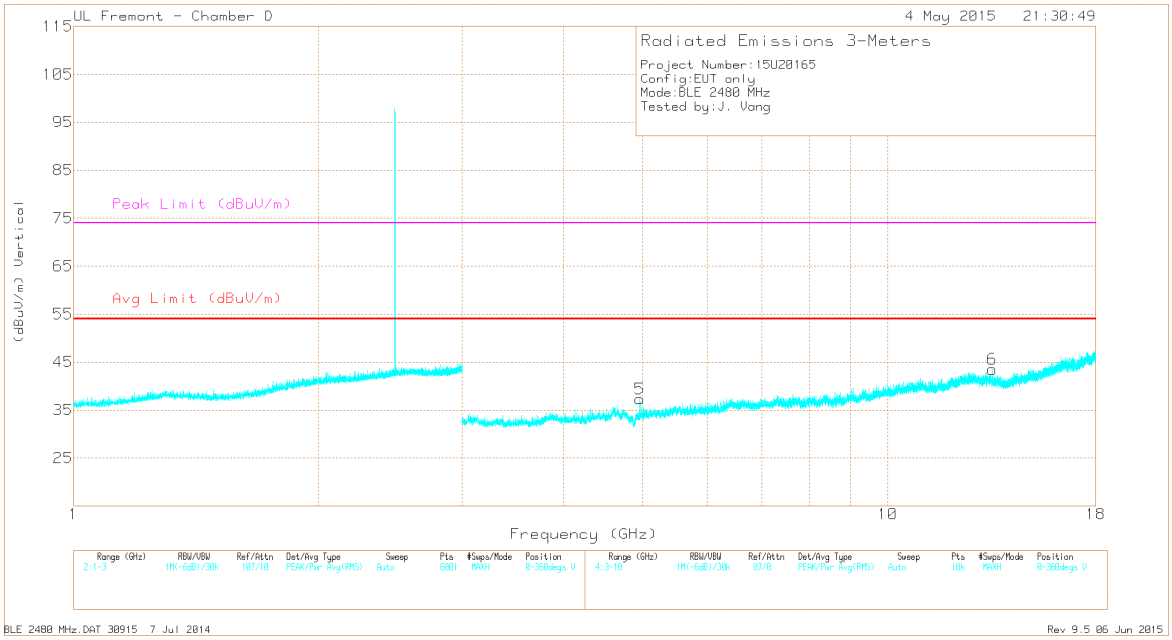
PK2 - KDB558074 Method: Maximum Peak

MAv1 - KDB558074 Option 1 Maximum RMS Average

HIGH CHANNEL HORIZONTAL



HIGH CHANNEL VERTICAL



DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (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	* 2.71	42.7	PK2	32.3	-24.3	50.7	-	-	74	-23.3	357	182	H
	* 2.71	30.11	MVA1	32.3	-24.3	38.11	54	-15.89	-	-	357	182	H
2	4.402	40.64	PK2	33.7	-31.5	42.84	-	-	-	-	106	100	H
3	* 4.599	42.37	PK2	34	-32.4	43.97	-	-	74	-30.03	25	249	H
	* 4.6	29.16	MVA1	34	-32.4	30.76	54	-23.24	-	-	25	249	H
4	* 5.415	39.93	PK2	35.3	-31.8	43.43	-	-	74	-30.57	72	161	H
	* 5.414	27.36	MVA1	35.3	-31.8	30.86	54	-23.14	-	-	72	161	H
5	* 4.96	43.75	PK2	34.2	-31.8	46.15	-	-	74	-27.85	186	293	V
	* 4.96	35.48	MVA1	34.2	-31.8	37.88	54	-16.12	-	-	186	293	V
6	13.441	36.71	PK2	39.5	-25.8	50.41	-	-	-	-	351	117	V

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

PK2 - KDB558074 Method: Maximum Peak

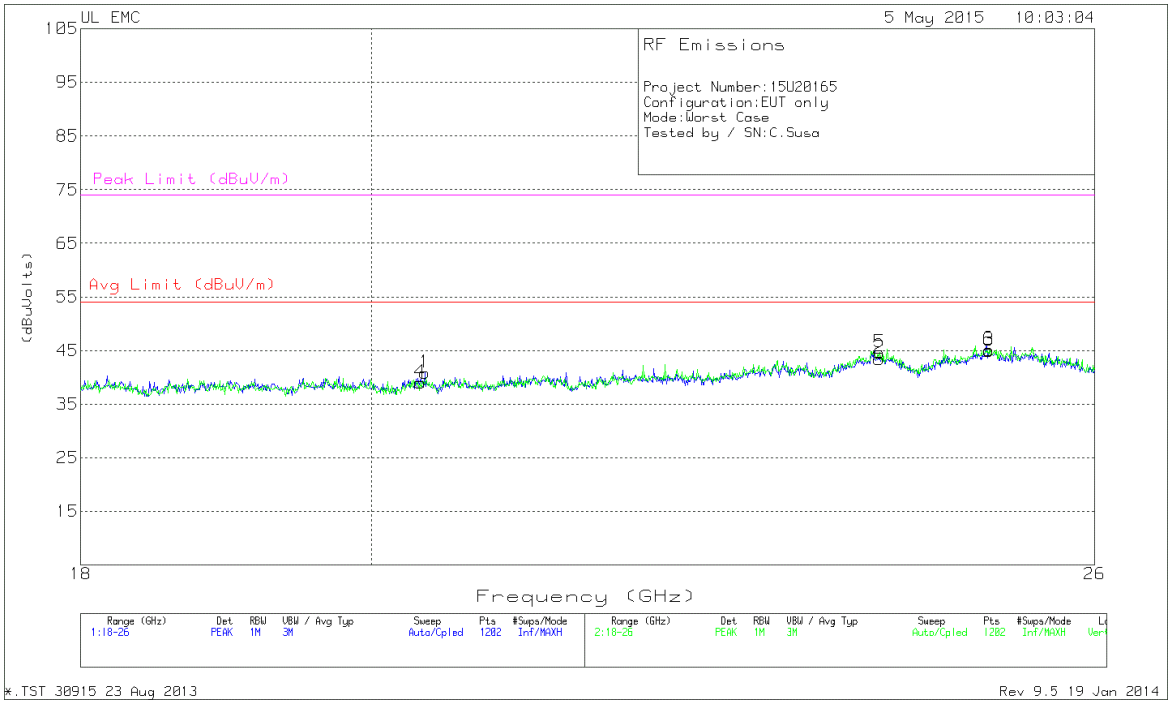
MAv1 - KDB558074 Option 1 Maximum RMS Average

10.3. WORST-CASE 18 to 26 GHz

10.3.1. HIGH POWER MODE

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

HORIZONTAL AND VERTICAL PLOT



DATA

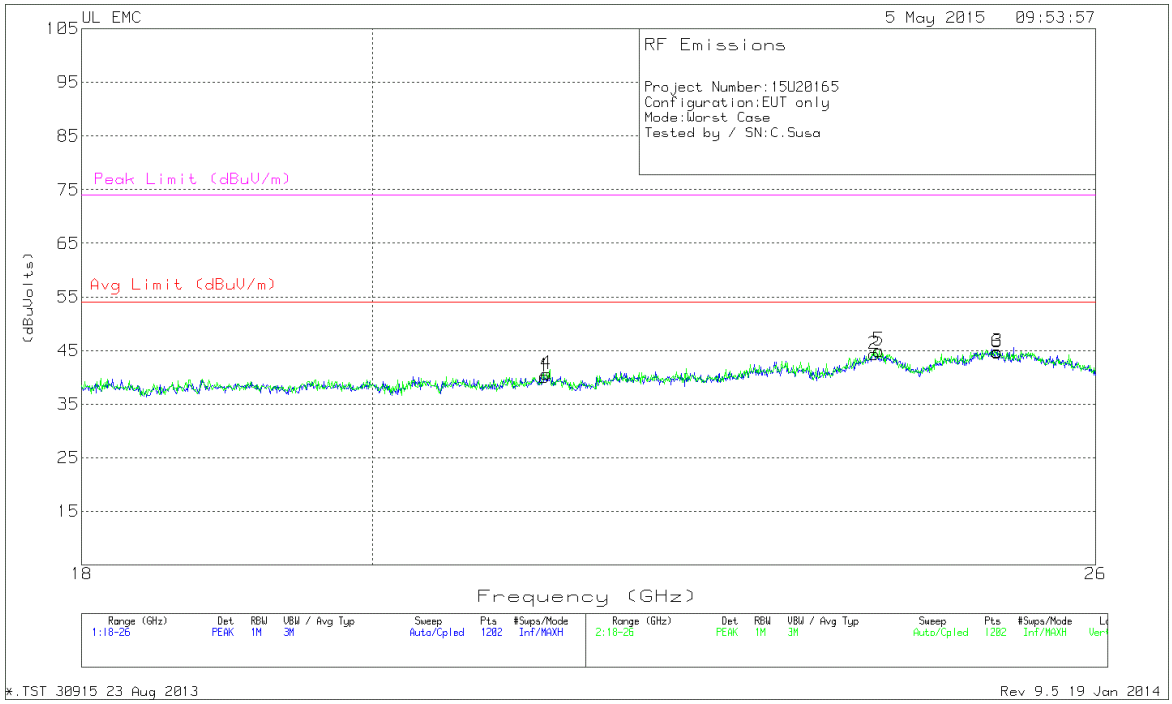
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	T89 AF (dB/m)	Amp/Cbl (dB)	Dist Corr (dB)	Corrected Reading (dBuVolts)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)
1	20.391	42.23	PK	32.9	-24.8	-9.5	40.833	54	-13.167	74	-33.167
2	24.045	42.4	PK	34.2	-23.6	-9.5	43.5	54	-10.5	74	-30.5
3	25.021	43.7	PK	34.5	-23.7	-9.5	45	54	-9	74	-29
4	20.358	40.6	PK	32.9	-25	-9.5	39	54	-15	74	-35
5	24.048	43.47	PK	34.2	-23.5	-9.5	44.667	54	-9.333	74	-29.333
6	25.021	43.87	PK	34.5	-23.7	-9.5	45.167	54	-8.833	74	-28.833

PK - Peak detector

10.3.2. LOW POWER MODE

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

HORIZONTAL AND VERTICAL PLOT



DATA

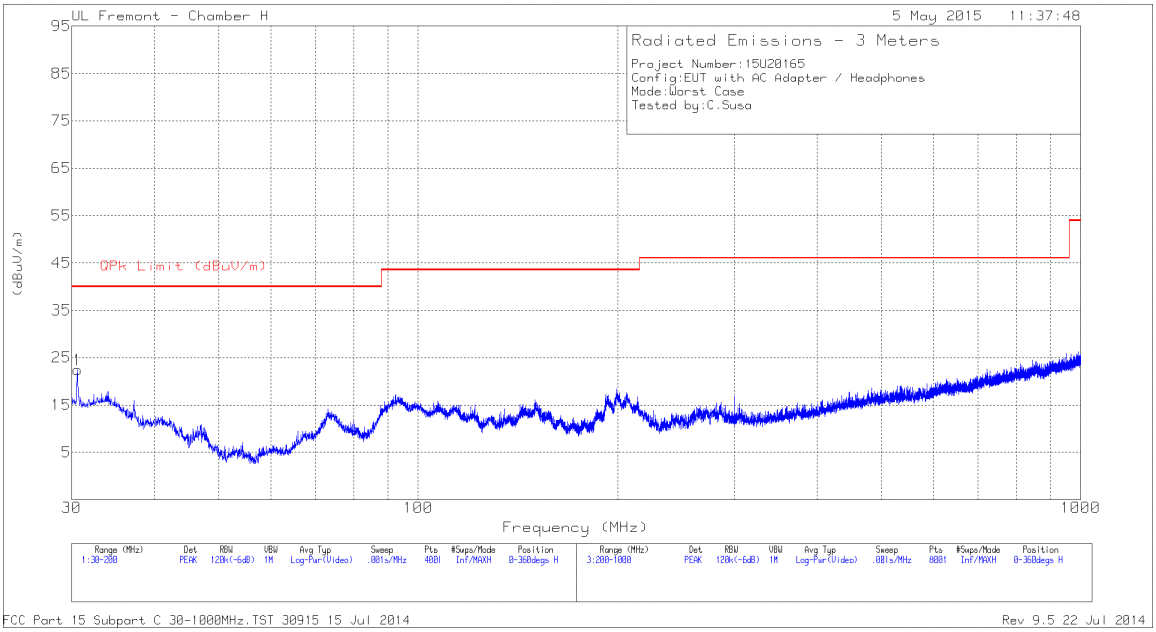
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	T89 AF (dB/m)	Amp/Cbl (dB)	Dist Corr (dB)	Corrected Reading (dBuVolts)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)
1	21.291	40.77	PK	33.3	-24.4	-9.5	40.167	54	-13.833	74	-33.833
2	23.995	42.93	PK	34.2	-23.3	-9.5	44.333	54	-9.667	74	-29.667
3	25.087	43.83	PK	34.5	-24	-9.5	44.833	54	-9.167	74	-29.167
4	21.304	41.47	PK	33.3	-24.6	-9.5	40.667	54	-13.333	74	-33.333
5	24.035	44.1	PK	34.2	-23.8	-9.5	45	54	-9	74	-29
6	25.087	43.67	PK	34.5	-24	-9.5	44.667	54	-9.333	74	-29.333

PK - Peak detector

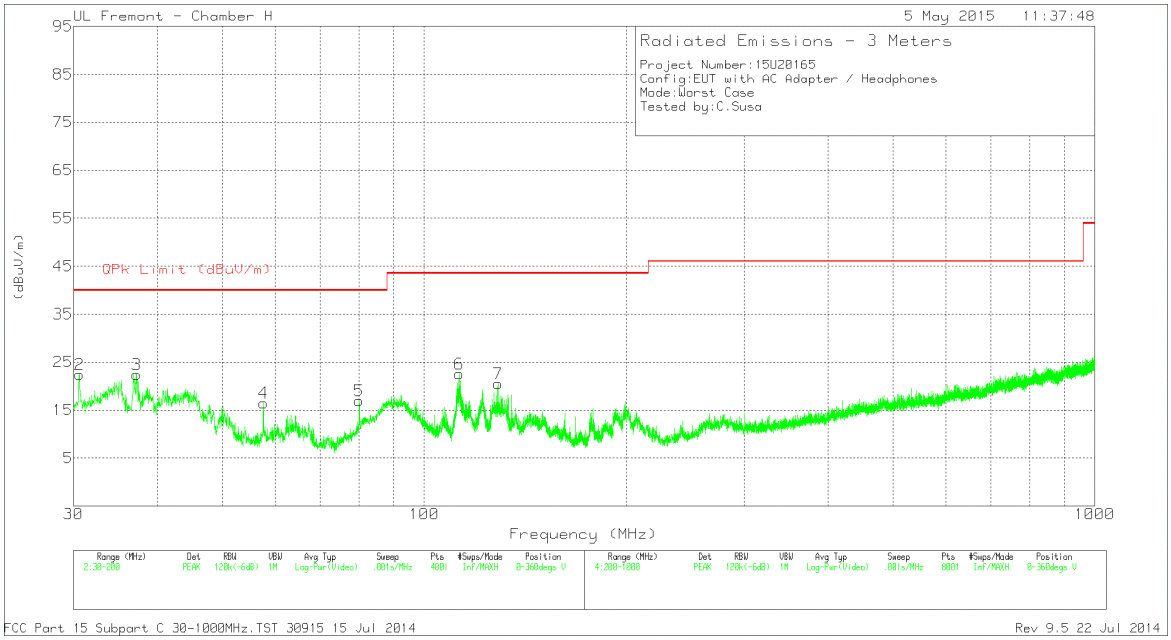
10.4. WORST-CASE BELOW 1 GHz

10.4.1. HIGH POWER MODE

HORIZONTAL PLOT



VERTICAL: PLOT



DATA

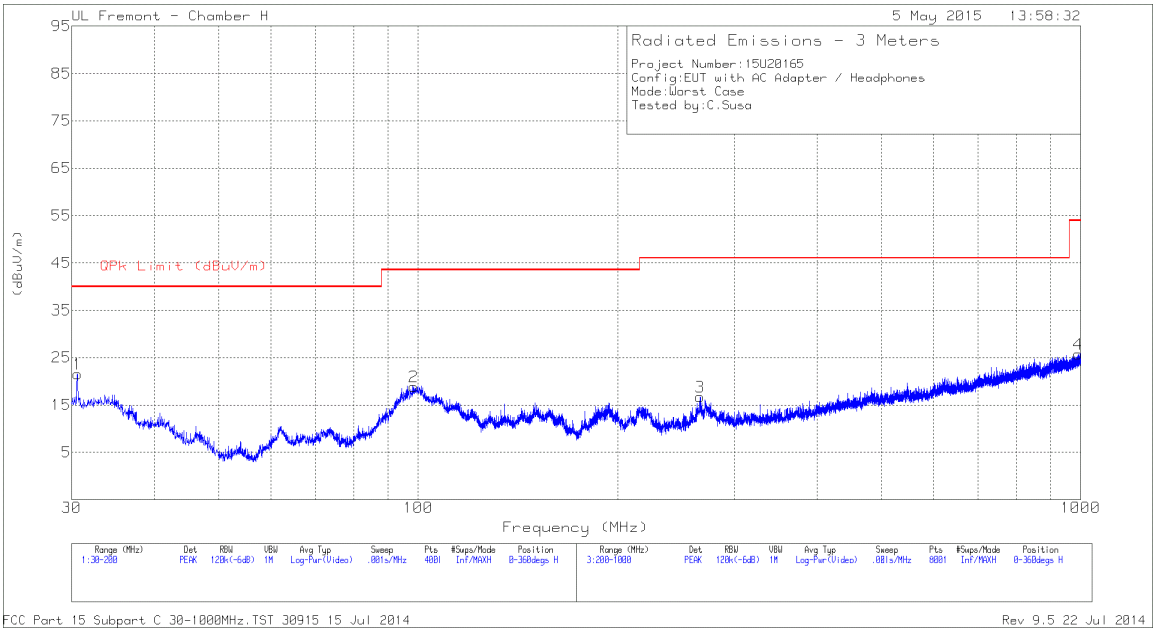
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	AF T900 (dB/m)	Amp/Cbl (dB)	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	30.595	32.42	PK	21.3	-31.3	22.42	40	-17.58	0-360	401	H
2	30.595	32.41	PK	21.3	-31.3	22.41	40	-17.59	0-360	100	V
3	37.2675	36.74	PK	16.9	-31.2	22.44	40	-17.56	0-360	100	V
4	57.5825	39.92	PK	7.5	-30.9	16.52	40	-23.48	0-360	100	V
5	80.0225	39.82	PK	7.8	-30.7	16.92	40	-23.08	0-360	100	V
6	* 112.7475	39.84	PK	13	-30.3	22.54	43.52	-20.98	0-360	100	V
7	* 128.9825	36.94	PK	13.8	-30.2	20.54	43.52	-22.98	0-360	100	V

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

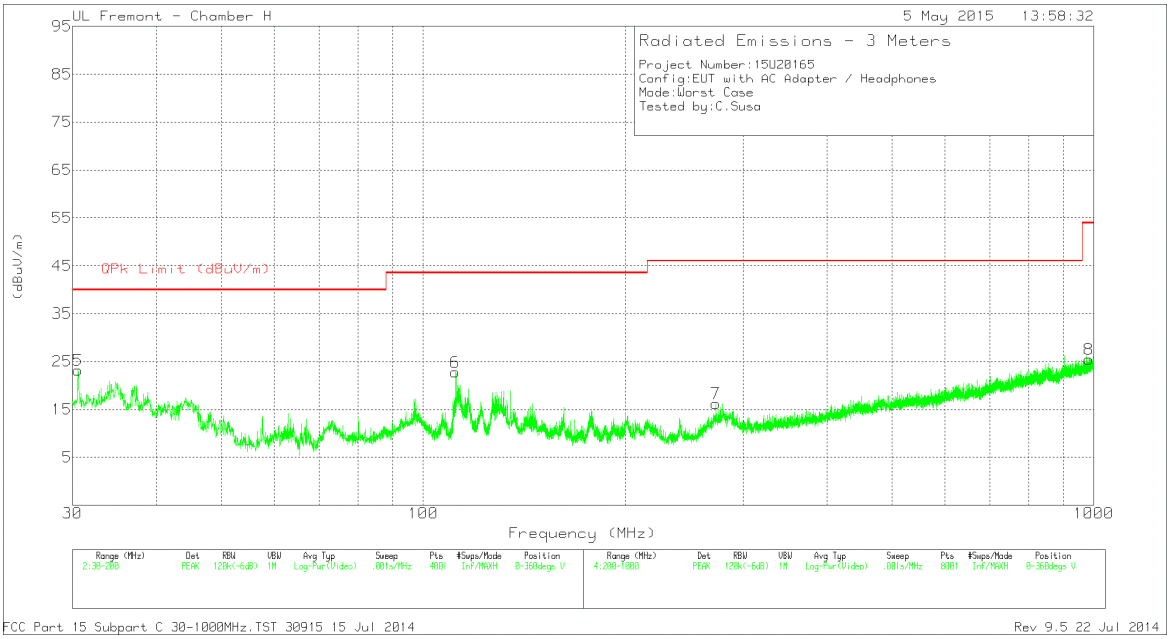
PK - Peak detector

10.4.2. LOW POWER MODE

HORIZONTAL PLOT



VERTICAL: PLOT



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	30.595	31.55	PK	21.3	-31.3	21.55	40	-18.45	0-360	401	H
2	98.425	39.56	PK	9.8	-30.5	18.86	43.52	-24.66	0-360	301	H
3	* 266.3	33.07	PK	13	-29.3	16.77	46.02	-29.25	0-360	99	H
4	* 991.4	27.77	PK	23.2	-25.3	25.67	53.97	-28.3	0-360	401	H
5	30.5525	33.15	PK	21.3	-31.3	23.15	40	-16.85	0-360	100	V
6	* 111.685	40.39	PK	12.8	-30.4	22.79	43.52	-20.73	0-360	100	V
7	* 273.1	32.37	PK	13.2	-29.3	16.27	46.02	-29.75	0-360	201	V
8	* 983	27.89	PK	23.1	-25.5	25.49	53.97	-28.48	0-360	99	V

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

PK - Peak detector

11. 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

C63.10

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	46.05	Pk	1.2	0	47.25	65.06	-17.81	-	-
2	.168	26.18	Av	1.2	0	27.38	-	-	55.06	-27.68
3	.2535	43.43	Pk	.7	0	44.13	61.64	-17.51	-	-
4	.2535	22.93	Av	.7	0	23.63	-	-	51.64	-28.01
5	.3345	39.11	Pk	.5	0	39.61	59.34	-19.73	-	-
6	.339	19.11	Av	.5	0	19.61	-	-	49.23	-29.62
7	.7935	41.75	Pk	.3	0	42.05	56	-13.95	-	-
8	.789	26	Av	.3	0	26.3	-	-	46	-19.7
9	18.357	27.35	Pk	.3	.2	27.85	60	-32.15	-	-
10	18.393	12.89	Av	.3	.2	13.39	-	-	50	-36.61

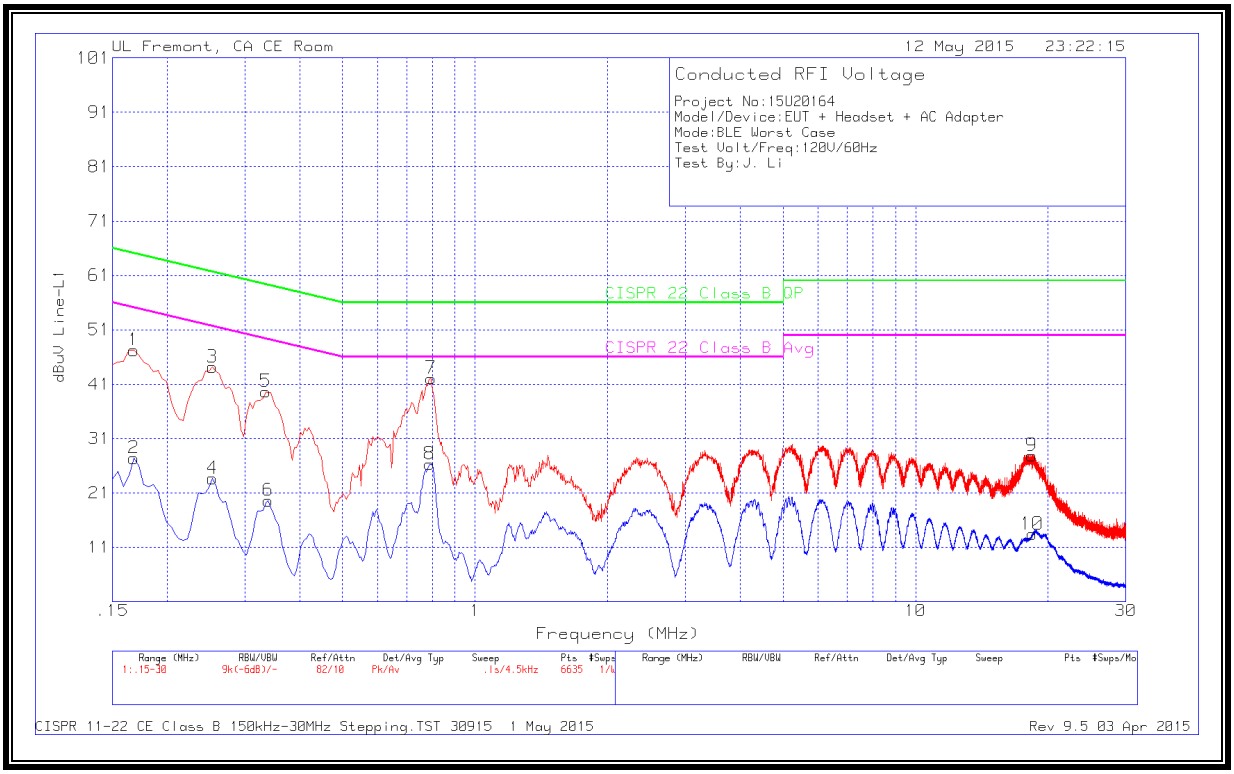
Range 2: Line-L2 .15 - 30MHz

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	.168	45.55	Pk	1.3	0	46.85	65.06	-18.21	-	-
12	.168	26.38	Av	1.3	0	27.68	-	-	55.06	-27.38
13	.258	42.78	Pk	.7	0	43.48	61.5	-18.02	-	-
14	.2535	23.7	Av	.7	0	24.4	-	-	51.64	-27.24
15	.3345	39.46	Pk	.5	0	39.96	59.34	-19.38	-	-
16	.339	19.93	Av	.5	0	20.43	-	-	49.23	-28.8
17	.7935	41.33	Pk	.3	0	41.63	56	-14.37	-	-
18	.7935	26.86	Av	.3	0	27.16	-	-	46	-18.84
19	18.15	25.48	Pk	.3	.2	25.98	60	-34.02	-	-
20	18.168	15.98	Av	.3	.2	16.48	-	-	50	-33.52

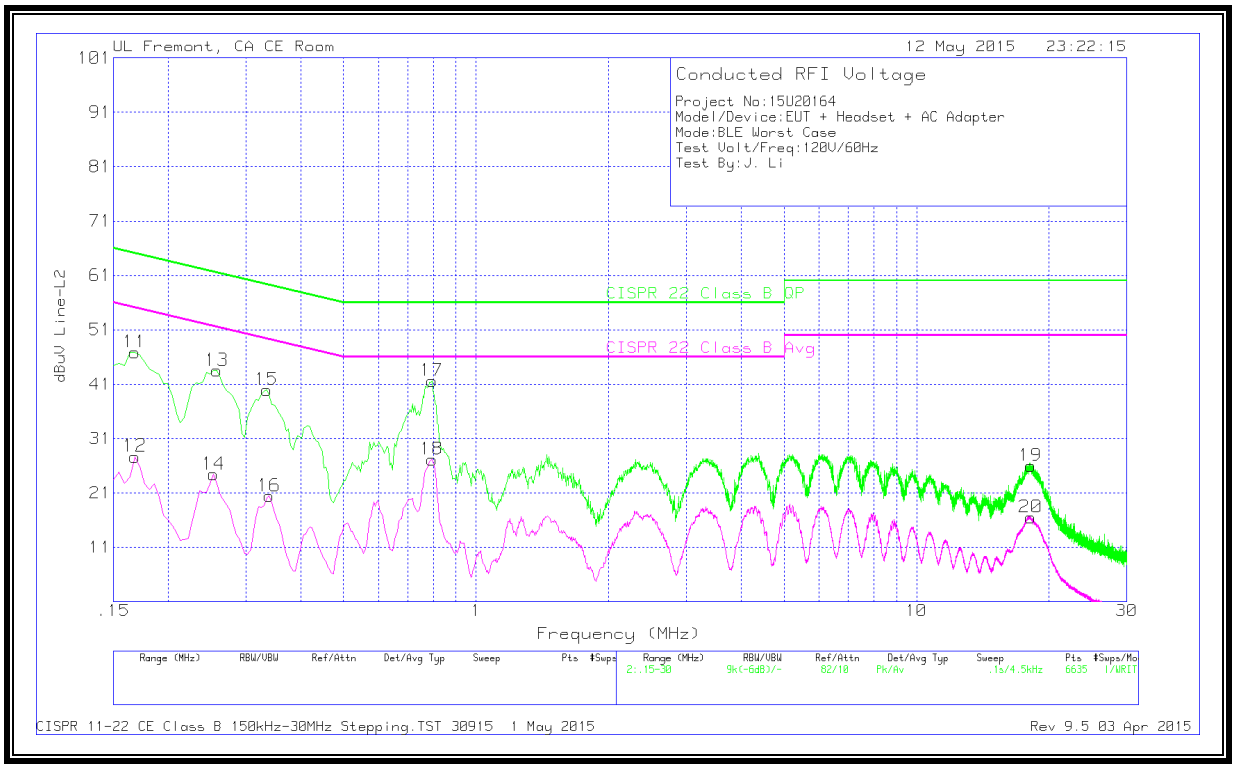
Pk - Peak detector

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

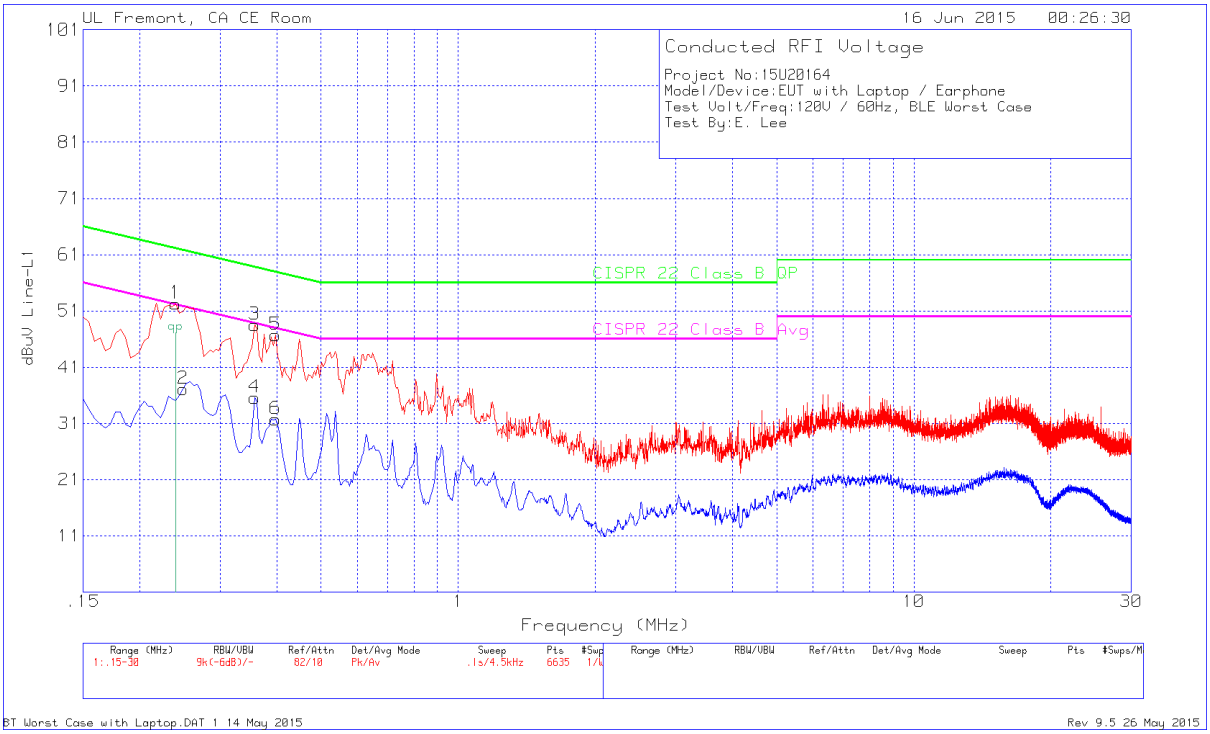
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	T24 IL L1	LC Cables 1&3	Corrected Reading dBuV	CISPR 22 Class B QP	Margin (dB)	CISPR 22 Class B Avg	Margin (dB)
1	.24	51.58	Pk	.7	0	52.28	62.1	-9.82	-	-
2	.249	36.43	Av	.7	0	37.13	-	-	51.79	-14.66
3	.357	48.02	Pk	.5	0	48.52	58.8	-10.28	-	-
4	.357	35.11	Av	.5	0	35.61	-	-	48.8	-13.19
5	.3975	46.33	Pk	.4	0	46.73	57.91	-11.18	-	-
6	.3975	31.35	Av	.4	0	31.75	-	-	47.91	-16.16

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	.258	50.71	Pk	.7	0	51.41	61.5	-10.09	-	-
8	.267	36.84	Av	.7	0	37.54	-	-	51.21	-13.67
9	.3615	48.02	Pk	.5	0	48.52	58.69	-10.17	-	-
10	.357	34.96	Av	.5	0	35.46	-	-	48.8	-13.34
11	.537	44.38	Pk	.3	0	44.68	56	-11.32	-	-
12	.5145	33.55	Av	.4	0	33.95	-	-	46	-12.05
13	.717	43.81	Pk	.3	0	44.11	56	-11.89	-	-
14	.717	28.65	Av	.3	0	28.95	-	-	46	-17.05
15	.9285	41.19	Pk	.3	0	41.49	56	-14.51	-	-
16	.9285	27.66	Av	.3	0	27.96	-	-	46	-18.04

Pk - Peak detector
Av - Average detection

LINE 1 RESULTS



LINE 2 RESULTS