



**FCC CFR47 PART 15 SUBPART C
INDUSTRY CANADA RSS-210 ISSUE 8**

**BLUETOOTH LOW ENERGY
CERTIFICATION TEST REPORT**

FOR

PORTABLE GAMING DEVICE

MODEL NUMBER: P2523

FCC ID: VOB-P2523

IC: 7361A-P2523

REPORT NUMBER: 14U19497-E2

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Prepared for

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NVLAP LAB CODE 200065-0

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1. ATTESTATION OF TEST RESULTS

COMPANY NAME: NVIDIA
EUT DESCRIPTION: Portable Gaming Device
MODEL: P2523
SERIAL NUMBER: P2523-E02-S0929
DATE TESTED: NOVEMBER 21-DECEMBER 8, 2014

APPLICABLE STANDARDS	
STANDARD	TEST RESULTS
CFR 47 Part 15 Subpart C	Pass
INDUSTRY CANADA RSS-210 Issue 8 Annex 8	Pass
INDUSTRY CANADA RSS-GEN Issue 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.

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LAB ENGINEER
UL VERIFICATION SERVICES INC

2. TEST METHODOLOGY

The tests documented in this report were performed in accordance with ANSI C63.4-2009, FCC CFR 47 Part 2, FCC CFR 47 Part 15, RSS-GEN Issue 4, and RSS-210 Issue 8.

3. FACILITIES AND ACCREDITATION

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

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

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

4. CALIBRATION AND UNCERTAINTY

4.1. MEASURING INSTRUMENT CALIBRATION

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

4.2. SAMPLE CALCULATION

Where relevant, the following sample calculation is provided:

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

4.3. MEASUREMENT UNCERTAINTY

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

PARAMETER	UNCERTAINTY
Conducted Disturbance, 0.15 to 30 MHz	3.52 dB
Radiated Disturbance, 30 to 18000 MHz	4.94 dB

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

5. EQUIPMENT UNDER TEST

5.1. DESCRIPTION OF EUT

The EUT is a Portable Gaming Device.

5.2. MAXIMUM OUTPUT POWER

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

Frequency Range (MHz)	Mode	Output Power (dBm)	Output Power (mW)
2402-2480	BLE	6.22	4.19

5.3. DESCRIPTION OF AVAILABLE ANTENNAS

The radio utilizes an FPCB antenna, with a maximum gain of 3.36 dBi.

5.4. WORST-CASE CONFIGURATION AND MODE

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

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

5.5. DESCRIPTION OF TEST SETUP

SUPPORT EQUIPMENT

Support Equipment List				
Description	Manufacturer	Model	Serial Number	FCC ID
AC Adapter	NVIDIA	SPA011AU5W	R43001	N/A

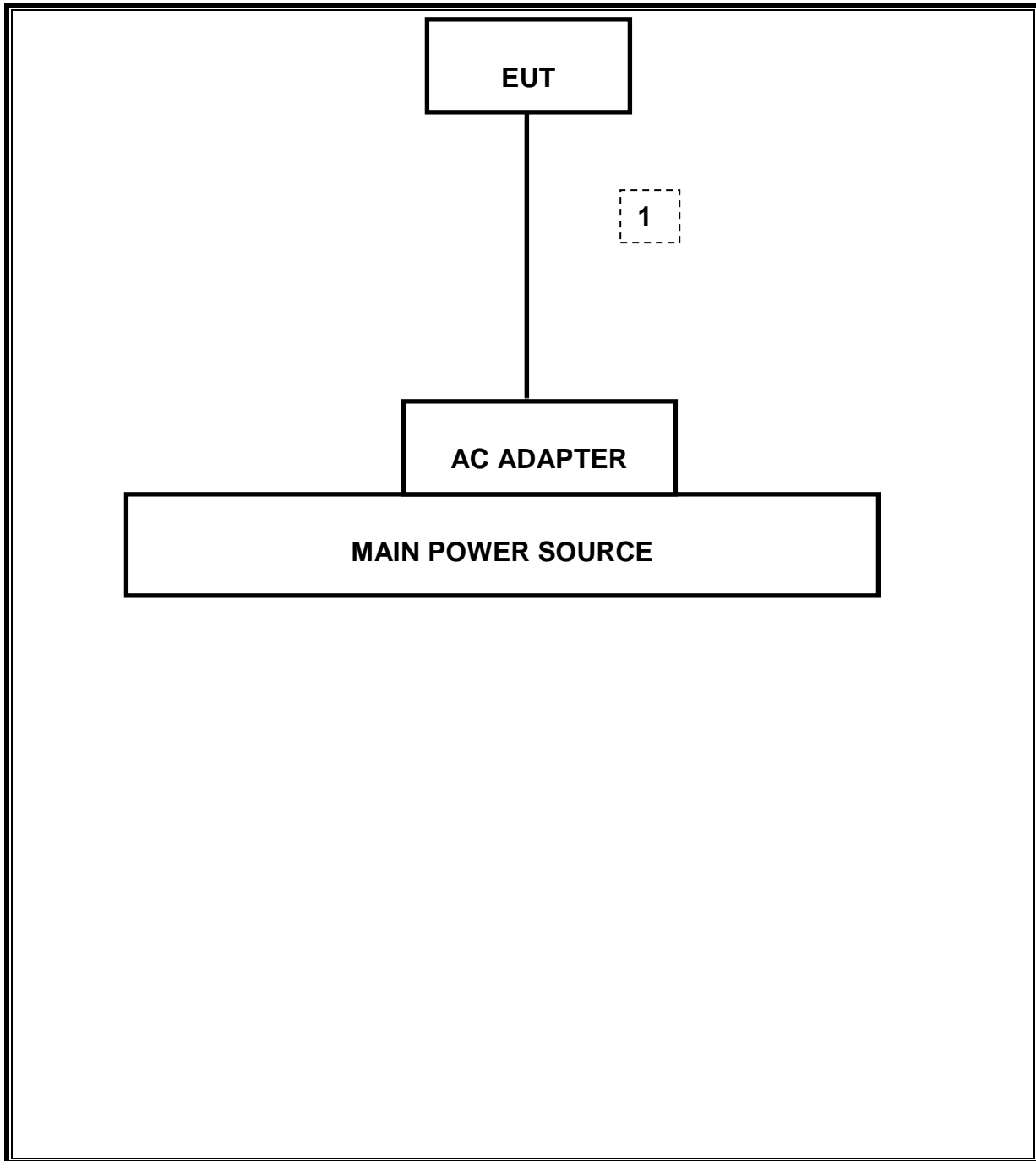
I/O CABLES

I/O Cable List						
Cable No	Port	# of identical ports	Connector Type	Cable Type	Cable Length (m)	Remarks
1	DC Power	1	Mini-USB	Shielded	1.2m	N/A
2	Audio	1	Mini-Jack	Unshielded	1m	N/A

TEST SETUP

The EUT is continuously transmitting Bluetooth through the EUT's software.

SETUP DIAGRAM FOR TESTS



6. TEST AND MEASUREMENT EQUIPMENT

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

Test Equipment List				
Description	Manufacturer	Model	Asset	Cal Due
Spectrum Analyzer, 44 GHz	Agilent / HP	E4446A	C00986	4/1/2015
Spectrum Analyzer, 26.5 GHz	Agilent / HP	E4440A	C01179	2/26/2015
EMI Test Receiver, 30 MHz	R & S	ESHS 20	N02396	8/8/2015
Preamplifier, 1300 MHz	Agilent / HP	8447D	C00580	5/8/2015
Preamplifier, 26.5 GHz	Agilent / HP	8449B	C01063	10/22/2015
Antenna, Bilog, 30MHz-1 GHz	Sunol Sciences	JB1	N/A	3/6/2015
Antenna, Horn, 18 GHz	ETS	3117	C01022	2/21/2015
Antenna, Horn, 26.5 GHz	ARA	MWH-1826/B	C00589	12/17/2014
Peak Power Meter	Agilent / HP	E4416A	C00963	12/13/2014
Peak / Average Power Sensor	Agilent / HP	E9327A	C00964	12/13/2014
LISN, 30 MHz	FCC	50/250-25-2	C00626	1/14/2015
NOTE: The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NIST USA.				

7. SUMMARY

FCC Part Section	RSS Section(s)	Test Description	Test Limit	Test Condition	Test Result	Worst Case
15.247 (a)(2)	RSS-210 A8.2(a)	Occupied Band width (6dB) with 99%	>500KHz	Conducted	Pass	0.656 MHz
2.1051, 15.247 (d)	RSS-210 A8.5	Band Edge / Conducted Spurious Emission	-20dBc		Pass	-41.05 dBm
15.247	RSS-210 A8.4	TX conducted output power	<30dBm		Pass	6.22 dBm
15.247	RSS-210 A8.2	PSD	<8dBm		Pass	-8.02 dBm
15.207 (a)	RSS-GEN 8.8	AC Power Line conducted emissions	Section 10	Radiated	Pass	51.1 dBuV(AV)
15.205, 15.209	RSS-210 Clause 2.6, RSS-210 Clause 6	Radiated Spurious Emission	< 54dBuV/m		Pass	45.7 dBuV/m

8. ANTENNA PORT TEST RESULTS

8.1. 6 dB BANDWIDTH

LIMITS

FCC §15.247 (a) (2)

IC RSS-210 A8.2 (a)

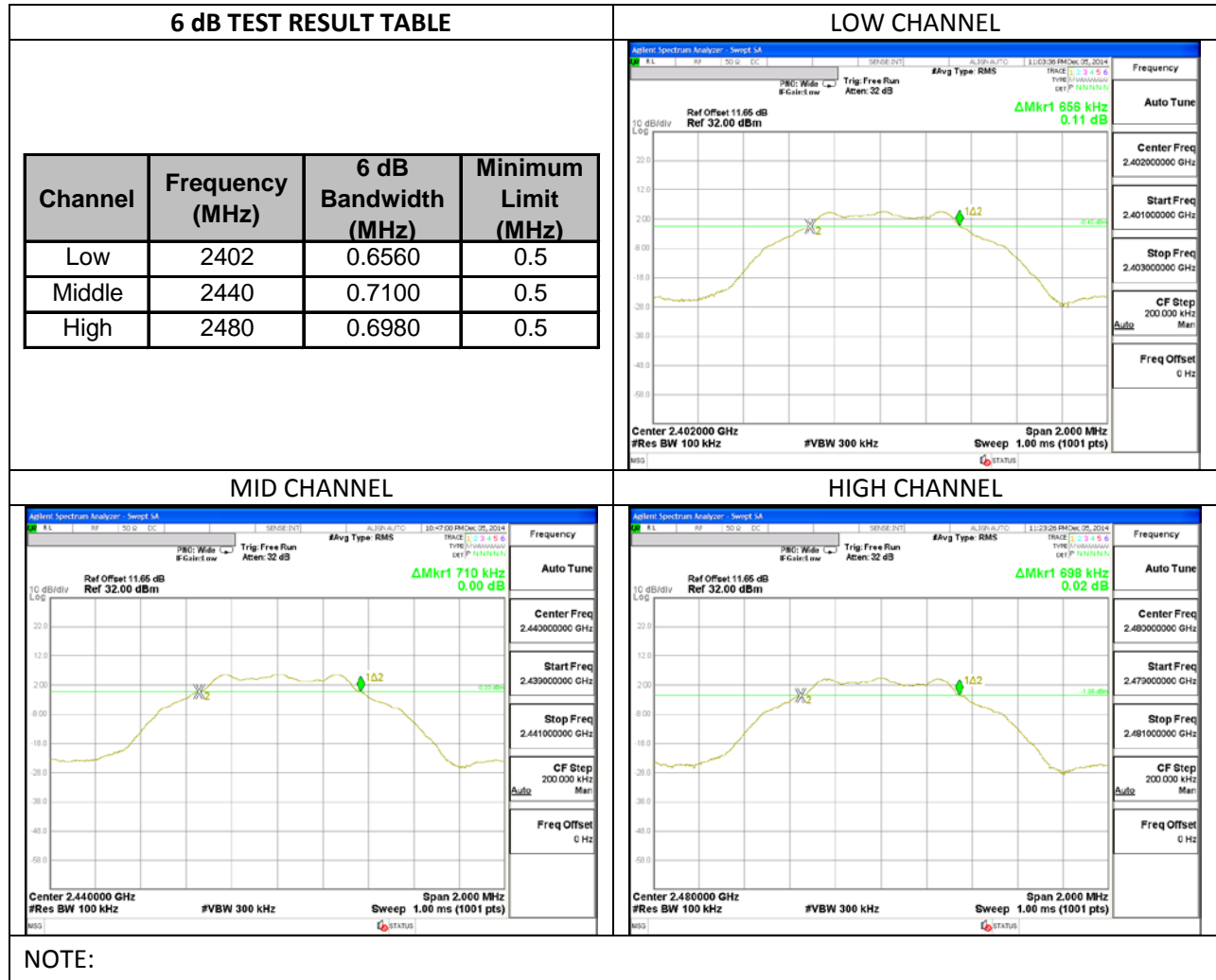
The minimum 6 dB bandwidth shall be at least 500 kHz.

TEST PROCEDURE

Reference to KDB 558074 D01 DTS Meas Guidance v03r01: The transmitter output is connected to a spectrum analyzer. The RBW is set to 100 kHz and the VBW is set to 300 kHz. The sweep time is coupled.

RESULTS

6 dB BANDWIDTH PLOTS AND TABLE



8.2. 99% BANDWIDTH

LIMITS

None; for reporting purposes only.

TEST PROCEDURE

Reference to KDB558074 D01 DTS Meas Guidance v03r01: 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

8.3. OUTPUT POWER

LIMITS

FCC §15.247 (b)

IC RSS-210 A8.4

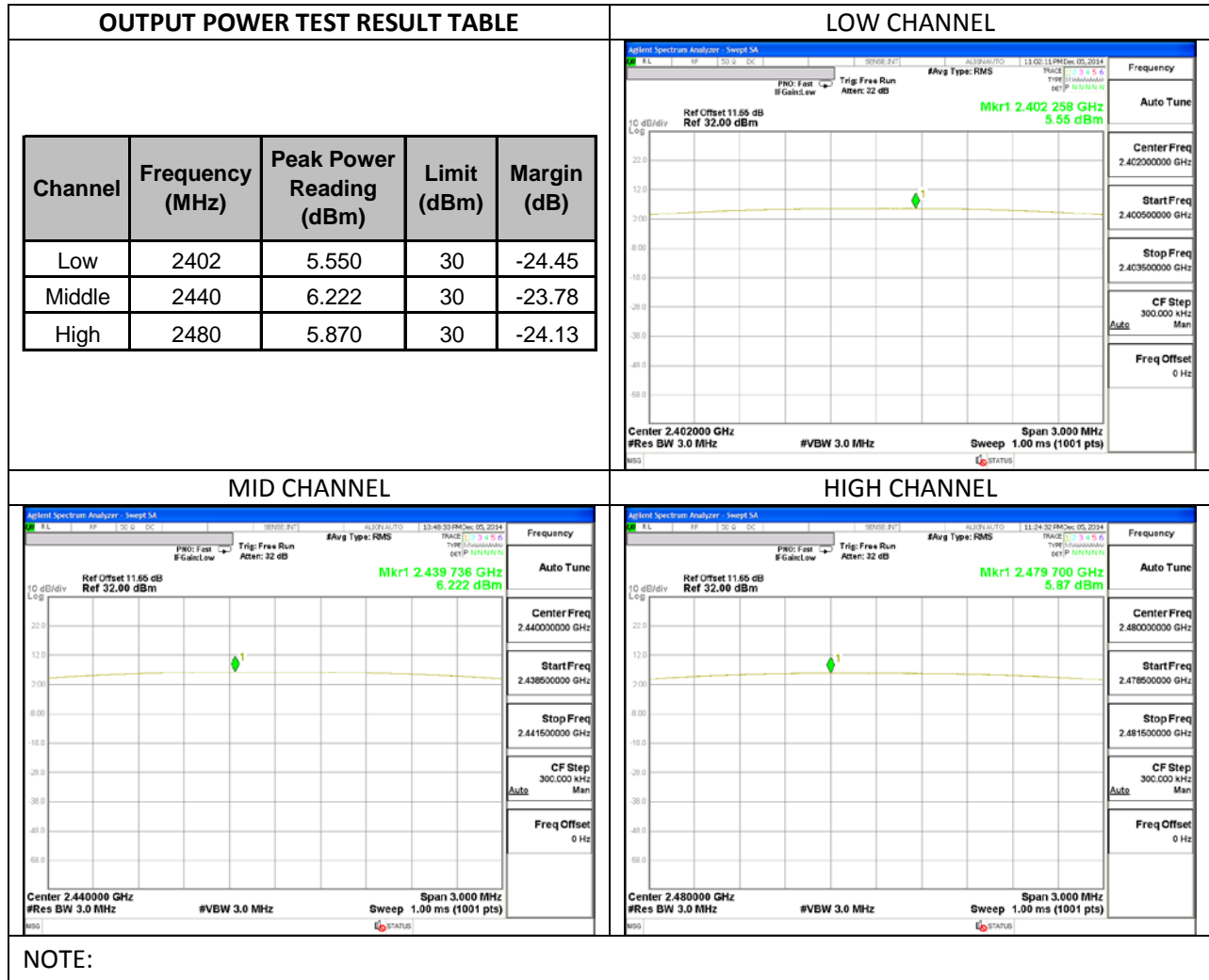
The maximum antenna gain is less than or equal to 6dBi, therefore the limit is 30 dBm.

TEST PROCEDURE

Peak power is measured using KDB558074 D01 DTS Meas Guidance v03r01 April 9, 2013 under section 9.1.1 utilizing spectrum analyzer.

RESULTS

OUTPUT POWER PLOTS AND TABLE



8.4. AVERAGE POWER

LIMITS

None; for reporting purposes only.

TEST PROCEDURE

The transmitter output is connected to a power meter.

RESULTS

The cable assembly insertion loss of 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.

AVERAGE POWER		
Channel	Frequency (MHz)	AV power (dBm)
Low	2402	5.44
Middle	2440	6.08
High	2480	5.23

NOTE: --

8.5. POWER SPECTRAL DENSITY

LIMITS

FCC §15.247 (e)

IC RSS-210 A8.2 (b)

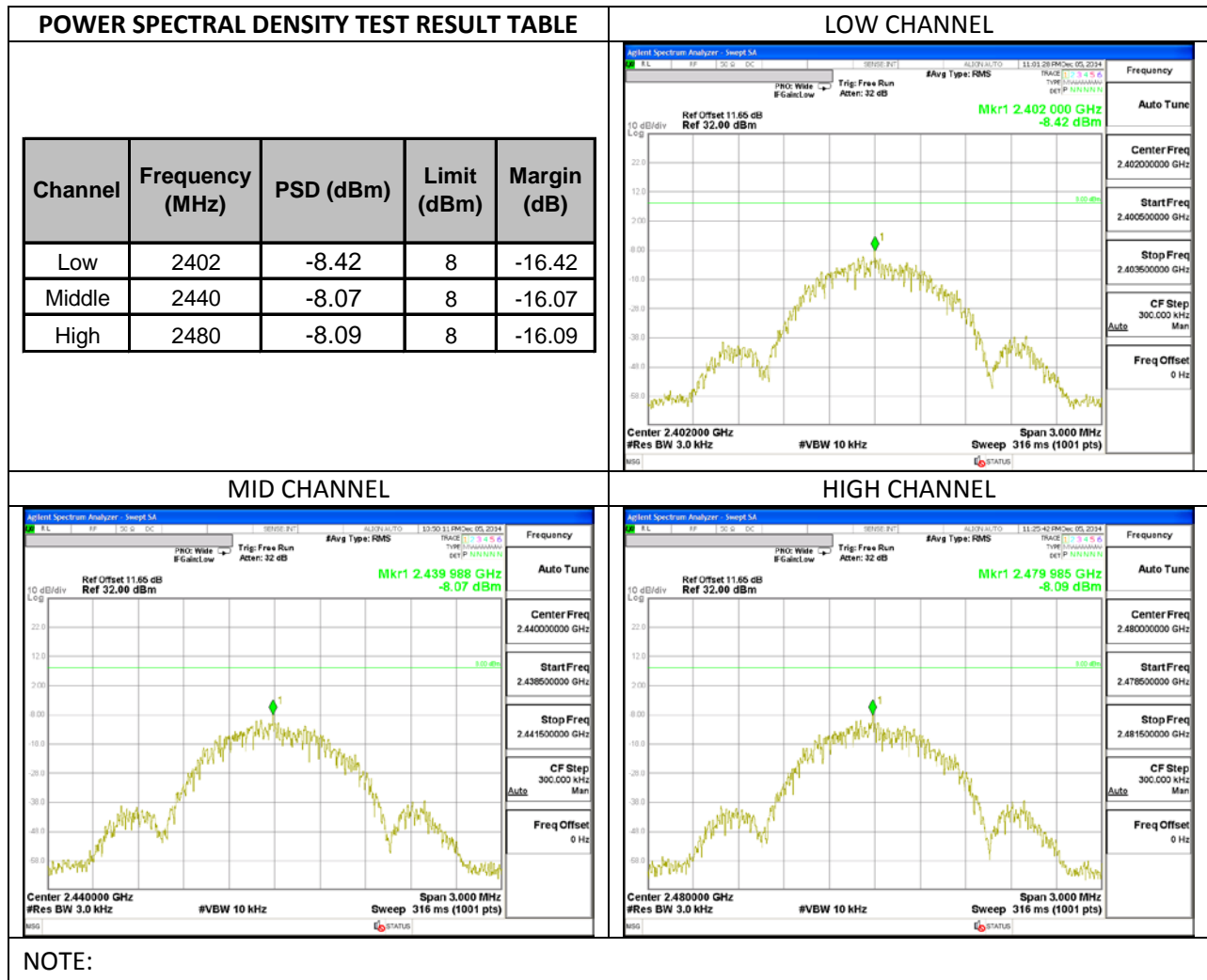
The power spectral density conducted from the transmitter to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission.

TEST PROCEDURE

Power Spectral Density was performed utilizing the "Method PKPSD (Peak PSD)" under KDB558074 D01 DTS Meas Guidance v03r01, April 9, 2013

RESULTS

POWER SPECTRAL DENSITY PLOTS AND TABLE



8.6. CONDUCTED SPURIOUS EMISSIONS

LIMITS

FCC §15.247 (d)

IC RSS-210 A8.5

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

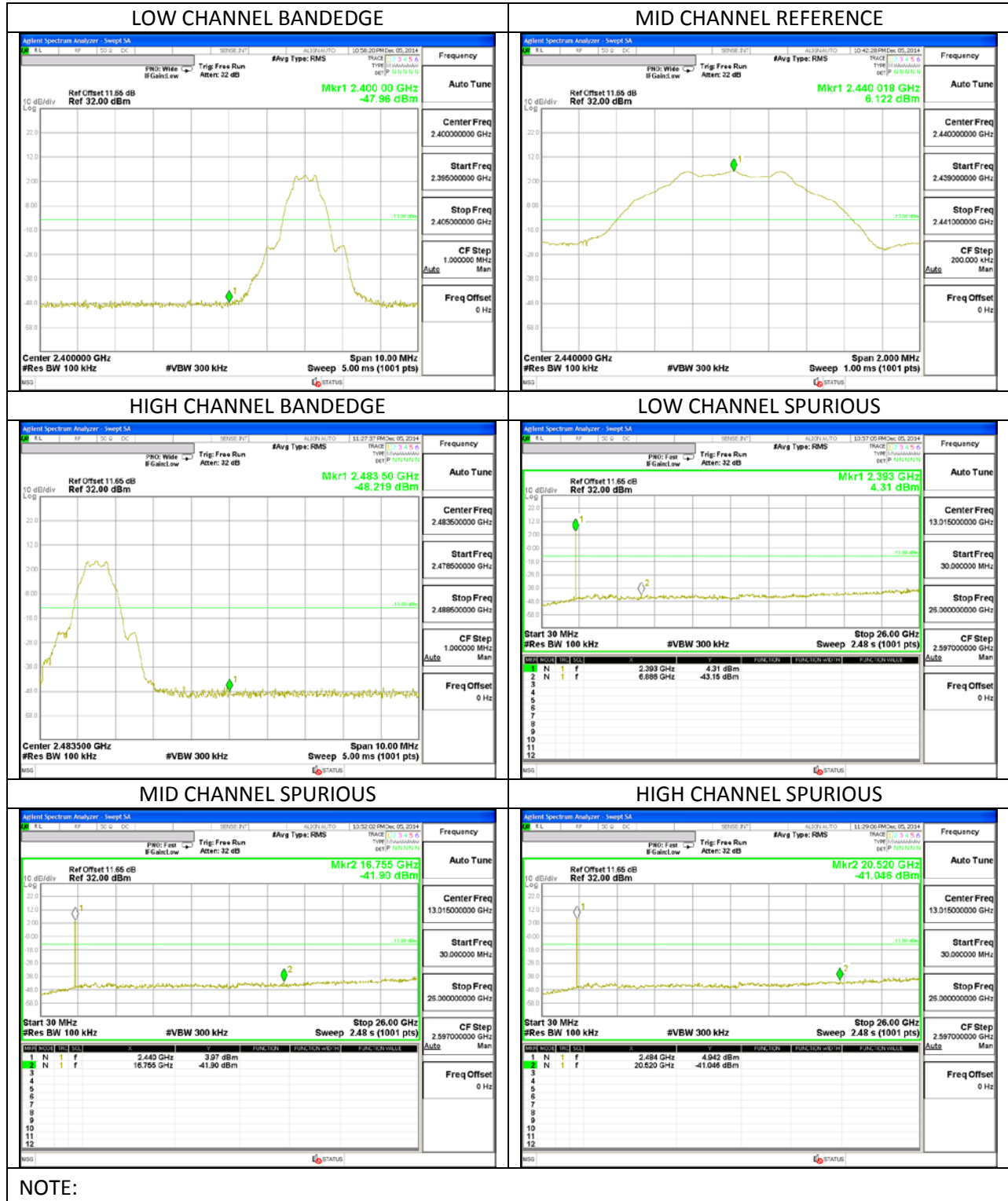
TEST PROCEDURE

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

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

RESULTS

BANDEDGE AND SPURIOUS EMISSIONS PLOTS



9. RADIATED TEST RESULTS

LIMITS AND PROCEDURE

LIMITS

FCC §15.205 and §15.209

IC RSS-210 Clause 2.6 (Transmitter)

IC RSS-GEN Clause 6 (Receiver)

Frequency Range (MHz)	Field Strength Limit (uV/m) at 3 m	Field Strength Limit (dBuV/m) at 3 m
30 - 88	100	40
88 - 216	150	43.5
216 - 960	200	46
Above 960	500	54

TEST PROCEDURE

The EUT is placed on a non-conducting table 80 cm above the ground plane. The antenna to EUT distance is 3 meters. The EUT is configured in accordance with ANSI C63.4 - 2009. The EUT is set to transmit in a continuous mode.

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

For measurements above 1 GHz the resolution bandwidth is set to 1 MHz, then the video bandwidth is set to 1 MHz for peak measurements and add duty cycle factor for average measurements. Duty cycle factor = $10 \log(1/x)$. For this sample: DCF = $10 \log(1/0.624) = 2.01 \text{ dB}$

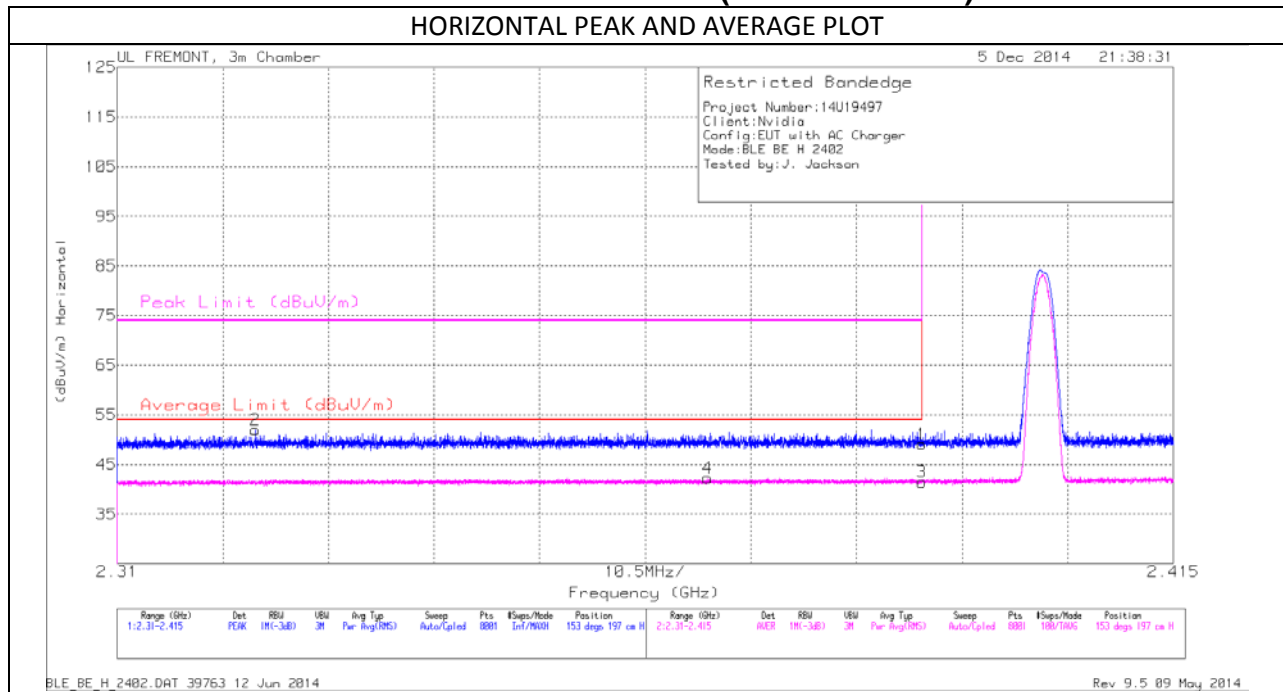
The spectrum from 1GHz to 26 GHz is investigated with the transmitter set to the lowest, middle, and highest channels in the 2.4 GHz band.

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.

RESULTS

9.1. TRANSMITTER ABOVE 1 GHz

RESTRICTED BANDEDGE (LOW CHANNEL)

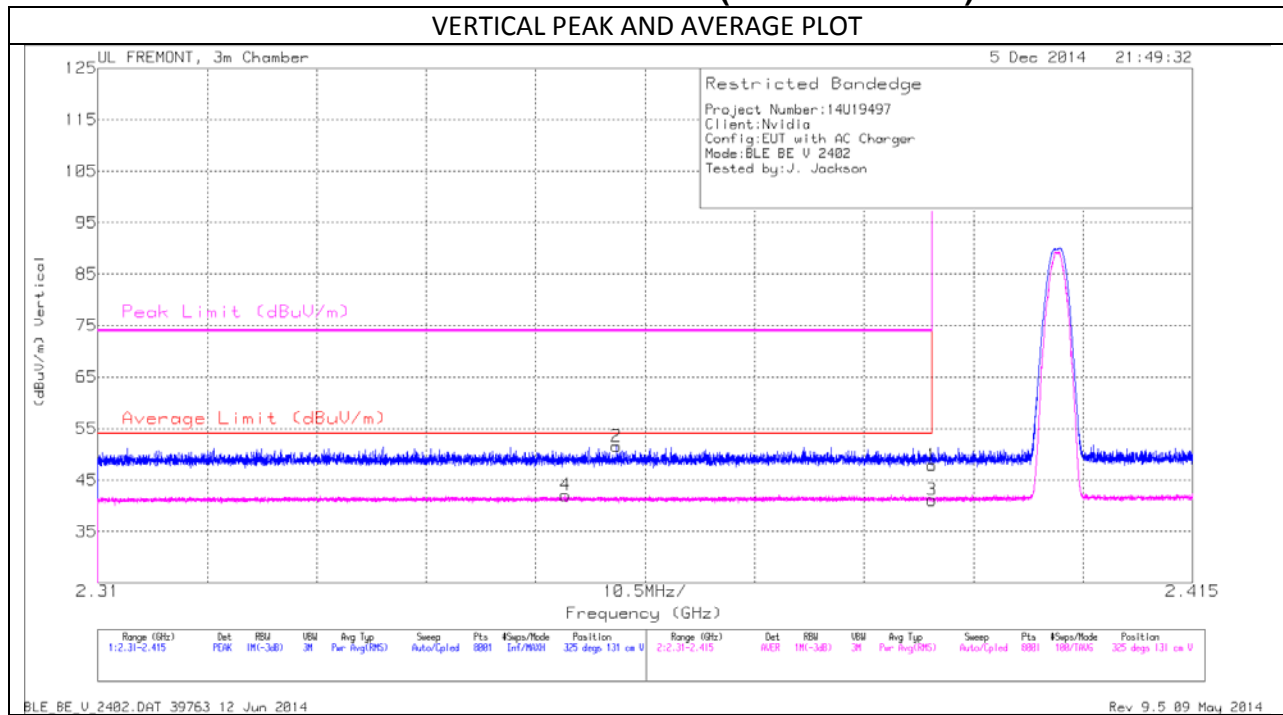


HORIZONTAL VERTICAL PEAK AND AVERAGE DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dBm)	Amp/Cb/F Itr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	2.324	43.17	PK	31.9	-23.1	0	51.97	-	-	74	-22.03	153	197	H
4	2.369	31.28	RMS	32	-23.1	2.1	42.28	54	-11.72	-	-	153	197	H
1	2.39	40.1	PK	32.1	-23.1	0	49.1	-	-	74	-24.9	153	197	H
3	2.39	30.4	RMS	32.1	-23.1	2.1	41.5	54	-12.5	-	-	153	197	H

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band
 PK - Peak detector
 RMS - RMS detection

RESTRICTED BANDEDGE (LOW CHANNEL)

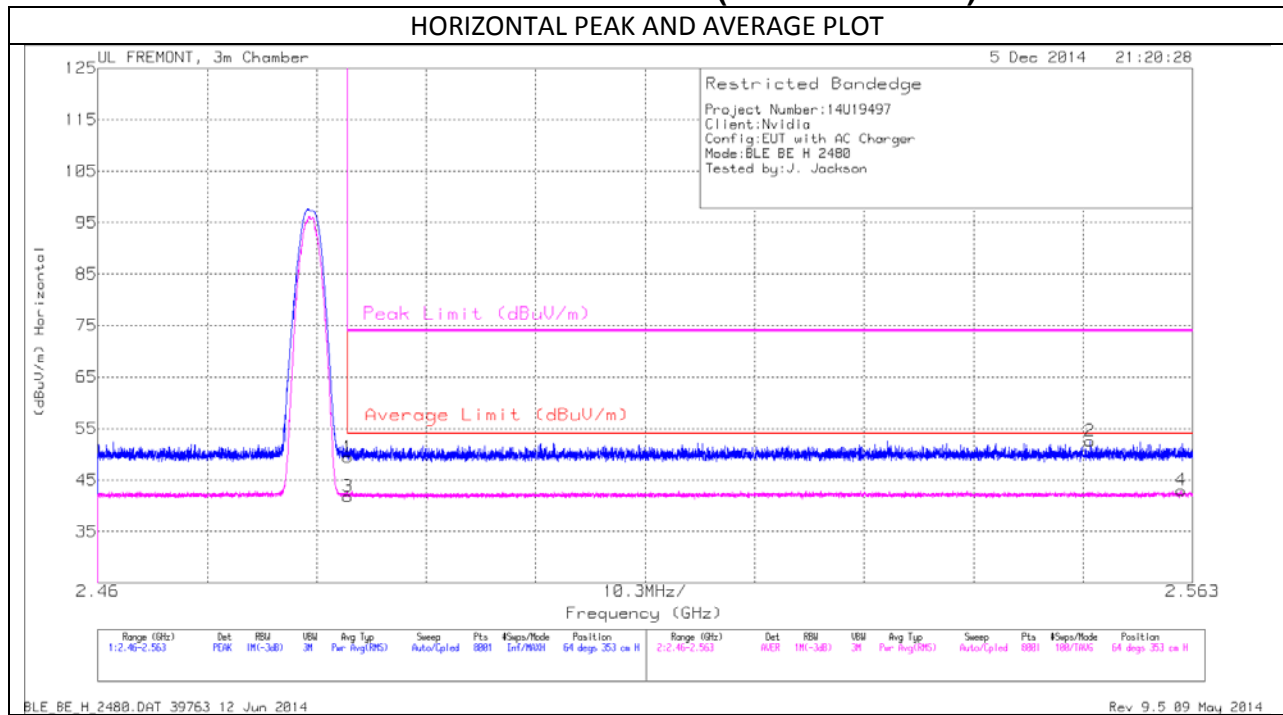


VERTICAL PEAK AND AVERAGE DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cb/F Itr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
4	2.355	31.11	RMS	32	-23.1	2.1	42.11	54	-11.89	-	-	325	131	V
2	2.36	42.69	PK	32	-23.1	0	51.59	-	-	74	-22.41	325	131	V
1	2.39	38.88	PK	32.1	-23.1	0	47.88	-	-	74	-26.12	325	131	V
3	2.39	30.09	RMS	32.1	-23.1	2.1	41.19	54	-12.81	-	-	325	131	V

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band
 PK - Peak detector
 RMS - RMS detection

RESTRICTED BANDEDGE (HIGH CHANNEL)



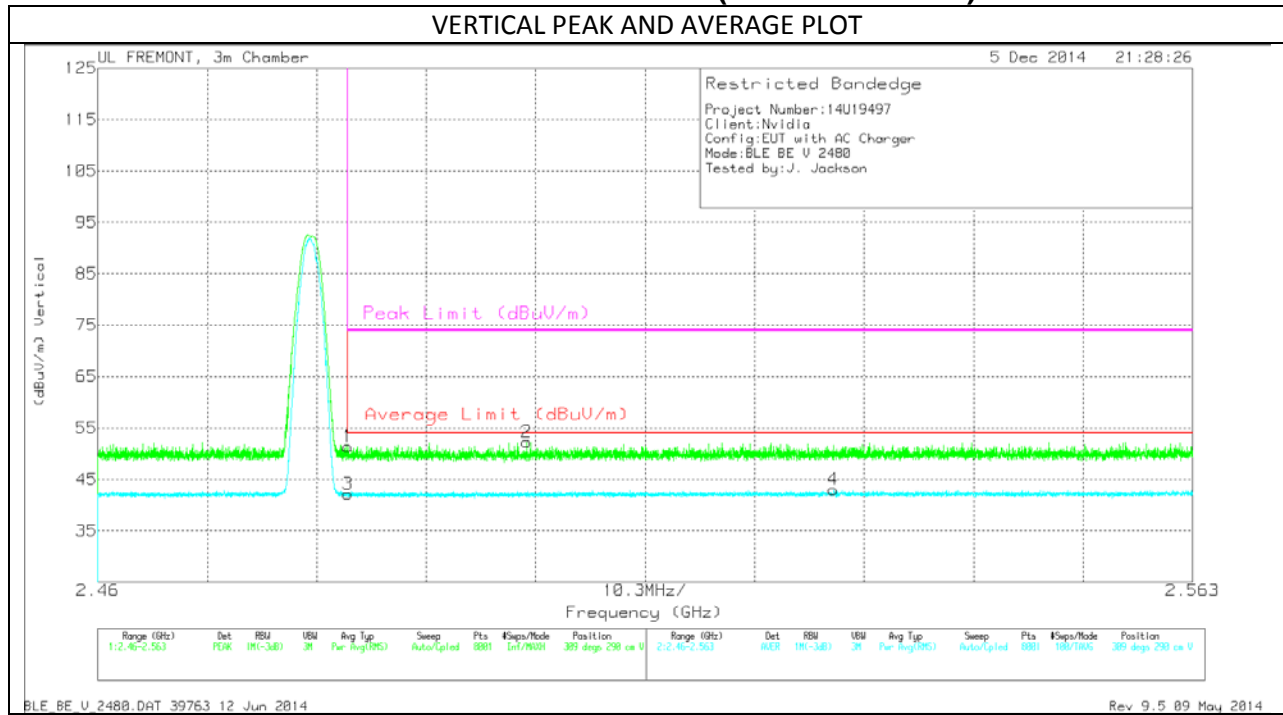
HORIZONTAL PEAK AND AVERAGE DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cb/F Itr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	2.484	39.96	PK	32.3	-22.8	0	49.46	-	-	74	-24.54	64	353	H
3	2.484	30.24	RMS	32.3	-22.8	2.1	41.84	54	-12.16	-	-	64	353	H
2	2.553	42.87	PK	32.4	-22.7	0	52.57	-	-	74	-21.43	64	353	H
4	2.562	31.26	RMS	32.4	-22.7	2.1	43.06	54	-10.94	-	-	64	353	H

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band
 PK - Peak detector
 RMS - RMS detection

RESTRICTED BANDEDGE (HIGH CHANNEL)

VERTICAL PEAK AND AVERAGE PLOT



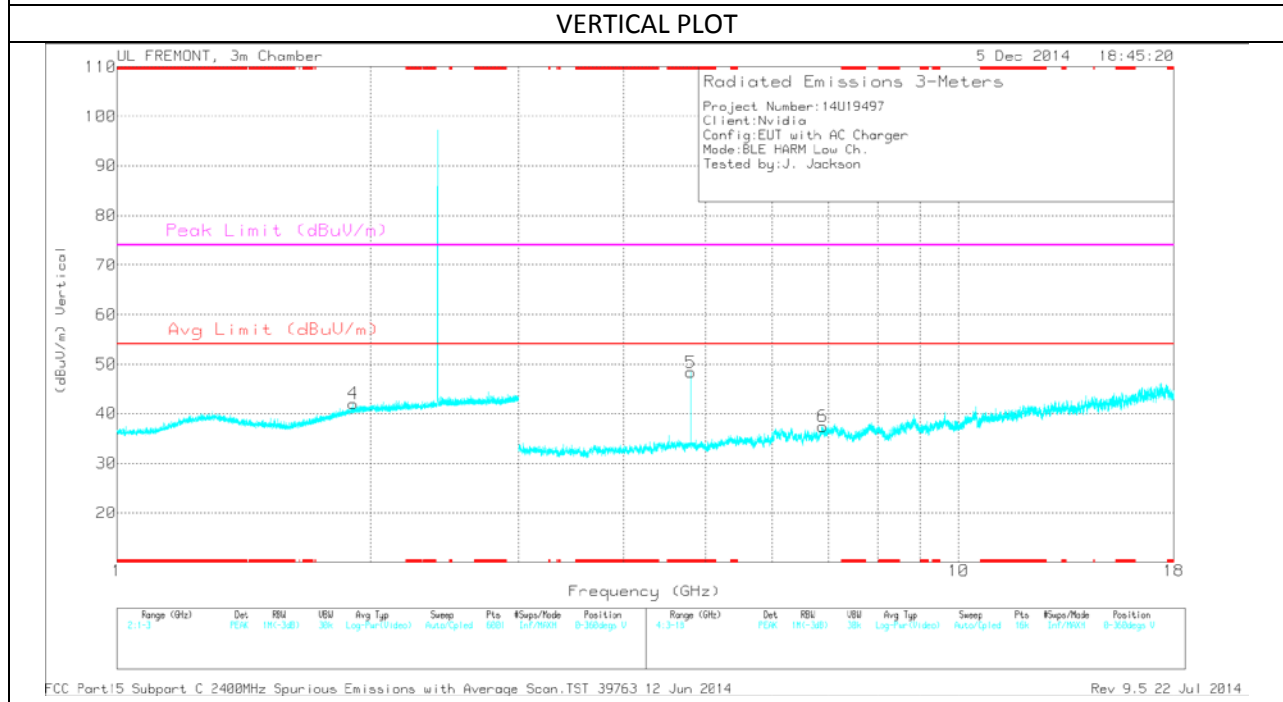
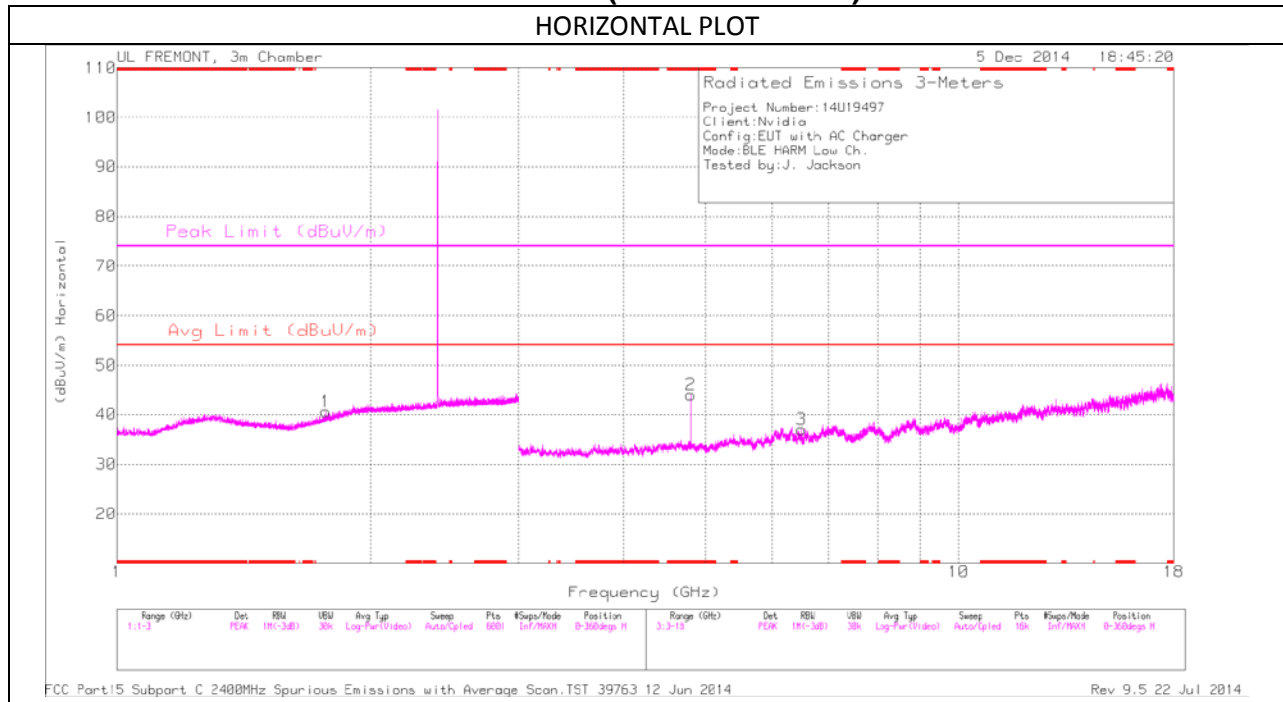
VERTICAL PEAK AND AVERAGE DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cb/F Itr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	2.484	41.86	PK	32.3	-22.8	0	51.36	-	-	74	-22.64	309	290	V
3	2.484	30.61	RMS	32.3	-22.8	2.1	42.21	54	-11.79	-	-	309	290	V
2	2.5	42.7	PK	32.3	-22.7	0	52.3	-	-	74	-21.7	309	290	V
4	2.529	31.15	RMS	32.4	-22.6	2.1	43.05	54	-10.95	-	-	309	290	V

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band
 PK - Peak detector
 RMS - RMS detection

HARMONICS AND SPURIOUS EMISSIONS

SPURIOUS (LOW CHANNEL)



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

LOW CHANNEL DATA

TRACE MARKERS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	* 4.804	40.25	PK	34.1	-30.3	0	44.05	-	-	74	-29.95	0-360	100	H
5	* 4.805	44.56	PK	34.1	-30.3	0	48.36	-	-	74	-25.64	0-360	200	V
1	1.77	34.16	PK	29.8	-23.3	0	40.66	-	-	-	-	0-360	100	H
4	1.909	33.86	PK	31.3	-23.1	0	42.06	-	-	-	-	0-360	100	V
3	6.499	31.39	PK	35.5	-29.9	0	36.99	-	-	-	-	0-360	200	H
6	6.896	30.33	PK	35.6	-28.5	0	37.43	-	-	-	-	0-360	200	V

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

PK - Peak detector

Radiated Emissions

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 4.804	45.36	PK2	34.1	-30.3	0	49.16	-	-	74	-24.84	0	233	H
* 4.804	36.23	MAv1	34.1	-30.3	2.05	42.08	54	-11.92	-	-	0	233	H
* 4.804	37.49	RMS	34.1	-30.3	2.05	43.34	-	-	-	-	0	233	H
* 4.805	47.06	PK2	34.1	-30.3	0	50.86	-	-	74	-23.14	147	243	V
* 4.804	39.85	MAv1	34.1	-30.3	2.05	45.7	54	-8.3	-	-	147	243	V

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

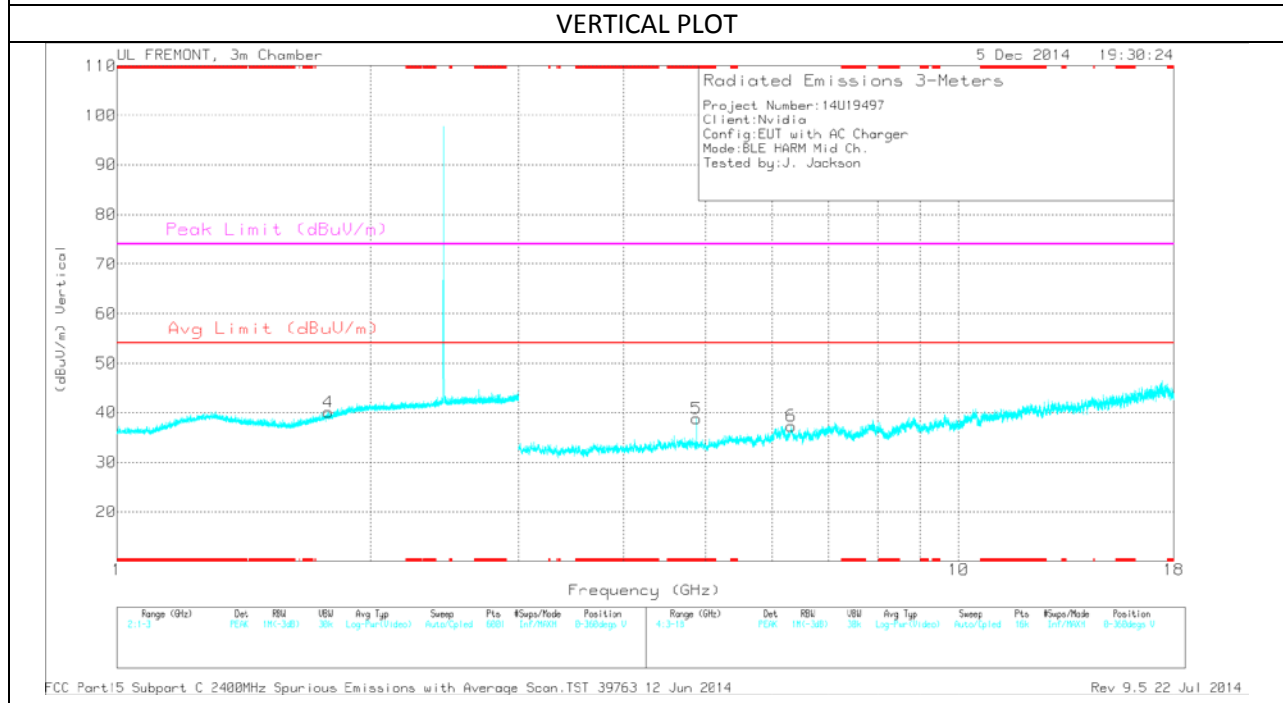
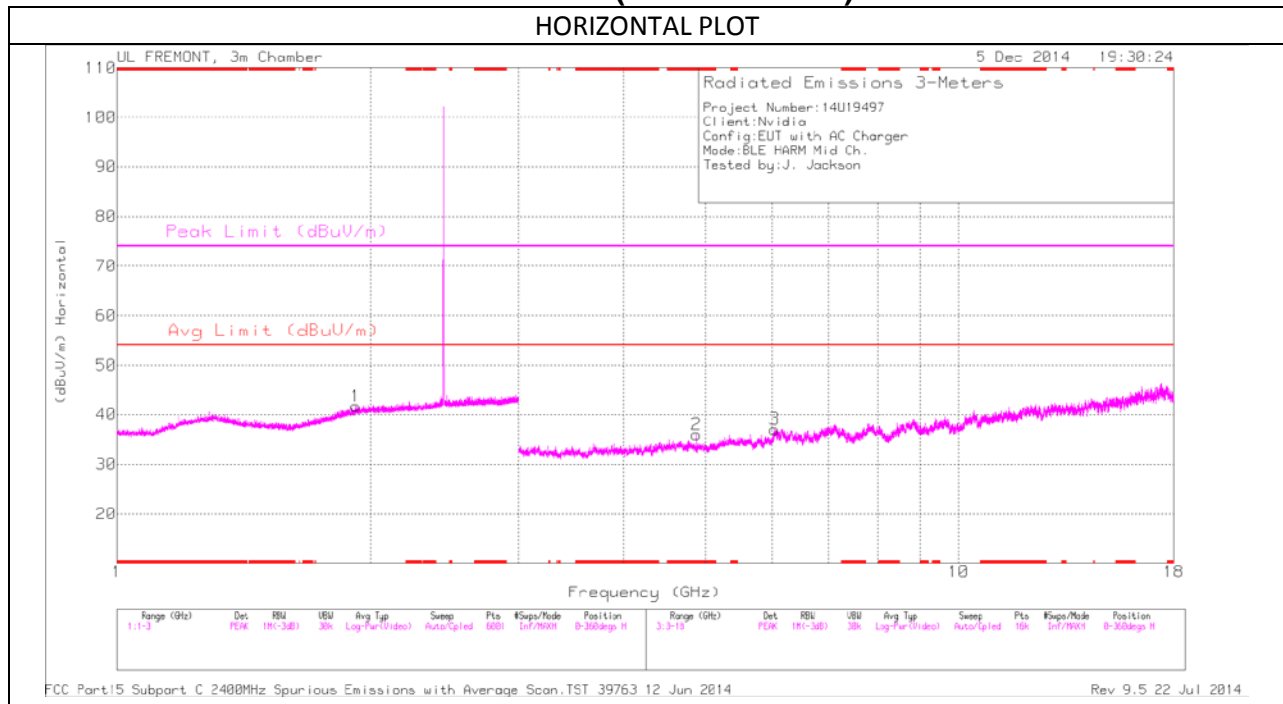
RMS - RMS detection

PK2 - KDB558074 Method: Maximum Peak

MAv1 - KDB558074 Option 1 Maximum RMS Average

NOTE:

SPURIOUS (MID CHANNEL)



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

MID CHANNEL DATA

TRACE MARKERS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/FI tr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	* 4.88	32.23	PK	34	-30.2	0	36.03	-	-	74	-37.97	0-360	200	H
5	* 4.881	35.04	PK	34	-30.2	0	38.84	-	-	74	-35.16	0-360	200	V
4	1.781	33.64	PK	29.9	-23.4	0	40.14	-	-	-	-	0-360	200	V
1	1.922	33.64	PK	31.3	-23.2	0	41.74	-	-	-	-	0-360	200	H
3	6.04	31.11	PK	35.3	-29.3	0	37.11	-	-	-	-	0-360	200	H
6	6.329	30.88	PK	35.4	-29	0	37.28	-	-	-	-	0-360	100	V

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

PK - Peak detector

Radiated Emissions

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/FI tr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 4.88	41.54	PK2	34	-30.2	0	45.34	-	-	74	-28.66	351	282	H
* 4.88	30.35	MAv1	34	-30.2	2.05	36.2	54	-17.8	-	-	351	282	H
* 4.878	41.15	PK2	34	-30.2	0	44.95	-	-	74	-29.05	172	130	V
* 4.88	29.59	MAv1	34	-30.2	2.05	35.44	54	-18.56	-	-	172	130	V

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

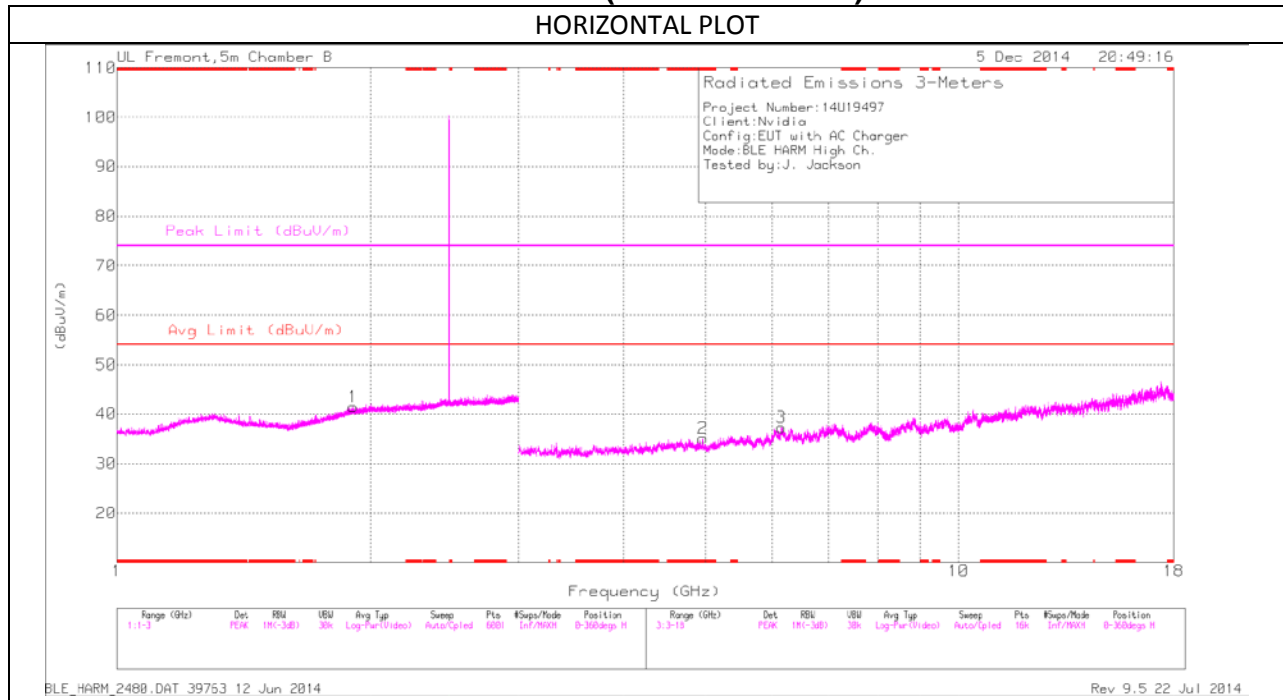
PK2 - KDB558074 Method: Maximum Peak

MAv1 - KDB558074 Option 1 Maximum RMS Average

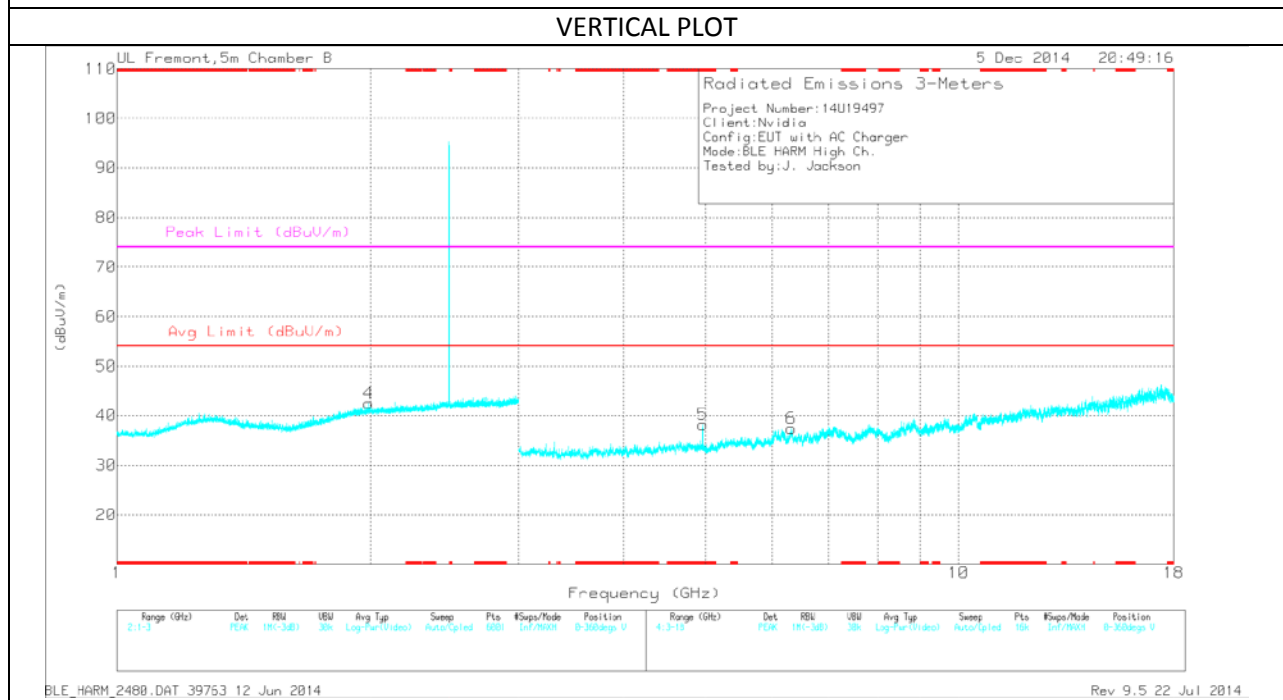
NOTE:

SPURIOUS (HIGH CHANNEL)

HORIZONTAL PLOT



VERTICAL PLOT



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

HIGH CHANNEL DATA

TRACE MARKERS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	* 4.96	32.12	PK	34	-31	0	35.12	-	-	74	-38.88	0-360	200	H
5	* 4.96	35.16	PK	34	-31	0	38.16	-	-	74	-35.84	0-360	200	V
1	1.907	33.34	PK	31.3	-23.2	0	41.44	-	-	-	-	0-360	200	H
4	1.988	34.08	PK	31.6	-23.2	0	42.48	-	-	-	-	0-360	200	V
3	6.158	31.71	PK	35.3	-29.7	0	37.31	-	-	-	-	0-360	200	H
6	6.322	31.32	PK	35.4	-29.3	0	37.42	-	-	-	-	0-360	200	V

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

PK - Peak detector

Radiated Emissions

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 4.96	42.56	PK2	34	-31	0	45.56	-	-	74	-28.44	125	153	H
* 4.96	30.63	MAv1	34	-31	2.05	35.68	54	-18.32	-	-	125	153	H
* 4.959	44.21	PK2	34	-31	0	47.21	-	-	74	-26.79	140	258	V
* 4.96	34.23	MAv1	34	-31	2.05	39.28	54	-14.72	-	-	140	258	V

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

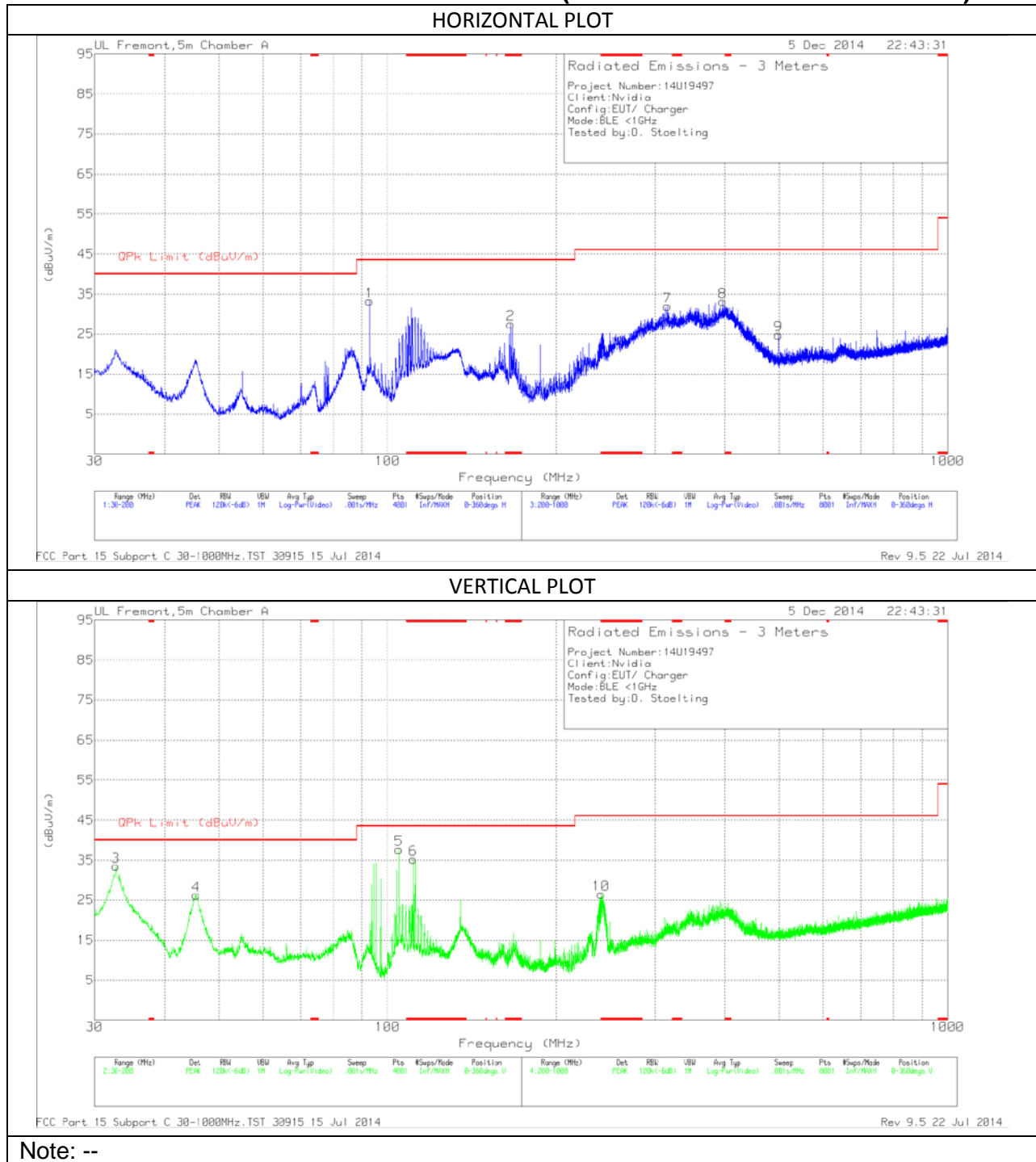
PK2 - KDB558074 Method: Maximum Peak

MAv1 - KDB558074 Option 1 Maximum RMS Average

NOTE:

9.1. TRANSMITTER BELOW 1 GHz

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



BELOW 1 GHz TABLE

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	AF T130 (dB/m)	Amp/Cbl (dB/m)	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	* 165.9575	46	PK	11.7	-30.2	27.5	43.52	-16.02	0-360	400	H
6	* 111.26	52.82	PK	12.8	-30.4	35.22	43.52	-8.3	0-360	101	V
10	* 240.4	44.65	PK	11.5	-29.7	26.45	46.02	-19.57	0-360	101	V
3	32.7625	45.48	PK	19.2	-31.2	33.48	40	-6.52	0-360	101	V
4	45.5125	47.06	PK	10.3	-31.1	26.26	40	-13.74	0-360	101	V
1	92.9	55.57	PK	8.3	-30.6	33.27	43.52	-10.25	0-360	400	H
5	104.885	56.69	PK	11.5	-30.5	37.69	43.52	-5.83	0-360	101	V
7	316.2	47.38	PK	13.9	-29.3	31.98	46.02	-14.04	0-360	101	H
8	396.6	47.14	PK	15.1	-29.1	33.14	46.02	-12.88	0-360	101	H
9	499.2	35.88	PK	17.6	-28.7	24.78	46.02	-21.24	0-360	200	H

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

PK - Peak detector

Note: --

10. AC POWER LINE CONDUCTED EMISSIONS

LIMITS AND PROCEDURE

LIMITS

FCC §15.207 (a)

RSS-Gen 8.8

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

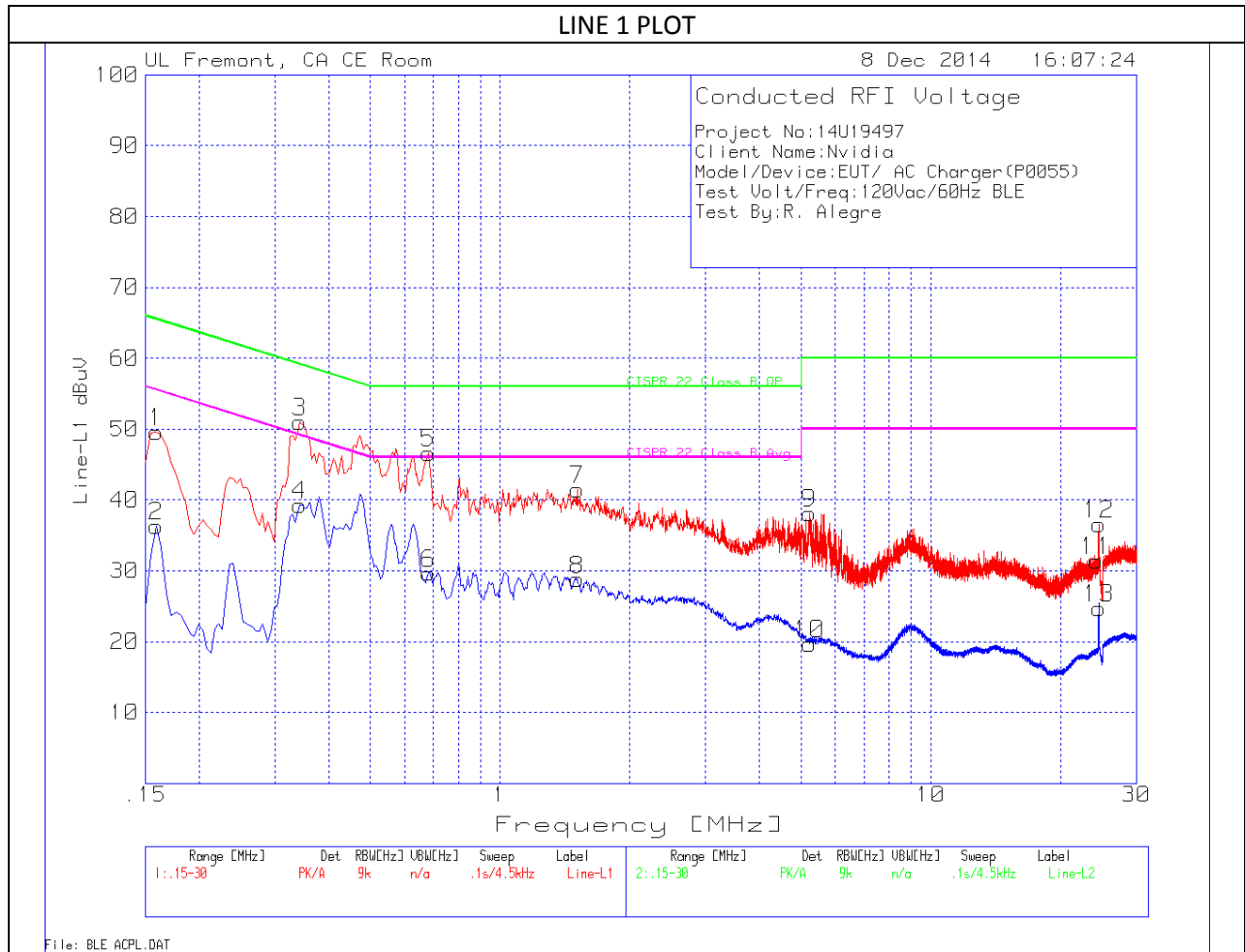
*Decreases with the logarithm of the frequency.

TEST PROCEDURE

ANSI C63.4 - 2009

RESULTS

6 WORST EMISSIONS

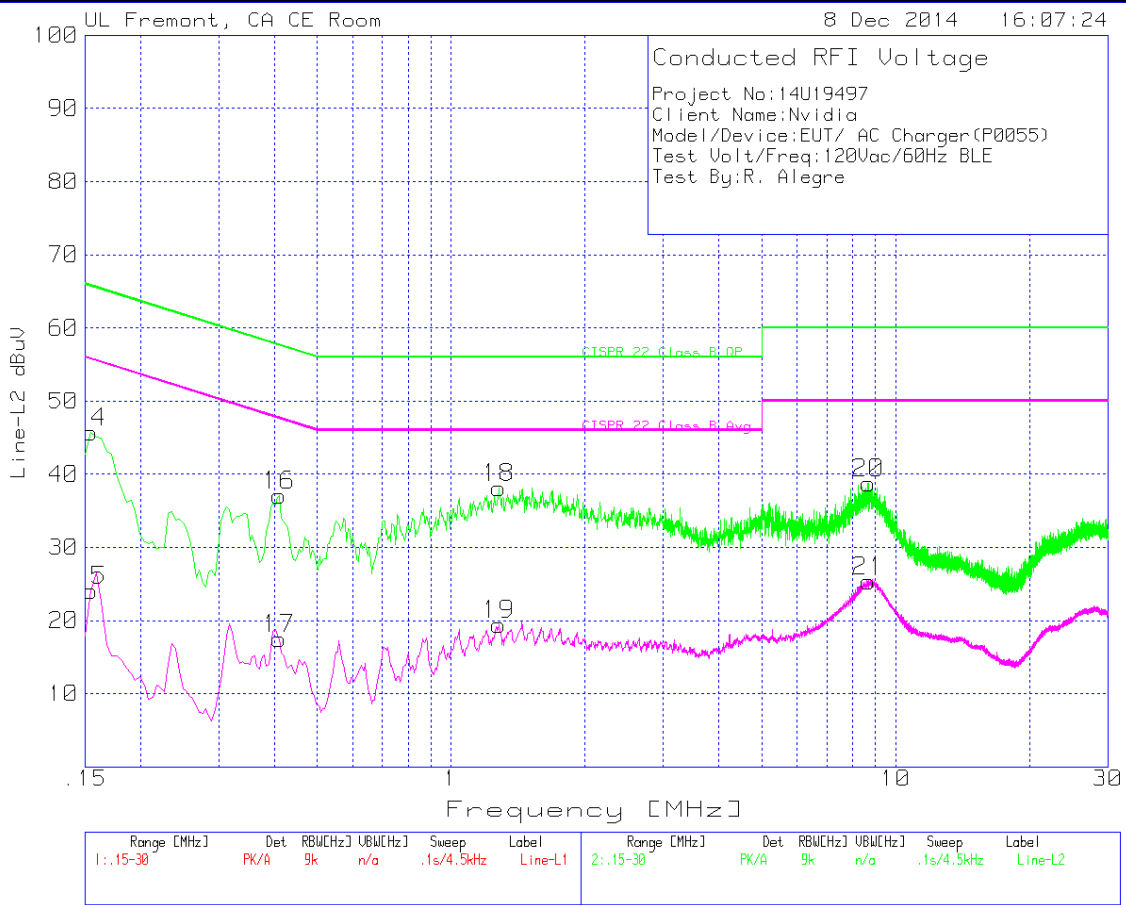


LINE 1 DATA

Trace Markers

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	T24 IL L1 (dB)	LC Cables 1&3 (dB)	Corrected Reading dBuV	CISPR 22 Class B QP	Margin to Limit (dB)	CISPR 22 Class B Avg	Margin to Limit (dB)
1	.159	48.31	PK	1.3	0	49.61	65.5	-15.89	-	-
2	.159	34.96	Av	1.3	0	36.26	-	-	55.5	-19.24
3	.3435	50.56	PK	.5	0	51.06	59.1	-8.04	-	-
4	.3435	38.79	Av	.5	0	39.29	-	-	49.1	-9.81
5	.681	46.36	PK	.3	0	46.66	56	-9.34	-	-
6	.681	29.37	Av	.3	0	29.67	-	-	46	-16.33
7	1.509	41.17	PK	.2	.1	41.47	56	-14.53	-	-
8	1.509	28.47	Av	.2	.1	28.77	-	-	46	-17.23
9	5.217	37.81	PK	.2	.1	38.11	60	-21.89	-	-
10	5.217	19.37	Av	.2	.1	19.67	-	-	50	-30.33
11	24.2295	30.87	PK	.3	.3	31.47	60	-28.53	-	-
12	24.558	35.93	PK	.3	.3	36.53	60	-23.47	-	-
13	24.558	24.11	Av	.3	.3	24.71	-	-	50	-25.29

LINE 2 PLOT



File: BLE_ACPL.DAT

LINE 2 DATA

Trace Markers

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	T24 IL L2 (dB)	LC Cables 2&3 (dB)	Corrected Reading dBuV	CISPR 22 Class B QP	Margin to Limit (dB)	CISPR 22 Class B Avg	Margin to Limit (dB)
14	.1545	44.28	PK	1.4	0	45.68	65.8	-20.12	-	-
15	.1545	22.64	Av	1.4	0	24.04	-	-	55.8	-31.76
16	.411	36.63	PK	.4	0	37.03	57.6	-20.57	-	-
17	.411	17.06	Av	.4	0	17.46	-	-	47.6	-30.14
18	1.2795	37.86	PK	.2	.1	38.16	56	-17.84	-	-
19	1.2795	19.12	Av	.2	.1	19.42	-	-	46	-26.58
20	8.7	38.43	PK	.2	.1	38.73	60	-21.27	-	-
21	8.7	25.01	Av	.2	.1	25.31	-	-	50	-24.69