



FCC CFR47 PART 15 SUBPART C

**BLUETOOTH LOW ENERGY
C2PC CERTIFICATION TEST REPORT**

FOR

CDMA/ LTE Phone + Bluetooth, and DTS b/g/n

**MODEL NUMBER: LG-LS660, LGLS660, LS660,
LG-LS660P, LGLS660P and LS660P**

FCC ID: ZNFLS660

REPORT NUMBER: 14U18507-E3 REVISION A

ISSUE DATE: SEPTEMBER 05, 2014

Prepared for

**LG ELECTRONICS MOBILECOMM U.S.A., INC
1000 SYLVAN AVENUE
ENGLEWOOD CLIFFS,
NEW JERSEY, 07632, U.S.A.**

Prepared by

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



NVLAP LAB CODE 200065-0

Revision History

<u>Rev.</u>	<u>Issue Date</u>	<u>Revisions</u>	<u>Revised By</u>
--	08/20/14	Initial Issue	D. Corona
A	09/05/14	Update antenna gain information page 6	D. Corona

TABLE OF CONTENTS

1. ATTESTATION OF TEST RESULTS	4
2. TEST METHODOLOGY	5
3. FACILITIES AND ACCREDITATION	5
4. CALIBRATION AND UNCERTAINTY	5
4.1. <i>MEASURING INSTRUMENT CALIBRATION</i>	<i>5</i>
4.2. <i>SAMPLE CALCULATION</i>	<i>5</i>
4.3. <i>MEASUREMENT UNCERTAINTY.....</i>	<i>5</i>
5. EQUIPMENT UNDER TEST	6
5.1. <i>DESCRIPTION OF EUT</i>	<i>6</i>
5.2. <i>MAXIMUM OUTPUT POWER.....</i>	<i>6</i>
5.3. <i>DESCRIPTION OF AVAILABLE ANTENNAS</i>	<i>6</i>
5.4. <i>WORST-CASE CONFIGURATION AND MODE.....</i>	<i>7</i>
5.5. <i>DESCRIPTION OF TEST SETUP.....</i>	<i>8</i>
6. TEST AND MEASUREMENT EQUIPMENT	10
7. SUMMARY	11
8. ANTENNA PORT TEST RESULTS	11
8.1. <i>6 dB BANDWIDTH.....</i>	<i>12</i>
8.2. <i>99% BANDWIDTH.....</i>	<i>13</i>
8.3. <i>OUTPUT POWER.....</i>	<i>14</i>
8.4. <i>AVERAGE POWER.....</i>	<i>15</i>
8.5. <i>POWER SPECTRAL DENSITY</i>	<i>16</i>
8.6. <i>CONDUCTED SPURIOUS EMISSIONS.....</i>	<i>17</i>
9. RADIATED TEST RESULTS.....	18
9.1. <i>LIMITS AND PROCEDURE.....</i>	<i>18</i>
9.2. <i>TRANSMITTER ABOVE 1 GHz</i>	<i>19</i>
9.3. <i>WORST-CASE BELOW 1 GHz.....</i>	<i>32</i>
10. AC POWER LINE CONDUCTED EMISSIONS	34
11. SETUP PHOTOS	35

1. ATTESTATION OF TEST RESULTS

COMPANY NAME: LG ELECTRONICS MOBILECOMM U.S.A., INC.
EUT DESCRIPTION: CDMA/LTE Phone + Bluetooth, and DTS b/g/n.
MODEL: LG-LS660, LGLS660, LS660, LG-LS660P, LGLS660P and LS660P
SERIAL NUMBER: 780 (Conducted), 781 (Radiated)
DATE TESTED: AUGUST 8 - 12, 2014

APPLICABLE STANDARDS	
STANDARD	TEST RESULTS
CFR 47 Part 15 Subpart C	Pass

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

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

Approved & Released For
UL Verification Services Inc. By:

Tested By:



DAN CORONIA
CONSUMER TECHNOLOGY DIVISION
PROJECT LEAD
UL Verification Services Inc.

CHARLES VERGONIO
CONSUMER TECHNOLOGY DIVISION
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.

3. FACILITIES AND ACCREDITATION

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

47173 Benicia Street	47266 Benicia Street
<input type="checkbox"/> Chamber A	<input type="checkbox"/> Chamber D
<input checked="" type="checkbox"/> Chamber B	<input type="checkbox"/> Chamber E
<input type="checkbox"/> Chamber C	<input type="checkbox"/> Chamber F

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

4. CALIBRATION AND UNCERTAINTY

4.1. MEASURING INSTRUMENT CALIBRATION

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

4.2. SAMPLE CALCULATION

Where relevant, the following sample calculation is provided:

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

4.3. MEASUREMENT UNCERTAINTY

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

PARAMETER	UNCERTAINTY
Conducted Disturbance, 0.15 to 30 MHz	3.52 dB
Radiated Disturbance, 30 to 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 CDMA/LTE Phone + Bluetooth, DTS b/g/n.

5.2. MAXIMUM OUTPUT POWER

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

Please refer to project 14U18147 for details.

5.3. DESCRIPTION OF AVAILABLE ANTENNAS

The radio utilizes an FPCB antenna, with a maximum gain of -2.60 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 X orientation was worst-case orientation; therefore, all final radiated testing was performed with the EUT in X orientation.

5.5. DESCRIPTION OF TEST SETUP

SUPPORT EQUIPMENT

Support Equipment List				
Description	Manufacturer	Model	Serial Number	FCC ID
AC Adapter	LG	STA-U34WRI	N/A	N/A
AC Adapter	LG	MCS-02WR	N/A	N/A
AC Adapter	LG	MCS-02WD	N/A	N/A
Earphone	LG	N/A	N/A	N/A

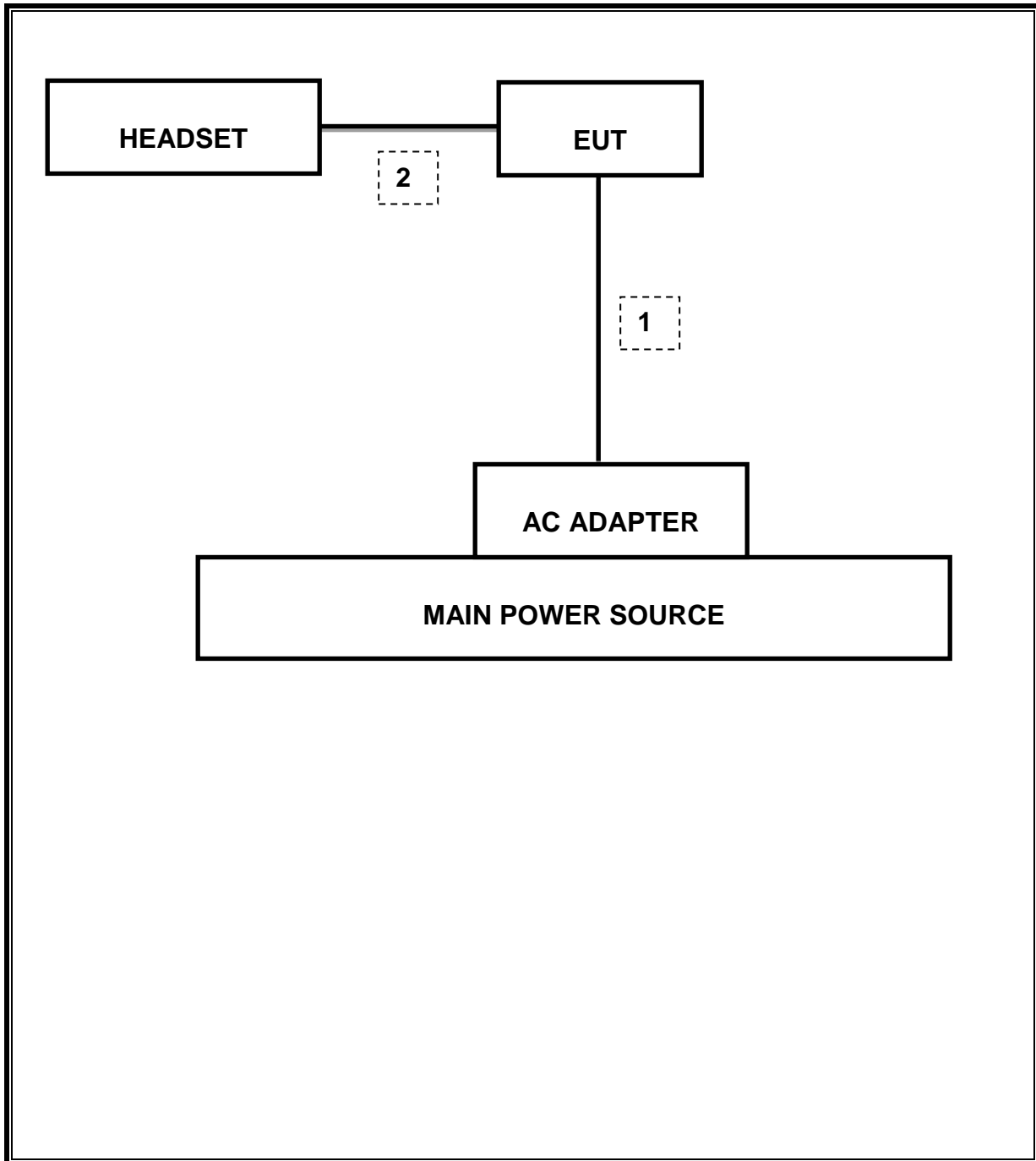
I/O CABLES

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

EUT was set in the Hidden menu mode to enable BLE communications.

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	8/8/2014
Preamplifier, 1300 MHz	Agilent / HP	8447D	C00580	5/8/2015
Preamplifier, 26.5 GHz	Agilent / HP	8449B	C01063	10/22/2014
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

7. SUMMARY

8.

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)	>500KHz	Conducted	Pass	see original
2.1051, 15.247 (d)	RSS-210 A8.5	Band Edge / Conducted Spurious Emission	-20dBc		Pass	see original
15.247	RSS-210 A8.4	TX conducted output power	<30dBm		Pass	see original
15.247	RSS-210 A8.2	PSD	<8dBm		Pass	see original
15.207 (a)	RSS-GEN 7.2.2	AC Power Line conducted emissions	Section 10	Radiated	Pass	see original
15.205, 15.209	RSS-210 Clause 2.6, RSS-210 Clause 6	Radiated Spurious Emission	< 54dBuV/m		Pass	41.06dBuV/m

ANTENNA PORT TEST RESULTS

8.1. 6 dB BANDWIDTH

LIMITS

FCC §15.247 (a) (2)

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

TEST PROCEDURE

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

Please refer to project 14U18147 for details.

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

Please refer to project 14U18147 for details.

8.3. OUTPUT POWER

LIMITS

FCC §15.247 (b)

The maximum antenna gain is less than or equal to 6 dBi, 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

Please refer to project 14U18147 for details.

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.

Please refer to project 14U18147 for details.

8.5. POWER SPECTRAL DENSITY

LIMITS

FCC §15.247 (e)

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

Please refer to project 14U18147 for details.

8.6. CONDUCTED SPURIOUS EMISSIONS

LIMITS

FCC §15.247 (d)

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

Please refer to project 14U18147 for details.

9. RADIATED TEST RESULTS

9.1. LIMITS AND PROCEDURE

LIMITS

FCC §15.205 and §15.209

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.

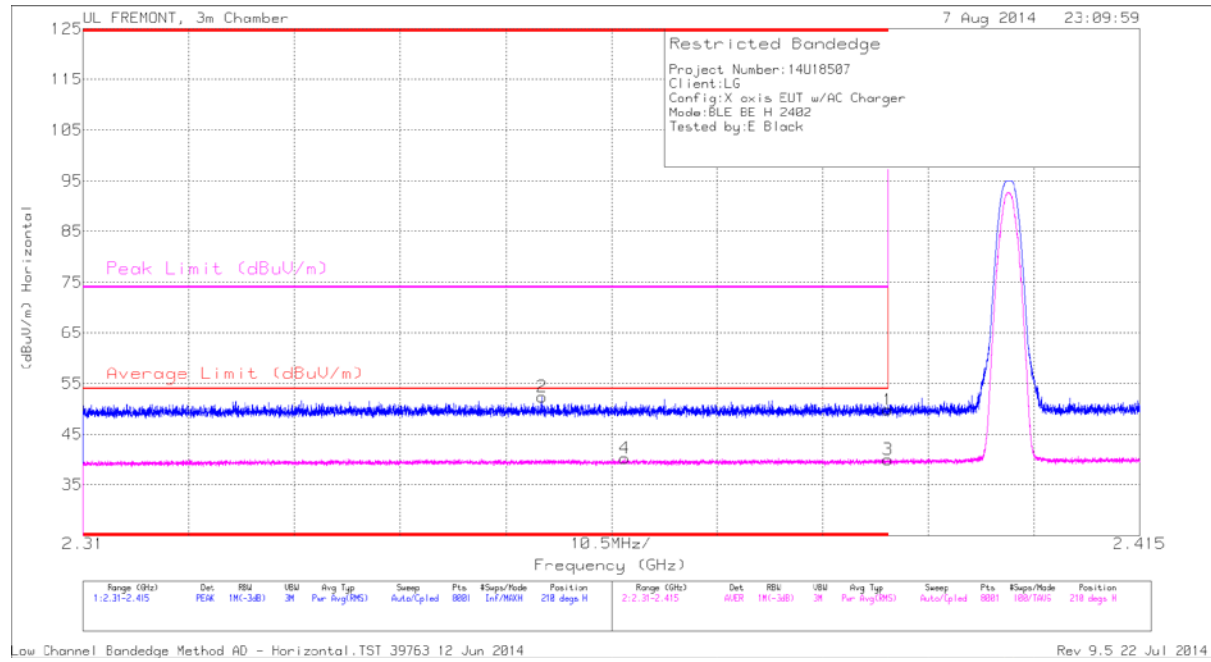
For measurements above 1 GHz the resolution bandwidth is set to 1 MHz, then the video bandwidth is set to 1 MHz for peak measurements and add duty cycle factor for average measurements. Duty cycle factor = $10 \log(1/x)$. For this sample: DCF = $10 \log(1/0.618) = 2.08 \text{ dB}$ (Spectrum Analyzer round it up to 2.1 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.

9.2. TRANSMITTER ABOVE 1 GHz

RESTRICTED BANDEDGE (LOW CHANNEL, HORIZONTAL)



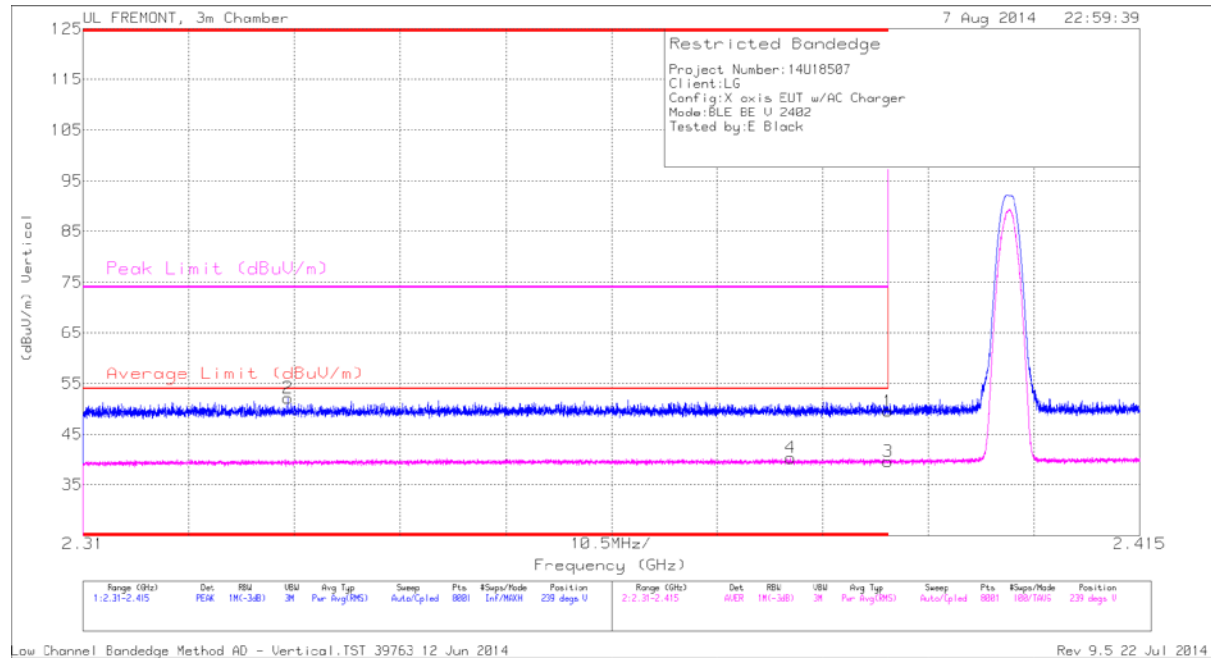
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/FI tr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	* 2.356	43.48	PK	32	-23.1	0	52.38	-	-	74	-21.62	210	259	H
4	* 2.364	31.33	RMS	32	-23.1	0	40.23	54	-13.77	-	-	210	259	H
1	* 2.39	40.77	PK	32.1	-23.1	0	49.77	-	-	74	-24.23	210	259	H
3	* 2.39	30.98	RMS	32.1	-23.1	0	39.98	54	-14.02	-	-	210	259	H

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

PK - Peak detector

RMS - RMS detection

RESTRICTED BANDEDGE (LOW CHANNEL, VERTICAL)



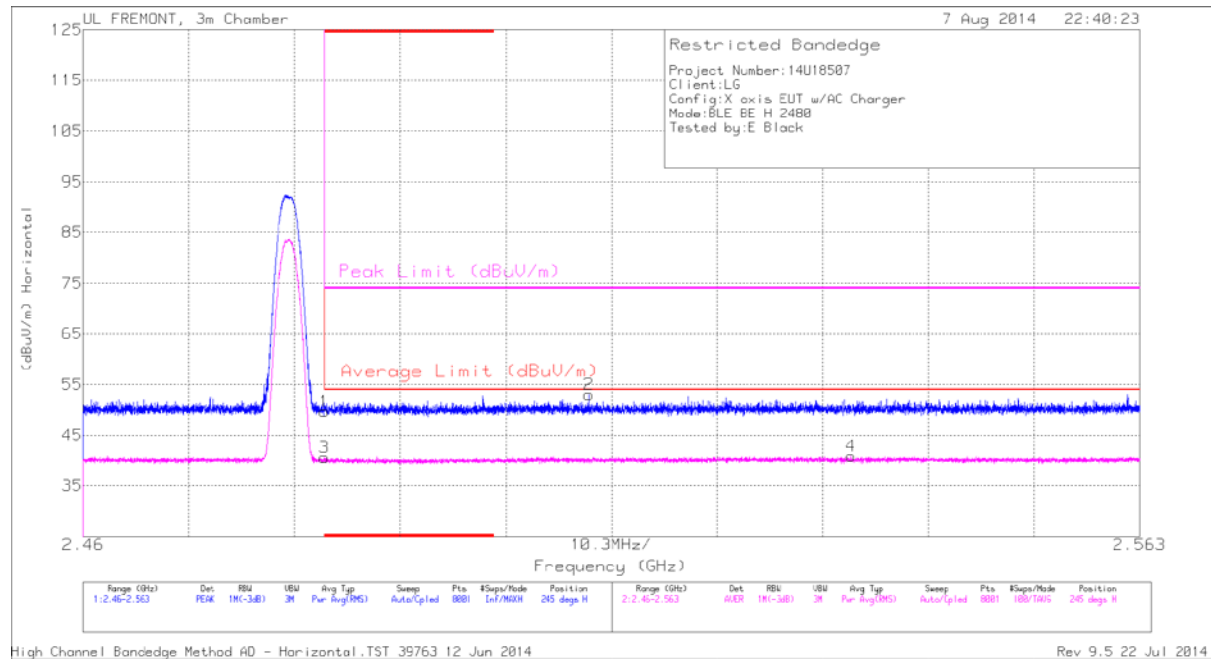
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cb/FI tr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	* 2.33	43.34	PK	31.9	-23.1	0	52.14	-	-	74	-21.86	239	389	V
4	* 2.38	31.3	RMS	32.1	-23.1	0	40.3	54	-13.7	-	-	239	389	V
1	* 2.39	40.51	PK	32.1	-23.1	0	49.51	-	-	74	-24.49	239	389	V
3	* 2.39	30.58	RMS	32.1	-23.1	0	39.58	54	-14.42	-	-	239	389	V

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

PK - Peak detector

RMS - RMS detection

RESTRICTED BANDEGE (HIGH CHANNEL, HORIZONTAL)



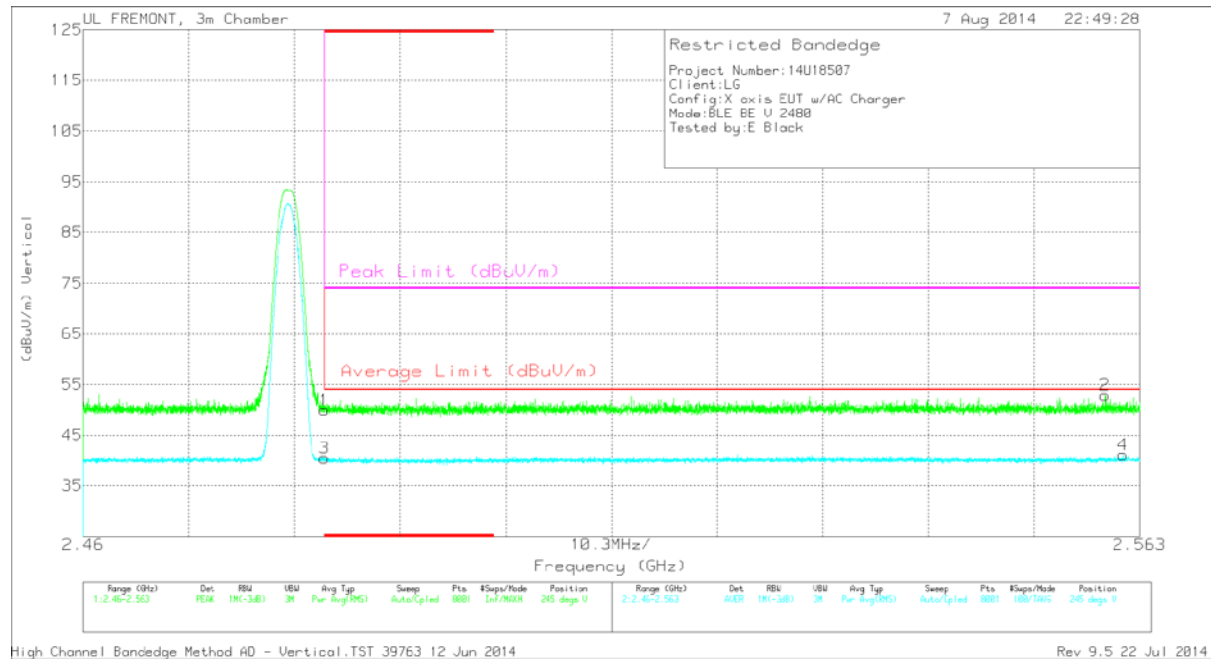
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cb/FI tr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.484	40.12	PK	32.3	-22.8	0	49.62	-	-	74	-24.38	245	362	H
3	* 2.484	31.09	RMS	32.3	-22.8	0	40.59	54	-13.41	-	-	245	362	H
2	2.509	43.52	PK	32.3	-22.8	0	53.02	-	-	74	-20.98	245	362	H
4	2.535	31.23	RMS	32.4	-22.8	0	40.83	54	-13.17	-	-	245	362	H

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

PK - Peak detector

RMS - RMS detection

RESTRICTED BANDEDGE (HIGH CHANNEL, VERTICAL)



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.484	40.42	PK	32.3	-22.8	49.92	-	-	74	-24.08	245	359	V
3	* 2.484	31.02	RMS	32.3	-22.8	40.52	54	-13.48	-	-	245	359	V
2	2.56	43.19	PK	32.4	-22.7	52.89	-	-	74	-21.11	245	359	V
4	2.561	31.36	RMS	32.4	-22.7	41.06	54	-12.94	-	-	245	359	V

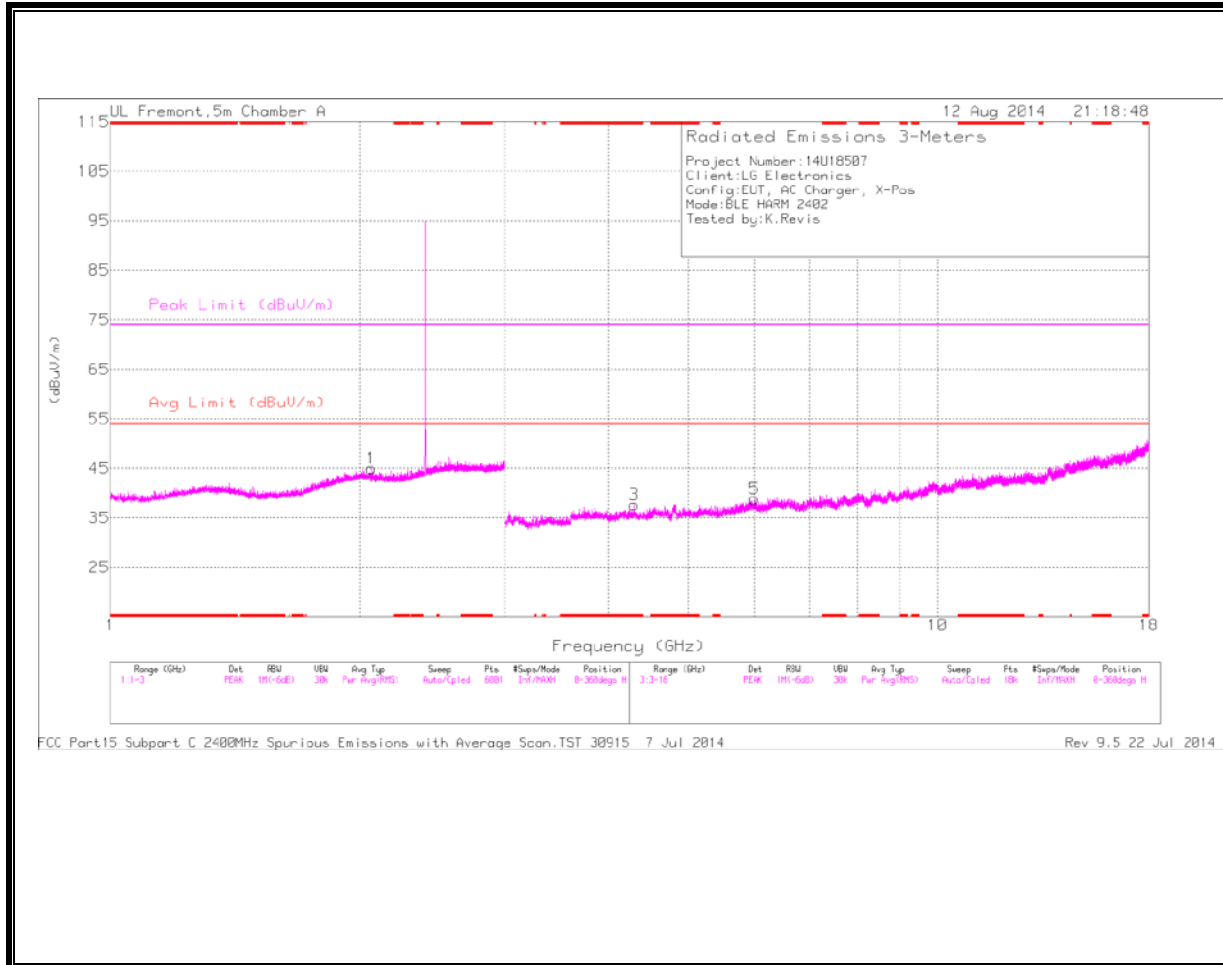
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK - Peak detector

RMS - RMS detection

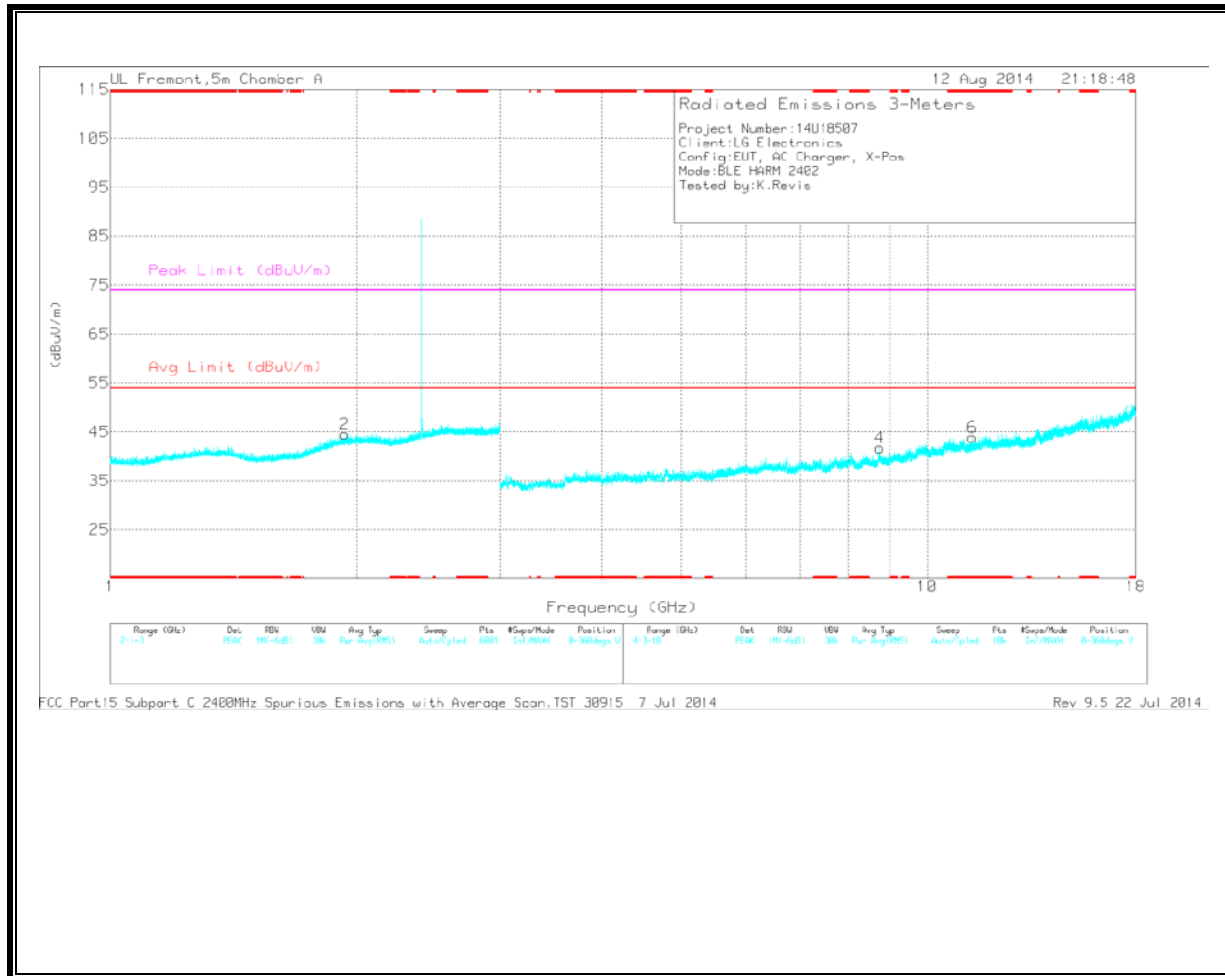
HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL
 HORIZONTAL



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

VERTICAL



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

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T136 (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
3	* 4.299	33.29	PK	34	-29.6	0	37.69	-	-	74	-36.31	0-360	201	H
6	* 11.358	26.71	PK	38.1	-20.9	0	43.91	-	-	74	-30.09	0-360	100	V
2	1.938	36.43	PK	31.8	-23.7	0	44.53	-	-	-	-	0-360	100	V
1	2.068	36.58	PK	31.9	-23.5	0	44.98	-	-	-	-	0-360	201	H
5	6.007	31.47	PK	35.3	-27.9	0	38.87	-	-	-	-	0-360	201	H
4	8.754	28.84	PK	35.8	-22.9	0	41.74	-	-	-	-	0-360	201	V

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

PK - Peak detector

Radiated Emissions

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T136 (dB/m)	Amp/Cbl /Fitr/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
* 4.299	40.59	PK2	34	-29.6	0	44.99	-	-	74	-29.01	120	202	H
* 4.299	28.46	MAv1	34	-29.6	2.1	34.96	54	-19.04	-	-	120	202	H
* 11.356	33.66	PK2	38.1	-20.9	0	50.86	-	-	74	-23.14	120	100	V
* 11.36	22.48	MAv1	38.1	-20.9	2.1	41.78	54	-12.22	-	-	120	100	V

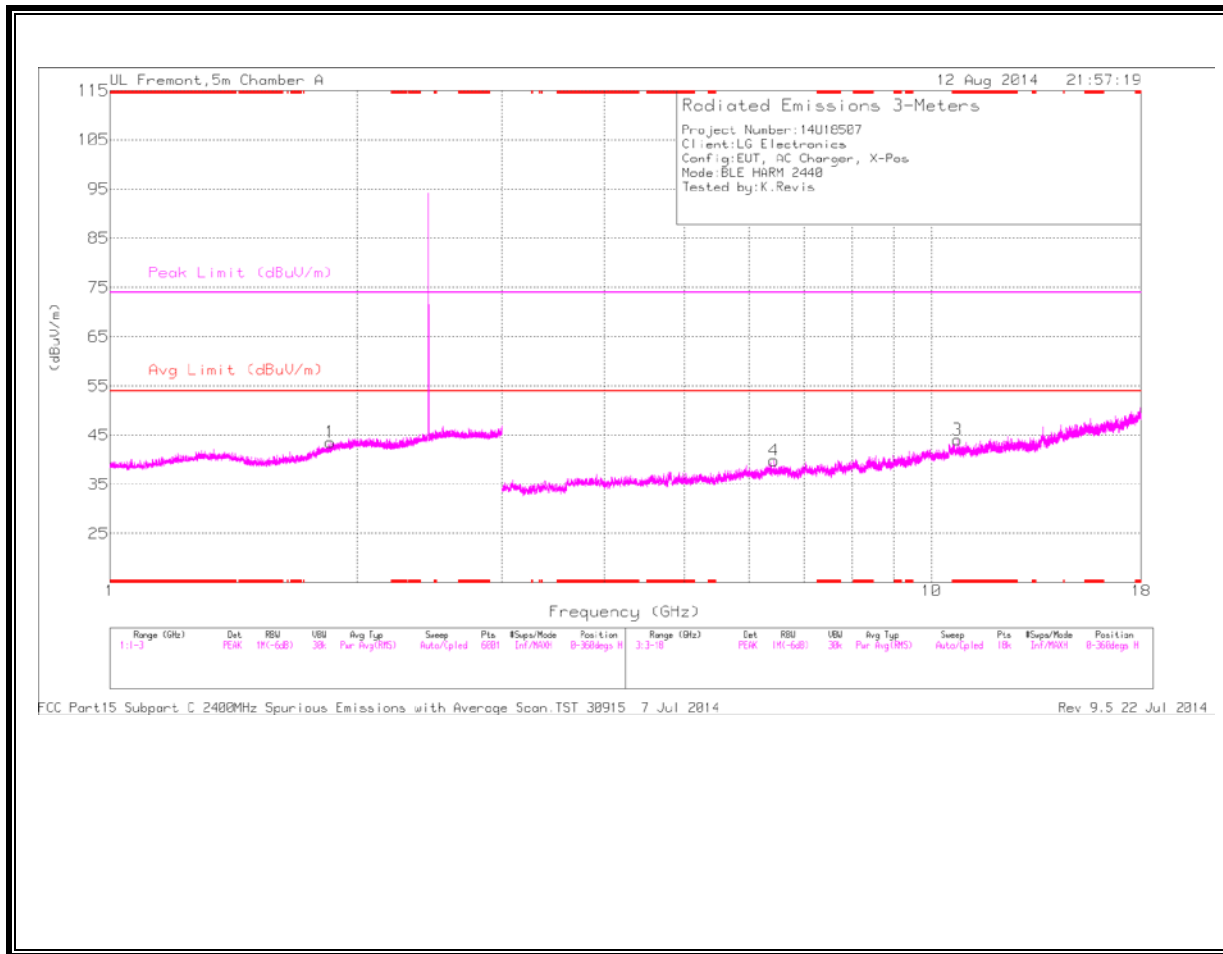
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK2 - KDB558074 Method: Maximum Peak

MAv1 - KDB558074 Option 1 Maximum RMS Average

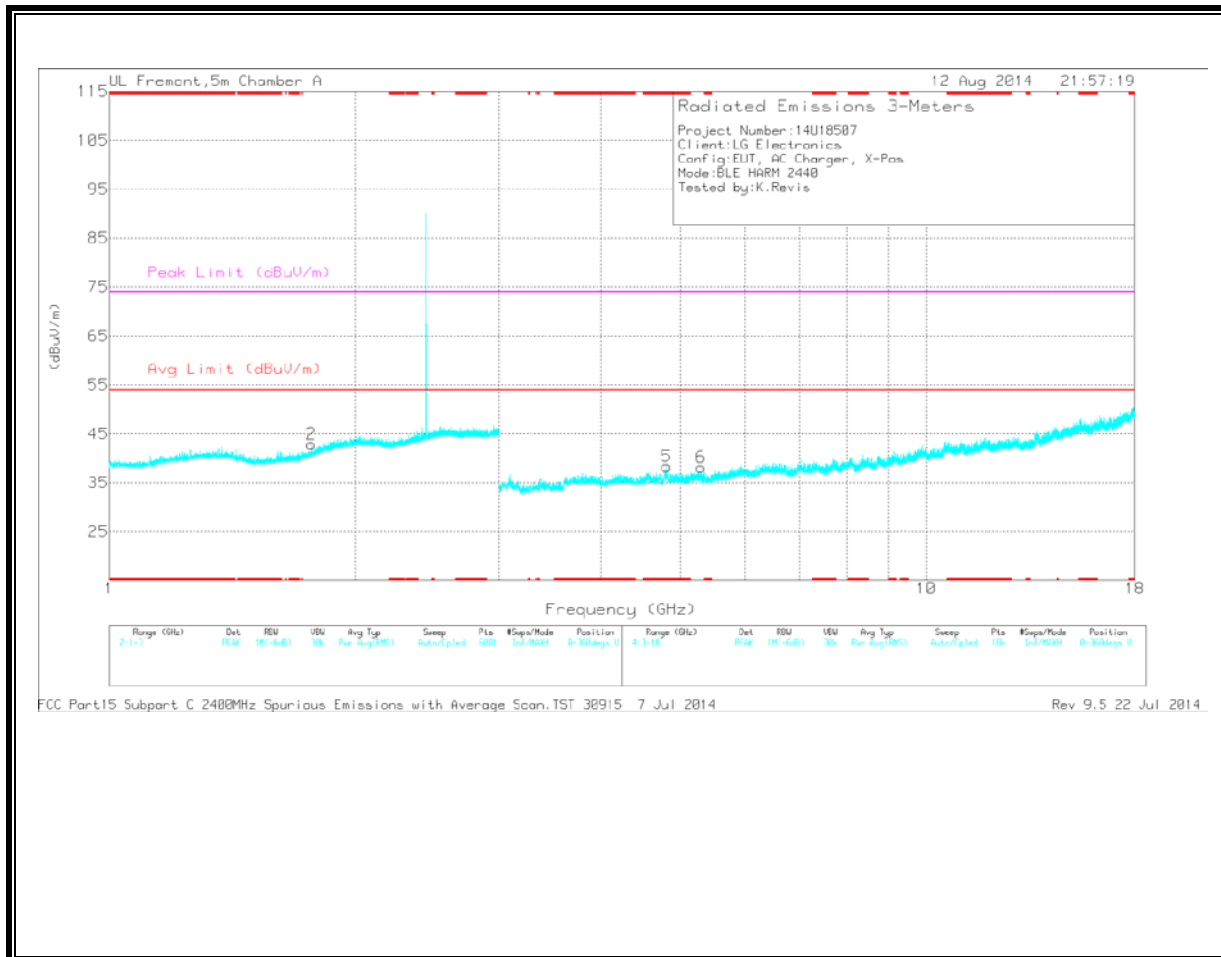
MID CHANNEL

HORIZONTAL



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

VERTICAL



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

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T136 (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
3	* 10.753	27.75	PK	37.9	-21.6	0	44.05	-	-	74	-29.95	0-360	100	H
5	* 4.817	33.36	PK	34	-29	0	38.36	-	-	74	-35.64	0-360	201	V
2	1.768	36.64	PK	30.1	-23.8	0	42.94	-	-	-	-	0-360	100	V
1	1.856	36.16	PK	31.2	-23.8	0	43.56	-	-	-	-	0-360	201	H
6	5.301	32.31	PK	34.3	-28.4	0	38.21	-	-	-	-	0-360	201	V
4	6.426	32.57	PK	35.5	-28.2	0	39.87	-	-	-	-	0-360	201	H

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

PK - Peak detector

Radiated Emissions

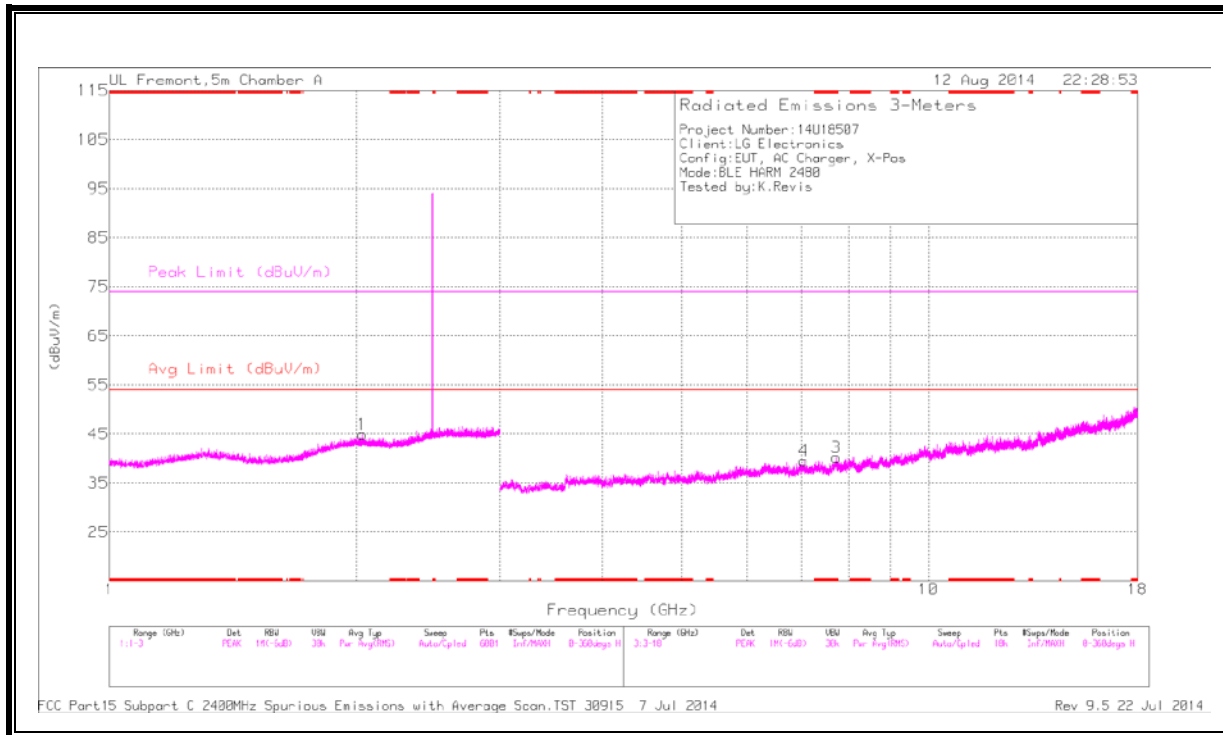
Frequency (GHz)	Meter Reading (dBuV)	Det	AF T136 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 10.751	33.35	PK2	37.9	-21.6	0	49.65	-	-	74	-24.35	1	100	H
* 10.755	23.16	MAv1	37.9	-21.6	2.1	41.56	54	-12.44	-	-	1	100	H
* 4.816	40.25	PK2	34	-29	0	45.25	-	-	74	-28.75	1	202	V
* 4.818	29.21	MAv1	34	-29	2.1	36.31	54	-17.69	-	-	1	202	V

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

PK2 - KDB558074 Method: Maximum Peak

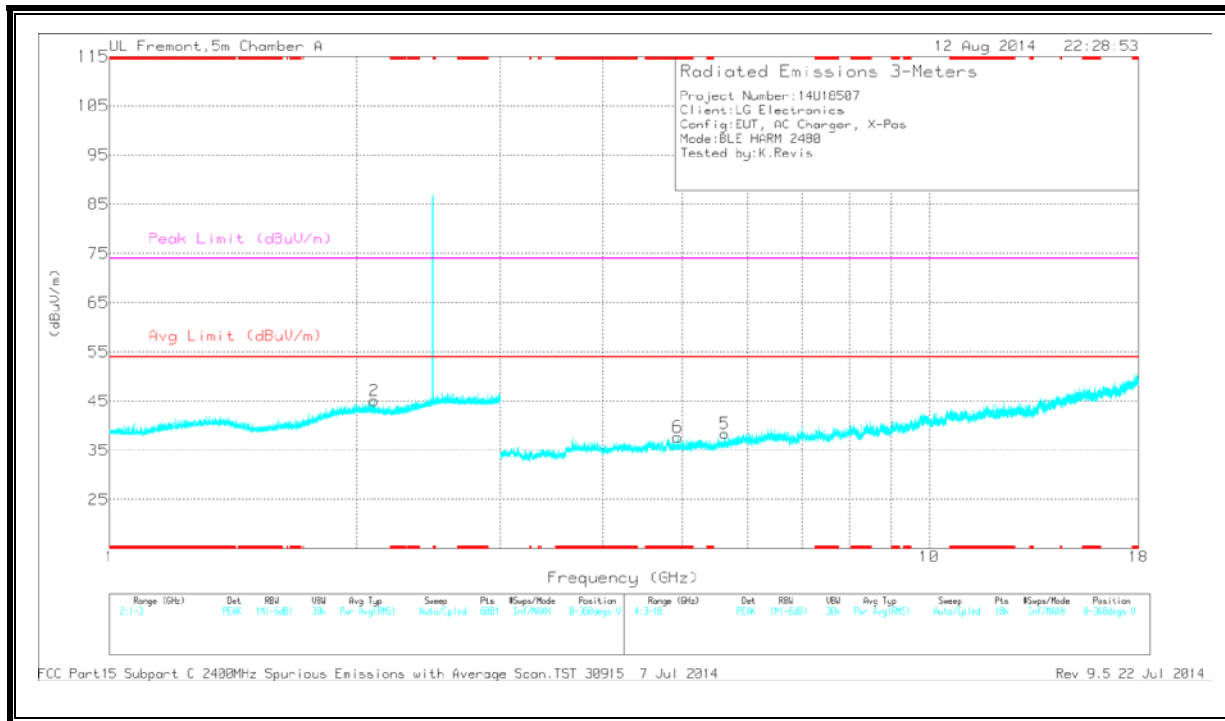
MAv1 - KDB558074 Option 1 Maximum RMS Average

HIGH CHANNEL
HORIZONTAL



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

VERTICAL



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

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T136 (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
3	* 7.717	29.03	PK	35.4	-24.2	0	40.23	-	-	74	-33.77	0-360	201	H
6	* 4.936	32.21	PK	33.9	-28.4	0	37.71	-	-	74	-36.29	0-360	100	V
1	2.037	36.44	PK	32	-23.5	0	44.94	-	-	-	-	0-360	201	H
2	2.105	36.91	PK	31.7	-23.5	0	45.11	-	-	-	-	0-360	201	V
5	5.632	32.13	PK	34.4	-28.1	0	38.43	-	-	-	-	0-360	201	V
4	7.042	29.95	PK	35.3	-25.7	0	39.55	-	-	-	-	0-360	201	H

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

PK - Peak detector

Radiated Emissions

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T136 (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
* 7.719	36.15	PK2	35.4	-24.2	0	47.35	-	-	74	-26.65	1	202	H
* 7.716	25.32	MAv1	35.4	-24.2	2.1	38.62	54	-15.38	-	-	1	202	H
* 4.936	39.57	PK2	33.9	-28.4	0	45.07	-	-	74	-28.93	1	100	V
* 4.936	27.83	MAv1	33.9	-28.4	2.1	35.43	54	-18.57	-	-	1	100	V

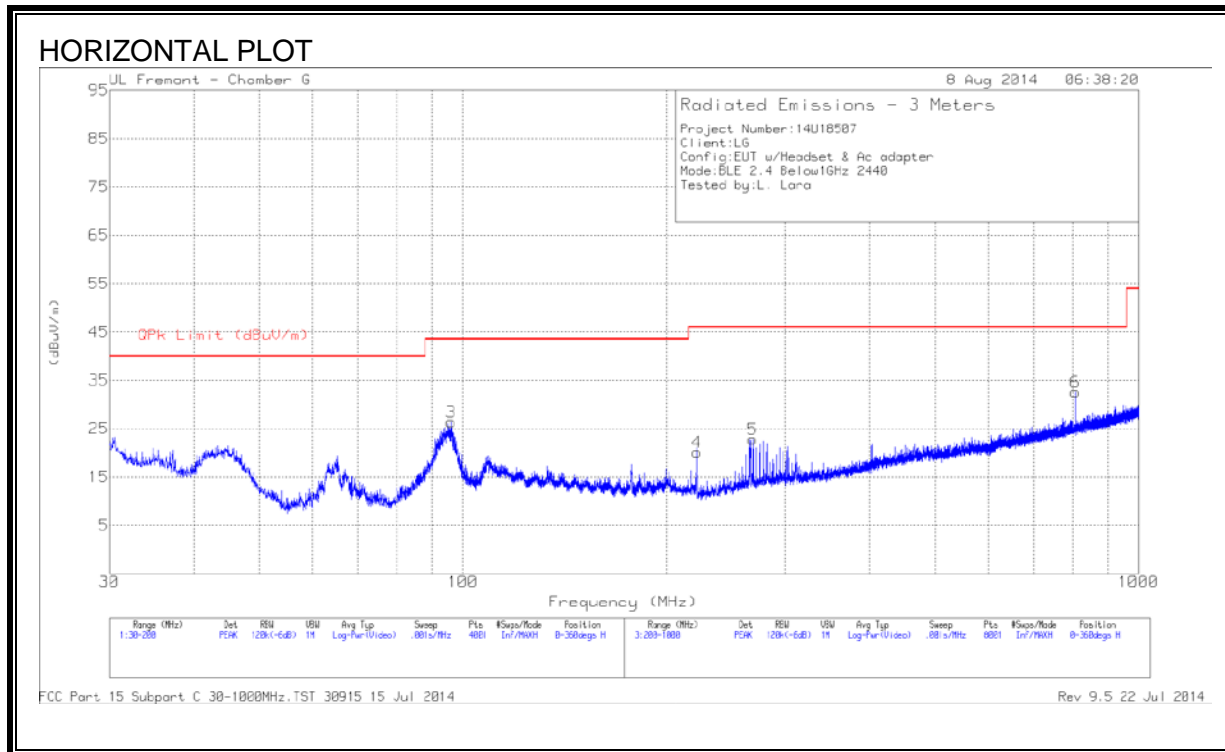
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

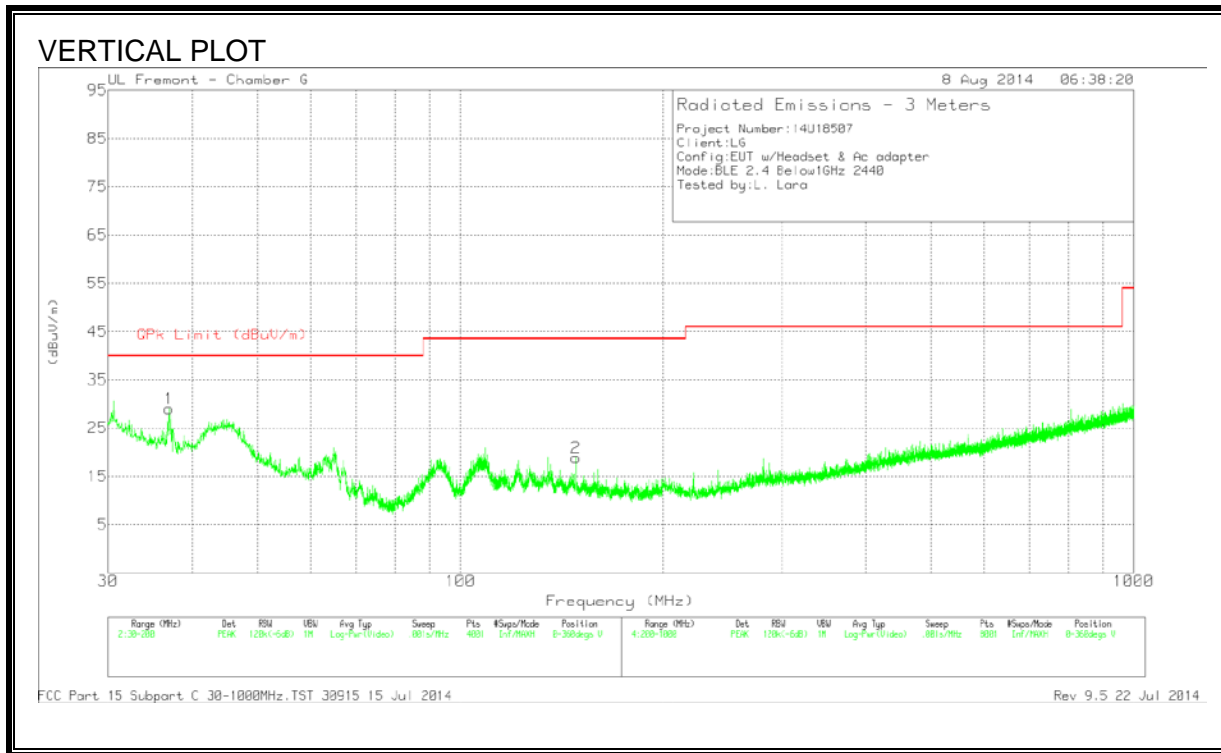
PK2 - KDB558074 Method: Maximum Peak

MAv1 - KDB558074 Option 1 Maximum RMS Average

9.3. WORST-CASE BELOW 1 GHz

SPURIOUS EMISSIONS 30 TO 1000 MHz (WORST-CASE CONFIGURATION WITH U34WDI CHARGER)





Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	Hybrid	Amp/Cbl (dB)	Corrected Reading (dBuV/m)	QPK Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
5	* 268.8	35.83	PK	15.7	-28.7	22.83	46.02	-23.19	0-360	100	H
1	36.9275	40.53	PK	19.3	-30.8	29.03	40	-10.97	0-360	100	V
3	95.96	44.64	PK	11.9	-30.2	26.34	43.52	-17.18	0-360	201	H
2	148.49	32.71	PK	15.8	-29.6	18.91	43.52	-24.61	0-360	100	V
4	222.2	35.49	PK	13.6	-29	20.09	46.02	-25.93	0-360	100	H
6	806.1	34.41	PK	24.4	-26.2	32.61	46.02	-13.41	0-360	100	H

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

PK - Peak detector

10. AC POWER LINE CONDUCTED EMISSIONS

LIMITS

FCC §15.207 (a)

RSS-Gen 7.2.2

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

*Decreases with the logarithm of the frequency.

TEST PROCEDURE

ANSI C63.4 - 2009

RESULTS

Please refer to project 14U18147 for details.