



**FCC CFR47 PART 15 SUBPART C
C2PC CERTIFICATION TEST REPORT
FOR**

GSM/CDMA/WCDMA/LTE Phone + Bluetooth, DTS/UNII a/b/g/n/ac and NFC

MODEL NUMBER: LGLS990, LG-LS990, LS990

FCC ID: ZNFLS990

REPORT NUMBER: 14U17849-4

ISSUE DATE: JUNE 2, 2014

Prepared for
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NVLAP LAB CODE 200065-0

Revision History

Rev.	Issue Date	Revisions	Revised By
--	6/2/14	Initial Issue	P. Kim

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1. ATTESTATION OF TEST RESULTS

COMPANY NAME: LG ELECTRONICS MOBILECOMM U.S.A., INC.

EUT DESCRIPTION: GSM/CDMA/WCDMA/LTE Phone + Bluetooth, DTS/UNII a/b/g/n/ac and NFC.

MODEL: LGLS990, LG-LS990, LS990

SERIAL NUMBER: 17QZC (Radiated)

DATE TESTED: MAY 21 – JUNE 2, 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.

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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 C63.4-2009

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

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 GSM/CDMA/WCDMA/LTE Phone + Bluetooth, DTS/UNII a/b/g/n/ac and NFC.

5.2. MAXIMUM OUTPUT POWER

The transmitter has a maximum conducted output power as follows:

Frequency Range (MHz)	Mode	Output Power (dBm)	Output Power (mW)
2412 - 2462	802.11b	19.74	94.19
2412 - 2462	802.11g	20.78	119.67
2412 - 2462	802.11n HT20	20.71	117.76

5.3. DESCRIPTION OF AVAILABLE ANTENNAS

The radio utilizes an FPCB antenna, with a maximum gain of -4 dBi for 2.4GHz.

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.

Based on the baseline scan, the worst-case data rates were:

802.11b mode: 1 Mbps
802.11g mode: 6 Mbps
802.11n HT20mode: MCS0
802.11ac HT20mode: MCS0

5.5. DESCRIPTION OF TEST SETUP

SUPPORT EQUIPMENT

Support Equipment List				
Description	Manufacturer	Model	Serial Number	FCC ID
AC Adapter	LG	MCS-04WT2	TA350000050	N/A
Earphone	LG	N/A	N/A	N/A
WPC Cover	LG	N/A	N/A	N/A
WPC Charger	LG	WPC-300	304HYBF00069	BEJWCP300

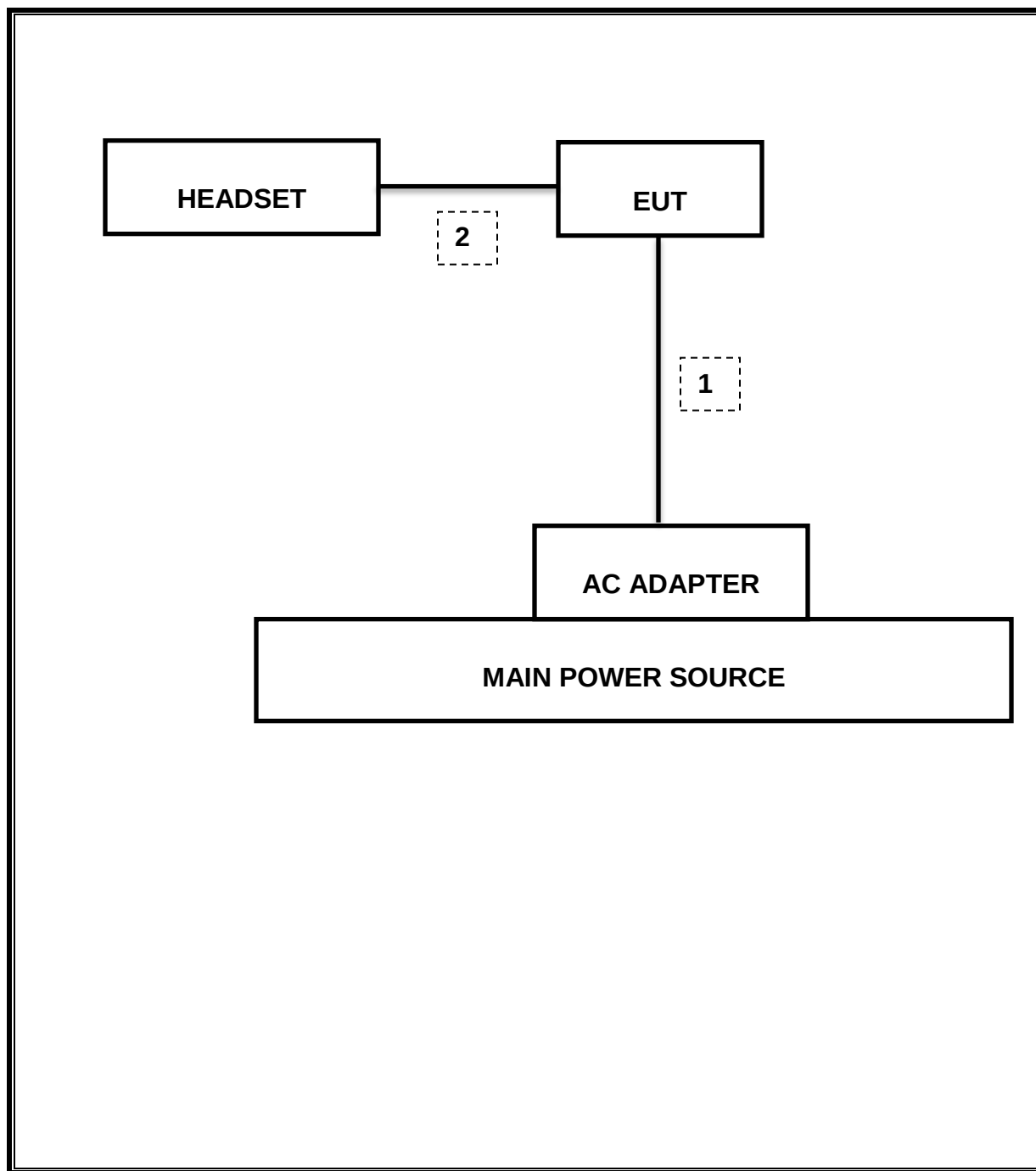
I/O CABLES

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 a stand-alone unit during the tests. Test software exercised the radio card.

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	C01069	12/20/14
Spectrum Analyzer, 9KHz-40GHz	HP	8564E	C00986	04/01/15
EMI Test Receiver, 9 kHz-7 GHz	R & S	ESCI 7	1000741	08/13/14
EMI Test Receiver, 30 MHz	R & S	ESHS 20	N02396	08/18/14
Peak Power Meter	Agilent / HP	E4416A	C00963	12/13/14
Peak / Average Power Sensor	Agilent / HP	E9327A	C00964	12/13/14
Antenna, Horn, 1-18 GHz	ETS	3117	C01022	02/21/15
Antenna, Horn, 18- 26 GHz	ARA	MWH-1826/B	C00946	11/12/14
Antenna, Horn, 26-40 GHz	ARA	MWH-2640	C00891	06/28/14
Antenna, Bilog, 30MHz-1 GHz	Sunol Sciences	JB1	T243	03/06/15
RF Preamplifier, 100KHz -> 1300MHz	HP	TBD	C00825	06/01/14
RF Preamplifier, 1GHz - 18GHz	Miteq	NSP4000-SP2	924343	03/23/15
RF Preamplifier, 1GHz - 26.5GHz	HP	8449B	F00351	06/27/14
AC Power Supply, 2,500VA 45-500Hz	Elgar-Ametek	CW2501M	F00013	CNR
RF Preamplifier, 1GHz - 40GHz	Miteq	NSP4000-SP2	C00990	08/20/14
Attenuator / Switch driver	HP	11713A	F00204	CNR
Low Pass Filter 3GHz	Micro-Tronics	LPS17541	F00219	05/23/15
High Pass Filter 5GHz	Micro-Tronics	HPS17542	F00222	05/22/15
High Pass Filter 6GHz	Micro-Tronics	HPM17543	F00224	05/22/15

7. MEASUREMENT METHODS

KDB 558074 D01 DTS Meas Guidance v03r01:Measurement Procedure PK2 is used for power and PKPSD is used for power spectral density.

Unwanted emissions within Restricted Bands are measured using traditional radiated procedures.

Band edge emissions within Restricted Bands are measured using RMS with duty cycle factor offset method.

8. SUMMARY TABLE

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	46.56dBuV/m

9. RADIATED TEST RESULTS

9.1. 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.

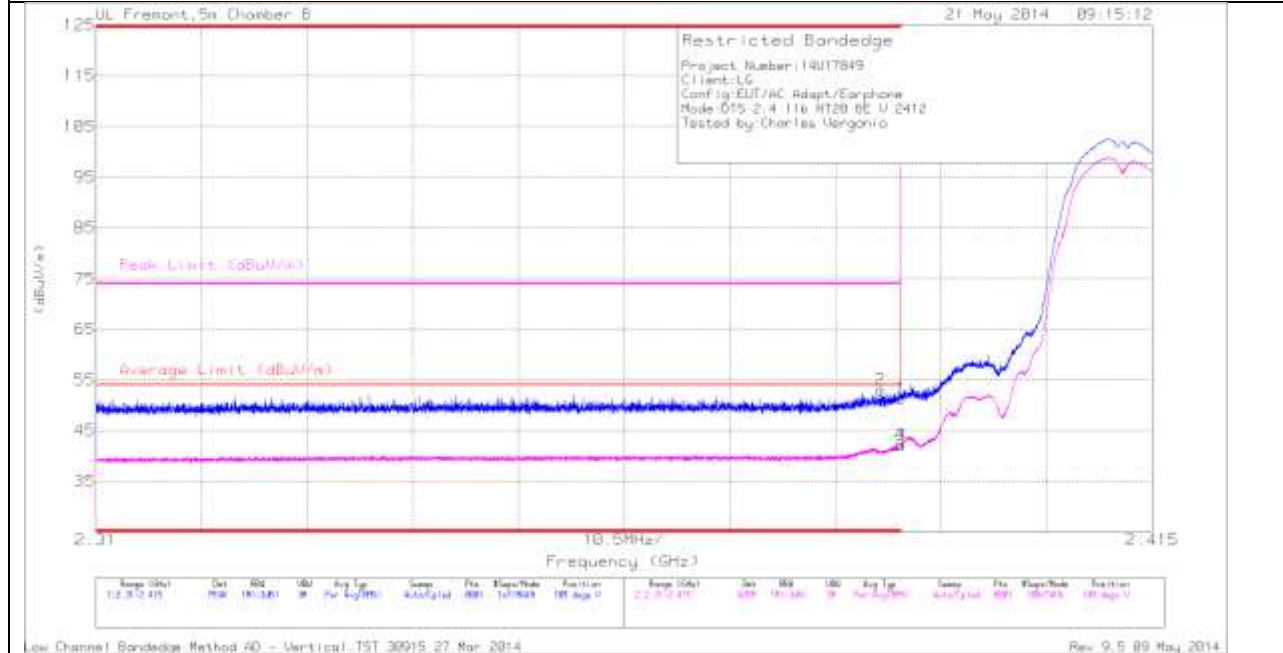
For measurements below 1 GHz the resolution bandwidth is set to 100 kHz for peak detection measurements or 120 kHz for quasi-peak detection measurements. Peak detection is used unless otherwise noted as quasi-peak.

For measurements above 1 GHz the resolution bandwidth is set to 1 MHz; the video bandwidth is set to 3 MHz for peak measurements and add duty cycle factor for average measurements. Duty cycle factor= $10\log(1/x)$ For this sample B mode = 0dB (duty cycle >98%); G mode = 0.2dB; N mode = 0.2dB.

The spectrum from 30 MHz to 40 GHz is investigated with the transmitter set to the lowest, middle, and highest channels in each applicable 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.

LOW CHANNEL RESTRICTED, PEAK & AVERAGE, VERT



Trace Markers

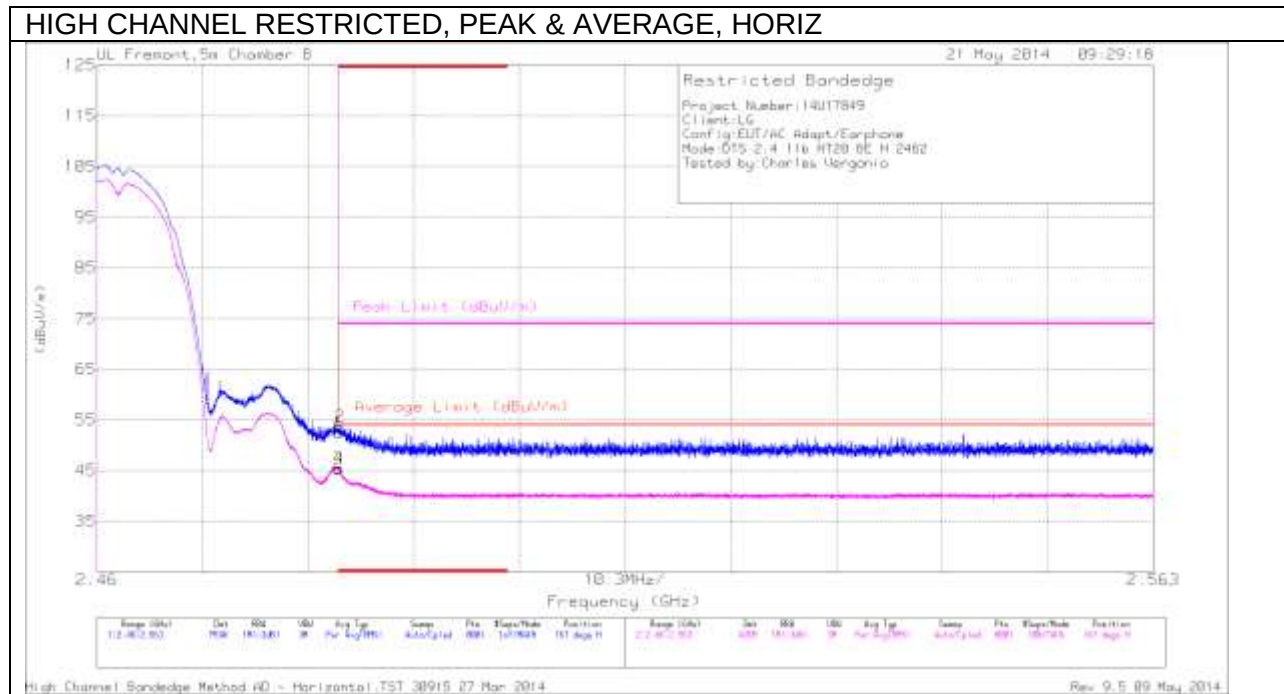
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/ Filt/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.39	42.04	PK	32.1	-22.8	51.34	-	-	74	-22.66	109	293	V
2	* 2.388	43.74	PK	32.1	-22.8	53.04	-	-	74	-20.96	109	293	V
3	* 2.39	32.83	RMS	32.1	-22.8	42.13	54	-11.87	-	-	109	293	V
4	* 2.39	32.79	RMS	32.1	-22.8	42.09	54	-11.91	-	-	109	293	V

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

PK - Peak detector

RMS - RMS detection

AUTHORIZED BANDEDGE (HIGH CHANNEL)



Trace Markers

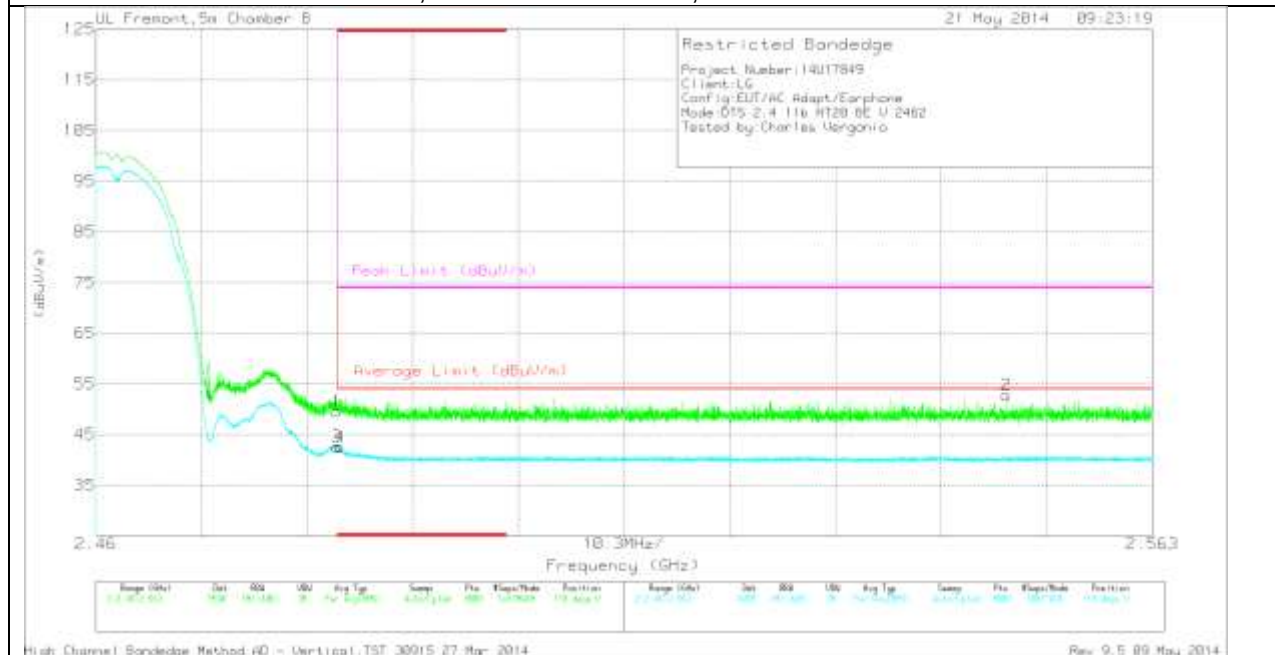
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/ Filt/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.484	42.83	PK	32.4	-22.7	52.53	-	-	74	-21.47	167	282	H
2	* 2.484	43.98	PK	32.4	-22.7	53.68	-	-	74	-20.32	167	282	H
3	* 2.484	35.68	RMS	32.4	-22.7	45.38	54	-8.62	-	-	167	282	H
4	* 2.484	35.72	RMS	32.4	-22.7	45.42	54	-8.58	-	-	167	282	H

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

PK - Peak detector

RMS - RMS detection

HIGH CHANNEL BANDEDGE, PEAK & AVERAGE, VERT



Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/ Filt/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	39.84	PK	32.4	-22.7	49.54	-	-	74	-24.46	118	290	V
3	* 2.484	32.9	RMS	32.4	-22.7	42.6	54	-11.4	-	-	118	290	V
4	* 2.484	32.76	RMS	32.4	-22.7	42.46	54	-11.54	-	-	118	290	V
2	2.549	42.86	PK	32.5	-22.6	52.76	-	-	74	-21.24	118	290	V

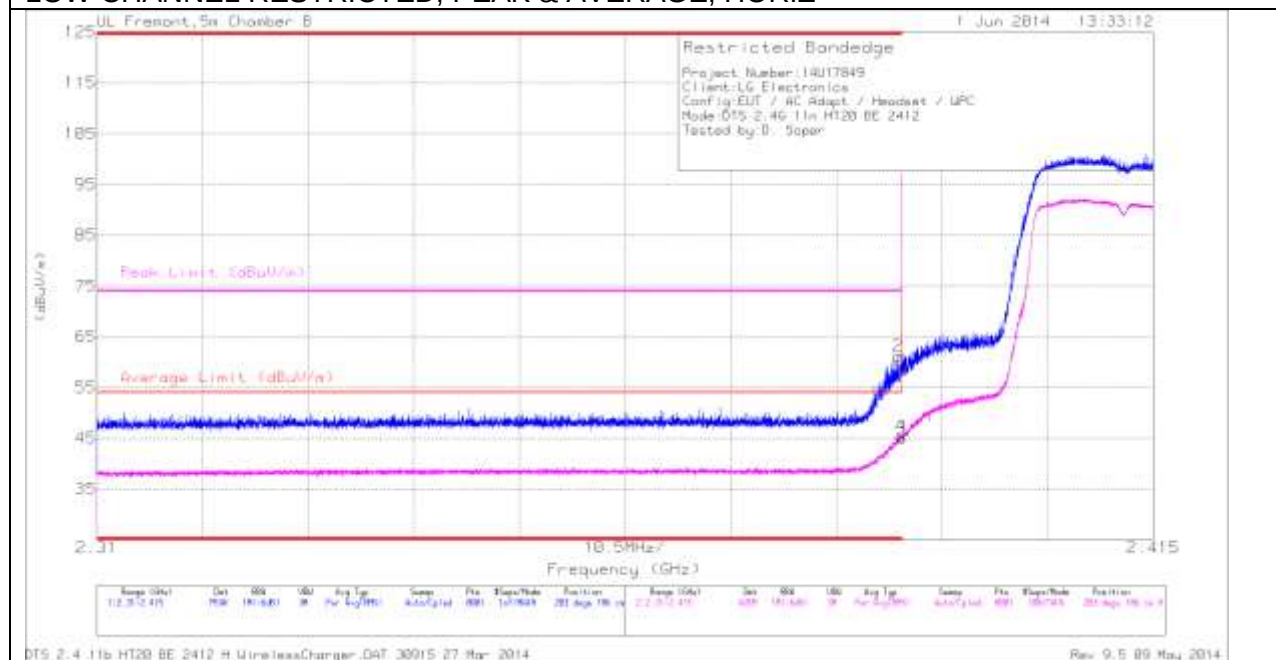
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK - Peak detector

RMS - RMS detection

9.2.2. WORST CASE TX ABOVE 1 GHz 802.11g MODE IN THE 2.4 GHz BAND RESTRICTED BANDEDGE WITH WPC BACK COVER AND CHARGER(LOW CHANNEL)

LOW CHANNEL RESTRICTED, PEAK & AVERAGE, HORIZ



Trace Markers

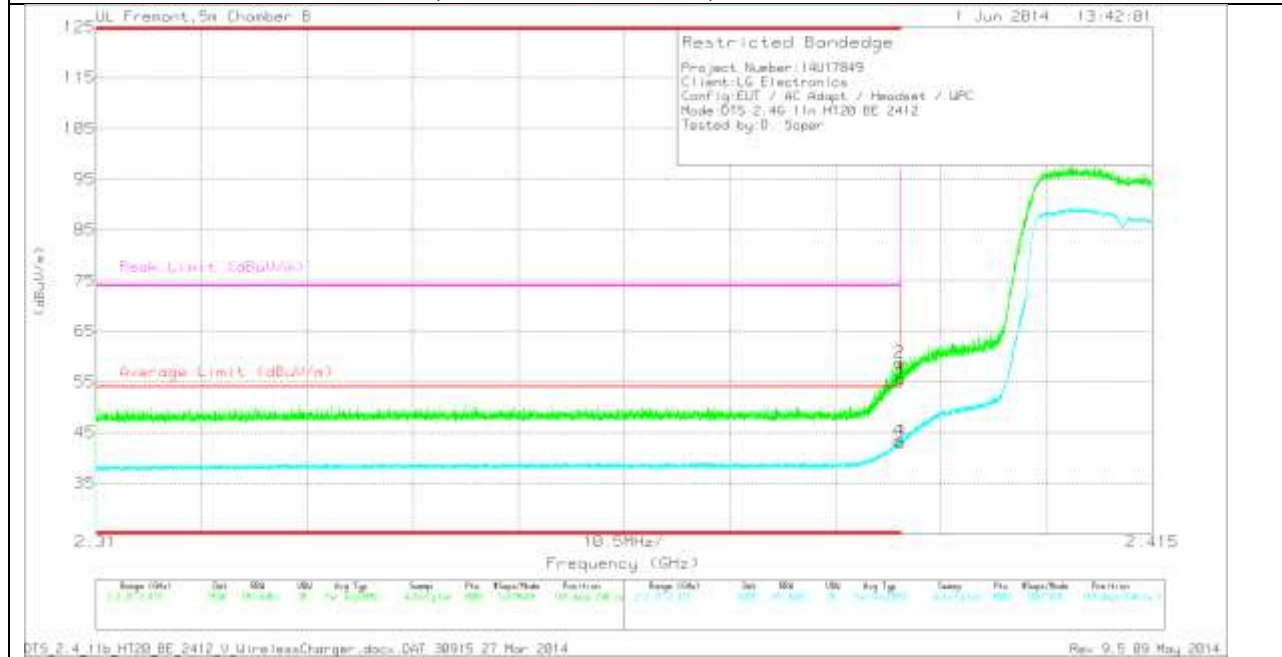
Marker	Frequenc y (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/FI tr/Pad (dB)	DC Corr (dB)	Correcte d Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.39	48.97	PK	32.1	-22.8	0	58.27	-	-	74	-15.73	203	186	H
2	* 2.39	51.94	PK	32.1	-22.8	0	61.24	-	-	74	-12.76	203	186	H
3	* 2.39	35.67	RMS	32.1	-22.8	.2	45.17	54	-8.83	-	-	203	186	H
4	* 2.39	36.05	RMS	32.1	-22.8	.2	45.55	54	-8.45	-	-	203	186	H

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

PK - Peak detector

RMS - RMS detection

LOW CHANNEL RESTRICTED, PEAK & AVERAGE, VERT



Trace Markers

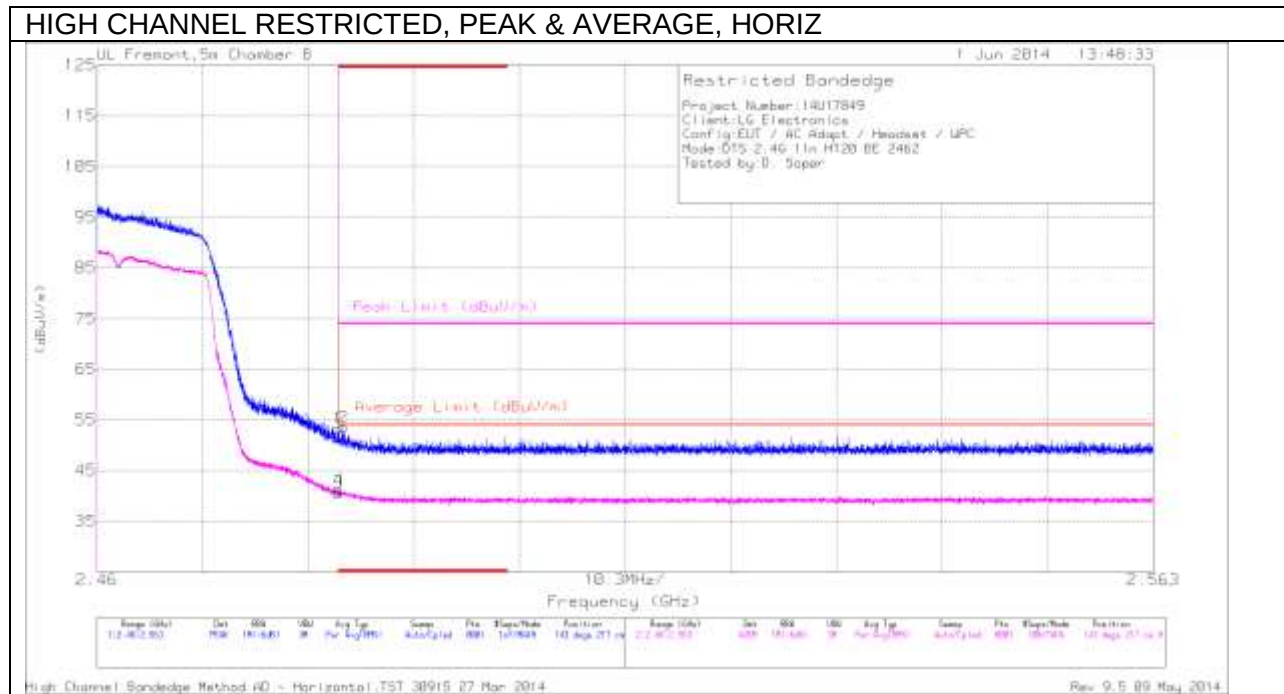
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF 7345 (dB/m)	Amp/Cbl/FI tr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.39	46.24	PK	32.1	-22.8	0	55.54	-	-	74	-18.46	168	240	V
2	* 2.39	49.54	PK	32.1	-22.8	0	58.84	-	-	74	-15.16	168	240	V
3	* 2.39	33.59	RMS	32.1	-22.8	.2	43.09	54	-10.91	-	-	168	240	V
4	* 2.39	33.84	RMS	32.1	-22.8	.2	43.34	54	-10.66	-	-	168	240	V

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

PK - Peak detector

RMS - RMS detection

AUTHORIZED BANDEDGE (HIGH CHANNEL)



Trace Markers

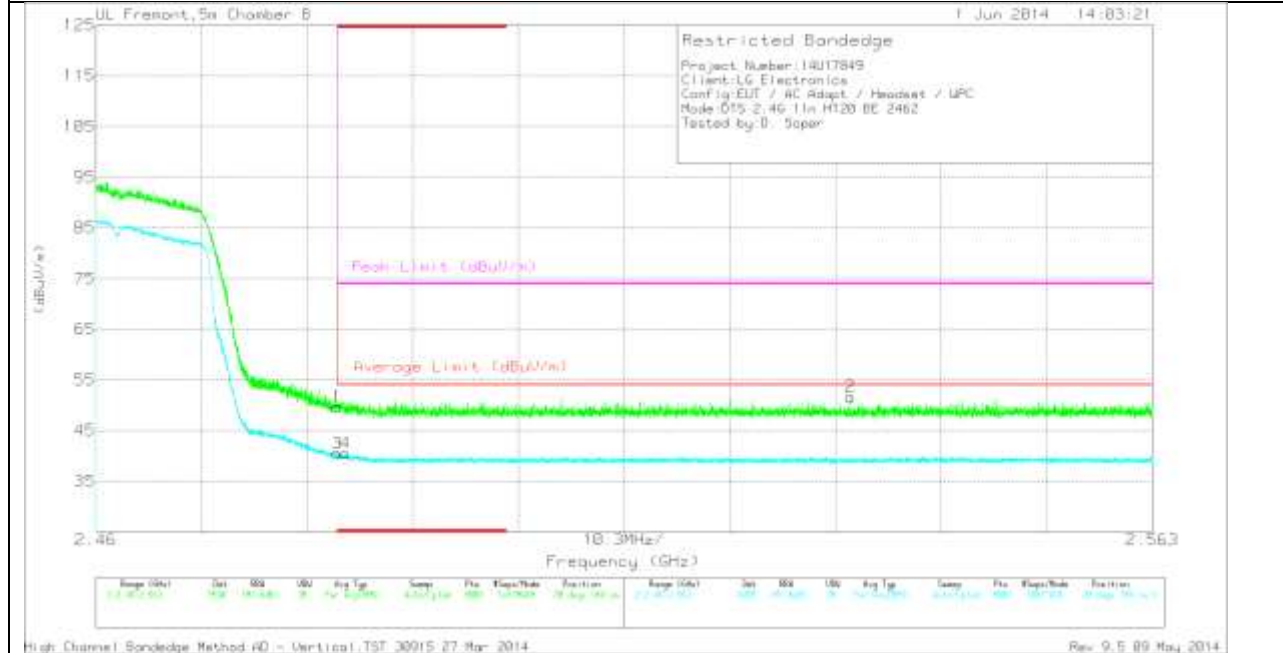
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/FI tr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.484	43.61	PK	32.4	-22.7	0	53.31	-	-	74	-20.69	143	217	H
2	* 2.484	43.83	PK	32.4	-22.7	0	53.53	-	-	74	-20.47	143	217	H
3	* 2.484	30.67	RMS	32.4	-22.7	.2	40.57	54	-13.43	-	-	143	217	H
4	* 2.484	31.15	RMS	32.4	-22.7	.2	41.05	54	-12.95	-	-	143	217	H

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

PK - Peak detector

RMS - RMS detection

HIGH CHANNEL BANDEDGE, PEAK & AVERAGE, VERT



Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/FI triPad (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	39.93	PK	32.4	-22.7	0	49.63	-	-	74	-24.37	20	184	V
3	* 2.484	30.59	RMS	32.4	-22.7	2	40.49	54	-13.51	-	-	20	184	V
4	* 2.484	30.55	RMS	32.4	-22.7	2	40.45	54	-13.55	-	-	20	184	V
2	2.534	41.7	PK	32.5	-22.6	0	51.6	-	-	74	-22.4	20	184	V

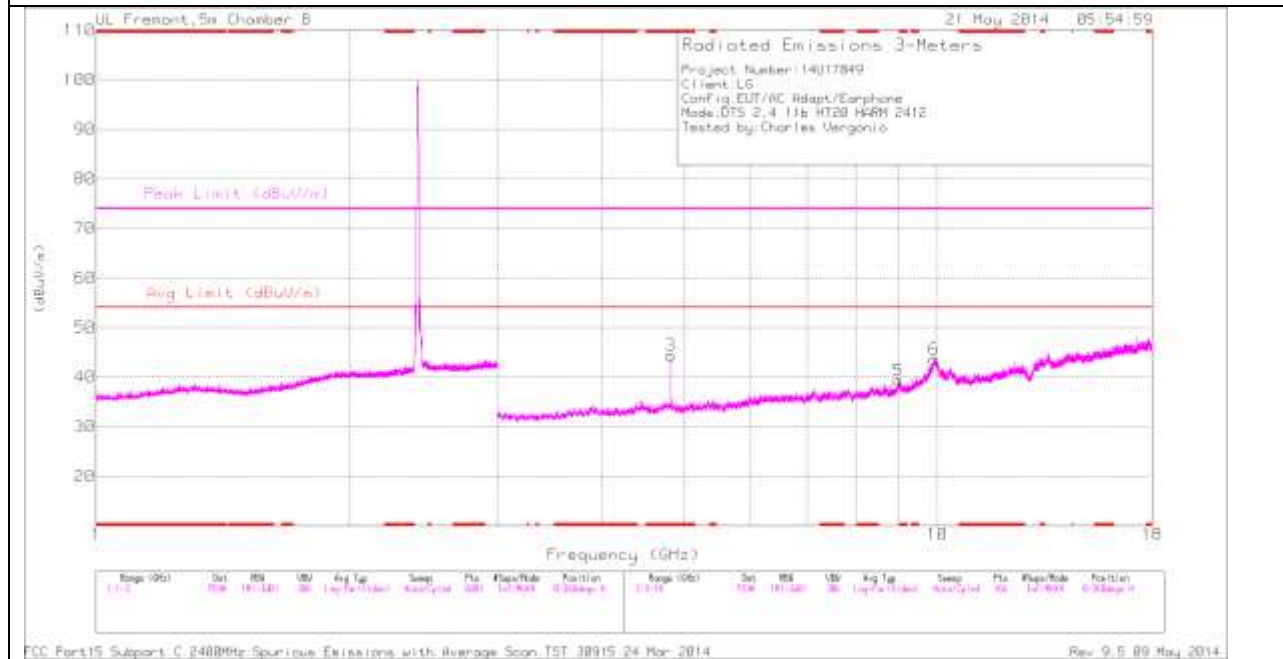
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK - Peak detector

RMS - RMS detection

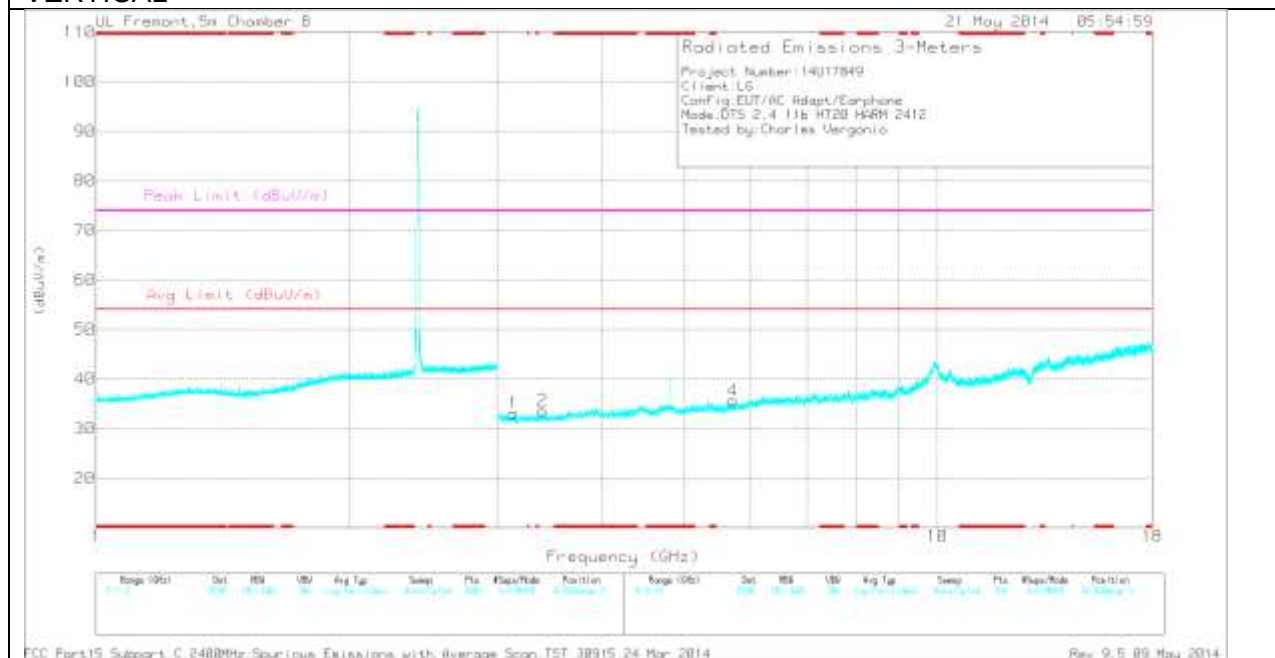
HARMONICS AND SPURIOUS EMISSIONS

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.

LOW CHANNEL
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

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/ Filt/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
3	* 4.824	40	PK	34.2	-29.8	44.4	-	-	74	-29.6	0-360	201	H
1	3.135	31.58	PK	32.8	-31.3	33.08	-	-	-	-	0-360	99	V
2	3.395	32.18	PK	32.8	-31.3	33.68	-	-	-	-	0-360	202	V
4	5.716	30.7	PK	34.5	-29.5	35.7	-	-	-	-	0-360	202	V
5	8.981	27.13	PK	36.2	-24	39.33	-	-	-	-	0-360	201	H
6	9.906	30.29	PK	37	-23.6	43.69	-	-	-	-	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 T345 (dB/m)	Amp/Cbl/ Filt/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 4.824	46.93	PK2	34.2	-29.8	51.33	-	-	74	-22.67	17	299	H
* 4.824	42.41	MAV1	34.2	-29.8	46.81	54	-7.19	-	-	17	299	H
9.907	40.21	PK2	37	-23.6	53.61	-	-	-	-	1	203	H
9.908	27.69	MAV1	37	-23.6	41.09	-	-	-	-	1	203	H

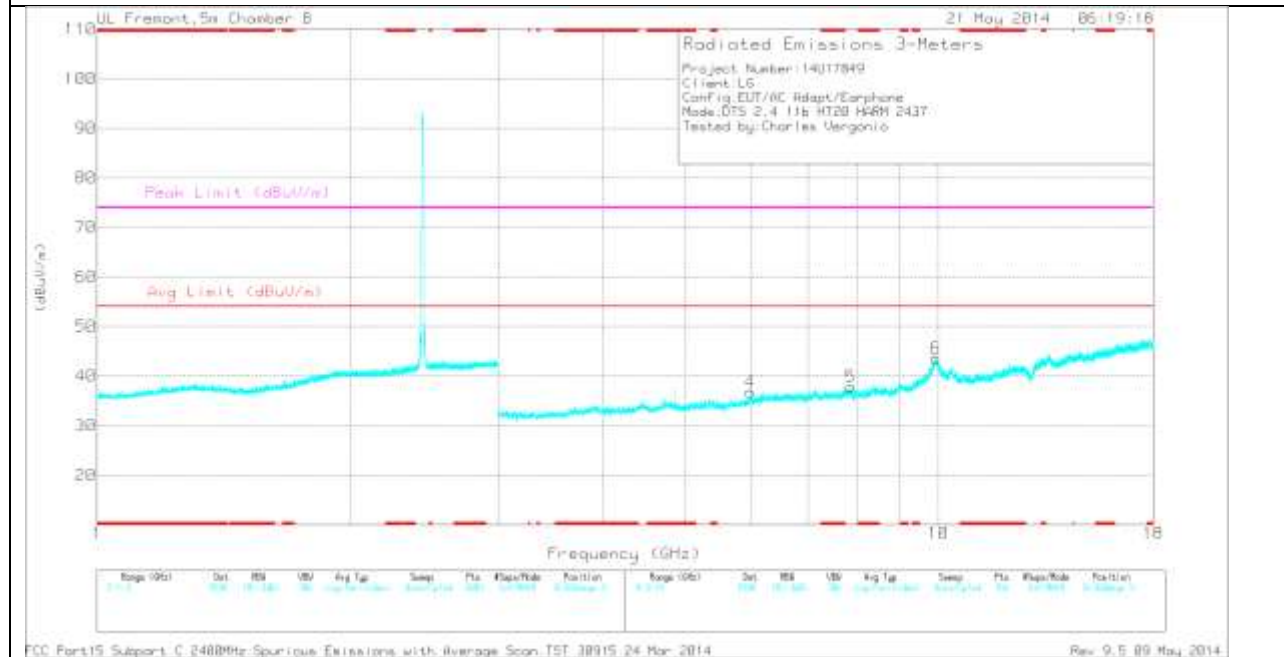
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

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.

MID CHANNEL 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

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/ Filt/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
3	* 4.874	37.96	PK	34.2	-30.5	41.66	-	-	74	-32.34	0-360	99	H
1	3.135	31.91	PK	32.8	-31.3	33.41	-	-	-	-	0-360	99	H
2	3.449	31.21	PK	32.8	-30.9	33.11	-	-	-	-	0-360	99	H
4	5.974	30.09	PK	35.2	-28.5	36.79	-	-	-	-	0-360	99	V
5	7.87	29.03	PK	35.7	-26.9	37.83	-	-	-	-	0-360	99	V
6	9.923	30.02	PK	37	-23.4	43.62	-	-	-	-	0-360	202	V

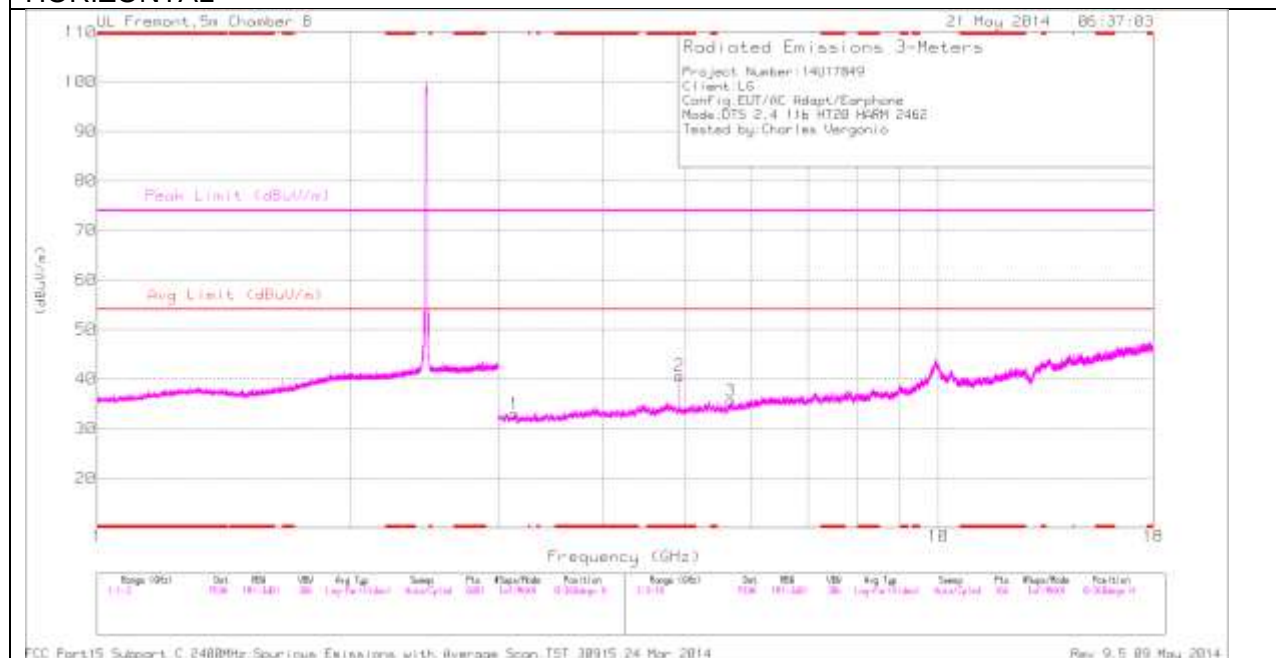
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band
PK - Peak detector

Radiated Emissions

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/ Filt/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 4.874	45.36	PK2	34.2	-30.5	49.06	-	-	74	-24.94	29	265	H
* 4.874	38.57	MAV1	34.2	-30.5	42.27	54	-11.73	-	-	29	265	H

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

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.

HIGH CHANNEL 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

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/ Filt/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	* 4.924	37.26	PK	34.2	-30.8	40.66	-	-	74	-33.34	0-360	99	H
1	3.139	31.41	PK	32.8	-31.2	33.01	-	-	-	-	0-360	202	H
3	5.671	30.35	PK	34.5	-29.2	35.65	-	-	-	-	0-360	202	H
4	6.342	29.66	PK	35.5	-28.6	36.56	-	-	-	-	0-360	202	V
5	8.656	27.49	PK	35.9	-25.3	38.09	-	-	-	-	0-360	99	V
6	9.924	30.42	PK	37	-23.4	44.02	-	-	-	-	0-360	202	V

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

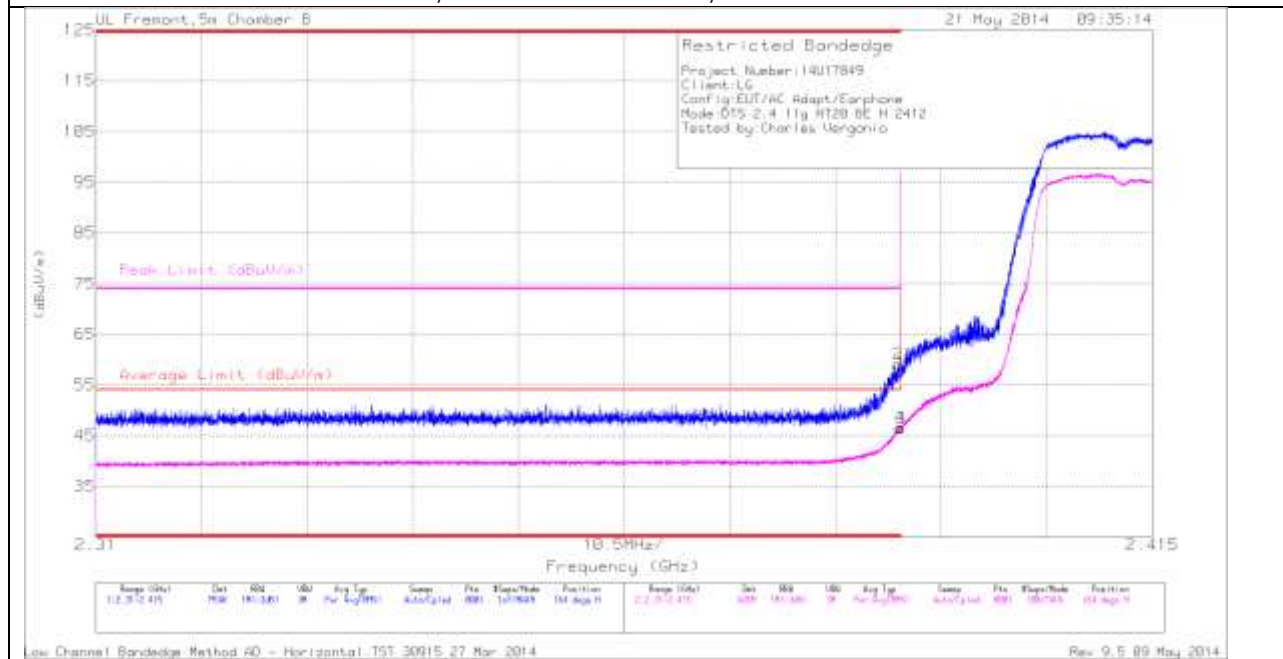
Radiated Emissions

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/ Filt/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 4.924	44.74	PK2	34.2	-30.8	48.14	-	-	74	-25.86	6	258	H
* 4.924	38.32	MAV1	34.2	-30.8	41.72	54	-12.28	-	-	6	258	H

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

9.2.3. TX ABOVE 1 GHz 802.11g MODE IN THE 2.4 GHz BAND RESTRICTED BANDEDGE (LOW CHANNEL)

LOW CHANNEL RESTRICTED, PEAK & AVERAGE, HORIZ



Trace Markers

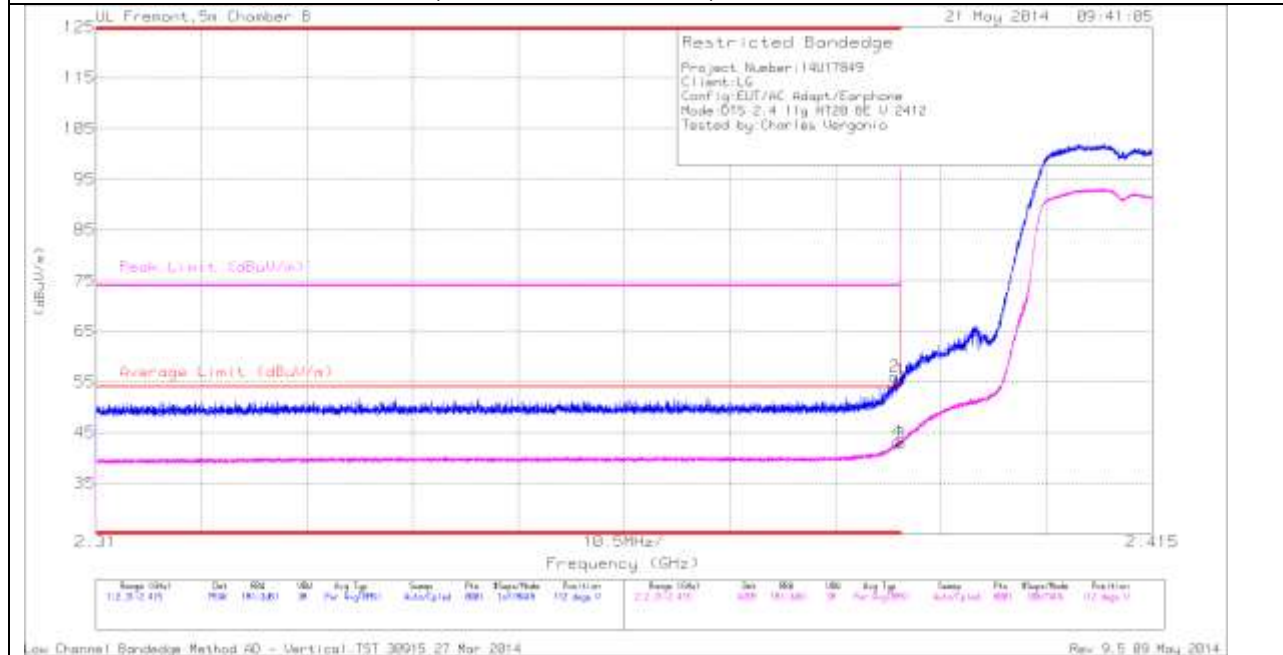
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/FI tr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.39	48.15	PK	32.1	-22.8	0	57.45	-	-	74	-16.55	164	238	H
2	* 2.39	49.81	PK	32.1	-22.8	0	59.11	-	-	74	-14.89	164	238	H
3	* 2.39	36.93	RMS	32.1	-22.8	.2	46.43	54	-7.57	-	-	164	238	H
4	* 2.39	37.06	RMS	32.1	-22.8	.2	46.56	54	-7.44	-	-	164	238	H

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

PK - Peak detector

RMS - RMS detection

LOW CHANNEL RESTRICTED, PEAK & AVERAGE, VERT



Trace Markers

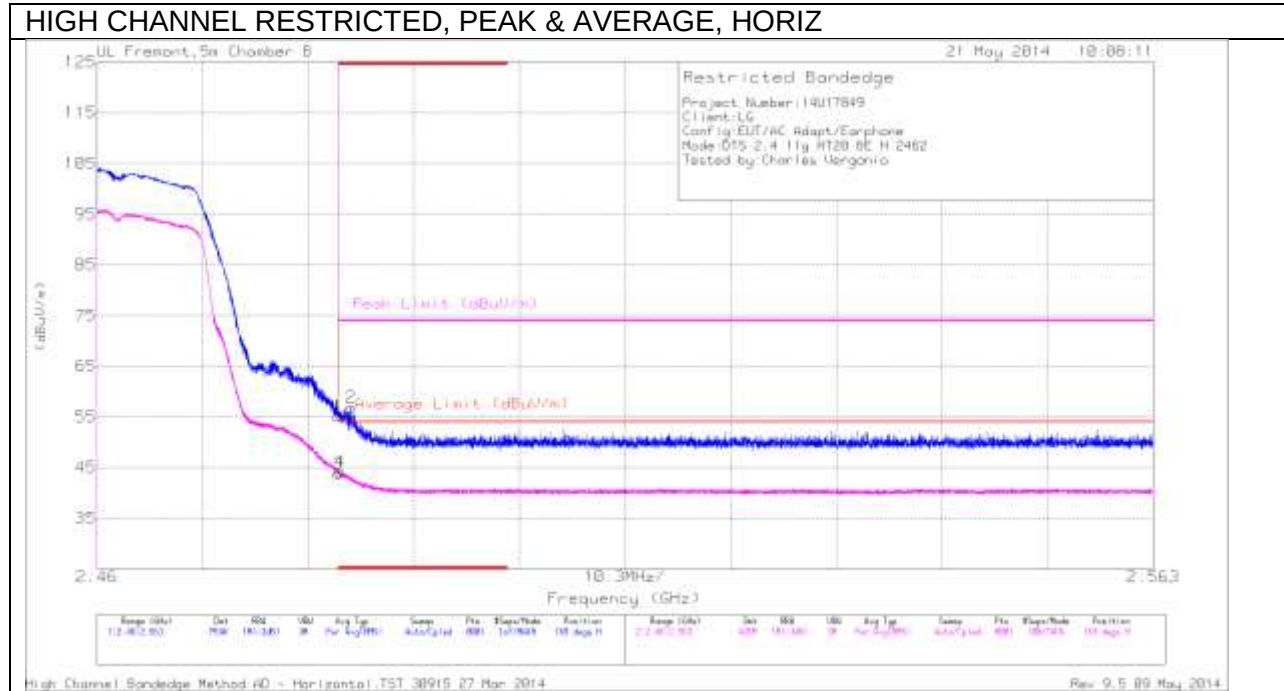
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dBm)	Amp/Cbl/FI tri/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.39	46.04	PK	32.1	-22.8	0	55.34	-	-	74	-18.66	112	291	V
2	* 2.389	46.76	PK	32.1	-22.8	0	56.06	-	-	74	-17.94	112	291	V
3	* 2.39	33.3	RMS	32.1	-22.8	.2	42.8	54	-11.2	-	-	112	291	V
4	* 2.39	33.72	RMS	32.1	-22.8	.2	43.22	54	-10.78	-	-	112	291	V

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

PK - Peak detector

RMS - RMS detection

AUTHORIZED BANDEDGE (HIGH CHANNEL)



Trace Markers

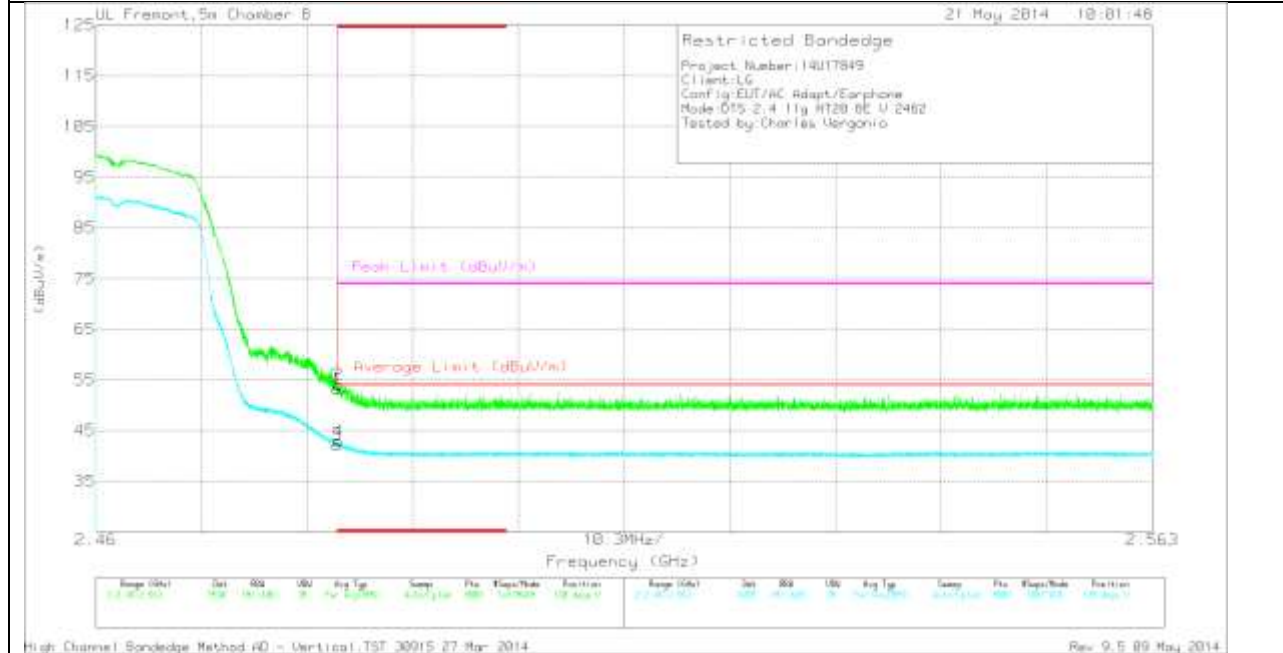
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/FI tr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.484	45.39	PK	32.4	-22.7	0	55.09	-	-	74	-18.91	169	280	H
2	* 2.485	47.19	PK	32.4	-22.7	0	56.89	-	-	74	-17.11	169	280	H
3	* 2.484	33.85	RMS	32.4	-22.7	.2	43.75	54	-10.25	-	-	169	280	H
4	* 2.484	34.35	RMS	32.4	-22.7	.2	44.25	54	-9.75	-	-	169	280	H

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

PK - Peak detector

RMS - RMS detection

HIGH CHANNEL BANDEDGE, PEAK & AVERAGE, VERT



Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dBm)	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	43.55	PK	32.4	-22.7	0	53.25	-	-	74	-20.75	120	291	V
2	* 2.484	44.3	PK	32.4	-22.7	0	54	-	-	74	-20	120	291	V
3	* 2.484	32.26	RMS	32.4	-22.7	.2	42.16	54	-11.84	-	-	120	291	V
4	* 2.484	32.91	RMS	32.4	-22.7	.2	42.81	54	-11.19	-	-	120	291	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.

LOW CHANNEL 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

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (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
5	* 8.496	28.28	PK	35.8	-25.8	0	38.28	-	-	74	-35.72	0-360	99	V
1	3.115	31.62	PK	32.9	-31.5	0	33.02	-	-	-	-	0-360	201	H
2	3.48	31.34	PK	32.8	-31.1	0	33.04	-	-	-	-	0-360	201	H
3	5.729	30.66	PK	34.6	-29.4	0	35.86	-	-	-	-	0-360	201	H
4	6.332	29.73	PK	35.5	-28.5	0	36.73	-	-	-	-	0-360	99	V
6	9.926	30.22	PK	37	-23.4	0	43.82	-	-	-	-	0-360	99	V

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

Radiated Emissions

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (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
* 8.498	36.62	PK2	35.8	-25.9	0	46.52	-	-	74	-27.48	1	100	V
* 8.498	25.91	MAV1	35.8	-25.9	.2	36.01	54	-17.99	-	-	1	100	V
9.927	39.07	PK2	37	-23.4	0	52.67	-	-	-	-	1	100	V
9.928	27.58	MAV1	37	-23.4	.2	41.38	-	-	-	-	1	100	V

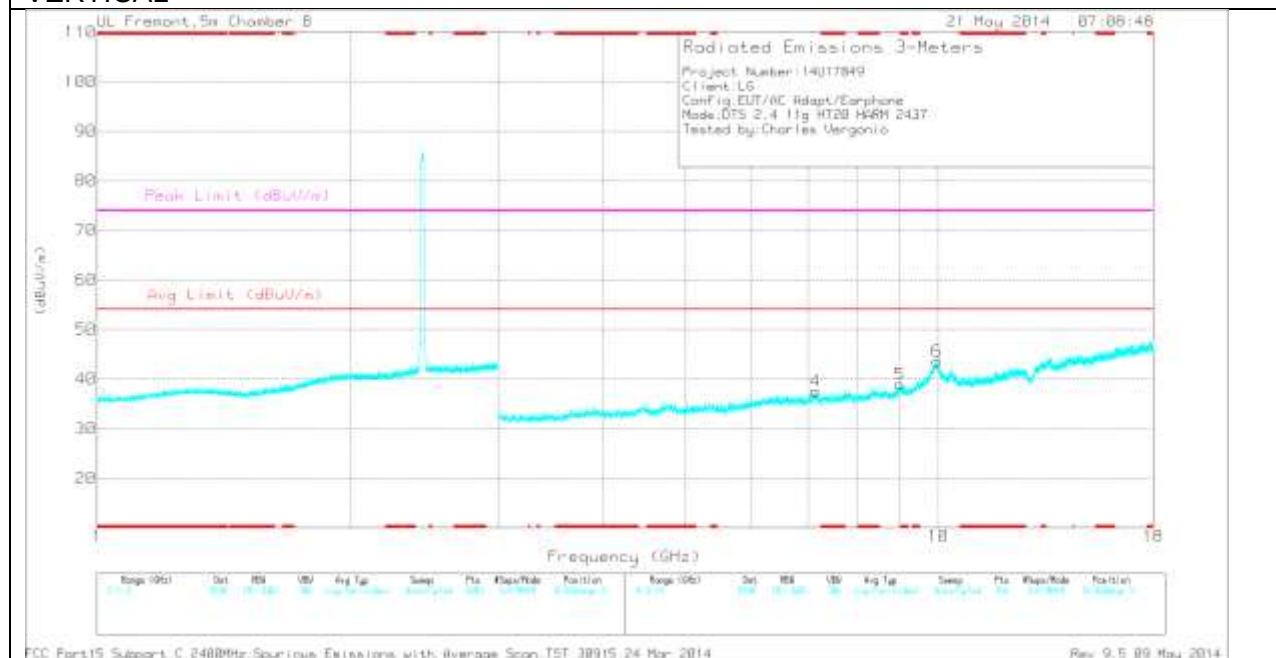
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

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.

MID CHANNEL 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

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/CBI/FI tri/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
1	3.184	30.92	PK	32.8	-31.2	0	32.52	54	-21.48	74	-41.48	0-360	201	H
2	5.52	31.35	PK	34.5	-29.9	0	35.95	54	-18.05	74	-38.05	0-360	99	H
3	6.202	29.92	PK	35.4	-28.5	0	36.82	54	-17.18	74	-37.18	0-360	99	H
4	7.146	28.79	PK	35.6	-26.8	0	37.59	54	-16.41	74	-36.41	0-360	99	V
5	8.995	26.82	PK	36.2	-24.1	0	38.92	54	-15.08	74	-35.08	0-360	202	V
6	9.969	30.17	PK	37	-23.5	0	43.67	54	-10.33	74	-30.33	0-360	99	V

PK - Peak detector

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.

HIGH CHANNEL 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.

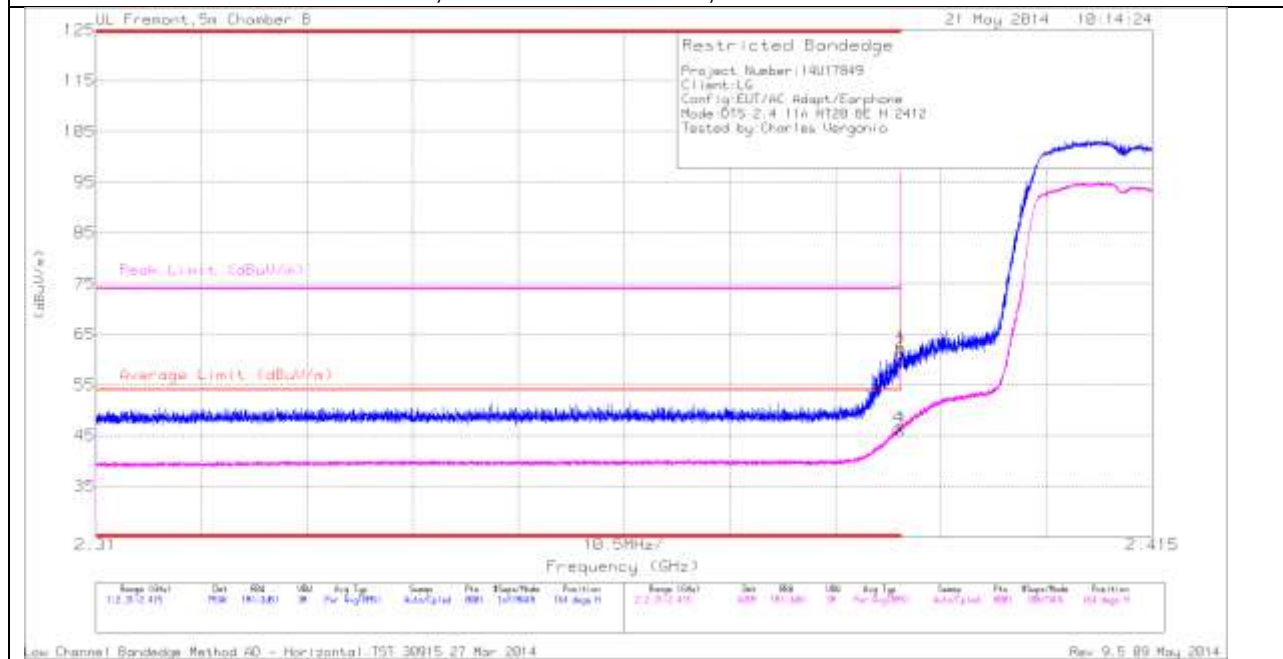
HIGH CHANNEL DATA Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/CBI/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
1	3.179	31.49	PK	32.8	-31.2	0	33.09	54	-20.91	74	-40.91	0-360	99	H
2	3.483	31.38	PK	32.8	-31.1	0	33.08	54	-20.92	74	-40.92	0-360	202	H
3	5.619	30.21	PK	34.5	-29.2	0	35.51	54	-18.49	74	-38.49	0-360	99	H
4	6.839	29.16	PK	35.6	-27.4	0	37.36	54	-16.64	74	-36.64	0-360	202	V
5	8.995	27.37	PK	36.2	-24.1	0	39.47	54	-14.53	74	-34.53	0-360	99	V
6	9.927	30.43	PK	37	-23.4	0	44.03	54	-9.97	74	-29.97	0-360	99	V

PK - Peak detector

9.2.4. TX ABOVE 1 GHz 802.11n HT20 MODE IN THE 2.4 GHz BAND RESTRICTED BANDEDGE (LOW CHANNEL)

LOW CHANNEL RESTRICTED, PEAK & AVERAGE, HORIZ



Trace Markers

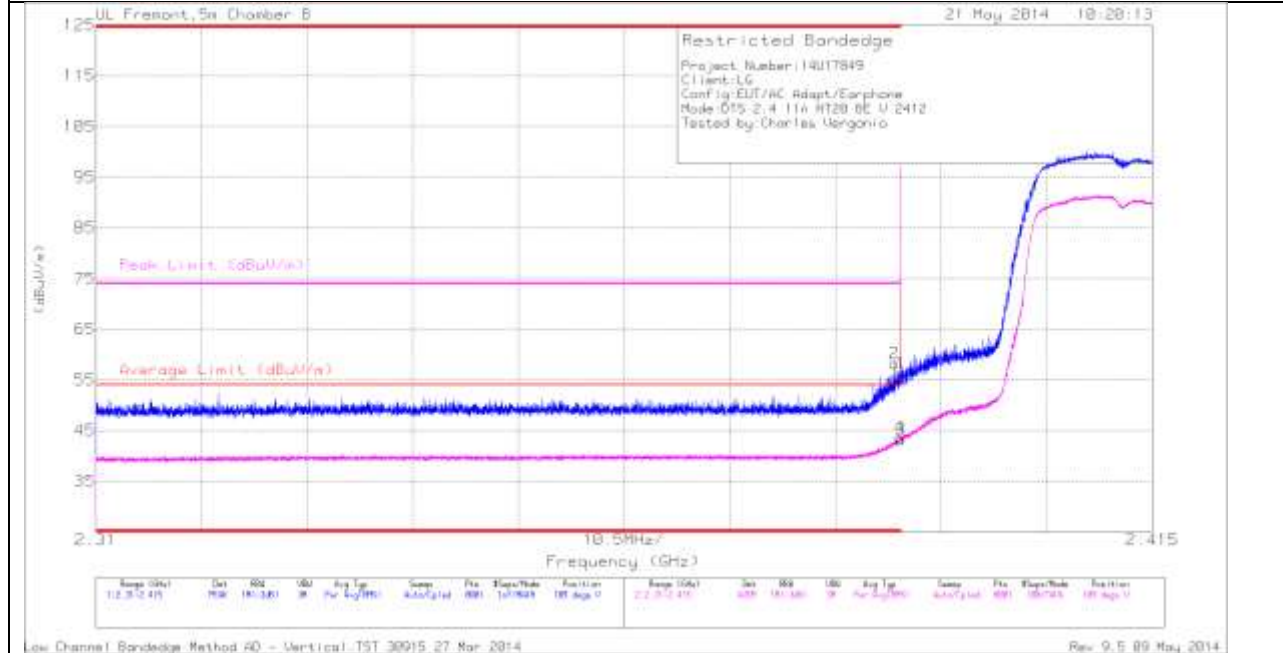
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/CbI/FI tri/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.39	53.06	PK	32.1	-22.8	0	62.36	-	-	74	-11.64	164	235	H
2	* 2.39	52.1	PK	32.1	-22.8	0	61.4	-	-	74	-12.6	164	235	H
3	* 2.39	36.51	RMS	32.1	-22.8	.2	46.01	54	-7.99	-	-	164	235	H
4	* 2.39	37.01	RMS	32.1	-22.8	.2	46.51	54	-7.49	-	-	164	235	H

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

PK - Peak detector

RMS - RMS detection

LOW CHANNEL RESTRICTED, PEAK & AVERAGE, VERT



Trace Markers

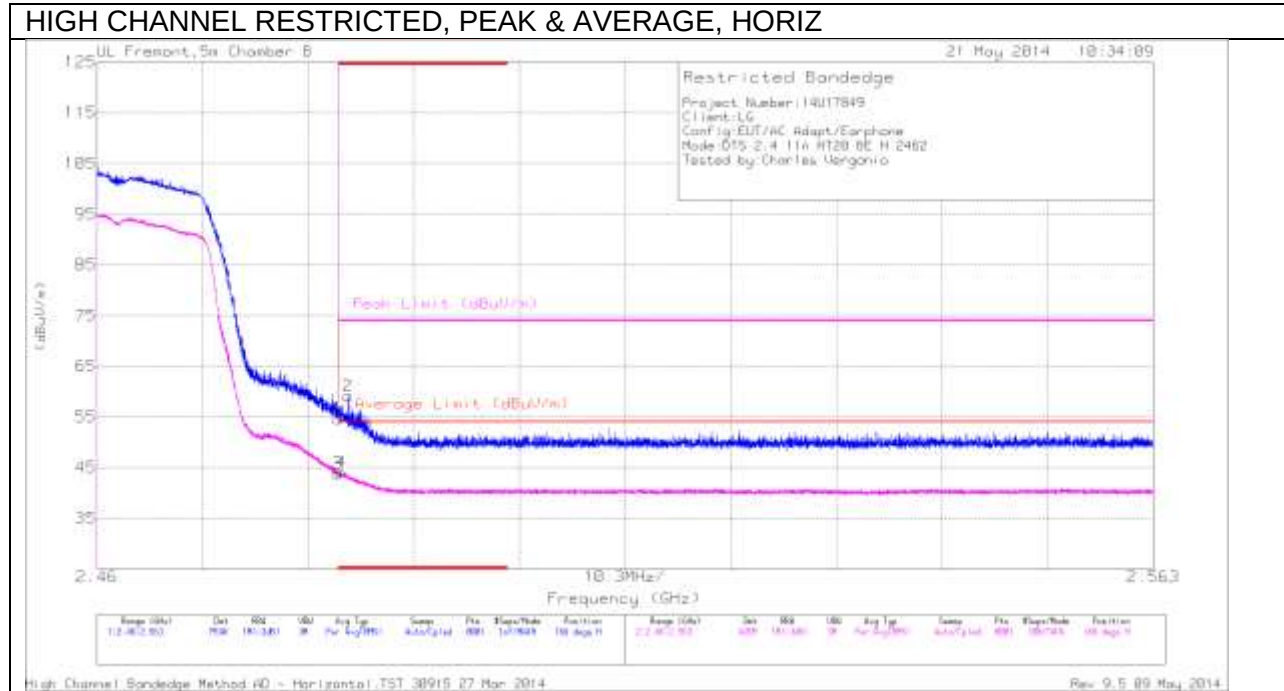
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/FI tri/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.39	46.94	PK	32.1	-22.8	0	56.24	-	-	74	-17.76	109	292	V
2	* 2.389	48.97	PK	32.1	-22.8	0	58.27	-	-	74	-15.73	109	292	V
3	* 2.39	33.71	RMS	32.1	-22.8	.2	43.21	54	-10.79	-	-	109	292	V
4	* 2.39	34.11	RMS	32.1	-22.8	.2	43.61	54	-10.39	-	-	109	292	V

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

PK - Peak detector

RMS - RMS detection

AUTHORIZED BANDEDGE (HIGH CHANNEL)



Trace Markers

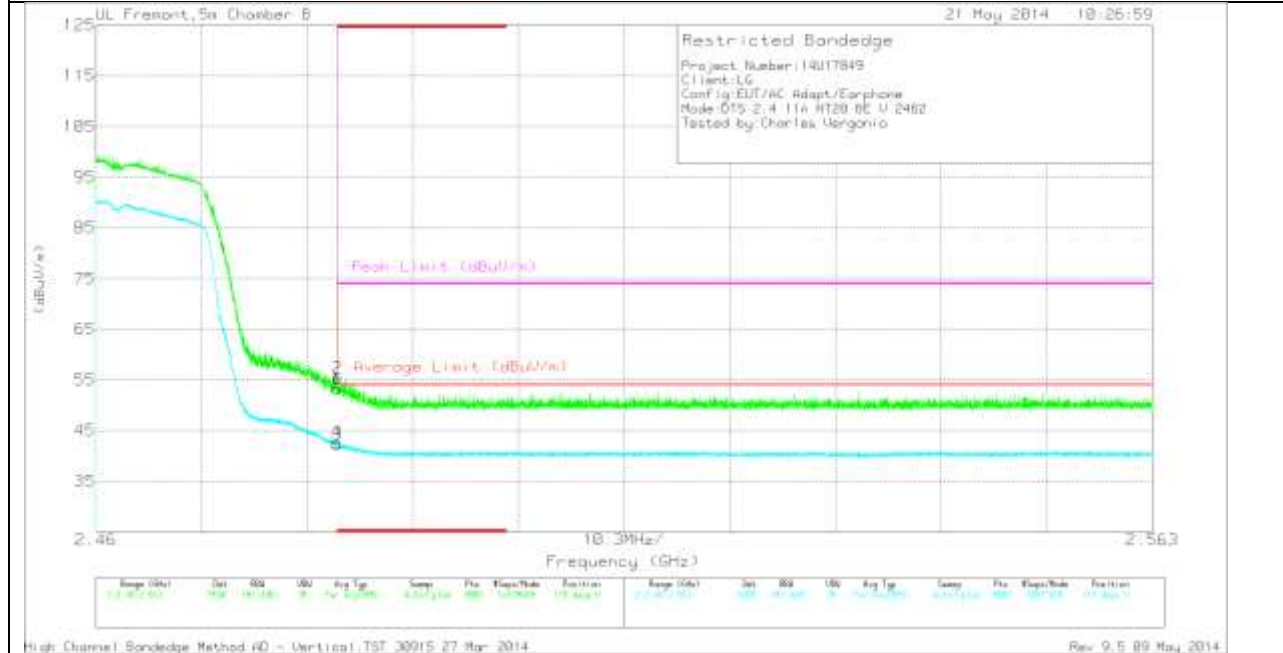
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/FI tr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.484	45	PK	32.4	-22.7	0	54.7	-	-	74	-19.3	166	281	H
2	* 2.484	49.35	PK	32.4	-22.7	0	59.05	-	-	74	-14.95	166	281	H
3	* 2.484	33.99	RMS	32.4	-22.7	.2	43.89	54	-10.11	-	-	166	281	H
4	* 2.484	34.21	RMS	32.4	-22.7	.2	44.11	54	-9.89	-	-	166	281	H

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

PK - Peak detector

RMS - RMS detection

HIGH CHANNEL BANDEDGE, PEAK & AVERAGE, VERT



Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dBm)	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
1	* 2.484	43.61	PK	32.4	-22.7	0	53.31	-	-	74	-20.69	119	289	V
2	* 2.484	45.67	PK	32.4	-22.7	0	55.37	-	-	74	-18.63	119	289	V
3	* 2.484	32.41	RMS	32.4	-22.7	.2	42.31	54	-11.69	-	-	119	289	V
4	* 2.484	32.76	RMS	32.4	-22.7	.2	42.66	54	-11.34	-	-	119	289	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.

LOW CHANNEL
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

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (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
1	3.13	31.5	PK	32.8	-31.3	0	33	-	-	-	-	0-360	202	H
2	5.563	30.77	PK	34.5	-29.8	0	35.47	-	-	-	-	0-360	202	H
3	5.932	29.96	PK	35	-28.4	0	36.56	-	-	-	-	0-360	99	H
4	6.612	28.92	PK	35.7	-27.9	0	36.72	-	-	-	-	0-360	202	V
5	7.996	28.95	PK	35.7	-26.4	0	38.25	-	-	-	-	0-360	99	V
6	9.911	30.33	PK	37	-23.6	0	43.73	-	-	-	-	0-360	99	V

PK - Peak detector

Radiated Emissions

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (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
9.909	27.86	MAV1	37	-23.6	.2	41.46	54	-12.54	74	-32.54	1	100	V
9.91	39.26	PK2	37	-23.6	0	52.66	54	-1.34	74	-21.34	1	100	V

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.

MID CHANNEL
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 Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/CBI/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
1	3.171	31.45	PK	32.8	-31.1	0	33.15	54	-20.85	74	-40.85	0-360	99	H
2	5.33	30.49	PK	34.5	-28.7	0	36.29	54	-17.71	74	-37.71	0-360	202	H
3	6.293	30.12	PK	35.5	-28.6	0	37.02	54	-16.98	74	-36.98	0-360	202	H
4	7.014	29.81	PK	35.6	-28.2	0	37.21	54	-16.79	74	-36.79	0-360	99	V
5	8.96	26.8	PK	36.2	-24	0	39	54	-15	74	-35	0-360	202	V
6	9.929	30.58	PK	37	-23.4	0	44.18	54	-9.82	74	-29.82	0-360	99	V

PK - Peak detector

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.

HIGH CHANNEL 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.

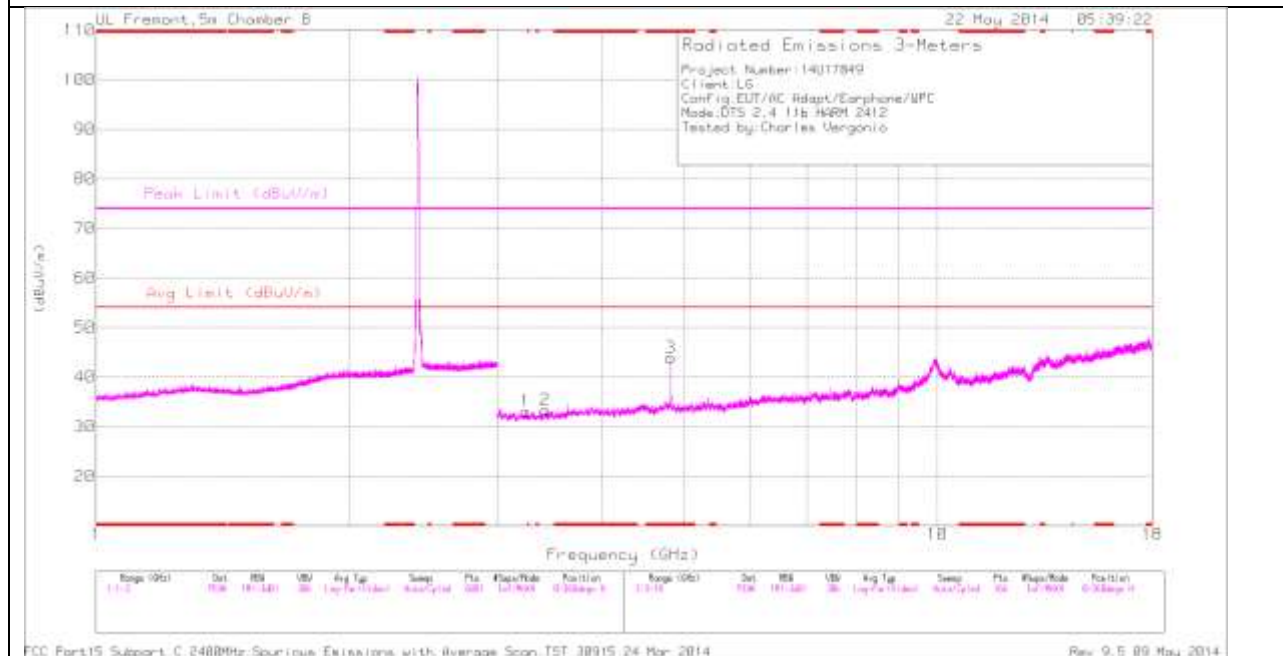
HIGH CHANNEL DATA Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/CBI/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
1	3.195	31.12	PK	32.8	-31.1	0	32.82	54	-21.18	74	-41.18	0-360	99	H
2	5.332	29.97	PK	34.5	-28.7	0	35.77	54	-18.23	74	-38.23	0-360	99	H
3	6.376	30.07	PK	35.6	-29	0	36.67	54	-17.33	74	-37.33	0-360	202	H
4	7.146	28.68	PK	35.6	-26.8	0	37.48	54	-16.52	74	-36.52	0-360	99	V
5	8.981	26.64	PK	36.2	-24	0	38.84	54	-15.16	74	-35.16	0-360	202	V
6	9.941	30.32	PK	37	-23.6	0	43.72	54	-10.28	74	-30.28	0-360	202	V

PK - Peak detector

WORST HARMONICS AND SPURIOUS EMISSIONS WITH WIRELESS BACK COVER AND WPC CHARGER

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.

Radiated Emissions 3-Meters

Project Number: 14017849
 Client: L6
 Config: EUT/AC Adapt/Earphone/WPC
 Mode: DTS 2.4 11b HARM 2412
 Tested by: Charles Vergonio

Peak Limit (dBuV/m): 75
 Avg Limit (dBuV/m): 55

Frequency (GHz)

0.1 0.2 0.3 0.4 0.5 0.6 0.7 0.8 0.9 1.0 1.1 1.2 1.3 1.4 1.5 1.6 1.7 1.8 1.9 2.0 2.1 2.2 2.3 2.4 2.5 2.6 2.7 2.8 2.9 3.0 3.1 3.2 3.3 3.4 3.5 3.6 3.7 3.8 3.9 4.0 4.1 4.2 4.3 4.4 4.5 4.6 4.7 4.8 4.9 5.0 5.1 5.2 5.3 5.4 5.5 5.6 5.7 5.8 5.9 6.0 6.1 6.2 6.3 6.4 6.5 6.6 6.7 6.8 6.9 7.0 7.1 7.2 7.3 7.4 7.5 7.6 7.7 7.8 7.9 8.0 8.1 8.2 8.3 8.4 8.5 8.6 8.7 8.8 8.9 9.0 9.1 9.2 9.3 9.4 9.5 9.6 9.7 9.8 9.9 10.0 10.1 10.2 10.3 10.4 10.5 10.6 10.7 10.8 10.9 11.0 11.1 11.2 11.3 11.4 11.5 11.6 11.7 11.8 11.9 12.0 12.1 12.2 12.3 12.4 12.5 12.6 12.7 12.8 12.9 13.0 13.1 13.2 13.3 13.4 13.5 13.6 13.7 13.8 13.9 14.0 14.1 14.2 14.3 14.4 14.5 14.6 14.7 14.8 14.9 15.0 15.1 15.2 15.3 15.4 15.5 15.6 15.7 15.8 15.9 16.0 16.1 16.2 16.3 16.4 16.5 16.6 16.7 16.8 16.9 17.0 17.1 17.2 17.3 17.4 17.5 17.6 17.7 17.8 17.9 18.0 18.1 18.2 18.3 18.4 18.5 18.6 18.7 18.8 18.9 19.0 19.1 19.2 19.3 19.4 19.5 19.6 19.7 19.8 19.9 20.0 20.1 20.2 20.3 20.4 20.5 20.6 20.7 20.8 20.9 21.0 21.1 21.2 21.3 21.4 21.5 21.6 21.7 21.8 21.9 22.0 22.1 22.2 22.3 22.4 22.5 22.6 22.7 22.8 22.9 23.0 23.1 23.2 23.3 23.4 23.5 23.6 23.7 23.8 23.9 24.0 24.1 24.2 24.3 24.4 24.5 24.6 24.7 24.8 24.9 25.0 25.1 25.2 25.3 25.4 25.5 25.6 25.7 25.8 25.9 26.0 26.1 26.2 26.3 26.4 26.5 26.6 26.7 26.8 26.9 27.0 27.1 27.2 27.3 27.4 27.5 27.6 27.7 27.8 27.9 28.0 28.1 28.2 28.3 28.4 28.5 28.6 28.7 28.8 28.9 29.0 29.1 29.2 29.3 29.4 29.5 29.6 29.7 29.8 29.9 30.0 30.1 30.2 30.3 30.4 30.5 30.6 30.7 30.8 30.9 31.0 31.1 31.2 31.3 31.4 31.5 31.6 31.7 31.8 31.9 32.0 32.1 32.2 32.3 32.4 32.5 32.6 32.7 32.8 32.9 33.0 33.1 33.2 33.3 33.4 33.5 33.6 33.7 33.8 33.9 34.0 34.1 34.2 34.3 34.4 34.5 34.6 34.7 34.8 34.9 35.0 35.1 35.2 35.3 35.4 35.5 35.6 35.7 35.8 35.9 36.0 36.1 36.2 36.3 36.4 36.5 36.6 36.7 36.8 36.9 37.0 37.1 37.2 37.3 37.4 37.5 37.6 37.7 37.8 37.9 38.0 38.1 38.2 38.3 38.4 38.5 38.6 38.7 38.8 38.9 39.0 39.1 39.2 39.3 39.4 39.5 39.6 39.7 39.8 39.9 40.0 40.1 40.2 40.3 40.4 40.5 40.6 40.7 40.8 40.9 41.0 41.1 41.2 41.3 41.4 41.5 41.6 41.7 41.8 41.9 42.0 42.1 42.2 42.3 42.4 42.5 42.6 42.7 42.8 42.9 43.0 43.1 43.2 43.3 43.4 43.5 43.6 43.7 43.8 43.9 44.0 44.1 44.2 44.3 44.4 44.5 44.6 44.7 44.8 44.9 45.0 45.1 45.2 45.3 45.4 45.5 45.6 45.7 45.8 45.9 46.0 46.1 46.2 46.3 46.4 46.5 46.6 46.7 46.8 46.9 47.0 47.1 47.2 47.3 47.4 47.5 47.6 47.7 47.8 47.9 48.0 48.1 48.2 48.3 48.4 48.5 48.6 48.7 48.8 48.9 49.0 49.1 49.2 49.3 49.4 49.5 49.6 49.7 49.8 49.9 50.0 50.1 50.2 50.3 50.4 50.5 50.6 50.7 50.8 50.9 51.0 51.1 51.2 51.3 51.4 51.5 51.6 51.7 51.8 51.9 52.0 52.1 52.2 52.3 52.4 52.5 52.6 52.7 52.8 52.9 53.0 53.1 53.2 53.3 53.4 53.5 53.6 53.7 53.8 53.9 54.0 54.1 54.2 54.3 54.4 54.5 54.6 54.7 54.8 54.9 55.0 55.1 55.2 55.3 55.4 55.5 55.6 55.7 55.8 55.9 56.0 56.1 56.2 56.3 56.4 56.5 56.6 56.7 56.8 56.9 57.0 57.1 57.2 57.3 57.4 57.5 57.6 57.7 57.8 57.9 58.0 58.1 58.2 58.3 58.4 58.5 58.6 58.7 58.8 58.9 59.0 59.1 59.2 59.3 59.4 59.5 59.6 59.7 59.8 59.9 60.0 60.1 60.2 60.3 60.4 60.5 60.6 60.7 60.8 60.9 61.0 61.1 61.2 61.3 61.4 61.5 61.6 61.7 61.8 61.9 62.0 62.1 62.2 62.3 62.4 62.5 62.6 62.7 62.8 62.9 63.0 63.1 63.2 63.3 63.4 63.5 63.6 63.7 63.8 63.9 64.0 64.1 64.2 64.3 64.4 64.5 64.6 64.7 64.8 64.9 65.0 65.1 65.2 65.3 65.4 65.5 65.6 65.7 65.8 65.9 66.0 66.1 66.2 66.3 66.4 66.5 66.6 66.7 66.8 66.9 67.0 67.1 67.2 67.3 67.4 67.5 67.6 67.7 67.8 67.9 68.0 68.1 68.2 68.3 68.4 68.5 68.6 68.7 68.8 68.9 69.0 69.1 69.2 69.3 69.4 69.5 69.6 69.7 69.8 69.9 70.0 70.1 70.2 70.3 70.4 70.5 70.6 70.7 70.8 70.9 71.0 71.1 71.2 71.3 71.4 71.5 71.6 71.7 71.8 71.9 72.0 72.1 72.2 72.3 72.4 72.5 72.6 72.7 72.8 72.9 73.0 73.1 73.2 73.3 73.4 73.5 73.6 73.7 73.8 73.9 74.0 74.1 74.2 74.3 74.4 74.5 74.6 74.7 74.8 74.9 75.0 75.1 75.2 75.3 75.4 75.5 75.6 75.7 75.8 75.9 76.0 76.1 76.2 76.3 76.4 76.5 76.6 76.7 76.8 76.9 77.0 77.1 77.2 77.3 77.4 77.

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CHANNEL DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/ Filt/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
3	* 4.824	39.54	PK	34.2	-29.8	43.94	-	-	74	-30.06	0-360	202	H
1	3.239	31.65	PK	32.8	-31.3	33.15	-	-	-	-	0-360	202	H
2	3.421	31.69	PK	32.8	-31.1	33.39	-	-	-	-	0-360	202	H
4	6.272	29.97	PK	35.5	-28.7	36.77	-	-	-	-	0-360	202	V
5	7.136	28.66	PK	35.6	-26.8	37.46	-	-	-	-	0-360	99	V
6	9.91	30.62	PK	37	-23.6	44.02	-	-	-	-	0-360	99	V

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

Radiated Emissions

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/ Filt/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 4.824	46.45	PK2	34.2	-29.8	50.85	-	-	74	-23.15	310	240	H
* 4.824	41.37	MAV1	34.2	-29.8	45.77	54	-8.23	-	-	310	240	H

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

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

VERTICAL PLOT



Below 1G Data

Trace Markers

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	AF T243 (dB/m)	Amp/Cbl (dB)	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
6	* 243.4	39.27	PK	11.7	-26.4	24.57	46.02	-21.45	0-360	200	V
1	46.2775	57.59	PK	9.7	-28.5	38.79	40	-1.21	0-360	101	V
2	57.6675	57.97	PK	7.2	-28.4	36.77	40	-3.23	0-360	101	V
3	86.1	55.6	PK	7.4	-28.2	34.8	40	-5.2	0-360	200	H
4	92.305	49.39	PK	8.2	-28.1	29.49	43.52	-14.03	0-360	101	V
5	160.73	45.69	PK	12.1	-27.3	30.49	43.52	-13.03	0-360	100	H
7	362.8	44.23	PK	14.8	-25.8	33.23	46.02	-12.79	0-360	101	H
8	604.7	32.91	PK	18.6	-25.3	26.21	46.02	-19.81	0-360	300	H

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

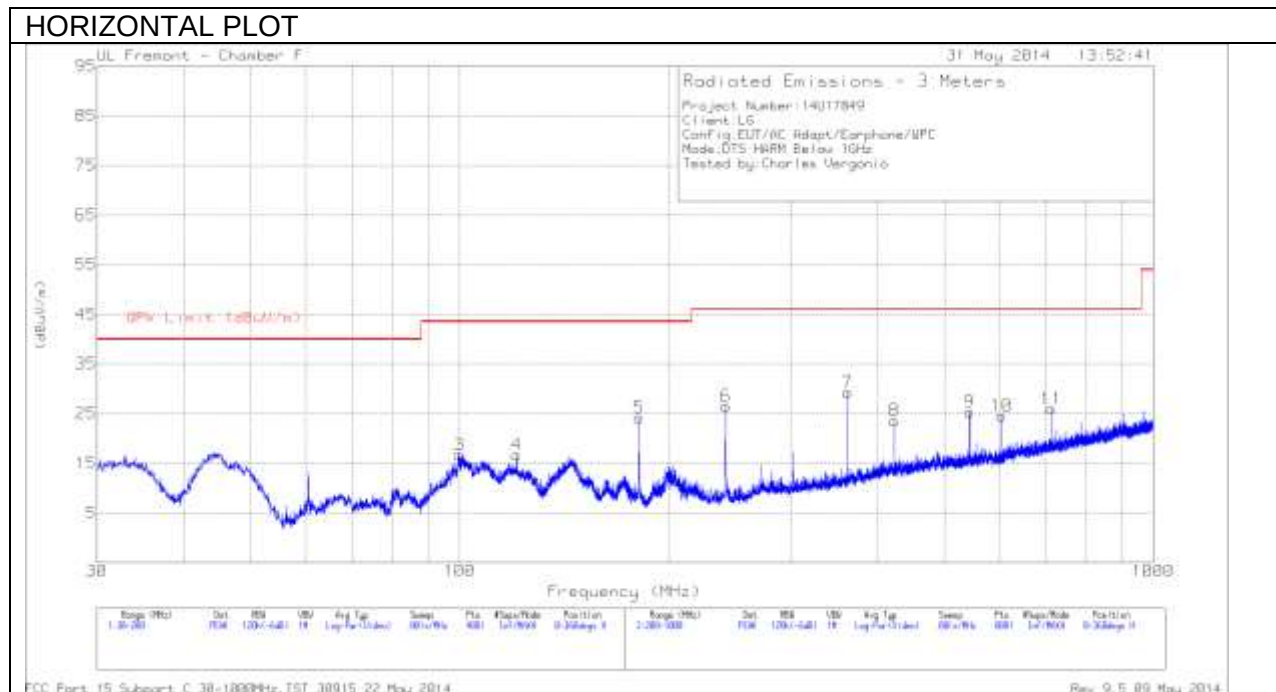
Radiated Emissions

Frequency (MHz)	Meter Reading (dBuV)	Det	AF T243 (dB/m)	Amp/Cbl (dB)	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
55.0706	47.72	QP	7.2	-28.5	26.42	40	-13.58	150	131	V
56.1739	53.36	QP	7.2	-28.5	32.06	40	-7.94	150	102	V

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band
QP - Quasi-Peak detector

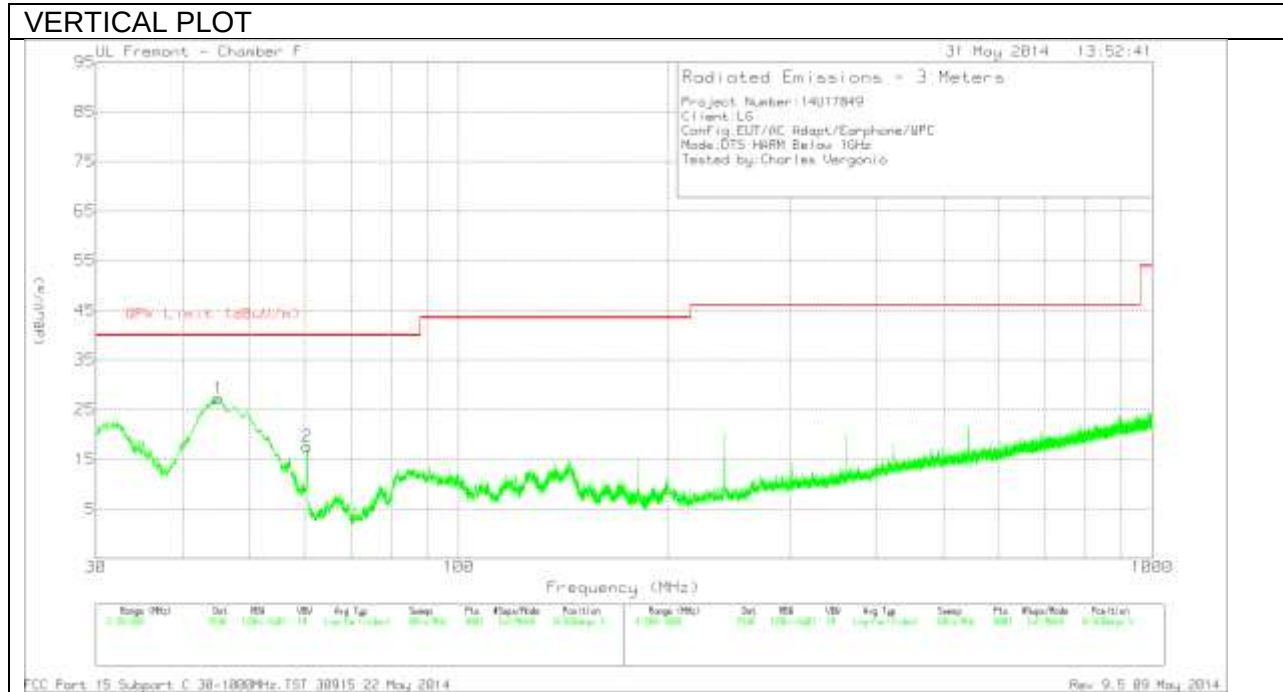
9.1. WORST-CASE BELOW 1 GHz WITH WPC CHARGER AND BACK COVER

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



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

VERTICAL PLOT



Below 1G Data

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	AF T122 (dB/m)	Amp/Cbl (dB)	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
3	99.9975	38.07	PK	10.2	-31.5	16.77	43.52	-26.75	0-360	301	H
4	* 120.9075	33.98	PK	14	-31.3	16.68	43.52	-26.84	0-360	201	H
5	181.4275	44.22	PK	11.2	-31.2	24.22	43.52	-19.3	0-360	201	H
1	45.0875	48.18	PK	10.3	-31.2	27.28	40	-12.72	0-360	100	V
2	60.4725	42.21	PK	7.5	-32.1	17.61	40	-22.39	0-360	100	V
6	* 241.9	45.58	PK	11.7	-30.8	26.48	46.02	-19.54	0-360	100	H
7	362.8	44.76	PK	14.8	-30.3	29.26	46.02	-16.76	0-360	100	H
8	423.3	37.43	PK	16.5	-30.3	23.63	46.02	-22.39	0-360	100	H
9	544.2	37.1	PK	18.2	-30	25.3	46.02	-20.72	0-360	201	H
10	604.7	35.88	PK	18.6	-29.9	24.58	46.02	-21.44	0-360	201	H
11	713.1	34.95	PK	20.4	-29.4	25.95	46.02	-20.07	0-360	301	H

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

PK - Peak detector