



**FCC 47 CFR PART 15 SUBPART C  
INDUSTRY CANADA RSS-210 ISSUE 8**

**CERTIFICATION TEST REPORT**

**FOR**

**LTE PHONE BLUETOOTH, WLAN (2.4GHZ & 5GHZ)**

**MODEL NUMBER: LG-D500, LGD500, D500, LGMS500,  
LG-MS500, MS500**

**FCC ID: ZNFD500**

**REPORT NUMBER: 13U15216-2**

**ISSUE DATE: June 26, 2013**

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

*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

Rev.	Issue Date	Revisions	Revised By
--	06/26/13	Initial Issue	P. Kim

## TABLE OF CONTENTS

<b>1. ATTESTATION OF TEST RESULTS .....</b>	<b>4</b>
<b>2. TEST METHODOLOGY .....</b>	<b>5</b>
<b>3. FACILITIES AND ACCREDITATION .....</b>	<b>5</b>
<b>4. CALIBRATION AND UNCERTAINTY .....</b>	<b>5</b>
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>
<b>5. EQUIPMENT UNDER TEST .....</b>	<b>6</b>
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>7</i>
5.4. <i>SOFTWARE AND FIRMWARE.....</i>	<i>7</i>
5.5. <i>WORST-CASE CONFIGURATION AND MODE.....</i>	<i>8</i>
5.6. <i>DESCRIPTION OF TEST SETUP.....</i>	<i>9</i>
<b>6. TEST AND MEASUREMENT EQUIPMENT .....</b>	<b>11</b>
<b>7. RADIATED TEST RESULTS.....</b>	<b>12</b>
7.1. <i>LIMITS AND PROCEDURE .....</i>	<i>12</i>
7.2. <i>TRANSMITTER ABOVE 1 GHz .....</i>	<i>13</i>
7.2.1. <i>TX ABOVE 1 GHz 802.11b MODE IN THE 2.4 GHz BAND .....</i>	<i>13</i>
7.3. <i>TX ABOVE 1 GHz 802.11g MODE IN THE 2.4 GHz BAND .....</i>	<i>26</i>
7.4. <i>TX ABOVE 1 GHz 802.11n HT20 MODE IN THE 2.4 GHz BAND.....</i>	<i>39</i>
7.5. <i>TX ABOVE 1 GHz 802.11a MODE IN THE 5.8 GHz BAND .....</i>	<i>52</i>
7.6. <i>TX ABOVE 1 GHz 802.11n HT20 MODE IN THE 5.8 GHz BAND.....</i>	<i>61</i>
7.7. <i>TX ABOVE 1 GHz 802.11n HT40 MODE IN THE 5.8 GHz BAND.....</i>	<i>70</i>
7.8. <i>WORST-CASE BELOW 1 GHz.....</i>	<i>76</i>
<b>8. SETUP PHOTOS.....</b>	<b>80</b>

## 1. ATTESTATION OF TEST RESULTS

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

**EUT DESCRIPTION:** LTE Phone Bluetooth, WLAN(2.4GHz & 5GHz) and NFC

**MODEL:** LG-D500, LGD500, D500, LGMS500, LG-MS500, MS500

**SERIAL NUMBER:** 303KPHG337169

**DATE TESTED:** APRIL 18 ~ MAY 4, 2013

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 3	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 CCS 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.

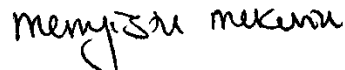
**Note:** The results documented in this report apply only to the tested sample, under the conditions and modes of operation as described herein. This document may not be altered or revised in any way unless done so by UL CCS and all revisions are duly noted in the revisions section. Any alteration of this document not carried out by UL CCS 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:



PHILIP KIM  
WiSE PROGRAM MANAGER  
UL Verification Services Inc.

Tested By:



MENGISTU MEKURIA  
EMC ENGINEER  
UL Verification Services Inc.

## 2. TEST METHODOLOGY

The tests documented in this report were performed in accordance with FCC CFR 47 Part 2, FCC CFR 47 Part 15, ANSI C63.10-2009, RSS-GEN Issue 3, and RSS-210 Issue 8.

## 3. FACILITIES AND ACCREDITATION

The test sites and measurement facilities used to collect data are located at 47173 Benicia Street, Fremont, California, USA.

UL Verification Services Inc. is accredited by NVLAP, Laboratory Code 200065-0. The full scope of accreditation can be viewed at <http://www.ccsemc.com>.

## 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:

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

### 4.3. MEASUREMENT UNCERTAINTY

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

PARAMETER	UNCERTAINTY
Conducted Disturbance, 0.15 to 30 MHz	3.52 dB
Radiated Disturbance, 30 to 1000 MHz	4.94 dB

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

## 5. EQUIPMENT UNDER TEST

### 5.1. DESCRIPTION OF EUT

The EUT is a LTE Phone with Bluetooth, WLAN(2.4GHz & 5GHz) and NFC capabilities.

### 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	16.47	44.36
2412 - 2462	802.11g	14.23	26.49
2412 - 2462	802.11n HT20	12.04	16.00
5745 - 5825	802.11a	11.19	13.15
5745 - 5825	802.11n HT20	10.12	10.28
5755 - 5795	802.11n HT40	11.57	14.35

### **5.3. DESCRIPTION OF AVAILABLE ANTENNAS**

The radio utilizes an PIFA antenna, with a maximum gain of 1.04 dBi for 2.4GHz & 2.44dBi for 5GHz.

### **5.4. SOFTWARE AND FIRMWARE**

The firmware installed in the EUT during testing was kernel, Version 3.4.0.

The EUT driver software installed during testing was Android Version 4.1.2.

The test utility software used during testing was LG870LAP8960JR121210A.

## **5.5. WORST-CASE CONFIGURATION AND MODE**

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

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

Worst-case data rates as provided by the client were:

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

802.11b mode: 1 Mbps

802.11g mode: 6 Mbps

802.11a mode: 6 Mbps

802.11n HT20mode: MCS0

802.11n HT40mode: MCS0

Radiated emissions for EUT with antenna was performed and passed; therefore, antenna port spurious was not performed.



## 5.6. DESCRIPTION OF TEST SETUP

### SUPPORT EQUIPMENT

Support Equipment List				
Description	Manufacturer	Model	Serial Number	FCC ID
AC Adapter	LG	MCS-01WR	RB320071516	N/A
Earphone	I-SOUND CO. LTD	HC-MYD-LG113	N/A	N/A

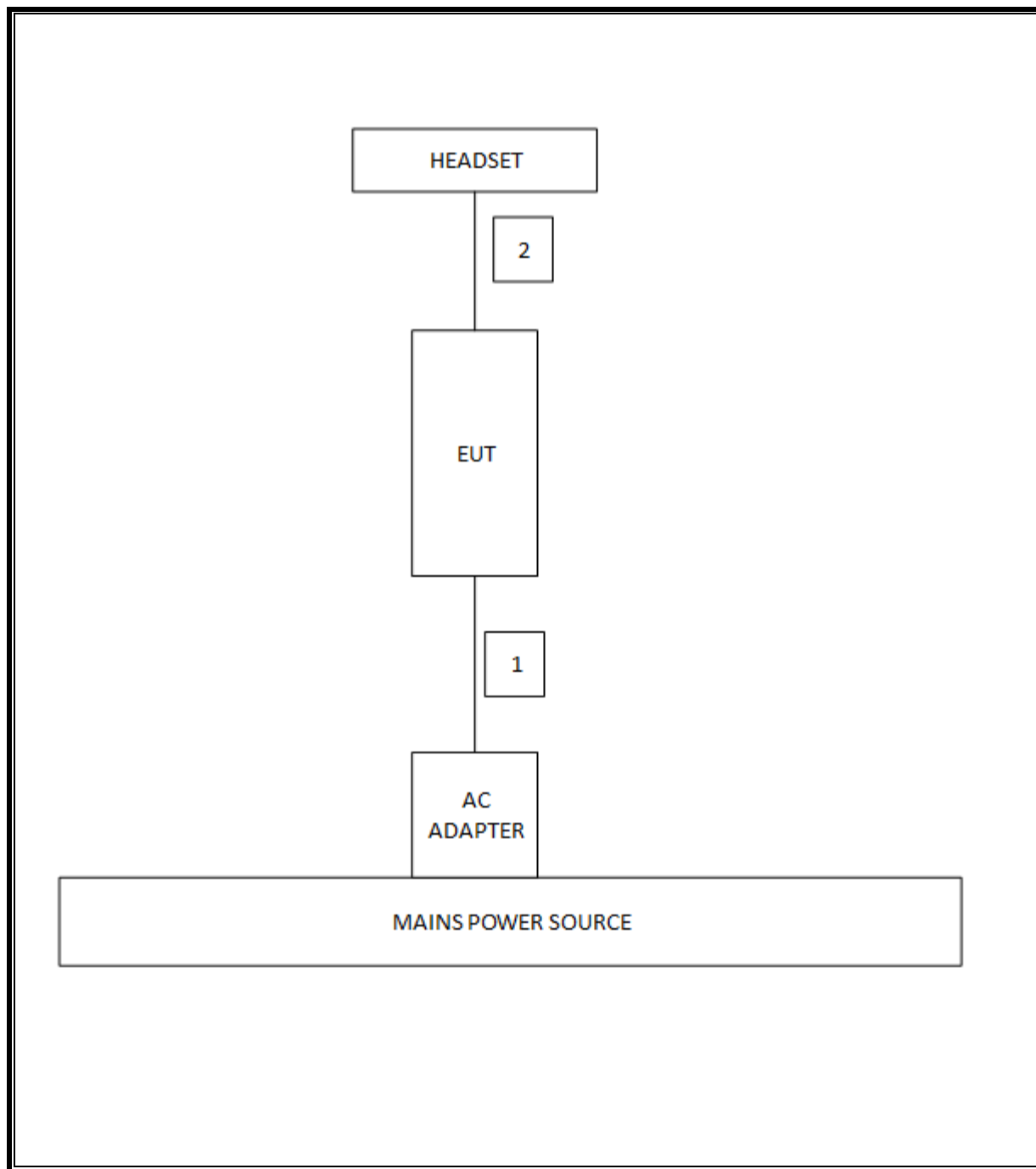
### I/O CABLES

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	1.0m	N/A

### TEST SETUP

The EUT is setup as a stand-alone device.

**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 Date	Cal Due
Spectrum Analyzer, 44 GHz	Agilent / HP	E4446A	C00986	03/22/12	10/21/13
Antenna, Horn, 18 GHz	ETS	3117	C01022	02/21/13	02/21/14
Spectrum Analyzer, 26.5 GHz	Agilent / HP	E4440A	C01176	12/13/12	12/13/13
Single Channel PK Power Meter	Agilent	N1911A		02/18/13	02/18/14
Spectrum Analyzer, 44 GHz	Agilent / HP	E4446A	C01159	04/09/12	04/09/13
P-Series single channel Power Meter	Agilent / HP	N1911A		10/12/12	10/12/13
Peak / Average Power Sensor	Agilent / HP	E9323A		10/11/12	10/11/13

## 7. RADIATED TEST RESULTS

### 7.1. 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 1 MHz for peak measurements and as applicable for average measurements.

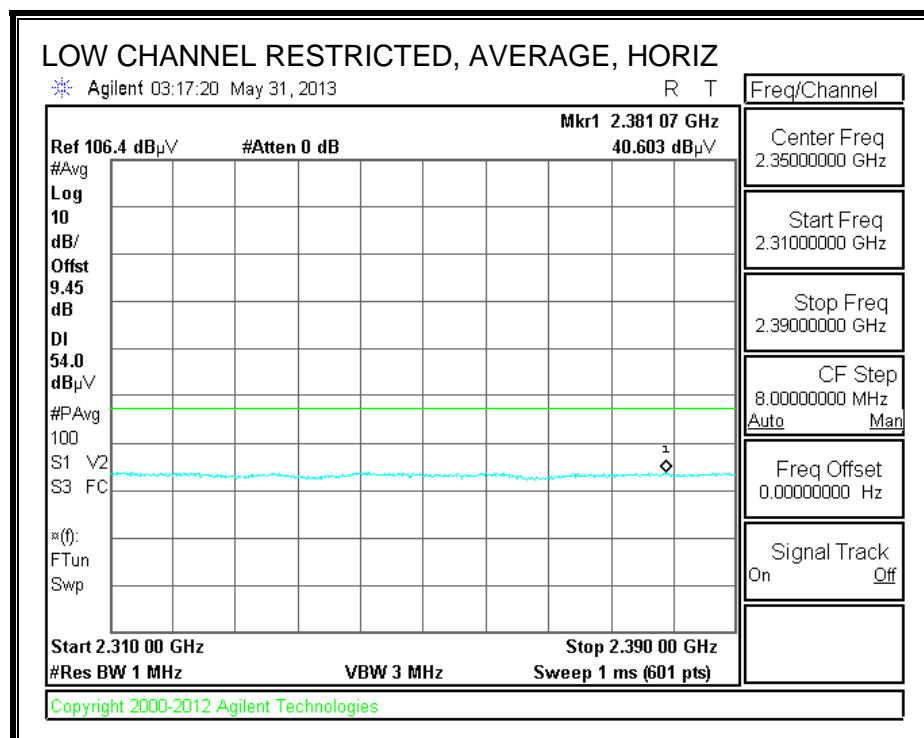
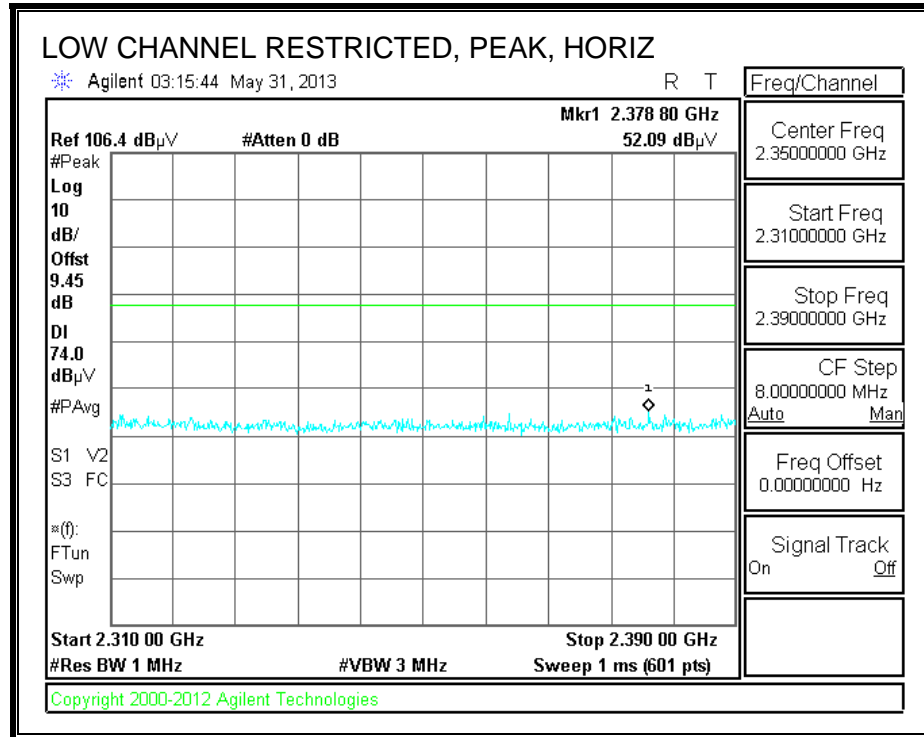
The spectrum from 30 MHz to 40 GHz is investigated with the transmitter set to the lowest, middle, and highest channels in each applicable band.

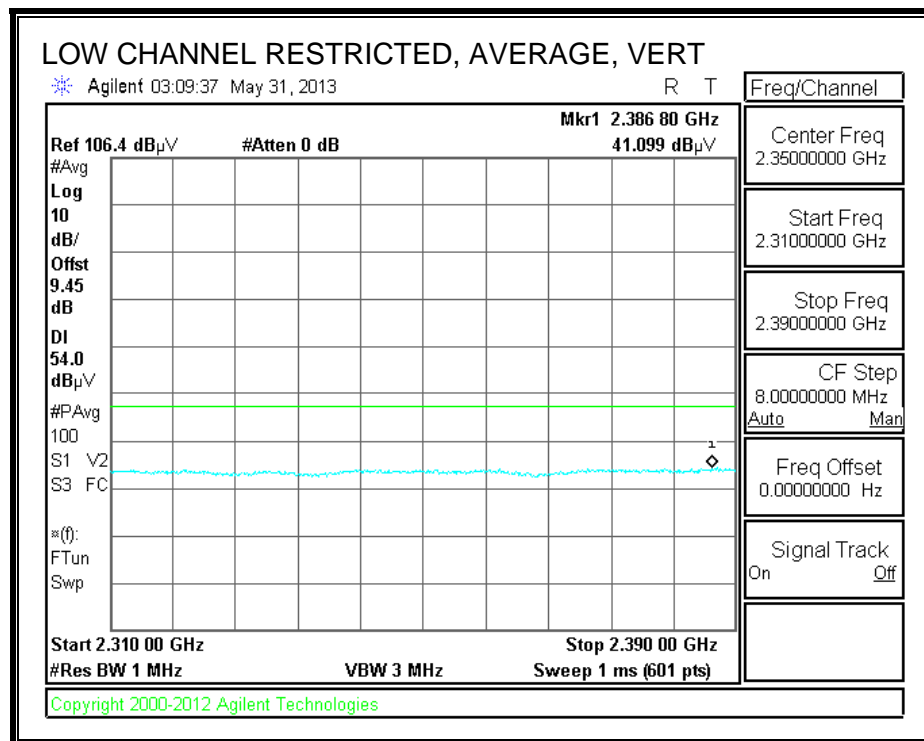
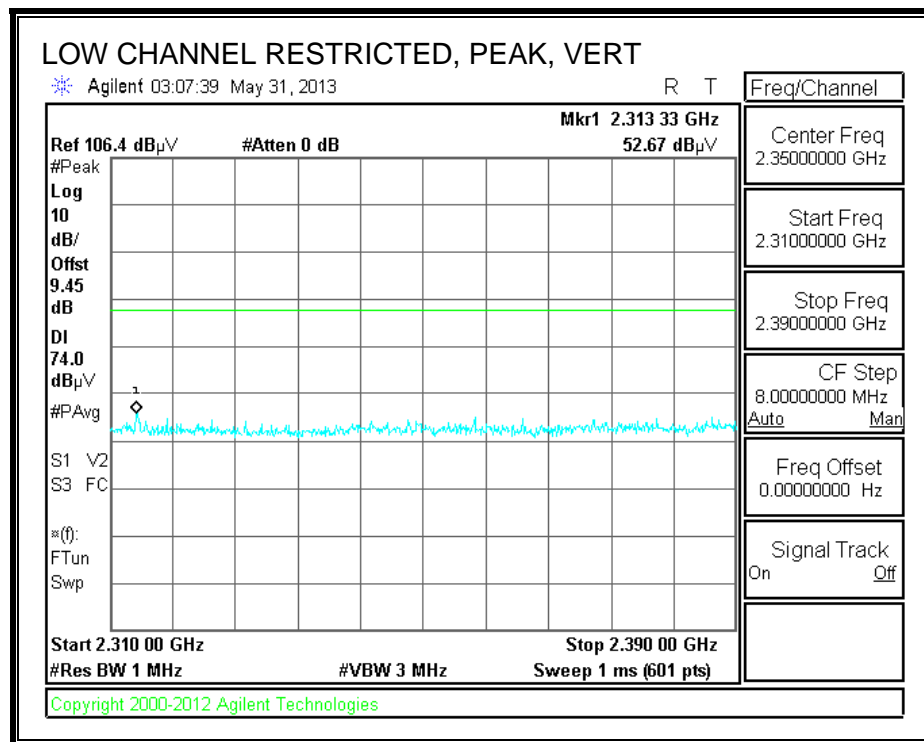
The frequency range of interest is monitored at a fixed antenna height and EUT azimuth. The EUT is rotated through 360 degrees to maximize emissions received. The antenna is scanned from 1 to 4 meters above the ground plane to further maximize the emission. Measurements are made with the antenna polarized in both the vertical and the horizontal positions.

## 7.2. TRANSMITTER ABOVE 1 GHz

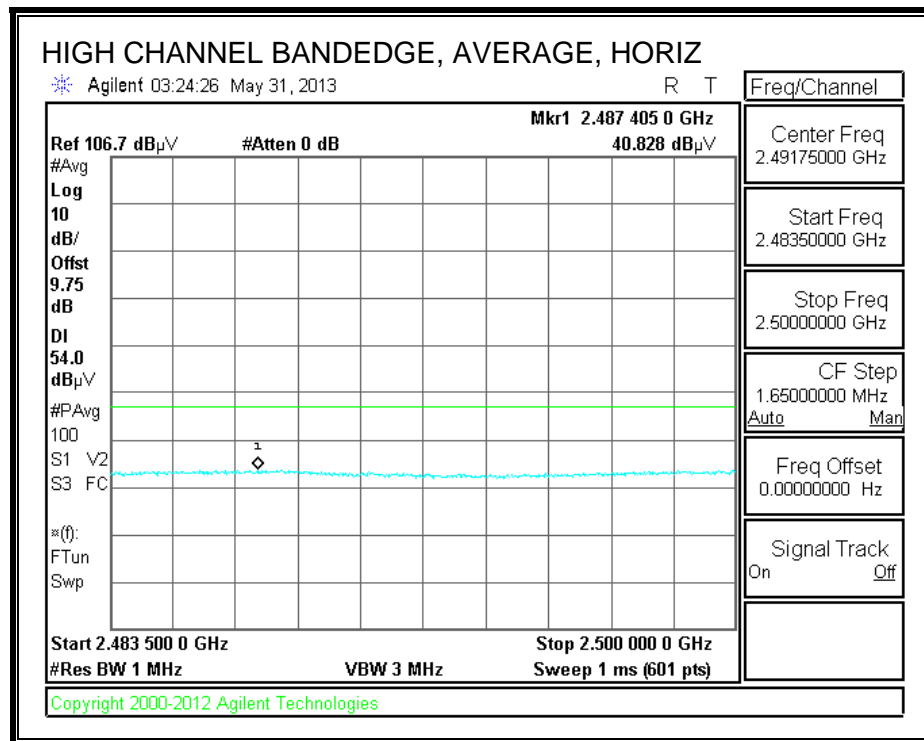
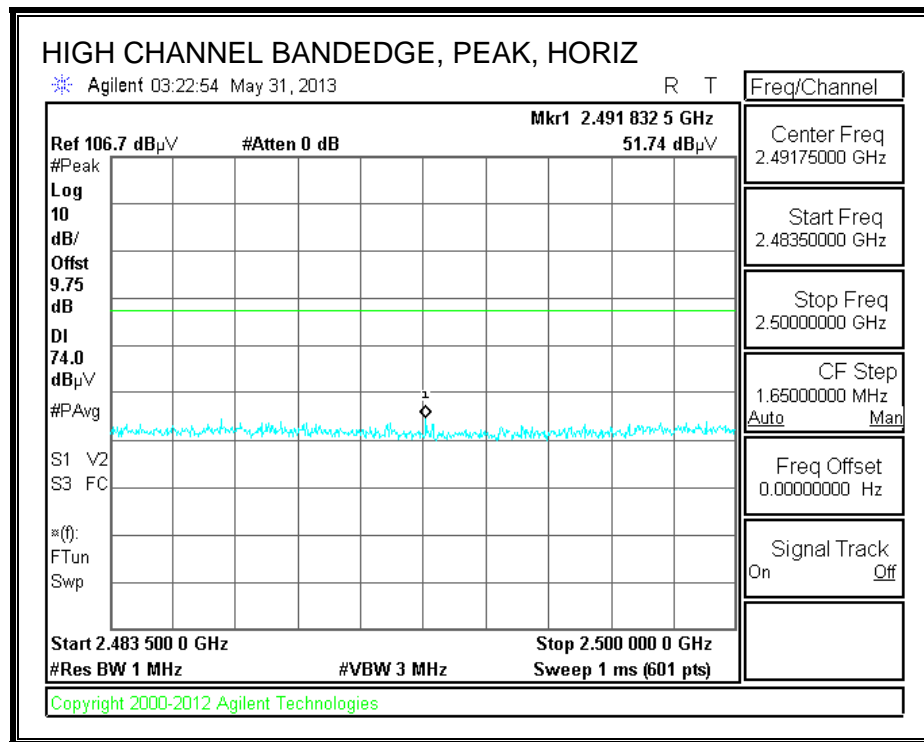
### 7.2.1. TX ABOVE 1 GHz 802.11b MODE IN THE 2.4 GHz BAND

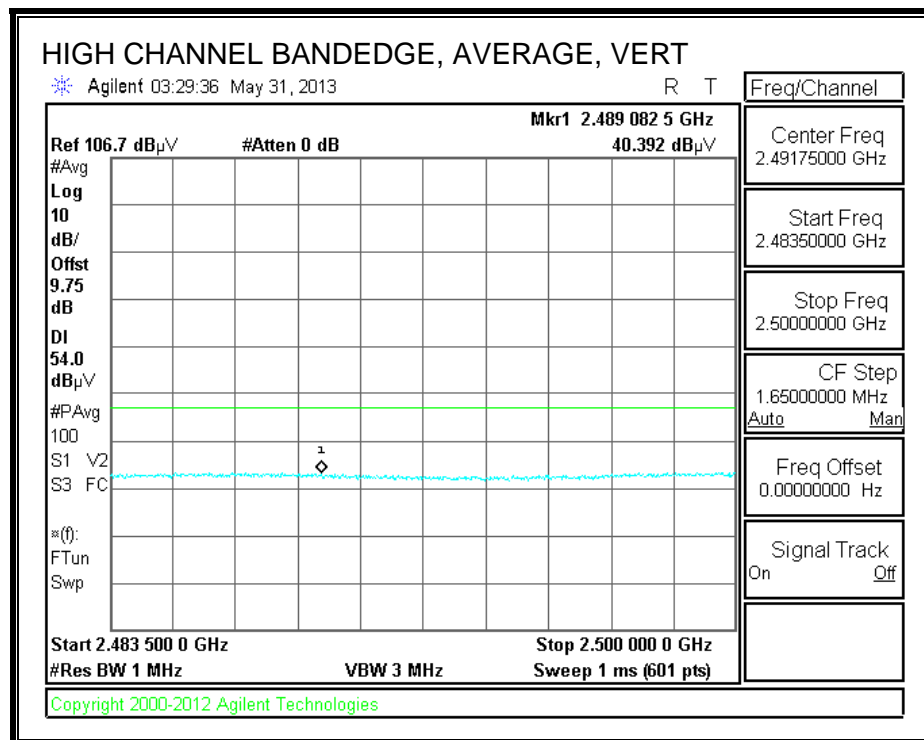
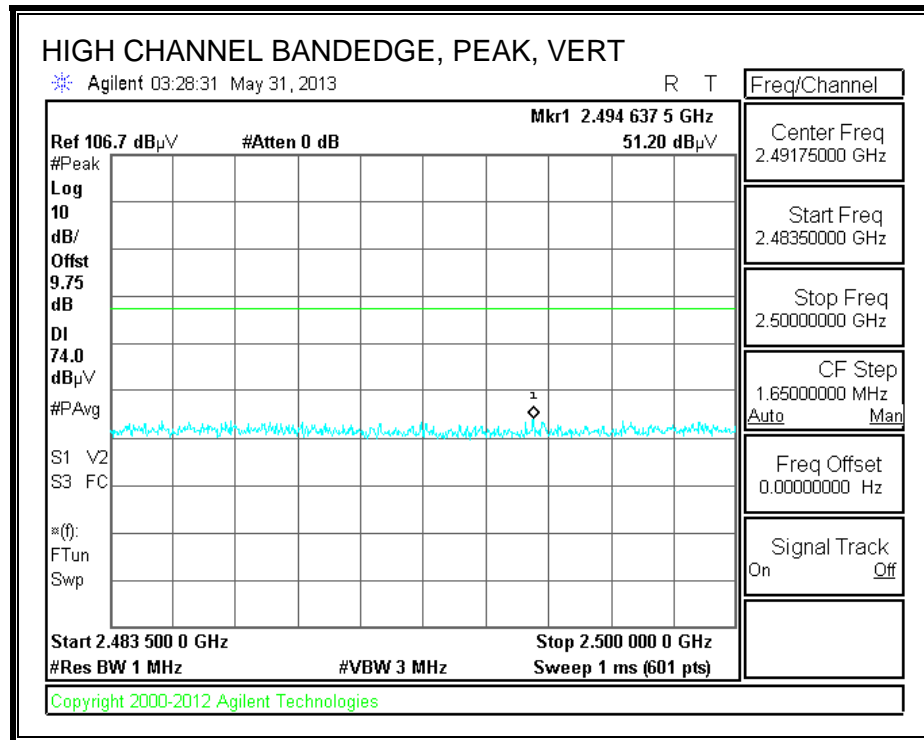
#### RESTRICTED BANDEDGE (LOW CHANNEL)





**AUTHORIZED BANDEDGE (HIGH CHANNEL)**

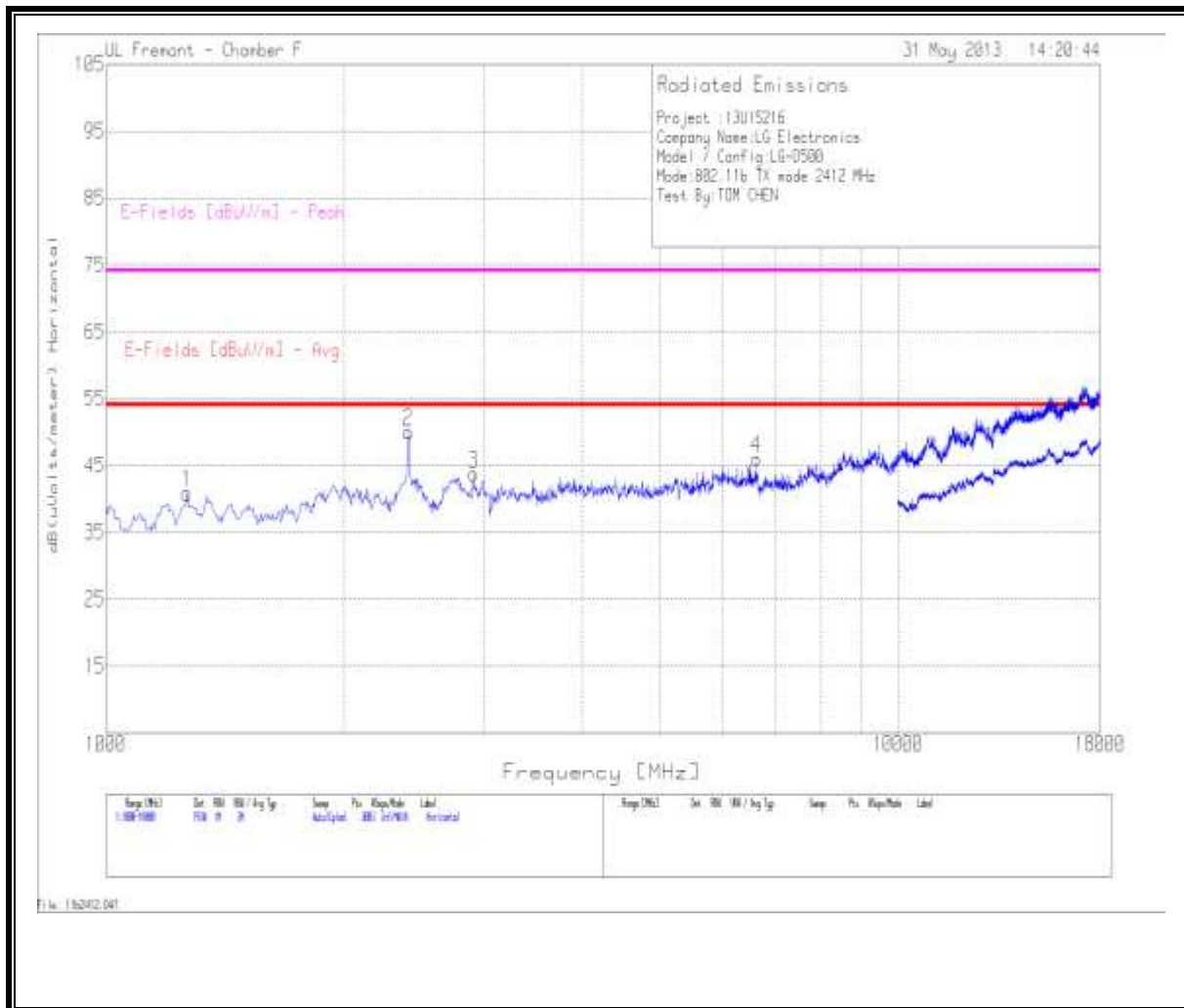




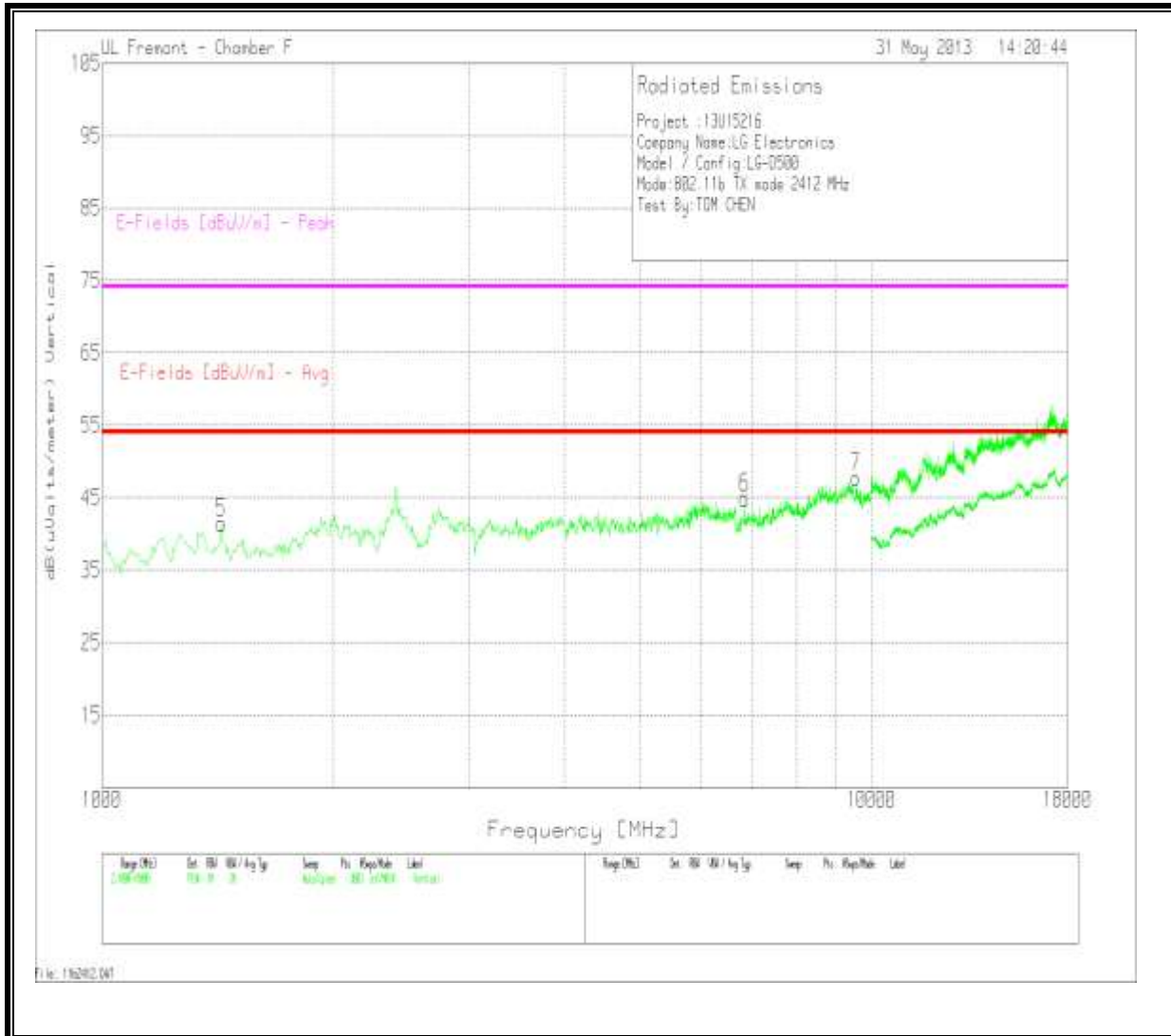


## HARMONICS AND SPURIOUS EMISSIONS

Low Channel, Horizontal



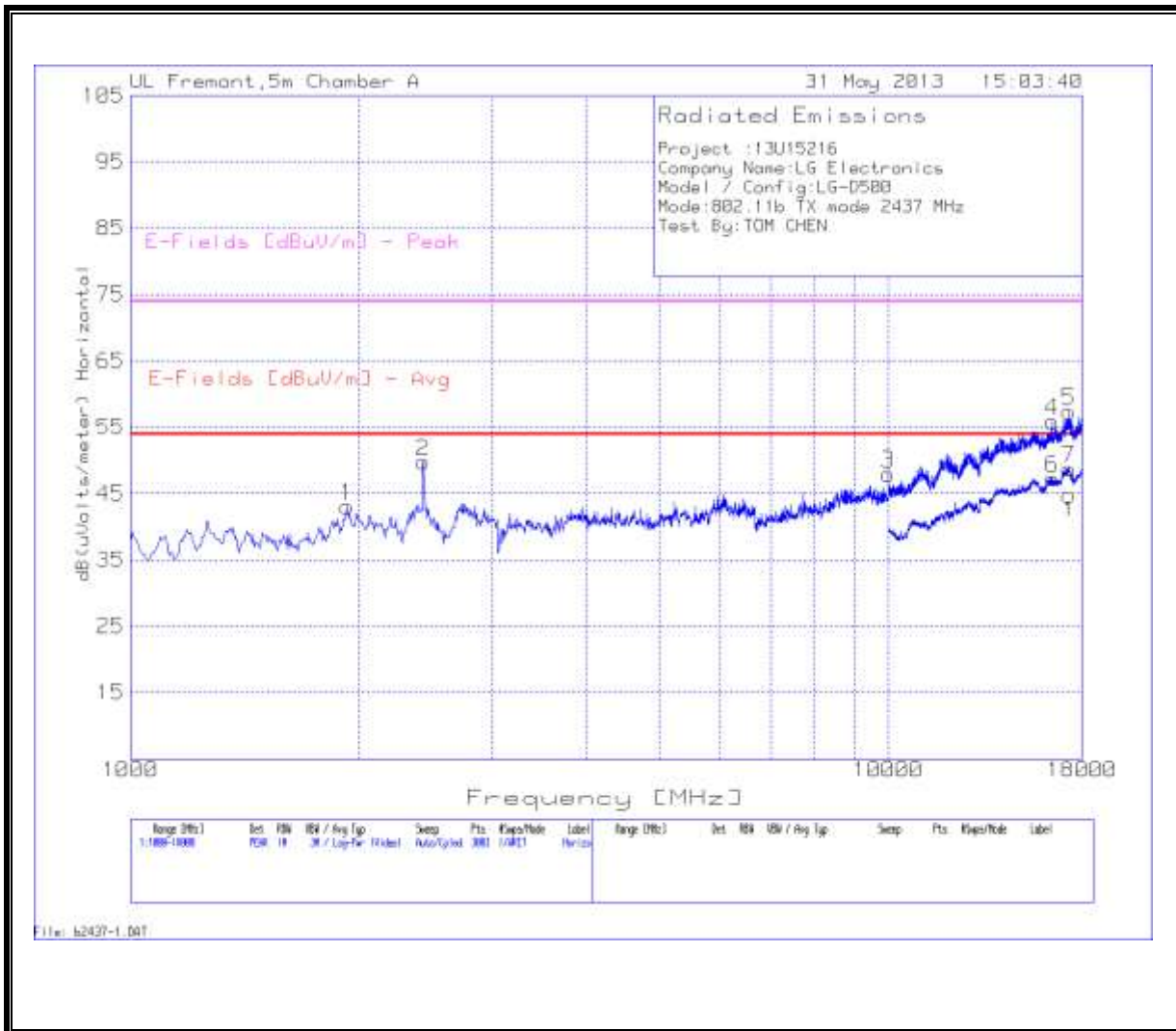
Low Channel, Vertical



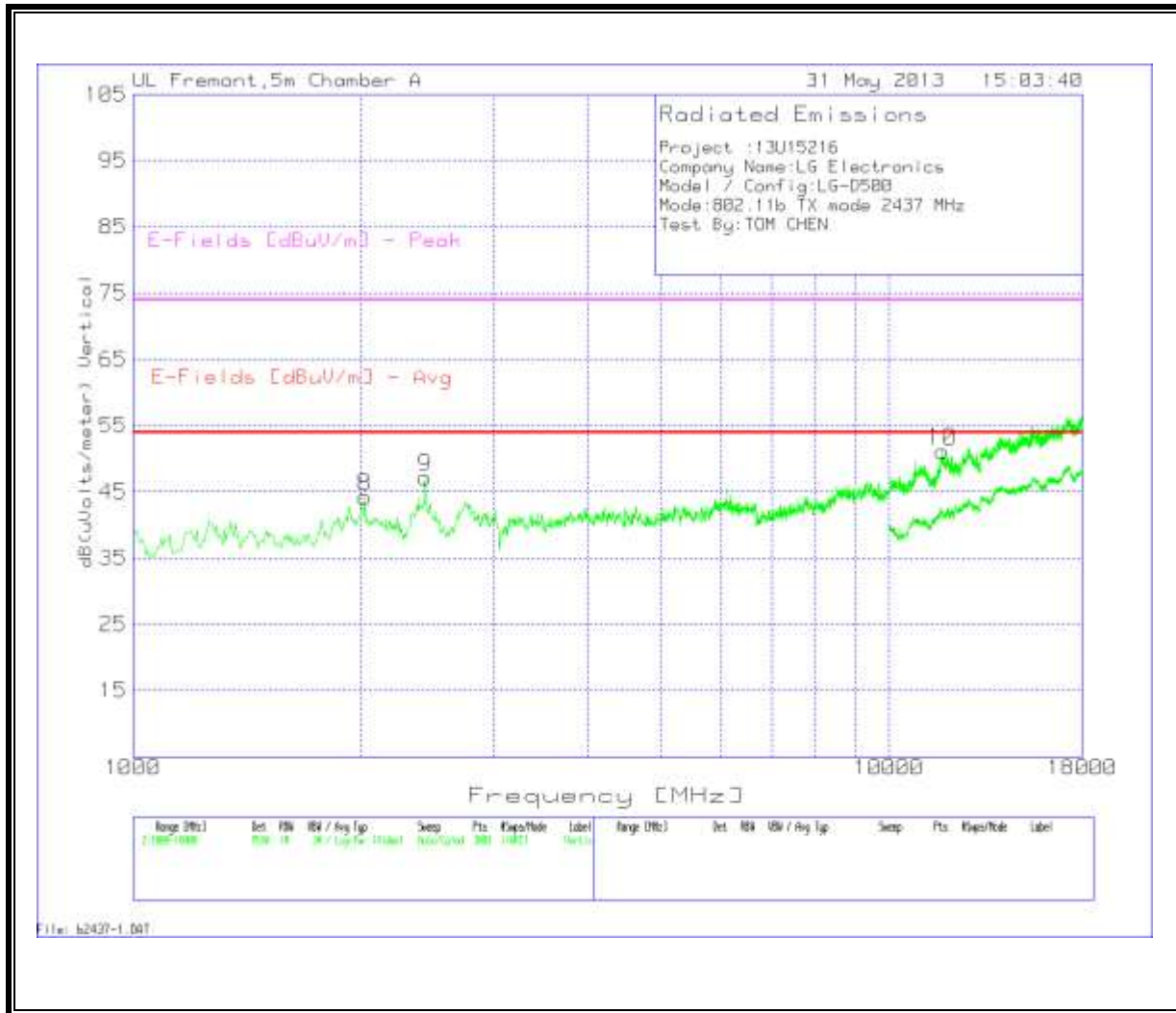
DATA

Project :13U15216														
Company Name:LG Electronics														
Model / Config:LG-D500														
Mode:802.11b TX mode 2412MHz														
Test By:TOM CHEN														
Marker No.	Test Frequency [MHz]	Meter Reading [dBuV]	Detector	T136 Ant Factor [dB/m]	T144 Preamp Gain [dB]	Cable Factor [dB]	T160 BRF [dB]	dB(uV s/meter)	E-Fields [dBuV/m] - Avg	Margin [dB]	E-Fields [dBuV/m] - Peak	Margin [dB]	Height [cm]	Polarity
Horizontal 1000 - 18000MHz														
1	1266.156	45.57	PK	30	-38.3	3.3	0.3	40.87	53.97	-13.1	74	-33.13	101	Horz
*2	2410.06	49.43	PK	32.2	-36.9	4.4	0.9	50.03	53.97	-3.94	74	-23.97	200	Horz
3	2914.057	42.17	PK	32.4	-36.7	5	0.9	43.77	53.97	-10.2	74	-30.23	200	Horz
4	6628.914	37.63	PK	35.5	-35.6	8.2	0.3	46.03	53.97	-7.94	74	-27.97	101	Horz
Vertical 1000 - 18000MHz														
5	1430.38	46.05	PK	29.5	-37.9	3.4	0.4	41.45	53.97	-12.52	74	-32.55	100	Vert
6	6849.767	36.5	PK	35.4	-35.6	8.4	0.3	45	53.97	-8.97	74	-29	100	Vert
7	9556.629	36.69	PK	36.7	-36.2	10.1	0.5	47.79	53.97	-6.18	74	-26.21	100	Vert
*:- Fundamental PK - Peak detector														

Mid Channel, Horizontal



Mid Channel, Vertical

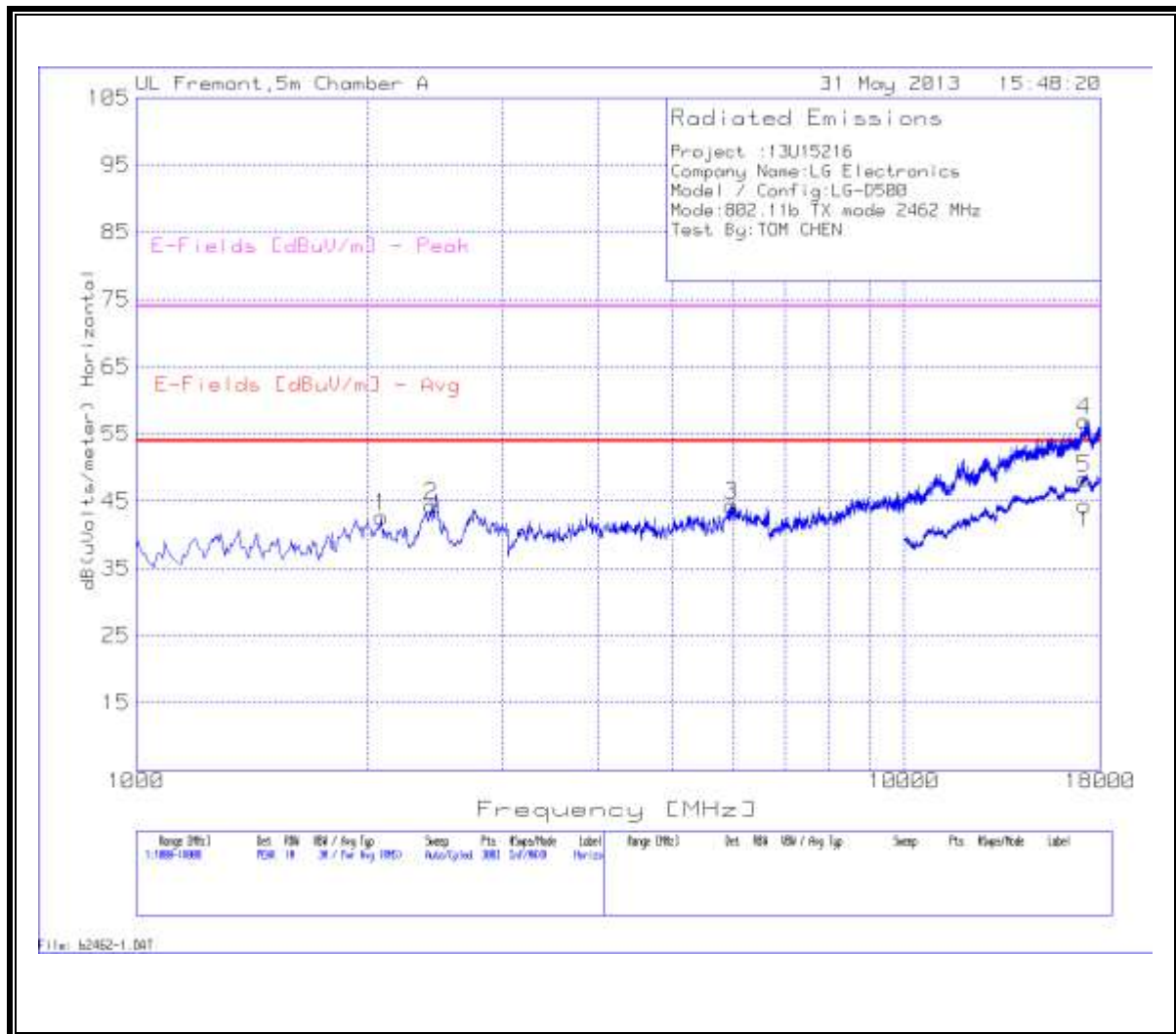


DATA

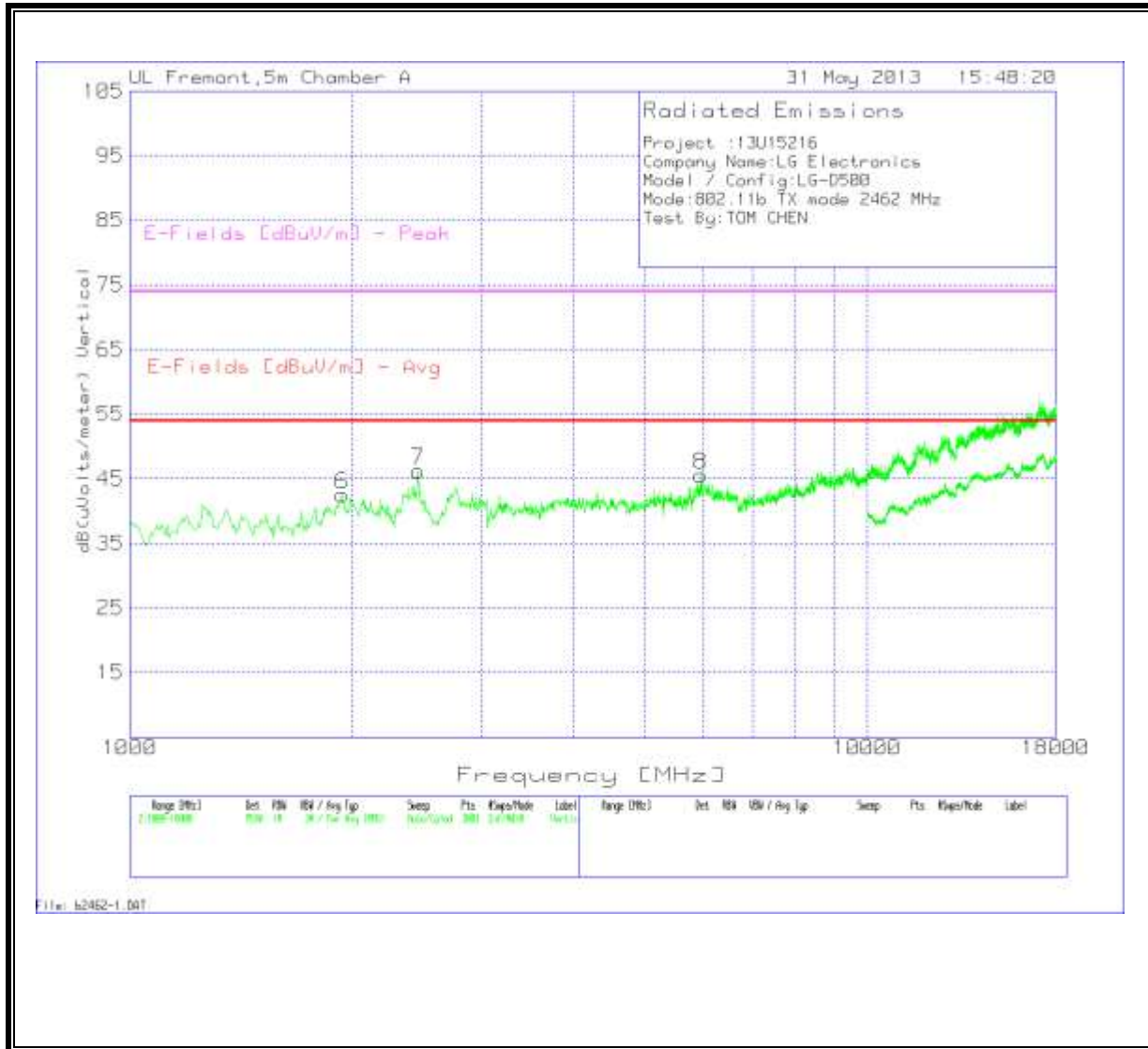
Project :13U15216														
Company Name:LG Electronics														
Model / Config:LG-D500														
Mode:802.11b TX mode 2437MHz														
Test By:TOM CHEN														
Marker No.	Test Frequency (MHz)	Meter Reading (dBuV)	Detector	T136 Ant Factor [dB/m]	T144 Preamp Gain [dB]	Cable Factor [dB]	T160 BRF [dB]	dB(uV/s/meter)	E-Fields [dBuV/m] - Avg	Margin (dB)	E-Fields [dBuV/m] - Peak	Margin (dB)	Height [cm]	Polarit
Horizontal 1000 - 18000MHz														
1	1934.377	43.57	PK	31.8	-37.2	4	0.9	43.07	53.97	-10.9	74	-30.93	101	Horz
*2	2438.374	48.95	PK	32.3	-36.9	4.5	0.9	49.75	53.97	-4.22	74	-24.25	200	Horz
3	10003.997	36.21	PK	37.2	-36.4	10.4	0.5	47.91	53.97	-6.06	74	-26.09	101	Horz
4	16442.705	35.75	PK	40.8	-34.8	13.7	0.4	55.85	53.97	1.88	74	-18.15	200	Horz
5	17314.79	36.01	PK	41	-34.4	14.1	0.6	57.31	53.97	3.34	74	-16.69	200	Horz
Vertical 1000 - 18000MHz														
8	2024.983	44.7	PK	31.8	-37.1	4	0.9	44.3	53.97	-9.67	74	-29.7	200	Vert
*9	2438.374	46.41	PK	32.3	-36.9	4.5	0.9	47.21	53.97	-6.76	74	-26.79	200	Vert
10	11759.494	36.33	PK	38.6	-35.7	11.3	0.6	51.13	53.97	-2.84	74	-22.87	100	Vert
9	2381.746	43.57	PK	32	-36.9	4.4	0.9	43.97	53.97	-10	74	-30.03	100	Vert
10	9335.776	35.95	PK	36.3	-36.2	10	0.5	46.55	53.97	-7.42	74	-27.45	200	Vert
Horizontal 10000 - 18000MHz														
6	16464.768	27.22	PK	40.7	-34.7	13.7	0.4	47.32	53.97	-6.65	74	-26.68	200	Horz
7	17308.346	27.42	PK	41	-34.4	14.1	0.6	48.72	53.97	-5.25	74	-25.28	200	Horz
*: Fundamental														
PK - Peak detector														



High Channel, Horizontal



High Channel, Vertical



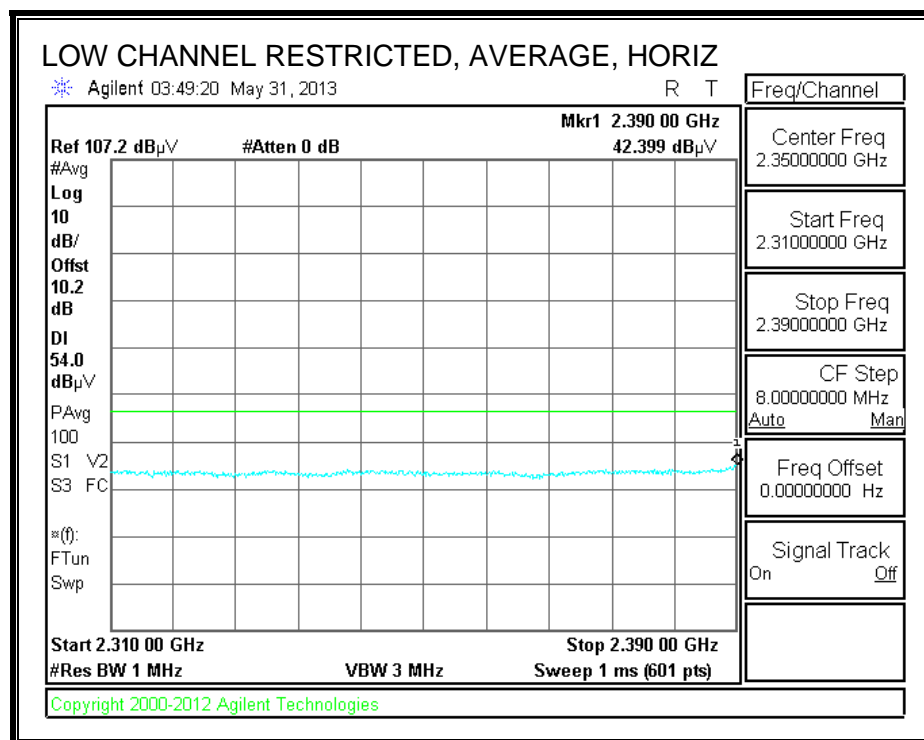
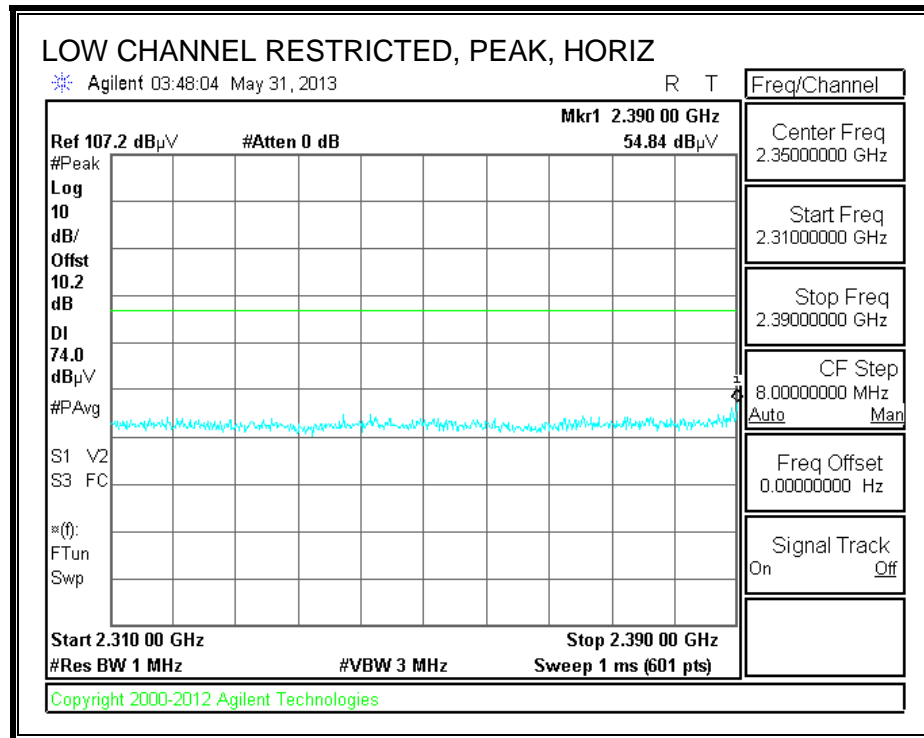


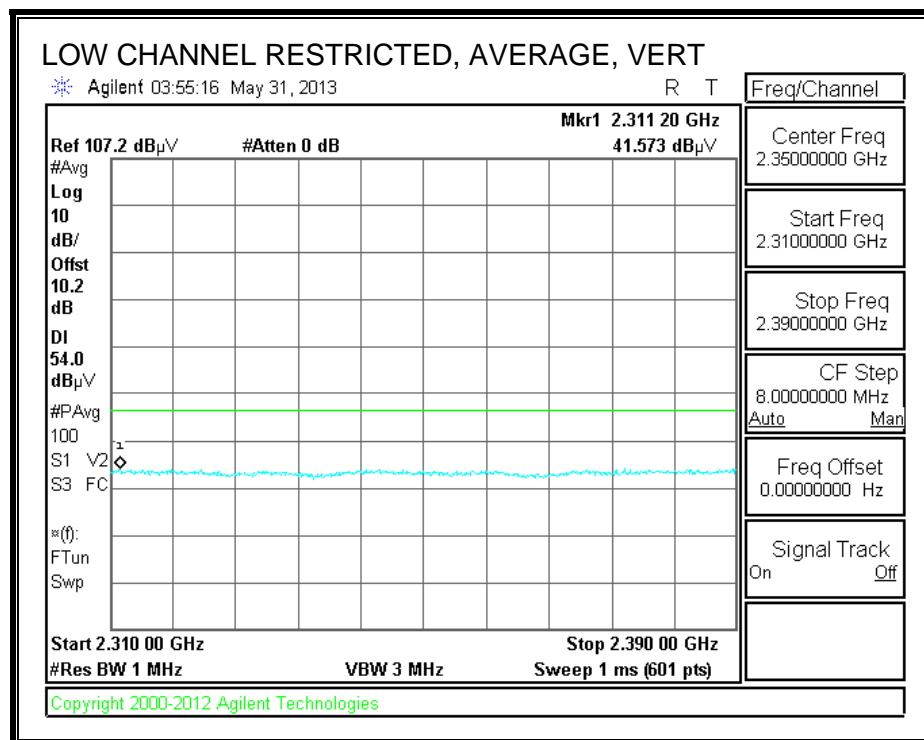
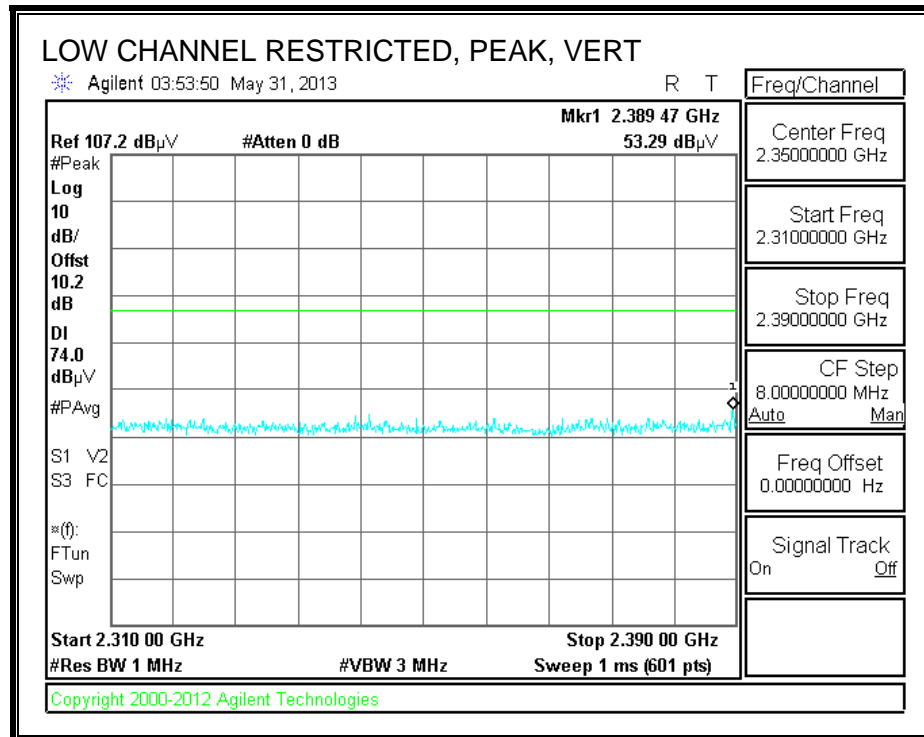
DATA

Project :13U15216														
Company Name:LG Electronics														
Model / Config:LG-D500														
Mode:802.11b TX mode 2462 MHz														
Test By:TOM CHEN														
Marker No.	Test Frequency [MHz]	Meter Reading [dBuV]	Detector	T136 Ant Factor [dB/m]	T144 Preamp Gain [dB]	Cable Factor [dB]	T160 BRF [dB]	dB(uVolts/meter)	E-Fields [dBuV/m] Avg	Margin [dB]	E-Fields [dBuV/m] Peak	Margin [dB]	Height [cm]	Polarity
Horizontal 1000 - 18000MHz														
1	2087.275	43.09	PK	31.6	-37	4.1	0.9	42.69	53.97	-11.28	74	-31.31	200	Horz
2	2421.386	43.62	PK	32.2	-36.9	4.5	0.9	44.32	53.97	-9.65	74	-29.68	200	Horz
3	5966.356	36.9	PK	35.2	-35.6	7.7	0.2	44.4	53.97	-9.57	74	-29.6	200	Horz
4	17173.218	35.8	PK	40.9	-34.3	14.1	0.5	57	53.97	3.03	74	-17	101	Horz
Vertical 1000 - 18000MHz														
6	1940.04	43.08	PK	31.8	-37.2	4	0.9	42.58	53.97	-11.39	74	-31.42	100	Vert
*7	2461.026	45.27	PK	32.4	-36.8	4.5	0.9	46.27	53.97	-7.7	74	-27.73	100	Vert
8	5949.367	38.18	PK	35.1	-35.6	7.7	0.2	45.58	53.97	-8.39	74	-28.42	100	Vert
Horizontal 10000 - 18000MHz														
5	17180.41	27.17	PK	40.9	-34.3	14.1	0.5	48.37	53.97	-5.6	74	-25.63	200	Horz
*: Fundamental														
PK - Peak detector														

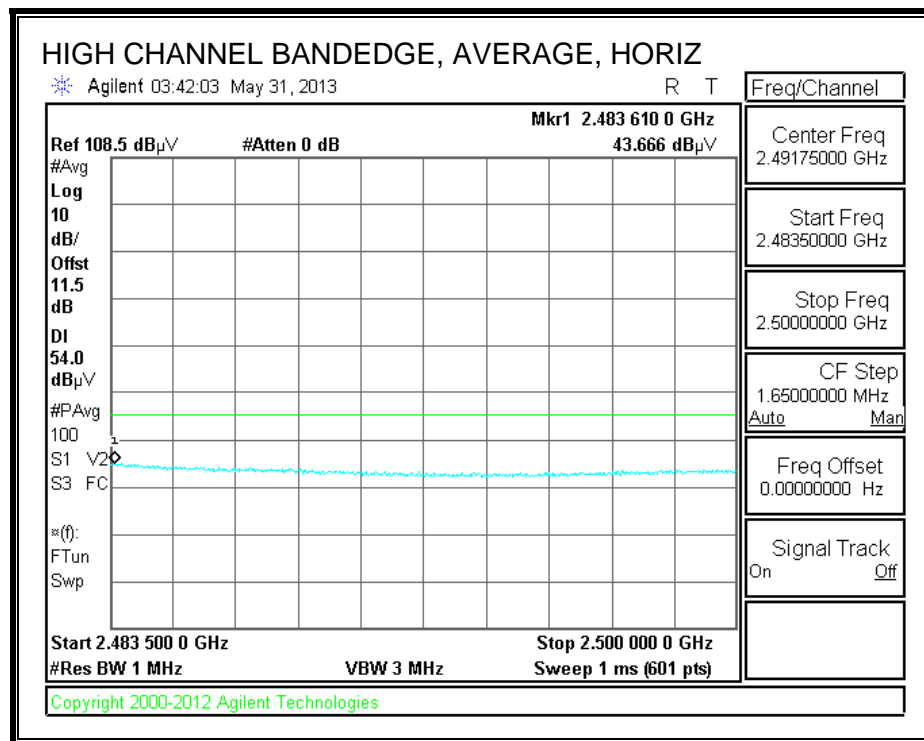
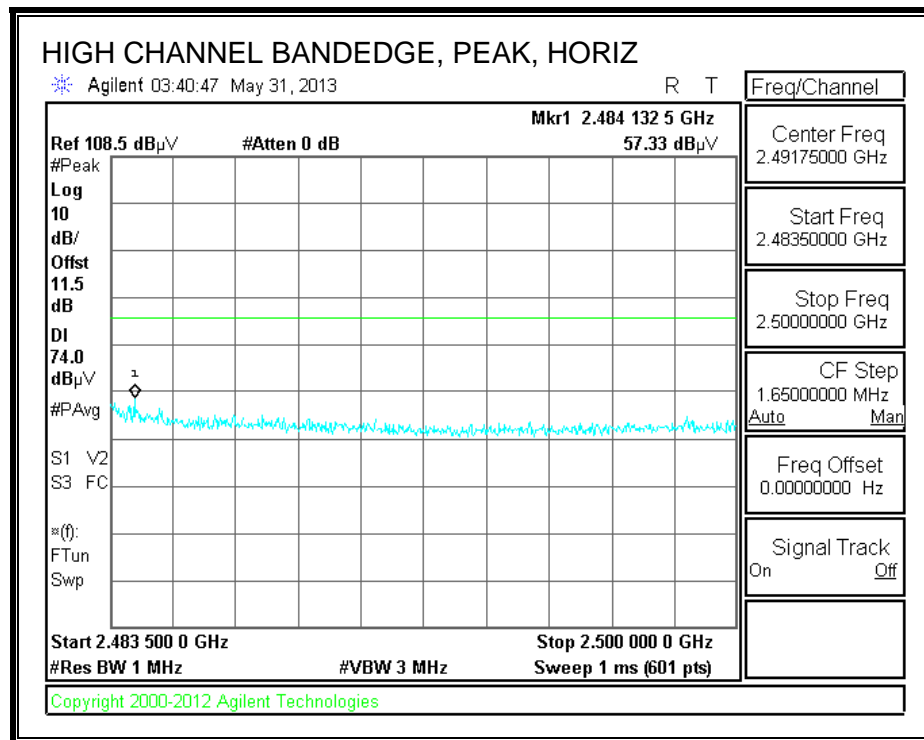
### 7.3. TX ABOVE 1 GHz 802.11g MODE IN THE 2.4 GHz BAND

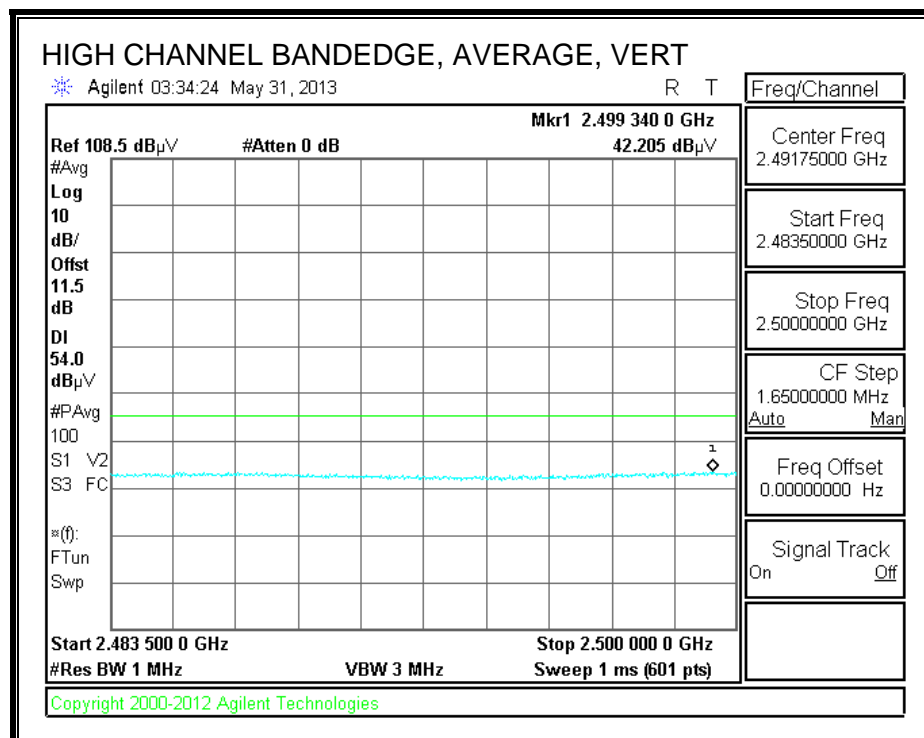
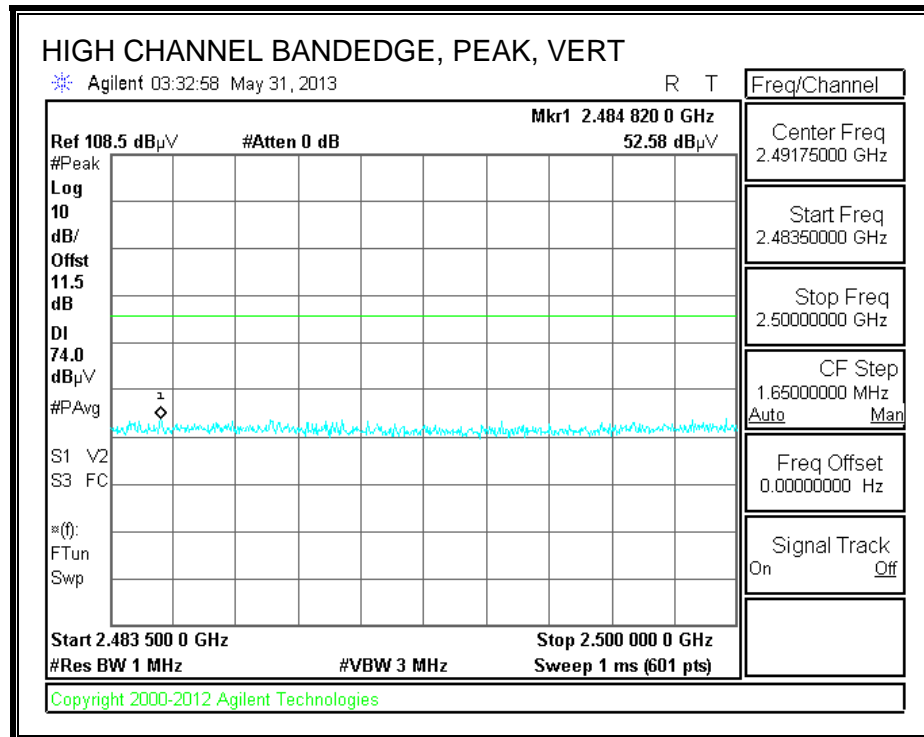
#### RESTRICTED BANDEDGE (LOW CHANNEL)





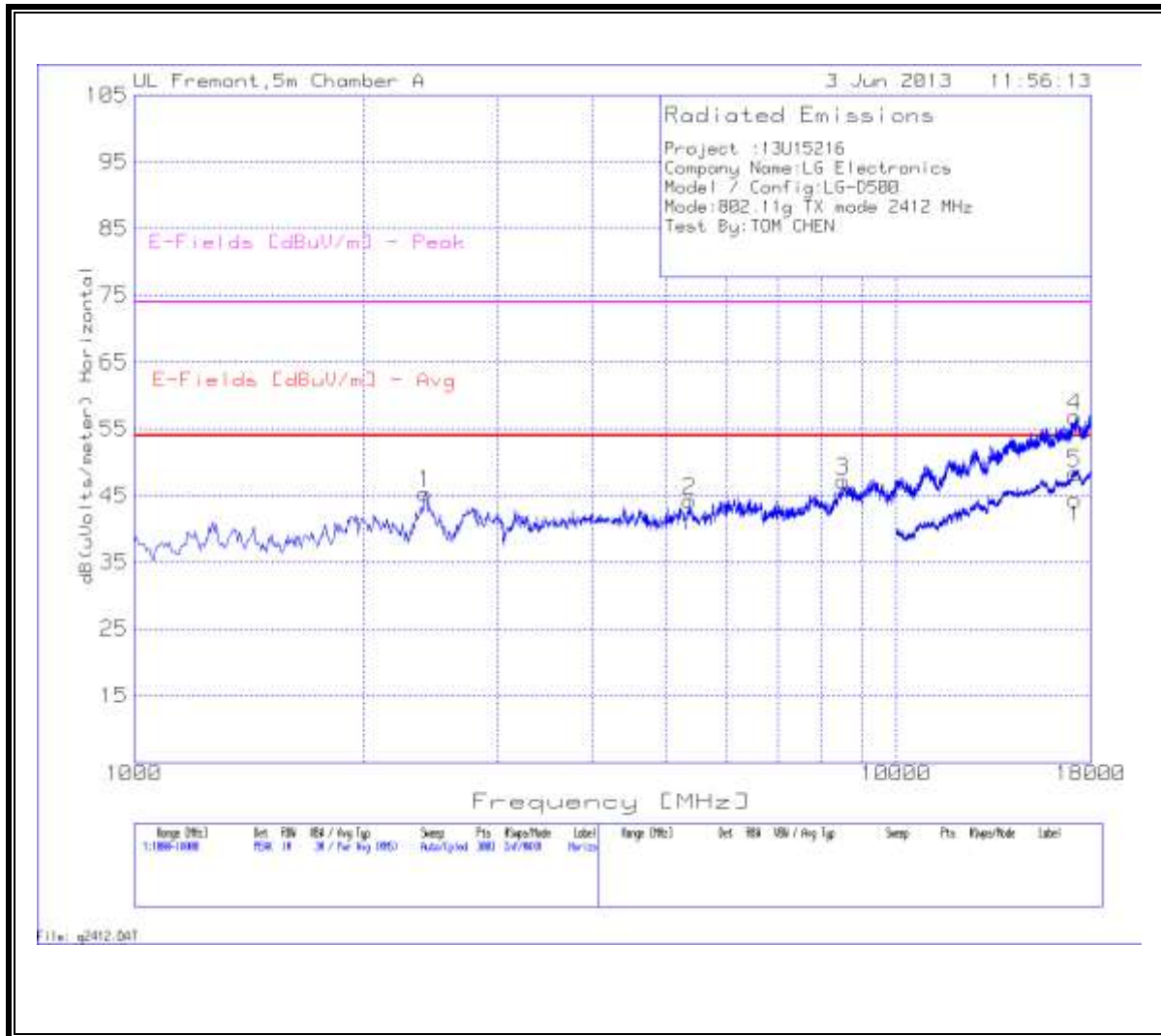
**AUTHORIZED BANDEDGE (HIGH CHANNEL)**



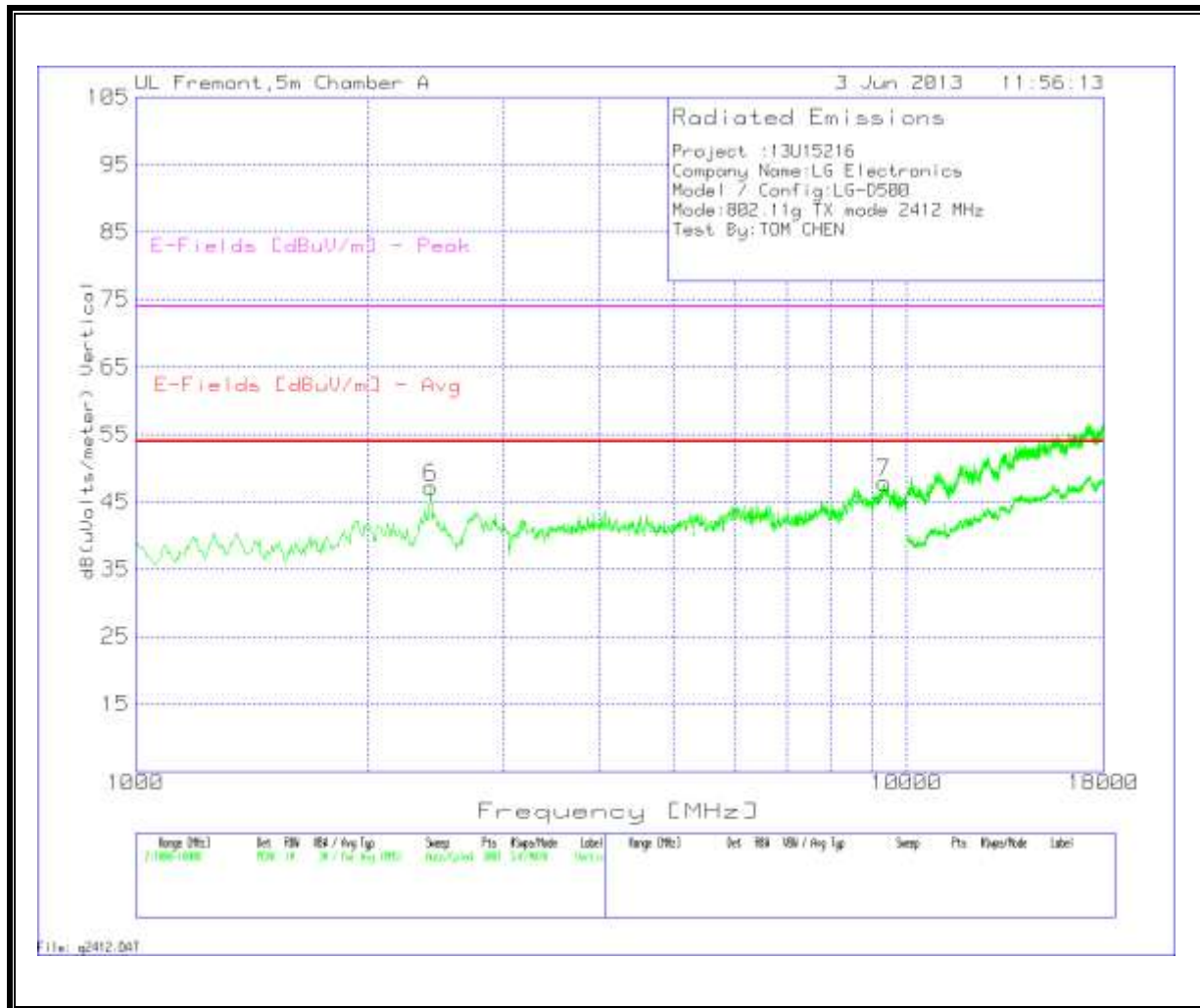


## HARMONICS AND SPURIOUS EMISSIONS

Low Channel, Horizontal



Low Channel, Vertical

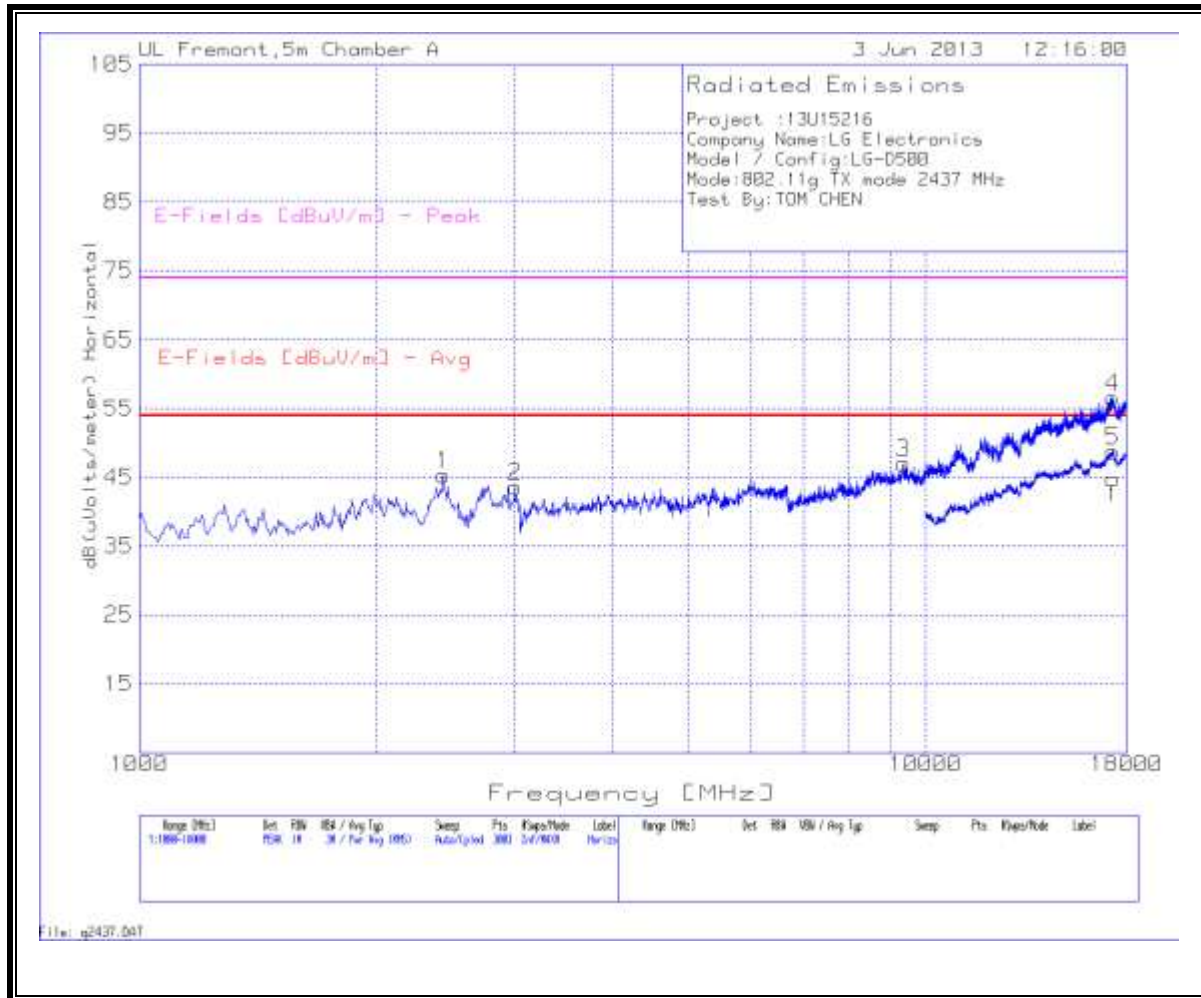


DATA

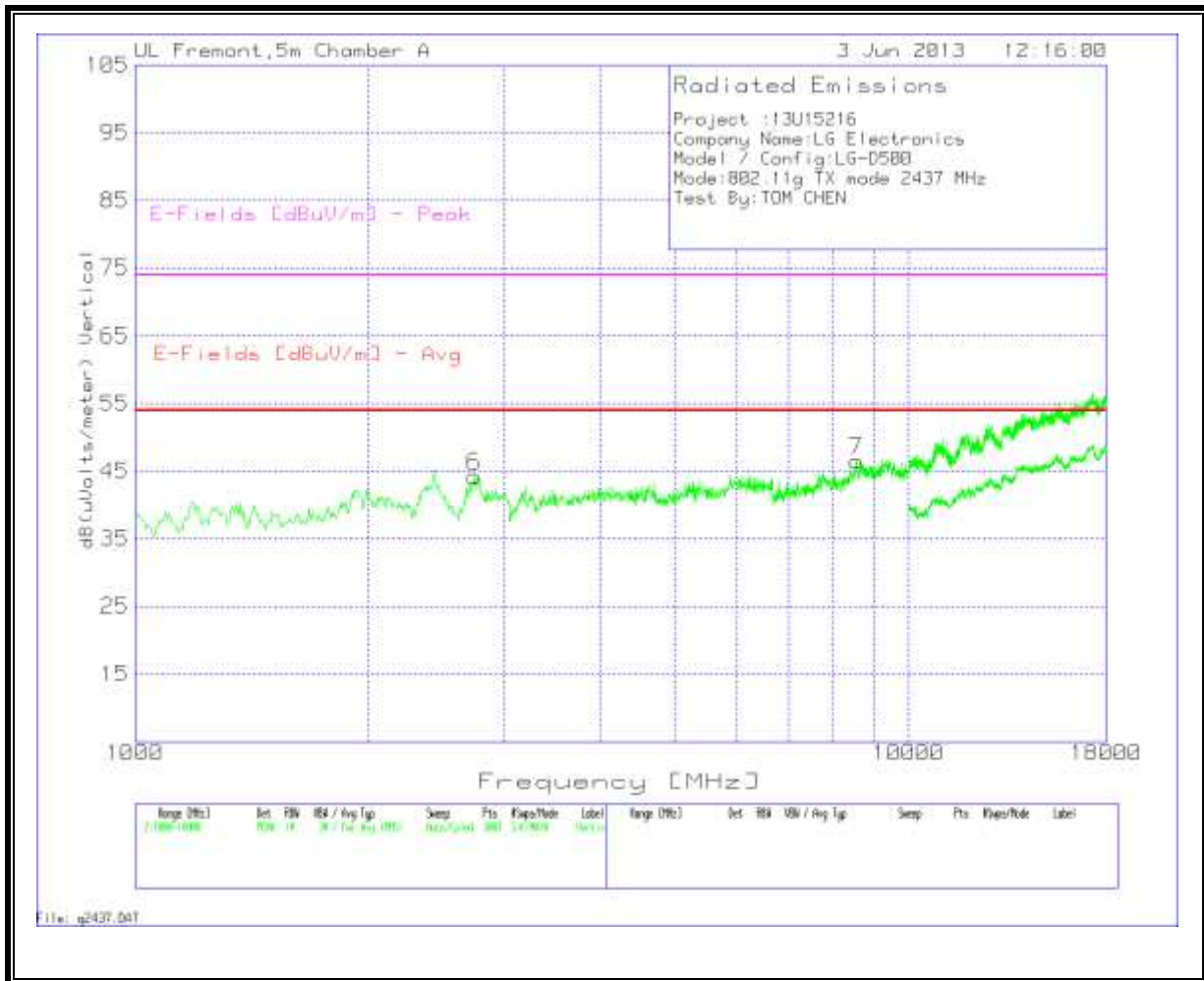
Project :13U15216															
Company Name:LG Electronics															
Model / Config:LG-D500															
Mode:802.11g TX mode 2412 MHz															
Test By:TOM CHEN															
Horizontal 1000 - 18000MHz															
Marker No.	Test Frequency	Meter Reading	Detector	T136 Ant Factor [dB/m]	T144 Preamp Gain [dB]	Cable Factor [dB]	T160 BRF [dB]	DC Corr [dB]	dB(uVolt s/meter)	E-Fields [dBuV/m] Avg	Margin (dB)	E-Fields [dBuV/m] Peak	Margin (dB)	Height [cm]	Polarity
*1	2410.06	44.75	PK	32.2	-36.9	4.4	0.9	0	45.35	53.97	-8.62	74	-28.65	101	Horz
2	5360.426	37.89	PK	34.4	-35.5	7.2	0.2	0	44.19	53.97	-9.78	74	-29.81	101	Horz
3	8520.32	37.52	PK	33.7	-36	9.5	0.4	0	47.12	53.97	-6.85	74	-26.88	200	Horz
4	17173.218	35.61	PK	40.9	-34.3	14.1	0.5	0	56.81	53.97	2.84	74	-17.19	101	Horz
Vertical 1000 - 18000MHz															
*6	2415.723	46.43	PK	32.2	-36.9	4.5	0.9	0	47.13	53.97	-6.84	74	-26.87	200	Vert
7	9352.765	37.12	PK	36.4	-36.2	10	0.5	0	47.82	53.97	-6.15	74	-26.18	100	Vert
Horizontal 10000 - 18000MHz															
5	17180.41	27.2	PK	40.9	-34.3	14.1	0.5	0	48.4	53.97	-5.57	74	-25.6	100	Horz
*: Fundamental															
PK - Peak detector															



Mid Channel, Horizontal



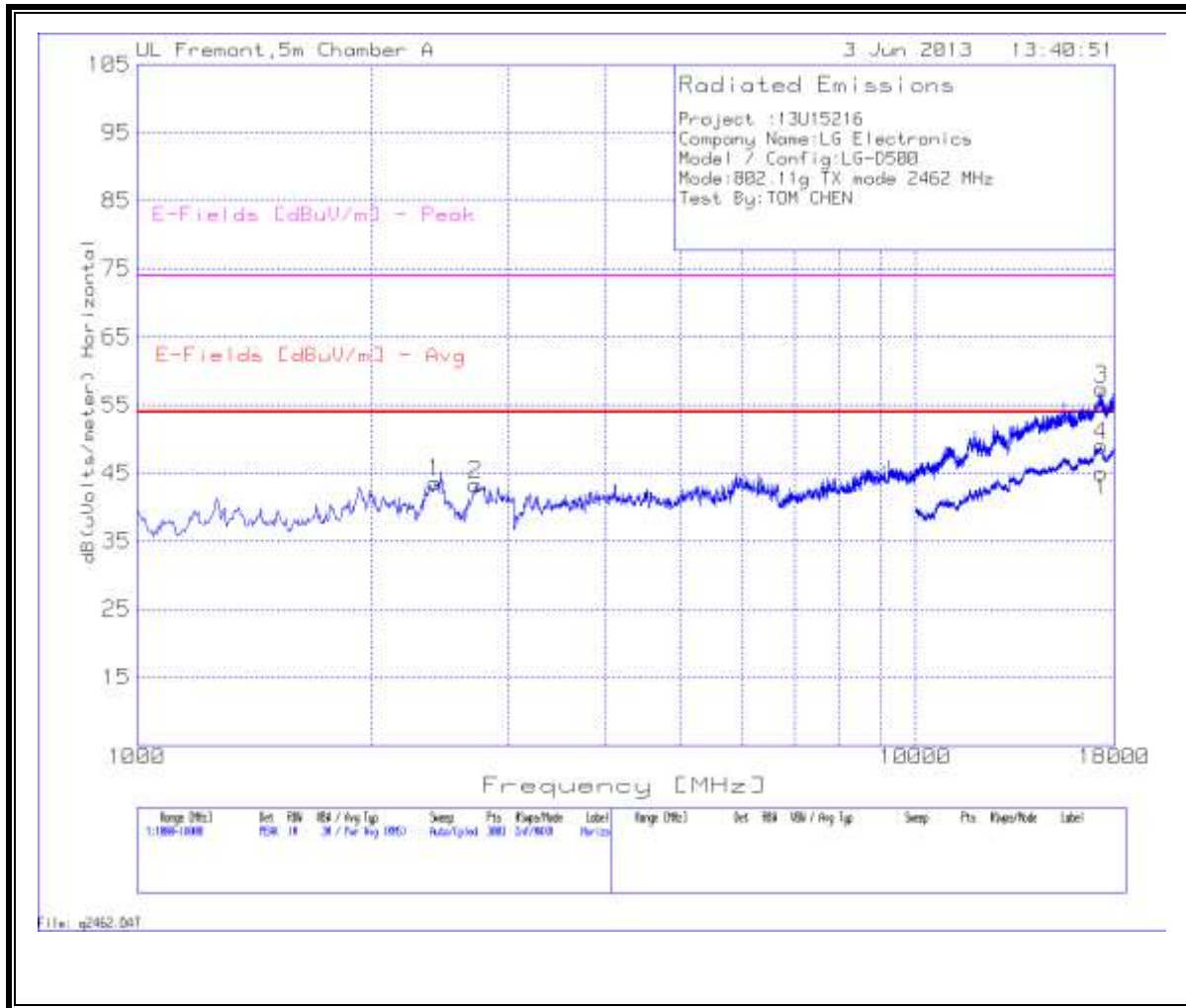
Mid Channel, Vertical



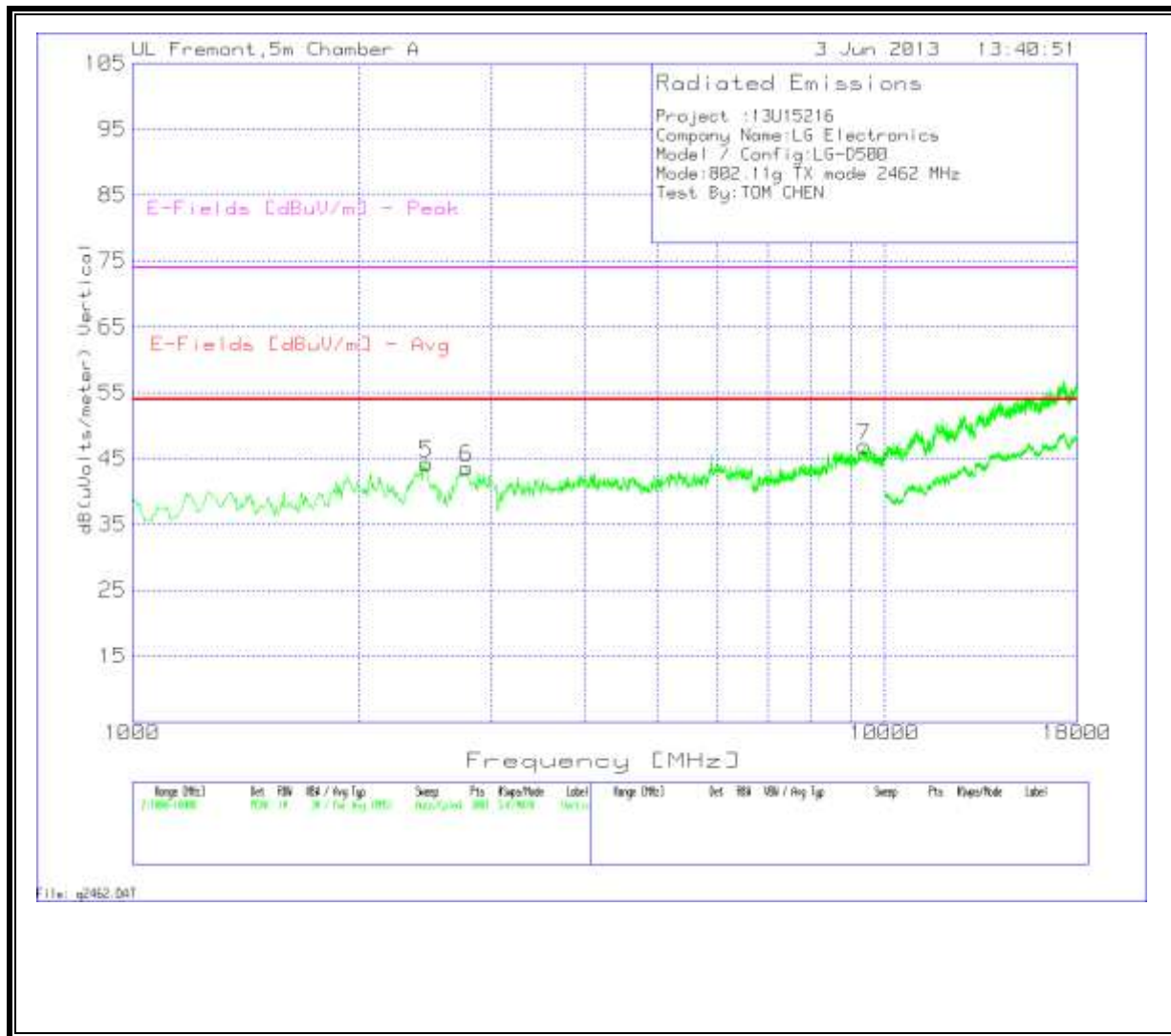
# DATA

Project :13U15216														
Company Name:LG Electronics														
Model / Config:LG-D500														
Mode:802.11g TX mode 2437 MHz														
Test By:TOM CHEN														
Horizontal 1000 - 18000MHz														
Marker No.	Test Frequency	Meter Reading	Detector	T136 Ant Factor [dB/m]	T144 Preamp Gain [dB]	Cable Factor [dB]	T160 BRF [dB]	dB(uV/s/meter)	E-Fields [dBuV/m] Avg	Margin (dB)	E-Fields [dBuV/m] Peak	Margin (dB)	Height [cm]	Polarity
1	2438.374	44.52	PK	32.3	-36.9	4.5	0.9	45.32	53.97	-8.65	74	-28.68	101	Horz
2	3010.326	41.71	PK	32.7	-36.7	5.1	0.8	43.61	53.97	-10.36	74	-30.39	101	Horz
3	9364.091	36.3	PK	36.4	-36.2	10	0.5	47	53.97	-6.97	74	-27	200	Horz
4	17303.464	35.23	PK	41	-34.4	14.1	0.6	56.53	53.97	2.56	74	-17.47	200	Horz
Vertical 1000 - 18000MHz														
6	2744.171	42.69	PK	32.7	-36.8	4.8	0.9	44.29	53.97	-9.68	74	-29.71	200	Vert
7	8554.297	36.9	PK	35.7	-36	9.5	0.4	46.5	53.97	-7.47	74	-27.5	100	Vert
Horizontal 10000 - 18000MHz														
5	17300.35	27.4	PK	41	-34.4	14.1	0.6	48.7	53.97	-5.27	74	-25.3	100	Horz
*: Fundamental														
PK - Peak detector														

High Channel, Horizontal



High Channel, Vertical

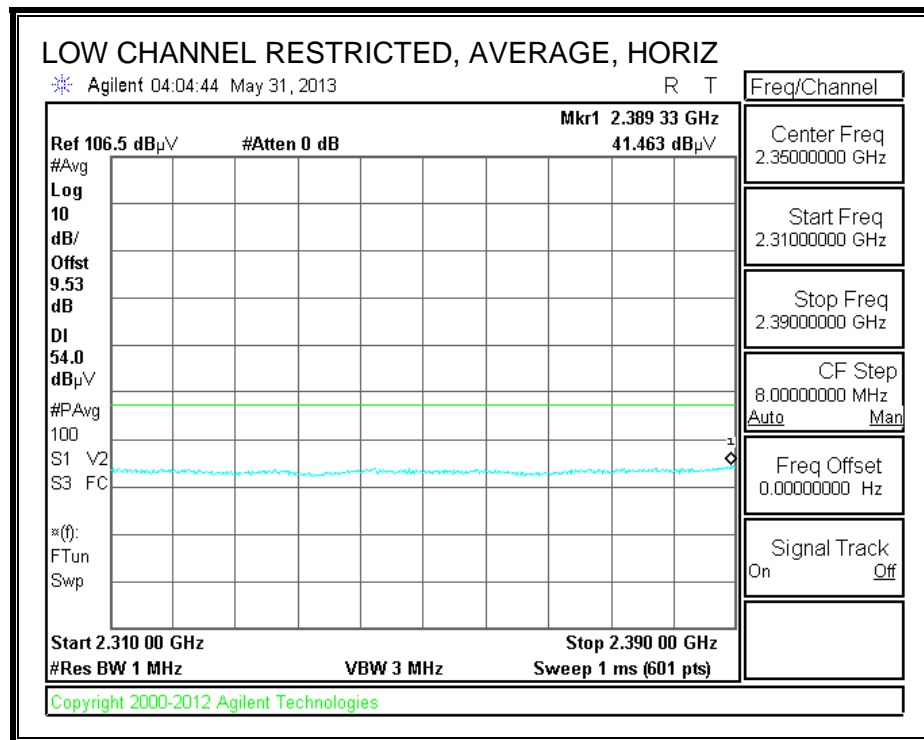
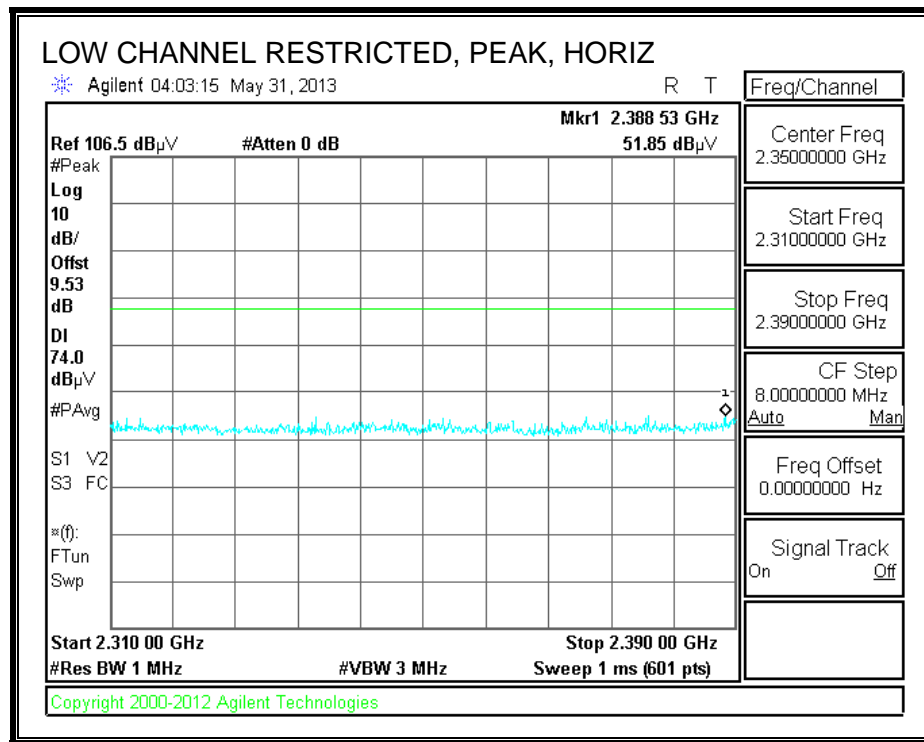


DATA

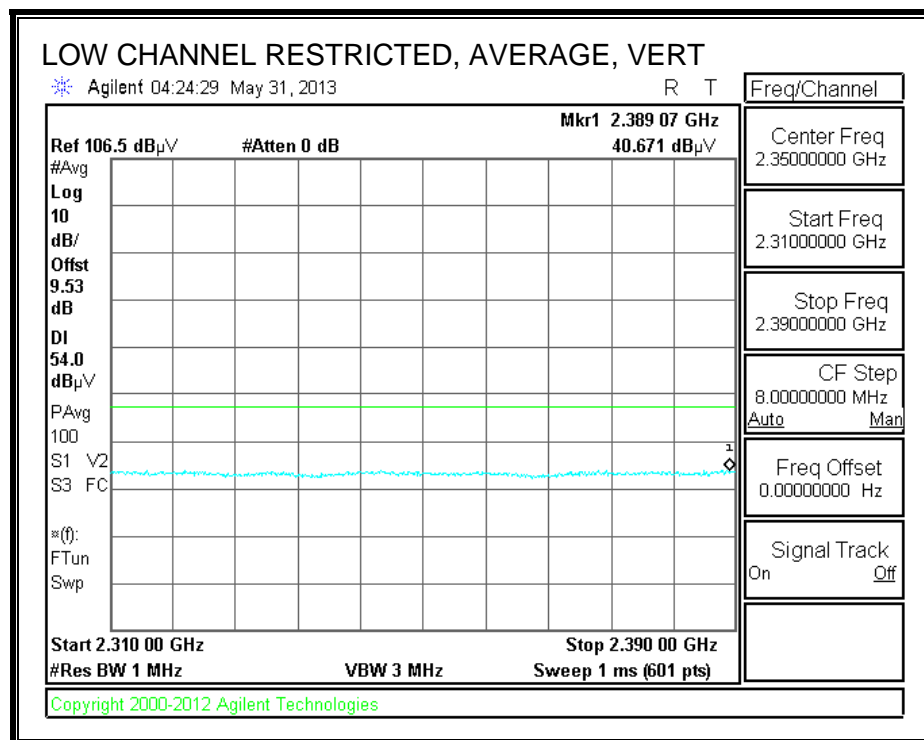
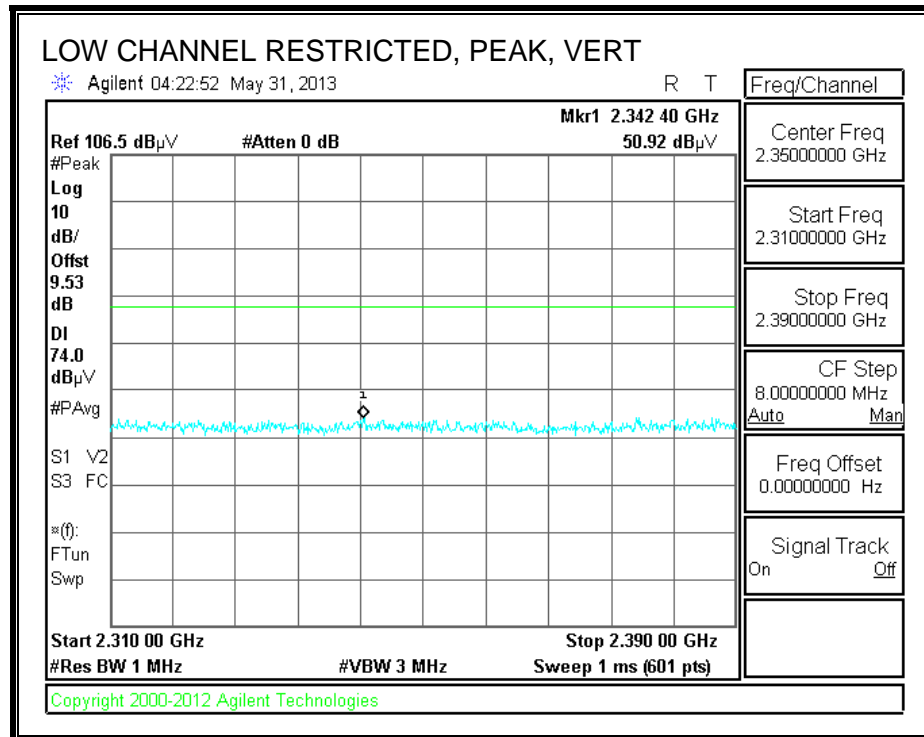
Project :13U15216															
Company Name:LG Electronics															
Model / Config:LG-D500															
Mode:802.11g TX mode 2462 MHz															
Test By:TOM CHEN															
Horizontal 1000 - 18000MHz															
Marker No.	Test Frequency	Meter Reading	Detector	T136 Ant Factor [dB/m]	T144 Preamp Gain [dB]	Cable Factor [dB]	T160 BRF [dB]	DC Corr [dB]	dB(uV/s/meter)	E-Fields [dBuV/m] Avg	Margin [dB]	E-Fields [dBuV/m] Peak	Margin [dB]	Height [cm]	Polarit
1	2415.723	42.86	PK	32.2	-36.9	4.5	0.9	0	43.56	53.97	-10.41	74	-30.44	200	Horz
2	2727.182	41.75	PK	32.7	-36.8	4.8	0.9	0	43.35	53.97	-10.62	74	-30.65	200	Horz
3	17326.116	36.01	PK	41	-34.4	14.1	0.6	0	57.31	53.97	3.34	74	-16.69	101	Horz
Vertical 1000 - 18000MHz															
*5	2461.026	43.24	PK	32.4	-36.8	4.5	0.9	0	44.24	53.97	-9.73	74	-29.76	200	Vert
6	2783.811	42.05	PK	32.6	-36.7	4.8	0.9	0	43.65	53.97	-10.32	74	-30.35	200	Vert
7	9398.068	36.24	PK	36.4	-36.2	10	0.4	0	46.84	53.97	-7.13	74	-27.16	200	Vert
Horizontal 10000 - 18000MHz															
4	17320.34	27.73	PK	41	-34.4	14.1	0.6	0	49.03	53.97	-4.94	74	-24.97	200	Horz
*: Fundamental															
PK - Peak detector															

## 7.4. TX ABOVE 1 GHz 802.11n HT20 MODE IN THE 2.4 GHz BAND

### RESTRICTED BANDEDGE (LOW CHANNEL)

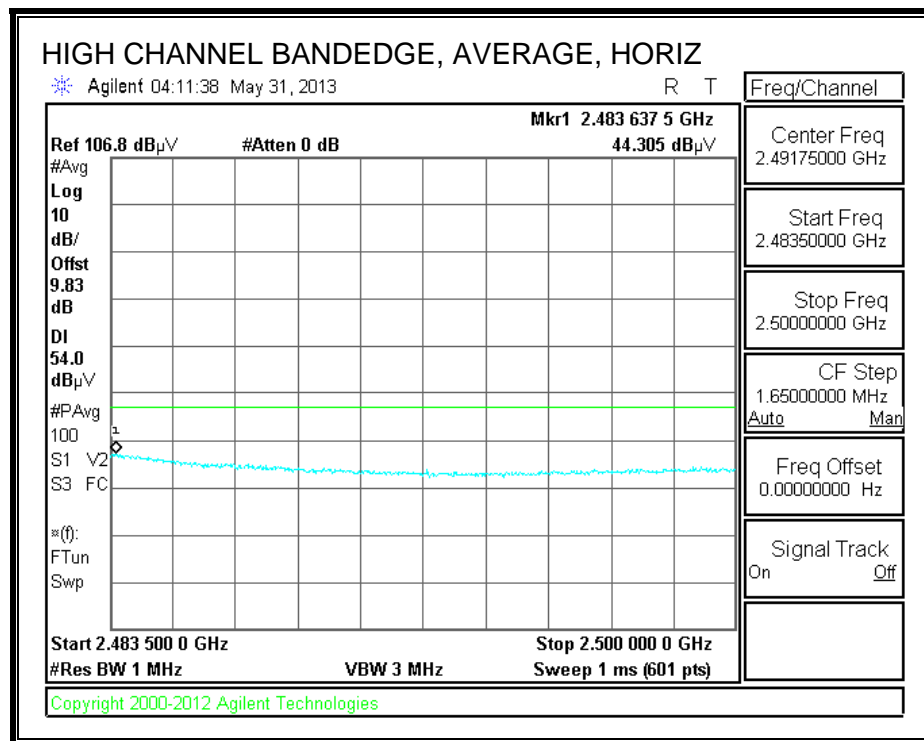
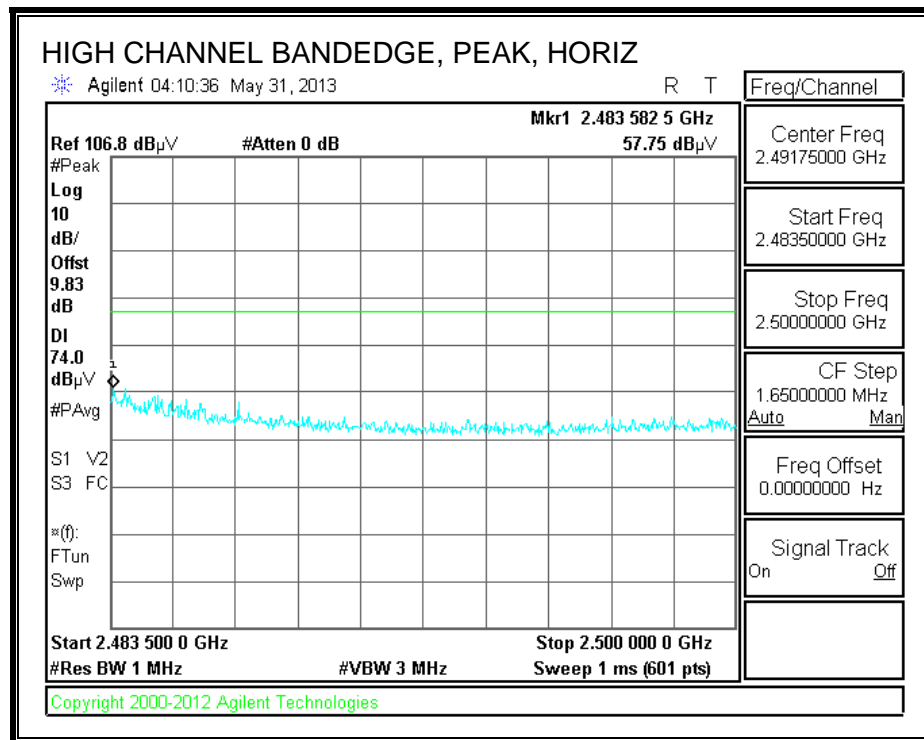


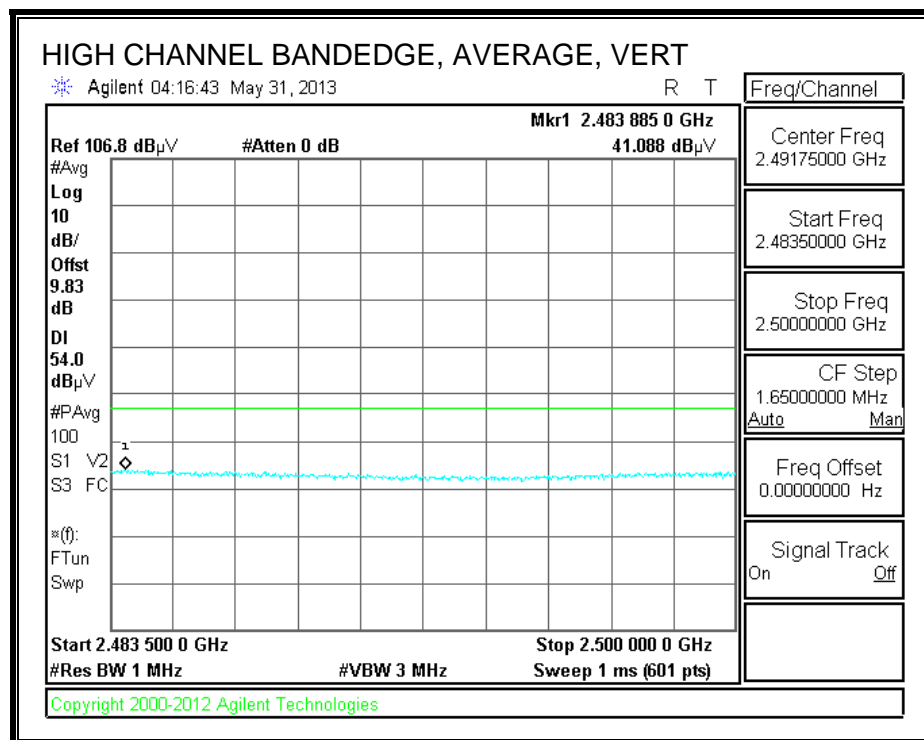
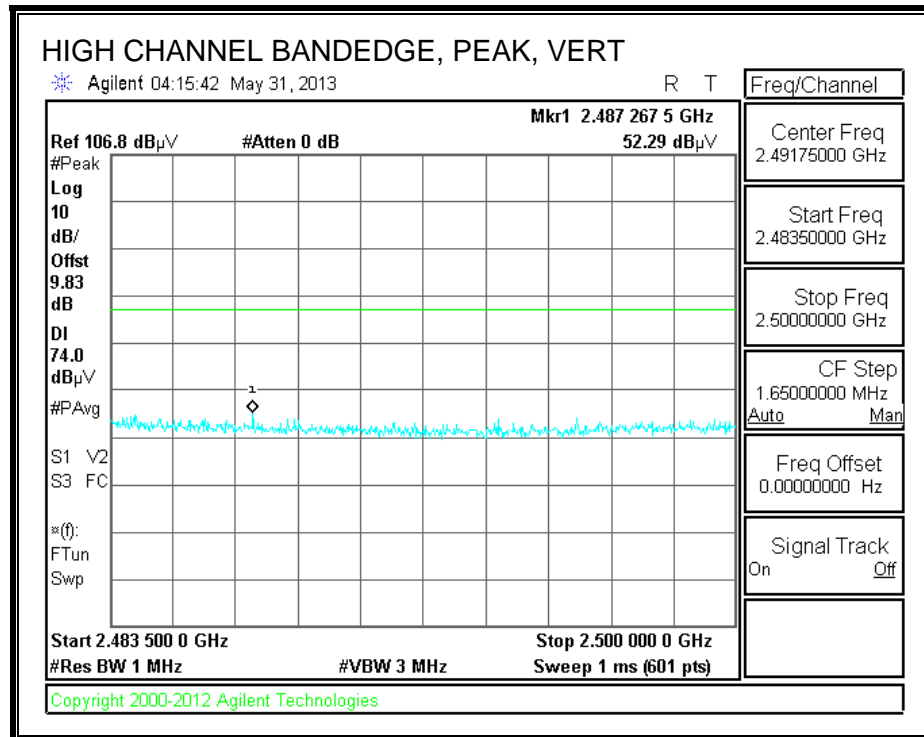






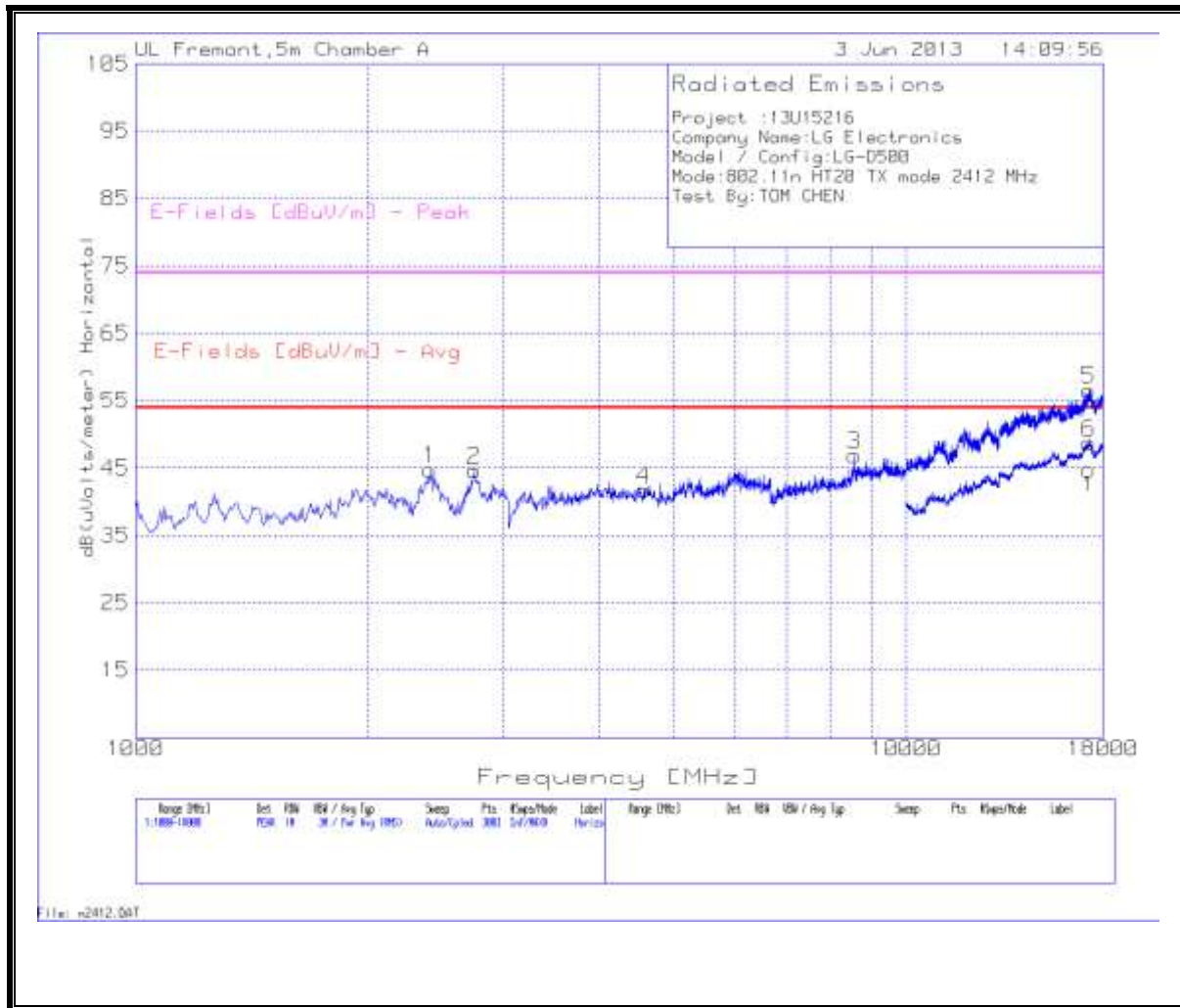
**AUTHORIZED BANDEDGE (HIGH CHANNEL)**



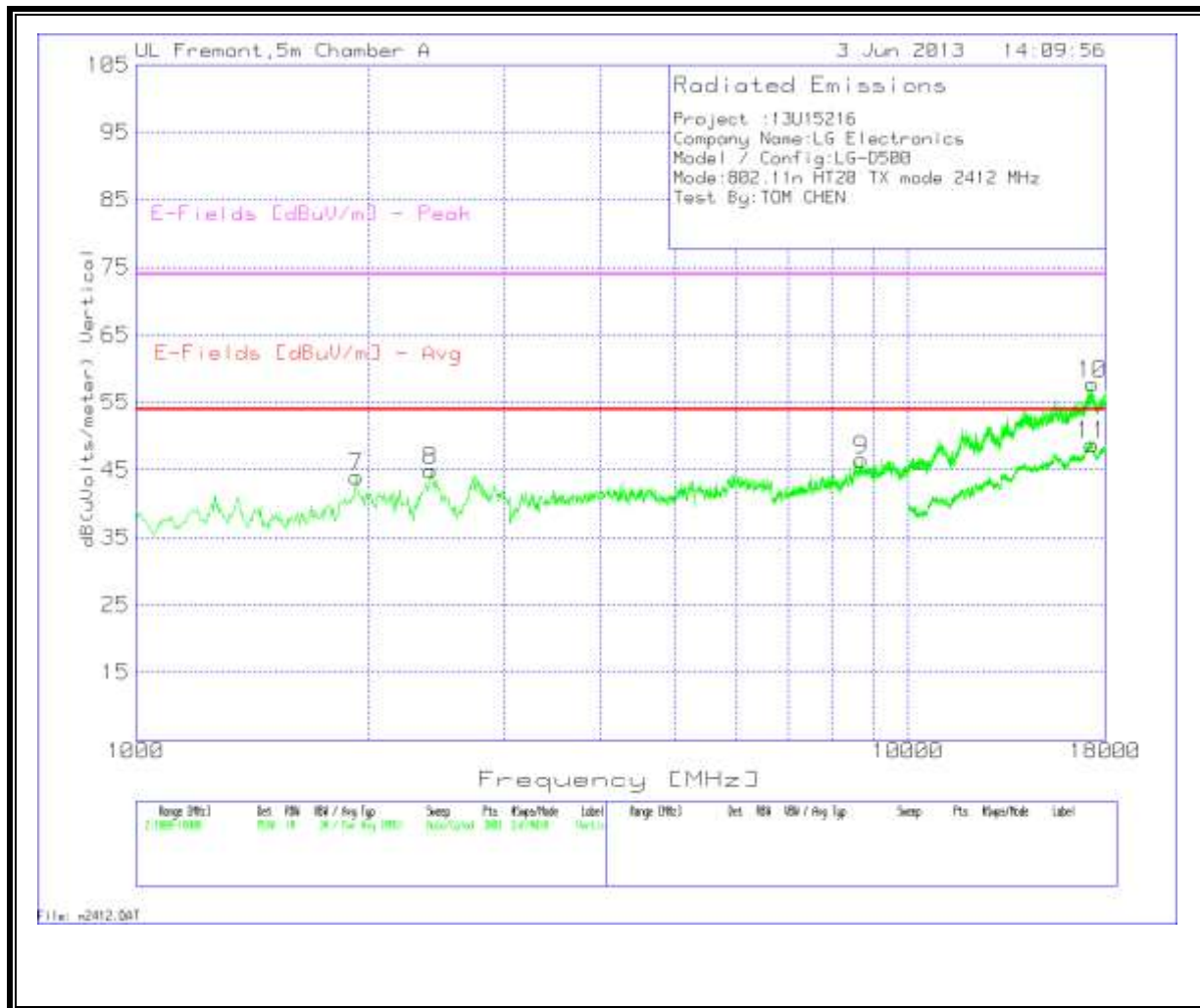


## HARMONICS AND SPURIOUS EMISSIONS

Low Channel, Horizontal



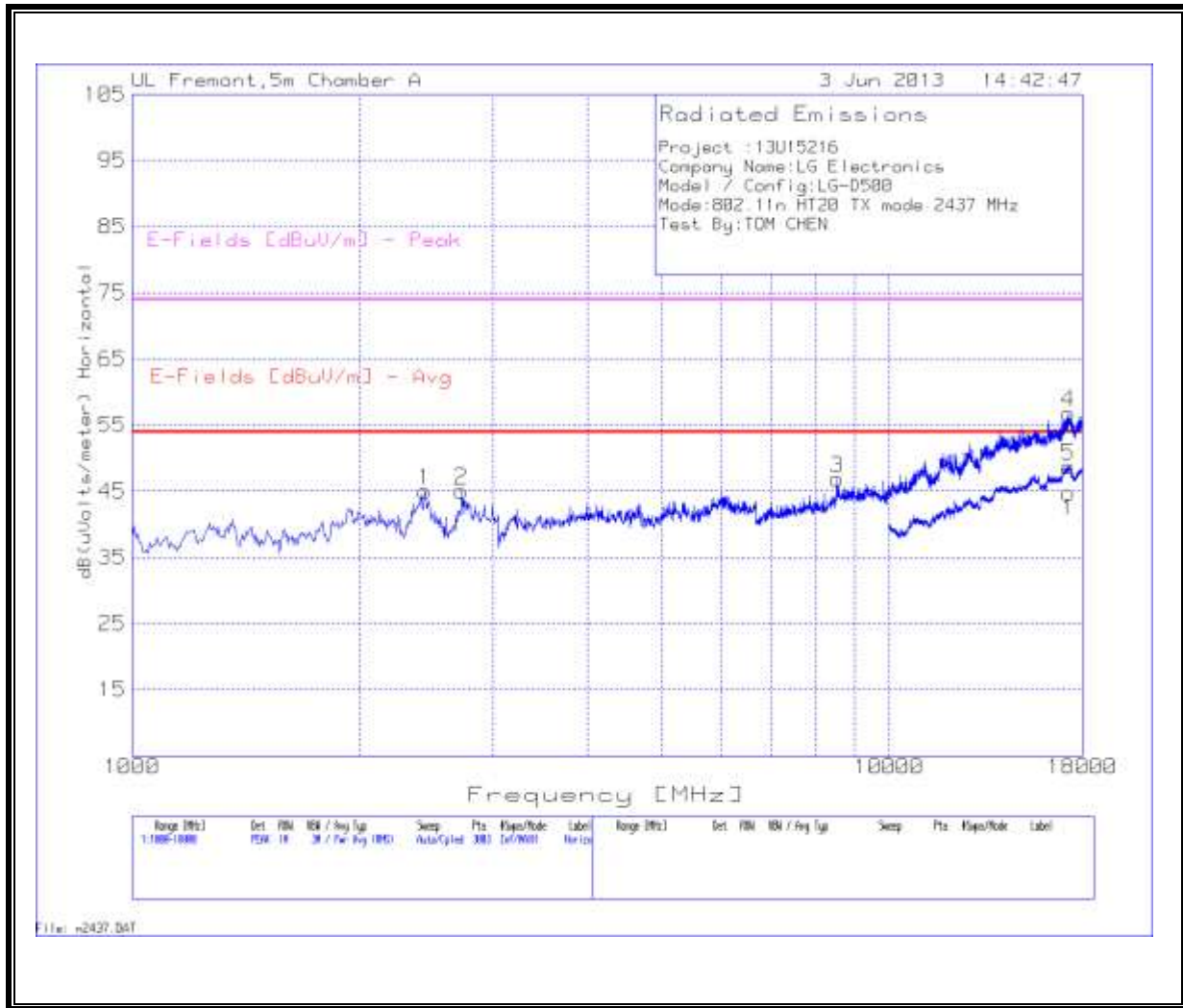
Low Channel, Vertical



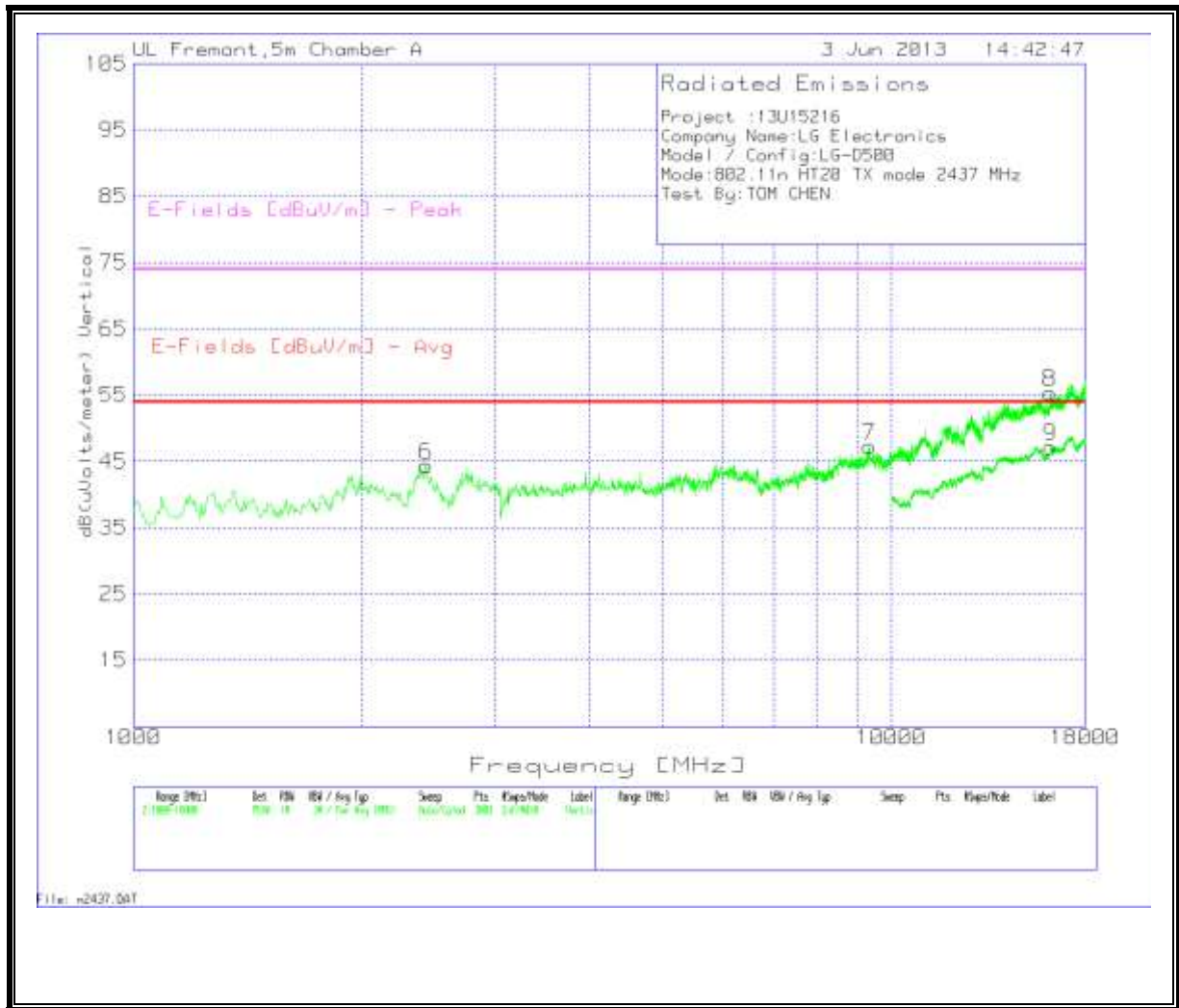
DATA

Project :13U15216															
Company Name:LG Electronics															
Model / Config:LG-D500															
Mode:802.11n HT20 TX mode 2412 MHz															
Test By:TOM CHEN															
Horizontal 1000 - 18000MHz															
Marker No.	Test Frequency	Meter Reading	Detector	T136 Ant Factor [dB/m]	T144 Preamp Gain [dB]	Cable Factor [dB]	T160 BRF [dB]	DC Corr [dB]	dB(uV/m)	E-Fields [dBuV/m] Avg	Margin [dB]	E-Fields [dBuV/m] Peak	Margin [dB]	Height [cm]	Polarity
*1	2410.06	44.15	PK	32.2	-36.9	4.4	0.9	0	44.75	53.97	-9.22	74	-29.25	200	Horiz
2	2755.496	43.12	PK	32.6	-36.8	4.8	0.9	0	44.62	53.97	-9.35	74	-29.38	200	Horiz
3	8565.623	37.34	PK	35.7	-36	9.5	0.4	0	46.94	53.97	-7.03	74	-27.06	101	Horiz
4	4567.622	36.91	PK	33.9	-35.8	6.5	0.2	0	41.71	53.97	-12.26	74	-32.29	101	Horiz
5	17235.51	35.34	PK	40.9	-34.3	14.1	0.5	0	56.54	53.97	2.57	74	-17.46	200	Horiz
Vertical 1000 - 18000MHz															
7	1934.377	44.45	PK	31.8	-37.2	4	0.9	0	43.95	53.97	-10.02	74	-30.05	200	Vert
*8	2410.06	44.37	PK	32.2	-36.9	4.4	0.9	0	44.97	53.97	-9	74	-29.03	200	Vert
9	8707.195	36.75	PK	35.8	-36	9.6	0.4	0	46.55	53.97	-7.42	74	-27.45	200	Vert
10	17320.453	36.46	PK	41	-34.4	14.1	0.6	0	57.76	53.97	3.79	74	-16.24	100	Vert
Horizontal 10000 - 18000MHz															
6	17232.384	27.54	PK	40.9	-34.3	14.1	0.5	0	48.74	53.97	-5.23	74	-25.26	100	Horiz
Vertical 10000 - 18000MHz															
11	17312.344	27.43	PK	41	-34.4	14.1	0.6	0	48.73	53.97	-5.24	74	-25.27	200	Vert
*: Fundamental															
PK - Peak detector															

Mid Channel, Horizontal



Mid Channel, Vertical



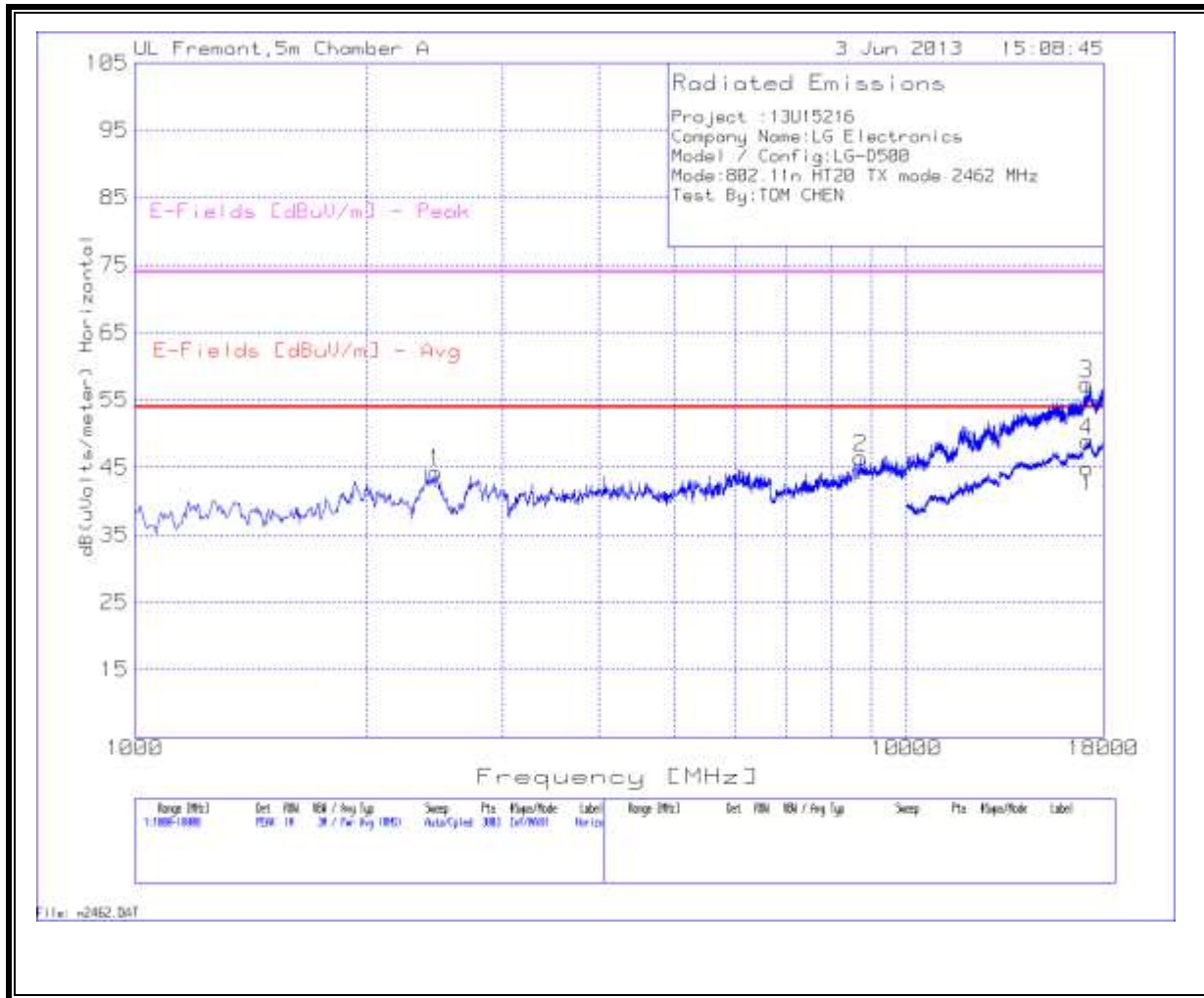


DATA

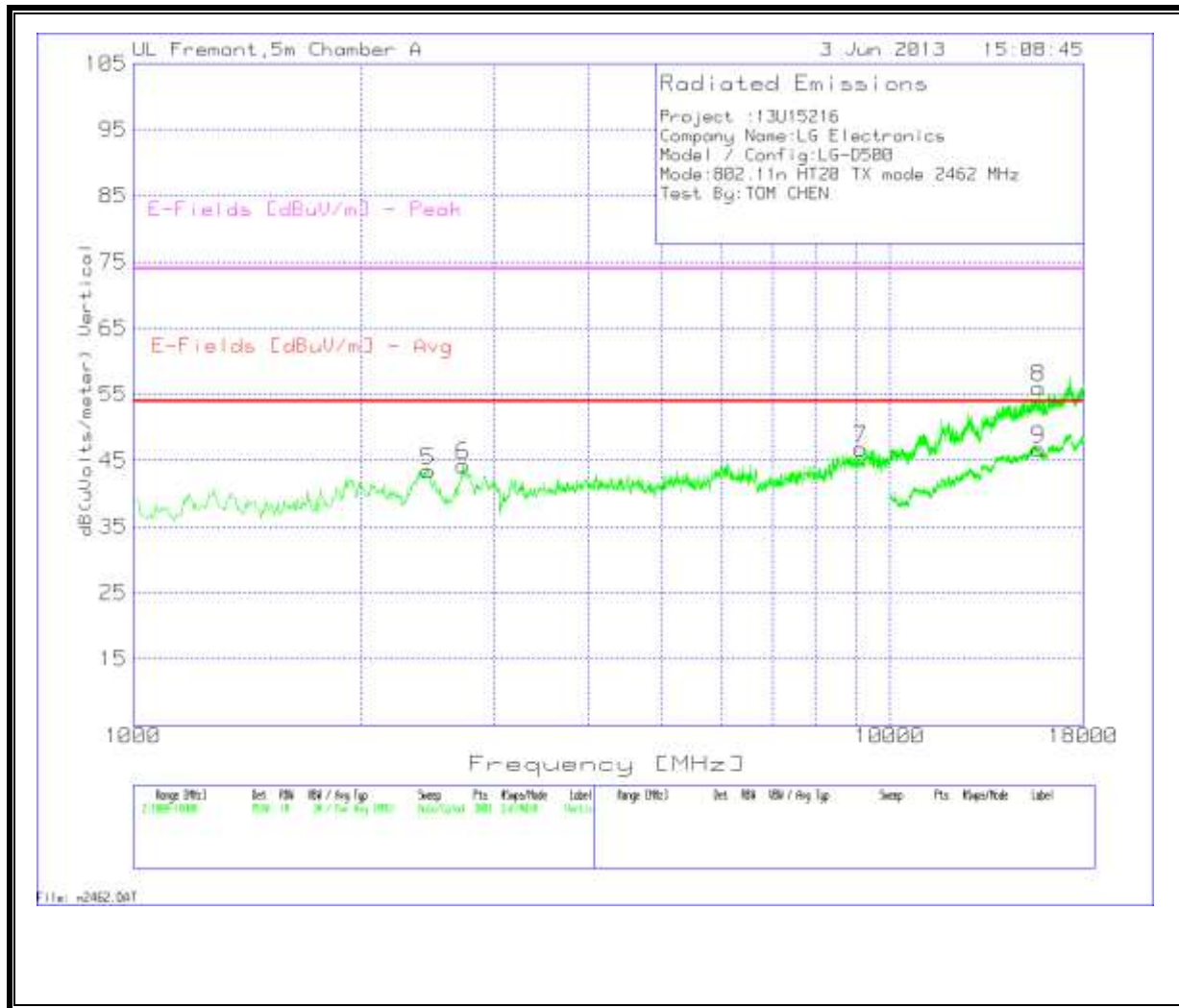
Project :13U15216															
Company Name:LG Electronics															
Model / Config:LG-D500															
Mode:802.11n HT20 TX mode 2437 MHz															
Test By:TOM CHEN															
Horizontal 1000 - 18000MHz															
Marker No.	Test Frequency	Meter Reading	Detector	T136 Ant Factor [dB/m]	T144 Preamp Gain [dB]	Cable Factor [dB]	T160 BRF [dB]	DC Corr [dB]	dB[uVolt s/meter]	E-Fields [dBuV/m] Avg	Margin (dB)	E-Fields [dBuV/m] Peak	Margin (dB)	Height [cm]	Polarity
*1	2438.374	44.19	PK	32.3	-36.9	4.5	0.9	0	44.99	53.97	-8.98	74	-29.01	200	Horz
2	2727.182	43.48	PK	32.7	-36.8	4.8	0.9	0	43.08	53.97	-8.89	74	-28.92	200	Horz
3	8531.646	37.34	PK	35.7	-36	9.5	0.3	0	46.84	53.97	-7.13	74	-27.16	200	Horz
4	17229.847	35.61	PK	40.9	-34.3	14.1	0.5	0	56.81	53.97	2.84	74	-17.19	200	Horz
Vertical 1000 - 18000MHz															
*6	2438.374	43.6	PK	32.3	-36.9	4.5	0.9	0	44.4	53.97	-9.57	74	-29.6	100	Vert
7	9352.765	36.57	PK	36.4	-36.2	10	0.5	0	47.27	53.97	-6.7	74	-26.73	200	Vert
8	16176.549	35.83	PK	40.7	-35.1	13.6	0.4	0	55.43	53.97	1.46	74	-18.57	200	Vert
Horizontal 10000 - 18000MHz															
5	17232.384	27.5	PK	40.9	-34.3	14.1	0.5	0	48.7	53.97	-5.27	74	-25.3	100	Horz
Vertical 10000 - 18000MHz															
9	16204.898	27.6	PK	40.7	-35.1	13.6	0.4	0	47.2	53.97	-6.77	74	-26.8	200	Vert
*: Fundamental															
PK - Peak detector															



High Channel, Horizontal



High Channel, Vertical



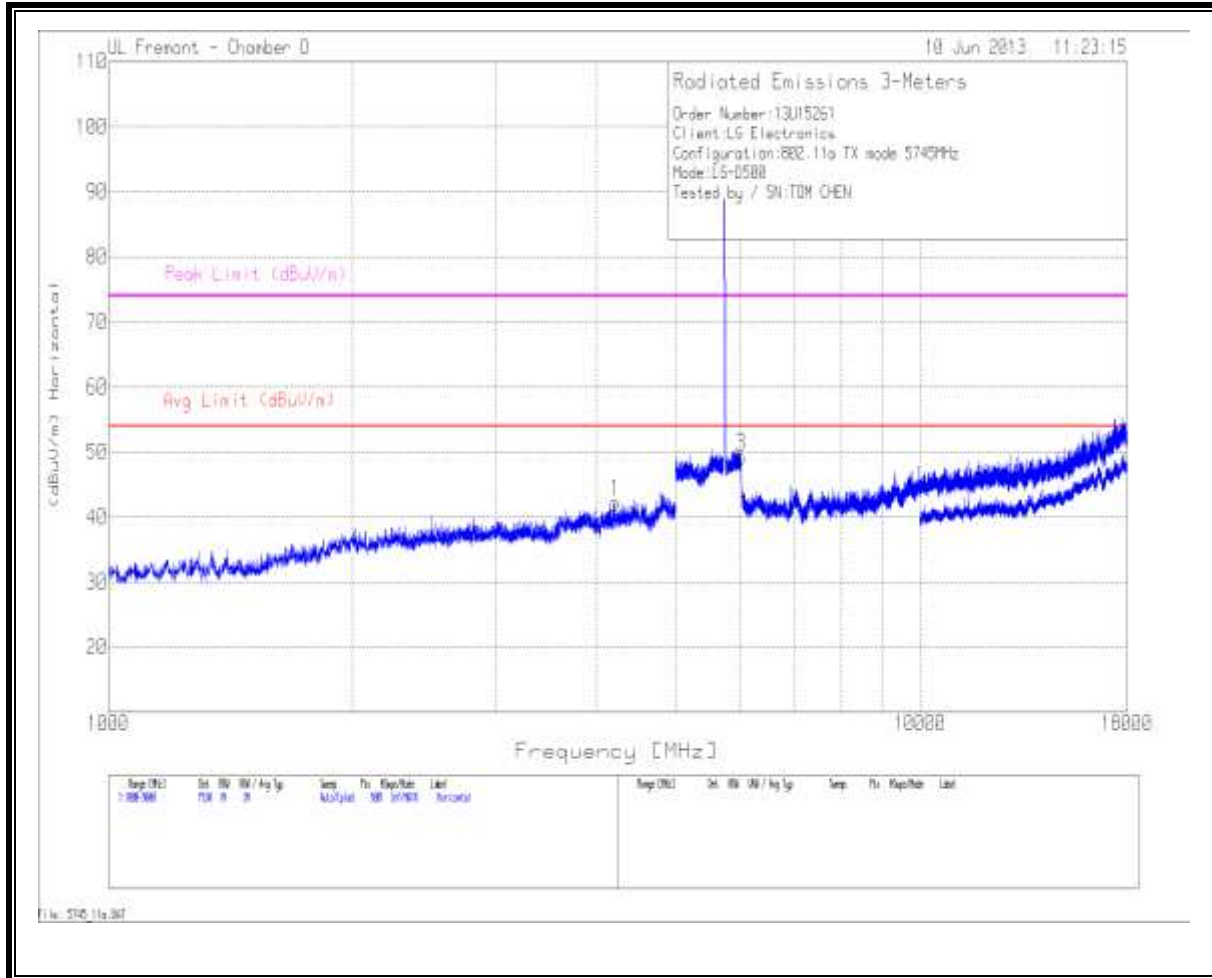
DATA

Project :13U15216															
Company Name:LG Electronics															
Model / Config:LG-D500															
Mode:802.11n HT20 TX mode 2462 MHz															
Test By:TOM CHEN															
Horizontal 1000 - 18000MHz															
Marker No.	Test Frequency	Meter Reading	Detector	T136 Ant Factor [dB/m]	T144 Preamp Gain [dB]	Cable Factor [dB]	T160 BRF [dB]	DC Corr [dB]	dB[uV/m]	E-Fields [dBuV/m] Avg	Margin (dB)	E-Fields [dBuV/m] Peak	Margin (dB)	Height [cm]	Polarity
*1	2455.363	43.23	PK	32.4	-36.8	4.5	0.9	0	44.23	53.97	-9.74	74	-29.77	200	Horz
2	8724.184	36.54	PK	35.8	-36	9.6	0.4	0	46.44	53.97	-7.53	74	-27.56	200	Horz
3	17122.252	36.12	PK	40.9	-34.2	14	0.5	0	57.32	53.97	3.35	74	-16.68	101	Horz
Vertical 1000 - 18000MHz															
*5	2455.363	42.4	PK	32.4	-36.8	4.5	0.9	0	43.4	53.97	-10.57	74	-30.6	200	Vert
6	2732.845	42.68	PK	32.7	-36.8	4.8	0.9	0	44.28	53.97	-9.69	74	-29.72	200	Vert
7	9148.901	36.48	PK	36	-36.1	9.9	0.5	0	46.78	53.97	-7.19	74	-27.22	200	Vert
8	15729.181	37.15	PK	40.4	-35.2	13.3	0.4	0	56.05	53.97	2.08	74	-17.95	200	Vert
Horizontal 10000 - 18000MHz															
4	17136.432	27.63	PK	40.9	-34.2	14	0.5	0	48.83	53.97	-5.14	74	-25.17	200	Horz
Vertical 10000 - 18000MHz															
9	15717.141	27.89	PK	40.4	-35.2	13.3	0.4	0	46.79	53.97	-7.18	74	-27.21	100	Vert
*: Fundamental															
PK - Peak detector															

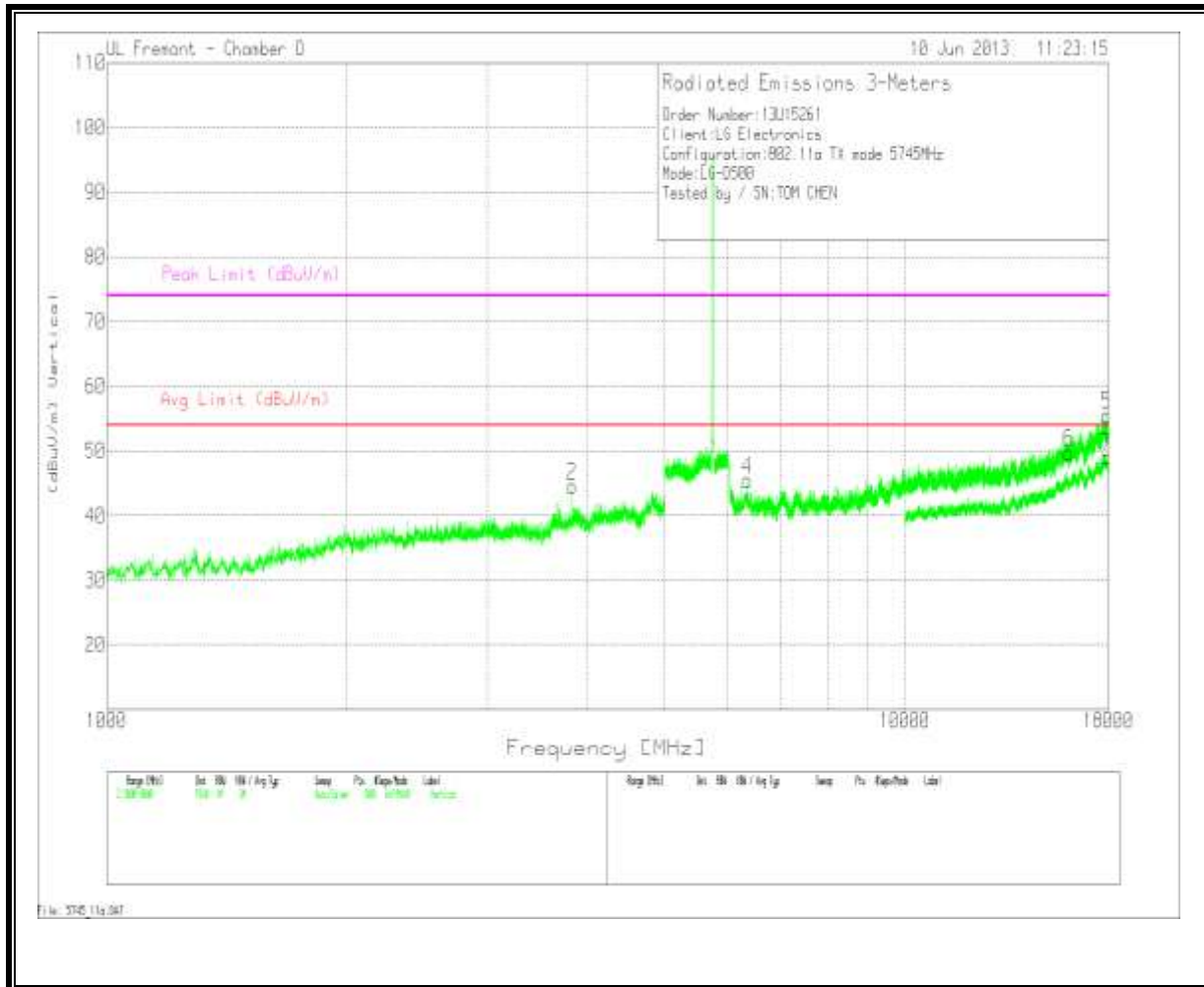
## 7.5. TX ABOVE 1 GHz 802.11a MODE IN THE 5.8 GHz BAND

### HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL, HORIZONTAL



LOW CHANNEL, VERTICAL



DATA

Order Number:13U15261													
Client:LG Electronics													
Configuration:802.11a TX mode 5745MHz													
Mode:LG-D500													
Tested by / SN:TOM CHEN													
Marker No.	Test Frequency (MHz)	Meter Reading (dBuV)	Detector	AF T346 (dB/m)	Amp/Cbl /Filtr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Height (cm)	Pol
Horizontal 1000 - 5000MHz													
1	4211.2	40.49	PK	34	-32.3	0	42.19	53.97	-11.78	74	-31.81	100	H
Vertical 1000 - 5000MHz													
2	3830.4	42.95	PK	33.7	-32.1	0	44.55	53.97	-9.42	74	-29.45	100	V
Horizontal 6015 - 18000MHz													
3	6016.997	34.77	PK	35.8	-21.3	0	49.27	53.97	-4.7	74	-24.73	201	H
Vertical 6015 - 18000MHz													
4	6350.552	38.66	PK	35.9	-29.1	0	45.46	53.97	-8.51	74	-28.54	100	V
5	17901.132	34.2	PK	42.1	-20.8	0	55.5	53.97	1.53	74	-18.5	100	V
6	16060.589	32.79	PK	41.3	-24.3	0	49.79	53.97	-4.18	74	-24.21	100	V
Vertical 10000 - 18000MHz													
7	17894.222	27.67	PK	42.1	-20.7	0	49.07	53.97	-4.9	74	-24.93	100	V
PK - Peak detector													

UL Fremont - Chamber F 18 Jun 2013 11:57:03

Radiated Emissions 3-Meters  
 Order Number: 13015261  
 Client: LG Electronics  
 Configuration: B02, 11a TX mode 5785MHz  
 Mode: LG-0588  
 Tested by: / SN: TOM CHEN

Peak Limit (dBuV/m)

Avg Limit (dBuV/m)

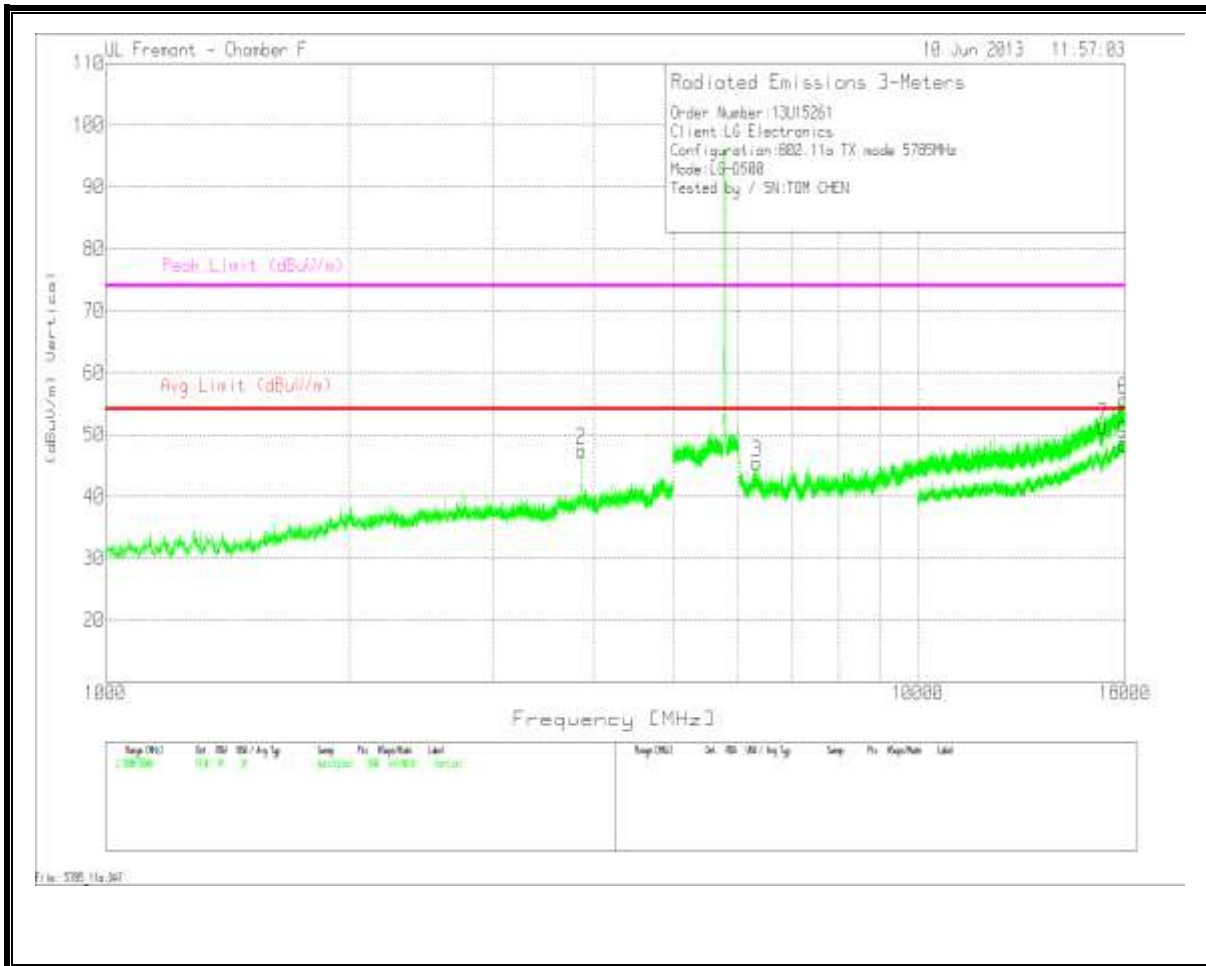
Frequency [MHz]

Range (dB)	Set (dB)	Min / Avg / Max	Temp	File	Key/Name	Label
1000-5000	150	0	0	0	0	0

File: 5265\_11a\_261



MID CHANNEL, VERTICAL

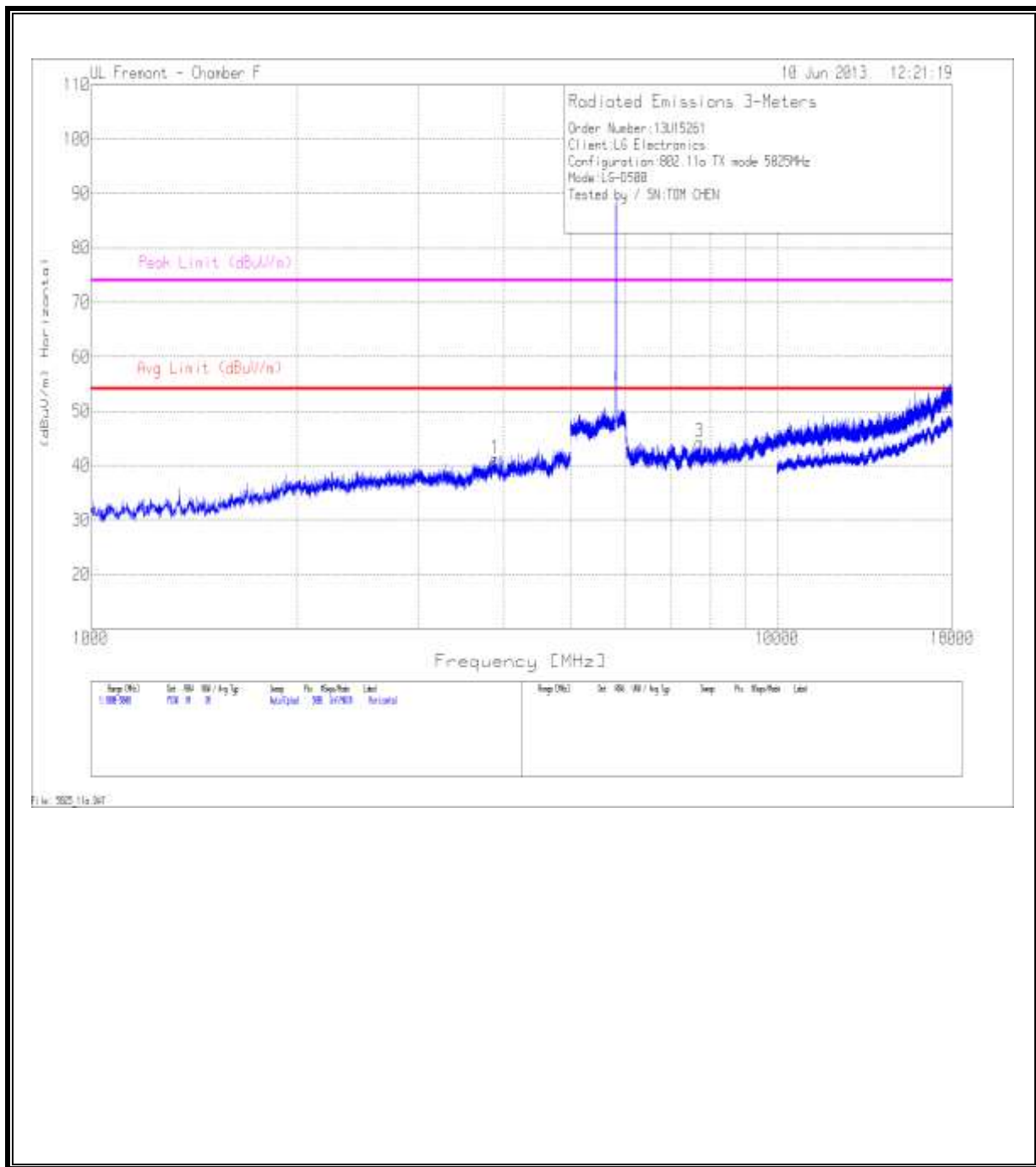




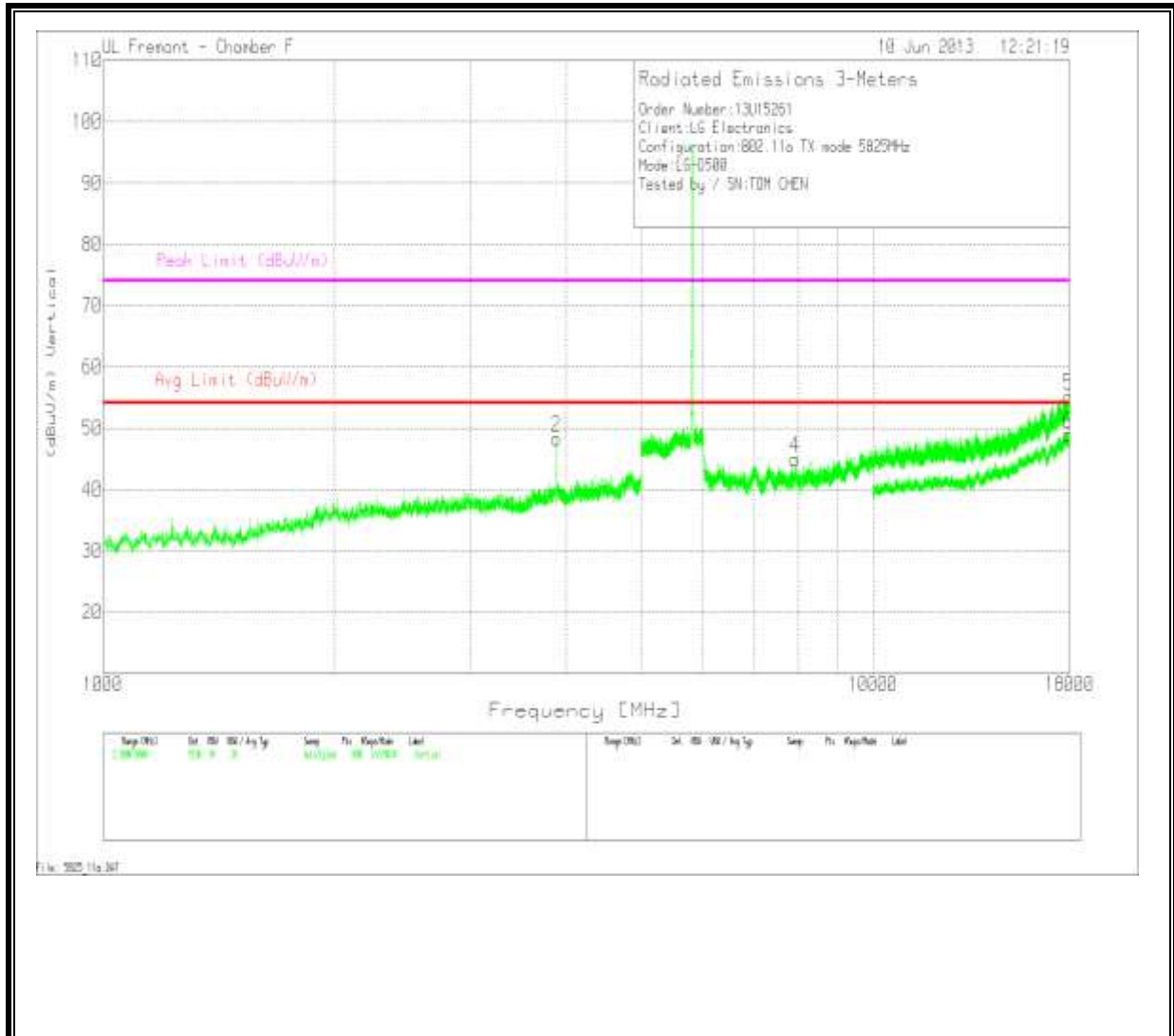
# DATA

Order Number:13U15261													
Client:LG Electronics													
Configuration:802.11a TX mode 5785MHz													
Model:LG-D500													
Tested by / SN:TOM CHEN													
Horizontal 1000 - 5000MHz													
Marker No.	Test Frequency (MHz)	Meter Reading (dBuV)	Detector	AF T346 (dB/m)	Amp/Cbl /Fitr/Pad (dB)	DC Corr (dB)	d Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Height (cm)	Polarity
1	3857.6	38.8	PK	33.7	-31.5	0	41	53.97	-12.97	74	-33	201	Horz
Vertical 1000 - 5000MHz													
2	3856.8	45.33	PK	33.7	-31.6	0	47.43	53.97	-6.54	74	-26.57	100	Vert
Horizontal 6015 - 18000MHz													
4	6441.431	38.27	PK	35.8	-30.3	0	43.77	53.97	-10.2	74	-30.23	100	Horz
5	17748.336	33.94	PK	42.2	-20.4	0	55.74	53.97	1.77	74	-18.26	201	Horz
Vertical 6015 - 18000MHz													
3	6337.569	38.82	PK	35.9	-29.3	0	45.42	53.97	-8.55	74	-28.58	100	Vert
6	17912.117	34.52	PK	42.1	-21	0	55.62	53.97	1.65	74	-18.38	200	Vert
7	16921.44	32.39	PK	41.3	-22.3	0	51.39	53.97	-2.58	74	-22.61	100	Vert
Horizontal 10000 - 18000MHz													
8	17742.222	27.26	PK	42.2	-20.5	0	48.96	53.97	-5.01	74	-25.04	201	Horz
Vertical 10000 - 18000MHz													
9	17912	27.36	PK	42.1	-21	0	48.46	53.97	-5.51	74	-25.54	100	Vert
PK - Peak detector QP - Quasi-Peak detector LnAv - Linear Average detector LgAv - Log Average detector Av - Average detector													

HIGH CHANNEL, HORIZONTAL



HIGH CHANNEL, VERTICAL



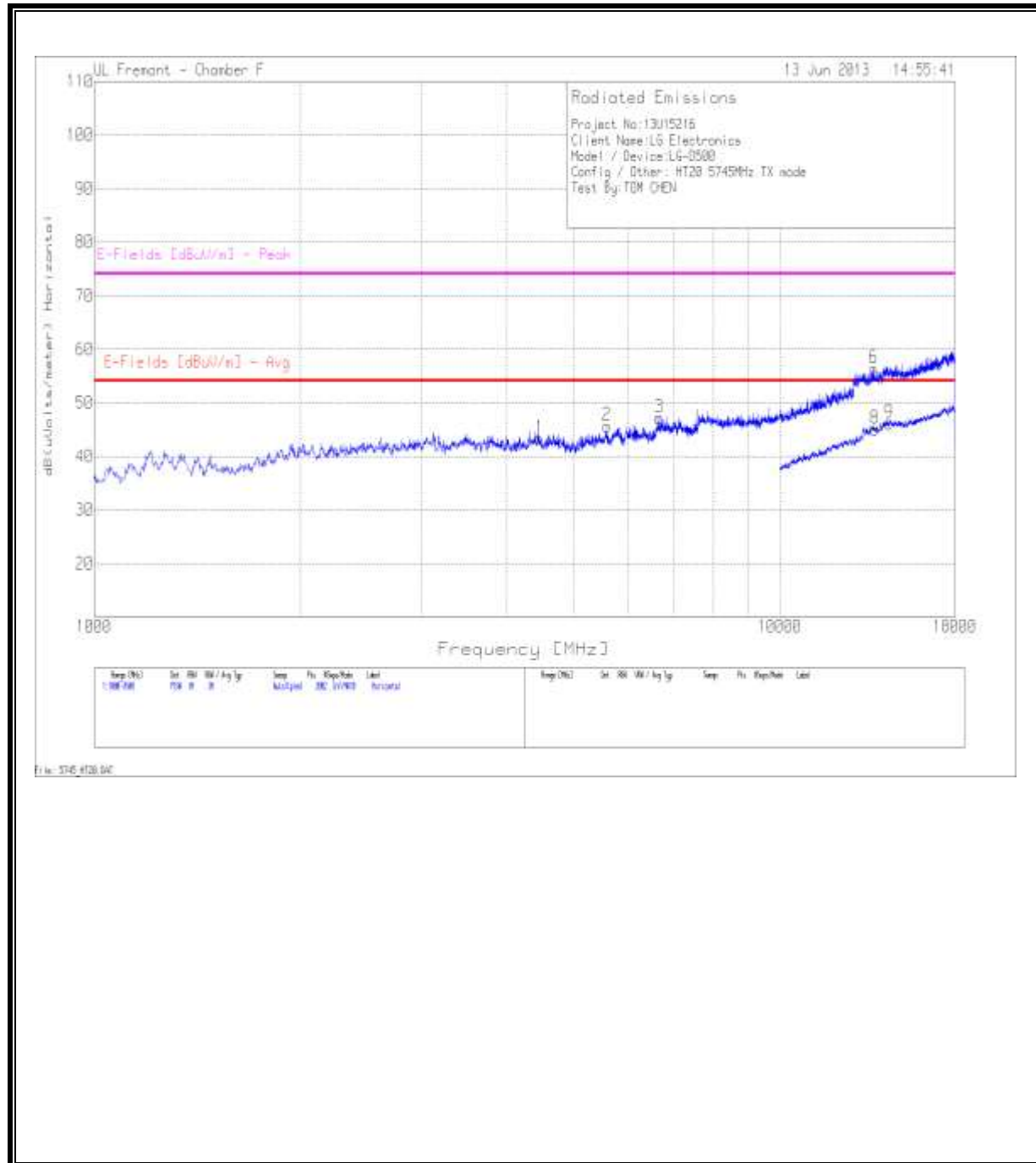
# DATA

Order Number:13U15261													
Client:LG Electronics													
Configuration:802.11a TX mode 5825MHz													
Mode:LG-D500													
Tested by / SN:TOM CHEN													
Horizontal 1000 - 5000MHz													
Marker No.	Test Frequency (MHz)	Meter Reading(dBuV)	Detector	AF T346 (dB/m)	Amp/Cbl /Filtr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Height (cm)	Polarity
1	3883.2	39.06	PK	33.8	-31.7	0	41.16	53.97	-12.81	74	-32.64	200	Horz
Vertical 1000 - 5000MHz													
2	3884	46.26	PK	33.8	-31.7	0	48.36	53.97	-5.61	74	-25.64	100	Vert
Horizontal 6015 - 18000MHz													
3	7712.734	36.52	PK	36.2	-28.5	0	44.22	53.97	-9.75	74	-29.78	100	Horz
Vertical 6015 - 18000MHz													
4	7923.452	36.92	PK	36.2	-28.1	0	45.02	53.97	-8.95	74	-28.98	201	Vert
5	17961.052	34.15	PK	42.1	-21	0	55.25	53.97	1.28	74	-18.75	201	Vert
Vertical 10000 - 18000MHz													
6	17945.778	27.7	PK	42.1	-20.8	0	49	53.97	-4.97	74	-25	201	Vert
PK - Peak detector													
QP - Quasi-Peak detector													
LnAv - Linear Average detector													
LgAv - Log Average detector													
Av - Average detector													

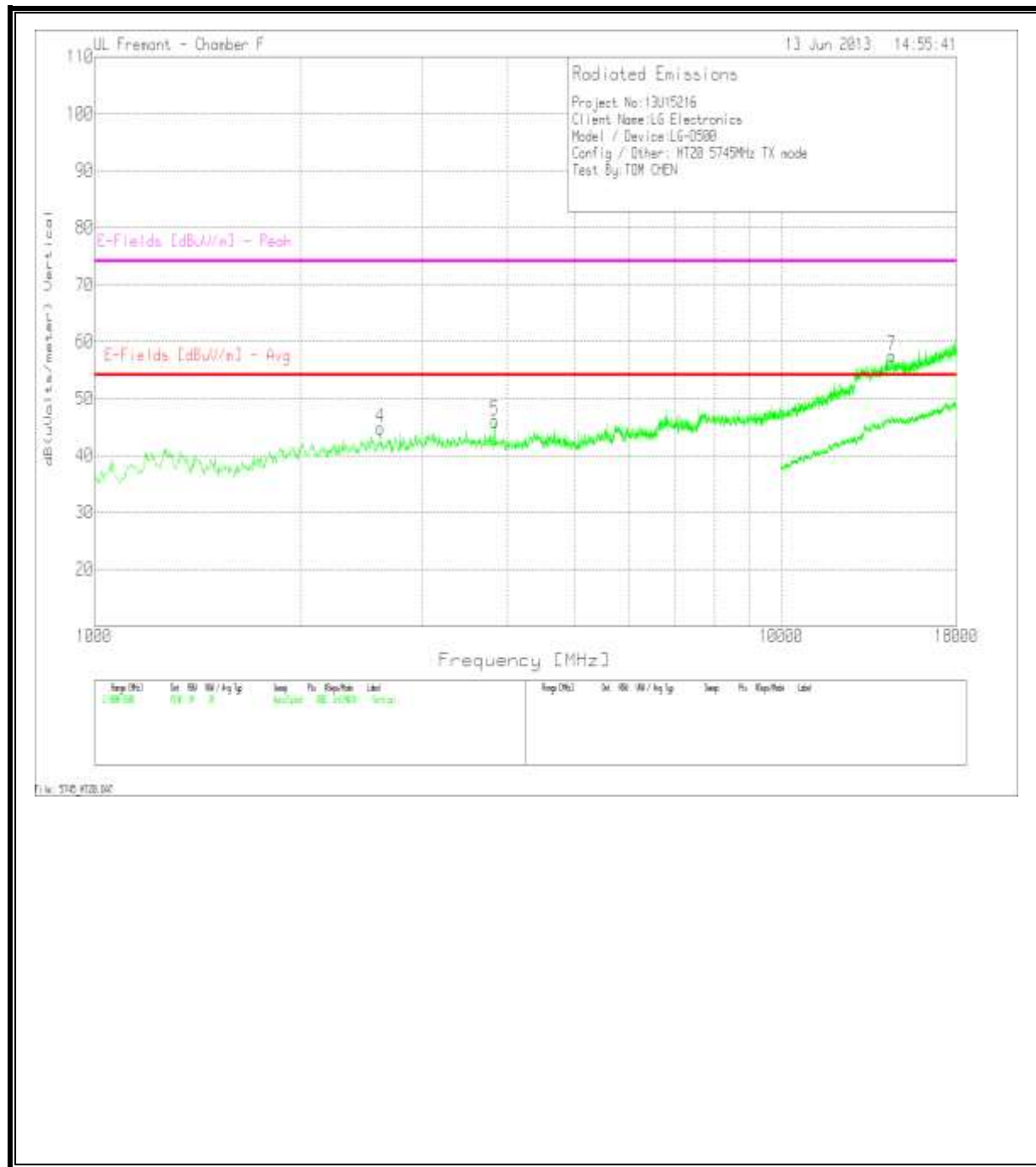
## 7.6. TX ABOVE 1 GHz 802.11n HT20 MODE IN THE 5.8 GHz BAND

### HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL, HORIZONTAL



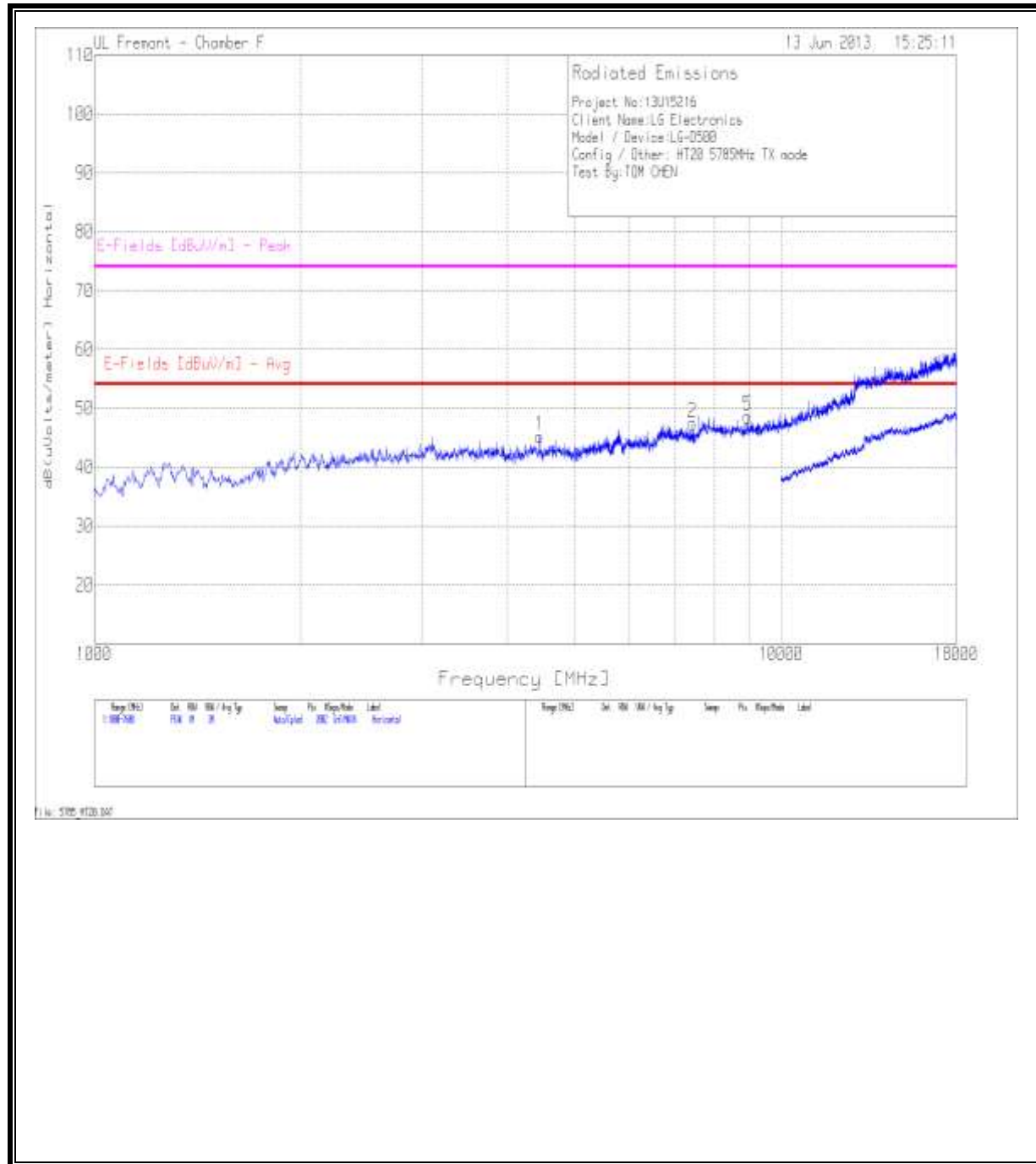
LOW CHANNEL, VERTICAL



DATA

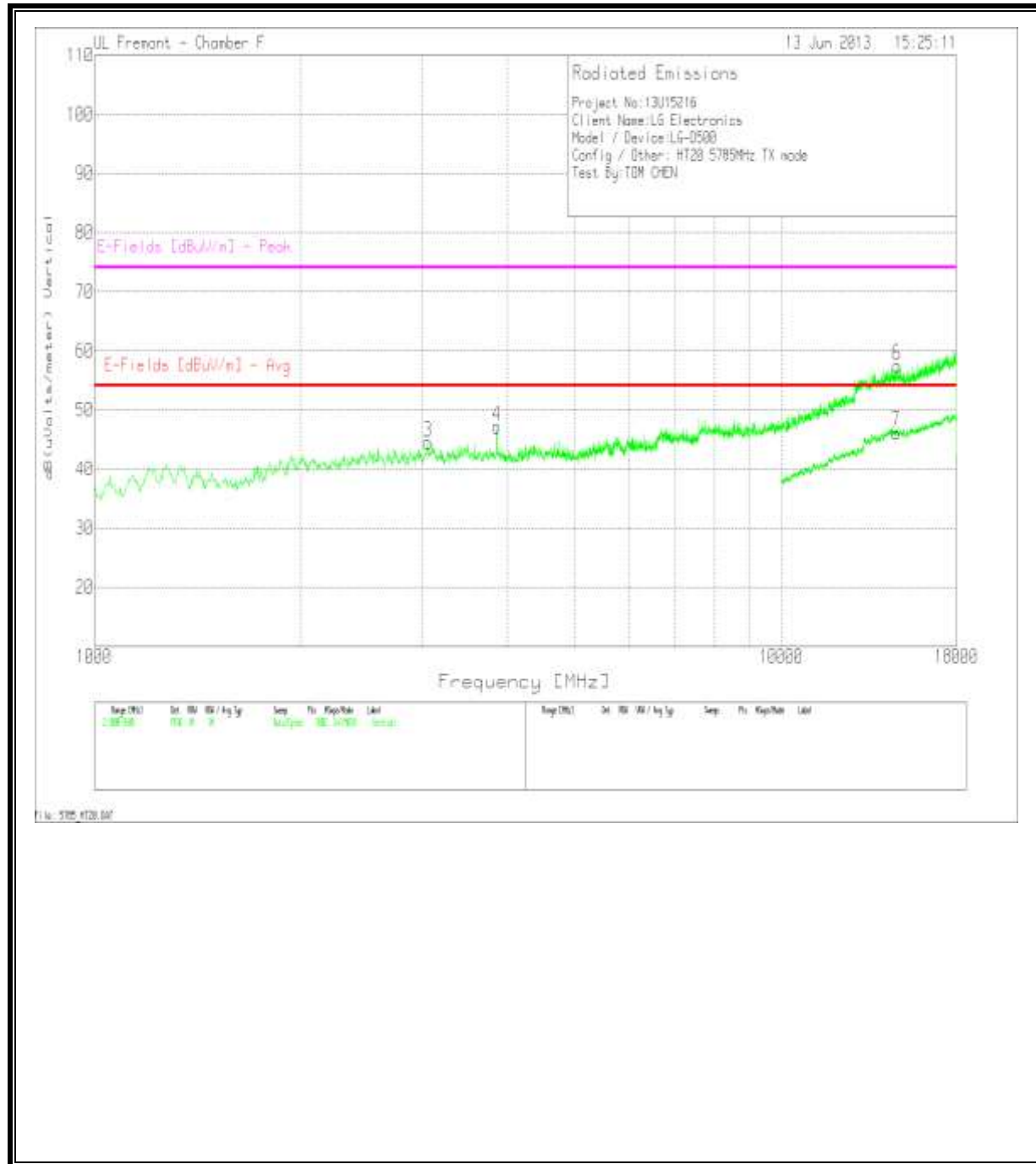
Project No:13U15216														
Client Name:LG Electronics														
Model / Device:LG-D500														
Config / Other: HT20 5745MHz TX mode														
Test By:TOM CHEN														
Horizontal 1000 - 7600MHz														
Marker No.	Test Frequency (MHz)	Meter Reading (dBuV)	Detector	T119 Ant Factor [dB/m]	T34 Preamp/ Cable	T163 BRF [dB]	DC Corr [dB]	Corrected Reading	E-Fields [dBuV/m] - Avg	Margin (dB)	E-Fields [dBuV/m] - Peak	Margin (dB)	Height [cm]	Polarity
1	4463.268	34.99	PK	33.8	-25.7	0.2	0	43.29	53.97	-10.68	74	-30.71	99	Horz
2	5597.901	34.51	PK	34.7	-24.4	0.9	0	45.71	53.97	-8.26	74	-28.29	201	Horz
3	6673.163	34.83	PK	35.6	-23.4	0.2	0	47.23	53.97	-6.74	74	-26.77	201	Horz
Vertical 1000 - 7600MHz														
4	2609.595	41.41	PK	32.5	-29.2	0.1	0	44.81	53.97	-9.16	74	-29.19	99	Vert
5	3829.985	39.13	PK	33.2	-26.5	0.2	0	46.03	53.97	-7.94	74	-27.97	99	Vert
Horizontal 7600 - 18000MHz														
6	13717.341	33.22	PK	38.8	-16	0.4	0	56.42	53.97	2.45	74	-17.58	99	Horz
Vertical 7600 - 18000MHz														
7	14491.754	33.38	PK	39.6	-16	0.5	0	57.48	53.97	3.51	74	-16.52	201	Vert
Horizontal 10000 - 18000MHz														
8	13762.119	22.1	PK	38.8	-16	0.2	0	45.1	53.97	-8.87	74	-28.9	201	Horz
9	14433.783	22.32	PK	39.5	-15.9	0.2	0	46.12	53.97	-7.85	74	-27.88	201	Horz
Project No:13U15216														
Client Name:LG Electronics														
Model / Device:LG-D500														
Config / Other: HT20 5745MHz TX mode														
Test By:TOM CHEN														

MID CHANNEL, HORIZONTAL





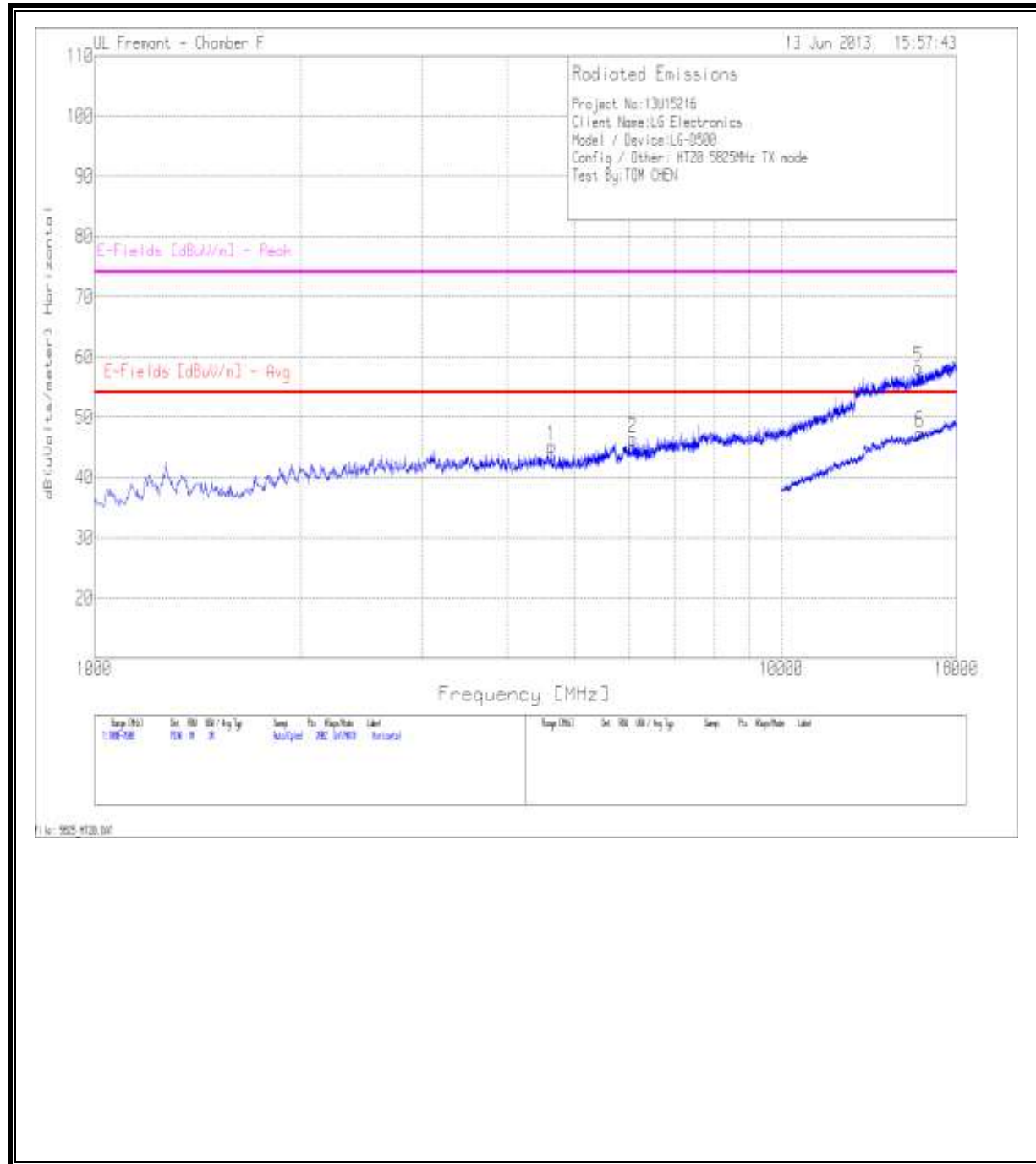
MID CHANNEL, VERTICAL



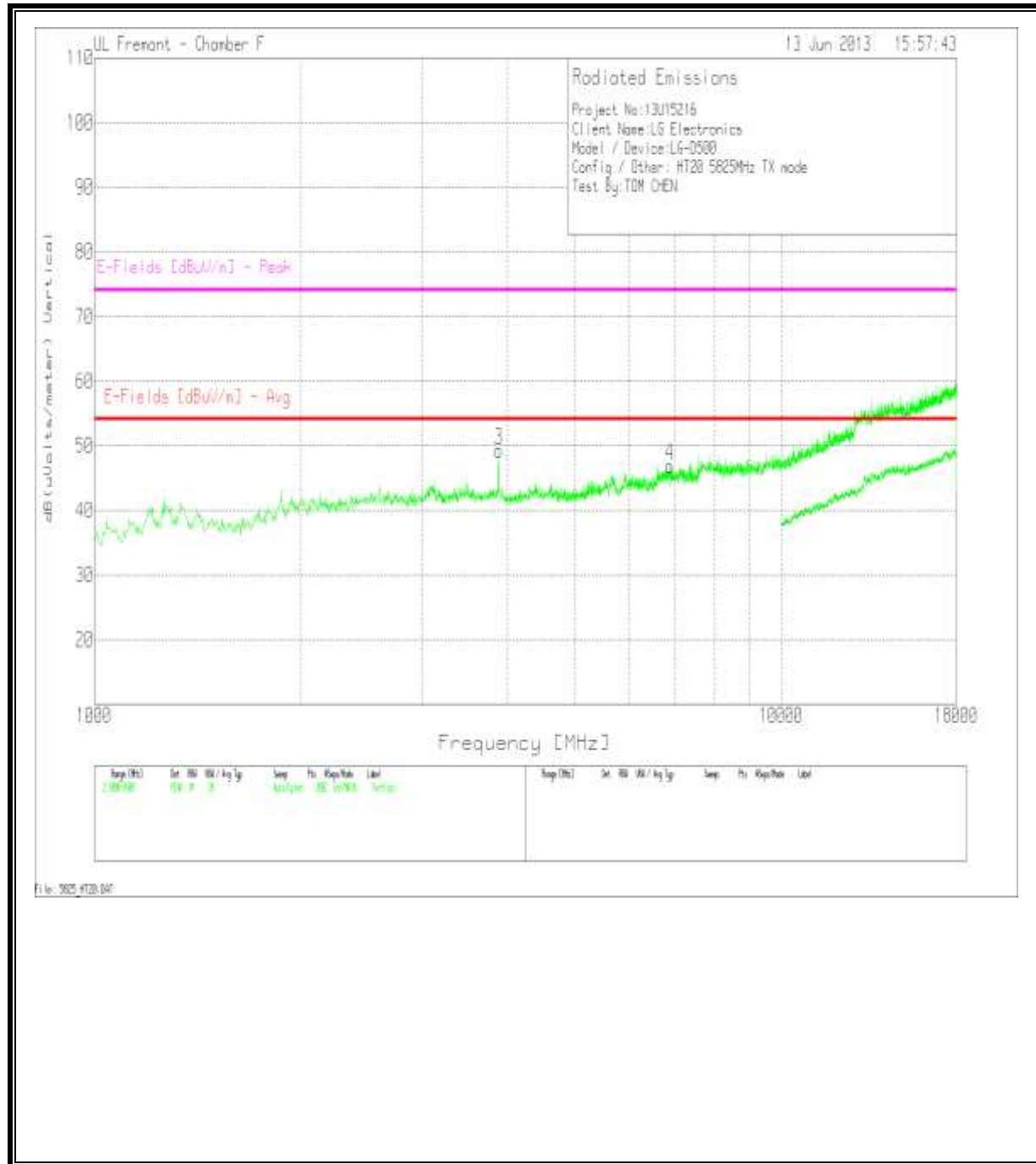
DATA

Project No:13U15216														
Client Name:LG Electronics														
Model / Device:LG-D500														
Config / Other: HT20 5785MHz TX mode														
Test By:TOM CHEN														
Horizontal 1000 - 7600MHz														
Marker No.	Test Frequency (MHz)	Meter Reading (dBuV)	Detector	T119 Ant Factor [dB/m]	T34 Preamp/Cable Loss [dB]	T163 BRF [dB]	DC Corr [dB]	Corrected Reading dB(uVolts/m) (dBuV/m)	E-Fields [dBuV/m] - Avg	Margin (dB)	E-Fields [dBuV/m] - Peak	Margin (dB)	Height (cm)	Polarity
1	4450.075	36.94	PK	33.8	-25.7	0.2	0	45.24	53.97	-8.73	74	-28.76	99	Horz
2	7431.784	34.53	PK	35.7	-23	0.2	0	47.43	53.97	-6.54	74	-26.57	99	Horz
Vertical 1000 - 7600MHz														
3	3061.469	39.71	PK	33	-28.4	0.2	0	44.51	53.97	-9.46	74	-29.49	99	Vert
4	3856.372	40.37	PK	33.2	-26.5	0.1	0	47.17	53.97	-6.8	74	-26.83	99	Vert
Horizontal 7600 - 18000MHz														
5	8946.127	34.14	PK	36.1	-22	0.4	0	48.64	53.97	-5.33	74	-25.36	201	Horz
Vertical 7600 - 18000MHz														
6	14746.427	33.43	PK	39.7	-16	0.4	0	57.53	53.97	3.56	74	-16.47	201	Vert
Vertical 10000 - 18000MHz														
7	14713.643	22.32	PK	39.7	-16	0.1	0	46.12	53.97	-7.85	74	-27.88	99	Vert
PK - Peak detector QP - Quasi-Peak detector LnAv - Linear Average detector IgAv - Log Average detector Av - Average detector														

HIGH CHANNEL, HORIZONTAL



HIGH CHANNEL, VERTICAL



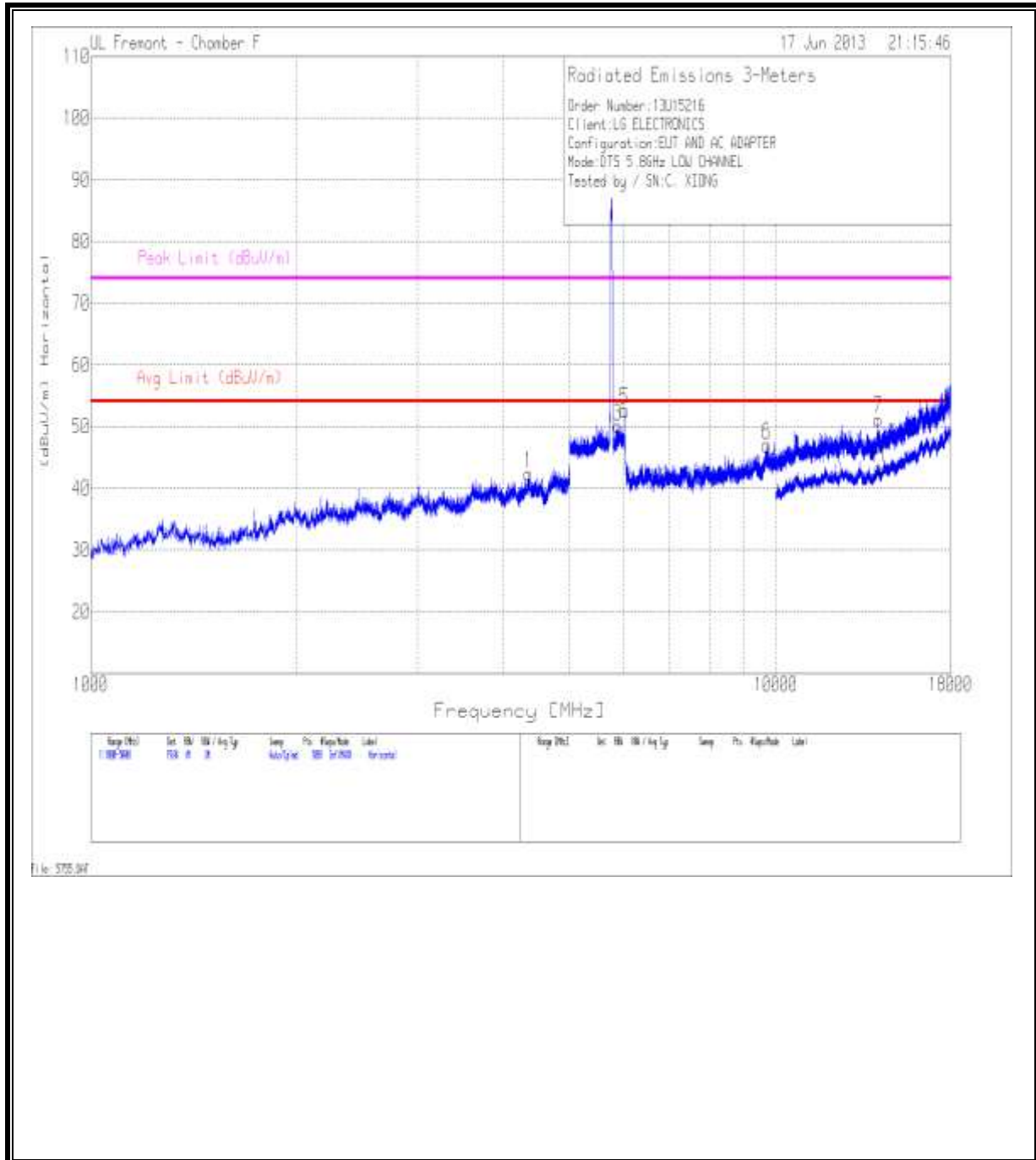
DATA

Project No:13U15216														
Client Name:LG Electronics														
Model / Device:LG-D500														
Config / Other: HT20 5825MHz TX mode														
Test By:TOM CHEN														
Horizontal 1000 - 7600MHz														
Marker No.	Test Frequency (MHz)	Meter Reading (dBuV)	Detector	T119 Ant Factor (dB/m)	T34 Preamp/ Cable Loss (dB)	T163 BRF (dB)	DC Corr (dB)	Corrected Reading dB(uVolts /meter)	E-Fields [dBuV/m ] - Avg	Margin (dB)	E-Fields [dBuV/m ] - Peak	Margin (dB)	Height (cm)	Polarity
1	4631.484	36.29	PK	34.1	-25.4	0.2	0	45.19	53.97	-8.78	74	-28.81	201	Horz
2	6086.057	34.54	PK	35.3	-24	0.6	0	46.44	53.97	-7.53	74	-27.56	100	Horz
Vertical 1000 - 7600MHz														
3	3882.759	42.49	PK	33.2	-26.5	0.1	0	49.29	53.97	-4.68	74	-24.71	99	Vert
4	6890.855	34.37	PK	35.6	-23.2	0.1	0	46.87	53.97	-7.1	74	-27.13	99	Vert
Horizontal 7600 - 18000MHz														
5	15843.078	33.95	PK	40.4	-16.4	0.3	0	58.25	53.97	4.28	74	-15.75	99	Horz
Horizontal 10000 - 18000MHz														
6	15917.041	22.8	PK	40.5	-16.3	0.4	0	47.4	53.97	-6.57	74	-26.6	99	Horz
PK - Peak detector QP - Quasi-Peak detector LnAv - Linear Average detector LgAv - Log Average detector Av - Average detector														

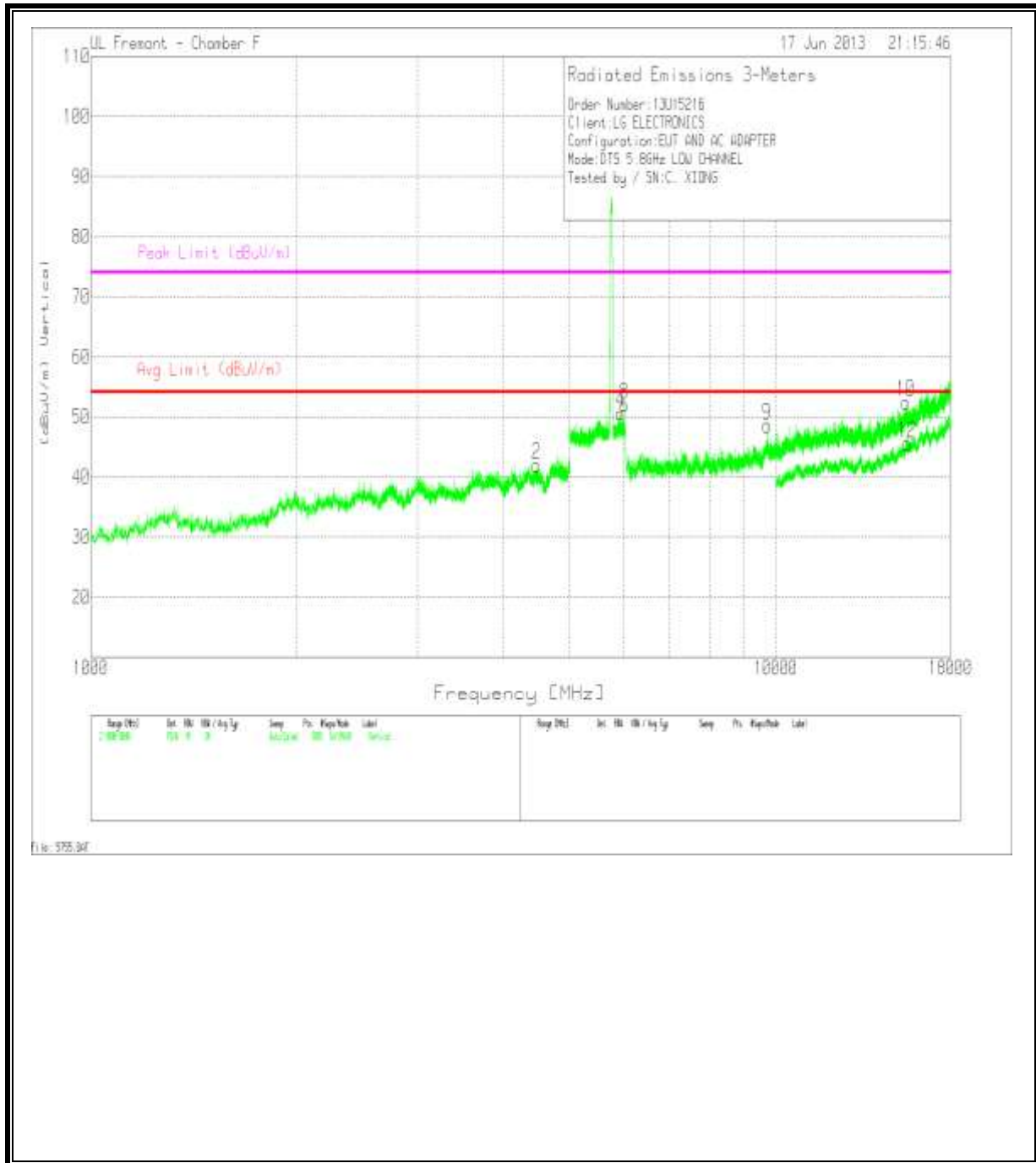
## 7.7. TX ABOVE 1 GHz 802.11n HT40 MODE IN THE 5.8 GHz BAND

### HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL, HORIZONTAL



LOW CHANNEL, VERTICAL





Order Number:13U15216

Client:LG ELECTRONICS

Configuration:EUT AND AC ADAPTER

Mode:DTS 5.8GHz LOW CHANNEL

Tested by / SN:C. XIONG

Horizontal 1000 - 5000MHz

Marker No.	Test Frequency (MHz)	Meter Reading (dBuV)	Detector	AF T120 (dB/m)	Amp/Cbl/ Fitr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Height [cm]	Polarity
1	4353.6	40.47	PK	33.6	-31.7	42.37	53.97	-11.6	74	-31.63	199	Horz

Vertical 1000 - 5000MHz

Marker No.	Test Frequency (MHz)	Meter Reading (dBuV)	Detector	AF T120 (dB/m)	Amp/Cbl/ Fitr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Height [cm]	Polarity
2	4475.2	39.2	PK	33.9	-31.1	42	53.97	-11.97	74	-32	199	Vert

Horizontal 5000 - 6015MHz

Marker No.	Test Frequency (MHz)	Meter Reading (dBuV)	Detector	AF T120 (dB/m)	Amp/Cbl/ Fitr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Height [cm]	Polarity
3	5881.528	35.9	PK	35.2	-21	50.1	53.97	-3.87	74	-23.9	199	Horz

Vertical 5000 - 6015MHz

Marker No.	Test Frequency (MHz)	Meter Reading (dBuV)	Detector	AF T120 (dB/m)	Amp/Cbl/ Fitr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Height [cm]	Polarity
4	5931.77	36.34	PK	35.3	-21	50.64	53.97	-3.33	74	-23.36	199	Vert

Horizontal 6015 - 18000MHz

Marker No.	Test Frequency (MHz)	Meter Reading (dBuV)	Detector	AF T120 (dB/m)	Amp/Cbl/ Fitr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Height [cm]	Polarity
5	6016.997	38.66	PK	35.3	-21.3	52.66	53.97	-1.31	74	-21.34	101	Horz
6	9699.082	35.26	PK	37.4	-25.6	47.06	53.97	-6.91	74	-26.94	199	Horz
7	14102.204	38.18	PK	39.4	-26.4	51.18	53.97	-2.79	74	-22.82	101	Horz

Vertical 6015 - 18000MHz

Marker No.	Test Frequency (MHz)	Meter Reading (dBuV)	Detector	AF T120 (dB/m)	Amp/Cbl/ Fitr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Height [cm]	Polarity
8	6015	37.47	PK	35.3	-20.7	52.07	53.97	-1.9	74	-21.93	200	Vert
9	9711.066	37.14	PK	37.4	-25.9	48.64	53.97	-5.33	74	-25.36	200	Vert
10	15482.361	36.59	PK	40.7	-24.8	52.49	53.97	-1.48	74	-21.51	101	Vert

Horizontal 10000 - 18000MHz

Marker No.	Test Frequency (MHz)	Meter Reading (dBuV)	Detector	AF T120 (dB/m)	Amp/Cbl/ Fitr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Height [cm]	Polarity
11	14148.444	30.62	PK	39.4	-26.7	43.32	53.97	-10.65	74	-30.68	101	Horz

Vertical 10000 - 18000MHz

Marker No.	Test Frequency (MHz)	Meter Reading (dBuV)	Detector	AF T120 (dB/m)	Amp/Cbl/ Fitr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Height [cm]	Polarity
12	15552	29.5	PK	40.8	-24.7	45.6	53.97	-8.37	74	-28.4	101	Vert

Horizontal 5000 - 6015MHz

Test Frequency (MHz)	Meter Reading (dBuV)	Detector	AF T120 (dB/m)	Amp/Cbl/ Fitr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)
5695.689	28.25	MAV1	34.8	-21.6	41.45	53.97	-12.52	74	-32.55

Vertical 5000 - 6015MHz

Test Frequency (MHz)	Meter Reading (dBuV)	Detector	AF T120 (dB/m)	Amp/Cbl/ Fitr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)
5724.07	37.86	MAV1	34.9	-21.8	50.96	53.97	-3.01	74	-23.04

Horizontal 6015 - 18000MHz

Test Frequency (MHz)	Meter Reading (dBuV)	Detector	AF T120 (dB/m)	Amp/Cbl/ Fitr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)
7387.4239	27.83	MAV1	35.7	-28.7	34.83	53.97	-19.14	74	-39.17

Vertical 6015 - 18000MHz

Test Frequency (MHz)	Meter Reading (dBuV)	Detector	AF T120 (dB/m)	Amp/Cbl/ Fitr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)
9012.3033	25.57	MAV1	36.4	-26.9	35.07	53.97	-18.9	74	-38.93

PK - Peak detector

QP - Quasi-Peak detector

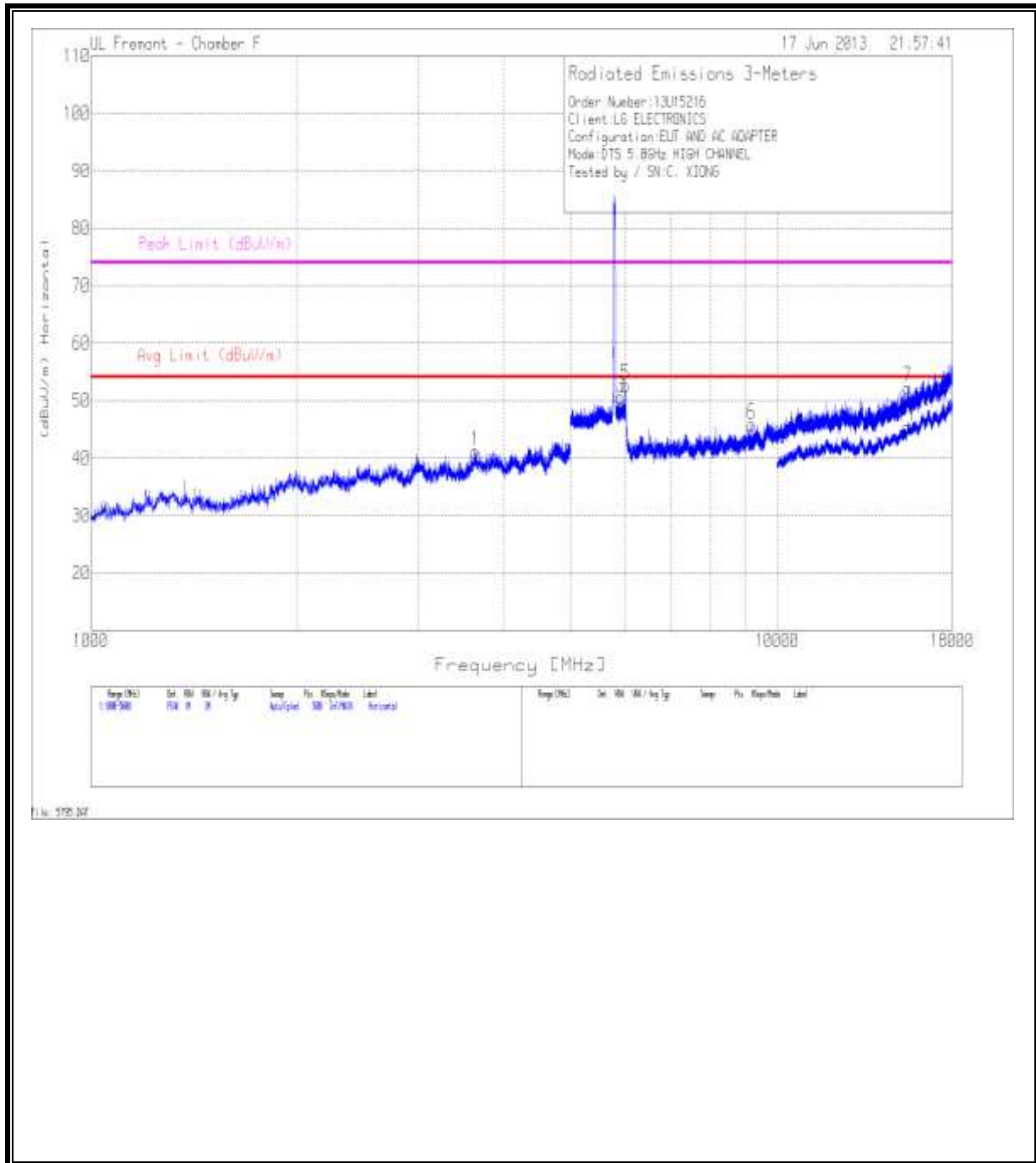
LnAv - Linear Average detector

LgAv - Log Average detector

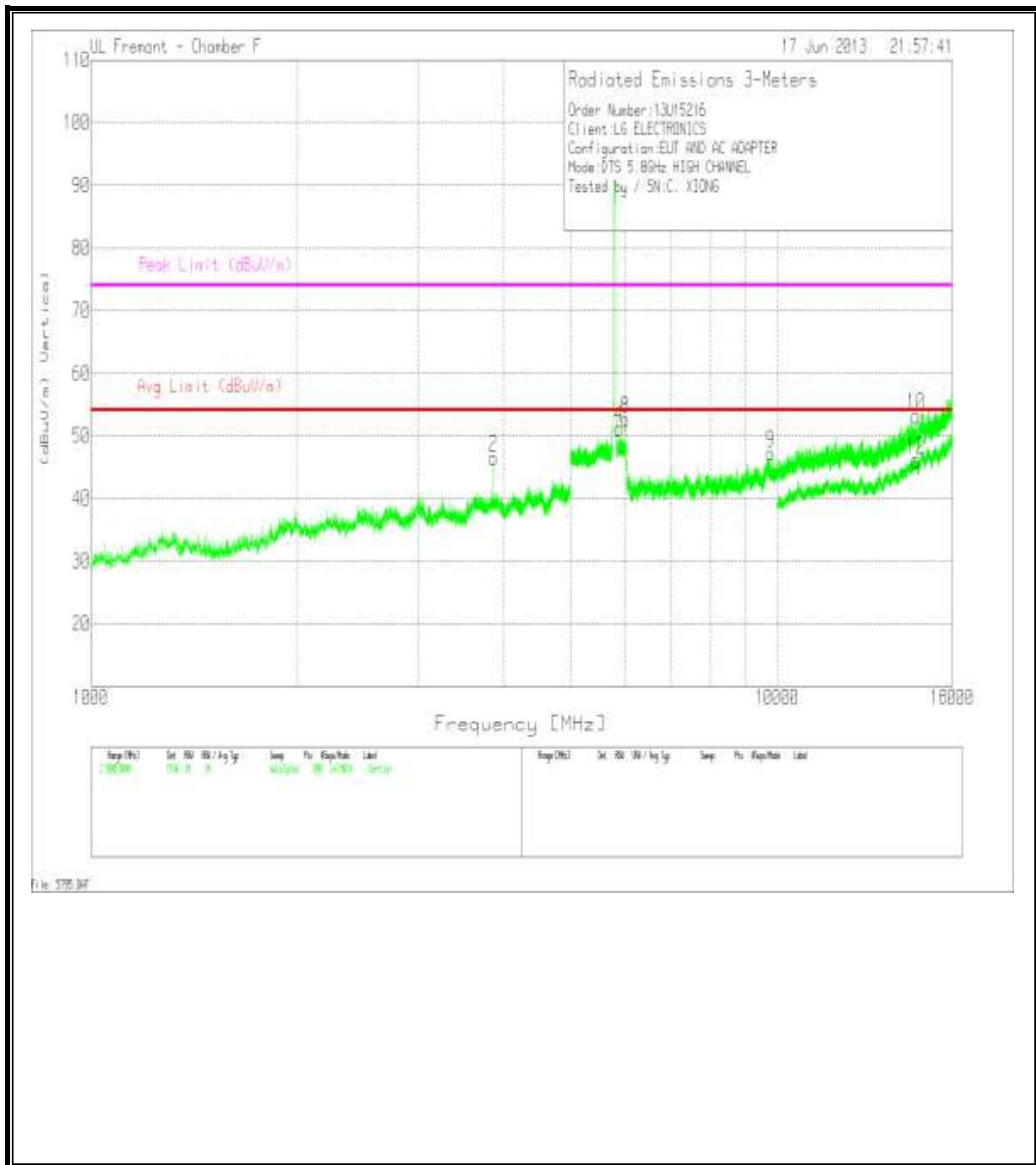
Av - Average detector



HIGH CHANNEL, HORIZONTAL



HIGH CHANNEL, VERTICAL

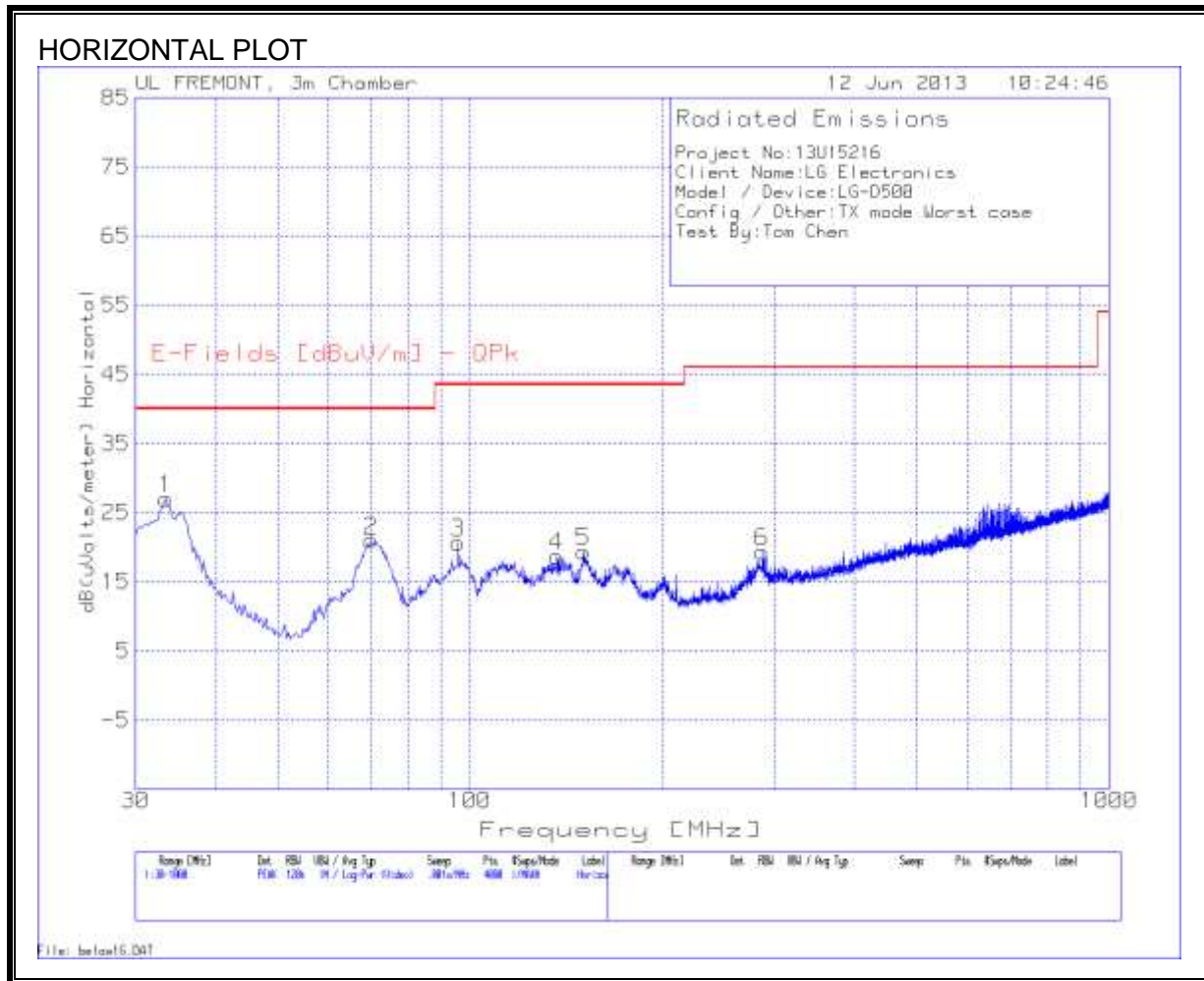


DATA

Order Number:13U15216												
Client:LG ELECTRONICS												
Configuration:EUT AND AC ADAPTER												
Mode:DTS 5.8GHz HIGH CHANNEL												
Tested by / SN:C. XIONG												
Horizontal 1000 - 5000MHz												
Marker No.	Test Frequency (MHz)	Meter Reading (dBuV)	Detector	AF T120 (dB/m)	Amp/Cbl /Filtr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Height [cm]	Polarity
1	3633.6	39.56	PK	33.7	-32.1	41.16	53.97	-12.81	74	-32.84	103	Horz
Vertical 1000 - 5000MHz												
2	3864	44.64	PK	33.5	-31.6	46.54	53.97	-7.43	74	-27.46	100	Vert
Horizontal 5000 - 6015MHz												
3	5919.083	36.33	PK	35.2	-20.9	50.63	53.97	-3.34	74	-23.37	199	Horz
Vertical 5000 - 6015MHz												
4	5882.543	37.05	PK	35.2	-21	51.25	53.97	-2.72	74	-22.75	199	Vert
Horizontal 6015 - 18000MHz												
5	6016.997	38.72	PK	35.3	-21.3	52.72	53.97	-1.25	74	-21.28	101	Horz
6	16286.288	34.64	PK	41.2	-22.9	52.94	53.97	-1.03	74	-21.06	199	Horz
Vertical 6015 - 18000MHz												
7	6015	38.08	PK	35.3	-20.7	52.68	53.97	-1.29	74	-21.32	101	Vert
8	16582.892	33.63	PK	41.5	-22.1	53.03	53.97	-0.94	74	-20.97	199	Vert
Vertical 10000 - 18000MHz												
9	16234.667	28.89	PK	41.1	-23	46.99	53.97	-6.98	74	-27.01	199	Vert
10	16606.222	27.86	PK	41.5	-21.7	47.66	53.97	-6.31	74	-26.34	199	Vert
Test Frequency (MHz)	Meter Reading (dBuV)	Detector	AF T120 (dB/m)	Amp/Cbl /Filtr/Pad (dB)	Corrected Reading	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth [Degs]	Height [cm]	Polarity
Horizontal 5000 - 6015MHz												
5695.689	28.25	MAv1	34.8	-21.6	41.45	53.97	-12.52	74	-32.55	9	348	Horz
Vertical 5000 - 6015MHz												
5724.07	37.86	MAv1	34.9	-21.8	50.96	53.97	-3.01	74	-23.04	185	127	Vert
Horizontal 6015 - 18000MHz												
7387.4239	27.83	MAv1	35.7	-28.7	34.83	53.97	-19.14	74	-39.17	258	122	Horz
Vertical 6015 - 18000MHz												
9012.3033	25.57	MAv1	36.4	-26.9	35.07	53.97	-18.9	74	-38.93	35	293	Vert
PK - Peak detector												
QP - Quasi-Peak detector												
LnAv - Linear Average detector												
LgAv - Log Average detector												
Av - Average detector												

## 7.8. WORST-CASE BELOW 1 GHz

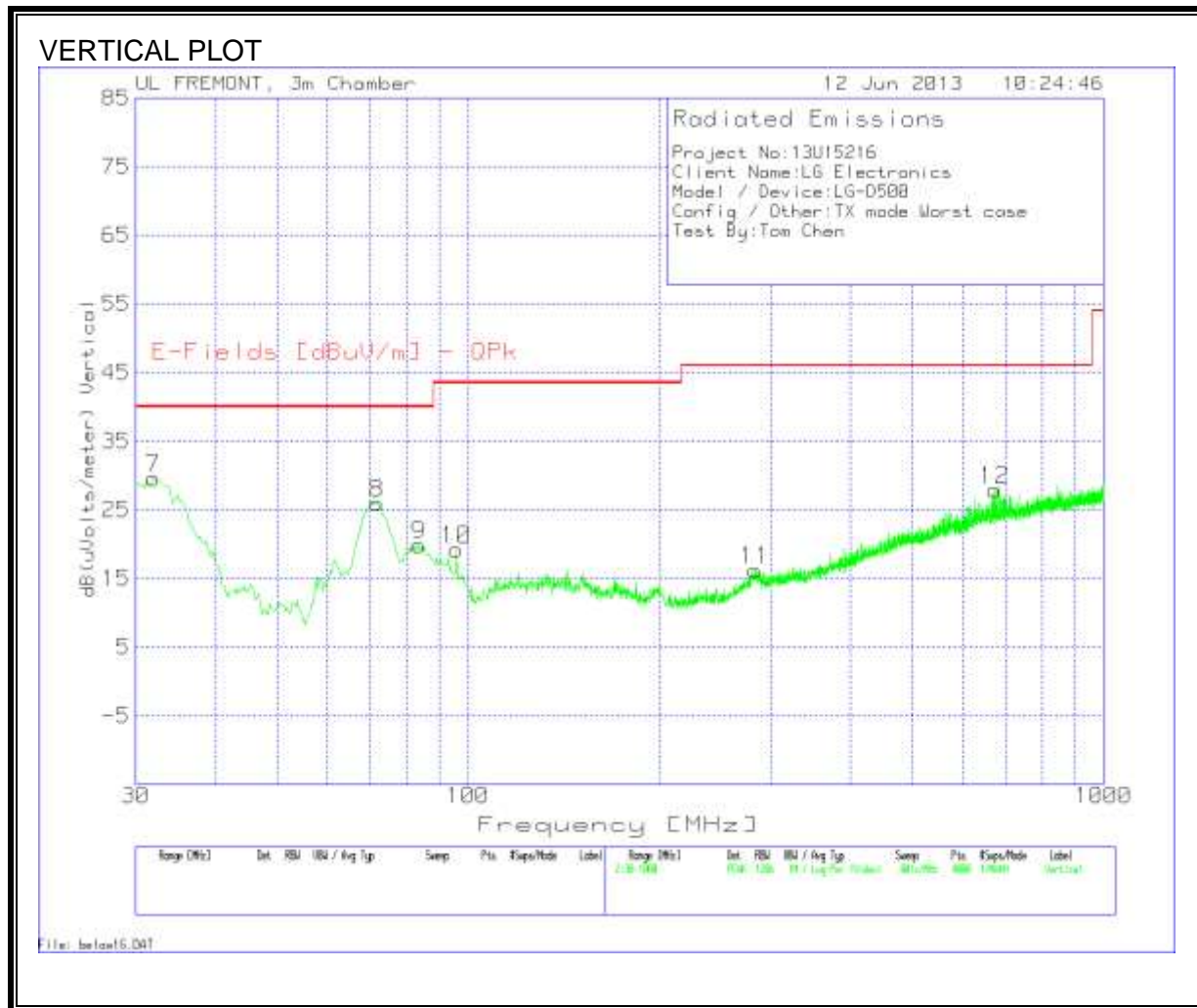
### SPURIOUS EMISSIONS 30 TO 1000 MHz (WORST-CASE CONFIGURATION, HORIZONTAL)



# **HORIZONTAL DATA**

Marker No.	Test Frequency	Meter Reading	Detector	T130 Ant Factor [dB/m]	T15 Chamber3 m Ampl ff	dB(uVolts/meter)	E-Fields [dBuV/m] - QPk	Margin (dB)	Height [cm]	Polarity
<b>Horizontal 30 - 1000MHz</b>										
1	33.3925	36.08	PK	18.4	-27.5	26.98	40	-13.02	99	Horz
2	69.9825	39.98	PK	8.1	-27.1	20.98	40	-19.02	301	Horz
3	95.9106	38.49	PK	9.1	-26.9	20.69	43.52	-22.83	201	Horz
4	136.8624	31.8	PK	13.4	-26.5	18.7	43.52	-24.82	400	Horz
5	150.4322	33.22	PK	12.5	-26.4	19.32	43.52	-24.2	201	Horz
6	286.3727	31.13	PK	13.4	-25.2	19.33	46.02	-26.69	99	Horz

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



#### VERTICAL DATA

Vertical 30 - 1000MHz										
7	31.9385	37.78	PK	19.5	-27.7	29.58	40	-10.42	199	Vert
8	71.9211	45.19	PK	8	-27.2	25.99	40	-14.01	199	Vert
9	83.7947	39.82	PK	7.2	-27.1	19.92	40	-20.08	199	Vert
10	95.9106	37.18	PK	9.1	-27	19.28	43.52	-24.24	199	Vert
11	282.9803	28.7	PK	13.4	-25.9	16.2	46.02	-29.82	299	Vert
12	675.2935	31.45	PK	19.9	-23.4	27.95	46.02	-18.07	199	Vert