FCC 47 CFR PART 15 SUBPART C

C2PC CERTIFICATION TEST REPORT

FOR

GSM/WCDMA/LTE Phone + Bluetooth & DTS b/g/n

MODEL NUMBER: LGL31L, L31L, LG-L31L

FCC ID: ZNFL31L

REPORT NUMBER: 14U17021-3

ISSUE DATE: March 31, 2014

Prepared for
LG ELECTRONICS MOBILECOMM U.S.A., INC
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ENGLEWOOD CLIFFS,
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NVLAP LAB CODE 200065-0

Revision History

Rev.	Issue Date	Revisions	Revised By
--	3/31/14	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/WCDMA/LTE Phone + Bluetooth & DTS b/g/n

MODEL: LGL31L, L31L, LG-L31L

SERIAL NUMBER: 1792208-VS

DATE TESTED: March 27 - 31, 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 ANSI C63.4-2009, FCC CFR 47 Part 2, FCC CFR 47 Part 15.

3. FACILITIES AND ACCREDITATION

The test sites and measurement facilities used to collect data are located at 47173 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:

Field Strength (dBuV/m) = Measured Voltage (dBuV) + Antenna Factor (dB/m) + Cable Loss (dB) – Preamp Gain (dB)

36.5 dBuV + 18.7 dB/m + 0.6 dB – 26.9 dB = 28.9 dBuV/m

4.3. MEASUREMENT UNCERTAINTY

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

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

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

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5. EQUIPMENT UNDER TEST

5.1. DESCRIPTION OF EUT

The EUT is a GSM/WCDMA/LTE Phone + Bluetooth & DTS b/g/n.

5.2. MAXIMUM OUTPUT POWER

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

Frequency Range (MHz)	Mode	Output Power (dBm)	Output Power (mW)
2402 - 2480	Basic GFSK	11.34	13.61
2402 - 2480	Enhanced 8PSK	11.73	14.89

Note: GFSK, Pi/4-DQPSK, 8PSK average Power are all investigated, The GFSK & 8PSK Power are the worst case. Testing is based on this mode to showing compliance. For average power data please refer to section 8.6.

5.3. DESCRIPTION OF AVAILABLE ANTENNAS

The radio utilizes an FPCB antenna, with a maximum gain of 0.1 dBi.

5.4. WORST-CASE CONFIGURATION AND MODE

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

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

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5.5. DESCRIPTION OF TEST SETUP

SUPPORT EQUIPMENT

Support Equipment List				
Description	**Manufacturer**	**Model**	**Serial Number**	**FCC ID**
AC Adapter	LG	L31L	N/A	N/A
Earphone	LG	N/A	N/A	N/A

I/O CABLES

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

TEST SETUP

The EUT is continuously communicating to the Bluetooth tester during the tests.
EUT was set in the Hidden menu mode to enable BT communications.

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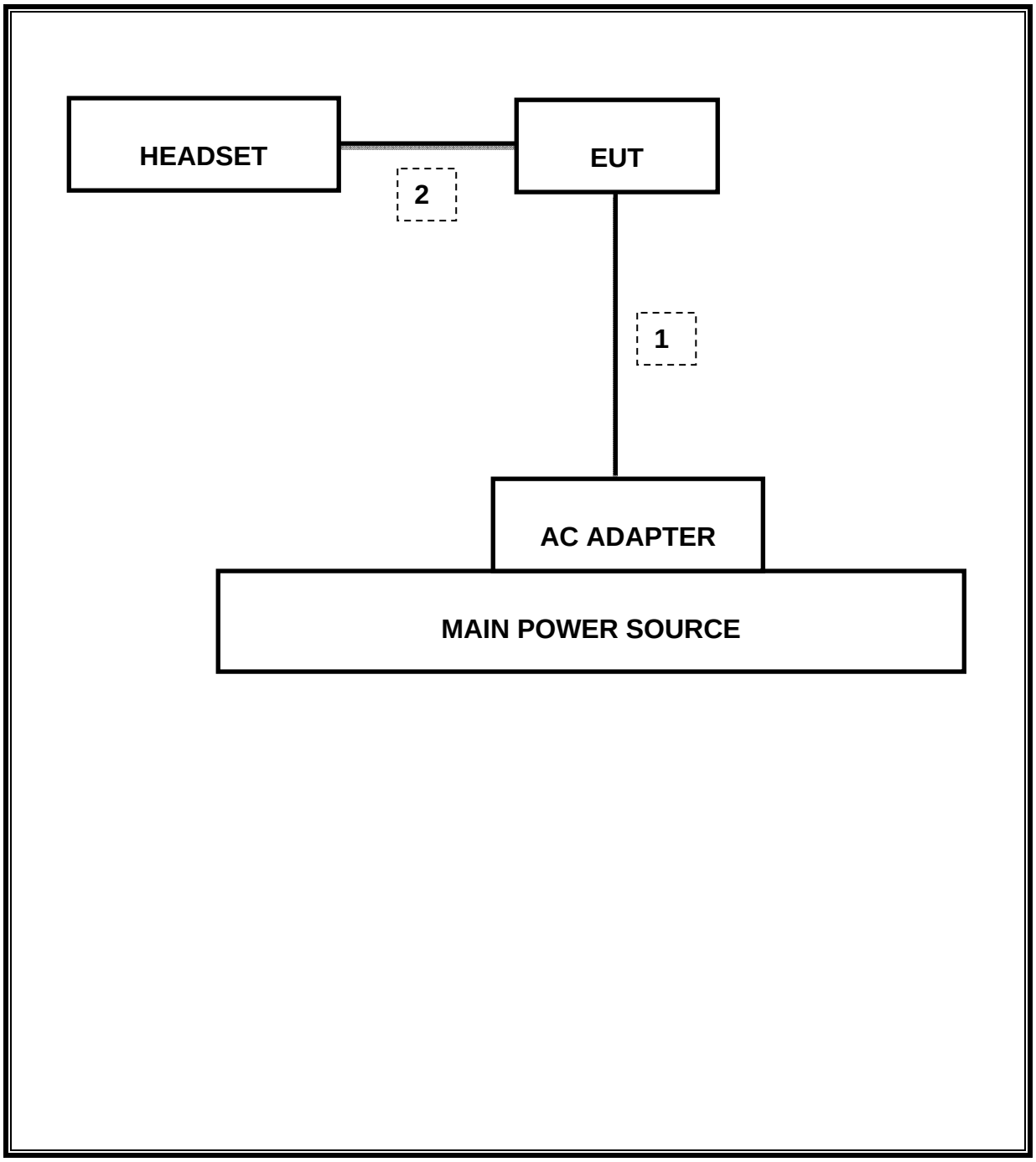
SETUP DIAGRAM FOR TESTS



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6. TEST AND MEASUREMENT EQUIPMENT

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

Test Equipment List				
Description	**Manufacturer**	**Model**	**Asset**	**Cal Due**
Antenna, Biconolog, 30MHz-1 GHz	Sunol Sciences	JB1	C01171	02/13/15
Antenna, Horn, 18GHz	EMCO	3115	C00783	10/25/14
Antenna, Horn, 25.5 GHz	ARA	MWH-1826/B	C00980	11/14/14
Preamplifier, 1300 MHz	Agilent / HP	8447D	C00580	01/28/15
Preamplifier, 26.5 GHz	Agilent / HP	8449B	C01052	10/22/14
Spectrum Analyzer, 44 GHz	Agilent / HP	E4446A	C01069	12/20/14
CBT Bluetooth Tester	R & S	CBT	None	07/12/14
Peak Power Meter	Agilent / HP	E4416A	C00963	12/13/14
Peak / Average Power Sensor	Agilent / HP	E9327A	C00964	12/13/14
LISN, 30 MHz	FCC	50/250-25-2	C00626	01/14/15
Reject Filter, 2.4GHz	Micro-Tronics	BRM50702	N02684	CNR

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7. SUMMARY TABLE

FCC Part Section	RSS Section(s)	Test Description	Test Limit	Test Condition	Test Result	Worst Case
2.1049	RSS-GEN 4.6	Occupied Band width (99%)	N/A	Conducted	Pass	See original
2.1051, 15.247 (d)	RSS-210 A8.5	Band Edge / Conducted Spurious Emission	-20dBc		Pass	See original
15.247 (b)(1)	RSS-210 A8.4	TX conducted output power	<21dBm		Pass	See original
15.247 (a)(1)	RSS-210 A8.1(b)	Hopping frequency separation	> 25KHz		Pass	See original
15.247 (a)(1)(iii)	RSS-210 A8.1(d)	Number of Hopping channels	More than 15 non-overlapping channels		Pass	See original
15.247 (a)(1)(iii)	RSS-210 A8.1(d)	Avg Time of Occupancy	< 0.4sec		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	42.18dBuV/m

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8. RADIATED TEST RESULTS

8.1. 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. The EUT is configured in accordance with ANSI C63.4. The EUT is set to transmit in a continuous mode.

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

For measurements above 1 GHz the resolution bandwidth is set to 1 MHz, then the video bandwidth is set to 1 MHz for peak measurements and 1/T (on time) for average measurement. GFSK = 1/T = 360Hz.

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

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

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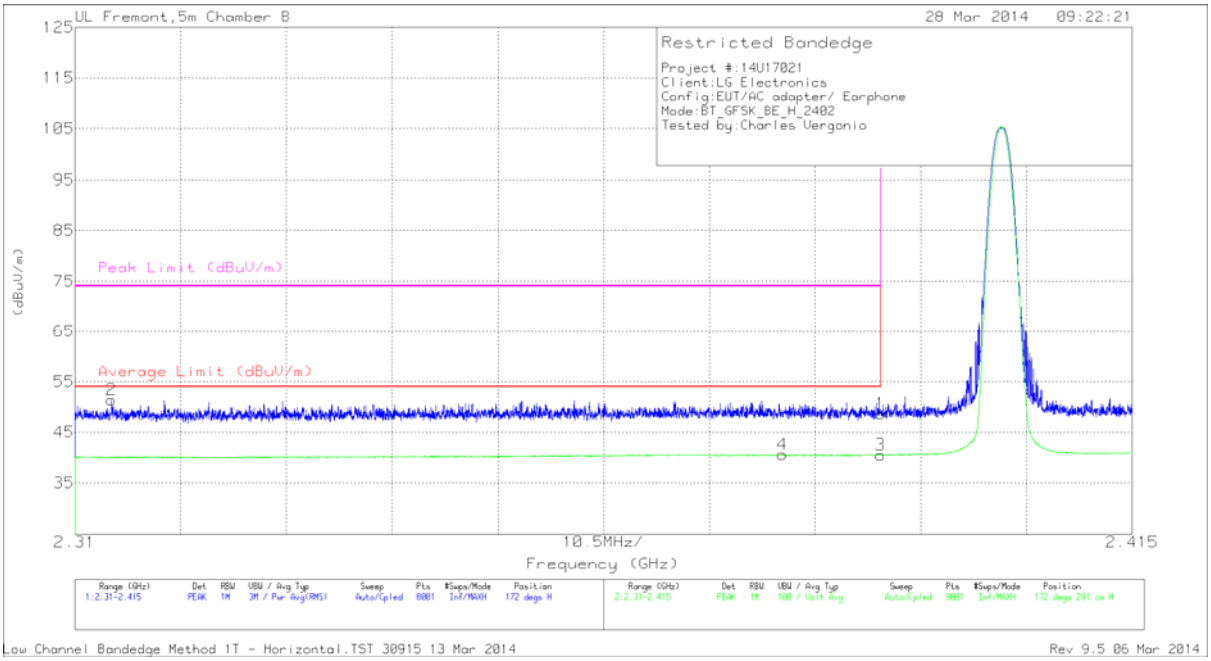
8.2. TRANSMITTER ABOVE 1 GHz

8.2.1. BASIC DATA RATE GFSK MODULATION

RESTRICTED BANDEDGE (LOW CHANNEL, HORIZONTAL)



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.39	39.5	PK	32.1	-22.9	48.7	-	-	74	-25.3	172	281	H
2	* 2.314	42.71	PK	31.7	-23	51.41	-	-	74	-22.59	172	281	H
3	* 2.39	30.24	VB1T	32.1	-22.9	40.54	54	-13.46	-	-	172	281	H
4	* 2.38	30.38	VB1T	32	-22.9	40.58	54	-13.42	-	-	172	281	H

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band
PK - Peak detector
VB1T - FHSS Method: VB=1/Ton, Voltage Averaging Max Hold where: Ton is the duration of the packet

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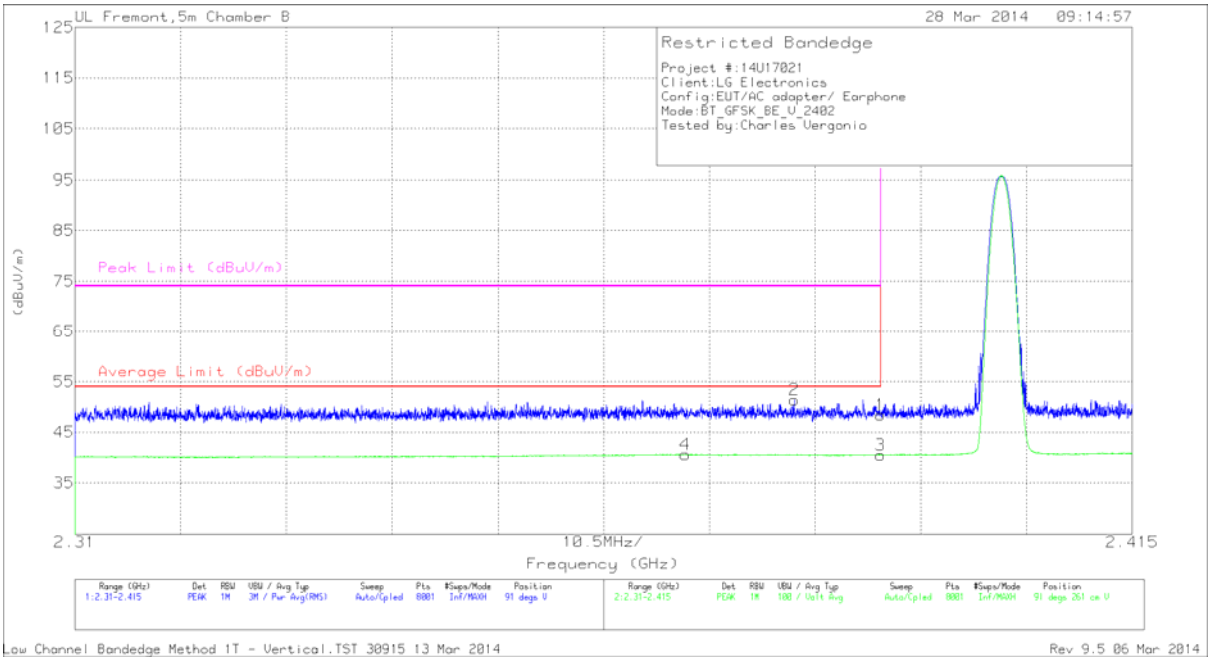
RESTRICTED BANDEDGE (LOW CHANNEL, VERTICAL)



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.39	39.23	PK	32.1	-22.9	48.43	-	-	74	-25.57	91	261	V
2	* 2.381	42.32	PK	32	-22.9	51.42	-	-	74	-22.58	91	261	V
3	* 2.39	30.21	VB1T	32.1	-22.9	40.51	54	-13.49	-	-	91	261	V
4	* 2.371	30.32	VB1T	32	-22.8	40.62	54	-13.38	-	-	91	261	V

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band
PK - Peak detector
VB1T - FHSS Method: VB=1/Ton, Voltage Averaging Max Hold where: Ton is the duration of the packet

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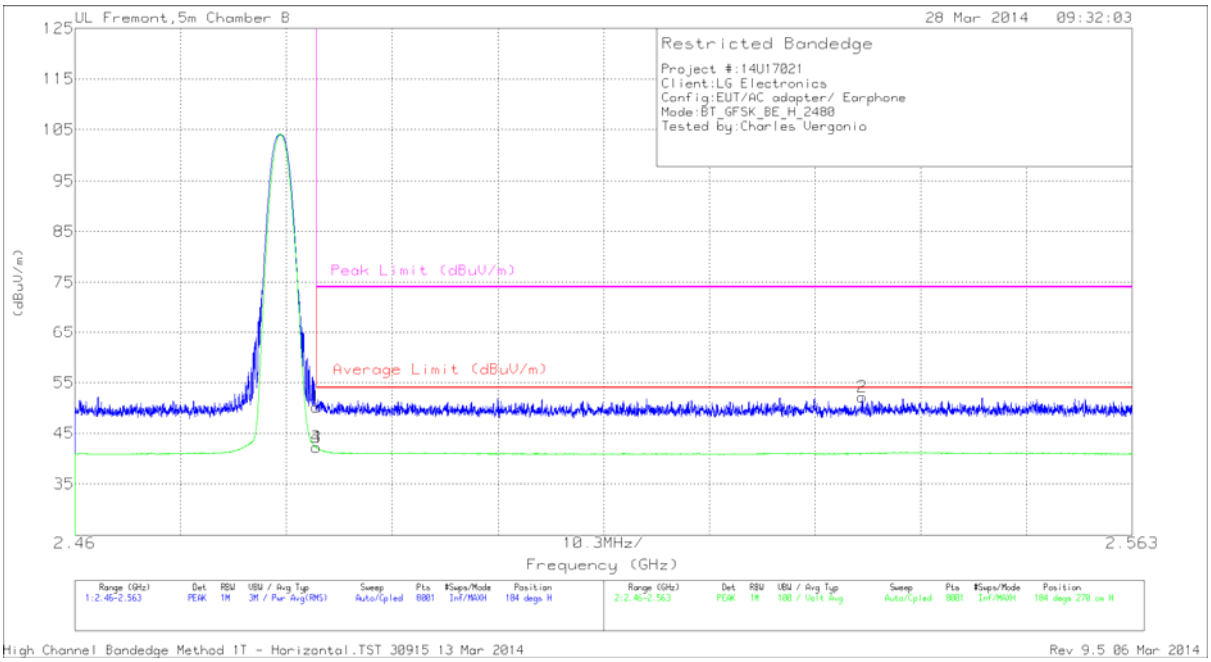
RESTRICTED BANDEDGE (HIGH CHANNEL, HORIZONTAL)



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.484	40.35	PK	32.4	-22.6	50.15	-	-	74	-23.85	184	270	H
3	* 2.484	31.28	VB1T	32.4	-22.6	42.18	54	-11.82	-	-	184	270	H
4	* 2.484	31.28	VB1T	32.4	-22.6	42.18	54	-11.82	-	-	184	270	H
2	2.537	42.23	PK	32.5	-22.6	52.13	-	-	74	-21.87	184	270	H

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band
PK - Peak detector
VB1T - FHSS Method: VB=1/Ton, Voltage Averaging Max Hold where: Ton is the duration of the packet

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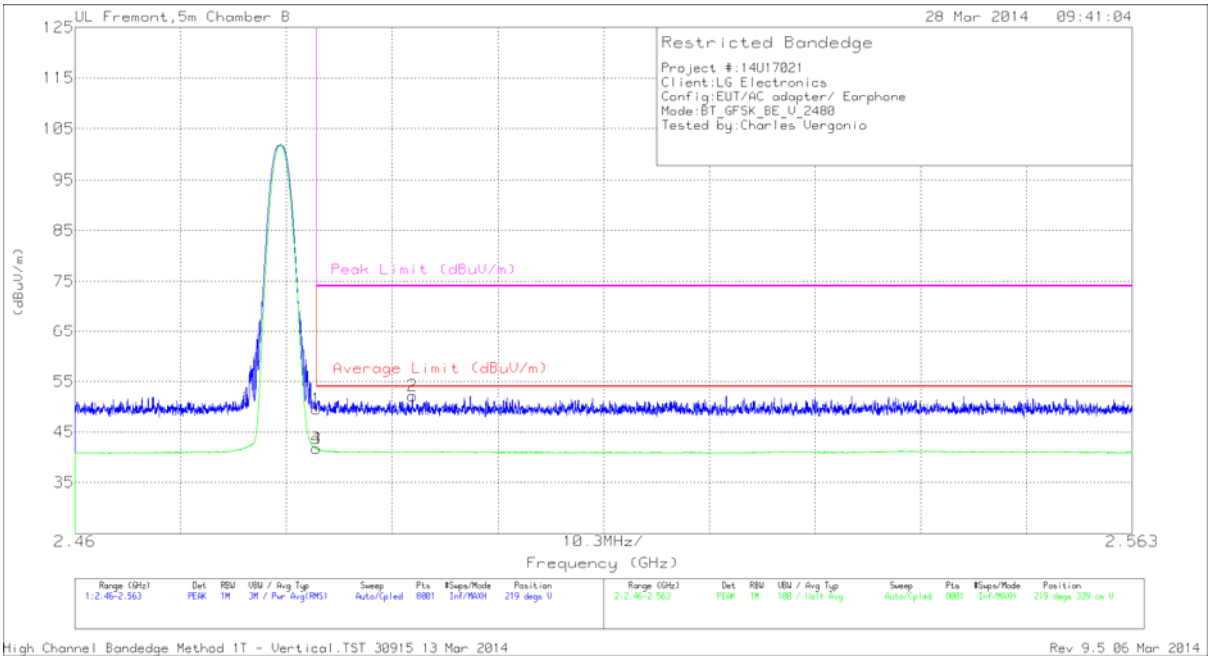
RESTRICTED BANDEDGE (HIGH CHANNEL, VERTICAL)



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	2.484	39.73	PK	32.4	-22.6	49.53	-	-	74	-24.47	219	339	V
3	2.484	30.8	VB1T	32.4	-22.6	41.7	54	-12.3	-	-	219	339	V
4	2.484	30.8	VB1T	32.4	-22.6	41.7	54	-12.3	-	-	219	339	V
2	2.493	42.47	PK	32.4	-22.7	52.17	-	-	74	-21.83	219	339	V

PK - Peak detector
VB1T - FHSS Method: VB=1/Ton, Voltage Averaging Max Hold where: Ton is the duration of the packet

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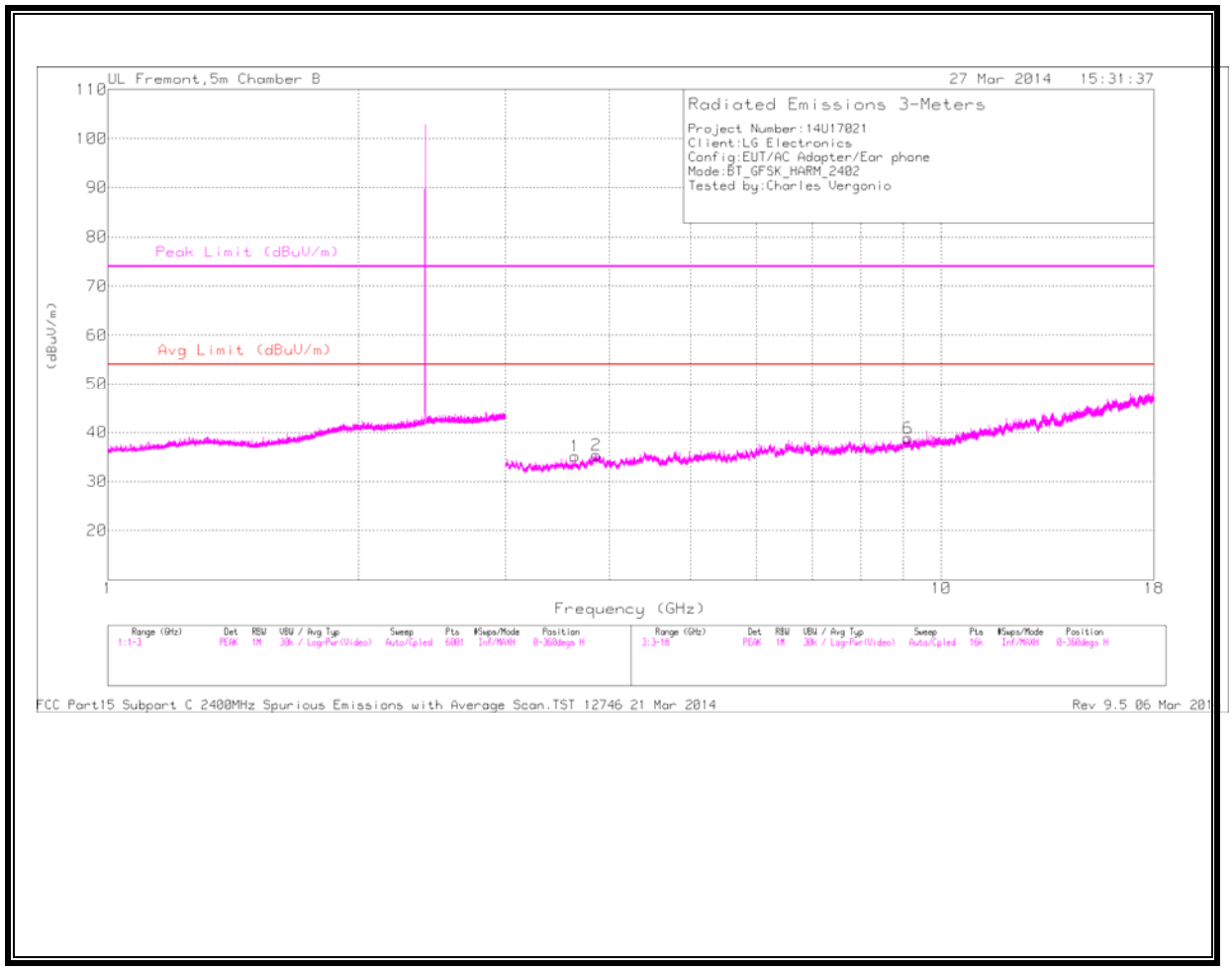
HARMONICS AND SPURIOUS EMISSIONS

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.

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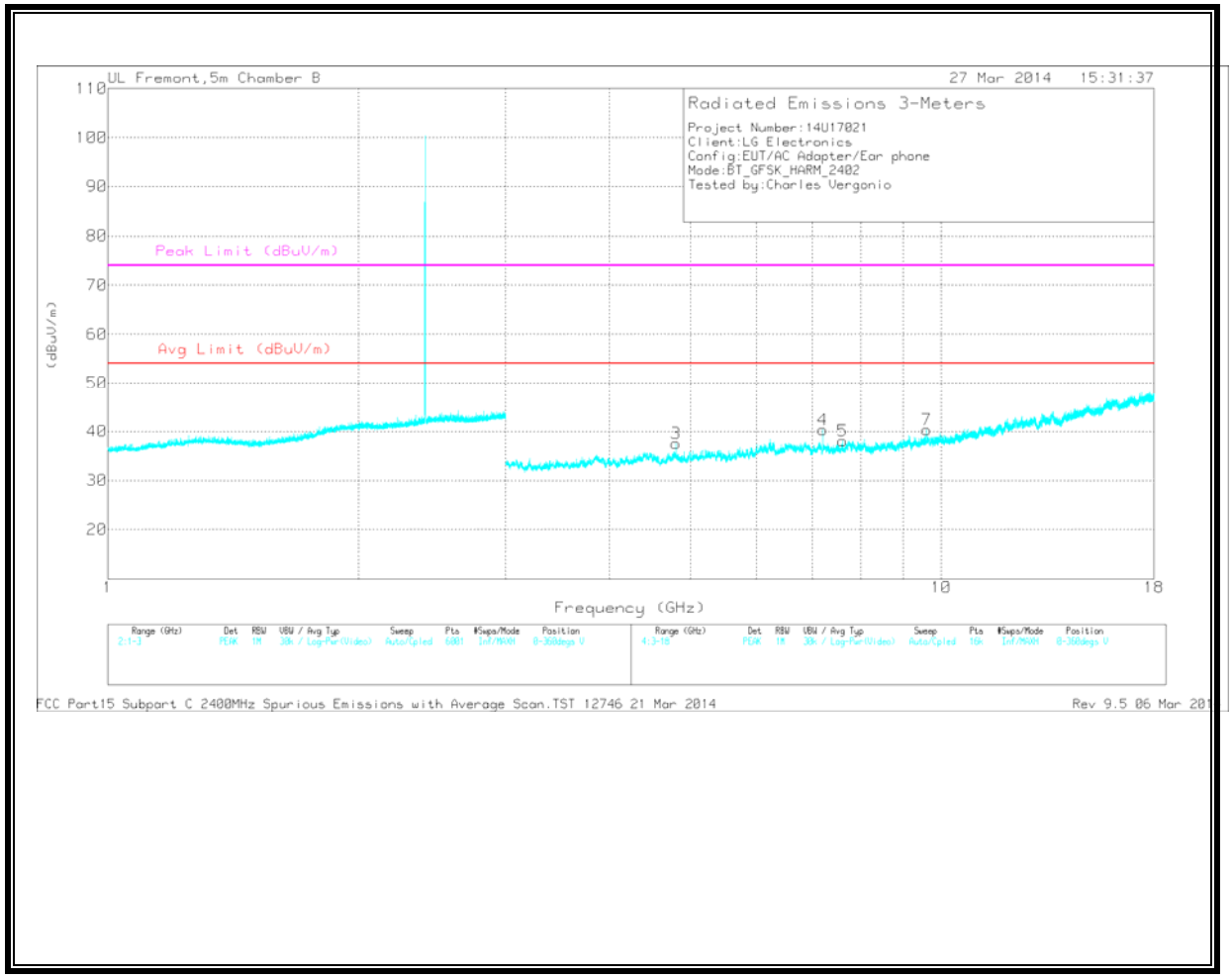
VERTICAL



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

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LOW CHANNEL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 3.637	33	PK	33.2	-31.1	35.1	54	-18.9	74	-38.9	0-360	202	H
2	* 3.853	31.9	PK	33.7	-30.2	35.4	54	-18.6	74	-38.6	0-360	202	H
6	* 9.128	27.3	PK	36.3	-24.8	38.8	54	-15.2	74	-35.2	0-360	99	H
3	* 4.804	32.1	PK	34.2	-28.8	37.5	54	-16.5	74	-36.5	0-360	202	V
5	* 7.611	29.85	PK	35.7	-27.5	38.05	54	-15.95	74	-35.95	0-360	202	V
4	7.205	31.8	PK	35.5	-27	40.3	-	-	-	-	0-360	202	V
7	9.607	27.64	PK	36.8	-24.1	40.34	-	-	-	-	0-360	202	V

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

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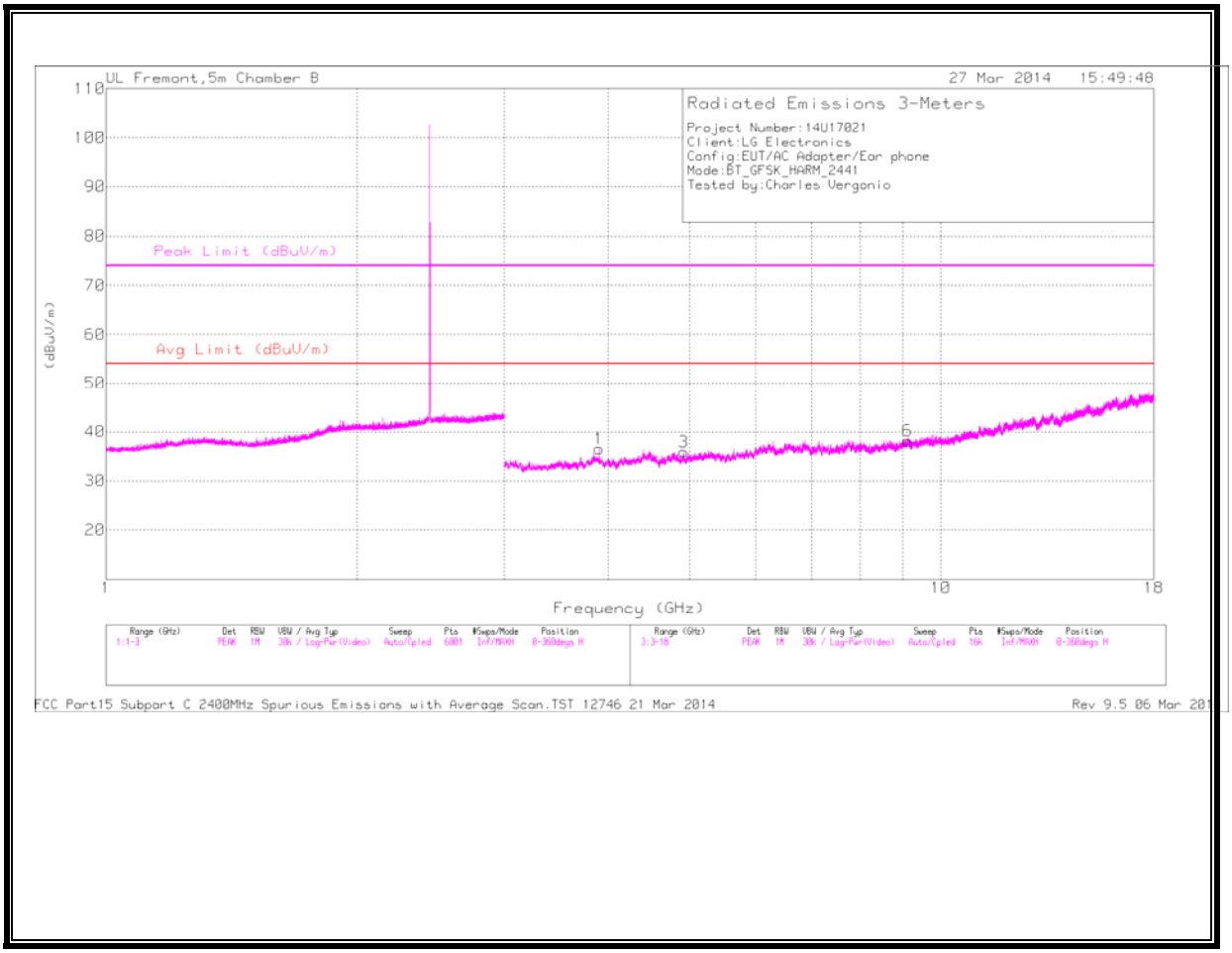
MID CHANNEL
HORIZONTAL



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

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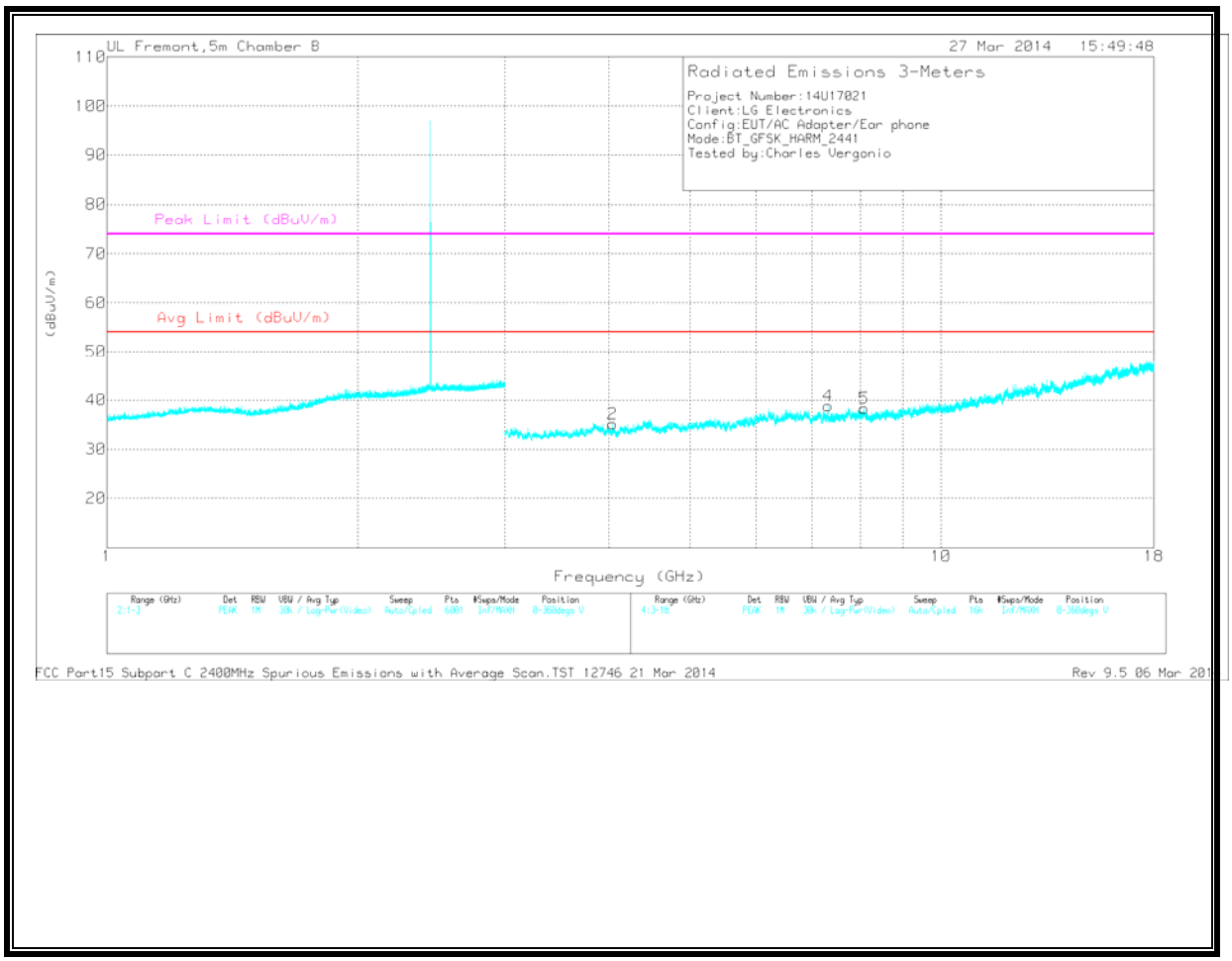
VERTICAL



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

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MID CHANNEL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 3.897	33.36	PK	33.8	-30.6	36.56	54	-17.44	74	-37.44	0-360	99	H
3	* 4.918	32.41	PK	34.2	-30.7	35.91	54	-18.09	74	-38.09	0-360	99	H
6	* 9.119	26.97	PK	36.3	-25.1	38.17	54	-15.83	74	-35.83	0-360	202	H
2	* 4.038	32.61	PK	33.6	-31.1	35.11	54	-18.89	74	-38.89	0-360	99	V
4	* 7.323	31.03	PK	35.6	-27.8	38.83	54	-15.17	74	-35.17	0-360	99	V
5	* 8.089	28.55	PK	35.7	-25.9	38.35	54	-15.65	74	-35.65	0-360	99	V

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

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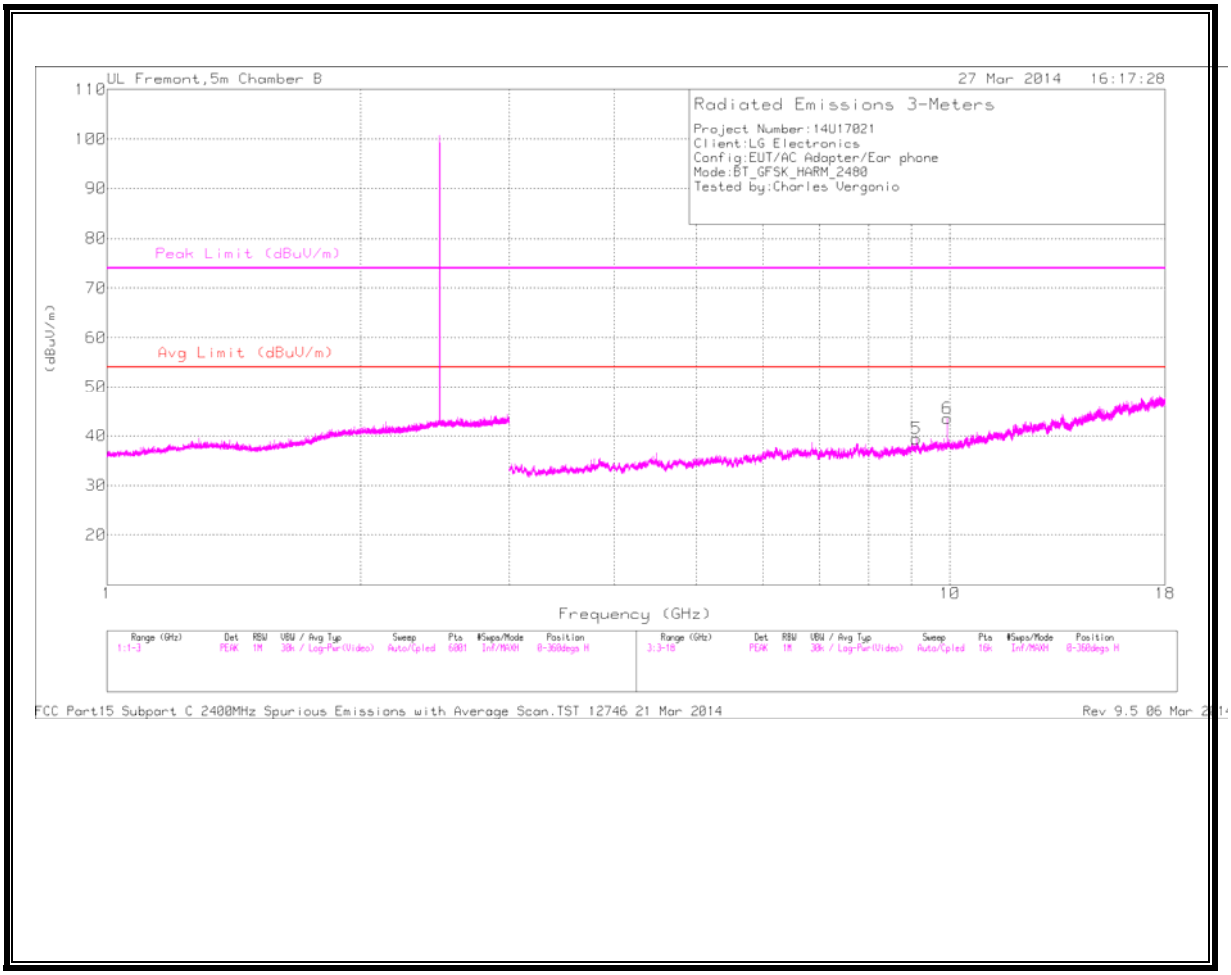
HIGH CHANNEL
HORIZONTAL



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

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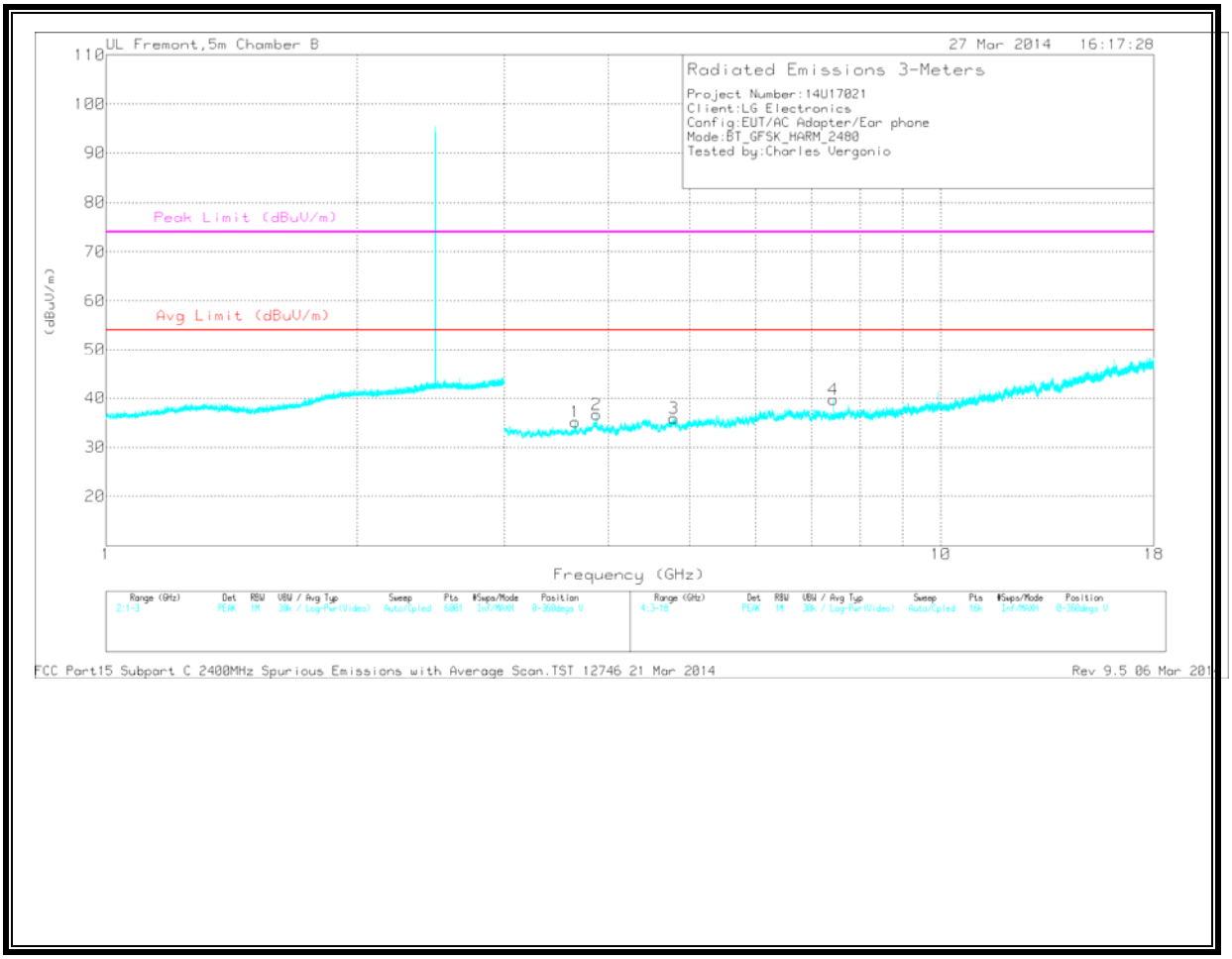
VERTICAL



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

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HIGH CHANNEL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
5	* 9.121	28.1	PK	36.3	-25	39.4	54	-14.6	74	-34.6	0-360	99	H
1	* 3.649	32.98	PK	33.2	-31	35.18	54	-18.82	74	-38.82	0-360	202	V
2	* 3.866	33.21	PK	33.7	-30.2	36.71	54	-17.29	74	-37.29	0-360	99	V
3	* 4.787	30.63	PK	34.2	-28.9	35.93	54	-18.07	74	-38.07	0-360	99	V
4	* 7.44	30.91	PK	35.6	-26.8	39.71	54	-14.29	74	-34.29	0-360	99	V
6	9.919	30.5	PK	37	-24	43.5	-	-	-	-	0-360	202	H

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

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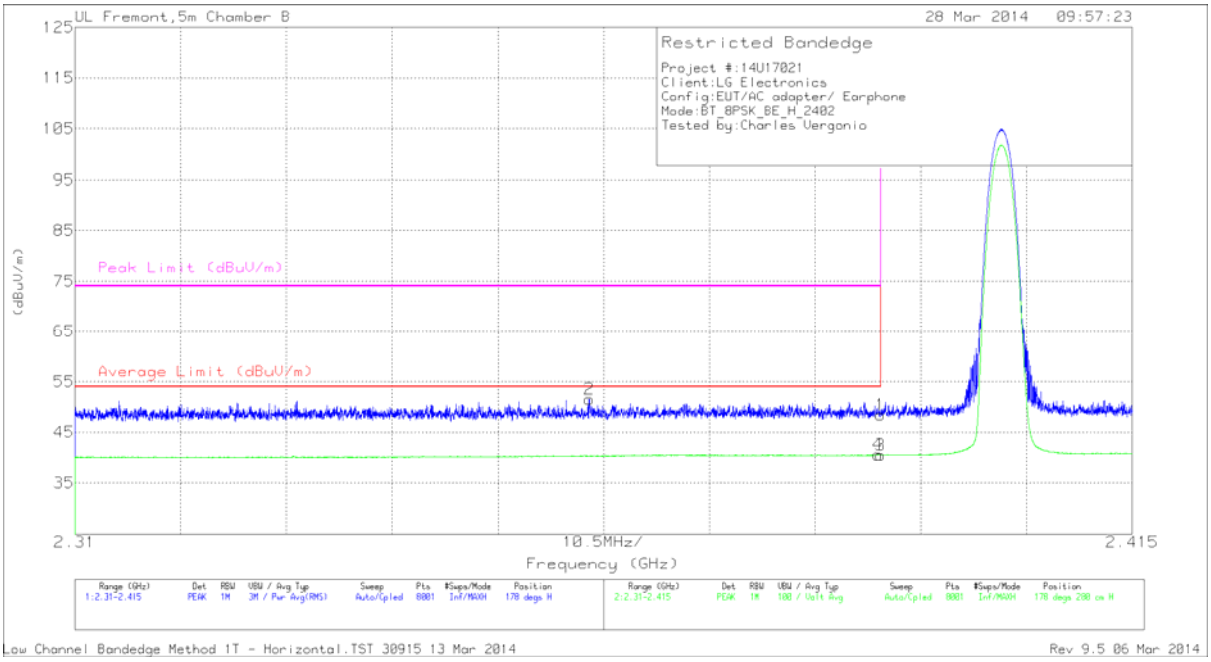
8.2.2. ENHANCED DATA RATE 8PSK MODULATION

RESTRICTED BANDEDGE (LOW CHANNEL, HORIZONTAL)



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.39	39.19	PK	32.1	-22.9	48.39	-	-	74	-25.61	178	280	H
2	* 2.361	42.56	PK	31.9	-22.9	51.56	-	-	74	-22.44	178	280	H
3	* 2.39	30.21	VB1T	32.1	-22.9	40.51	54	-13.49	-	-	178	280	H
4	* 2.39	30.25	VB1T	32.1	-22.9	40.55	54	-13.45	-	-	178	280	H

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band
PK - Peak detector
VB1T - FHSS Method: VB=1/Ton, Voltage Averaging Max Hold where: Ton is the duration of the packet

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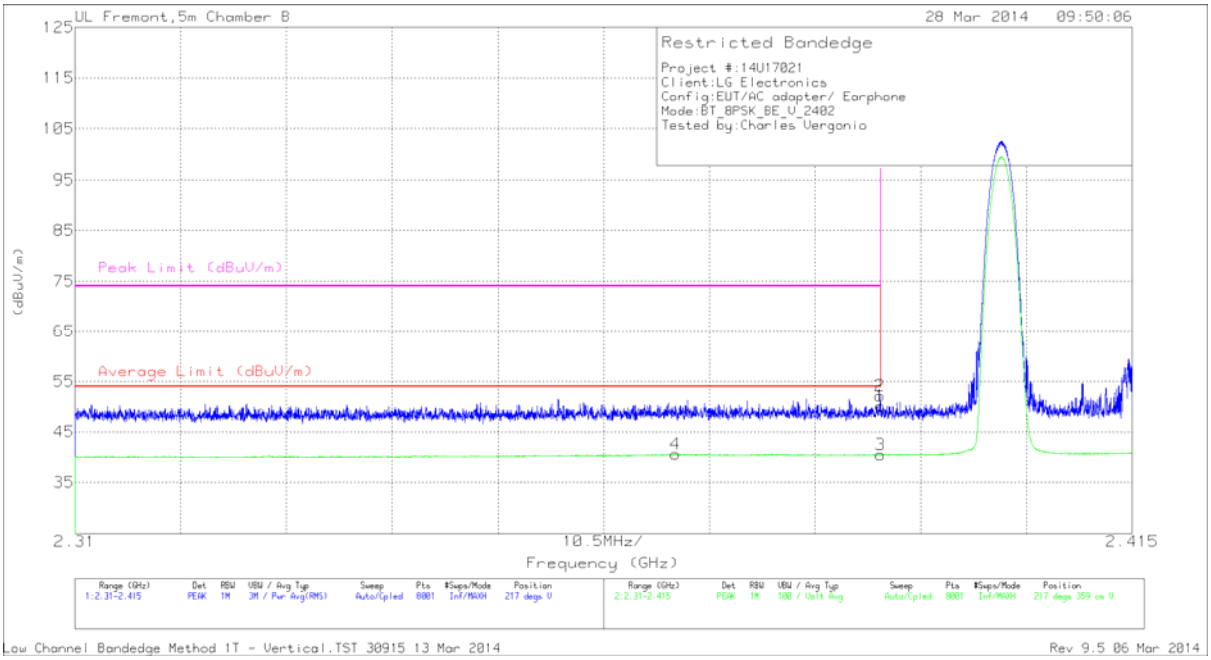
RESTRICTED BANDEDGE (LOW CHANNEL, VERTICAL)



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.39	41	PK	32.1	-22.9	50.2	-	-	74	-23.8	217	359	V
2	* 2.39	42.9	PK	32.1	-22.9	52.1	-	-	74	-21.9	217	359	V
3	* 2.39	30.15	VB1T	32.1	-22.9	40.45	54	-13.55	-	-	217	359	V
4	* 2.37	30.27	VB1T	32	-22.8	40.57	54	-13.43	-	-	217	359	V

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band
PK - Peak detector
VB1T - FHSS Method: VB=1/Ton, Voltage Averaging Max Hold where: Ton is the duration of the packet

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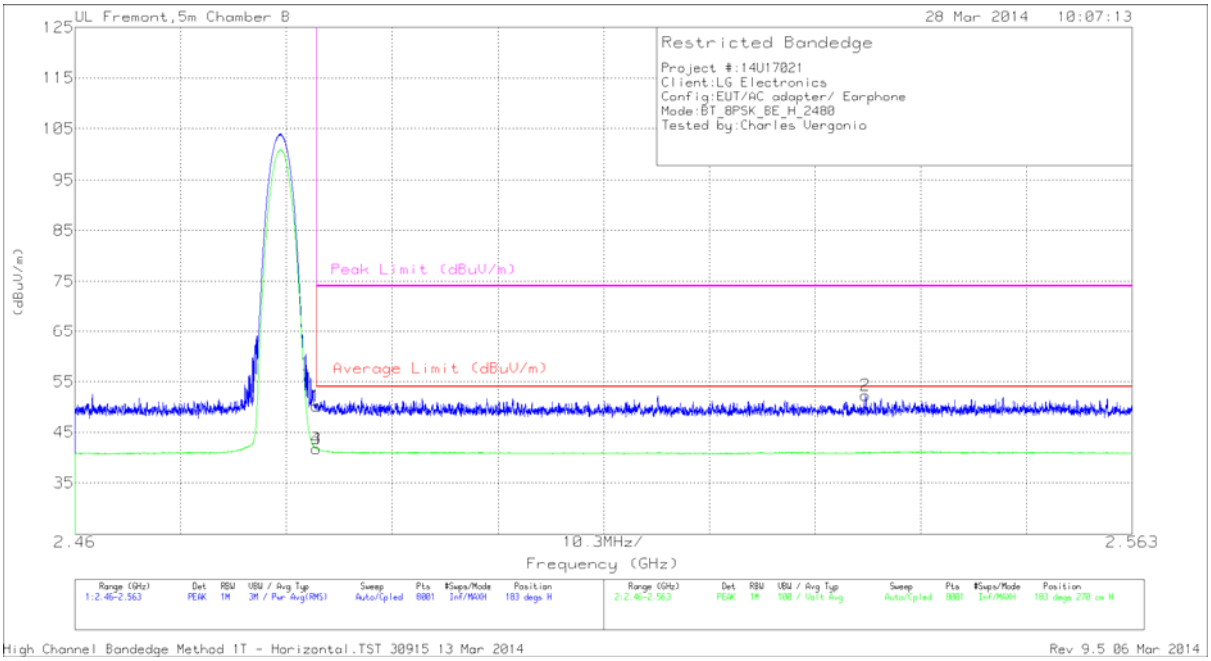
RESTRICTED BANDEDGE (HIGH CHANNEL, HORIZONTAL)



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.484	40.36	PK	32.4	-22.6	50.16	-	-	74	-23.84	183	270	H
3	* 2.484	30.88	VB1T	32.4	-22.6	41.78	54	-12.22	-	-	183	270	H
4	* 2.484	30.88	VB1T	32.4	-22.6	41.78	54	-12.22	-	-	183	270	H
2	2.537	42.37	PK	32.5	-22.6	52.27	-	-	74	-21.73	183	270	H

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band
PK - Peak detector
VB1T - FHSS Method: VB=1/Ton, Voltage Averaging Max Hold where: Ton is the duration of the packet

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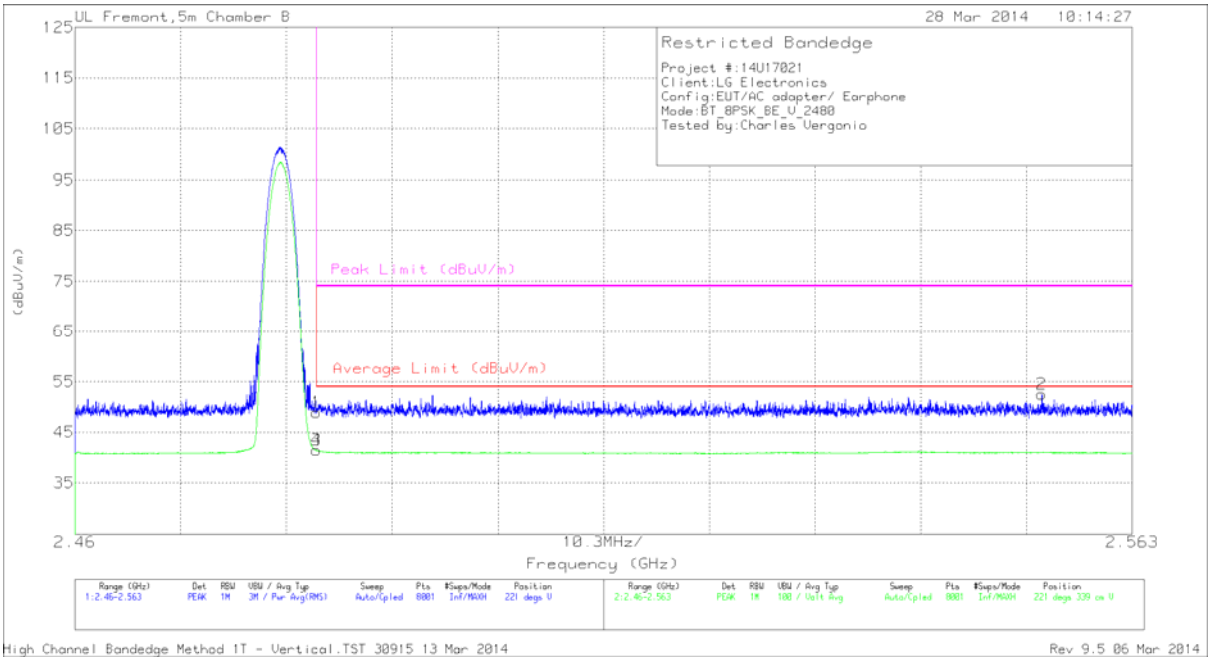
RESTRICTED BANDEDGE (HIGH CHANNEL, VERTICAL)



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	2.484	39.13	PK	32.4	-22.6	48.93	-	-	74	-25.07	221	339	V
3	2.484	30.54	VB1T	32.4	-22.6	41.44	54	-12.56	-	-	221	339	V
4	2.484	30.54	VB1T	32.4	-22.6	41.44	54	-12.56	-	-	221	339	V
2	2.554	42.77	PK	32.5	-22.7	52.57	-	-	74	-21.43	221	339	V

PK - Peak detector
VB1T - FHSS Method: VB=1/Ton, Voltage Averaging Max Hold where: Ton is the duration of the packet

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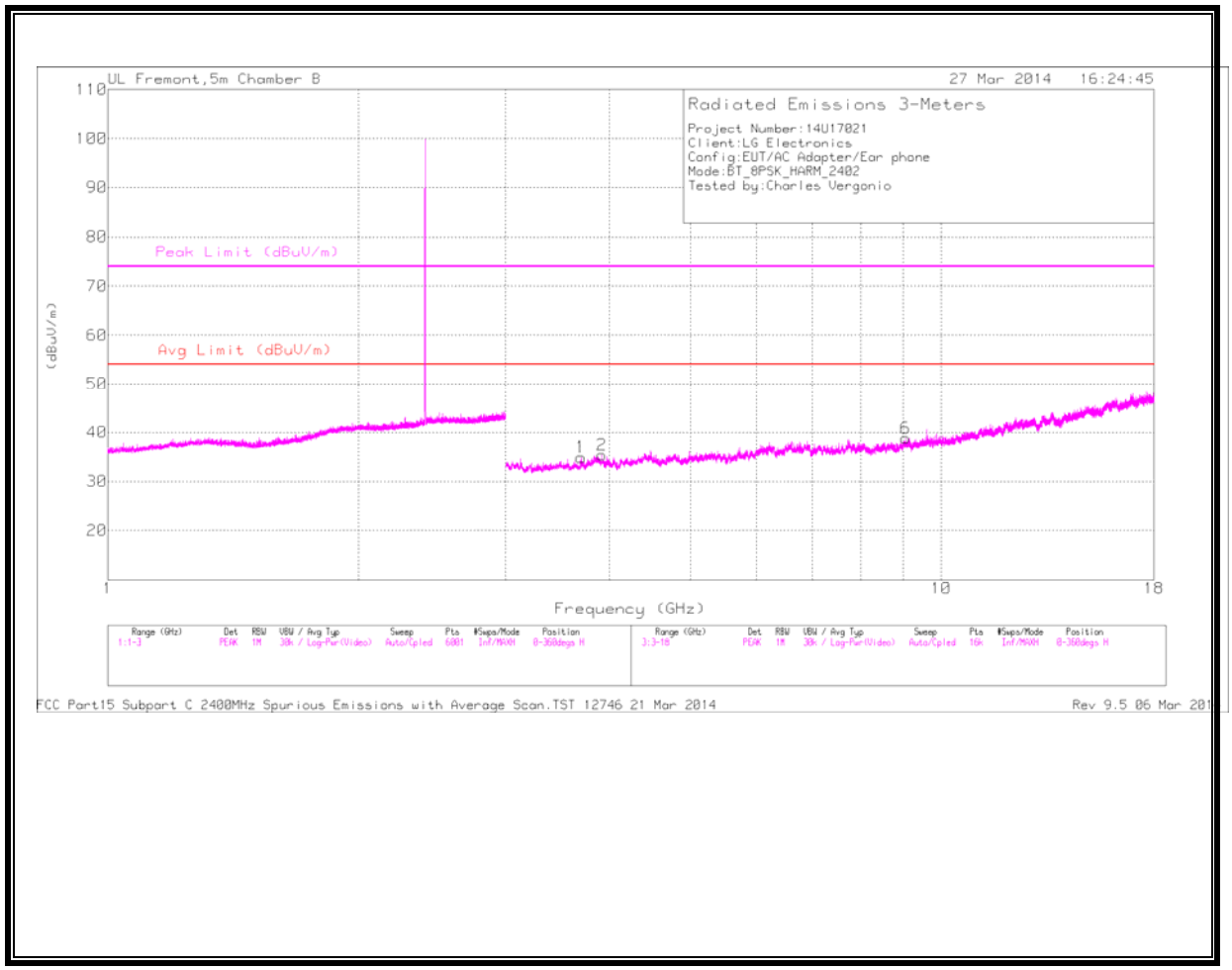
HARMONICS AND SPURIOUS EMISSIONS

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.

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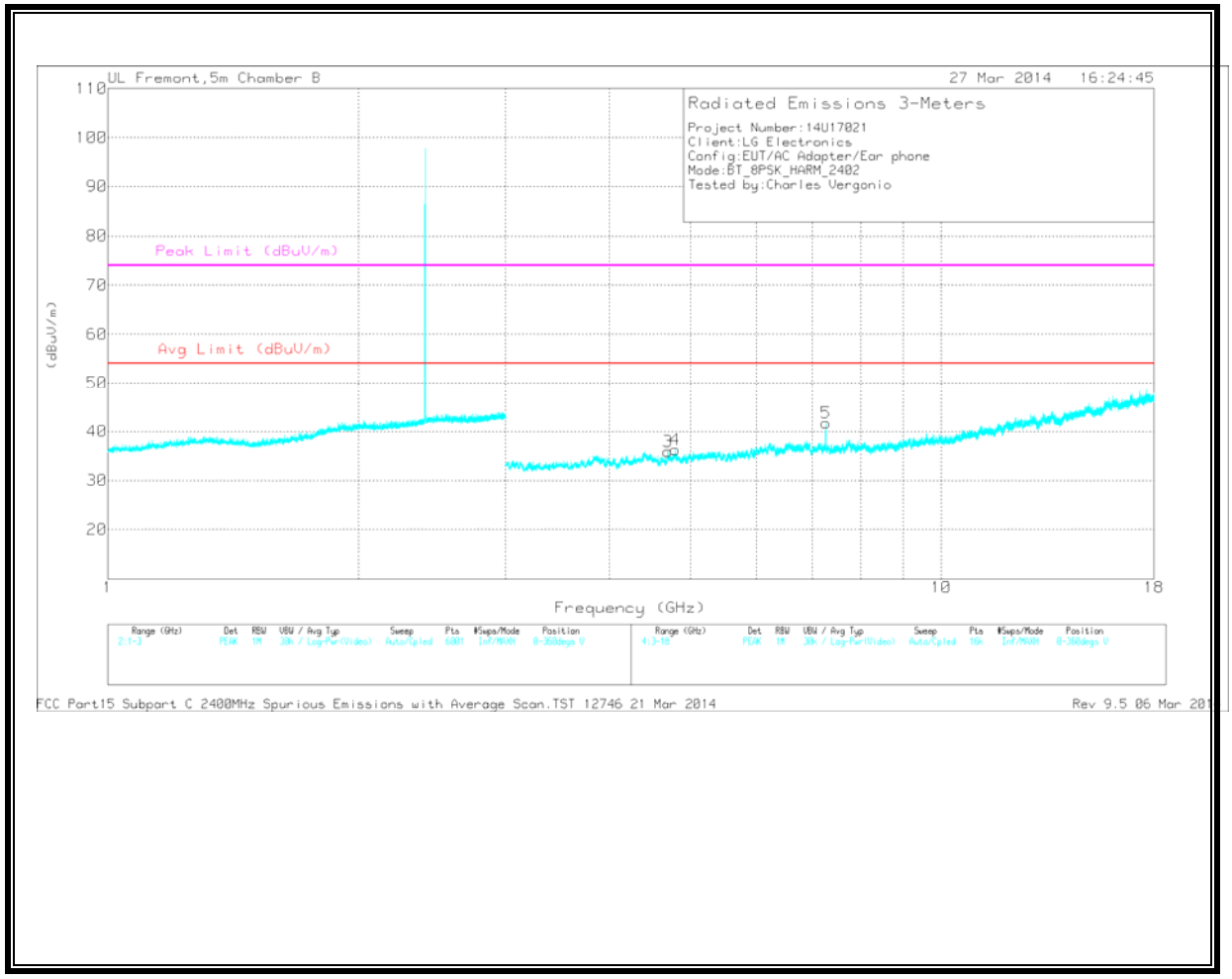
VERTICAL



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

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LOW CHANNEL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 3.697	32.85	PK	33.3	-31.2	34.95	54	-19.05	74	-39.05	0-360	99	H
2	* 3.916	32.16	PK	33.8	-30.6	35.36	54	-18.64	74	-38.64	0-360	202	H
6	* 9.061	27.17	PK	36.3	-24.7	38.77	54	-15.23	74	-35.23	0-360	202	H
3	* 4.699	31.54	PK	34.2	-29.8	35.94	54	-18.06	74	-38.06	0-360	99	V
4	* 4.799	30.88	PK	34.2	-28.8	36.28	54	-17.72	74	-37.72	0-360	99	V
5	* 7.266	33.54	PK	35.6	-27.4	41.74	54	-12.26	74	-32.26	0-360	202	V

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

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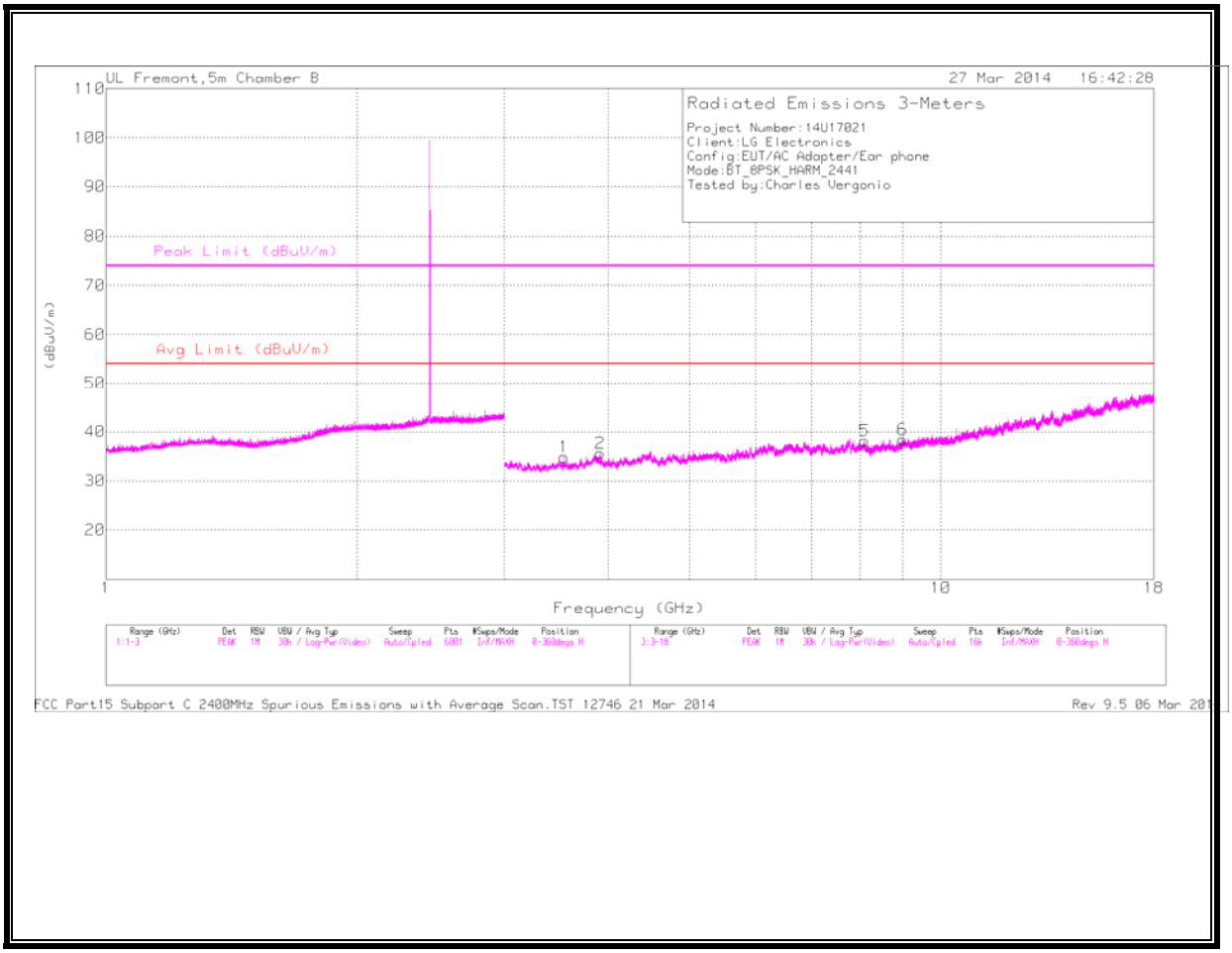
MID CHANNEL
HORIZONTAL



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

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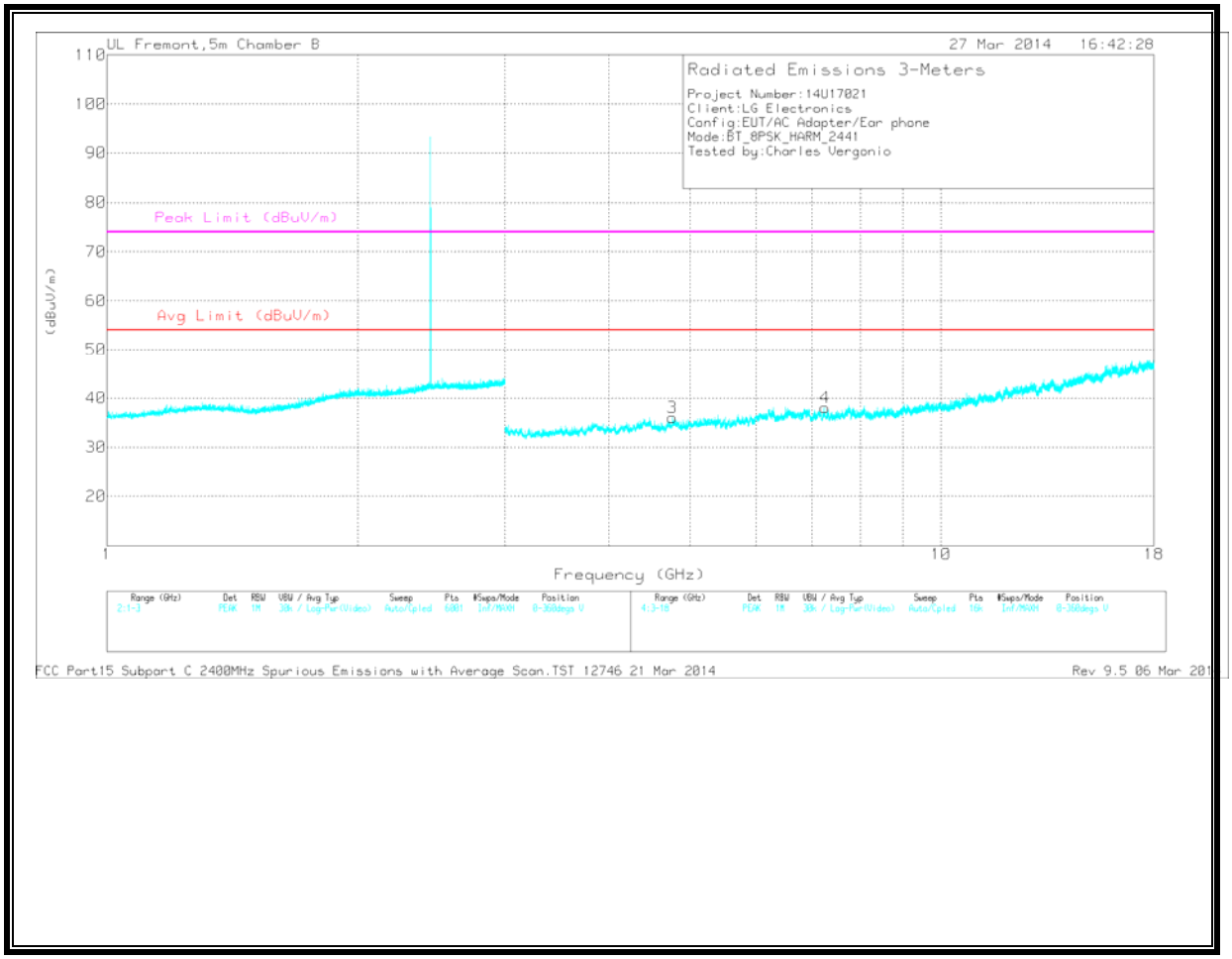
VERTICAL



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

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MID CHANNEL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 3.54	33.33	PK	32.9	-31.4	34.83	54	-19.17	74	-39.17	0-360	99	H
2	* 3.907	32.48	PK	33.8	-30.6	35.68	54	-18.32	74	-38.32	0-360	99	H
5	* 8.1	28.71	PK	35.7	-26.2	38.21	54	-15.79	74	-35.79	0-360	202	H
6	* 9.005	27.18	PK	36.2	-24.9	38.48	54	-15.52	74	-35.52	0-360	99	H
3	* 4.767	31.31	PK	34.2	-29.5	36.01	54	-17.99	74	-37.99	0-360	202	V
4	* 7.259	29.79	PK	35.6	-27.3	38.09	54	-15.91	74	-35.91	0-360	202	V

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

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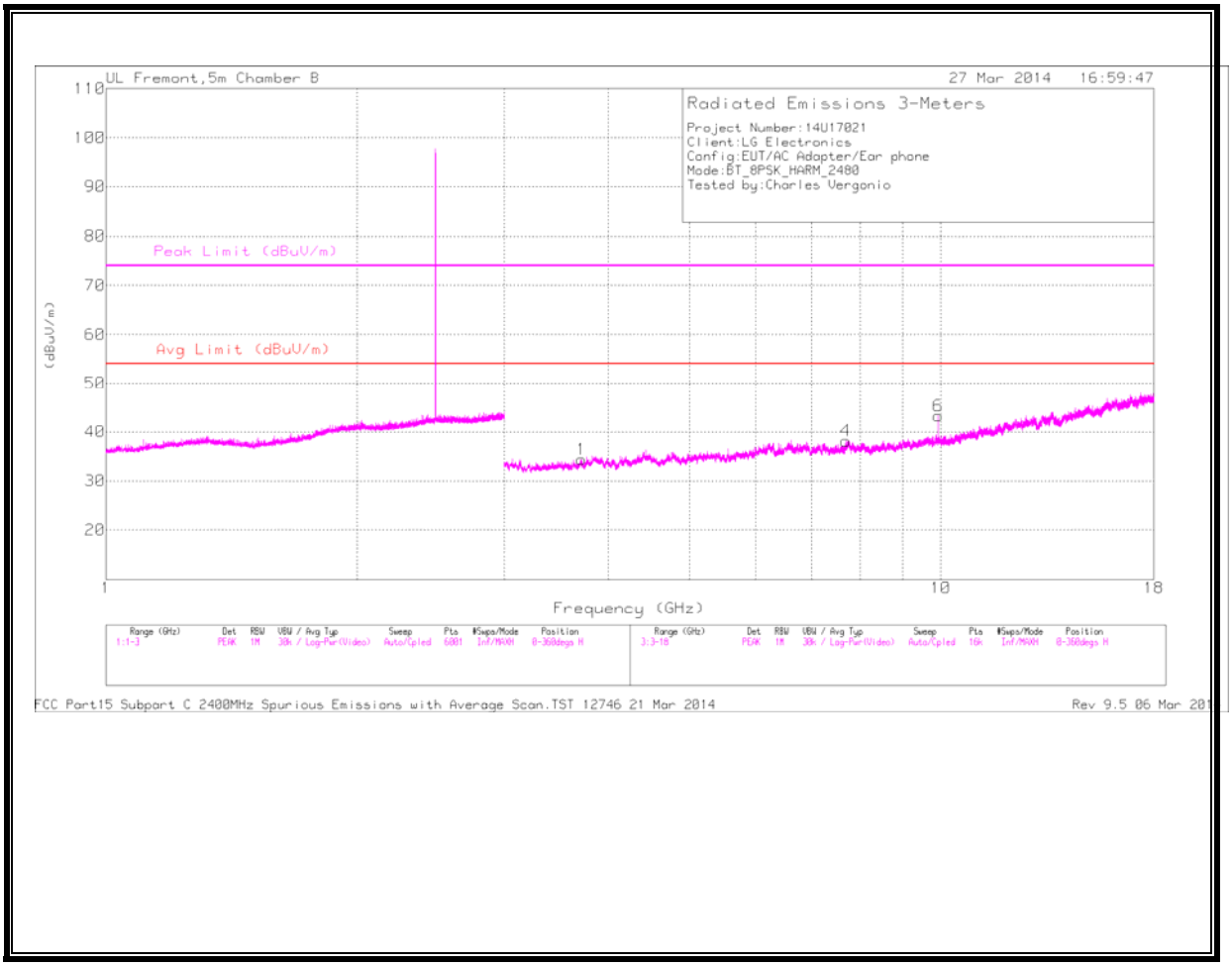
HIGH CHANNEL
HORIZONTAL



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

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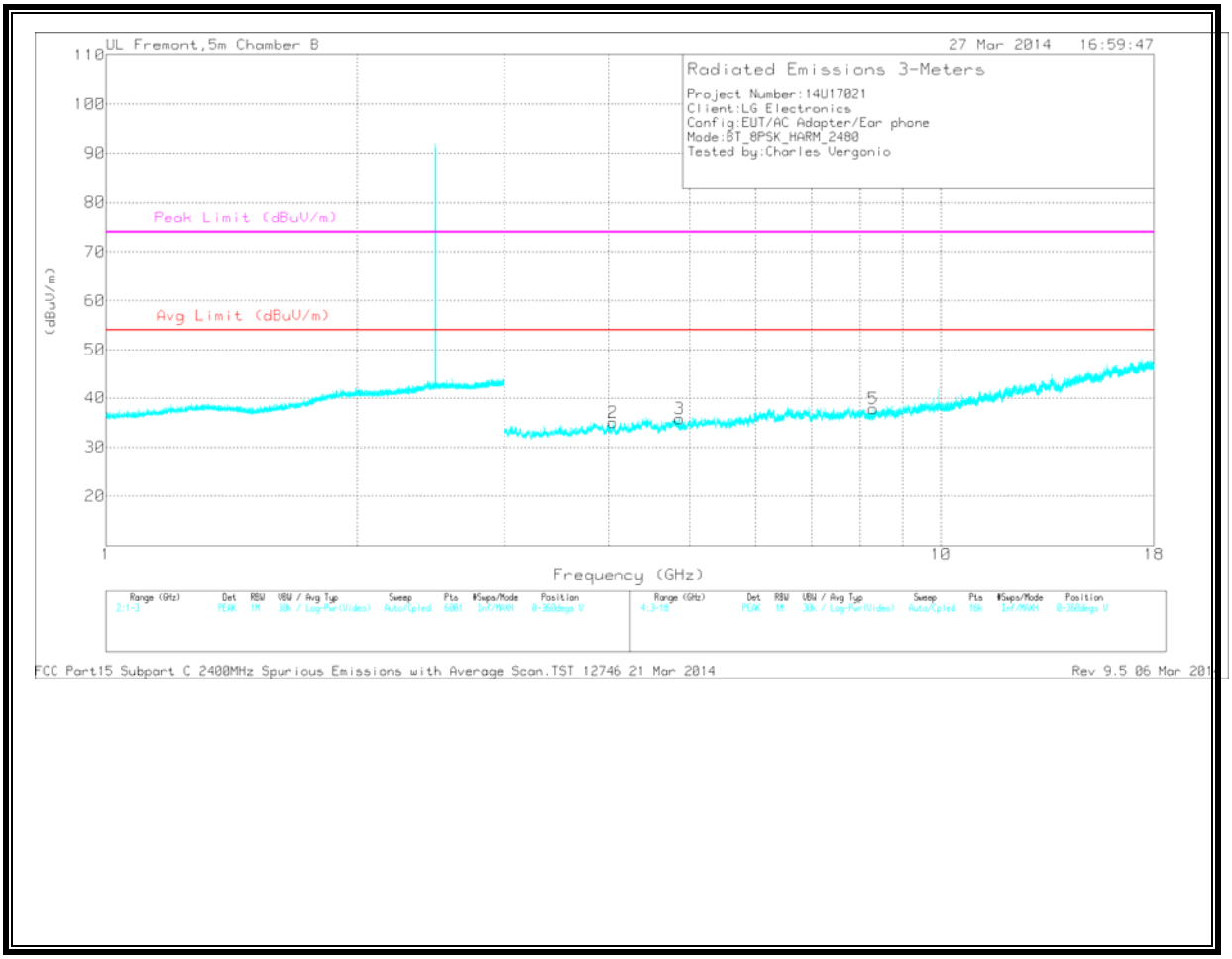
VERTICAL



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

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HIGH CHANNEL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 3.712	32.21	PK	33.4	-31.2	34.41	54	-19.59	74	-39.59	0-360	202	H
4	* 7.69	29.13	PK	35.7	-26.7	38.13	54	-15.87	74	-35.87	0-360	202	H
2	* 4.047	32.18	PK	33.6	-30.8	34.98	54	-19.02	74	-39.02	0-360	99	V
3	* 4.863	32.22	PK	34.2	-30.6	35.82	54	-18.18	74	-38.18	0-360	202	V
5	* 8.304	28.31	PK	35.7	-26.2	37.81	54	-16.19	74	-36.19	0-360	99	V
6	9.919	30.26	PK	37	-24	43.26	-	-	-	-	0-360	202	H

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

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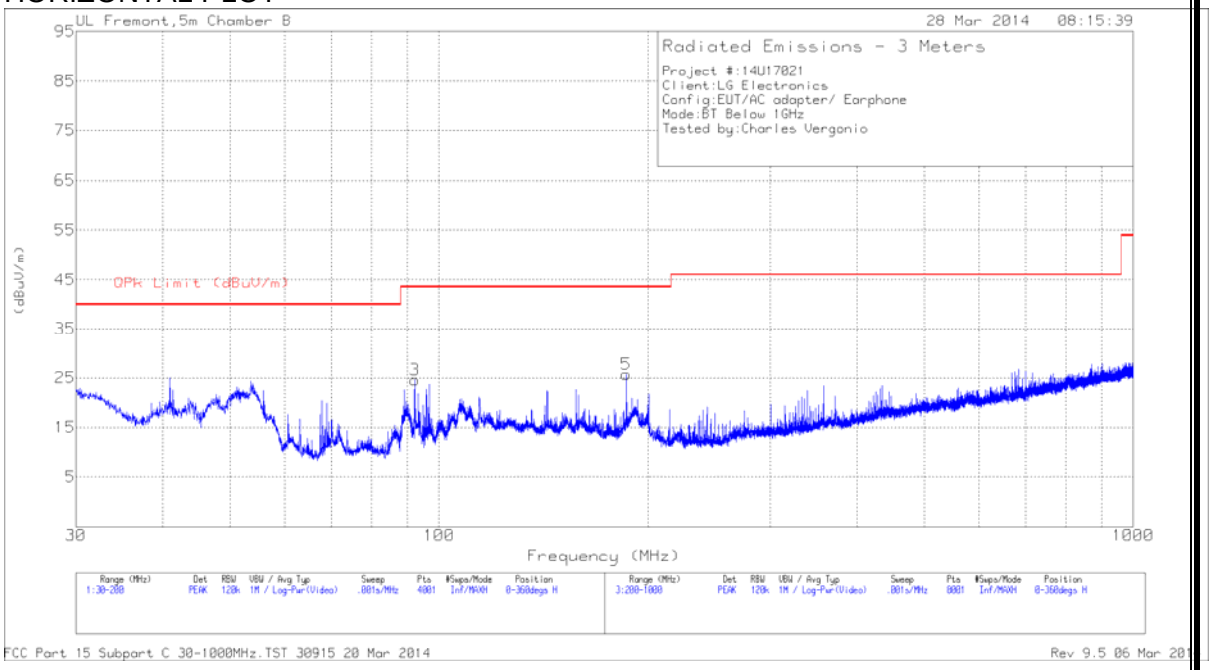
8.3. WORST-CASE BELOW 1 GHz

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

HORIZONTAL PLOT



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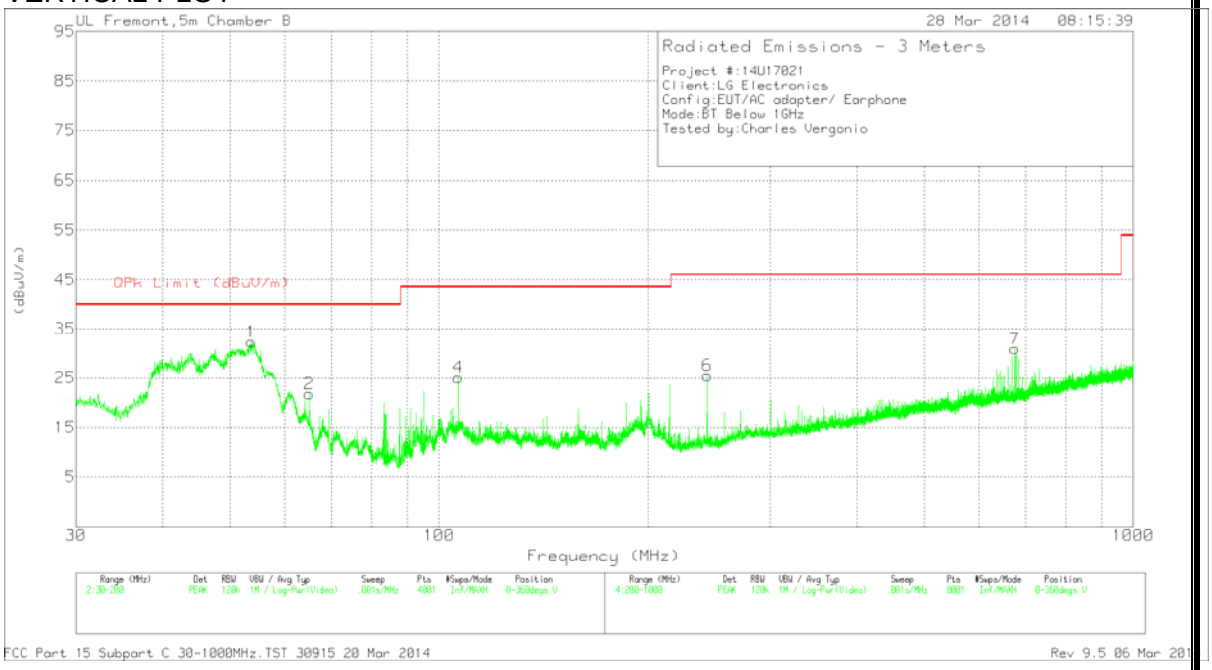
VERTICAL PLOT



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DATA

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	AF T477 (dB/m)	Amp/Cbl (dB)	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
6	* 243.4	40.47	PK	11.5	-26.5	25.47	46.02	-20.55	0-360	300	V
1	53.715	53.78	PK	7.1	-28.6	32.28	40	-7.72	0-360	101	V
2	65.0625	42.55	PK	7.8	-28.5	21.85	40	-18.15	0-360	101	V
3	92.2625	44.53	PK	8.2	-28.1	24.63	43.52	-18.89	0-360	300	H
4	106.585	41.15	PK	12	-28	25.15	43.52	-18.37	0-360	101	V
5	186.145	41.52	PK	11.3	-27.1	25.72	43.52	-17.8	0-360	101	H
7	676	36.72	PK	19.2	-25	30.92	46.02	-15.1	0-360	101	V

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

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