



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

CERTIFICATION TEST REPORT

FOR

SMART WATCH with 2.4 DTS b/g/n + BT and BLE

MODEL NUMBER: LG-W110, W110, LGW110

FCC ID: ZNFW110

IC: 2703C-W110

REPORT NUMBER: 14U18426-E2

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Prepared for

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

Prepared by

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



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1. ATTESTATION OF TEST RESULTS

COMPANY NAME: LG ELECTRONICS MOBILECOMM U.S.A., INC
EUT DESCRIPTION: SMART WATCH with 2.4 DTS b/g/n + BT and BLE
MODEL: LG-W110, W110, LGW110
SERIAL NUMBER: 1B5WK (Conducted)
DATE TESTED: JULY 29-30, 2014

APPLICABLE STANDARDS	
STANDARD	TEST RESULTS
CFR 47 Part 15 Subpart C	Pass
INDUSTRY CANADA RSS-210 Issue 8 Annex 8	Pass
INDUSTRY CANADA RSS-GEN Issue 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 Verification Services Inc. based on interpretations and/or observations of test results. Measurement Uncertainties were not taken into account and are published for informational purposes only. The test results show that the equipment tested is capable of demonstrating compliance with the requirements as documented in this report.

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

Approved & Released
For UL Verification Services Inc. By:

Tested By:



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

STEVEN TRAN
CONSUMER TECHNOLOGY DIVISION
LAB ENGINEER

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

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

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 SMART WATCH with 2.4 DTS + BT and BLE.

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	18	63.10
2412 - 2462	802.11g	15	31.62
2412 - 2462	802.11n HT20	13.8	23.99

5.3. DESCRIPTION OF AVAILABLE ANTENNAS

The radio utilizes a metal antenna, with a maximum gain of -1.9 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, and 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

5.5. DESCRIPTION OF TEST SETUP

SUPPORT EQUIPMENT

Support Equipment List				
Description	Manufacturer	Model	Serial Number	FCC ID
AC Adapter	LG	MCS-02WR	DB390078751	N/A
Cradle	LG	SDT-330	N/A	N/A

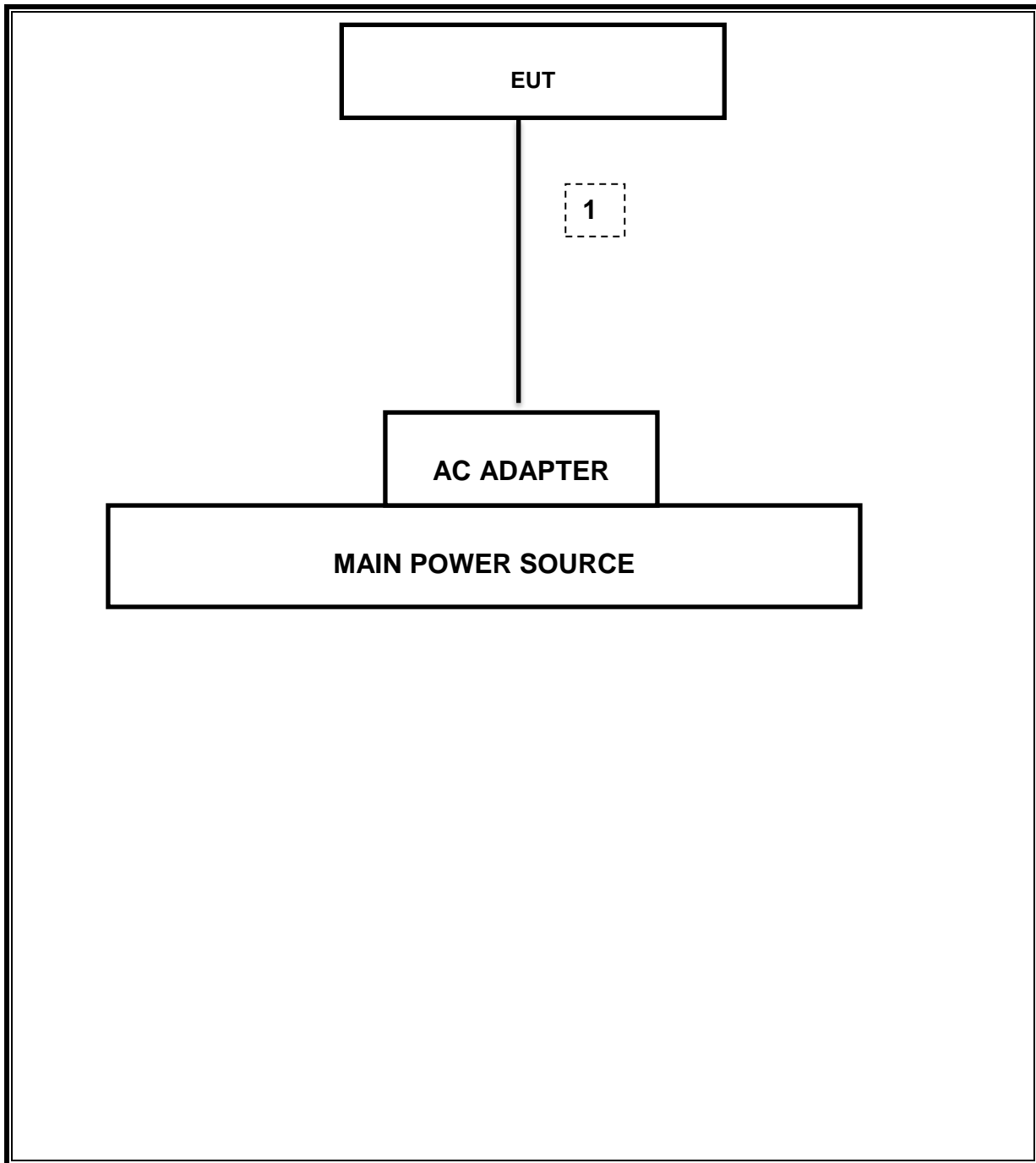
I/O CABLES

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 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	06/28/15
Antenna, Bilog, 30MHz-1 GHz	Sunol Sciences	JB1	T243	03/06/15
RF Preamplifier, 100KHz -> 1300MHz	HP	TBD	C00825	06/01/15
RF Preamplifier, 1GHz - 18GHz	Miteq	NSP4000-SP2	924343	03/23/15
RF Preamplifier, 1GHz - 26.5GHz	HP	8449B	F00351	06/27/15
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 v03r02: Measurement Procedure AVGPM-G is used for power and AVGPS-3 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	9.03MHz
2.1051, 15.247 (d)	RSS-210 A8.5	Band Edge / Conducted Spurious Emission	-20dBc		Pass	-29.43dBm
15.247	RSS-210 A8.4	TX conducted output power	<30dBm		Pass	18.0dBm
15.247	RSS-210 A8.2	PSD	<8dBm		Pass	-11.59dBm
15.207 (a)	RSS-GEN 7.2.2	AC Power Line conducted emissions	Section 10	Radiated	Pass	27.81dBuV(AV)
15.205, 15.209	RSS-210 Clause 2.6, RSS-210 Clause 6	Radiated Spurious Emission	< 54dBuV/m		Pass	45.57dBuV/m

9. ANTENNA PORT TEST RESULTS

9.1. 6 dB BANDWIDTH

LIMITS

FCC §15.247 (a) (2)

IC RSS-210 A8.2 (a)

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

TEST PROCEDURE

Reference to KDB 558074 D01 DTS Meas Guidance v03r02: The transmitter output is connected to a spectrum analyzer with the RBW set to 100KHz, the VBW $\geq 3 \times$ RBW, peak detector and max hold.

RESULTS

9.1.1. 802.11b MODE IN THE 2.4 GHz BAND

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Minimum Limit (MHz)
Low	2412	10.05	0.5
Mid	2437	9.08	0.5
High	2462	9.03	0.5
Worst		9.03	

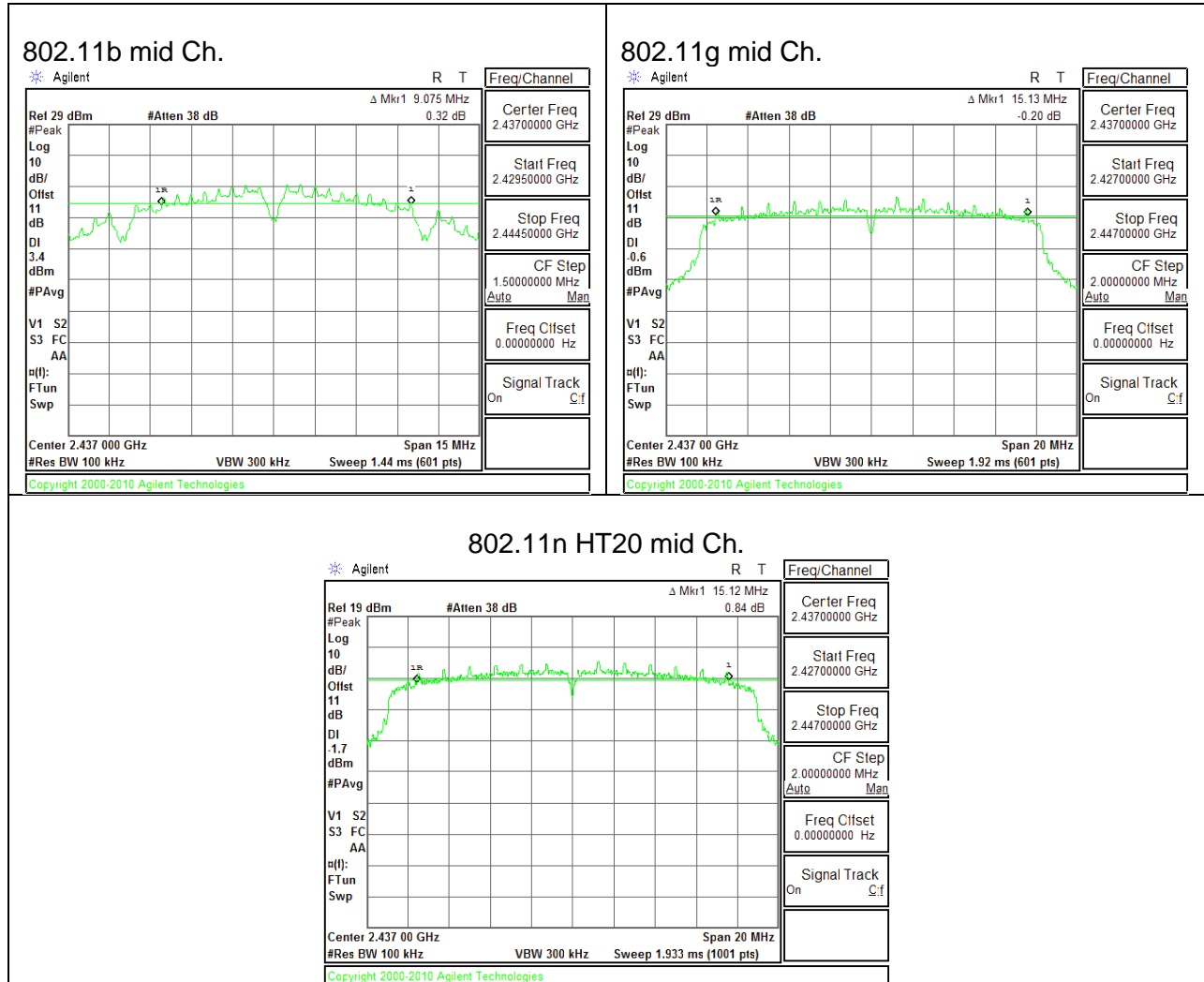
9.1.2. 802.11g MODE IN THE 2.4 GHz BAND

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Minimum Limit (MHz)
Low	2412	15.13	0.5
Mid	2437	15.13	0.5
High	2462	15.13	0.5
Worst		15.13	

9.1.3. 802.11n HT20 MODE IN THE 2.4 GHz BAND

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Minimum Limit (MHz)
Low	2412	15.12	0.5
Mid	2437	15.12	0.5
High	2462	15.12	0.5
Worst		15.12	

9.1.4. 6 dB BANDWIDTH MID CH PLOTS



9.2. 99% BANDWIDTH

LIMITS

None; for reporting purposes only.

RESULTS

9.2.1. 802.11b MODE IN THE 2.4 GHz BAND

Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	2412	14.06
Mid	2437	14.01
High	2462	14.02
Worst		14.06

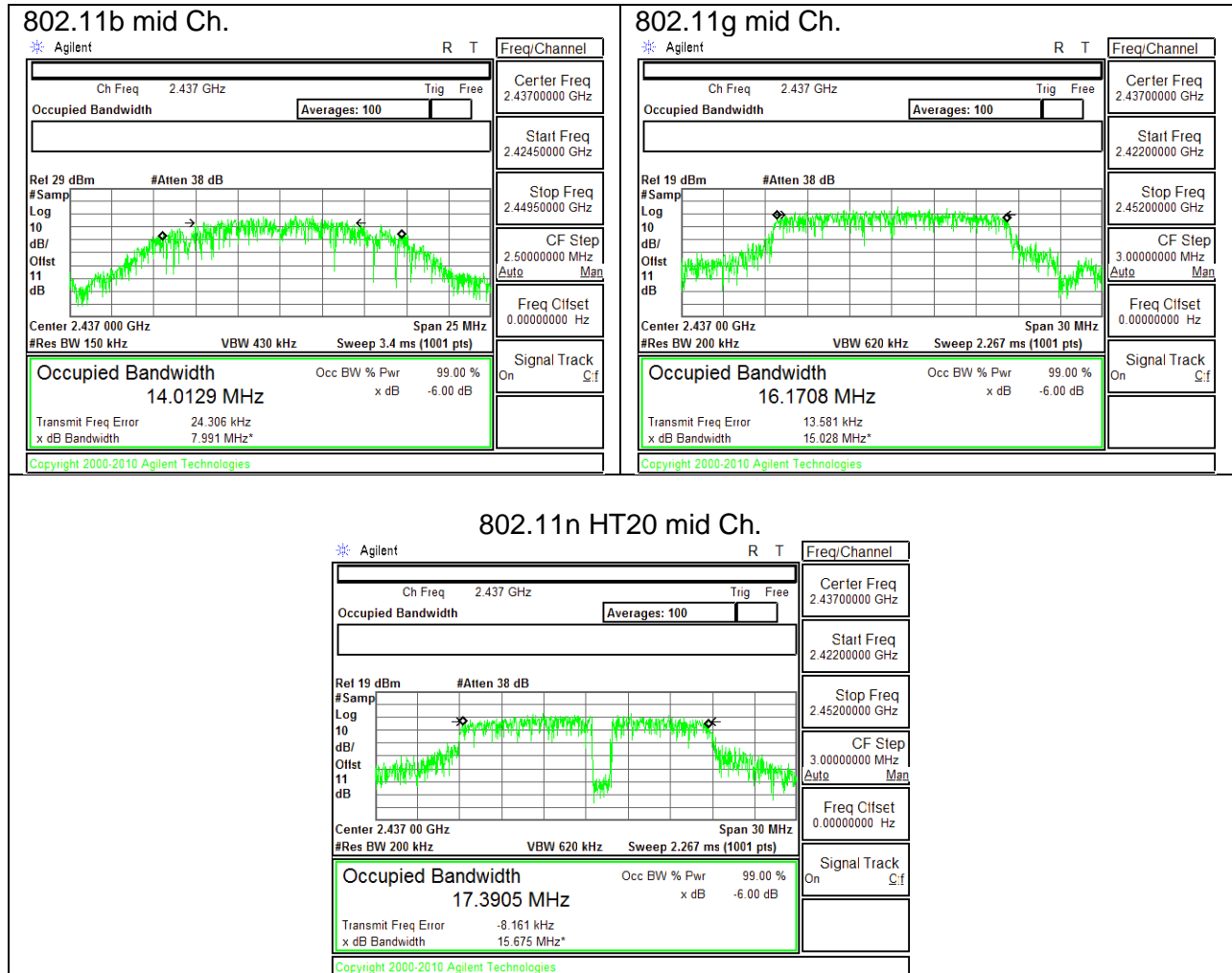
9.2.2. 802.11g MODE IN THE 2.4 GHz BAND

Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	2412	16.24
Mid	2437	16.17
High	2462	16.21
Worst		16.24

9.2.3. 802.11n HT20 MODE IN THE 2.4 GHz BAND

Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	2412	17.35
Mid	2437	17.39
High	2462	17.35
Worst		17.39

9.2.4. 99% BANDWIDTH MID CH PLOTS



9.3. OUTPUT POWER

LIMITS

FCC §15.247

IC RSS-210 A8.4

For systems using digital modulation in the 902–928 MHz, 2400–2483.5 MHz, and 5725–5850 MHz bands: 1 Watt, based on the use of antennas with directional gains that do not exceed 6 dBi. If transmitting antennas of directional gain greater than 6 dBi are used, the conducted output power from the intentional radiator shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

DIRECTIONAL ANTENNA GAIN

There is only one transmitter output therefore the directional gain is equal to the antenna gain.

TEST PROCEDURE

KDB 558074 D01 DTS Meas Guidance v03r02: Measurement Procedure AVGPM-G is used for power.

RESULTS

9.3.1. 802.11b MODE IN THE 2.4 GHz BAND

Limits

Channel	Frequency (MHz)	Directional Gain (dBi)	FCC Power Limit (dBm)	IC Power Limit (dBm)	IC EIRP Limit (dBm)	Max Power (dBm)
Low	2412	-1.90	30.00	30	36	30.00
Mid	2437	-1.90	30.00	30	36	30.00
High	2462	-1.90	30.00	30	36	30.00

Results

Channel	Frequency (MHz)	Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Margin (dB)
Low	2412	18.0	18.00	30.00	-12.00
Mid	2437	16.4	16.40	30.00	-13.60
High	2462	17.7	17.70	30.00	-12.30
Worst			18.00		

9.3.2. 802.11g MODE IN THE 2.4 GHz BAND

Limits

Channel	Frequency (MHz)	Directional Gain (dBi)	FCC Power Limit (dBm)	IC Power Limit (dBm)	IC EIRP Limit (dBm)	Max Power (dBm)
Low	2412	-1.90	30.00	30	36	30.00
Mid	2437	-1.90	30.00	30	36	30.00
High	2462	-1.90	30.00	30	36	30.00

Results

Channel	Frequency (MHz)	Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Margin (dB)
Low	2412	14.7	14.70	30.00	-15.30
Mid	2437	16.4	16.40	30.00	-13.60
High	2462	17.7	17.70	30.00	-12.30
Worst			17.70		

9.3.3. 802.11n HT20 MODE IN THE 2.4 GHz BAND

Limits

Channel	Frequency (MHz)	Directional Gain (dBi)	FCC Power Limit (dBm)	IC Power Limit (dBm)	IC EIRP Limit (dBm)	Max Power (dBm)
Low	2412	-1.90	30.00	30	36	30.00
Mid	2437	-1.90	30.00	30	36	30.00
High	2462	-1.90	30.00	30	36	30.00

Results

Channel	Frequency (MHz)	Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Margin (dB)
Low	2412	13.8	13.80	30.00	-16.20
Mid	2437	13.6	13.60	30.00	-16.40
High	2462	13.8	13.80	30.00	-16.20
Worst			13.80		

9.4. PSD

LIMITS

FCC §15.247

IC RSS-210 A8.2

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

RESULTS

9.4.1. 802.11b MODE IN THE 2.4 GHz BAND

PSD Results

Channel	Frequency (MHz)	Meas (dBm)	Limit (dBm)	Margin (dB)
Low	2412	-11.59	8.0	-19.6
Mid	2437	-12.82	8.0	-20.8
High	2462	-12.28	8.0	-20.3

9.4.2. 802.11g MODE IN THE 2.4 GHz BAND

PSD Results

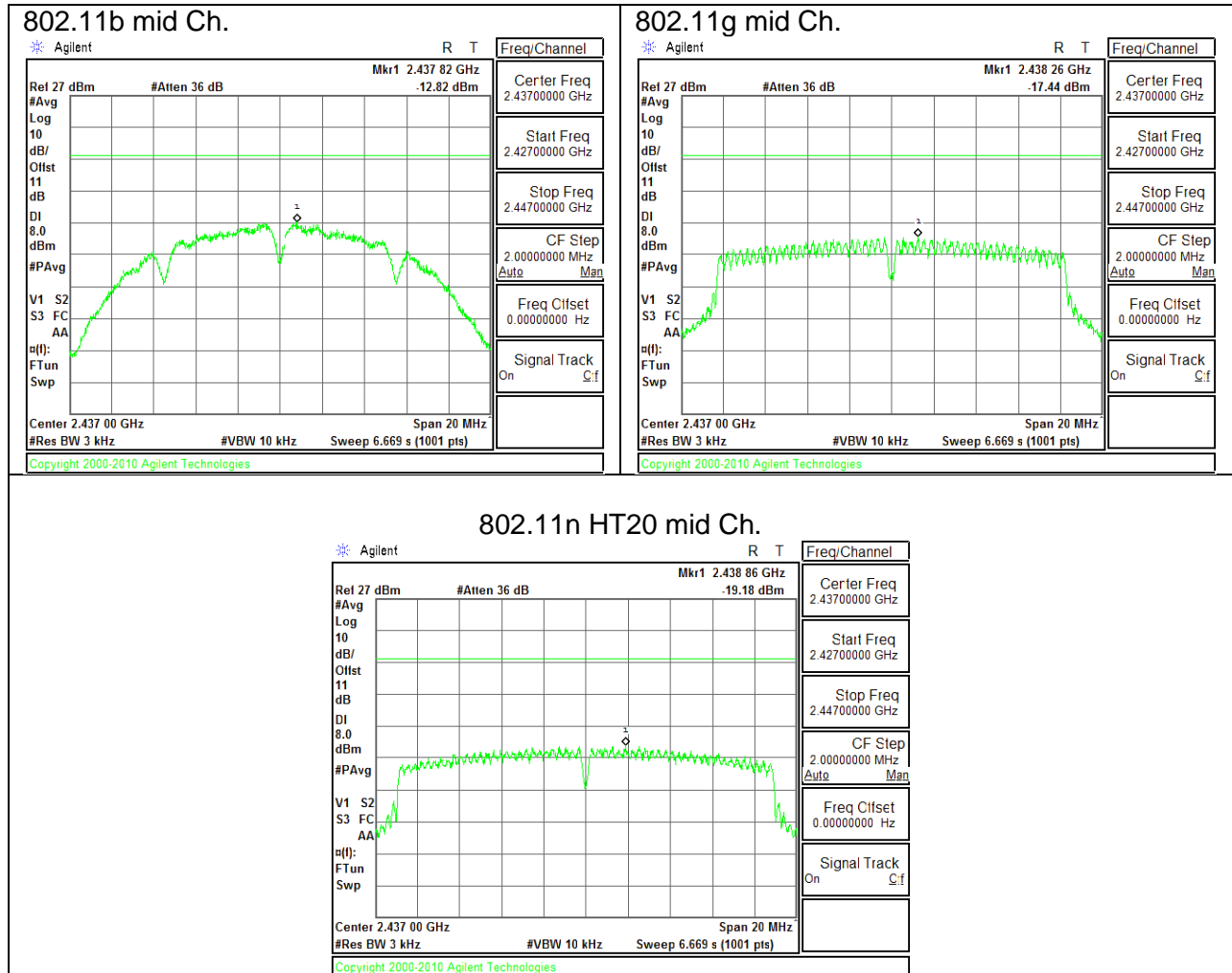
Channel	Frequency (MHz)	Meas (dBm)	Limit (dBm)	Margin (dB)
Low	2412	-17.12	8.0	-25.1
Mid	2437	-17.44	8.0	-25.4
High	2462	-16.62	8.0	-24.6

9.4.3. 802.11n HT20 MODE IN THE 2.4 GHz BAND

PSD Results

Channel	Frequency (MHz)	Meas (dBm)	Limit (dBm)	Margin (dB)
Low	2412	-18.89	8.0	-26.9
Mid	2437	-19.18	8.0	-27.2
High	2462	-18.85	8.0	-26.9

9.4.4. PSD Chain 0 MID CH PLOTS



9.5. OUT-OF-BAND EMISSIONS

LIMITS

FCC §15.247 (d)

IC RSS-210 A8.5

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in §15.209(a) is not required.

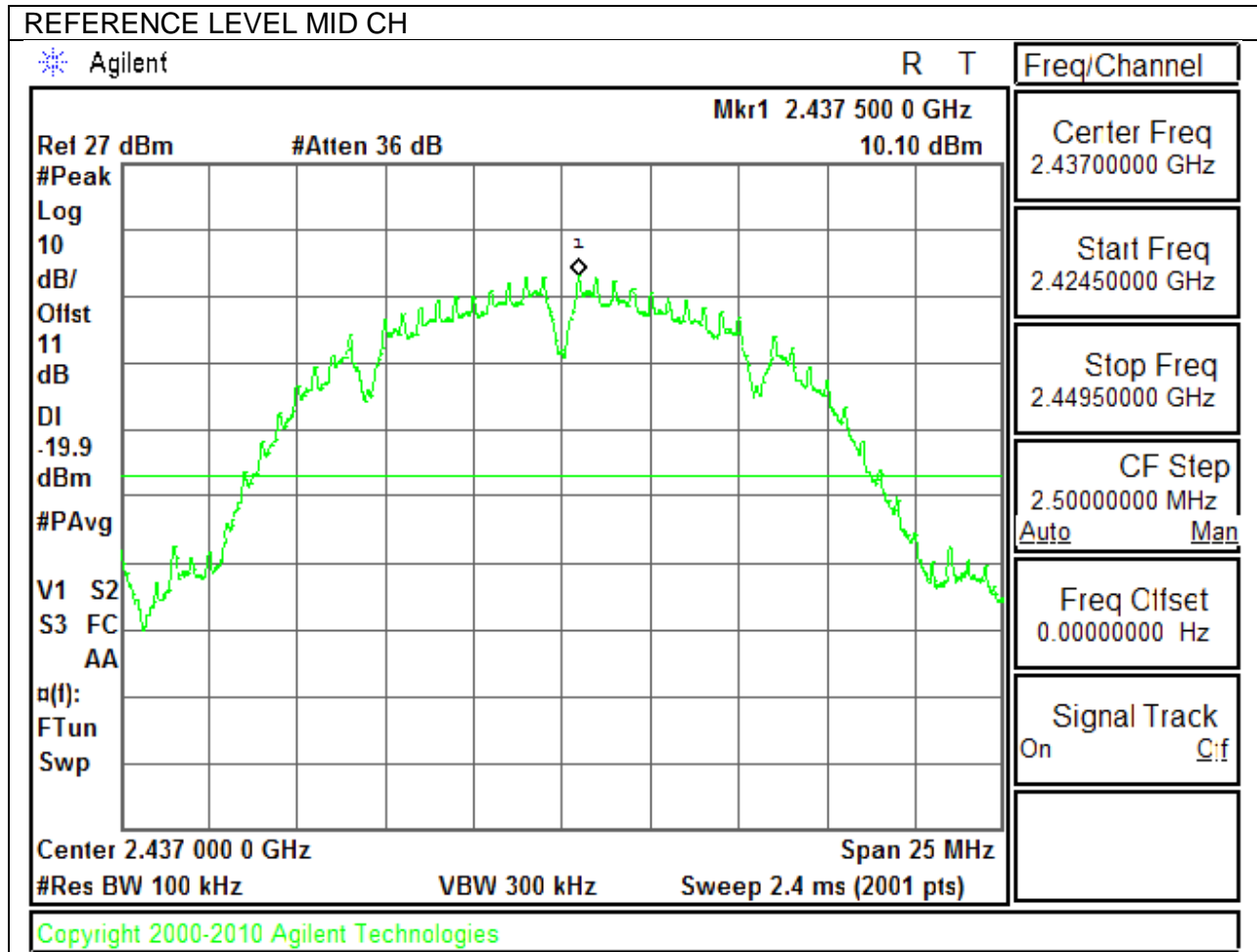
TEST PROCEDURE

The transmitter output is connected to a spectrum analyzer with RBW = 100 kHz, VBW = 300 kHz, peak detector, and max hold. Measurements utilizing these settings are made of the in-band reference level, bandedge (where measurements to the general radiated limits will not be made) and out-of-band emissions.

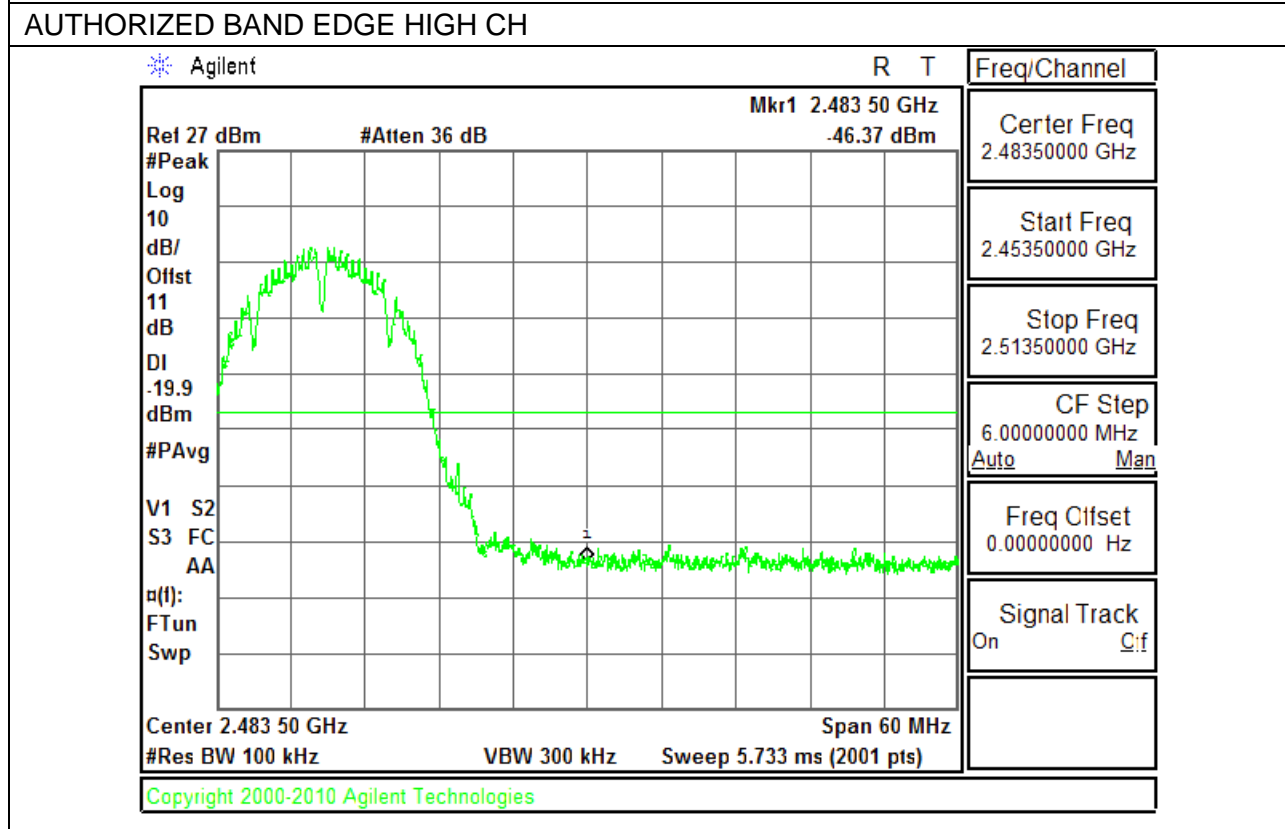
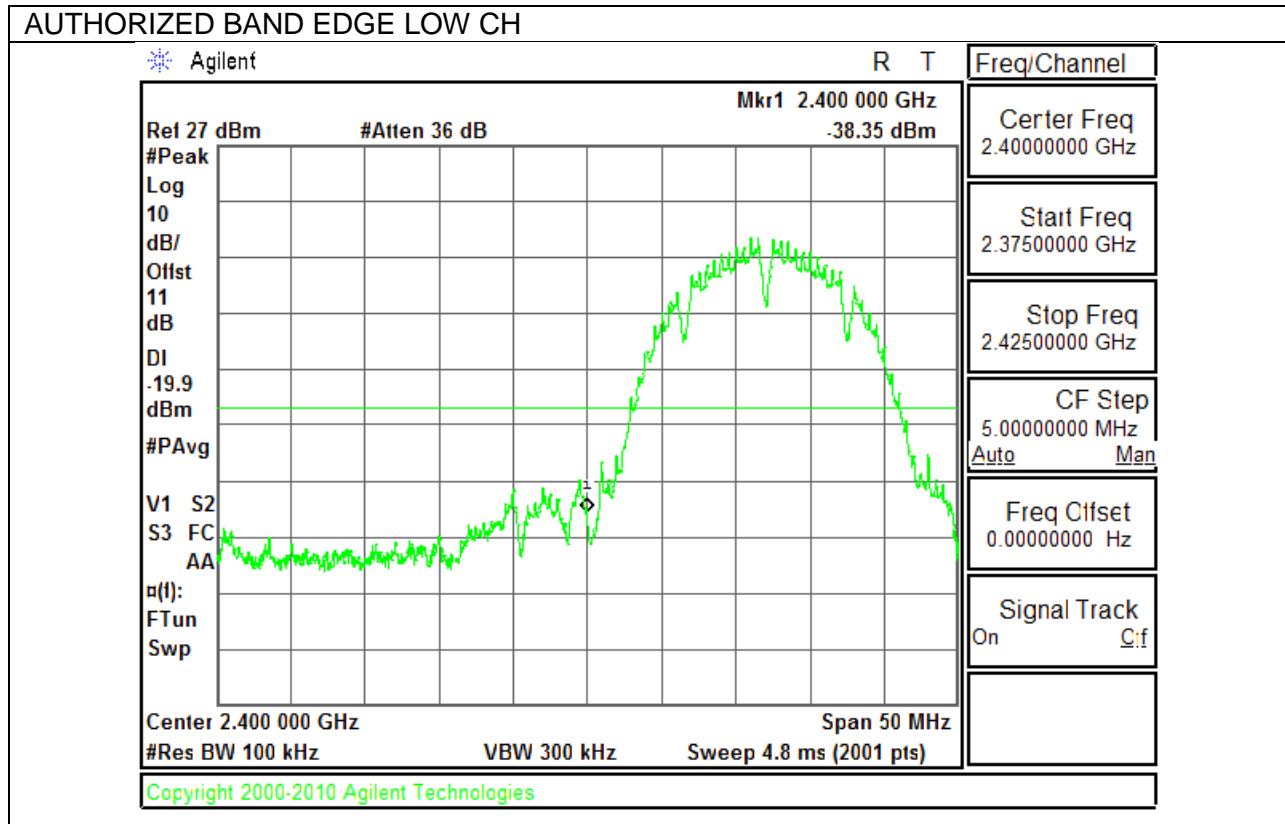
RESULTS

9.5.1. 802.11b MODE IN THE 2.4 GHz BAND

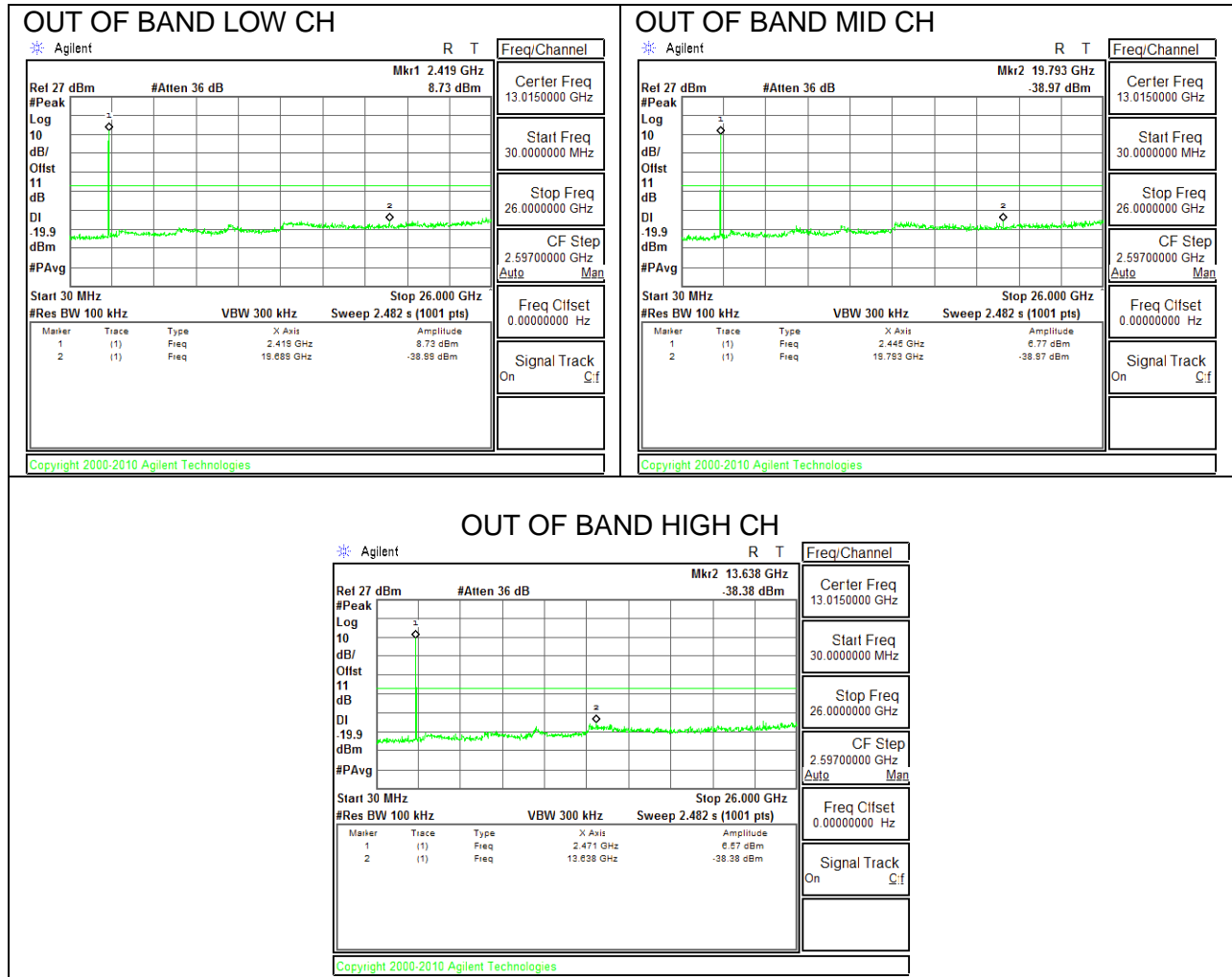
IN-BAND REFERENCE LEVEL



BANDEDGE

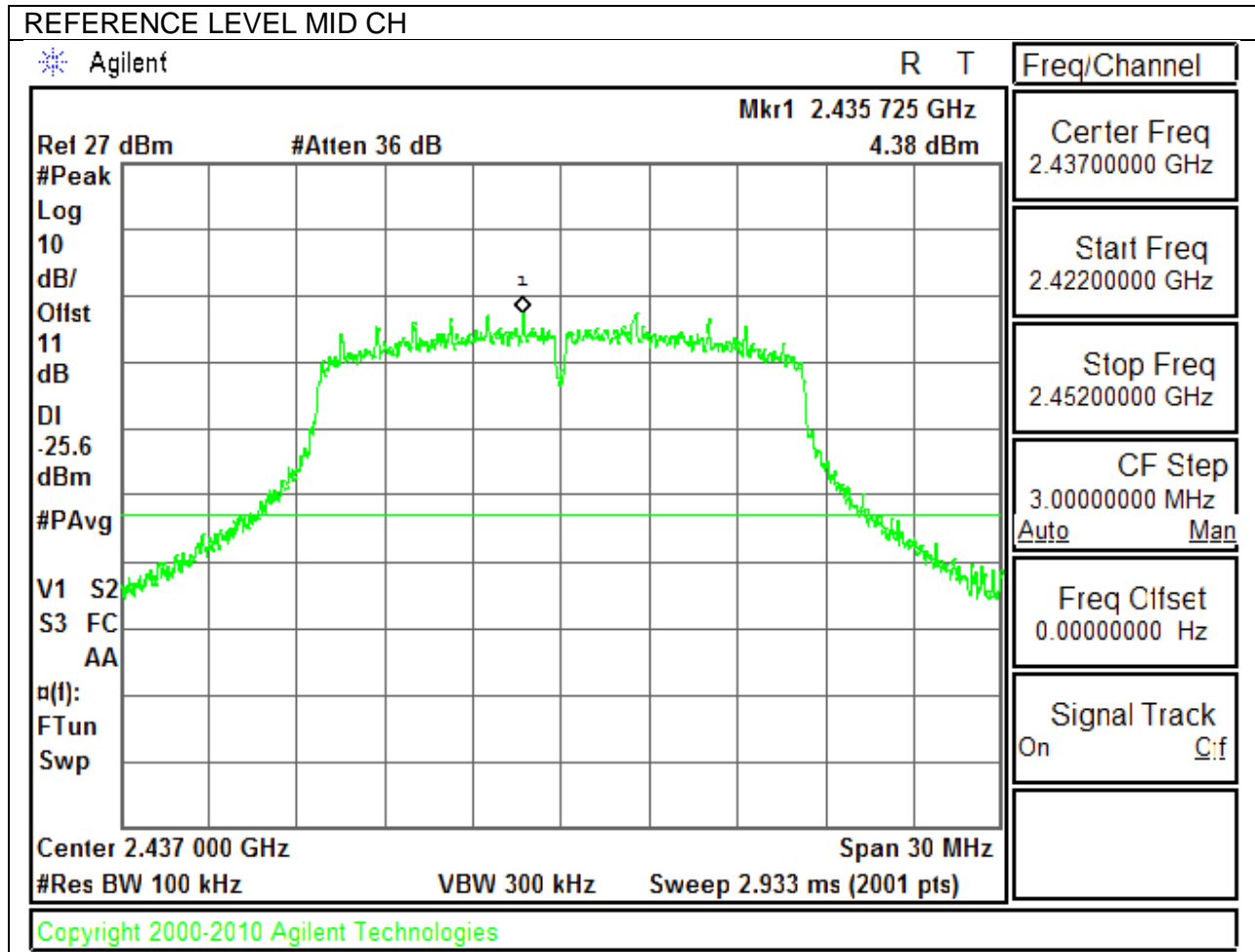


OUT-OF-BAND EMISSIONS

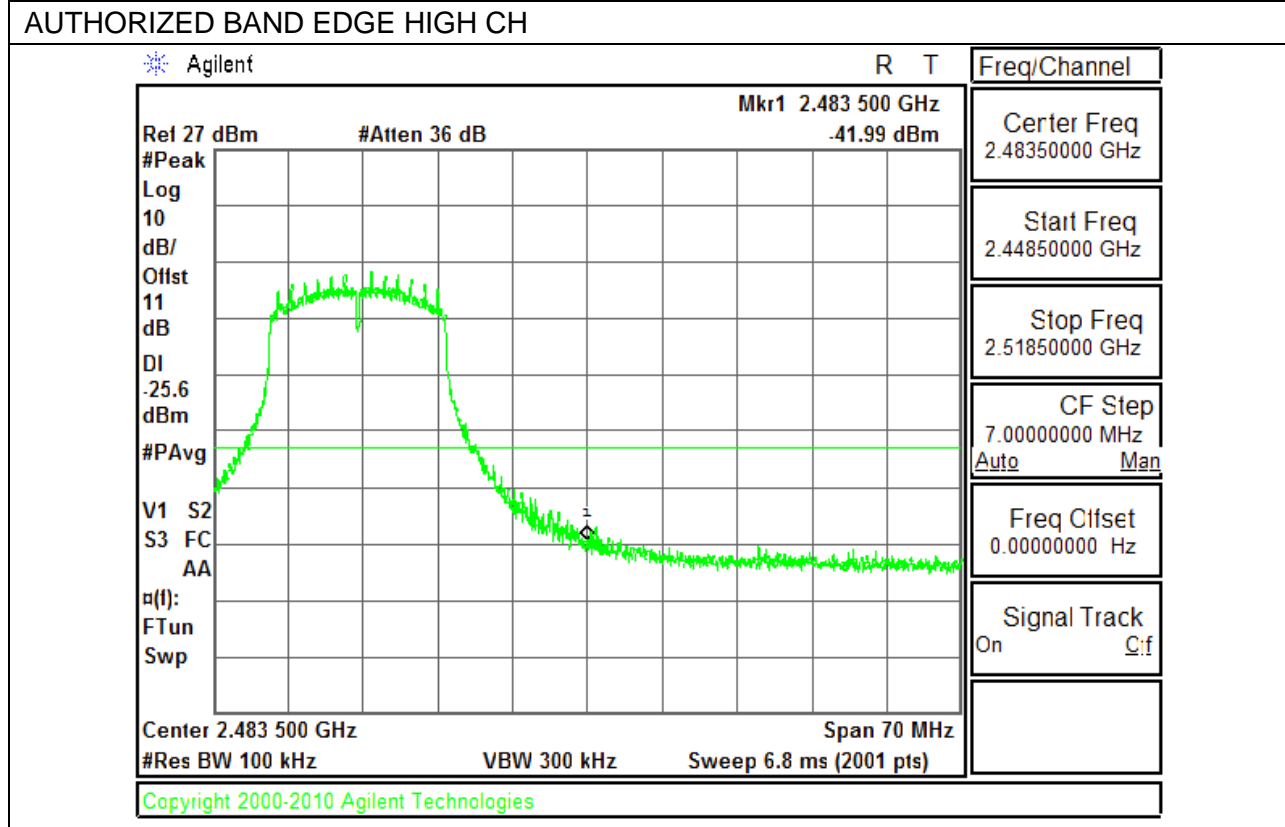
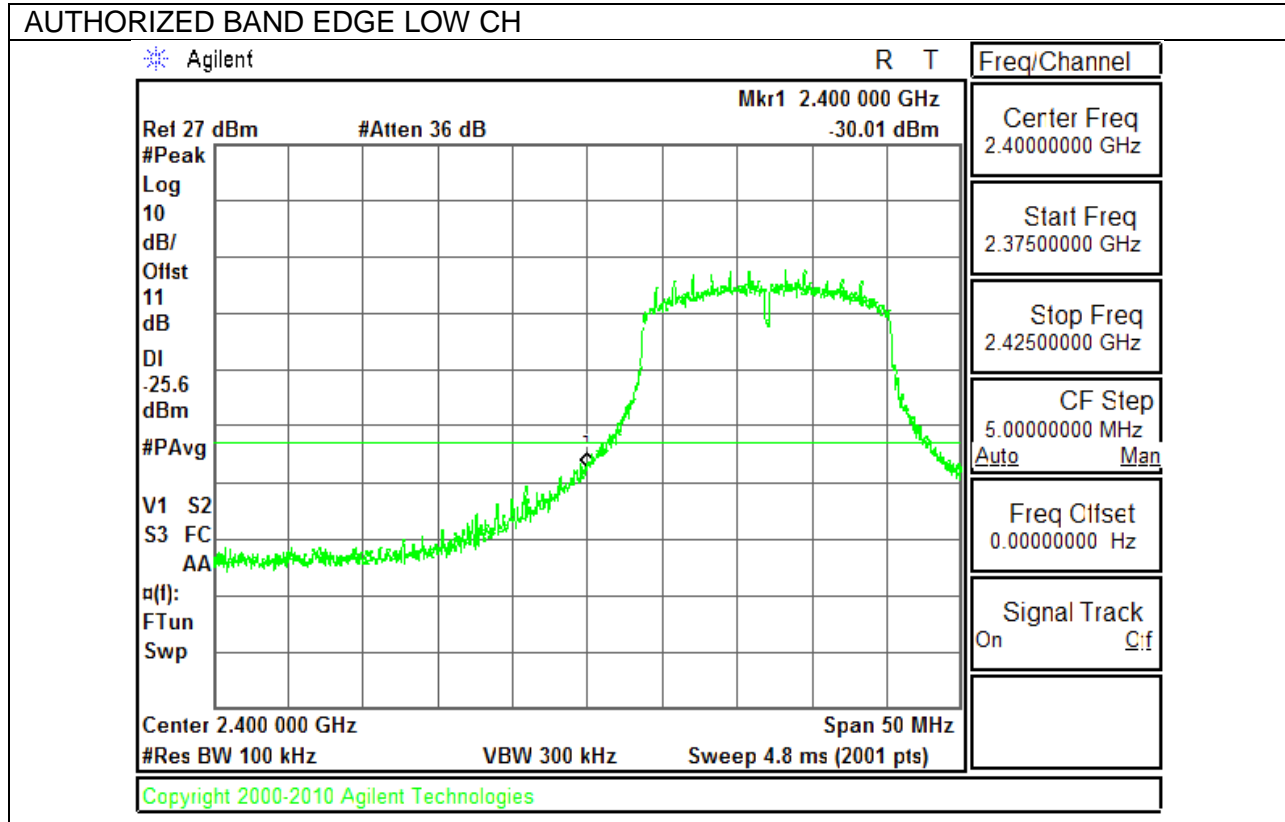


9.5.2. 802.11g MODE IN THE 2.4 GHz BAND

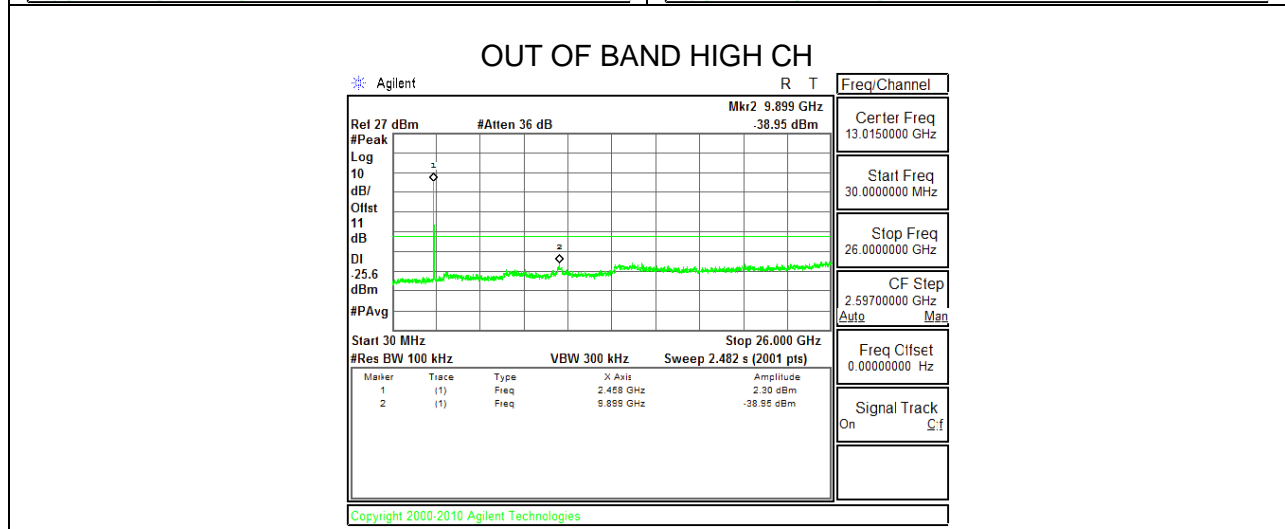
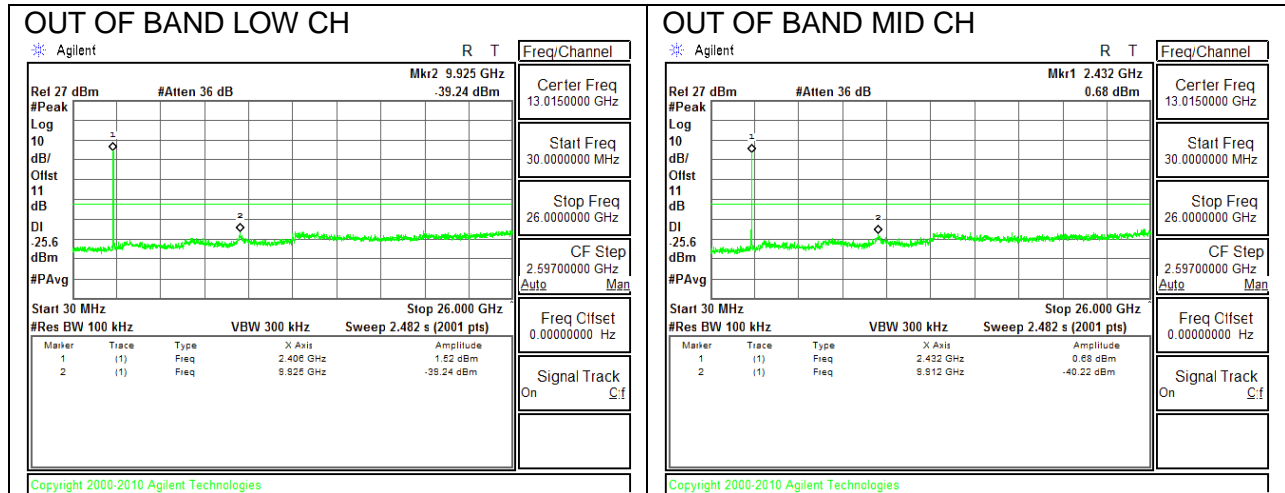
IN-BAND REFERENCE LEVEL



BANDEDGE

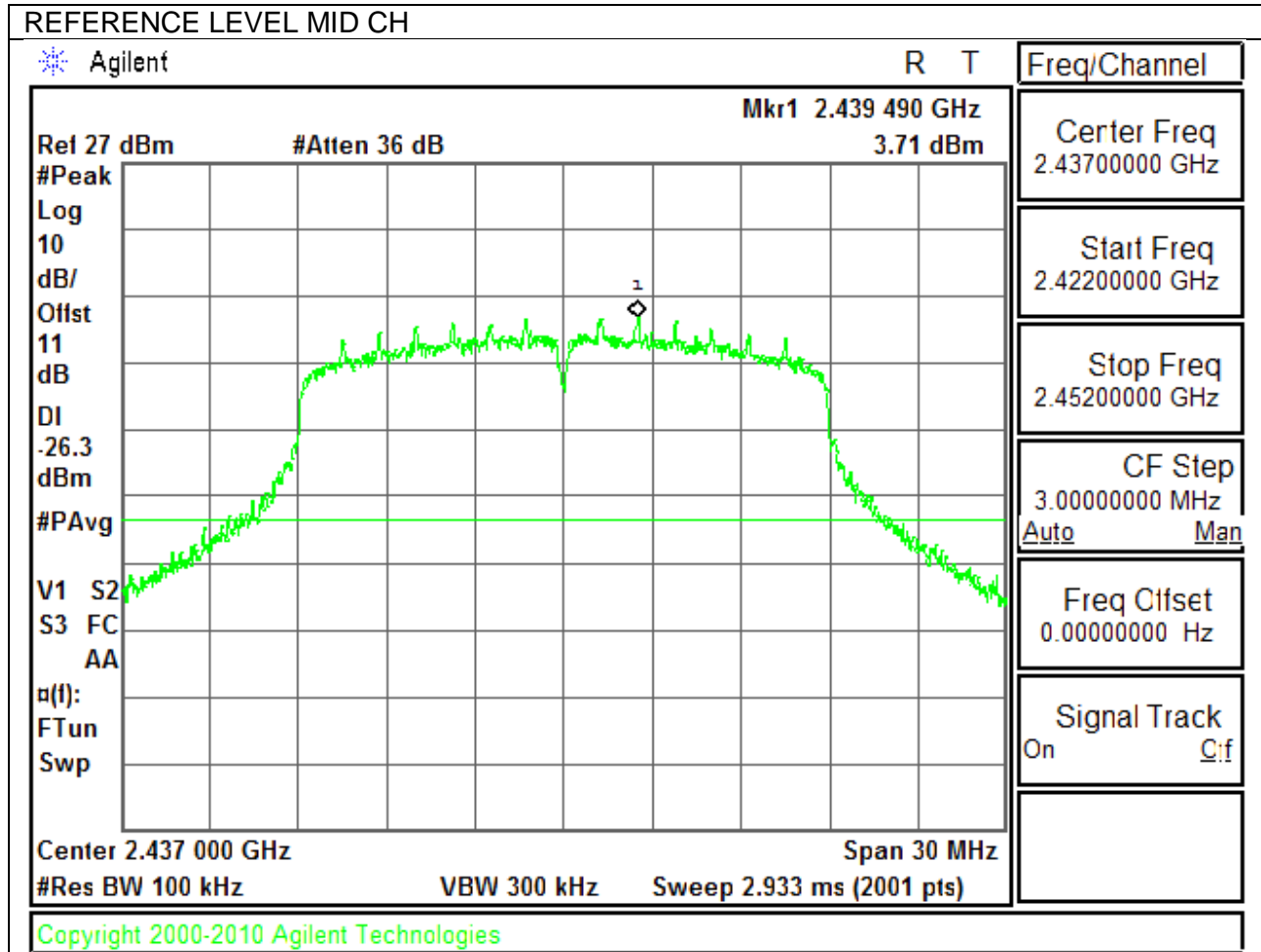


OUT-OF-BAND EMISSIONS

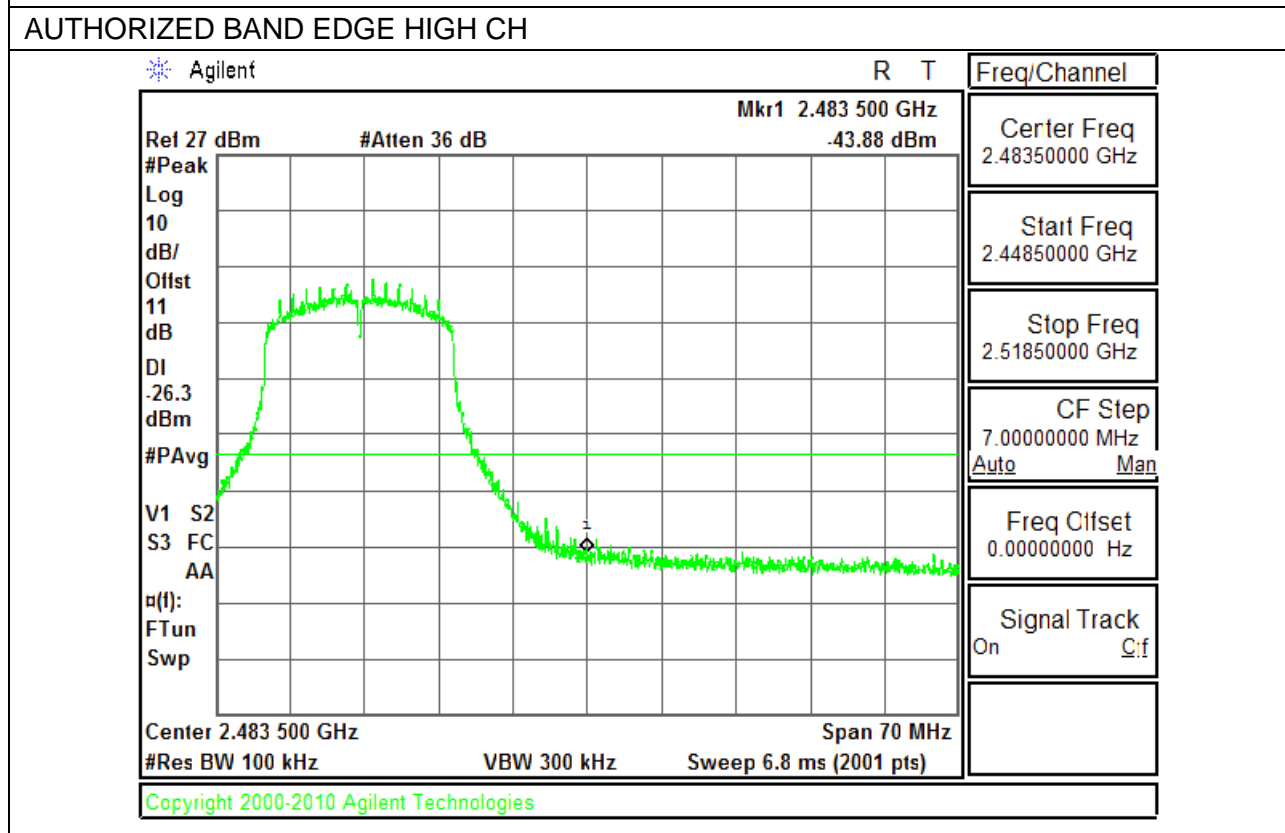
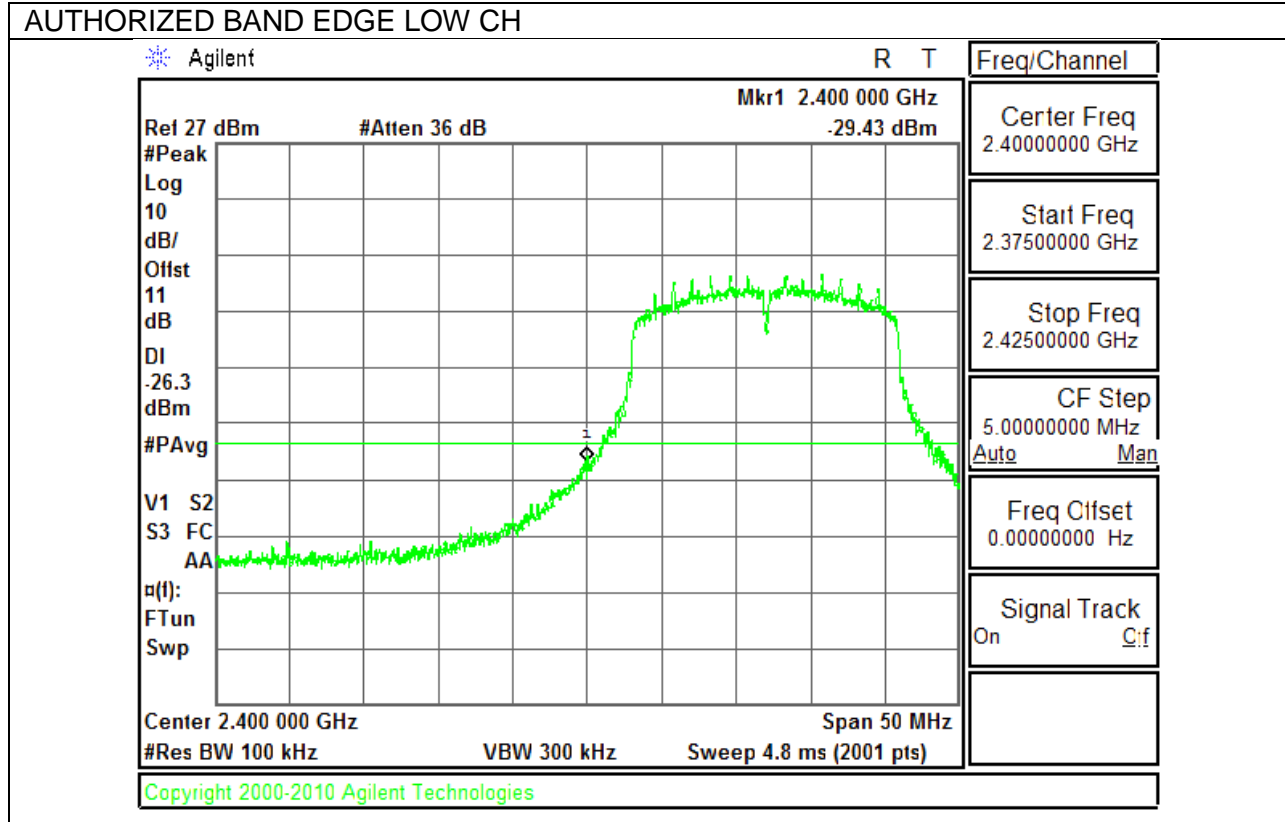


9.5.3. 802.11n HT20 MODE IN THE 2.4 GHz BAND

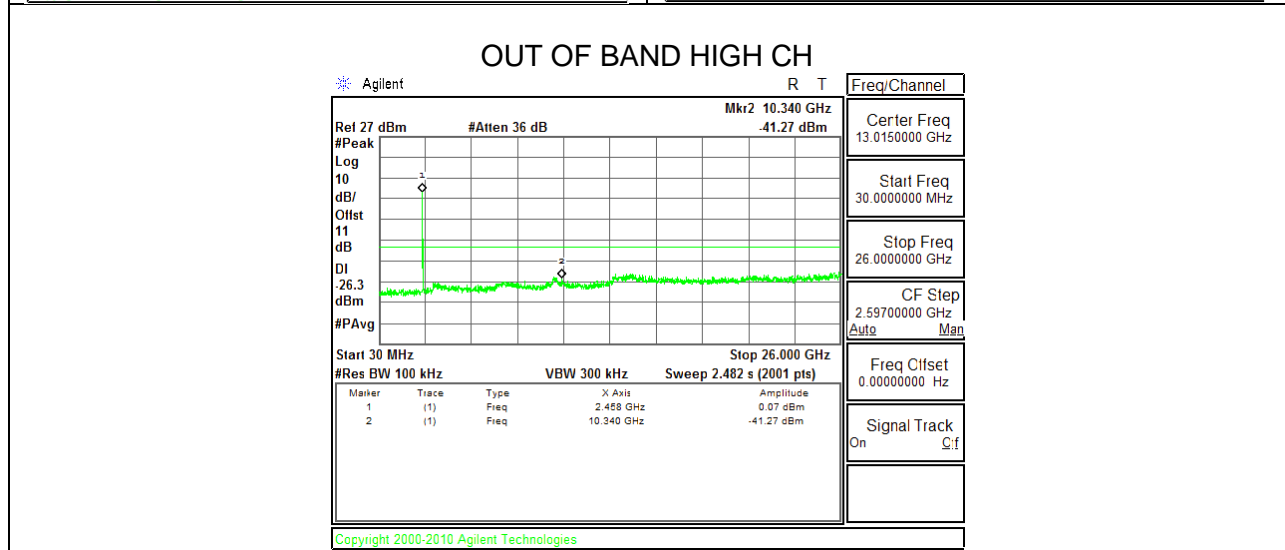
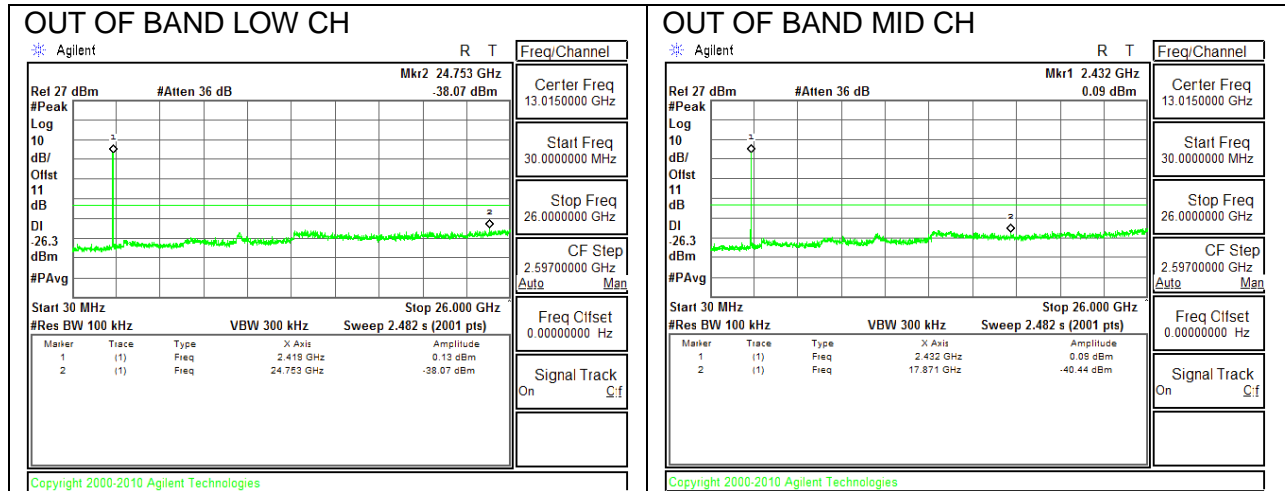
IN-BAND REFERENCE LEVEL



BANDEDGE



OUT-OF-BAND EMISSIONS



10. RADIATED TEST RESULTS

10.1. 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 = 0.21dB; N mode = 0.24dB.

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.

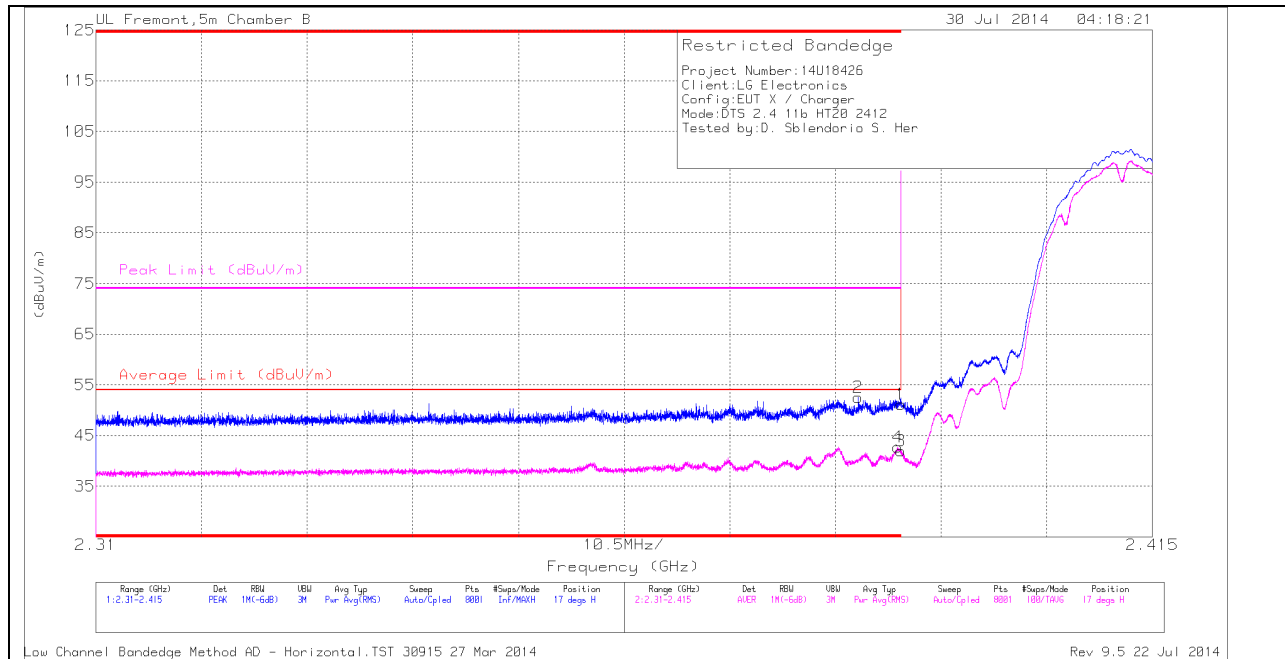
The frequency range of interest is monitored at a fixed antenna height and EUT azimuth. The EUT is rotated through 360 degrees to maximize emissions received. The antenna is scanned from 1 to 4 meters above the ground plane to further maximize the emission. Measurements are made with the antenna polarized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

10.2. TRANSMITTER ABOVE 1 GHz

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

RESTRICTED BANDEDGE (LOW CHANNEL)

HORIZONTAL PEAK AND AVERAGE PLOT



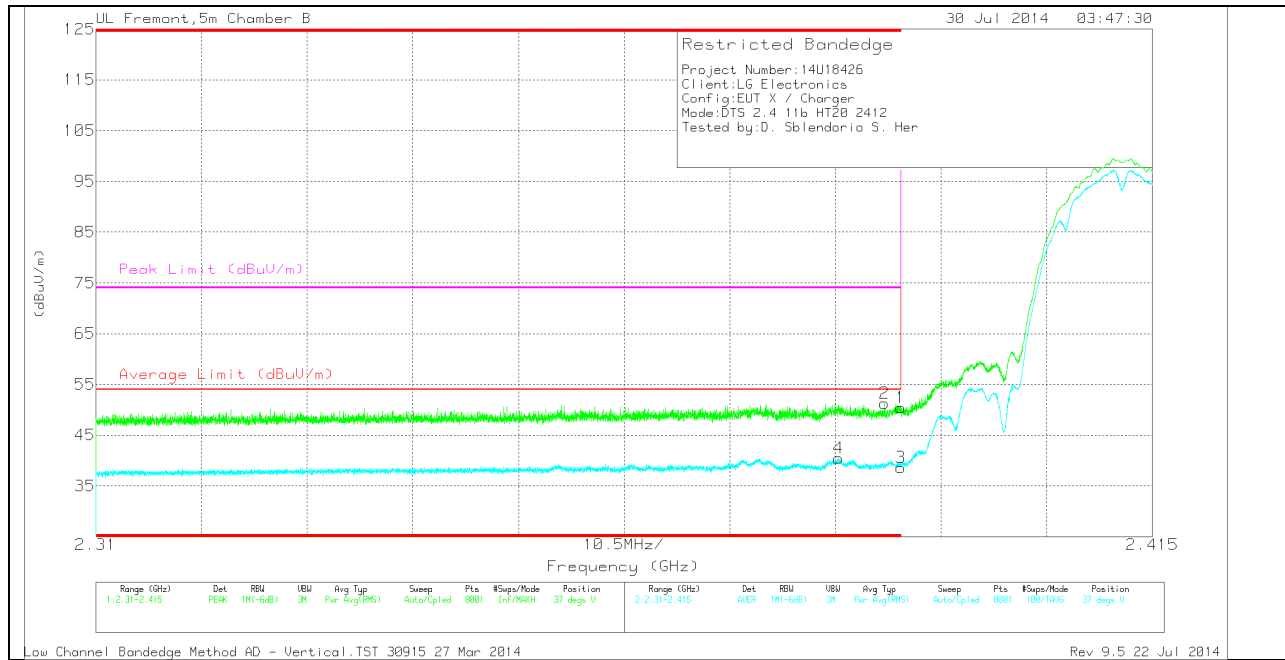
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/Fitr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.39	41.82	PK	32.1	-22.8	51.12	-	-	74	-22.88	17	274	H
2	* 2.386	43.31	PK	32.1	-22.9	52.51	-	-	74	-21.49	17	274	H
3	* 2.39	32.67	RMS	32.1	-22.8	41.97	54	-12.03	-	-	17	274	H
4	* 2.39	33.38	RMS	32.1	-22.8	42.68	54	-11.32	-	-	17	274	H

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

PK - Peak detector

RMS - RMS detection

VERTICAL PEAK AND AVERAGE PLOT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.39	41.12	PK	32.1	-22.8	50.42	-	-	74	-23.58	37	310	V
2	* 2.388	41.96	PK	32.1	-22.8	51.26	-	-	74	-22.74	37	310	V
3	* 2.39	29.37	RMS	32.1	-22.8	38.67	54	-15.33	-	-	37	310	V
4	* 2.384	31.26	RMS	32.1	-22.9	40.46	54	-13.54	-	-	37	310	V

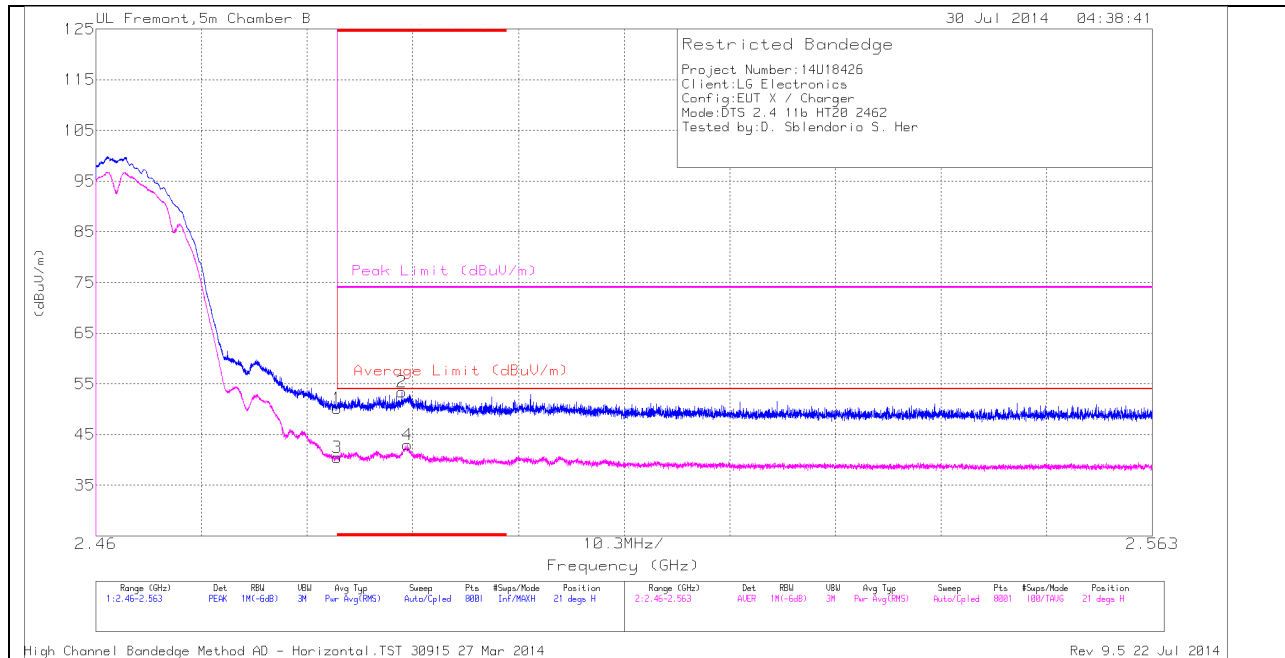
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK - Peak detector

RMS - RMS detection

AUTHORIZED BANDEDGE (HIGH CHANNEL)

HORIZONTAL PEAK AND AVERAGE PLOT



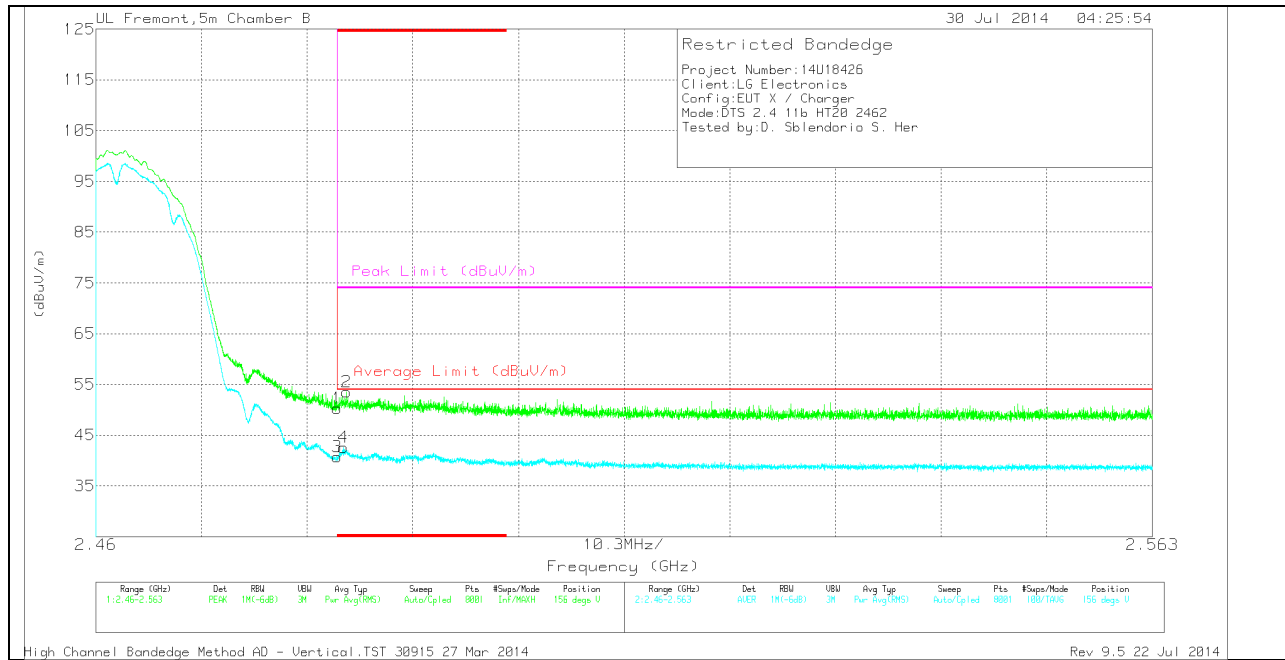
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/Fitr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.484	40.51	PK	32.4	-22.7	50.21	-	-	74	-23.79	21	278	H
2	* 2.49	43.68	PK	32.4	-22.7	53.38	-	-	74	-20.62	21	278	H
3	* 2.484	30.81	RMS	32.4	-22.7	40.51	54	-13.49	-	-	21	278	H
4	* 2.49	33.24	RMS	32.4	-22.7	42.94	54	-11.06	-	-	21	278	H

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

PK - Peak detector

RMS - RMS detection

VERTICAL PEAK AND AVERAGE PLOT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/Fitr/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	40.54	PK	32.4	-22.7	50.24	-	-	74	-23.76	156	327	V
2	* 2.484	43.81	PK	32.4	-22.7	53.51	-	-	74	-20.49	156	327	V
3	* 2.484	31.08	RMS	32.4	-22.7	40.78	54	-13.22	-	-	156	327	V
4	* 2.484	32.89	RMS	32.4	-22.7	42.59	54	-11.41	-	-	156	327	V

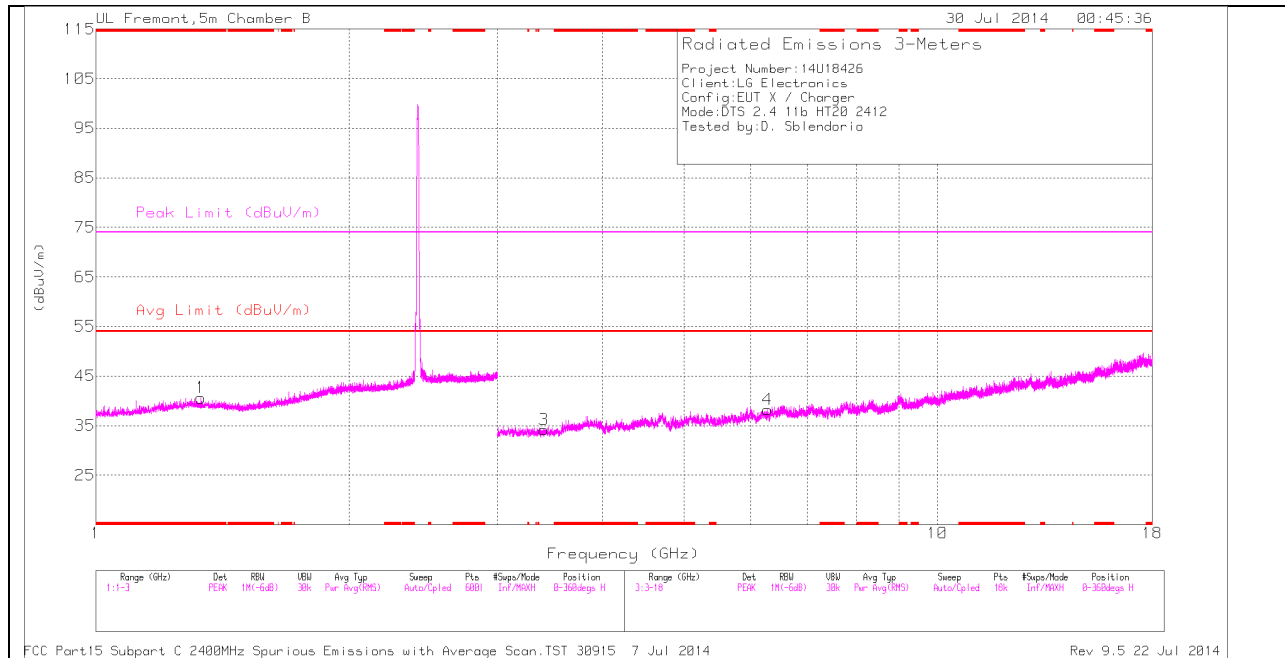
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK - Peak detector

RMS - RMS detection

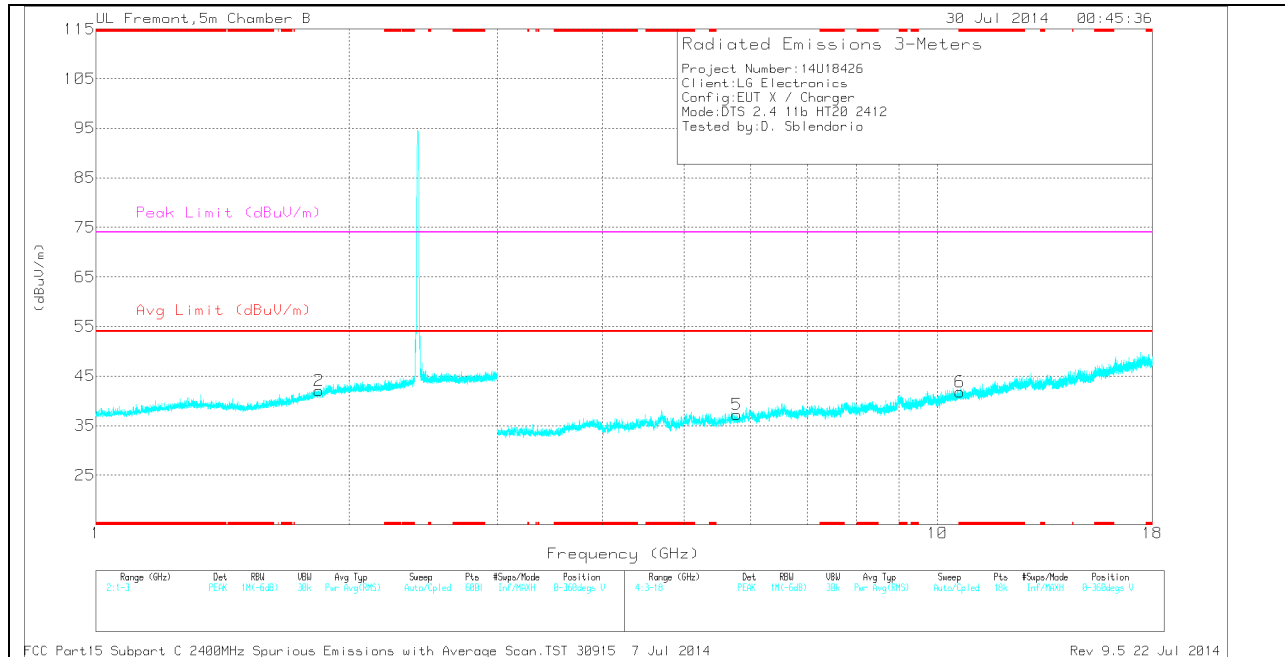
HARMONICS AND SPURIOUS EMISSIONS

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

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/Filtr/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	* 1.333	36.39	PK	28.7	-24.5	40.59	-	-	74	-33.41	0-360	200	H
6	* 10.628	26.45	PK	37.7	-22.4	41.75	-	-	74	-32.25	0-360	101	V
2	1.839	35.23	PK	30.5	-23.7	42.03	-	-	-	-	0-360	101	V
3	3.406	32.68	PK	32.8	-31.3	34.18	-	-	-	-	0-360	199	H
5	5.776	32.42	PK	34.7	-29.9	37.22	-	-	-	-	0-360	199	V
4	6.285	31.25	PK	35.5	-28.5	38.25	-	-	-	-	0-360	199	H

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

PK - Peak detector

Radiated Emissions

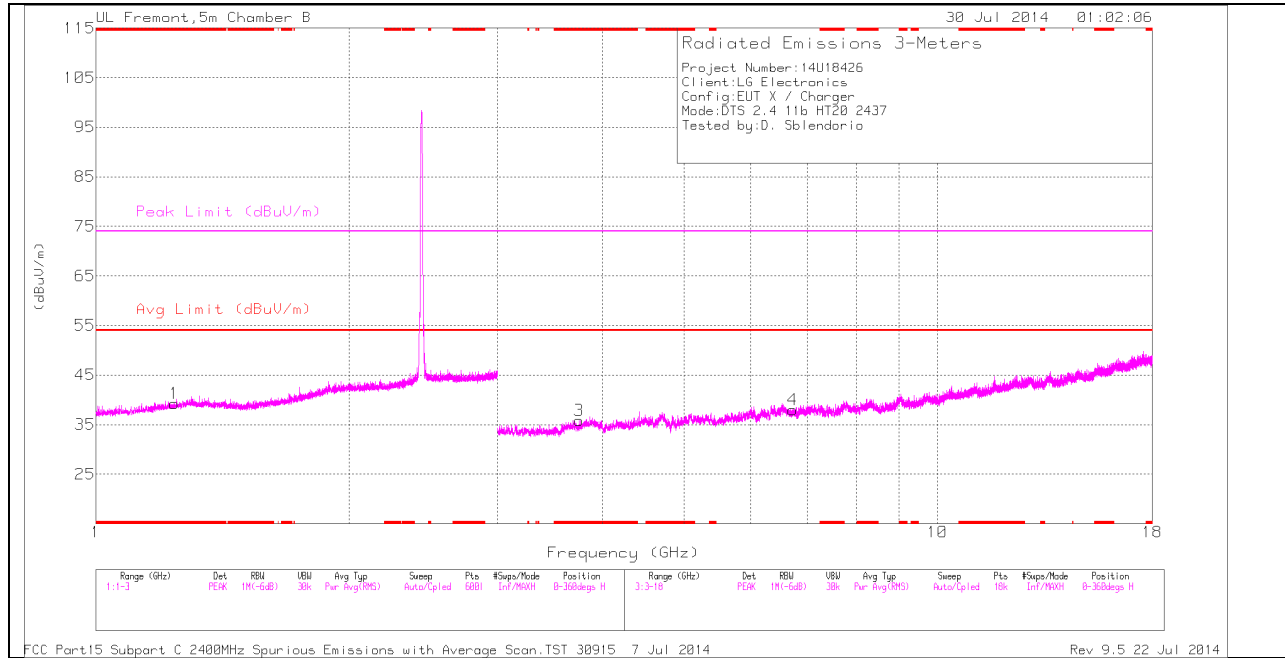
Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 1.334	43.84	PK2	28.7	-24.5	48.04	-	-	74	-25.96	360	200	H
* 1.333	32.2	MAV1	28.7	-24.5	36.4	54	-17.6	-	-	360	200	H

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

PK2 - KDB558074 Method: Maximum Peak

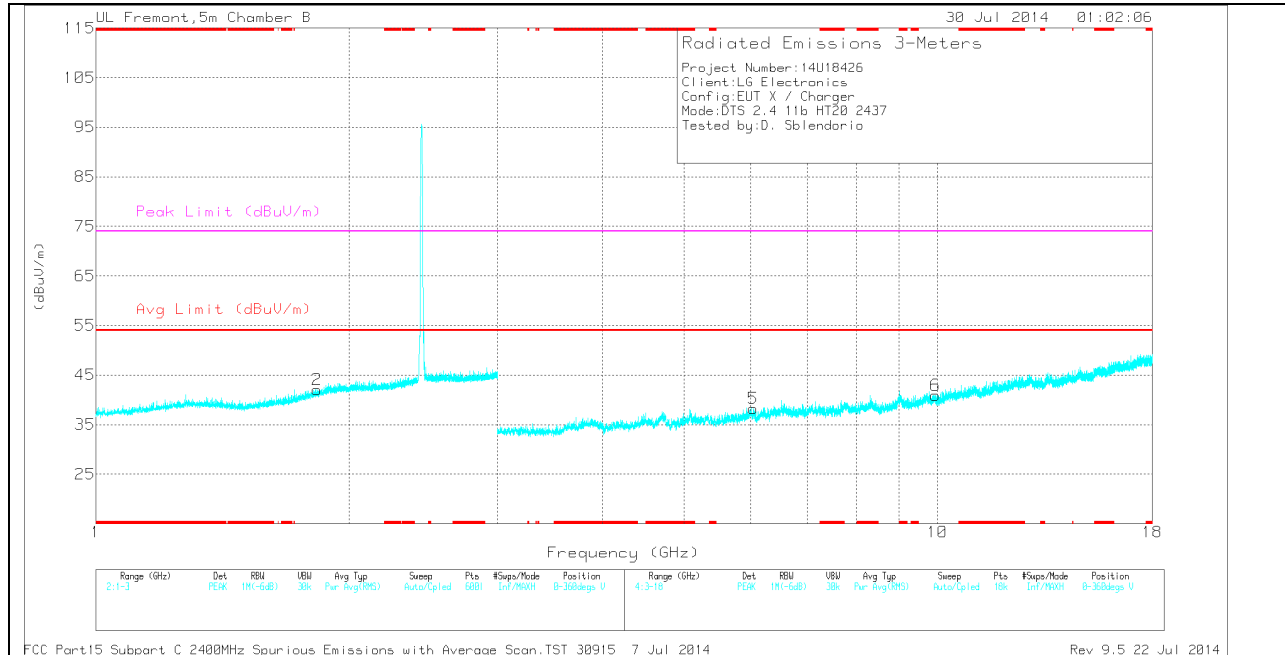
MAV1 - KDB558074 Option 1 Maximum RMS Average

MID CHANNEL HORIZONTAL



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

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

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/F Itr/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	* 1.239	35.38	PK	28.5	-24.6	39.28	-	-	74	-34.72	0-360	101	H
3	* 3.752	33.72	PK	33.5	-31.4	35.82	-	-	74	-38.18	0-360	101	H
2	1.832	35.19	PK	30.5	-23.6	42.09	-	-	-	-	0-360	200	V
5	6.044	32.22	PK	35.3	-29.3	38.22	-	-	-	-	0-360	101	V
4	6.727	31.01	PK	35.7	-28.7	38.01	-	-	-	-	0-360	101	H
6	9.945	27.51	PK	37	-23.6	40.91	-	-	-	-	0-360	199	V

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

PK - Peak detector

Radiated Emissions

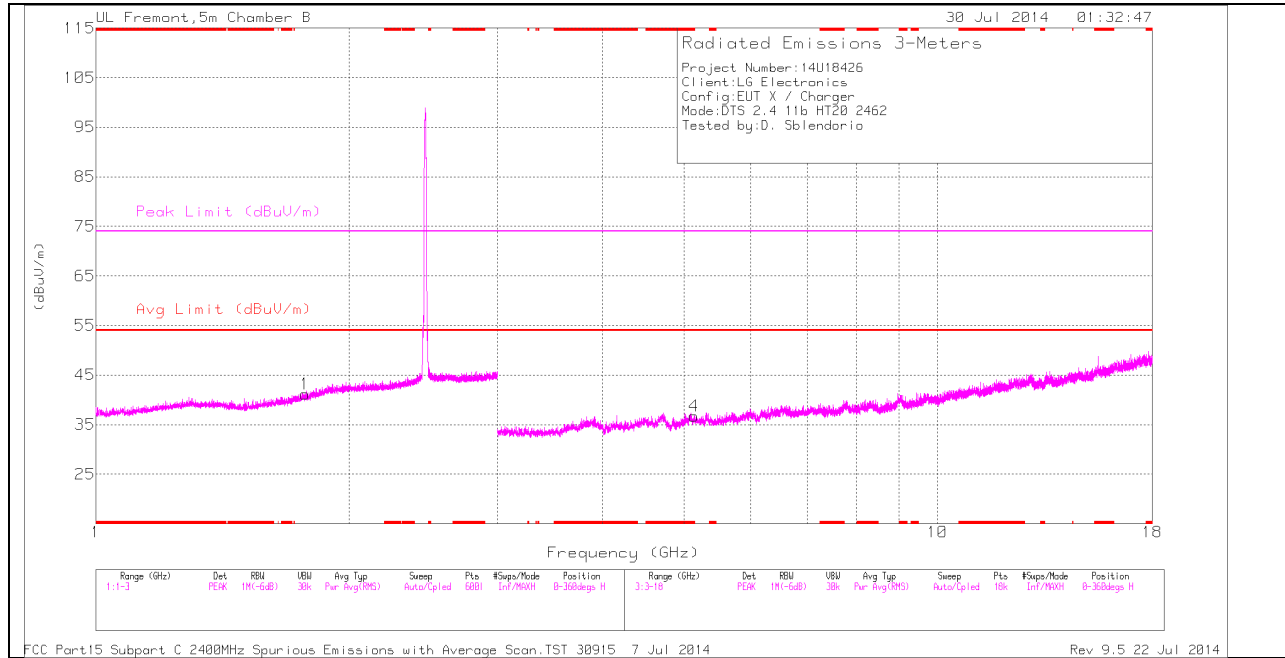
Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/F Itr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 1.238	43.52	PK2	28.4	-24.6	47.32	-	-	74	-26.68	359	101	H
* 1.238	32.16	MAV1	28.4	-24.6	35.96	54	-18.04	-	-	359	101	H

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

PK2 - KDB558074 Method: Maximum Peak

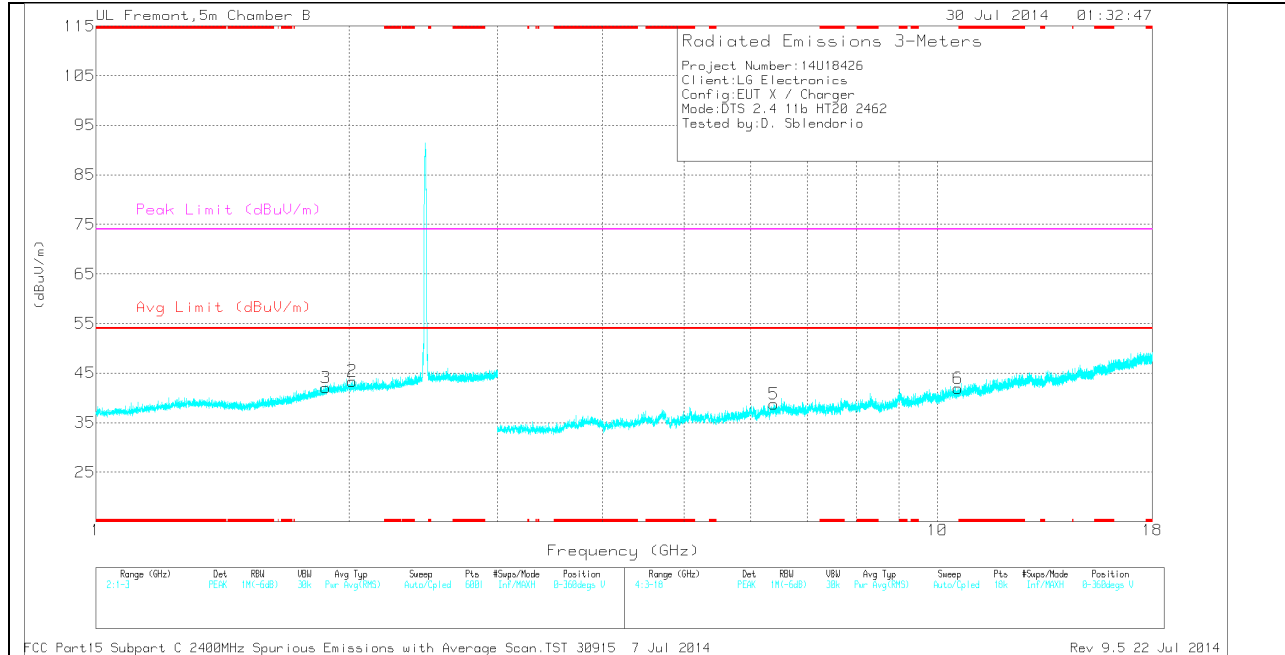
MAV1 - KDB558074 Option 1 Maximum RMS Average

HIGH CHANNEL HORIZONTAL



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

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

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/Filtr/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	* 5.142	31.96	PK	34.3	-29.5	36.76	-	-	74	-37.24	0-360	402	H
1	1.771	34.97	PK	29.8	-23.6	41.17	-	-	-	-	0-360	199	H
3	1.875	34.87	PK	30.8	-23.6	42.07	-	-	-	-	0-360	101	V
2	2.017	35.58	PK	31.3	-23.5	43.38	-	-	-	-	0-360	101	V
5	6.391	32.09	PK	35.6	-29	38.69	-	-	-	-	0-360	101	V
6	10.585	27.23	PK	37.6	-22.9	41.93	-	-	-	-	0-360	199	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)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 5.142	40.24	PK2	34.3	-29.5	45.04	-	-	74	-28.96	1	400	H
* 5.141	29.24	MAv1	34.3	-29.5	34.04	54	-19.96	-	-	1	400	H

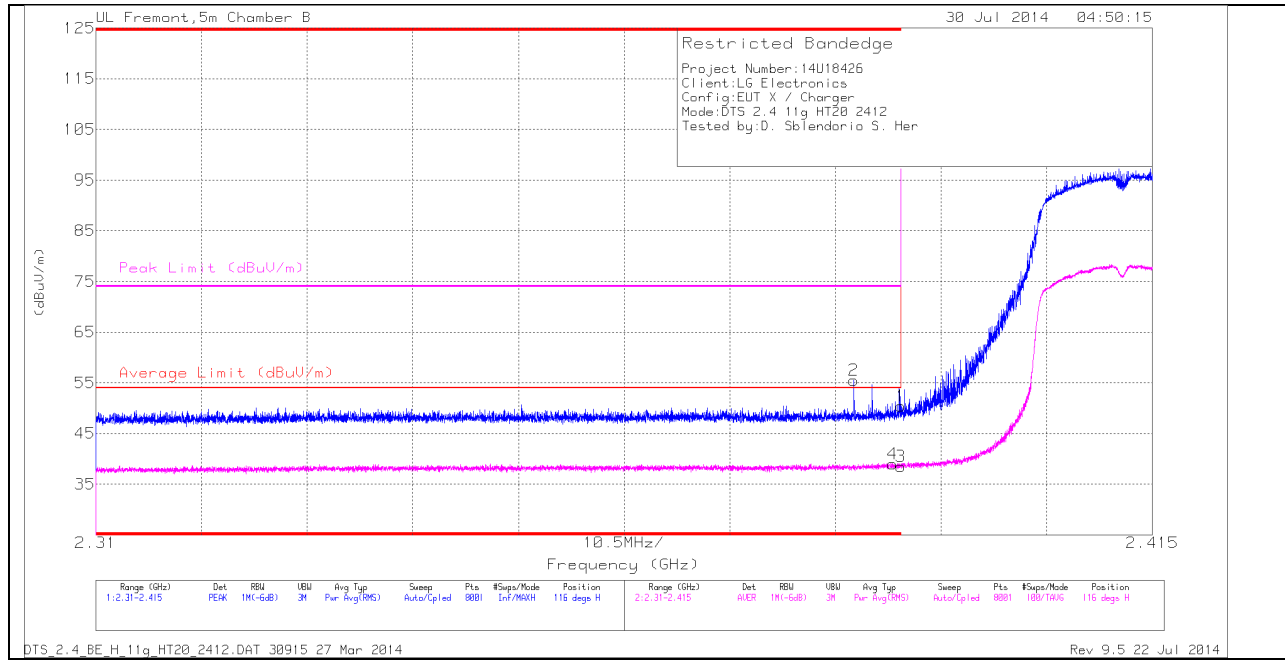
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK2 - KDB558074 Method: Maximum Peak

MAv1 - KDB558074 Option 1 Maximum RMS Average

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

HORIZONTAL PEAK AND AVERAGE PLOT



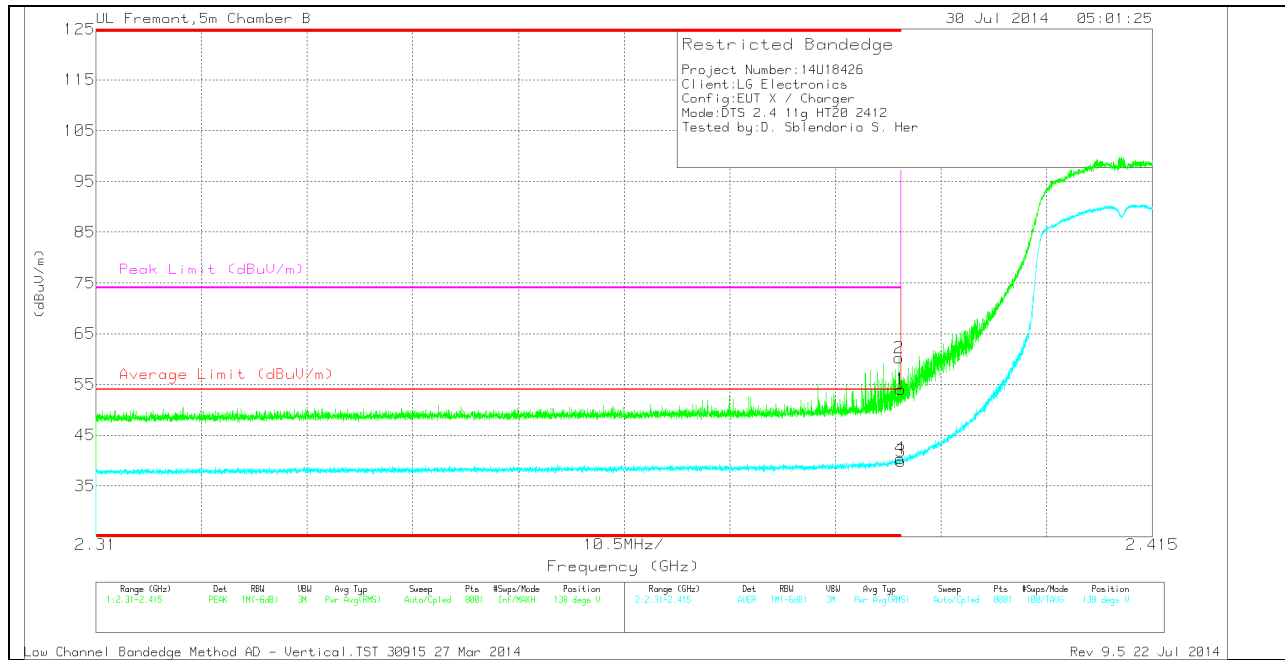
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cb/Filter/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.39	41.07	PK	32.1	-22.8	0	50.37	-	-	74	-23.63	116	346	H
2	* 2.385	46.26	PK	32.1	-22.9	0	55.46	-	-	74	-18.54	116	346	H
3	* 2.39	29.25	RMS	32.1	-22.8	.21	38.76	54	-15.24	-	-	116	346	H
4	* 2.389	29.73	RMS	32.1	-22.8	.21	39.24	54	-14.76	-	-	116	346	H

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

PK - Peak detector

RMS - RMS detection

VERTICAL PEAK AND AVERAGE PLOT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/Fitter/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	44.76	PK	32.1	-22.8	0	54.06	-	-	74	-19.94	138	345	V
2	* 2.39	50.91	PK	32.1	-22.8	0	60.21	-	-	74	-13.79	138	345	V
3	* 2.39	30.41	RMS	32.1	-22.8	.21	39.92	54	-14.08	-	-	138	345	V
4	* 2.39	30.91	RMS	32.1	-22.8	.21	40.42	54	-13.58	-	-	138	345	V

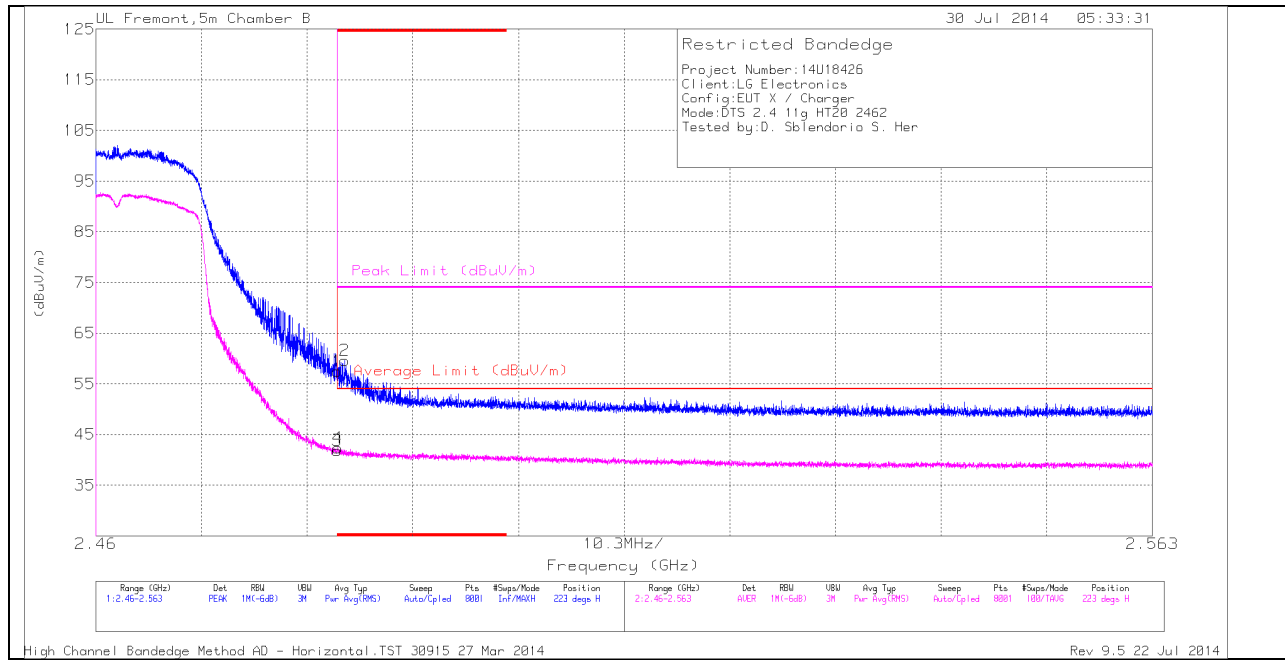
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK - Peak detector

RMS - RMS detection

AUTHORIZED BANDEDGE (HIGH CHANNEL)

HORIZONTAL PEAK AND AVERAGE PLOT



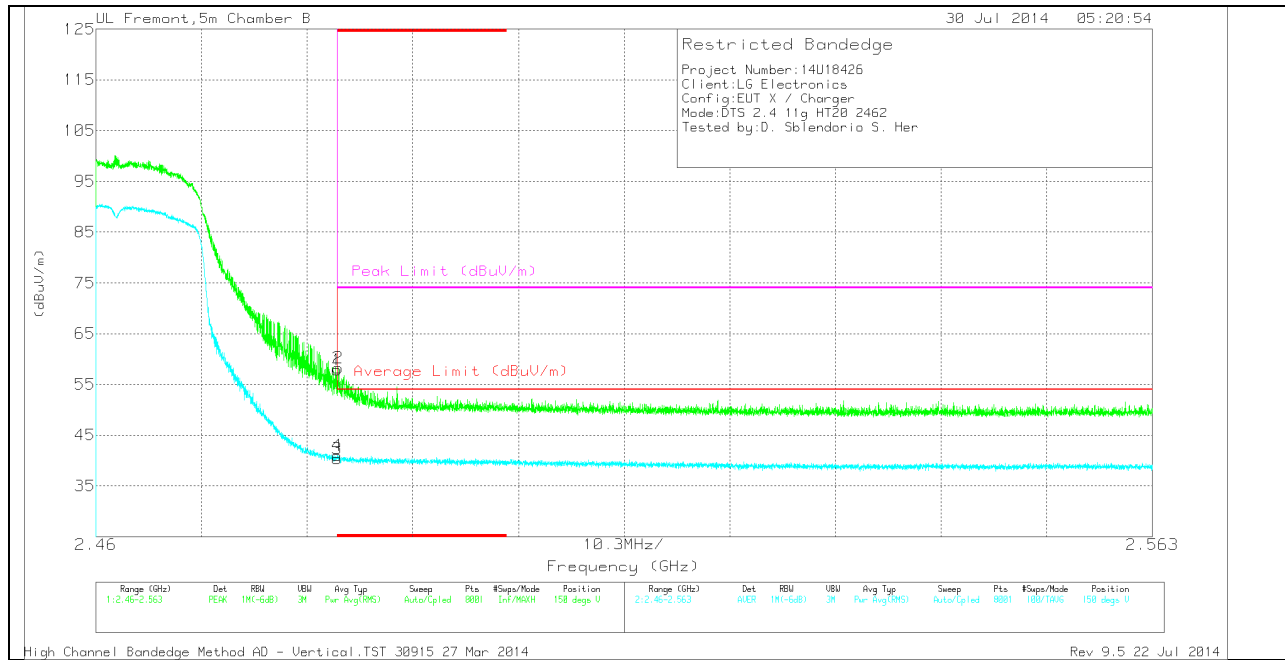
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cb/Filter/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.484	47.84	PK	32.4	-22.7	0	57.54	-	-	74	-16.46	223	275	H
2	* 2.484	49.91	PK	32.4	-22.7	0	59.61	-	-	74	-14.39	223	275	H
3	* 2.484	32.13	RMS	32.4	-22.7	.21	42.04	54	-11.96	-	-	223	275	H
4	* 2.484	32.65	RMS	32.4	-22.7	.21	42.56	54	-11.44	-	-	223	275	H

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

PK - Peak detector

RMS - RMS detection

VERTICAL PEAK AND AVERAGE PLOT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/Fit r/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	48.18	PK	32.4	-22.7	0	57.88	-	-	74	-16.12	150	336	V
2	* 2.484	48.56	PK	32.4	-22.7	0	58.26	-	-	74	-15.74	150	336	V
3	* 2.484	30.49	RMS	32.4	-22.7	.21	40.4	54	-13.6	-	-	150	336	V
4	* 2.484	31.11	RMS	32.4	-22.7	.21	41.02	54	-12.98	-	-	150	336	V

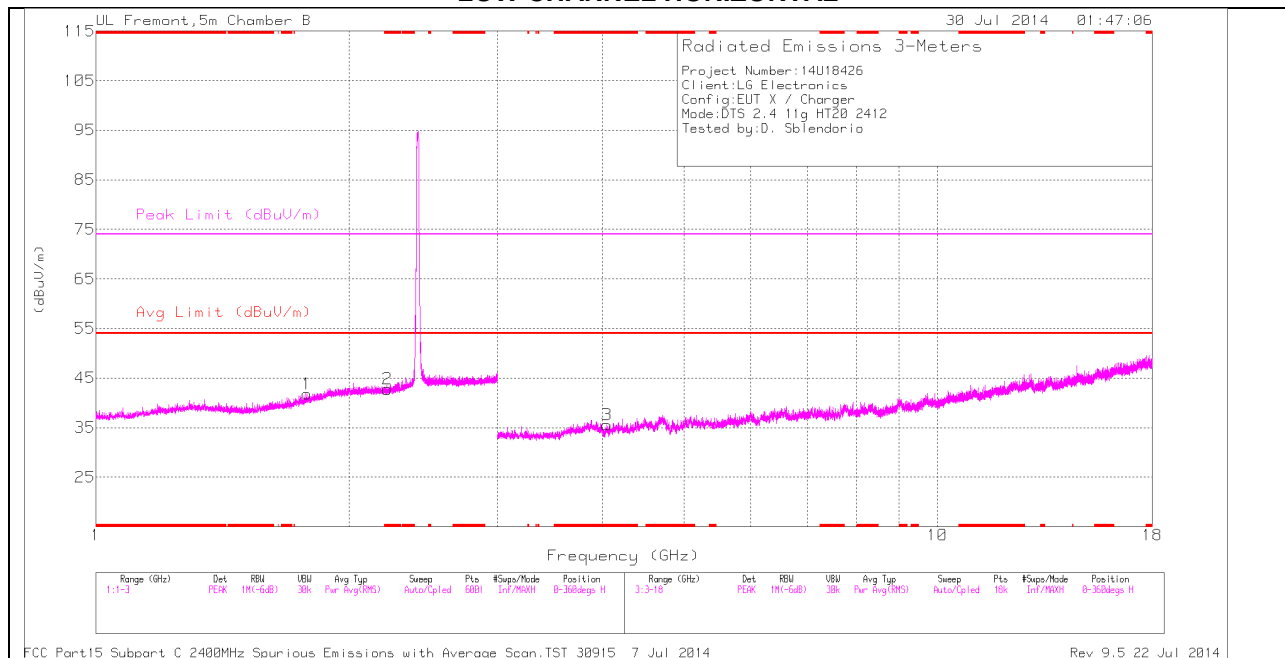
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK - Peak detector

RMS - RMS detection

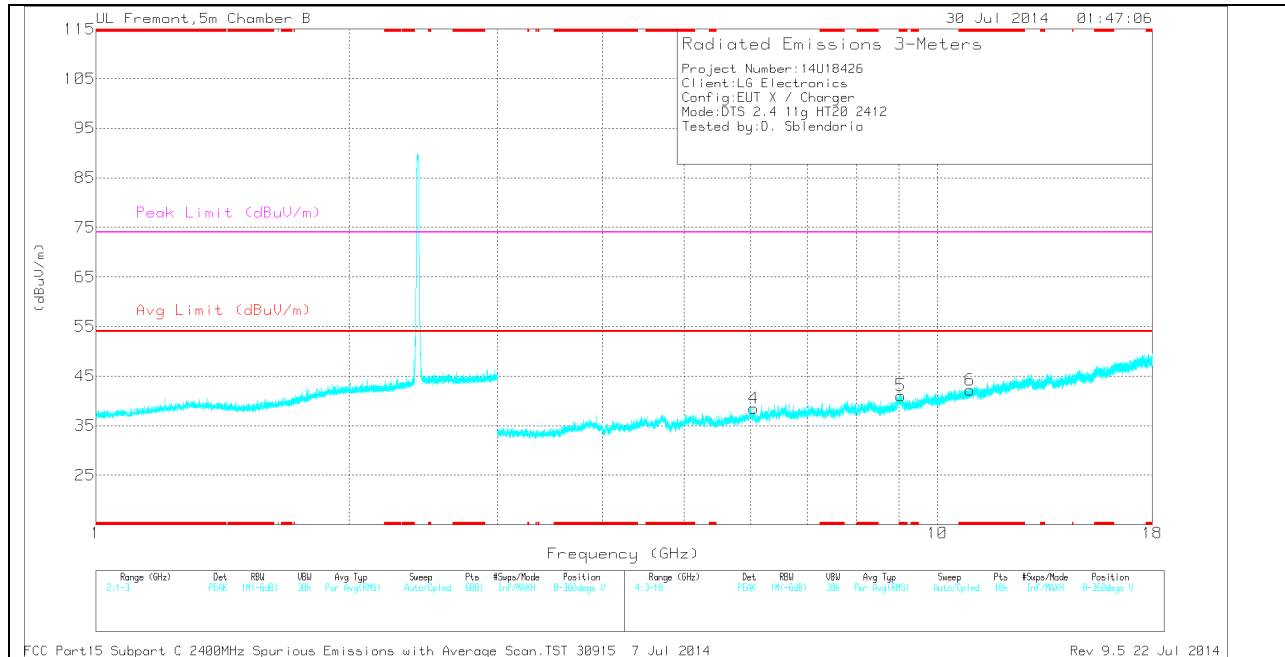
HARMONICS AND SPURIOUS EMISSIONS

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

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
2	* 2.221	34.55	PK	31.4	-23.2	0	42.75	-	-	74	-31.25	0-360	200	H
3	* 4.049	32.95	PK	33.6	-31	0	35.55	-	-	74	-38.45	0-360	101	H
5	* 9.05	28.59	PK	36.2	-23.7	0	41.09	-	-	74	-32.91	0-360	101	V
6	* 10.925	27.03	PK	37.8	-22.6	0	42.23	-	-	74	-31.77	0-360	200	V
1	1.782	35.34	PK	30	-23.6	0	41.74	-	-	-	-	0-360	101	H
4	6.052	32.61	PK	35.3	-29.4	0	38.51	-	-	-	-	0-360	200	V

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

PK - Peak detector

Radiated Emissions

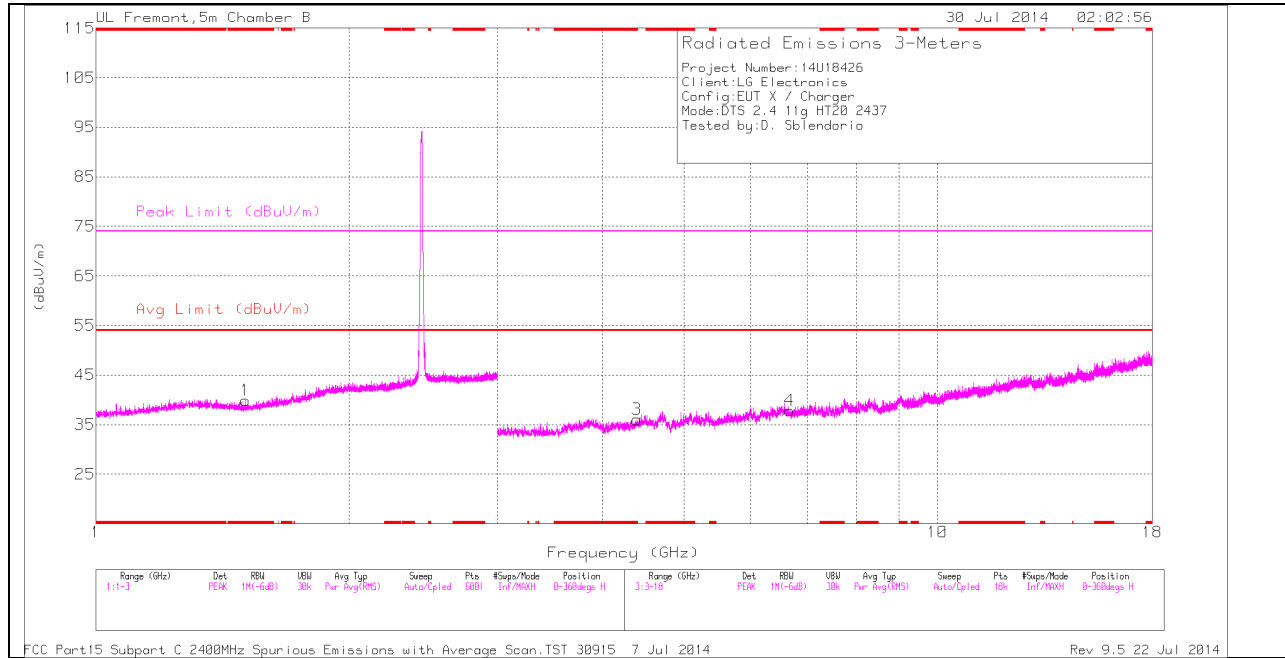
Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 2.219	42.36	PK2	31.4	-23.2	0	50.56	-	-	74	-23.44	0	200	H
* 2.22	31.31	MAv1	31.4	-23.2	0.21	39.72	54	-14.28	-	-	0	200	H

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

PK2 - KDB558074 Method: Maximum Peak

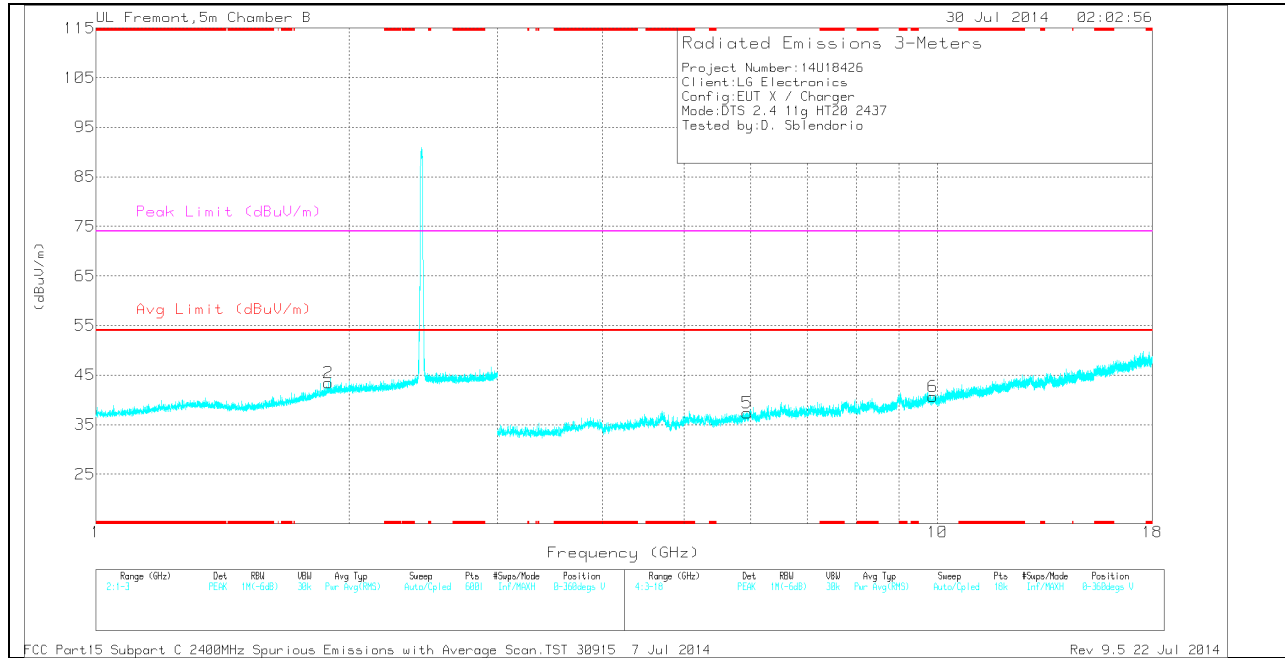
MAv1 - KDB558074 Option 1 Maximum RMS Average

MID CHANNEL HORIZONTAL



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

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

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	* 1.505	36.12	PK	27.9	-24.1	0	39.92	-	-	74	-34.08	0-360	101	H
3	* 4.395	32.22	PK	33.8	-30	0	36.02	-	-	74	-37.98	0-360	101	H
2	1.888	35.83	PK	31	-23.4	0	43.43	-	-	-	-	0-360	101	V
5	5.942	30.78	PK	35.1	-28.5	0	37.38	-	-	-	-	0-360	101	V
4	6.675	30.81	PK	35.7	-28.7	0	37.81	-	-	-	-	0-360	200	H
6	9.876	27.48	PK	37	-23.8	0	40.68	-	-	-	-	0-360	101	V

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

PK - Peak detector

Radiated Emissions

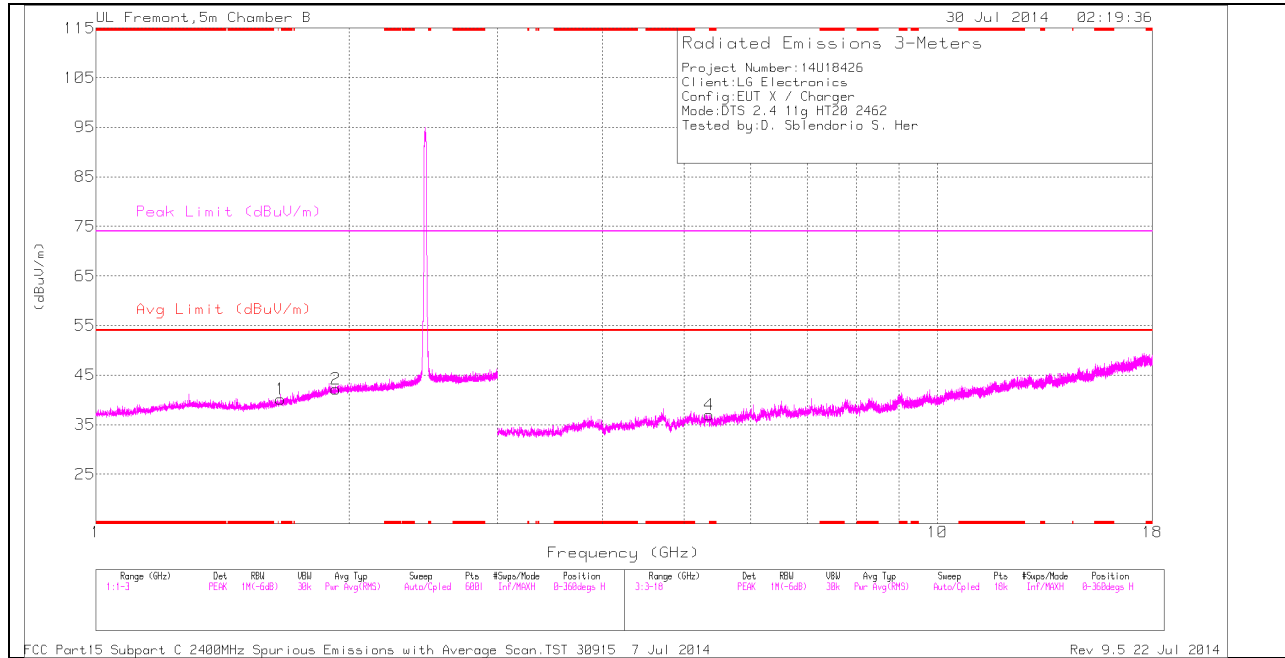
Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 1.505	43.71	PK2	27.9	-24.1	0	47.51	-	-	74	-26.49	0	101	H
* 1.505	31.83	MAv1	27.9	-24.1	0.21	35.84	54	-18.16	-	-	0	101	H

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

PK2 - KDB558074 Method: Maximum Peak

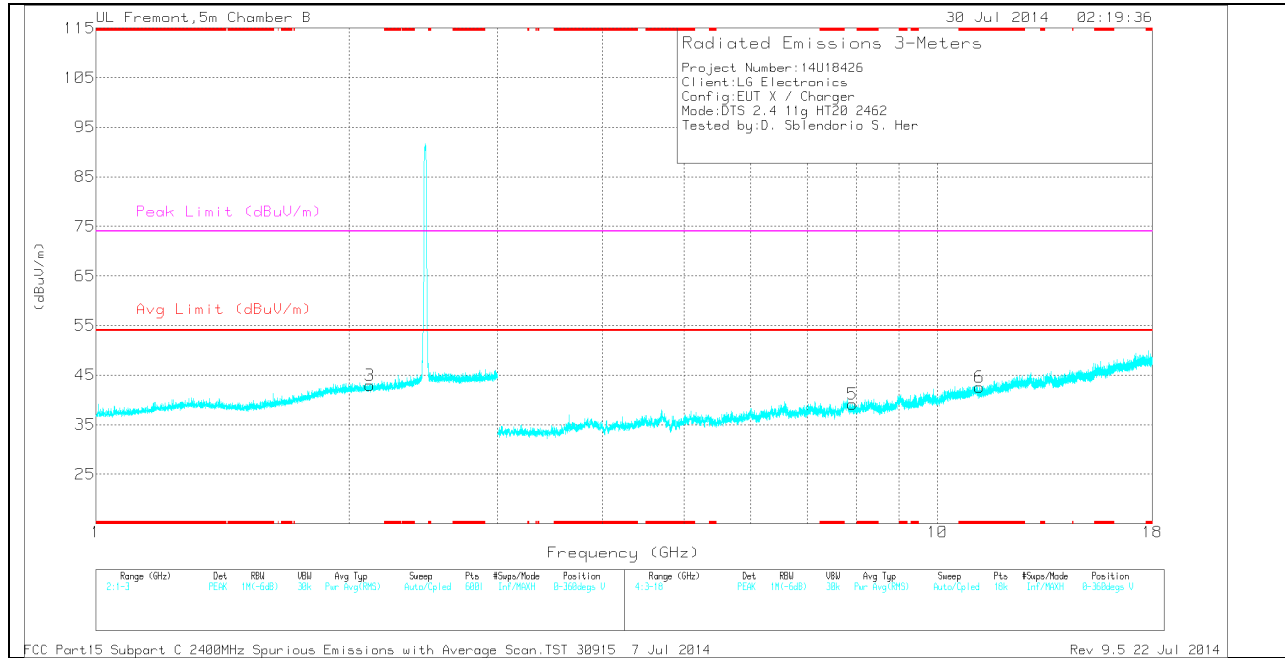
MAv1 - KDB558074 Option 1 Maximum RMS Average

HIGH CHANNEL HORIZONTAL



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

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

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
4	* 5.355	31.32	PK	34.5	-28.9	0	36.92	-	-	74	-37.08	0-360	201	H
6	* 11.21	27.2	PK	37.9	-22.6	0	42.5	-	-	74	-31.5	0-360	101	V
1	1.657	35.17	PK	28.8	-23.8	0	40.17	-	-	-	-	0-360	199	H
2	1.928	34.61	PK	31.1	-23.5	0	42.21	-	-	-	-	0-360	101	H
3	2.115	34.87	PK	31.3	-23.2	0	42.97	-	-	-	-	0-360	199	V
5	7.93	30.45	PK	35.7	-27	0	39.15	-	-	-	-	0-360	101	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
* 5.356	38.68	PK2	34.5	-28.9	0	44.28	-	-	74	-29.72	1	201	H
* 5.354	27.89	MAv1	34.5	-28.9	0.21	33.70	54	-20.30	-	-	1	201	H

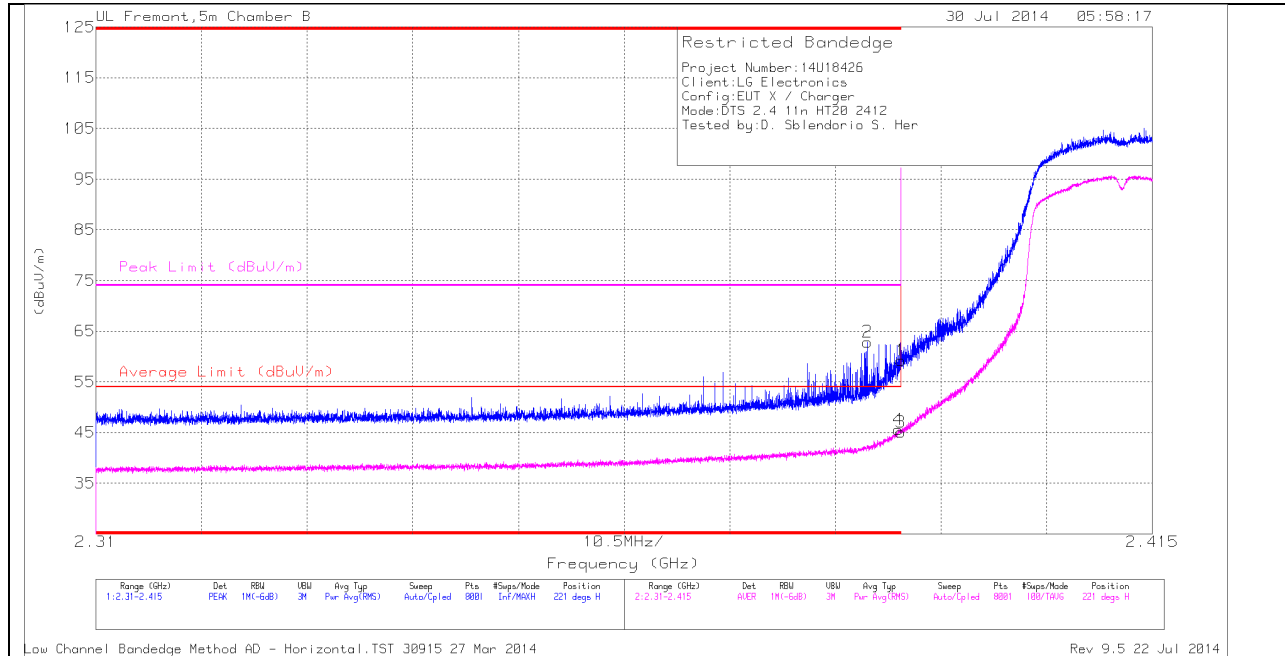
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK2 - KDB558074 Method: Maximum Peak

MAv1 - KDB558074 Option 1 Maximum RMS Average

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

HORIZONTAL PEAK AND AVERAGE PLOT



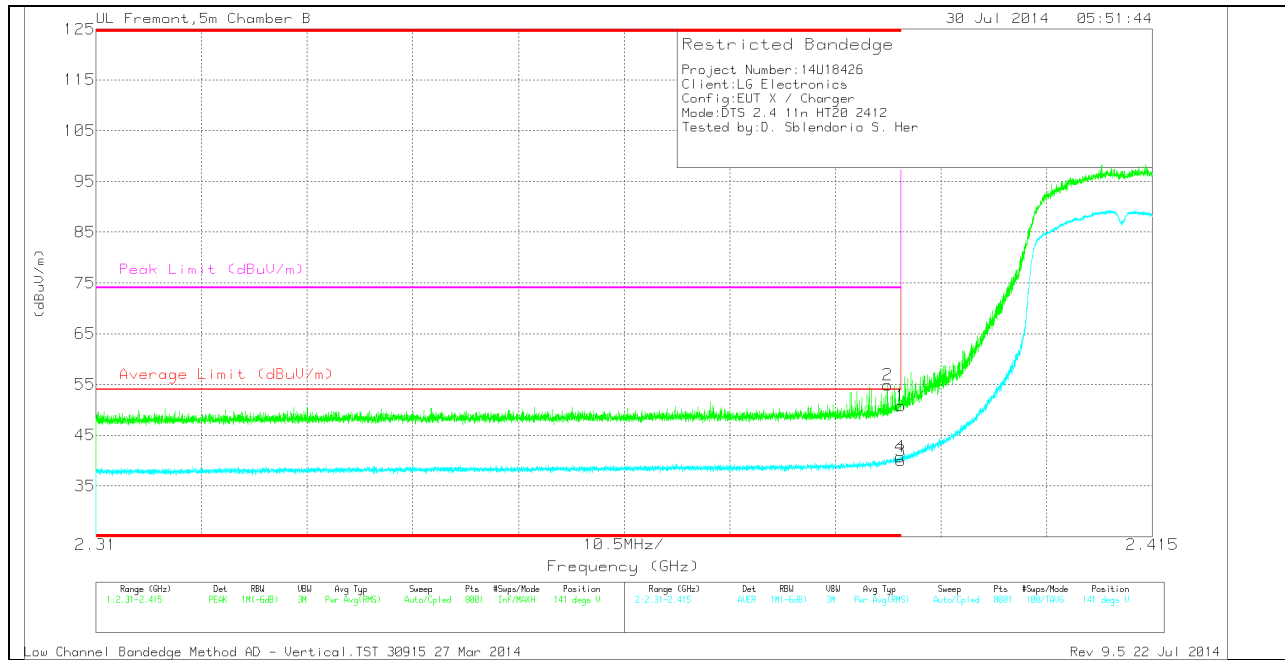
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cb/Filter/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.39	49.88	PK	32.1	-22.8	0	59.18	-	-	74	-14.82	221	343	H
2	* 2.387	53.59	PK	32.1	-22.8	0	62.89	-	-	74	-11.11	221	343	H
3	* 2.39	35.49	RMS	32.1	-22.8	.24	45.03	54	-8.97	-	-	221	343	H
4	* 2.39	36.03	RMS	32.1	-22.8	.24	45.57	54	-8.43	-	-	221	343	H

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

PK - Peak detector

RMS - RMS detection

VERTICAL PEAK AND AVERAGE PLOT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cb/Fit r/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	41.48	PK	32.1	-22.8	0	50.78	-	-	74	-23.22	141	344	V
2	* 2.389	45.56	PK	32.1	-22.8	0	54.86	-	-	74	-19.14	141	344	V
3	* 2.39	30.44	RMS	32.1	-22.8	.24	39.98	54	-14.02	-	-	141	344	V
4	* 2.39	31.24	RMS	32.1	-22.8	.24	40.78	54	-13.22	-	-	141	344	V

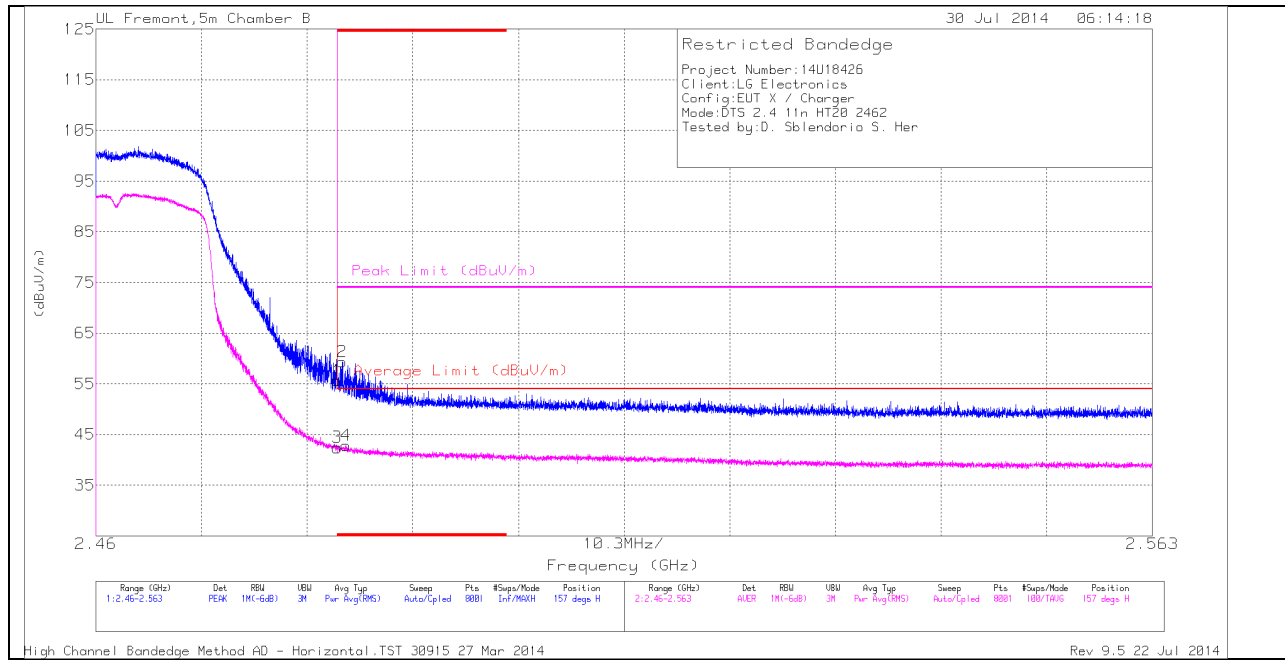
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK - Peak detector

RMS - RMS detection

AUTHORIZED BANDEDGE (HIGH CHANNEL)

HORIZONTAL PEAK AND AVERAGE PLOT



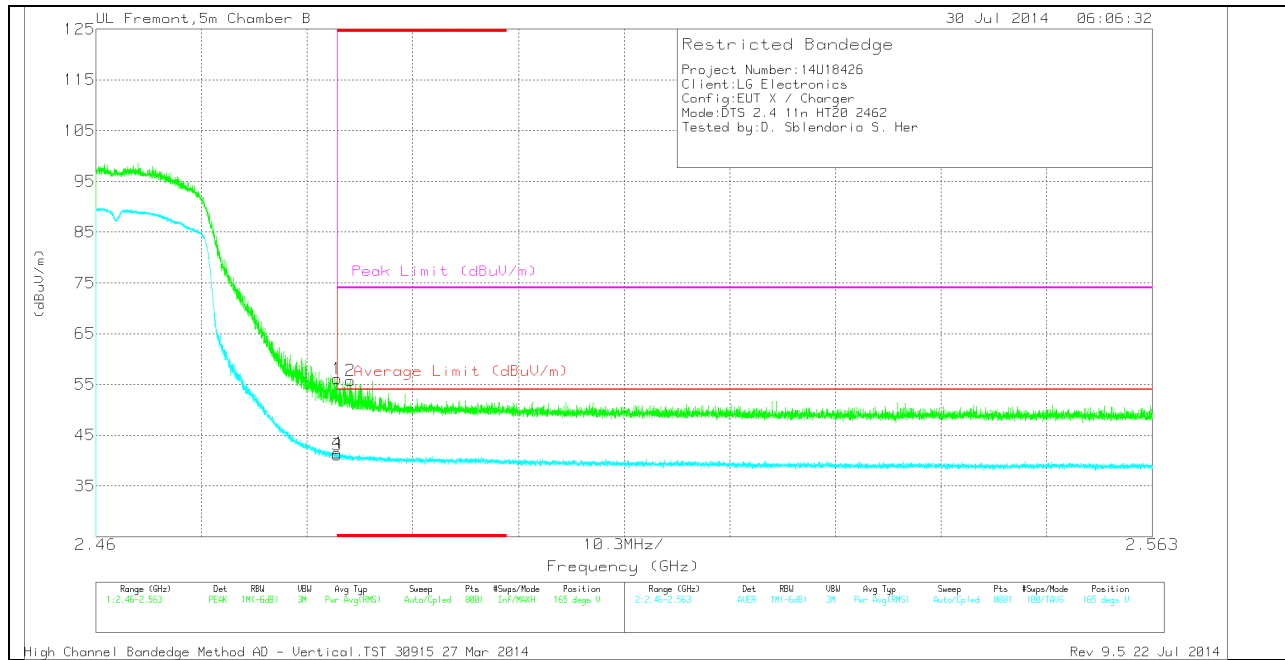
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cb/Filter/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.484	45.96	PK	32.4	-22.7	0	55.66	-	-	74	-18.34	157	225	H
2	* 2.484	49.6	PK	32.4	-22.7	0	59.3	-	-	74	-14.7	157	225	H
3	* 2.484	32.47	RMS	32.4	-22.7	.24	42.41	54	-11.59	-	-	157	225	H
4	* 2.484	32.89	RMS	32.4	-22.7	.24	42.83	54	-11.17	-	-	157	225	H

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

PK - Peak detector

RMS - RMS detection

VERTICAL PEAK AND AVERAGE PLOT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/Fit r/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	46.42	PK	32.4	-22.7	0	56.12	-	-	74	-17.88	165	235	V
2	* 2.485	46.01	PK	32.4	-22.7	0	55.71	-	-	74	-18.29	165	235	V
3	* 2.484	31.16	RMS	32.4	-22.7	.24	41.1	54	-12.9	-	-	165	235	V
4	* 2.484	31.56	RMS	32.4	-22.7	.24	41.5	54	-12.5	-	-	165	235	V

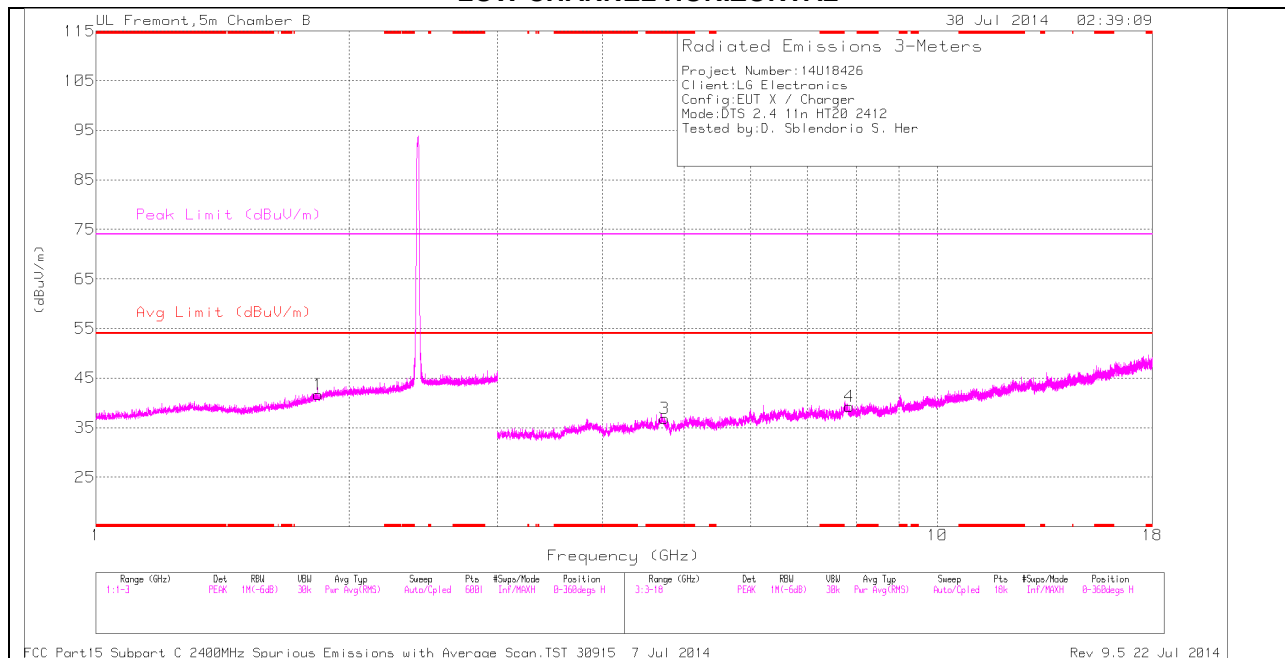
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK - Peak detector

RMS - RMS detection

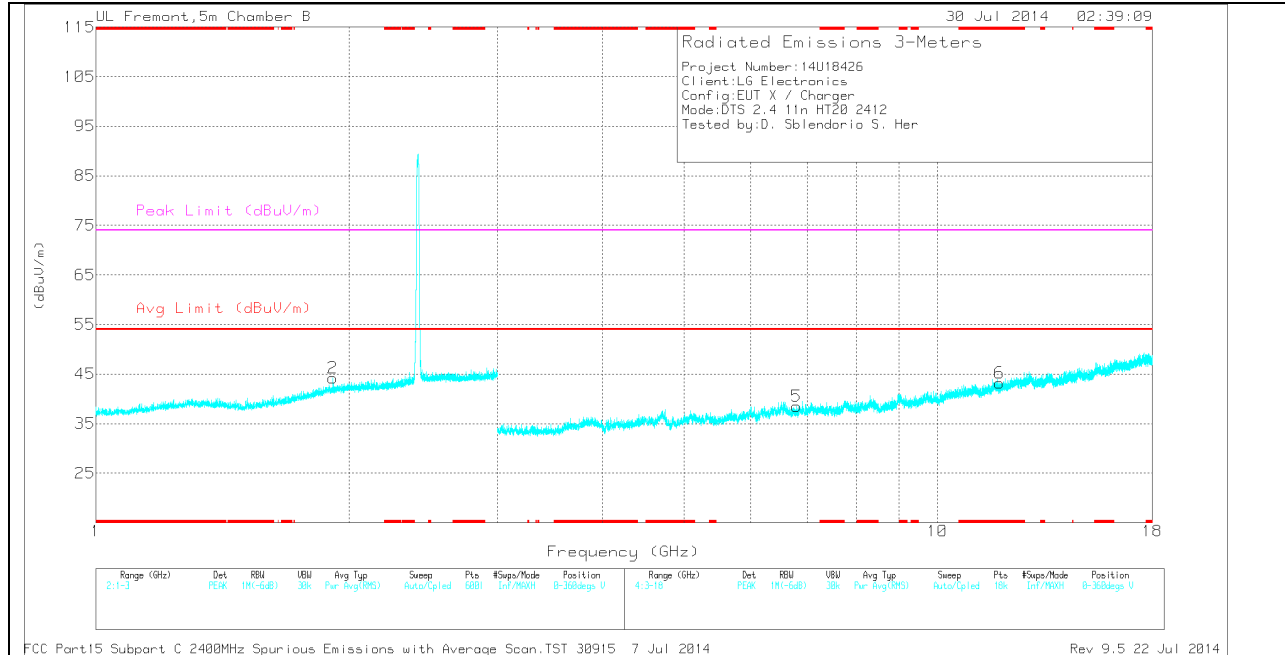
HARMONICS AND SPURIOUS EMISSIONS

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

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
3	* 4.742	32.1	PK	34.2	-29.4	0	36.9	-	-	74	-37.1	0-360	199	H
6	* 11.854	27.01	PK	38.4	-22.2	0	43.21	-	-	74	-30.79	0-360	101	V
1	1.837	34.84	PK	30.5	-23.7	0	41.64	-	-	-	-	0-360	101	H
2	1.912	36.6	PK	31.1	-23.5	0	44.2	-	-	-	-	0-360	101	V
5	6.801	30.64	PK	35.7	-27.8	0	38.54	-	-	-	-	0-360	199	V
4	7.859	30.2	PK	35.7	-26.7	0	39.2	-	-	-	-	0-360	199	H

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

PK - Peak detector

Radiated Emissions

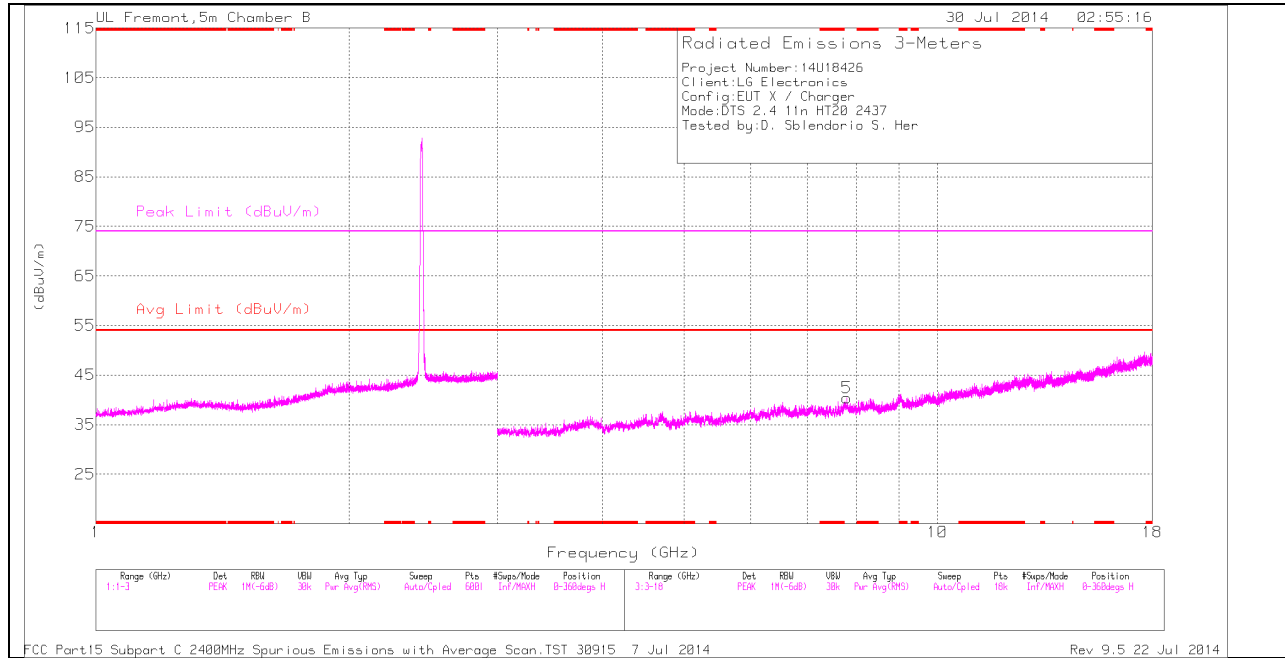
Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 4.743	40.74	PK2	34.2	-29.3	0	45.64	-	-	74	-28.36	1	198	H
* 4.742	29.65	MAv1	34.2	-29.4	0.24	34.79	54	-19.31	-	-	1	198	H

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

PK2 - KDB558074 Method: Maximum Peak

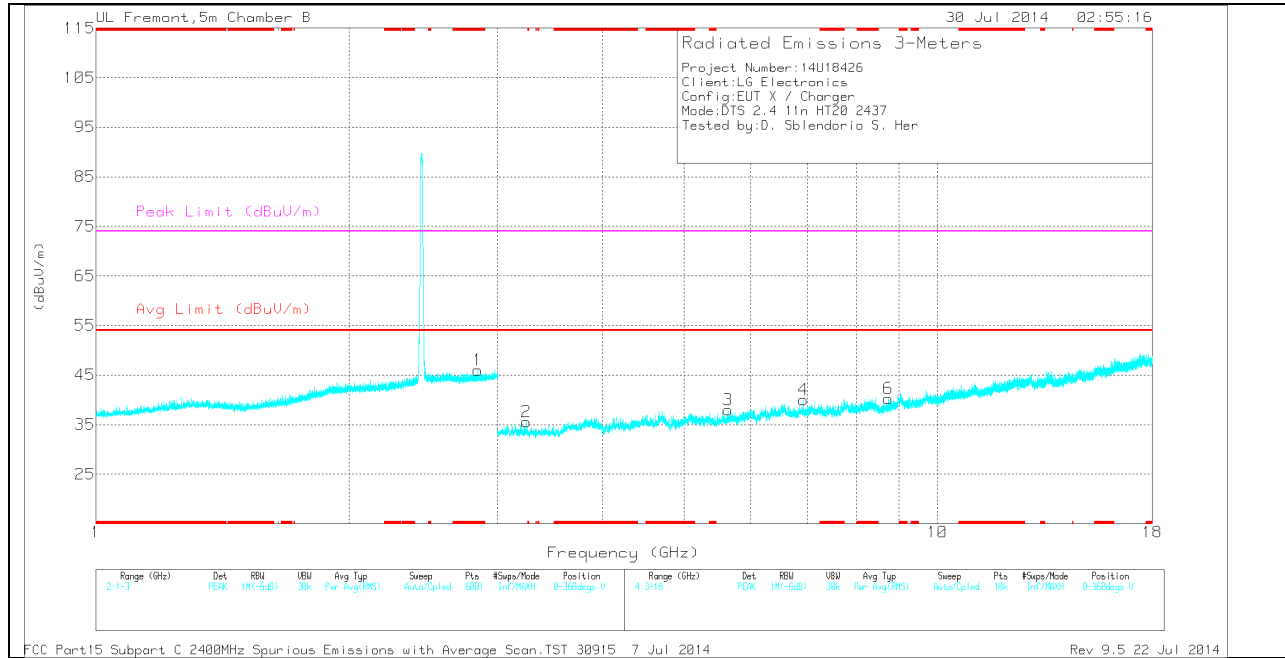
MAv1 - KDB558074 Option 1 Maximum RMS Average

MID CHANNEL HORIZONTAL



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

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

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	* 2.844	35.71	PK	32.5	-22.2	0	46.01	-	-	74	-27.99	0-360	101	V
2	3.248	34.02	PK	32.8	-31.3	0	35.52	-	-	-	-	0-360	101	V
3	5.638	32.64	PK	34.5	-29.1	0	38.04	-	-	-	-	0-360	199	V
4	6.926	32.42	PK	35.6	-28	0	40.02	-	-	-	-	0-360	199	V
5	7.806	30.41	PK	35.7	-25.7	0	40.41	-	-	-	-	0-360	101	H
6	8.744	29.52	PK	35.9	-25.2	0	40.22	-	-	-	-	0-360	101	V

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

PK - Peak detector

Radiated Emissions

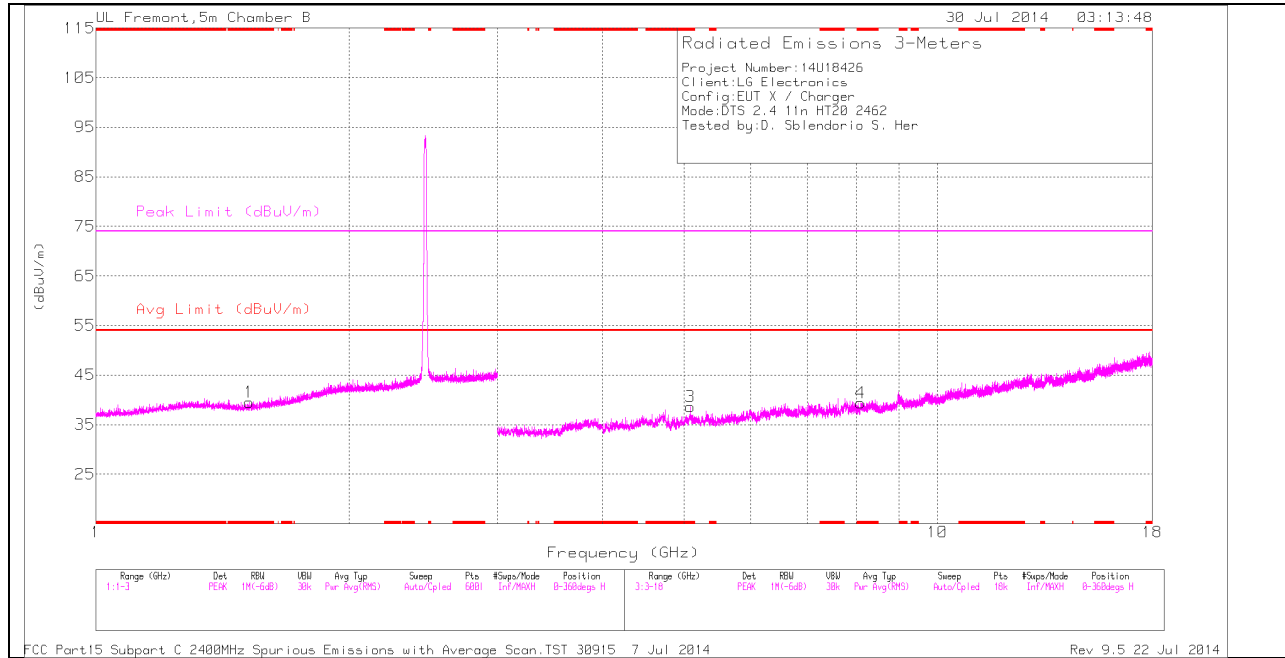
Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 2.844	42.44	PK2	32.5	-22.2	0	52.74	-	-	74	-21.26	1	100	V
* 2.843	31.16	MAv1	32.5	-22.3	0.24	41.70	54	-12.40	-	-	1	100	V
3.249	40.65	PK2	32.8	-31.3	0	42.15	-	-	-	-	1	100	V
3.249	29.77	MAv1	32.8	-31.3	0.24	31.51	-	-	-	-	1	100	V
7.804	26.74	MAv1	35.7	-25.7	0.24	36.98	-	-	-	-	1	100	H
7.807	37.08	PK2	35.7	-25.7	0	47.08	-	-	-	-	1	100	H

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

PK2 - KDB558074 Method: Maximum Peak

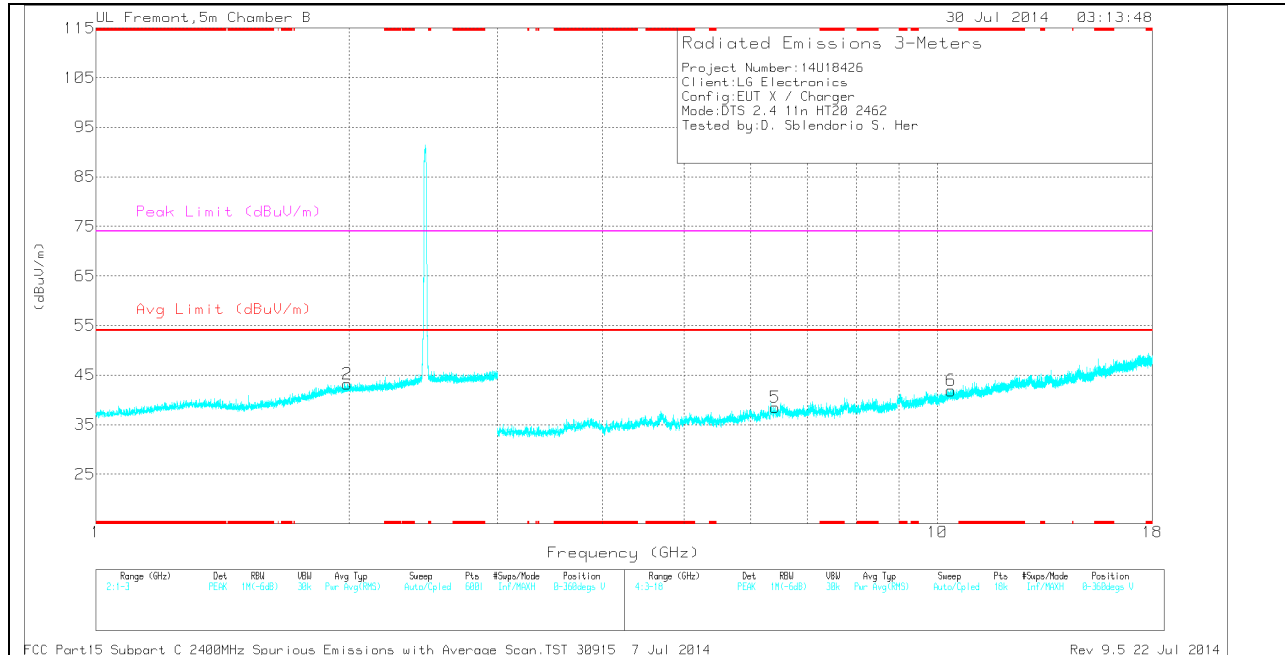
MAv1 - KDB558074 Option 1 Maximum RMS Average

HIGH CHANNEL HORIZONTAL



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

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

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/Ftr /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	* 1.521	35.45	PK	28	-24	0	39.45	-	-	74	-34.55	0-360	200	H
3	* 5.082	32.97	PK	34.2	-28.6	0	38.57	-	-	74	-35.43	0-360	199	H
4	* 8.103	29.63	PK	35.7	-26	0	39.33	-	-	74	-34.67	0-360	101	H
2	1.988	35.26	PK	31.3	-23.4	0	43.16	-	-	-	-	0-360	200	V
5	6.411	31.88	PK	35.6	-29	0	38.48	-	-	-	-	0-360	101	V
6	10.385	27.26	PK	37.3	-22.7	0	41.86	-	-	-	-	0-360	199	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/Ftr /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
* 1.52	43.06	PK2	28	-24	0	47.06	-	-	74	-26.94	1	199	H
* 1.52	31.78	MAv1	28	-24	0.24	36.02	54	-17.98	-	-	1	199	H

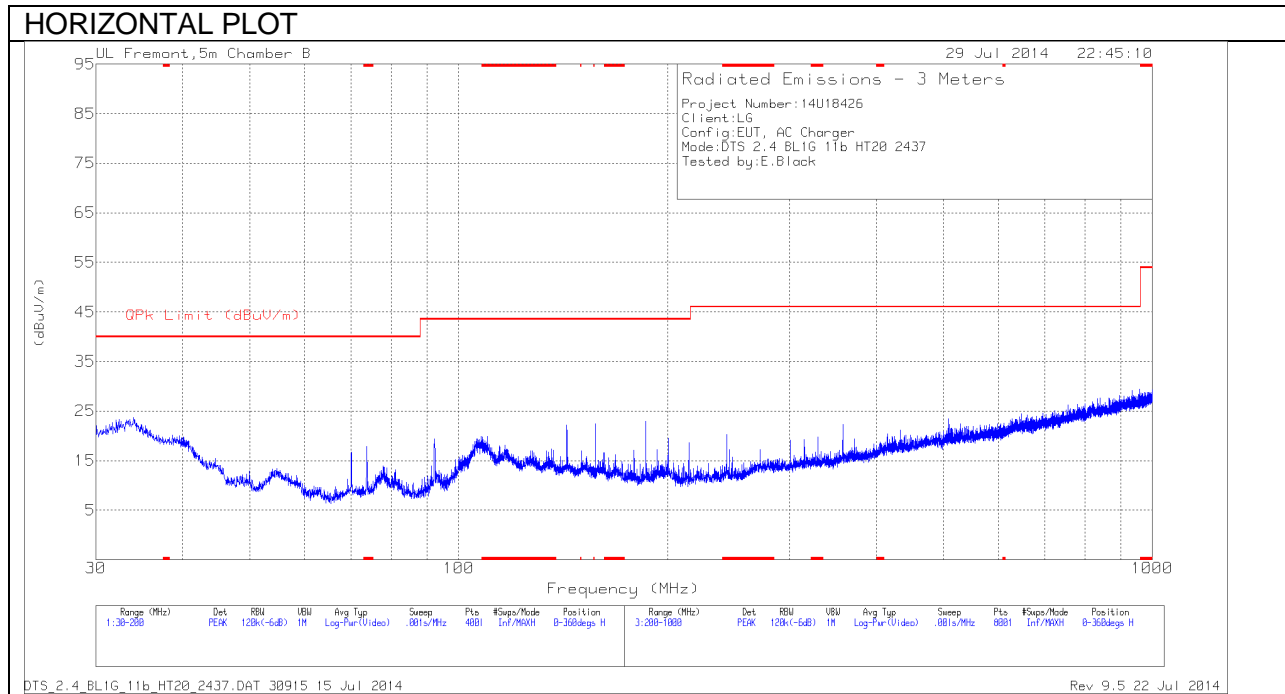
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK2 - KDB558074 Method: Maximum Peak

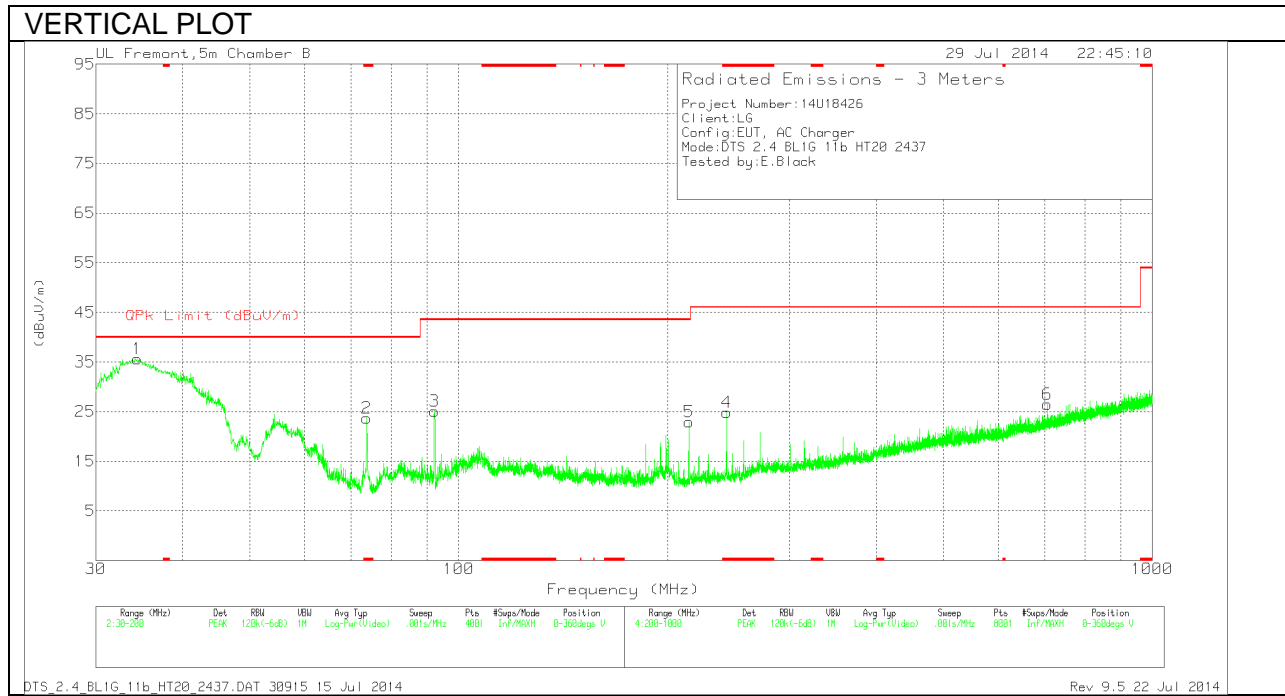
MAv1 - KDB558074 Option 1 Maximum RMS Average

10.3. WORST-CASE BELOW 1 GHz

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



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



Below 1G Data

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	AF T243 (dB/m)	Amp/Cbl (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	* 73.7325	43.9	PK	8.1	-28.3	0	23.7	40	-16.3	0-360	101	V
4	* 243.4	39.55	PK	11.7	-26.4	0	24.85	46.02	-21.17	0-360	200	V
1	34.42	46.09	PK	18.2	-28.7	0	35.59	40	-4.41	0-360	101	V
3	92.3475	45.04	PK	8.2	-28.1	0	25.14	43.52	-18.38	0-360	101	V
5	214.8	39.1	PK	10.6	-26.8	0	22.9	43.52	-20.62	0-360	200	V
6	705	30.89	PK	20.2	-24.6	0	26.49	46.02	-19.53	0-360	200	V

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

PK - Peak detector

11. AC POWER LINE CONDUCTED EMISSIONS

LIMITS

FCC §15.207 (a)

RSS-Gen 7.2.2

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

^{*}Decreases with the logarithm of the frequency.

TEST PROCEDURE

The EUT is placed on a non-conducting table 40 cm from the vertical ground plane and 80 cm above the horizontal ground plane. The EUT is configured in accordance with ANSI C63.4 2009.

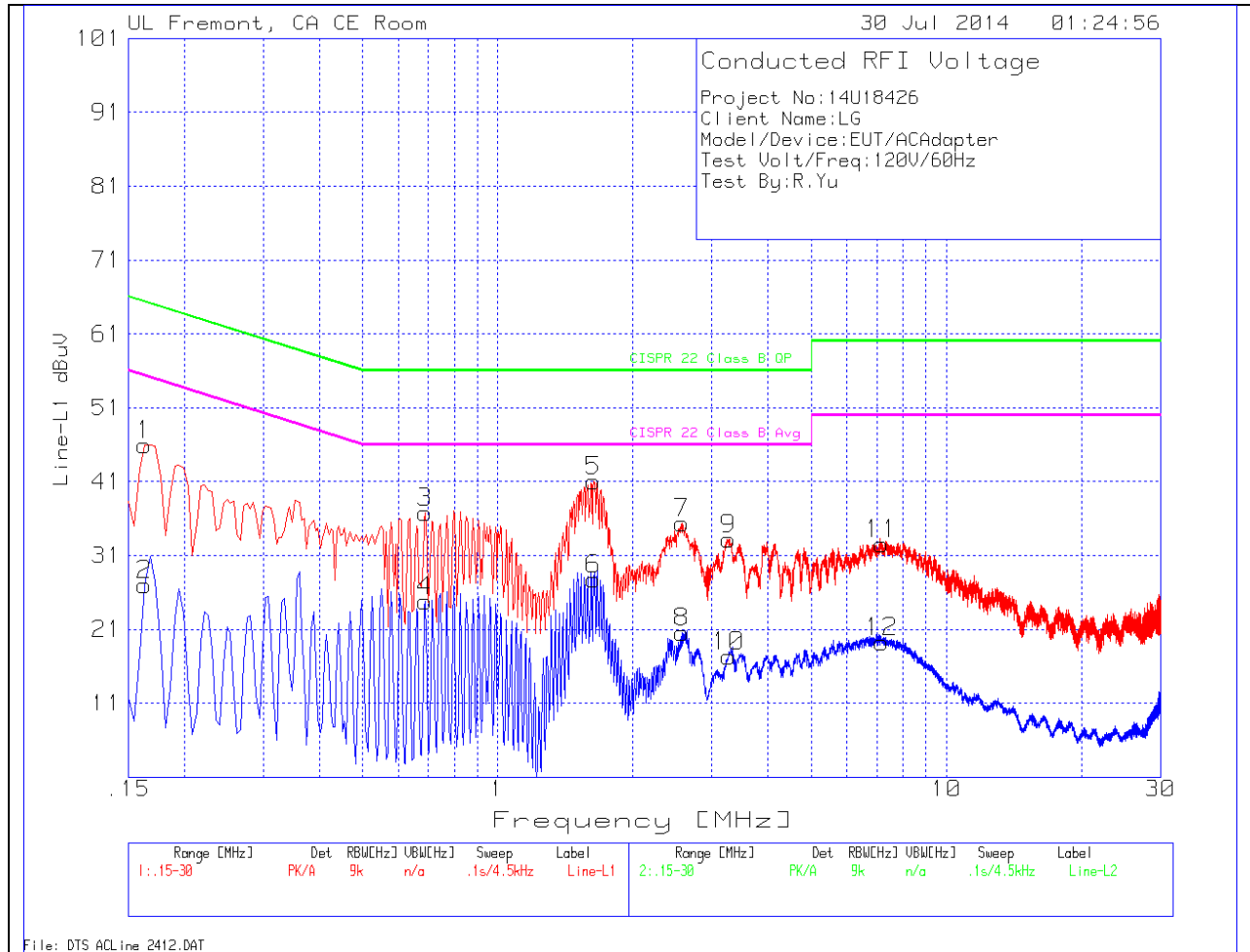
The receiver is set to a resolution bandwidth of 9 kHz. Peak detection is used unless otherwise noted as quasi-peak or average.

Line conducted data is recorded for both NEUTRAL and HOT lines.

RESULTS

6 WORST EMISSIONS

LINE 1 PLOT

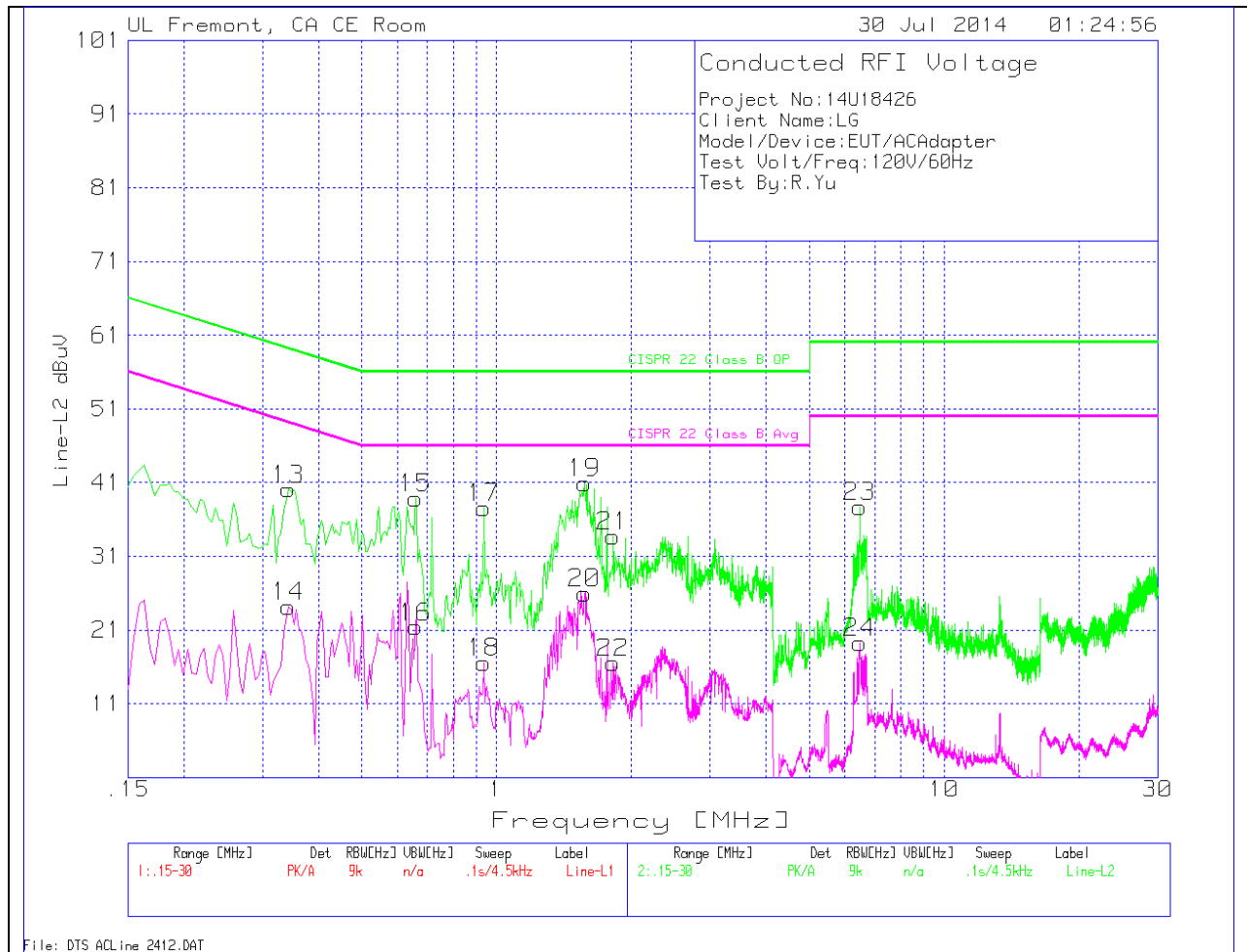


LINE 1 RESULTS

Trace Markers

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	T24 IL L1 (dB)	LC Cables 1&3 (dB)	Corrected Reading dBuV	CISPR 22 Class B QP	Margin to Limit (dB)	CISPR 22 Class B Avg	Margin to Limit (dB)
1	.1635	44.74	PK	1.2	0	45.94	65.3	-19.36	-	-
2	.1635	25.75	Av	1.2	0	26.95	-	-	55.3	-28.35
3	.69	36.54	PK	.3	0	36.84	56	-19.16	-	-
4	.69	24.56	Av	.3	0	24.86	-	-	46	-21.14
5	1.635	40.77	PK	.2	.1	41.07	56	-14.93	-	-
6	1.635	27.51	Av	.2	.1	27.81	-	-	46	-18.19
7	2.58	35.08	PK	.2	.1	35.38	56	-20.62	-	-
8	2.58	20.24	Av	.2	.1	20.54	-	-	46	-25.46
9	3.264	32.84	PK	.2	.1	33.14	56	-22.86	-	-
10	3.264	17.03	Av	.2	.1	17.33	-	-	46	-28.67
11	7.188	32.29	PK	.2	.1	32.59	60	-27.41	-	-
12	7.188	18.96	Av	.2	.1	19.26	-	-	50	-30.74

LINE 2 PLOT



LINE 2 RESULTS

Trace Markers

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	T24 IL L2 (dB)	LC Cables 2&3 (dB)	Corrected Reading dBuV	CISPR 22 Class B QP	Margin to Limit (dB)	CISPR 22 Class B Avg	Margin to Limit (dB)
13	.3435	39.58	PK	.5	0	40.08	59.1	-19.02	-	-
14	.3435	23.68	Av	.5	0	24.18	-	-	49.1	-24.92
15	.6585	38.55	PK	.3	0	38.85	56	-17.15	-	-
16	.6585	21.09	Av	.3	0	21.39	-	-	46	-24.61
17	.9375	37.28	PK	.3	0	37.58	56	-18.42	-	-
18	.9375	16.24	Av	.3	0	16.54	-	-	46	-29.46
19	1.572	40.67	PK	.2	.1	40.97	56	-15.03	-	-
20	1.572	25.62	Av	.2	.1	25.92	-	-	46	-20.08
21	1.824	33.46	PK	.2	.1	33.76	56	-22.24	-	-
22	1.824	16.2	Av	.2	.1	16.5	-	-	46	-29.5
23	6.4725	37.45	PK	.2	.1	37.75	60	-22.25	-	-
24	6.4725	18.98	Av	.2	.1	19.28	-	-	50	-30.72