FCC CFR47 PART 15 SUBPART C

CERTIFICATION TEST REPORT

FOR

CELL PHONE WITH GSM/CDMA/WCDMA/LTE+BT LE+802.11ABGN (HT20) + NFC WITH WIRELESS BACK COVER

MODEL NUMBER: LG-VS930 and VS930

FCC ID: ZNFVS930

REPORT NUMBER: 12U14331-2, Revision A

ISSUE DATE: MAY 15, 2012

Prepared for
LG ELECTRONICS INC.
60-39 GASAN-DONG, GEUMCHEON-GU
SEOUL, KOREA 153-801, SOUTH KOREA

Prepared by
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NVLAP LAB CODE 200065-0

Revision History

Rev.	Issue Date	Revisions	Revised By
	4/23/12	Original	T. LEE
A	05/15/12	Updated section 5.7	A. Zaffar

TABLE OF CONTENTS

1. ATTESTATION OF TEST RESULTS

COMPANY NAME:	LG ELECTRONICS INC. 60-39 GASAN-DONG, GEUMCHEON-GU SEOUL, KOREA 153-801, SOUTH KOREA
EUT DESCRIPTION:	CELL PHONE WITH GSM/CDMA/WCDMA/LTE+BT LE+802.11ABGN (HT20) WITH WIRELESS BACK COVER
MODEL:	LG-VS930 and VS930
SERIAL NUMBER:	990000760004152
DATE TESTED:	MARCH 25-APRIL 20, 2012

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

Compliance Certification Services (UL CCS) 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 CCS By:

TIM LEE
STAFF ENGINEER
UL CCS

Tested By:

CHIN PANG
EMC ENGINEER
UL CCS

2. TEST METHODOLOGY

The tests documented in this report were performed in accordance with ANSI C63.10-2009, FCC CFR 47 Part 2, and 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 CCS 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 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 Cell Phone with GSM/CDMA/WCDMA/LTE+BT LE+802.11abgn (HT20) + NFC with Wireless Back Cover

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)
2412-2462	802.11b	18.37	68.1
2412-2462	802.11g	21.13	129.72
2412-2462	802.11n HT20 SISO	19.82	95.94
5745-5825	802.11a	20.89	122.74
5745-5825	802.11n HT20 SISO	20.52	112.72

5.3. DESCRIPTION OF AVAILABLE ANTENNAS

The radio utilizes a PIFA (Planar Inverted F Antenna) with a maximum peak gain as follow:

Frequency Band	Peak Gain (dBi)
2.4GHz	-2.44
5.2GHz	-2.59
5.3GHz	-2.28
5.5GHz	0.95
5.8GHz	0.43

5.4. SOFTWARE AND FIRMWARE

The EUT driver software installed during testing was VS930_0311

The test utility software used during testing was FCC Test - LG.

The firmware used during testing was 3.0.8.00001_g114383

5.5. MODIFICATIONS

A ferrite was added on the Charging Pad's AC Adapter in order to pass 30-1000MHz emissions test. Ferrite: Manufacture: TDK, Serial Number: ZCAT 2035-0930.

5.6. MODEL DIFFERNECE

Model LS-VS930 is identical to Model VS930 except for model designation.

5.7. WORST-CASE CONFIGURATION AND MODE

Radiated emissions below 1 GHz and power line conducted emissions were performed with the EUT set to the channel with highest output power.

For the fundamental investigation, since the EUT is a portable device that has three orientations; X, Y and Z orientations have been investigated, also with AC/DC adapter, and earphone, and the worst case was found to be at Y orientation with AC adapter and earphone for both 2.4GHz and 5GHz band.

Based on the manufacturer's attestation that the nominal output power is reduced as the data rate increases, the data rates tested represent the highest power and worst-case with respect to EMC performance.

Worst-case data rates were as follows:

802.11b mode: 1 Mbps
802.11g mode: 6 Mbps
802.11n mode: MCS0
802.11a, 6Mbps
.

5.8. DESCRIPTION OF TEST SETUP

SUPPORT EQUIPMENT

STANDARD AND INDUCTIVE COVER

PERIPHERAL SUPPORT EQUIPMENT LIST			
Description	**Manufacturer**	**Model**	**Serial Number**
AC ADAPTER	LG ELECTRONICS	MCS-01WT	TA1Z0000522
HEADSET	LG ELECTRONICS	NA	N/A

INDUCTIVE CHARGER WITH INDUCTIVE COVER

PERIPHERAL SUPPORT EQUIPMENT LIST			
Description	**Manufacturer**	**Model**	**Serial Number**
AC ADAPTER	LG ELECTRONICS	WCAD01WT	TA120012180
HEADSET	LG ELECTRONICS	NA	N/A
INDUCTIVE CHARGER PAD	LG ELECTRONICS	WCP-700	A1108WP000002

I/O CABLES

STANDARD OND INDUCTIVE COVER

Cable No.	Port	# of Identical Ports	Connector Type	Cable Type	Cable Length	Remarks
1	DC	1	MINI USB	UN-SHELDED	1.0m	N/A
2	AUDIO	1	MINI JACK	UN-SHELDED	1.0m	Volume control on cable

INDUCTIVE CHARGER WITH INDUCTIVE COVER

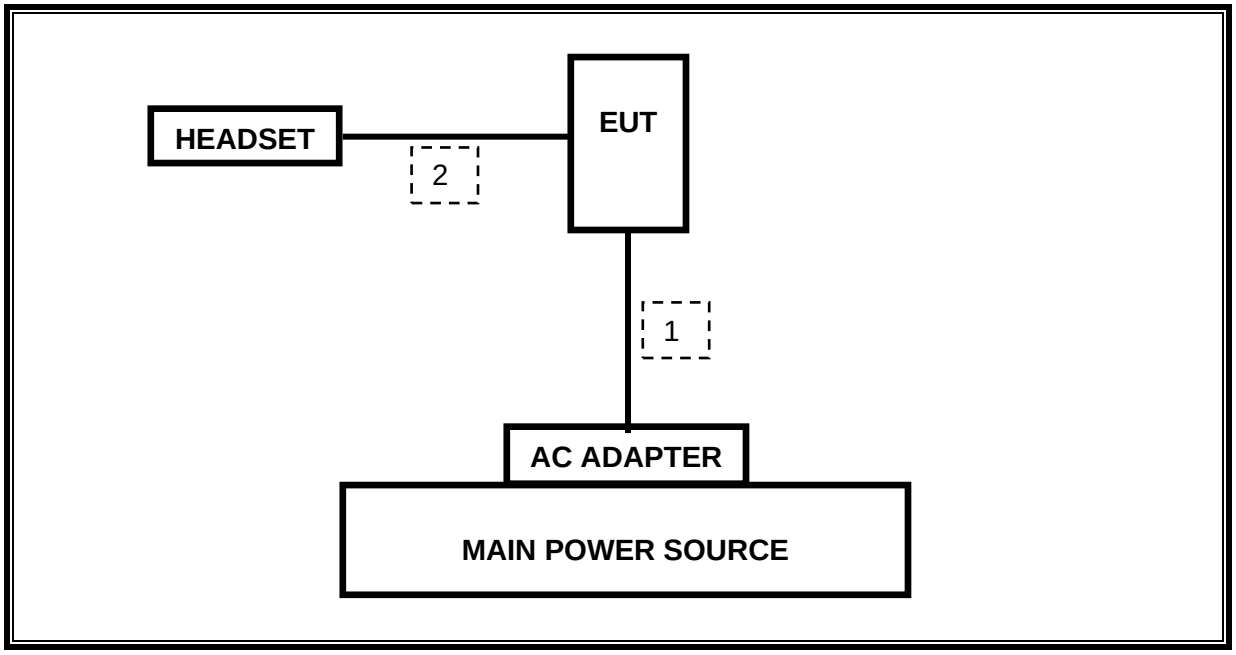
I/O CABLE LIST						
Cable No.	**Port**	**# of Identical Ports**	**Connector Type**	**Cable Type**	**Cable Length**	**Remarks**
1	DC	1	MINI USB	UN-SHELDED	1.0m	External ferrite added
2	AUDIO	1	MINI JACK	UN-SHELDED	1.0m	Volume control on cable

TEST SETUP

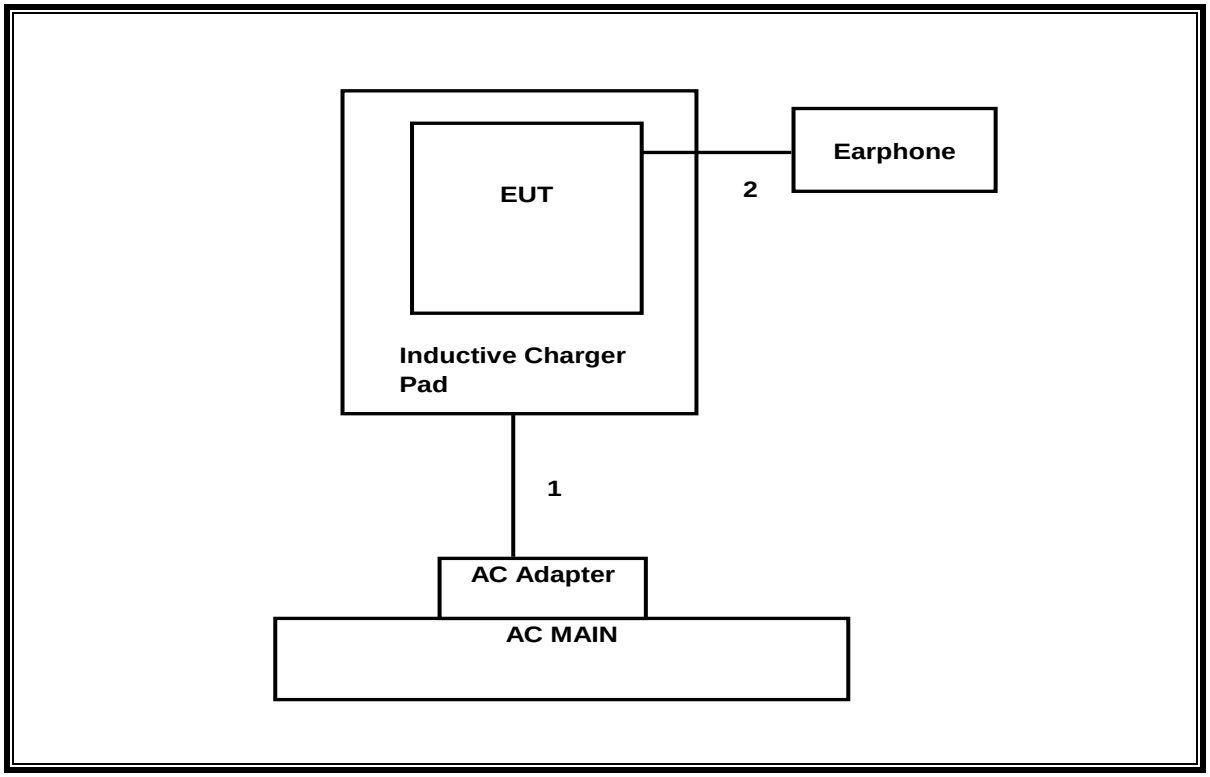
- The EUT is sat on inductive charger was tested with AC adapter and earphones.

SETUP DIAGRAM FOR TESTS

STANDARD AND INDUCTIVE COVER



INDUCTIVE CHARGER AND INDUCTIVE COVER



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**
Preamplifier, 26.5 GHz	Agilent / HP	8449B	C01063	07/12/12
Preamplifier, 1300 MHz	Agilent / HP	8447D	C00558	11/11/12
Antenna, Horn, 18 GHz	EMCO	3115	C00783	06/29/12
Antenna, Bilog, 2 GHz	Sunol Sciences	JB1	C01016	07/12/12
Antenna, Horn, 26.5 GHz	ARA	MWH-1826/B	C00589	07/28/12
Highpass Filter, 7.6 GHz	Micro-Tronics	HPM13195	N02682	CNR
Reject Filter, 2.4-2.5 GHz	Micro-Tronics	BRM50702	N02685	CNR
Antenna, Horn, 40 GHz	ARA	MWH-2640/B	C00981	06/14/12
Spectrum Analyzer, 26.5 GHz	Agilent / HP	E4440A	C01161	12/16/12
Preamplifier, 40 GHz	Miteq	NSP4000-SP2	C00990	08/02/12
Spectrum Analyzer, 44 GHz	Agilent / HP	E4446A	C01012	09/02/12
LISN, 30 MHz	FCC	LISN-50/250-25-2	N02625	11/10/12
EMI Test Receiver, 9 kHz-7 GHz	R & S	ESCI 7	1000741	07/06/12
Peak Power Meter	Agilent / HP	E4416A	C00963	03/22/13
Peak / Average Power Sensor	Agilent / HP	E9327A	C00964	12/13/12

7. ANTENNA PORT TEST RESULTS

7.1. 802.11b MODE IN THE 2.4 GHz BAND

7.1.1. 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.

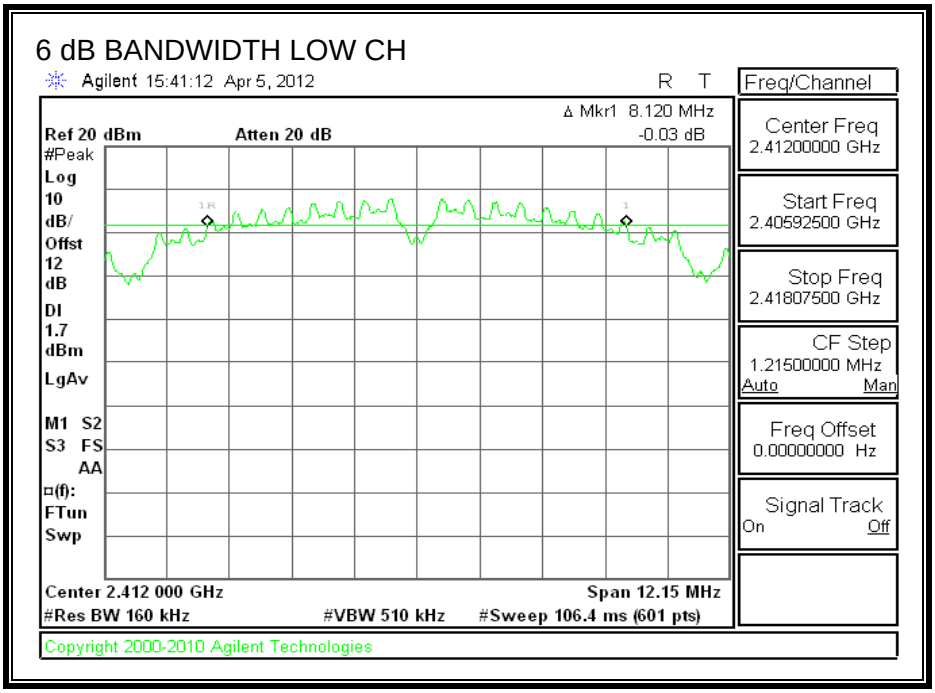
TEST PROCEDURE

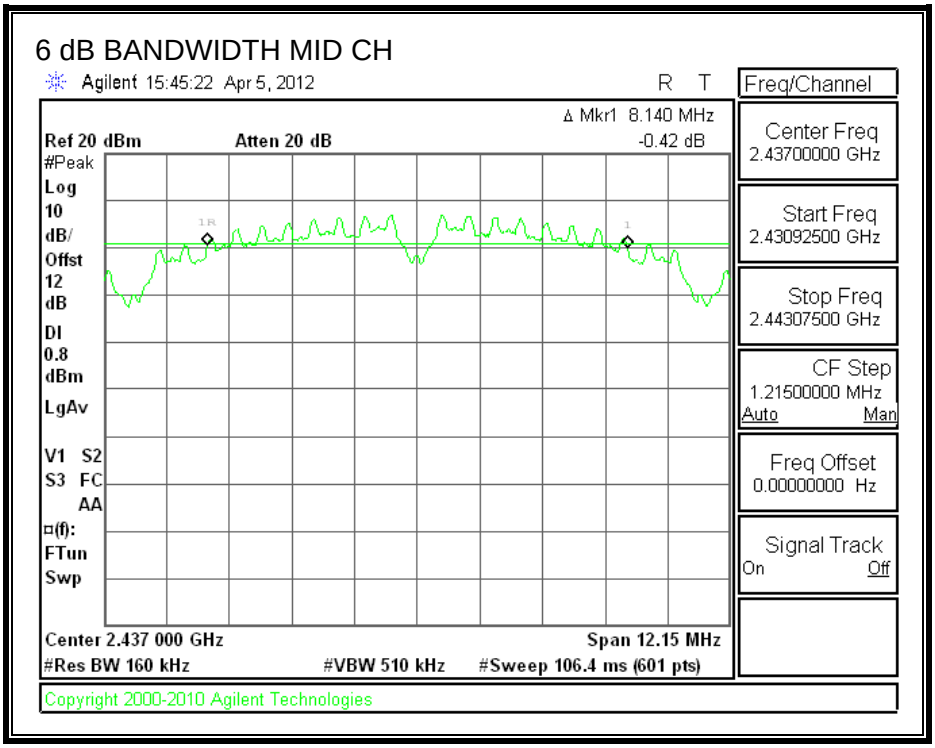
KDB 558074 D01 DTS Meas Guidance v01, dated 1/18/2012:
"Guidance for Performing Compliance Measurements on Digital Transmission Systems (DTS) Operating Under §15.247."

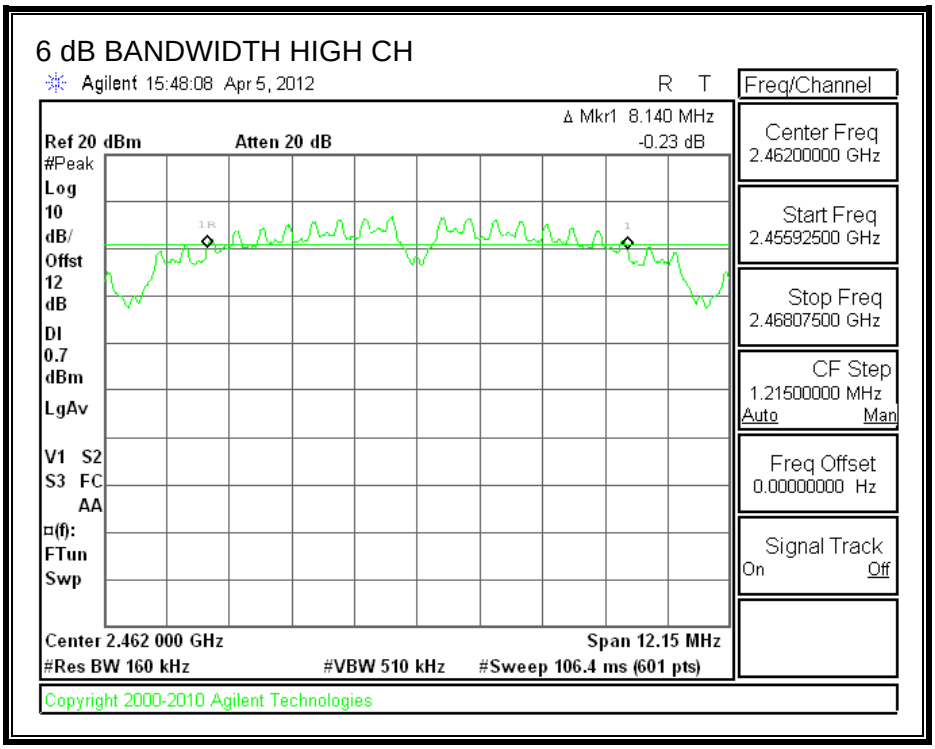
RESULTS

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Minimum Limit (MHz)
Low	2412	8.120	0.5
Middle	2437	8.140	0.5
High	2462	8.140	0.5

6 dB BANDWIDTH







7.1.2. 99% BANDWIDTH

LIMITS

None; for reporting purposes only.

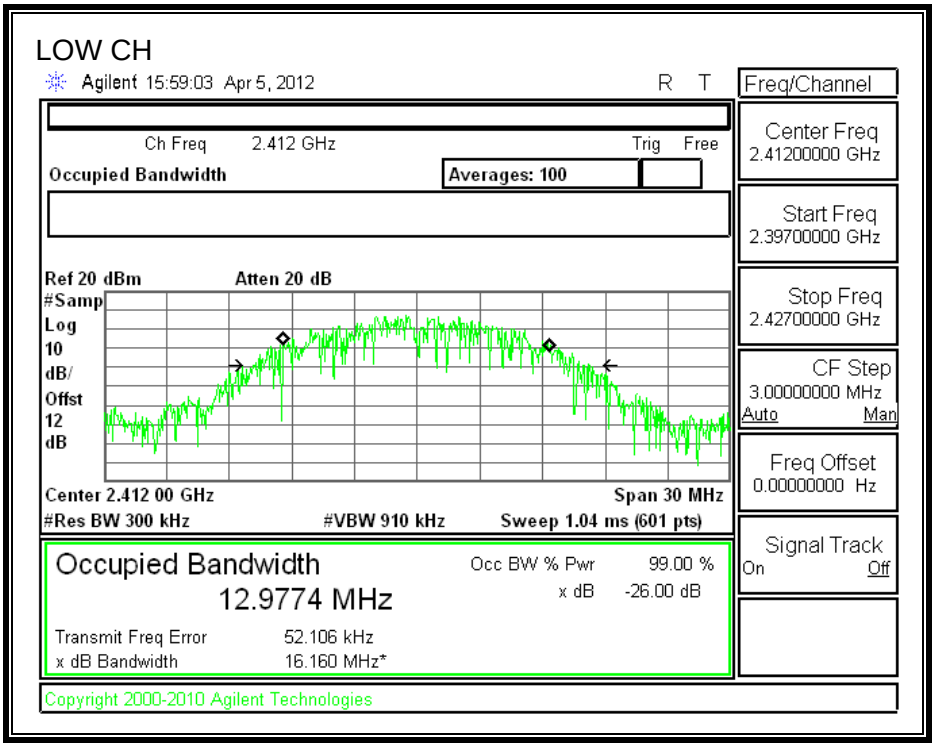
TEST PROCEDURE

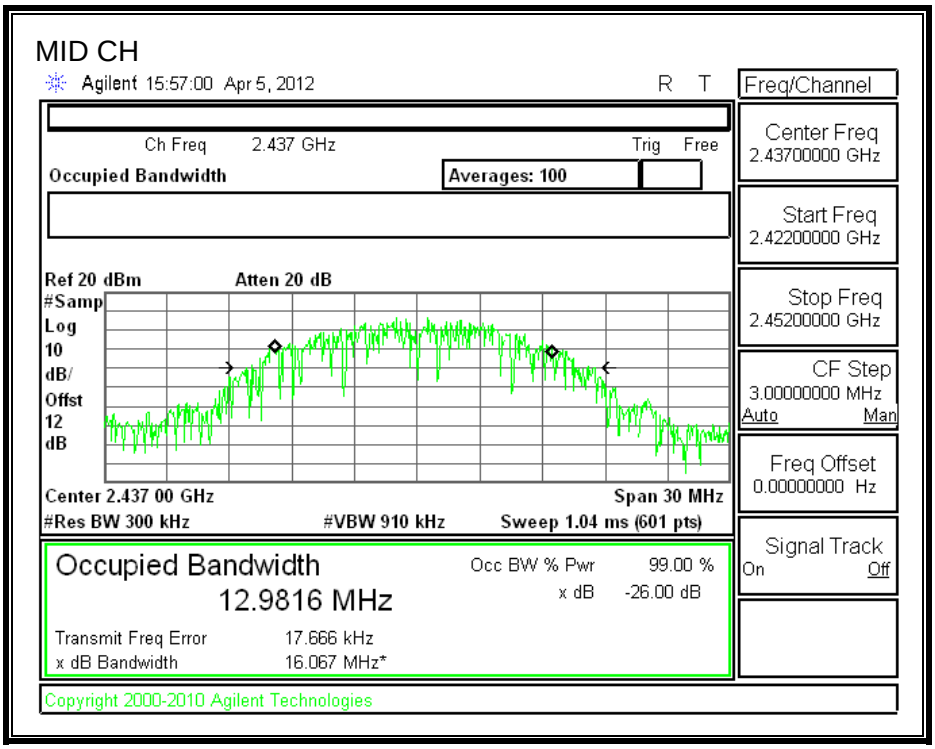
The transmitter output is connected to the spectrum analyzer. The RBW is set to 1% to 3% of the 99 % bandwidth. The VBW is set to 3 times the RBW. The sweep time is coupled. The spectrum analyzer internal 99% bandwidth function is utilized.

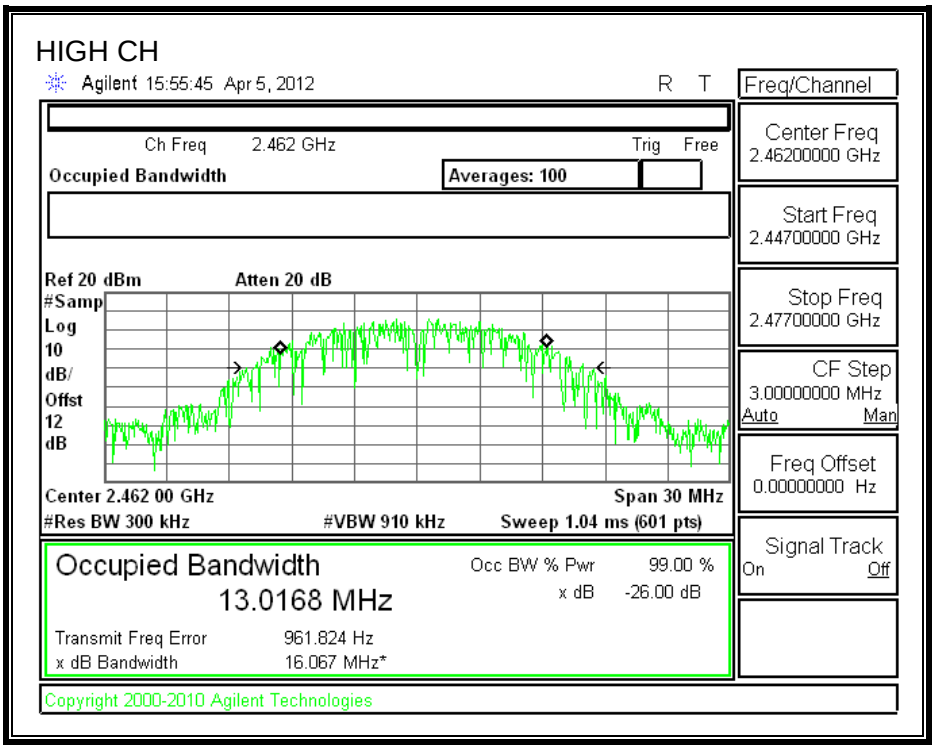
RESULTS

Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	2412	12.9774
Middle	2437	12.9816
High	2462	13.0168

99% BANDWIDTH







7.1.3. OUTPUT POWER

LIMITS

FCC §15.247 (b)

IC RSS-210 A8.4

The maximum antenna gain is less than or equal to 6 dBi, therefore the limit is 30 dBm.

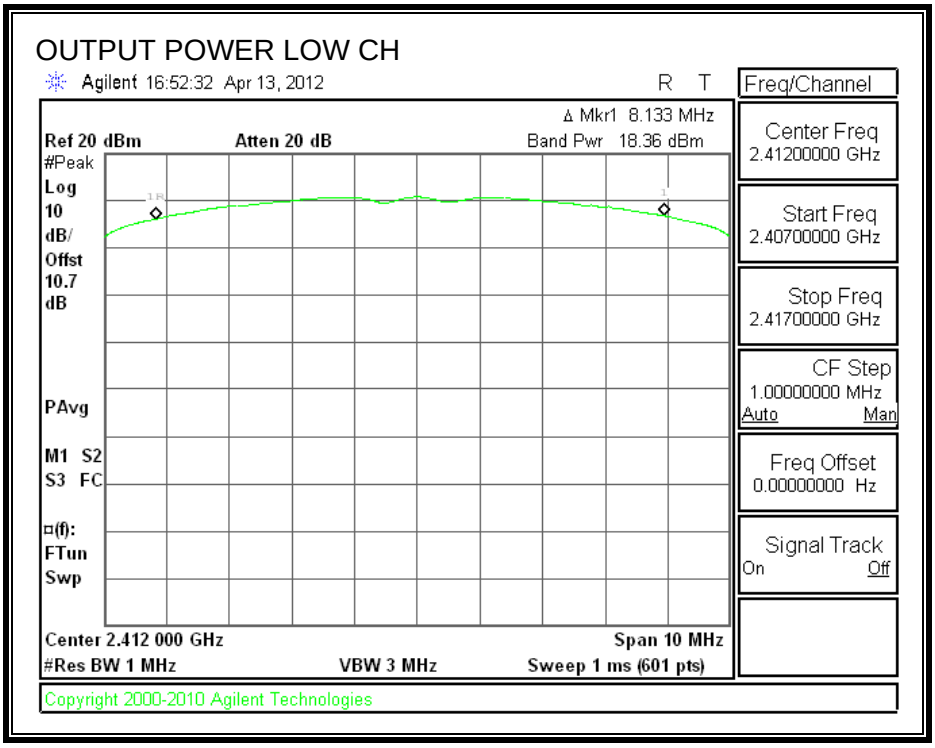
TEST PROCEDURE

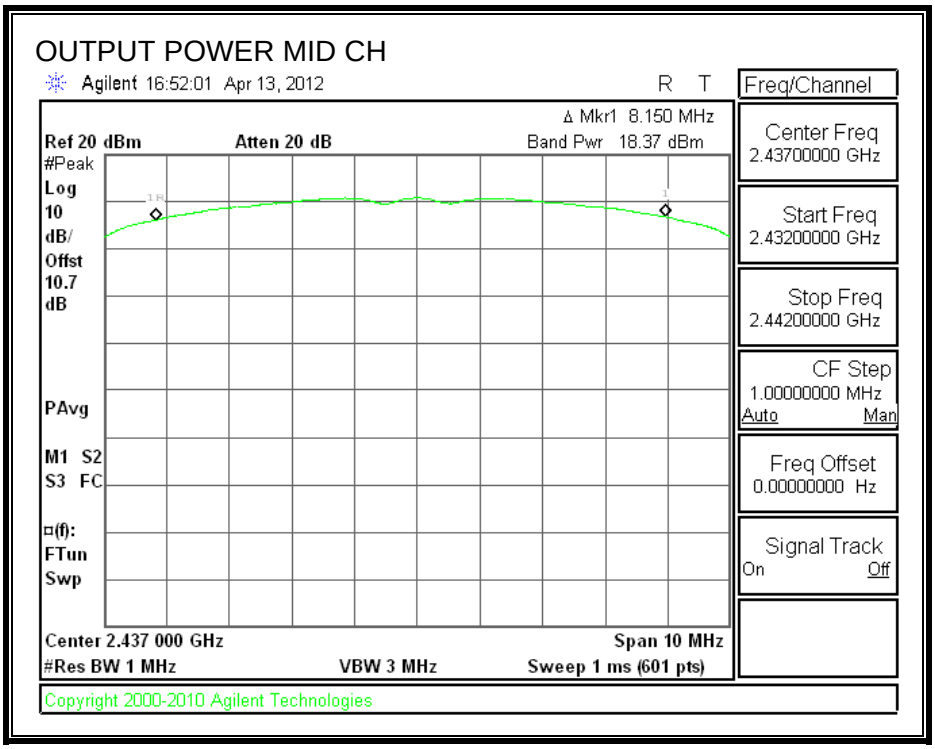
KDB 558074 D01 DTS Meas Guidance v01, dated 1/18/2012:
"Guidance for Performing Compliance Measurements on Digital Transmission Systems (DTS) Operating Under §15.247."

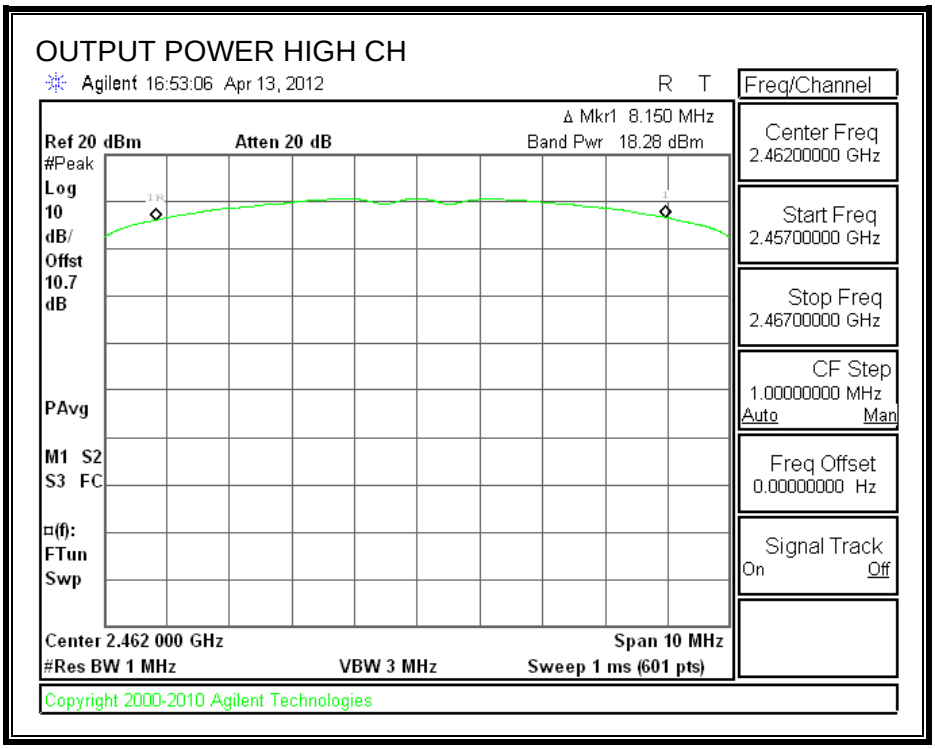
RESULTS

Channel	Frequency (MHz)	Output Power (dBm)	Limit (dBm)	Margin (dB)
Low	2412	18.36	30	-11.64
Middle	2437	18.37	30	-11.63
High	2462	18.28	30	-11.72

OUTPUT POWER







7.1.4. AVERAGE POWER

LIMITS

None; for reporting purposes only.

TEST PROCEDURE

The transmitter output is connected to a power meter.

RESULTS

The cable assembly insertion loss of 11 dB (including 10 dB pad and 1.0 dB cable) was entered as an offset in the power meter to allow for direct reading of power.

Channel	Frequency (MHz)	Power (dBm)
Low	2412	15.35
Middle	2437	14.91
High	2462	14.85

7.1.5. POWER SPECTRAL DENSITY

LIMITS

FCC §15.247 (e)

IC RSS-210 A8.2 (b)

TEST PROCEDURE

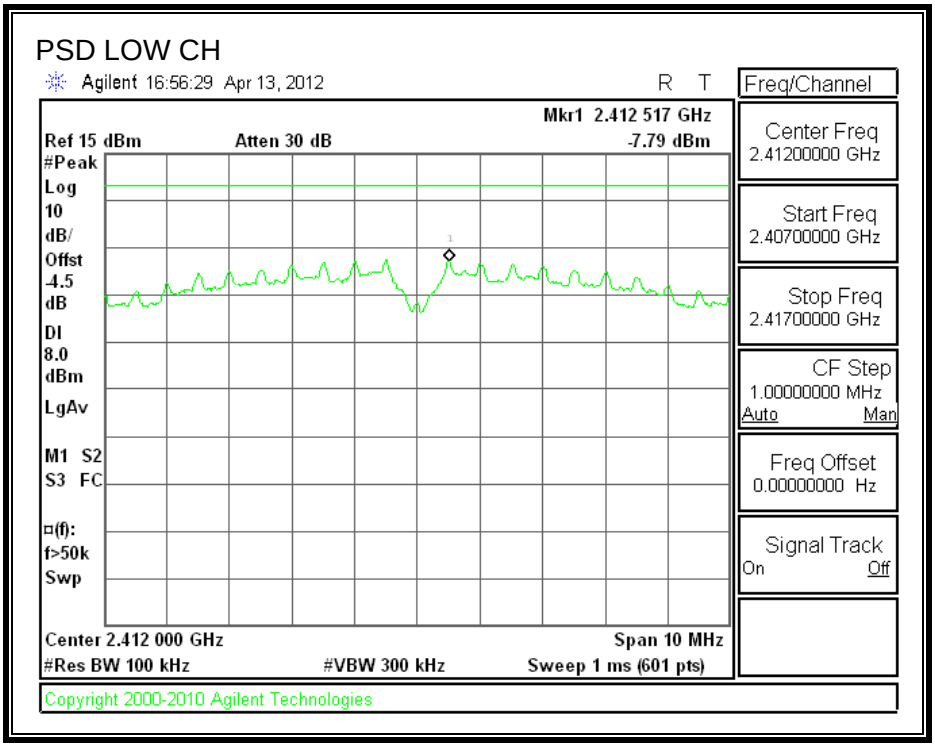
KDB 558074 D01 DTS Meas Guidance v01, dated 1/18/2012:
"Guidance for Performing Compliance Measurements on Digital Transmission Systems (DTS) Operating Under §15.247."

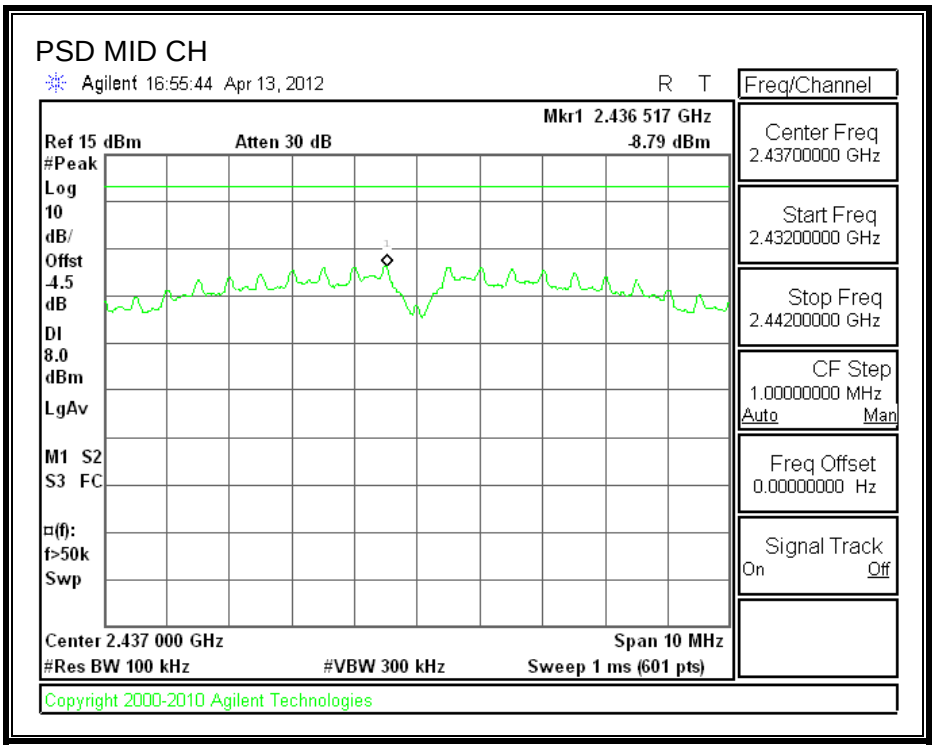
RESULTS

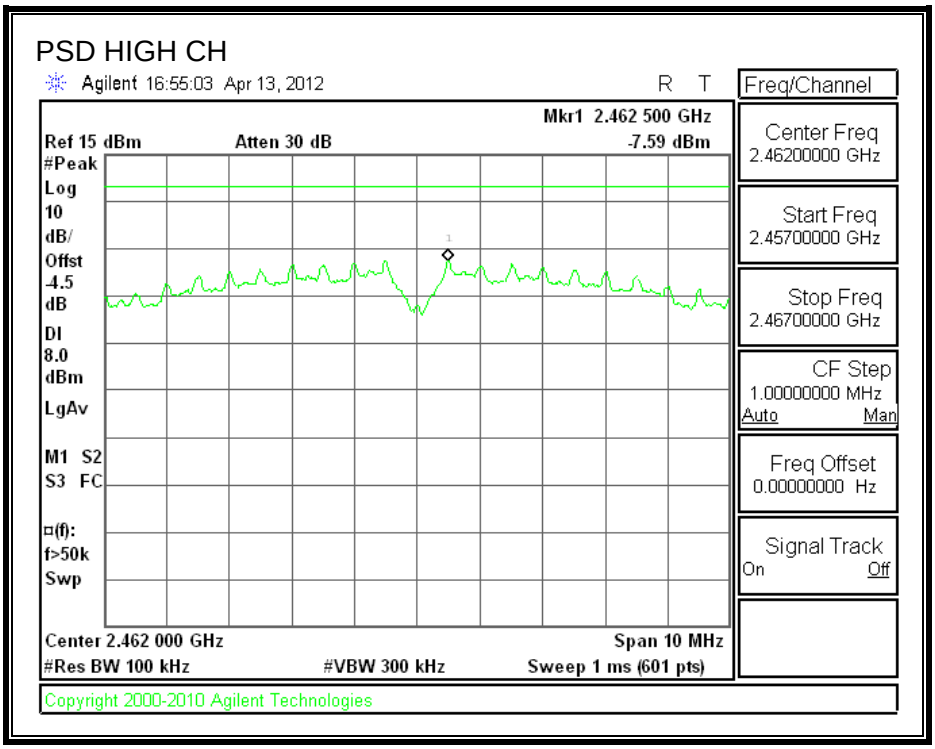
Note: Offset = Attenuation + Cable Loss – 10log (3 KHz/100KHz) = -4.5

Channel	Frequency (MHz)	PPSD (dBm)	Limit (dBm)	Margin (dB)
Low	2412	-7.79	8	-15.79
Middle	2437	-8.79	8	-16.79
High	2462	-7.59	8	-15.59

POWER SPECTRAL DENSITY







7.1.6. CONDUCTED SPURIOUS EMISSIONS

LIMITS

FCC §15.247 (d)

IC RSS-210 A8.5

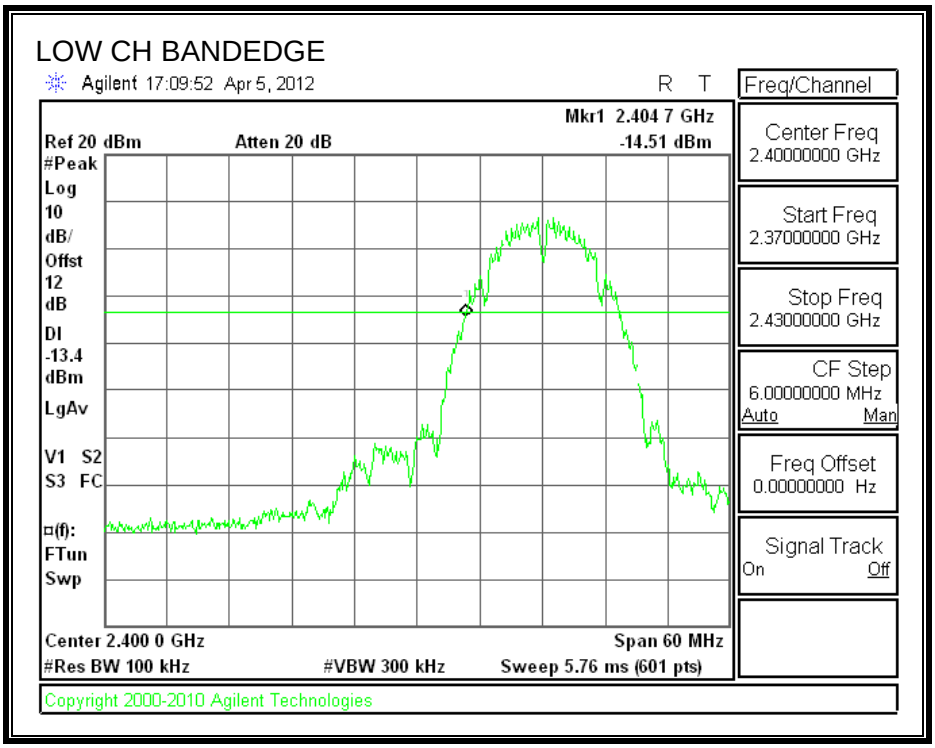
Output power was measured based on the use of a peak measurement, therefore the required attenuation is 20 dB.

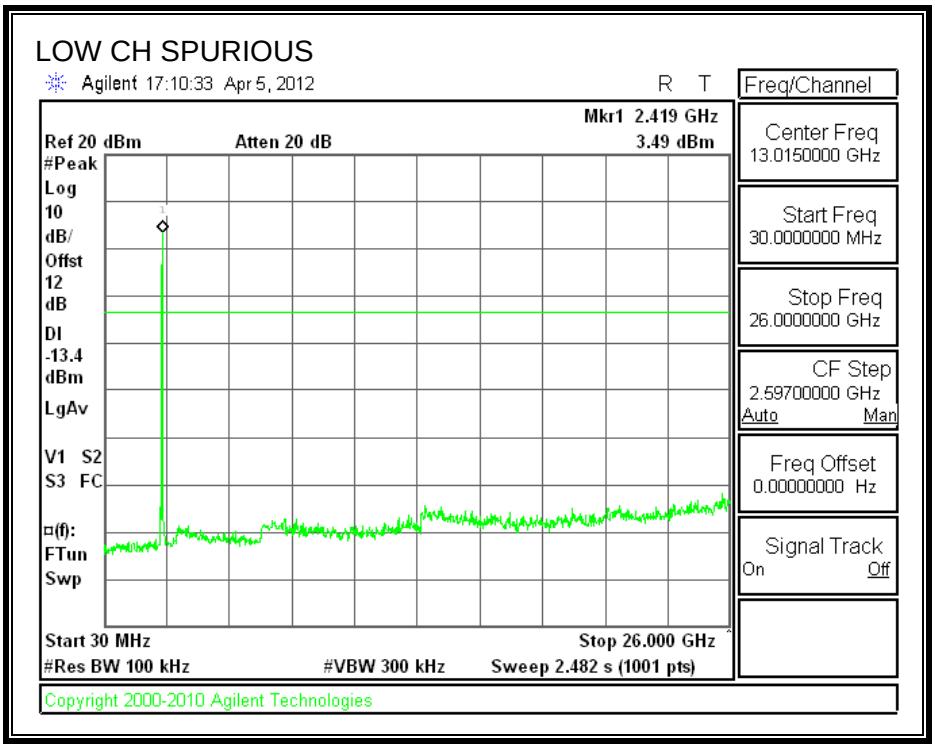
TEST PROCEDURE

KDB 558074 D01 DTS Meas Guidance v01, dated 1/18/2012:
"Guidance for Performing Compliance Measurements on Digital Transmission Systems (DTS) Operating Under §15.247."

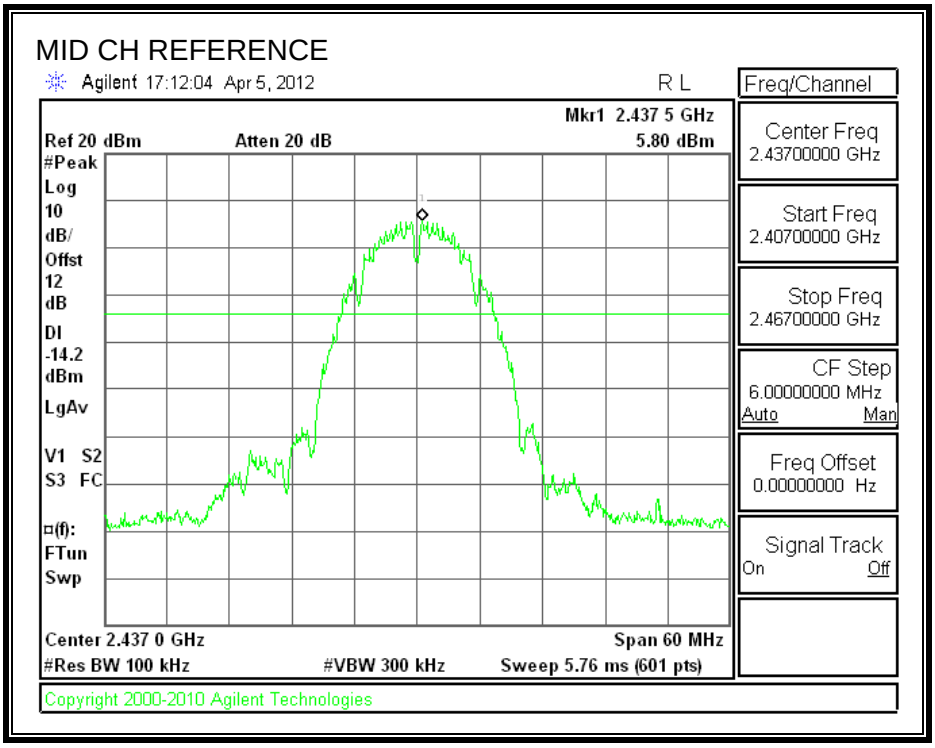
RESULTS

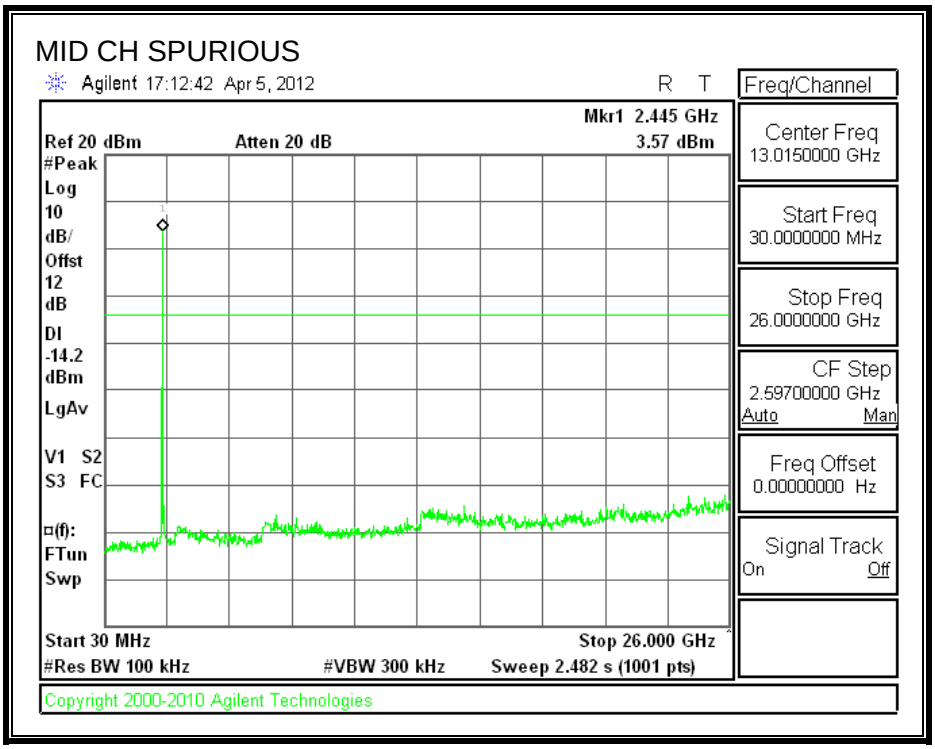
SPURIOUS EMISSIONS, LOW CHANNEL



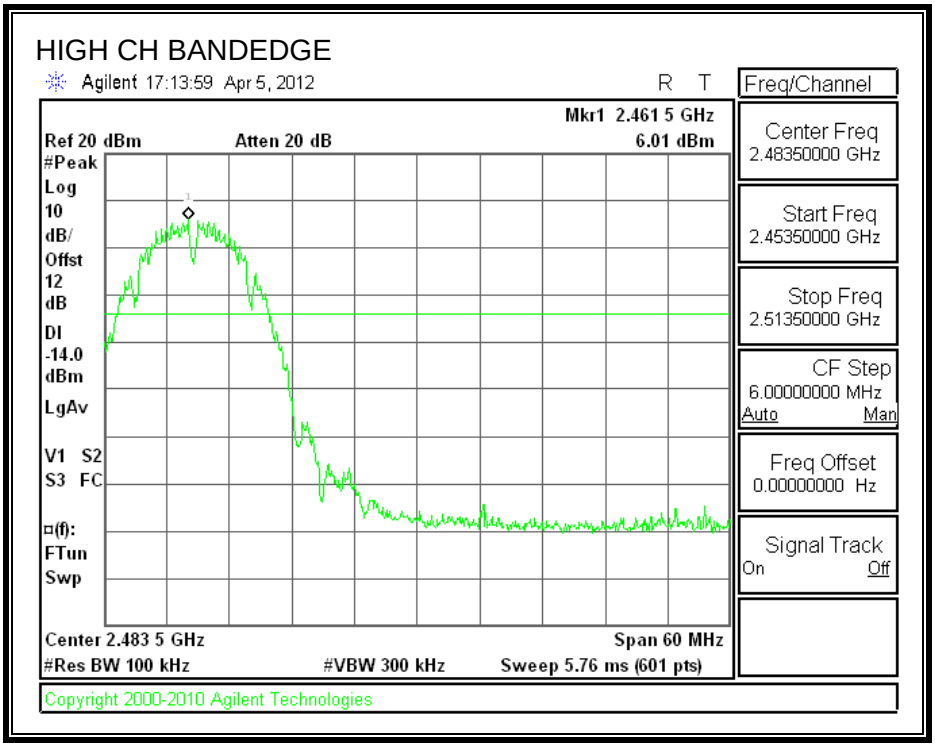


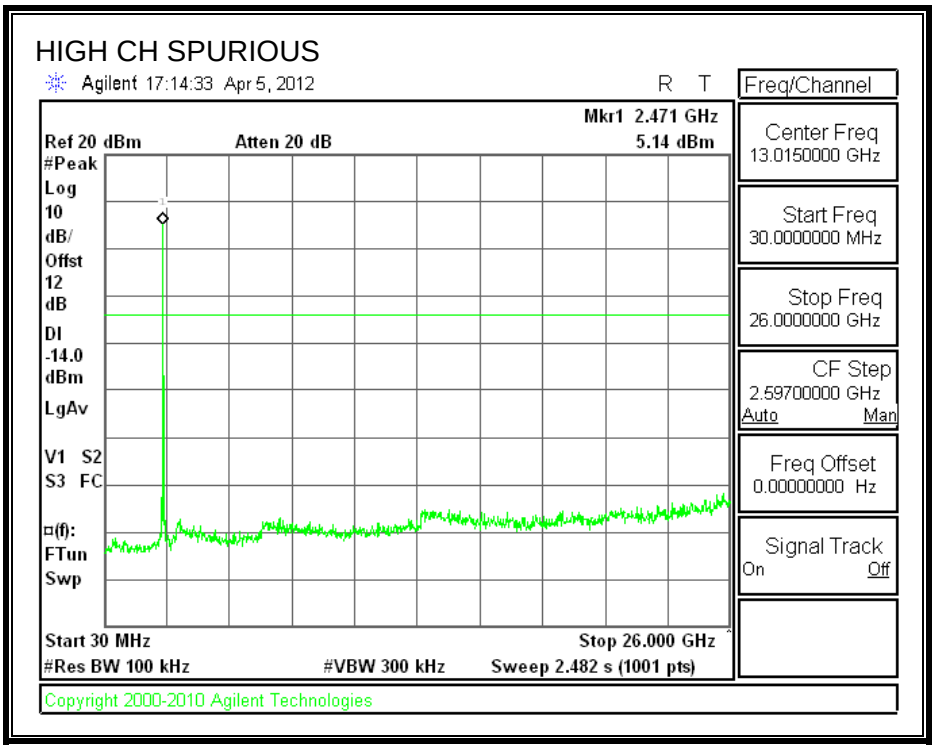
SPURIOUS EMISSIONS, MID CHANNEL





SPURIOUS EMISSIONS, HIGH CHANNEL





7.2. 802.11g MODE IN THE 2.4 GHz BAND

7.2.1. 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.

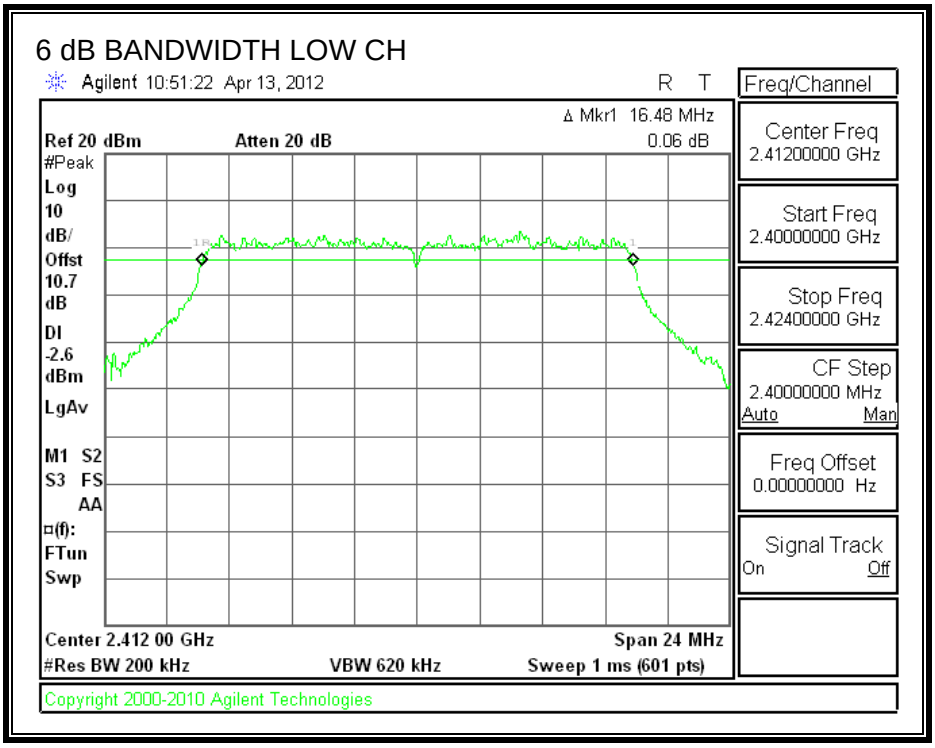
TEST PROCEDURE

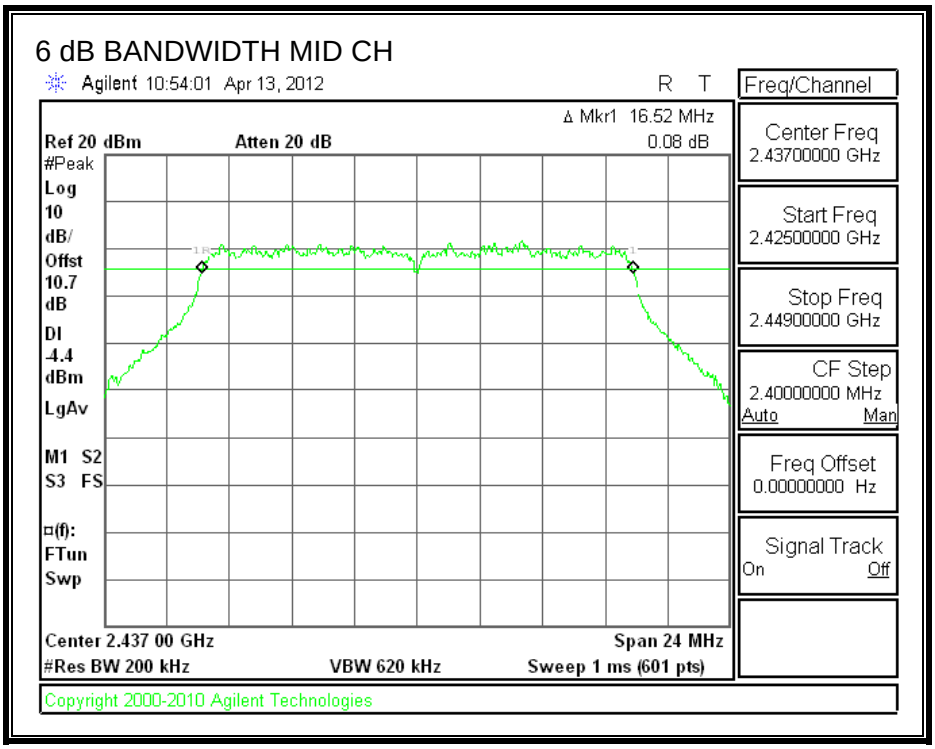
KDB 558074 D01 DTS Meas Guidance v01, dated 1/18/2012:
"Guidance for Performing Compliance Measurements on Digital Transmission Systems (DTS) Operating Under §15.247."

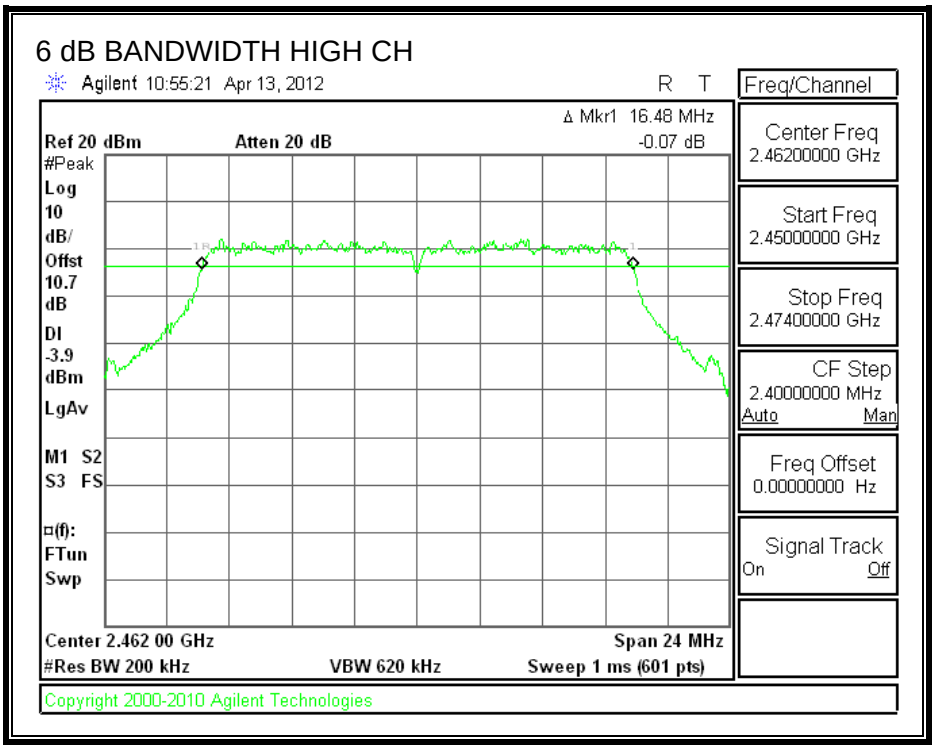
RESULTS

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Minimum Limit (MHz)
Low	2412	16.48	0.5
Middle	2437	16.52	0.5
High	2462	16.48	0.5

6 dB BANDWIDTH







7.2.2. 99% BANDWIDTH

LIMITS

None; for reporting purposes only.

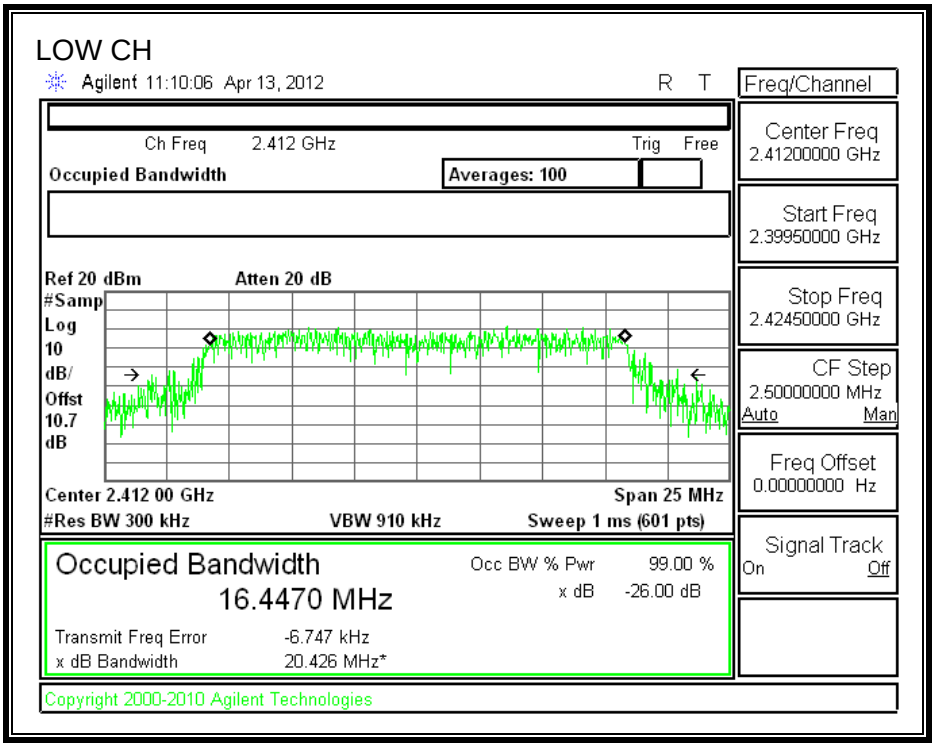
TEST PROCEDURE

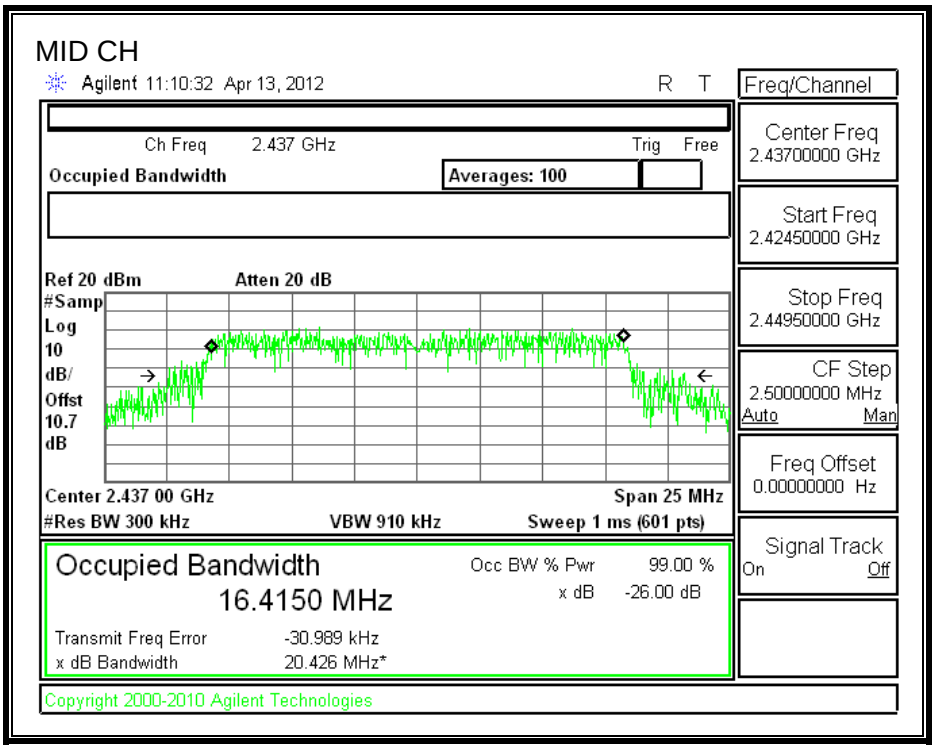
The transmitter output is connected to the spectrum analyzer. The RBW is set to 1% to 3% of the 99 % bandwidth. The VBW is set to 3 times the RBW. The sweep time is coupled. The spectrum analyzer internal 99% bandwidth function is utilized.

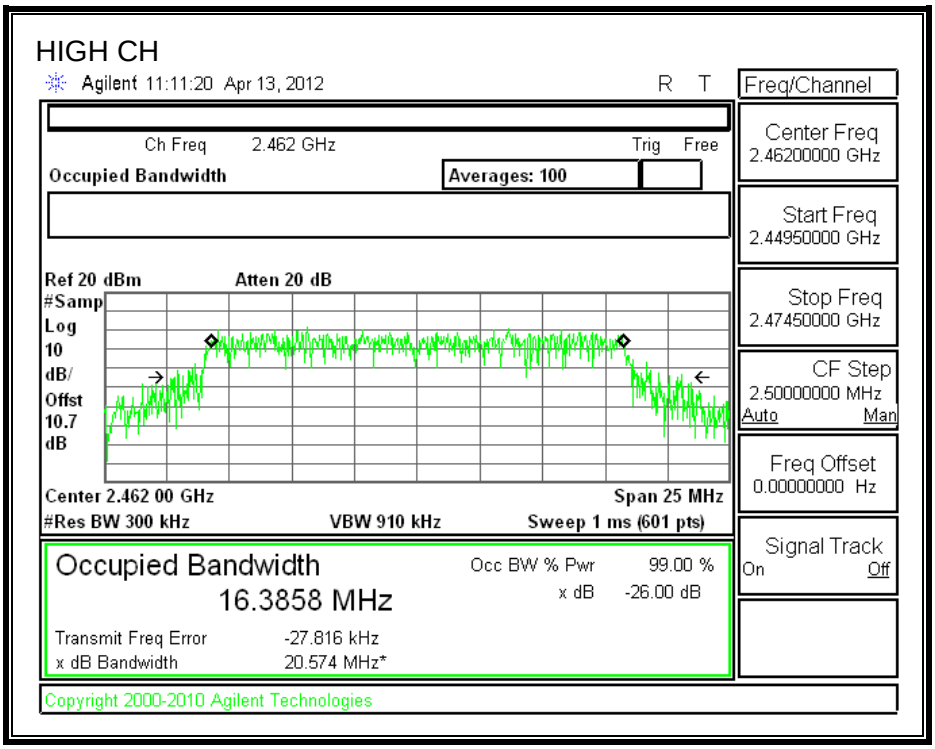
RESULTS

Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	2412	16.4470
Middle	2437	16.4150
High	2462	16.3858

99% BANDWIDTH







7.2.3. OUTPUT POWER

LIMITS

FCC §15.247 (b)

IC RSS-210 A8.4

The maximum effective legacy gain is less than or equal to 6 dBi, therefore the limit is 30 dBm.

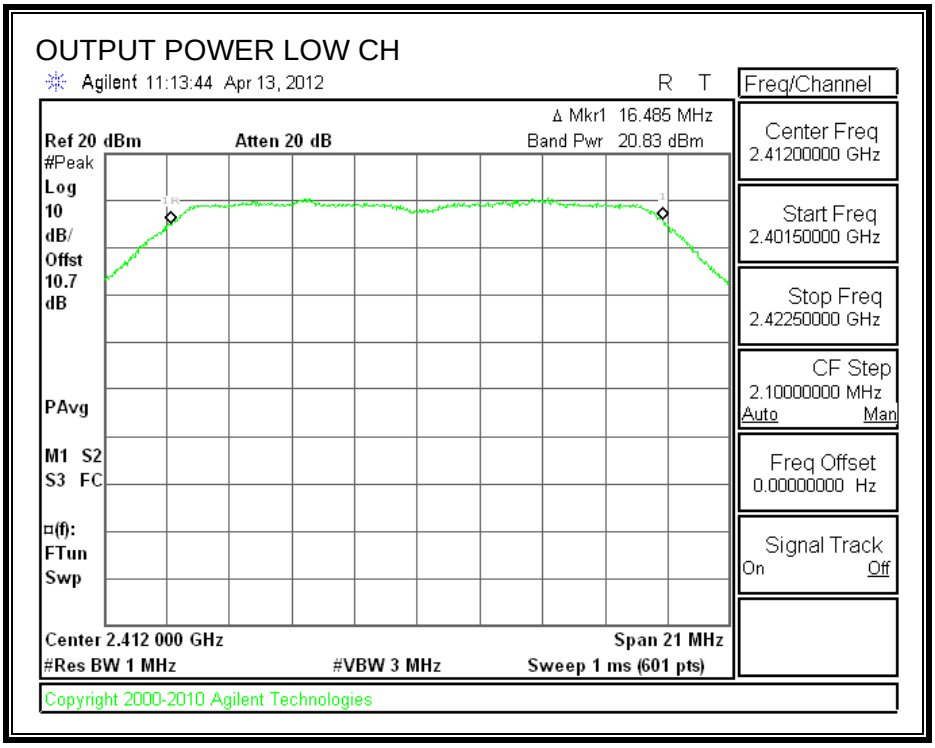
TEST PROCEDURE

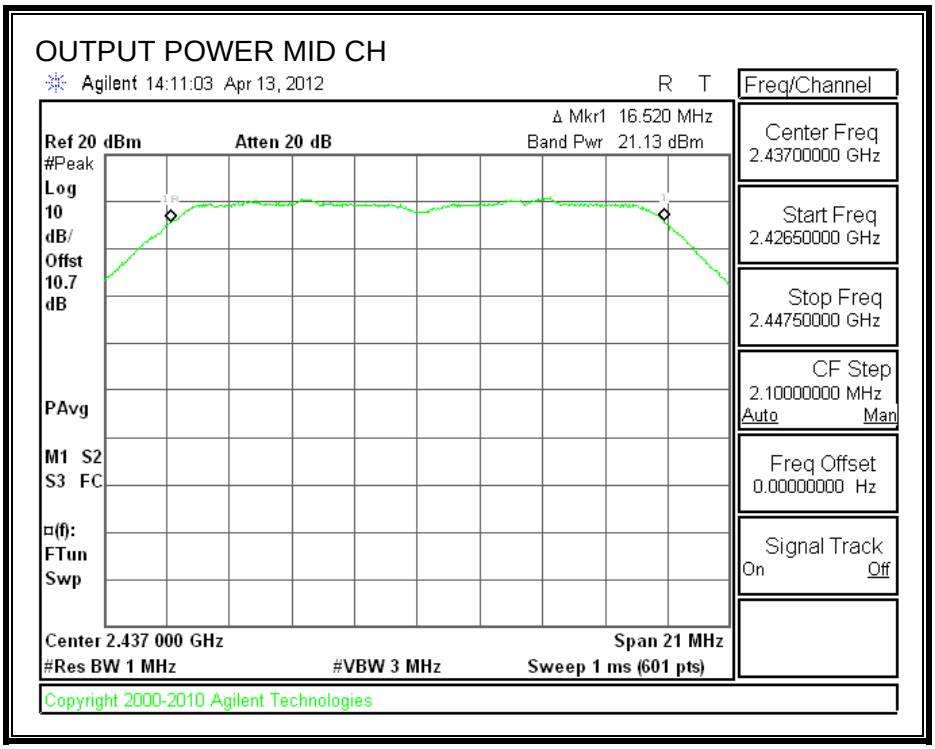
KDB 558074 D01 DTS Meas Guidance v01, dated 1/18/2012:
"Guidance for Performing Compliance Measurements on Digital Transmission Systems (DTS) Operating Under §15.247."

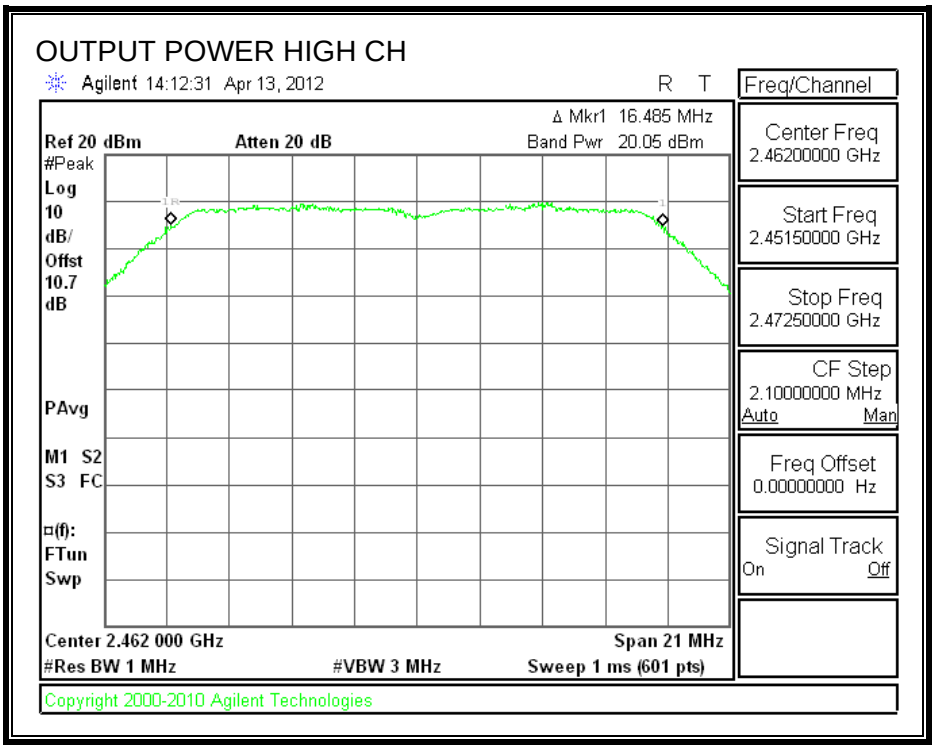
RESULTS

Channel	Frequency (MHz)	Peak Power Reading (dBm)	Output Power (dBm)	Limit (dBm)	Margin (dB)
Low	2412	20.83	20.83	30	-9.17
Middle	2437	21.13	21.13	30	-8.87
High	2462	20.05	20.05	30	-9.95

OUTPT POWER







7.2.4. AVERAGE POWER

LIMITS

None; for reporting purposes only.

TEST PROCEDURE

The transmitter output is connected to a power meter.

RESULTS

The cable assembly insertion loss of 11 dB (including 10 dB pad and 1.0 dB cable) was entered as an offset in the power meter to allow for direct reading of power.

Channel	Frequency (MHz)	Power (dBm)
Low	2412	12.08
Middle	2437	11.78
High	2462	11.71

7.2.5. POWER SPECTRAL DENSITY

LIMITS

FCC §15.247 (e)

IC RSS-210 A8.2 (b)

TEST PROCEDURE

KDB 558074 D01 DTS Meas Guidance v01, dated 1/18/2012:
"Guidance for Performing Compliance Measurements on Digital Transmission Systems (DTS) Operating Under §15.247."

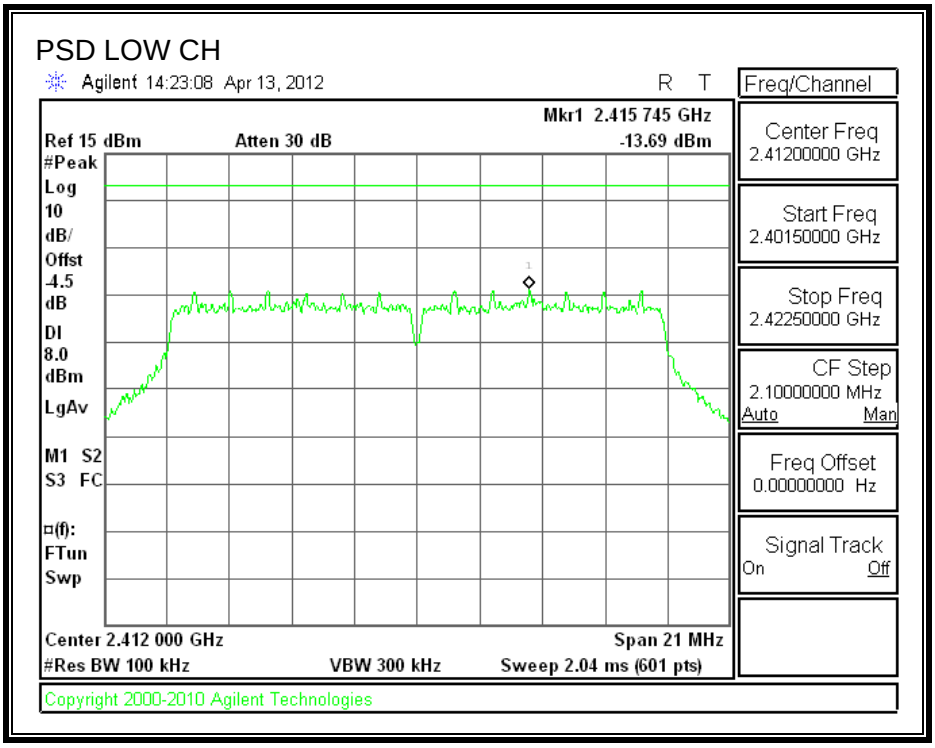
RESULTS

Note: Offset = Attenuation + Cable Loss – 10log (3 KHz/100KHz) = -4.5

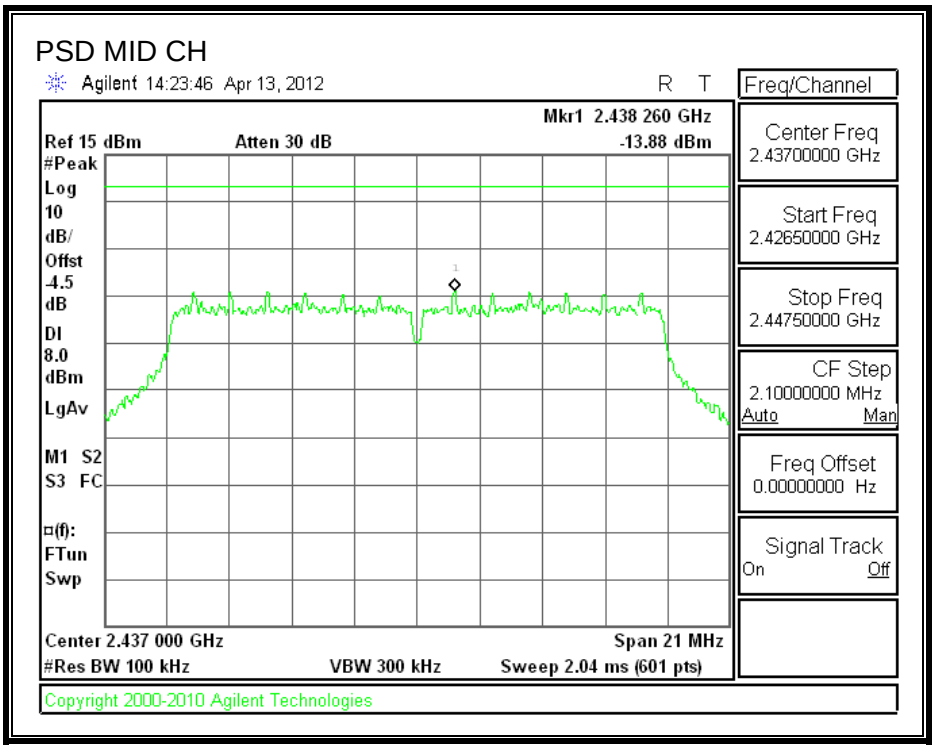
Channel	Frequency (MHz)	PPSD (dBm)	Limit (dBm)	Margin (dB)
Low	2412	-13.69	8	-21.69
Middle	2437	-13.88	8	-21.88
High	2462	-14.00	8	-22.00

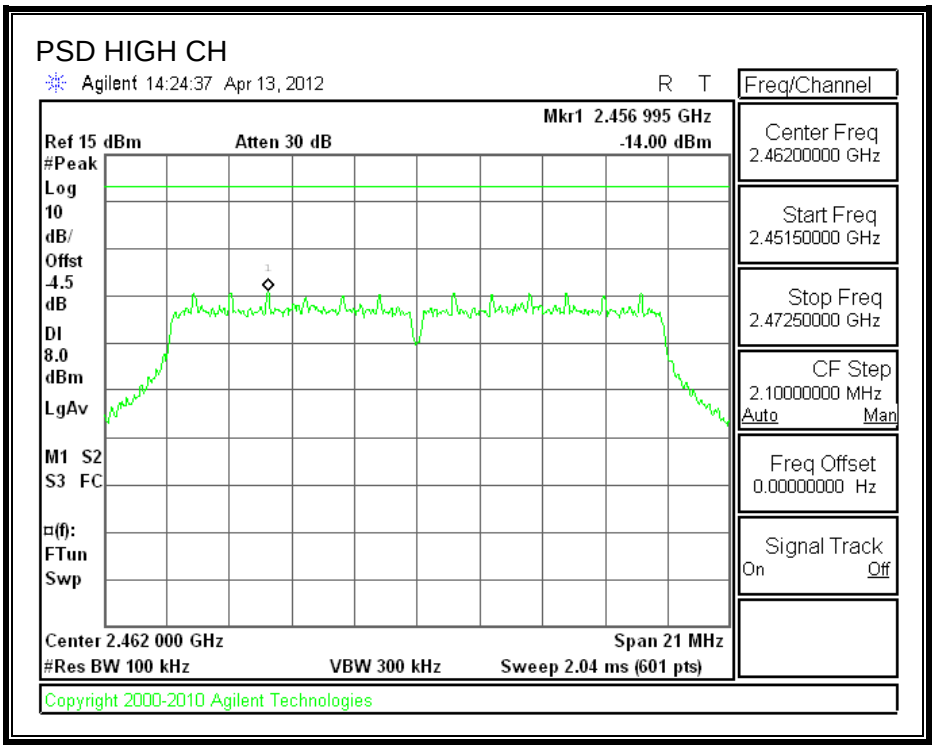
POWER SPECTRAL DENSITY

PSD LOW CH



PSD MID CH





7.2.6. CONDUCTED SPURIOUS EMISSIONS

LIMITS

FCC §15.247 (d)

IC RSS-210 A8.5

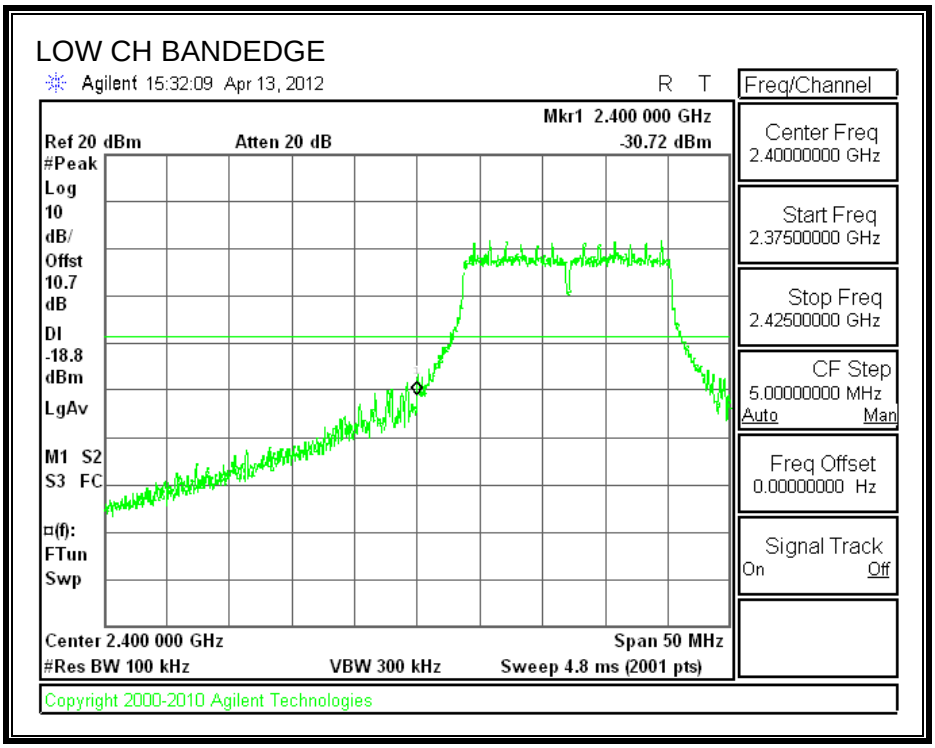
Output power was measured based on the use of a peak measurement, therefore the required attenuation is 20 dB.

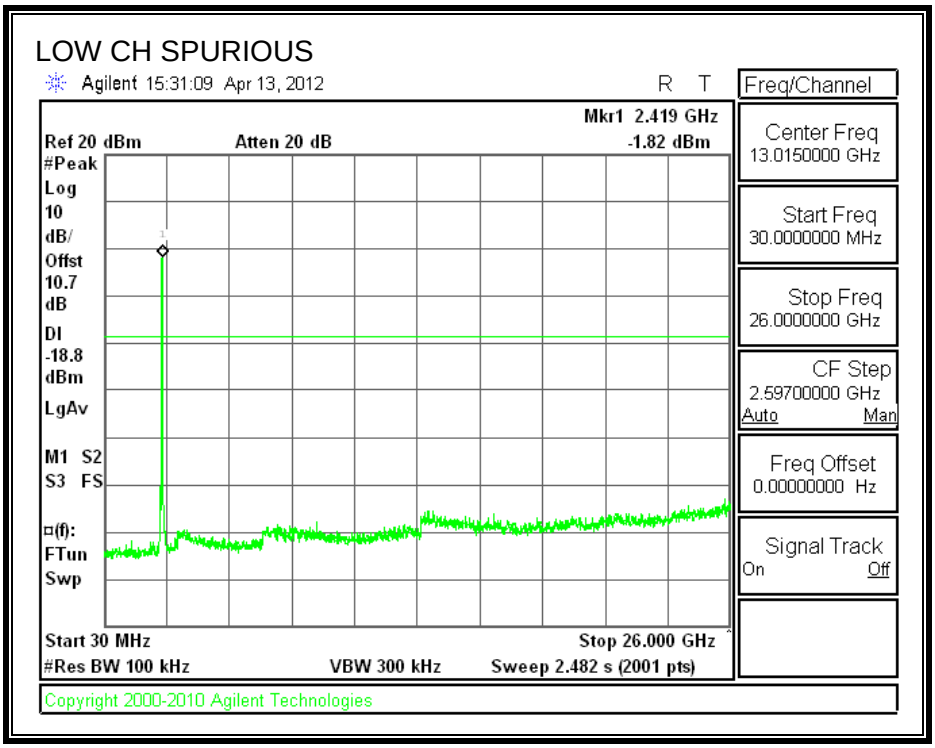
TEST PROCEDURE

KDB 558074 D01 DTS Meas Guidance v01, dated 1/18/2012:
"Guidance for Performing Compliance Measurements on Digital Transmission Systems (DTS) Operating Under §15.247."

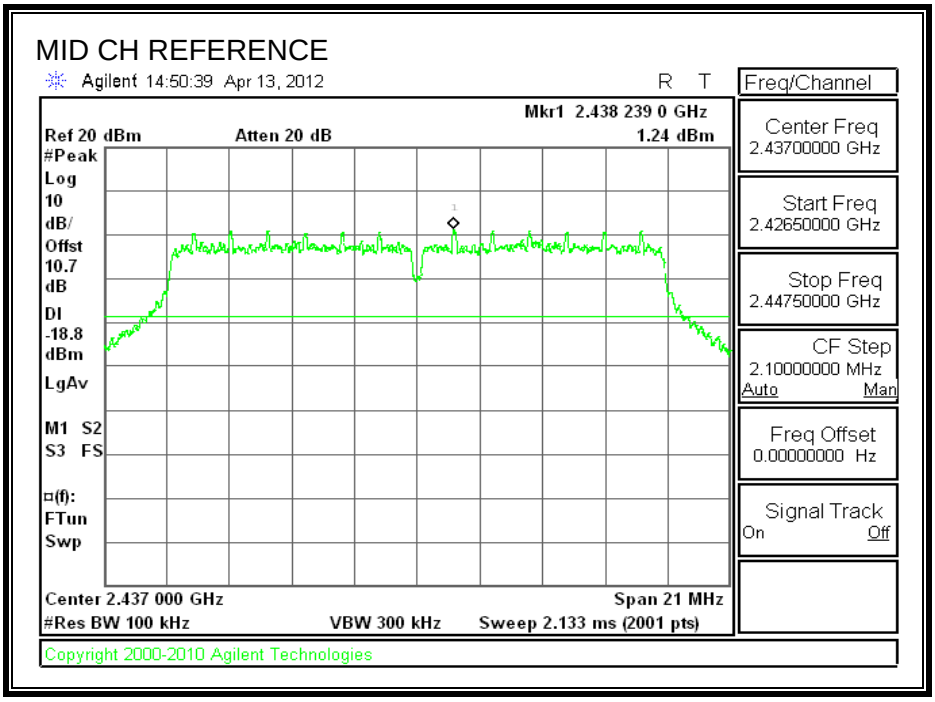
RESULTS

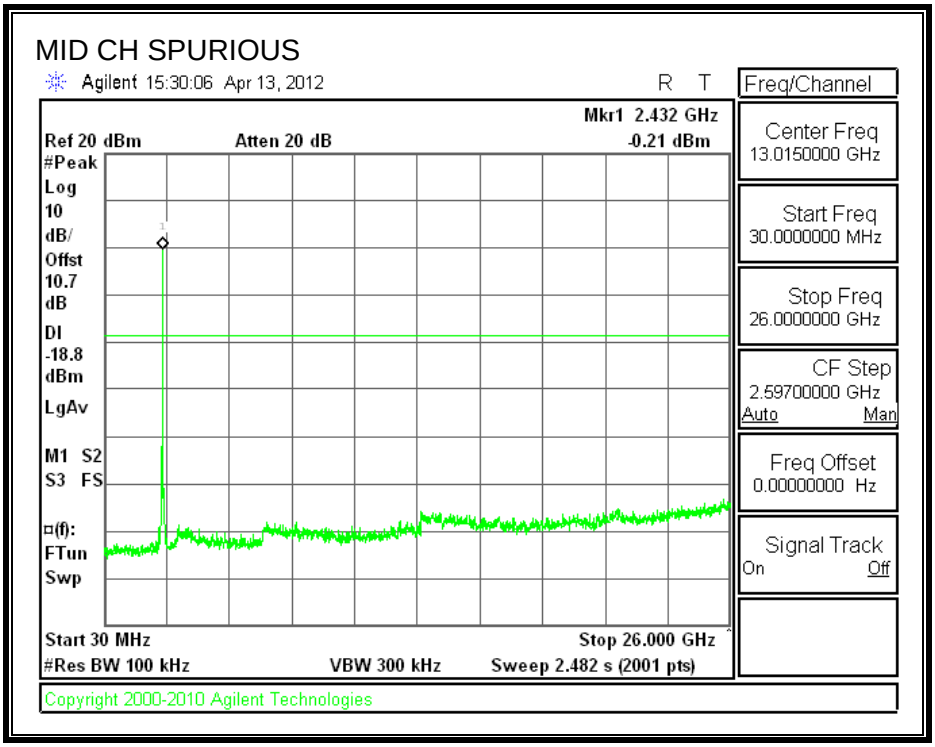
SPURIOUS EMISSIONS, LOW CHANNEL



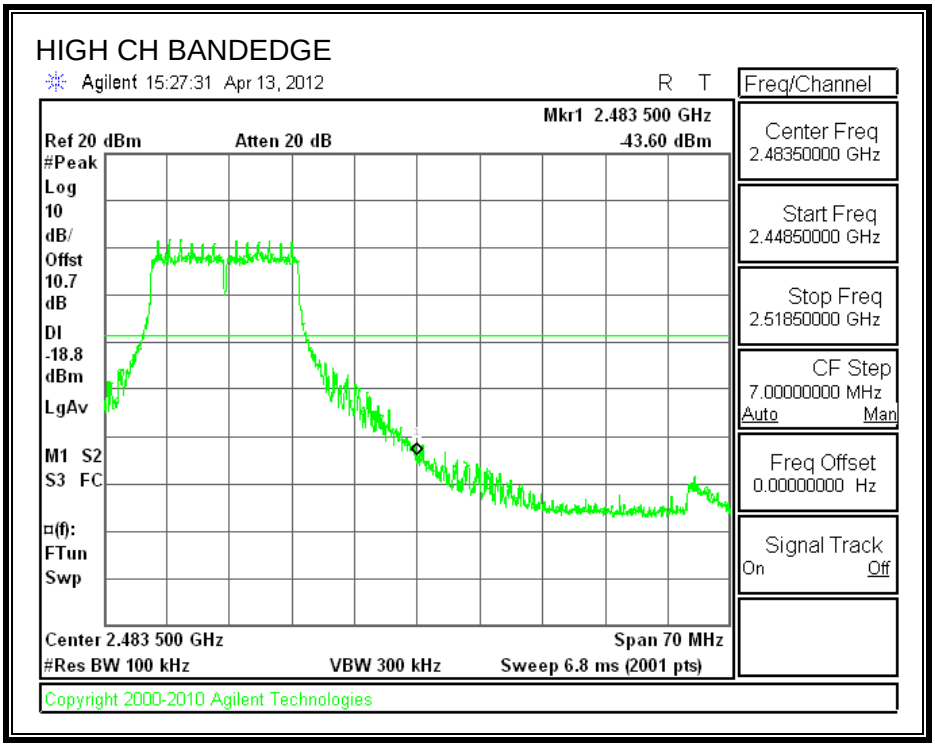


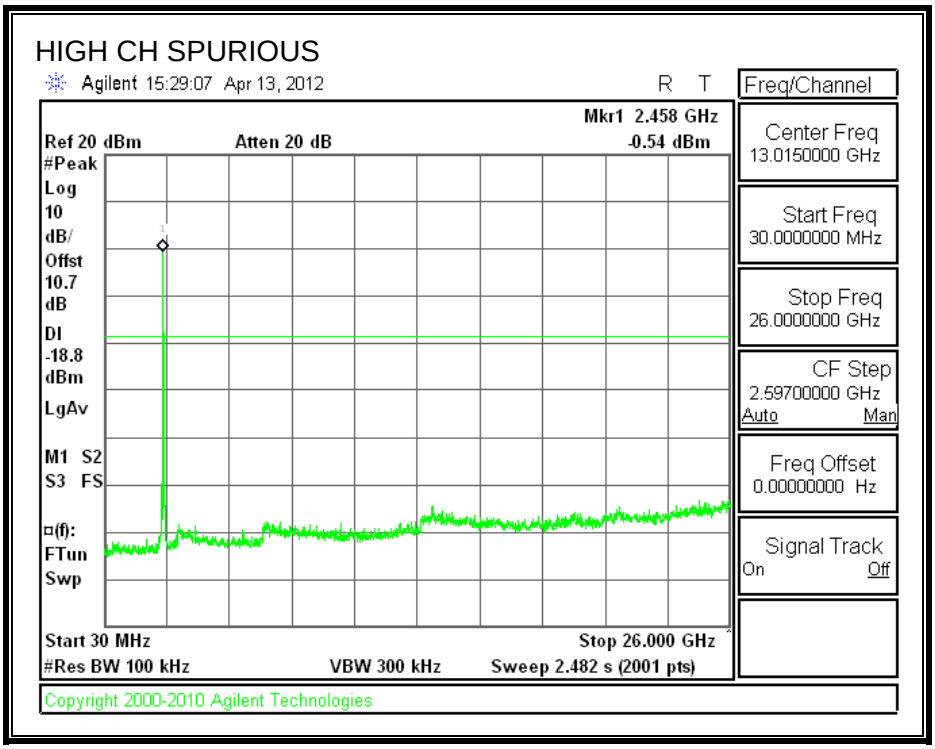
SPURIOUS EMISSIONS, MID CHANNEL





SPURIOUS EMISSIONS, HIGH CHANNEL





7.3. 802.11n HT20 MODE IN THE 2.4 GHz BAND

7.3.1. 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.

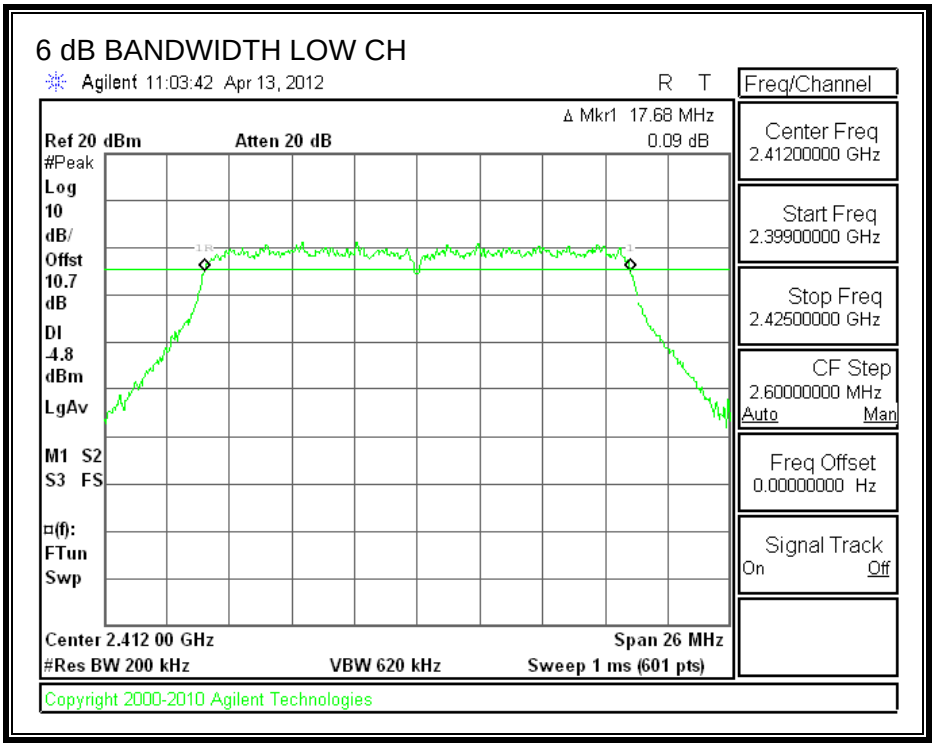
TEST PROCEDURE

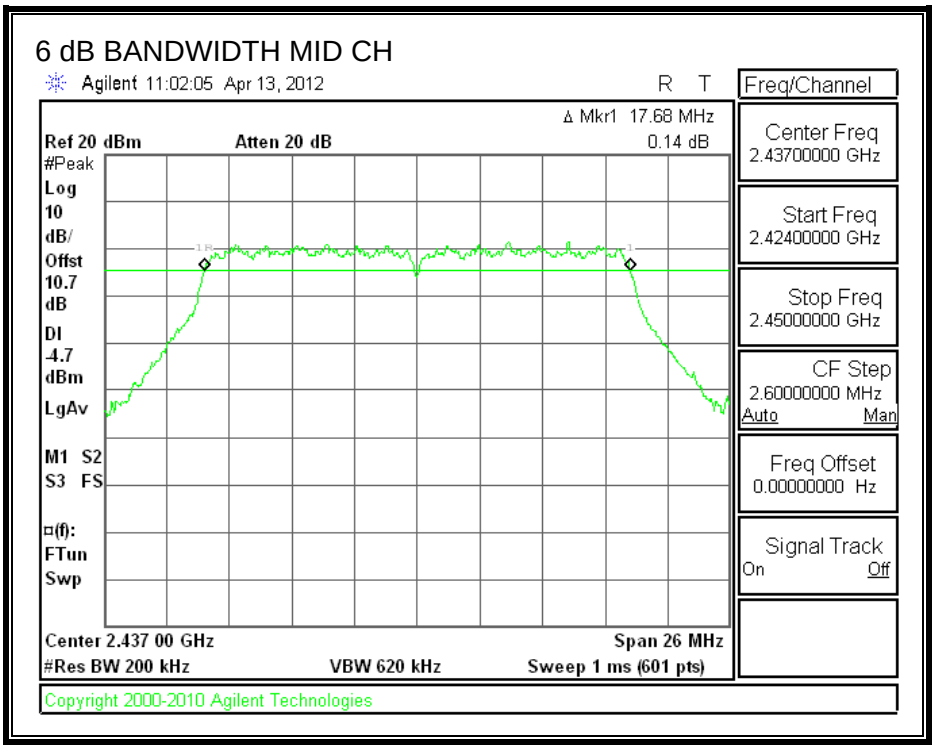
KDB 558074 D01 DTS Meas Guidance v01, dated 1/18/2012:
"Guidance for Performing Compliance Measurements on Digital Transmission Systems (DTS) Operating Under §15.247."

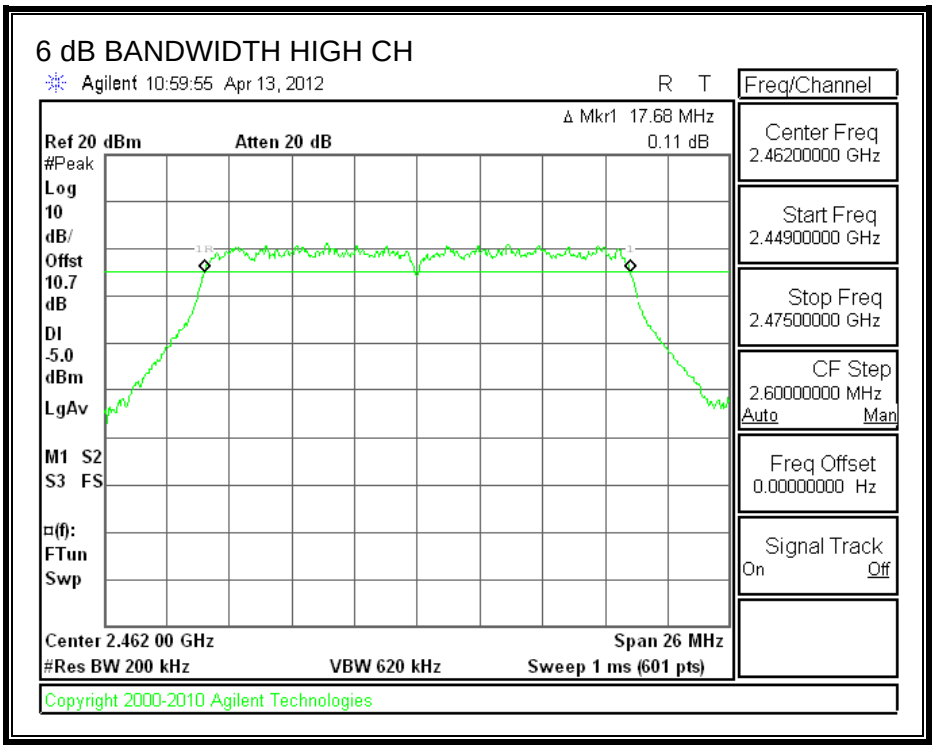
RESULTS

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Minimum Limit (MHz)
Low	2412	17.68	0.5
Middle	2437	17.68	0.5
High	2462	17.68	0.5

6 dB BANDWIDTH







7.3.2. 99% BANDWIDTH

LIMITS

None; for reporting purposes only.

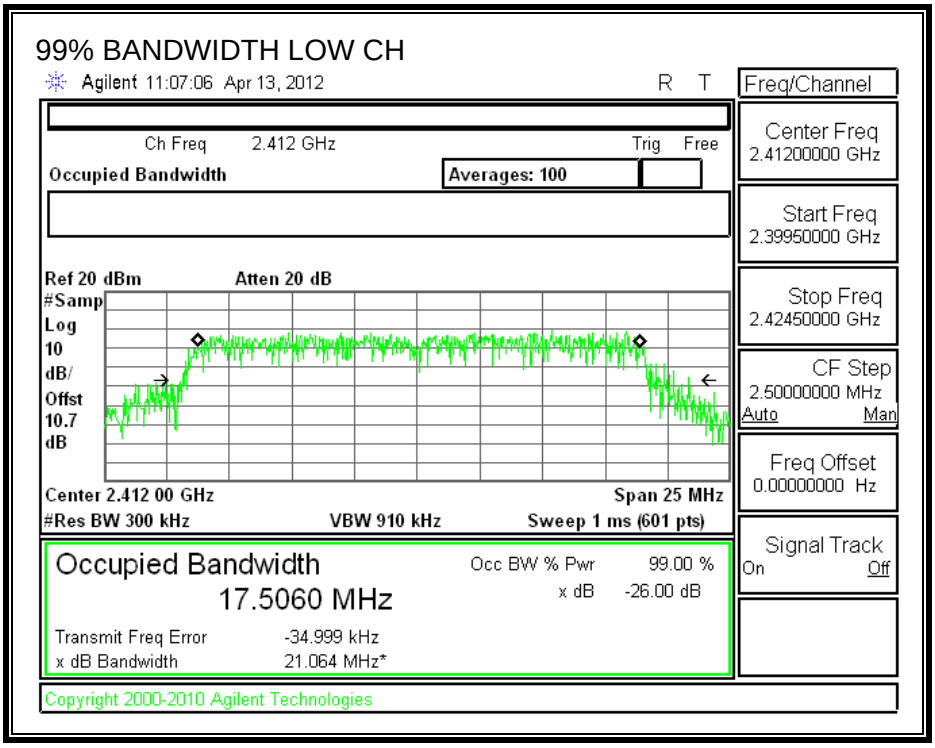
TEST PROCEDURE

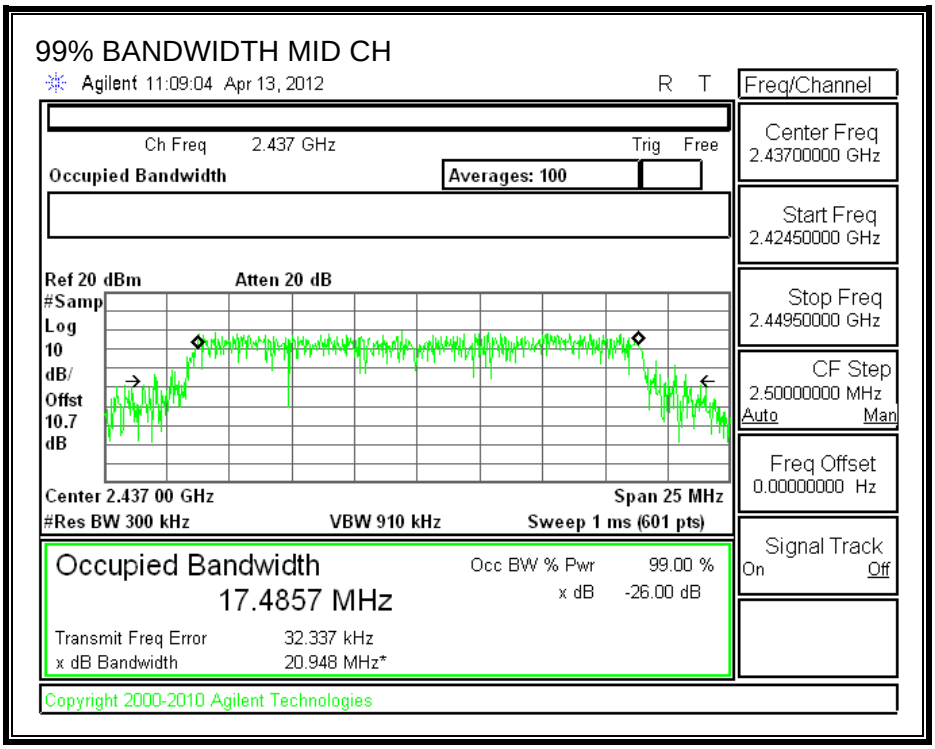
The transmitter output is connected to the spectrum analyzer. The RBW is set to 1% to 3% of the 99 % bandwidth. The VBW is set to 3 times the RBW. The sweep time is coupled. The spectrum analyzer internal 99% bandwidth function is utilized.

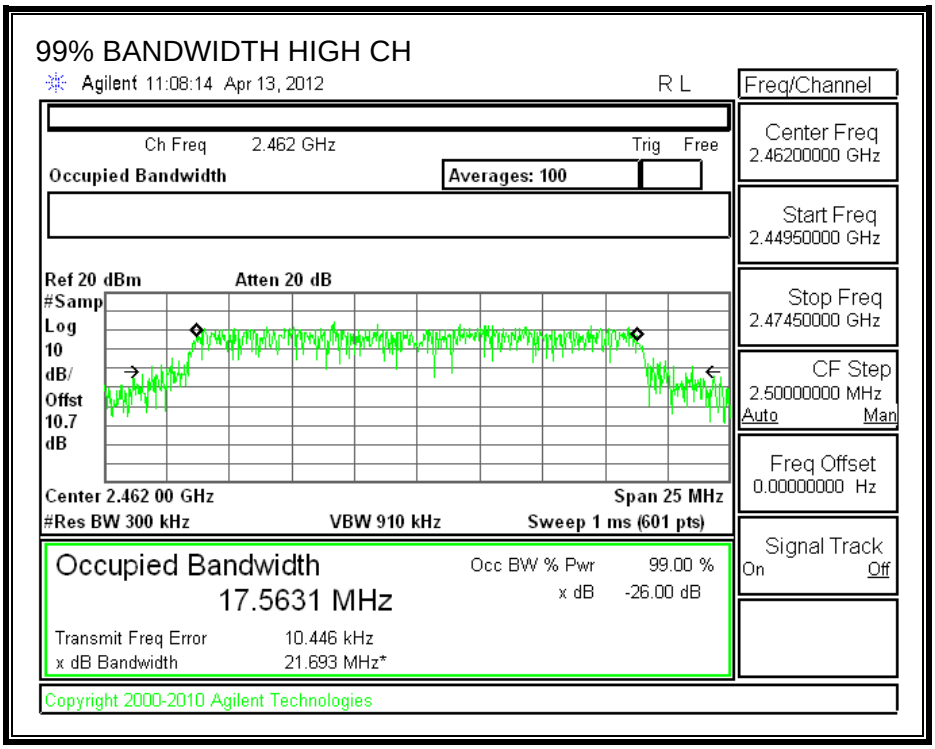
RESULTS

Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	2412	17.5060
Middle	2437	17.4857
High	2462	17.5631

99% BANDWIDTH







7.3.3. OUTPUT POWER

LIMITS

FCC §15.247 (b)

IC RSS-210 A8.4

The maximum antenna gain is less than or equal to 6 dBi, therefore the limit is 30 dBm.

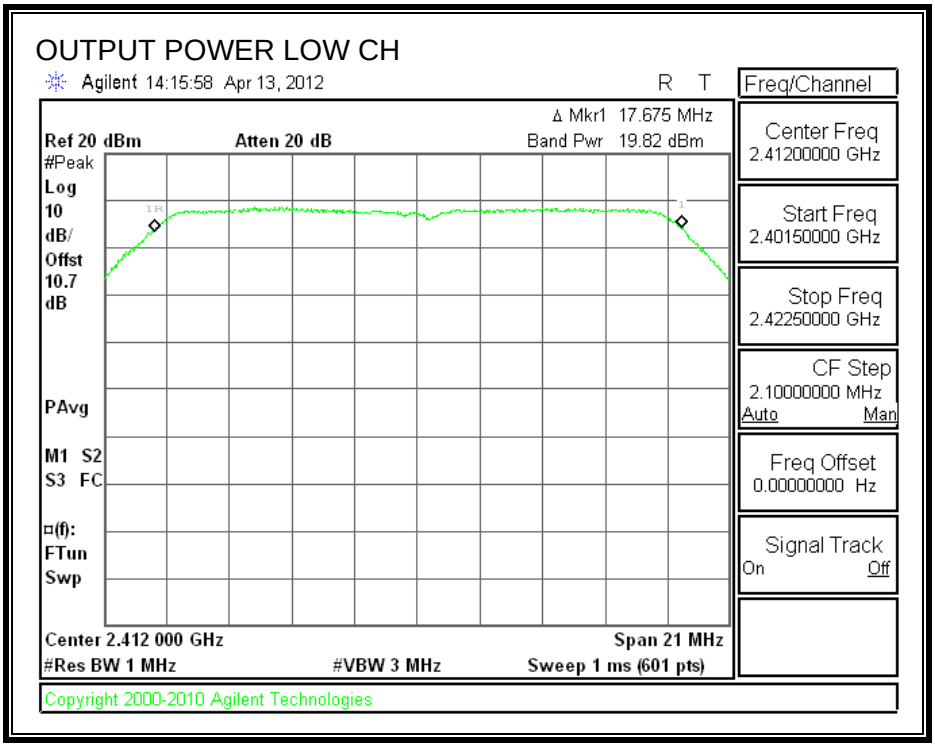
TEST PROCEDURE

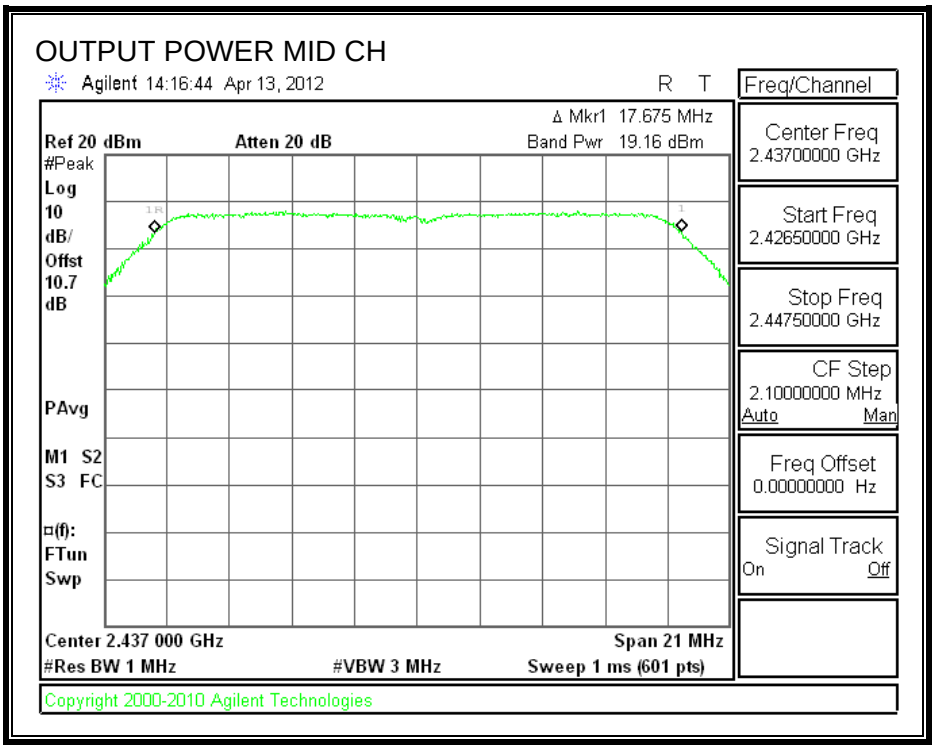
KDB 558074 D01 DTS Meas Guidance v01, dated 1/18/2012:
"Guidance for Performing Compliance Measurements on Digital Transmission Systems (DTS) Operating Under §15.247."

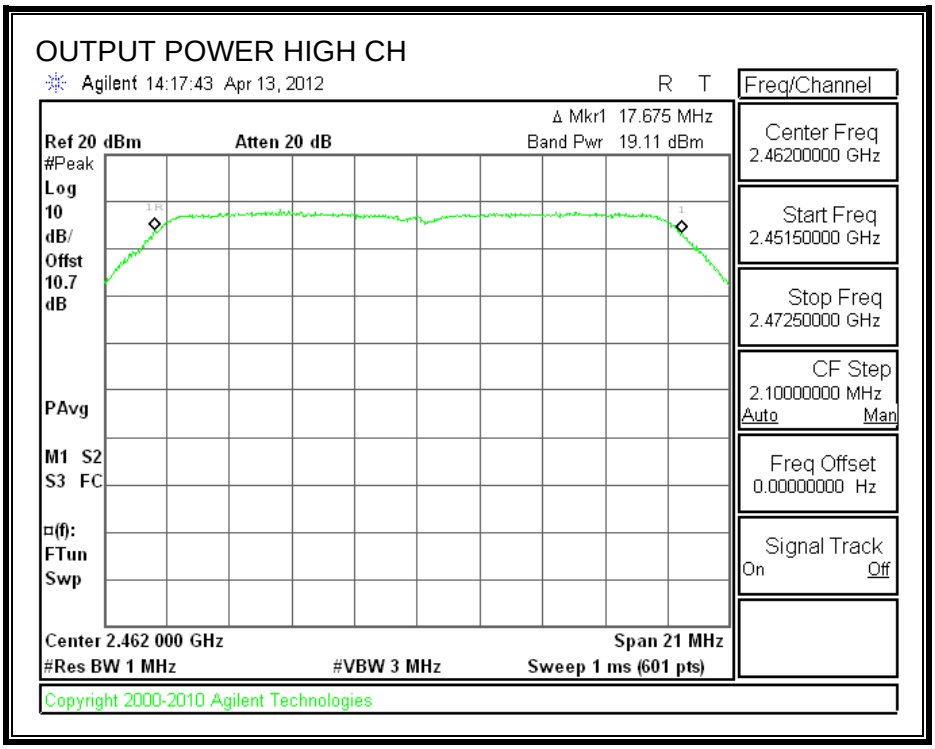
RESULTS

Channel	Frequency (MHz)	Peak Power Reading (dBm)	Output Power (dBm)	Limit (dBm)	Margin (dB)
Low	2412	19.82	19.82	30	-10.18
Middle	2437	19.16	19.16	30	-10.84
High	2462	19.11	19.11	30	-10.89

OUTPUT POWER







7.3.4. AVERAGE POWER

LIMITS

None; for reporting purposes only.

TEST PROCEDURE

The transmitter output is connected to a power meter.

RESULTS

The cable assembly insertion loss of 11 dB (including 10 dB pad and 1.0 dB cable) was entered as an offset in the power meter to allow for direct reading of power.

Channel	Frequency (MHz)	Power (dBm)
Low	2412	11.22
Middle	2437	10.78
High	2462	10.82

7.3.5. POWER SPECTRAL DENSITY

LIMITS

FCC §15.247 (e)

IC RSS-210 A8.2 (b)

TEST PROCEDURE

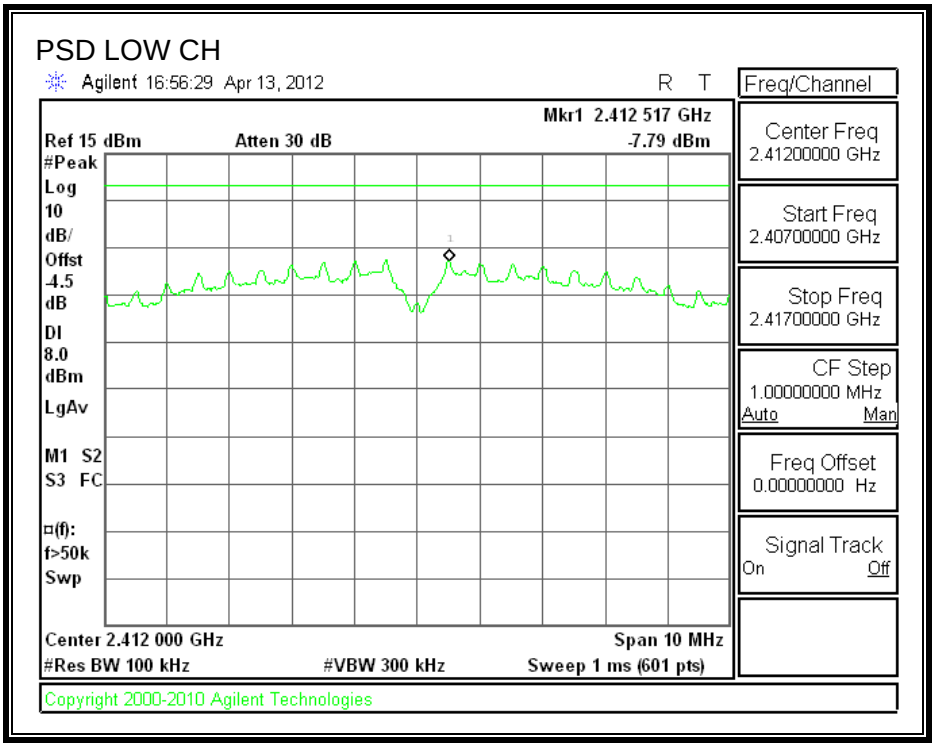
KDB 558074 D01 DTS Meas Guidance v01, dated 1/18/2012:
"Guidance for Performing Compliance Measurements on Digital Transmission Systems (DTS) Operating Under §15.247."

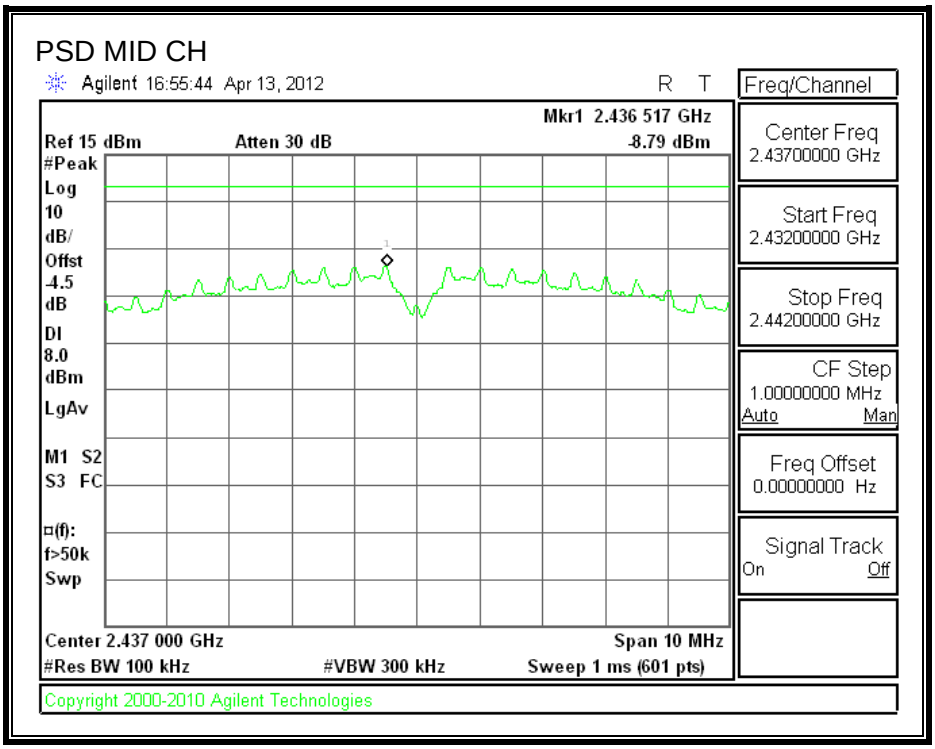
RESULTS

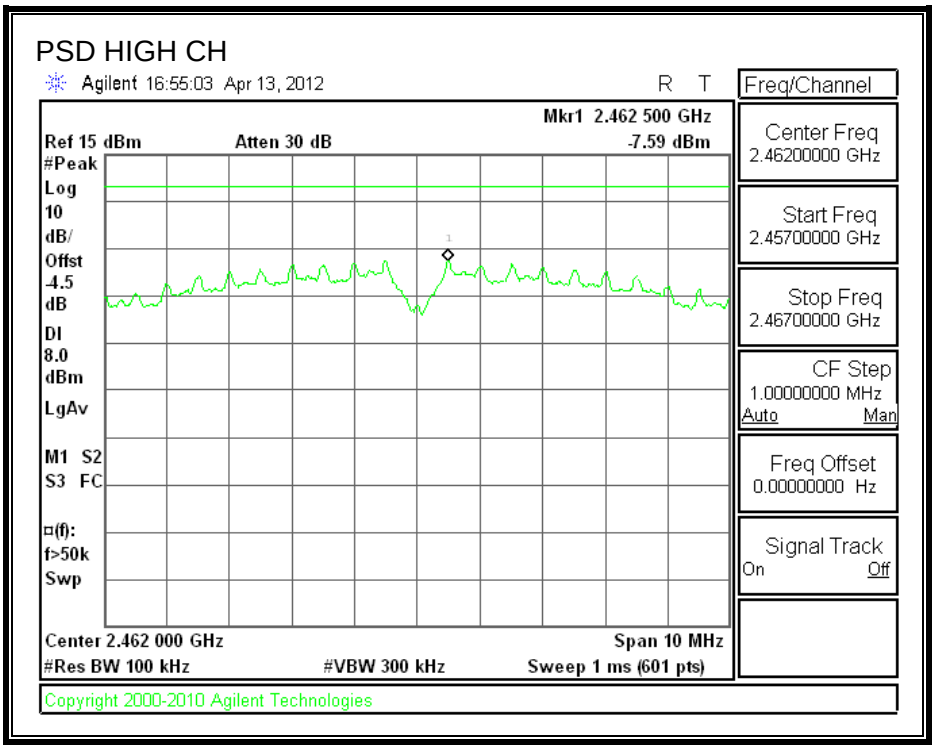
Note: Offset = Attenuation + Cable Loss – 10log (3 KHz/100KHz) = -4.5

Channel	Frequency (MHz)	PPSD (dBm)	Limit (dBm)	Margin (dB)
Low	2412	-7.79	8	-15.79
Middle	2437	-8.79	8	-16.79
High	2462	-7.59	8	-15.59

POWER SPECTRAL DENSITY







7.3.6. CONDUCTED SPURIOUS EMISSIONS

LIMITS

FCC §15.247 (d)

IC RSS-210 A8.5

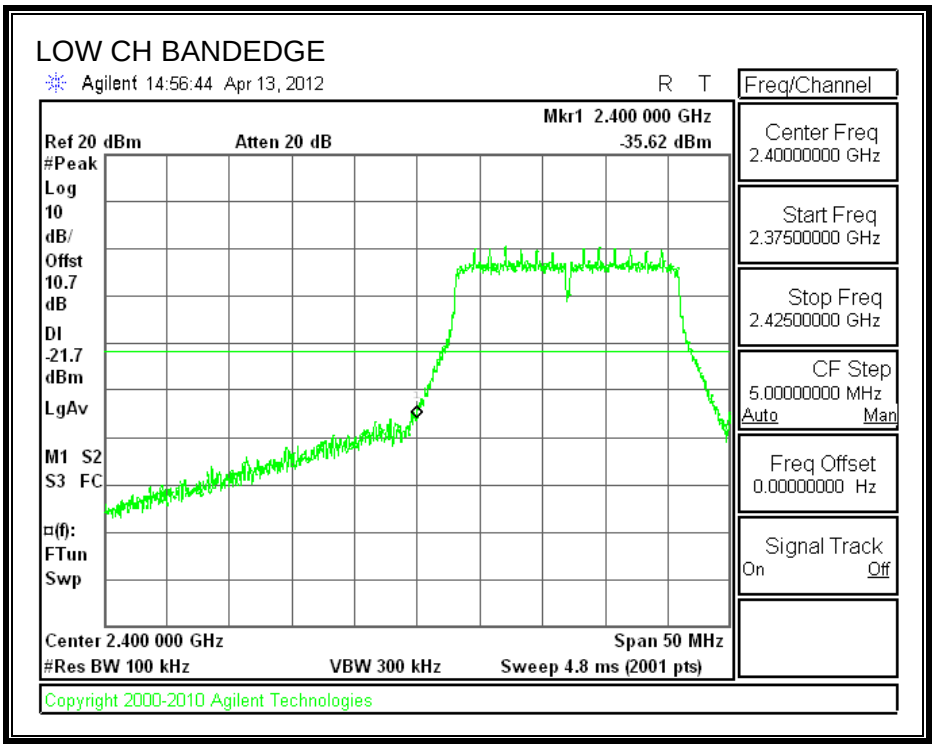
Output power was measured based on the use of a peak measurement, therefore the required attenuation is 20 dB.

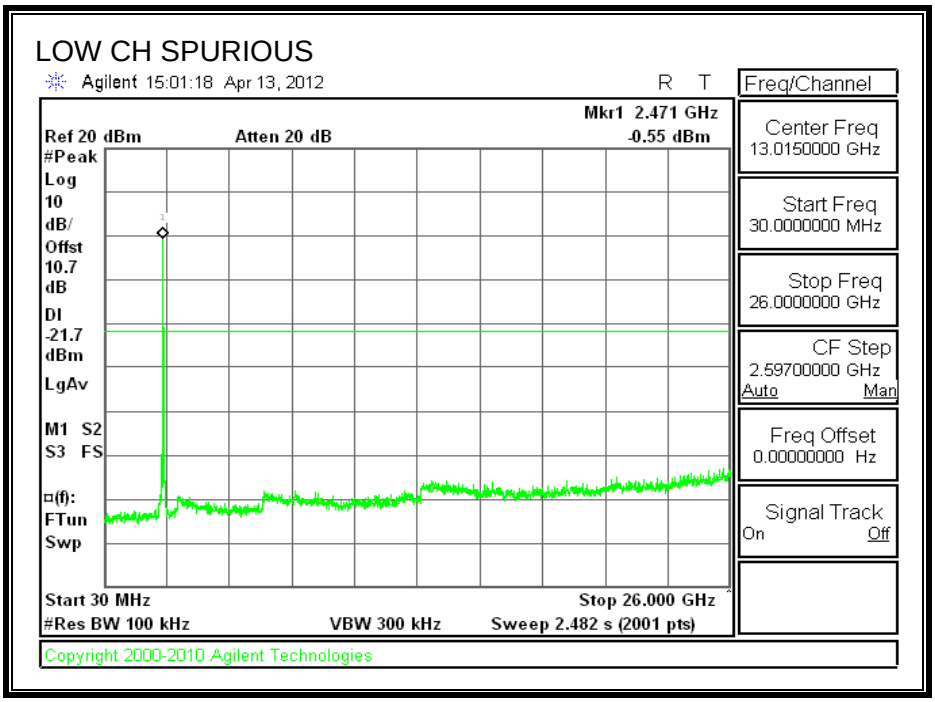
TEST PROCEDURE

KDB 558074 D01 DTS Meas Guidance v01, dated 1/18/2012:
"Guidance for Performing Compliance Measurements on Digital Transmission Systems (DTS) Operating Under §15.247."

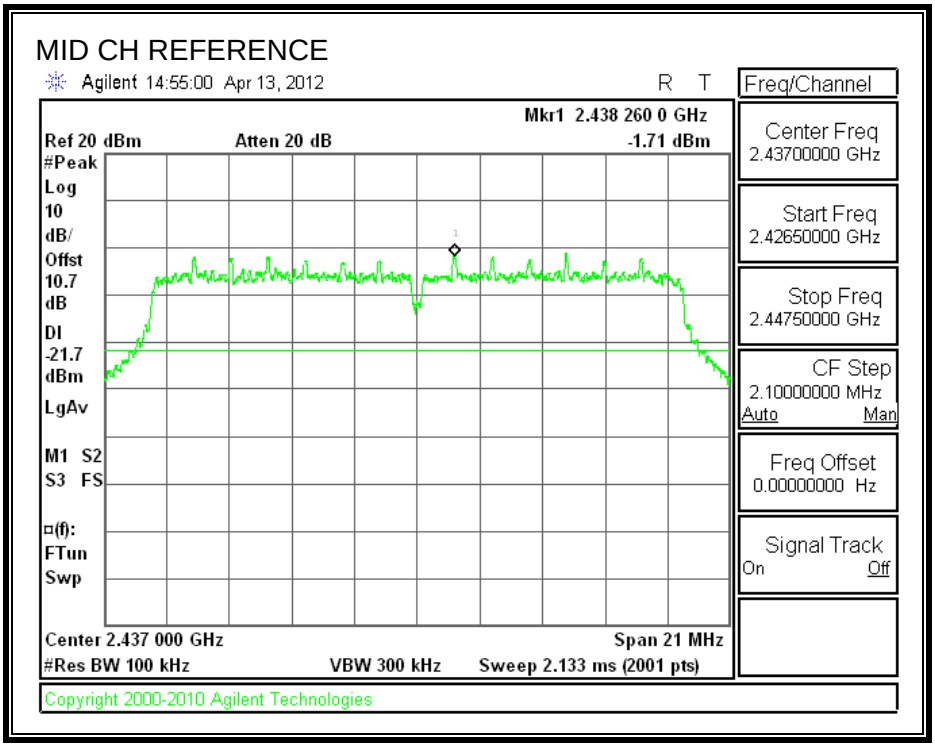
RESULTS

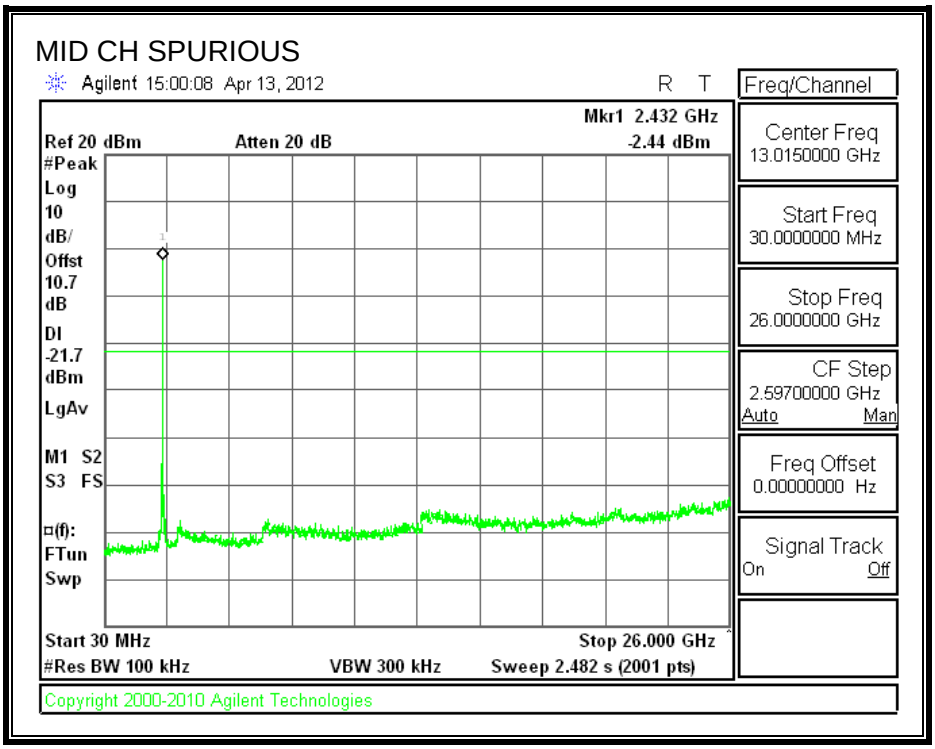
SPURIOUS EMISSIONS, LOW CHANNEL



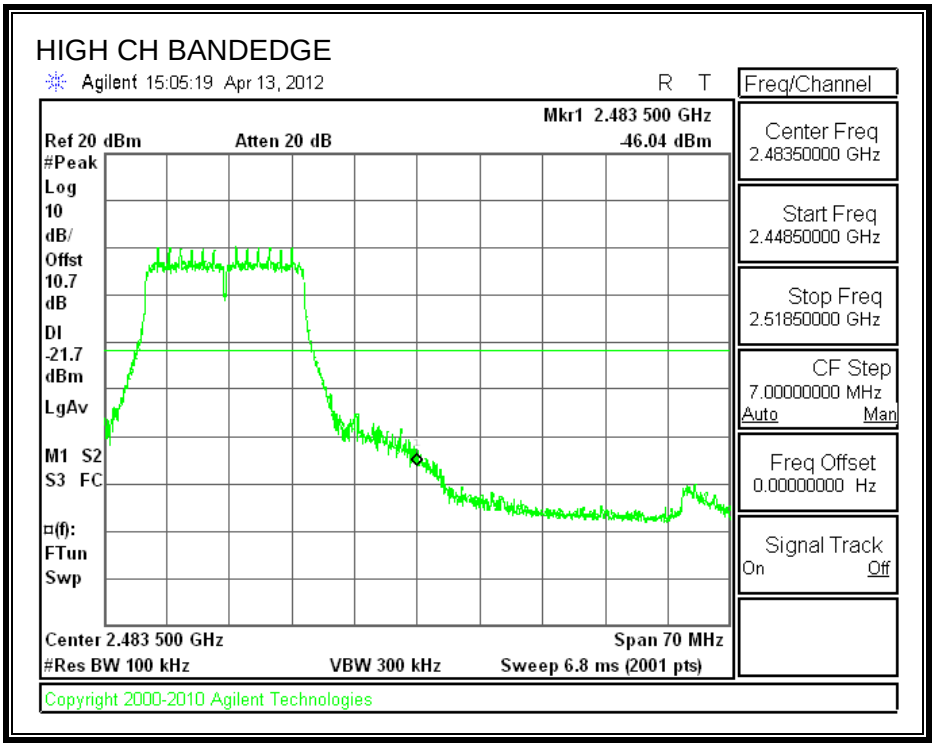


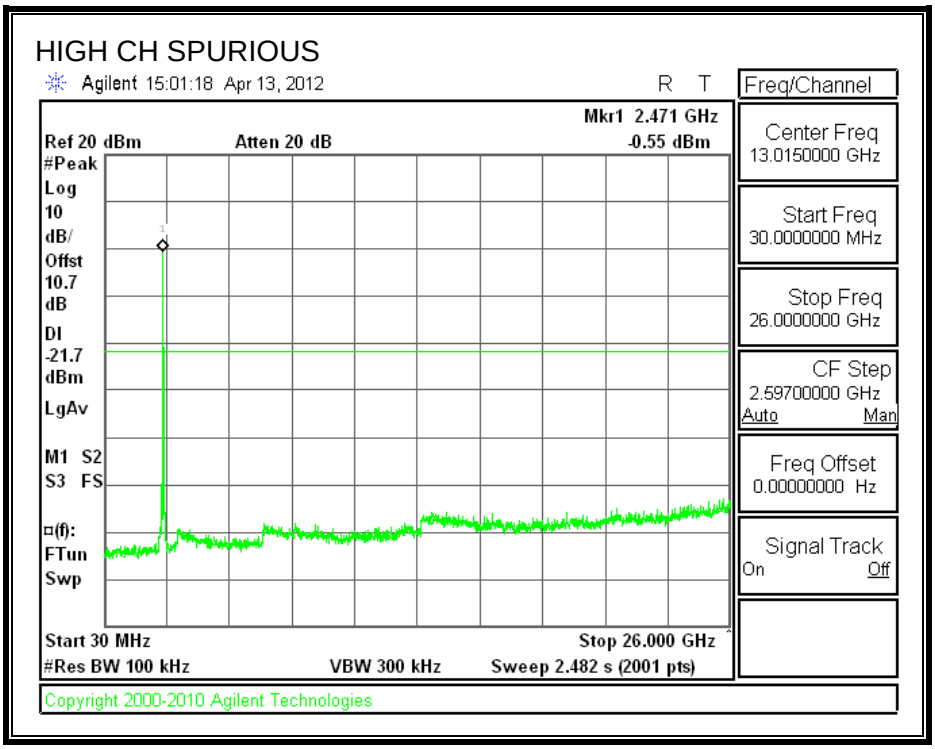
SPURIOUS EMISSIONS, MID CHANNEL





SPURIOUS EMISSIONS, HIGH CHANNEL





7.4. 802.11a MODE IN THE 5.8 GHz BAND

7.4.1. 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.

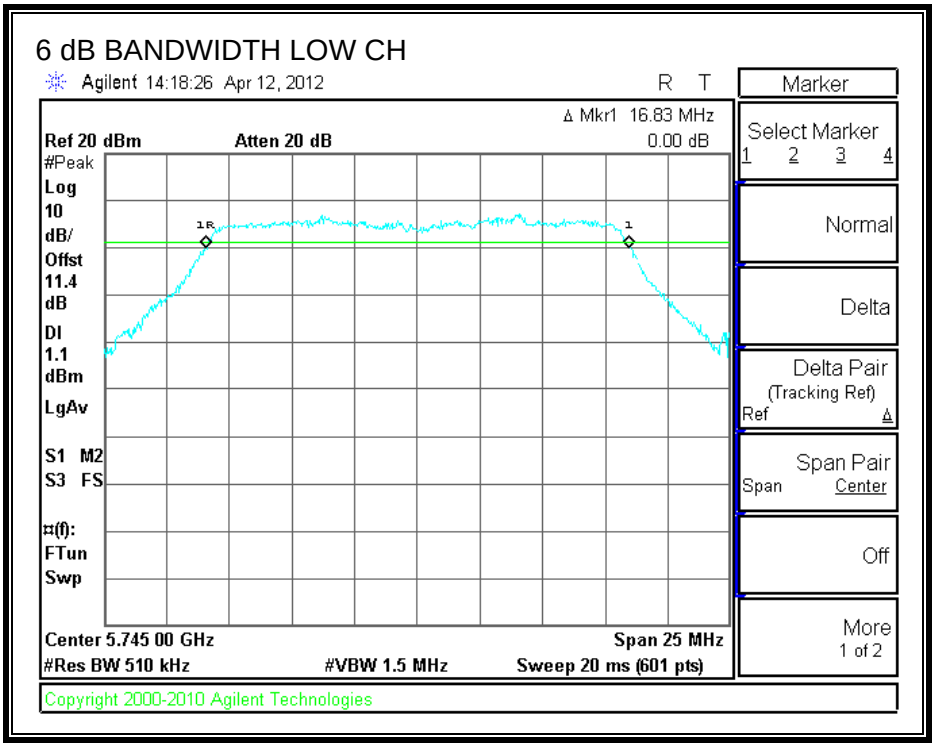
TEST PROCEDURE

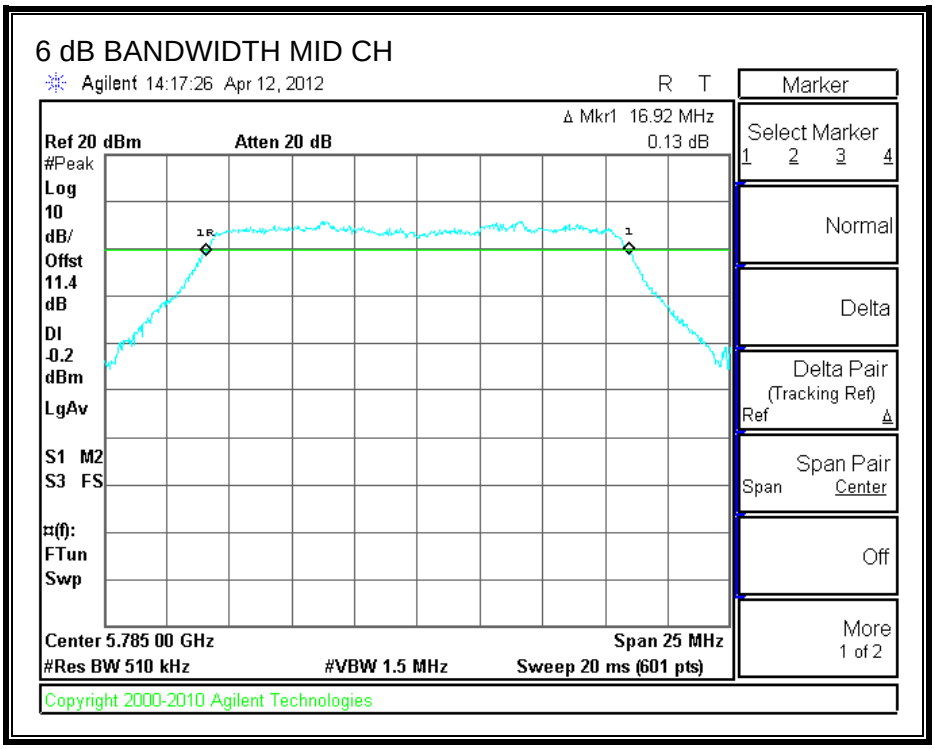
KDB 558074 D01 DTS Meas Guidance v01, dated 1/18/2012:
"Guidance for Performing Compliance Measurements on Digital Transmission Systems (DTS) Operating Under §15.247."
.

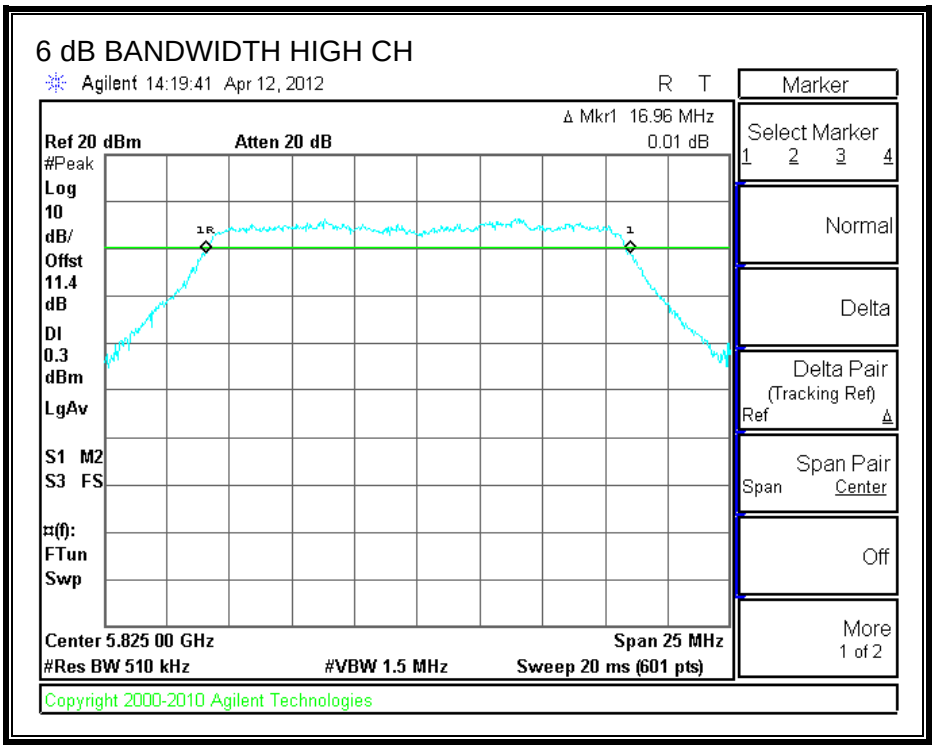
RESULTS

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Minimum Limit (MHz)
Low	5745	16.83	0.5
Middle	5785	16.92	0.5
High	5825	16.96	0.5

6 dB BANDWIDTH







7.4.2. 99% BANDWIDTH

LIMITS

None; for reporting purposes only.

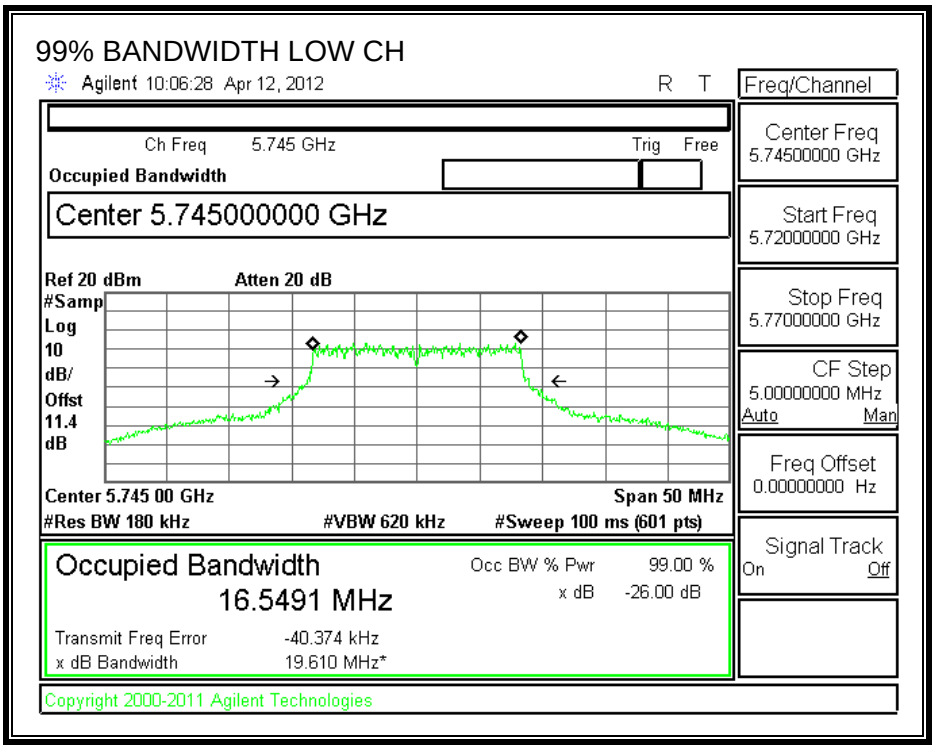
TEST PROCEDURE

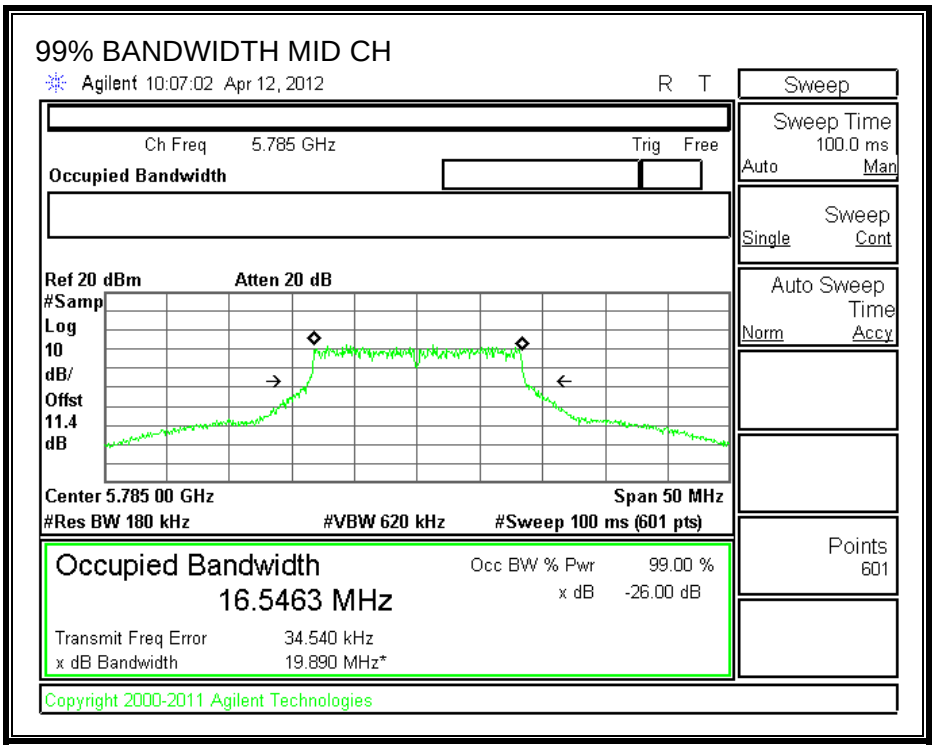
The transmitter output is connected to the spectrum analyzer. The RBW is set to 1% to 3% of the 99 % bandwidth. The VBW is set to 3 times the RBW. The sweep time is coupled. The spectrum analyzer internal 99% bandwidth function is utilized.

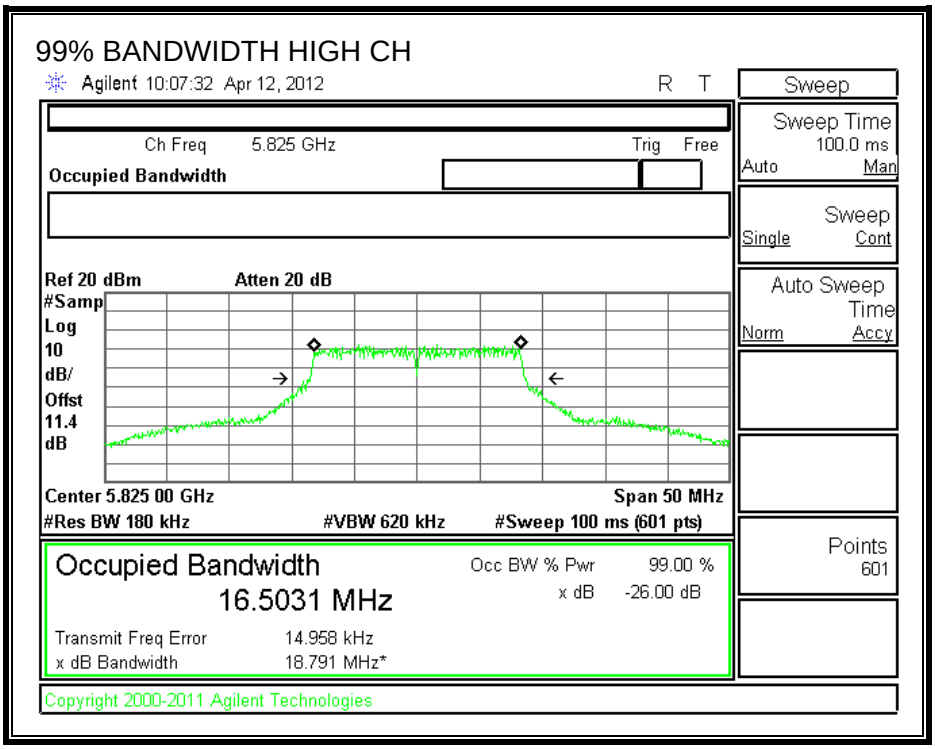
RESULTS

Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	5745	16.5491
Middle	5785	16.5463
High	5825	16.5031

99% BANDWIDTH







7.4.3. OUTPUT POWER

LIMITS

FCC §15.247 (b)

IC RSS-210 A8.4

The maximum antenna gain is less than or equal to 6 dBi, therefore the limit is 30 dBm.

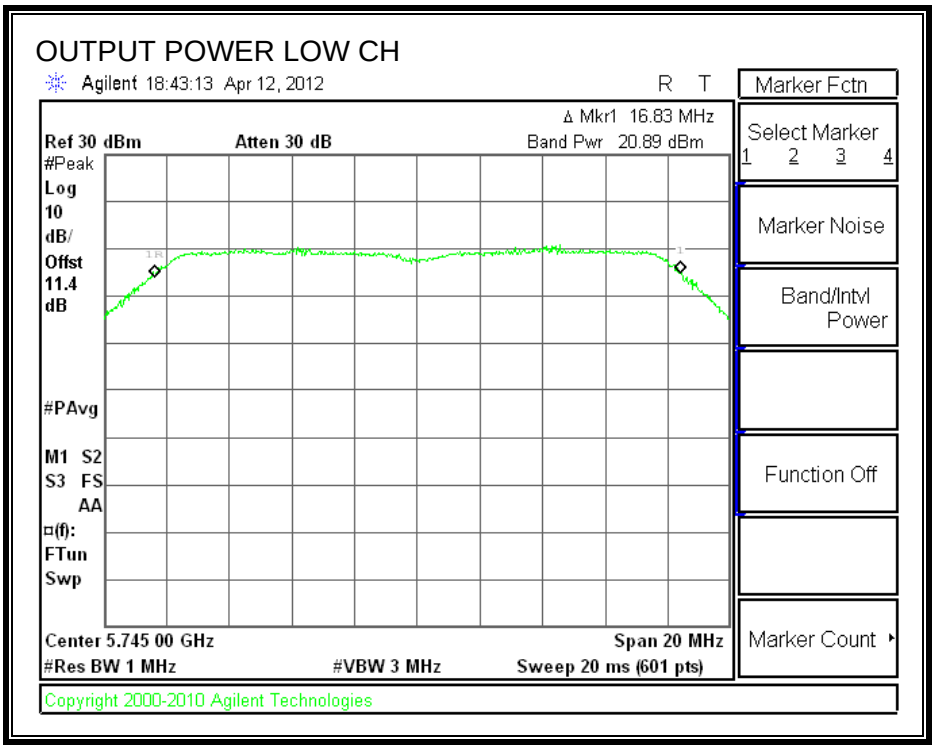
TEST PROCEDURE

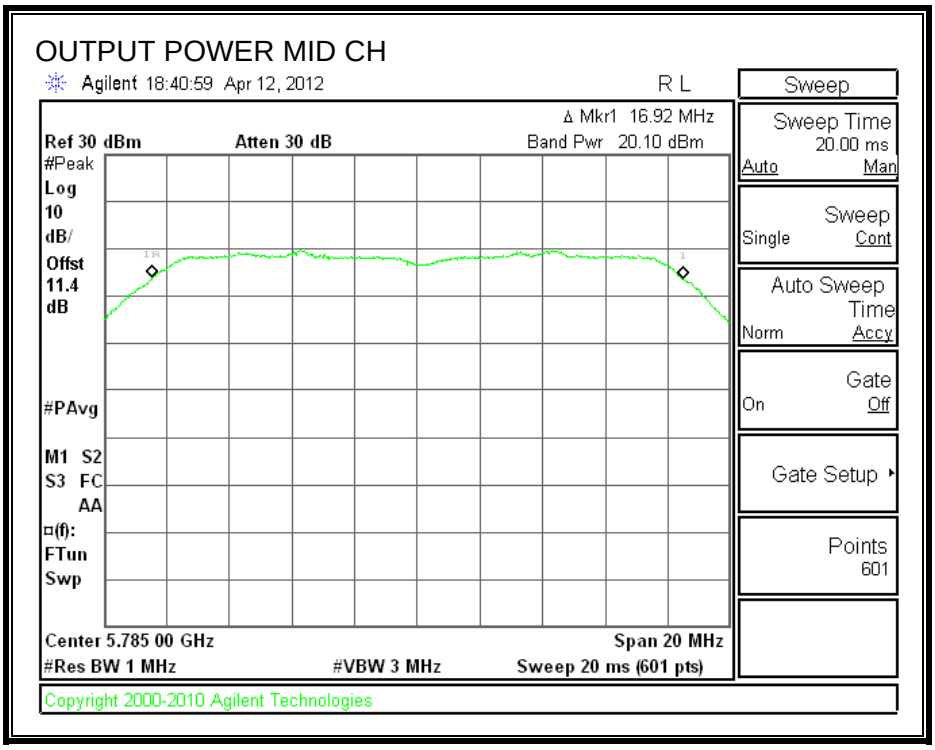
KDB 558074 D01 DTS Meas Guidance v01, dated 1/18/2012:
"Guidance for Performing Compliance Measurements on Digital Transmission Systems (DTS) Operating Under §15.247."

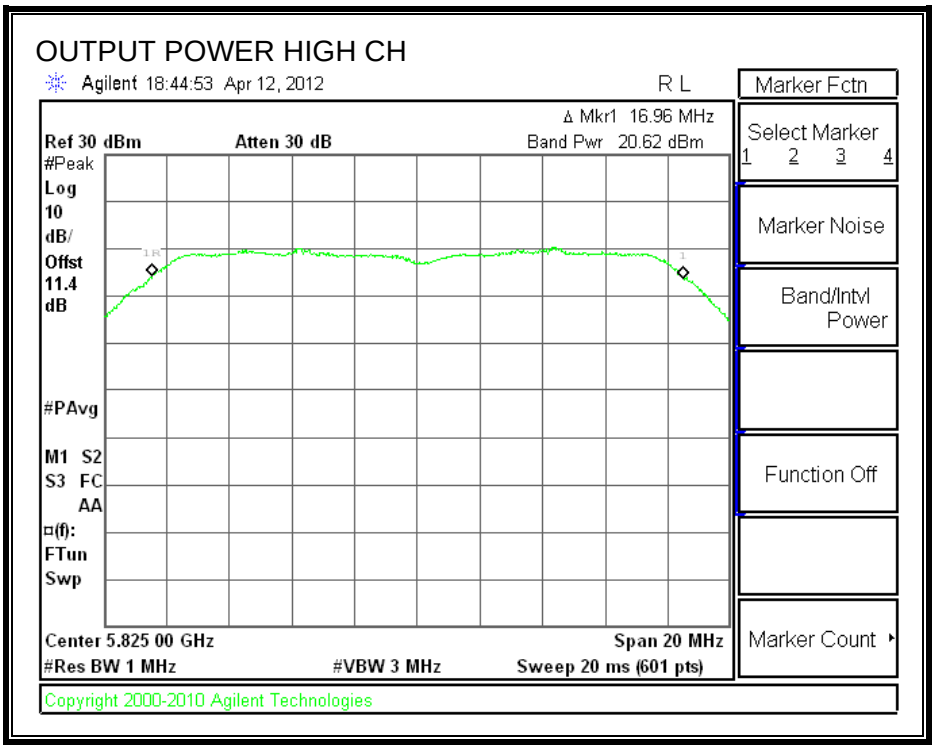
RESULTS

Channel	Frequency (MHz)	Peak Power Reading (dBm)	Output Power (dBm)	Limit (dBm)	Margin (dB)
Low	5745	20.89	20.89	30	-9.11
Middle	5785	20.10	20.10	30	-9.90
High	5825	20.62	20.62	30	-9.38

OUTPUT POWER







7.4.4. AVERAGE POWER

LIMITS

None; for reporting purposes only.

TEST PROCEDURE

The transmitter output is connected to a power meter.

RESULTS

The cable assembly insertion loss of 11.4 dB (including 10 dB pad and 1.4 dB cable) was entered as an offset in the power meter to allow for direct reading of power.

Channel	Frequency (MHz)	Power (dBm)
Low	5745	11.90
Middle	5785	11.60
High	5825	11.90

7.4.5. POWER SPECTRAL DENSITY

LIMITS

FCC §15.247 (e)

IC RSS-210 A8.2 (b)

TEST PROCEDURE

KDB 558074 D01 DTS Meas Guidance v01, dated 1/18/2012:
"Guidance for Performing Compliance Measurements on Digital Transmission Systems (DTS) Operating Under §15.247."

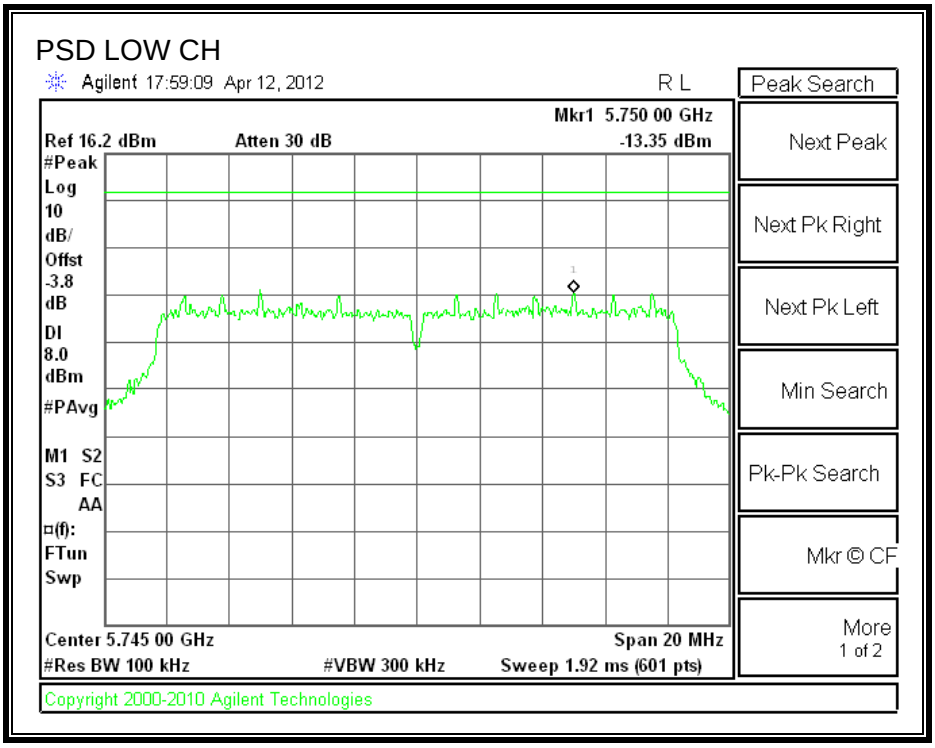
RESULTS

Note: Offset = Attenuation + Cable Loss – 10log (3 KHz/100KHz) = -3.8

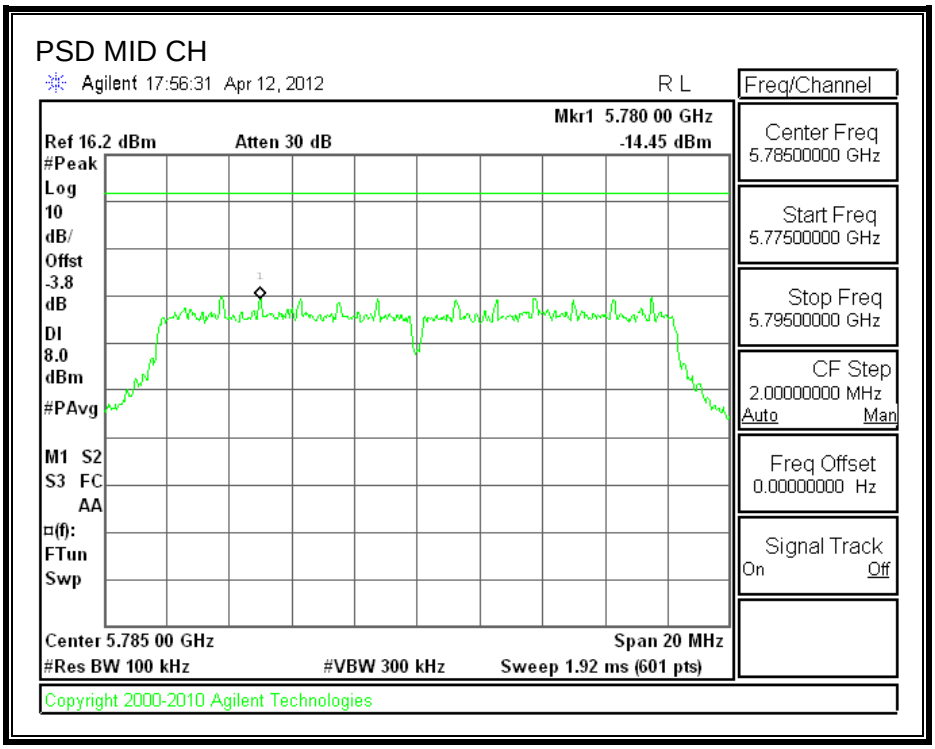
Channel	Frequency (MHz)	PPSD (dBm)	Limit (dBm)	Margin (dB)
Low	5745	-13.35	8	-21.35
Middle	5785	-14.45	8	-22.45
High	5825	-13.54	8	-21.54

POWER SPECTRAL DENSITY

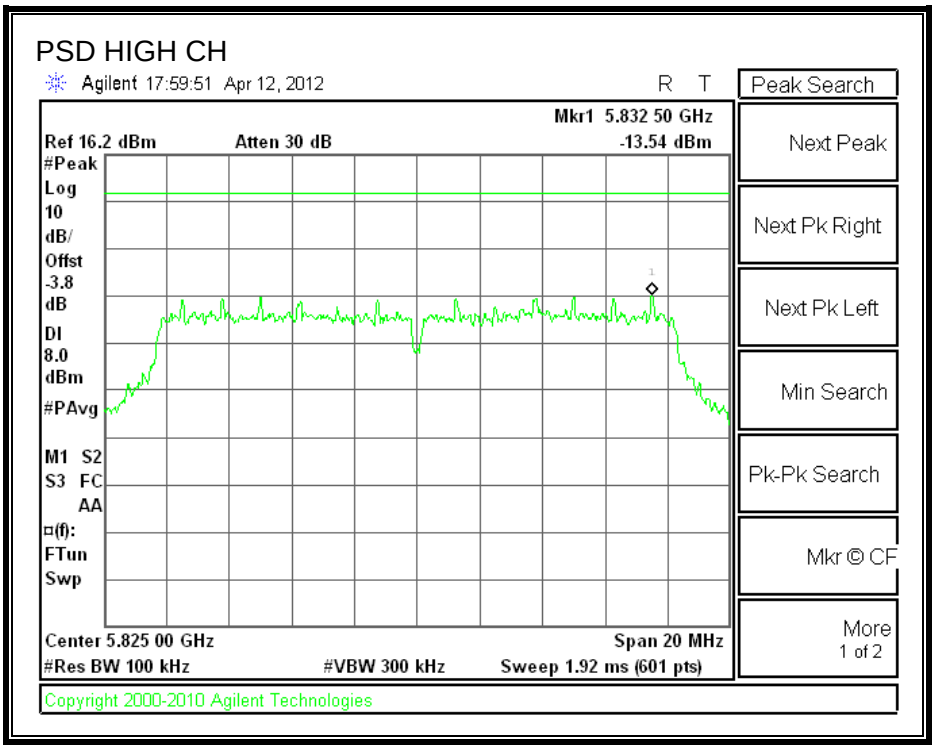
PSD LOW CH



PSD MID CH



PSD HIGH CH



7.4.6. CONDUCTED SPURIOUS EMISSIONS

LIMITS

FCC §15.247 (d)

IC RSS-210 A8.5

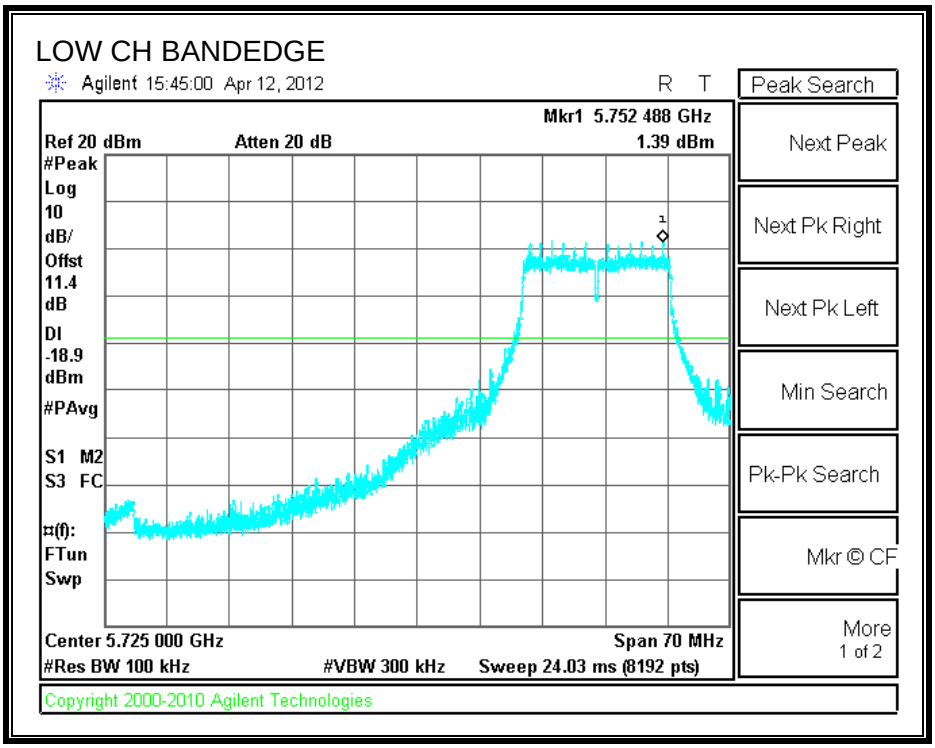
Output power was measured based on the use of a peak measurement, therefore the required attenuation is 20 dB.

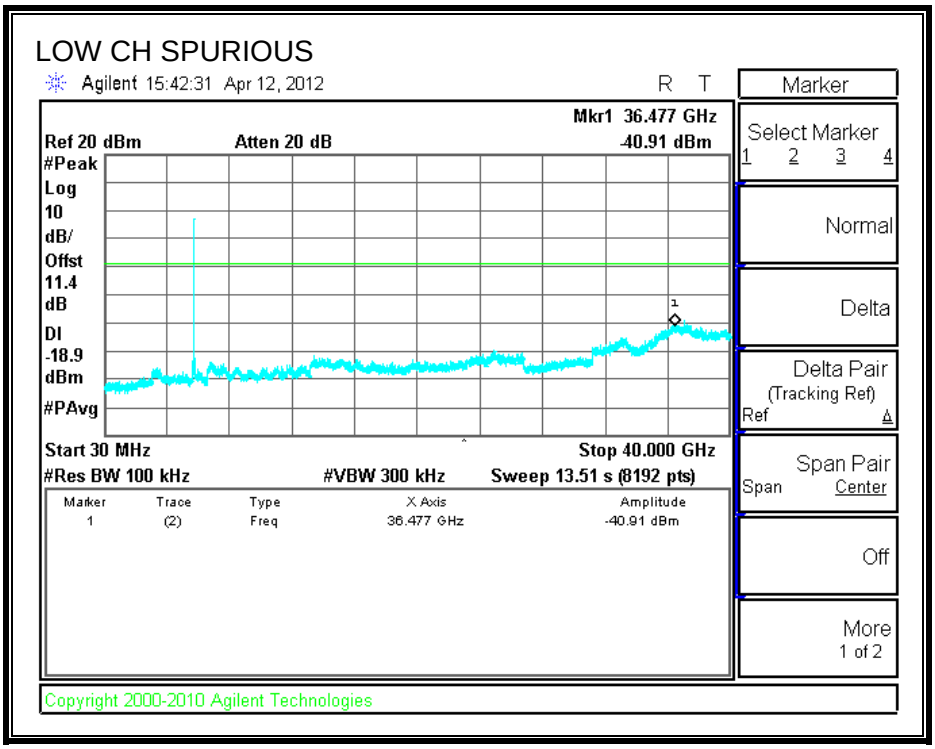
TEST PROCEDURE

KDB 558074 D01 DTS Meas Guidance v01, dated 1/18/2012:
"Guidance for Performing Compliance Measurements on Digital Transmission Systems (DTS) Operating Under §15.247."

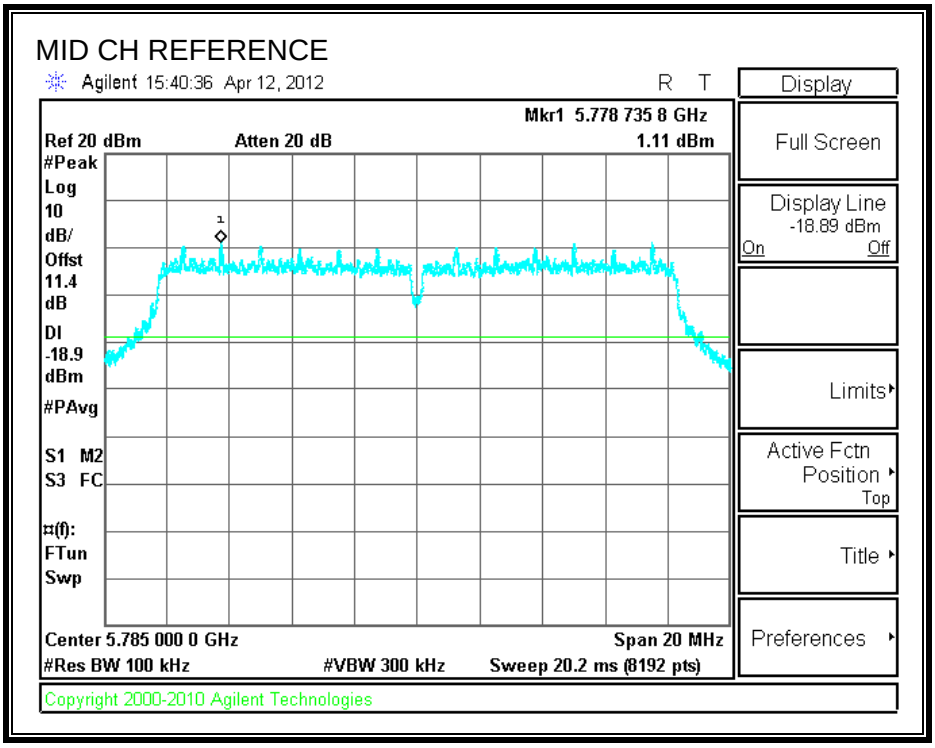
RESULTS

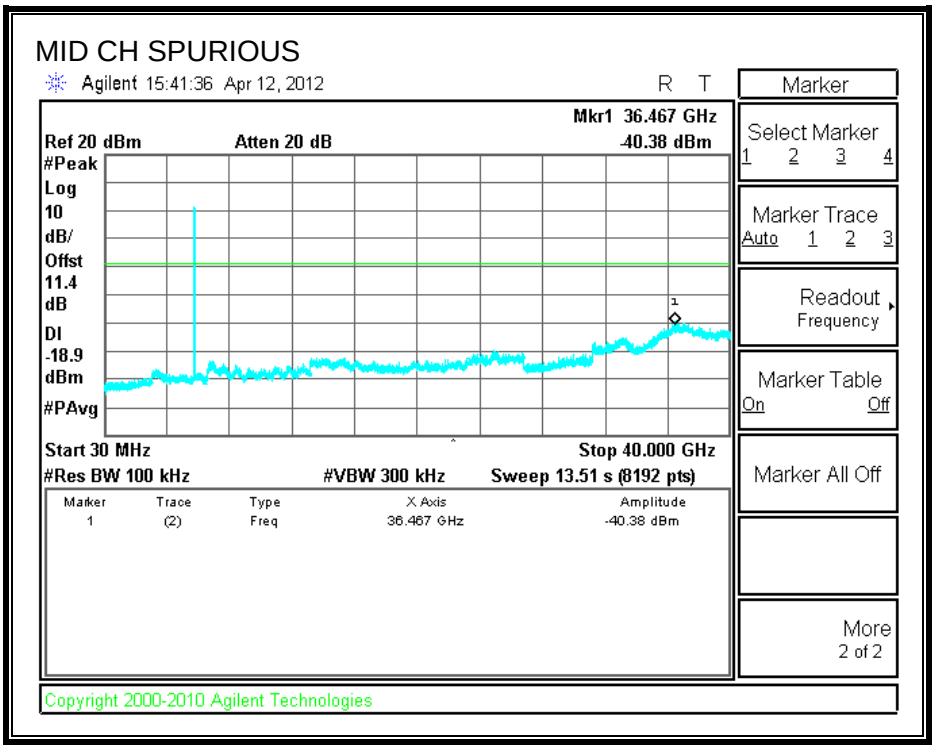
SPURIOUS EMISSIONS, LOW CHANNEL



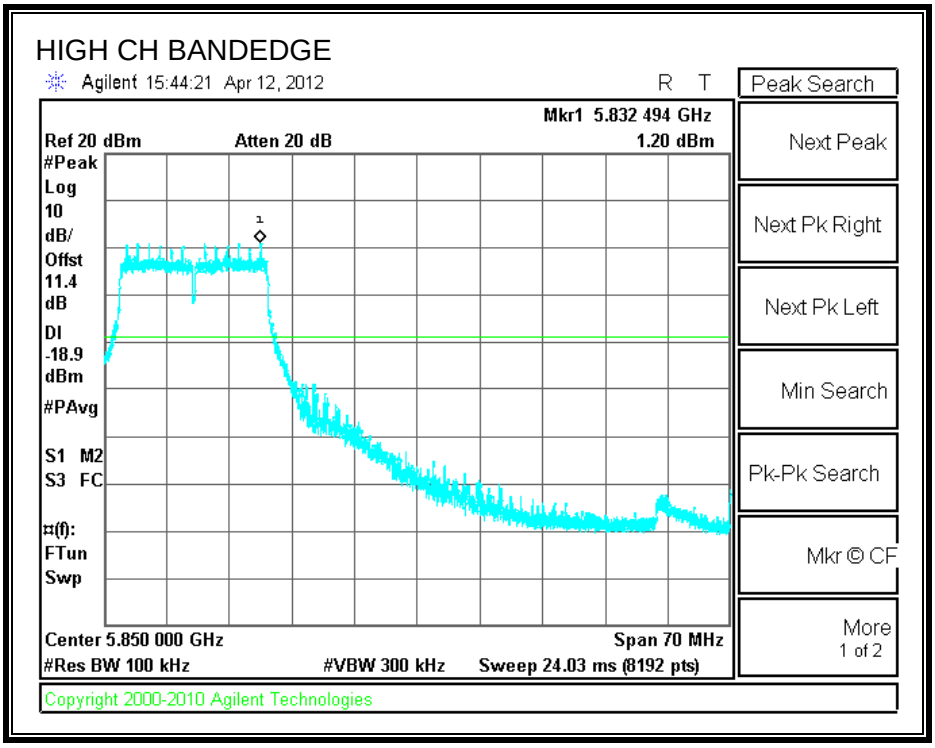


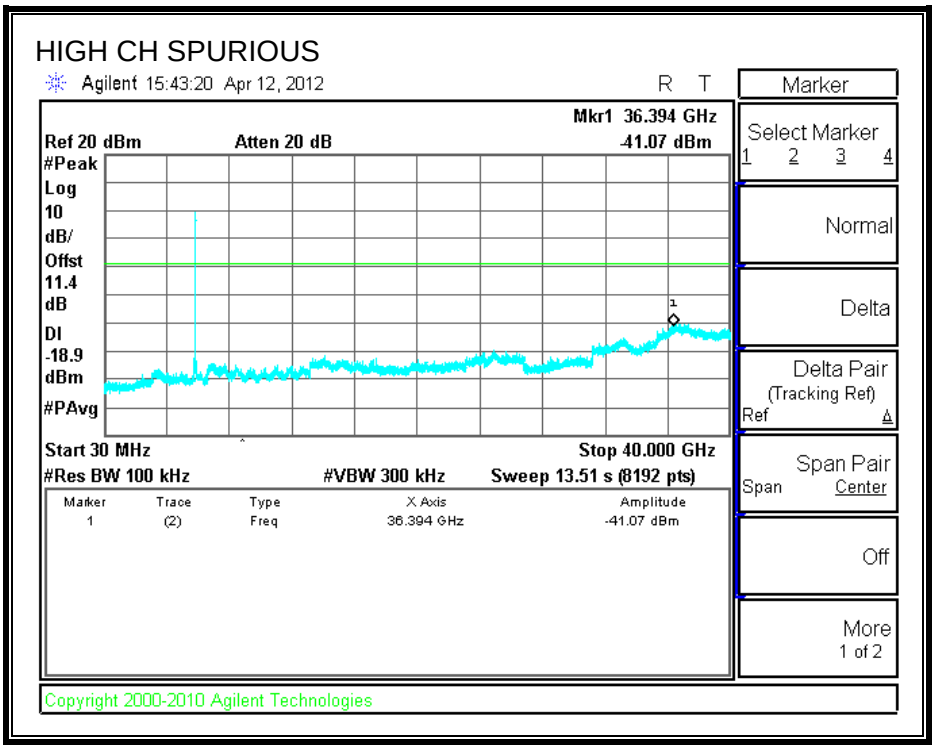
SPURIOUS EMISSIONS, MID CHANNEL





SPURIOUS EMISSIONS, HIGH CHANNEL





7.1. 802.11n HT20 MODE IN THE 5.8 GHz BAND

7.1.1. 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.

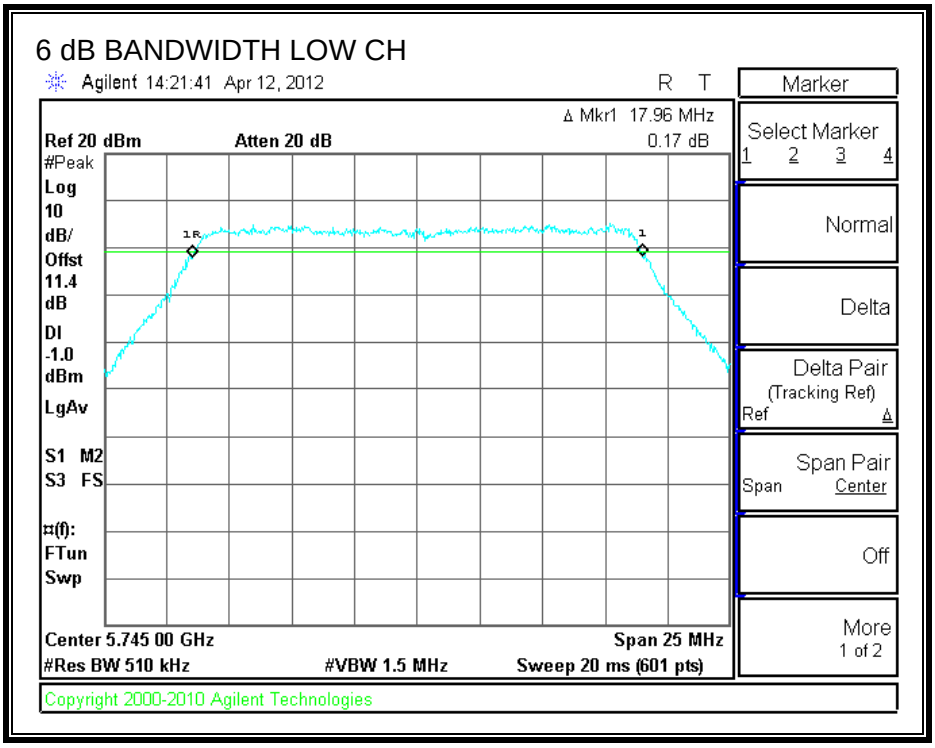
TEST PROCEDURE

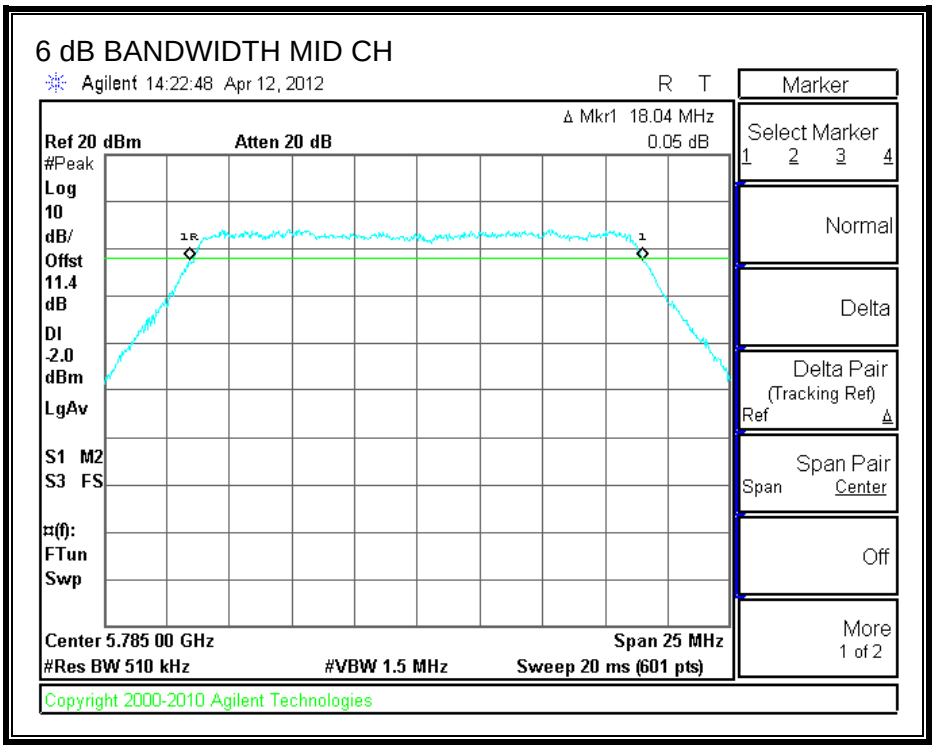
KDB 558074 D01 DTS Meas Guidance v01, dated 1/18/2012:
"Guidance for Performing Compliance Measurements on Digital Transmission Systems (DTS) Operating Under §15.247."

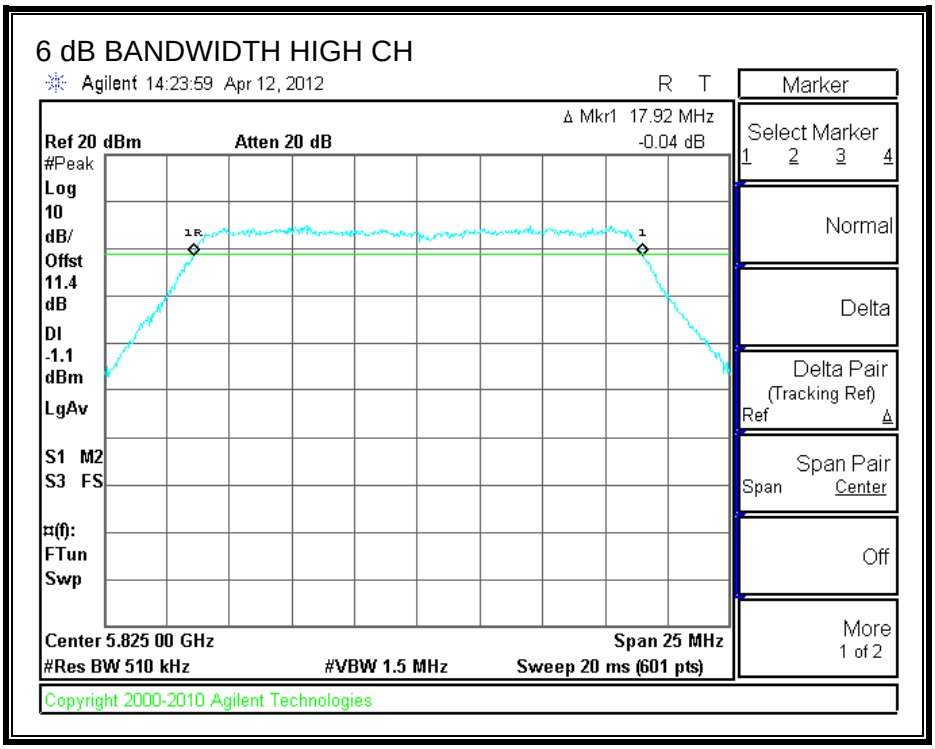
RESULTS

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Minimum Limit (MHz)
Low	5745	17.96	0.5
Middle	5785	18.04	0.5
High	5825	17.92	0.5

6 dB BANDWIDTH







7.1.2. 99% BANDWIDTH

LIMITS

None; for reporting purposes only.

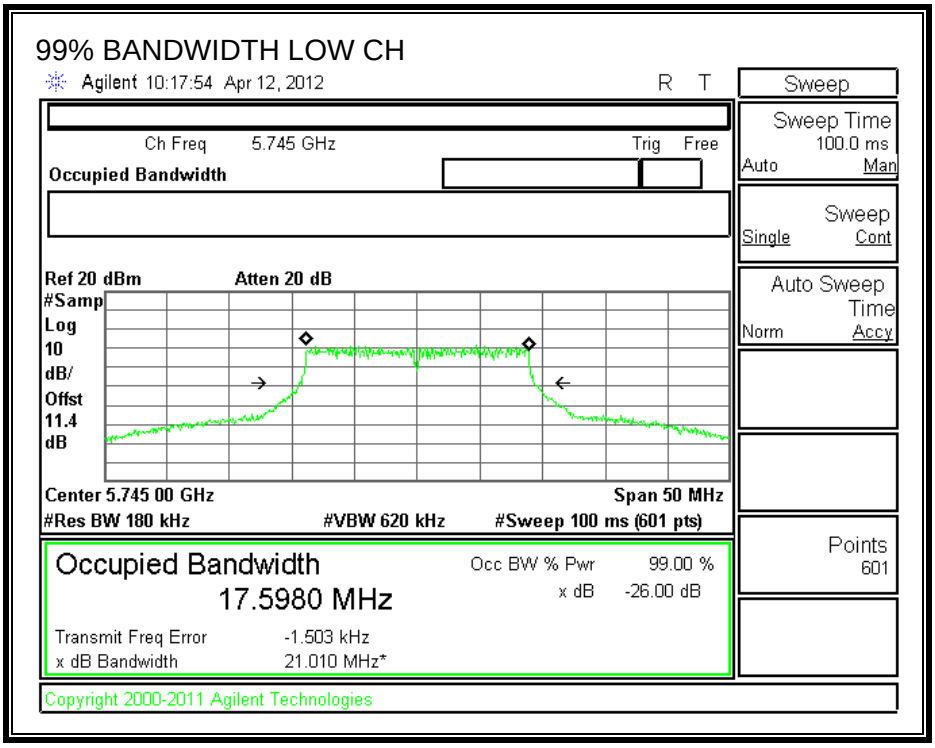
TEST PROCEDURE

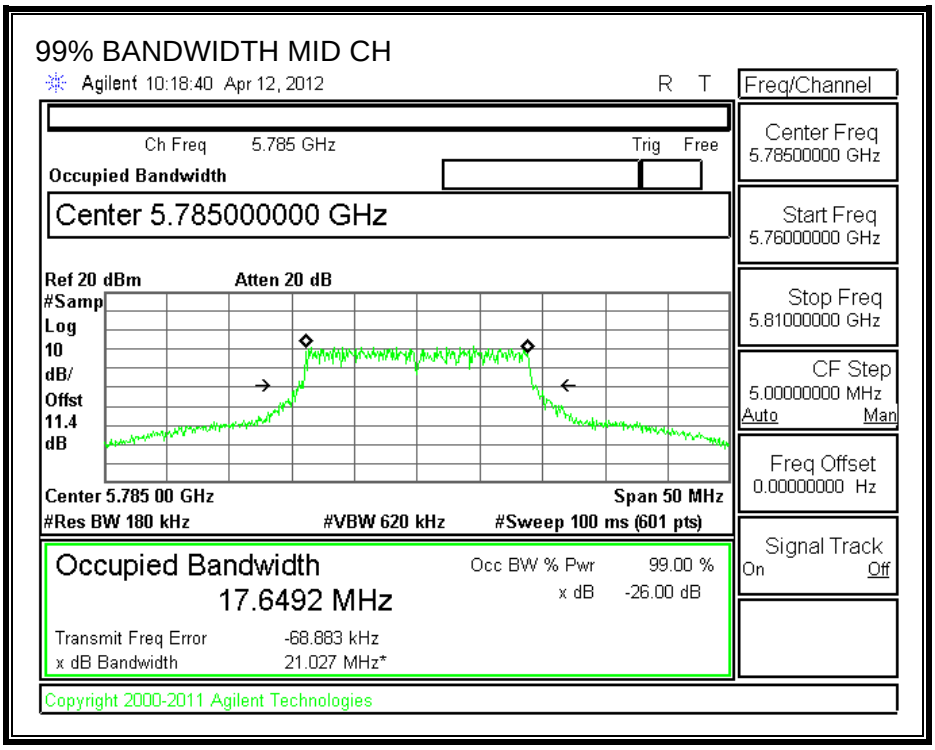
The transmitter output is connected to the spectrum analyzer. The RBW is set to 1% to 3% of the 99 % bandwidth. The VBW is set to 3 times the RBW. The sweep time is coupled. The spectrum analyzer internal 99% bandwidth function is utilized.

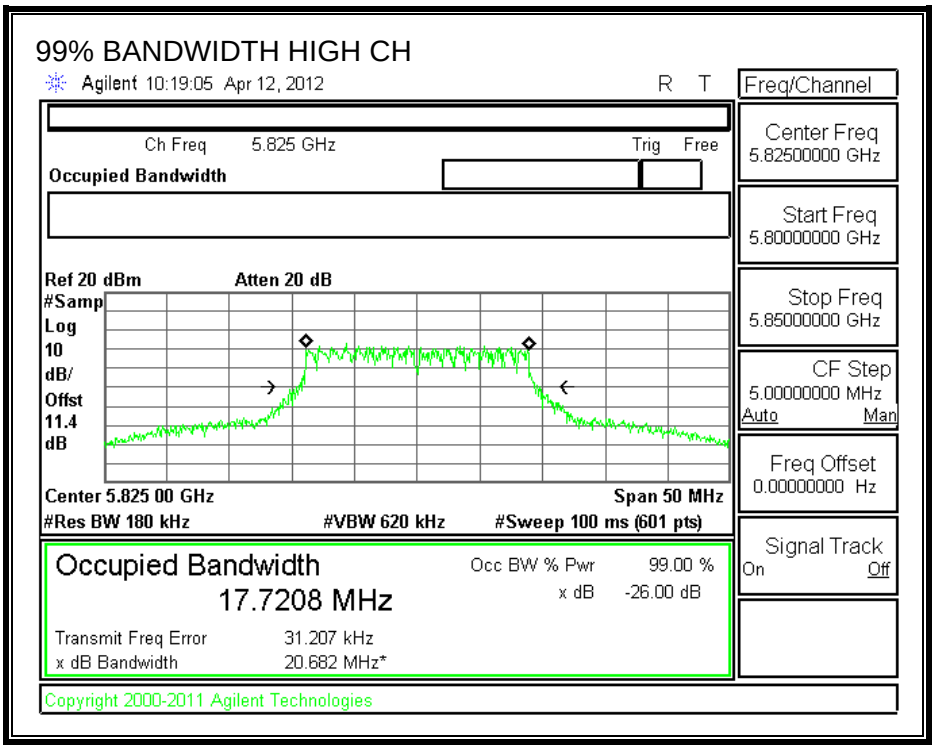
RESULTS

Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	5745	17.5980
Middle	5785	17.6492
High	5825	17.7208

99% BANDWIDTH







7.1.3. OUTPUT POWER

LIMITS

FCC §15.247 (b)

IC RSS-210 A8.4

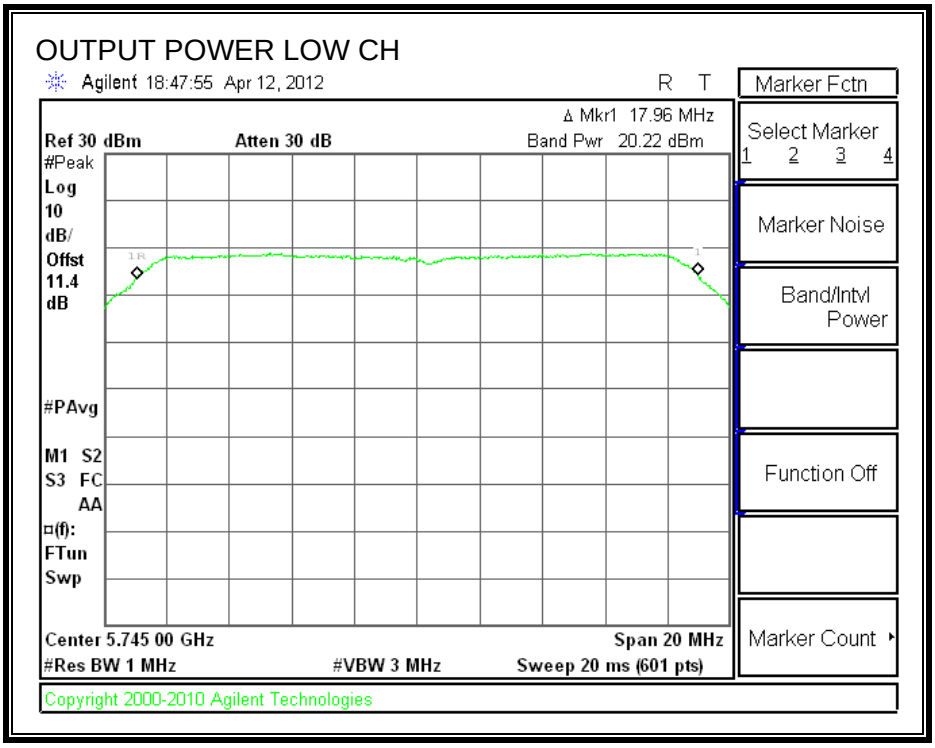
TEST PROCEDURE

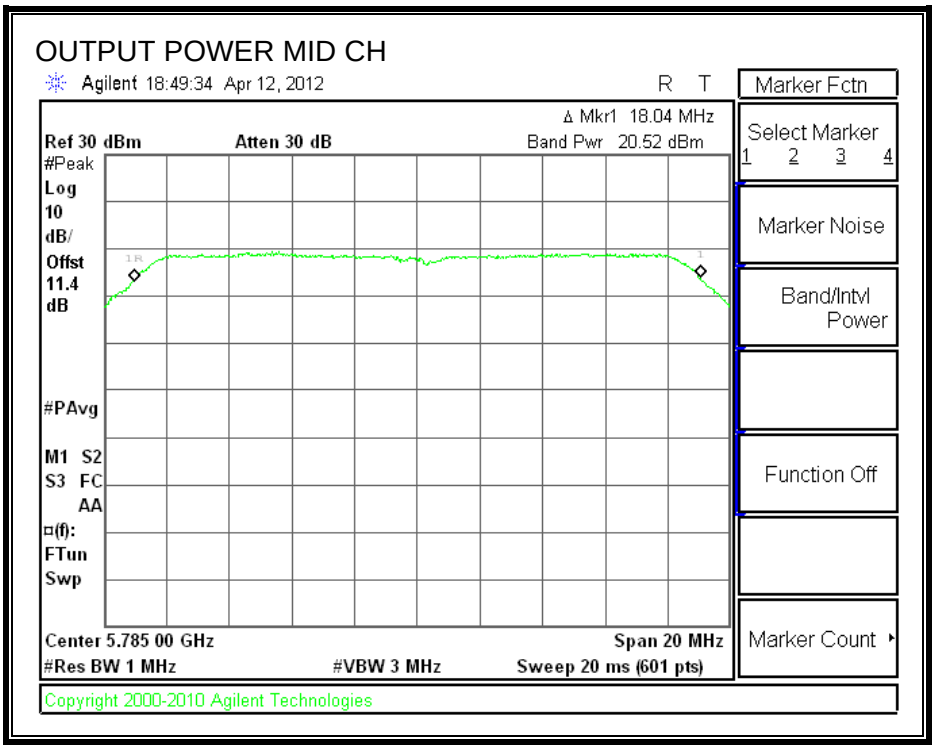
KDB 558074 D01 DTS Meas Guidance v01, dated 1/18/2012:
"Guidance for Performing Compliance Measurements on Digital Transmission Systems (DTS) Operating Under §15.247."

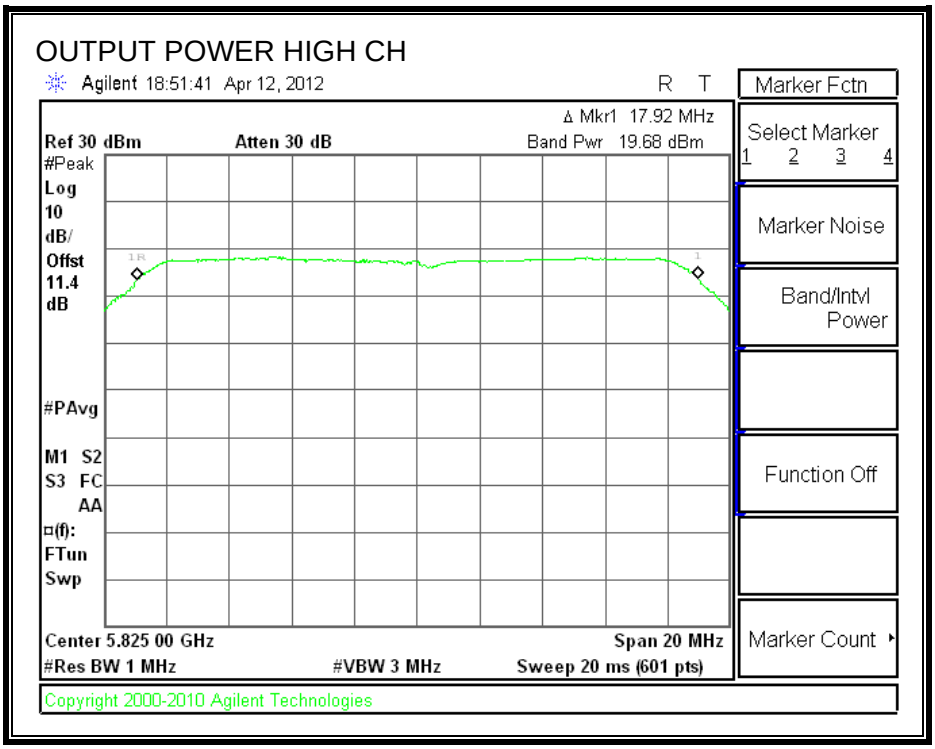
RESULTS

Channel	Frequency (MHz)	Output Power (dBm)	Limit (dBm)	Margin (dB)
Low	5745	20.22	30	-9.78
Middle	5785	20.52	30	-9.48
High	5825	19.68	30	-10.32

OUTPUT POWER







7.1.4. AVERAGE POWER

LIMITS

None; for reporting purposes only.

TEST PROCEDURE

The transmitter output is connected to a power meter.

RESULTS

The cable assembly insertion loss of 11.4 dB (including 10 dB pad and 1.4 dB cable) was entered as an offset in the power meter to allow for direct reading of power.

Channel	Frequency (MHz)	Power (dBm)
Low	5745	10.90
Middle	5785	10.50
High	5825	10.80

7.1.5. POWER SPECTRAL DENSITY

LIMITS

FCC §15.247 (e)

IC RSS-210 A8.2 (b)

TEST PROCEDURE

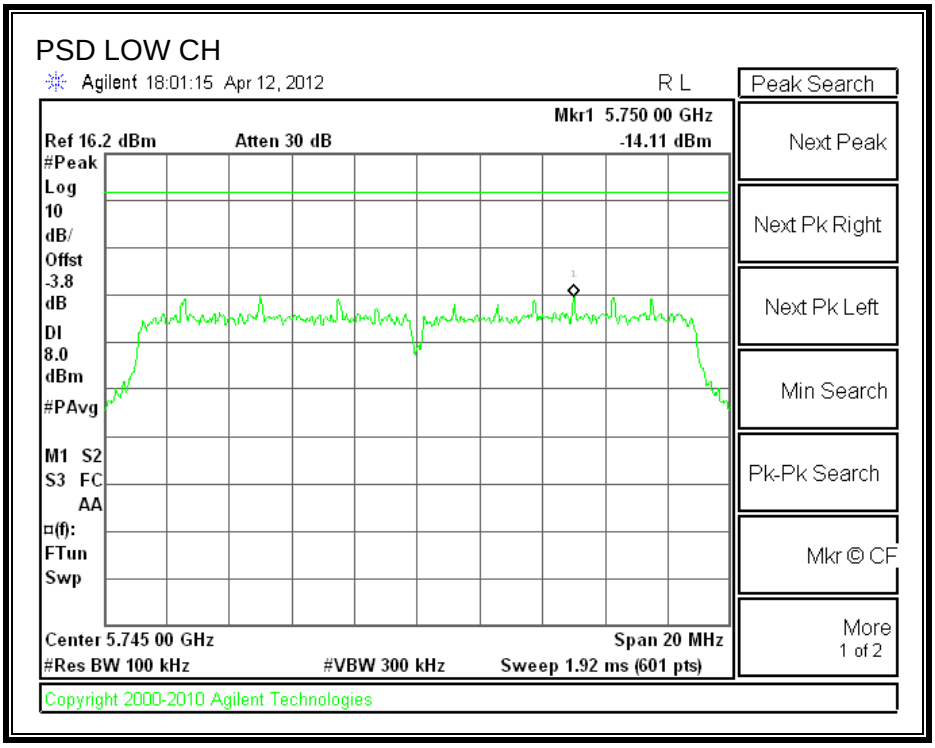
KDB 558074 D01 DTS Meas Guidance v01, dated 1/18/2012:
"Guidance for Performing Compliance Measurements on Digital Transmission Systems (DTS) Operating Under §15.247."

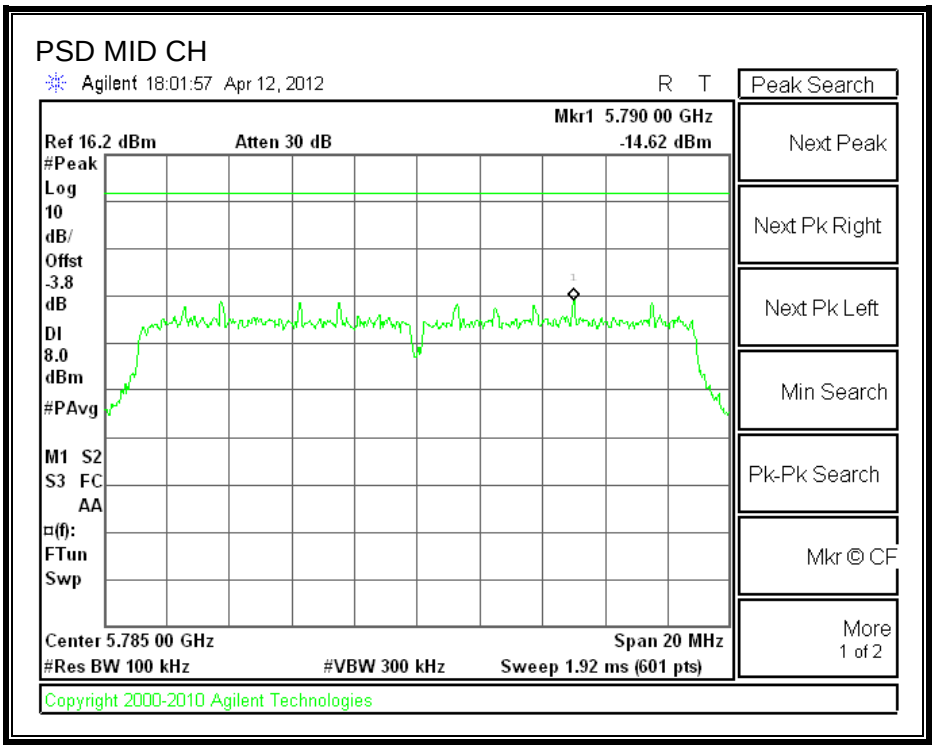
RESULTS

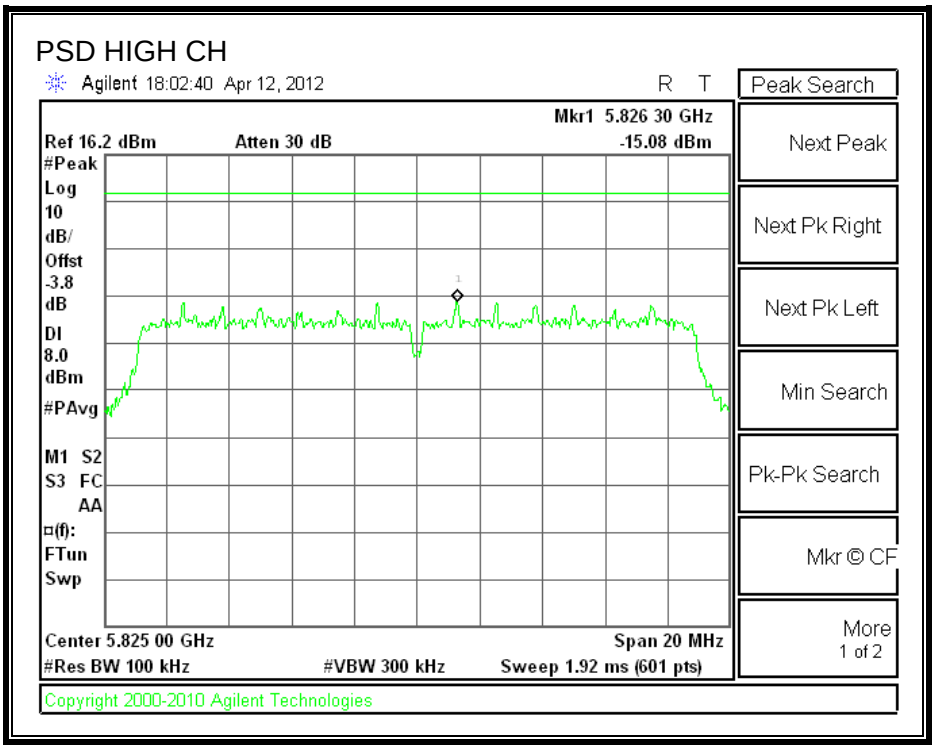
Note: Offset = Attenuation + Cable Loss – 10log (3 KHz/100KHz) = -3.8

Channel	Frequency (MHz)	PPSD (dBm)	Limit (dBm)	Margin (dB)
Low	5745	-14.11	8	-22.11
Middle	5785	-14.62	8	-22.62
High	5825	-15.08	8	-23.08

POWER SPECTRAL DENSITY







7.1.6. CONDUCTED SPURIOUS EMISSIONS

LIMITS

FCC §15.247 (d)

IC RSS-210 A8.5

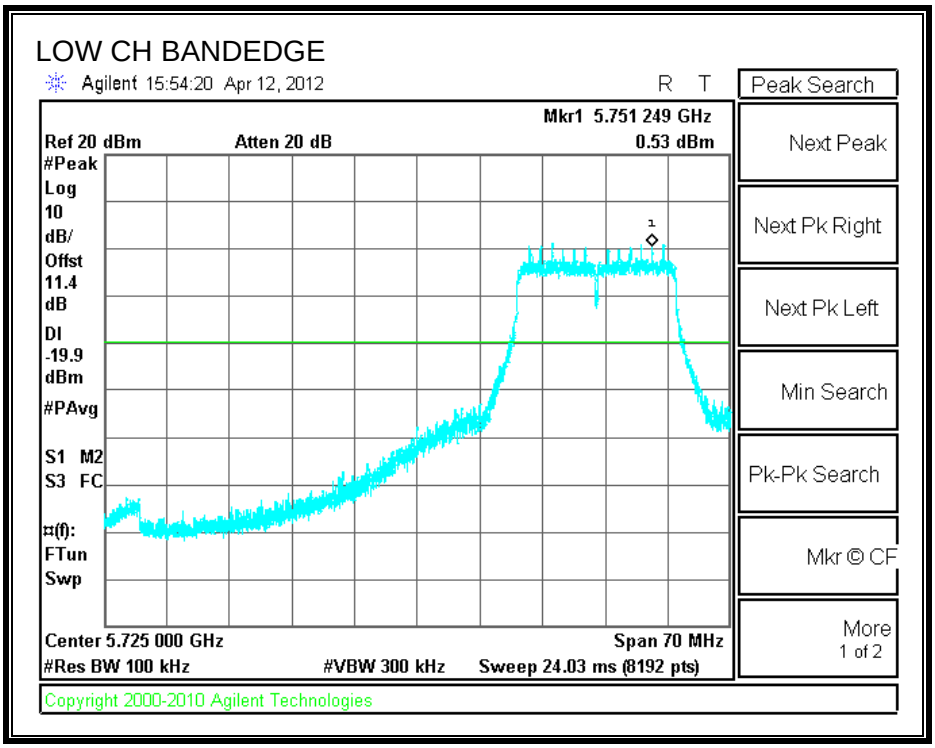
Output power was measured based on the use of a peak measurement, therefore the required attenuation is 20 dB.

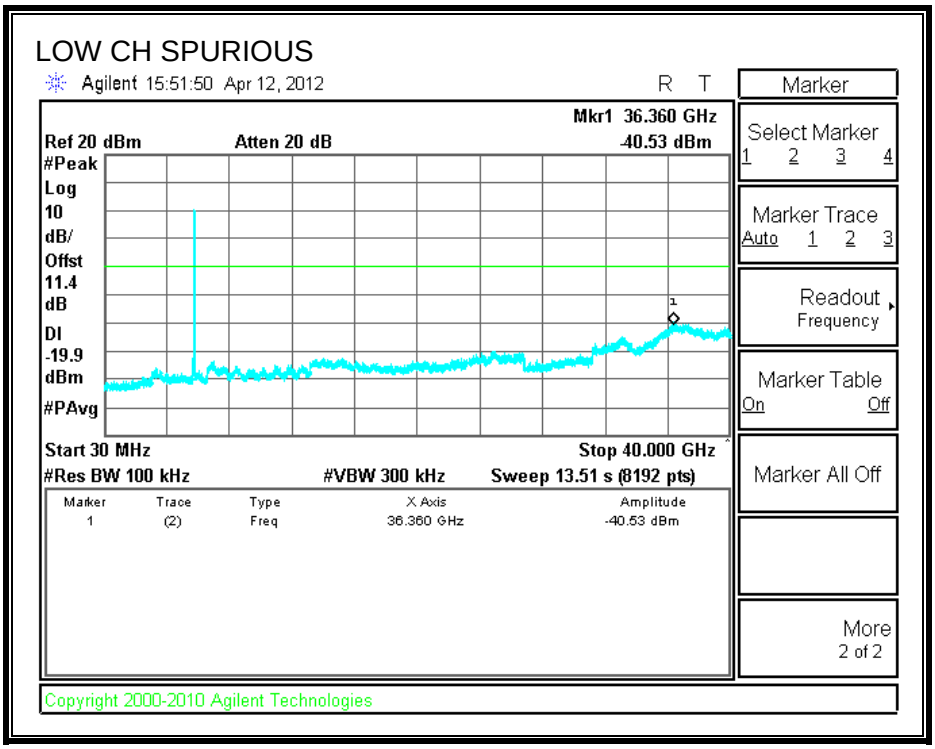
TEST PROCEDURE

KDB 558074 D01 DTS Meas Guidance v01, dated 1/18/2012:
"Guidance for Performing Compliance Measurements on Digital Transmission Systems (DTS) Operating Under §15.247."

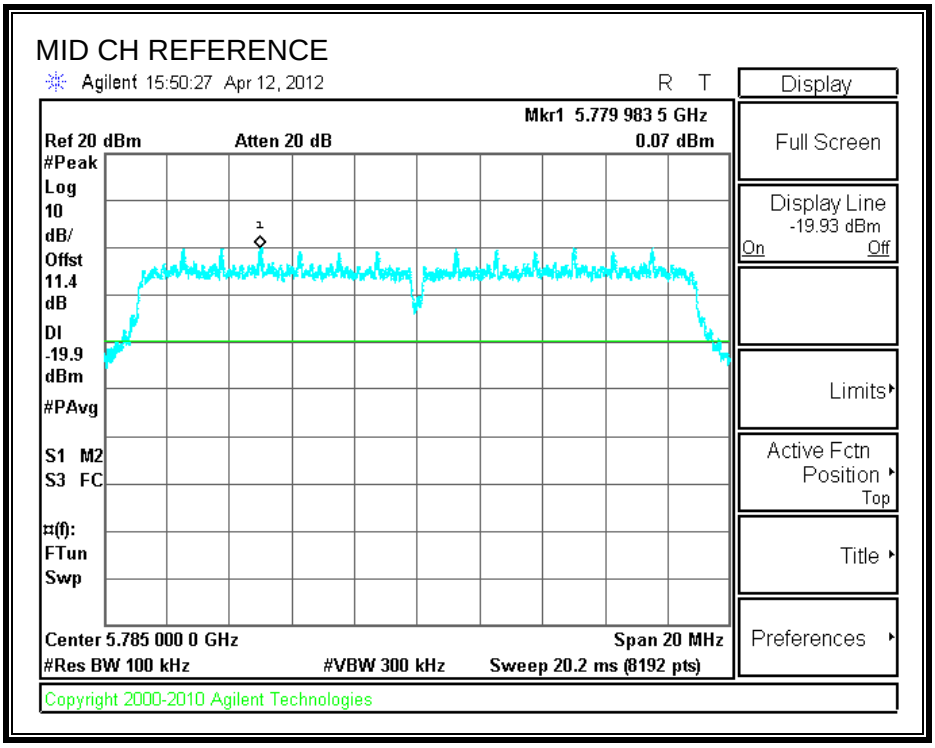
RESULTS

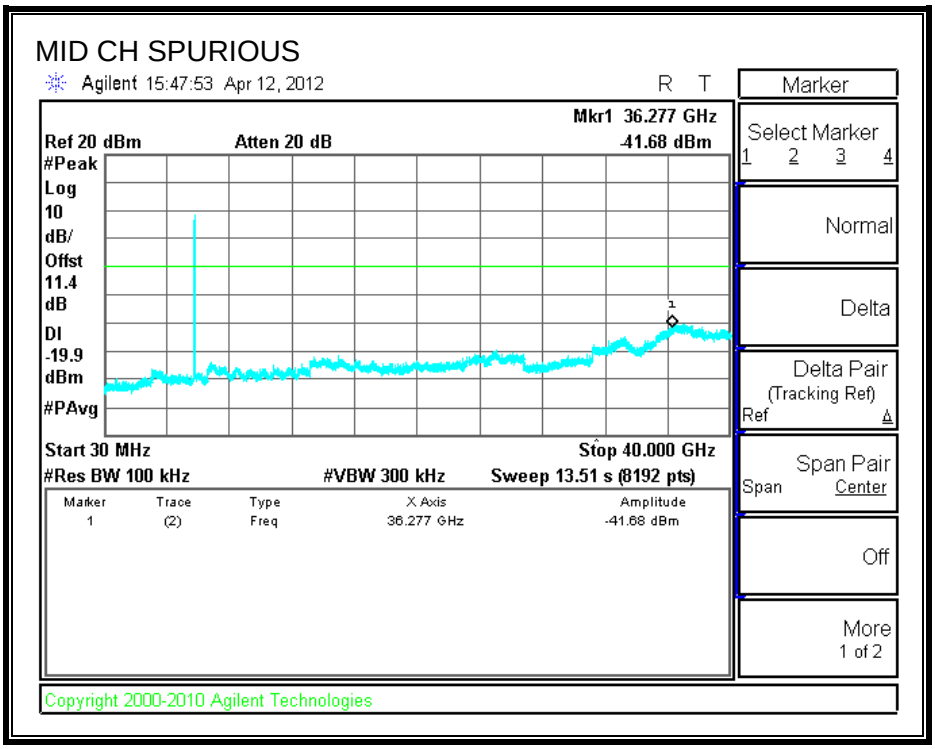
SPURIOUS EMISSIONS, LOW CHANNEL



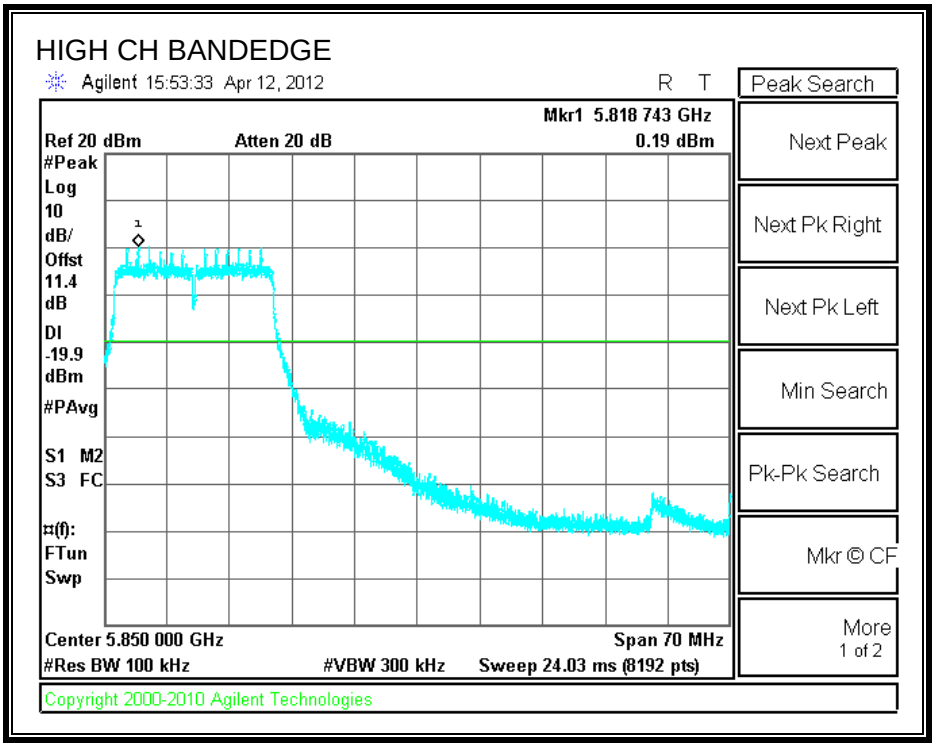


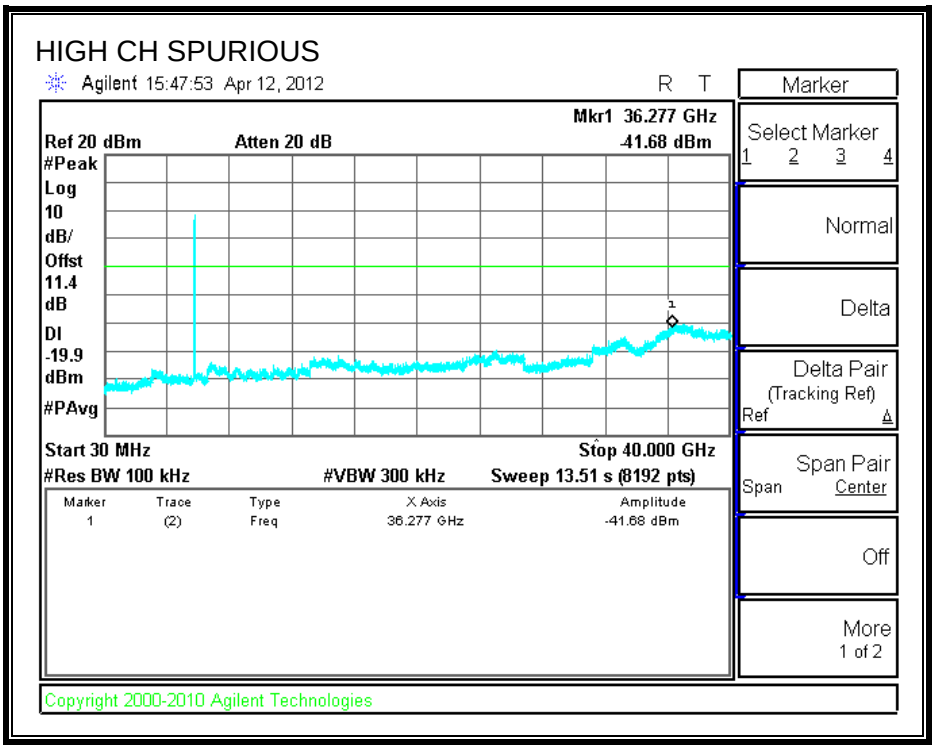
SPURIOUS EMISSIONS, MID CHANNEL





SPURIOUS EMISSIONS, HIGH CHANNEL





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 10 Hz for average measurements.

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

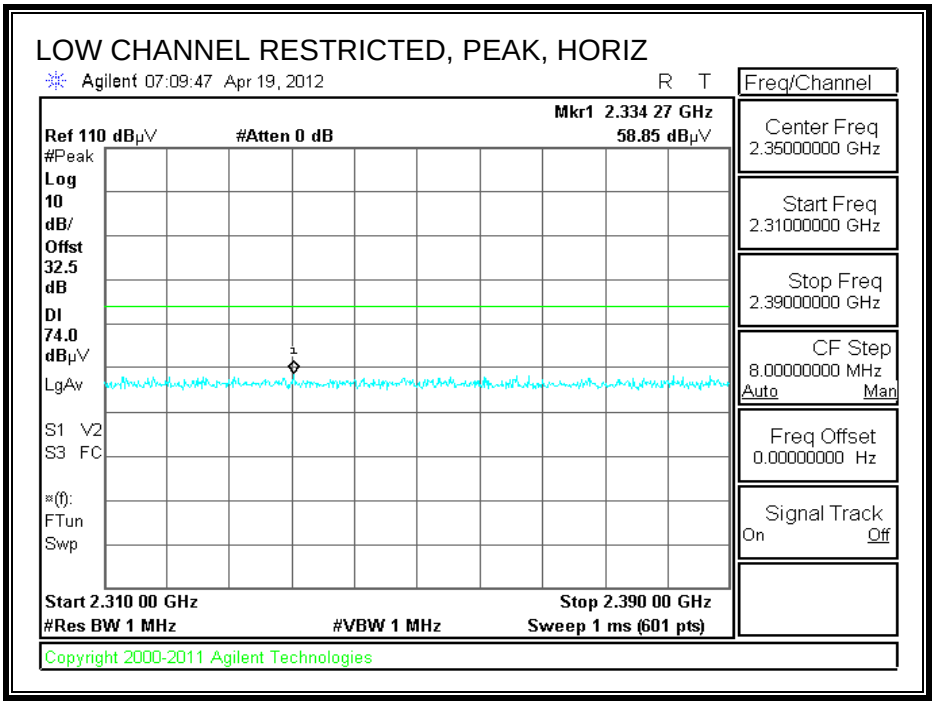
The frequency range of interest is monitored at a fixed antenna height and EUT azimuth. The EUT is rotated through 360 degrees to maximize emissions received. The antenna is scanned from 1 to 4 meters above the ground plane to further maximize the emission. Measurements are made with the antenna polarized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

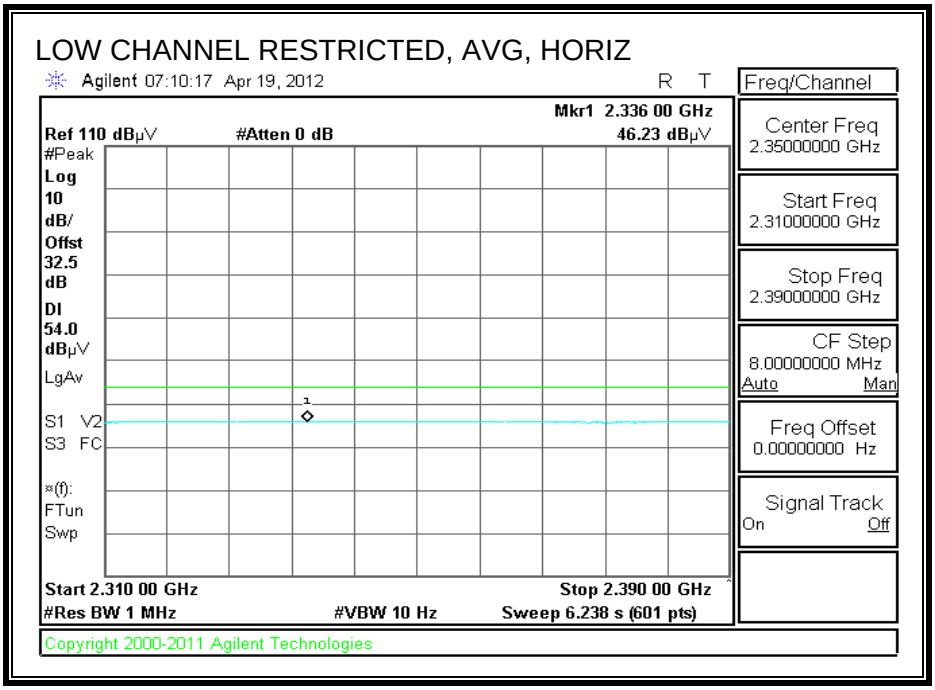
8.2. TRANSMITTER ABOVE 1 GHz

8.2.1. 802.11b MODE IN THE 2.4 GHz BAND

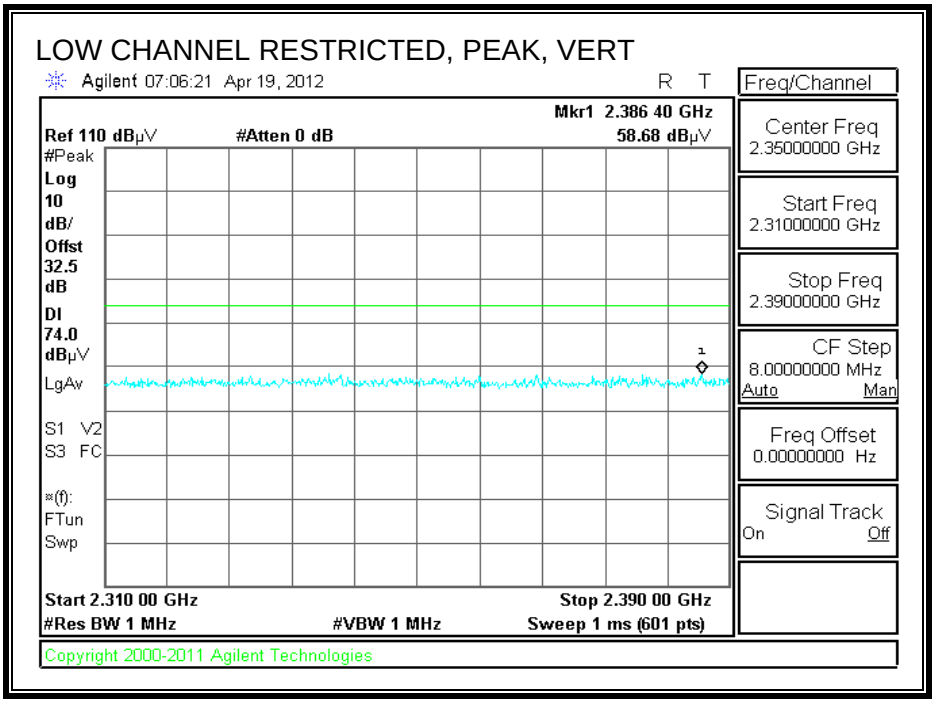
STANDARD COVER

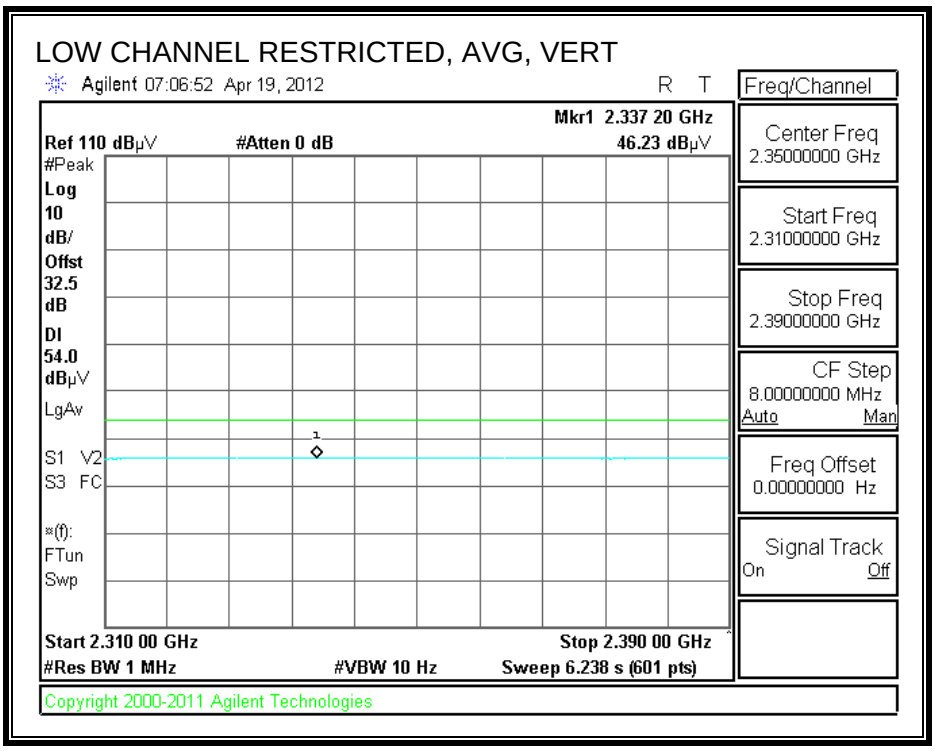
RESTRICTED BANDEDGE (LOW CHANNEL, HORIZONTAL)



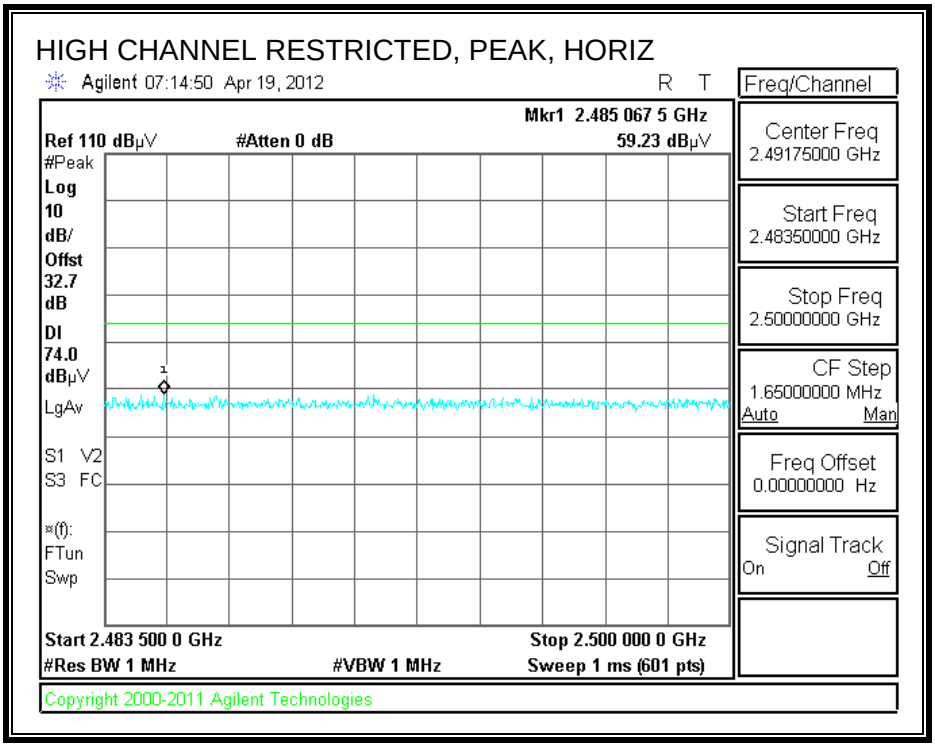


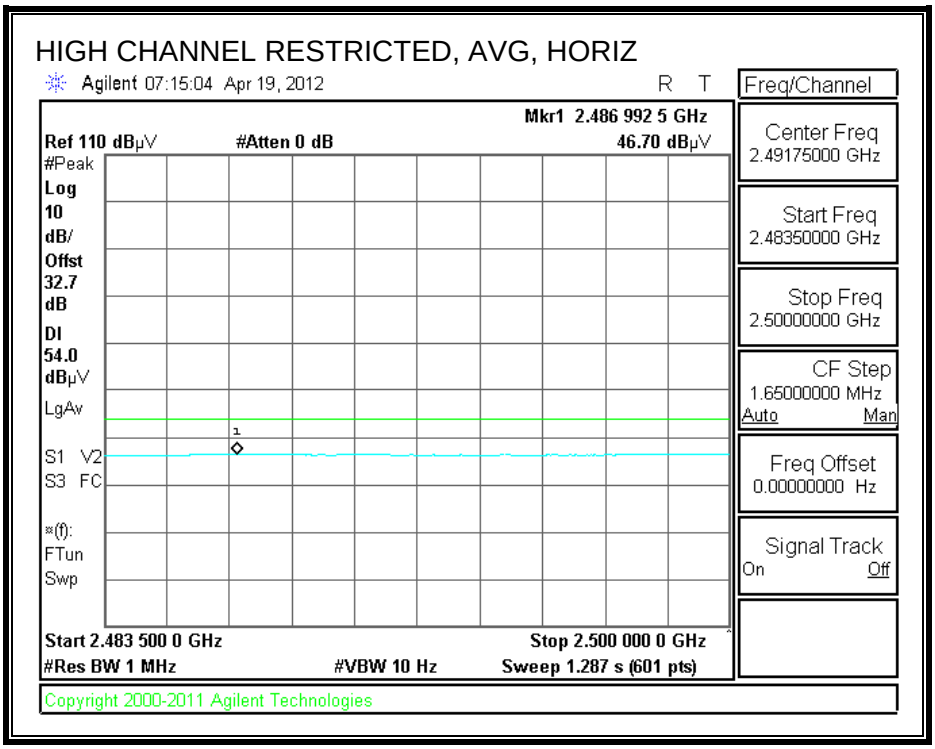
RESTRICTED BANDEDGE (LOW CHANNEL, VERTICAL)



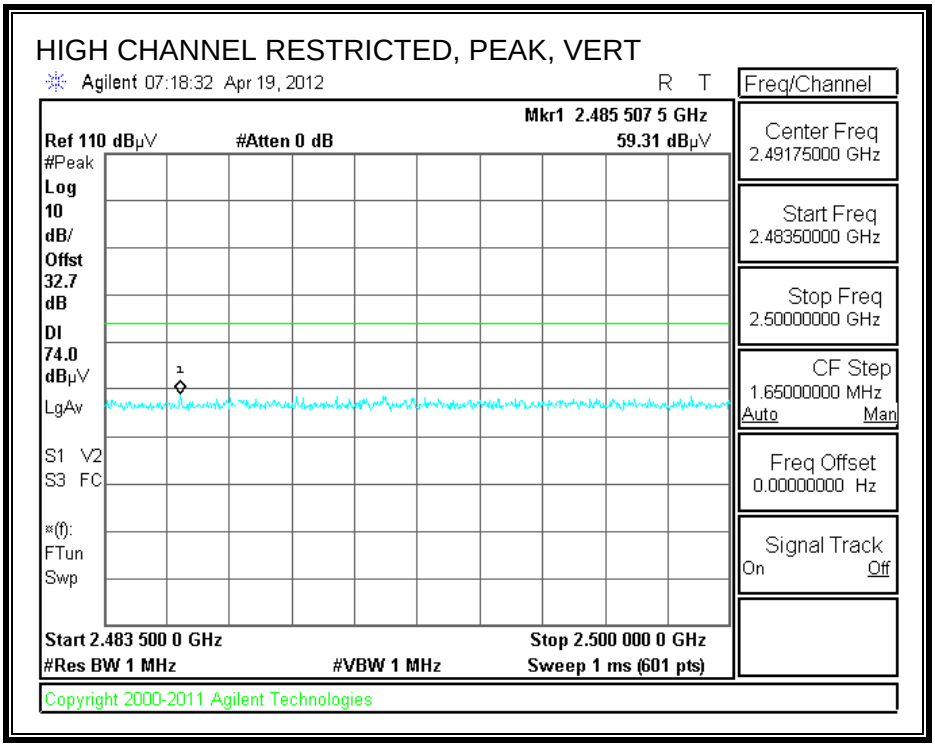


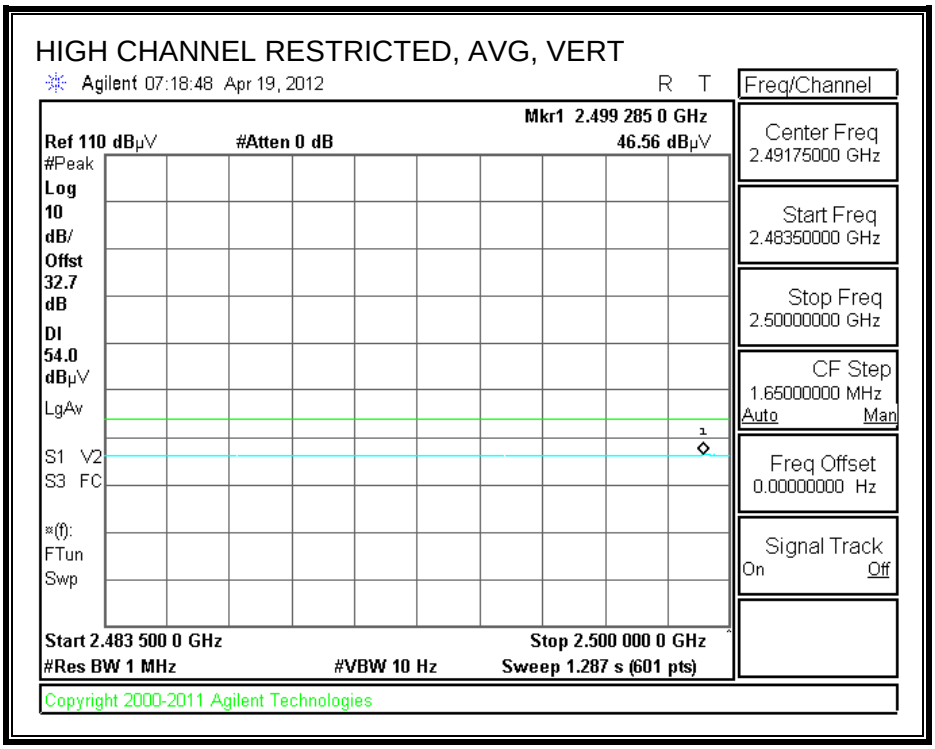
RESTRICTED BANDEDGE (HIGH CHANNEL, HORIZONTAL)





RESTRICTED BANDEDGE (HIGH CHANNEL, VERTICAL)





HARMONICS AND SPURIOUS EMISSIONS

High Frequency Measurement
Compliance Certification Services, Fremont 3m Chamber

Company: LG
Project #: 12U14331
Date: 3/28/2012
Test Engineer: D. Garcia
Configuration: Y position (worst case), AC adapter, standard back cover
Mode: 11b, TX

Test Equipment:

Horn 1-18GHz	Pre-amplifer 1-26GHz	Pre-amplifer 26-40GHz	Horn > 18GHz	Limit
T60; S/N: 2238 @3m	T34 HP 8449B		T39; ARA 18-26GHz; S/N:1013	FCC 15.205

Hi Frequency Cables

3' cable 22807700	12' cable 22807600	20' cable 22807500	HPF	Reject Filter
3' cable 22807700	12' cable 22807600	20' cable 22807500		R_001

Peak Measurements
RBW=VBW=1MHz
Average Measurements
RBW=1MHz ; VBW=10Hz

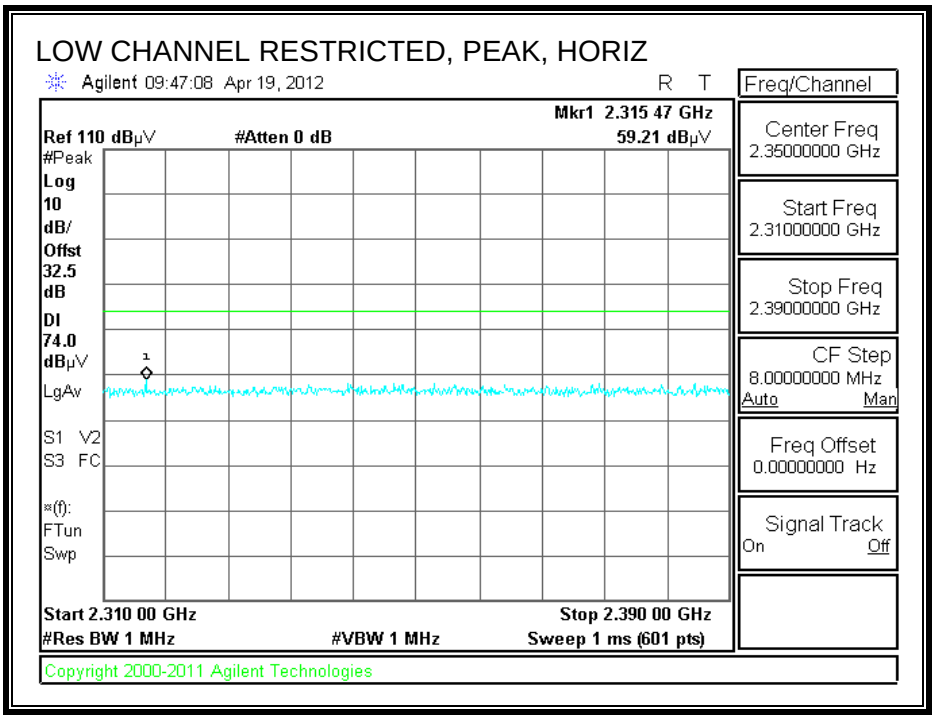
f GHz	Dist (m)	Read Pk dBuV	Read Avg. dBuV	AF dB/m	CL dB	Amp dB	D Corr dB	Fltr dB	Peak dBuV/m	Avg dBuV/m	Pk Lim dBuV/m	Avg Lim dBuV/m	Pk Mar dB	Avg Mar dB	Notes (V/H)
Low Channel: 2412 MHz															
4.824	3.0	41.0	30.5	33.1	6.8	-34.1	0.0	0.0	46.8	36.3	74	54	-27.2	-17.7	H
4.824	3.0	39.9	29.5	33.1	6.8	-34.1	0.0	0.0	45.7	35.4	74	54	-28.3	-18.6	V
Mid Channel: 2437 MHz															
4.874	3.0	40.9	29.7	33.2	6.8	-34.0	0.0	0.0	46.8	35.6	74	54	-27.2	-18.4	H
7.311	3.0	44.1	35.9	36.3	9.1	-33.1	0.0	0.0	56.4	48.2	74	54	-17.6	-5.8	H
4.874	3.0	41.7	30.3	33.2	6.8	-34.0	0.0	0.0	47.6	36.3	74	54	-26.4	-17.7	V
7.311	3.0	44.3	36.5	36.3	9.1	-33.1	0.0	0.0	56.6	48.8	74	54	-17.4	-5.2	V
High Channel: 2462 MHz															
4.924	3.0	42.1	33.9	33.2	6.8	-34.0	0.0	0.0	48.1	40.0	74	54	-25.9	-14.0	H
7.386	3.0	43.8	34.2	36.4	9.1	-33.1	0.0	0.0	56.2	46.7	74	54	-17.8	-7.3	H
4.924	3.0	39.8	30.9	33.2	6.8	-34.0	0.0	0.0	45.8	36.9	74	54	-28.2	-17.1	V
7.386	3.0	42.5	33.1	36.4	9.1	-33.1	0.0	0.0	54.9	45.5	74	54	-19.1	-8.5	V

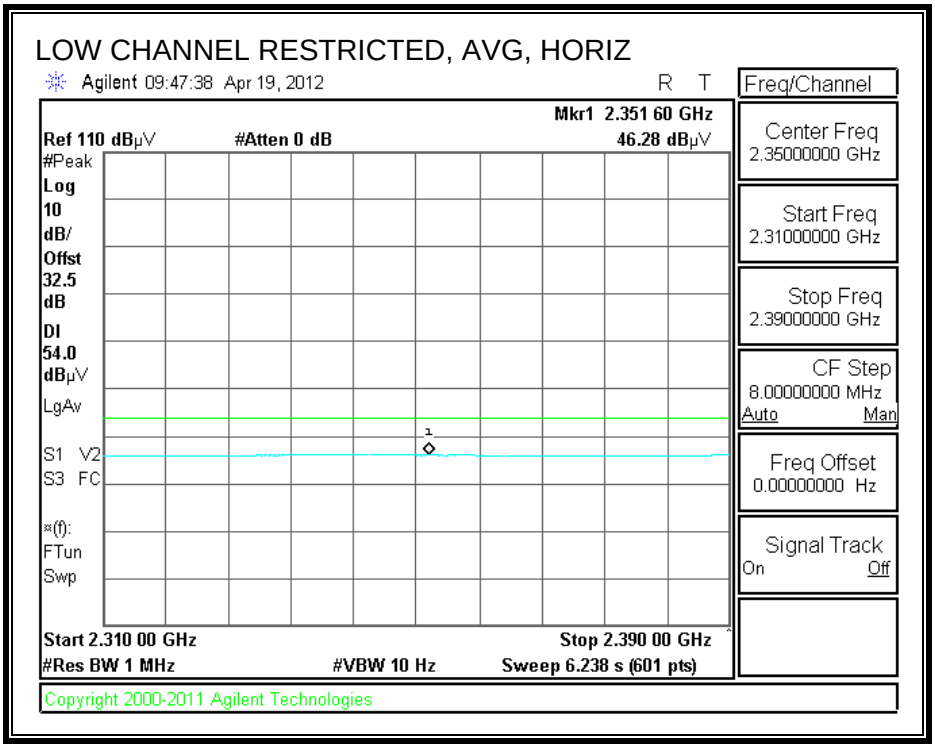
Rev. 07.08.11

f	Measurement Frequency	Amp	Preamp Gain	Avg Lim	Average Field Strength Limit
Dist	Distance to Antenna	D Corr	Distance Correct to 3 meters	Pk Lim	Peak Field Strength Limit
Read	Analyzer Reading	Avg	Average Field Strength @ 3 m	Avg Mar	Margin vs. Average Limit
AF	Antenna Factor	Peak	Calculated Peak Field Strength	Pk Mar	Margin vs. Peak Limit
CL	Cable Loss	HPF	High Pass Filter		

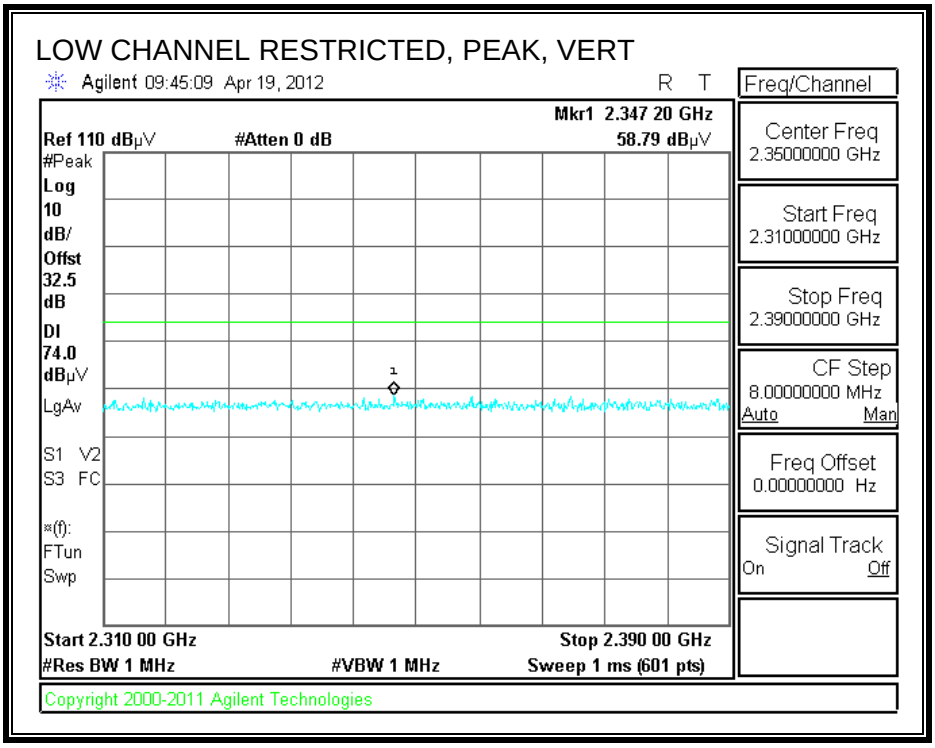
INDUCTIVE COVER

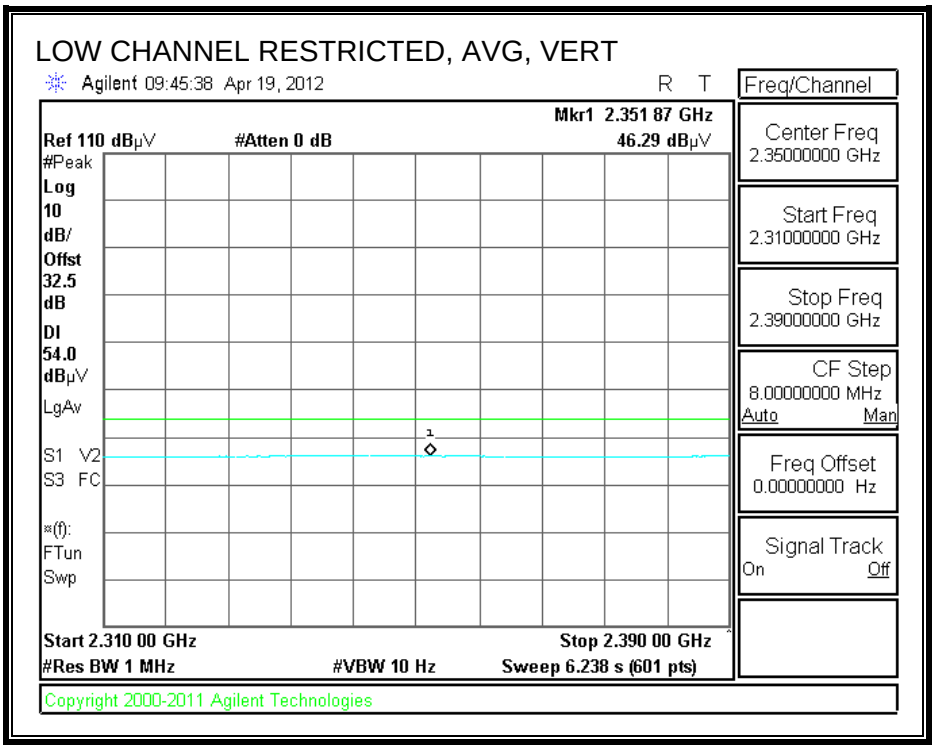
RESTRICTED BANDEDGE (LOW CHANNEL, HORIZONTAL)



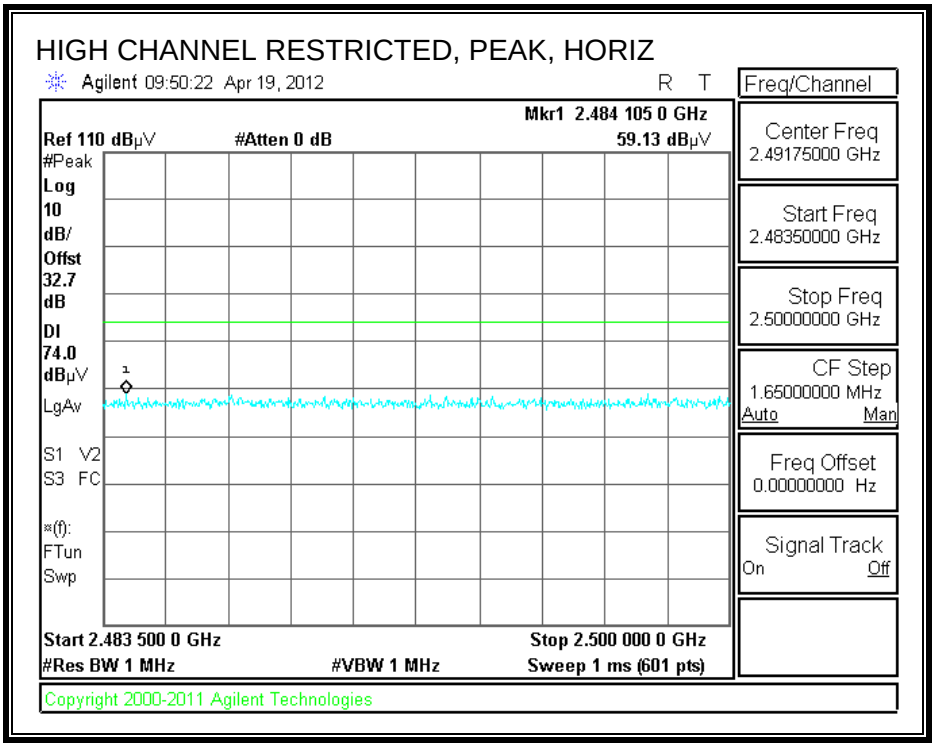


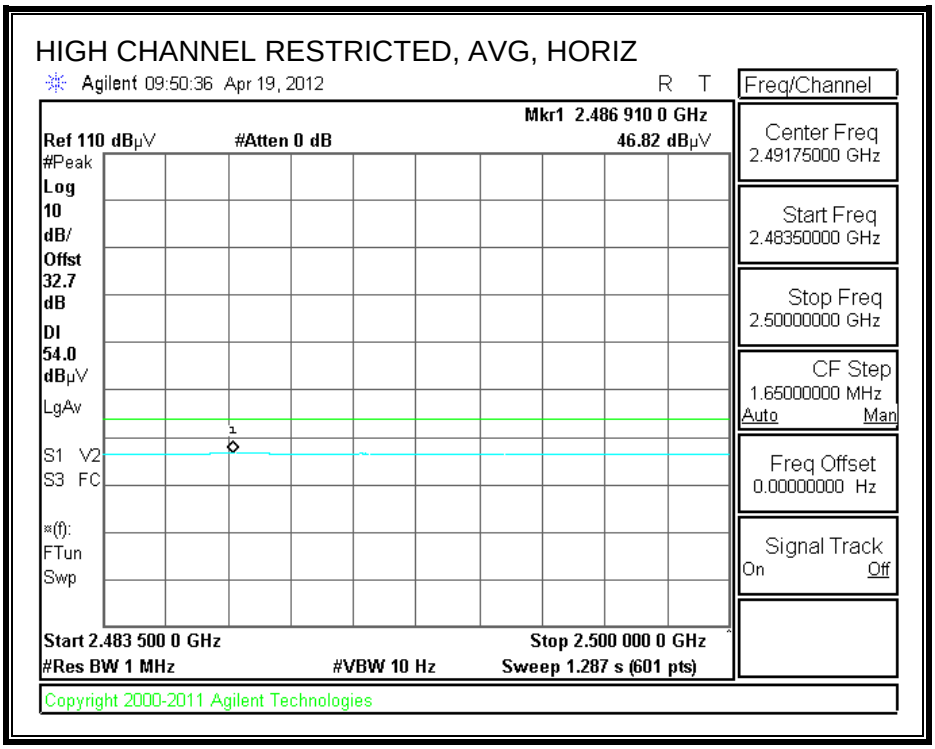
RESTRICTED BANDEDGE (LOW CHANNEL, VERTICAL)



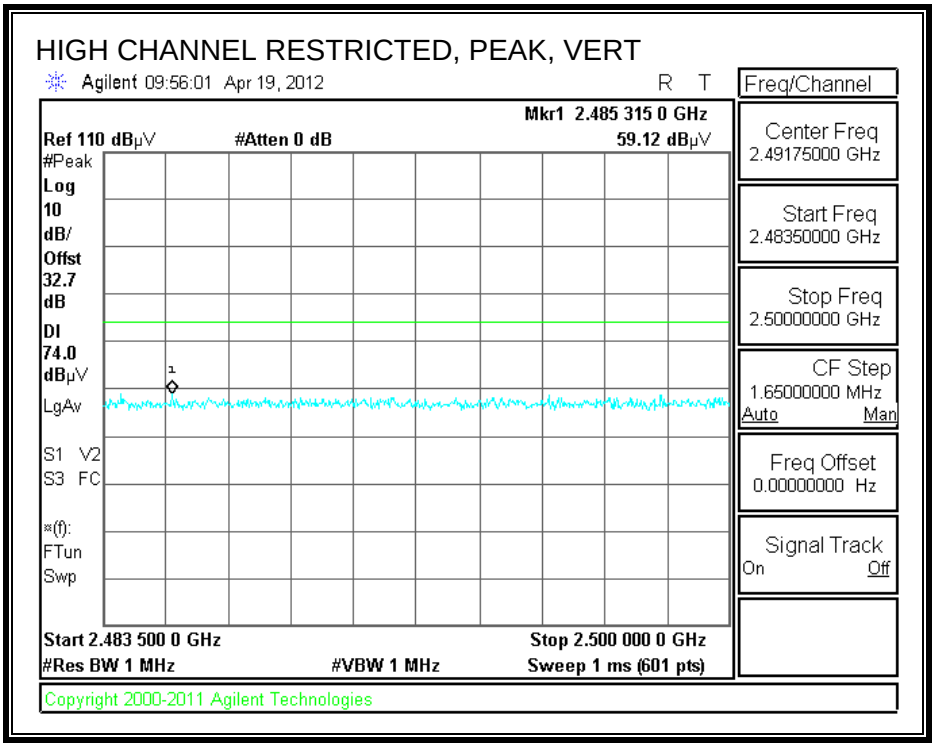


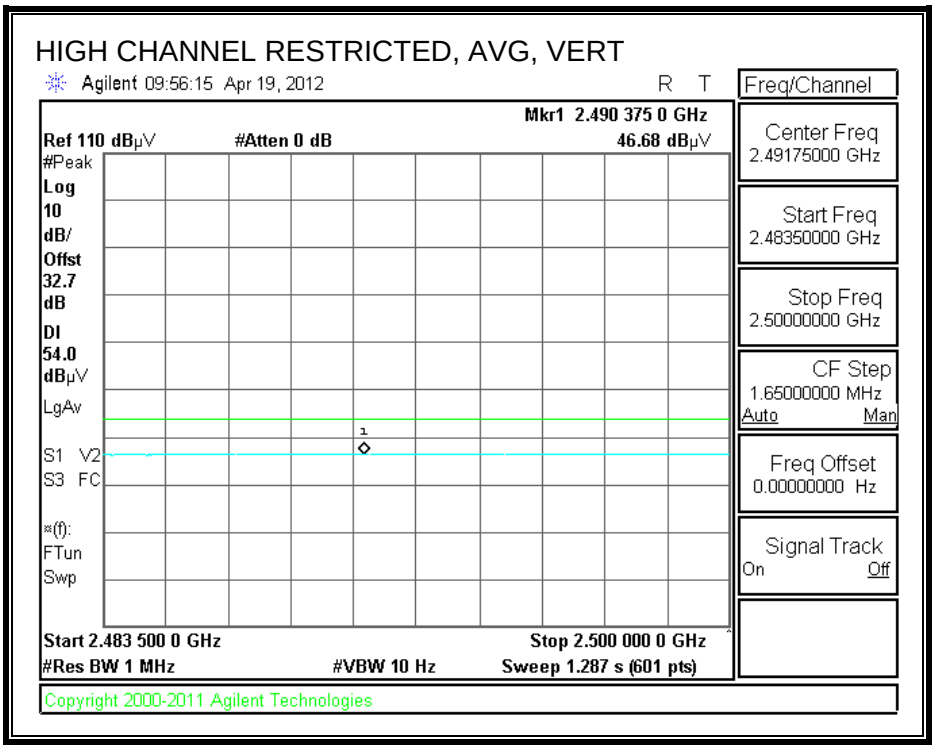
RESTRICTED BANDEDGE (HIGH CHANNEL, HORIZONTAL)





RESTRICTED BANDEDGE (HIGH CHANNEL, VERTICAL)





HARMONICS AND SPURIOUS EMISSIONS

High Frequency Measurement
Compliance Certification Services, Fremont 5m Chamber

Test Engr: Chin Pang
Date: 04/19/12
Project #: 12U14331
Company: LG
Test Target: FCC 15.247
Configuration: EUT(Inductive Cover)
Mode Oper: b mode, TX

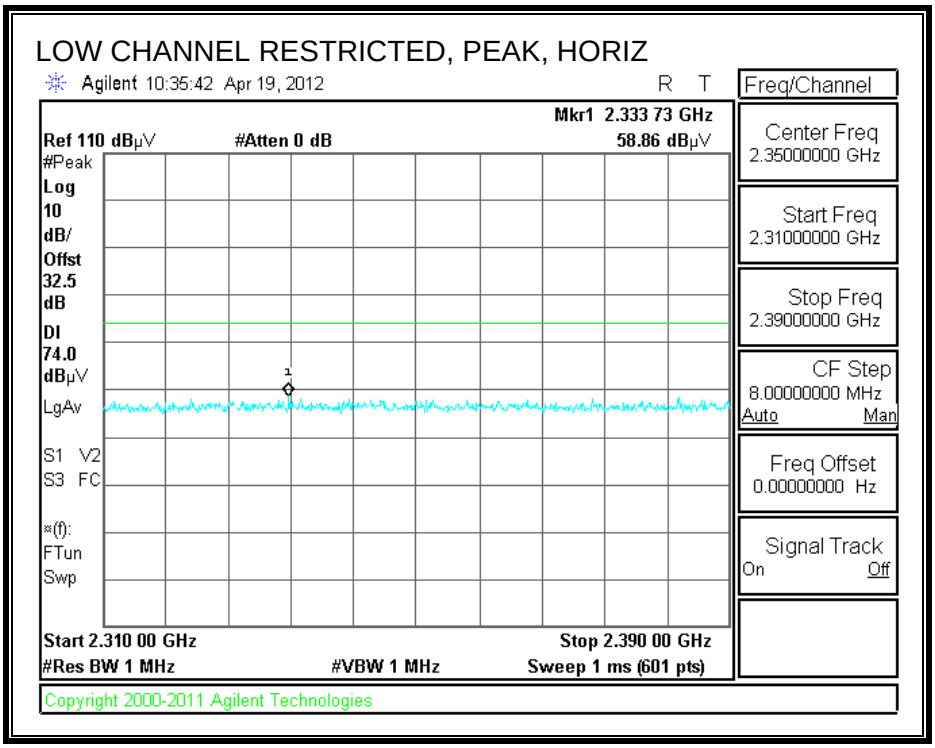
f	Measurement Frequency	Amp	Preamp Gain		Average Field Strength Limit
Dist	Distance to Antenna	D Corr	Distance Correct to 3 meters		Peak Field Strength Limit
Read	Analyzer Reading	Avg	Average Field Strength @ 3 m		Margin vs. Average Limit
AF	Antenna Factor	Peak	Calculated Peak Field Strength		Margin vs. Peak Limit
CL	Cable Loss	HPF	High Pass Filter		

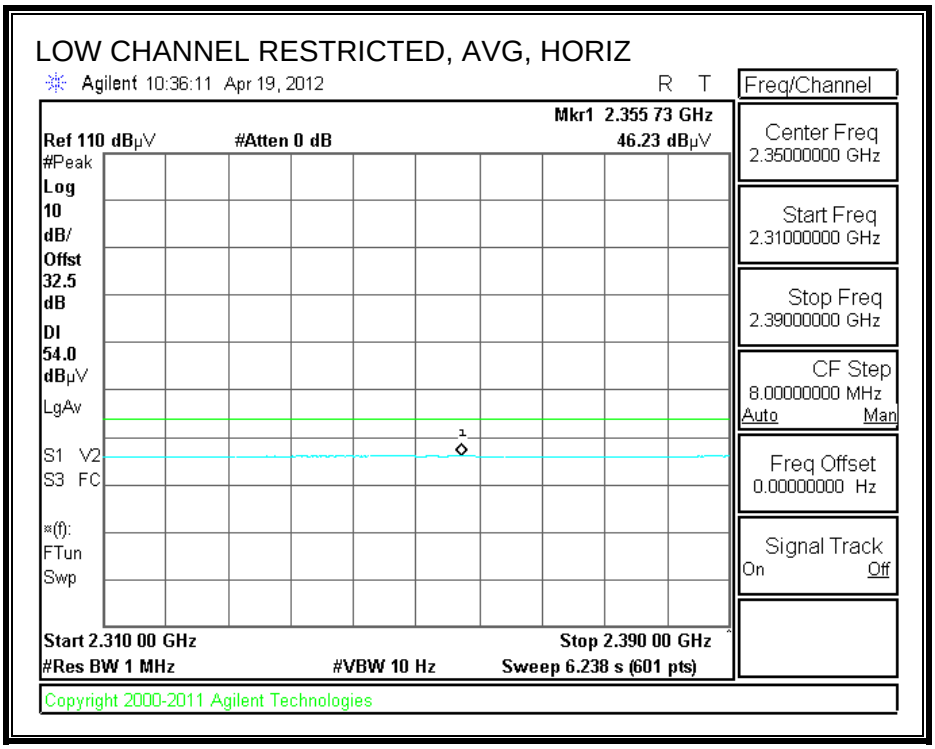
f GHz	Dist (m)	Read dBuV	AF dB/m	CL dB	Amp dB	D Corr dB	Fltr dB	Corr. dBuV/m	Limit dBuV/m	Margin dB	Ant. Pol. V/H	Det. P/A/QP	Notes
Low Ch, 2412MHz													
4.824	3.0	37.7	33.4	6.2	-35.5	0.0	0.0	41.9	74.0	-32.1	H	P	
4.824	3.0	27.0	33.4	6.2	-35.5	0.0	0.0	31.1	54.0	-22.9	H	A	
4.824	3.0	37.2	33.4	6.2	-35.5	0.0	0.0	41.4	74.0	-32.6	V	P	
4.824	3.0	25.8	33.4	6.2	-35.5	0.0	0.0	29.9	54.0	-24.1	V	A	
Mid Ch, 2437MHz													
4.874	3.0	36.9	33.5	6.2	-35.5	0.0	0.0	41.2	74.0	-32.8	H	P	
4.874	3.0	26.6	33.5	6.2	-35.5	0.0	0.0	30.8	54.0	-23.2	H	A	
7.311	3.0	38.5	35.7	8.4	-35.4	0.0	0.0	47.1	74.0	-26.9	H	P	
7.311	3.0	29.9	35.7	8.4	-35.4	0.0	0.0	38.6	54.0	-15.4	H	A	
4.874	3.0	36.5	33.5	6.2	-35.5	0.0	0.0	40.7	74.0	-33.3	V	P	
4.874	3.0	25.3	33.5	6.2	-35.5	0.0	0.0	29.5	54.0	-24.5	V	A	
7.311	3.0	38.1	35.7	8.4	-35.4	0.0	0.0	46.8	74.0	-27.2	V	P	
7.311	3.0	29.4	35.7	8.4	-35.4	0.0	0.0	38.0	54.0	-16.0	V	A	
High Ch, 2462MHz													
4.924	3.0	38.1	33.5	6.3	-35.5	0.0	0.0	42.4	74.0	-31.6	H	P	
4.924	3.0	27.5	33.5	6.3	-35.5	0.0	0.0	31.8	54.0	-22.2	H	A	
7.386	3.0	41.0	35.8	8.4	-35.5	0.0	0.0	49.8	74.0	-24.2	H	P	
7.386	3.0	32.5	35.8	8.4	-35.5	0.0	0.0	41.3	54.0	-12.7	H	A	
4.924	3.0	36.5	33.5	6.3	-35.5	0.0	0.0	40.8	74.0	-33.2	V	P	
4.924	3.0	25.8	33.5	6.3	-35.5	0.0	0.0	30.1	54.0	-23.9	V	A	
7.386	3.0	38.8	35.8	8.4	-35.5	0.0	0.0	47.6	74.0	-26.4	V	P	
7.386	3.0	30.1	35.8	8.4	-35.5	0.0	0.0	38.9	54.0	-15.1	V	A	

Rev. 4.1.2.7
Note: No other emissions were detected above the system noise floor.

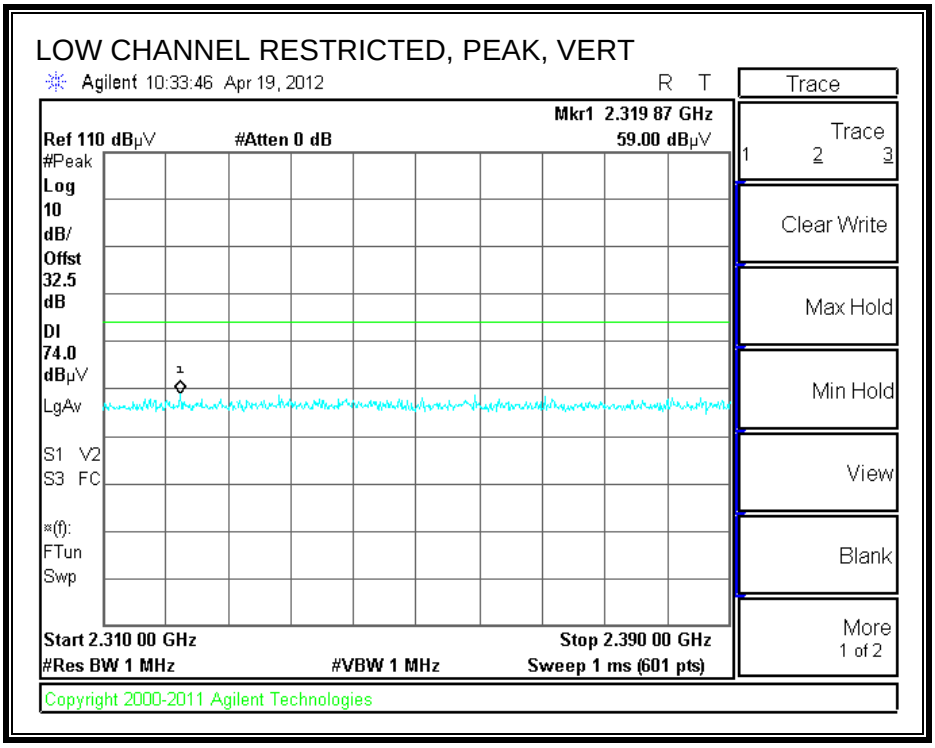
INDUCTIVE CHARGER WITH INDUCTIVE COVER

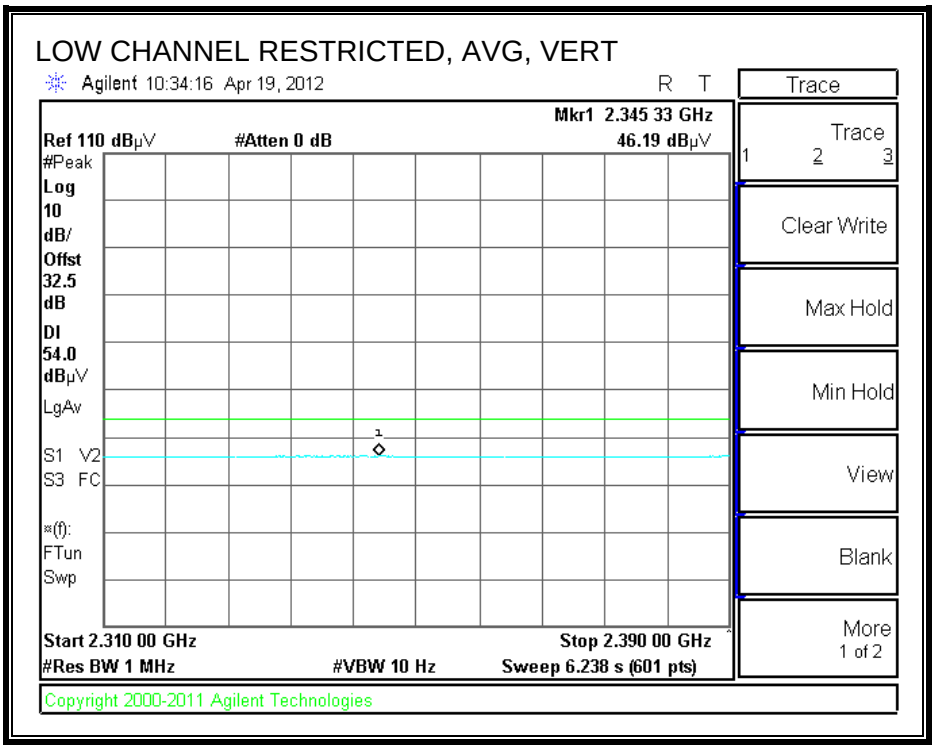
RESTRICTED BANDEDGE (LOW CHANNEL, HORIZONTAL)



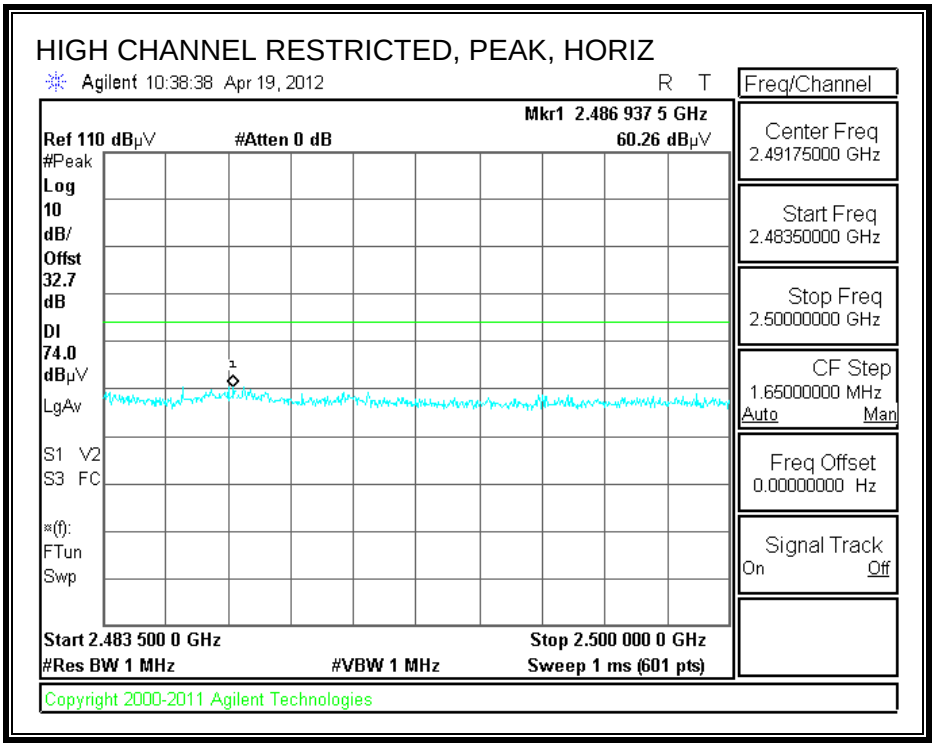


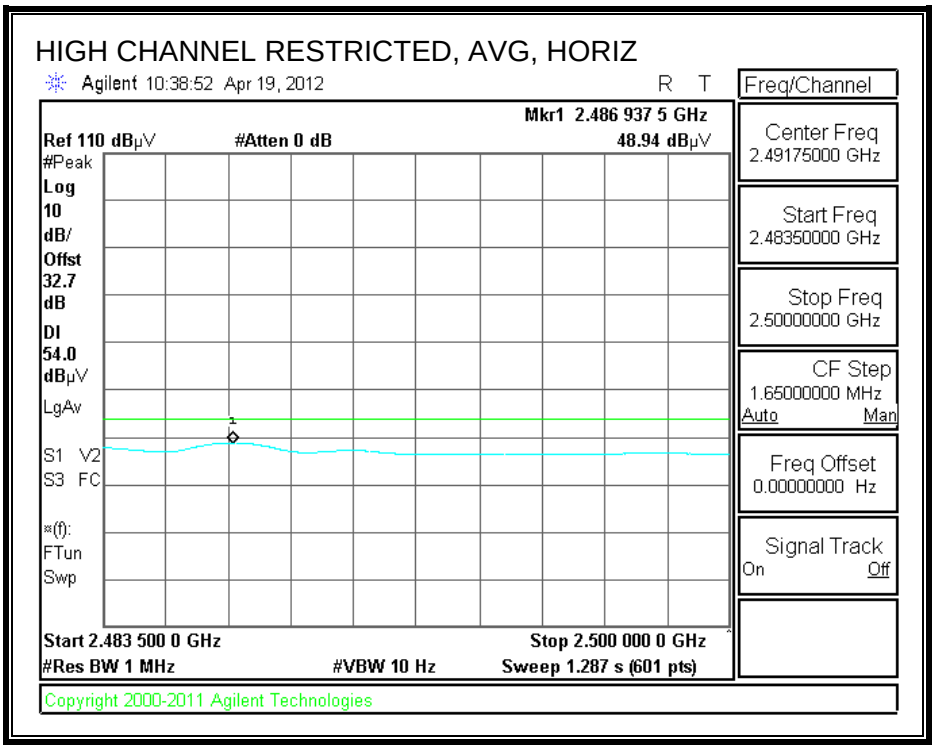
RESTRICTED BANDEDGE (LOW CHANNEL, VERTICAL)



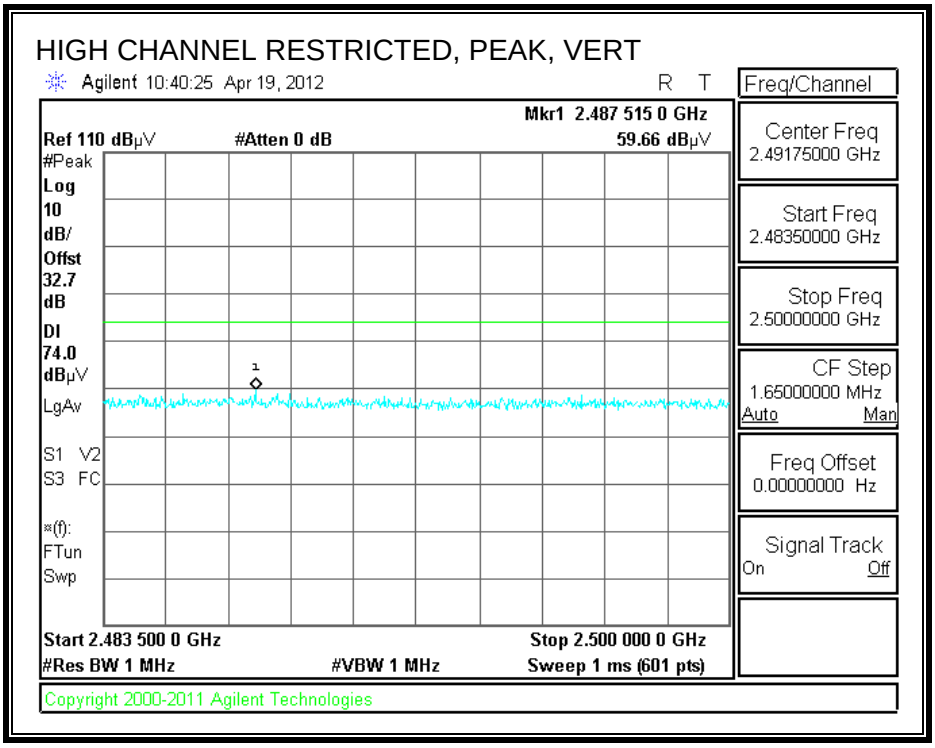


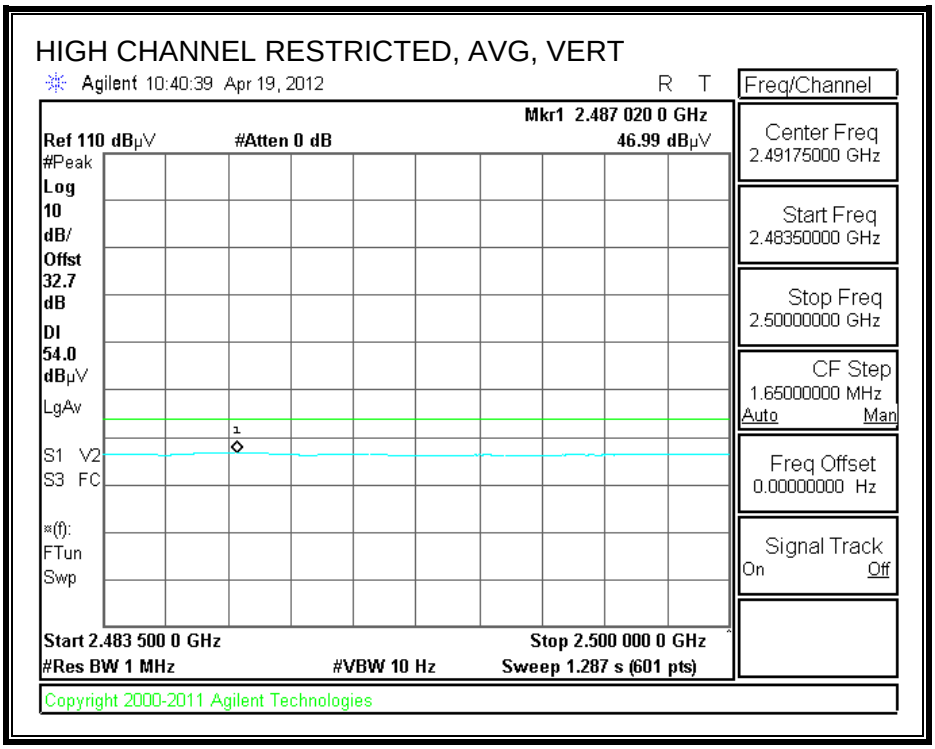
RESTRICTED BANDEDGE (HIGH CHANNEL, HORIZONTAL)





RESTRICTED BANDEDGE (HIGH CHANNEL, VERTICAL)





HARMONICS AND SPURIOUS EMISSIONS

High Frequency Measurement
Compliance Certification Services, Fremont 5m Chamber

Test Engr: Chin Pang
Date: 04/19/12
Project #: 12U14331
Company: LG
Test Target: FCC 15.247
Configuration: EUT(On Inductive Charging Pad)
Mode Oper: b mode, TX

f	Measurement Frequency	Amp	Preamp Gain		Average Field Strength Limit
Dist	Distance to Antenna	D Corr	Distance Correct to 3 meters		Peak Field Strength Limit
Read	Analyzer Reading	Avg	Average Field Strength @ 3 m		Margin vs. Average Limit
AF	Antenna Factor	Peak	Calculated Peak Field Strength		Margin vs. Peak Limit
CL	Cable Loss	HPF	High Pass Filter		

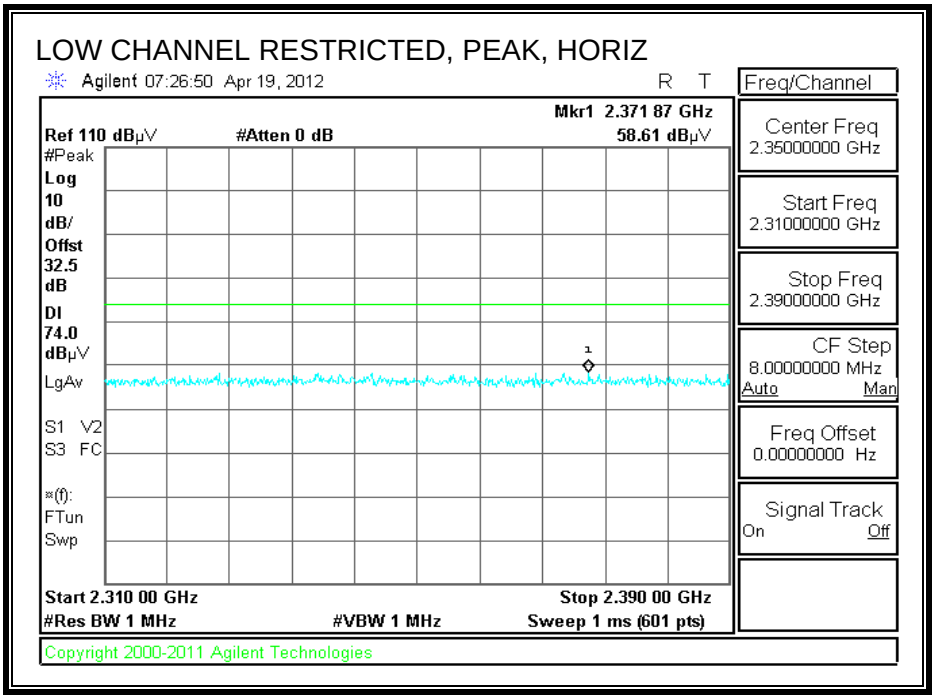
f GHz	Dist (m)	Read dBuV	AF dB/m	CL dB	Amp dB	D Corr dB	Fltr dB	Corr. dBuV/m	Limit dBuV/m	Margin dB	Ant. Pol. V/H	Det. P/A/QP	Notes
Low Ch, 2412MHz													
4.824	3.0	38.2	33.4	6.2	-35.5	0.0	0.0	42.3	74.0	-31.7	H	P	
4.824	3.0	30.5	33.4	6.2	-35.5	0.0	0.0	34.6	54.0	-19.4	H	A	
4.824	3.0	40.4	33.4	6.2	-35.5	0.0	0.0	44.5	74.0	-29.5	V	P	
4.824	3.0	34.9	33.4	6.2	-35.5	0.0	0.0	39.1	54.0	-15.0	V	A	
Mid Ch, 2437MHz													
4.874	3.0	38.1	33.5	6.2	-35.5	0.0	0.0	42.4	74.0	-31.6	H	P	
4.874	3.0	29.2	33.5	6.2	-35.5	0.0	0.0	33.5	54.0	-20.5	H	A	
7.311	3.0	38.2	35.7	8.4	-35.4	0.0	0.0	46.8	74.0	-27.2	H	P	
7.311	3.0	28.9	35.7	8.4	-35.4	0.0	0.0	37.6	54.0	-16.4	H	A	
4.874	3.0	40.3	33.5	6.2	-35.5	0.0	0.0	44.5	74.0	-29.5	V	P	
4.874	3.0	34.6	33.5	6.2	-35.5	0.0	0.0	38.9	54.0	-15.1	V	A	
7.311	3.0	41.4	35.7	8.4	-35.4	0.0	0.0	50.0	74.0	-24.0	V	P	
7.311	3.0	35.1	35.7	8.4	-35.4	0.0	0.0	43.8	54.0	-10.2	V	A	
High Ch, 2462MHz													
4.924	3.0	37.3	33.5	6.3	-35.5	0.0	0.0	41.6	74.0	-32.4	H	P	
4.924	3.0	26.5	33.5	6.3	-35.5	0.0	0.0	30.9	54.0	-23.1	H	A	
7.386	3.0	39.6	35.8	8.4	-35.5	0.0	0.0	48.4	74.0	-25.6	H	P	
7.386	3.0	31.8	35.8	8.4	-35.5	0.0	0.0	40.6	54.0	-13.4	H	A	
4.924	3.0	37.2	33.5	6.3	-35.5	0.0	0.0	41.5	74.0	-32.5	V	P	
4.924	3.0	26.7	33.5	6.3	-35.5	0.0	0.0	31.1	54.0	-23.0	V	A	
7.386	3.0	41.7	35.8	8.4	-35.5	0.0	0.0	50.5	74.0	-23.5	V	P	
7.386	3.0	35.5	35.8	8.4	-35.5	0.0	0.0	44.3	54.0	-9.7	V	A	

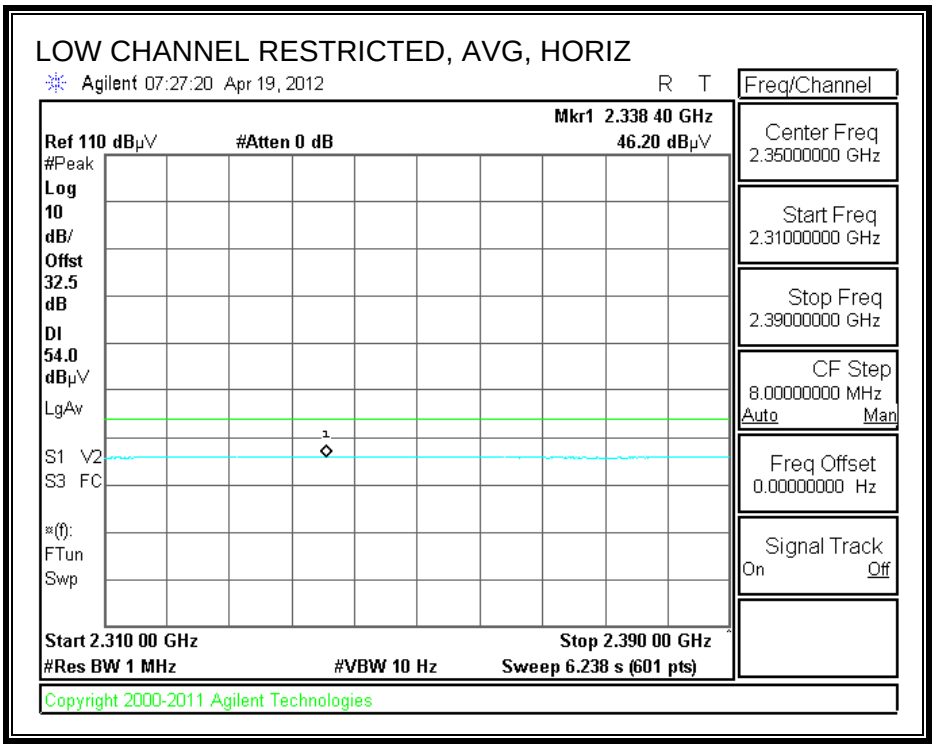
Rev. 4.1.2.7
Note: No other emissions were detected above the system noise floor.

8.2.2. 802.11g MODE IN THE 2.4 GHz BAND

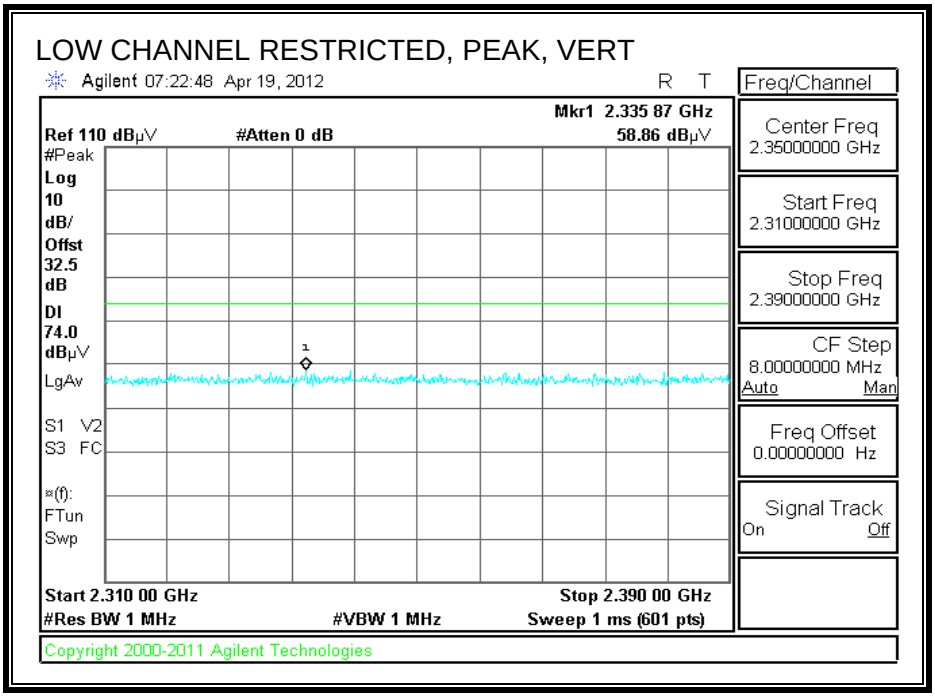
STANDARD COVER

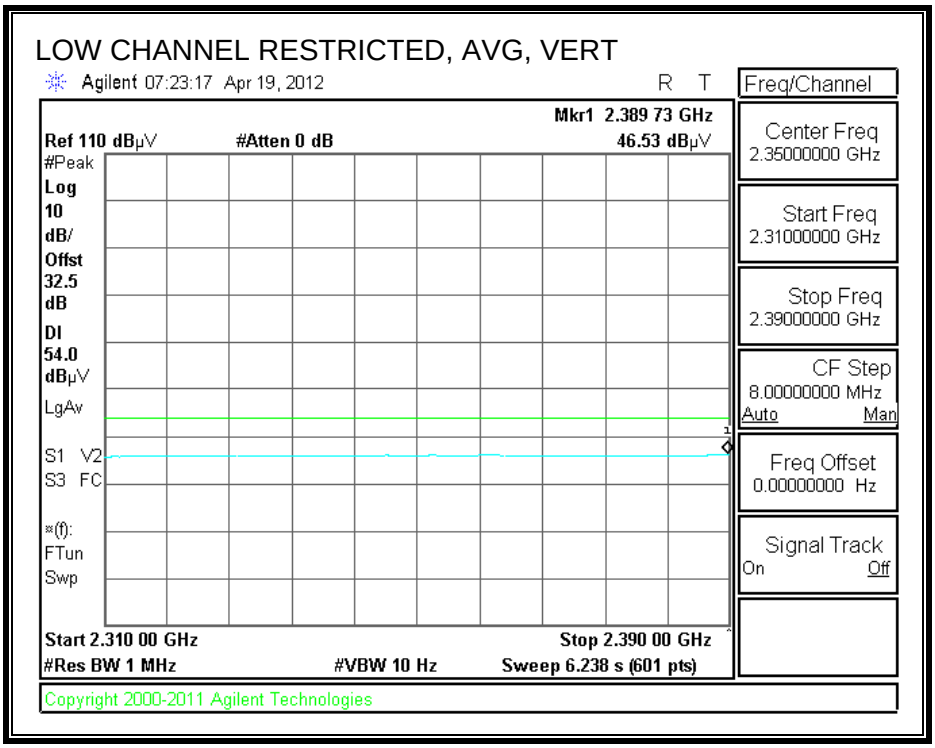
RESTRICTED BANDEDGE (LOW CHANNEL, HORIZONTAL)



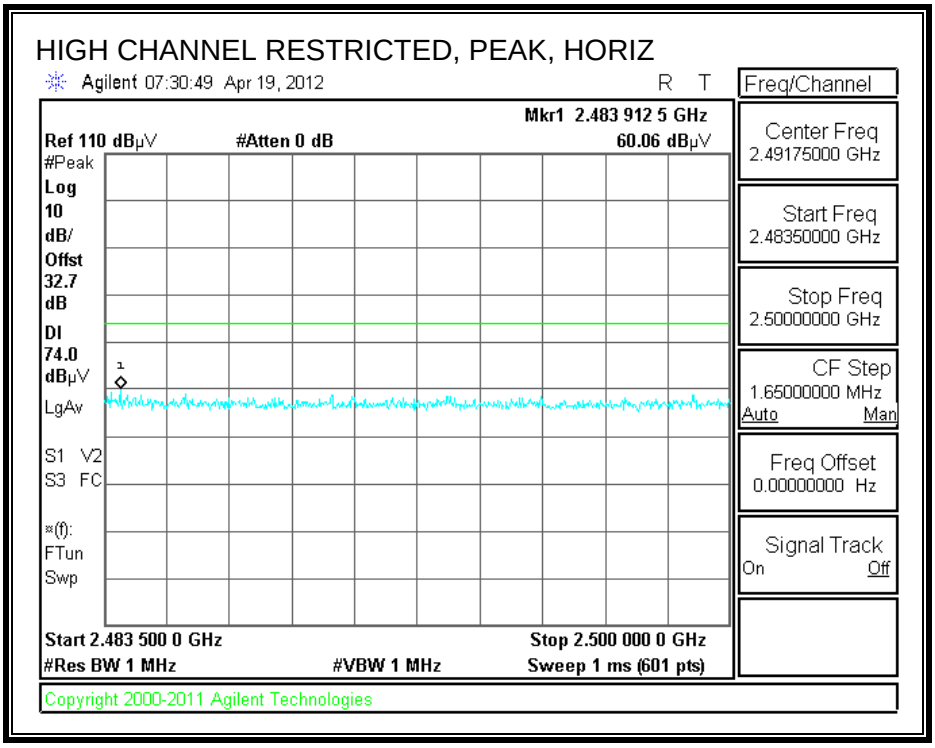


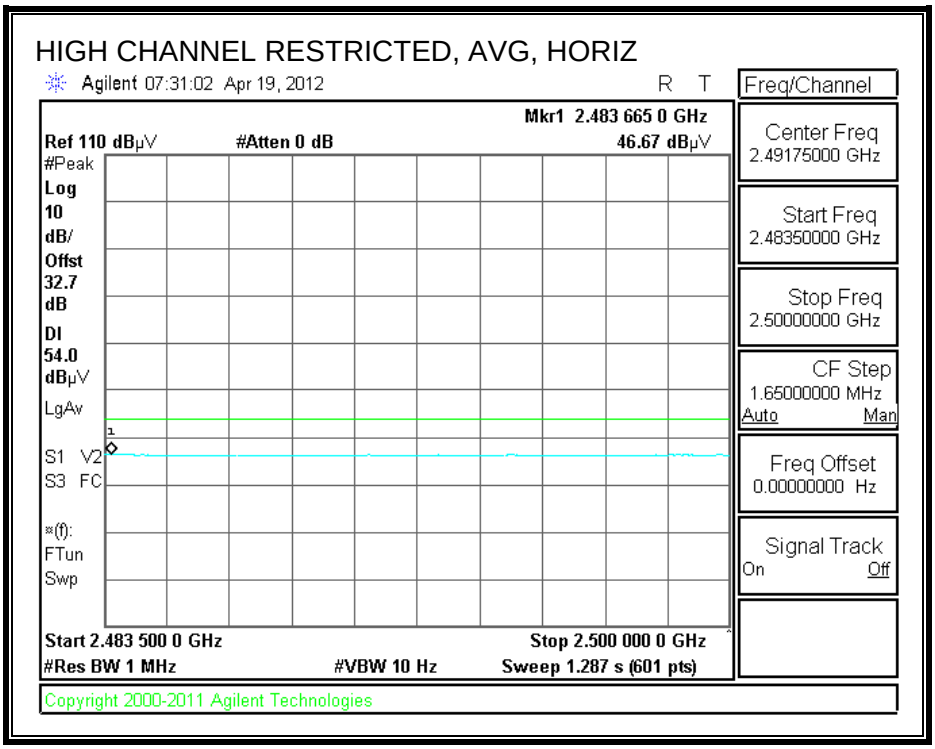
RESTRICTED BANDEDGE (LOW CHANNEL, VERTICAL)



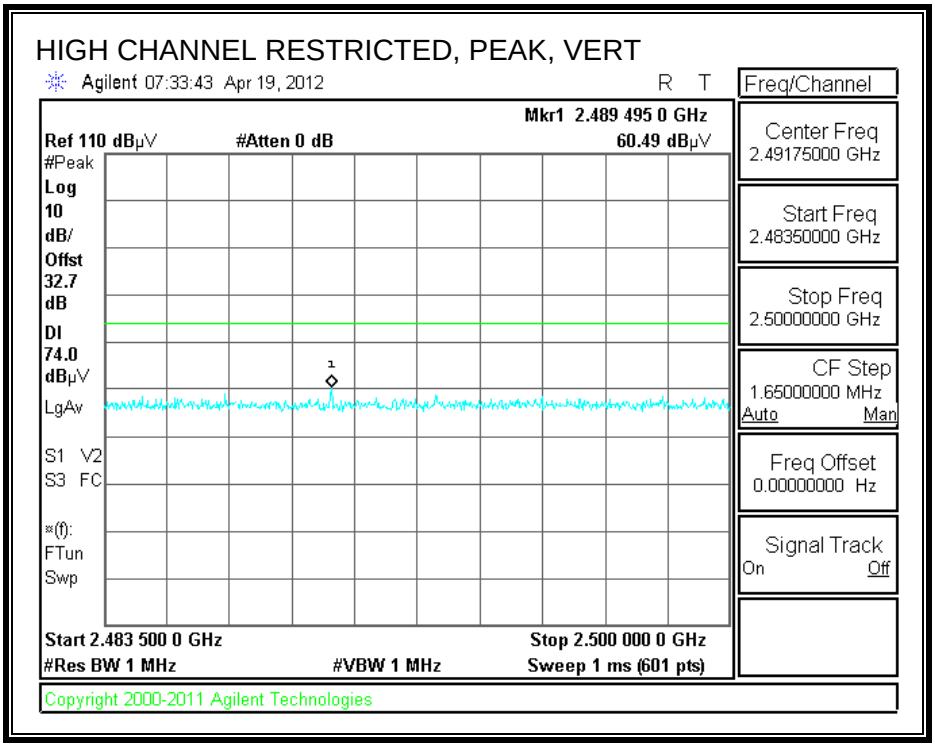


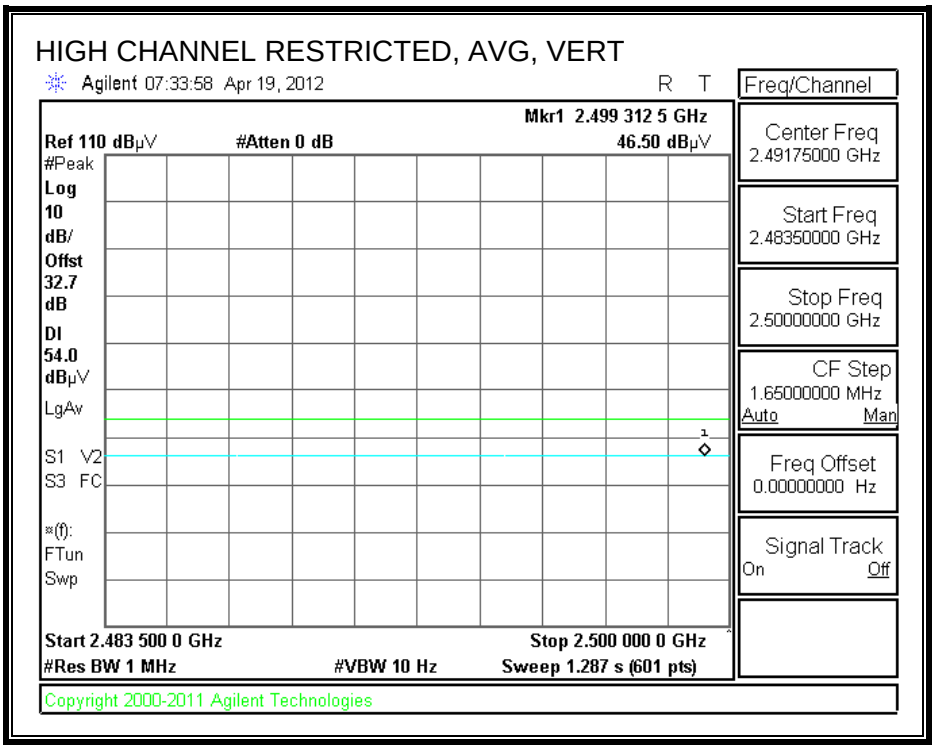
RESTRICTED BANDEDGE (HIGH CHANNEL, HORIZONTAL)





RESTRICTED BANDEDGE (HIGH CHANNEL, VERTICAL)





HARMONICS AND SPURIOUS EMISSIONS

High Frequency Measurement
Compliance Certification Services, Fremont 3m Chamber

Company: LG
Project #: 12U14331
Date: 3/28/2012
Test Engineer: D. Garcia
Configuration: Y position (worst case), AC adapter, standard back cover
Mode: 11g, TX

Test Equipment:

Horn 1-18GHz	Pre-amplifer 1-26GHz	Pre-amplifer 26-40GHz	Horn > 18GHz	Limit
T60; S/N: 2238 @3m	T34 HP 8449B		T39; ARA 18-26GHz; S/N:1013	FCC 15.205

Hi Frequency Cables

3' cable 22807700	12' cable 22807600	20' cable 22807500	HPF	Reject Filter
3' cable 22807700	12' cable 22807600	20' cable 22807500		R_001

Peak Measurements
RBW=VBW=1MHz
Average Measurements
RBW=1MHz ; VBW=10Hz

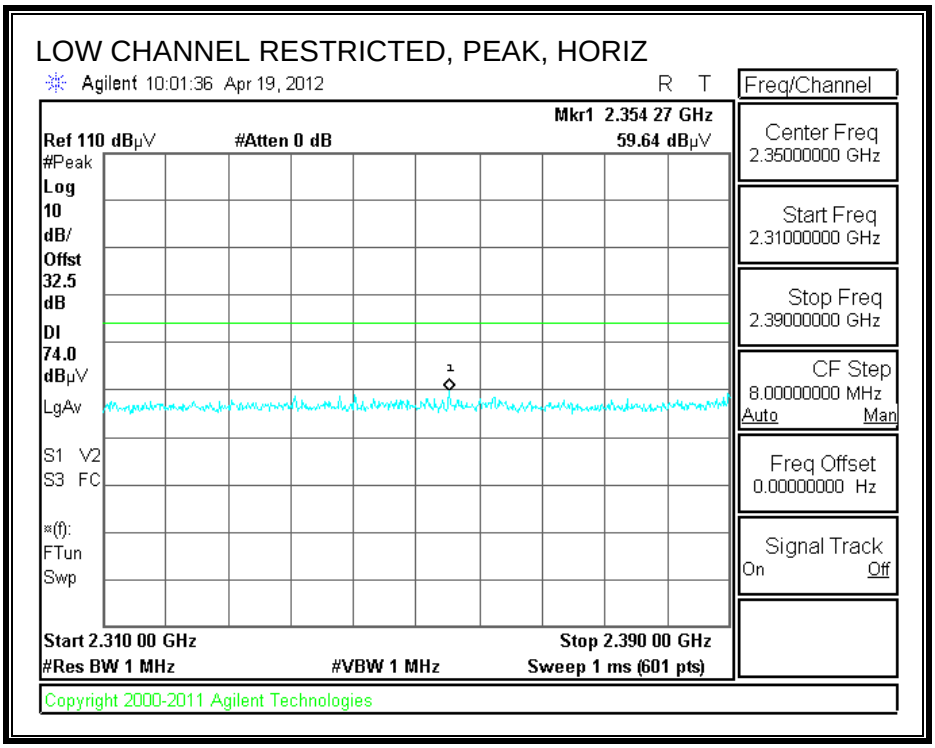
f GHz	Dist (m)	Read Pk dBuV	Read Avg. dBuV	AF dB/m	CL dB	Amp dB	D Corr dB	Fltr dB	Peak dBuV/m	Avg dBuV/m	Pk Lim dBuV/m	Avg Lim dBuV/m	Pk Mar dB	Avg Mar dB	Notes (V/H)
Low Channel: 2412 MHz															
4.824	3.0	39.7	28.4	33.1	6.8	-34.1	0.0	0.0	45.5	34.2	74	54	-28.5	-19.8	H
4.824	3.0	39.6	28.2	33.1	6.8	-34.1	0.0	0.0	45.5	34.1	74	54	-28.5	-19.9	V
Mid Channel: 2437 MHz															
4.874	3.0	40.0	27.9	33.2	6.8	-34.0	0.0	0.0	45.9	33.8	74	54	-28.1	-20.2	H
4.874	3.0	39.9	27.8	33.2	6.8	-34.0	0.0	0.0	45.8	33.8	74	54	-28.2	-20.2	V
High Channel: 2462 MHz															
4.924	3.0	39.9	28.4	33.2	6.8	-34.0	0.0	0.0	45.9	34.4	74	54	-28.1	-19.6	H
4.924	3.0	39.8	28.4	33.2	6.8	-34.0	0.0	0.0	45.8	34.4	74	54	-28.2	-19.6	V

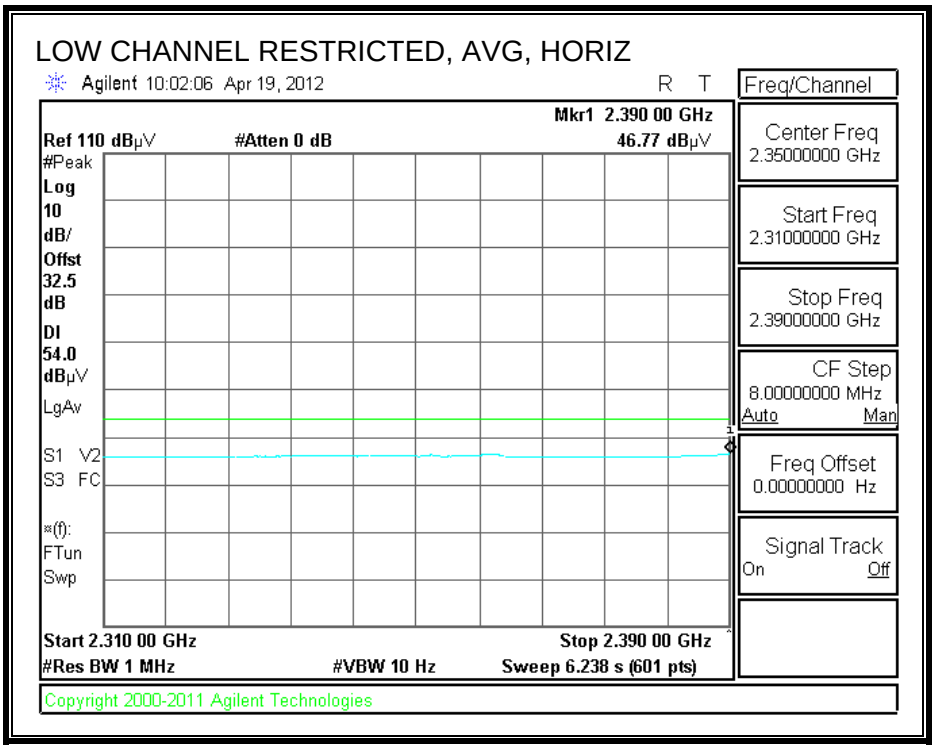
Rev. 07.08.11

f	Measurement Frequency	Amp	Preamp Gain	Avg Lim	Average Field Strength Limit
Dist	Distance to Antenna	D Corr	Distance Correct to 3 meters	Pk Lim	Peak Field Strength Limit
Read	Analyzer Reading	Avg	Average Field Strength @ 3 m	Avg Mar	Margin vs. Average Limit
AF	Antenna Factor	Peak	Calculated Peak Field Strength	Pk Mar	Margin vs. Peak Limit
CL	Cable Loss	HPF	High Pass Filter		

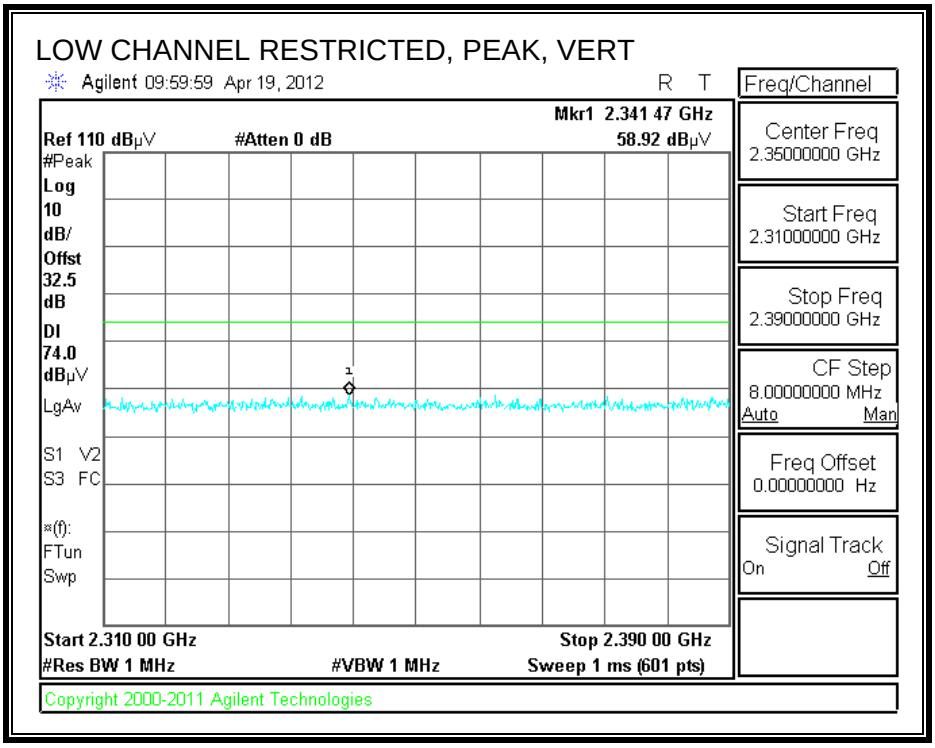
INDUCTIVE COVER

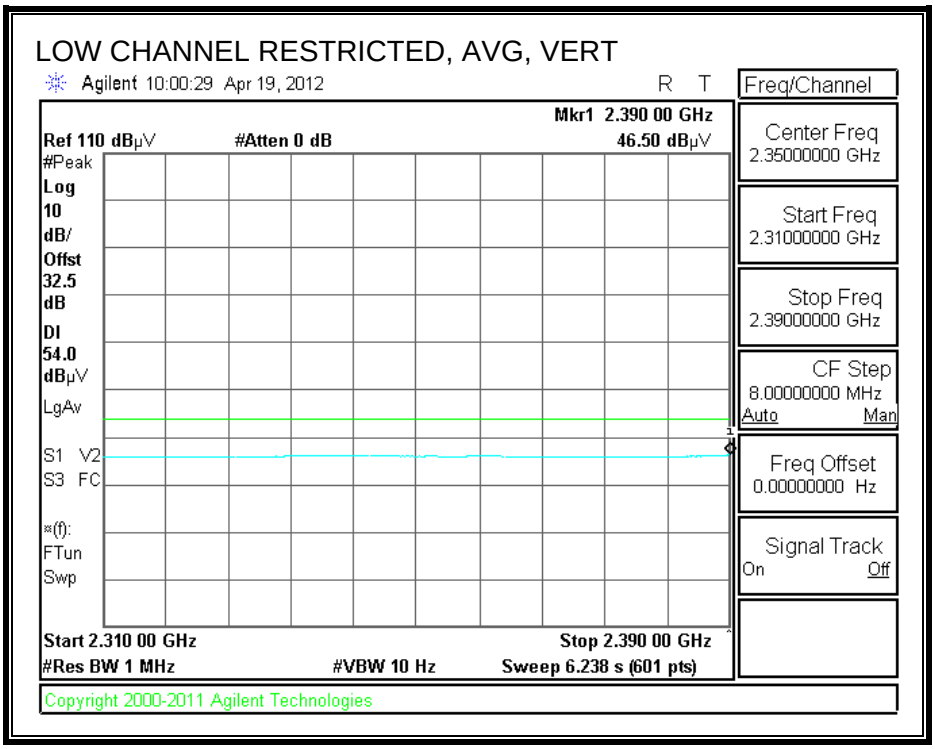
RESTRICTED BANDEDGE (LOW CHANNEL, HORIZONTAL)



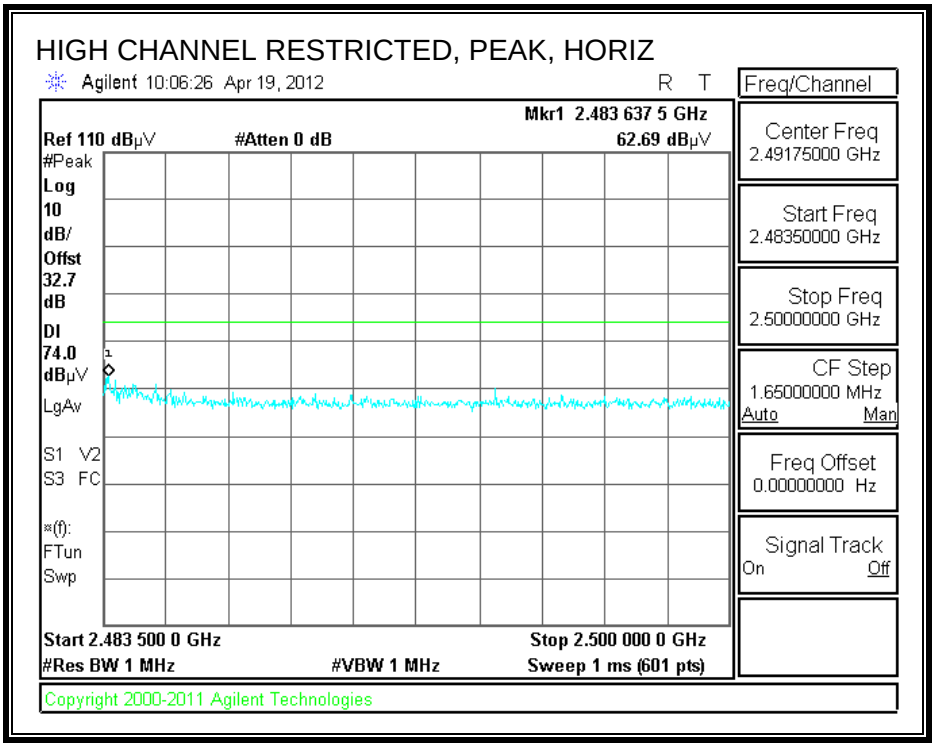


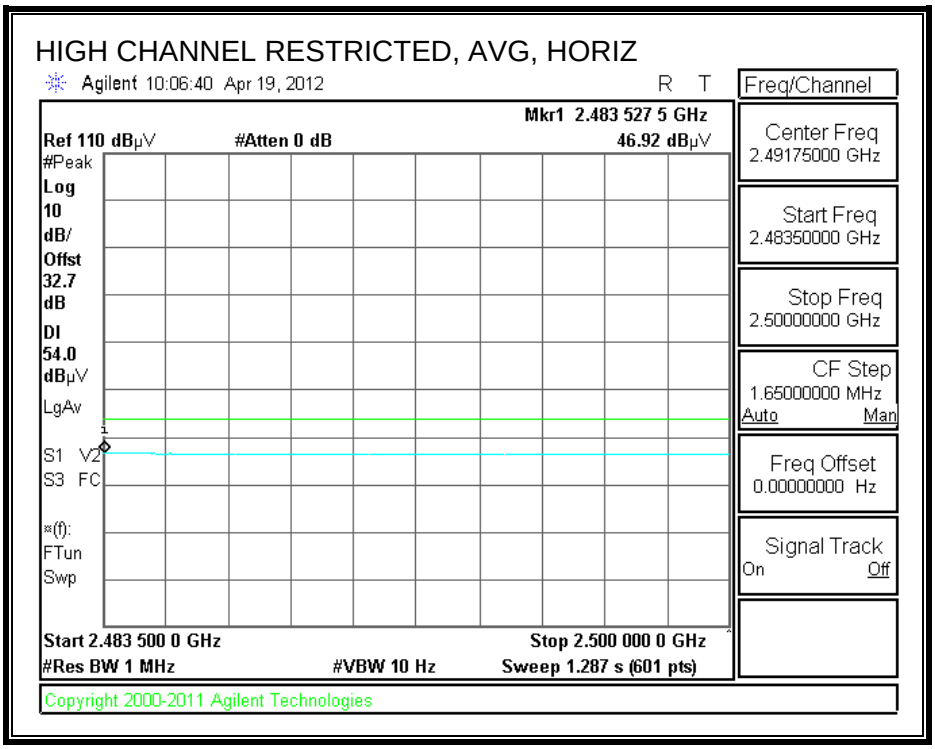
RESTRICTED BANDEDGE (LOW CHANNEL, VERTICAL)



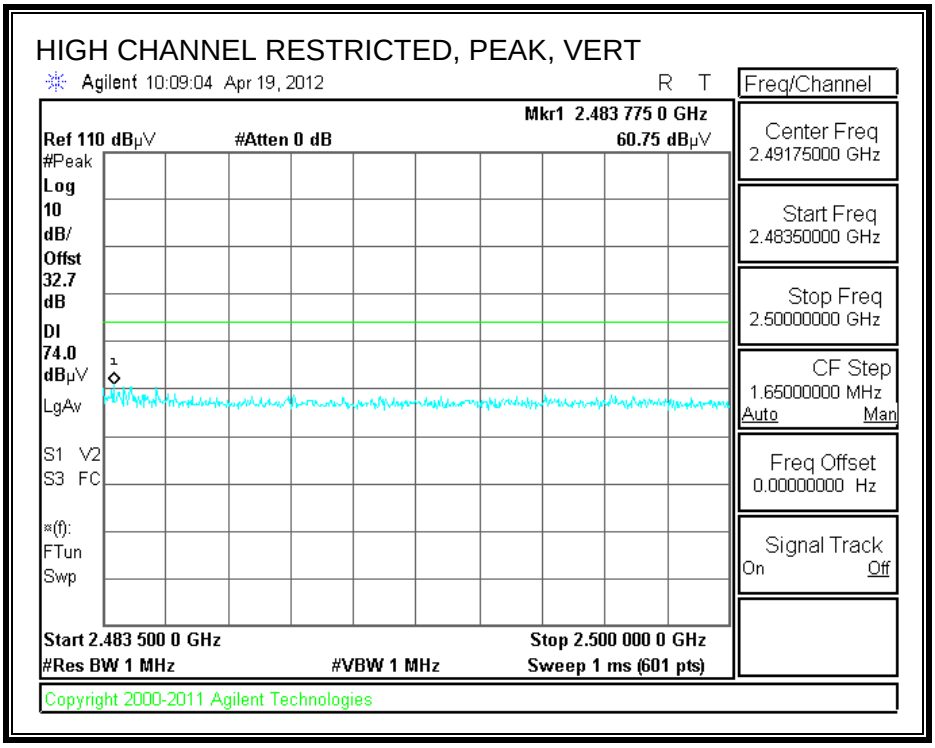


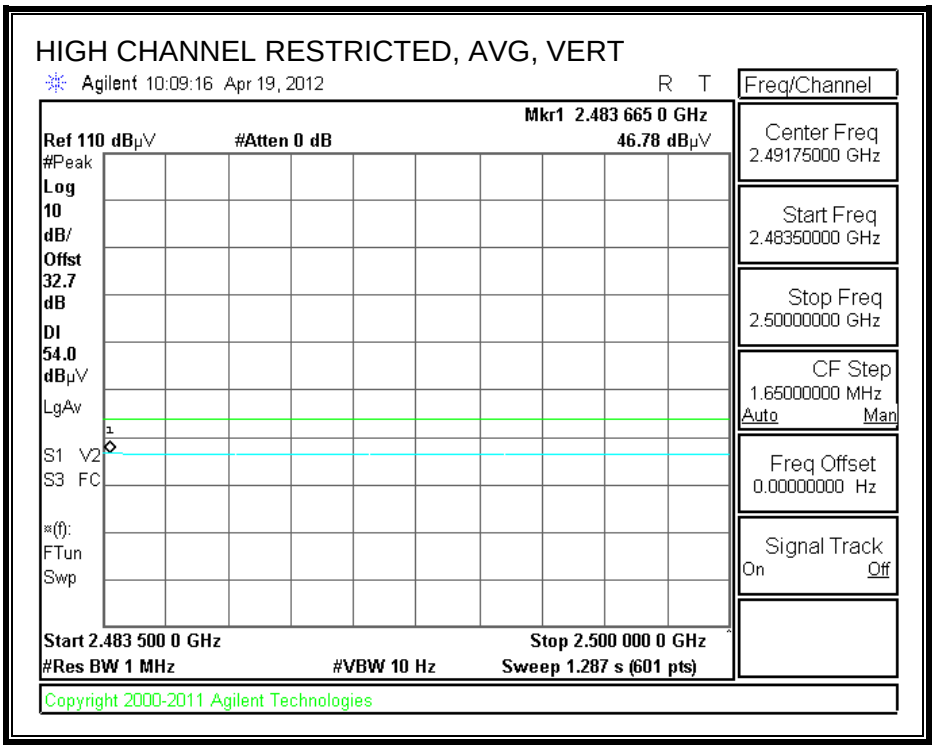
RESTRICTED BANDEDGE (HIGH CHANNEL, HORIZONTAL)





RESTRICTED BANDEDGE (HIGH CHANNEL, VERTICAL)





HARMONICS AND SPURIOUS EMISSIONS

High Frequency Measurement
Compliance Certification Services, Fremont 5m Chamber

Test Engr: Chin Pang
Date: 04/19/12
Project #: 12U14331
Company: LG
Test Target: FCC 15.247
Configuration: EUT(Inductive Cover)
Mode Oper: g mode, TX

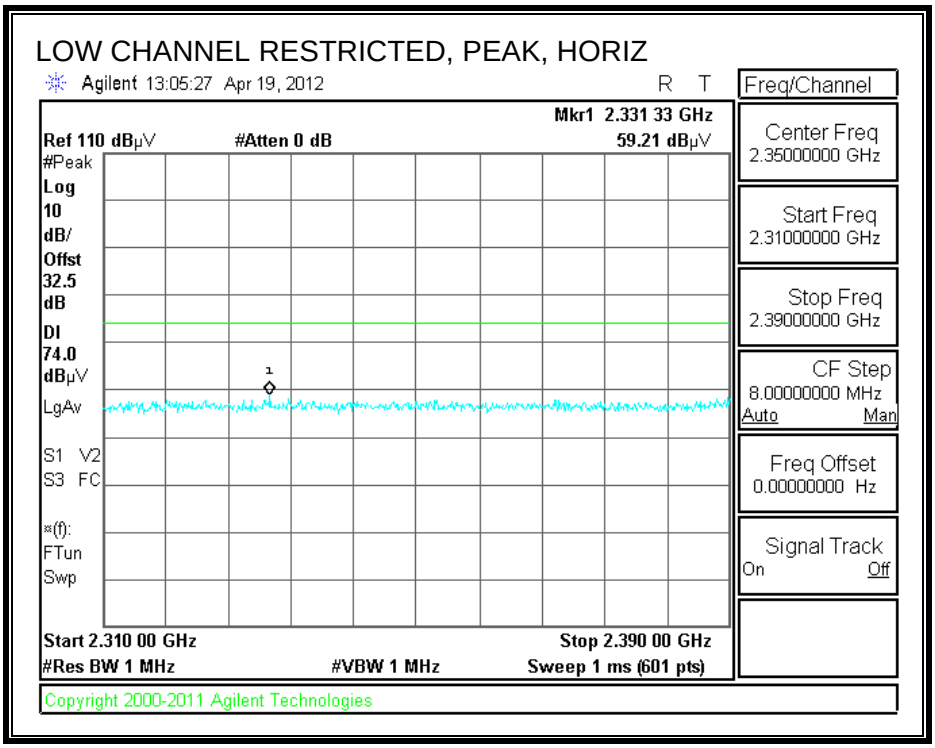
f	Measurement Frequency	Amp	Preamp Gain		Average Field Strength Limit
Dist	Distance to Antenna	D Corr	Distance Correct to 3 meters		Peak Field Strength Limit
Read	Analyzer Reading	Avg	Average Field Strength @ 3 m		Margin vs. Average Limit
AF	Antenna Factor	Peak	Calculated Peak Field Strength		Margin vs. Peak Limit
CL	Cable Loss	HPF	High Pass Filter		

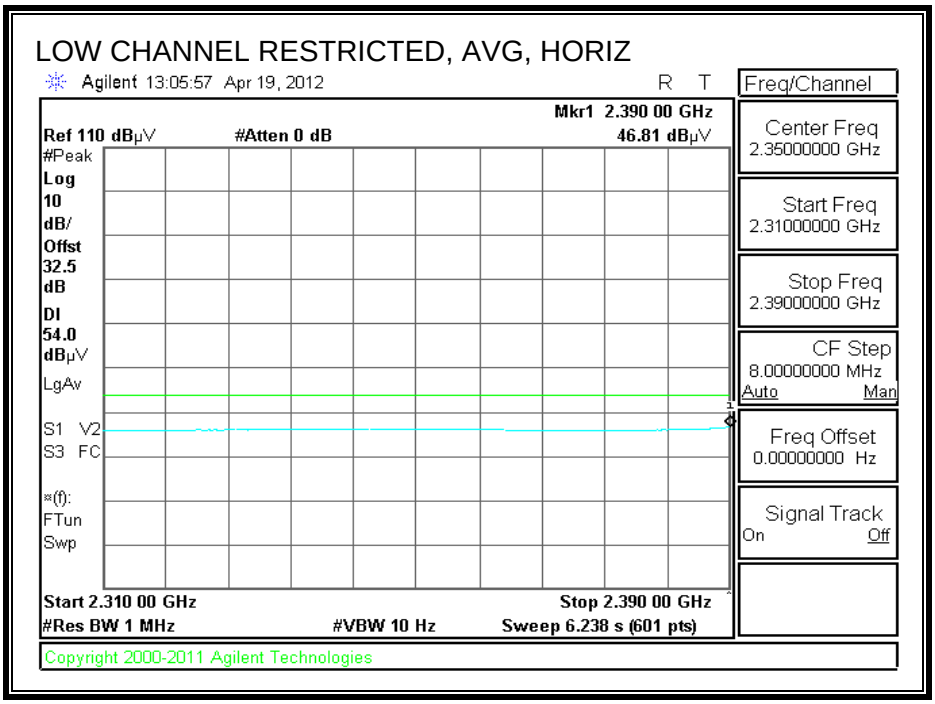
f GHz	Dist (m)	Read dBuV	AF dB/m	CL dB	Amp dB	D Corr dB	Fltr dB	Corr. dBuV/m	Limit dBuV/m	Margin dB	Ant. Pol. V/H	Det. P/A/QP	Notes
Low Ch, 2412MHz													
4.824	3.0	37.4	33.4	6.2	-35.5	0.0	0.0	41.5	74.0	-32.5	V	P	
4.824	3.0	25.1	33.4	6.2	-35.5	0.0	0.0	29.2	54.0	-24.8	V	A	
4.824	3.0	37.1	33.4	6.2	-35.5	0.0	0.0	41.2	74.0	-32.8	H	P	
4.824	3.0	25.1	33.4	6.2	-35.5	0.0	0.0	29.2	54.0	-24.8	H	A	
Mid Ch, 2437MHz													
4.874	3.0	36.7	33.5	6.2	-35.5	0.0	0.0	41.0	74.0	-33.0	V	P	
4.874	3.0	24.5	33.5	6.2	-35.5	0.0	0.0	28.7	54.0	-25.3	V	A	
7.311	3.0	36.1	35.7	8.4	-35.4	0.0	0.0	44.8	74.0	-29.2	V	P	
7.311	3.0	24.2	35.7	8.4	-35.4	0.0	0.0	32.9	54.0	-21.1	V	A	
4.874	3.0	37.4	33.5	6.2	-35.5	0.0	0.0	41.7	74.0	-32.4	H	P	
4.874	3.0	24.5	33.5	6.2	-35.5	0.0	0.0	28.8	54.0	-25.2	H	A	
7.311	3.0	36.0	35.7	8.4	-35.4	0.0	0.0	44.7	74.0	-29.3	H	P	
7.311	3.0	24.2	35.7	8.4	-35.4	0.0	0.0	32.8	54.0	-21.2	H	A	
High Ch, 2462MHz													
4.924	3.0	36.9	33.5	6.3	-35.5	0.0	0.0	41.2	74.0	-32.8	V	P	
4.924	3.0	24.8	33.5	6.3	-35.5	0.0	0.0	29.1	54.0	-24.9	V	A	
7.386	3.0	36.5	35.8	8.4	-35.5	0.0	0.0	45.3	74.0	-28.7	V	P	
7.386	3.0	24.1	35.8	8.4	-35.5	0.0	0.0	32.9	54.0	-21.1	V	A	
4.924	3.0	37.4	33.5	6.3	-35.5	0.0	0.0	41.7	74.0	-32.3	H	P	
4.924	3.0	24.9	33.5	6.3	-35.5	0.0	0.0	29.2	54.0	-24.8	H	A	
7.386	3.0	36.6	35.8	8.4	-35.5	0.0	0.0	45.4	74.0	-28.6	H	P	
7.386	3.0	24.2	35.8	8.4	-35.5	0.0	0.0	33.0	54.0	-21.0	H	A	

Rev. 4.1.2.7
Note: No other emissions were detected above the system noise floor.

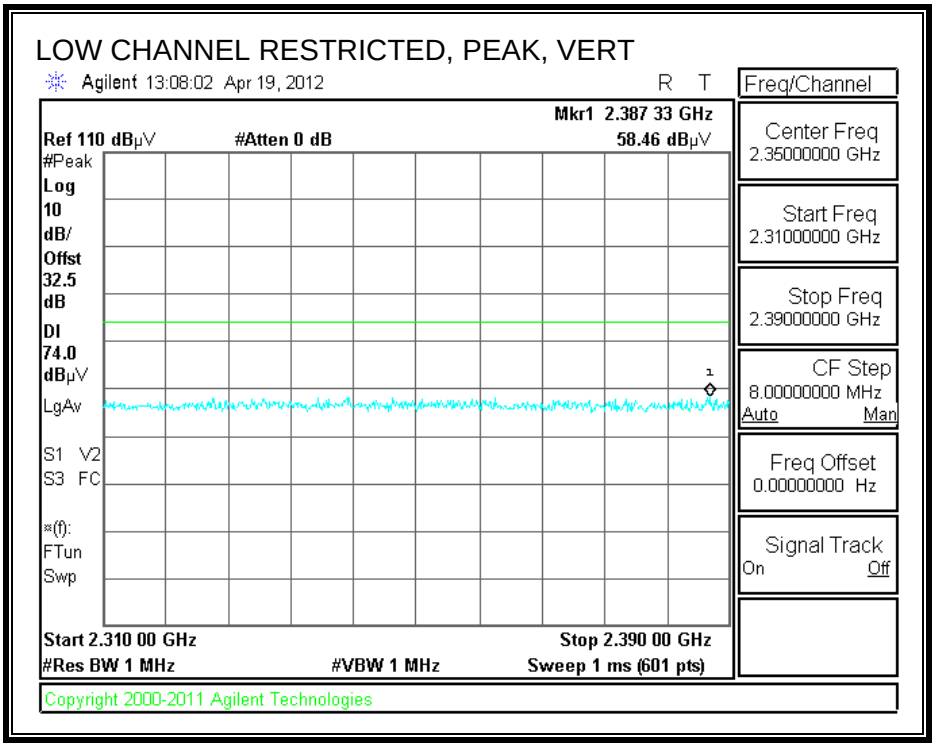
EUT ON INDUCTIVE CHARGER

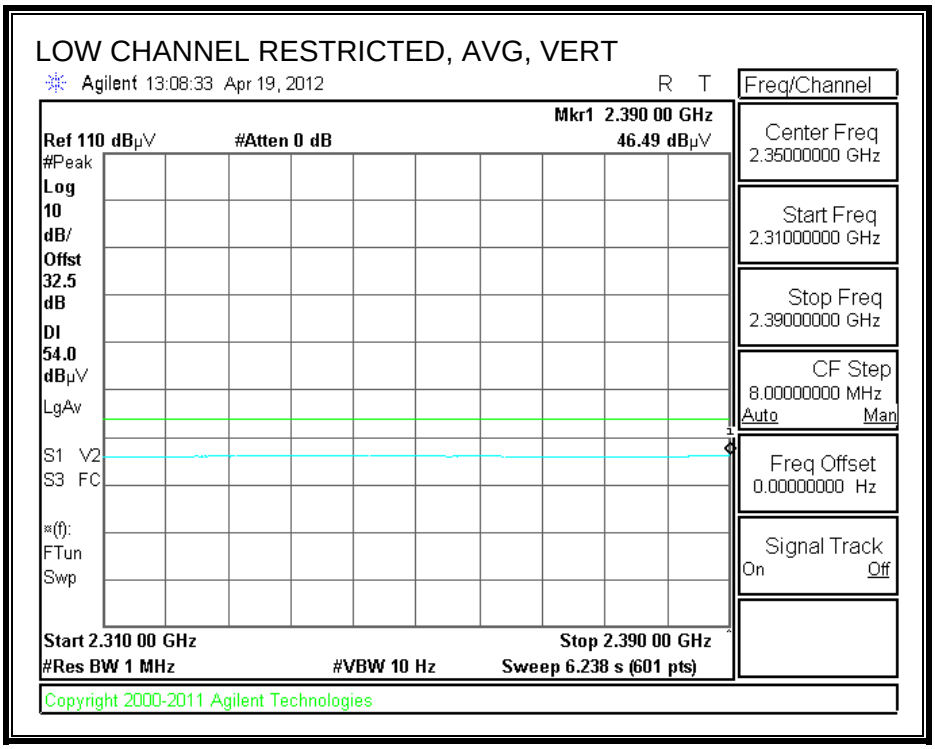
RESTRICTED BANDEDGE (LOW CHANNEL, HORIZONTAL)



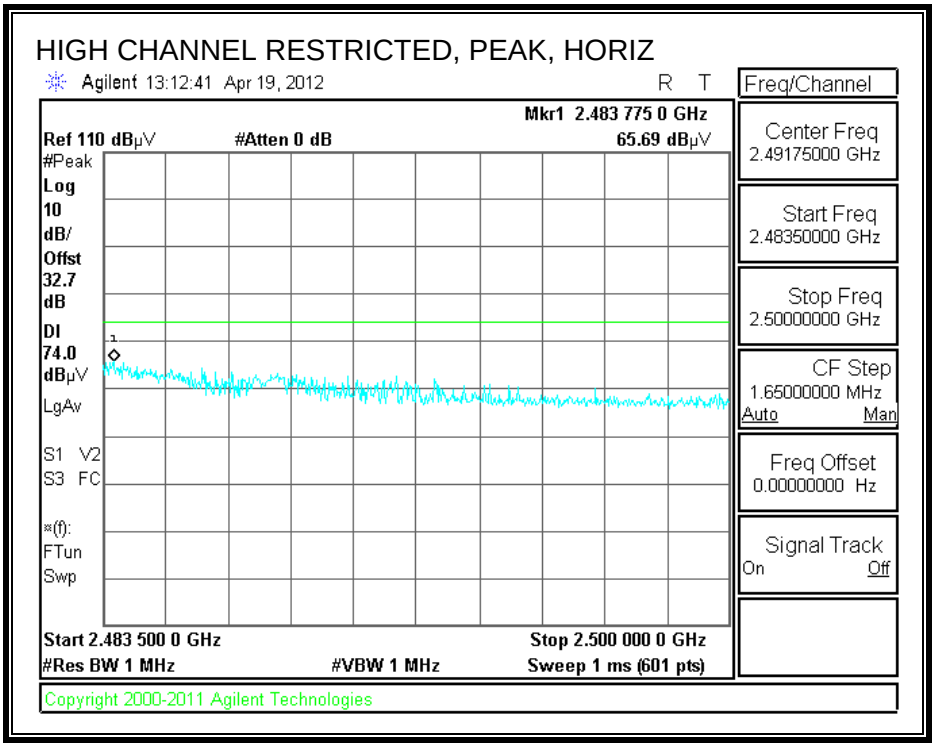


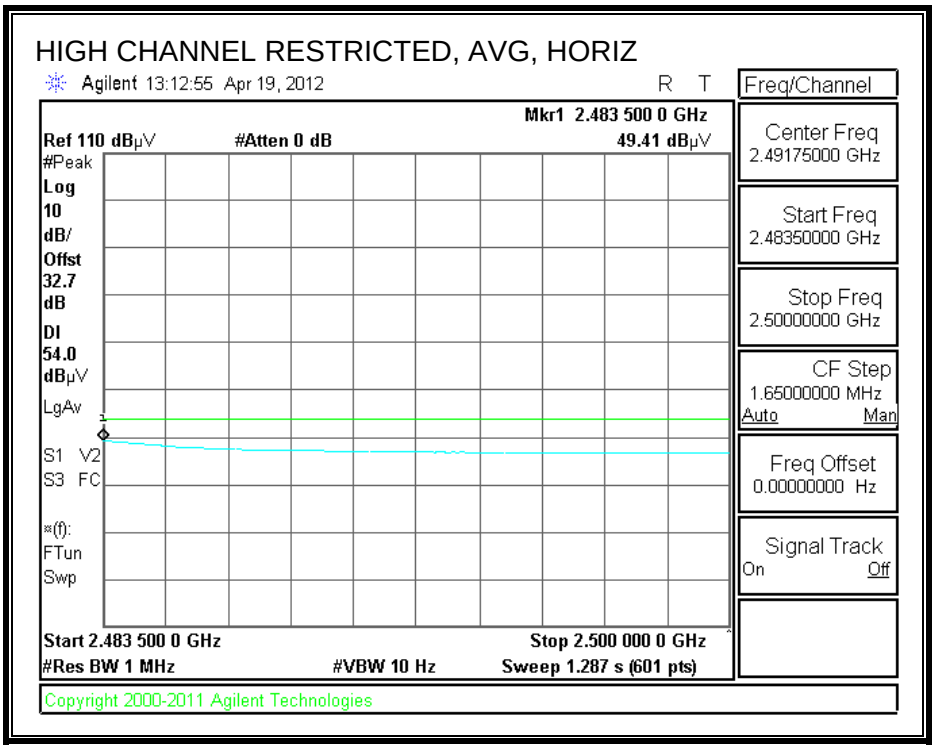
RESTRICTED BANDEDGE (LOW CHANNEL, VERTICAL)



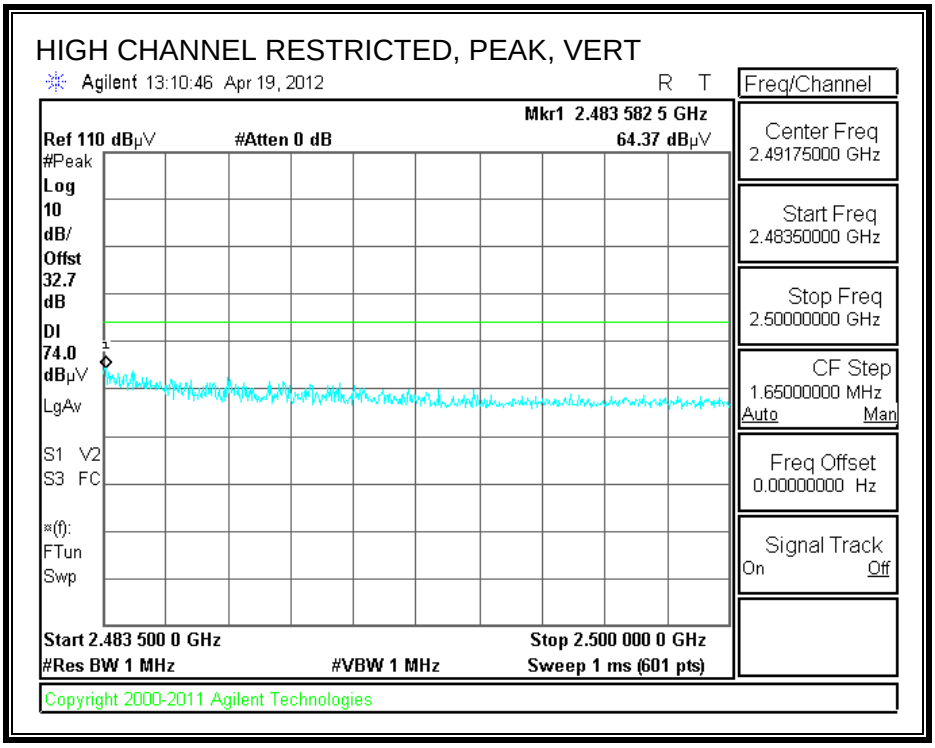


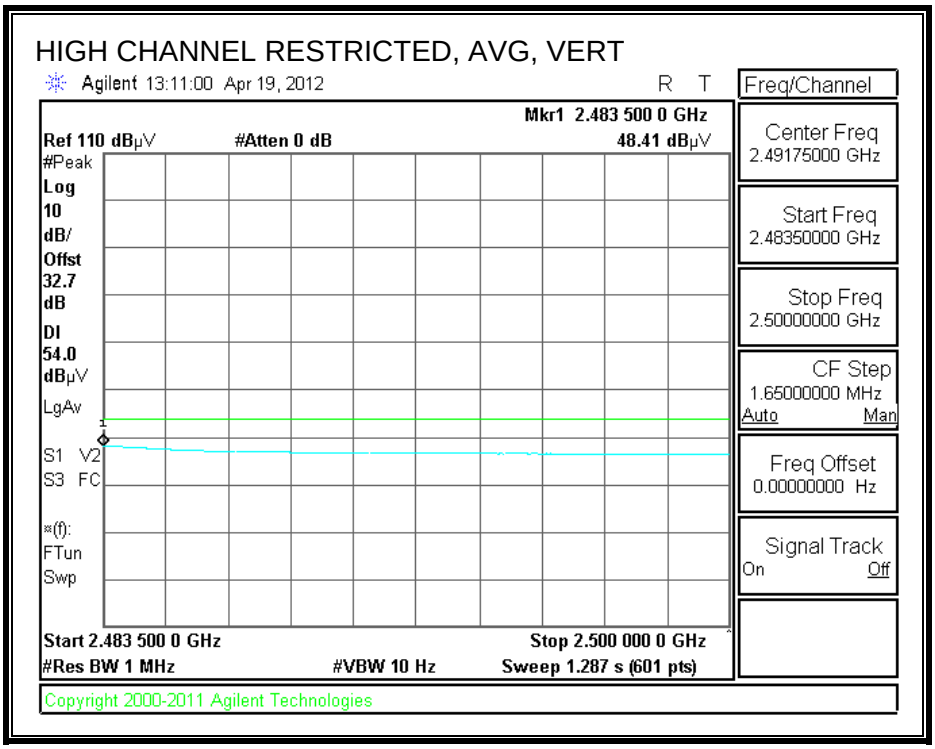
RESTRICTED BANDEDGE (HIGH CHANNEL, HORIZONTAL)





RESTRICTED BANDEDGE (HIGH CHANNEL, VERTICAL)





HARMONICS AND SPURIOUS EMISSIONS

High Frequency Measurement
Compliance Certification Services, Fremont 5m Chamber

Test Engr: Chin Pang
Date: 04/19/12
Project #: 12U14331
Company: LG
Test Target: FCC 15.247
Configuration: EUT(On Inductive Charging Pad)
Mode Oper: g mode, TX

f	Measurement Frequency	Amp	Preamp Gain		Average Field Strength Limit
Dist	Distance to Antenna	D Corr	Distance Correct to 3 meters		Peak Field Strength Limit
Read	Analyzer Reading	Avg	Average Field Strength @ 3 m		Margin vs. Average Limit
AF	Antenna Factor	Peak	Calculated Peak Field Strength		Margin vs. Peak Limit
CL	Cable Loss	HPF	High Pass Filter		

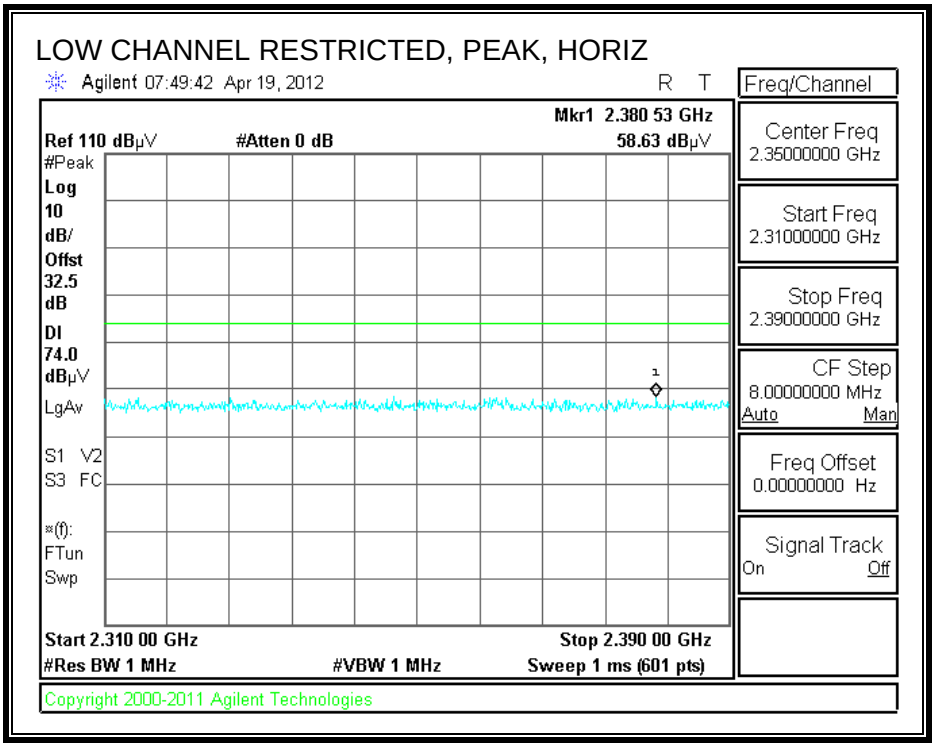
f GHz	Dist (m)	Read dBuV	AF dB/m	CL dB	Amp dB	D Corr dB	Fltr dB	Corr. dBuV/m	Limit dBuV/m	Margin dB	Ant. Pol. V/H	Det. P/A/QP	Notes
low Ch, 2412MHz													
4.824	3.0	37.0	33.4	6.2	-35.5	0.0	0.0	41.1	74.0	-32.9	V	P	
4.824	3.0	25.0	33.4	6.2	-35.5	0.0	0.0	29.2	54.0	-24.8	V	A	
4.824	3.0	37.1	33.4	6.2	-35.5	0.0	0.0	41.3	74.0	-32.7	H	P	
4.824	3.0	25.0	33.4	6.2	-35.5	0.0	0.0	29.1	54.0	-24.9	H	A	
Mid Ch, 2437MHz													
4.874	3.0	37.0	33.5	6.2	-35.5	0.0	0.0	41.3	74.0	-32.7	V	P	
4.874	3.0	24.5	33.5	6.2	-35.5	0.0	0.0	28.7	54.0	-25.3	V	A	
7.311	3.0	35.8	35.7	8.4	-35.4	0.0	0.0	44.5	74.0	-29.5	V	P	
7.311	3.0	24.3	35.7	8.4	-35.4	0.0	0.0	32.9	54.0	-21.1	V	A	
4.874	3.0	37.5	33.5	6.2	-35.5	0.0	0.0	41.7	74.0	-32.3	H	P	
4.874	3.0	24.5	33.5	6.2	-35.5	0.0	0.0	28.7	54.0	-25.3	H	A	
7.311	3.0	35.6	35.7	8.4	-35.4	0.0	0.0	44.3	74.0	-29.7	H	P	
7.311	3.0	24.0	35.7	8.4	-35.4	0.0	0.0	32.7	54.0	-21.3	H	A	
High Ch, 2462MHz													
4.924	3.0	37.7	33.5	6.3	-35.5	0.0	0.0	42.0	74.0	-32.0	V	P	
4.924	3.0	24.8	33.5	6.3	-35.5	0.0	0.0	29.1	54.0	-24.9	V	A	
7.386	3.0	36.5	35.8	8.4	-35.5	0.0	0.0	45.3	74.0	-28.7	V	P	
7.386	3.0	24.1	35.8	8.4	-35.5	0.0	0.0	32.9	54.0	-21.1	V	A	
4.924	3.0	37.5	33.5	6.3	-35.5	0.0	0.0	41.8	74.0	-32.2	H	P	
4.924	3.0	24.8	33.5	6.3	-35.5	0.0	0.0	29.1	54.0	-24.9	H	A	
7.386	3.0	36.4	35.8	8.4	-35.5	0.0	0.0	45.2	74.0	-28.8	H	P	
7.386	3.0	24.0	35.8	8.4	-35.5	0.0	0.0	32.8	54.0	-21.2	H	A	

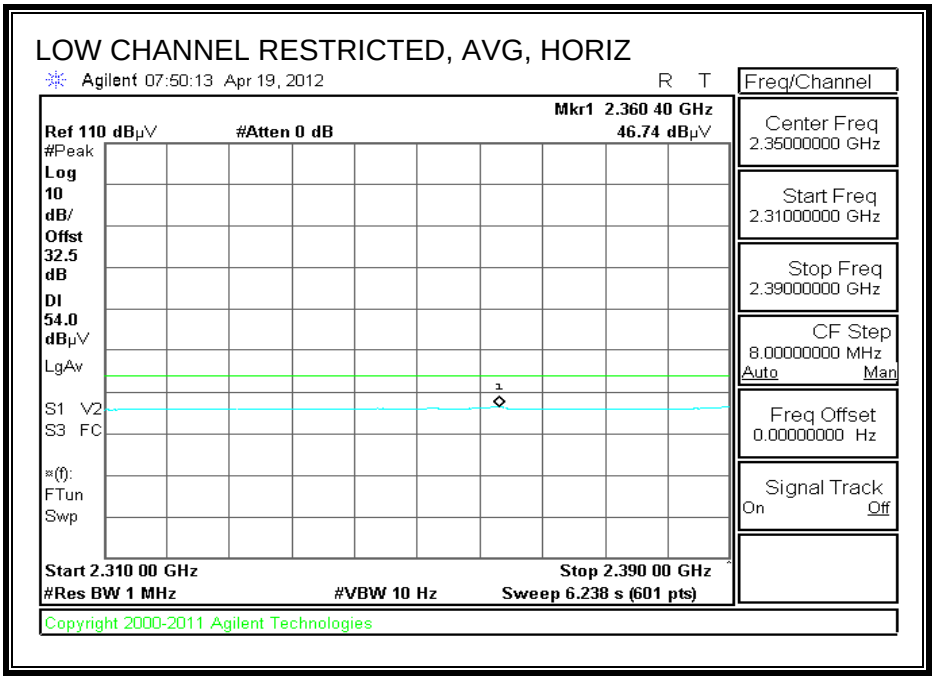
Rev. 4.1.2.7
Note: No other emissions were detected above the system noise floor.

8.2.3. 802.11n HT20 SISO MODE IN THE 2.4 GHz BAND

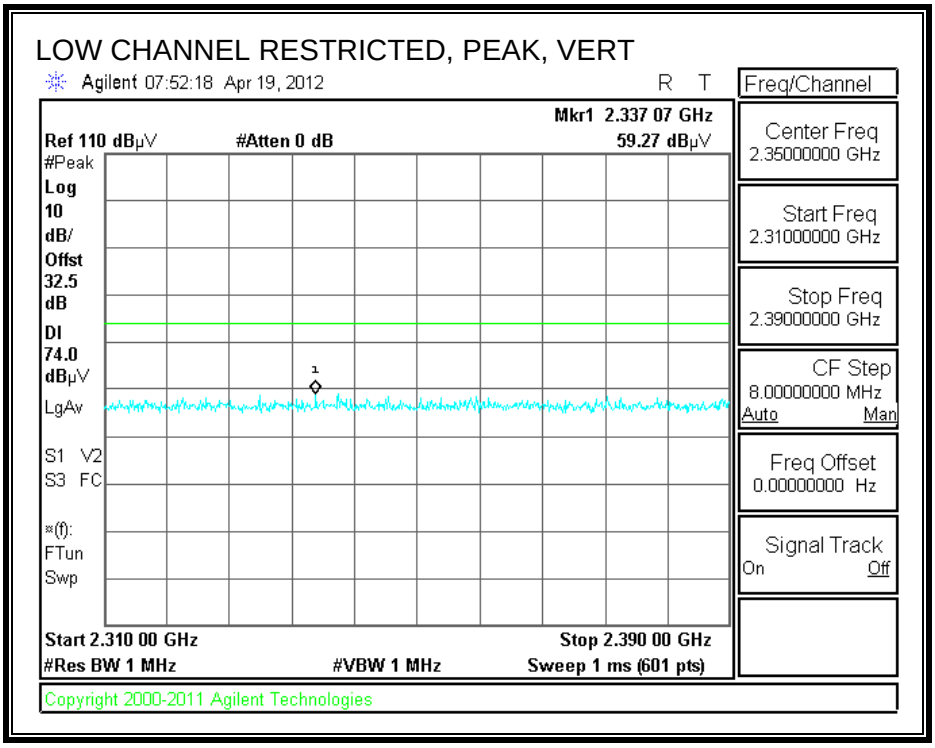
STANDARD COVER

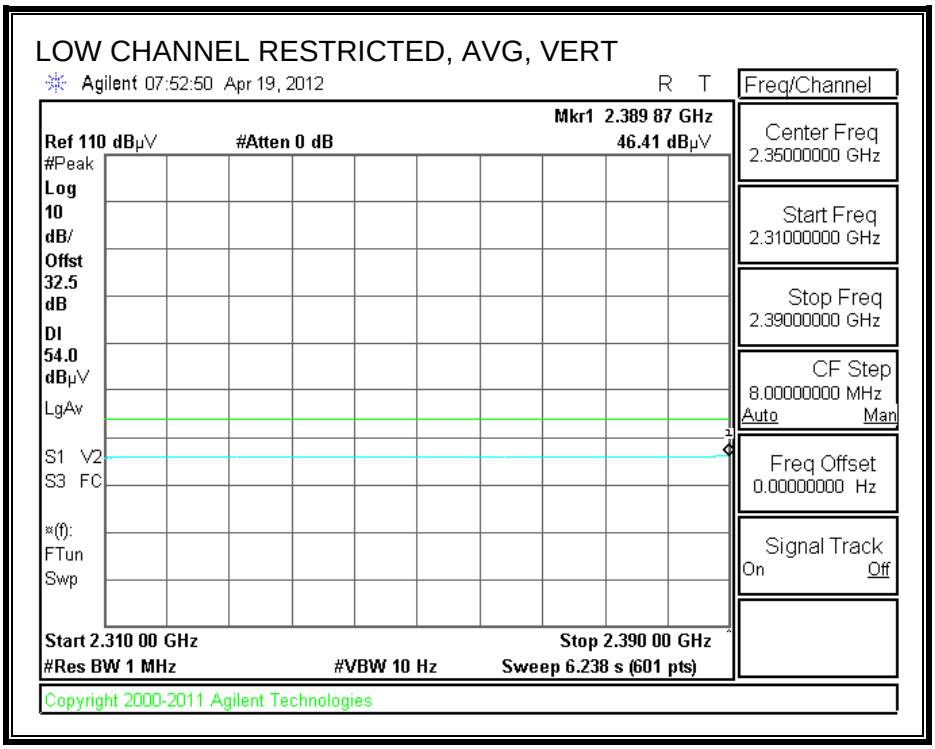
RESTRICTED BANDEDGE (LOW CHANNEL, HORIZONTAL)



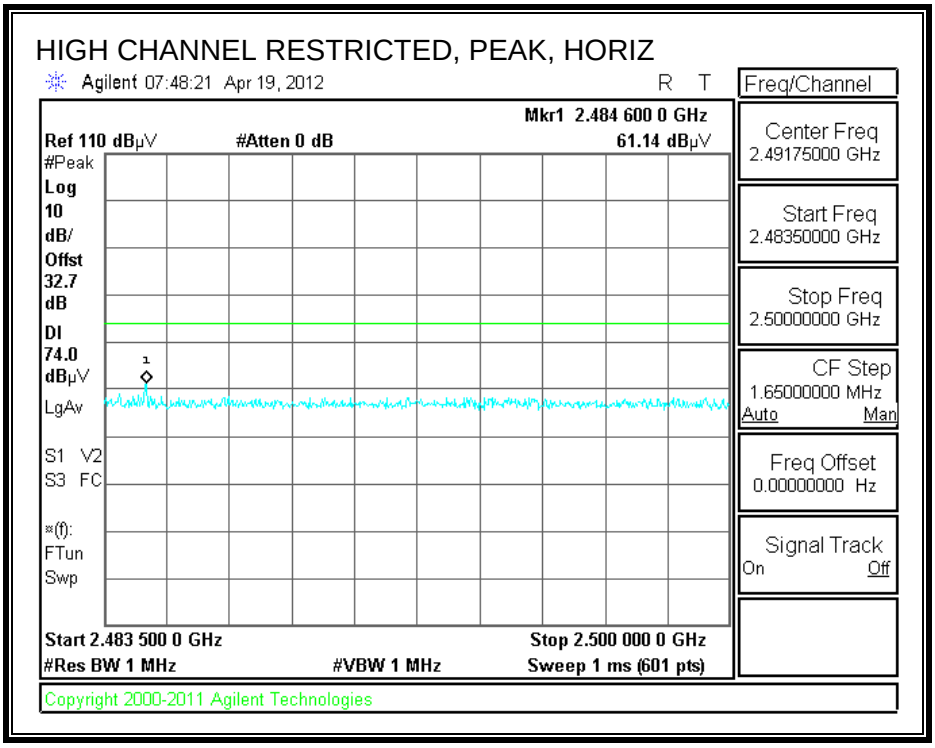


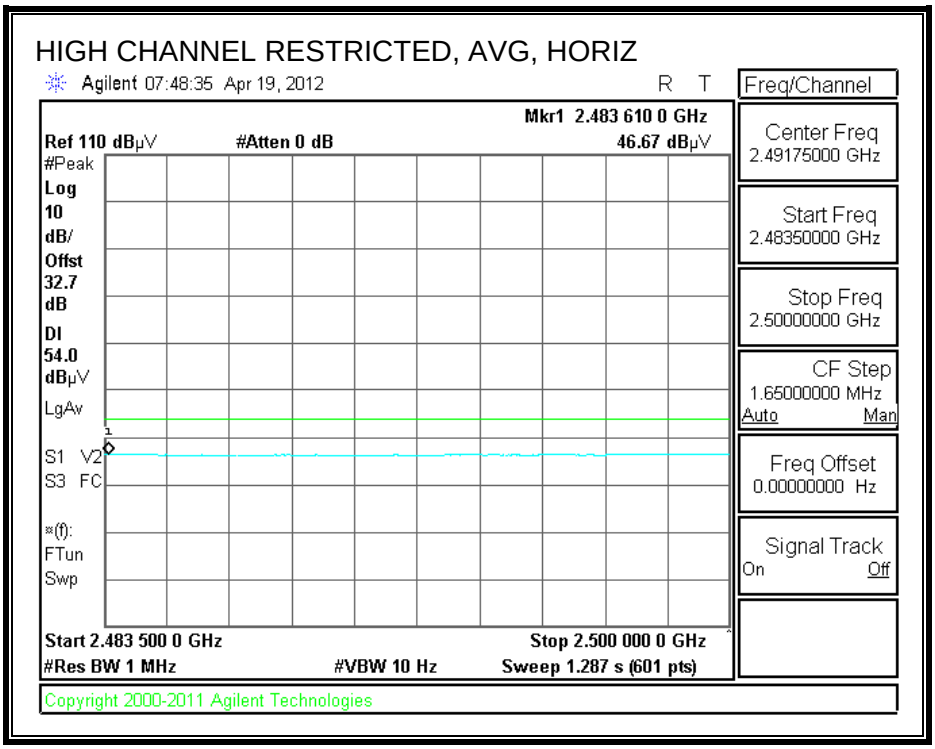
RESTRICTED BANDEDGE (LOW CHANNEL, VERTICAL)



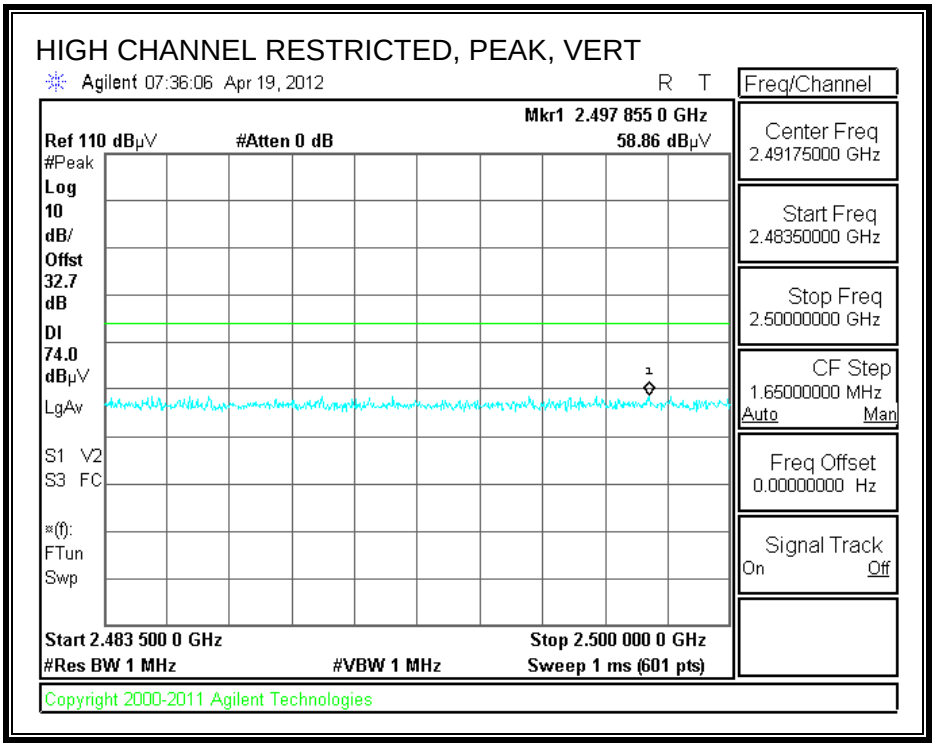


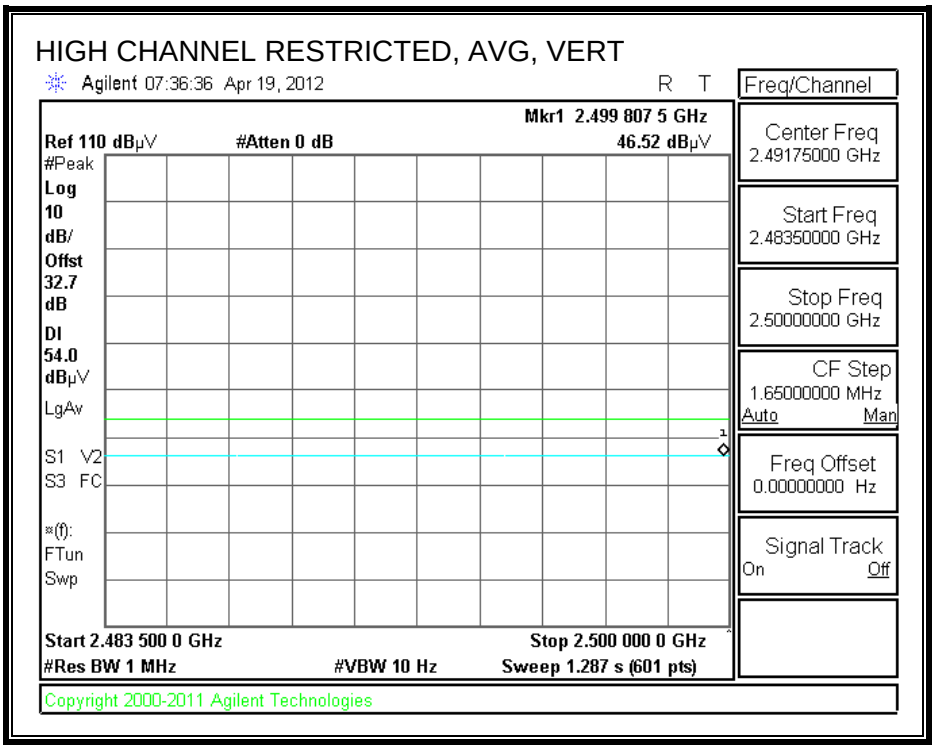
RESTRICTED BANDEDGE (HIGH CHANNEL, HORIZONTAL)





RESTRICTED BANDEDGE (HIGH CHANNEL, VERTICAL)





HARMONICS AND SPURIOUS EMISSIONS

High Frequency Measurement
Compliance Certification Services, Fremont 3m Chamber

Company: LG
Project #: 12U14331
Date: 3/28/2012
Test Engineer: D. Garcia
Configuration: Y position (worst case), AC adapter, standard back cover
Mode: 11n HT20, MCS0

Test Equipment:

Horn 1-18GHz	Pre-amplifer 1-26GHz	Pre-amplifer 26-40GHz	Horn > 18GHz	Limit
T60; S/N: 2238 @3m	T34 HP 8449B		T39; ARA 18-26GHz; S/N:1013	FCC 15.205

Hi Frequency Cables

3' cable 22807700	12' cable 22807600	20' cable 22807500	HPF	Reject Filter
3' cable 22807700	12' cable 22807600	20' cable 22807500		R_001

Peak Measurements
RBW=VBW=1MHz
Average Measurements
RBW=1MHz ; VBW=10Hz

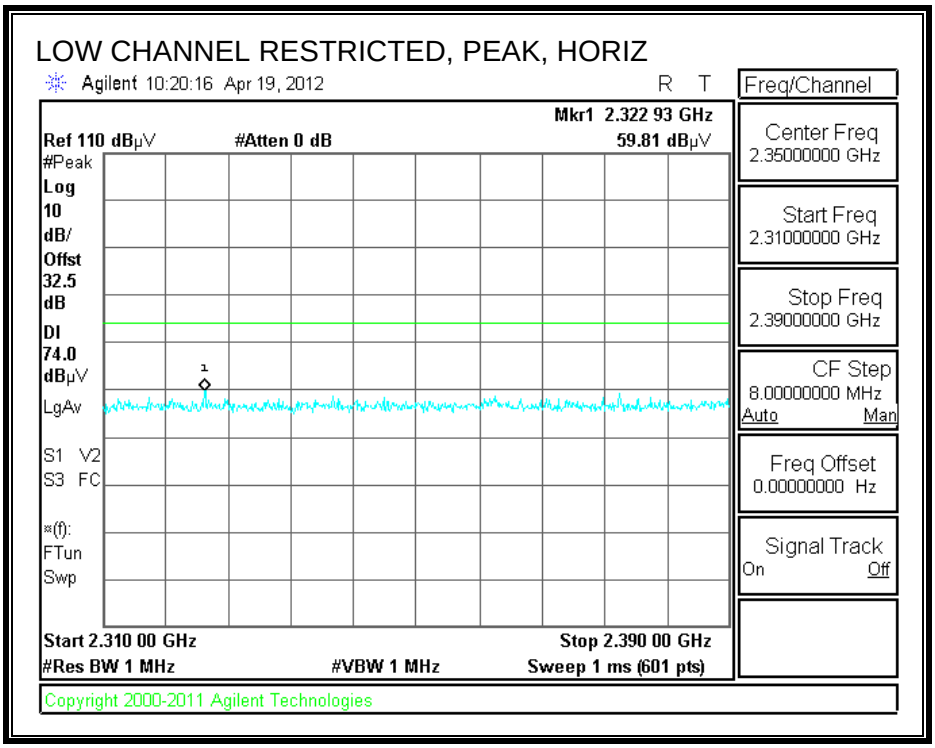
f GHz	Dist (m)	Read Pk dBuV	Read Avg. dBuV	AF dB/m	CL dB	Amp dB	D Corr dB	Fltr dB	Peak dBuV/m	Avg dBuV/m	Pk Lim dBuV/m	Avg Lim dBuV/m	Pk Mar dB	Avg Mar dB	Notes (V/H)
Low Channel: 2412 MHz															
4.824	3.0	38.8	28.1	33.1	6.8	-34.1	0.0	0.0	44.6	34.0	74	54	-29.4	-20.0	H
4.824	3.0	38.7	27.6	33.1	6.8	-34.1	0.0	0.0	44.5	33.4	74	54	-29.5	-20.6	V
Mid Channel: 2437 MHz															
4.874	3.0	39.1	27.7	33.2	6.8	-34.0	0.0	0.0	45.0	33.6	74	54	-29.0	-20.4	H
4.874	3.0	39.0	27.8	33.2	6.8	-34.0	0.0	0.0	44.9	33.8	74	54	-29.1	-20.2	V
High Channel: 2462 MHz															
4.924	3.0	39.6	28.1	33.2	6.8	-34.0	0.0	0.0	45.6	34.1	74	54	-28.4	-19.9	H
4.924	3.0	39.5	28.0	33.2	6.8	-34.0	0.0	0.0	45.5	34.0	74	54	-28.5	-20.0	V

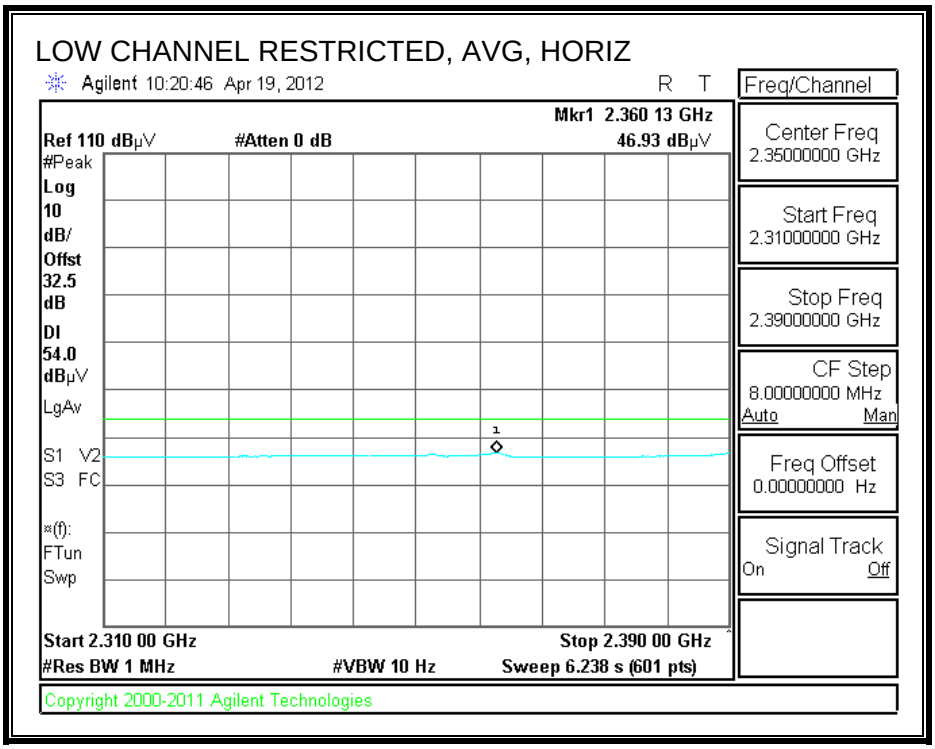
Rev. 07.08.11

f	Measurement Frequency	Amp	Preamp Gain	Avg Lim	Average Field Strength Limit
Dist	Distance to Antenna	D Corr	Distance Correct to 3 meters	Pk Lim	Peak Field Strength Limit
Read	Analyzer Reading	Avg	Average Field Strength @ 3 m	Avg Mar	Margin vs. Average Limit
AF	Antenna Factor	Peak	Calculated Peak Field Strength	Pk Mar	Margin vs. Peak Limit
CL	Cable Loss	HPF	High Pass Filter		

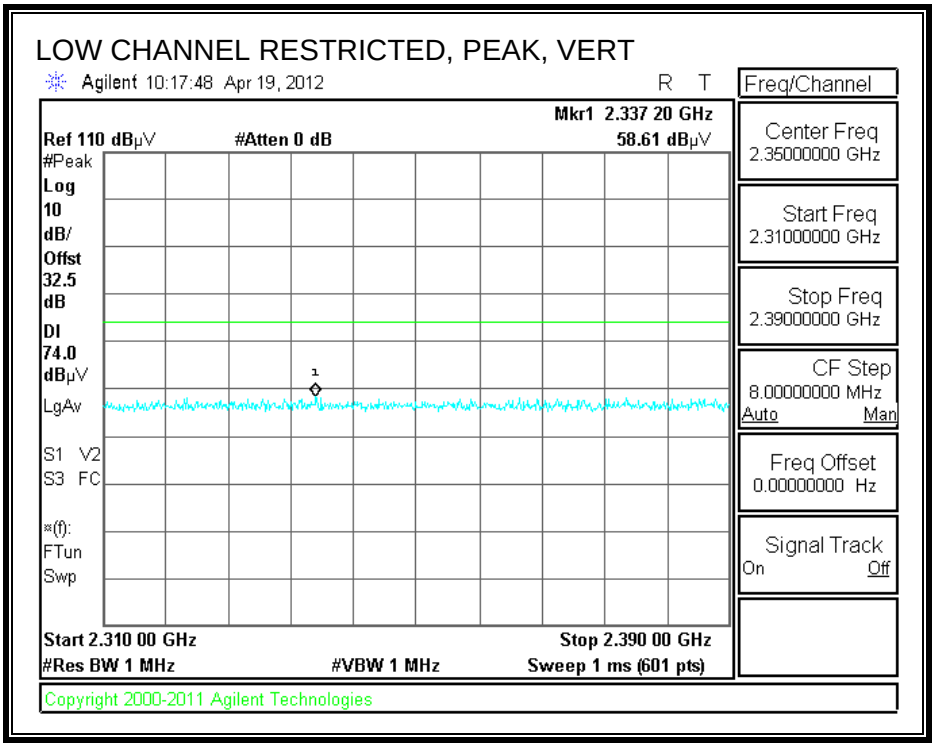
INDUCTIVE COVER

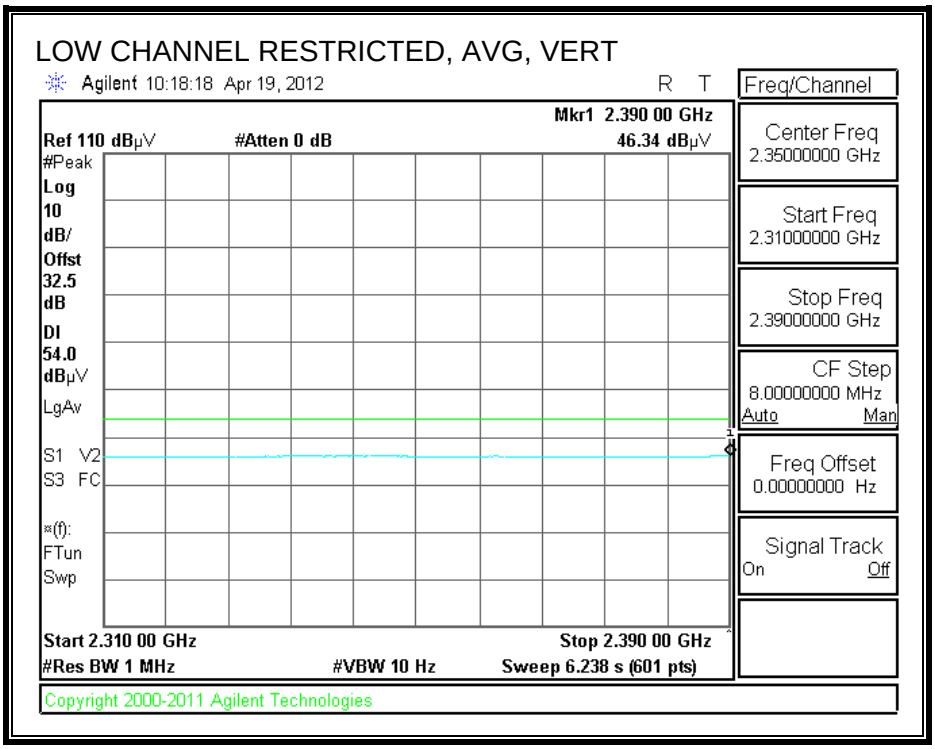
RESTRICTED BANDEDGE (LOW CHANNEL, HORIZONTAL)



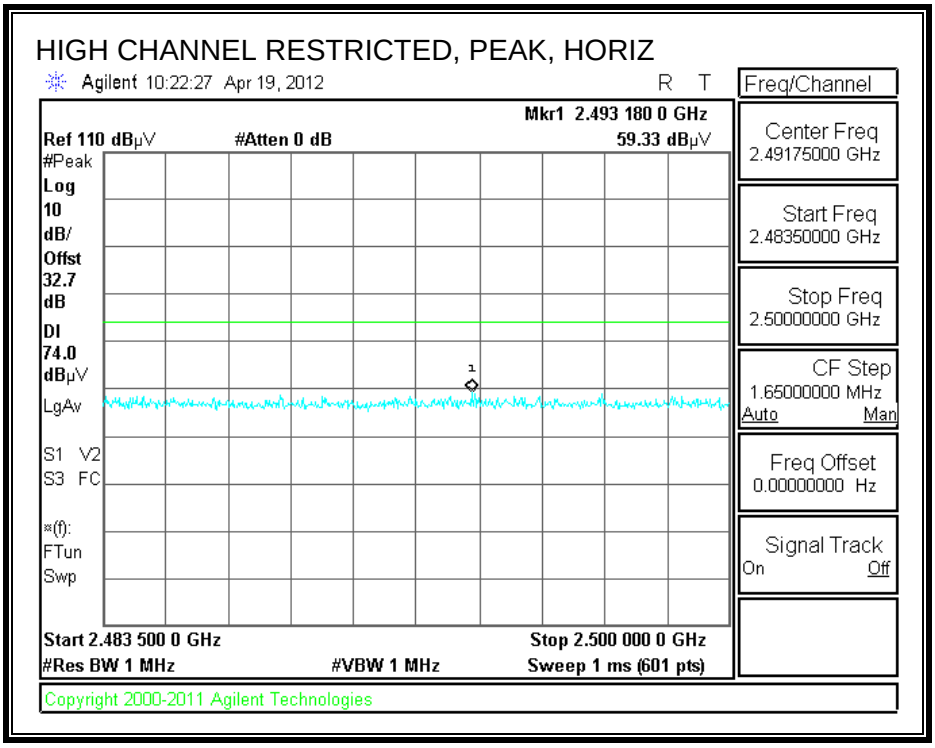


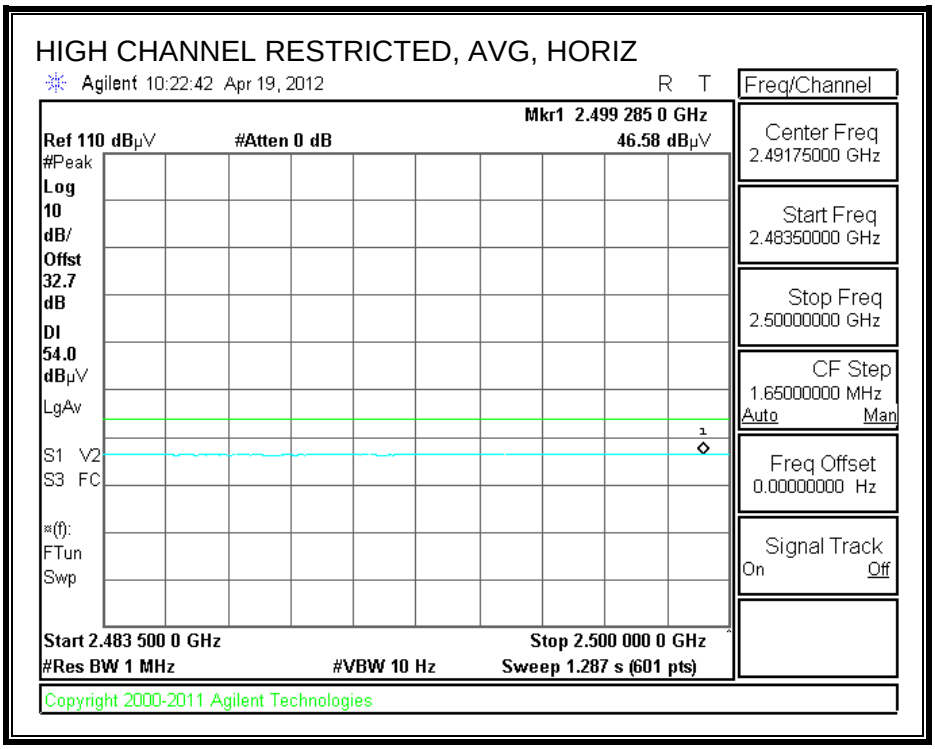
RESTRICTED BANDEDGE (LOW CHANNEL, VERTICAL)



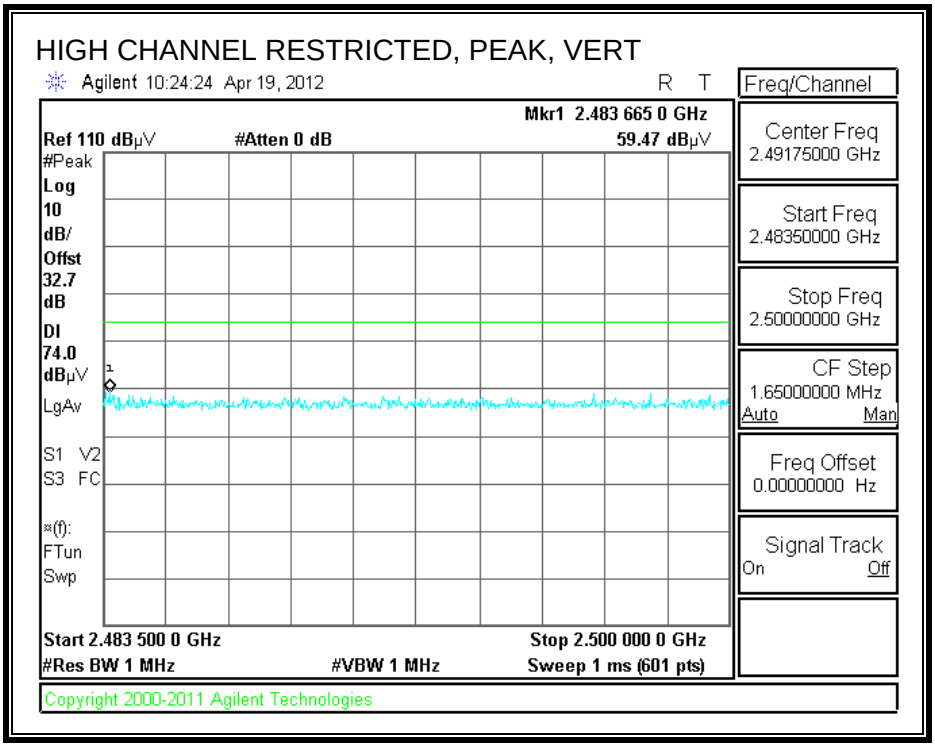


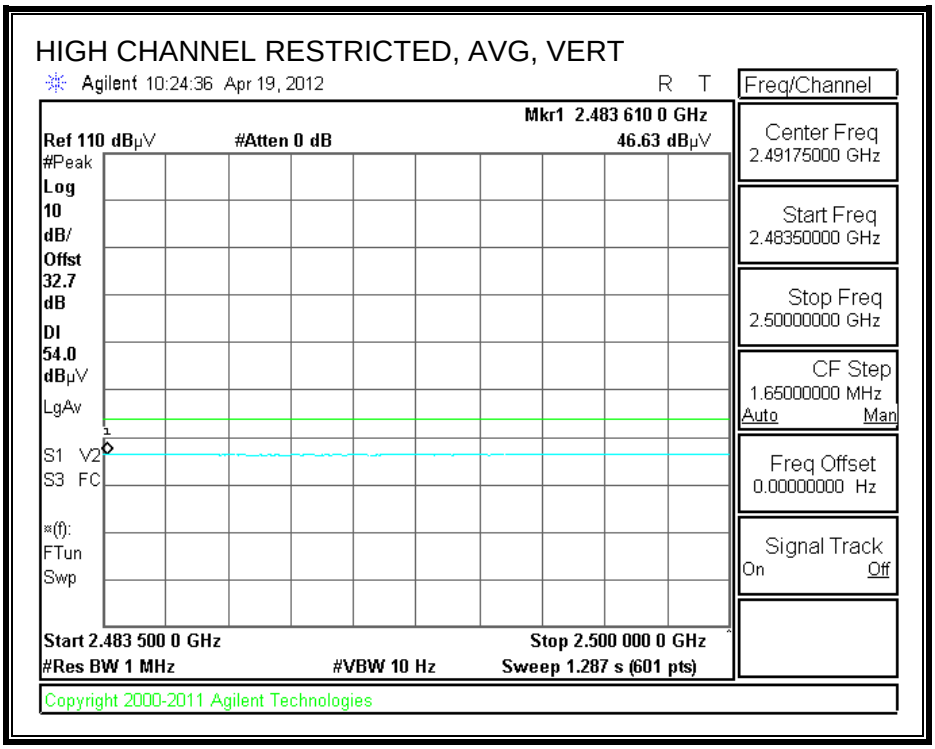
RESTRICTED BANDEDGE (HIGH CHANNEL, HORIZONTAL)





RESTRICTED BANDEDGE (HIGH CHANNEL, VERTICAL)





HARMONICS AND SPURIOUS EMISSIONS

High Frequency Measurement
Compliance Certification Services, Fremont 5m Chamber

Test Engr: Chin Pang
Date: 04/19/12
Project #: 12U14331
Company: LG
Test Target: FCC 15.247
Configuration: EUT(Inductive Cover)
Mode Oper: HT20 mode, TX

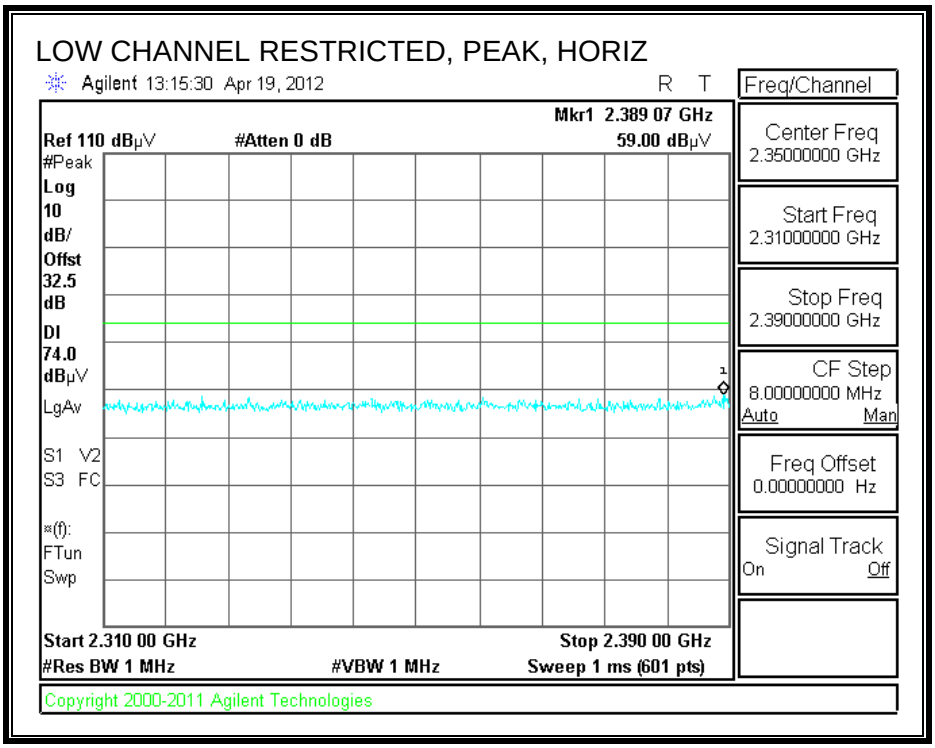
f	Measurement Frequency	Amp	Preamp Gain		Average Field Strength Limit
Dist	Distance to Antenna	D Corr	Distance Correct to 3 meters		Peak Field Strength Limit
Read	Analyzer Reading	Avg	Average Field Strength @ 3 m		Margin vs. Average Limit
AF	Antenna Factor	Peak	Calculated Peak Field Strength		Margin vs. Peak Limit
CL	Cable Loss	HPF	High Pass Filter		

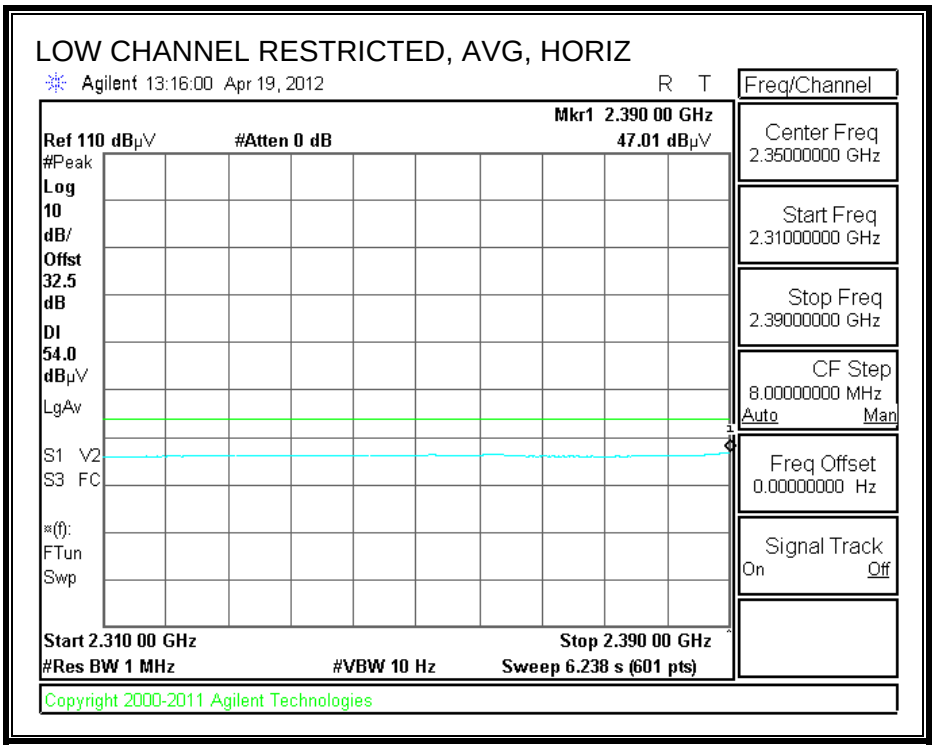
f GHz	Dist (m)	Read dBuV	AF dB/m	CL dB	Amp dB	D Corr dB	Fltr dB	Corr. dBuV/m	Limit dBuV/m	Margin dB	Ant. Pol. V/H	Det. P/A/QP	Notes
Low Ch, 2412MHz													
4.824	3.0	37.5	33.4	6.2	-35.5	0.0	0.0	41.7	74.0	-32.3	H	P	
4.824	3.0	25.2	33.4	6.2	-35.5	0.0	0.0	29.3	54.0	-24.7	H	A	
4.824	3.0	37.3	33.4	6.2	-35.5	0.0	0.0	41.5	74.0	-32.5	V	P	
4.824	3.0	25.2	33.4	6.2	-35.5	0.0	0.0	29.3	54.0	-24.7	V	A	
Mid Ch, 2437MHz													
4.874	3.0	36.9	33.5	6.2	-35.5	0.0	0.0	41.2	74.0	-32.8	H	P	
4.874	3.0	24.5	33.5	6.2	-35.5	0.0	0.0	28.7	54.0	-25.3	H	A	
7.311	3.0	35.9	35.7	8.4	-35.4	0.0	0.0	44.5	74.0	-29.5	H	P	
7.311	3.0	24.1	35.7	8.4	-35.4	0.0	0.0	32.7	54.0	-21.3	H	A	
4.874	3.0	36.3	33.5	6.2	-35.5	0.0	0.0	40.5	74.0	-33.5	V	P	
4.874	3.0	24.4	33.5	6.2	-35.5	0.0	0.0	28.7	54.0	-25.3	V	A	
7.311	3.0	35.7	35.7	8.4	-35.4	0.0	0.0	44.3	74.0	-29.7	V	P	
7.311	3.0	24.0	35.7	8.4	-35.4	0.0	0.0	32.7	54.0	-21.3	V	A	
High Ch, 2462MHz													
4.924	3.0	37.0	33.5	6.3	-35.5	0.0	0.0	41.4	74.0	-32.6	H	P	
4.924	3.0	24.9	33.5	6.3	-35.5	0.0	0.0	29.2	54.0	-24.8	H	A	
7.386	3.0	36.4	35.8	8.4	-35.5	0.0	0.0	45.2	74.0	-28.8	H	P	
7.386	3.0	24.1	35.8	8.4	-35.5	0.0	0.0	32.9	54.0	-21.1	H	A	
4.924	3.0	37.2	33.5	6.3	-35.5	0.0	0.0	41.5	74.0	-32.5	V	P	
4.924	3.0	25.0	33.5	6.3	-35.5	0.0	0.0	29.3	54.0	-24.7	V	A	
7.386	3.0	36.3	35.8	8.4	-35.5	0.0	0.0	45.1	74.0	-28.9	V	P	
7.386	3.0	24.1	35.8	8.4	-35.5	0.0	0.0	32.9	54.0	-21.1	V	A	

Rev. 4.1.2.7
Note: No other emissions were detected above the system noise floor.

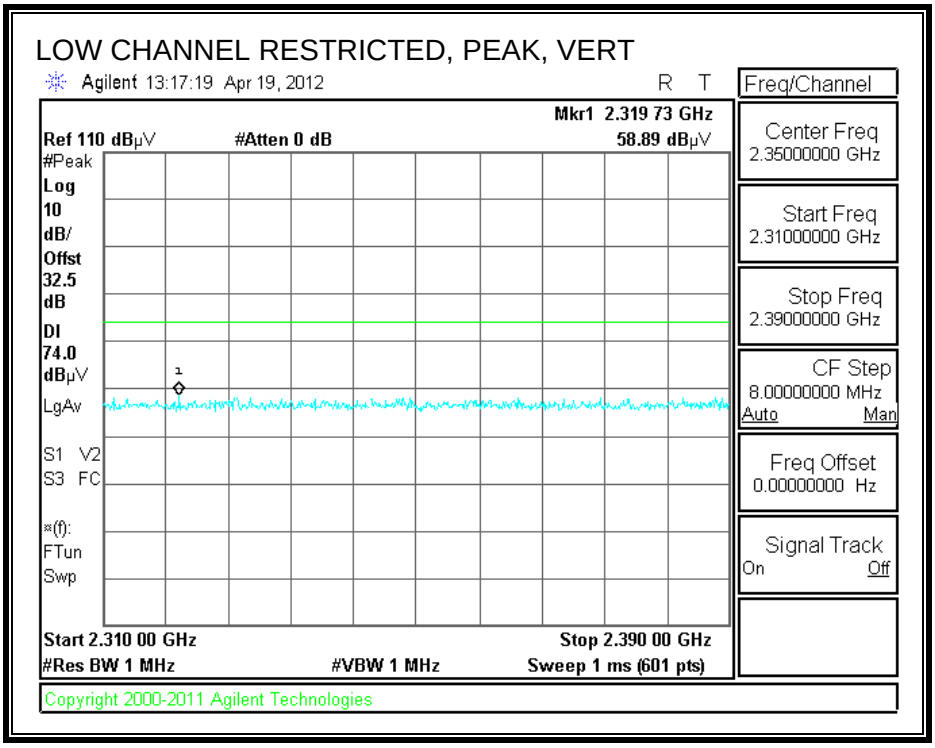
INDUCTIVE CHARGER WITH INDUCTIVE COVER

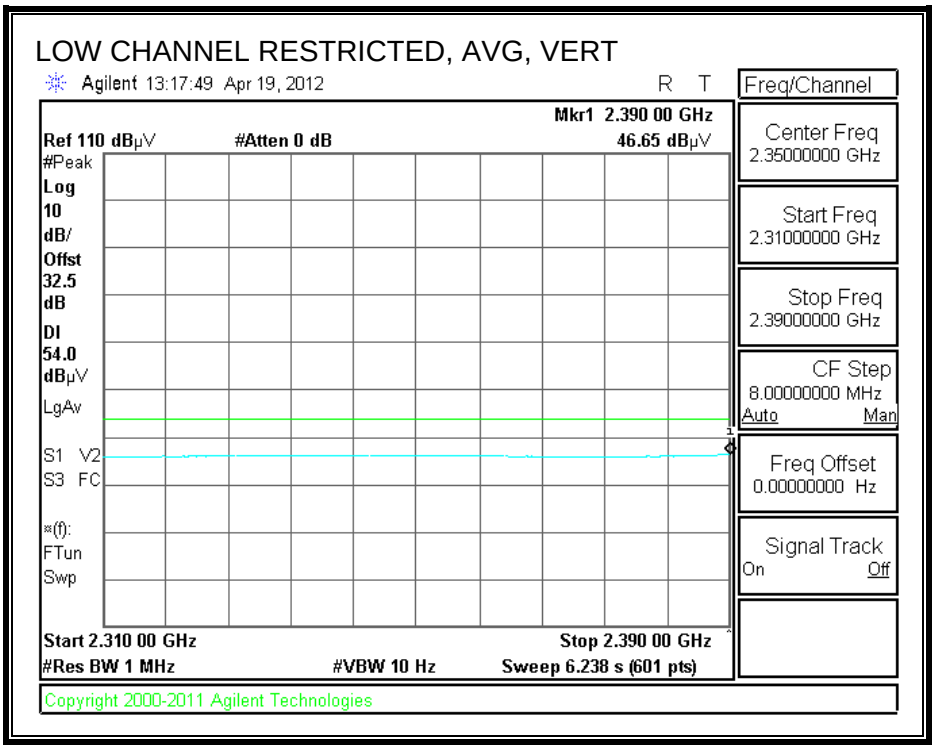
RESTRICTED BANDEDGE (LOW CHANNEL, HORIZONTAL)



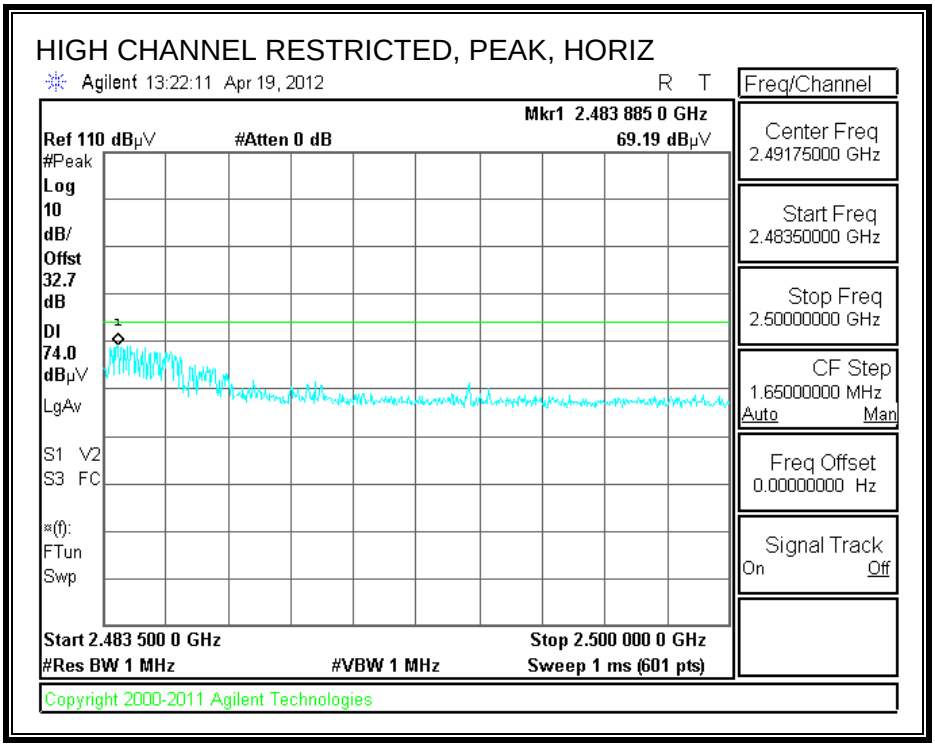


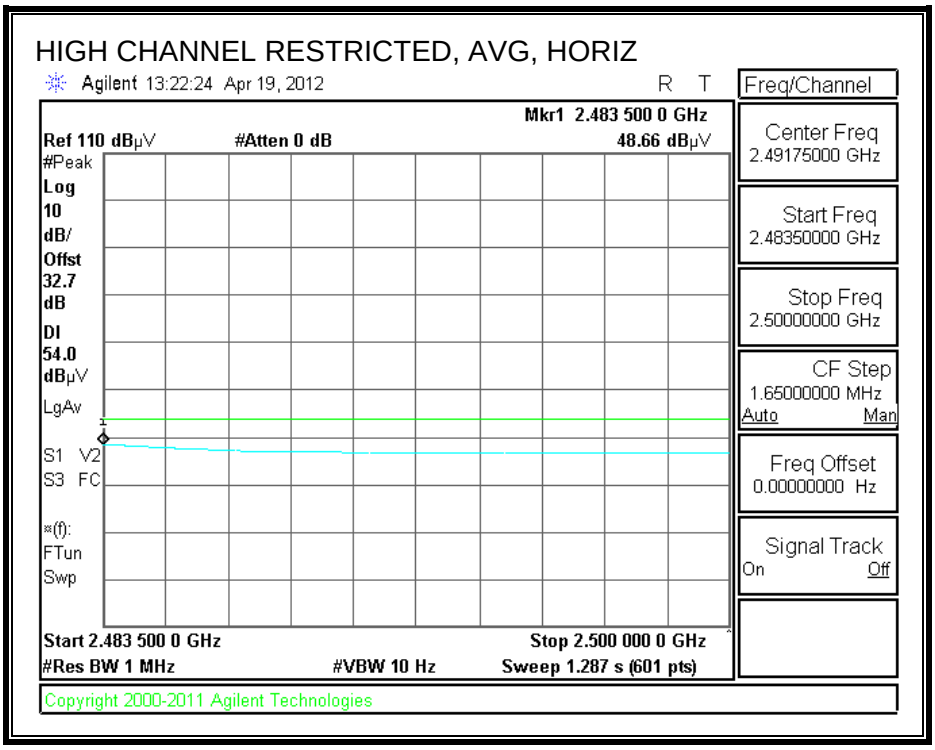
RESTRICTED BANDEDGE (LOW CHANNEL, VERTICAL)



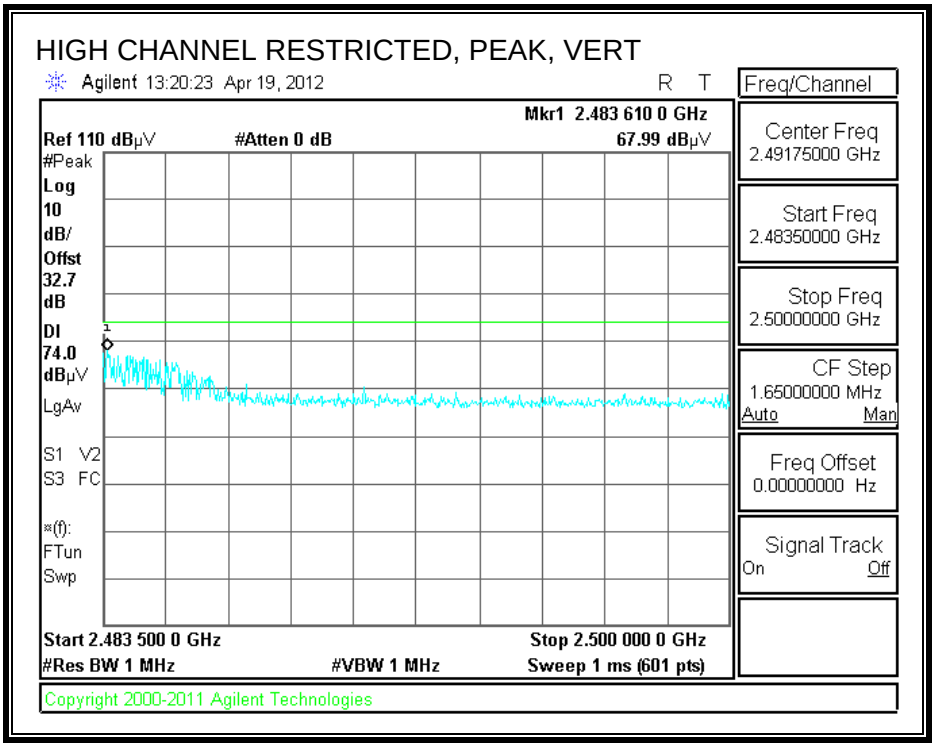


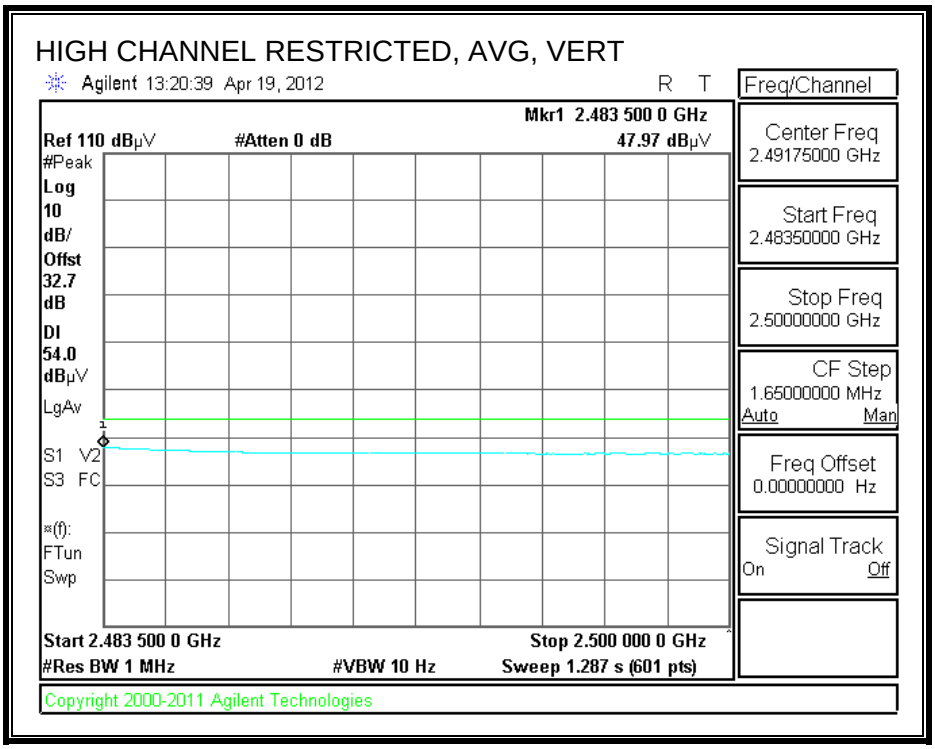
RESTRICTED BANDEDGE (HIGH CHANNEL, HORIZONTAL)





RESTRICTED BANDEDGE (HIGH CHANNEL, VERTICAL)





HARMONICS AND SPURIOUS EMISSIONS

High Frequency Measurement
Compliance Certification Services, Fremont 5m Chamber

Test Engr: Chin Pang
Date: 04/19/12
Project #: 12U14331
Company: LG
Test Target: FCC 15.247
Configuration: EUT(On Inductive Charging Pad)
Mode Oper: HT20, TX

f	Measurement Frequency	Amp	Preamp Gain		Average Field Strength Limit
Dist	Distance to Antenna	D Corr	Distance Correct to 3 meters		Peak Field Strength Limit
Read	Analyzer Reading	Avg	Average Field Strength @ 3 m		Margin vs. Average Limit
AF	Antenna Factor	Peak	Calculated Peak Field Strength		Margin vs. Peak Limit
CL	Cable Loss	HPF	High Pass Filter		

f GHz	Dist (m)	Read dBuV	AF dB/m	CL dB	Amp dB	D Corr dB	Fltr dB	Corr. dBuV/m	Limit dBuV/m	Margin dB	Ant. Pol. V/H	Det. P/A/QP	Notes
Low Ch, 2412MHz													
4.824	3.0	37.0	33.4	6.2	-35.5	0.0	0.0	41.1	74.0	-32.9	H	P	
4.824	3.0	25.0	33.4	6.2	-35.5	0.0	0.0	29.1	54.0	-24.9	H	A	
4.824	3.0	37.6	33.4	6.2	-35.5	0.0	0.0	41.8	74.0	-32.2	V	P	
4.824	3.0	25.0	33.4	6.2	-35.5	0.0	0.0	29.1	54.0	-24.9	V	A	
d Ch, 2437MHz													
4.874	3.0	36.7	33.5	6.2	-35.5	0.0	0.0	40.9	74.0	-33.1	H	P	
4.874	3.0	24.4	33.5	6.2	-35.5	0.0	0.0	28.6	54.0	-25.4	H	A	
7.311	3.0	36.0	35.7	8.4	-35.4	0.0	0.0	44.7	74.0	-29.3	H	P	
7.311	3.0	24.0	35.7	8.4	-35.4	0.0	0.0	32.7	54.0	-21.3	H	A	
4.874	3.0	36.2	33.5	6.2	-35.5	0.0	0.0	40.4	74.0	-33.6	V	P	
4.874	3.0	24.4	33.5	6.2	-35.5	0.0	0.0	28.6	54.0	-25.4	V	A	
7.311	3.0	36.8	35.7	8.4	-35.4	0.0	0.0	45.5	74.0	-28.5	V	P	
7.311	3.0	24.0	35.7	8.4	-35.4	0.0	0.0	32.7	54.0	-21.3	V	A	
High Ch, 2462MHz													
4.924	3.0	36.7	33.5	6.3	-35.5	0.0	0.0	41.0	74.0	-33.0	H	P	
4.924	3.0	24.8	33.5	6.3	-35.5	0.0	0.0	29.2	54.0	-24.8	H	A	
7.386	3.0	37.2	35.8	8.4	-35.5	0.0	0.0	46.0	74.0	-28.0	H	P	
7.386	3.0	24.1	35.8	8.4	-35.5	0.0	0.0	32.9	54.0	-21.1	H	A	
4.924	3.0	36.9	33.5	6.3	-35.5	0.0	0.0	41.2	74.0	-32.8	V	P	
4.924	3.0	24.8	33.5	6.3	-35.5	0.0	0.0	29.2	54.0	-24.8	V	A	
7.386	3.0	36.3	35.8	8.4	-35.5	0.0	0.0	45.1	74.0	-28.9	V	P	
7.386	3.0	24.1	35.8	8.4	-35.5	0.0	0.0	32.9	54.0	-21.1	V	A	

Rev. 4.1.2.7
Note: No other emissions were detected above the system noise floor.

8.2.4. 802.11a MODE IN THE 5.8 GHz BAND

STANDARD COVER

HARMONICS AND SPURIOUS EMISSIONS

High Frequency Measurement
Compliance Certification Services, Fremont 3m Chamber

Company: LG
Project #: 12U14331
Date: 3/28/2012
Test Engineer: D. Garcia
Configuration: Y position (worst case), AC adapter, standard back cover
Mode: 11a 5.8GHz Band, 6mb/s

Test Equipment:

Horn 1-18GHz	Pre-amplifer 1-26GHz	Pre-amplifer 26-40GHz	Horn > 18GHz	Limit
T60; S/N: 2238 @3m	T34 HP 8449B	T88 Miteq 26-40GHz	T39; ARA 18-26GHz; S/N:1013	FCC 15.205

Hi Frequency Cables

3' cable 22807700	12' cable 22807600	20' cable 22807500	HPF	Reject Filter
3' cable 22807700	12' cable 22807600	20' cable 22807500	HPF_7.6GHz	

Peak Measurements
RBW=VBW=1MHz
Average Measurements
RBW=1MHz ; VBW=10Hz

f GHz	Dist (m)	Read Pk dBuV	Read Avg. dBuV	AF dB/m	CL dB	Amp dB	D Corr dB	Fltr dB	Peak dBuV/m	Avg dBuV/m	Pk Lim dBuV/m	Avg Lim dBuV/m	Pk Mar dB	Avg Mar dB	Notes (V/H)
Low Channel: 5745 MHz															
11.490	3.0	34.6	23.6	38.9	11.2	-32.4	0.0	0.7	52.9	41.9	74	54	-21.1	-12.1	H
11.490	3.0	34.4	23.2	38.9	11.2	-32.4	0.0	0.7	52.7	41.6	74	54	-21.3	-12.4	V
Middle Channel: 5785 MHz															
11.570	3.0	38.0	33.7	38.9	11.3	-32.4	0.0	0.7	56.5	52.3	74	54	-17.5	-1.7	H
11.570	3.0	36.9	31.1	38.9	11.3	-32.4	0.0	0.7	55.5	49.7	74	54	-18.5	-4.3	V
High Channel, 5825MHz															
11.650	3.0	36.1	29.3	39.0	11.4	-32.4	0.0	0.7	54.9	48.0	74	54	-19.1	-6.0	H
11.650	3.0	37.8	33.2	39.0	11.4	-32.4	0.0	0.7	56.6	51.9	74	54	-17.4	-2.1	V

Rev. 07.08.11

f	Measurement Frequency	Amp	Preamp Gain	Avg Lim	Average Field Strength Limit
Dist	Distance to Antenna	D Corr	Distance Correct to 3 meters	Pk Lim	Peak Field Strength Limit
Read	Analyzer Reading	Avg	Average Field Strength @ 3 m	Avg Mar	Margin vs. Average Limit
AF	Antenna Factor	Peak	Calculated Peak Field Strength	Pk Mar	Margin vs. Peak Limit
CL	Cable Loss	HPF	High Pass Filter		

INDUCTIVE COVER

HARMONICS AND SPURIOUS EMISSIONS

High Frequency Measurement
Compliance Certification Services, Fremont 3m Chamber

Test Engr: Dennis Huang
Date: 04/11/12
Project #: 12U14331
Company: LG
Test Target: FCC 15.247
Mode Oper: 802.11a Tx Mode (Inductive Cover)

f	Measurement Frequency	Amp	Preamp Gain	Average Field Strength Limit
Dist	Distance to Antenna	D Corr	Distance Correct to 3 meters	Peak Field Strength Limit
Read	Analyzer Reading	Avg	Average Field Strength @ 3 m	Margin vs. Average Limit
AF	Antenna Factor	Peak	Calculated Peak Field Strength	Margin vs. Peak Limit
CL	Cable Loss	HPF	High Pass Filter	

f GHz	Dist (m)	Read dBuV	AF dB/m	CL dB	Amp dB	D Corr dB	Fltr dB	Corr. dBuV/m	Limit dBuV/m	Margin dB	Ant. Pol. V/H	Det. P/A/QP	Notes
Low Channel - 5745MHz													
11.490	3.0	36.3	38.9	11.2	-33.1	0.0	0.7	54.0	74.0	-20.0	V	P	
11.490	3.0	27.6	38.9	11.2	-33.1	0.0	0.7	45.3	54.0	-8.7	V	A	
11.490	3.0	39.1	38.9	11.2	-33.1	0.0	0.7	56.8	74.0	-17.2	H	P	
11.490	3.0	35.6	38.9	11.2	-33.1	0.0	0.7	53.3	54.0	-0.7	H	A	
Mid Channel - 5785MHz													
11.570	3.0	34.9	38.9	11.3	-33.0	0.0	0.7	52.9	74.0	-21.1	V	P	
11.570	3.0	26.4	38.9	11.3	-33.0	0.0	0.7	44.4	54.0	-9.6	V	A	
11.570	3.0	38.1	38.9	11.3	-33.0	0.0	0.7	56.1	74.0	-17.9	H	P	
11.570	3.0	34.0	38.9	11.3	-33.0	0.0	0.7	52.0	54.0	-2.0	H	A	
High Channel - 5825MHz													
11.650	3.0	36.1	39.0	11.4	-32.9	0.0	0.7	54.3	74.0	-19.7	V	P	
11.650	3.0	30.7	39.0	11.4	-32.9	0.0	0.7	48.9	54.0	-5.1	V	A	
11.650	3.0	38.7	39.0	11.4	-32.9	0.0	0.7	57.0	74.0	-17.0	H	P	
11.650	3.0	35.1	39.0	11.4	-32.9	0.0	0.7	53.3	54.0	-0.7	H	A	

Rev. 4.1.2.7
Note: No other emissions were detected above the system noise floor.

INDUCTIVE CHARGER WITH INDUCTIVE COVER

HARMONICS AND SPURIOUS EMISSIONS (High Channel)

High Frequency Measurement
Compliance Certification Services, Fremont 5m Chamber

Test Engr: Chin Pang
Date: 04/19/12
Project #: 12U14331
Company: LG
Test Target: FCC 15.247
Configuration: EUT(Inductive Charging Pad)
Mode Oper: 5.8GHz Band, a mode, TX

f	Measurement Frequency	Amp	Preamp Gain		Average Field Strength Limit
Dist	Distance to Antenna	D Corr	Distance Correct to 3 meters		Peak Field Strength Limit
Read	Analyzer Reading	Avg	Average Field Strength @ 3 m		Margin vs. Average Limit
AF	Antenna Factor	Peak	Calculated Peak Field Strength		Margin vs. Peak Limit
CL	Cable Loss	HPF	High Pass Filter		

f GHz	Dist (m)	Read dBuV	AF dB/m	CL dB	Amp dB	D Corr dB	Fltr dB	Corr. dBuV/m	Limit dBuV/m	Margin dB	Ant. Pol. V/H	Det. P/A/QP	Notes
Low Ch, 5745MHz													
11.490	3.0	35.8	38.8	10.7	-35.5	0.0	0.7	50.6	74.0	-23.4	V	P	
11.490	3.0	26.8	38.8	10.7	-35.5	0.0	0.7	41.5	54.0	-12.5	V	A	
11.490	3.0	37.4	38.8	10.7	-35.5	0.0	0.7	52.1	74.0	-21.9	H	P	
11.490	3.0	31.1	38.8	10.7	-35.5	0.0	0.7	45.8	54.0	-8.2	H	A	
Mid Ch, 5785MHz													
11.570	3.0	36.9	38.9	10.8	-35.5	0.0	0.7	51.8	74.0	-22.2	V	P	
11.570	3.0	28.8	38.9	10.8	-35.5	0.0	0.7	43.7	54.0	-10.3	V	A	
11.570	3.0	37.9	38.9	10.8	-35.5	0.0	0.7	52.8	74.0	-21.2	H	P	
11.570	3.0	31.1	38.9	10.8	-35.5	0.0	0.7	46.0	54.0	-8.0	H	A	
11.650	3.0	37.0	39.0	10.9	-35.5	0.0	0.7	52.1	74.0	-21.9	V	P	
11.650	3.0	30.8	39.0	10.9	-35.5	0.0	0.7	45.9	54.0	-8.1	V	A	
11.650	3.0	38.7	39.0	10.9	-35.5	0.0	0.7	53.8	74.0	-20.2	H	P	
11.650	3.0	32.8	39.0	10.9	-35.5	0.0	0.7	47.9	54.0	-6.1	H	A	

Rev. 4.1.2.7
Note: No other emissions were detected above the system noise floor.

8.2.5. 802.11n HT20 MODE IN THE 5.8 GHz BAND

STANDARD COVER

HARMONICS AND SPURIOUS EMISSIONS

High Frequency Measurement
Compliance Certification Services, Fremont 5m Chamber

Test Engr: Chin Pang
Date: 04/19/12
Project #: 12U14331
Company: LG
Test Target: FCC 15.247
Configuration: EUT(Standard Cover)
Mode Oper: 5.8GHz Band, HT20 mode, TX

f	Measurement Frequency	Amp	Preamp Gain	Average Field Strength Limit
Dist	Distance to Antenna	D Corr	Distance Correct to 3 meters	Peak Field Strength Limit
Read	Analyzer Reading	Avg	Average Field Strength @ 3 m	Margin vs. Average Limit
AF	Antenna Factor	Peak	Calculated Peak Field Strength	Margin vs. Peak Limit
CL	Cable Loss	HPF	High Pass Filter	

f GHz	Dist (m)	Read dBuV	AF dB/m	CL dB	Amp dB	D Corr dB	Fltr dB	Corr. dBuV/m	Limit dBuV/m	Margin dB	Ant. Pol. V/H	Det. P/A/QP	Notes
Low Ch, 5745MHz													
11.490	3.0	35.6	38.8	10.7	-35.5	0.0	0.7	50.3	74.0	-23.7	V	P	
11.490	3.0	27.5	38.8	10.7	-35.5	0.0	0.7	42.3	54.0	-11.7	V	A	
11.490	3.0	37.4	38.8	10.7	-35.5	0.0	0.7	52.1	74.0	-21.9	H	P	
11.490	3.0	29.8	38.8	10.7	-35.5	0.0	0.7	44.5	54.0	-9.5	H	A	
Mid Ch, 5785MHz													
11.570	3.0	36.5	38.9	10.8	-35.5	0.0	0.7	51.4	74.0	-22.6	V	P	
11.570	3.0	29.7	38.9	10.8	-35.5	0.0	0.7	44.6	54.0	-9.4	V	A	
11.570	3.0	36.9	38.9	10.8	-35.5	0.0	0.7	51.8	74.0	-22.2	H	P	
11.570	3.0	30.2	38.9	10.8	-35.5	0.0	0.7	45.1	54.0	-8.9	H	A	
High Ch, 5825MHz													
11.650	3.0	36.9	39.0	10.9	-35.5	0.0	0.7	52.0	74.0	-22.0	V	P	
11.650	3.0	29.2	39.0	10.9	-35.5	0.0	0.7	44.2	54.0	-9.8	V	A	
11.650	3.0	36.6	39.0	10.9	-35.5	0.0	0.7	51.7	74.0	-22.3	H	P	
11.650	3.0	30.2	39.0	10.9	-35.5	0.0	0.7	45.3	54.0	-8.7	H	A	

Rev. 4.1.2.7
Note: No other emissions were detected above the system noise floor.

INDUCTIVE COVER

HARMONICS AND SPURIOUS EMISSIONS

High Frequency Measurement
Compliance Certification Services, Fremont 3m Chamber

Test Engr: Dennis Huang
Date: 04/11/12
Project #: 12U14331
Company: LG
Test Target: FCC 15.47
Mode Oper: 802.11n HT20 Tx Mode (Inductive Cover)

f	Measurement Frequency	Amp	Preamp Gain		Average Field Strength Limit
Dist	Distance to Antenna	D Corr	Distance Correct to 3 meters		Peak Field Strength Limit
Read	Analyzer Reading	Avg	Average Field Strength @ 3 m		Margin vs. Average Limit
AF	Antenna Factor	Peak	Calculated Peak Field Strength		Margin vs. Peak Limit
CL	Cable Loss	HPF	High Pass Filter		

f GHz	Dist (m)	Read dBuV	AF dB/m	CL dB	Amp dB	D Corr dB	Fltr dB	Corr. dBuV/m	Limit dBuV/m	Margin dB	Ant. Pol. V/H	Det. P/A/QP	Notes
Low Channel - 5745MHz													
11.490	3.0	37.6	38.9	11.2	-33.1	0.0	0.7	55.3	74.0	-18.7	V	P	
11.490	3.0	31.6	38.9	11.2	-33.1	0.0	0.7	49.3	54.0	-4.7	V	A	
11.490	3.0	39.0	38.9	11.2	-33.1	0.0	0.7	56.7	74.0	-17.3	H	P	
11.490	3.0	33.4	38.9	11.2	-33.1	0.0	0.7	51.1	54.0	-2.9	H	A	
Mid Channel - 5785MHz													
11.570	3.0	38.0	38.9	11.3	-33.0	0.0	0.7	56.0	74.0	-18.0	V	P	
11.570	3.0	31.3	38.9	11.3	-33.0	0.0	0.7	49.3	54.0	-4.7	V	A	
11.570	3.0	38.3	38.9	11.3	-33.0	0.0	0.7	56.3	74.0	-17.7	H	P	
11.570	3.0	31.8	38.9	11.3	-33.0	0.0	0.7	49.8	54.0	-4.2	H	A	
High Channel - 5825MHz													
11.650	3.0	38.0	39.0	11.4	-32.9	0.0	0.7	56.3	74.0	-17.7	V	P	
11.650	3.0	31.1	39.0	11.4	-32.9	0.0	0.7	49.3	54.0	-4.7	V	A	
11.650	3.0	39.4	39.0	11.4	-32.9	0.0	0.7	57.6	74.0	-16.4	H	P	
11.650	3.0	34.1	39.0	11.4	-32.9	0.0	0.7	52.4	54.0	-1.6	H	A	

Rev. 4.1.2.7
Note: No other emissions were detected above the system noise floor.

INDUCTIVE CHARGER WITH INDUCTIVE COVER

HARMONICS AND SPURIOUS EMISSIONS

High Frequency Measurement
Compliance Certification Services, Fremont 5m Chamber

Test Engr: Chin Pang
Date: 04/19/12
Project #: 12U14331
Company: LG
Test Target: FCC 15.247
Configuration: EUT(Inductive Charger Pad)
Mode Oper: 5.8GHz Band, HT20, TX

f	Measurement Frequency	Amp	Preamp Gain		Average Field Strength Limit
Dist	Distance to Antenna	D Corr	Distance Correct to 3 meters		Peak Field Strength Limit
Read	Analyzer Reading	Avg	Average Field Strength @ 3 m		Margin vs. Average Limit
AF	Antenna Factor	Peak	Calculated Peak Field Strength		Margin vs. Peak Limit
CL	Cable Loss	HPF	High Pass Filter		

f GHz	Dist (m)	Read dBuV	AF dB/m	CL dB	Amp dB	D Corr dB	Fltr dB	Corr. dBuV/m	Limit dBuV/m	Margin dB	Ant. Pol. V/H	Det. P/A/QP	Notes
Low Ch, 5745MHz													
11.490	3.0	37.5	38.8	10.7	-35.5	0.0	0.7	52.2	74.0	-21.8	H	P	
11.490	3.0	30.7	38.8	10.7	-35.5	0.0	0.7	45.5	54.0	-8.5	H	A	
11.490	3.0	35.2	38.8	10.7	-35.5	0.0	0.7	49.9	74.0	-24.1	V	P	
11.490	3.0	26.6	38.8	10.7	-35.5	0.0	0.7	41.3	54.0	-12.7	V	A	
Mid Ch, 5785MHz													
11.570	3.0	37.6	38.9	10.8	-35.5	0.0	0.7	52.5	74.0	-21.5	H	P	
11.570	3.0	32.3	38.9	10.8	-35.5	0.0	0.7	47.2	54.0	-6.8	H	A	
11.570	3.0	36.3	38.9	10.8	-35.5	0.0	0.7	51.2	74.0	-22.8	V	P	
11.570	3.0	28.0	38.9	10.8	-35.5	0.0	0.7	42.9	54.0	-11.1	V	A	
High Ch, 5825MHz													
11.650	3.0	38.8	39.0	10.9	-35.5	0.0	0.7	53.9	74.0	-20.1	H	P	
11.650	3.0	33.3	39.0	10.9	-35.5	0.0	0.7	48.4	54.0	-5.6	H	A	
11.650	3.0	38.1	39.0	10.9	-35.5	0.0	0.7	53.2	74.0	-20.8	V	P	
11.650	3.0	30.4	39.0	10.9	-35.5	0.0	0.7	45.4	54.0	-8.6	V	A	

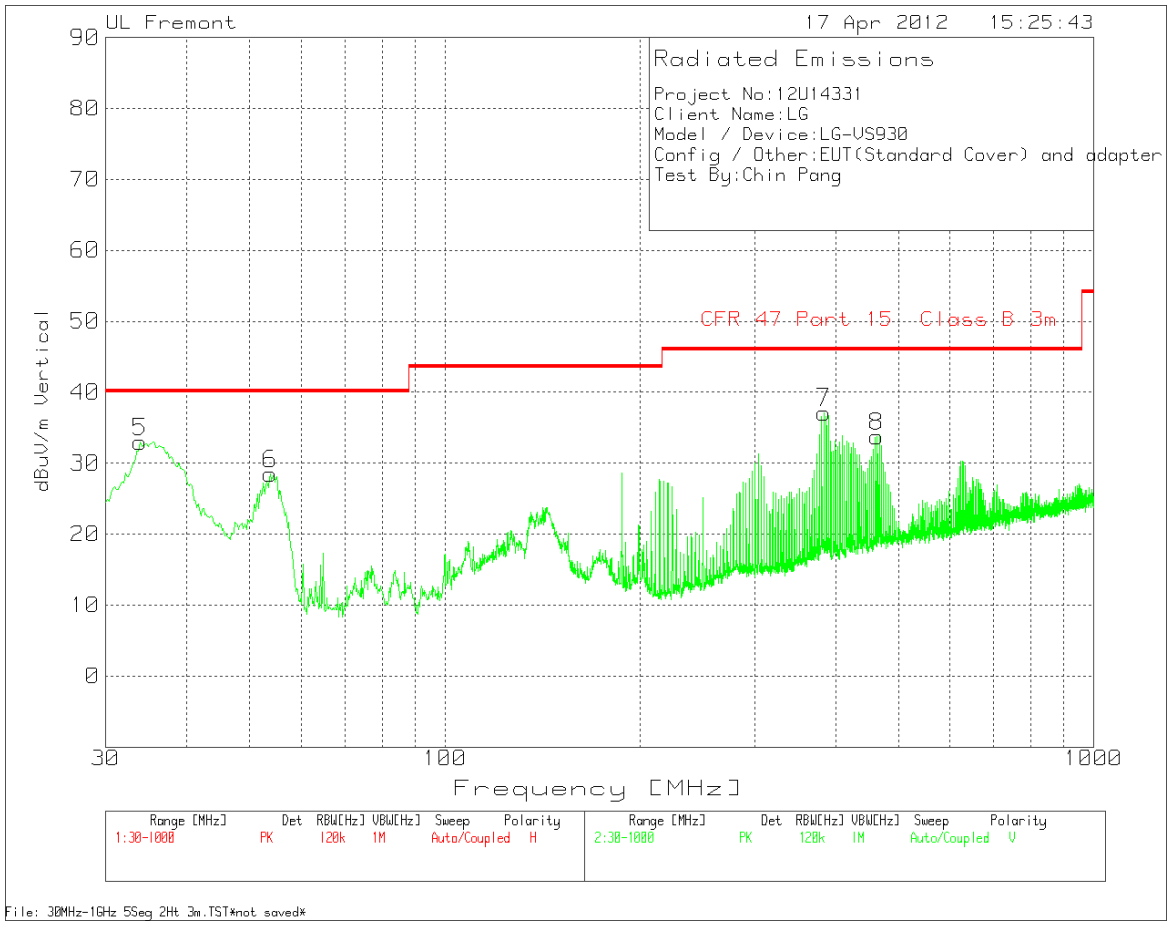
Rev. 4.1.2.7
Note: No other emissions were detected above the system noise floor.

9. WORST-CASE BELOW 1 GHz

STANDARD COVER

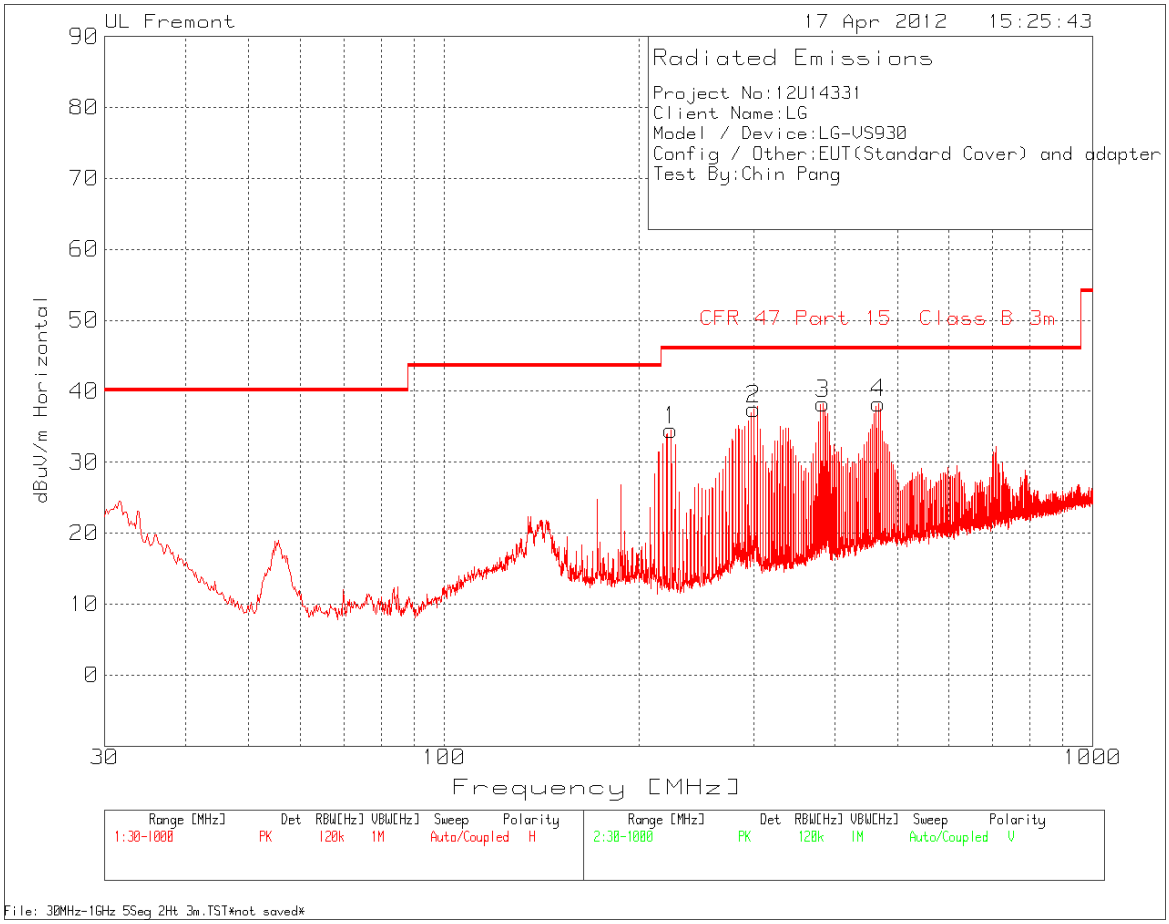
SPURIOUS EMISSIONS 30 TO 1000 MHz (WORST-CASE CONFIGURATION, HORIZONTAL)

HORIZONTAL PLOT



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

VERTICAL PLOT



HORIZONTAL AND VERTICAL DATA

Project No:12U14331
Client Name:LG
Model / Device:LG-VS930
Config / Other:EUT(Standard Cover) and adapter
Test By:Chin Pang

Range 1 30 - 1000MHz

Test Frequency	Meter Reading	Detector	25MHz-1GHz ChmbrA Amplified.TX [dB]	T243 Sunol Bilog.TXT [dB]	dBuV/m	CFR 47 Part 15 Class B 3m	Margin	Height [cm]	Polarity
223.8449	49.94	PK	-26	10.6	34.54	46	-11.46	100	Horz
300.8014	50.08	PK	-25.8	13.2	37.48	46	-8.52	100	Horz
383.9608	48.56	PK	-25.3	15	38.26	46	-7.74	100	Horz
467.3141	46.31	PK	-25.1	17.1	38.31	46	-7.69	200	Horz

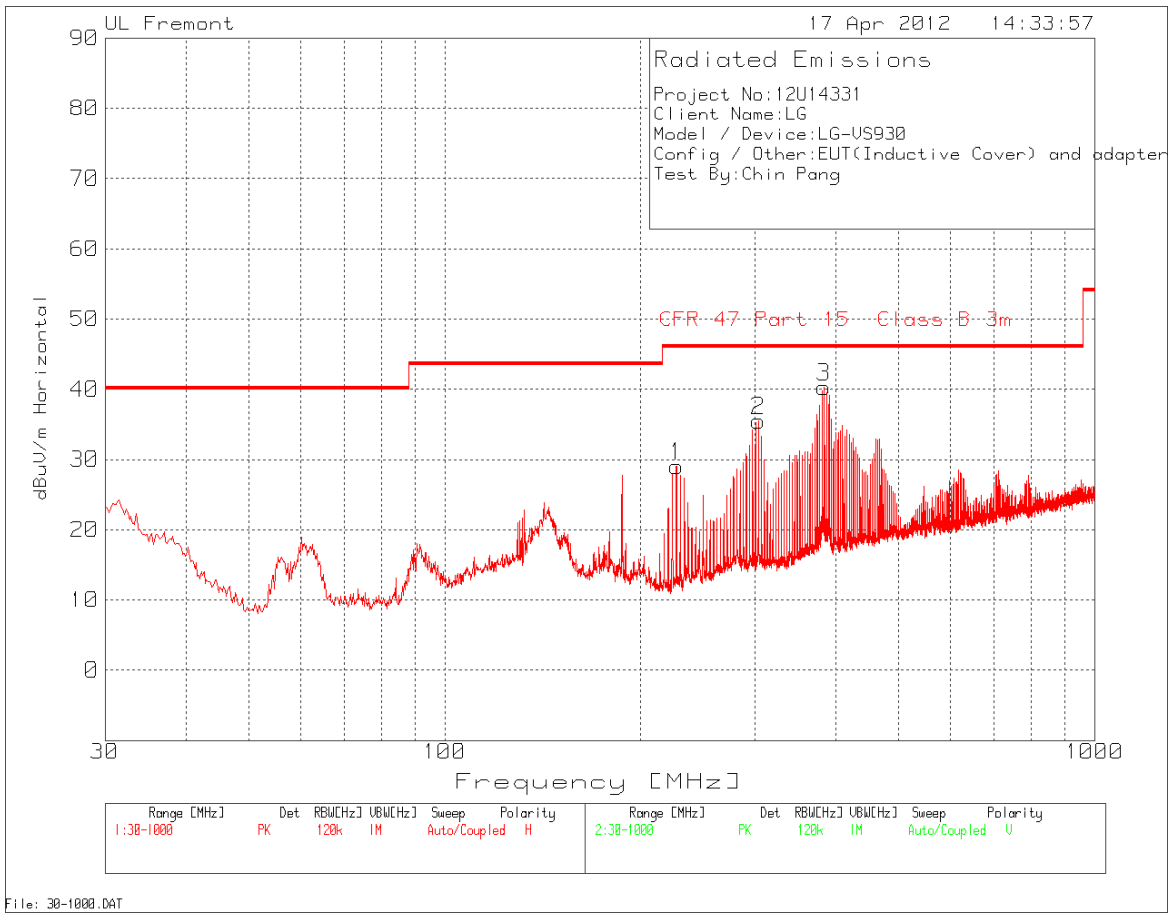
Range 2 30 - 1000MHz

Test Frequency	Meter Reading	Detector	25MHz-1GHz ChmbrA Amplified.TX [dB]	T243 Sunol Bilog.TXT [dB]	dBuV/m	CFR 47 Part 15 Class B 3m	Margin	Height [cm]	Polarity
33.8769	42.17	PK	-27.6	18.4	32.97	40	-7.03	109	Vert
53.8429	48.43	PK	-27.3	7.3	28.43	40	-11.57	109	Vert
383.9608	47.45	PK	-25.3	15	37.15	46	-8.85	109	Vert
464.0188	41.9	PK	-25	16.9	33.8	46	-12.2	109	Vert

INDUCTIVE COVER

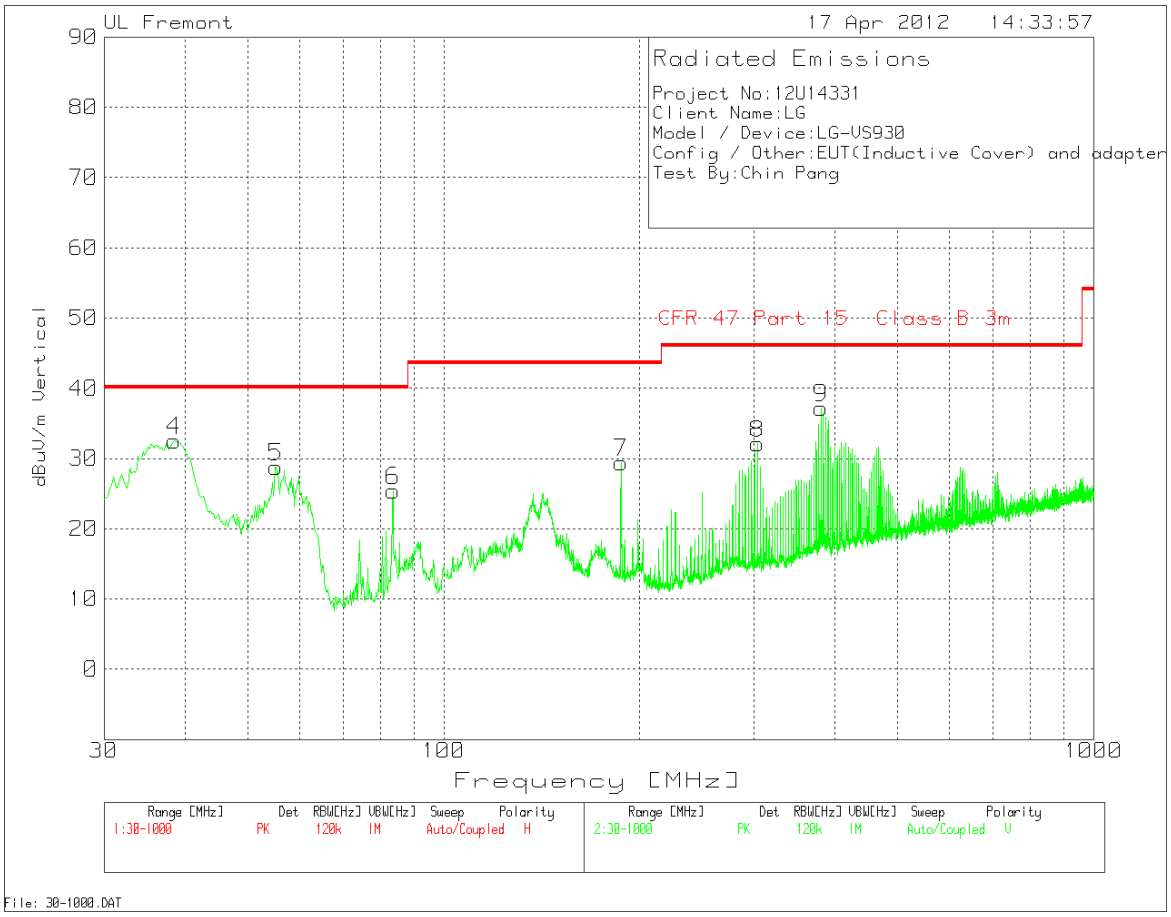
SPURIOUS EMISSIONS 30 TO 1000 MHz (WORST-CASE CONFIGURATION, HORIZONTAL)

HORIZONTAL PLOT



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

VERTICAL PLOT



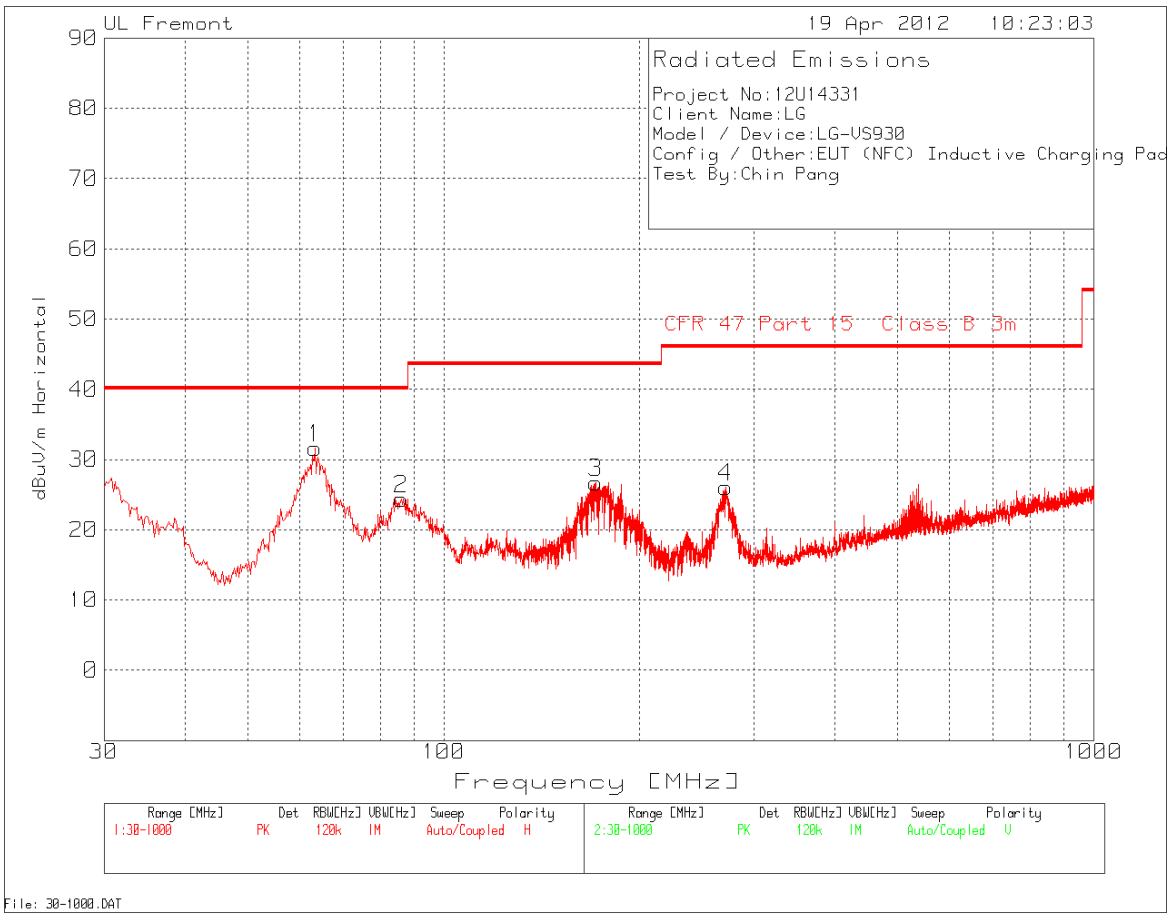
HORIZONTAL AND VERTICAL DATA

Project No:12U14331									
Client Name:LG									
Model / Device:LG-VS930									
Config / Other:EUT(Inductive Cover) and adapter									
Test By:Chin Pang									
Range 1 30 - 1000MHz									
Test Frequency	Meter Reading	Detector	25MHz-1GHz ChmbrA Amplified.TX [dB]	T243 Sunol Bilog.TXT [dB]	dBuV/m	CFR 47 Part 15 Class B 3m	Margin	Height [cm]	Polarity
227.3341	44.48	PK	-26.1	10.7	29.08	46	-16.92	91	Horz
303.9029	48.06	PK	-25.8	13.3	35.56	46	-10.44	91	Horz
383.9608	50.54	PK	-25.3	15	40.24	46	-5.76	91	Horz
Range 2 30 - 1000MHz									
Test Frequency	Meter Reading	Detector	25MHz-1GHz ChmbrA Amplified.TX [dB]	T243 Sunol Bilog.TXT [dB]	dBuV/m	CFR 47 Part 15 Class B 3m	Margin	Height [cm]	Polarity
38.5292	44.9	PK	-27.4	15	32.5	40	-7.5	100	Vert
55.1998	49	PK	-27.3	7.1	28.8	40	-11.2	200	Vert
83.5012	45	PK	-27	7.4	25.4	40	-14.6	200	Vert
187.4021	44.43	PK	-26.3	11.3	29.43	43.5	-14.07	200	Vert
303.9029	44.58	PK	-25.8	13.3	32.08	46	-13.92	100	Vert
380.6655	47.37	PK	-25.3	15.1	37.17	46	-8.83	100	Vert

INDUCTIVE CHARGER WITH INDUCTIVE COVER

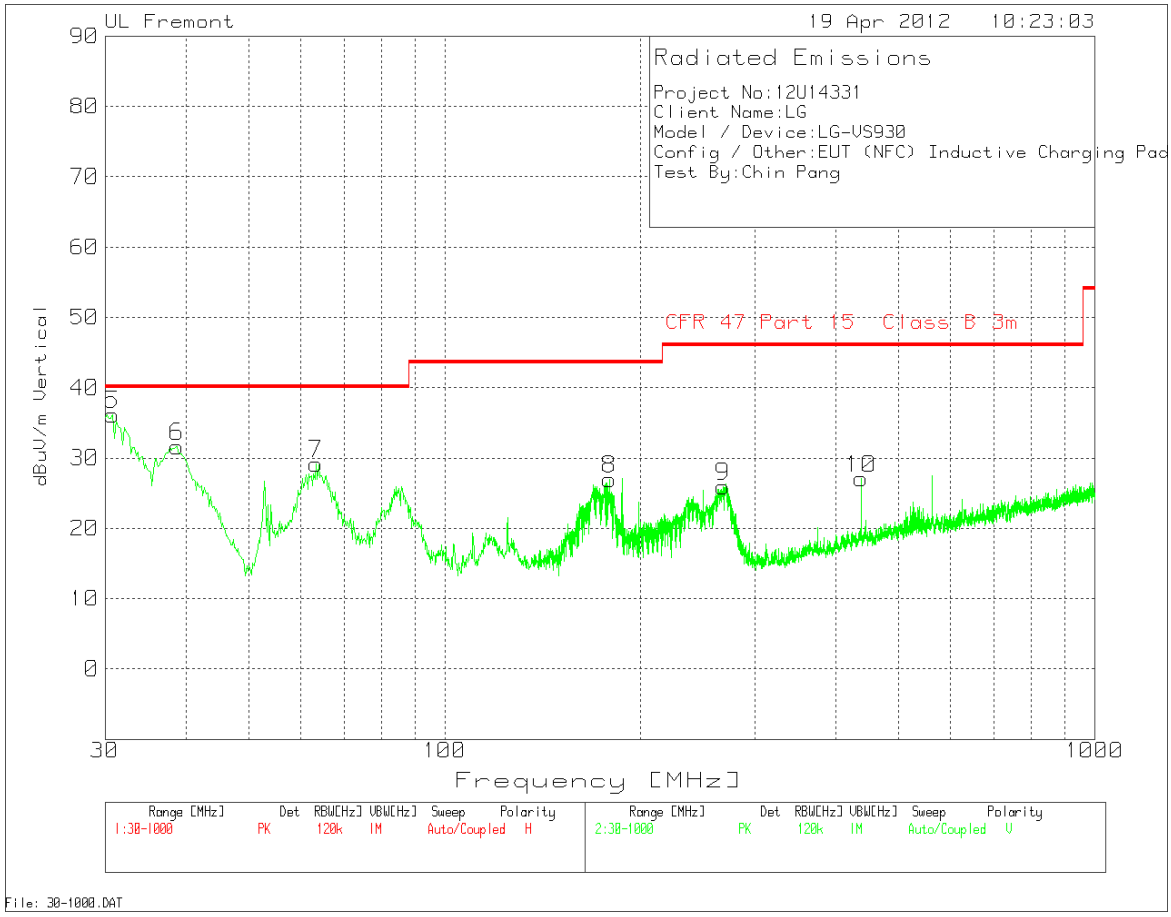
SPURIOUS EMISSIONS 30 TO 1000 MHz (WORST-CASE CONFIGURATION, HORIZONTAL)

HORIZONTAL PLOT



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

VERTICAL PLOT



HORIZONTAL AND VERTICAL DATA

Project No:12U14331									
Client Name:LG									
Model / Device:LG-VS930									
Config / Other:EUT (NFC) Inductive Charging Pad									
Test By:Chin Pang									
Range 1 30 - 1000MHz									
Test Frequency	Meter Reading	Detector	25MHz-1GHz ChmbrA Amplified.TX [dB]	T243 Sunol Bilog.TXT [dB]	dBuV/m	CFR 47 Part 15 Class B 3m	Margin	Height [cm]	Polarity
63.3413	51.23	PK	-27.2	7.6	31.63	40	-8.37	300	Horz
86.0212	44.01	PK	-27	7.4	24.41	40	-15.59	200	Horz
171.313	41.58	PK	-26.5	11.6	26.68	43.5	-16.82	200	Horz
271.7246	38.76	PK	-25.8	13.1	26.06	46	-19.94	100	Horz
Range 2 30 - 1000MHz									
Test Frequency	Meter Reading	Detector	25MHz-1GHz ChmbrA Amplified.TX [dB]	T243 Sunol Bilog.TXT [dB]	dBuV/m	CFR 47 Part 15 Class B 3m	Margin	Height [cm]	Polarity
30.7754	43.09	PK	-27.5	20.6	36.19	40	-3.81	100	Vert
30.7754	41.41	QP	-27.5	21.1	35.01	40	-4.99	242	Vert
38.723	44.18	PK	-27.4	14.9	31.68	40	-8.32	100	Vert
63.3413	48.79	PK	-27.2	7.6	29.19	40	-10.81	300	Vert
179.0667	42.13	PK	-26.4	11.2	26.93	43.5	-16.57	100	Vert
268.0416	38.8	PK	-25.8	12.9	25.9	46	-20.1	100	Vert
437.6559	35.63	PK	-25.3	16.7	27.03	46	-18.97	100	Vert

10. AC POWER LINE CONDUCTED EMISSIONS

LIMITS

FCC §15.207 (a)

RSS-Gen 7.2.2

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

* Decreases with the logarithm of the frequency.

TEST PROCEDURE

ANSI C63.4

RESULTS

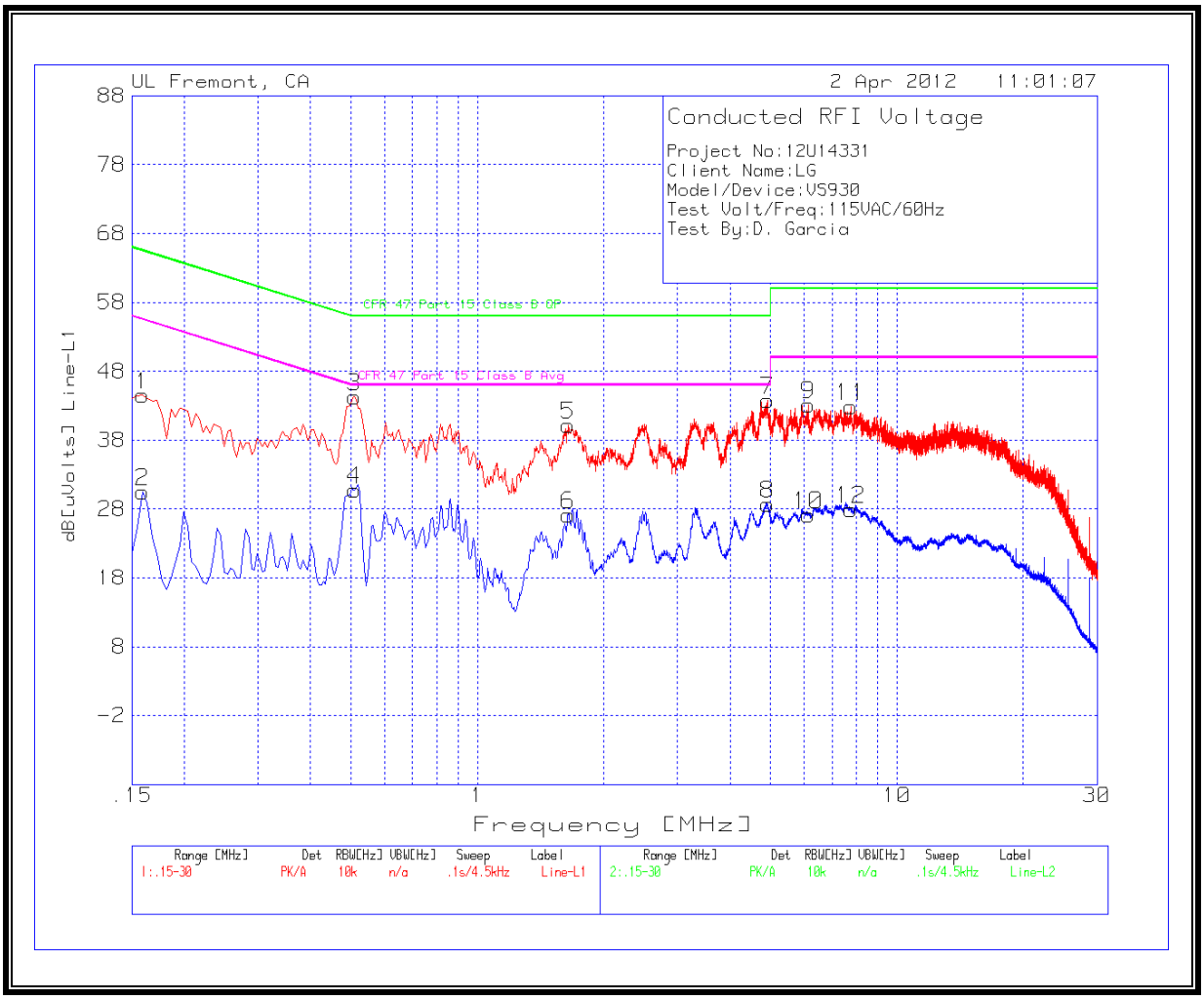
STANDARD COVER

6 WORST EMISSIONS

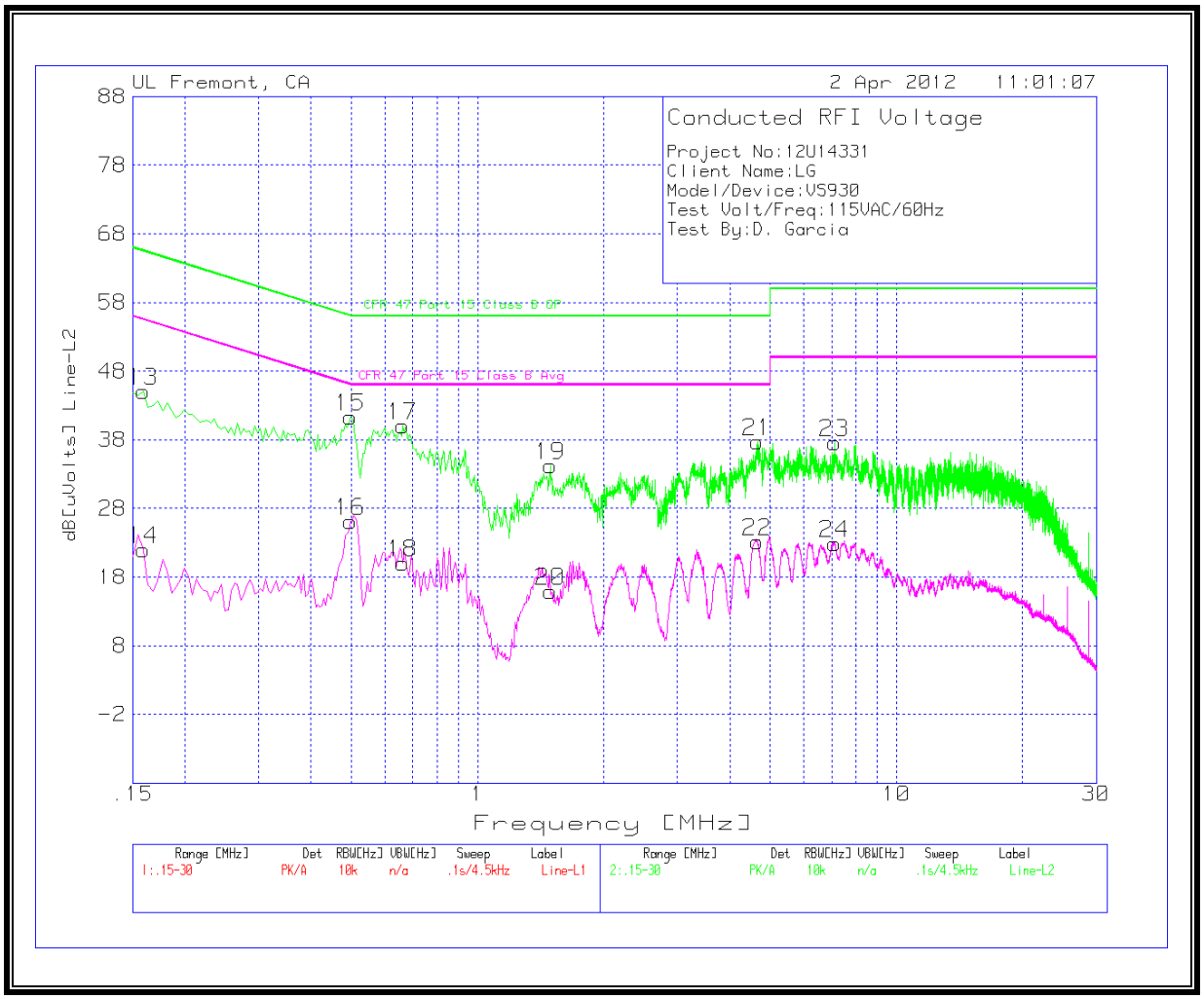
Project No:	12U14331
Client Name:	LG
Model/Device:	VS930 with Standard Back Cover
Test Volt/Freq:	115VAC/60Hz
Test By:	D. Garcia

Test Frequency	Meter Reading	Detector	T24 IL L1.TXT [dB]	LC Cables 1&3.TXT [dB]	dB[uVolts]	CFR 47 Part 15 Class B QP	Margin	CFR 47 Part 15 Class B Avg	Margin
Line-L1 .15 - 30MHz									
0.159	44.39	PK	0.1	0	44.49	65.5	-21.01	-	-
0.159	30.36	Av	0.1	0	30.46	-	-	55.5	-25.04
0.51	44.23	PK	0.1	0	44.33	56	-11.67	-	-
0.51	30.67	Av	0.1	0	30.77	-	-	46	-15.23
1.6485	39.93	PK	0.1	0.1	40.13	56	-15.87	-	-
1.6485	26.98	Av	0.1	0.1	27.18	-	-	46	-18.82
4.9155	43.53	PK	0.1	0.1	43.73	56	-12.27	-	-
4.9155	28.48	Av	0.1	0.1	28.68	-	-	46	-17.32
6.153	42.88	PK	0.1	0.1	43.08	60	-16.92	-	-
6.153	26.99	Av	0.1	0.1	27.19	-	-	50	-22.81
7.764	42.72	PK	0.1	0.1	42.92	60	-17.08	-	-
7.764	27.74	Av	0.1	0.1	27.94	-	-	50	-22.06
Line-L2 .15 - 30MHz									
0.159	44.95	PK	0.1	0	45.05	65.5	-20.45	-	-
0.159	21.88	Av	0.1	0	21.98	-	-	55.5	-33.52
0.4965	41.17	PK	0.1	0	41.27	56.1	-14.83	-	-
0.4965	25.98	Av	0.1	0	26.08	-	-	46.1	-20.02
0.663	39.96	PK	0.1	0	40.06	56	-15.94	-	-
0.663	19.93	Av	0.1	0	20.03	-	-	46	-25.97
1.491	34.06	PK	0.1	0.1	34.26	56	-21.74	-	-
1.491	15.74	Av	0.1	0.1	15.94	-	-	46	-30.06
4.65	37.46	PK	0.1	0.1	37.66	56	-18.34	-	-
4.65	22.97	Av	0.1	0.1	23.17	-	-	46	-22.83
7.116	37.39	PK	0.1	0.1	37.59	60	-22.41	-	-
7.116	22.65	Av	0.1	0.1	22.85	-	-	50	-27.15

LINE 1 RESULTS



LINE 2 RESULTS



INDUCTIVE COVER

6 WORST EMISSIONS

Project No:	12U14331
Client Name:	LG
Model/Device:	VS930 w/INDUCTIVE COVER
Test Volt/Freq:	115VAC/60Hz
Test By:	D. Garcia

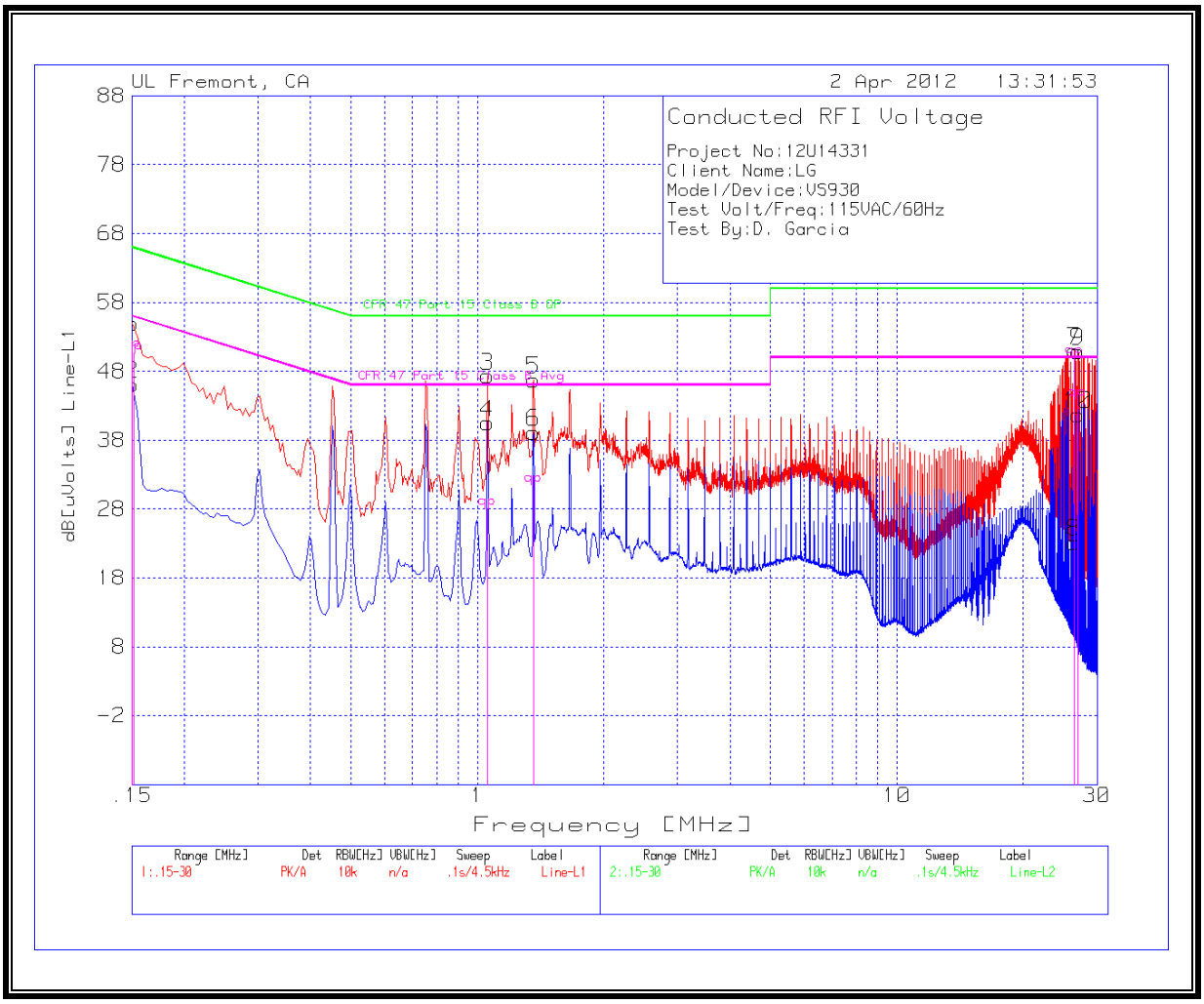
Line-L1 .15 - 30MHz

Test Frequency	Meter Reading	Detector	T24 IL L1.TXT [dB]	LC Cables 1&3.TXT [dB]	dB[uVolts]	CFR 47 Part 15 Class B QP	Margin	CFR 47 Part 15 Class B Avg	Margin
0.15	54.83	PK	0.1	0	54.93	66	-11.07	-	-
0.15	46.02	Av	0.1	0	46.12	-	-	56	-9.88
1.0545	47.22	PK	0.1	0	47.32	56	-8.68	-	-
1.0545	40.39	Av	0.1	0	40.49	-	-	46	-5.51
1.3605	46.59	PK	0.1	0.1	46.79	56	-9.21	-	-
1.3605	38.94	Av	0.1	0.1	39.14	-	-	46	-6.86
26.4705	50.2	PK	0.5	0.3	51.00	60	-9.00	-	-
26.4705	22.38	Av	0.5	0.3	23.18	-	-	50	-26.82
26.934	50.04	PK	0.5	0.3	50.84	60	-9.16	-	-
26.934	40.92	Av	0.5	0.3	41.72	-	-	50	-8.28

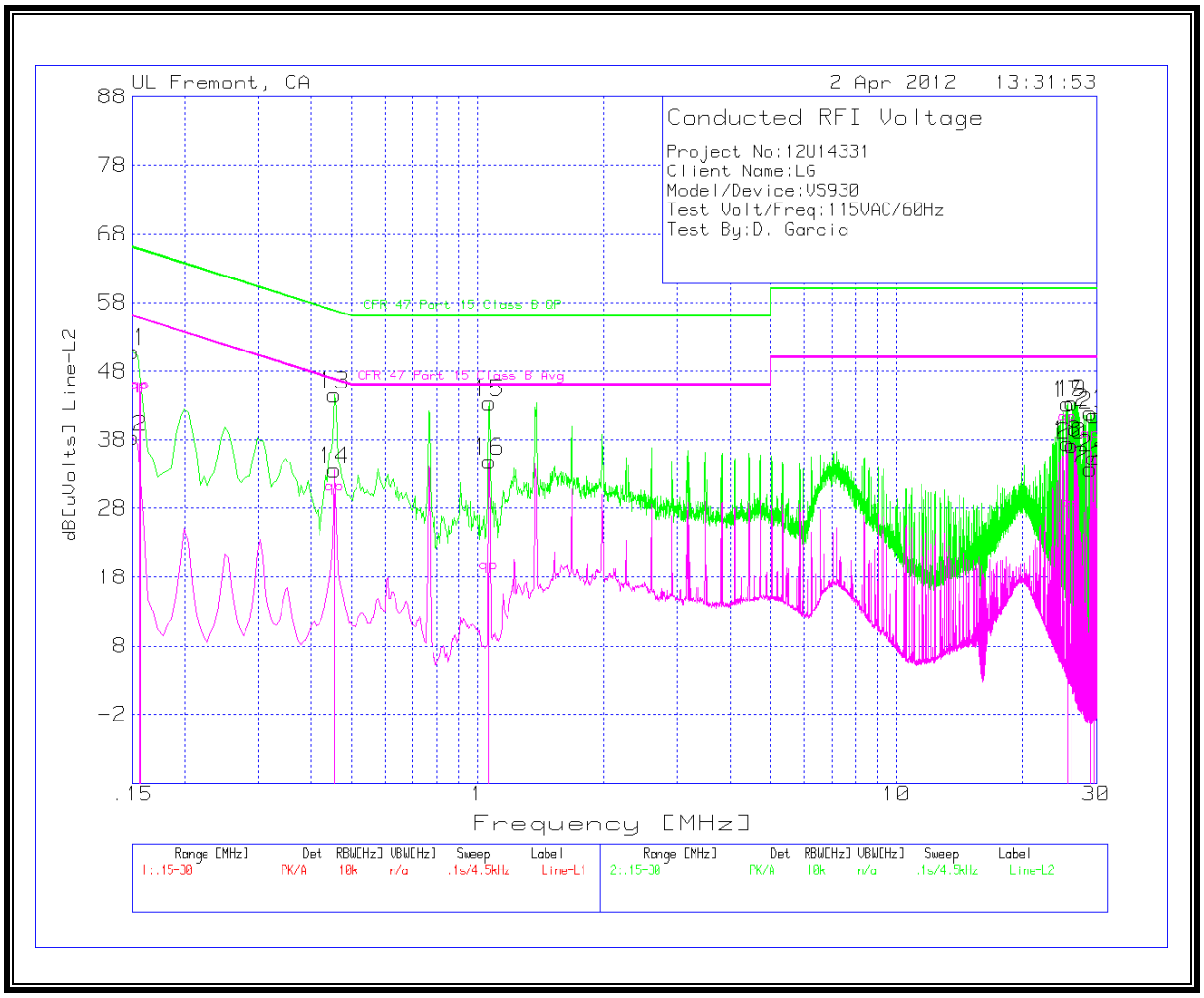
Line-L2 .15 - 30MHz

Test Frequency	Meter Reading	Detector	T24 IL L1.TXT [dB]	LC Cables 1&3.TXT [dB]	dB[uVolts]	CFR 47 Part 15 Class B QP	Margin	CFR 47 Part 15 Class B Avg	Margin
0.15	50.74	PK	0.1	0	50.84	66	-15.16	-	-
0.15	38.2	Av	0.1	0	38.30	-	-	56	-17.70
0.456	44.4	PK	0.1	0	44.50	56.8	-12.30	-	-
0.456	33.54	Av	0.1	0	33.64	-	-	46.8	-13.16
1.068	43.18	PK	0.1	0.1	43.38	56	-12.62	-	-
1.068	34.72	Av	0.1	0.1	34.92	-	-	46	-11.08
25.6065	42.46	PK	0.5	0.3	43.26	60	-16.74	-	-
25.6065	36.68	Av	0.5	0.3	37.48	-	-	50	-12.52
26.2185	42.55	PK	0.5	0.3	43.35	60	-16.65	-	-
26.2185	36.4	Av	0.5	0.3	37.20	-	-	50	-12.80
29.0625	41.17	PK	0.5	0.3	41.97	60	-18.03	-	-
29.0625	32.92	Av	0.5	0.3	33.72	-	-	50	-16.28
29.6745	40.82	PK	0.5	0.3	41.62	60	-18.38	-	-
29.6745	34.62	Av	0.5	0.3	35.42	-	-	50	-14.58

LINE 1 RESULTS



LINE 2 RESULTS



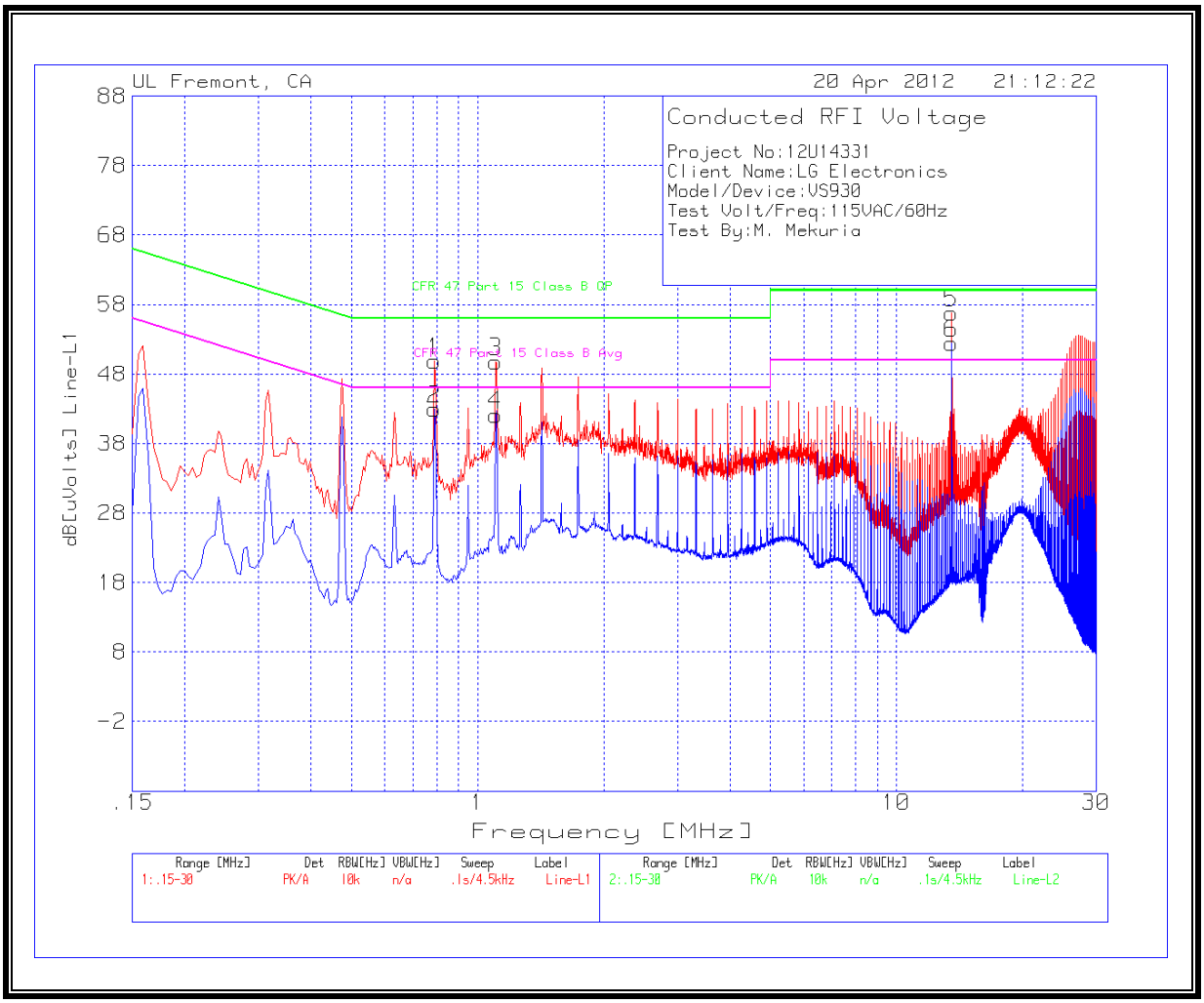
INDUCTIVE CHARGER WITH INDUCTIVE COVER

WORST EMISSIONS – With antenna

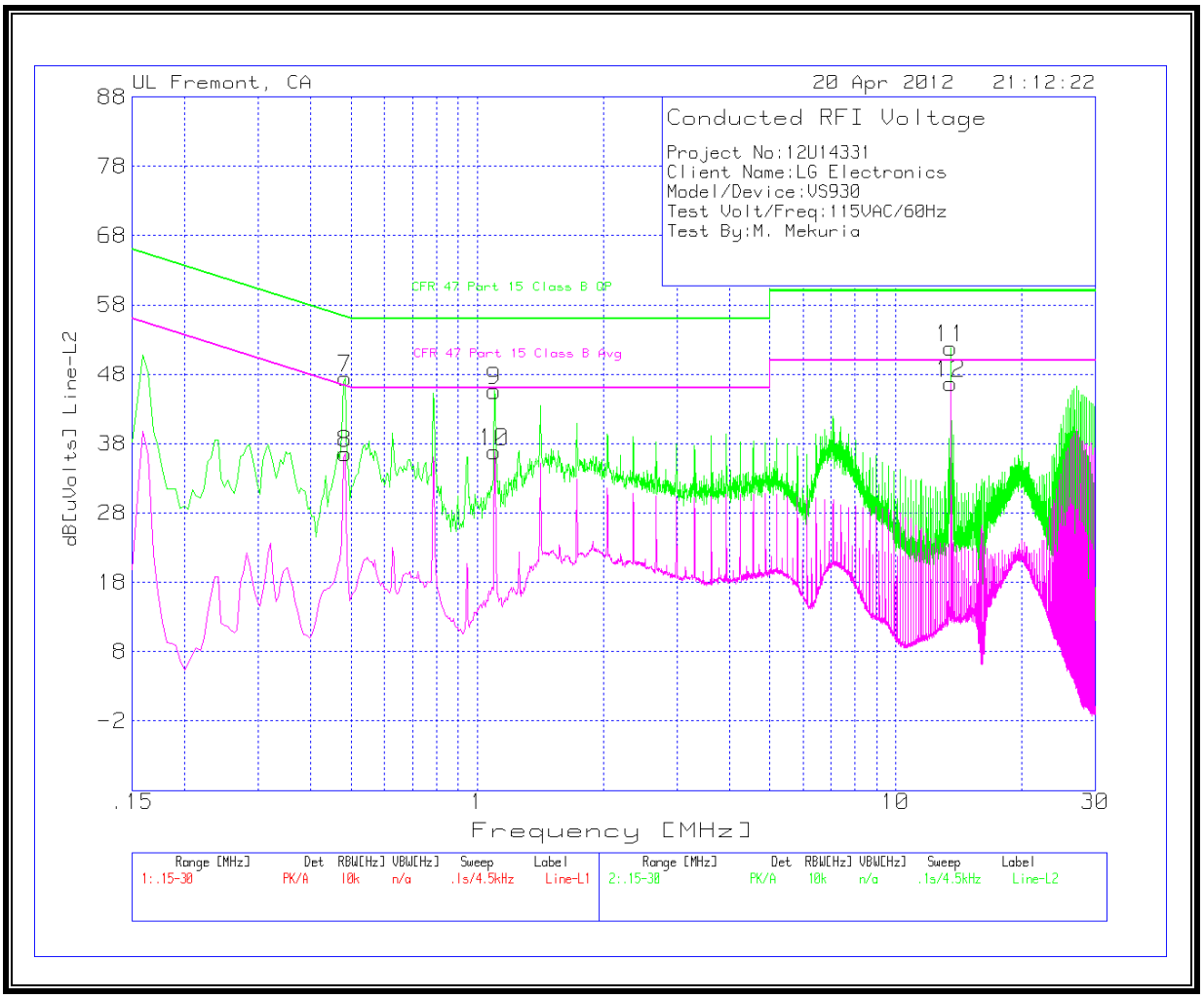
Project No:12U14331									
Client Name:LG Electronics									
Model/Device:VS930									
Test Volt/Freq:115VAC/60Hz									
Test By:M. Mekuria									
Line-L1 .15 - 30MHz									
Test Frequency	Meter Reading	Detector	T24 IL L1	LC Cables	dB[uVolts]	Part 15B QP	Margin	Part 15B Avg	Margin
0.789	49.83	PK	0.1	0	49.93	56	-6.07	-	-
0.789	42.89	Av	0.1	0	42.99	-	-	46	-3.01
1.104	49.71	PK	0.1	0	49.81	56	-6.19	-	-
1.104	42.04	Av	0.1	0	42.14	-	-	46	-3.86
13.56	56.35	PK	0.2	0.2	56.75	60	-3.25	-	-
13.56	52.01	Av	0.2	0.2	52.41	-	-	50	2.41
Line-L2 .15 - 30MHz									
Test Frequency	Meter Reading	Detector	T24 IL L1	LC Cables	dB[uVolts]	Part 15B QP	Margin	Part 15B Avg	Margin
0.483	47.4	PK	0.1	0	47.5	56.3	-8.8	-	-
0.483	36.51	Av	0.1	0	36.61	-	-	46.3	-9.69
1.0995	45.4	PK	0.1	0.1	45.6	56	-10.4	-	-
1.0995	36.67	Av	0.1	0.1	36.87	-	-	46	-9.13
13.56	51.45	PK	0.2	0.2	51.85	60	-8.15	-	-
13.56	46.33	Av	0.2	0.2	46.73	-	-	50	-3.27

Emission at 13.56 MHz is over the limit because the NFC mode was active. (NFC transmits at 13.56 MHz.) The next conducted emission scan shows unit with antenna terminated with 50 ohm load which has compliance results at 13.56 MHz.

LINE 1 RESULTS



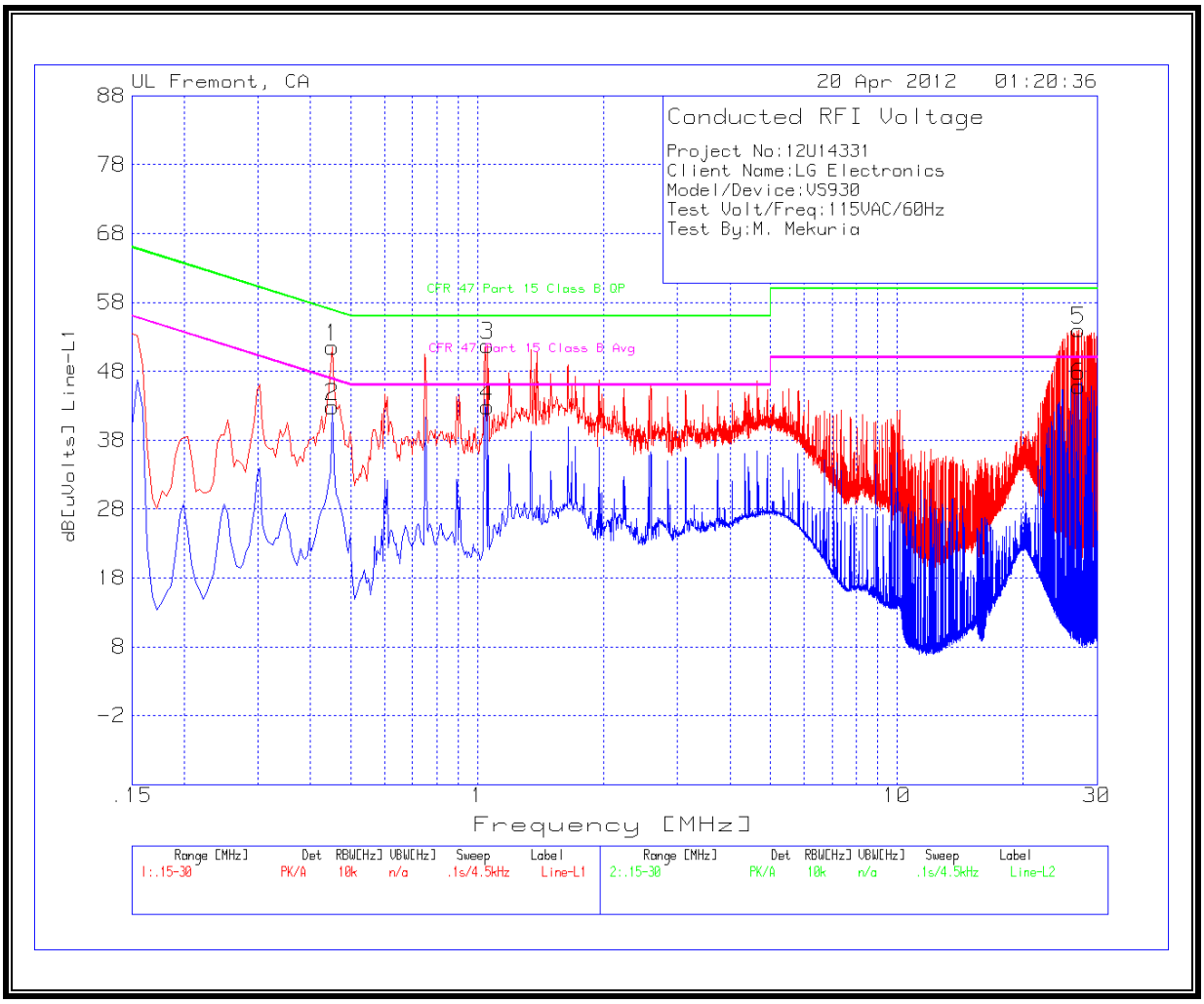
LINE 2 RESULTS



WORST EMISSIONS – With 50 Ohm Load

Project No:12U14331									
Client Name:LG Electronics									
Model/Device:VS930									
Test Volt/Freq:115VAC/60Hz									
Test By:M. Mekuria									
Line-L1 .15 - 30MHz									
Test Frequency	Meter Reading	Detector	T24 IL L1.TXT [dB]	LC Cables 1&3.TXT [dB]	dB[uVolts]	CFR 47 Part 15 Class B QP	Margin	CFR 47 Part 15 Class B Avg	Margin
0.4515	51.38	PK	0.1	0	51.48	56.8	-5.32	-	-
0.4515	42.77	Av	0.1	0	42.87	-	-	46.8	-3.93
1.059	51.72	PK	0.1	0	51.82	56	-4.18	-	-
1.059	42.79	Av	0.1	0	42.89	-	-	46	-3.11
27.1275	53.22	PK	0.5	0.3	54.02	60	-5.98	-	-
27.1275	45.01	Av	0.5	0.3	45.81	-	-	50	-4.19
ıe-L2 .15 - 30MHz									
Test Frequency	Meter Reading	Detector	T24 IL L1.TXT [dB]	LC Cables 1&3.TXT [dB]	dB[uVolts]	CFR 47 Part 15 Class B QP	Margin	CFR 47 Part 15 Class B Avg	Margin
0.4515	48.03	PK	0.1	0	48.13	56.8	-8.67	-	-
0.4515	36.34	Av	0.1	0	36.44	-	-	46.8	-10.36
1.05	48.05	PK	0.1	0	48.15	56	-7.85	-	-
1.05	38.07	Av	0.1	0	38.17	-	-	46	-7.83
1.3425	48.33	PK	0.1	0	48.43	56	-7.57	-	-
1.3425	37.48	Av	0.1	0	37.58	-	-	46	-8.42

LINE 1 RESULTS



LINE 2 RESULTS