



FCC 47 CFR PART 15 SUBPART C

CERTIFICATION TEST REPORT

FOR

Cellular Phone with Bluetooth and WLAN Radios

MODEL NUMBER: A1549

FCC ID: BCG-E2816A

REPORT NUMBER: 14U17673-E6, Revision C

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Prepared for

APPLE, INC.

1 INFINITE LOOP

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Prepared by

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NVLAP LAB CODE 200065-0

Revision History

Rev.	Issue Date	Revisions	Revised By
--	7/17/14	Initial Issue	F. deAnda
A	7/23/14	Update Product Description	M. Hua
B	7/29/14	Updated sections 5, 8, 9 and 10	F. de Anda
C	08/02/14	Address TCB Questions	T. Lee

TABLE OF CONTENTS

1. ATTESTATION OF TEST RESULTS.....	4
2. TEST METHODOLOGY.....	5
3. FACILITIES AND ACCREDITATION.....	5
4. CALIBRATION AND UNCERTAINTY	5
4.1. MEASURING INSTRUMENT CALIBRATION.....	5
4.2. SAMPLE CALCULATION.....	5
4.3. MEASUREMENT UNCERTAINTY	6
5. EQUIPMENT UNDER TEST	7
5.1. DESCRIPTION OF EUT.....	7
5.2. MAXIMUM OUTPUT POWER.....	7
5.3. DESCRIPTION OF AVAILABLE ANTENNAS	7
5.4. SOFTWARE AND FIRMWARE.....	7
5.5. WORST-CASE CONFIGURATION AND MODE	8
5.6. DESCRIPTION OF TEST SETUP	9
6. TEST AND MEASUREMENT EQUIPMENT	12
7. MEASUREMENT METHODS	13
8. ON TIME, DUTY CYCLE AND MEASUREMENT METHODS.....	13
8.1. ON TIME AND DUTY CYCLE RESULTS.....	13
9. ANTENNA PORT TEST RESULTS	13
10. RADIATED TEST RESULTS	14
10.1. LIMITS AND PROCEDURE.....	14
10.2. TX RADIATED ABOVE 1 GHz.....	15
10.2.1. 802.11b 1Tx SISO MODE IN THE 2.4 GHz BAND	15
10.2.2. 802.11g 1Tx SISO MODE IN THE 2.4 GHz BAND	37
10.2.3. 802.11n HT20 1Tx SISO MODE IN THE 2.4 GHz BAND.....	59
10.3. WORST-CASE BELOW 1 GHz	81
10.4. WORST-CASE ABOVE 18 to 26 GHz	83
11. AC POWER LINE CONDUCTED EMISSIONS.....	85
12. SETUP PHOTOS	89

1. ATTESTATION OF TEST RESULTS

COMPANY NAME: APPLE
1 INFINITE LOOP
CUPERTINO, CA 95014, U.S.A.

EUT DESCRIPTION: Cellular Phone with Bluetooth and WLAN Radios

MODEL: A1549

SERIAL NUMBER: C39MQ0BVG332

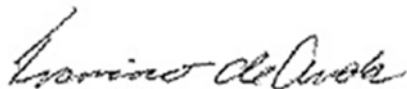
DATE TESTED: APRIL 16 –JULY 08, 2014

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

UL Verification Services Inc. tested the above equipment in accordance with the requirements set forth in the above standards. All indications of Pass/Fail in this report are opinions expressed by UL Verification Services Inc. based on interpretations and/or observations of test results. Measurement Uncertainties were not taken into account and are published for informational purposes only. The test results show that the equipment tested is capable of demonstrating compliance with the requirements as documented in this report.

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

Approved & Released For
UL Verification Services Inc. By:



FRANCISCO DE ANDA
PROJECT LEAD
UL VERIFICATION SERVICES INC.

Tested By:



JOE VANG
EMC TECHNICIAN
UL VERIFICATION SERVICES INC.

2. TEST METHODOLOGY

The tests documented in this report were performed in accordance with FCC CFR 47 Part 2, FCC CFR 47 Part 15, KDB558074 and ANSI C63.10-2009

Per FCC guidance, radiated tests are performed for A1549 to ensure that there is no deviation in EM fields between Model A1549 and Model A1586.

3. FACILITIES AND ACCREDITATION

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

47173 Benicia Street	47266 Benicia Street
☐ Chamber A	☒ Chamber D
☐ Chamber B	☒ Chamber E
☐ Chamber C	☒ Chamber F
	☐ Chamber G
	☒ Chamber H

UL Verification Services Inc. is accredited by NVLAP, Laboratory Code 200065-0. The full scope of accreditation can be viewed at <http://ts.nist.gov/standards/scopes/2000650.htm>.

4. CALIBRATION AND UNCERTAINTY

4.1. MEASURING INSTRUMENT CALIBRATION

The measuring equipment utilized to perform the tests documented in this report has been calibrated in accordance with the manufacturer's recommendations, and is traceable to recognized national standards.

4.2. SAMPLE CALCULATION

Where relevant, the following sample calculation is provided:

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

4.3. MEASUREMENT UNCERTAINTY

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

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

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

5. EQUIPMENT UNDER TEST

5.1. DESCRIPTION OF EUT

Model A1549 is a mobile phone with multimedia functions (music, application support, and video), Cellular GSM/GPRS/EGPRS/CDMA2000/EVDO Rev.A/ EVDO Rev.B /WCDMA/HSPA+/DC-HSDPA/LTE FDD & Carrier Aggregation radio, IEEE 802.11a/b/g/n/ac radio, Bluetooth radio and NFC. The rechargeable battery is not user accessible.

5.2. MAXIMUM OUTPUT POWER

For Maximum output power data, refer to Model A1586 FCC WLAN DTS report.

5.3. DESCRIPTION OF AVAILABLE ANTENNAS

The radio utilizes a PIFA antenna, with a maximum gain of -0.38 dBi.

5.4. SOFTWARE AND FIRMWARE

The firmware installed in the EUT during testing was 7.16.121

The test utility software used during testing was wl 7.16 RC121.0.

5.5. WORST-CASE CONFIGURATION AND MODE

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

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

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

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

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

There are three vendors of the WiFi/Bluetooth radio modules: variant 1, variant 2 and variant 3 and they have the same mechanical outline, same on board antenna, matching circuit, antenna structure and same specification. Baseline testing was performed on all three variants to determine the worst case on all conducted power and radiated emissions.

5.6. DESCRIPTION OF TEST SETUP

SUPPORT EQUIPMENT

Support Equipment List				
Description	Manufacturer	Model	Serial Number	FCC ID
AC/DC adapter	Apple	A1401	60812	NA
Earphone	Apple	NA	NA	NA

I/O CABLES (RADIATED ABOVE 1 GHZ)

I/O Cable List						
Cable No	Port	# of identical ports	Connector Type	Cable Type	Cable Length (m)	Remarks
one used						

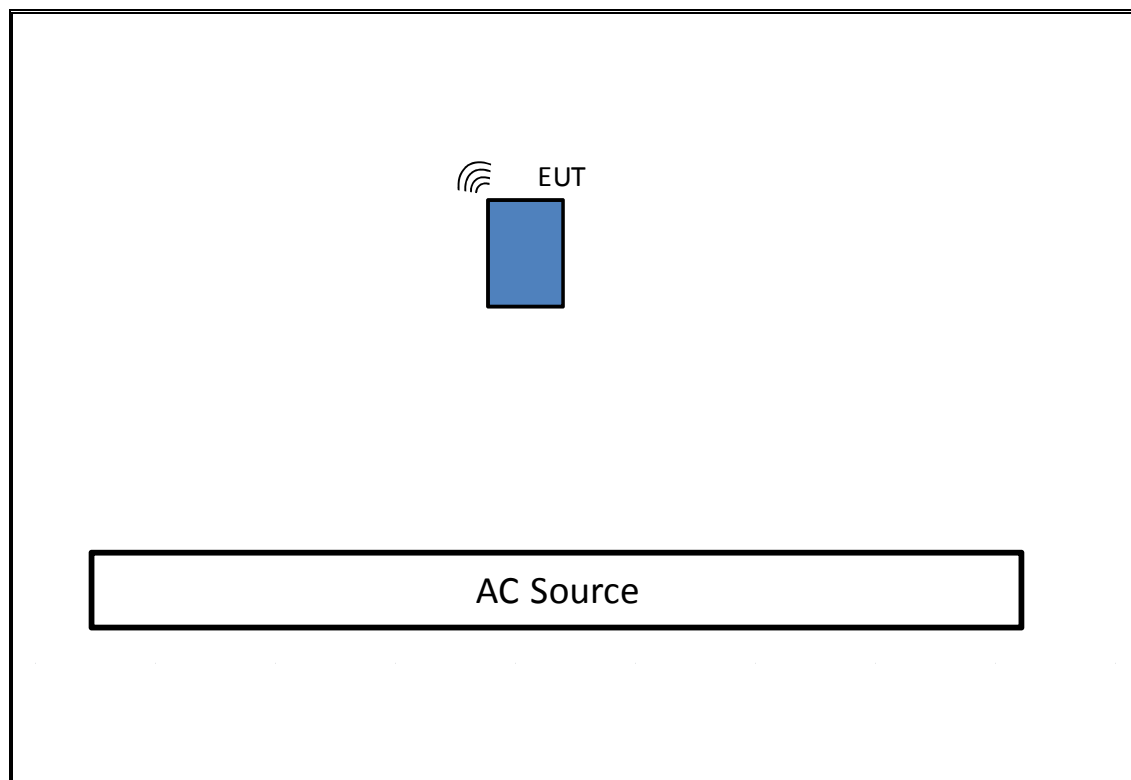
I/O CABLES (BELOW 1GHZ & AC LINE CONDUCTED TESTS)

I/O Cable List						
Cable No	Port	# of identical ports	Connector Type	Cable Type	Cable Length (m)	Remarks
1	AC	1	US115	Un-Shielded	80cm	NA
2	DC	1	USB	Un-Shielded	1m	NA
3	Audio	1	Jack	Un-Shielded	0.5m	NA

TEST SETUP- RADIATED-ABOVE 1 GHZ

The EUT was tested battery powered. Test software exercised the EUT.

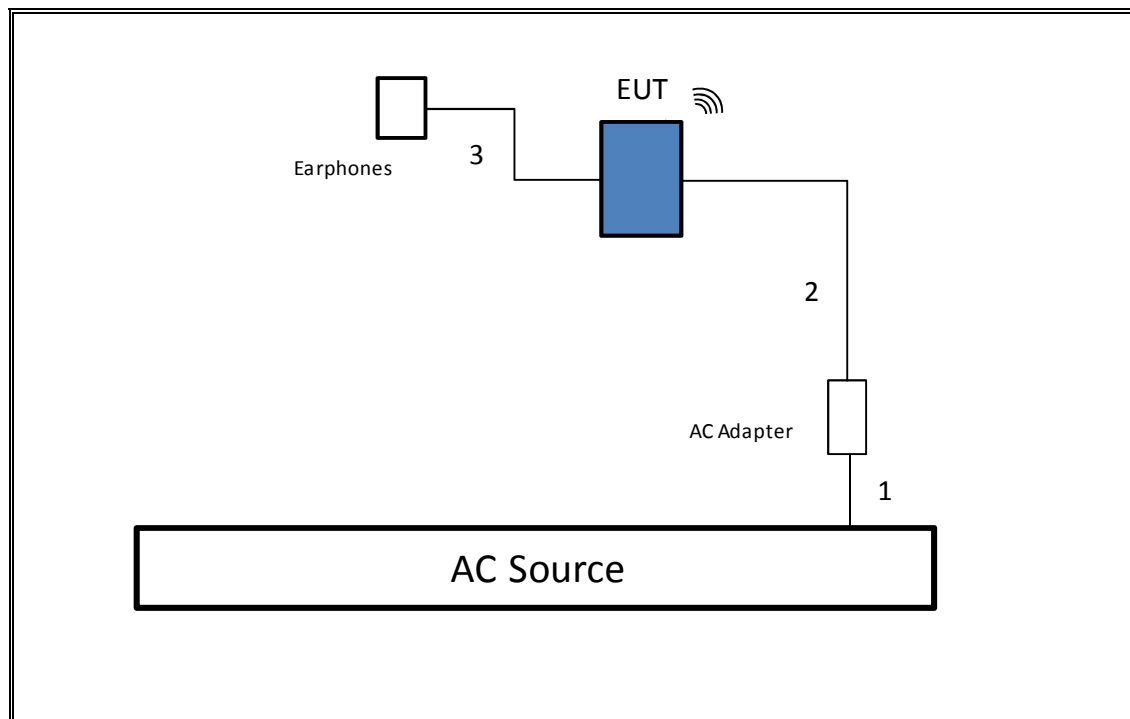
SETUP DIAGRAM



TEST SETUP- BELOW 1GHZ & AC LINE CONDUCTED TESTS

The EUT was tested with earphones connected and powered by AC adapter. Test software exercised the EUT.

SETUP DIAGRAM



6. TEST AND MEASUREMENT EQUIPMENT

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

TEST EQUIPMENT LIST				
Description	Manufacturer	Model	Asset	Cal Due
Antenna, Horn, 18 GHz	ETS Lindgren	3117	F00131	02/18/15
Antenna, Horn, 26.5 GHz	ARA	MWH-1826/B	C00589	11/28/14
Peak / Average Power Sensor	Agilent / HP	N1911A	F00153	03/06/15
Wideband Power Sensor	Agilent	N1921A	F00361	10/02/14
Peak Power Meter	Agilent / HP	E9323A	F00025	04/03/15
Spectrum Analyzer, 44 GHz	Agilent / HP	N9030A	F00129	02/22/15
Antenna, Bilog, 2 GHz	Sunol Sciences	JB1	F00168	03/28/15
Preamplifier, 1300 MHz	Sonoma	310	F00008	05/27/15
Preamplifier, 26.5 GHz	Agilent / HP	8449B	F00165	03/25/15
EMI Test Receiver, 9 kHz-7 GHz	R & S	ESCI 7	F00092	09/05/14
LISN, 30 MHz	FCC	LISN-50/250-25-2	C00626	01/14/15

7. MEASUREMENT METHODS

6 dB BW: KDB 558074 D01 v03r02, Section 8.1.

Output Power: KDB 558074 D01 v03r02, Section 9.1.2.

Power Spectral Density: KDB 558074 D01 v03r02, Section 10.2.

Out-of-band emissions in non-restricted bands: KDB 558074 D01 v03r02, Section 11.0.

Out-of-band emissions in restricted bands: KDB 558074 D01 v03r02, Section 12.0.

8. ON TIME, DUTY CYCLE AND MEASUREMENT METHODS

LIMITS

None; for reporting purposes only.

PROCEDURE

KDB 789033 Zero-Span Spectrum Analyzer Method.

8.1. ON TIME AND DUTY CYCLE RESULTS

For on time and duty cycle data, refer to Model A1586 FCC WLAN DTS report.

9. ANTENNA PORT TEST RESULTS

For antenna port data, refer to Model A1586 FCC WLAN DTS report.

10. RADIATED TEST RESULTS

10.1. LIMITS AND PROCEDURE

LIMITS

FCC §15.205 and §15.209

Frequency Range (MHz)	Field Strength Limit (uV/m) at 3 m	Field Strength Limit (dBuV/m) at 3 m
30 - 88	100	40
88 - 216	150	43.5
216 - 960	200	46
Above 960	500	54

TEST PROCEDURE

The EUT is placed on a non-conducting table 80 cm above the ground plane. The antenna to EUT distance is 3 meters.

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

For measurements above 1 GHz the resolution bandwidth is set to 1 MHz; the video bandwidth is set to 1 MHz for peak measurements and as applicable for average measurements.

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

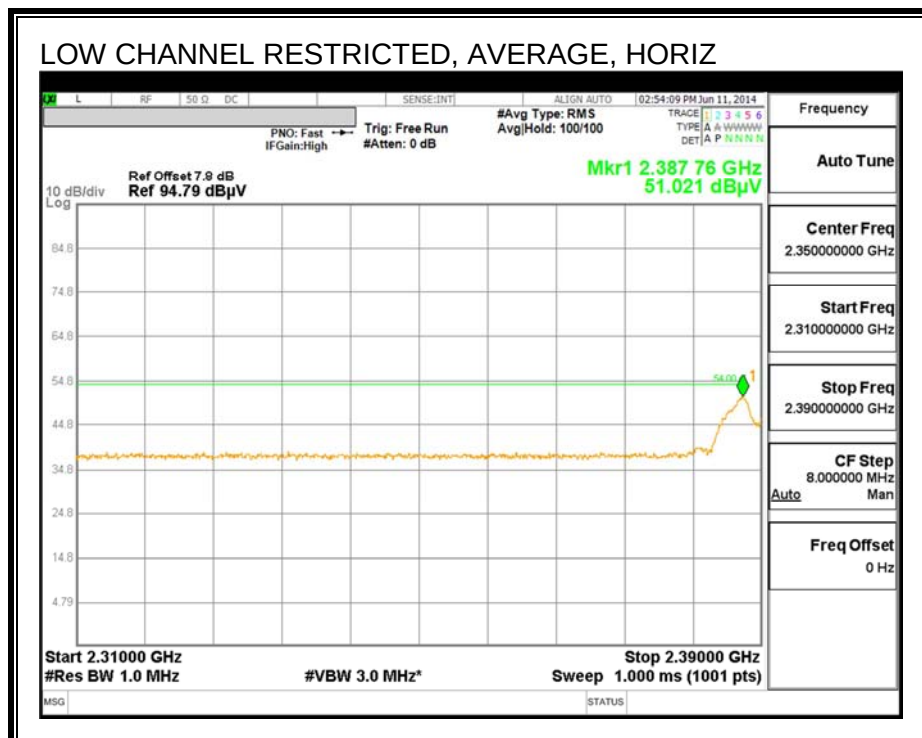
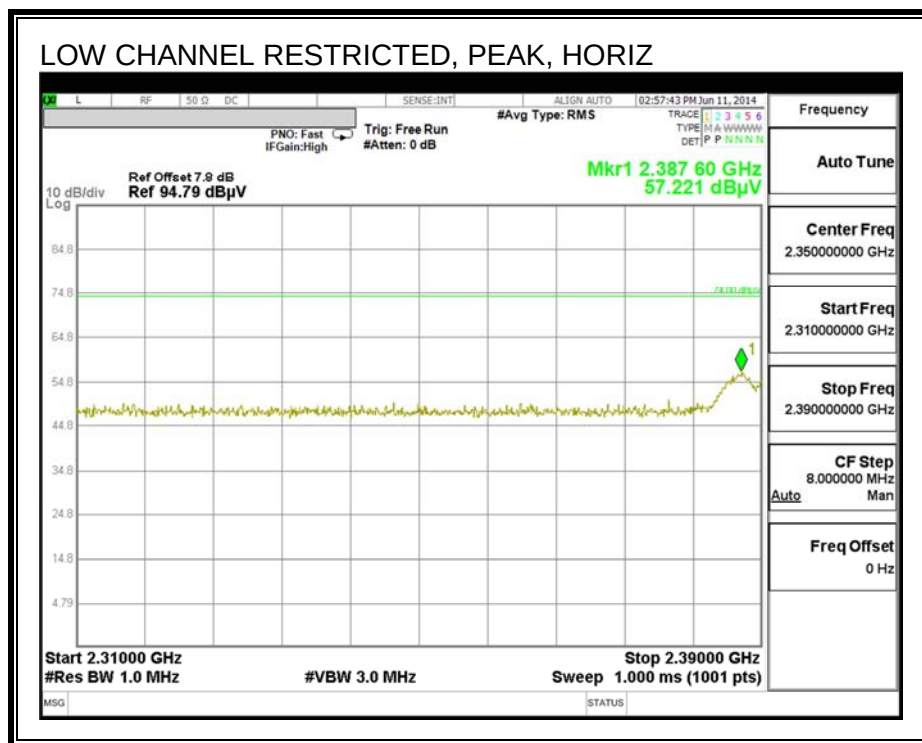
The frequency range of interest is monitored at a fixed antenna height and EUT azimuth. The EUT is rotated through 360 degrees to maximize emissions received. The antenna is scanned from 1 to 4 meters above the ground plane to further maximize the emission. Measurements are made with the antenna polarized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

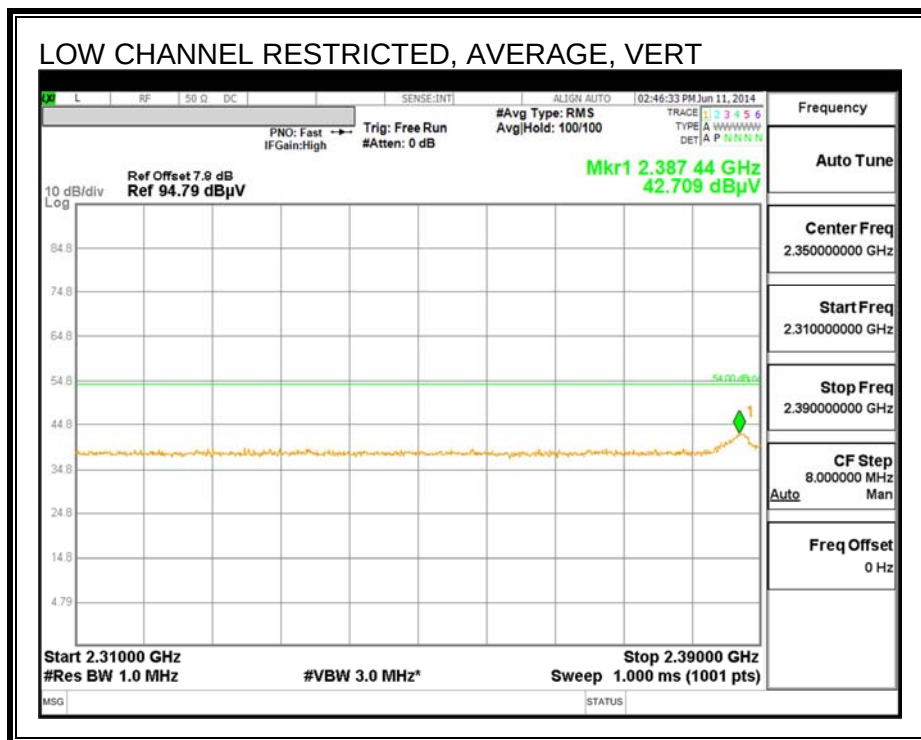
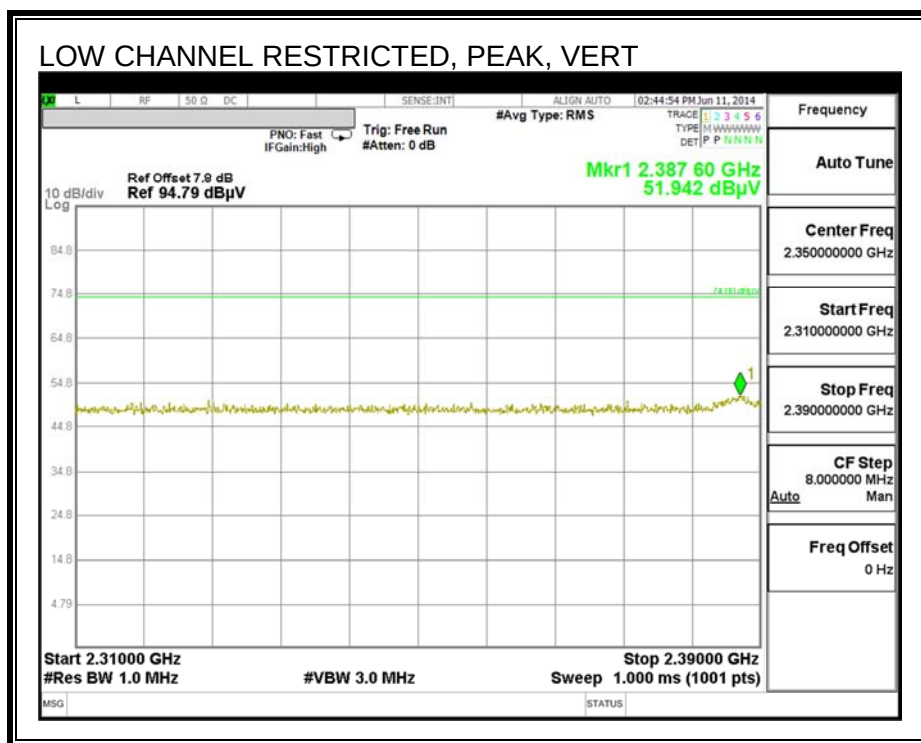
Per FCC guidance, radiated tests are performed to ensure there is no deviation in EM fields between Model A1549 and Model A1586.

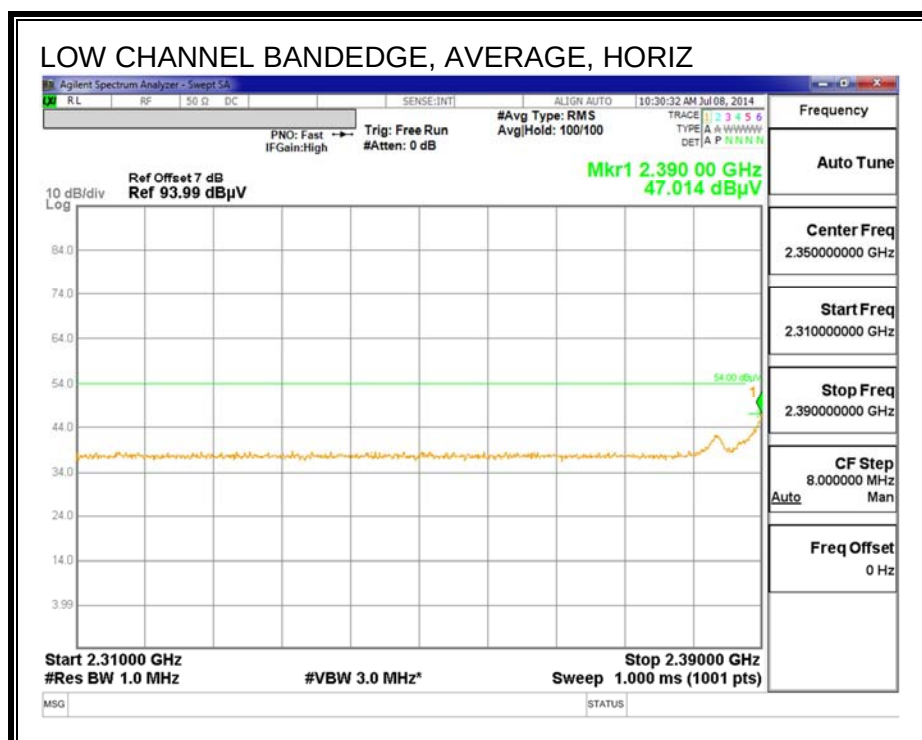
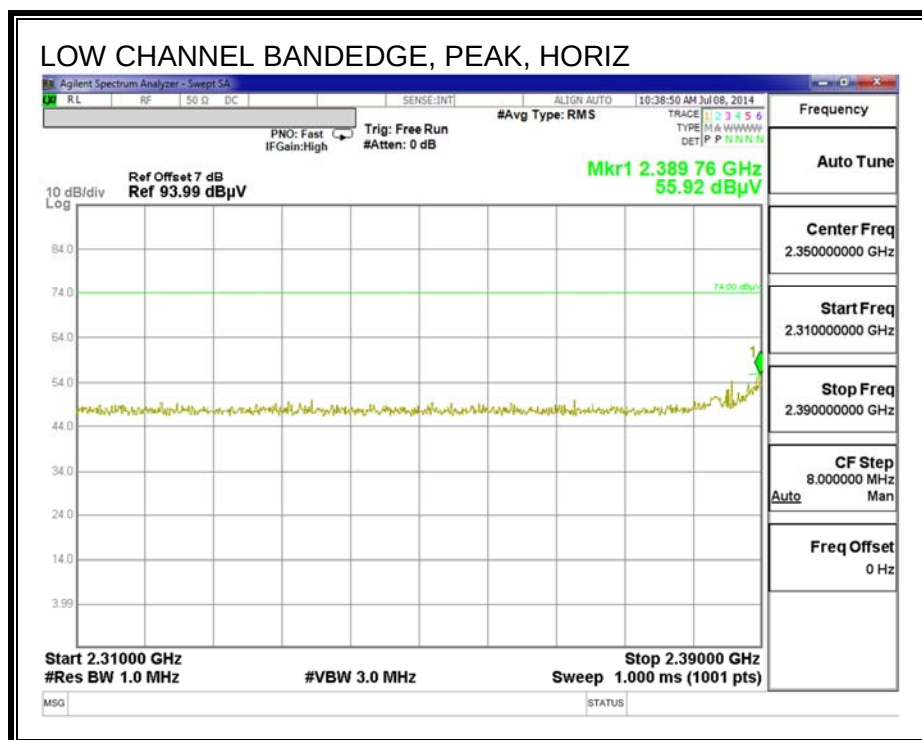
10.2. TX RADIATED ABOVE 1 GHz

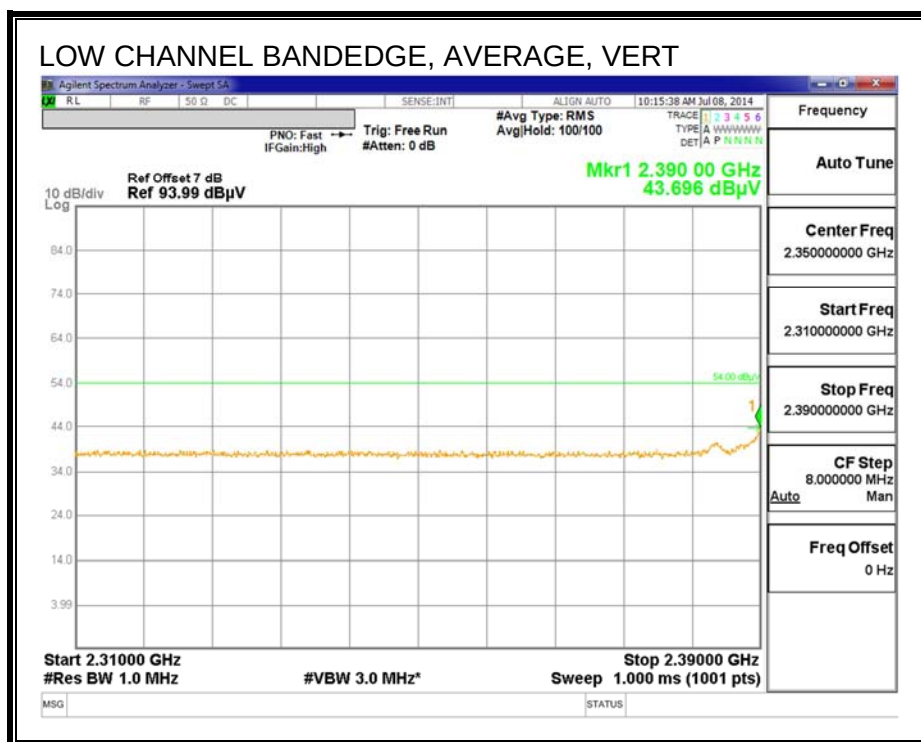
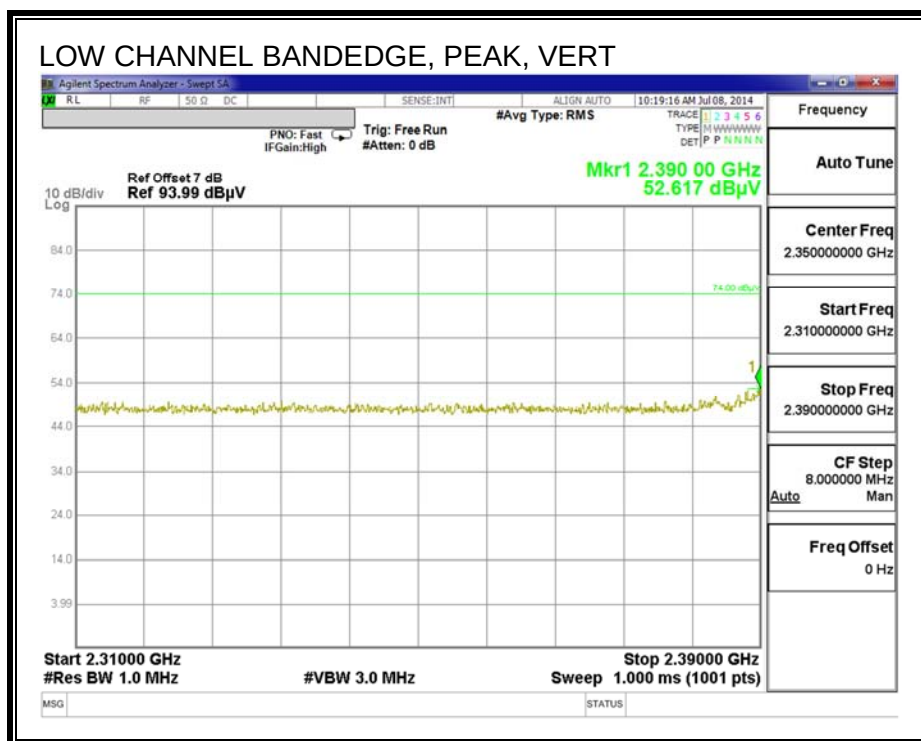
10.2.1. 802.11b 1Tx SISO MODE IN THE 2.4 GHz BAND

RESTRICTED BANDEDGE (LOW CHANNEL, CHANNEL 1)

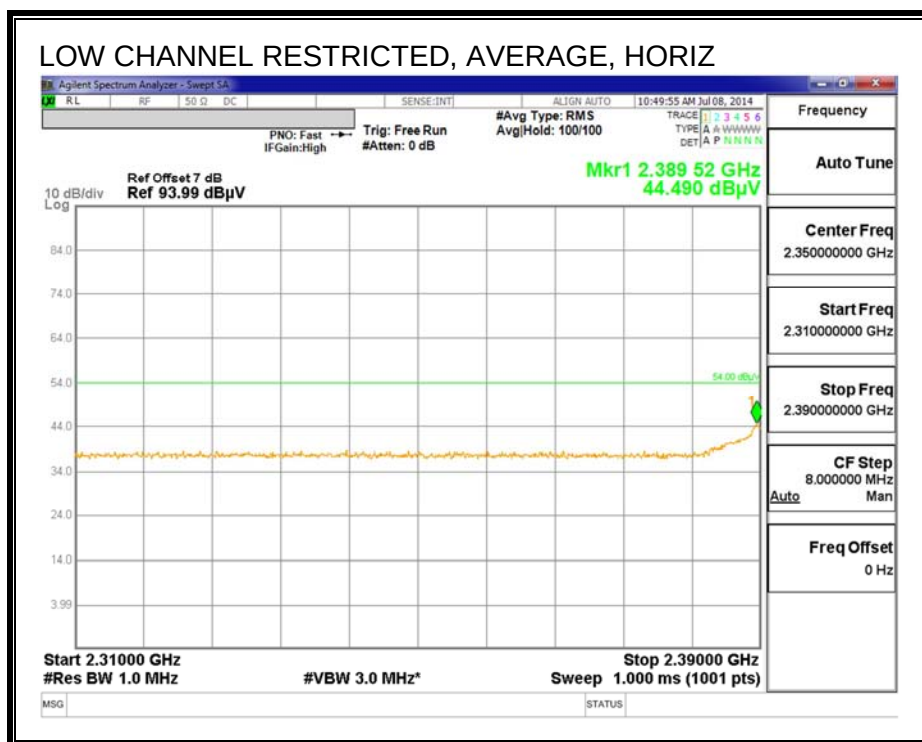
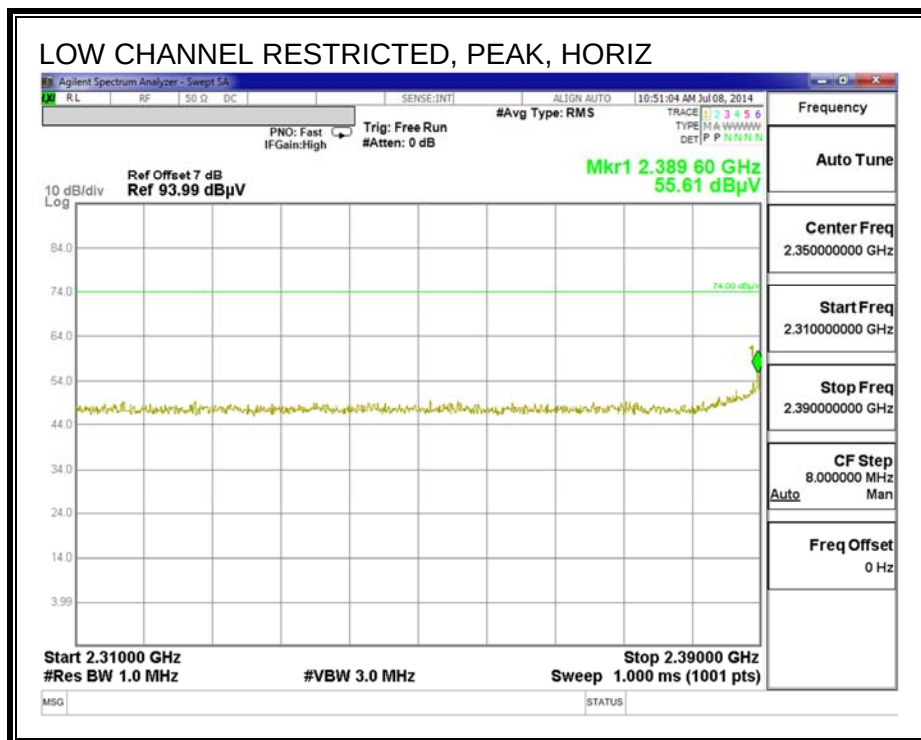


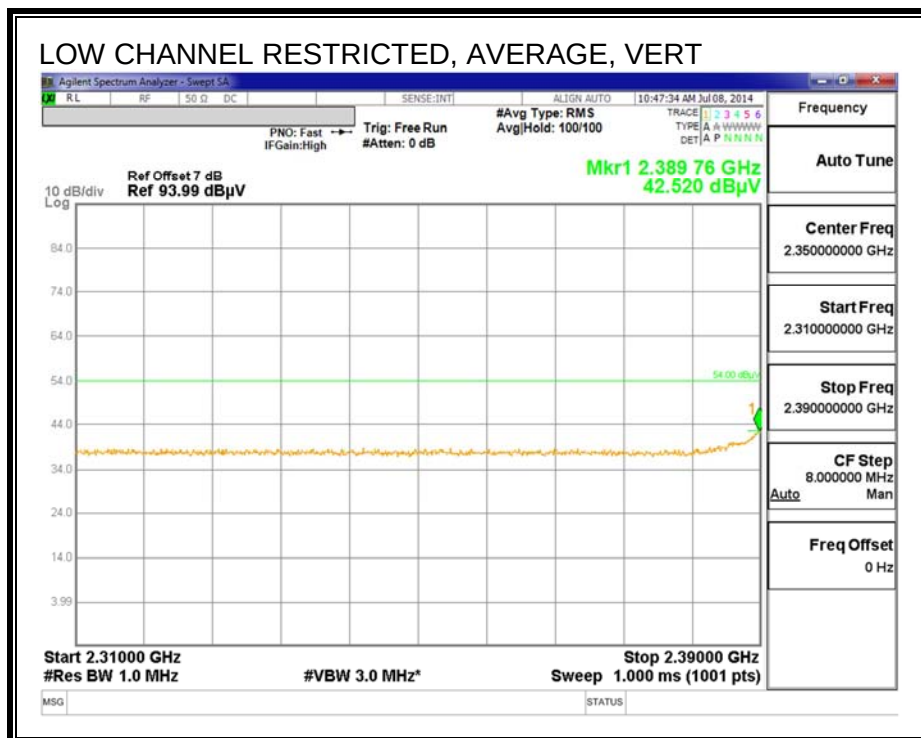
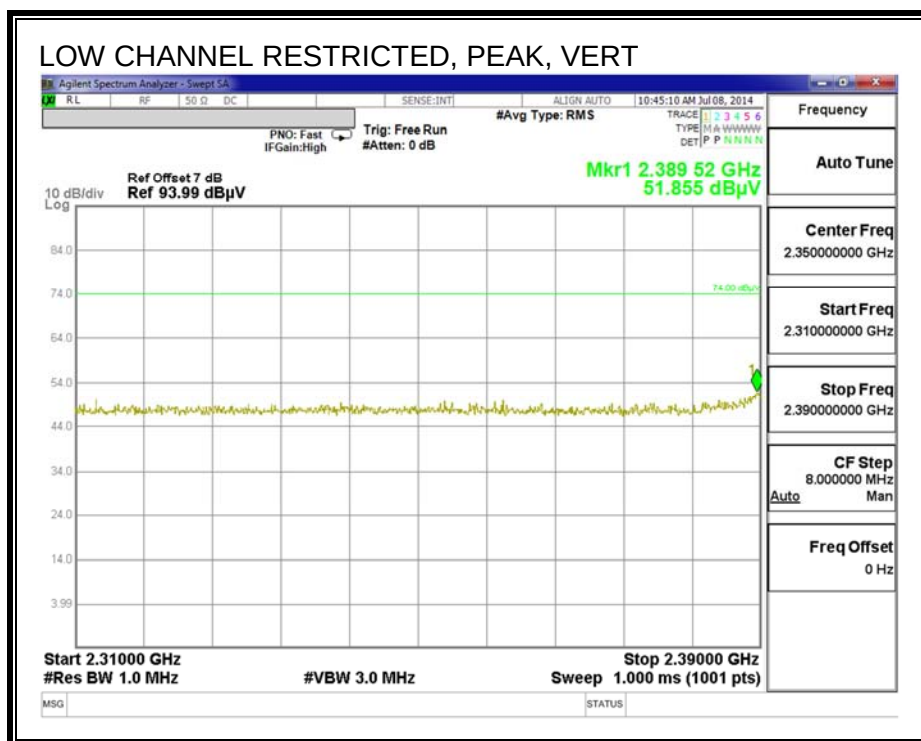


RESTRICTED BANDEDGE (LOW CHANNEL, CHANNEL 2)

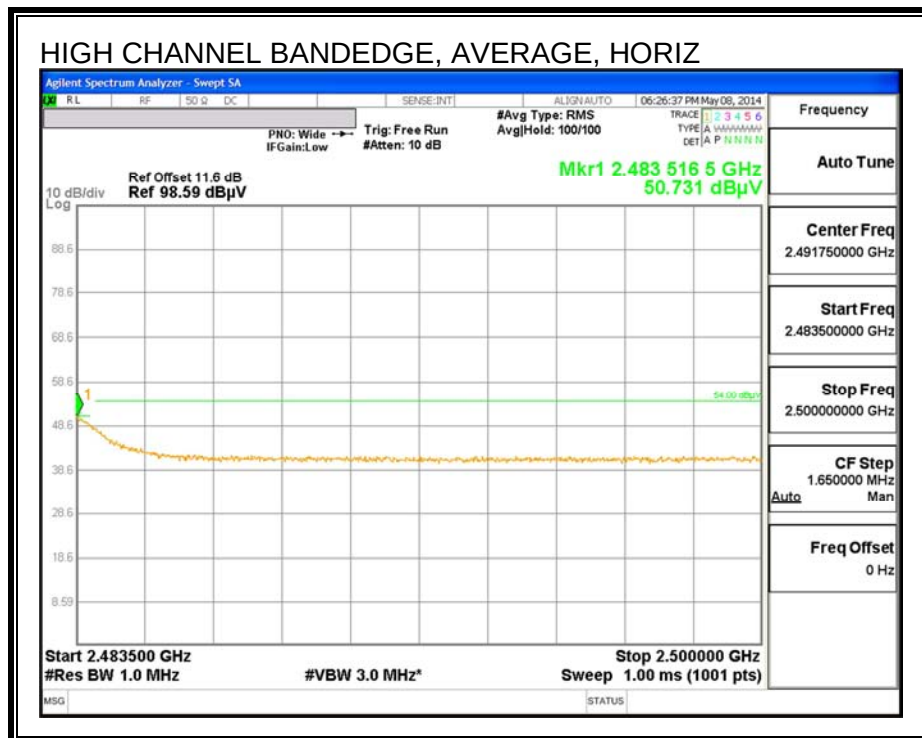
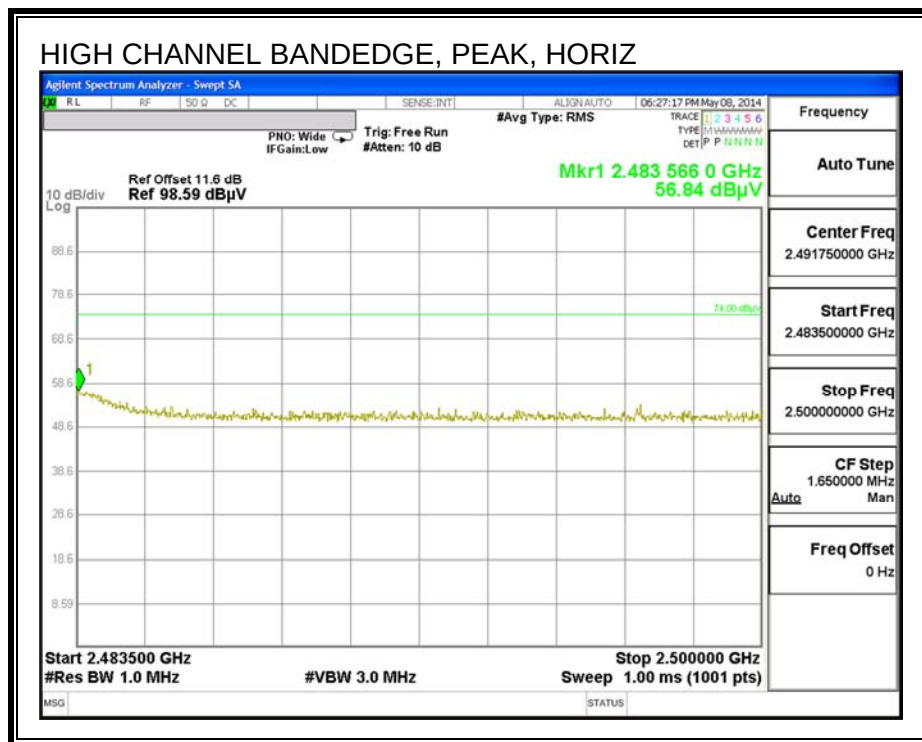


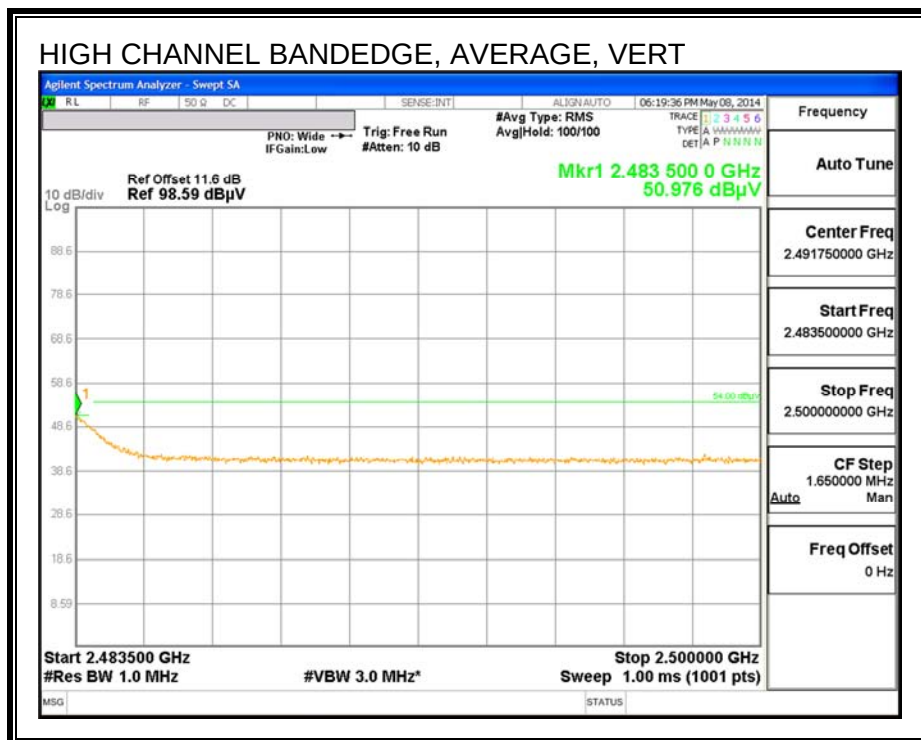
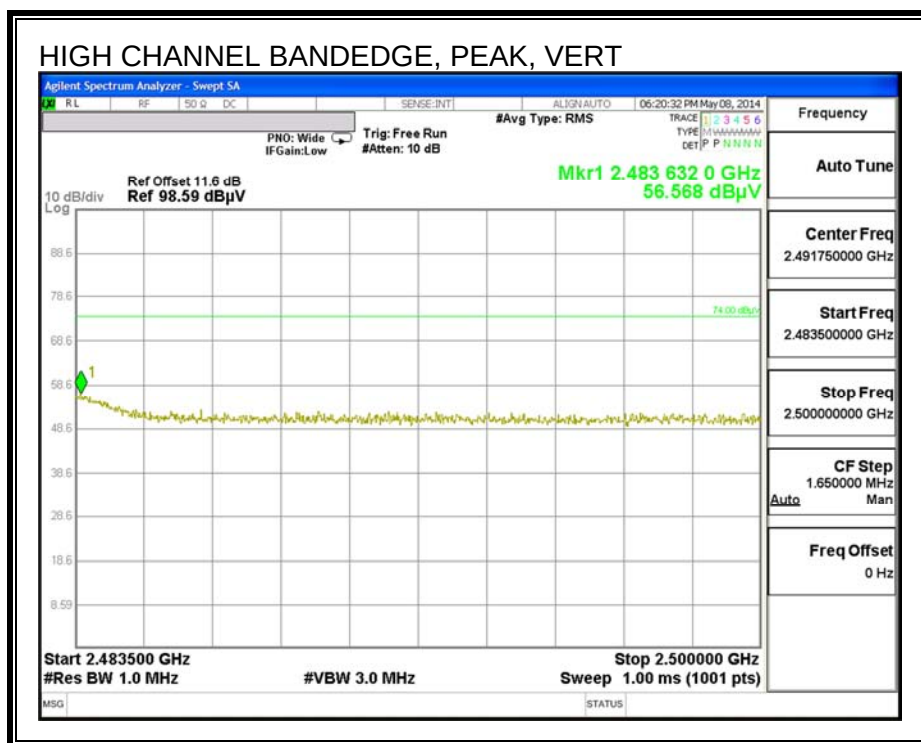
RESTRICTED BANDEDGE (LOW CHANNEL, CHANNEL 3)



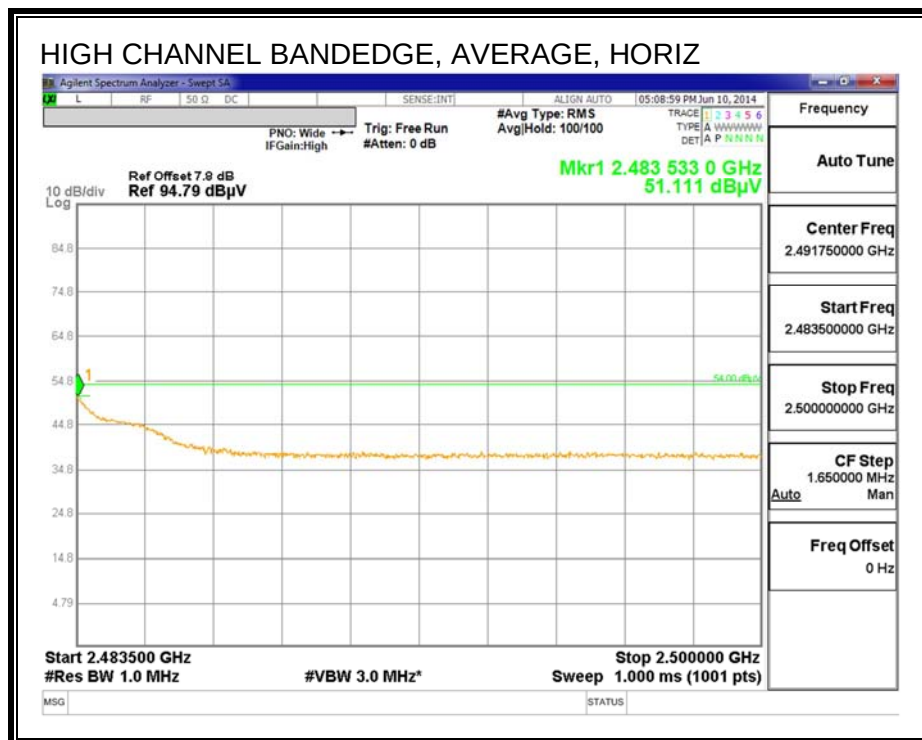
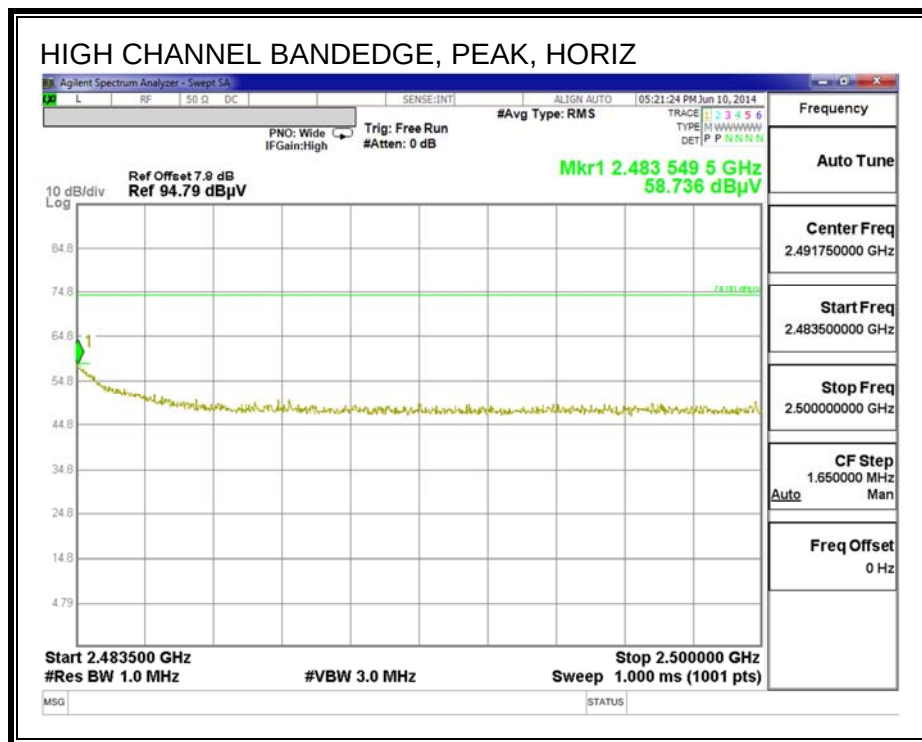


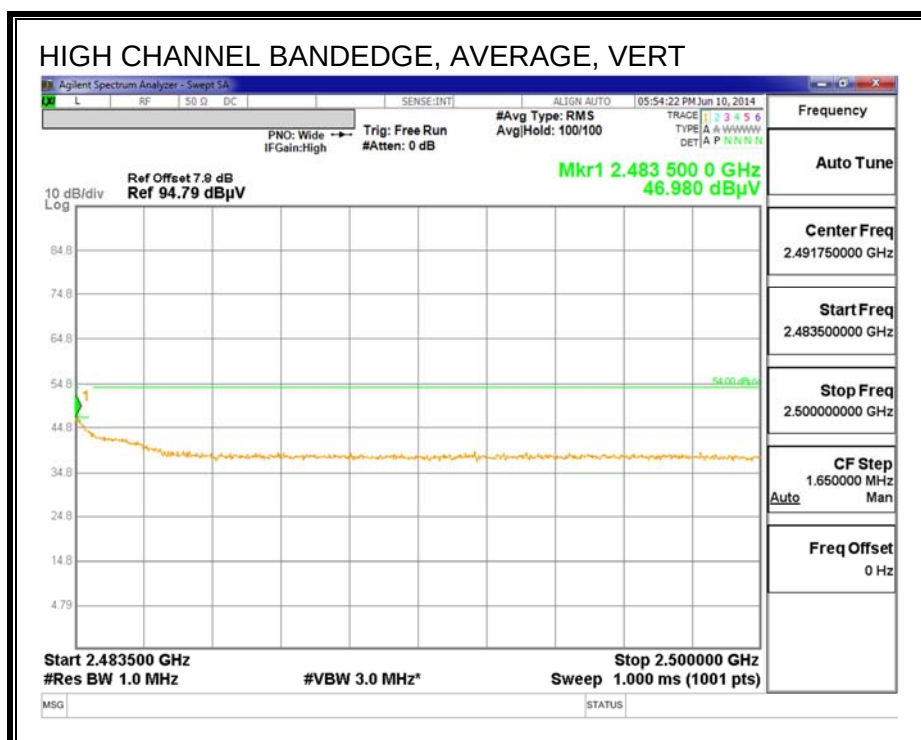
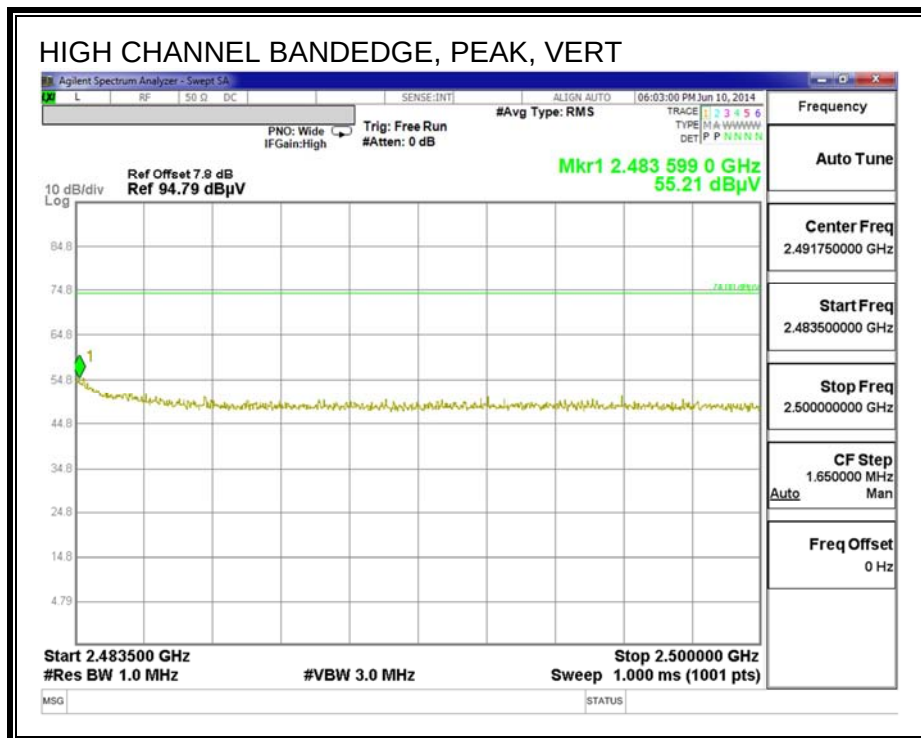
RESTRICTED BANDEDGE (HIGH CHANNEL, CHANNEL 11)



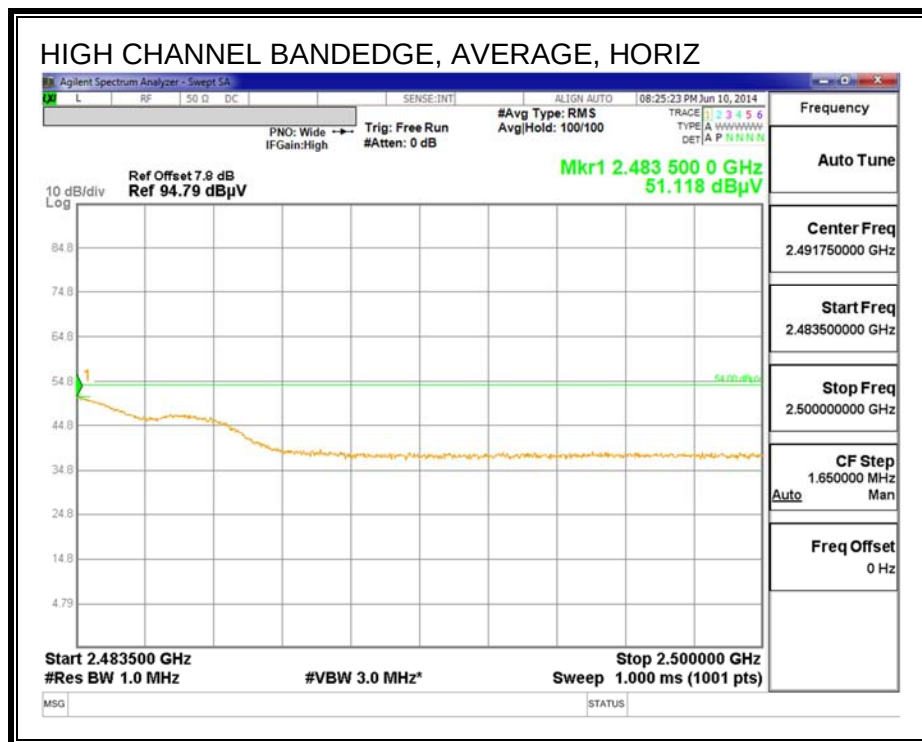
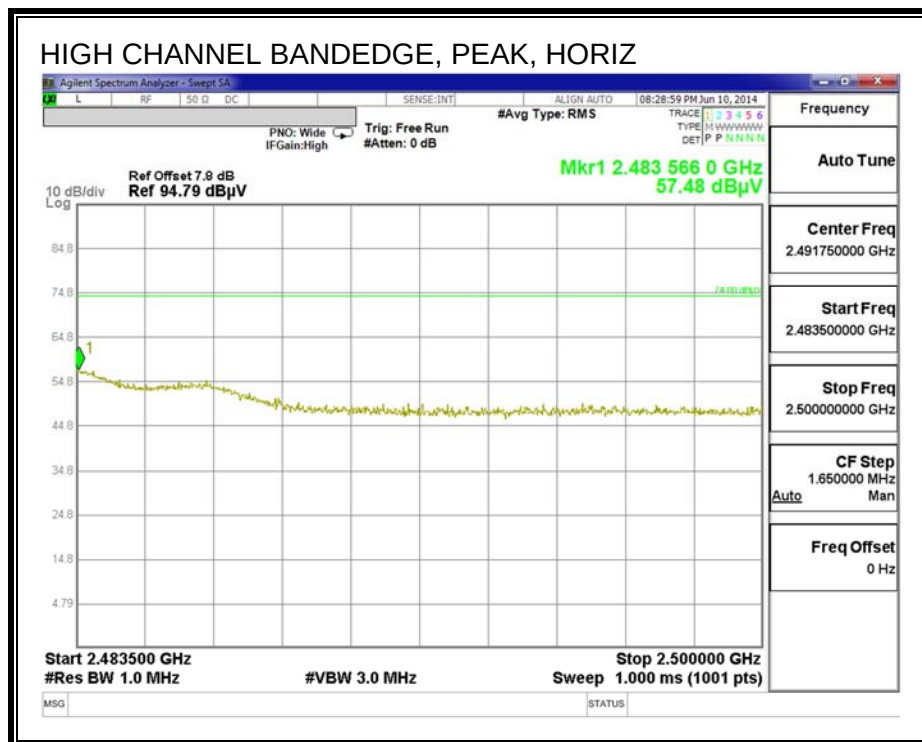


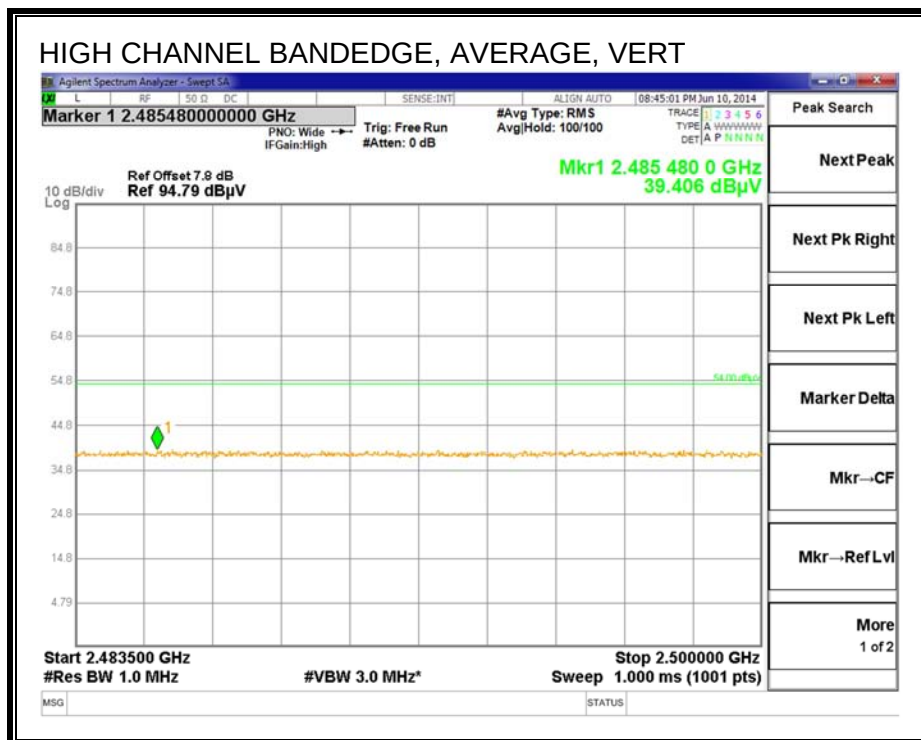
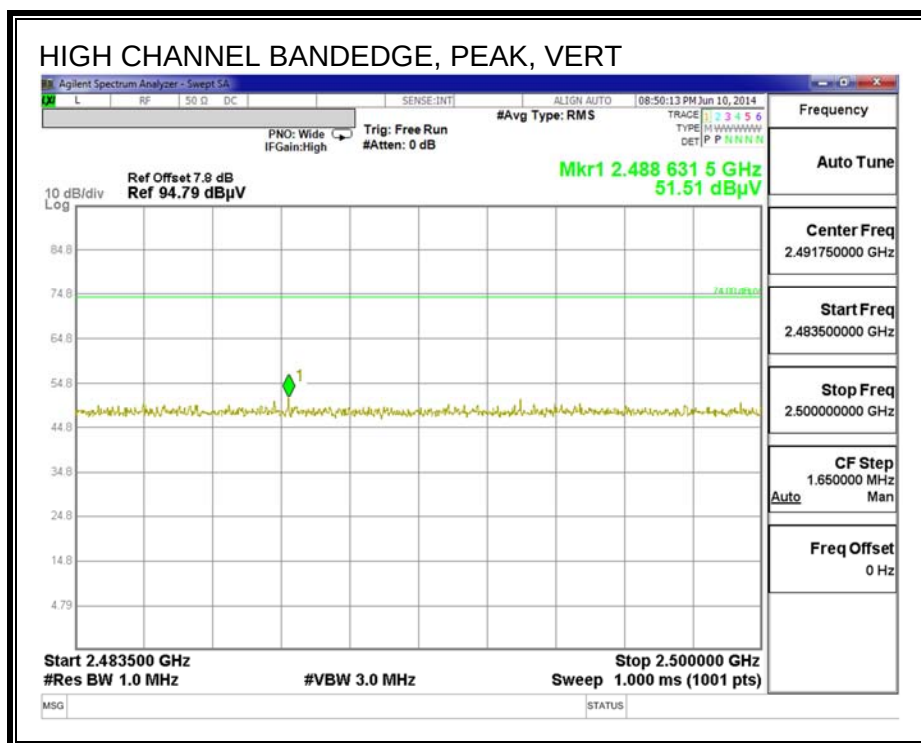
RESTRICTED BANDEDGE (HIGH CHANNEL, CHANNEL 12)





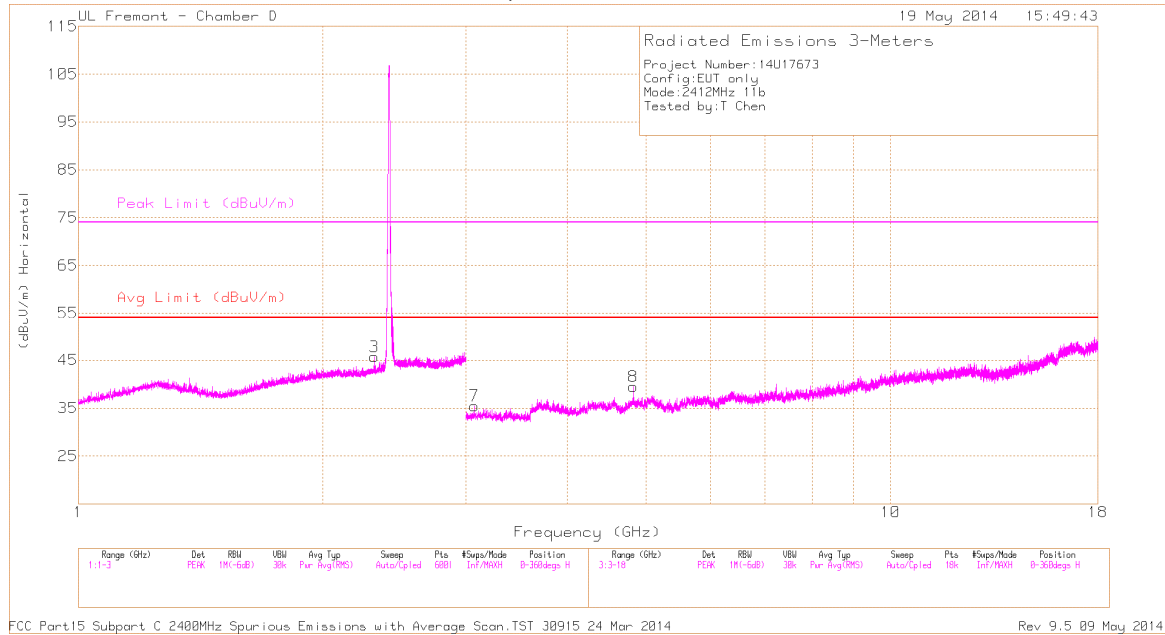
RESTRICTED BANDEDGE (HIGH CHANNEL, CHANNEL 13)



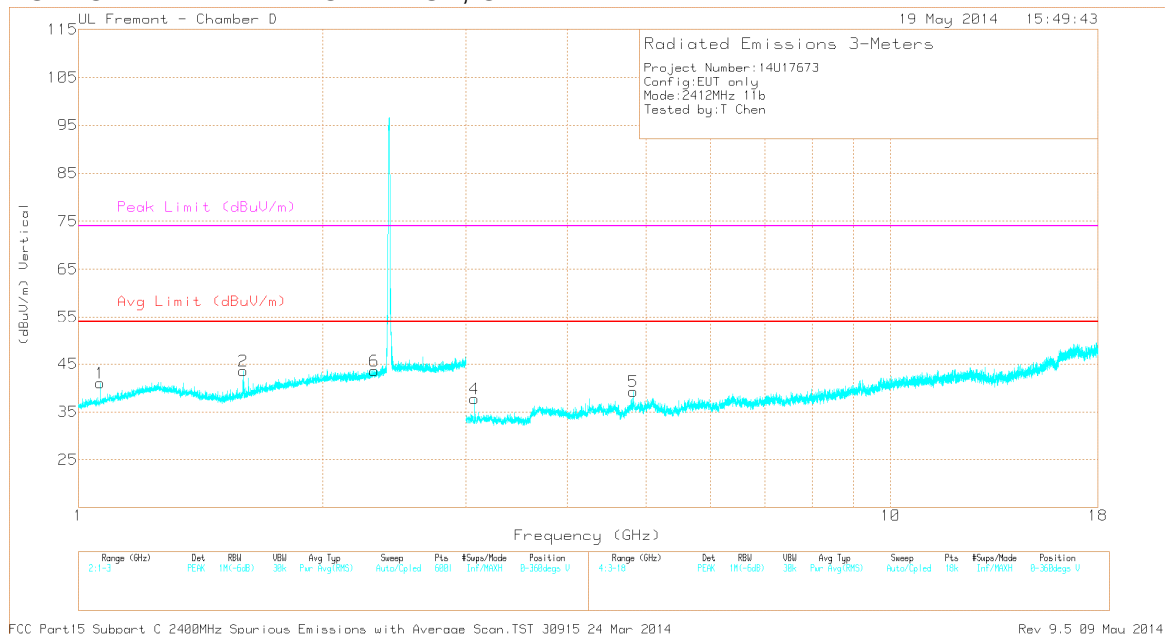


LOW CHANNEL HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL HORIZONTAL PLOT, CH1



LOW CHANNEL VERTICAL PLOT, CH1



DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T712 (dB/m)	Amp/Cbl/ Fitr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
3	* 2.312	41.22	PK2	31	-20.7	51.52	-	-	74	-22.48	180	134	H
	* 2.312	29.81	MAv1	31	-20.7	40.11	54	-13.89	-	-	180	134	H
	2.309	41.96	PK2	31	-20.7	52.26	-	-	-	-	180	141	H
	2.309	29.74	MAv1	31	-20.7	40.04	-	-	-	-	180	141	H
1	* 1.062	41.79	PK2	27	-22.4	46.39	-	-	74	-27.61	180	185	V
	* 1.062	30.56	MAv1	27	-22.4	35.16	54	-18.84	-	-	180	185	V
2	* 1.594	42.66	PK2	27.8	-21.7	48.76	-	-	74	-25.24	232	202	V
	* 1.594	30.11	MAv1	27.9	-21.7	36.31	54	-17.69	-	-	232	202	V
6	* 2.314	41.3	PK2	31	-20.7	51.6	-	-	74	-22.4	232	150	V
	* 2.314	29.8	MAv1	31	-20.7	40.1	54	-13.9	-	-	232	150	V
8	* 4.823	37.93	PK2	33.5	-26.7	44.73	-	-	74	-29.27	8	100	H
	* 4.823	27.14	MAv1	33.5	-26.7	33.94	54	-20.06	-	-	8	100	H
5	* 4.824	40.86	PK2	33.5	-26.7	47.66	-	-	74	-26.34	111	299	V
	* 4.824	33.8	MAv1	33.5	-26.7	40.6	54	-13.4	-	-	111	299	V
7	3.072	41.2	PK2	32.5	-29	44.7	-	-	-	-	298	293	H
4	3.072	41.56	PK2	32.5	-29	45.06	-	-	-	-	147	201	V

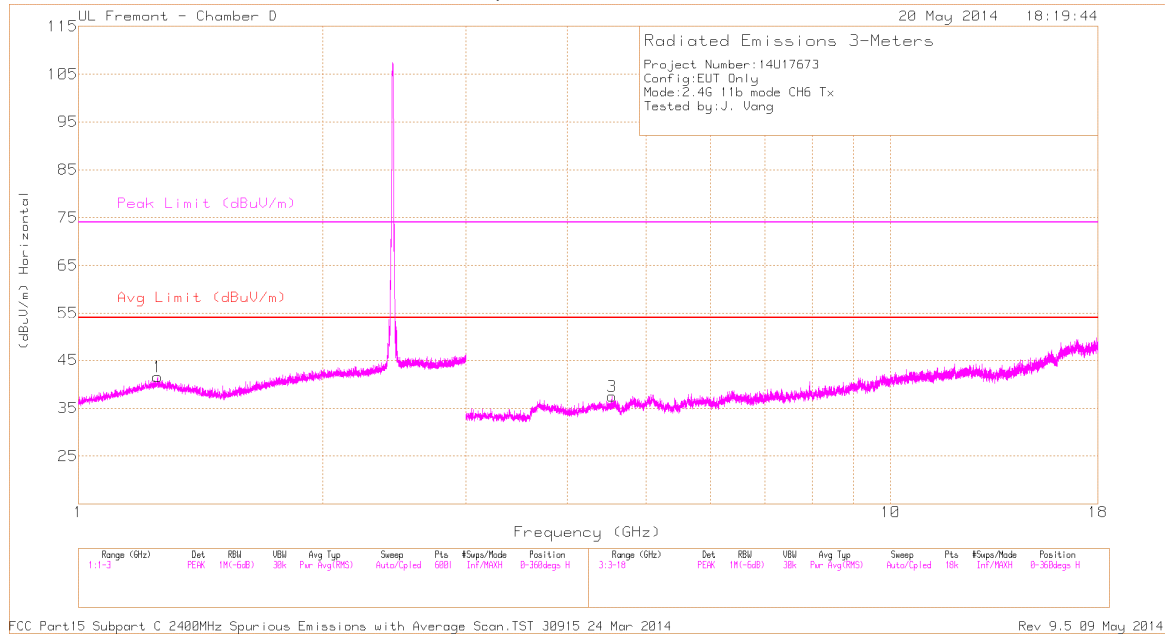
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK2 - KDB558074 Method: Maximum Peak

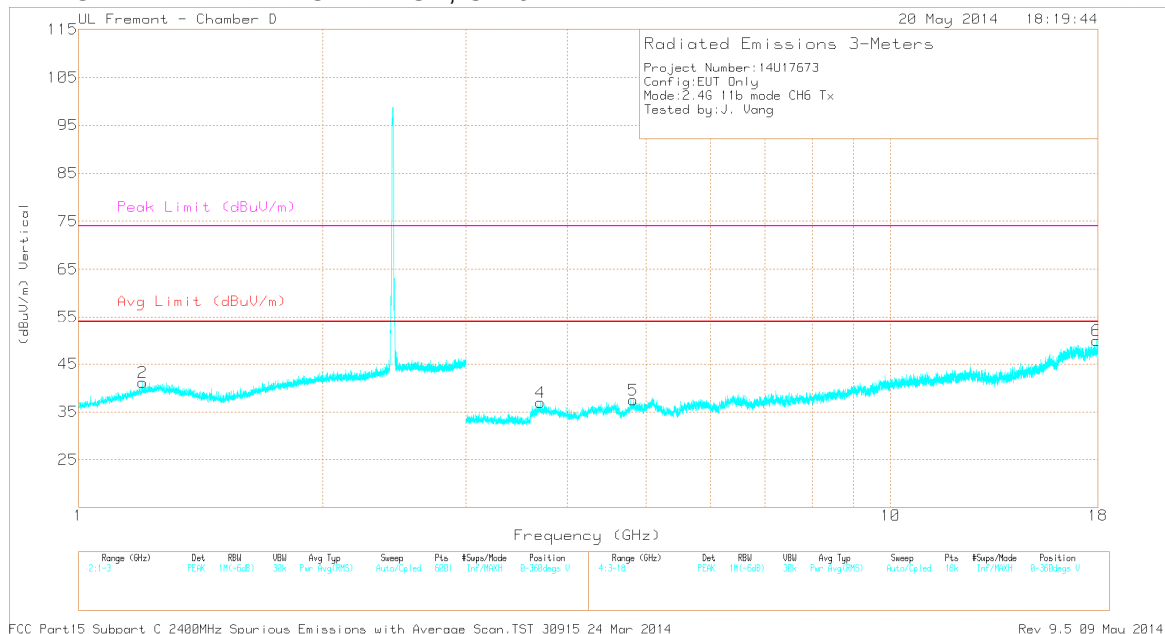
MAv1 - KDB558074 Option 1 Maximum RMS Average

MID CHANNEL HARMONICS AND SPURIOUS EMISSIONS

MID CHANNEL HORIZONTAL PLOT, CH 6



MID CHANNEL VERTICAL PLOT, CH 6



DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T712 (dB/m)	Amp/Cbl/Fit r/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	* 1.199	36.46	PK2	28.9	-22	43.36	-	-	74	-30.64	4	202	V
	* 1.199	29.91	MAv1	28.9	-22	36.81	54	-17.19	-	-	4	202	V
1	* 1.251	36.81	PK2	29.6	-22.1	44.31	-	-	74	-29.69	62	202	H
	* 1.251	29.89	MAv1	29.6	-22.1	37.39	54	-16.61	-	-	62	202	H
6	* 17.931	25.92	PK2	41.4	-17.5	49.82	-	-	74	-24.18	66	202	V
	* 17.931	22.69	MAv1	41.4	-17.5	46.59	54	-7.41	-	-	66	202	V
4	* 3.708	30.6	PK2	32.6	-27.9	35.3	-	-	74	-38.7	66	202	V
	* 3.708	27.35	MAv1	32.6	-27.9	32.05	54	-21.95	-	-	66	202	V
3	* 4.538	32.35	PK2	33.5	-26.4	39.45	-	-	74	-34.55	66	202	H
	* 4.538	25.86	MAv1	33.5	-26.5	32.86	54	-21.14	-	-	66	202	H
5	* 4.823	29.84	PK2	33.5	-26.7	36.64	-	-	74	-37.36	66	202	V
	* 4.823	26.74	MAv1	33.5	-26.7	33.54	54	-20.46	-	-	66	202	V

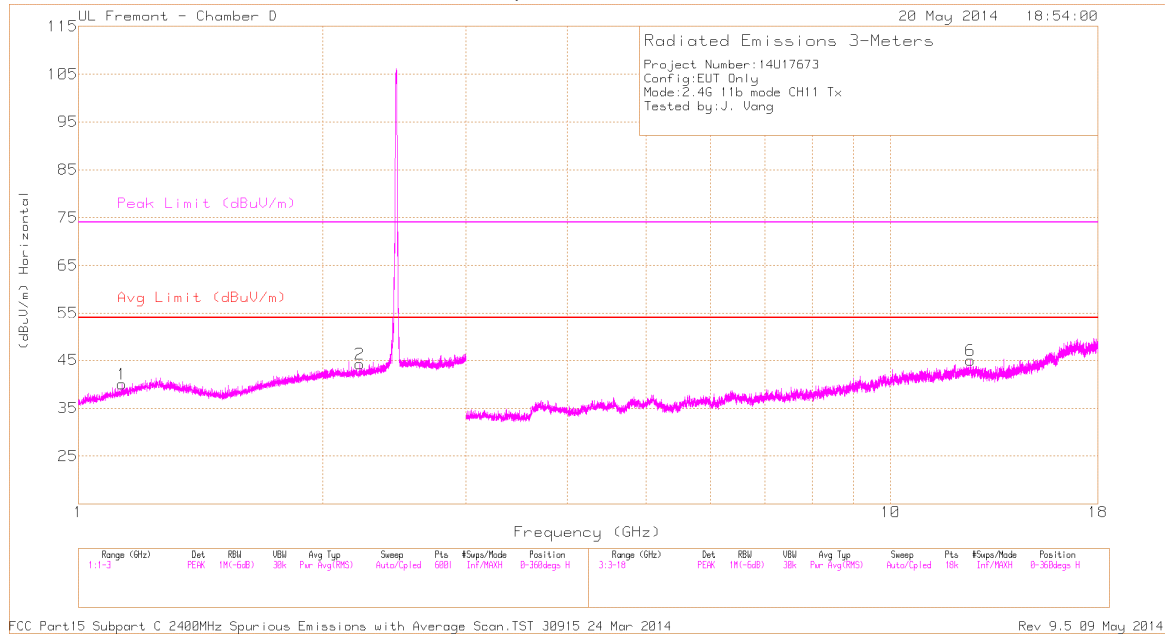
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK2 - KDB558074 Method: Maximum Peak

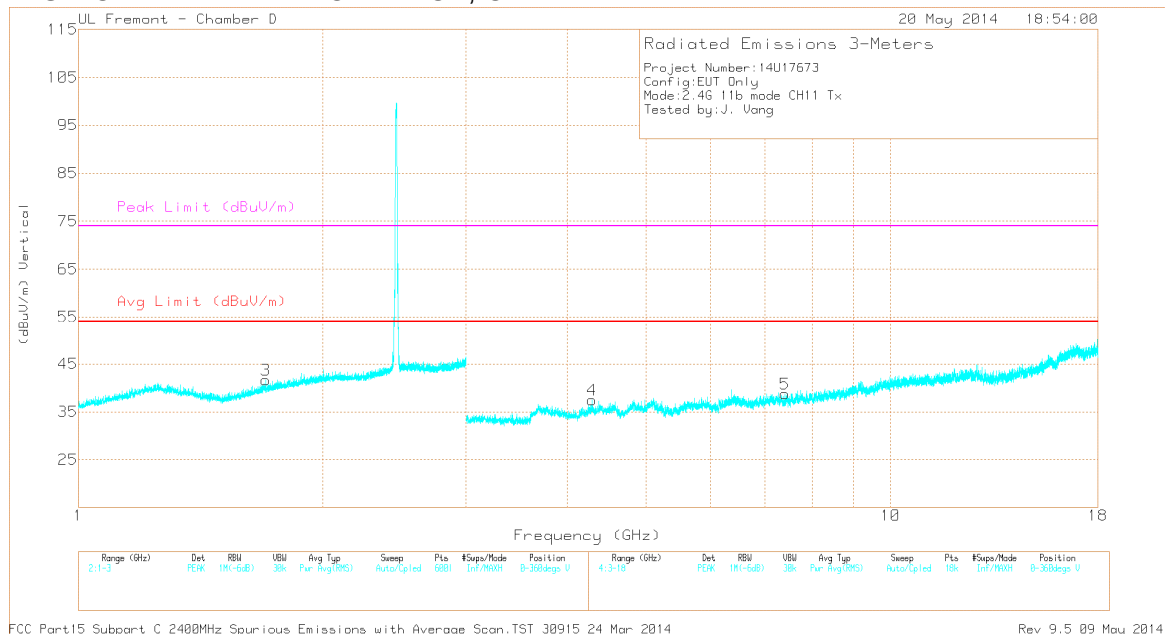
MAv1 - KDB558074 Option 1 Maximum RMS Average

HIGH CHANNEL, HARMONICS AND SPURIOUS EMISSIONS

HIGH CHANNEL HORIZONTAL PLOT, CH 11



HIGH CHANNEL VERTICAL PLOT, CH 11



DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T712 (dB/m)	Amp/Cbl/Fit r/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.133	36.35	PK2	28	-22.3	42.05	-	-	74	-31.95	72	203	H
	* 1.133	29.85	MAv1	27.9	-22.3	35.45	54	-18.55	-	-	72	203	H
3	* 1.7	36.14	PK2	28.9	-21.5	43.54	-	-	74	-30.46	0	203	V
	* 1.7	29.67	MAv1	28.9	-21.5	37.07	54	-16.93	-	-	0	203	V
6	* 12.537	29.73	PK2	38.5	-20.7	47.53	-	-	74	-26.47	124	203	H
	* 12.537	23.16	MAv1	38.5	-20.7	40.96	54	-13.04	-	-	124	203	H
2	* 2.22	36.15	PK2	30.6	-21	45.75	-	-	74	-28.25	72	203	H
	* 2.22	29.61	MAv1	30.6	-21	39.21	54	-14.79	-	-	72	203	H
4	* 4.288	33.01	PK2	33	-27.5	38.51	-	-	74	-35.49	0	100	V
	* 4.288	26.42	MAv1	33	-27.5	31.92	54	-22.08	-	-	0	100	V
5	* 7.405	31.1	PK2	35.2	-25.1	41.2	-	-	74	-32.8	0	100	V
	* 7.405	24.14	MAv1	35.2	-25	34.34	54	-19.66	-	-	0	100	V

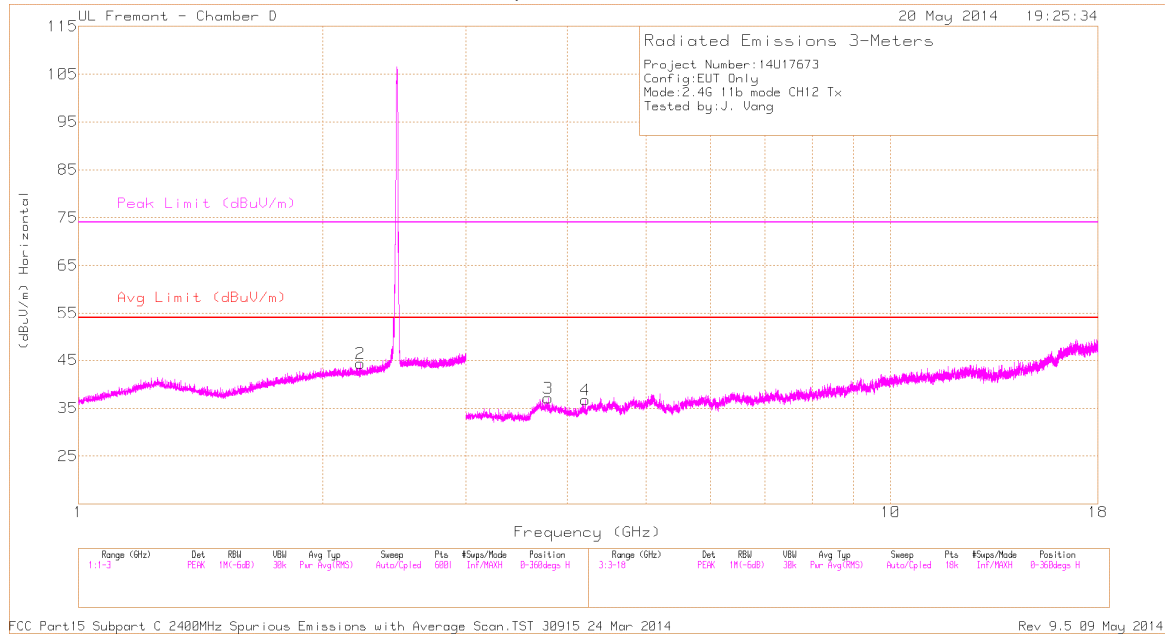
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK2 - KDB558074 Method: Maximum Peak

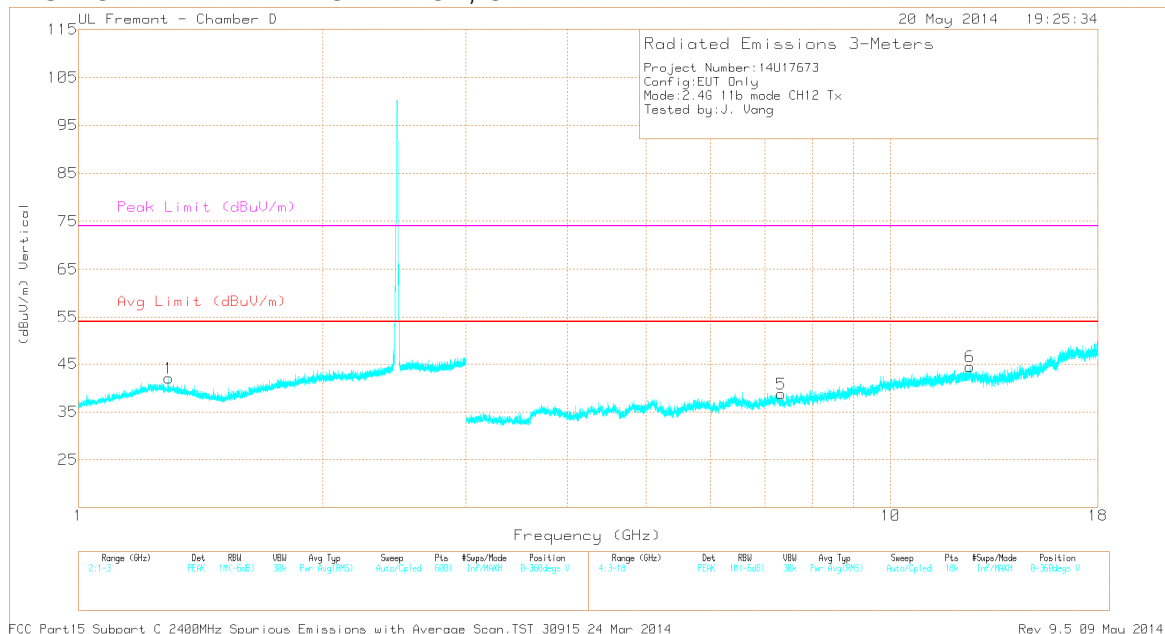
MAv1 - KDB558074 Option 1 Maximum RMS Average

HIGH CHANNEL, HARMONICS AND SPURIOUS EMISSIONS

HIGH CHANNEL HORIZONTAL PLOT, CH 12



HIGH CHANNEL VERTICAL PLOT, CH 12



DATA

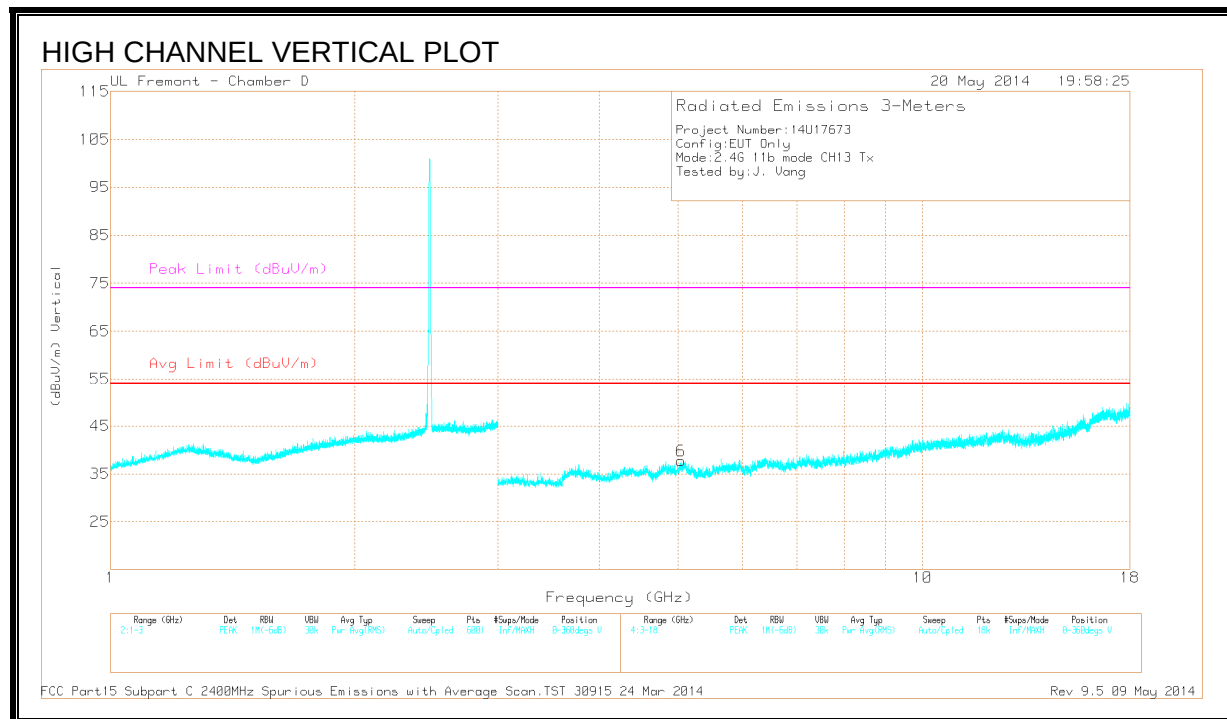
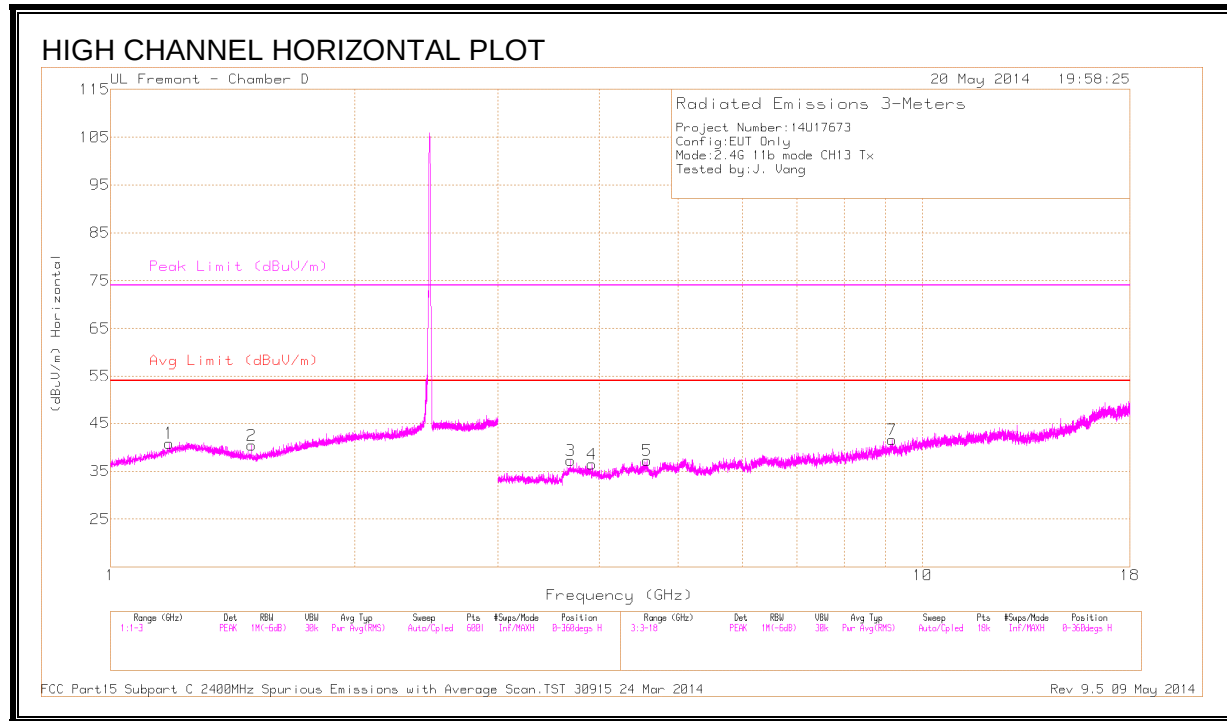
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T712 (dB/m)	Amp/Cbl/Fitter/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.291	36.3	PK2	29.2	-22	43.5	-	-	74	-30.5	31	202	V
	* 1.291	29.81	MAv1	29.2	-22	37.01	54	-16.99	-	-	31	202	V
6	* 12.517	29.42	PK2	38.5	-20.8	47.12	-	-	74	-26.88	22	202	V
	* 12.517	22.87	MAv1	38.5	-20.8	40.57	54	-13.43	-	-	22	202	V
2	* 2.225	35.78	PK2	30.6	-20.9	45.48	-	-	74	-28.52	0	100	H
	* 2.225	29.27	MAv1	30.6	-20.9	38.97	54	-15.03	-	-	0	100	H
3	* 3.788	33.87	PK2	32.7	-28.6	37.97	-	-	74	-36.03	3	100	H
	* 3.788	27.37	MAv1	32.7	-28.6	31.47	54	-22.53	-	-	3	100	H
4	* 4.205	33.4	PK2	32.9	-28.4	37.9	-	-	74	-36.1	3	100	H
	* 4.205	26.92	MAv1	32.9	-28.4	31.42	54	-22.58	-	-	3	100	H
5	* 7.337	31.69	PK2	35.1	-25.2	41.59	-	-	74	-32.41	2	202	V
	* 7.337	25.08	MAv1	35.1	-25.2	34.98	54	-19.02	-	-	2	202	V

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

PK2 - KDB558074 Method: Maximum Peak

MAv1 - KDB558074 Option 1 Maximum RMS Average

HIGH CHANNEL, HARMONICS AND SPURIOUS EMISSIONS



DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T712 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.181	36.27	PK2	28.6	-22	42.87	-	-	74	-31.13	266	203	H
	* 1.181	29.79	MAv1	28.6	-22	36.39	54	-17.61	-	-	266	203	H
2	* 1.492	36.2	PK2	27	-21.6	41.6	-	-	74	-32.4	266	203	H
	* 1.492	29.62	MAv1	27	-21.6	35.02	54	-18.98	-	-	266	203	H
3	* 3.688	33.34	PK2	32.6	-28	37.94	-	-	74	-36.06	295	100	H
	* 3.688	26.83	MAv1	32.6	-28	31.43	54	-22.57	-	-	295	100	H
4	* 3.919	33.5	PK2	32.8	-28.2	38.1	-	-	74	-35.9	300	202	H
	* 3.919	26.97	MAv1	32.8	-28.2	31.57	54	-22.43	-	-	300	202	H
5	* 4.578	33.2	PK2	33.5	-26.5	40.2	-	-	74	-33.8	329	100	H
	* 4.578	26.53	MAv1	33.5	-26.5	33.53	54	-20.47	-	-	329	100	H
6	* 5.038	33.06	PK2	33.5	-27.1	39.46	-	-	74	-34.54	335	202	V
	* 5.038	26.49	MAv1	33.5	-27.1	32.89	54	-21.11	-	-	335	202	V
7	* 9.18	29.78	PK2	35.9	-21.3	44.38	-	-	74	-29.62	333	202	H
	* 9.18	23.18	MAv1	35.9	-21.3	37.78	54	-16.22	-	-	333	202	H

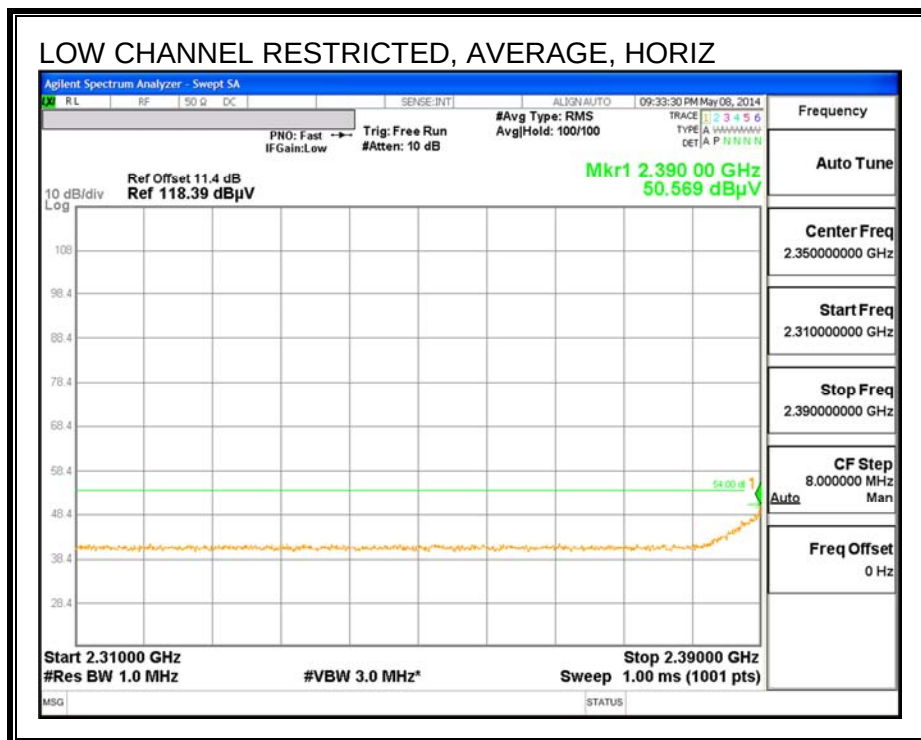
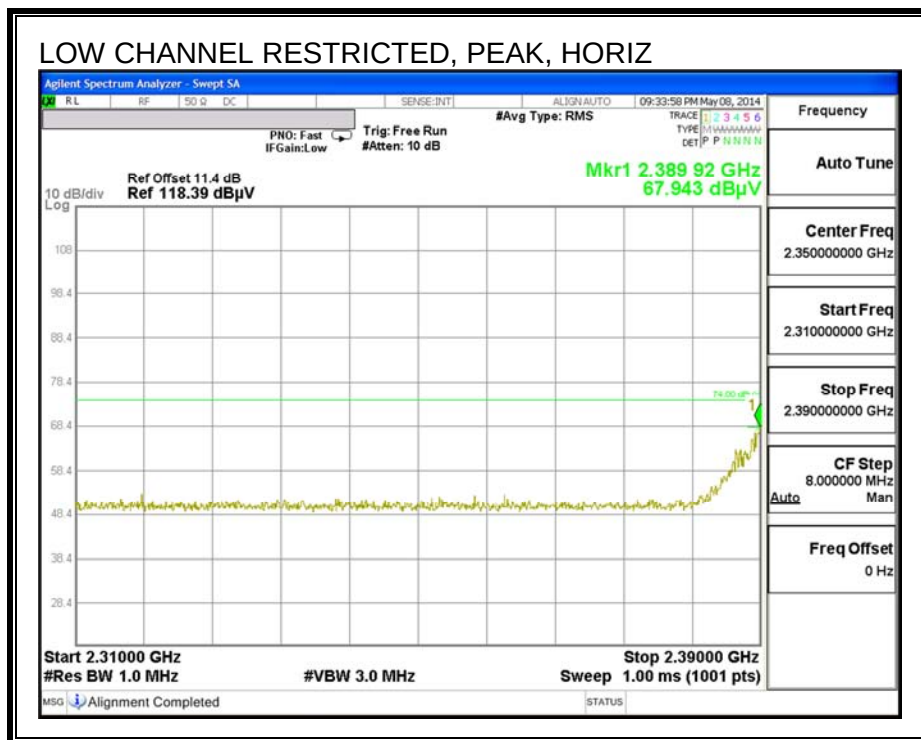
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

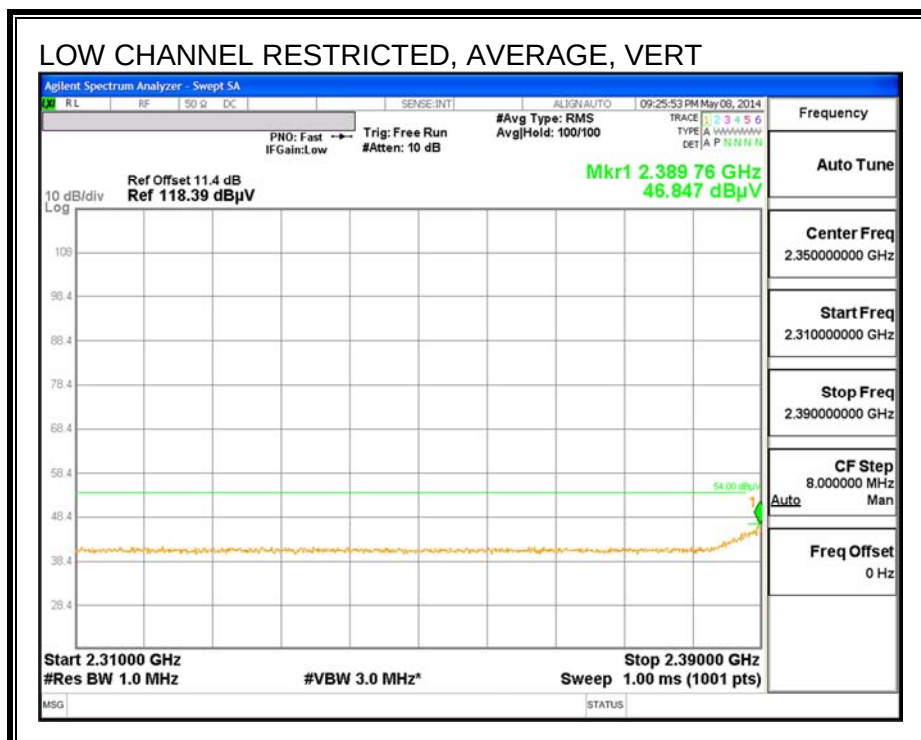
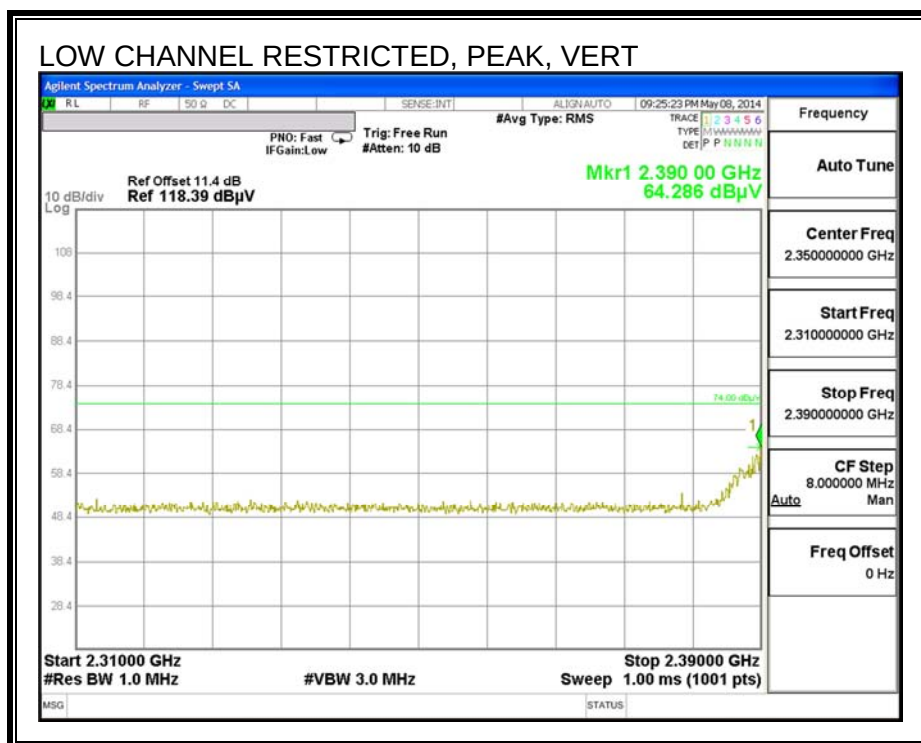
PK2 - KDB558074 Method: Maximum Peak

MAv1 - KDB558074 Option 1 Maximum RMS Average

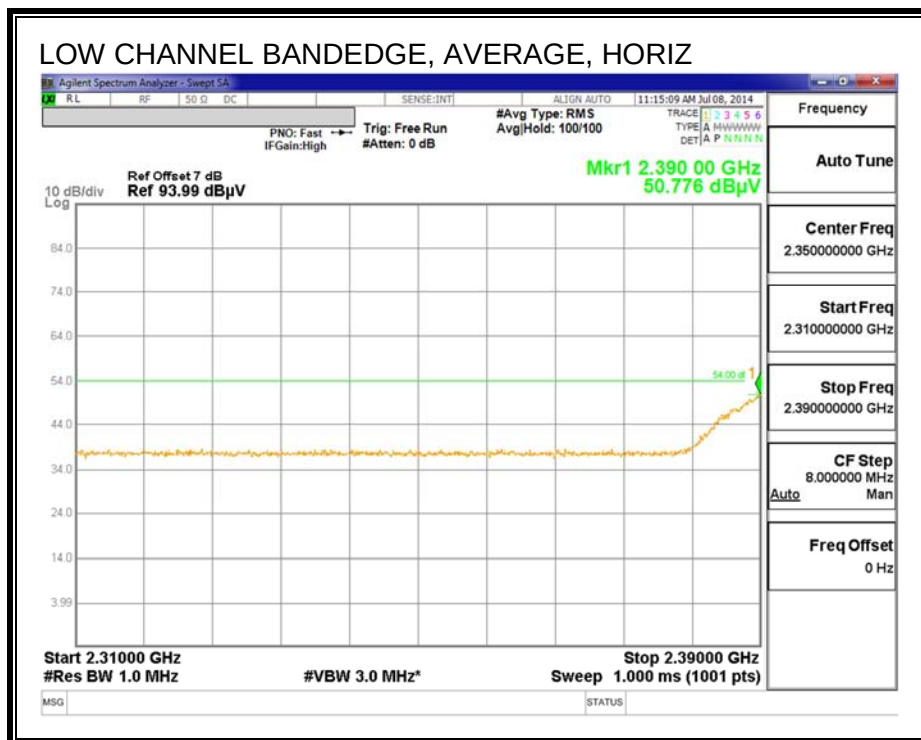
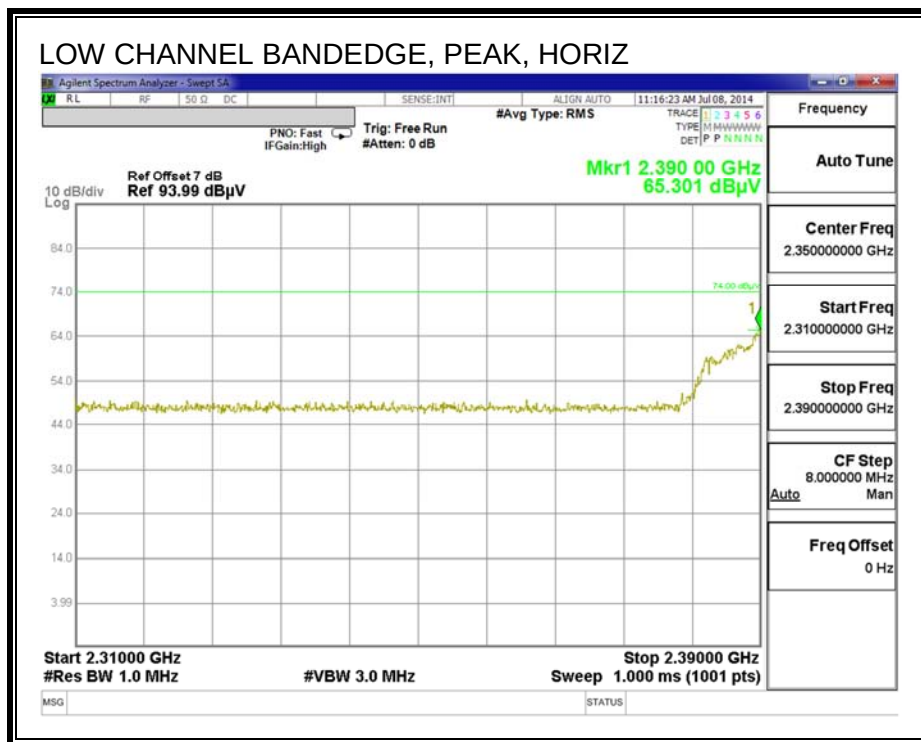
10.2.2. 802.11g 1Tx SISO MODE IN THE 2.4 GHz BAND

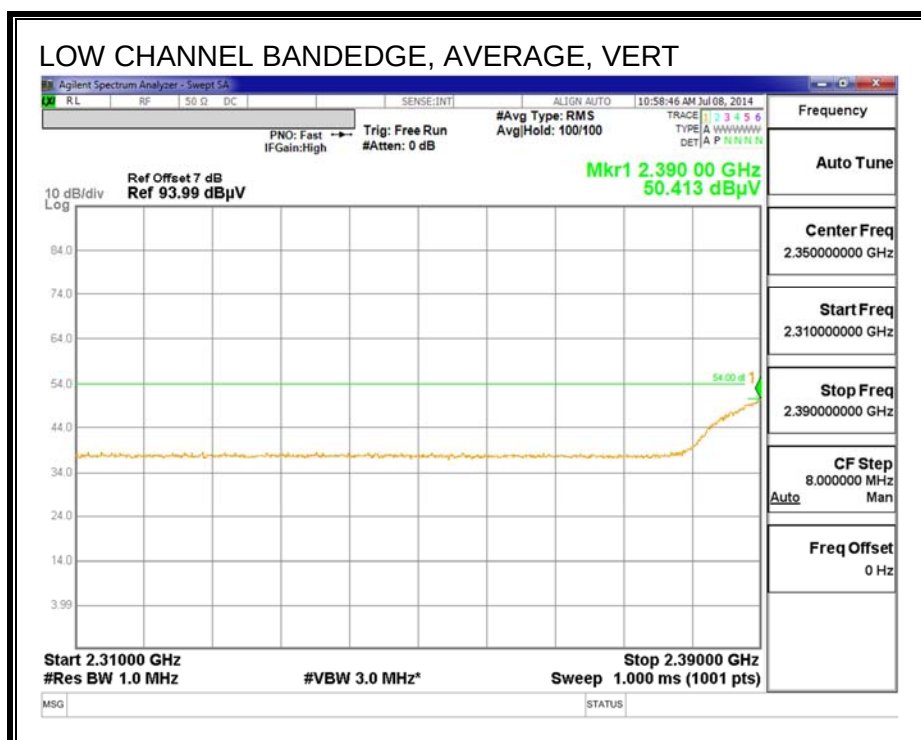
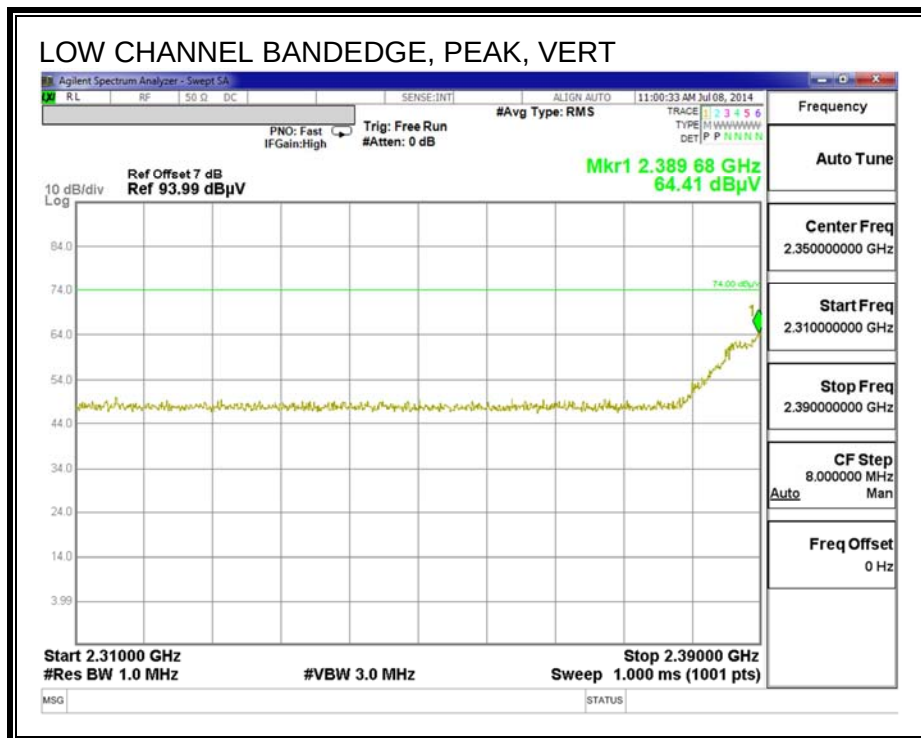
RESTRICTED BANDEDGE (LOW CHANNEL, CHANNEL 1)



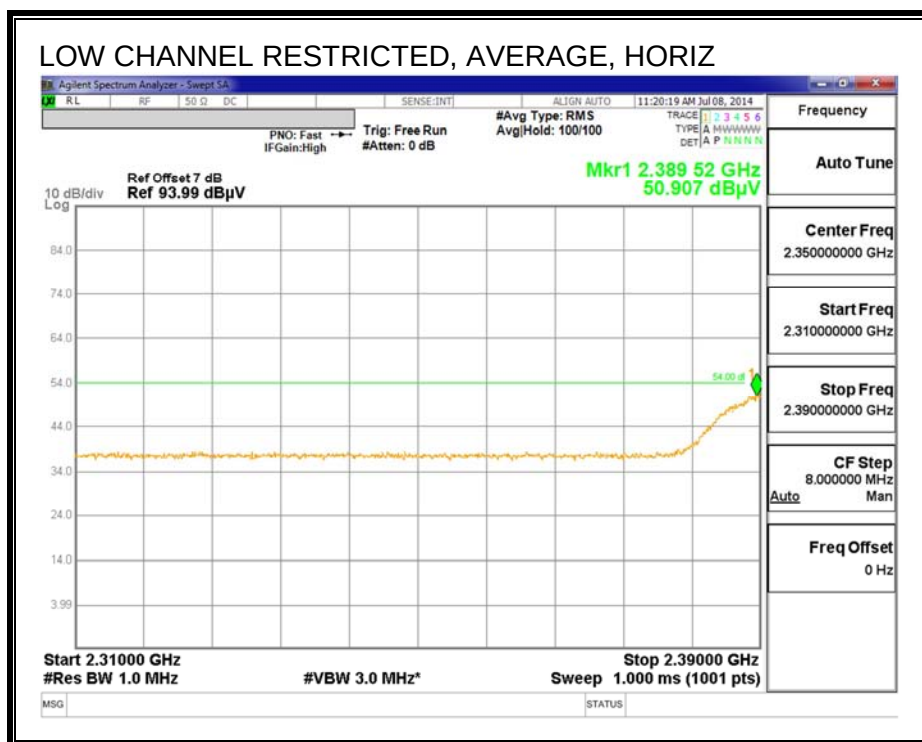
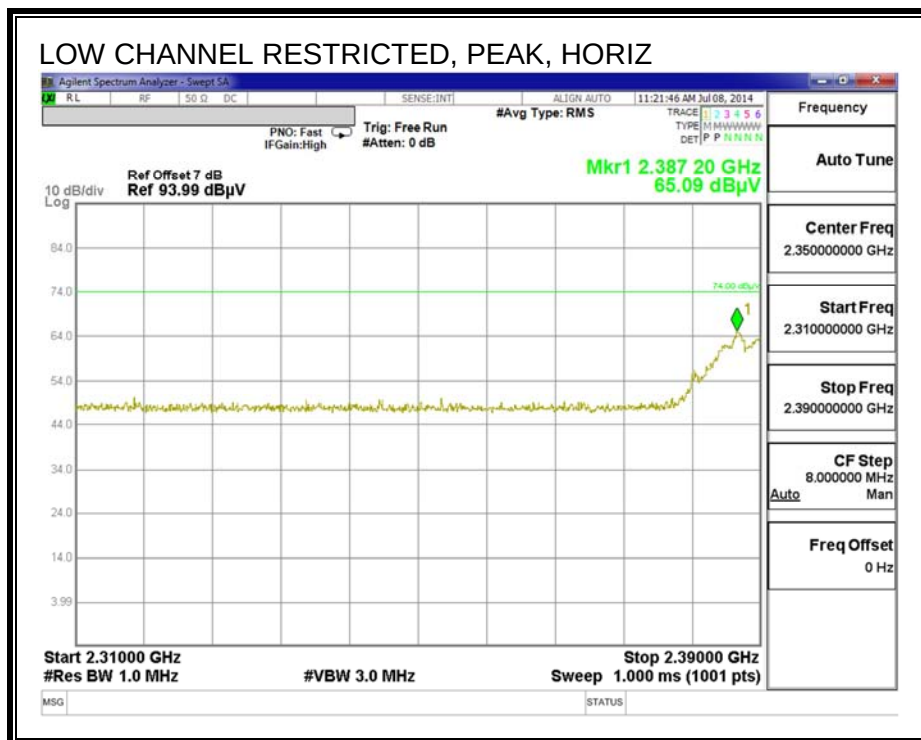


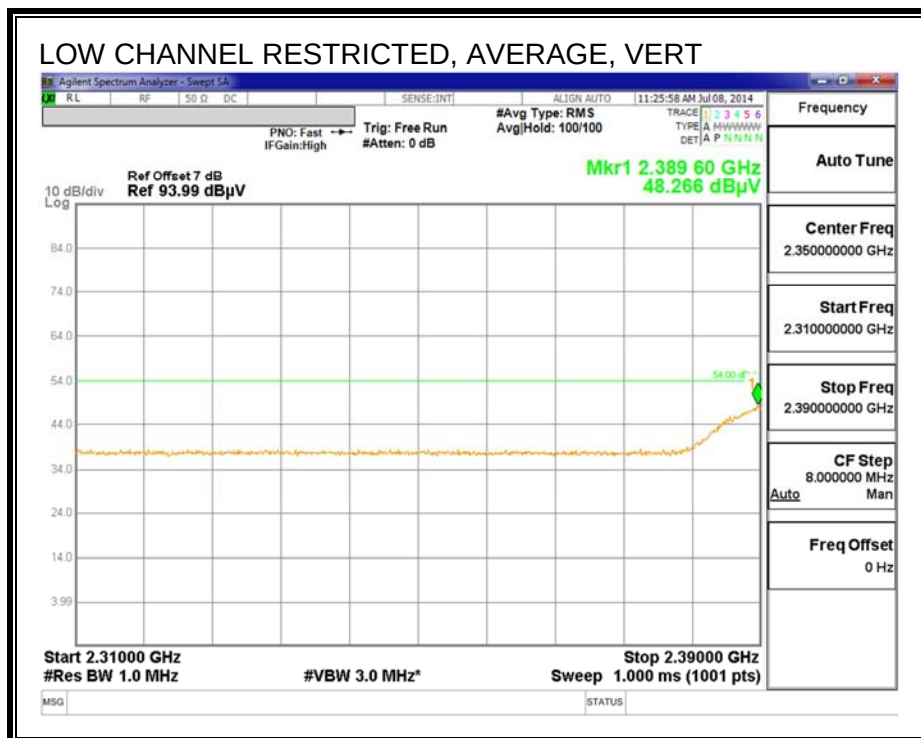
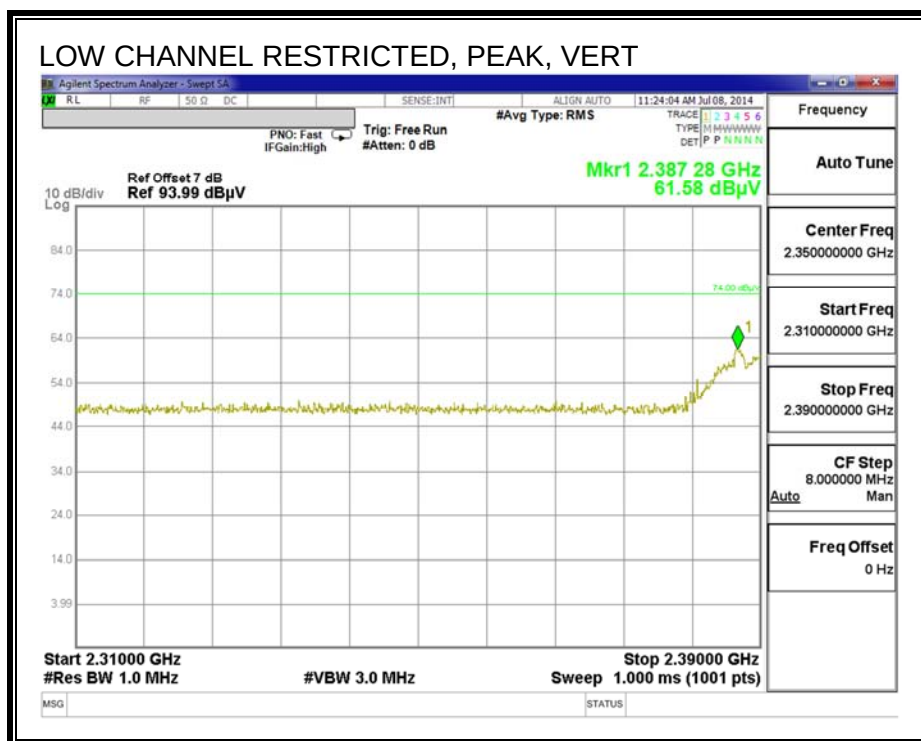
RESTRICTED BANDEDGE (LOW CHANNEL, CHANNEL 2)



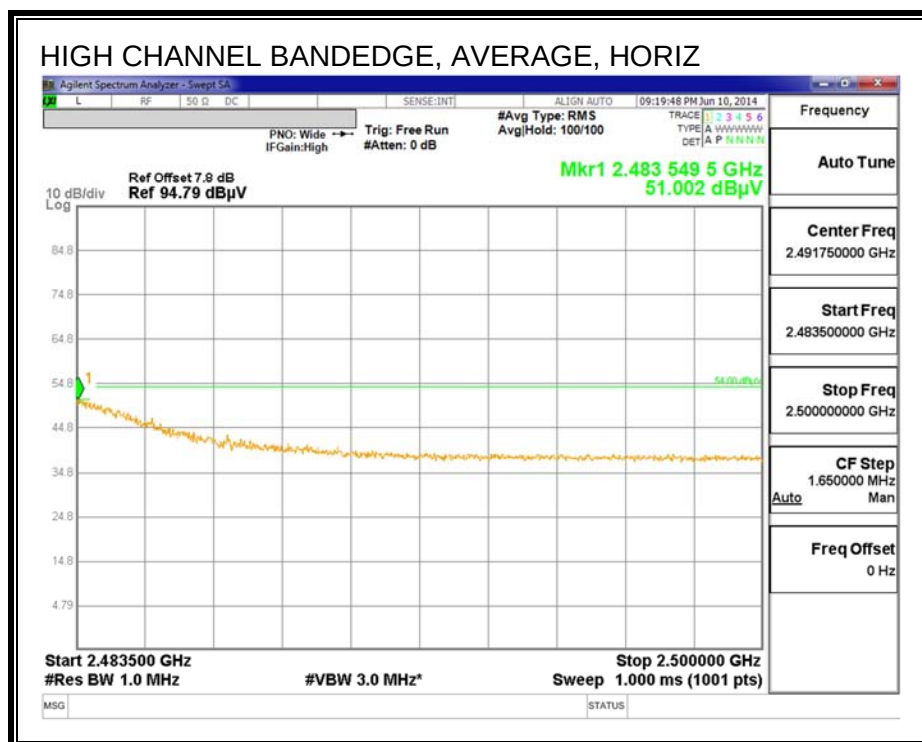
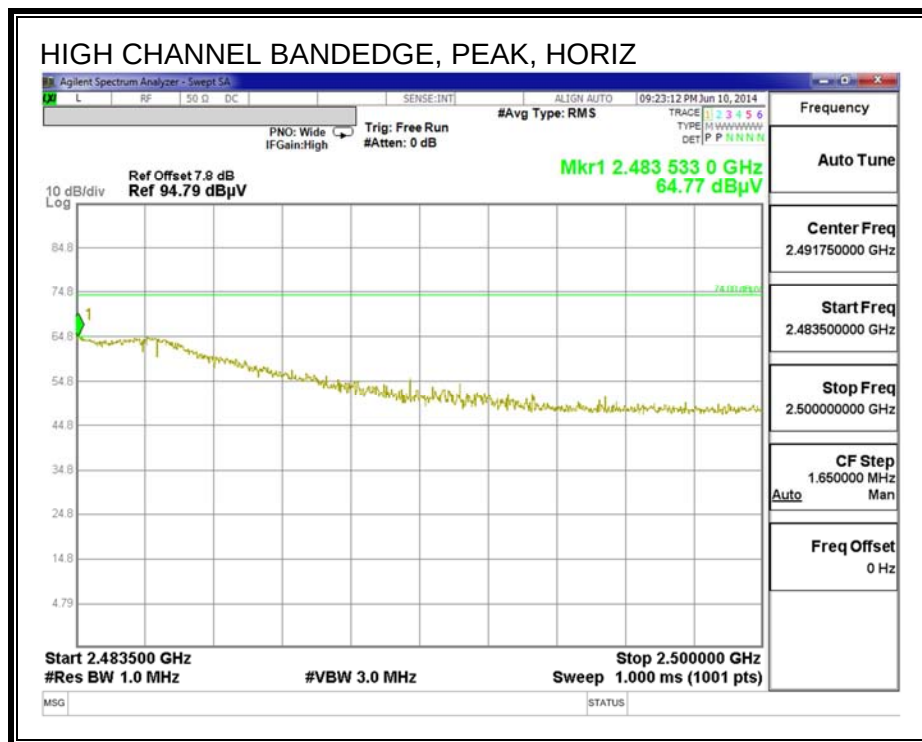


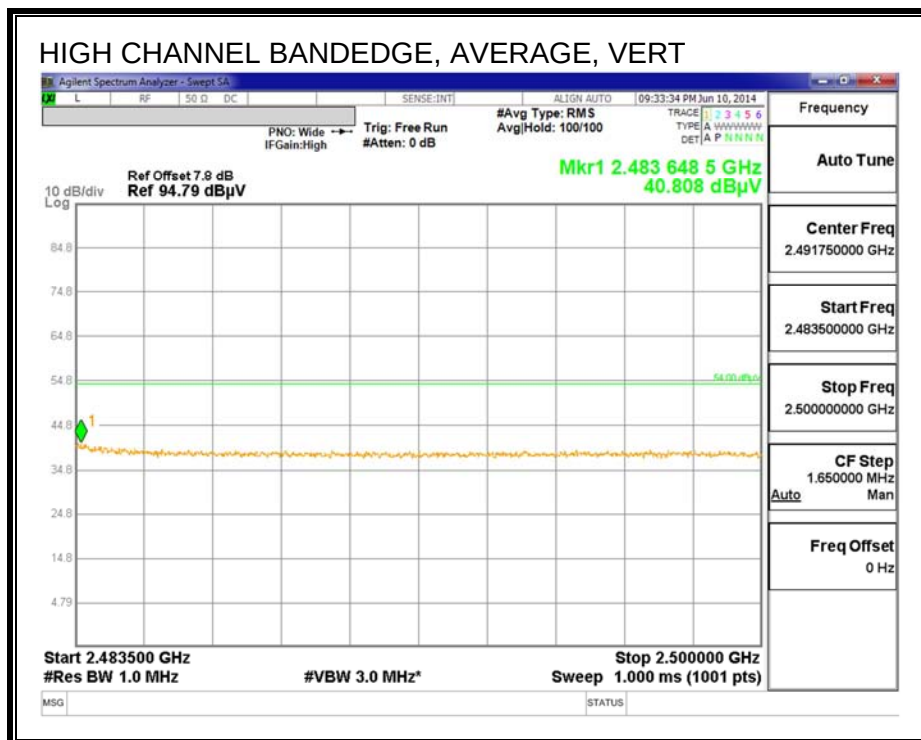
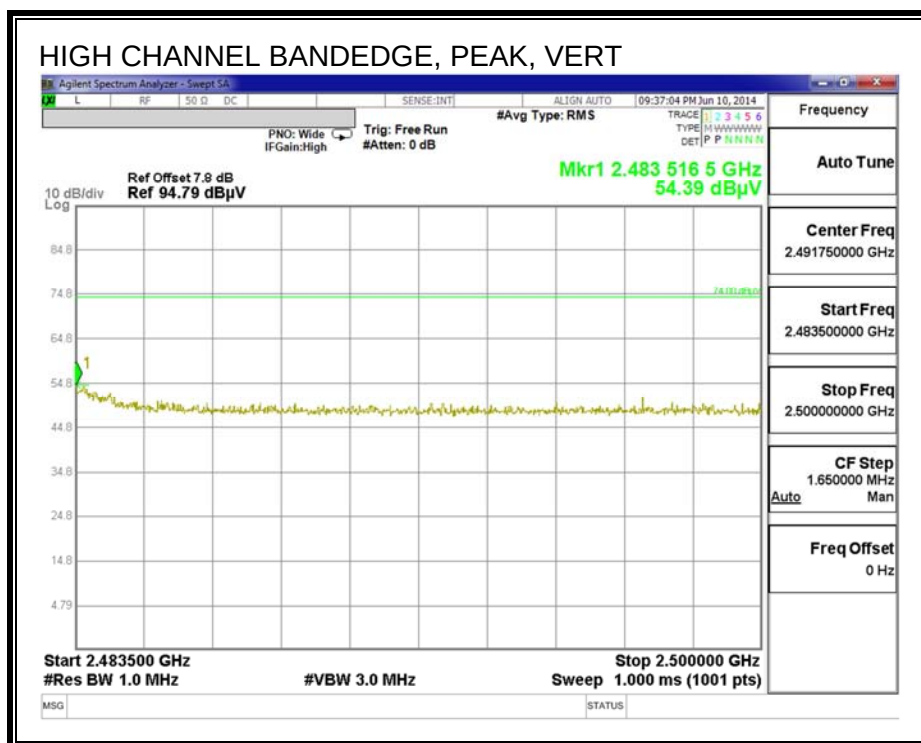
RESTRICTED BANDEDGE (LOW CHANNEL, CHANNEL 3)



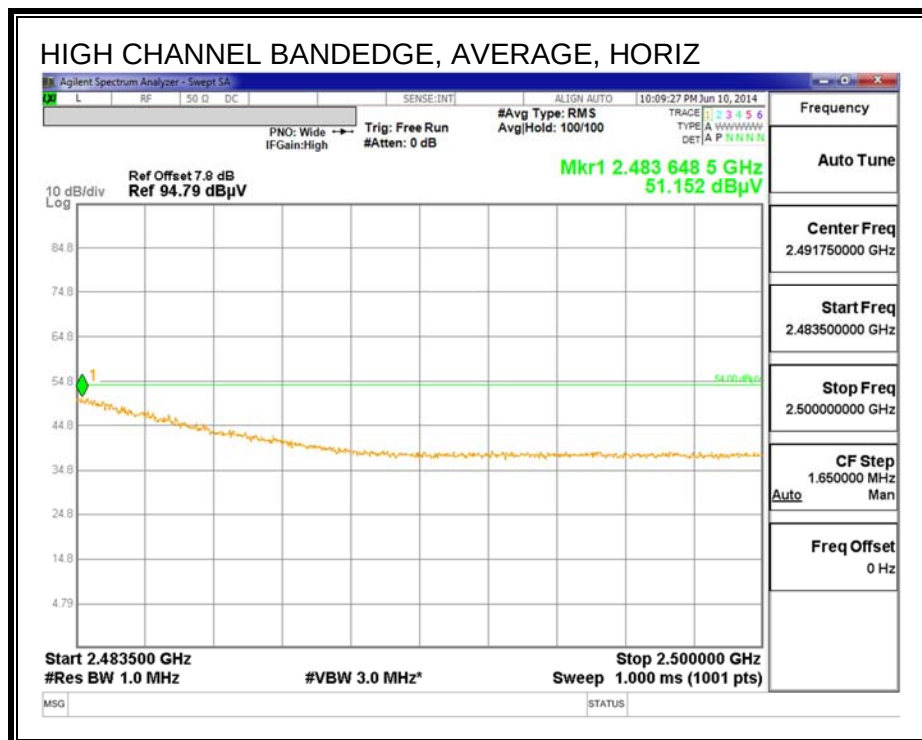
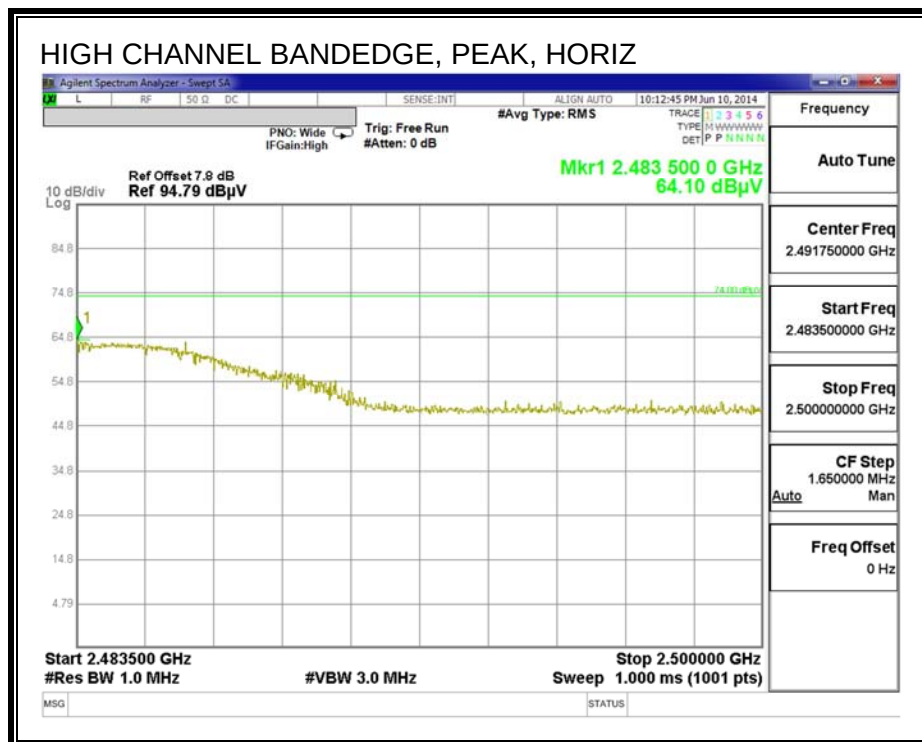


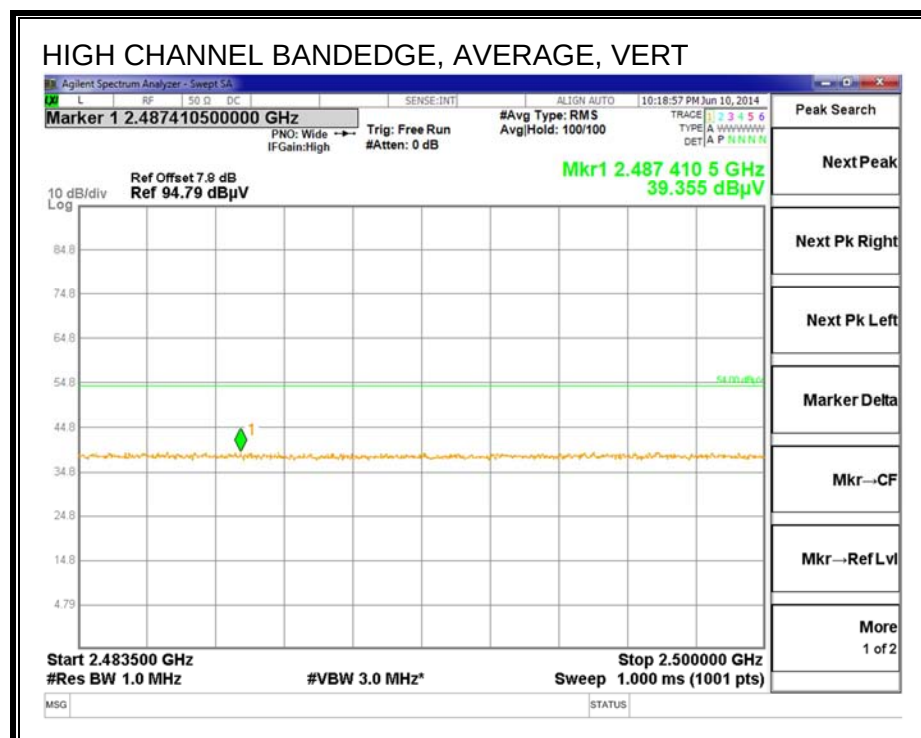
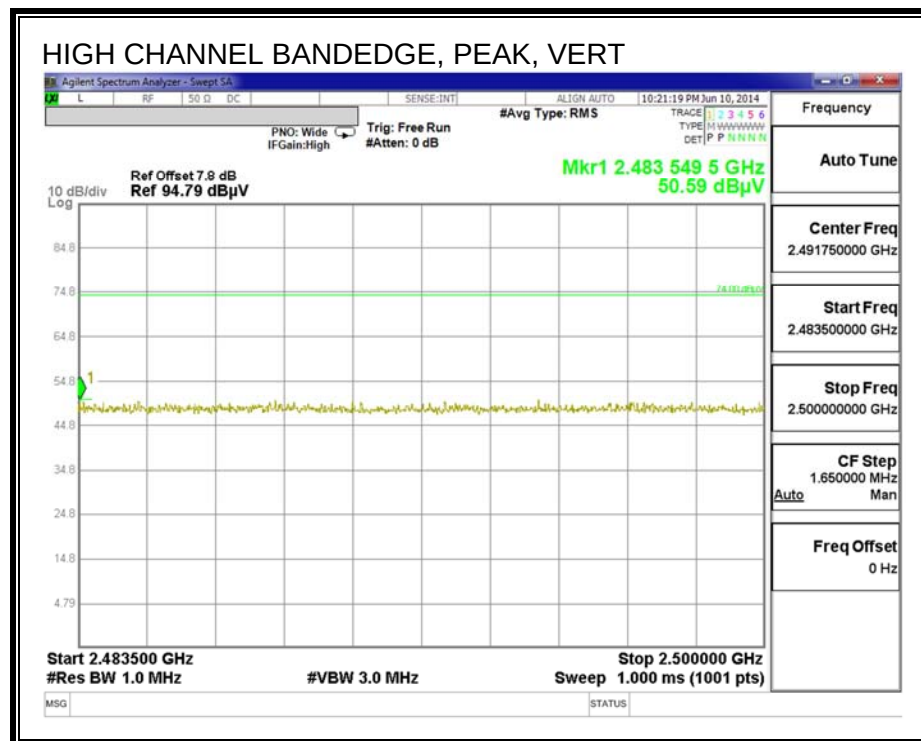
RESTRICTED BANDEDGE (HIGH CHANNEL, CHANNEL 11)



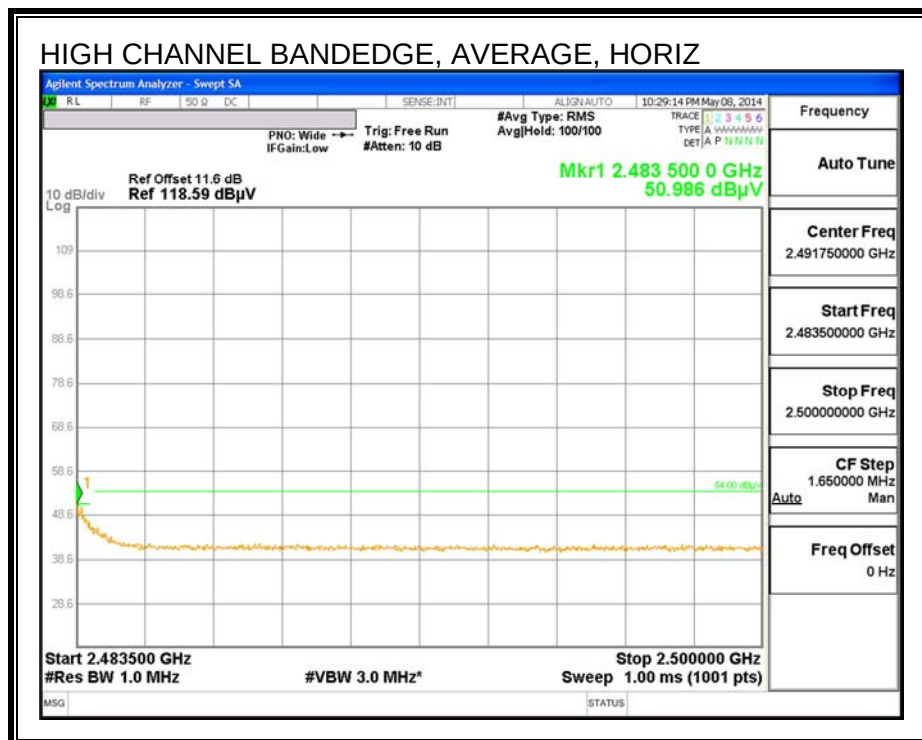
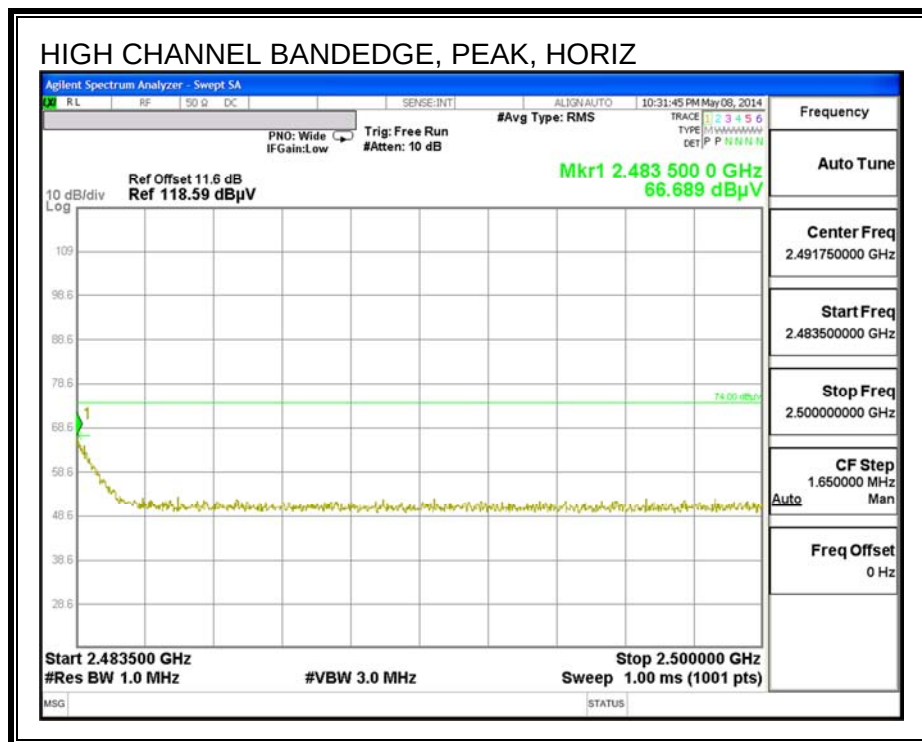


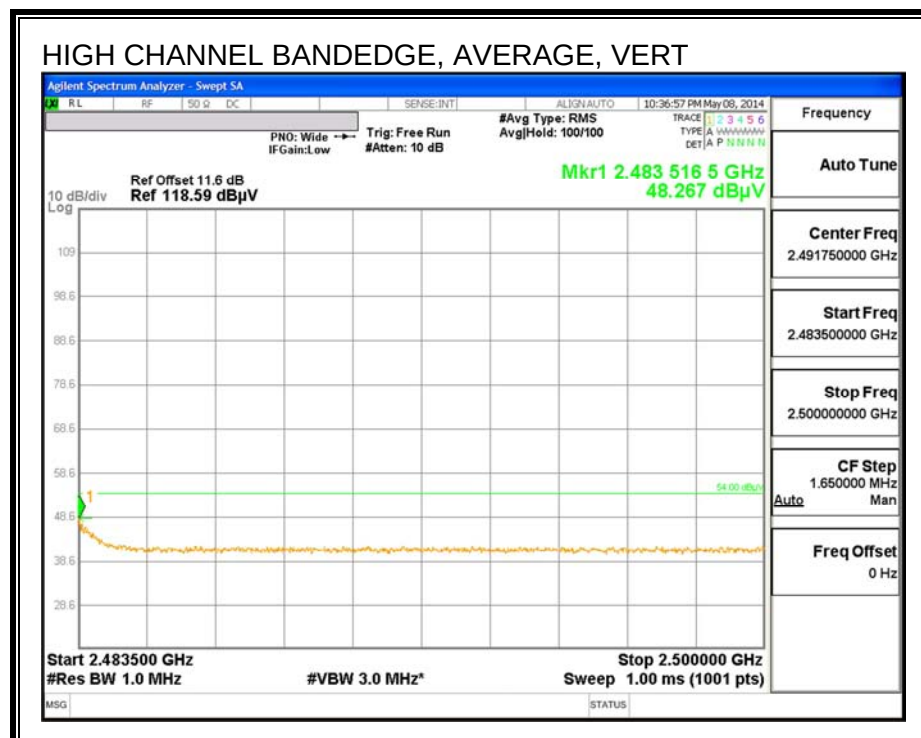
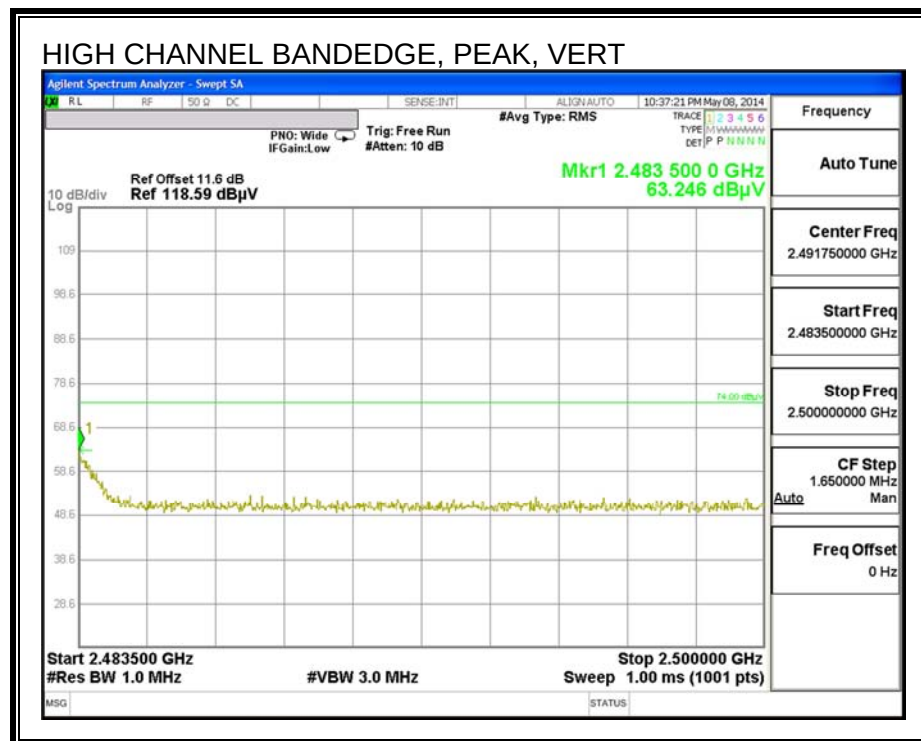
RESTRICTED BANDEDGE (HIGH CHANNEL, CHANNEL 12)





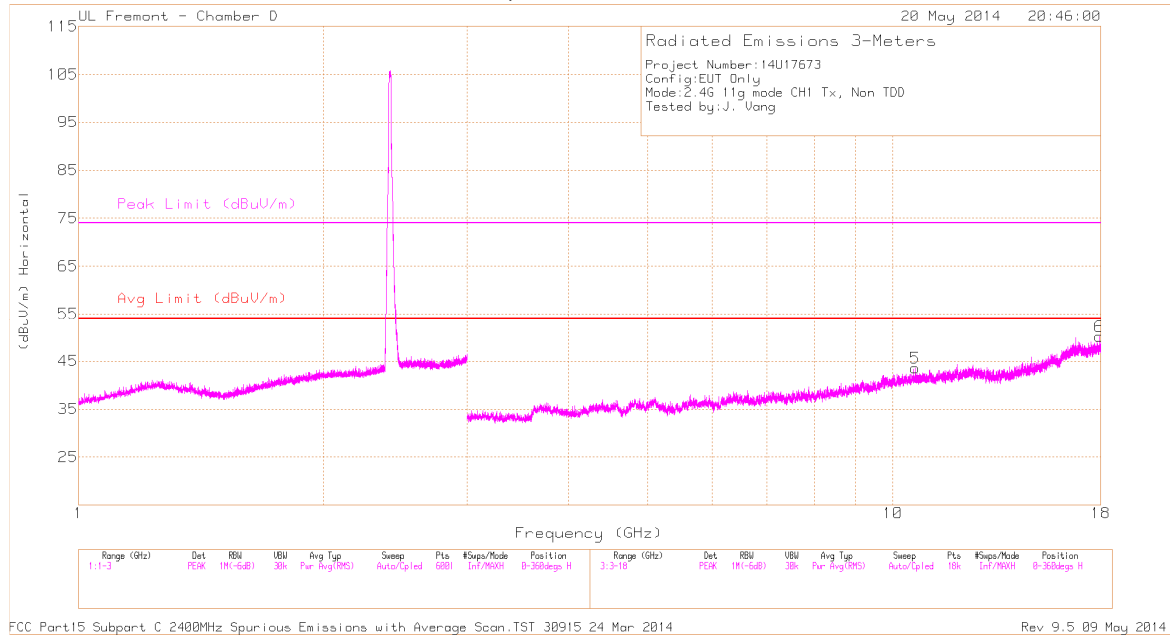
RESTRICTED BANDEDGE (HIGH CHANNEL, CHANNEL 13)



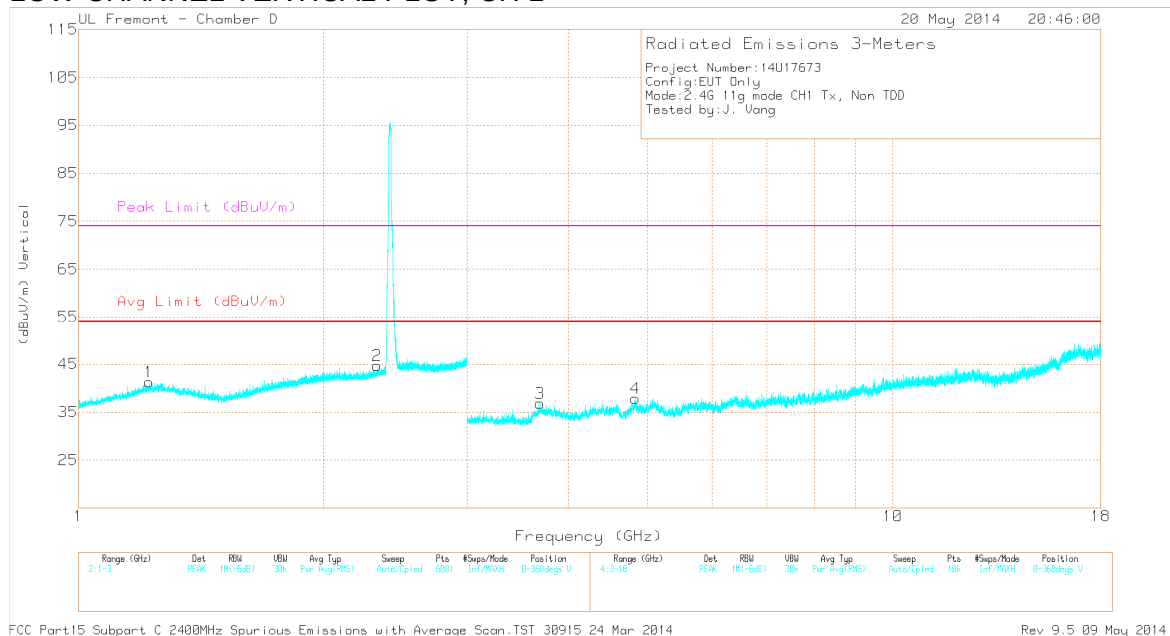


LOW CHANNEL, HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL HORIZONTAL PLOT, CH 1



LOW CHANNEL VERTICAL PLOT, CH 1



DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T712 (dB/m)	Amp/Cbl/FI tr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.221	36.39	PK2	29.2	-22	0	43.59	-	-	74	-30.41	306	100	V
	* 1.221	29.92	MAv1	29.2	-22	.1	37.22	54	-16.78	-	-	306	100	V
5	* 10.653	29.32	PK2	37.3	-20.9	0	45.72	-	-	74	-28.28	340	202	H
	* 10.653	22.71	MAv1	37.3	-20.9	.1	39.21	54	-14.79	-	-	340	202	H
6	* 17.935	28.88	PK2	41.4	-17.4	0	52.88	-	-	74	-21.12	340	202	H
	* 17.935	22.19	MAv1	41.4	-17.3	.1	46.39	54	-7.61	-	-	340	202	H
2	* 2.324	36.32	PK2	31.1	-20.7	0	46.72	-	-	74	-27.28	330	202	V
	* 2.324	29.67	MAv1	31.1	-20.7	.1	40.17	54	-13.83	-	-	330	202	V
3	* 3.685	33.47	PK2	32.6	-28	0	38.07	-	-	74	-35.93	347	100	V
	* 3.685	26.94	MAv1	32.6	-28	.1	31.64	54	-22.36	-	-	347	100	V
4	* 4.827	32.67	PK2	33.5	-26.7	0	39.47	-	-	74	-34.53	347	100	V
	* 4.827	26.1	MAv1	33.5	-26.7	.1	33	54	-21	-	-	347	100	V

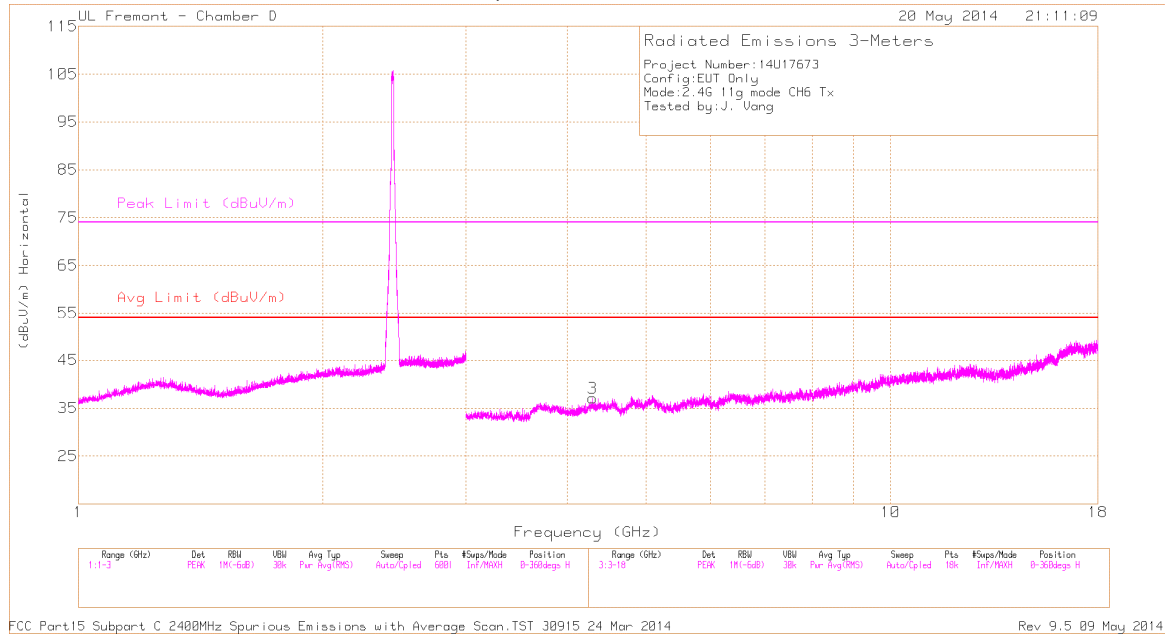
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK2 - KDB558074 Method: Maximum Peak

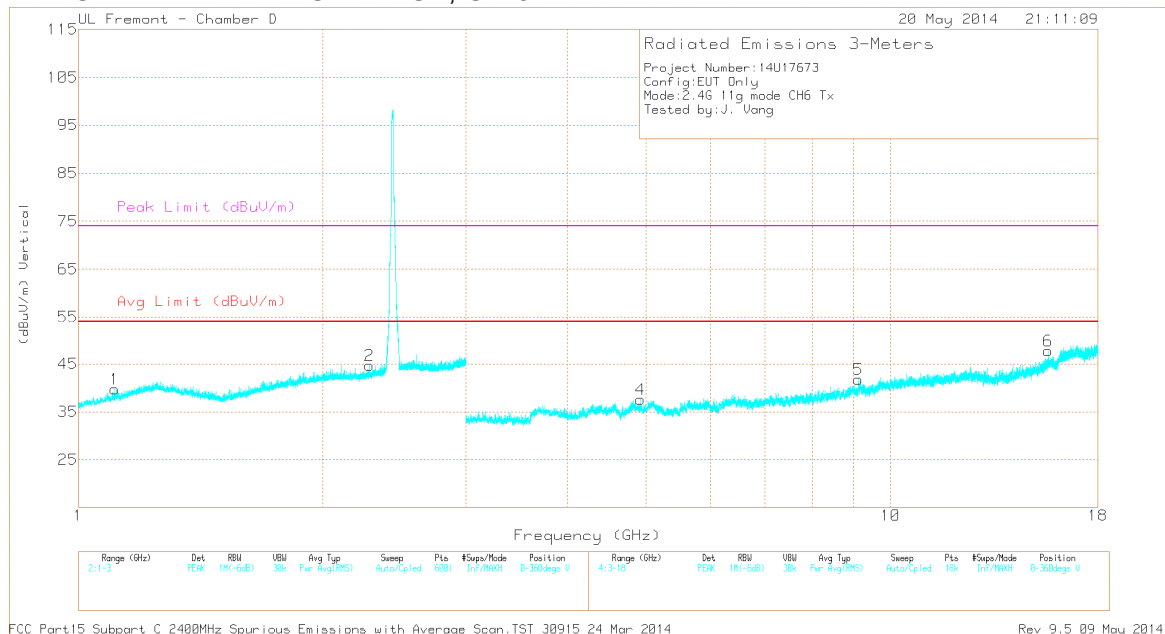
MAv1 - KDB558074 Option 1 Maximum RMS Average

MID CHANNEL, HARMONICS AND SPURIOUS EMISSIONS

MID CHANNEL HORIZONTAL PLOT, CH 6



MID CHANNEL VERTICAL PLOT, CH 6



DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T712 (dB/m)	Amp/Cbl/FI tr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.108	36.47	PK2	27.6	-22.1	0	41.97	-	-	74	-32.03	360	100	V
	* 1.108	29.9	MAv1	27.6	-22.1	.1	35.5	54	-18.5	-	-	360	100	V
6	* 15.627	30.17	PK2	39.9	-20.6	0	49.47	-	-	74	-24.53	360	202	V
	* 15.627	23.57	MAv1	39.9	-20.6	.1	42.97	54	-11.03	-	-	360	202	V
2	* 2.281	36.24	PK2	30.8	-20.7	0	46.34	-	-	74	-27.66	360	202	V
	* 2.281	29.66	MAv1	30.8	-20.7	.1	39.86	54	-14.14	-	-	360	202	V
3	* 4.295	32.87	PK2	33	-27.5	0	38.37	-	-	74	-35.63	360	202	H
	* 4.295	26.35	MAv1	33	-27.5	.1	31.95	54	-22.05	-	-	360	202	H
4	* 4.924	33.18	PK2	33.5	-27.8	0	38.88	-	-	74	-35.12	360	100	V
	* 4.924	26.58	MAv1	33.5	-27.8	.1	32.38	54	-21.62	-	-	360	100	V
5	* 9.122	29.6	PK2	35.8	-21.7	0	43.7	-	-	74	-30.3	360	100	V
	* 9.122	22.97	MAv1	35.8	-21.7	.1	37.17	54	-16.83	-	-	360	100	V

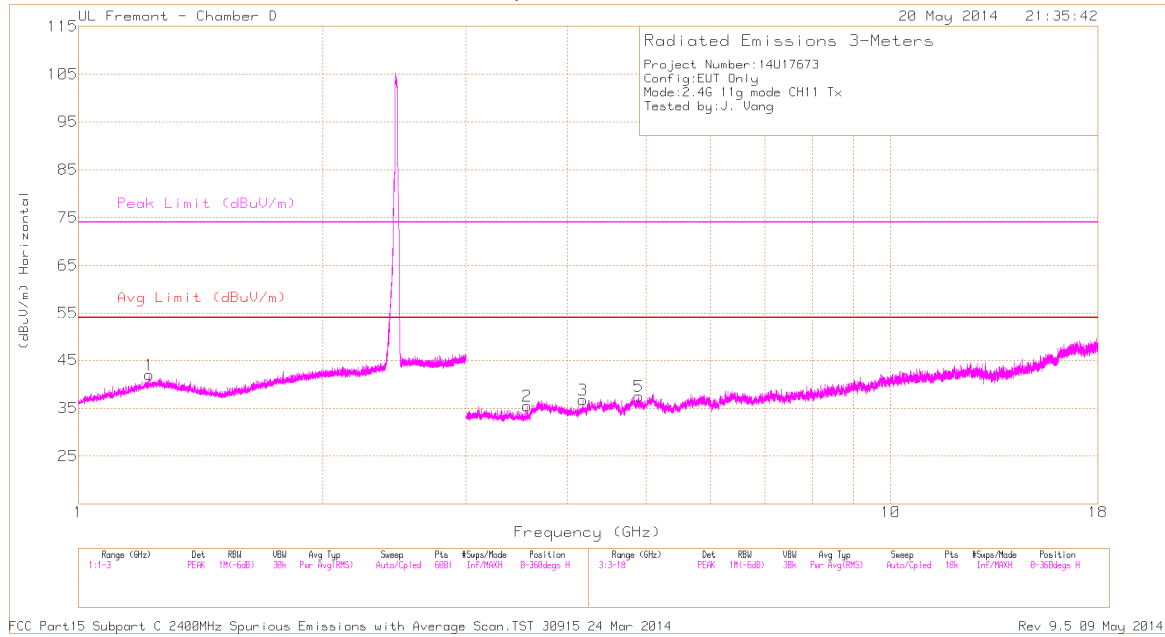
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK2 - KDB558074 Method: Maximum Peak

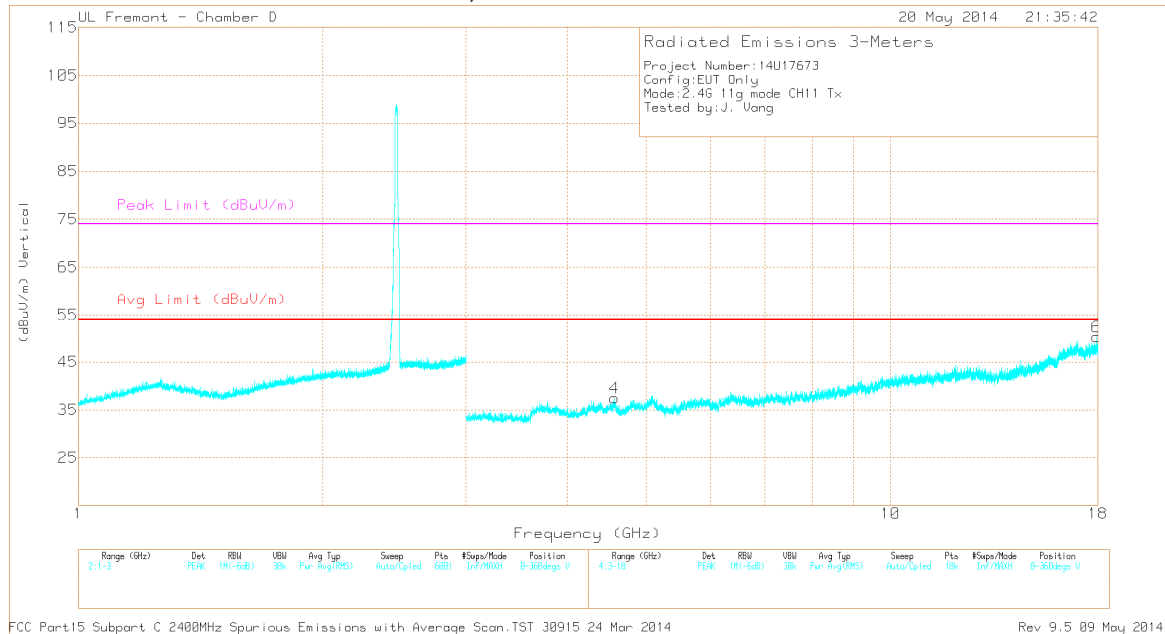
MAv1 - KDB558074 Option 1 Maximum RMS Average

HIGH CHANNEL, HARMONICS AND SPURIOUS EMISSIONS

HIGH CHANNEL HORIZONTAL PLOT, CH11



HIGH CHANNEL VERTICAL PLOT, CH11



DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T712 (dB/m)	Amp/Cbl/FI tr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.222	36.32	PK2	29.2	-22	0	43.52	-	-	74	-30.48	360	100	H
	* 1.222	29.83	MAv1	29.2	-22	.1	37.13	54	-16.87	-	-	360	100	H
6	* 17.939	28.83	PK2	41.4	-17.4	0	52.83	-	-	74	-21.17	333	100	V
	* 17.939	22.27	MAv1	41.4	-17.5	.1	46.27	54	-7.73	-	-	333	100	V
2	* 3.567	34.18	PK2	32.4	-29.1	0	37.48	-	-	74	-36.52	360	202	H
	* 3.567	27.6	MAv1	32.4	-29.1	.1	31	54	-23	-	-	360	202	H
3	* 4.176	33.48	PK2	32.9	-28.2	0	38.18	-	-	74	-35.82	360	100	H
	* 4.176	26.95	MAv1	32.9	-28.2	.1	31.75	54	-22.25	-	-	360	100	H
4	* 4.573	32.62	PK2	33.5	-26.4	0	39.72	-	-	74	-34.28	333	100	V
	* 4.573	26.1	MAv1	33.5	-26.4	.1	33.3	54	-20.7	-	-	333	100	V
5	* 4.896	32.85	PK2	33.5	-27.4	0	38.95	-	-	74	-35.05	334	202	H
	* 4.896	26.31	MAv1	33.5	-27.4	.1	32.51	54	-21.49	-	-	334	202	H

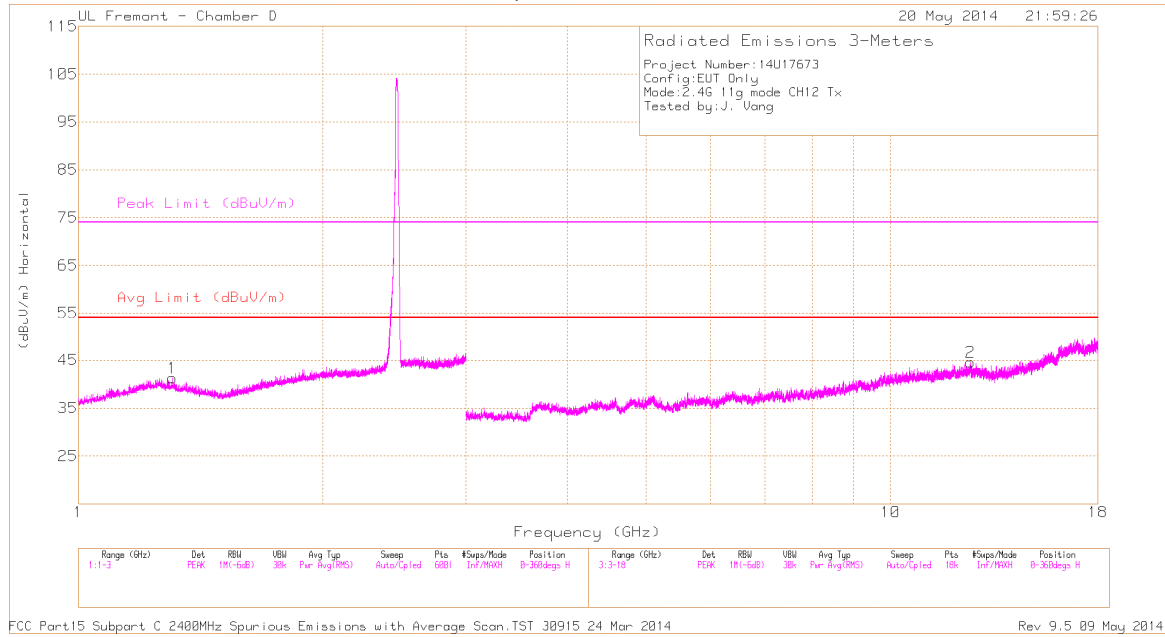
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK2 - KDB558074 Method: Maximum Peak

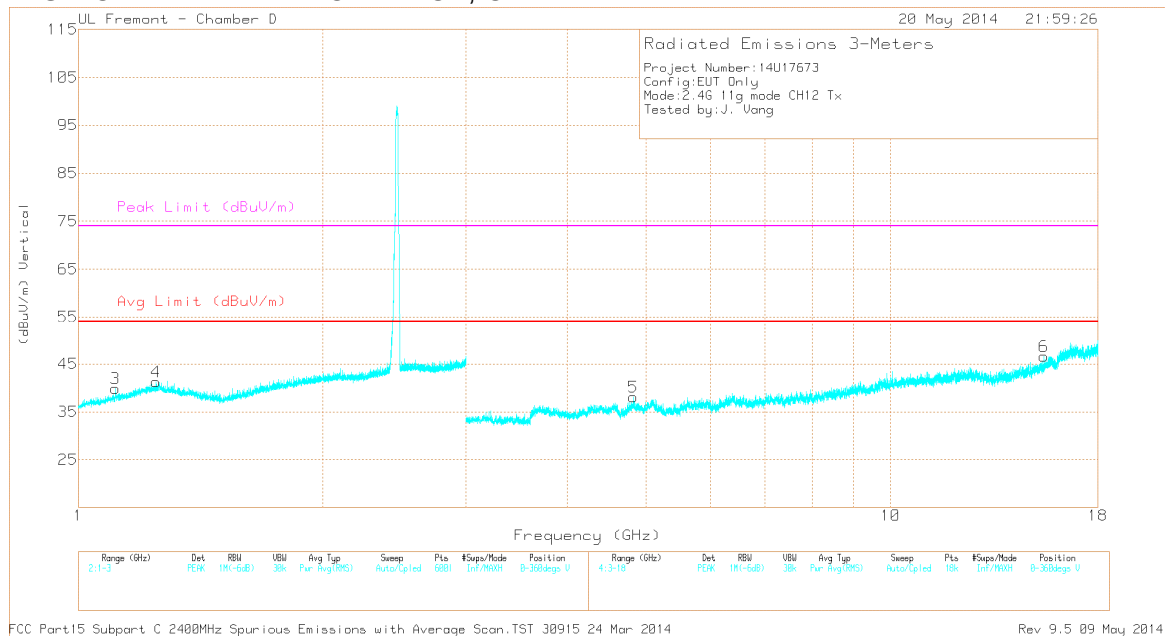
MAv1 - KDB558074 Option 1 Maximum RMS Average

HIGH CHANNEL, HARMONICS AND SPURIOUS EMISSIONS

HIGH CHANNEL HORIZONTAL PLOT, CH 12



HIGH CHANNEL VERTICAL PLOT, CH 12



DATA

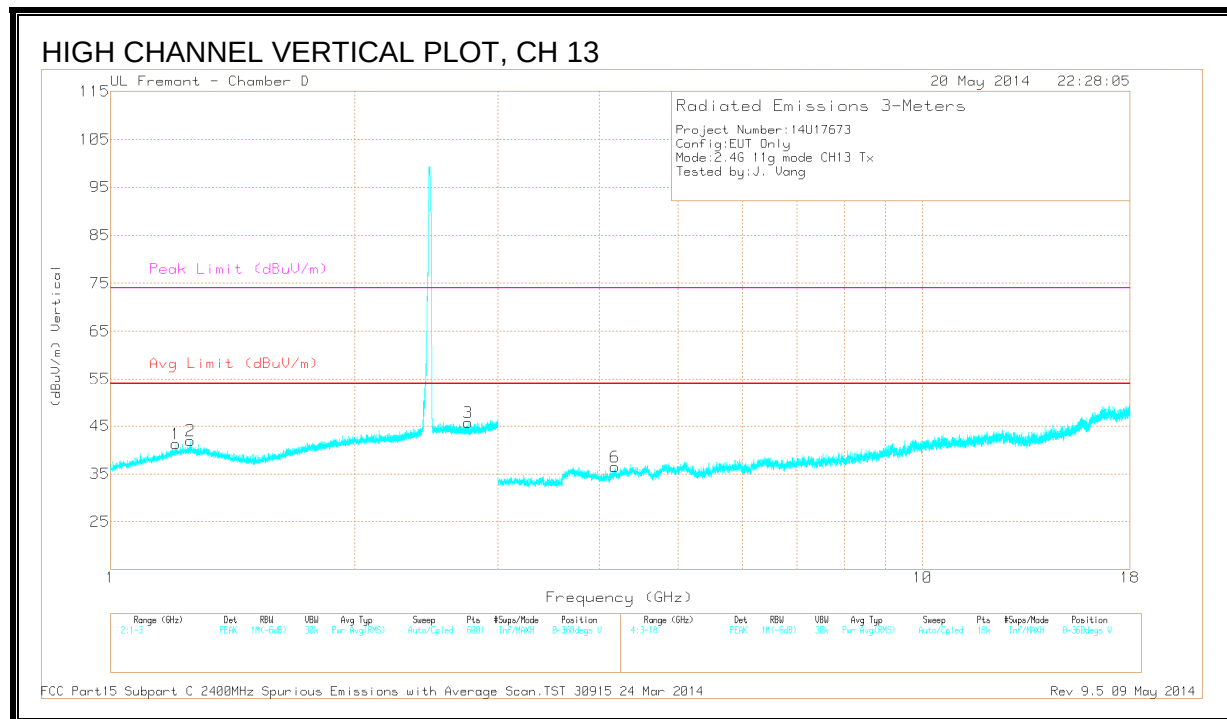
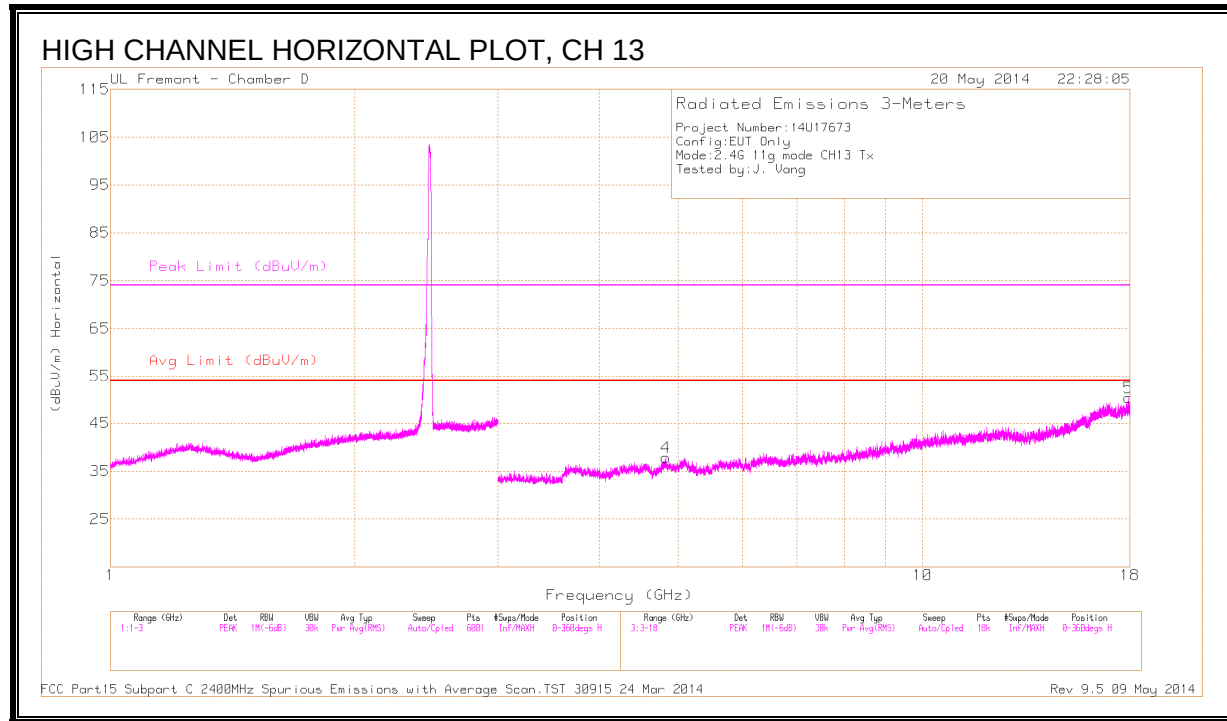
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T712 (dB/m)	Amp/Cbl/Filtr/ Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
3	* 1.11	36.41	PK2	27.6	-22.1	0	41.91	-	-	74	-32.09	360	202	V
	* 1.11	29.92	MAv1	27.6	-22.1	.1	35.52	54	-18.48	-	-	360	202	V
4	* 1.244	36.48	PK2	29.5	-22.1	0	43.88	-	-	74	-30.12	360	202	V
	* 1.244	29.93	MAv1	29.5	-22.1	.1	37.43	54	-16.57	-	-	360	202	V
1	* 1.305	36.48	PK2	29	-21.9	0	43.58	-	-	74	-30.42	329	100	H
	* 1.305	29.9	MAv1	29	-21.9	.1	37.1	54	-16.9	-	-	329	100	H
2	* 12.535	29.78	PK2	38.5	-20.7	0	47.58	-	-	74	-26.42	356	100	H
	* 12.535	23.26	MAv1	38.5	-20.7	.1	41.16	54	-12.84	-	-	356	100	H
6	* 15.438	30.09	PK2	39.6	-21.6	0	48.09	-	-	74	-25.91	330	100	V
	* 15.438	23.52	MAv1	39.5	-21.6	.1	41.52	54	-12.48	-	-	330	100	V
5	* 4.823	32.76	PK2	33.5	-26.7	0	39.56	-	-	74	-34.44	360	100	V
	* 4.823	26.27	MAv1	33.5	-26.7	.1	33.17	54	-20.83	-	-	360	100	V

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

PK2 - KDB558074 Method: Maximum Peak

MAv1 - KDB558074 Option 1 Maximum RMS Average

HIGH CHANNEL, HARMONICS AND SPURIOUS EMISSIONS



DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T712 (dB/m)	Amp/Cbl/Fitr/ Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.203	36.43	PK2	28.9	-22	0	43.33	-	-	74	-30.67	350	202	V
	* 1.203	29.91	MAv1	28.9	-22	.1	36.91	54	-17.09	-	-	350	202	V
2	* 1.254	36.46	PK2	29.6	-22.1	0	43.96	-	-	74	-30.04	356	100	V
	* 1.254	29.93	MAv1	29.6	-22.1	.1	37.53	54	-16.47	-	-	356	100	V
5	* 17.939	28.95	PK2	41.4	-17.4	0	52.95	-	-	74	-21.05	360	202	H
	* 17.939	22.37	MAv1	41.4	-17.4	.1	46.47	54	-7.53	-	-	360	202	H
3	* 2.755	36.33	PK2	31.5	-20.2	0	47.63	-	-	74	-26.37	356	100	V
	* 2.755	29.76	MAv1	31.5	-20.2	.1	41.16	54	-12.84	-	-	356	100	V
6	* 4.183	33.81	PK2	32.9	-28.3	0	38.41	-	-	74	-35.59	360	100	V
	* 4.183	27.25	MAv1	32.9	-28.3	.1	31.95	54	-22.05	-	-	360	100	V
4	* 4.825	32.53	PK2	33.5	-26.7	0	39.33	-	-	74	-34.67	360	202	H
	* 4.825	26.14	MAv1	33.5	-26.7	.1	33.04	54	-20.96	-	-	360	202	H

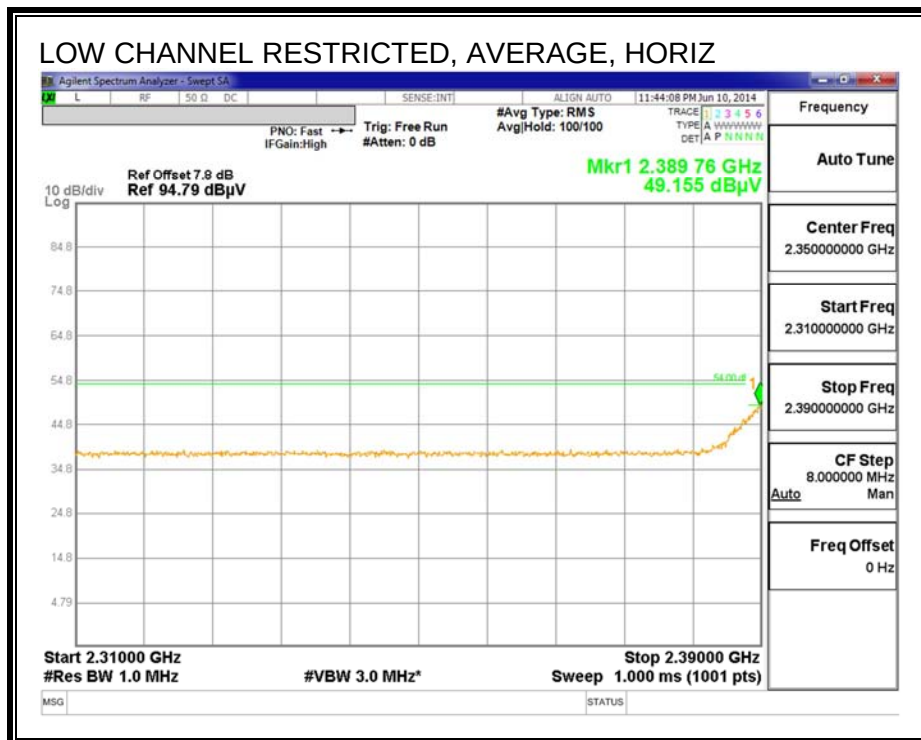
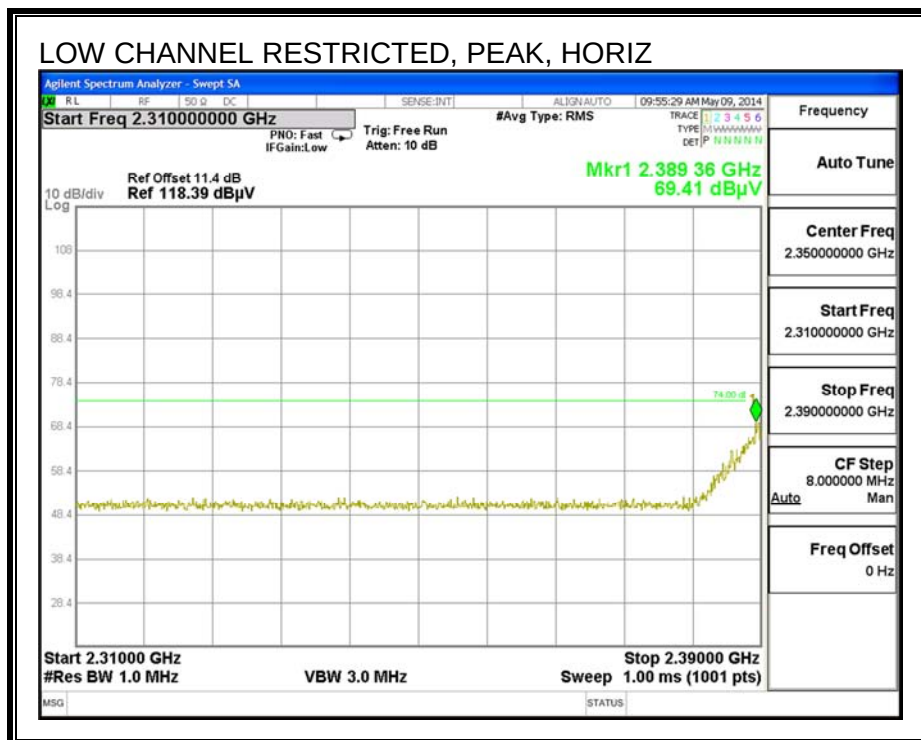
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

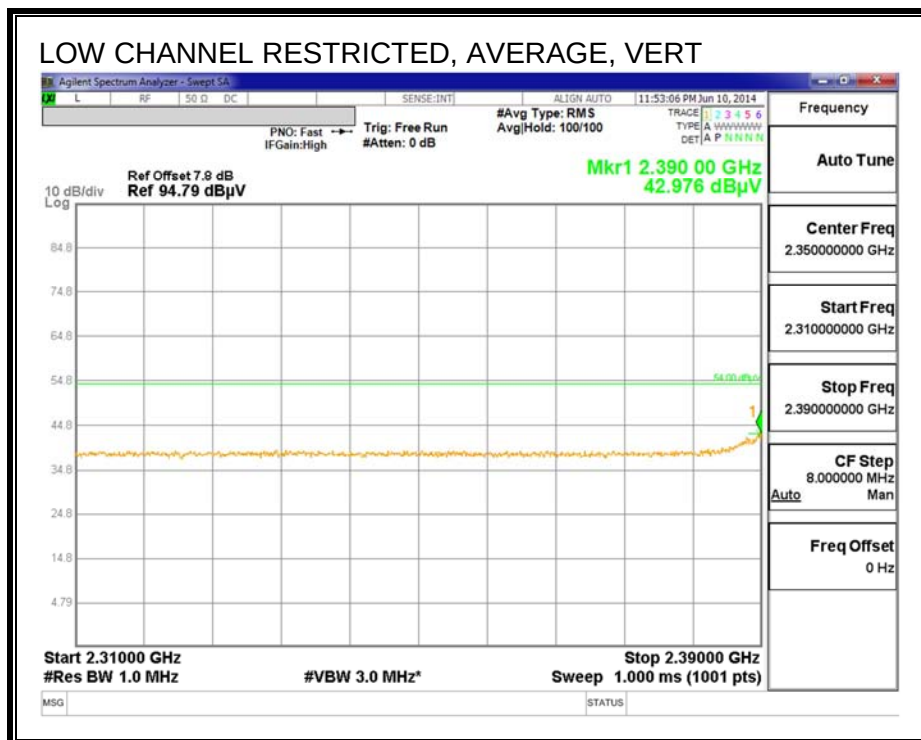
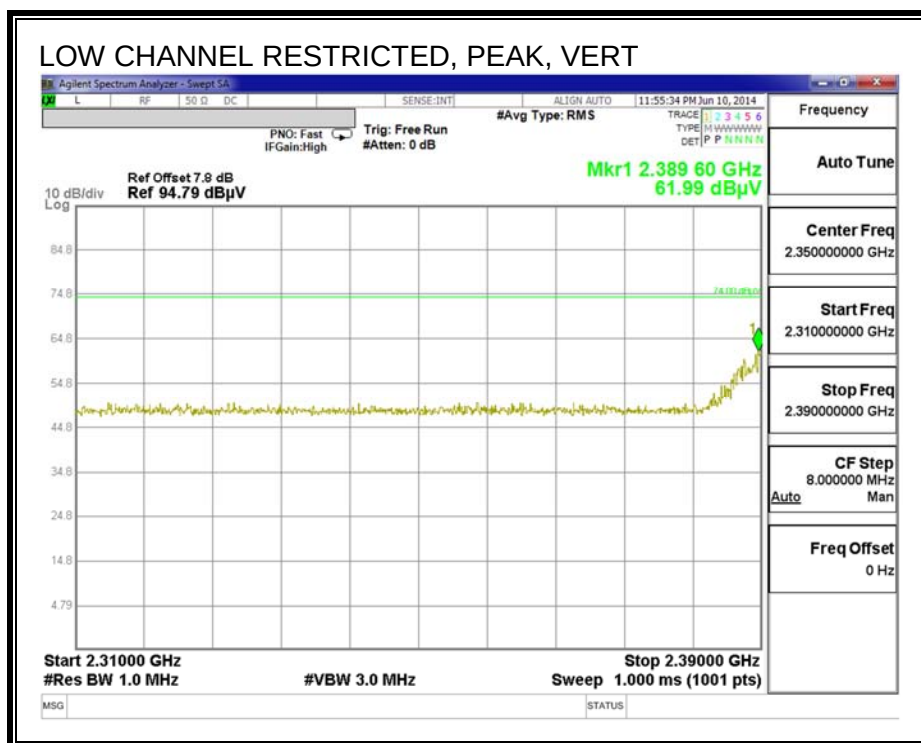
PK2 - KDB558074 Method: Maximum Peak

MAv1 - KDB558074 Option 1 Maximum RMS Average

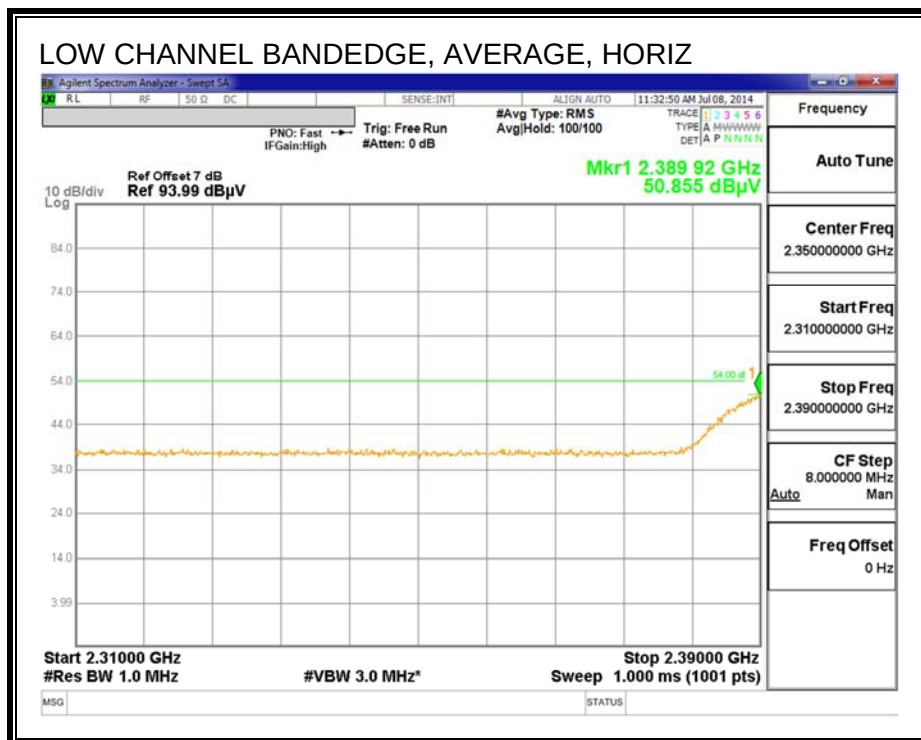
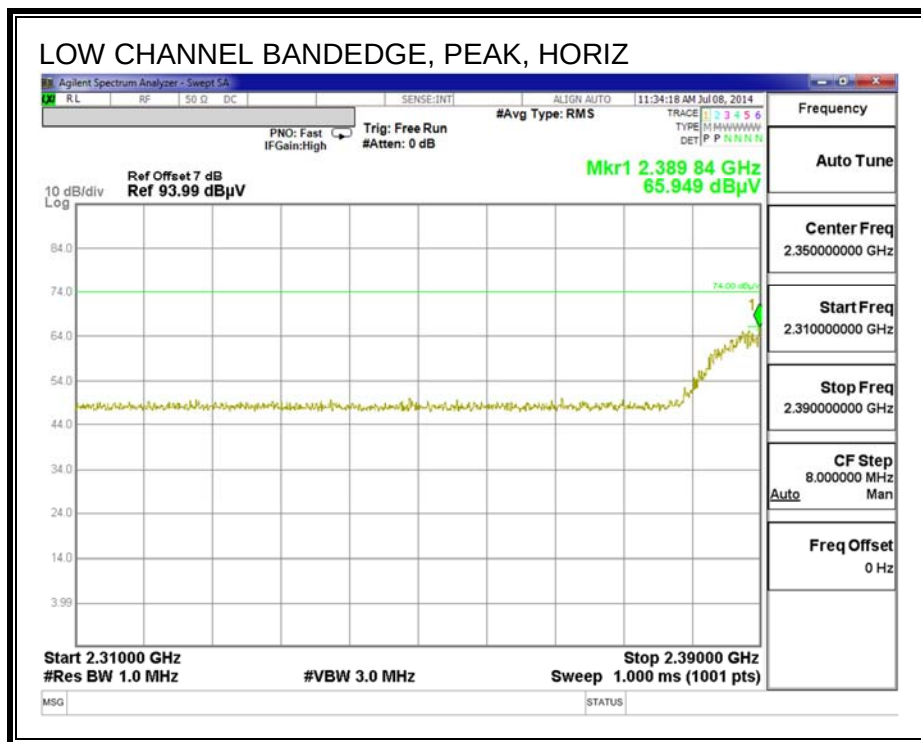
10.2.3. 802.11n HT20 1Tx SISO MODE IN THE 2.4 GHz BAND

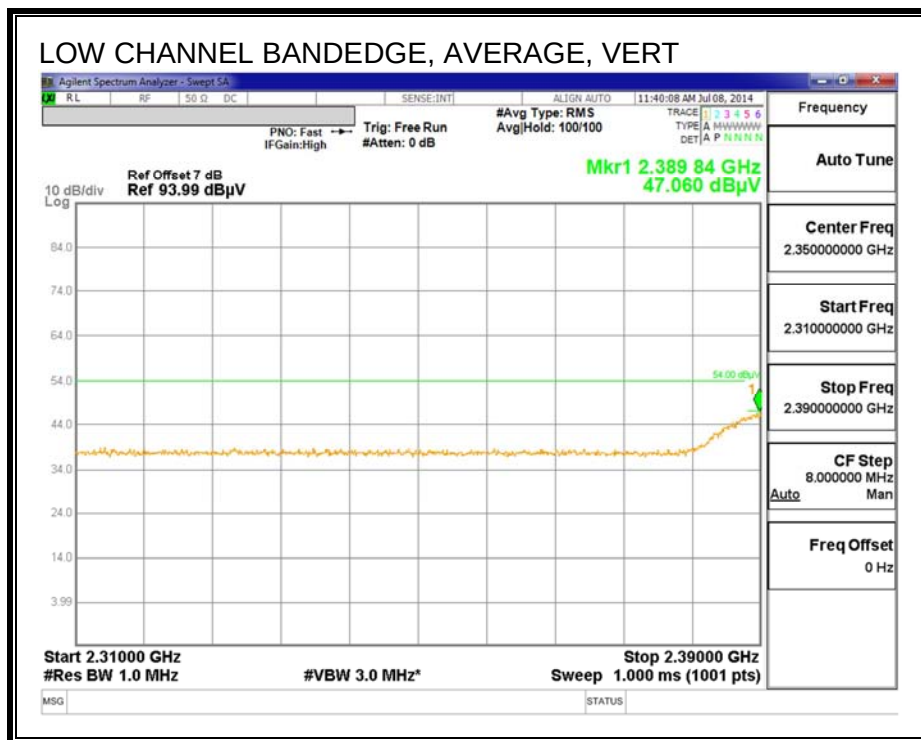
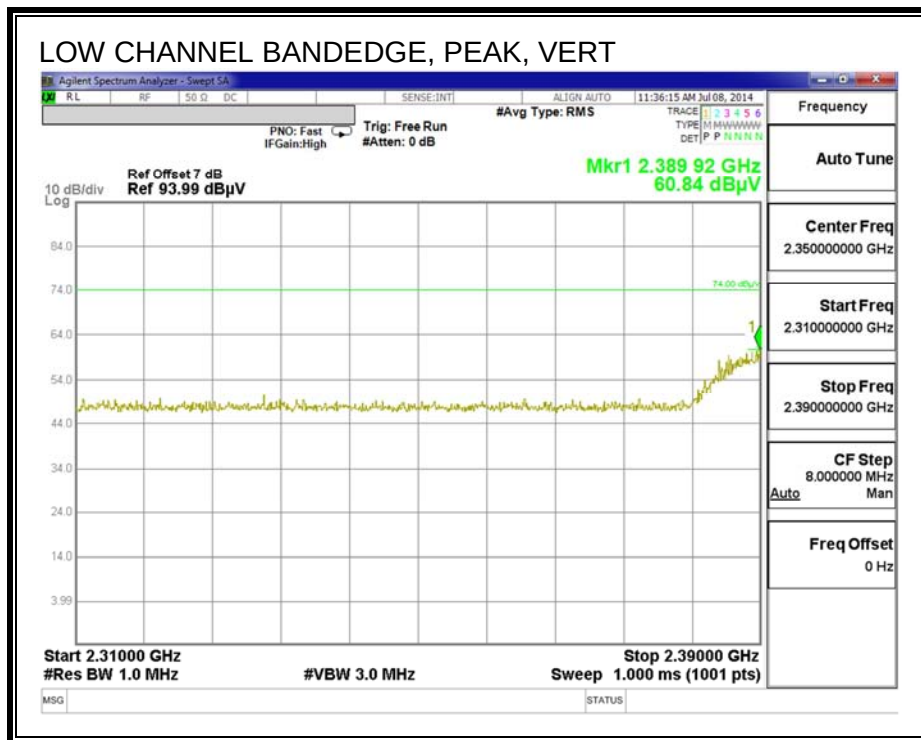
RESTRICTED BANDEDGE (LOW CHANNEL, CHANNEL 1)



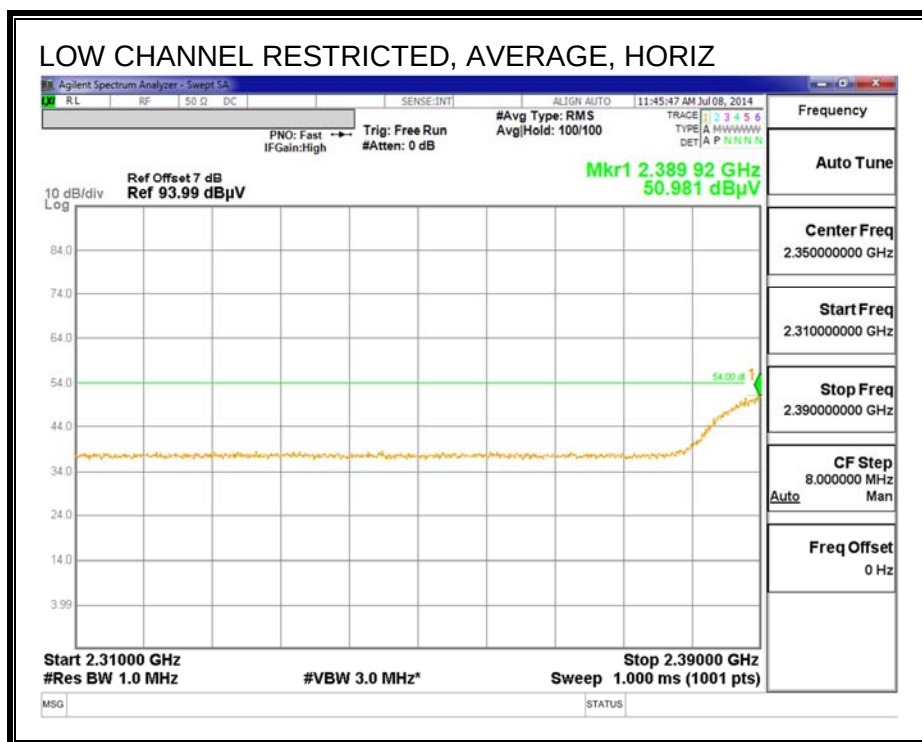
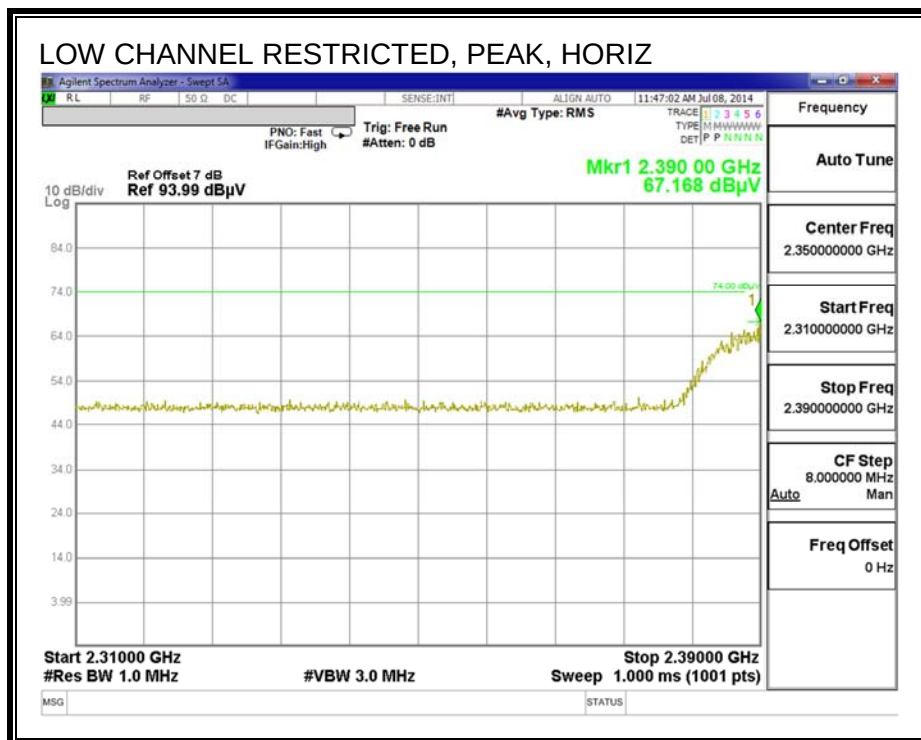


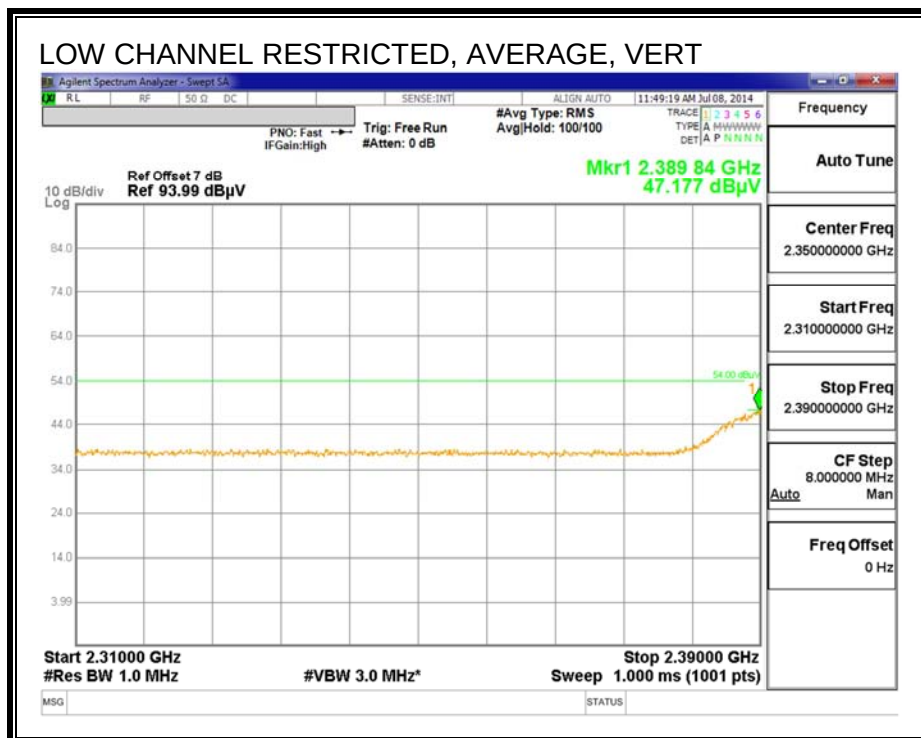
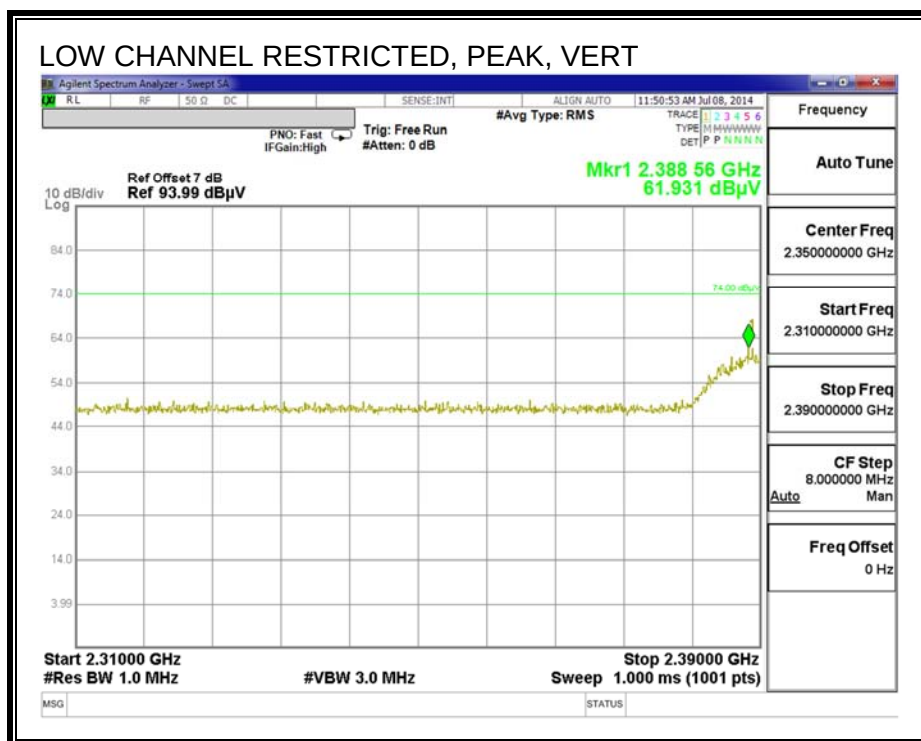
RESTRICTED BANDEDGE (HIGH CHANNEL, CHANNEL 2)



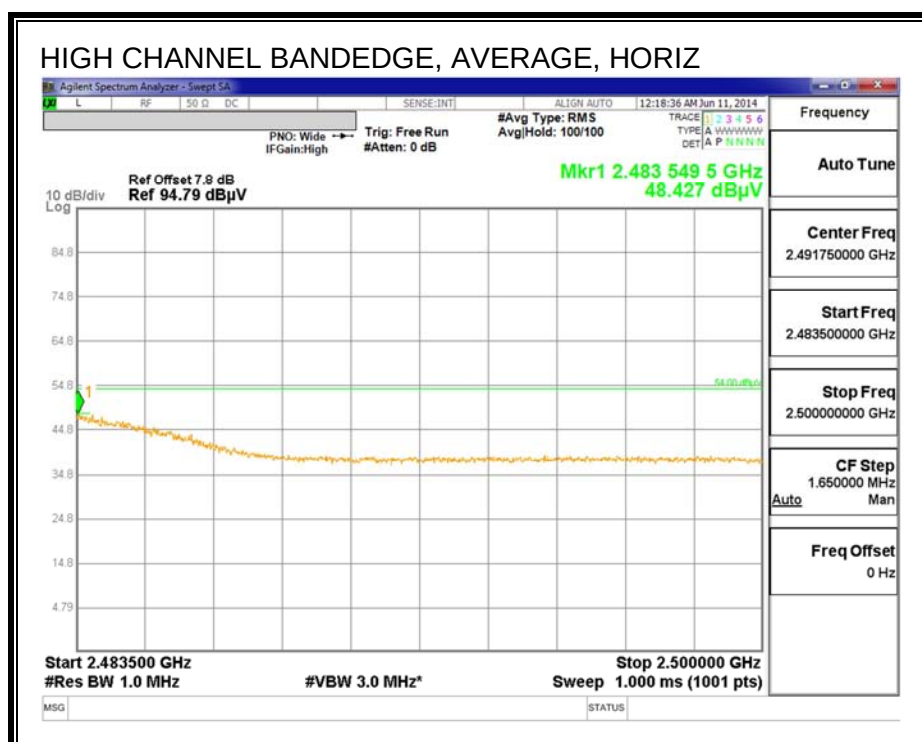
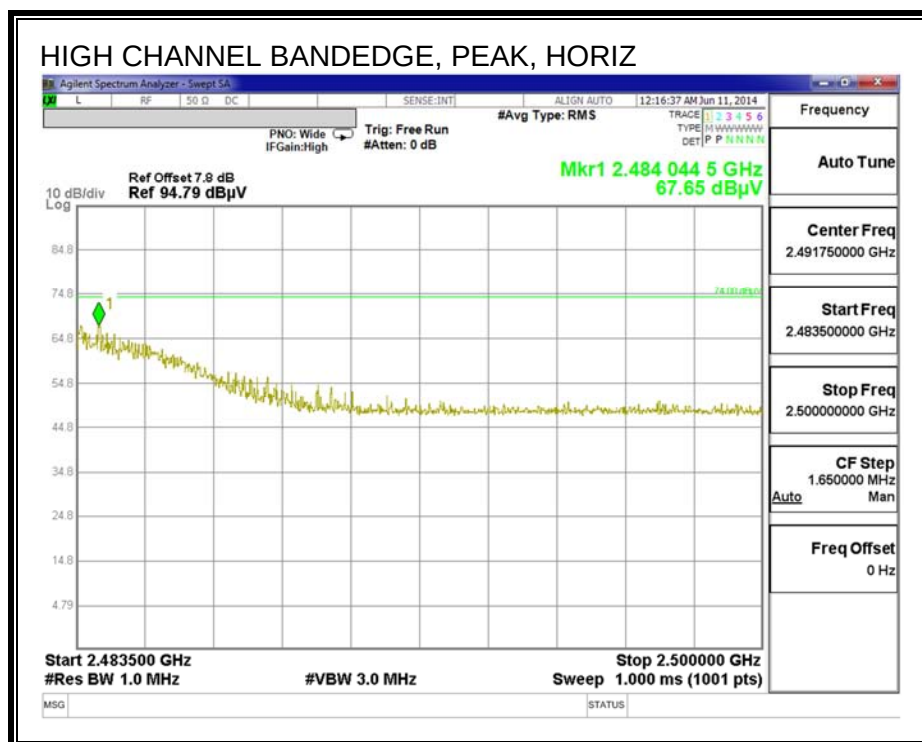


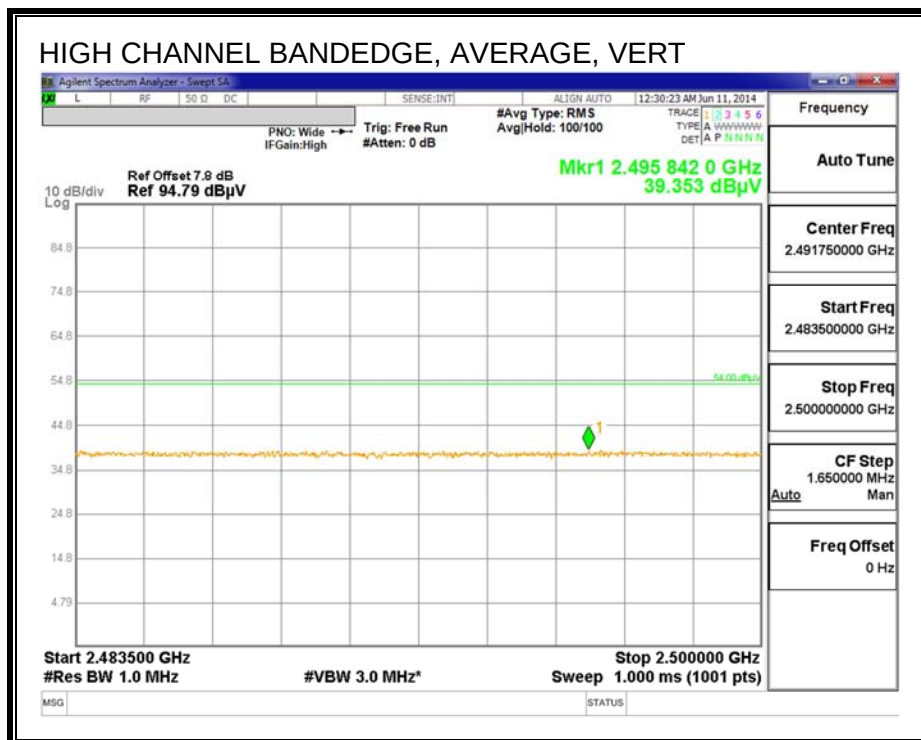
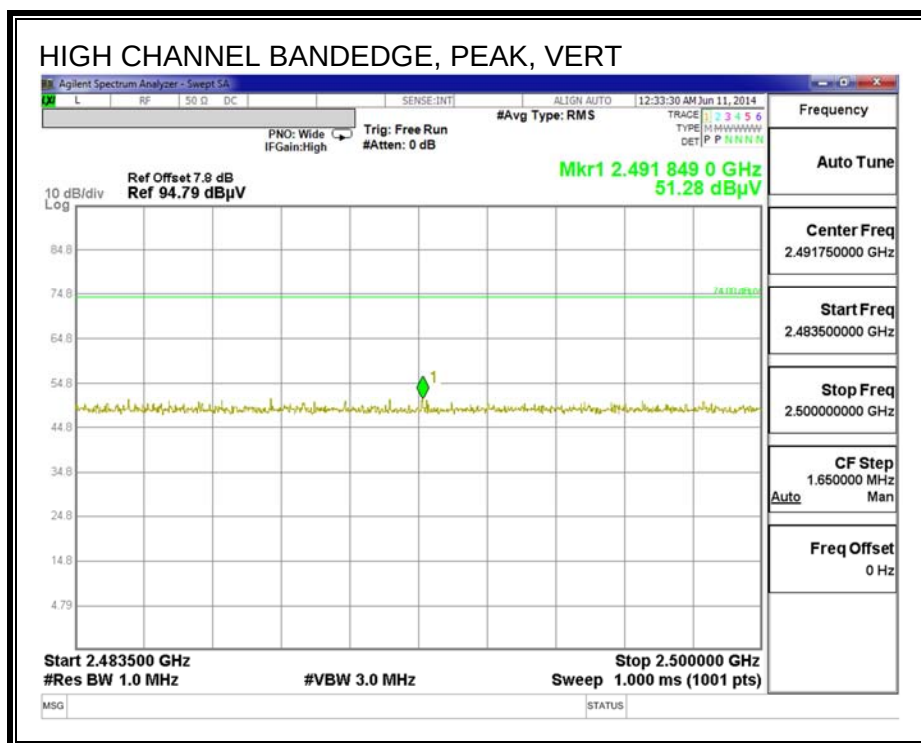
RESTRICTED BANDEDGE (LOW CHANNEL, CHANNEL 3)



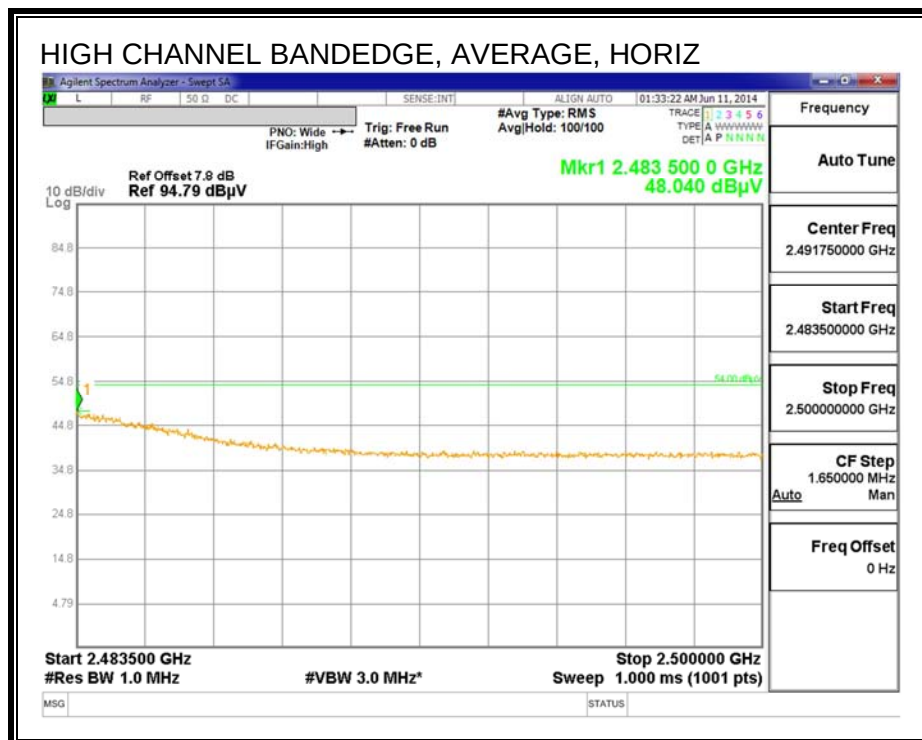
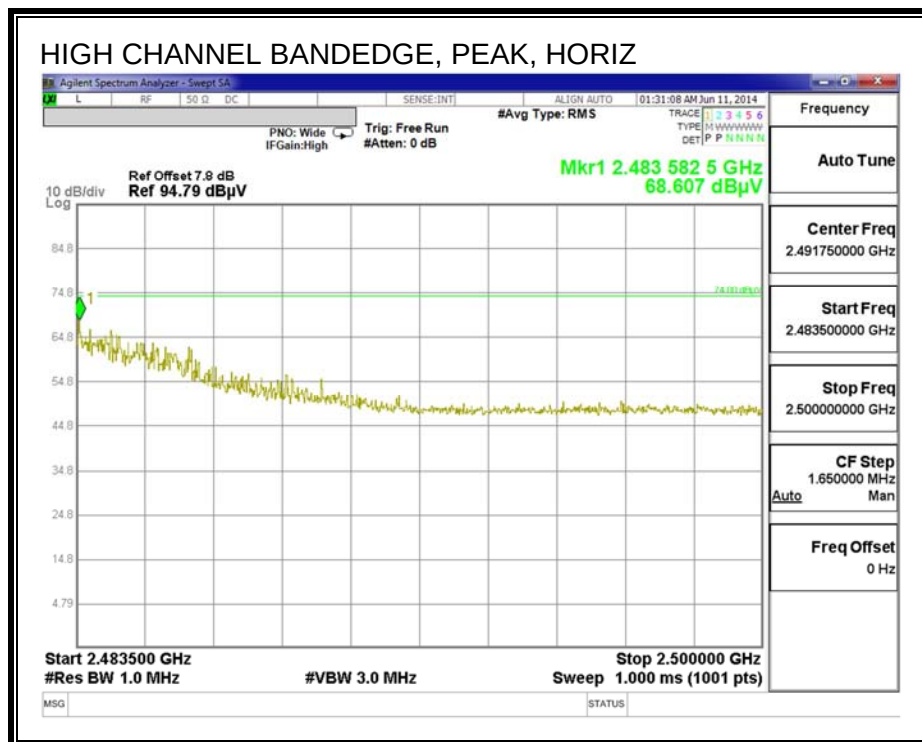


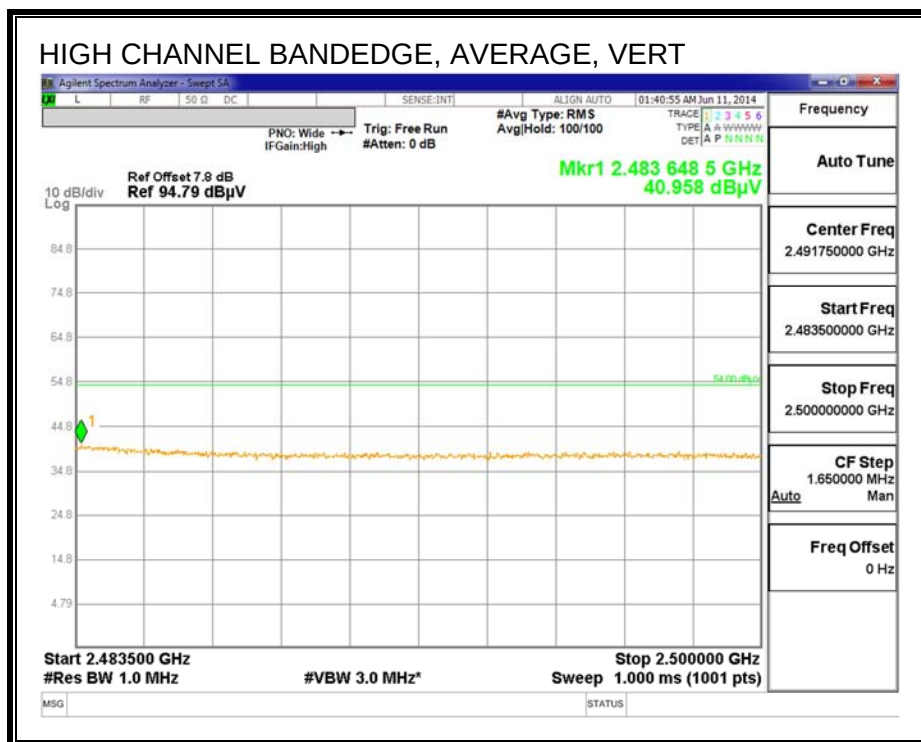
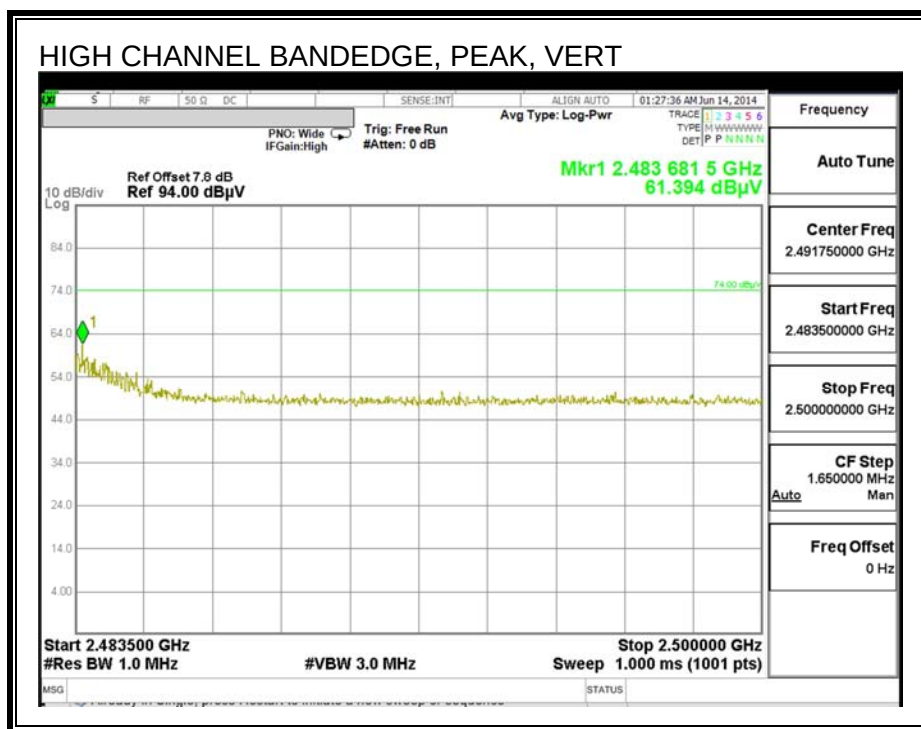
RESTRICTED BANDEDGE (HIGH CHANNEL, CHANNEL 11)



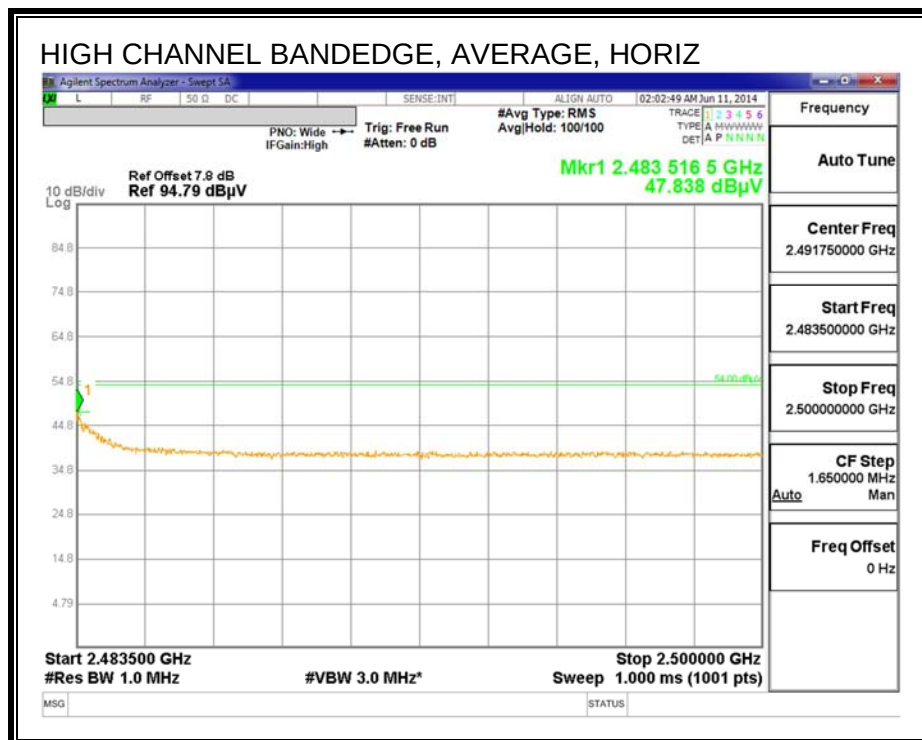
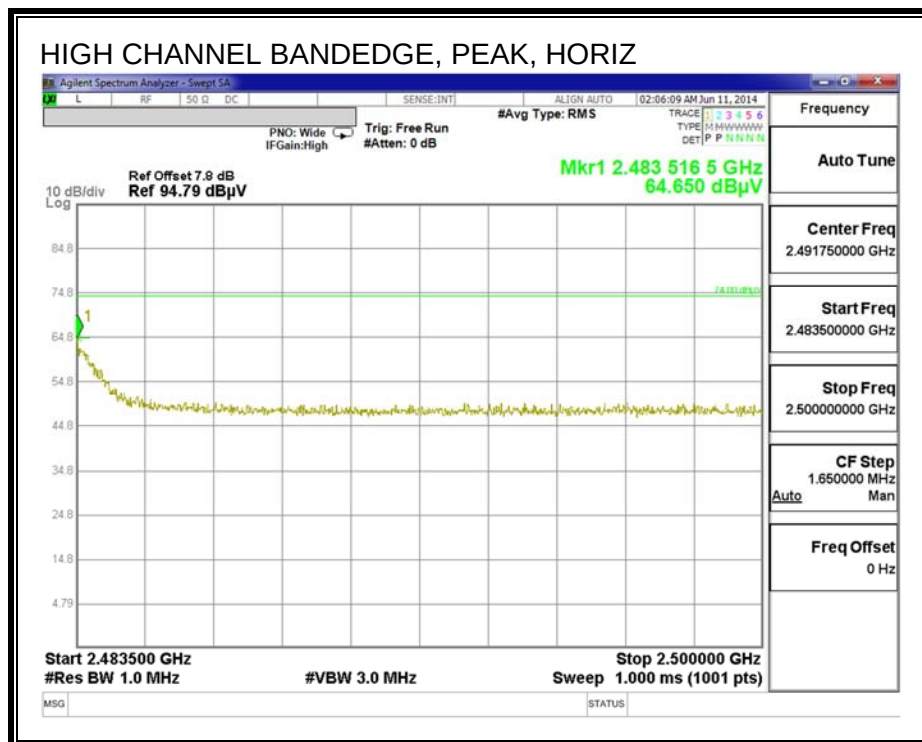


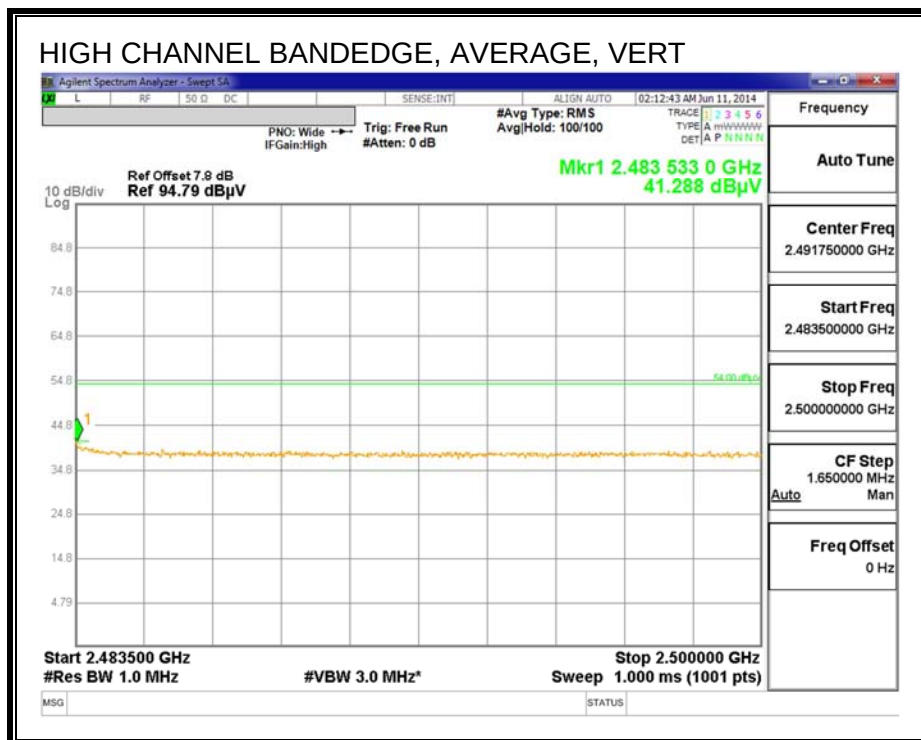
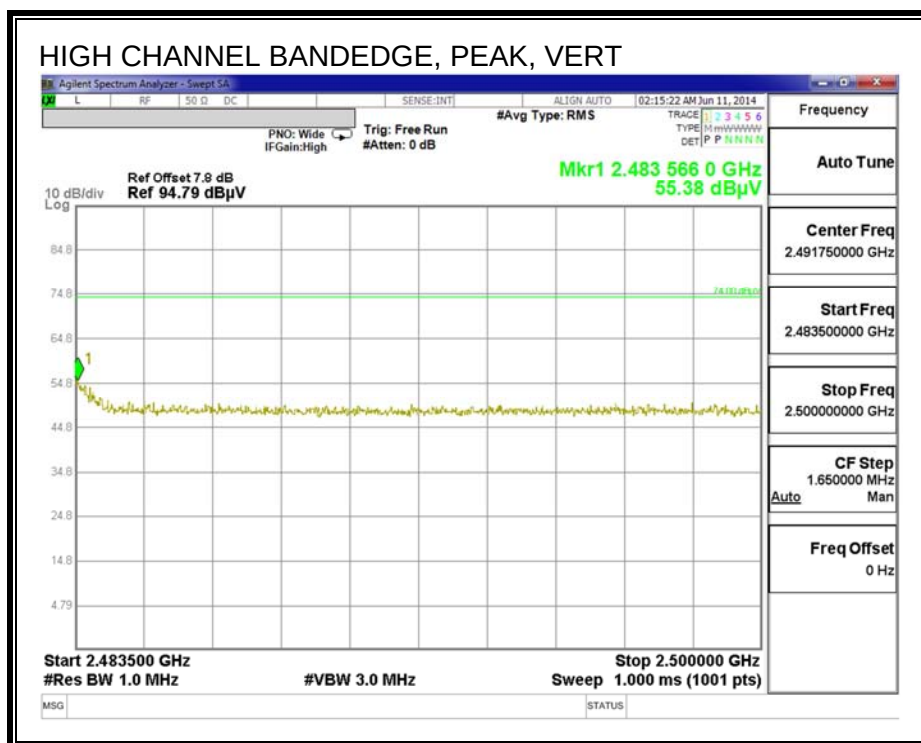
RESTRICTED BANDEDGE (HIGH CHANNEL, CHANNEL 12)





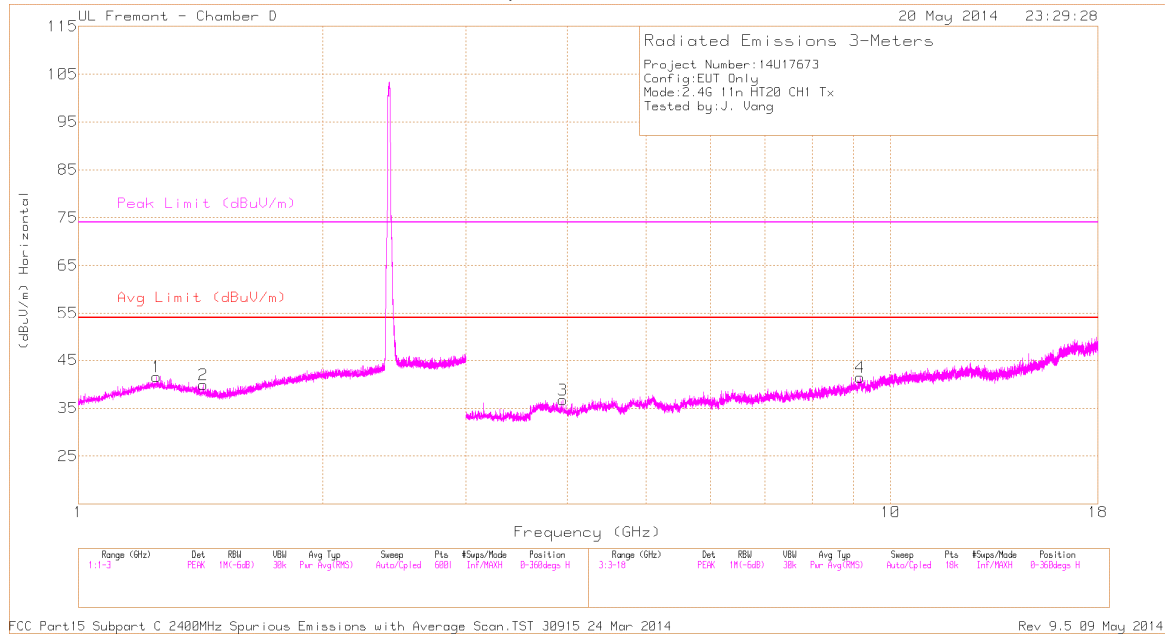
RESTRICTED BANDEDGE (HIGH CHANNEL, CHANNEL 13)



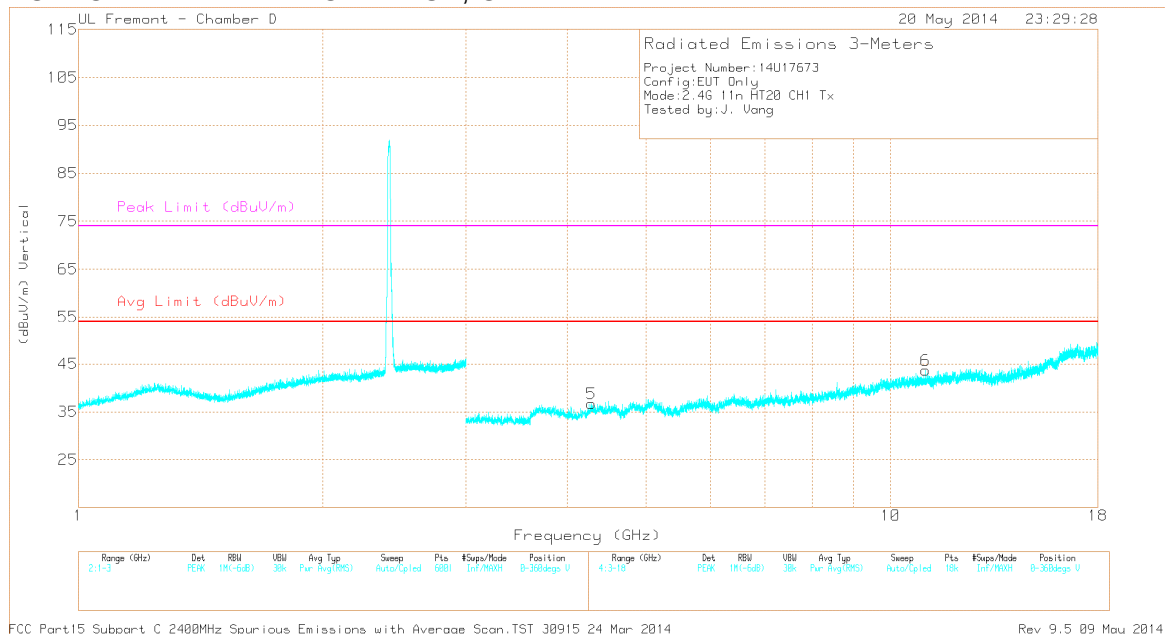


LOW CHANNEL, HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL HORIZONTAL PLOT, CH 1



LOW CHANNEL VERTICAL PLOT, CH 1



DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T712 (dB/m)	Amp/Cbl/Filtr /Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.248	36.36	PK2	29.6	-22.1	0	43.86	-	-	74	-30.14	30	202	H
	* 1.248	29.85	MAv1	29.6	-22.1	.1	37.45	54	-16.55	-	-	30	202	H
2	* 1.425	36.3	PK2	27.7	-21.8	0	42.2	-	-	74	-31.8	1	100	H
	* 1.425	29.75	MAv1	27.7	-21.7	.1	35.85	54	-18.15	-	-	1	100	H
3	* 3.952	33.66	PK2	32.9	-28.2	0	38.36	-	-	74	-35.64	5	202	H
	* 3.951	27.09	MAv1	32.9	-28.2	.1	31.89	54	-22.11	-	-	5	202	H
4	* 9.17	29.92	PK2	35.9	-21.3	0	44.52	-	-	74	-29.48	5	202	H
	* 9.171	23.36	MAv1	35.9	-21.3	.1	38.06	54	-15.94	-	-	5	202	H
5	* 4.279	30.27	PK2	33	-27.5	0	35.77	-	-	74	-38.23	5	202	V
	* 4.278	26.99	MAv1	33	-27.5	.1	32.59	54	-21.41	-	-	5	202	V
6	* 11.046	29.48	PK2	37.5	-21.6	0	45.38	-	-	74	-28.62	2	100	V
	* 11.047	22.96	MAv1	37.5	-21.6	.1	38.96	54	-15.04	-	-	2	100	V

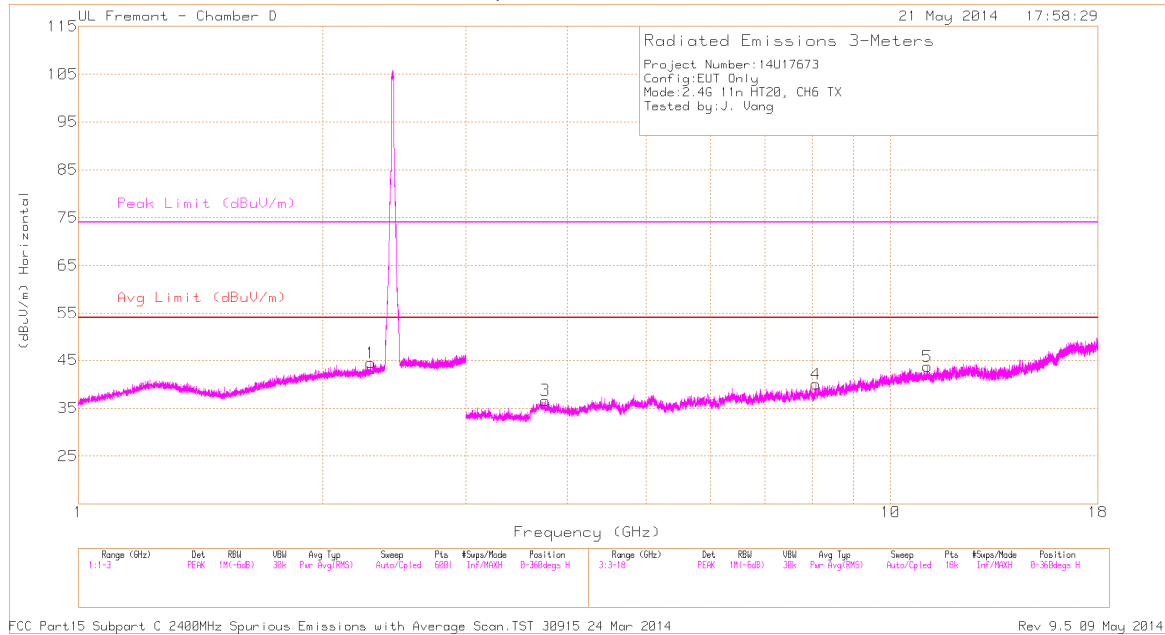
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK2 - KDB558074 Method: Maximum Peak

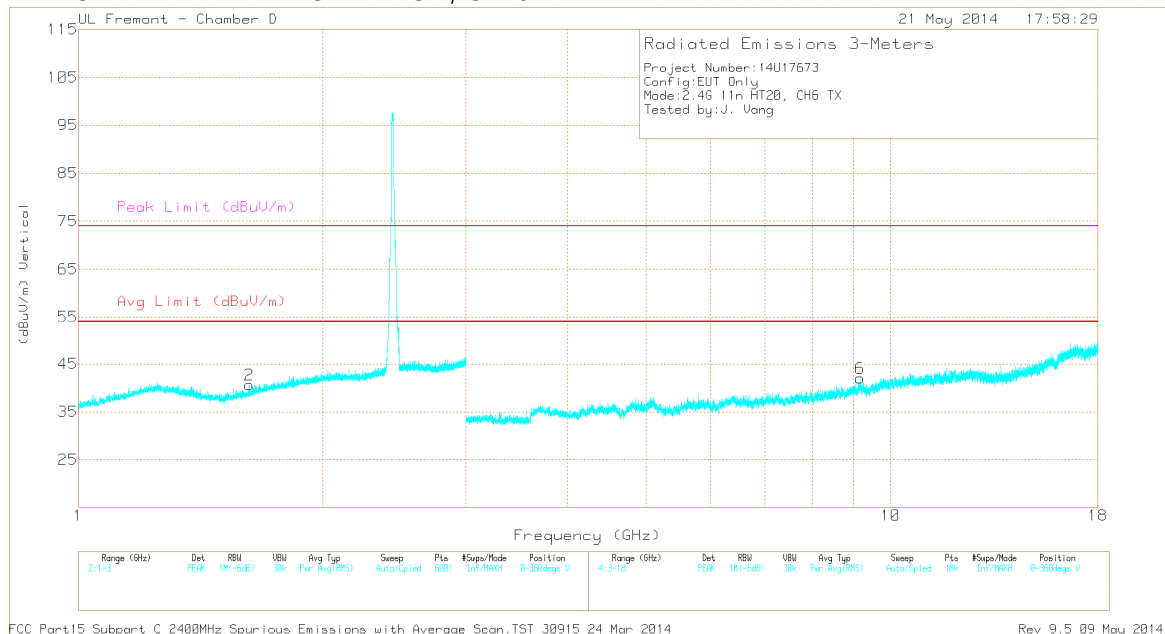
MAv1 - KDB558074 Option 1 Maximum RMS Average

MID CHANNEL, HARMONICS AND SPURIOUS EMISSIONS

MID CHANNEL HORIZONTAL PLOT, CH 6



MID CHANNEL VERTICAL PLOT, CH 6



DATA

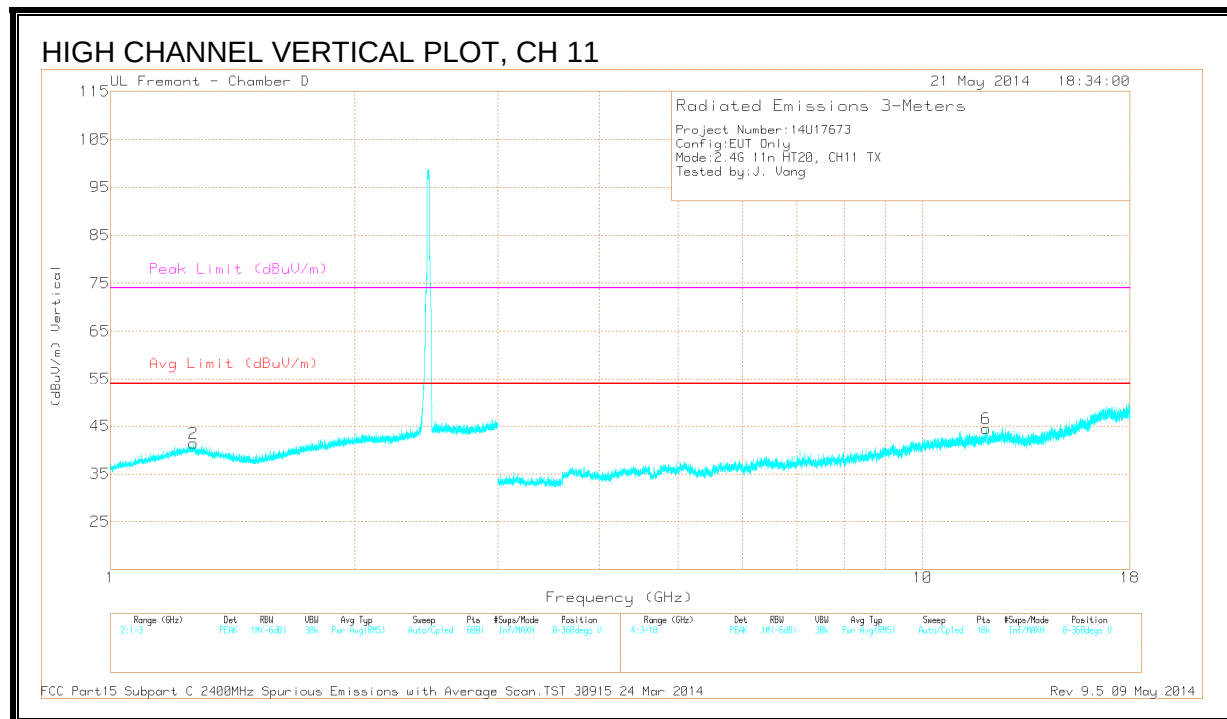
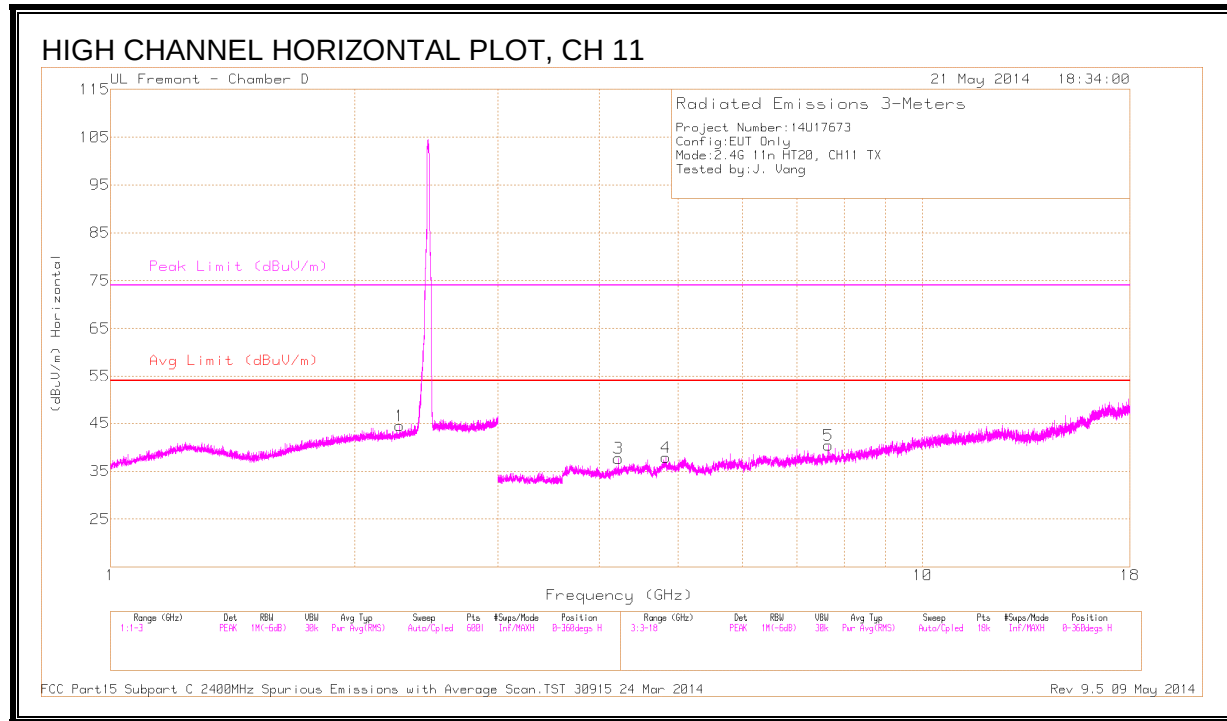
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T712 (dB/m)	Amp/Cbl/FI tr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	* 1.622	36.26	PK2	28.1	-21.6	42.76	-	-	74	-31.24	0	100	V
	* 1.623	29.69	MAv1	28.1	-21.6	36.19	54	-17.81	-	-	0	100	V
5	* 11.093	29.94	PK2	37.5	-20.9	46.54	-	-	74	-27.46	0	202	H
	* 11.093	23.3	MAv1	37.5	-20.9	39.9	54	-14.1	-	-	0	202	H
1	* 2.289	36.03	PK2	30.8	-20.8	46.03	-	-	74	-27.97	0	202	H
	* 2.289	29.66	MAv1	30.9	-20.8	39.76	54	-14.24	-	-	0	202	H
3	* 3.76	33.56	PK2	32.7	-28.4	37.86	-	-	74	-36.14	0	202	H
	* 3.76	27.06	MAv1	32.7	-28.4	31.36	54	-22.64	-	-	0	202	H
4	* 8.087	31.35	PK2	35.3	-24.2	42.45	-	-	74	-31.55	15	100	H
	* 8.088	24.8	MAv1	35.3	-24.2	35.9	54	-18.1	-	-	15	100	H
6	* 9.167	27.25	PK2	35.9	-21.5	41.65	-	-	74	-32.35	0	202	V
	* 9.166	24.11	MAv1	35.9	-21.6	38.41	54	-15.59	-	-	0	202	V

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

PK2 - KDB558074 Method: Maximum Peak

MAv1 - KDB558074 Option 1 Maximum RMS Average

HIGH CHANNEL, HARMONICS AND SPURIOUS EMISSIONS



DATA

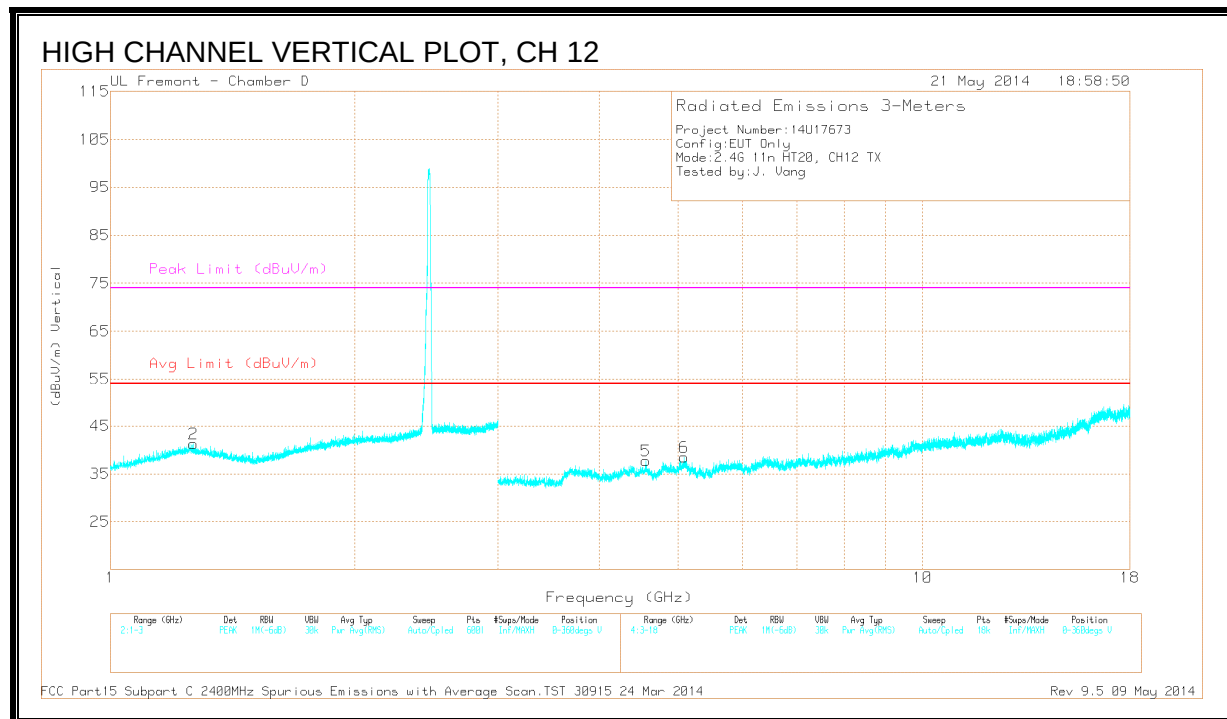
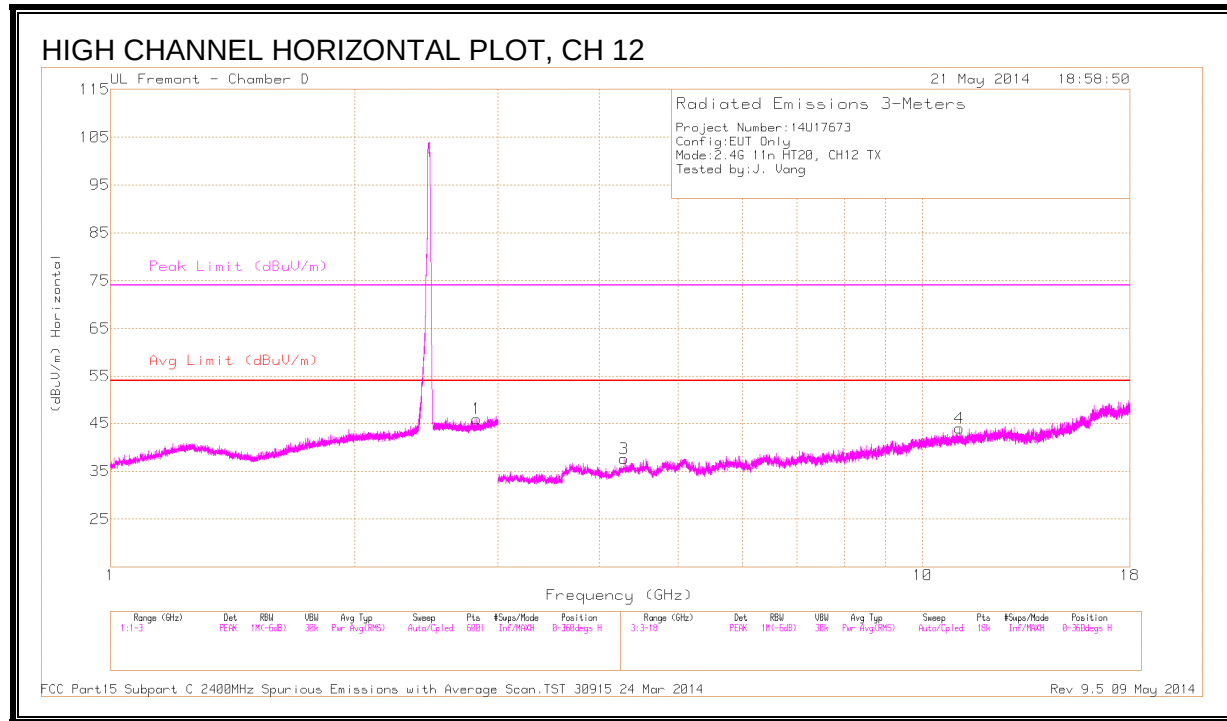
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T712 (dB/m)	Amp/Cbl/Fit r/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	* 1.266	36.47	PK2	29.4	-22	43.87	-	-	74	-30.13	10	100	V
	* 1.266	29.94	MAv1	29.4	-22	37.34	54	-16.66	-	-	10	100	V
6	* 11.983	26.91	PK2	38.2	-20.7	44.41	-	-	74	-29.59	0	100	V
	* 11.981	23.74	MAv1	38.2	-20.7	41.24	54	-12.76	-	-	0	100	V
1	* 2.271	36.26	PK2	30.7	-20.7	46.26	-	-	74	-27.74	23	100	H
	* 2.271	29.71	MAv1	30.7	-20.7	39.71	54	-14.29	-	-	23	100	H
3	* 4.22	33.15	PK2	32.9	-28.4	37.65	-	-	74	-36.35	0	100	H
	* 4.219	26.58	MAv1	32.9	-28.4	31.08	54	-22.92	-	-	0	100	H
4	* 4.826	32.68	PK2	33.5	-26.7	39.48	-	-	74	-34.52	0	100	H
	* 4.827	26.13	MAv1	33.5	-26.7	32.93	54	-21.07	-	-	0	100	H
5	* 7.65	31.66	PK2	35.1	-24.7	42.06	-	-	74	-31.94	0	100	H
	* 7.65	25.11	MAv1	35.1	-24.7	35.51	54	-18.49	-	-	0	100	H

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

PK2 - KDB558074 Method: Maximum Peak

MAv1 - KDB558074 Option 1 Maximum RMS Average

HIGH CHANNEL, HARMONICS AND SPURIOUS EMISSIONS



DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T712 (dB/m)	Amp/Cbl/Filt r/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	* 1.266	36.53	PK2	29.4	-22	43.93	-	-	74	-30.07	0	100	V
	* 1.265	29.93	MAv1	29.4	-22	37.33	54	-16.67	-	-	0	100	V
4	* 11.093	29.92	PK2	37.5	-20.9	46.52	-	-	74	-27.48	0	202	H
	* 11.093	23.22	MAv1	37.5	-20.9	39.82	54	-14.18	-	-	0	202	H
1	* 2.824	35.99	PK2	31.8	-19.9	47.89	-	-	74	-26.11	24	100	H
	* 2.825	29.49	MAv1	31.8	-19.9	41.39	54	-12.61	-	-	24	100	H
3	* 4.289	33.22	PK2	33	-27.5	38.72	-	-	74	-35.28	0	202	H
	* 4.289	26.71	MAv1	33	-27.5	32.21	54	-21.79	-	-	0	202	H
5	* 4.567	32.83	PK2	33.5	-26.4	39.93	-	-	74	-34.07	0	202	V
	* 4.567	26.23	MAv1	33.5	-26.4	33.33	54	-20.67	-	-	0	202	V
6	* 5.084	32.69	PK2	33.6	-26.1	40.19	-	-	74	-33.81	0	202	V
	* 5.084	26.1	MAv1	33.6	-26.1	33.6	54	-20.4	-	-	0	202	V

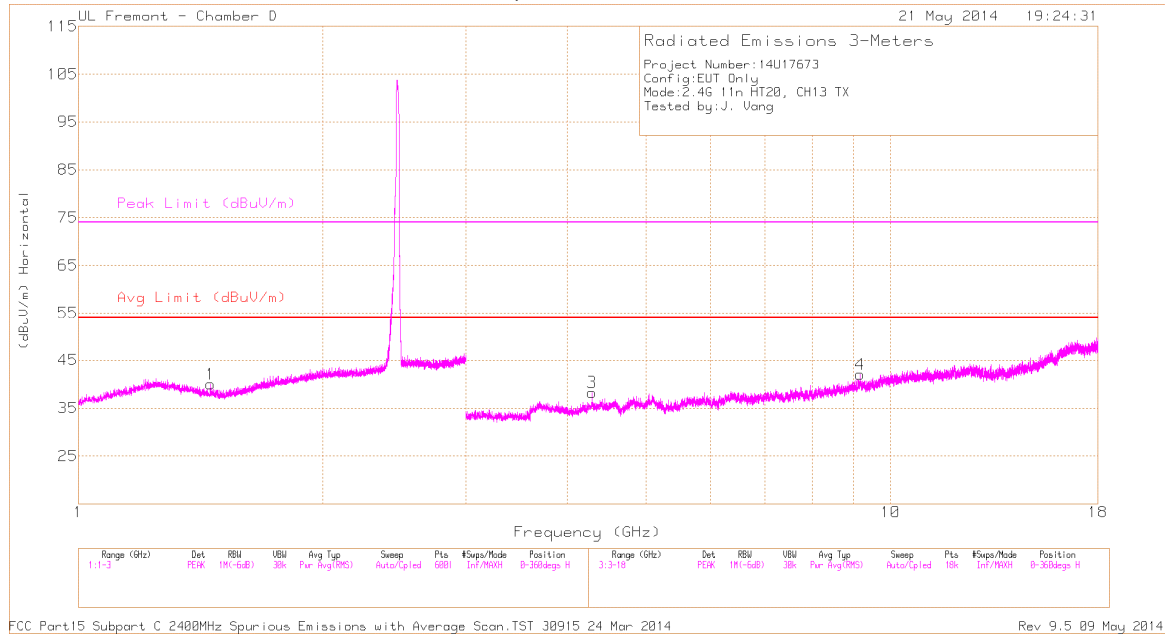
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK2 - KDB558074 Method: Maximum Peak

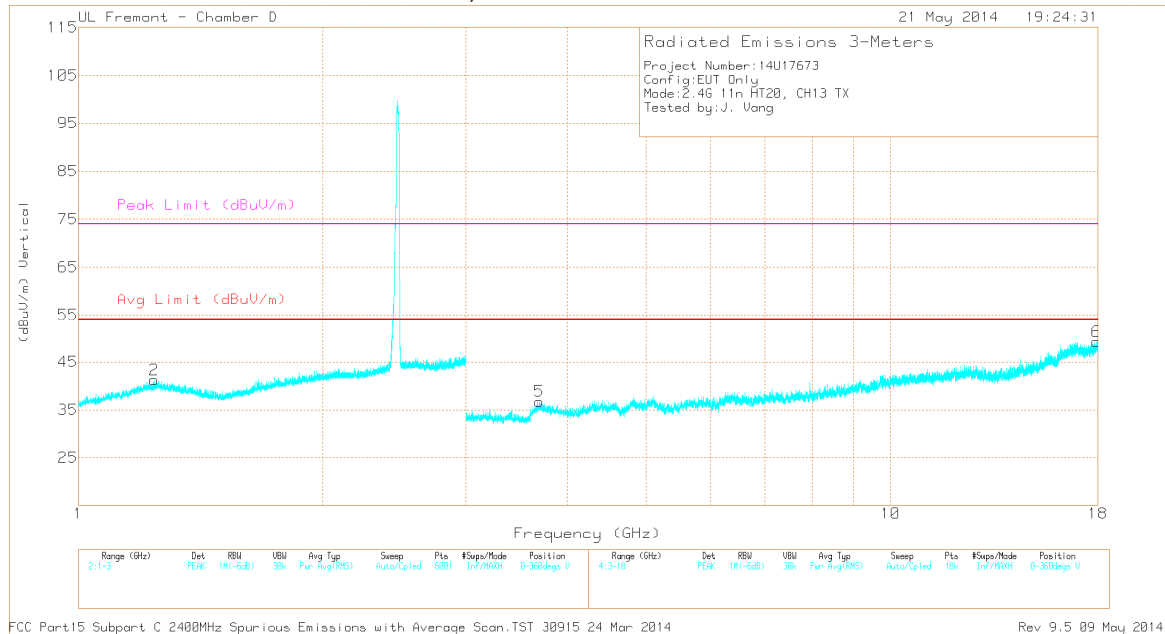
MAv1 - KDB558074 Option 1 Maximum RMS Average

HIGH CHANNEL, HARMONICS AND SPURIOUS EMISSIONS

HIGH CHANNEL HORIZONTAL PLOT, CH 13



HIGH CHANNEL VERTICAL PLOT, CH 13



DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T712 (dB/m)	Amp/Cbl/Fitter/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	* 1.24	34.31	PK2	29.5	-22.1	41.71	-	-	74	-32.29	0	202	V
	* 1.24	30.33	MAv1	29.5	-22.1	37.73	54	-16.27	-	-	0	202	V
1	* 1.455	36.24	PK2	27.4	-21.7	41.94	-	-	74	-32.06	0	100	H
	* 1.455	29.7	MAv1	27.4	-21.7	35.4	54	-18.6	-	-	0	100	H
6	* 17.932	28.56	PK2	41.4	-17.5	52.46	-	-	74	-21.54	4	202	V
	* 17.932	22.03	MAv1	41.4	-17.5	45.93	54	-8.07	-	-	4	202	V
5	* 3.696	33.46	PK2	32.6	-27.9	38.16	-	-	74	-35.84	0	100	V
	* 3.695	26.98	MAv1	32.6	-27.9	31.68	54	-22.32	-	-	0	100	V
3	* 4.288	33.08	PK2	33	-27.5	38.58	-	-	74	-35.42	0	202	H
	* 4.288	26.57	MAv1	33	-27.5	32.07	54	-21.93	-	-	0	202	H
4	* 9.176	29.7	PK2	35.9	-21.3	44.3	-	-	74	-29.7	0	202	H
	* 9.174	23.17	MAv1	35.9	-21.3	37.77	54	-16.23	-	-	0	202	H

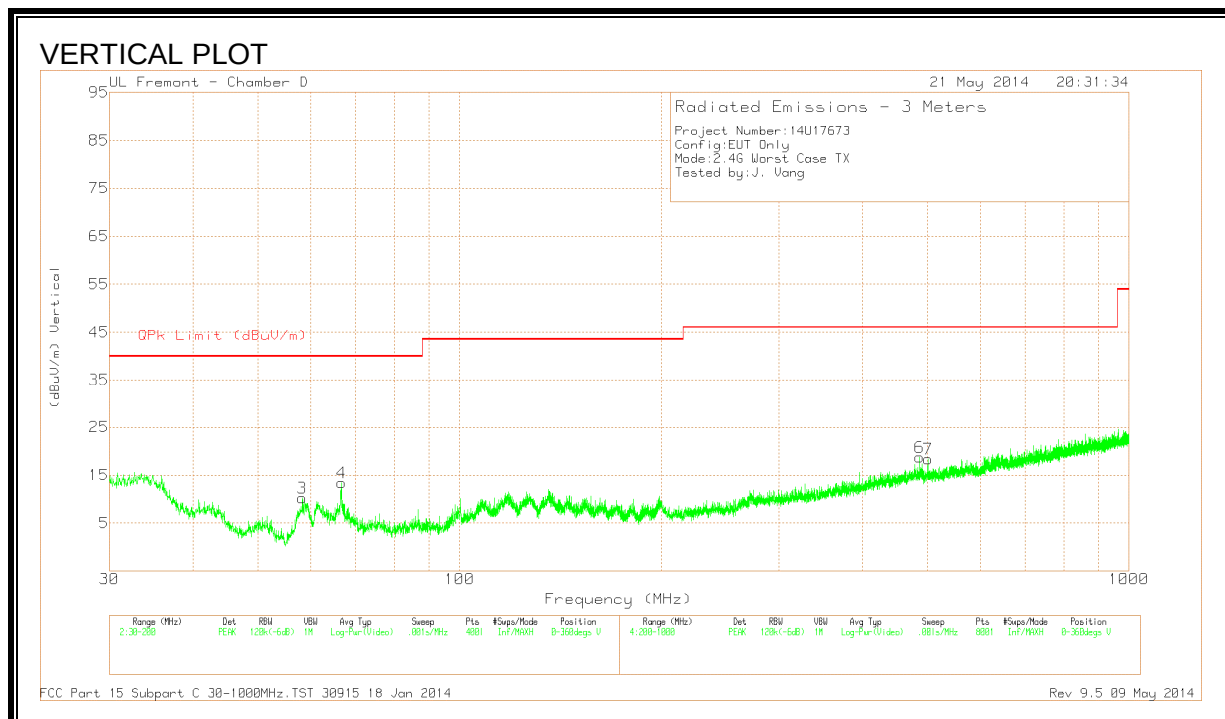
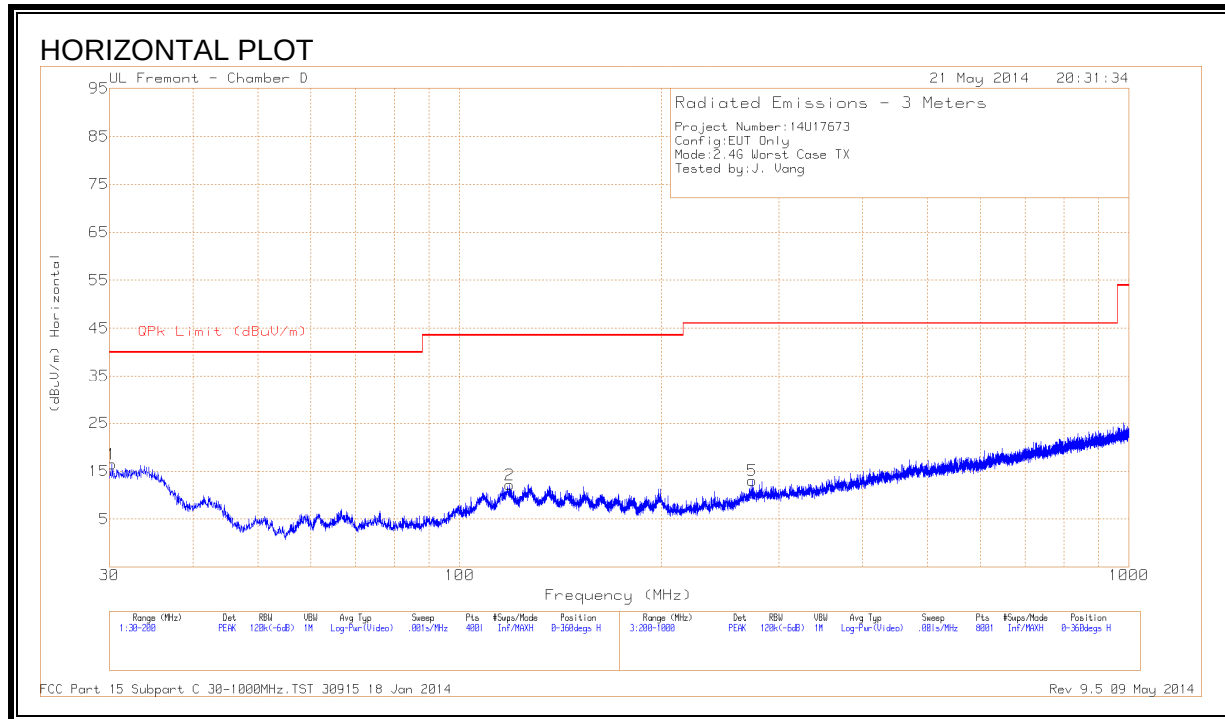
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK2 - KDB558074 Method: Maximum Peak

MAv1 - KDB558074 Option 1 Maximum RMS Average

10.3. WORST-CASE BELOW 1 GHz

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



DATA

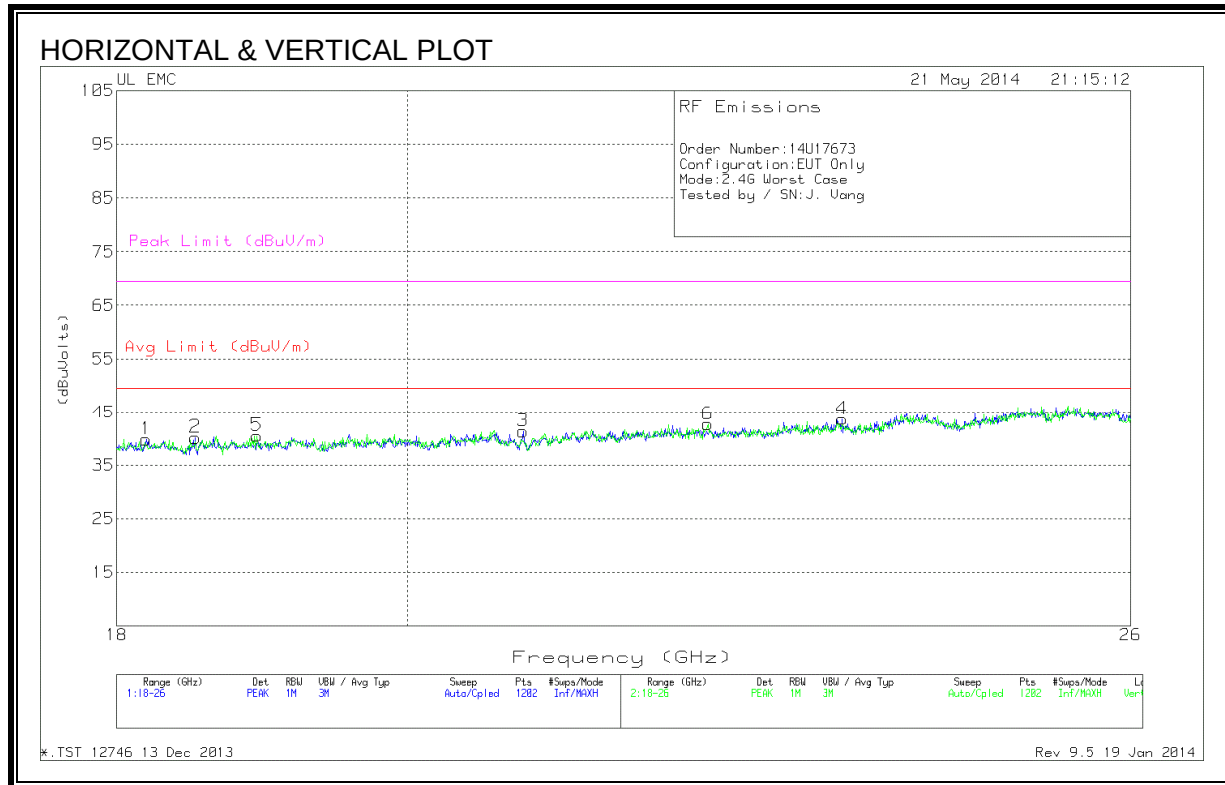
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	Hybrid	Amp/Cbl (dB)	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	* 118.74	29.44	PK	13.7	-31	12.14	43.52	-31.38	0-360	98	H
5	* 273.8	30.12	PK	13.4	-30.5	13.02	46.02	-33	0-360	100	H
1	30.255	26.83	PK	21.3	-31.7	16.43	40	-23.57	0-360	201	H
3	58.2625	34.33	PK	7.5	-31.6	10.23	40	-29.77	0-360	100	V
4	66.635	36.79	PK	8.2	-31.6	13.39	40	-26.61	0-360	100	V
6	486.8	30.7	PK	17.7	-29.7	18.7	46.02	-27.32	0-360	100	V
7	501.1	30.59	PK	17.4	-29.6	18.39	46.02	-27.63	0-360	100	V

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

PK - Peak detector

10.4. WORST-CASE ABOVE 18 to 26 GHz

SPURIOUS EMISSIONS 18000 TO 26000 MHz (WORST-CASE CONFIGURATION)



DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T89 (dB/m)	Amp/Cbl (dB)	Dist Corr (dB)	Corrected Reading (dBuVolts)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)
1	18.193	41.73	PK	32.3	-24.7	-9.5	39.8	49.5	-9.66	69.5	-29.6
2	18.52	41.87	PK	32.4	-24.6	-9.5	40.1	49.5	-9.33	69.5	-29.3
3	20.858	41.83	PK	32.9	-23.9	-9.5	41.3	49.5	-8.16	69.5	-28.1
4	23.415	42.97	PK	33.5	-23.3	-9.5	43.6	49.5	-5.83	69.5	-25.8
5	18.939	42.1	PK	32.5	-24.6	-9.5	40.5	49.5	-9	69.5	-29
6	22.303	42.07	PK	33.2	-23.1	-9.5	42.6	49.5	-6.83	69.5	-26.8

PK - Peak detector

11. AC POWER LINE CONDUCTED EMISSIONS

LIMITS

FCC §15.207 (a)

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

* Decreases with the logarithm of the frequency.

TEST PROCEDURE

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

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

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

RESULTS

6 WORST EMISSIONS

Line-L1 .15 - 30MHz

Trace Markers

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	T24 IL L1 (dB)	LC Cables 1&3 (dB)	Corrected Reading dBuV	CISPR 22 Class B QP	Margin to Limit (dB)	CISPR 22 Class B Avg	Margin to Limit (dB)
1	.1635	40.44	PK	1.2	0	41.64	65.3	-23.66	-	-
2	.1635	17.61	Av	1.2	0	18.81	-	-	55.3	-36.49
3	.762	42.04	PK	.3	0	42.34	56	-13.66	-	-
4	.762	26.65	Av	.3	0	26.95	-	-	46	-19.05
5	5.1855	30.99	PK	.2	.1	31.29	60	-28.71	-	-
6	5.1855	20.5	Av	.2	.1	20.8	-	-	50	-29.2

Line-L2 .15 - 30MHz

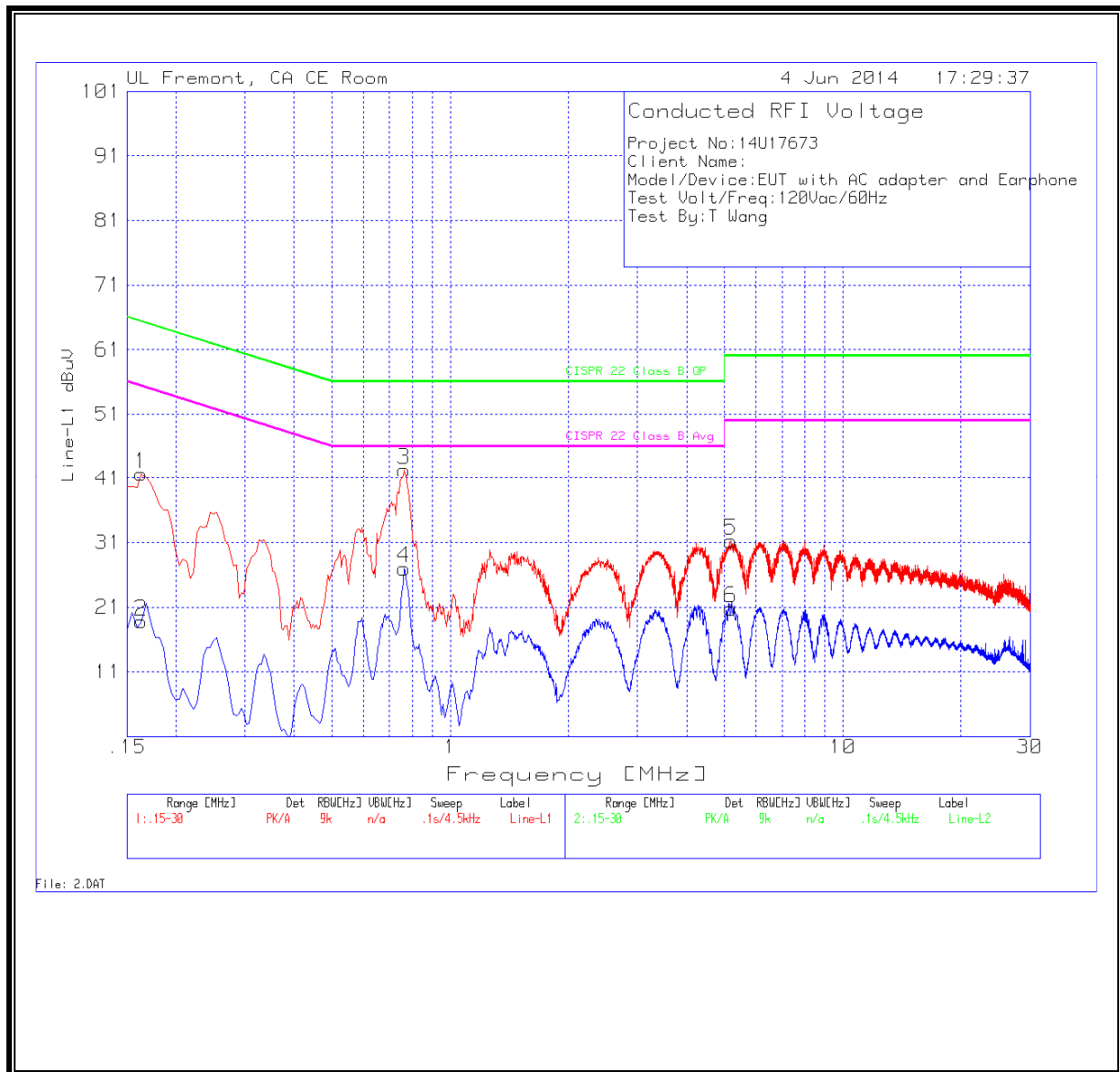
Trace Markers

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	T24 IL L2 (dB)	LC Cables 2&3 (dB)	Corrected Reading dBuV	CISPR 22 Class B QP	Margin to Limit (dB)	CISPR 22 Class B Avg	Margin to Limit (dB)
7	.1635	39.89	PK	1.3	0	41.19	65.3	-24.11	-	-
8	.1635	18.15	Av	1.3	0	19.45	-	-	55.3	-35.85
9	.7665	41.17	PK	.3	0	41.47	56	-14.53	-	-
10	.7665	26.44	Av	.3	0	26.74	-	-	46	-19.26
11	6.0855	30.22	PK	.2	.1	30.52	60	-29.48	-	-
12	6.0855	19.32	Av	.2	.1	19.62	-	-	50	-30.38

PK - Peak detector

Av - average detection

LINE 1 RESULTS



LINE 2 RESULTS

