



FCC 47 CFR PART 15 SUBPART E
CERTIFICATION TEST REPORT
FOR
CELLULAR PHONE WITH BLUETOOTH AND WLAN RADIOS

MODEL NUMBER: A1522

FCC ID: BCG-E2817A

REPORT NUMBER: 14U17676-E10, Revision B

ISSUE DATE: AUGUST 05, 2014

Prepared for
APPLE, INC.
1 INFINITE LOOP
CUPERTINO, CA 95014, U.S.A.

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



NVLAP LAB CODE 200065-0

Revision History

Rev.	Issue Date	Revisions	Revised By
--	7/23/14	Initial Issue	F. de Anda
A	7/30/14	Updated product description, updated sections 1, 2, 5.2, 5.6, 8.1 and 9	D. Garcia
B	08/05/14	Address TCB Questions	T. Lee

TABLE OF CONTENTS

1. ATTESTATION OF TEST RESULTS.....	5
2. TEST METHODOLOGY.....	6
3. FACILITIES AND ACCREDITATION.....	6
4. CALIBRATION AND UNCERTAINTY	6
4.1. MEASURING INSTRUMENT CALIBRATION.....	6
4.2. SAMPLE CALCULATION.....	6
4.3. MEASUREMENT UNCERTAINTY	7
5. EQUIPMENT UNDER TEST	8
5.1. DESCRIPTION OF EUT.....	8
5.2. MAXIMUM OUTPUT POWER.....	8
5.3. DESCRIPTION OF AVAILABLE ANTENNAS	8
5.4. SOFTWARE AND FIRMWARE	8
5.5. WORST-CASE CONFIGURATION AND MODE	9
5.6. DESCRIPTION OF TEST SETUP	10
6. TEST AND MEASUREMENT EQUIPMENT	13
7. MEASUREMENT METHODS	14
8. ON TIME, DUTY CYCLE AND MEASUREMENT METHODS.....	15
8.1. ON TIME AND DUTY CYCLE RESULTS.....	15
9. ANTENNA PORT TEST RESULTS	15
10. RADIATED TEST RESULTS	16
10.1. LIMITS AND PROCEDURE.....	16
10.2. TRANSMITTER ABOVE 1 GHz.....	17
10.3. TX ABOVE 1 GHz 802.11a MODE IN THE 5.2 GHz BAND	17
10.4. TX ABOVE 1 GHz 802.11n HT20 MODE IN THE 5.2 GHz BAND	25
10.5. TX ABOVE 1 GHz 802.11n HT40 MODE IN THE 5.2 GHz BAND	33
10.6. TX ABOVE 1G 802.11ac 80MHz MODE IN THE 5.2 GHz BAND	39
10.7. TX ABOVE 1 GHz 802.11a MODE IN THE 5.3 GHz BAND	43
10.8. TX ABOVE 1 GHz 802.11n HT20 MODE IN THE 5.3 GHz BAND	51
10.9. TX ABOVE 1 GHz 802.11n HT40 MODE IN THE 5.3 GHz BAND	59
10.10. TX ABOVE 1G 802.11ac 80MHz MODE IN THE 5.3 GHz BAND	65
10.11. TX ABOVE 1 GHz 802.11a MODE IN THE 5.6 GHz BAND	69
10.12. TX ABOVE 1 GHz 802.11n HT20 MODE IN THE 5.6 GHz BAND	78

10.13.	TX ABOVE 1 GHz 802.11n HT40 MODE IN THE 5.6 GHz BAND	89
10.14.	TX ABOVE 1G 802.11ac 80MHz MODE IN THE 5.6 GHz BAND	100
10.15.	TX ABOVE 1 GHz 802.11a MODE IN THE 5.8 GHz BAND	106
10.16.	TX ABOVE 1 GHz 802.11n HT20 MODE IN THE 5.8 GHz BAND	114
10.17.	TX ABOVE 1 GHz 802.11n HT40 MODE IN THE 5.8 GHz BAND	122
10.18.	TX ABOVE 1G 802.11ac 80MHz MODE IN THE 5.8 GHz BAND	128
10.19.	WORST-CASE BELOW 1 GHz	132
10.20.	WORST-CASE 18 to 26 GHz	134
10.21.	WORST-CASE 26 to 40 GHz	138
11.	AC POWER LINE CONDUCTED EMISSIONS.....	142
12.	DYNAMIC FREQUENCY SELECTION	147
13.	SETUP PHOTOS	148

1. ATTESTATION OF TEST RESULTS

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

EUT DESCRIPTION: CELLULAR PHONE WITH BLUETOOTH AND WLAN RADIOS

MODEL: A1522

SERIAL NUMBER: C39MF19PG1G0 (Conducted); C39MV008G30C (Radiated)

DATE TESTED: MAY 28, 2014 to JULY 18, 2014

APPLICABLE STANDARDS	
STANDARD	TEST RESULTS
CFR 47 Part 15 Subpart E	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
EMC SUPERVISOR
UL Verification Services Inc.

Tested By:



Joe Vang
EMC ENGINEER
UL Verification Services Inc.

2. TEST METHODOLOGY

The tests documented in this report were performed in accordance with FCC CFR 47 Part 2, FCC CFR 47 Part 15, FCC 06-96, FCC KDB 789033, ANSI C63.10-2009, RSS-GEN Issue 3, and RSS-210 Issue 8.

Per FCC guidance, radiated tests are performed for A1522 to ensure that there is no deviation in EM fields between Model A1522 and Model A1524.

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

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 A1522 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 A1524 FCC UNII WLAN report.

5.3. DESCRIPTION OF AVAILABLE ANTENNAS

The radio utilizes a PiFA antenna, with a maximum gain as below table:

FREQUENCY (MHZ)	ANTENNA GAIN (dBi)
5150 -- 5250	-2.56
5250 -- 5350	-1.46
5500 -- 5700	-0.44
5725 -- 5850	-0.87

5.4. SOFTWARE AND FIRMWARE

The firmware installed in the EUT during testing was 7.16.89.5

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

802.11a mode: 6 Mbps
802.11n HT20mode: MCS0
802.11n HT40mode: MCS0
802.11ac VHT80mode: 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

RADIATED TESTS SUPPORT EQUIPMENT

Support Equipment List				
Description	Manufacturer	Model	Serial Number	FCC ID
AC/DC adapter	Apple	A1401	60812	NA
Earphone	Apple	NA	NA	NA
Laptop	Apple	A1278	C02HJ0A7DTY4	NA

I/O CABLES (RADIATED ABOVE 1 GHZ)

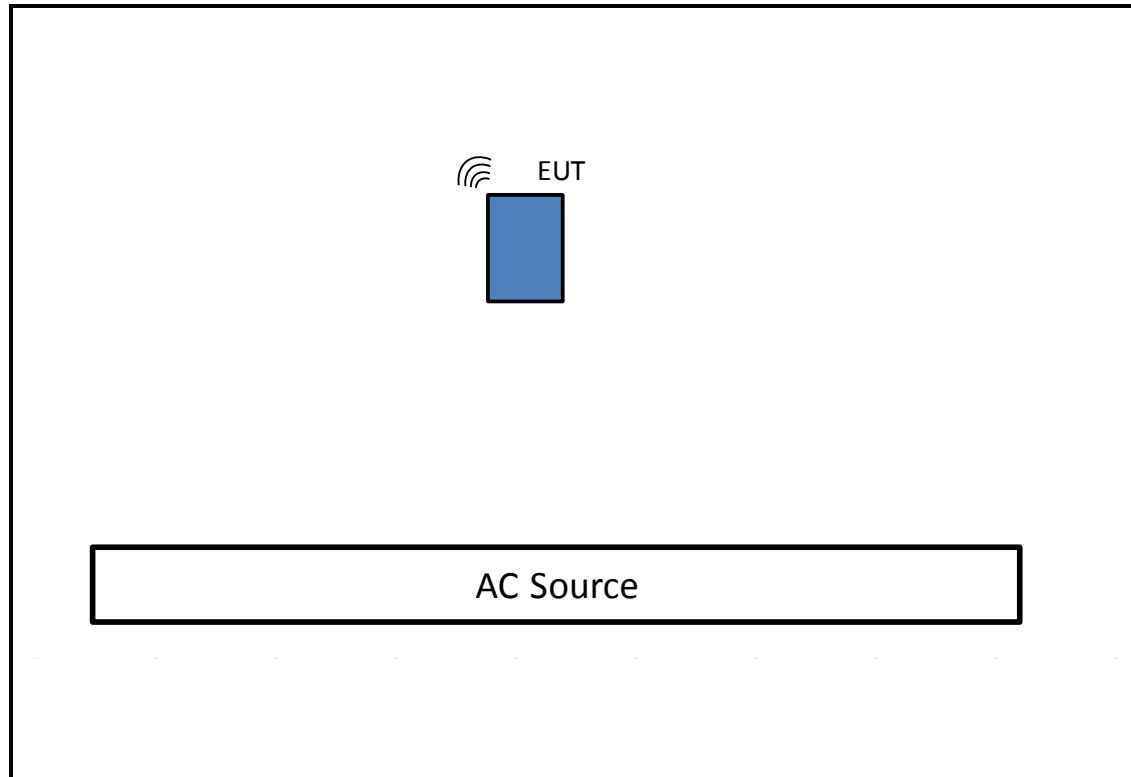
I/O Cable List						
Cable No	Port	# of identical ports	Connector Type	Cable Type	Cable Length (m)	Remarks
None used						

I/O CABLES (RF Radiated Test)

I/O CABLE LIST						
Cable No.	Port	# of Identic Ports	Connector Type	Cable Type	Cable Length	Remarks
1	AC	2	US 115V	Un-shielded	2m	NA
2	DC	1	USB	Un-shielded	1m	NA
3	Audio	1	Earphone	Un-shielded	0.5m	NA

TEST SETUP- RADIATED-ABOVE 1 GHZ

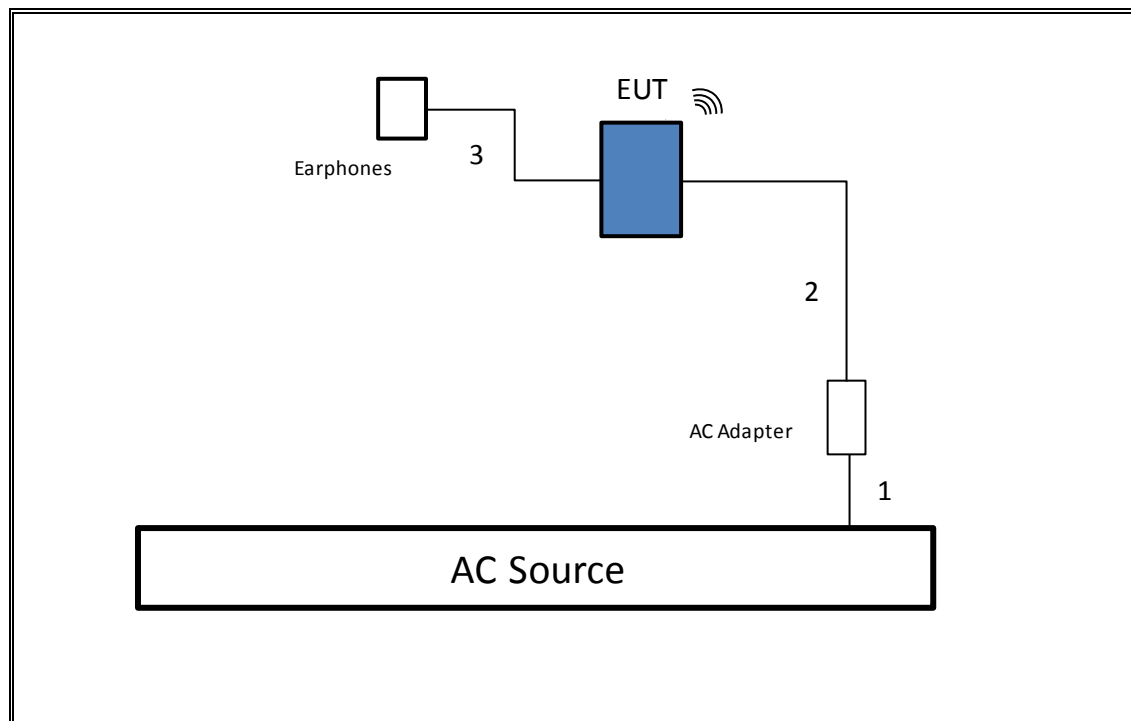
The EUT was tested battery powered. Test software exercised the EUT.

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	11/26/14
Antenna, Horn, 40 GHz	ARA	MWH-2640/B	C00981	06/28/15
Peak / Average Power Sensor	Agilent / HP	N1911A	F00153	03/06/15
Peak Power Meter	Agilent / HP	E9323A	F00025	04/30/15
Spectrum Analyzer, 44 GHz	Agilent / HP	N9030A	F00129	06/25/15
Spectrum Analyzer, 44 GHz	Agilent / HP	N9030A	F00411	03/21/15
Spectrum Analyzer, 40 GHz	Agilent / HP	8564E	C00951	07/29/14
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
Preamplifier, 40 GHz	Miteq	NSP4000-SP2	C00990	08/20/14
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

26 dB Emission BW: KDB 789033 D02 v01, Section C.

99% Occupied BW: KDB 789033 D02 v01, Section D.

Power and PSD: KDB 789033 D02 v01, Method SA-1 and SA-1 Alternative.

Power Spectral Density: KDB 789033 D02 v01, Section F.

Unwanted emissions in restricted bands: KDB 789033 D02 v01, Sections G.3, G.4, G.5, and G.6.

Unwanted emissions in non-restricted bands: KDB 789033 D02 v01, Sections G.3, G.4, and G.5.

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 A1524 FCC UNII WLAN report.

9. ANTENNA PORT TEST RESULTS

For antenna port data, refer to Model A1524 FCC UNII WLAN 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 3 MHz for peak measurements and as applicable for average measurements.

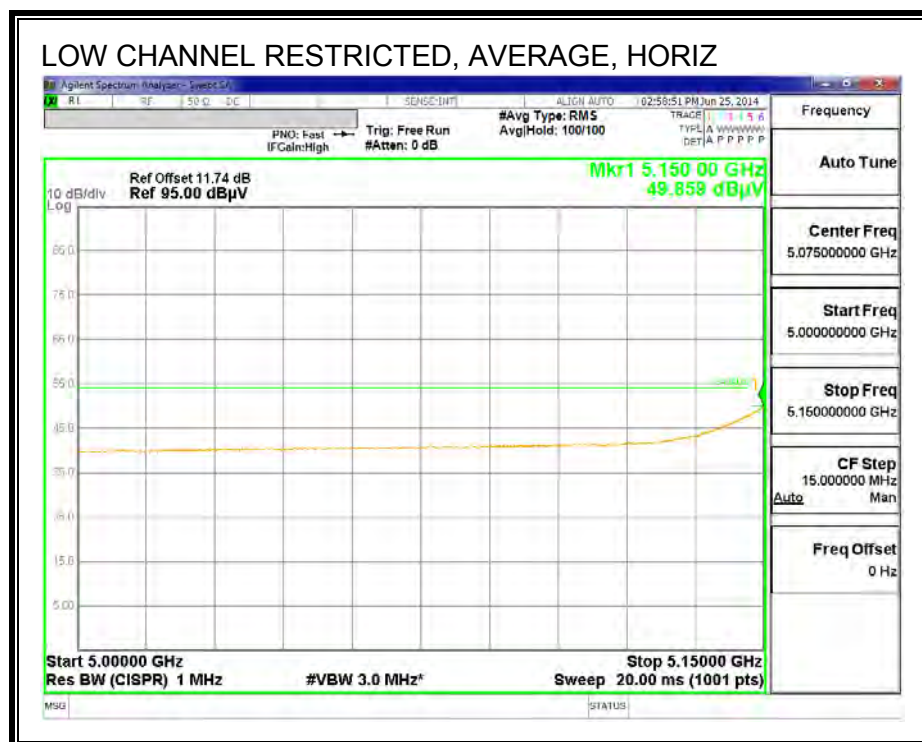
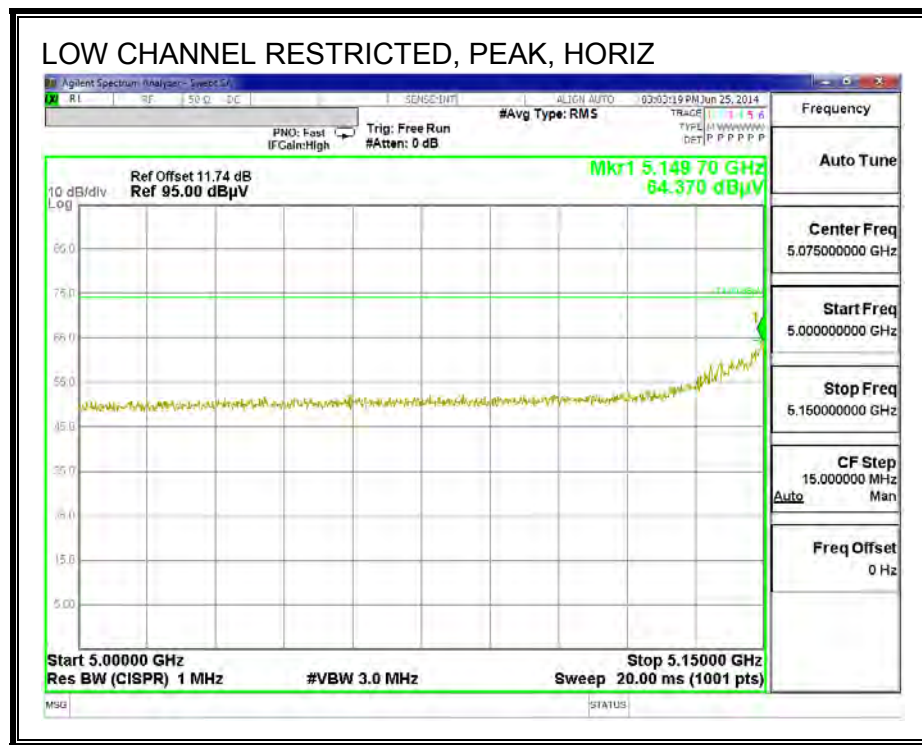
The spectrum from 30 MHz to 40 GHz is investigated with the transmitter set to the lowest, middle, and highest channels in each applicable band.

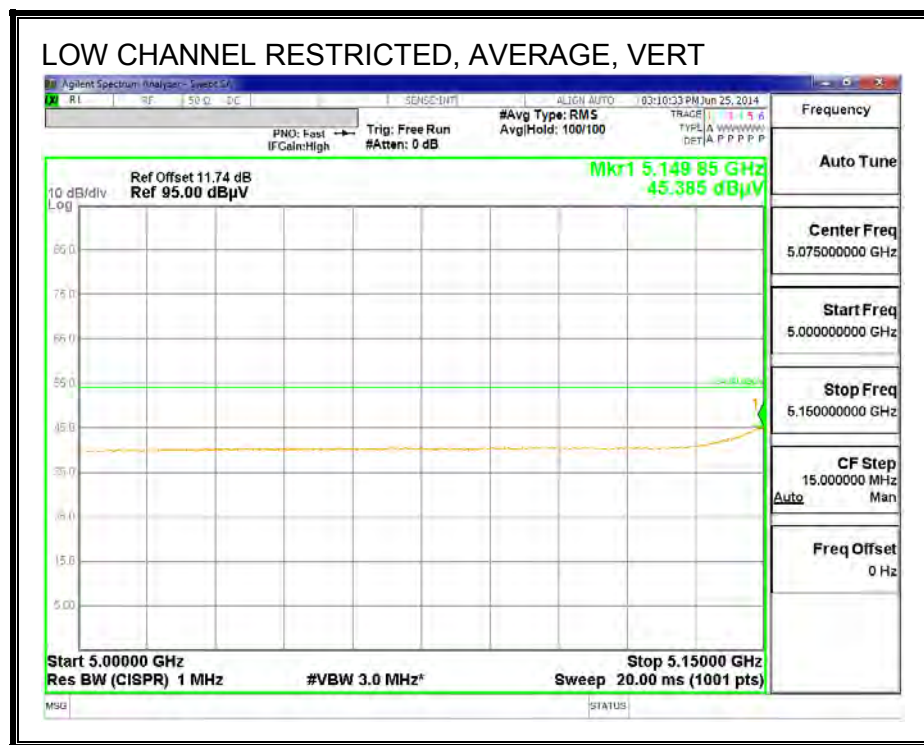
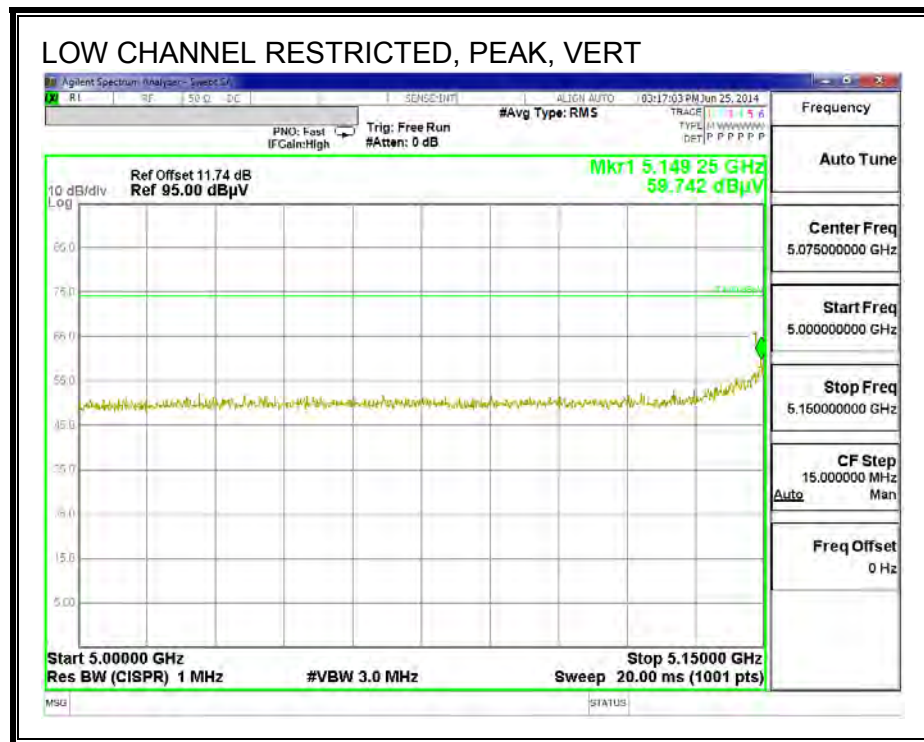
The frequency range of interest is monitored at a fixed antenna height and EUT azimuth. The EUT is rotated through 360 degrees to maximize emissions received. The antenna is scanned from 1 to 4 meters above the ground plane to further maximize the emission. Measurements are made with the antenna polarized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

10.2. TRANSMITTER ABOVE 1 GHz

10.3. TX ABOVE 1 GHz 802.11a MODE IN THE 5.2 GHz BAND

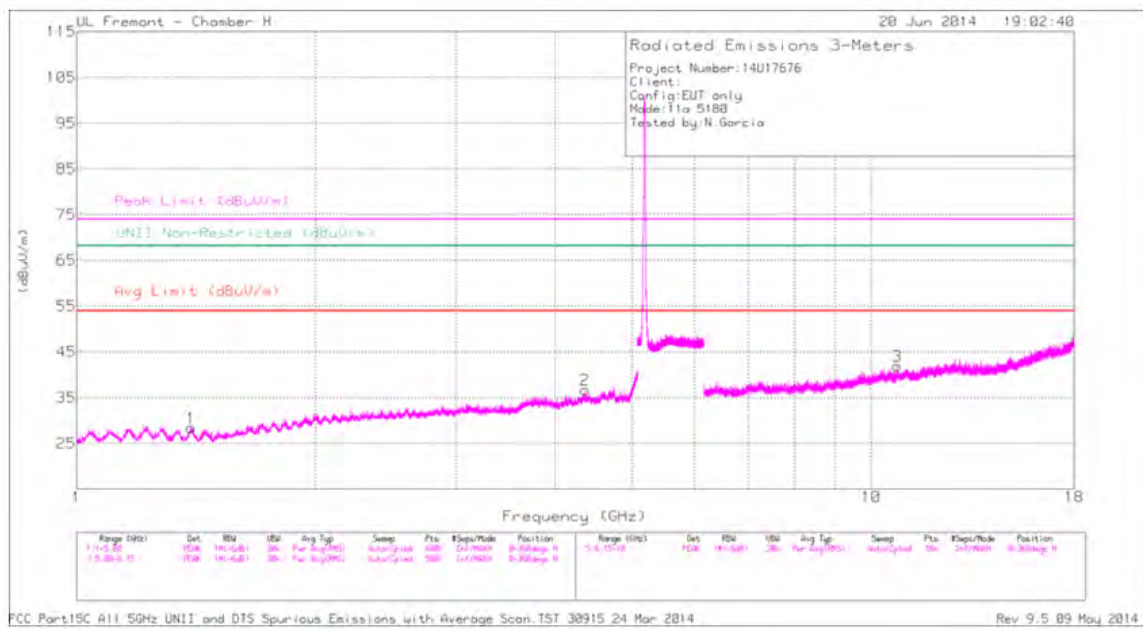
RESTRICTED BANDEDGE (LOW CHANNEL)



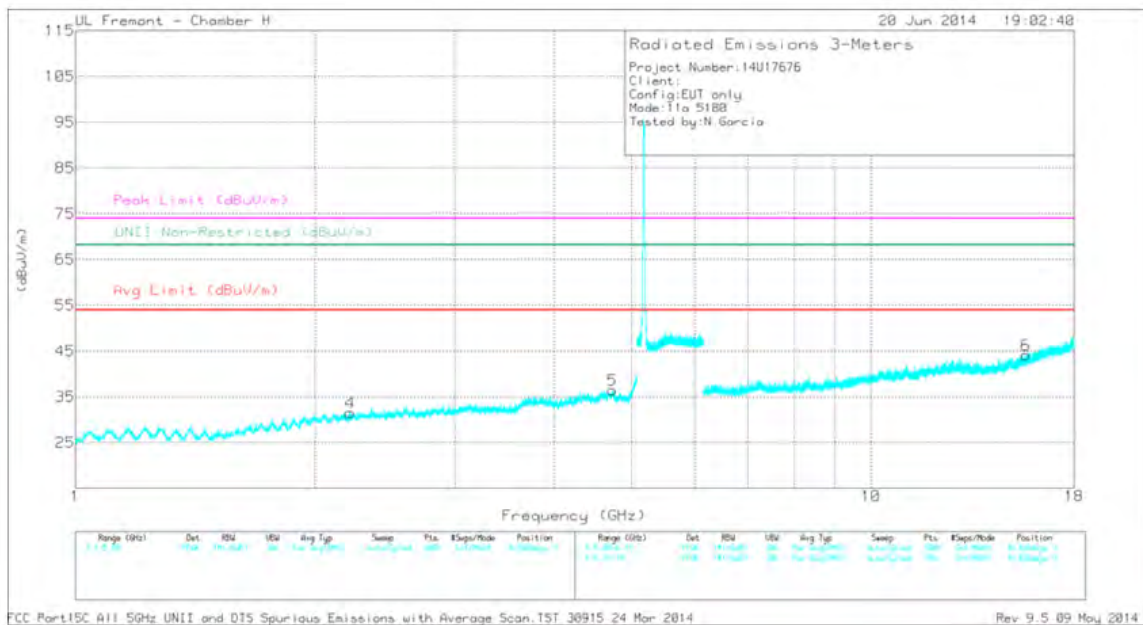


HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL HORIZONTAL PLOT



LOW CHANNEL VERTICAL PLOT



DATA

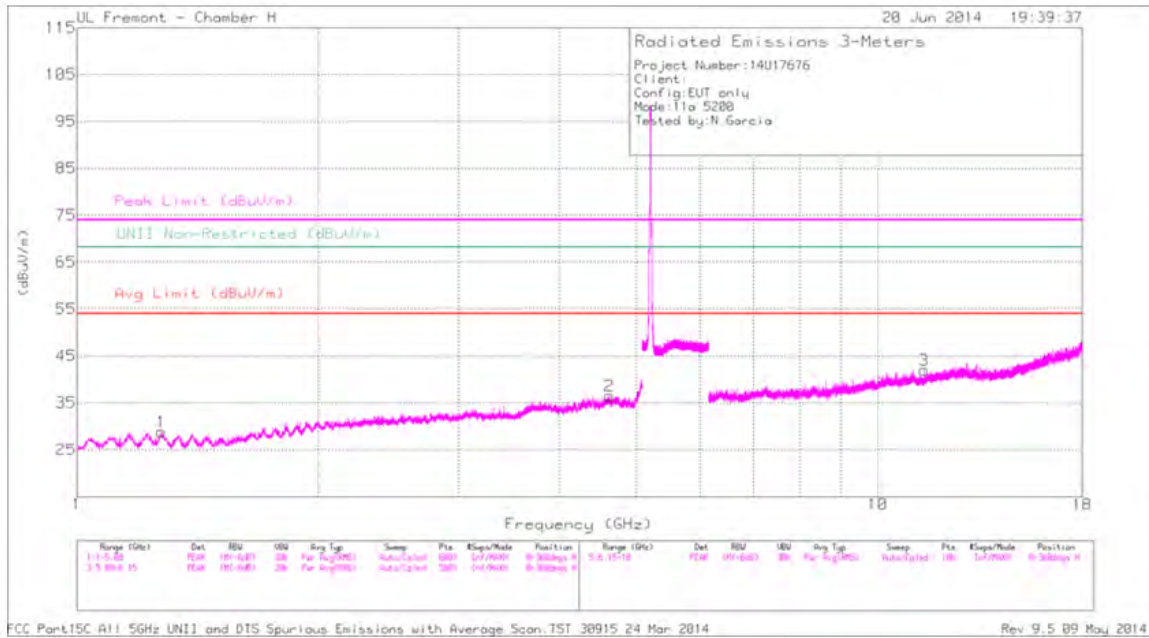
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.399	43.51	PK1	28.2	-34.9	36.81	-	-	74	-37.19	-	-	360	201	H
	* 1.393	32.4	AD1	28.3	-35.1	25.6	54	-28.4	-	-	-	-	360	201	H
2	* 4.364	41.41	PK1	33.7	-31.5	43.61	-	-	74	-30.39	-	-	241	204	H
	* 4.362	30.23	AD1	33.7	-31.5	32.43	54	-21.57	-	-	-	-	241	204	H
4	* 2.216	43.31	PK1	31.6	-34.6	40.31	-	-	74	-33.69	-	-	250	233	V
	* 2.215	31.29	AD1	31.6	-34.6	28.29	54	-25.71	-	-	-	-	250	233	V
5	* 4.728	40.87	PK1	34.3	-31.5	43.67	-	-	74	-30.33	-	-	266	134	V
	* 4.728	30.06	AD1	34.3	-31.4	32.96	54	-21.04	-	-	-	-	266	134	V
3	* 10.78	36.29	PK1	37.6	-24.5	49.39	-	-	74	-24.61	-	-	230	100	H
	* 10.782	25.41	AD1	37.6	-24.5	38.51	54	-15.49	-	-	-	-	230	100	H
6	* 15.665	37.14	PK1	40.9	-25	53.04	-	-	74	-20.96	-	-	203	201	V
	* 15.666	25.51	AD1	40.9	-25	41.41	54	-12.59	-	-	-	-	203	201	V

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

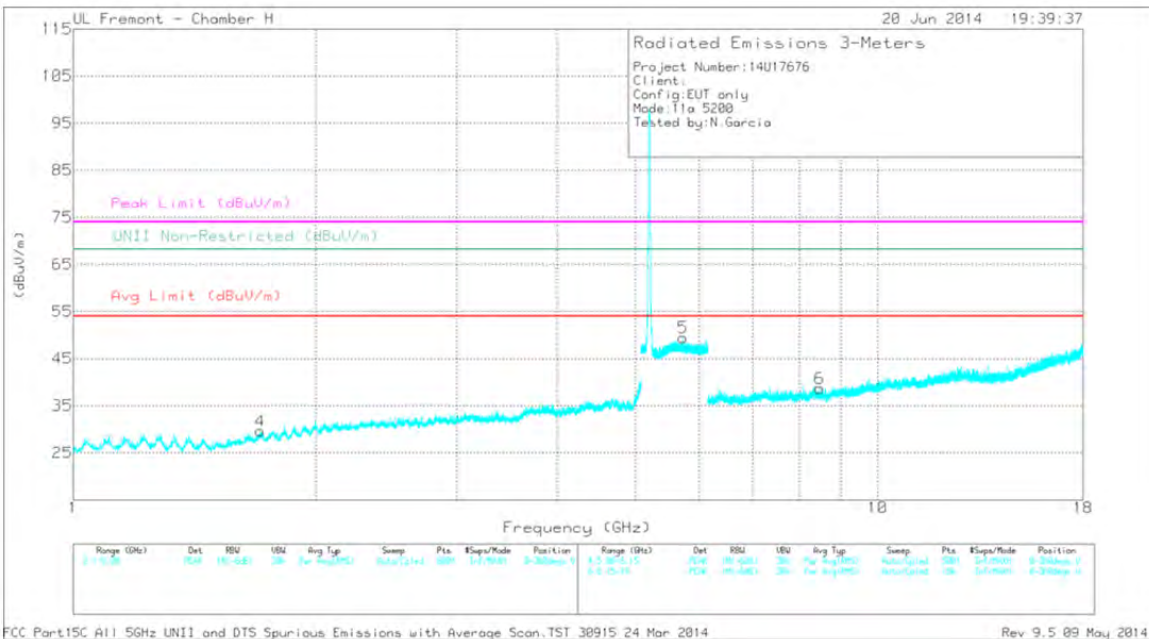
PK1 - KDB789033 Method: Peak

AD1 - KDB789033 Method: AD Primary Power Average

MID CHANNEL HORIZONTAL PLOT, CH 40



MID CHANNEL VERTICAL PLOT, CH 40



DATA

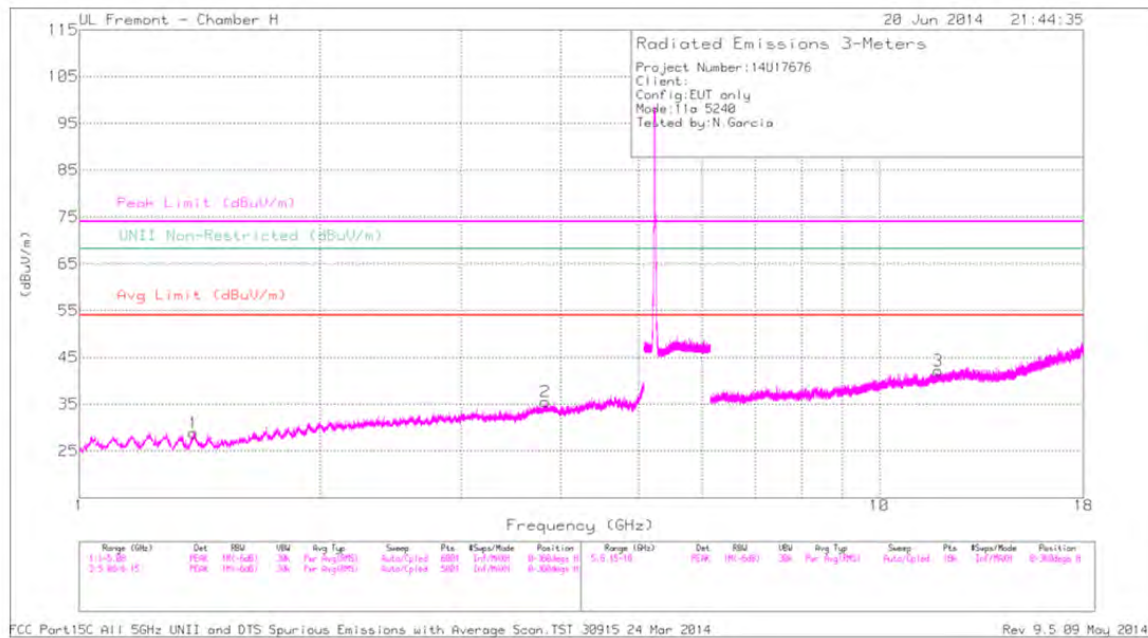
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.276	43.79	PK1	28.9	-35.6	37.09	-	-	74	-36.91	-	-	239	201	H
	* 1.277	32.66	AD1	28.9	-35.6	25.96	54	-28.04	-	-	-	-	239	201	H
2	* 4.625	41.94	PK1	34.1	-32	44.04	-	-	74	-29.96	-	-	223	110	H
	* 4.626	31.04	AD1	34.2	-32	33.24	54	-20.76	-	-	-	-	223	110	H
4	* 1.709	43.24	PK1	29.4	-34.3	38.34	-	-	74	-35.66	-	-	231	107	V
	* 1.709	31.78	AD1	29.4	-34.3	26.88	54	-27.12	-	-	-	-	231	107	V
3	* 11.429	35.86	PK1	38	-25.4	48.46	-	-	74	-25.54	-	-	126	238	H
	* 11.426	25.43	AD1	38	-25.5	37.93	54	-16.07	-	-	-	-	126	238	H
6	* 8.464	39.42	PK1	36.1	-29.1	46.42	-	-	74	-27.58	-	-	130	107	V
	* 8.465	28.14	AD1	36.1	-29.1	35.14	54	-18.86	-	-	-	-	130	107	V
5	5.727	42.98	PK1	35	-22.4	55.58	-	-	-	-	68.2	-12.62	243	202	V
	5.73	32.16	AD1	35	-22.4	44.76	-	-	-	-	-	-	243	202	V

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

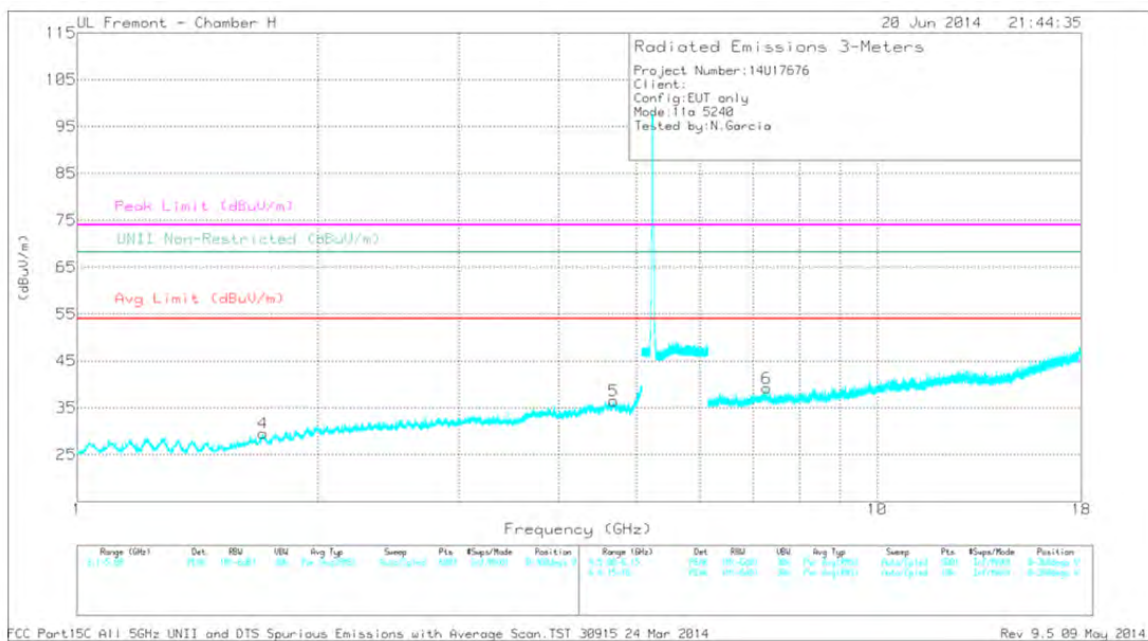
PK1 - KDB789033 Method: Peak

AD1 - KDB789033 Method: AD Primary Power Average

HIGH CHANNEL HORIZONTAL PLOT, CH 48



HIGH CHANNEL VERTICAL PLOT, CH 48



DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.391	43.26	PK1	28.3	-35.1	36.46	-	-	74	-37.54	-	-	117	123	H
	* 1.389	32.37	AD1	28.3	-35.1	25.57	54	-28.43	-	-	-	-	117	123	H
2	* 3.826	41.69	PK1	33.3	-32.6	42.39	-	-	74	-31.61	-	-	124	189	H
	* 3.827	30.95	AD1	33.3	-32.6	31.65	54	-22.35	-	-	-	-	124	189	H
4	* 1.709	43.05	PK1	29.4	-34.3	38.15	-	-	74	-35.85	-	-	85	249	V
	* 1.709	31.71	AD1	29.4	-34.3	26.81	54	-27.19	-	-	-	-	85	249	V
5	* 4.685	41.53	PK1	34.2	-32.1	43.63	-	-	74	-30.37	-	-	244	112	V
	* 4.686	30.88	AD1	34.2	-32.1	32.98	54	-21.02	-	-	-	-	244	112	V
3	* 11.847	36.33	PK1	38.6	-25.9	49.03	-	-	74	-24.97	-	-	215	120	H
	* 11.844	25.78	AD1	38.6	-25.8	38.58	54	-15.42	-	-	-	-	215	120	H
6	* 7.283	39.23	PK1	36.2	-29.5	45.93	-	-	74	-28.07	-	-	93	216	V
	* 7.282	28.69	AD1	36.2	-29.5	35.39	54	-18.61	-	-	-	-	93	216	V

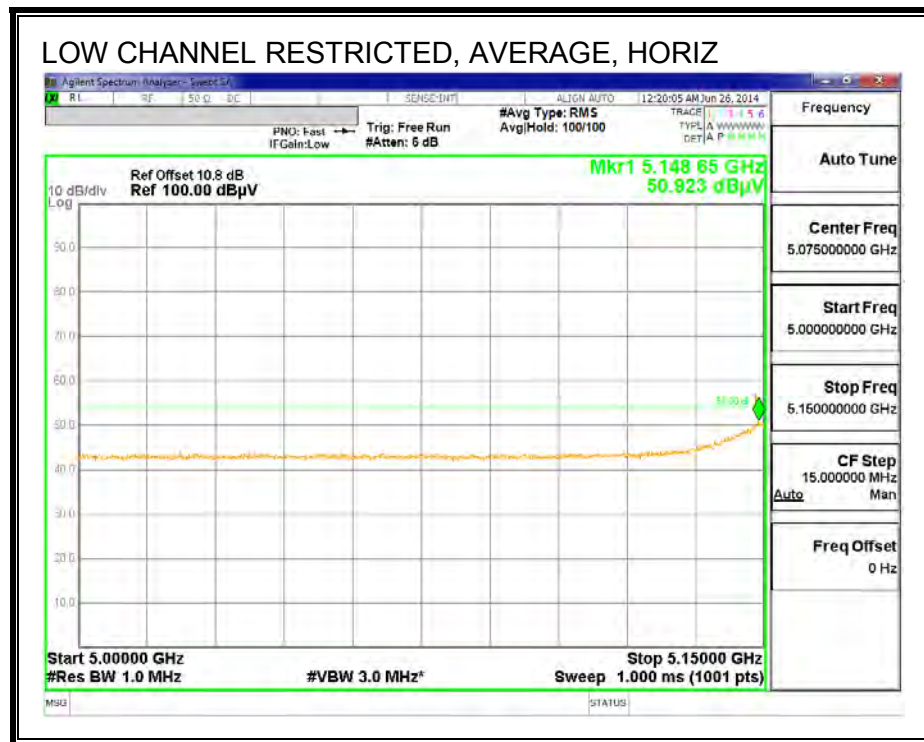
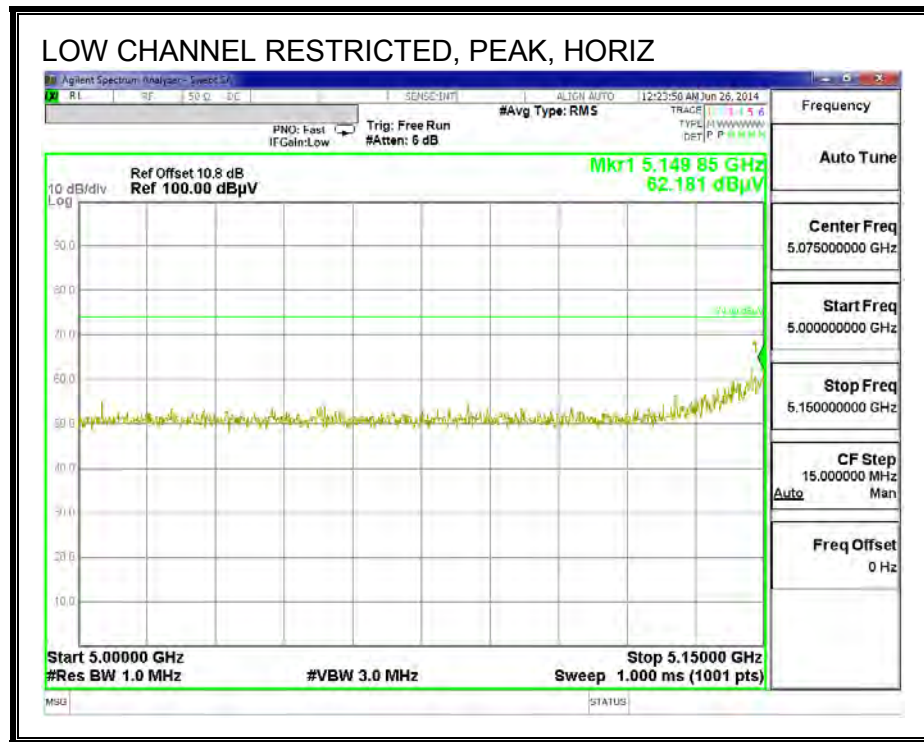
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

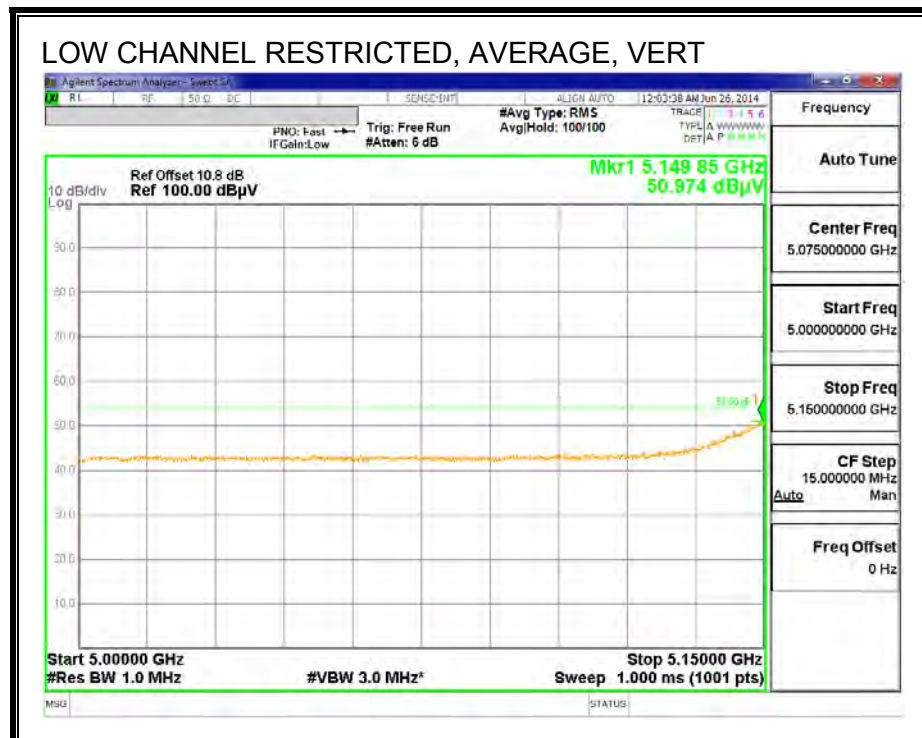
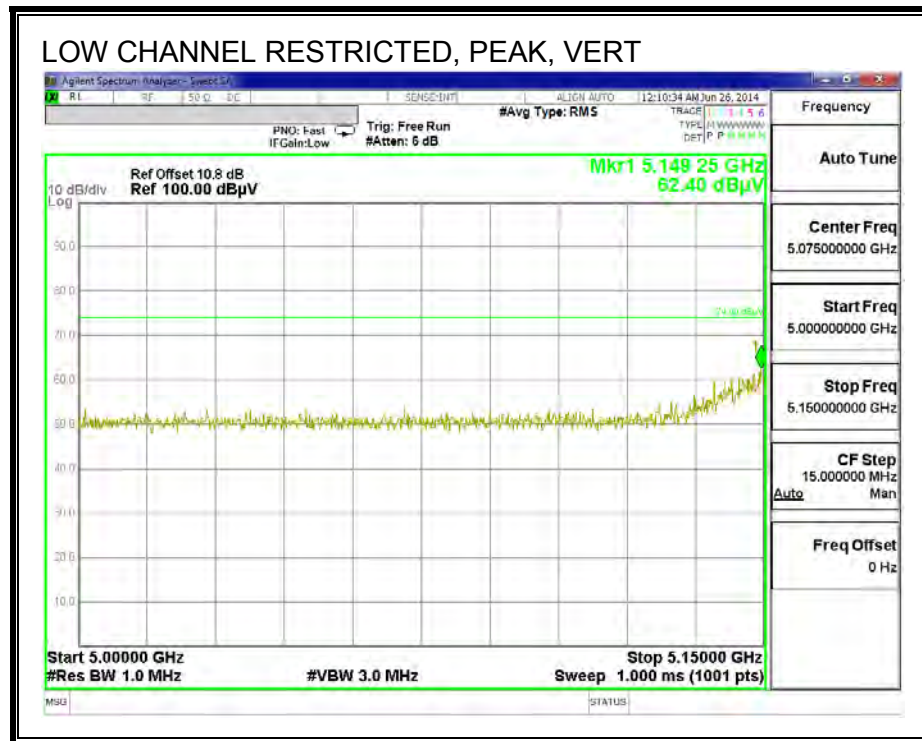
PK1 - KDB789033 Method: Peak

AD1 - KDB789033 Method: AD Primary Power Average

10.4. TX ABOVE 1 GHz 802.11n HT20 MODE IN THE 5.2 GHz BAND

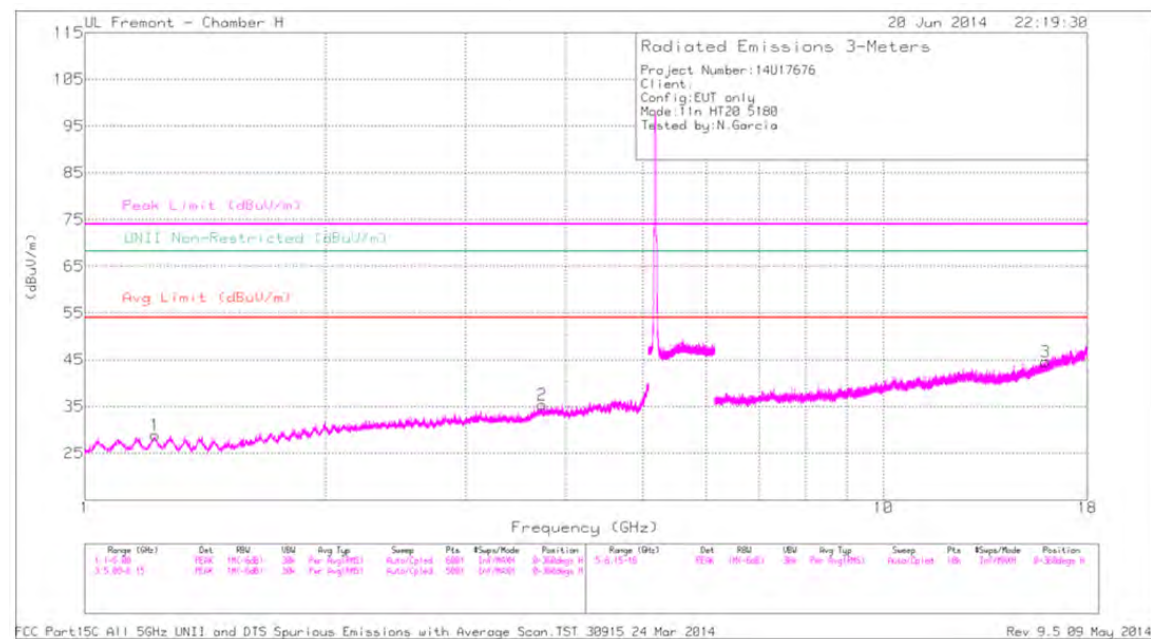
RESTRICTED BANDEDGE (LOW CHANNEL)



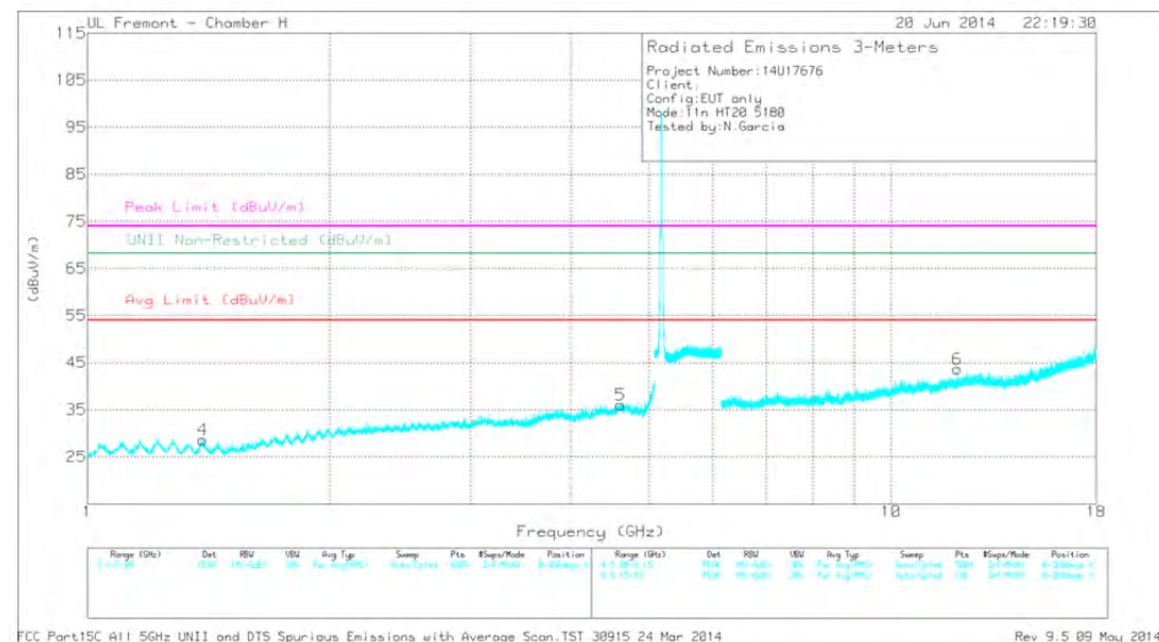


HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL HORIZONTAL PLOT, CH 36



LOW CHANNEL VERTICAL PLOT, CH 36



DATA

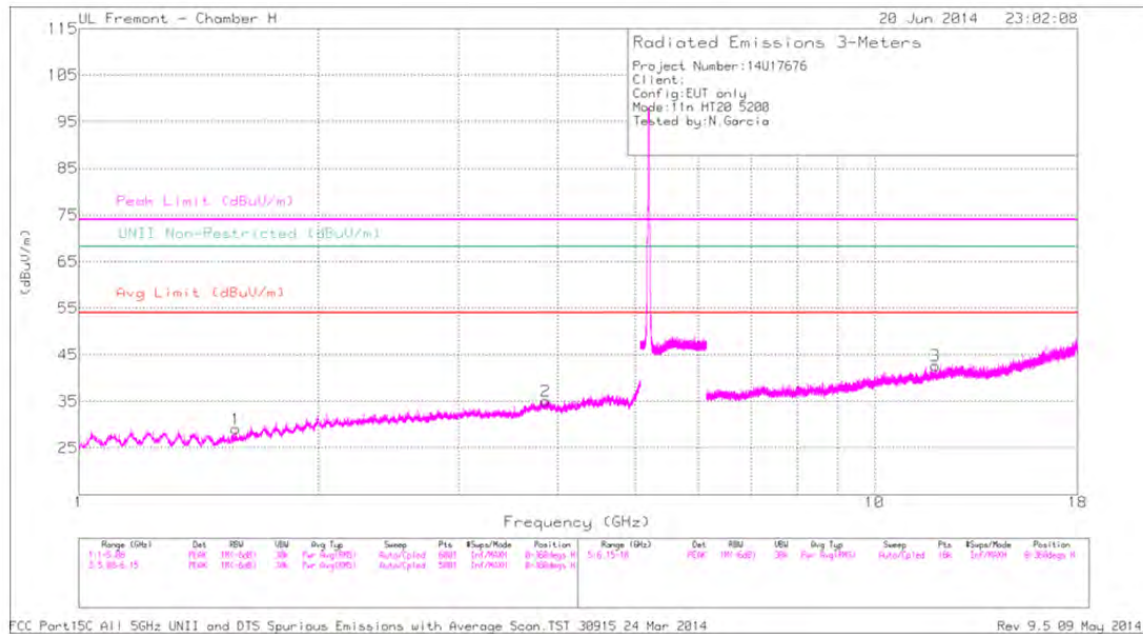
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.228	43.48	PK1	28.9	-35.5	36.88	-	-	74	-37.12	-	-	103	236	H
	* 1.225	32.58	AD1	28.9	-35.5	25.98	54	-28.02	-	-	-	-	103	236	H
2	* 3.739	41.73	PK1	33.2	-33.1	41.83	-	-	74	-32.17	-	-	144	120	H
	* 3.741	31.03	AD1	33.2	-33.1	31.13	54	-22.87	-	-	-	-	144	120	H
4	* 1.391	44.35	PK1	28.3	-35.1	37.55	-	-	74	-36.45	-	-	169	115	V
	* 1.392	32.5	AD1	28.3	-35.1	25.7	54	-28.3	-	-	-	-	169	115	V
5	* 4.606	41.77	PK1	34.1	-31.8	44.07	-	-	74	-29.93	-	-	279	136	V
	* 4.607	30.68	AD1	34.1	-31.8	32.98	54	-21.02	-	-	-	-	279	136	V
3	* 15.961	36.21	PK1	41.2	-24.8	52.61	-	-	74	-21.39	-	-	189	211	H
	* 15.96	25.82	AD1	41.2	-24.8	42.22	54	-11.78	-	-	-	-	189	211	H
6	* 12.093	36.25	PK1	38.9	-25.2	49.95	-	-	74	-24.05	-	-	127	213	V
	* 12.092	24.76	AD1	38.9	-25.2	38.46	54	-15.54	-	-	-	-	127	213	V

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

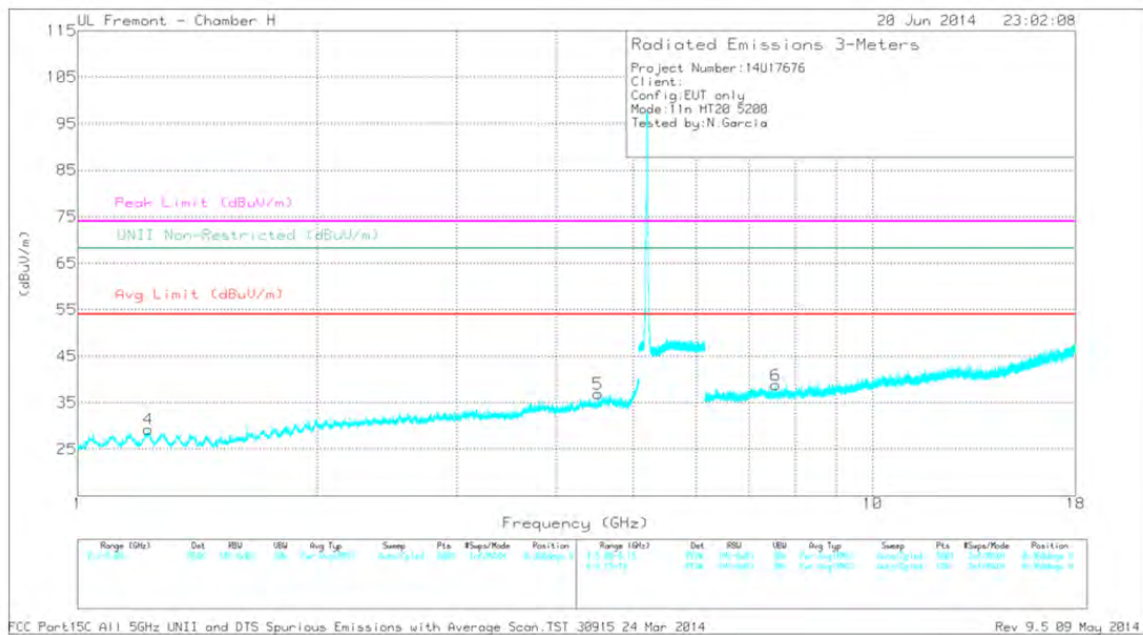
PK1 - KDB789033 Method: Peak

AD1 - KDB789033 Method: AD Primary Power Average

MID CHANNEL HORIZONTAL PLOT, CH 40



MID CHANNEL VERTICAL PLOT, CH 40



DATA

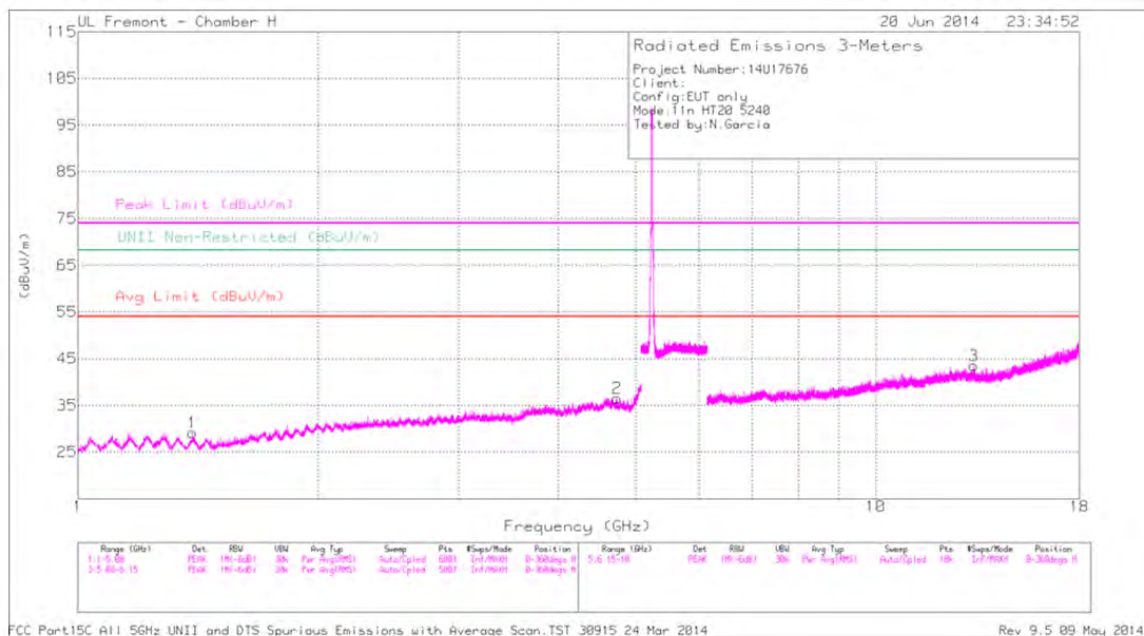
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.576	42.81	PK1	28.3	-35.1	36.01	-	-	74	-37.99	-	-	152	205	H
	* 1.577	31.8	AD1	28.3	-35.1	25	54	-29	-	-	-	-	152	205	H
2	* 3.862	42	PK1	33.3	-32.8	42.5	-	-	74	-31.5	-	-	161	112	H
	* 3.864	31	AD1	33.3	-32.7	31.6	54	-22.4	-	-	-	-	161	112	H
4	* 1.226	43.65	PK1	28.9	-35.5	37.05	-	-	74	-36.95	-	-	85	110	V
	* 1.225	32.47	AD1	28.9	-35.5	25.87	54	-28.13	-	-	-	-	85	110	V
5	* 4.513	42.12	PK1	34	-32.5	43.62	-	-	74	-30.38	-	-	85	119	V
	* 4.514	30.98	AD1	34	-32.5	32.48	54	-21.52	-	-	-	-	85	119	V
3	* 11.923	36.41	PK1	38.7	-25.4	49.71	-	-	74	-24.29	-	-	182	220	H
	* 11.925	25.5	AD1	38.7	-25.4	38.8	54	-15.2	-	-	-	-	182	220	H
6	* 7.555	39.42	PK1	36.1	-29.3	46.22	-	-	74	-27.78	-	-	203	243	V
	* 7.554	27.99	AD1	36.1	-29.3	34.79	54	-19.21	-	-	-	-	203	243	V

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

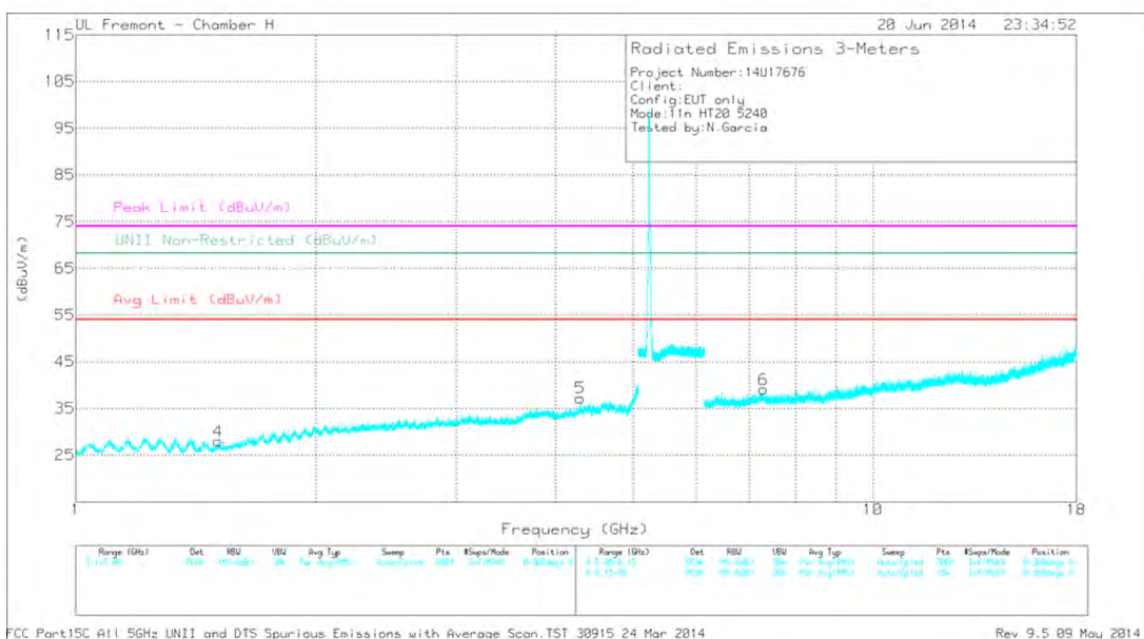
PK1 - KDB789033 Method: Peak

AD1 - KDB789033 Method: AD Primary Power Average

HIGH CHANNEL HORIZONTAL PLOT, CH 48



HIGH CHANNEL VERTICAL PLOT, CH 48



DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.391	43.4	PK1	28.3	-35.1	36.6	-	-	74	-37.4	-	-	274	105	H
	* 1.391	32.35	AD1	28.3	-35.1	25.55	54	-28.45	-	-	-	-	274	105	H
2	* 4.744	41.59	PK1	34.3	-31.7	44.19	-	-	74	-29.81	-	-	333	201	H
	* 4.742	30.87	AD1	34.3	-31.6	33.57	54	-20.43	-	-	-	-	333	201	H
4	* 1.508	43.43	PK1	27.8	-35.1	36.13	-	-	74	-37.87	-	-	320	113	V
	* 1.51	31.98	AD1	27.8	-35.1	24.68	54	-29.32	-	-	-	-	320	113	V
5	* 4.295	42.09	PK1	33.6	-31.8	43.89	-	-	74	-30.11	-	-	147	250	V
	* 4.296	30.06	AD1	33.6	-31.8	31.86	54	-22.14	-	-	-	-	147	250	V
6	* 7.284	39.62	PK1	36.2	-29.5	46.32	-	-	74	-27.68	-	-	234	115	V
	* 7.287	28.75	AD1	36.2	-29.6	35.35	54	-18.65	-	-	-	-	234	115	V
3	* 13.293	32.82	PK1	39.2	-23.9	48.12	-	-	74	-25.88	-	-	247	104	H
	* 13.293	26.17	AD1	39.2	-23.9	41.47	54	-12.53	-	-	-	-	247	104	H

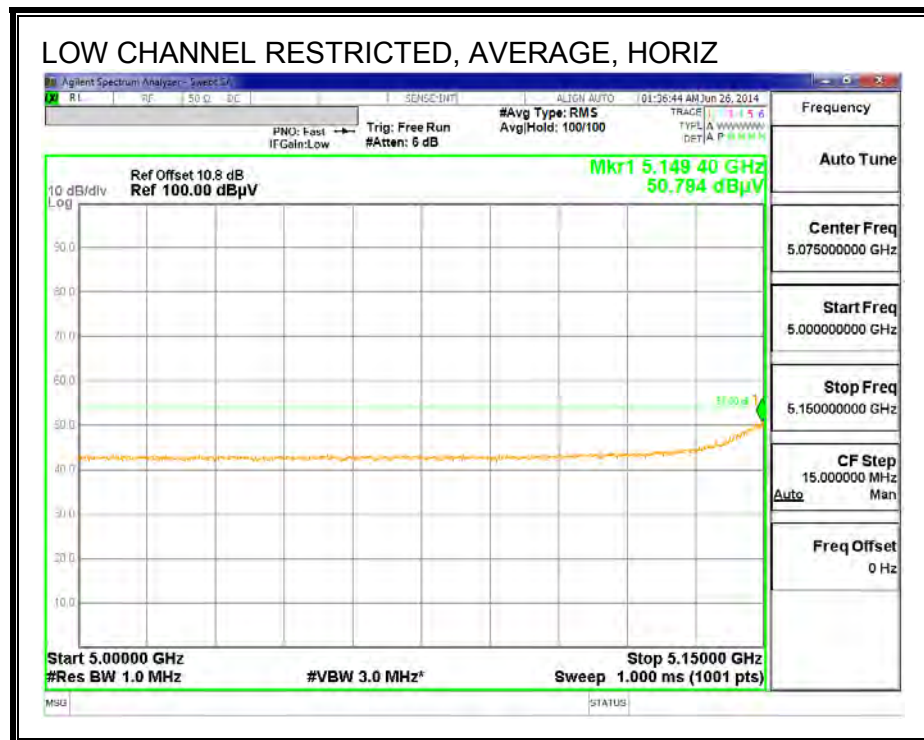
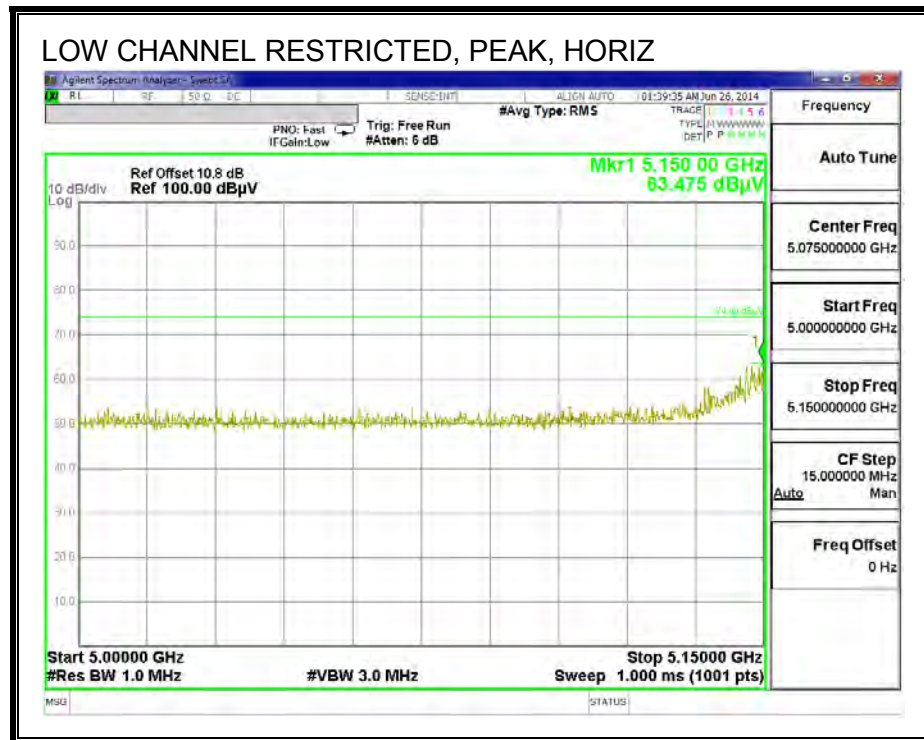
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

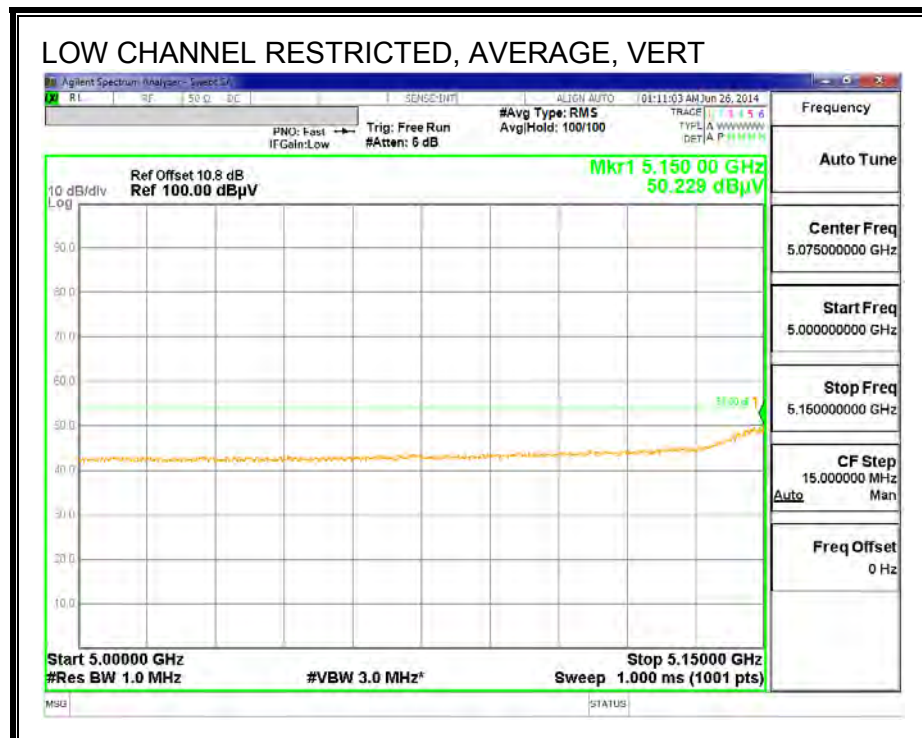
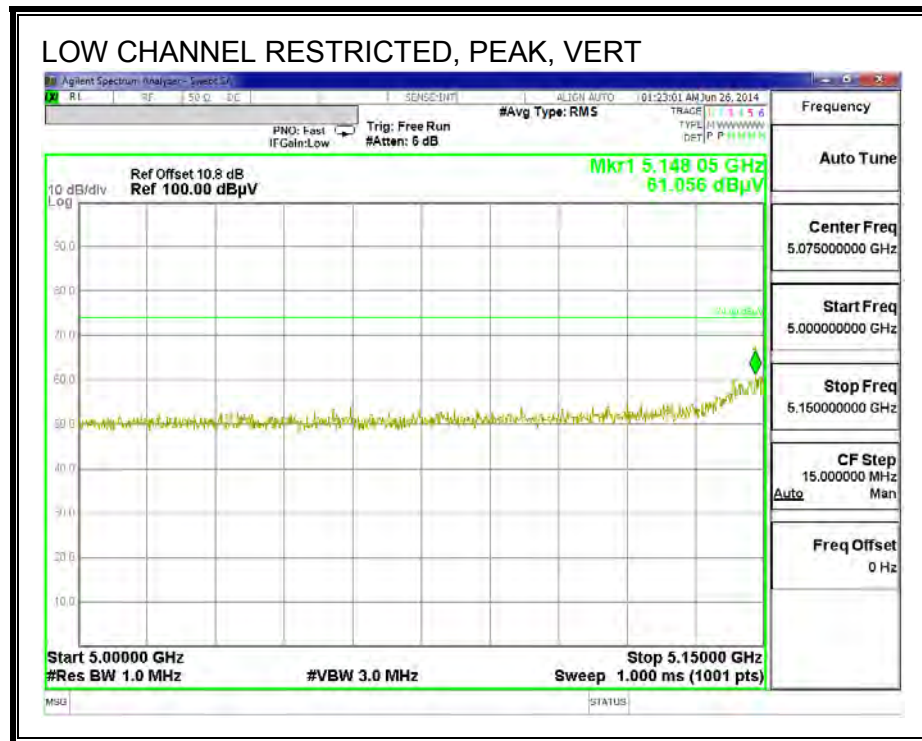
PK1 - KDB789033 Method: Peak

AD1 - KDB789033 Method: AD Primary Power Average

10.5. TX ABOVE 1 GHz 802.11n HT40 MODE IN THE 5.2 GHz BAND

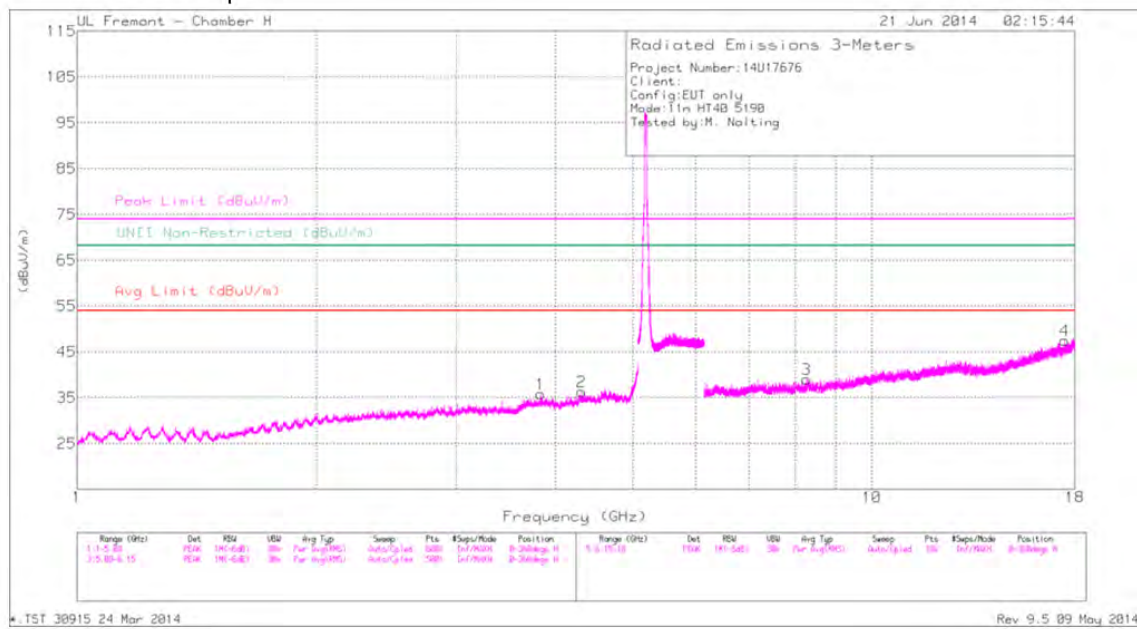
RESTRICTED BANDEDGE (LOW CHANNEL)



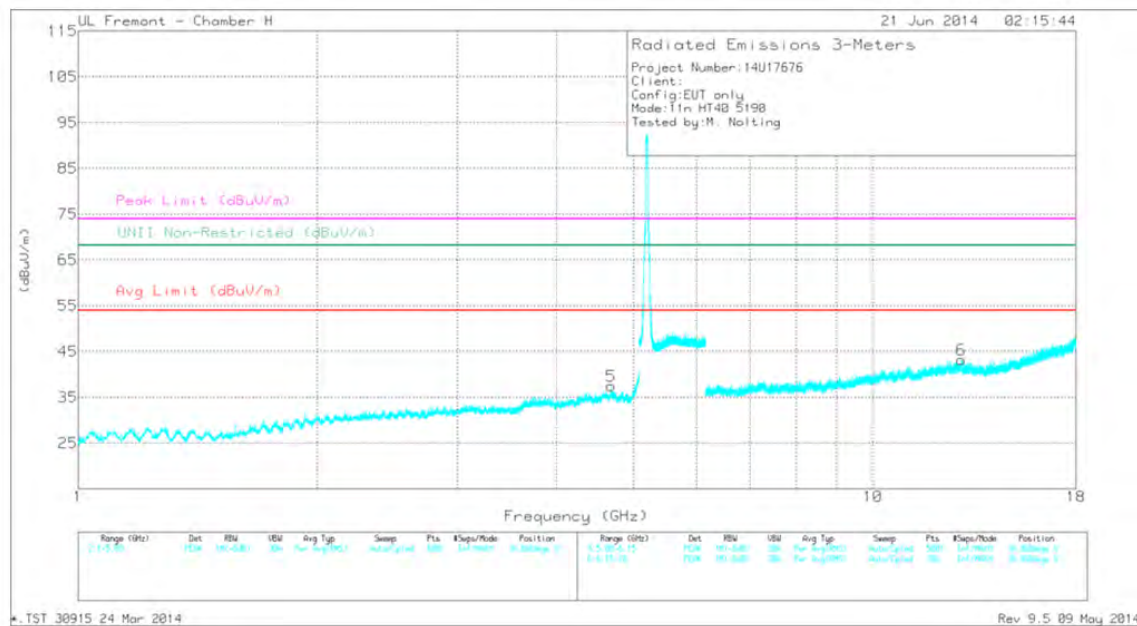


HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL HORIZONTAL PLOT, CH 38



LOW CHANNEL VERTICAL PLOT, CH 38



DATA

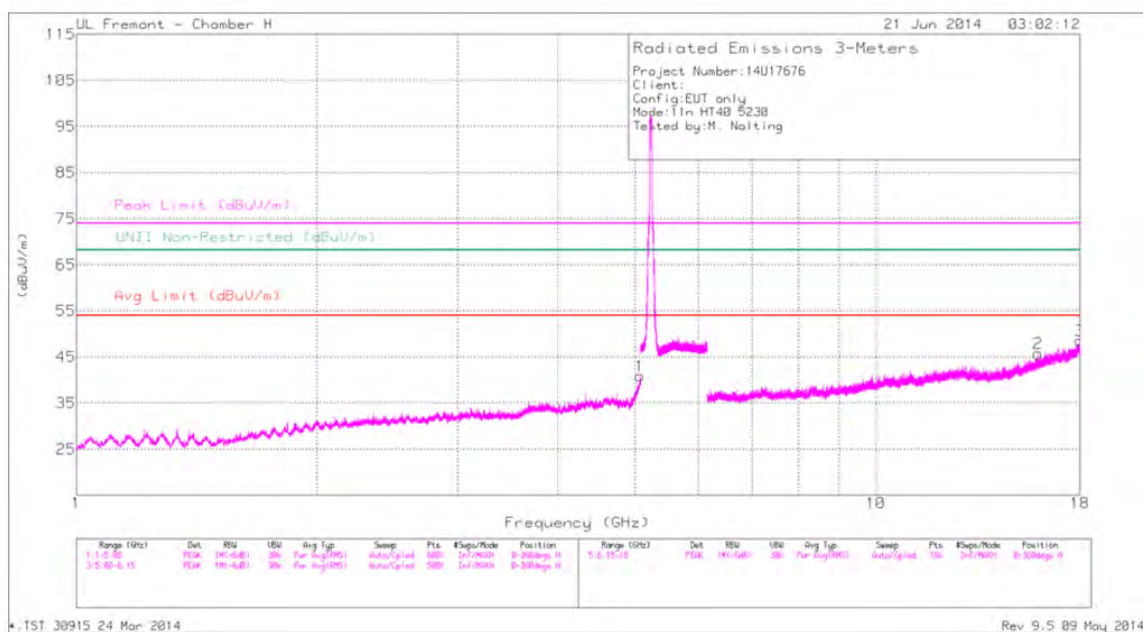
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 3.841	41.89	PK1	33.3	-32.9	42.29	-	-	74	-31.71	-	-	346	163	H
	* 3.838	30.64	AD1	33.3	-32.9	31.04	54	-22.96	-	-	-	-	346	163	H
2	* 4.319	41.85	PK1	33.6	-31.5	43.95	-	-	74	-30.05	-	-	238	124	H
	* 4.312	29.87	AD1	33.6	-31.7	31.77	54	-22.23	-	-	-	-	238	124	H
5	* 4.678	42.19	PK1	34.2	-32.1	44.29	-	-	74	-29.71	-	-	0	107	V
	* 4.68	30.39	AD1	34.2	-32.1	32.49	54	-21.51	-	-	-	-	0	107	V
3	* 8.272	38.14	PK1	36.1	-28.2	46.04	-	-	74	-27.96	-	-	276	182	H
	* 8.265	26.96	AD1	36.1	-28.3	34.76	54	-19.24	-	-	-	-	276	182	H
6	12.915	36.71	PK1	39.2	-24.7	51.21	-	-	-	-	68.2	-16.99	282	252	V
	12.92	25.25	AD1	39.2	-24.7	39.75	-	-	-	-	-	-	282	252	V
4	17.476	35.31	PK1	42.1	-22.8	54.61	-	-	-	-	68.2	-13.59	34	201	H
	17.479	24.12	AD1	42.1	-22.9	43.32	-	-	-	-	-	-	34	201	H

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

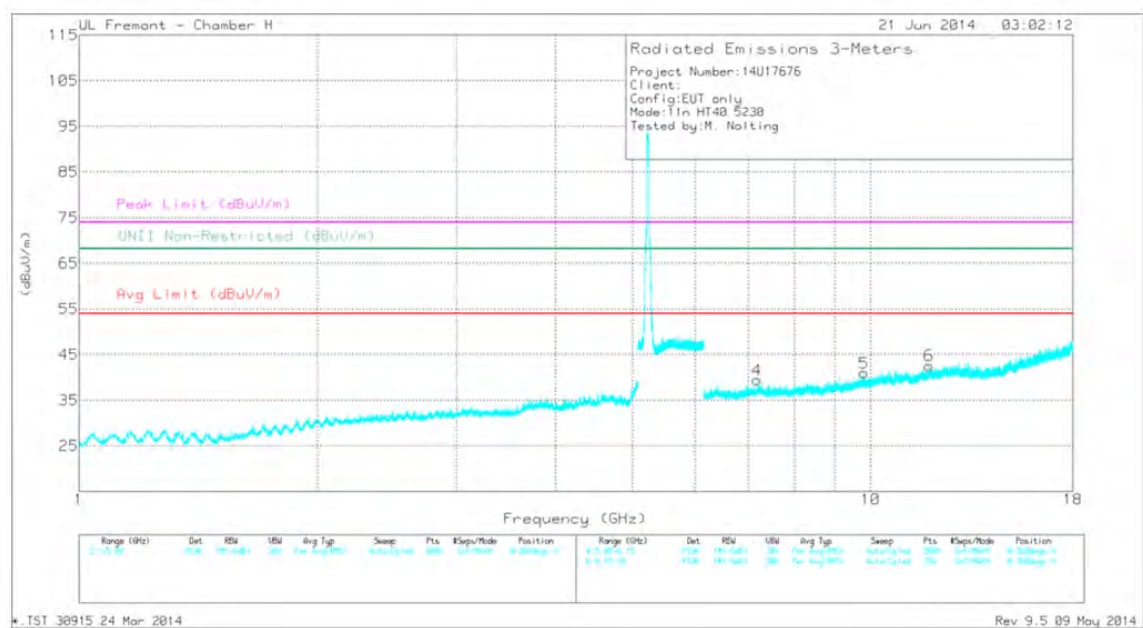
PK1 - KDB789033 Method: Peak

AD1 - KDB789033 Method: AD Primary Power Average

HIGH CHANNEL HORIZONTAL PLOT, CH 46



HIGH CHANNEL VERTICAL PLOT, CH 46



DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.065	44.66	PK1	34.4	-29	50.06	-	-	74	-23.94	-	-	124	161	H
	* 5.064	32.86	AD1	34.4	-29.1	38.16	54	-15.84	-	-	-	-	124	161	H
2	* 15.954	37.21	PK1	41.2	-24.9	53.51	-	-	74	-20.49	-	-	137	108	H
	* 15.953	25.16	AD1	41.2	-24.9	41.46	54	-12.54	-	-	-	-	137	108	H
3	* 17.99	34.79	PK1	42.5	-21.4	55.89	-	-	74	-18.11	-	-	80	107	H
	* 17.997	23.03	AD1	42.5	-21.5	44.03	54	-9.97	-	-	-	-	80	107	H
6	* 11.849	36.26	PK1	38.6	-25.9	48.96	-	-	74	-25.04	-	-	294	217	V
	* 11.84	25.15	AD1	38.6	-25.8	37.95	54	-16.05	-	-	-	-	294	217	V
4	7.177	39.82	PK1	36.1	-30.3	45.62	-	-	-	-	68.2	-22.58	175	187	V
	7.177	28.54	AD1	36.1	-30.3	34.34	-	-	-	-	-	-	175	187	V
5	9.806	36.6	PK1	37	-25.9	47.7	-	-	-	-	68.2	-20.5	120	189	V
	9.807	25.53	AD1	37	-25.9	36.63	-	-	-	-	-	-	120	189	V

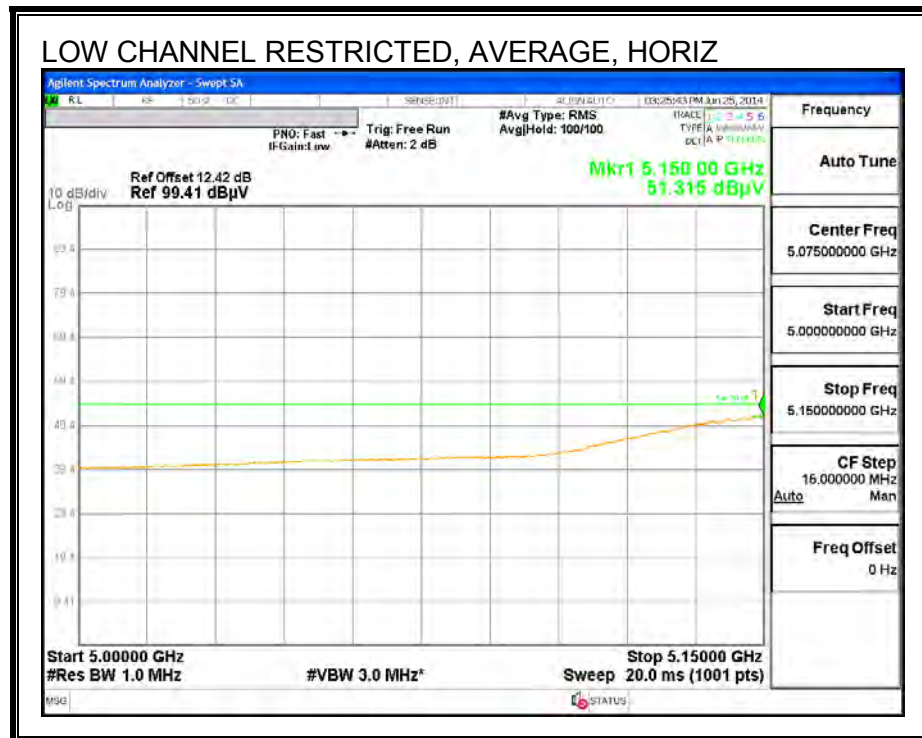
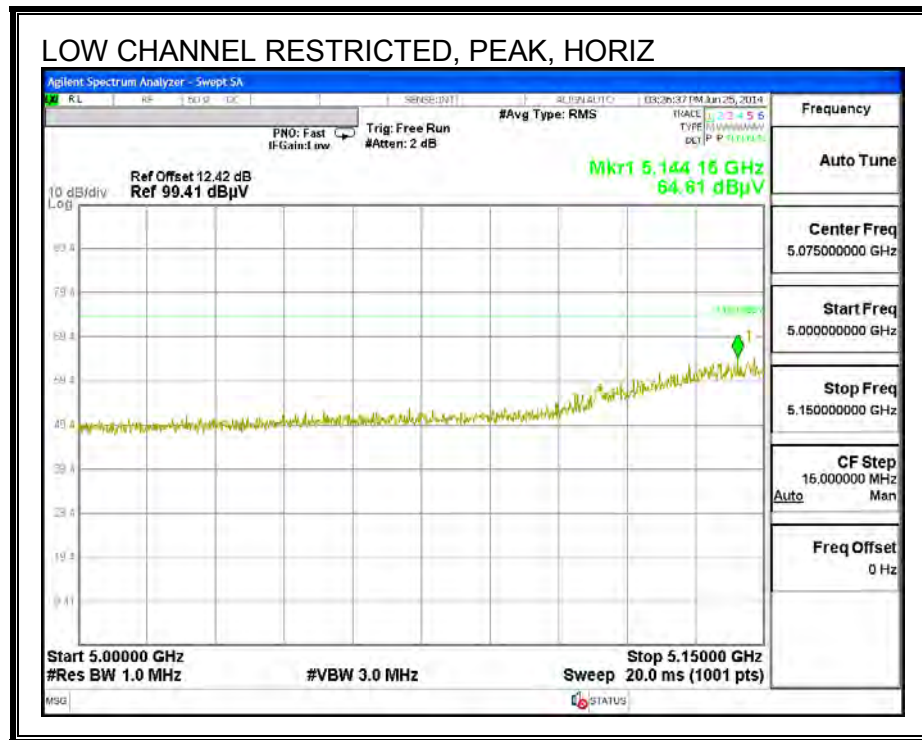
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

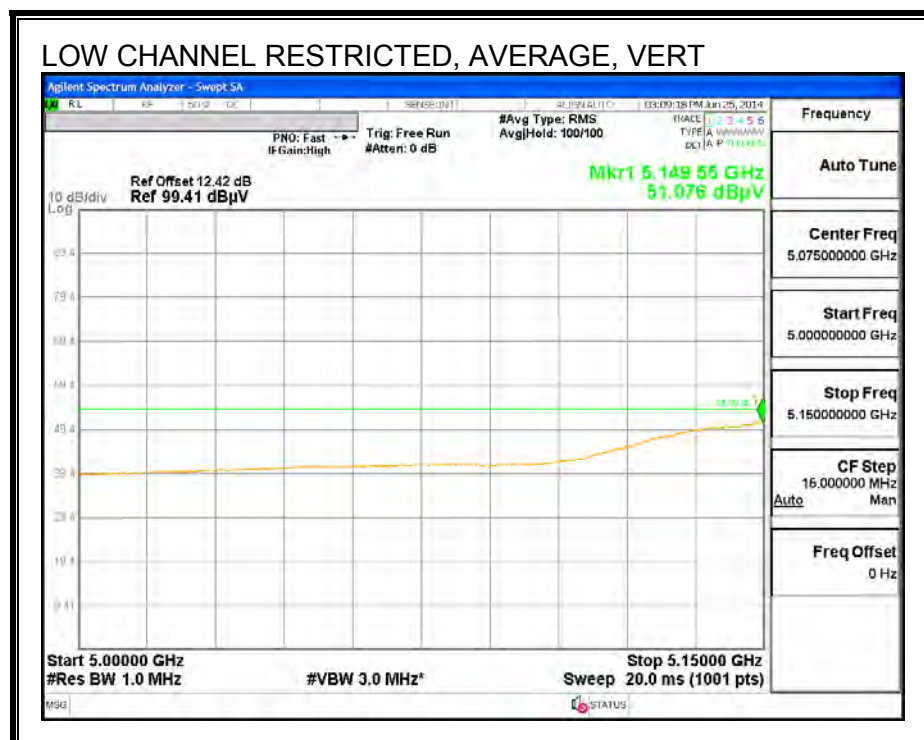
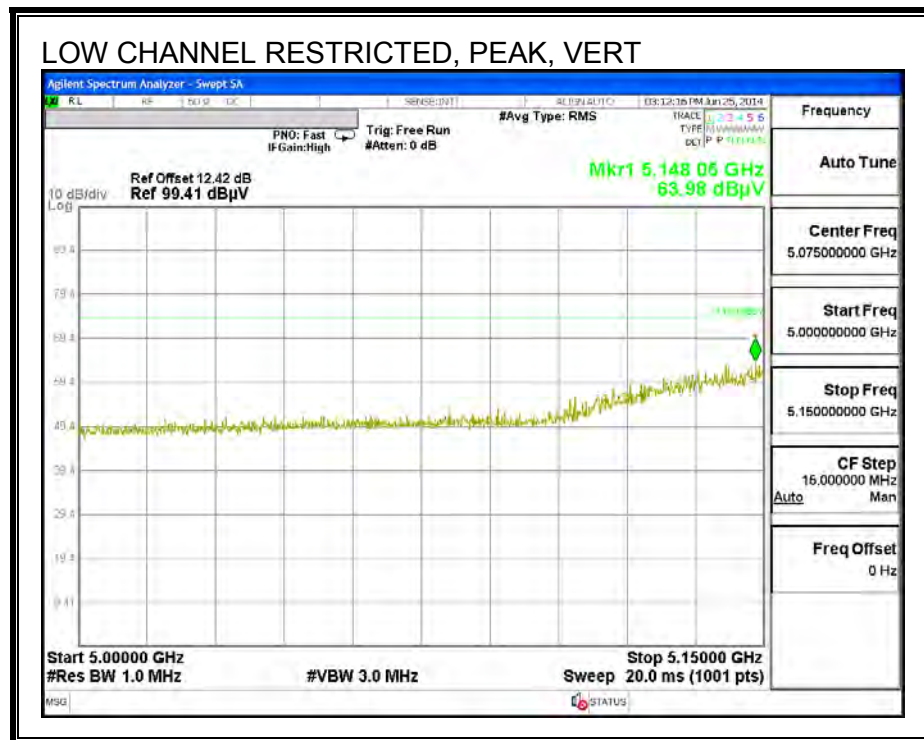
PK1 - KDB789033 Method: Peak

AD1 - KDB789033 Method: AD Primary Power Average

10.6. TX ABOVE 1G 802.11ac 80MHz MODE IN THE 5.2 GHz BAND

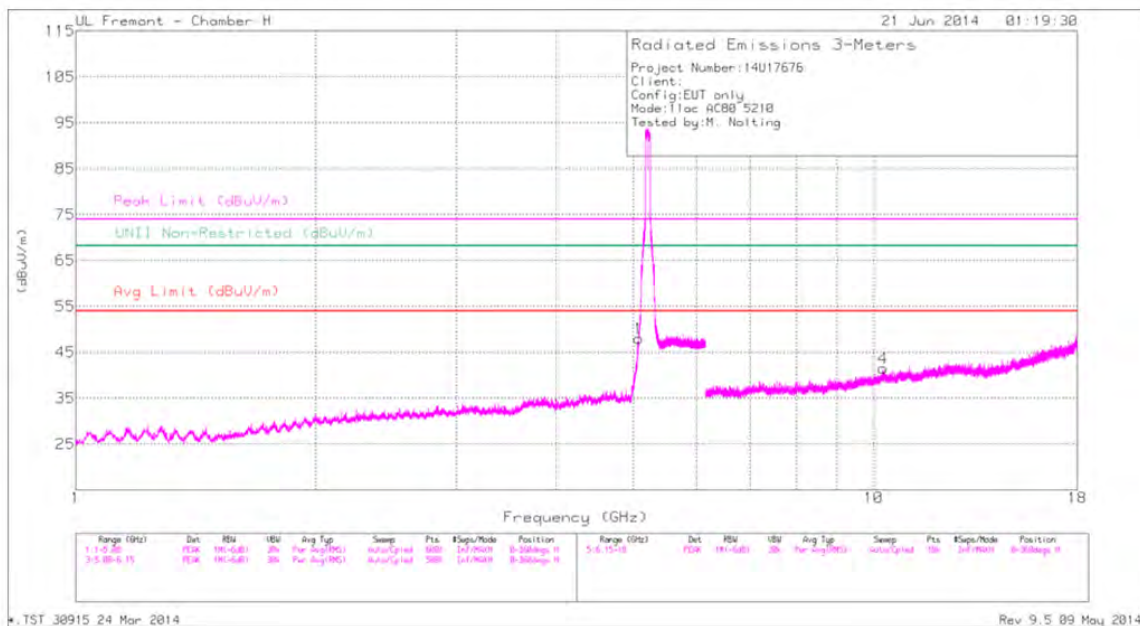
RESTRICTED BANDEDGE (LOW CHANNEL, CH 42)



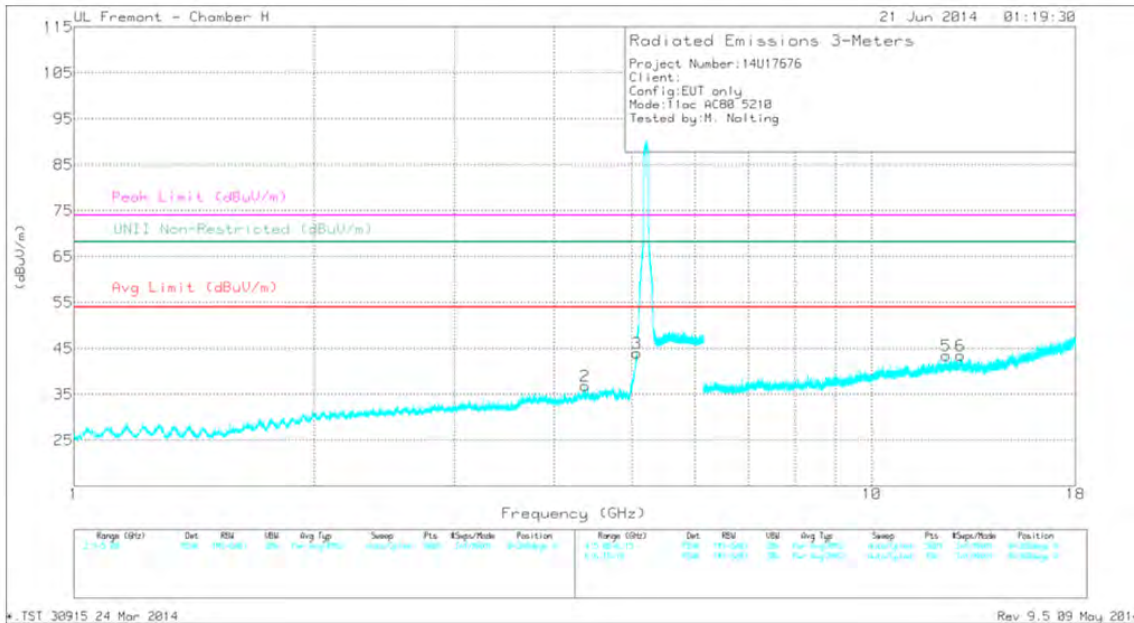


HARMONICS AND SPURIOUS EMISSIONS

HIGH CHANNEL HORIZONTAL PLOT, CH 42



HIGH CHANNEL VERTICAL PLOT, CH 42



DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (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)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.071	53.33	PK1	34.4	-28.7	0	59.03	-	-	74	-14.97	-	-	155	181	H
	* 5.079	38.55	AD1	34.4	-28.2	.2	44.95	54	-9.05	-	-	-	-	155	181	H
2	* 4.363	40.71	PK1	33.7	-31.5	0	42.91	-	-	74	-31.09	-	-	354	110	V
	* 4.362	29.91	AD1	33.7	-31.5	.2	32.31	54	-21.69	-	-	-	-	354	110	V
3	* 5.074	53.66	PK1	34.4	-28.6	0	59.46	-	-	74	-14.54	-	-	98	301	V
	* 5.075	38.29	AD1	34.4	-28.6	.2	44.29	54	-9.71	-	-	-	-	98	301	V
5	* 12.4	37.23	PK1	39.1	-25.1	0	51.23	-	-	74	-22.77	-	-	339	177	V
	* 12.391	25.36	AD1	39.1	-25.2	.2	39.46	54	-14.54	-	-	-	-	339	177	V
4	10.277	36.85	PK1	37.4	-25.3	0	48.95	-	-	-	-	68.2	-19.25	212	148	H
	10.27	25.02	AD1	37.4	-25.1	.2	37.52	-	-	-	-	-	-	212	148	H
6	12.901	36.32	PK1	39.2	-25.1	0	50.42	-	-	-	-	68.2	-17.78	34	113	V
	12.906	25.11	AD1	39.2	-25	.2	39.51	-	-	-	-	-	-	34	113	V

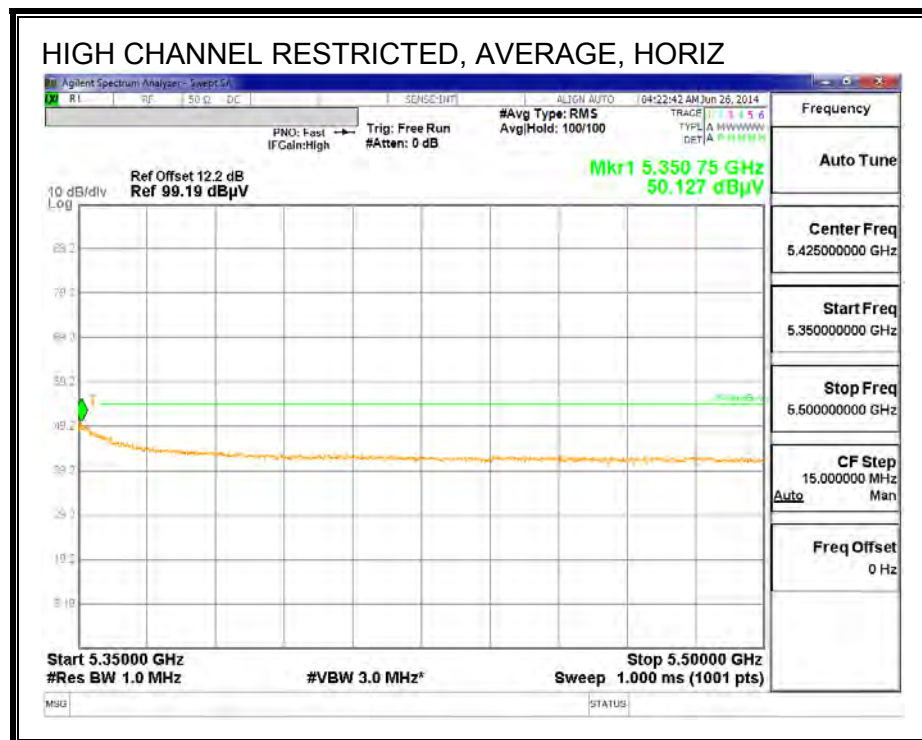
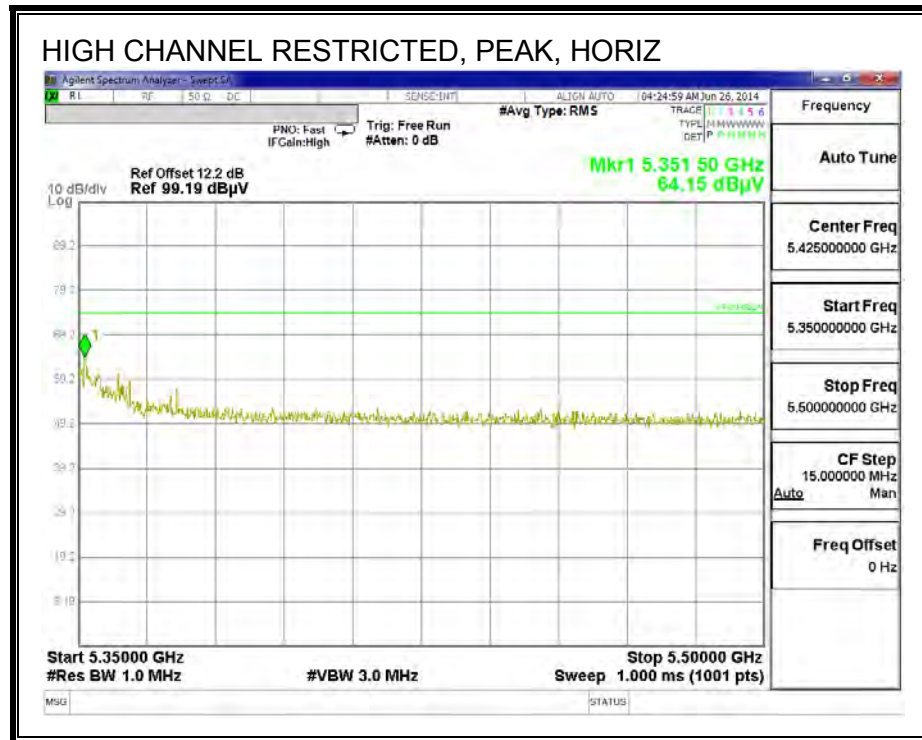
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

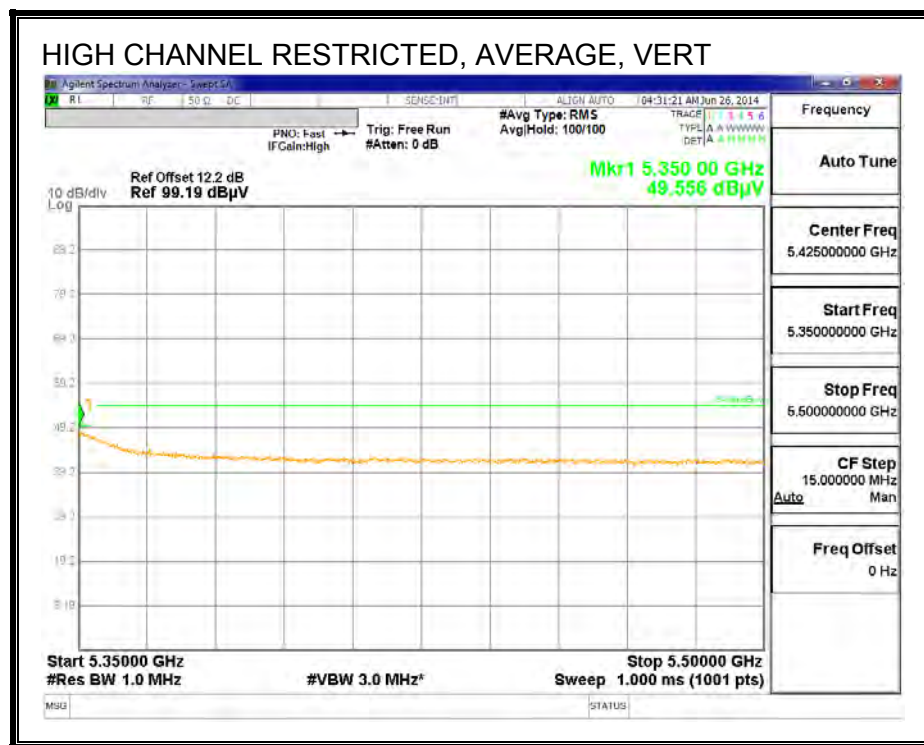
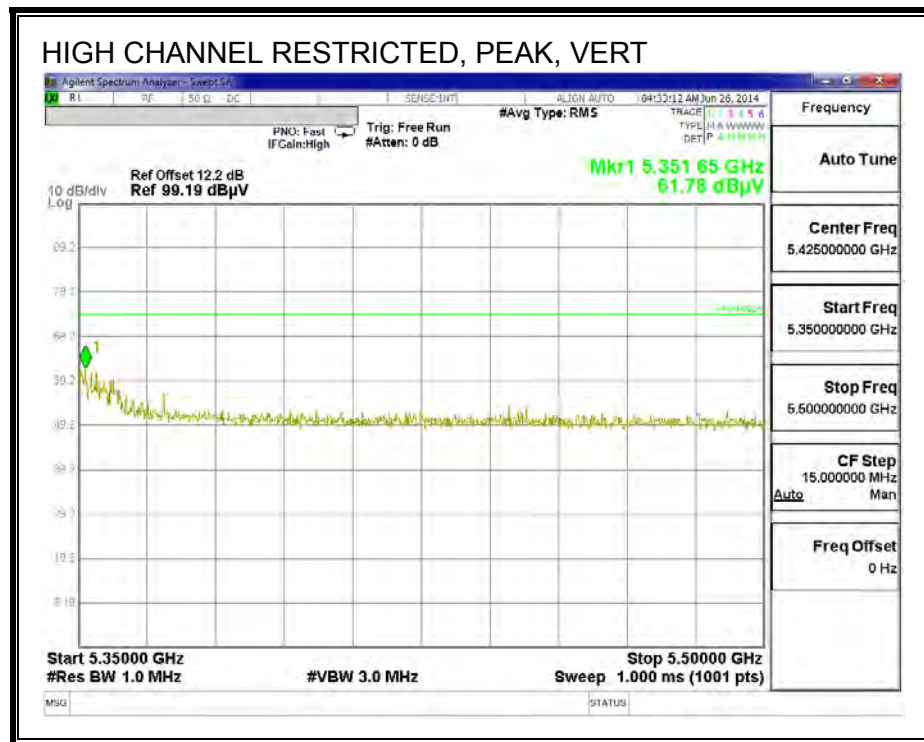
PK1 - KDB789033 Method: Peak

AD1 - KDB789033 Method: AD Primary Power Average

10.7. TX ABOVE 1 GHz 802.11a MODE IN THE 5.3 GHz BAND

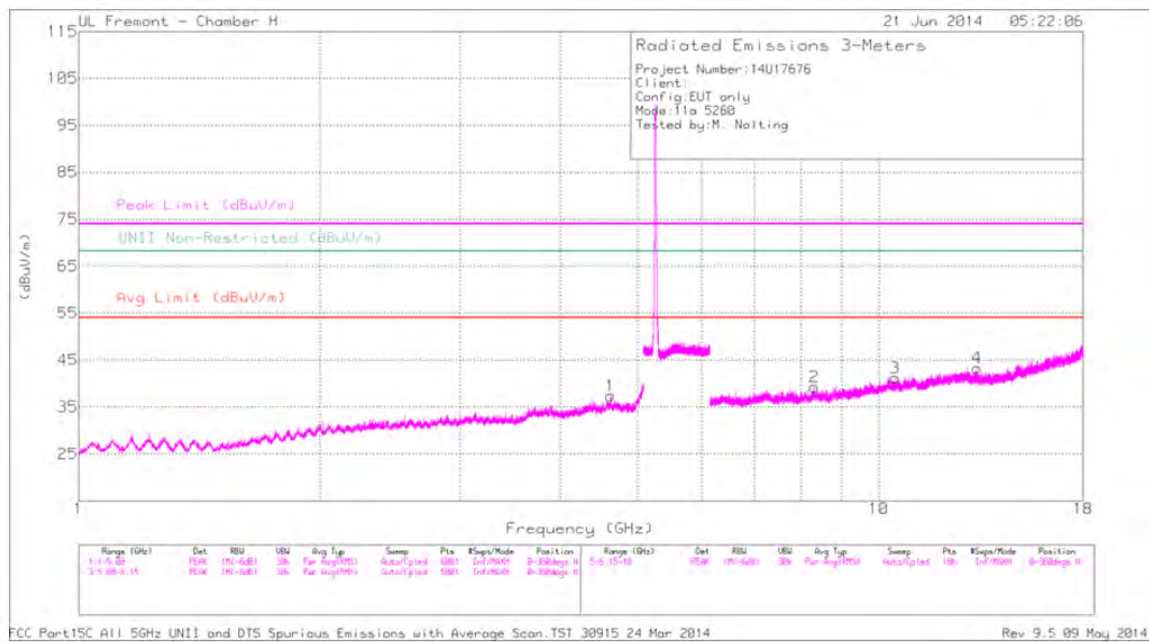
RESTRICTED BANDEDGE (HIGH CHANNEL)



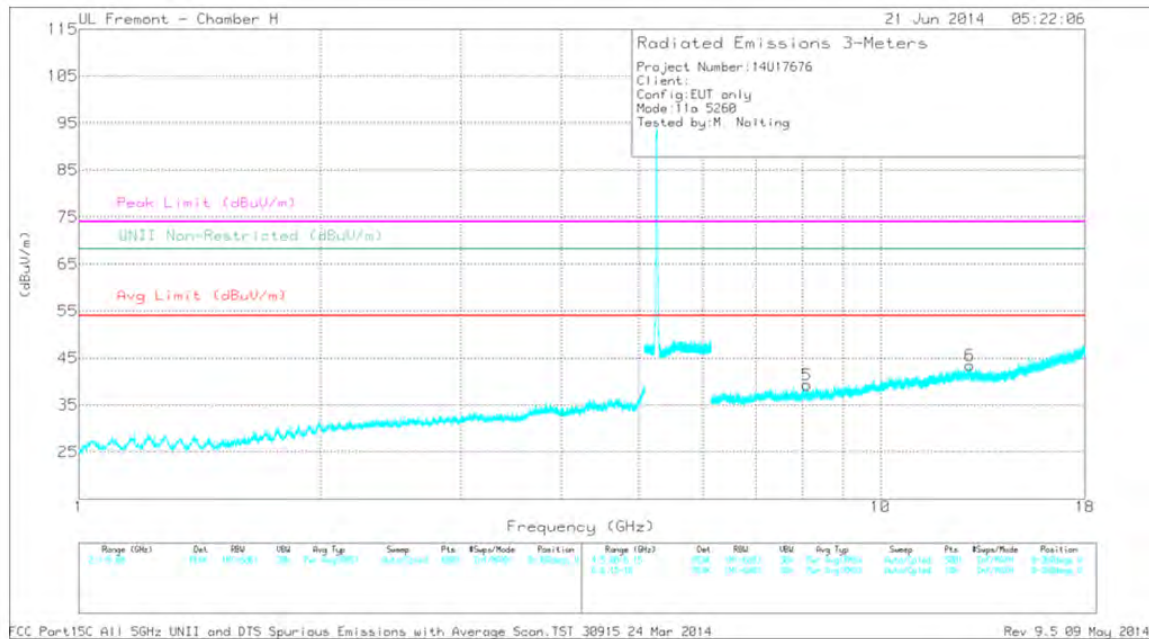


HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL HORIZONTAL PLOT, CH 52



LOW CHANNEL VERTICAL PLOT, CH 52



DATA

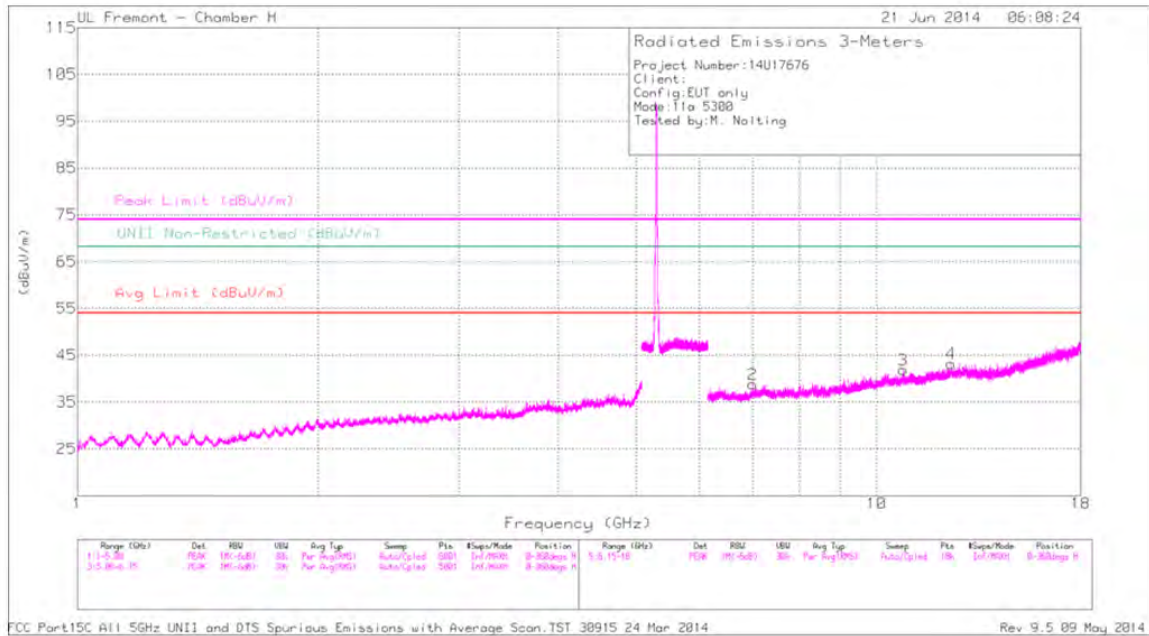
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 4.622	41.91	PK1	34.1	-31.9	44.11	-	-	74	-29.89	-	-	57	240	H
	* 4.624	30.5	AD1	34.1	-32	32.6	54	-21.4	-	-	-	-	57	240	H
2	* 8.304	37.87	PK1	36.1	-27.3	46.67	-	-	74	-27.33	-	-	285	107	H
	* 8.311	26.48	AD1	36.1	-27.1	35.48	54	-18.52	-	-	-	-	285	107	H
4	* 13.268	36.74	PK1	39.1	-25.3	50.54	-	-	74	-23.46	-	-	163	114	H
	* 13.275	25.55	AD1	39.1	-25.2	39.45	54	-14.55	-	-	-	-	163	114	H
5	* 8.101	38.69	PK1	36	-28.3	46.39	-	-	74	-27.61	-	-	74	130	V
	* 8.085	27.17	AD1	36	-28.2	34.97	54	-19.03	-	-	-	-	74	130	V
3	10.491	36.7	PK1	37.6	-25.6	48.7	-	-	-	-	68.2	-19.5	102	103	H
	10.485	25.31	AD1	37.6	-25.7	37.21	-	-	-	-	-	-	102	103	H
6	12.938	35.8	PK1	39.2	-25.1	49.9	-	-	-	-	68.2	-18.3	23	329	V
	12.934	25.15	AD1	39.2	-25	39.35	-	-	-	-	-	-	23	329	V

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

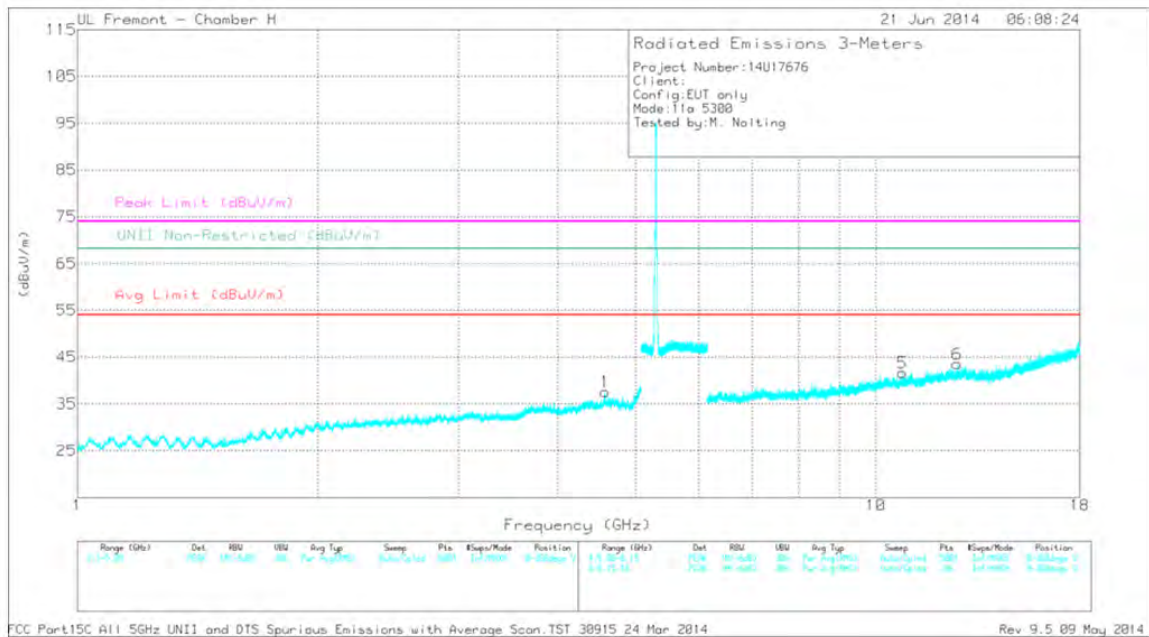
PK1 - KDB789033 Method: Peak

AD1 - KDB789033 Method: AD Primary Power Average

MID CHANNEL HORIZONTAL PLOT, CH 60



MID CHANNEL VERTICAL PLOT, CH 60



DATA

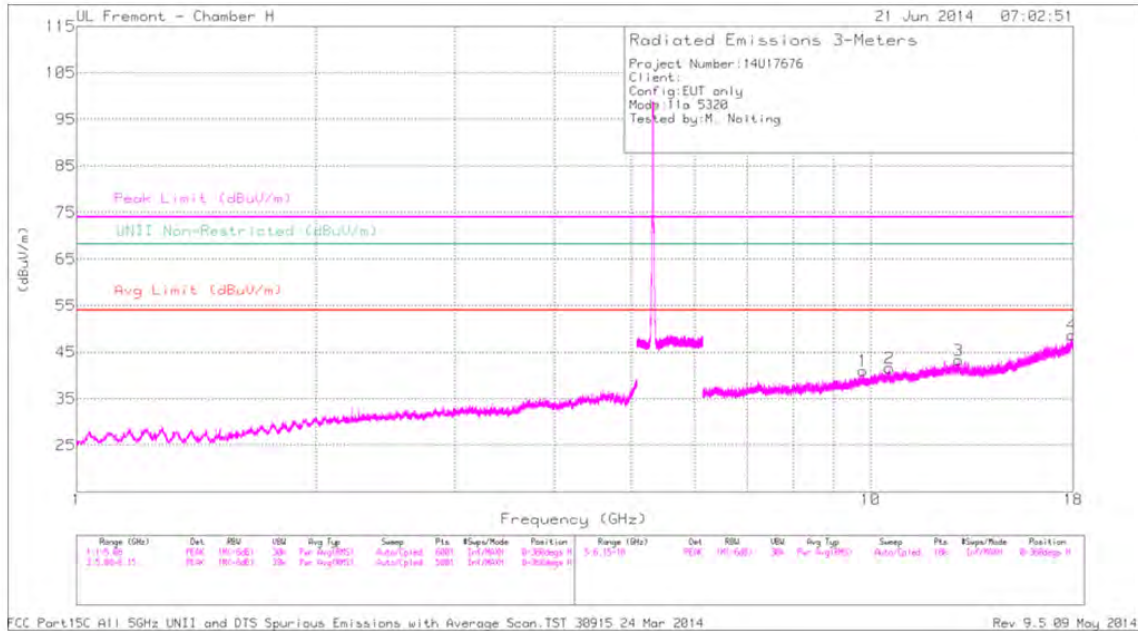
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 4.575	42	PK1	34.1	-31.8	44.3	-	-	74	-29.7	-	-	33	180	V
	* 4.577	30.51	AD1	34.1	-31.9	32.71	54	-21.29	-	-	-	-	33	180	V
3	* 10.795	35.87	PK1	37.6	-24.5	48.97	-	-	74	-25.03	-	-	232	314	H
	* 10.786	24.63	AD1	37.6	-24.4	37.83	54	-16.17	-	-	-	-	232	314	H
4	* 12.382	37.04	PK1	39.1	-25.4	50.74	-	-	74	-23.26	-	-	327	213	H
	* 12.379	25.4	AD1	39.1	-25.5	39	54	-15	-	-	-	-	327	213	H
5	* 10.795	36.15	PK1	37.6	-24.5	49.25	-	-	74	-24.75	-	-	316	225	V
	* 10.795	24.55	AD1	37.6	-24.5	37.65	54	-16.35	-	-	-	-	316	225	V
6	* 12.637	36.71	PK1	39.2	-25.2	50.71	-	-	74	-23.29	-	-	327	235	V
	* 12.632	25.21	AD1	39.2	-25.2	39.21	54	-14.79	-	-	-	-	327	235	V
2	7.002	39.32	PK1	35.8	-29.8	45.32	-	-	-	-	68.2	-22.88	241	271	H
	6.988	28.18	AD1	35.8	-29.9	34.08	-	-	-	-	-	-	241	271	H

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

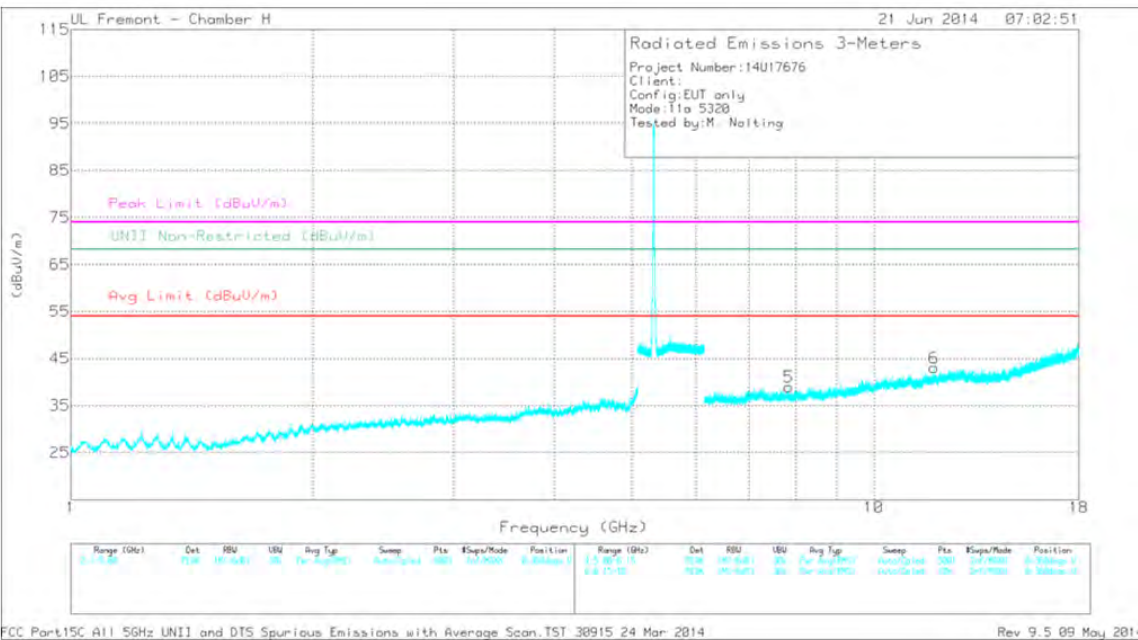
PK1 - KDB789033 Method: Peak

AD1 - KDB789033 Method: AD Primary Power Average

HIGH CHANNEL HORIZONTAL PLOT, CH 64



HIGH CHANNEL VERTICAL PLOT, CH 64



DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
4	* 17.931	34.62	PK1	42.5	-20.6	56.52	-	-	74	-17.48	-	-	334	140	H
	* 17.926	23.03	AD1	42.5	-20.8	44.73	54	-9.27	-	-	-	-	334	140	H
6	* 11.884	36.63	PK1	38.7	-25.5	49.83	-	-	74	-24.17	-	-	335	273	V
	* 11.883	24.95	AD1	38.7	-25.5	38.15	54	-15.85	-	-	-	-	335	273	V
5	7.836	38.88	PK1	36.1	-28.8	46.18	-	-	-	-	68.2	-22.02	18	129	V
	7.844	27.05	AD1	36.1	-28.7	34.45	-	-	-	-	-	-	18	129	V
1	9.789	36.95	PK1	37	-26.1	47.85	-	-	-	-	68.2	-20.35	214	231	H
	9.788	25.7	AD1	37	-26.2	36.5	-	-	-	-	-	-	214	231	H
2	10.566	35.74	PK1	37.6	-25	48.34	-	-	-	-	68.2	-19.86	268	186	H
	10.559	24.77	AD1	37.6	-25	37.37	-	-	-	-	-	-	268	186	H
3	12.914	36.55	PK1	39.2	-24.7	51.05	-	-	-	-	68.2	-17.15	35	304	H
	12.909	25.18	AD1	39.2	-24.8	39.58	-	-	-	-	-	-	35	304	H

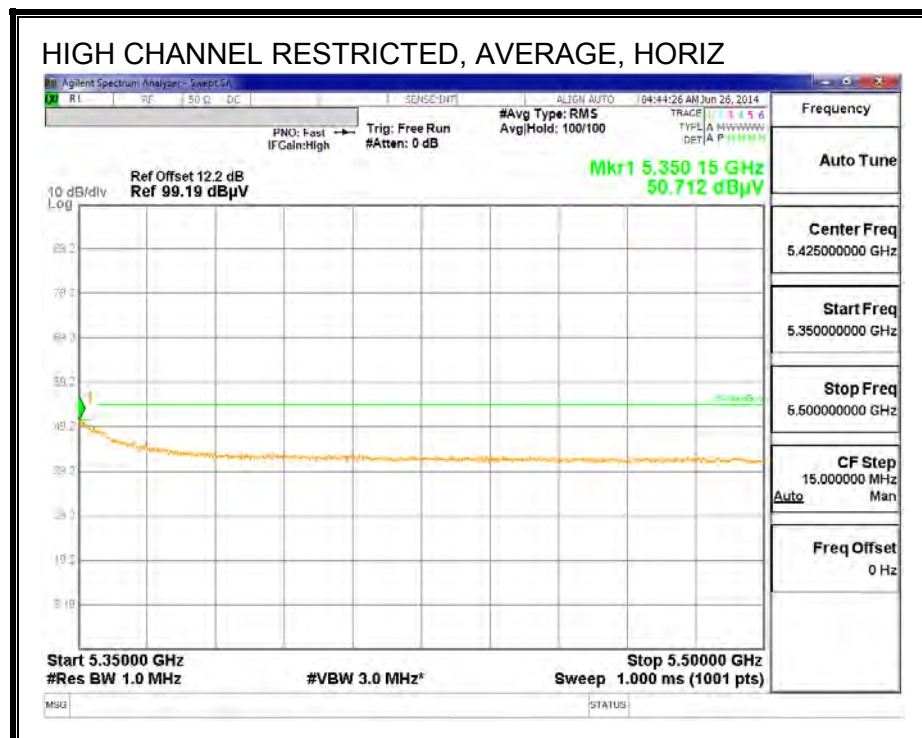
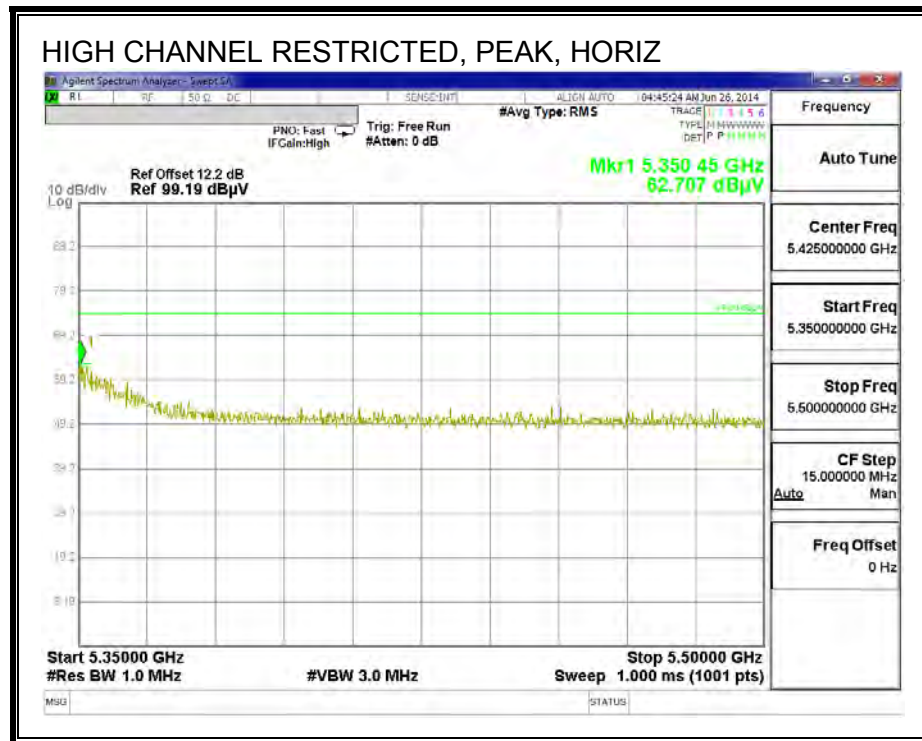
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

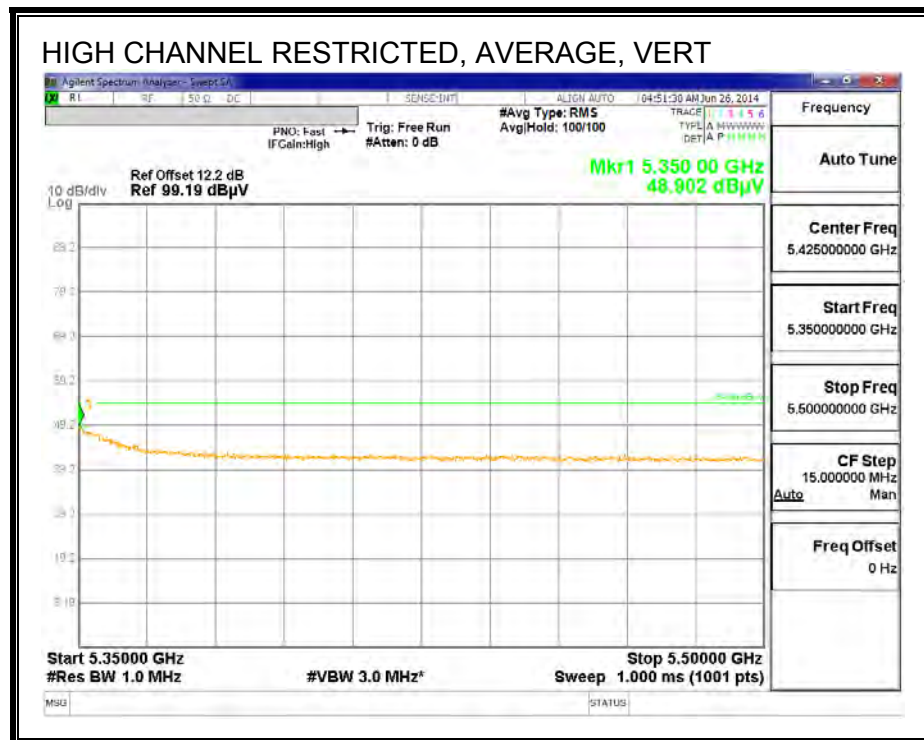
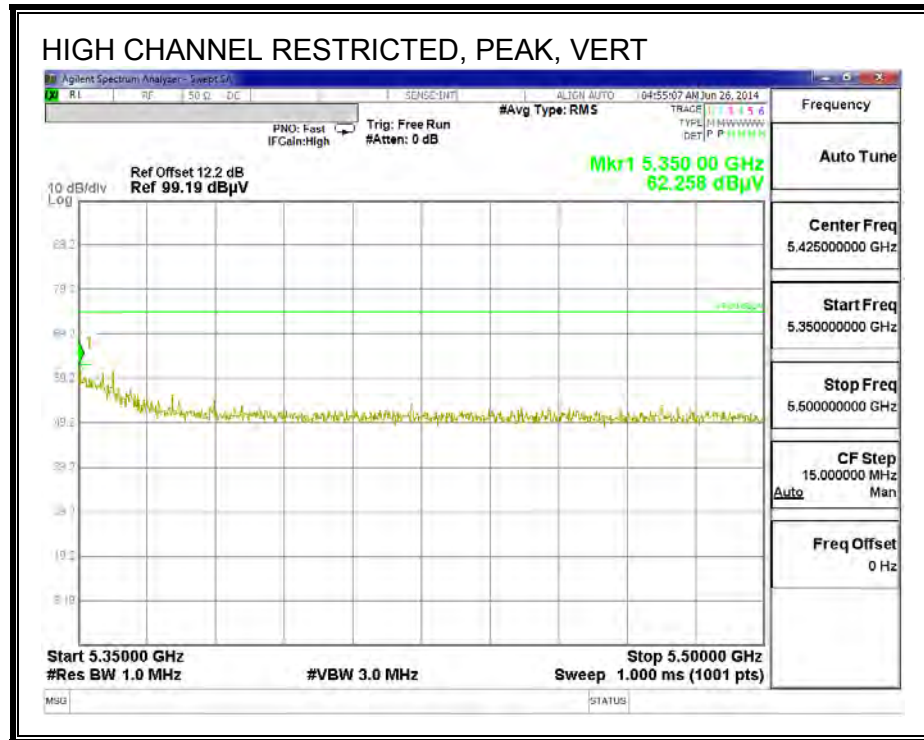
PK1 - KDB789033 Method: Peak

AD1 - KDB789033 Method: AD Primary Power Average

10.8. TX ABOVE 1 GHz 802.11n HT20 MODE IN THE 5.3 GHz BAND

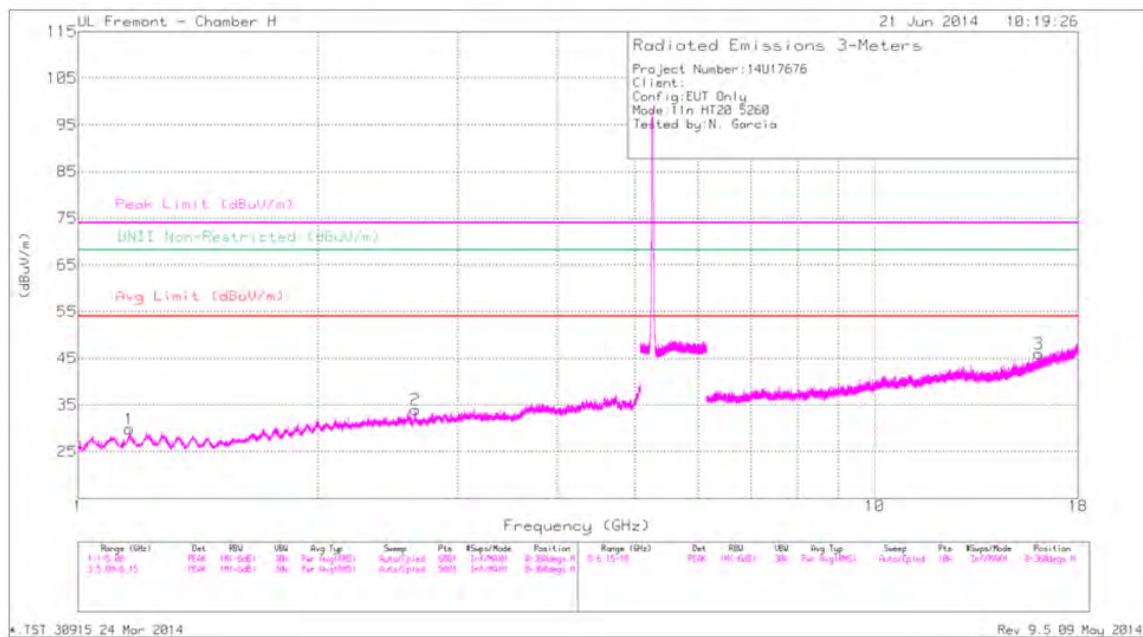
RESTRICTED BANDEDGE (HIGH CHANNEL)



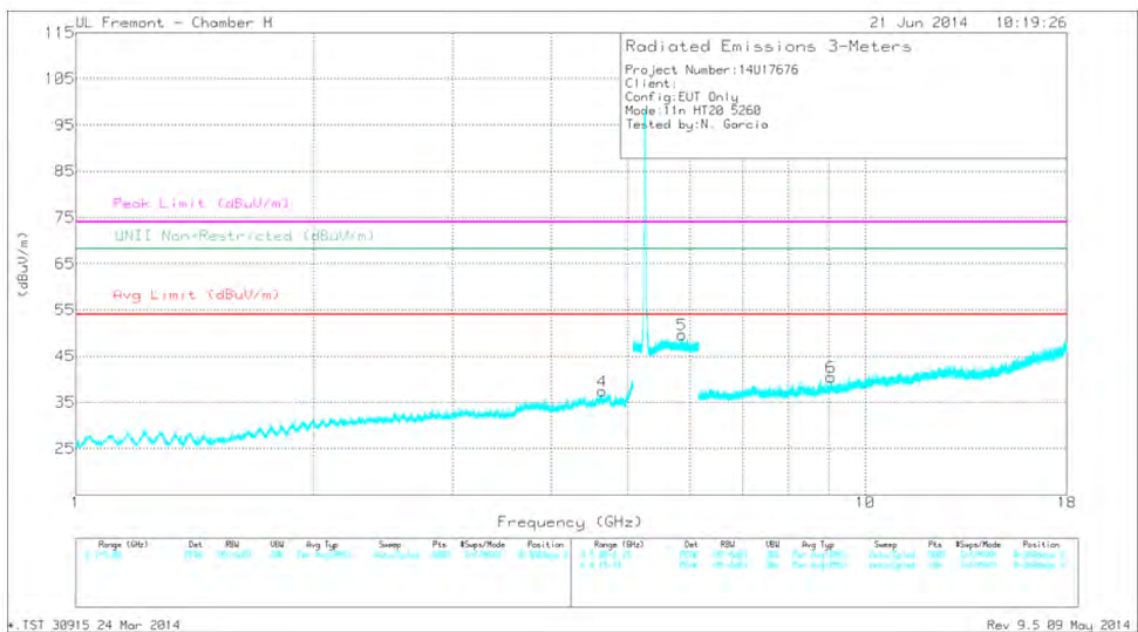


HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL HORIZONTAL PLOT, CH 52



LOW CHANNEL VERTICAL PLOT, CH 52



DATA

Markers	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.161	44.32	PK1	28.5	-35.6	37.22	-	-	74	-36.78	-	-	251	100	H
	* 1.162	32.83	AD1	28.5	-35.6	25.73	54	-28.27	-	-	-	-	251	100	H
4	* 4.645	42.49	PK1	34.2	-32.3	44.39	-	-	74	-29.61	-	-	251	211	V
	* 4.645	31.03	AD1	34.2	-32.3	32.93	54	-21.07	-	-	-	-	251	211	V
3	* 16.07	36.48	PK1	41.2	-24.2	53.48	-	-	74	-20.52	-	-	202	198	H
	* 16.072	25.23	AD1	41.2	-24.1	42.33	54	-11.67	-	-	-	-	202	198	H
6	* 9.046	38.36	PK1	36.4	-27.2	47.56	-	-	74	-26.44	-	-	238	282	V
	* 9.049	27.13	AD1	36.4	-27.2	36.33	54	-17.67	-	-	-	-	238	282	V
2	2.65	35.19	PK1	32.3	-33.6	33.89	-	-	-	-	68.2	-34.31	331	168	H
5	5.855	42.89	PK1	35.1	-22.2	55.79	-	-	-	-	68.2	-12.41	241	120	V

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

PK1 - KDB789033 Method: Peak

AD1 - KDB789033 Method: AD Primary Power Average

UL Fremont - Chamber H

21 Jun 2014 11:04:28

Radiated Emissions 3-Meters

Project Number: 14U17576
 Client:
 Config: EUT Only
 Mode: 11n HT20 5308
 Tested by: N. Garcia

dBuV/m

Peak Limit (dBuV/m)
 UNII Non-Restricted (dBuV/m)
 Avg Limit (dBuV/m)

1 2 3 4

Frequency (GHz)

Range (GHz)	Det	RBW	VBW	Avg Type	Sweep	Pln	EShape/Mode	Position	Range (GHz)	Det	RBW	VBW	Avg Type	Sweep	Pln	EShape/Mode	Position
1.1-5.88	Peak	100-Hz	20K	Per Avg (MS)	Auto/Cycled	0001	Def: NSM1	R-30deg H	5.6-15.18	Peak	100-Hz	20K	Per Avg (MS)	Auto/Cycled	0001	Def: NSM1	R-30deg H
3-5 MHz x5	Peak	100-Hz	20K	Per Avg (MS)	Auto/Cycled	0001	Def: NSM1	R-30deg H									

• IST 30915 24 Mar 2014

Rev 9.5.09 May 2014

UL Fremont - Chamber H

21 Jun 2014 11:04:28

Radiated Emissions 3-Meters

Project Number: 14U17676

Client:

Config: EUT Only

Mode: 11n HT20 5300

Tested by: N. Garcia

Peak Limit (dBuV/m)

UNII Non-Restricted (dBuV/m)

Avg Limit (dBuV/m)

(dBuV/m)

Frequency (GHz)

Range (GHz)	Det	RSU	USB	Avg Type	Sweep	Pts	ESegs/Mode	Position
4.5-5	HQ	HQ	20	Peak	Auto	201	2-20dB	3-30dB, 1

Range (GHz)	Det	RSU	USB	Avg Type	Sweep	Pts	ESegs/Mode	Position
4.5-5, 5.5-5.75	HQ	HQ	20	Peak	Auto	201	2-20dB, 3-30dB, 1	

21 Jun 2014 11:04:28

DATA

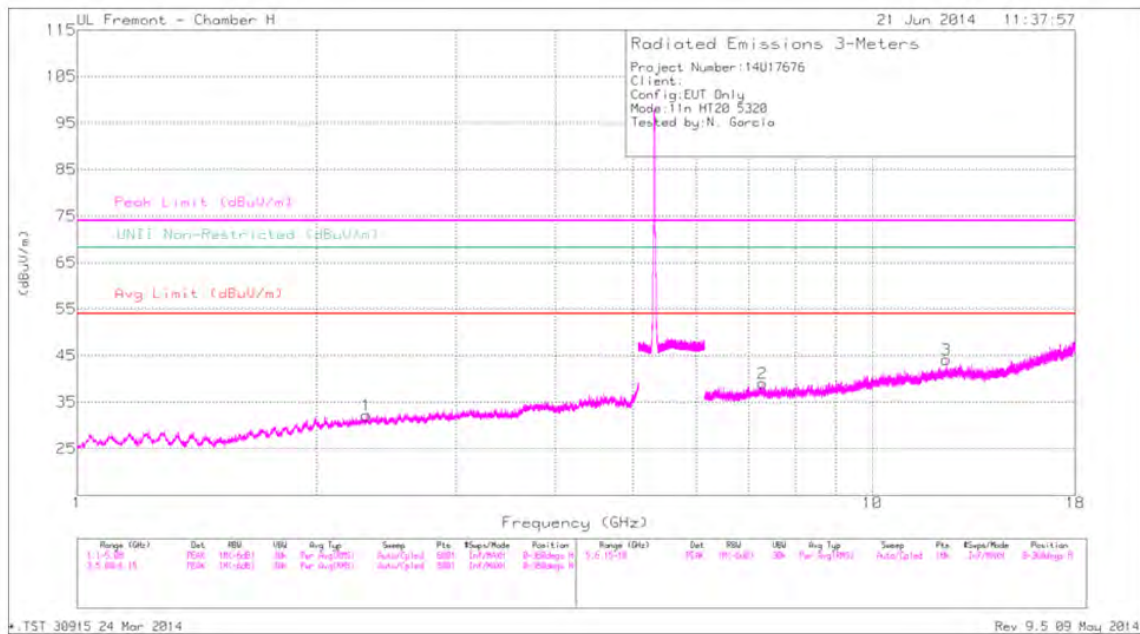
Markers	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.337	44.14	PK1	28.5	-35.6	37.04	-	-	74	-36.96	-	-	254	110	H
	* 1.336	32.66	AD1	28.6	-35.6	25.66	54	-28.34	-	-	-	-	254	110	H
2	* 3.689	41.39	PK1	33.1	-32.3	42.19	-	-	74	-31.81	-	-	260	200	H
	* 3.69	30.61	AD1	33.1	-32.3	31.41	54	-22.59	-	-	-	-	260	200	H
5	* 1.71	43.82	PK1	29.4	-34.4	38.82	-	-	74	-35.18	-	-	324	109	V
	* 1.71	31.88	AD1	29.4	-34.4	26.88	54	-27.12	-	-	-	-	324	109	V
6	* 4.851	40.88	PK1	34.3	-31.6	43.58	-	-	74	-30.42	-	-	10	218	V
	* 4.849	29.78	AD1	34.3	-31.6	32.48	54	-21.52	-	-	-	-	10	218	V
3	1.834	43.31	PK1	30.2	-34.9	38.61	-	-	-	-	68.2	-29.59	223	253	H
7	7.242	38.91	PK1	36.2	-28.9	46.21	-	-	-	-	68.2	-21.99	160	234	V

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

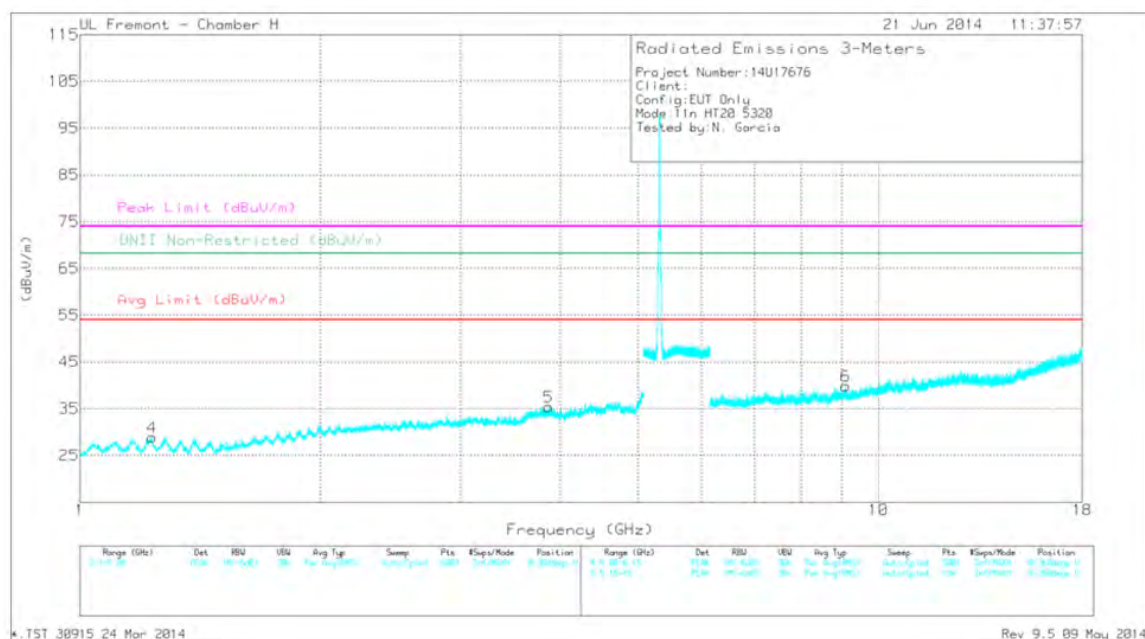
PK1 - KDB789033 Method: Peak

AD1 - KDB789033 Method: AD Primary Power Average

HIGH CHANNEL HORIZONTAL PLOT, CH 64



HIGH CHANNEL VERTICAL PLOT, CH 64



DATA

Markers	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.311	42.58	PK1	31.8	-33.9	40.48	-	-	74	-33.52	-	-	123	203	H
	* 2.311	30.87	AD1	31.8	-33.9	28.77	54	-25.23	-	-	-	-	123	203	H
4	* 1.23	43.32	PK1	28.9	-35.5	36.72	-	-	74	-37.28	-	-	135	163	V
	* 1.23	32.15	AD1	28.9	-35.5	25.55	54	-28.45	-	-	-	-	135	163	V
5	* 3.865	42.21	PK1	33.3	-32.7	42.81	-	-	74	-31.19	-	-	10	103	V
	* 3.865	31.01	AD1	33.3	-32.7	31.61	54	-22.39	-	-	-	-	10	103	V
2	* 7.277	39.54	PK1	36.2	-29.4	46.34	-	-	74	-27.66	-	-	93	201	H
	* 7.275	28.64	AD1	36.2	-29.4	35.44	54	-18.56	-	-	-	-	93	201	H
3	* 12.394	36.97	PK1	39.1	-25.2	50.87	-	-	74	-23.13	-	-	45	391	H
	* 12.393	25.49	AD1	39.1	-25.2	39.39	54	-14.61	-	-	-	-	45	391	H
6	* 9.046	38.36	PK1	36.4	-27.2	47.56	-	-	74	-26.44	-	-	238	282	V
	* 9.049	27.13	AD1	36.4	-27.2	36.33	54	-17.67	-	-	-	-	238	282	V

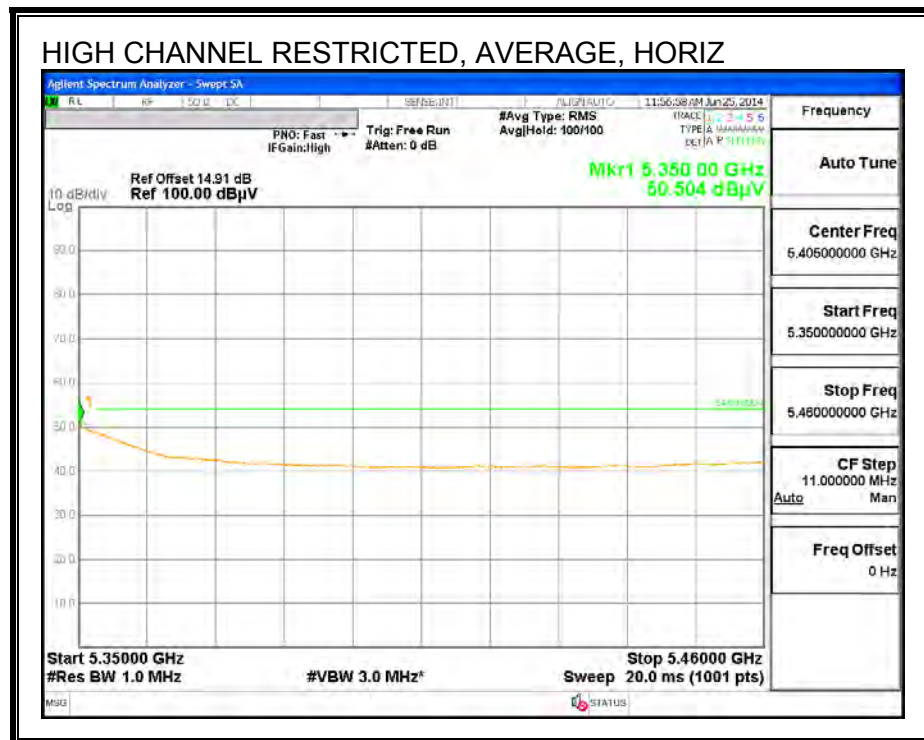
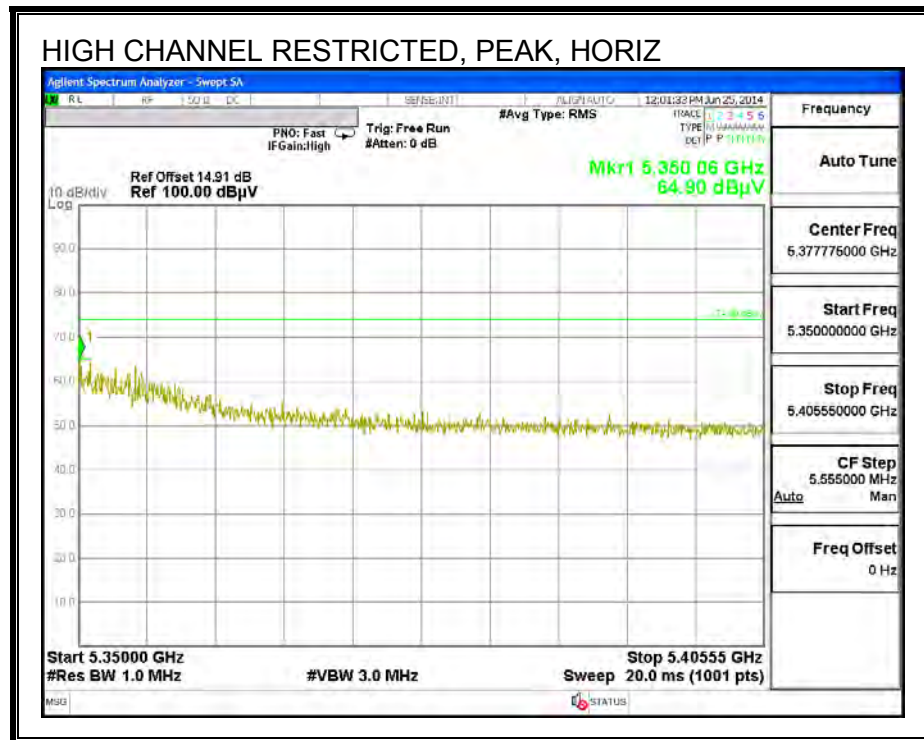
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

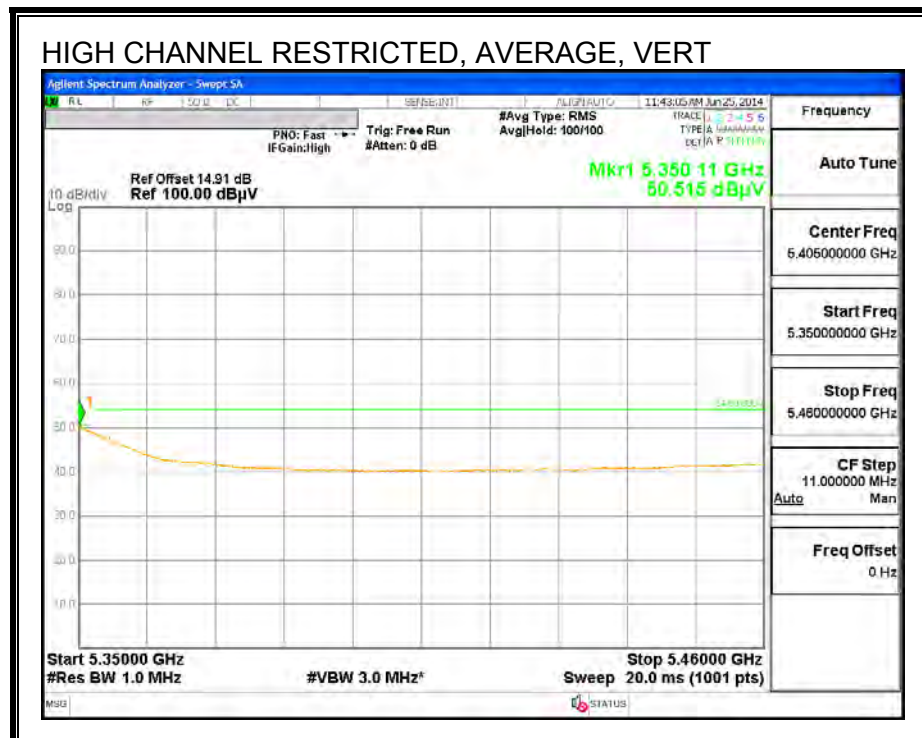
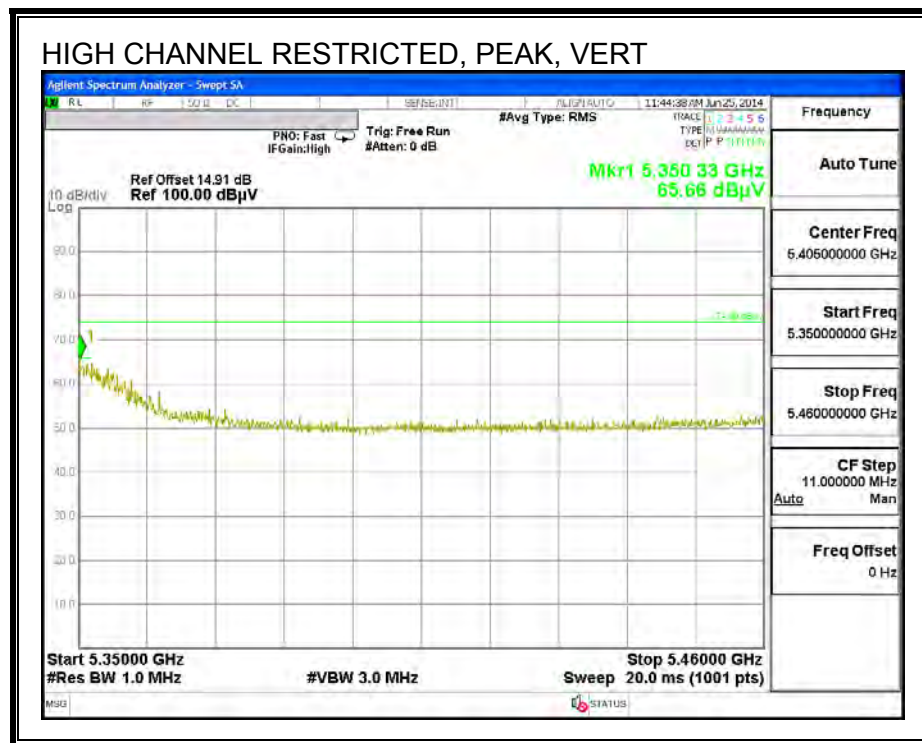
PK1 - KDB789033 Method: Peak

AD1 - KDB789033 Method: AD Primary Power Average

10.9. TX ABOVE 1 GHz 802.11n HT40 MODE IN THE 5.3 GHz BAND

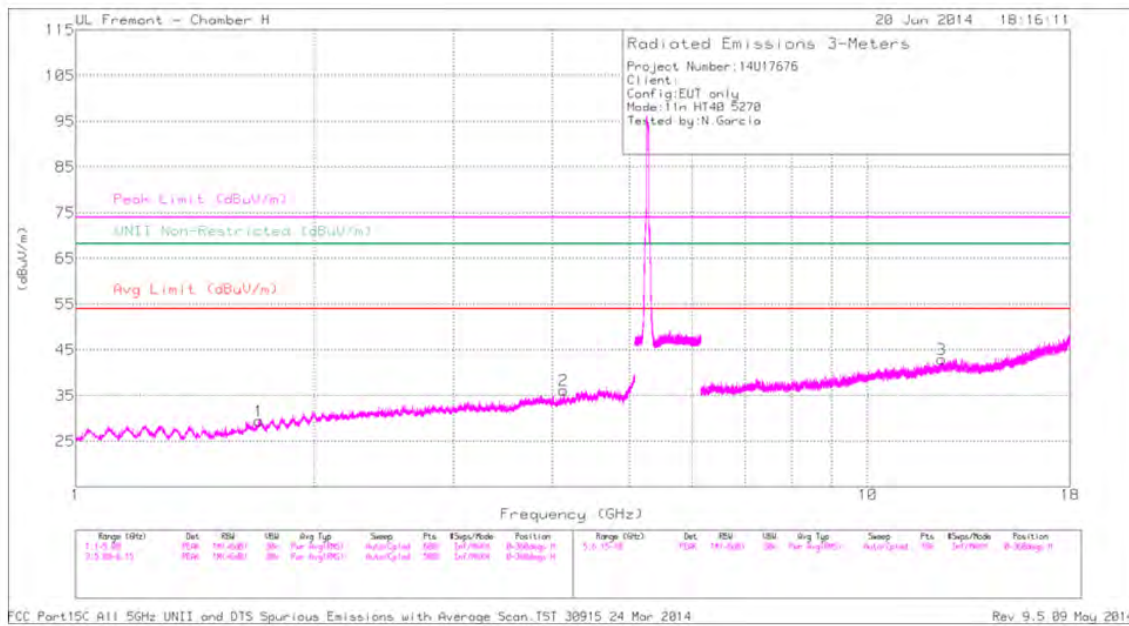
RESTRICTED BANDEDGE (HIGH CHANNEL)



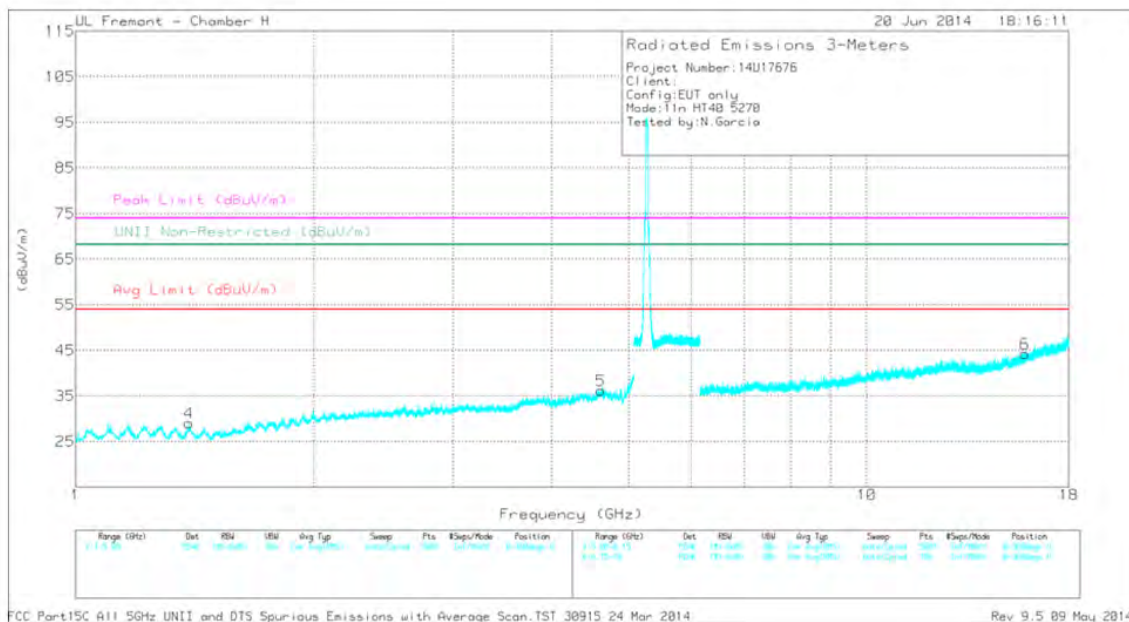


HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL HORIZONTAL PLOT, CH 54



LOW CHANNEL VERTICAL PLOT, CH 54



DATA

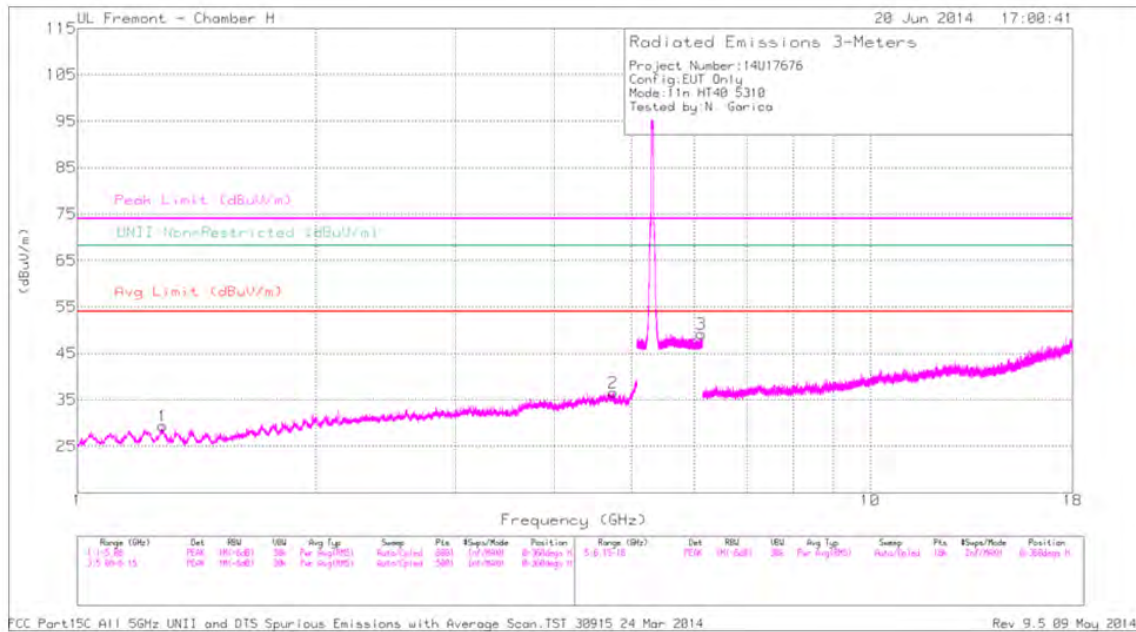
Markers	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.708	43.48	PK1	29.4	-34.3	38.58	-	-	74	-35.42	-	-	156	100	H
	* 1.707	31.59	AD1	29.4	-34.3	26.69	54	-27.31	-	-	-	-	156	100	H
2	* 4.133	41.18	PK1	33.5	-32.2	42.48	-	-	74	-31.52	-	-	278	325	H
	* 4.128	30.04	AD1	33.5	-32.2	31.34	54	-22.66	-	-	-	-	278	325	H
4	* 1.392	44.06	PK1	28.3	-35.1	37.26	-	-	74	-36.74	-	-	264	339	V
	* 1.392	32.49	AD1	28.3	-35.1	25.69	54	-28.31	-	-	-	-	264	339	V
5	* 4.616	42.05	PK1	34.1	-31.8	44.35	-	-	74	-29.65	-	-	233	105	V
	* 4.619	30.99	AD1	34.1	-31.8	33.29	54	-20.71	-	-	-	-	233	105	V
3	* 12.395	36.83	PK1	39.1	-25.1	50.83	-	-	74	-23.17	-	-	220	107	H
	* 12.392	25.91	AD1	39.1	-25.2	39.81	54	-14.19	-	-	-	-	220	107	H
6	* 15.837	36.43	PK1	41.1	-24.7	52.83	-	-	74	-21.17	-	-	238	209	V
	* 15.839	25.39	AD1	41.1	-24.7	41.79	54	-12.21	-	-	-	-	238	209	V

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

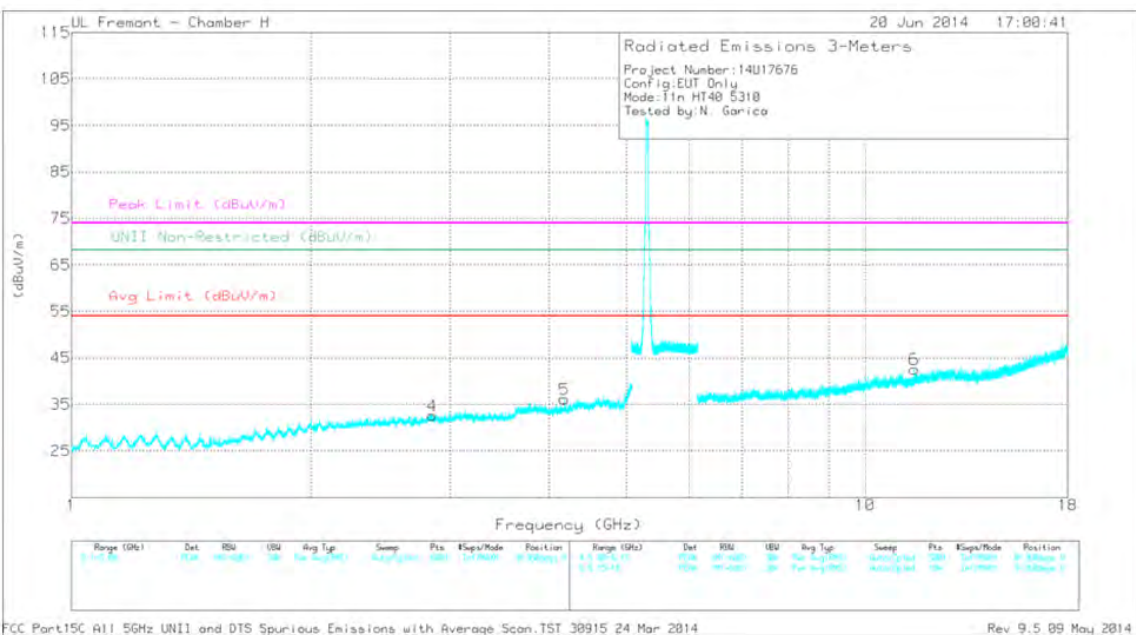
PK1 - KDB789033 Method: Peak

AD1 - KDB789033 Method: AD Primary Power Average

HIGH CHANNEL HORIZONTAL PLOT, CH 62



HIGH CHANNEL VERTICAL PLOT, CH 62



DATA

Markers	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.28	44.02	PK1	28.8	-35.6	37.22	-	-	74	-36.78	-	-	14	235	H
	* 1.282	32.36	AD1	28.8	-35.7	25.46	54	-28.54	-	-	-	-	14	235	H
2	* 4.736	41.44	PK1	34.3	-31.5	44.24	-	-	74	-29.76	-	-	14	240	H
	* 4.737	30.22	AD1	34.3	-31.5	33.02	54	-20.98	-	-	-	-	14	240	H
4	* 2.846	41.37	PK1	32.5	-33.1	40.77	-	-	74	-33.23	-	-	100	208	V
	* 2.842	29.93	AD1	32.5	-33.1	29.33	54	-24.67	-	-	-	-	100	208	V
5	* 4.178	41.65	PK1	33.5	-32.4	42.75	-	-	74	-31.25	-	-	103	178	V
	* 4.179	30.35	AD1	33.5	-32.4	31.45	54	-22.55	-	-	-	-	103	178	V
6	* 11.531	36.54	PK1	38.1	-25.4	49.24	-	-	74	-24.76	-	-	110	208	V
	* 11.534	25.13	AD1	38.2	-25.4	37.93	54	-16.07	-	-	-	-	110	208	V
3	6.123	40.11	PK1	35.3	-22.1	53.31	-	-	-	-	68.2	-14.89	110	218	H
	6.124	28.96	AD1	35.3	-22	42.26	-	-	-	-	-	-	110	218	H

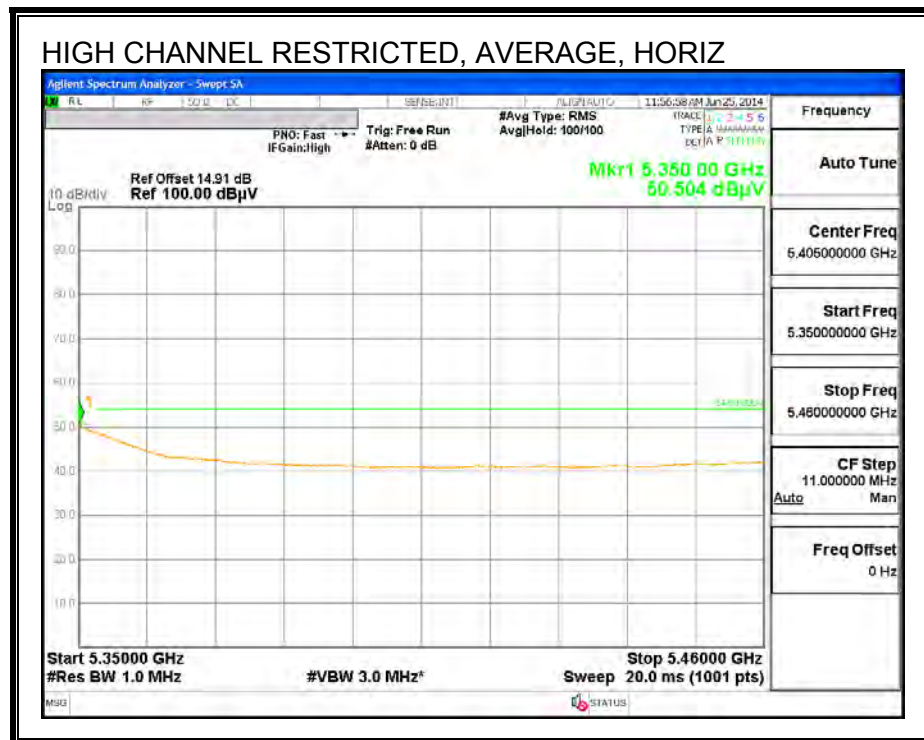
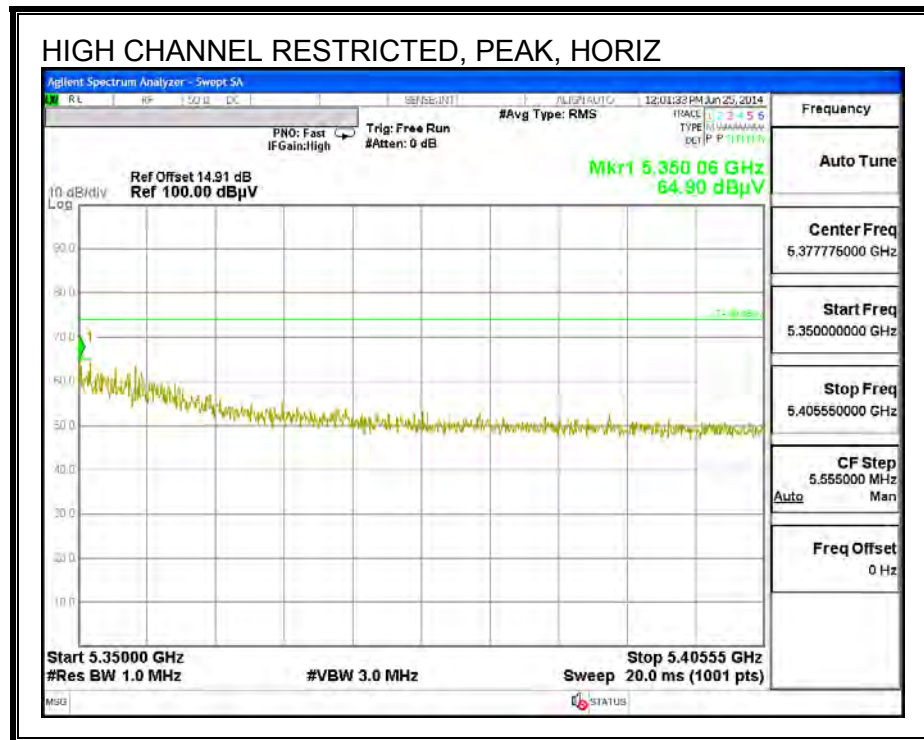
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

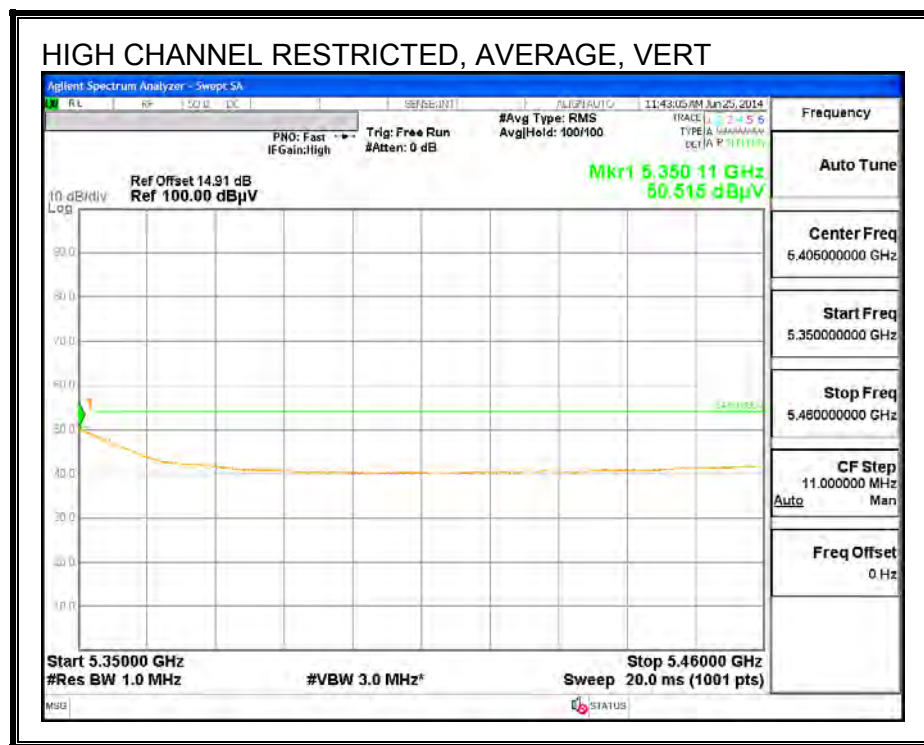
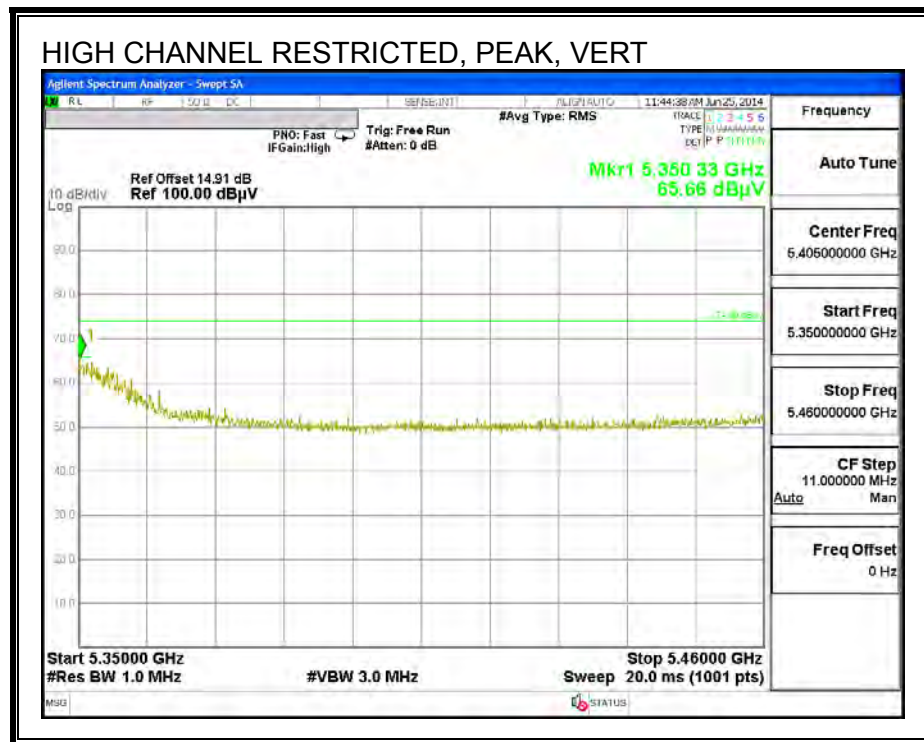
PK1 - KDB789033 Method: Peak

AD1 - KDB789033 Method: AD Primary Power Average

10.10. TX ABOVE 1G 802.11ac 80MHz MODE IN THE 5.3 GHz BAND

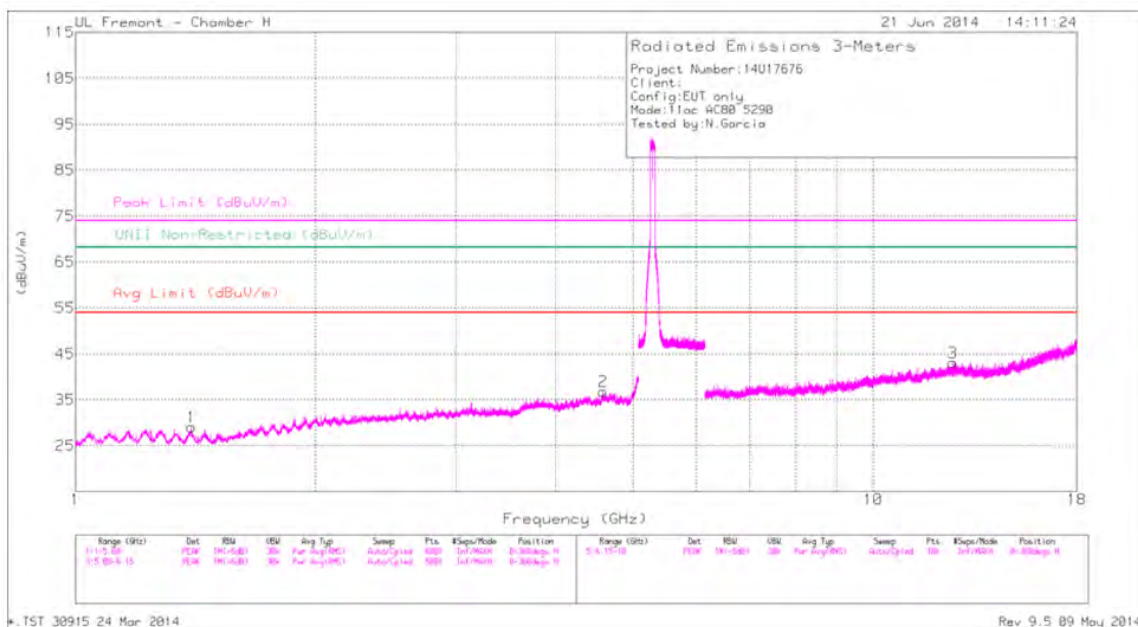
RESTRICTED BANDEDGE (HIGH CHANNEL, CH 58)



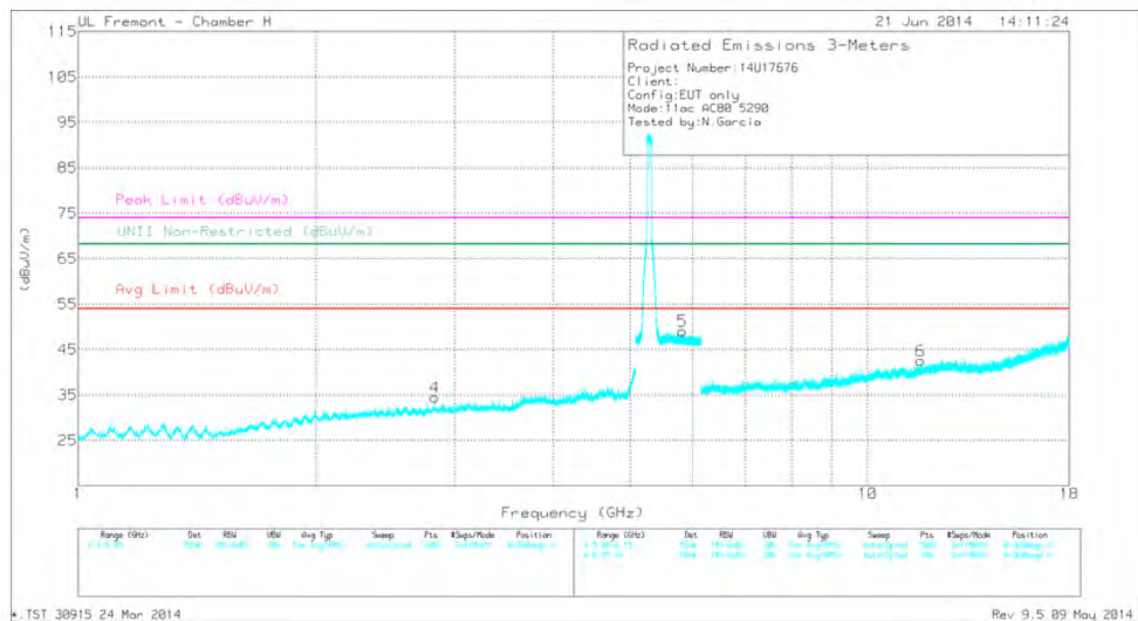


HARMONICS AND SPURIOUS EMISSIONS

HIGH CHANNEL HORIZONTAL PLOT, CH 58



HIGH CHANNEL VERTICAL PLOT, CH 58



DATA

Markers	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (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)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.397	44.17	PK1	28.2	-35	0	37.37	-	-	74	-36.63	-	-	337	116	H
	* 1.395	32.36	AD1	28.2	-35	.2	25.76	54	-28.24	-	-	-	-	337	116	H
2	* 4.587	42.26	PK1	34.1	-31.9	0	44.46	-	-	74	-29.54	-	-	109	115	H
	* 4.587	30.94	AD1	34.1	-31.9	.2	33.34	54	-20.66	-	-	-	-	109	115	H
4	* 2.831	42.72	PK1	32.5	-33	0	42.22	-	-	74	-31.78	-	-	127	119	V
	* 2.829	30.66	AD1	32.5	-33	.2	30.36	54	-23.64	-	-	-	-	127	119	V
3	* 12.58	37.33	PK1	39.2	-25.6	0	50.93	-	-	74	-23.07	-	-	122	200	H
	* 12.577	25.86	AD1	39.2	-25.6	.2	39.66	54	-14.34	-	-	-	-	122	200	H
6	* 11.661	36.39	PK1	38.4	-25.7	0	49.09	-	-	74	-24.91	-	-	135	120	V
	* 11.664	25.63	AD1	38.4	-25.7	.2	38.53	54	-15.47	-	-	-	-	135	120	V
5	5.828	42.92	PK1	35.1	-22.2	0	55.82	-	-	-	-	68.2	-12.38	131	108	V

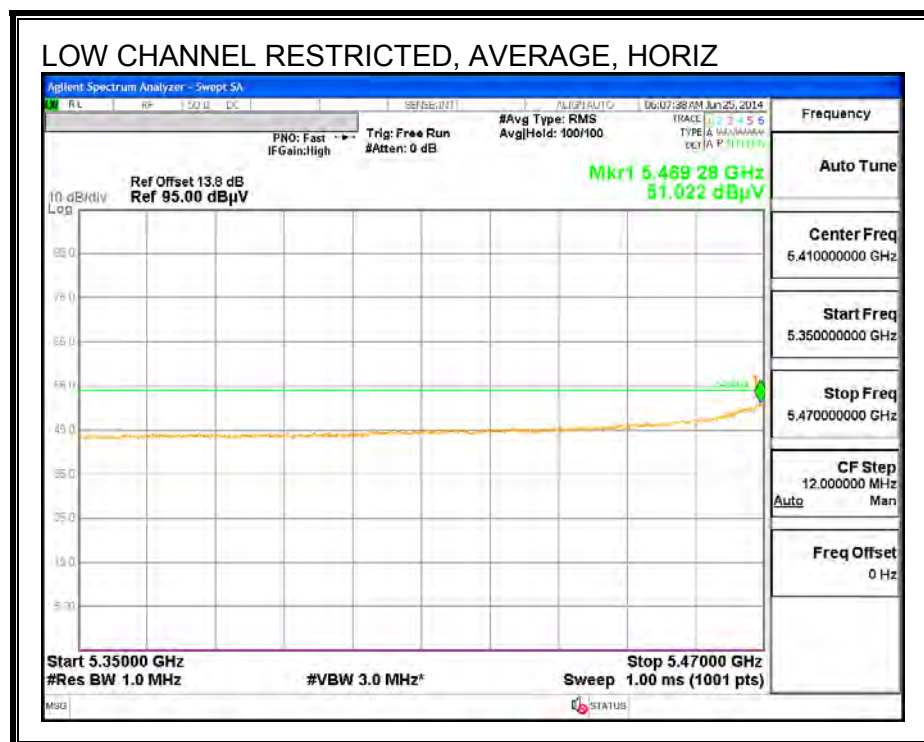
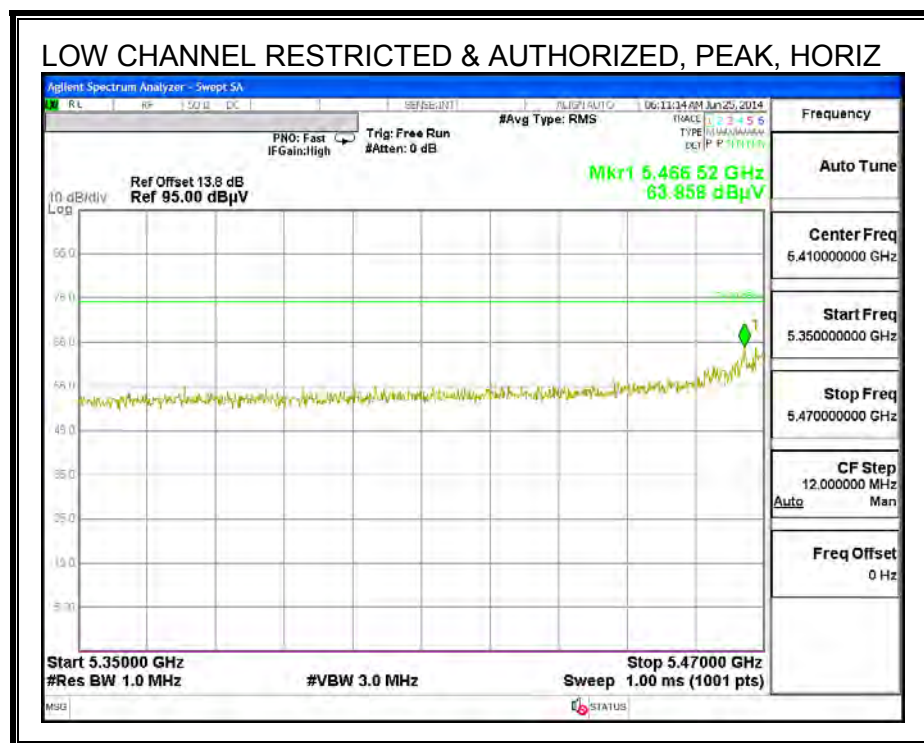
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

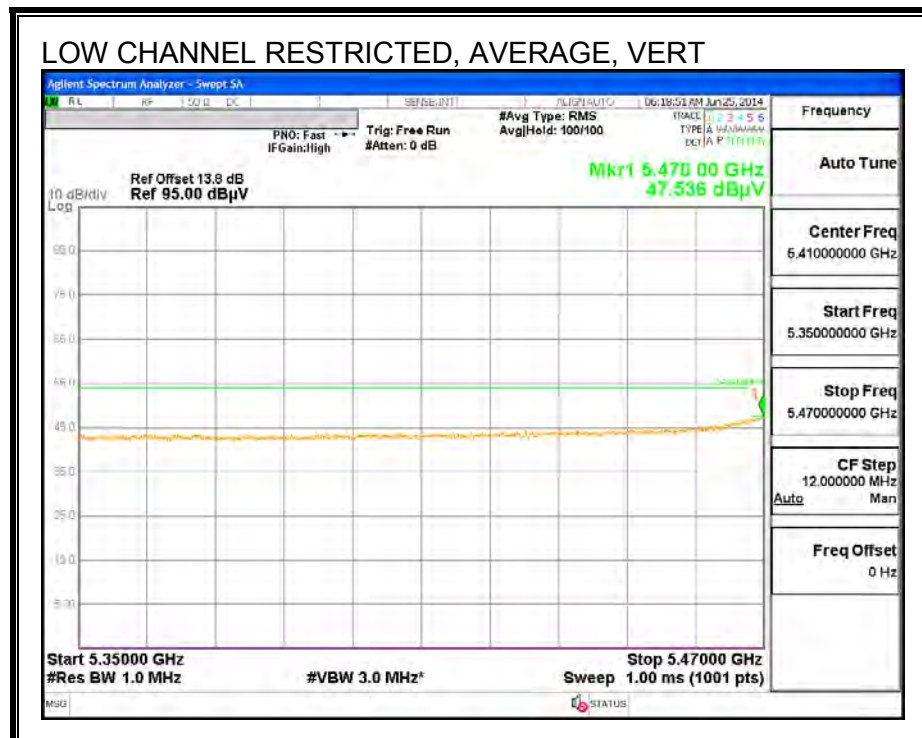
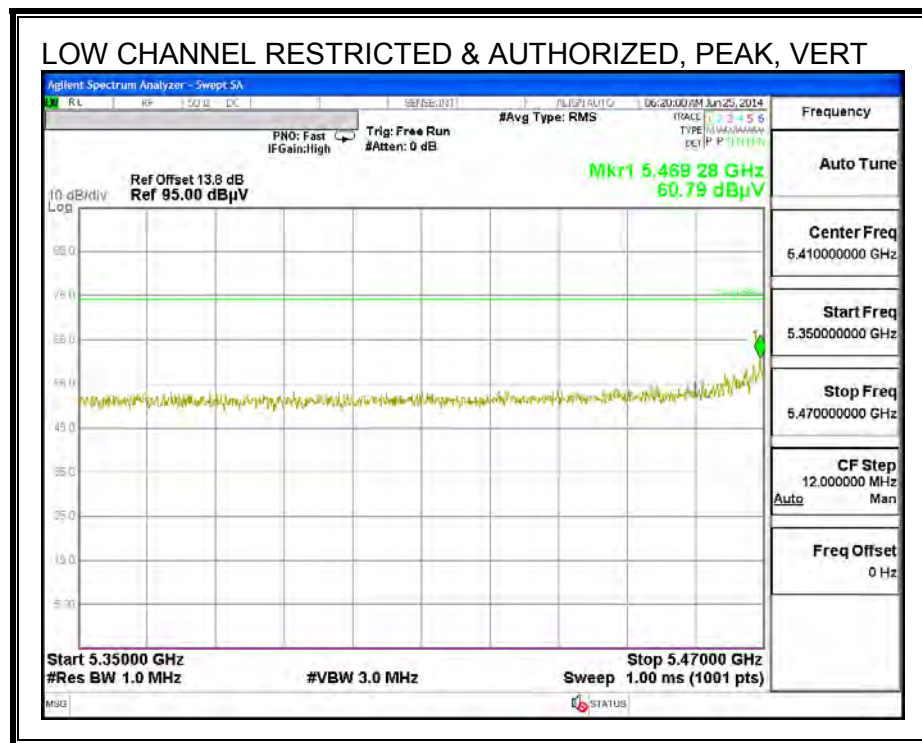
PK1 - KDB789033 Method: Peak

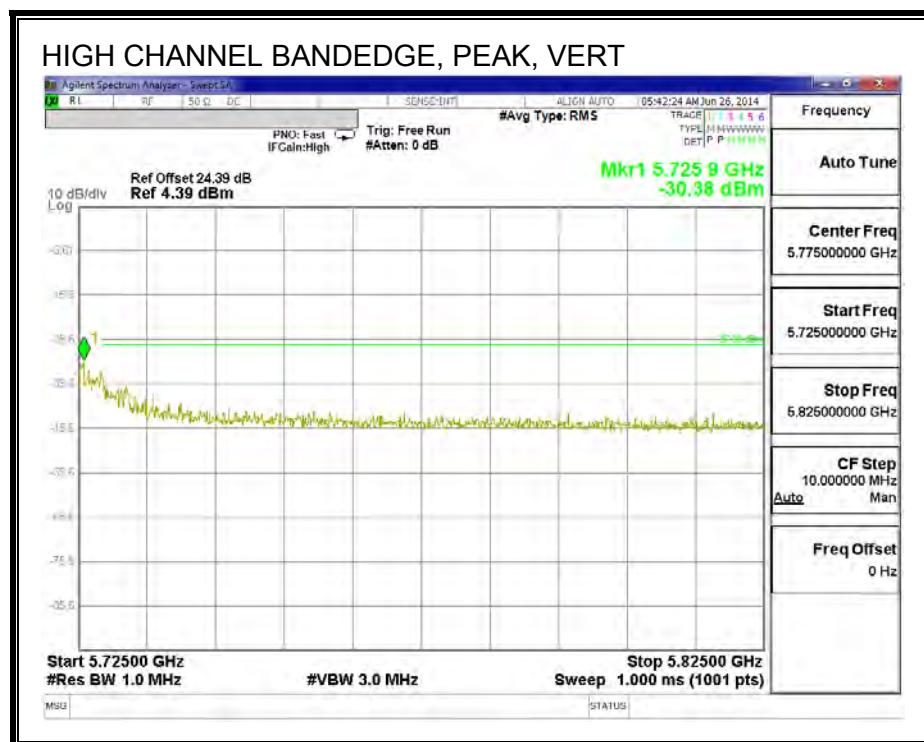
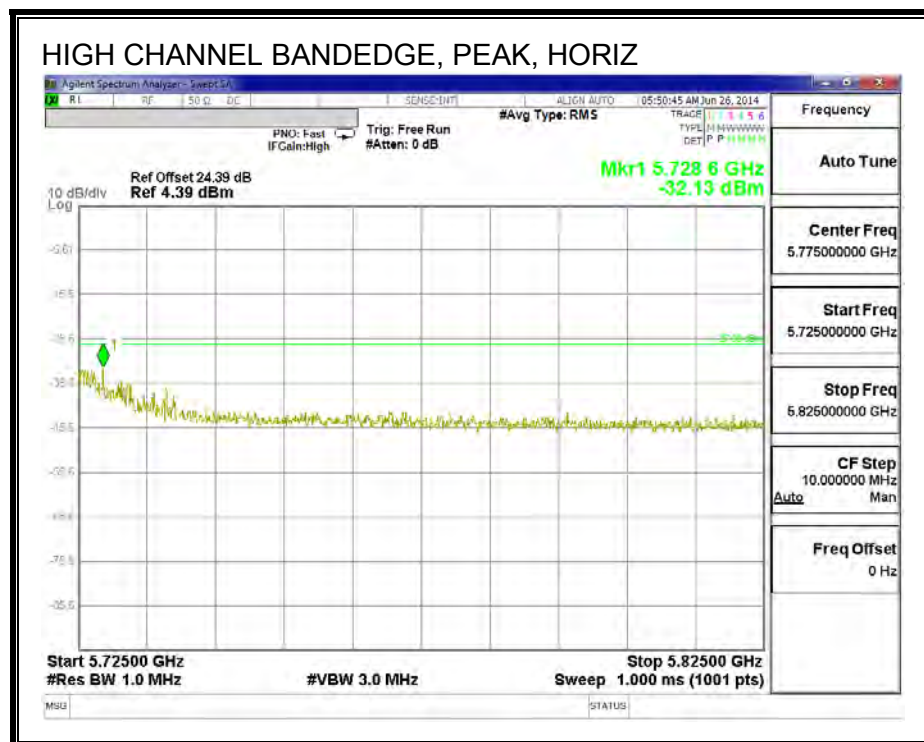
AD1 - KDB789033 Method: AD Primary Power Average

10.11. TX ABOVE 1 GHz 802.11a MODE IN THE 5.6 GHz BAND

RESTRICTED & AUTHORIZED BANDEDGE (LOW CHANNEL)



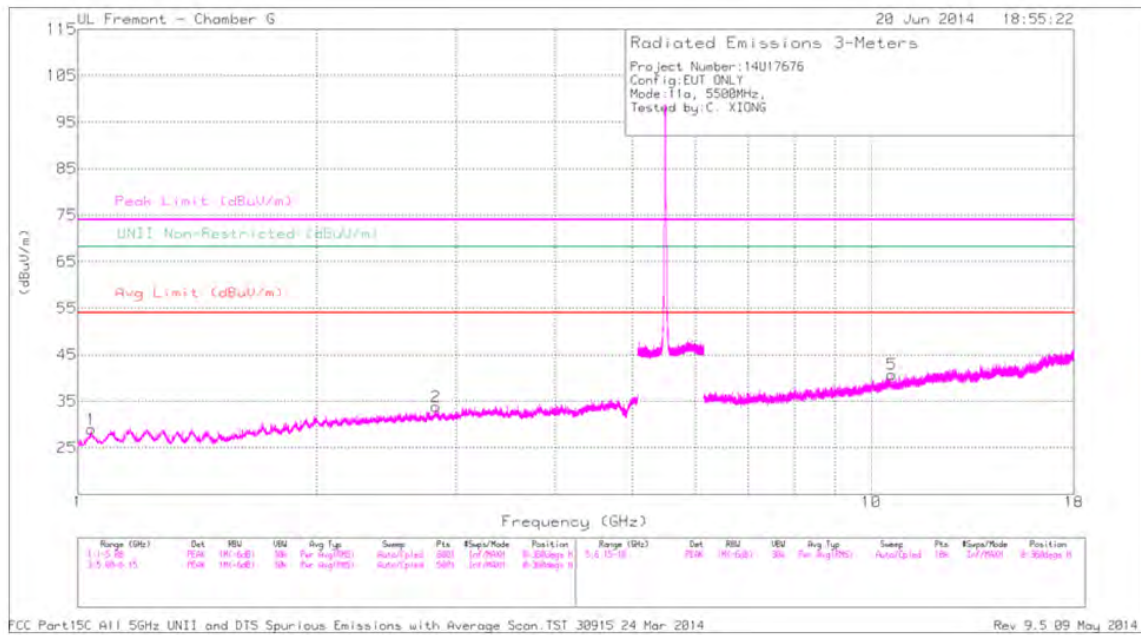


AUTHORIZED BANDEDGE (HIGH CHANNEL)

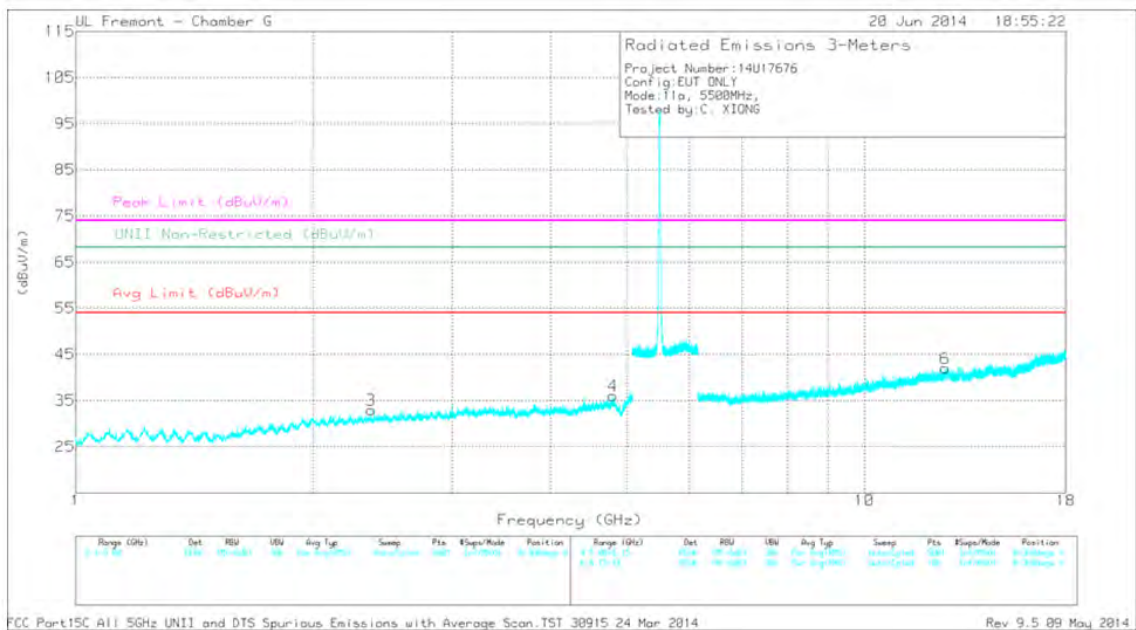
Average measurement was not required since peak measurements comply with -27 dBm/MHz.

HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL HORIZONTAL PLOT, CH 100



LOW CHANNEL VERTICAL PLOT, CH 100



DATA

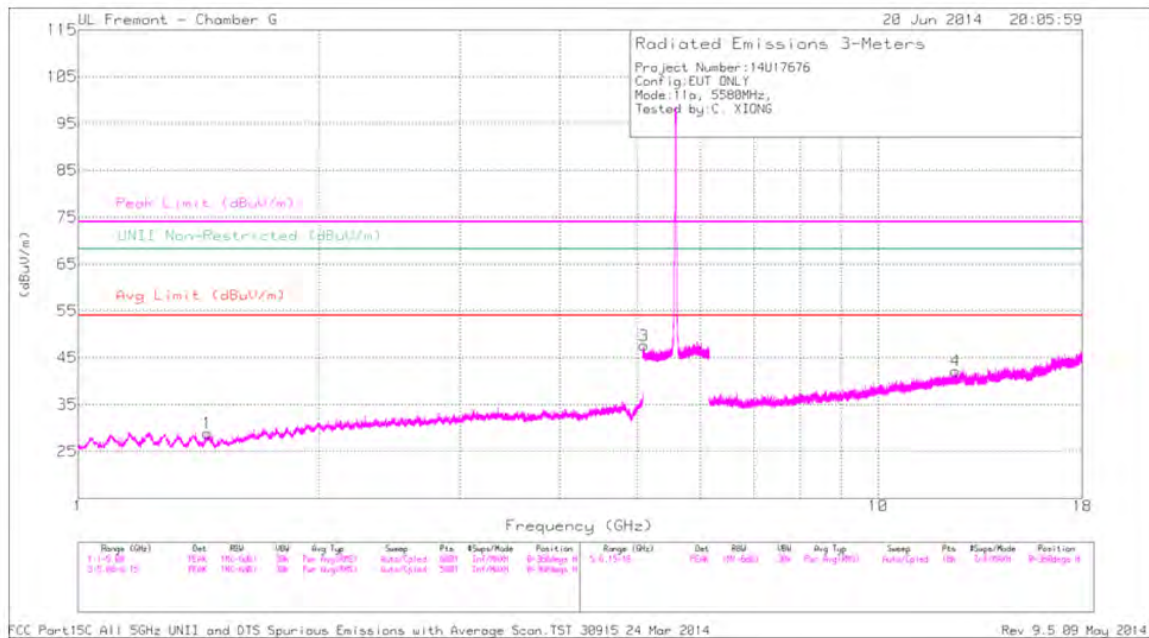
Markers	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T862 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.038	44.64	PK1	28.2	-35.8	0	37.04	-	-	74	-36.96	-	-	209	175	H
	* 1.039	33.13	AD1	28.2	-35.8	.1	25.63	54	-28.37	-	-	-	-	209	175	H
2	* 2.833	42.67	PK1	32.3	-33.7	0	41.27	-	-	74	-32.73	-	-	178	198	H
	* 2.831	31.23	AD1	32.3	-33.7	.1	29.93	54	-24.07	-	-	-	-	178	198	H
3	* 2.371	42.67	PK1	31.7	-34.5	0	39.87	-	-	74	-34.13	-	-	29	134	V
	* 2.369	31.44	AD1	31.7	-34.5	.1	28.74	54	-25.26	-	-	-	-	29	134	V
4	* 4.793	42.33	PK1	34.1	-32.9	0	43.53	-	-	74	-30.47	-	-	227	178	V
	* 4.793	30.95	AD1	34.1	-32.9	.1	32.25	54	-21.75	-	-	-	-	227	178	V
5	* 10.601	36.62	PK1	37.6	-26.9	0	47.32	-	-	74	-26.68	-	-	262	234	H
	* 10.602	26.33	AD1	37.6	-26.9	.1	37.13	54	-16.87	-	-	-	-	262	234	H
6	* 12.654	37.3	PK1	39.1	-26.5	0	49.9	-	-	74	-24.1	-	-	177	256	V
	* 12.652	26.14	AD1	39.1	-26.6	.1	38.74	54	-15.26	-	-	-	-	177	256	V

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

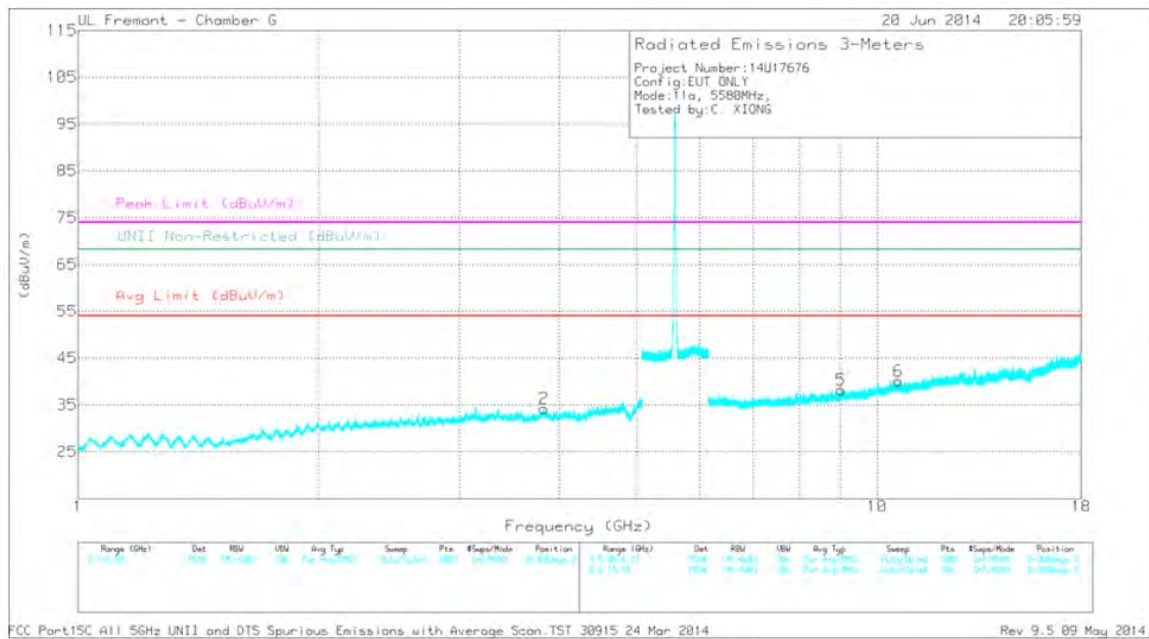
PK1 - KDB789033 Method: Peak

AD1 - KDB789033 Method: AD Primary Power Average

MID CHANNEL HORIZONTAL PLOT, CH 116



MID CHANNEL VERTICAL PLOT, CH 116



DATA

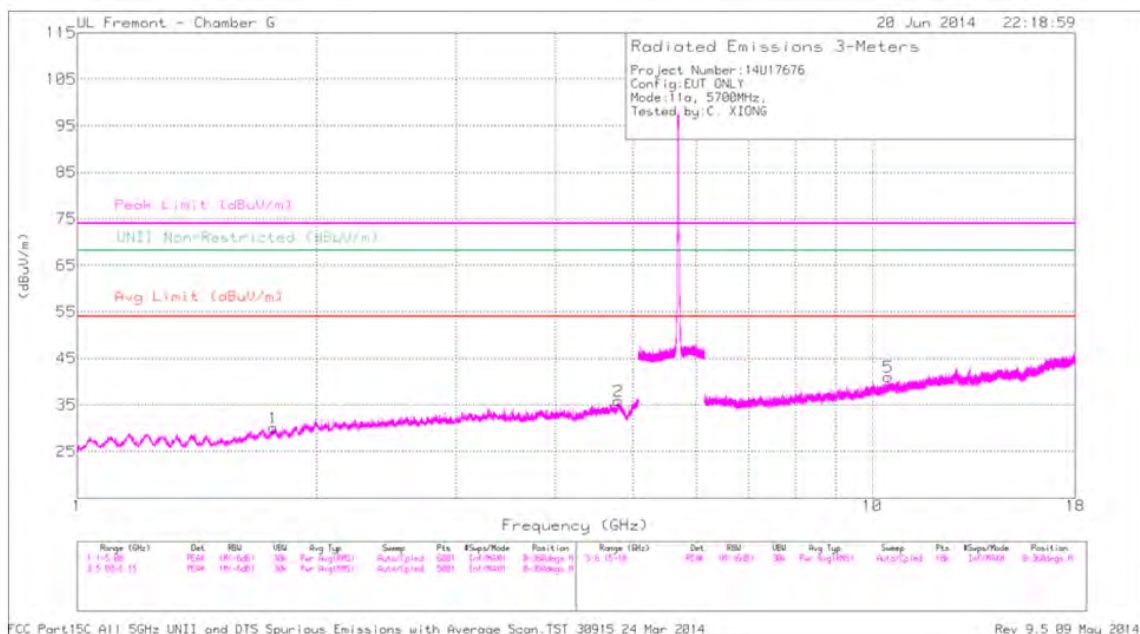
Markers	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T862 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.451	44.11	PK1	28.2	-34.9	0	37.41	-	-	74	-36.59	-	-	199	212	H
	* 1.455	32.42	AD1	28.1	-34.9	.1	25.72	54	-28.28	-	-	-	-	199	212	H
2	* 3.826	41.68	PK1	33.1	-33.2	0	41.58	-	-	74	-32.42	-	-	160	176	H
	* 3.831	30.95	AD1	33.1	-33.2	.1	30.95	54	-23.05	-	-	-	-	160	176	H
3	* 5.093	44.14	PK1	34.2	-23.7	0	54.64	-	-	74	-19.36	-	-	285	312	H
	* 5.096	33.05	AD1	34.3	-23.7	.1	43.75	54	-10.25	-	-	-	-	285	312	H
4	* 12.496	36.66	PK1	39	-26.6	0	49.06	-	-	74	-24.94	-	-	98	165	H
	* 12.494	26.28	AD1	39	-26.6	.1	38.78	54	-15.22	-	-	-	-	98	165	H
5	* 9.005	38.31	PK1	36.4	-29.3	0	45.41	-	-	74	-28.59	-	-	32	240	V
	* 9.002	28.06	AD1	36.4	-29.2	.1	35.36	54	-18.64	-	-	-	-	32	240	V
6	* 10.619	37.56	PK1	37.6	-27.1	0	48.06	-	-	74	-25.94	-	-	156	142	V
	* 10.623	26.34	AD1	37.6	-27.3	.1	36.74	54	-17.26	-	-	-	-	156	142	V

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

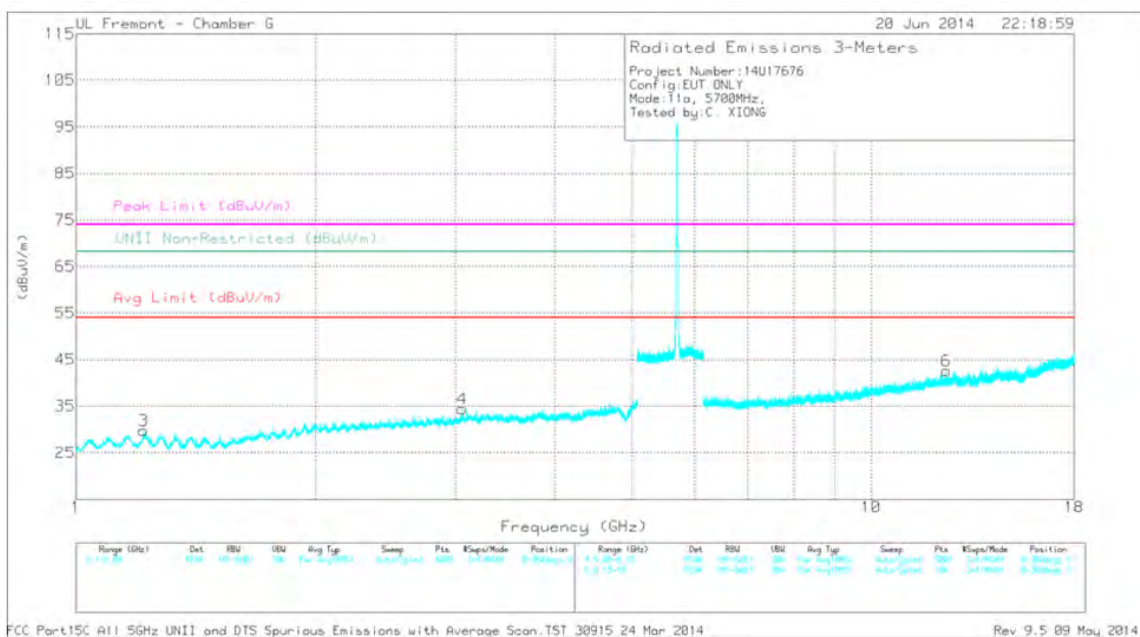
PK1 - KDB789033 Method: Peak

AD1 - KDB789033 Method: AD Primary Power Average

HIGH CHANNEL HORIZONTAL PLOT, CH 140



HIGH CHANNEL VERTICAL PLOT, CH140



DATA

Markers	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T862 (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)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	* 4.793	41.35	PK1	34.1	-32.9	0	42.55	-	-	74	-31.45	-	-	152	171	H
	* 4.796	30.68	AD1	34.1	-32.9	.1	31.98	54	-22.02	-	-	-	-	152	171	H
3	* 1.214	43.9	PK1	29	-35.6	0	37.3	-	-	74	-36.7	-	-	58	240	V
	* 1.22	32.81	AD1	29.1	-35.6	.1	26.41	54	-27.59	-	-	-	-	58	240	V
6	* 12.433	37.37	PK1	38.9	-26.6	0	49.67	-	-	74	-24.33	-	-	224	143	V
	* 12.433	26.5	AD1	38.9	-26.6	.1	38.9	54	-15.1	-	-	-	-	224	143	V
1	1.769	43.66	PK1	29.7	-34.9	0	38.46	-	-	-	-	68.2	-29.74	207	177	H
4	3.055	43.11	PK1	32.5	-33.4	0	42.21	-	-	-	-	68.2	-25.99	39	114	V
5	10.474	38.34	PK1	37.6	-27.4	0	48.54	-	-	-	-	68.2	-19.66	227	161	H

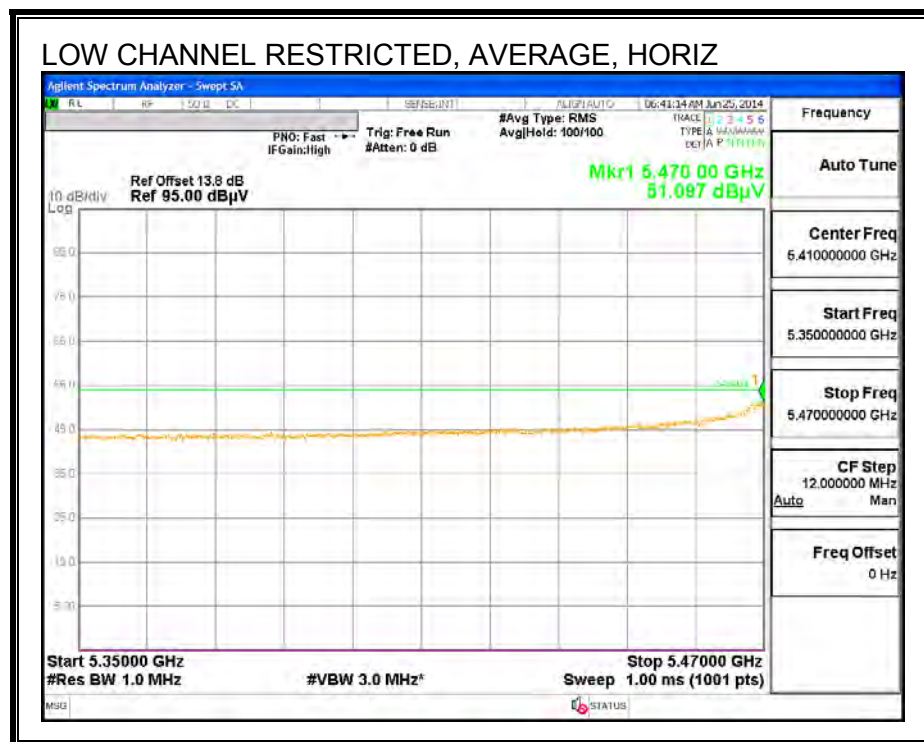
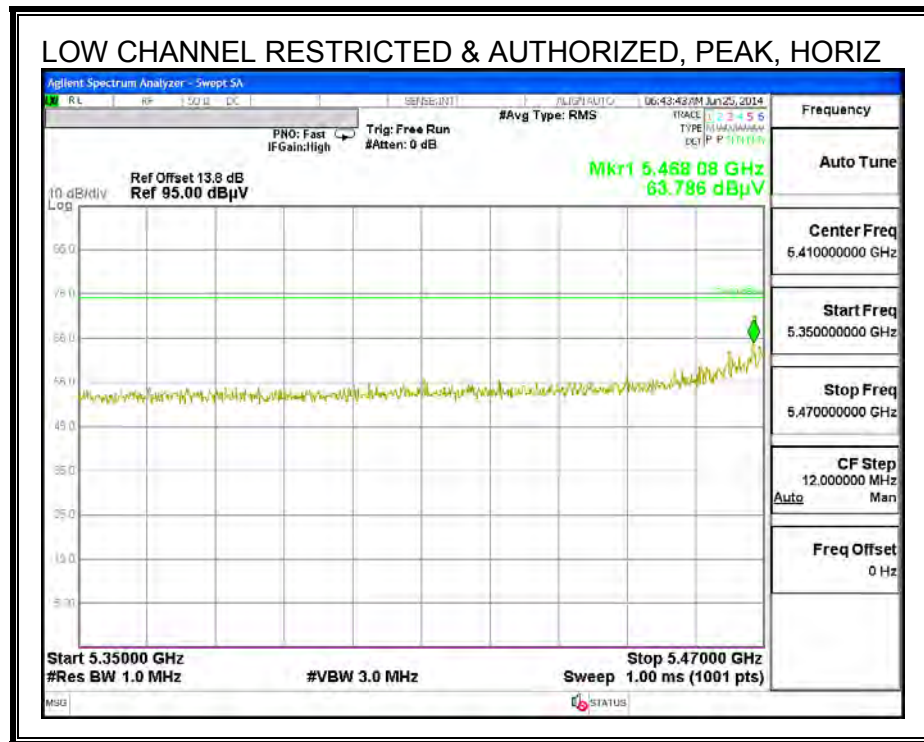
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

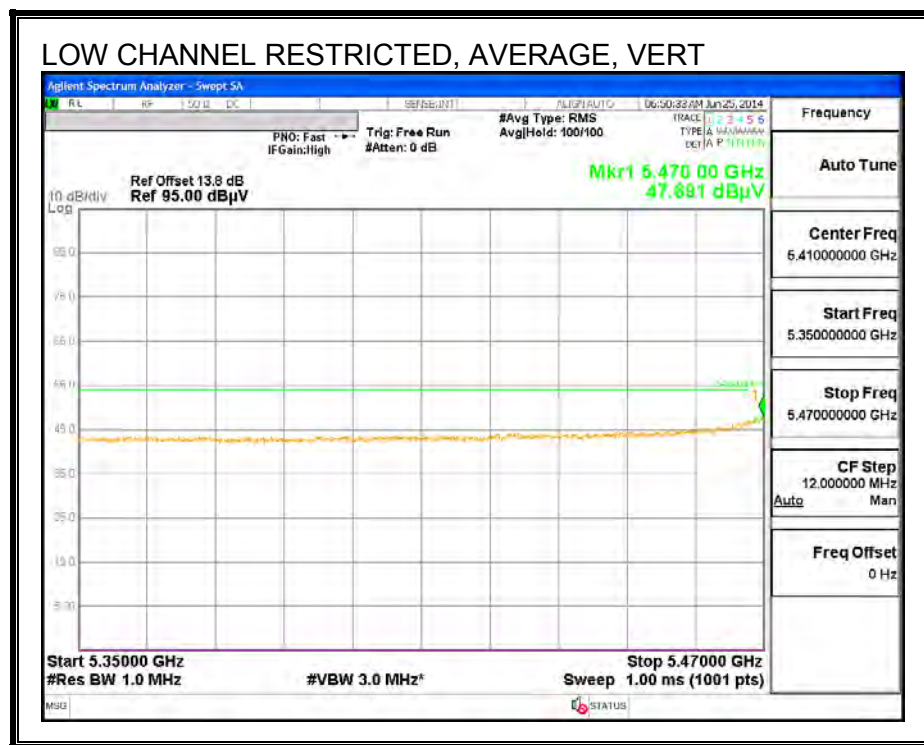
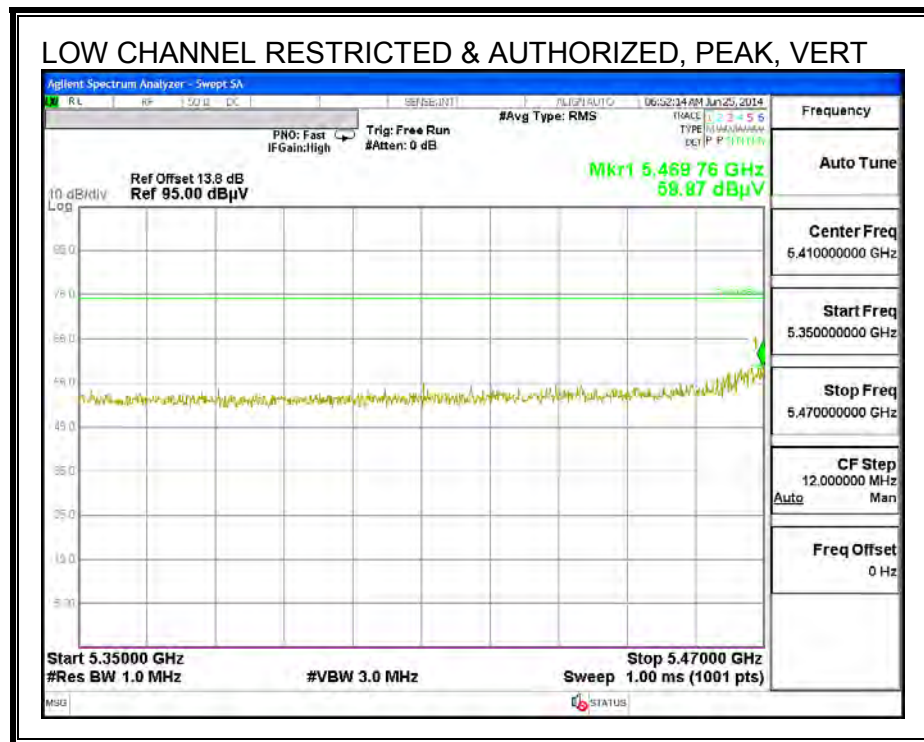
PK1 - KDB789033 Method: Peak

AD1 - KDB789033 Method: AD Primary Power Average

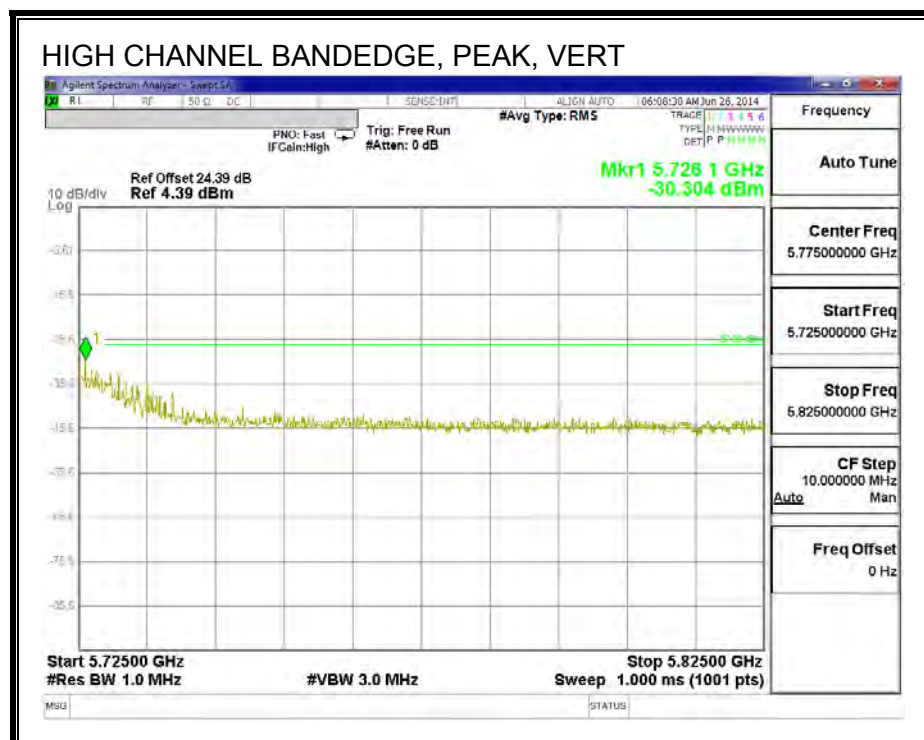
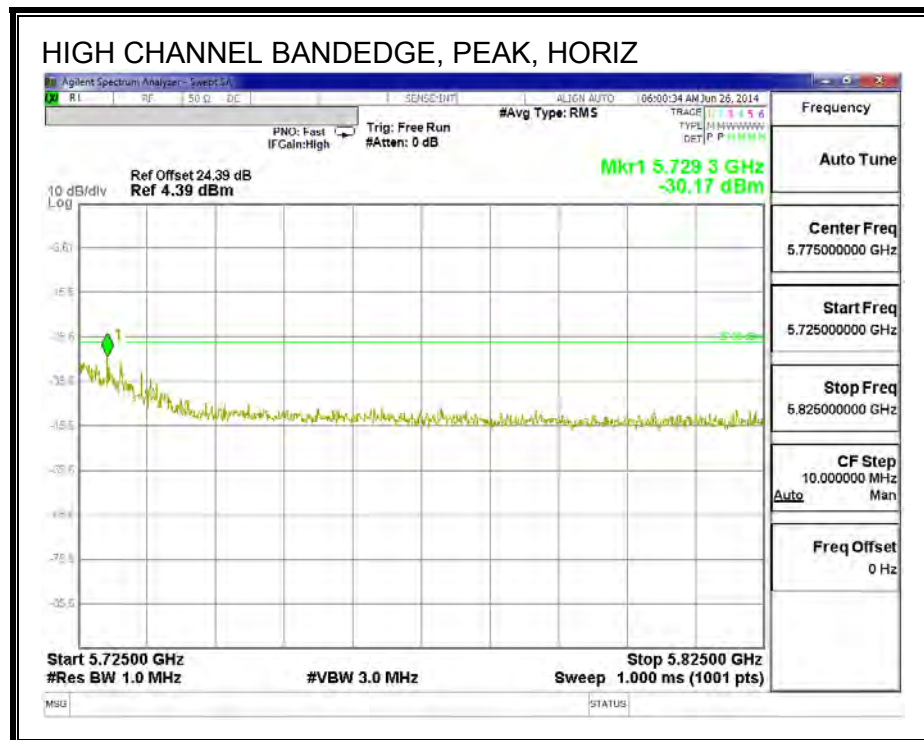
10.12. TX ABOVE 1 GHz 802.11n HT20 MODE IN THE 5.6 GHz BAND

RESTRICTED & AUTHORIZED BANDEDGE (LOW CHANNEL)





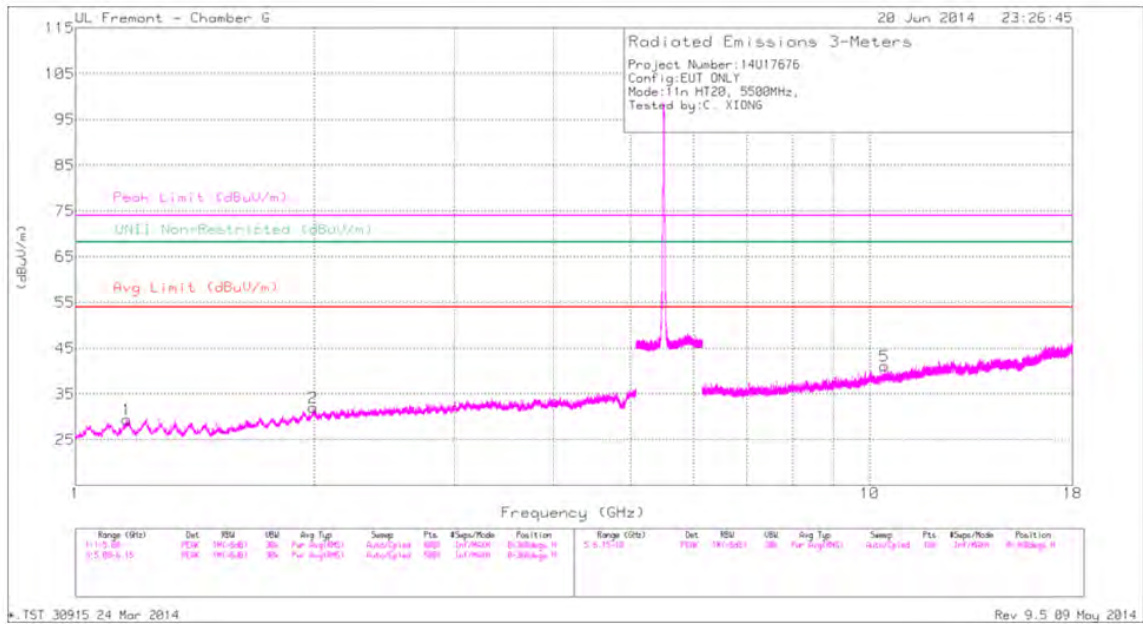
AUTHORIZED BANDEDGE (HIGH CHANNEL)



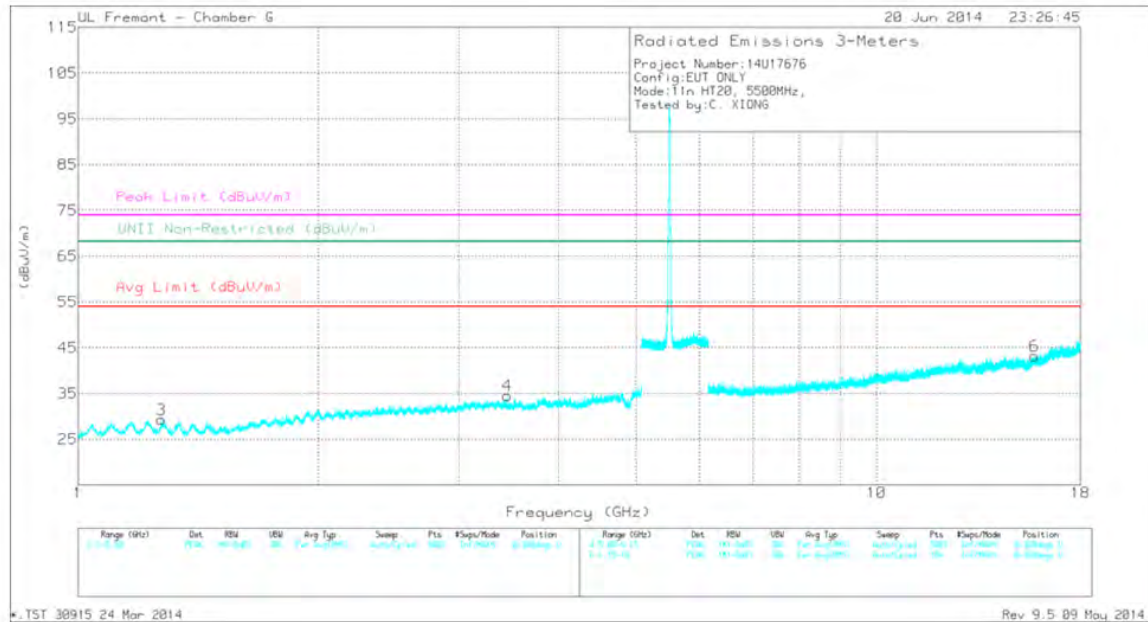
Average measurement was not required since peak measurements comply with -27 dBm/MHz.

HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL HORIZONTAL PLOT, CH 100



LOW CHANNEL VERTICAL PLOT, CH 100



DATA

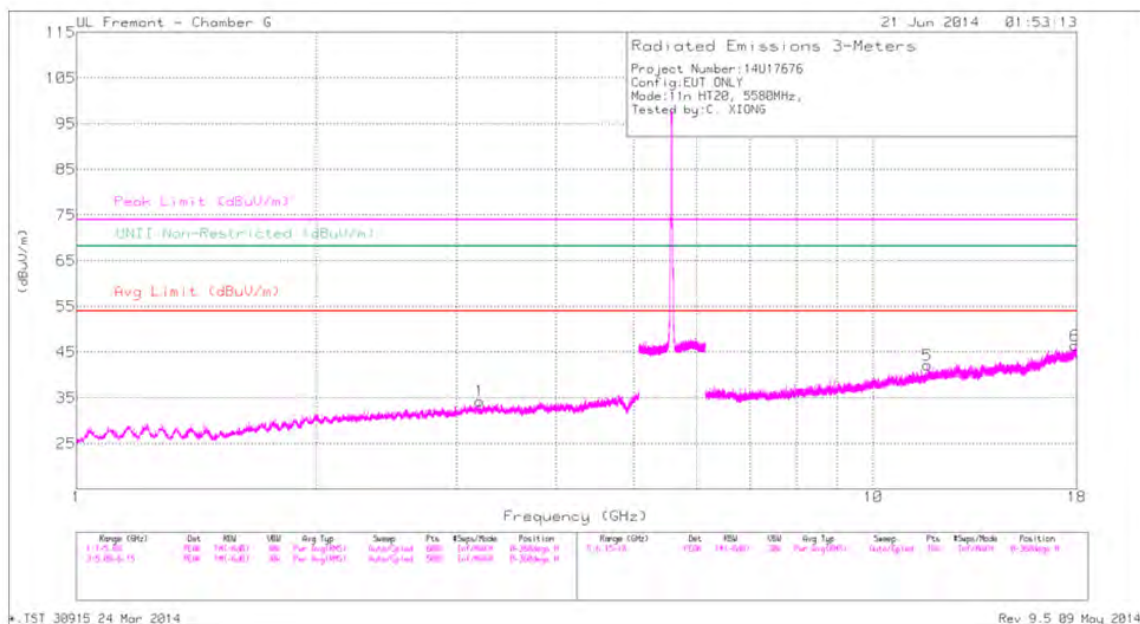
Markers	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T862 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.165	45.35	PK1	28.8	-35.5	0	38.65	-	-	74	-35.35	-	-	183	133	H
	* 1.16	33.06	AD1	28.8	-35.6	.1	26.36	54	-27.64	-	-	-	-	183	133	H
3	* 1.276	44.05	PK1	29.1	-35.8	0	37.35	-	-	74	-36.65	-	-	79	178	V
	* 1.276	32.79	AD1	29.1	-35.8	.1	26.19	54	-27.81	-	-	-	-	79	178	V
6	* 15.763	37.63	PK1	40.2	-26.9	0	50.93	-	-	74	-23.07	-	-	289	280	V
	* 15.763	27.2	AD1	40.2	-26.9	.1	40.6	54	-13.4	-	-	-	-	289	280	V
2	1.996	43.89	PK1	31.3	-34.7	0	40.49	-	-	-	-	68.2	-27.71	221	134	H
4	3.445	42.68	PK1	32.8	-34.1	0	41.38	-	-	-	-	68.2	-26.82	115	186	V
5	10.424	37.41	PK1	37.6	-27.8	0	47.21	-	-	-	-	68.2	-20.99	340	131	H

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

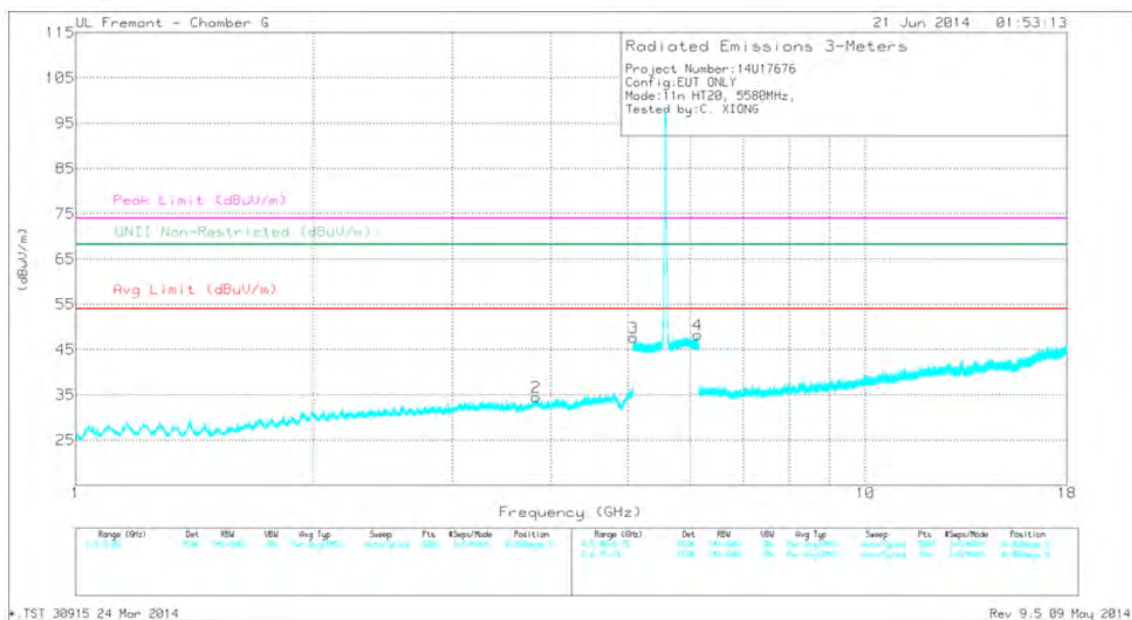
PK1 - KDB789033 Method: Peak

AD1 - KDB789033 Method: AD Primary Power Average

MID CHANNEL HORIZONTAL PLOT, CH 116



MID CHANNEL VERTICAL PLOT, CH 116



DATA

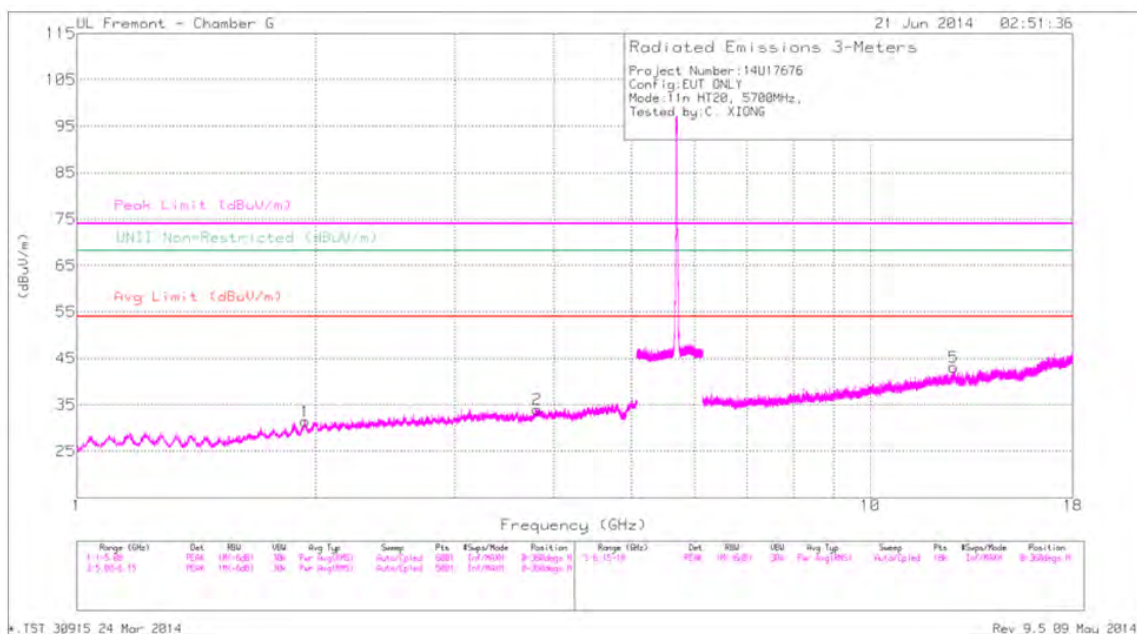
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T862 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	* 3.829	42.01	PK1	33.1	-33.2	0	41.91	-	-	74	-32.09	-	-	100	164	V
	* 3.831	31	AD1	33.1	-33.2	.1	31	54	-23	-	-	-	-	101	164	V
3	* 5.085	44.07	PK1	34.2	-23.7	0	54.57	-	-	74	-19.43	-	-	335	218	V
	* 5.085	32.92	AD1	34.2	-23.7	.1	43.52	54	-10.48	-	-	-	-	335	218	V
5	* 11.682	37.29	PK1	38.6	-26.9	0	48.99	-	-	74	-25.01	-	-	201	139	H
	* 11.685	26.08	AD1	38.6	-26.9	.1	37.88	54	-16.12	-	-	-	-	201	139	H
6	* 17.911	34.47	PK1	41.8	-23.1	0	53.17	-	-	74	-20.83	-	-	20	109	H
	* 17.92	24.55	AD1	41.8	-23.1	.1	43.35	54	-10.65	-	-	-	-	20	109	H
1	3.203	42.87	PK1	32.9	-34.2	0	41.57	-	-	-	-	68.2	-26.63	140	151	H
4	6.128	42.92	PK1	35.5	-23.5	0	54.92	-	-	-	-	68.2	-13.28	311	188	V

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

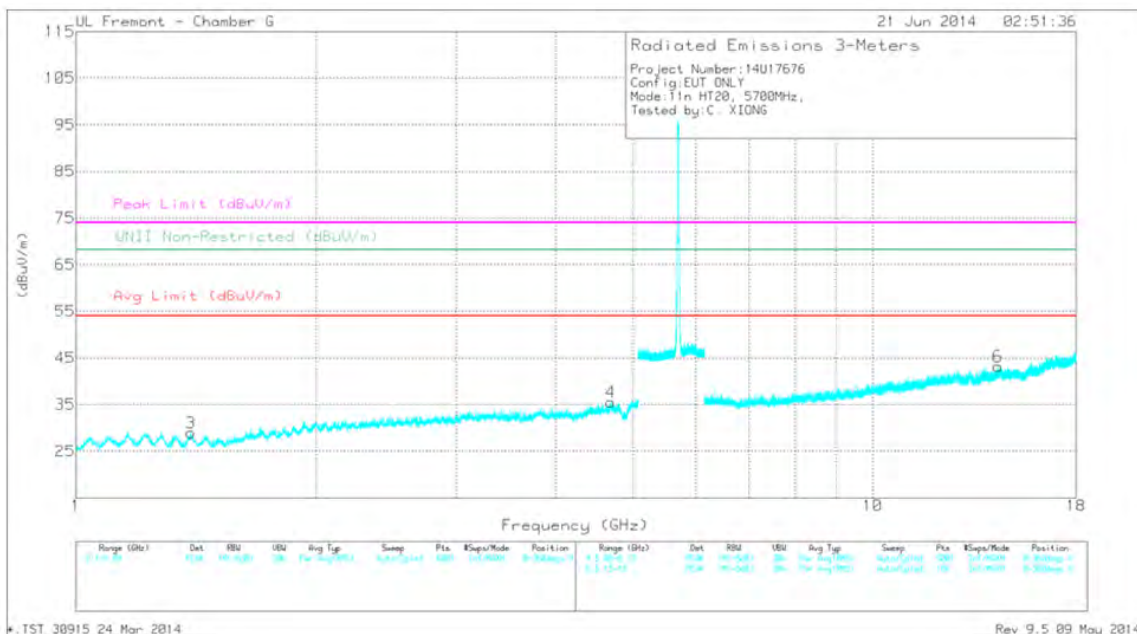
PK1 - KDB789033 Method: Peak

AD1 - KDB789033 Method: AD Primary Power Average

HIGH CHANNEL HORIZONTAL PLOT, CH 140



HIGH CHANNEL VERTICAL PLOT, CH 140



DATA

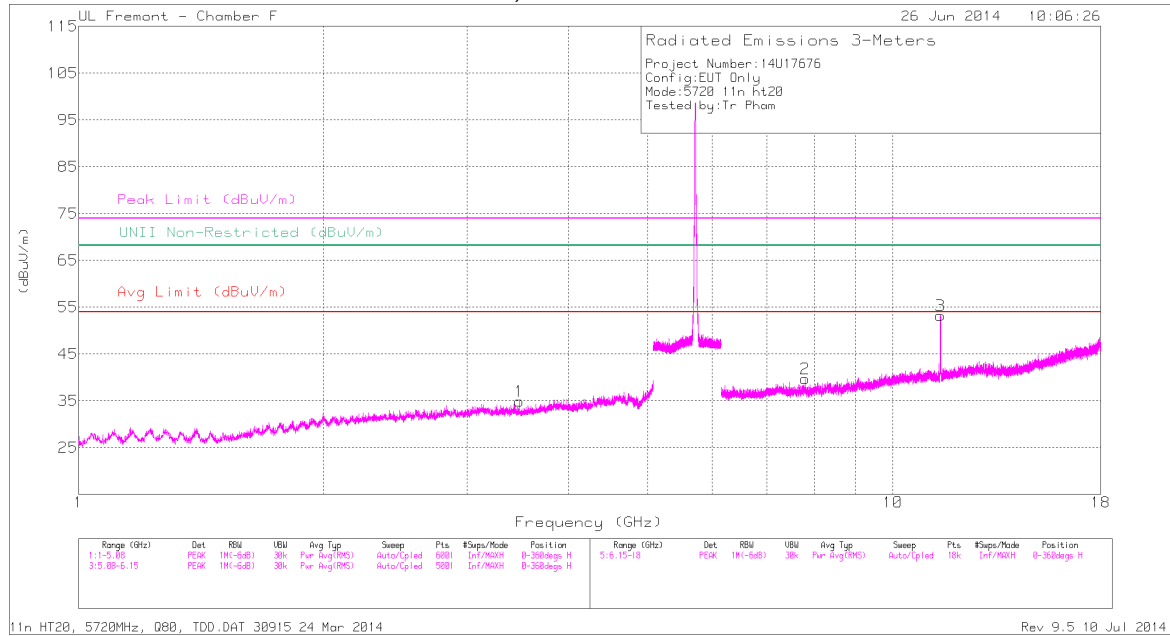
Markers	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T862 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	* 3.799	41.94	PK1	33	-33.4	0	41.54	-	-	74	-32.46	-	-	120	203	H
	* 3.801	31.25	AD1	33	-33.3	.1	31.05	54	-22.95	-	-	-	-	120	203	H
3	* 1.397	43.74	PK1	28.4	-35	0	37.14	-	-	74	-36.86	-	-	213	178	V
	* 1.39	32.63	AD1	28.5	-35.1	.1	26.13	54	-27.87	-	-	-	-	213	178	V
4	* 4.697	42.13	PK1	34	-32.9	0	43.23	-	-	74	-30.77	-	-	148	198	V
	* 4.689	31.13	AD1	34	-33	.1	32.23	54	-21.77	-	-	-	-	148	198	V
1	1.938	46.59	PK1	30.9	-34.6	0	42.89	-	-	-	-	68.2	-25.31	9	121	H
5	12.74	36.97	PK1	39.1	-25.4	0	50.67	-	-	-	-	68.2	-17.53	234	217	H
6	14.36	39	PK1	39.9	-27.9	0	51	-	-	-	-	68.2	-17.2	81	232	V

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

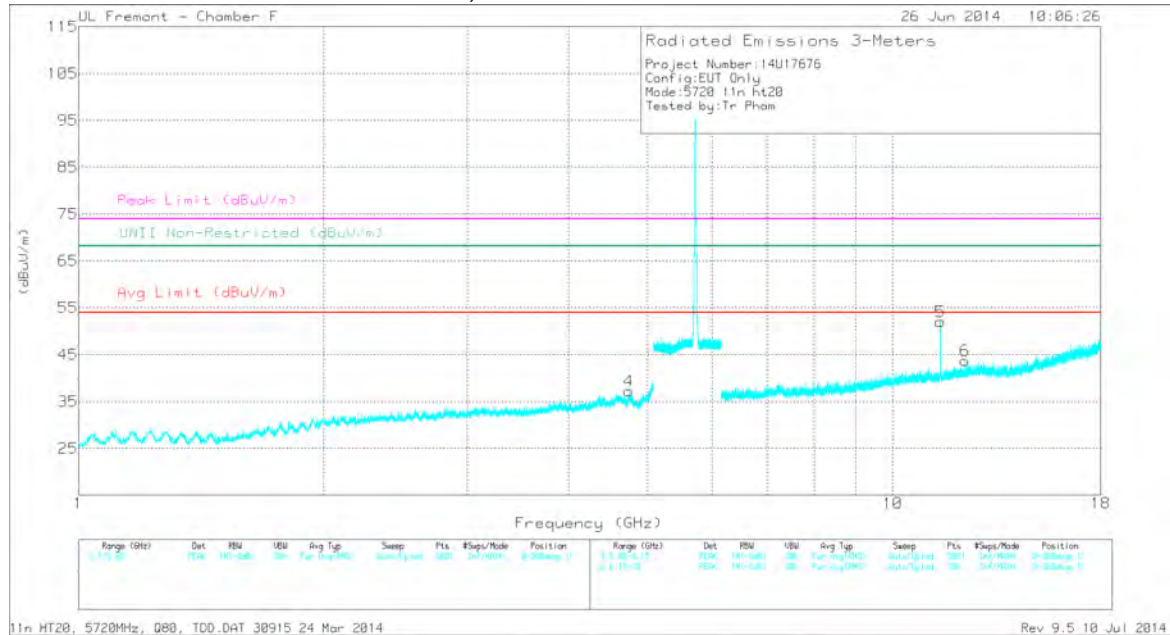
PK1 - KDB789033 Method: Peak

AD1 - KDB789033 Method: AD Primary Power Average

HIGH CHANNEL HORIZONTAL PLOT, CH 144



HIGH CHANNEL VERTICAL PLOT, CH 144



DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	3.476	42.23	PK1	32.8	-33.1	41.93	-	-	-	-	68.2	-26.27	55	144	H
4	* 4.738	41.7	PK1	34.3	-31.5	44.5	-	-	74	-29.5	-	-	120	189	V
	* 4.737	30.13	AD1	34.3	-31.5	32.93	54	-21.07	-	-	-	-	120	189	V
3	* 11.443	49.85	PK1	38.1	-25.7	62.25	-	-	74	-11.75	-	-	111	202	H
	* 11.44	37.94	AD1	38.1	-25.7	50.34	54	-3.66	-	-	-	-	111	202	H
2	7.799	39.09	PK1	36.1	-28.6	46.59	-	-	-	-	68.2	-21.61	73	134	H
3	* 11.439	51.02	PK1	38.1	-25.7	63.42	-	-	74	-10.58	-	-	34	101	V
	* 11.44	38.28	AD1	38.1	-25.7	50.68	54	-3.32	-	-	-	-	34	101	V
6	* 12.274	37.14	PK1	39	-25.7	50.44	-	-	74	-23.56	-	-	102	124	V
	* 12.272	25.76	AD1	39	-25.7	39.06	54	-14.94	-	-	-	-	102	124	V

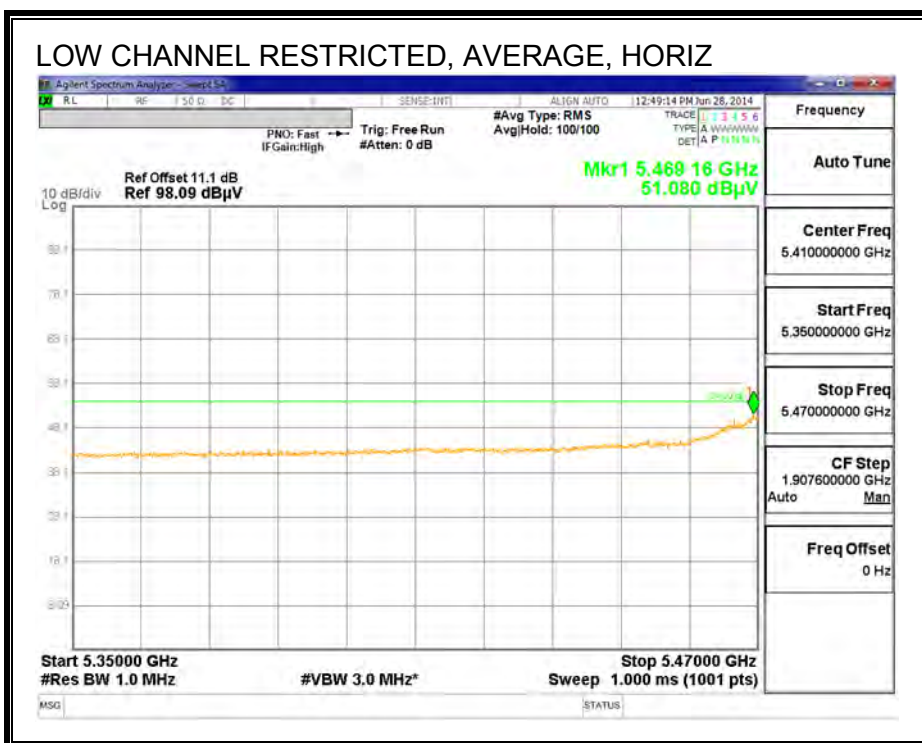
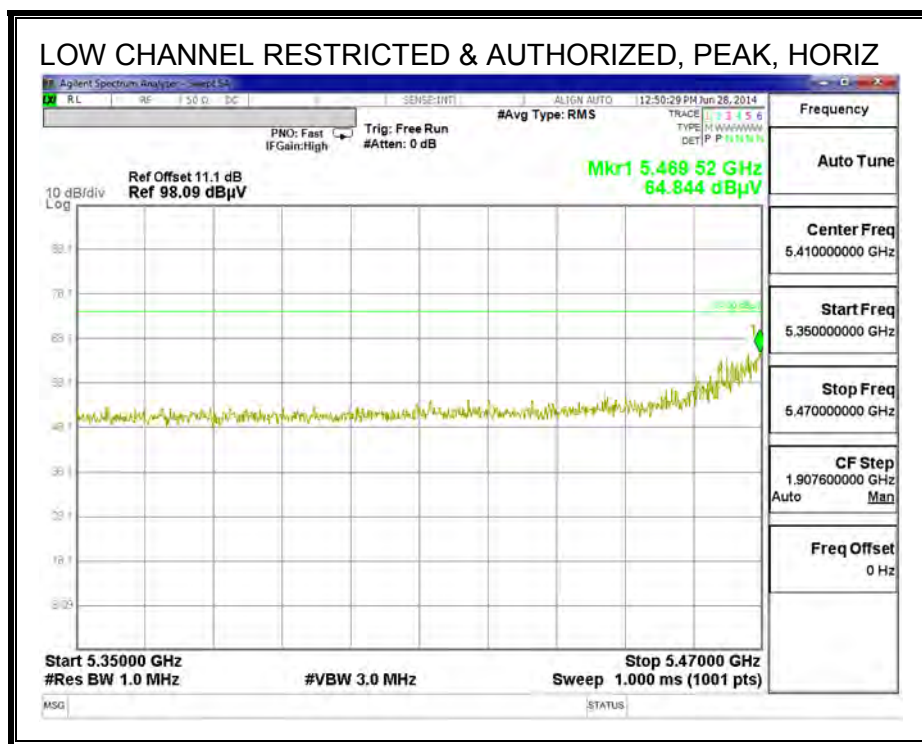
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

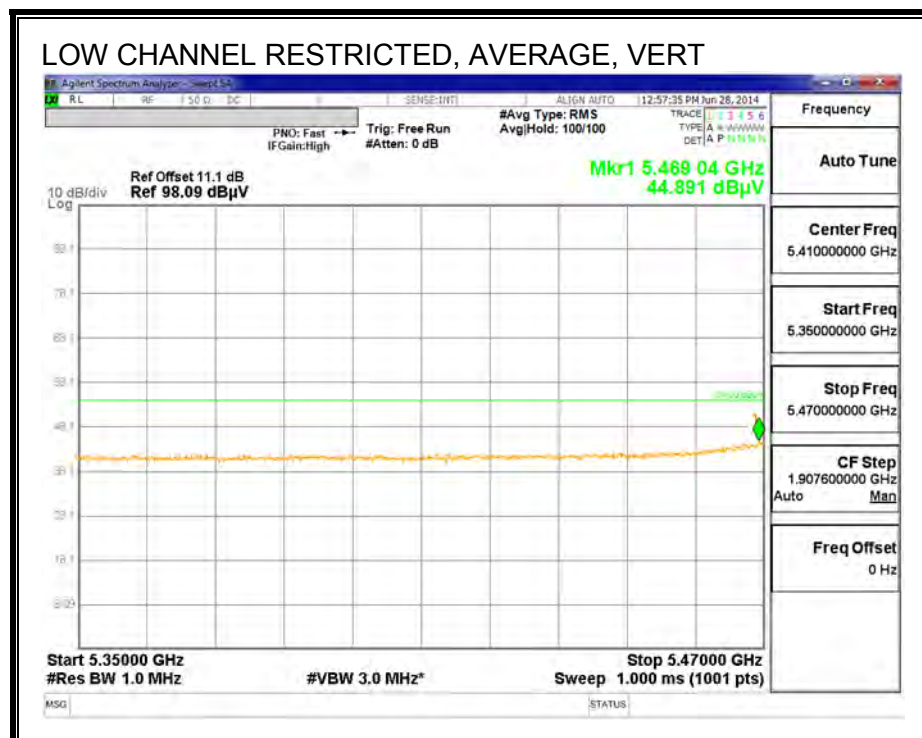
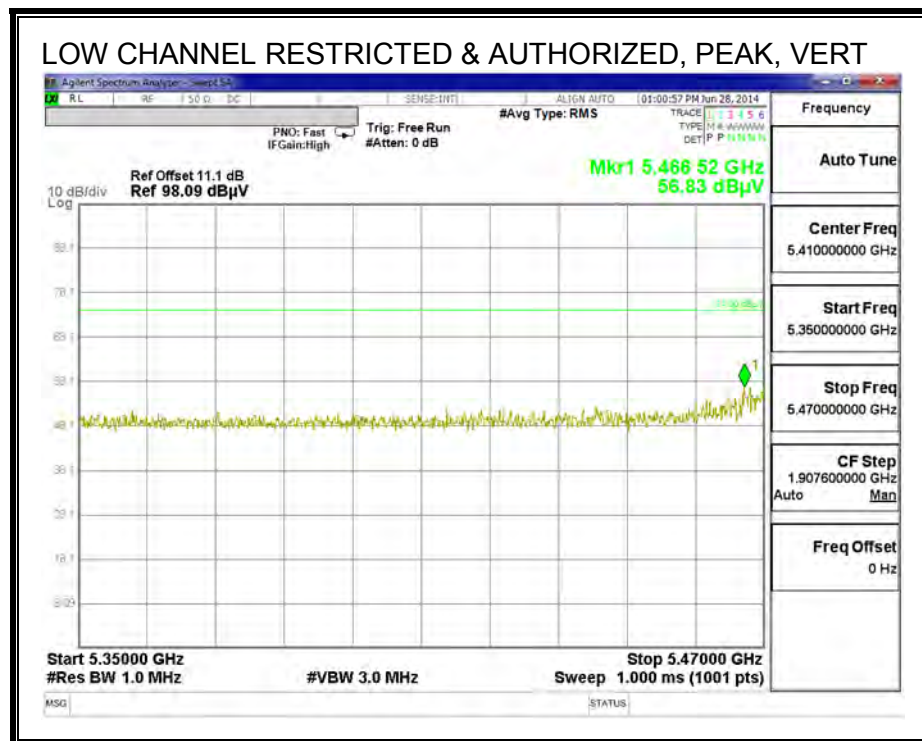
PK1 - KDB789033 Method: Peak

AD1 - KDB789033 Method: AD Primary Power Average

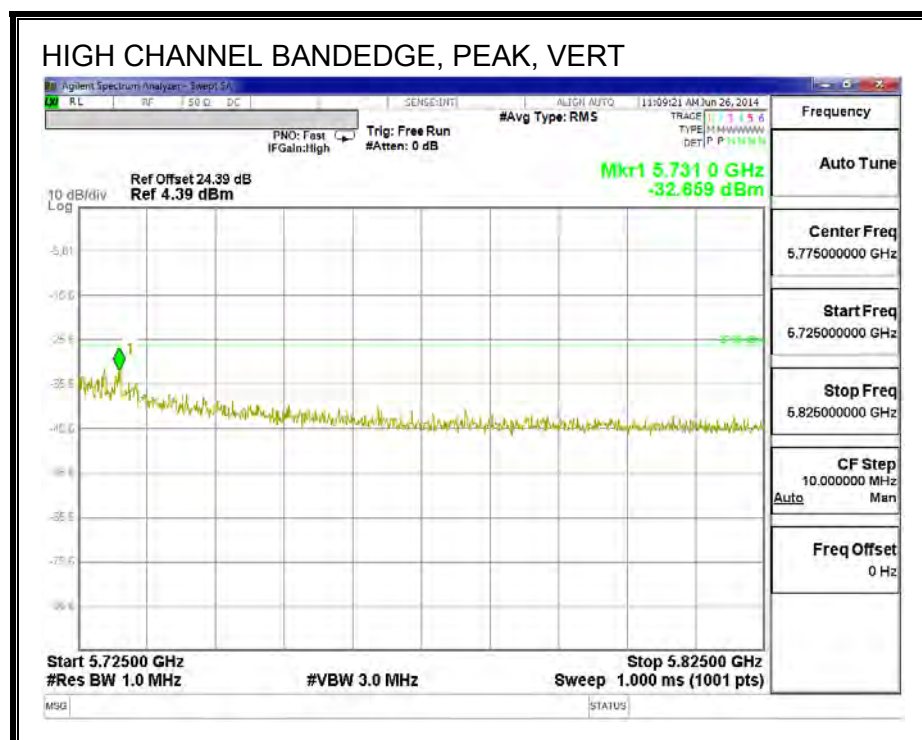
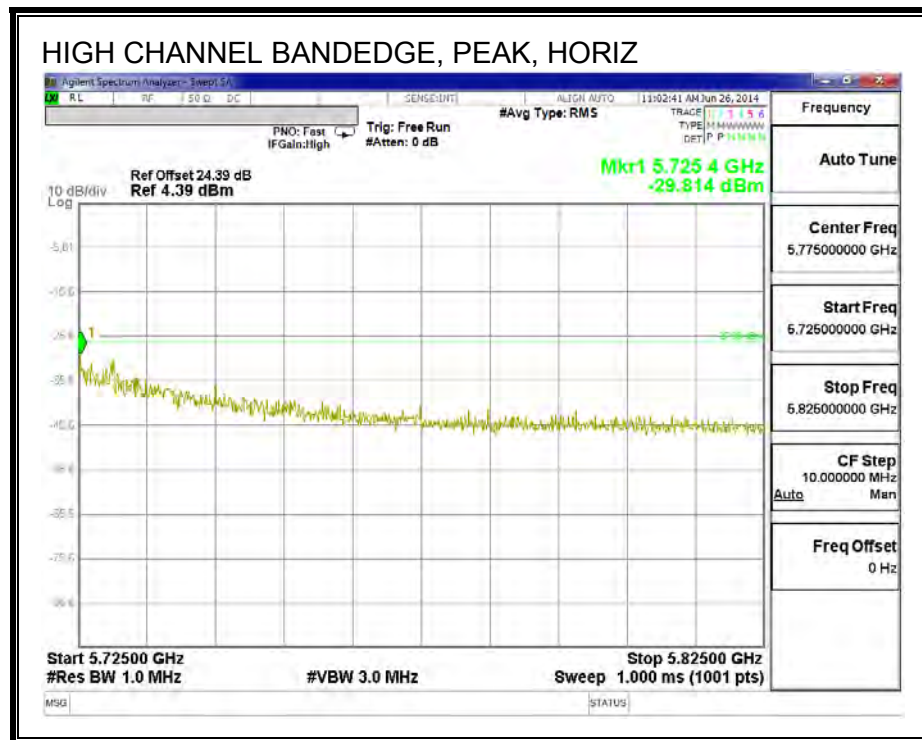
10.13. TX ABOVE 1 GHz 802.11n HT40 MODE IN THE 5.6 GHz BAND

RESTRICTED & AUTHORIZED BANDEDGE (LOW CHANNEL)





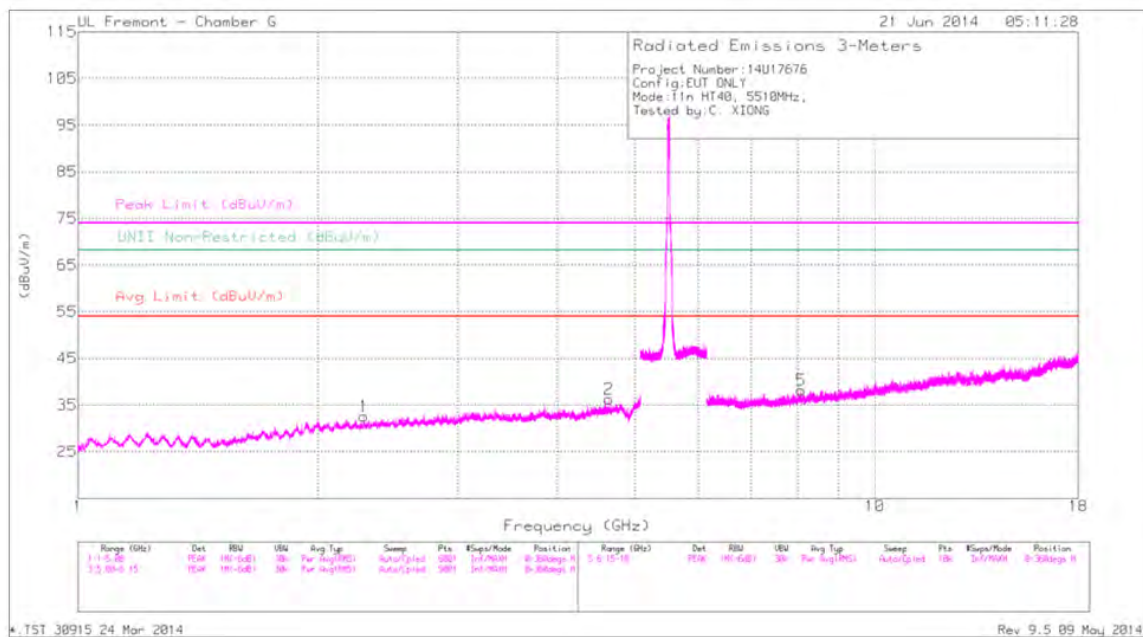
AUTHORIZED BANDEDGE (HIGH CHANNEL)



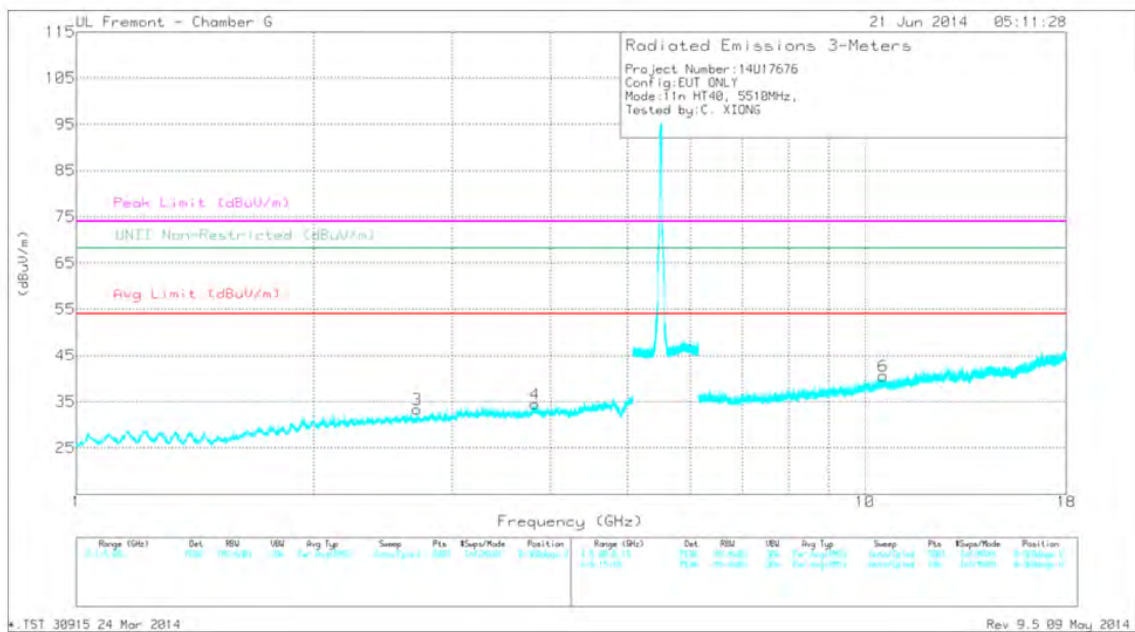
Average measurement was not required since peak measurements comply with -27 dBm/MHz.

HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL HORIZONTAL PLOT, CH 102



LOW CHANNEL VERTICAL PLOT, CH 102



DATA

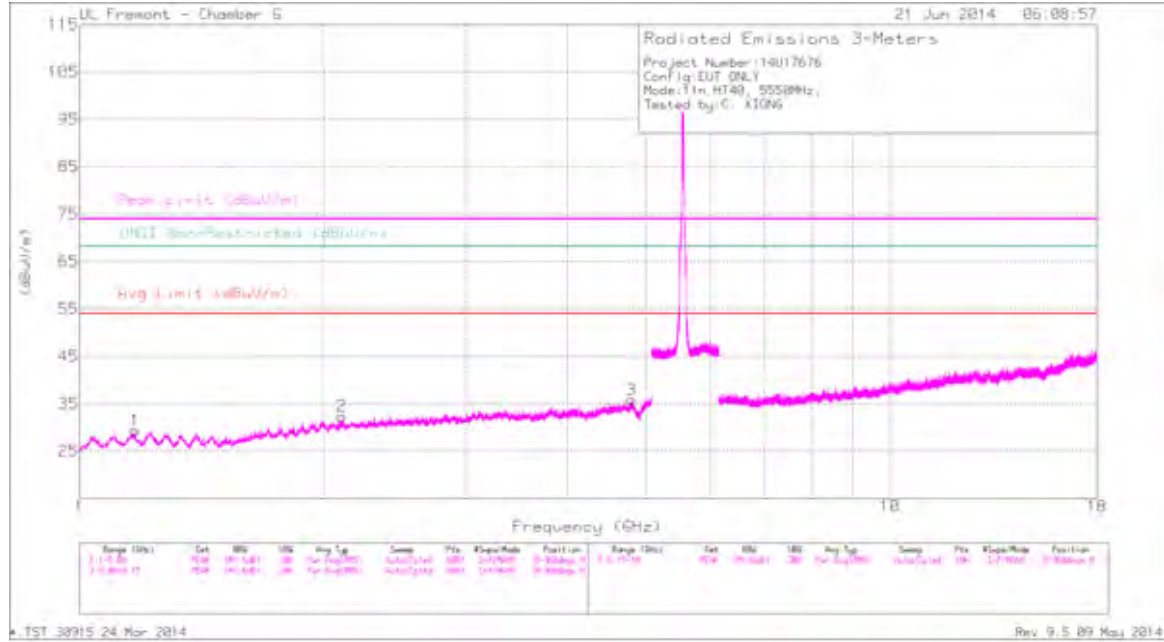
Markers	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T862 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.288	43.12	PK1	31.6	-34.6	0	40.12	-	-	74	-33.88	-	-	175	112	H
	* 2.286	31.67	AD1	31.6	-34.6	.1	28.77	54	-25.23	-	-	-	-	175	112	H
2	* 4.637	41.48	PK1	33.9	-32.9	0	42.48	-	-	74	-31.52	-	-	116	150	H
	* 4.631	30.74	AD1	33.9	-32.8	.1	31.94	54	-22.06	-	-	-	-	116	150	H
3	* 2.703	42.92	PK1	32.2	-34.6	0	40.52	-	-	74	-33.48	-	-	242	109	V
	* 2.708	31.68	AD1	32.2	-34.6	.1	29.38	54	-24.62	-	-	-	-	242	109	V
4	* 3.819	42.53	PK1	33	-33.2	0	42.33	-	-	74	-31.67	-	-	36	216	V
	* 3.814	30.96	AD1	33	-33.3	.1	30.76	54	-23.24	-	-	-	-	36	216	V
5	* 8.08	39.56	PK1	35.8	-30	0	45.36	-	-	74	-28.64	-	-	297	194	H
	* 8.079	28.83	AD1	35.8	-29.9	.1	34.83	54	-19.17	-	-	-	-	297	194	H
6	10.545	37.29	PK1	37.6	-26.9	0	47.99	-	-	-	-	68.2	-20.21	333	216	V

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

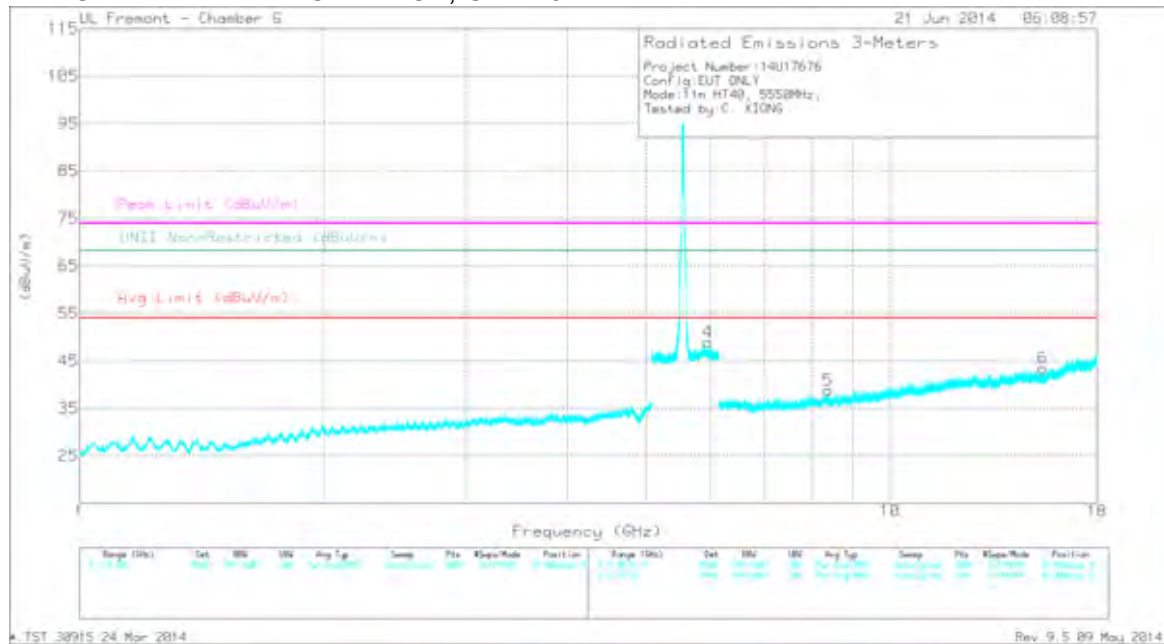
PK1 - KDB789033 Method: Peak

AD1 - KDB789033 Method: AD Primary Power Average

MID CHANNEL HORIZONTAL PLOT, CH 110



MID CHANNEL VERTICAL PLOT, CH 110



DATA

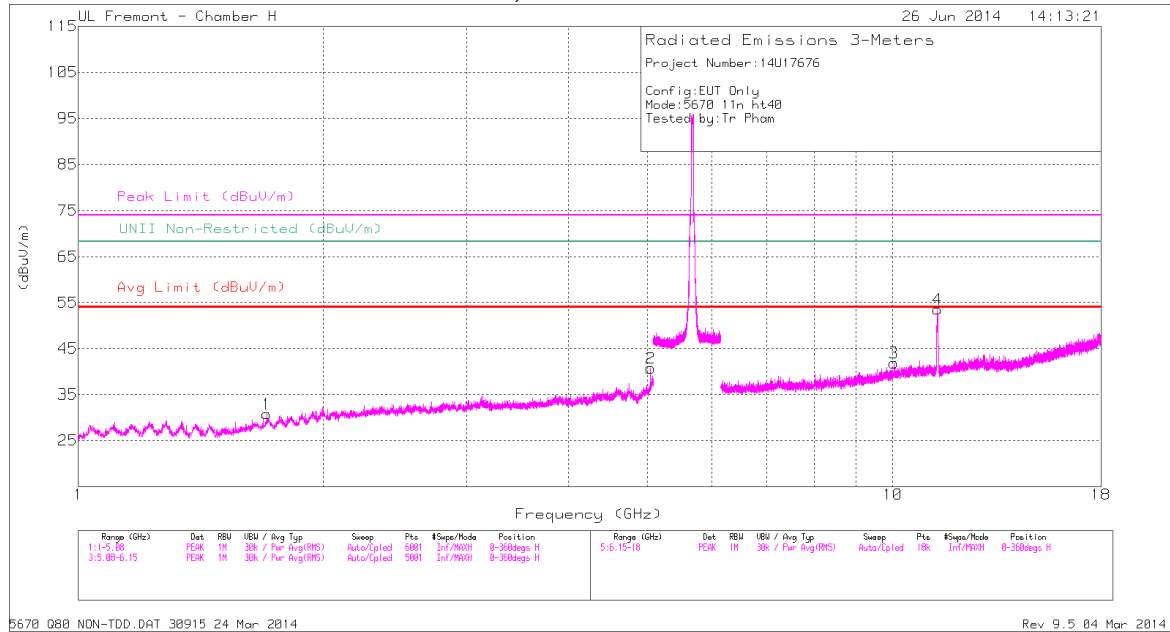
Markers	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T862 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.168	43.55	PK1	28.8	-35.5	0	36.85	-	-	74	-37.15	-	-	17	212	H
	* 1.169	32.6	AD1	28.8	-35.5	.1	26	54	-28	-	-	-	-	17	212	H
3	* 4.803	41.29	PK1	34.1	-32.9	0	42.49	-	-	74	-31.51	-	-	108	148	H
	* 4.797	30.63	AD1	34.1	-32.9	.1	31.93	54	-22.07	-	-	-	-	108	148	H
5	* 8.379	39.64	PK1	35.8	-29.7	0	45.74	-	-	74	-28.26	-	-	297	198	V
	* 8.371	28.67	AD1	35.8	-29.6	.1	34.97	54	-19.03	-	-	-	-	297	198	V
6	* 15.435	38.31	PK1	39.9	-27.8	0	50.41	-	-	74	-23.59	-	-	227	136	V
	* 15.434	27.26	AD1	39.9	-27.8	.1	39.46	54	-14.54	-	-	-	-	227	136	V
2	2.103	43.41	PK1	31.4	-34.9	0	39.91	-	-	-	-	68.2	-28.29	108	198	H
4	5.955	43.72	PK1	35.1	-23.6	0	55.22	-	-	-	-	68.2	-12.98	89	147	V

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

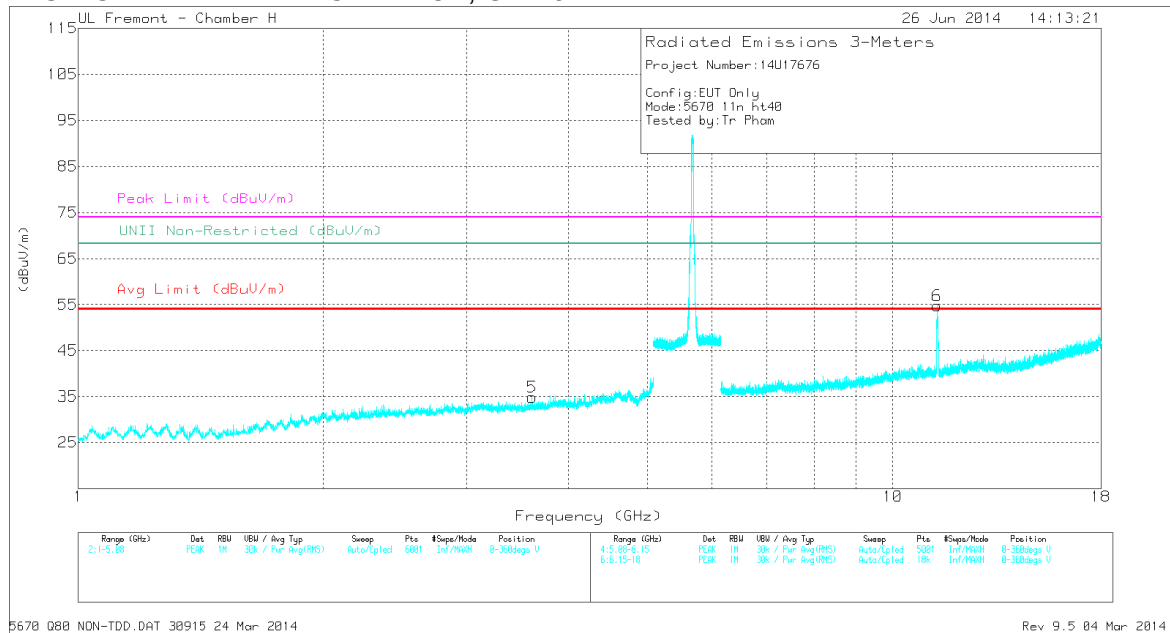
PK1 - KDB789033 Method: Peak

AD1 - KDB789033 Method: AD Primary Power Average

HIGH CHANNEL HORIZONTAL PLOT, CH 134



HIGH CHANNEL VERTICAL PLOT, CH 134



DATA

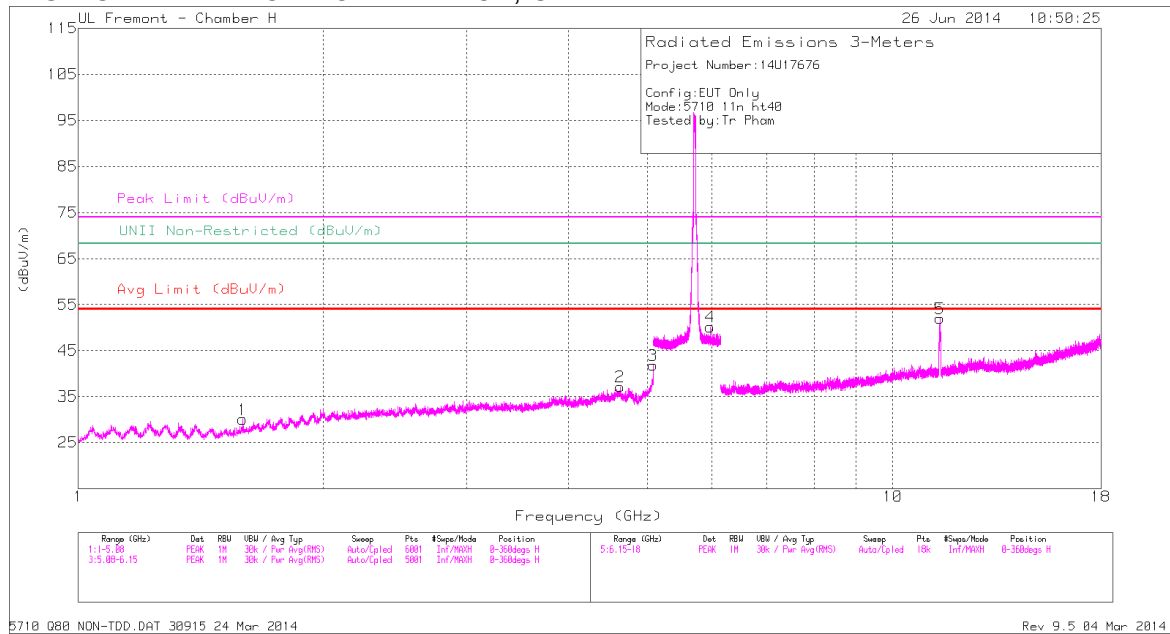
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.04	43.45	PK1	34.4	-30.4	47.45	-	-	74	-26.55	-	-	127	104	H
	* 5.04	33.9	AD1	34.4	-30.4	37.9	54	-16.1	-	-	-	-	127	104	H
2	* 1.704	43.02	PK1	29.3	-34.3	38.02	-	-	74	-35.98	-	-	58	140	H
	* 1.704	30.99	AD1	29.3	-34.3	25.99	54	-28.01	-	-	-	-	58	140	H
5	* 2.342	30.8	AD1	31.9	-33.9	28.8	54	-25.2	-	-	-	-	39	115	H
	* 3.607	41.8	PK1	33	-32.9	41.9	-	-	74	-32.1	-	-	91	108	V
4	* 3.607	29.95	AD1	33	-32.9	30.05	54	-23.95	-	-	-	-	91	108	V
	* 11.345	49.15	PK1	38	-25.3	61.85	-	-	74	-12.15	-	-	352	104	H
6	* 11.341	36.48	AD1	38	-25.3	49.18	54	-4.82	-	-	-	-	352	104	H
	* 11.345	51.25	PK1	38	-25.3	63.95	-	-	74	-10.05	-	-	32	103	V
3	* 11.339	39.34	AD1	38	-25.4	51.94	54	-2.06	-	-	-	-	32	103	V
	10.032	37.41	PK1	37.3	-25.6	49.11	-	-	-	-	68.2	-19.09	186	137	H

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

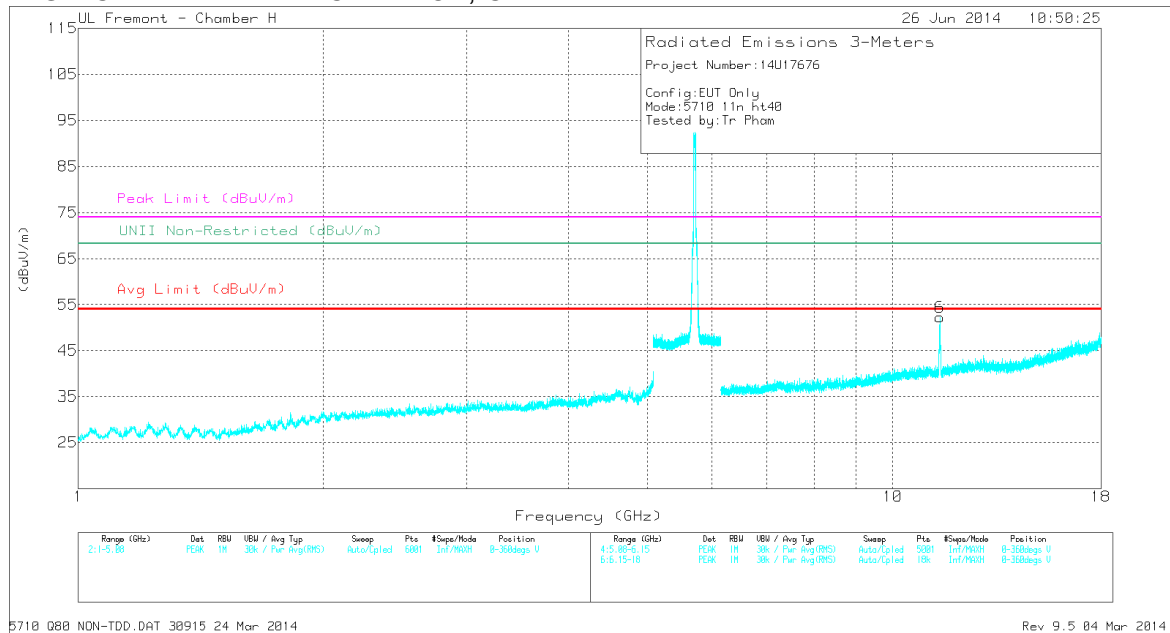
PK1 - KDB789033 Method: Peak

AD1 - KDB789033 Method: AD Primary Power Average

HIGH CHANNEL HORIZONTAL PLOT, CH 142



HIGH CHANNEL VERTICAL PLOT, CH 142



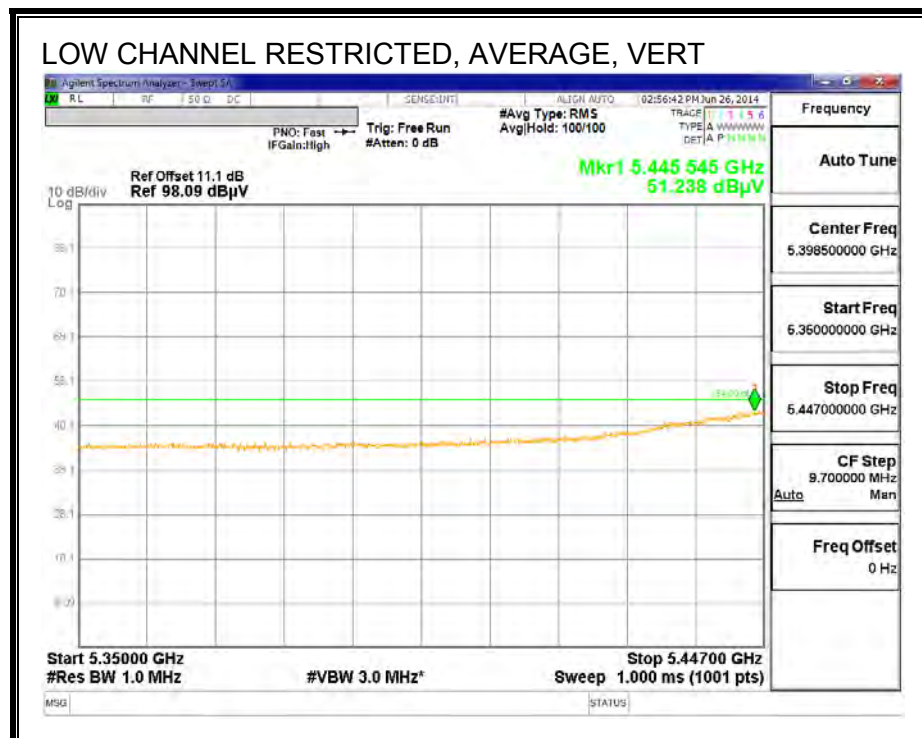
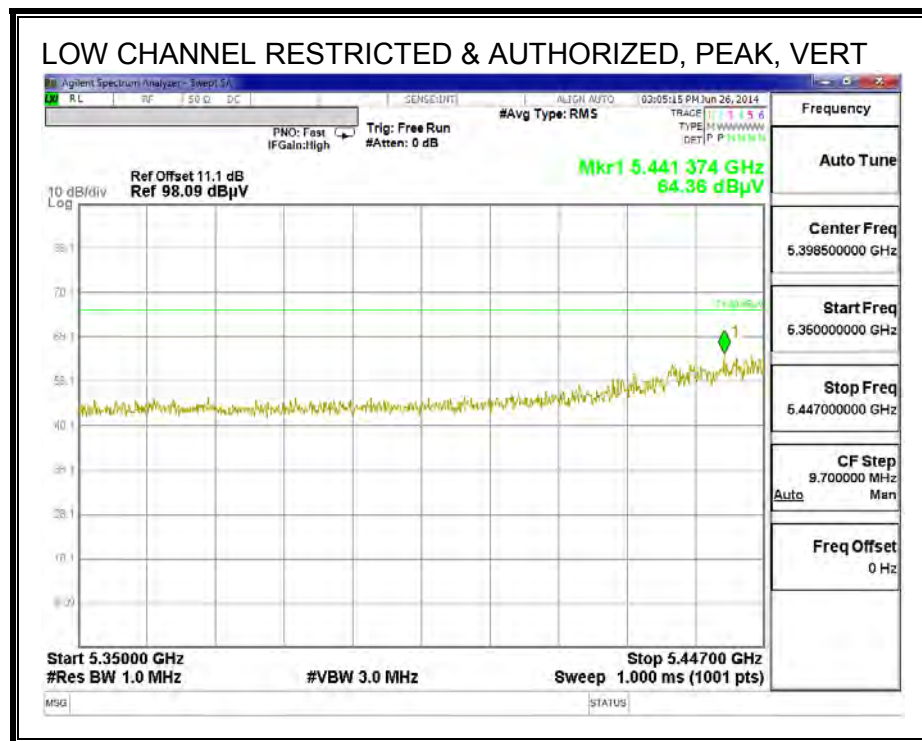
DATA

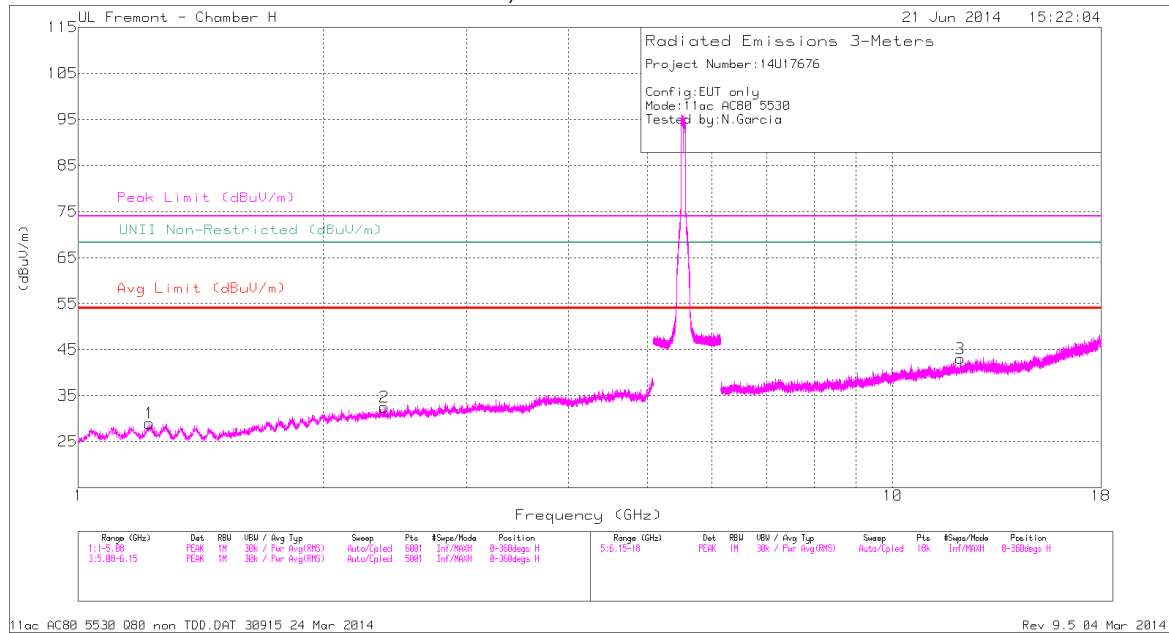
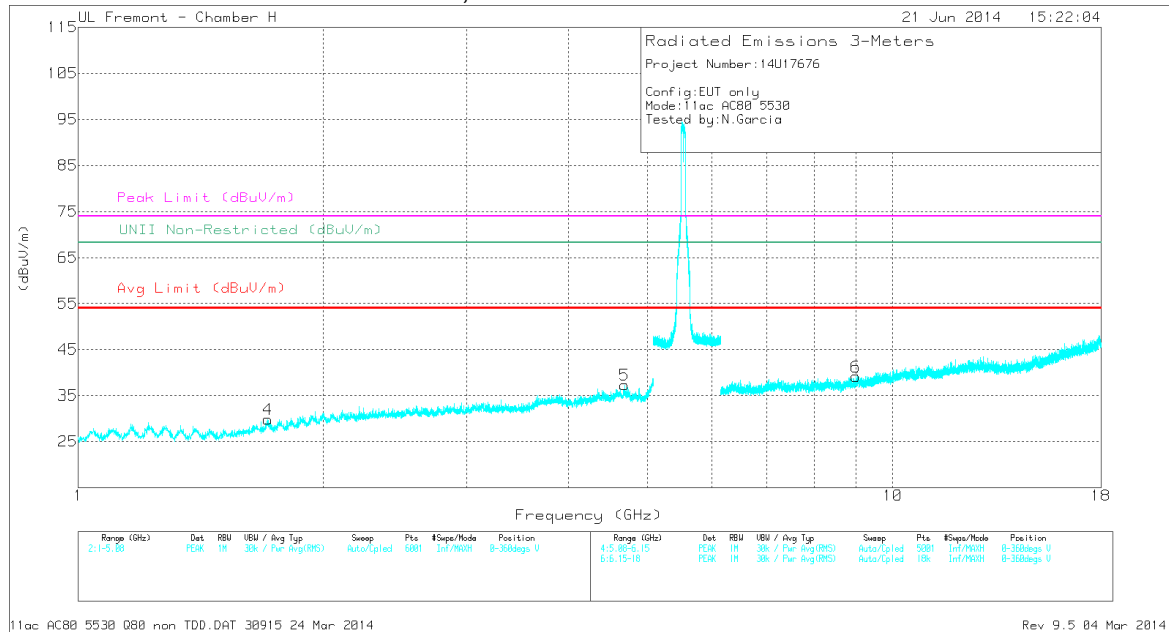
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.076	43.29	PK1	34.4	-28.5	49.19	-	-	74	-24.81	-	-	41	218	H
	* 5.075	33.68	AD1	34.4	-28.5	39.58	54	-14.42	-	-	-	-	41	218	H
2	* 4.626	42.41	PK1	34.2	-32	44.61	-	-	74	-29.39	-	-	76	163	H
	* 4.627	30.8	AD1	34.2	-32	33	54	-21	-	-	-	-	76	163	H
3	* 1.592	42.97	PK1	28.4	-35.1	36.27	-	-	74	-37.73	-	-	96	222	H
	* 1.591	31.69	AD1	28.4	-35.1	24.99	54	-29.01	-	-	-	-	96	222	H
5	* 11.417	46.11	PK1	38	-25.5	58.61	-	-	74	-15.39	-	-	106	210	H
	* 11.419	34.87	AD1	38	-25.5	47.37	54	-6.63	-	-	-	-	106	210	H
6	* 11.419	47.06	PK1	38	-25.5	59.56	-	-	74	-14.44	-	-	39	217	V
	* 11.421	34.82	AD1	38	-25.5	47.32	54	-6.68	-	-	-	-	39	217	V
4	5.969	43.52	PK1	35.2	-22.2	56.52	-	-	-	-	68.2	-11.68	151	347	H

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

PK1 - KDB789033 Method: Peak

AD1 - KDB789033 Method: AD Primary Power Average



HARMONICS AND SPURIOUS EMISSIONS**LOW CHANNEL HORIZONTAL PLOT, CH 106****LOW CHANNEL VERTICAL PLOT, CH 106**

DATA

Markers	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (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)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.221	44.07	PK1	28.9	-35.6	0	37.37	-	-	74	-36.63	-	-	78	165	H
	* 1.223	32.58	AD1	28.9	-35.5	.2	26.18	54	-27.82	-	-	-	-	78	165	H
2	* 2.374	42.7	PK1	31.9	-33.9	0	40.7	-	-	74	-33.3	-	-	98	105	H
	* 2.373	30.98	AD1	31.9	-34	.2	29.08	54	-24.92	-	-	-	-	98	105	H
4	* 1.709	43.09	PK1	29.4	-34.3	0	38.19	-	-	74	-35.81	-	-	107	121	V
	* 1.709	31.71	AD1	29.4	-34.3	.2	27.01	54	-26.99	-	-	-	-	107	121	V
6	* 9.005	38.31	PK1	36.4	-29.3	0	45.41	-	-	74	-28.59	-	-	32	240	V
	* 9.002	28.06	AD1	36.4	-29.2	.2	35.46	54	-18.64	-	-	-	-	32	240	V
5	* 4.363	40.71	PK1	33.7	-31.5	0	42.91	-	-	74	-31.09	-	-	354	110	V
	* 4.362	29.91	AD1	33.7	-31.5	.2	32.31	54	-21.69	-	-	-	-	354	110	V
3	* 12.113	36.55	PK1	38.9	-25	0	50.45	-	-	74	-23.55	-	-	105	203	H
	* 12.108	24.65	AD1	38.9	-25	.2	38.75	54	-15.25	-	-	-	-	105	203	H

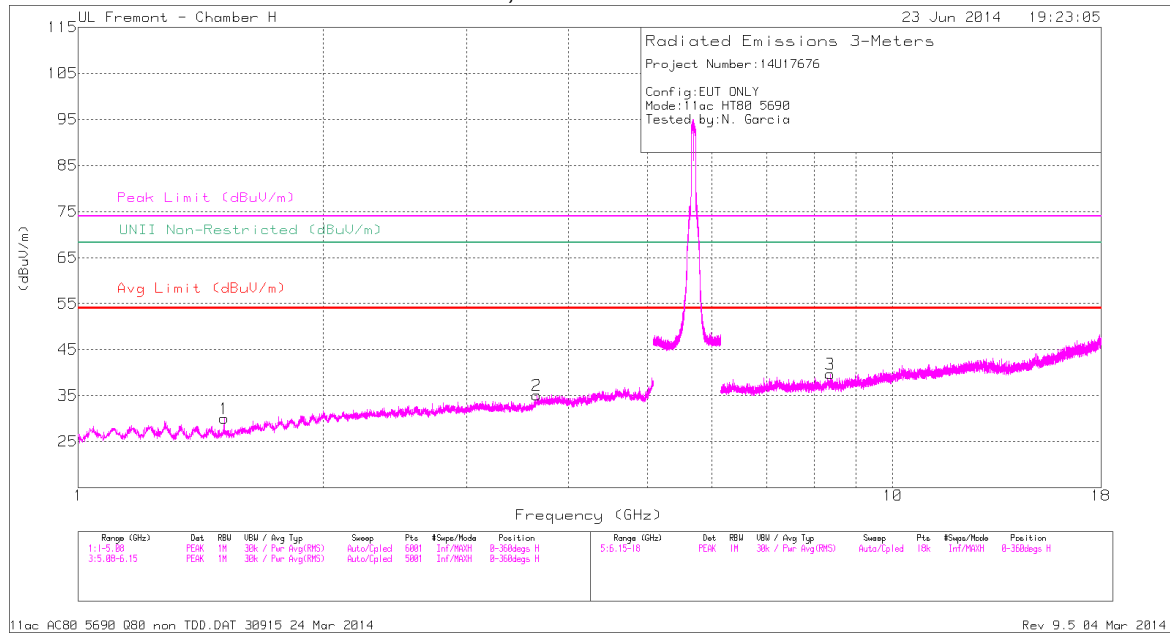
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK1 - KDB789033 Method: Peak

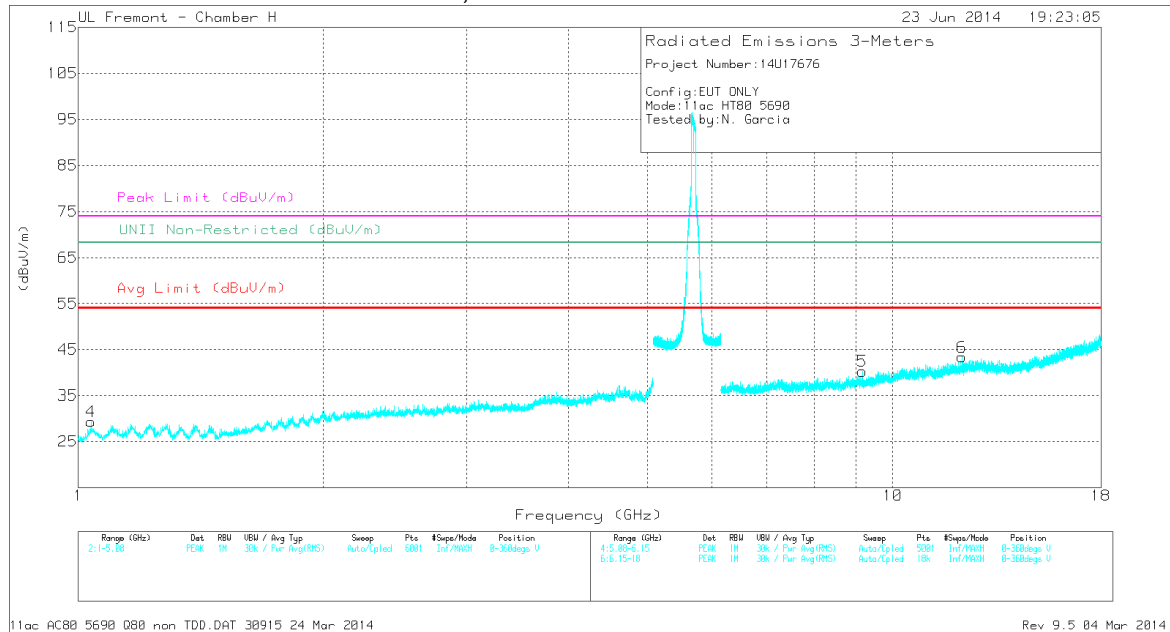
AD1 - KDB789033 Method: AD Primary Power Average

HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL HORIZONTAL PLOT, CH 138



LOW CHANNEL VERTICAL PLOT, CH 138



DATA

Markers	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (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)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.512	44.01	PK1	27.8	-35.1	0	36.71	-	-	74	-37.29	-	-	283	201	H
	* 1.511	31.68	AD1	27.8	-35.1	.2	24.58	54	-29.42	-	-	-	-	283	201	H
2	* 3.658	41.35	PK1	33.1	-32.3	0	42.15	-	-	74	-31.85	-	-	288	153	H
	* 3.658	30.59	AD1	33.1	-32.4	.2	31.49	54	-22.51	-	-	-	-	288	153	H
4	* 1.037	44.13	PK1	27.9	-35.4	0	36.63	-	-	74	-37.37	-	-	151	190	V
	* 1.037	32.83	AD1	27.9	-35.4	.2	25.53	54	-28.47	-	-	-	-	151	190	V
3	* 8.378	38.43	PK1	36.1	-27.8	0	46.73	-	-	74	-27.27	-	-	97	146	H
	* 8.38	27.74	AD1	36.1	-27.9	.2	36.14	54	-17.86	-	-	-	-	97	146	H
5	* 9.17	37.56	PK1	36.5	-27.5	0	46.56	-	-	74	-27.44	-	-	70	298	V
	* 9.177	26.94	AD1	36.5	-27.6	.2	36.04	54	-17.96	-	-	-	-	70	298	V
6	* 12.165	36.72	PK1	38.9	-25.3	0	50.32	-	-	74	-23.68	-	-	90	228	V
	* 12.165	25.62	AD1	38.9	-25.3	.2	39.42	54	-14.58	-	-	-	-	90	228	V

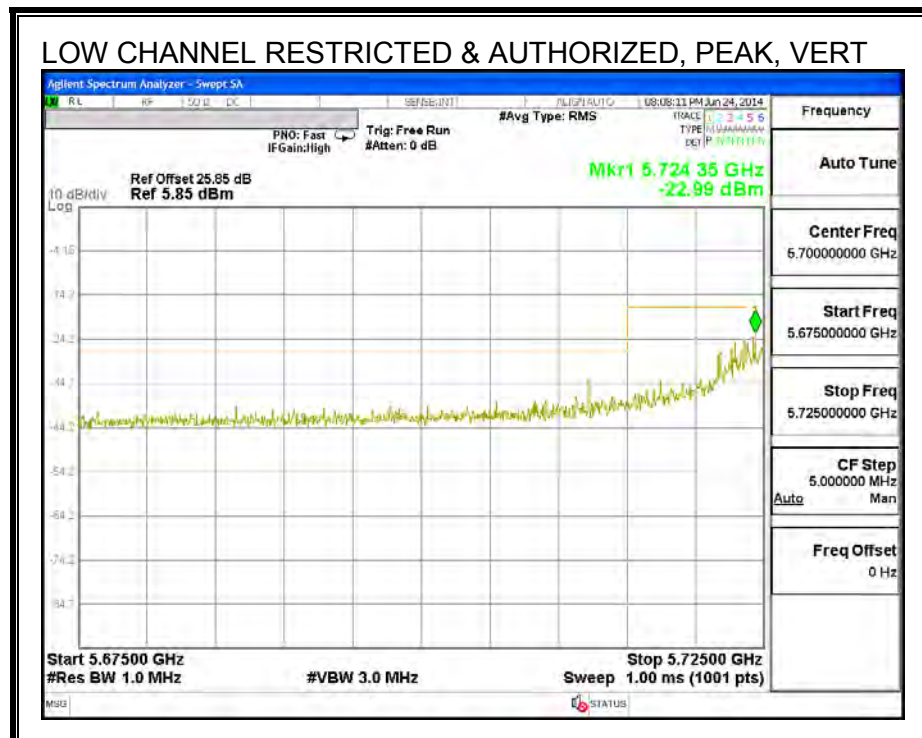
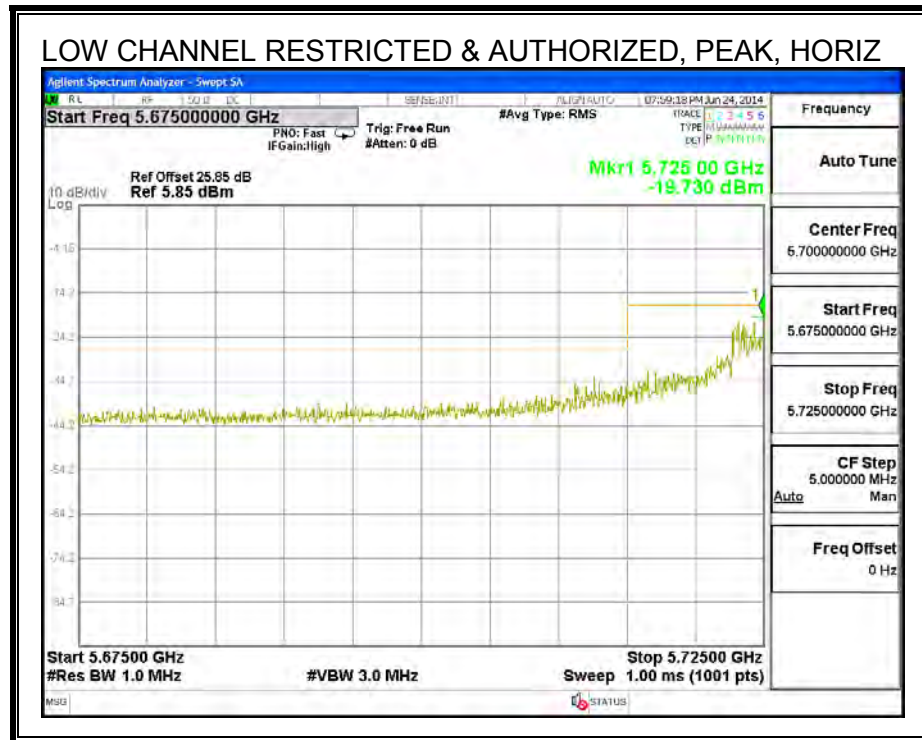
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

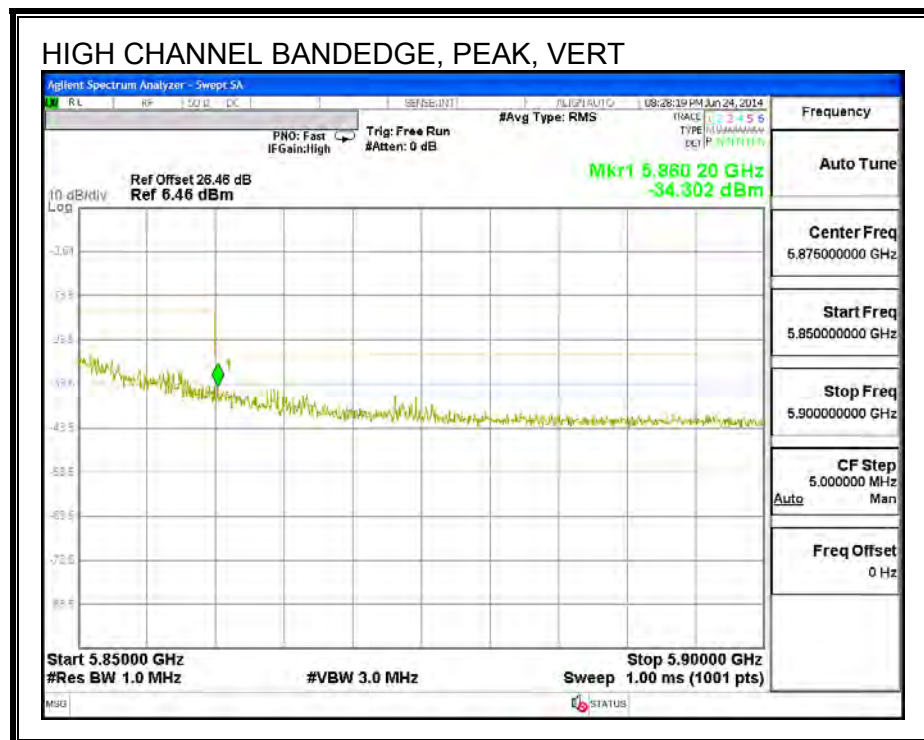
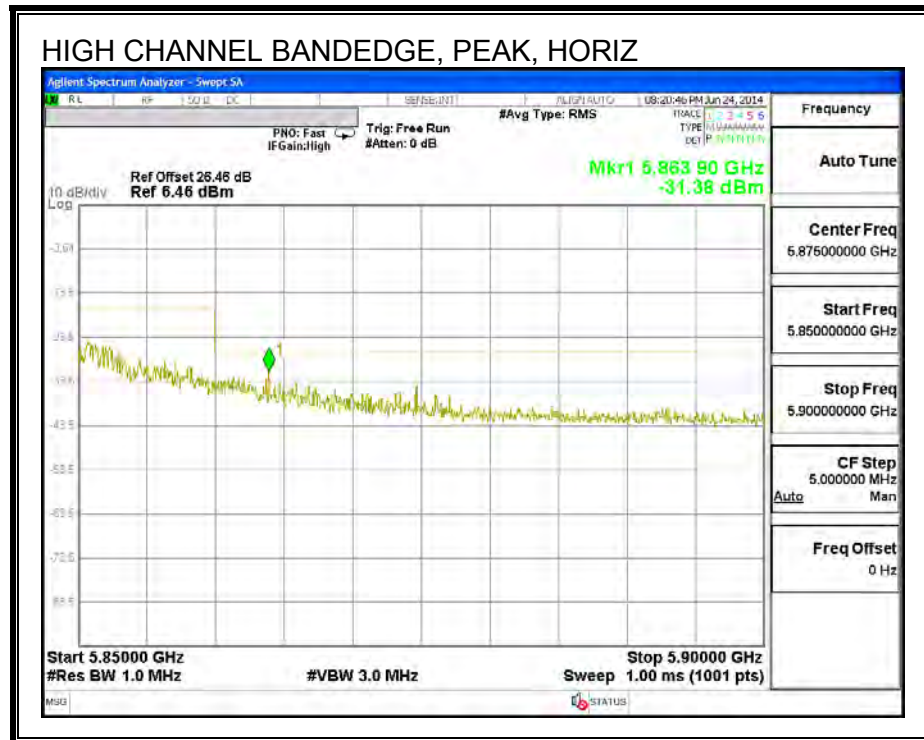
PK1 - KDB789033 Method: Peak

AD1 - KDB789033 Method: AD Primary Power Average

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

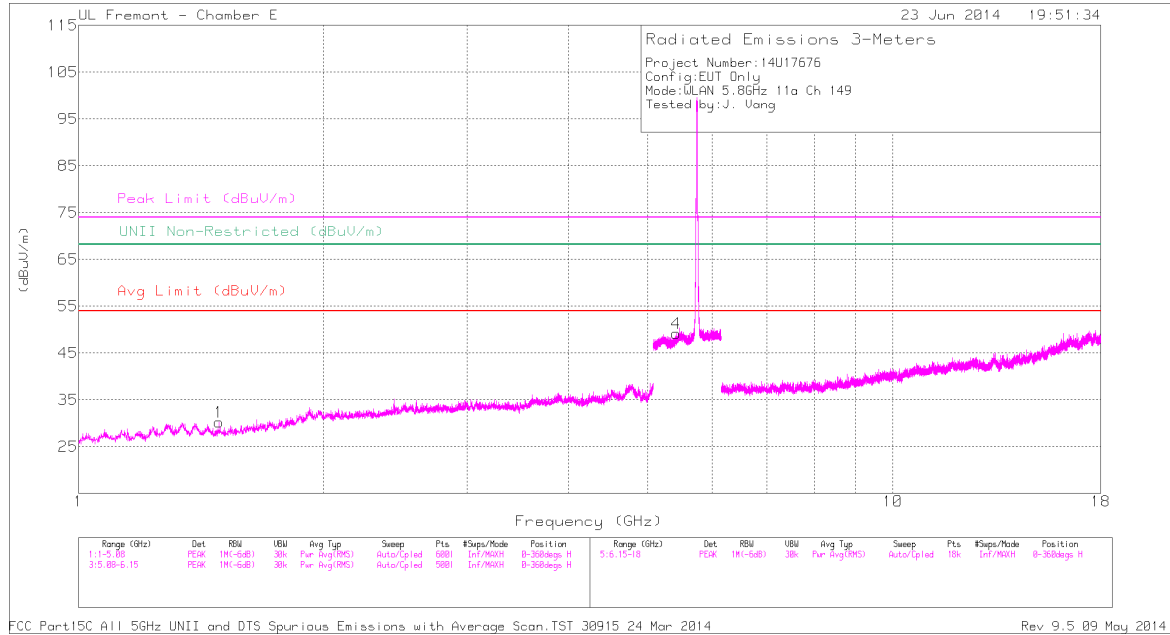
RESTRICTED & AUTHORIZED BANDEDGE (LOW CHANNEL)



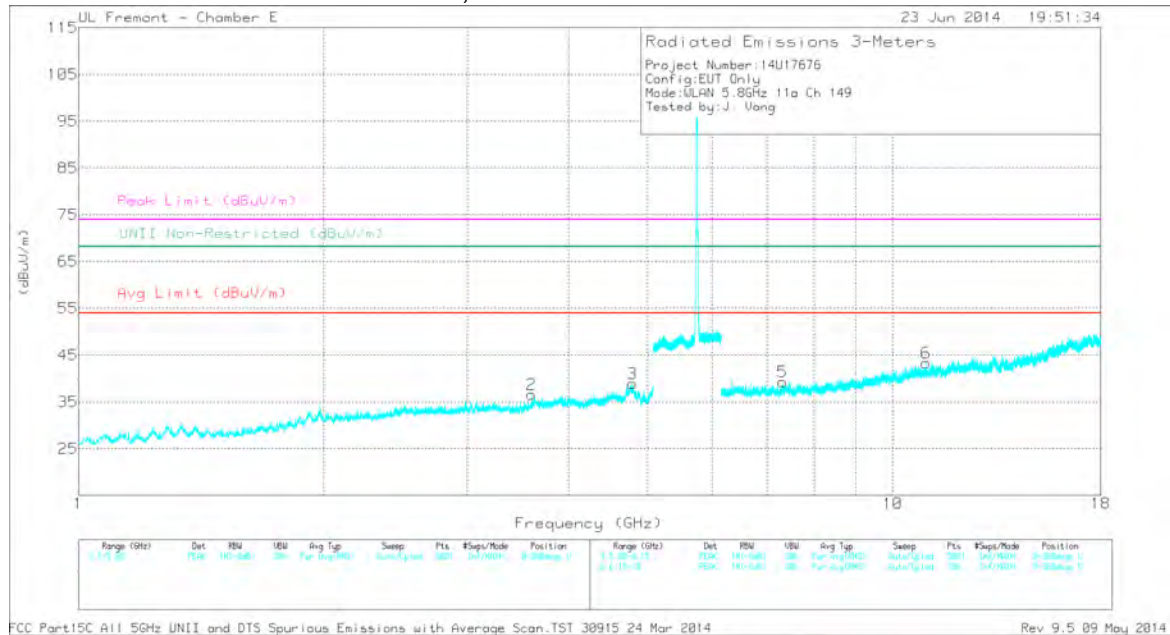
AUTHORIZED BANDEDGE (HIGH CHANNEL)

HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL HORIZONTAL PLOT, CH 149



LOW CHANNEL VERTICAL PLOT, CH 149



DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T346 (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)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.486	38.56	PK1	28.4	-34.5	32.46	-	-	74	-41.54	-	-	274	295	H
	* 1.487	31.9	AD1	28.4	-34.5	25.8	54	-28.2	-	-	-	-	274	295	H
2	* 3.602	36.53	PK1	33.1	-31.2	38.43	-	-	74	-35.57	-	-	278	155	V
	* 3.602	30.03	AD1	33.1	-31.2	31.93	54	-22.07	-	-	-	-	278	155	V
3	* 4.785	37.4	PK1	34.1	-30.2	41.3	-	-	74	-32.7	-	-	354	382	V
	* 4.785	30.98	AD1	34.1	-30.2	34.88	54	-19.12	-	-	-	-	354	382	V
4	* 5.421	39.1	PK1	34.6	-21.1	52.6	-	-	74	-21.4	-	-	179	179	H
	* 5.422	32.55	AD1	34.6	-21.1	46.05	54	-7.95	-	-	-	-	179	179	H
5	* 7.324	34.06	PK1	35.7	-27.7	42.06	-	-	74	-31.94	-	-	334	379	V
	* 7.324	27.48	AD1	35.7	-27.7	35.48	54	-18.52	-	-	-	-	334	379	V
6	* 10.987	31.81	PK1	37.9	-24.6	45.11	-	-	74	-28.89	-	-	341	102	V
	* 10.986	25.3	AD1	37.9	-24.6	38.6	54	-15.4	-	-	-	-	341	102	V

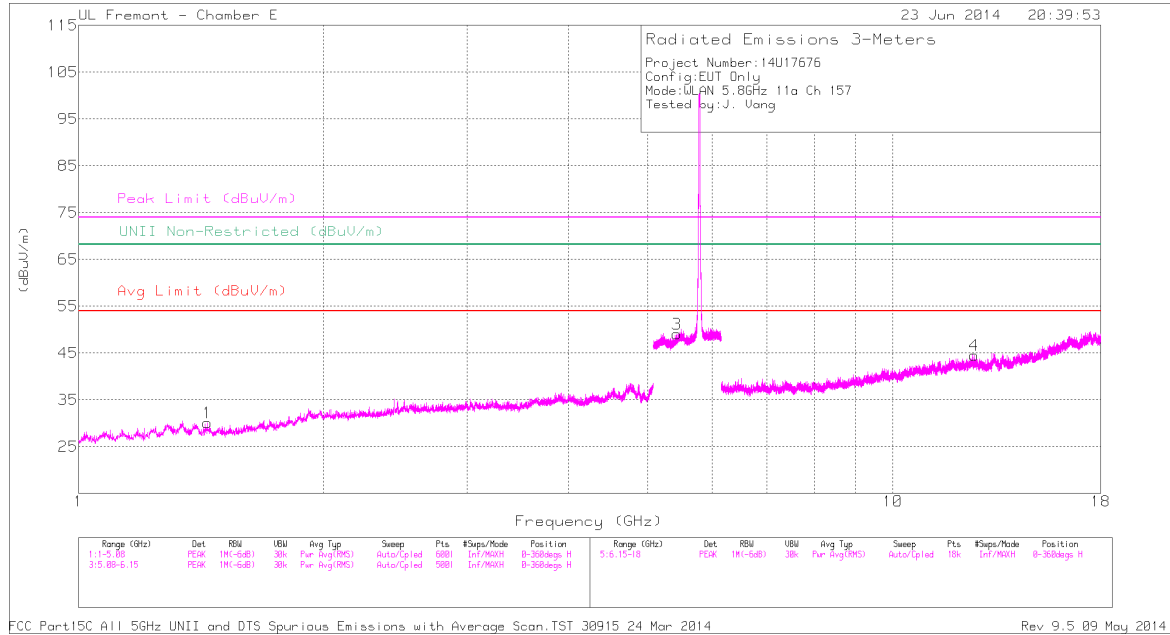
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK1 - KDB789033 Method: Peak

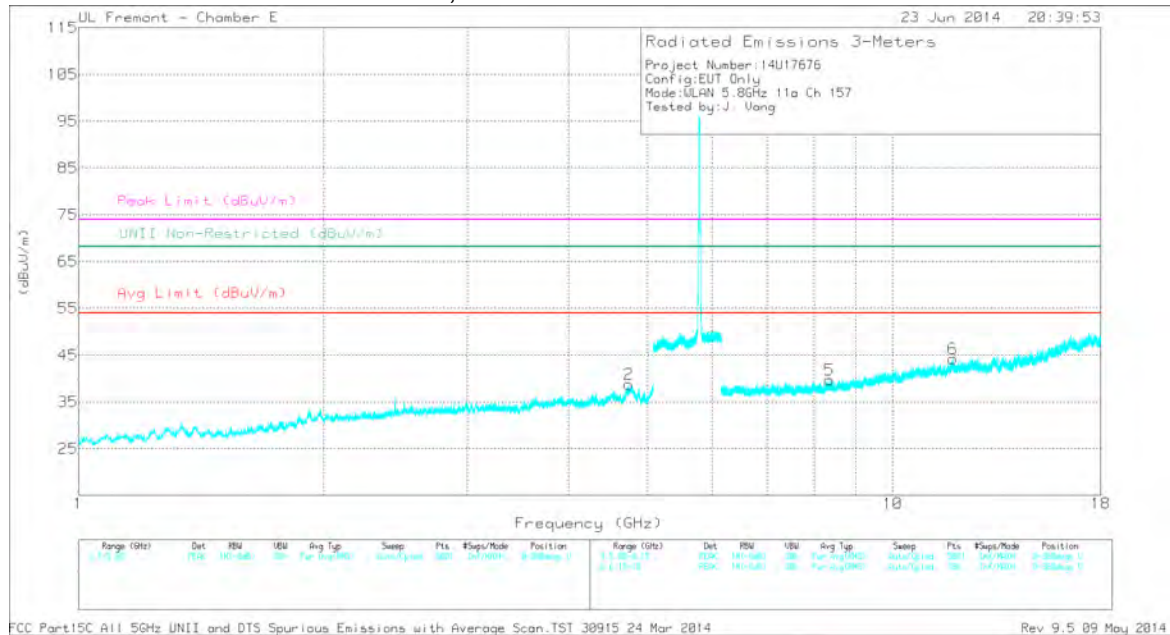
AD1 - KDB789033 Method: AD Primary Power Average

HARMONICS AND SPURIOUS EMISSIONS

MID CHANNEL HORIZONTAL PLOT, CH 157



MID CHANNEL VERTICAL PLOT, CH 157



DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T346 (dB/m)	Amp/Cbl/ Fitr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.44	39.41	PK1	28.7	-34.5	33.61	-	-	74	-40.39	-	-	26	183	H
	* 1.44	33.14	AD1	28.7	-34.5	27.34	54	-26.66	-	-	-	-	26	183	H
2	* 4.742	37.72	PK1	34.1	-30.6	41.22	-	-	74	-32.78	-	-	186	218	V
	* 4.742	31.23	AD1	34.1	-30.6	34.73	54	-19.27	-	-	-	-	186	218	V
3	* 5.424	36.61	PK1	34.6	-21.1	50.11	-	-	74	-23.89	-	-	237	306	H
	* 5.424	30.05	AD1	34.6	-21.1	43.55	54	-10.45	-	-	-	-	237	306	H
4	* 12.587	32.73	PK1	39	-24.9	46.83	-	-	74	-27.17	-	-	110	389	H
	* 12.587	26.35	AD1	39	-24.9	40.45	54	-13.55	-	-	-	-	110	389	H
5	* 8.355	33.98	PK1	35.9	-27.3	42.58	-	-	74	-31.42	-	-	101	244	V
	* 8.356	27.41	AD1	35.9	-27.3	36.01	54	-17.99	-	-	-	-	101	244	V
6	* 11.844	31.6	PK1	38.5	-23.3	46.8	-	-	74	-27.2	-	-	27	149	V
	* 11.843	25.13	AD1	38.5	-23.3	40.33	54	-13.67	-	-	-	-	27	149	V

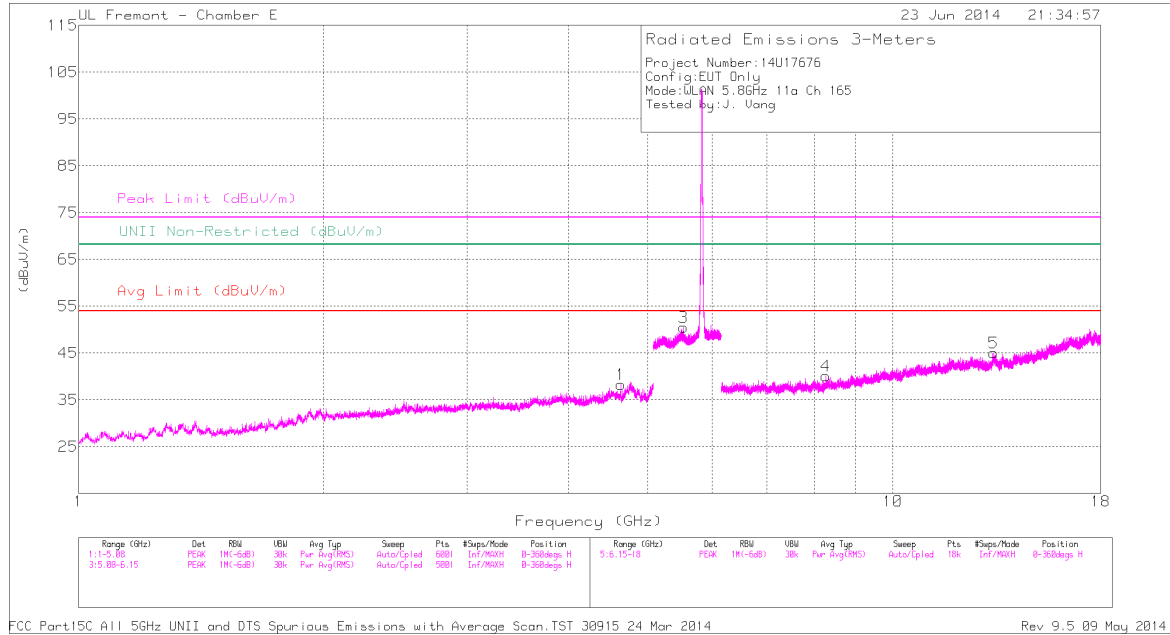
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK1 - KDB789033 Method: Peak

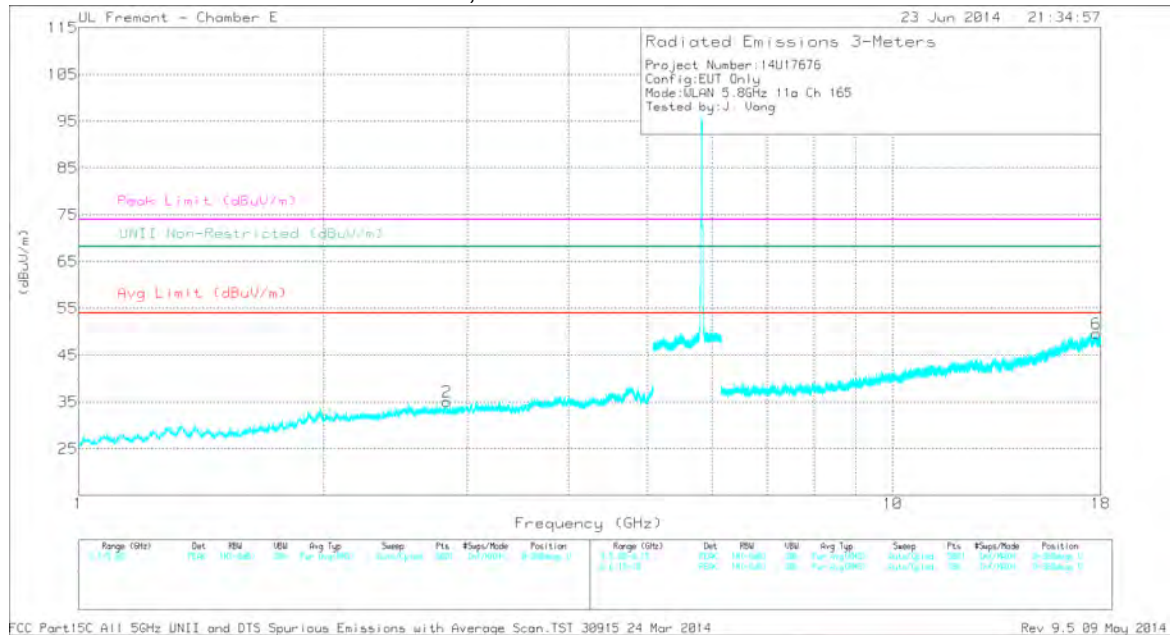
AD1 - KDB789033 Method: AD Primary Power Average

HARMONICS AND SPURIOUS EMISSIONS

HIGH CHANNEL HORIZONTAL PLOT, CH 157



HIGH CHANNEL VERTICAL PLOT, CH 157



DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T346 (dB/m)	Amp/Cbl/Filtr /Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 4.629	35.91	PK1	34.1	-30.2	39.81	-	-	74	-34.19	-	-	330	328	H
	* 4.629	29.35	AD1	34.1	-30.2	33.25	54	-20.75	-	-	-	-	330	328	H
2	* 2.834	36.88	PK1	32.4	-32.4	36.88	-	-	74	-37.12	-	-	148	218	V
	* 2.834	30.36	AD1	32.4	-32.4	30.36	54	-23.64	-	-	-	-	148	218	V
4	* 8.274	33.63	PK1	35.9	-27.1	42.43	-	-	74	-31.57	-	-	128	145	H
	* 8.274	27.08	AD1	35.9	-27.1	35.88	54	-18.12	-	-	-	-	128	145	H
5	* 13.293	32.82	PK1	39.2	-23.9	48.12	-	-	74	-25.88	-	-	247	104	H
	* 13.293	26.17	AD1	39.2	-23.9	41.47	54	-12.53	-	-	-	-	247	104	H
6	* 17.77	31.12	PK1	41.1	-20	52.22	-	-	74	-21.78	-	-	105	223	V
	* 17.769	24.65	AD1	41.1	-20	45.75	54	-8.25	-	-	-	-	105	223	V
3	5.528	38.41	PK1	34.6	-20.5	52.51	-	-	-	-	68.2	-15.69	324	311	H

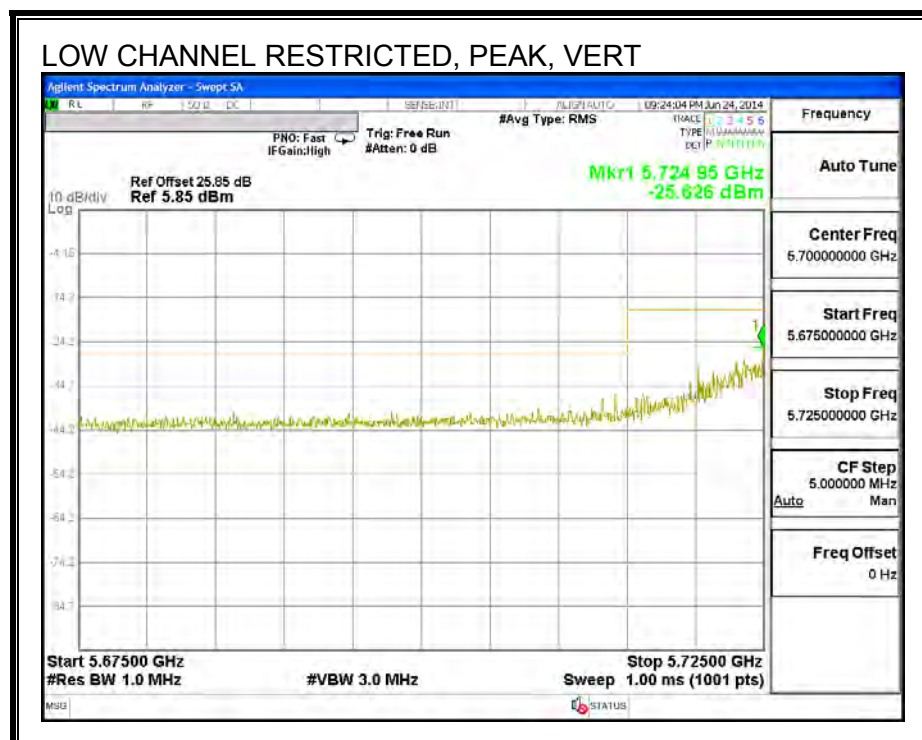
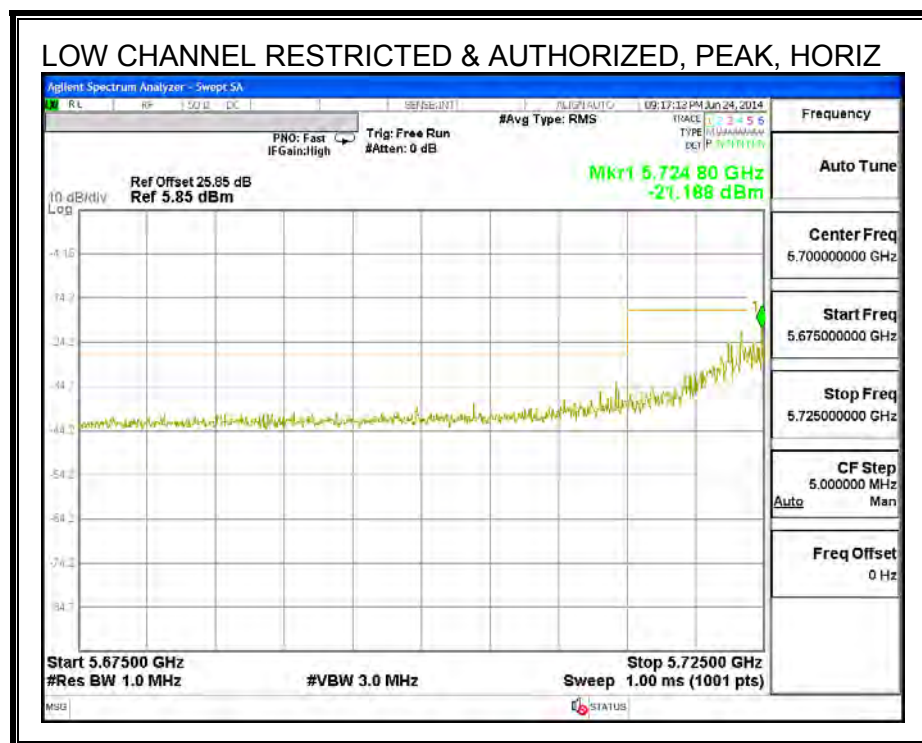
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

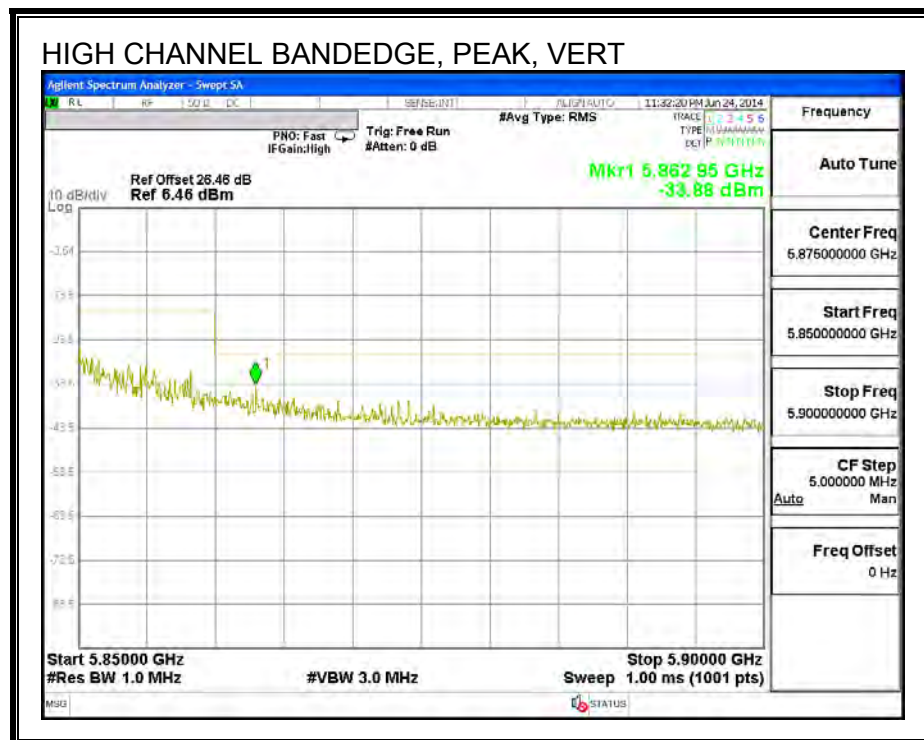
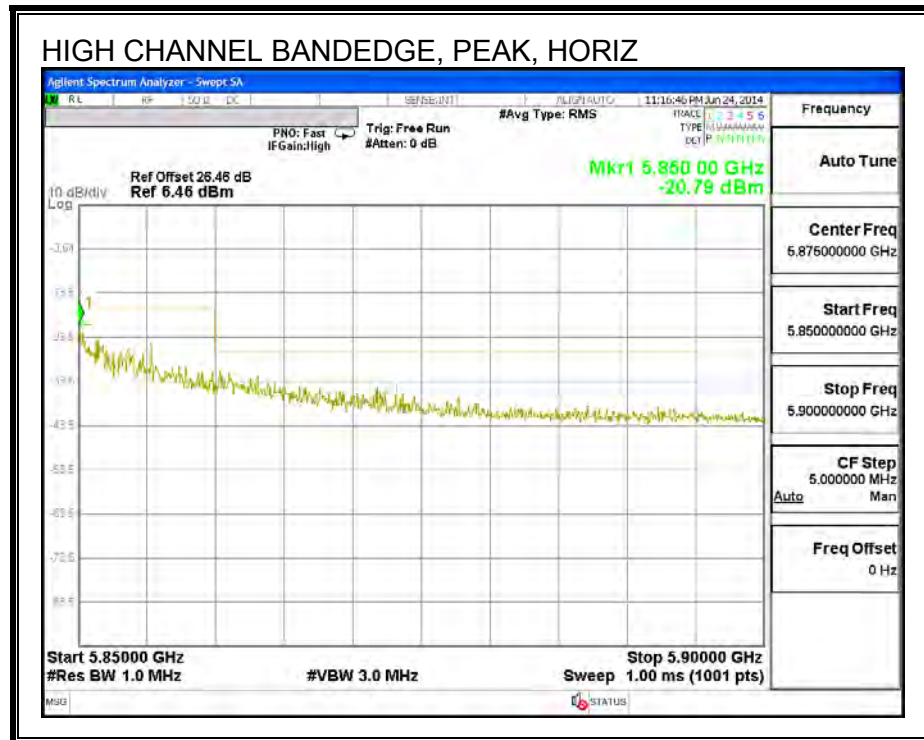
PK1 - KDB789033 Method: Peak

AD1 - KDB789033 Method: AD Primary Power Average

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

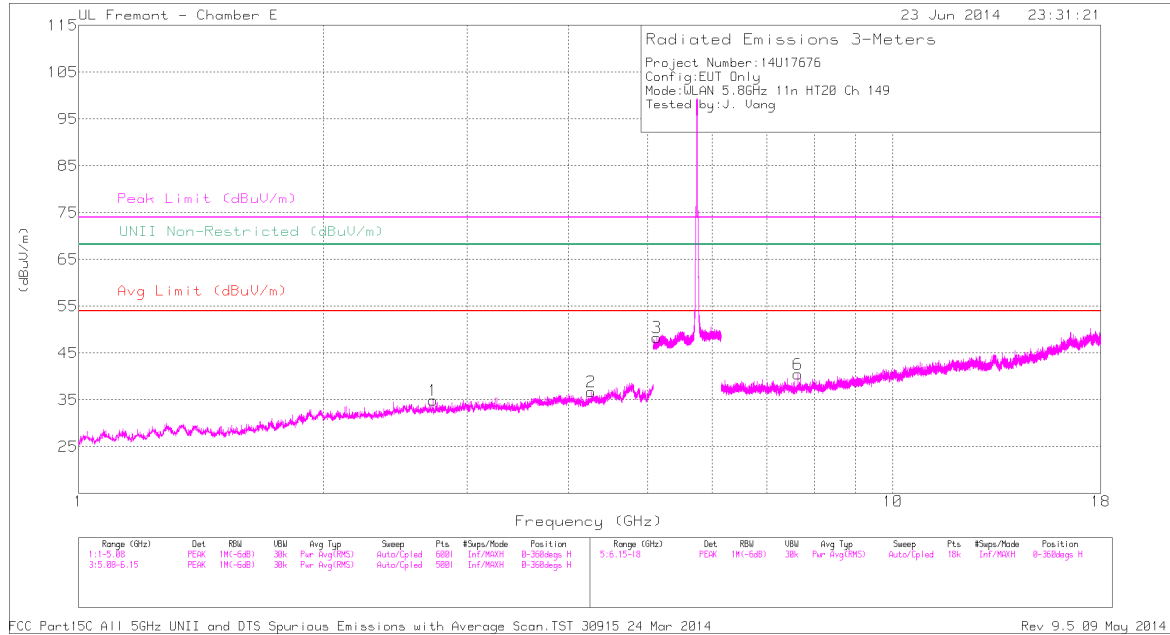
RESTRICTED & AUTHORIZED BANDEDGE (LOW CHANNEL)



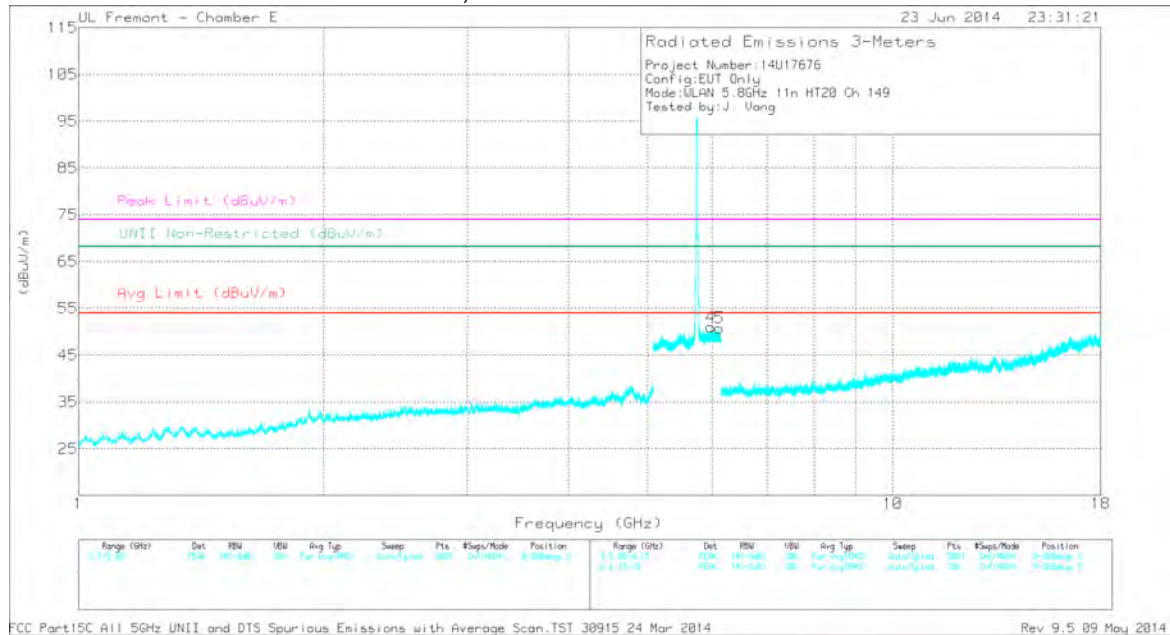
AUTHORIZED BANDEDGE (HIGH CHANNEL)

HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL HORIZONTAL PLOT, CH 149



LOW CHANNEL VERTICAL PLOT, CH 149



DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T346 (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)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.724	36.77	PK1	32.5	-32.4	36.87	-	-	74	-37.13	-	-	256	138	H
	* 2.725	30.21	AD1	32.5	-32.4	30.31	54	-23.69	-	-	-	-	256	138	H
2	* 4.26	36.17	PK1	33.5	-30.8	38.87	-	-	74	-35.13	-	-	328	223	H
	* 4.26	29.59	AD1	33.5	-30.8	32.29	54	-21.71	-	-	-	-	328	223	H
3	* 5.133	38.36	PK1	34.2	-21.6	50.96	-	-	74	-23.04	-	-	314	280	H
	* 5.131	31.85	AD1	34.2	-21.6	44.45	54	-9.55	-	-	-	-	314	280	H
6	* 7.64	33.75	PK1	35.8	-27.5	42.05	-	-	74	-31.95	-	-	330	308	H
	* 7.641	27.24	AD1	35.8	-27.5	35.54	54	-18.46	-	-	-	-	330	308	H
4	5.979	38.32	PK1	35.2	-20.6	52.92	-	-	-	-	68.2	-15.28	166	223	V
5	6.127	37.89	PK1	35.4	-20.4	52.89	-	-	-	-	68.2	-15.31	354	291	V

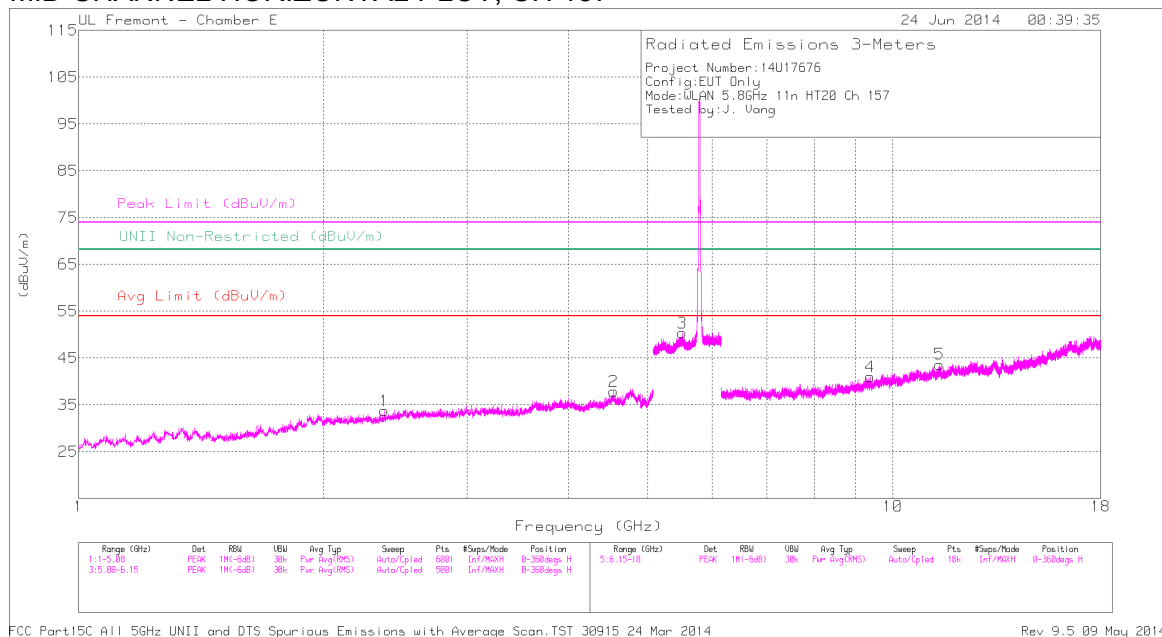
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK1 - KDB789033 Method: Peak

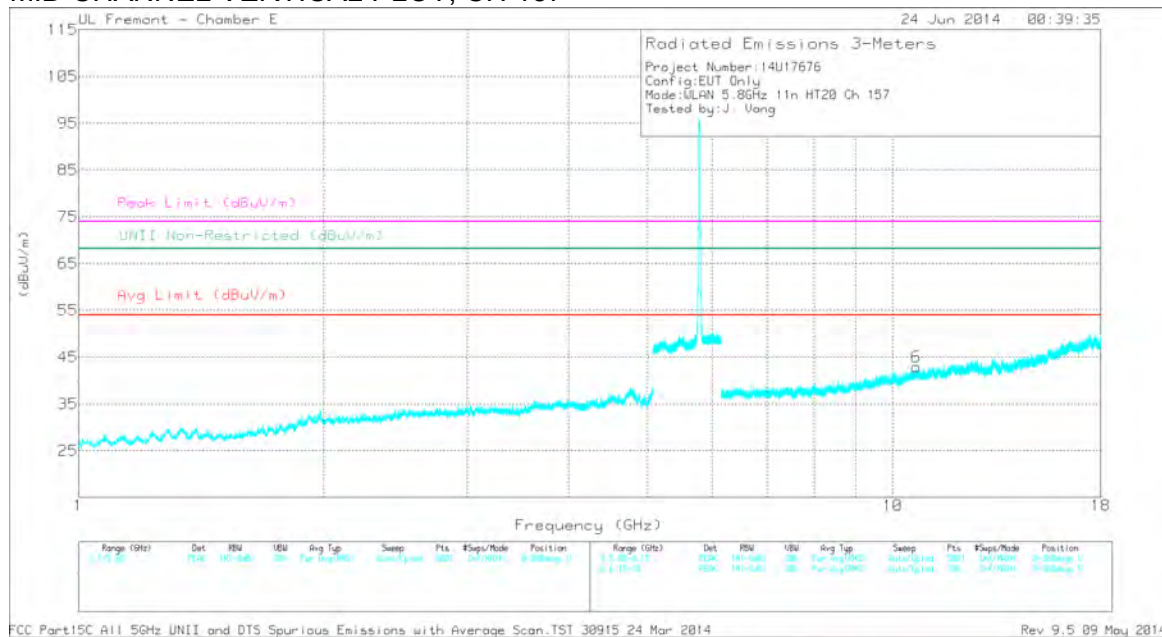
AD1 - KDB789033 Method: AD Primary Power Average

HARMONICS AND SPURIOUS EMISSIONS

MID CHANNEL HORIZONTAL PLOT, CH 157



MID CHANNEL VERTICAL PLOT, CH 157



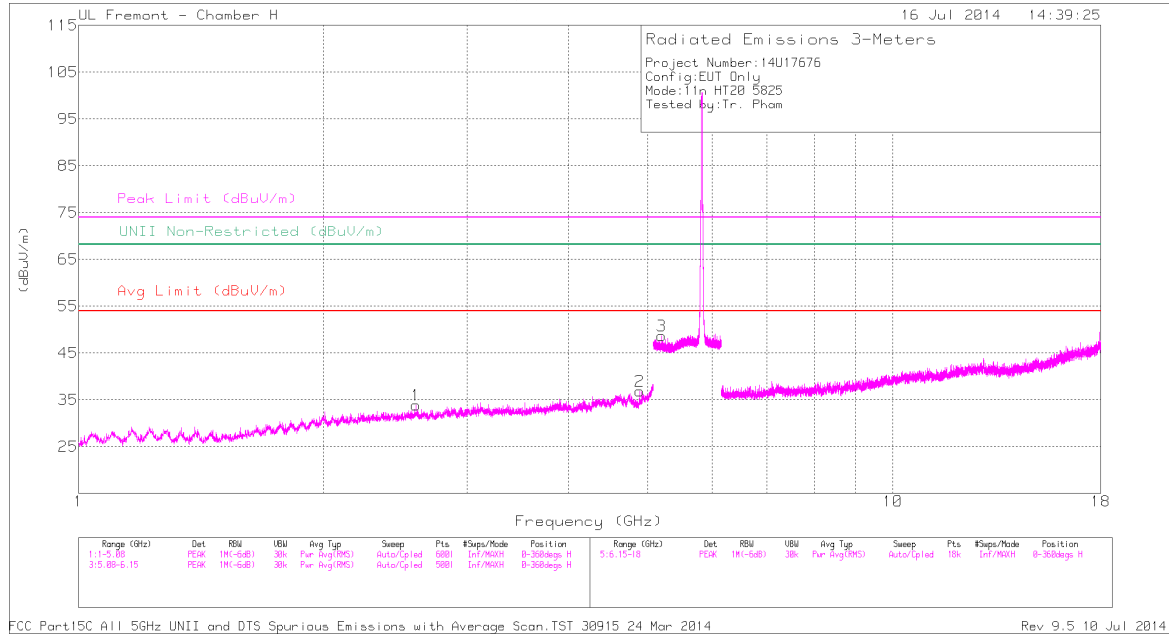
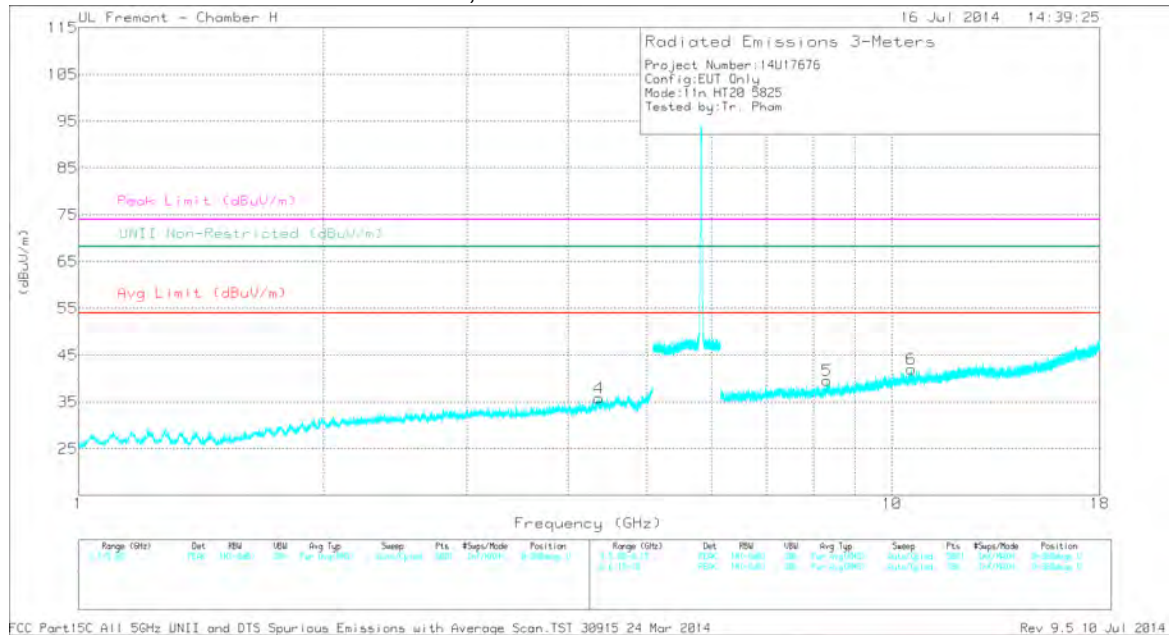
DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T346 (dB/m)	Amp/Cbl/ Fitr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.374	37.36	PK1	31.9	-33.2	36.06	-	-	74	-37.94	-	-	29	188	H
	* 2.373	30.84	AD1	31.9	-33.2	29.54	54	-24.46	-	-	-	-	29	188	H
2	* 4.537	36.57	PK1	34	-30.6	39.97	-	-	74	-34.03	-	-	168	180	H
	* 4.536	30.06	AD1	34	-30.6	33.46	54	-20.54	-	-	-	-	168	180	H
4	* 9.372	32.38	PK1	36.8	-25.7	43.48	-	-	74	-30.52	-	-	254	310	H
	* 9.373	25.81	AD1	36.8	-25.7	36.91	54	-17.09	-	-	-	-	254	310	H
5	* 11.407	31.85	PK1	38.1	-23.8	46.15	-	-	74	-27.85	-	-	47	239	H
	* 11.408	25.35	AD1	38.1	-23.8	39.65	54	-14.35	-	-	-	-	47	239	H
6	* 10.693	31.75	PK1	37.9	-23.8	45.85	-	-	74	-28.15	-	-	330	307	V
	* 10.695	25.13	AD1	37.9	-23.7	39.33	54	-14.67	-	-	-	-	330	307	V
3	5.508	38.41	PK1	34.6	-20.7	52.31	-	-	-	-	68.2	-15.89	210	164	H

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

PK1 - KDB789033 Method: Peak

AD1 - KDB789033 Method: AD Primary Power Average

HARMONICS AND SPURIOUS EMISSIONS**HIGH CHANNEL HORIZONTAL PLOT, CH 165****HIGH CHANNEL VERTICAL PLOT, CH 165**

DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	* 4.888	40.04	PK1	34.3	-31.1	43.24	-	-	74	-30.76	-	-	73	129	H
	* 4.889	28.63	AD1	34.3	-31.1	31.83	54	-22.17	-	-	-	-	73	129	H
4	* 4.36	41.39	PK1	33.7	-31.5	43.59	-	-	74	-30.41	-	-	53	159	V
	* 4.36	29.97	AD1	33.7	-31.5	32.17	54	-21.83	-	-	-	-	53	159	V
5	* 8.308	38.74	PK1	36.1	-27.1	47.74	-	-	74	-26.26	-	-	101	204	V
	* 8.31	26.84	AD1	36.1	-27.1	35.84	54	-18.16	-	-	-	-	101	204	V
1	2.595	41.85	PK1	32.2	-33.2	40.85	-	-	-	-	68.2	-27.35	41	100	H
3	5.2	44.36	PK1	34.6	-22.7	56.26	-	-	-	-	68.2	-11.94	101	185	H
6	10.565	36.49	PK1	37.6	-25	49.09	-	-	-	-	68.2	-19.11	52	241	V

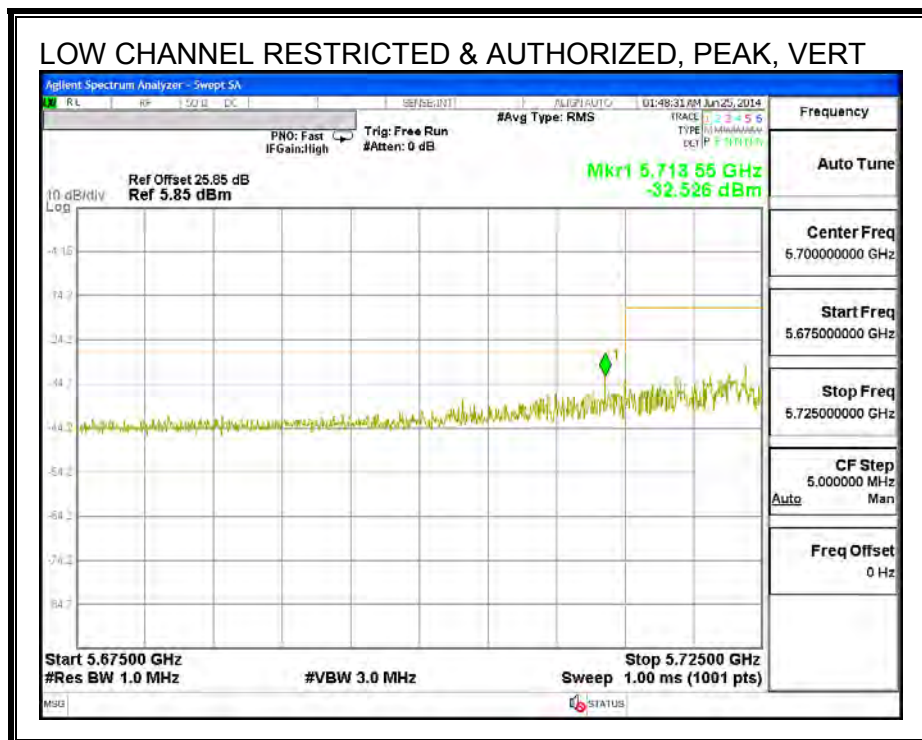
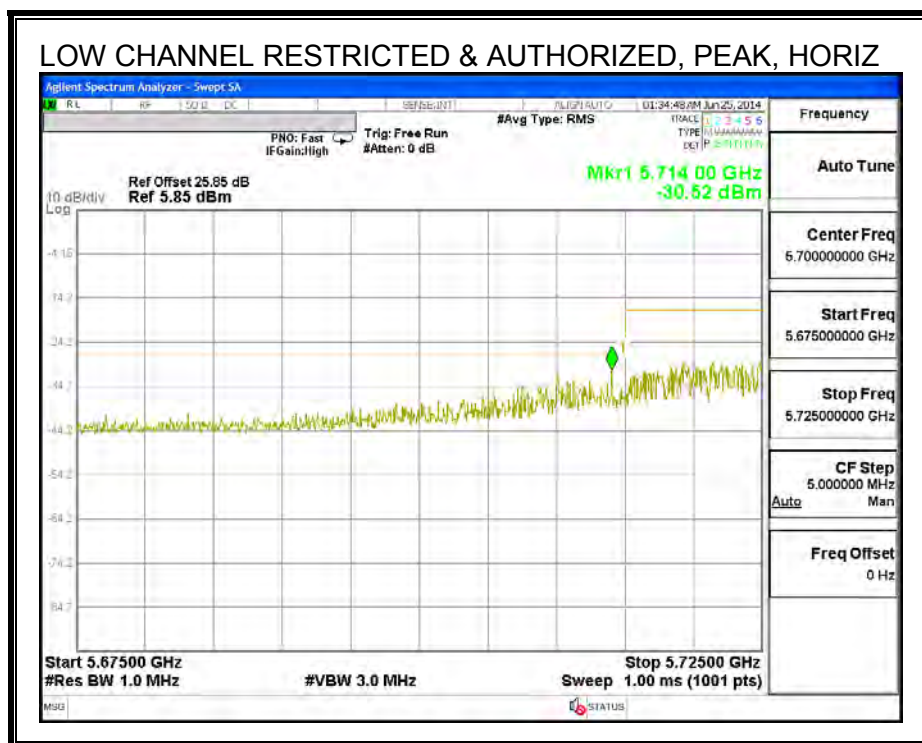
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

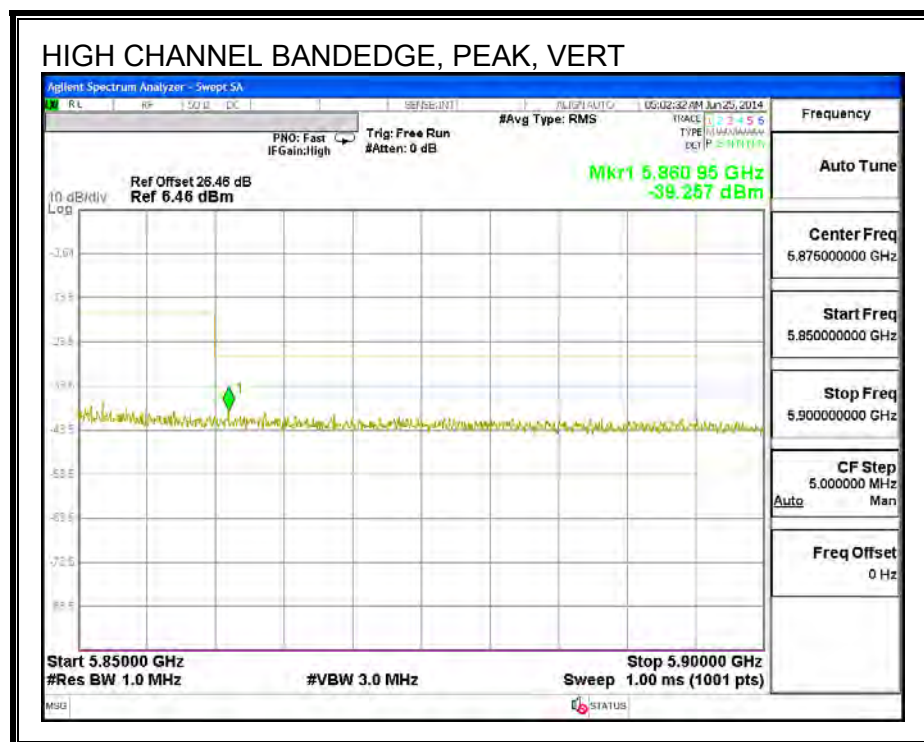
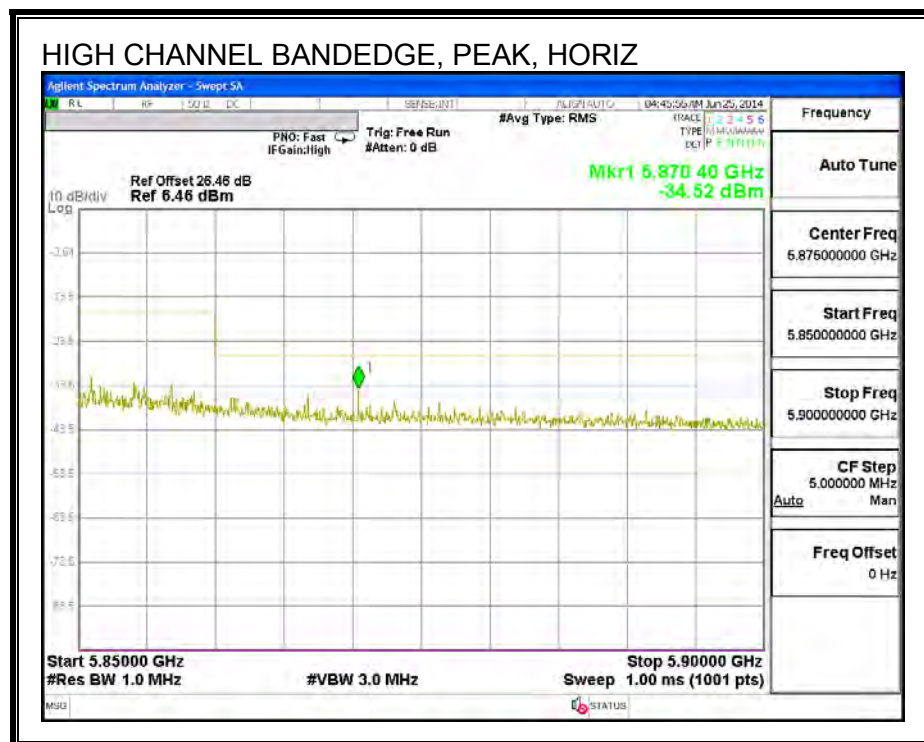
PK1 - KDB789033 Method: Peak

AD1 - KDB789033 Method: AD Primary Power Average

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

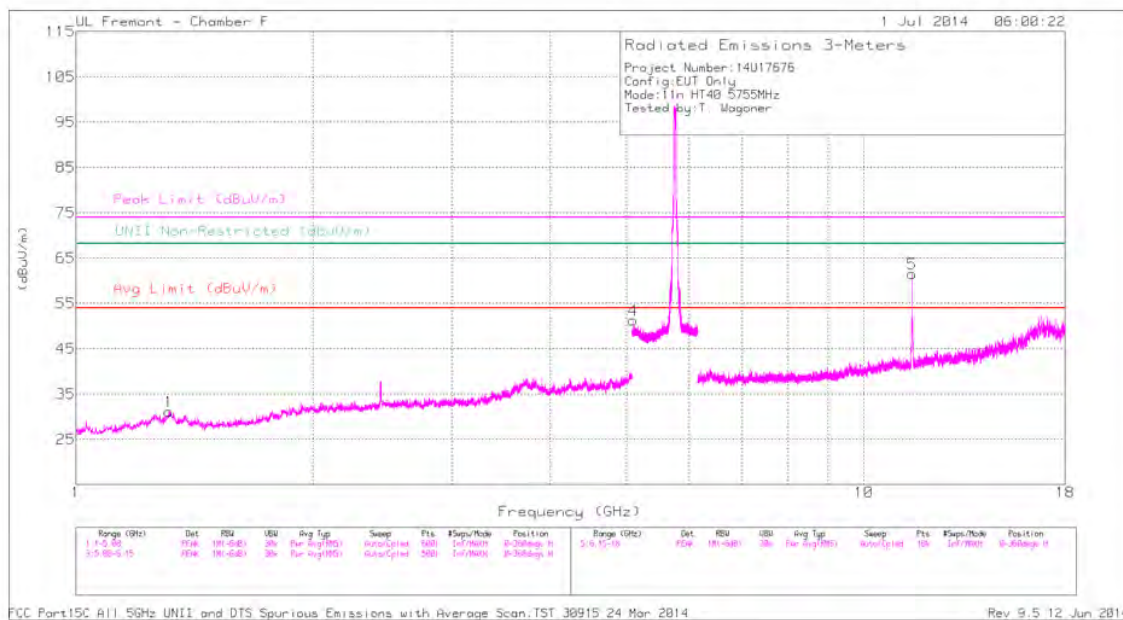
RESTRICTED & AUTHORIZED BANDEDGE (LOW CHANNEL)



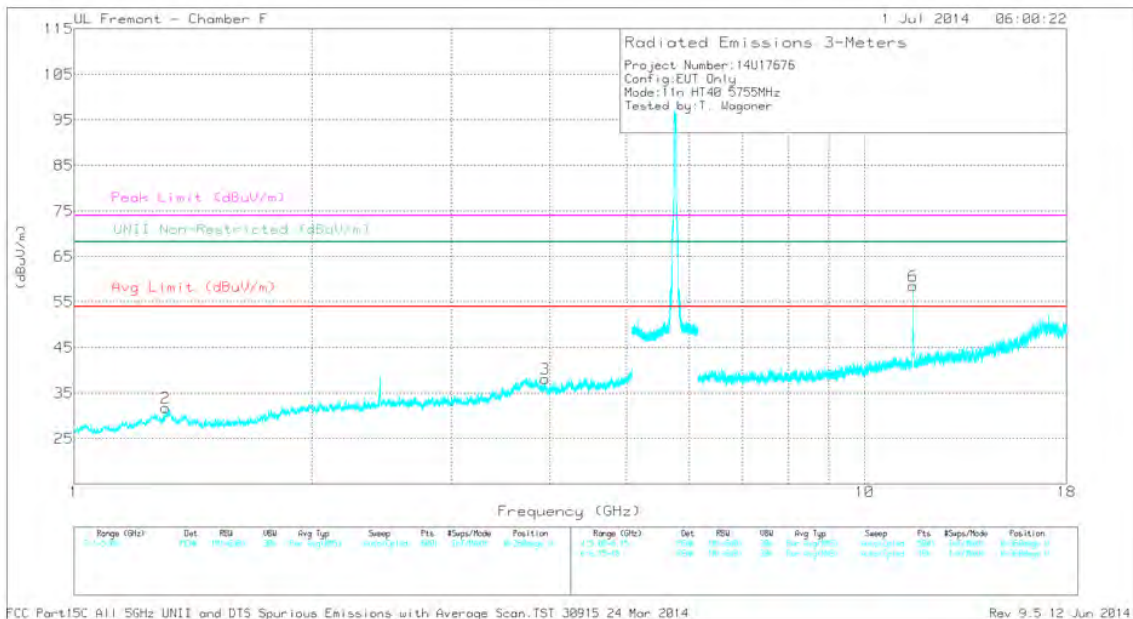
AUTHORIZED BANDEDGE (HIGH CHANNEL)

HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL HORIZONTAL PLOT, CH 151



LOW CHANNEL VERTICAL PLOT, CH 151



DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T120 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.316	36.04	PK1	29.9	-31.4	34.54	-	-	74	-39.46	-	-	136	285	H
	* 1.316	29.36	AD1	29.9	-31.4	27.86	54	-26.14	-	-	-	-	136	285	H
2	* 1.31	35.82	PK1	30	-31.4	34.42	-	-	74	-39.58	-	-	48	276	V
	* 1.309	29.06	AD1	30	-31.4	27.66	54	-26.34	-	-	-	-	48	276	V
3	* 3.944	34.67	PK1	33.9	-29.3	39.27	-	-	74	-34.73	-	-	182	169	V
	* 3.946	27.69	AD1	33.9	-29.3	32.29	54	-21.71	-	-	-	-	182	169	V
4	* 5.089	37.64	PK1	34.3	-19.7	52.24	-	-	74	-21.76	-	-	304	278	H
	* 5.087	30.64	AD1	34.3	-19.7	45.24	54	-8.76	-	-	-	-	304	278	H
5	* 11.51	40.2	PK1	38.4	-22.6	56	-	-	74	-18	-	-	131	113	H
	* 11.51	34.91	AD1	38.4	-22.6	50.71	54	-3.29	-	-	-	-	131	113	H
6	* 11.51	39.17	PK1	38.4	-22.6	54.97	-	-	74	-19.03	-	-	169	202	V
	* 11.51	33.56	AD1	38.4	-22.6	49.36	54	-4.64	-	-	-	-	169	202	V

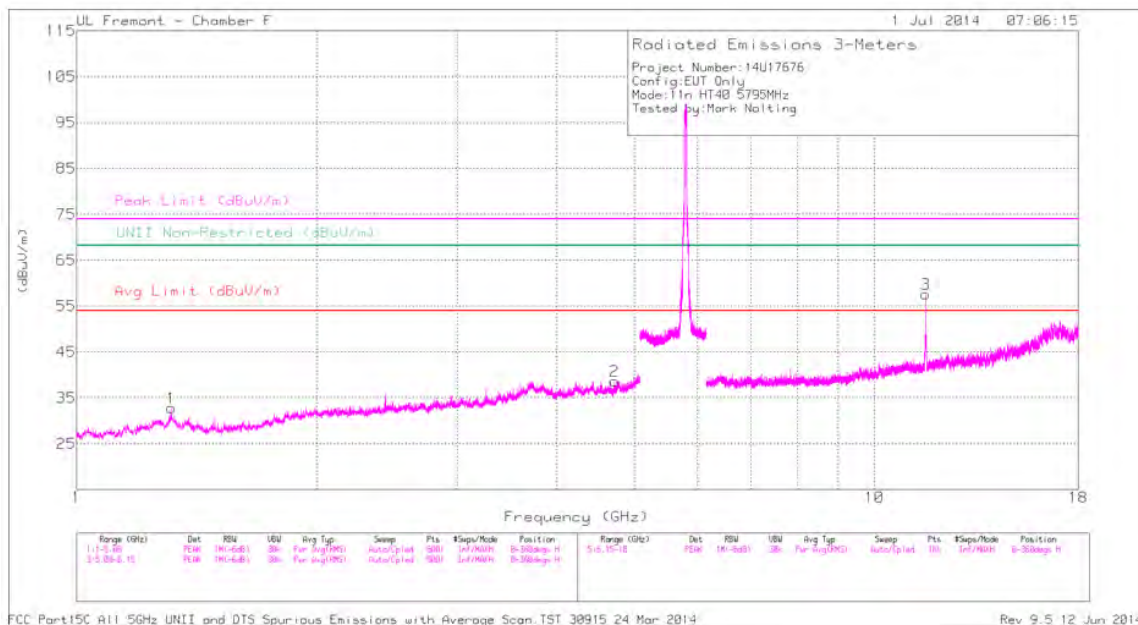
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK1 - KDB789033 Method: Peak

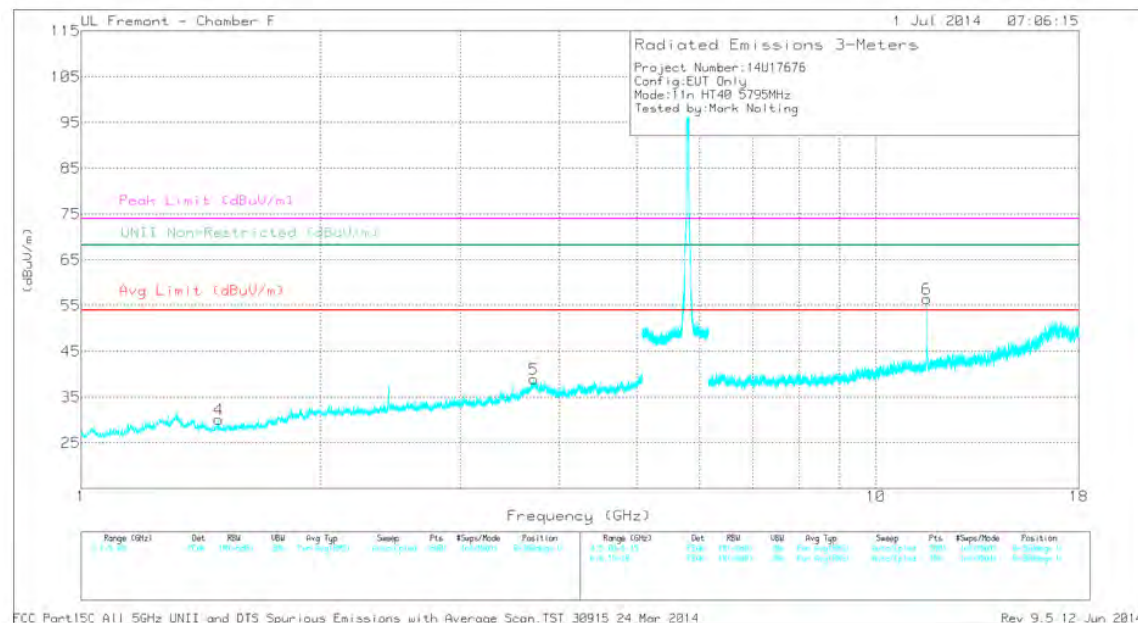
AD1 - KDB789033 Method: AD Primary Power Average

HARMONICS AND SPURIOUS EMISSIONS

HIGH CHANNEL HORIZONTAL PLOT, CH 159



HIGH CHANNEL VERTICAL PLOT, CH 159



DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T120 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.311	41.38	PK1	30	-31.4	39.98	-	-	74	-34.02	-	-	92	224	H
	* 1.316	29.34	AD1	29.9	-31.4	27.84	54	-26.16	-	-	-	-	92	224	H
2	* 4.723	38.68	PK1	34.1	-27.9	44.88	-	-	74	-29.12	-	-	355	126	H
	* 4.721	27.43	AD1	34.1	-27.9	33.63	54	-20.37	-	-	-	-	355	126	H
4	* 1.49	41.32	PK1	28.4	-32	37.72	-	-	74	-36.28	-	-	77	234	V
	* 1.491	29.2	AD1	28.4	-32	25.6	54	-28.4	-	-	-	-	77	234	V
5	* 3.716	39.13	PK1	34.8	-29.2	44.73	-	-	74	-29.27	-	-	82	120	V
	* 3.716	27.37	AD1	34.8	-29.2	32.97	54	-21.03	-	-	-	-	82	120	V
3	* 11.59	44.84	PK1	38.5	-23.2	60.14	-	-	74	-13.86	-	-	137	121	H
	* 11.59	35.28	AD1	38.5	-23.2	50.58	54	-3.42	-	-	-	-	137	121	H
6	* 11.59	41.26	PK1	38.5	-23.2	56.56	-	-	74	-17.44	-	-	174	192	V
	* 11.59	31.46	AD1	38.5	-23.2	46.76	54	-7.24	-	-	-	-	174	192	V

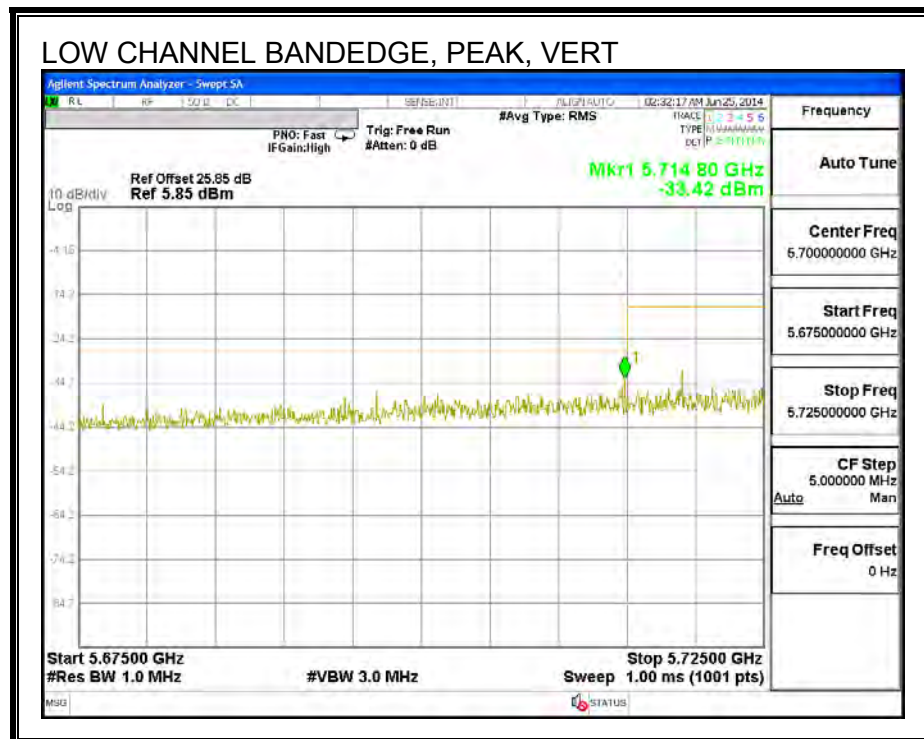
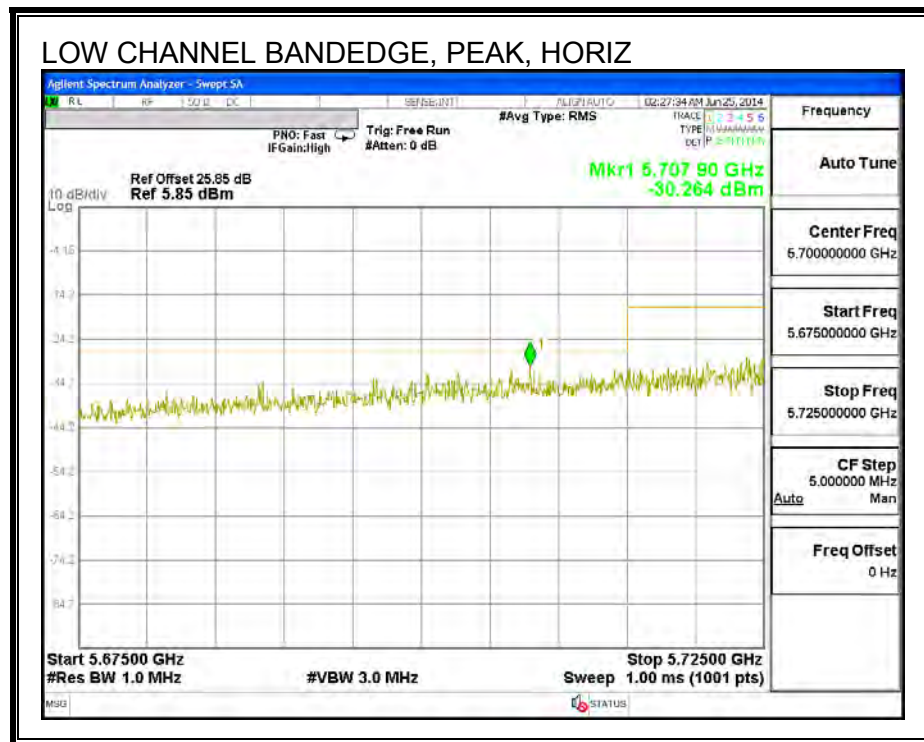
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK1 - KDB789033 Method: Peak

AD1 - KDB789033 Method: AD Primary Power Average

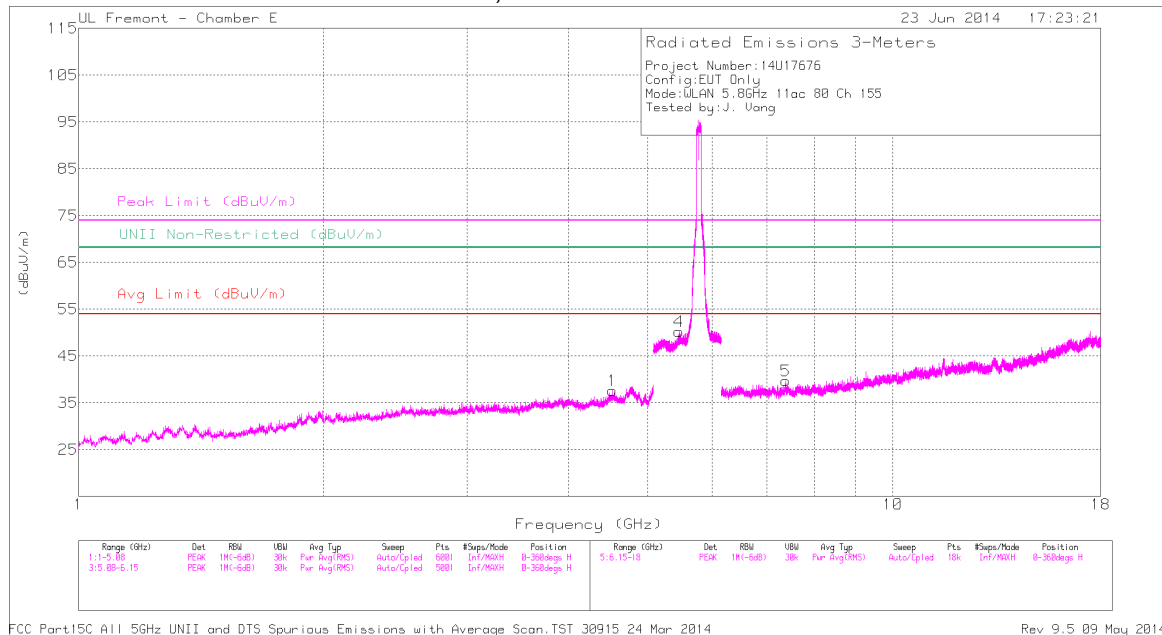
10.18. TX ABOVE 1G 802.11ac 80MHz MODE IN THE 5.8 GHz BAND

RESTRICTED & AUTHORIZED BANDEDGE (LOW CHANNEL, 106)

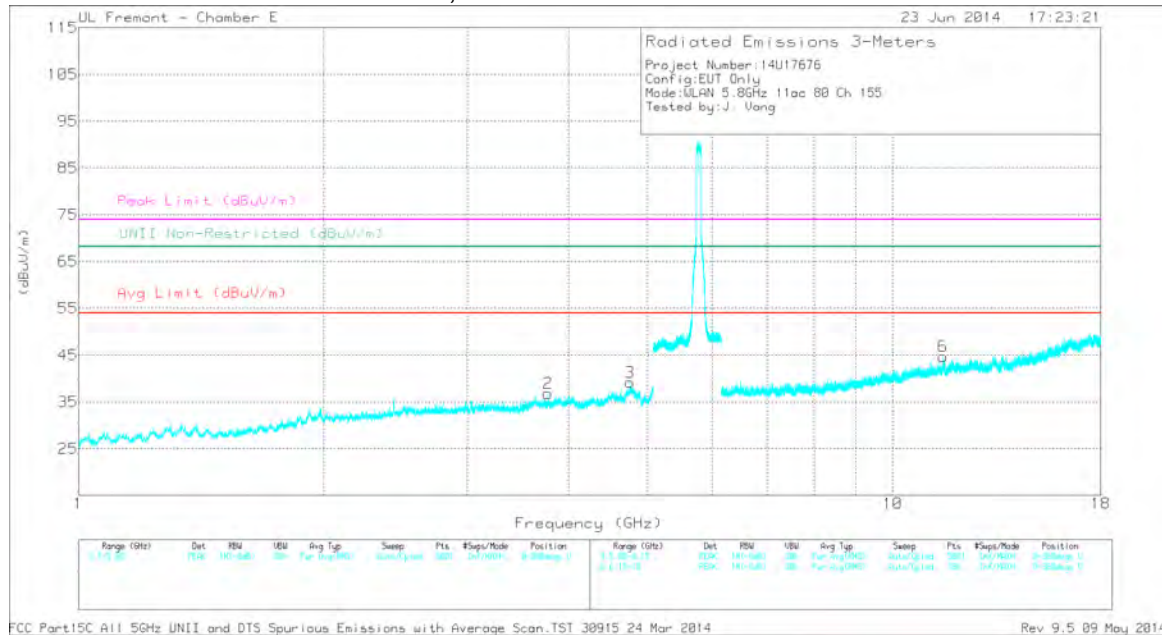


HARMONICS AND SPURIOUS EMISSIONS

MID CHANNEL HORIZONTAL PLOT, CH 155



MID CHANNEL VERTICAL PLOT, CH 155



DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T346 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 4.526	36.75	PK1	34	-30.3	0	40.45	-	-	74	-33.55	-	-	316	304	H
	* 4.526	30.14	AD1	34	-30.3	.2	34.04	54	-19.96	-	-	-	-	316	304	H
2	* 3.772	36.92	PK1	33.4	-31.8	0	38.52	-	-	74	-35.48	-	-	105	252	V
	* 3.772	30.48	AD1	33.4	-31.8	.2	32.28	54	-21.72	-	-	-	-	105	252	V
5	* 7.378	33.7	PK1	35.7	-27	0	42.4	-	-	74	-31.6	-	-	47	224	H
	* 7.378	27.19	AD1	35.7	-27	.2	36.09	54	-17.91	-	-	-	-	47	224	H
6	* 11.535	34.82	PK1	38.2	-24.3	0	48.72	-	-	74	-25.28	-	-	81	109	V
	* 11.535	28.2	AD1	38.2	-24.3	.2	42.3	54	-11.7	-	-	-	-	81	109	V
4	5.462	38.86	PK1	34.6	-20.8	0	52.66	-	-	-	-	68.2	-15.54	184	125	H

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

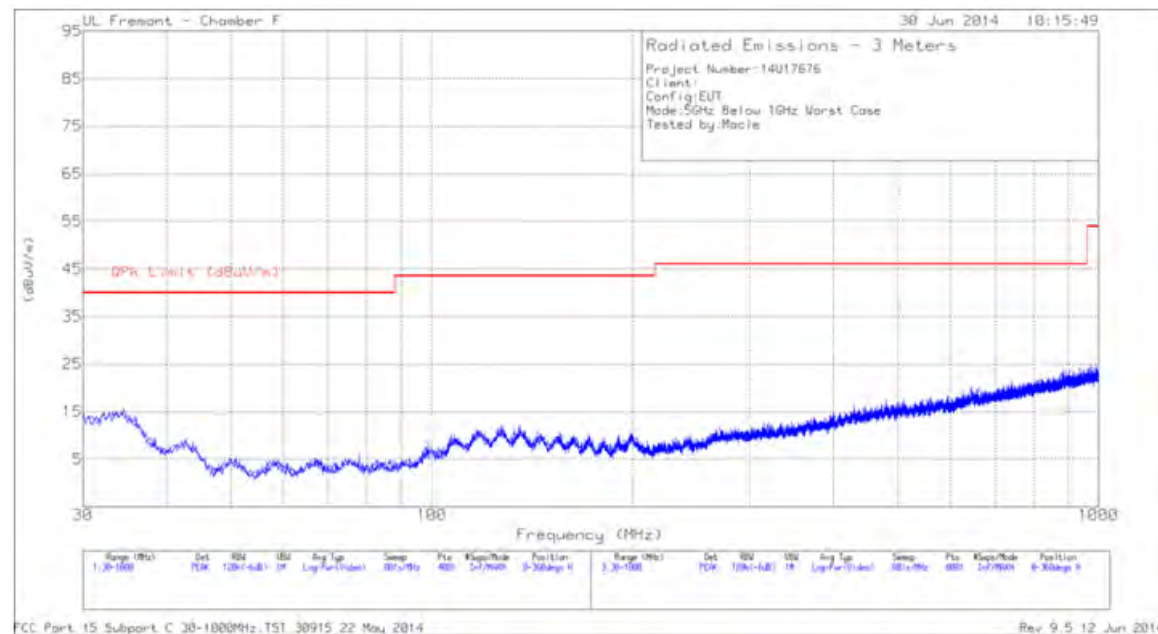
PK1 - KDB789033 Method: Peak

AD1 - KDB789033 Method: AD Primary Power Average

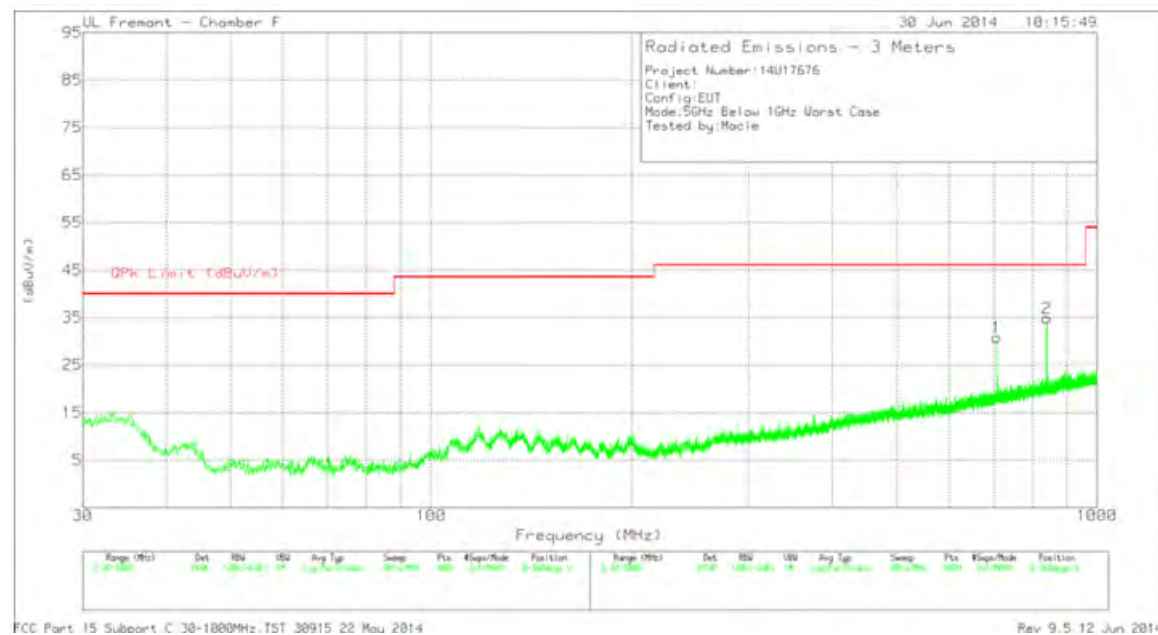
10.19. WORST-CASE BELOW 1 GHz

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

HORIZONTAL PLOT



VERTICAL PLOT



HORIZONTAL & VERTICAL DATA

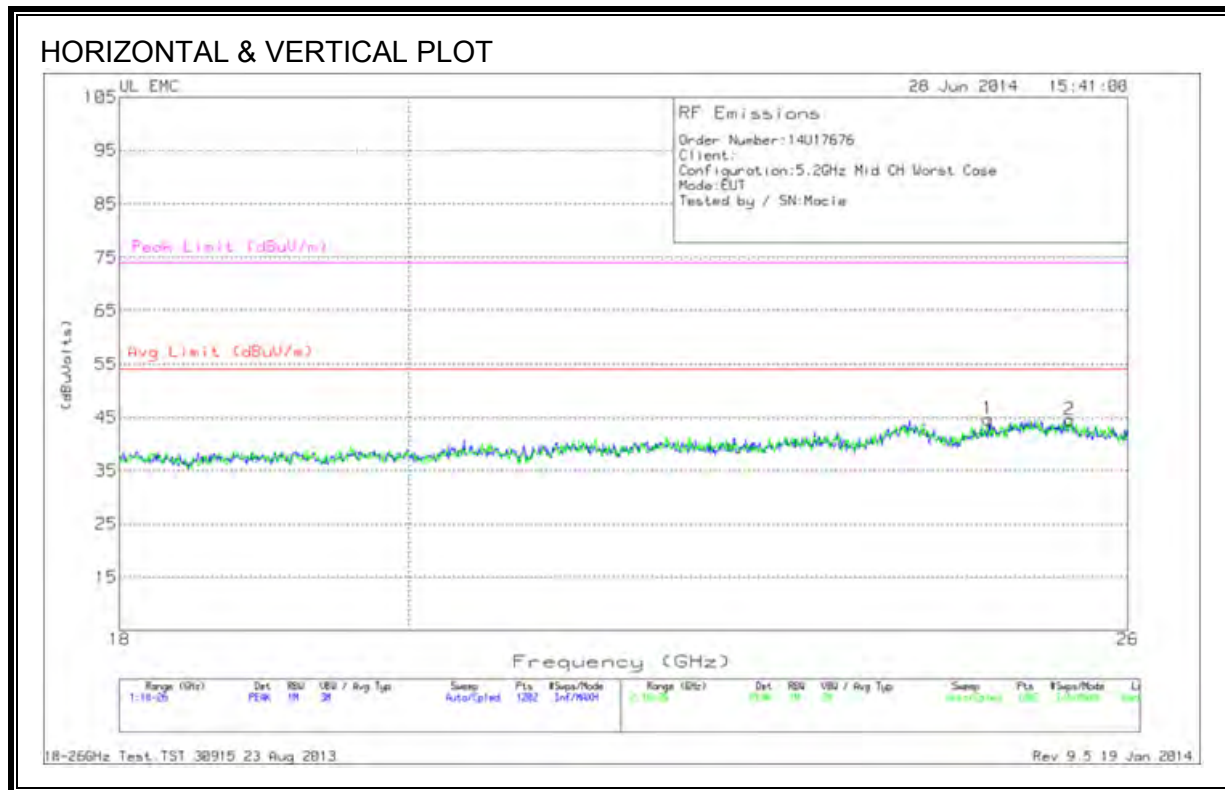
Trace Markers

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	AF T122 (dB/m)	Amp/Cbl (dB)	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	707.545	40.23	PK	20.4	-29.8	30.83	46.02	-15.19	0-360	100	V
2	839.95	42.13	PK	21.8	-29.1	34.83	46.02	-11.19	0-360	100	V

PK - Peak detector

10.20. WORST-CASE 18 to 26 GHz

SPURIOUS EMISSIONS 18000 TO 26000 MHz 5.2GHz (WORST-CASE CONFIGURATION, HORIZONTAL & VERTICAL)



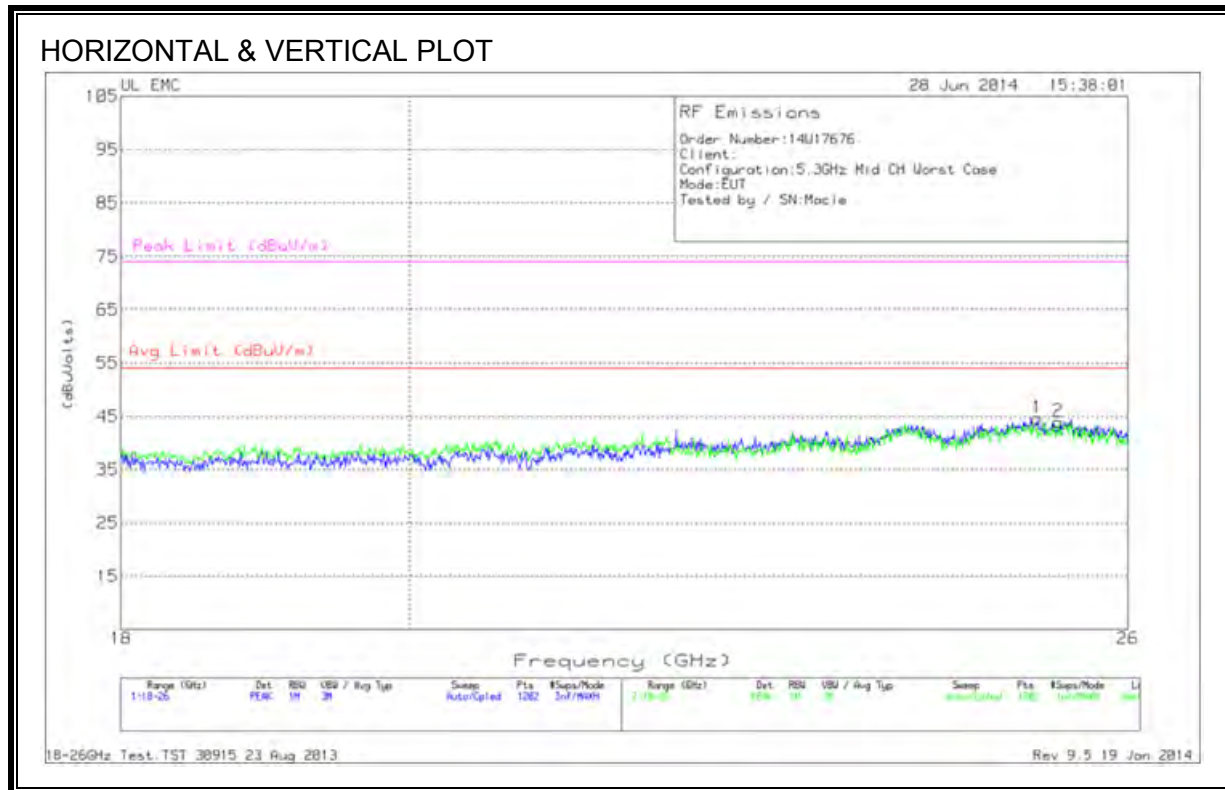
HORIZONTAL & VERTICAL DATA

Trace Markers

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	24.708	43.07	PK	34	-22.9	-9.5	44.67	54	-9.33	74	-29.33
2	25.454	42.4	PK	34.1	-22.5	-9.5	44.5	54	-9.5	74	-29.5

PK - Peak detector

SPURIOUS EMISSIONS 18000 TO 26000 MHz 5.3GHz (WORST-CASE CONFIGURATION, HORIZONTAL & VERTICAL)



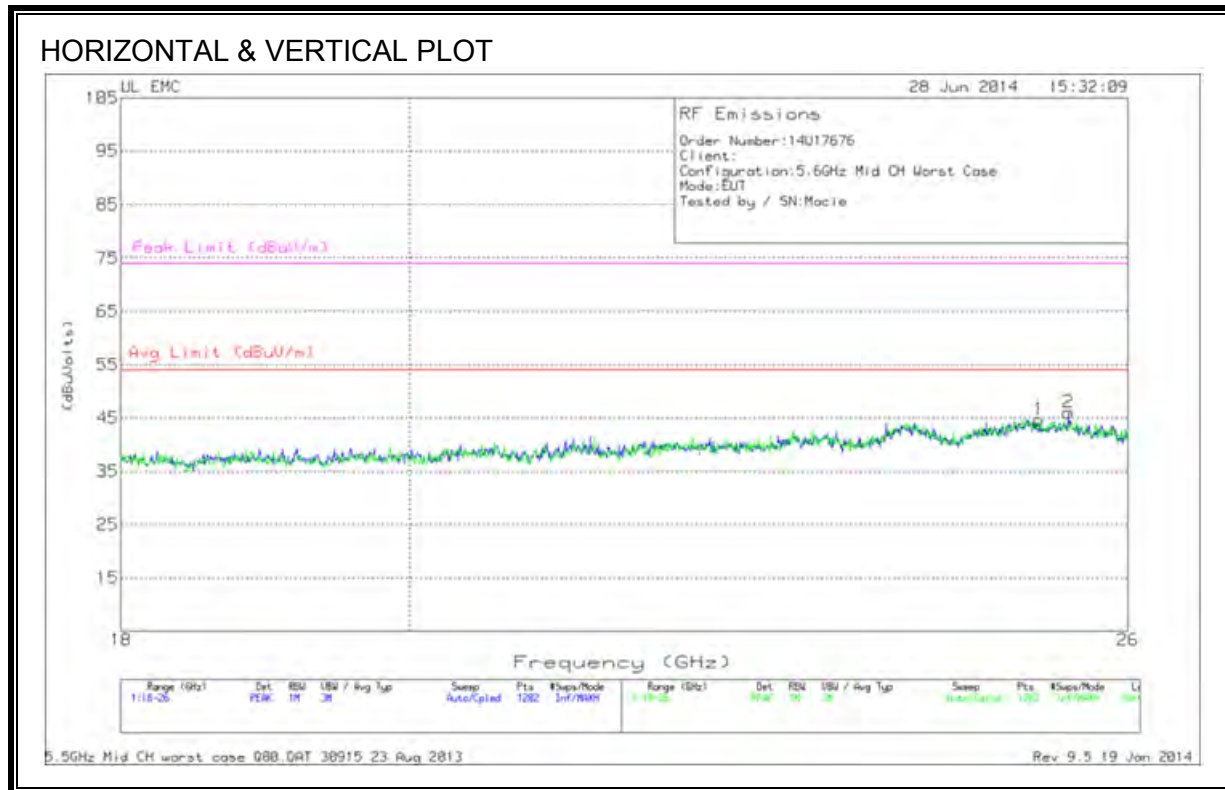
HORIZONTAL & VERTICAL DATA

Trace Markers

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	25.154	43.07	PK	33.9	-22.8	-9.5	44.67	54	-9.33	74	-29.33
2	25.347	42.4	PK	34	-22.9	-9.5	44	54	-10	74	-30

PK - Peak detector

SPURIOUS EMISSIONS 18000 TO 26000 MHz 5.6GHz (WORST-CASE CONFIGURATION, HORIZONTAL & VERTICAL)



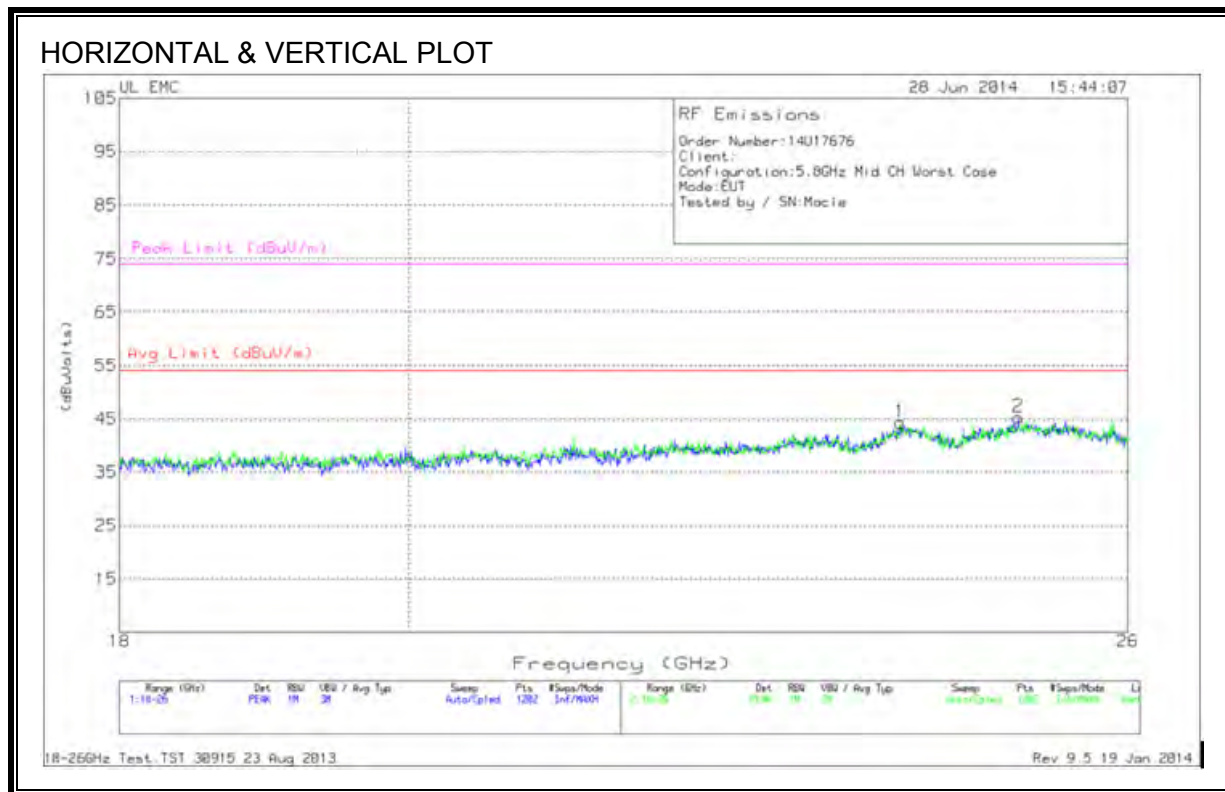
HORIZONTAL & VERTICAL DATA

Trace Markers

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	25.167	43.17	PK	33.9	-22.9	-9.5	44.67	54	-9.33	74	-29.33
2	25.44	44.4	PK	34.1	-23	-9.5	46	54	-8	74	-28

PK - Peak detector

SPURIOUS EMISSIONS 18000 TO 26000 MHz 5.8GHz (WORST-CASE CONFIGURATION, HORIZONTAL & VERTICAL)



HORIZONTAL & VERTICAL DATA

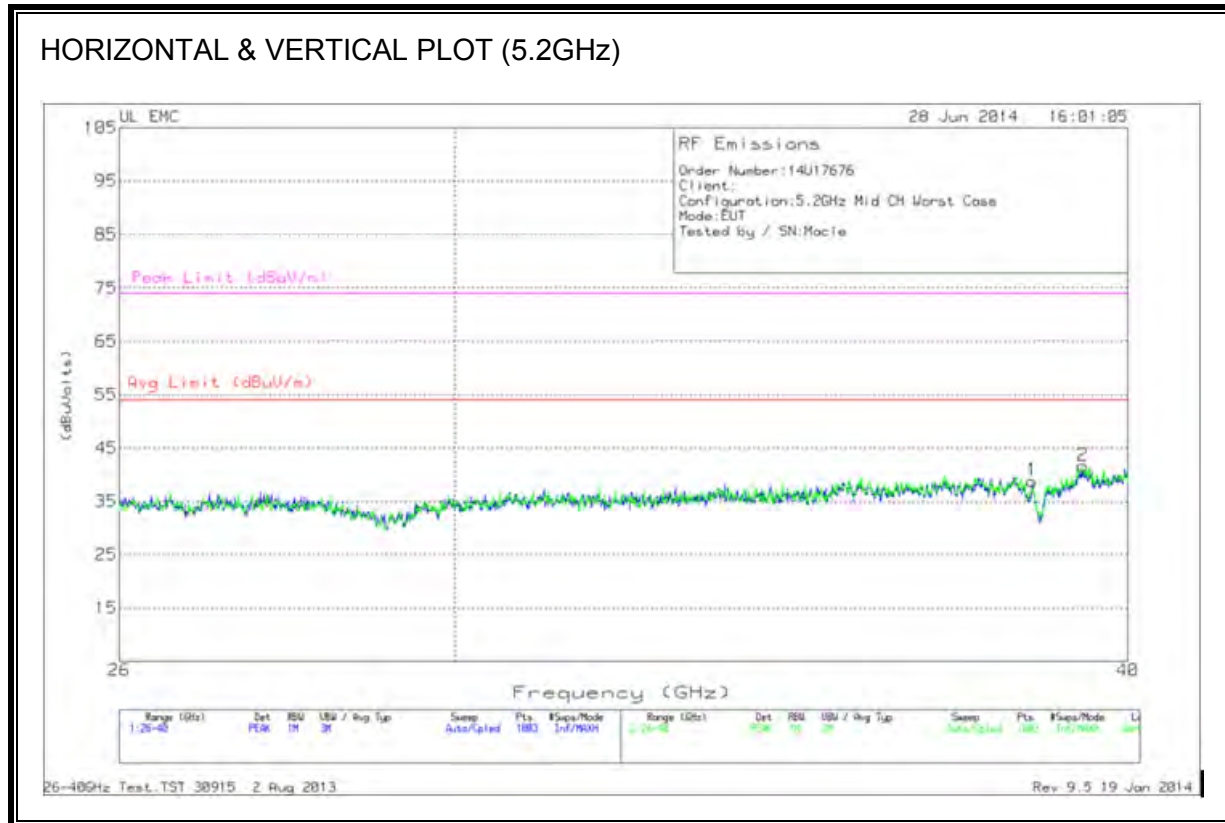
Trace Markers

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	23.928	43.03	PK	33.6	-22.8	-9.5	44.33	54	-9.67	74	-29.67
2	24.981	43.73	PK	34	-22.9	-9.5	45.33	54	-8.67	74	-28.67

PK - Peak detector

10.21. WORST-CASE 26 to 40 GHz

SPURIOUS EMISSIONS 26 TO 40 GHz (WORST-CASE CONFIGURATION, HORIZONTAL & VERTICAL)



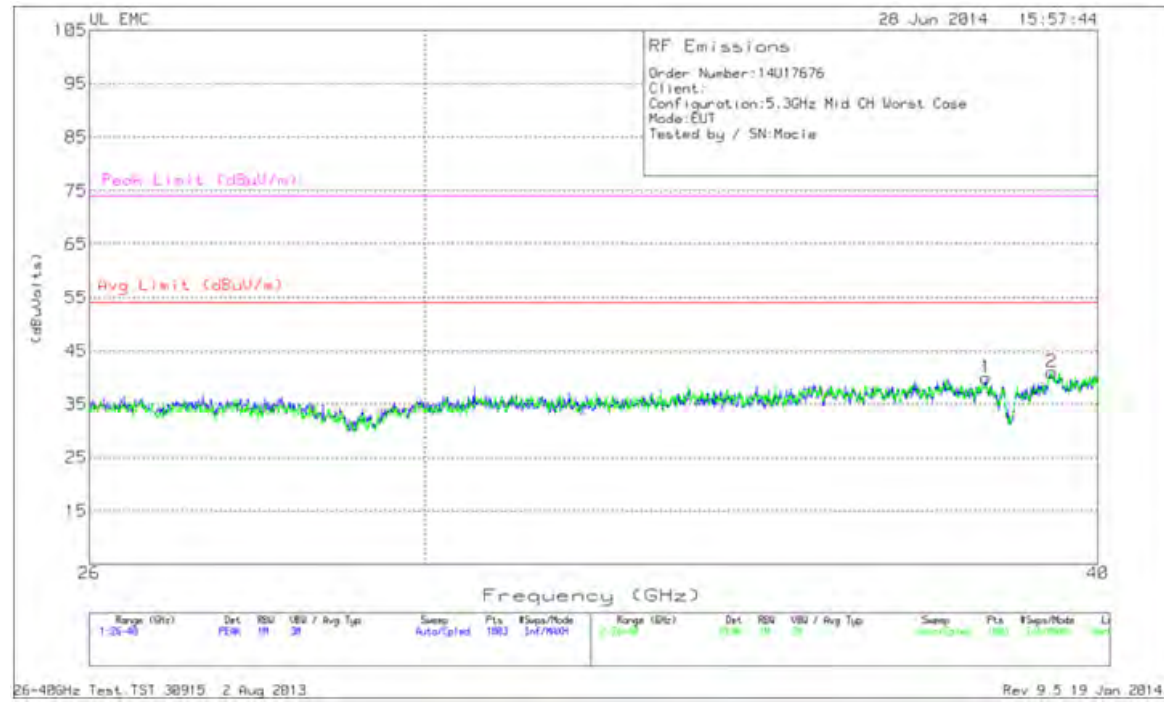
HORIZONTAL & VERTICAL DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	T90 AF (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	38.4	48.33	PK	37.1	-37.1	-9.5	38.83	54	-15.17	74	-35.17
2	39.239	48.87	PK	38.5	-36.2	-9.5	41.67	54	-12.33	74	-32.33

SPURIOUS EMISSIONS 26 TO 40 GHz (WORST-CASE CONFIGURATION, HORIZONTAL & VERTICAL)

HORIZONTAL & VERTICAL PLOT (5.3GHz)



HORIZONTAL & VERTICAL DATA

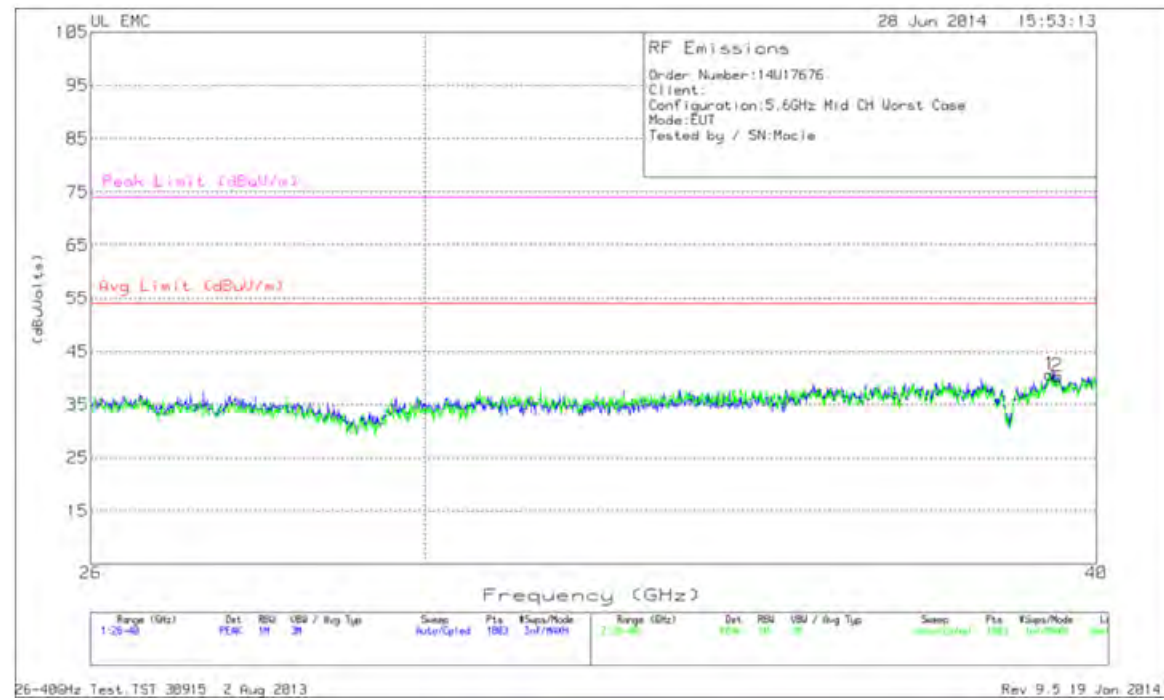
Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	T90 AF (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	38.135	49.4	PK	37.2	-37.1	-9.5	40	54	-14	74	-34
2	39.223	48	PK	38.5	-36	-9.5	41	54	-13	74	-33

PK - Peak detector

SPURIOUS EMISSIONS 26 TO 40 GHz (WORST-CASE CONFIGURATION, HORIZONTAL & VERTICAL)

HORIZONTAL & VERTICAL PLOT (5.6GHz)



HORIZONTAL & VERTICAL DATA

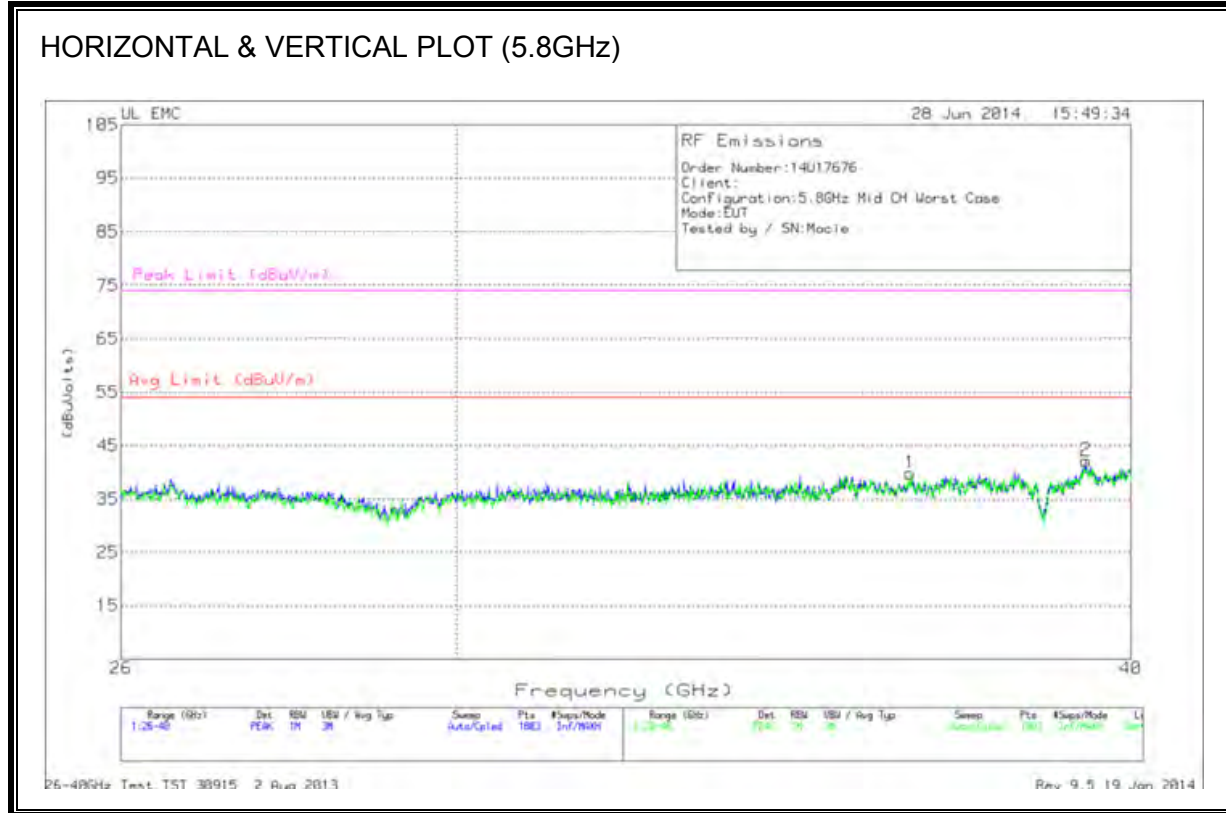
Trace Markers

Marker	Frequenc y (GHz)	Meter Reading (dBuV)	Det	T90 AF (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	39.215	47.77	PK	38.4	-36	-9.5	40.67	54	-13.33	74	-33.33
2	39.332	47.73	PK	38.2	-36.1	-9.5	40.33	54	-13.67	74	-33.67

PK - Peak detector

SPURIOUS EMISSIONS 26 TO 40 GHz (WORST-CASE CONFIGURATION, HORIZONTAL & VERTICAL)

HORIZONTAL & VERTICAL PLOT (5.8GHz)



HORIZONTAL & VERTICAL DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	T90 AF (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	36.403	50.13	PK	37.2	-38	-9.5	39.83	54	-14.17	74	-34.17
2	39.239	49.37	PK	38.5	-36.2	-9.5	42.17	54	-11.83	74	-31.83

PK - Peak detector

11. AC POWER LINE CONDUCTED EMISSIONS

LIMITS

FCC §15.207 (a)

RSS-Gen 7.2.2

NCC LP0002 §2.3

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

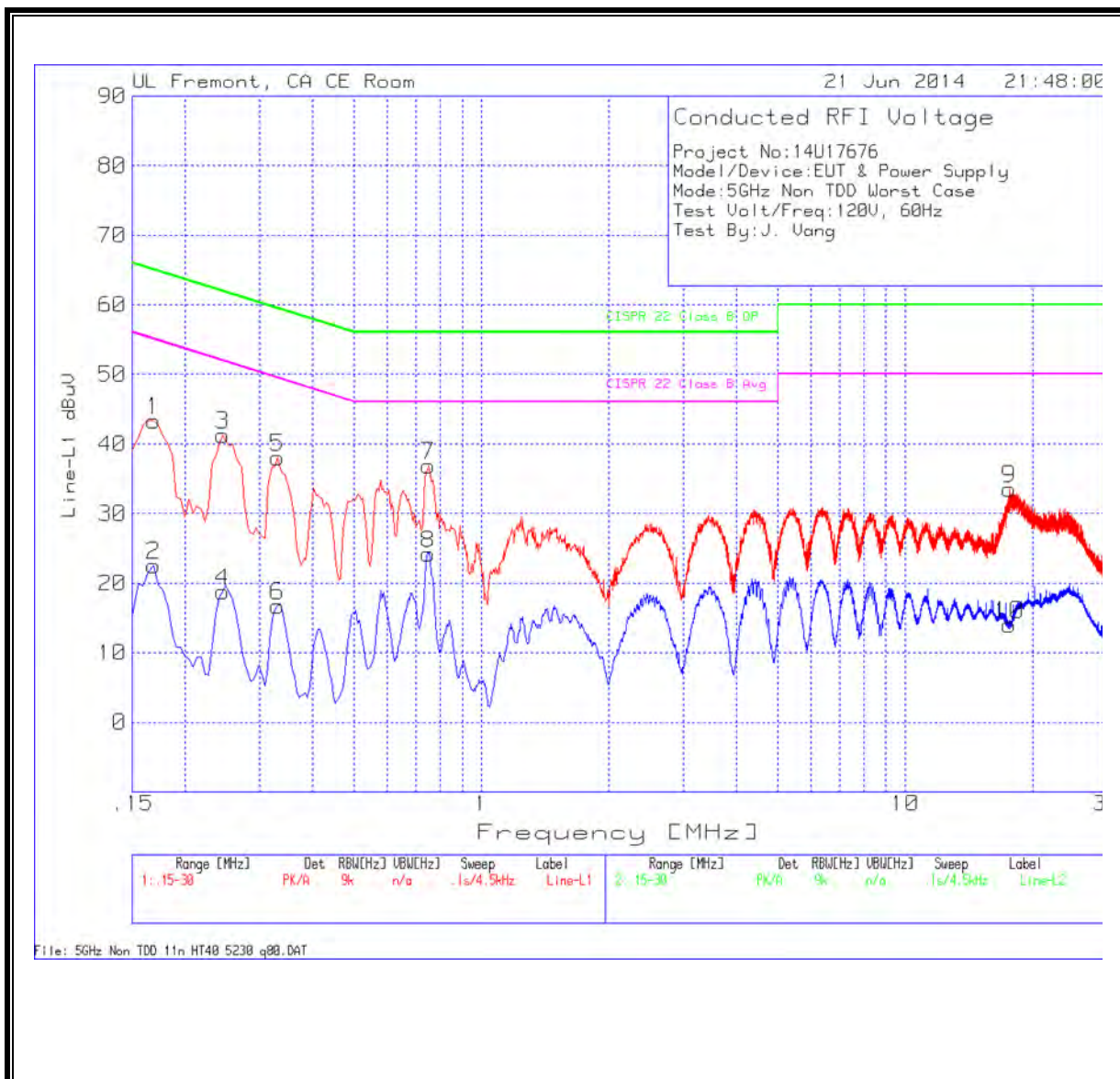
The EUT is placed on a non-conducting table 40 cm from the vertical ground plane and 80 cm above the horizontal ground plane. The EUT is configured in accordance with ANSI C63.4.

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

LINE 1 RESULTS



Line-L1 .15 - 30MHz

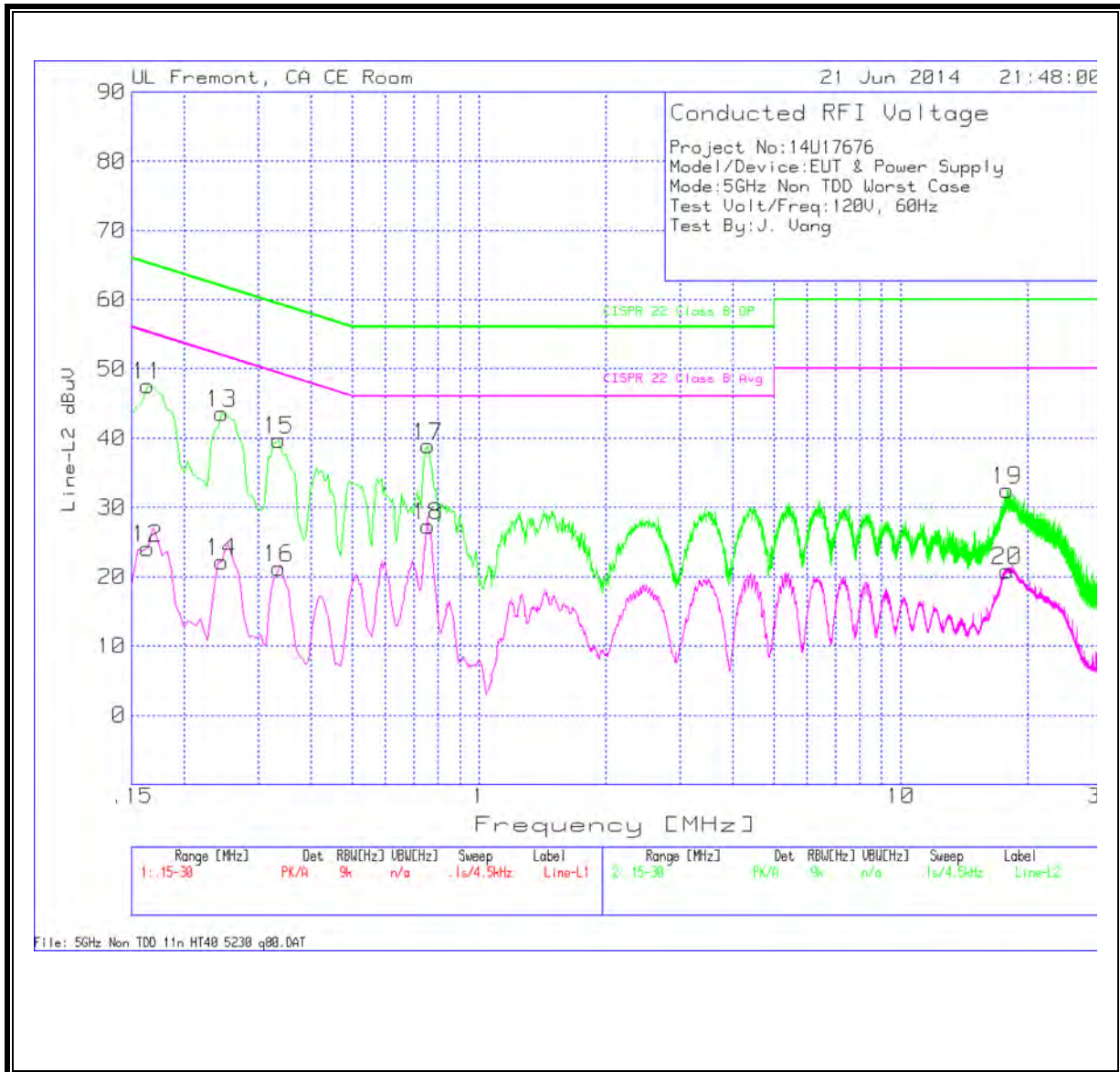
Trace Markers

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	.168	42.15	PK	1.2	0	43.35	65.1	-21.75	-	-
2	.168	21.3	Av	1.2	0	22.5	-	-	55.1	-32.6
3	.2445	40.54	PK	.7	0	41.24	61.9	-20.66	-	-
4	.2445	18.05	Av	.7	0	18.75	-	-	51.9	-33.15
5	.33	37.58	PK	.5	0	38.08	59.5	-21.42	-	-
6	.33	16.28	Av	.5	0	16.78	-	-	49.5	-32.72
7	.7485	36.58	PK	.3	0	36.88	56	-19.12	-	-
8	.7485	23.87	Av	.3	0	24.17	-	-	46	-21.83
9	17.6505	33.03	PK	.3	.2	33.53	60	-26.47	-	-
10	17.6505	13.49	Av	.3	.2	13.99	-	-	50	-36.01

PK - Peak detector

Av - average detection

LINE 2 RESULTS



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)
11	.1635	46.31	PK	1.3	0	47.61	65.3	-17.69	-	-
12	.1635	22.78	Av	1.3	0	24.08	-	-	55.3	-31.22
13	.2445	42.81	PK	.8	0	43.61	61.9	-18.29	-	-
14	.2445	21.41	Av	.8	0	22.21	-	-	51.9	-29.69
15	.3345	39.2	PK	.5	0	39.7	59.3	-19.6	-	-
16	.3345	20.79	Av	.5	0	21.29	-	-	49.3	-28.01
17	.7575	38.59	PK	.3	0	38.89	56	-17.11	-	-
18	.7575	27.08	Av	.3	0	27.38	-	-	46	-18.62
19	17.8935	31.99	PK	.3	.2	32.49	60	-27.51	-	-
20	17.8935	20.41	Av	.3	.2	20.91	-	-	50	-29.09

PK - Peak detector
Av - average detection

12. DYNAMIC FREQUENCY SELECTION

Refer to report number 14U17676-E9, section 12.