



TEST REPORT

Report Number. : 13211873-E5V1

Applicant : Samsung Electronics Co., Ltd.
129 Samsung-Ro, Yeongtong-Gu,
Suwon-Si, Gyeonggi-Do, 16677 Korea

Model : SM-A715W

FCC ID : A3LSMA715W

EUT Description : GSM/WCDMA/LTE Phablet with BT/BLE, DTS/UNII a/b/g/n/ac,
NFC and ANT+

Test Standard(s) : FCC 47 CFR PART 15 SUBPART E (EXCEPT DFS)

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REPORT REVISION HISTORY

Rev.	Issue Date	Revisions	Revised By
V1	2/25/2020	Initial Issue	

TABLE OF CONTENTS

REPORT REVISION HISTORY	2
TABLE OF CONTENTS	3
1. ATTESTATION OF TEST RESULTS	6
2. INTRODUCTION OF TEST DATA REUSE.....	8
2.1. INTRODUCTION	8
2.2. DIFFERENCES.....	8
2.3. SPOT CHECK VERIFICATION RESULTS SUMMARY.....	8
2.4. REFERENCE DETAIL	13
3. TEST METHODOLOGY	14
4. FACILITIES AND ACCREDITATION	14
5. CALIBRATION AND UNCERTAINTY	15
5.1. MEASURING INSTRUMENT CALIBRATION	15
5.2. SAMPLE CALCULATION	15
5.3. MEASUREMENT UNCERTAINTY.....	15
6. EQUIPMENT UNDER TEST	16
6.1. EUT DESCRIPTION	16
6.2. MAXIMUM OUTPUT POWER.....	16
6.3. DESCRIPTION OF AVAILABLE ANTENNAS	18
6.4. SOFTWARE	18
6.5. WORST-CASE CONFIGURATION AND MODE.....	18
6.6. DESCRIPTION OF TEST SETUP.....	19
7. MEASUREMENT METHOD.....	22
8. TEST AND MEASUREMENT EQUIPMENT	23
9. ANTENNA PORT TEST RESULTS	25
9.1. ON TIME AND DUTY CYCLE.....	25
9.2. 26 dB BANDWIDTH.....	27
9.2.1. 802.11a MODE IN THE 5.2 GHz BAND.....	28
9.2.2. 802.11n HT20 MODE IN THE 5.2 GHz BAND	29
9.2.3. 802.11n HT40 MODE IN THE 5.2 GHz BAND	30
9.2.4. 802.11ac VHT80 MODE IN THE 5.2 GHz BAND	31
9.2.5. 802.11a MODE IN THE 5.3 GHz BAND.....	32
9.2.6. 802.11n HT20 MODE IN THE 5.3 GHz BAND	33

9.2.7.	802.11n HT40 MODE IN THE 5.3 GHz BAND	34
9.2.8.	802.11ac VHT80 MODE IN THE 5.3 GHz BAND	35
9.2.9.	802.11a MODE IN THE 5.6 GHz BAND	36
9.2.10.	802.11n HT20 MODE IN THE 5.6 GHz BAND	37
9.2.11.	802.11n HT40 MODE IN THE 5.6 GHz BAND	38
9.2.12.	802.11ac VHT80 MODE IN THE 5.6 GHz BAND	39
9.2.13.	802.11a MODE IN THE 5.8 GHz BAND	40
9.2.14.	802.11n HT20 MODE IN THE 5.8 GHz BAND	41
9.2.15.	802.11n HT40 MODE IN THE 5.8 GHz BAND	42
9.2.16.	802.11ac VHT80 MODE IN THE 5.8 GHz BAND	43
9.3.	<i>6 dB BANDWIDTH</i>	44
9.3.1.	802.11a MODE IN THE 5.8 GHz BAND	45
9.3.2.	802.11n HT20 MODE IN THE 5.8 GHz BAND	46
9.3.3.	802.11n HT40 MODE IN THE 5.8 GHz BAND	47
9.3.4.	802.11ac VHT80 MODE IN THE 5.8 GHz BAND	48
9.4.	<i>OUTPUT POWER AND PSD</i>	49
9.4.1.	802.11a MODE IN THE 5.2 GHz BAND	50
9.4.2.	802.11n HT20 MODE IN THE 5.2 GHz BAND	52
9.4.3.	802.11n HT40 MODE IN THE 5.2 GHz BAND	54
9.4.4.	802.11ac VHT80 MODE IN THE 5.2 GHz BAND	56
9.4.5.	802.11a MODE IN THE 5.3 GHz BAND	58
9.4.6.	802.11n HT20 MODE IN THE 5.3 GHz BAND	60
9.4.7.	802.11n HT40 MODE IN THE 5.3 GHz BAND	62
9.4.8.	802.11ac VHT80 MODE IN THE 5.3 GHz BAND	64
9.4.9.	802.11a MODE IN THE 5.6 GHz BAND	66
9.4.10.	802.11n HT20 MODE IN THE 5.6 GHz BAND	68
9.4.11.	802.11n HT40 MODE IN THE 5.6 GHz BAND	70
9.4.12.	802.11ac VHT80 MODE IN THE 5.6 GHz BAND	72
9.4.13.	802.11a MODE IN THE 5.8 GHz BAND	74
9.4.14.	802.11n HT20 MODE IN THE 5.8 GHz BAND	76
9.4.15.	802.11n HT40 MODE IN THE 5.8 GHz BAND	78
9.4.16.	802.11ac VHT80 MODE IN THE 5.8 GHz BAND	80
10.	RADIATED TEST RESULTS	82
10.1.	<i>TRANSMITTER ABOVE 1 GHz</i>	84
10.1.1.	TX ABOVE 1 GHz 802.11a MODE IN THE 5.2 GHz BAND	84
10.1.2.	TX ABOVE 1 GHz 802.11n HT20 MODE IN THE 5.2 GHz BAND	92
10.1.3.	TX ABOVE 1 GHz 802.11n HT40 MODE IN THE 5.2 GHz BAND	100
10.1.4.	TX ABOVE 1 GHz 802.11ac VHT80 MODE IN THE 5.2 GHz BAND	106
10.1.5.	TX ABOVE 1 GHz 802.11a MODE IN THE 5.3 GHz BAND	110
10.1.6.	TX ABOVE 1 GHz 802.11n HT20 MODE IN THE 5.3 GHz BAND	118
10.1.7.	TX ABOVE 1 GHz 802.11n HT40 MODE IN THE 5.3 GHz BAND	126
10.1.8.	TX ABOVE 1 GHz 802.11ac VHT80 MODE IN THE 5.3 GHz BAND	132
10.1.9.	TX ABOVE 1 GHz 802.11a MODE IN THE 5.6 GHz BAND	136
10.1.10.	TX ABOVE 1 GHz 802.11n HT20 MODE IN THE 5.6 GHz BAND	148
10.1.11.	TX ABOVE 1 GHz 802.11n HT40 MODE IN THE 5.6 GHz BAND	160
10.1.12.	TX ABOVE 1 GHz 802.11ac VHT80 MODE IN THE 5.6 GHz BAND	172
10.1.13.	TX ABOVE 1 GHz 802.11a MODE IN THE 5.8 GHz BAND	182
10.1.14.	TX ABOVE 1 GHz 802.11n HT20 MODE IN THE 5.8 GHz BAND	192
10.1.15.	TX ABOVE 1 GHz 802.11n HT40 MODE IN THE 5.8 GHz BAND	202
10.1.16.	TX ABOVE 1 GHz 802.11ac VHT80 MODE IN THE 5.8 GHz BAND	210

10.2.	WORST CASE BELOW 30MHz	216
10.3.	WORST CASE BELOW 1 GHz	217
10.4.	WORST CASE 18-26 GHz	219
10.5.	WORST CASE 26-40 GHz	221
11.	AC POWER LINE CONDUCTED EMISSIONS.....	223
12.	SETUP PHOTOS.....	226
12.1.	SM-A715F (Original).....	226
12.2.	SM-A715W (Spot Check)	229

1. ATTESTATION OF TEST RESULTS

COMPANY NAME: Samsung Electronics Co., Ltd.
129 Samsung-Ro, Yeongtong-Gu,
Suwon-Si, Gyeonggi-Do, 16677, Korea

EUT DESCRIPTION: GSM/WCDMA/LTE Phablet with BT/BLE, DTS/UNII
a/b/g/n/ac, NFC and ANT+

MODEL: SM-A715W

SERIAL NUMBER: Conducted (Original): R38M60J9VBM
Radiated (Original): R38M808E5AH
Radiated (Spot Check): R38N108PFHB

DATE TESTED: NOVEMBER 13 – DECEMBER 4, 2019 (ORIGINAL)
FEBRUARY 11, 2020 (SPOT CHECK)

APPLICABLE STANDARDS	
STANDARD	TEST RESULTS
CFR 47 Part 15 Subpart E	Complies

UL Verification Services Inc. tested the above equipment in accordance with the requirements set forth in the above standards. The test results show that the equipment tested is capable of demonstrating compliance with the requirements as documented in this report.

The results documented in this report apply only to the tested sample, under the conditions and modes of operation as described herein. It is the manufacturer's responsibility to assure that additional production units of this model are manufactured with identical electrical and mechanical components. All samples tested were in good operating condition throughout the entire test program. Measurement Uncertainties are published for informational purposes only and were not taken into account unless noted otherwise.

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 the U.S. government.

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2. INTRODUCTION OF TEST DATA REUSE

2.1. INTRODUCTION

According to the manufacturer, FCC ID: A3LSMA715F and FCC ID: A3LSMA715W non-licensed radios are electrically identical. The FCC ID: A3LSMA715F test data shall remain representative of FCC ID: A3LSMA715W.

The applicant takes full responsibility that the test data as referenced in this section represents compliance for this FCC ID.

2.2. DIFFERENCES

The FCC ID: A3LSMA715F, shares the same enclosure and circuit board as FCC ID: A3LSMA715W. The UNII WLAN antennas and surrounding circuitry and layout are identical between two models.

After confirming through preliminary radiated emissions that the performance of the FCC ID: A3LSMG715F remains representative of FCC ID: A3LSMA715W. The test data of FCC ID: A3LSMG715F being submitted for this application to cover UNII WLAN features.

2.3. SPOT CHECK VERIFICATION RESULTS SUMMARY

Spot check verification has been done on device A3LSMA715W for radiated harmonic spurious and radiated band-edge. The data from the application has been verified through appropriate spot checks to demonstrate compliance for this device in accordance to FCC public KDB 484596 D01 as shown in the summary below.

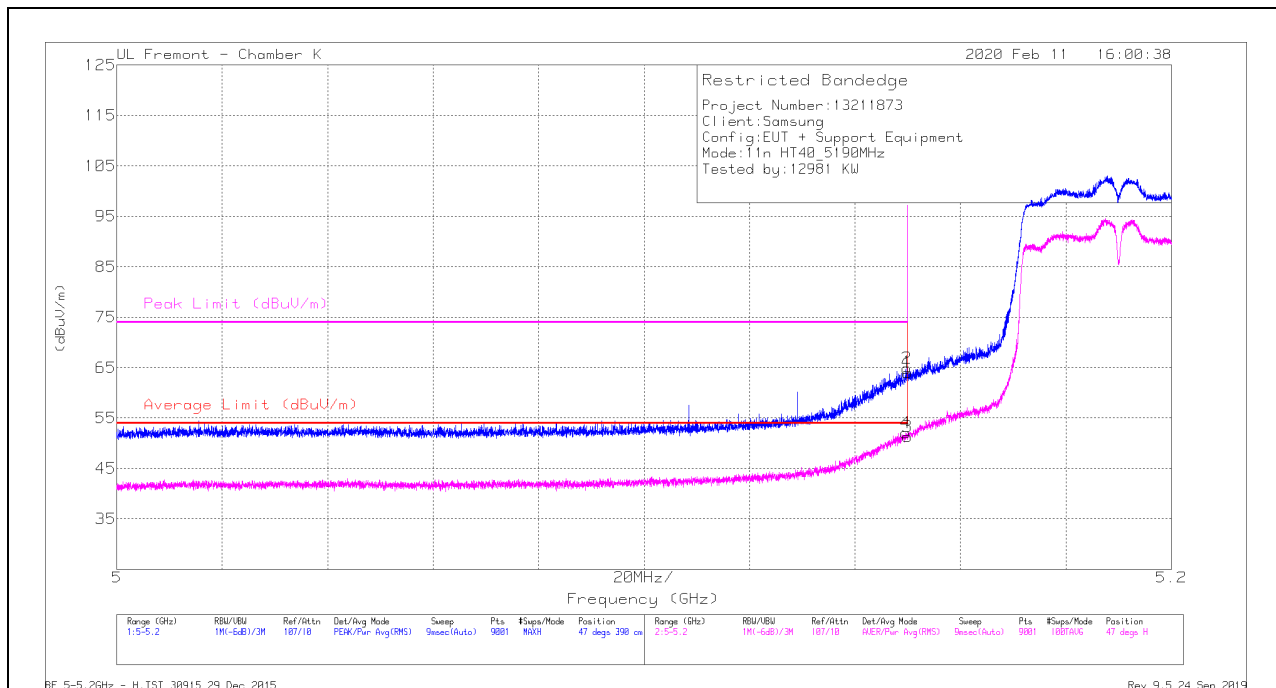
A3LSMA705W SPOT CHECK RESULTS										
Technology	Mode	Test Item	Channel	Measured Frequency	Original model		Spot check model		Delta (dB)	
					SM-A715F		SM-A715W		Peak Ave	
					A3LSMA715F		A3LSMA715W			
					Peak	Ave	Peak	Ave	Peak	Ave
UNII	11n HT40	RBE	38	5149.93 MHz	64.25	51.57	64.89	52.06	0.64	0.49
	11n HT40	RSE	142	7613MHz	50.77	47.73	50.6	47.21	-0.17	-0.52

Comparison of the models, upper deviation is within 3dB range and all tests are under FCC Technical Limits.

SPOT CHECK DATA

BANDEDGE (LOW CHANNEL)

HORIZONTAL RESULT



Trace Markers

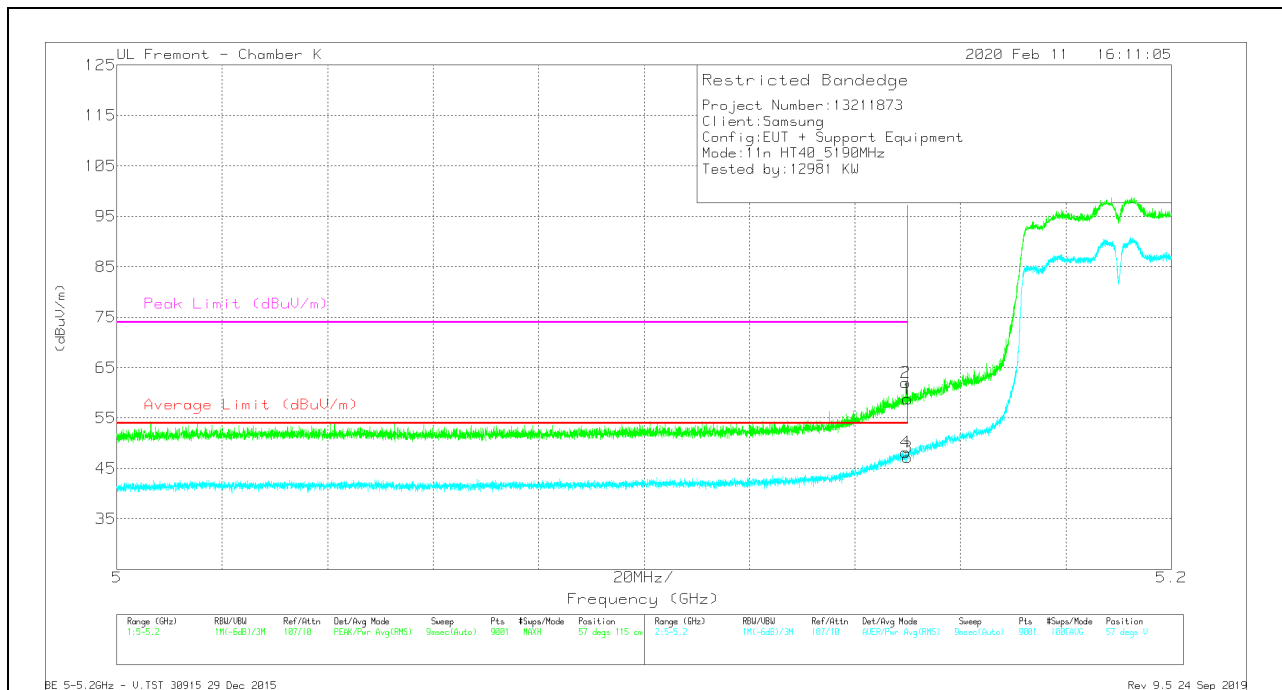
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF EMC4294 (dB/m)	Amp/Cb/Filtr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.15	49.27	Pk	34.2	-19.4	0	64.07	-	-	74	-9.93	47	390	H
2	* 5.1498	50.09	Pk	34.2	-19.4	0	64.89	-	-	74	-9.11	47	390	H
3	* 5.15	36.24	RMS	34.2	-19.4	.24	51.28	54	-2.72	-	-	47	390	H
4	* 5.14962	37.02	RMS	34.2	-19.4	.24	52.06	54	-1.94	-	-	47	390	H

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

RMS - RMS detection

VERTICAL RESULT



Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF EMC4294 (dB/m)	Amp/Cb/Filtr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.15	44	Pk	34.2	-19.4	0	58.8	-	-	74	-15.2	57	115	V
2	* 5.14967	47.18	Pk	34.2	-19.4	0	61.98	-	-	74	-12.02	57	115	V
3	* 5.15	32.19	RMS	34.2	-19.4	.24	47.23	54	-6.77	-	-	57	115	V
4	* 5.14958	33.18	RMS	34.2	-19.4	.24	48.22	54	-5.78	-	-	57	115	V

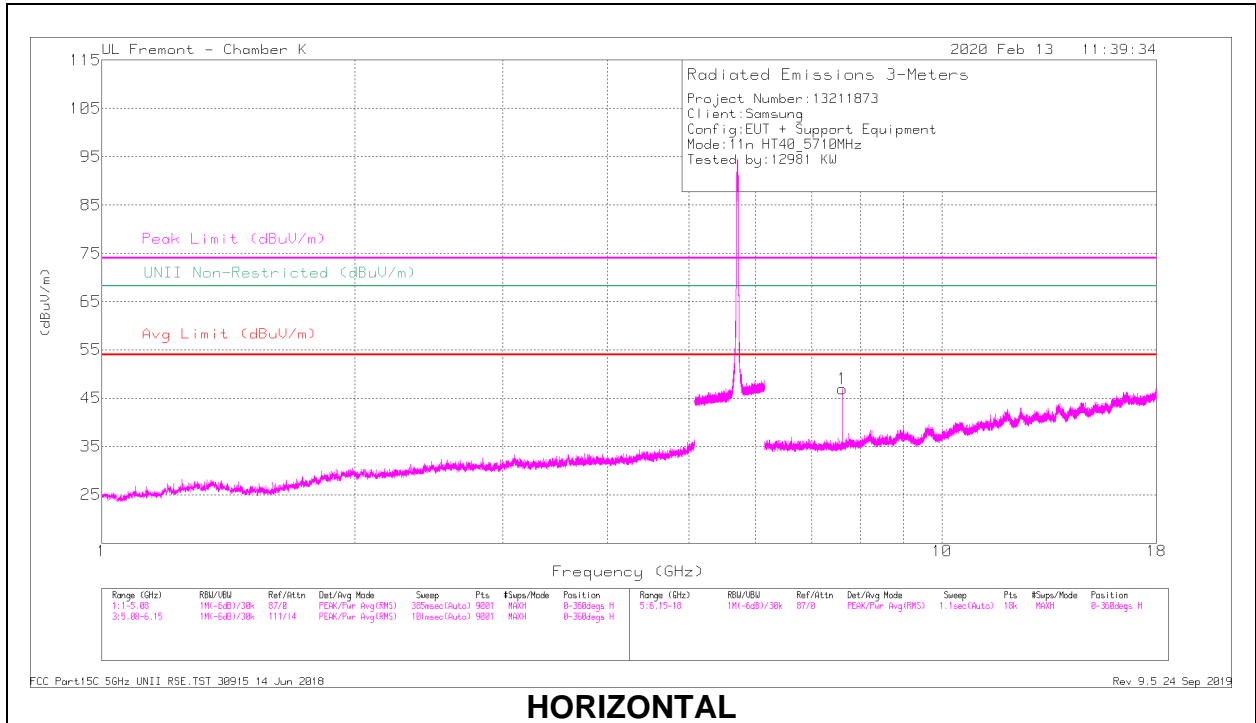
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

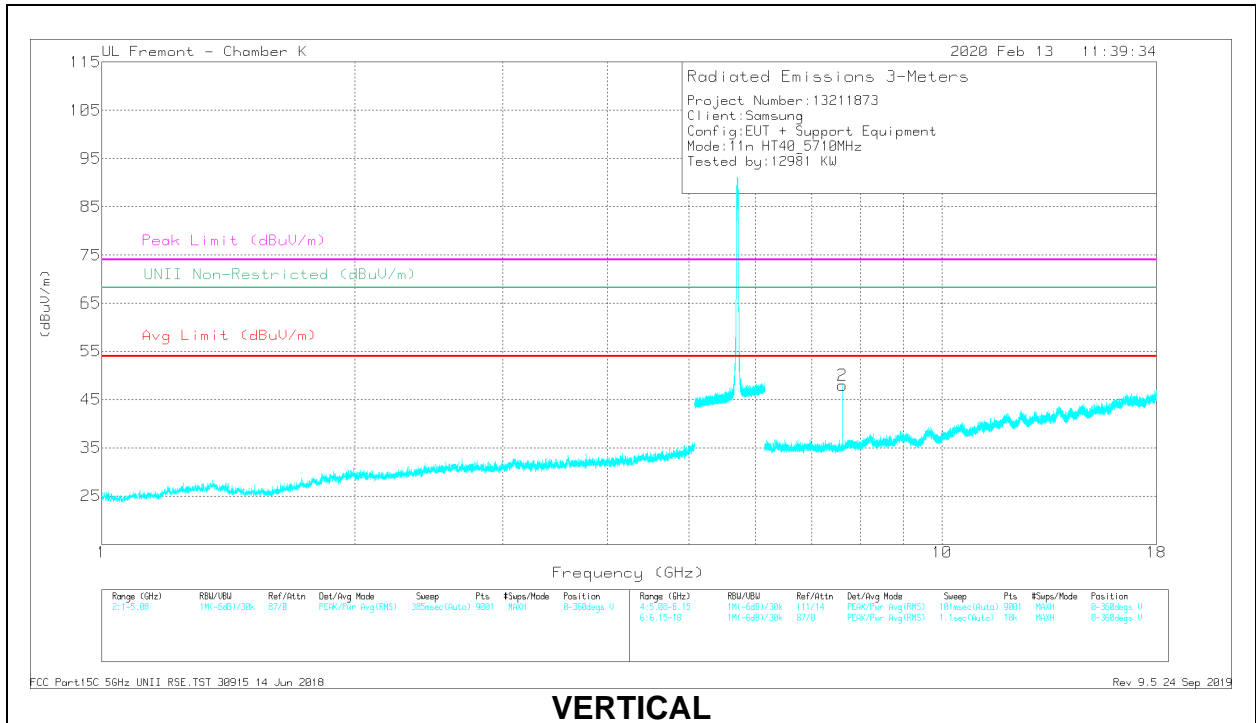
RMS - RMS detection

HARMONICS AND SPURIOUS EMISSIONS

CHANNEL 142 RESULTS



HORIZONTAL



VERTICAL

RADIATED EMISSIONS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF EMC4294 (dB/m)	Amp/Cb/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	* 7.61333	39.53	PK-U	35.7	-25.6	0	49.63	-	-	74	-24.37	-	-	160	176	H
	* 7.61332	35.97	ADR	35.7	-25.6	.24	46.31	54	-7.69	-	-	-	-	160	176	H
2	* 7.61331	40.5	PK-U	35.7	-25.6	0	50.6	-	-	74	-23.4	-	-	146	97	V
	* 7.61332	36.87	ADR	35.7	-25.6	.24	47.21	54	-6.79	-	-	-	-	146	97	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

2.4. REFERENCE DETAIL

Reference application that contains the reused reference data

Equipment Class	Reference FCC ID	Type Grant/ Permissive Change	Reference Application	Folder Test/RF Exposure	Report Title/Section
NII	A3LSMA715F	Grant	13096868-E5	Test	FCC Report UNII WLAN / All sections

3. TEST METHODOLOGY

The tests documented in this report were performed in accordance with FCC CFR 47 Part 2, FCC CFR 47 Part 15, FCC 14-30, FCC KDB 662911 D01 v02r01, FCC KDB 789033 D02 v02r01, ANSI C63.10-2013, FCC 06-96, KDB 414788 D01 Radiated Test Site v01r01, and KDB 484596 D01 Referencing Test Data v01.

4. FACILITIES AND ACCREDITATION

The test sites and measurement facilities used to collect data are located at 47173 and 47266 Benicia Street, and 47658 Kato Road, 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	47658 Kato Rd
<input type="checkbox"/> Chamber A	<input type="checkbox"/> Chamber D	<input checked="" type="checkbox"/> Chamber I
<input type="checkbox"/> Chamber B	<input type="checkbox"/> Chamber E	<input checked="" type="checkbox"/> Chamber J
<input type="checkbox"/> Chamber C	<input type="checkbox"/> Chamber F	<input checked="" type="checkbox"/> Chamber K
	<input type="checkbox"/> Chamber G	<input type="checkbox"/> Chamber L
	<input type="checkbox"/> Chamber H	<input type="checkbox"/> Chamber M

The above test sites and facilities are covered under FCC Test Firm Registration # 208313. Chambers above are covered under Industry Canada company address and respective code: 2324A.

UL Verification Services Inc. is accredited by NVLAP, Laboratory Code 200065-0

5. CALIBRATION AND UNCERTAINTY

5.1. 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.

5.2. SAMPLE CALCULATION

RADIATED EMISSIONS

Where relevant, the following sample calculation is provided:

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

$$36.5 \text{ dBuV} + 18.7 \text{ dB/m} + 0.6 \text{ dB} - 26.9 \text{ dB} = 28.9 \text{ dBuV/m}$$

MAINS CONDUCTED EMISSIONS

Where relevant, the following sample calculation is provided:

Final Voltage (dBuV) = Measured Voltage (dBuV) + Cable Loss (dB) + Limiter Factor (dB) + LISN Insertion Loss.

$$36.5 \text{ dBuV} + 0 \text{ dB} + 10.1 \text{ dB} + 0 \text{ dB} = 46.6 \text{ dBuV}$$

5.3. MEASUREMENT UNCERTAINTY

The Decision Rule is based on Simple Acceptance in accordance with ISO Guide 98-4:2012 Clause 8.2. (Measurement uncertainty is not taken into account when stating conformity with a specified requirement.).

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

PARAMETER	UNCERTAINTY
Worst Case Conducted Disturbance, 9KHz to 0.15 MHz	3.84 dB
Worst Case Conducted Disturbance, 0.15 to 30 MHz	3.65 dB
Worst Case Radiated Disturbance, 9KHz to 30 MHz	2.52 dB
Worst Case Radiated Disturbance, 30 to 1000 MHz	4.88 dB
Worst Case Radiated Disturbance, 1000 to 18000 MHz	4.24 dB
Worst Case Radiated Disturbance, 18000 to 26000 MHz	4.37 dB
Worst Case Radiated Disturbance, 26000 to 40000 MHz	5.17 dB

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

6. EQUIPMENT UNDER TEST

6.1. EUT DESCRIPTION

The EUT is a GSM/WCDMA/LTE Phablet with BT/BLE, DTS/UNII a/b/g/n/ac, NFC and ANT+. The test report addresses the UNII WLAN operational mode.

6.2. MAXIMUM OUTPUT POWER

The transmitter has a maximum conducted output power as follows:

5.2 GHz BAND

Frequency Range (MHz)	Mode	Output Power (dBm)	Output Power (mW)
5.2 GHz band, 1TX			
5180-5240	802.11a	15.83	38.28
5180-5240	802.11n HT20	15.75	37.58
5190-5230	802.11n HT40	14.71	29.58
5210	802.11ac VHT80	12.35	17.18

5.3 GHz BAND

Frequency Range (MHz)	Mode	Output Power (dBm)	Output Power (mW)
5.3 GHz band, 1TX			
5260 - 5320	802.11a	15.97	39.54
5260 - 5320	802.11n HT20	15.94	39.26
5270 - 5310	802.11n HT40	15.73	37.41
5290	802.11ac VHT80	13.64	23.12

5.6 GHz BAND

Frequency Range (MHz)	Mode	Output Power (dBm)	Output Power (mW)
5.6 GHz band, 1TX			
5500-5720	802.11a	15.96	39.45
5500-5720	802.11n HT20	15.96	39.45
5510-5710	802.11n HT40	15.96	39.45
5530-5690	802.11ac VHT80	13.69	23.39

5.8 GHz BAND

Frequency Range (MHz)	Mode	Output Power (dBm)	Output Power (mW)
5.8 GHz band, 1TX			
5745-5825	802.11a	15.93	39.17
5745-5825	802.11n HT20	15.88	38.73
5755-5795	802.11n HT40	15.78	37.84
5775	802.11ac VHT80	13.47	22.23

6.3. DESCRIPTION OF AVAILABLE ANTENNAS

The radio utilizes an internal antenna, with a maximum gain as follows:

Frequency Range (MHz)	Chain 0 Peak Antenna Gain (dBi)
5180-5240	-7.73
5260-5320	-7.68
5500-5720	-7.63
5745-5825	-7.81

Note: Antenna 1 = Chain 0

6.4. SOFTWARE

The test utility software used during testing was A715F.001.

6.5. WORST-CASE CONFIGURATION AND MODE

Radiated emissions below 1GHz, above 18GHz, and power line conducted emission were performed with the EUT set to transmit at the channel with highest output power as worst-case scenario.

Band edge and radiated emissions between 1GHz and 18GHz were performed with the EUT set to transmit at the highest power on low, middle and high channels.

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

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

802.11a mode: 6 Mbps
802.11n HT20mode: MCS0
802.11n HT40mode: MCS0
802.11ac VHT80 mode: MCS0

6.6. DESCRIPTION OF TEST SETUP

SUPPORT EQUIPMENT

Support Equipment List				
Description	Manufacturer	Model	Serial Number	FCC ID
AC Adapter	Samsung	EP-TA800	R37M8PH3JN2SE3	N/A
Earphone	Samsung	N/A	N/A	N/A

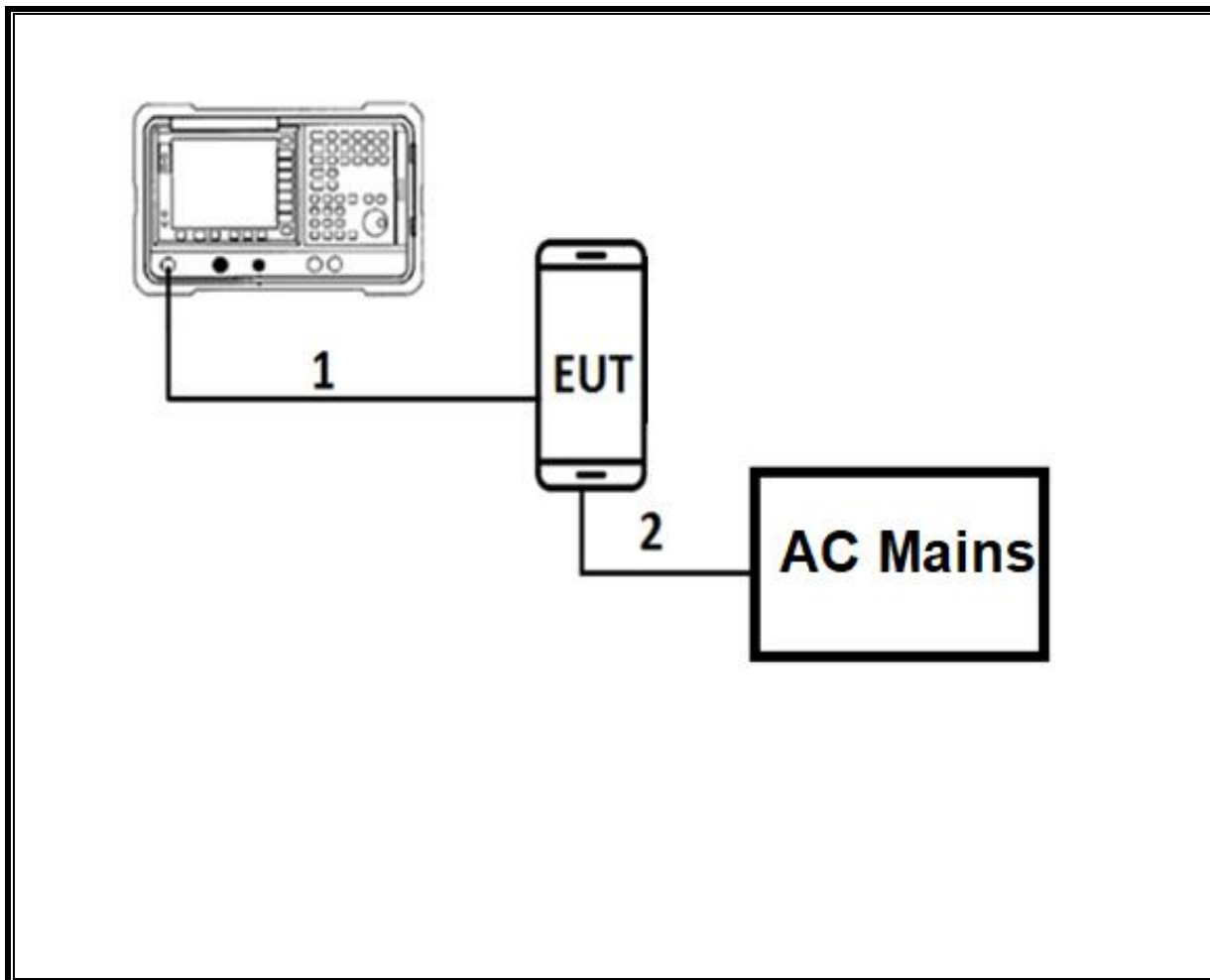
I/O CABLES (CONDUCTED TEST)

I/O Cable List						
Cable No	Port	# of identical ports	Connector Type	Cable Type	Cable Length (m)	Remarks
1	Antenna	1	RF	Shielded	0.2	To spectrum Analyzer
2	USB	1	USB	Un-shielded	1	EUT to AC Mains

I/O CABLES (RADIATED AND CONDUCTED EMISSIONS)

I/O Cable List						
Cable No	Port	# of identical ports	Connector Type	Cable Type	Cable Length (m)	Remarks
1	USB	1	USB	Shielded	1	N/A
2	Earphone	1	3.5mm	Un-shielded	1	N/A

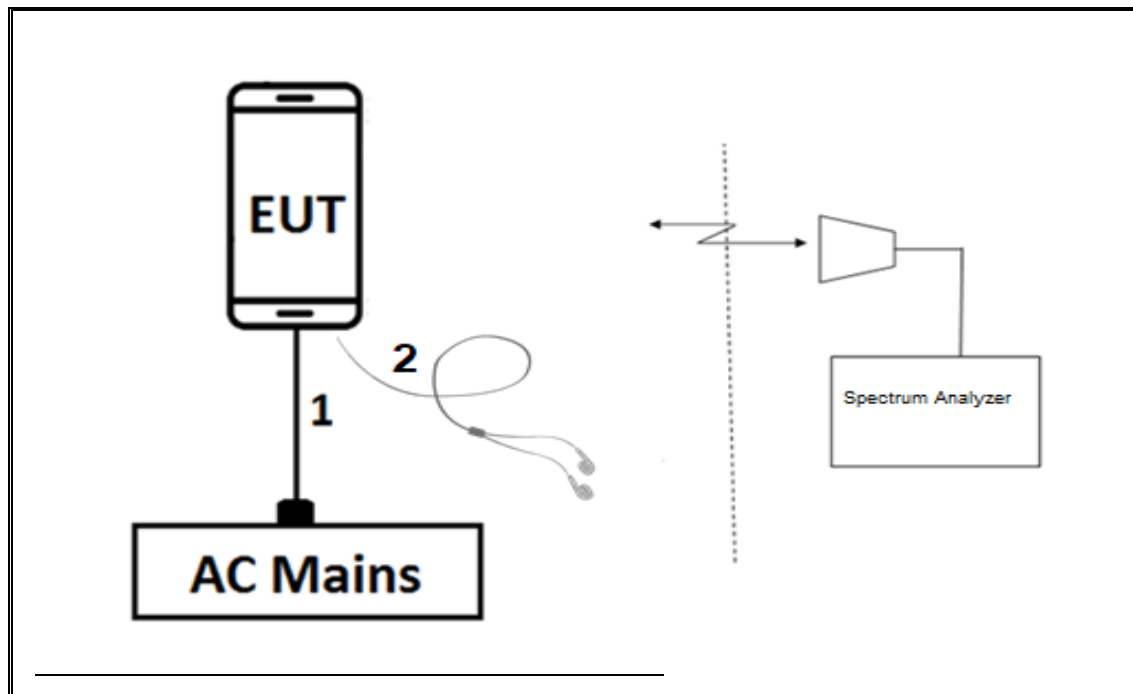
CONDUCTED TEST SETUP DIAGRAM



TEST SETUP

For conducted tests: the EUT was stand alone. The test software exercises the radio.

RADIATED AND AC LINE CONDUCTED EMISSIONS SETUP DIAGRAM



TEST SETUP

For radiated tests: EUT is connected to earphone. The test software exercises the radio.

7. MEASUREMENT METHOD

On Time and Duty Cycle: KDB 789033 D02 v02r01, Section II.B.

6 dB Emission BW: KDB 789033 D02 v02r01, Section II.C.2

26 dB Emission BW: KDB 789033 D02 v02r01, Section II.C.1

Conducted Output Power: KDB 789033 D02 v02r01, Section II.E.3.b (Method PM-G)

Power Spectral Density: KDB 789033 D02 v02r01, Section II.F

Unwanted emissions in restricted bands: KDB 789033 D02 v02r01, Sections II.G.3, G.4, G.5, and G.6.

Unwanted emissions in non-restricted bands: KDB 789033 D02 v02r01, Sections II.sG.3, G.4, and G.5.

AC Power Line Conducted Emissions: ANSI C63.10-2013, Section 6.2.

Radiated Spurious Emissions Below 30MHz: ANSI C63.10-2013 Section 6.4

8. 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, Passive Loop 30Hz to 1MHz	ELETRO METRICS	EM-6871	PRE0179466	05/31/2020
Antenna, Passive Loop 100KHz to 30MHz	ELETRO METRICS	EM-6872	PRE0179468	05/31/2020
Antenna, Horn 1-18GHz	ETS Lindgren	3117	EMC4249 / PRE0100034	06/14/2020
Antenna, Horn 1-18GHz	ETS Lindgren	3117	T862	06/05/2020
Antenna, Horn 1-18GHz	ETS Lindgren	3117	T344	05/07/2020
Amplifier, 1 to 18GHz	Amplical	AMP1G18-35	T1571	05/28/2020
Amplifier, 1 to 18GHz	MITEQ	AFS42-00101800-25-S-42	PRE171460	08/24/2020
Amplifier, 1 to 18GHz	Amplical	AMP1G18-35	T1569	05/04/2020
Antenna, Broadband Hybrid, 30MHz to 3GHz	Sunol Sciences	JB3	PRE0181574	10/14/2020
Amplifier, 9KHz to 1GHz, 32dB	SONOMA INSTRUMENT	310	PRE175953	12/13/2019
Spectrum Analyzer, PSA, 3Hz to 44GHz	Keysight	E4446A	T146	01/28/2020
Antenna Horn, 18 to 26.5GHz	ARA	MWH-1826/B	T447	08/13/2020
Antenna Horn, 26.5 to 40GHz	ARA	MWH-2640/B	T446	08/13/2020
Pre-Amp 26.5-40 GHz	AMPLICAL	AMP26G40-60	PRE0181239	05/01/2020
Pre-Amp 1-26.5 GHz	AMPLICAL	AMP18G26.5-60	PRE0181238	05/01/2020
EMI Test Receiver	Rohde&Schwarz	ESW44	PRE0179376	02/14/2020
EMI Test Receiver	Rohde&Schwarz	ESW44	PRE0179372	02/16/2020
EMI Test Receiver	Rohde&Schwarz	ESW44	PRE0179372	02/16/2020
Filter, HPF 6.0HPF	MICRO-TRONICS	HPS17542	T894	05/04/2020
Filter, LPF 5.0GHz	MICRO-TRONICS	LPS17541	T891	05/04/2020
Power Meter, P-series single channel	Agilent (Keysight) Technologies	N1911A	T229	01/31/2020
Power Sensor, P-series, 50MHz to 18GHz, Wideband	Agilent (Keysight) Technologies	N1921A	T1226	02/06/2020
AC Line Conducted				
EMI Receiver	Rohde & Schwarz	ESR	T1436	02/14/2020
LISN for Conducted Emissions CISPR-16	FCC INC.	FCC LISN 50/250	T1310	01/24/2020
UL AUTOMATION SOFTWARE				
Radiated Software	UL	UL EMC	Ver 9.5, June 15, 2019	
Antenna Port Software	UL	UL RF	Ver 11.13, Nov 13, 2019	
AC Line Conducted Software	UL	UL EMC	Ver 9.5, May 26, 2015	

NOTES:

1. Equipment listed above that calibrated during the testing period was set for test after the calibration.
2. Equipment listed above that has a calibration due date during the testing period, the testing is completed before equipment expiration date.

SPOTCHECK TEST EQUIPMENT LIST				
Description	Manufacturer	Model	Asset	Cal Due
Antenna, Horn 1-18GHz	ETS Lindgren	3117	EMC4249 / PRE0100034	06/14/2020
Amplifier, 1 to 18GHz	Ampical	AMP1G18-35	T1569	01/30/2021
EMI Test Receiver	Rohde & Schwarz	ESW44	PRE0179372	02/16/2020
Filter, HPF 6.0GHz	MICRO-TRONICS	HPS17542	T894	01/30/2021
Filter, LPF 5.0GHz	MICRO-TRONICS	LPS17541	T891	01/30/2021
UL AUTOMATION SOFTWARE				
Radiated Software	UL	UL EMC	Ver 9.5, June 15, 2019	

NOTES:

1. Equipment listed above that calibrated during the testing period was set for test after the calibration.
2. Equipment listed above that has a calibration due date during the testing period, the testing is completed before equipment expiration date.

9. ANTENNA PORT TEST RESULTS

9.1. ON TIME AND DUTY CYCLE

LIMITS

None; for reporting purposes only.

PROCEDURE

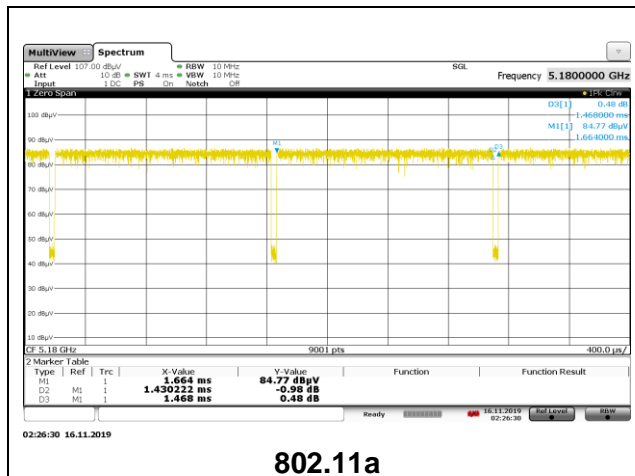
KDB 789033 Zero-Span Spectrum Analyzer Method.

ON TIME AND DUTY CYCLE RESULTS

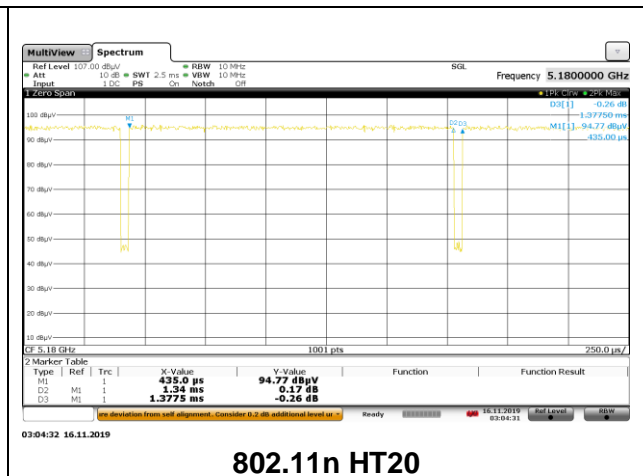
Tested By:	19497 AF
Date:	11/16/2019

Mode	ON Time B (msec)	Period (msec)	Duty Cycle x (linear)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)	1/B Minimum VBW (kHz)
802.11a	1.430	1.468	0.974	97.43	0.11	0.699
802.11n HT20	1.340	1.378	0.973	97.28	0.12	0.746
802.11n HT40	0.6636	0.7009	0.947	94.67	0.24	1.507
802.11ac VHT80	0.1916	0.2280	0.840	84.02	0.76	5.220

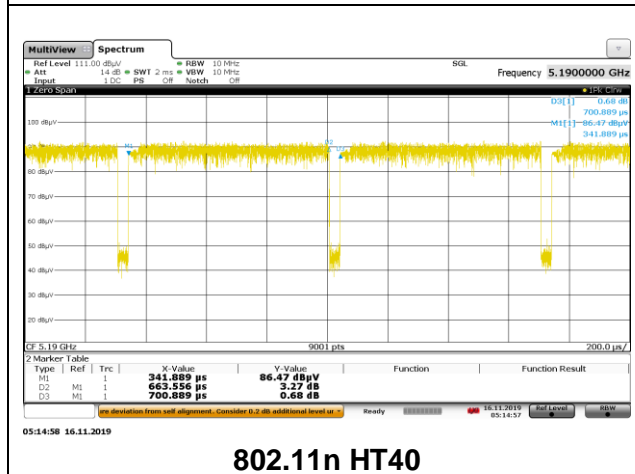
DUTY CYCLE PLOTS



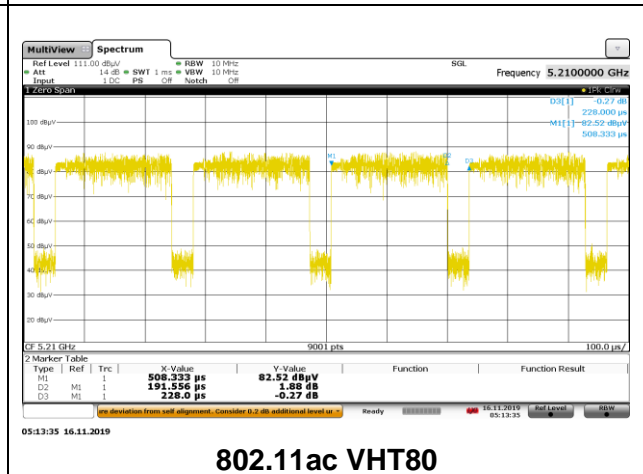
802.11a



802.11n HT20



802.11n HT40



802.11ac VHT80

9.2. 26 dB BANDWIDTH

LIMITS

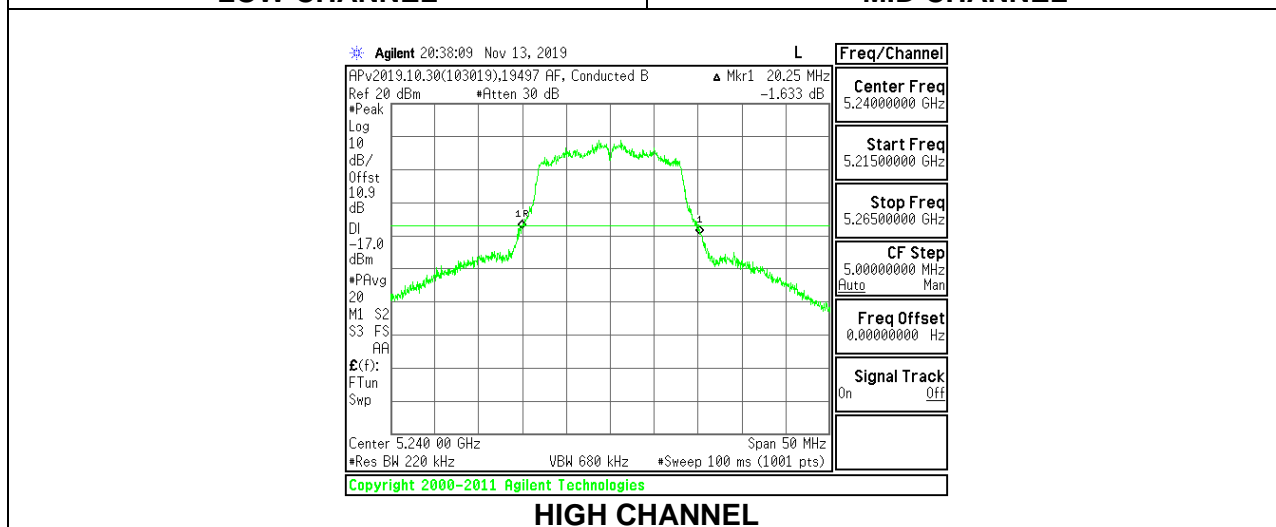
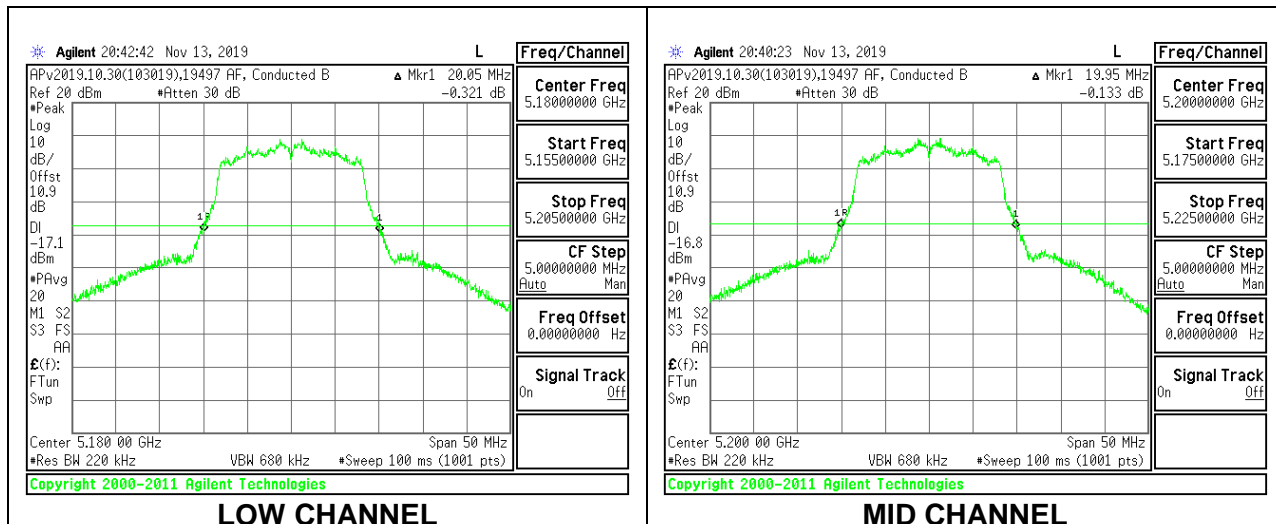
None; for reporting purposes only.

RESULTS

9.2.1. 802.11a MODE IN THE 5.2 GHz BAND

1TX CHAIN 0 MODE

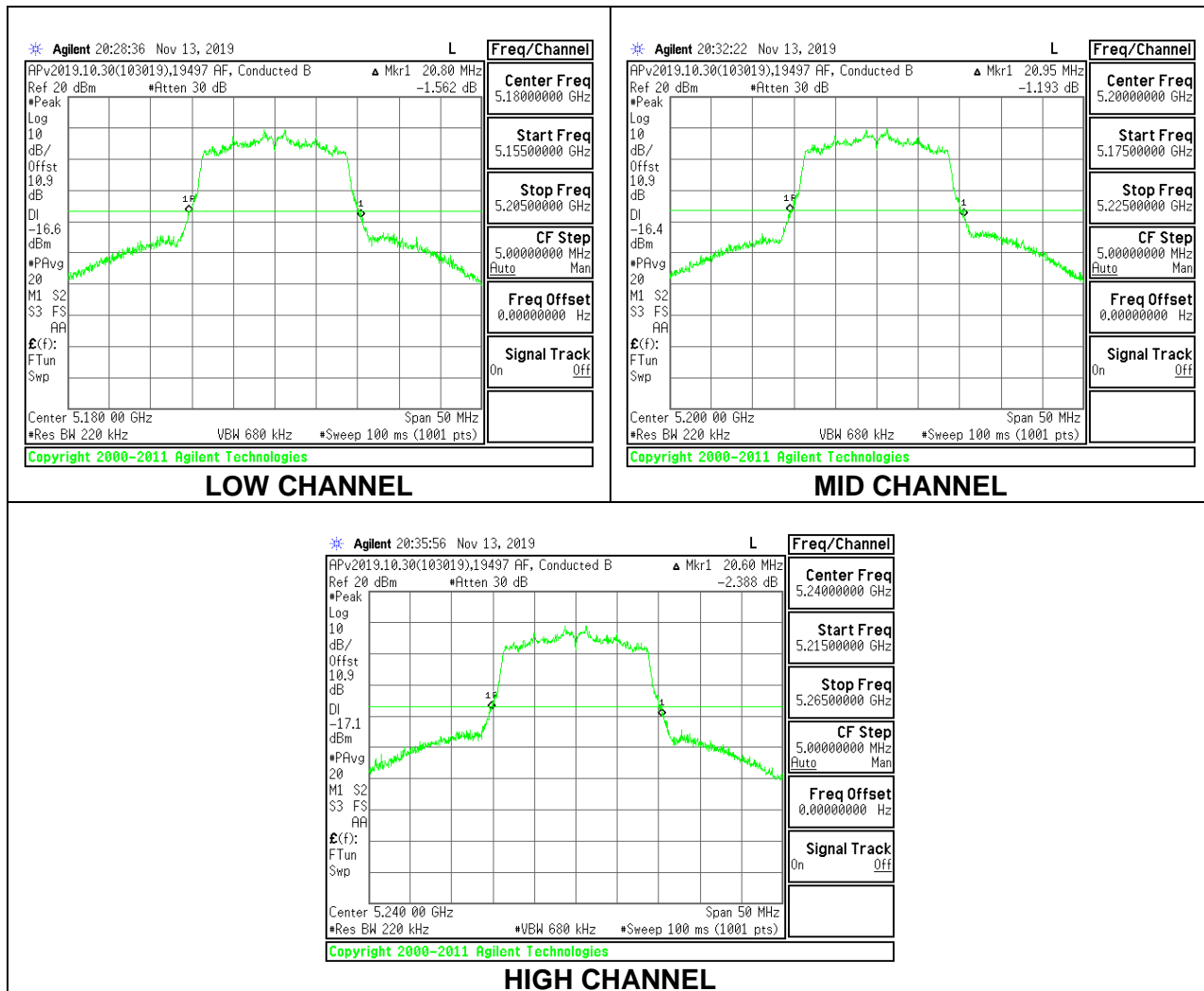
Channel	Frequency (MHz)	26 dB Bandwidth (MHz)
Low	5180	20.05
Mid	5200	19.95
High	5240	20.25



9.2.2. 802.11n HT20 MODE IN THE 5.2 GHz BAND

1TX CHAIN 0 MODE

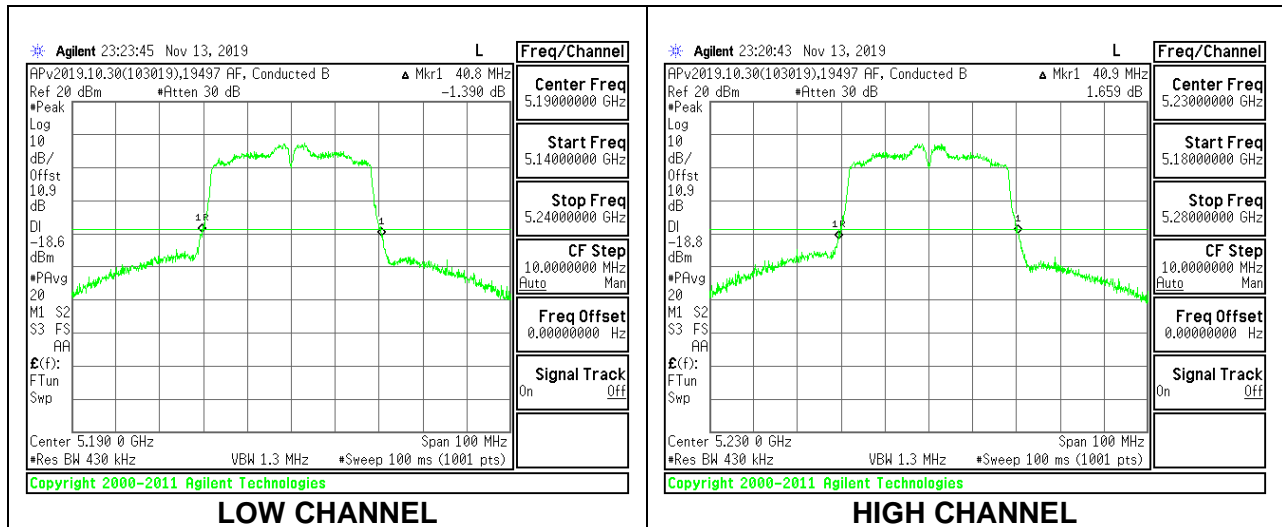
Channel	Frequency (MHz)	26 dB Bandwidth (MHz)
Low	5180	20.80
Mid	5200	20.95
High	5240	20.60



9.2.3. 802.11n HT40 MODE IN THE 5.2 GHz BAND

1TX CHAIN 0 MODE

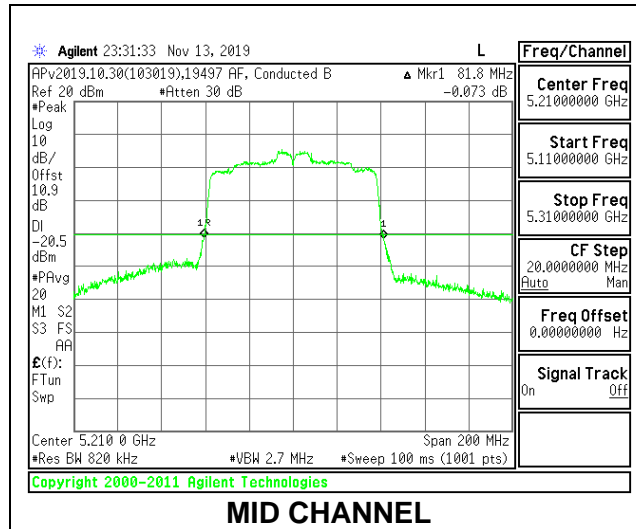
Channel	Frequency (MHz)	26dB Bandwidth (MHz)
Low	5190	40.80
High	5230	40.90



9.2.4. 802.11ac VHT80 MODE IN THE 5.2 GHz BAND

1TX CHAIN 0 MODE

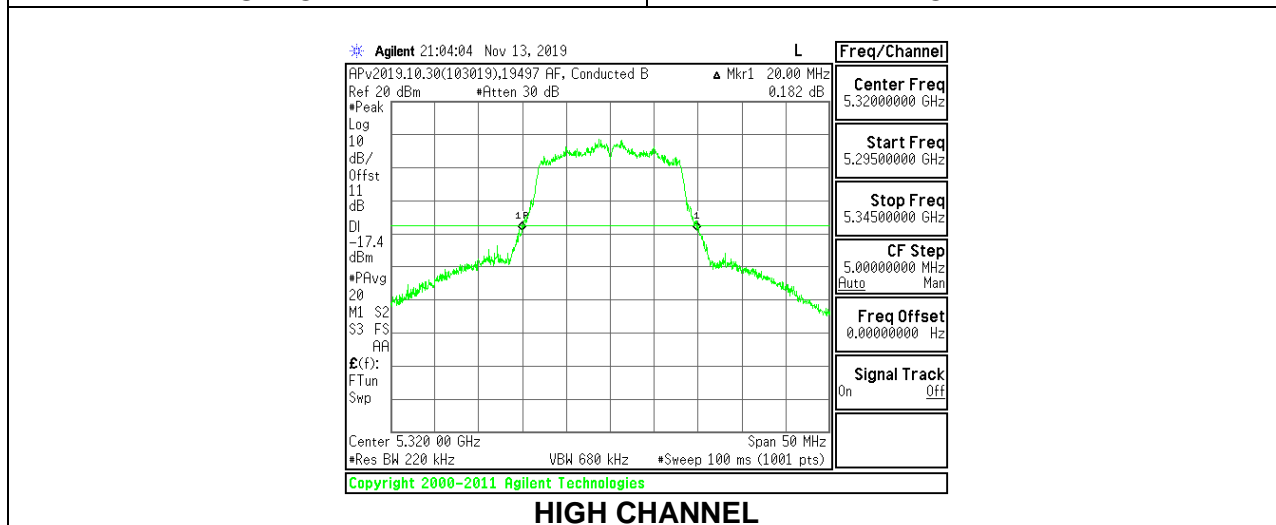
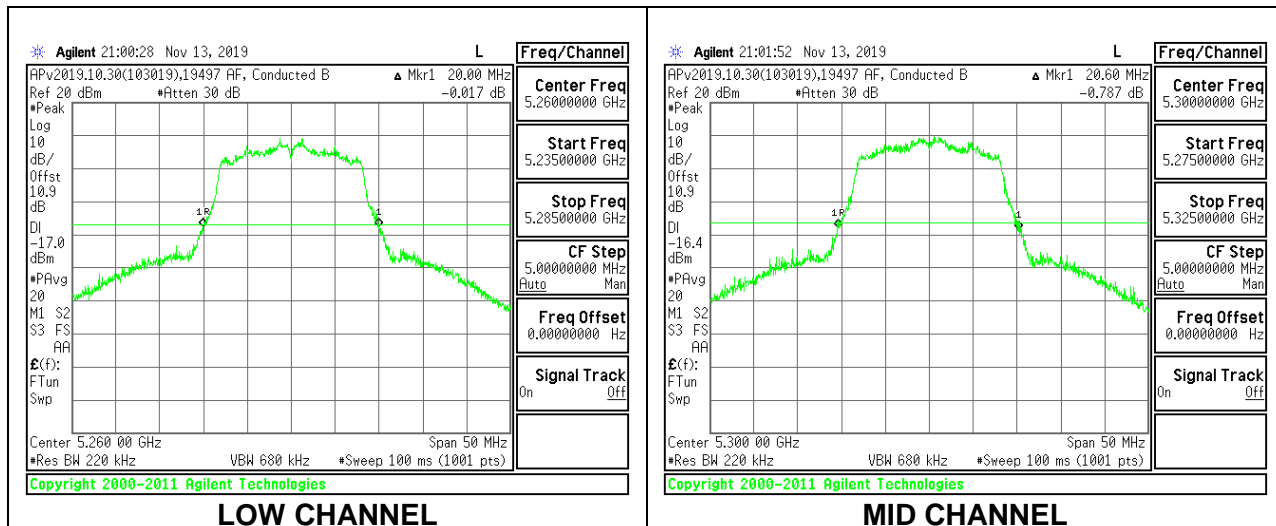
Channel	Frequency (MHz)	26 dB Bandwidth (MHz)
Mid	5210	81.80



9.2.5. 802.11a MODE IN THE 5.3 GHz BAND

1TX CHAIN 0 MODE

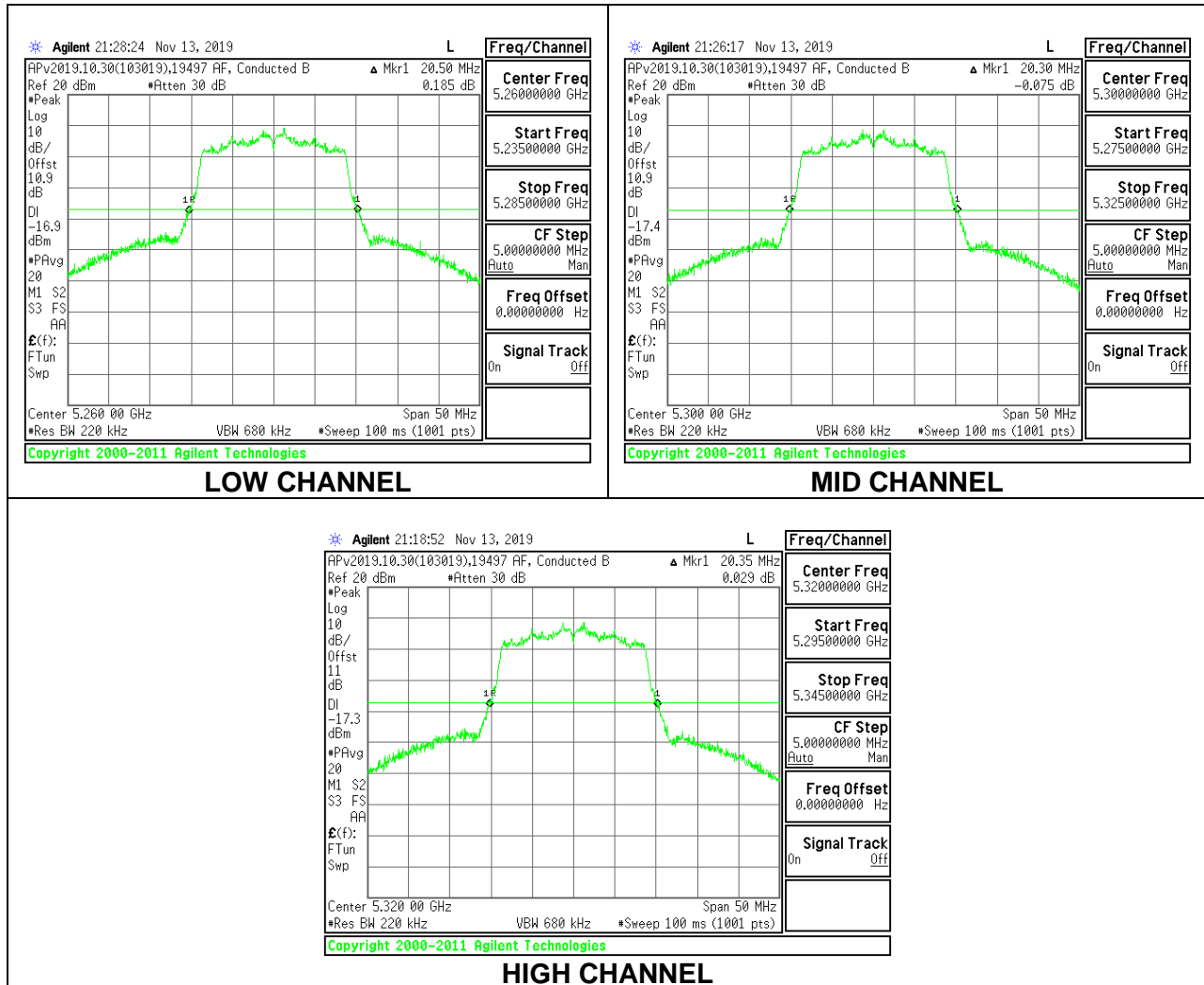
Channel	Frequency (MHz)	26 dB Bandwidth (MHz)
Low	5260	20.00
Mid	5300	20.60
High	5320	20.00



9.2.6. 802.11n HT20 MODE IN THE 5.3 GHz BAND

1TX CHAIN 0 MODE

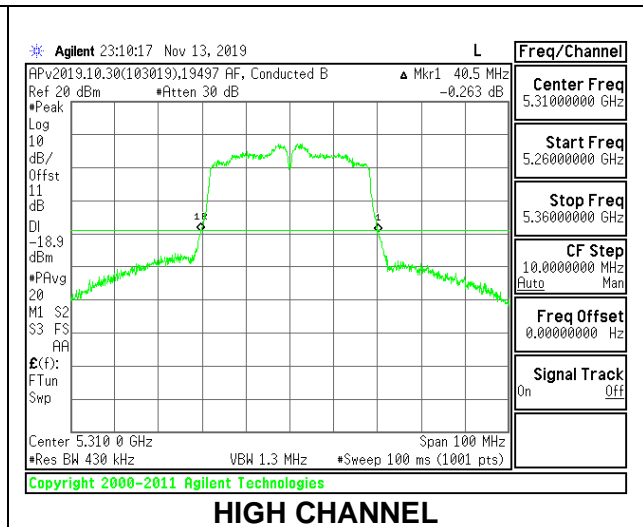
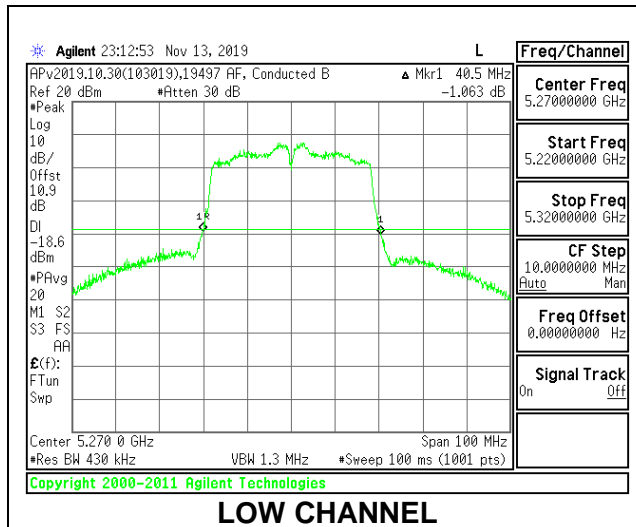
Channel	Frequency (MHz)	26 dB Bandwidth (MHz)
Low	5260	20.50
Mid	5300	20.30
High	5320	20.35



9.2.7. 802.11n HT40 MODE IN THE 5.3 GHz BAND

1TX CHAIN 0 MODE

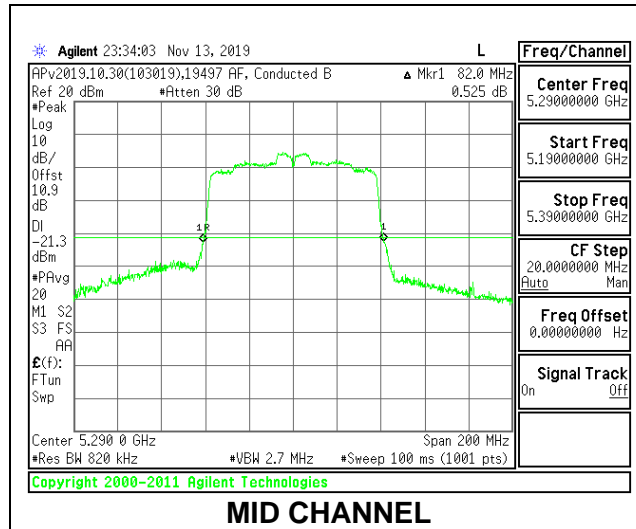
Channel	Frequency (MHz)	26dB Bandwidth (MHz)
Low	5270	40.50
High	5310	40.50



9.2.8. 802.11ac VHT80 MODE IN THE 5.3 GHz BAND

1TX CHAIN 0 MODE

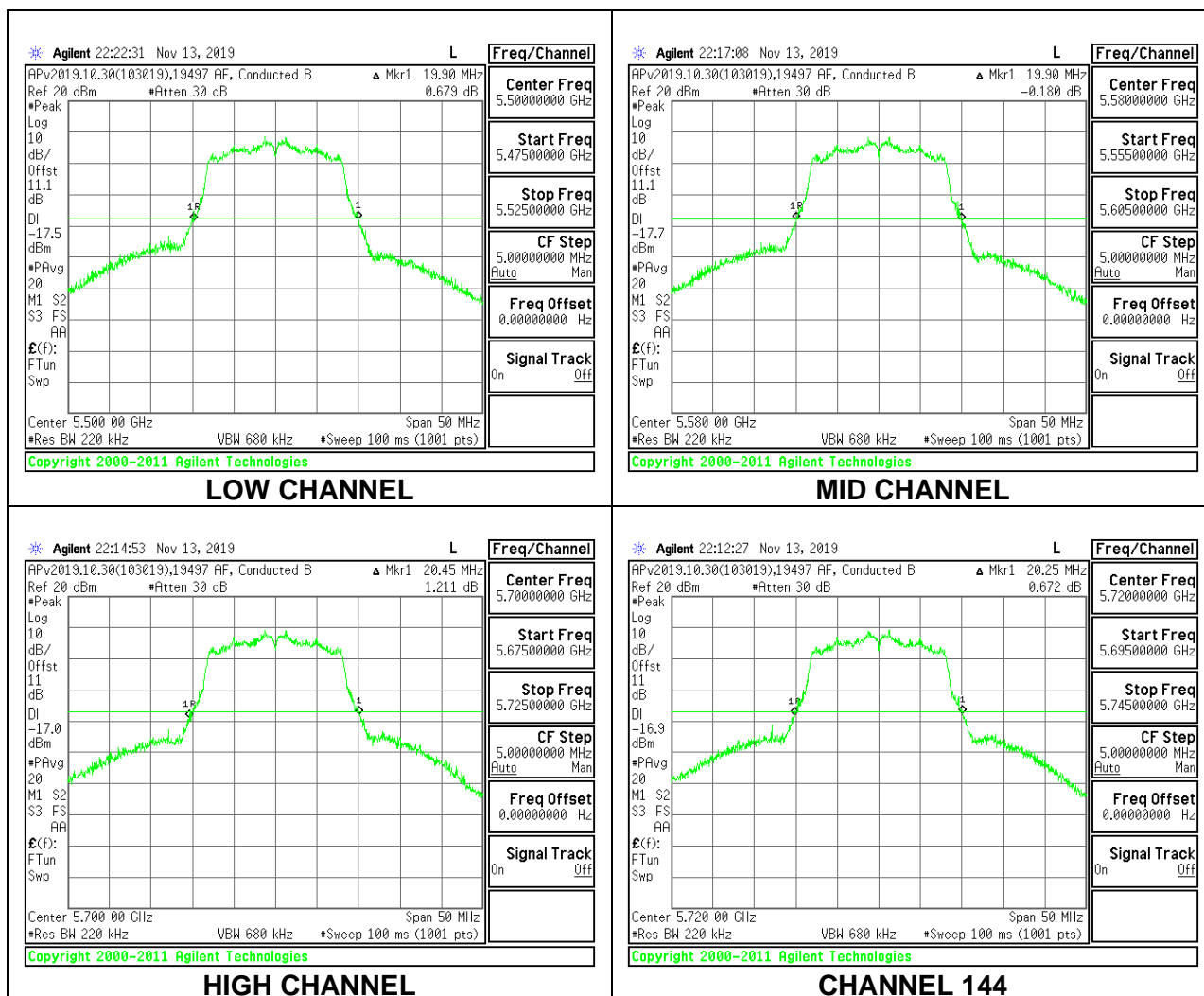
Channel	Frequency	26 dB Bandwidth
	(MHz)	(MHz)
Mid	5290	82.00



9.2.9. 802.11a MODE IN THE 5.6 GHz BAND

1TX CHAIN 0 MODE

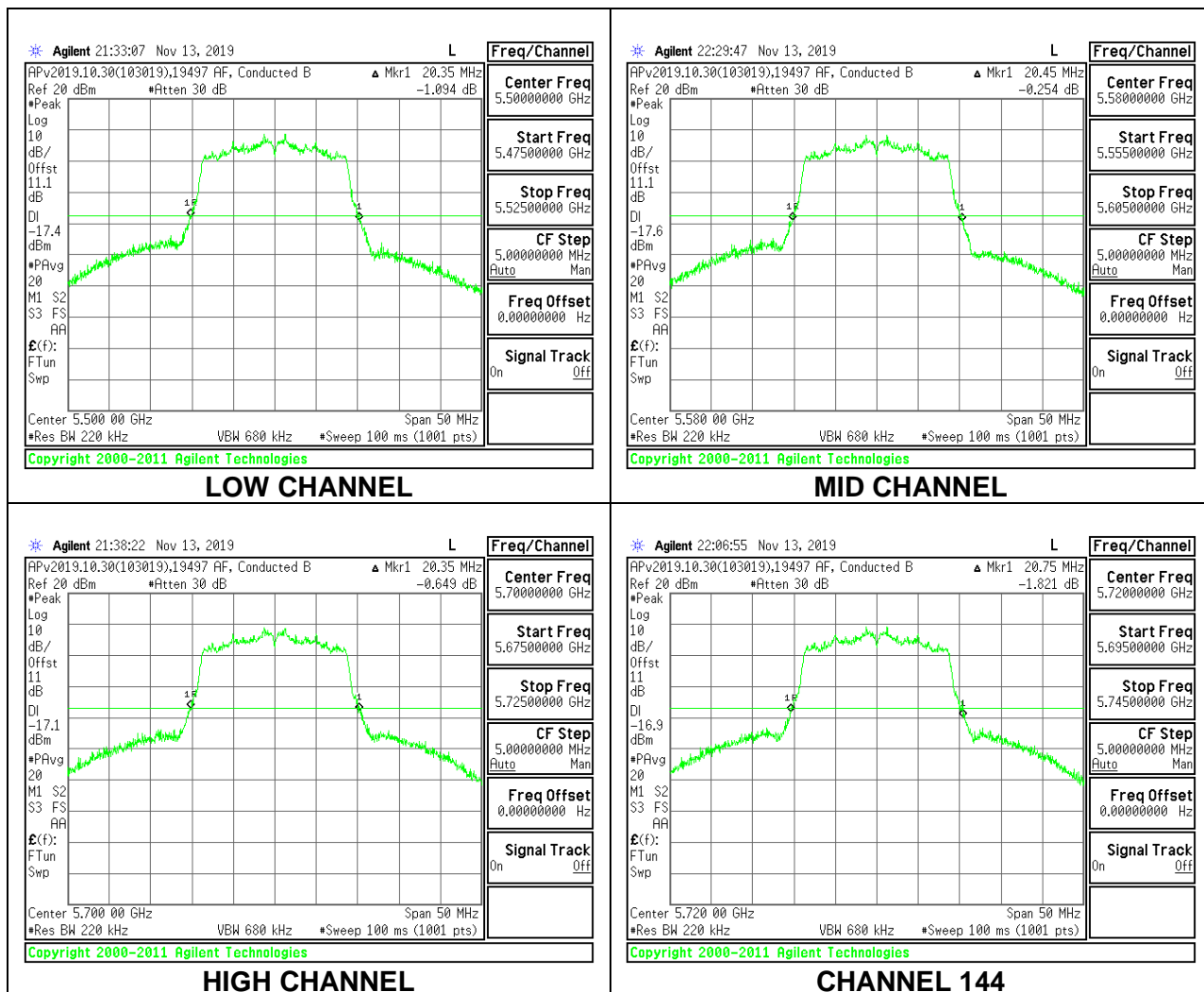
Channel	Frequency (MHz)	26 dB Bandwidth (MHz)
Low	5500	19.90
Mid	5580	19.90
High	5700	20.45
144	5720	20.25



9.2.10. 802.11n HT20 MODE IN THE 5.6 GHz BAND

1TX CHAIN 0 MODE

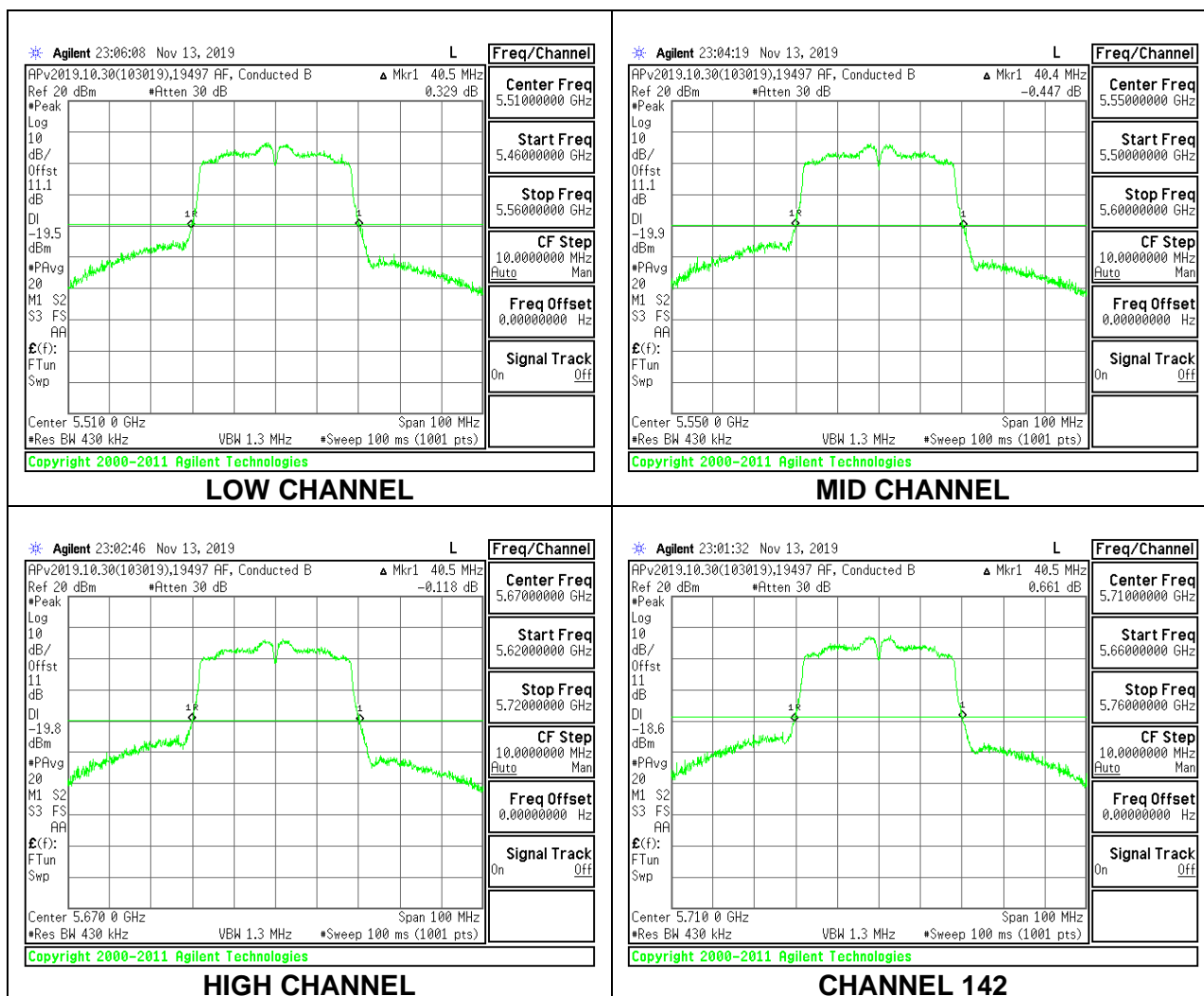
Channel	Frequency (MHz)	26 dB Bandwidth (MHz)
Low	5500	20.35
Mid	5580	20.45
High	5700	20.35
144	5720	20.75



9.2.11. 802.11n HT40 MODE IN THE 5.6 GHz BAND

1TX CHAIN 0 MODE

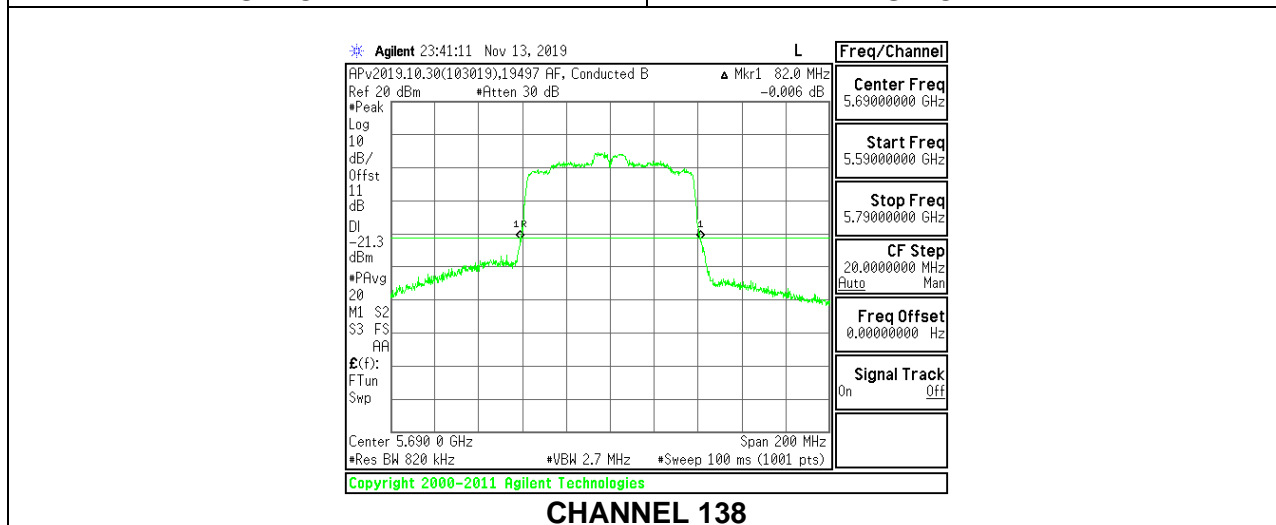
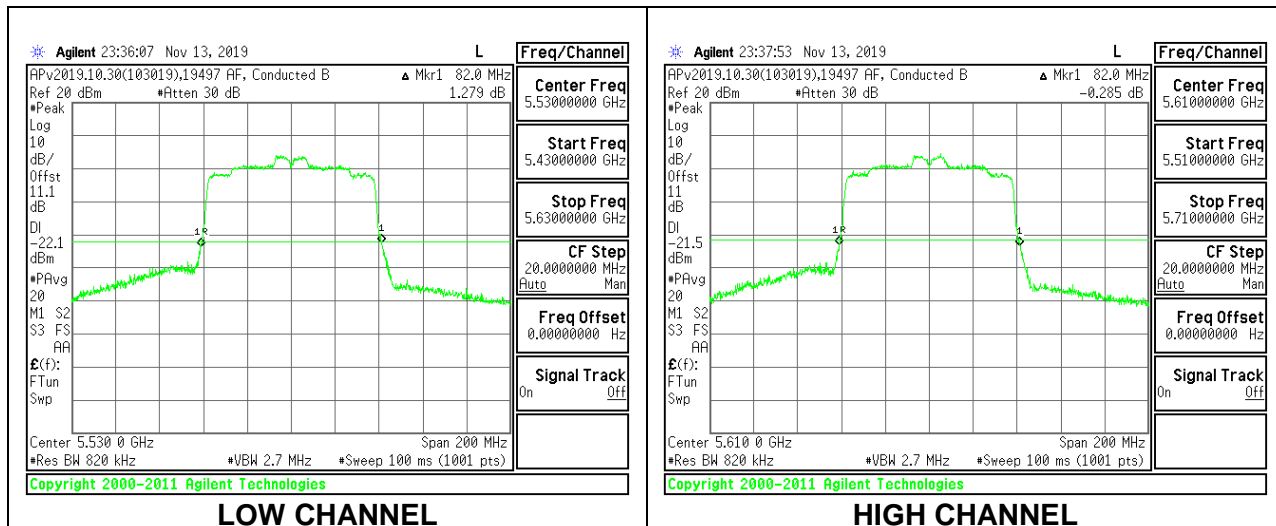
Channel	Frequency (MHz)	26 dB Bandwidth (MHz)
Low	5510	40.50
Mid	5550	40.40
High	5670	40.50
142	5710	40.50



9.2.12. 802.11ac VHT80 MODE IN THE 5.6 GHz BAND

1TX CHAIN 0 MODE

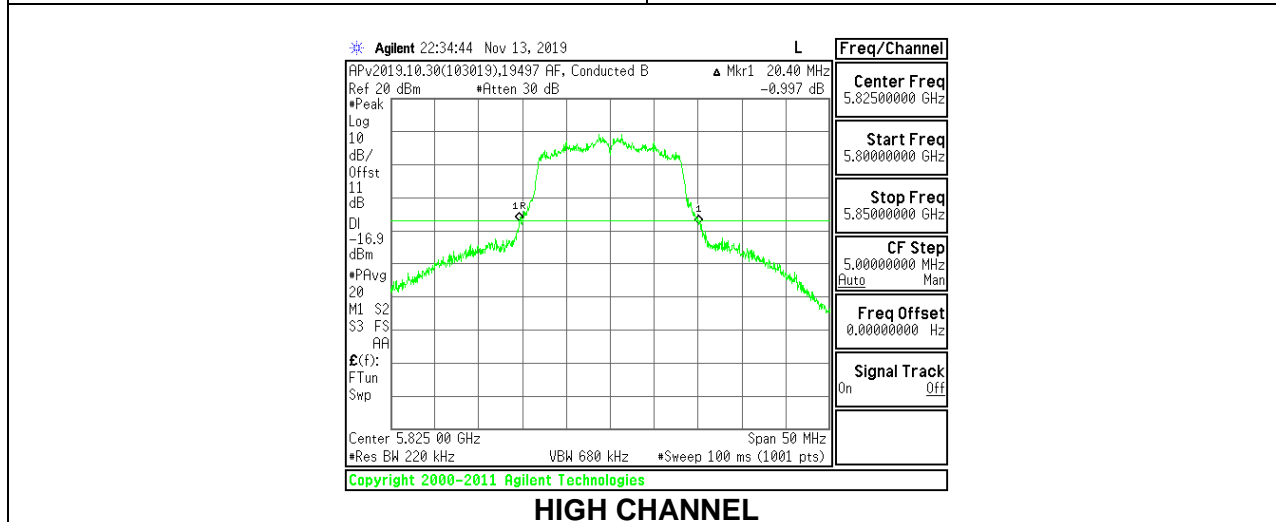
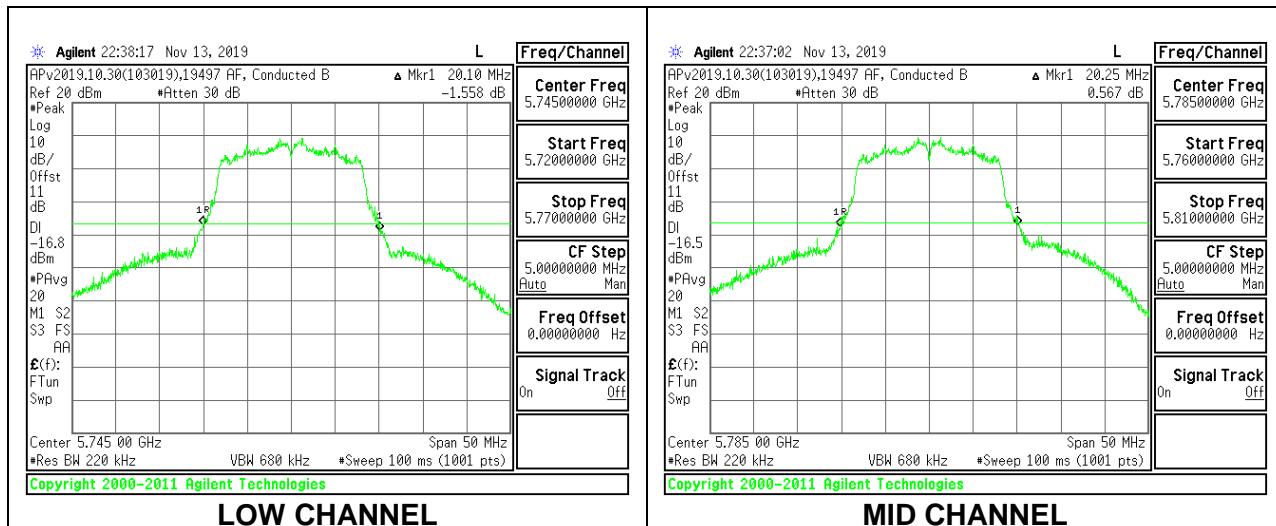
Channel	Frequency (MHz)	26 dB Bandwidth (MHz)
Low	5530	82.00
High	5610	82.00
138	5690	82.00



9.2.13. 802.11a MODE IN THE 5.8 GHz BAND

1TX CHAIN 0 MODE

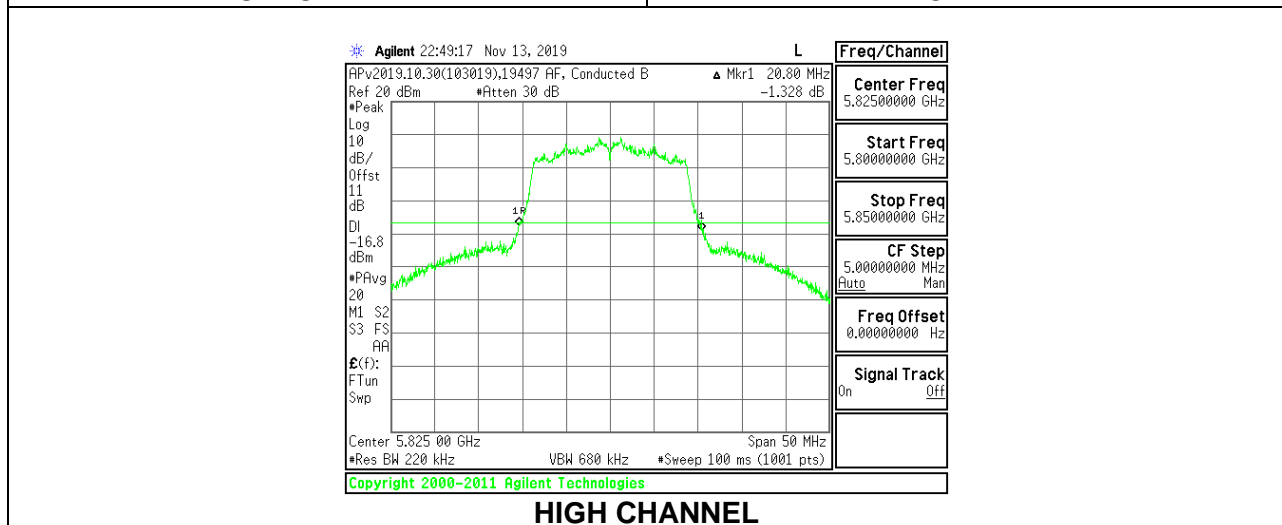
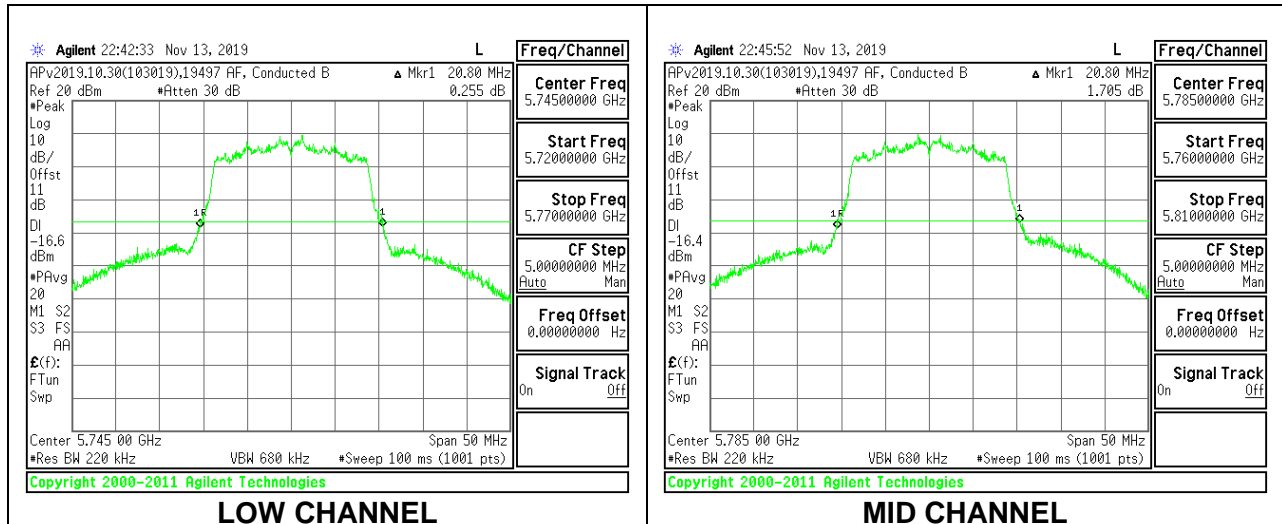
Channel	Frequency (MHz)	26 dB Bandwidth (MHz)
Low	5745	20.10
Mid	5785	20.25
High	5825	20.40



9.2.14. 802.11n HT20 MODE IN THE 5.8 GHz BAND

1TX CHAIN 0 MODE

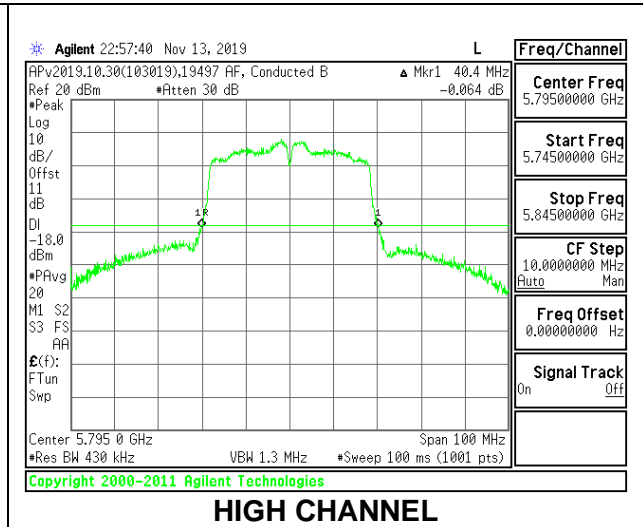
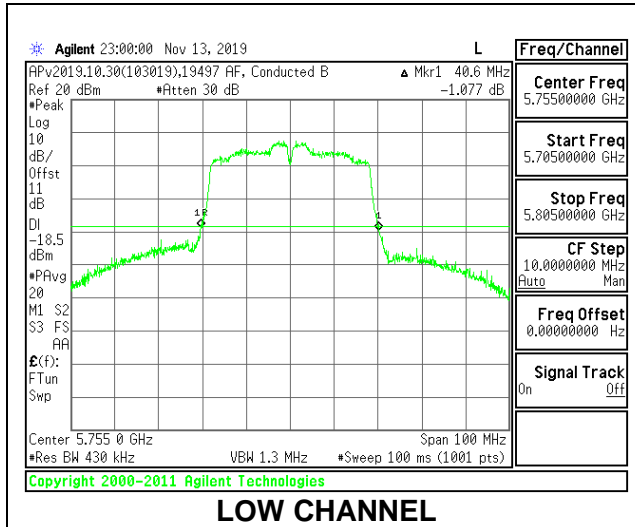
Channel	Frequency (MHz)	26 dB Bandwidth (MHz)
Low	5745	20.80
Mid	5785	20.80
High	5825	20.80



9.2.15. 802.11n HT40 MODE IN THE 5.8 GHz BAND

1TX CHAIN 0 MODE

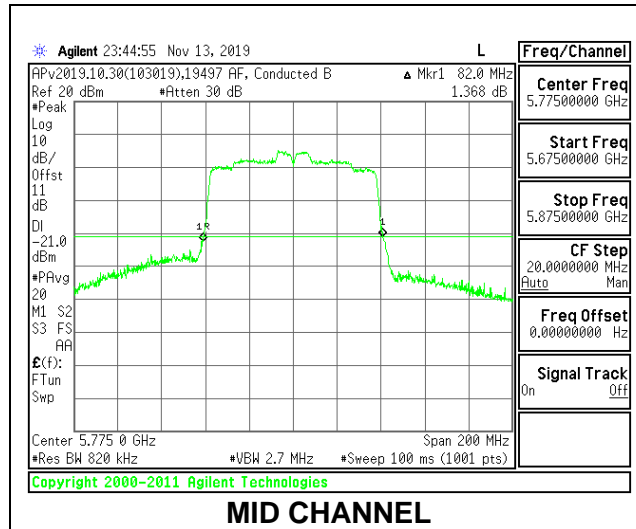
Channel	Frequency (MHz)	26dB Bandwidth (MHz)
Low	5755	40.60
High	5795	40.40



9.2.16. 802.11ac VHT80 MODE IN THE 5.8 GHz BAND

1TX CHAIN 0 MODE

Channel	Frequency	26 dB Bandwidth
	(MHz)	(MHz)
Mid	5775	82.00



9.3. 6 dB BANDWIDTH

LIMITS

FCC §15.407 (e)

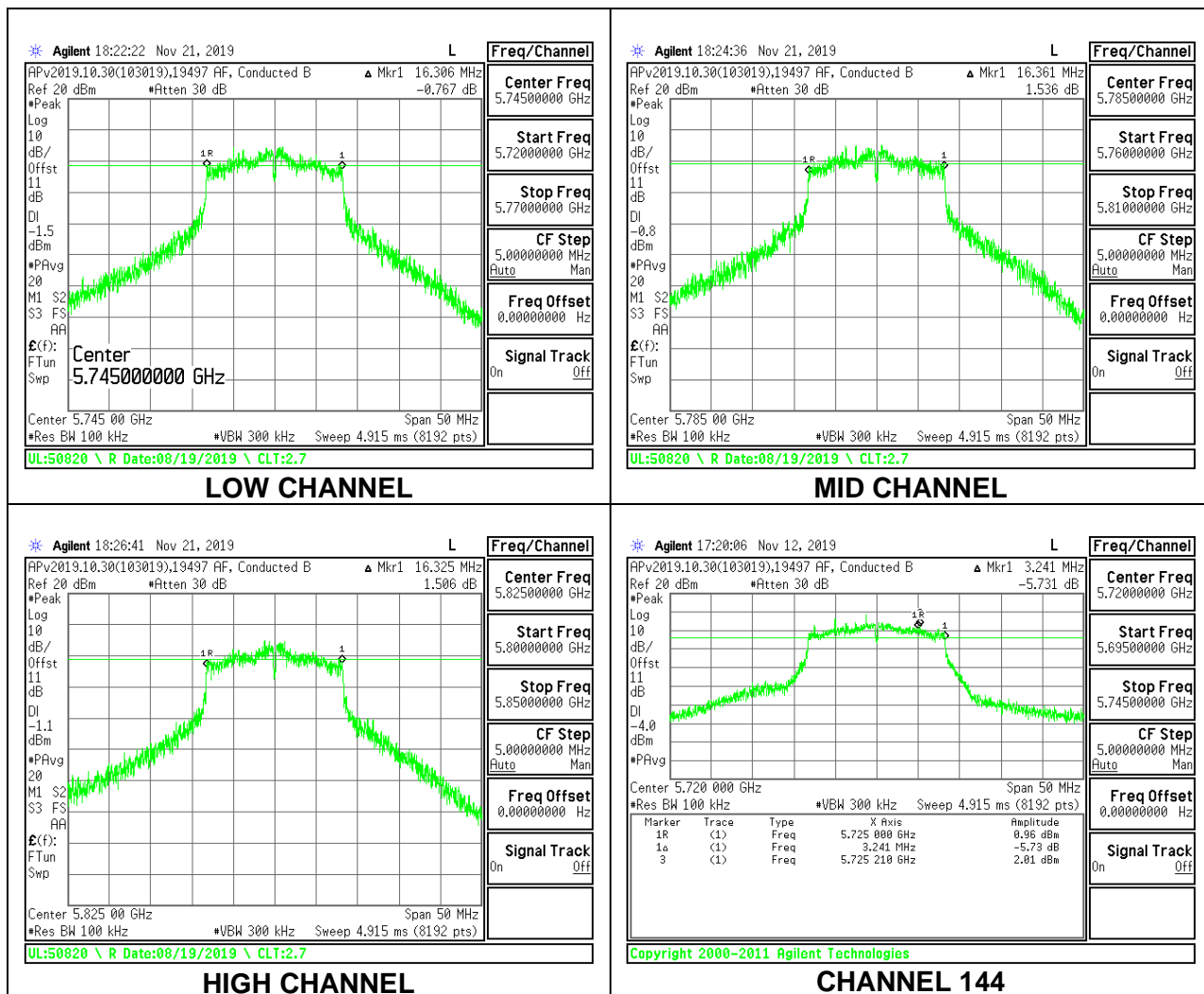
The minimum 6 dB bandwidth shall be at least 500 kHz.

RESULTS

9.3.1. 802.11a MODE IN THE 5.8 GHz BAND

1TX CHAIN 0 MODE

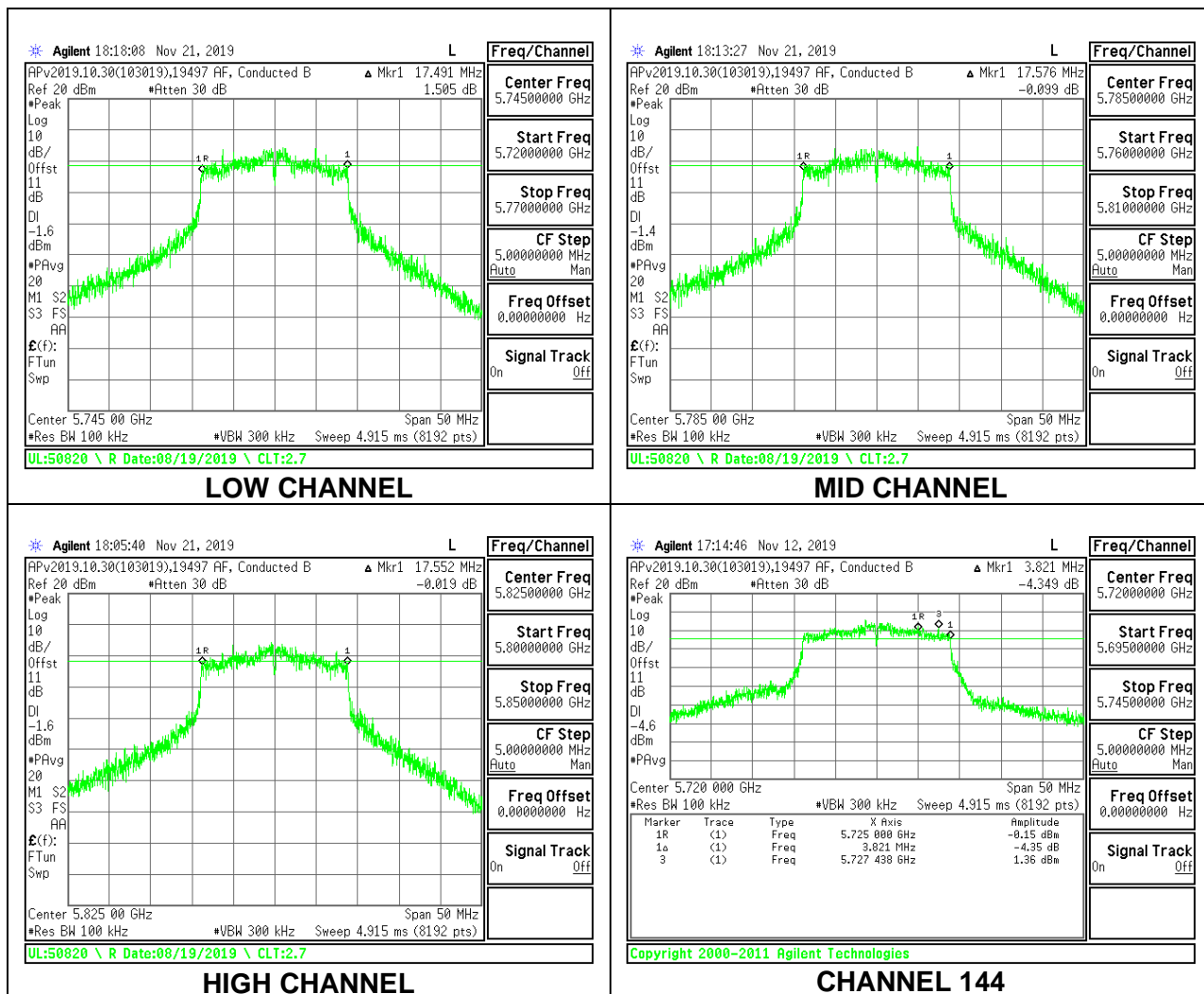
Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Minimum Limit (MHz)
Low	5745	16.306	0.5
Mid	5785	16.361	0.5
High	5825	16.325	0.5
144	5720	3.241	0.5



9.3.2. 802.11n HT20 MODE IN THE 5.8 GHz BAND

1TX CHAIN 0 MODE

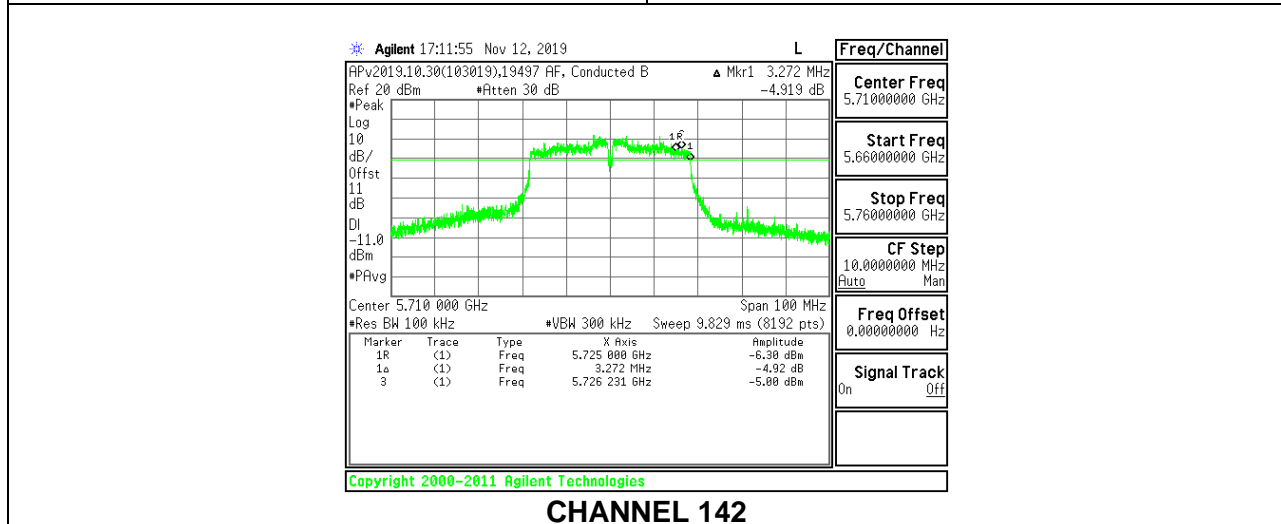
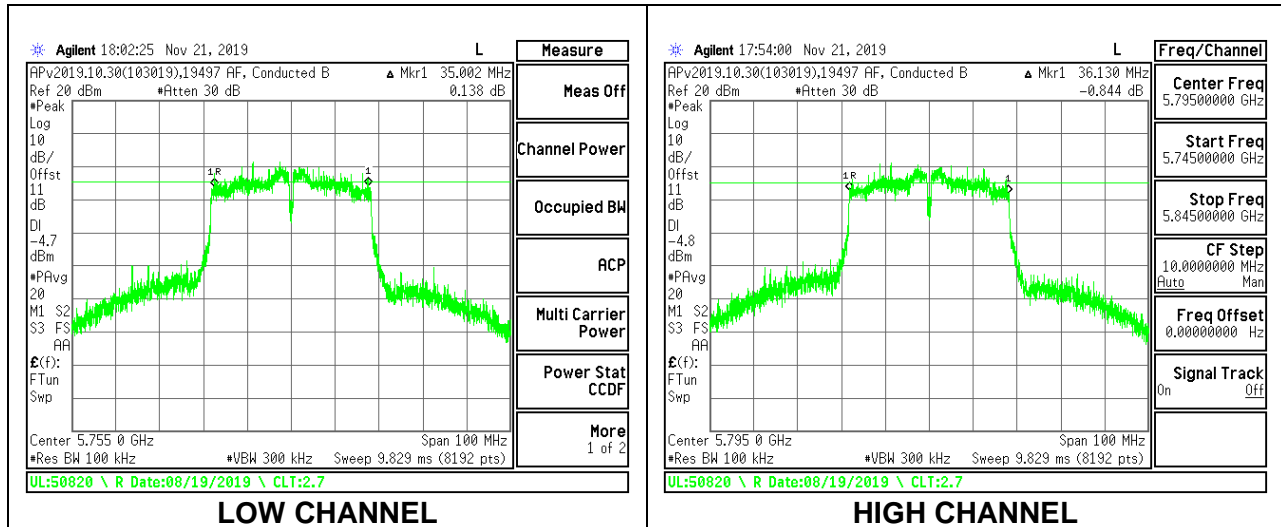
Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Minimum Limit (MHz)
Low	5745	17.491	0.5
Mid	5785	17.576	0.5
High	5825	17.552	0.5
144	5720	3.821	0.5



9.3.3. 802.11n HT40 MODE IN THE 5.8 GHz BAND

1TX CHAIN 0 MODE

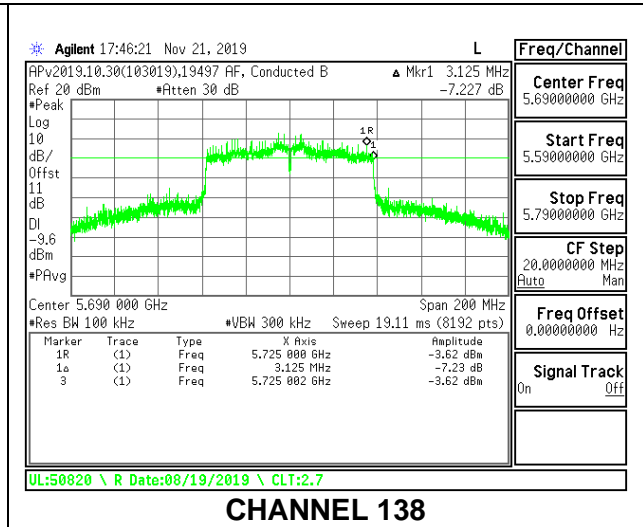
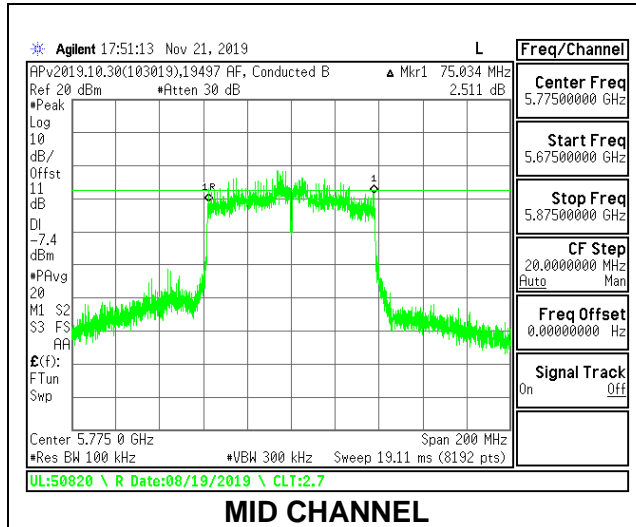
Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Minimum Limit (MHz)
Low	5755	35.002	0.5
High	5795	36.130	0.5
142	5710	3.272	0.5



9.3.4. 802.11ac VHT80 MODE IN THE 5.8 GHz BAND

1TX CHAIN 0 MODE

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Minimum Limit (MHz)
Mid	5775	75.034	0.5
138	5690	3.125	0.5



9.4. OUTPUT POWER AND PSD

LIMITS

FCC §15.407

Band 5.15–5.25 GHz

(iv) For mobile and portable client devices in the 5.15-5.25 GHz band, the maximum conducted output power over the frequency band of operation shall not exceed 250 mW provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

Bands 5.25-5.35 GHz and 5.47-5.725 GHz

The maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26 dB emission bandwidth in megahertz. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

Band 5.725-5.85 GHz

The maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. However, fixed point-to-point U-NII devices operating in this band may employ transmitting antennas with directional gain greater than 6 dBi without any corresponding reduction in transmitter conducted power. Fixed, point-to-point operations exclude the use of point-to-multipoint systems, omnidirectional applications, and multiple collocated transmitters transmitting the same information.

TEST PROCEDURE

The measurement method used for output power is KDB 789033 D02 v02r01, Section E.3.b (Method PM-G) and for straddles channels KDB 789033 D02 v02r01, Section E.2.b (Method SA-1) was used.

The measurement method used for power spectral density is KDB 789033 D02 v02r01, Section F

DIRECTIONAL ANTENNA GAIN

For 1 TX:

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

RESULTS

Tested By:	19497 RL
Date:	12/03/2019

9.4.1. 802.11a MODE IN THE 5.2 GHz BAND

1TX CHAIN 0 MODE (FCC) MOBILE

Antenna Gain and Limits

Channel	Frequency (MHz)	Directional Gain (dBi)	Power Limit (dBm)	PSD Limit (dBm/1MHz)
Low	5180	-7.73	24.00	11.00
Mid	5200	-7.73	24.00	11.00
High	5240	-7.73	24.00	11.00

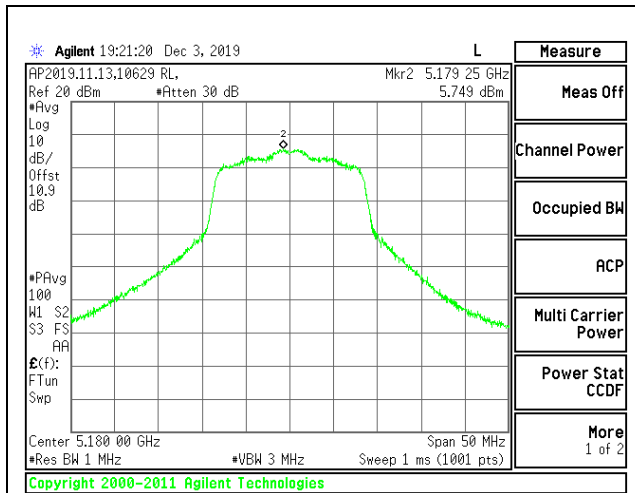
Duty Cycle CF (dB)	0.11	Included in Calculations of Corr'd PSD
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Output Power Results

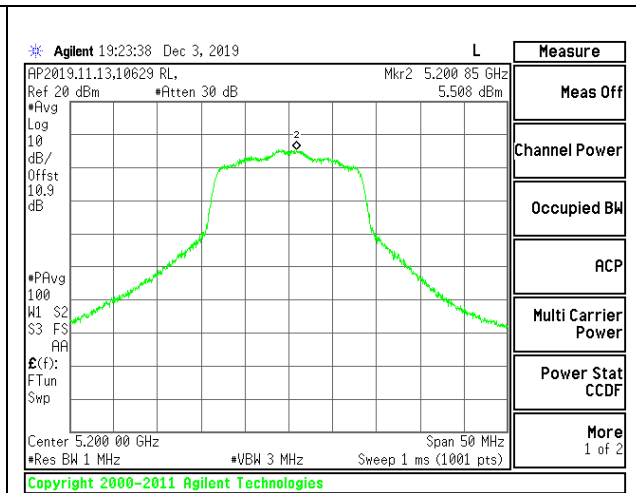
Channel	Frequency (MHz)	Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5180	15.73	15.73	24.00	-8.27
Mid	5200	15.71	15.71	24.00	-8.29
High	5240	15.83	15.83	24.00	-8.17

PSD Results

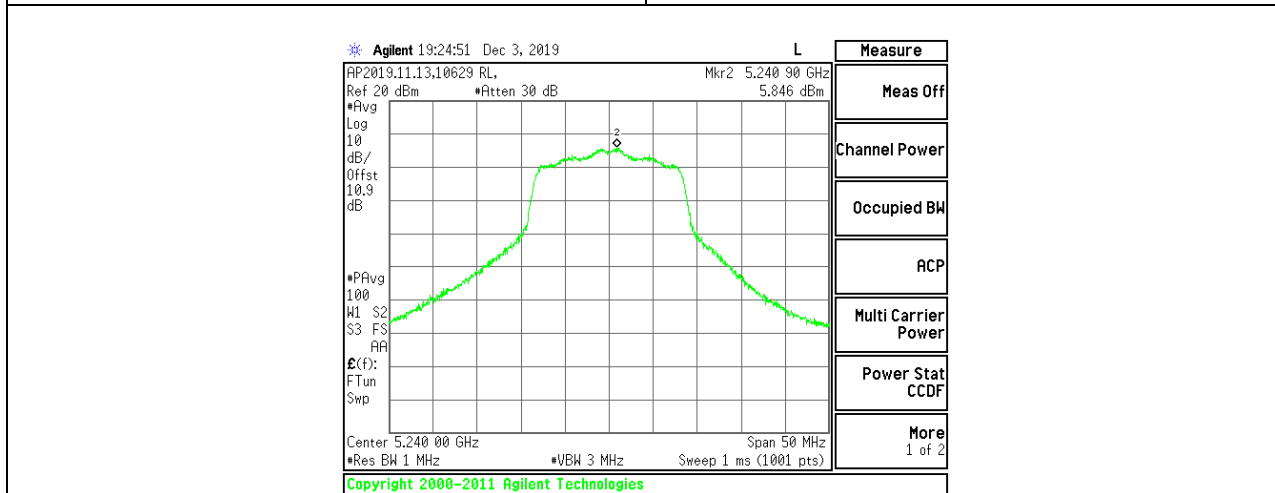
Channel	Frequency (MHz)	Meas PSD (dBm/1MHz)	Total Corr'd PSD (dBm/1MHz)	PSD Limit (dBm/1MHz)	PSD Margin (dB)
Low	5180	5.749	5.86	11.00	-5.14
Mid	5200	5.508	5.62	11.00	-5.38
High	5240	5.846	5.96	11.00	-5.04



LOW CHANNEL



MID CHANNEL



HIGH CHANNEL

9.4.2. 802.11n HT20 MODE IN THE 5.2 GHz BAND

1TX CHAIN 0 MODE (FCC) MOBILE

Antenna Gain and Limits

Channel	Frequency (MHz)	Directional Gain (dBi)	Power Limit (dBm)	PSD Limit (dBm/ 1MHz)
Low	5180	-7.73	24.00	11.00
Mid	5200	-7.73	24.00	11.00
High	5240	-7.73	24.00	11.00

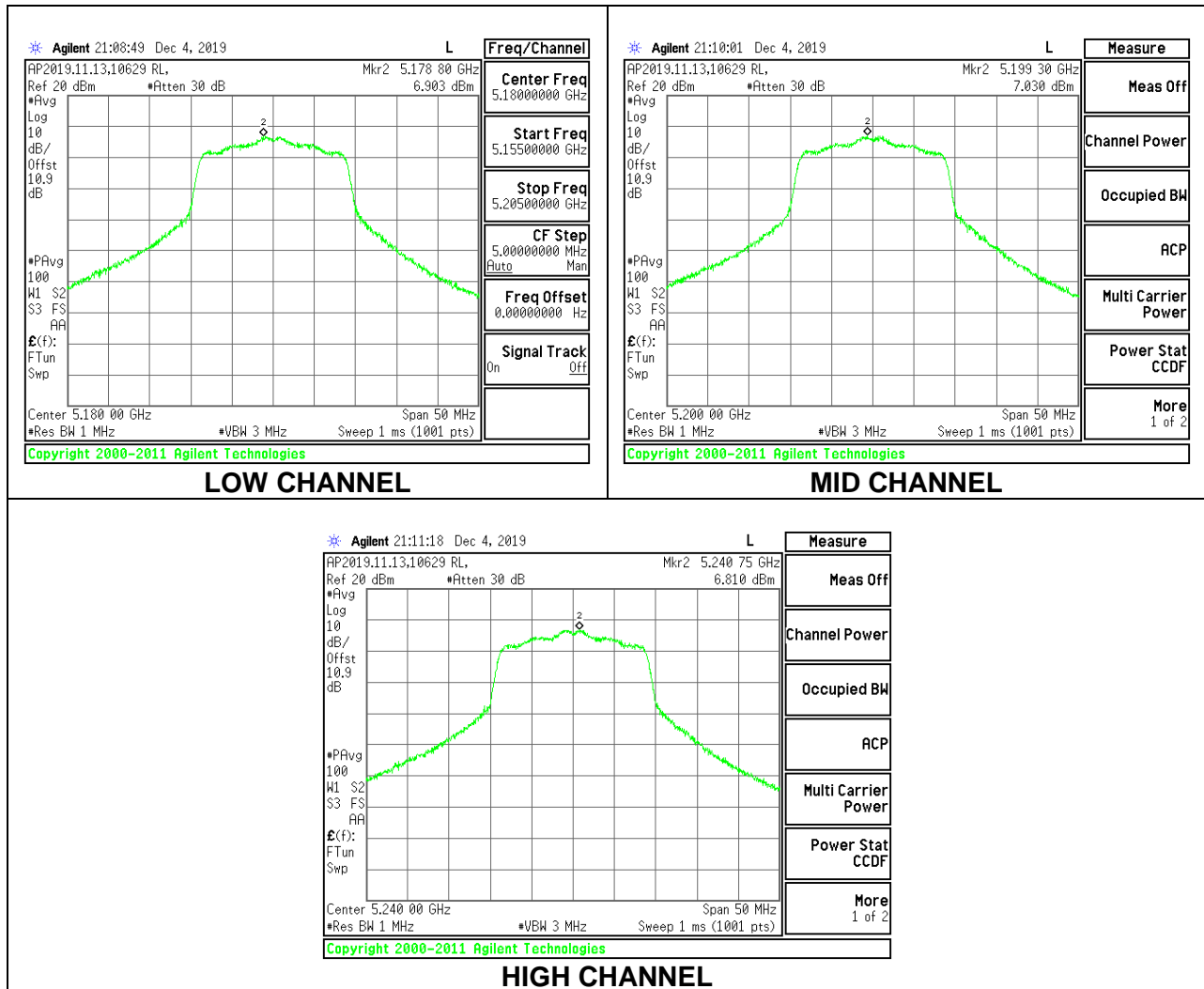
Duty Cycle CF (dB)	0.12	Included in Calculations of Corr'd PSD
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Output Power Results

Channel	Frequency (MHz)	Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5180	15.64	15.64	24.00	-8.36
Mid	5200	15.63	15.63	24.00	-8.37
High	5240	15.75	15.75	24.00	-8.25

PSD Results

Channel	Frequency (MHz)	Meas PSD (dBm/1MHz)	Total Corr'd PSD (dBm/1MHz)	PSD Limit (dBm/ 1MHz)	PSD Margin (dB)
Low	5180	6.903	7.02	11.00	-3.98
Mid	5200	7.030	7.15	11.00	-3.85
High	5240	6.810	6.93	11.00	-4.07



9.4.3. 802.11n HT40 MODE IN THE 5.2 GHz BAND

1TX CHAIN 0 MODE (FCC) MOBILE

Antenna Gain and Limits

Channel	Frequency (MHz)	Directional Gain for Power (dBi)	Power Limit (dBm)	PSD Limit (dBm/ 1MHz)
Low	5190	-7.73	24.00	11.00
High	5230	-7.73	24.00	11.00

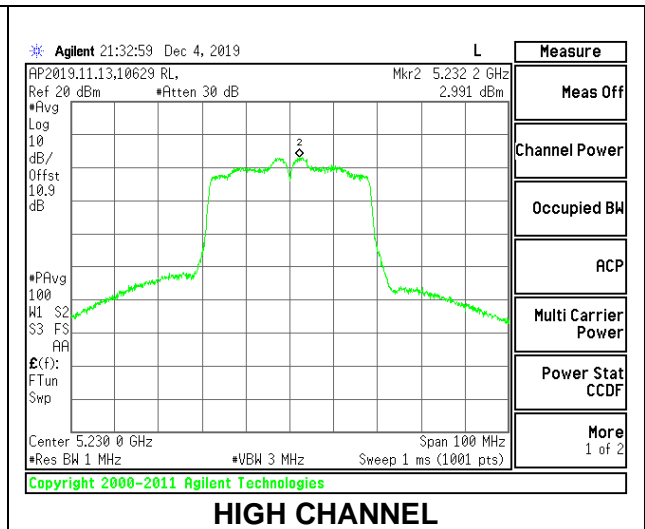
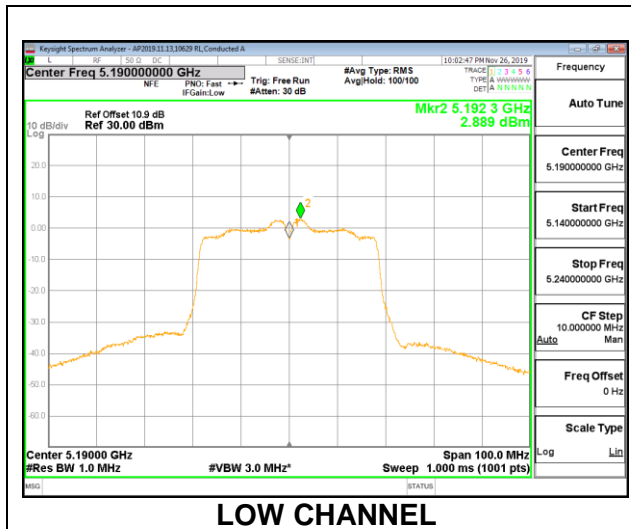
Duty Cycle CF (dB)	0.24	Included in Calculations of Corr'd PSD
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Output Power Results

Channel	Frequency (MHz)	Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5190	14.13	14.13	24.00	-9.87
High	5230	14.71	14.71	24.00	-9.29

PSD Results

Channel	Frequency (MHz)	Meas PSD (dBm/1MHz)	Total Corr'd PSD (dBm/1MHz)	PSD Limit (dBm/ 1MHz)	PSD Margin (dB)
Low	5190	2.889	3.13	11.00	-7.87
High	5230	2.991	3.23	11.00	-7.77



9.4.4. 802.11ac VHT80 MODE IN THE 5.2 GHz BAND

1TX CHAIN 0 MODE (FCC) MOBILE

Antenna Gain and Limits

Channel	Frequency (MHz)	Directional Gain (dBi)	Power Limit (dBm)	PSD Limit (dBm/ 1MHz)
Mid	5210	-7.73	24.00	11.00

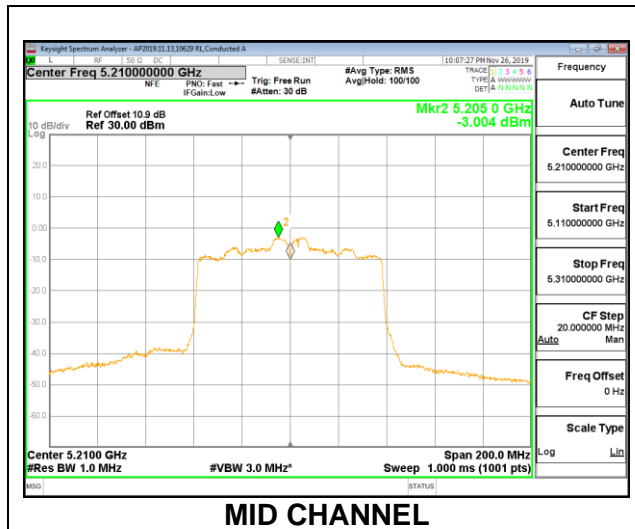
Duty Cycle CF (dB)	0.76	Included in Calculations of Corr'd PSD
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Output Power Results

Channel	Frequency (MHz)	Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Mid	5210	12.35	12.35	24.00	-11.65

PSD Results

Channel	Frequency (MHz)	Meas PSD (dBm/ 1MHz)	Total Corr'd PSD (dBm/ 1MHz)	PSD Limit (dBm/ 1MHz)	PSD Margin (dB)
Mid	5210	-3.004	-2.24	11.00	-13.24



9.4.5. 802.11a MODE IN THE 5.3 GHz BAND

1TX CHAIN 0 MODE (FCC)

Bandwidth, Antenna Gain, and Limits

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Directional Gain (dBi)	Power Limit (dBm)	PSD Limit (dBm/1MHz)
Low	5260	20.00	-7.68	24.00	11.00
Mid	5300	20.60	-7.68	24.00	11.00
High	5320	20.00	-7.68	24.00	11.00

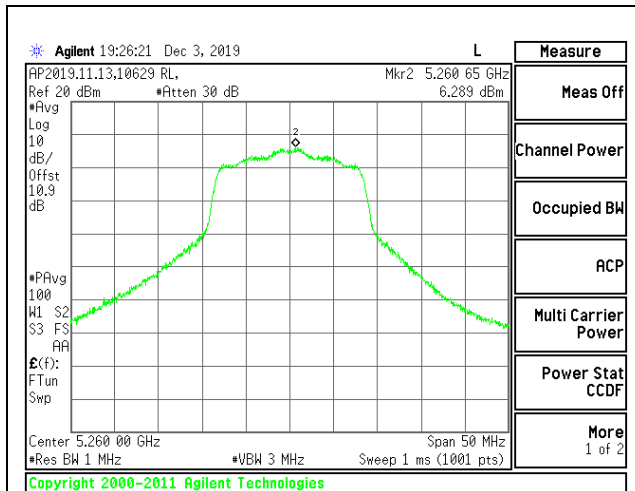
Duty Cycle CF (dB)	0.11	Included in Calculations of Corr'd PSD
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Output Power Results

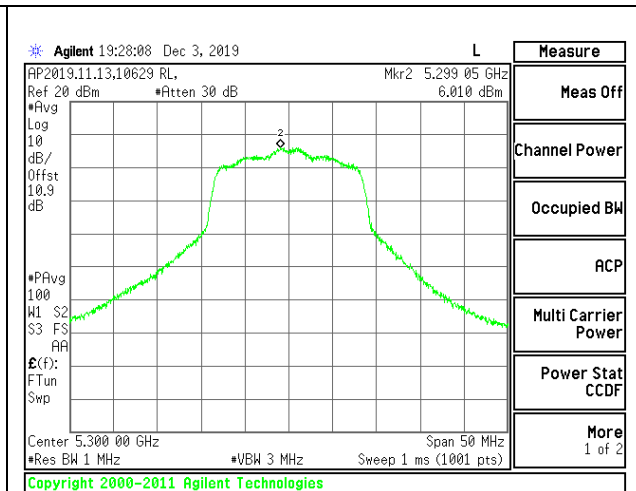
Channel	Frequency (MHz)	Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5260	15.86	15.86	24.00	-8.14
Mid	5300	15.97	15.97	24.00	-8.03
High	5320	15.95	15.95	24.00	-8.05

PSD Results

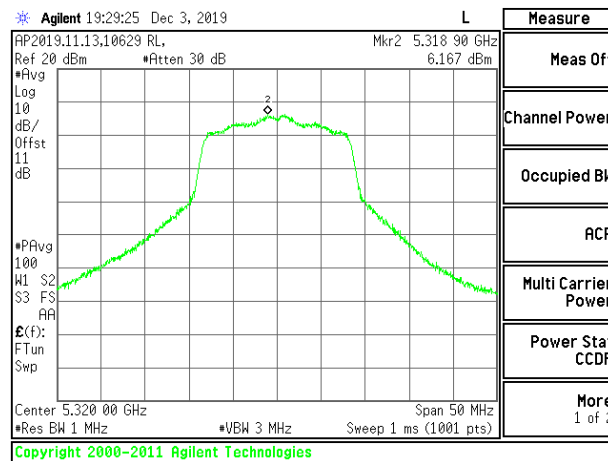
Channel	Frequency (MHz)	Meas PSD (dBm/1MHz)	Total Corr'd PSD (dBm/1MHz)	PSD Limit (dBm/1MHz)	PSD Margin (dB)
Low	5260	6.289	6.40	11.00	-4.60
Mid	5300	6.010	6.12	11.00	-4.88
High	5320	6.167	6.28	11.00	-4.72



LOW CHANNEL



MID CHANNEL



HIGH CHANNEL

9.4.6. 802.11n HT20 MODE IN THE 5.3 GHz BAND

1TX CHAIN 0 MODE (FCC)

Bandwidth, Antenna Gain, and Limits

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Directional Gain (dBi)	Power Limit (dBm)	PSD Limit (dBm/1MHz)
Low	5260	20.50	-7.68	24.00	11.00
Mid	5300	20.30	-7.68	24.00	11.00
High	5320	20.35	-7.68	24.00	11.00

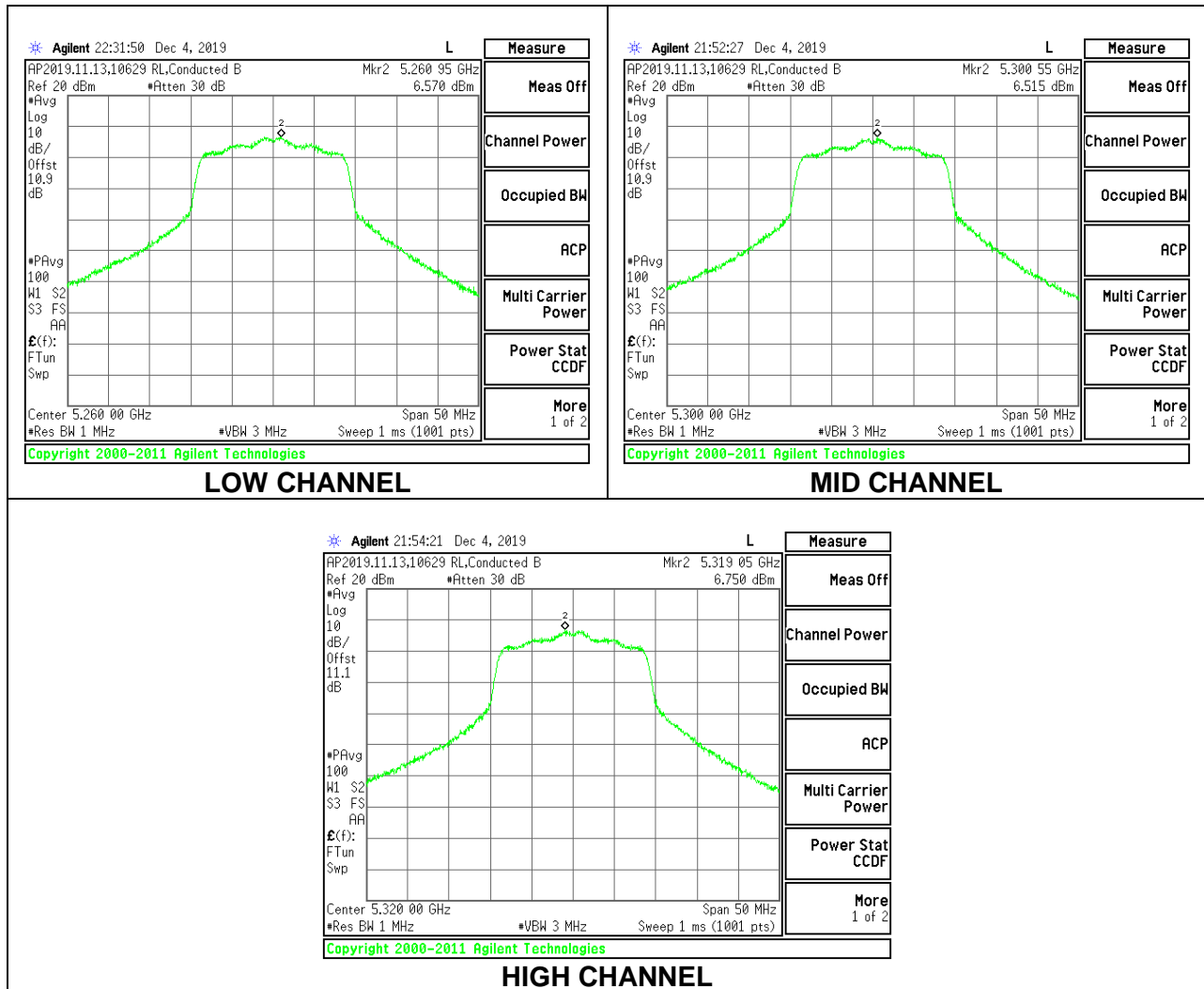
Duty Cycle CF (dB)	0.12	Included in Calculations of Corr'd PSD
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Output Power Results

Channel	Frequency (MHz)	Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5260	15.72	15.72	24.00	-8.28
Mid	5300	15.83	15.83	24.00	-8.17
High	5320	15.94	15.94	24.00	-8.06

PSD Results

Channel	Frequency (MHz)	Meas PSD (dBm/1MHz)	Total Corr'd PSD (dBm/1MHz)	PSD Limit (dBm/1MHz)	PSD Margin (dB)
Low	5260	6.570	6.69	11.00	-4.31
Mid	5300	6.515	6.64	11.00	-4.37
High	5320	6.750	6.87	11.00	-4.13



9.4.7. 802.11n HT40 MODE IN THE 5.3 GHz BAND

1TX CHAIN 0 MODE (FCC)

Bandwidth, Antenna Gain, and Limits

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Directional Gain (dBi)	Power Limit (dBm)	PSD Limit (dBm/1MHz)
Low	5270	40.50	-7.68	24.00	11.00
High	5310	40.50	-7.68	24.00	11.00

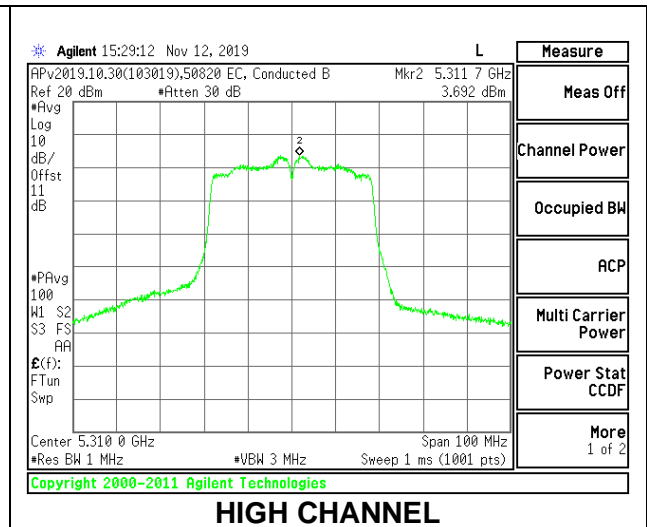
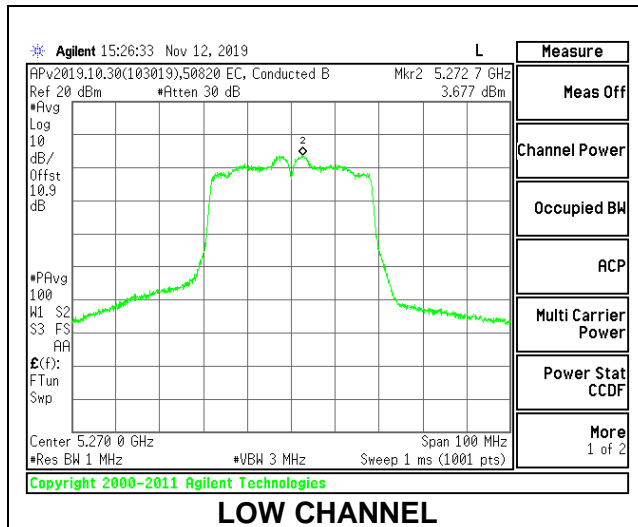
Duty Cycle CF (dB)	0.24	Included in Calculations of Corr'd PSD
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Output Power Results

Channel	Frequency (MHz)	Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5270	15.73	15.73	24.00	-8.27
High	5310	15.62	15.62	24.00	-8.38

PSD Results

Channel	Frequency (MHz)	Meas PSD (dBm/1MHz)	Total Corr'd PSD (dBm/1MHz)	PSD Limit (dBm/1MHz)	PSD Margin (dB)
Low	5270	3.677	3.92	11.00	-7.08
High	5310	3.692	3.93	11.00	-7.07



9.4.8. 802.11ac VHT80 MODE IN THE 5.3 GHz BAND

1TX CHAIN 0 MODE (FCC)

Bandwidth, Antenna Gain, and Limits

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Directional Gain (dBi)	Power Limit (dBm)	PSD Limit (dBm/1MHz)
Mid	5290	82.00	-7.68	24.00	11.00

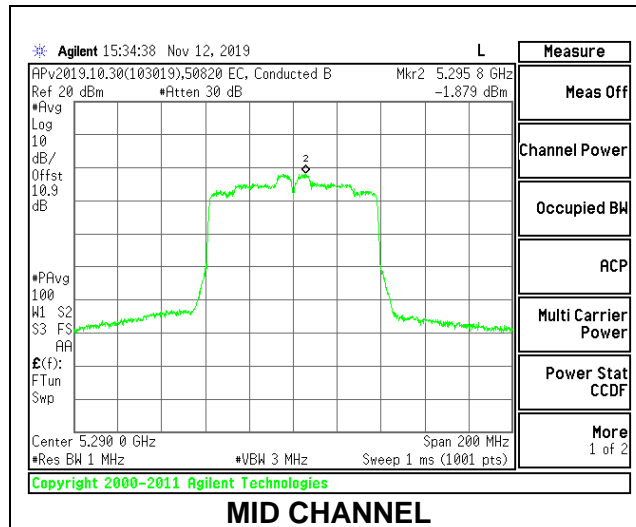
Duty Cycle CF (dB)	0.76	Included in Calculations of Corr'd PSD
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Output Power Results

Channel	Frequency (MHz)	Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Mid	5290	13.64	13.64	24.00	-10.36

PSD Results

Channel	Frequency (MHz)	Meas PSD (dBm/1MHz)	Total Corr'd PSD (dBm/1MHz)	PSD Limit (dBm/1MHz)	PSD Margin (dB)
Mid	5290	-1.879	-1.12	11.00	-12.12



9.4.9. 802.11a MODE IN THE 5.6 GHz BAND

1TX CHAIN 0 MODE (FCC)

Bandwidth, Antenna Gain, and Limits

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Directional Gain (dBi)	Power Limit (dBm)	PSD Limit (dBm/ 1MHz)
Low	5500	19.9	-7.63	23.99	11.00
Mid	5580	19.9	-7.63	23.99	11.00
High	5700	20.45	-7.63	24.00	11.00
144	5720	20.25	-7.63	24.00	11.00

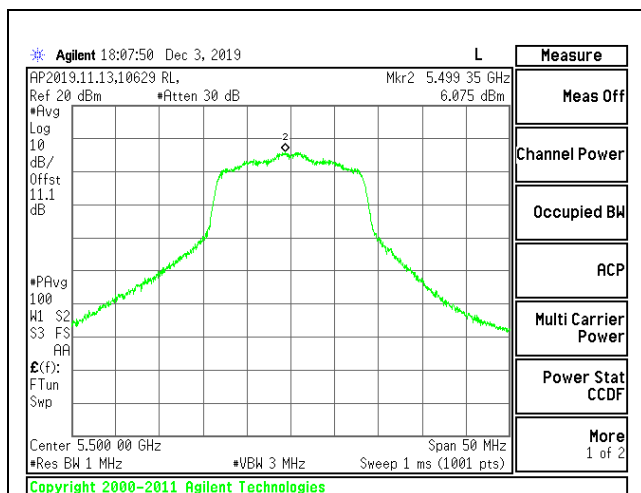
Duty Cycle CF (dB)	0.11	Included in Calculations of Corr'd PSD
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Output Power Results

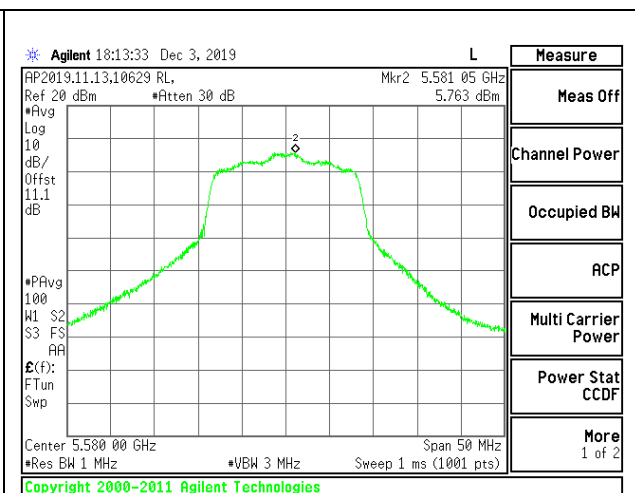
Channel	Frequency (MHz)	Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5500	15.90	15.90	23.99	-8.09
Mid	5580	15.81	15.81	23.99	-8.18
High	5700	15.75	15.75	24.00	-8.25
144	5720	15.96	15.96	24.00	-8.04

PSD Results

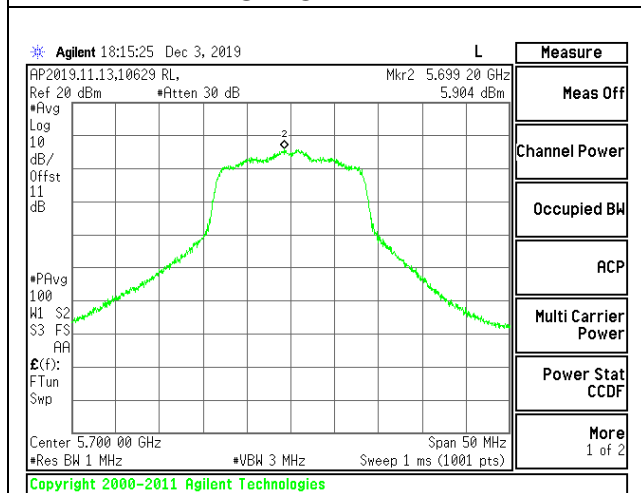
Channel	Frequency (MHz)	Meas PSD (dBm/ 1MHz)	Total Corr'd PSD (dBm/ 1MHz)	PSD Limit (dBm/ 1MHz)	PSD Margin (dB)
Low	5500	6.075	6.19	11.00	-4.82
Mid	5580	5.763	5.87	11.00	-5.13
High	5700	5.904	6.01	11.00	-4.99
144	5720	6.133	6.24	11.00	-4.76



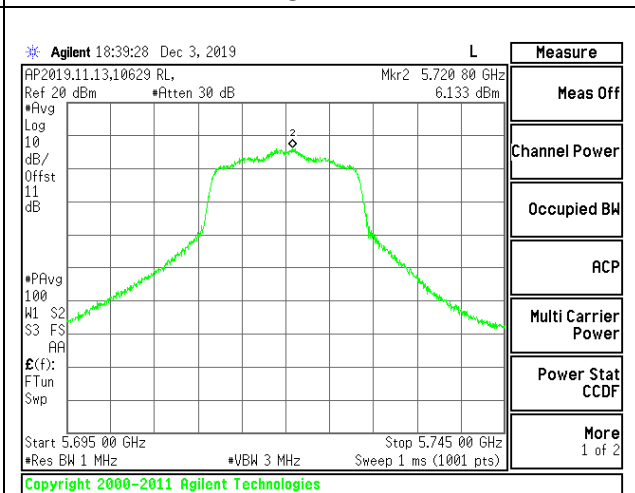
LOW CHANNEL



MID CHANNEL



HIGH CHANNEL



CHANNEL 144

9.4.10. 802.11n HT20 MODE IN THE 5.6 GHz BAND

1TX CHAIN 0 MODE (FCC)

Bandwidth, Antenna Gain, and Limits

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Directional Gain (dBi)	Power Limit (dBm)	PSD Limit (dBm/ 1MHz)
Low	5500	20.35	-7.63	24.00	11.00
Mid	5580	20.45	-7.63	24.00	11.00
High	5700	20.35	-7.63	24.00	11.00
144	5720	20.75	-7.63	24.00	11.00

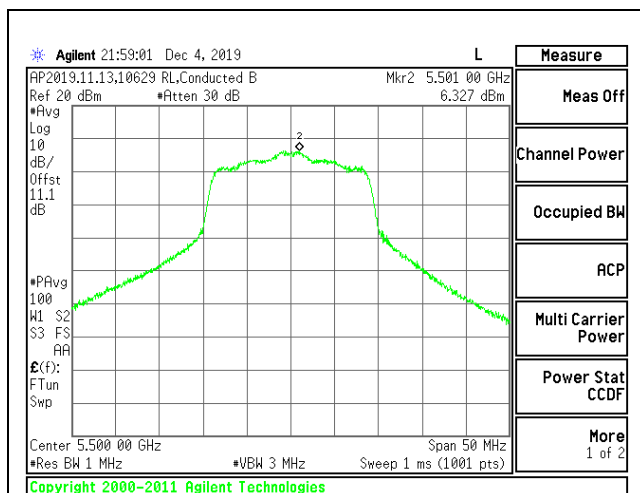
Duty Cycle CF (dB)	0.12	Included in Calculations of Corr'd PSD
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Output Power Results

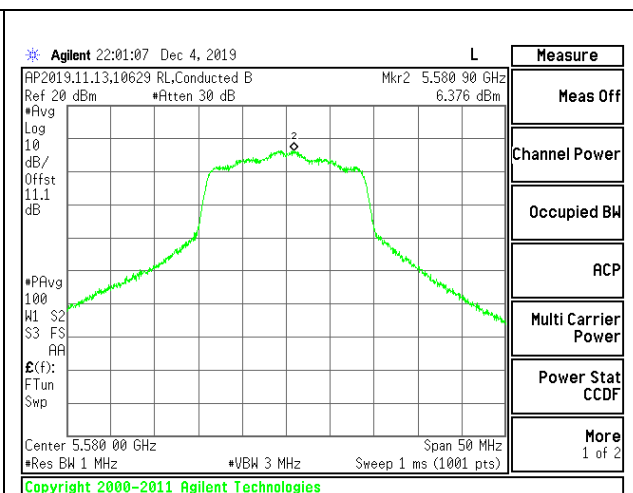
Channel	Frequency (MHz)	Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5500	15.85	15.85	24.00	-8.15
Mid	5580	15.96	15.96	24.00	-8.04
High	5700	15.67	15.67	24.00	-8.33
144	5720	15.87	15.87	24.00	-8.13

PSD Results

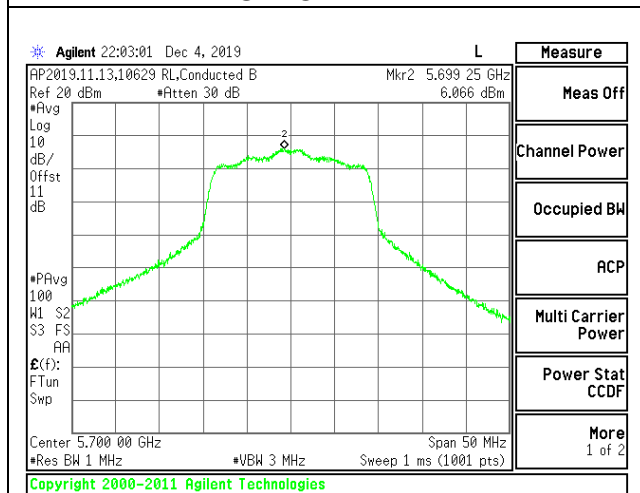
Channel	Frequency (MHz)	Meas PSD (dBm/ 1MHz)	Total Corr'd PSD (dBm/ 1MHz)	PSD Limit (dBm/ 1MHz)	PSD Margin (dB)
Low	5500	6.327	6.45	11.00	-4.55
Mid	5580	6.376	6.50	11.00	-4.50
High	5700	6.066	6.19	11.00	-4.81
144	5720	6.371	6.49	11.00	-4.51



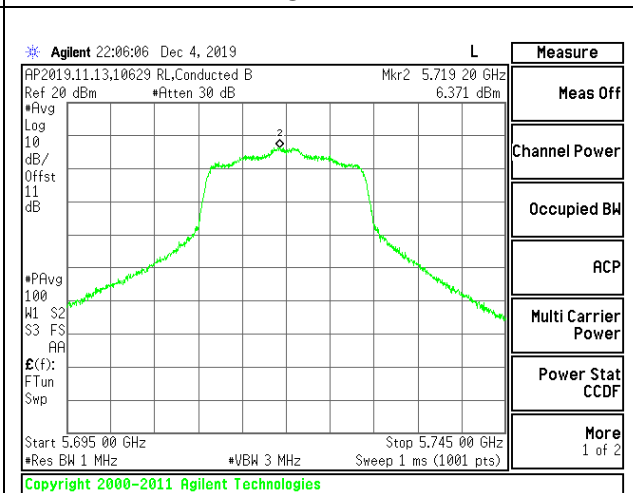
LOW CHANNEL



MID CHANNEL



HIGH CHANNEL



CHANNEL 144

9.4.11. 802.11n HT40 MODE IN THE 5.6 GHz BAND

1TX CHAIN 0 MODE (FCC)

Bandwidth, Antenna Gain, and Limits

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Directional Gain (dBi)	Power Limit (dBm)	PSD Limit (dBm/ 1MHz)
Low	5510	40.5	-7.63	24.00	11.00
Mid	5550	40.4	-7.63	24.00	11.00
High	5670	40.5	-7.63	24.00	11.00
142	5710	40.5	-7.63	24.00	11.00

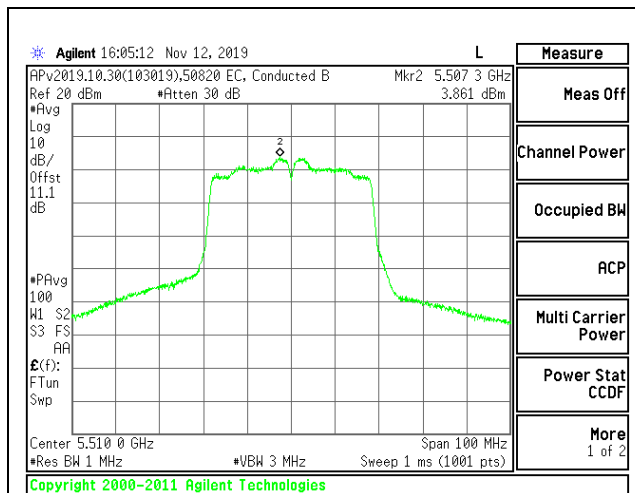
Duty Cycle CF (dB)	0.24	Included in Calculations of Corr'd PSD
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Output Power Results

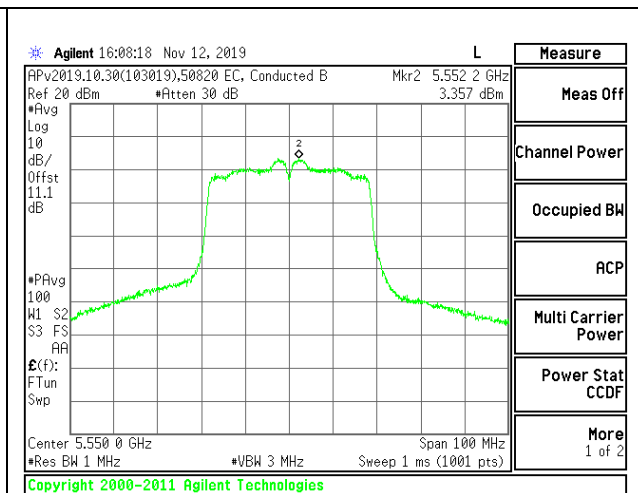
Channel	Frequency (MHz)	Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5510	15.87	15.87	24.00	-8.13
Mid	5550	15.62	15.62	24.00	-8.38
High	5670	15.96	15.96	24.00	-8.04
142	5710	15.57	15.57	24.00	-8.43

PSD Results

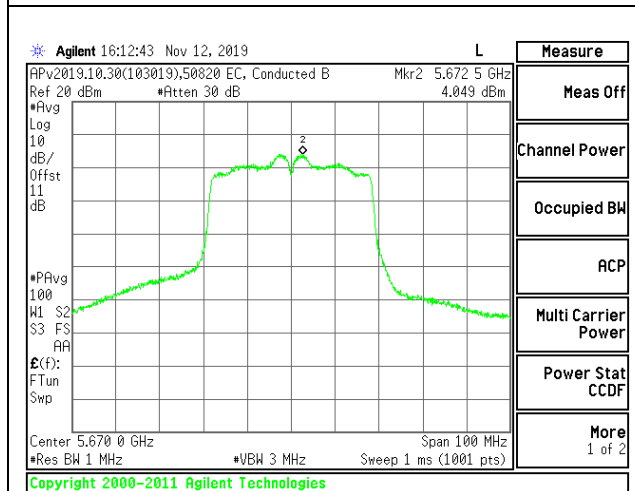
Channel	Frequency (MHz)	Meas PSD (dBm/ 1MHz)	Total Corr'd PSD (dBm/ 1MHz)	PSD Limit (dBm/ 1MHz)	PSD Margin (dB)
Low	5510	3.861	4.10	11.00	-6.90
Mid	5550	3.357	3.60	11.00	-7.40
High	5670	4.049	4.29	11.00	-6.71
142	5710	3.728	3.97	11.00	-7.03



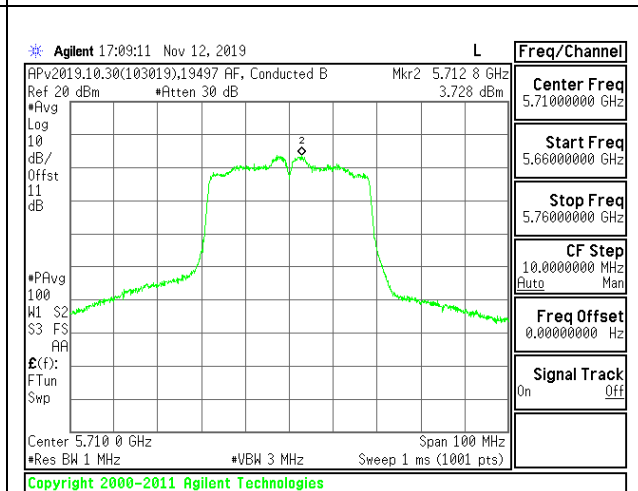
LOW CHANNEL



MID CHANNEL



HIGH CHANNEL



CHANNEL 142

9.4.12. 802.11ac VHT80 MODE IN THE 5.6 GHz BAND

1TX CHAIN 0 MODE (FCC)

Bandwidth, Antenna Gain, and Limits

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Directional Gain (dBi)	Power Limit (dBm)	PSD Limit (dBm/ 1MHz)
Low	5530	82.0	-7.63	24.00	11.00
High	5610	82.0	-7.63	24.00	11.00
138	5690	82.0	-7.63	24.00	11.00

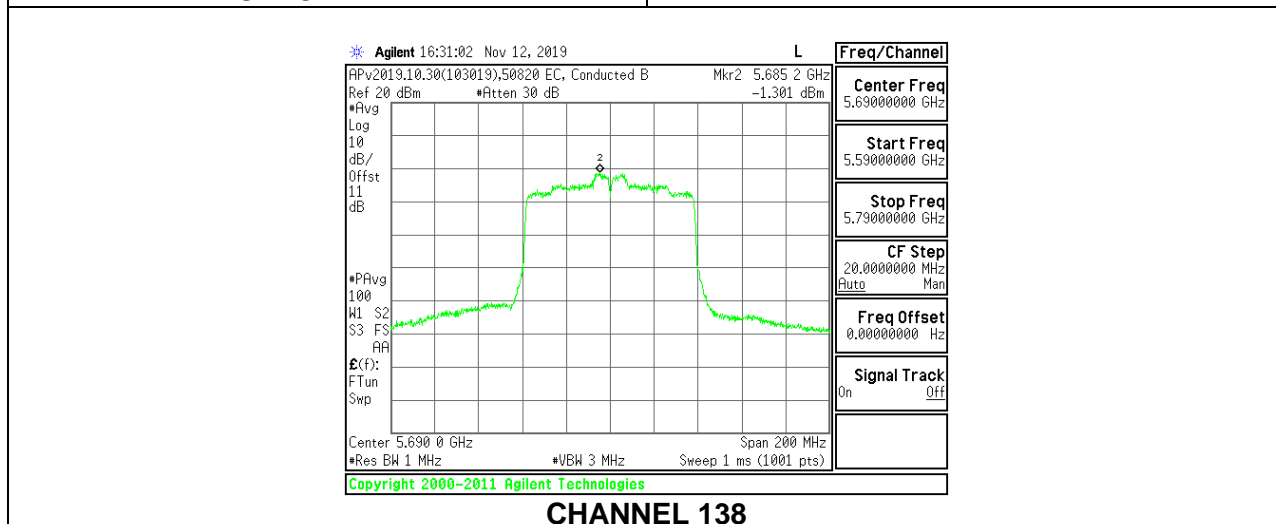
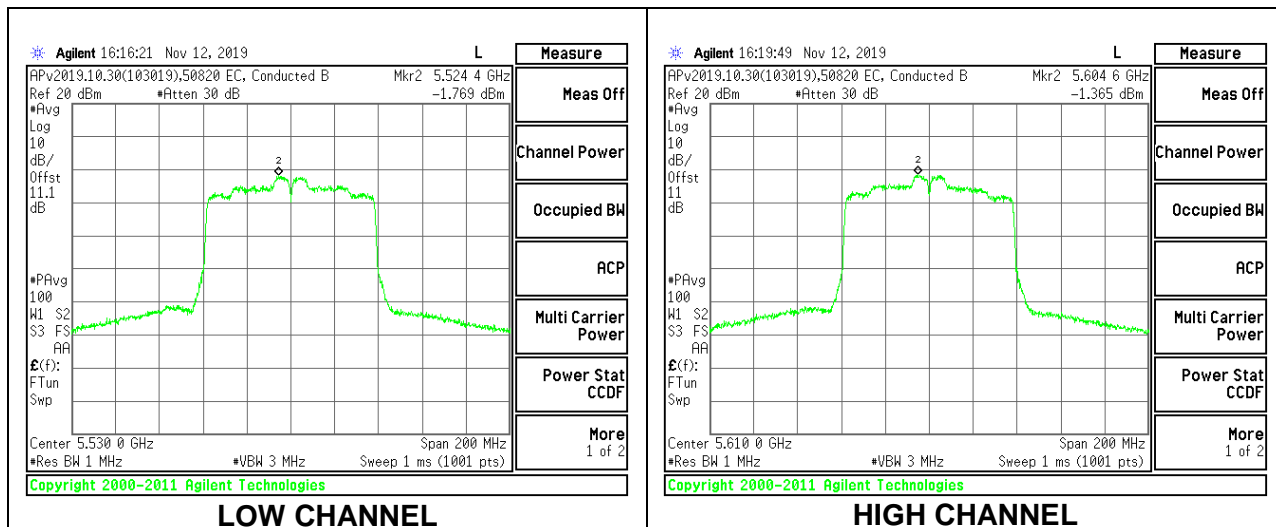
Duty Cycle CF (dB)	0.76	Included in Calculations of Corr'd PSD
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Output Power Results

Channel	Frequency (MHz)	Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5530	13.21	13.21	24.00	-10.79
High	5610	13.69	13.69	24.00	-10.31
138	5690	13.49	13.49	24.00	-10.51

PSD Results

Channel	Frequency (MHz)	Meas PSD (dBm/ 1MHz)	Total Corr'd PSD (dBm/ 1MHz)	PSD Limit (dBm/ 1MHz)	PSD Margin (dB)
Low	5530	-1.769	-1.01	11.00	-12.01
High	5610	-1.365	-0.61	11.00	-11.61
138	5690	-1.301	-0.54	11.00	-11.54



9.4.13. 802.11a MODE IN THE 5.8 GHz BAND

1TX CHAIN 0 MODE (FCC)

Antenna Gain and Limit

Channel	Frequency (MHz)	Directional Gain (dBi)	Power Limit (dBm)	PSD Limit (dBm/ 500KHz)
Low	5745	-7.81	30.00	30.00
Mid	5785	-7.81	30.00	30.00
High	5825	-7.81	30.00	30.00

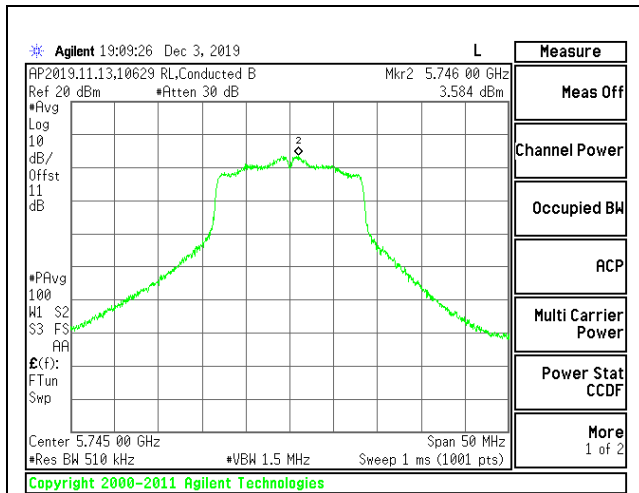
Duty Cycle CF (dB)	0.11	Included in Calculations of Corr'd PSD
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Output Power Results

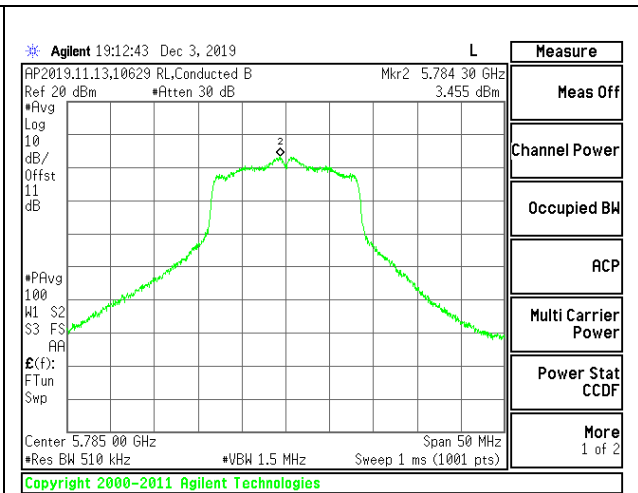
Channel	Frequency (MHz)	Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5745	15.93	15.93	30.00	-14.07
Mid	5785	15.91	15.91	30.00	-14.09
High	5825	15.69	15.69	30.00	-14.31

PSD Results

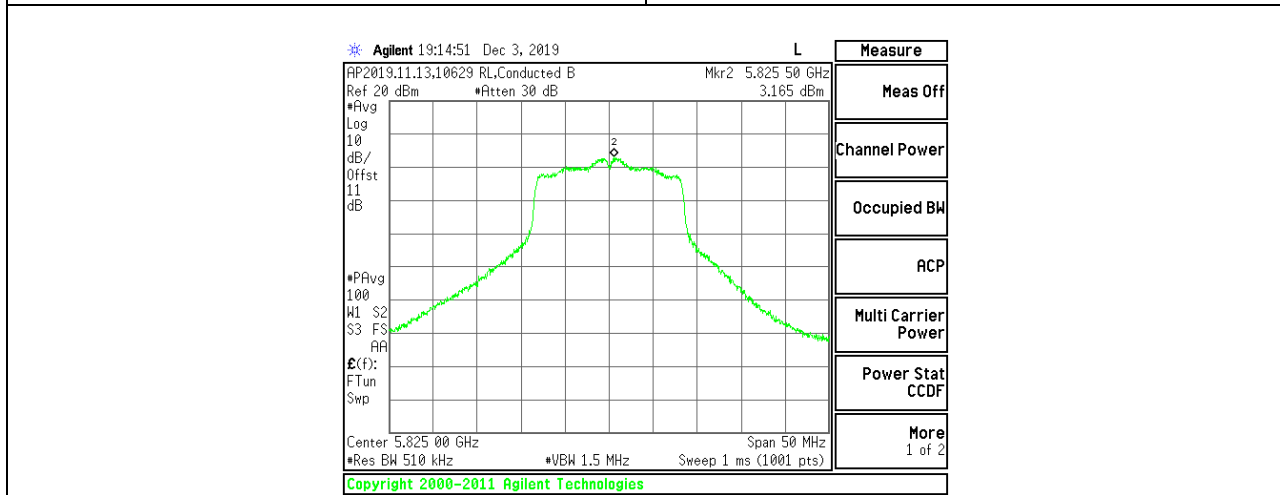
Channel	Frequency (MHz)	Meas PSD (dBm/ 500kHz)	Total Corr'd PSD (dBm/ 500kHz)	PSD Limit (dBm/ 500kHz)	PSD Margin (dB)
Low	5745	3.584	3.694	30.00	-26.31
Mid	5785	3.455	3.565	30.00	-26.44
High	5825	3.165	3.275	30.00	-26.73



LOW CHANNEL



MID CHANNEL



HIGH CHANNEL

9.4.14. 802.11n HT20 MODE IN THE 5.8 GHz BAND

1TX CHAIN 0 MODE (FCC)

Antenna Gain and Limit

Channel	Frequency (MHz)	Directional Gain (dBi)	Power Limit (dBm)	PSD Limit (dBm/ 500KHz)
Low	5745	-7.81	30.00	30.00
Mid	5785	-7.81	30.00	30.00
High	5825	-7.81	30.00	30.00

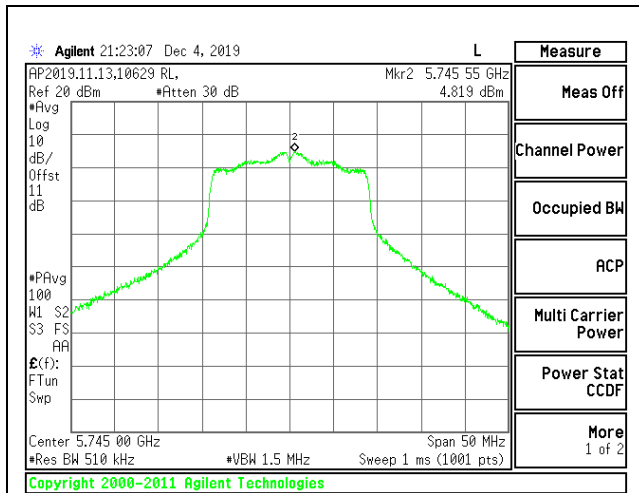
Duty Cycle CF (dB)	0.12	Included in Calculations of Corr'd PSD
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Output Power Results

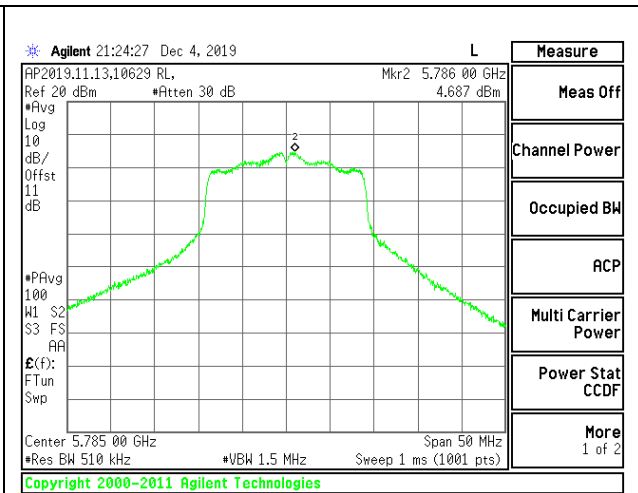
Channel	Frequency (MHz)	Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5745	15.88	15.88	30.00	-14.12
Mid	5785	15.74	15.74	30.00	-14.26
High	5825	15.88	15.88	30.00	-14.12

PSD Results

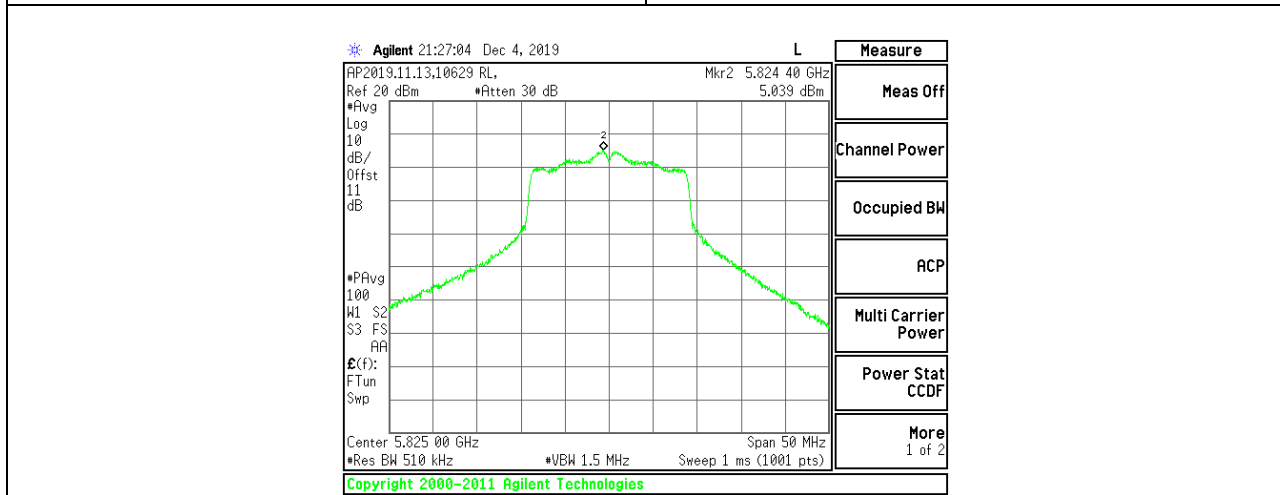
Channel	Frequency (MHz)	Meas PSD (dBm/ 500kHz)	Total Corr'd PSD (dBm/ 500kHz)	PSD Limit (dBm/ 500kHz)	PSD Margin (dB)
Low	5745	4.819	4.939	30.00	-25.06
Mid	5785	4.687	4.807	30.00	-25.19
High	5825	5.039	5.159	30.00	-24.84



LOW CHANNEL



MID CHANNEL



HIGH CHANNEL

9.4.15. 802.11n HT40 MODE IN THE 5.8 GHz BAND

1TX CHAIN 0 MODE (FCC)

Antenna Gain and Limit

Channel	Frequency (MHz)	Directional Gain (dBi)	Power Limit (dBm)	PSD Limit (dBm/ 500KHz)
Low	5755	-7.81	30.00	30.00
High	5795	-7.81	30.00	30.00

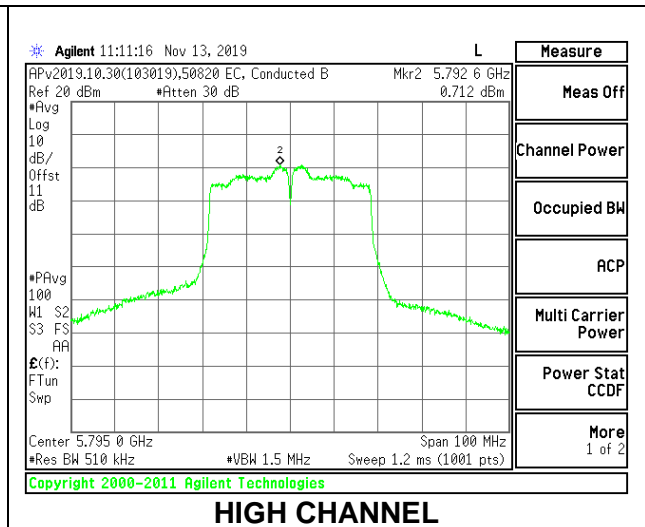
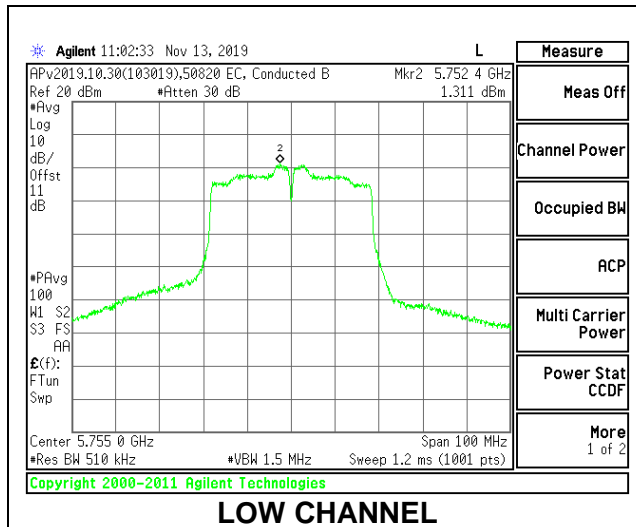
Duty Cycle CF (dB)	0.24	Included in Calculations of Corr'd PSD
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Output Power Results

Channel	Frequency (MHz)	Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5755	15.78	15.78	30.00	-14.22
High	5795	15.72	15.72	30.00	-14.28

PSD Results

Channel	Frequency (MHz)	Meas PSD (dBm/ 500kHz)	Total Corr'd PSD (dBm/ 500kHz)	PSD Limit (dBm/ 500kHz)	PSD Margin (dB)
Low	5755	1.311	1.551	30.00	-28.45
High	5795	0.712	0.952	30.00	-29.05



9.4.16. 802.11ac VHT80 MODE IN THE 5.8 GHz BAND

1TX CHAIN 0 MODE (FCC)

Antenna Gain and Limit

Channel	Frequency (MHz)	Directional Gain (dBi)	Power Limit (dBm)	PSD Limit (dBm/ 500KHz)
Mid	5775	-7.81	30.00	30.00

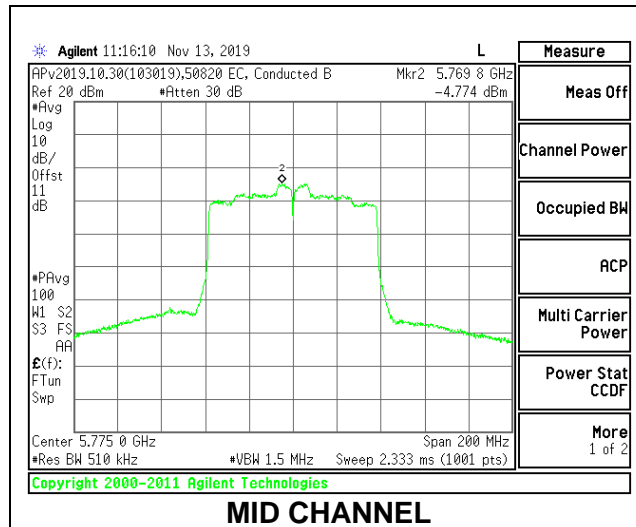
Duty Cycle CF (dB)	0.76	Included in Calculations of Corr'd PSD
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Output Power Results

Channel	Frequency (MHz)	Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Mid	5775	13.47	13.47	30.00	-16.53

PSD Results

Channel	Frequency (MHz)	Meas PSD (dBm/ 500kHz)	Total Corr'd PSD (dBm/ 500kHz)	PSD Limit (dBm/ 500kHz)	PSD Margin (dB)
Mid	5775	-4.774	-4.014	30.00	-34.01



10. RADIATED TEST RESULTS

LIMITS

FCC §15.205 and §15.209 -Restricted bands

FCC §15.407(b)(1-3) -Un-Restricted bands

After January 01, 2019 for Outside of the Restricted Bands Emissions

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 for measurement below 1GHz; 1.5 m above the ground plane for measurement above 1GHz. The antenna to EUT distance is 3 meters. The EUT is configured in accordance with ANSI C63.10. The EUT is set to transmit in a continuous mode.

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

For pre-scans above 1 GHz the resolution bandwidth is set to 1 MHz; the video bandwidth is set to 30 KHz for peak measurements.

For final 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 1GHz and 18GHz to 40 GHz is investigated with the transmitter set to transmit at the channel with highest output power as worst-case scenario. 1GHz to 18GHz was set to the lowest, middle, and highest channels in the 5 GHz bands.

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.

2D antenna use - For below 30MHz testing, investigation was done on three antenna orientations (parallel, perpendicular, and ground-parallel), parallel and perpendicular are the worst orientations, therefore testing was performed on these two orientations only.

KDB 414788 Open Field Site(OFS) and Chamber Correlation Justification

Base on FCC 15.31 (f) (2): measurements may be performed at a distance closer than that specified in the regulations; however, an attempt should be made to avoid making measurements in the near field.

OFS and chamber correlation testing had been performed and chamber measured test result is the worst case test result.

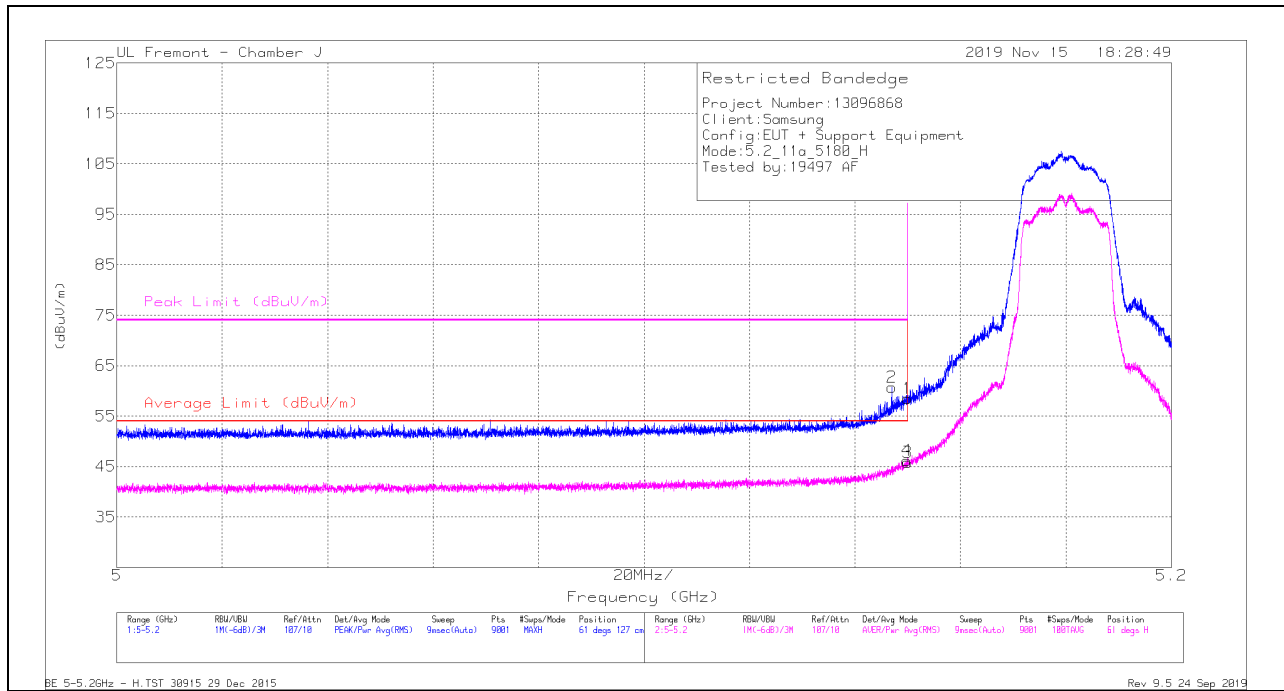
10.1. TRANSMITTER ABOVE 1 GHz

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

1TX CHAIN 0 MODE

BANDEDGE (LOW CHANNEL)

HORIZONTAL RESULT



Trace Markers

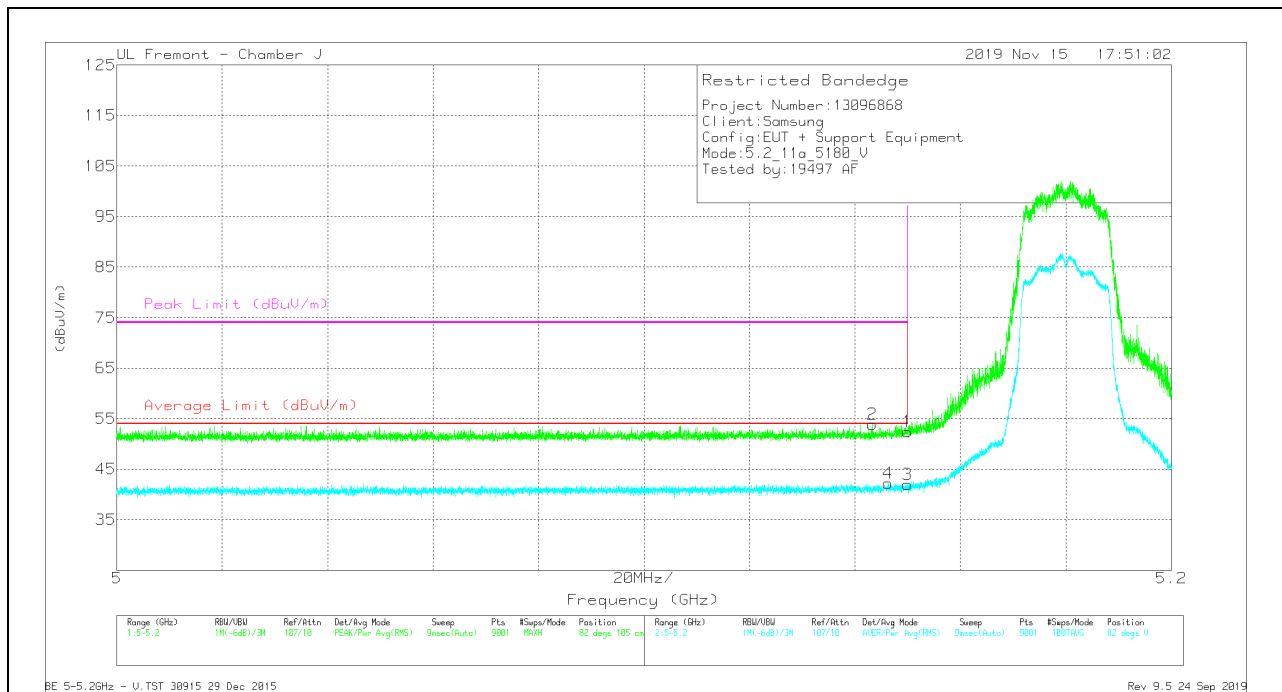
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (dB/m)	Amp/Cb/Filtr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.15	45.44	Pk	34.3	-21.2	0	58.54	-	-	74	-15.46	61	127	H
2	* 5.14695	47.65	Pk	34.3	-21.2	0	60.75	-	-	74	-13.25	61	127	H
3	* 5.15	32.63	RMS	34.3	-21.2	.11	45.84	54	-8.16	-	-	61	127	H
4	* 5.14984	32.97	RMS	34.3	-21.2	.11	46.18	54	-7.82	-	-	61	127	H

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

RMS - RMS detection

VERTICAL RESULT



Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (dB/m)	Amp/Cb/Filtr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.15	39.36	Pk	34.3	-21.2	0	52.46	-	-	74	-21.54	82	105	V
2	* 5.14331	40.82	Pk	34.3	-21.2	0	53.92	-	-	74	-20.08	82	105	V
3	* 5.15	28.76	RMS	34.3	-21.2	.11	41.97	54	-12.03	-	-	82	105	V
4	* 5.14633	29.02	RMS	34.3	-21.2	.11	42.23	54	-11.77	-	-	82	105	V

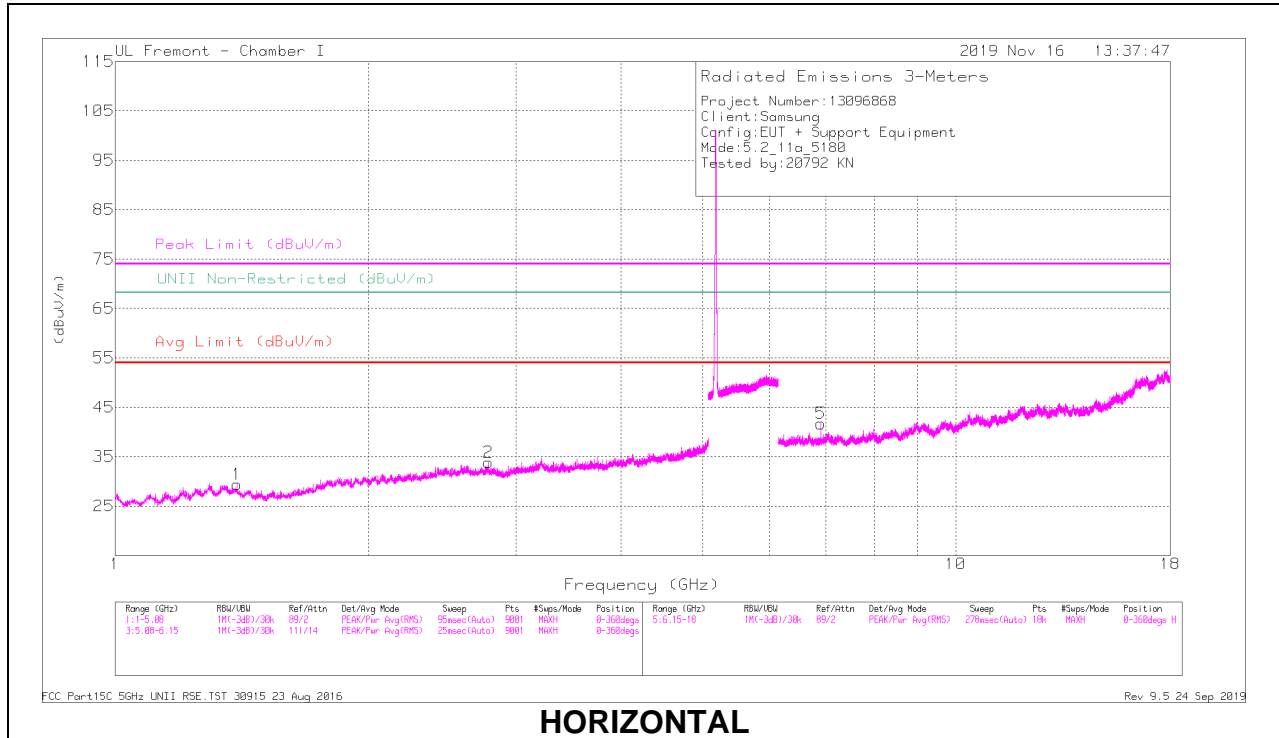
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

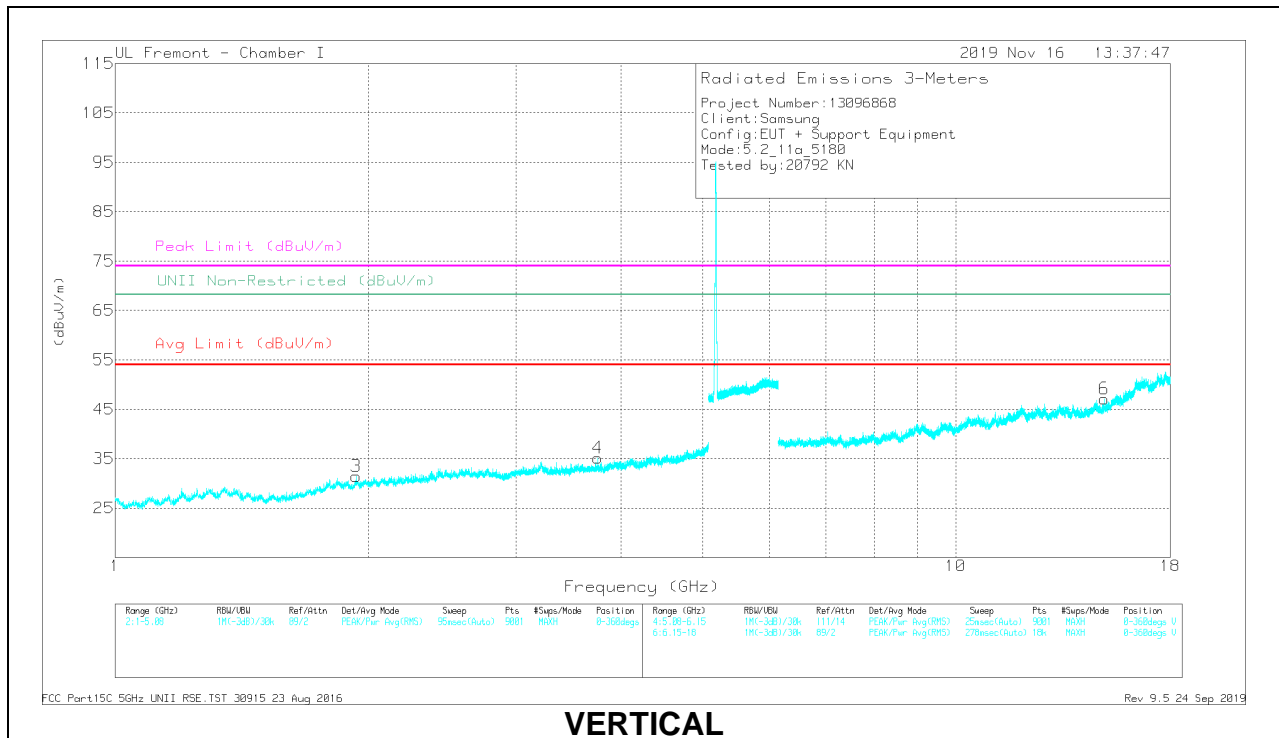
RMS - RMS detection

HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL RESULTS



HORIZONTAL



VERTICAL

RADIATED EMISSIONS

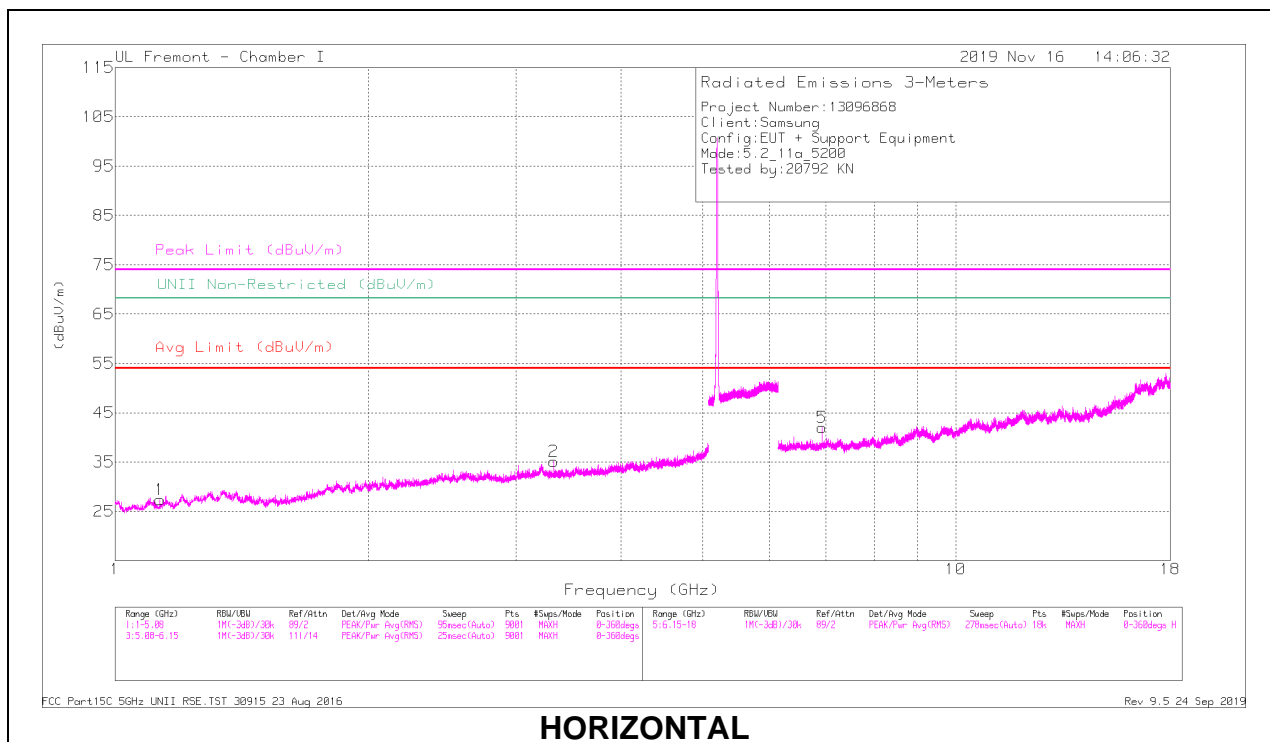
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T862 (dB/m)	Amp/Cbl/Fitr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	* 2.77745	36.83	PK-U	32.4	-28.9	0	40.33	-	-	74	-33.67	-	-	106	158	H
	* 2.77564	27.37	ADR	32.5	-29	.11	30.98	54	-23.02	-	-	-	-	106	158	H
1	* 1.39193	41.03	PK-U	28.9	-31.8	0	38.13	-	-	74	-35.87	-	-	86	156	H
	* 1.39505	29.77	ADR	28.9	-31.8	.11	26.98	54	-27.02	-	-	-	-	86	156	H
4	* 3.74679	35.86	PK-U	33	-27.5	0	41.36	-	-	74	-32.64	-	-	134	122	V
	* 3.74969	26.21	ADR	33	-27.6	.11	31.72	54	-22.28	-	-	-	-	134	122	V
3	1.93977	38.71	PK-U	30.8	-30.9	0	38.61	-	-	-	-	68.2	-29.59	257	154	V
	6.90633	36.62	PK-U	35.5	-20.5	0	51.62	-	-	-	-	68.2	-16.58	33	118	H
5	15.01412	27.43	PK-U	39.6	-13.7	0	53.33	-	-	-	-	68.2	-14.87	174	167	V
6	* 2.77745	36.83	PK-U	32.4	-28.9	0	40.33	-	-	74	-33.67	-	-	106	158	H

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

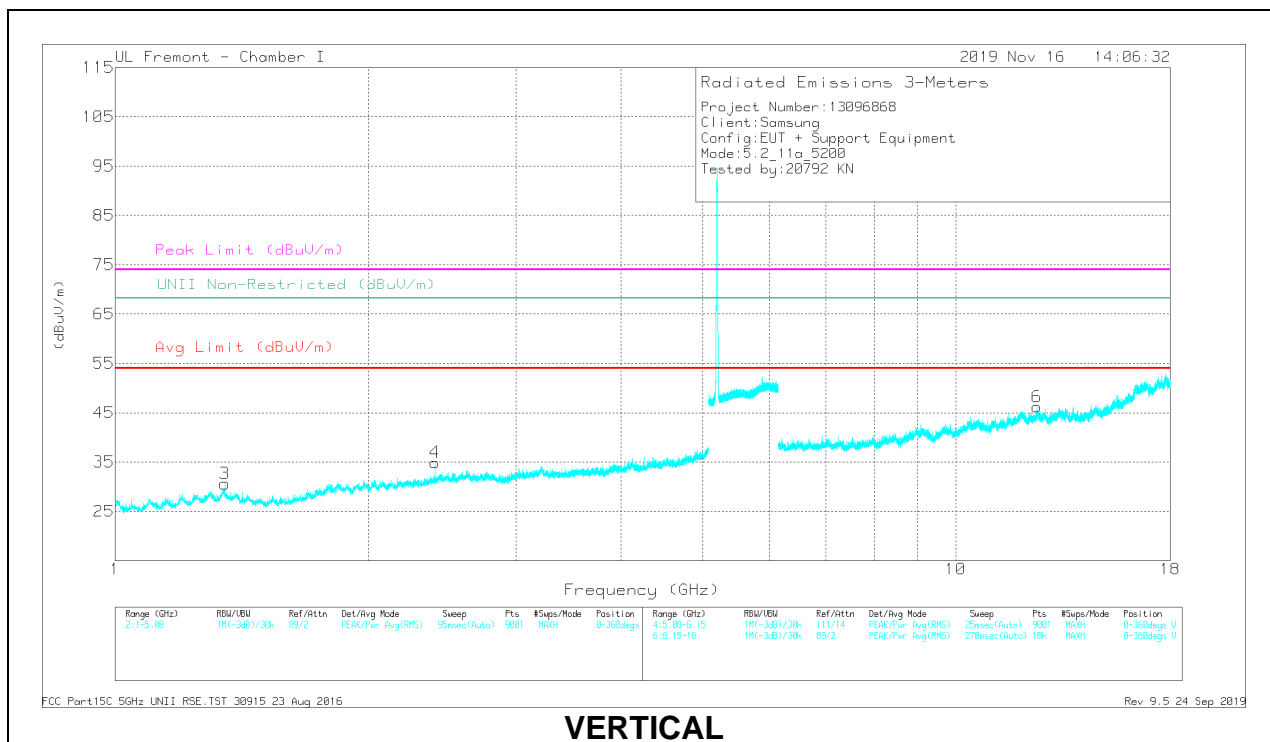
PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

MID CHANNEL RESULTS



HORIZONTAL



VERTICAL

RADIATED EMISSIONS

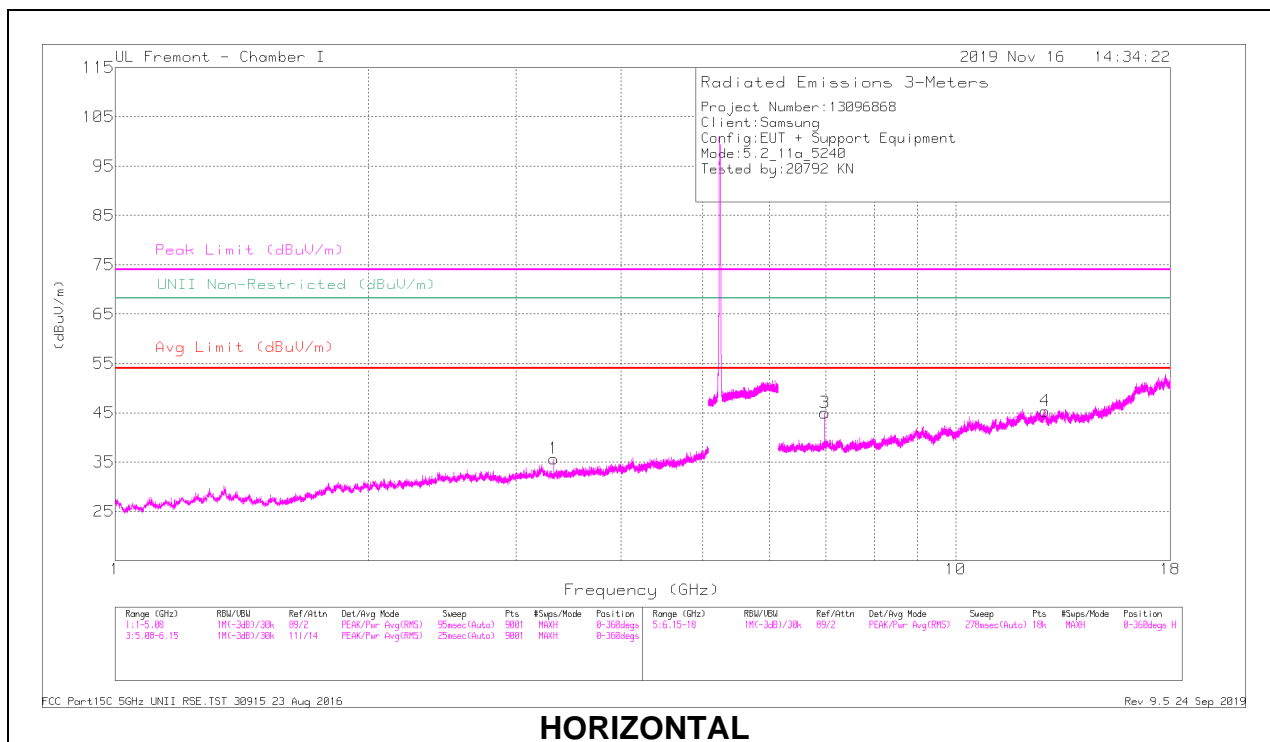
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T862 (dB/m)	Amp/Cbl/Fitr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	*1.1291	38.62	PK-U	27.7	-32.5	0	33.82	-	-	74	-40.18	-	-	212	202	H
	*1.13268	29.69	ADR	27.7	-32.5	.11	25	54	-29	-	-	-	-	212	202	H
2	3.32327	37.77	PK-U	32.7	-28.8	0	41.67	-	-	-	-	68.2	-26.53	176	100	H
3	*1.34635	39.01	PK-U	29.5	-31.9	0	36.61	-	-	74	-37.39	-	-	169	169	V
	*1.34627	29.66	ADR	29.5	-31.9	.11	27.37	54	-26.63	-	-	-	-	169	169	V
4	2.4024	38.33	PK-U	31.9	-30.2	0	40.03	-	-	-	-	68.2	-28.17	153	191	V
5	6.93328	33.68	PK-U	35.7	-20.2	0	49.18	-	-	-	-	68.2	-19.02	40	117	H
6	*12.49266	29.36	PK-U	39.1	-15.8	0	52.66	-	-	74	-21.34	-	-	195	164	V
	*12.49451	19.86	ADR	39	-15.7	.11	43.27	54	-10.73	-	-	-	-	195	164	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

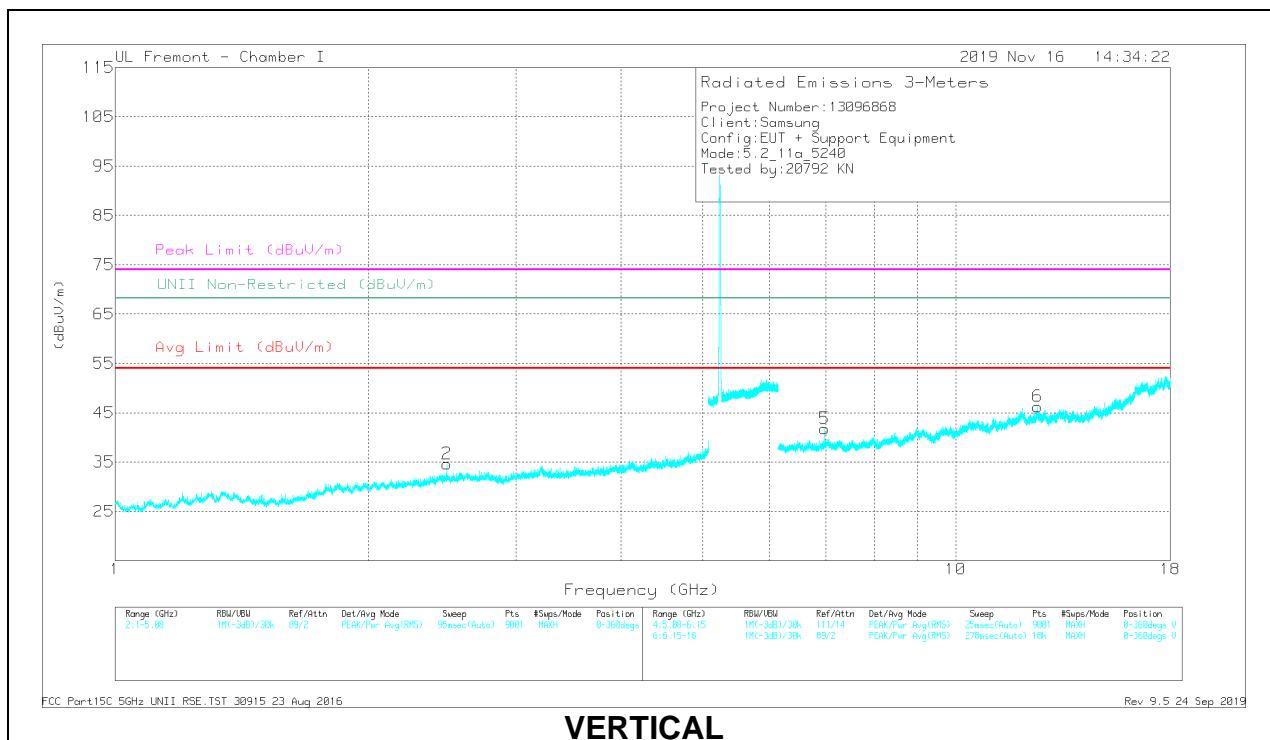
PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

HIGH CHANNEL RESULTS



HORIZONTAL



VERTICAL

RADIATED EMISSIONS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T862 (dB/m)	Amp/Cb/Fitr/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	3.32424	36.62	PK-U	32.7	-28.8	0	40.52	-	-	-	-	68.2	-27.68	170	166	H
2	2.48013	37.89	PK-U	32.3	-30	0	40.19	-	-	-	-	68.2	-28.01	184	158	V
3	6.98678	36.53	PK-U	35.6	-20	0	52.13	-	-	-	-	68.2	-16.07	32	125	H
4	12.77057	28.07	PK-U	39.1	-14.9	0	52.27	-	-	-	-	68.2	-15.93	153	154	H
6	* 12.51099	28.47	PK-U	39.1	-15.3	0	52.27	-	-	74	-21.73	-	-	178	189	V
	* 12.507	19.36	ADR	39.1	-15.4	.11	43.17	54	-10.83	-	-	-	-	178	189	V
5	6.98654	32.98	PK-U	35.6	-20	0	48.58	-	-	-	-	68.2	-19.62	17	110	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

PK-U - U-NII: Maximum Peak

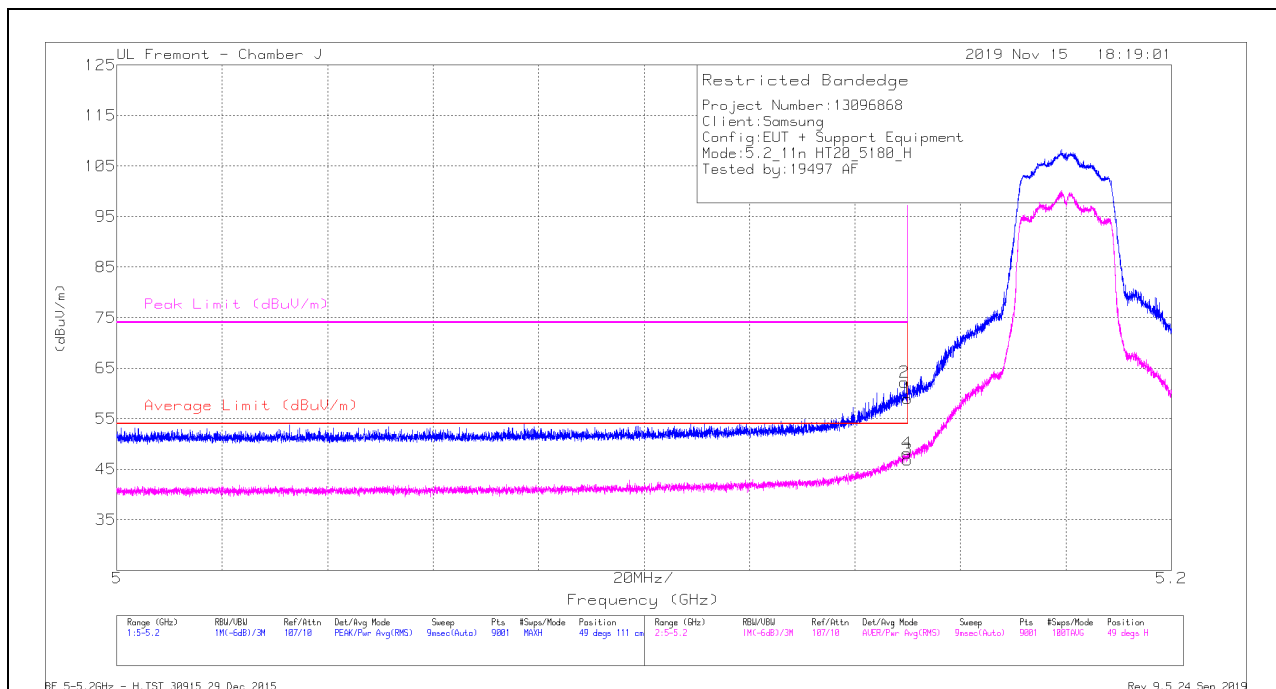
ADR - U-NII AD primary method, RMS average

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

1TX CHAIN 0 MODE

BANDEDGE (LOW CHANNEL)

HORIZONTAL RESULT



Trace Markers

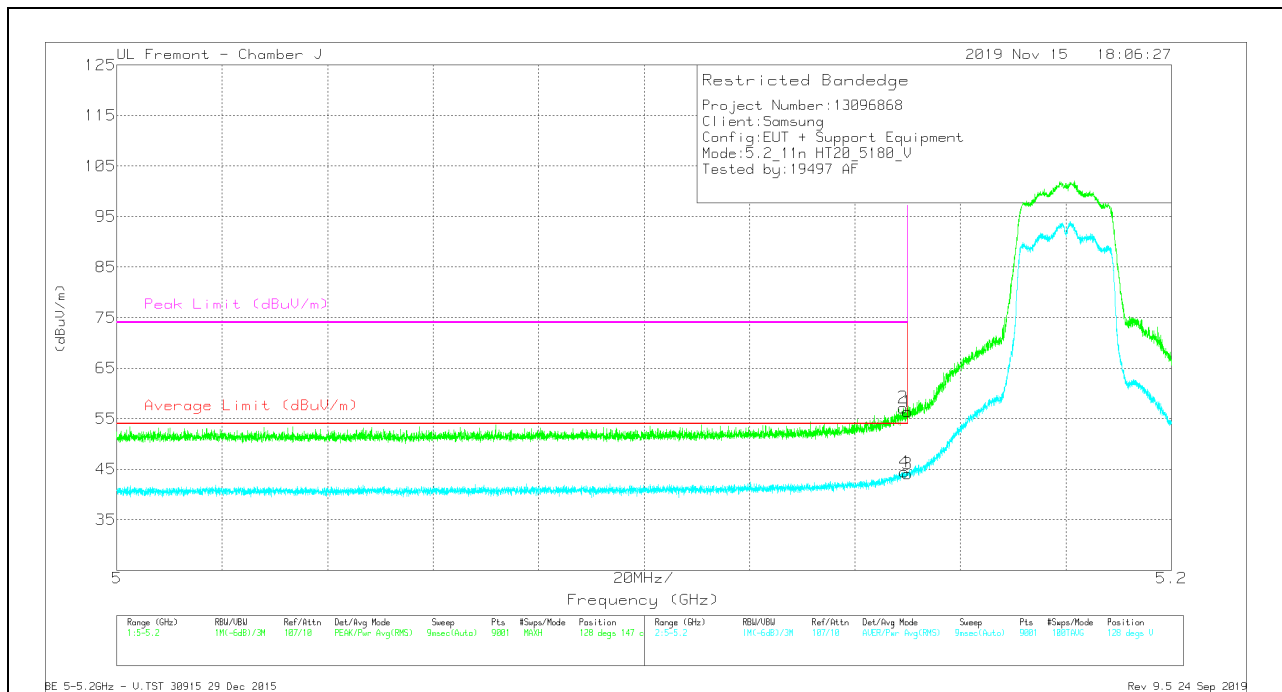
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.15	45.94	Pk	34.3	-21.2	0	59.04	-	-	74	-14.96	49	111	H
2	* 5.14933	49.15	Pk	34.3	-21.2	0	62.25	-	-	74	-11.75	49	111	H
3	* 5.15	33.66	RMS	34.3	-21.2	.12	46.88	54	-7.12	-	-	49	111	H
4	* 5.14984	34.92	RMS	34.3	-21.2	.12	48.14	54	-5.86	-	-	49	111	H

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

RMS - RMS detection

VERTICAL RESULT



Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (dB/m)	Amp/Cb/Filtr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.15	43.24	Pk	34.3	-21.2	0	56.34	-	-	74	-17.66	128	147	V
2	* 5.14918	44.08	Pk	34.3	-21.2	0	57.18	-	-	74	-16.82	128	147	V
3	* 5.15	30.92	RMS	34.3	-21.2	.12	44.14	54	-9.86	-	-	128	147	V
4	* 5.14942	31.2	RMS	34.3	-21.2	.12	44.42	54	-9.58	-	-	128	147	V

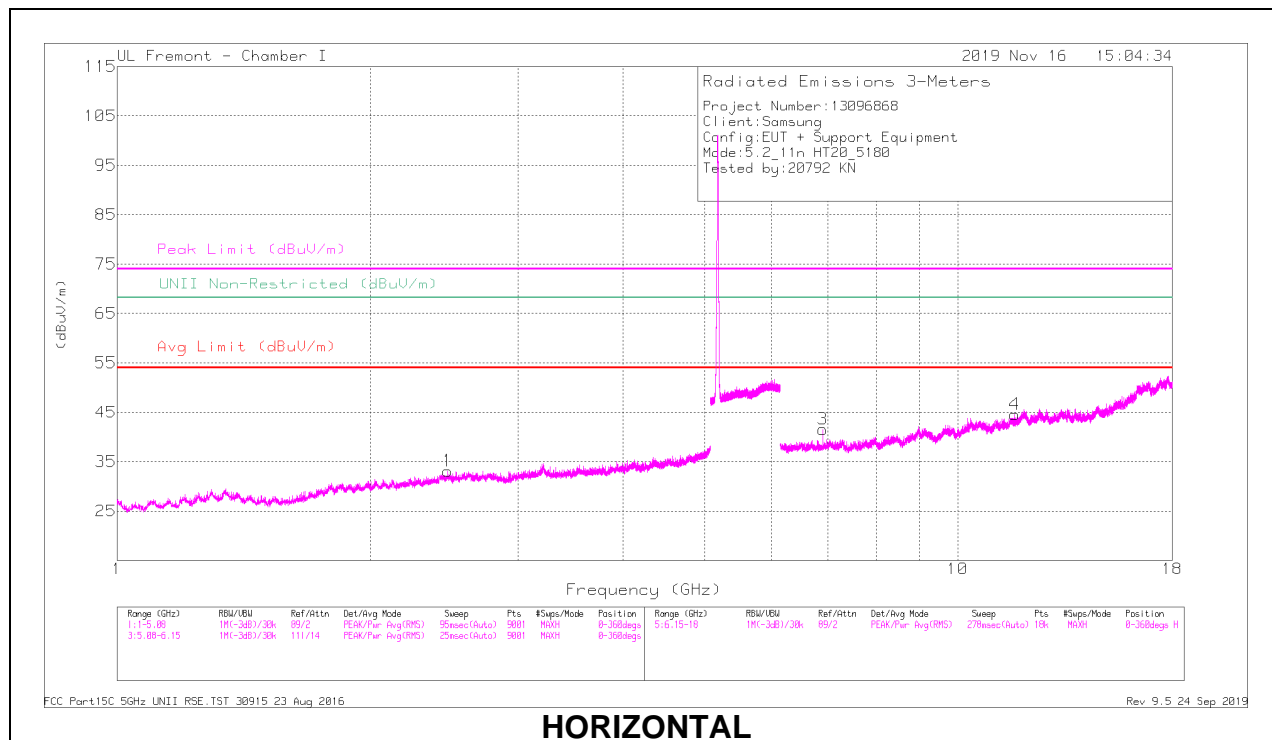
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

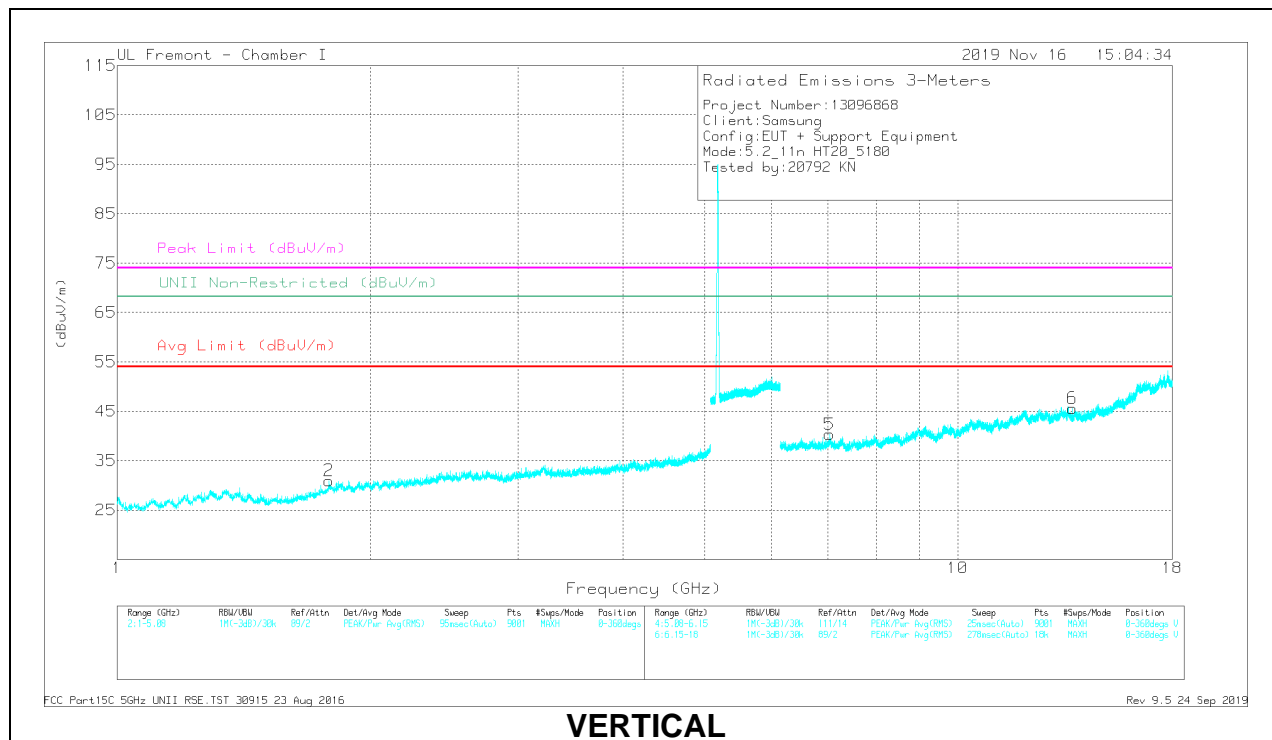
RMS - RMS detection

HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL RESULTS



HORIZONTAL



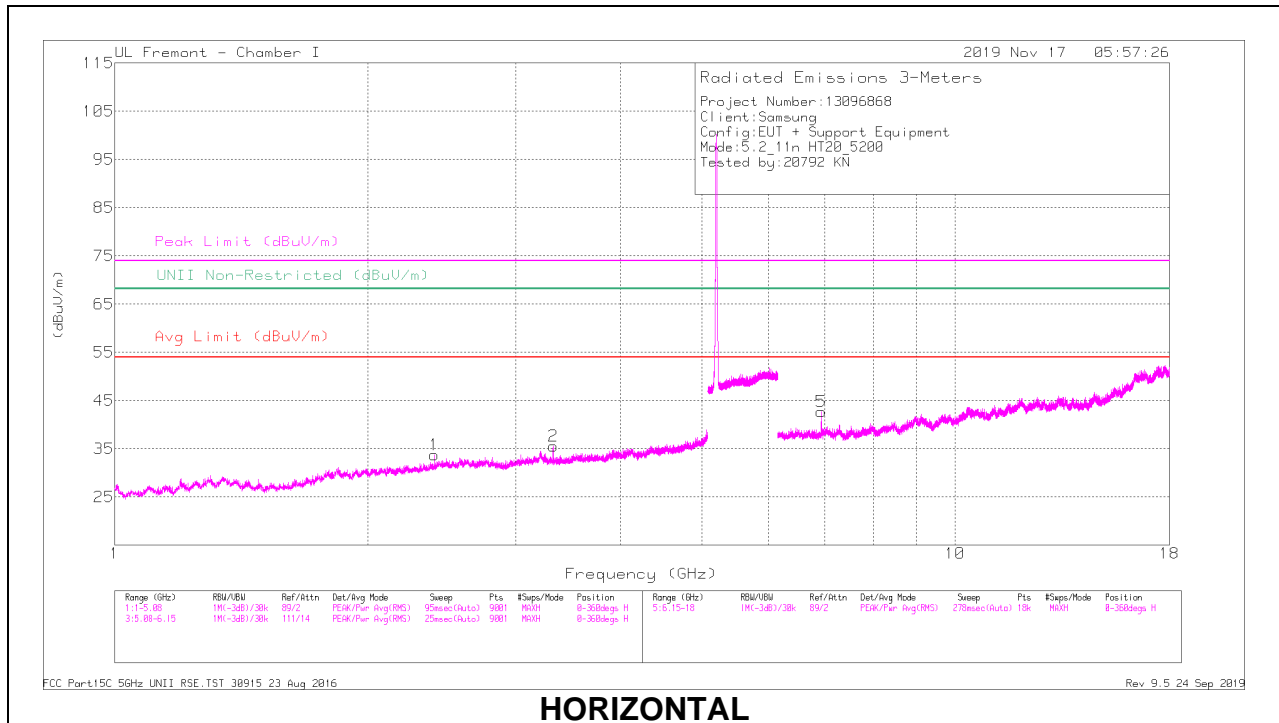
VERTICAL

RADIATED EMISSIONS

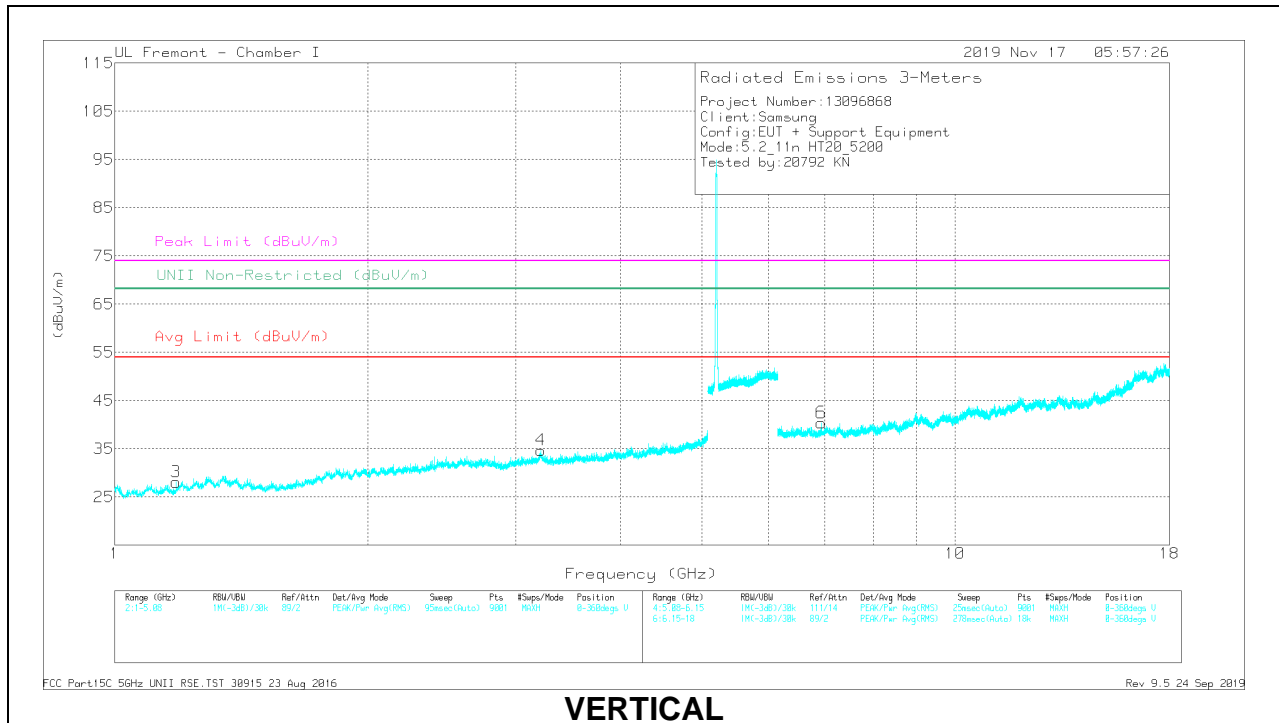
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T862 (dB/m)	Amp/Cb/Fitr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	2.47045	36.8	PK-U	32.3	-29.9	0	39.2	-	-	-	-	68.2	-29	245	172	H
2	1.78767	37.68	PK-U	30.4	-31	0	37.08	-	-	-	-	68.2	-31.12	196	174	V
4	*11.69061	28.92	PK-U	38.4	-15.8	0	51.52	-	-	74	-22.48	-	-	100	152	H
	*11.69245	19.19	ADR	38.4	-15.8	-12	41.91	54	-12.09	-	-	-	-	100	152	H
3	6.9065	35.29	PK-U	35.5	-20.5	0	50.29	-	-	-	-	68.2	-17.91	29	108	H
5	7.03452	29.99	PK-U	35.6	-19.3	0	46.29	-	-	-	-	68.2	-21.91	123	152	V
6	13.6891	29.05	PK-U	39.2	-17	0	51.25	-	-	-	-	68.2	-16.95	264	164	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
 PK-U - U-NII: Maximum Peak
 ADR - U-NII AD primary method, RMS average

MID CHANNEL RESULTS



HORIZONTAL



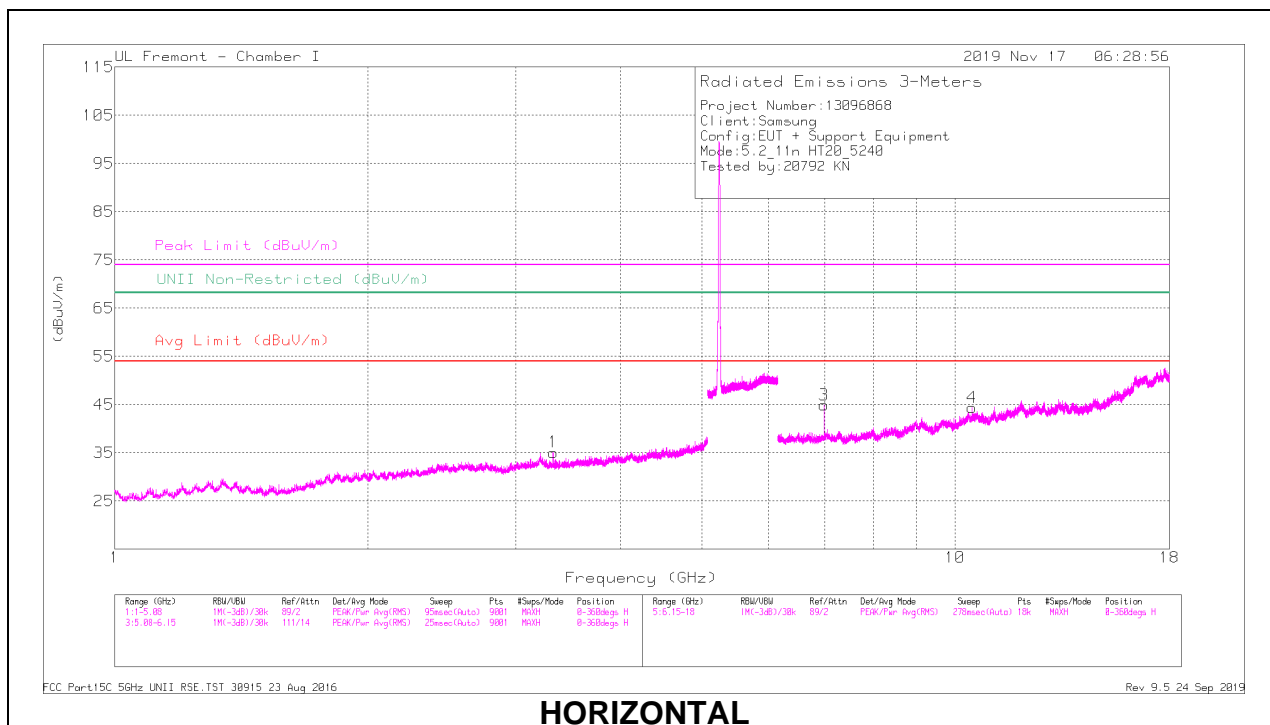
VERTICAL

RADIATED EMISSIONS

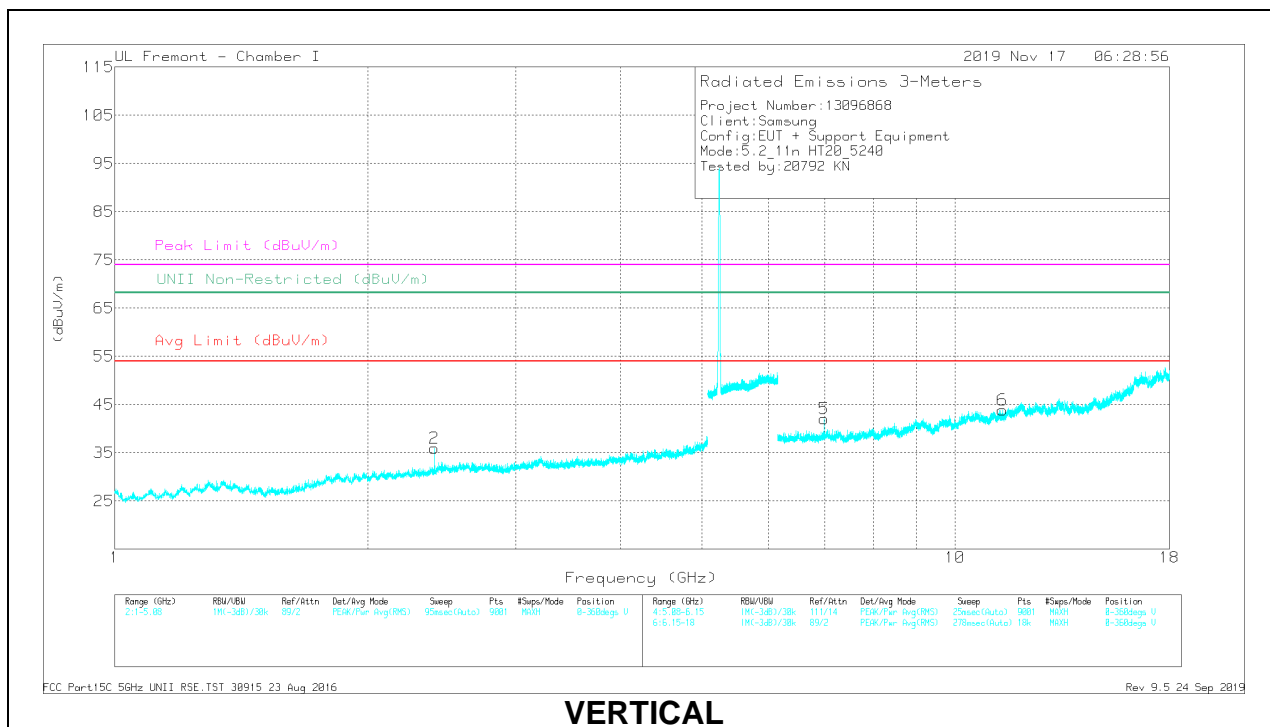
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T862 (dB/m)	Amp/Cbl/Fitr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	2.39941	37.71	PK-U	31.9	-30.1	0	39.51	-	-	-	-	68.2	-28.69	183	161	H
2	3.32886	37.26	PK-U	32.7	-28.8	0	41.16	-	-	-	-	68.2	-27.04	241	198	H
3	* 1.18196	39.04	PK-U	28.1	-32.4	0	34.74	-	-	74	-39.26	-	-	218	188	V
	* 1.1886	29.31	ADR	28.2	-32.4	-12	25.23	54	-28.77	-	-	-	-	218	188	V
4	3.21809	36.73	PK-U	33.4	-28.2	0	41.93	-	-	-	-	68.2	-26.27	213	165	V
5	6.93378	35.39	PK-U	35.7	-20.2	0	50.89	-	-	-	-	68.2	-17.31	30	108	H
6	6.93321	33.85	PK-U	35.7	-20.2	0	49.35	-	-	-	-	68.2	-18.85	41	154	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
 PK-U - U-NII: Maximum Peak
 ADR - U-NII AD primary method, RMS average

HIGH CHANNEL RESULTS



HORIZONTAL



VERTICAL

RADIATED EMISSIONS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T862 (dB/m)	Amp/Cbl/Fitr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	3.328	36.68	PK-U	32.7	-28.8	0	40.58	-	-	-	-	68.2	-27.62	242	100	H
2	2.40648	38.24	PK-U	32	-30.2	0	40.04	-	-	-	-	68.2	-28.16	315	180	V
3	6.98667	35.65	PK-U	35.6	-20	0	51.25	-	-	-	-	68.2	-16.95	31	109	H
4	10.4797	31.35	PK-U	37.7	-16.5	0	52.55	-	-	-	-	68.2	-15.65	107	103	H
6	*11.38694	28.34	PK-U	38.1	-15.7	0	50.74	-	-	74	-23.26	-	-	185	182	V
	*11.38997	18.66	ADR	38.1	-15.5	.12	41.38	54	-12.62	-	-	-	-	185	182	V
5	6.98663	32.82	PK-U	35.6	-20	0	48.42	-	-	-	-	68.2	-19.78	18	103	V

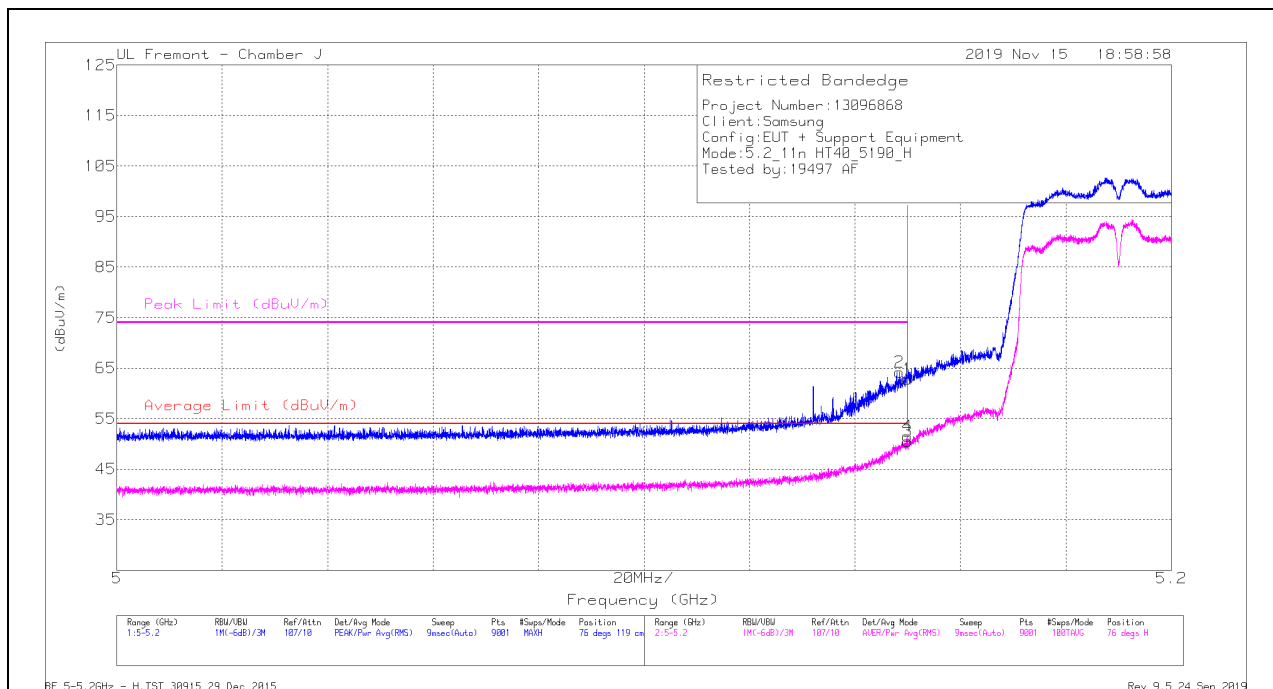
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
 PK-U - U-NII: Maximum Peak
 ADR - U-NII AD primary method, RMS average

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

1TX CHAIN 0 MODE

BANDEDGE (LOW CHANNEL)

HORIZONTAL RESULT



Trace Markers

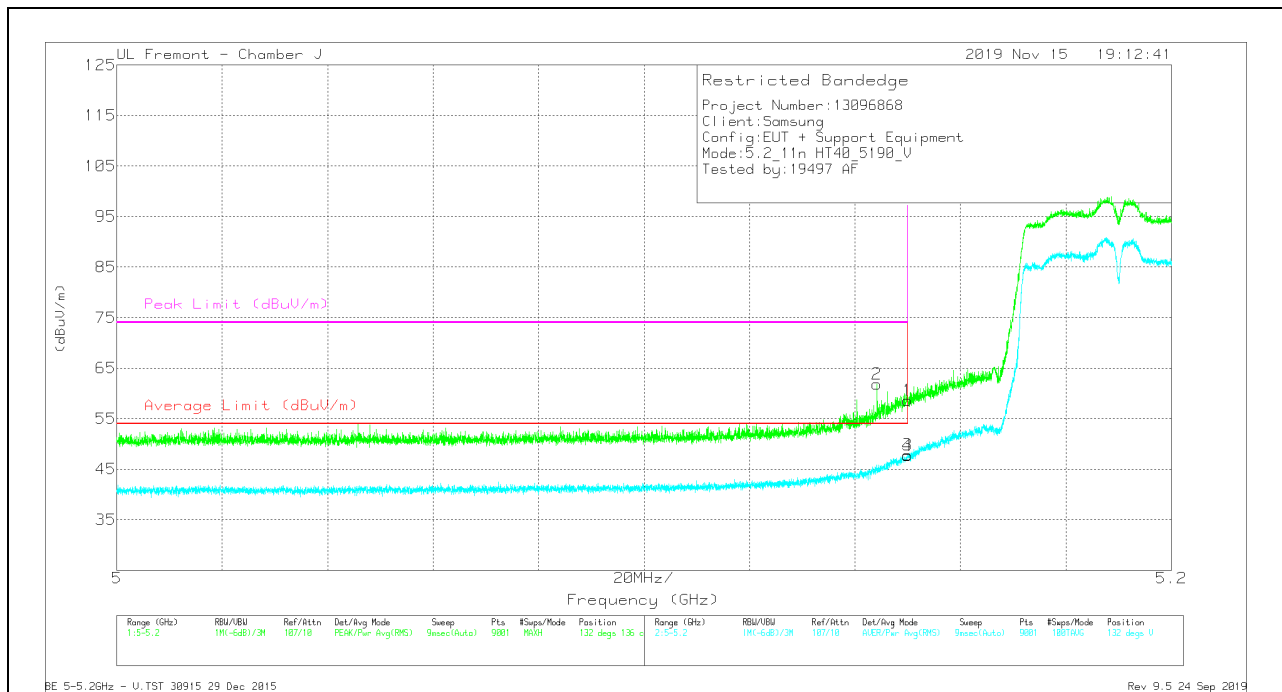
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (dB/m)	Amp/Cb/Filtr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.15	49.7	Pk	34.3	-21.2	0	62.8	-	-	74	-11.2	76	119	H
2	* 5.1484	51.15	Pk	34.3	-21.2	0	64.25	-	-	74	-9.75	76	119	H
3	* 5.15	37.19	RMS	34.3	-21.2	.24	50.53	54	-3.47	-	-	76	119	H
4	* 5.14993	38.23	RMS	34.3	-21.2	.24	51.57	54	-2.43	-	-	76	119	H

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

RMS - RMS detection

VERTICAL RESULT



Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (dB/m)	Amp/Cb/Filtr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.15	45.51	Pk	34.3	-21.2	0	58.61	-	-	74	-15.39	132	136	V
2	* 5.14413	48.71	Pk	34.3	-21.2	0	61.81	-	-	74	-12.19	132	136	V
3	* 5.15	34.48	RMS	34.3	-21.2	.24	47.82	54	-6.18	-	-	132	136	V
4	* 5.14993	34.36	RMS	34.3	-21.2	.24	47.7	54	-6.3	-	-	132	136	V

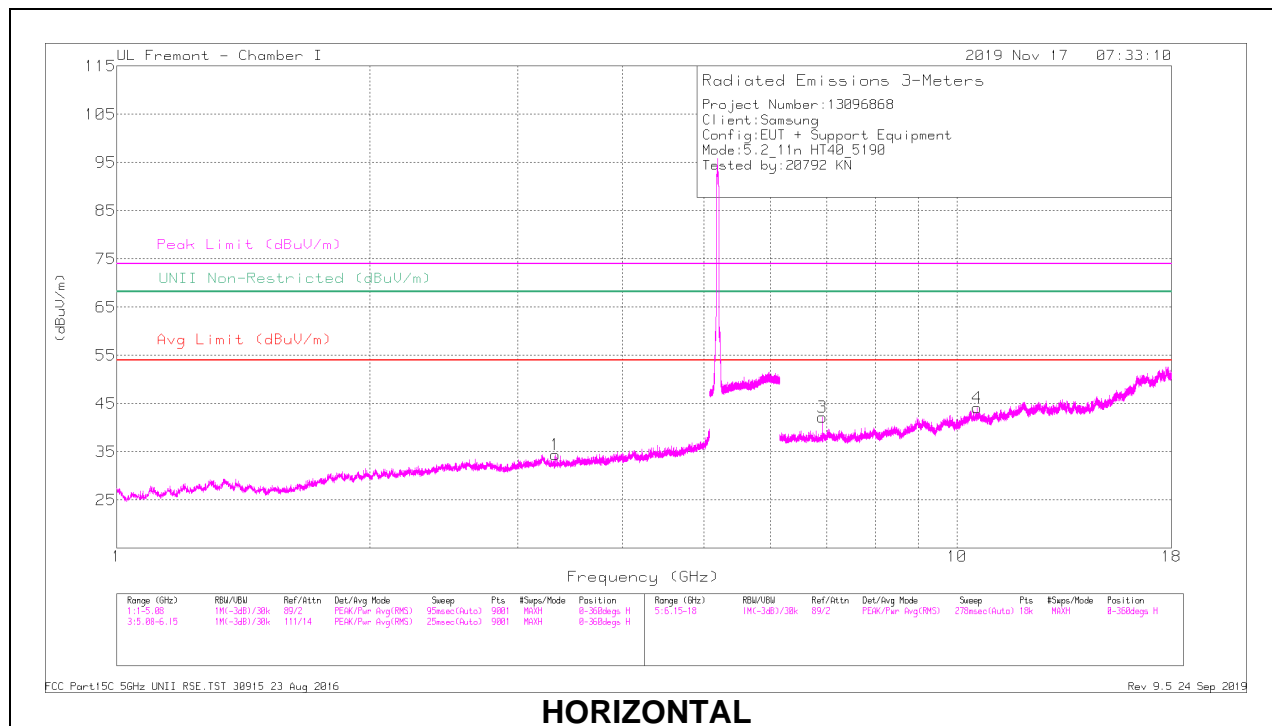
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

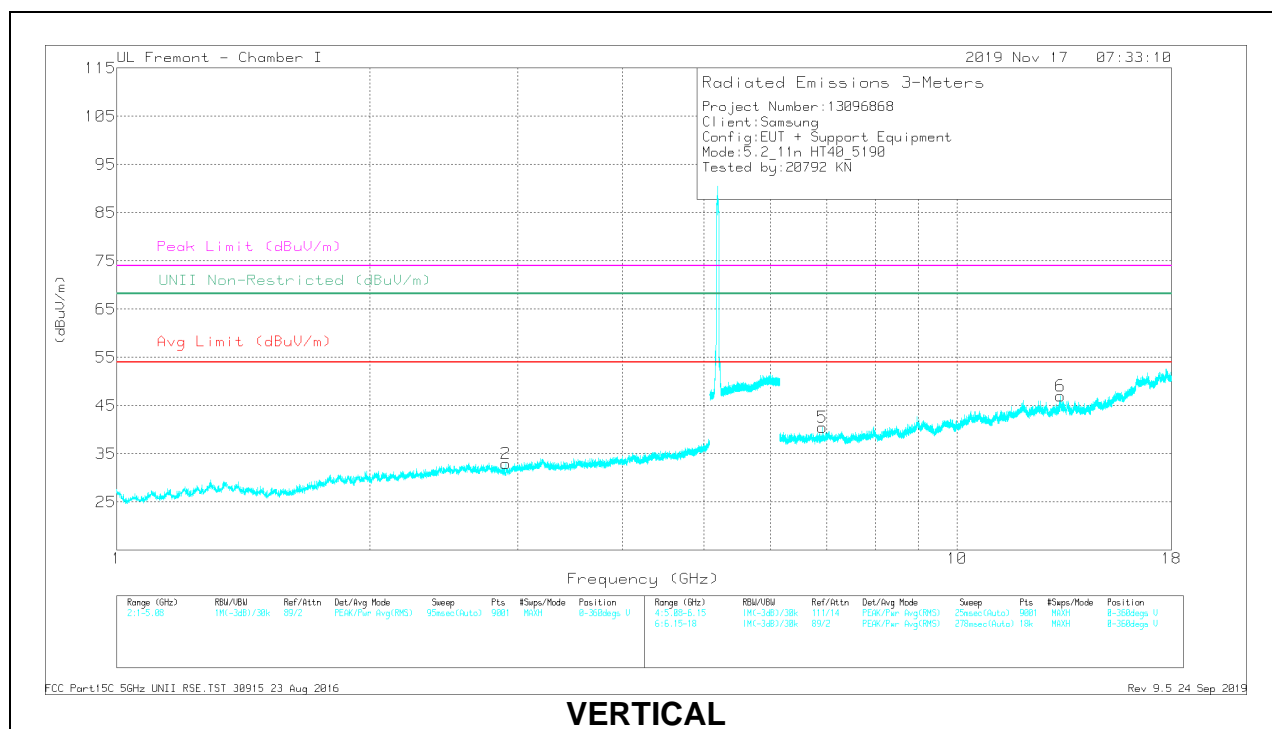
RMS - RMS detection

HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL RESULTS



HORIZONTAL



VERTICAL

RADIATED EMISSIONS

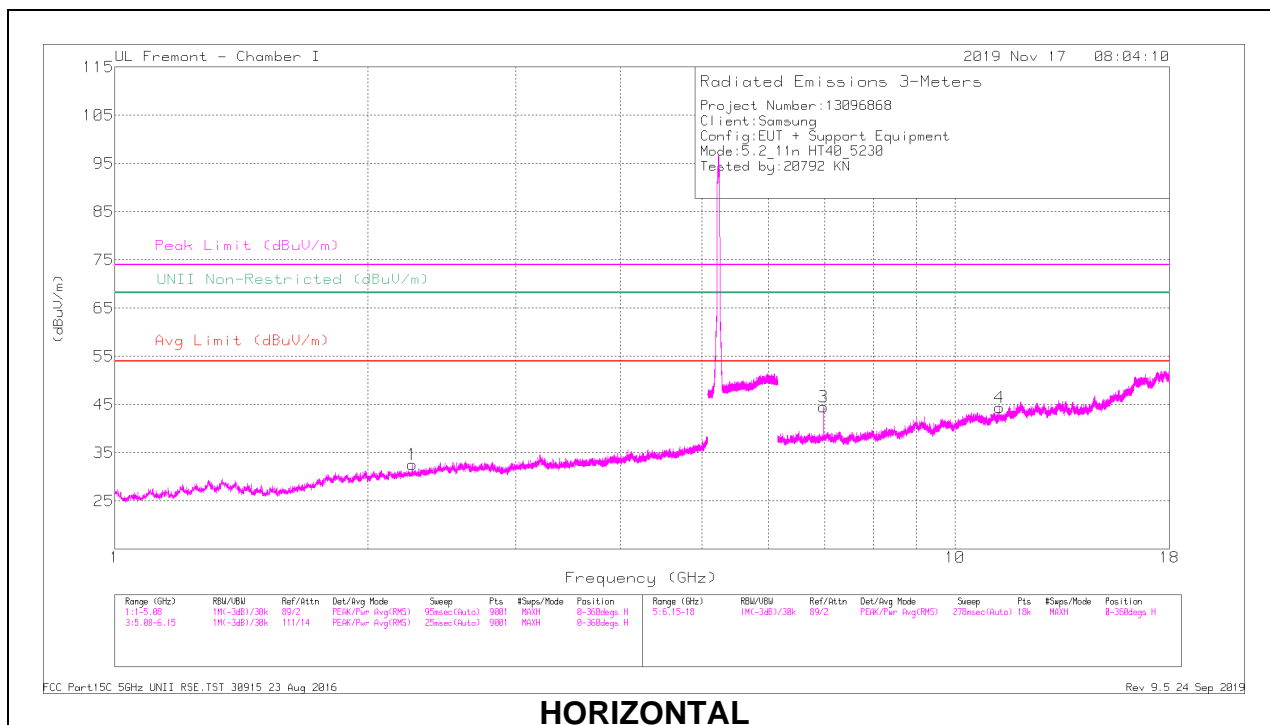
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T862 (dB/m)	Amp/Cb/Fitr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	3.3253	36.34	PK-U	32.7	-28.8	0	40.24	-	-	-	-	68.2	-27.96	160	223	H
2	2.9069	37.96	PK-U	31.8	-29.7	0	40.06	-	-	-	-	68.2	-28.14	193	187	V
3	6.92003	33.62	PK-U	35.5	-20.3	0	48.82	-	-	-	-	68.2	-19.38	33	112	H
4	10.57294	28.55	PK-U	37.9	-16	0	50.45	-	-	-	-	68.2	-17.75	219	207	H
6	* 13.28915	29.08	PK-U	39.7	-15.3	0	53.48	-	-	74	-20.52	-	-	146	176	V
	* 13.28351	18.9	ADR	39.6	-15.3	.24	43.44	54	-10.56	-	-	-	-	146	176	V
5	6.91983	34	PK-U	35.6	-20.3	0	49.3	-	-	-	-	68.2	-18.9	41	136	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

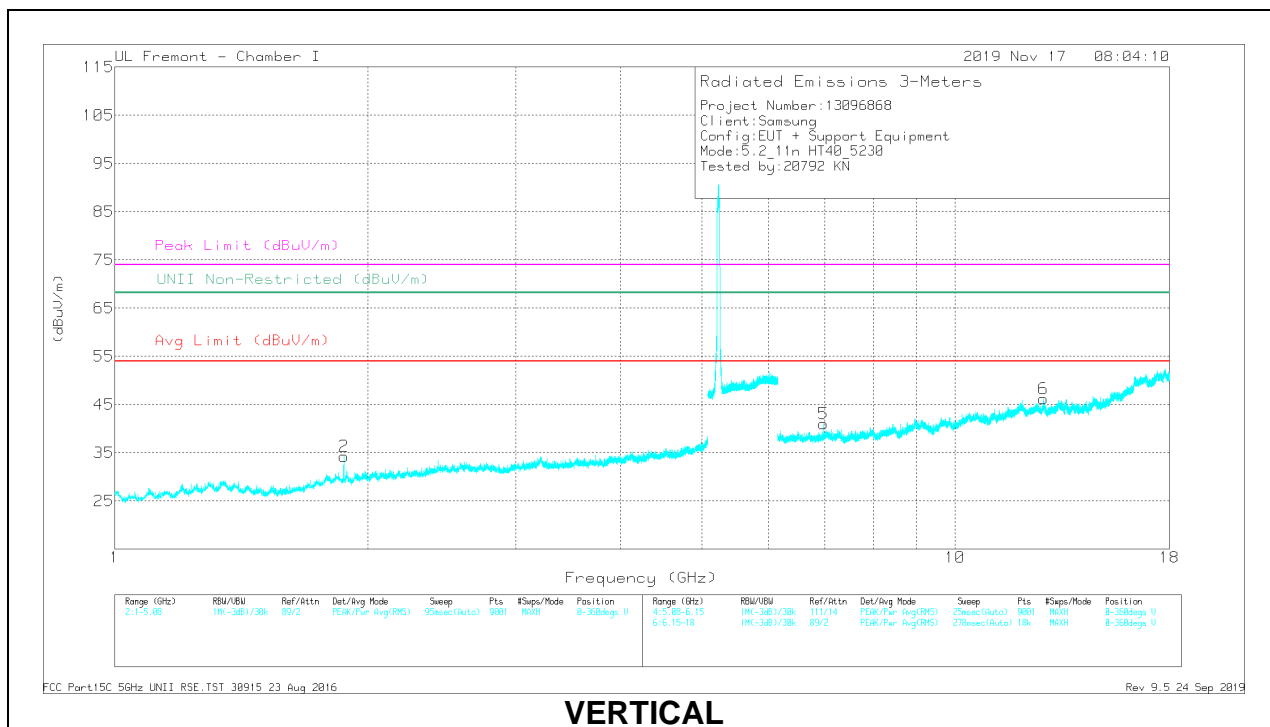
PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

HIGH CHANNEL RESULTS



HORIZONTAL



VERTICAL

RADIATED EMISSIONS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T862 (dB/m)	Amp/Cbl/Fitr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	*2.2561	37.84	PK-U	31.4	-30.3	0	38.94	-	-	74	-35.06	-	-	163	173	H
	*2.2616	28.39	ADR	31.4	-30.2	24	29.83	54	-24.17	-	-	-	-	163	173	H
2	1.87657	37.92	PK-U	30.8	-31	0	37.72	-	-	-	-	68.2	-30.48	142	239	V
4	*11.30057	29.33	PK-U	38.1	-15.8	0	51.63	-	-	74	-22.37	-	-	216	206	H
	*11.29915	19.01	ADR	38.1	-15.7	24	41.65	54	-12.35	-	-	-	-	216	206	H
3	6.97328	34.53	PK-U	35.7	-20.3	0	49.93	-	-	-	-	68.2	-18.27	27	113	H
5	6.97349	32.53	PK-U	35.7	-20.3	0	47.93	-	-	-	-	68.2	-20.27	9	104	V
6	12.75355	29.06	PK-U	39.1	-15.3	0	52.86	-	-	-	-	68.2	-15.34	124	190	V

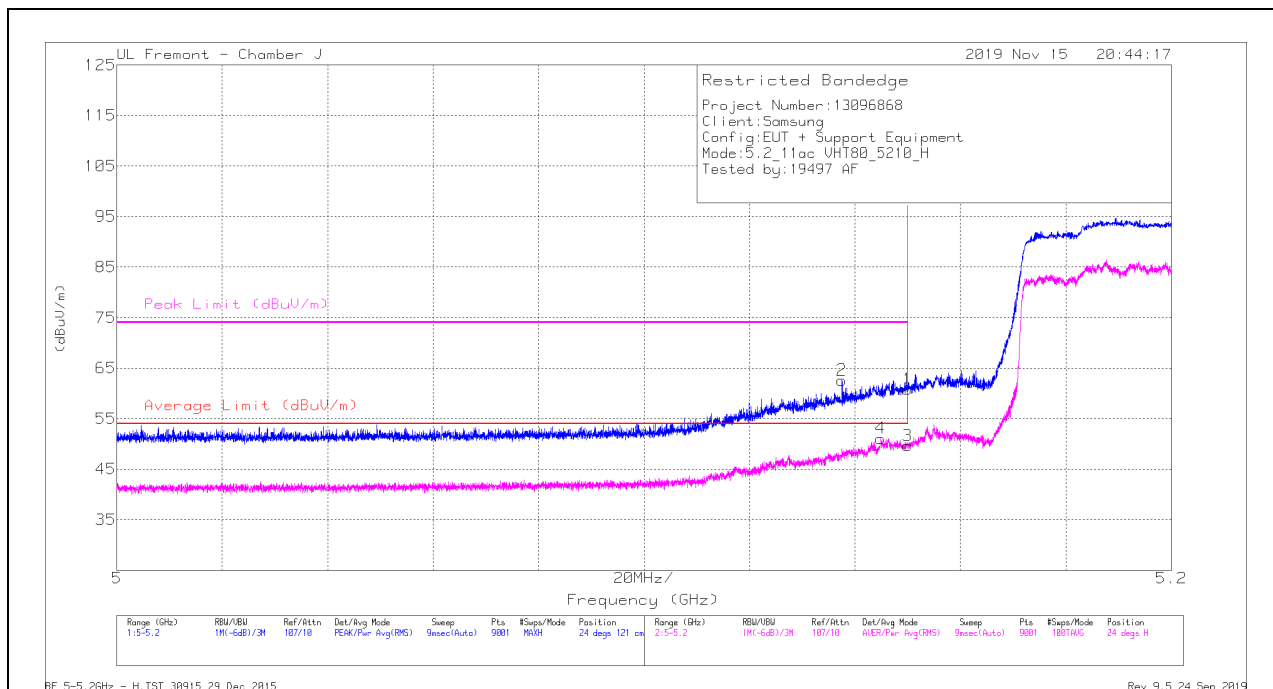
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
 PK-U - U-NII: Maximum Peak
 ADR - U-NII AD primary method, RMS average

10.1.4. TX ABOVE 1 GHz 802.11ac VHT80 MODE IN THE 5.2 GHz BAND

1TX CHAIN 0 MODE

BANDEDGE (MID CHANNEL)

HORIZONTAL RESULT



Trace Markers

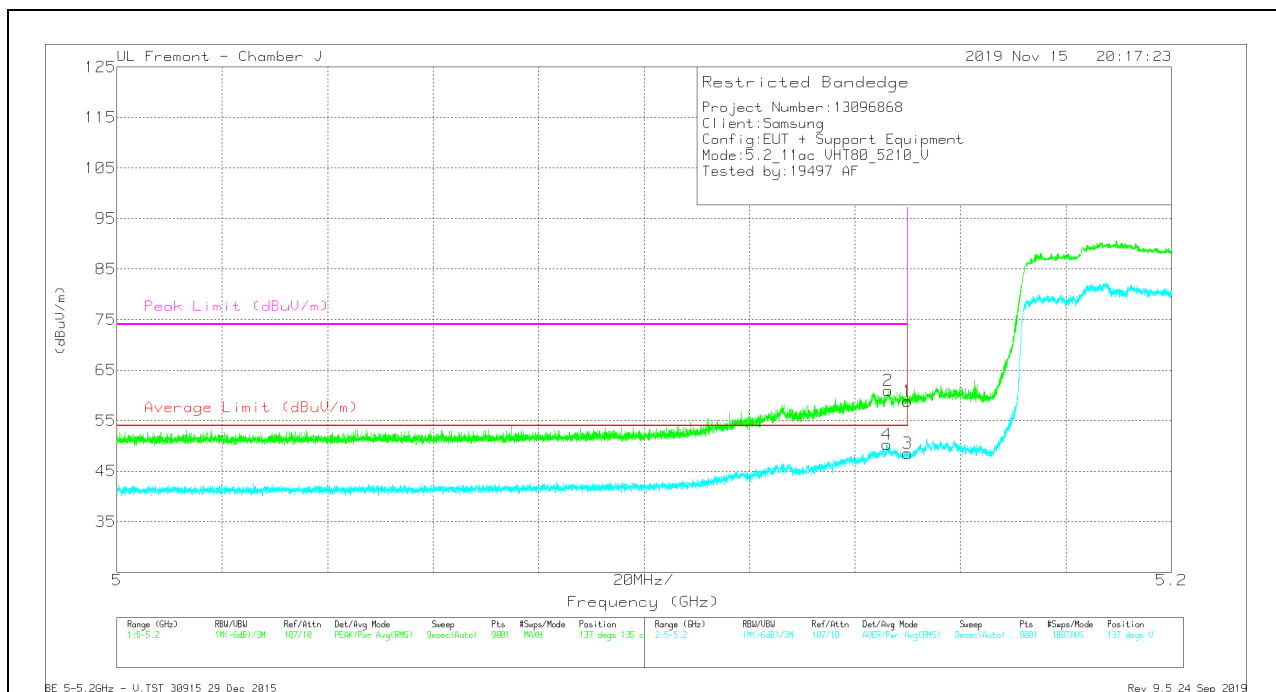
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.15	47.71	Pk	34.3	-21.2	0	60.81	-	-	74	-13.19	24	121	H
2	* 5.13753	49.54	Pk	34.3	-21.2	0	62.64	-	-	74	-11.36	24	121	H
3	* 5.15	35.82	RMS	34.3	-21.2	.76	49.68	54	-4.32	-	-	24	121	H
4	* 5.14487	37.24	RMS	34.3	-21.2	.76	51.1	54	-2.9	-	-	24	121	H

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

RMS - RMS detection

VERTICAL RESULT



Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (dB/m)	Amp/Cb/Filtr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.15	45.73	Pk	34.3	-21.2	0	58.83	-	-	74	-15.17	137	135	V
2	* 5.14624	47.92	Pk	34.3	-21.2	0	61.02	-	-	74	-12.98	137	135	V
3	* 5.15	34.67	RMS	34.3	-21.2	.76	48.53	54	-5.47	-	-	137	135	V
4	* 5.146	36.42	RMS	34.3	-21.2	.76	50.28	54	-3.72	-	-	137	135	V

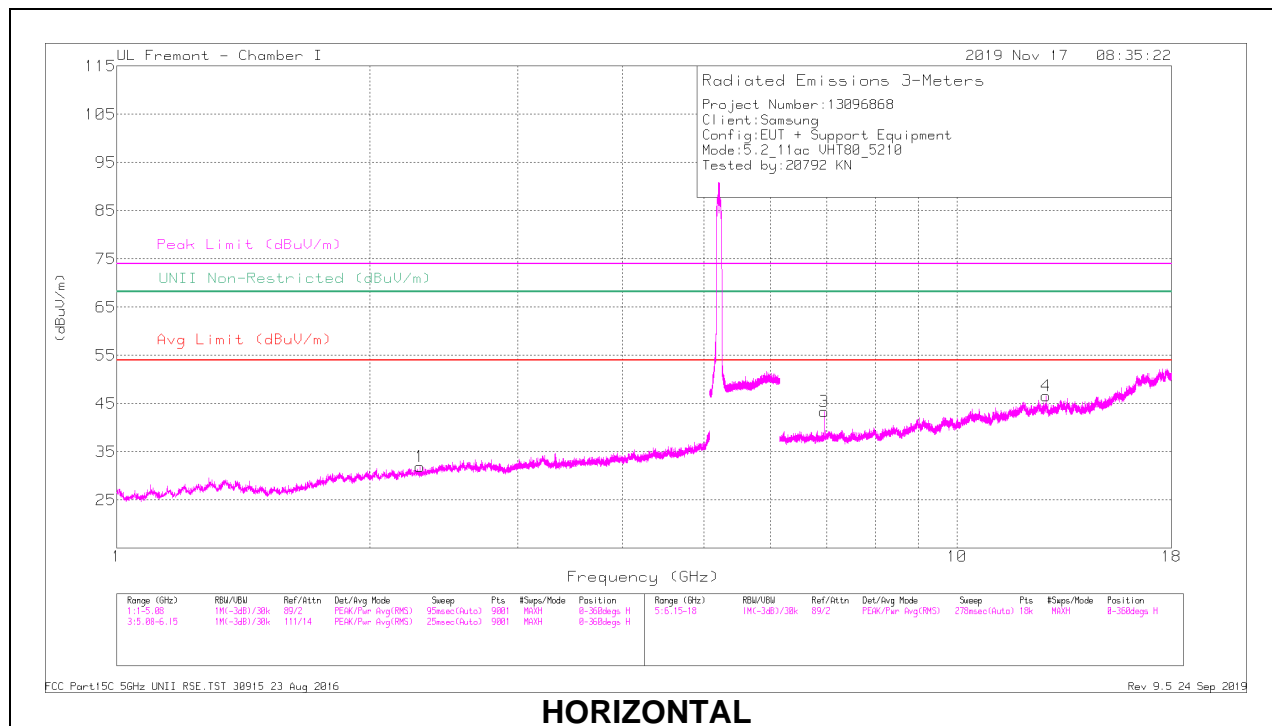
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

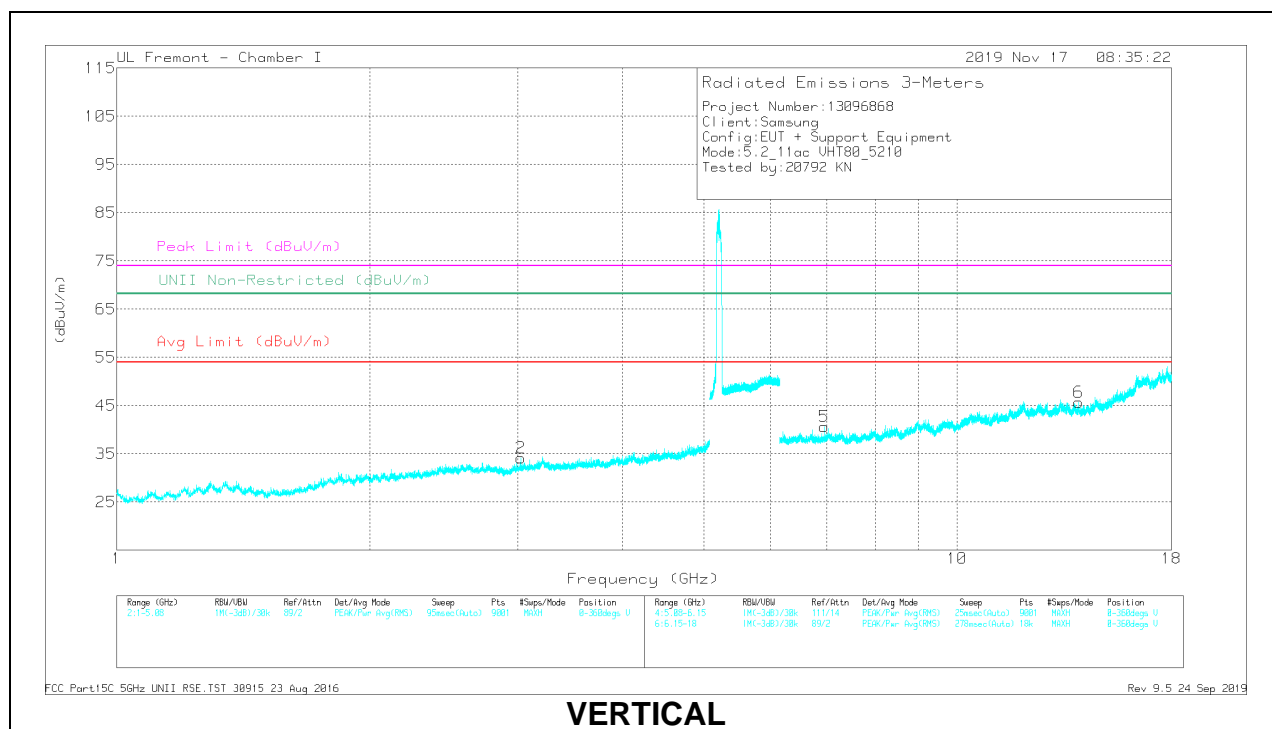
RMS - RMS detection

HARMONICS AND SPURIOUS EMISSIONS

MID CHANNEL RESULTS



HORIZONTAL



VERTICAL

RADIATED EMISSIONS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T862 (dB/m)	Amp/Cb/Fitr/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	* 2.25613	40.03	PK-U	31.4	-30.3	0	41.13	-	-	74	-32.87	-	-	195	159	H
	* 2.21977	28.7	ADR	31.4	-30.4	76	30.46	54	-23.54	-	-	-	-	195	159	H
2	3.02813	36.49	PK-U	32.6	-29.1	0	39.99	-	-	-	-	68.2	-28.21	267	166	V
3	6.94632	33.99	PK-U	35.6	-20	0	49.59	-	-	-	-	68.2	-18.61	41	105	H
4	12.76192	29.03	PK-U	39.1	-15	0	53.13	-	-	-	-	68.2	-15.07	153	109	H
5	6.94632	32.91	PK-U	35.6	-20	0	48.51	-	-	-	-	68.2	-19.69	21	156	V
6	13.96974	29.63	PK-U	39.1	-16.3	0	52.43	-	-	-	-	68.2	-15.77	240	202	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

PK-U - U-NII: Maximum Peak

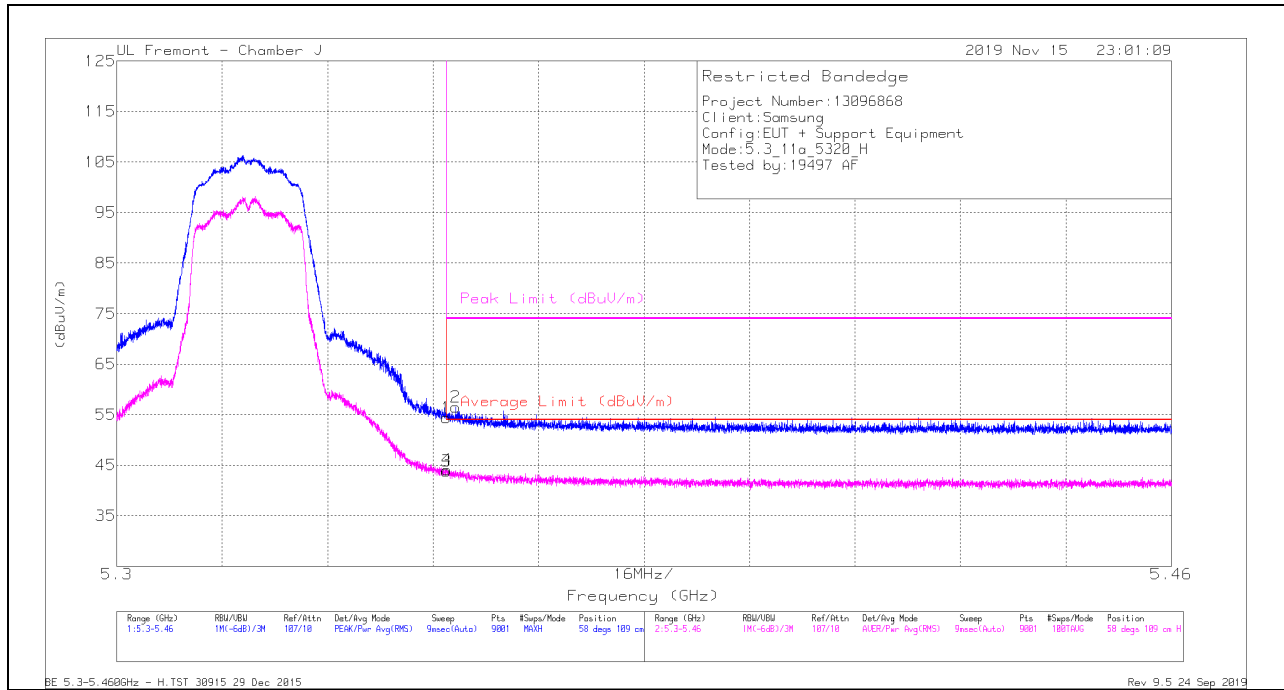
ADR - U-NII AD primary method, RMS average

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

1TX CHAIN 0 MODE

BANDEDGE (HIGH CHANNEL)

HORIZONTAL RESULT



Trace Markers

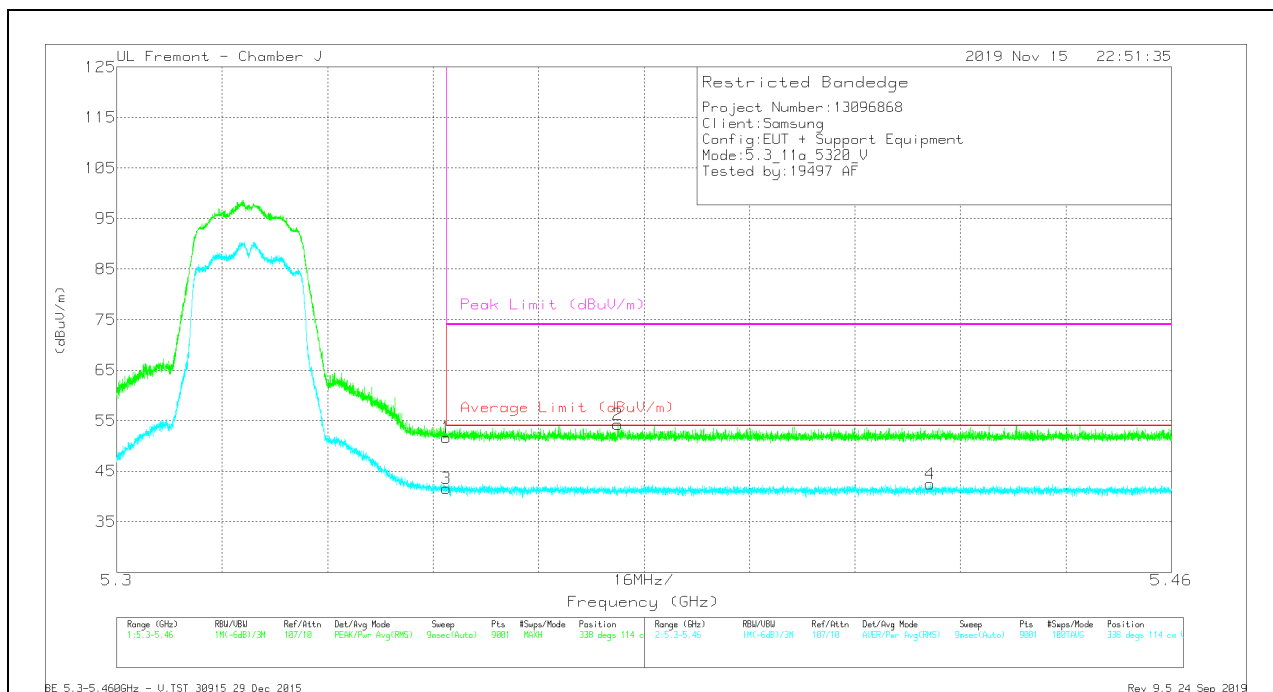
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.35001	40.72	Pk	34.5	-20.8	0	54.42	-	-	74	-19.58	58	109	H
2	* 5.35143	42.75	Pk	34.5	-20.8	0	56.45	-	-	74	-17.55	58	109	H
3	* 5.35001	30.07	RMS	34.5	-20.8	.11	43.88	54	-10.12	-	-	58	109	H
4	* 5.35006	30.26	RMS	34.5	-20.8	.11	44.07	54	-9.93	-	-	58	109	H

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

RMS - RMS detection

VERTICAL RESULT



Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (dB/m)	Amp/Cb/Filtr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.35001	37.98	Pk	34.5	-20.8	0	51.68	-	-	74	-22.32	338	114	V
2	* 5.376	40.62	Pk	34.4	-20.7	0	54.32	-	-	74	-19.68	338	114	V
3	* 5.35001	27.79	RMS	34.5	-20.8	.11	41.6	54	-12.4	-	-	338	114	V
4	* 5.42343	28.38	RMS	34.6	-20.6	.11	42.49	54	-11.51	-	-	338	114	V

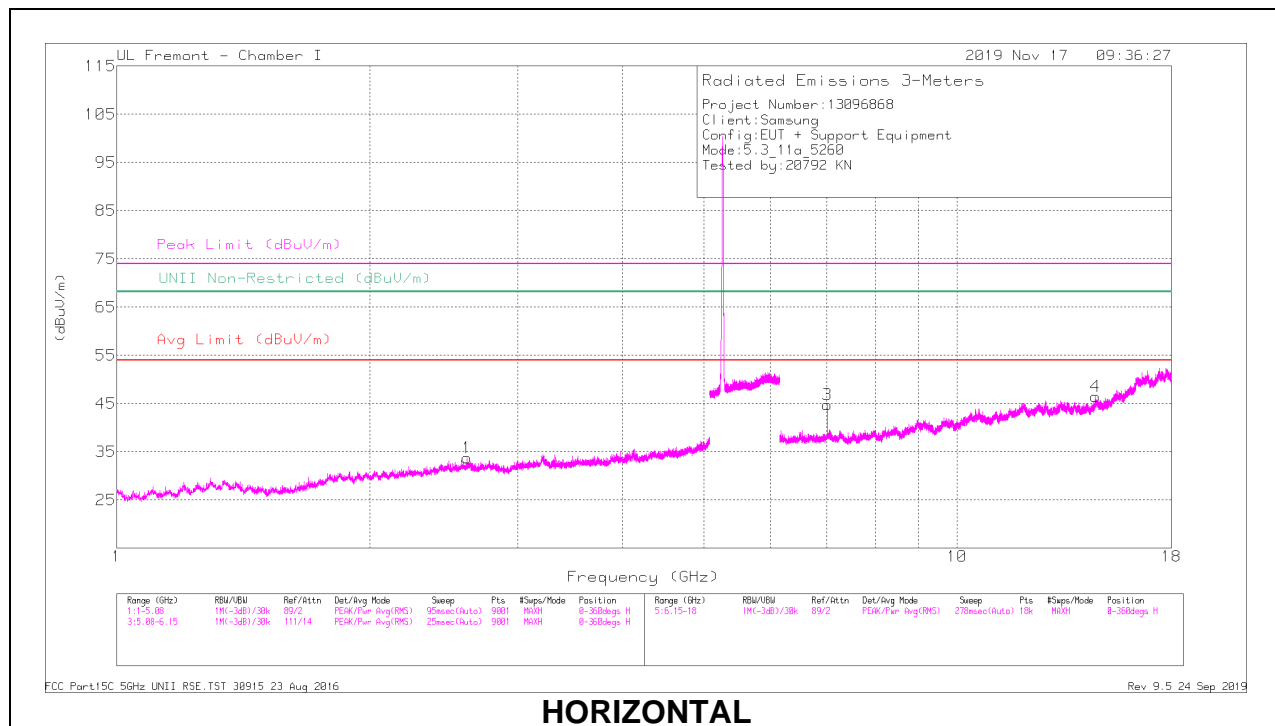
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

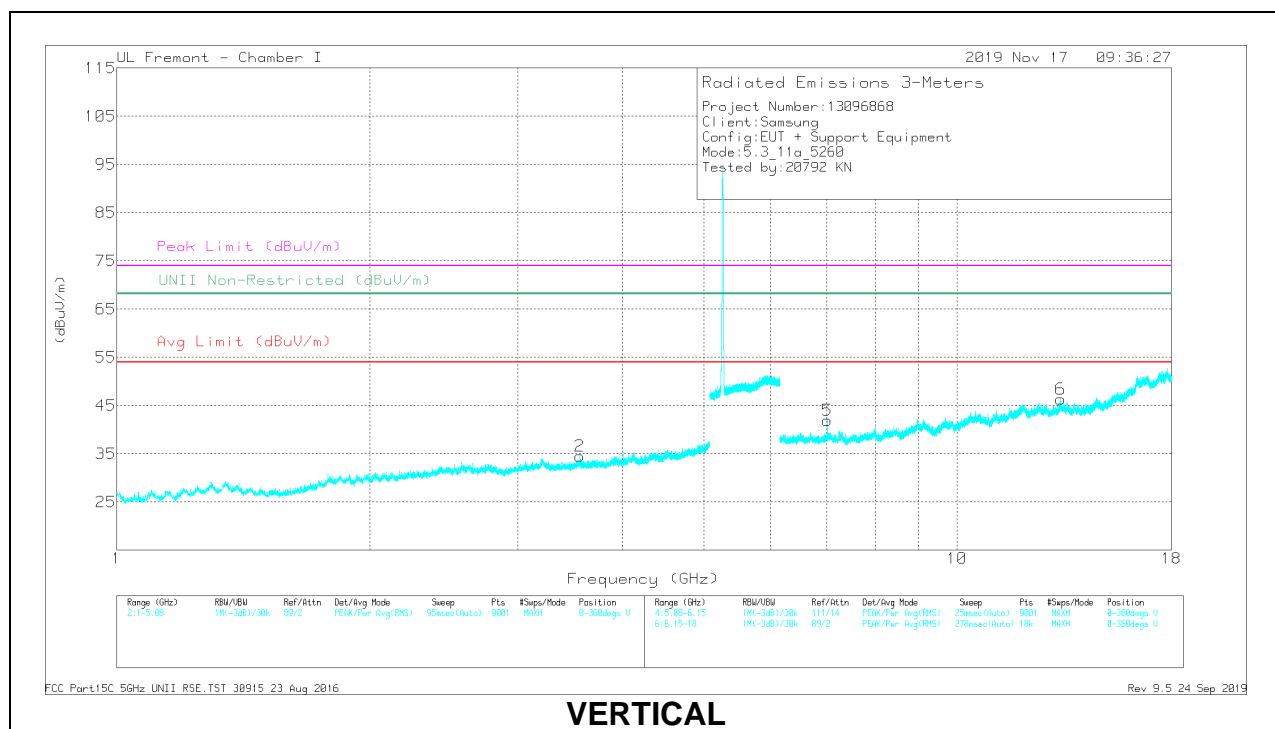
RMS - RMS detection

HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL RESULTS



HORIZONTAL



VERTICAL

RADIATED EMISSIONS

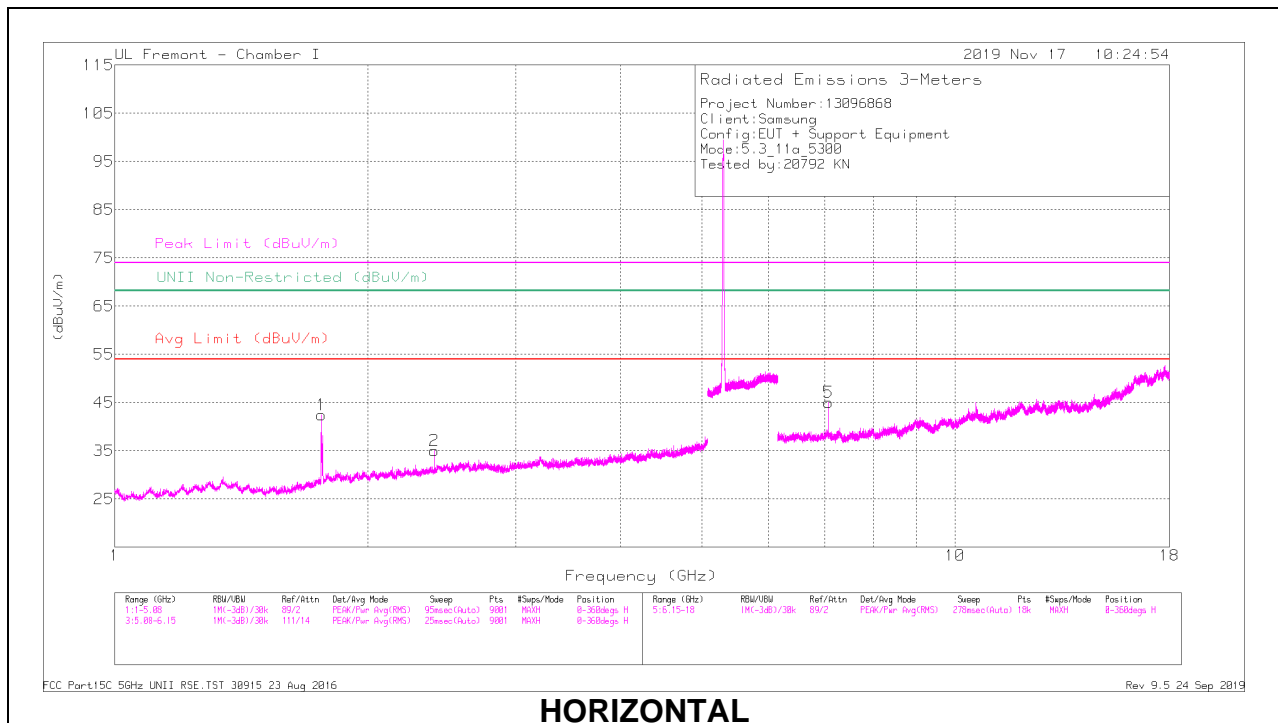
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T862 (dB/m)	Amp/Cbl/Fitr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	2.6117	36.41	PK-U	32.5	-29.4	0	39.51	-	-	-	-	68.2	-28.69	144	229	H
2	* 3.55244	34.55	PK-U	33	-27.7	0	39.85	-	-	74	-34.15	-	-	158	192	V
	* 3.55569	25.89	ADR	33	-27.8	-11	31.2	54	-22.8	-	-	-	-	158	192	V
3	7.01323	34.29	PK-U	35.6	-19.7	0	50.19	-	-	-	-	68.2	-18.01	33	114	H
4	14.62348	28.53	PK-U	40	-15.5	0	53.03	-	-	-	-	68.2	-15.17	132	175	H
6	* 13.29558	28.24	PK-U	39.7	-15.4	0	52.54	-	-	74	-21.46	-	-	166	210	V
	* 13.29077	18.87	ADR	39.7	-15.4	-11	43.28	54	-10.72	-	-	-	-	166	210	V
5	7.01322	32.14	PK-U	35.6	-19.7	0	48.04	-	-	-	-	68.2	-20.16	11	154	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

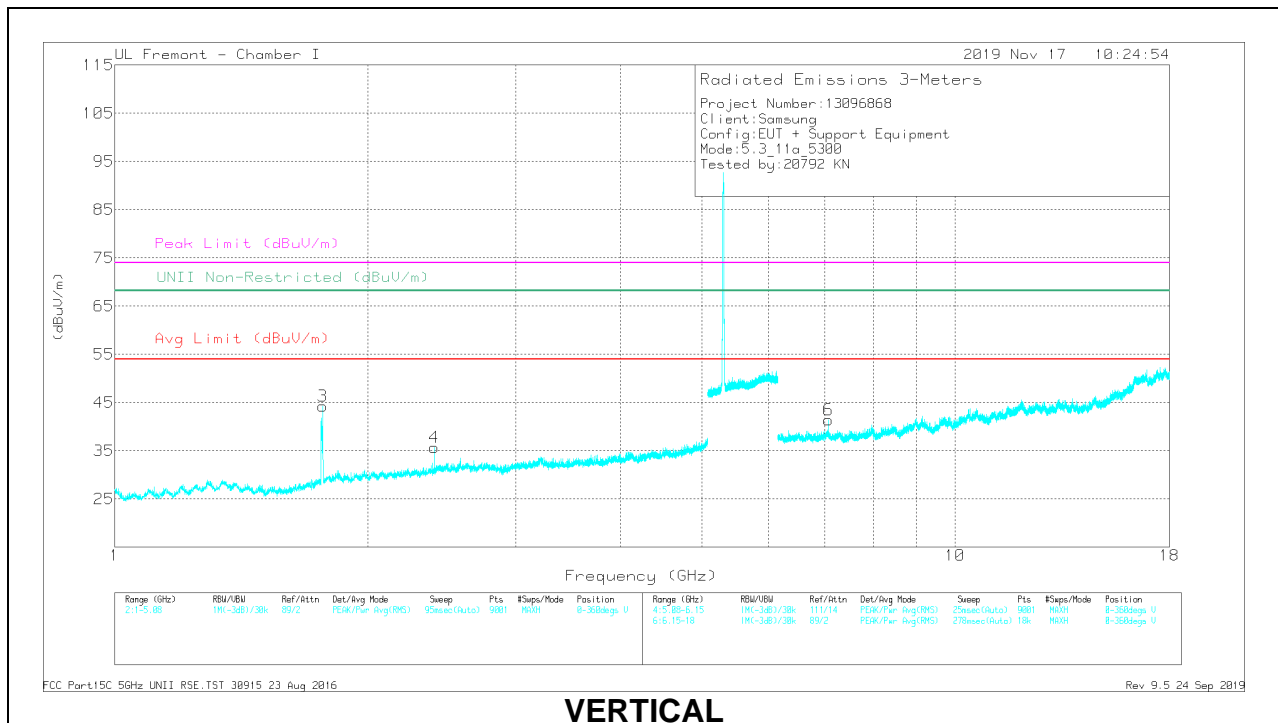
PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

MID CHANNEL RESULTS



HORIZONTAL



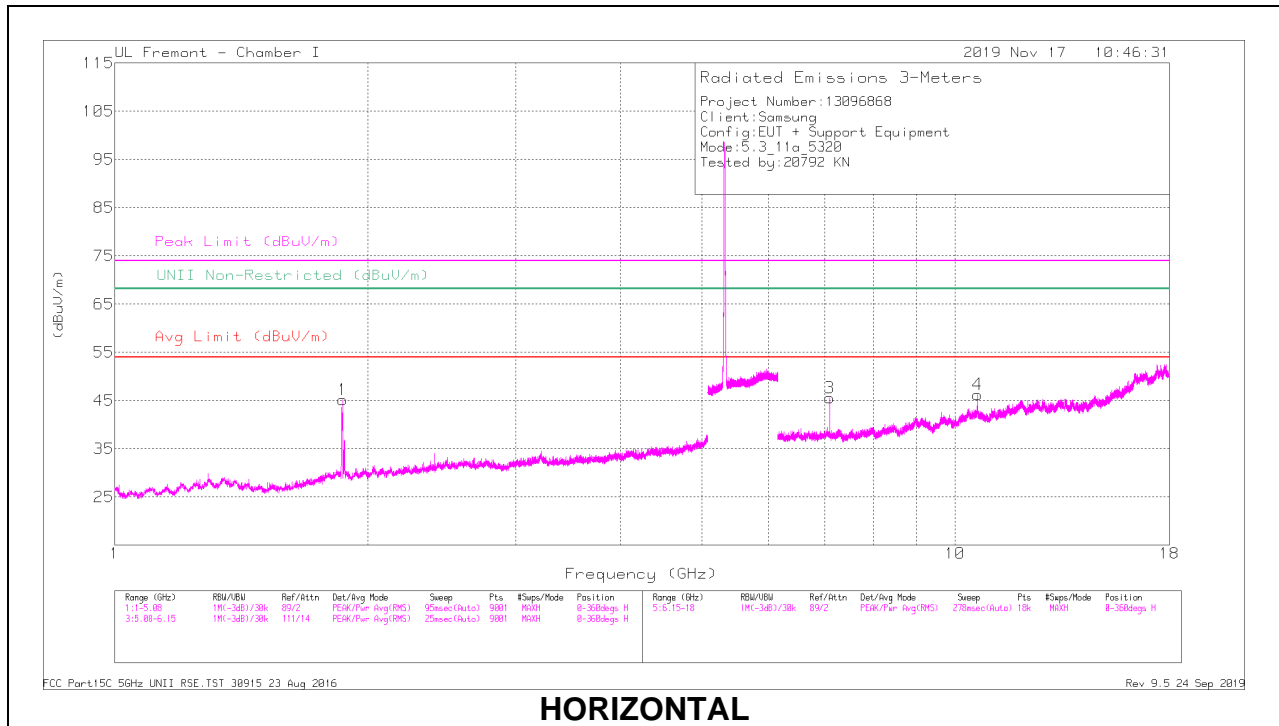
VERTICAL

RADIATED EMISSIONS

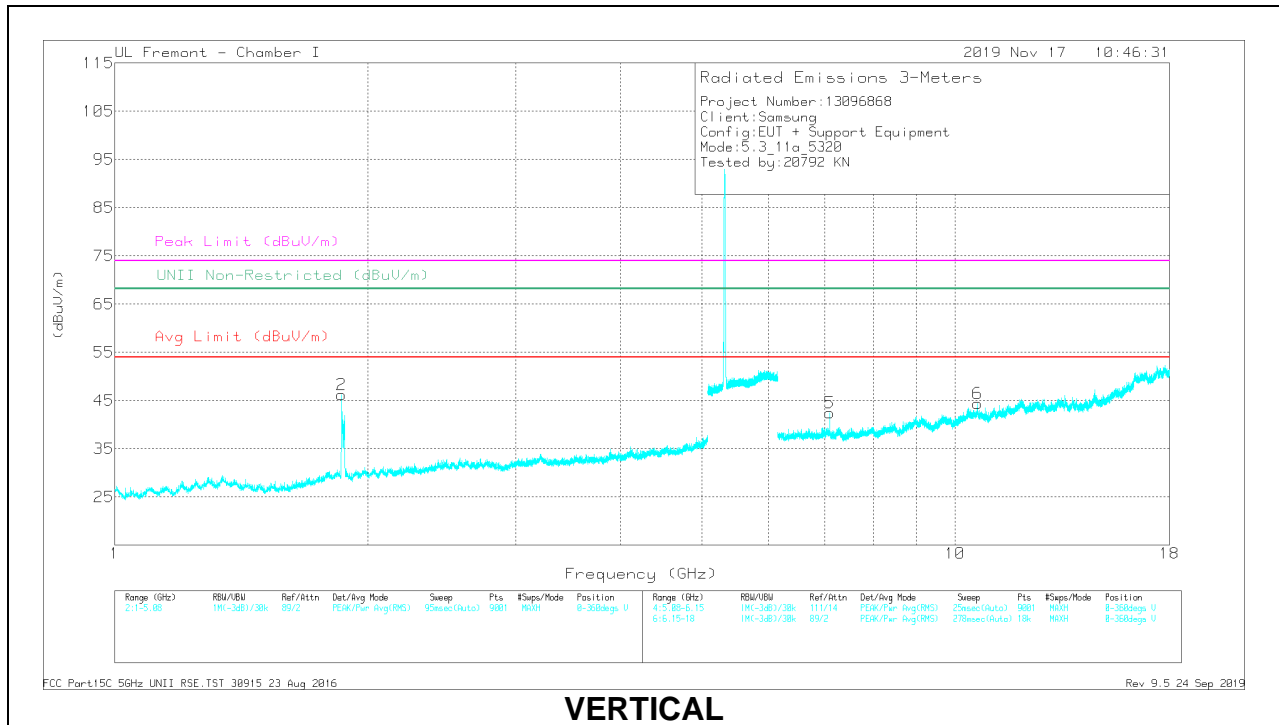
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T862 (dB/m)	Amp/Cb/Fitr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	1.76158	51.86	PK-U	29.9	-31.3	0	50.46	-	-	-	-	68.2	-17.74	83	312	H
2	2.39678	36.79	PK-U	31.9	-30.2	0	38.49	-	-	-	-	68.2	-29.71	143	121	H
3	1.76451	53.31	PK-U	30	-31.2	0	52.11	-	-	-	-	68.2	-16.09	196	120	V
4	2.4024	37.15	PK-U	31.9	-30.2	0	38.85	-	-	-	-	68.2	-29.35	246	304	V
5	7.06664	34.74	PK-U	35.7	-19.7	0	50.74	-	-	-	-	68.2	-17.46	25	121	H
6	7.06675	33.4	PK-U	35.7	-19.7	0	49.4	-	-	-	-	68.2	-18.8	33	157	V

PK-U - U-NII: Maximum Peak

HIGH CHANNEL RESULTS



HORIZONTAL



VERTICAL

RADIATED EMISSIONS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T862 (dB/m)	Amp/Cb/Fitr/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	1.86944	37.72	PK-U	30.8	-31	0	37.52	-	-	-	-	68.2	-30.68	156	224	H
2	1.86191	37.25	PK-U	30.7	-31.1	0	36.85	-	-	-	-	68.2	-31.35	176	224	V
4	* 10.64066	30.93	PK-U	37.9	-15.5	0	53.33	-	-	74	-20.67	-	-	341	299	H
	* 10.6399	21.62	ADR	37.9	-15.6	.11	44.03	54	-9.97	-	-	-	-	341	299	H
3	7.09331	35.77	PK-U	35.6	-20	0	51.37	-	-	-	-	68.2	-16.83	24	103	H
6	* 10.64083	29.52	PK-U	37.9	-15.5	0	51.92	-	-	74	-22.08	-	-	125	108	V
	* 10.64017	20.12	ADR	37.9	-15.6	.11	42.53	54	-11.47	-	-	-	-	125	108	V
5	7.09329	33.89	PK-U	35.6	-20	0	49.49	-	-	-	-	68.2	-18.71	14	101	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

PK-U - U-NII: Maximum Peak

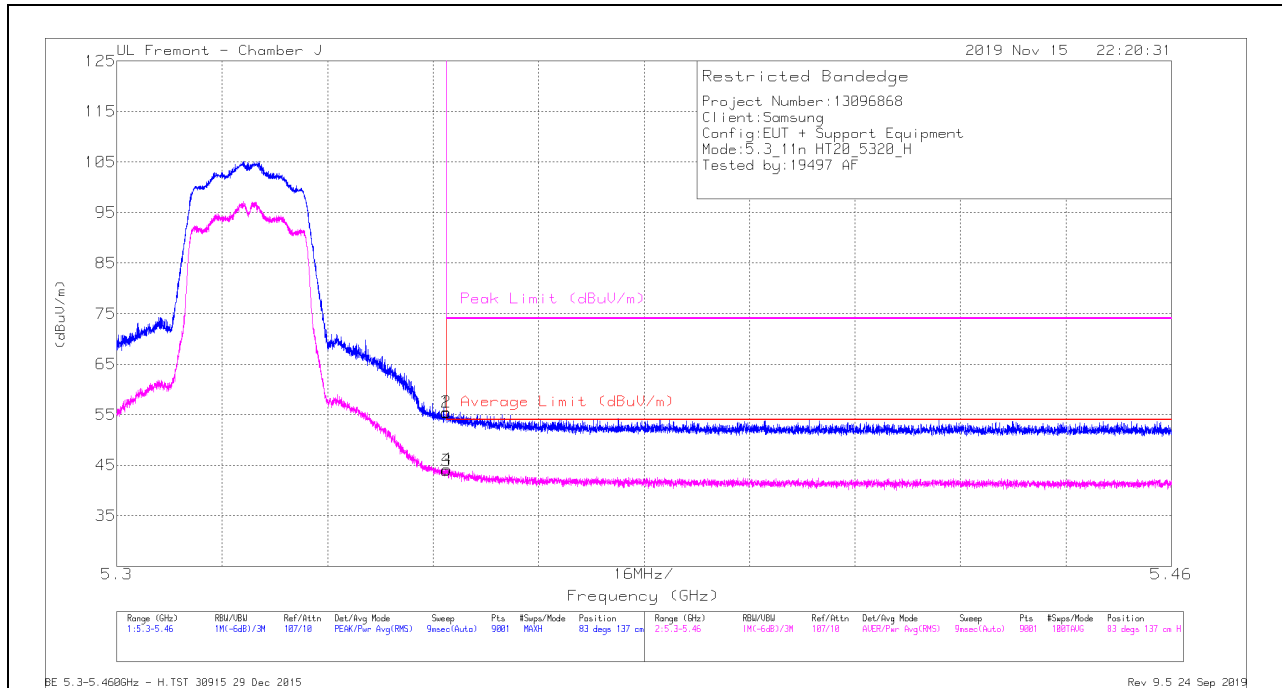
ADR - U-NII AD primary method, RMS average

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

1TX CHAIN 0 MODE

BANDEDGE (HIGH CHANNEL)

HORIZONTAL RESULT



Trace Markers

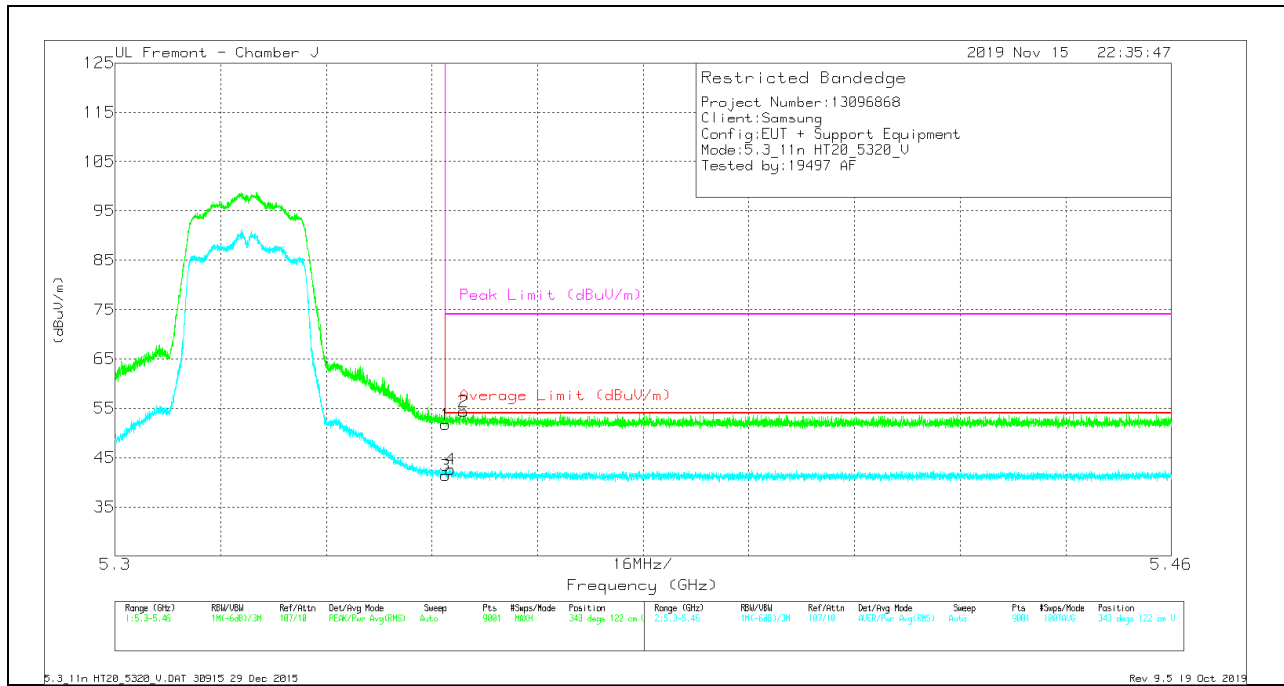
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.35001	41.64	Pk	34.5	-20.8	0	55.34	-	-	74	-18.66	83	137	H
2	* 5.35003	41.86	Pk	34.5	-20.8	0	55.56	-	-	74	-18.44	83	137	H
3	* 5.35001	30.09	RMS	34.5	-20.8	.12	43.91	54	-10.09	-	-	83	137	H
4	* 5.35012	30.43	RMS	34.5	-20.8	.12	44.25	54	-9.75	-	-	83	137	H

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

RMS - RMS detection

VERTICAL RESULT



Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (dB/m)	Amp/Cb/Filtr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.35001	38.05	Pk	34.5	-20.8	0	51.75	-	-	74	-22.25	343	122	V
2	* 5.35278	40.63	Pk	34.5	-20.8	0	54.33	-	-	74	-19.67	343	122	V
3	* 5.35001	27.58	RMS	34.5	-20.8	.12	41.4	54	-12.6	-	-	343	122	V
4	* 5.35081	28.82	RMS	34.5	-20.8	.12	42.64	54	-11.36	-	-	343	122	V

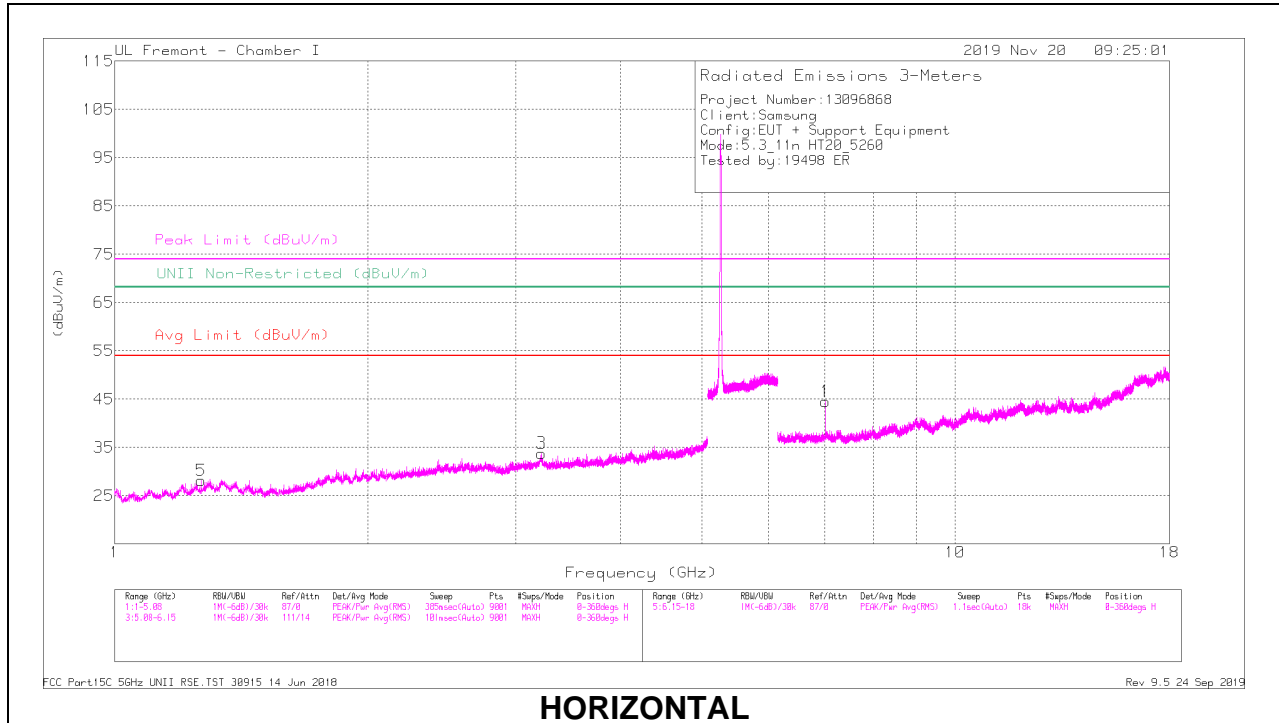
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

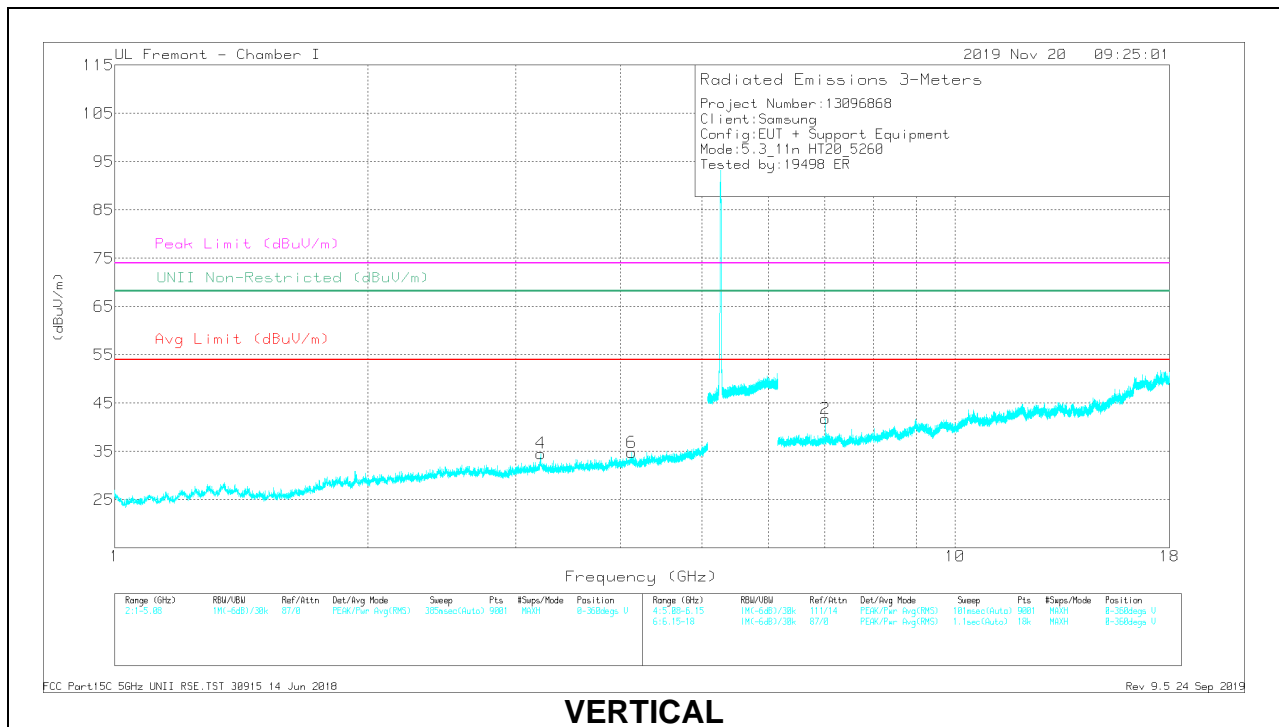
RMS - RMS detection

HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL RESULTS



HORIZONTAL



VERTICAL

RADIATED EMISSIONS

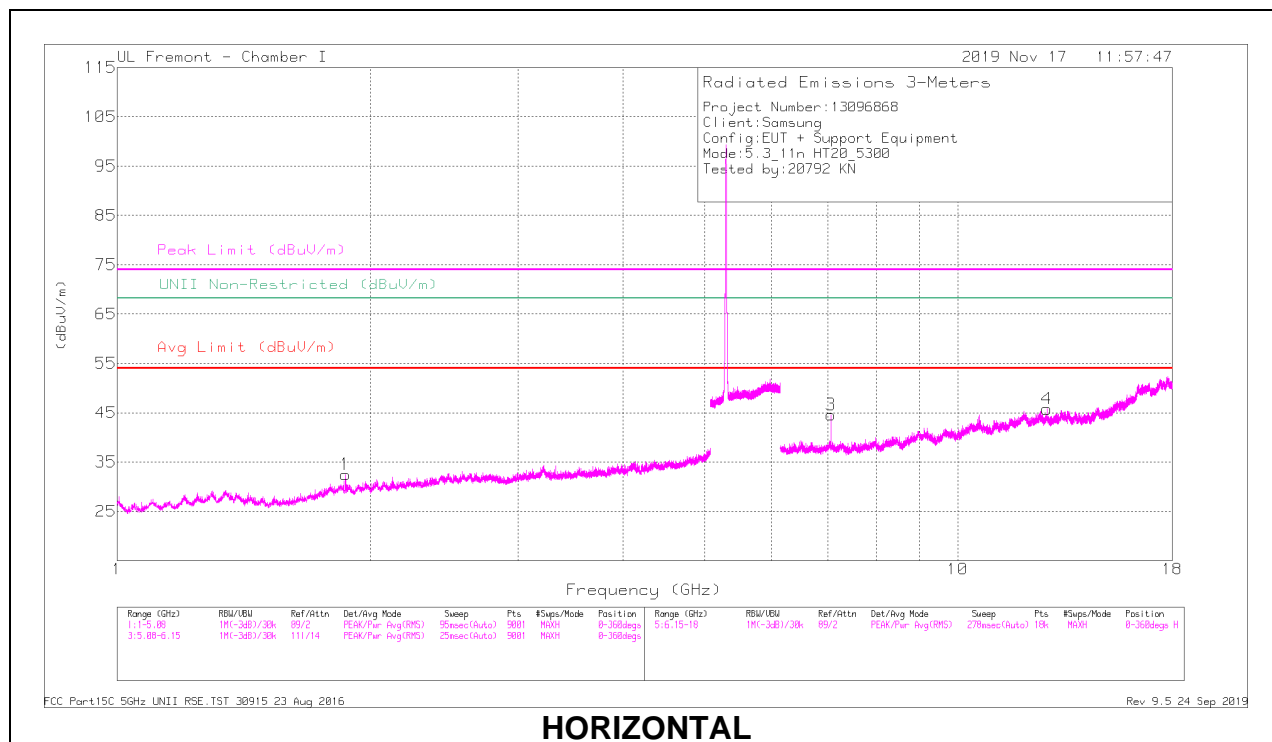
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T862 (dB/m)	Amp/Cbl/Fitr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
3	3.22097	35.63	PK-U	33.3	-28.2	0	40.73	-	-	-	-	68.2	-27.47	28	164	H
5	* 1.26695	37.07	PK-U	29.1	-32.3	0	33.87	-	-	74	-40.13	-	-	187	358	H
	* 1.26701	27.21	ADR	29.1	-32.3	-12	24.13	54	-29.87	-	-	-	-	187	358	H
4	3.21314	36.09	PK-U	33.6	-28.2	0	41.49	-	-	-	-	68.2	-26.71	326	115	V
	* 4.12508	35.11	PK-U	33.3	-25.8	0	42.61	-	-	74	-31.39	-	-	309	166	V
6	* 4.12673	24.24	ADR	33.3	-25.9	-12	31.76	54	-22.24	-	-	-	-	309	166	V
1	7.01336	33.05	PK-U	35.6	-19.7	0	48.95	-	-	-	-	68.2	-19.25	26	132	H
2	7.01327	31.18	PK-U	35.6	-19.7	0	47.08	-	-	-	-	68.2	-21.12	51	288	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

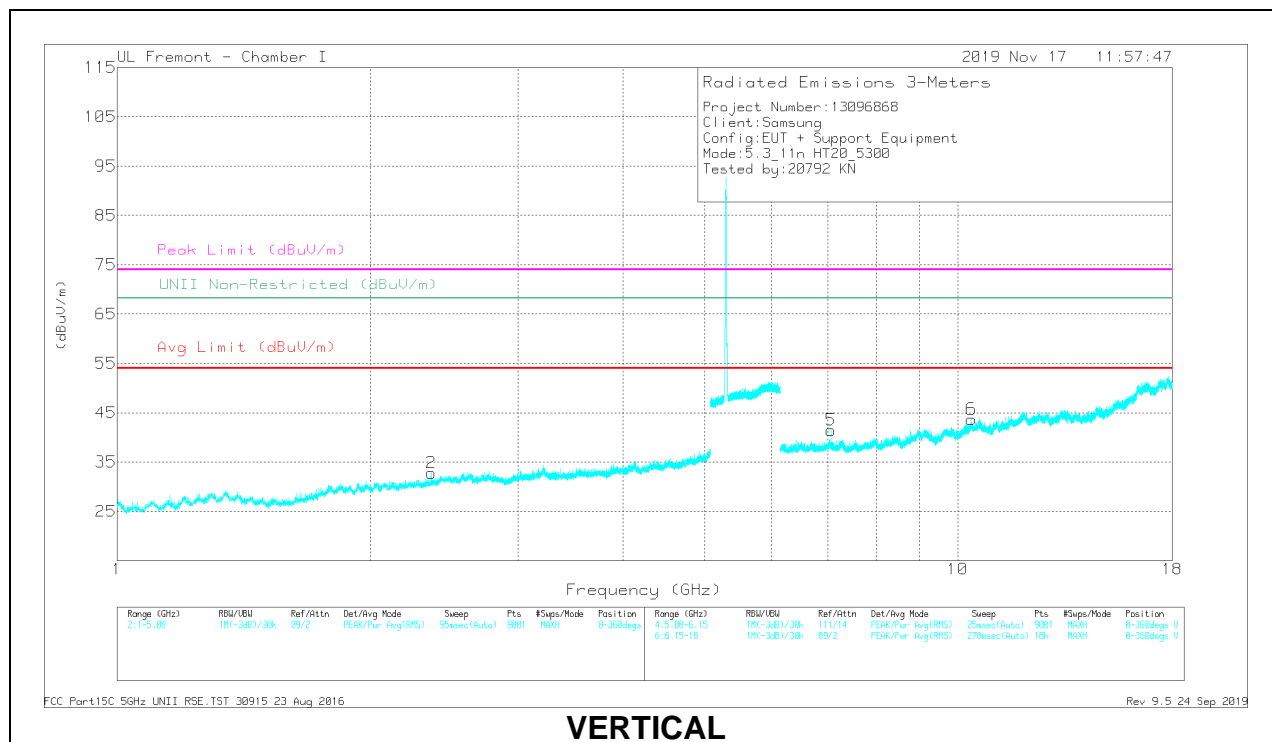
PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

MID CHANNEL RESULTS



HORIZONTAL



VERTICAL

RADIATED EMISSIONS

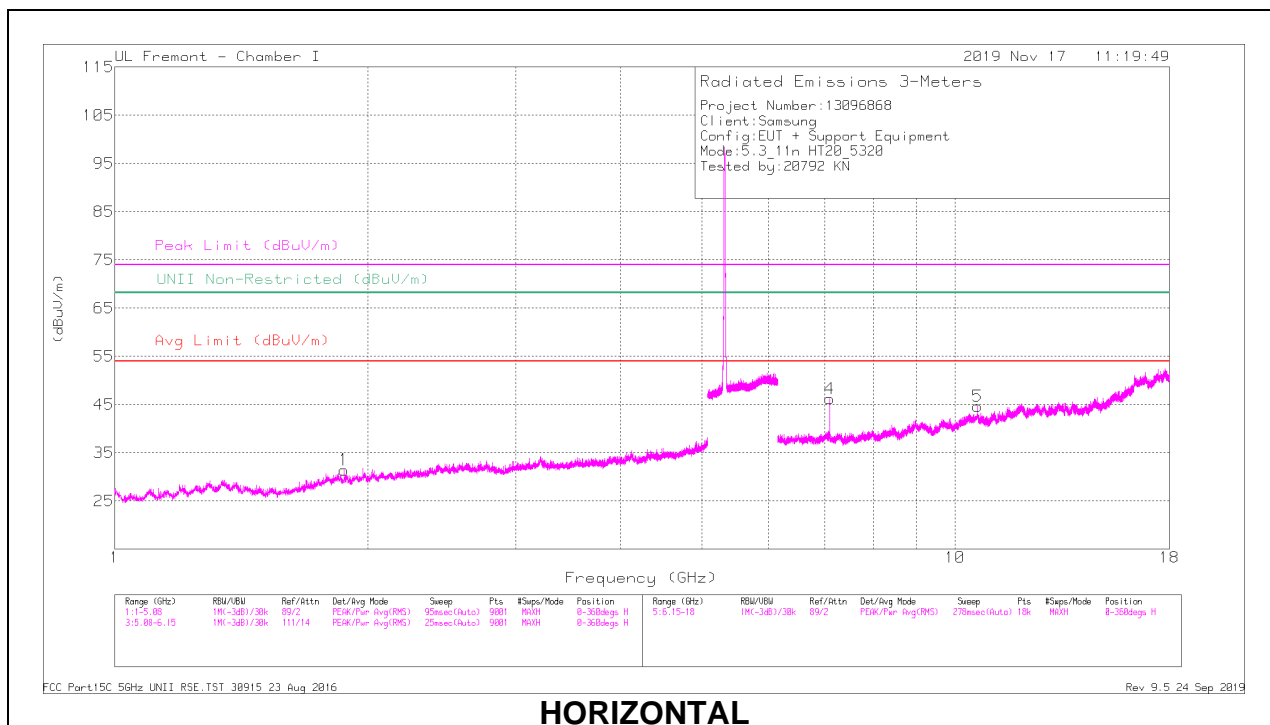
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T862 (dB/m)	Amp/Cb/Fitr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	1.87288	37.16	PK-U	30.9	-31	0	37.06	-	-	-	-	68.2	-31.14	267	171	H
2	*2.36368	37.04	PK-U	31.8	-30.3	0	38.54	-	-	74	-35.46	-	-	92	258	V
	*2.36814	27.57	ADR	31.9	-30.2	-12	29.39	54	-24.61	-	-	-	-	92	258	V
3	7.06655	35.21	PK-U	35.7	-19.7	0	51.21	-	-	-	-	68.2	-16.99	24	112	H
4	12.76267	27.99	PK-U	39.1	-15	0	52.09	-	-	-	-	68.2	-16.11	108	147	H
5	7.06651	33.65	PK-U	35.7	-19.7	0	49.65	-	-	-	-	68.2	-18.55	33	140	V
6	10.37988	28.13	PK-U	37.5	-15.4	0	50.23	-	-	-	-	68.2	-17.97	185	261	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

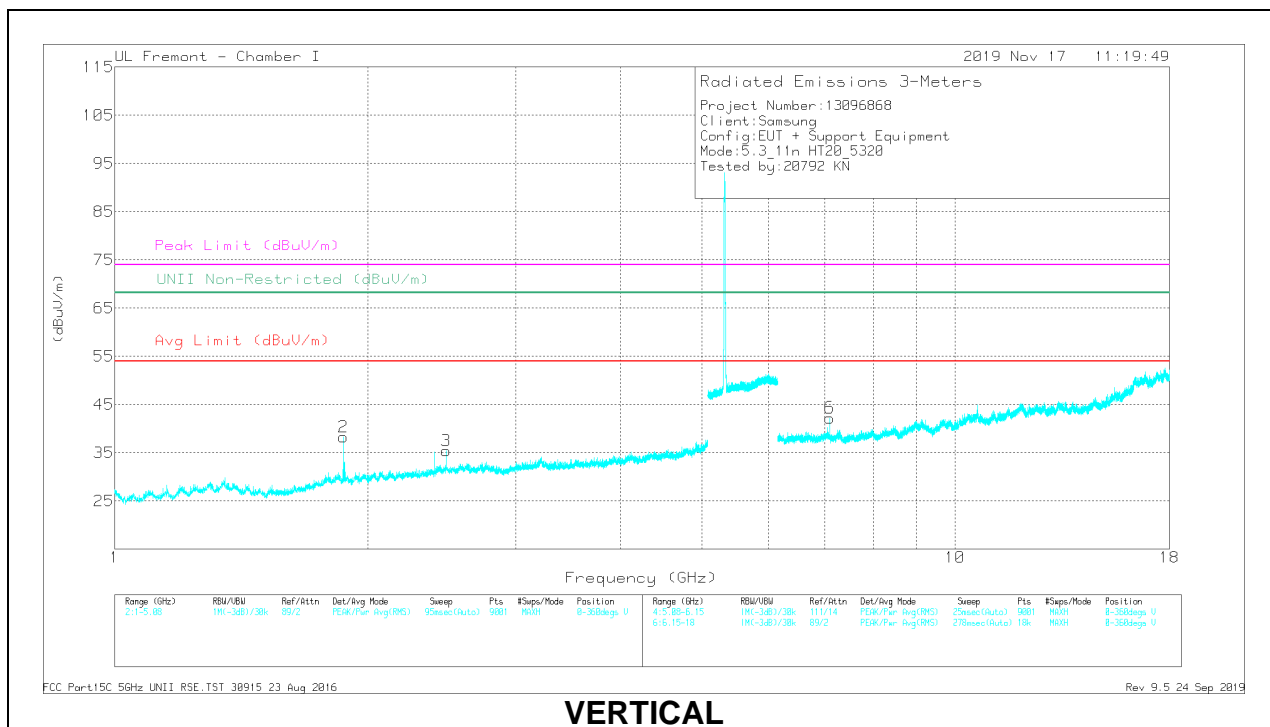
PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

HIGH CHANNEL RESULTS



HORIZONTAL



VERTICAL

RADIATED EMISSIONS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T862 (dB/m)	Amp/Cb/Fitr/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	1.8747	37.22	PK-U	30.8	-31	0	37.02	-	-	-	-	68.2	-31.18	129	172	H
2	1.87049	37.47	PK-U	30.8	-31.1	0	37.17	-	-	-	-	68.2	-31.03	139	176	V
3	2.48013	36.98	PK-U	32.3	-29.8	0	39.48	-	-	-	-	68.2	-28.72	163	162	V
4	7.09338	35.99	PK-U	35.6	-20	0	51.59	-	-	-	-	68.2	-16.61	26	121	H
5	*10.63994	30.78	PK-U	37.9	-15.6	0	53.08	-	-	74	-20.92	-	-	344	286	H
	*10.63987	20.51	ADR	37.9	-15.6	.12	42.93	54	-11.07	-	-	-	-	344	286	H
6	7.09339	34.41	PK-U	35.6	-20	0	50.01	-	-	-	-	68.2	-18.19	30	159	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

PK-U - U-NII: Maximum Peak

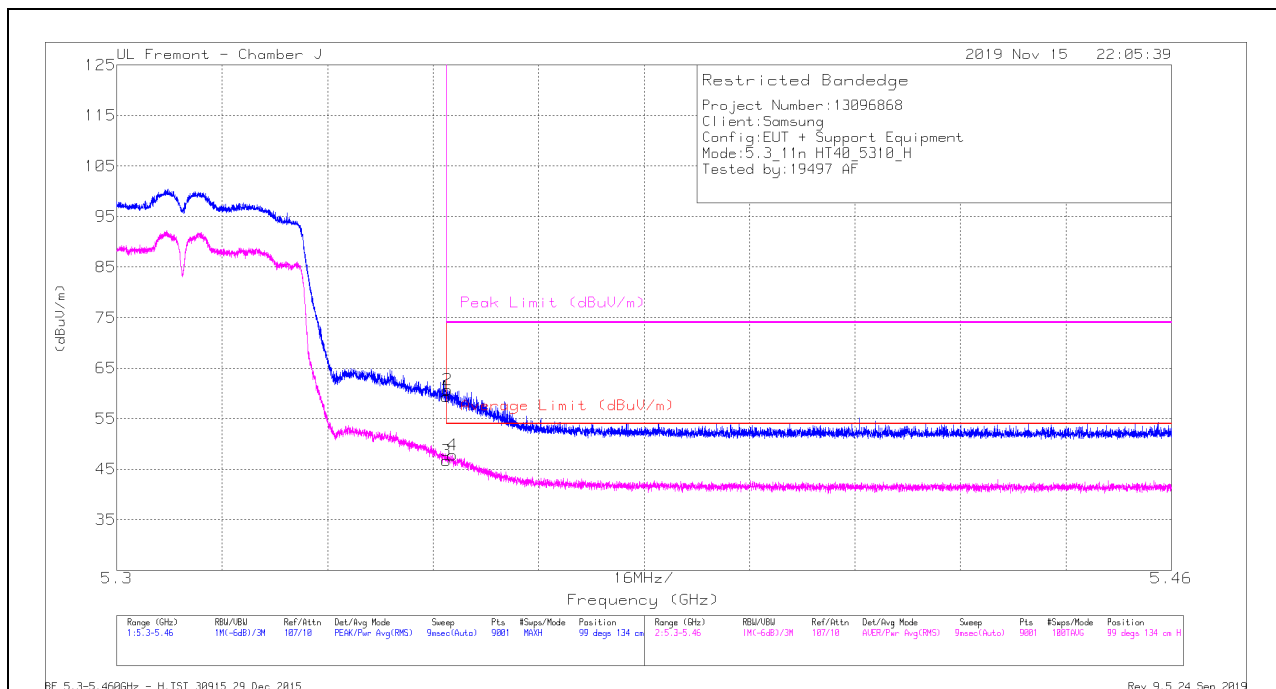
ADR - U-NII AD primary method, RMS average

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

1TX CHAIN 0 MODE

BANDEDGE (HIGH CHANNEL)

HORIZONTAL RESULT



Trace Markers

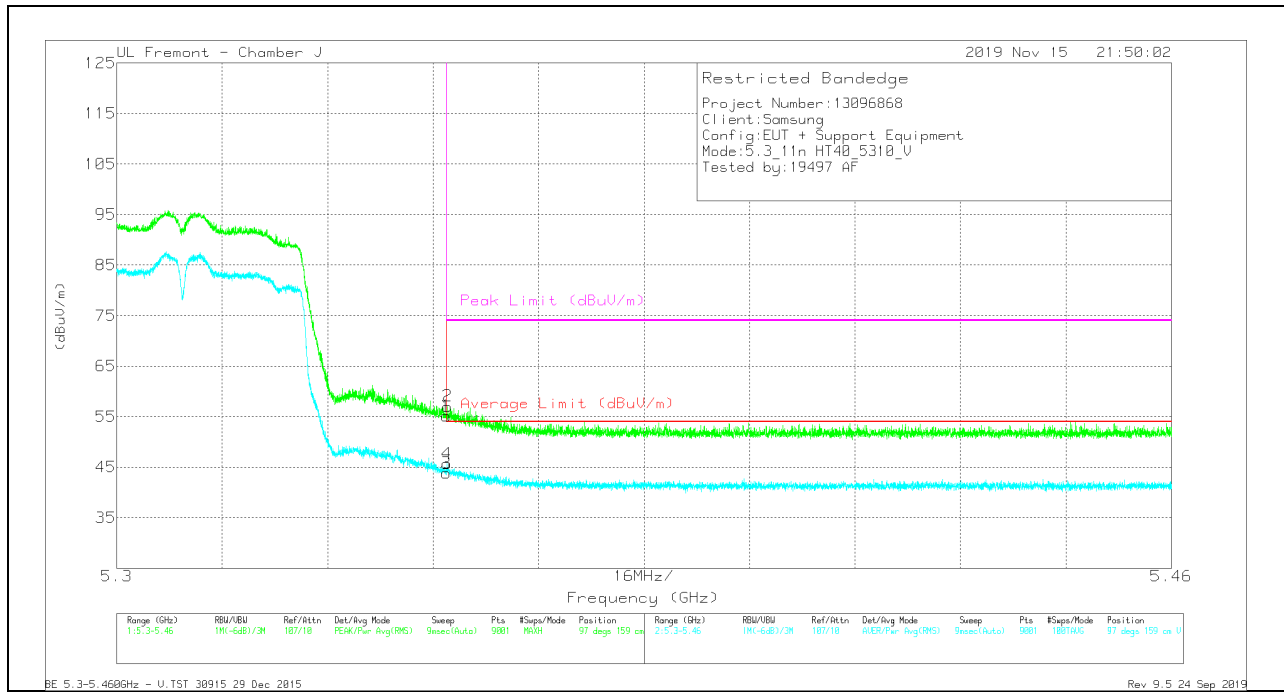
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.35001	45.67	Pk	34.5	-20.8	0	59.37	-	-	74	-14.63	99	134	H
2	* 5.35021	47.04	Pk	34.5	-20.8	0	60.74	-	-	74	-13.26	99	134	H
3	* 5.35001	32.79	RMS	34.5	-20.8	.24	46.73	54	-7.27	-	-	99	134	H
4	* 5.35097	33.92	RMS	34.5	-20.8	.24	47.86	54	-6.14	-	-	99	134	H

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

RMS - RMS detection

VERTICAL RESULT



Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (dB/m)	Amp/Cb/Filtr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.35001	41.43	Pk	34.5	-20.8	0	55.13	-	-	74	-18.87	97	159	V
2	* 5.35021	43.36	Pk	34.5	-20.8	0	57.06	-	-	74	-16.94	97	159	V
3	* 5.35001	29.86	RMS	34.5	-20.8	.24	43.8	54	-10.2	-	-	97	159	V
4	* 5.35012	31.76	RMS	34.5	-20.8	.24	45.7	54	-8.3	-	-	97	159	V

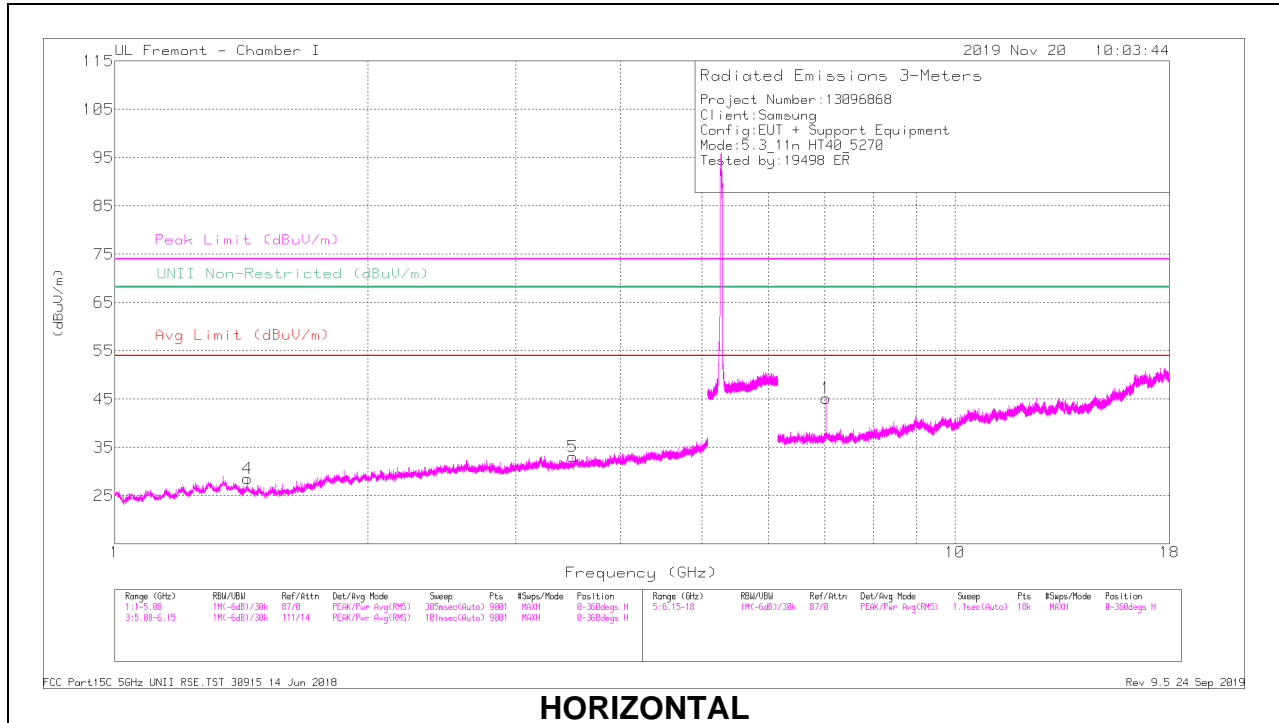
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

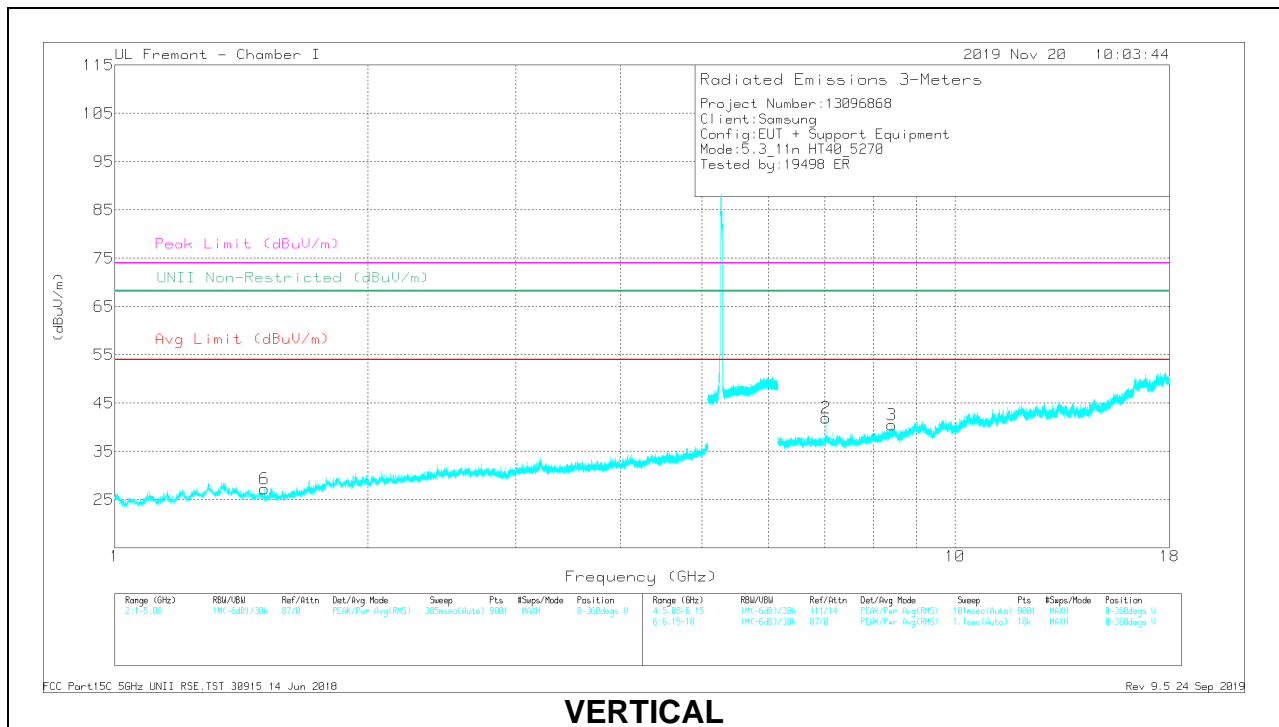
RMS - RMS detection

HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL RESULTS



HORIZONTAL



VERTICAL

RADIATED EMISSIONS

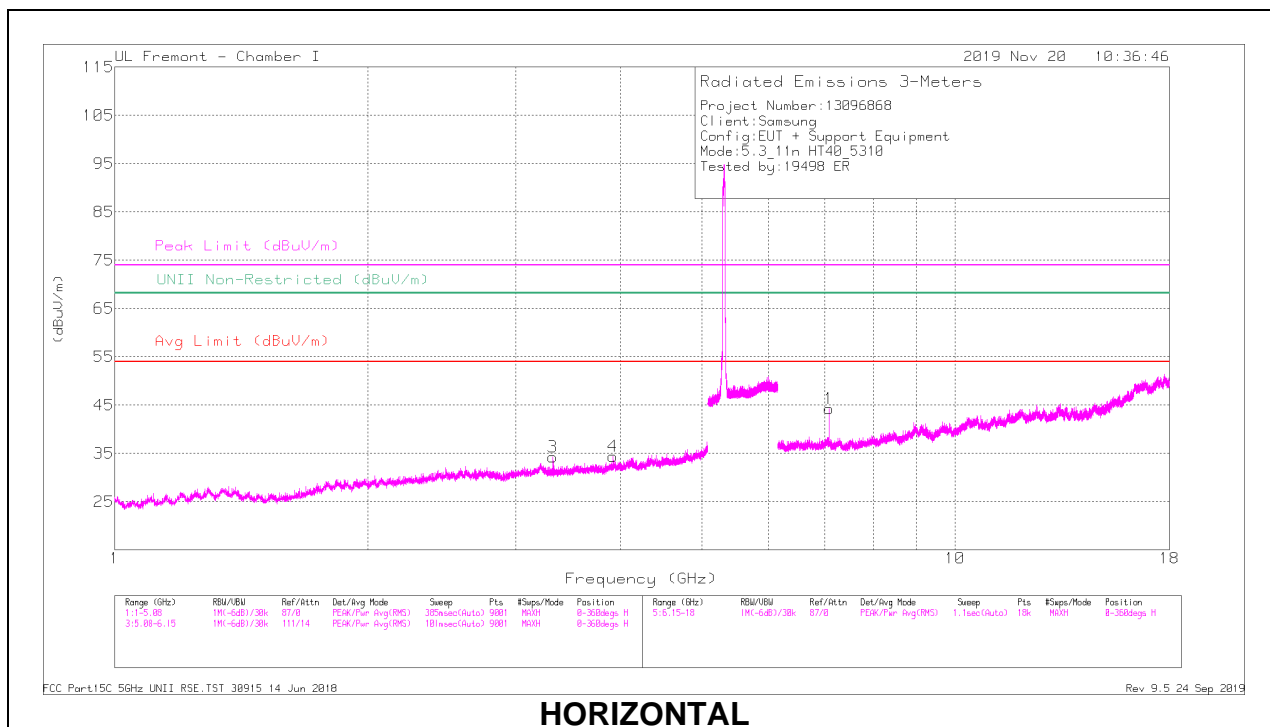
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T862 (dB/m)	Amp/Cbl/Fitr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
4	*1.44041	39.58	PK-U	28.4	-31.8	0	36.18	-	-	74	-37.82	-	-	306	120	H
	*1.43823	28.51	ADR	28.4	-31.7	24	25.45	54	-28.55	-	-	-	-	306	120	H
5	*3.50893	34.43	PK-U	32.8	-28.3	0	38.93	-	-	74	-35.07	-	-	45	233	H
	*3.50855	24.8	ADR	32.8	-28.3	24	29.54	54	-24.46	-	-	-	-	45	233	H
6	*1.50619	37.39	PK-U	28	-31.8	0	33.59	-	-	74	-40.41	-	-	79	160	V
	*1.5057	27.5	ADR	28	-31.8	24	23.94	54	-30.06	-	-	-	-	79	160	V
1	7.02668	33.31	PK-U	35.6	-19.3	0	49.61	-	-	-	-	68.2	-18.59	31	147	H
3	*8.41784	29.78	PK-U	35.9	-18.1	0	47.58	-	-	74	-26.42	-	-	143	117	V
	*8.41687	19.32	ADR	35.9	-18.1	24	37.36	54	-16.64	-	-	-	-	143	117	V
2	7.02669	31.37	PK-U	35.6	-19.3	0	47.67	-	-	-	-	68.2	-20.53	47	286	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

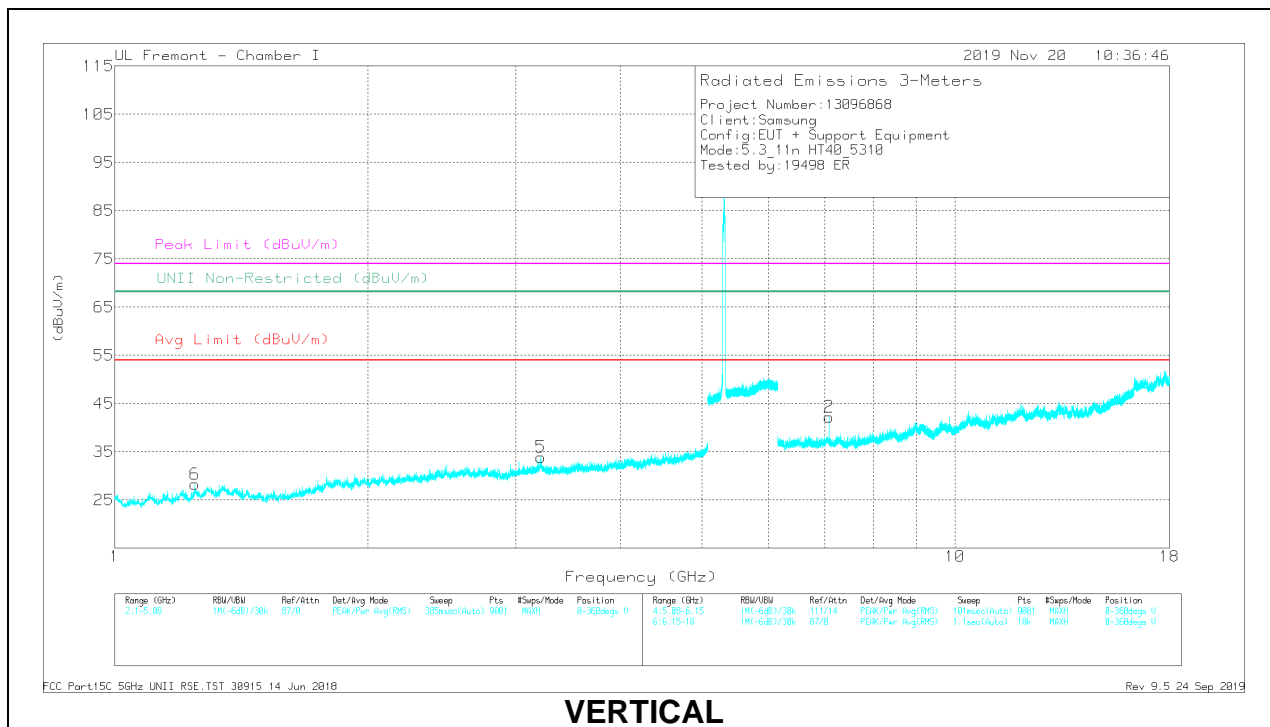
PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

HIGH CHANNEL RESULTS



HORIZONTAL



VERTICAL