FCC 47 CFR PART 15 SUBPART E

CERTIFICATION TEST REPORT

FOR

Tablet with Bluetooth, DTS/UNII a/b/g/n/ac, ANT+ and NFC

FCC ID: PY7TS-0040

REPORT NUMBER: 14U17934- E4 REVISION B

ISSUE DATE: SEPTEMBER 18, 2014

Prepared for
SONY MOBILE COMMUNICATIONS, INC.
NYA VATTENTORNET MOBILVAGEN 10
LUND 22188
SWEDEN

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NVLAP LAB CODE 200065-0

Revision History

Rev.	Issue Date	Revisions	Revised By
--	09/05/14	Initial issue	D. Coronia
A	09/17/14	EUT description updated	D. Coronia
B	09/18/14	EUT description updated; cover page, 6, 8 & 17	D. Coronia

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1. ATTESTATION OF TEST RESULTS

COMPANY NAME: SONY MOBILE COMMUNICATIONS, INC.

EUT DESCRIPTION: Tablet with Bluetooth, DTS/UNII a/b/g/n/ac, ANT+ and NFC

SERIAL NUMBER: CB5A20E0RY (Radiated), CB5A208FAY (Conducted)

DATE TESTED: August 12-19, 2014

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

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

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

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2. TEST METHODOLOGY

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

3. FACILITIES AND ACCREDITATION

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

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

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

4. CALIBRATION AND UNCERTAINTY

4.1. MEASURING INSTRUMENT CALIBRATION

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

4.2. SAMPLE CALCULATION

Where relevant, the following sample calculation is provided:

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

36.5 dBuV + 18.7 dB/m + 0.6 dB – 26.9 dB = 28.9 dBuV/m

4.3. MEASUREMENT UNCERTAINTY

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

PARAMETER	UNCERTAINTY
Conducted Disturbance, 0.15 to 30 MHz	3.52 dB
Radiated Disturbance, 30 to 40000 MHz	4.94 dB

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

5. EQUIPMENT UNDER TEST

5.1. DESCRIPTION OF EUT

The EUT is a Tablet with Bluetooth, DTS/UNII a/b/g/n/ac, ANT+ and NFC.

5.2. MAXIMUM OUTPUT POWER

The transmitter has a maximum total conducted output power as follows:

Frequency Range (MHz)	Mode	Total Output Power (dBm)	Total Output Power (mW)
5180-5240	802.11a	14.4	27.54
5180-5240	802.11n HT20	13.87	24.38
5190-5230	802.11n HT40	13.76	23.77
5210	802.11ac HT80	13.9	24.55
5260-5320	802.11a	14.94	31.19
5260-5320	802.11n HT20	14.25	26.61
5270-5310	802.11n HT40	14.15	26.00
5290	802.11ac HT80	14.25	26.61
5500-5700	802.11a	14.59	28.77
5500-5700	802.11n HT20	14.03	25.29
5510-5670	802.11n HT40	14.07	25.53
5530	802.11ac HT80	14.08	25.59
5745-5825	802.11a	14.81	30.27
5745-5825	802.11n HT20	14.28	26.79
5755-5795	802.11n HT40	14.5	28.18
5775	802.11ac HT80	14.43	27.73

The transmitter has average conducted output power as follows:

Band (GHz)	Mode	Mode	Ch #	Freq. (MHz)	ANT 1	ANT 2
					Avg Pwr (dBm)	
5.2 (UNII-1)	802.11a	6 Mbps	36	5180	11.5	10.5
			40	5200	11.4	10.5
			44	5220	11.4	10.4
			48	5240	11.5	10.5
	802.11n (HT20)	6.5 Mbps	36	5180	11.0	10.0
			40	5200	11.0	10.0
			48	5240	11.0	10.0
	802.11n (HT40)	13.5 Mbps	38	5190	11.0	10.3
			46	5230	11.0	10.3
	802.11ac (VHT20)	6.5 Mbps	36	5180	11.0	10.1
			40	5200	11.0	10.0
			48	5240	11.0	10.0
	802.11ac (VHT40)	13.5 Mbps	38	5190	11.0	10.2
			46	5230	11.0	10.2
	802.11ac (VHT80)	29.3 Mbps	42	5210	11.0	10.2
5.3 (UNII-2A)	802.11a	6 Mbps	52	5260	11.5	10.8
			56	5280	11.5	10.9
			60	5300	11.5	10.8
			64	5320	11.5	10.9
	802.11n (HT20)	6.5 Mbps	52	5260	11.0	10.2
			60	5300	11.0	10.5
			64	5320	11.0	10.5
	802.11n (HT40)	13.5 Mbps	54	5270	11.0	10.4
			62	5310	11.0	10.4
	802.11ac (VHT20)	6.5 Mbps	52	5260	11.0	10.2
			60	5300	11.0	10.5
			64	5320	11.0	10.5
	802.11ac (VHT40)	13.5 Mbps	54	5270	11.0	10.4
			62	5310	11.0	10.4
	802.11ac (VHT80)	29.3 Mbps	58	5290	10.9	10.2

5.5 (UNII-2C)	802.11a	6 Mbps	100	5500	11.0	11.3
			104	5520	11.1	11.4
			108	5540	10.7	11.0
			112	5560	10.9	11.2
			116	5580	10.9	11.1
			120	5600	10.5	10.8
			124	5620	10.7	10.8
			128	5640	10.6	10.7
			132	5660	10.8	10.8
			136	5680	10.7	10.8
			140	5700	11.1	11.0
	802.11n (HT20)	6.5 Mbps	100	5500	10.5	10.6
			116	5580	10.5	10.5
			140	5700	10.3	10.5
	802.11n (HT40)	13.5 Mbps	102	5510	10.3	10.3
			110	5550	10.4	10.4
			134	5670	10.4	10.3
	802.11ac (VHT20)	6.5 Mbps	100	5500	10.3	10.4
			116	5580	10.4	10.5
			140	5700	10.3	10.4
	802.11ac (VHT40)	13.5 Mbps	102	5510	10.3	10.3
			110	5550	10.3	10.3
			134	5670	10.2	10.0
	802.11ac (VHT80)	29.3 Mbps	106	5530	9.8	10.2
			122	5610	9.8	10.0
5.8 (UNII-3)	802.11a	6 Mbps	149	5745	10.8	10.8
			153	5765	10.9	10.9
			157	5785	10.9	10.9
			161	5805	11.0	11.0
			165	5825	11.0	11.1
	802.11n (HT20)	6.5 Mbps	149	5745	10.4	10.4
			157	5785	10.3	10.2
			161	5805	10.3	10.4
	802.11n (HT40)	13.5 Mbps	151	5755	10.4	10.4
			159	5795	10.4	10.5
	802.11ac (VHT20)	6.5 Mbps	149	5745	10.3	10.4
			157	5785	10.3	10.3
			165	5825	10.4	10.4
	802.11ac (VHT40)	13.5 Mbps	151	5755	10.3	10.3
			159	5795	10.4	10.4
	802.11ac (VHT80)	29.3 Mbps	155	5775	9.9	10.1

5.3. DESCRIPTION OF AVAILABLE ANTENNAS

The radio utilizes an FPCB antenna, with a maximum gain of:
5180-5320MHz: 0.8 & 1.5 dBi, 5500-5700MHz: 0.7 & 1.4 dBi, 5725-5850MHz: 0.8 & 1.2 dBi

List of test reduction and modes covering other modes:

Authorized Frequency Band (Antenna port & Radiated Testing)		
Frequency Range (MHz)	**Mode**	**Covered by**
5180 - 5240	802.11a legacy 1TX/STBC 2TX	802.11a 2TX CDD
5180 - 5240	802.11HT20 1TX	802.11n HT20 2TX CDD
5180 - 5240	802.11HT20 2TX STBC/SDM	802.11n HT20 2TX CDD
5180 - 5240	802.11ac VHT20 1TX	802.11n HT20 2TX CDD
5180 - 5240	802.11ac VHT20 2TX STBC/SDM	802.11n HT20 2TX CDD
5180 - 5240	802.11ac VHT20 2TX CDD/Tx BF	802.11n HT20 2TX CDD
5190 - 5230	802.11n HT40 1TX	802.11n HT40 2TX CDD
5190 - 5230	802.11n HT40 2TX STBC/SDM	802.11n HT40 2TX CDD
5190 - 5230	802.11ac VHT40 1TX	802.11n HT40 2TX CDD
5190 - 5230	802.11ac VHT40 2TX STBC/SDM	802.11n HT40 2TX CDD
5190 - 5230	802.11ac VHT40 2TX CDD/Tx BF	802.11n HT40 2TX CDD
5210	802.11ac VHT80 1TX	802.11ac VHT80 2TX CDD
5210	802.11ac VHT80 2TX STBC/SDM/Tx BF	802.11ac VHT80 2TX CDD

Authorized Frequency Band (Antenna port & Radiated Testing)		
Frequency Range (MHz)	**Mode**	**Covered by**
5260 - 5320	802.11a legacy 1TX/STBC 2TX	802.11a 2TX CDD
5260 - 5320	802.11HT20 1TX	802.11n HT20 2TX CDD
5260 - 5320	802.11HT20 2TX STBC/SDM	802.11n HT20 2TX CDD
5260 - 5320	802.11ac VHT20 1TX	802.11n HT20 2TX CDD
5260 - 5320	802.11ac VHT20 2TX STBC/SDM	802.11n HT20 2TX CDD
5260 - 5320	802.11ac VHT20 2TX CDD/Tx BF	802.11n HT20 2TX CDD
5270 - 5310	802.11n HT40 1TX	802.11n HT40 2TX CDD
5270 - 5310	802.11n HT40 2TX STBC/SDM	802.11n HT40 2TX CDD
5270 - 5310	802.11ac VHT40 1TX	802.11n HT40 2TX CDD
5270 - 5310	802.11ac VHT40 2TX STBC/SDM	802.11n HT40 2TX CDD
5270 - 5310	802.11ac VHT40 2TX CDD/Tx BF	802.11n HT40 2TX CDD
5290	802.11ac VHT80 1TX	802.11ac VHT80 2TX CDD
5290	802.11ac VHT80 2TX STBC/SDM/Tx BF	802.11ac VHT80 2TX CDD

Authorized Frequency Band (Antenna port & Radiated Testing)		
Frequency Range (MHz)	**Mode**	**Covered by**
5500 - 5700	802.11a legacy 1TX/STBC 2TX	802.11a 2TX CDD
5500 - 5700	802.11HT20 1TX	802.11n HT20 2TX CDD
5500 - 5700	802.11HT20 2TX STBC/SDM	802.11n HT20 2TX CDD
5500 - 5700	802.11ac VHT20 1TX	802.11n HT20 2TX CDD
5500 - 5700	802.11ac VHT20 2TX STBC/SDM	802.11n HT20 2TX CDD
5500 - 5700	802.11ac VHT20 2TX CDD/Tx BF	802.11n HT20 2TX CDD
5510 - 5670	802.11n HT40 1TX	802.11n HT40 2TX CDD
5510 - 5670	802.11n HT40 2TX STBC/SDM	802.11n HT40 2TX CDD
5510 - 5670	802.11ac VHT40 1TX	802.11n HT40 2TX CDD
5510 - 5670	802.11ac VHT40 2TX STBC/SDM	802.11n HT40 2TX CDD
5510 - 5670	802.11ac VHT40 2TX CDD/Tx BF	802.11n HT40 2TX CDD
5530	802.11ac VHT80 1TX	802.11ac VHT80 2TX CDD
5530	802.11ac VHT80 2TX STBC/SDM/Tx BF	802.11ac VHT80 2TX CDD

Authorized Frequency Band (Antenna port & Radiated Testing)		
Frequency Range (MHz)	**Mode**	**Covered by**
5745 - 5825	802.11a legacy 1TX/STBC 2TX	802.11a 2TX CDD
5745 - 5825	802.11HT20 1TX	802.11n HT20 2TX CDD
5745 - 5825	802.11HT20 2TX STBC/SDM	802.11n HT20 2TX CDD
5745 - 5825	802.11ac VHT20 1TX	802.11n HT20 2TX CDD
5745 - 5825	802.11ac VHT20 2TX STBC/SDM	802.11n HT20 2TX CDD
5745 - 5825	802.11ac VHT20 2TX CDD/Tx BF	802.11n HT20 2TX CDD
5755 - 5795	802.11n HT40 1TX	802.11n HT40 2TX CDD
5755 - 5795	802.11n HT40 2TX STBC/SDM	802.11n HT40 2TX CDD
5755 - 5795	802.11ac VHT40 1TX	802.11n HT40 2TX CDD
5755 - 5795	802.11ac VHT40 2TX STBC/SDM	802.11n HT40 2TX CDD
5755 - 5795	802.11ac VHT40 2TX CDD/Tx BF	802.11n HT40 2TX CDD
5775	802.11ac VHT80 1TX	802.11ac VHT80 2TX CDD
5775	802.11ac VHT80 2TX STBC/SDM/Tx BF	802.11ac VHT80 2TX CDD

5.4. WORST-CASE CONFIGURATION AND MODE

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

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

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

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

5.5. DESCRIPTION OF TEST SETUP

SUPPORT EQUIPMENT

Support Equipment List				
Description	**Manufacturer**	**Model**	**Serial Number**	**FCC ID**
AC Adapter	Sony	EP880	4W01 S08489 SEM	DoC
Earphone	Sony	MH410c	14071EB60060A84	DoC
MHL cable	Sony	N/A	N/A	N/A

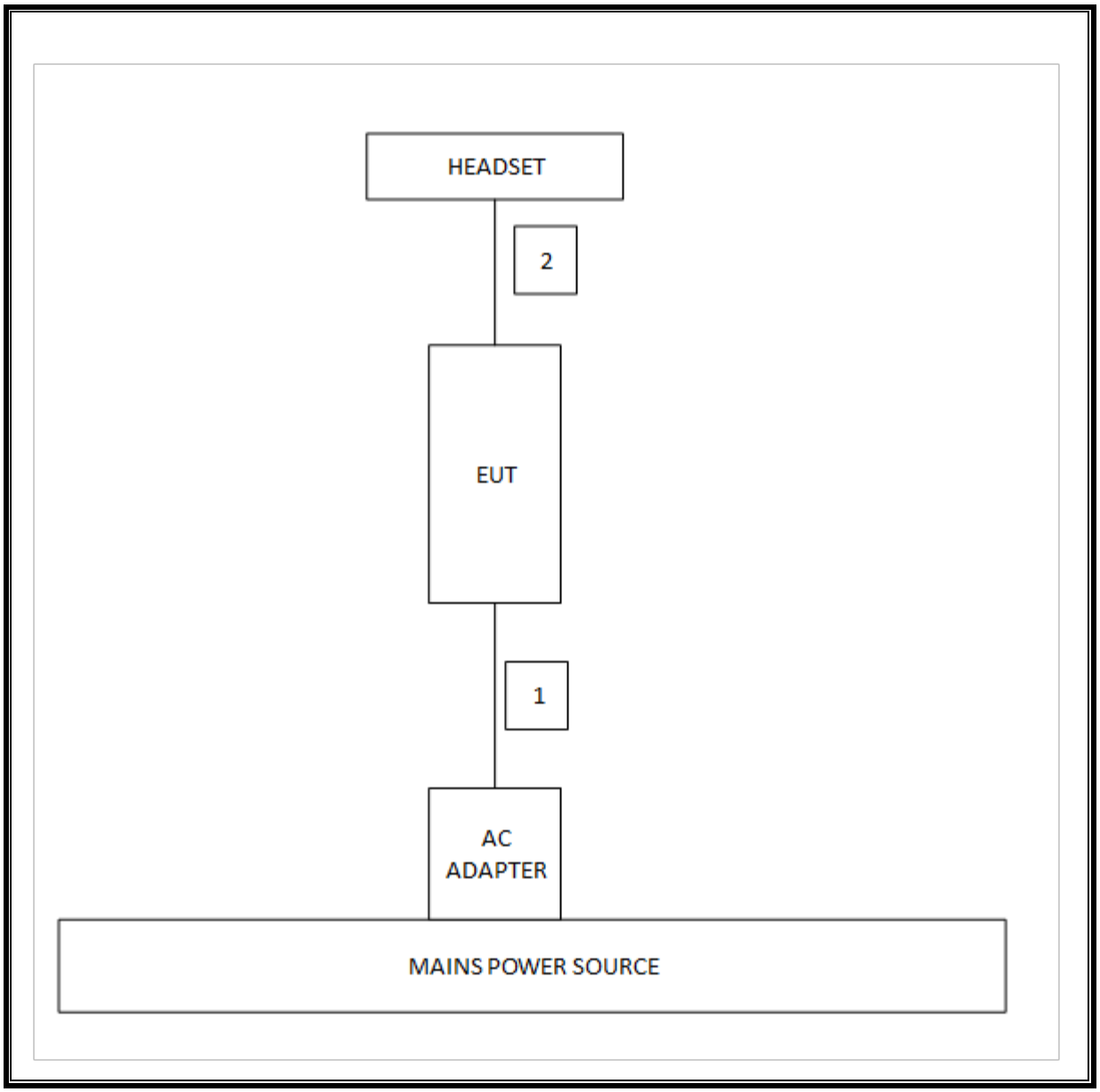
I/O CABLES

I/O Cable List						
Cable No	**Port**	**# of identical ports**	**Connector Type**	**Cable Type**	**Cable Length (m)**	**Remarks**
1	DC Power	1	Mini-USB	Shielded	1.2m	N/A
2	Audio	1	Mini-Jack	Unshielded	1.0m	N/A

TEST SETUP

The EUT is setup as a stand-alone device.

SETUP DIAGRAM FOR TESTS



6. TEST AND MEASUREMENT EQUIPMENT

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

Test Equipment List				
Description	**Manufacturer**	**Model**	**Asset**	**Cal Due**
Spectrum Analyzer, 44 GHz	Agilent / HP	E4446A	C00986	4/1/2015
Spectrum Analyzer, 26.5 GHz	Agilent / HP	E4440A	C01179	2/26/2015
EMI Test Receiver, 30 MHz	R & S	ESHS 20	N02396	8/18/2015
Preamplifier, 1300 MHz	Agilent / HP	8447D	C00580	1/28/2015
Preamplifier, 26.5 GHz	Agilent / HP	8449B	C01063	10/22/2014
Preamplifier, 40 GHz	Miteq	NSP4000-SP2	C00990	8/2/2015
Antenna, Bilog, 30MHz-1 GHz	Sunol Sciences	JB1	N/A	3/6/2015
Antenna, Horn, 18 GHz	ETS	3117	C01022	2/21/2015
Antenna, Horn, 26.5 GHz	ARA	MWH-1826/B	C00589	12/17/2014
Peak Power Meter	Agilent / HP	E4416A	C00963	12/13/2014
Peak / Average Power Sensor	Agilent / HP	E9327A	C00964	12/13/2014
LISN, 30 MHz	FCC	50/250-25-2	C00626	01/14/15
Reject Filter, 5.725-5.825 GHz	Micro-Tronics	BRC13192	N02676	CNR

7. SUMMARY TABLE

The FCC ID: PY7TS-0040 shares the same enclosure and circuit board as FCC ID: PY7TM-0050. The UNII WLAN circuitry and layout, including antennas, are almost identical between the two units. The UNII WLAN antennas and surrounding circuitry are the same between these two units. The main difference between the two models is that WWAN circuitry in FCC ID: PY7TM-0050 is removed for FCC ID: FCC ID: PY7TS-0040.

After confirming through preliminary radiated emissions that the performance of the FCC ID: PY7TS-0040 remains representative of FCC ID: PY7TM-0050, test data for FCC ID: PY7TM-0050 is being submitted for this application to cover UNII WLAN features.

Radiated emissions were fully re-evaluated against FCC Part 15B requirements for digital devices and results indicated no significant differences between the two versions due to the depopulation of the WWAN circuitry.

FCC Part Section	Test Description	Test Limit	Test Condition	Test Result	Worst Case
15.407 (a)	Occupied Band width (26dB)	N/A	Conducted	Pass	82.9MHz
14.407	6dB Band width	>500KHz		Pass	16.50MHz
15.407 (a)(2)	TX Cond. Power5.15-2.25, 5.25-5.35 & 5.47-5.725	<24dBm or 11+10Log(OBW)		Pass	14.94dBm
15.407 (a)(3)	TX Cond. Power 5.725-5.850	< 30dBm or 17+10Log(OBW)		Pass	14.81dBm
15.407 (a)(5)	PSD	<11dBm; <30dBm for 5.725 to 5.850		Pass	3.60dBm
15.207 (a)	AC Power Line conducted emissions	Section 10	Radiated	Pass	10.14dBuV(AV)
15.407 (b) & 15.209	Radiated Spurious Emission	< 54dBuV/m		Pass	51.16dBuV/m
15.407 (h)(2)	Dynamic Frequency Selection	N/A	Radiated / Condcuted	Pass	N/A

8. ON TIME, DUTY CYCLE AND MEASUREMENT METHODS

LIMITS

None; for reporting purposes only.

PROCEDURE

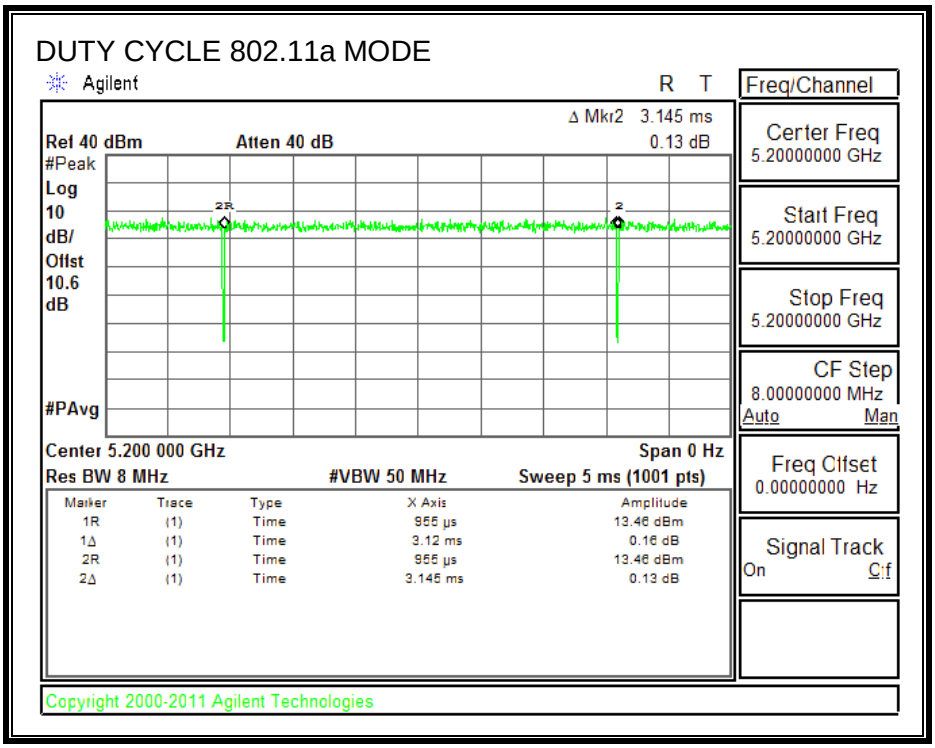
KDB 789033 Zero-Span Spectrum Analyzer Method.

8.1. ON TIME AND DUTY CYCLE RESULTS

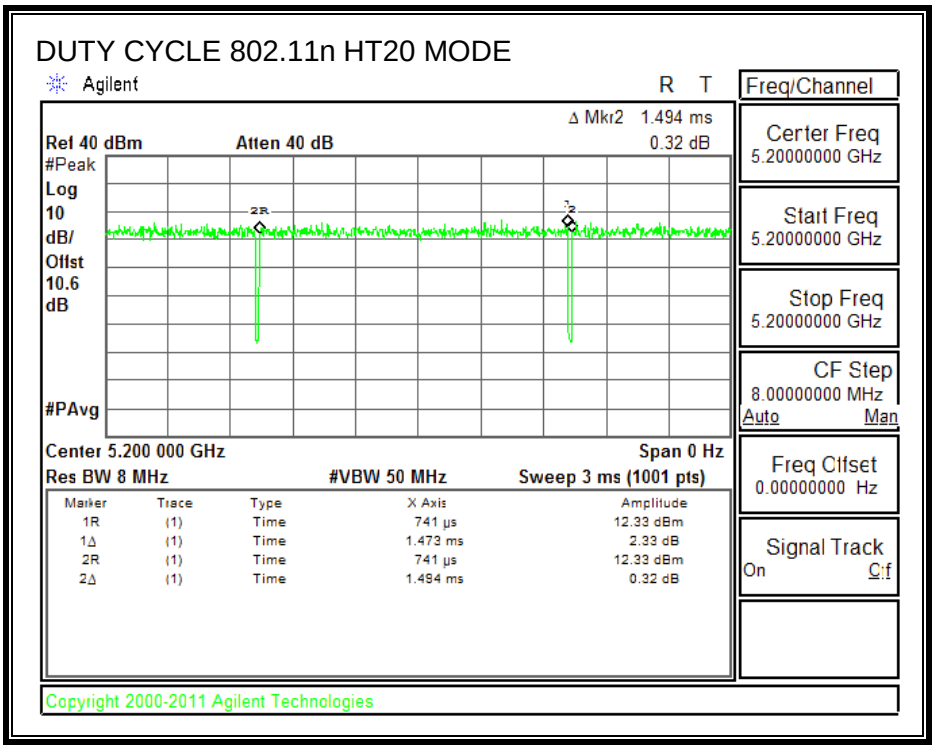
Mode	ON Time B (msec)	Period (msec)	Duty Cycle x (linear)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)	1/T Minimum VBW (kHz)
802.11a	3.12	3.15	0.992	99.2%	0.00	0.010
802.11n HT20	1.47	1	0.986	98.6%	0.00	0.010
802.11n HT40	0.73	1	0.971	97.1%	0.13	1.370
802.11ac HT80	0.36	0	0.945	94.5%	0.24	2.755

8.2. DUTY CYCLE PLOTS

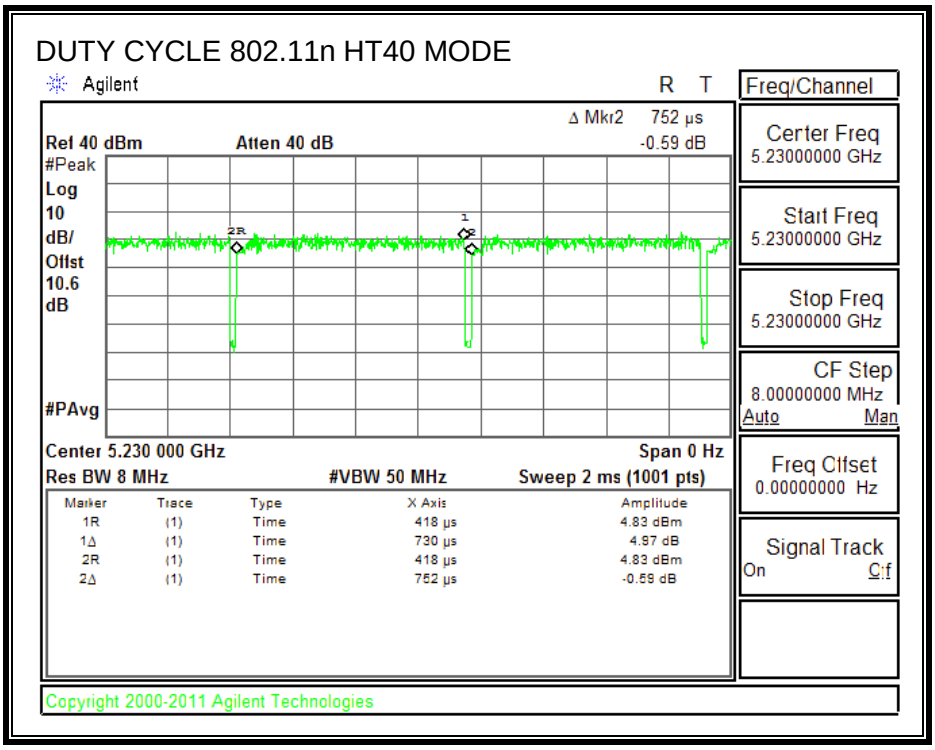
DUTY CYCLE 802.11a MODE



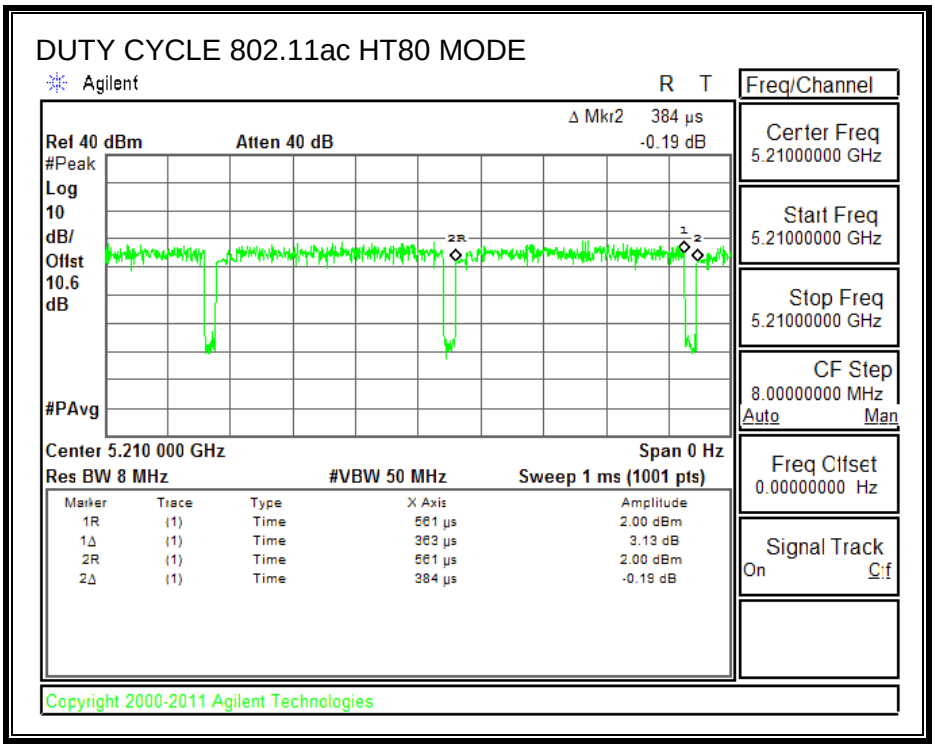
DUTY CYCLE 802.11n HT20 MODE



DUTY CYCLE 802.11n HT40 MODE



DUTY CYCLE 802.11ac HT80 MODE



9. MEASUREMENT METHOD

789033 D02 General UNII Test Procedures New Rules v01

The Duty Cycle is less than 98% and consistent therefore KDB 789033 Method SA-2 is used for .power and PPSD

The Duty Cycle is less than 98% and consistent, KDB 789033 Method AD with Power RMS Averaging and duty cycle correction is used.

10. ANTENNA PORT TEST RESULTS

10.1. 6 dB BANDWIDTH

LIMITS

FCC §15.407

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

TEST PROCEDURE

Reference to 789033 D02 General UNII Test Procedures New Rules v01: The transmitter output is connected to a spectrum analyzer with the RBW set to100KHz, the VBW >= 3 x RBW, peak detector and max hold.

RESULTS

10.1.1. 802.11a MODE IN THE 5.8 GHz BAND

Channel	Frequency	6 dB Bandwidth CHAIN 0	6 dB Bandwidth CHAIN 1	Minimum Limit
	(MHz)	(MHz)	(MHz)	(MHz)
Low	5745	16.58	16.54	0.5
Mid	5785	16.50	16.54	0.5
High	5825	16.50	16.50	0.5
Worst		16.50	16.50	

10.1.2. 802.11n HT20 MODE IN THE 5.8 GHz BAND

Channel	Frequency	6 dB Bandwidth CHAIN 0	6 dB Bandwidth CHAIN 1	Minimum Limit
	(MHz)	(MHz)	(MHz)	(MHz)
Low	5745	17.67	17.75	0.5
Mid	5785	17.75	17.71	0.5
High	5825	17.71	17.71	0.5
Worst		17.67	17.71	

10.1.3. 802.11n HT40 MODE IN THE 5.8 GHz BAND

Channel	Frequency	6 dB Bandwidth CHAIN 0	6 dB Bandwidth CHAIN 1	Minimum Limit
	(MHz)	(MHz)	(MHz)	(MHz)
Low	5755	36.50	36.50	0.5
High	5795	36.42	36.42	0.5
Worst		36.42	36.42	0.5

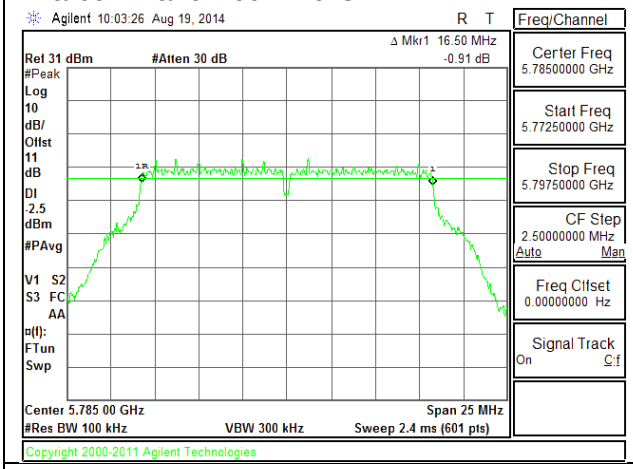
10.1.4. 802.11ac HT80 MODE IN THE 5.8 GHz BAND

Channel	Frequency	6 dB Bandwidth CHAIN 0	6 dB Bandwidth CHAIN 1	Minimum Limit
	(MHz)	(MHz)	(MHz)	(MHz)
Low	5775	76.33	75.67	0.5
Worst				0.5

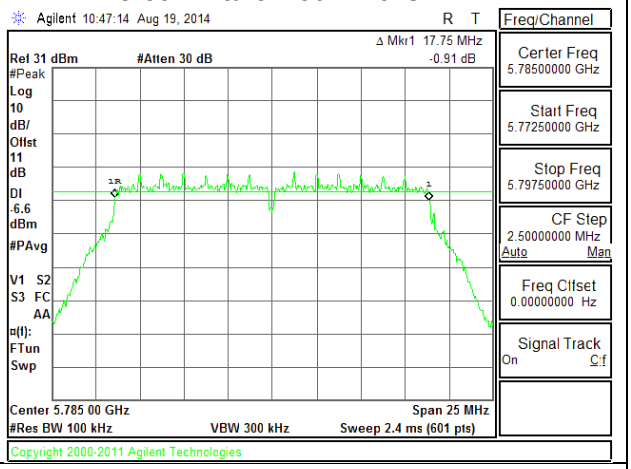
10.1.5. 6 dB BANDWIDTH MID CH PLOTS

6 dB BANDWIDTH Chain 0

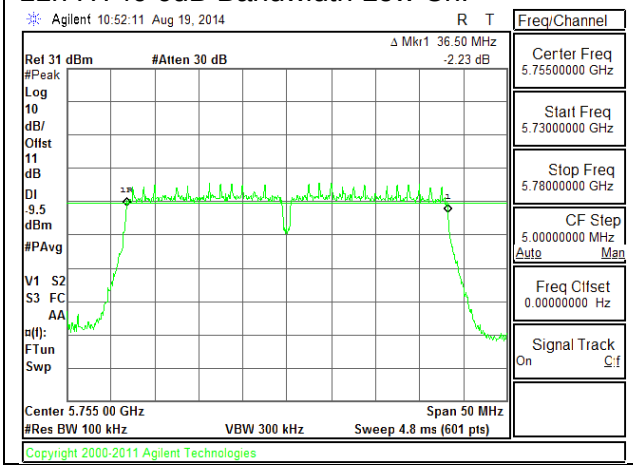
11a 6dB Bandwidth Mid Ch.



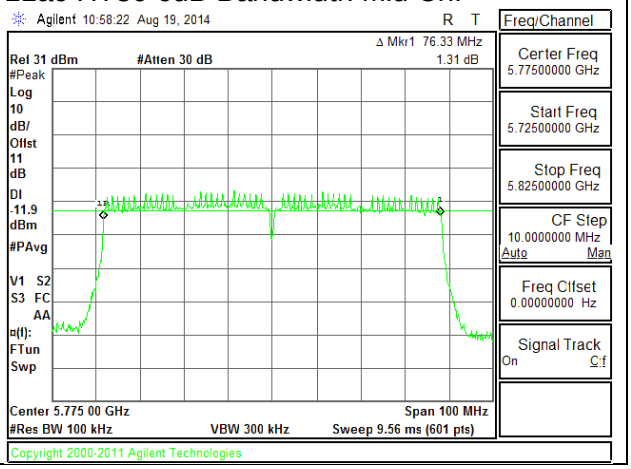
11n HT20 6dB Bandwidth Mid Ch.



11n HT40 6dB Bandwidth Low Ch.

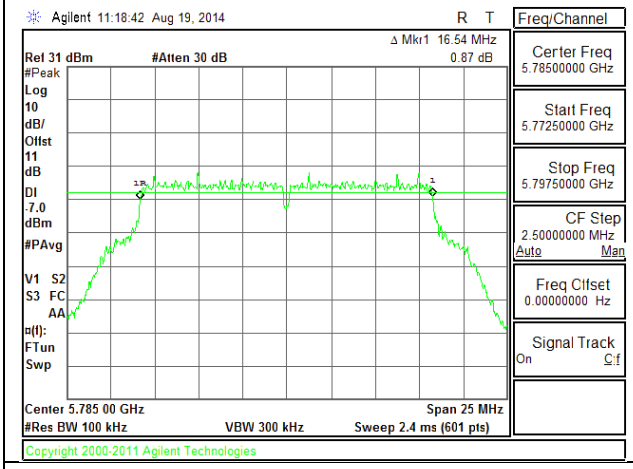


11ac HT80 6dB Bandwidth Mid Ch.

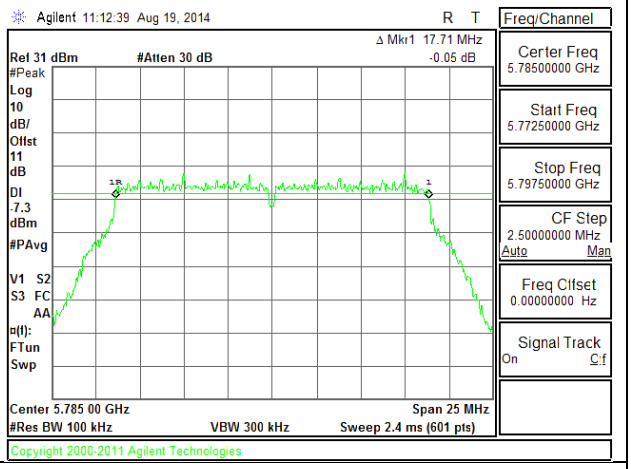


6 dB BANDWIDTH Chain 1

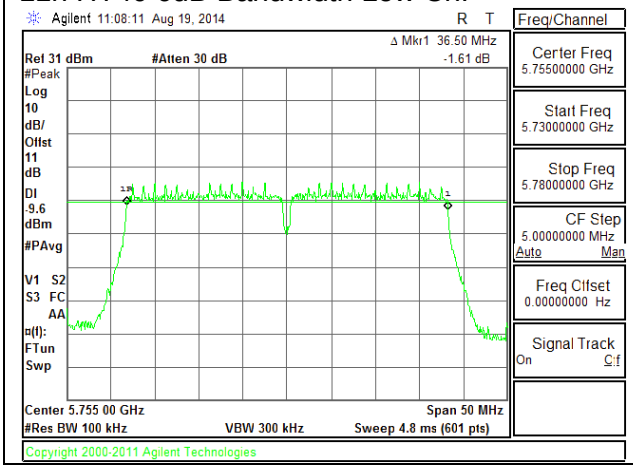
11a 6dB Bandwidth Mid Ch.



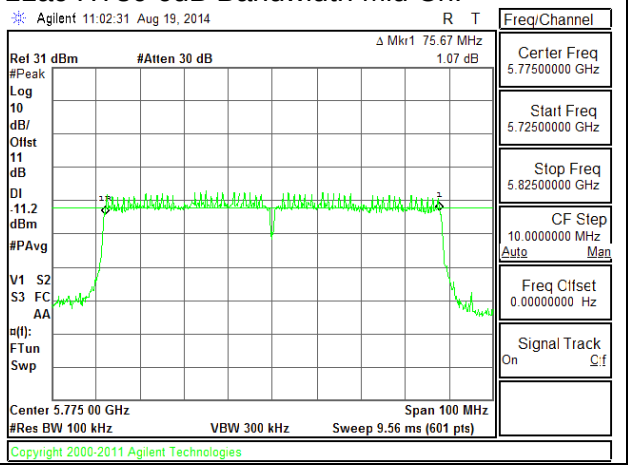
11n HT20 6dB Bandwidth Mid Ch.



11n HT40 6dB Bandwidth Low Ch.



11ac HT80 6dB Bandwidth Mid Ch.



10.2. 26 dB BANDWIDTH

LIMITS

None; for reporting purposes only.

RESULTS

10.2.1. 802.11a MODE IN THE 5.2 GHz BAND

Channel	Frequency (MHz)	26 dB BW Chain 0 (MHz)	26 dB BW Chain 1 (MHz)
Low	5180	21.5	21.5
Mid	5200	21.5	21.5
High	5240	21.5	21.5

10.2.2. 802.11n HT20 MODE IN THE 5.2 GHz BAND

Channel	Frequency (MHz)	26 dB BW Chain 0 (MHz)	26 dB BW Chain 1 (MHz)
Low	5180	21.9	21.9
Mid	5200	21.9	22.1
High	5240	21.9	22.1

10.2.3. 802.11n HT40 MODE IN THE 5.2 GHz BAND

Channel	Frequency (MHz)	26 dB BW Chain 0 (MHz)	26 dB BW Chain 1 (MHz)
Low	5190	40.4	39.8
High	5230	40.5	39.9

10.2.4. 802.11ac HT80 MODE IN THE 5.2 GHz BAND

Channel	Frequency (MHz)	26 dB BW Chain 0 (MHz)	26 dB BW Chain 1 (MHz)
Low	5210	82.7	82.1

10.2.1. 802.11a MODE IN THE 5.3 GHz BAND

Channel	Frequency (MHz)	26 dB BW Chain 0 (MHz)	26 dB BW Chain 1 (MHz)
Low	5260	21.5	21.4
Mid	5300	21.4	21.6
High	5320	21.8	21.6

10.2.1. 802.11n HT20 MODE IN THE 5.3 GHz BAND

Channel	Frequency (MHz)	26 dB BW Chain 0 (MHz)	26 dB BW Chain 1 (MHz)
Low	5260	21.6	21.9
Mid	5300	21.8	21.8
High	5320	22.1	21.7

10.2.2. 802.11n HT40 MODE IN THE 5.3 GHz BAND

Channel	Frequency (MHz)	26 dB BW Chain 0 (MHz)	26 dB BW Chain 1 (MHz)
Low	5270	40.2	40.0
High	5310	40.2	39.7

10.2.3. 802.11ac HT80 MODE IN THE 5.3 GHz BAND

Channel	Frequency (MHz)	26 dB BW Chain 0 (MHz)	26 dB BW Chain 1 (MHz)
Low	5290	82.0	81.8

10.2.4. 802.11a MODE IN THE 5.5 GHz BAND

Channel	Frequency (MHz)	26 dB BW Chain 0 (MHz)	26 dB BW Chain 1 (MHz)
Low	5500	21.5	21.6
Mid	5580	21.5	21.6
High	5700	21.7	21.7

10.2.5. 802.11n HT20 MODE IN THE 5.5 GHz BAND

Channel	Frequency (MHz)	26 dB BW Chain 0 (MHz)	26 dB BW Chain 1 (MHz)
Low	5500	21.9	22.0
Mid	5580	21.8	21.9
High	5700	22.0	22.0

10.2.6. 802.11n HT40 MODE IN THE 5.5 GHz BAND

Channel	Frequency (MHz)	26 dB BW Chain 0 (MHz)	26 dB BW Chain 1 (MHz)
Low	5510	40.4	40.0
Mid	5550	40.4	40.0
High	5670	40.4	40.0

10.2.7. 802.11ac HT80 MODE IN THE 5.5 GHz BAND

Channel	Frequency (MHz)	26 dB BW Chain 0 (MHz)	26 dB BW Chain 1 (MHz)
Low	5530	82.9	82.1

10.2.8. 802.11a MODE IN THE 5.8 GHz BAND

Channel	Frequency (MHz)	26 dB BW Chain 0 (MHz)	26 dB BW Chain 1 (MHz)
Low	5745	21.4	21.5
Mid	5785	21.6	21.7
High	5825	21.8	21.5

10.2.9. 802.11n HT20 MODE IN THE 5.8 GHz BAND

Channel	Frequency (MHz)	26 dB BW Chain 0 (MHz)	26 dB BW Chain 1 (MHz)
Low	5745	21.8	21.6
Mid	5785	21.8	21.7
High	5825	21.8	21.7

10.2.10. 802.11n HT40 MODE IN THE 5.8 GHz BAND

Channel	Frequency (MHz)	26 dB BW Chain 0 (MHz)	26 dB BW Chain 1 (MHz)
Low	5755	40.1	39.9
High	5795	40.3	39.8

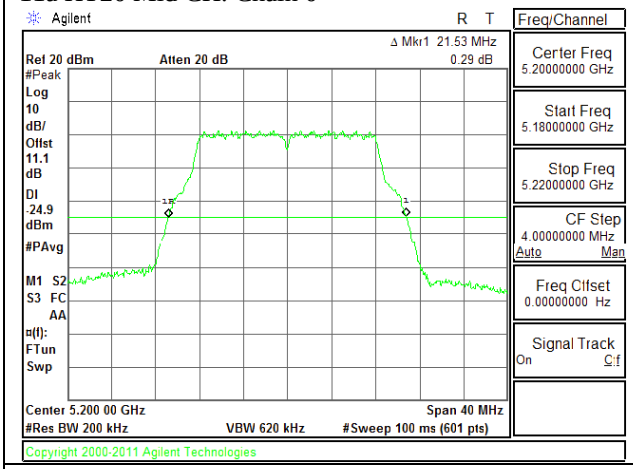
10.2.11. 802.11ac HT80 MODE IN THE 5.8 GHz BAND

Channel	Frequency (MHz)	26 dB BW Chain 0 (MHz)	26 dB BW Chain 1 (MHz)
Low	5775	82.4	82.0

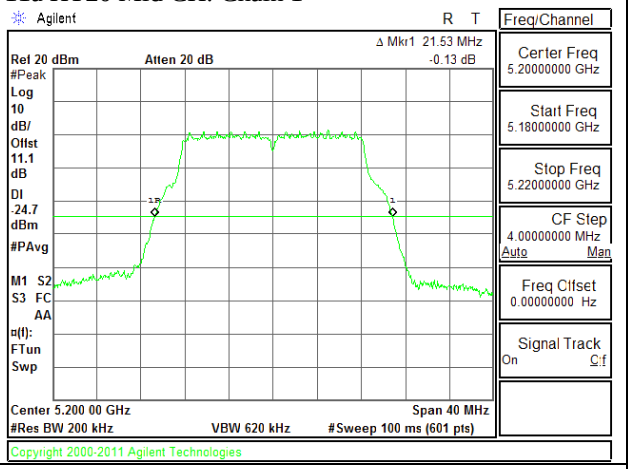
10.2.1. 26 dB BANDWIDTH PLOTS

UNII 5.2 GHz

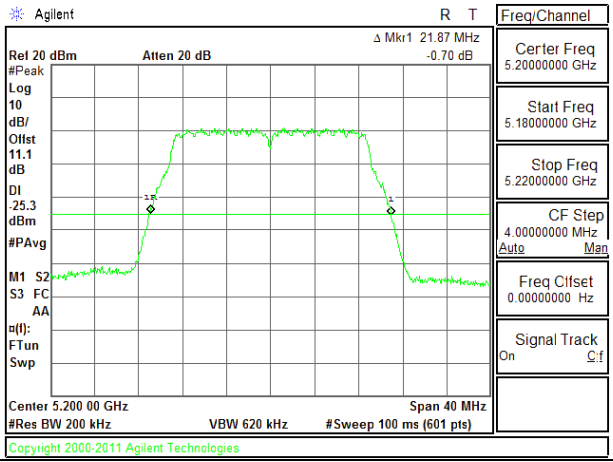
11a HT20 Mid CH. Chain 0



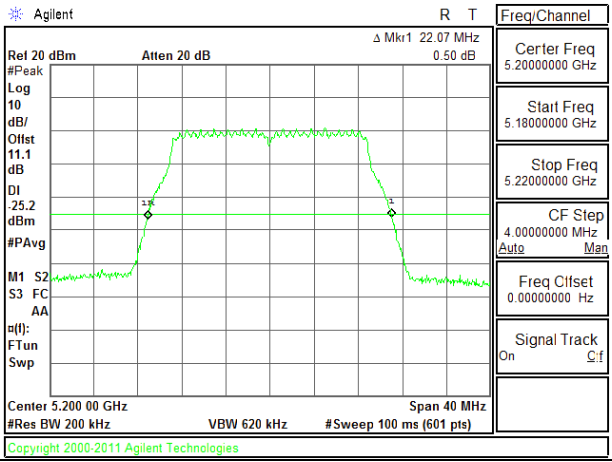
11a HT20 Mid CH. Chain 1



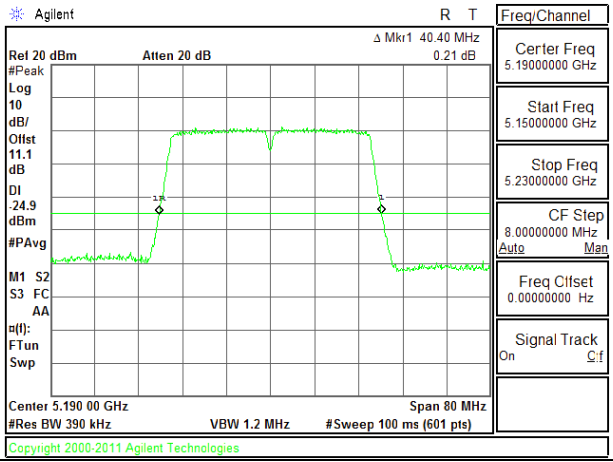
11n HT20 Mid CH. Chain 0



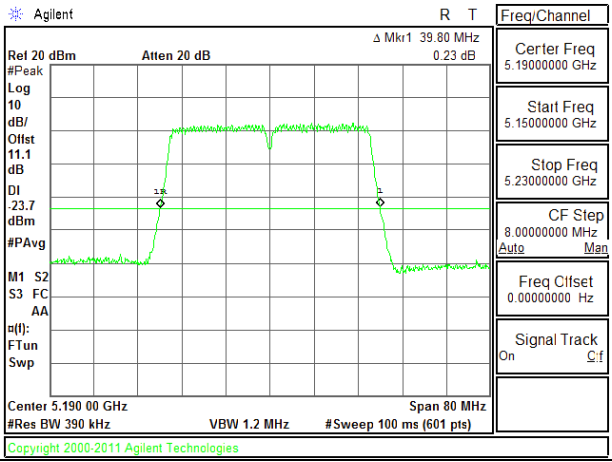
11n HT20 Mid CH. Chain 1



11n HT40 Mid CH. Chain 0

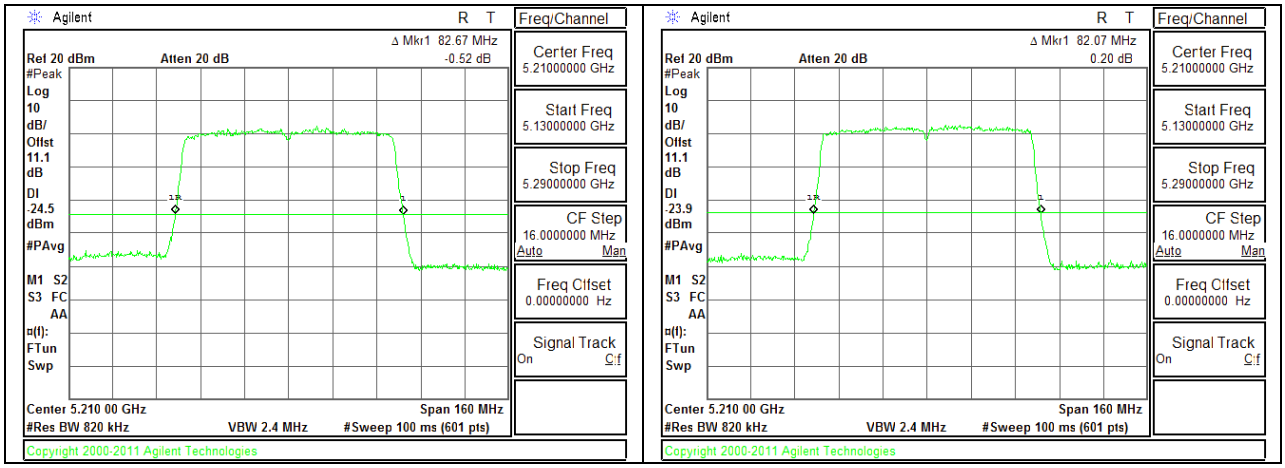


11n HT40 Mid CH. Chain 1



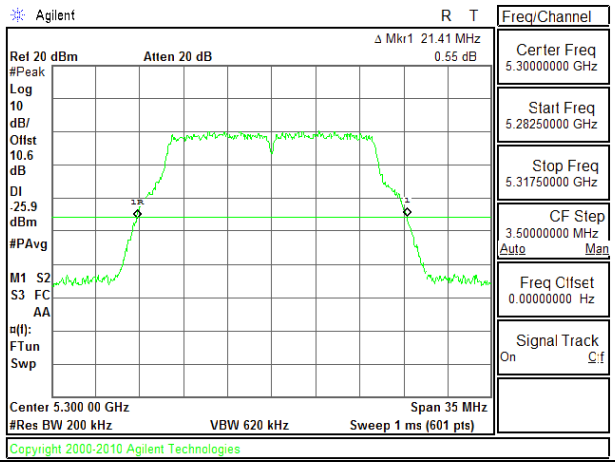
11ac HT80 Mid CH. Chain 0

11ac HT80 Mid CH. Chain 1

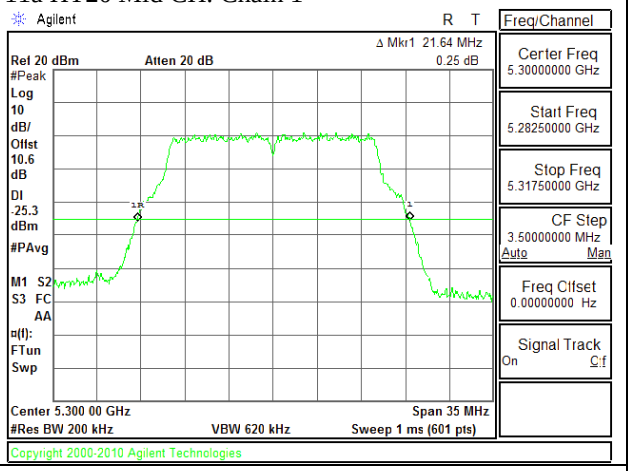


UNII 5.3GHz

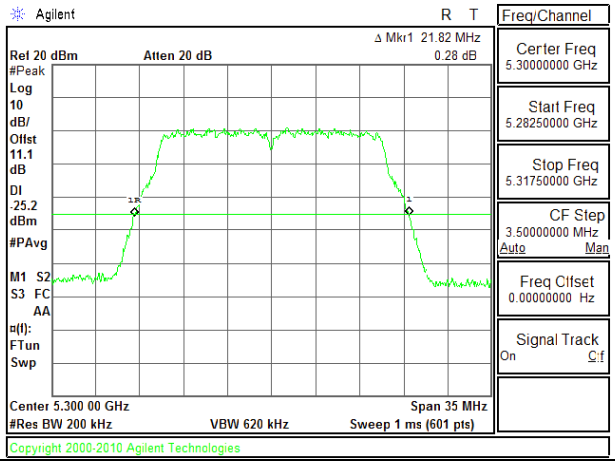
11a HT20 Mid CH. Chain 0



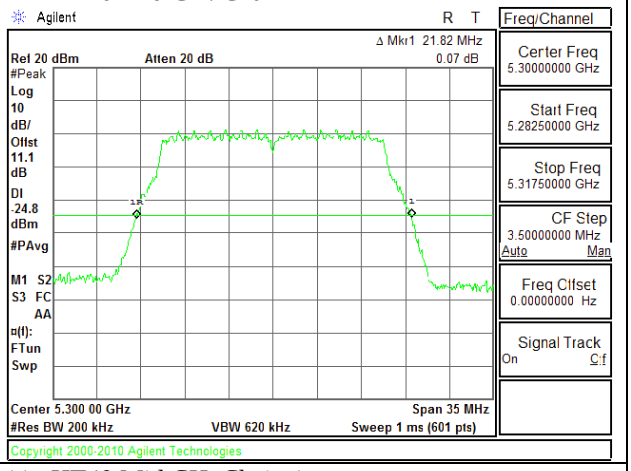
11a HT20 Mid CH. Chain 1



11n HT20 Mid CH. Chain 0

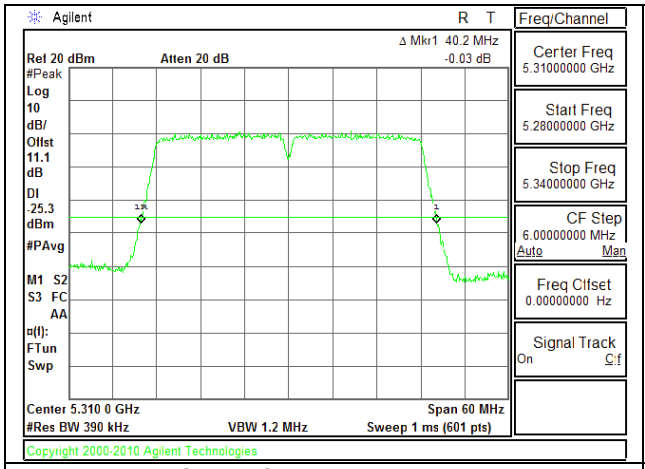


11n HT20 Mid CH. Chain 1

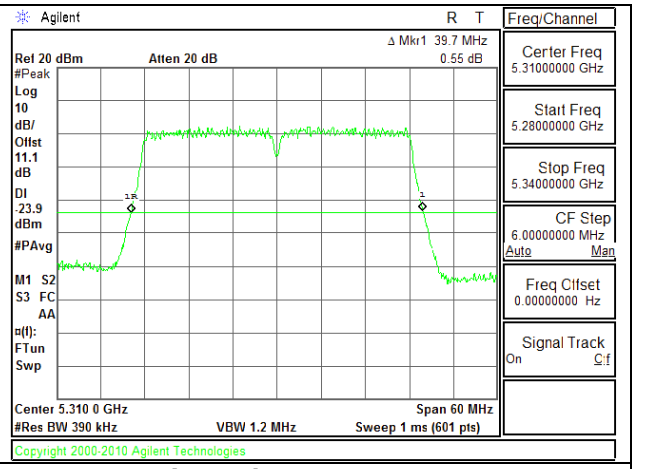


11n HT40 Mid CH. Chain 0

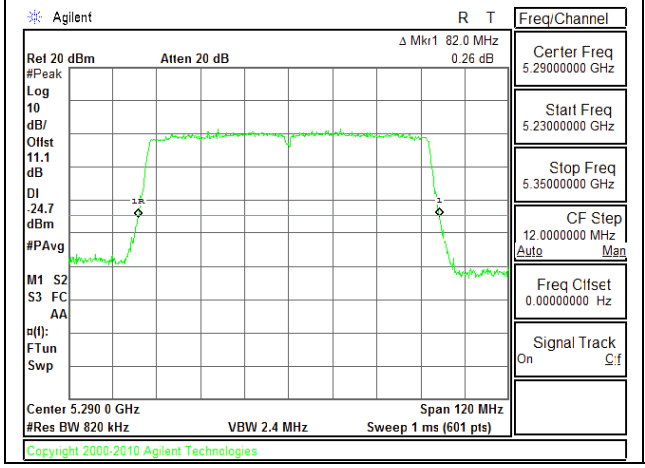
11n HT40 Mid CH. Chain 1

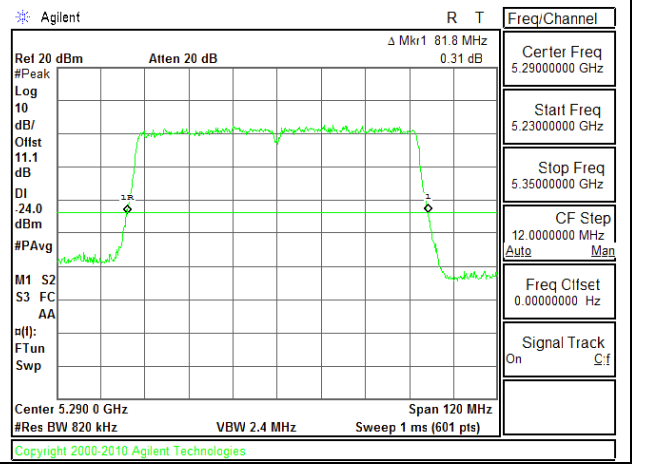


11ac HT80 Mid CH. Chain 0



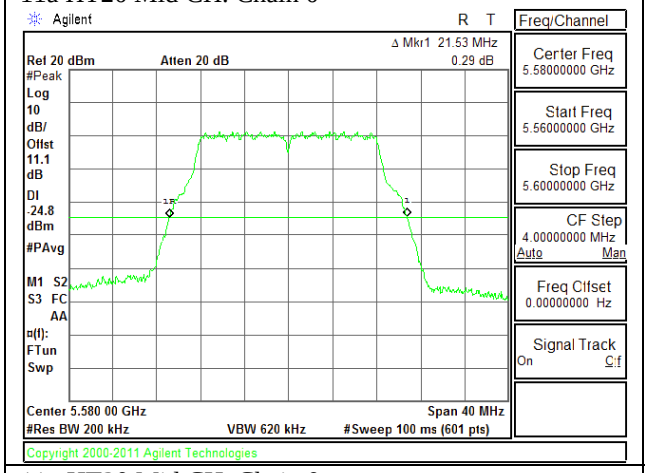
11ac HT80 Mid CH. Chain 1



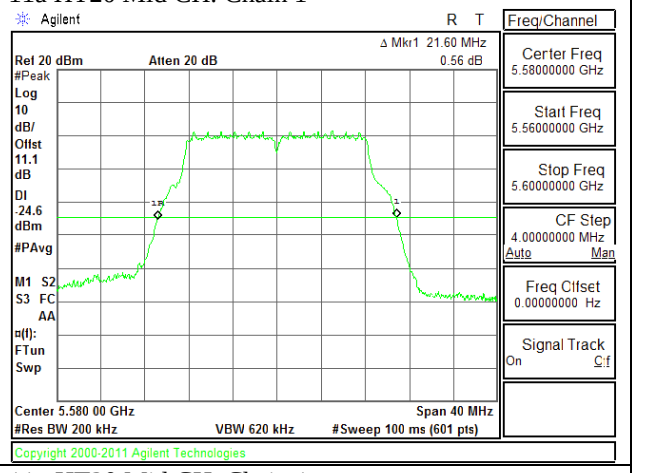


UNII 5.5GHz

11a HT20 Mid CH. Chain 0

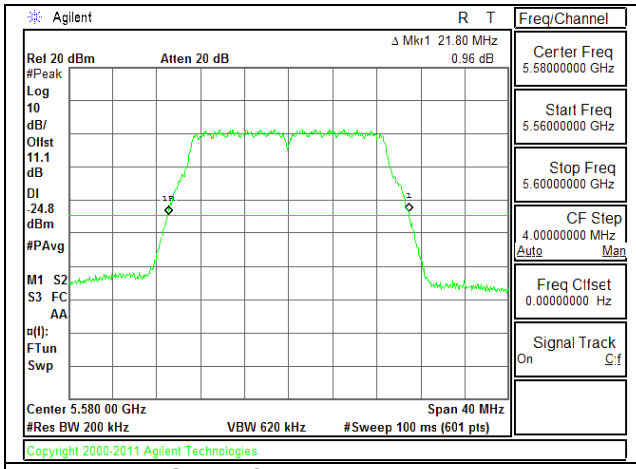


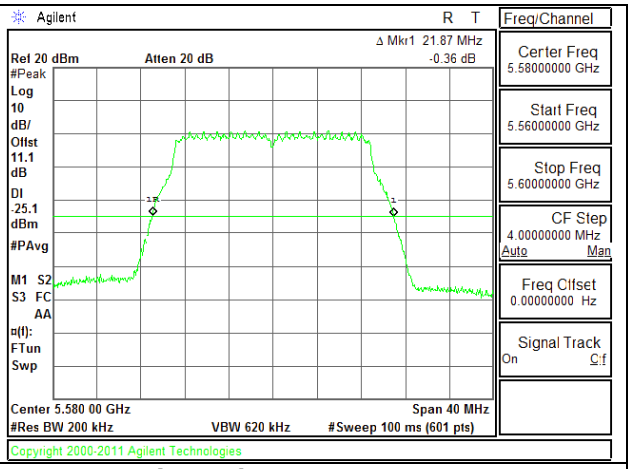
11a HT20 Mid CH. Chain 1



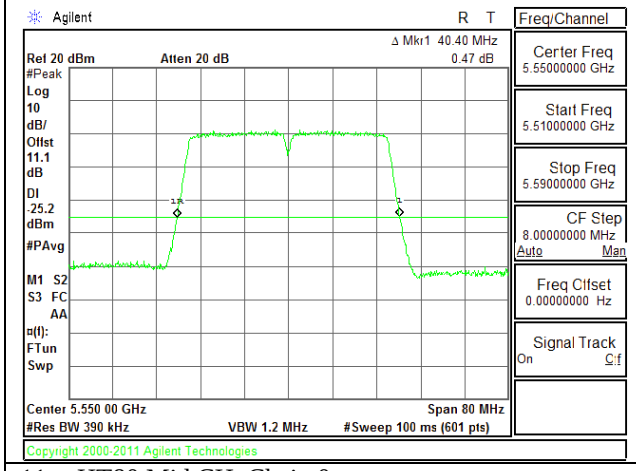
11n HT20 Mid CH. Chain 0

11n HT20 Mid CH. Chain 1

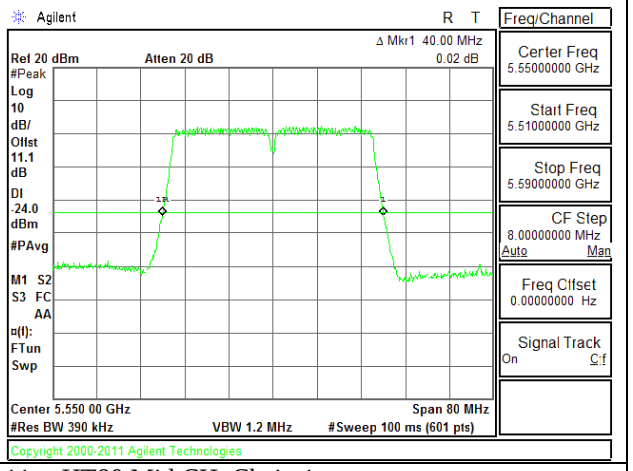




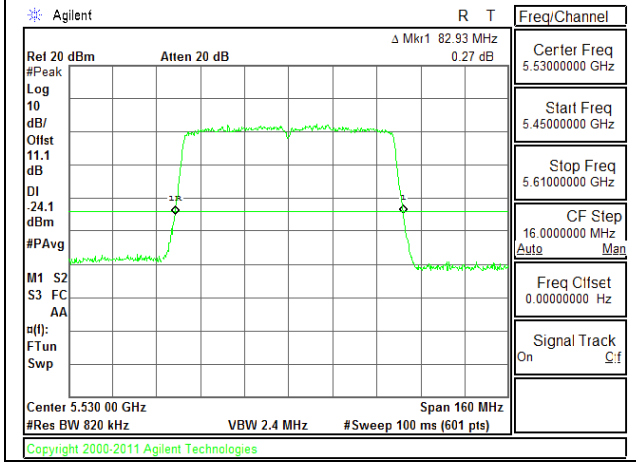
11n HT40 Mid CH. Chain 0



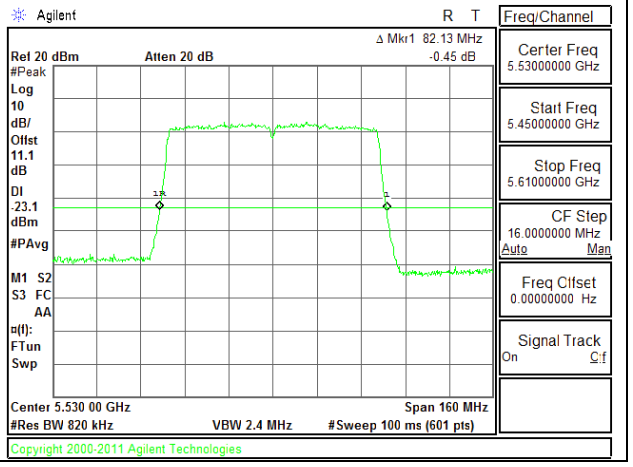
11n HT40 Mid CH. Chain 1



11ac HT80 Mid CH. Chain 0

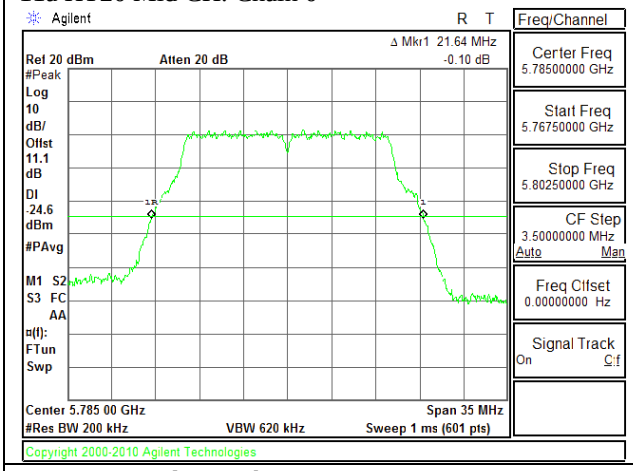


11ac HT80 Mid CH. Chain 1

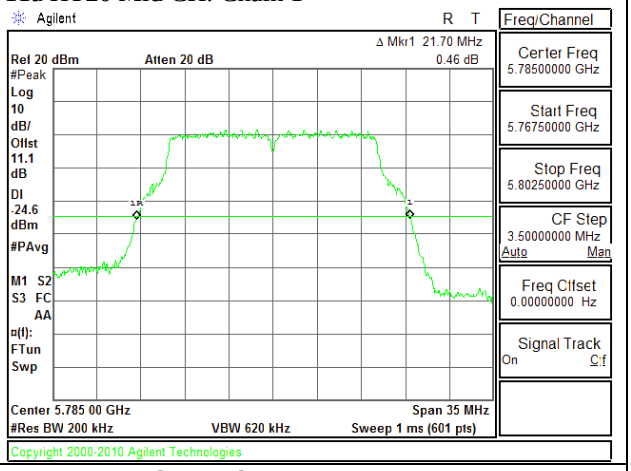


UNII 5.8GHz

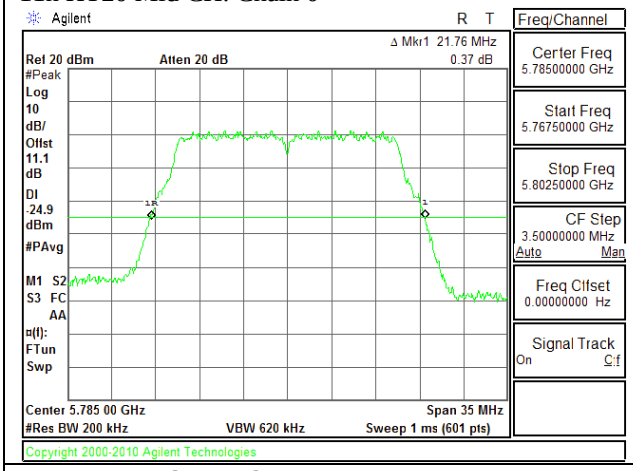
11a HT20 Mid CH. Chain 0



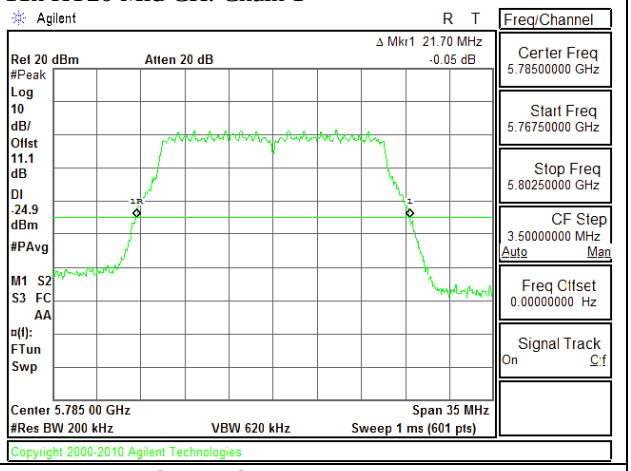
11a HT20 Mid CH. Chain 1



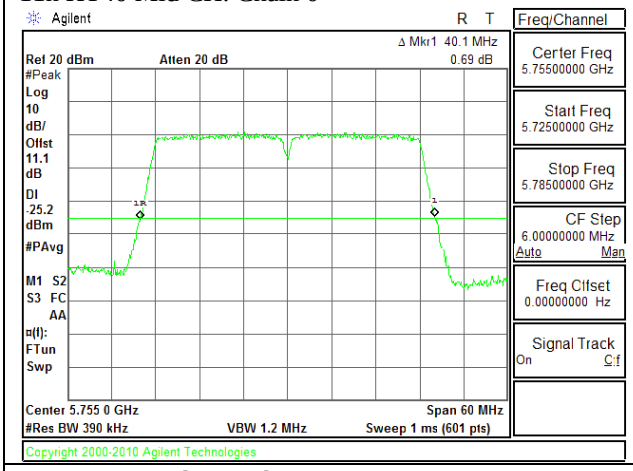
11n HT20 Mid CH. Chain 0



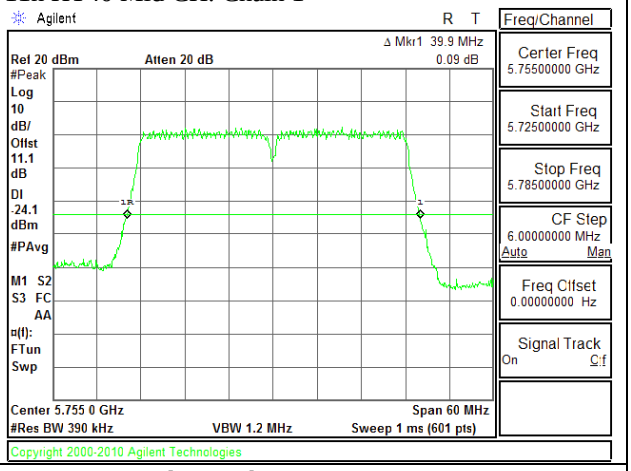
11n HT20 Mid CH. Chain 1



11n HT40 Mid CH. Chain 0

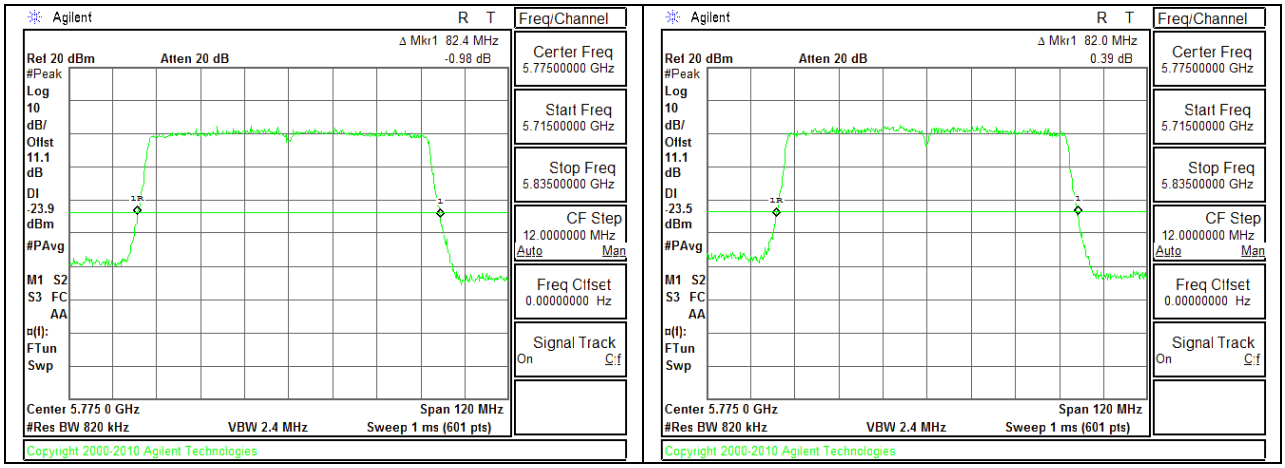


11n HT40 Mid CH. Chain 1



11ac HT80 Mid CH. Chain 0

11ac HT80 Mid CH. Chain 1



10.3. 99% BANDWIDTH

LIMITS

None; for reporting purposes only.

RESULTS

10.3.1. 802.11a MODE IN THE 5.2 GHz BAND

Channel	Frequency (MHz)	99% BW Chain 0 (MHz)	99% BW Chain 1 (MHz)
Low	5180	16.5	16.5
Mid	5200	16.5	16.5
High	5240	16.5	16.5

10.3.2. 802.11n HT20 MODE IN THE 5.2 GHz BAND

Channel	Frequency (MHz)	99% BW Chain 0 (MHz)	99% BW Chain 1 (MHz)
Low	5180	17.7	17.7
Mid	5200	17.7	17.7
High	5240	17.7	17.7

10.3.3. 802.11n HT40 MODE IN THE 5.2 GHz BAND

Channel	Frequency (MHz)	99% BW Chain 0 (MHz)	99% BW Chain 1 (MHz)
Low	5190	36.2	36.1
High	5230	36.1	36.1

10.3.4. 802.11ac HT80 MODE IN THE 5.2 GHz BAND

Channel	Frequency (MHz)	99% BW Chain 0 (MHz)	99% BW Chain 1 (MHz)
Low	5210	75.4	75.4

10.3.5. 802.11a MODE IN THE 5.3 GHz BAND

Channel	Frequency (MHz)	99% BW Chain 0 (MHz)	99% BW Chain 1 (MHz)
Low	5260	16.5	16.5
Mid	5300	16.5	16.5
High	5320	16.5	16.5

10.3.6. 802.11n HT20 MODE IN THE 5.3 GHz BAND

Channel	Frequency (MHz)	99% BW Chain 0 (MHz)	99% BW Chain 1 (MHz)
Low	5260	17.7	17.7
Mid	5300	17.7	17.7
High	5320	17.7	17.7

10.3.7. 802.11n HT40 MODE IN THE 5.3 GHz BAND

Channel	Frequency (MHz)	99% BW Chain 0 (MHz)	99% BW Chain 1 (MHz)
Low	5270	36.1	36.1
High	5310	36.1	36.1

10.3.8. 802.11ac HT80 MODE IN THE 5.3 GHz BAND

Channel	Frequency (MHz)	99% BW Chain 0 (MHz)	99% BW Chain 1 (MHz)
Low	5290	75.6	75.6

10.3.9. 802.11a MODE IN THE 5.5 GHz BAND

Channel	Frequency (MHz)	99% BW Chain 0 (MHz)	99% BW Chain 1 (MHz)
Low	5500	16.5	16.5
Mid	5580	16.5	16.5
High	5700	16.5	16.5

10.3.10. 802.11n HT20 MODE IN THE 5.5 GHz BAND

Channel	Frequency (MHz)	99% BW Chain 0 (MHz)	99% BW Chain 1 (MHz)
Low	5500	17.7	17.7
Mid	5580	17.7	17.7
High	5700	17.7	17.7

10.3.11. 802.11n HT40 MODE IN THE 5.5 GHz BAND

Channel	Frequency (MHz)	99% BW Chain 0 (MHz)	99% BW Chain 1 (MHz)
Low	5510	36.2	36.1
Mid	5550	36.2	36.2
High	5670	36.1	36.1

10.3.12. 802.11ac HT80 MODE IN THE 5.5 GHz BAND

Channel	Frequency (MHz)	99% BW Chain 0 (MHz)	99% BW Chain 1 (MHz)
Low	5530	75.4	75.5

10.3.13. 802.11a MODE IN THE 5.8 GHz BAND

Channel	Frequency (MHz)	99% BW Chain 0 (MHz)	99% BW Chain 1 (MHz)
Low	5745	16.5	16.5
Mid	5785	16.5	16.5
High	5825	16.5	16.5

10.3.14. 802.11n HT20 MODE IN THE 5.8 GHz BAND

Channel	Frequency (MHz)	99% BW Chain 0 (MHz)	99% BW Chain 1 (MHz)
Low	5745	17.7	17.7
Mid	5785	17.7	17.7
High	5825	17.7	17.7

10.3.15. 802.11n HT40 MODE IN THE 5.8 GHz BAND

Channel	Frequency (MHz)	99% BW Chain 0 (MHz)	99% BW Chain 1 (MHz)
Low	5755	36.2	36.1
High	5795	36.1	36.1

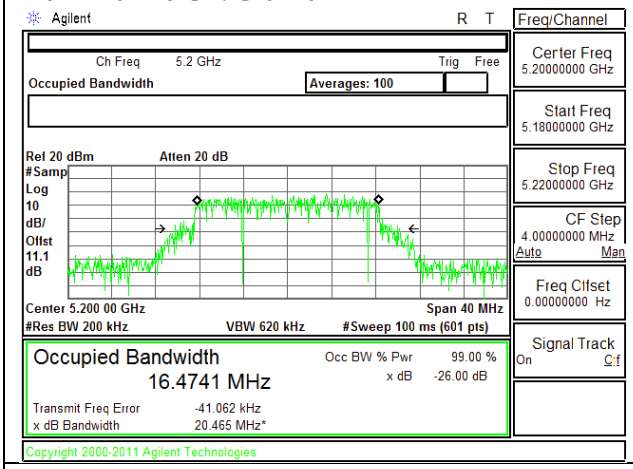
10.3.16. 802.11ac HT80 MODE IN THE 5.8 GHz BAND

Channel	Frequency (MHz)	99% BW Chain 0 (MHz)	99% BW Chain 1 (MHz)
Low	5775	75.5	75.3

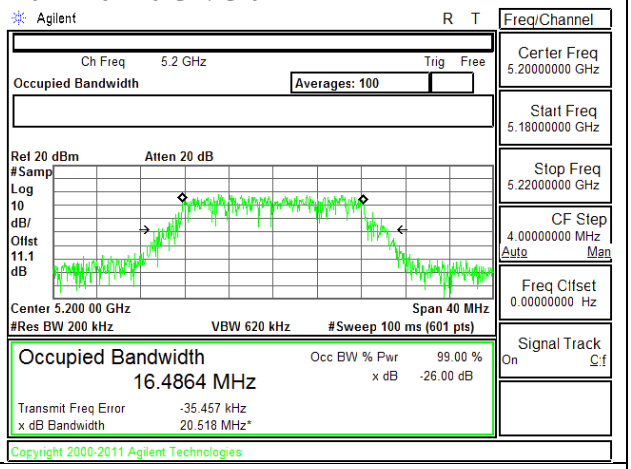
10.3.1. 99% BANDWIDTH PLOTS

UNII 5.2GHz

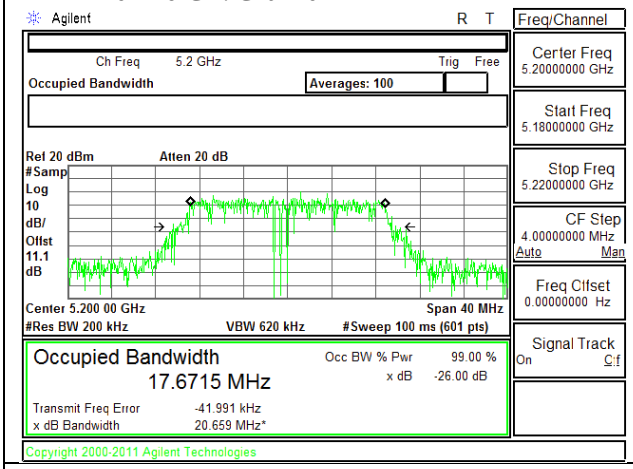
11a HT20 Mid CH. Chain 0



11a HT20 Mid CH. Chain 1



11n HT20 Mid CH. Chain 0



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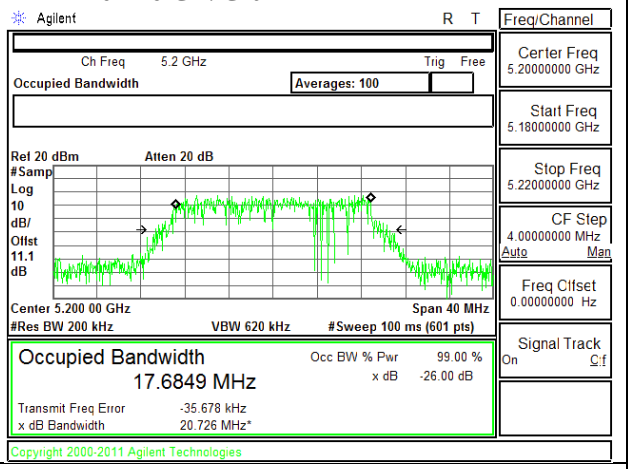
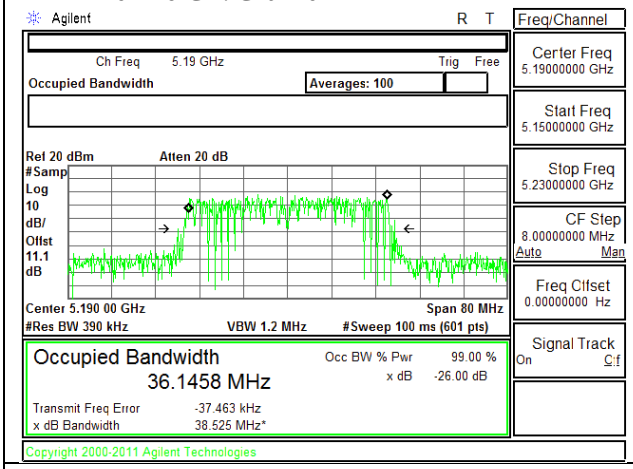
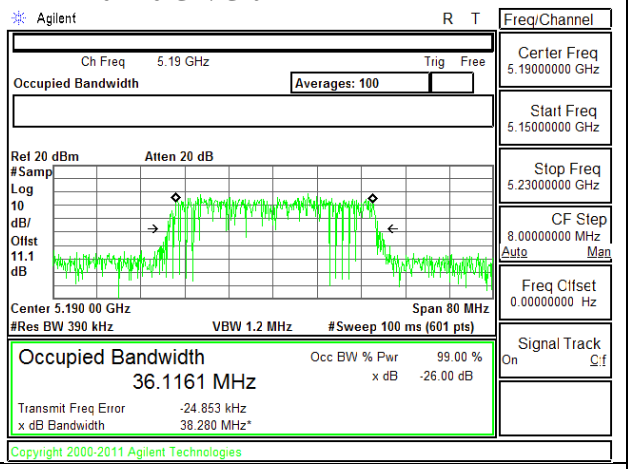


11n HT40 Mid CH. Chain 0

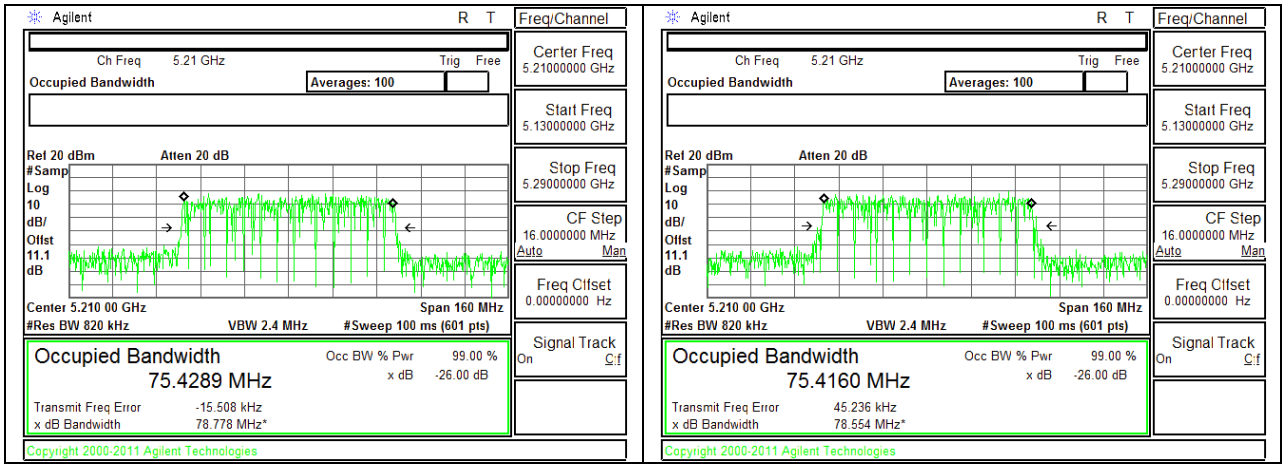


11n HT40 Mid CH. Chain 1



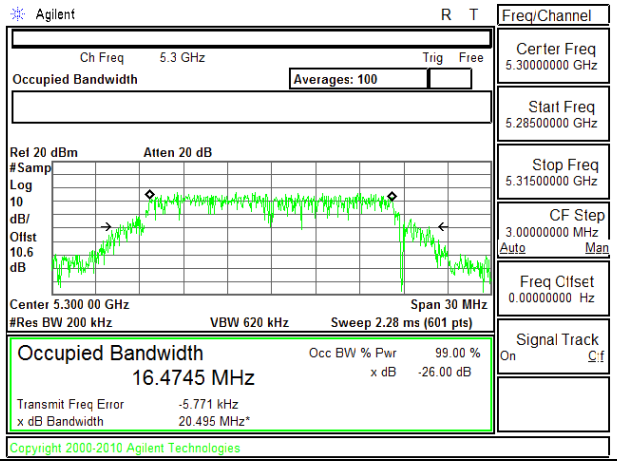
11ac HT80 Mid CH. Chain 0

11ac HT80 Mid CH. Chain 1

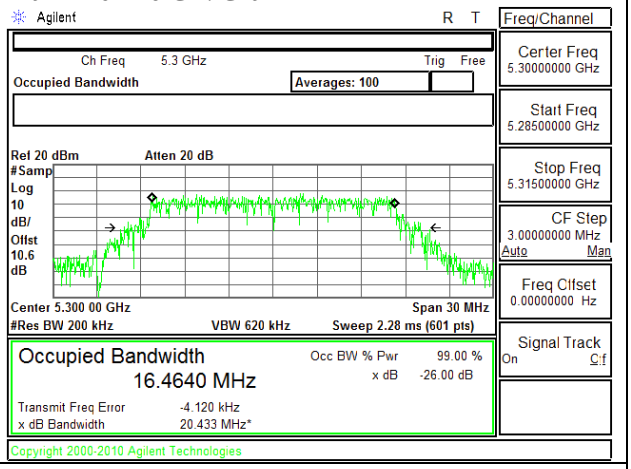


UNII 5.3GHz

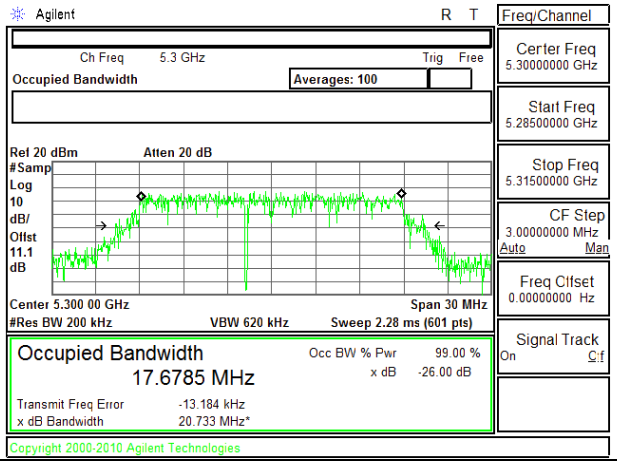
11a HT20 Mid CH. Chain 0



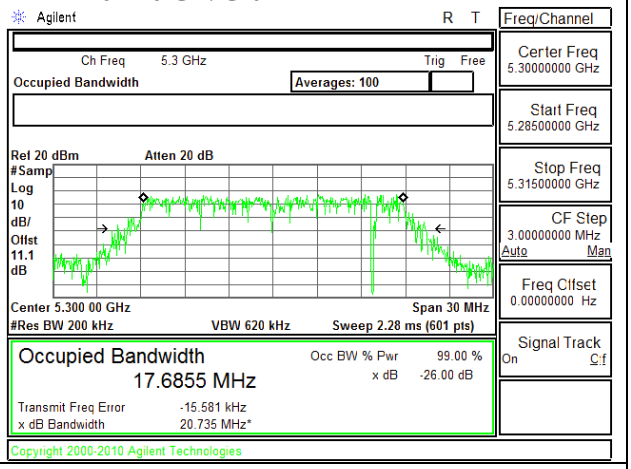
11a HT20 Mid CH. Chain 1



11n HT20 Mid CH. Chain 0

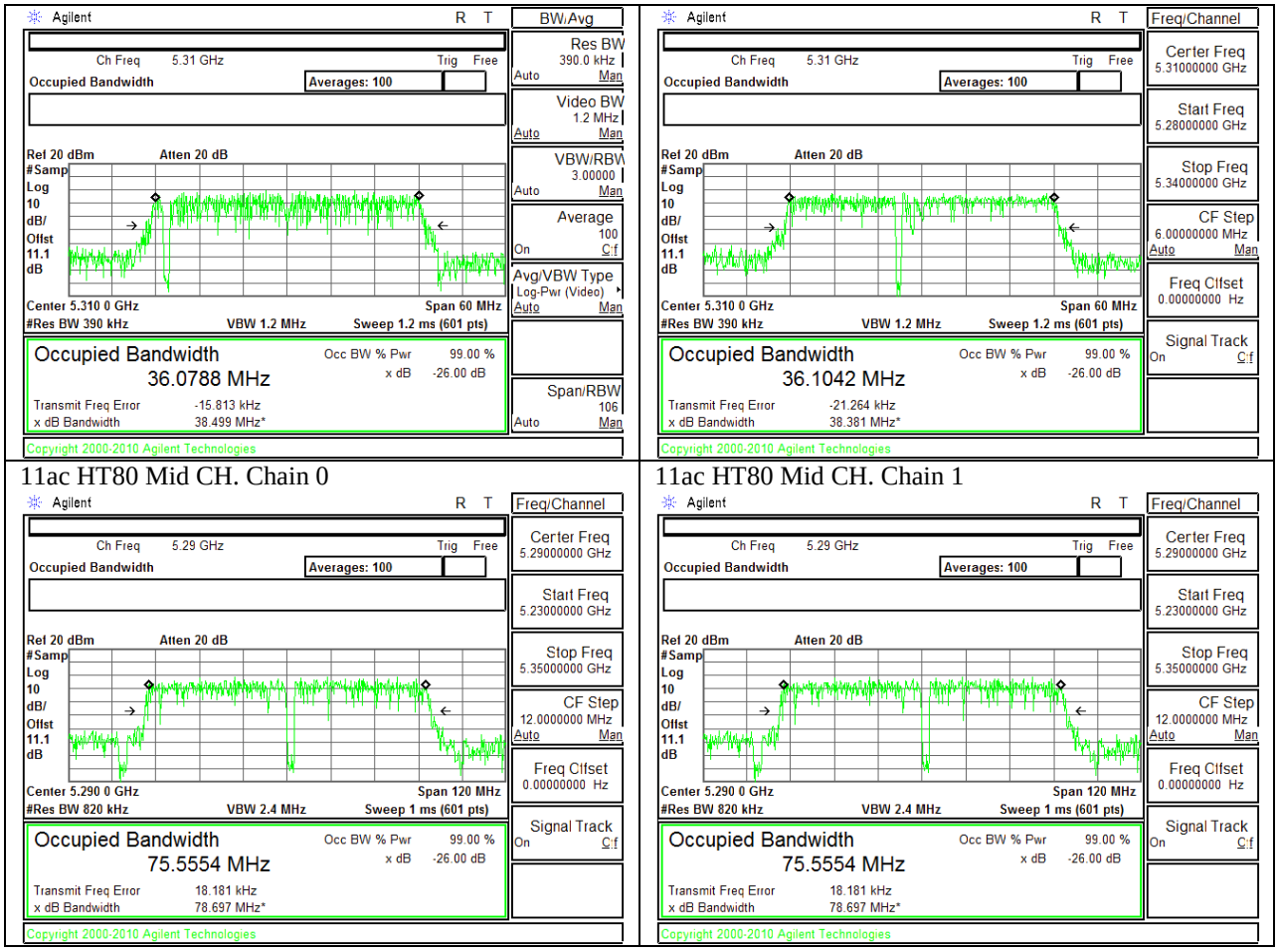


11n HT20 Mid CH. Chain 1



11n HT40 Mid CH. Chain 0

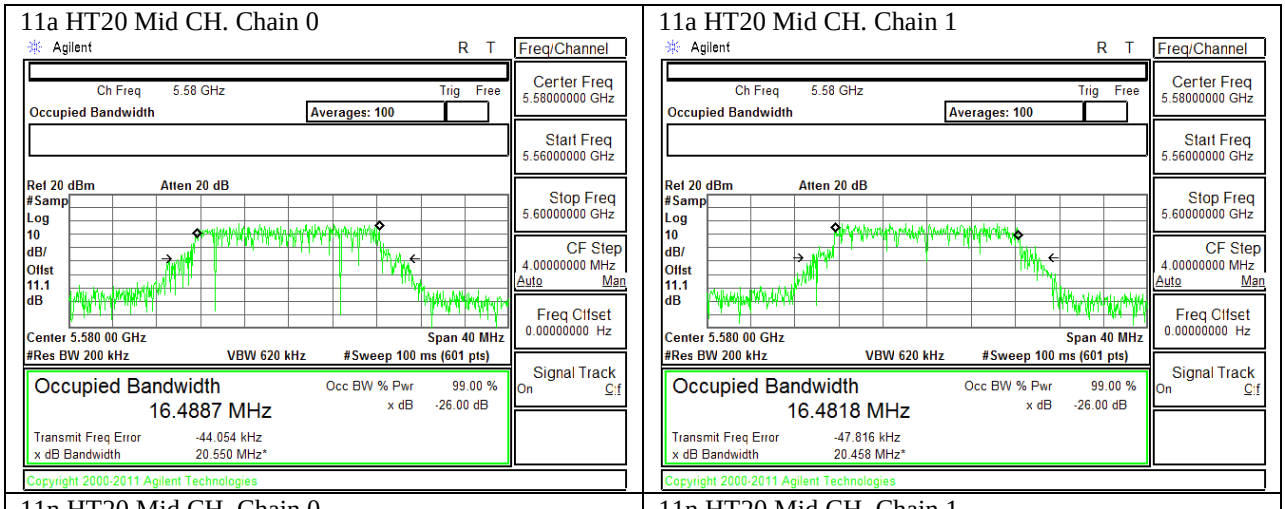
11n HT40 Mid CH. Chain 1



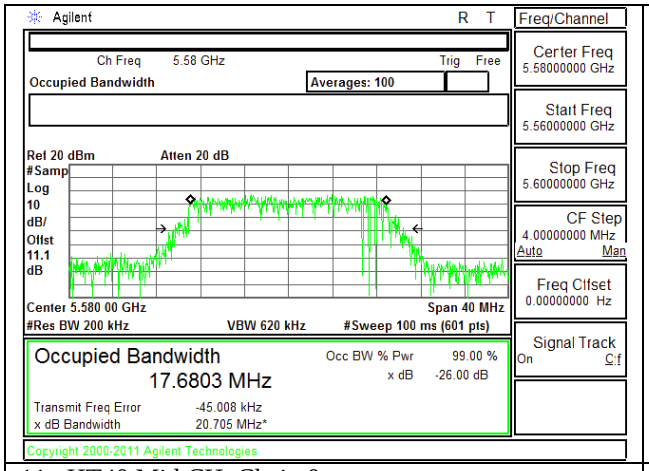
11ac HT80 Mid CH. Chain 0 | 11ac HT80 Mid CH. Chain 1

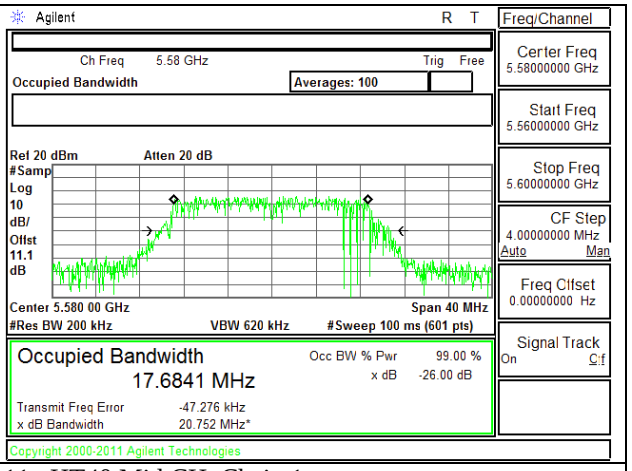
UNII 5.5GHz

11a HT20 Mid CH. Chain 0 | 11a HT20 Mid CH. Chain 1

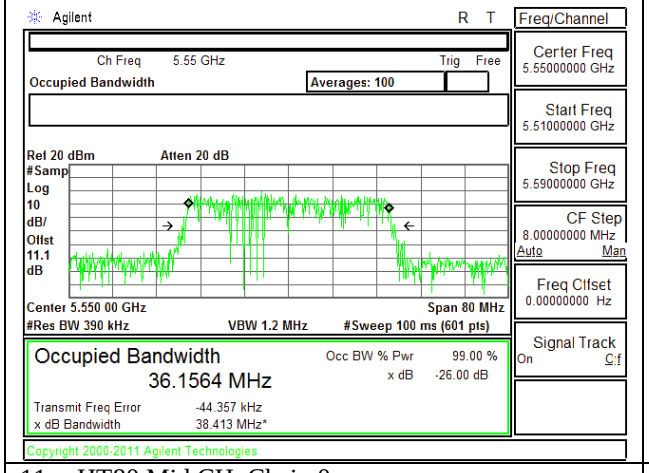


11n HT20 Mid CH. Chain 0 | 11n HT20 Mid CH. Chain 1

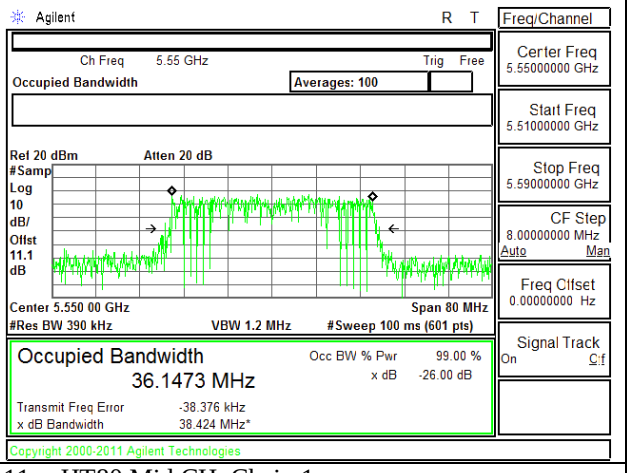




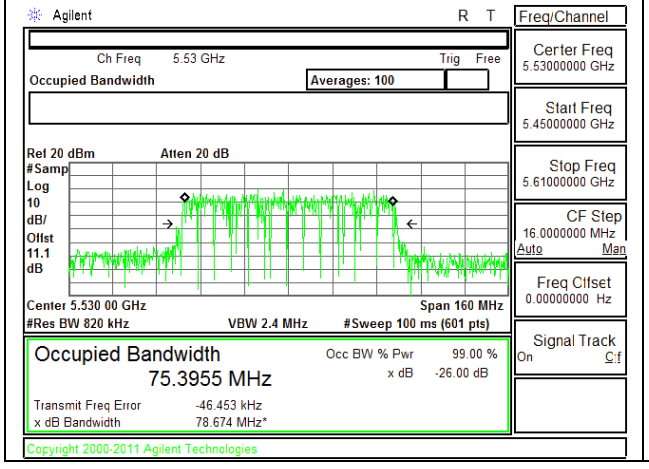
11n HT40 Mid CH. Chain 0



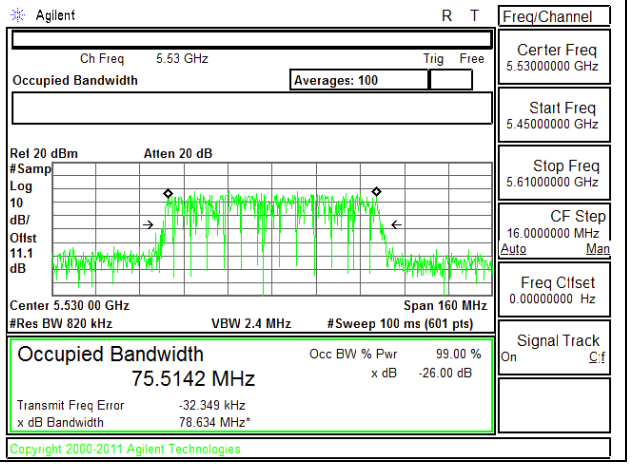
11n HT40 Mid CH. Chain 1



11ac HT80 Mid CH. Chain 0

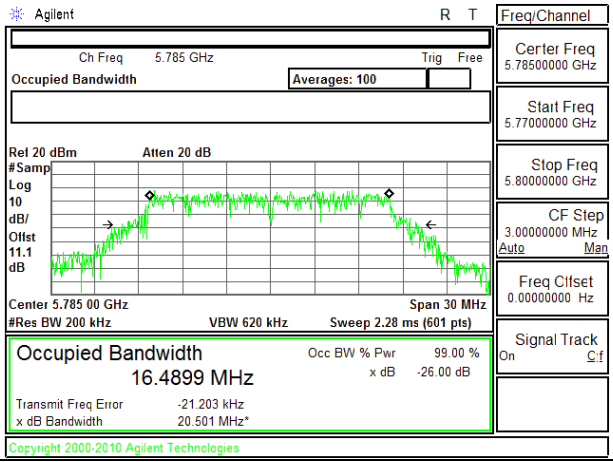


11ac HT80 Mid CH. Chain 1

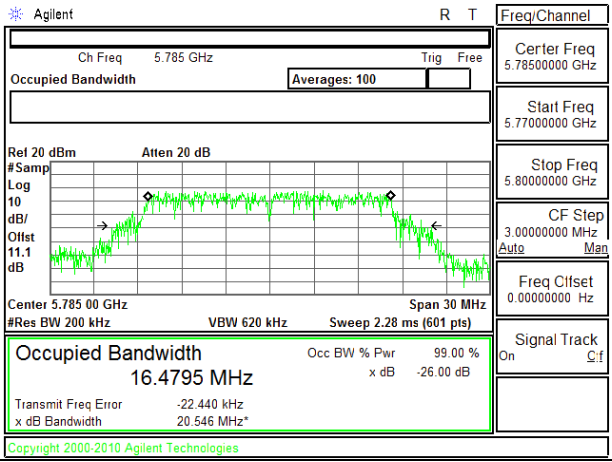


UNII 5.8GHz

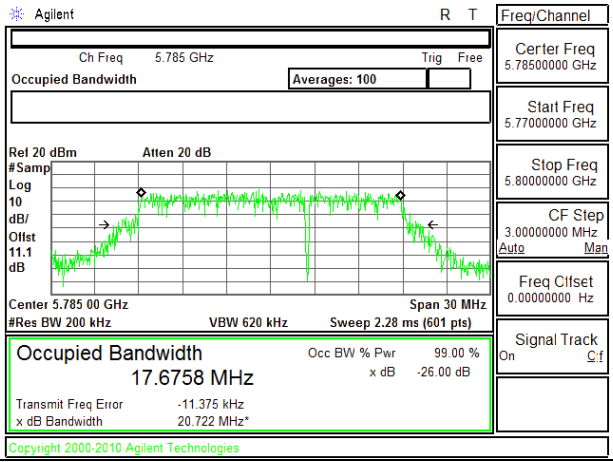
11a HT20 Mid CH. Chain 0



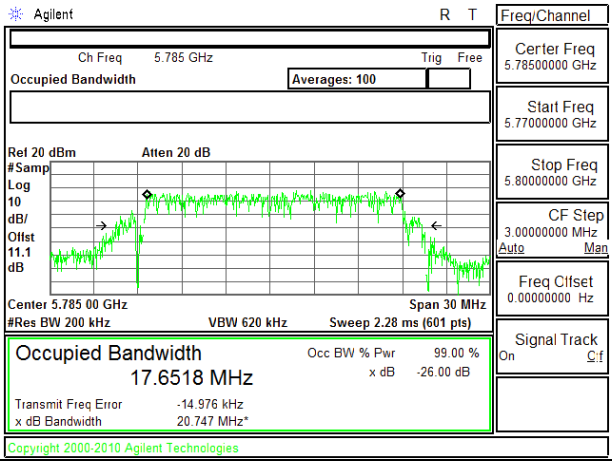
11a HT20 Mid CH. Chain 1



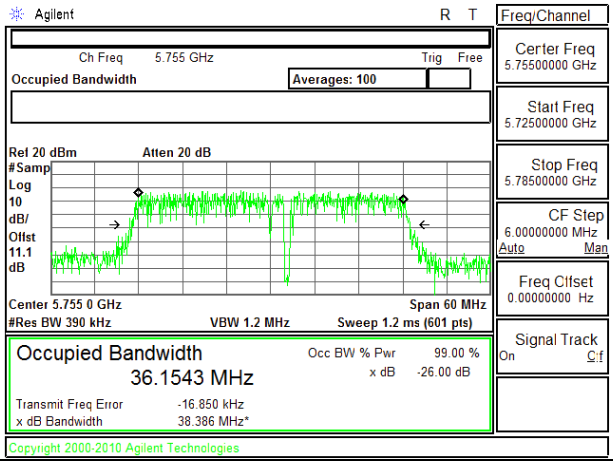
11n HT20 Mid CH. Chain 0



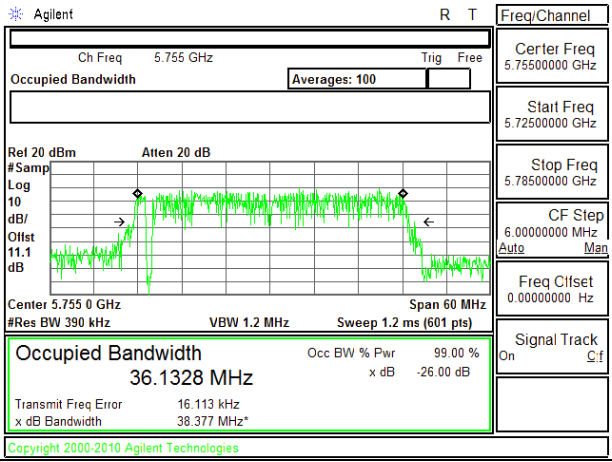
11n HT20 Mid CH. Chain 1



11n HT40 Mid CH. Chain 0

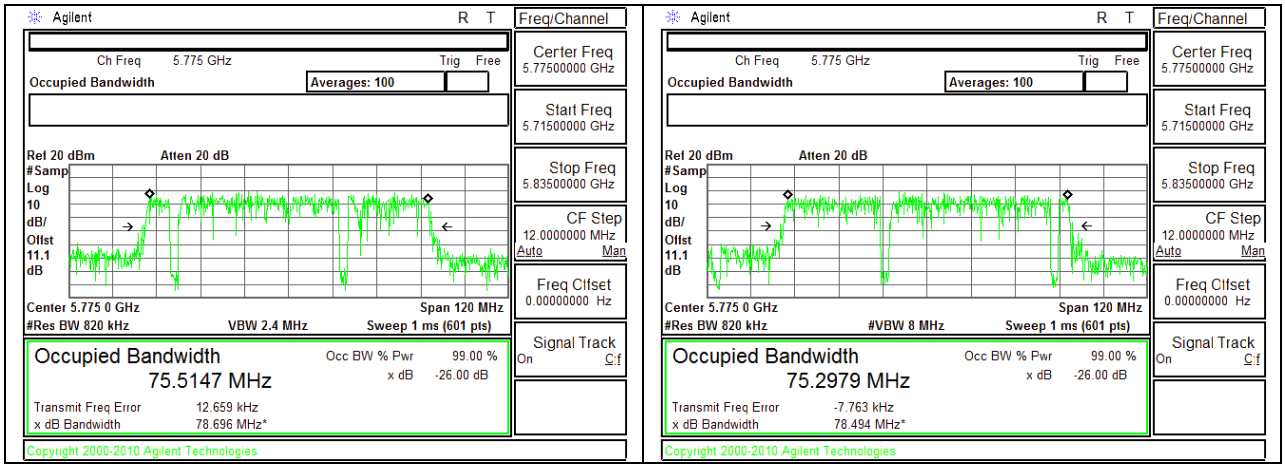


11n HT40 Mid CH. Chain 1



11ac HT80 Mid CH. Chain 0

11ac HT80 Mid CH. Chain 1



10.4. OUTPUT POWER AND PPSD

LIMITS

FCC §15.407 (a) (1)

For the band 5.15–5.25 GHz, the maximum conducted output power over the frequency band 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 MHz. In addition, the peak power spectral density shall not exceed 4 dBm in any 1–MHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the peak power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

DIRECTIONAL ANTENNA GAIN

The TX chains are uncorrelated and the antenna gain is unequal among the chains. The directional gain is:

Chain 0 Antenna Gain (dBi)	Chain 1 Antenna Gain (dBi)	Uncorrelated Chains Directional Gain (dBi)
0.60	1.50	1.07

The TX chains are correlated and the antenna gain is unequal among the chains. The directional gain is:

Chain 0 Antenna Gain (dBi)	Chain 1 Antenna Gain (dBi)	Correlated Chains Directional Gain (dBi)
0.80	1.50	4.17

RESULTS

10.4.1. 802.11a MODE IN THE 5.2 GHz BAND

Bandwidth and Antenna Gain

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Min 99% BW (MHz)	Directional Gain for Power (dBi)	Directional Gain for PPSD (dBi)
Low	5180	21.53	16.4800	1.07	4.07
Mid	5200	21.53	16.4800	1.07	4.07
High	5240	21.53	16.4800	1.07	4.07

Limits

Channel	Frequency (MHz)	FCC Power Limit (dBm)	IC EIRP Limit (dBm)	Max IC Power (dBm)	Power Limit (dBm)	FCC PPSD Limit (dBm)	IC eirp PSD Limit (dBm)	PPSD Limit (dBm)
Low	5180	24.00	22.17	21.10	21.10	11.00	10.00	5.93
Mid	5200	24.00	22.17	21.10	21.10	11.00	10.00	5.93
High	5240	24.00	22.17	21.10	21.10	11.00	10.00	5.93

Duty Cycle CF (dB)	0.00	Included in Calculations of Corr'd Power & PPSD

Output Power Results

Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Chain 1 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5180	11.20	11.09	14.16	21.10	-6.94
Mid	5200	11.36	11.42	14.40	21.10	-6.70
High	5240	11.20	11.17	14.19	21.10	-6.91

PPSD Results

Channel	Frequency (MHz)	Chain 0 Meas PPSD (dBm)	Chain 1 Meas PPSD (dBm)	Total Corr'd PPSD (dBm)	PPSD Limit (dBm)	PPSD Margin (dB)
Low	5180	-0.13	-0.26	2.82	5.93	-3.11
Mid	5200	-0.07	0.04	3.00	5.93	-2.93
High	5240	-0.18	-0.06	2.89	5.93	-3.04

10.4.2. 802.11n HT20 MODE IN THE 5.2 GHz BAND

Bandwidth and Antenna Gain

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Min 99% BW (MHz)	Directional Gain for Power (dBi)	Directional Gain for PPSD (dBi)
Low	5180	21.93	17.6700	1.07	4.07
Mid	5200	22.07	17.6800	1.07	4.07
High	5240	22.13	17.6900	1.07	4.07

Limits

Channel	Frequency (MHz)	FCC Power Limit (dBm)	IC EIRP Limit (dBm)	Max IC Power (dBm)	Power Limit (dBm)	FCC PPSD Limit (dBm)	IC eirp PSD Limit (dBm)	PPSD Limit (dBm)
Low	5180	24.00	22.47	21.40	21.40	11.00	10.00	5.93
Mid	5200	24.00	22.47	21.40	21.40	11.00	10.00	5.93
High	5240	24.00	22.48	21.41	21.41	11.00	10.00	5.93

Duty Cycle CF (dB)	0.00	Included in Calculations of Corr'd Power & PPSD

Output Power Results

Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Chain 1 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5180	10.80	10.92	13.87	21.40	-7.53
Mid	5200	10.70	10.81	13.77	21.40	-7.64
High	5240	10.59	10.56	13.59	21.41	-7.82

PPSD Results

Channel	Frequency (MHz)	Chain 0 Meas PPSD (dBm)	Chain 1 Meas PPSD (dBm)	Total Corr'd PPSD (dBm)	PPSD Limit (dBm)	PPSD Margin (dB)
Low	5180	-0.94	-0.67	2.21	5.93	-3.72
Mid	5200	-0.81	-0.78	2.22	5.93	-3.71
High	5240	-0.95	-1.10	1.99	5.93	-3.94

10.4.3. 802.11n HT40 MODE IN THE 5.2 GHz BAND

Bandwidth and Antenna Gain

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Min 99% BW (MHz)	Directional Gain for Power (dBi)	Directional Gain for PPSD (dBi)
Low	5190	40.40	36.1400	1.07	4.07
High	5230	40.53	36.1300	1.07	4.07

Limits

Channel	Frequency (MHz)	FCC Power Limit (dBm)	IC EIRP Limit (dBm)	Max IC Power (dBm)	Power Limit (dBm)	FCC PPSD Limit (dBm)	IC eirp PSD Limit (dBm)	PPSD Limit (dBm)
Low	5190	24.00	23.00	21.93	21.93	11.00	10.00	5.93
High	5230	24.00	23.00	21.93	21.93	11.00	10.00	5.93

Duty Cycle CF (dB)	0.13	Included in Calculations of Corr'd Power & PPSD

Output Power Results

Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Chain 1 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5190	10.62	10.63	13.76	21.93	-8.17
High	5230	10.24	10.53	13.53	21.93	-8.40

PPSD Results

Channel	Frequency (MHz)	Chain 0 Meas PPSD (dBm)	Chain 1 Meas PPSD (dBm)	Total Corr'd PPSD (dBm)	PPSD Limit (dBm)	PPSD Margin (dB)
Low	5190	-3.86	-3.90	-0.74	5.93	-6.67
High	5230	-4.39	-4.75	-1.43	5.93	-7.36

10.4.4. 802.11ac HT80 MODE IN THE 5.2 GHz BAND

Bandwidth and Antenna Gain

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Min 99% BW (MHz)	Directional Gain for Power (dBi)	Directional Gain for PPSD (dBi)
Low	5210	82.67	75.4200	1.07	4.07

Limits

Channel	Frequency (MHz)	FCC Power Limit (dBm)	IC EIRP Limit (dBm)	Max IC Power (dBm)	Power Limit (dBm)	FCC PPSD Limit (dBm)	IC eirp PSD Limit (dBm)	PPSD Limit (dBm)
Low	5210	24.00	23.00	21.93	21.93	11.00	10.00	5.93

Duty Cycle CF (dB)	0.24	Included in Calculations of Corr'd Power & PPSD

Output Power Results

Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Chain 1 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5210	10.59	10.70	13.90	21.93	-8.03

PPSD Results

Channel	Frequency (MHz)	Chain 0 Meas PPSD (dBm)	Chain 1 Meas PPSD (dBm)	Total Corr'd PPSD (dBm)	PPSD Limit (dBm)	PPSD Margin (dB)
Low	5210	-6.91	-6.68	-3.54	5.93	-9.47

10.4.5. 802.11a MODE IN THE 5.3 GHz BAND

Bandwidth and Antenna Gain

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Min 99% BW (MHz)	Directional Gain for Power (dBi)	Directional Gain for PPSD (dBi)
Low	5260	21.52	16.4800	1.07	4.07
Mid	5300	21.64	16.4700	1.07	4.07
High	5320	21.76	16.4800	1.07	4.07

Limits

Channel	Frequency (MHz)	FCC Power Limit (dBm)	IC Power Limit (dBm)	IC EIRP Limit (dBm)	Power Limit (dBm)	FCC PPSD Limit (dBm)	IC PSD Limit (dBm)	PPSD Limit (dBm)
Low	5260	24.00	23.17	29.17	23.17	11.00	11.00	11.00
Mid	5300	24.00	23.17	29.17	23.17	11.00	11.00	11.00
High	5320	24.00	23.17	29.17	23.17	11.00	11.00	11.00

Duty Cycle CF (dB)	0.00	Included in Calculations of Corr'd Power & PPSD

Output Power Results

Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Chain 1 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5260	11.86	11.99	14.94	23.17	-8.23
Mid	5300	11.58	11.65	14.62	23.17	-8.54
High	5320	11.83	11.70	14.78	23.17	-8.39

PPSD Results

Channel	Frequency (MHz)	Chain 0 Meas PPSD (dBm)	Chain 1 Meas PPSD (dBm)	Total Corr'd PPSD (dBm)	PPSD Limit (dBm)	PPSD Margin (dB)
Low	5260	0.55	0.62	3.60	11.00	-7.40
Mid	5300	0.07	0.32	3.21	11.00	-7.79
High	5320	0.42	0.43	3.44	11.00	-7.56

10.4.6. 802.11n HT20 MODE IN THE 5.3 GHz BAND

Bandwidth and Antenna Gain

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Min 99% BW (MHz)	Directional Gain for Power (dBi)	Directional Gain for PPSD (dBi)
Low	5260	21.93	17.6600	1.07	4.07
Mid	5300	21.82	17.6800	1.07	4.07
High	5320	22.05	17.6600	1.07	4.07

Limits

Channel	Frequency (MHz)	FCC Power Limit (dBm)	IC Power Limit (dBm)	IC EIRP Limit (dBm)	Power Limit (dBm)	FCC PPSD Limit (dBm)	IC PSD Limit (dBm)	PPSD Limit (dBm)
Low	5260	24.00	23.47	29.47	23.47	11.00	11.00	11.00
Mid	5300	24.00	23.47	29.47	23.47	11.00	11.00	11.00
High	5320	24.00	23.47	29.47	23.47	11.00	11.00	11.00

Duty Cycle CF (dB)	0.00	Included in Calculations of Corr'd Power & PPSD

Output Power Results

Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Chain 1 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5260	11.13	11.35	14.25	23.47	-9.22
Mid	5300	10.87	11.26	14.08	23.47	-9.39
High	5320	11.03	11.26	14.16	23.47	-9.31

PPSD Results

Channel	Frequency (MHz)	Chain 0 Meas PPSD (dBm)	Chain 1 Meas PPSD (dBm)	Total Corr'd PPSD (dBm)	PPSD Limit (dBm)	PPSD Margin (dB)
Low	5260	-0.59	-0.28	2.58	11.00	-8.42
Mid	5300	-0.79	-0.41	2.41	11.00	-8.59
High	5320	-0.67	-0.35	2.50	11.00	-8.50

10.4.7. 802.11n HT40 MODE IN THE 5.3 GHz BAND

Bandwidth and Antenna Gain

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Min 99% BW (MHz)	Directional Gain for Power (dBi)	Directional Gain for PPSD (dBi)
Low	5270	40.20	36.1300	1.07	4.07
High	5310	40.20	36.1000	1.07	4.07

Limits

Channel	Frequency (MHz)	FCC Power Limit (dBm)	IC Power Limit (dBm)	IC EIRP Limit (dBm)	Power Limit (dBm)	FCC PPSD Limit (dBm)	IC PSD Limit (dBm)	PPSD Limit (dBm)
Low	5270	24.00	24.00	30.00	24.00	11.00	11.00	11.00
High	5310	24.00	24.00	30.00	24.00	11.00	11.00	11.00

Duty Cycle CF (dB)	0.13	Included in Calculations of Corr'd Power & PPSD

Output Power Results

Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Chain 1 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5270	10.77	11.24	14.15	24.00	-9.85
High	5310	10.78	11.24	14.15	24.00	-9.85

PPSD Results

Channel	Frequency (MHz)	Chain 0 Meas PPSD (dBm)	Chain 1 Meas PPSD (dBm)	Total Corr'd PPSD (dBm)	PPSD Limit (dBm)	PPSD Margin (dB)
Low	5270	-3.88	-3.29	-0.43	11.00	-11.43
High	5310	-3.82	-3.67	-0.60	11.00	-11.60

10.4.8. 802.11ac HT80 MODE IN THE 5.3 GHz BAND

Bandwidth and Antenna Gain

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Min 99% BW (MHz)	Directional Gain for Power (dBi)	Directional Gain for PPSD (dBi)
Low	5290	82.00	75.5500	1.07	4.07

Limits

Channel	Frequency (MHz)	FCC Power Limit (dBm)	IC Power Limit (dBm)	IC EIRP Limit (dBm)	Power Limit (dBm)	FCC PPSD Limit (dBm)	IC PSD Limit (dBm)	PPSD Limit (dBm)
Low	5290	24.00	24.00	30.00	24.00	11.00	11.00	11.00

Duty Cycle CF (dB)	0.24	Included in Calculations of Corr'd Power & PPSD

Output Power Results

Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Chain 1 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5290	10.73	11.25	14.25	24.00	-9.75

PPSD Results

Channel	Frequency (MHz)	Chain 0 Meas PPSD (dBm)	Chain 1 Meas PPSD (dBm)	Total Corr'd PPSD (dBm)	PPSD Limit (dBm)	PPSD Margin (dB)
Low	5290	-6.86	-6.35	-3.35	11.00	-14.35

10.4.9. 802.11a MODE IN THE 5.5 GHz BAND

Bandwidth and Antenna Gain

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Min 99% BW (MHz)	Directional Gain for Power (dBi)	Directional Gain for PPSD (dBi)
Low	5500	21.60	16.4900	1.07	4.07
Mid	5580	21.60	16.4900	1.07	4.07
High	5700	21.67	16.4800	1.07	4.07

Limits

Channel	Frequency (MHz)	FCC Power Limit (dBm)	IC Power Limit (dBm)	IC EIRP Limit (dBm)	Power Limit (dBm)	FCC PPSD Limit (dBm)	IC PSD Limit (dBm)	PPSD Limit (dBm)
Low	5500	24.00	23.17	29.17	23.17	11.00	11.00	11.00
Mid	5580	24.00	23.17	29.17	23.17	11.00	11.00	11.00
High	5700	24.00	23.17	29.17	23.17	11.00	11.00	11.00

Duty Cycle CF (dB)	0.00	Included in Calculations of Corr'd Power & PPSD

Output Power Results

Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Chain 1 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5500	11.41	11.30	14.37	23.17	-8.81
Mid	5580	11.51	11.66	14.59	23.17	-8.58
High	5700	11.45	11.48	14.48	23.17	-8.69

PPSD Results

Channel	Frequency (MHz)	Chain 0 Meas PPSD (dBm)	Chain 1 Meas PPSD (dBm)	Total Corr'd PPSD (dBm)	PPSD Limit (dBm)	PPSD Margin (dB)
Low	5500	0.03	-0.07	2.99	11.00	-8.01
Mid	5580	0.26	0.32	3.30	11.00	-7.70
High	5700	0.17	0.10	3.15	11.00	-7.85

10.4.10. 802.11n HT20 MODE IN THE 5.5 GHz BAND

Bandwidth and Antenna Gain

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Min 99% BW (MHz)	Directional Gain for Power (dBi)	Directional Gain for PPSD (dBi)
Low	5500	22.00	17.6800	1.07	4.07
Mid	5580	21.87	17.6800	1.07	4.07
High	5700	22.00	17.6900	1.07	4.07

Limits

Channel	Frequency (MHz)	FCC Power Limit (dBm)	IC Power Limit (dBm)	IC EIRP Limit (dBm)	Power Limit (dBm)	FCC PPSD Limit (dBm)	IC PSD Limit (dBm)	PPSD Limit (dBm)
Low	5500	24.00	23.47	29.47	23.47	11.00	11.00	11.00
Mid	5580	24.00	23.47	29.47	23.47	11.00	11.00	11.00
High	5700	24.00	23.48	29.48	23.48	11.00	11.00	11.00

Duty Cycle CF (dB)	0.00	Included in Calculations of Corr'd Power & PPSD

Output Power Results

Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Chain 1 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5500	11.05	10.70	13.89	23.47	-9.59
Mid	5580	11.22	10.80	14.03	23.47	-9.45
High	5700	10.89	10.79	13.85	23.48	-9.63

PPSD Results

Channel	Frequency (MHz)	Chain 0 Meas PPSD (dBm)	Chain 1 Meas PPSD (dBm)	Total Corr'd PPSD (dBm)	PPSD Limit (dBm)	PPSD Margin (dB)
Low	5500	-0.62	-1.01	2.20	11.00	-8.80
Mid	5580	-0.25	-0.81	2.49	11.00	-8.51
High	5700	-0.64	-0.89	2.25	11.00	-8.75

10.4.11. 802.11n HT40 MODE IN THE 5.5 GHz BAND

Bandwidth and Antenna Gain

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Min 99% BW (MHz)	Directional Gain for Power (dBi)	Directional Gain for PPSD (dBi)
Low	5510	40.40	36.1500	1.07	4.07
Mid	5550	40.40	36.1500	1.07	4.07
High	5670	40.40	36.1300	1.07	4.07

Limits

Channel	Frequency (MHz)	FCC Power Limit (dBm)	IC Power Limit (dBm)	IC EIRP Limit (dBm)	Power Limit (dBm)	FCC PPSD Limit (dBm)	IC PSD Limit (dBm)	PPSD Limit (dBm)
Low	5510	24.00	24.00	30.00	24.00	11.00	11.00	11.00
Mid	5550	24.00	24.00	30.00	24.00	11.00	11.00	11.00
High	5670	24.00	24.00	30.00	24.00	11.00	11.00	11.00

Duty Cycle CF (dB)	0.13	Included in Calculations of Corr'd Power & PPSD

Output Power Results

Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Chain 1 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5510	10.56	10.43	13.63	24.00	-10.37
Mid	5550	10.99	10.84	14.06	24.00	-9.94
High	5670	10.89	10.96	14.07	24.00	-9.93

PPSD Results

Channel	Frequency (MHz)	Chain 0 Meas PPSD (dBm)	Chain 1 Meas PPSD (dBm)	Total Corr'd PPSD (dBm)	PPSD Limit (dBm)	PPSD Margin (dB)
Low	5510	-4.08	-4.24	-1.02	11.00	-12.02
Mid	5550	-3.48	-3.90	-0.54	11.00	-11.54
High	5670	-3.67	-3.39	-0.39	11.00	-11.39

10.4.12. 802.11ac HT80 MODE IN THE 5.5 GHz BAND

Bandwidth and Antenna Gain

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Min 99% BW (MHz)	Directional Gain for Power (dBi)	Directional Gain for PPSD (dBi)
Low	5530	82.93	75.5100	1.07	4.07

Limits

Channel	Frequency (MHz)	FCC Power Limit (dBm)	IC Power Limit (dBm)	IC EIRP Limit (dBm)	Power Limit (dBm)	FCC PPSD Limit (dBm)	IC PSD Limit (dBm)	PPSD Limit (dBm)
Low	5530	24.00	24.00	30.00	24.00	11.00	11.00	11.00

Duty Cycle CF (dB)	0.24	Included in Calculations of Corr'd Power & PPSD

Output Power Results

Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Chain 1 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5530	10.94	10.71	14.08	24.00	-9.92

PPSD Results

Channel	Frequency (MHz)	Chain 0 Meas PPSD (dBm)	Chain 1 Meas PPSD (dBm)	Total Corr'd PPSD (dBm)	PPSD Limit (dBm)	PPSD Margin (dB)
Low	5530	-6.68	-6.91	-3.54	11.00	-14.54

10.4.13. 802.11a MODE IN THE 5.8 GHz BAND

Bandwidth and Antenna Gain

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Min 99% BW (MHz)	Directional Gain for Power (dBi)	Directional Gain for PPSD (dBi)
Low	5745	21.47	16.4700	1.07	4.07
Mid	5785	21.70	16.4800	1.07	4.07
High	5825	21.82	16.4800	1.07	4.07

Limits

Channel	Frequency (MHz)	FCC Power Limit (dBm)	IC Power Limit (dBm)	IC EIRP Limit (dBm)	Power Limit (dBm)	FCC PPSD Limit (dBm)	IC PSD Limit (dBm)	PPSD Limit (dBm)
Low	5745	30.00	29.17	35.17	29.17	30.00	17.00	17.00
Mid	5785	30.00	29.17	35.17	29.17	30.00	17.00	17.00
High	5825	30.00	29.17	35.17	29.17	30.00	17.00	17.00

Duty Cycle CF (dB)	0.00	Included in Calculations of Corr'd Power & PPSD

Output Power Results

Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Chain 1 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5745	11.50	11.65	14.59	29.17	-14.58
Mid	5785	11.51	11.71	14.62	29.17	-14.55
High	5825	11.81	11.79	14.81	29.17	-14.36

PPSD Results

Channel	Frequency (MHz)	Chain 0 Meas PPSD (dBm)	Chain 1 Meas PPSD (dBm)	Total Corr'd PPSD (dBm)	PPSD Limit (dBm)	PPSD Margin (dB)
Low	5745	0.20	0.27	3.25	17.00	-13.75
Mid	5785	0.15	0.41	3.29	17.00	-13.71
High	5825	0.47	0.44	3.47	17.00	-13.53

10.4.14. 802.11n HT20 MODE IN THE 5.8 GHz BAND

Bandwidth and Antenna Gain

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Min 99% BW (MHz)	Directional Gain for Power (dBi)	Directional Gain for PPSD (dBi)
Low	5745	21.82	17.6600	1.07	4.07
Mid	5785	21.76	17.6800	1.07	4.07
High	5825	21.82	17.6800	1.07	4.07

Limits

Channel	Frequency (MHz)	FCC Power Limit (dBm)	IC Power Limit (dBm)	IC EIRP Limit (dBm)	Power Limit (dBm)	FCC PPSD Limit (dBm)	IC PSD Limit (dBm)	PPSD Limit (dBm)
Low	5745	30.00	29.47	35.47	29.47	30.00	17.00	17.00
Mid	5785	30.00	29.47	35.47	29.47	30.00	17.00	17.00
High	5825	30.00	29.47	35.47	29.47	30.00	17.00	17.00

Duty Cycle CF (dB)	0.00	Included in Calculations of Corr'd Power & PPSD

Output Power Results

Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Chain 1 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5745	11.10	11.20	14.16	29.47	-15.31
Mid	5785	11.24	11.30	14.28	29.47	-15.20
High	5825	11.16	11.20	14.19	29.47	-15.28

PPSD Results

Channel	Frequency (MHz)	Chain 0 Meas PPSD (dBm)	Chain 1 Meas PPSD (dBm)	Total Corr'd PPSD (dBm)	PPSD Limit (dBm)	PPSD Margin (dB)
Low	5745	-0.46	-0.39	2.59	17.00	-14.41
Mid	5785	-0.25	-0.28	2.75	17.00	-14.25
High	5825	-0.51	-0.41	2.55	17.00	-14.45

10.4.15. 802.11n HT40 MODE IN THE 5.8 GHz BAND

Bandwidth and Antenna Gain

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Min 99% BW (MHz)	Directional Gain for Power (dBi)	Directional Gain for PPSD (dBi)
Low	5755	40.1	36.1500	1.07	4.07
High	5795	40.3	36.1300	1.07	4.07

Limits

Channel	Frequency (MHz)	FCC Power Limit (dBm)	IC Power Limit (dBm)	IC EIRP Limit (dBm)	Power Limit (dBm)	FCC PPSD Limit (dBm)	IC PSD Limit (dBm)	PPSD Limit (dBm)
Low	5755	30.00	30.00	36.00	30.00	30.00	17.00	17.00
High	5795	30.00	30.00	36.00	30.00	30.00	17.00	17.00

Duty Cycle CF (dB)	0.13	Included in Calculations of Corr'd Power & PPSD

Output Power Results

Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Chain 1 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5755	11.19	11.22	14.34	30.00	-15.66
High	5795	11.24	11.48	14.50	30.00	-15.50

PPSD Results

Channel	Frequency (MHz)	Chain 0 Meas PPSD (dBm)	Chain 1 Meas PPSD (dBm)	Total Corr'd PPSD (dBm)	PPSD Limit (dBm)	PPSD Margin (dB)
Low	5755	-3.41	-3.41	-0.27	17.00	-17.27
High	5795	-3.38	-3.04	-0.07	17.00	-17.07

10.4.16. 802.11ac HT80 MODE IN THE 5.8 GHz BAND

Bandwidth and Antenna Gain

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Min 99% BW (MHz)	Directional Gain for Power (dBi)	Directional Gain for PPSD (dBi)
Low	5775	82.40	75.5100	1.07	4.07

Limits

Channel	Frequency (MHz)	FCC Power Limit (dBm)	IC Power Limit (dBm)	IC EIRP Limit (dBm)	Power Limit (dBm)	FCC PPSD Limit (dBm)	IC PSD Limit (dBm)	PPSD Limit (dBm)
Low	5775	30.00	30.00	36.00	30.00	30.00	17.00	17.00

Duty Cycle CF (dB)	0.24	Included in Calculations of Corr'd Power & PPSD

Output Power Results

Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Chain 1 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5775	11.22	11.14	14.43	30.00	-15.57

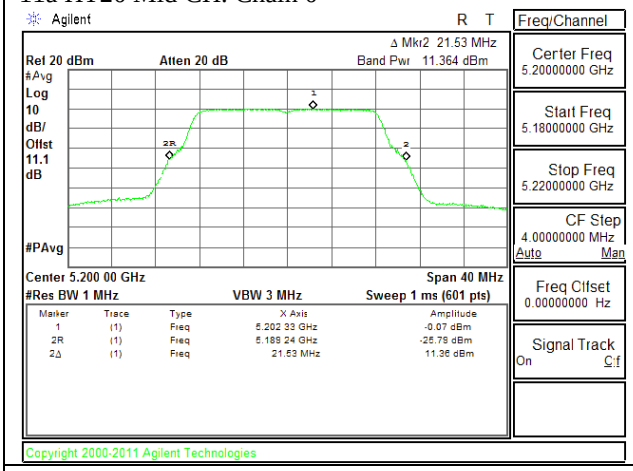
PPSD Results

Channel	Frequency (MHz)	Chain 0 Meas PPSD (dBm)	Chain 1 Meas PPSD (dBm)	Total Corr'd PPSD (dBm)	PPSD Limit (dBm)	PPSD Margin (dB)
Low	5775	-6.36	-6.25	-3.05	17.00	-20.05

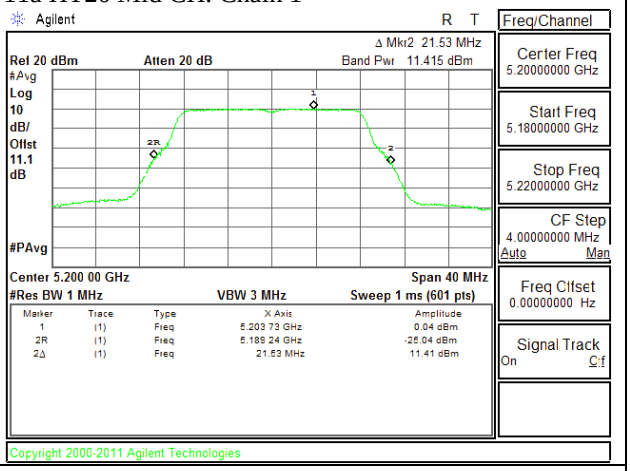
10.4.17. OUTPUT POWER AND PPSD PLOTS

UNII 5.2GHz

11a HT20 Mid CH. Chain 0



11a HT20 Mid CH. Chain 1



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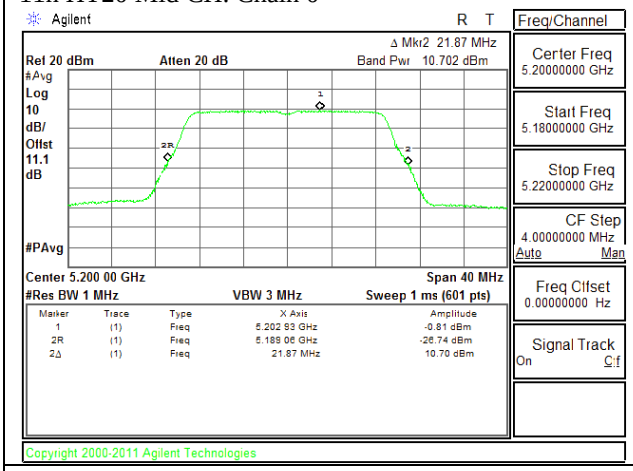

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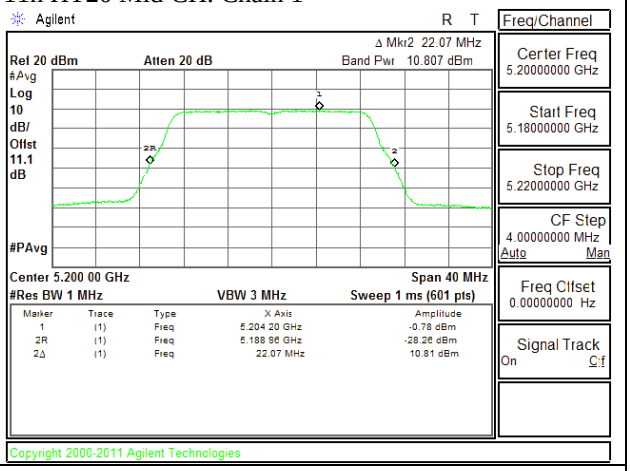

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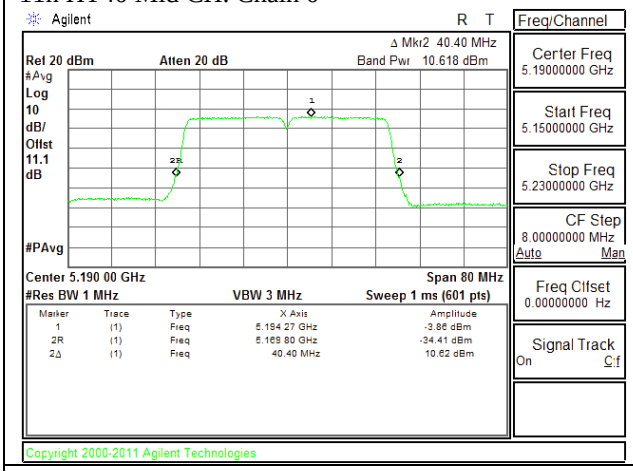

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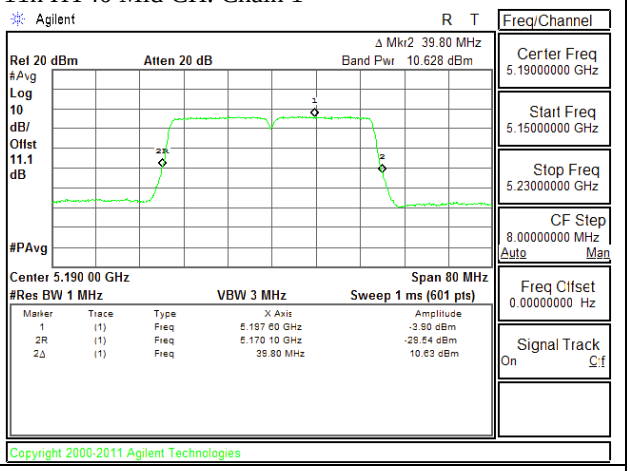
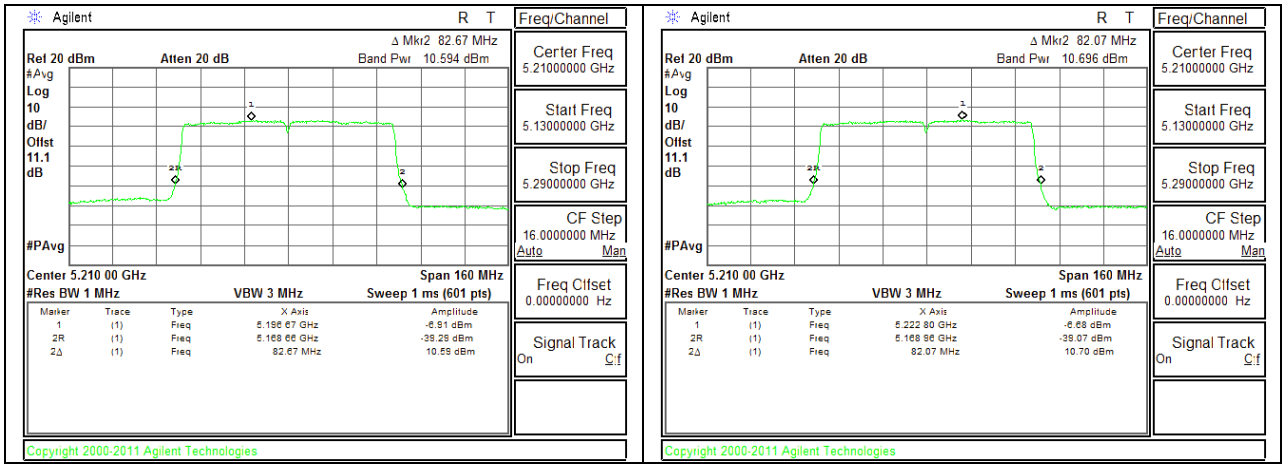


11ac HT80 Mid CH. Chain 0

11ac HT80 Mid CH. Chain 1



UNII 5.3GHz

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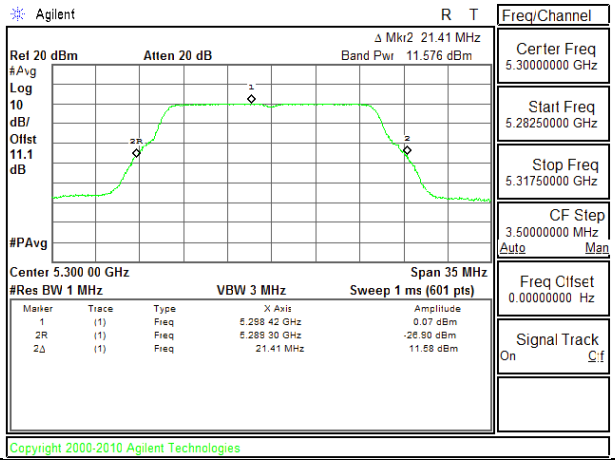

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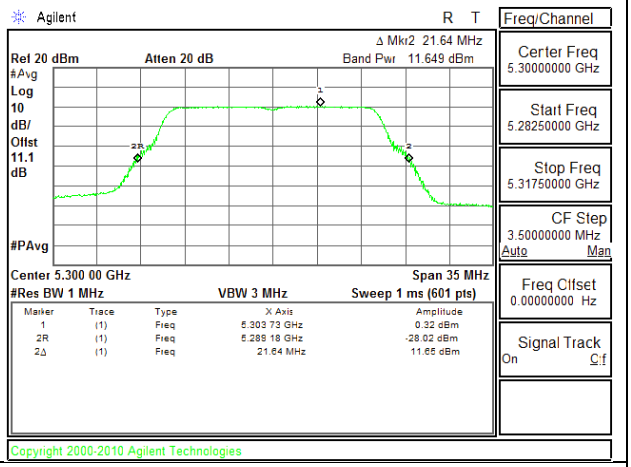

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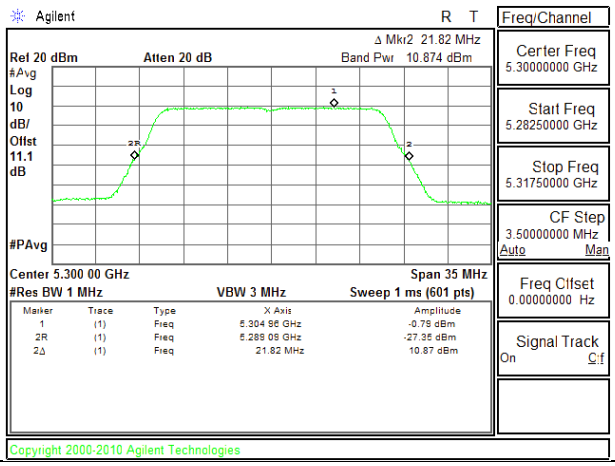

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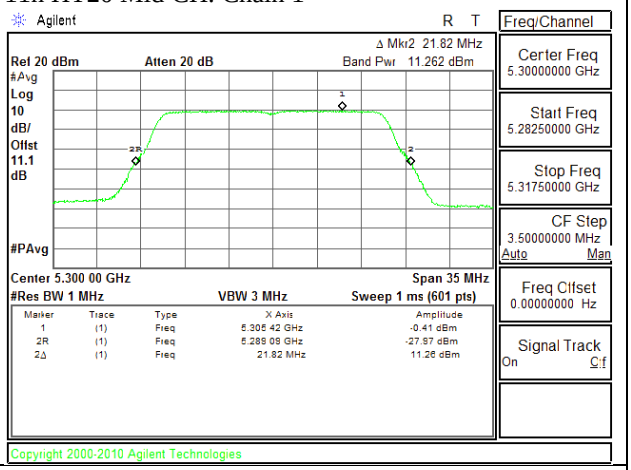
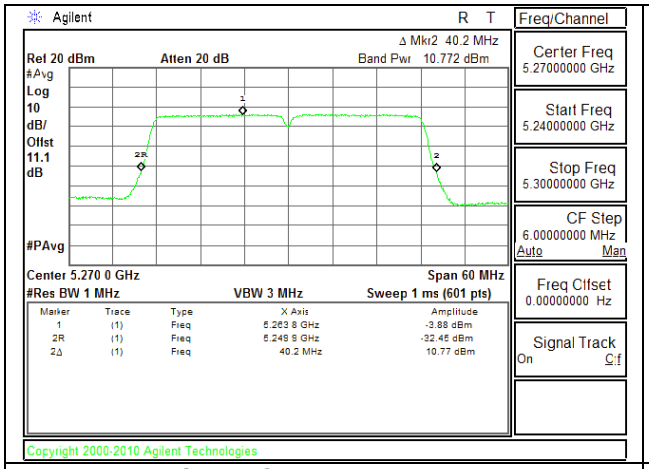


11n HT40 Mid CH. Chain 0

11n HT40 Mid CH. Chain 1



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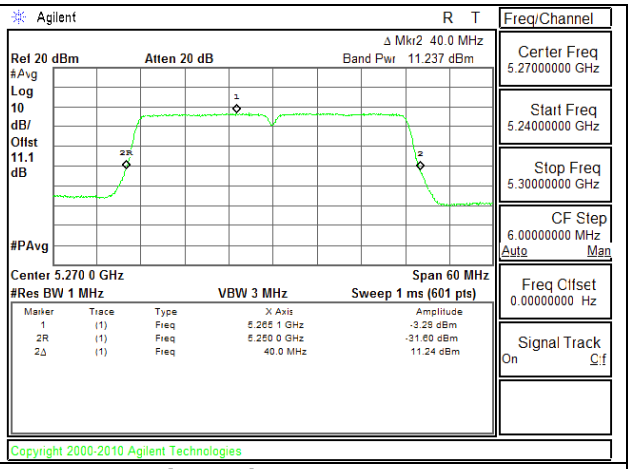

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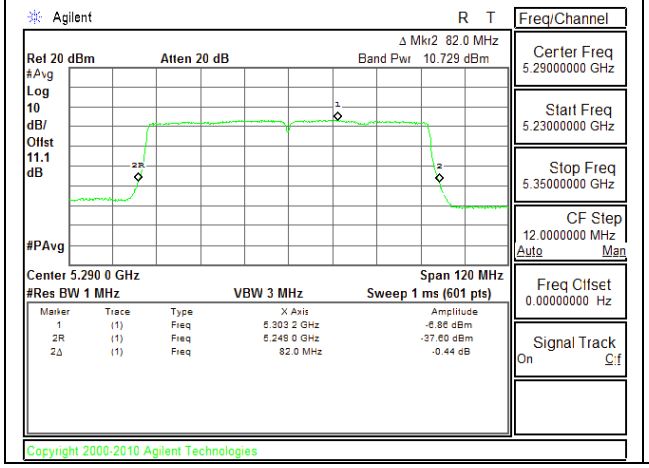

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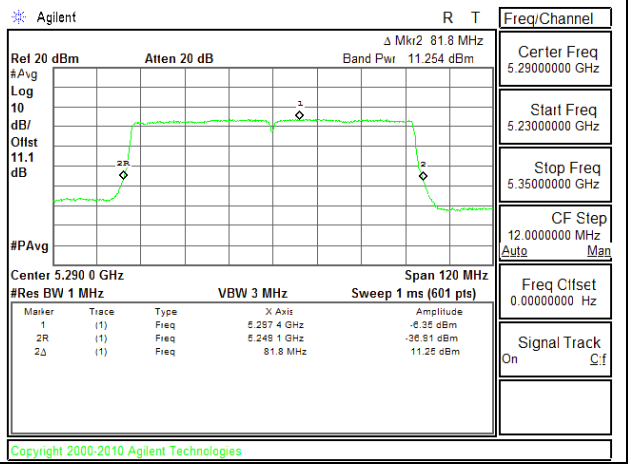

UNII 5.5GHz

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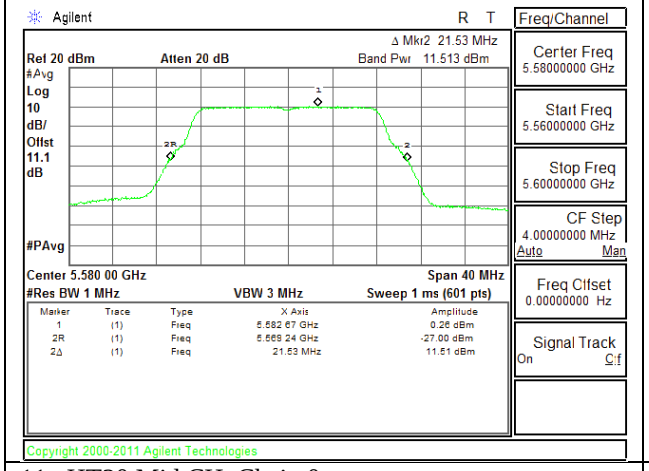

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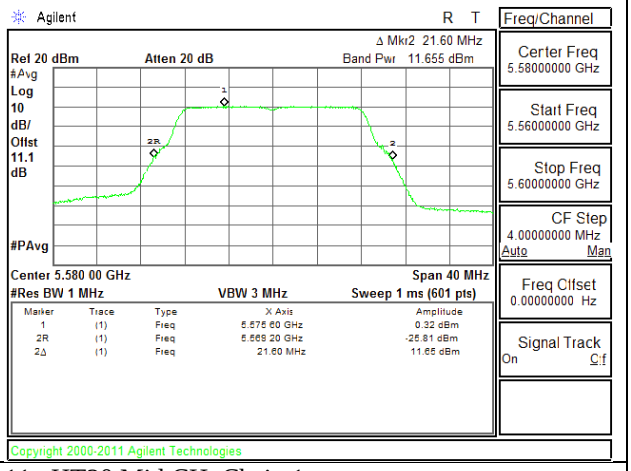
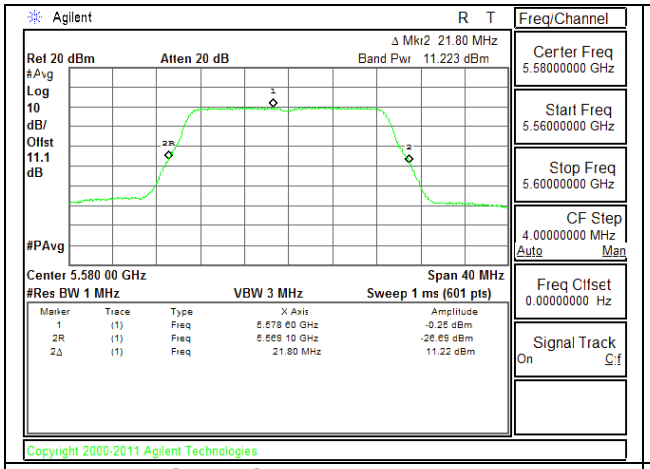
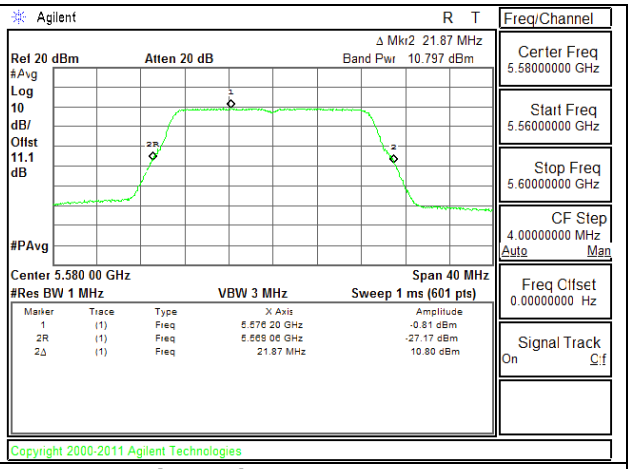


11n HT20 Mid CH. Chain 0

11n HT20 Mid CH. Chain 1





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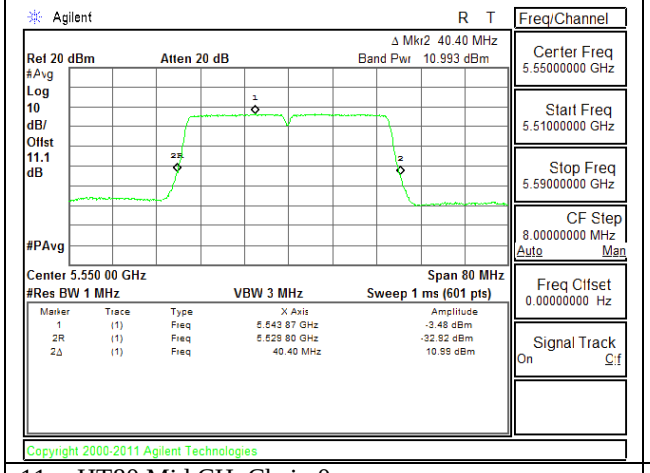

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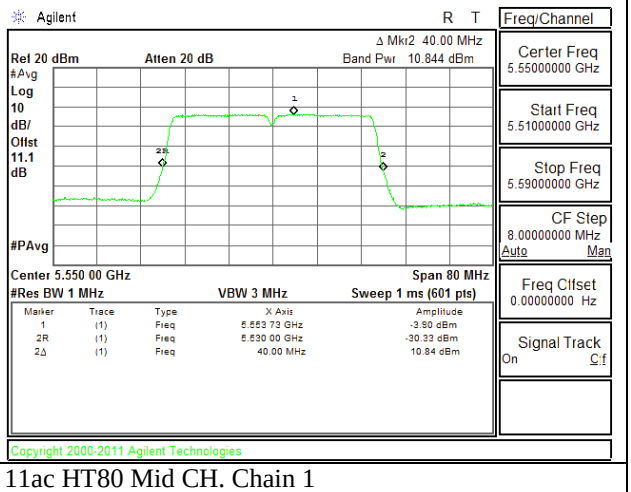

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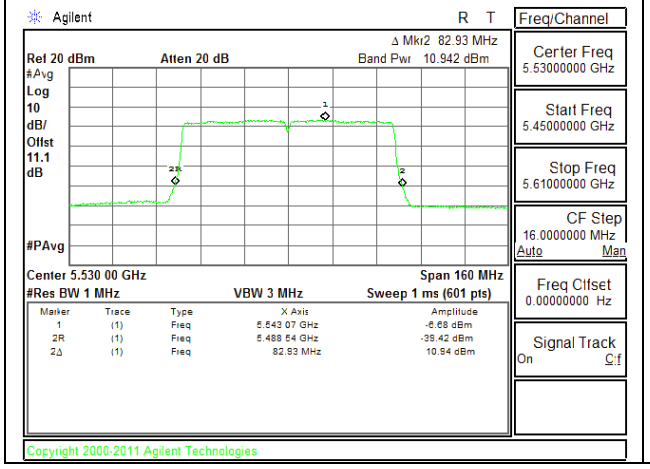

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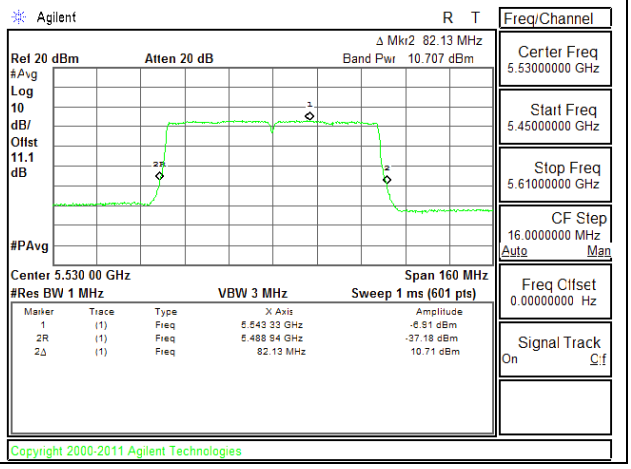
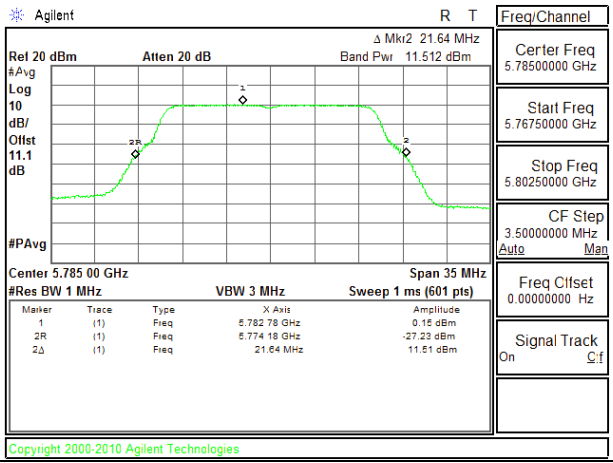
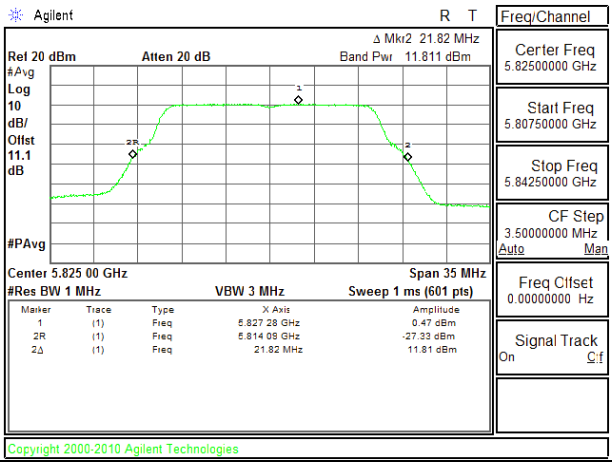


UNII 5.8GHz

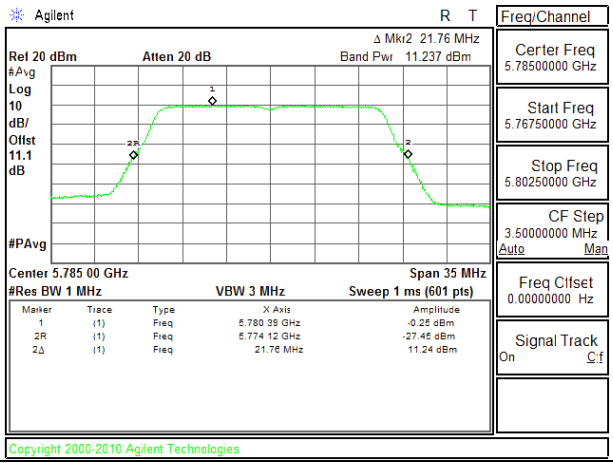
11a HT20 Mid CH. Chain 0



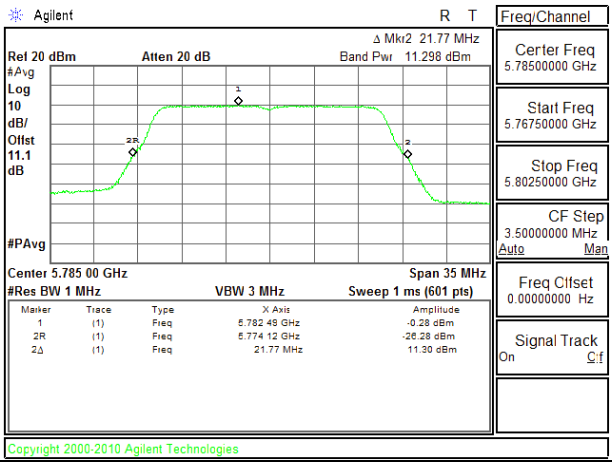
11a HT20 Mid CH. Chain 1



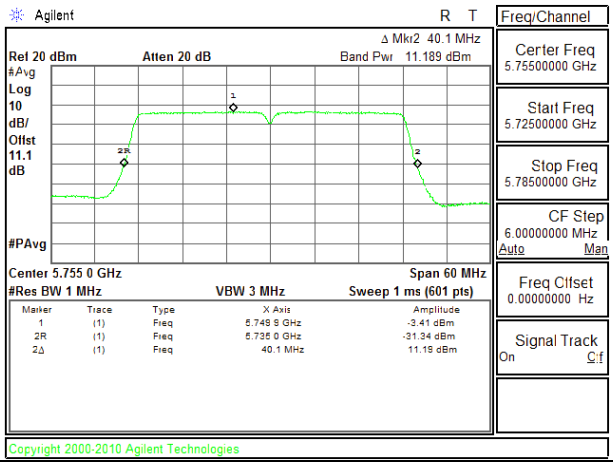
11n HT20 Mid CH. Chain 0



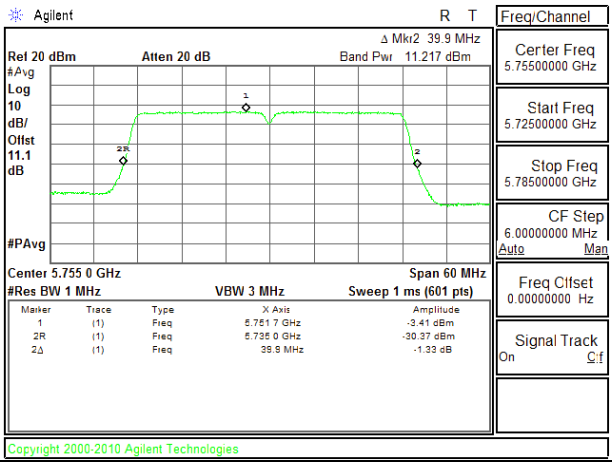
11n HT20 Mid CH. Chain 1



11n HT40 Mid CH. Chain 0

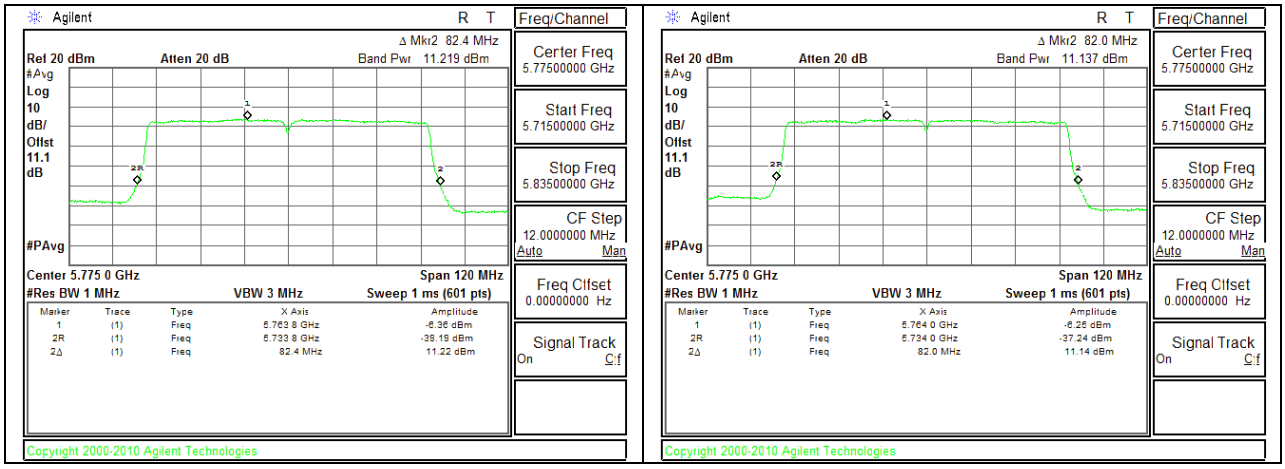


11n HT40 Mid CH. Chain 1



11ac HT80 Mid CH. Chain 0

11ac HT80 Mid CH. Chain 1



11. TRANSMITTER ABOVE 1 GHz

LIMITS

FCC §15.205 and §15.209

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

TEST PROCEDURE

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

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

Reference to KDB 789033 UNII part H) 6) d) Method AD:
For measurements above 1 GHz the resolution bandwidth is set to 1 MHz; the video bandwidth is set to 3 MHz for peak measurements and add duty cycle factor to the reading offset for average measurements.

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

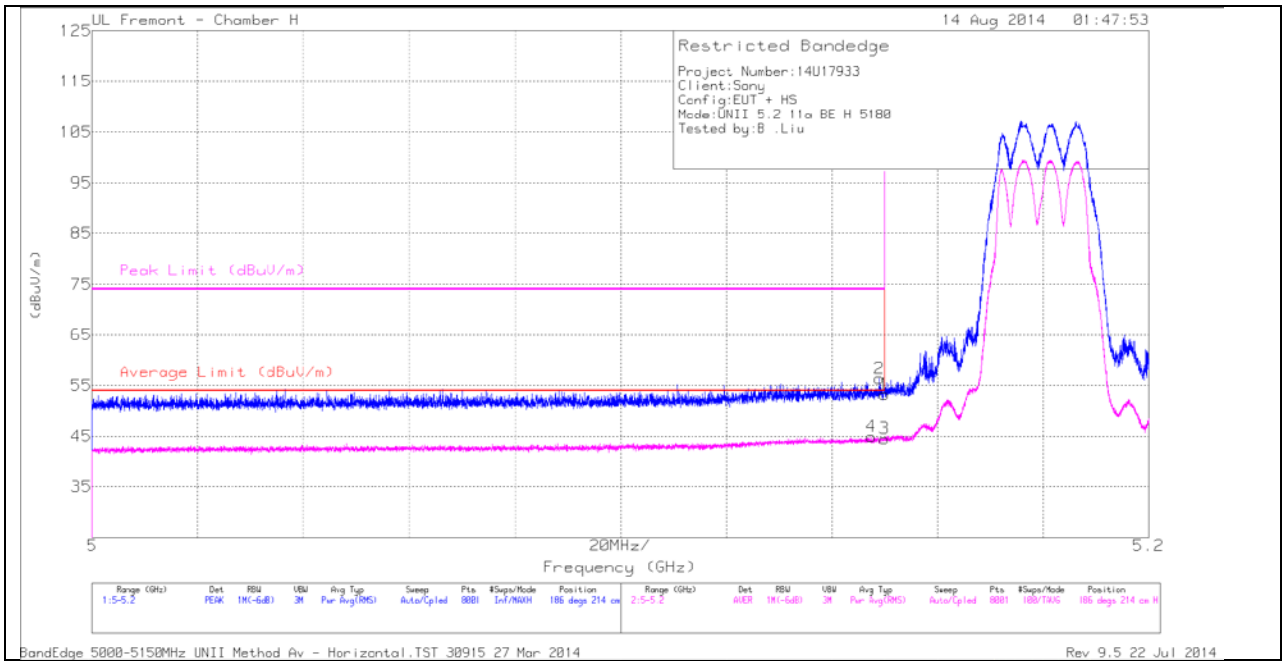
The frequency range of interest is monitored at a fixed antenna height and EUT azimuth. The EUT is rotated through 360 degrees to maximize emissions received. The antenna is scanned from 1 to 4 meters above the ground plane to further maximize the emission. Measurements are made with the antenna polarized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

11.1. 5.2 GHz

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

RESTRICTED BANDEDGE (LOW CHANNEL)

HORIZONTAL PEAK AND AVERAGE PLOT



HORIZONTAL DATA

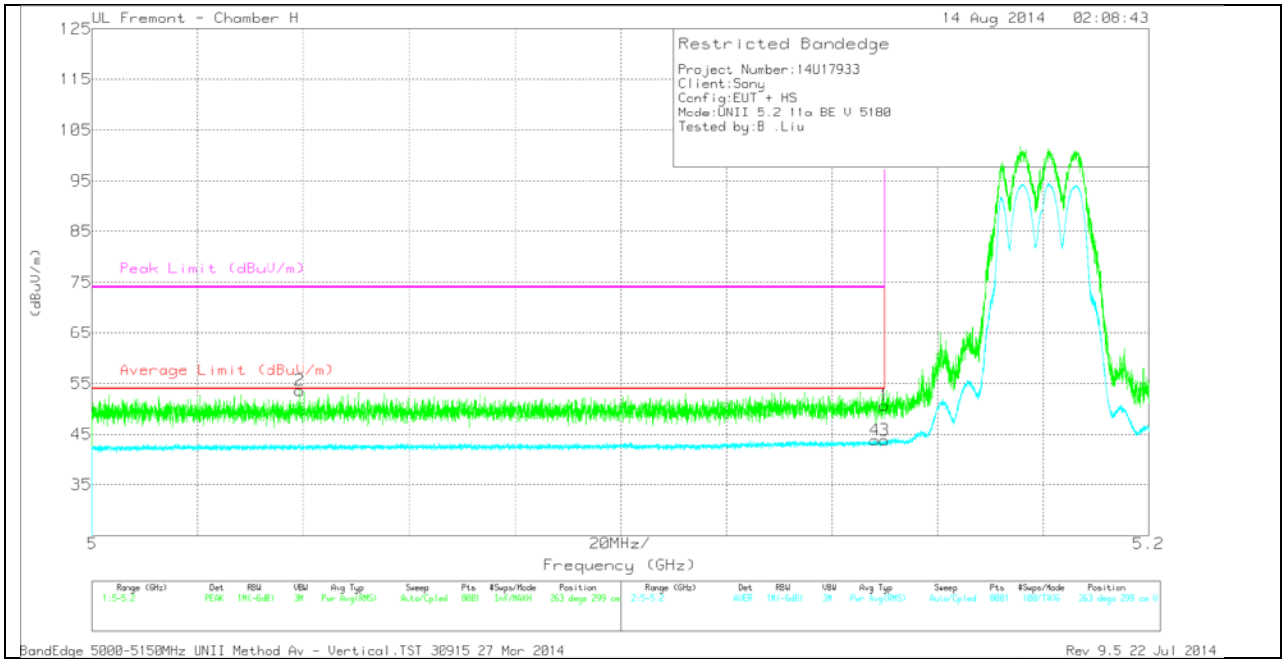
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.15	41.54	PK	34.5	-22.8	0	53.24	-	-	74	-20.76	186	214	H
2	* 5.149	44.64	PK	34.5	-22.8	0	56.34	-	-	74	-17.66	186	214	H
3	* 5.15	32.6	RMS	34.5	-22.8	0	44.30	54	-9.70	-	-	186	214	H
4	* 5.148	33.01	RMS	34.5	-22.8	0	44.71	54	-9.29	-	-	186	214	H

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

PK - Peak detector

RMS - RMS detection

VERTICAL PEAK AND AVERAGE PLOT



VERTICAL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cbl/Fltr/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
2	* 5.039	42.15	PK	34.4	-22.9	0	53.65	-	-	74	-20.35	263	299	V
4	* 5.148	31.88	RMS	34.5	-22.8	0	43.58	54	-10.42	-	-	263	299	V
1	* 5.15	38.93	PK	34.5	-22.8	0	50.63	-	-	74	-23.37	263	299	V
3	* 5.15	31.86	RMS	34.5	-22.8	0	43.56	54	-10.44	-	-	263	299	V

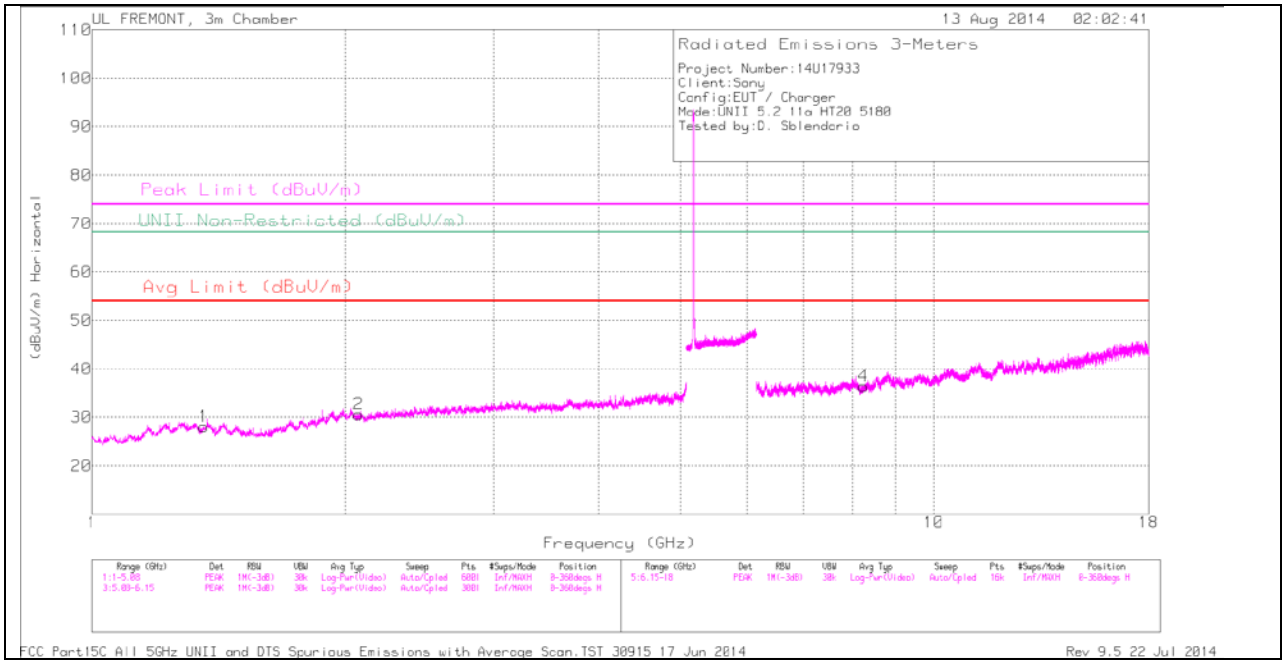
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK - Peak detector

RMS - RMS detection

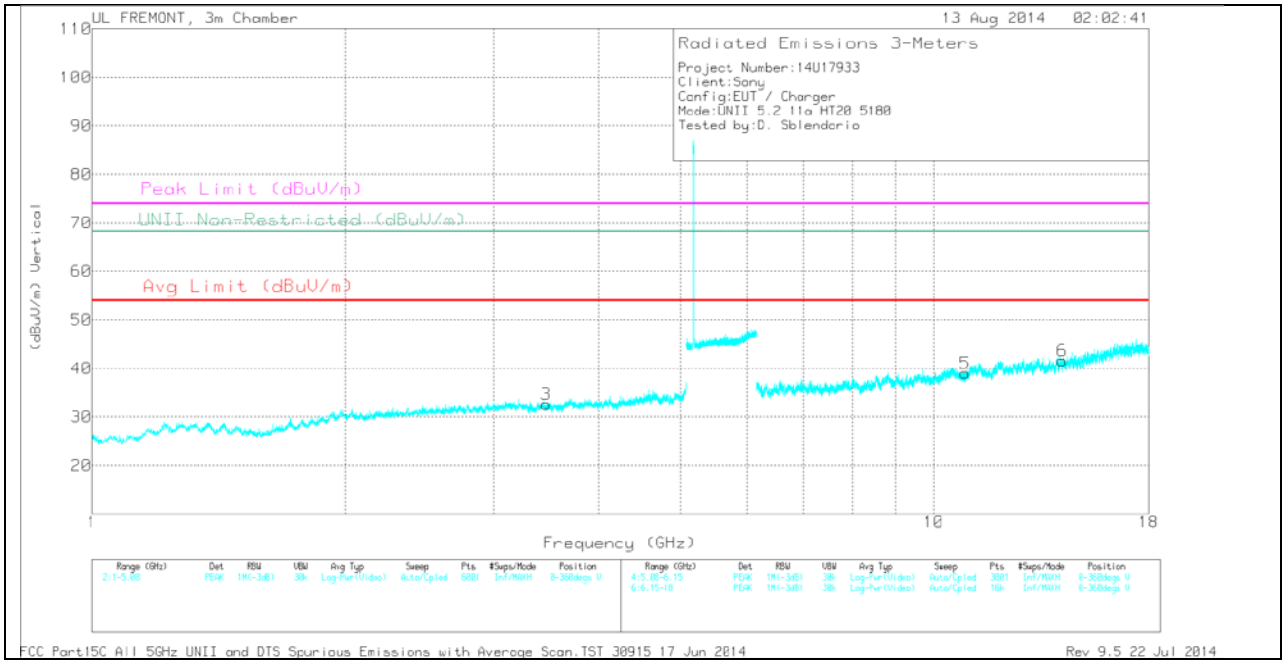
HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL HORIZONTAL



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

LOW CHANNEL VERTICAL



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

LOW CHANNEL DATA

TRACE MARKERS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Fltr /Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	1.358	31.86	PK	29.6	-33.3	28.16	-	-	74	-45.84	-	-	0-360	100	H
2	2.072	31.74	PK	31.6	-32.7	30.64	-	-	-	-	68.2	-37.56	0-360	200	H
3	3.459	30.95	PK	33	-31.3	32.65	-	-	-	-	68.2	-35.55	0-360	200	V
4	8.246	29.05	PK	35.8	-28.4	36.45	-	-	74	-37.55	-	-	0-360	100	H
5	10.889	26.7	PK	37.9	-25.6	39	-	-	74	-35	-	-	0-360	200	V
6	14.215	29.56	PK	39.2	-27.2	41.56	-	-	-	-	68.2	-26.64	0-360	100	V

PK - Peak detector

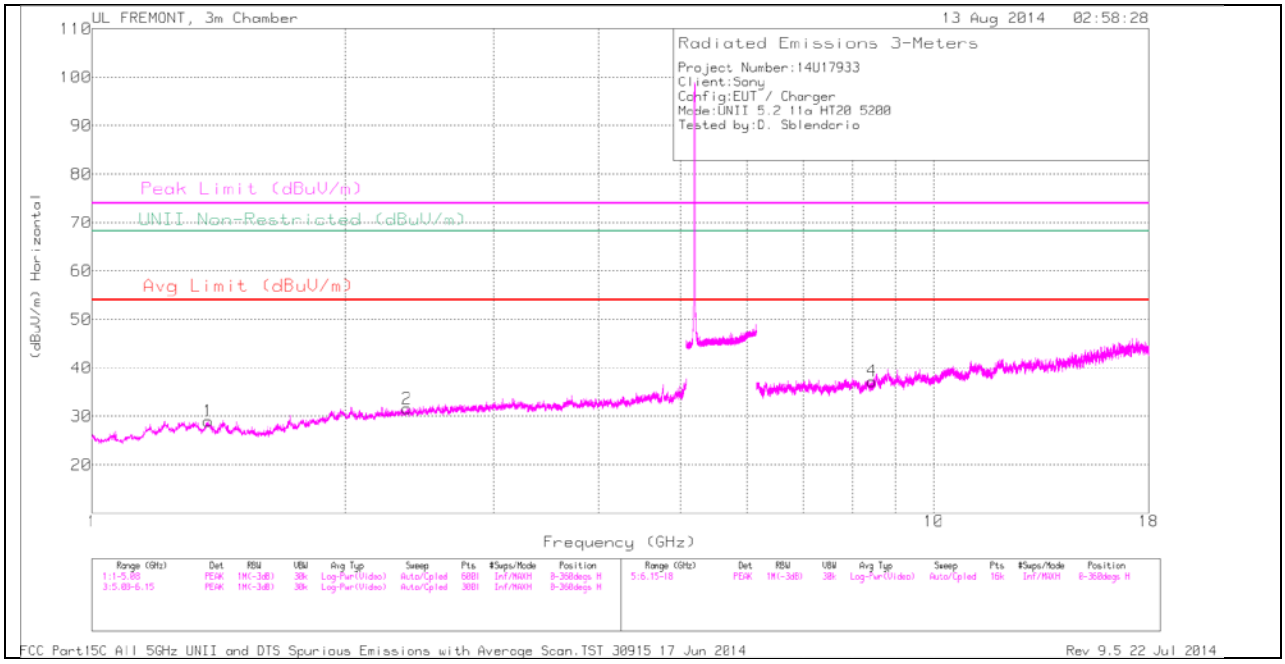
Radiated Emissions

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1.359	29.86	AD1	29.6	-33.3	26.16	54	-27.84	-	-	-	-	3	100	H
1.36	41.27	PK1	29.6	-33.3	37.57	-	-	74	-36.43	-	-	3	100	H

PK1 - KDB789033 Method: Peak

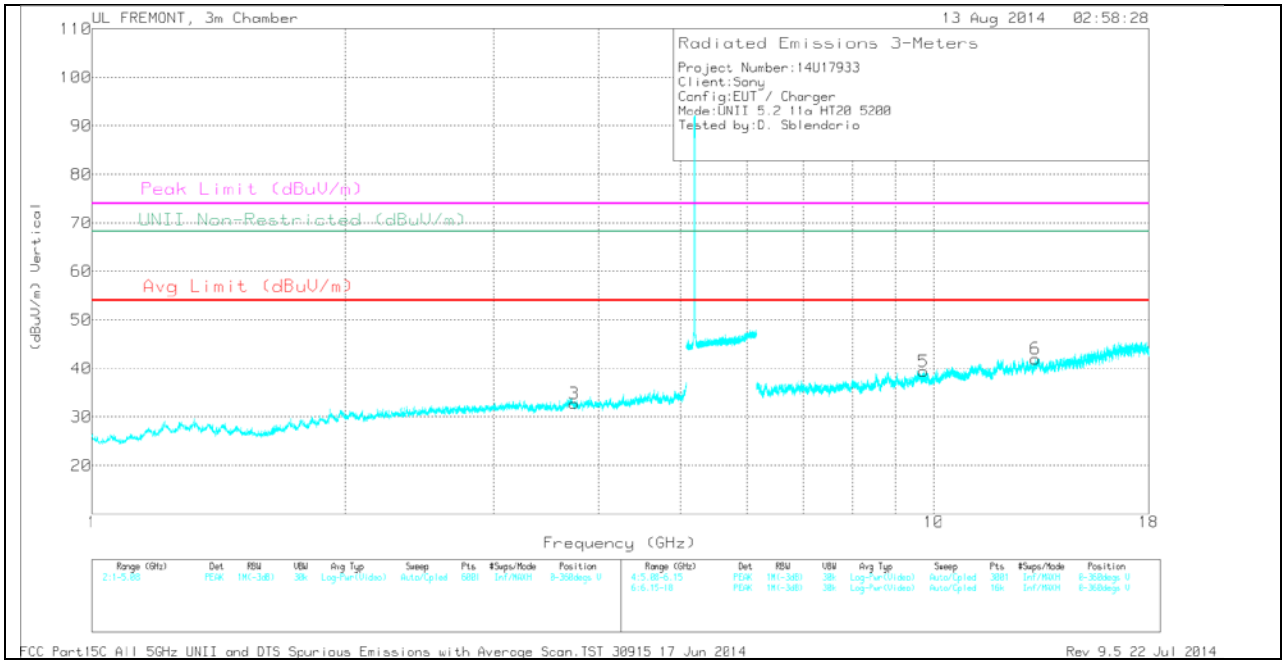
AD1 - KDB789033 Method: AD Primary Power Average

MID CHANNEL HORIZONTAL



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

MID CHANNEL VERTICAL



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

MID CHANNEL DATA

TRACE MARKERS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Fltr /Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	1.374	32.7	PK	29.4	-33.1	29	-	-	74	-45	-	-	0-360	200	H
2	2.364	32.37	PK	32	-32.8	31.57	-	-	74	-42.43	-	-	0-360	100	H
3	3.74	30.94	PK	33.2	-31.4	32.74	-	-	74	-41.26	-	-	0-360	200	V
4	8.445	29.76	PK	35.8	-28.3	37.26	-	-	74	-36.74	-	-	0-360	200	H
5	9.723	28.62	PK	36.9	-26.1	39.42	-	-	-	-	68.2	-28.78	0-360	100	V
6	13.21	29.41	PK	39.1	-26.5	42.01	-	-	-	-	68.2	-26.19	0-360	100	V

PK - Peak detector

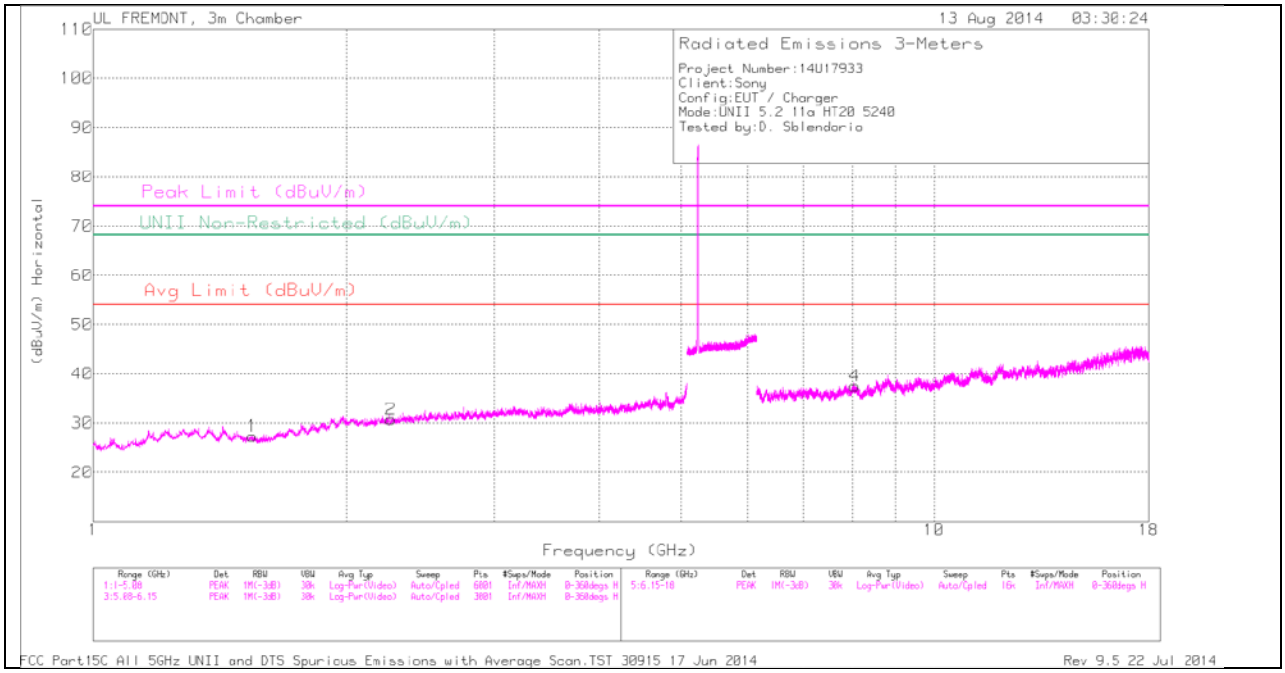
Radiated Emissions

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1.373	42.11	PK1	29.4	-33.1	38.41	-	-	74	-35.59	-	-	360	200	H
1.373	30.68	AD1	29.4	-33.1	26.98	54	-27.02	-	-	-	-	360	200	H

PK1 - KDB789033 Method: Peak

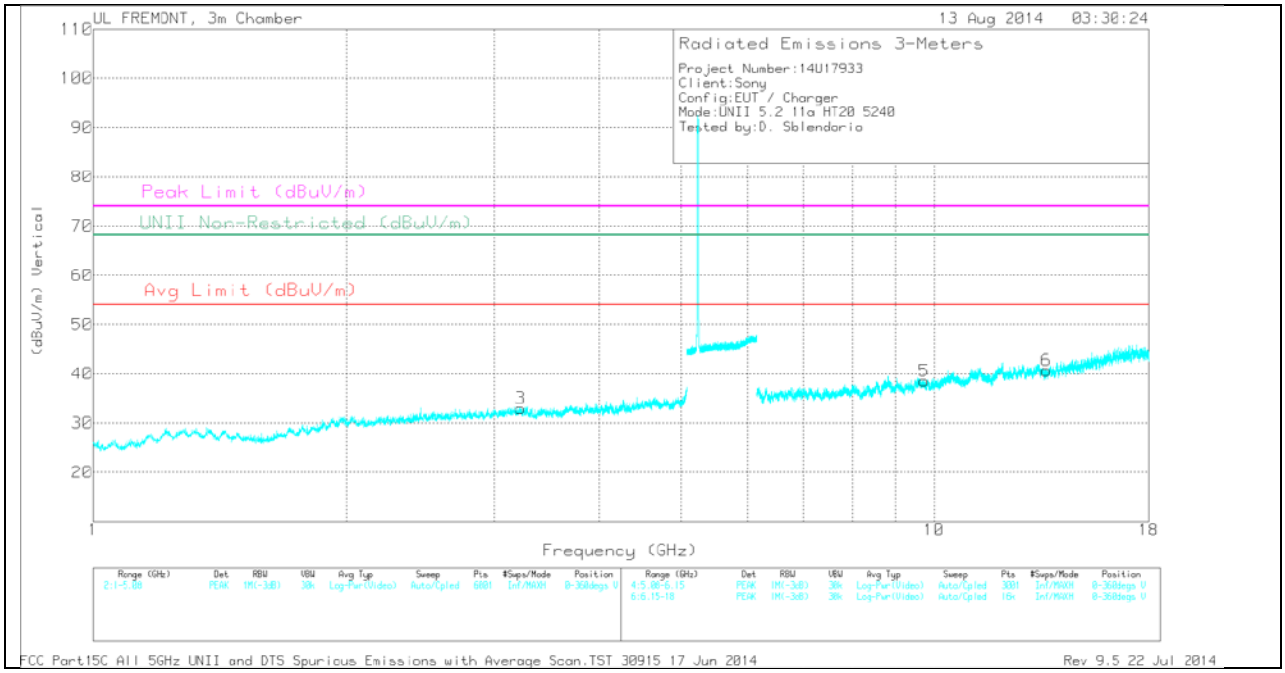
AD1 - KDB789033 Method: AD Primary Power Average

HIGH CHANNEL HORIZONTAL



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

HIGH CHANNEL VERTICAL



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

HIGH CHANNEL DATA

TRACE MARKERS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Fltr /Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	1.547	32.34	PK	28.3	-33.3	27.34	-	-	74	-46.66	-	-	0-360	200	H
2	2.26	31.26	PK	31.8	-32.3	30.76	-	-	74	-43.24	-	-	0-360	100	H
3	3.226	31.48	PK	32.9	-31.4	32.98	-	-	-	-	68.2	-35.22	0-360	100	V
4	8.049	29.43	PK	35.7	-27.6	37.53	-	-	74	-36.47	-	-	0-360	200	H
5	9.741	27.75	PK	36.9	-26.1	38.55	-	-	-	-	68.2	-29.65	0-360	200	V
6	13.606	29.38	PK	38.9	-27.6	40.68	-	-	-	-	68.2	-27.52	0-360	100	V

PK - Peak detector

Radiated Emissions

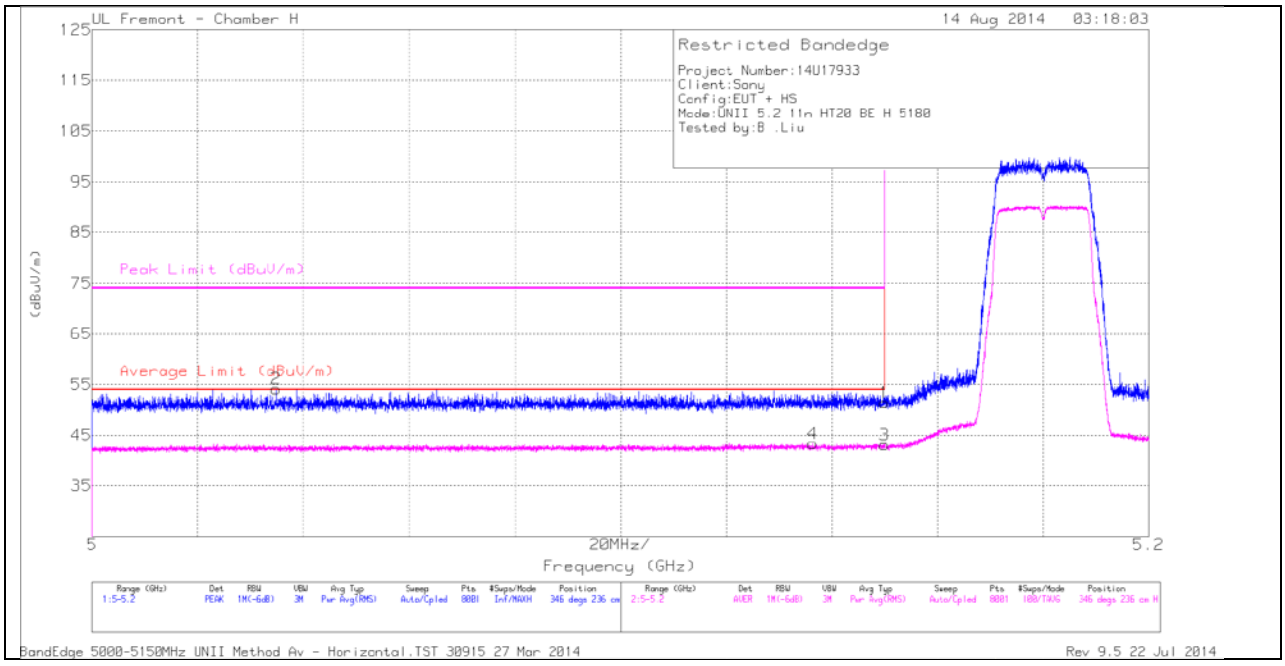
Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1.545	41.97	PK1	28.3	-33.3	36.97	-	-	74	-37.03	-	-	0	200	H
1.549	30.38	AD1	28.3	-33.3	25.38	54	-28.62	-	-	-	-	0	200	H

PK1 - KDB789033 Method: Peak

AD1 - KDB789033 Method: AD Primary Power Average

11.1.2. TX ABOVE 1 GHz 802.11n HT20 MODE IN THE 5.2 GHz BAND RESTRICTED BANDEDGE (LOW CHANNEL)

HORIZONTAL PEAK AND AVERAGE PLOT



HORIZONTAL DATA

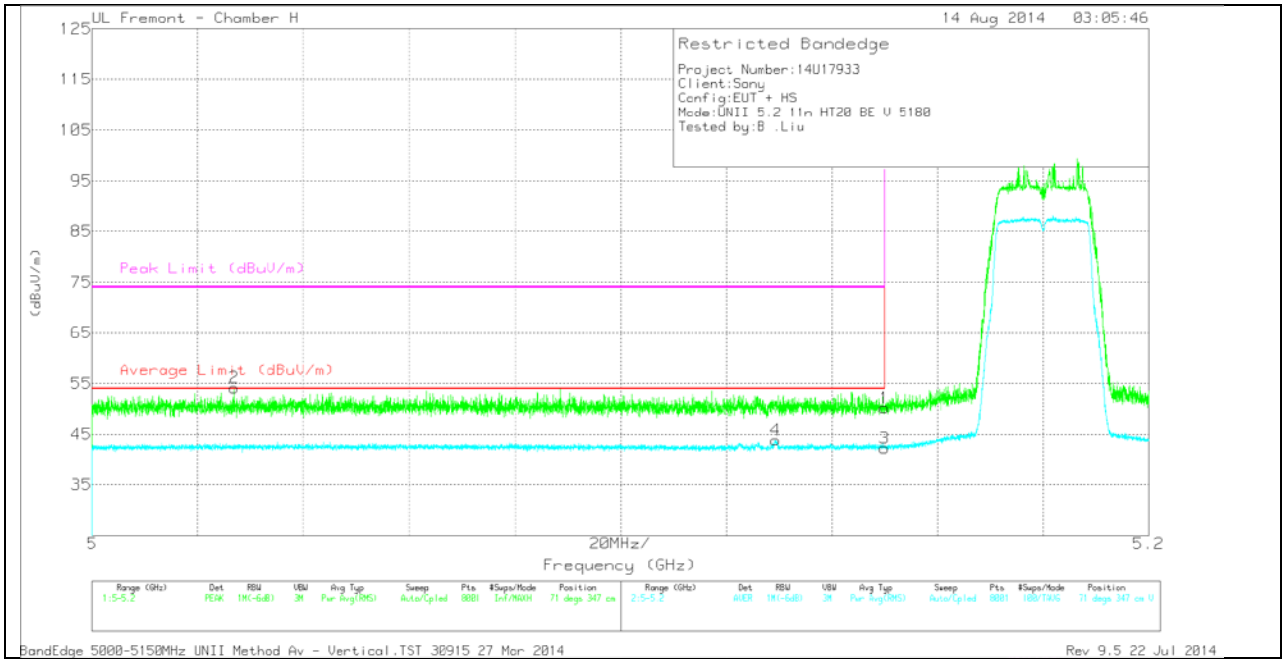
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cbl/Flt r/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	* 5.035	42.67	PK	34.4	-22.9	0	54.17	-	-	74	-19.83	346	236	H
4	* 5.136	31.45	RMS	34.5	-22.8	0	43.15	54	-10.85	-	-	346	236	H
1	* 5.15	39.7	PK	34.5	-22.8	0	51.4	-	-	74	-22.6	346	236	H
3	* 5.15	31.18	RMS	34.5	-22.8	0	42.88	54	-11.12	-	-	346	236	H

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

PK - Peak detector

RMS - RMS detection

VERTICAL PEAK AND AVERAGE PLOT



VERTICAL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cbl/Fltr/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
2	* 5.027	42.61	PK	34.3	-22.8	0	54.11	-	-	74	-19.89	71	347	V
4	* 5.129	31.87	RMS	34.5	-22.8	0	43.57	54	-10.43	-	-	71	347	V
1	* 5.15	38.43	PK	34.5	-22.8	0	50.13	-	-	74	-23.87	71	347	V
3	* 5.15	30.32	RMS	34.5	-22.8	0	42.02	54	-11.98	-	-	71	347	V

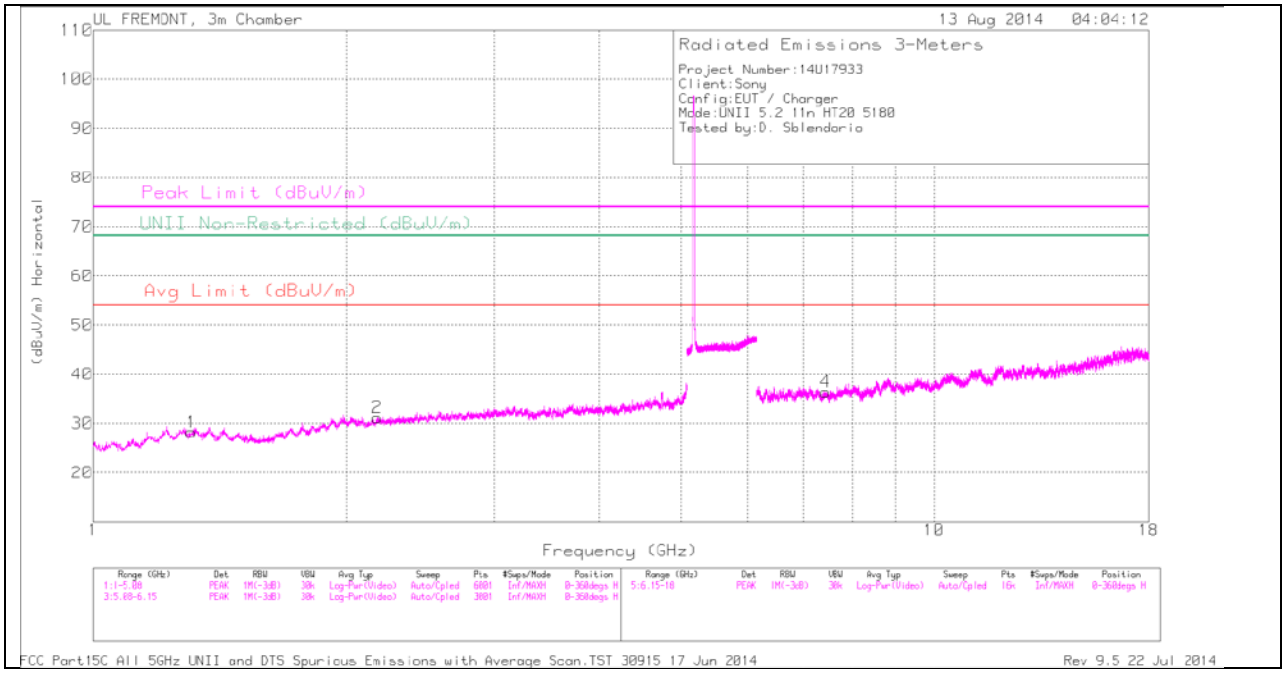
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK - Peak detector

RMS - RMS detection

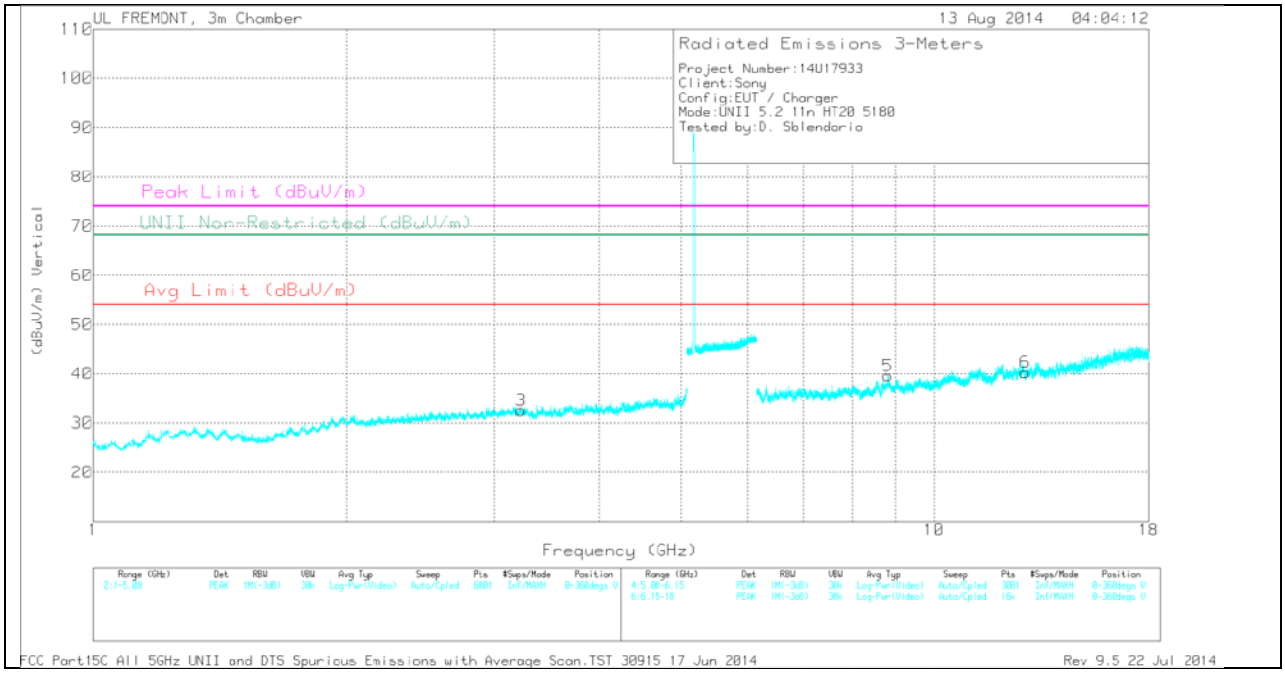
HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL HORIZONTAL



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

LOW CHANNEL VERTICAL



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

LOW CHANNEL DATA

TRACE MARKERS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Fltr /Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	1.307	31.58	PK	30.2	-33.6	28.18	-	-	74	-45.82	-	-	0-360	200	H
2	2.176	32.29	PK	31.6	-32.7	31.19	-	-	-	-	68.2	-37.01	0-360	100	H
3	3.229	31.03	PK	32.9	-31.4	32.53	-	-	-	-	68.2	-35.67	0-360	100	V
4	7.432	29.31	PK	35.7	-28.6	36.41	-	-	74	-37.59	-	-	0-360	200	H
5	8.814	29.05	PK	36	-25.5	39.55	-	-	-	-	68.2	-28.65	0-360	100	V
6	12.842	27.98	PK	39.2	-26.9	40.28	-	-	-	-	68.2	-27.92	0-360	200	V

PK - Peak detector

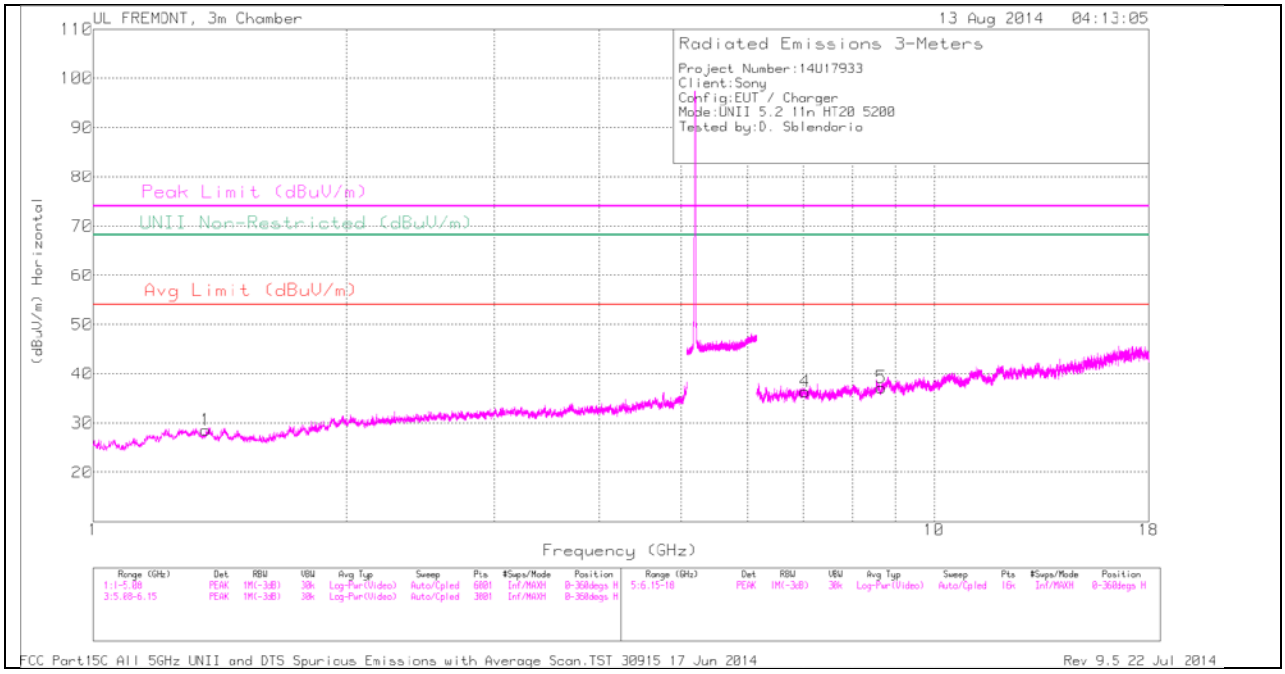
Radiated Emissions

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1.307	42.33	PK1	30.2	-33.6	38.93	-	-	74	-35.07	-	-	0	200	H
1.309	30.03	AD1	30.1	-33.6	26.53	54	-27.47	-	-	-	-	0	200	H

PK1 - KDB789033 Method: Peak

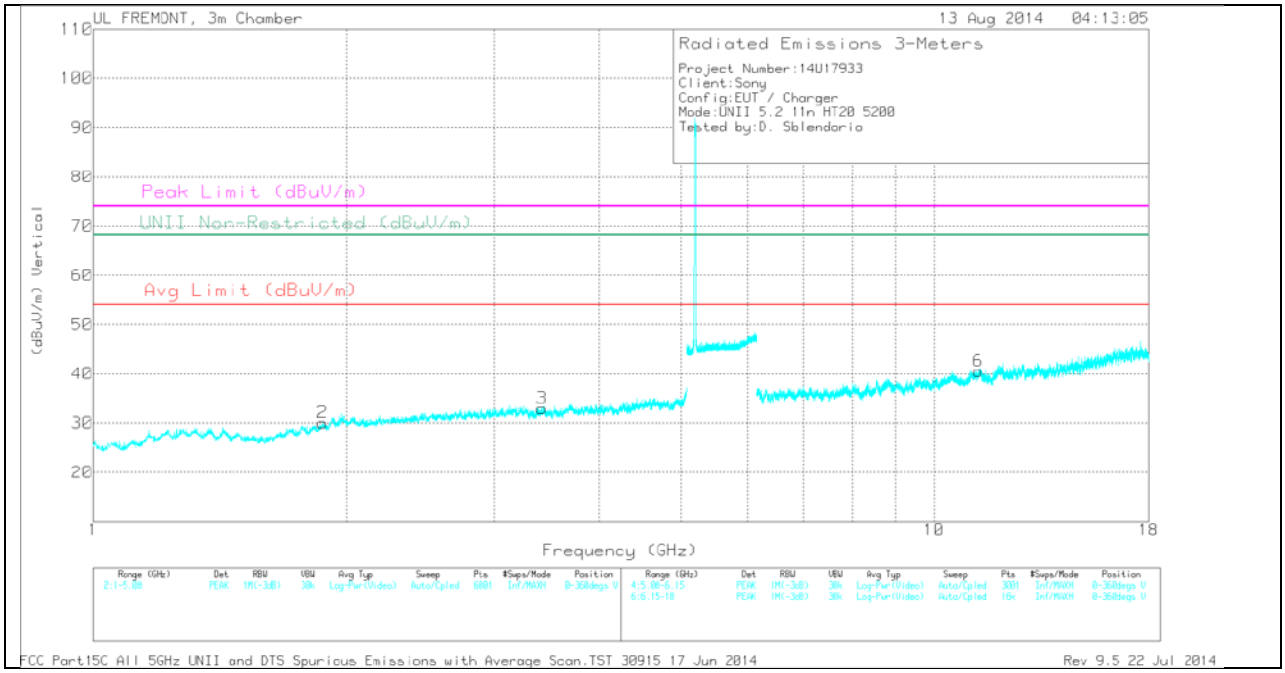
AD1 - KDB789033 Method: AD Primary Power Average

MID CHANNEL HORIZONTAL



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

MID CHANNEL VERTICAL



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

MID CHANNEL DATA

TRACE MARKERS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Fltr /Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	1.362	32.37	PK	29.5	-33.3	28.57	-	-	74	-45.43	-	-	0-360	100	H
2	1.873	32.16	PK	31	-33.1	30.06	-	-	-	-	68.2	-38.14	0-360	200	V
3	3.415	31.59	PK	32.9	-31.5	32.99	-	-	-	-	68.2	-35.21	0-360	200	V
4	7.031	29.47	PK	35.6	-28.7	36.37	-	-	-	-	68.2	-31.83	0-360	100	H
5	8.657	28.98	PK	35.8	-27.6	37.18	-	-	-	-	68.2	-31.02	0-360	100	H
6	11.295	28.24	PK	38	-25.7	40.54	-	-	74	-33.46	-	-	0-360	200	V

PK - Peak detector

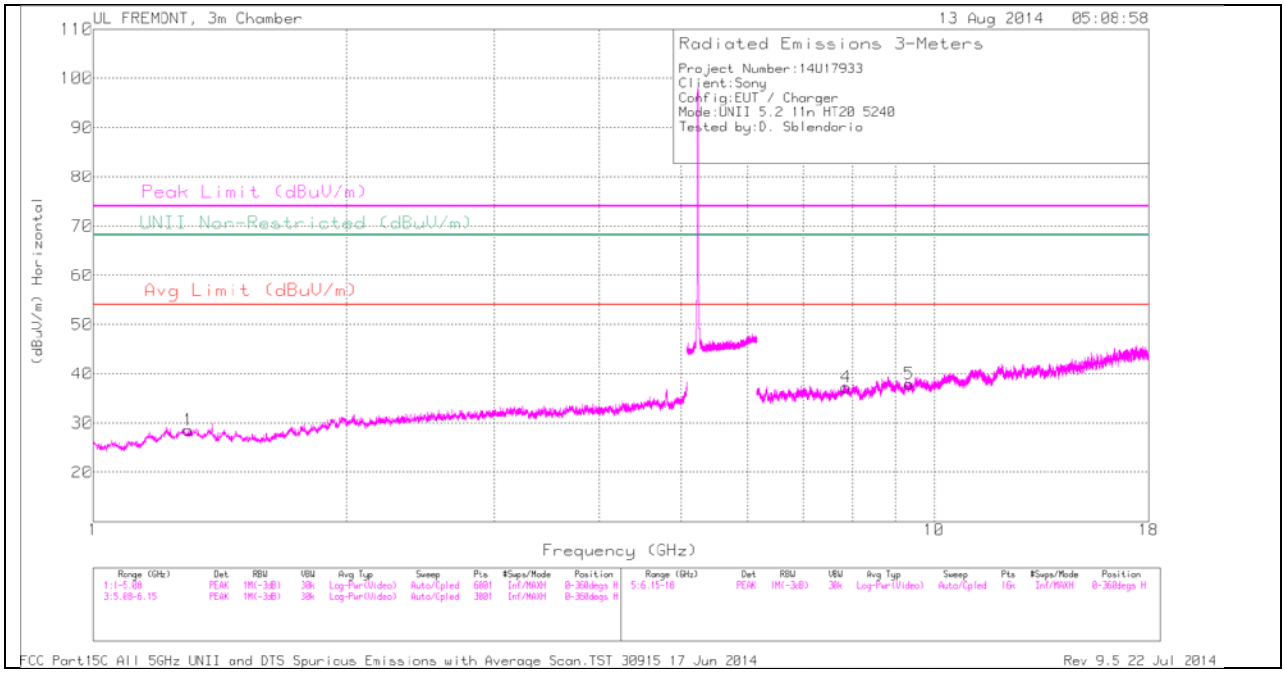
Radiated Emissions

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1.363	41.78	PK1	29.5	-33.2	38.08	-	-	74	-35.92	-	-	0	100	H
1.364	30.04	AD1	29.5	-33.2	26.34	54	-27.66	-	-	-	-	0	100	H

PK1 - KDB789033 Method: Peak

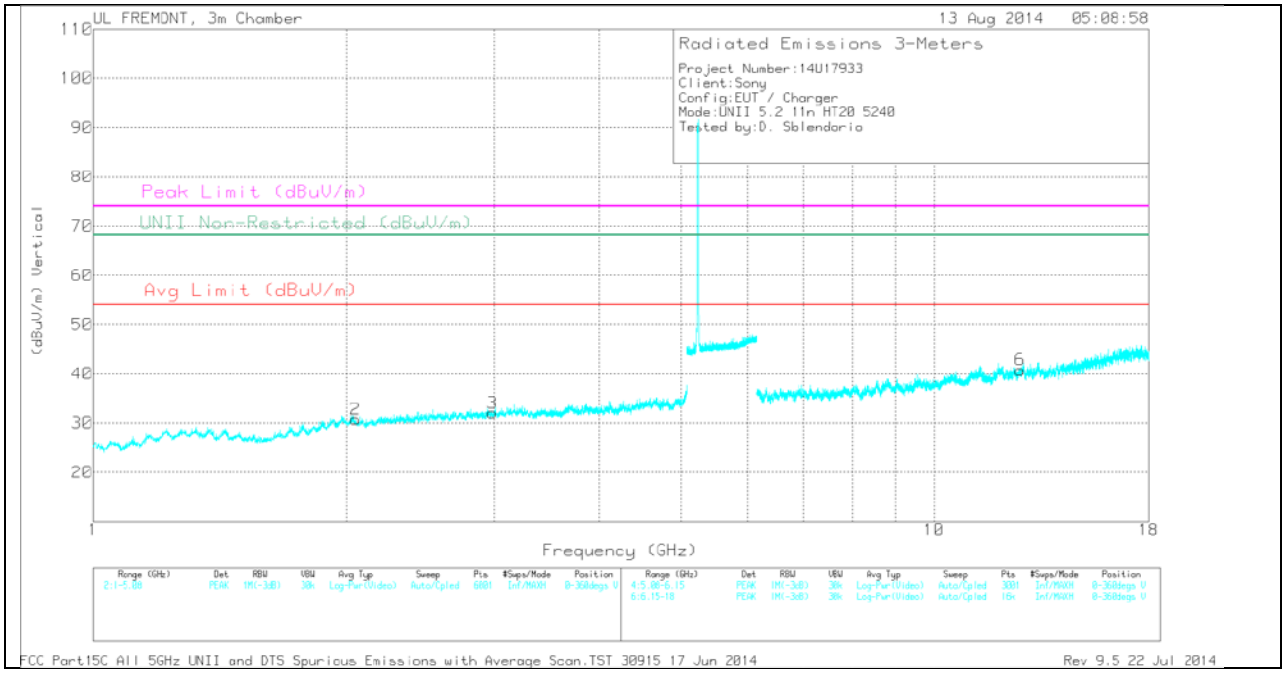
AD1 - KDB789033 Method: AD Primary Power Average

HIGH CHANNEL HORIZONTAL



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

HIGH CHANNEL VERTICAL



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

HIGH CHANNEL DATA

TRACE MARKERS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Fltr /Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	1.297	32.07	PK	30.2	-33.7	28.57	-	-	74	-45.43	-	-	0-360	100	H
2	2.049	31.47	PK	31.6	-32.3	30.77	-	-	-	-	68.2	-37.43	0-360	100	V
3	2.984	30.83	PK	32.9	-31.7	32.03	-	-	-	-	68.2	-36.17	0-360	100	V
4	7.865	28.99	PK	35.8	-27.5	37.29	-	-	-	-	68.2	-30.91	0-360	100	H
5	9.346	27.15	PK	36.4	-25.6	37.95	-	-	74	-36.05	-	-	0-360	100	H
6	12.661	28.39	PK	39.2	-26.8	40.79	-	-	74	-33.21	-	-	0-360	200	V

PK - Peak detector

Radiated Emissions

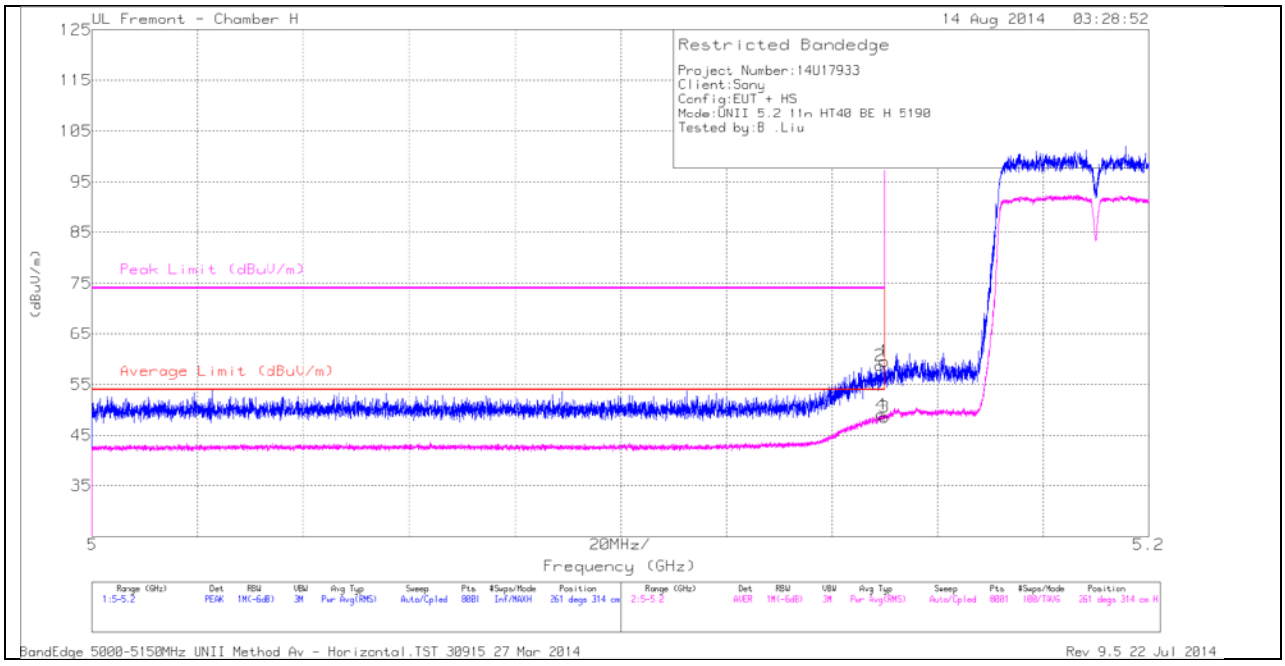
Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1.298	29.98	AD1	30.2	-33.7	26.48	54	-27.52	-	-	-	-	1	100	H
1.299	41.4	PK1	30.2	-33.7	37.9	-	-	74	-36.1	-	-	1	100	H

PK1 - KDB789033 Method: Peak

AD1 - KDB789033 Method: AD Primary Power Average

11.1.3. TX ABOVE 1 GHz 802.11n HT40 MODE IN THE 5.2 GHz BAND RESTRICTED BANDEDGE (LOW CHANNEL)

HORIZONTAL PEAK AND AVERAGE PLOT



HORIZONTAL DATA

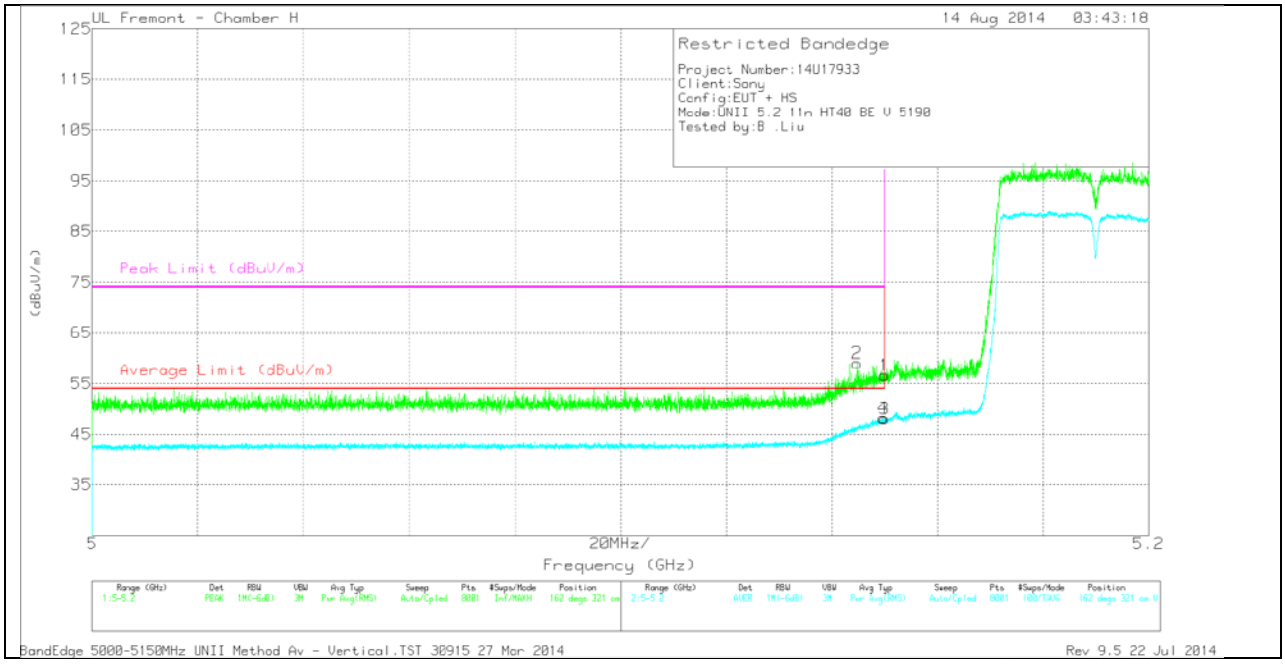
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cbl/Flt r/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	* 5.149	47.05	PK	34.5	-22.8	0	58.75	-	-	74	-15.25	261	314	H
4	* 5.149	36.84	RMS	34.5	-22.8	.13	48.67	54	-5.33	-	-	261	314	H
1	* 5.15	47.89	PK	34.5	-22.8	0	59.59	-	-	74	-14.41	261	314	H
3	* 5.15	36.37	RMS	34.5	-22.8	.13	48.2	54	-5.8	-	-	261	314	H

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

PK - Peak detector

RMS - RMS detection

VERTICAL PEAK AND AVERAGE PLOT



VERTICAL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cbl/Fltr/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
2	* 5.145	47.34	PK	34.5	-22.8	0	59.04	-	-	74	-14.96	162	321	V
1	* 5.15	44.92	PK	34.5	-22.8	0	56.62	-	-	74	-17.38	162	321	V
3	* 5.15	35.92	RMS	34.5	-22.8	.13	47.75	54	-6.25	-	-	162	321	V
4	* 5.15	35.94	RMS	34.5	-22.8	.13	47.77	54	-6.23	-	-	162	321	V

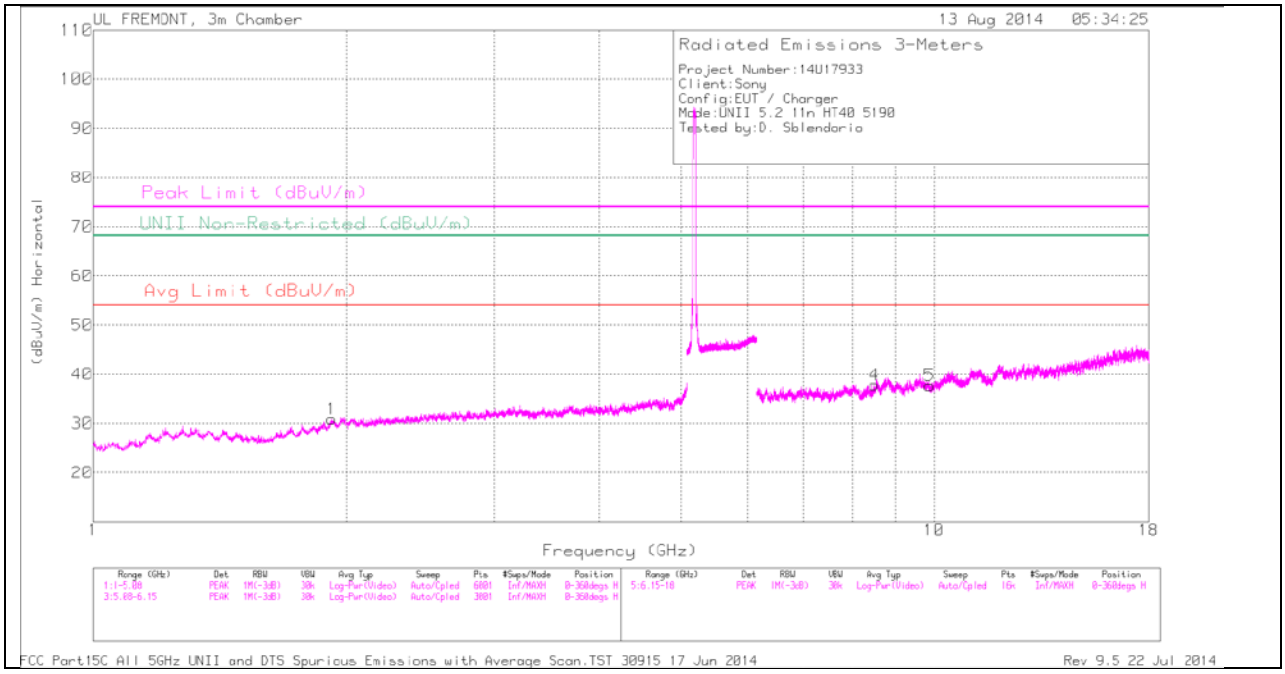
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK - Peak detector

RMS - RMS detection

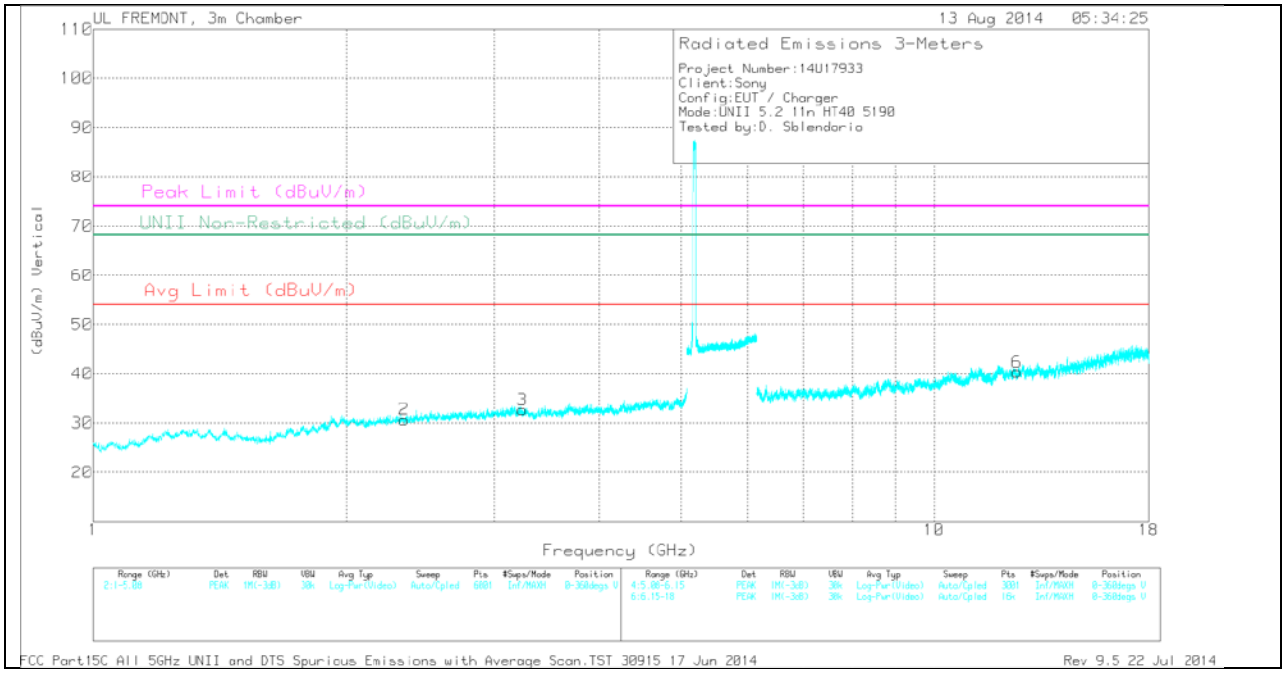
HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL HORIZONTAL



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

LOW CHANNEL VERTICAL



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

LOW CHANNEL DATA

TRACE MARKERS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/ Fltr/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	1.92	32.19	PK	31.3	-32.6	0	30.89	-	-	-	-	68.2	-37.31	0-360	200	H
2	2.34	31.29	PK	32	-32.6	0	30.69	-	-	74	-43.31	-	-	0-360	200	V
3	3.241	31.36	PK	32.9	-31.6	0	32.66	-	-	-	-	68.2	-35.54	0-360	200	V
4	8.494	29.68	PK	35.8	-27.7	0	37.78	-	-	74	-36.22	-	-	0-360	100	H
5	9.877	26.51	PK	36.9	-25.7	0	37.71	-	-	-	-	68.2	-30.49	0-360	200	H
6	12.559	27.83	PK	39.2	-26.7	0	40.33	-	-	74	-33.67	-	-	0-360	100	V

PK - Peak detector

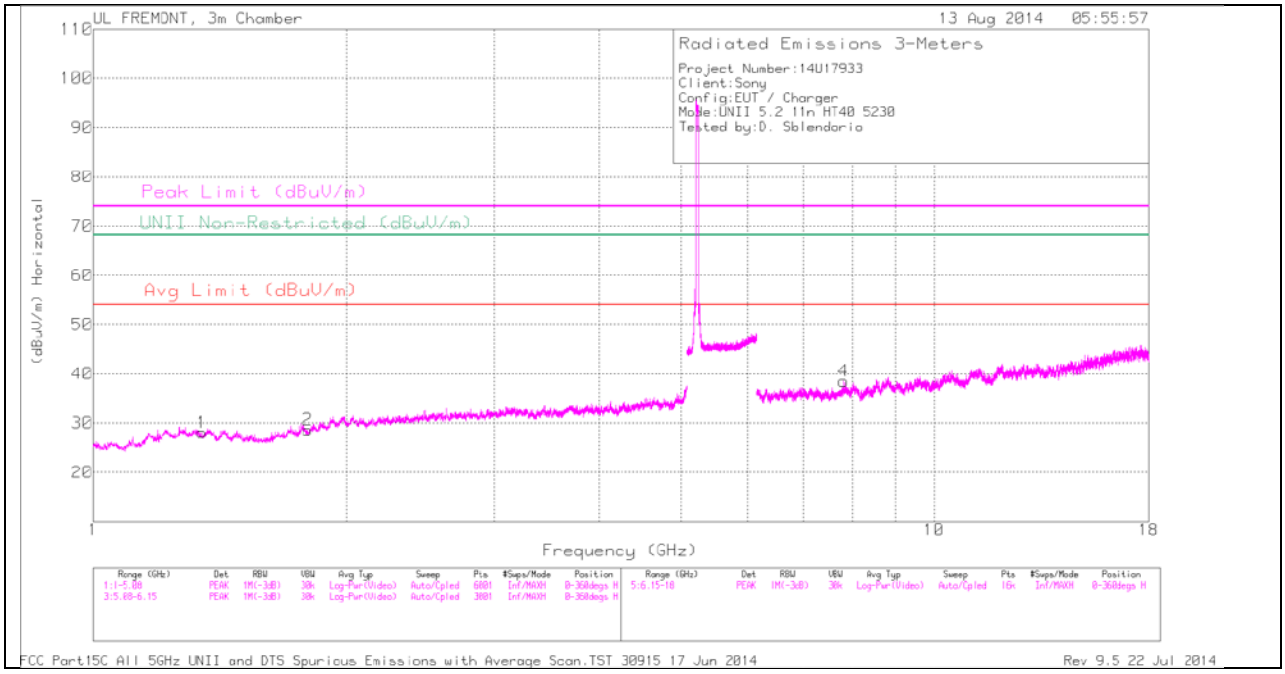
Radiated Emissions

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Fltr/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
1.92	41.66	PK1	31.3	-32.6	0	40.36	-	-	-	-	68.2	-27.84	0	200	H
1.921	30.24	AD1	31.3	-32.6	.13	29.07	-	-	-	-	-	-	0	200	H

PK1 - KDB789033 Method: Peak

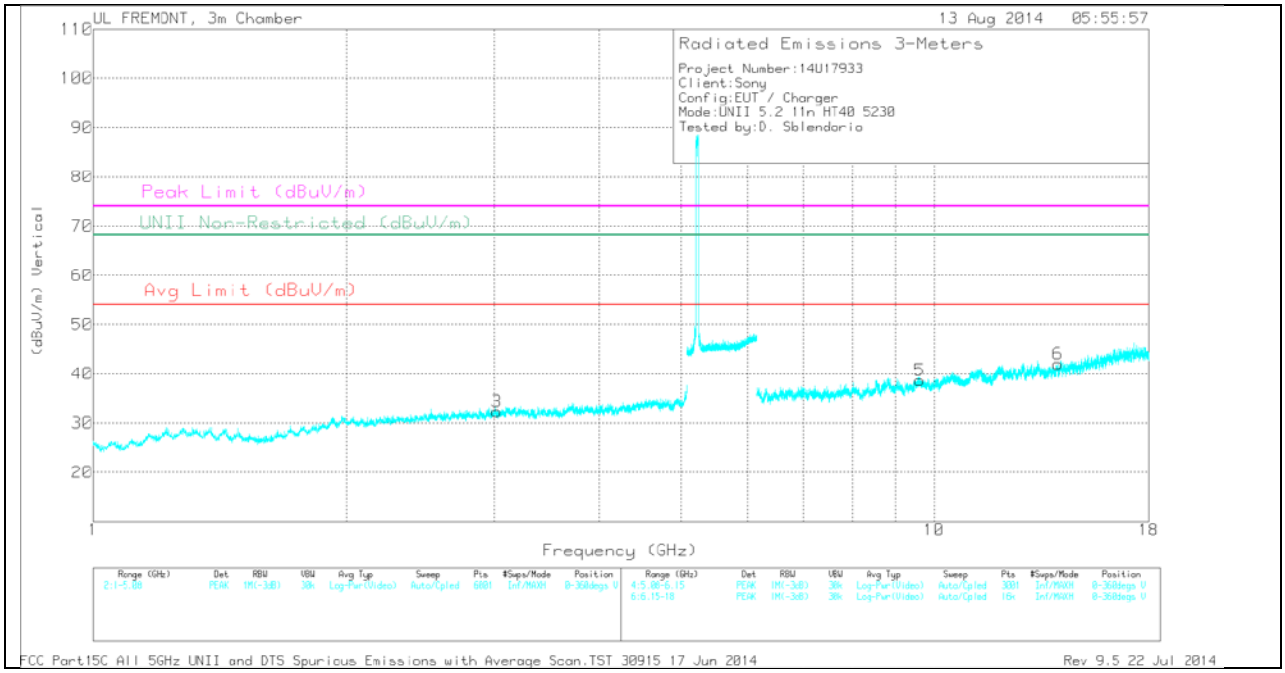
AD1 - KDB789033 Method: AD Primary Power Average

MID CHANNEL HORIZONTAL



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

MID CHANNEL VERTICAL



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

MID CHANNEL DATA

TRACE MARKERS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/ Fltr/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	1.347	31.75	PK	29.7	-33.4	0	28.05	-	-	74	-45.95	-	-	0-360	100	H
2	1.8	31.42	PK	30.1	-32.9	0	28.62	-	-	-	-	68.2	-39.58	0-360	100	H
3	3.019	31.21	PK	33	-31.9	0	32.31	-	-	-	-	68.2	-35.89	0-360	100	V
4	7.813	30.81	PK	35.8	-28.1	0	38.51	-	-	-	-	68.2	-29.69	0-360	200	H
5	9.622	27.26	PK	36.7	-25.3	0	38.66	-	-	-	-	68.2	-29.54	0-360	100	V
6	14.039	30.39	PK	38.9	-27.3	0	41.99	-	-	-	-	68.2	-26.21	0-360	200	V

PK - Peak detector

Radiated Emissions

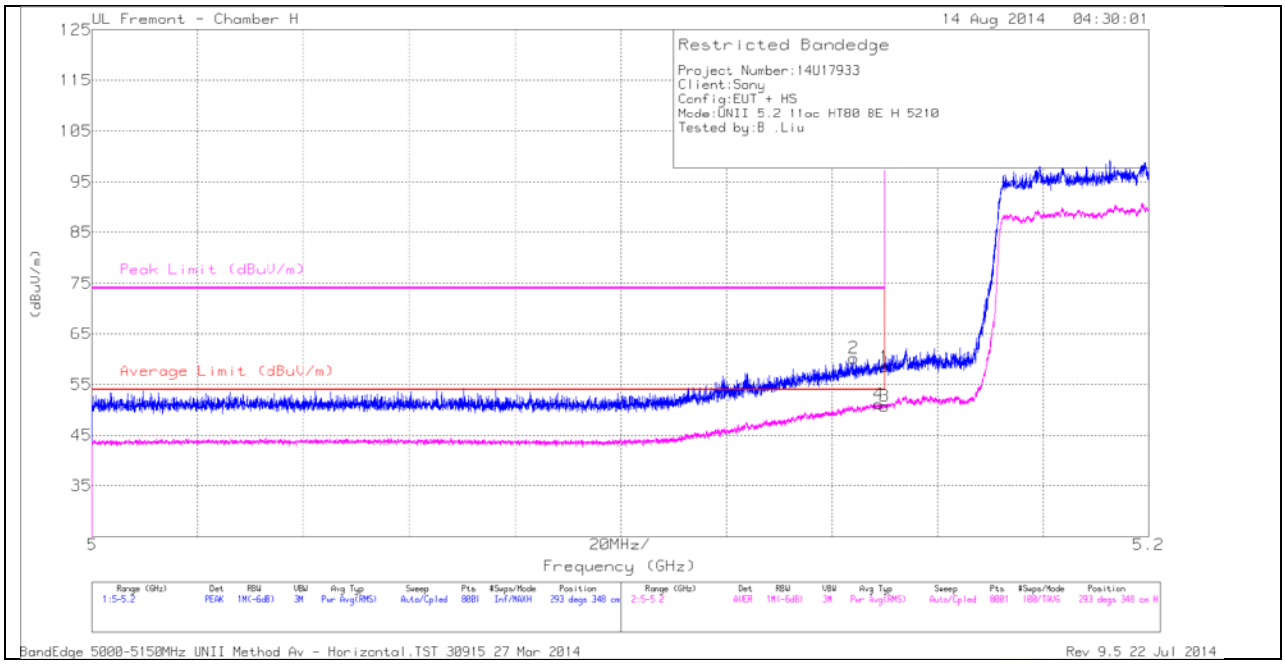
Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1.346	29.62	AD1	29.7	-33.4	.13	26.05	54	-27.95	-	-	-	-	3	100	H
1.348	41.31	PK1	29.7	-33.4	0	37.61	-	-	74	-36.39	-	-	3	100	H

PK1 - KDB789033 Method: Peak

AD1 - KDB789033 Method: AD Primary Power Average

11.1.4. TX ABOVE 1 GHz 802.11ac HT80 MODE IN THE 5.2 GHz BAND RESTRICTED BANDEDGE (LOW CHANNEL)

HORIZONTAL PEAK AND AVERAGE PLOT



HORIZONTAL DATA

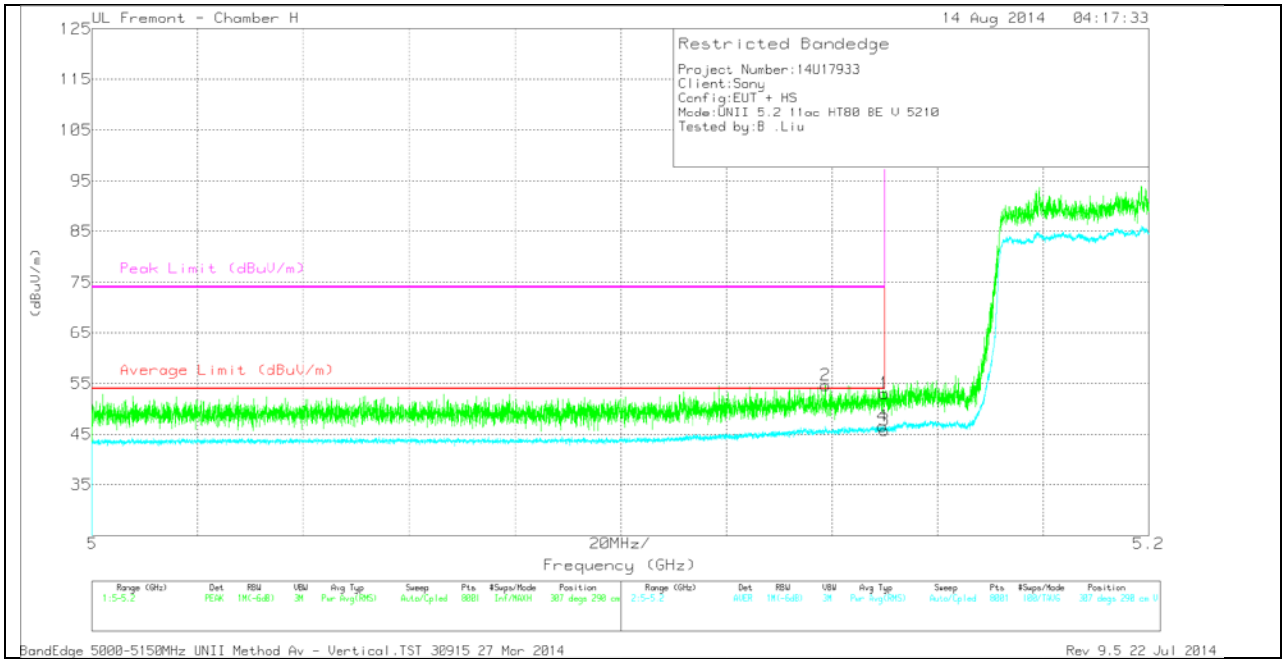
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cbl/Flt r/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	* 5.144	48.42	PK	34.5	-22.7	0	60.22	-	-	74	-13.78	293	348	H
4	* 5.149	37.97	RMS	34.5	-22.8	0.24	51.16	54	-2.84	-	-	293	348	H
1	* 5.15	46.75	PK	34.5	-22.8	0	58.45	-	-	74	-15.55	293	348	H
3	* 5.15	37.54	RMS	34.5	-22.8	0.24	50.73	54	-3.27	-	-	293	348	H

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

PK - Peak detector

RMS - RMS detection

VERTICAL PEAK AND AVERAGE PLOT



VERTICAL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cbl/Fltr/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
2	* 5.139	42.99	PK	34.5	-22.8	0	54.69	-	-	74	-19.31	307	290	V
1	* 5.15	41.38	PK	34.5	-22.8	0	53.08	-	-	74	-20.92	307	290	V
3	* 5.15	32.6	RMS	34.5	-22.8	0.24	44.54	54	-9.46	-	-	307	290	V
4	* 5.15	33.41	RMS	34.5	-22.8	0.24	46.6	54	-8.65	-	-	307	290	V

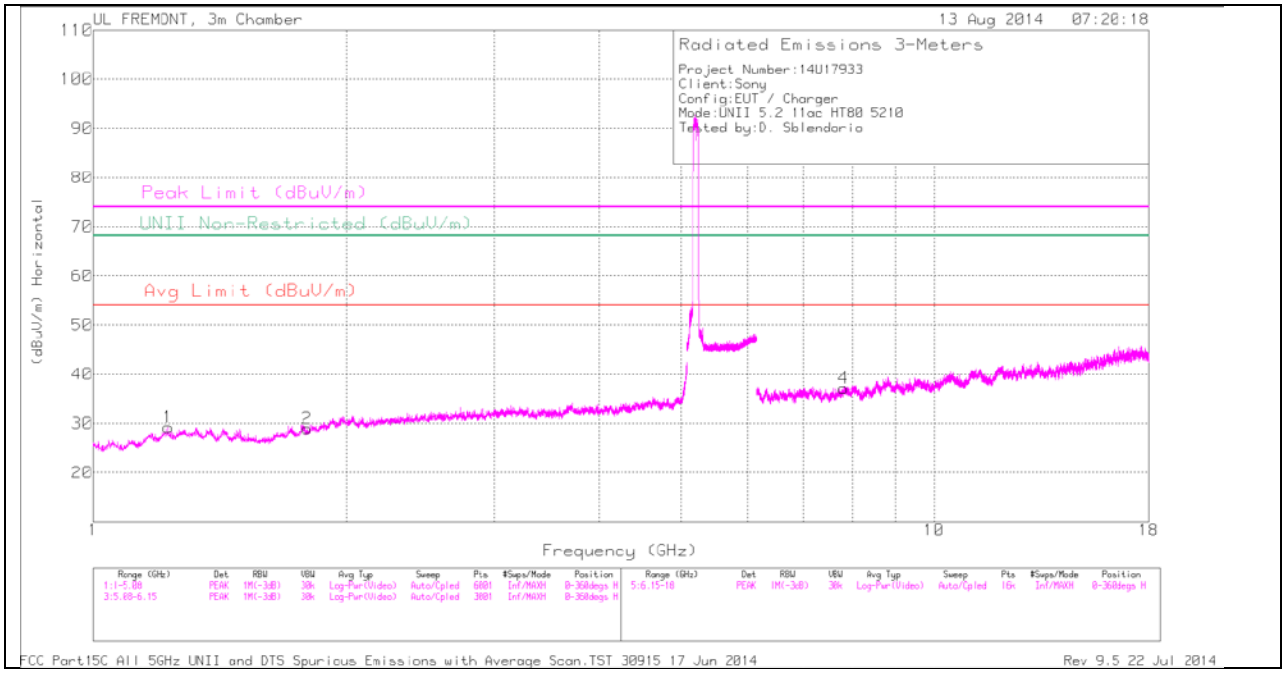
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK - Peak detector

RMS - RMS detection

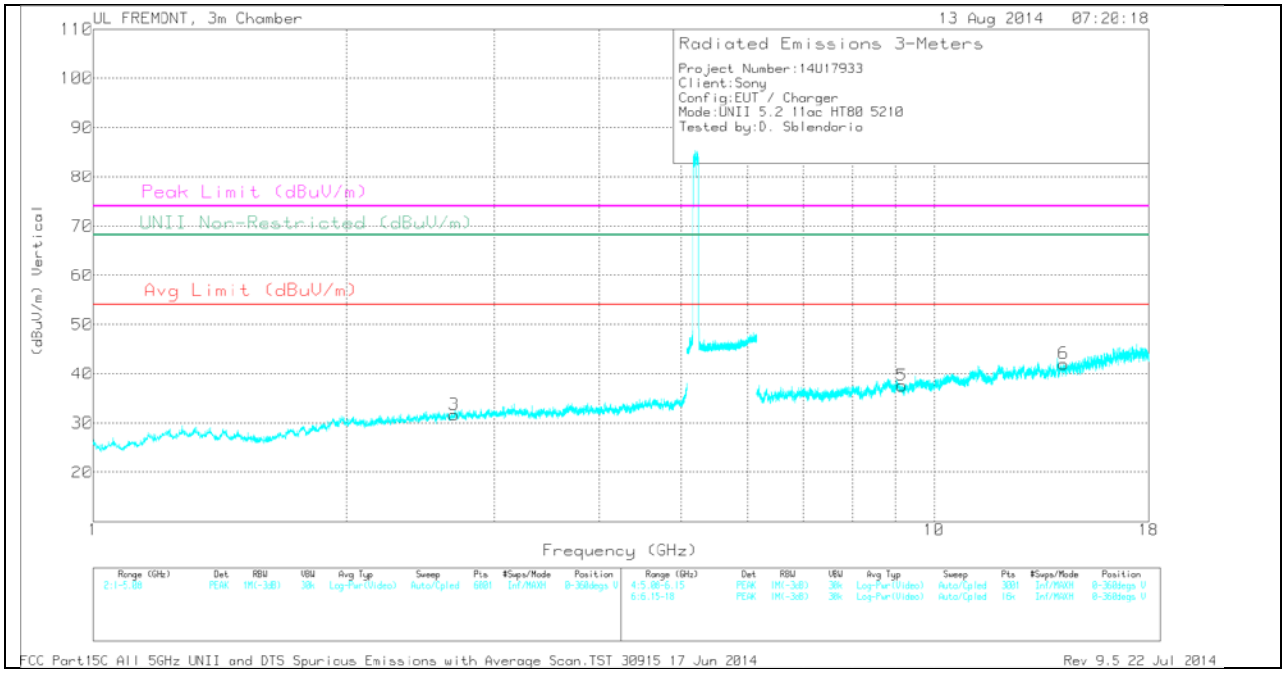
HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL HORIZONTAL



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

LOW CHANNEL VERTICAL



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

LOW CHANNEL DATA

TRACE MARKERS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/ Fltr/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	1.228	33.02	PK	29.5	-33.3	0	29.22	-	-	74	-44.78	-	-	0-360	200	H
2	1.796	31.64	PK	30.1	-32.8	0	28.94	-	-	-	-	68.2	-39.26	0-360	100	H
3	2.686	31.41	PK	32.6	-32.3	0	31.71	-	-	74	-42.29	-	-	0-360	100	V
4	7.811	29.32	PK	35.8	-28	0	37.12	-	-	-	-	68.2	-31.08	0-360	200	H
5	9.149	28.11	PK	36.2	-26.7	0	37.61	-	-	74	-36.39	-	-	0-360	100	V
6	14.267	30.07	PK	39.2	-27.2	0	42.07	-	-	-	-	68.2	-26.13	0-360	100	V

PK - Peak detector

Radiated Emissions

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Fltr/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
1.227	41.98	PK1	29.5	-33.3	0	38.18	-	-	74	-35.82	-	-	2	200	H
1.23	30.39	AD1	29.5	-33.3	.24	26.83	54	-27.17	-	-	-	-	2	200	H

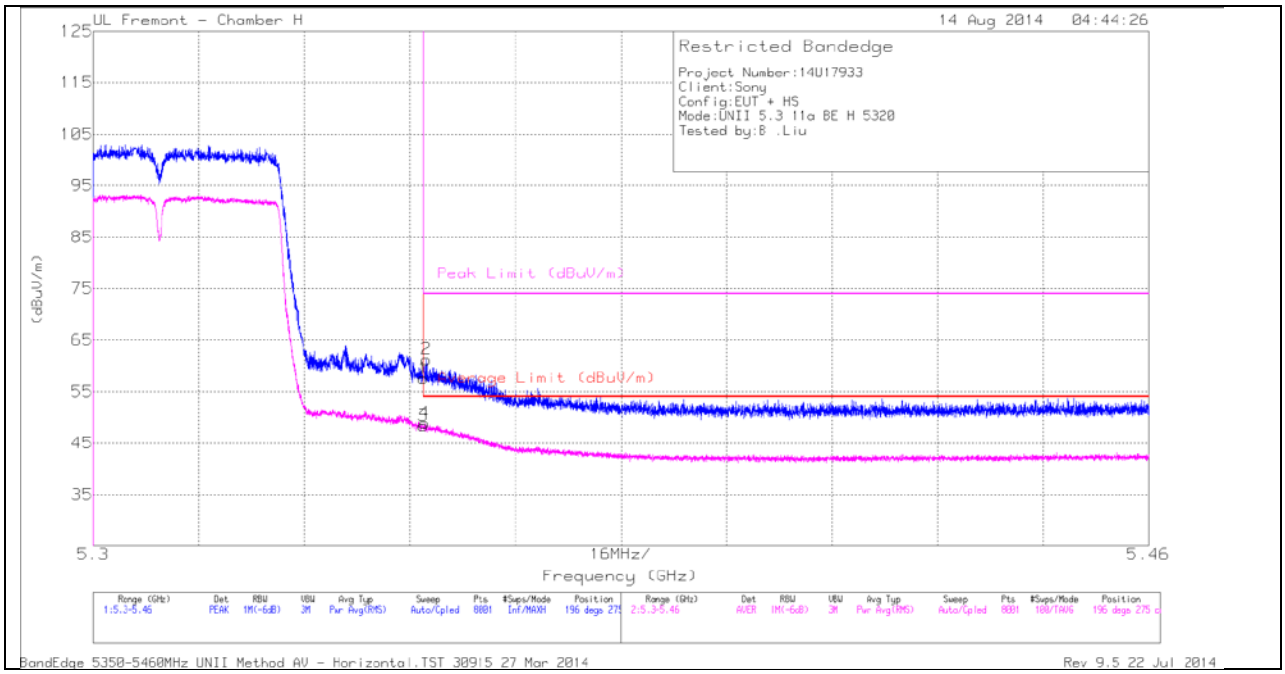
PK1 - KDB789033 Method: Peak

AD1 - KDB789033 Method: AD Primary Power Average

11.1. 5.3 GHz

11.1.1. TX ABOVE 1 GHz 802.11a MODE IN THE 5.3 GHz BAND AUTHORIZED BANDEDGE (HIGH CHANNEL)

HORIZONTAL PEAK AND AVERAGE PLOT



HORIZONTAL DATA

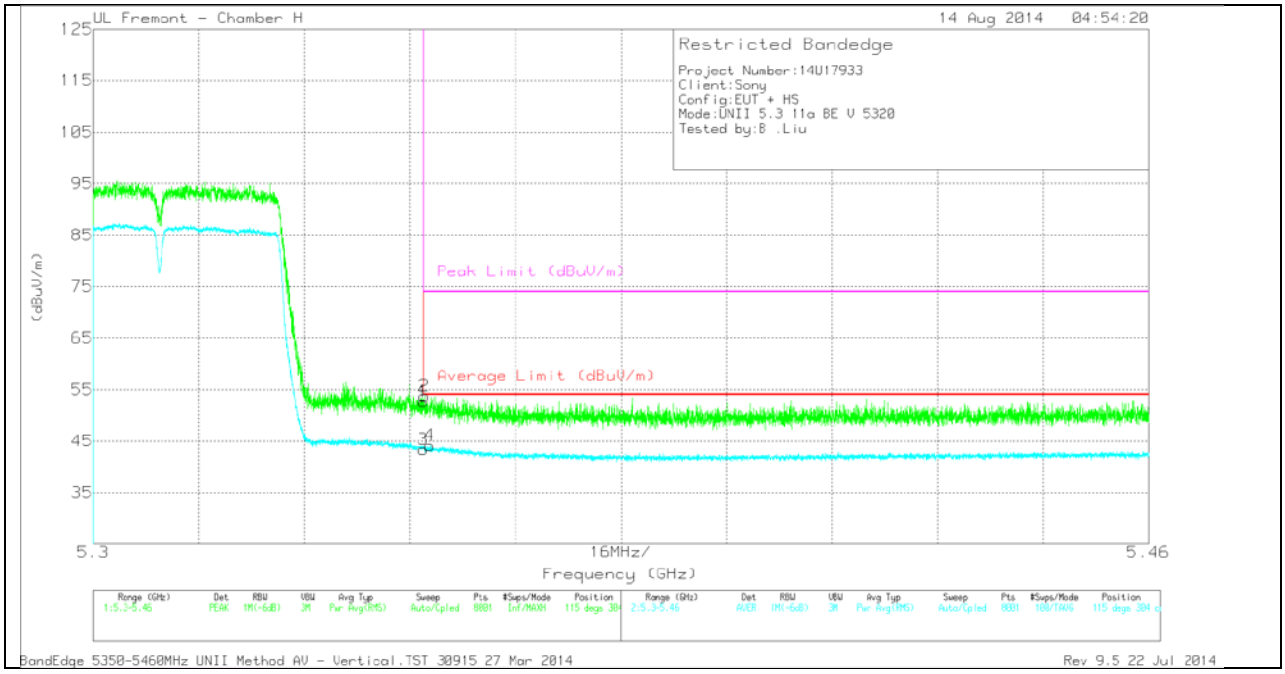
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cbl/Flt r/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.35	45.34	PK	34.9	-22.7	0	57.54	-	-	74	-16.46	196	275	H
2	* 5.35	49.06	PK	34.9	-22.7	0	61.26	-	-	74	-12.74	196	275	H
3	* 5.35	35.93	RMS	34.9	-22.7	0	48.13	54	-5.87	-	-	196	275	H
4	* 5.35	36.43	RMS	34.9	-22.7	0	48.63	54	-5.37	-	-	196	275	H

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

PK - Peak detector

RMS - RMS detection

VERTICAL PEAK AND AVERAGE PLOT



VERTICAL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cbl/Fltr/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	* 5.35	40.5	PK	34.9	-22.7	0	52.7	-	-	74	-21.3	115	304	V
2	* 5.35	41.52	PK	34.9	-22.7	0	53.72	-	-	74	-20.28	115	304	V
3	* 5.35	30.93	RMS	34.9	-22.7	0	43.13	54	-10.87	-	-	115	304	V
4	* 5.351	31.69	RMS	34.9	-22.7	0	43.89	54	10.11	-	-	115	304	V

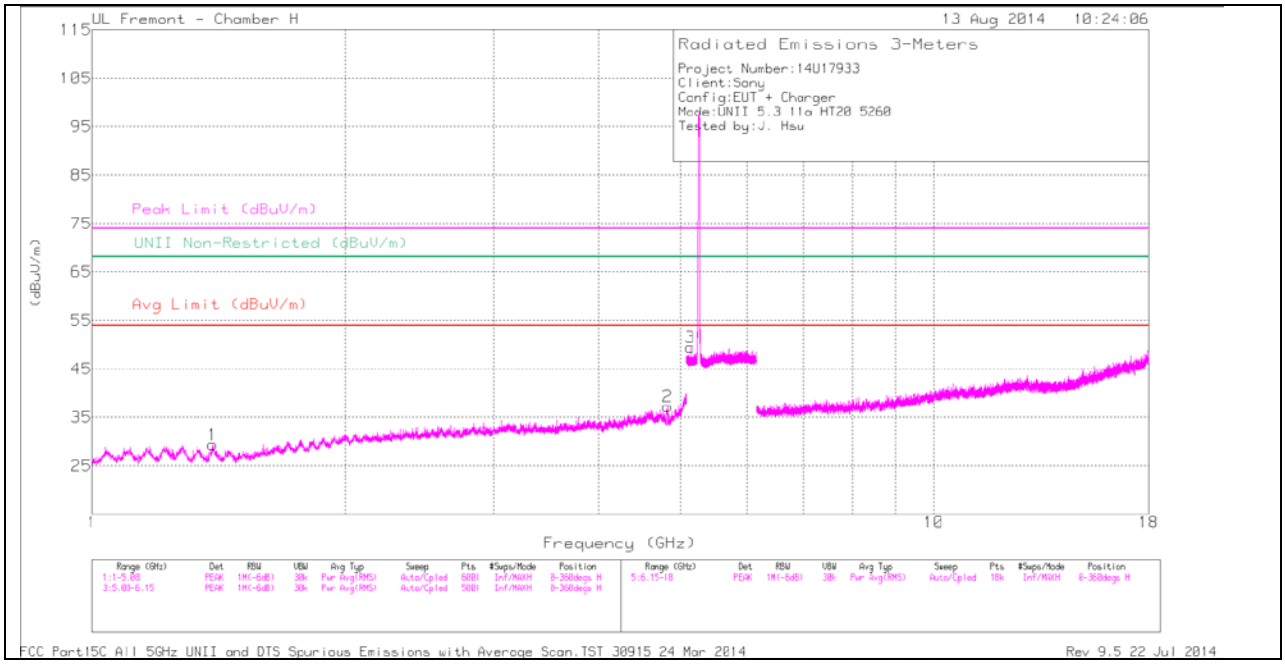
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK - Peak detector

RMS - RMS detection

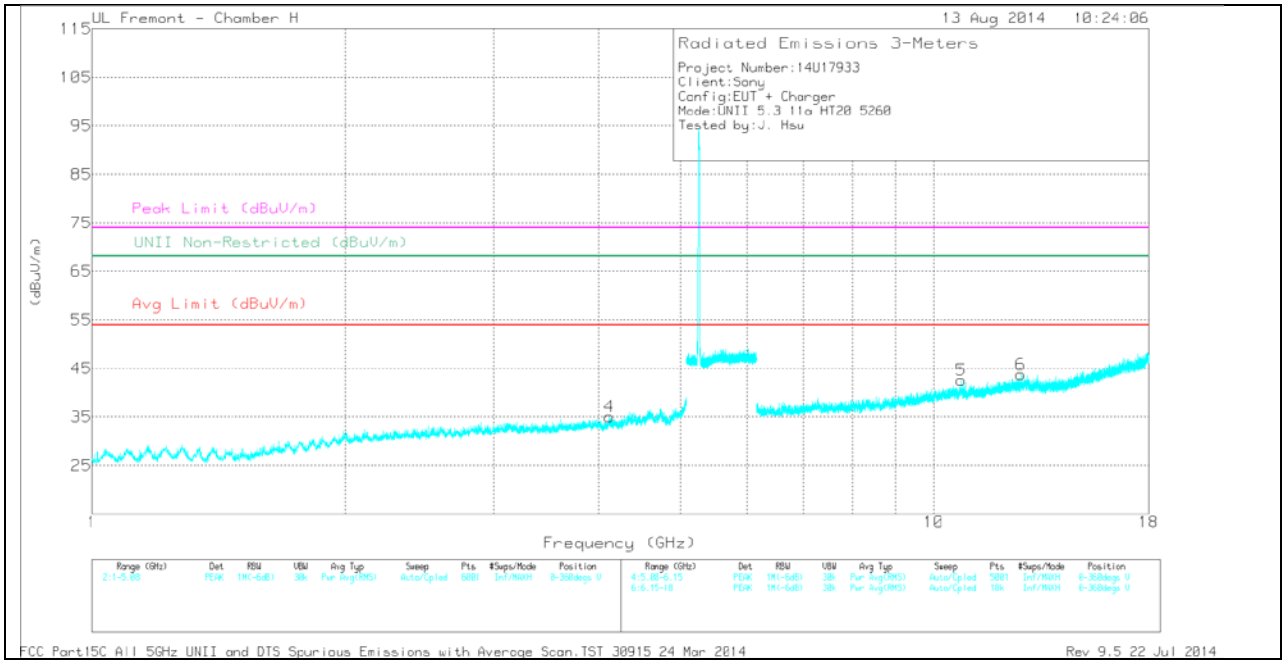
HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL HORIZONTAL



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

LOW CHANNEL VERTICAL



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

LOW CHANNEL DATA

TRACE MARKERS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cbl/Fltr /Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.39	36.15	PK	28.3	-35.1	29.35	-	-	74	-44.65	-	-	0-360	100	H
2	* 4.826	34.77	PK	34.3	-31.8	37.27	-	-	74	-36.73	-	-	0-360	100	H
4	* 4.116	33.6	PK	33.5	-32.1	35	-	-	74	-39	-	-	0-360	201	V
3	* 5.135	37.82	PK	34.5	-22.8	49.52	-	-	74	-24.48	-	-	0-360	100	H
5	* 10.78	29.49	PK	37.6	-24.5	42.59	-	-	74	-31.41	-	-	0-360	100	V
6	* 12.692	29.46	PK	39.3	-25	43.76	-	-	74	-30.24	-	-	0-360	100	V

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

PK - Peak detector

Radiated Emissions

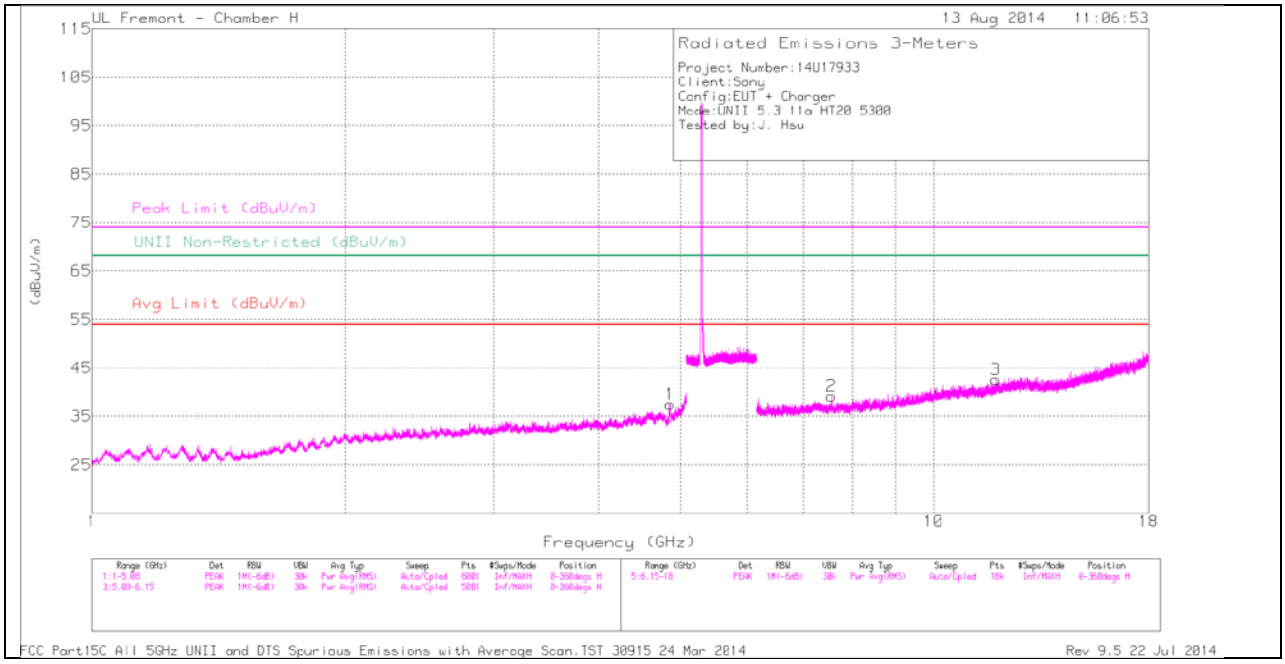
Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 5.135	44.02	PK1	34.5	-22.8	55.72	-	-	74	-18.28	-	-	331	201	H
* 5.135	32.21	AD1	34.5	-22.8	43.91	54	-10.09	-	-	-	-	331	201	H

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

PK1 - KDB789033 Method: Peak

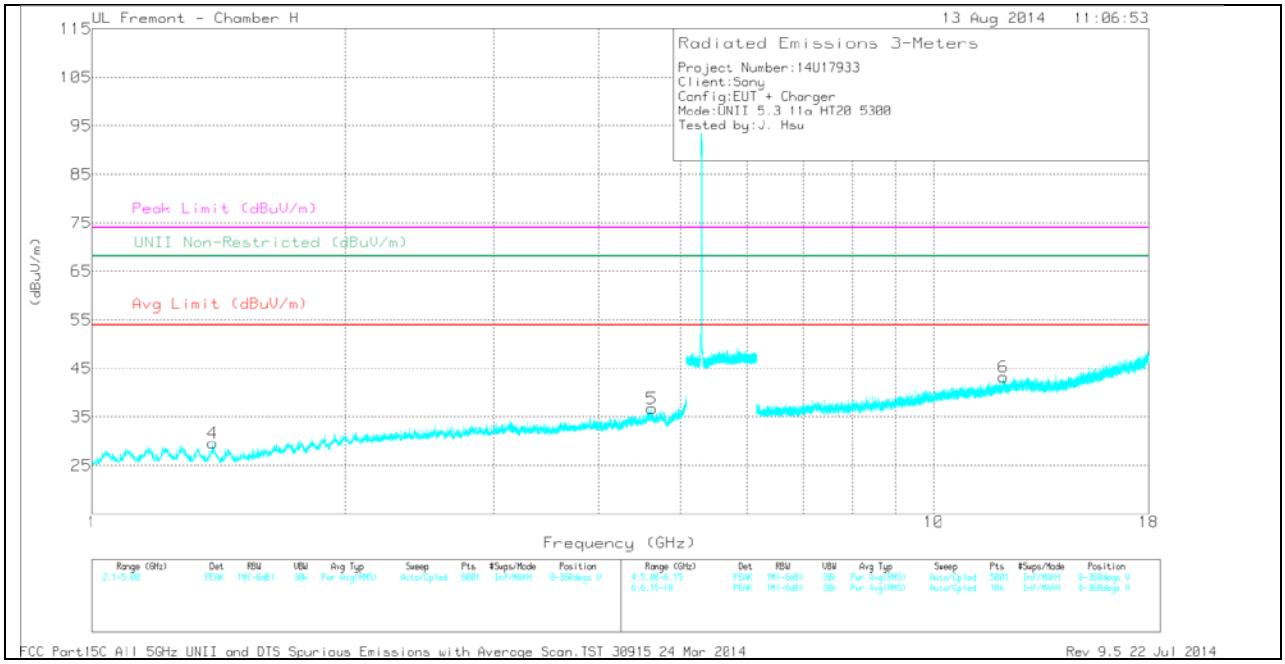
AD1 - KDB789033 Method: AD Primary Power Average

MID CHANNEL HORIZONTAL



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

MID CHANNEL VERTICAL



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

MID CHANNEL DATA

TRACE MARKERS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cbl/Fltr /Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 4.863	34.47	PK	34.3	-31.3	37.47	-	-	74	-36.53	-	-	0-360	100	H
4	* 1.392	36.38	PK	28.3	-35.1	29.58	-	-	74	-44.42	-	-	0-360	100	V
5	* 4.622	34.49	PK	34.1	-31.9	36.69	-	-	74	-37.31	-	-	0-360	201	V
2	* 7.558	32.33	PK	36.1	-29.2	39.23	-	-	74	-34.77	-	-	0-360	100	H
3	* 11.843	29.82	PK	38.6	-25.8	42.62	-	-	74	-31.38	-	-	0-360	201	H
6	* 12.097	29.33	PK	38.9	-25	43.23	-	-	74	-30.77	-	-	0-360	201	V

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

PK - Peak detector

Radiated Emissions

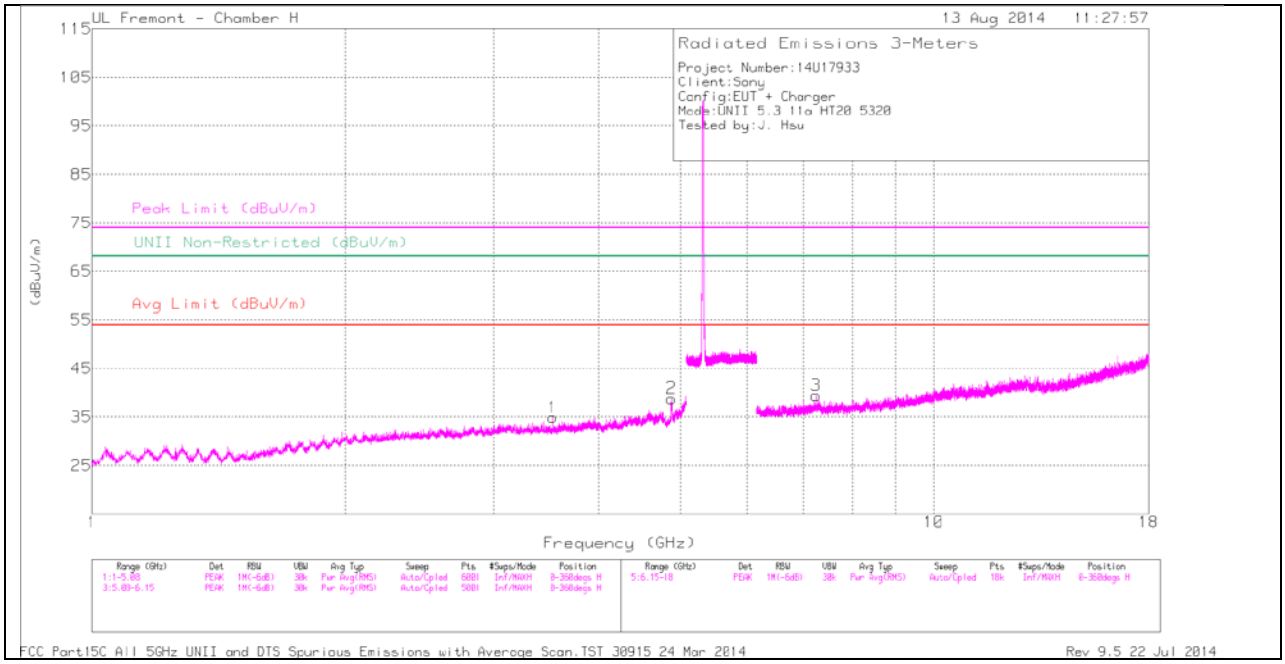
Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 4.863	40.04	PK1	34.3	-31.3	43.04	-	-	74	-30.96	-	-	3	100	H
* 4.863	30	AD1	34.3	-31.3	33	54	-21	-	-	-	-	3	100	H

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

PK1 - KDB789033 Method: Peak

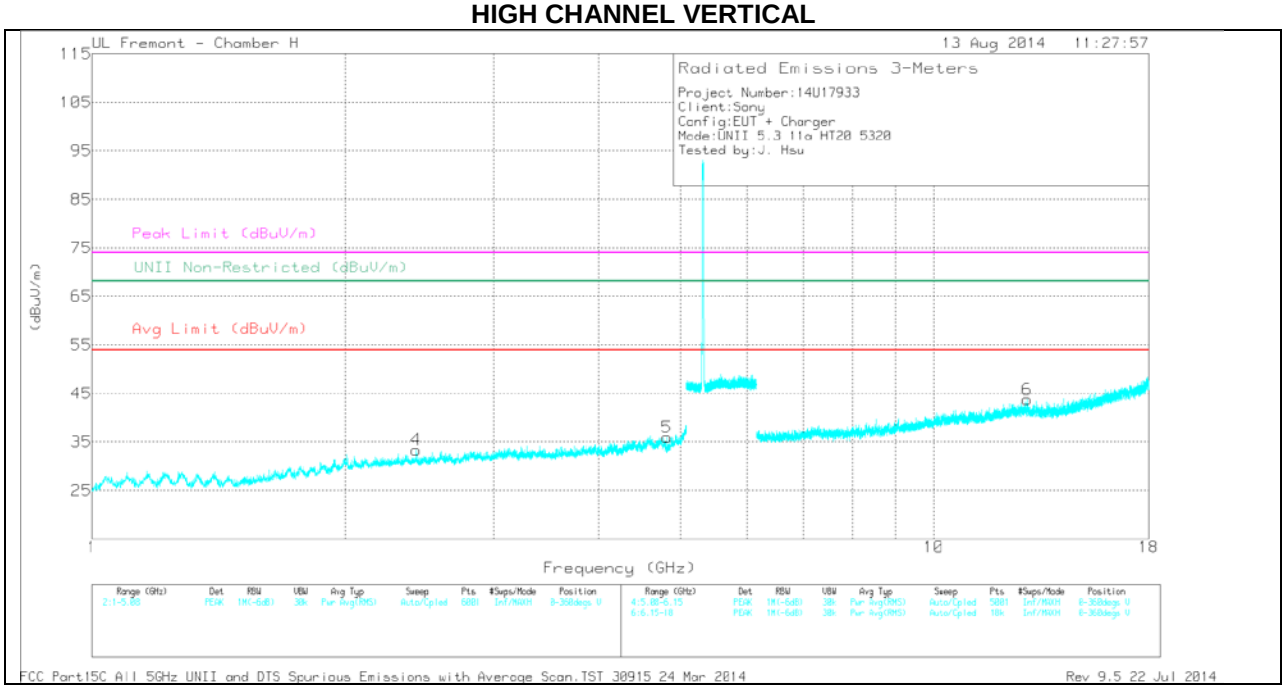
AD1 - KDB789033 Method: AD Primary Power Average

HIGH CHANNEL HORIZONTAL



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

HIGH CHANNEL VERTICAL



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

HIGH CHANNEL DATA

TRACE MARKERS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cbl/Fltr /Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 3.524	35.42	PK	32.8	-33.3	34.92	-	-	74	-39.08	-	-	0-360	100	H
2	* 4.876	35.58	PK	34.3	-31	38.88	-	-	74	-35.12	-	-	0-360	100	H
5	* 4.819	33.62	PK	34.3	-31.9	36.02	-	-	74	-37.98	-	-	0-360	100	V
4	2.429	35.43	PK	32.1	-34.2	33.33	-	-	-	-	68.2	-34.87	0-360	201	V
3	7.245	32.11	PK	36.2	-28.9	39.41	-	-	-	-	68.2	-28.79	0-360	100	H
6	12.911	29.26	PK	39.2	-24.7	43.76	-	-	-	-	68.2	-24.44	0-360	201	V

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

PK - Peak detector

Radiated Emissions

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 4.877	44.37	PK1	34.3	-31	47.67	-	-	74	-26.33	-	-	288	234	H
* 4.876	34.7	AD1	34.3	-31	38	54	-16	-	-	-	-	288	234	H

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

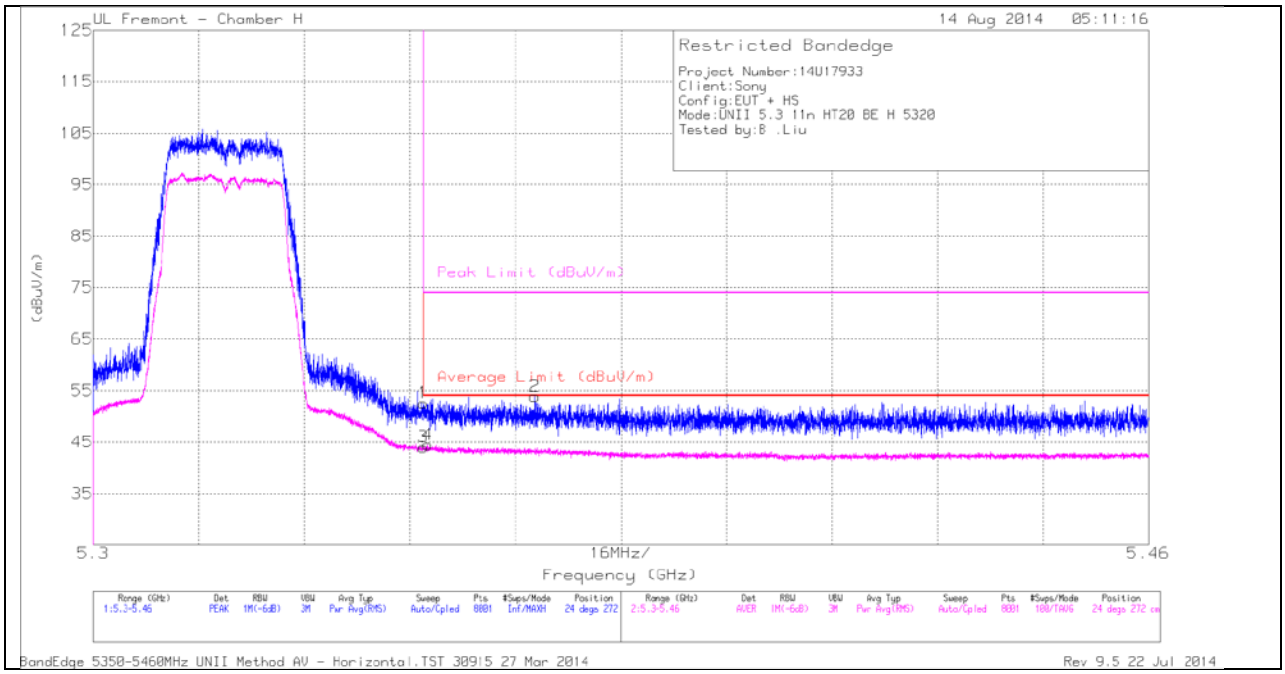
PK1 - KDB789033 Method: Peak

AD1 - KDB789033 Method: AD Primary Power Average

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

AUTHORIZED BANDEDGE (HIGH CHANNEL)

HORIZONTAL PEAK AND AVERAGE PLOT



HORIZONTAL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cbl/Fltr/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	* 5.35	40.39	PK	34.9	-22.7	0	52.59	-	-	74	-21.41	24	272	H
3	* 5.35	31.59	RMS	34.9	-22.7	0	43.79	54	-10.21	-	-	24	272	H
4	* 5.351	32.01	RMS	34.9	-22.7	0	44.21	54	-9.79	-	-	24	272	H
2	* 5.367	41.65	PK	34.9	-22.7	0	53.85	-	-	74	-20.15	24	272	H

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

PK - Peak detector

RMS - RMS detection