

FCC Test Report

Product Name	802.11ac Dual Band Access Point
Model No	WK-1,WK-1-B
FCC ID	SLY-WK1X22

Applicant	Pakedge Device and Software Inc.
Address	3847 Breakwater Avenue, Hayward, CA 94545

Date of Receipt	Feb. 25, 2015
Issued Date	Apr. 02, 2015
Report No.	1520470R-RFUSP05V00
Report Version	V1.0



The test results relate only to the samples tested.

The test results shown in the test report are traceable to the national/international standard through the calibration report of the equipment and evaluated measurement uncertainty herein.

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Test Report

Issued Date: Apr. 02, 2015

Report No.: 1520470R-RFUSP05V00



Product Name	802.11ac Dual Band Access Point
Applicant	Pakedge Device and Software Inc.
Address	3847 Breakwater Avenue, Hayward, CA 94545
Manufacturer	Pakedge Device and Software Inc.
Factory	Lite-On Network Communication (Dongguan) Limited
Model No.	WK-1,WK-1-B
FCC ID.	SLY-WK1X22
EUT Rated Voltage	AC 100-240V, 50-60Hz
EUT Test Voltage	AC 120V/60Hz
Trade Name	Pakedge
Applicable Standard	FCC CFR Title 47 Part 15 Subpart E: 2014 ANSI C63.4: 2014, ANSI C63.10: 2013 789033 D02 General UNII Test Procedures New Rules v01
Test Result	Complied

Documented By :

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Approved By :

Vincent Lin

(Director / Vincent Lin)

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1. GENERAL INFORMATION

1.1. EUT Description

Product Name	802.11ac Dual Band Access Point
Trade Name	Pakedge
FCC ID.	SLY-WK1X22
Model No.	WK-1,WK-1-B
Frequency Range	802.11a/n-20MHz: 5180-5240MHz, 5745-5825MHz 802.11n-40MHz: 5190-5230, 5755-5795MHz 802.11ac-80MHz: 5210, 5775MHz
Number of Channels	802.11a/n-20MHz: 9; 802.11n-40MHz: 4; 802.11ac-80MHz: 2
Data Rate	802.11a: 6 - 54Mbps 802.11n: up to 300Mbps 802.11ac-80MHz: up to 866.7MHz
Type of Modulation	802.11a/n:OFDM, BPSK, QPSK, 16QAM, 64QAM, 256QAM
Antenna type	PIFA Antenna
Antenna Gain	Refer to the table “Antenna List”
Channel Control	Auto
LAN Cable	Non-Shielded, 1.8m
Power Adapter	MFR: Asian Power Devices, M/N: WB-18D12FU Input: AC 100-240V, 50-60Hz ,0.5A Output: DC 12V==1.5A Cable out: Non-Shielded, 1.8m

Antenna List

No.	Manufacturer	Part No.	Antenna Type	Peak Gain
1	Lite-On	30100006566D	PIFA Antenna	5.0dBi For 5.15~5.25GHz
		30100006716D		5.0dBi For 5.725~5.825GHz

Note: The antenna of EUT is conform to FCC 15.203

802.11a/n-20MHz Center Working Frequency of Each Channel:

Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
Channel 36:	5180 MHz	Channel 40:	5200 MHz	Channel 44:	5220 MHz	Channel 48:	5240 MHz
Channel 149:	5745 MHz	Channel 153:	5765 MHz	Channel 157:	5785 MHz	Channel 161:	5805 MHz
Channel 165:	5825 MHz						

802.11n-40MHz Center Working Frequency of Each Channel:

Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
Channel 38:	5190 MHz	Channel 46:	5230 MHz	Channel 151:	5755 MHz	Channel 159:	5795 MHz

802.11ac-80MHz Center Working Frequency of Each Channel:

Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
Channel 42:	5210 MHz	Channel 155:	5775 MHz				

Note:

1. This device is a 802.11ac Dual Band Access Point with a built-in 802.11a/b/g/n/ac WLAN transceiver.
2. Regarding to the operation frequency, the lowest, middle and highest frequency are selected to perform the test.
3. The EUT is including two models for different is listed as below:

Model Number	Appearance color	Spec
WK-1	white	Indoor
WK-1-B	Black	Indoor

4. Lowest and highest data rates are tested in each mode. Only worst case is shown in the report. (802.11a is 6Mbps 、802.11n-20BW is 14.4Mbps 、802.11n-40BW is 30Mbps and 802.11ac(80M-BW) is 65 Mbps)
5. These tests were conducted on a sample of the equipment for the purpose of demonstrating compliance with Part 15 Subpart E for Unlicensed National Information Infrastructure devices.
6. The radiation measurements are performed in X, Y, Z axis positioning. Only the worst case is shown in the report.

Test Mode	Mode 1: Transmit (802.11a-6Mbps) Mode 2: Transmit (802.11n-20BW 14.4Mbps) Mode 3: Transmit (802.11n-40BW 30Mbps) Mode 4: Transmit (802.11ac-80BW-65Mbps)
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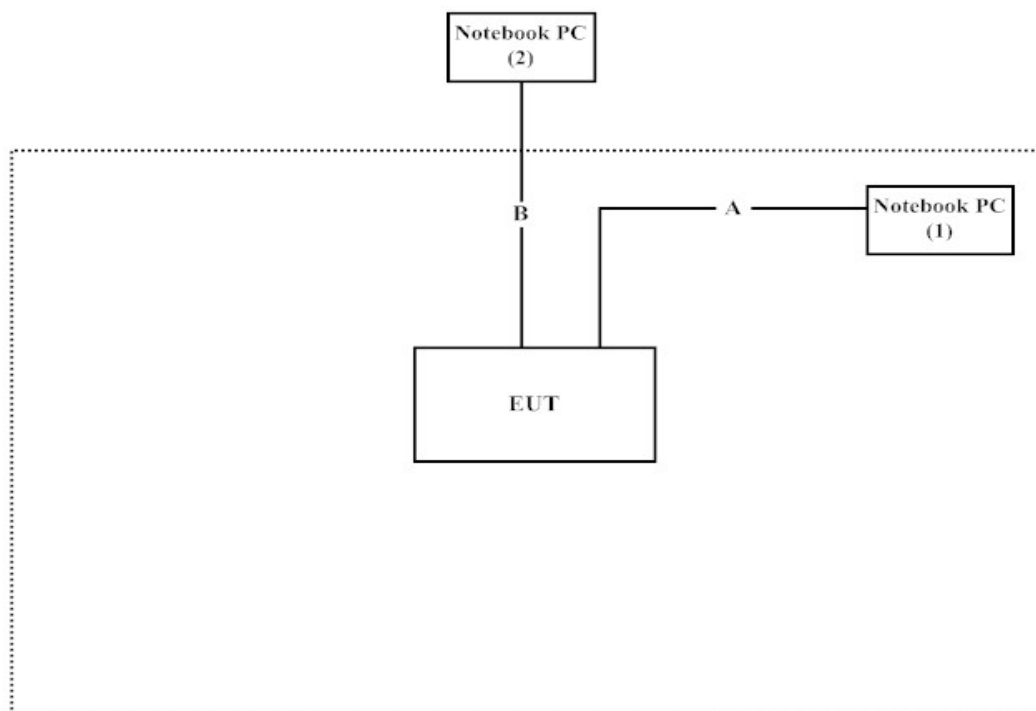
1.3. Tested System Details

The types for all equipment, plus descriptions of all cables used in the tested system (including inserted cards) are:

Product		Manufacturer	Model No.	Serial No.	Power Cord
1	Notebook PC	DELL	PPT	N/A	Non-Shielded, 1.8m
2	Notebook PC	DELL	PPT	N/A	Non-Shielded, 1.8m

Signal Cable Type		Signal cable Description
A	LAN Cable	Non-Shielded, 1.8m
B	LAN Cable	Non-Shielded, 1.8m

1.4. Configuration of tested System



1.5. EUT Exercise Software

- (1) Setup the EUT as shown on 1.4
- (2) Execute “ART2 GUI-V2.3” program on the Notebook PC.
- (3) Configure the test mode, the test channel, and the data rate.
- (4) Start the continuous transmission.
- (5) Verify that the EUT works properly.

1.6. Test Facility

Ambient conditions in the laboratory:

Items	Required (IEC 68-1)	Actual
Temperature (°C)	15-35	20-35
Humidity (%RH)	25-75	50-65
Barometric pressure (mbar)	860-1060	950-1000

The related certificate for our laboratories about the test site and management system can be downloaded from

QuieTek Corporation's Web Site: <http://www.quietek.com/tw/ctg/cts/accreditations.htm>

The address and introduction of QuieTek Corporation's laboratories can be founded in our Web site:

<http://www.quietek.com/>

Site Description: File on
Federal Communications Commission
FCC Engineering Laboratory
7435 Oakland Mills Road
Columbia, MD 21046
Registration Number: 92195

Site Name: Quietek Corporation
Site Address: No.5-22, Ruishukeng,
Linkou Dist. New Taipei City 24451,
Taiwan, R.O.C.
TEL: 886-2-8601-3788 / FAX : 886-2-8601-3789
E-Mail : service@quietek.com

FCC Accreditation Number: TW1014

2. Conducted Emission

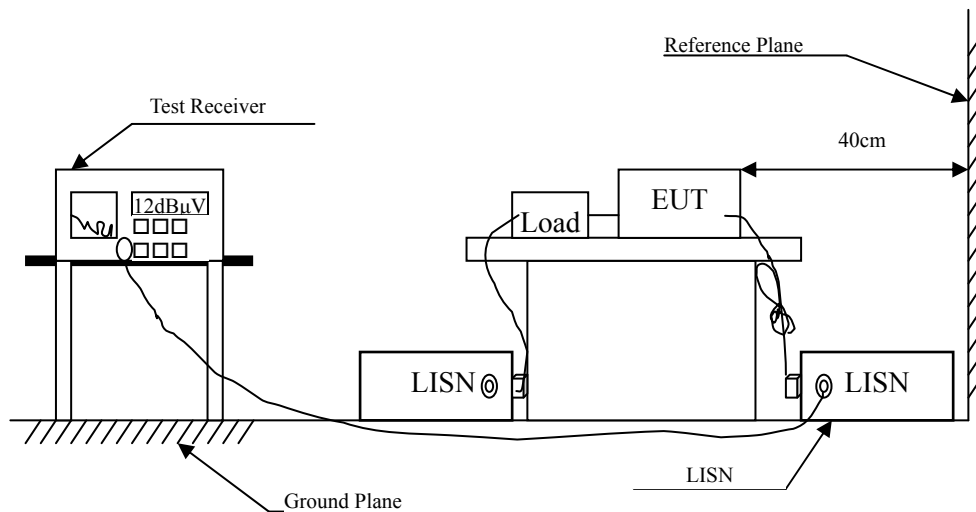
2.1. Test Equipment

	Equipment	Manufacturer	Model No. / Serial No.	Last Cal.	Remark
X	Test Receiver	R & S	ESCS 30 / 825442/018	Sep., 2014	
X	Artificial Mains Network	R & S	ENV4200 / 848411/10	Feb., 2015	Peripherals
X	LISN	R & S	ESH3-Z5 / 825562/002	Feb., 2015	EUT
	DC LISN	Schwarzbeck	8226 / 176	Mar, 2015	EUT
X	Pulse Limiter	R & S	ESH3-Z2 / 357.8810.52	Feb., 2015	
	No.1 Shielded Room				

Note:

1. All equipments are calibrated every one year.
2. The test instruments marked by "X" are used to measure the final test results.

2.2. Test Setup



2.3. Limits

FCC Part 15 Subpart C Paragraph 15.207 (dBμV) Limit		
Frequency MHz	Limits	
	QP	AV
0.15 - 0.50	66-56	56-46
0.50-5.0	56	46
5.0 - 30	60	50

Remarks : In the above table, the tighter limit applies at the band edges.

2.4. Test Procedure

The EUT and simulators are connected to the main power through a line impedance stabilization network (L.I.S.N.). This provides a 50 ohm /50uH coupling impedance for the measuring equipment. The peripheral devices are also connected to the main power through a LISN that provides a 50ohm /50uH coupling impedance with 50ohm termination. (Please refers to the block diagram of the test setup and photographs.)

Both sides of A.C. line are checked for maximum conducted interference. In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed according to ANSI C63.10:2013 on conducted measurement.

Conducted emissions were investigated over the frequency range from 0.15MHz to 30MHz using a receiver bandwidth of 9kHz.

The EUT was setup to ANSI C63.10, 2013; tested to UNII test procedure of FCC KDB-789033 for compliance to FCC 47CFR Subpart E requirements.

2.5. Uncertainty

± 2.26 dB

2.6. Test Result of Conducted Emission

Product : 802.11ac Dual Band Access Point
 Test Item : Conducted Emission Test
 Power Line : Line 1
 Test Mode : Mode 4: Transmit (802.11ac-80BW-65Mbps) (5210MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
MHz	Factor	Level	Level		
	dB	dBμV	dBμV	dB	dBμV
LINE 1					
Quasi-Peak					
0.189	9.660	24.830	34.490	-30.396	64.886
0.302	9.666	22.220	31.886	-29.771	61.657
0.630	9.684	12.360	22.044	-33.956	56.000
3.478	9.819	20.230	30.049	-25.951	56.000
8.978	9.942	14.540	24.482	-35.518	60.000
23.658	10.055	8.590	18.645	-41.355	60.000
Average					
0.189	9.660	16.340	26.000	-28.886	54.886
0.302	9.666	22.210	31.876	-19.781	51.657
0.630	9.684	7.470	17.154	-28.846	46.000
3.478	9.819	12.600	22.419	-23.581	46.000
8.978	9.942	9.490	19.432	-30.568	50.000
23.658	10.055	3.510	13.565	-36.435	50.000

Note:

1. All Reading Levels are Quasi-Peak and average value.
2. "■" means the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

Product : 802.11ac Dual Band Access Point
Test Item : Conducted Emission Test
Power Line : Line 2
Test Mode : Mode 4: Transmit (802.11ac-80BW-65Mbps) (5210MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
MHz	Factor	Level	Level		
	dB	dBμV	dBμV	dB	dBμV
LINE 2					
Quasi-Peak					
0.162	9.667	29.200	38.867	-26.790	65.657
0.298	9.666	27.790	37.456	-24.315	61.771
0.584	9.681	13.040	22.721	-33.279	56.000
2.162	9.777	12.290	22.067	-33.933	56.000
3.349	9.816	20.180	29.996	-26.004	56.000
9.943	9.990	15.060	25.050	-34.950	60.000
Average					
0.162	9.667	21.680	31.347	-24.310	55.657
0.298	9.666	27.780	37.446	-14.325	51.771
0.584	9.681	1.880	11.561	-34.439	46.000
2.162	9.777	5.600	15.377	-30.623	46.000
3.349	9.816	9.510	19.326	-26.674	46.000
9.943	9.990	10.410	20.400	-29.600	50.000

Note:

1. All Reading Levels are Quasi-Peak and average value.
2. “ ” means the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

Product : 802.11ac Dual Band Access Point
Test Item : Conducted Emission Test
Power Line : Line 1
Test Mode : Mode 4: Transmit (802.11ac-80BW-65Mbps) (5775MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
MHz	Factor	Level	Level		
	dB	dBμV	dBμV	dB	dBμV
LINE 1					
Quasi-Peak					
0.162	9.667	27.090	36.757	-28.900	65.657
0.298	9.666	22.330	31.996	-29.775	61.771
0.783	9.692	9.450	19.142	-36.858	56.000
3.287	9.814	18.630	28.444	-27.556	56.000
10.130	9.962	15.310	25.272	-34.728	60.000
22.681	10.056	8.650	18.706	-41.294	60.000
Average					
0.162	9.667	17.570	27.237	-28.420	55.657
0.298	9.666	21.860	31.526	-20.245	51.771
0.783	9.692	6.440	16.132	-29.868	46.000
3.287	9.814	9.580	19.394	-26.606	46.000
10.130	9.962	10.240	20.202	-29.798	50.000
22.681	10.056	5.050	15.106	-34.894	50.000

Note:

1. All Reading Levels are Quasi-Peak and average value.
2. “ ” means the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

Product : 802.11ac Dual Band Access Point
Test Item : Conducted Emission Test
Power Line : Line 2
Test Mode : Mode 4: Transmit (802.11ac-80BW-65Mbps) (5775MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
MHz	Factor	Level	Level		
	dB	dBμV	dBμV	dB	dBμV
LINE 2					
Quasi-Peak					
0.170	9.665	28.810	38.475	-26.954	65.429
0.298	9.666	27.530	37.196	-24.575	61.771
0.627	9.684	13.310	22.994	-33.006	56.000
3.576	9.821	20.700	30.521	-25.479	56.000
7.431	9.931	14.210	24.141	-35.859	60.000
22.990	10.229	9.610	19.839	-40.161	60.000
Average					
0.170	9.665	20.760	30.425	-25.004	55.429
0.298	9.666	24.850	34.516	-17.255	51.771
0.627	9.684	1.490	11.174	-34.826	46.000
3.576	9.821	14.390	24.211	-21.789	46.000
7.431	9.931	9.810	19.741	-30.259	50.000
22.990	10.229	3.550	13.779	-36.221	50.000

Note:

1. All Reading Levels are Quasi-Peak and average value.
2. “ ” means the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

3. Maximun conducted output power

3.1. Test Equipment

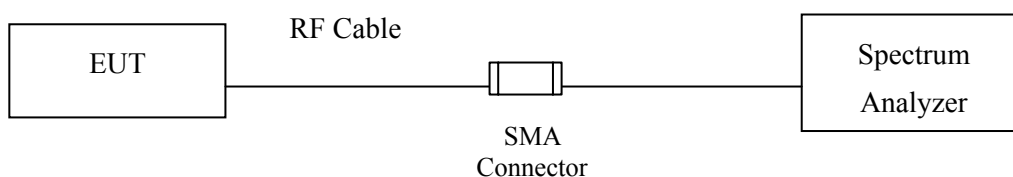
	Equipment	Manufacturer	Model No./Serial No.	Last Cal.
X	Power Meter	Anritsu	ML2495A/6K00003357	May, 2014
X	Power Sensor	Anritsu	MA2411B/0738448	Jun., 2014
X	Spectrum Analyzer	Agilent	N9010A / MY48030495	Apr., 2015

Note:

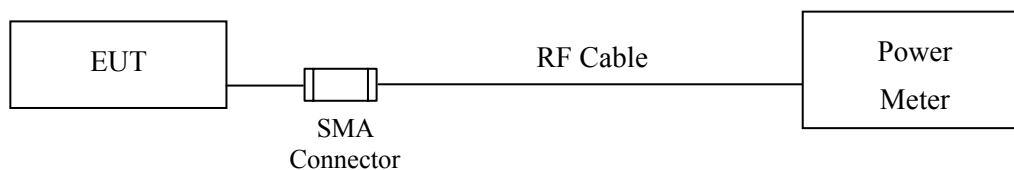
1. All equipments are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.
2. The test instruments marked with “X” are used to measure the final test results.

3.2. Test Setup

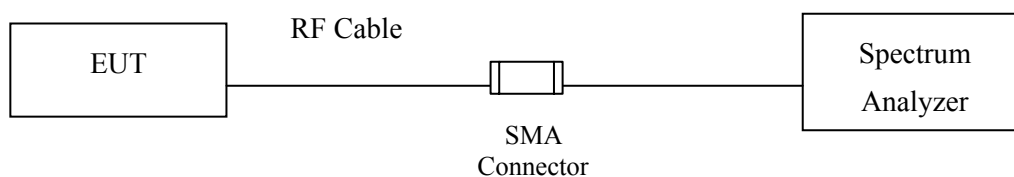
26dBc Occupied Bandwidth



Conduction Power Measurement (for 802.11an)



Conduction Power Measurement (for 802.11ac)



3.3. Limits

3.3.1. For the band 5.15-5.25 GHz,

(i) For an outdoor access point operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W, provided the maximum antenna gain does not exceed 6 dBi. If transmitting antennas of directional gain greater than 6 dBi are used, the maximum conducted output power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. The maximum e.i.r.p. at any elevation angle above 30 degrees as measured from the horizon must not exceed 125 mW (21 dBm).

(ii) For an indoor access point operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W provided the maximum antenna gain does not exceed 6 dBi. In addition, If transmitting antennas of directional gain greater than 6 dBi are used, the maximum conducted output power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

(iii) For fixed point-to-point access points operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. Fixed point-to-point U-NII devices may employ antennas with directional gain up to 23 dBi without any corresponding reduction in the maximum conducted output power. For fixed point-to-point transmitters that employ a directional antenna gain greater than 23 dBi, a 1 dB reduction in maximum conducted output power is required for each 1 dB of antenna gain in excess of 23 dBi. Fixed, point-to-point operations exclude the use of point-to-multipoint systems, omnidirectional applications, and multiple colocated transmitters transmitting the same information. The operator of the U-NII device, or if the equipment is professionally installed, the installer, is responsible for ensuring that systems employing high gain directional antennas are used exclusively for fixed, point-to-point operations.

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

3.3.2. For the 5.25-5.35 GHz and 5.47-5.725 GHz bands, the maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW or $11 \text{ dBm} + 10 \log B$, where B is the 26 dB emission bandwidth in megahertz. If transmitting antennas of directional gain greater than 6 dBi are used, the maximum conducted output power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

3.3.3. For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, If transmitting antennas of directional gain greater than 6 dBi are used, the maximum conducted output power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. However, fixed point-to-point UNII devices operating in this band may employ transmitting antennas with directional gain greater than 6 dBi without any

corresponding reduction in transmitter conducted power. Fixed, point-to-point operations exclude the use of point-to-multipoint systems, omnidirectional applications, and multiple colocated transmitters transmitting the same information. The operator of the U-NII device, or if the equipment is professionally installed, the installer, is responsible for ensuring that systems employing high gain directional antennas are used exclusively for fixed, point-to-point operations.

3.4. Test Procedure

As an alternative to FCC KDB-789033, the EUT maximum conducted output power was measured with an average power meter employing a video bandwidth greater the 6dB BW of the emission under test. Maximum conducted output power was read directly from the meter across all data rates, and across three channels within each sub-band. Special care was used to make sure that the EUT was transmitting in continuous mode. This method exceeds the limitations of FCC KDB-789033, and provides more accurate measurements.

802.11an (BW $\leq$ 40MHz) Maximum conducted output power using KDB 789033 section E)3)b) Method PM-G (Measurement using a gated RF average power meter)

Note: the power meter have a video bandwidth that is greater than or equal to the measurement bandwidth, (Anritsu/ MA2411B video bandwidth: 65MHz)

802.11ac (BW=80MHz) Maximum conducted output power using KDB 789033 section E)2)b) Method SA-1 (trace averaging with the EUT transmitting at full power throughout each sweep).

When transmitted signals consist of two or more non-contiguous spectrum segments (e.g., 80+80 MHz mode) or when a single spectrum segment of a transmission crosses the boundary between two adjacent U-NII bands, KDB 644545 D01 section F) procedure is used for measurements.

3.5. Uncertainty

± 1.27 dB

3.6. Test Result of Maximum conducted output power

Product : 802.11ac Dual Band Access Point
 Test Item : Maximum conducted output power
 Test Site : No.3 OATS
 Test Mode : Mode 1: Transmit (802.11a-6Mbps)

CHAIN A

Cable loss=1dB		Maximum conducted output power								
Channel No.	Frequency (MHz)	Data Rate (Mbps)								Required Limit
		6	9	12	18	24	36	48	54	
		Measurement Level (dBm)								
36	5180	17.82	--	--	--	--	--	--	--	<30dBm
44	5220	24.08	23.96	23.82	23.77	23.68	23.54	23.46	23.35	<30dBm
48	5240	24.57	--	--	--	--	--	--	--	<30dBm
149	5745	24.93	--	--	--	--	--	--	--	<30dBm
157	5785	24.87	24.75	24.62	24.59	24.42	24.38	24.25	24.16	<30dBm
165	5825	24.87	--	--	--	--	--	--	--	<30dBm

Note: Maximum conducted output power Value =Reading value on average power meter + cable loss

CHAIN B

Cable loss=1dB		Maximum conducted output power								
Channel No.	Frequency (MHz)	Data Rate (Mbps)								Required Limit
		6	9	12	18	24	36	48	54	
		Measurement Level (dBm)								
36	5180	18.48	--	--	--	--	--	--	--	<30dBm
44	5220	25.03	24.97	24.86	24.75	24.65	24.51	24.49	24.37	<30dBm
48	5240	25.26	--	--	--	--	--	--	--	<30dBm
149	5745	25.03	--	--	--	--	--	--	--	<30dBm
157	5785	25.44	25.36	25.24	25.16	25.08	24.98	24.84	24.73	<30dBm
165	5825	25.56	--	--	--	--	--	--	--	<30dBm

Note: Maximum conducted output power Value =Reading value on average power meter + cable loss

Maximum conducted output power Measurement:

(CHAIN A+ B)

Channel Number	Frequency (MHz)	Chain A Power (dBm)	Chain B Power (dBm)	Output Power (dBm)	Output Power Limit
					(dBm)
36	5180	17.82	18.48	21.17	30
44	5220	24.08	25.03	27.59	30
48	5240	24.57	25.26	27.94	30
149	5745	24.93	25.03	27.99	30
157	5785	24.87	25.44	28.17	30
165	5825	24.87	25.56	28.24	30

Note:

1. Power Output Value =Reading value on average power meter + cable loss
2. Output Power (dBm) = 10LOG (Chain A Power (mW)+ Chain B Power (mW))

Product : 802.11ac Dual Band Access Point
Test Item : Maximum conducted output power
Test Site : No.3 OATS
Test Mode : Mode 2: Transmit (802.11n-20BW 14.4Mbps)

CHAIN A

Cable loss=1dB		Maximum conducted output power								
Channel No.	Frequency (MHz)	Data Rate (Mbps)								Required Limit
		14.4	28.9	43.3	57.8	86.7	115.6	130	144.4	
		Measurement Level (dBm)								
36	5180	18.26	--	--	--	--	--	--	--	<30dBm
44	5220	24.53	24.46	24.39	24.28	24.16	24.04	23.95	23.86	<30dBm
48	5240	24.37	--	--	--	--	--	--	--	<30dBm
149	5745	24.71	--	--	--	--	--	--	--	<30dBm
157	5785	24.86	24.74	24.61	24.58	24.49	24.32	24.25	24.18	<30dBm
165	5825	24.68	--	--	--	--	--	--	--	<30dBm

Note: Maximum conducted output power Value =Reading value on average power meter + cable loss

CHAIN B

Cable loss=1dB		Maximum conducted output power								
Channel No.	Frequency (MHz)	Data Rate (Mbps)								Required Limit
		14.4	28.9	43.3	57.8	86.7	115.6	130	144.4	
		Measurement Level (dBm)								
36	5180	18.82	--	--	--	--	--	--	--	<30dBm
44	5220	25.37	25.24	25.16	25.02	24.98	24.86	24.75	24.66	<30dBm
48	5240	25.25	--	--	--	--	--	--	--	<30dBm
149	5745	24.92	--	--	--	--	--	--	--	<30dBm
157	5785	25.41	25.36	25.25	25.14	25.08	24.97	24.86	24.75	<30dBm
165	5825	25.41	--	--	--	--	--	--	--	<30dBm

Note: Maximum conducted output power Value =Reading value on average power meter + cable loss

Maximum conducted output power Measurement:

(CHAIN A+ B)

Channel Number	Frequency (MHz)	Chain A Power (dBm)	Chain B Power (dBm)	Output Power (dBm)	Output Power Limit
					(dBm)
36	5180	18.26	18.82	21.56	30
44	5220	24.53	25.37	27.98	30
48	5240	24.37	25.25	27.84	30
149	5745	24.71	24.92	27.83	30
157	5785	24.86	25.41	28.15	30
165	5825	24.68	25.41	28.07	30

Note:

1. Power Output Value =Reading value on average power meter + cable loss
2. Output Power (dBm) = 10LOG (Chain A Power (mW)+ Chain B Power (mW))

Product : 802.11ac Dual Band Access Point
 Test Item : Maximum conducted output power
 Test Site : No.3 OATS
 Test Mode : Mode 3: Transmit (802.11n-40BW 30Mbps)

CHAIN A

Cable loss=1dB		Maximum conducted output power								
Channel No.	Frequency (MHz)	Data Rate (Mbps)								Required Limit
		30	60	90	120	180	240	270	300	
		Measurement Level (dBm)								
38	5190	12.99	--	--	--	--	--	--	--	<30dBm
46	5230	23.41	23.35	23.26	23.14	23.19	23.07	22.91	22.84	<30dBm
151	5755	23.96	--	--	--	--	--	--	--	<30dBm
159	5795	23.58	23.46	23.34	23.27	23.15	23.04	22.95	22.86	<30dBm

Note: Maximum conducted output power Value =Reading value on average power meter + cable loss

CHAIN B

Cable loss=1dB		Maximum conducted output power								
Channel No.	Frequency (MHz)	Data Rate (Mbps)								Required Limit
		30	60	90	120	180	240	270	300	
		Measurement Level (dBm)								
38	5190	13.74	--	--	--	--	--	--	--	<30dBm
46	5230	24.47	24.35	24.24	24.18	24.05	23.94	23.86	23.77	<30dBm
151	5755	24.63	--	--	--	--	--	--	--	<30dBm
159	5795	24.73	24.66	24.58	24.47	24.35	24.28	24.12	24.08	<30dBm

Note: Maximum conducted output power Value =Reading value on average power meter + cable loss

Maximum conducted output power Measurement: (CHAIN A+ B)

Channel Number	Frequency (MHz)	Chain A Power (dBm)	Chain B Power (dBm)	Output Power (dBm)	Output Power Limit
					(dBm)
38	5190	12.99	13.74	16.39	30
46	5230	23.41	24.47	26.98	30
151	5755	23.96	24.63	27.32	30
159	5795	23.58	24.73	27.20	30

Note:

- Power Output Value =Reading value on average power meter + cable loss
- Output Power (dBm) = 10LOG (Chain A Power (mW)+ Chain B Power (mW))

Product : 802.11ac Dual Band Access Point
Test Item : Maximum conducted output power
Test Site : No.3 OATS
Test Mode : Mode 4: Transmit (802.11ac-80BW-65Mbps)

CHAIN A

Cable loss=1dB		Maximum conducted output power										
Channel No	Frequency (MHz)	Data Rate (Mbps)										Required Limit
		VTH0	VTH1	VTH2	VTH3	VTH4	VTH5	VTH6	VTH7	VTH8	VTH9	
42	5210	12.13	12.04	11.98	11.84	11.72	11.61	11.57	11.46	11.35	11.22	<30dBm
155	5775	17.13	17.08	16.97	16.85	16.75	16.66	16.55	16.49	16.32	16.26	<30dBm

Note: Maximum conducted output power Value =Reading value on average power meter + cable loss

CHAIN B

Cable loss=1dB		Maximum conducted output power										
Channel No	Frequency (MHz)	Data Rate (Mbps)										Required Limit
		VTH0	VTH1	VTH2	VTH3	VTH4	VTH5	VTH6	VTH7	VTH8	VTH9	
42	5210	13.2	13.18	13.04	12.98	12.84	12.75	12.62	12.58	12.49	12.35	<30dBm
155	5775	18.38	18.25	18.16	18.08	17.99	17.81	17.72	17.64	17.56	17.41	<30dBm

Note: Maximum conducted output power Value =Reading value on average power meter + cable loss

Maximum conducted output power Measurement:

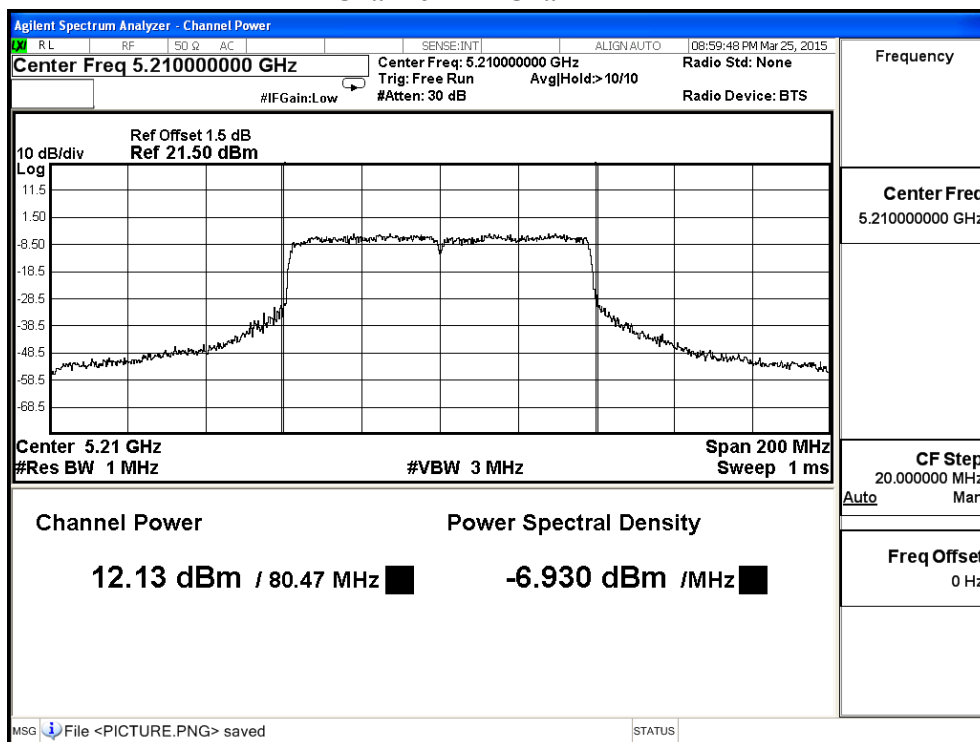
Channel No	Frequency Range (MHz)	Chain A Power (dBm)	Chain B Power (dBm)	Output Power (dBm)	Output Power Limit	Result
					(dBm)	
42	5210	12.13	13.20	15.71	30	Pass
155	5775	17.13	18.38	20.81	30	Pass

Note:

- Power Output Value =Reading value on average power meter + cable loss
- Output Power (dBm) = 10LOG (Chain A Power (mW)+ Chain B Power (mW))

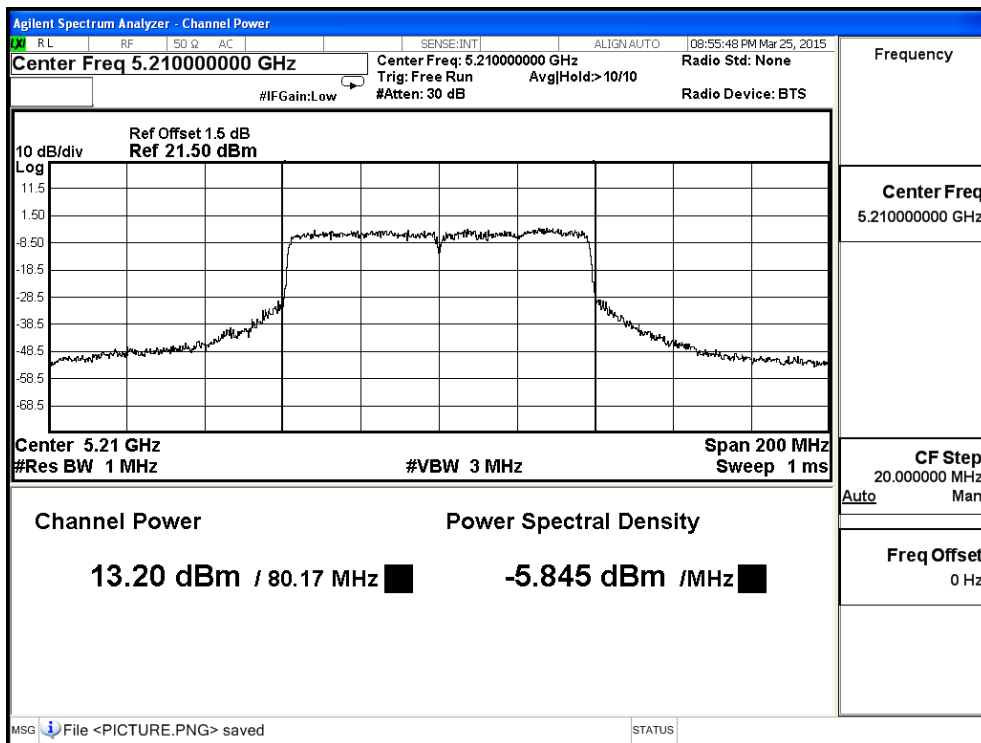
Maximum conducted output power:

Channel 42 – Chain A



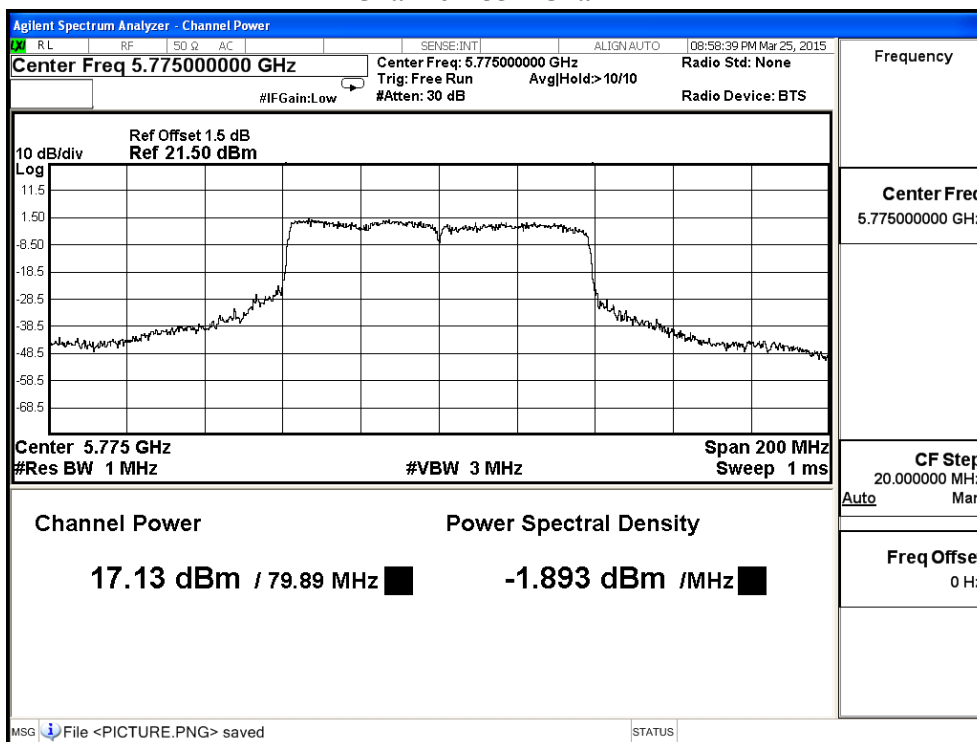
Maximum conducted output power:

Channel 42 – Chain B



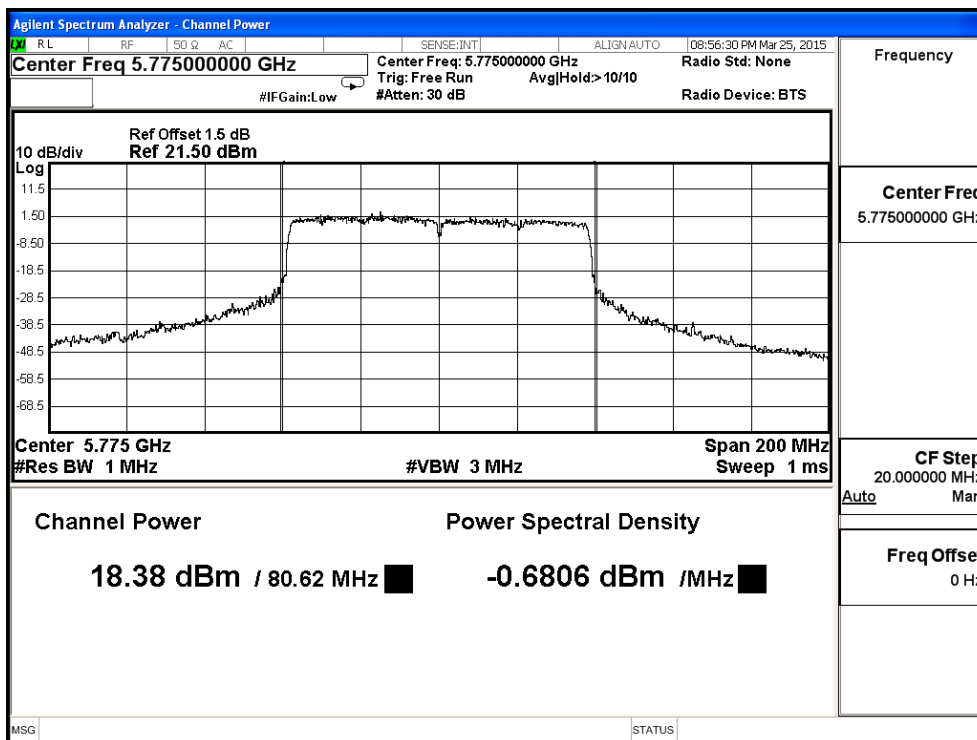
Maximum conducted output power:

Channel 155 – Chain A



Maximum conducted output power:

Channel 155 – Chain B



4. Peak Power Spectral Density

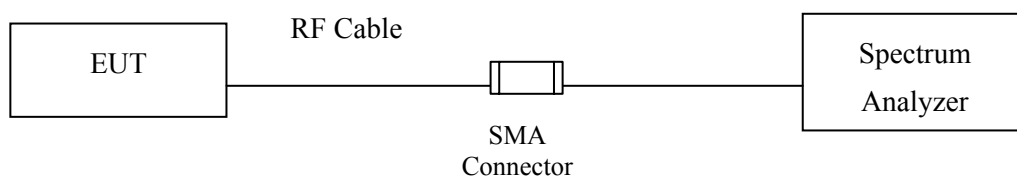
4.1. Test Equipment

	Equipment	Manufacturer	Model No./Serial No.	Last Cal.
	Spectrum Analyzer	R&S	FSP40 / 100170	Jun., 2014
	Spectrum Analyzer	Agilent	E4407B / US39440758	Jun., 2014
X	Spectrum Analyzer	Agilent	N9010A / MY48030495	Apr, 2015

Note:

1. All equipments are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.
2. The test instruments marked with “X” are used to measure the final test results.

4.2. Test Setup



4.3. Limits

- (1) For the band 5.15-5.25 GHz,
 - (i) For an outdoor access point operating in the band 5.15-5.25 GHz, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.
 - (ii) For an indoor access point operating in the band 5.15-5.25 GHz, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.
 - (iii) For fixed point-to-point access points operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. Fixed point-to-point U-NII devices may employ antennas with directional gain up to 23 dBi without any corresponding reduction in the maximum conducted output power or maximum power spectral density. For fixed point-to-point transmitters that employ a directional antenna gain greater than 23 dBi, a 1 dB reduction in maximum conducted output power and maximum power spectral density is required for each 1 dB of antenna gain in excess of 23 dBi. Fixed, point-to-point operations exclude the use of point-to-multipoint systems, omnidirectional applications, and multiple collocated transmitters transmitting the same information. The operator of the U-NII device, or if the

equipment is professionally installed, the installer, is responsible for ensuring that systems employing high gain directional antennas are used exclusively for fixed, point-to-point operations. (iv) For mobile and portable client devices in the 5.15-5.25 GHz band, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.+

- (2) For the 5.25-5.35 GHz and 5.47-5.725 GHz bands, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.
- (3) For the band 5.725-5.85 GHz, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band. If transmitting antennas of directional gain greater than 6 dBi are used, the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. However, fixed point-to-point UNII devices operating in this band may employ transmitting antennas with directional gain greater than 6 dBi without any corresponding reduction in transmitter conducted power. Fixed, point-to-point operations exclude the use of point-to-multipoint systems, omnidirectional applications, and multiple colocated transmitters transmitting the same information. The operator of the U-NII device, or if the equipment is professionally installed, the installer, is responsible for ensuring that systems employing high gain directional antennas are used exclusively for fixed, point-to-point operations.

4.4. Test Procedure

The EUT was setup to ANSI C63.10, 2013; tested to DTS test procedure of FCC KDB-789033 for compliance to FCC 47CFR Subpart E requirements.

The Peak Power Spectral Density using KDB 789033 section F) procedure, Create an average power spectrum for the EUT operating mode being tested by following the instructions in section E)2) for measuring maximum conducted output power using a spectrum analyzer.

SA-1 method is selected to run the test.

For the band 5.725-5.85 GHz, Scale the observed power level to an equivalent value in 500 kHz by adjusting (increase) the measured power by a bandwidth correction factor (BWCF) where $BWCF = 10\log(500\text{ kHz}/100\text{ kHz}) = 6.98\text{ dB}$.

4.5. Uncertainty

$\pm 1.27\text{ dB}$

4.6. Test Result of Peak Power Spectral Density

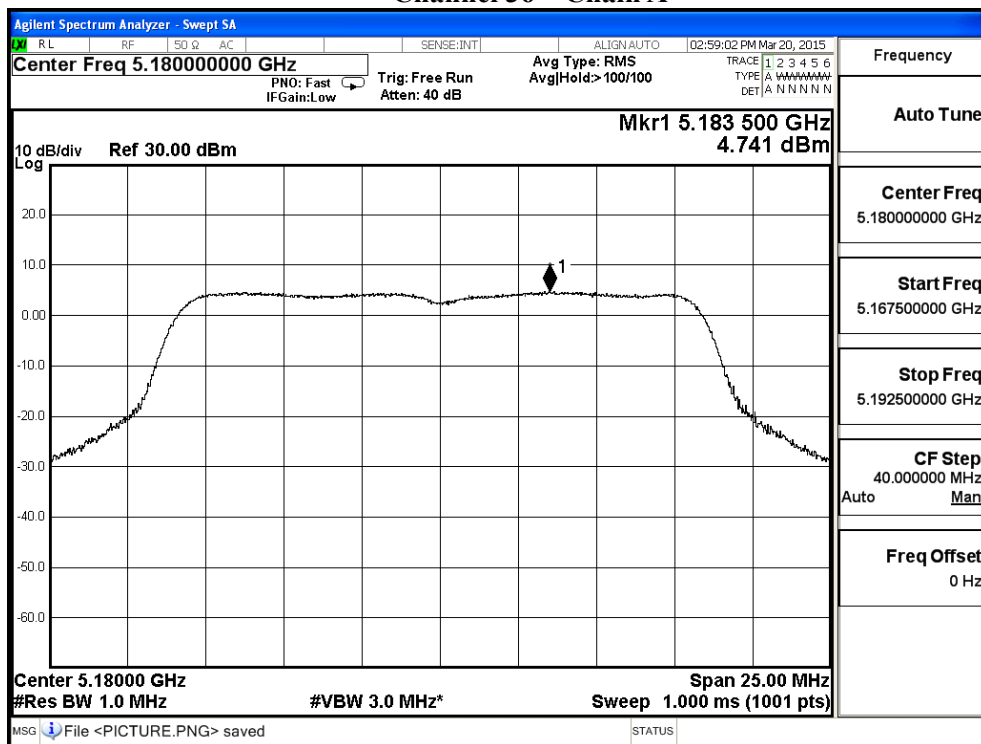
Product : 802.11ac Dual Band Access Point
 Test Item : Peak Power Spectral Density
 Test Site : No.3 OATS
 Test Mode : Mode 1: Transmit (802.11a-6Mbps)

Channel Number	Frequency (MHz)	Chain	PPSD (dBm)	Total PSD (dBm)	Required Limit (dBm)	Result
36	5180	A	4.741	7.751	17	Pass
		B	6.208	9.218	17	Pass
44	5220	A	11.168	14.178	17	Pass
		B	12.284	15.294	17	Pass
48	5240	A	11.613	14.623	17	Pass
		B	12.391	15.401	17	Pass

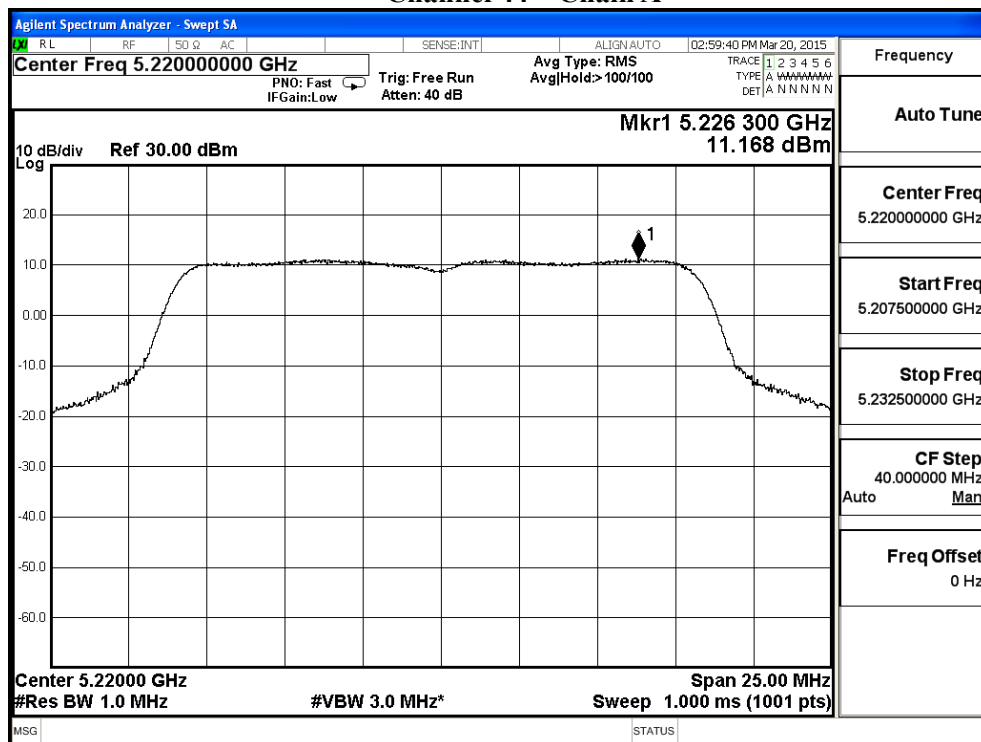
Channel Number	Frequency (MHz)	Chain	PPSD (dBm)	BWCF (dB)	Total PSD (dBm)	Required Limit (dBm)	Result
149	5745	A	2.6779	6.980	9.658	<30	Pass
		B	3.039	6.980	13.029	<30	Pass
157	5785	A	2.691	6.980	9.671	<30	Pass
		B	3.470	6.980	13.460	<30	Pass
165	5825	A	2.688	6.980	9.668	<30	Pass
		B	3.226	6.980	13.216	<30	Pass

Note 1: The quantity $10 \cdot \log 2$ (two antennas) is added to the spectrum peak value according to document 662911 D01.

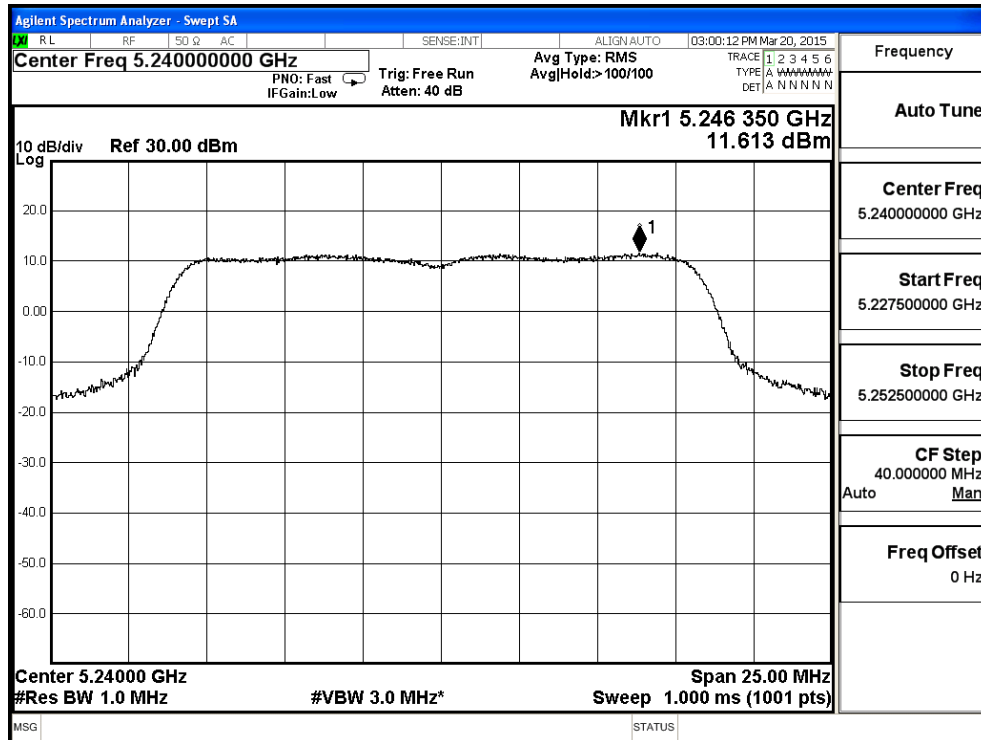
Channel 36 – Chain A



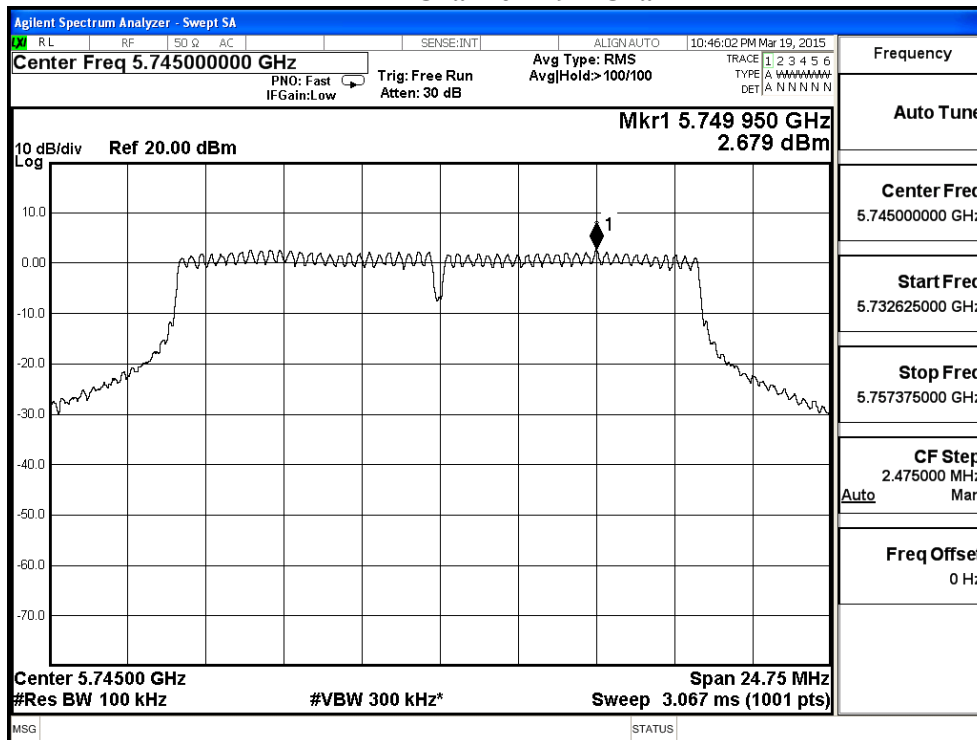
Channel 44 – Chain A



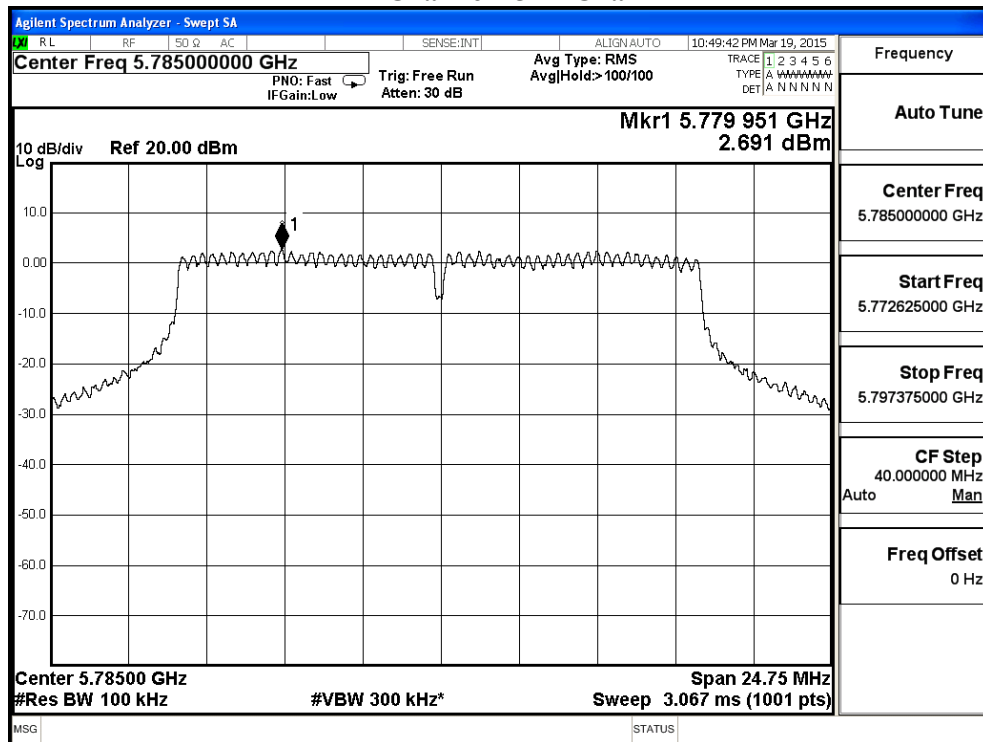
Channel 48 – Chain A



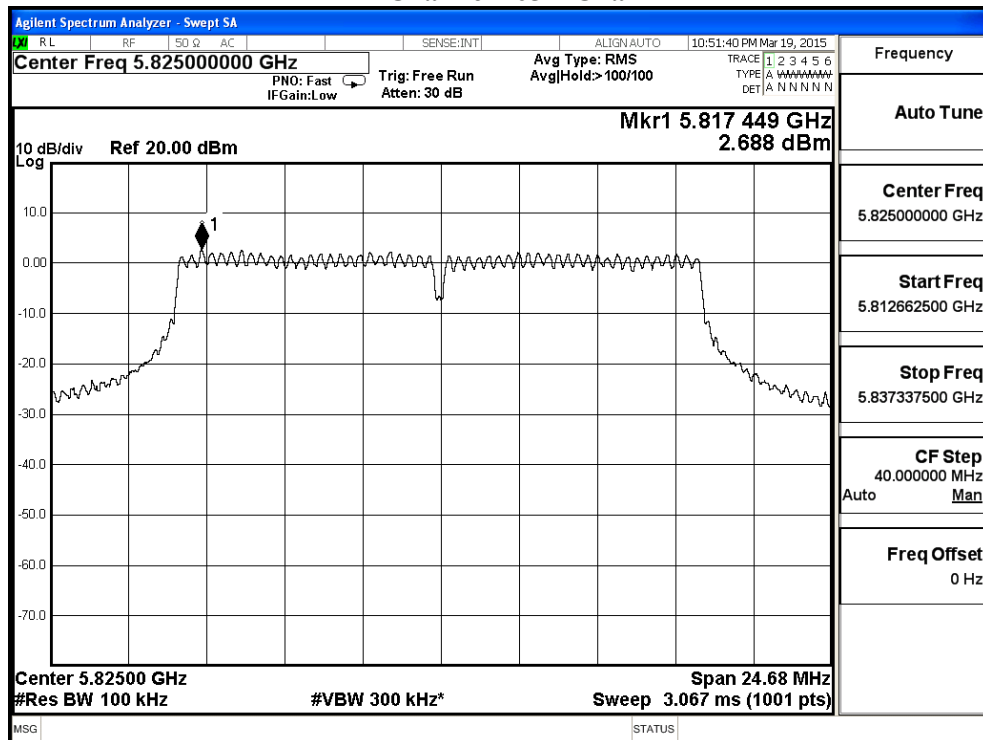
Channel 149 – Chain A



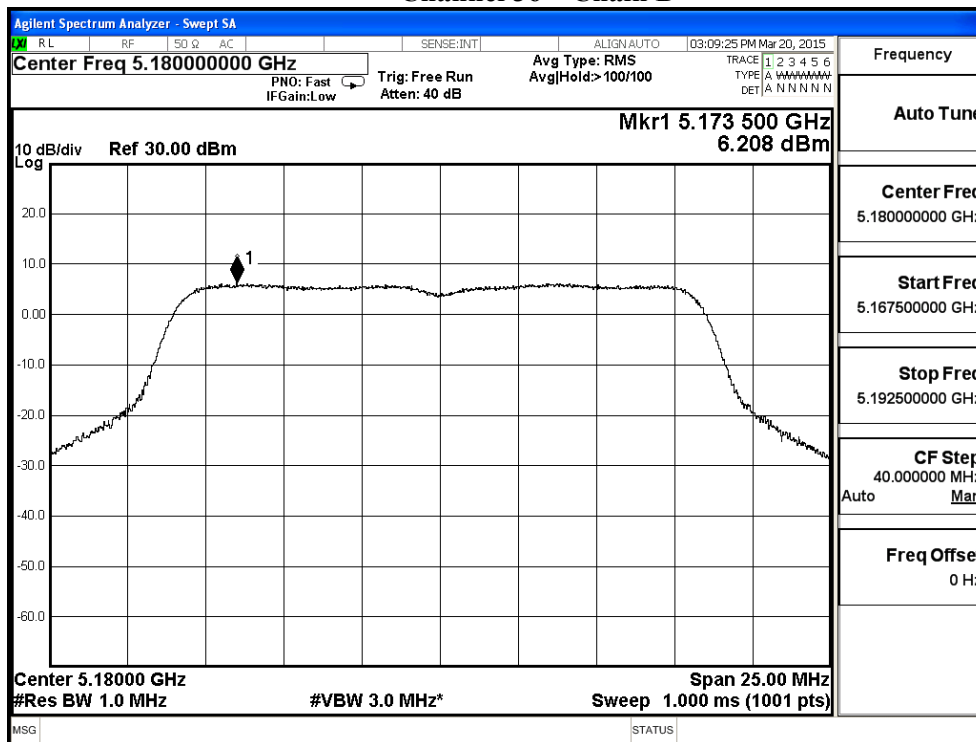
Channel 157 – Chain A



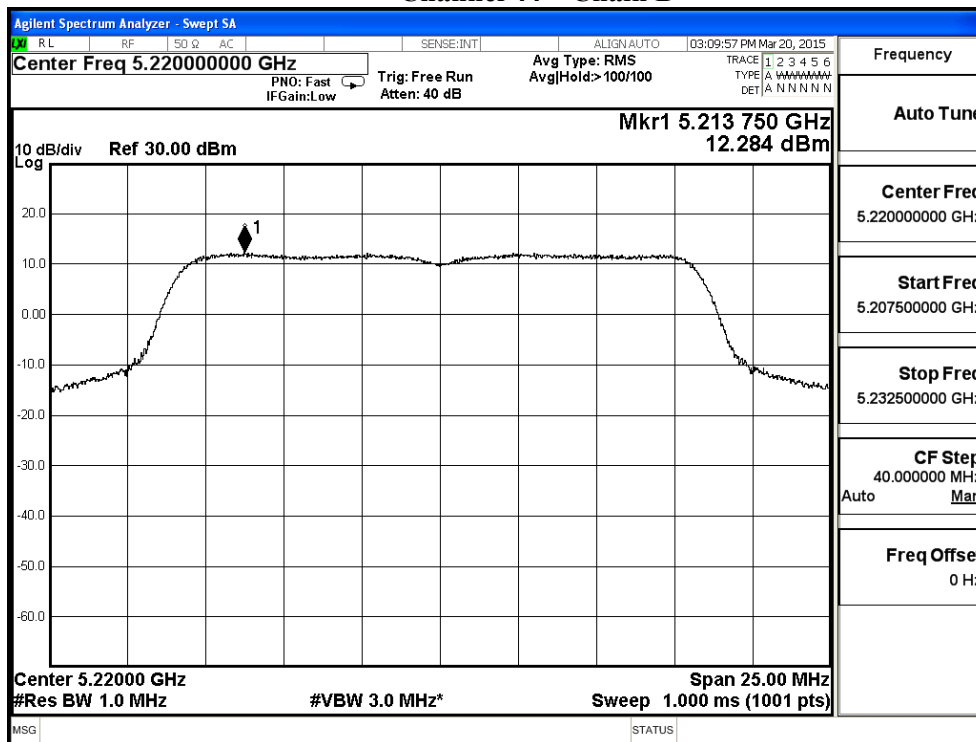
Channel 165 – Chain A



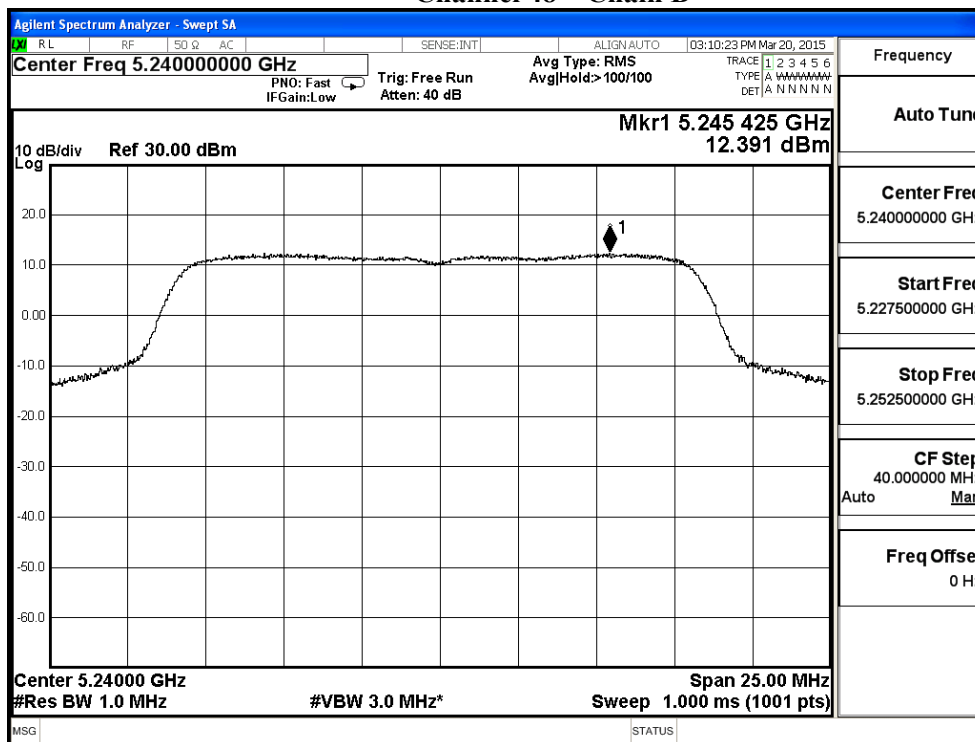
Channel 36 – Chain B



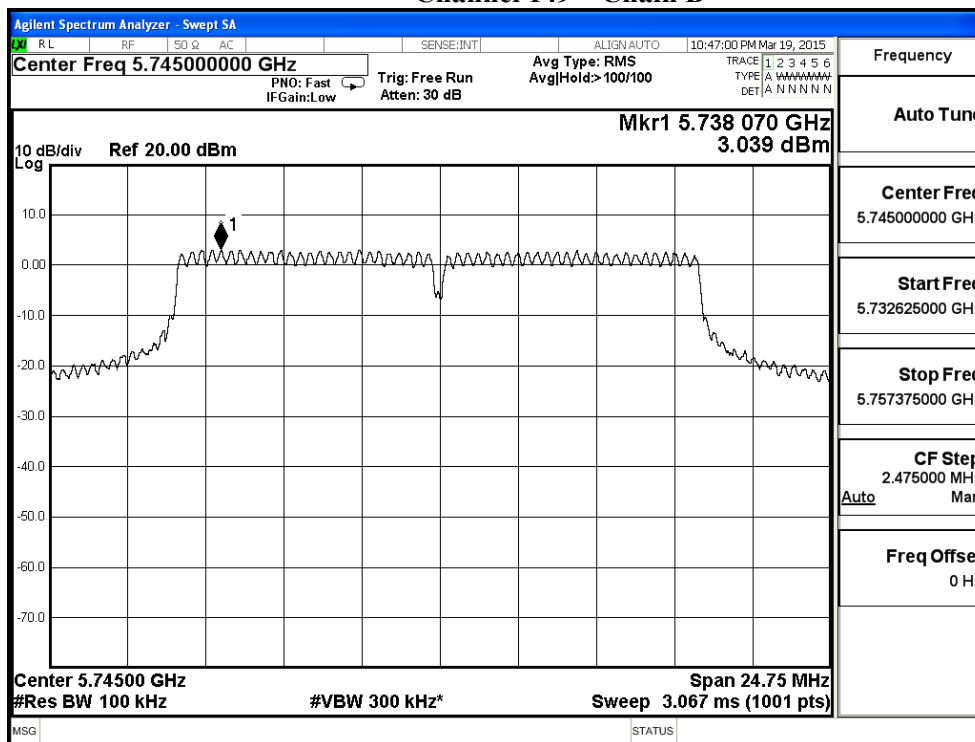
Channel 44 – Chain B



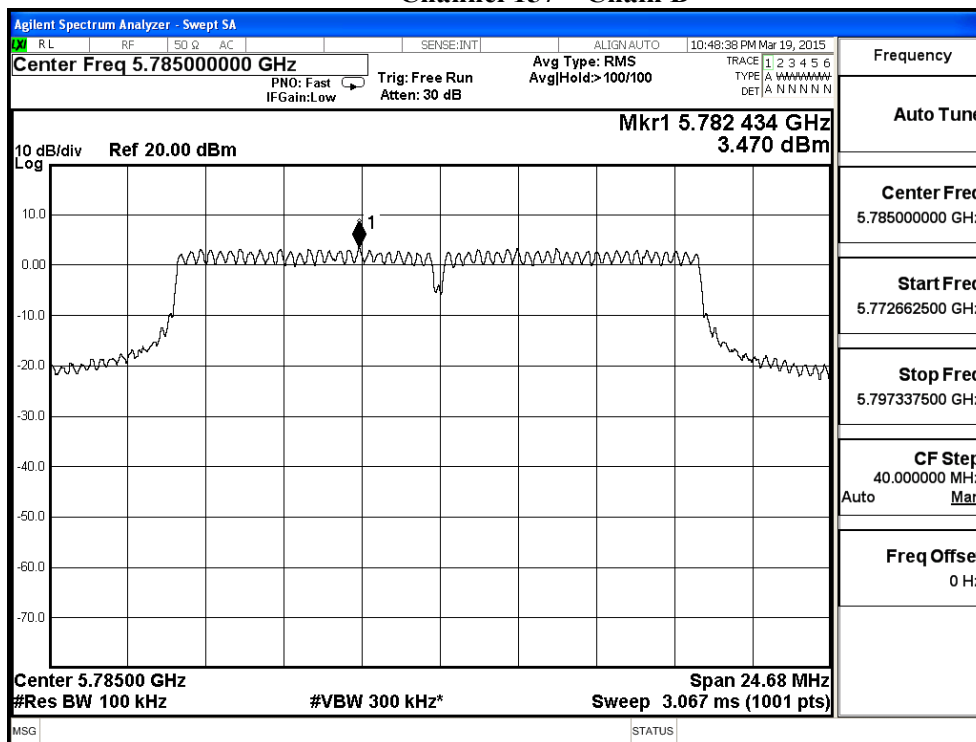
Channel 48 – Chain B



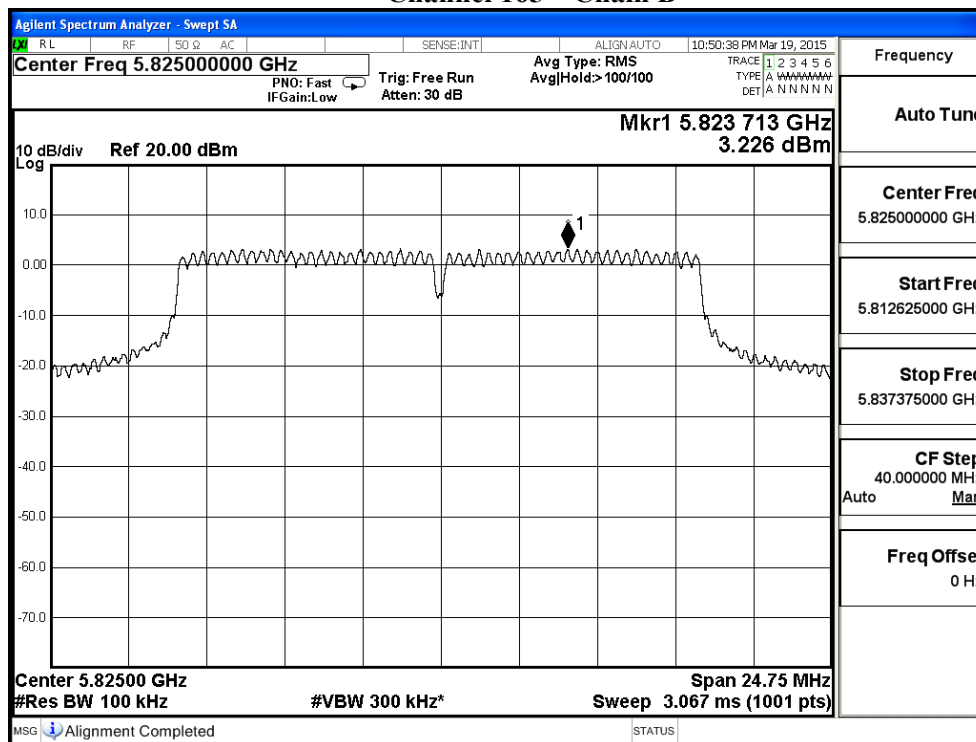
Channel 149 – Chain B



Channel 157 – Chain B



Channel 165 – Chain B



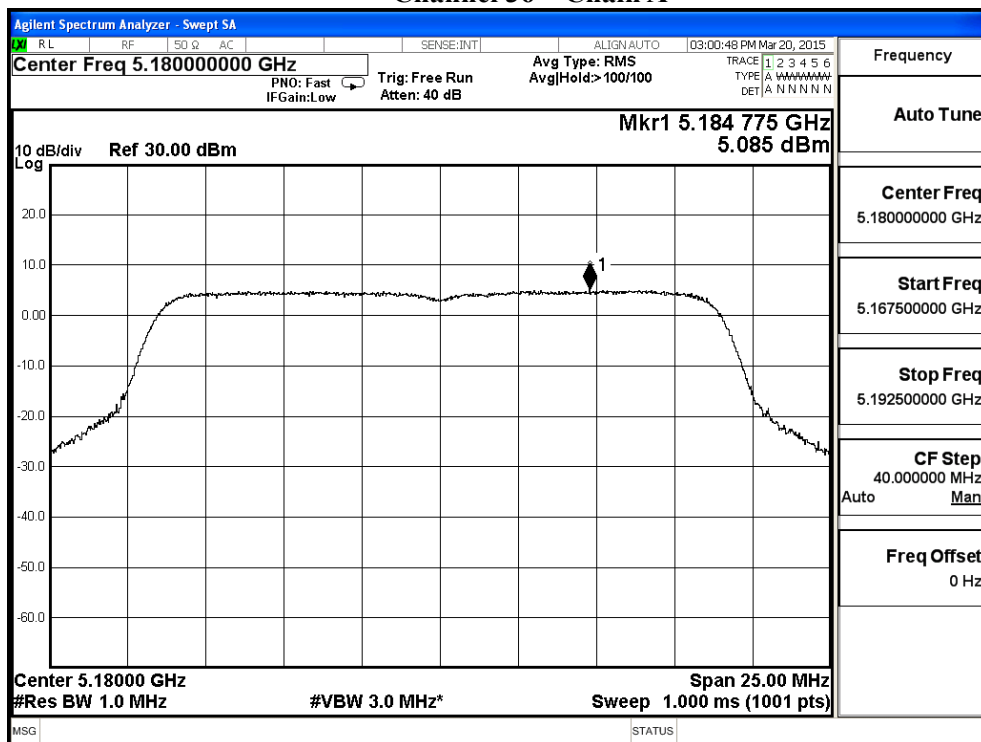
Product : 802.11ac Dual Band Access Point
Test Item : Peak Power Spectral Density
Test Site : No.3 OATS
Test Mode : Mode 2: Transmit (802.11n-20BW 14.4Mbps)

Channel Number	Frequency (MHz)	Chain	PPSD (dBm)	Total PSD (dBm) ¹	Required Limit (dBm)	Result
36	5180	A	5.085	8.095	17	Pass
		B	6.263	9.273	17	Pass
44	5220	A	10.866	13.876	17	Pass
		B	11.980	14.990	17	Pass
48	5240	A	10.831	13.841	17	Pass
		B	11.638	14.648	17	Pass

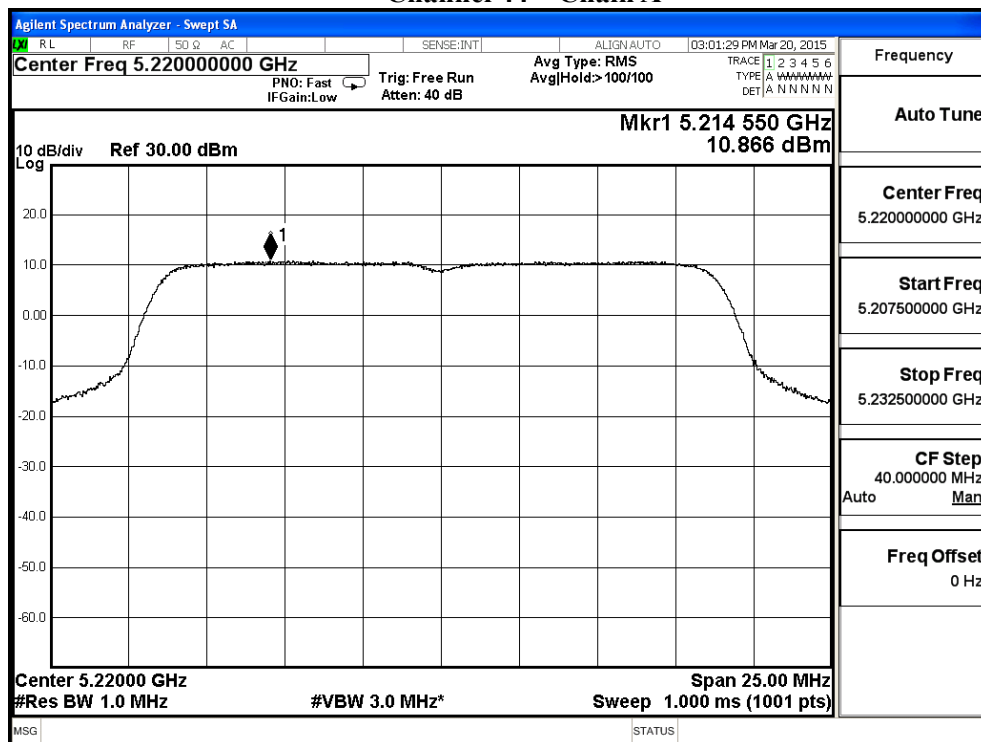
Channel Number	Frequency (MHz)	Chain	PPSD (dBm)	BWCF (dB)	Total PSD (dBm) ¹	Required Limit (dBm)	Result
149	5745	A	2.859	6.980	12.849	<30	Pass
		B	2.898	6.980	12.888	<30	Pass
157	5785	A	1.980	6.980	11.970	<30	Pass
		B	3.015	6.980	13.005	<30	Pass
165	5825	A	1.832	6.980	11.822	<30	Pass
		B	3.003	6.980	12.993	<30	Pass

Note 1: The quantity $10 \cdot \log 2$ (two antennas) is added to the spectrum peak value according to document 662911 D01.

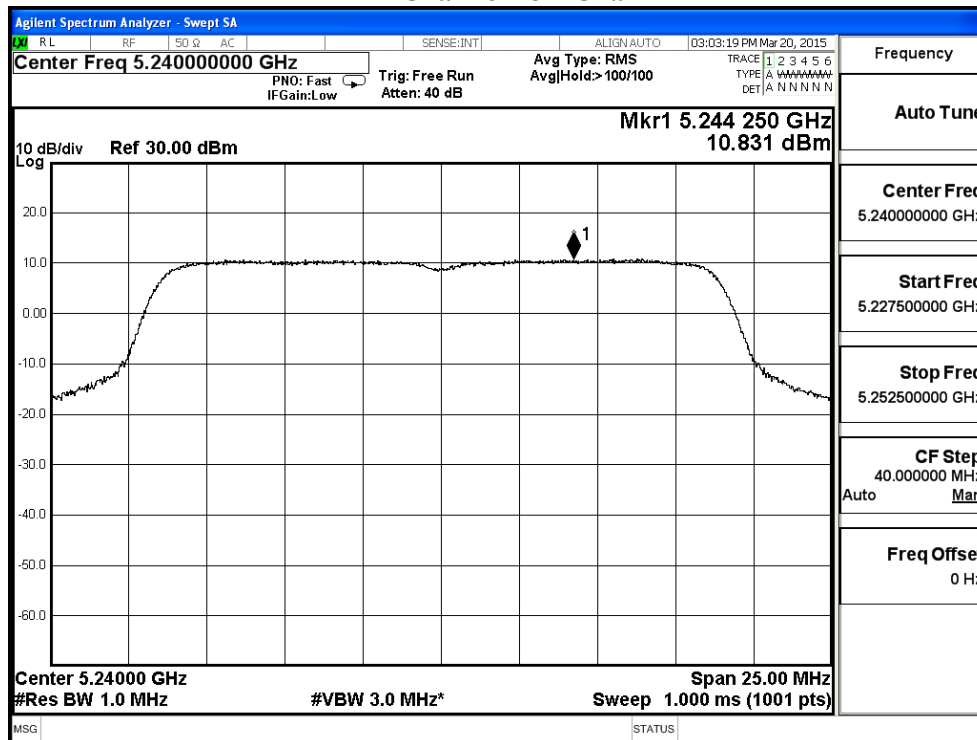
Channel 36 – Chain A



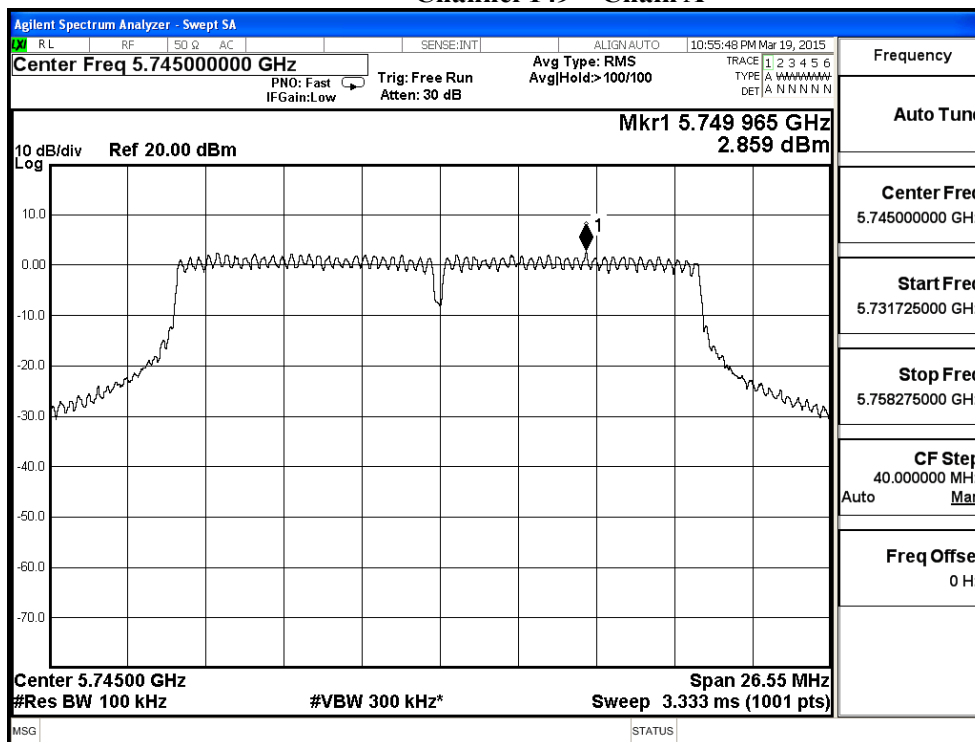
Channel 44 – Chain A



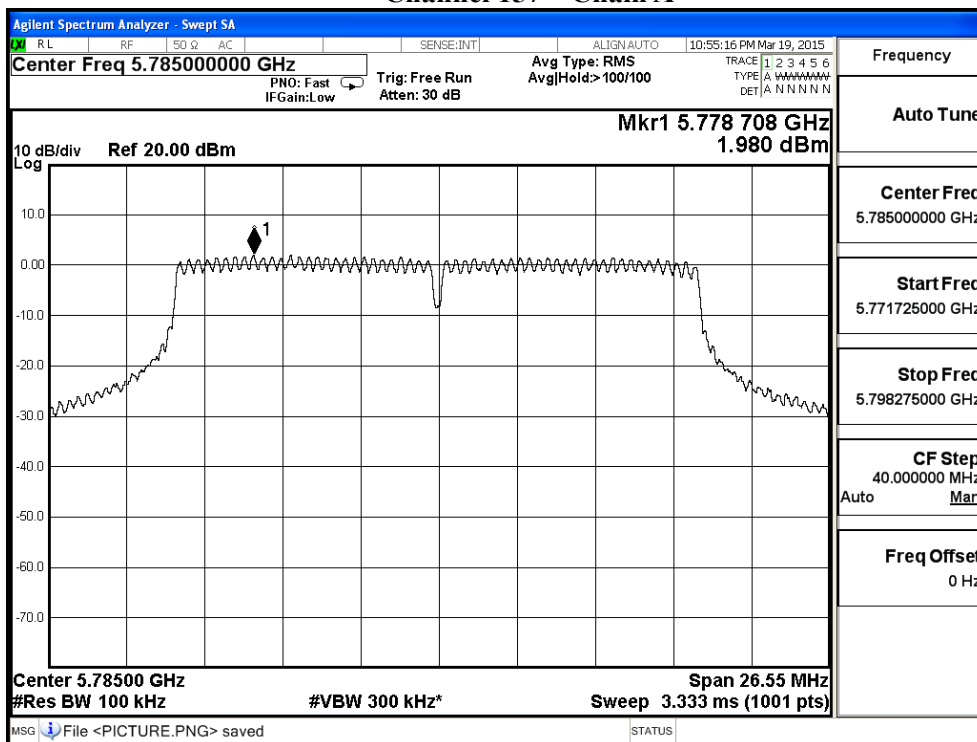
Channel 48 – Chain A



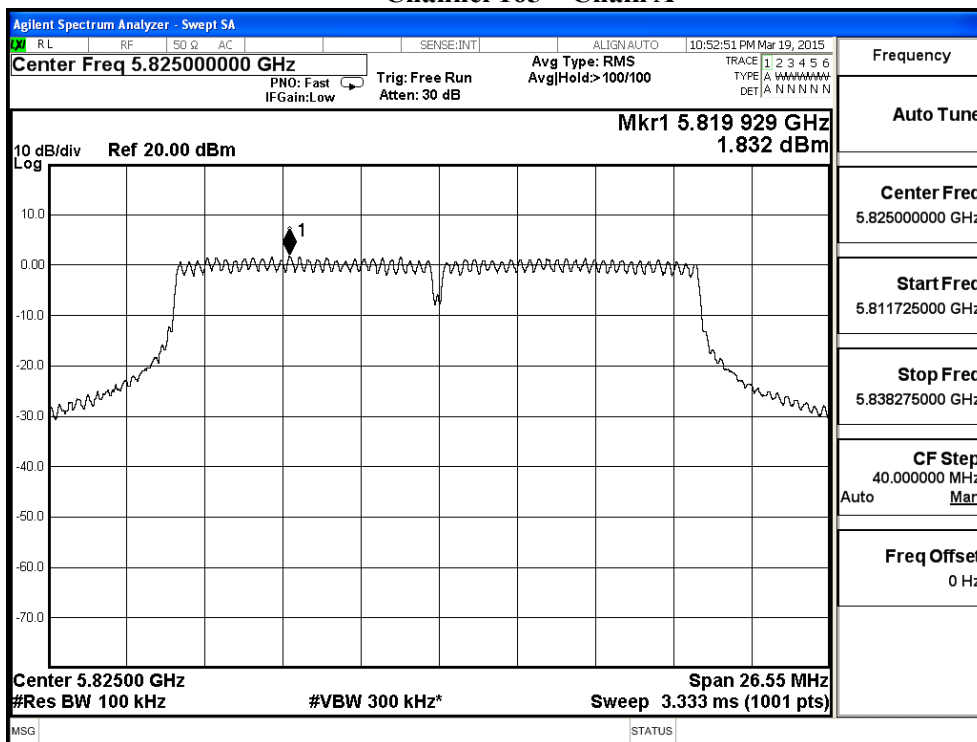
Channel 149 – Chain A



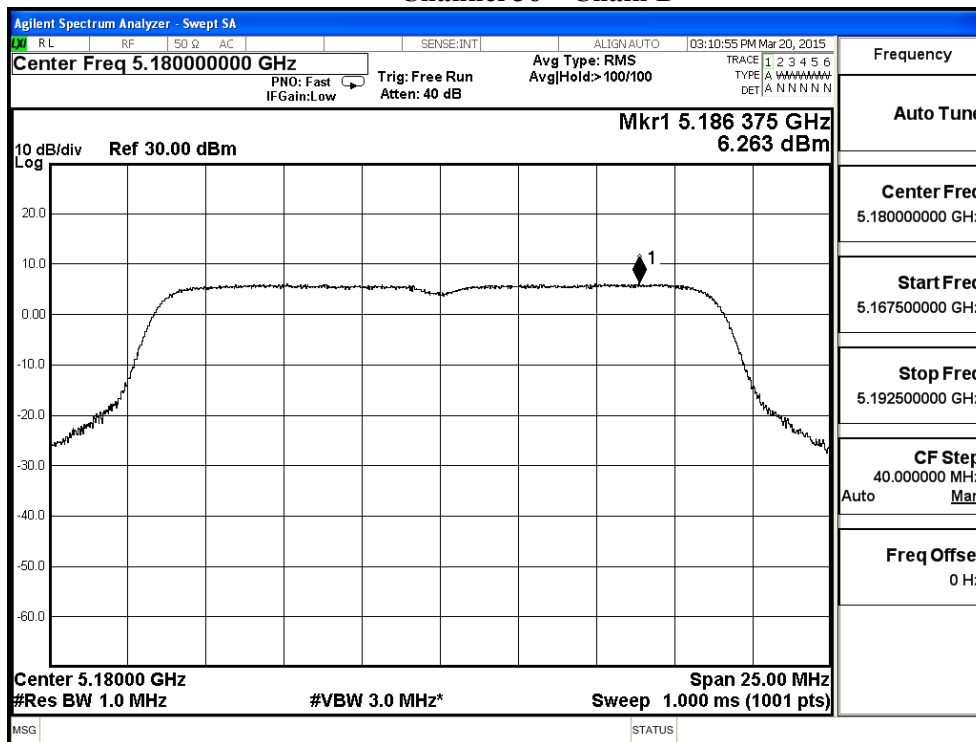
Channel 157 – Chain A



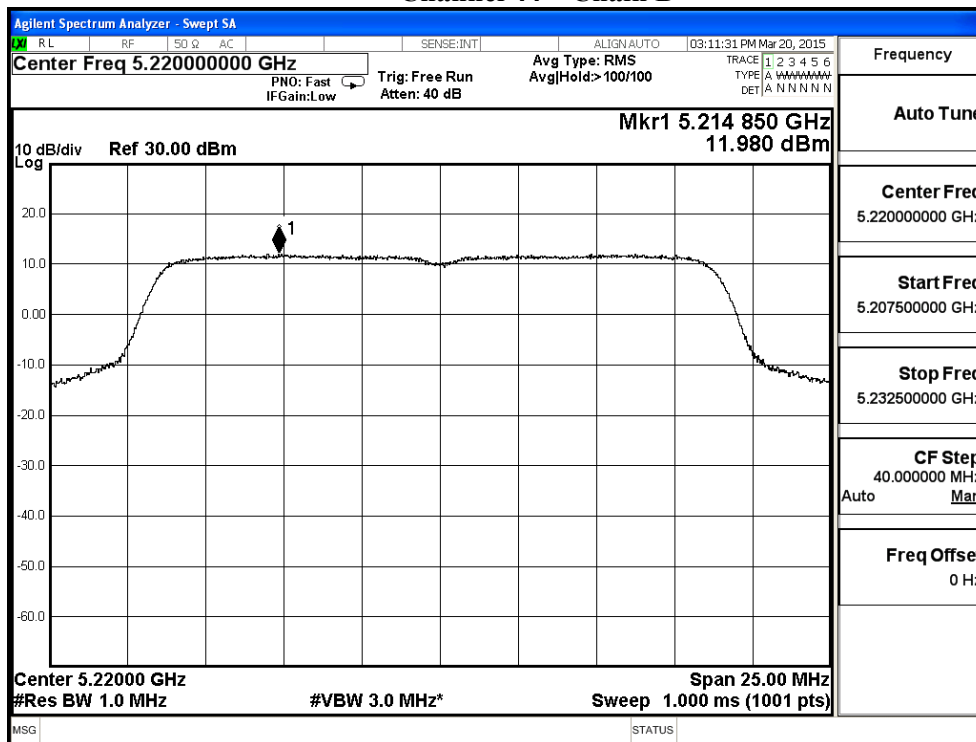
Channel 165 – Chain A



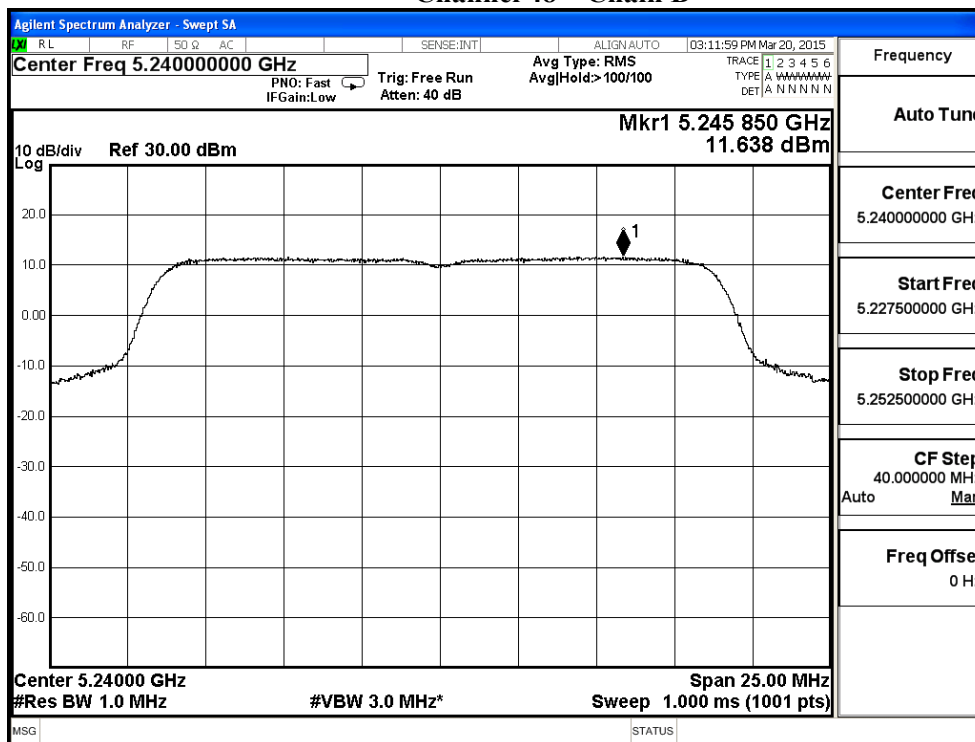
Channel 36 – Chain B



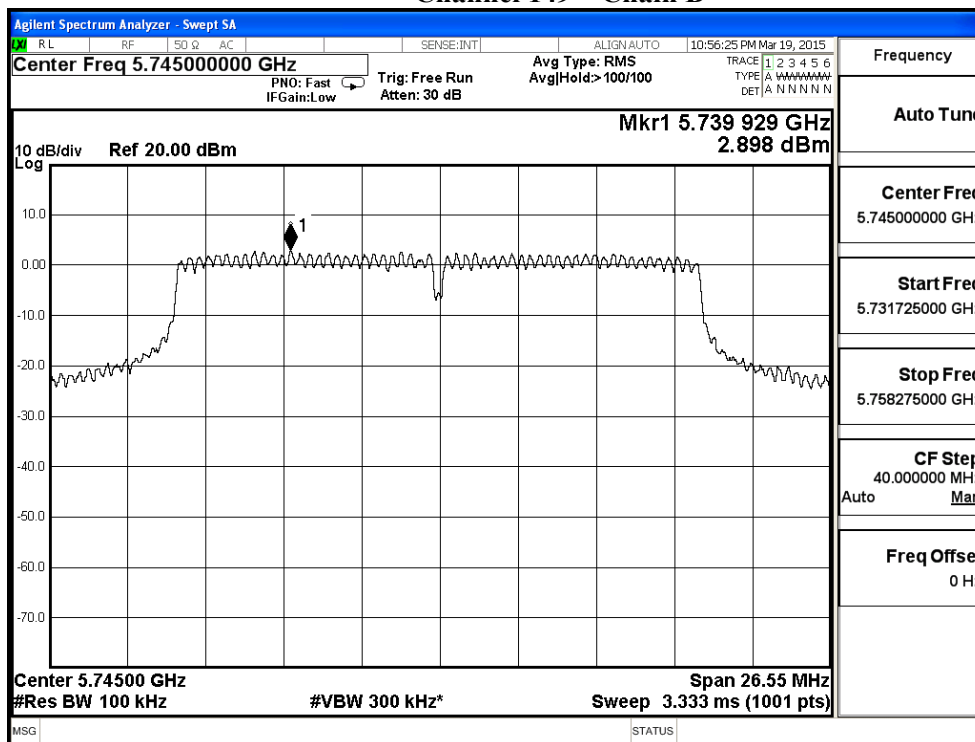
Channel 44 – Chain B



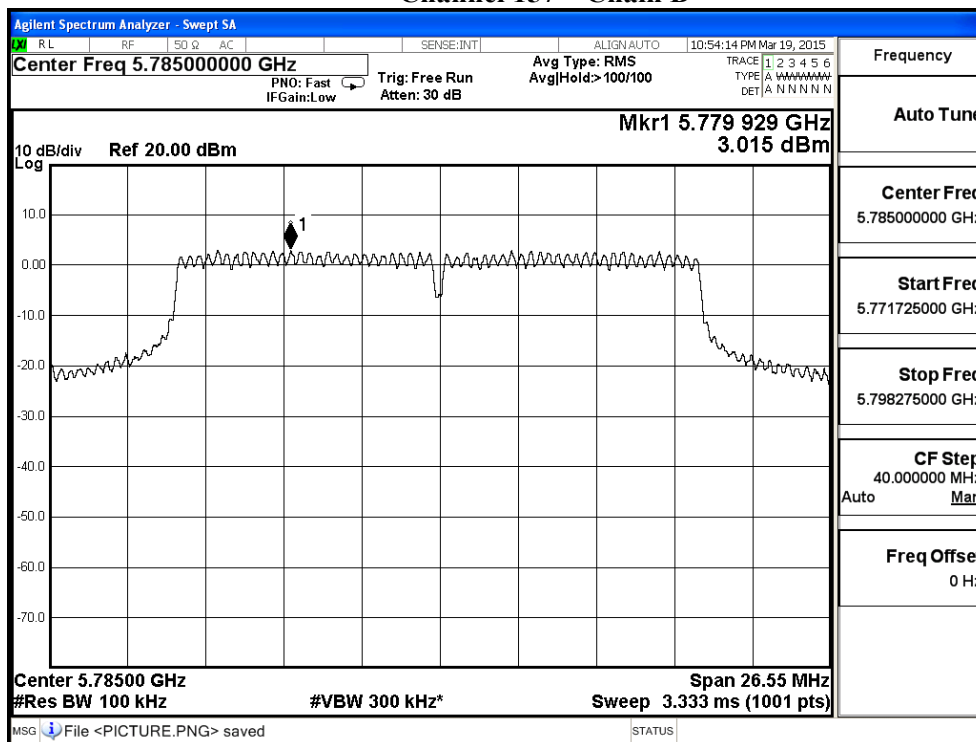
Channel 48 – Chain B



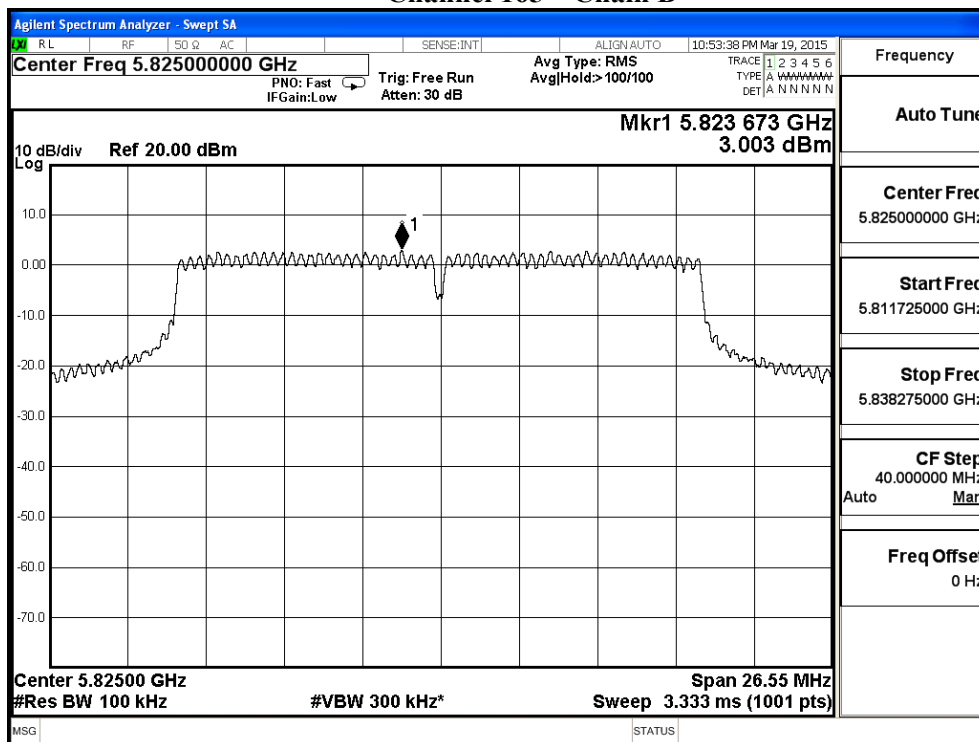
Channel 149 – Chain B



Channel 157 – Chain B



Channel 165 – Chain B



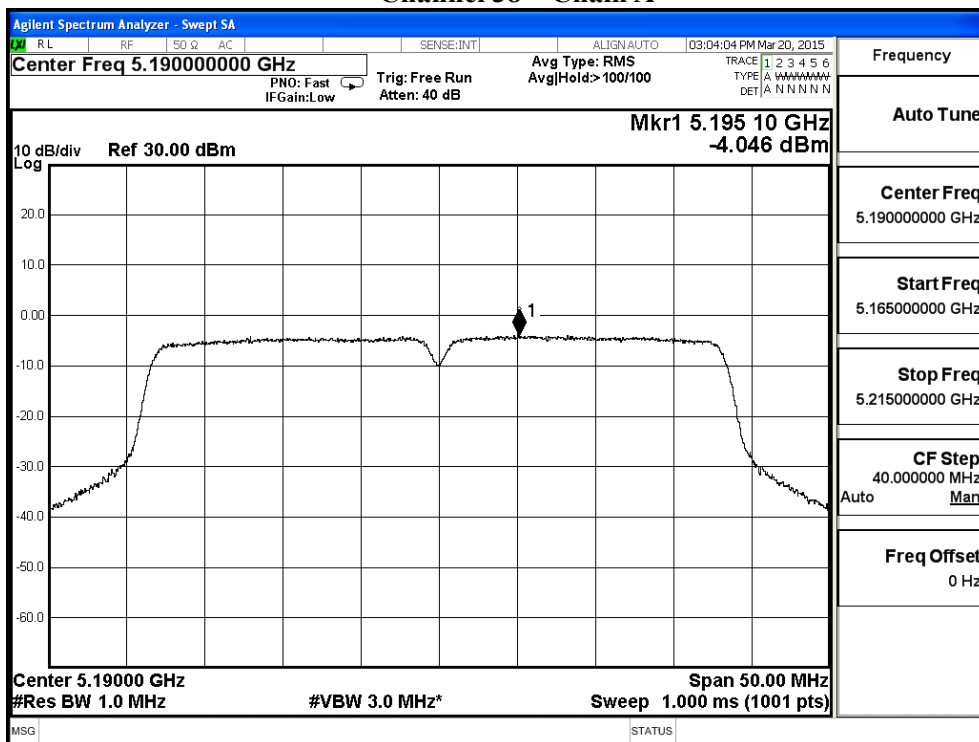
Product : 802.11ac Dual Band Access Point
 Test Item : Peak Power Spectral Density
 Test Site : No.3 OATS
 Test Mode : Mode 3: Transmit (802.11n-40BW 30Mbps)

Channel Number	Frequency (MHz)	Chain	PPSD (dBm)	Total PSD (dBm) ¹	Required Limit (dBm)	Result
38	5190	A	-4.046	-1.036	17	Pass
		B	-2.331	0.679	17	Pass
46	5230	A	6.766	9.776	17	Pass
		B	8.512	11.522	17	Pass

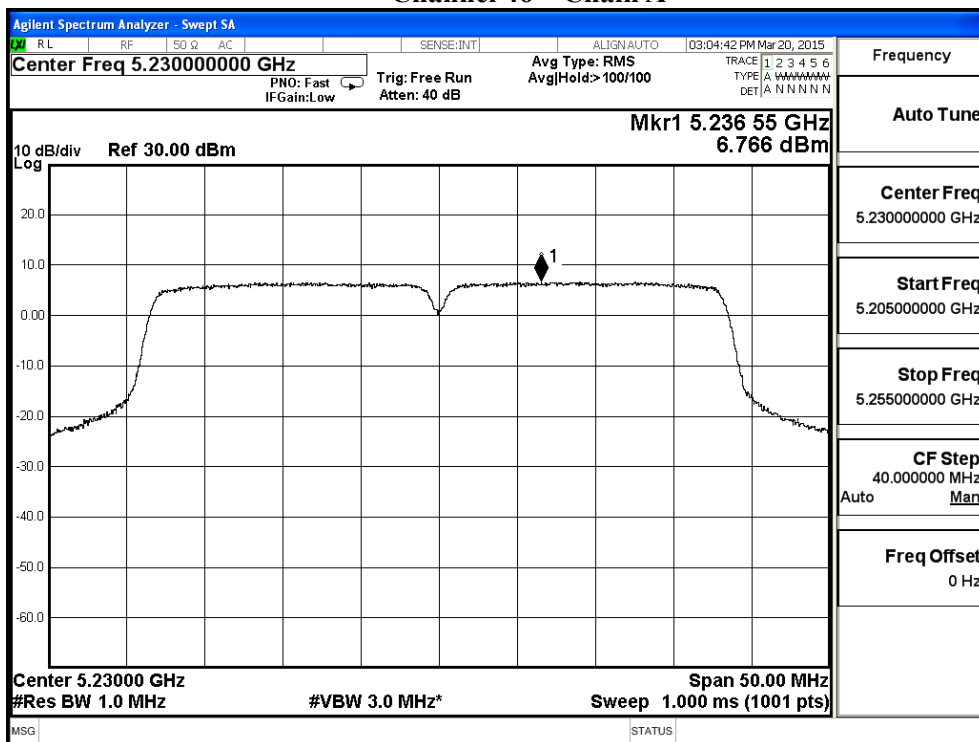
Channel Number	Frequency (MHz)	Chain	PPSD (dBm)	BWCF (dB)	Total PSD (dBm) ¹	Required Limit (dBm)	Result
151	5755	A	-1.412	6.980	8.578	<30	Pass
		B	-0.612	6.980	9.378	<30	Pass
159	5795	A	-1.598	6.980	8.392	<30	Pass
		B	-0.465	6.980	9.525	<30	Pass

Note 1: The quantity $10 \cdot \log 2$ (two antennas) is added to the spectrum peak value according to document 662911 D01.

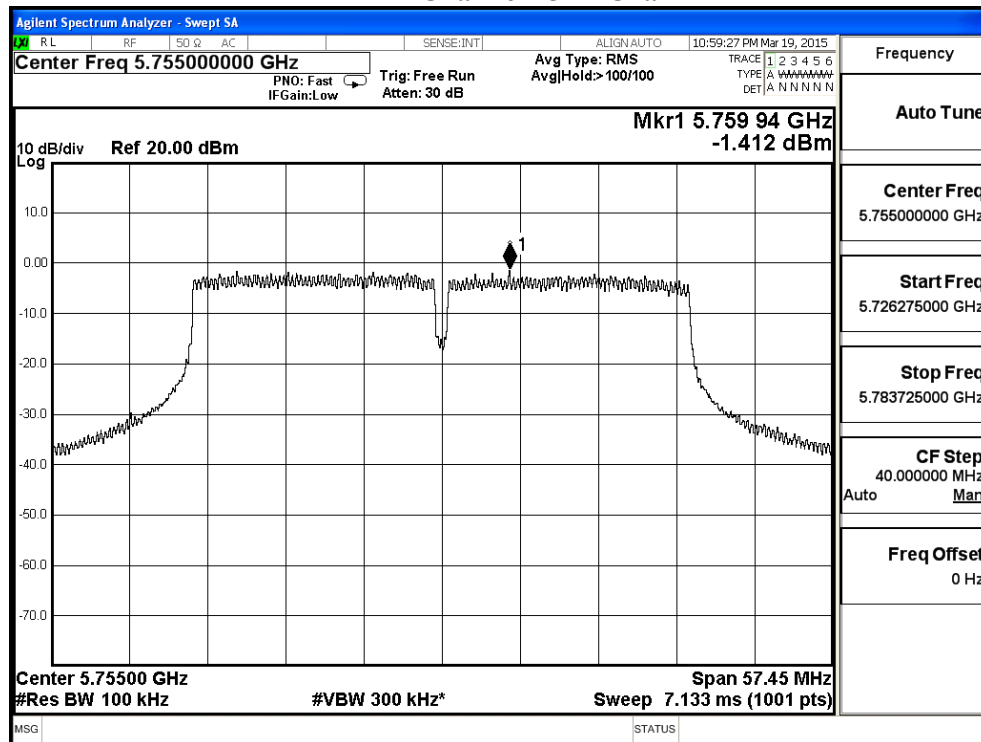
Channel 38 – Chain A



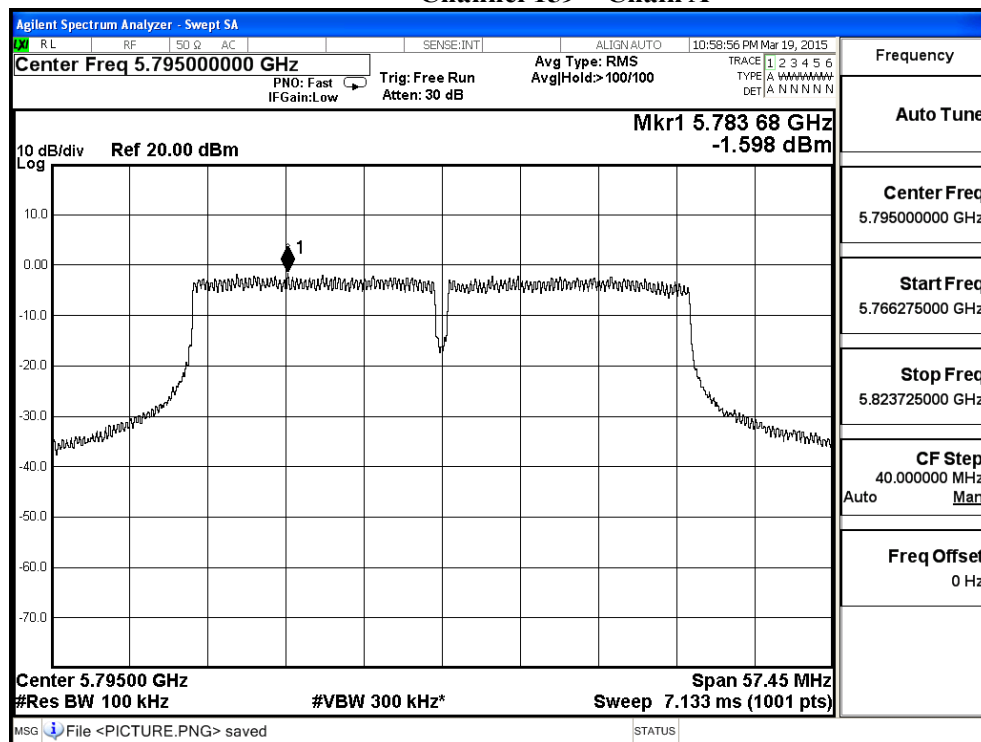
Channel 46 – Chain A



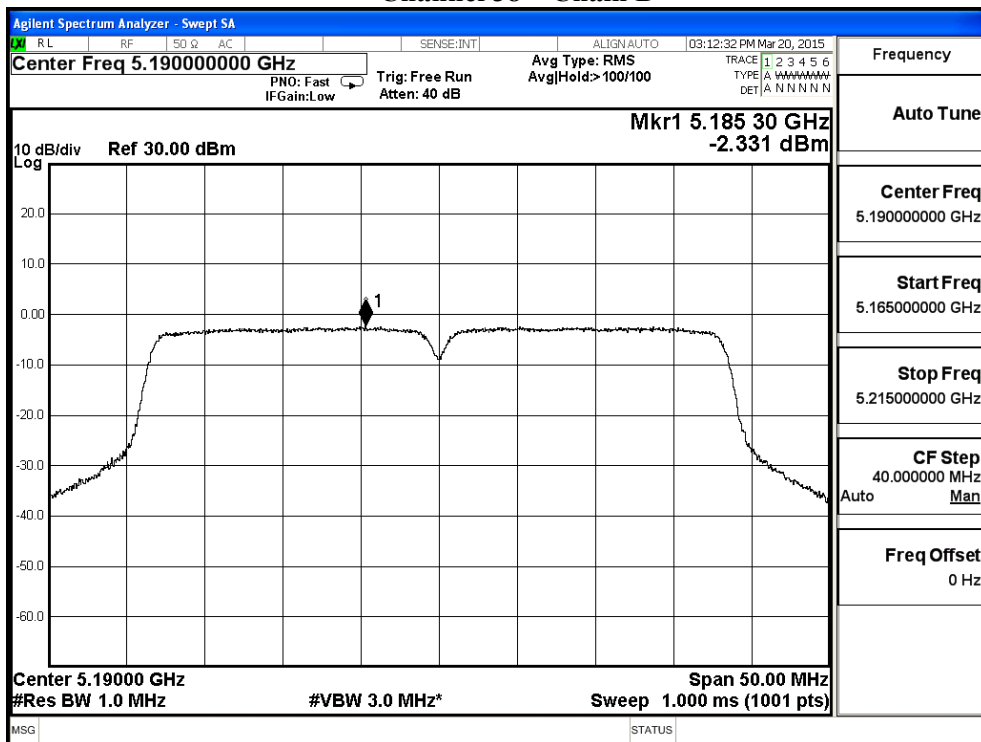
Channel 151 – Chain A



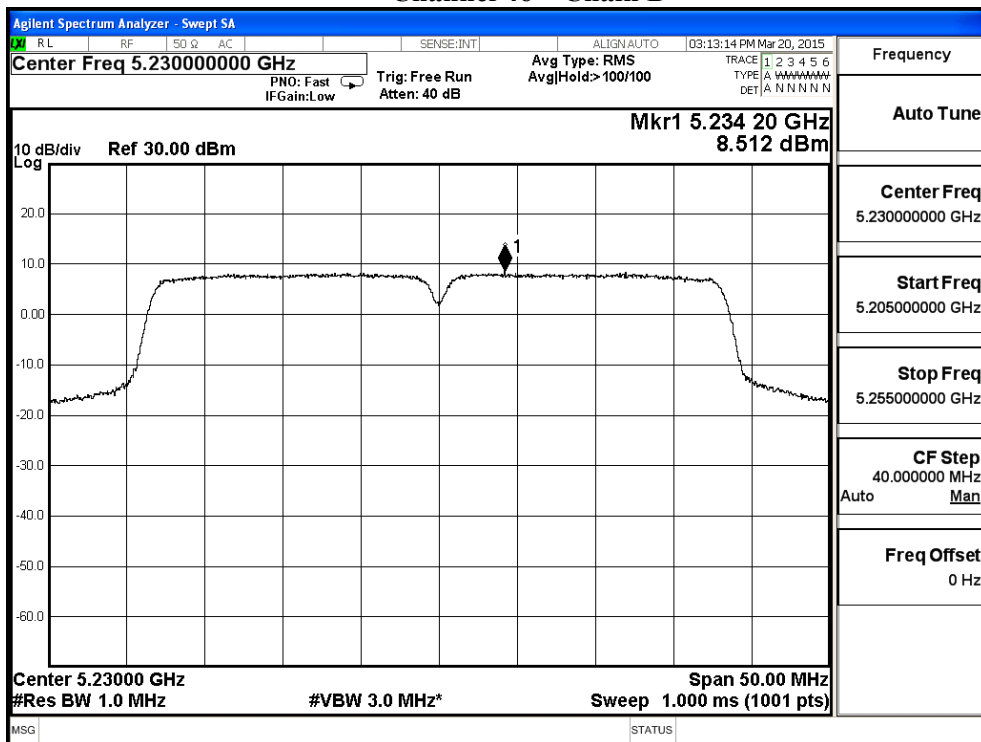
Channel 159 – Chain A



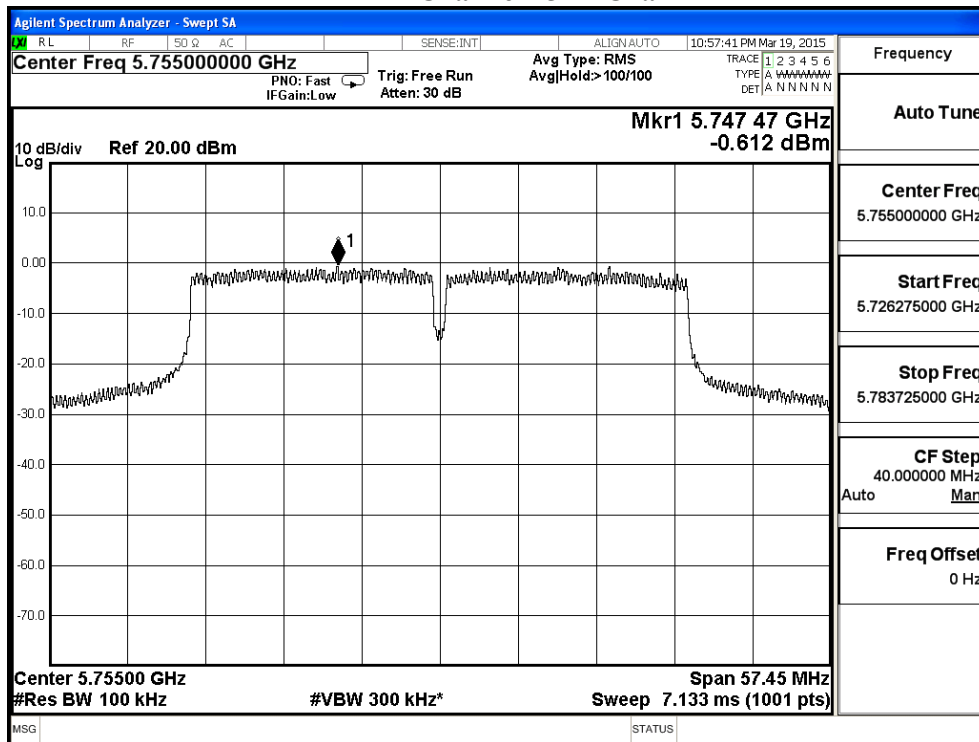
Channel 38 – Chain B



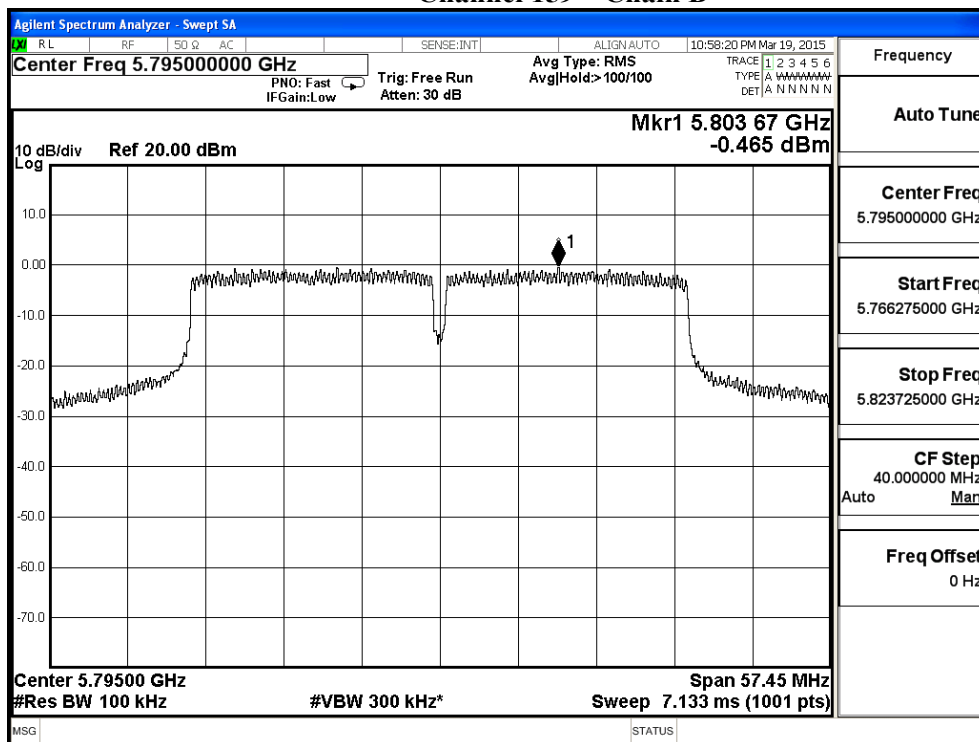
Channel 46 – Chain B



Channel 151 – Chain B



Channel 159 – Chain B



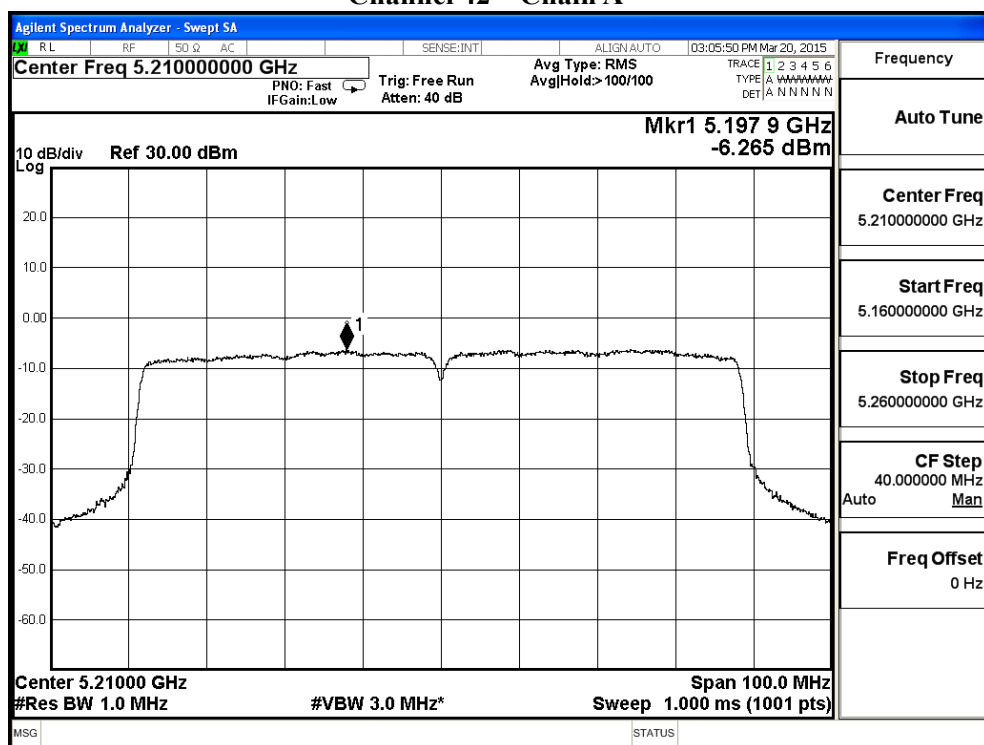
Product : 802.11ac Dual Band Access Point
 Test Item : Peak Power Spectral Density
 Test Site : No.3 OATS
 Test Mode : Mode 4: Transmit (802.11ac-80BW-65Mbps)

Channel Number	Frequency (MHz)	Chain	PPSD (dBm)	Total PSD (dBm) ¹	Required Limit (dBm)	Result
42	5210	A	-6.265	-3.255	17	Pass
		B	-5.261	-2.251	17	Pass

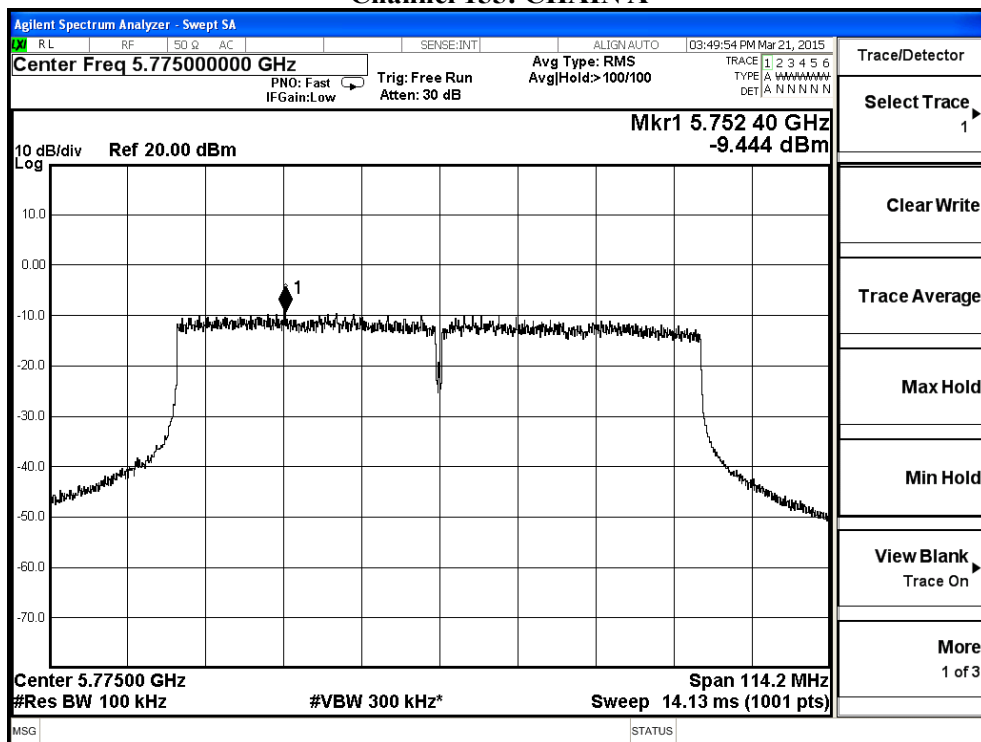
Channel Number	Frequency (MHz)	Chain	PPSD (dBm)	BWCF (dB)	Total PSD (dBm) ¹	Required Limit (dBm)	Result
155	5775	A	-9.444	6.980	0.546	<30	Pass
		B	-7.319	6.980	2.671	<30	Pass

Note 1: The quantity $10 \cdot \log 2$ (two antennas) is added to the spectrum peak value according to document 662911 D01.

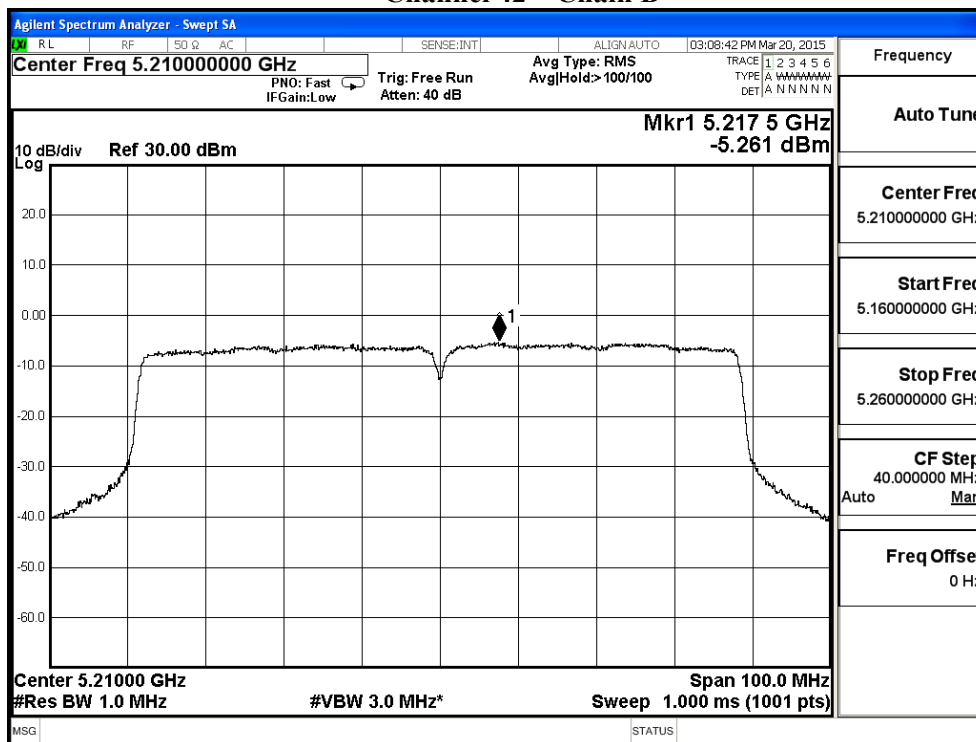
Channel 42 – Chain A



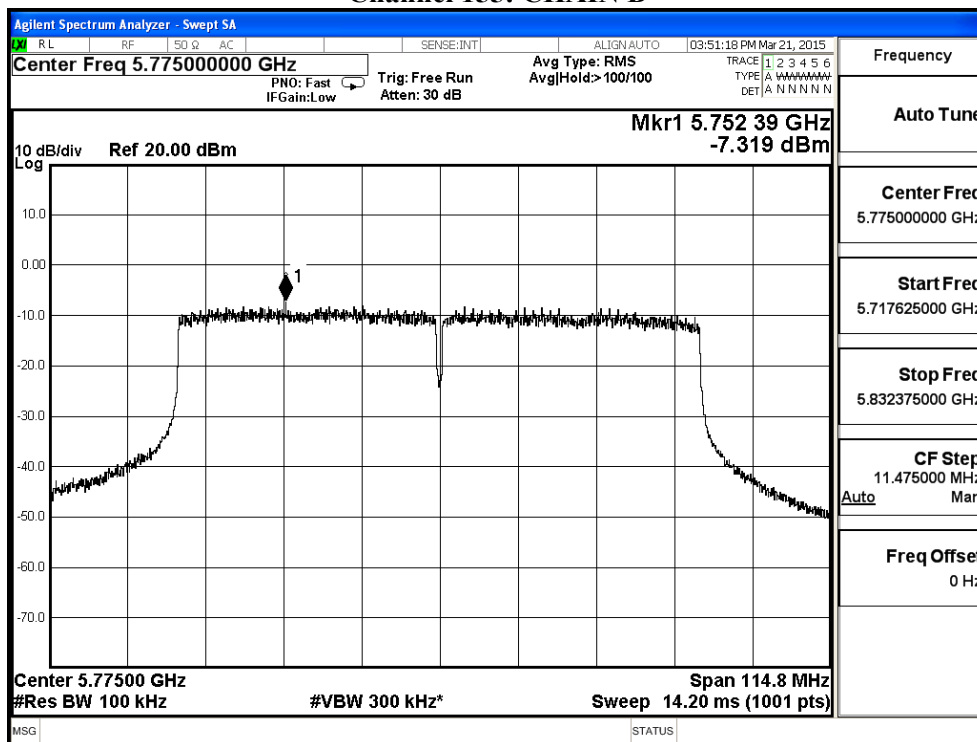
Channel 155: CHAIN A



Channel 42 – Chain B



Channel 155: CHAIN B



5. Radiated Emission

5.1. Test Equipment

The following test equipments are used during the radiated emission test:

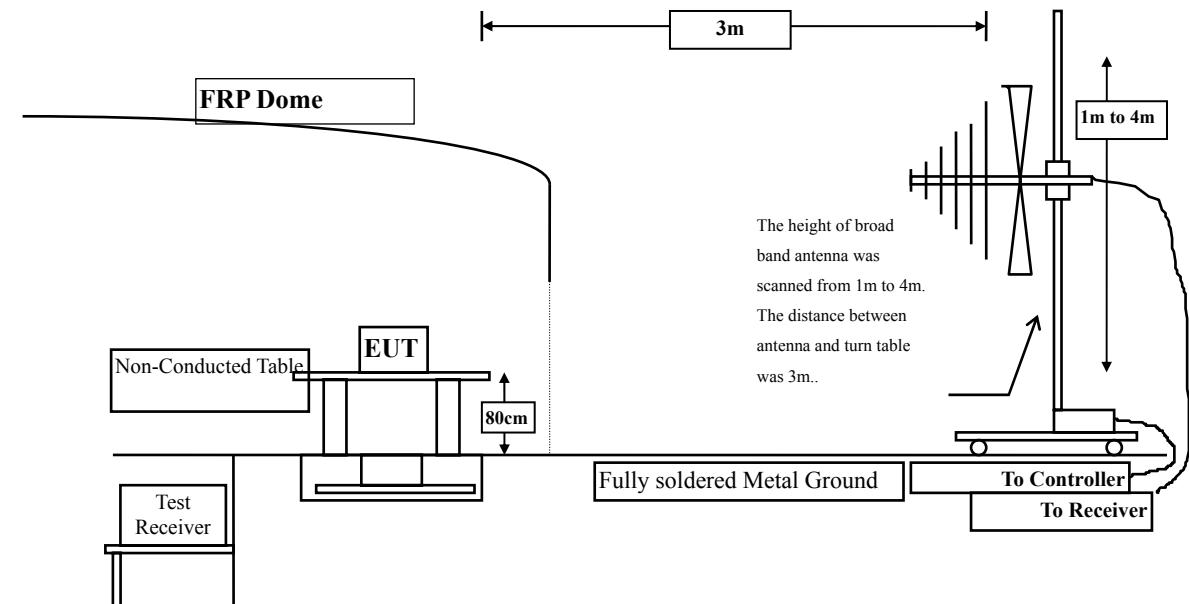
Test Site		Equipment	Manufacturer	Model No./Serial No.	Last Cal.
☒ Site # 3	X	Magnetic Loop Antenna	Teseq	HLA6121/ 37133	Sep, 2014
	X	Bilog Antenna	Schaffner Chase	CBL6112B/ 2707	Jun, 2014
	X	EMI Test Receiver	R&S	ESCS 30/838251/ 001	Jun, 2014
	X	Coaxial Cable	QTK(Arnist)	RG 214/ LC003-RG	Jun, 2014
	X	Coaxial signal switch	Arnist	MP59B/ 6200798682	Jun, 2014

Test Site		Equipment	Manufacturer	Model No./Serial No.	Last Cal.
☒ CB # 8	X	Spectrum Analyzer	R&S	FSP40/ 100339	Oct, 2014
	X	Horn Antenna	ETS-Lindgren	3117/ 35205	Mar, 2015
	X	Horn Antenna	Schwarzbeck	BBHA9170/209	Jan, 2015
	X	Horn Antenna	TRC	AH-0801/95051	Aug, 2014
	X	Pre-Amplifier	EMCI	EMC012630SE/980210	Jan, 2015
	X	Pre-Amplifier	MITEQ	JS41-001040000-58-5P/153945	Jul, 2014
	X	Pre-Amplifier	NARDA	DBL-1840N506/013	Jul, 2014

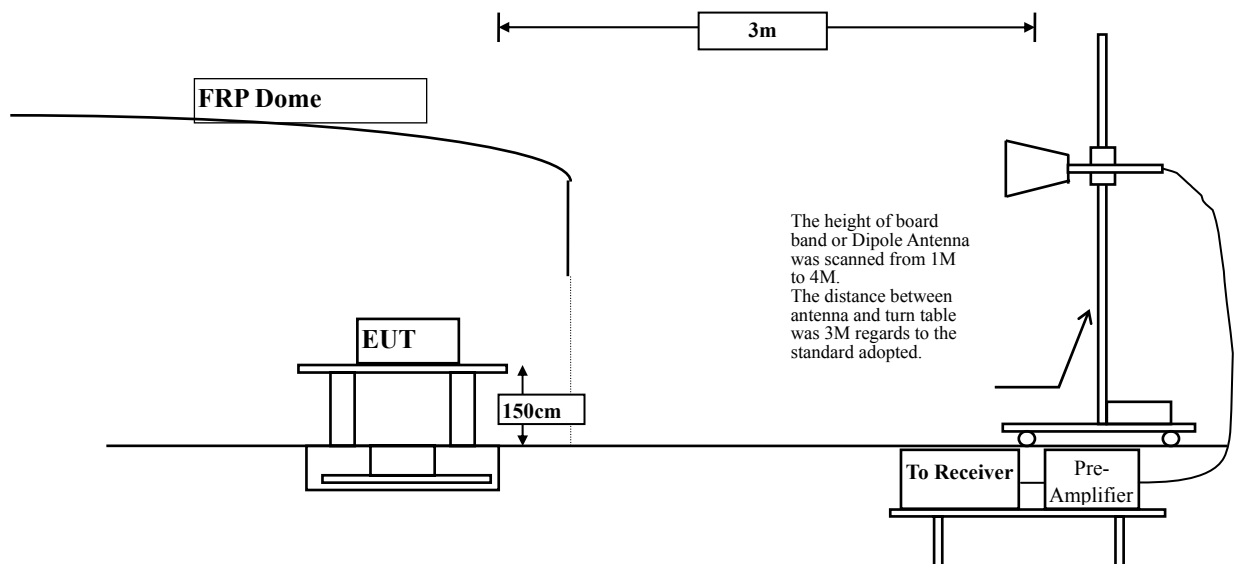
- Note:
1. All equipments are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.
 2. The test instruments marked with "X" are used to measure the final test results.

5.2. Test Setup

Radiated Emission Below 1GHz



Radiated Emission Above 1GHz



5.3. Limits

Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 20dB below the level of the fundamental or to the general radiated emission limits in paragraph 15.209, whichever is the lesser attenuation.

FCC Part 15 Subpart C Paragraph 15.209(a) Limits		
Frequency MHz	Field strength (microvolts/meter)	Measurement distance (meter)
0.009-0.490	2400/F(kHz)	300
0.490-1.705	24000/F(kHz)	30
1.705-30	30	30
30-88	100	3
88-216	150	3
216-960	200	3
Above 960	500	3

Remarks: E field strength (dBμV/m) = 20 log E field strength (uV/m)

5.4. Test Procedure

The EUT was setup according to ANSI C63.10, 2013 and tested according to FCC KDB-789033 test procedure for compliance to FCC 47CFR 15. 407 requirements.

Measuring the frequency range below 1GHz, the EUT is placed on a turn table which is 0.8 meter above ground, when measuring the frequency range above 1GHz, the EUT is placed on a turn table which is 1.5 meter above ground.

The turn table is rotated 360 degrees to determine the position of the maximum emission level.

The EUT was positioned such that the distance from antenna to the EUT was 3 meters.

The antenna is scanned between 1 meter and 4 meters to find out the maximum emission level. This is repeated for both horizontal and vertical polarization of the antenna. In order to find the maximum emission, all of the interface cables were manipulated according to ANSI C63.10: 2013 on radiated measurement.

The resolution bandwidth below 30MHz setting on the field strength meter is 9kHz and 30MHz~1GHz is 120kHz and above 1GHz is 1MHz.

Radiated emission measurements below 30MHz are made using Loop Antenna and 30MHz~1GHz are made using broadband Bilog antenna and above 1GHz are made using Horn Antennas.

The measurement is divided into the Preliminary Measurement and the Final Measurement.

The suspected frequencies are searched for in Preliminary Measurement with the measurement antenna kept pointed at the source of the emission both in azimuth and elevation, with the polarization of the antenna oriented for maximum response. The antenna is pointed at an angle towards the source of the emission, and the EUT is rotated in both height and polarization to maximize the measured emission. The emission is kept within the illumination area of the 3 dB bandwidth of the antenna.

The worst radiated emission is measured in the Open Area Test Site on the Final Measurement.

The measurement frequency range from 9kHz - 10th Harmonic of fundamental was investigated.

5.5. Uncertainty

± 3.8 dB below 1GHz

± 3.9 dB above 1GHz

5.6. Test Result of Radiated Emission

Product : 802.11ac Dual Band Access Point
 Test Item : Harmonic Radiated Emission Data
 Test Site : No.3 OATS
 Test Mode : Mode 1: Transmit (802.11a-6Mbps) (5180MHz)

Frequency MHz	Correct Factor dB	Reading Level dBμV	Measurement Level dBμV/m	Margin dB	Limit dBμV/m
Horizontal					
Peak Detector:					
10360.000	12.930	38.150	51.080	-22.920	74.000
15540.000	*	*	*	*	74.000
20720.000	*	*	*	*	74.000
25900.000	*	*	*	*	74.000
31080.000	*	*	*	*	74.000
36260.000	*	*	*	*	74.000
Average Detector:					
*	*	*	*	*	*
Vertical					
Peak Detector:					
10360.000	13.724	37.300	51.024	-22.976	74.000
15540.000	*	*	*	*	74.000
20720.000	*	*	*	*	74.000
25900.000	*	*	*	*	74.000
31080.000	*	*	*	*	74.000
36260.000	*	*	*	*	74.000
Average Detector:					
*	*	*	*	*	*

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss – Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : 802.11ac Dual Band Access Point
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 1: Transmit (802.11a-6Mbps) (5220MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
MHz	Factor	Level	Level		
	dB	dB μ V	dB μ V/m	dB	dB μ V/m
Horizontal					
Peak Detector:					
10440.000	13.322	40.590	53.912	-20.088	74.000
15660.000	*	*	*	*	74.000
20880.000	*	*	*	*	74.000
26100.000	*	*	*	*	74.000
Average					
Detector:					
*	*	*	*	*	*
Vertical					
Peak Detector:					
10440.000	14.245	37.590	51.835	-22.165	74.000
15660.000	*	*	*	*	74.000
20880.000	*	*	*	*	74.000
26100.000	*	*	*	*	74.000
Average					
Detector:					
*	*	*	*	*	*

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : 802.11ac Dual Band Access Point
 Test Item : Harmonic Radiated Emission Data
 Test Site : No.3 OATS
 Test Mode : Mode 1: Transmit (802.11a-6Mbps) (5240MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
MHz	Factor	Level	Level		
	dB	dB μ V	dB μ V/m	dB	dB μ V/m
Horizontal					
Peak Detector:					
10480.000	13.693	40.130	53.824	-20.176	74.000
15720.000	*	*	*	*	74.000
20960.000	*	*	*	*	74.000
26200.000	*	*	*	*	74.000
Average					
Detector:					
*	*	*	*	*	*
Vertical					
Peak Detector:					
10480.000	14.620	37.940	52.561	-21.439	74.000
15720.000	*	*	*	*	74.000
20960.000	*	*	*	*	74.000
26200.000	*	*	*	*	74.000
Average					
Detector:					
10480.000	14.620	28.880	43.501	-10.499	54.000

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss – Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : 802.11ac Dual Band Access Point
 Test Item : Harmonic Radiated Emission Data
 Test Site : No.3 OATS
 Test Mode : Mode 1: Transmit (802.11a-6Mbps) (5745MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
MHz	Factor	Level	Level		
	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector:					
11490.000	17.106	44.120	61.227	-12.773	74.000
17235.000	*	*	*	*	74.000
20720.000	*	*	*	*	74.000
25900.000	*	*	*	*	74.000
31080.000	*	*	*	*	74.000
36260.000	*	*	*	*	74.000
Average					
Detector:					
11490.000	17.106	29.490	46.597	-7.403	54.000
Vertical					
Peak Detector:					
11490.000	18.034	42.550	60.585	-13.415	74.000
17235.000	*	*	*	*	74.000
20720.000	*	*	*	*	74.000
25900.000	*	*	*	*	74.000
31080.000	*	*	*	*	74.000
36260.000	*	*	*	*	74.000
Average					
Detector:					
11490.000	18.034	27.450	45.485	-8.515	54.000

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss – Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : 802.11ac Dual Band Access Point
 Test Item : Harmonic Radiated Emission Data
 Test Site : No.3 OATS
 Test Mode : Mode 1: Transmit (802.11a-6Mbps) (5785MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
MHz	Factor	Level	Level		
	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector:					
11570.000	16.809	44.390	61.199	-12.801	74.000
17355.000	*	*	*	*	74.000
20800.000	*	*	*	*	74.000
26000.000	*	*	*	*	74.000
31200.000	*	*	*	*	74.000
36400.000	*	*	*	*	74.000
Average					
Detector:					
11570.000	16.809	29.220	46.029	-7.971	54.000
Vertical					
Peak Detector:					
11570.000	17.698	43.910	61.608	-12.392	74.000
17355.000	*	*	*	*	74.000
20800.000	*	*	*	*	74.000
26000.000	*	*	*	*	74.000
31200.000	*	*	*	*	74.000
36400.000	*	*	*	*	74.000
Average					
Detector:					
11570.000	17.698	29.300	46.998	-7.002	54.000

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss – Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : 802.11ac Dual Band Access Point
 Test Item : Harmonic Radiated Emission Data
 Test Site : No.3 OATS
 Test Mode : Mode 1: Transmit (802.11a-6Mbps) (5825MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
MHz	Factor	Level	Level		
	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector:					
11650.000	16.158	44.400	60.558	-13.442	74.000
17475.000	*	*	*	*	74.000
20960.000	*	*	*	*	74.000
26200.000	*	*	*	*	74.000
31440000	*	*	*	*	74.000
36680.000	*	*	*	*	74.000
Average					
Detector:					
11650.000	16.158	29.410	45.568	-8.432	54.000
Vertical					
Peak Detector:					
11650.000	17.274	43.380	60.655	-13.345	74.000
17475.000	*	*	*	*	74.000
20960.000	*	*	*	*	74.000
26200.000	*	*	*	*	74.000
31440000	*	*	*	*	74.000
36680.000	*	*	*	*	74.000
Average					
Detector:					
11650.000	17.274	28.590	45.865	-8.135	54.000

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss – Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : 802.11ac Dual Band Access Point
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 2: Transmit (802.11n-20BW 14.4Mbps) (5180MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
MHz	Factor	Level	Level		
	dB	dB μ V	dB μ V/m	dB	dB μ V/m
Horizontal					
Peak Detector:					
10360.000	12.930	39.690	52.620	-21.380	74.000
15540.000	*	*	*	*	74.000
20720.000	*	*	*	*	74.000
25900.000	*	*	*	*	74.000
Average Detector:					
*	*	*	*	*	*
Vertical					
Peak Detector:					
10360.000	13.724	37.900	51.624	-22.376	74.000
15540.000	*	*	*	*	74.000
20720.000	*	*	*	*	74.000
25900.000	*	*	*	*	74.000
Average Detector:					
*	*	*	*	*	*

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : 802.11ac Dual Band Access Point
 Test Item : Harmonic Radiated Emission Data
 Test Site : No.3 OATS
 Test Mode : Mode 2: Transmit (802.11n-20BW 14.4Mbps) (5220MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
MHz	Factor	Level	Level		
	dB	dB μ V	dB μ V/m	dB	dB μ V/m
Horizontal					
Peak Detector:					
10440.000	13.322	39.690	53.012	-20.988	74.000
15660.000	*	*	*	*	74.000
20880.000	*	*	*	*	74.000
26100.000	*	*	*	*	74.000
Average					
Detector:					
*	*	*	*	*	*
Vertical					
Peak Detector:					
10440.000	14.245	37.420	51.665	-22.335	74.000
15660.000	*	*	*	*	74.000
20880.000	*	*	*	*	74.000
26100.000	*	*	*	*	74.000
Average					
Detector:					
*	*	*	*	*	*

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss – Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : 802.11ac Dual Band Access Point
 Test Item : Harmonic Radiated Emission Data
 Test Site : No.3 OATS
 Test Mode : Mode 2: Transmit (802.11n-20BW 14.4Mbps) (5240MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
MHz	Factor	Level	Level		
	dB	dB μ V	dB μ V/m	dB	dB μ V/m
Horizontal					
Peak Detector:					
10480.000	13.693	39.670	53.364	-20.636	74.000
15720.000	*	*	*	*	74.000
20960.000	*	*	*	*	74.000
26200.000	*	*	*	*	74.000
Average					
Detector:					
*	*	*	*	*	*
Vertical					
Peak Detector:					
10480.000	14.620	37.890	52.511	-21.489	74.000
15720.000	*	*	*	*	74.000
20960.000	*	*	*	*	74.000
26200.000	*	*	*	*	74.000
Average					
Detector:					
*	*	*	*	*	*

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss – Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : 802.11ac Dual Band Access Point
 Test Item : Harmonic Radiated Emission Data
 Test Site : No.3 OATS
 Test Mode : Mode 2: Transmit (802.11n-20BW 14.4Mbps) (5745MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
MHz	Factor	Level	Level		
	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector:					
11490.000	17.106	42.730	59.837	-14.163	74.000
17235.000	*	*	*	*	74.000
20720.000	*	*	*	*	74.000
25900.000	*	*	*	*	74.000
31080.000	*	*	*	*	74.000
36260.000	*	*	*	*	74.000
Average					
Detector:					
11490.000	17.106	27.410	44.517	-9.483	54.000
Vertical					
Peak Detector:					
11490.000	18.034	41.780	59.815	-14.185	74.000
17235.000	*	*	*	*	74.000
20720.000	*	*	*	*	74.000
25900.000	*	*	*	*	74.000
31080.000	*	*	*	*	74.000
36260.000	*	*	*	*	74.000
Average					
Detector:					
11490.000	18.034	25.880	43.915	-10.085	54.000

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss – Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : 802.11ac Dual Band Access Point
 Test Item : Harmonic Radiated Emission Data
 Test Site : No.3 OATS
 Test Mode : Mode 2: Transmit (802.11n-20BW 14.4Mbps) (5785MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
MHz	Factor	Level	Level		
	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector:					
11570.000	16.809	42.350	59.159	-14.841	74.000
17355.000	*	*	*	*	74.000
20880.000	*	*	*	*	74.000
26100.000	*	*	*	*	74.000
31320.000	*	*	*	*	74.000
36540.000	*	*	*	*	74.000
Average					
Detector:					
11570.000	16.809	27.370	44.179	-9.821	54.000
Vertical					
Peak Detector:					
11570.000	17.698	41.790	59.488	-14.512	74.000
17355.000	*	*	*	*	74.000
20880.000	*	*	*	*	74.000
26100.000	*	*	*	*	74.000
31320.000	*	*	*	*	74.000
36540.000	*	*	*	*	74.000
Average					
Detector:					
11570.000	17.698	26.700	44.398	-9.602	54.000

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss – Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : 802.11ac Dual Band Access Point
 Test Item : Harmonic Radiated Emission Data
 Test Site : No.3 OATS
 Test Mode : Mode 2: Transmit (802.11n-20BW 14.4Mbps) (5825MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
MHz	Factor	Level	Level		
	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector:					
11650.000	16.158	41.530	57.688	-16.312	74.000
17475.000	*	*	*	*	74.000
20960.000	*	*	*	*	74.000
26200.000	*	*	*	*	74.000
31440.000	*	*	*	*	74.000
36680.000	*	*	*	*	74.000
Average					
Detector:					
11650.000	16.158	27.250	43.408	-10.592	54.000
Vertical					
Peak Detector:					
11650.000	17.274	41.420	58.695	-15.305	74.000
17475.000	*	*	*	*	74.000
20960.000	*	*	*	*	74.000
26200.000	*	*	*	*	74.000
31440.000	*	*	*	*	74.000
36680.000	*	*	*	*	74.000
Average					
Detector:					
11650.000	17.274	26.610	43.885	-10.115	54.000

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss – Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : 802.11ac Dual Band Access Point
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 3: Transmit (802.11n-40BW 30Mbps) (5190MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
MHz	Factor	Level	Level		
	dB	dB μ V	dB μ V/m	dB	dB μ V/m
Horizontal					
Peak Detector:					
10380.000	12.939	37.130	50.069	-23.931	74.000
15570.000	*	*	*	*	74.000
20760.000	*	*	*	*	74.000
25950.000	*	*	*	*	74.000
Average					
Detector:					
*	*	*	*	*	*
Vertical					
Peak Detector:					
10380.000	13.796	36.960	50.756	-23.244	74.000
15570.000	*	*	*	*	74.000
20760.000	*	*	*	*	74.000
25950.000	*	*	*	*	74.000
Average					
Detector:					
*	*	*	*	*	*

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : 802.11ac Dual Band Access Point
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 3: Transmit (802.11n-40BW 30Mbps) (5230MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
MHz	Factor	Level	Level		
	dB	dB μ V	dB μ V/m	dB	dB μ V/m
Horizontal					
Peak Detector:					
10460.000	13.508	38.190	51.698	-22.302	74.000
15690.000	*	*	*	*	74.000
20920.000	*	*	*	*	74.000
26150.000	*	*	*	*	74.000
Average Detector:					
*	*	*	*	*	*
Vertical					
Peak Detector:					
10460.000	14.433	37.440	51.873	-22.127	74.000
15690.000	*	*	*	*	74.000
20920.000	*	*	*	*	74.000
26150.000	*	*	*	*	74.000
Average Detector:					
*	*	*	*	*	*

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : 802.11ac Dual Band Access Point
 Test Item : Harmonic Radiated Emission Data
 Test Site : No.3 OATS
 Test Mode : Mode 3: Transmit (802.11n-40BW 30Mbps) (5755MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
MHz	Factor	Level	Level		
	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector:					
11510.000	17.124	40.320	57.444	-16.556	74.000
17265.000	*	*	*	*	74.000
20760.000	*	*	*	*	74.000
25950.000	*	*	*	*	74.000
31140.000	*	*	*	*	74.000
36330.000	*	*	*	*	74.000
Average					
Detector:					
11510.000	17.124	25.050	42.174	-11.826	54.000
Vertical					
Peak Detector:					
11510.000	18.081	40.010	58.091	-15.909	74.000
17265.000	*	*	*	*	74.000
20760.000	*	*	*	*	74.000
25950.000	*	*	*	*	74.000
31140.000	*	*	*	*	74.000
36330.000	*	*	*	*	74.000
Average					
Detector:					
11510.000	18.081	23.990	42.071	-11.929	54.000

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss – Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : 802.11ac Dual Band Access Point
 Test Item : Harmonic Radiated Emission Data
 Test Site : No.3 OATS
 Test Mode : Mode 3: Transmit (802.11n-40BW 30Mbps) (5795MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
MHz	Factor	Level	Level		
	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector:					
11590.000	16.701	41.620	58.320	-15.680	74.000
17385.000	*	*	*	*	74.000
20920.000	*	*	*	*	74.000
26150.000	*	*	*	*	74.000
31380.000	*	*	*	*	74.000
36610.000	*	*	*	*	74.000
Average					
Detector:					
11590.000	16.701	25.840	42.540	-11.460	54.000
Vertical					
Peak Detector:					
11590.000	17.567	40.830	58.396	-15.604	74.000
17385.000	*	*	*	*	74.000
20920.000	*	*	*	*	74.000
26150.000	*	*	*	*	74.000
31380.000	*	*	*	*	74.000
36610.000	*	*	*	*	74.000
Average					
Detector:					
11590.000	17.567	25.100	42.666	-11.334	54.000

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss – Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : 802.11ac Dual Band Access Point
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 4: Transmit (802.11ac-80BW-65Mbps) (5210MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
MHz	Factor	Level	Level		
	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector:					
10420.000	13.135	36.930	50.065	-23.935	74.000
11550.000	*	*	*	*	74.000
17325.000	*	*	*	*	74.000
20720.000	*	*	*	*	74.000
25900.000	*	*	*	*	74.000
31080.000	*	*	*	*	74.000
36260.000	*	*	*	*	74.000
Average					
Detector:					
*	*	*	*	*	*
Vertical					
Peak Detector:					
10420.000	14.057	37.080	51.137	-22.863	74.000
11550.000	*	*	*	*	74.000
17325.000	*	*	*	*	74.000
20720.000	*	*	*	*	74.000
25900.000	*	*	*	*	74.000
31080.000	*	*	*	*	74.000
36260.000	*	*	*	*	74.000
Average					
Detector:					
*	*	*	*	*	*

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : 802.11ac Dual Band Access Point
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 4: Transmit (802.11ac-80BW-65Mbps) (5775MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
MHz	Factor	Level	Level		
	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector:					
11550.000	16.914	35.150	52.064	-21.936	74.000
17325.000	*	*	*	*	74.000
20720.000	*	*	*	*	74.000
25900.000	*	*	*	*	74.000
31080.000	*	*	*	*	74.000
36260.000	*	*	*	*	74.000
Average					
Detector:					
--					
Vertical					
Peak Detector:					
11550.000	17.826	35.290	53.115	-20.885	74.000
17325.000	*	*	*	*	74.000
20720.000	*	*	*	*	74.000
25900.000	*	*	*	*	74.000
31080.000	*	*	*	*	74.000
36260.000	*	*	*	*	74.000
Average					
Detector:					
--					

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : 802.11ac Dual Band Access Point
 Test Item : General Radiated Emission
 Test Site : No.3 OATS
 Test Mode : Mode 1: Transmit (802.11a-6Mbps) (5220MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
MHz	Factor	Level	Level		
	dB	dBμV	dBμV/m	dB	dBμV/m
Horizontal					
Peak Detector					
90.140	-9.449	44.689	35.240	-8.260	43.500
167.740	-10.799	36.934	26.135	-17.365	43.500
369.500	-1.098	42.194	41.096	-4.904	46.000
499.480	0.048	35.889	35.937	-10.063	46.000
602.300	4.287	30.571	34.858	-11.142	46.000
875.840	5.271	32.434	37.705	-8.295	46.000
Vertical					
Peak Detector					
101.780	-0.021	37.571	37.549	-5.951	43.500
231.760	-8.848	44.502	35.654	-10.346	46.000
367.560	-2.545	40.309	37.764	-8.236	46.000
538.280	0.020	34.168	34.188	-11.812	46.000
749.740	2.510	30.850	33.360	-12.640	46.000
965.080	7.932	24.407	32.339	-21.661	54.000

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss – Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.
8. No emission found between lowest internal used/generated frequency to 30MHz.

Product : 802.11ac Dual Band Access Point
 Test Item : General Radiated Emission
 Test Site : No.3 OATS
 Test Mode : Mode 2: Transmit (802.11n-20BW 14.4Mbps) (5785MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
MHz	Factor	Level	Level		
	dB	dB μ V	dB μ V/m	dB	dB μ V/m

Horizontal

Peak Detector

88.200	-9.696	45.591	35.895	-7.605	43.500
367.560	-1.205	41.040	39.835	-6.165	46.000
499.480	0.048	34.548	34.596	-11.404	46.000
625.580	1.770	34.510	36.280	-9.720	46.000
749.740	3.320	30.386	33.706	-12.294	46.000
984.480	7.679	25.415	33.094	-20.906	54.000

Vertical

Peak Detector

72.680	-5.622	37.735	32.112	-7.888	40.000
159.980	-6.185	35.244	29.059	-14.441	43.500
365.620	-2.179	40.051	37.872	-8.128	46.000
536.340	-0.305	34.309	34.004	-11.996	46.000
749.740	2.510	28.183	30.693	-15.307	46.000
901.060	3.331	31.015	34.346	-11.654	46.000

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss – Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.
8. No emission found between lowest internal used/generated frequency to 30MHz.

Product : 802.11ac Dual Band Access Point
 Test Item : General Radiated Emission
 Test Site : No.3 OATS
 Test Mode : Mode 2: Transmit (802.11n-20BW 14.4Mbps) (5220MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
MHz	Factor	Level	Level		
	dB	dBμV	dBμV/m	dB	dBμV/m
Horizontal					
Peak Detector					
88.200	-9.696	44.930	35.234	-8.266	43.500
167.740	-10.799	35.456	24.657	-18.843	43.500
369.500	-1.098	39.245	38.147	-7.853	46.000
499.480	0.048	36.284	36.332	-9.668	46.000
625.580	1.770	34.648	36.418	-9.582	46.000
875.840	5.271	32.439	37.710	-8.290	46.000
Vertical					
Peak Detector					
103.720	-0.151	37.421	37.269	-6.231	43.500
367.560	-2.545	37.495	34.950	-11.050	46.000
499.480	-0.852	36.808	35.956	-10.044	46.000
600.360	-2.833	35.667	32.834	-13.166	46.000
749.740	2.510	28.806	31.316	-14.684	46.000
963.140	7.604	24.952	32.556	-21.444	54.000

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss – Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.
8. No emission found between lowest internal used/generated frequency to 30MHz.

Product : 802.11ac Dual Band Access Point
 Test Item : General Radiated Emission
 Test Site : No.3 OATS
 Test Mode : Mode 2: Transmit (802.11n-20BW 14.4Mbps) (5785MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
MHz	Factor	Level	Level		
	dB	dBμV	dBμV/m	dB	dBμV/m
Horizontal					
Peak Detector					
90.140	-9.449	45.562	36.113	-7.387	43.500
249.220	-6.014	30.374	24.360	-21.640	46.000
367.560	-1.205	39.382	38.177	-7.823	46.000
499.480	0.048	34.901	34.949	-11.051	46.000
625.580	1.770	32.968	34.738	-11.262	46.000
901.060	5.591	27.018	32.609	-13.391	46.000
Vertical					
Peak Detector					
105.660	-0.253	33.930	33.677	-9.823	43.500
255.040	-7.648	25.932	18.284	-27.716	46.000
375.320	-2.029	33.651	31.622	-14.378	46.000
586.780	-5.884	40.694	34.810	-11.190	46.000
796.300	2.831	32.574	35.405	-10.595	46.000
968.960	8.191	24.082	32.273	-21.727	54.000

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss – Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.
8. No emission found between lowest internal used/generated frequency to 30MHz.

Product : 802.11ac Dual Band Access Point
 Test Item : General Radiated Emission
 Test Site : No.3 OATS
 Test Mode : Mode 3: Transmit (802.11n-40BW 30Mbps) (5190MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
MHz	Factor	Level	Level		
	dB	dBμV	dBμV/m	dB	dBμV/m
Horizontal					
Peak Detector					
86.260	-9.948	42.478	32.530	-7.470	40.000
367.560	-1.205	38.785	37.580	-8.420	46.000
499.480	0.048	34.888	34.936	-11.064	46.000
602.300	4.287	32.557	36.844	-9.156	46.000
875.840	5.271	34.611	39.882	-6.118	46.000
986.420	7.773	24.831	32.604	-21.396	54.000
Vertical					
Peak Detector					
101.780	-0.021	36.338	36.316	-7.184	43.500
375.320	-2.029	34.060	32.031	-13.969	46.000
540.220	0.121	34.640	34.761	-11.239	46.000
749.740	2.510	29.495	32.005	-13.995	46.000
875.840	1.621	30.370	31.991	-14.009	46.000
968.960	8.191	24.638	32.829	-21.171	54.000

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss – Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.
8. No emission found between lowest internal used/generated frequency to 30MHz.

Product : 802.11ac Dual Band Access Point
 Test Item : General Radiated Emission
 Test Site : No.3 OATS
 Test Mode : Mode 3: Transmit (802.11n-40BW 30Mbps) (5755MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
MHz	Factor	Level	Level		
	dB	dB μ V	dB μ V/m	dB	dB μ V/m
Horizontal					
Peak Detector					
111.480	-7.914	35.075	27.161	-16.339	43.500
369.500	-1.098	41.132	40.034	-5.966	46.000
499.480	0.048	35.576	35.624	-10.376	46.000
749.740	3.320	28.982	32.302	-13.698	46.000
860.320	5.656	23.114	28.770	-17.230	46.000
963.140	6.664	23.517	30.181	-23.819	54.000
Vertical					
Peak Detector					
99.840	-0.021	37.812	37.791	-5.709	43.500
268.620	-8.842	26.319	17.477	-28.523	46.000
505.300	-0.772	26.468	25.696	-20.304	46.000
625.580	-2.600	31.803	29.203	-16.797	46.000
804.060	3.587	23.833	27.420	-18.580	46.000
945.680	6.594	24.792	31.386	-14.614	46.000

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss – Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.
8. No emission found between lowest internal used/generated frequency to 30MHz.

Product : 802.11ac Dual Band Access Point
 Test Item : General Radiated Emission
 Test Site : No.3 OATS
 Test Mode : Mode 4: Transmit (802.11ac-80BW-65Mbps) (5210MHz)

Frequency MHz	Correct Factor dB	Reading Level dBμV	Measurement Level dBμV/m	Margin dB	Limit dBμV/m
Horizontal					
Peak Detector					
84.320	-10.564	40.923	30.359	-9.641	40.000
249.220	-6.014	30.376	24.362	-21.638	46.000
365.620	-1.329	40.847	39.518	-6.482	46.000
580.960	3.505	29.801	33.306	-12.694	46.000
749.740	3.320	29.918	33.238	-12.762	46.000
974.780	6.652	23.669	30.321	-23.679	54.000
Vertical					
Peak Detector					
103.720	-0.151	34.563	34.411	-9.089	43.500
361.740	-3.129	31.056	27.927	-18.073	46.000
482.020	-3.985	30.232	26.247	-19.753	46.000
608.120	-1.576	29.534	27.958	-18.042	46.000
749.740	2.510	27.500	30.010	-15.990	46.000
945.680	6.594	24.004	30.598	-15.402	46.000

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss – Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.
8. No emission found between lowest internal used/generated frequency to 30MHz.

Product : 802.11ac Dual Band Access Point
 Test Item : General Radiated Emission
 Test Site : No.3 OATS
 Test Mode : Mode 4: Transmit (802.11ac-80BW-65Mbps) (5775MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
MHz	Factor	Level	Level		
	dB	dBμV	dBμV/m	dB	dBμV/m
Horizontal					
Peak Detector					
66.860	-12.355	46.919	34.564	-5.436	40.000
262.800	-5.013	25.695	20.682	-25.318	46.000
433.520	-1.972	38.623	36.651	-9.349	46.000
602.300	4.287	33.102	37.389	-8.611	46.000
875.840	5.271	34.549	39.820	-6.180	46.000
967.020	6.921	24.242	31.163	-22.837	54.000
Vertical					
Peak Detector					
105.660	-0.253	32.652	32.399	-11.101	43.500
375.320	-2.029	32.882	30.853	-15.147	46.000
497.540	-1.393	28.903	27.510	-18.490	46.000
598.420	-2.979	34.116	31.137	-14.863	46.000
786.600	2.972	24.984	27.956	-18.044	46.000
934.040	5.792	25.317	31.109	-14.891	46.000

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss – Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.
8. No emission found between lowest internal used/generated frequency to 30MHz.

6. Band Edge

6.1. Test Equipment

RF Conducted Measurement

The following test equipments are used during the band edge tests:

	Equipment	Manufacturer	Model No./Serial No.	Last Cal.
	Spectrum Analyzer	R&S	FSP40 / 100170	Jun, 2014
	Spectrum Analyzer	Agilent	E4407B / US39440758	Jun, 2014
X	Spectrum Analyzer	Agilent	N9010A / MY48030495	Apr., 2015

Note:

1. All equipments are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.
2. The test instruments marked with "X" are used to measure the final test results.

RF Radiated Measurement:

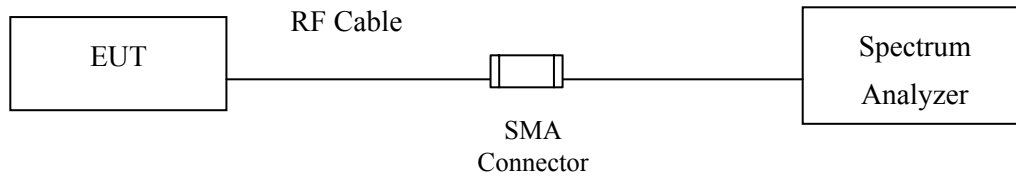
The following test equipments are used during the band edge tests:

Test Site		Equipment	Manufacturer	Model No./Serial No.	Last Cal.
☒ CB # 8	X	Spectrum Analyzer	R&S	FSP40/ 100339	Oct, 2014
	X	Horn Antenna	ETS-Lindgren	3117/ 35205	Mar, 2015
	X	Horn Antenna	Schwarzbeck	BBHA9170/209	Jan, 2015
	X	Horn Antenna	TRC	AH-0801/95051	Aug, 2014
	X	Pre-Amplifier	EMCI	EMC012630SE/980210	Jan, 2015
	X	Pre-Amplifier	MITEQ	JS41-001040000-58-5P/153945	Jul, 2014
	X	Pre-Amplifier	NARDA	DBL-1840N506/013	Jul, 2014

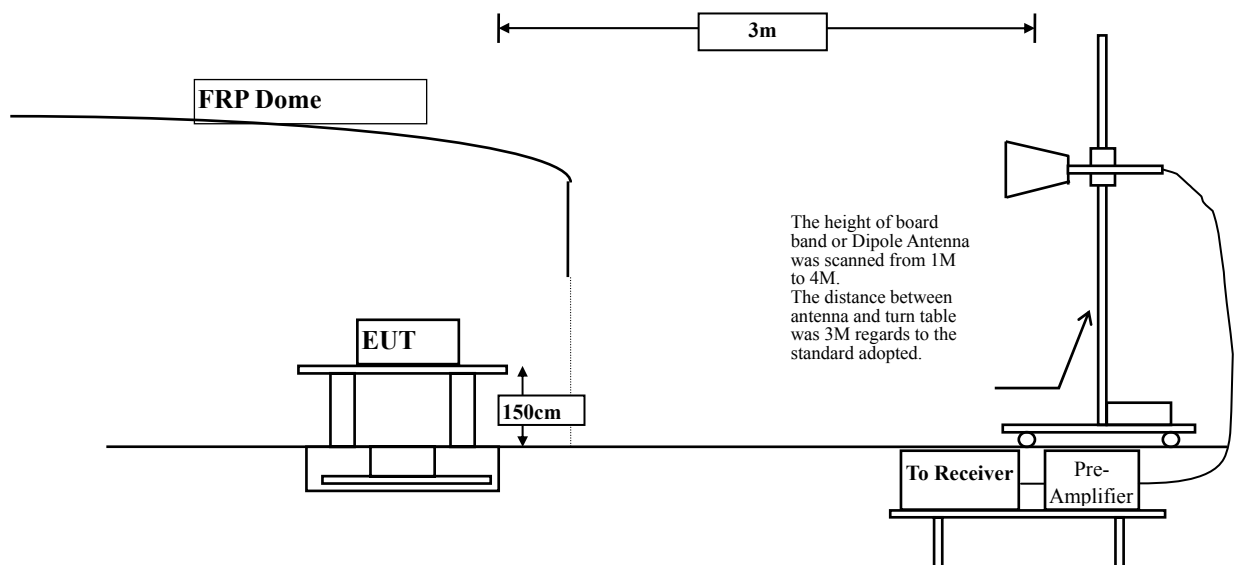
- Note:
1. All instruments are calibrated every one year.
 2. The test instruments marked by "X" are used to measure the final test results.

6.2. Test Setup

RF Conducted Measurement:



RF Radiated Measurement:



6.3. Limits

The provisions of Section 15.205 of this part apply to intentional radiators operating under this section.

Radiated emissions which fall in the restricted bands, as defined in Section 15.205, must also comply with the radiated emission limits specified in Section 15.209:

FCC Part 15 Subpart C Paragraph 15.209 Limits		
Frequency MHz	uV/m @3m	dBμV/m@3m
30-88	100	40
88-216	150	43.5
216-960	200	46
Above 960	500	54

Remarks :

1. RF Voltage (dBμV) = 20 log RF Voltage (uV)
2. In the Above Table, the tighter limit applies at the band edges.
3. Distance refers to the distance in meters between the measuring instrument antenna and the closed point of any part of the device or system.

6.4. Test Procedure

Measuring the frequency range below 1GHz, the EUT is placed on a turn table which is 0.8 meter above ground,when measuring the frequency range above 1GHz, the EUT is placed on a turn table which is 1.5 meter above ground.

The turn table can rotate 360 degrees to determine the position of the maximum emission level.

The EUT was positioned such that the distance from antenna to the EUT was 3 meters.

The antenna can move up and down between 1 meter and 4 meters to find out the maximum emission level.

Both horizontal and vertical polarization of the antenna are set on measurement. In order to find the maximum emission, all of the interface cables must be manipulated according to ANSI C63.10:2013 on radiated measurement.

The bandwidth below 1GHz setting on the field strength meter is 120 kHz, above 1GHz are 1 MHz.

The EUT was setup to ANSI C63.10, 2013; tested to DTS test procedure of FCC KDB-789033 for compliance to FCC 47CFR Subpart E requirements.

6.5. Uncertainty

± 3.8 dB below 1GHz

± 3.9 dB above 1GHz

6.6. Test Result of Band Edge

Product : 802.11ac Dual Band Access Point
 Test Item : Band Edge Data
 Test Site : No.3 OATS
 Test Mode : Mode 1: Transmit (802.11a-6Mbps)-Channel 36

RF Radiated Measurement (Horizontal):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBμV)	Emission Level (dBμV/m)	Peak Limit (dBμV/m)	Average Limit (dBμV/m)	Result
36 (Peak)	5149.600	2.798	69.655	72.453	74.00	54.00	Pass
36 (Peak)	5150.000	2.796	68.710	71.506	74.00	54.00	Pass
36 (Peak)	5185.000	2.680	116.537	119.216	--	--	--
36 (Average)	5150.000	2.796	49.069	51.865	74.00	54.00	Pass
36 (Average)	5175.000	2.712	103.973	106.685	--	--	--

Figure Channel 36: Horizontal (Peak)

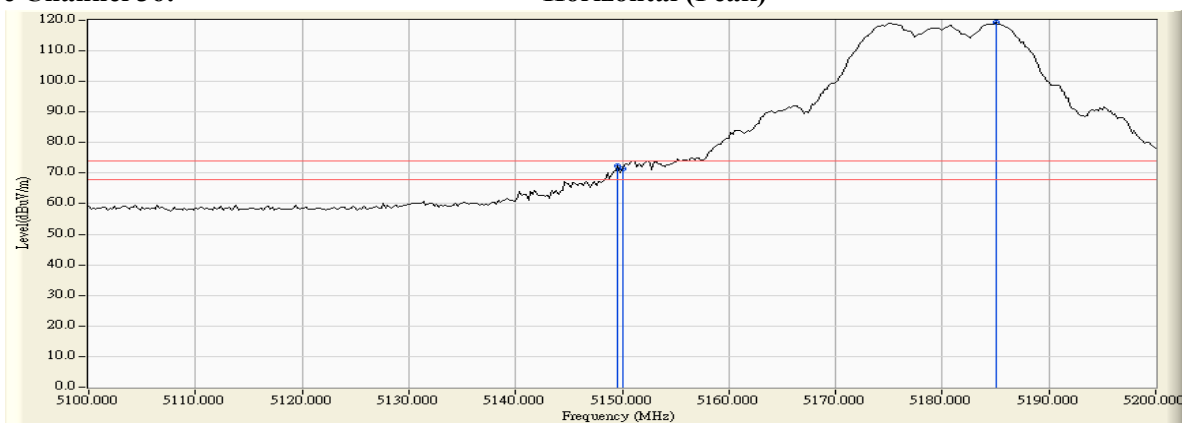
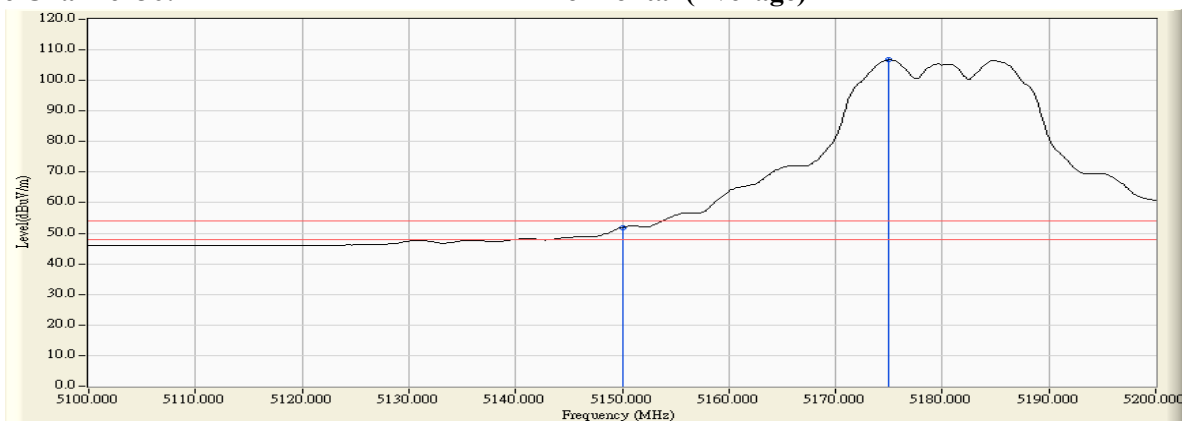


Figure Channel 36: Horizontal (Average)



- Note: 1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
 4. “ * ”, means this data is the worst emission level.
 5. Measurement Level = Reading Level + Correct Factor.
 6. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : 802.11ac Dual Band Access Point
 Test Item : Band Edge Data
 Test Site : No.3 OATS
 Test Mode : Mode 1: Transmit (802.11a-6Mbps)-Channel 36

RF Radiated Measurement (Vertical):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBμV)	Emission Level (dBμV/m)	Peak Limit (dBμV/m)	Average Limit (dBμV/m)	Result
36 (Peak)	5149.200	3.328	64.351	67.679	74.00	54.00	Pass
36 (Peak)	5150.000	3.331	62.913	66.245	74.00	54.00	Pass
36 (Peak)	5185.000	3.497	113.441	116.937	--	--	--
36 (Average)	5150.000	3.331	46.413	49.745	74.00	54.00	Pass
36 (Average)	5185.400	3.499	101.916	105.414	--	--	--

Figure Channel 36: Vertical (Peak)

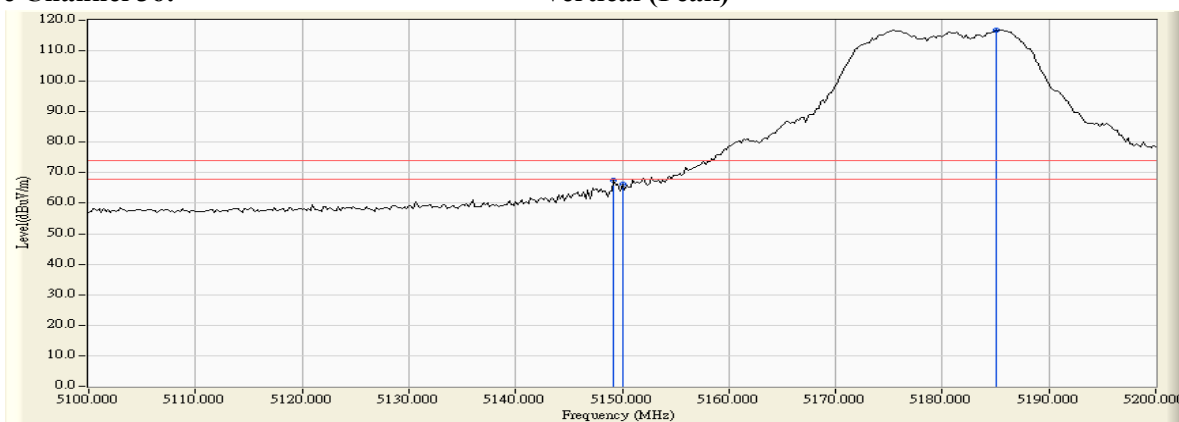
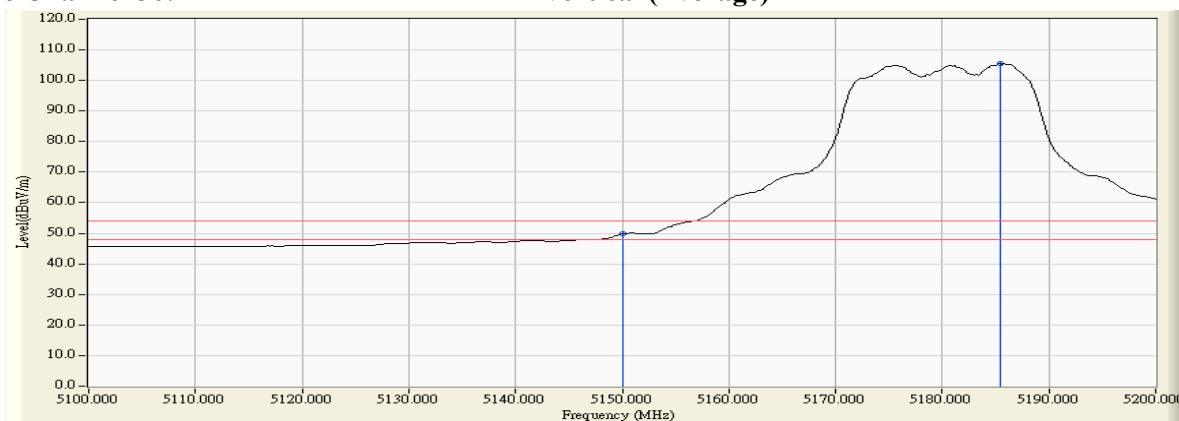


Figure Channel 36: Vertical (Average)



Note:

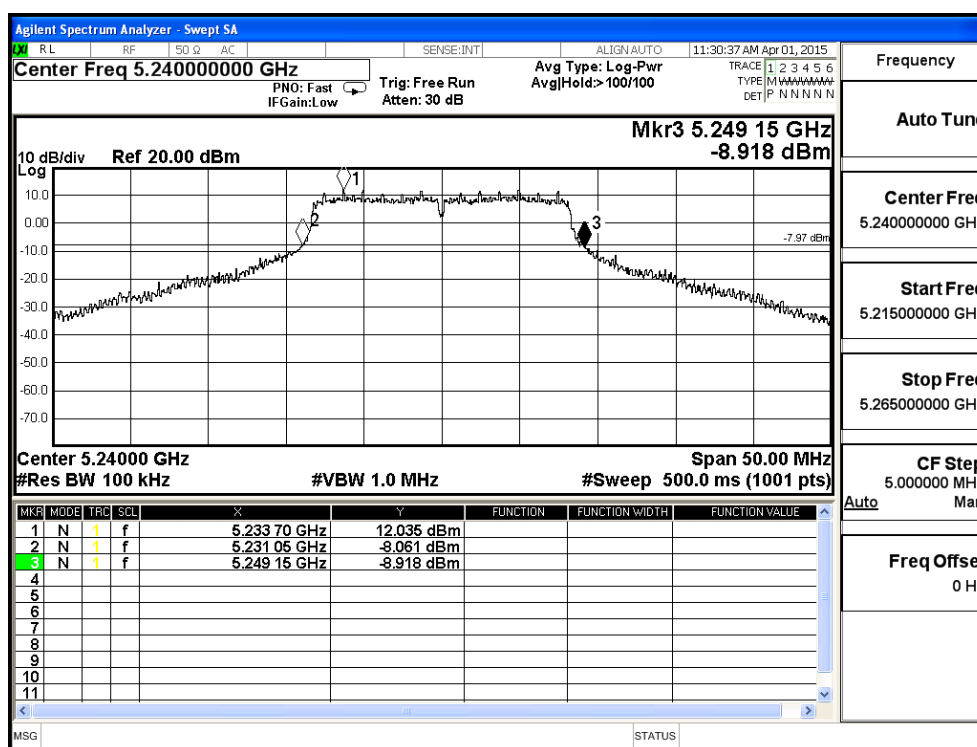
1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ * ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : 802.11ac Dual Band Access Point
 Test Item : Band Edge Data
 Test Site : No.3 OATS
 Test Mode : Mode 1: Transmit (802.11a-6Mbps)-Channel 48

Chain A

Test Frequency (MHz)	Measurement Level (20dB BW) (MHz)	Limit (MHz)	Result
5240	5249.15	<5250	PASS

NOTE: Accordance with 15.215 requirement.

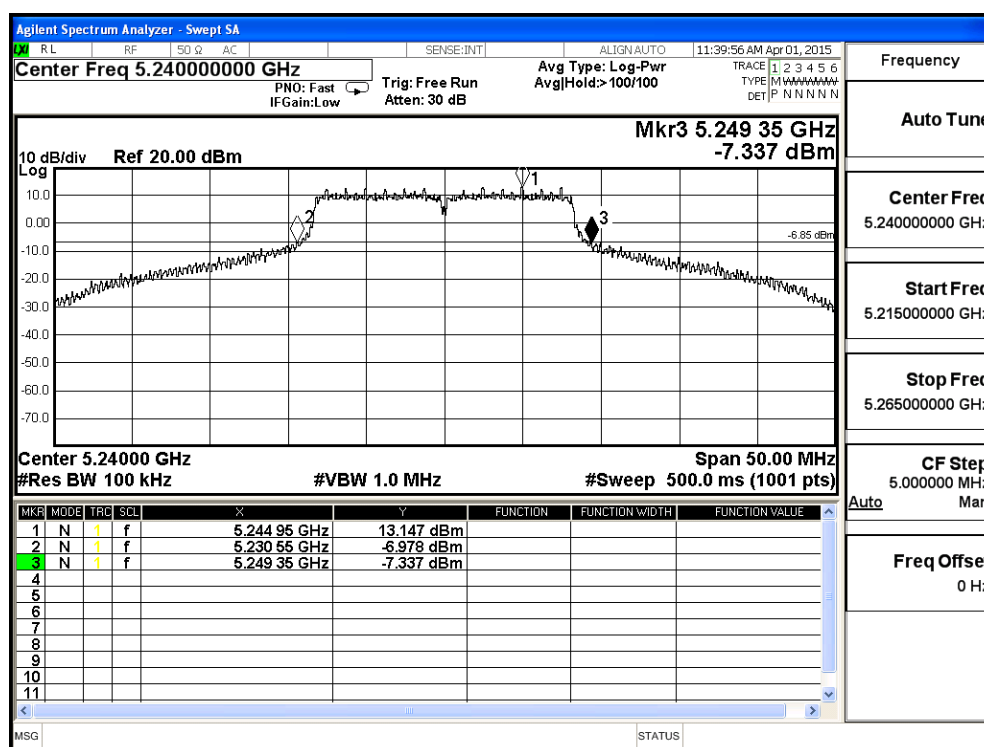


Product : 802.11ac Dual Band Access Point
 Test Item : Band Edge Data
 Test Site : No.3 OATS
 Test Mode : Mode 1: Transmit (802.11a-6Mbps)-Channel 48

Chain B

Test Frequency (MHz)	Measurement Level (20dB BW) (MHz)	Limit (MHz)	Result
5240	5249.35	<5250	PASS

NOTE: Accordance with 15.215 requirement.



Product : 802.11ac Dual Band Access Point
Test Item : Band Edge Data
Test Site : No.3 OATS
Test Mode : Mode 1: Transmit (802.11a-6Mbps)-Channel 149

RF Radiated Measurement:

	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm/m)	Margin (dB)	Limit (dBm/m)	Result
Horizontal	5715.000	18.644	-58.550	-39.906	-12.906	-27.000	Pass
Horizontal	5725.000	18.649	-48.980	-30.331	-13.331	-17.000	Pass

	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm/m)	Margin (dB)	Limit (dBm/m)	Result
Vertical	5715.000	19.296	-58.550	-39.254	-12.254	-27.000	Pass
Vertical	5725.000	19.372	-49.260	-29.888	-12.888	-17.000	Pass

Product : 802.11ac Dual Band Access Point
 Test Item : Band Edge Data
 Test Site : No.3 OATS
 Test Mode : Mode 1: Transmit (802.11a-6Mbps)-Channel 165

RF Radiated Measurement:

	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm/m)	Margin (dB)	Limit (dBm/m)	Result
Horizontal	5850.000	19.292	-58.590	-39.298	-22.298	-17.000	Pass
Horizontal	5860.000	19.415	-62.320	-42.905	-15.905	-27.000	Pass

	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm/m)	Margin (dB)	Limit (dBm/m)	Result
Vertical	5850.000	20.512	-56.960	-36.448	-19.448	-17.000	Pass
Vertical	5860.000	20.635	-63.210	-42.575	-15.575	-27.000	Pass

Product : 802.11ac Dual Band Access Point
 Test Item : Band Edge Data
 Test Site : No.3 OATS
 Test Mode : Mode 2: Transmit (802.11n-20BW 14.4Mbps) -Channel 36

RF Radiated Measurement (Horizontal):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBμV)	Emission Level (dBμV/m)	Peak Limit (dBμV/m)	Average Limit (dBμV/m)	Result
36 (Peak)	5150.000	2.796	69.898	72.694	74.00	54.00	Pass
36 (Peak)	5175.000	2.712	116.217	118.929	--	--	--
36 (Average)	5150.000	2.796	51.041	53.837	74.00	54.00	Pass
36 (Average)	5173.200	2.718	100.125	102.843	--	--	--

Figure Channel 36:

Horizontal (Peak)

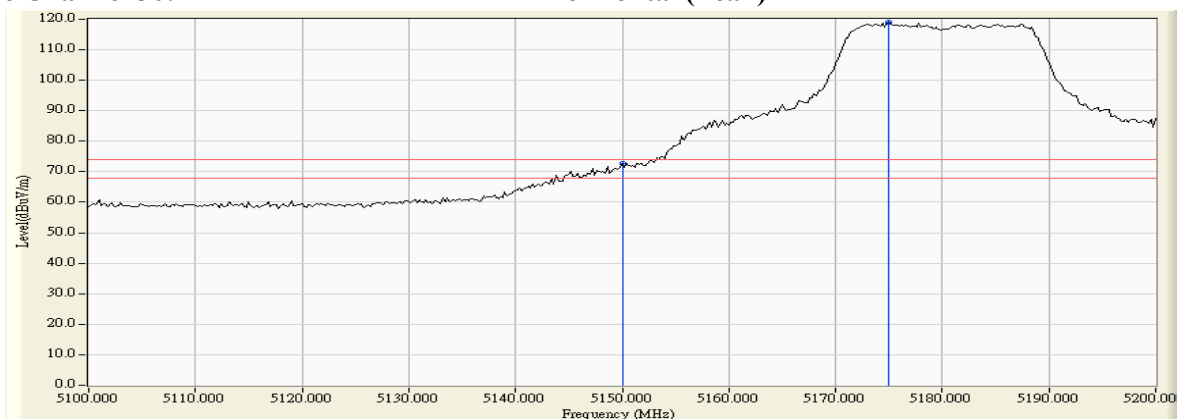
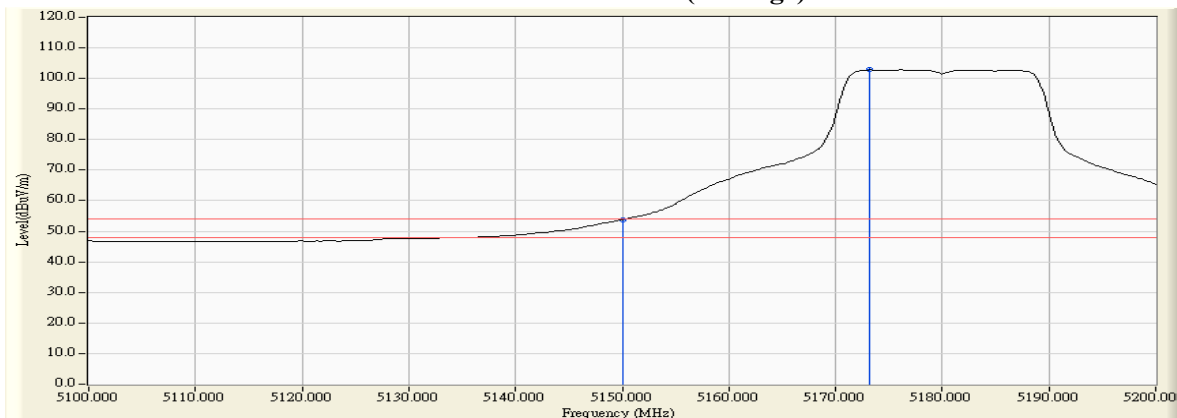


Figure Channel 36:

Horizontal (Average)



Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ * ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : 802.11ac Dual Band Access Point
 Test Item : Band Edge Data
 Test Site : No.3 OATS
 Test Mode : Mode 2: Transmit (802.11n-20BW 14.4Mbps) -Channel 36

RF Radiated Measurement (Vertical):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBμV)	Emission Level (dBμV/m)	Peak Limit (dBμV/m)	Average Limit (dBμV/m)	Result
36 (Peak)	5148.200	3.323	64.506	67.829	74.00	54.00	Pass
36 (Peak)	5150.000	3.331	64.237	67.569	74.00	54.00	Pass
36 (Peak)	5177.000	3.459	113.570	117.029	--	--	--
36 (Average)	5150.000	3.331	47.117	50.449	74.00	54.00	Pass
36 (Average)	5173.200	3.441	98.773	102.214	--	--	--

Figure Channel 36: Vertical (Peak)

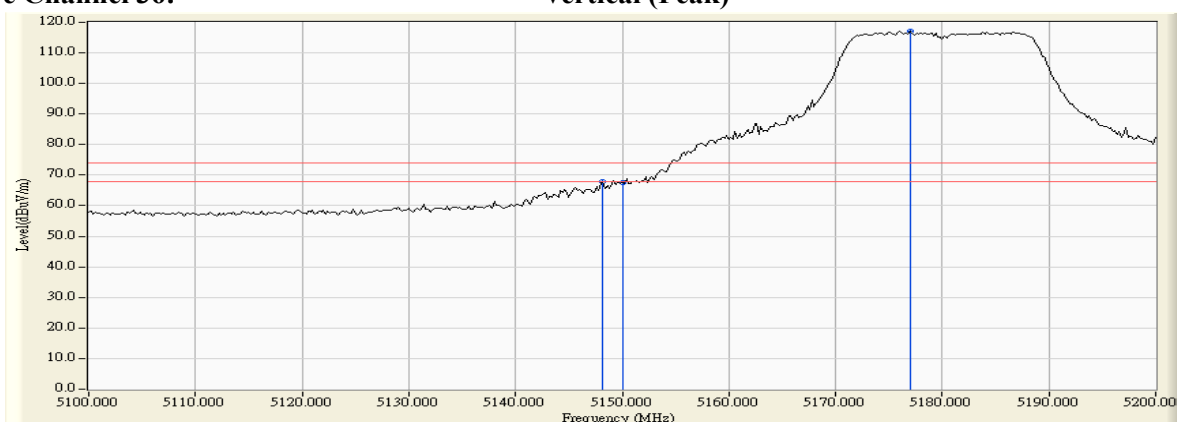
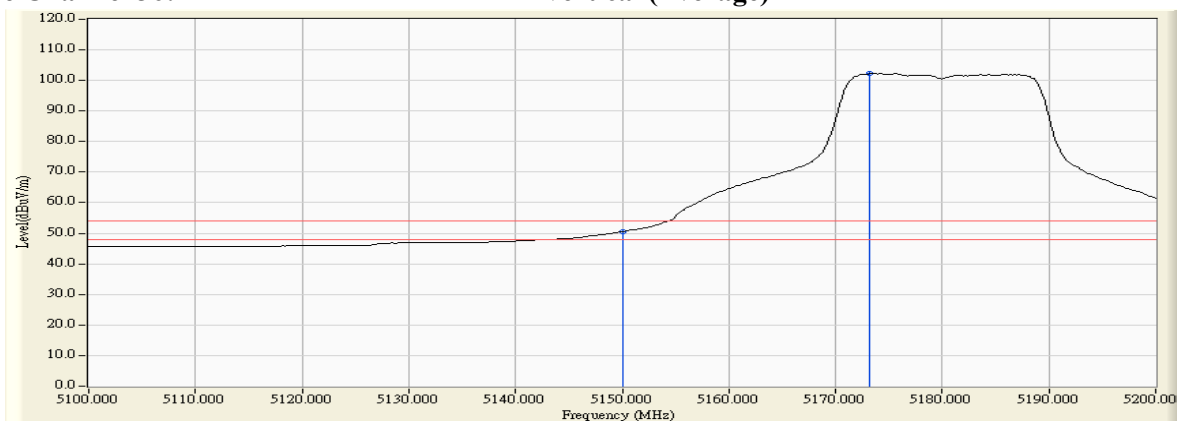


Figure Channel 36: Vertical (Average)



Note:

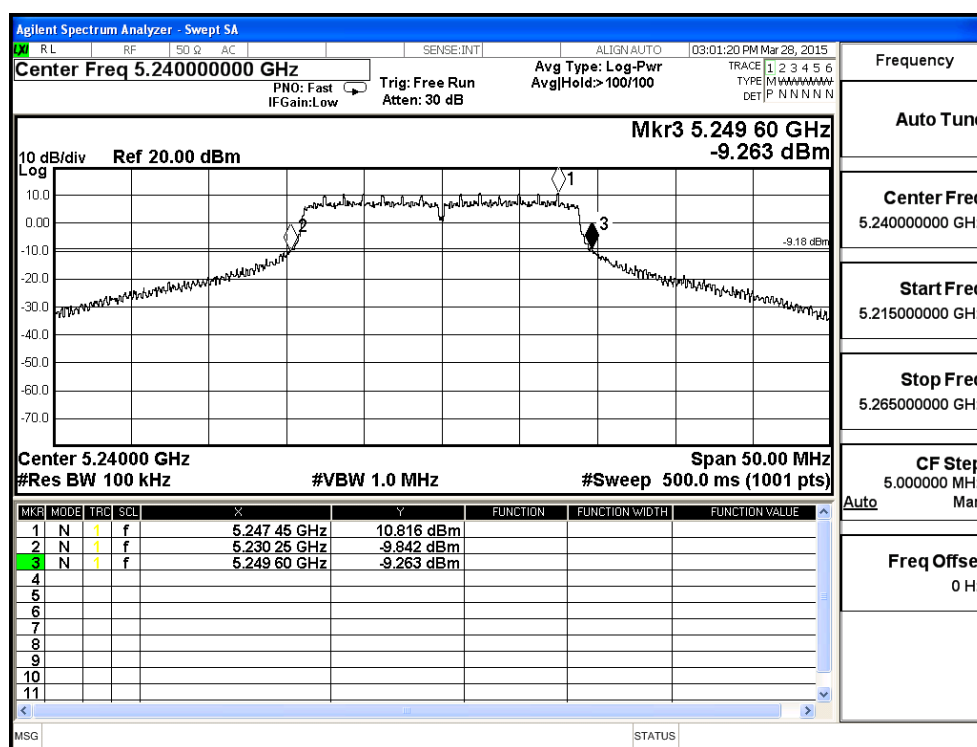
1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ * ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : 802.11ac Dual Band Access Point
 Test Item : Band Edge Data
 Test Site : No.3 OATS
 Test Mode : Mode 2: Transmit (802.11n-20BW 14.4Mbps) Channel 48

Chain A

Test Frequency (MHz)	Measurement Level (20dB BW) (MHz)	Limit (MHz)	Result
5240	5249.60	<5250	PASS

NOTE: Accordance with 15.215 requirement.

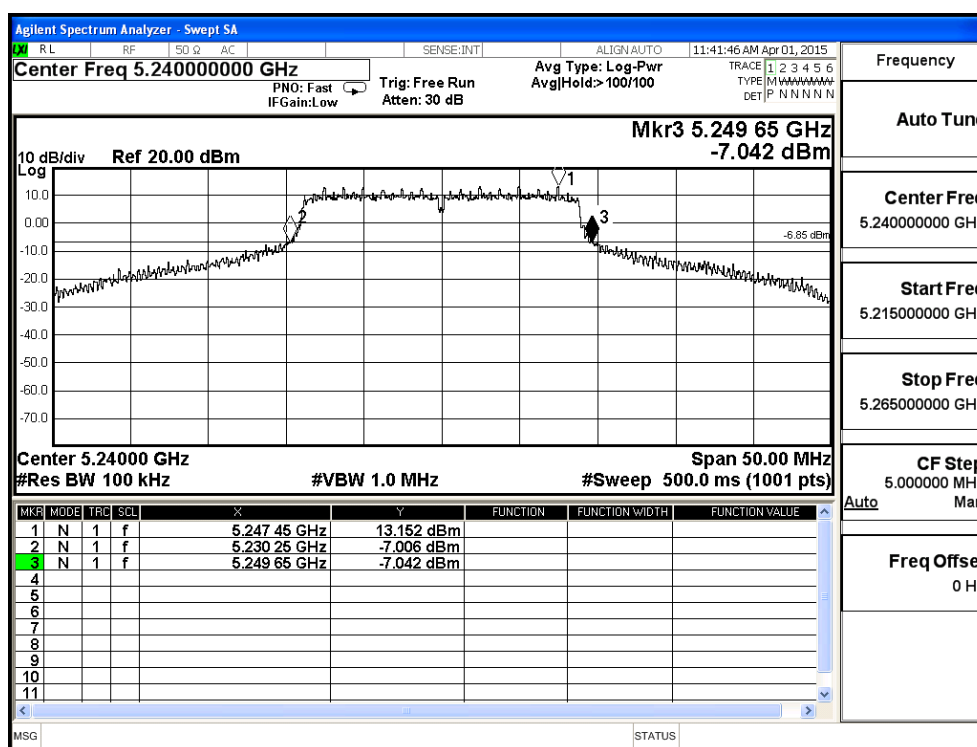


Product : 802.11ac Dual Band Access Point
 Test Item : Band Edge Data
 Test Site : No.3 OATS
 Test Mode : Mode 2: Transmit (802.11n-20BW 14.4Mbps)-Channel 48

Chain B

Test Frequency (MHz)	Measurement Level (20dB BW) (MHz)	Limit (MHz)	Result
5240	5249.65	<5250	PASS

NOTE: Accordance with 15.215 requirement.



Product : 802.11ac Dual Band Access Point
 Test Item : Band Edge Data
 Test Site : No.3 OATS
 Test Mode : Mode 2: Transmit (802.11n-20BW 14.4Mbps)-Channel 149

RF Radiated Measurement:

	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm/m)	Margin (dB)	Limit (dBm/m)	Result
Horizontal	5715.000	18.644	-58.610	-39.966	-12.966	-27.000	Pass
Horizontal	5725.000	18.649	-45.540	-26.891	-9.891	-17.000	Pass

	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm/m)	Margin (dB)	Limit (dBm/m)	Result
Vertical	5715.000	19.296	-59.430	-40.134	-13.134	-27.000	Pass
Vertical	5725.000	19.372	-49.120	-29.748	-12.748	-17.000	Pass

Product : 802.11ac Dual Band Access Point
 Test Item : Band Edge Data
 Test Site : No.3 OATS
 Test Mode : Mode 2: Transmit (802.11n-20BW 14.4Mbps)-Channel 165

RF Radiated Measurement:

	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm/m)	Margin (dB)	Limit (dBm/m)	Result
Horizontal	5850.000	19.292	-56.650	-37.358	-20.358	-17.000	Pass
Horizontal	5860.000	19.415	-63.090	-43.675	-16.675	-27.000	Pass

	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm/m)	Margin (dB)	Limit (dBm/m)	Result
Vertical	5850.000	20.512	-56.650	-36.138	-19.138	-17.000	Pass
Vertical	5860.000	20.635	-63.090	-42.455	-15.455	-27.000	Pass

Product : 802.11ac Dual Band Access Point
 Test Item : Band Edge Data
 Test Site : No.3 OATS
 Test Mode : Mode 3: Transmit (802.11n-40BW 30Mbps)-Channel 38

RF Radiated Measurement (Horizontal):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBμV)	Emission Level (dBμV/m)	Peak Limit (dBμV/m)	Average Limit (dBμV/m)	Result
38 (Peak)	5148.400	2.801	67.758	70.560	74.00	54.00	Pass
38 (Peak)	5150.000	2.796	66.285	69.081	74.00	54.00	Pass
38 (Peak)	5199.000	2.634	108.508	111.142	--	--	--
38 (Average)	5150.000	2.796	50.161	52.957	74.00	54.00	Pass
38 (Average)	5177.800	2.703	89.372	92.075	--	--	--

Figure Channel 38: Horizontal (Peak)

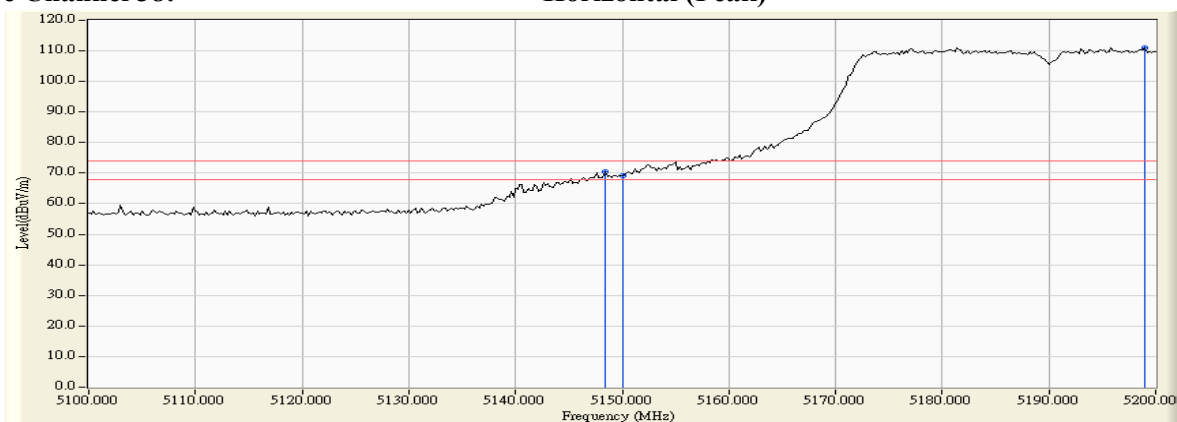
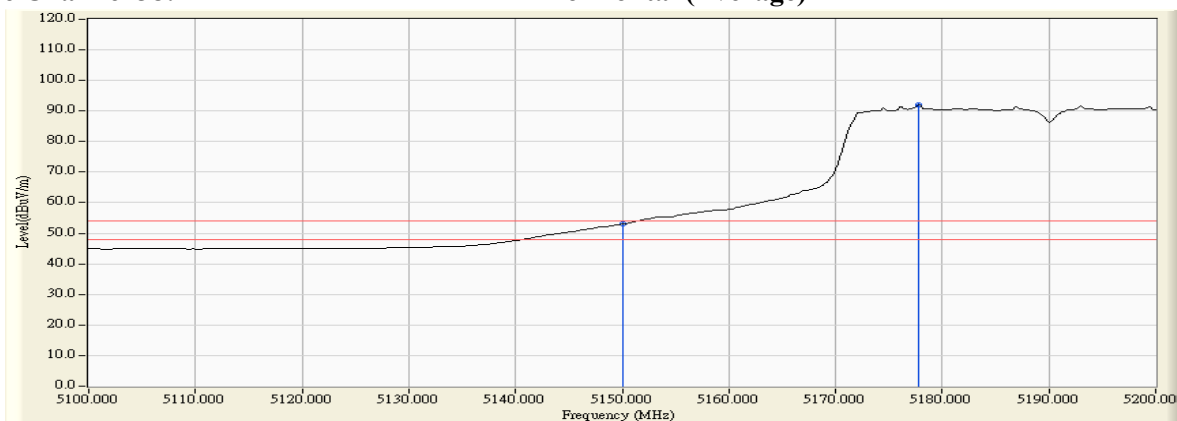


Figure Channel 38: Horizontal (Average)



Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ * ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : 802.11ac Dual Band Access Point
 Test Item : Band Edge Data
 Test Site : No.3 OATS
 Test Mode : Mode 3: Transmit (802.11n-40BW 30Mbps)-Channel 38

RF Radiated Measurement (Vertical):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBμV)	Emission Level (dBμV/m)	Peak Limit (dBμV/m)	Average Limit (dBμV/m)	Result
38 (Peak)	5150.000	3.331	62.948	66.280	74.00	54.00	Pass
38 (Peak)	5193.200	3.537	105.228	108.764	--	--	--
38 (Average)	5150.000	3.331	47.263	50.595	74.00	54.00	Pass
38 (Average)	5192.000	3.531	87.486	91.016	--	--	--

Figure Channel 38: Vertical (Peak)

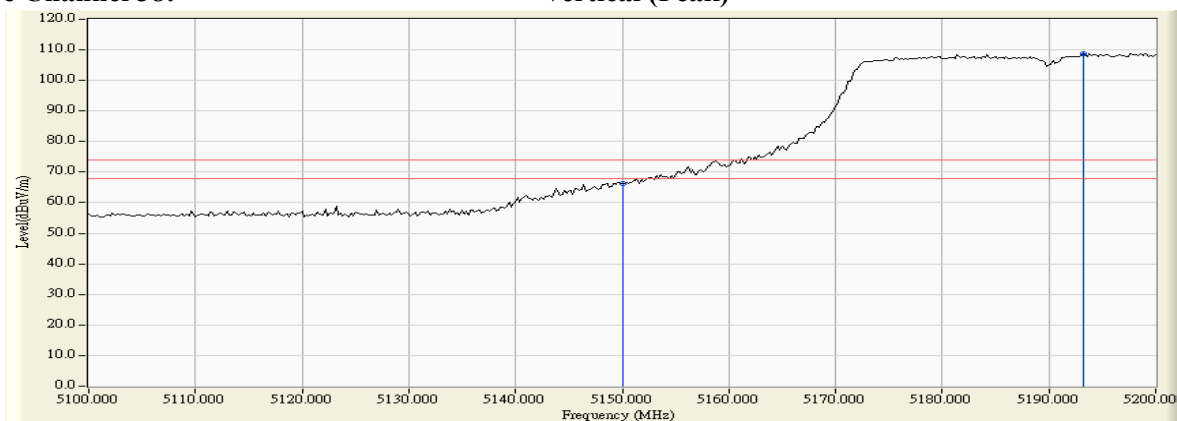
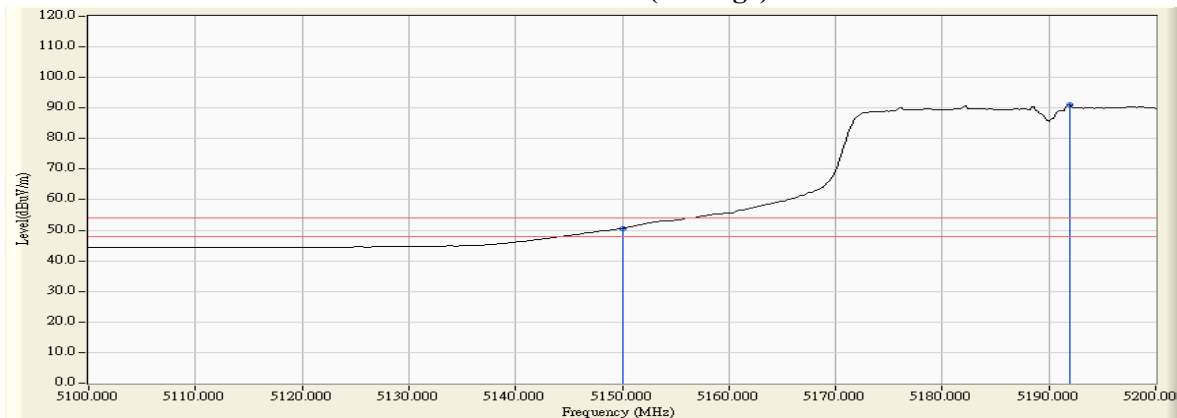


Figure Channel 38: Vertical (Average)



Note:

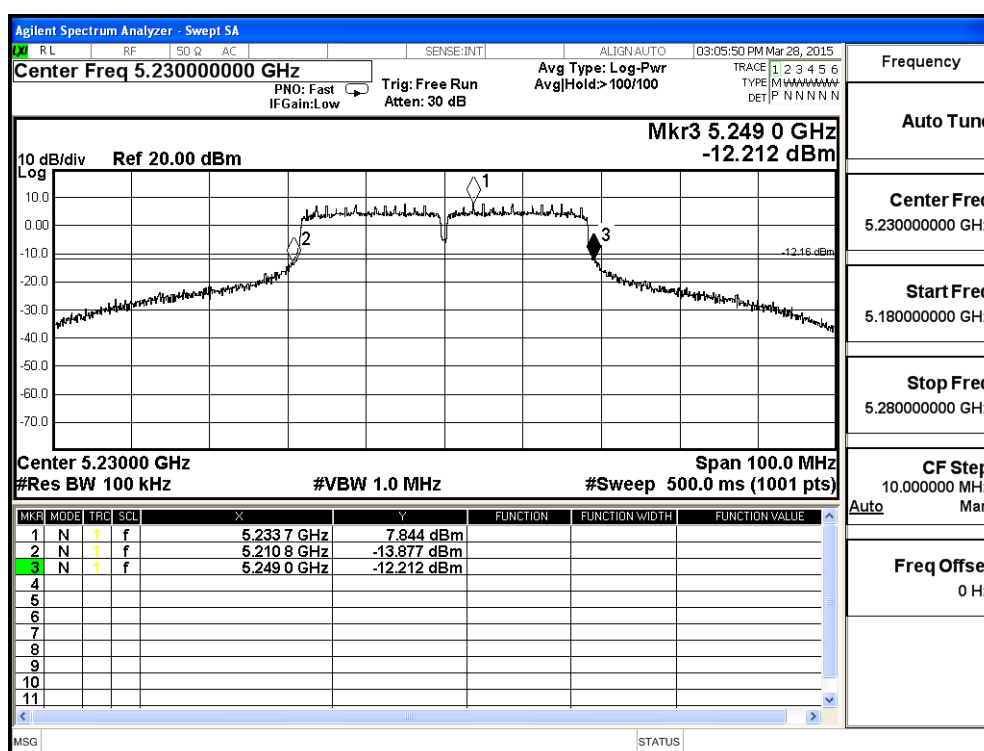
1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ * ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : 802.11ac Dual Band Access Point
 Test Item : Band Edge Data
 Test Site : No.3 OATS
 Test Mode : Mode 3: Transmit (802.11n-40BW 30Mbps)-Channel 46

Chain A

Test Frequency (MHz)	Measurement Level (20dB BW) (MHz)	Limit (MHz)	Result
5230	5249.00	<5250	PASS

NOTE: Accordance with 15.215 requirement.

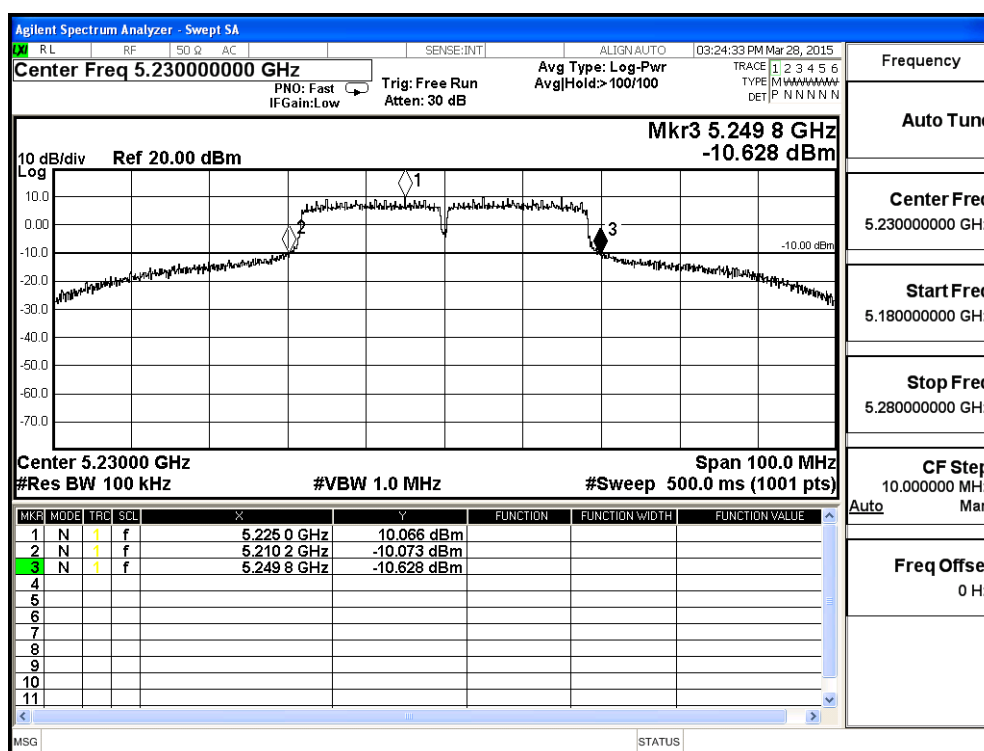


Product : 802.11ac Dual Band Access Point
 Test Item : Band Edge Data
 Test Site : No.3 OATS
 Test Mode : Mode 3: Transmit (802.11n-40BW 30Mbps)-Channel 46

Chain B

Test Frequency (MHz)	Measurement Level (20dB BW) (MHz)	Limit (MHz)	Result
5230	5249.8	<5250	PASS

NOTE: Accordance with 15.215 requirement.



Product : 802.11ac Dual Band Access Point
Test Item : Band Edge Data
Test Site : No.3 OATS
Test Mode : Mode 3: Transmit (802.11n-40BW 30Mbps) -Channel 151

RF Radiated Measurement :

	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm/m)	Margin (dB)	Limit (dBm/m)	Result
Horizontal	5715.000	18.644	-50.520	-31.876	-4.876	-27.000	Pass
Horizontal	5725.000	18.649	-48.430	-29.781	-12.781	-17.000	Pass

	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm/m)	Margin (dB)	Limit (dBm/m)	Result
Vertical	5715.000	19.296	-51.820	-32.524	-5.524	-27.000	Pass
Vertical	5725.000	19.372	-48.780	-29.408	-12.408	-17.000	Pass

Product : 802.11ac Dual Band Access Point
Test Item : Band Edge Data
Test Site : No.3 OATS
Test Mode : Mode 3: Transmit (802.11n-40BW 30Mbps)-Channel 159

RF Radiated Measurement:

	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm/m)	Margin (dB)	Limit (dBm/m)	Result
Horizontal	5850.000	19.292	-62.720	-43.428	-26.428	-17.000	Pass
Horizontal	5860.000	19.415	-63.790	-44.375	-17.375	-27.000	Pass

	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm/m)	Margin (dB)	Limit (dBm/m)	Result
Vertical	5850.000	20.512	-62.650	-42.138	-25.138	-17.000	Pass
Vertical	5860.000	20.635	-64.260	-43.625	-16.625	-27.000	Pass

Product : 802.11ac Dual Band Access Point
 Test Item : Band Edge Data
 Test Site : No.3 OATS
 Test Mode : Mode 4: Transmit (802.11ac-80BW-65Mbps)-Channel 42

RF Radiated Measurement (Horizontal):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBμV)	Emission Level (dBμV/m)	Peak Limit (dBμV/m)	Average Limit (dBμV/m)	Result
42 (Peak)	5149.200	3.343	66.538	69.881	74.00	54.00	Pass
42 (Peak)	5150.000	3.340	66.006	69.346	74.00	54.00	Pass
42 (Peak)	5195.000	3.173	101.167	104.341	--	--	--
42 (Average)	5150.000	3.340	45.768	49.108	74.00	54.00	Pass
42 (Average)	5195.000	3.173	77.386	80.560	--	--	--

Figure Channel 42: Horizontal (Peak)

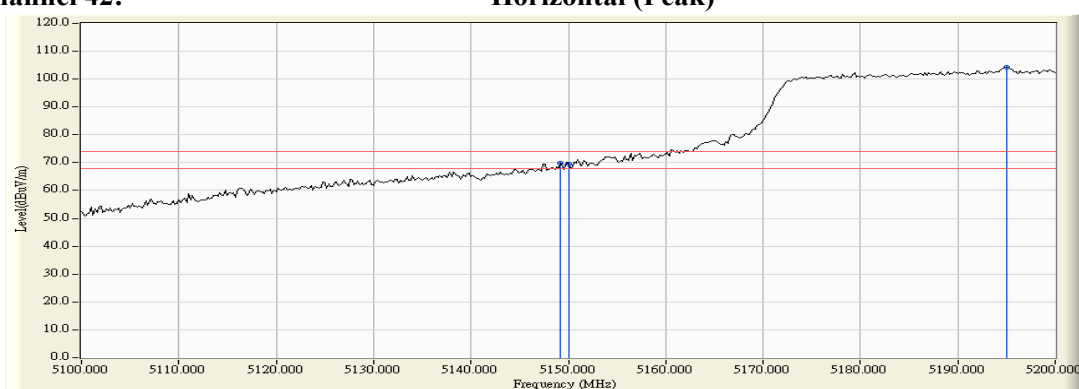
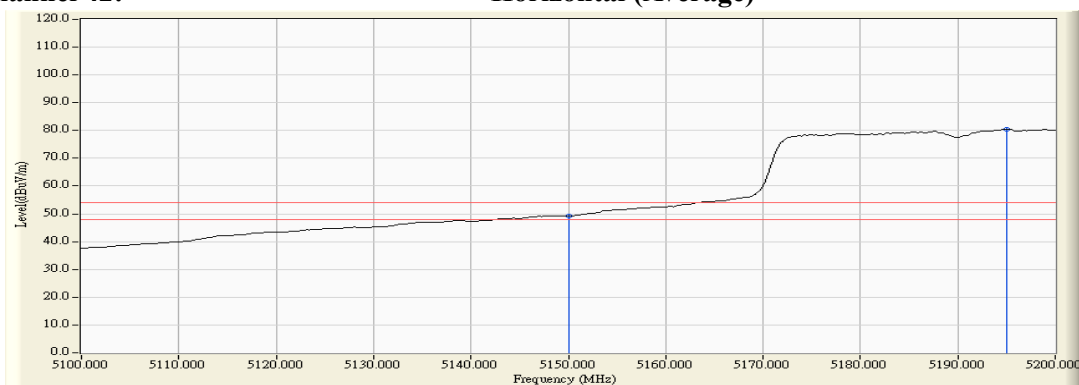


Figure Channel 42: Horizontal (Average)



Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ * ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : 802.11ac Dual Band Access Point
 Test Item : Band Edge Data
 Test Site : No.3 OATS
 Test Mode : Mode 4: Transmit (802.11ac-80BW-65Mbps) -Channel 42

RF Radiated Measurement (Vertical):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBμV)	Emission Level (dBμV/m)	Peak Limit (dBμV/m)	Average Limit (dBμV/m)	Result
42 (Peak)	5147.800	5.254	65.225	70.479	74.00	54.00	Pass
42 (Peak)	5150.000	5.260	62.895	68.155	74.00	54.00	Pass
42 (Peak)	5195.200	5.375	100.467	105.843	--	--	--
42 (Average)	5150.000	5.260	47.533	52.793	74.00	54.00	Pass
42 (Average)	5199.200	5.384	77.620	83.004	--	--	--

Figure Channel 42: Vertical (Peak)

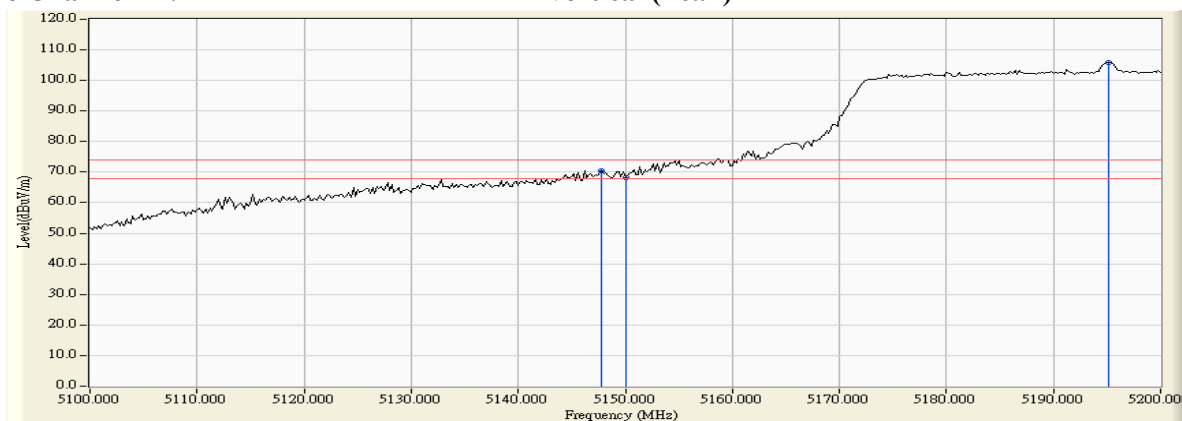
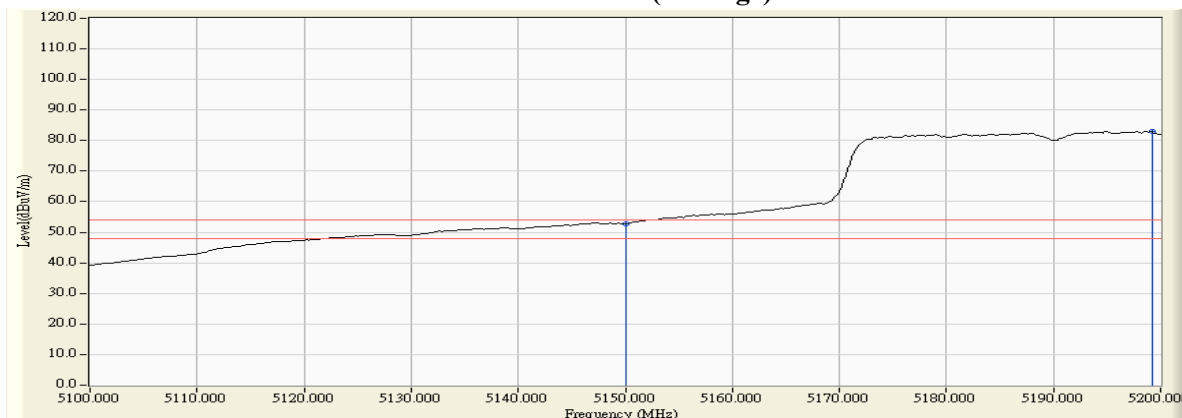


Figure Channel 42: Vertical (Average)



Note:

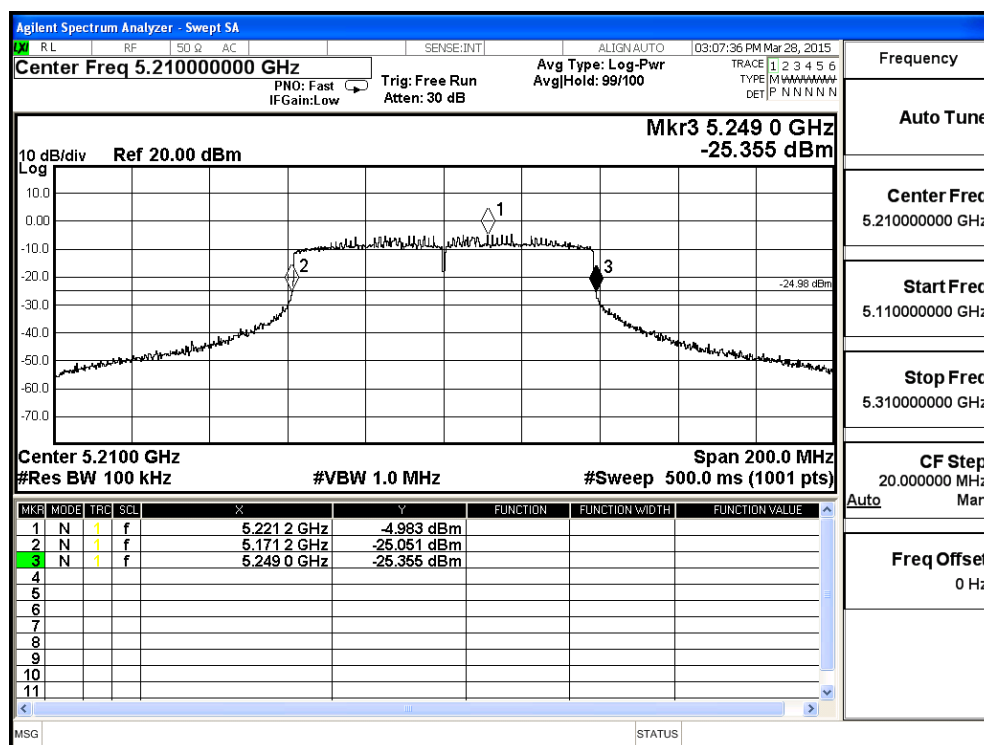
1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ * ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : 802.11ac Dual Band Access Point
 Test Item : Band Edge Data
 Test Site : No.3 OATS
 Test Mode : Mode 4: Transmit (802.11ac-80BW-65Mbps) -Channel 42

Chain A

Test Frequency (MHz)	Measurement Level (20dB BW) (MHz)	Limit (MHz)	Result
5210	5249.00	<5250	PASS

NOTE: Accordance with 15.215 requirement.

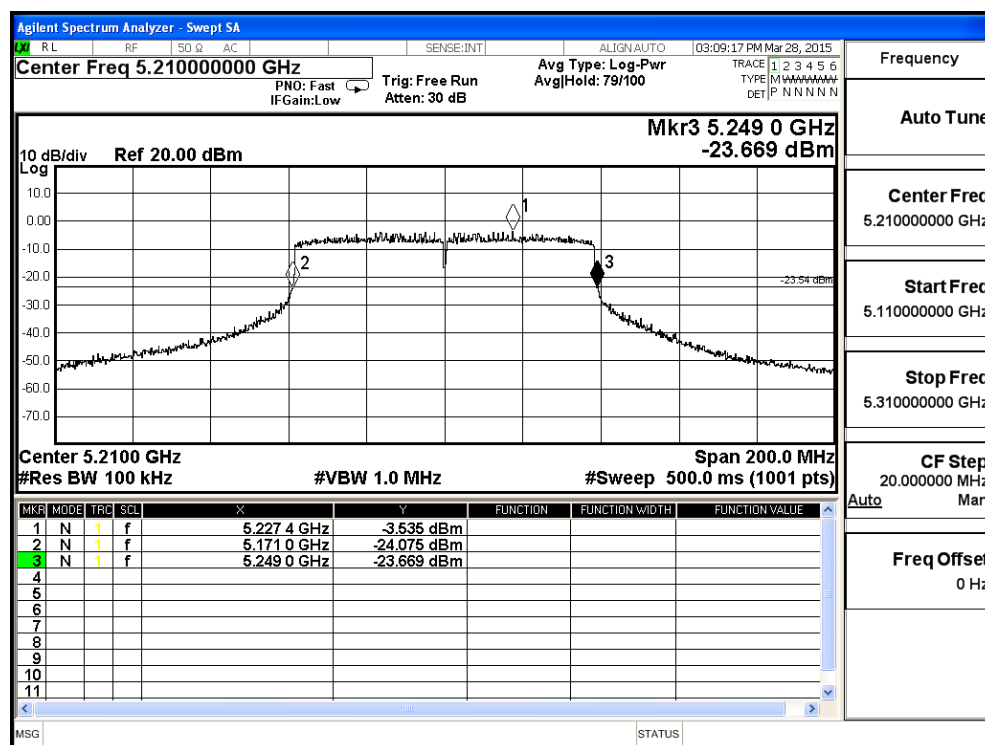


Product : 802.11ac Dual Band Access Point
 Test Item : Band Edge Data
 Test Site : No.3 OATS
 Test Mode : Mode 4: Transmit (802.11ac-80BW-65Mbps)-Channel 42

Chain B

Test Frequency (MHz)	Measurement Level (20dB BW) (MHz)	Limit (MHz)	Result
5210	5249.00	<5250	PASS

NOTE: Accordance with 15.215 requirement.



Product : 802.11ac Dual Band Access Point
 Test Item : Band Edge Data
 Test Site : No.3 OATS
 Test Mode : Mode 4: Transmit (802.11ac-80BW-65Mbps)-Channel 155

RF Radiated Measurement:

	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm/m)	Margin (dB)	Limit (dBm/m)	Result
Horizontal	5715.000	18.644	-57.610	-38.966	-11.966	-27.000	Pass
Horizontal	5725.000	18.649	-54.850	-36.201	-19.201	-17.000	Pass
Horizontal	5850.000	19.292	-59.280	-39.988	-22.988	-17.000	Pass
Horizontal	5860.000	19.415	-68.280	-48.865	-21.865	-27.000	Pass

	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm/m)	Margin (dB)	Limit (dBm/m)	Result
Vertical	5715.000	19.296	-68.510	-49.214	-22.214	-27.000	Pass
Vertical	5725.000	19.372	-67.630	-48.258	-31.258	-17.000	Pass
Vertical	5850.000	20.512	-59.960	-39.448	-22.448	-17.000	Pass
Vertical	5860.000	20.635	-62.460	-41.825	-14.825	-27.000	Pass

7. Occupied Bandwidth

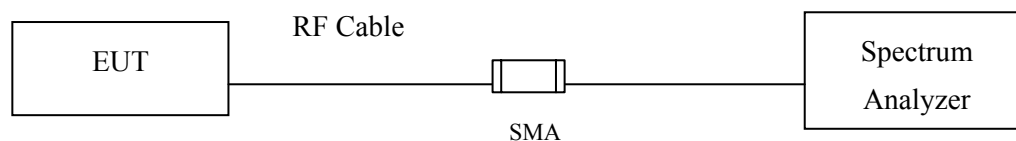
7.1. Test Equipment

	Equipment	Manufacturer	Model No./Serial No.	Last Cal.
	Spectrum Analyzer	R&S	FSP40 / 100170	Jun, 2014
	Spectrum Analyzer	Agilent	E4407B / US39440758	Jun, 2014
X	Spectrum Analyzer	Agilent	N9010A / MY48030495	Apr., 2015

Note:

1. All equipments are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.
2. The test instruments marked with “X” are used to measure the final test results.

7.2. Test Setup



7.3. Limits

For the 5.725-5.85 GHz band, the minimum 6 dB bandwidth of U-NII devices shall be at least 500 kHz

7.4. Test Procedure

The EUT was setup to ANSI C63.10, 2013; tested to UNII test procedure of FCC KDB-789033 for compliance to FCC 47CFR Subpart E requirements.

7.5. Uncertainty

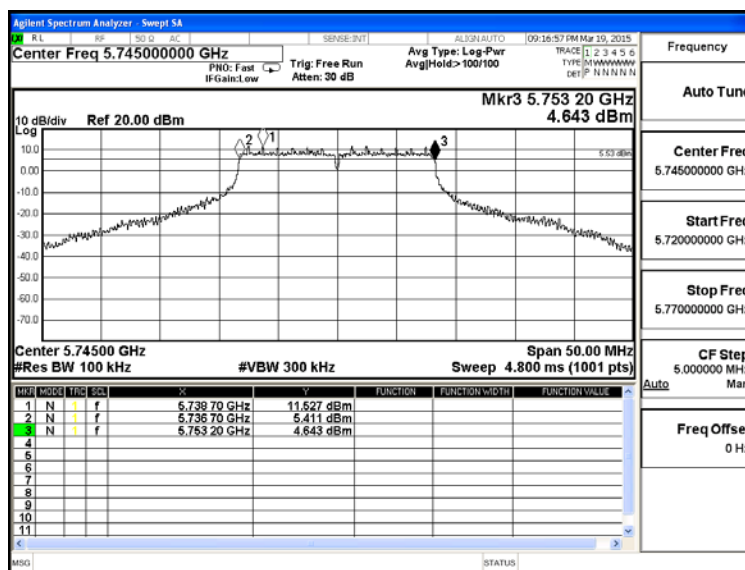
$\pm 150\text{Hz}$

7.6. Test Result of Occupied Bandwidth

Product : 802.11ac Dual Band Access Point
 Test Item : Occupied Bandwidth Data
 Test Site : No.3 OATS
 Test Mode : Mode 1: Transmit (802.11a-6Mbps) (5745MHz)

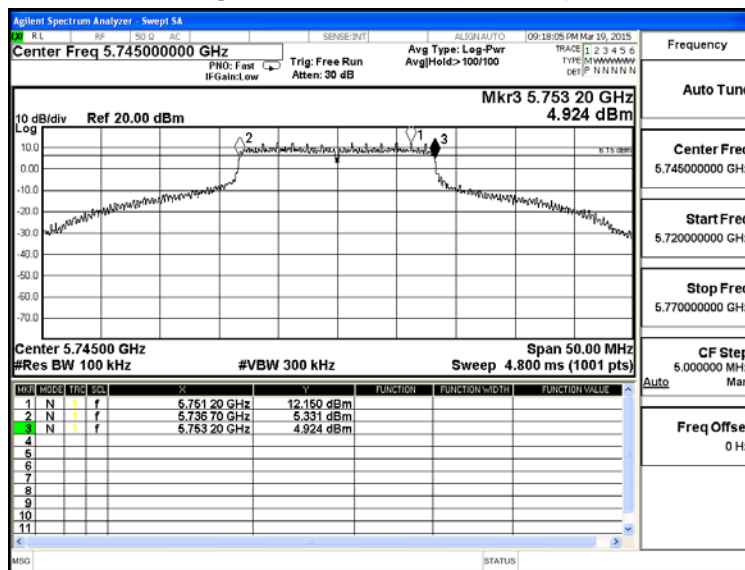
Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
149	5745.00	16500	>500	Pass

Figure Channel 149: (Chain A)



Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
149	5745.00	16500	>500	Pass

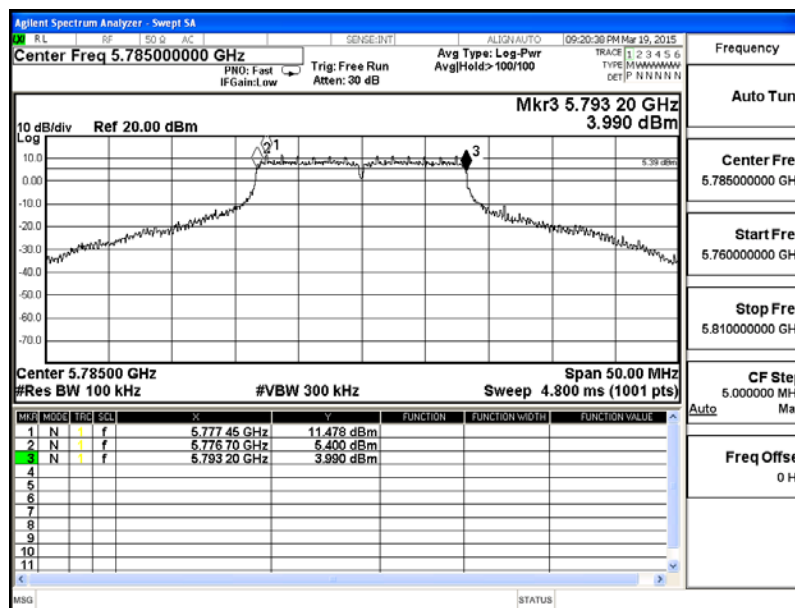
Figure Channel 149: (Chain B)



Product : 802.11ac Dual Band Access Point
 Test Item : Occupied Bandwidth Data
 Test Site : No.3 OATS
 Test Mode : Mode 1: Transmit (802.11a-6Mbps) (5785MHz)

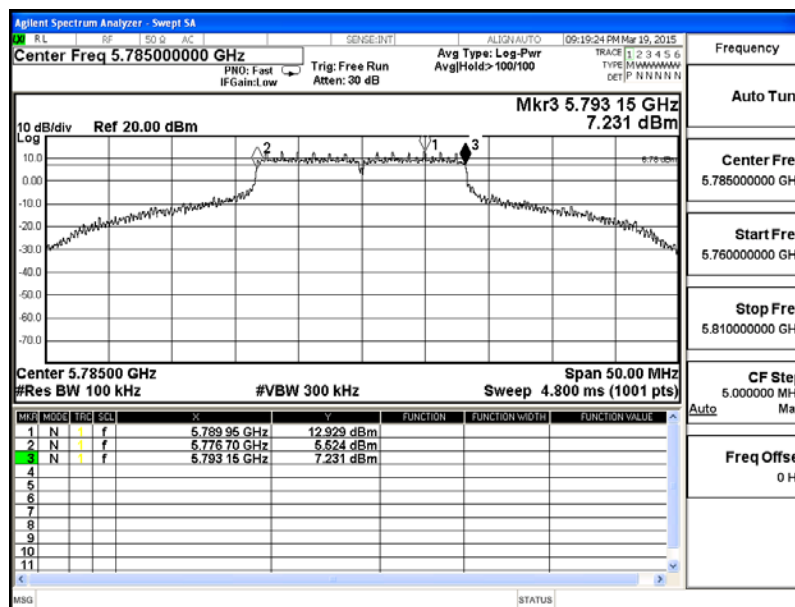
Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
157	5785.00	16500	>500	Pass

Figure Channel 157: (Chain A)



Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
157	5785.00	16450	>500	Pass

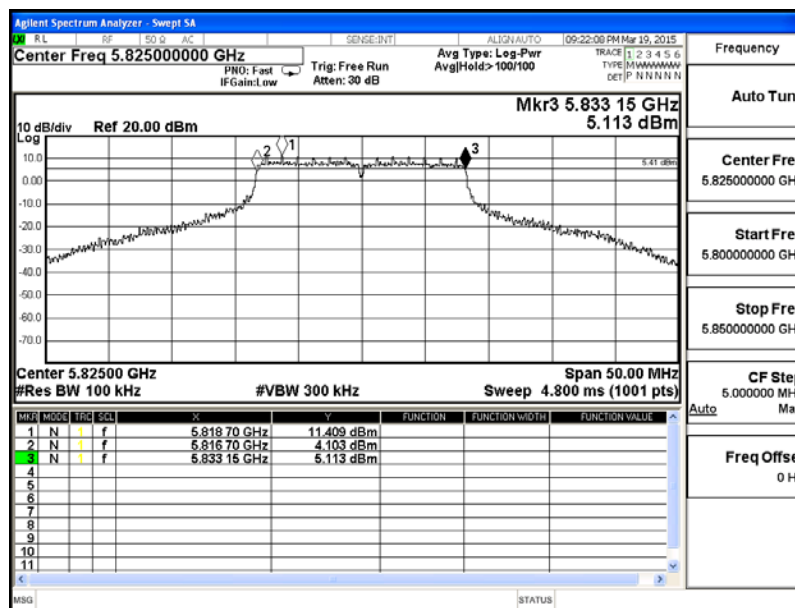
Figure Channel 157: (Chain B)



Product : 802.11ac Dual Band Access Point
 Test Item : Occupied Bandwidth Data
 Test Site : No.3 OATS
 Test Mode : Mode 1: Transmit (802.11a-6Mbps) (5825MHz)

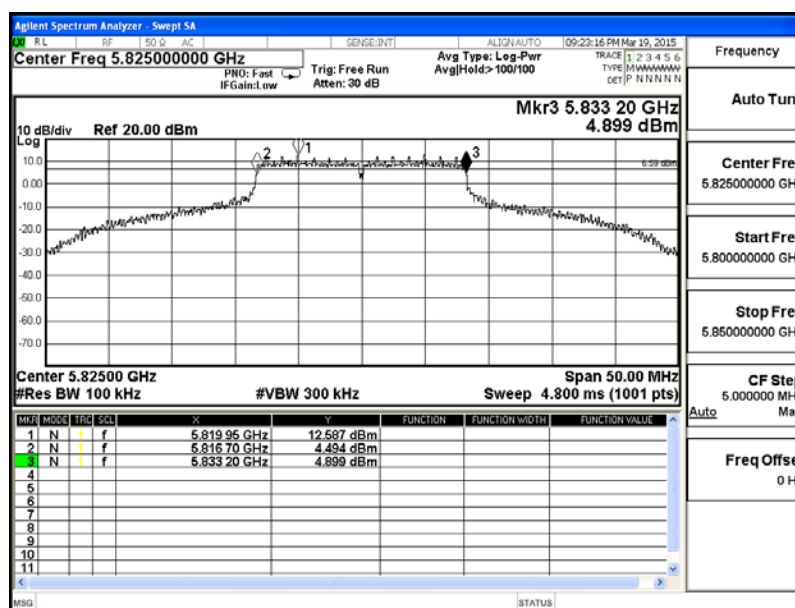
Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
165	5825.00	16450	>500	Pass

Figure Channel 165: (Chain A)



Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
165	5825.00	16500	>500	Pass

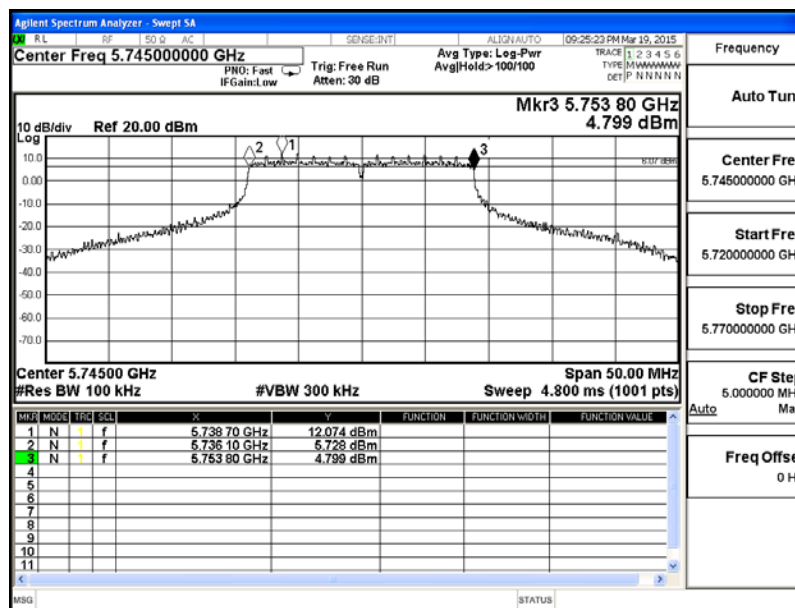
Figure Channel 165: (Chain B)



Product : 802.11ac Dual Band Access Point
 Test Item : Occupied Bandwidth Data
 Test Site : No.3 OATS
 Test Mode : Mode 2: Transmit (802.11n-20BW 14.4Mbps) (5745MHz)

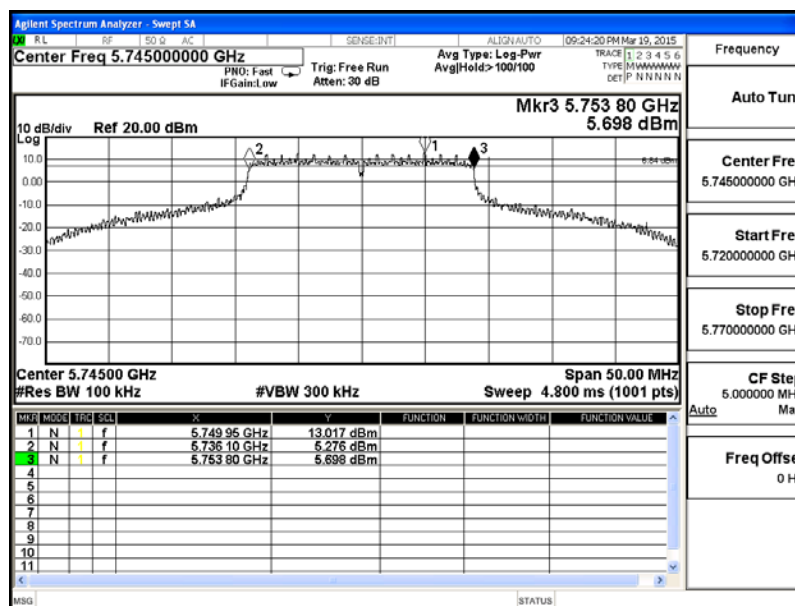
Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
149	5745.00	17700	>500	Pass

Figure Channel 149: (Chain A)



Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
149	5745.00	17700	>500	Pass

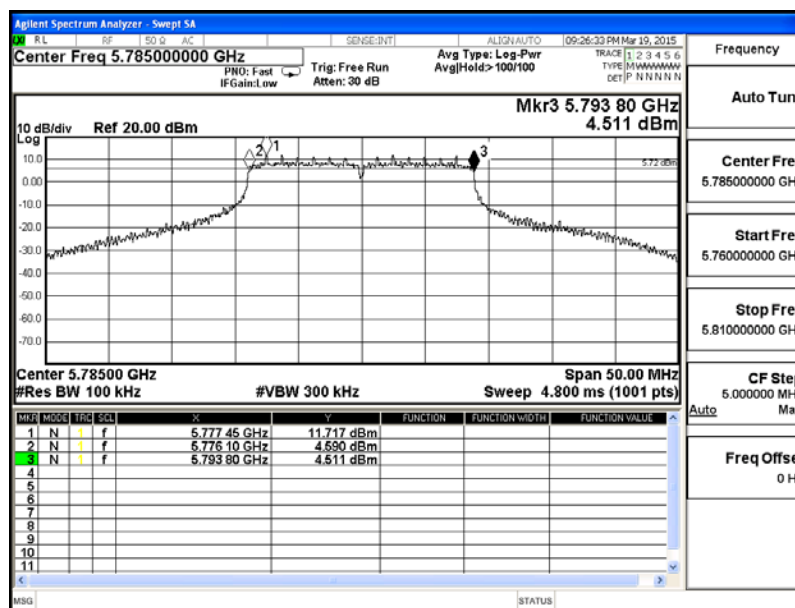
Figure Channel 149: (Chain B)



Product : 802.11ac Dual Band Access Point
 Test Item : Occupied Bandwidth Data
 Test Site : No.3 OATS
 Test Mode : Mode 2: Transmit (802.11n-20BW 14.4Mbps) (5785MHz)

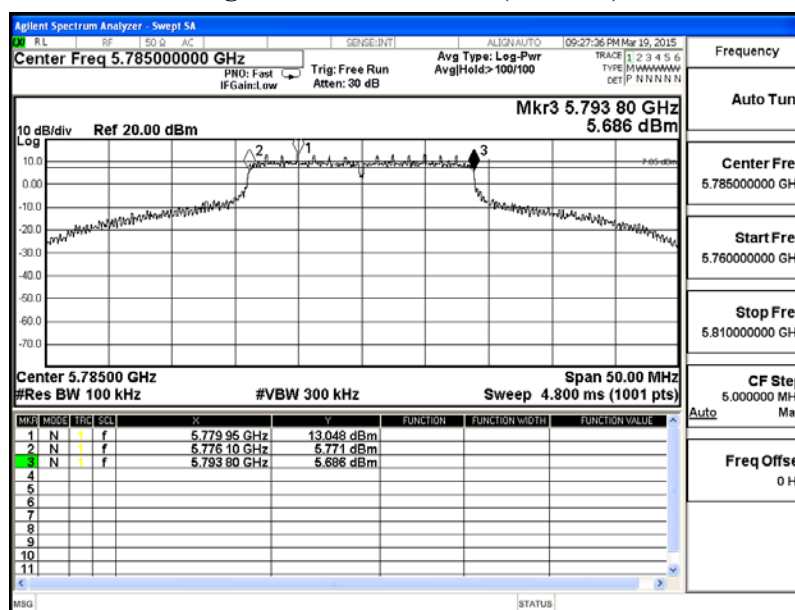
Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
157	5785.00	17700	>500	Pass

Figure Channel 157: (Chain A)



Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
157	5785.00	17700	>500	Pass

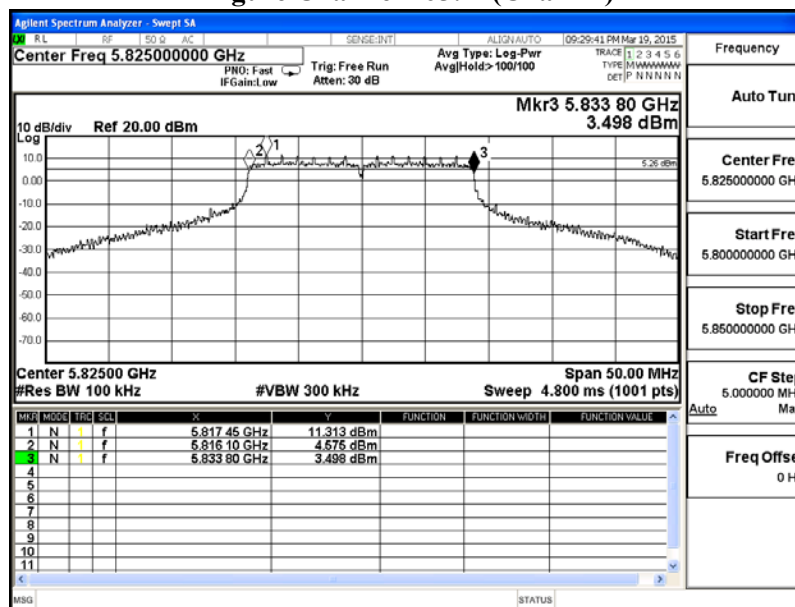
Figure Channel 157: (Chain B)



Product : 802.11ac Dual Band Access Point
 Test Item : Occupied Bandwidth Data
 Test Site : No.3 OATS
 Test Mode : Mode 2: Transmit (802.11n-20BW 14.4Mbps) (5825MHz)

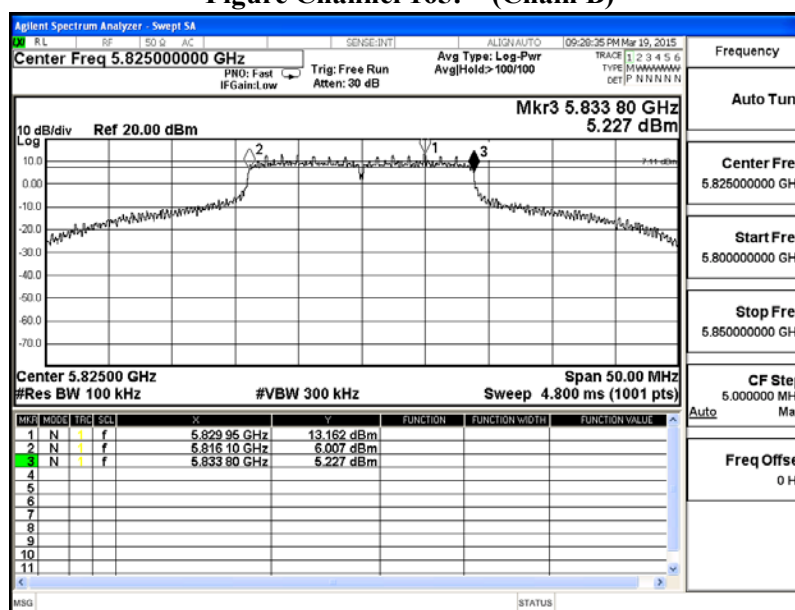
Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
165	5825.00	17700	>500	Pass

Figure Channel 165: (Chain A)



Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
165	5825.00	17700	>500	Pass

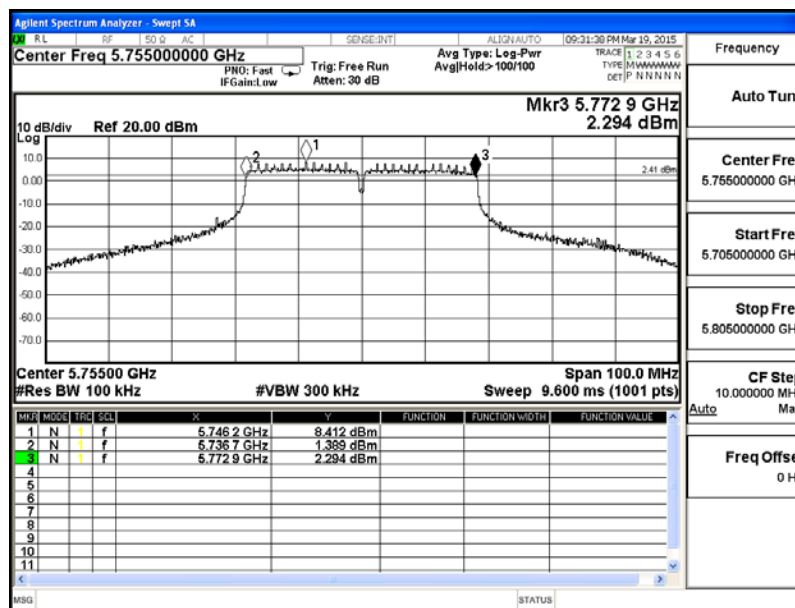
Figure Channel 165: (Chain B)



Product : 802.11ac Dual Band Access Point
 Test Item : Occupied Bandwidth Data
 Test Site : No.3 OATS
 Test Mode : Mode 3: Transmit (802.11n-40BW 30Mbps) (5755MHz)

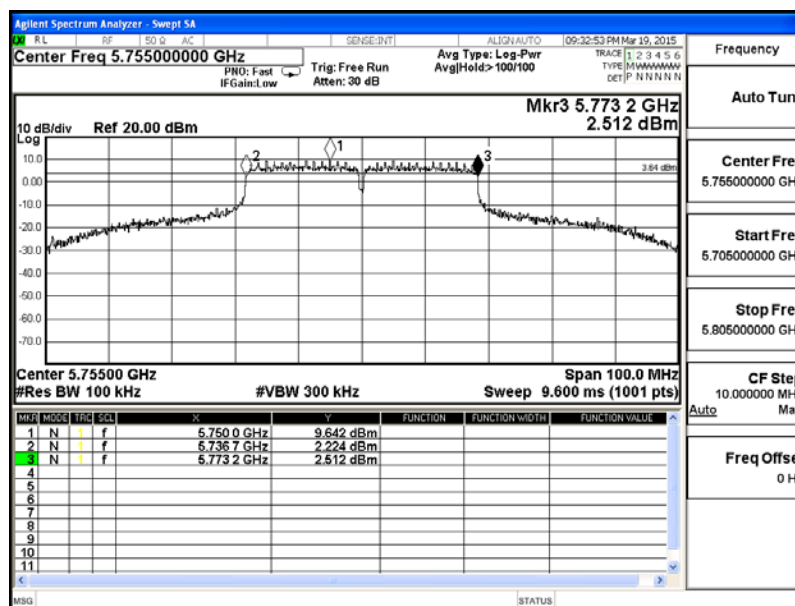
Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
151	5755.00	36200	>500	Pass

Figure Channel 151: (Chain A)



Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
151	5755.00	36500	>500	Pass

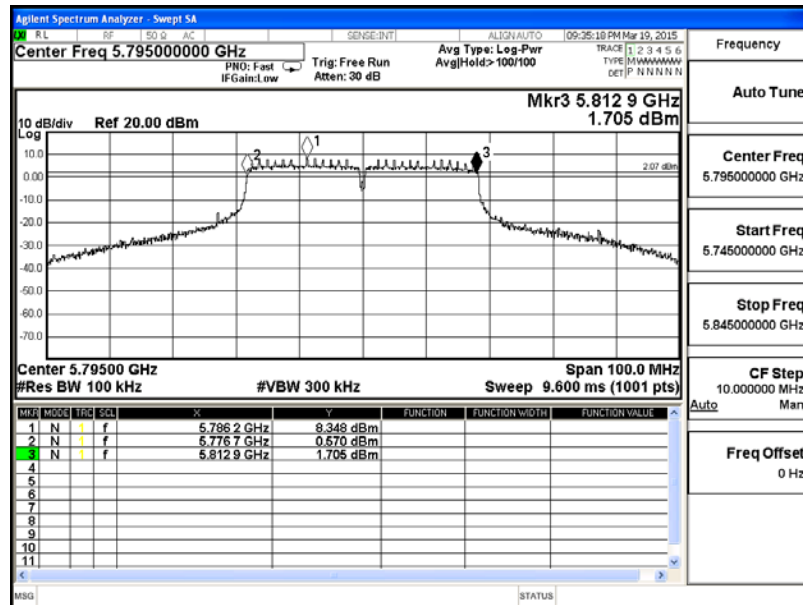
Figure Channel 151: (Chain B)



Product : 802.11ac Dual Band Access Point
 Test Item : Occupied Bandwidth Data
 Test Site : No.3 OATS
 Test Mode : Mode 3: Transmit (802.11n-40BW 30Mbps) (5795MHz)

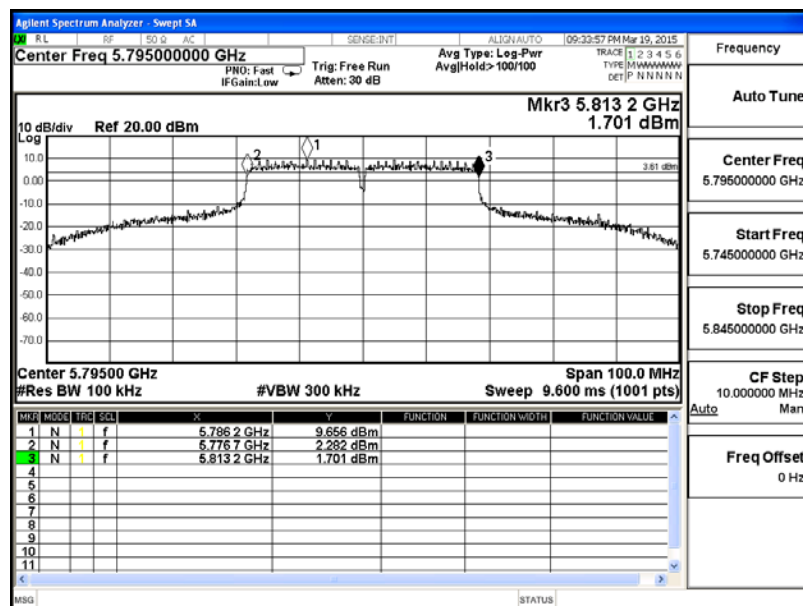
Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
159	5795.00	36200	>500	Pass

Figure Channel 159: (Chain A)



Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
159	5795.00	36500	>500	Pass

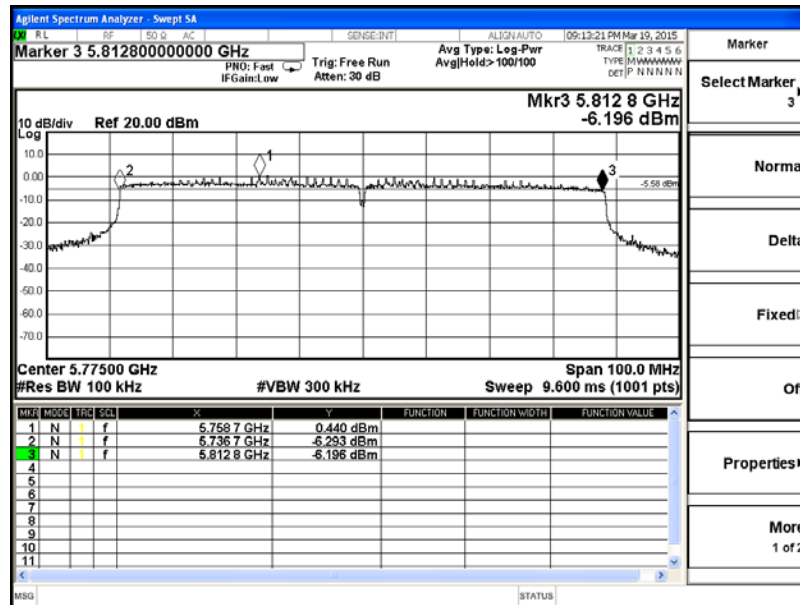
Figure Channel 159: (Chain B)



Product : 802.11ac Dual Band Access Point
 Test Item : Occupied Bandwidth Data
 Test Site : No.3 OATS
 Test Mode : Mode 4: Transmit (802.11ac-80BW-65Mbps) (5775MHz)

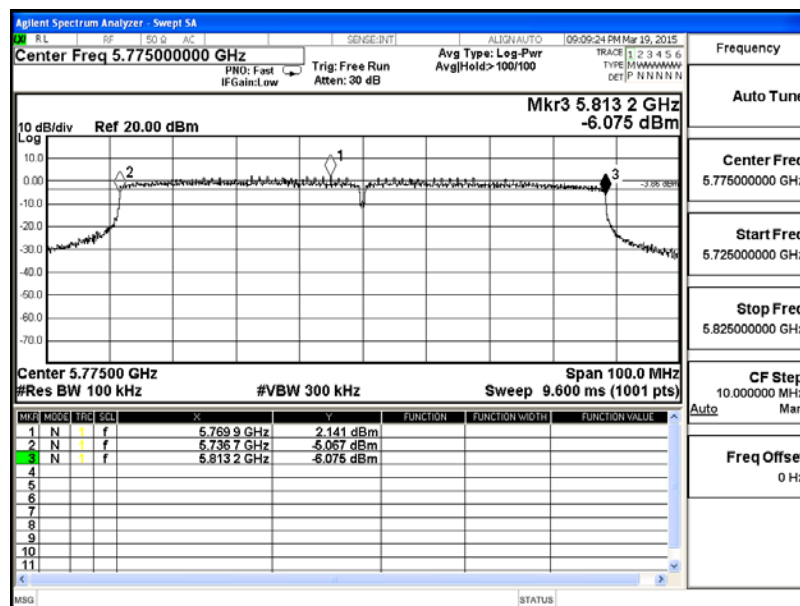
Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
155	5775.00	76100	>500	Pass

Figure Channel 155: (Chain A)



Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
155	5775.00	76500	>500	Pass

Figure Channel 155: (Chain B)



8. Frequency Stability

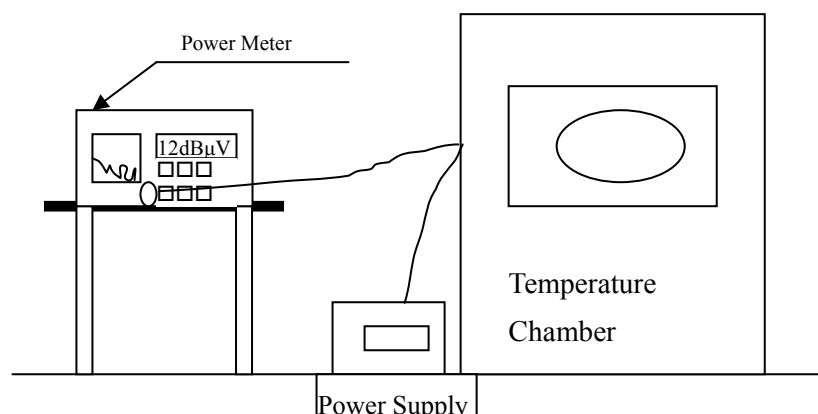
8.1. Test Equipment

	Equipment	Manufacturer	Model No./Serial No.	Last Cal.
	Spectrum Analyzer	R&S	FSP40 / 100170	Jun., 2014
	Spectrum Analyzer	Agilent	E4407B / US39440758	Jun., 2014
X	Spectrum Analyzer	Agilent	N9010A / MY48030495	Apr., 2015

Note:

1. All equipments are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.
2. The test instruments marked with “X” are used to measure the final test results.

8.2. Test Setup



8.3. Limits

Manufactures of U-NII devices are responsible for ensuring frequency stability such that an emission is maintained within the band of operation under all conditions of normal operation as specified

8.4. Test Procedure

The EUT was setup to ANSI C63.10, 2013; tested to DTS test procedure of FCC KDB-789033 for compliance to FCC 47CFR Subpart E requirements.

8.5. Uncertainty

± 150 Hz

8.6. Test Result of Frequency Stability

Product : 802.11ac Dual Band Access Point
 Test Item : Frequency Stability
 Test Site : Temperature Chamber
 Test Mode : Carrier Wave

Chain A

Test Conditions		Channel	Frequency (MHz)	Frequency (MHz)	$\triangle F$ (MHz)
Tnom (20) oC	Vnom (120)V	36	5180.0000	5180.0068	-0.0068
		38	5190.0000	5190.0043	-0.0043
		44	5220.0000	5220.0082	-0.0082
		46	5230.0000	5230.0069	-0.0069
		48	5240.0000	5240.0077	-0.0077
		149	5745.0000	5745.6500	-0.6500
		151	5755.0000	5755.0077	-0.0077
		157	5785.0000	5785.0088	-0.0088
		159	5795.0000	5795.0084	-0.0084
		165	5825.0000	5825.0088	-0.0088
Test Conditions		Channel	Frequency (MHz)	Frequency (MHz)	$\triangle F$ (MHz)
Tnom (50) oC	Vnom (138)V	36	5180.0000	5180.0069	-0.0069
		38	5190.0000	5190.0077	-0.0077
		44	5220.0000	5220.0088	-0.0088
		46	5230.0000	5230.0074	-0.0074
		48	5240.0000	5240.0066	-0.0066
		149	5745.0000	5745.6500	-0.6500
		151	5755.0000	5755.0077	-0.0077
		157	5785.0000	5785.0088	-0.0088
		159	5795.0000	5795.0084	-0.0084
		165	5825.0000	5825.0088	-0.0088

Test Conditions		Channel	Frequency (MHz)	Frequency (MHz)	$\triangle$ F (MHz)
Tnom (50) oC	Vnom (102)V	36	5180.0000	5180.0064	-0.0064
		38	5190.0000	5190.0078	-0.0078
		44	5220.0000	5220.0094	-0.0094
		46	5230.0000	5230.0077	-0.0077
		48	5240.0000	5240.0082	-0.0082
		149	5745.0000	5745.6500	-0.6500
		151	5755.0000	5755.0077	-0.0077
		157	5785.0000	5785.0088	-0.0088
		159	5795.0000	5795.0084	-0.0084
		165	5825.0000	5825.0088	-0.0088
Test Conditions		Channel	Frequency (MHz)	Frequency (MHz)	$\triangle$ F (MHz)
Tnom (0) oC	Vnom (138)V	36	5180.0000	5180.6500	-0.6500
		38	5190.0000	5190.0077	-0.0077
		44	5220.0000	5220.0088	-0.0088
		46	5230.0000	5230.0084	-0.0084
		48	5240.0000	5240.0088	-0.0088
		149	5745.0000	5745.6500	-0.6500
		151	5755.0000	5755.0077	-0.0077
		157	5785.0000	5785.0088	-0.0088
		159	5795.0000	5795.0084	-0.0084
		165	5825.0000	5825.0088	-0.0088
Test Conditions		Channel	Frequency (MHz)	Frequency (MHz)	$\triangle$ F (MHz)
Tnom (0) oC	Vnom (102)V	36	5180.0000	5180.6500	-0.6500
		38	5190.0000	5190.0077	-0.0077
		44	5220.0000	5220.0088	-0.0088
		46	5230.0000	5230.0084	-0.0084
		48	5240.0000	5240.0088	-0.0088
		149	5745.0000	5745.6500	-0.6500
		151	5755.0000	5755.0077	-0.0077
		157	5785.0000	5785.0088	-0.0088
		159	5795.0000	5795.0084	-0.0084
		165	5825.0000	5825.0088	-0.0088

Test Conditions		Channel	Frequency (MHz)	Frequency (MHz)	$\triangle$ F (MHz)
Tnom (20) °C	Vnom (120)V	42	5210.0000	5210.0220	-0.0220
		155	5775.0000	5775.0034	-0.0034
Test Conditions		Channel	Frequency (MHz)	Frequency (MHz)	$\triangle$ F (MHz)
Tmax (50) °C	Vmax (138)V	42	5210.0000	5210.0024	-0.0024
		155	5775.0000	5775.0029	-0.0029
Test Conditions		Channel	Frequency (MHz)	Frequency (MHz)	$\triangle$ F (MHz)
Tmax (50) °C	Vmin (102)V	42	5210.0000	5210.0024	-0.0024
		155	5775.0000	5775.0016	-0.0016
Test Conditions		Channel	Frequency (MHz)	Frequency (MHz)	$\triangle$ F (MHz)
Tmax (0) °C	Vmax (138)V	42	5210.0000	5210.0024	-0.0024
		155	5775.0000	5775.0046	-0.0046
Test Conditions		Channel	Frequency (MHz)	Frequency (MHz)	$\triangle$ F (MHz)
Tmax (0) °C	Vmin (102)V	42	5210.0000	5210.0024	-0.0024
		155	5775.0000	5775.0045	-0.0045

Chain B

Test Conditions		Channel	Frequency (MHz)	Frequency (MHz)	△F (MHz)
Tnom (20) oC	Vnom (120)V	36	5180.0000	5180.0065	-0.0065
		38	5190.0000	5190.0040	-0.0040
		44	5220.0000	5220.0077	-0.0077
		46	5230.0000	5230.0067	-0.0067
		48	5240.0000	5240.0074	-0.0074
		149	5745.0000	5745.6300	-0.6300
		151	5755.0000	5755.0075	-0.0075
		157	5785.0000	5785.0084	-0.0084
		159	5795.0000	5795.0080	-0.0080
		165	5825.0000	5825.0087	-0.0087
Test Conditions		Channel	Frequency (MHz)	Frequency (MHz)	△F (MHz)
Tnom (50) oC	Vnom (138)V	36	5180.0000	5180.0063	-0.0063
		38	5190.0000	5190.0074	-0.0074
		44	5220.0000	5220.0087	-0.0087
		46	5230.0000	5230.0070	-0.0070
		48	5240.0000	5240.0063	-0.0063
		149	5745.0000	5745.6300	-0.6300
		151	5755.0000	5755.0075	-0.0075
		157	5785.0000	5785.0084	-0.0084
		159	5795.0000	5795.0080	-0.0080
		165	5825.0000	5825.0087	-0.0087

Test Conditions		Channel	Frequency (MHz)	Frequency (MHz)	△F (MHz)
Tnom (50) oC	Vnom (102)V	36	5180.0000	5180.0061	-0.0061
		38	5190.0000	5190.0077	-0.0077
		44	5220.0000	5220.0091	-0.0091
		46	5230.0000	5230.0077	-0.0077
		48	5240.0000	5240.0080	-0.0080
		149	5745.0000	5745.6300	-0.6300
		151	5755.0000	5755.0075	-0.0075
		157	5785.0000	5785.0084	-0.0084
		159	5795.0000	5795.0080	-0.0080
		165	5825.0000	5825.0087	-0.0087
Test Conditions		Channel	Frequency (MHz)	Frequency (MHz)	△F (MHz)
Tnom (0) oC	Vnom (138)V	36	5180.0000	5180.6300	-0.6300
		38	5190.0000	5190.0075	-0.0075
		44	5220.0000	5220.0084	-0.0084
		46	5230.0000	5230.0080	-0.0080
		48	5240.0000	5240.0087	-0.0087
		149	5745.0000	5745.6300	-0.6300
		151	5755.0000	5755.0075	-0.0075
		157	5785.0000	5785.0084	-0.0084
		159	5795.0000	5795.0080	-0.0080
		165	5825.0000	5825.0087	-0.0087
Test Conditions		Channel	Frequency (MHz)	Frequency (MHz)	△F (MHz)
Tnom (0) oC	Vnom (102)V	36	5180.0000	5180.6300	-0.6300
		38	5190.0000	5190.0075	-0.0075
		44	5220.0000	5220.0084	-0.0084
		46	5230.0000	5230.0080	-0.0080
		48	5240.0000	5240.0087	-0.0087
		149	5745.0000	5745.6300	-0.6300
		151	5755.0000	5755.0075	-0.0075
		157	5785.0000	5785.0084	-0.0084
		159	5795.0000	5795.0080	-0.0080
		165	5825.0000	5825.0087	-0.0087

Test Conditions		Channel	Frequency (MHz)	Frequency (MHz)	$\triangle$ F (MHz)
Tnom (20) °C	Vnom (120)V	42	5210.0000	5210.0220	-0.0220
		155	5775.0000	5775.0034	-0.0034
Test Conditions		Channel	Frequency (MHz)	Frequency (MHz)	$\triangle$ F (MHz)
Tmax (50) °C	Vmax (138)V	42	5210.0000	5210.0220	-0.0220
		155	5775.0000	5775.0029	-0.0029
Test Conditions		Channel	Frequency (MHz)	Frequency (MHz)	$\triangle$ F (MHz)
Tmax (50) °C	Vmin (102)V	42	5210.0000	5210.0220	-0.0220
		155	5775.0000	5775.0016	-0.0016
Test Conditions		Channel	Frequency (MHz)	Frequency (MHz)	$\triangle$ F (MHz)
Tmax (0) °C	Vmax (138)V	42	5210.0000	5210.0220	-0.0220
		155	5775.0000	5775.0046	-0.0046
Test Conditions		Channel	Frequency (MHz)	Frequency (MHz)	$\triangle$ F (MHz)
Tmax (0) °C	Vmin (102)V	42	5210.0000	5210.0220	-0.0220
		155	5775.0000	5775.0045	-0.0045

9. EMI Reduction Method During Compliance Testing

No modification was made during testing.