FCC Test Report

Product Name	Access Point/Sensor
Model No	O-90, O-90-E
FCC ID	PPQ-O90

Applicant	Lite-On Technology Corp.
Address	Bldg. C, 90, Chien 1 Road, Chung Ho, New Taipei City 23585, Taiwan, R.O.C

Date of Receipt	Feb. 25, 2015
Issued Date	May 21, 2015
Report No.	1520469R-RFUSP05V00
Report Version	V1.0

Testing Laboratory
3023

Test Report

Issued Date: May 21, 2015
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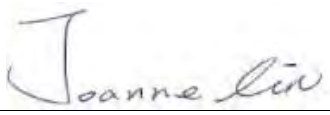
Product Name	Access Point/Sensor
Applicant	Lite-On Technology Corp.
Address	Bldg. C, 90, Chien 1 Road, Chung Ho, New Taipei City 23585, Taiwan, R.O.C
Manufacturer	Lite-On Network Communication (Dongguan) Limited
Model No.	O-90, O-90-E
FCC ID.	PPQ-O90
EUT Rated Voltage	Power By PoE (DC 48V)
EUT Test Voltage	Power By PoE (DC 48V)
Trade Name	LITE-ON
Applicable Standard	FCC CFR Title 47 Part 15 Subpart E: 2014 ANSI C63.10: 2009 KDB 789033 D02 General UNII Test Procedures New Rules v01
Test Result	Complied

Documented By : 

(Senior Adm. Specialist / Joanne Lin)

Tested By : 

(Engineer / Jerry Tsai)

Approved By : 

(Director / Vincent Lin)

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1. GENERAL INFORMATION

1.1. EUT Description

Product Name	Access Point/Sensor
Trade Name	LITE-ON
FCC ID.	PPQ-O90
Model No.	O-90, O-90-E
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 450Mbps 802.11ac-80MHz: up to 1300MHz
Channel Control	Auto
Type of Modulation	802.11a/n:OFDM, BPSK, QPSK, 16QAM, 64QAM, 256QAM
Antenna type	Internal / External: Dipole Antenna
Antenna Gain	Refer to the table “Antenna List”

Antenna List

No.	Manufacturer	Part No.	Antenna Type	Peak Gain	Note
1	Lite-On	301000070567 301000070667 301000070767	Dipole	9.1dBi for 5.15~5.25GHz 8.6dBi for 5.25~5.35GHz 11.1dBi for 5.47~5.725GHz 10.9dBi for 5.725~5.825GHz	Internal Antenna
2	Walsin	RFDPA252025AMLB801	Dipole	4.38dBi for 5.15~5.25GHz 4.58dBi for 5.25~5.35GHz 6.07dBi for 5.47~5.725GHz 5.47dBi for 5.725~5.825GHz	External Antenna

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 an Access Point/Sensor 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. At result of pretests, module supports dual-channel transmission, only the worst case is shown in the report. (802.11a/n/ac is chain A+chain B+chain C)
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 21.7Mbps、802.11n-40BW is 45Mbps and 802.11ac(80M-BW) is 97.5 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 21.7Mbps) Mode 3: Transmit (802.11n-40BW 45Mbps) Mode 4 Transmit (802.11ac-80BW-97.5Mbps)

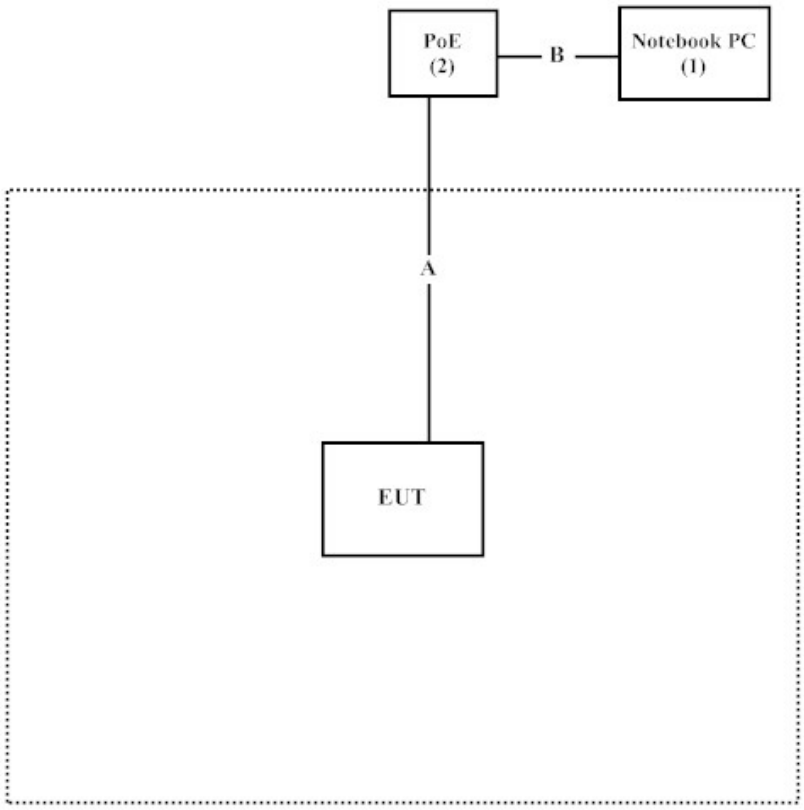
1.3. Tested System Datails

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, 0.8m
2	PoE	Linksys	LGS108P	N/A	N/A

Signal Cable Type		Signal cable Description
A	LAN Cable	Non-Shielded, 1.6m
B	LAN Cable	Non-Shielded, 1.6m

1.4. Configuration of tested System



1.5. EUT Exercise Software

1. Setup the EUT as shown in Section 1.4
2. Execute software “ART2-GUI (v2.3)” on the EUT.
3. Configure the test mode, the test channel, and the data rate.
4. Press “OK” to start the continuous Transmit.
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/chinese/about/certificates.aspx?bval=5

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

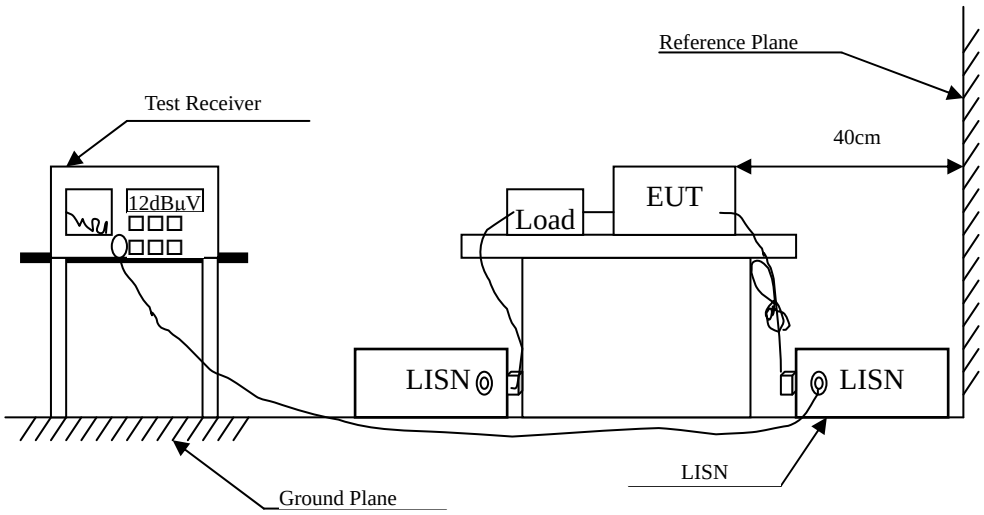
2.1. Test Equipment

	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 C63.10:2009 on conducted measurement.
Conducted emissions were invested over the frequency range from 0.15MHz to 30MHz using a receiver bandwidth of 9kHz.
The EUT was setup to ANSI C63.10, 2009; 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

Owing to the EUT does not sell Adapter, this test item is not performed.

3. Maximun conducted output power

3.1. Test Equipment

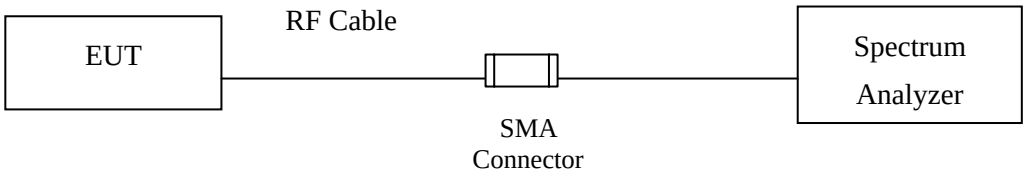
	Equipment	Manufacturer	Model No./Serial No.	Last Cal.
X	Power Meter	Anritsu	ML2495A/6K00003357	May, 2015
X	Power Sensor	Anritsu	MA2411B/0738448	Jun., 2014
X	Spectrum Analyzer	Agilent	N9010A / MY48030495	Apr., 2015

Note:

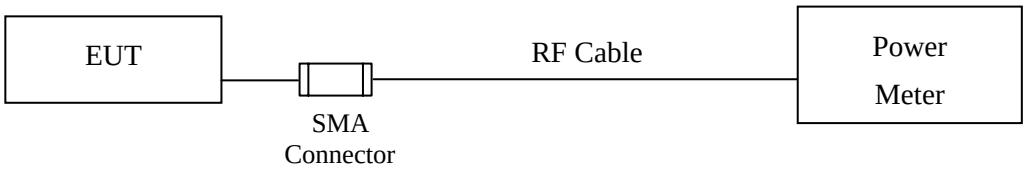
1. All equipments are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.
2. The test instruments marked with "X" are used to measure the final test results.

3.2. Test Setup

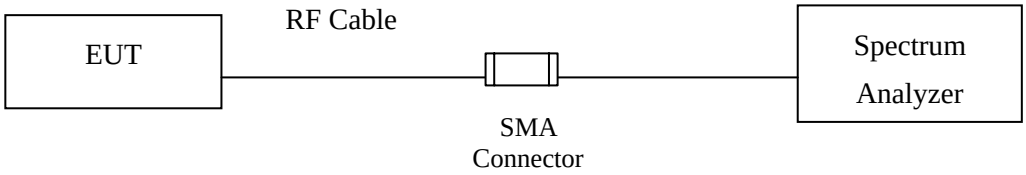
26dBc Occupied Bandwidth



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-topoint 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 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 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 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 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.

3.4. Test Procedur

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 than 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≦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

Power sensor/meter method: ± 0.517 dB

Spectrum analyzer method: ± 1.27 dB

3.6. Test Result of Maximum conducted output power

Product : Access Point/Sensor
Test Item : Maximum conducted output power
Test Site : No.3 OATS
Test Mode : Mode 1: Transmit (802.11a-6Mbps) (External Antenna)

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	19.49	--	--	--	--	--	--	--	<30dBm
44	5220	22.84	22.72	22.63	22.47	22.36	22.24	22.12	22.02	<30dBm
48	5240	22.91	--	--	--	--	--	--	--	<30dBm
149	5745	23.56	--	--	--	--	--	--	--	<30dBm
157	5785	23.75	23.62	23.49	23.36	23.23	23.15	22.97	22.82	<30dBm
165	5825	23.81	--	--	--	--	--	--	--	<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	19.48	--	--	--	--	--	--	--	<30dBm
44	5220	22.66	22.54	22.42	22.33	22.18	22.06	21.91	21.84	<30dBm
48	5240	22.72	--	--	--	--	--	--	--	<30dBm
149	5745	23.17	--	--	--	--	--	--	--	<30dBm
157	5785	22.61	22.54	22.47	22.42	22.33	22.26	22.19	22.07	<30dBm
165	5825	22.94	--	--	--	--	--	--	--	<30dBm

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

Chain C

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	19.53	--	--	--	--	--	--	--	<30dBm
44	5220	22.93	22.82	22.71	22.63	22.49	22.38	22.27	22.14	<30dBm
48	5240	23.06	--	--	--	--	--	--	--	<30dBm
149	5745	23.23	--	--	--	--	--	--	--	<30dBm
157	5785	23.12	23.04	22.96	22.88	22.83	22.72	22.64	22.54	<30dBm
165	5825	23.15	--	--	--	--	--	--	--	<30dBm

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

Maximum conducted output power Measurement:

Chain A+ B+C

Channel Number	Frequency (MHz)	Chain A Power (dBm)	Chain B Power (dBm)	Chain C Power (dBm)	Output Power (dBm)	Output Power Limit (dBm)
36	5180	19.49	19.48	19.53	24.27	30
44	5220	22.84	22.66	22.93	27.58	30
48	5240	22.91	22.72	23.06	27.67	30
149	5745	23.56	23.17	23.23	28.09	30
157	5785	23.75	22.61	23.12	27.96	30
165	5825	23.81	22.94	23.15	28.09	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)+Chain C Power (mW))

Product : Access Point/Sensor
Test Item : Maximum conducted output power
Test Site : No.3 OATS
Test Mode : Mode 2: Transmit (802.11n-20BW 21.7Mbps) (External Antenna)

Chain A

Cable loss=1dB		Maximum conducted output power								
Channel No.	Frequency (MHz)	Data Rate (Mbps)								Required Limit
		21.7	43.3	65	86.7	130.7	173.3	195	216.7	
		Measurement Level (dBm)								
36	5180	19.87	--	--	--	--	--	--	--	<30dBm
44	5220	22.71	22.63	22.55	22.48	22.39	22.32	22.23	22.12	<30dBm
48	5240	22.96	--	--	--	--	--	--	--	<30dBm
149	5745	23.72	--	--	--	--	--	--	--	<30dBm
157	5785	23.86	23.75	23.61	23.53	23.42	23.31	23.23	23.09	<30dBm
165	5825	23.72	--	--	--	--	--	--	--	<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
		21.7	43.3	65	86.7	130.7	173.3	195	216.7	
		Measurement Level (dBm)								
36	5180	19.98	--	--	--	--	--	--	--	<30dBm
44	5220	22.58	22.48	22.38	22.26	22.18	22.08	21.91	21.83	<30dBm
48	5240	22.71	--	--	--	--	--	--	--	<30dBm
149	5745	22.76	--	--	--	--	--	--	--	<30dBm
157	5785	22.86	22.74	22.62	22.54	22.38	22.26	22.13	22.08	<30dBm
165	5825	22.76	--	--	--	--	--	--	--	<30dBm

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

Chain C

Cable loss=1dB		Maximum conducted output power								
Channel No.	Frequency (MHz)	Data Rate (Mbps)								Required Limit
		21.7	43.3	65	86.7	130.7	173.3	195	216.7	
		Measurement Level (dBm)								
36	5180	19.85	--	--	--	--	--	--	--	<30dBm
44	5220	22.82	22.74	22.66	22.58	22.55	22.45	22.34	22.21	<30dBm
48	5240	23.18	--	--	--	--	--	--	--	<30dBm
149	5745	23.15	--	--	--	--	--	--	--	<30dBm
157	5785	23.39	23.31	23.23	23.15	23.08	22.99	22.91	22.81	<30dBm
165	5825	23.04	--	--	--	--	--	--	--	<30dBm

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

Maximum conducted output power Measurement:

Chain A+ B+C

Channel Number	Frequency (MHz)	Chain A Power (dBm)	Chain B Power (dBm)	Chain C Power (dBm)	Output Power (dBm)	Output Power Limit (dBm)
36	5180	19.87	19.98	19.85	24.67	30
44	5220	22.71	22.58	22.82	27.48	30
48	5240	22.96	22.71	23.18	27.73	30
149	5745	23.72	22.76	23.15	28.00	30
157	5785	23.86	22.86	23.39	28.16	30
165	5825	23.72	22.76	23.04	27.96	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)+Chain C Power (mW))

Product : Access Point/Sensor
Test Item : Maximum conducted output power
Test Site : No.3 OATS
Test Mode : Mode 3: Transmit (802.11n-40BW 45Mbps) (External Antenna)

Chain A

Cable loss=1dB		Maximum conducted output power								
Channel No.	Frequency (MHz)	Data Rate (Mbps)								Required Limit
		45	90	135	180	270	360	405	450	
		Measurement Level (dBm)								
38	5190	12.51	--	--	--	--	--	--	--	<30dBm
46	5230	22.68	22.52	22.38	22.24	22.04	21.88	21.72	21.52	<30dBm
151	5755	23.13	--	--	--	--	--	--	--	<30dBm
159	5795	23.25	23.12	22.96	22.86	22.73	22.63	22.47	22.32	<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
		45	90	135	180	270	360	405	450	
		Measurement Level (dBm)								
38	5190	12.45	--	--	--	--	--	--	--	<30dBm
46	5230	22.66	22.57	22.48	22.39	22.32	22.21	22.12	22.06	<30dBm
151	5755	22.33	--	--	--	--	--	--	--	<30dBm
159	5795	22.31	22.24	22.17	22.11	22.03	21.96	21.89	21.78	<30dBm

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

Chain C

Cable loss=1dB		Maximum conducted output power								
Channel No.	Frequency (MHz)	Data Rate (Mbps)								Required Limit
		45	90	135	180	270	360	405	450	
		Measurement Level (dBm)								
38	5190	12.46	--	--	--	--	--	--	--	<30dBm
46	5230	22.49	22.38	22.24	22.16	22.08	21.94	21.83	21.76	<30dBm
151	5755	22.59	--	--	--	--	--	--	--	<30dBm
159	5795	22.68	22.54	22.41	22.26	22.18	21.98	21.84	21.76	<30dBm

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

Maximum conducted output power Measurement:

Chain A+ B+C

Channel Number	Frequency (MHz)	Chain A Power (dBm)	Chain B Power (dBm)	Chain C Power (dBm)	Output Power (dBm)	Output Power Limit (dBm)
38	5190	12.51	12.45	12.46	17.24	30
46	5230	22.68	22.66	22.49	27.38	30
151	5755	23.13	22.33	22.59	27.47	30
159	5795	23.25	22.31	22.68	27.54	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)+Chain C Power (mW))

Product : Access Point/Sensor
Test Item : Maximum conducted output power
Test Site : No.3 OATS
Test Mode : Mode 4 Transmit (802.11ac-80BW-97.5Mbps) (External Antenna)

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	11.17	11.04	10.91	10.75	10.65	10.52	10.39	10.24	10.13	10.03	<30dBm
155	5775	15.49	15.38	15.25	15.16	15.02	14.94	14.83	14.62	14.41	14.26	<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	13.03	12.88	12.75	12.58	12.43	12.24	12.13	11.98	11.83	11.66	<30dBm
155	5775	17.22	17.04	16.86	16.68	16.55	16.32	16.13	15.96	15.79	15.62	<30dBm

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

Chain C

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	12.18	12.07	11.96	11.85	11.74	11.62	11.52	11.41	11.36	11.19	<30dBm
155	5775	16.41	16.32	16.23	16.14	16.08	15.96	15.87	15.74	15.61	15.48	<30dBm

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

Maximum conducted output power Measurement:

Chain A+ B+C

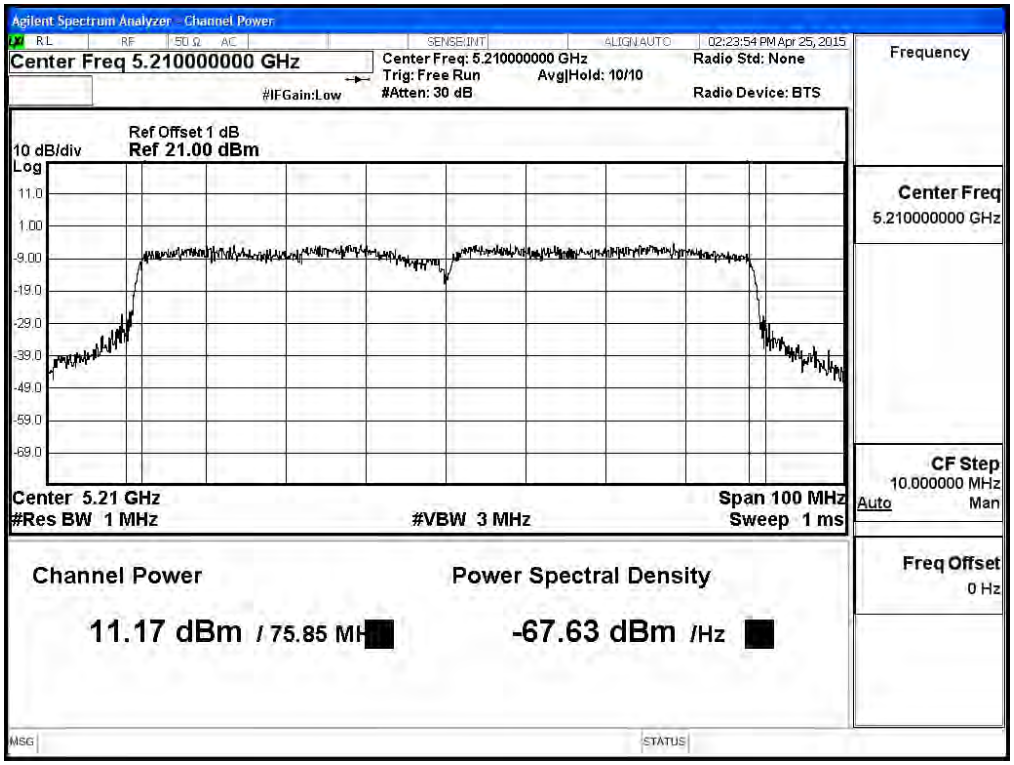
Channel Number	Frequency (MHz)	Chain A Power (dBm)	Chain A Power (dBm)	Chain C Power (dBm)	Output Power (dBm)	Output Power Limit (dBm)
42	5210	11.17	13.03	12.18	16.96	30
155	5775	15.49	17.22	16.41	21.20	30

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)+Chain C Power (mW))

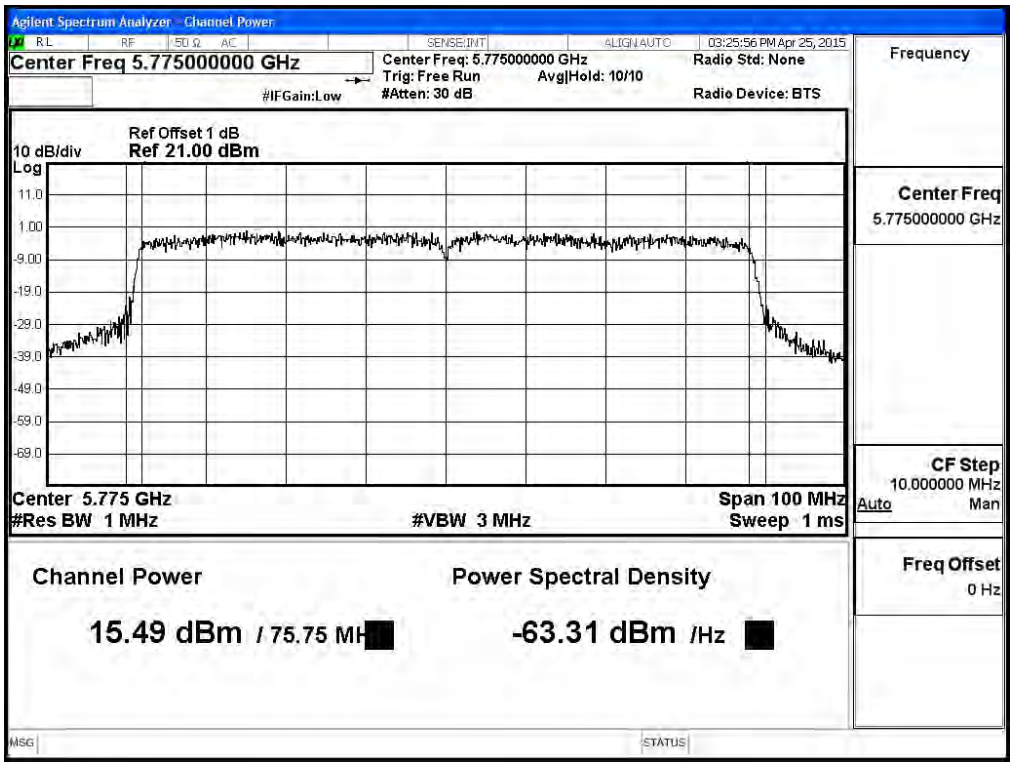
Maximum conducted output power:

Channel 42 – Chain A



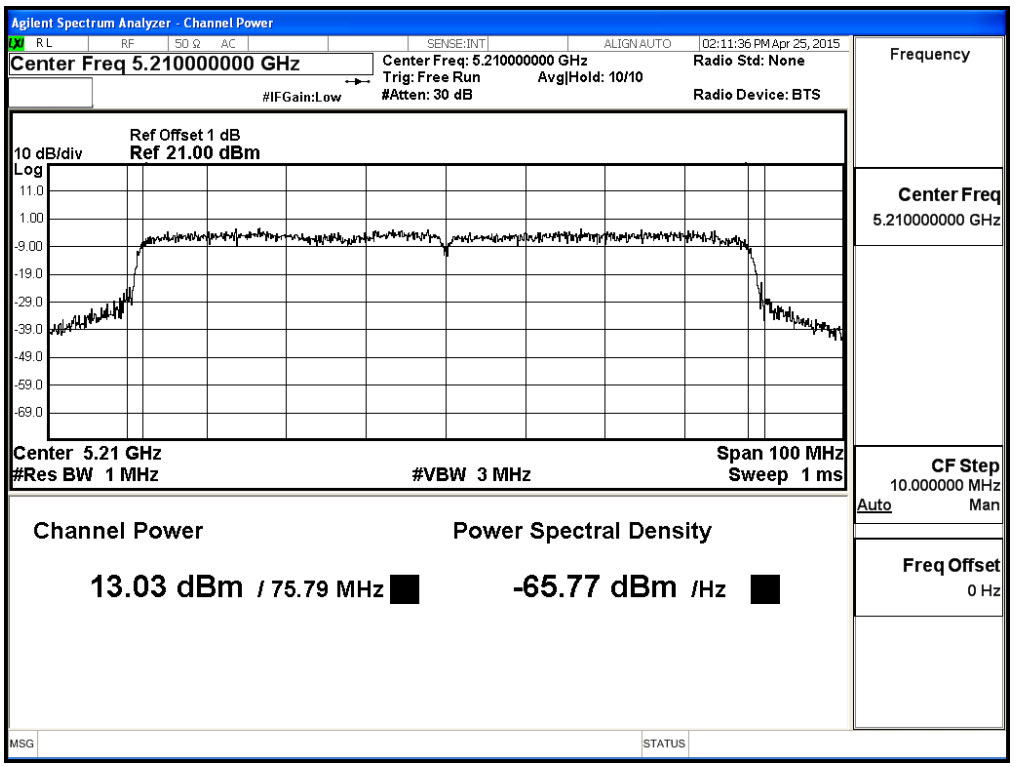
Maximum conducted output power:

Channel 155 – Chain A



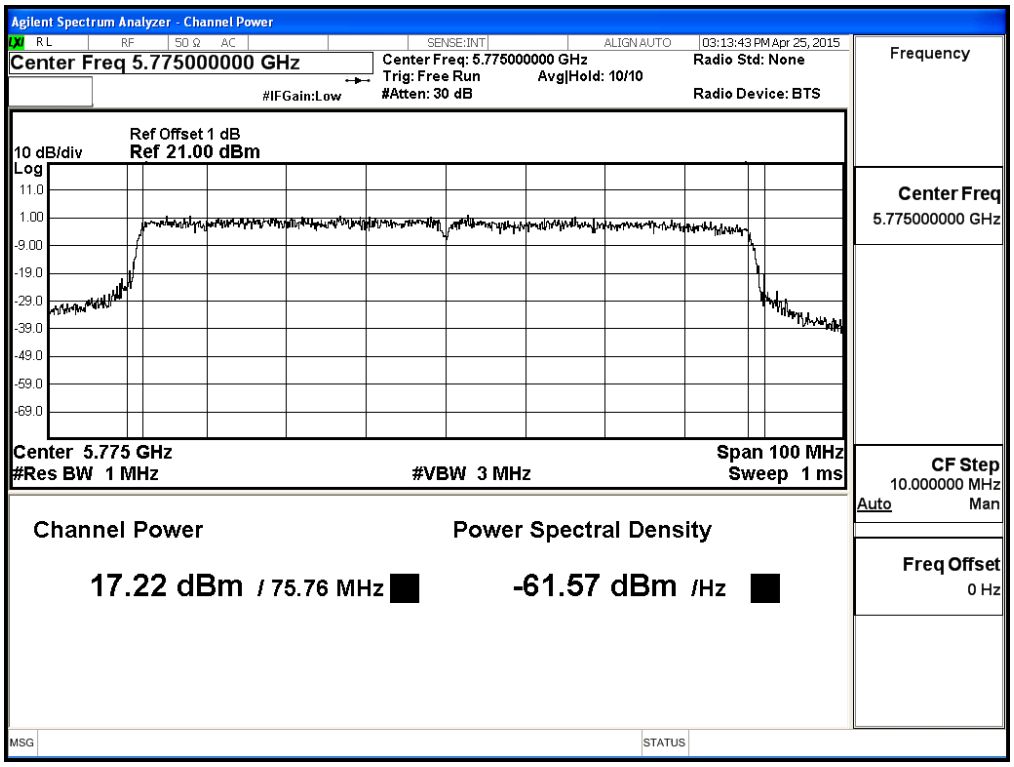
Maximum conducted output power:

Channel 42 – Chain B



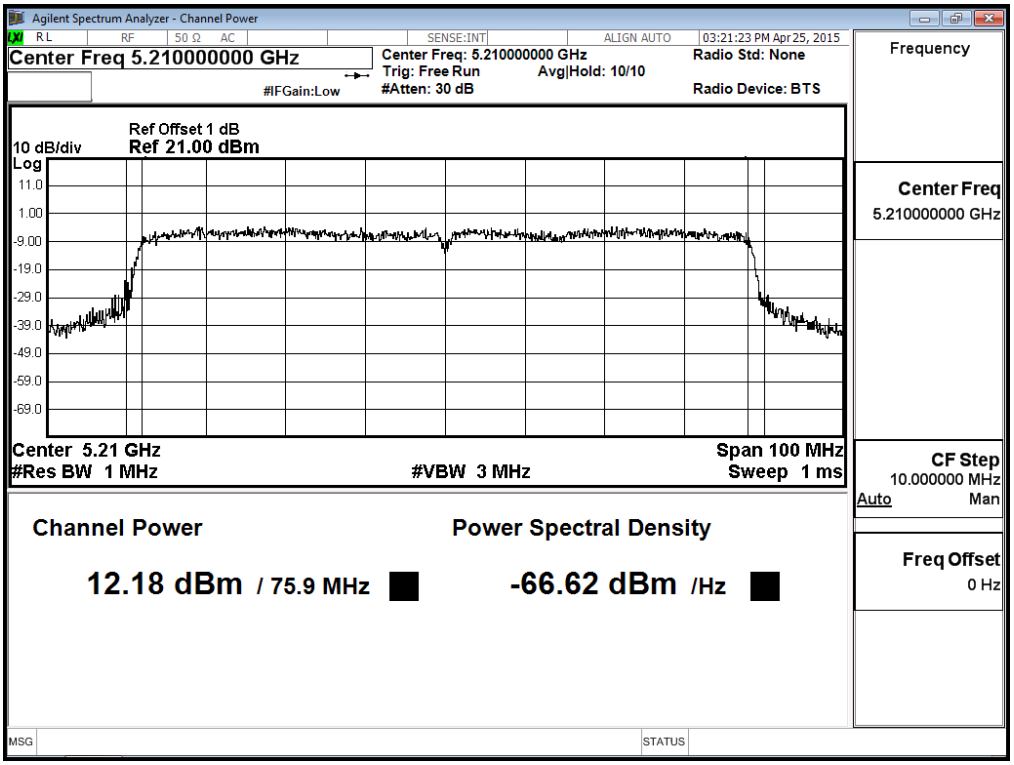
Maximum conducted output power:

Channel 155 – Chain B



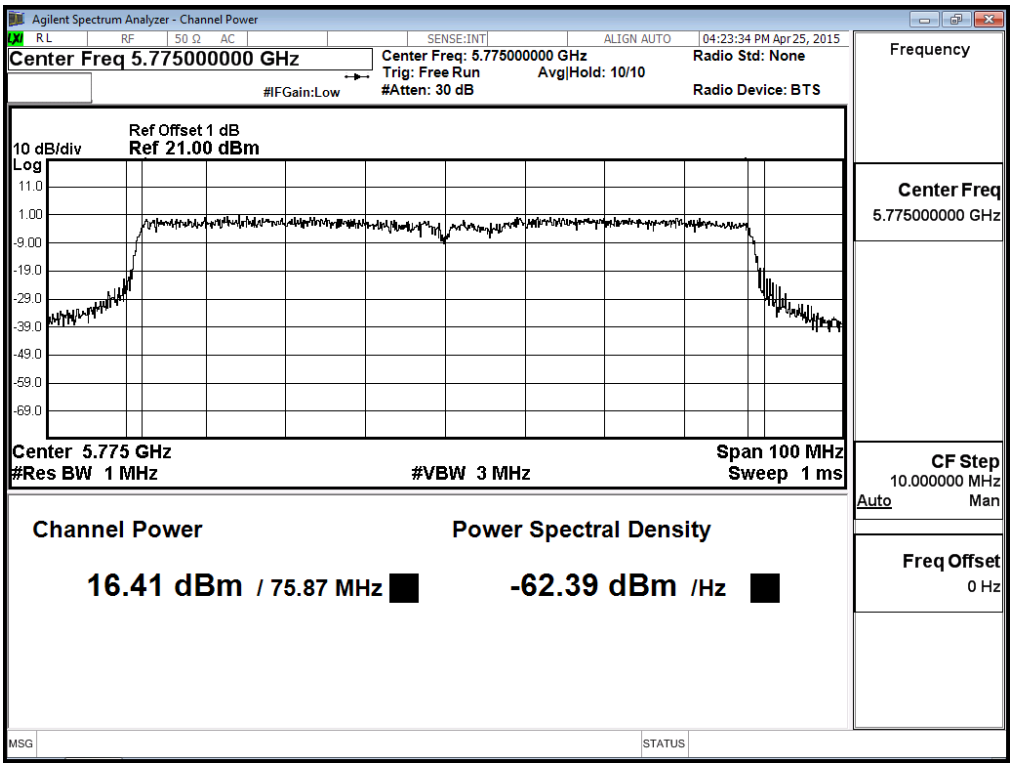
Maximum conducted output power:

Channel 42 – Chain C



Maximum conducted output power:

Channel 155 – Chain C



Product : Access Point/Sensor
Test Item : Maximum conducted output power
Test Site : No.3 OATS
Test Mode : Mode 1: Transmit (802.11a-6Mbps) (Internal Antenna)

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	14.85	--	--	--	--	--	--	--	<26.9dBm
44	5220	19.39	19.24	19.09	18.94	18.77	18.64	18.49	18.32	<26.9dBm
48	5240	19.52	--	--	--	--	--	--	--	<26.9dBm
149	5745	20.25	--	--	--	--	--	--	--	<25.1dBm
157	5785	20.49	20.32	20.15	19.98	19.83	19.64	19.47	19.38	<25.1dBm
165	5825	19.99	--	--	--	--	--	--	--	<25.1dBm

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	14.46	--	--	--	--	--	--	--	<26.9dBm
44	5220	18.87	18.74	18.61	18.48	18.35	18.22	18.09	17.92	<26.9dBm
48	5240	19.25	--	--	--	--	--	--	--	<26.9dBm
149	5745	19.59	--	--	--	--	--	--	--	<25.1dBm
157	5785	19.47	19.34	19.21	19.04	18.95	18.82	18.67	18.56	<25.1dBm
165	5825	19.01	--	--	--	--	--	--	--	<25.1dBm

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

Chain C

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	14.87	--	--	--	--	--	--	--	<26.9dBm
44	5220	19.47	19.34	19.21	19.08	18.95	18.82	18.69	18.56	<26.9dBm
48	5240	19.47	--	--	--	--	--	--	--	<26.9dBm
149	5745	19.92	--	--	--	--	--	--	--	<25.1dBm
157	5785	19.96	19.83	19.73	19.57	19.44	19.31	19.18	19.04	<25.1dBm
165	5825	20.04	--	--	--	--	--	--	--	<25.1dBm

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

Maximum conducted output power Measurement:

Chain A+ B+C

Channel Number	Frequency (MHz)	Chain A Power (dBm)	Chain B Power (dBm)	Chain C Power (dBm)	Output Power (dBm)	Output Power Limit (dBm)
36	5180	14.85	14.46	14.87	19.50	26.9
44	5220	19.39	18.87	19.47	24.02	26.9
48	5240	19.52	19.25	19.47	24.19	26.9
149	5745	20.25	19.59	19.92	24.70	25.1
157	5785	20.49	19.47	19.96	24.76	25.1
165	5825	19.99	19.01	20.04	24.48	25.1

Note:

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

Product : Access Point/Sensor
Test Item : Maximum conducted output power
Test Site : No.3 OATS
Test Mode : Mode 2: Transmit (802.11n-20BW 21.7Mbps) (Internal Antenna)

Chain A

Cable loss=1dB		Maximum conducted output power								
Channel No.	Frequency (MHz)	Data Rate (Mbps)								Required Limit
		21.7	43.3	65	86.7	130.7	173.3	195	216.7	
		Measurement Level (dBm)								
36	5180	14.13	--	--	--	--	--	--	--	<26.9dBm
44	5220	19.37	19.23	19.09	18.95	18.81	18.67	18.53	18.37	<26.9dBm
48	5240	19.54	--	--	--	--	--	--	--	<26.9dBm
149	5745	20.14	--	--	--	--	--	--	--	<25.1dBm
157	5785	20.34	20.21	20.08	19.91	19.82	19.69	19.56	19.43	<25.1dBm
165	5825	19.86	--	--	--	--	--	--	--	<25.1dBm

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
		21.7	43.3	65	86.7	130.7	173.3	195	216.7	
		Measurement Level (dBm)								
36	5180	13.74	--	--	--	--	--	--	--	<26.9dBm
44	5220	18.56	18.42	18.28	18.14	18.02	17.86	17.72	17.58	<26.9dBm
48	5240	18.88	--	--	--	--	--	--	--	<26.9dBm
149	5745	19.46	--	--	--	--	--	--	--	<25.1dBm
157	5785	19.42	19.27	19.12	18.97	18.84	18.67	18.52	18.37	<25.1dBm
165	5825	18.87	--	--	--	--	--	--	--	<25.1dBm

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

Chain C

Cable loss=1dB		Maximum conducted output power								
Channel No.	Frequency (MHz)	Data Rate (Mbps)								Required Limit
		21.7	43.3	65	86.7	130.7	173.3	195	216.7	
		Measurement Level (dBm)								
36	5180	14.15	--	--	--	--	--	--	--	<26.9dBm
44	5220	19.23	19.08	18.93	18.78	18.63	18.48	18.33	18.18	<26.9dBm
48	5240	19.48	--	--	--	--	--	--	--	<26.9dBm
149	5745	19.87	--	--	--	--	--	--	--	<25.1dBm
157	5785	19.88	19.72	19.56	19.48	19.24	19.08	18.92	18.76	<25.1dBm
165	5825	19.84	--	--	--	--	--	--	--	<25.1dBm

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

Maximum conducted output power Measurement:

Chain A+ B+C

Channel Number	Frequency (MHz)	Chain A Power (dBm)	Chain B Power (dBm)	Chain C Power (dBm)	Output Power (dBm)	Output Power Limit (dBm)
36	5180	14.13	13.74	14.15	18.78	26.9
44	5220	19.37	18.56	19.23	23.84	26.9
48	5240	19.54	18.88	19.48	24.08	26.9
149	5745	20.14	19.46	19.87	24.60	25.1
157	5785	20.34	19.42	19.88	24.67	25.1
165	5825	19.86	18.87	19.84	24.32	25.1

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)+Chain C Power (mW))

Product : Access Point/Sensor
Test Item : Maximum conducted output power
Test Site : No.3 OATS
Test Mode : Mode 3: Transmit (802.11n-40BW 45Mbps) (Internal Antenna)

Chain A

Cable loss=1dB		Maximum conducted output power								
Channel No.	Frequency (MHz)	Data Rate (Mbps)								Required Limit
		45	90	135	180	270	360	405	450	
		Measurement Level (dBm)								
38	5190	8.62	--	--	--	--	--	--	--	<26.9dBm
46	5230	21.87	21.68	21.49	21.32	21.11	20.92	20.73	20.64	<26.9dBm
151	5755	20.15	--	--	--	--	--	--	--	<25.1dBm
159	5795	20.14	20.02	19.94	19.78	19.66	19.54	19.42	19.32	<25.1dBm

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
		45	90	135	180	270	360	405	450	
		Measurement Level (dBm)								
38	5190	8.22	--	--	--	--	--	--	--	<26.9dBm
46	5230	21.12	20.98	20.84	20.7	20.56	20.42	20.28	20.13	<26.9dBm
151	5755	19.35	--	--	--	--	--	--	--	<25.1dBm
159	5795	19.25	19.08	18.91	18.74	18.57	18.44	18.23	18.06	<25.1dBm

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

Chain C

Cable loss=1dB		Maximum conducted output power								
Channel No.	Frequency (MHz)	Data Rate (Mbps)								Required Limit
		45	90	135	180	270	360	405	450	
		Measurement Level (dBm)								
38	5190	8.4	--	--	--	--	--	--	--	<26.9dBm
46	5230	21.78	21.66	21.54	21.42	21.33	21.18	21.06	20.84	<26.9dBm
151	5755	20.17	--	--	--	--	--	--	--	<25.1dBm
159	5795	20.11	19.97	19.83	19.69	19.55	19.41	19.27	19.13	<25.1dBm

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

Maximum conducted output power Measurement:

Chain A+ B+C

Channel Number	Frequency (MHz)	Chain A Power (dBm)	Chain B Power (dBm)	Chain C Power (dBm)	Output Power (dBm)	Output Power Limit (dBm)
38	5190	8.62	8.22	8.40	13.19	26.9
46	5230	21.87	21.12	21.78	26.37	26.9
151	5755	20.15	19.35	20.17	24.68	25.1
159	5795	20.14	19.25	20.11	24.62	25.1

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)+Chain C Power (mW))

Product : Access Point/Sensor
Test Item : Maximum conducted output power
Test Site : No.3 OATS
Test Mode : Mode 4 Transmit (802.11ac-80BW-97.5Mbps) (Internal Antenna)

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	5.36	--	--	--	--	--	--	--	--	--	<26.9dBm
155	5775	15.42	15.26	15.1	14.94	14.78	14.62	14.46	14.3	14.14	13.98	<25.1dBm

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	4.77	--	--	--	--	--	--	--	--	--	<26.9dBm
155	5775	14.57	14.34	14.11	13.88	13.65	13.42	13.19	12.96	12.73	12.58	<25.1dBm

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

Chain C

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	4.77	--	--	--	--	--	--	--	--	--	<26.9dBm
155	5775	15.14	14.92	14.7	14.48	14.26	14.04	13.82	13.6	13.38	13.16	<25.1dBm

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

Maximum conducted output power Measurement:

Chain A+ B+C

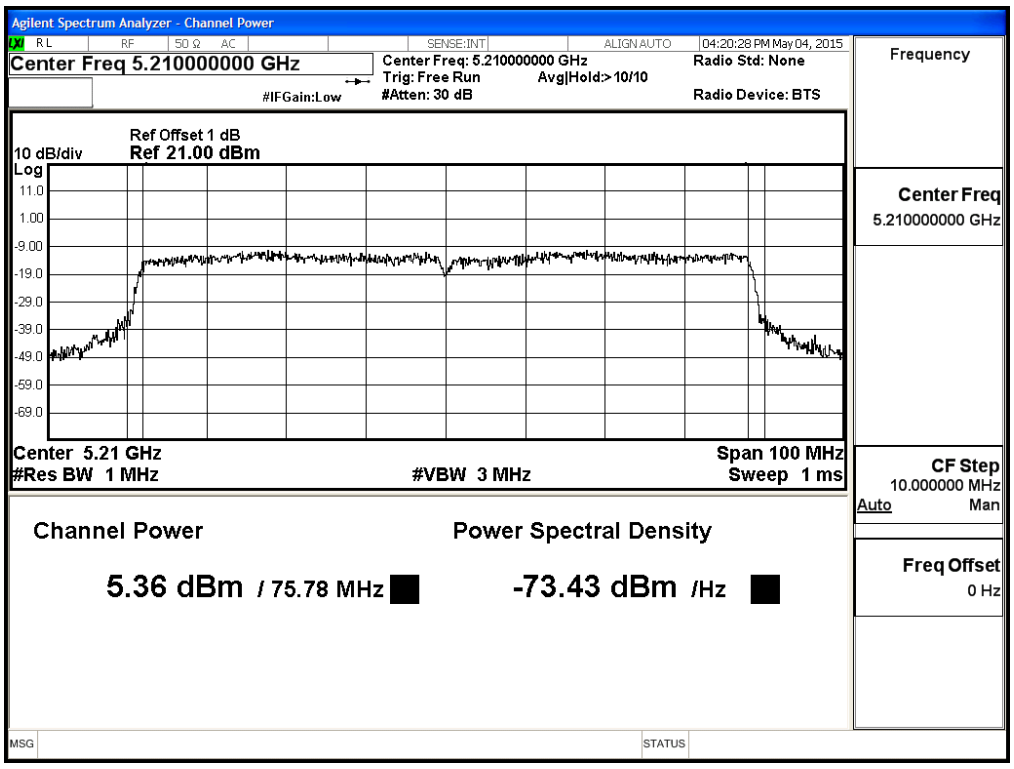
Channel Number	Frequency (MHz)	Chain A Power (dBm)	Chain A Power (dBm)	Chain C Power (dBm)	Output Power (dBm)	Output Power Limit (dBm)
42	5210	5.36	4.77	4.77	9.75	26.9
155	5775	15.42	14.57	15.14	19.83	25.1

Note:

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

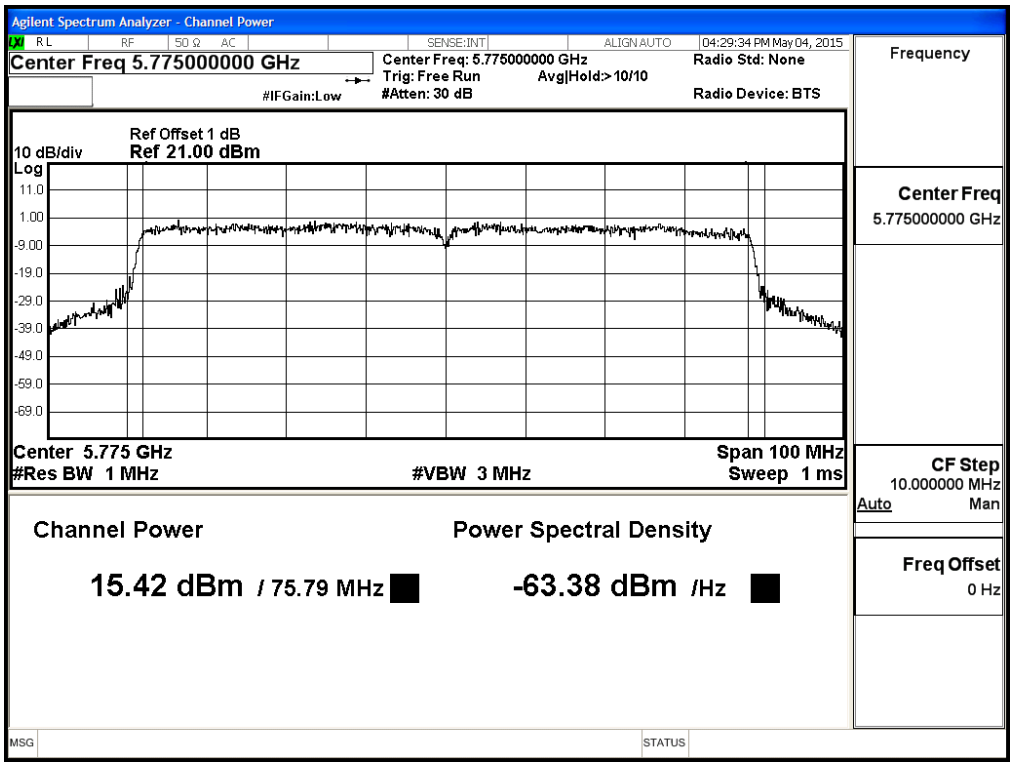
Maximum conducted output power:

Channel 42 – Chain A



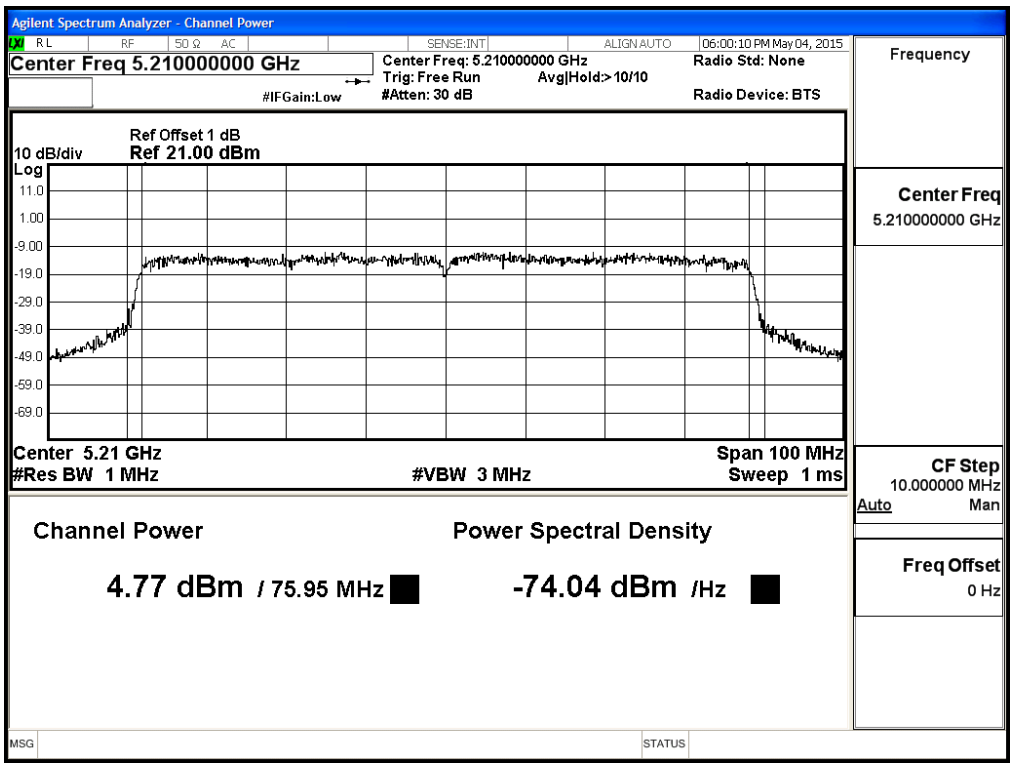
Maximum conducted output power:

Channel 155 – Chain A



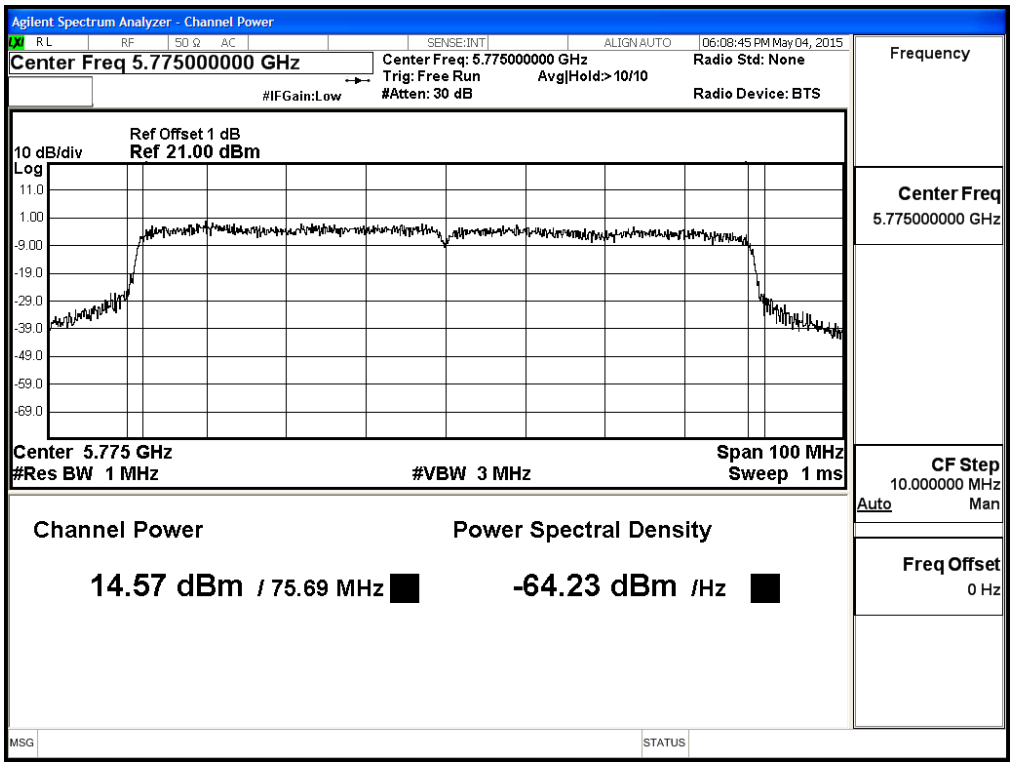
Maximum conducted output power:

Channel 42 – Chain B



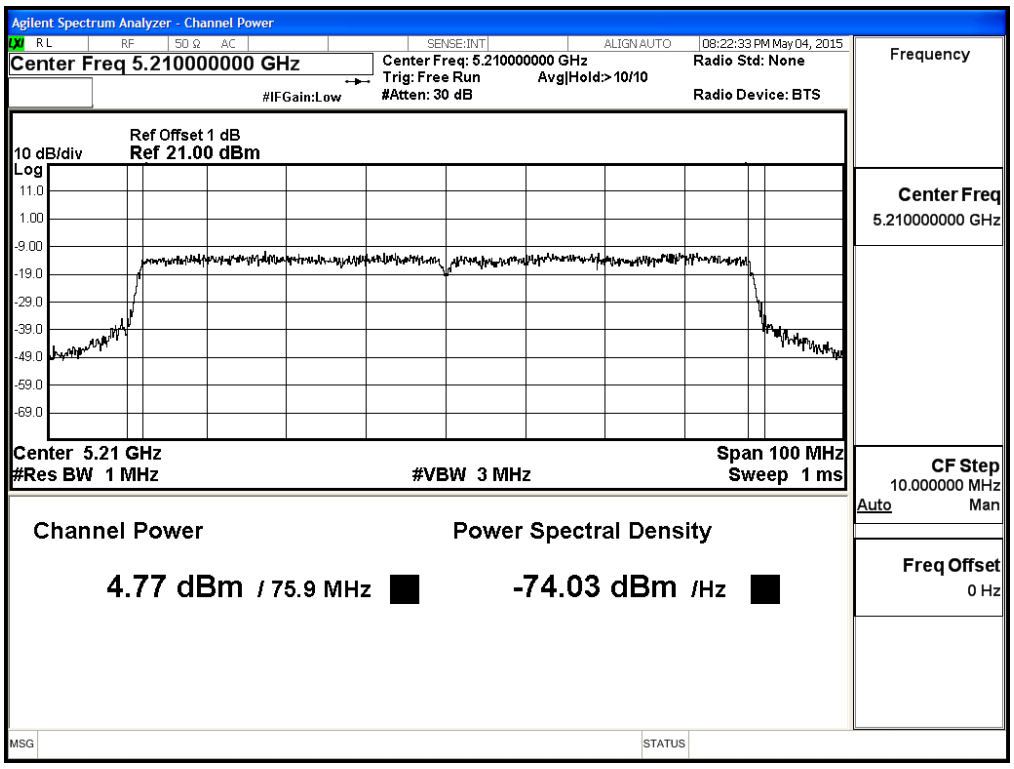
Maximum conducted output power:

Channel 155 – Chain B



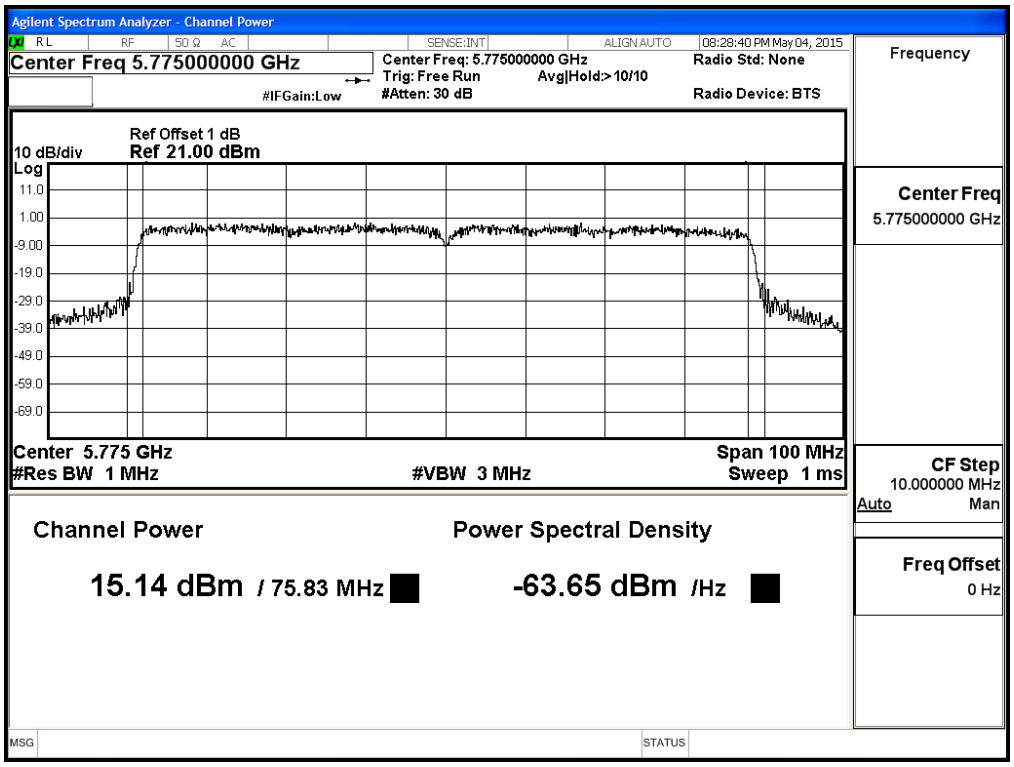
Maximum conducted output power:

Channel 42 – Chain C



Maximum conducted output power:

Channel 155 – Chain C



4. Peak Power Spectral Density

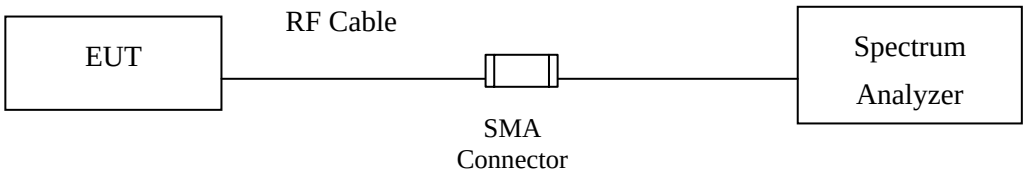
4.1. Test Equipment

	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-topoint 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 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.

4.4. Test Procedure

The EUT was setup to ANSI C63.10, 2009; 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 = 10log (500 kHz/100 kHz)= 6.98 dB.

4.5. Uncertainty

± 1.27 dB

4.6. Test Result of Peak Power Spectral Density

Product : Access Point/Sensor
Test Item : Peak Power Spectral Density
Test Site : No.3 OATS
Test Mode : Mode 1: Transmit (802.11a-6Mbps) (External Antenna)

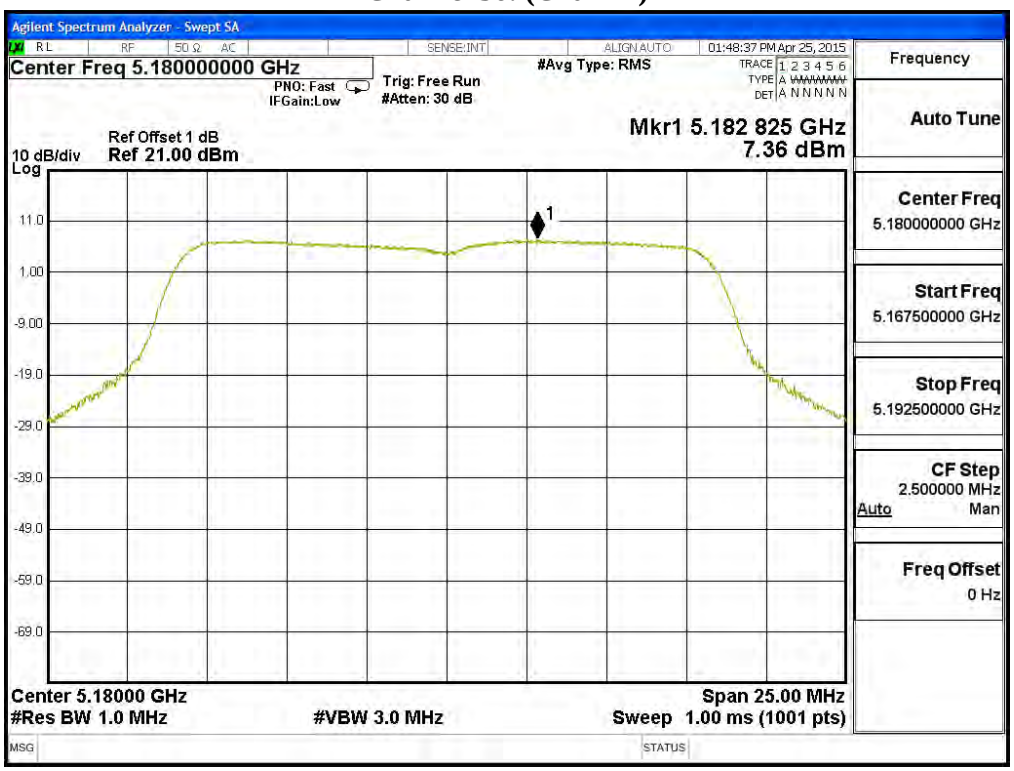
Channel Number	Frequency (MHz)	Data Rata (Mbps)	Chain (dBm)	PPSD (dBm)	Total PPSD (dBm)	Limit (dBm)	Result
36	5180	6	A	7.360	12.131	17	Pass
			B	9.550	14.321	17	Pass
			C	8.510	13.281	17	Pass
44	5220	6	A	12.154	16.925	17	Pass
			B	12.127	16.898	17	Pass
			C	12.170	16.941	17	Pass
48	5240	6	A	12.183	16.954	17	Pass
			B	11.678	16.449	17	Pass
			C	11.852	16.623	17	Pass

Note 1: The quantity 10*log 3 (three antennas) is added to the spectrum peak value according to document 662911 D01.

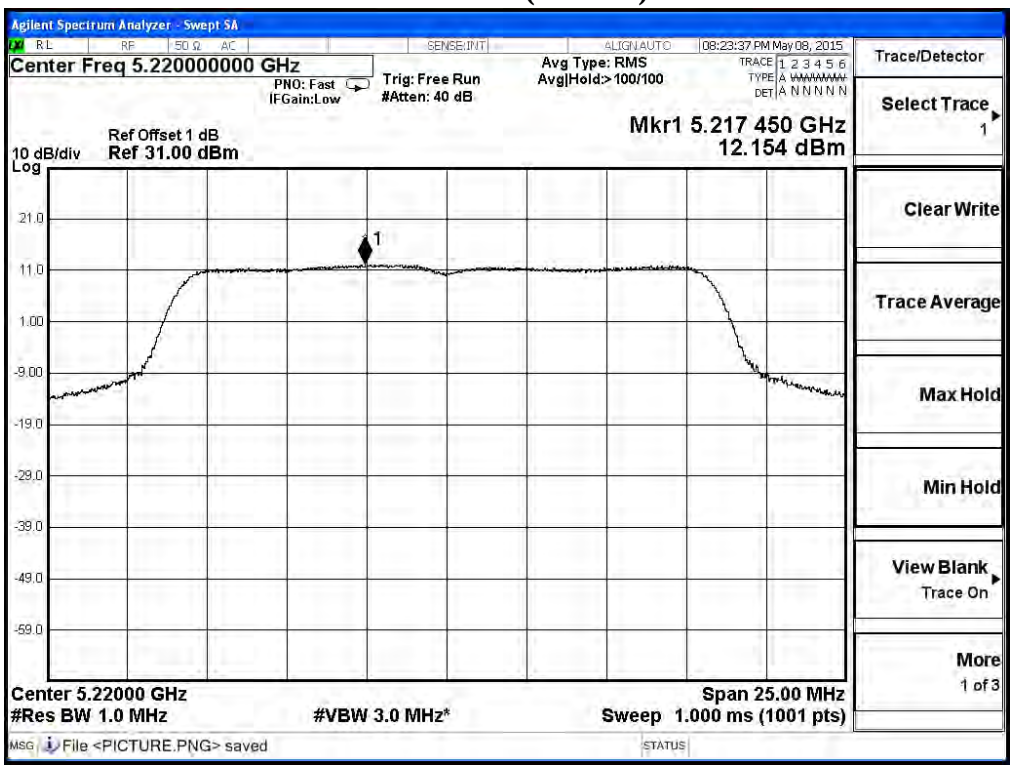
Channel Number	Frequency (MHz)	Data Rata (Mbps)	Chain (dBm)	PPSD (dBm)	BWCF (dB)	Total PPSD (dBm)	Required Limit (dBm)	Result
149	5745	6	A	2.240	6.980	13.991	<30	Pass
			B	3.090	6.980	14.841	<30	Pass
			C	2.880	6.980	14.631	<30	Pass
157	5785	6	A	2.120	6.980	13.871	<30	Pass
			B	2.580	6.980	14.331	<30	Pass
			C	2.610	6.980	14.361	<30	Pass
165	5825	6	A	2.080	6.980	13.831	<30	Pass
			B	2.600	6.980	14.351	<30	Pass
			C	2.620	6.980	14.371	<30	Pass

Note 1: The quantity 10*log 3 (three antennas) is added to the spectrum peak value according to document 662911 D01.

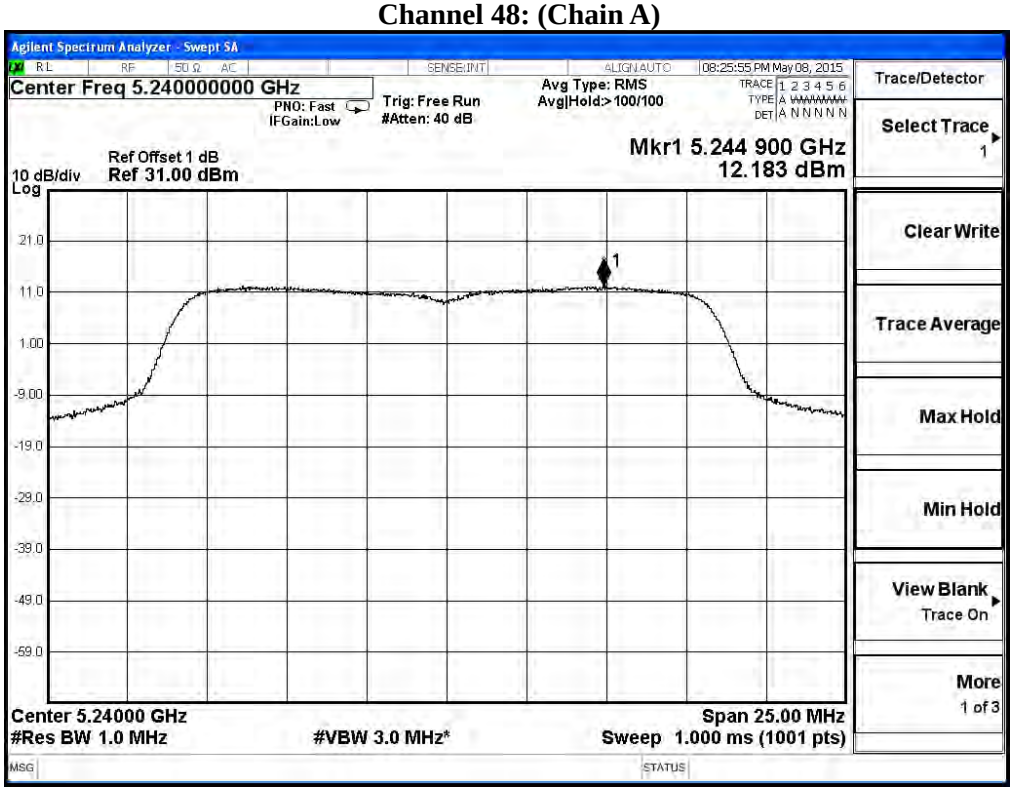
Channel 36: (Chain A)



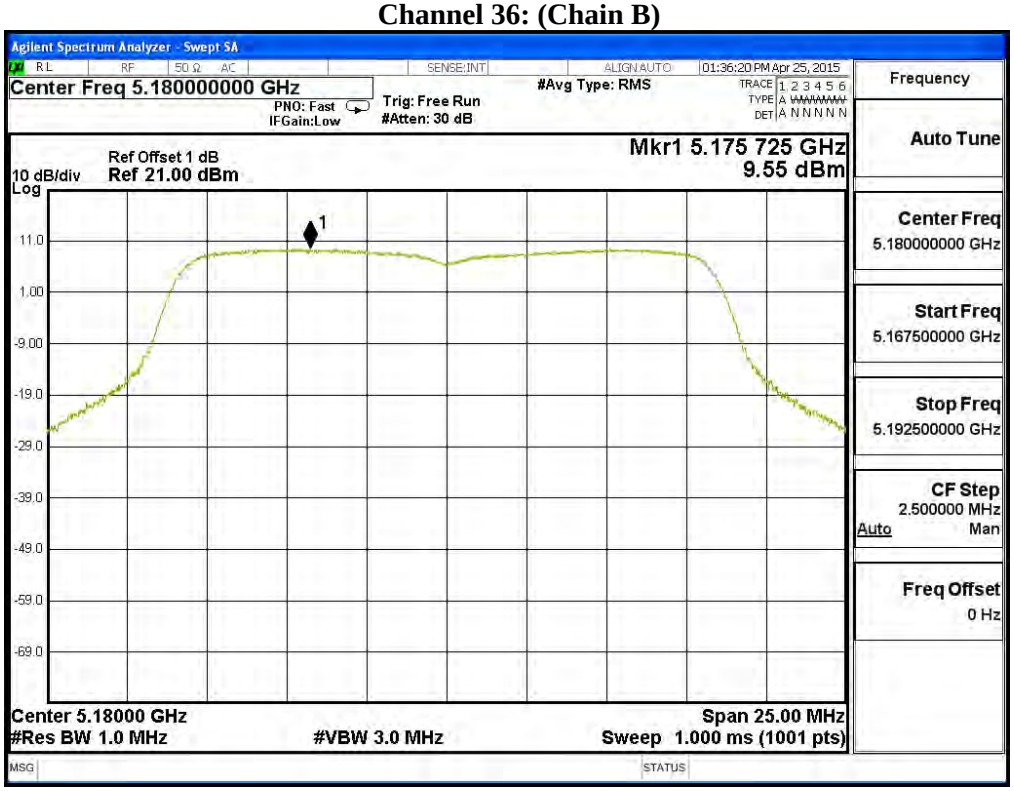
Channel 44: (Chain A)



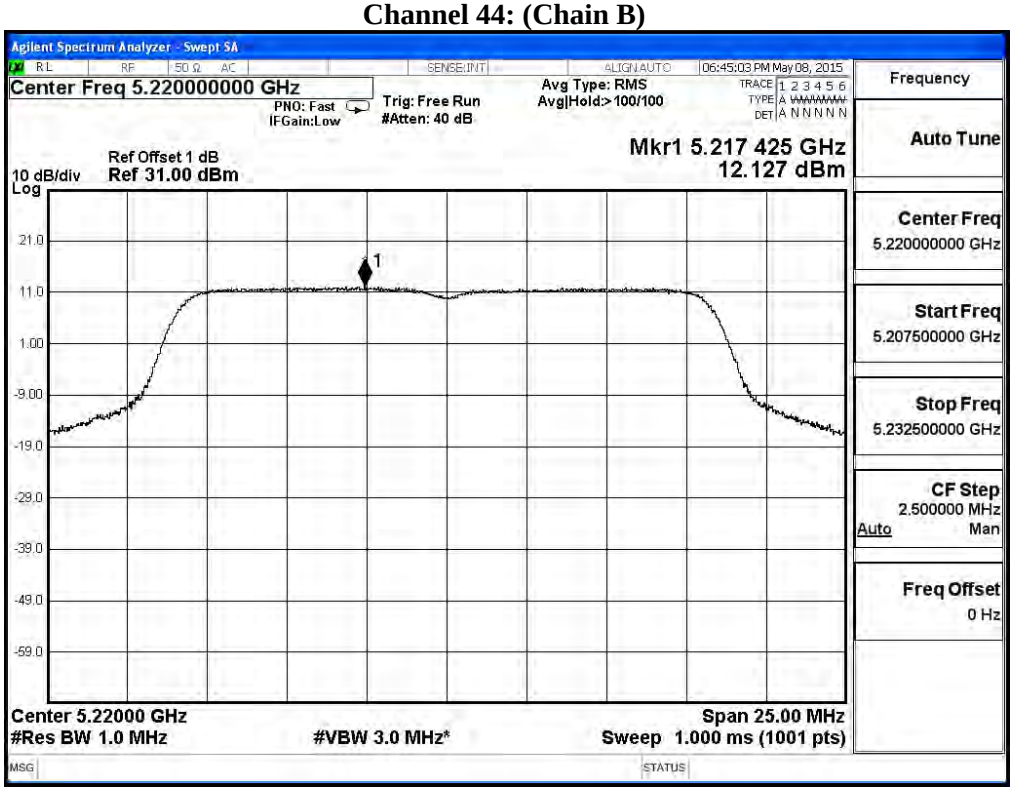
Channel 48: (Chain A)



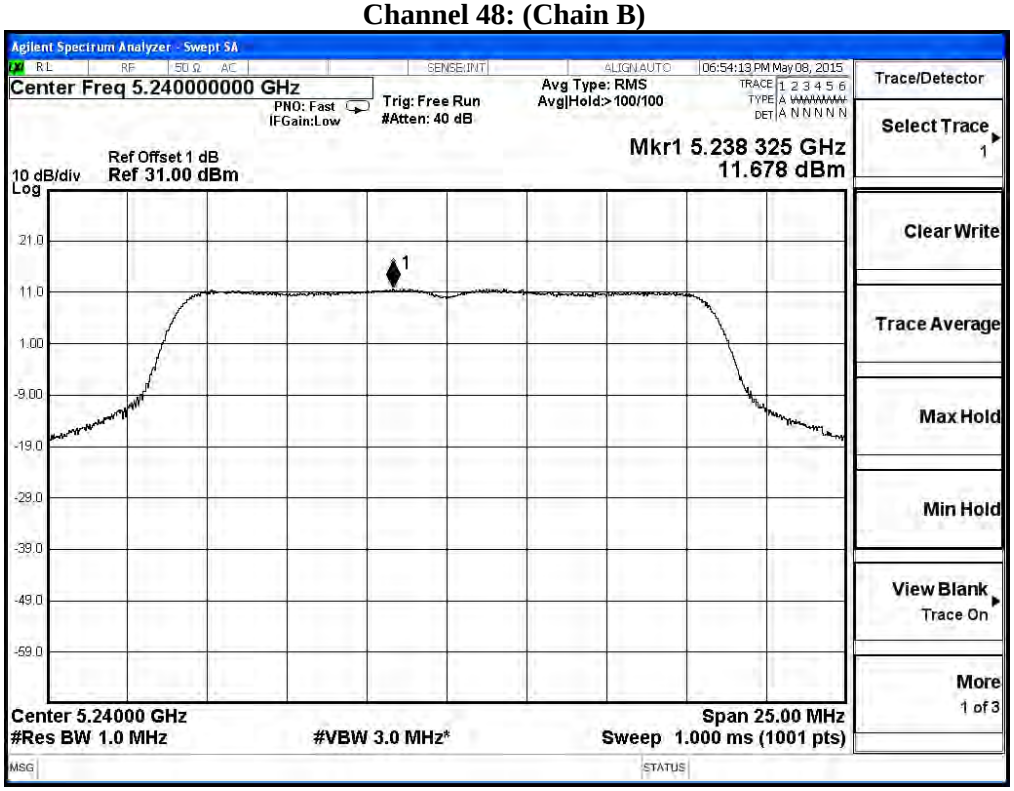
Channel 36: (Chain B)



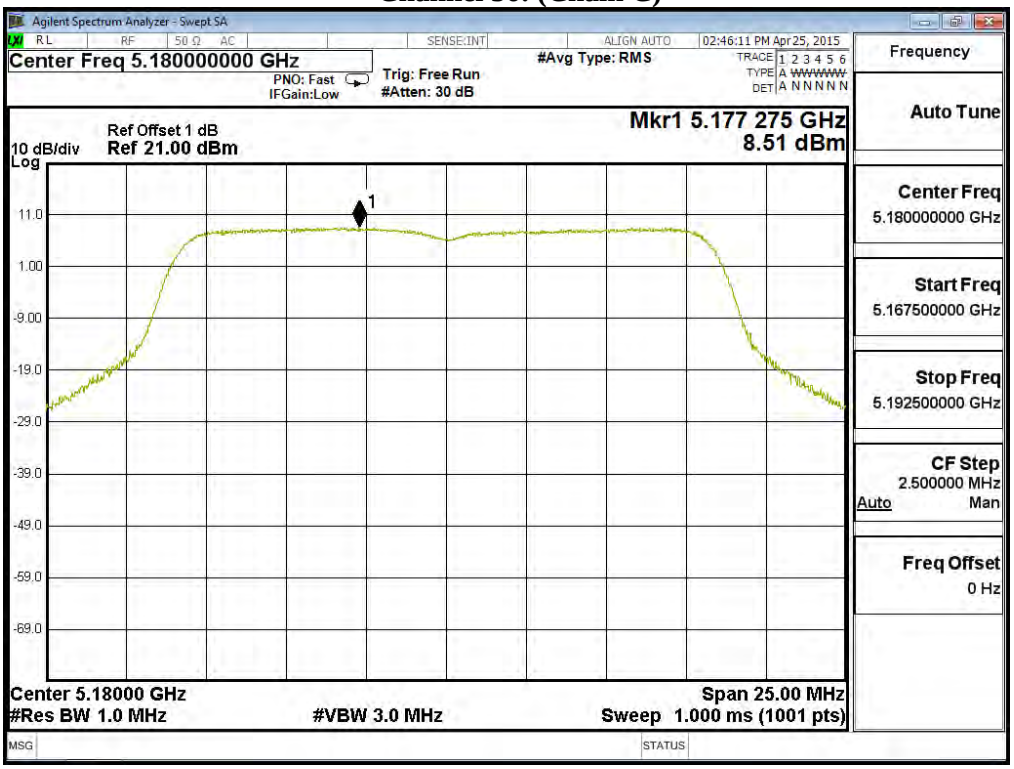
Channel 44: (Chain B)



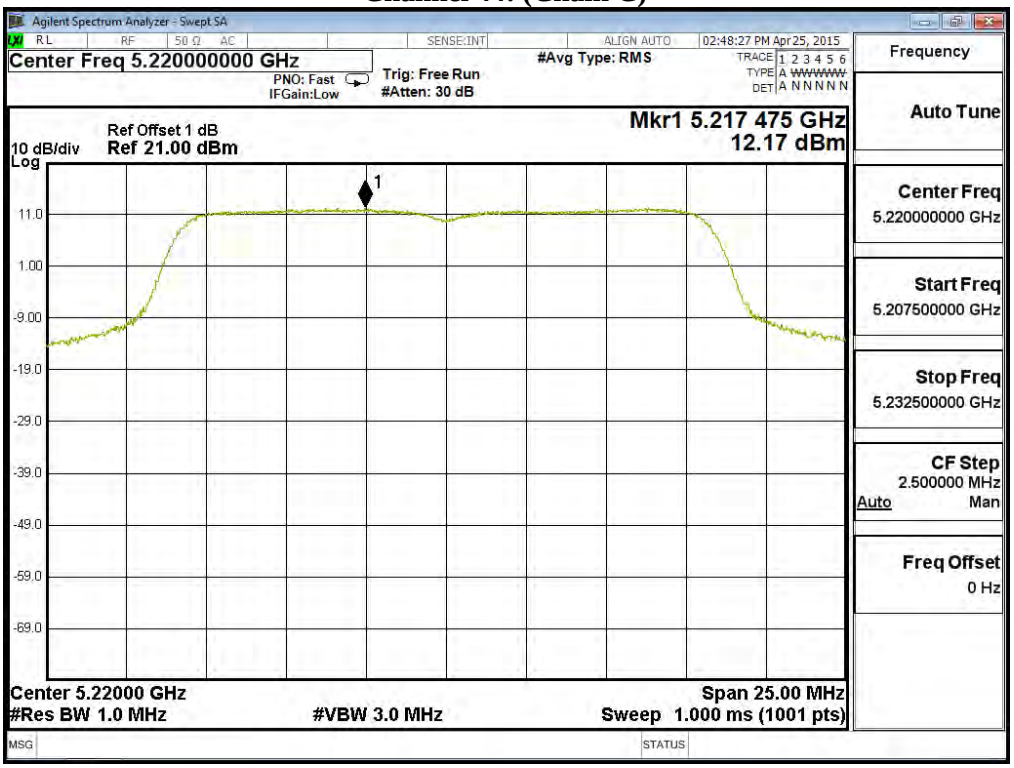
Channel 48: (Chain B)



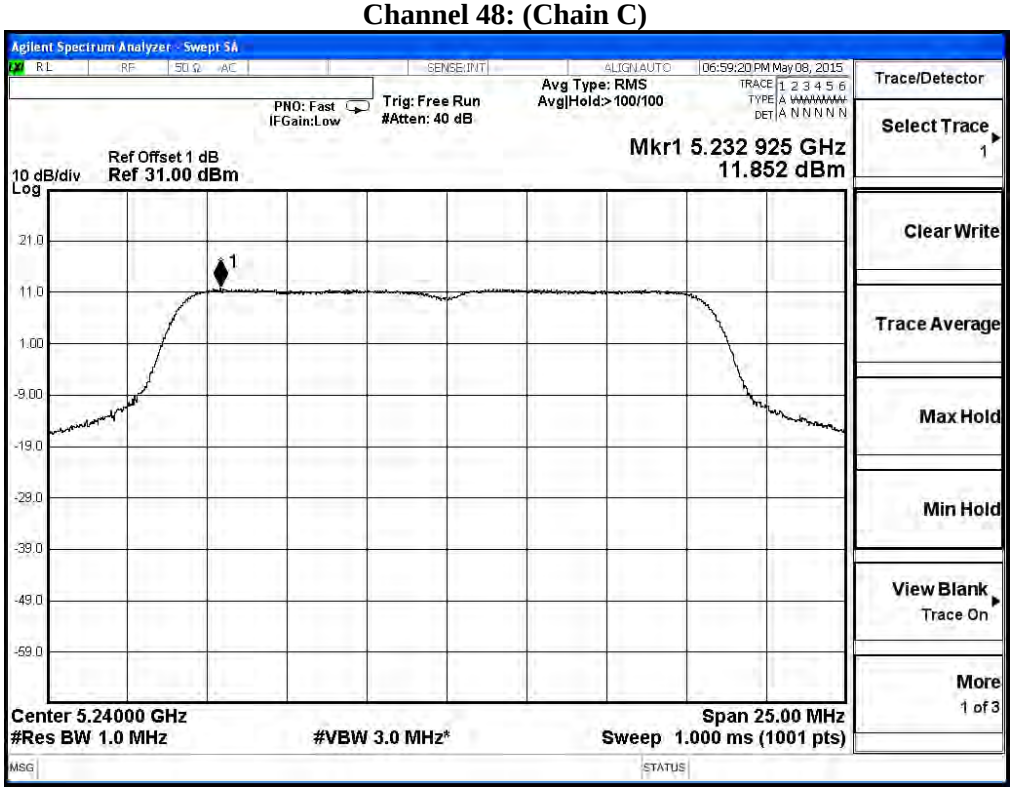
Channel 36: (Chain C)



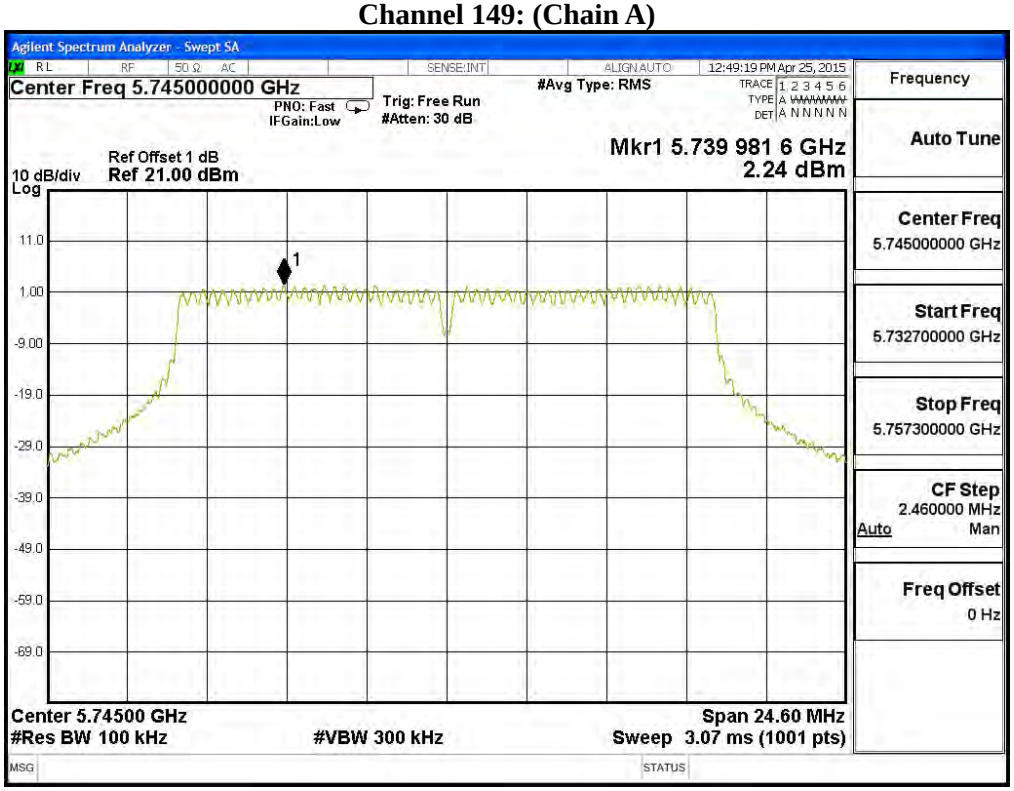
Channel 44: (Chain C)



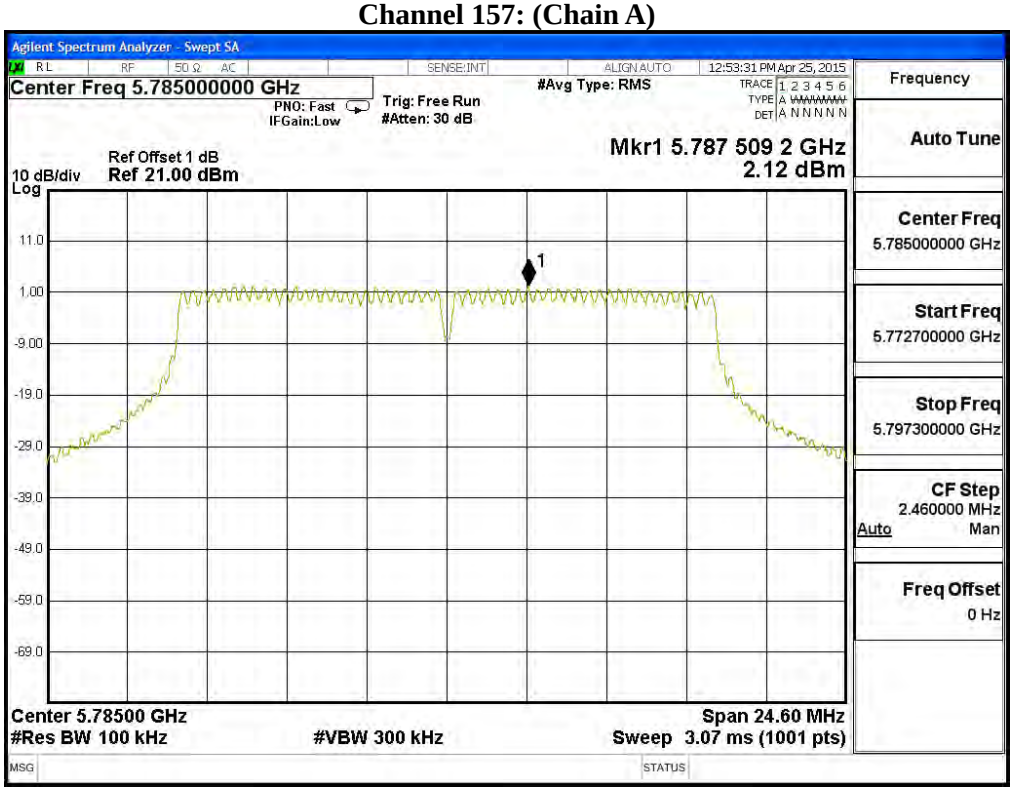
Channel 48: (Chain C)



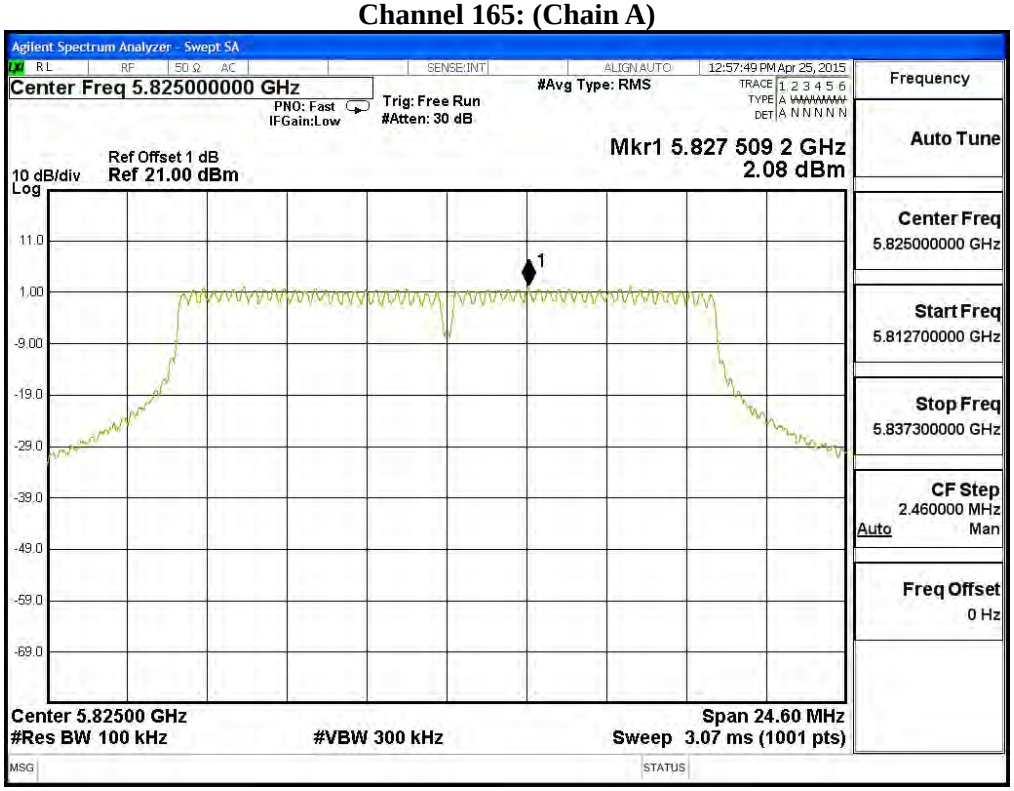
Channel 149: (Chain A)



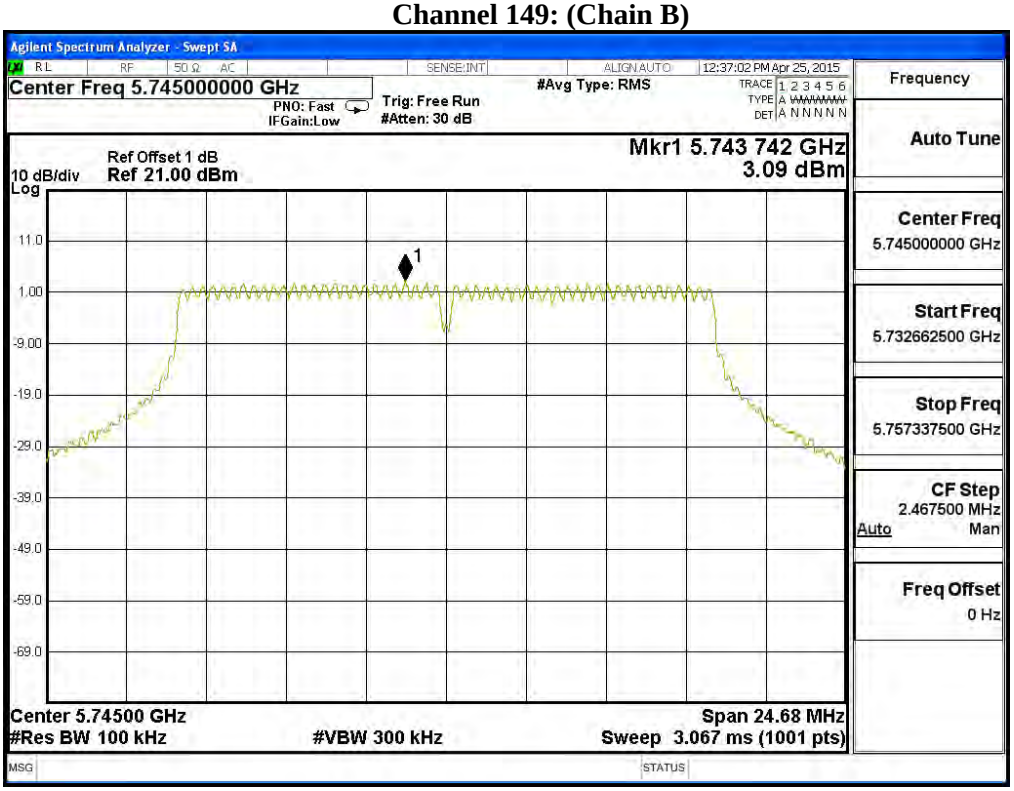
Channel 157: (Chain A)



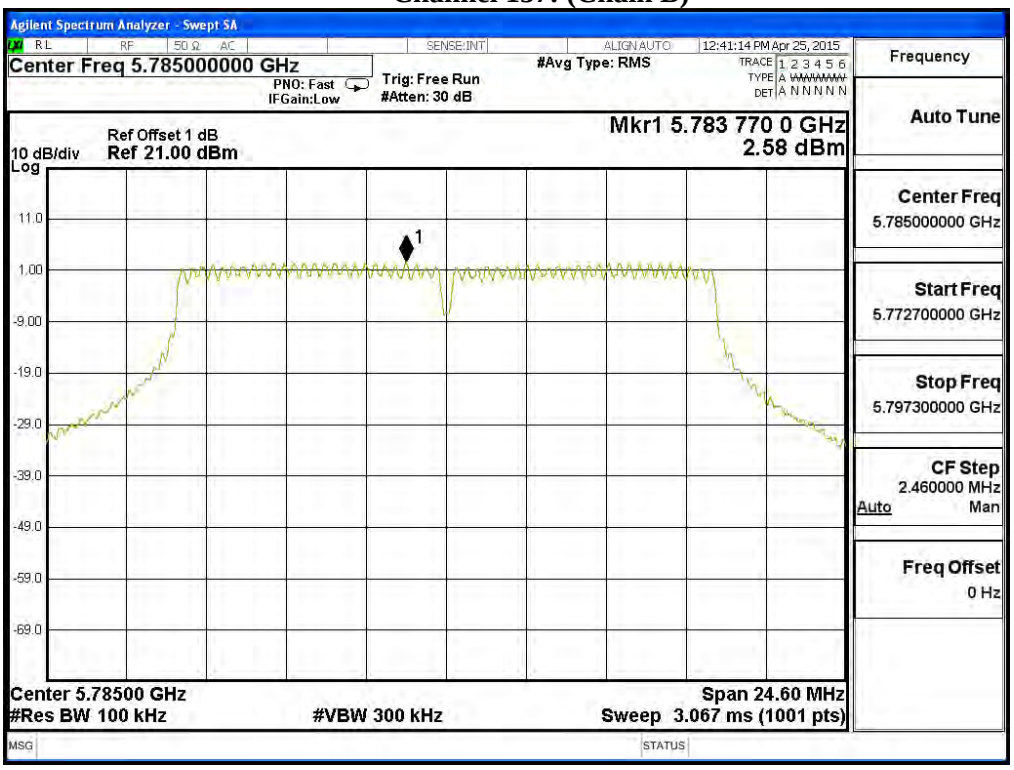
Channel 165: (Chain A)



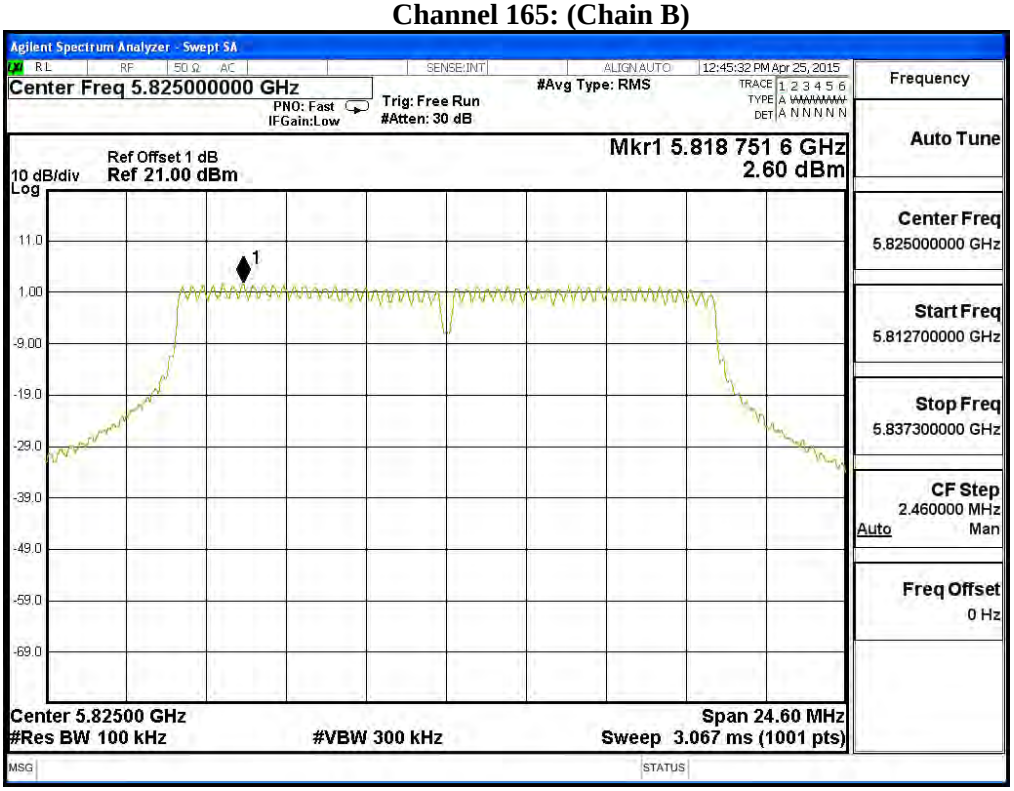
Channel 149: (Chain B)



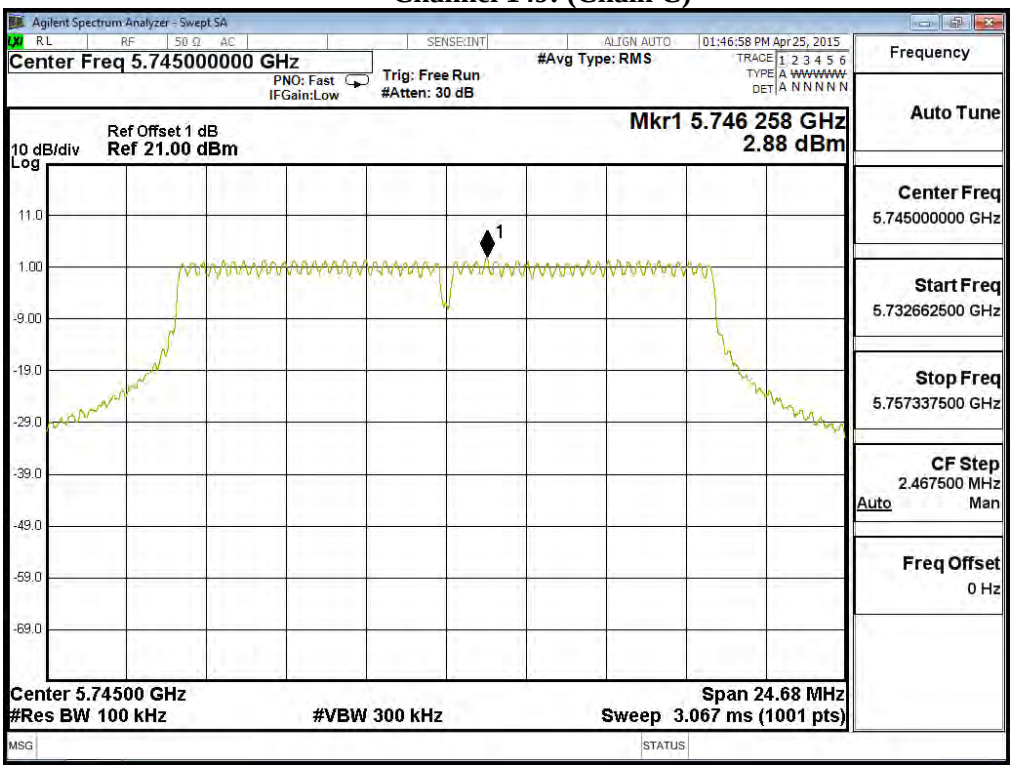
Channel 157: (Chain B)



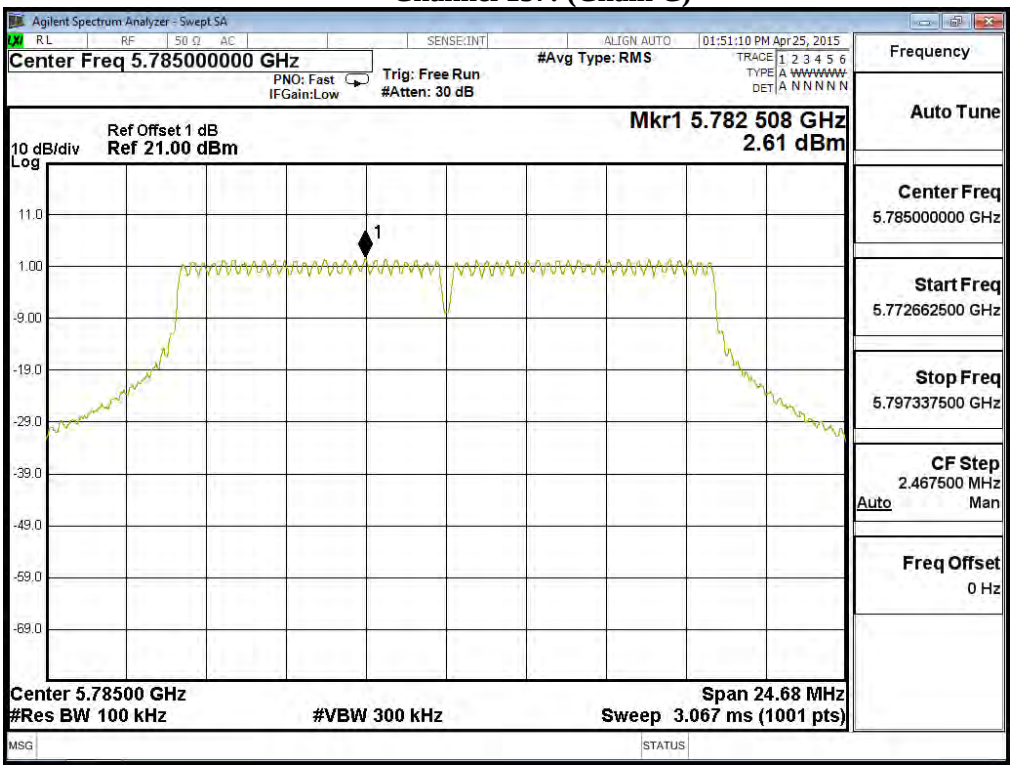
Channel 165: (Chain B)



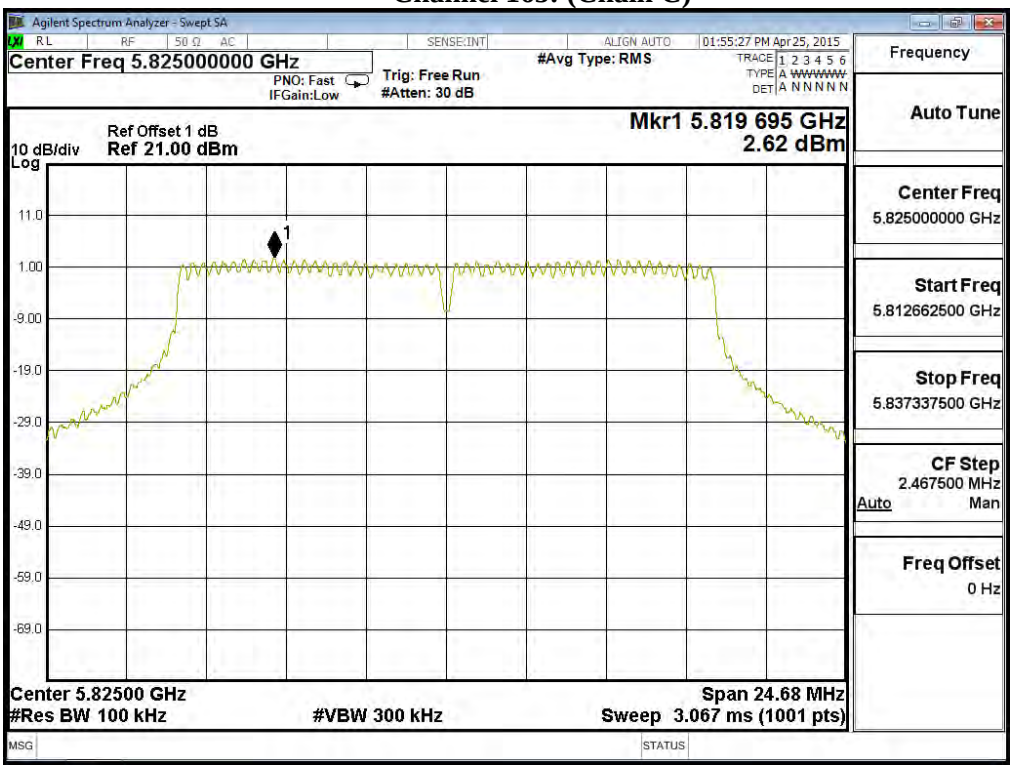
Channel 149: (Chain C)



Channel 157: (Chain C)



Channel 165: (Chain C)



Product : Access Point/Sensor
Test Item : Peak Power Spectral Density
Test Site : No.3 OATS
Test Mode : Mode 2: Transmit (802.11n-20BW 21.7Mbps) (External Antenna)

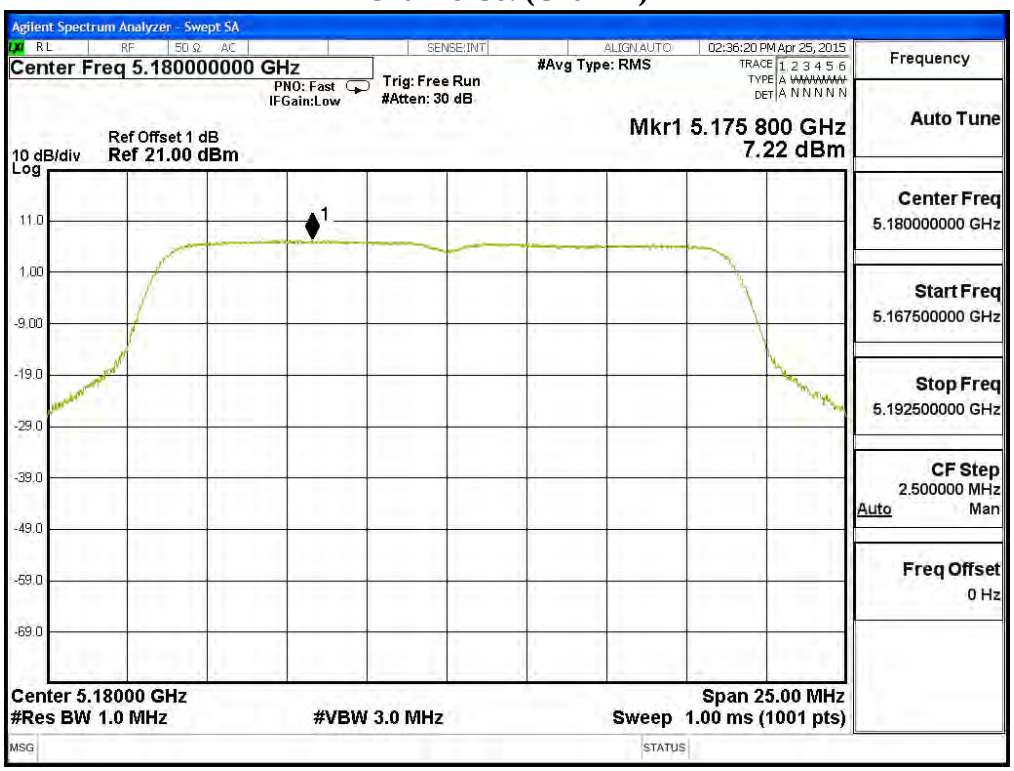
Channel Number	Frequency (MHz)	Chain	PPSD (dBm)	Total PPSD (dBm)	Required Limit (dBm)	Result
36	5180	A	7.220	11.991	17	Pass
		B	9.580	14.351	17	Pass
		C	8.550	13.321	17	Pass
44	5220	A	12.051	16.822	17	Pass
		B	11.891	16.662	17	Pass
		C	12.163	16.934	17	Pass
48	5240	A	12.028	16.799	17	Pass
		B	11.761	16.532	17	Pass
		C	12.113	16.884	17	Pass

Note 1: The quantity 10*log 3 (three antennas) is added to the spectrum peak value according to document 662911 D01.

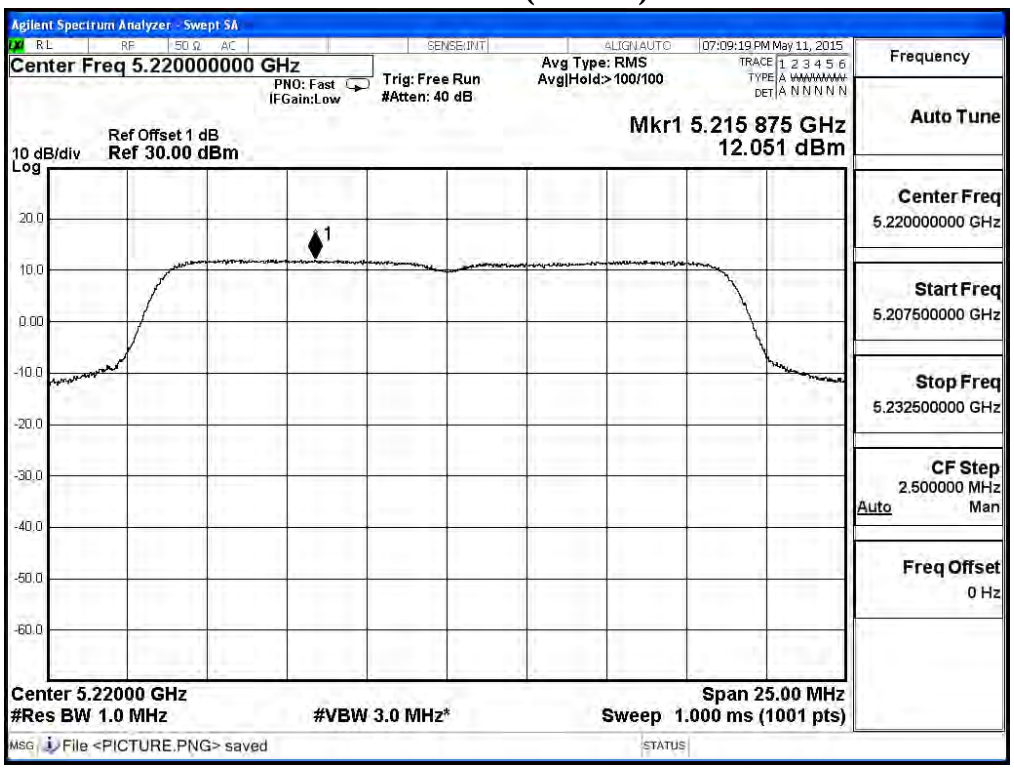
Channel Number	Frequency (MHz)	Chain	PPSD (dBm)	BWCF (dB)	Total PPSD (dBm)	Required Limit (dBm)	Result
149	5745	A	1.970	6.980	13.721	<30	Pass
		B	2.600	6.980	14.351	<30	Pass
		C	2.370	6.980	14.121	<30	Pass
157	5785	A	1.860	6.980	13.611	<30	Pass
		B	2.760	6.980	14.511	<30	Pass
		C	2.810	6.980	14.561	<30	Pass
165	5825	A	1.430	6.980	13.181	<30	Pass
		B	2.330	6.980	14.081	<30	Pass
		C	2.190	6.980	13.941	<30	Pass

Note 1: The quantity 10*log 3 (three antennas) is added to the spectrum peak value according to document 662911 D01.

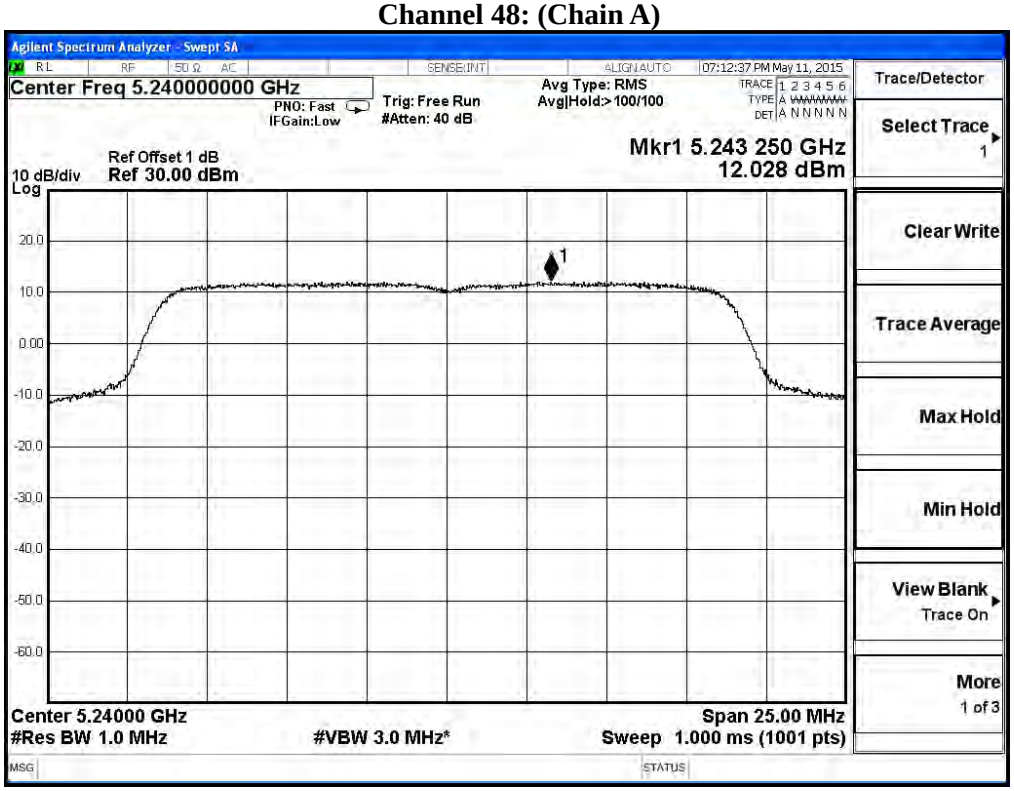
Channel 36: (Chain A)



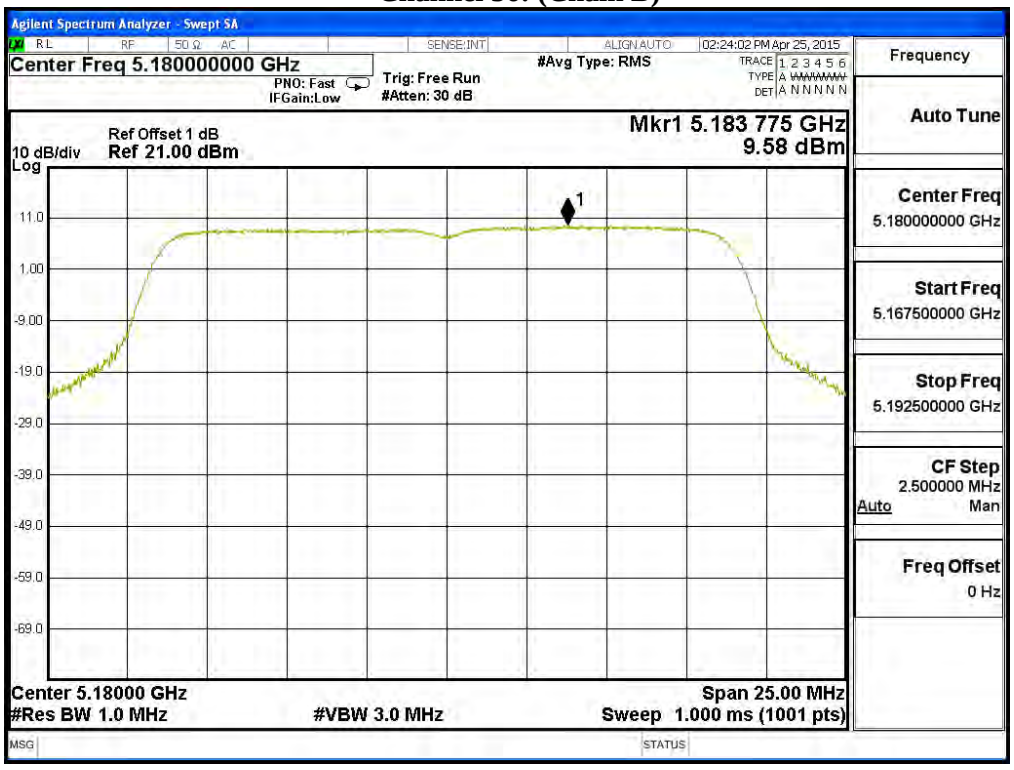
Channel 44: (Chain A)



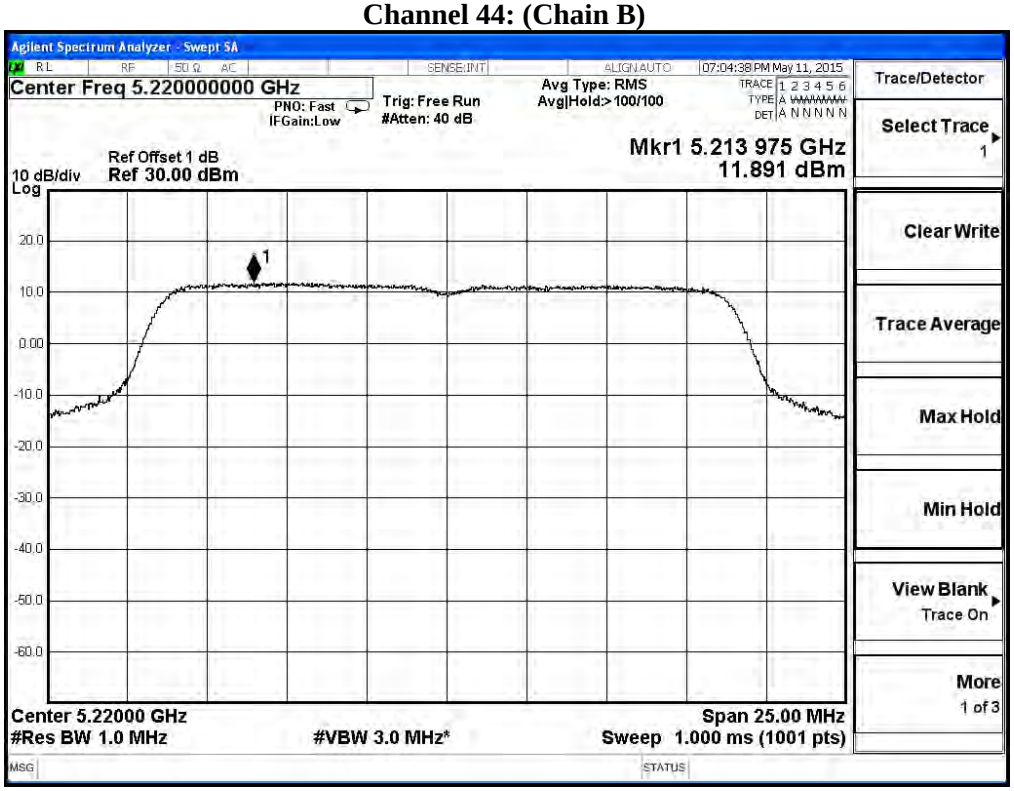
Channel 48: (Chain A)



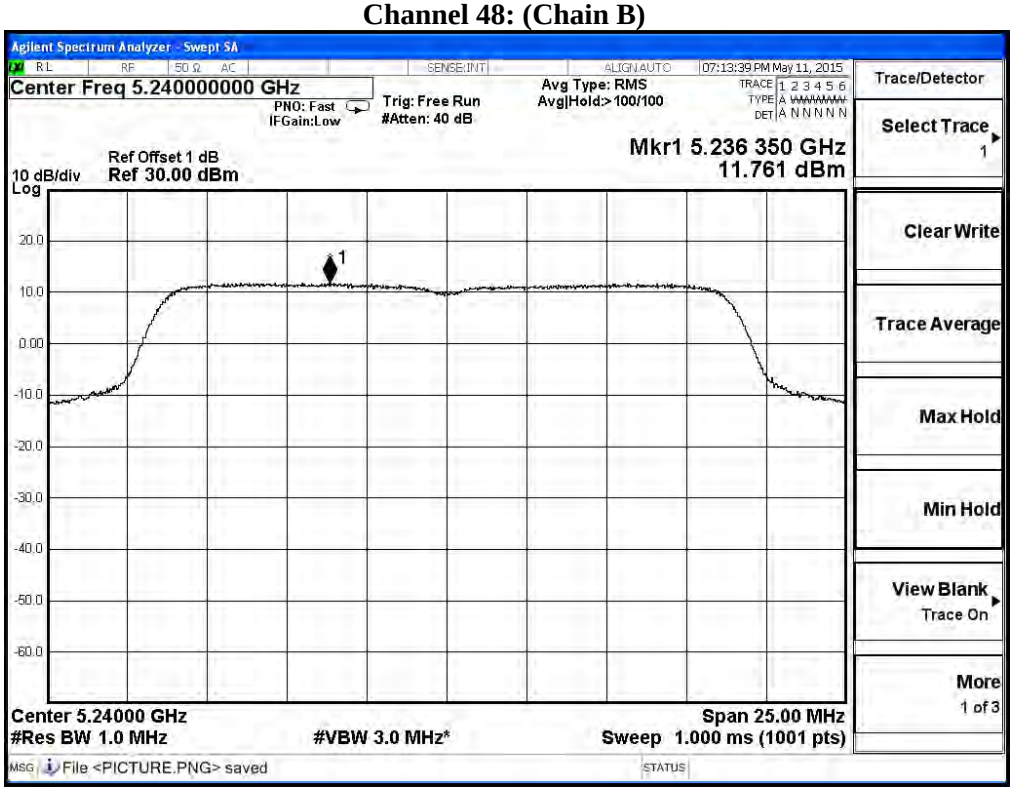
Channel 36: (Chain B)



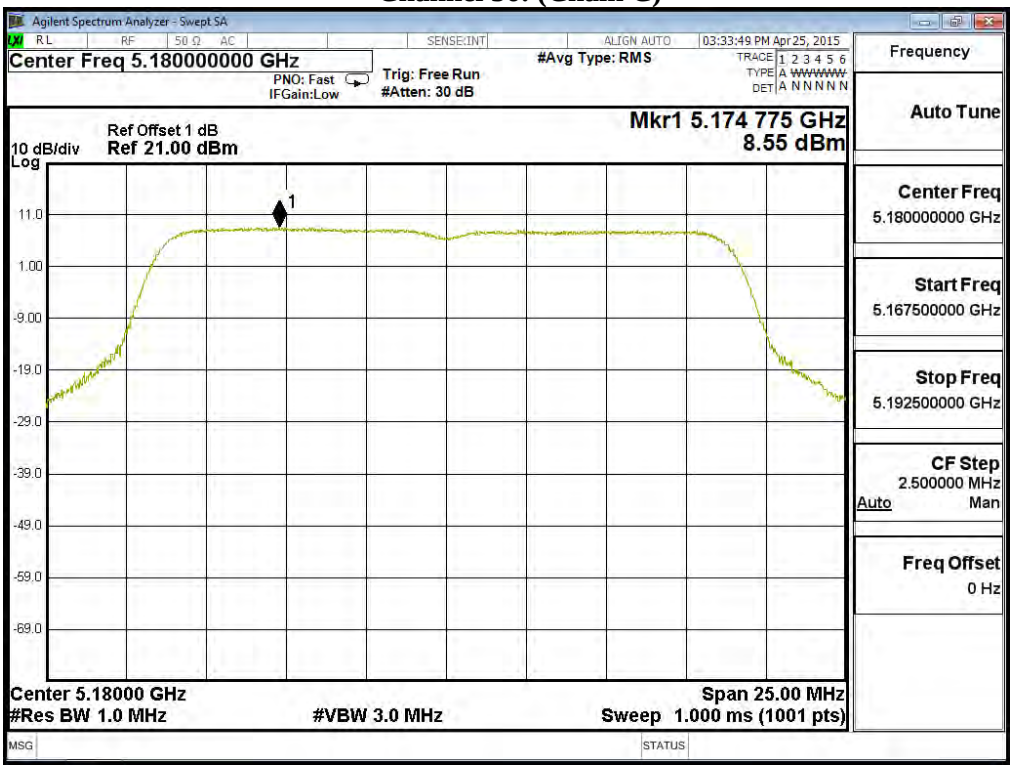
Channel 44: (Chain B)



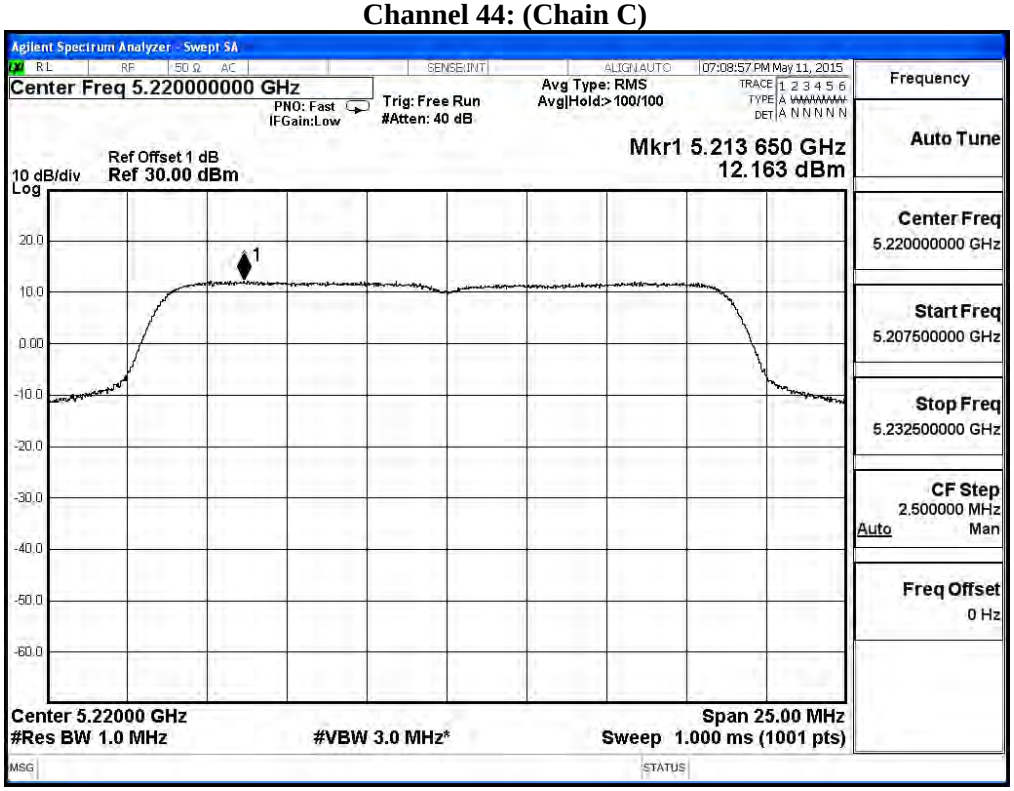
Channel 48: (Chain B)



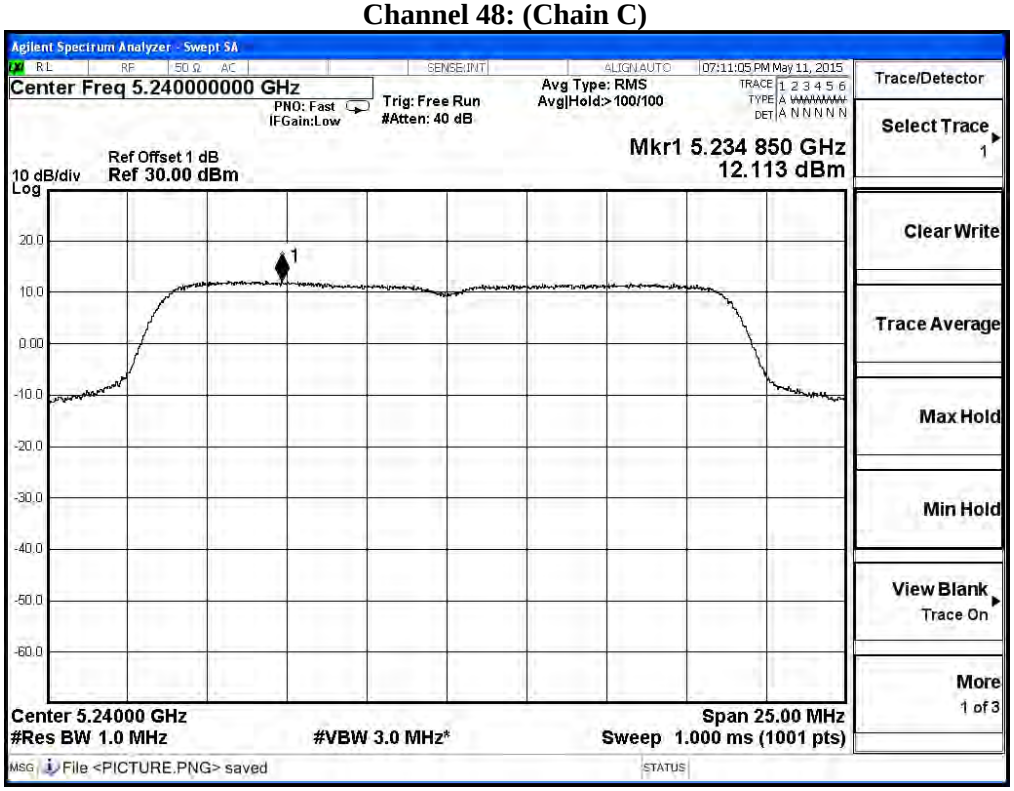
Channel 36: (Chain C)



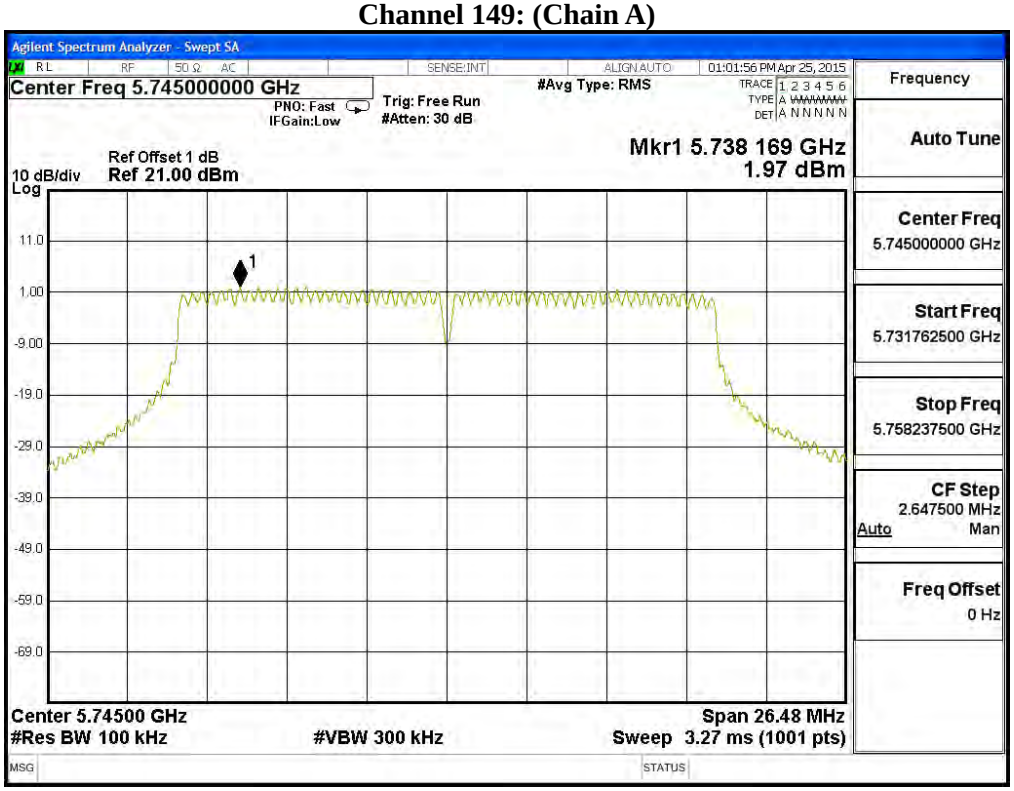
Channel 44: (Chain C)



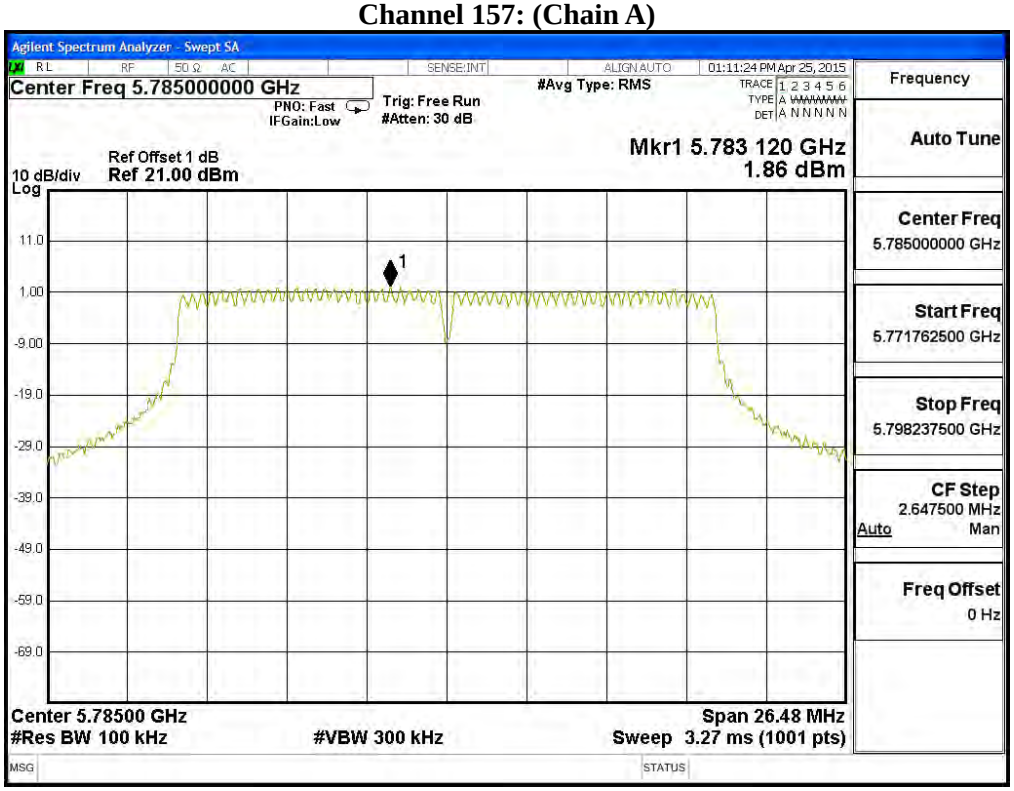
Channel 48: (Chain C)



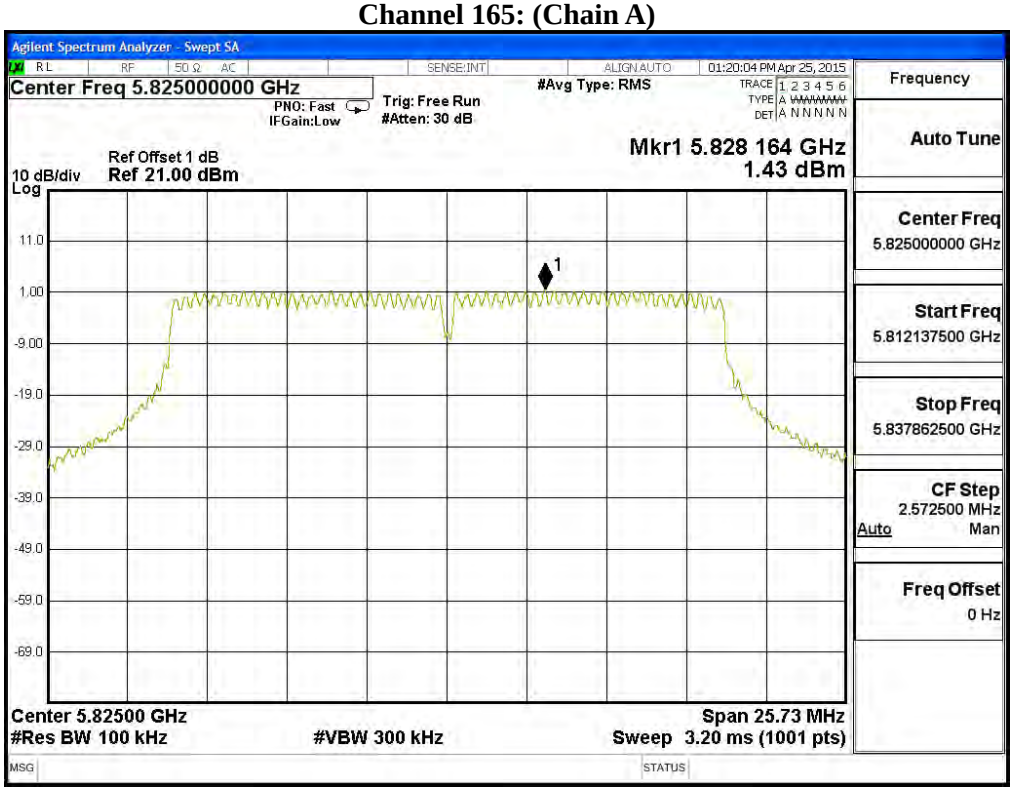
Channel 149: (Chain A)



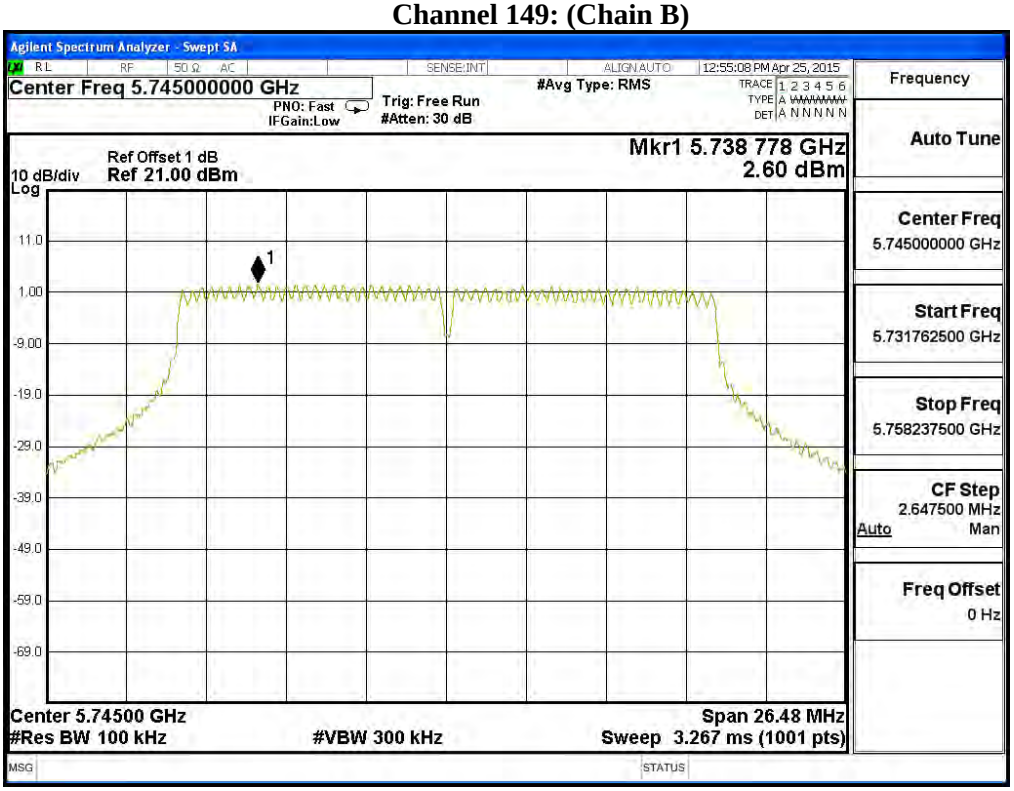
Channel 157: (Chain A)



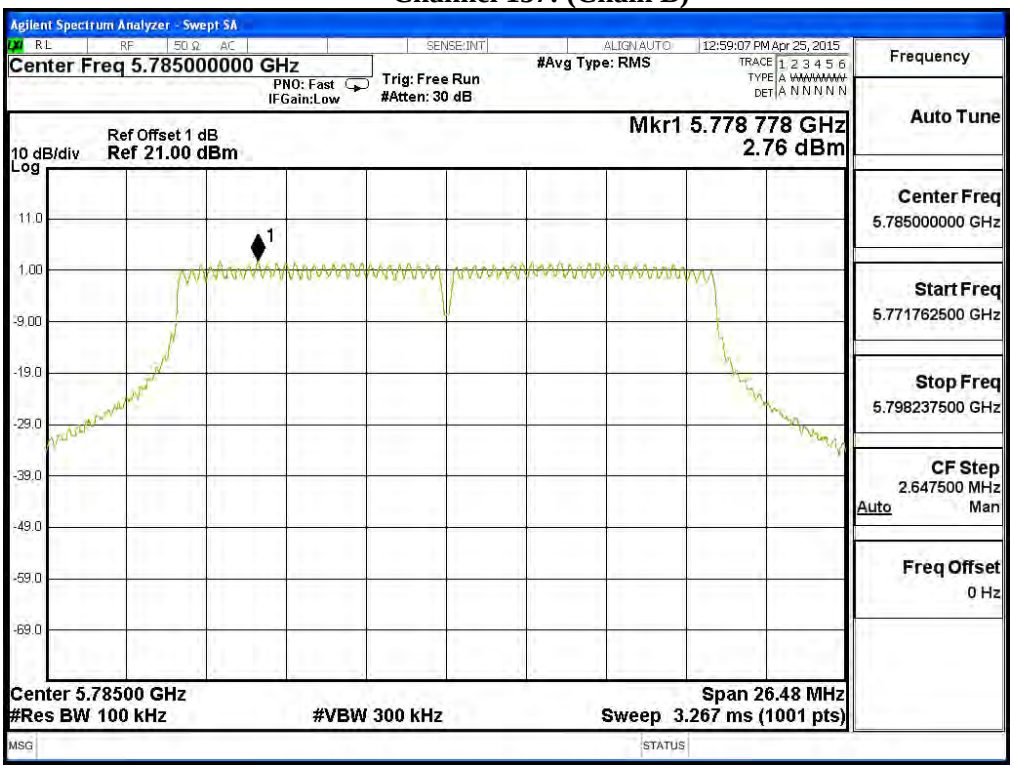
Channel 165: (Chain A)



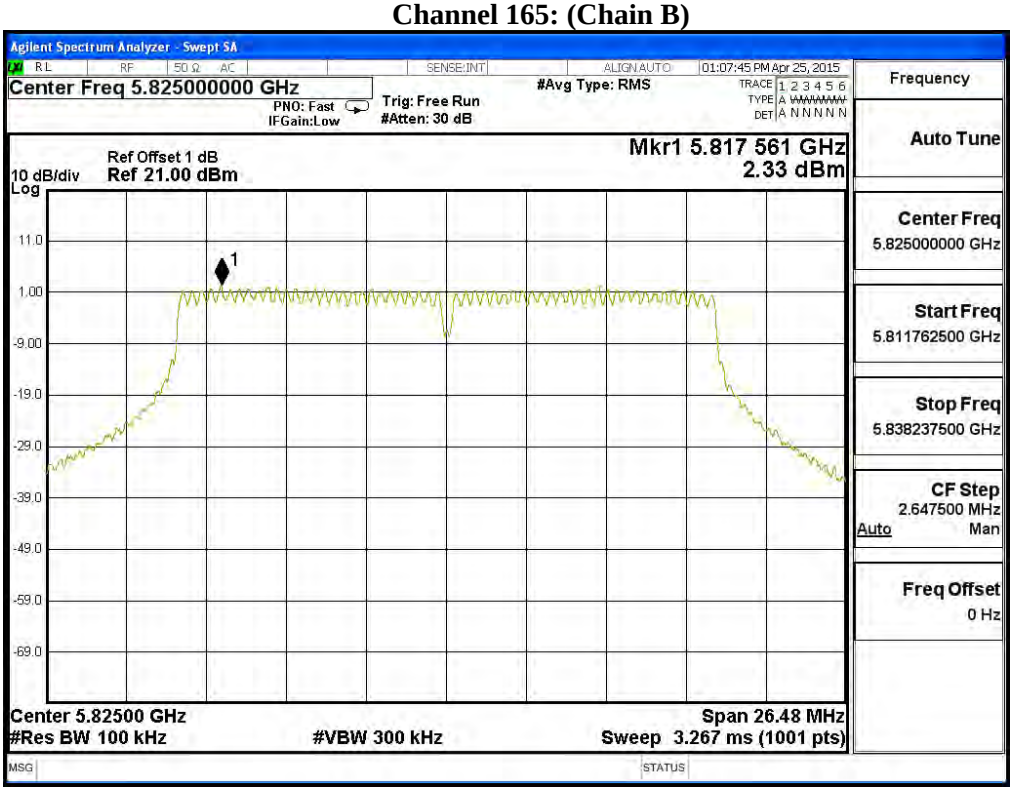
Channel 149: (Chain B)



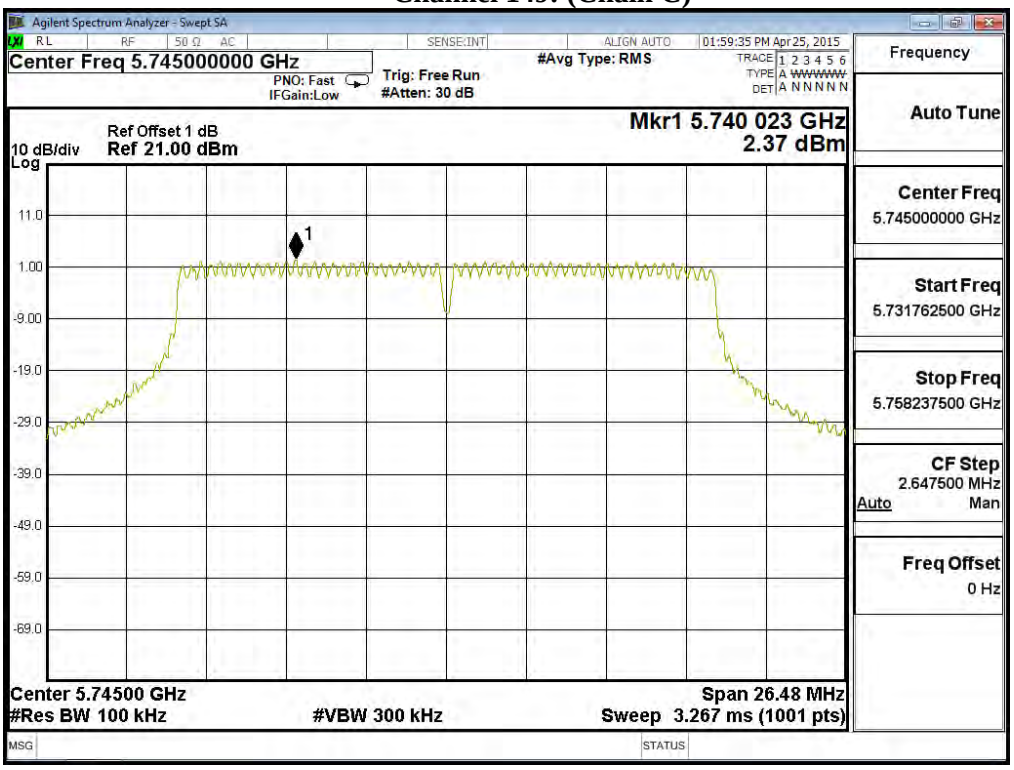
Channel 157: (Chain B)



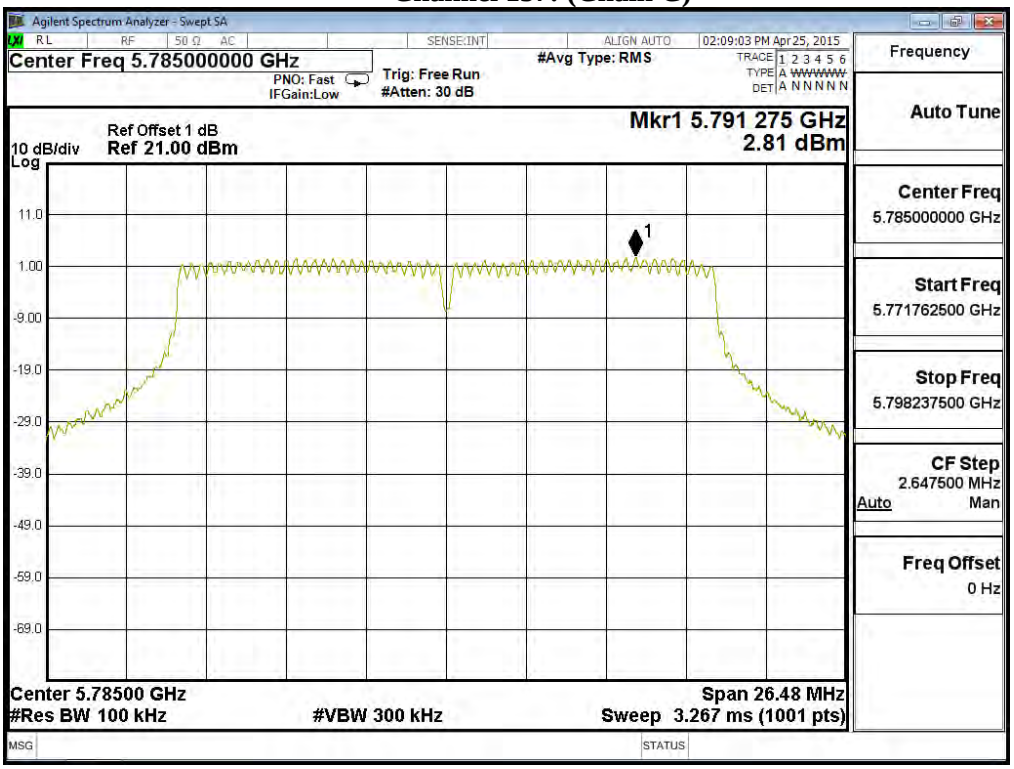
Channel 165: (Chain B)



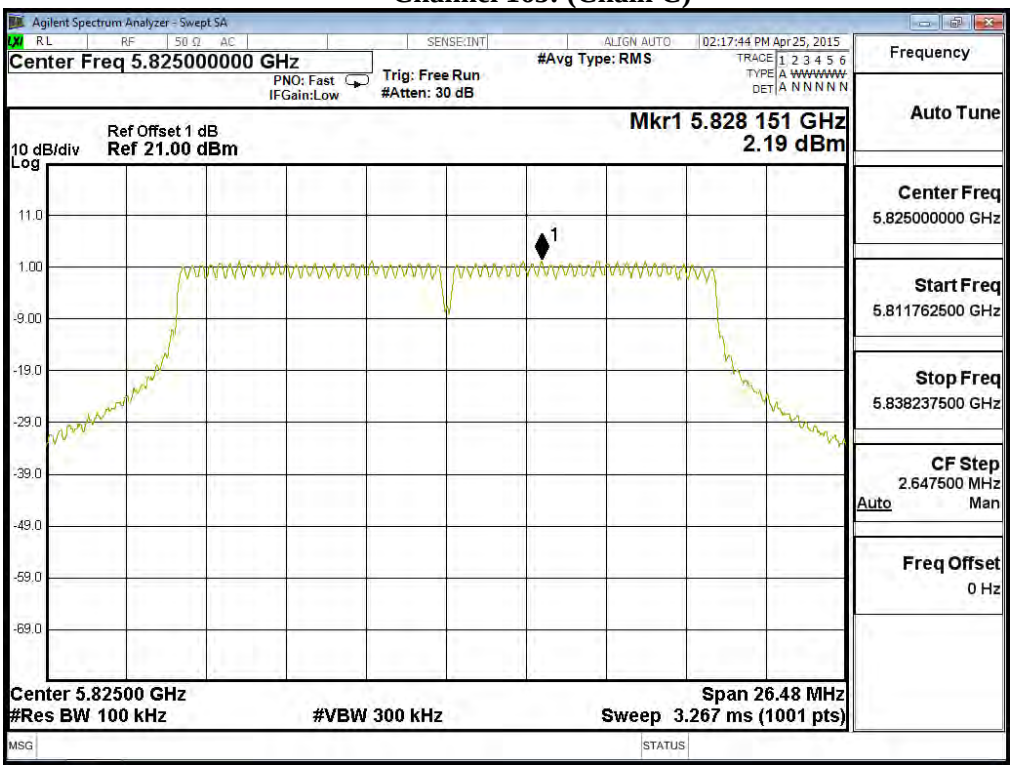
Channel 149: (Chain C)



Channel 157: (Chain C)



Channel 165: (Chain C)



Product : Access Point/Sensor
Test Item : Peak Power Spectral Density
Test Site : No.3 OATS
Test Mode : Mode 3: Transmit (802.11n-40BW 45Mbps) (External Antenna)

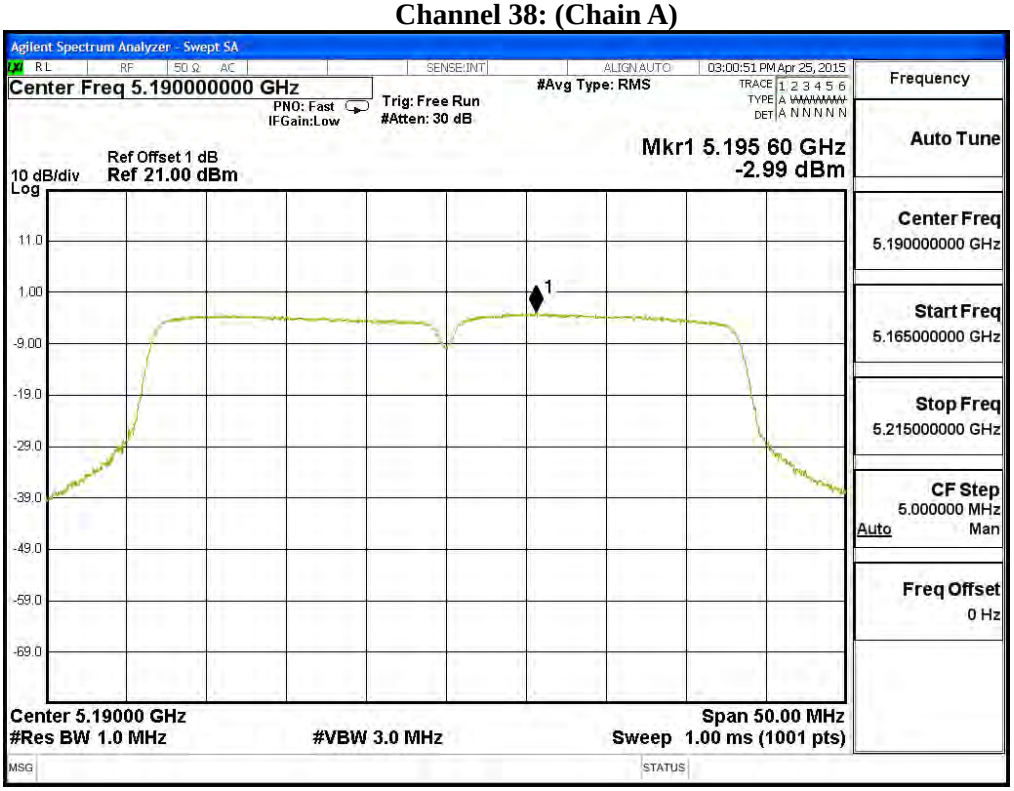
Channel Number	Frequency (MHz)	Chain	PPSD (dBm)	Total PPSD (dBm)1	Required Limit (dBm)	Result
38	5190	A	-2.990	1.781	17	Pass
		B	-0.980	3.791	17	Pass
		C	-2.320	2.451	17	Pass
46	5230	A	8.681	13.452	17	Pass
		B	8.193	12.964	17	Pass
		C	7.883	12.654	17	Pass

Note 1: The quantity 10*log 3 (three antennas) is added to the spectrum peak value according to document 662911 D01.

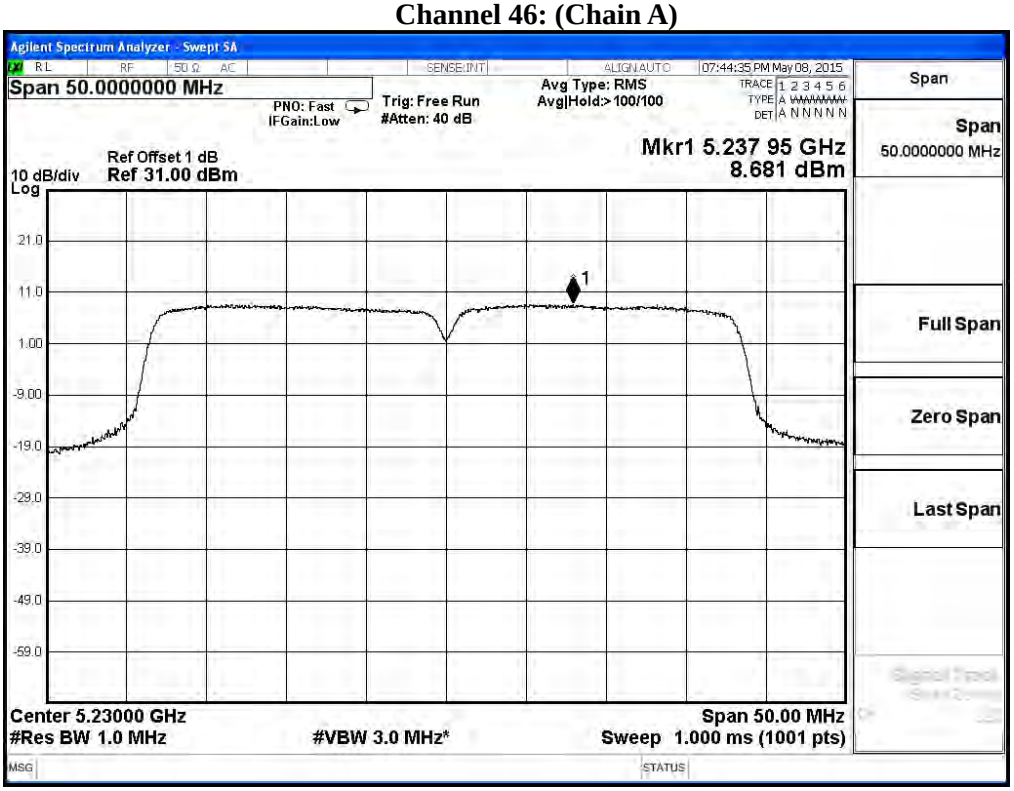
Channel Number	Frequency (MHz)	Chain	PPSD (dBm)	BWCF (dB)	Total PPSD (dBm)1	Required Limit (dBm)	Result
151	5755	A	-1.420	6.980	10.331	<30	Pass
		B	-0.750	6.980	11.001	<30	Pass
		C	-1.010	6.980	10.741	<30	Pass
159	5795	A	-1.210	6.980	10.541	<30	Pass
		B	-0.660	6.980	11.091	<30	Pass
		C	-0.780	6.980	10.971	<30	Pass

Note 1: The quantity 10*log 3 (three antennas) is added to the spectrum peak value according to document 662911 D01.

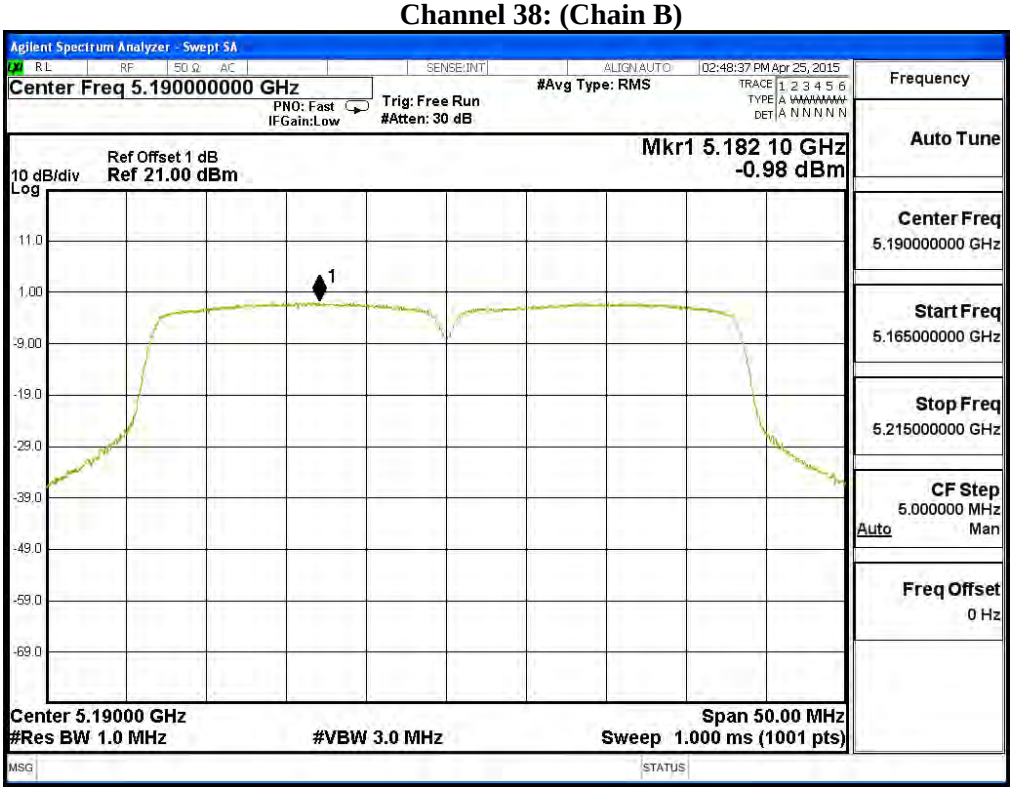
Channel 38: (Chain A)



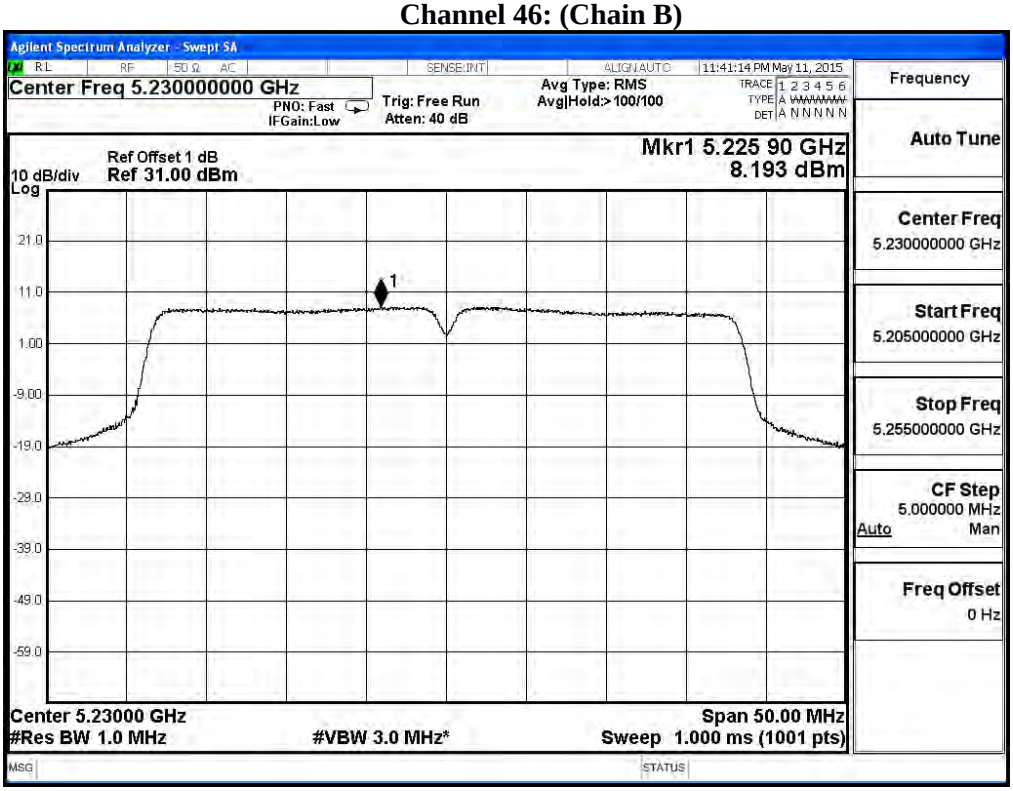
Channel 46: (Chain A)



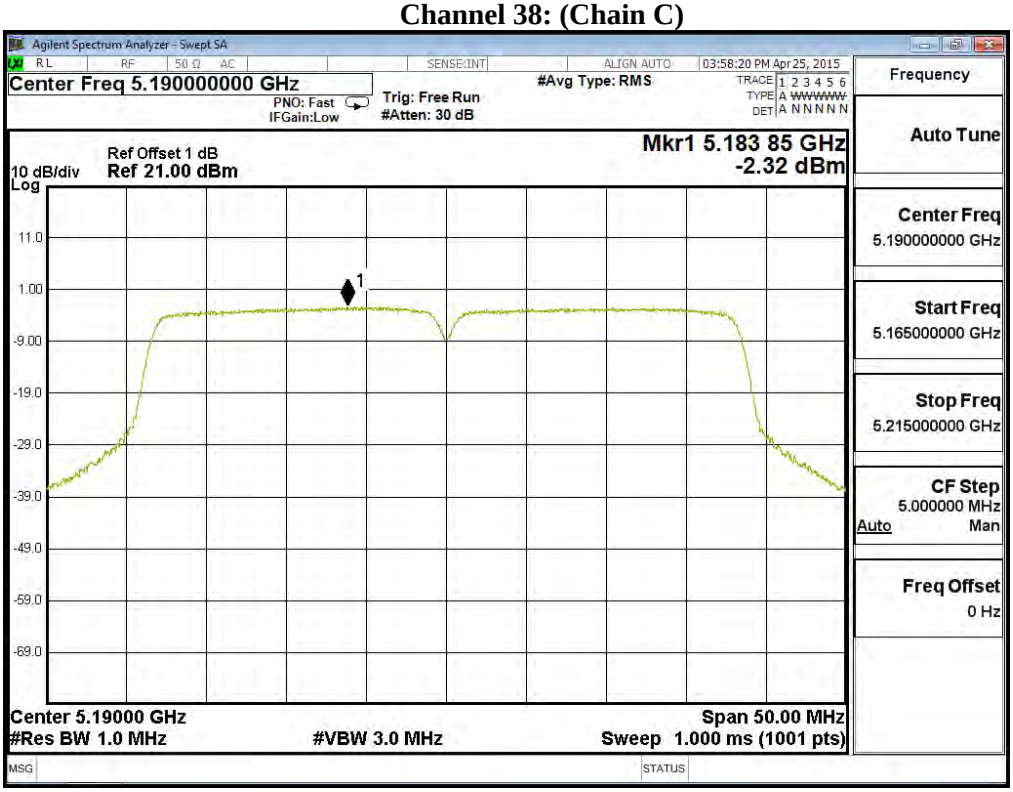
Channel 38: (Chain B)



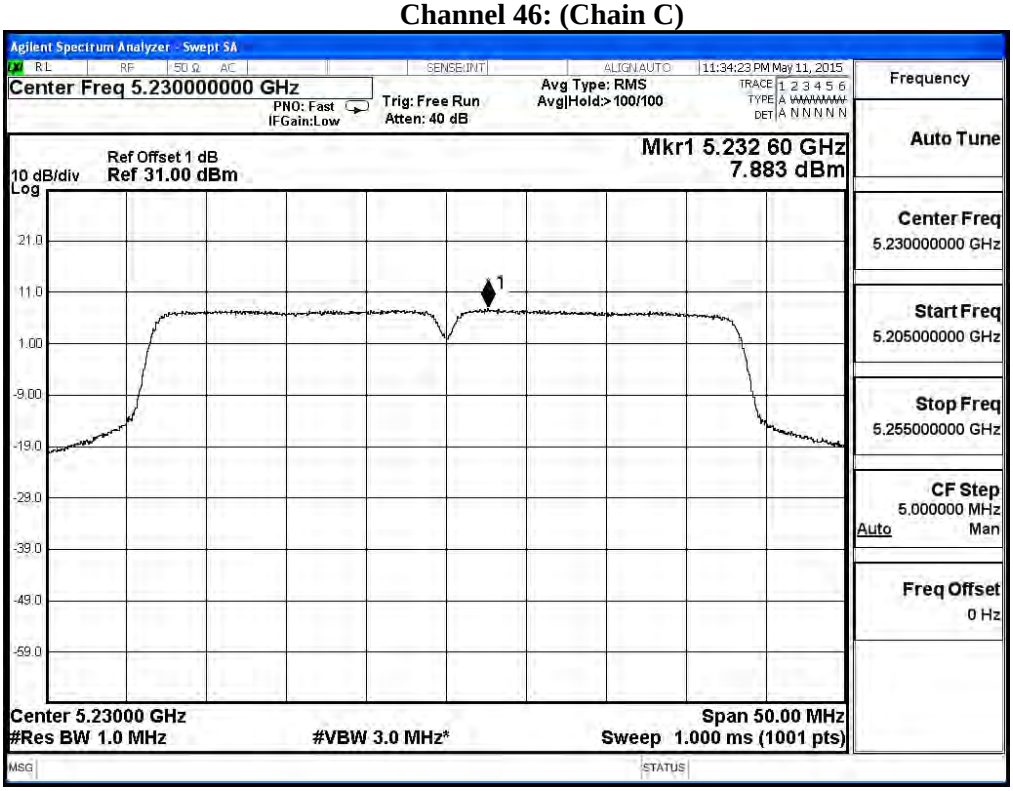
Channel 46: (Chain B)



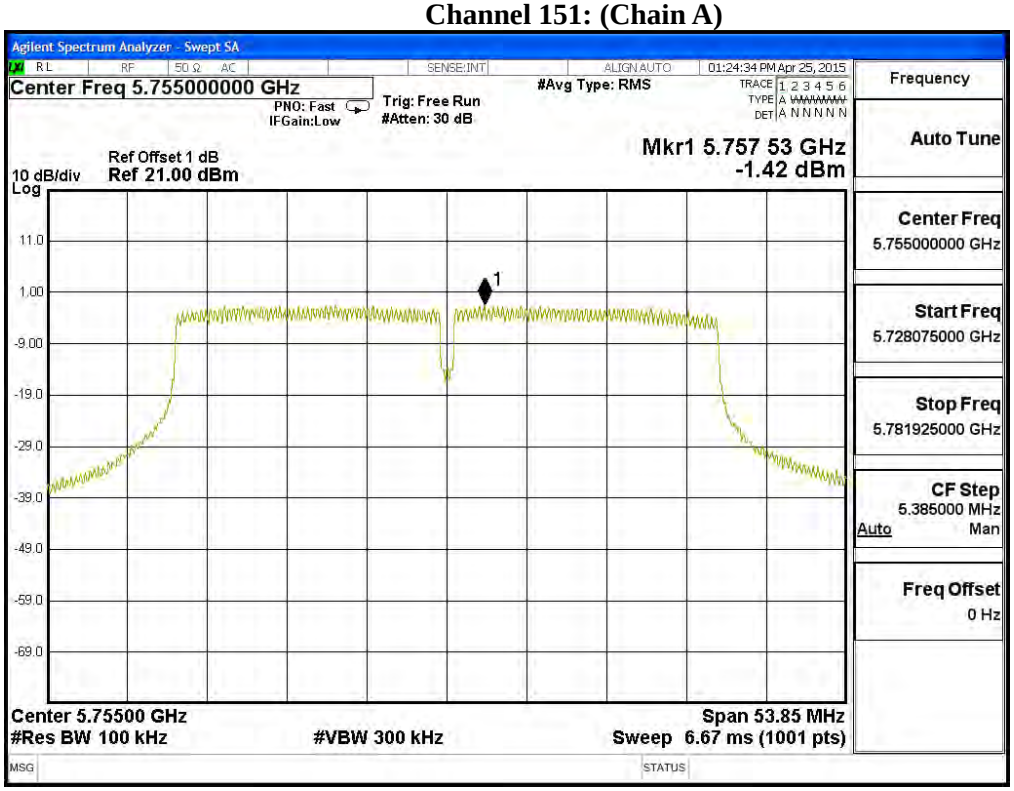
Channel 38: (Chain C)



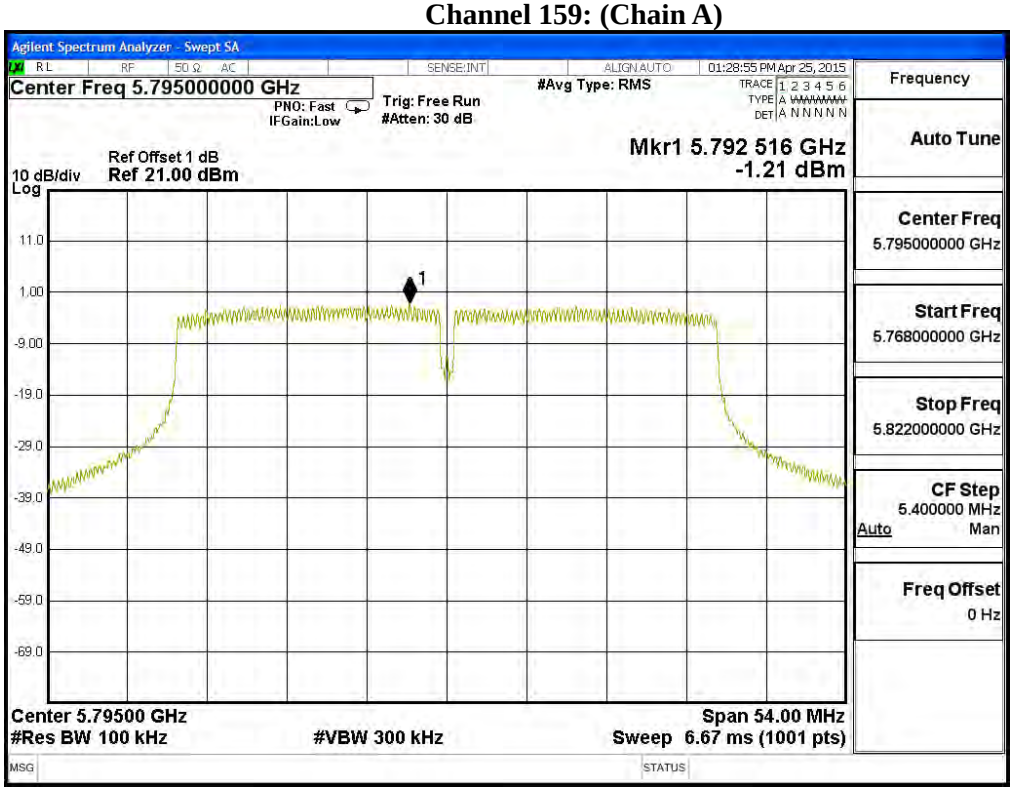
Channel 46: (Chain C)



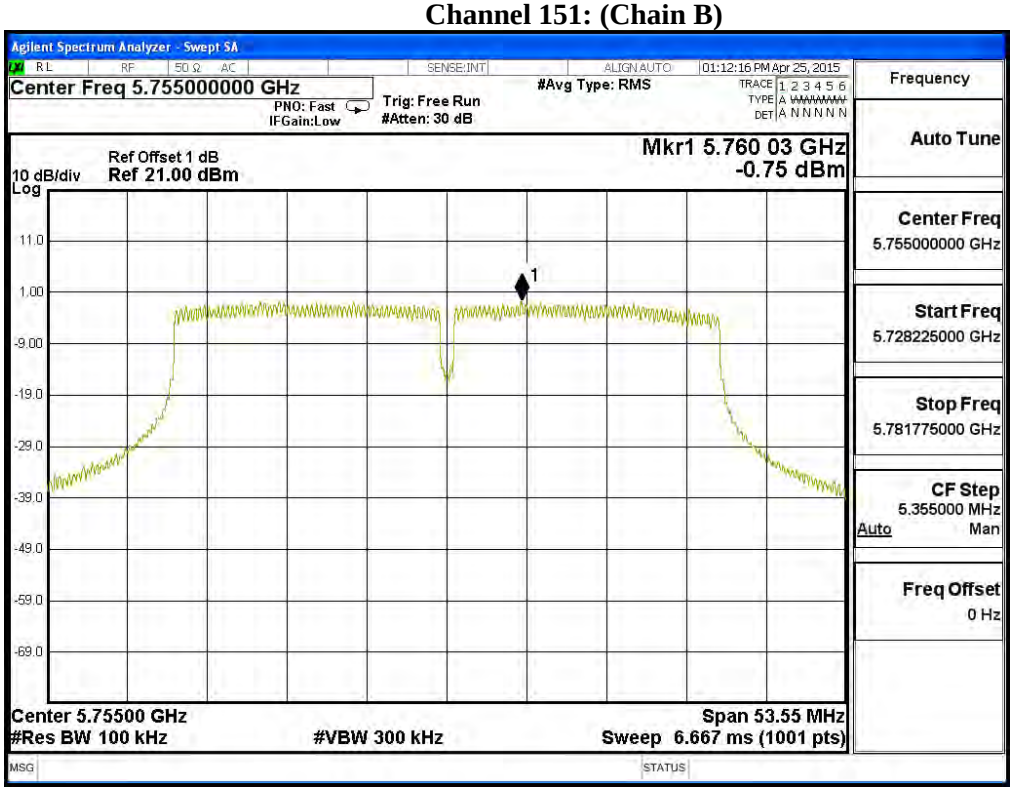
Channel 151: (Chain A)



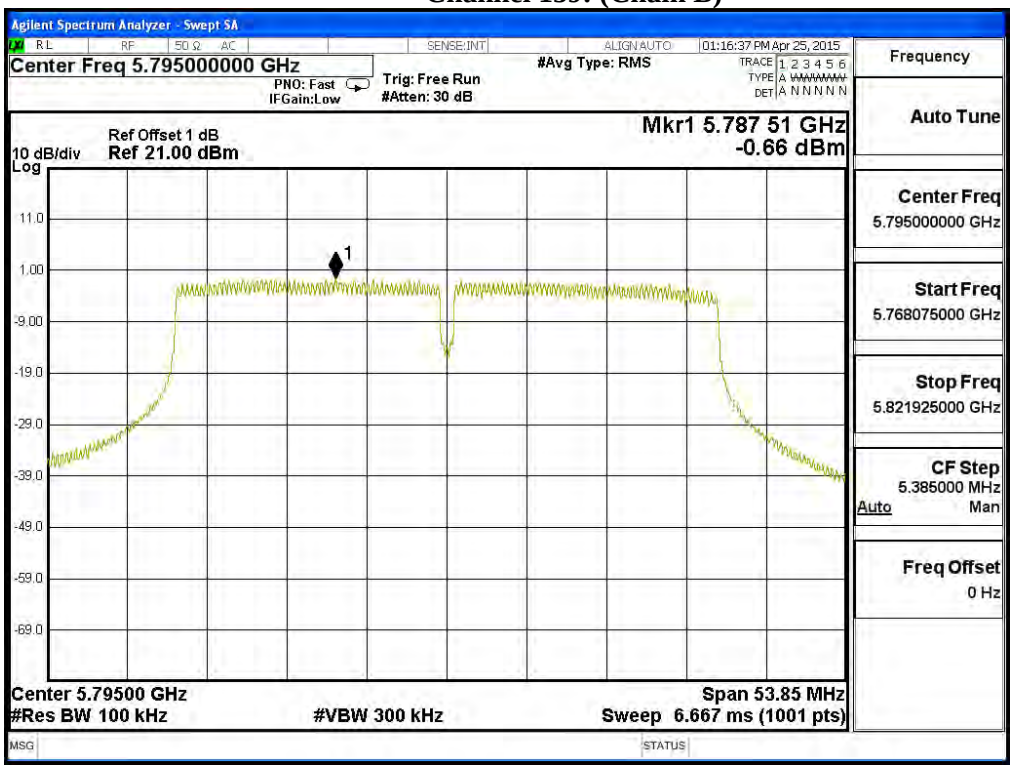
Channel 159: (Chain A)



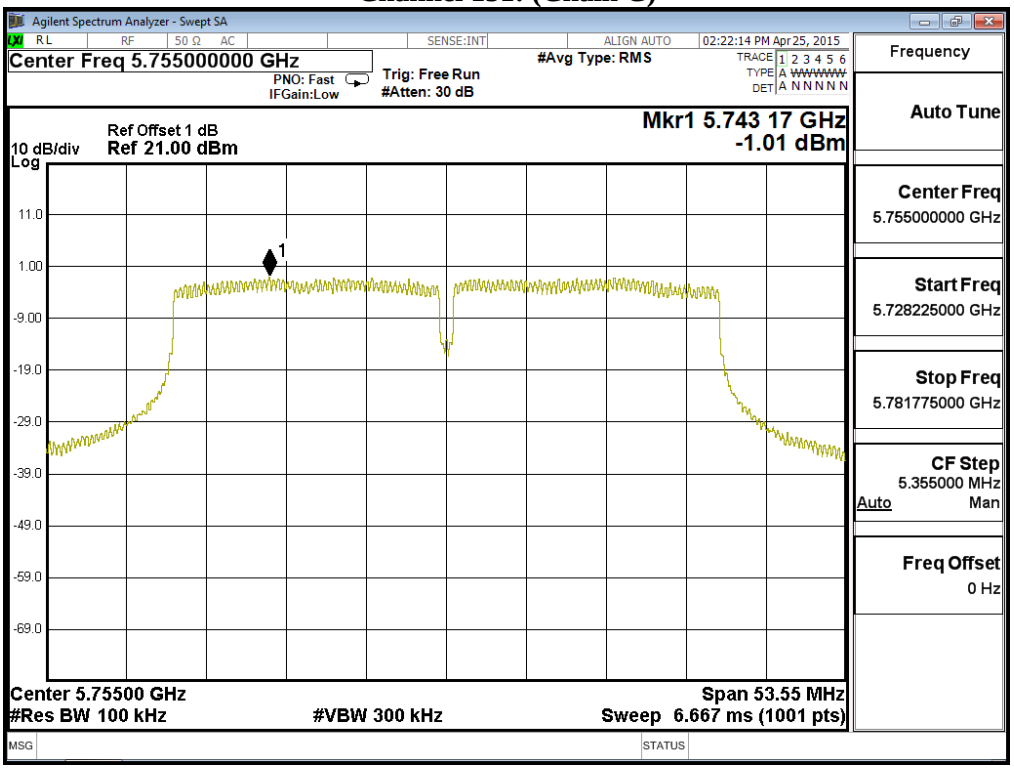
Channel 151: (Chain B)



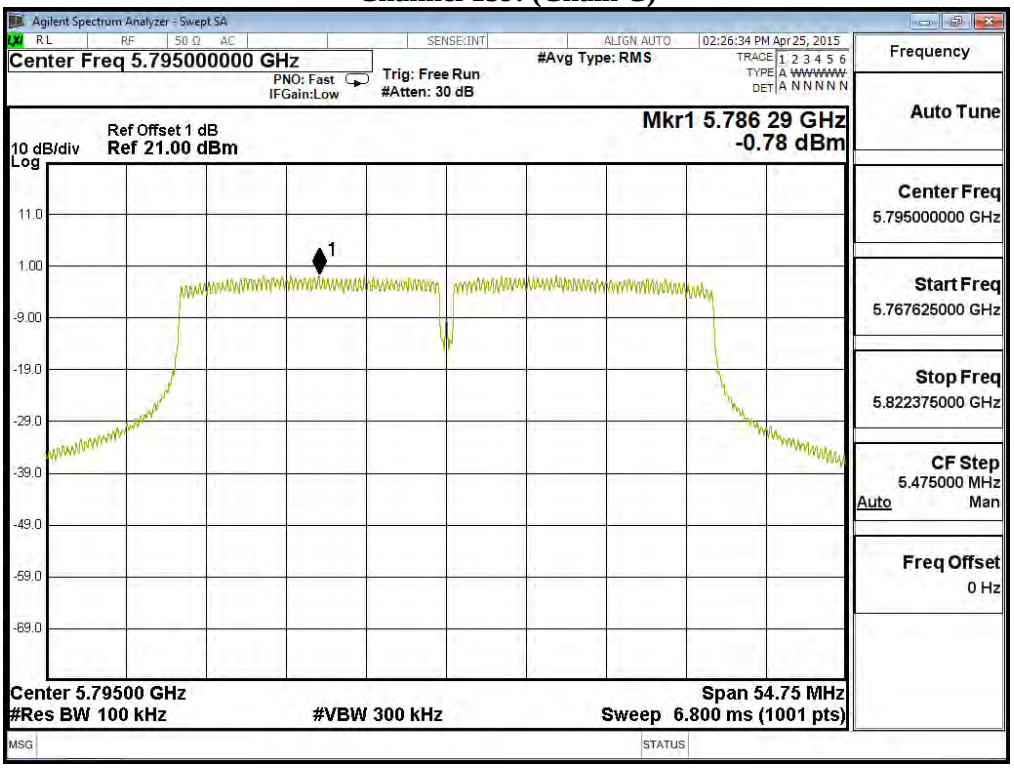
Channel 159: (Chain B)



Channel 151: (Chain C)



Channel 159: (Chain C)



Product : Access Point/Sensor
Test Item : Peak Power Spectral Density
Test Site : No.3 OATS
Test Mode : Mode 4 Transmit (802.11ac-80BW-97.5Mbps) (External Antenna)

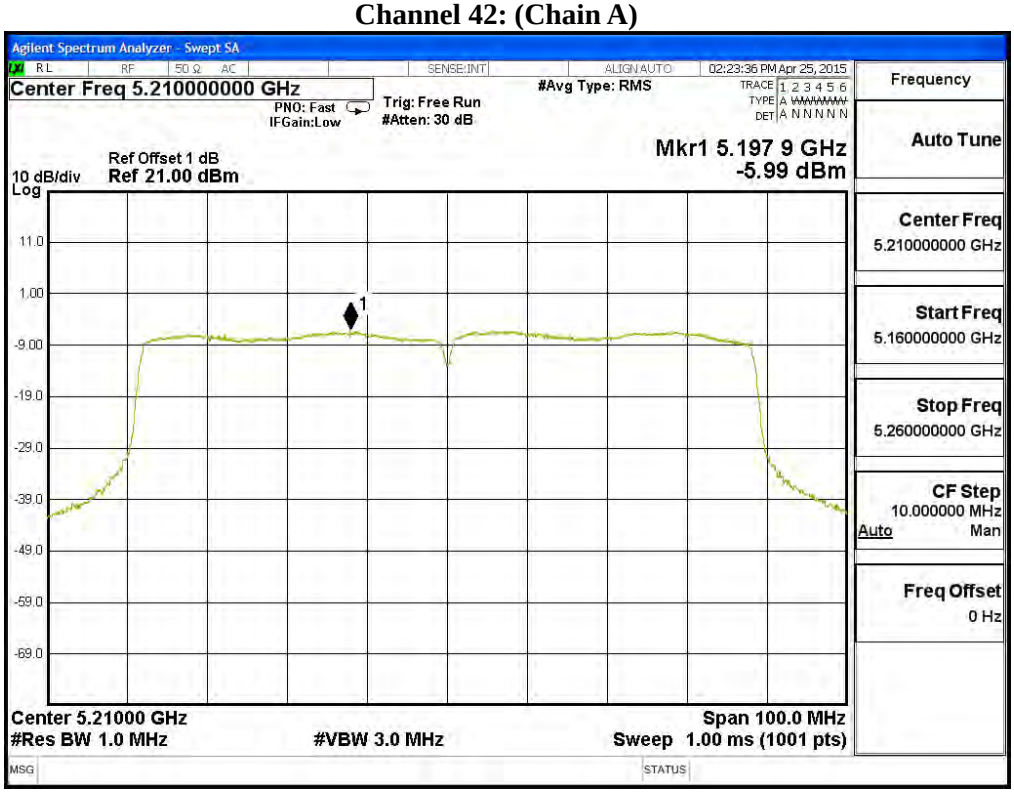
Channel Number	Frequency (MHz)	Chain	PPSD (dBm)	Total PPSD (dBm)1	Required Limit (dBm)	Result
42	5210	A	-5.990	-1.219	17	Pass
		B	-4.570	0.201	17	Pass
		C	-5.360	-0.589	17	Pass

Note 1: The quantity 10*log 3 (three antennas) is added to the spectrum peak value according to document 662911 D01.

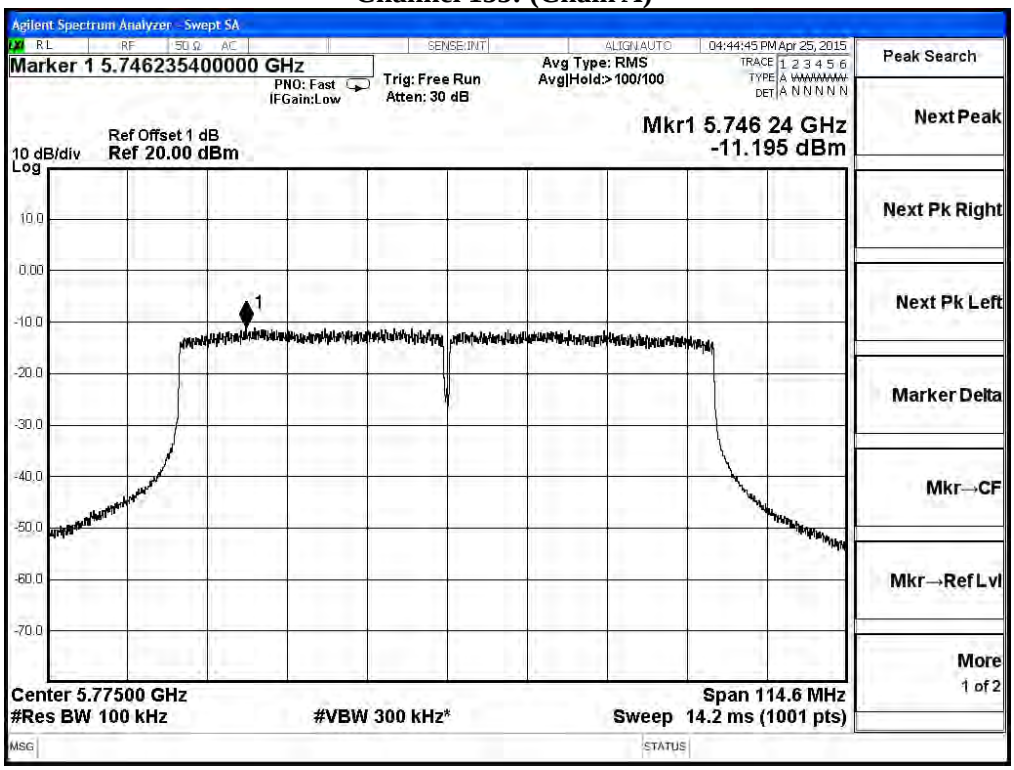
Channel Number	Frequency (MHz)	Chain	PPSD (dBm)	BWCF (dB)	Total PPSD (dBm)1	Required Limit (dBm)	Result
155	5775	A	-11.195	6.980	0.556	<30	Pass
		B	-8.907	6.980	2.844	<30	Pass
		C	-10.401	6.980	1.350	<30	Pass

Note 1: The quantity 10*log 3 (three antennas) is added to the spectrum peak value according to document 662911 D01.

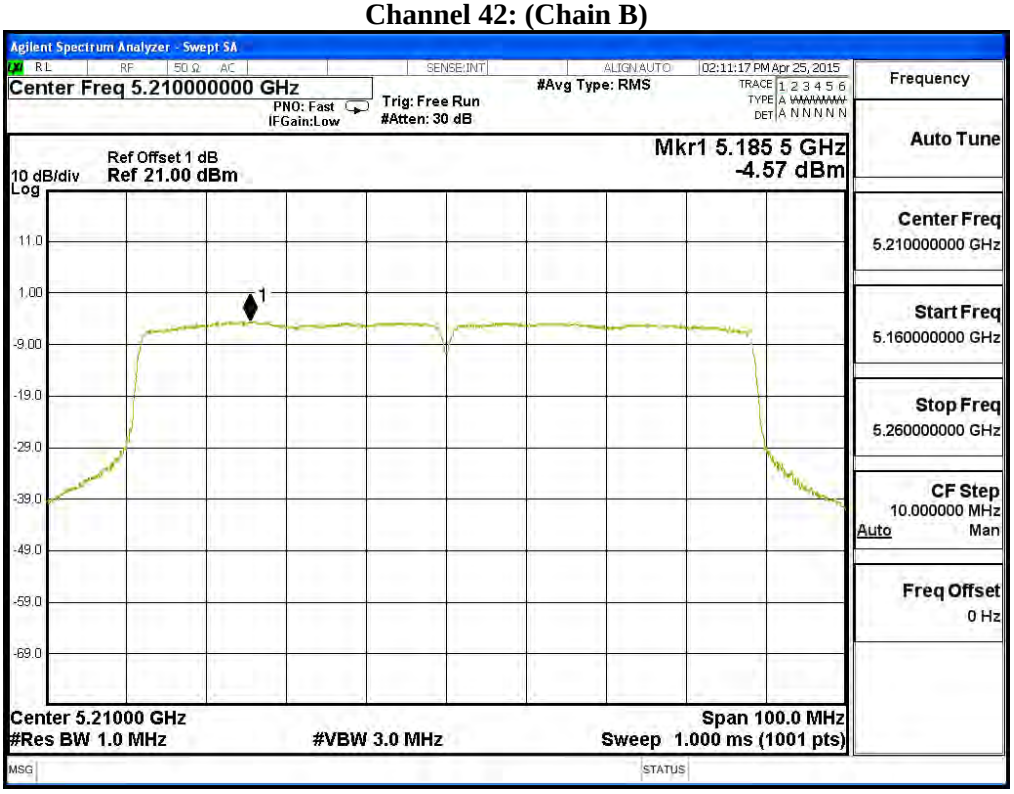
Channel 42: (Chain A)



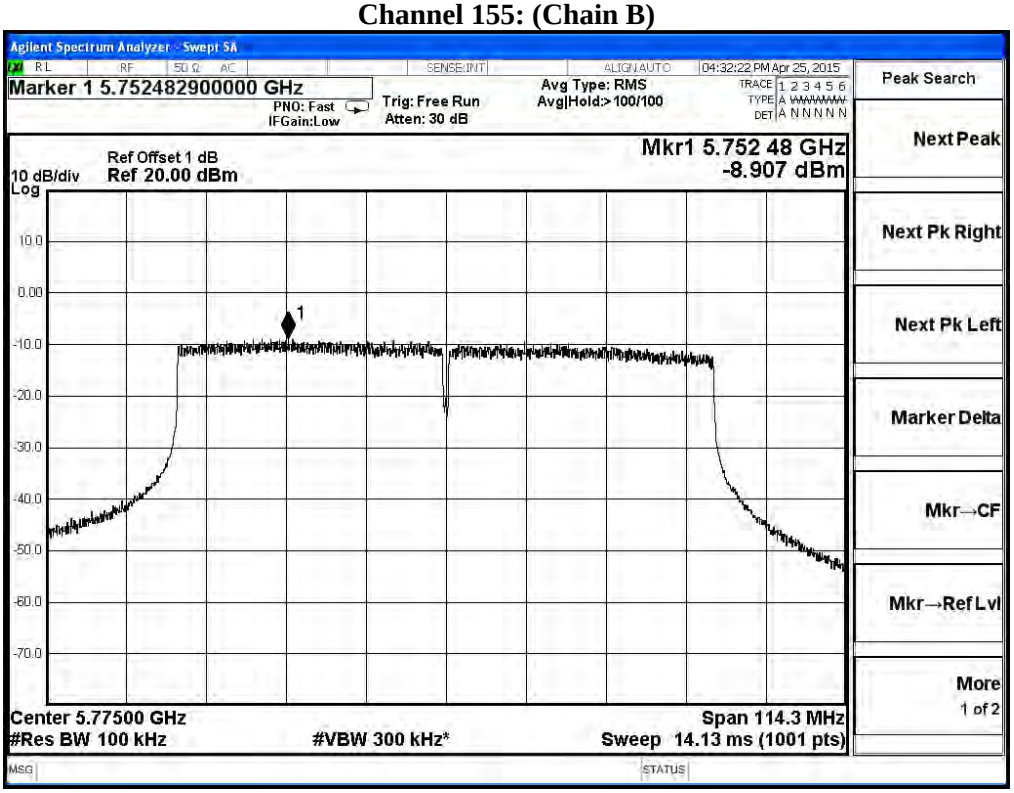
Channel 155: (Chain A)



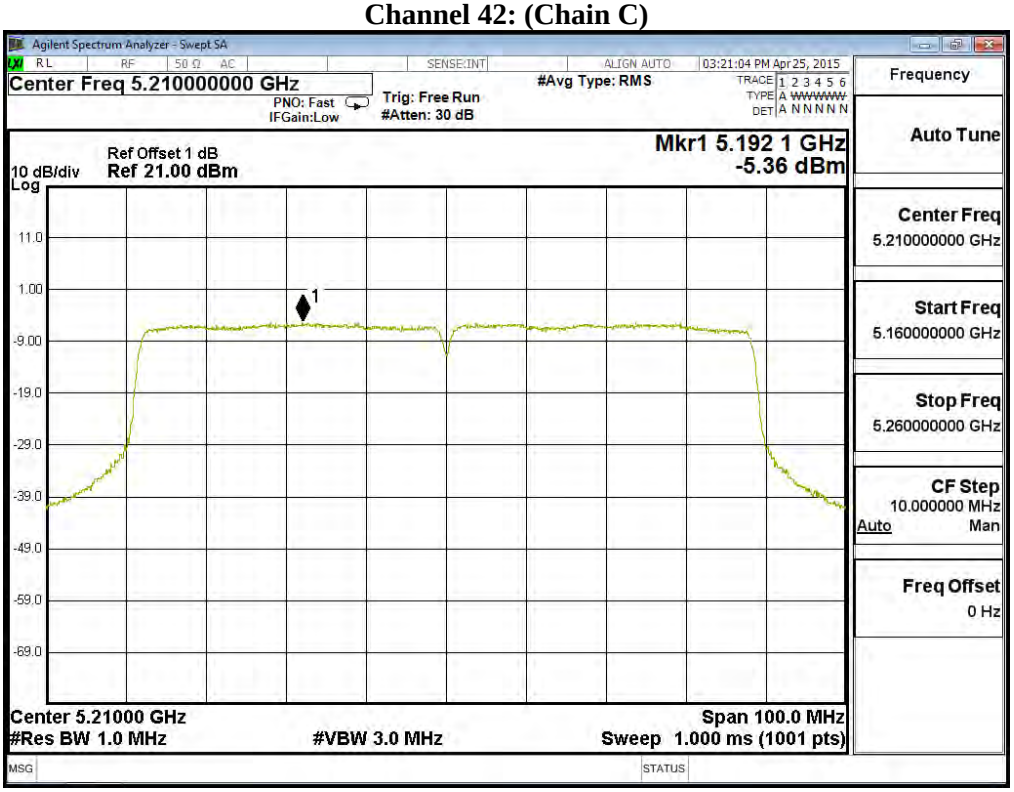
Channel 42: (Chain B)



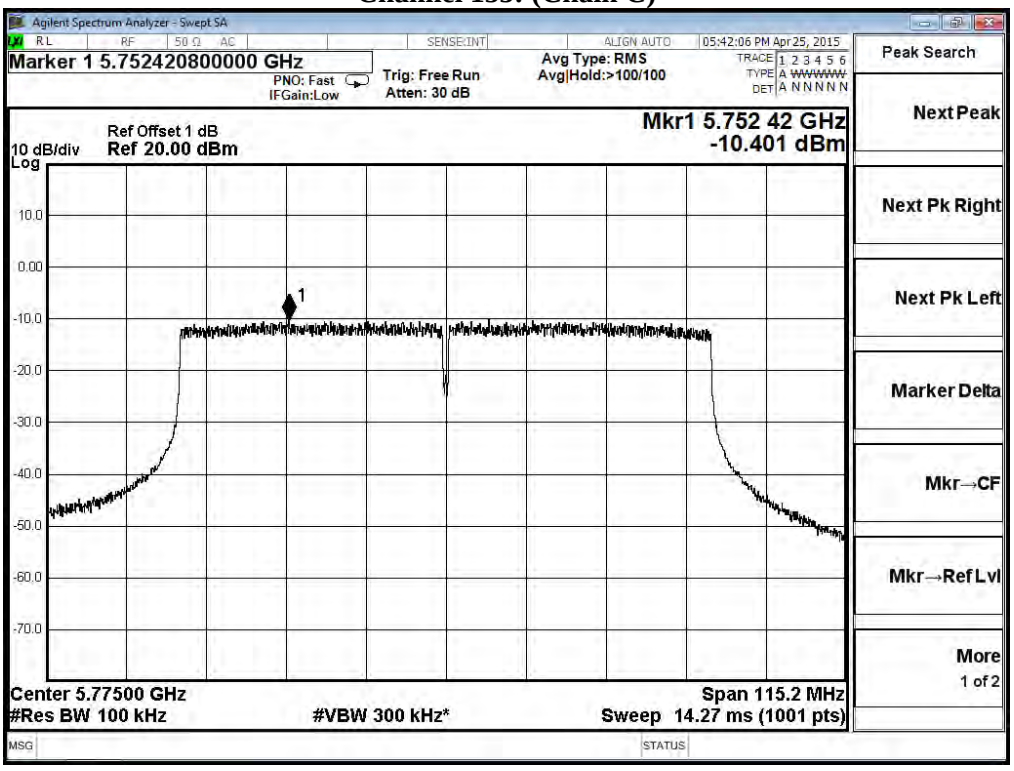
Channel 155: (Chain B)



Channel 42: (Chain C)



Channel 155: (Chain C)



Product : Access Point/Sensor
Test Item : Peak Power Spectral Density
Test Site : No.3 OATS
Test Mode : Mode 1: Transmit (802.11a-6Mbps) (Internal Antenna)

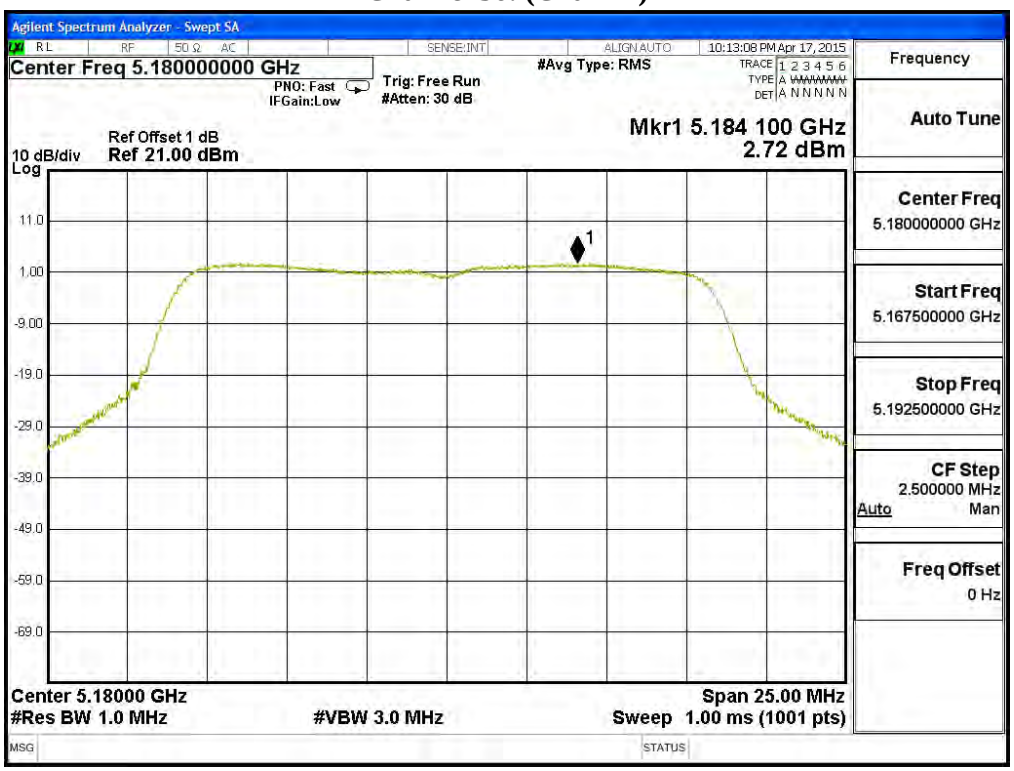
Channel Number	Frequency (MHz)	Data Rata (Mbps)	Chain (dBm)	PPSD (dBm)	Total PPSD (dBm)	Limit (dBm)	Result
36	5180	6	A	2.720	7.491	13.9	Pass
			B	3.220	7.991	13.9	Pass
			C	3.810	8.581	13.9	Pass
44	5220	6	A	8.433	13.204	13.9	Pass
			B	8.134	12.905	13.9	Pass
			C	8.217	12.988	13.9	Pass
48	5240	6	A	9.117	13.888	13.9	Pass
			B	8.277	13.048	13.9	Pass
			C	8.494	13.265	13.9	Pass

Note 1: The quantity 10*log 3 (three antennas) is added to the spectrum peak value according to document 662911 D01.

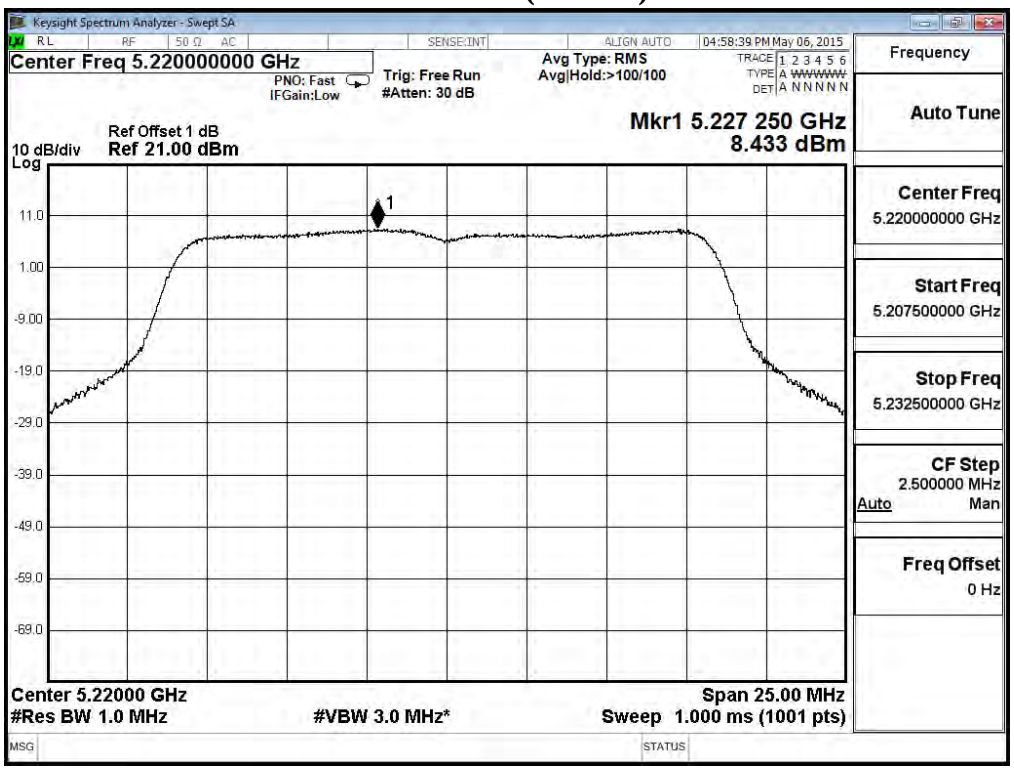
Channel Number	Frequency (MHz)	Data Rata (Mbps)	Chain (dBm)	PPSD (dBm)	BWCF (dB)	Total PPSD (dBm)	Required Limit (dBm)	Result
149	5745	6	A	-1.130	6.980	10.621	<25.1	Pass
			B	-1.090	6.980	10.661	<25.1	Pass
			C	-0.260	6.980	11.491	<25.1	Pass
157	5785	6	A	-1.440	6.980	10.311	<25.1	Pass
			B	-1.520	6.980	10.231	<25.1	Pass
			C	-0.990	6.980	10.761	<25.1	Pass
165	5825	6	A	-1.610	6.980	10.141	<25.1	Pass
			B	-2.170	6.980	9.581	<25.1	Pass
			C	-0.460	6.980	11.291	<25.1	Pass

Note 1: The quantity 10*log 3 (three antennas) is added to the spectrum peak value according to document 662911 D01.

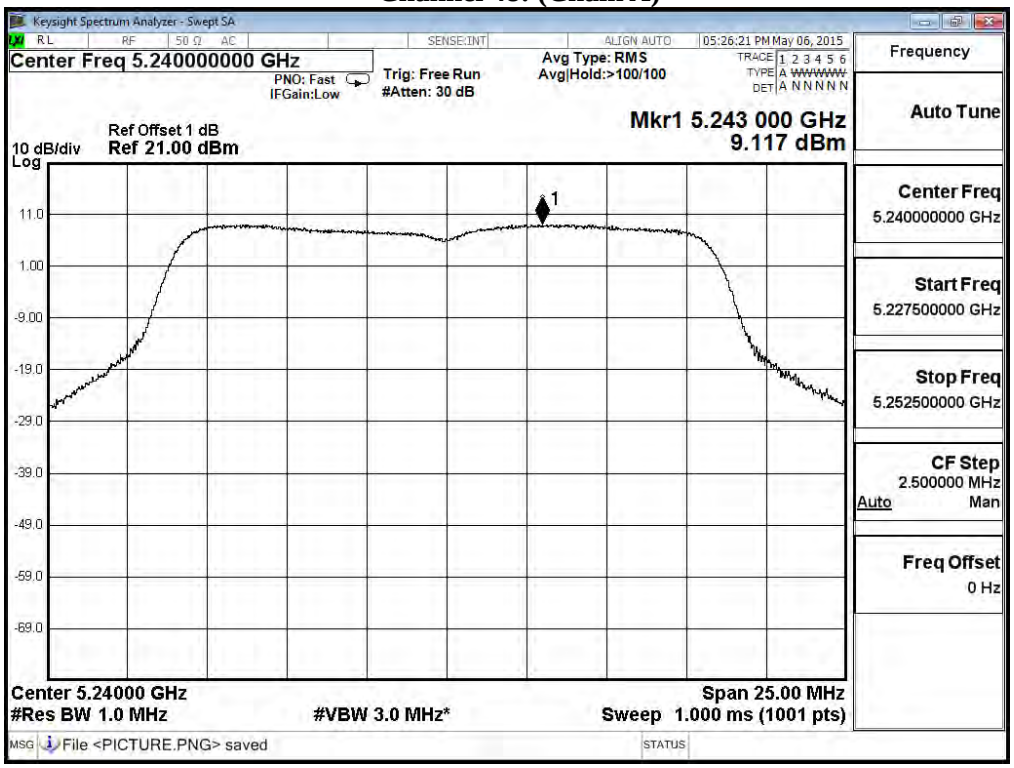
Channel 36: (Chain A)



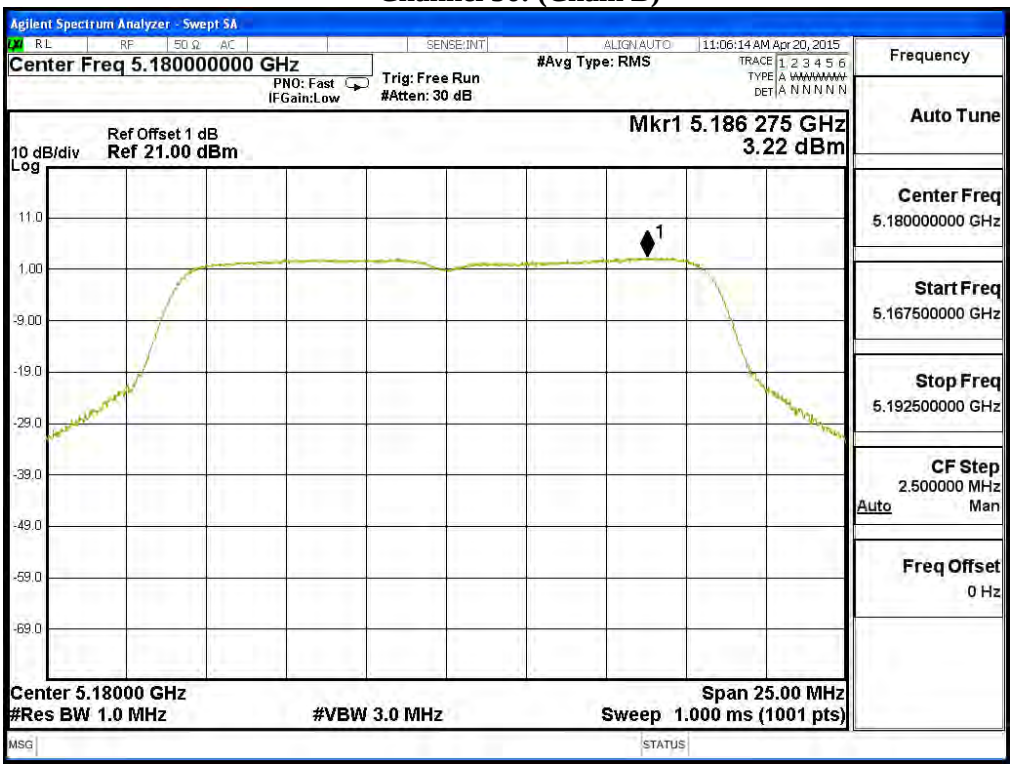
Channel 44: (Chain A)



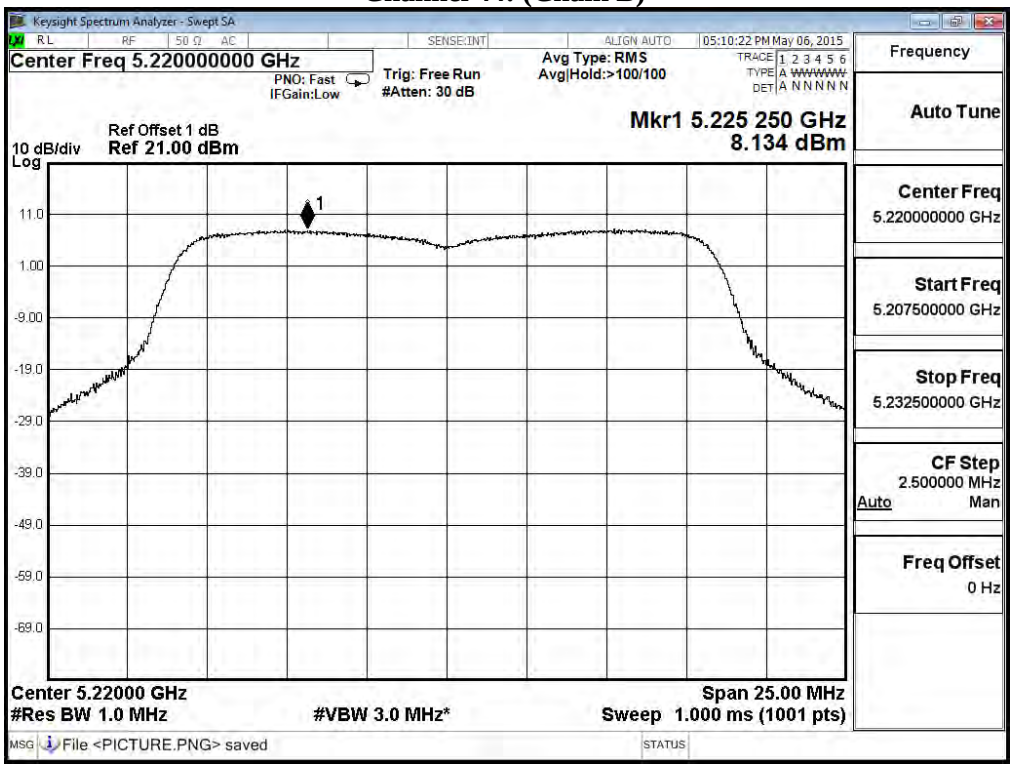
Channel 48: (Chain A)



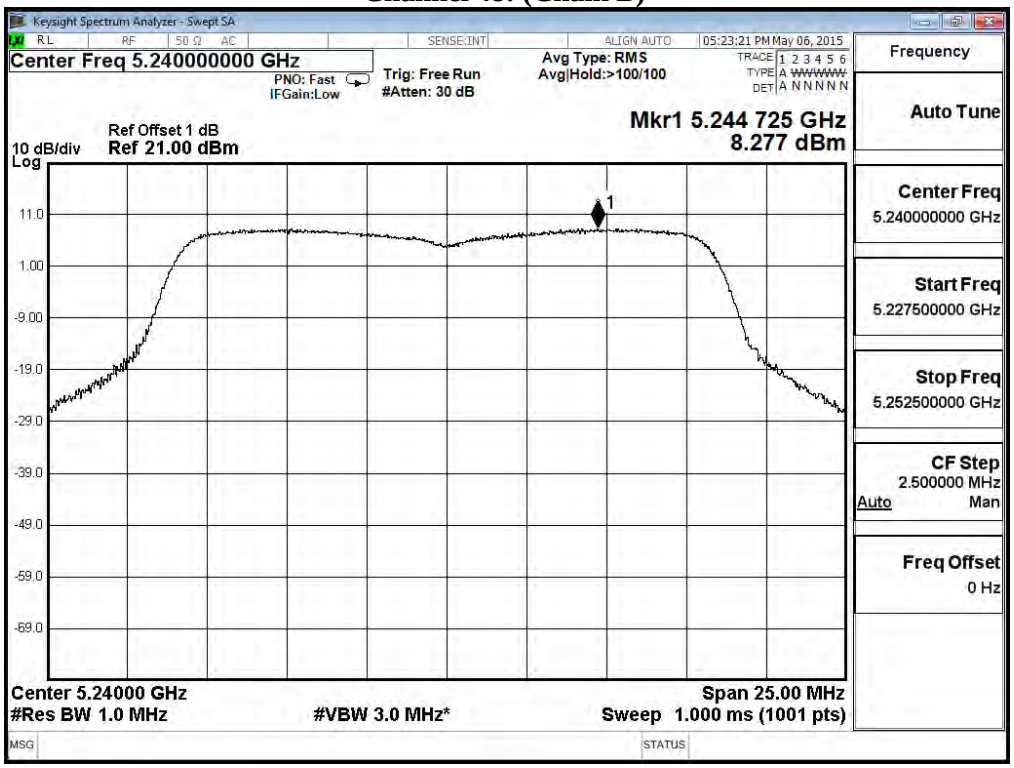
Channel 36: (Chain B)



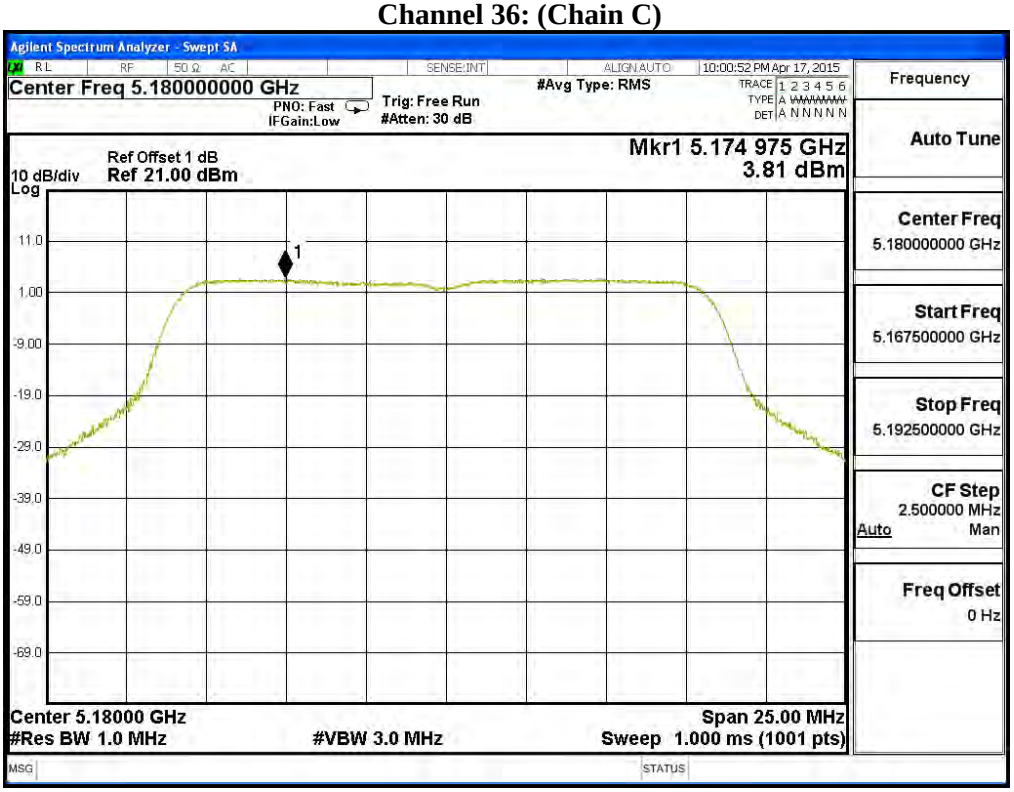
Channel 44: (Chain B)



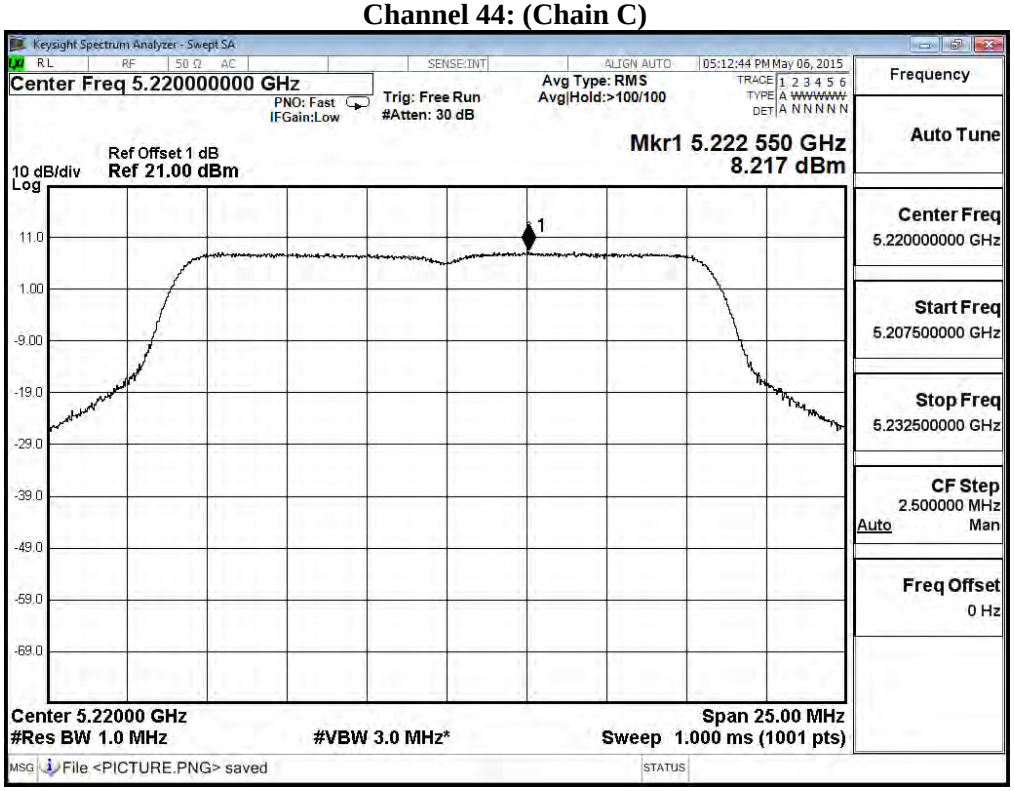
Channel 48: (Chain B)



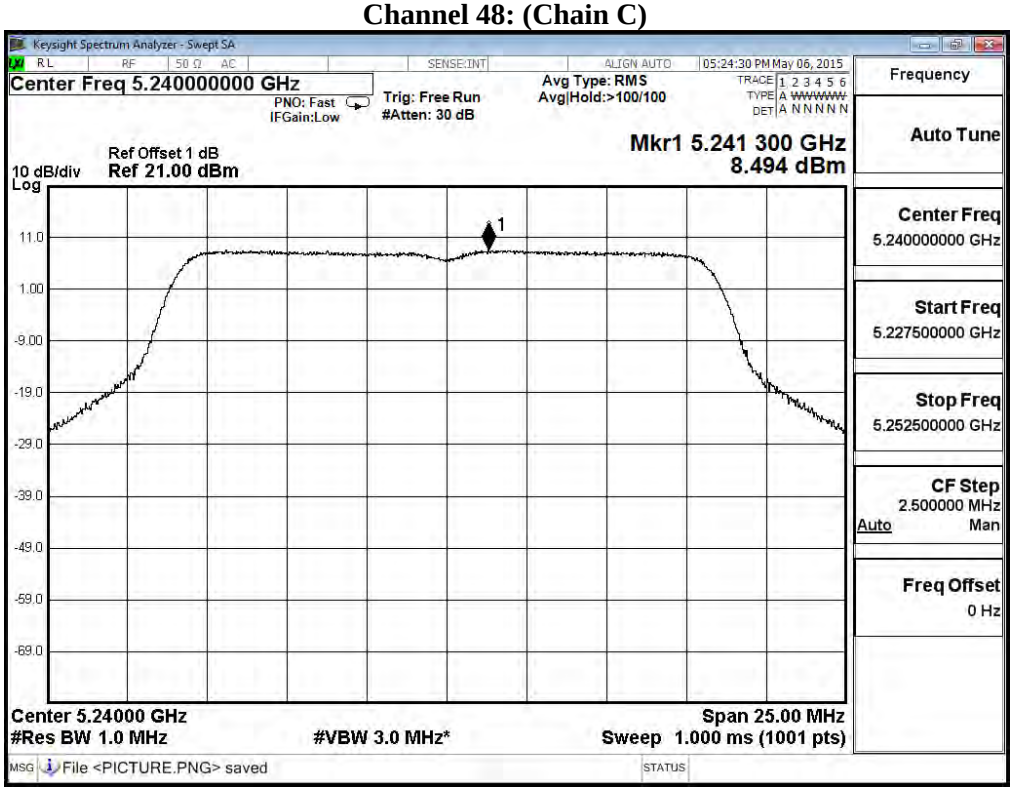
Channel 36: (Chain C)



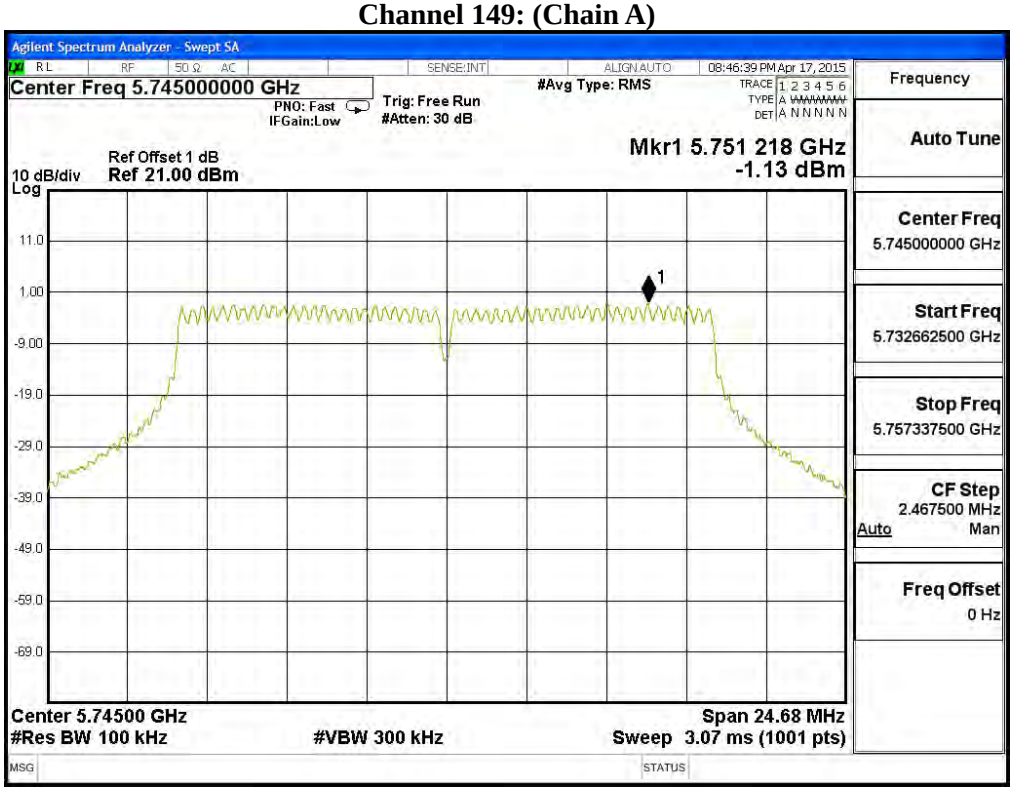
Channel 44: (Chain C)



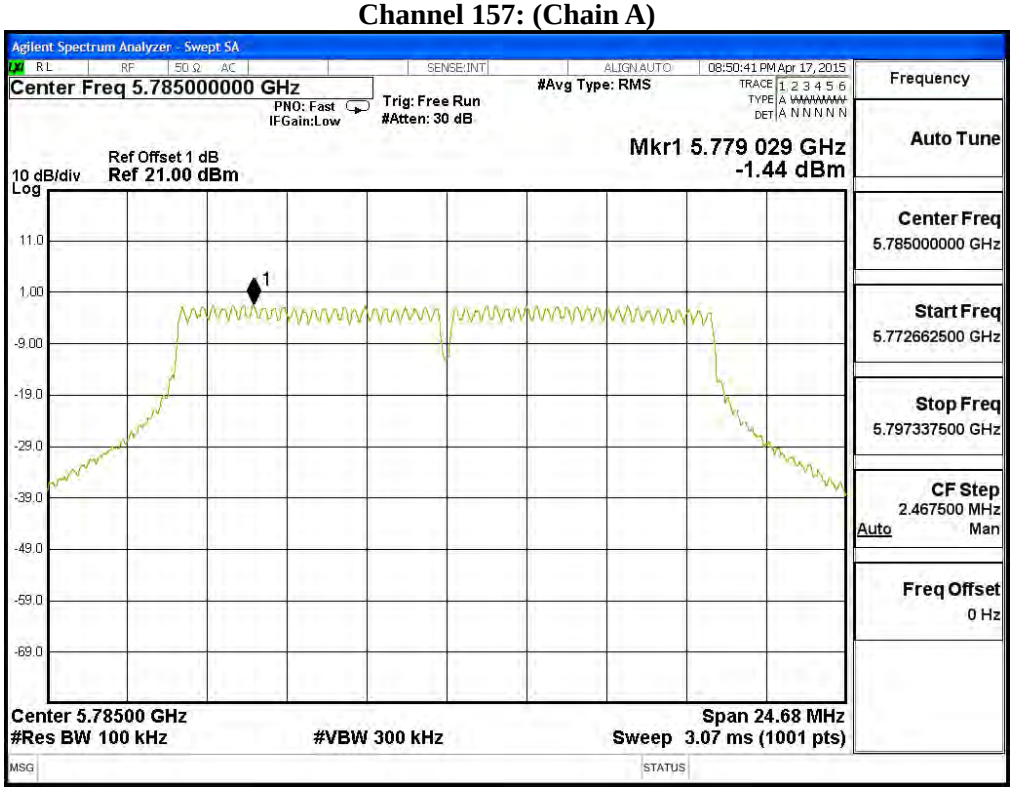
Channel 48: (Chain C)



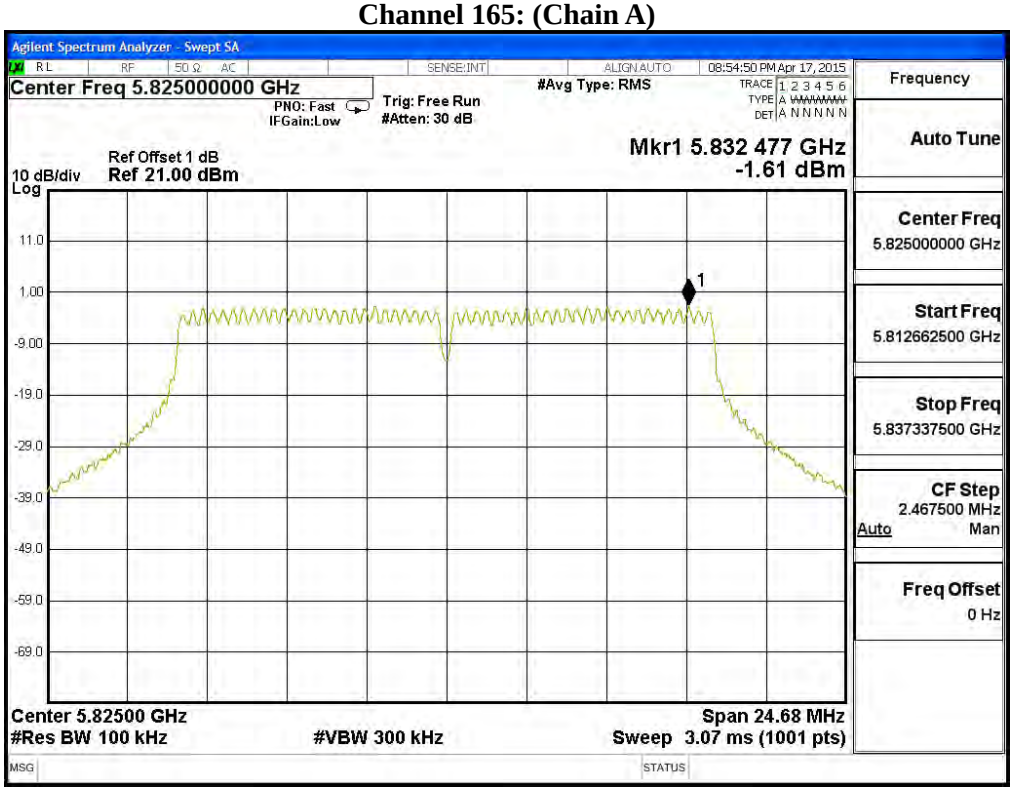
Channel 149: (Chain A)



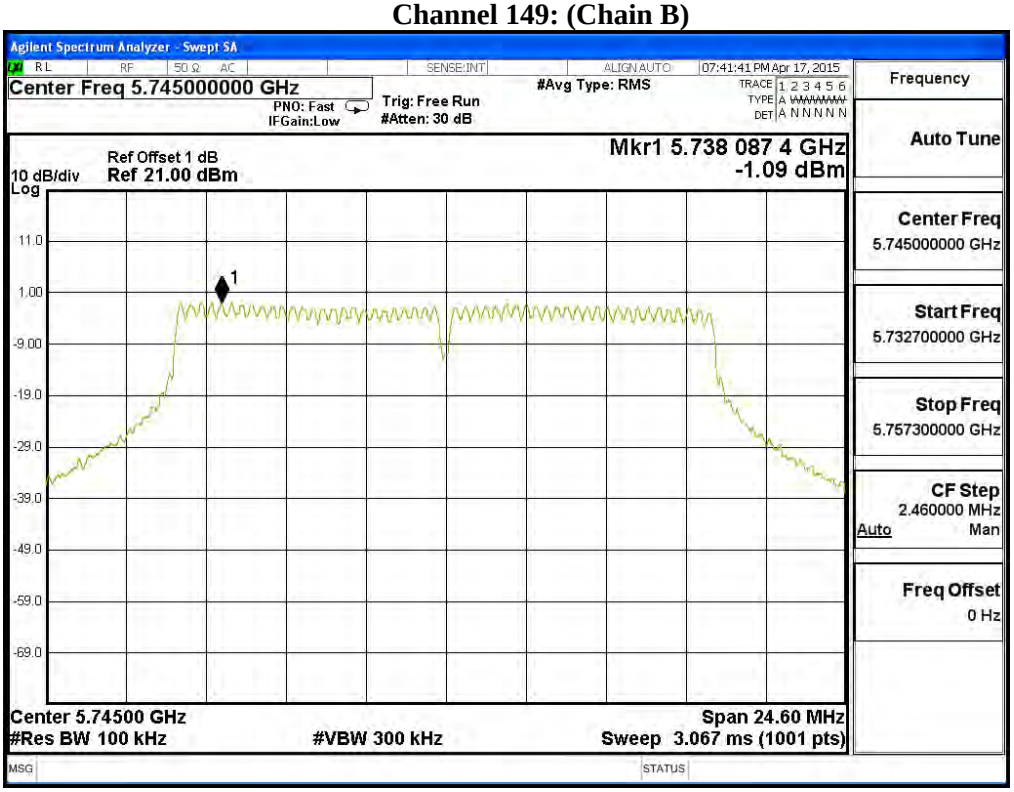
Channel 157: (Chain A)



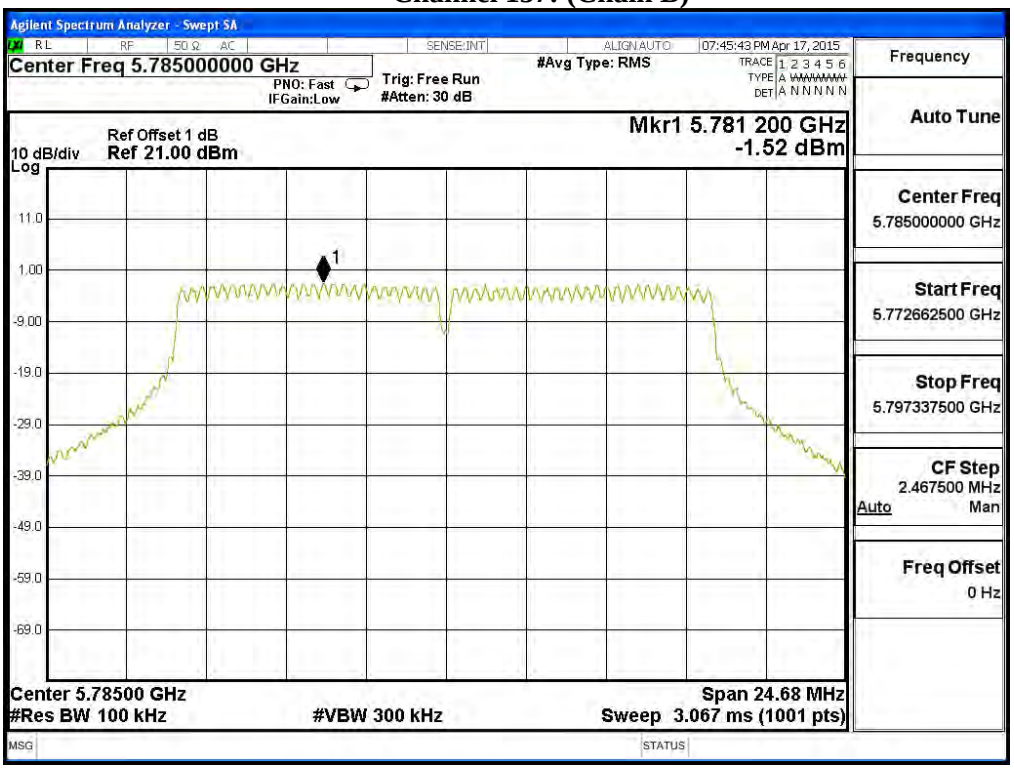
Channel 165: (Chain A)



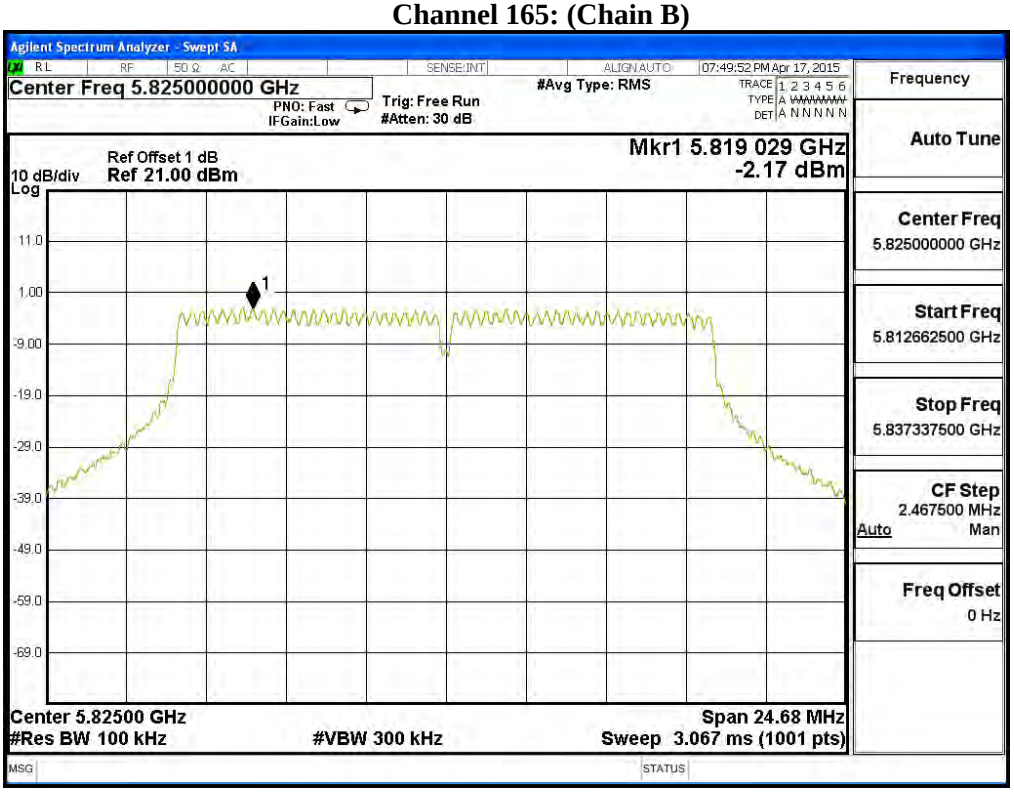
Channel 149: (Chain B)



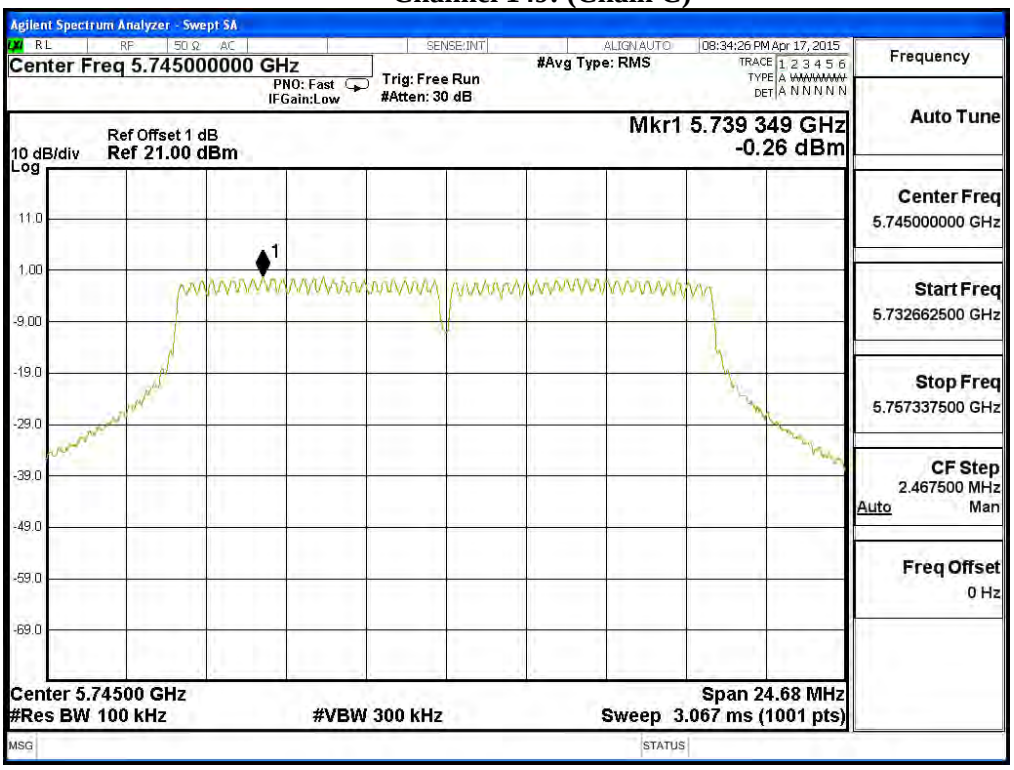
Channel 157: (Chain B)



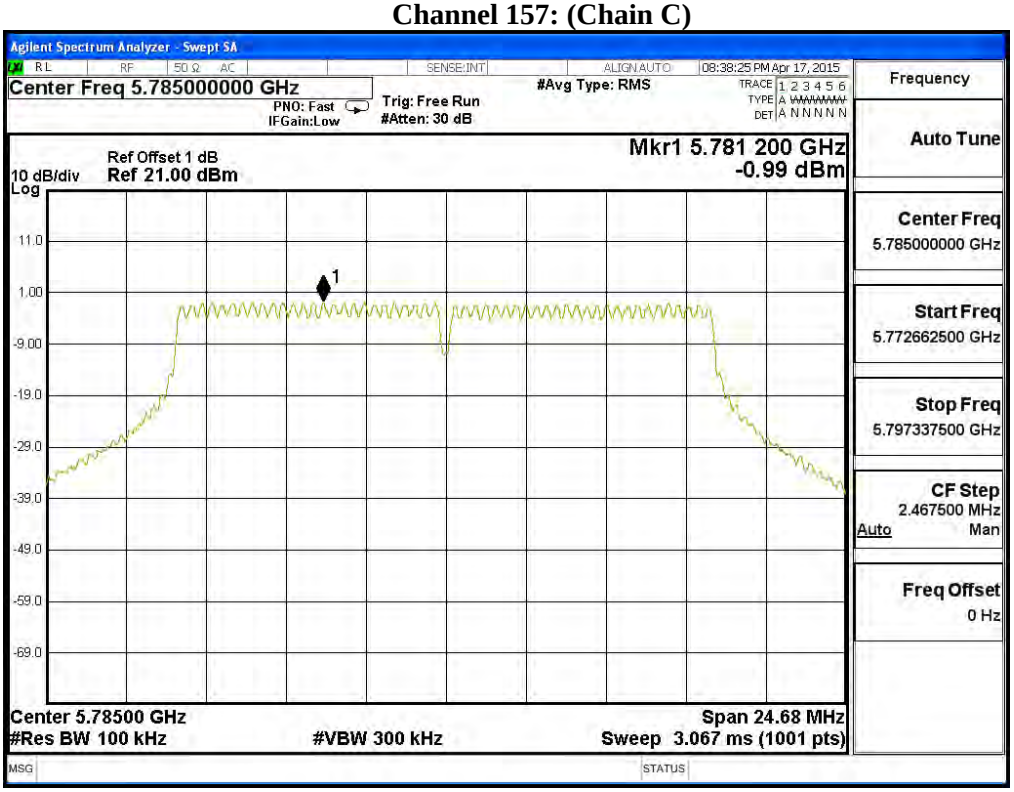
Channel 165: (Chain B)



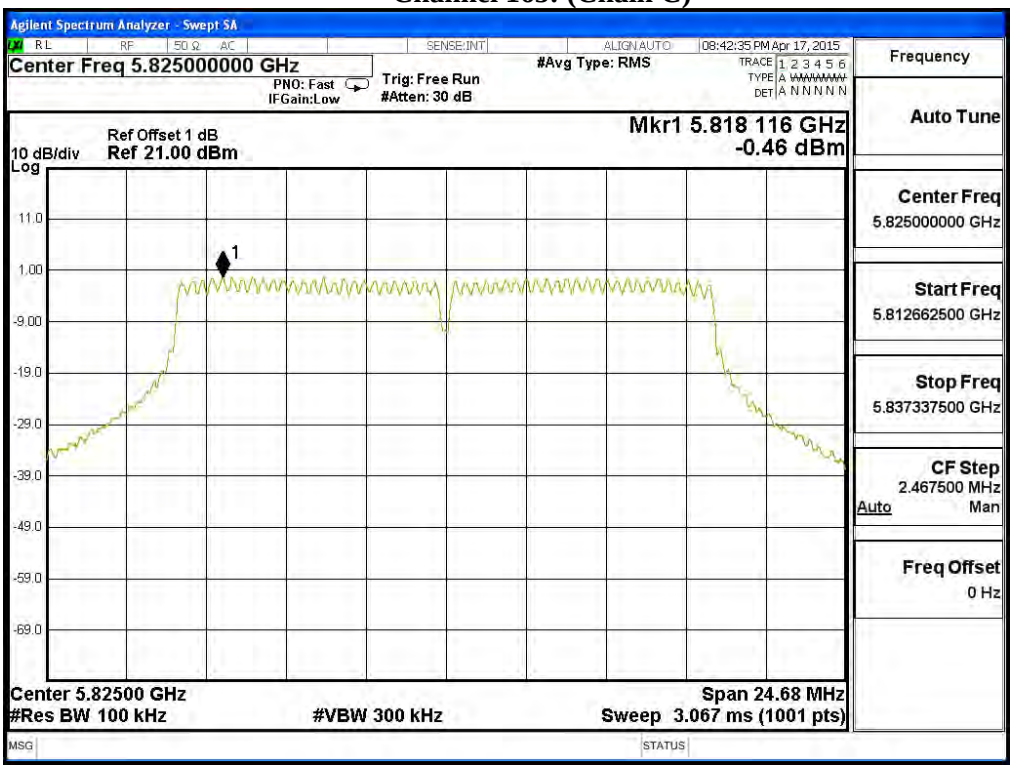
Channel 149: (Chain C)



Channel 157: (Chain C)



Channel 165: (Chain C)



Product : Access Point/Sensor
Test Item : Peak Power Spectral Density
Test Site : No.3 OATS
Test Mode : Mode 2: Transmit (802.11n-20BW 21.7Mbps) (Internal Antenna)

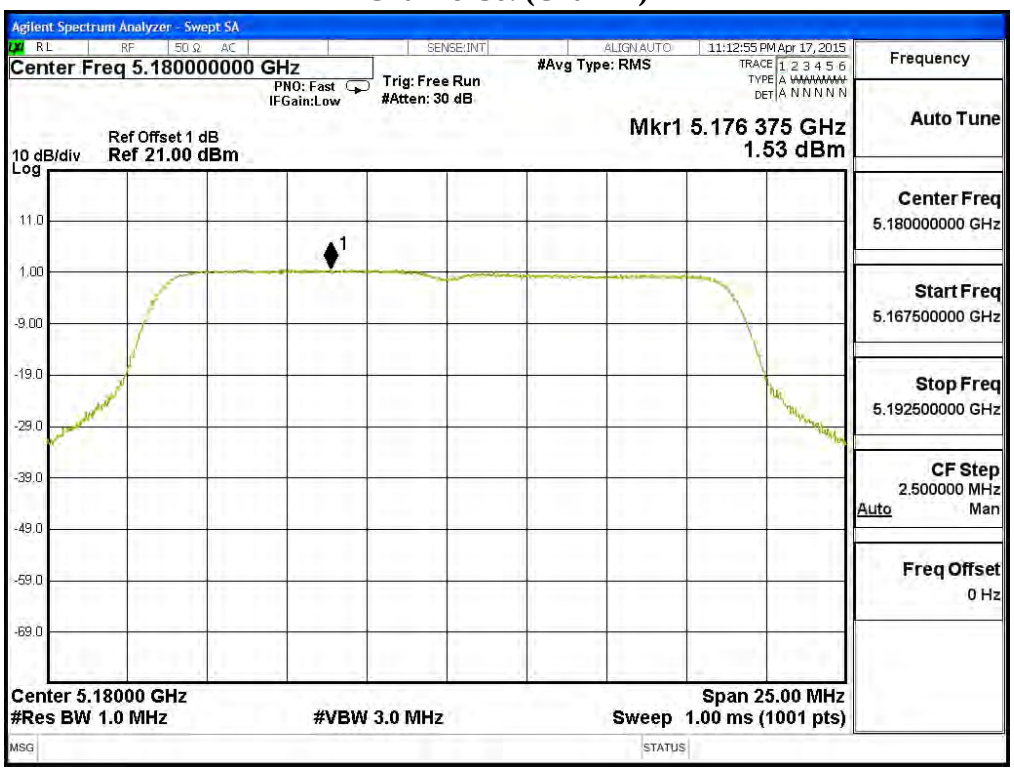
Channel Number	Frequency (MHz)	Chain	PPSD (dBm)	Total PPSD (dBm)	Required Limit (dBm)	Result
36	5180	A	1.530	6.301	13.9	Pass
		B	1.510	6.281	13.9	Pass
		C	2.560	7.331	13.9	Pass
44	5220	A	8.300	13.071	13.9	Pass
		B	7.770	12.541	13.9	Pass
		C	8.278	13.049	13.9	Pass
48	5240	A	8.460	13.231	13.9	Pass
		B	7.810	12.581	13.9	Pass
		C	8.819	13.590	13.9	Pass

Note 1: The quantity 10*log 3 (three antennas) is added to the spectrum peak value according to document 662911 D01.

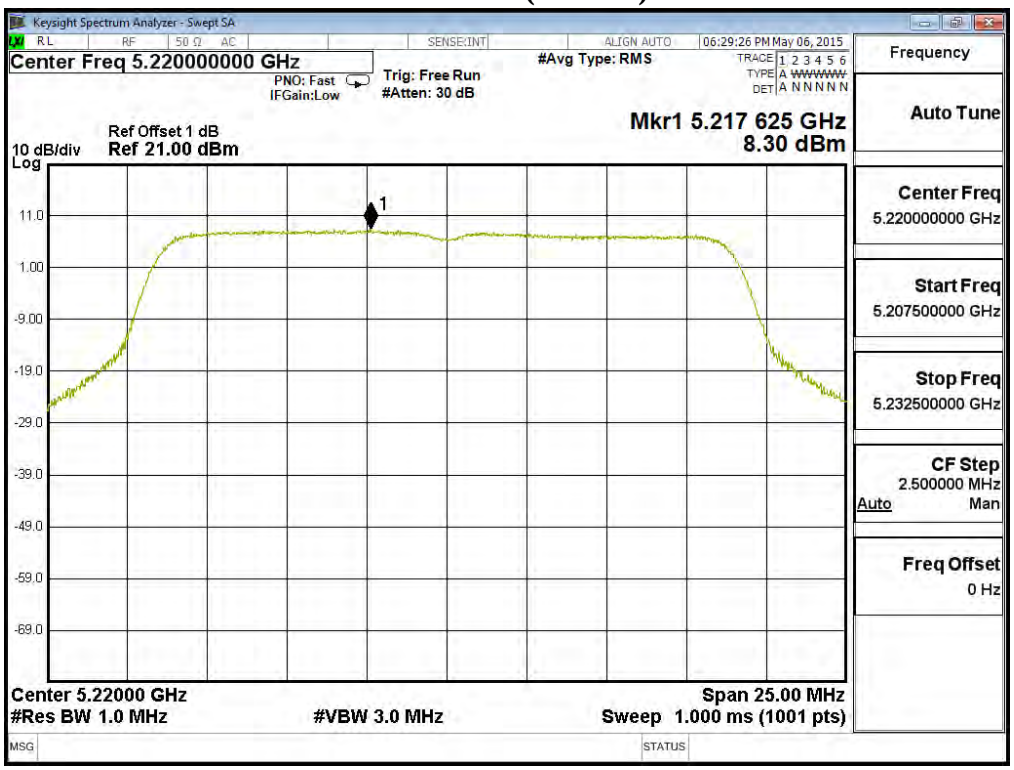
Channel Number	Frequency (MHz)	Chain	PPSD (dBm)	BWCF (dB)	Total PPSD (dBm)	Required Limit (dBm)	Result
149	5745	A	-1.450	6.980	10.301	<25.1	Pass
		B	-1.340	6.980	10.411	<25.1	Pass
		C	-0.780	6.980	10.971	<25.1	Pass
157	5785	A	-1.800	6.980	9.951	<25.1	Pass
		B	-2.120	6.980	9.631	<25.1	Pass
		C	-0.270	6.980	11.481	<25.1	Pass
165	5825	A	-2.000	6.980	9.751	<25.1	Pass
		B	-2.340	6.980	9.411	<25.1	Pass
		C	-1.280	6.980	10.471	<25.1	Pass

Note 1: The quantity 10*log 3 (three antennas) is added to the spectrum peak value according to document 662911 D01.

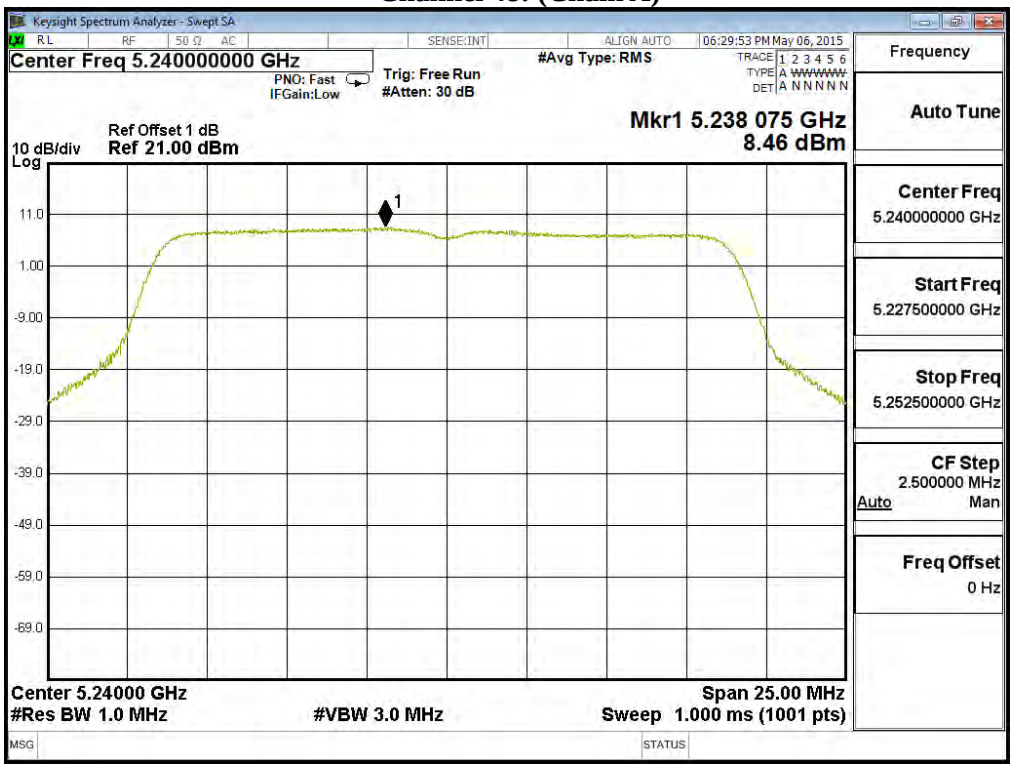
Channel 36: (Chain A)



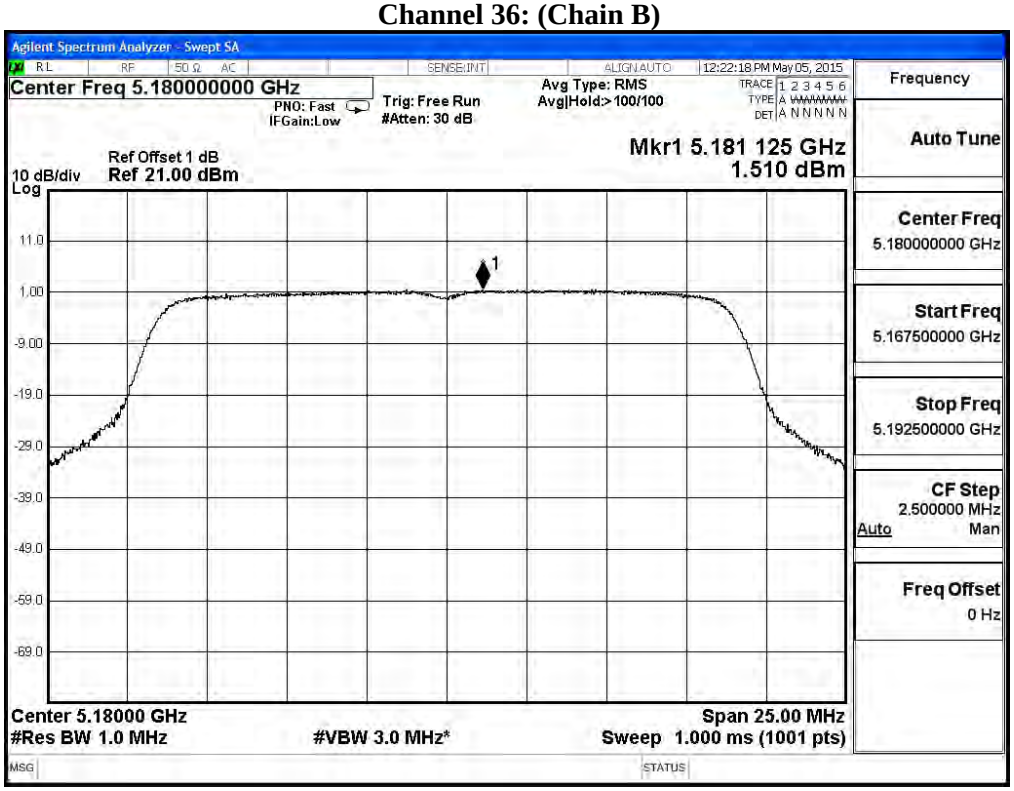
Channel 44: (Chain A)



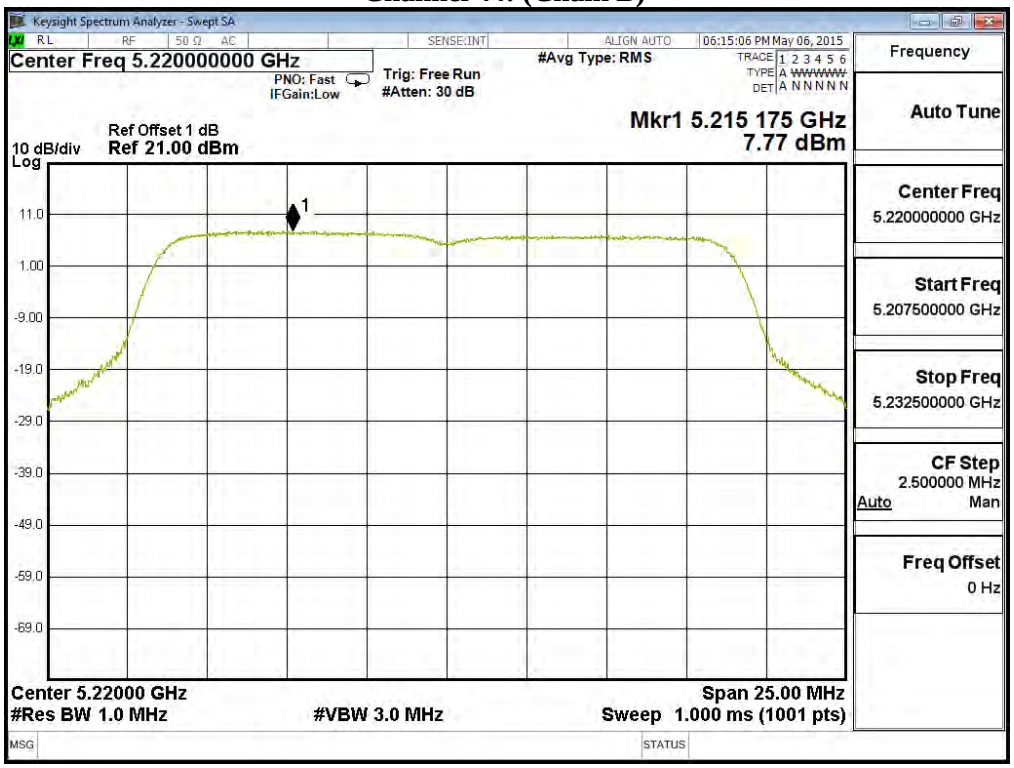
Channel 48: (Chain A)



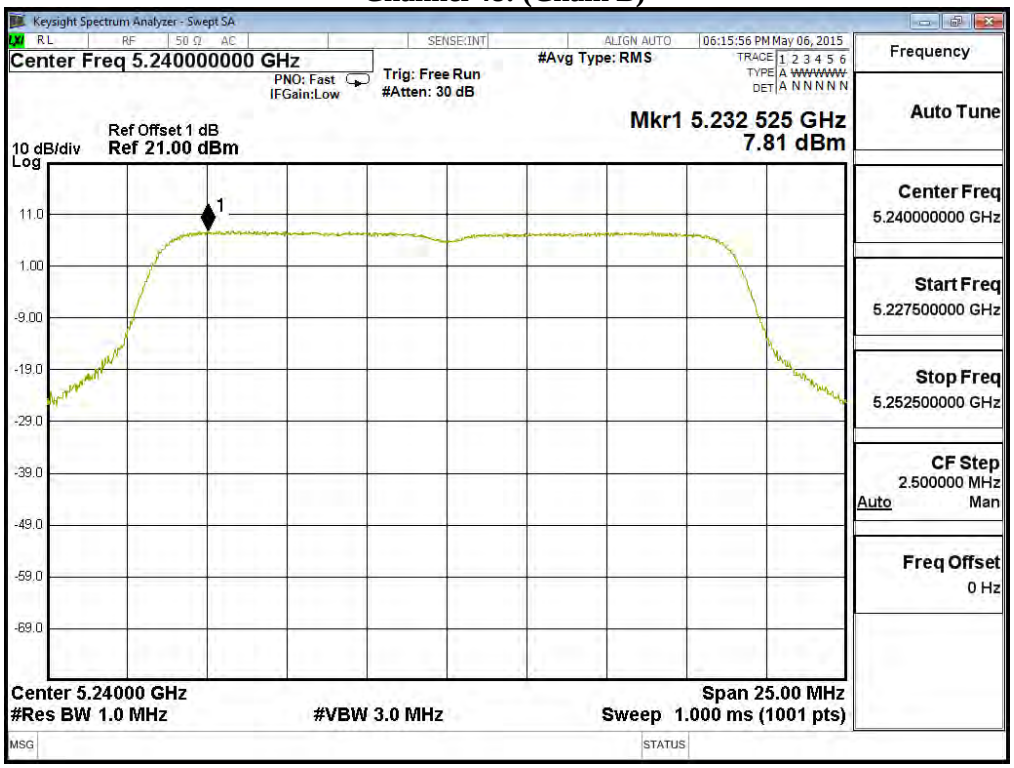
Channel 36: (Chain B)



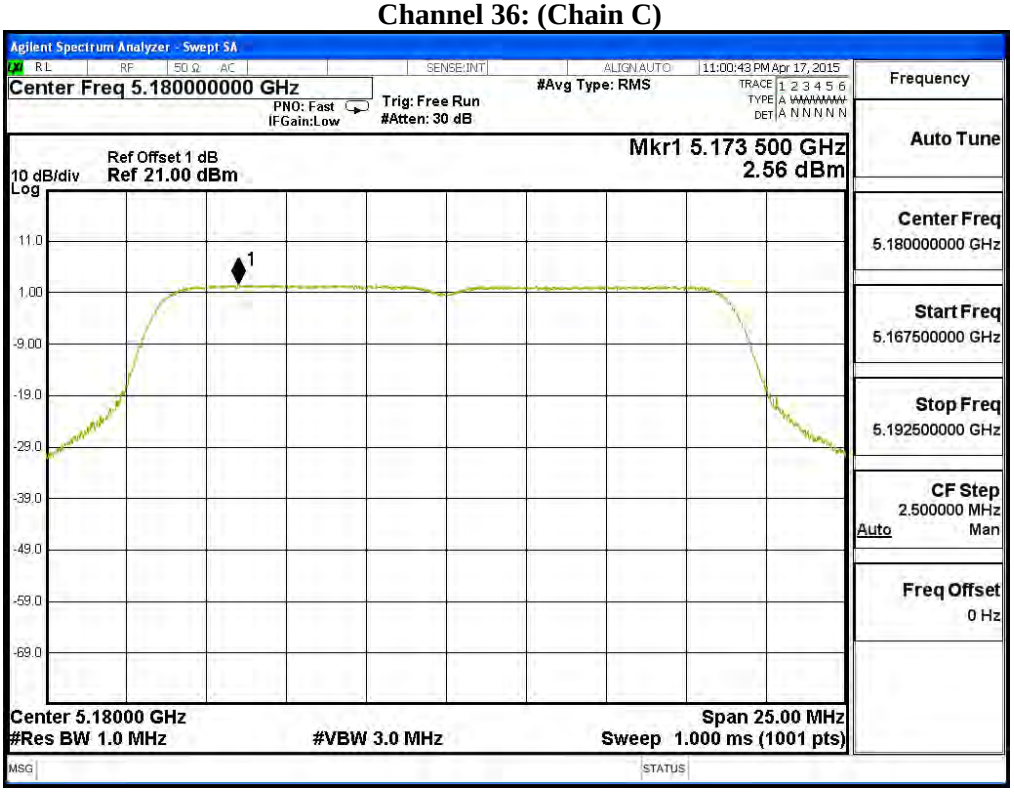
Channel 44: (Chain B)



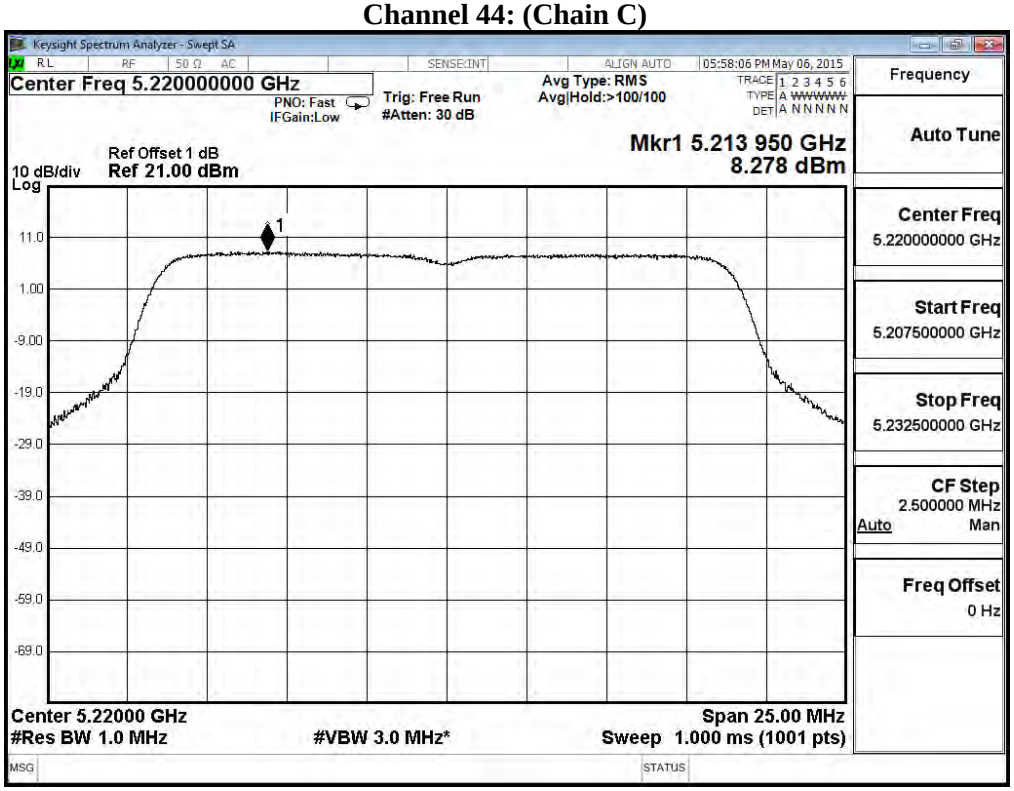
Channel 48: (Chain B)



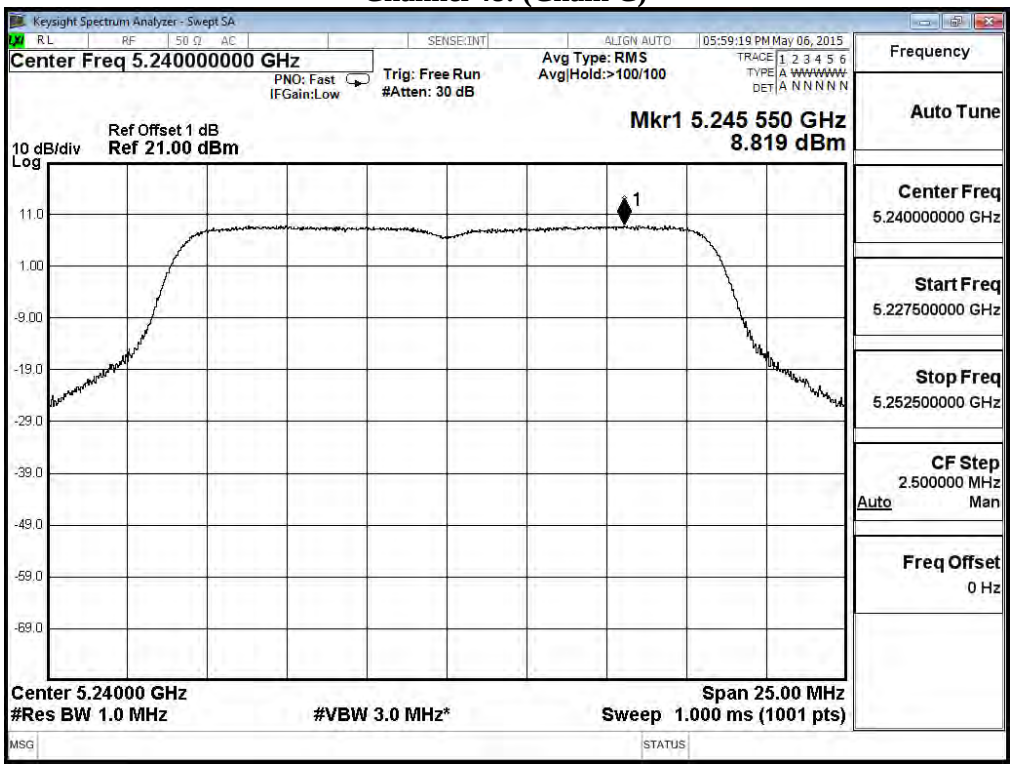
Channel 36: (Chain C)



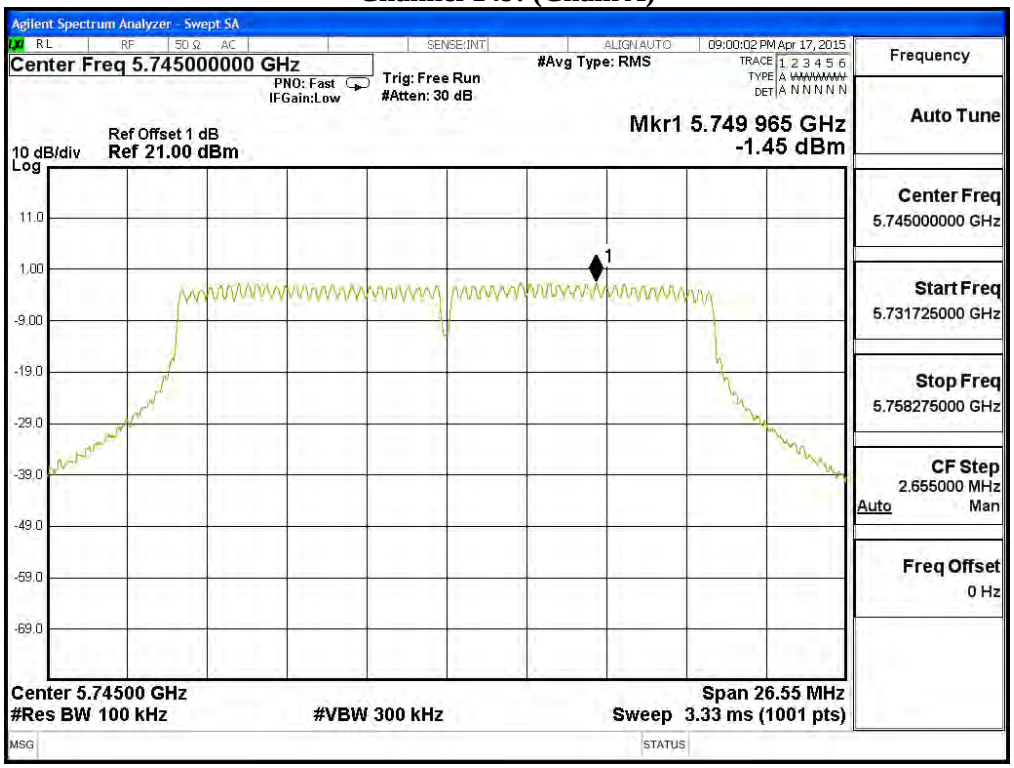
Channel 44: (Chain C)



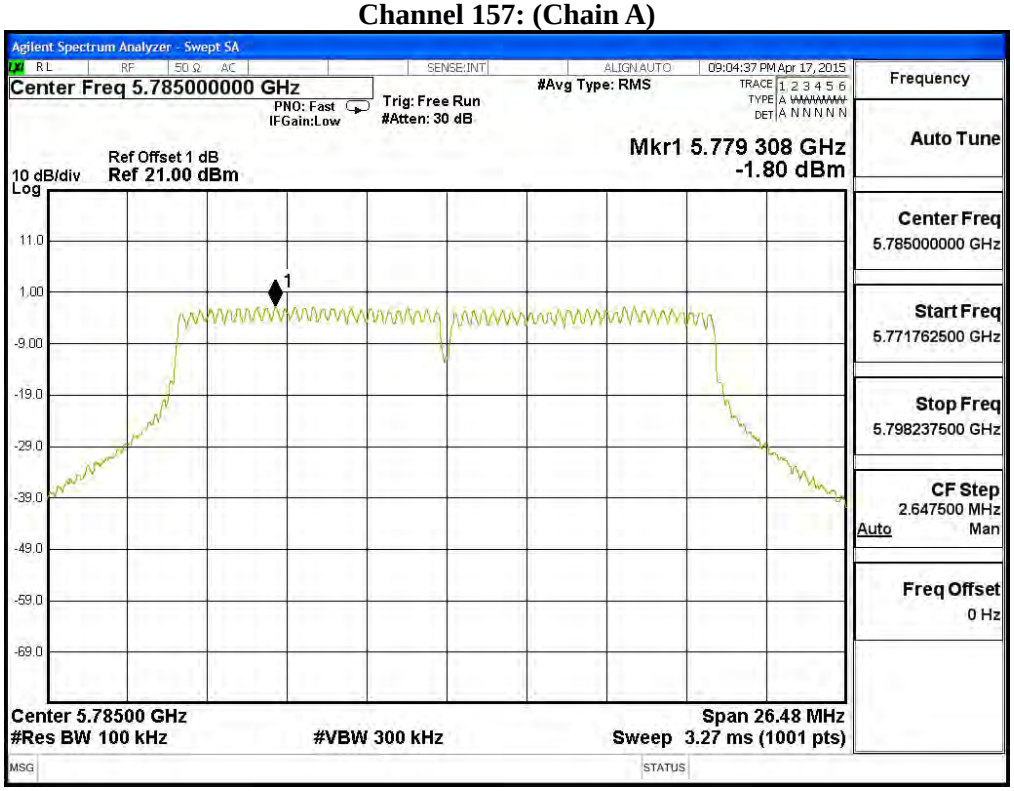
Channel 48: (Chain C)



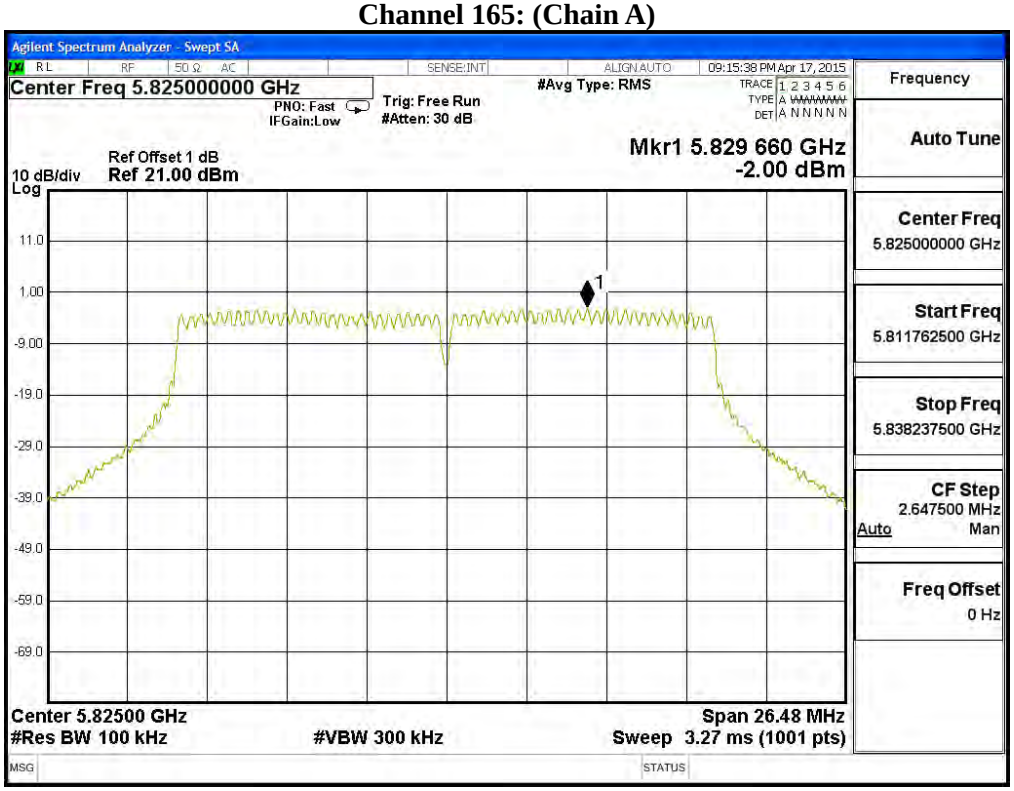
Channel 149: (Chain A)



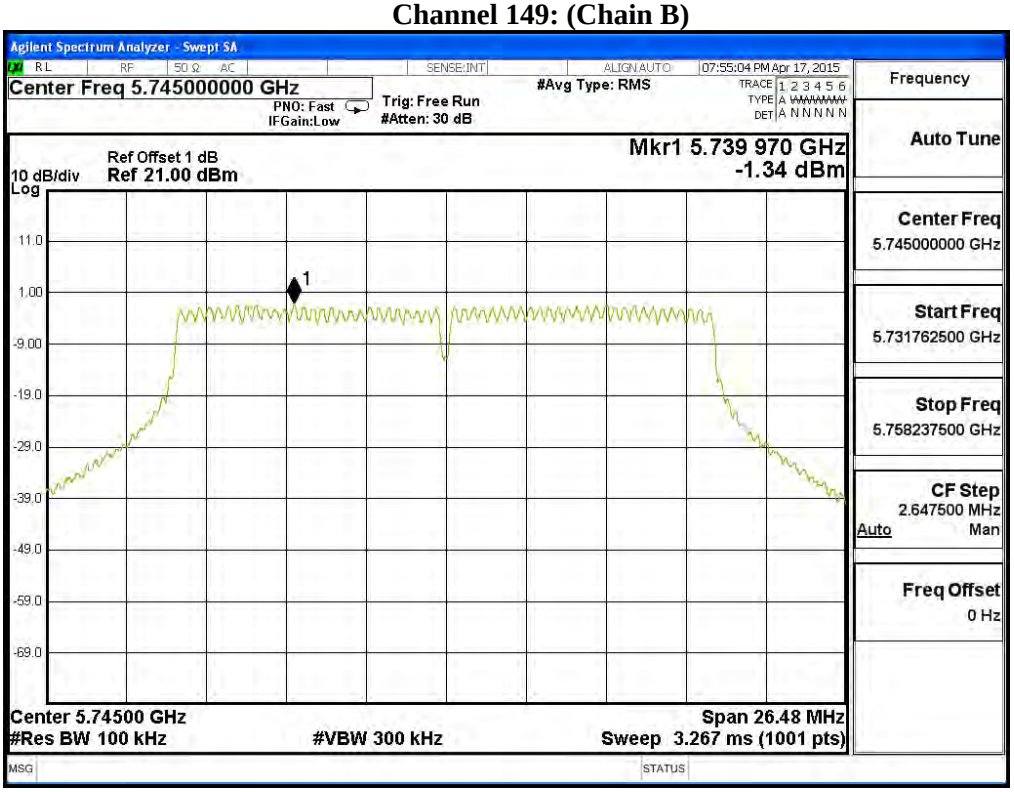
Channel 157: (Chain A)



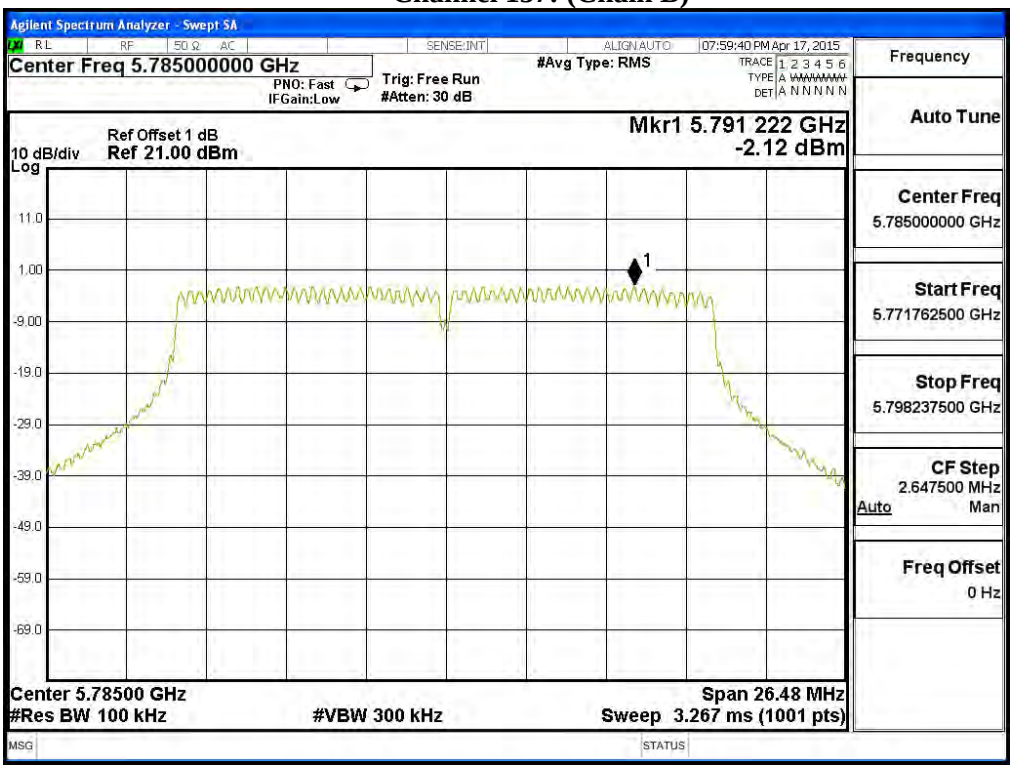
Channel 165: (Chain A)



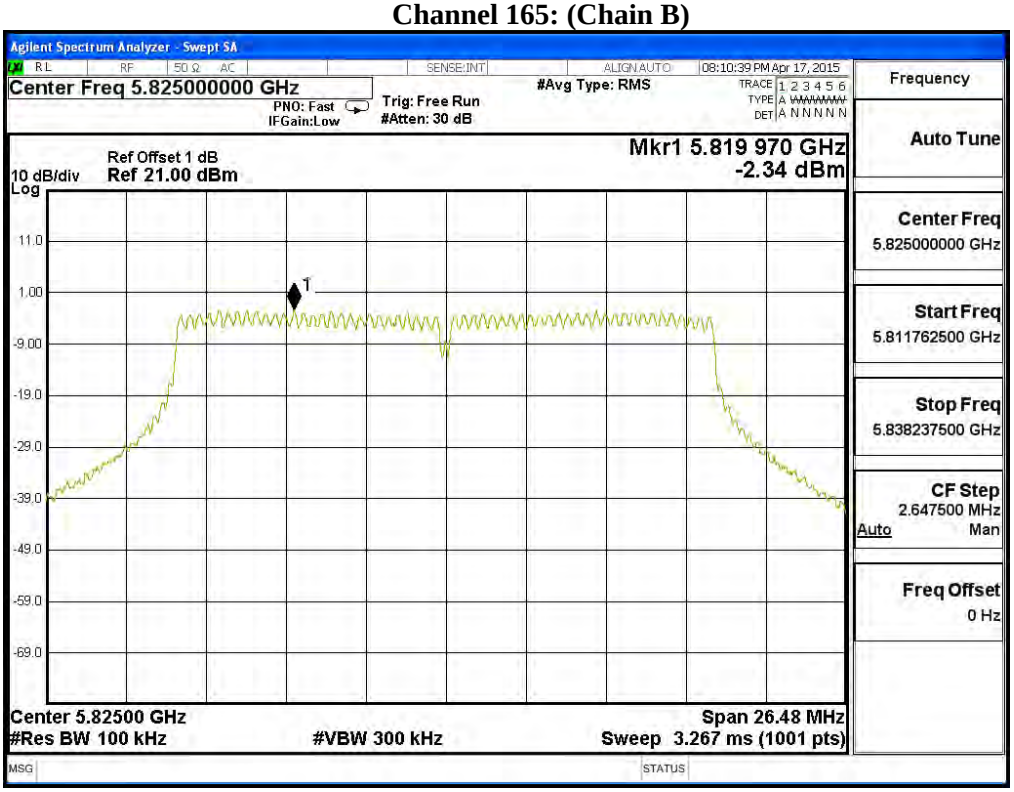
Channel 149: (Chain B)



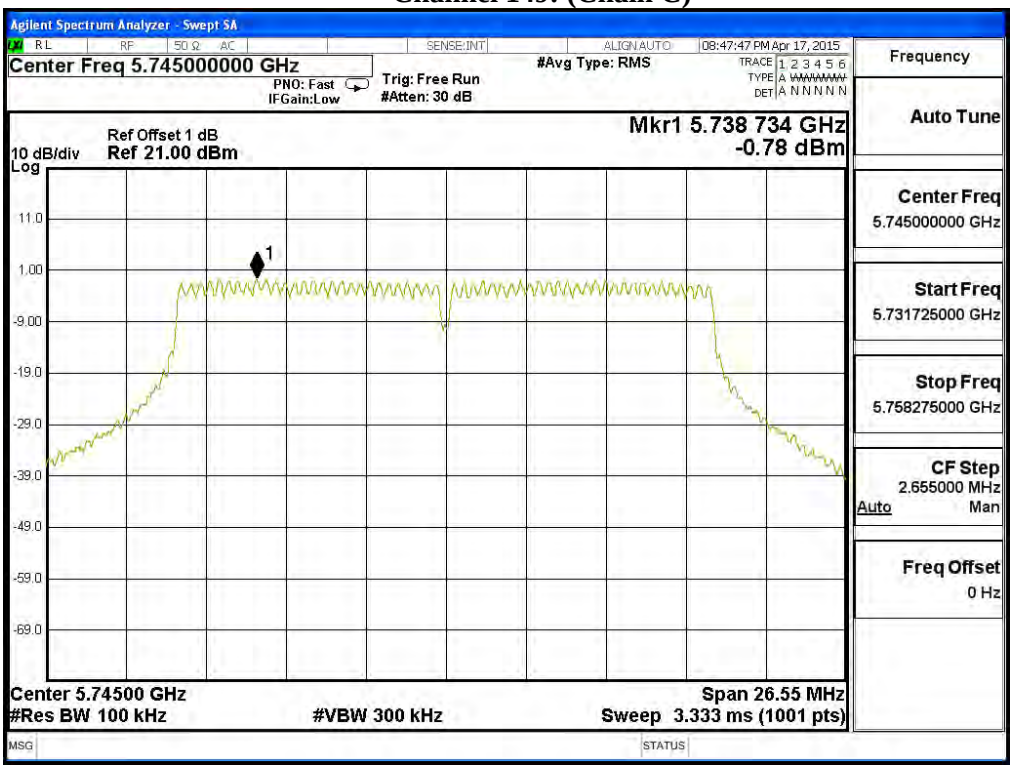
Channel 157: (Chain B)



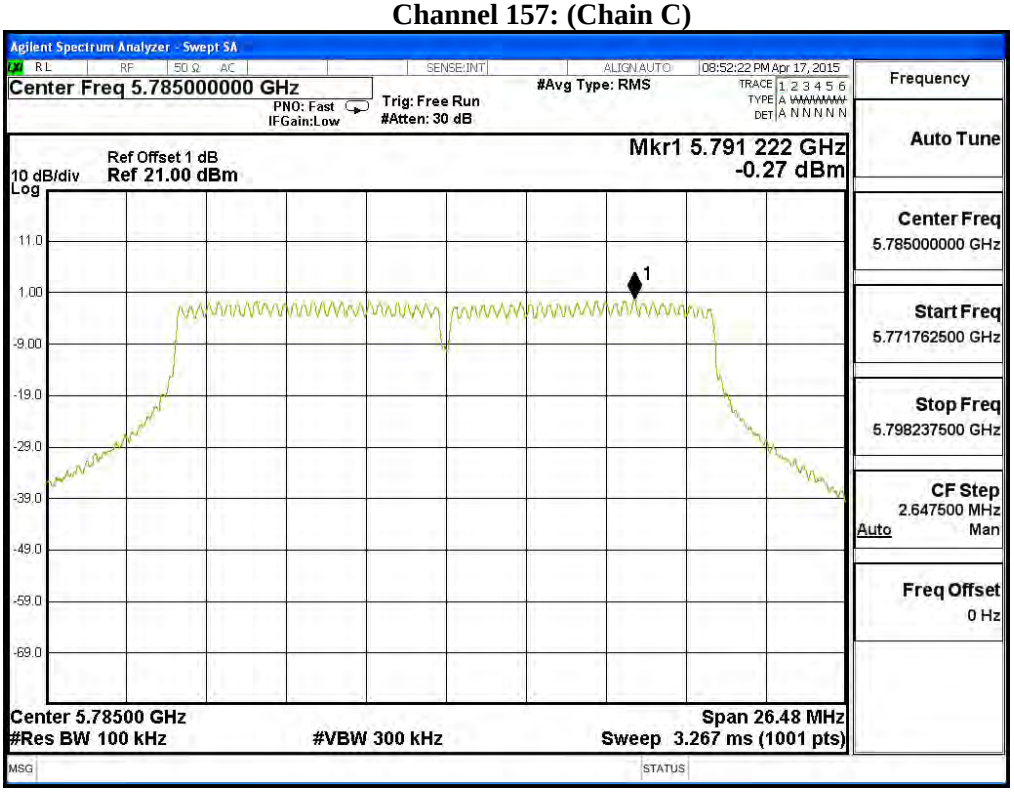
Channel 165: (Chain B)



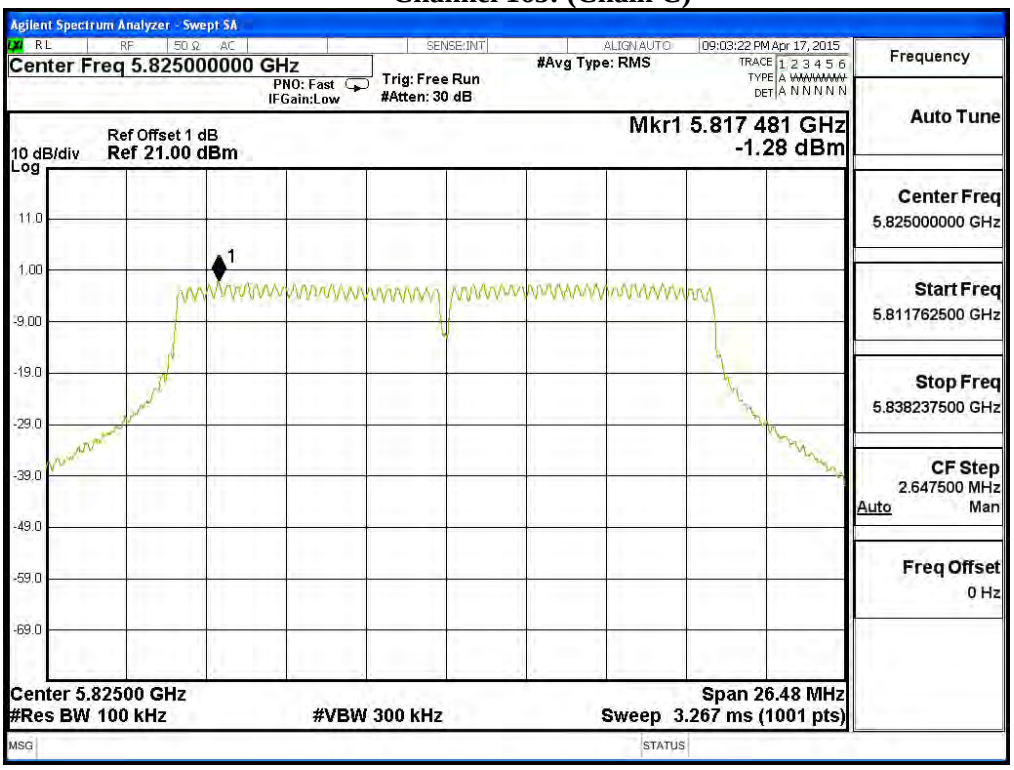
Channel 149: (Chain C)



Channel 157: (Chain C)



Channel 165: (Chain C)



Product : Access Point/Sensor
Test Item : Peak Power Spectral Density
Test Site : No.3 OATS
Test Mode : Mode 3: Transmit (802.11n-40BW 45Mbps) (Internal Antenna)

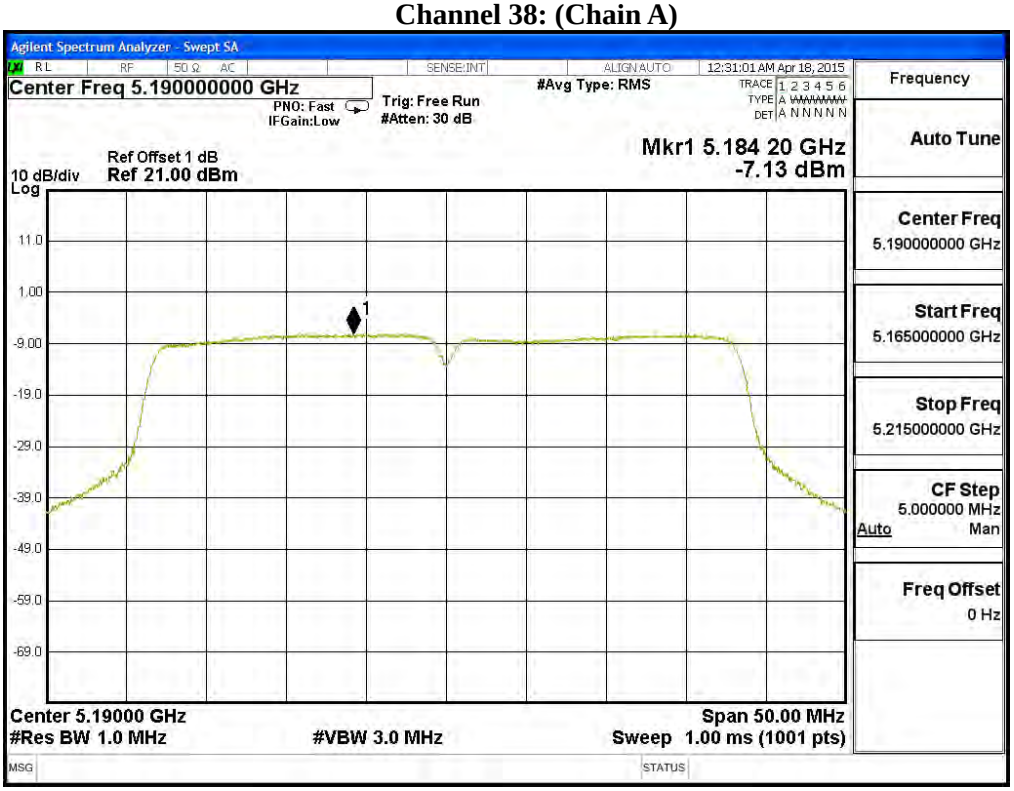
Channel Number	Frequency (MHz)	Chain	PPSD (dBm)	Total PPSD (dBm)1	Required Limit (dBm)	Result
38	5190	A	-7.130	-2.359	13.9	Pass
		B	-7.209	-2.438	13.9	Pass
		C	-5.700	-0.929	13.9	Pass
46	5230	A	6.490	11.261	13.9	Pass
		B	7.080	11.851	13.9	Pass
		C	7.840	12.611	13.9	Pass

Note 1: The quantity 10*log 3 (three antennas) is added to the spectrum peak value according to document 662911 D01.

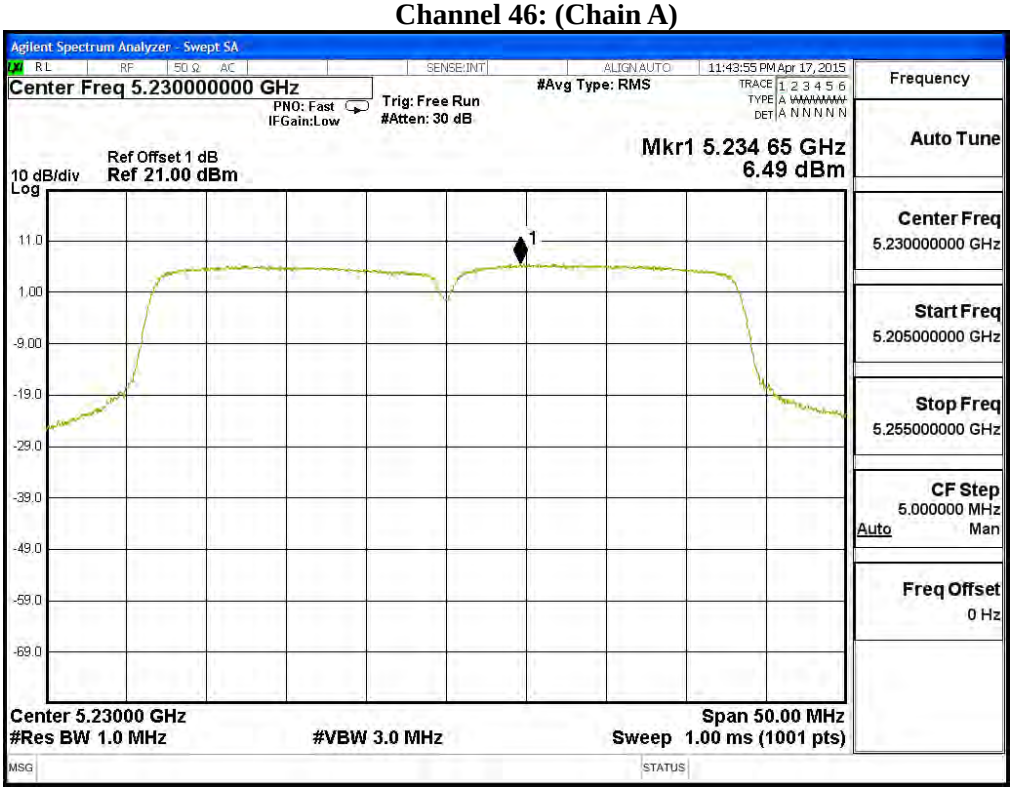
Channel Number	Frequency (MHz)	Chain	PPSD (dBm)	BWCF (dB)	Total PPSD (dBm)1	Required Limit (dBm)	Result
151	5755	A	-4.680	6.980	7.071	<25.1	Pass
		B	-4.180	6.980	7.571	<25.1	Pass
		C	-3.530	6.980	8.221	<25.1	Pass
159	5795	A	-4.980	6.980	6.771	<25.1	Pass
		B	-4.810	6.980	6.941	<25.1	Pass
		C	-3.250	6.980	8.501	<25.1	Pass

Note 1: The quantity 10*log 3 (three antennas) is added to the spectrum peak value according to document 662911 D01.

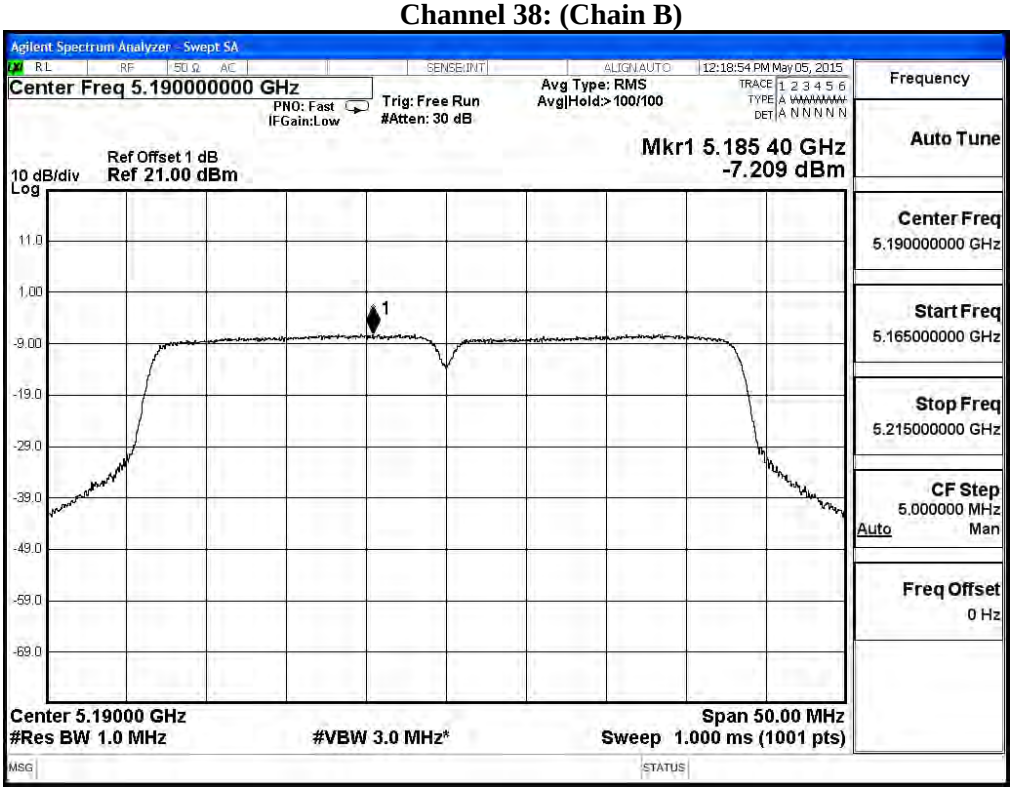
Channel 38: (Chain A)



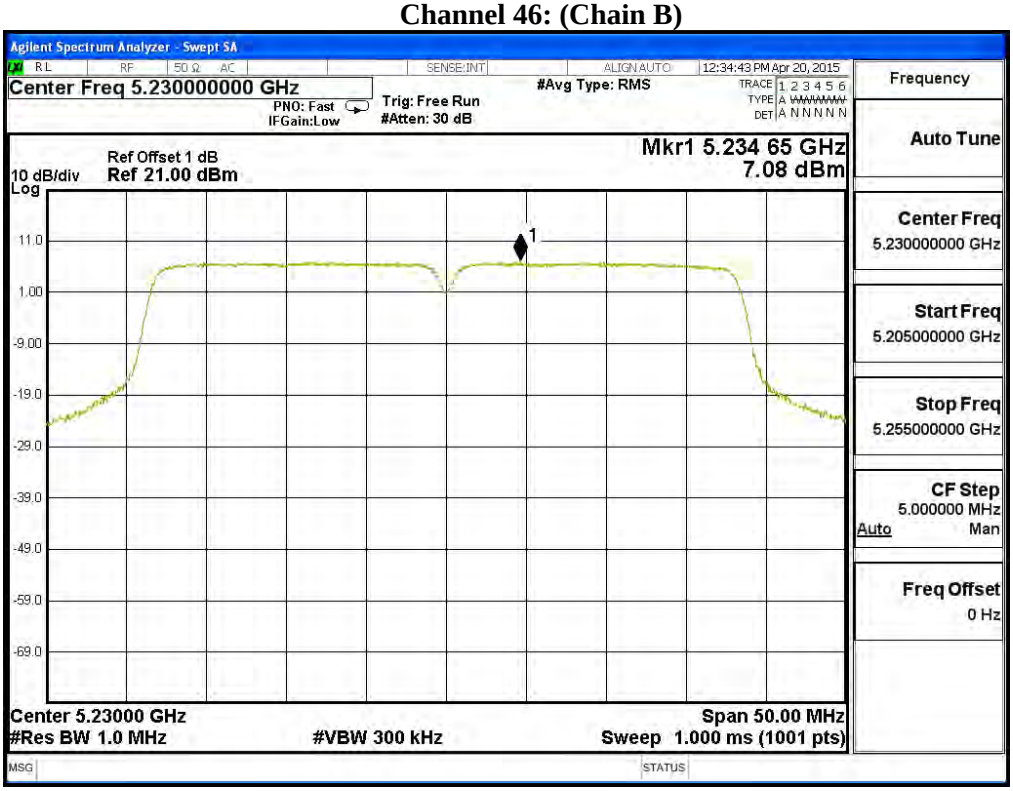
Channel 46: (Chain A)



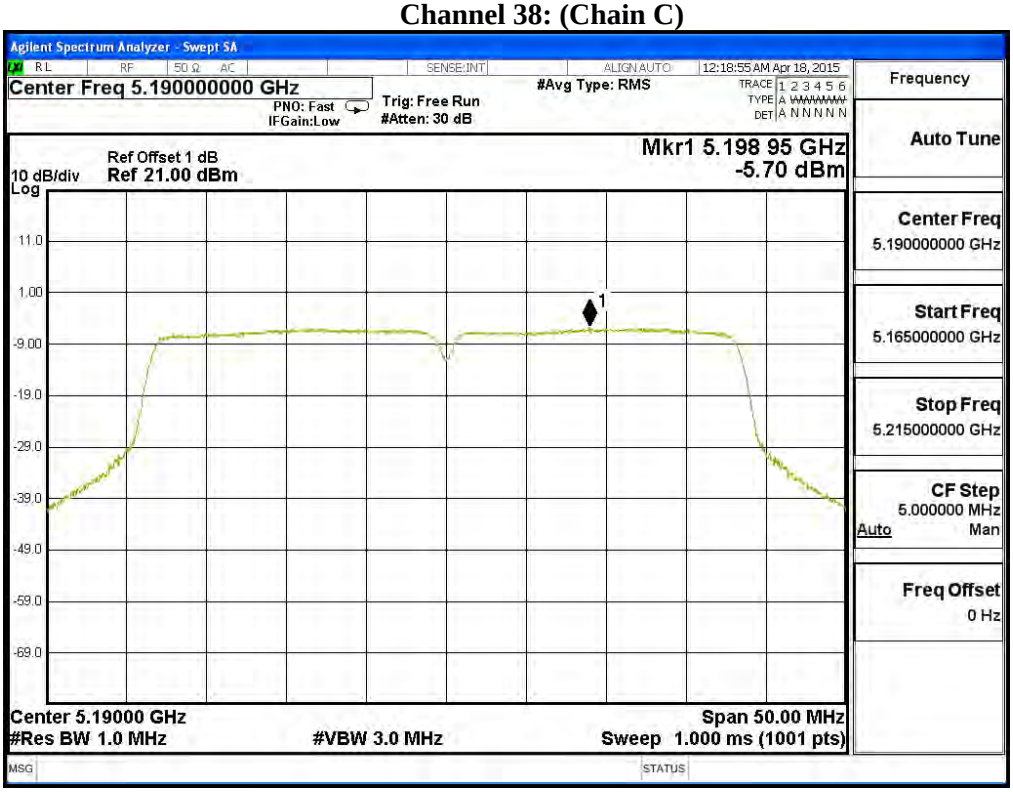
Channel 38: (Chain B)



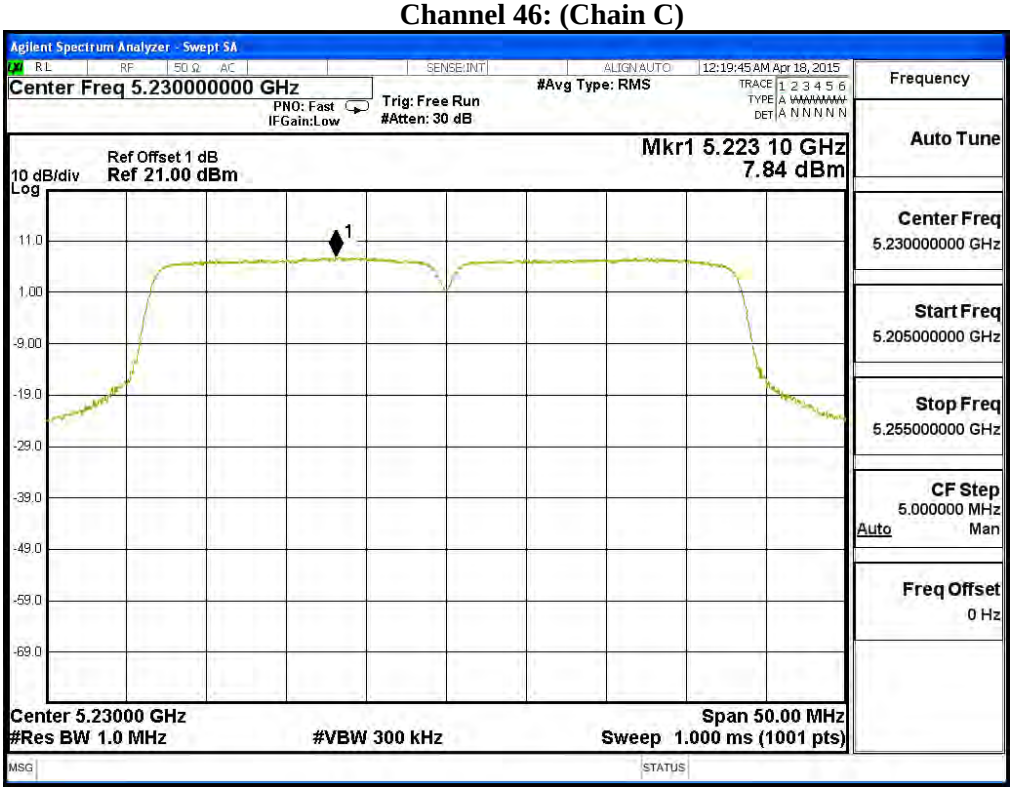
Channel 46: (Chain B)



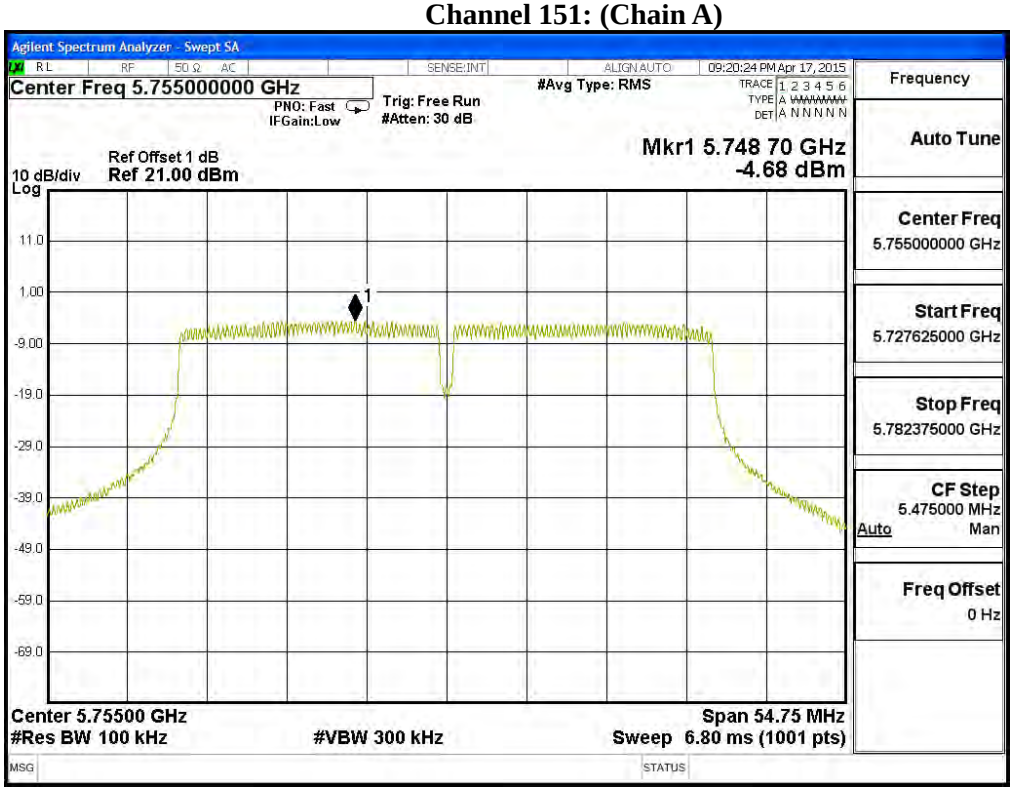
Channel 38: (Chain C)



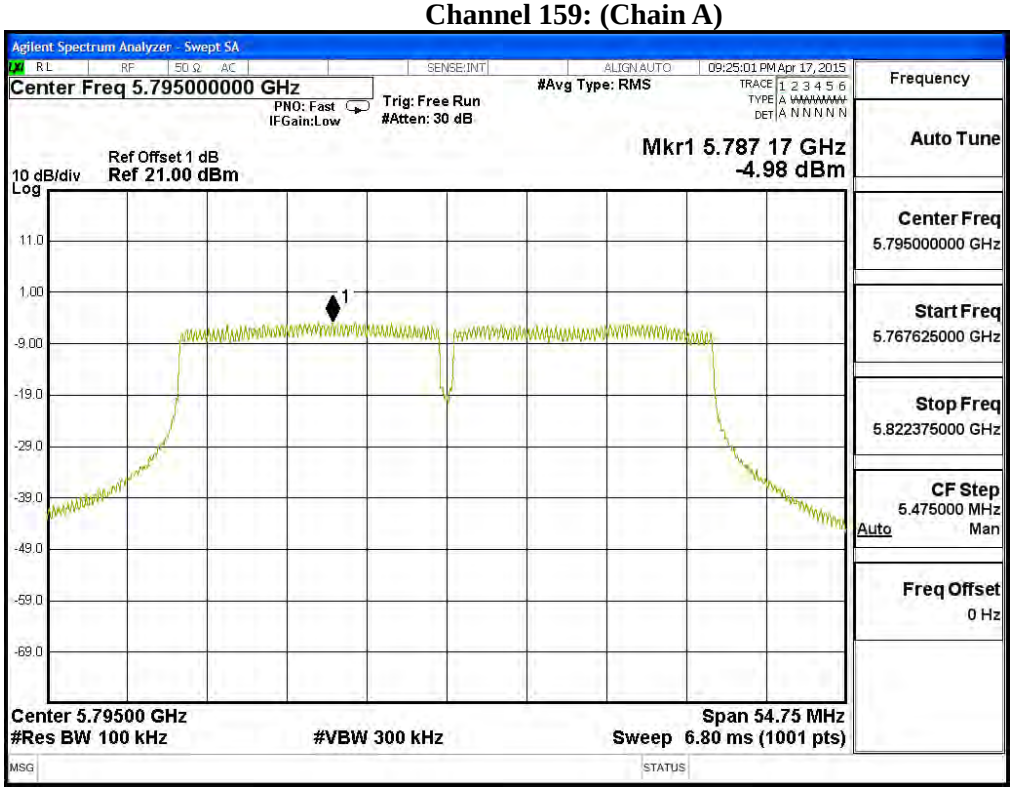
Channel 46: (Chain C)



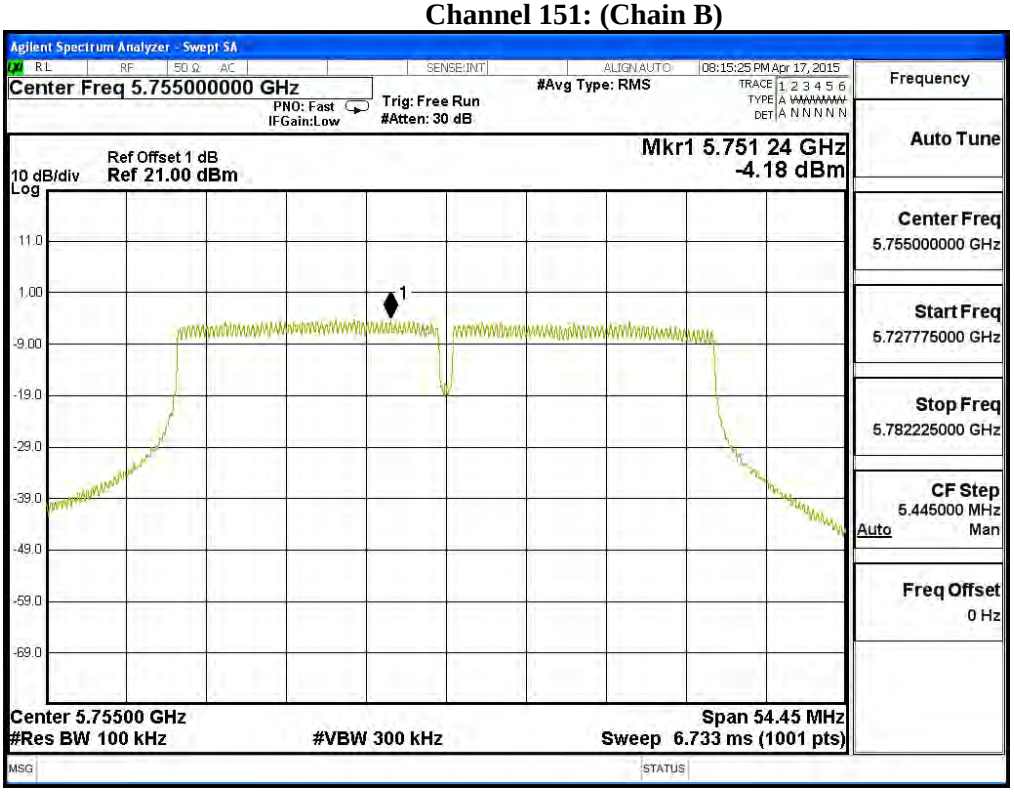
Channel 151: (Chain A)



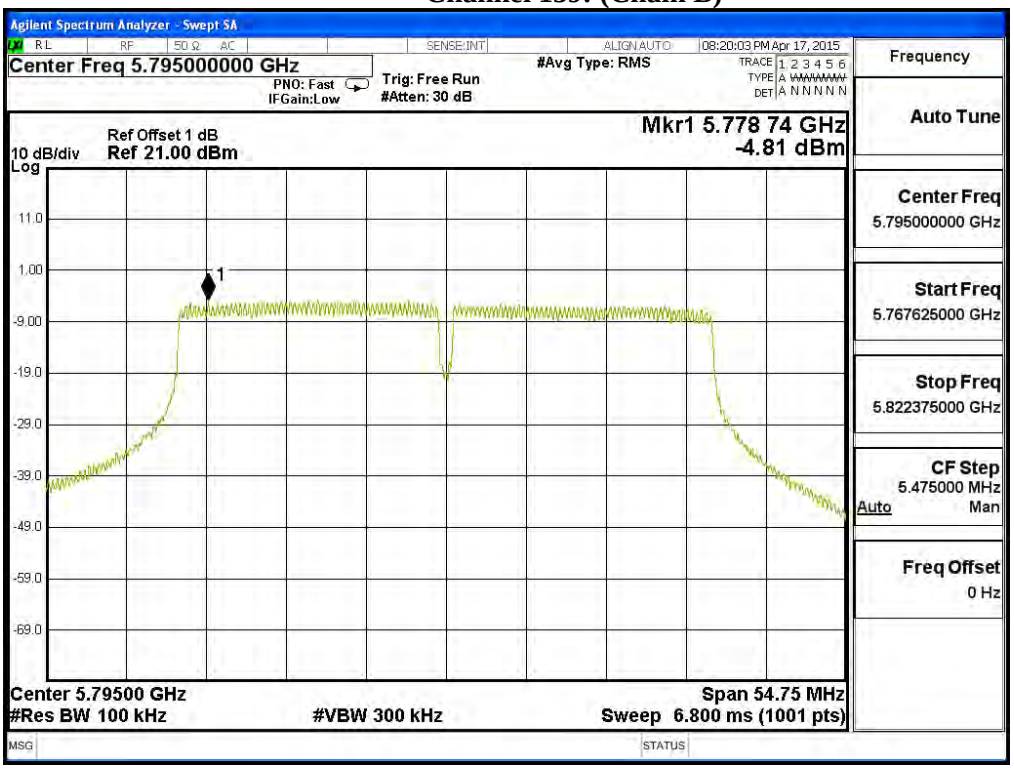
Channel 159: (Chain A)



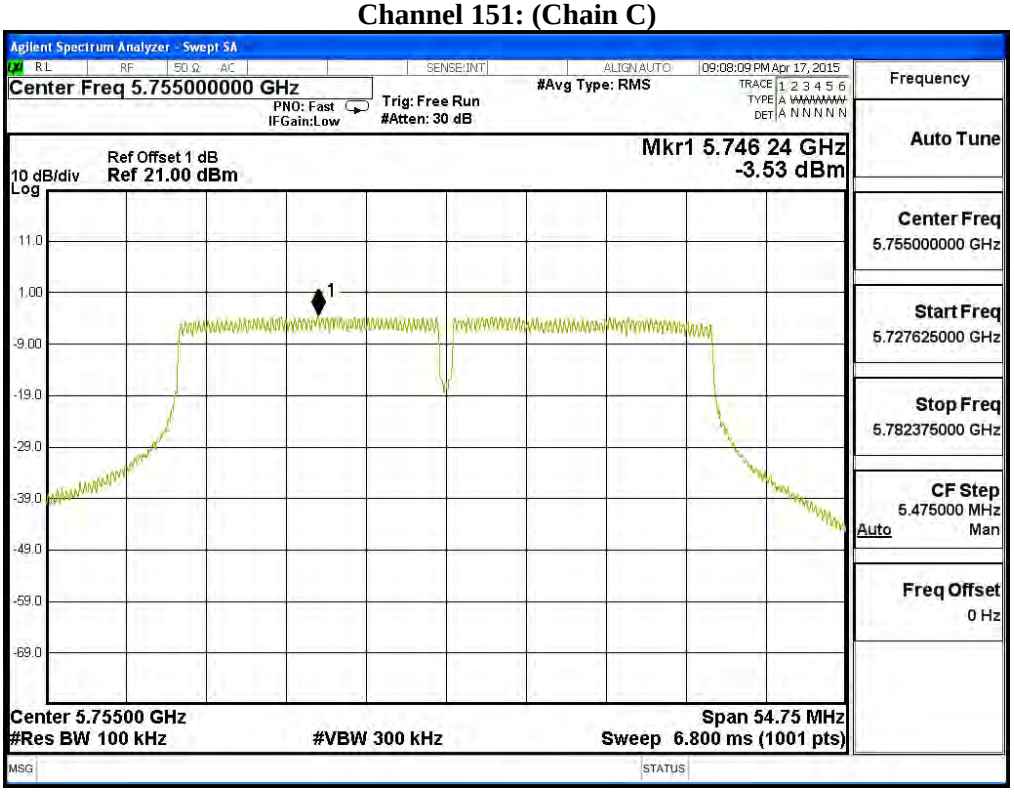
Channel 151: (Chain B)



Channel 159: (Chain B)



Channel 151: (Chain C)



Channel 159: (Chain C)

Product : Access Point/Sensor
Test Item : Peak Power Spectral Density
Test Site : No.3 OATS
Test Mode : Mode 4 Transmit (802.11ac-80BW-97.5Mbps) (Internal Antenna)

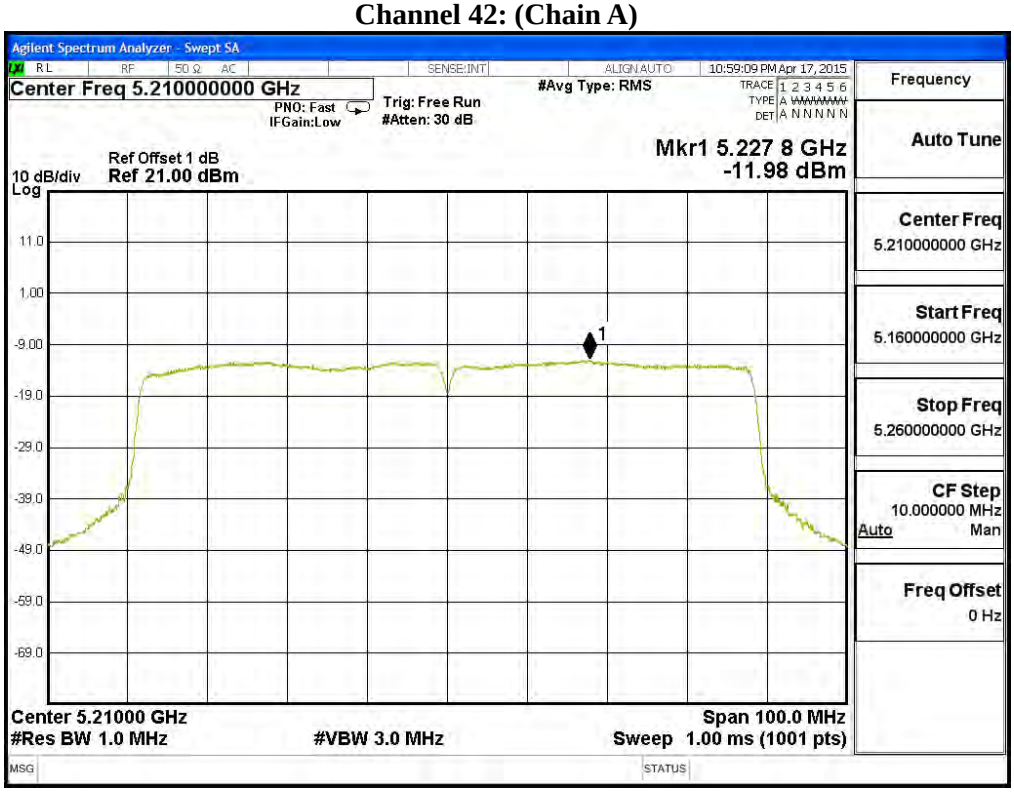
Channel Number	Frequency (MHz)	Chain	PPSD (dBm)	Total PPSD (dBm)1	Required Limit (dBm)	Result
42	5210	A	-11.980	-7.209	13.9	Pass
		B	-11.152	-6.381	13.9	Pass
		C	-10.960	-6.189	13.9	Pass

Note 1: The quantity 10*log 3 (three antennas) is added to the spectrum peak value according to document 662911 D01.

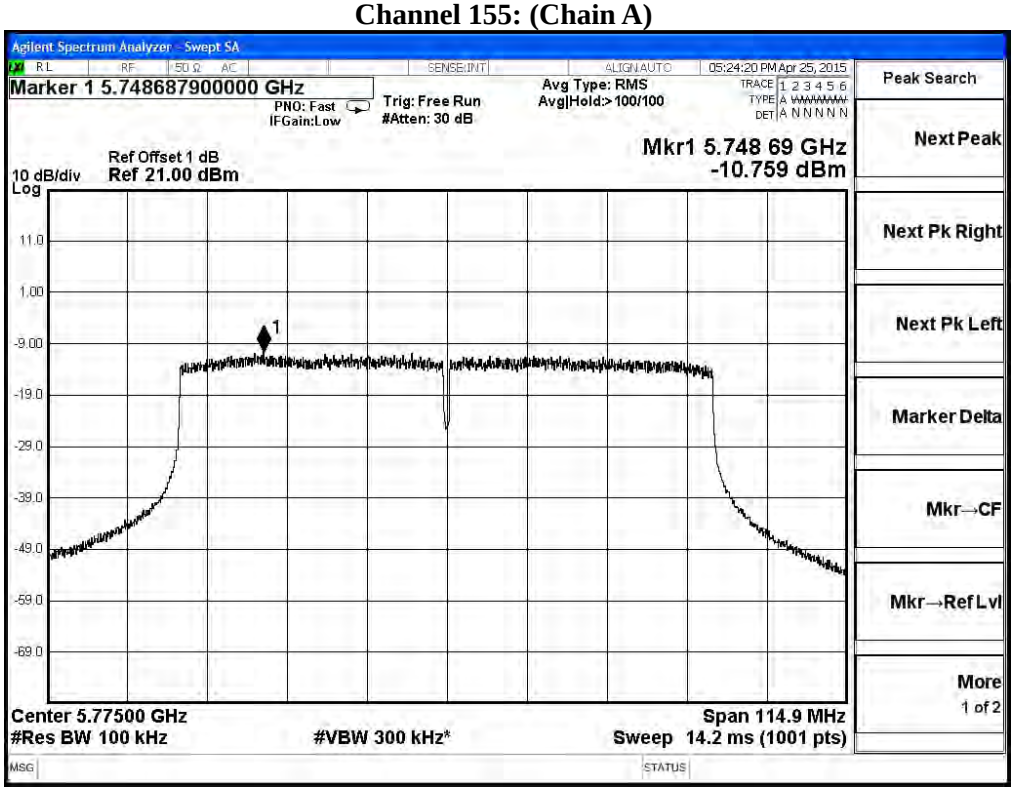
Channel Number	Frequency (MHz)	Chain	PPSD (dBm)	BWCF (dB)	Total PPSD (dBm)1	Required Limit (dBm)	Result
155	5775	A	-10.759	6.980	0.992	<25.1	Pass
		B	-9.359	6.980	2.392	<25.1	Pass
		C	-9.579	6.980	2.172	<25.1	Pass

Note 1: The quantity 10*log 3 (three antennas) is added to the spectrum peak value according to document 662911 D01.

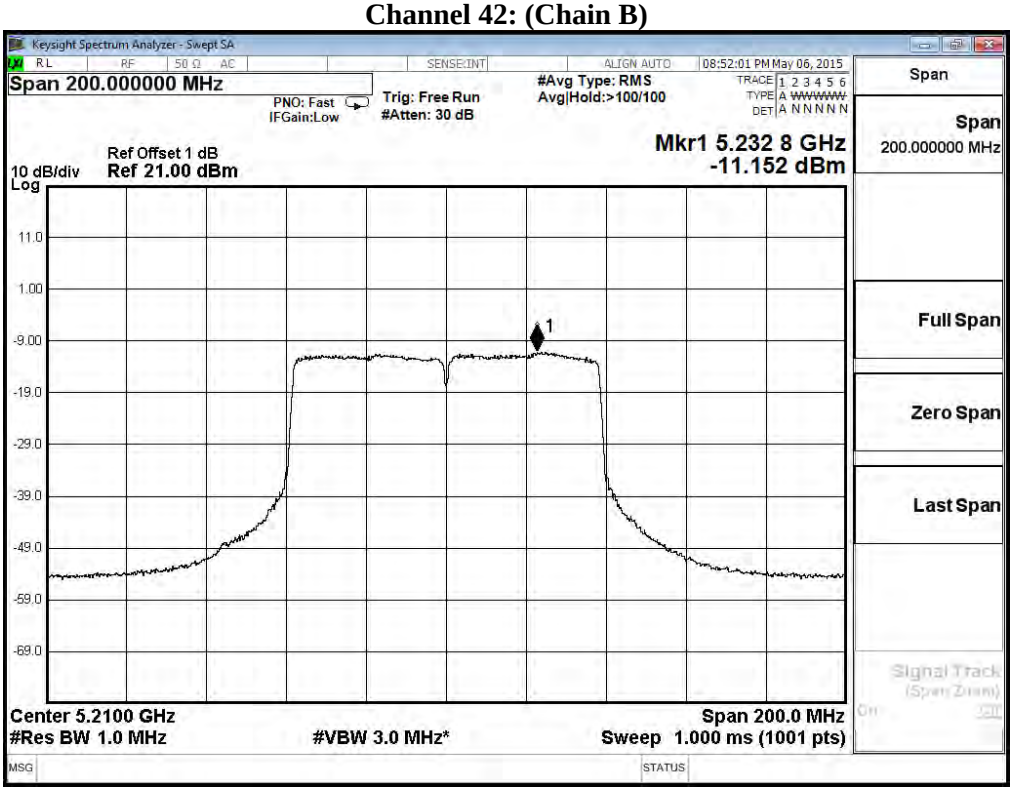
Channel 42: (Chain A)



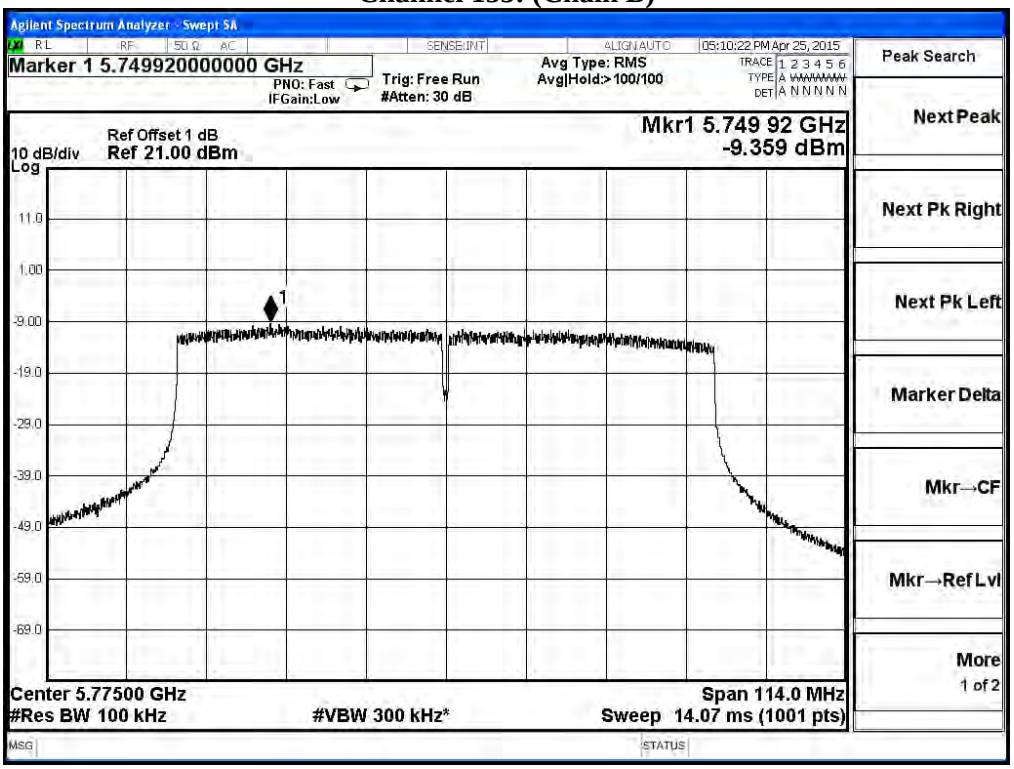
Channel 155: (Chain A)



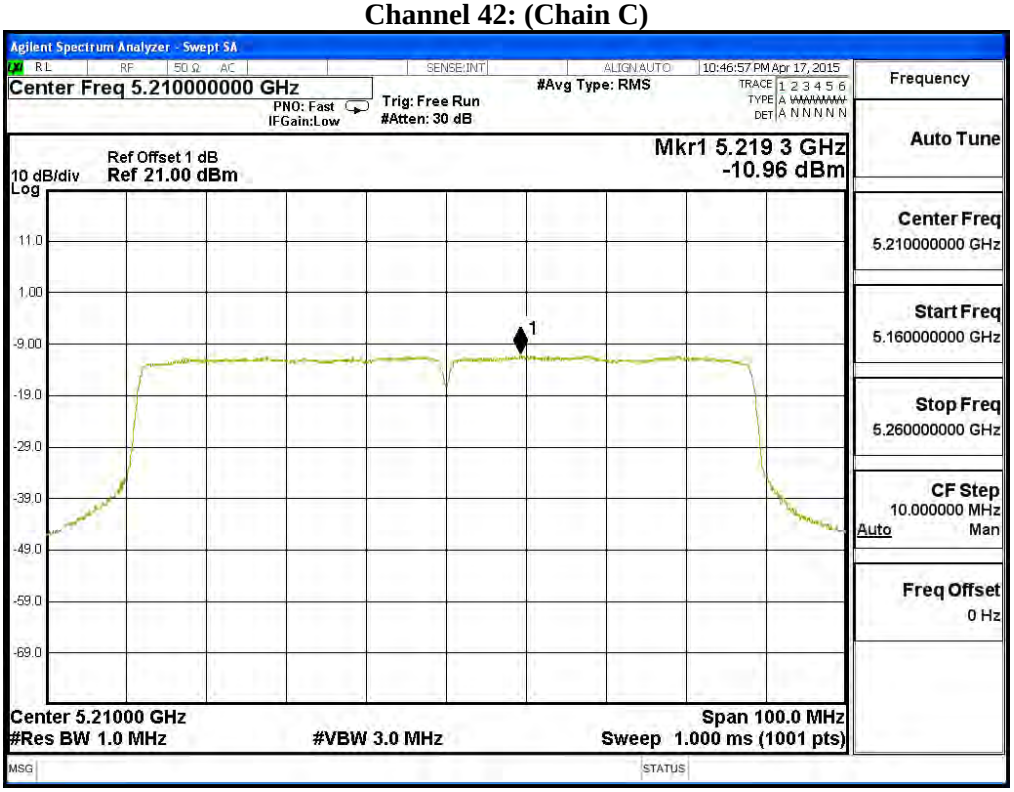
Channel 42: (Chain B)



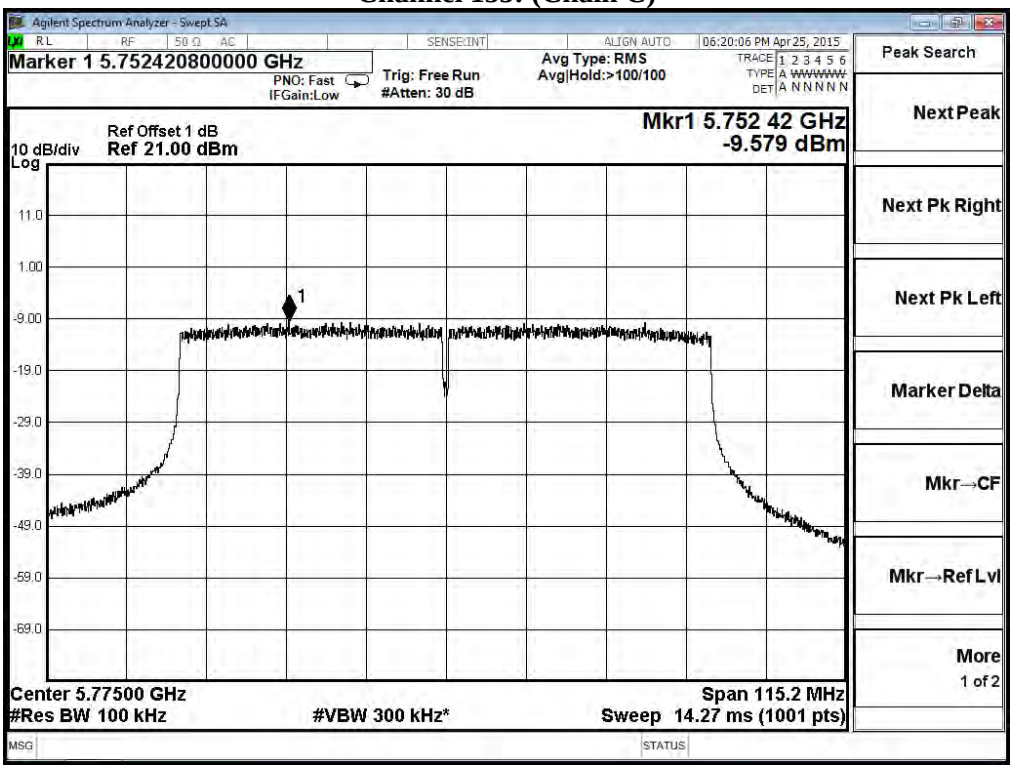
Channel 155: (Chain B)



Channel 42: (Chain C)



Channel 155: (Chain C)



5. Radiated Emission

5.1. Test Equipment

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

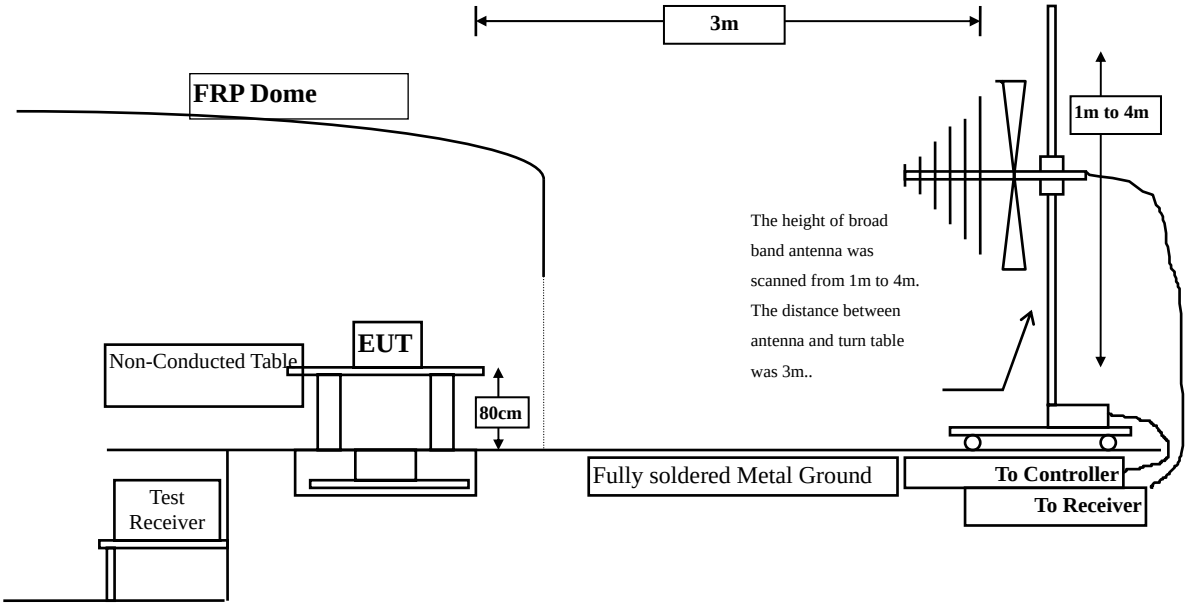
Test Site		Equipment	Manufacturer	Model No./Serial No.	Last Cal.
☒Site # 3	X	Loop Antenna	Teseq	HLA6121 / 37133	Sep., 2014
	X	Bilog Antenna	Schaffner Chase	CBL6112B/2673	Sep., 2014
	X	Horn Antenna	Schwarzbeck	BBHA9120D/D305	Sep., 2014
	X	Horn Antenna	Schwarzbeck	BBHA9170/208	Jul., 2014
	X	Pre-Amplifier	QTK	QTK-AMP-03 / 0003	May, 2015
	X	Pre-Amplifier	QTK	AP-180C / CHM_0906076	Sep., 2014
	X	Pre-Amplifier	MITEQ	AMF-4D-180400-45-6P/ 925975	Mar., 2015
	X	Spectrum Analyzer	Agilent	E4407B / US39440758	May, 2015
	X	Test Receiver	R & S	ESCS 30/ 825442/018	Sep., 2014
	X	Coaxial Cable	QuieTek	QTK-CABLE/ CAB5	Feb., 2015
	X	Controller	QuieTek	QTK-CONTROLLER/ CTRL3	N/A
	X	Coaxial Switch	Anritsu	MP59B/6200265729	N/A

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

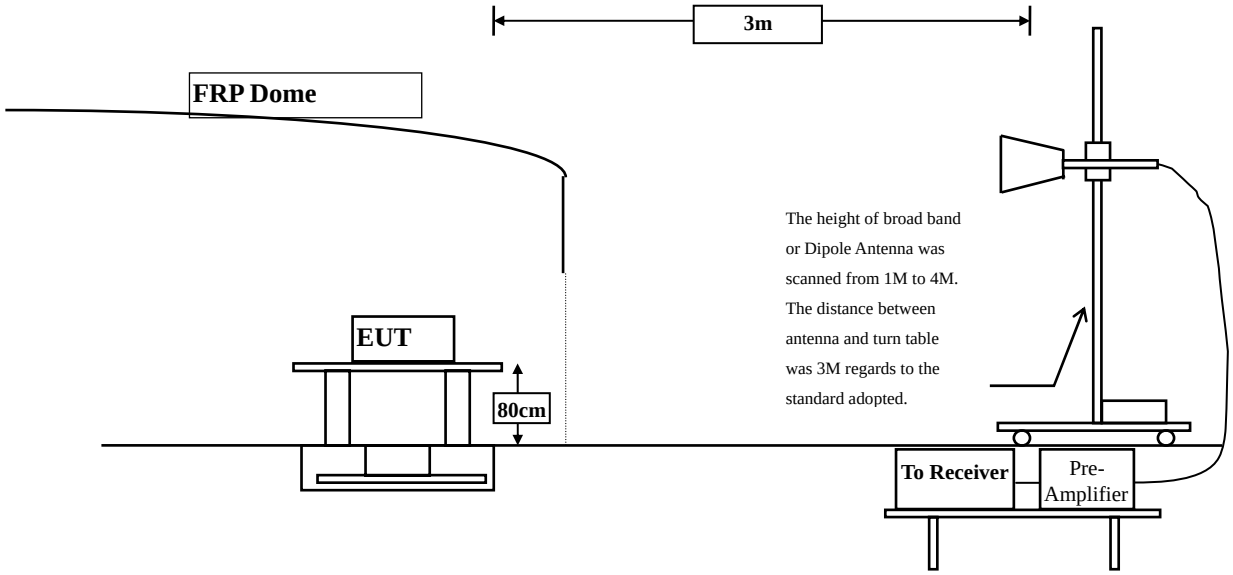
Note: 1. All equipments are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.
2. The test instruments marked with “X” are used to measure the final test results.

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, 2009 and tested according to FCC KDB-789033 test procedure for compliance to FCC 47CFR 15. 407 requirements.
The EUT is placed on a turn table which is 0.8 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 from 1 meter to 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, 2009 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 form 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 : Access Point/Sensor
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 1: Transmit (802.11a-6Mbps) (5180MHz) (External Antenna)

Frequency MHz	Correct Factor dB	Reading Level dBμV	Measurement Level dBμV/m	Margin dB	Limit dBμV/m
Horizontal					
Peak Detector:					
10360.000	10.121	42.160	52.280	-21.720	74.000
15540.000	*	*	*	*	74.000
20720.000	*	*	*	*	74.000
25900.000	*	*	*	*	74.000
31080.000	*	*	*	*	74.000
Average Detector:					
--					
Vertical					
Peak Detector:					
10360.000	10.121	42.770	52.890	-21.110	74.000
15540.000	*	*	*	*	74.000
20720.000	*	*	*	*	74.000
25900.000	*	*	*	*	74.000
31080.000	*	*	*	*	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 : Access Point/Sensor
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 1: Transmit (802.11a-6Mbps) (5220MHz) (External Antenna)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBμV	dBμV/m	dB	dBμV/m
Horizontal					
Peak Detector:					
10440.000	10.453	43.360	53.813	-20.187	74.000
15660.000	*	*	*	*	74.000
20880.000	*	*	*	*	74.000
26100.000	*	*	*	*	74.000
Average Detector:					
--					
Vertical					
Peak Detector:					
10440.000	10.453	45.670	56.123	-17.877	74.000
15660.000	*	*	*	*	74.000
20880.000	*	*	*	*	74.000
26100.000	*	*	*	*	74.000
Average Detector:					
10440.000	10.453	33.200	43.653	-10.347	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 : Access Point/Sensor
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 1: Transmit (802.11a-6Mbps) (5240MHz) (External Antenna)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBμV	dBμV/m	dB	dBμV/m
Horizontal					
Peak Detector:					
10480.000	10.433	42.000	52.433	-21.567	74.000
15720.000	*	*	*	*	74.000
20960.000	*	*	*	*	74.000
26200.000	*	*	*	*	74.000
Average					
Detector:					
--					
Vertical					
Peak Detector:					
10480.000	10.433	45.810	56.243	-17.757	74.000
15720.000	*	*	*	*	74.000
20960.000	*	*	*	*	74.000
26200.000	*	*	*	*	74.000
Average					
Detector:					
10480.000	10.433	33.200	43.633	-10.367	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 : Access Point/Sensor
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 1: Transmit (802.11a-6Mbps) (5745MHz) (External Antenna)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal Peak Detector:					
11490.000	11.533	45.100	56.633	-17.367	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	11.533	33.200	44.733	-9.267	54.000
Vertical Peak Detector:					
11490.000	11.533	45.060	56.593	-17.407	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	11.533	32.200	43.733	-10.267	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 : Access Point/Sensor
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 1: Transmit (802.11a-6Mbps) (5785MHz) (External Antenna)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector:					
11570.000	11.328	46.380	57.708	-16.292	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	11.328	33.500	44.828	-9.172	54.000
Vertical					
Peak Detector:					
11570.000	11.328	45.220	56.548	-17.452	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	11.328	33.100	44.428	-9.572	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 : Access Point/Sensor
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 1: Transmit (802.11a-6Mbps) (5825MHz) (External Antenna)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector:					
11650.000	11.537	47.000	58.538	-15.462	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	11.537	35.500	47.038	-6.962	54.000
Vertical					
Peak Detector:					
11650.000	11.537	45.620	57.158	-16.842	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	11.537	35.200	46.738	-7.262	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 : Access Point/Sensor
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 2: Transmit (802.11n-20BW 21.7Mbps) (5180MHz) (External Antenna)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBμV	dBμV/m	dB	dBμV/m
Horizontal					
Peak Detector:					
10360.000	10.121	42.130	52.250	-21.750	74.000
15540.000	*	*	*	*	74.000
20720.000	*	*	*	*	74.000
25900.000	*	*	*	*	74.000
Average Detector:					
--					
Vertical					
Peak Detector:					
10360.000	10.121	44.170	54.290	-19.710	74.000
15540.000	*	*	*	*	74.000
20720.000	*	*	*	*	74.000
25900.000	*	*	*	*	74.000
Average Detector:					
10360.000	10.121	31.000	41.120	-12.880	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 : Access Point/Sensor
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 2: Transmit (802.11n-20BW 21.7Mbps) (5220MHz) (External Antenna)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBμV	dBμV/m	dB	dBμV/m
Horizontal					
Peak Detector:					
10440.000	10.453	42.380	52.833	-21.167	74.000
15660.000	*	*	*	*	74.000
20880.000	*	*	*	*	74.000
26100.000	*	*	*	*	74.000
Average Detector:					
--					
Vertical					
Peak Detector:					
10440.000	10.453	47.080	57.533	-16.467	74.000
15660.000	*	*	*	*	74.000
20880.000	*	*	*	*	74.000
26100.000	*	*	*	*	74.000
Average Detector:					
10440.000	10.453	33.400	43.853	-10.147	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 : Access Point/Sensor
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 2: Transmit (802.11n-20BW 21.7Mbps) (5240MHz) (External Antenna)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBμV	dBμV/m	dB	dBμV/m
Horizontal					
Peak Detector:					
10480.000	10.433	41.660	52.093	-21.907	74.000
15720.000	*	*	*	*	74.000
20960.000	*	*	*	*	74.000
26200.000	*	*	*	*	74.000
Average Detector:					
--					
Vertical					
Peak Detector:					
10480.000	10.433	46.710	57.143	-16.857	74.000
15720.000	*	*	*	*	74.000
20960.000	*	*	*	*	74.000
26200.000	*	*	*	*	74.000
Average Detector:					
10480.000	10.433	32.800	43.233	-10.767	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 : Access Point/Sensor
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 2: Transmit (802.11n-20BW 21.7Mbps) (5745MHz) (External Antenna)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector:					
11490.000	11.533	45.360	56.893	-17.107	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	11.533	31.400	42.933	-11.067	54.000
Vertical					
Peak Detector:					
11490.000	11.533	44.730	56.263	-17.737	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	11.533	31.300	42.833	-11.167	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 : Access Point/Sensor
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 2: Transmit (802.11n-20BW 21.7Mbps) (5785MHz) (External Antenna)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector:					
11570.000	11.328	49.750	61.078	-12.922	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	11.328	34.900	46.228	-7.772	54.000
Vertical					
Peak Detector:					
11570.000	11.328	47.360	58.688	-15.312	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	11.328	31.500	42.828	-11.172	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 : Access Point/Sensor
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 2: Transmit (802.11n-20BW 21.7Mbps) (5825MHz) (External Antenna)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector:					
11650.000	11.537	50.600	62.138	-11.862	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	11.537	35.600	47.138	-6.862	54.000
Vertical					
Peak Detector:					
11650.000	11.537	44.750	56.288	-17.712	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	11.537	31.400	42.938	-11.062	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 : Access Point/Sensor
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 3: Transmit (802.11n-40BW 45Mbps) (5190MHz) (External Antenna)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBμV	dBμV/m	dB	dBμV/m
Horizontal					
Peak Detector:					
10380.000	10.075	41.640	51.715	-22.285	74.000
15570.000	*	*	*	*	74.000
20760.000	*	*	*	*	74.000
25950.000	*	*	*	*	74.000
Average Detector:					
--					
Vertical					
Peak Detector:					
10380.000	10.075	41.760	51.835	-22.165	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 : Access Point/Sensor
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 3: Transmit (802.11n-40BW 45Mbps) (5230MHz) (External Antenna)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBμV	dBμV/m	dB	dBμV/m
Horizontal					
Peak Detector:					
10460.000	10.471	42.240	52.711	-21.289	74.000
15690.000	*	*	*	*	74.000
20920.000	*	*	*	*	74.000
26150.000	*	*	*	*	74.000
Average Detector:					
--					
Vertical					
Peak Detector:					
10460.000	10.471	44.750	55.221	-18.779	74.000
15690.000	*	*	*	*	74.000
20920.000	*	*	*	*	74.000
26150.000	*	*	*	*	74.000
Average Detector:					
10460.000	10.471	33.100	43.571	-10.429	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 : Access Point/Sensor
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 3: Transmit (802.11n-40BW 45Mbps) (5755MHz) (External Antenna)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector:					
11510.000	12.020	45.930	57.951	-16.049	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	12.020	32.600	44.621	-9.379	54.000
Vertical					
Peak Detector:					
11510.000	12.020	44.070	56.091	-17.909	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	12.020	30.700	42.721	-11.279	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 : Access Point/Sensor
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 3: Transmit (802.11n-40BW 45Mbps) (5795MHz) (External Antenna)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector:					
11590.000	11.577	47.080	58.658	-15.342	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	11.577	33.500	45.078	-8.922	54.000
Vertical					
Peak Detector:					
11590.000	11.577	43.460	55.038	-18.962	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	11.577	30.600	42.178	-11.822	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 : Access Point/Sensor
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 4 Transmit (802.11ac-80BW-97.5Mbps) (5210MHz) (External Antenna)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal Peak Detector:					
10420.000	10.557	41.720	52.276	-21.724	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	10.557	41.460	52.016	-21.984	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:					
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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 : Access Point/Sensor
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 4 Transmit (802.11ac-80BW-97.5Mbps) (5775MHz) (External Antenna)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector:					
11550.000	11.362	41.870	53.232	-20.768	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	11.362	41.510	52.872	-21.128	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 : Access Point/Sensor
Test Item : General Radiated Emission
Test Site : No.3 OATS
Test Mode : Mode 1: Transmit (802.11a-6Mbps) (5220MHz) (External Antenna)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBμV	dBμV/m	dB	dBμV/m
Horizontal					
Peak Detector					
169.680	-9.726	47.977	38.251	-5.249	43.500
309.360	-4.463	42.588	38.125	-7.875	46.000
431.580	0.757	38.602	39.359	-6.641	46.000
549.920	3.662	37.990	41.651	-4.349	46.000
722.580	3.823	37.189	41.012	-4.988	46.000
910.760	6.484	34.046	40.530	-5.470	46.000
Vertical					
Peak Detector					
181.320	-1.910	40.940	39.030	-4.470	43.500
344.280	-0.584	41.191	40.607	-5.393	46.000
472.320	-3.508	40.050	36.542	-9.458	46.000
600.360	1.302	38.821	40.123	-5.877	46.000
778.840	2.580	36.610	39.190	-6.810	46.000
926.280	3.342	37.470	40.812	-5.188	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 : Access Point/Sensor
Test Item : General Radiated Emission
Test Site : No.3 OATS
Test Mode : Mode 2: Transmit (802.11n-20BW 21.7Mbps) (5785MHz) (External Antenna)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBμV	dBμV/m	dB	dBμV/m
Horizontal					
Peak Detector					
179.380	-11.904	50.523	38.619	-4.881	43.500
328.760	-4.477	42.384	37.907	-8.093	46.000
462.620	3.589	36.897	40.486	-5.514	46.000
615.880	2.813	36.151	38.964	-7.036	46.000
776.900	5.167	35.285	40.452	-5.548	46.000
928.220	7.230	33.708	40.938	-5.062	46.000
Vertical					
Peak Detector					
177.440	-1.248	40.089	38.841	-4.659	43.500
363.680	0.079	37.712	37.791	-8.209	46.000
546.040	0.956	39.198	40.154	-5.846	46.000
683.780	2.011	37.657	39.668	-6.332	46.000
798.240	2.629	38.422	41.050	-4.950	46.000
922.400	3.200	36.178	39.378	-6.622	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 : Access Point/Sensor
Test Item : General Radiated Emission
Test Site : No.3 OATS
Test Mode : Mode 2: Transmit (802.11n-20BW 21.7Mbps) (5220MHz) (External Antenna)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBμV	dBμV/m	dB	dBμV/m
Horizontal					
Peak Detector					
159.980	-10.030	47.964	37.933	-5.567	43.500
305.480	-3.836	42.891	39.055	-6.945	46.000
450.980	0.835	40.318	41.153	-4.847	46.000
594.540	3.555	37.345	40.900	-5.100	46.000
745.860	3.906	36.715	40.621	-5.379	46.000
930.160	7.530	33.239	40.769	-5.231	46.000
Vertical					
Peak Detector					
179.380	-0.824	40.814	39.990	-3.510	43.500
309.360	-4.043	44.540	40.497	-5.503	46.000
503.360	-0.086	40.430	40.344	-5.656	46.000
639.160	-1.374	41.944	40.570	-5.430	46.000
794.360	2.657	37.494	40.151	-5.849	46.000
943.740	3.383	35.946	39.329	-6.671	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 : Access Point/Sensor
Test Item : General Radiated Emission
Test Site : No.3 OATS
Test Mode : Mode 2: Transmit (802.11n-20BW 21.7Mbps) (5785MHz) (External Antenna)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBμV	dBμV/m	dB	dBμV/m
Horizontal					
Peak Detector					
165.800	-9.915	48.409	38.494	-5.006	43.500
309.360	-4.463	44.575	40.112	-5.888	46.000
462.620	3.589	36.453	40.042	-5.958	46.000
612.000	3.403	37.110	40.512	-5.488	46.000
757.500	5.107	34.532	39.639	-6.361	46.000
912.700	6.450	33.084	39.534	-6.466	46.000
Vertical					
Peak Detector					
179.380	-0.824	39.849	39.025	-4.475	43.500
367.560	-0.088	40.615	40.526	-5.474	46.000
491.720	-2.059	41.449	39.390	-6.610	46.000
612.000	1.943	38.961	40.903	-5.097	46.000
790.480	2.693	37.629	40.322	-5.678	46.000
967.020	3.889	41.549	45.438	-8.562	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 : Access Point/Sensor
Test Item : General Radiated Emission
Test Site : No.3 OATS
Test Mode : Mode 3: Transmit (802.11n-40BW 45Mbps) (5230MHz) (External Antenna)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBμV	dBμV/m	dB	dBμV/m
Horizontal					
Peak Detector					
229.820	-8.001	48.338	40.337	-5.663	46.000
408.300	0.235	38.498	38.733	-7.267	46.000
538.280	3.316	37.619	40.935	-5.065	46.000
691.540	3.722	34.531	38.253	-7.747	46.000
827.340	7.361	32.679	40.040	-5.960	46.000
957.320	6.615	33.320	39.935	-6.065	46.000
Vertical					
Peak Detector					
192.960	-5.655	43.666	38.011	-5.489	43.500
344.280	-0.584	40.773	40.189	-5.811	46.000
480.080	-3.390	40.418	37.028	-8.972	46.000
615.880	1.473	39.411	40.884	-5.116	46.000
796.300	2.639	36.656	39.295	-6.705	46.000
955.380	2.956	36.505	39.461	-6.539	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 : Access Point/Sensor
Test Item : General Radiated Emission
Test Site : No.3 OATS
Test Mode : Mode 3: Transmit (802.11n-40BW 45Mbps) (5755MHz) (External Antenna)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBμV	dBμV/m	dB	dBμV/m
Horizontal					
Peak Detector					
154.160	-8.002	44.629	36.627	-6.873	43.500
305.480	-3.836	43.783	39.947	-6.053	46.000
460.680	4.030	35.736	39.766	-6.234	46.000
648.860	1.744	39.135	40.879	-5.121	46.000
778.840	5.180	34.015	39.195	-6.805	46.000
945.680	6.910	33.724	40.634	-5.366	46.000
Vertical					
Peak Detector					
181.320	-1.910	40.203	38.293	-5.207	43.500
336.520	-1.999	40.348	38.349	-7.651	46.000
511.120	0.783	39.836	40.619	-5.381	46.000
646.920	-3.191	42.638	39.447	-6.553	46.000
806.000	3.686	37.306	40.992	-5.008	46.000
951.500	3.083	37.303	40.386	-5.614	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 : Access Point/Sensor
Test Item : General Radiated Emission
Test Site : No.3 OATS
Test Mode : Mode 4 Transmit (802.11ac-80BW-97.5Mbps) (5210MHz) (External Antenna)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBμV	dBμV/m	dB	dBμV/m
Horizontal					
Peak Detector					
204.600	-10.493	48.063	37.570	-5.930	43.500
350.100	-1.298	40.519	39.221	-6.779	46.000
485.900	1.316	39.293	40.609	-5.391	46.000
641.100	1.005	38.782	39.787	-6.213	46.000
780.780	5.259	35.437	40.696	-5.304	46.000
943.740	6.843	33.378	40.221	-5.779	46.000
Vertical					
Peak Detector					
177.440	-1.248	39.407	38.159	-5.341	43.500
286.080	-5.409	44.667	39.258	-6.742	46.000
414.120	-5.835	45.565	39.730	-6.270	46.000
594.540	0.175	41.178	41.353	-4.647	46.000
749.740	2.023	38.597	40.620	-5.380	46.000
928.220	3.640	36.408	40.048	-5.952	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 : Access Point/Sensor
Test Item : General Radiated Emission
Test Site : No.3 OATS
Test Mode : Mode 4 Transmit (802.11ac-80BW-97.5Mbps) (5775MHz) (External Antenna)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBμV	dBμV/m	dB	dBμV/m
Horizontal					
Peak Detector					
198.780	-9.958	47.876	37.918	-5.582	43.500
311.300	-4.651	46.829	42.178	-3.822	46.000
458.740	3.298	35.990	39.288	-6.712	46.000
598.420	3.524	34.992	38.516	-7.484	46.000
741.980	3.892	37.362	41.254	-4.746	46.000
916.580	6.470	33.608	40.078	-5.922	46.000
Vertical					
Peak Detector					
179.380	-0.824	39.466	38.642	-4.858	43.500
375.320	0.388	40.411	40.799	-5.201	46.000
499.480	-0.199	40.491	40.291	-5.709	46.000
633.340	-1.450	41.131	39.681	-6.319	46.000
767.200	2.199	37.343	39.543	-6.457	46.000
932.100	3.430	36.668	40.098	-5.902	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 : Access Point/Sensor
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 1: Transmit (802.11a-6Mbps) (5180MHz) (Internal Antenna)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBμV	dBμV/m	dB	dBμV/m
Horizontal					
Peak Detector:					
10360.000	13.735	36.560	50.295	-23.705	74.000
15540.000	*	*	*	*	74.000
20720.000	*	*	*	*	74.000
25900.000	*	*	*	*	74.000
31080.000	*	*	*	*	74.000
Average Detector:					
--					
Vertical					
Peak Detector:					
10360.000	13.735	36.630	50.365	-23.635	74.000
15540.000	*	*	*	*	74.000
20720.000	*	*	*	*	74.000
25900.000	*	*	*	*	74.000
31080.000	*	*	*	*	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 : Access Point/Sensor
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 1: Transmit (802.11a-6Mbps) (5220MHz) (Internal Antenna)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBμV	dBμV/m	dB	dBμV/m
Horizontal					
Peak Detector:					
10440.000	14.000	39.910	53.910	-20.090	74.000
15660.000	*	*	*	*	74.000
20880.000	*	*	*	*	74.000
26100.000	*	*	*	*	74.000
Average Detector:					
--					
Vertical					
Peak Detector:					
10440.000	14.000	44.960	58.960	-15.040	74.000
15660.000	*	*	*	*	74.000
20880.000	*	*	*	*	74.000
26100.000	*	*	*	*	74.000
Average Detector:					
10440.000	14.000	31.100	45.100	-8.900	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 : Access Point/Sensor
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 1: Transmit (802.11a-6Mbps) (5240MHz) (Internal Antenna)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBμV	dBμV/m	dB	dBμV/m
Horizontal					
Peak Detector:					
10480.000	13.957	39.680	53.637	-20.363	74.000
15720.000	*	*	*	*	74.000
20960.000	*	*	*	*	74.000
26200.000	*	*	*	*	74.000
Average					
Detector:					
--					
Vertical					
Peak Detector:					
10480.000	13.957	46.390	60.347	-13.653	74.000
15720.000	*	*	*	*	74.000
20960.000	*	*	*	*	74.000
26200.000	*	*	*	*	74.000
Average					
Detector:					
10480.000	13.957	32.000	45.957	-8.043	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 : Access Point/Sensor
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 1: Transmit (802.11a-6Mbps) (5745MHz) (Internal Antenna)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal Peak Detector:					
11490.000	14.925	40.730	55.655	-18.345	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	14.925	30.100	45.025	-8.975	54.000
Vertical Peak Detector:					
11490.000	14.925	44.850	59.775	-14.225	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	14.925	31.000	45.925	-8.075	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 : Access Point/Sensor
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 1: Transmit (802.11a-6Mbps) (5785MHz) (Internal Antenna)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector:					
11570.000	14.984	40.900	55.884	-18.116	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	14.984	30.300	45.284	-8.716	54.000
Vertical					
Peak Detector:					
11570.000	14.984	44.970	59.954	-14.046	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	14.984	30.200	45.184	-8.816	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 : Access Point/Sensor
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 1: Transmit (802.11a-6Mbps) (5825MHz) (Internal Antenna)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector:					
11650.000	15.475	40.890	56.366	-17.634	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	15.475	27.500	42.976	-11.024	54.000
Vertical					
Peak Detector:					
11650.000	15.475	44.300	59.776	-14.224	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	15.475	29.400	44.876	-9.124	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 : Access Point/Sensor
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 2: Transmit (802.11n-20BW 21.7Mbps) (5180MHz) (Internal Antenna)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBμV	dBμV/m	dB	dBμV/m
Horizontal					
Peak Detector:					
10360.000	13.735	30.364	44.099	-29.901	74.000
15540.000	*	*	*	*	74.000
20720.000	*	*	*	*	74.000
25900.000	*	*	*	*	74.000
Average Detector:					
--					
Vertical					
Peak Detector:					
10360.000	13.735	31.701	45.436	-28.564	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 : Access Point/Sensor
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 2: Transmit (802.11n-20BW 21.7Mbps) (5220MHz) (Internal Antenna)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBμV	dBμV/m	dB	dBμV/m
Horizontal					
Peak Detector:					
10440.000	14.000	30.476	44.476	-29.524	74.000
15660.000	*	*	*	*	74.000
20880.000	*	*	*	*	74.000
26100.000	*	*	*	*	74.000
Average Detector:					
--					
Vertical					
Peak Detector:					
10440.000	14.000	30.776	44.776	-29.224	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 : Access Point/Sensor
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 2: Transmit (802.11n-20BW 21.7Mbps) (5240MHz) (Internal Antenna)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBμV	dBμV/m	dB	dBμV/m
Horizontal					
Peak Detector:					
10480.000	13.957	30.817	44.774	-29.226	74.000
15720.000	*	*	*	*	74.000
20960.000	*	*	*	*	74.000
26200.000	*	*	*	*	74.000
Average Detector:					
--					
Vertical					
Peak Detector:					
10480.000	13.957	30.585	44.542	-29.458	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 : Access Point/Sensor
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 2: Transmit (802.11n-20BW 21.7Mbps) (5745MHz) (Internal Antenna)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector:					
11490.000	14.925	45.650	60.575	-13.425	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	14.925	31.000	45.925	-8.075	54.000
Vertical					
Peak Detector:					
11490.000	14.925	46.210	61.135	-12.865	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	14.925	30.400	45.325	-8.675	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 : Access Point/Sensor
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 2: Transmit (802.11n-20BW 21.7Mbps) (5785MHz) (Internal Antenna)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector:					
11570.000	14.984	45.810	60.794	-13.206	74.000
17355.000	*	*	*	*	74.000
20880.000	*	*	*	*	74.000
26100.000	*	*	*	*	74.000
31320.000	*	*	*	*	74.000
36540.000	*	*	*	*	74.000
Average Detector:					
--					
Vertical					
Peak Detector:					
11570.000	14.984	45.650	60.634	-13.366	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	14.984	32.800	47.784	-6.216	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 : Access Point/Sensor
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 2: Transmit (802.11n-20BW 21.7Mbps) (5825MHz) (Internal Antenna)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector:					
11650.000	15.475	45.920	61.396	-12.604	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	15.475	30.800	46.276	-7.724	54.000
Vertical					
Peak Detector:					
11650.000	15.475	45.890	61.366	-12.634	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	15.475	31.920	47.396	-6.604	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 : Access Point/Sensor
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 3: Transmit (802.11n-40BW 45Mbps) (5190MHz) (Internal Antenna)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBμV	dBμV/m	dB	dBμV/m
Horizontal					
Peak Detector:					
10380.000	13.670	30.906	44.575	-29.425	74.000
15570.000	*	*	*	*	74.000
20760.000	*	*	*	*	74.000
25950.000	*	*	*	*	74.000
Average Detector:					
--					
Vertical					
Peak Detector:					
10380.000	13.670	30.523	44.192	-29.808	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 : Access Point/Sensor
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 3: Transmit (802.11n-40BW 45Mbps) (5230MHz) (Internal Antenna)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBμV	dBμV/m	dB	dBμV/m
Horizontal					
Peak Detector:					
10460.000	14.006	30.295	44.301	-29.699	74.000
15690.000	*	*	*	*	74.000
20920.000	*	*	*	*	74.000
26150.000	*	*	*	*	74.000
Average Detector:					
--					
Vertical					
Peak Detector:					
10460.000	14.006	30.691	44.697	-29.303	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 : Access Point/Sensor
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 3: Transmit (802.11n-40BW 45Mbps) (5755MHz) (Internal Antenna)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector:					
11510.000	15.457	43.890	59.347	-14.653	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	15.457	30.900	46.357	-7.643	54.000
Vertical					
Peak Detector:					
11510.000	15.457	45.820	61.277	-12.723	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	15.457	30.800	46.257	-7.743	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 : Access Point/Sensor
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 3: Transmit (802.11n-40BW 45Mbps) (5795MHz) (Internal Antenna)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector:					
11590.000	15.304	43.825	59.129	-14.871	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	15.304	30.900	46.204	-7.796	54.000
Vertical					
Peak Detector:					
11590.000	15.304	45.520	60.824	-13.176	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	15.304	30.800	46.104	-7.896	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 : Access Point/Sensor
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 4 Transmit (802.11ac-80BW-97.5Mbps) (5210MHz) (Internal Antenna)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal Peak Detector:					
10420.000	14.124	35.900	50.023	-23.977	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	14.124	36.200	50.323	-23.677	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 : Access Point/Sensor
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 4 Transmit (802.11ac-80BW-97.5Mbps) (5775MHz) (Internal Antenna)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector:					
11550.000	14.948	41.800	56.748	-17.252	74.000
17325.000	*	*	*	*	74.000
20720.000	*	*	*	*	74.000
25900.000	*	*	*	*	74.000
31080.000	*	*	*	*	74.000
36260.000	*	*	*	*	74.000
Average Detector:					
11550.000	14.948	25.900	40.848	-13.152	54.000
Vertical					
Peak Detector:					
11550.000	14.948	40.800	55.748	-18.252	74.000
17325.000	*	*	*	*	74.000
20720.000	*	*	*	*	74.000
25900.000	*	*	*	*	74.000
31080.000	*	*	*	*	74.000
36260.000	*	*	*	*	74.000
Average Detector:					
11550.000	14.948	24.900	39.848	-14.152	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 : Access Point/Sensor
Test Item : General Radiated Emission
Test Site : No.3 OATS
Test Mode : Mode 1: Transmit (802.11a-6Mbps) (5220MHz) (Internal Antenna)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBμV	dBμV/m	dB	dBμV/m
Horizontal					
Peak Detector					
51.340	-7.189	38.880	31.691	-8.309	40.000
179.380	-5.396	37.435	32.039	-11.461	43.500
362.710	-7.872	42.377	34.505	-11.495	46.000
531.490	-1.939	40.207	38.268	-7.732	46.000
658.560	-1.805	39.449	37.644	-8.356	46.000
786.600	0.872	37.017	37.889	-8.111	46.000
Vertical					
Peak Detector					
47.460	-4.805	35.743	30.938	-9.062	40.000
163.860	-4.076	38.766	34.690	-8.810	43.500
303.540	-8.665	38.512	29.847	-16.153	46.000
499.480	-3.885	36.576	32.691	-13.309	46.000
708.030	-3.355	36.347	32.992	-13.008	46.000
814.730	1.561	38.239	39.800	-6.200	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 : Access Point/Sensor
Test Item : General Radiated Emission
Test Site : No.3 OATS
Test Mode : Mode 2: Transmit (802.11n-20BW 21.7Mbps) (5785MHz) (Internal Antenna)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBμV	dBμV/m	dB	dBμV/m
Horizontal					
Peak Detector					
152.220	-4.128	38.018	33.890	-9.610	43.500
280.260	-7.112	42.447	35.335	-10.665	46.000
516.940	-1.652	38.632	36.980	-9.020	46.000
647.890	0.022	36.826	36.848	-9.152	46.000
838.010	1.600	36.503	38.103	-7.897	46.000
1000.000	8.037	39.031	47.068	-6.932	54.000
Vertical					
Peak Detector					
135.730	-6.245	37.805	31.560	-11.940	43.500
295.780	-8.731	45.949	37.218	-8.782	46.000
551.860	-0.870	37.058	36.188	-9.812	46.000
748.770	0.580	37.258	37.838	-8.162	46.000
844.800	1.516	36.609	38.125	-7.875	46.000
986.420	8.321	36.365	44.686	-9.314	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 : Access Point/Sensor
Test Item : General Radiated Emission
Test Site : No.3 OATS
Test Mode : Mode 2: Transmit (802.11n-20BW 21.7Mbps) (5220MHz) (Internal Antenna)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBμV	dBμV/m	dB	dBμV/m
Horizontal					
Peak Detector					
51.340	-7.189	37.073	29.884	-10.116	40.000
246.310	-7.457	39.332	31.875	-14.125	46.000
514.030	-1.998	38.168	36.170	-9.830	46.000
634.310	1.593	36.238	37.831	-8.169	46.000
808.910	1.343	36.615	37.958	-8.042	46.000
987.390	8.299	38.156	46.455	-7.545	54.000
Vertical					
Peak Detector					
48.430	-5.447	37.837	32.390	-7.610	40.000
518.880	-1.468	38.131	36.663	-9.337	46.000
562.530	0.261	38.008	38.269	-7.731	46.000
658.560	-1.805	38.290	36.485	-9.515	46.000
814.730	1.561	38.064	39.625	-6.375	46.000
978.660	8.255	38.868	47.123	-6.877	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 : Access Point/Sensor
Test Item : General Radiated Emission
Test Site : No.3 OATS
Test Mode : Mode 2: Transmit (802.11n-20BW 21.7Mbps) (5785MHz) (Internal Antenna)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBμV	dBμV/m	dB	dBμV/m
Horizontal					
Peak Detector					
174.530	-4.932	38.117	33.185	-10.315	43.500
407.330	-7.761	38.447	30.686	-15.314	46.000
523.730	-1.537	38.354	36.817	-9.183	46.000
738.100	0.113	35.656	35.769	-10.231	46.000
788.540	0.902	36.592	37.494	-8.506	46.000
990.300	8.241	38.845	47.086	-6.914	54.000
Vertical					
Peak Detector					
169.680	-4.563	35.507	30.944	-12.556	43.500
551.860	-0.870	36.456	35.586	-10.414	46.000
643.040	0.904	36.287	37.191	-8.809	46.000
728.400	-0.362	37.835	37.473	-8.527	46.000
811.820	1.457	37.356	38.813	-7.187	46.000
980.600	8.467	38.126	46.593	-7.407	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 : Access Point/Sensor
Test Item : General Radiated Emission
Test Site : No.3 OATS
Test Mode : Mode 3: Transmit (802.11n-40BW 45Mbps) (5230MHz) (Internal Antenna)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBμV	dBμV/m	dB	dBμV/m
Horizontal					
Peak Detector					
187.140	-6.297	38.099	31.802	-11.698	43.500
583.870	1.663	36.676	38.339	-7.661	46.000
735.190	-0.016	36.973	36.957	-9.043	46.000
762.350	0.673	36.196	36.869	-9.131	46.000
866.140	1.925	36.128	38.053	-7.947	46.000
985.450	8.344	36.741	45.085	-8.915	54.000
Vertical					
Peak Detector					
50.370	-6.635	37.231	30.596	-9.404	40.000
178.410	-5.303	39.836	34.533	-8.967	43.500
526.640	-1.690	37.869	36.179	-9.821	46.000
802.120	1.092	36.476	37.568	-8.432	46.000
840.920	1.519	36.376	37.895	-8.105	46.000
984.480	8.366	37.891	46.257	-7.743	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 : Access Point/Sensor
Test Item : General Radiated Emission
Test Site : No.3 OATS
Test Mode : Mode 3: Transmit (802.11n-40BW 45Mbps) (5755MHz) (Internal Antenna)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBμV	dBμV/m	dB	dBμV/m
Horizontal					
Peak Detector					
401.510	-7.687	44.109	36.422	-9.578	46.000
513.060	-2.123	36.356	34.233	-11.767	46.000
647.890	0.022	39.606	39.628	-6.372	46.000
778.840	0.627	37.438	38.065	-7.935	46.000
862.260	1.530	36.118	37.648	-8.352	46.000
999.030	8.059	36.722	44.781	-9.219	54.000
Vertical					
Peak Detector					
469.410	-4.744	39.294	34.550	-11.450	46.000
591.630	1.782	37.014	38.796	-7.204	46.000
771.080	0.648	38.104	38.752	-7.248	46.000
844.800	1.516	37.654	39.170	-6.830	46.000
934.040	4.946	32.967	37.913	-8.087	46.000
969.930	6.809	37.720	44.529	-9.471	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 : Access Point/Sensor
Test Item : General Radiated Emission
Test Site : No.3 OATS
Test Mode : Mode 4 Transmit (802.11ac-80BW-97.5Mbps) (5210MHz) (Internal Antenna)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBμV	dBμV/m	dB	dBμV/m
Horizontal					
Peak Detector					
145.430	-4.349	38.194	33.845	-9.655	43.500
355.920	-7.967	38.534	30.567	-15.433	46.000
516.940	-1.652	39.270	37.618	-8.382	46.000
666.320	-2.899	35.708	32.809	-13.191	46.000
805.030	1.185	37.883	39.068	-6.932	46.000
967.990	6.476	37.784	44.260	-9.740	54.000
Vertical					
Peak Detector					
172.590	-4.781	39.792	35.011	-8.489	43.500
558.650	-0.165	37.518	37.353	-8.647	46.000
655.650	-1.318	39.503	38.185	-7.815	46.000
767.200	0.664	35.830	36.494	-9.506	46.000
875.840	2.935	36.405	39.340	-6.660	46.000
995.150	8.139	38.162	46.301	-7.699	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 : Access Point/Sensor
Test Item : General Radiated Emission
Test Site : No.3 OATS
Test Mode : Mode 4 Transmit (802.11ac-80BW-97.5Mbps) (5775MHz) (Internal Antenna)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBμV	dBμV/m	dB	dBμV/m
Horizontal					
Peak Detector					
164.830	-4.149	38.274	34.125	-9.375	43.500
533.430	-2.020	39.237	37.217	-8.783	46.000
650.800	-0.506	37.520	37.014	-8.986	46.000
757.500	0.661	36.480	37.141	-8.859	46.000
880.690	3.502	36.006	39.508	-6.492	46.000
972.840	7.297	36.860	44.157	-9.843	54.000
Vertical					
Peak Detector					
178.410	-5.303	39.411	34.108	-9.392	43.500
270.560	-6.184	38.808	32.624	-13.376	46.000
527.610	-1.738	38.753	37.015	-8.985	46.000
646.920	0.194	38.228	38.422	-7.578	46.000
814.730	1.561	37.977	39.538	-6.462	46.000
970.900	6.965	37.823	44.788	-9.212	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.

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:

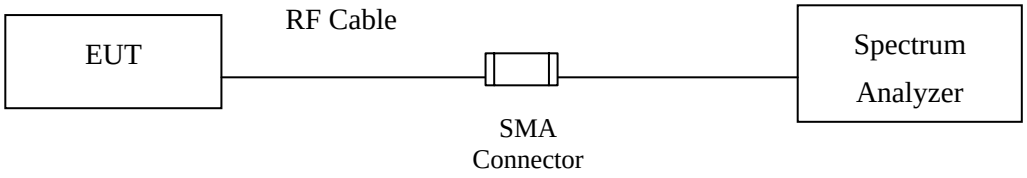
The following test equipments are used during the band edge tests:

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

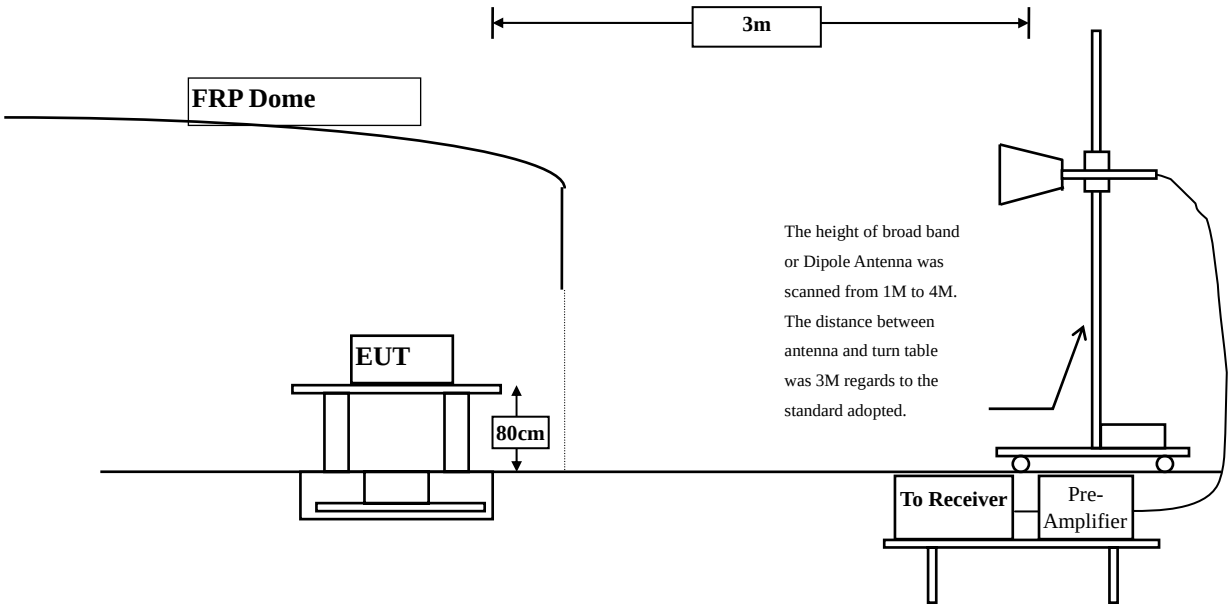
Note: 1. All equipments are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.
2. The test instruments marked with "X" are used to measure the final test results.

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

The EUT and its simulators are placed on a turn table which is 0.8 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 C63.10:2009 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: 2009; tested to NII test procedure of FCC KDB-789033 section H.)5.) and section H.)6.) 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 : Access Point/Sensor
Test Item : Band Edge Data
Test Site : No.3 OATS
Test Mode : Mode 1: Transmit (802.11a-6Mbps)-Channel 36 (5180MHz) (External Antenna)

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)	5117.800	3.454	52.328	55.782	74.00	54.00	Pass
36 (Peak)	5150.000	3.340	50.395	53.735	74.00	54.00	Pass
36 (Peak)	5182.200	3.226	103.926	107.152	--	--	Pass
36 (Average)	5150.000	3.340	39.490	42.830	74.00	54.00	Pass
36 (Average)	5182.000	3.227	92.272	95.499	--	--	Pass

Figure Channel 36: Horizontal (Peak)

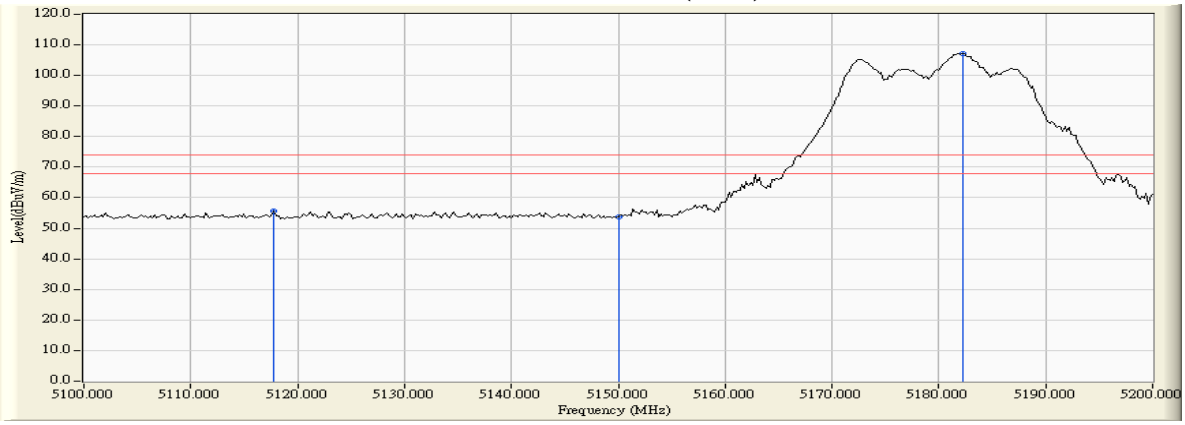
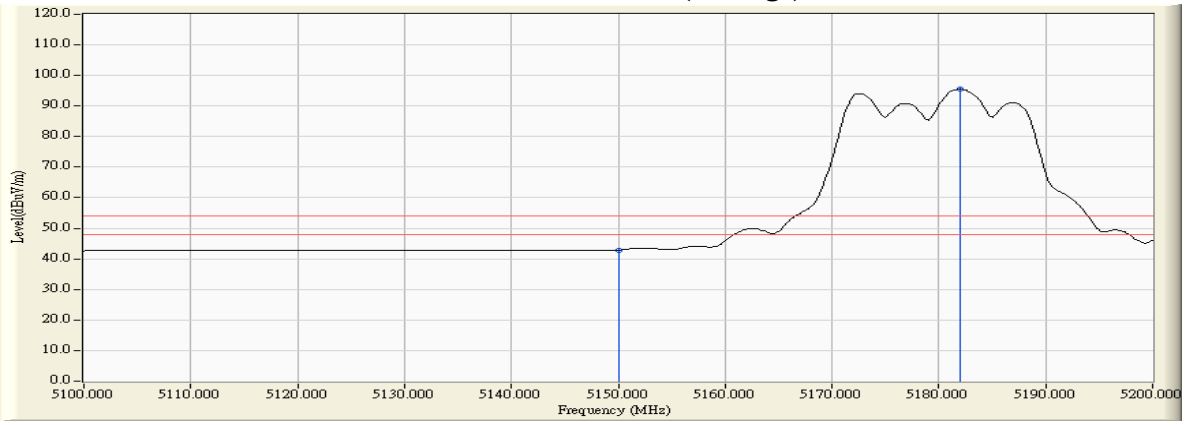


Figure Channel 36: Horizontal (Average)



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 : Access Point/Sensor
Test Item : Band Edge Data
Test Site : No.3 OATS
Test Mode : Mode 1: Transmit (802.11a-6Mbps)-Channel 36 (5180MHz) (External Antenna)

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)	5148.000	5.254	67.592	72.846	74.00	54.00	Pass
36 (Peak)	5150.000	5.260	63.532	68.792	74.00	54.00	Pass
36 (Peak)	5187.000	5.361	111.812	117.173	--	--	Pass
36 (Average)	5150.000	5.260	45.800	51.060	74.00	54.00	Pass
36 (Average)	5187.000	5.361	99.899	105.260	--	--	Pass

Figure Channel 36: Vertical (Peak)

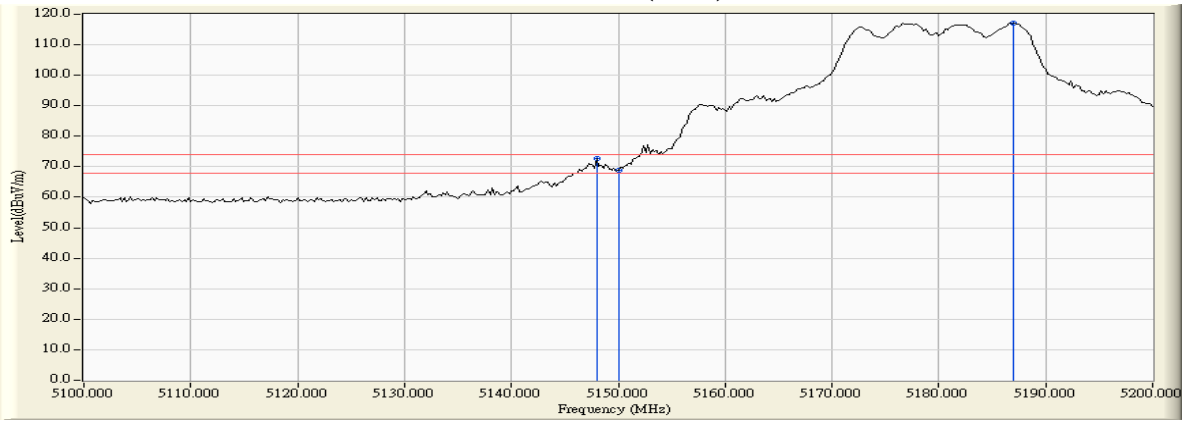
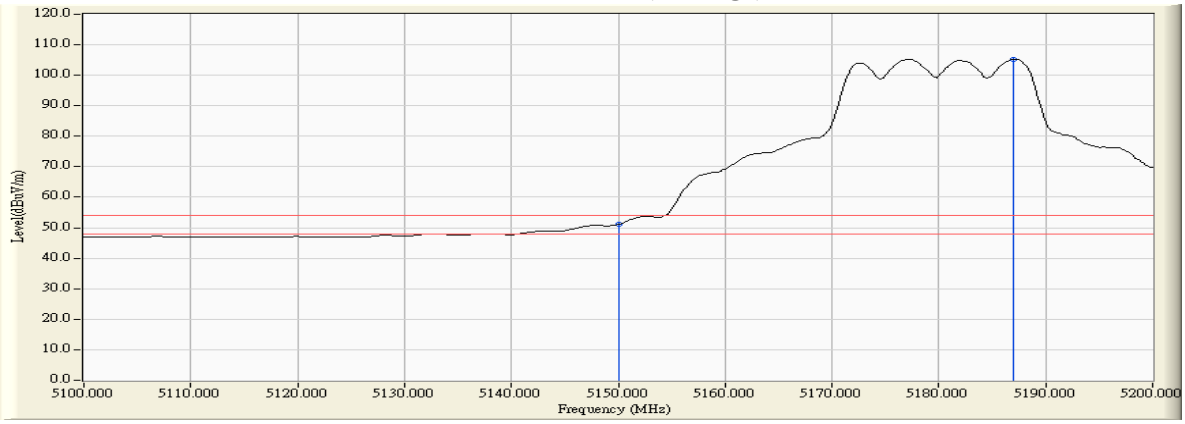


Figure Channel 36: Vertical (Average)



Note:

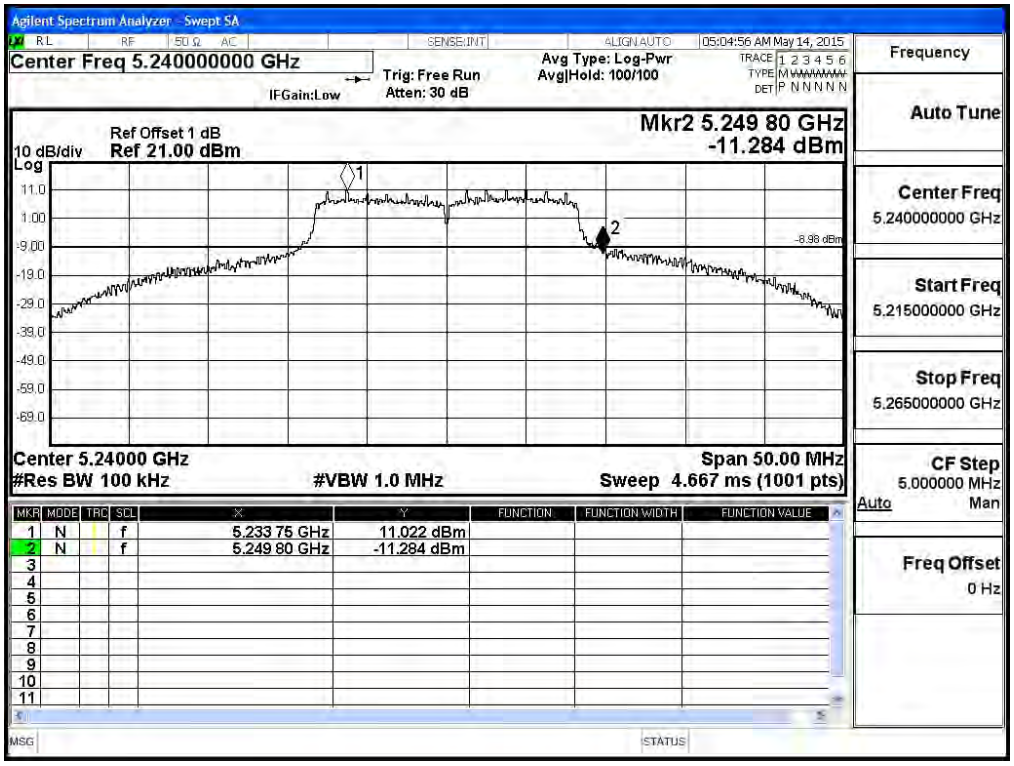
1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading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

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

Chain A

Test Frequency (MHz)	Measurement Level (20dB BW) (MHz)	Limit (MHz)	Result
5240	5249.80	<5250	PASS

NOTE: Accordance with 15.215 requirement.

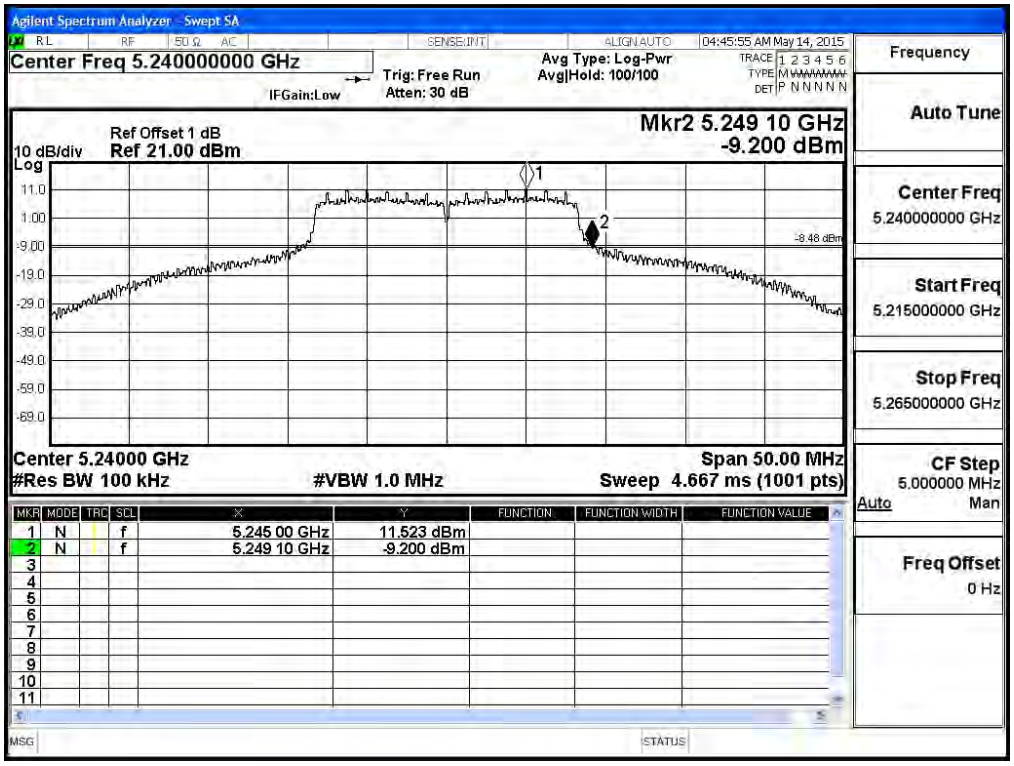


Product : Access Point/Sensor
Test Item : Band Edge Data
Test Site : No.3 OATS
Test Mode : Mode 1: Transmit (802.11a-6Mbps)-Channel 48 (External Antenna)

Chain B

Test Frequency (MHz)	Measurement Level (20dB BW) (MHz)	Limit (MHz)	Result
5240	5249.10	<5250	PASS

NOTE: Accordance with 15.215 requirement.

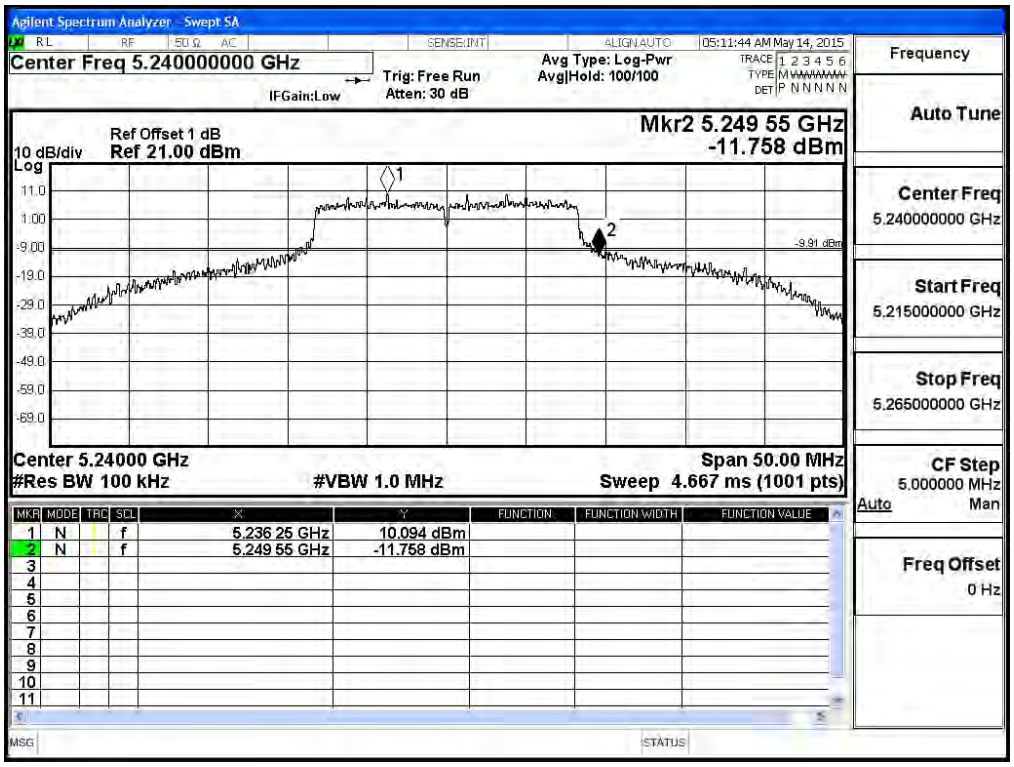


Product : Access Point/Sensor
Test Item : Band Edge Data
Test Site : No.3 OATS
Test Mode : Mode 1: Transmit (802.11a-6Mbps)-Channel 48 (External Antenna)

Chain C

Test Frequency (MHz)	Measurement Level (20dB BW) (MHz)	Limit (MHz)	Result
5240	5249.55	<5250	PASS

NOTE: Accordance with 15.215 requirement.



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

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	-73.570	-54.926	-27.926	-27.000	Pass
Horizontal	5725.000	18.649	-65.860	-47.211	-30.211	-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	-71.600	-52.304	-25.304	-27.000	Pass
Vertical	5725.000	19.372	-61.360	-41.988	-24.988	-17.000	Pass

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

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	-70.610	-51.318	-34.318	-17.000	Pass
Horizontal	5860.000	19.415	-77.040	-57.625	-30.625	-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	-67.220	-46.708	-29.708	-17.000	Pass
Vertical	5860.000	20.635	-72.960	-52.325	-25.325	-27.000	Pass

Product : Access Point/Sensor
Test Item : Band Edge Data
Test Site : No.3 OATS
Test Mode : Mode 2: Transmit (802.11n-20BW 21.7Mbps) -Channel 36 (5180MHz) (External Antenna)

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)	5149.400	3.342	58.590	61.933	74.00	54.00	Pass
36 (Peak)	5150.000	3.340	57.972	61.312	74.00	54.00	Pass
36 (Peak)	5183.200	3.223	107.017	110.240	--	--	--
36 (Average)	5150.000	3.340	43.197	46.537	74.00	54.00	Pass
36 (Average)	5183.800	3.221	93.200	96.421	--	--	--

Figure Channel 36: Horizontal (Peak)

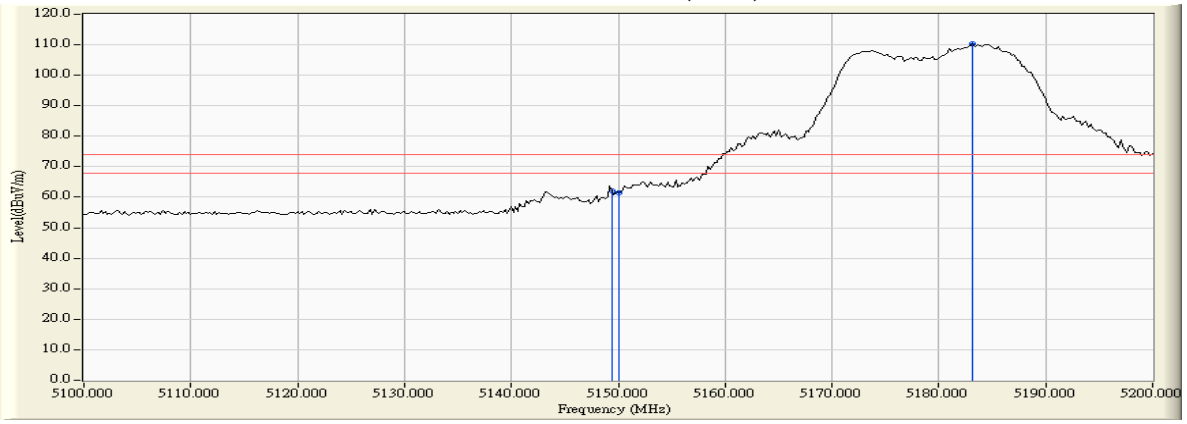
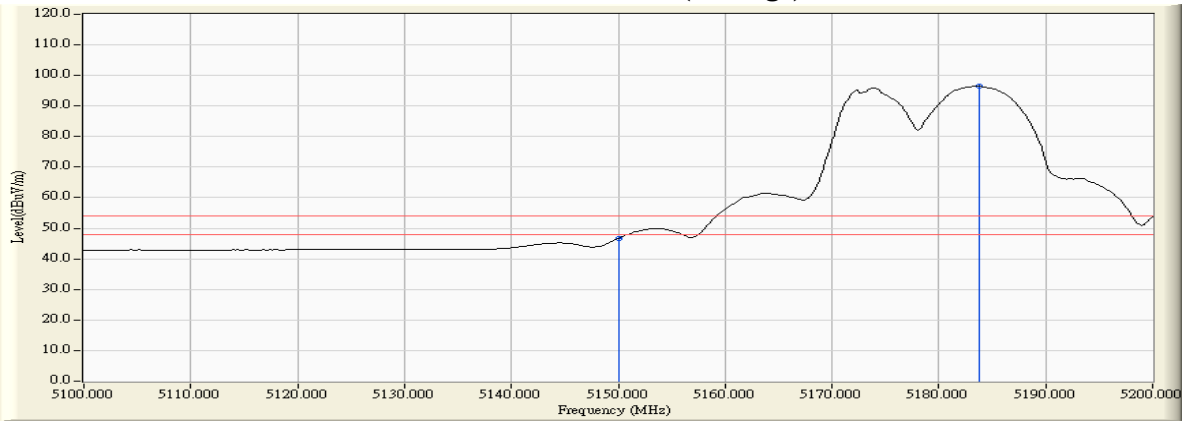


Figure Channel 36: Horizontal (Average)



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 : Access Point/Sensor
Test Item : Band Edge Data
Test Site : No.3 OATS
Test Mode : Mode 2: Transmit (802.11n-20BW 21.7Mbps) -Channel 36 (5180MHz) (External Antenna)

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	5.258	66.808	72.066	74.00	54.00	Pass
36 (Peak)	5150.000	5.260	65.584	70.844	74.00	54.00	Pass
36 (Peak)	5175.200	5.329	113.076	118.405	--	--	Pass
36 (Average)	5150.000	5.260	47.840	53.100	74.00	54.00	Pass
36 (Average)	5175.600	5.331	101.543	106.873	--	--	Pass

Figure Channel 36: Vertical (Peak)

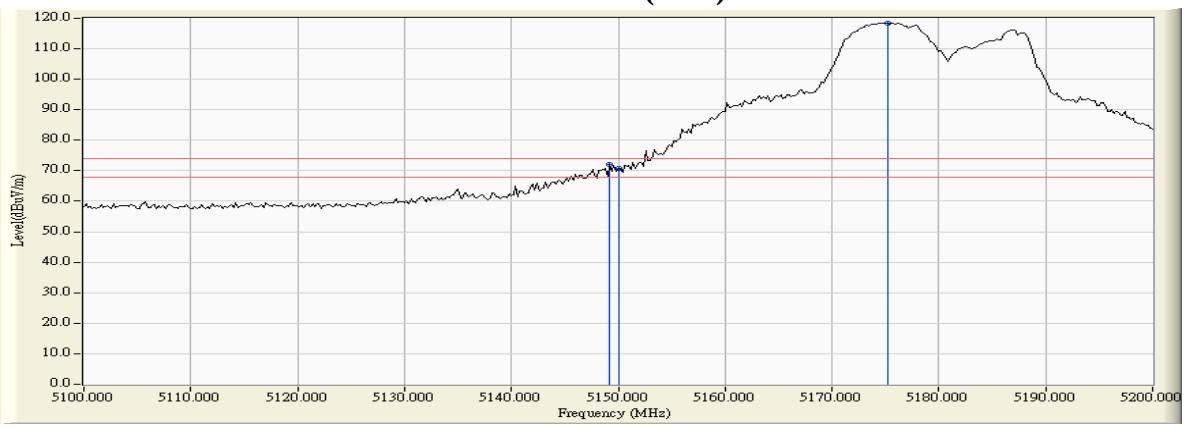
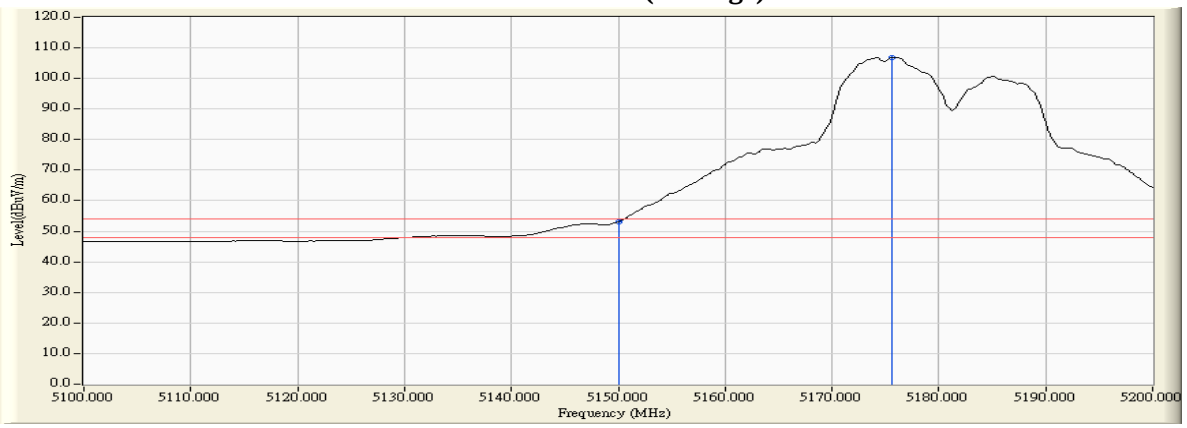


Figure Channel 36: Vertical (Average)



Note:

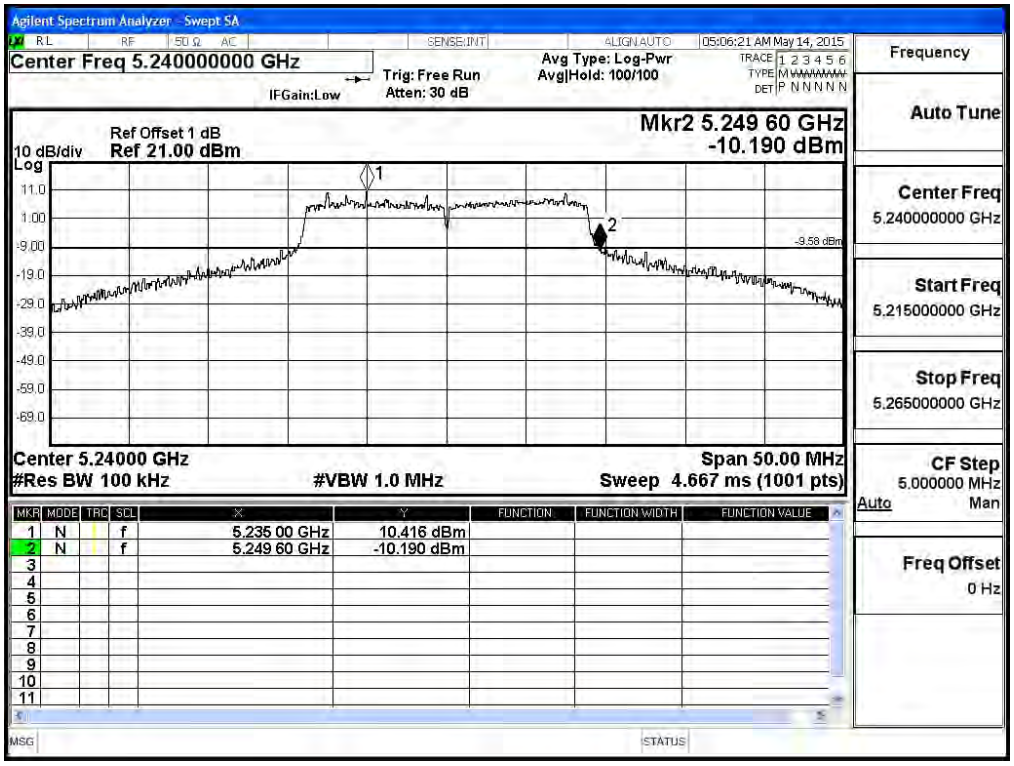
1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading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

Product : Access Point/Sensor
Test Item : Band Edge Data
Test Site : No.3 OATS
Test Mode : Mode 2: Transmit (802.11n-20BW 21.7Mbps) Channel 48 (External Antenna)

Chain A

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

NOTE: Accordance with 15.215 requirement.

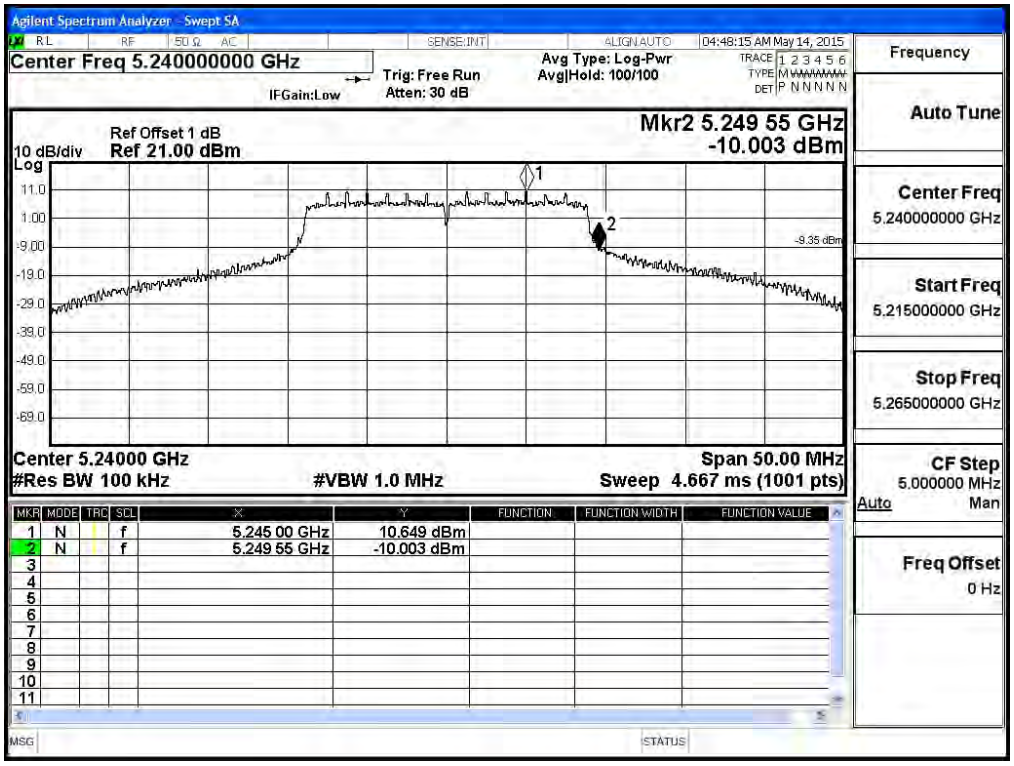


Product : Access Point/Sensor
Test Item : Band Edge Data
Test Site : No.3 OATS
Test Mode : Mode 2: Transmit (802.11n-20BW 21.7Mbps)-Channel 48 (External Antenna)

Chain B

Test Frequency (MHz)	Measurement Level (20dB BW) (MHz)	Limit (MHz)	Result
5240	5249.55	<5250	PASS

NOTE: Accordance with 15.215 requirement.

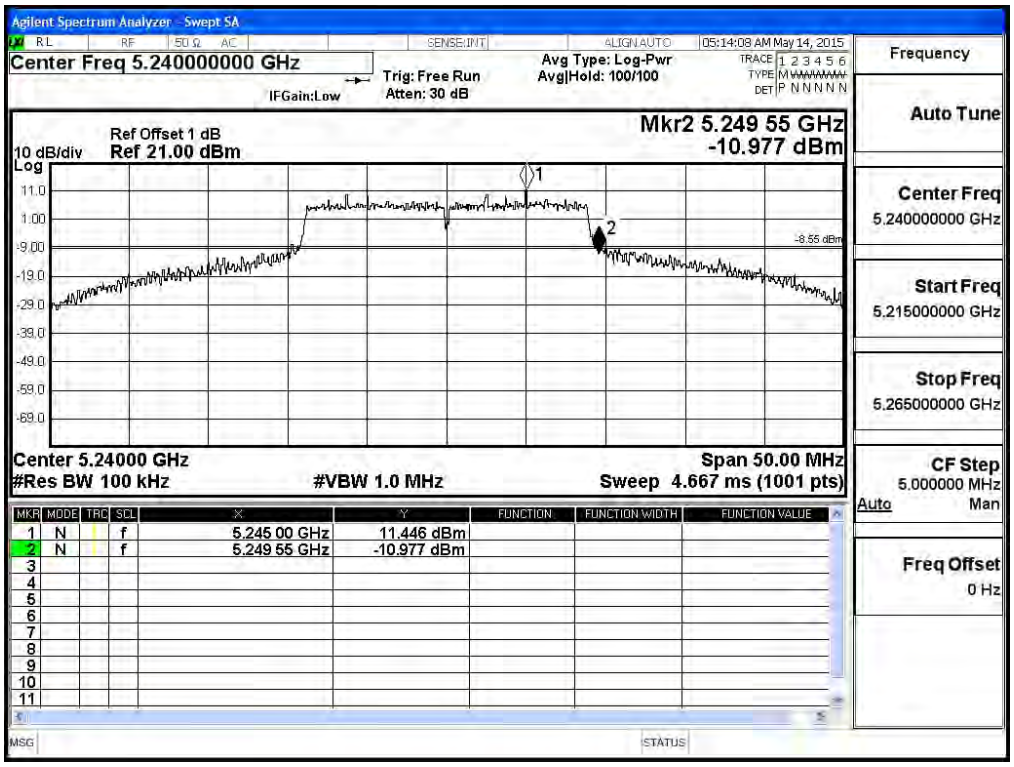


Product : Access Point/Sensor
Test Item : Band Edge Data
Test Site : No.3 OATS
Test Mode : Mode 2: Transmit (802.11n-20BW 21.7Mbps)-Channel 48 (External Antenna)

Chain C

Test Frequency (MHz)	Measurement Level (20dB BW) (MHz)	Limit (MHz)	Result
5240	5249.55	<5250	PASS

NOTE: Accordance with 15.215 requirement.



Product : Access Point/Sensor
Test Item : Band Edge Data
Test Site : No.3 OATS
Test Mode : Mode 2: Transmit (802.11n-20BW 21.7Mbps) -Channel 149 (External Antenna)

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	-73.580	-54.936	-27.936	-27.000	Pass
Horizontal	5725.000	18.649	-63.890	-45.241	-28.241	-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	-70.290	-50.994	-23.994	-27.000	Pass
Vertical	5725.000	19.372	-58.440	-39.068	-22.068	-17.000	Pass

Product : Access Point/Sensor
Test Item : Band Edge Data
Test Site : No.3 OATS
Test Mode : Mode 2: Transmit (802.11n-20BW 21.7Mbps) -Channel 165 (External Antenna)

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	-70.570	-51.278	-34.278	-17.000	Pass
Horizontal	5860.000	19.415	-77.630	-58.215	-31.215	-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	-66.490	-45.978	-28.978	-17.000	Pass
Vertical	5860.000	20.635	-72.940	-52.305	-25.305	-27.000	Pass

Product : Access Point/Sensor
Test Item : Band Edge Data
Test Site : No.3 OATS
Test Mode : Mode 3: Transmit (802.11n-40BW 45Mbps) -Channel 38 (5190MHz) (External Antenna)

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)	5148.600	3.345	53.929	57.274	74.00	54.00	Pass
38 (Peak)	5150.000	3.340	52.750	56.090	74.00	54.00	Pass
38 (Peak)	5188.000	3.205	94.405	97.611	--	--	--
38 (Average)	5150.000	3.340	40.193	43.533	74.00	54.00	Pass
38 (Average)	5188.000	3.205	80.557	83.763	--	--	--

Figure Channel 38: Horizontal (Peak)

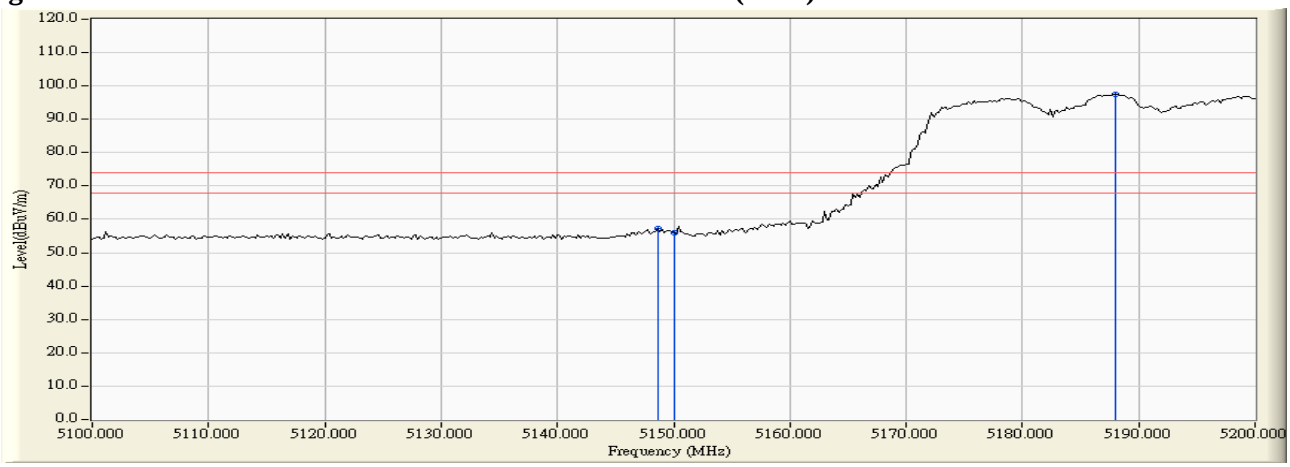
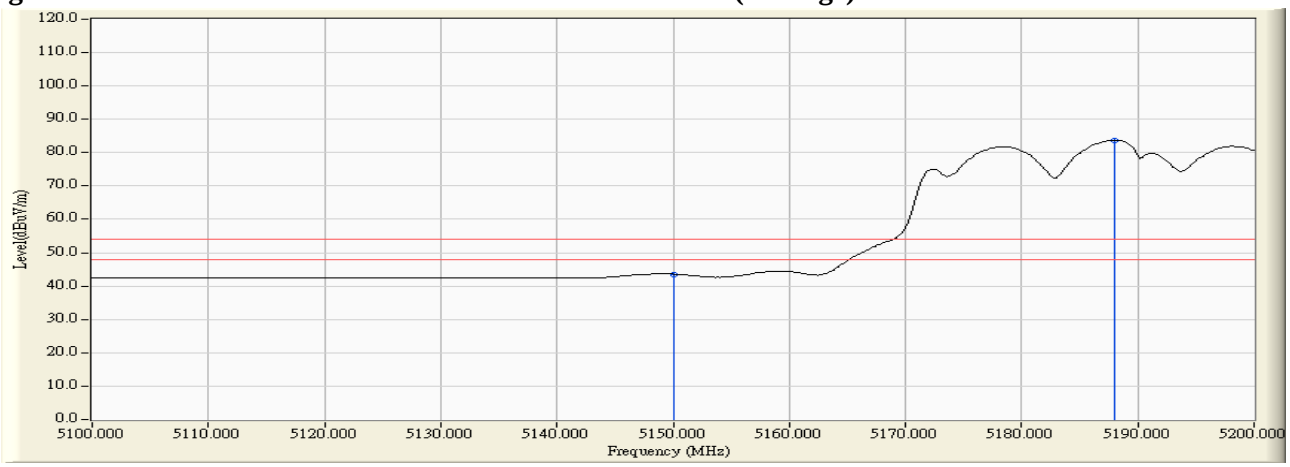


Figure Channel 38: Horizontal (Average)



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 : Access Point/Sensor
Test Item : Band Edge Data
Test Site : No.3 OATS
Test Mode : Mode 3: Transmit (802.11n-40BW 45Mbps) -Channel 38 (5190MHz) (External Antenna)

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)	5144.400	5.244	63.348	68.593	74.00	54.00	Pass
38 (Peak)	5150.000	5.260	58.815	64.075	74.00	54.00	Pass
38 (Peak)	5193.000	5.373	102.468	107.840	--	--	--
38 (Average)	5146.400	5.250	45.571	50.821	74.00	54.00	Pass
38 (Average)	5150.000	5.260	42.657	47.917	74.00	54.00	Pass
38 (Average)	5185.200	5.357	88.158	93.514	--	--	--

Figure Channel 38: Vertical (Peak)

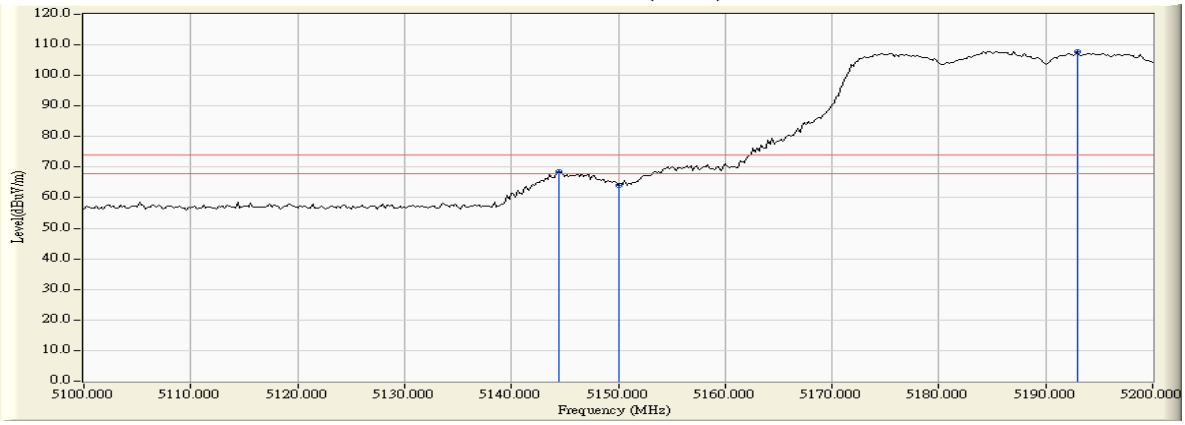
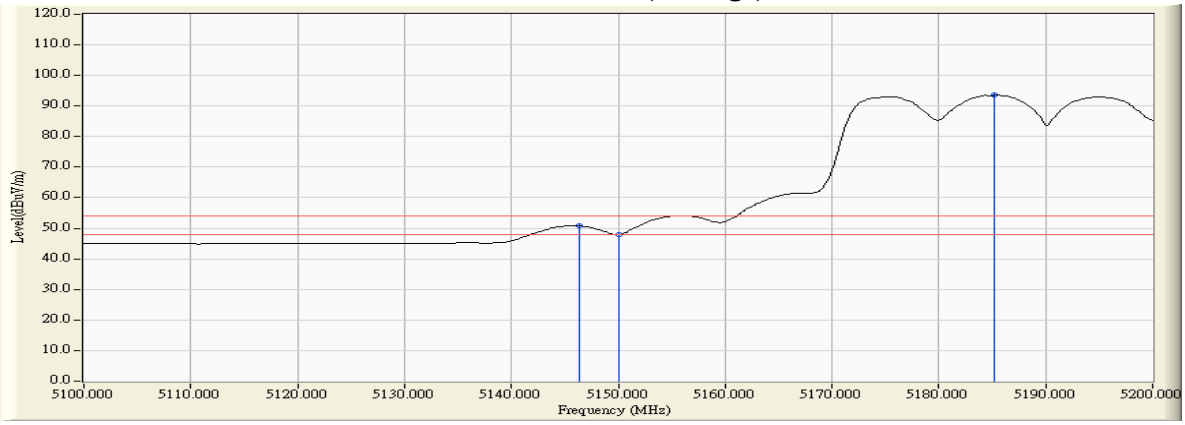


Figure Channel 38: Vertical (Average)



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.