



FCC RADIO TEST REPORT

Applicant	: Beijing Xiaomi Electronics Co.,Ltd
Address	: Room 707,7F,Building 5,No 58,Jinghai Wulu Road, Beijing economic and Technological Development Zone,100176 Beijing City,China
Equipment	: XIAOMI TV Stick
Model No.	: MDZ-27-AA
Trade Name	: Xiaomi
FCC ID.	: 2AIMRMITVMDZ27AA
Standard	: FCC part 15 Subpart E §15.407

I HEREBY CERTIFY THAT :

The sample was received on Oct. 28, 2022 and the testing was completed on Nov. 07, 2022 at CerpPASS Technology Corp. The test result refers exclusively to the test presented test model / sample. Without written approval of CerpPASS Technology Corp., the test report shall not be reproduced except in full.

Approved by:

Leevin Li /Supervisor



CONTENTS

1.	Summary of Test Procedure and Test Results	4
1.1.	Applicable Standards	4
2.	Test Configuration of Equipment under Test	5
2.1.	Feature of Equipment and Model Description.....	5
2.2.	Carrier Frequency of Channels	6
2.3.	Test Mode and Test Software	7
2.4.	Description of Test System.....	8
2.5.	General Information of Test.....	9
2.6.	Measurement Uncertainty	9
3.	Test Equipment and Ancillaries Used for Tests.....	10
4.	Antenna Requirements	11
4.1.	Standard Applicable	11
4.2.	Antenna Construction and Directional Gain.....	11
5.	Average Power.....	14
5.1.	Test Limit	14
5.2.	Test Procedure	15
5.3.	Test Setup Layout	15
5.4.	Test Result and Data.....	16
6.	Maximum Power Spectral Density	18
6.1.	Test Limit	18
6.2.	Test Procedure	18
6.3.	Test Setup Layout	18
6.4.	Test Result and Data.....	19



History of this test report

Report No.	Issue Date	Description
DEFG2209018	Nov. 09, 2022	Initial Issue



1. Summary of Test Procedure and Test Results

1.1. Applicable Standards

ANSI C63.10:2013

FCC Rules and Regulations Part 15 Subpart E §15.407

KDB 789033

FCC Rule	Description of Test	Result
15.203	Antenna Requirement	PASS
15.207(a)	AC Power Line Conducted Emission	N/A
15.407(b) 15.209	Radiated Spurious Emission	N/A
15.407(a)	26 dB & Occupied Bandwidth	N/A
15.407 (a) & (a)(3)	Average Power	PASS
15.407(a)	Power Spectral Density	PASS
15.407(g)	Frequency Stability	N/A
15.407(c)	Automatically Discontinue Transmission	N/A

Deviations Yes ☐ No ☒

Note:

- 1: The lab has reduced the uncertainty risk factor from test equipment, environment and staff technicians which according to the standard on contract. Therefore, the test result will only be determined by standard requirement.
- 2: "N/A" denotes test is not applicable in this test report.
- 3: This is the amended report application basing on the original report DEDG2107060. The differences between them as following:
 - 1) Reduced WiFi power by software.
After the evaluation, Average Power and Power Spectral Density need to be retested and reported in this report. More information about the test data please refer to the original report.



2. Test Configuration of Equipment under Test

2.1. Feature of Equipment and Model Description

Equipment	XIAOMI TV Stick
Model Name	MDZ-27-AA
Model Discrepancy	N/A
Frequency Range	BT/BLE/ WIFI 2.4G: 2402MHz-2483.5MHz WIFI 5G: 5150MHz-5350MHz, 5470-5725MHz, 5725MHz -5850MHz
Modulation Type	BT: GFSK, $\pi/4$ -DQPSK, 8DPSK BLE: GFSK 802.11b: CCK, DQPSK, DBPSK 802.11a/g: 64-QAM,16-QAM, QPSK, BPSK 802.11n: 64-QAM,16-QAM, QPSK, BPSK 802.11ac: 256-QAM,64-QAM,16-QAM, QPSK, BPSK
Data Rate	BT: GFSK:1Mbps, $\pi/4$ -DQPSK: 2Mbps, 8DPSK:3Mbps BLE: GFSK: 1Mbps WIFI 2.4G: 802.11b: 1, 2 ,5.5,11Mbps 802.11g: 6,9,12,18,24,36,48,54Mbps 802.11n: HT20 reach up to 144.4Mbps, HT40 reach up to 300Mbps WIFI 5G: 802.11a: 6,9,12,18,24,36,48,54Mbps 802.11n: HT20 reach up to 144.4Mbps, HT40 reach up to 300Mbps 802.11ac: VHT20 reach up to 173.3Mbps, VHT40 reach up to 400Mbps, VHT80 reach up to 866.7Mbps
Antenna Type	BT/BLE:PCB Antenna WIFI 2.4G/5G: PCB Antenna for Antenna A; PCB Antenna for Antenna B
Power Source	POWER ADAPTER A319-050100U-US1 Input:100-240V~ 50/60Hz 0.2A Max. Output:5V $\overline{\text{---}}$ 1A

Note: For a more detailed features description, please refer to the manufacturer's specifications or the User's Manual.



2.2. Carrier Frequency of Channels

Band: 5150MHz-5250MHz

802.11a, 802.11n HT 20, 802.11ac VHT20

Channel	Frequency(MHz)	Channel	Frequency(MHz)
*36	5180	*44	5220
40	5200	*48	5240

802.11n HT 40, 802.11ac VHT40

Channel	Frequency(MHz)	Channel	Frequency(MHz)
*38	5190	*46	5230

802.11ac VHT80

Channel	Frequency(MHz)
*42	5210

Band: 5250MHz -5350MHz

802.11a, 802.11n HT20, 802.11ac VHT20

Channel	Frequency(MHz)	Channel	Frequency(MHz)
*52	5260	*60	5300
56	5280	*64	5320

802.11n HT 40, 802.11ac VHT40

Channel	Frequency(MHz)	Channel	Frequency(MHz)
*54	5270	*62	5310

802.11ac VHT80

Channel	Frequency(MHz)
*58	5290

Band: 5470MHz -5725MHz

802.11a, 802.11n HT20, 802.11ac VHT20

Channel	Frequency(MHz)	Channel	Frequency(MHz)
*100	5500	*116	5580
104	5520	132	5660
108	5540	136	5680
112	5560	*140	5700

802.11n HT40, 802.11ac VHT40

Channel	Frequency(MHz)	Channel	Frequency(MHz)
*102	5510	*134	5670
*110	5550		

802.11ac VHT80

Channel	Frequency(MHz)
*106	5530

Band: 5725MHz -5850MHz

802.11a, 802.11n HT 20, 802.11ac VHT20

Channel	Frequency(MHz)	Channel	Frequency(MHz)
*149	5745	161	5805
153	5765	*165	5825
*157	5785		

802.11n HT 40, 802.11ac VHT40

Channel	Frequency(MHz)	Channel	Frequency(MHz)
*151	5755	*159	5795

802.11ac VHT80

Channel	Frequency(MHz)
*155	5775

Note: Channels remarked * are selected to perform test.



2.3. Test Mode and Test Software

- During testing, the interface cables and equipment positions were varied according to ANSI C63.10.
- The complete test system included Notebook, LCD Monitor, Adapter and EUT for RF test.
- An executive program, "cmd.exe" under Windows 7 system was executed to transmit and receive data via WLAN.
- The following test modes were performed for the test:

RF Conducted	
Test Mode	Operating Description
1	802.11a (6Mbps)
2	802.11n HT20 (6.5Mbps)
3	802.11n HT40 (13.5Mbps)
4	802.11ac VHT20 (6.5Mbps)
5	802.11ac VHT40 (13.5Mbps)
6	802.11ac VHT80 (29.3Mbps)
caused "Test Mode 1,4~6" generated the worst case, they were reported as the final data.	

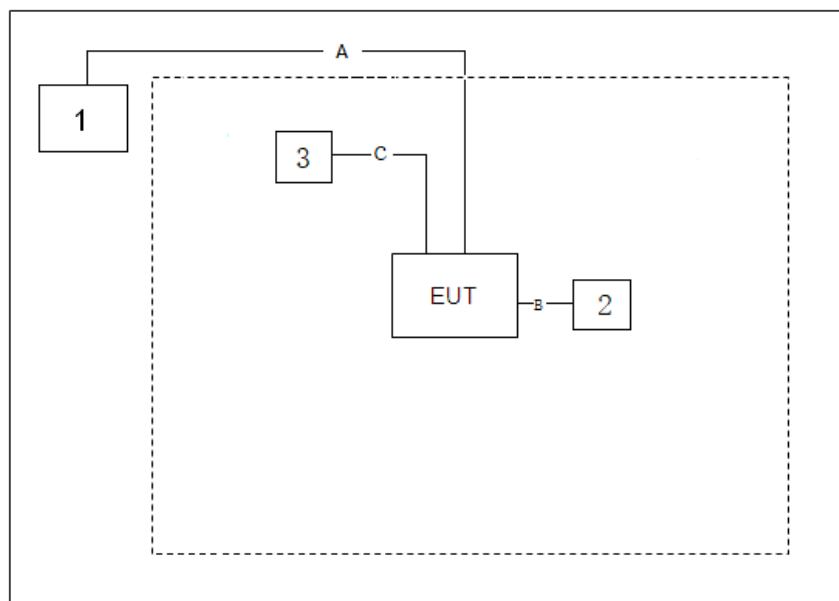
Modulation Type	TX CONFIGURATION
802.11a	2TX
802.11n HT20	2TX
802.11n HT40	2TX
802.11ac VHT20	2TX
802.11ac VHT40	2TX
802.11ac VHT80	2TX



2.4. Description of Test System

Product	Manufacturer	Model No.	Serial No.	Power Cord
1 Notebook	Dell	Latitude 3500	N/A	Non-Shielded, 1.8m
2 LCD Monitor	DELL	U2713HMT	N/A	Non-Shielded, 1.8m
3 Adapter	XIAOMI	A319-050100U-US1	N/A	N/A

Connection Diagram



	Signal Cable Type	Quantity	Signal cable Description
A	USB Cable	1	5.0m Shielding
B	HDMI Cable (Accessory)	1	0.3m Shielding
C	Micro USB Cable (Accessory)	1	0.8m Non Shielding



2.5. General Information of Test

Test Site	CerpPASS Technology Corporation(CerpPASS Laboratory) Address: Room 102, No. 5, Xing'an Road, Chang'an Town, Dongguan City, Guangdong Province Tel: +86-769-8547-1212 Fax: +86-769-8547-1912
FCC Designation No.:	CN1288
Frequency Range Investigated:	Conducted: from 150kHz to 30 MHz Radiation: from 30 MHz to 40,000MHz
Test Distance:	The test distance of radiated emission from antenna to EUT is 3 M.

Test Item	Test Site	Test period	Environmental Conditions	Tested By
RF Conducted	RFCON01-DG	2022/11/07	25°C / 52%	Amos Zhang

2.6. Measurement Uncertainty

ISO/IEC 17025 requires that an estimate of the measurement uncertainties associated with the emissions test results be included in the report. The measurement uncertainties given below are based on a 95% confidence level (based on a coverage factor (k=2)).

Measurement Item	Uncertainty
AC Power Line Conduction(150K~30MHz)	±3.17dB
Radiated Spurious Emission(9KHz~30MHz)	±4.99dB
Radiated Spurious Emission(30MHz~1GHz)	±4.39dB
Radiated Spurious Emission(1GHz~18GHz)	±5.36dB
Radiated Spurious Emission(18GHz~40GHz)	±5.43dB
6dB Bandwidth&26dB Bandwidth	±4.4%
Occupied Bandwidth	±4.4%
Peak Output Power(Conducted Power Meter)	±0.57 dB
Power Spectral Density	±1.01 dB
Frequency Stability	±99.743Hz



3. Test Equipment and Ancillaries Used for Tests

RF Conducted					
Test Site	RFFCON01-DG				
Instrument	Manufacturer	Model No.	Serial No.	Calibration Date	Valid Date
MXA Signal Analyzer	KEYSIGHT	N9020A	US46220290	2022.05.07	2023.05.06
EXA Signal Analyzer	KEYSIGHT	N9010A	MY53400169	2022.05.07	2023.05.06
ESG VECTOR SIGNAL GENERATOR	Agilent	E4438C	MY45092582	2022.05.07	2023.05.06
MXG VECTOR SIGNAL GENERATOR	Agilent	N5182B	MY53050127	2022.05.07	2023.05.06
USB Wideband Power Sensor	Boonton	55006	9778	2022.01.08	2023.01.07
Temperature/ Humidity Meter	mingle	ETH529	N/A	2022.01.08	2023.01.07



4. Antenna Requirements

4.1. Standard Applicable

For intentional device, according to FCC 47 CFR Section 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device.

And according to FCC 47 CFR Section 15.407 (a), if transmitting antennas of directional gain greater than 6dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6dBi.

4.2. Antenna Construction and Directional Gain

WIFI 5G:

Antenna Type	PCB Antenna for Antenna A; PCB Antenna for Antenna B
Antenna Gain	5150MHz - 5250MHz: ANT A: 3.3dBi; ANT B: 4.1dBi 5250MHz - 5350MHz: ANT A: 3.3dBi; ANT B: 3.9dBi 5470MHz - 5725MHz: ANT A: 3.5dBi; ANT B: 3.4dBi 5725MHz - 5850MHz: ANT A: 2.8dBi; ANT B: 3.1dBi

(Non-Beamforming)

5150MHz - 5250MHz
For Power directional gain= $G_{ant} = 4.1 \text{ dBi}$ For PSD directional gain = $10 \log[(10G_1 / 20 + 10G_2 / 20 + \dots + 10G_N / 20)^2 / N_{ANT}]$ = 6.72 (dBi)
5250MHz - 5350MHz
For Power directional gain= $G_{ant} = 3.9 \text{ dBi}$ For PSD directional gain = $10 \log[(10G_1 / 20 + 10G_2 / 20 + \dots + 10G_N / 20)^2 / N_{ANT}]$ = 6.62(dBi)
5470MHz - 5725MHz
For Power directional gain= $G_{ant} = 3.5 \text{ dBi}$ For PSD directional gain = $10 \log[(10G_1 / 20 + 10G_2 / 20 + \dots + 10G_N / 20)^2 / N_{ANT}]$ = 6.46(dBi)
5725MHz - 5850MHz
For Power directional gain= $G_{ant} = 3.1 \text{ dBi}$ For PSD directional gain = $10 \log[(10G_1 / 20 + 10G_2 / 20 + \dots + 10G_N / 20)^2 / N_{ANT}]$ = 5.96 (dBi)



5. On Time, Duty Cycle and Measurement methods

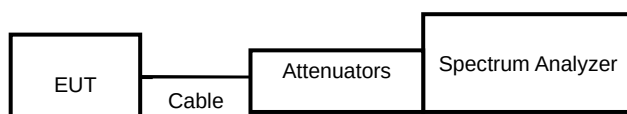
5.1. Test Limit

None; for reporting purposes only.

5.2. Test Procedure

KDB 789033 Zero-Span Spectrum Analyzer Method.

5.3. Test Setup Layout



5.4. Test Result and Data

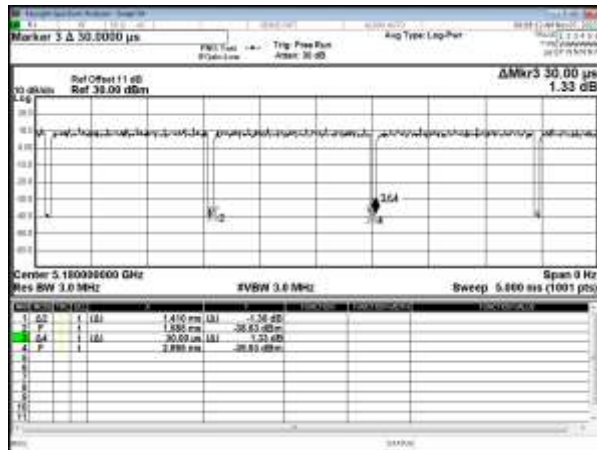
Modulation Mode	On Time (msec)	Period Time (msec)	Duty Cycle (%)
802.11a	1.41	1.44	97.92%
802.11ac VHT20	1.33	1.37	97.07%
802.11ac VHT40	0.66	0.70	94.30%
802.11ac VHT80	0.33	0.37	88.24%

5.5. Measurement Methods

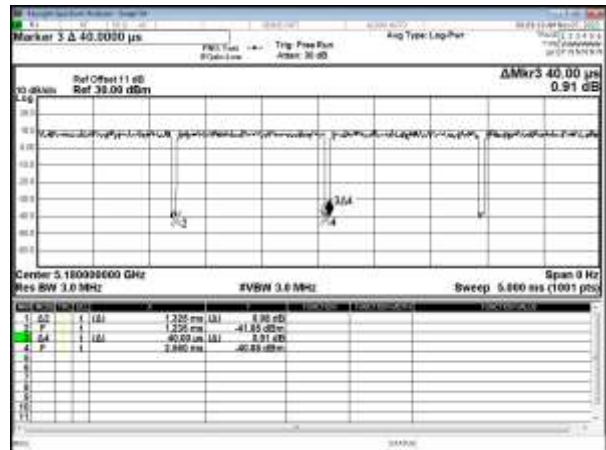
26 dB and 6dB Emission BW	KDB 789033 D02 v01, Section C
99% Occupied BW	KDB 789033 D02 v01, Section D
Conducted Output Power	KDB 789033 D02 v01, Section E.2.d and E.3.b (Method PM-G)
Power Spectral Density	KDB 789033 D02 v01, Section F
Unwanted emissions in restricted bands	KDB 789033 D02 v01, Sections G and H
Unwanted emissions in non-restricted bands	KDB 789033 D02 v01, Sections G and H



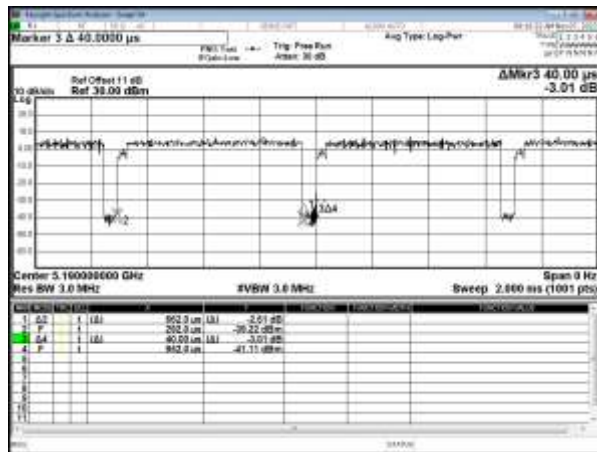
Modulation Type: 802.11a (6Mbps)



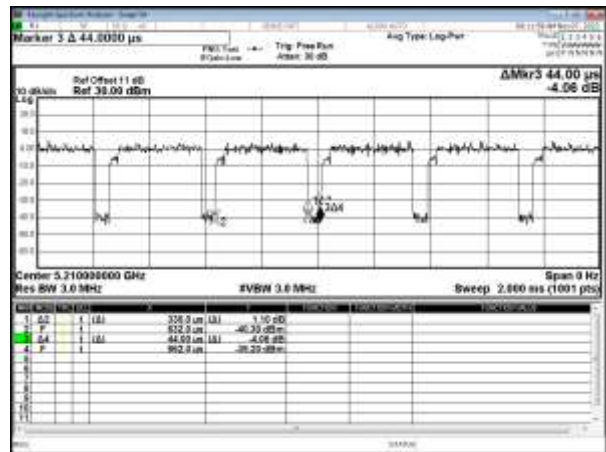
Modulation Type: 802.11ac VHT20 (6.5Mbps)



Modulation Type: 802.11ac VHT40 (13.5Mbps)



Modulation Type: 802.11ac VHT80 (29.3Mbps)





6. Average Power

6.1. Test Limit

Output Power:

Frequency Band		Limit
☒	5.15~5.25GHz	
	Operating Mode	
☐	Outdoor access point	The maximum conducted output power over the frequency band of operation shall not exceed 1 W (30dBm) provided the maximum antenna gain does not exceed 6 dBi. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. The maximum e.i.r.p. at any elevation angle above 30degrees as measured from the horizon must not exceed 125 mW (21 dBm).
☐	Indoor access point	The maximum conducted output power over the frequency band of operation shall not exceed 1 W (30dBm) provided the maximum antenna gain does not exceed 6 dBi. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.
☐	Fixed point-to-point access points	The maximum conducted output power over the frequency band of operation shall not exceed 1 W (30dBm). Fixed point-to-point U-NII devices may employ antennas with directional gain up to 23 dBi without any corresponding reduction in the maximum conducted output power or maximum power spectral density. For fixed point-to-point transmitters that employ a directional antenna gain greater than 23 dBi, a 1 dB reduction in maximum conducted output power and maximum power spectral density is required for each 1 dB of antenna gain in excess of 23 dBi.
☒	client devices	The maximum conducted output power over the frequency band of operation shall not exceed 250 mW (24dBm) provided the maximum antenna gain does not exceed 6 dBi. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.



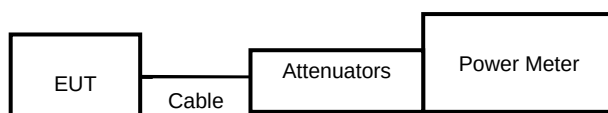
Frequency Band		Limit
☒	5.25-5.35 GHz	The maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW (24dBm) or 11 dBm $10 \log B$, where B is the 26 dB emission bandwidth in megahertz. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.
☒	5.470-5.725 GHz	
☒	5.725~5.85 GHz	The maximum conducted output power over the frequency band of operation shall not exceed 1 W (30dBm). If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. However, fixed point-to-point U-NII devices operating in this band may employ transmitting antennas with directional gain greater than 6 dBi without any corresponding reduction in transmitter conducted power.

6.2. Test Procedure

The transmitter output is connected to a power meter.

The cable assembly insertion loss of 11 dB (including 10 dB pad and 1 dB cable) was entered as an offset in the power meter to allow for direct reading of power.

6.3. Test Setup Layout





6.4. Test Result and Data

In the 5.2G Band

Modulation Type	Data Rate	Setting	Channel	Frequency (MHz)	Avg Power Output (dBm)		Total Power (dBm)	Total Power (mW)	Power Limit (dBm)
					ANT A	ANT B	A+B	A+B	
11a	6 Mbps	10	36	5180	10.33	11.42	13.92	24.666	24.00
11a	6 Mbps	10	44	5220	10.26	11.42	13.88	24.459	24.00
11a	6 Mbps	10	48	5240	10.40	11.44	13.96	24.903	24.00
11n HT20	MCS 0	10	36	5180	9.87	11.05	13.51	22.440	24.00
11n HT20	MCS 0	10	44	5220	9.62	11.23	13.51	22.436	24.00
11n HT20	MCS 0	10	48	5240	9.77	11.15	13.52	22.516	24.00
11n HT40	MCS 0	10	38	5190	9.27	8.07	11.72	14.865	24.00
11n HT40	MCS 0	10	46	5230	8.34	8.16	11.26	13.370	24.00
11ac VHT20	NSS1-MCS0	10	36	5180	10.07	11.44	13.82	24.097	24.00
11ac VHT20	NSS1-MCS0	10	44	5220	10.08	11.42	13.81	24.062	24.00
11ac VHT20	NSS1-MCS0	10	48	5240	10.22	11.46	13.89	24.507	24.00
11ac VHT40	NSS1-MCS0	10	38	5190	9.94	8.60	12.33	17.114	24.00
11ac VHT40	NSS1-MCS0	10	46	5230	9.21	8.46	11.86	15.354	24.00
11ac VHT80	NSS1-MCS0	10	42	5210	9.55	8.04	11.87	15.392	24.00

In the 5.3G Band

Modulation Type	Data Rate	Setting	Channel	Frequency (MHz)	Avg Power Output (dBm)		Total Power (dBm)	Total Power (mW)	Power Limit (dBm)
					ANT A	ANT B	A+B	A+B	
11a	6 Mbps	10	52	5260	10.59	11.36	14.00	25.127	23.88
11a	6 Mbps	10	60	5300	10.80	11.44	14.14	25.928	23.92
11a	6 Mbps	10	64	5320	10.84	11.37	14.12	25.838	23.79
11n HT20	MCS 0	10	52	5260	10.02	10.95	13.52	22.491	24.00
11n HT20	MCS 0	10	60	5300	10.34	10.87	13.62	23.032	24.00
11n HT20	MCS 0	10	64	5320	10.51	11.02	13.78	23.893	24.00
11n HT40	MCS 0	10	54	5270	10.27	9.41	12.87	19.371	24.00
11n HT40	MCS 0	10	62	5310	10.32	9.03	12.73	18.763	24.00
11ac VHT20	NSS1-MCS0	10	52	5260	10.38	11.35	13.90	24.556	23.96
11ac VHT20	NSS1-MCS0	10	60	5300	10.61	11.40	14.03	25.311	23.99
11ac VHT20	NSS1-MCS0	10	64	5320	10.66	11.42	14.07	25.501	24.00
11ac VHT40	NSS1-MCS0	10	54	5270	10.53	9.84	13.21	20.944	24.00
11ac VHT40	NSS1-MCS0	10	62	5310	10.75	9.52	13.19	20.828	24.00
11ac VHT80	NSS1-MCS0	10	58	5290	10.03	9.04	12.58	18.093	24.00

In the 5.5G Band

Modulation Type	Data Rate	Setting	Channel	Frequency (MHz)	Avg Power Output (dBm)		Total Power (dBm)	Total Power (mW)	Power Limit (dBm)
					ANT A	ANT B	A+B	A+B	
11a	6 Mbps	10	100	5500	9.43	9.61	12.53	17.909	23.90
11a	6 Mbps	10	116	5580	9.84	10.19	13.02	20.067	23.85
11a	6 Mbps	10	140	5700	9.74	10.63	13.22	20.997	23.88
11n HT20	MCS 0	10	100	5500	9.01	9.12	12.08	16.127	24.00
11n HT20	MCS 0	10	116	5580	9.25	9.84	12.57	18.052	24.00
11n HT20	MCS 0	10	140	5700	9.37	10.53	13.00	19.948	24.00
11n HT40	MCS 0	10	102	5510	8.97	9.18	12.09	16.168	24.00
11n HT40	MCS 0	10	110	5550	9.24	8.76	12.02	15.911	24.00
11n HT40	MCS 0	10	134	5670	9.72	9.85	12.80	19.036	24.00
11ac VHT20	NSS1-MCS0	10	100	5500	9.27	9.57	12.43	17.502	24.00
11ac VHT20	NSS1-MCS0	10	116	5580	9.65	10.17	12.93	19.625	23.94
11ac VHT20	NSS1-MCS0	10	140	5700	9.60	10.61	13.15	20.633	23.95
11ac VHT40	NSS1-MCS0	10	102	5510	9.34	9.62	12.49	17.748	24.00
11ac VHT40	NSS1-MCS0	10	110	5550	9.50	9.48	12.50	17.788	24.00
11ac VHT40	NSS1-MCS0	10	134	5670	10.07	10.05	13.07	20.281	24.00
11ac VHT80	NSS1-MCS0	10	106	5530	8.78	8.91	11.86	15.330	24.00

**In the 5.8G Band**

Modulation Type	Data Rate	Setting	Channel	Frequency (MHz)	Avg Power Output (dBm)		Total Power (dBm)	Total Power (mW)	Power Limit (dBm)
					ANT A	ANT B	A+B	A+B	
11a	6 Mbps	10	149	5745	8.83	9.86	12.39	17.326	30.00
11a	6 Mbps	10	157	5785	8.34	9.83	12.16	16.441	30.00
11a	6 Mbps	10	165	5825	8.07	9.82	12.04	16.009	30.00
11n HT20	MCS 0	10	149	5745	7.51	9.72	11.76	15.012	30.00
11n HT20	MCS 0	10	157	5785	7.02	9.34	11.34	13.625	30.00
11n HT20	MCS 0	10	165	5825	7.64	9.47	11.66	14.659	30.00
11n HT40	MCS 0	10	151	5755	7.95	8.62	11.31	13.515	30.00
11n HT40	MCS 0	10	159	5795	6.62	9.83	11.53	14.208	30.00
11ac VHT20	NSS1-MCS0	10	149	5745	7.92	10.03	12.11	16.264	30.00
11ac VHT20	NSS1-MCS0	10	157	5785	7.53	9.89	11.88	15.408	30.00
11ac VHT20	NSS1-MCS0	10	165	5825	8.07	9.89	12.08	16.155	30.00
11ac VHT40	NSS1-MCS0	10	151	5755	8.24	9.07	11.69	14.740	30.00
11ac VHT40	NSS1-MCS0	10	159	5795	7.13	10.24	11.97	15.732	30.00
11ac VHT80	NSS1-MCS0	10	155	5775	6.05	10.02	11.48	14.073	30.00

Note: The Avg Power Output of each antenna already includes duty cycle factor.



7. Maximum Power Spectral Density

7.1. Test Limit

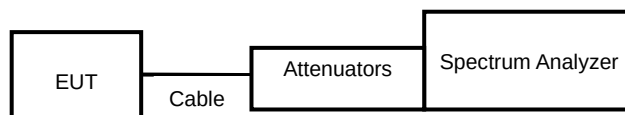
PSD:

Frequency Band		Limit
☒	5.15~5.25GHz	
	Operating Mode	
☐	Outdoor access point	17 dBm/MHz
☐	Indoor access point	17 dBm/MHz
☐	Fixed point-to-point access points	17 dBm/MHz
☒	client devices	11 dBm/MHz
☒	5.250~5.350 GHz	11 dBm/MHz
☒	5.470~5.725 GHz	11 dBm/MHz
☒	5.725~5.85 GHz	30 dBm/500kHz

7.2. Test Procedure

Reference to KDB789033 D02 General UNII Test Procedures New Rules v02r01

7.3. Test Setup Layout



**7.4. Test Result and Data****In the 5.2G Band**

Modulation Type	CH	Freq. (MHz)	Meas PPSP (dBm/MHz)		Sum chain (dBm)	Duty Cycle CF(dB)	Total Corr'd PPSP (dBm/MHz)	PPSP Limit (dBm/MHz)
			ANT A	ANT B				
11a	36	5180	-1.48	-0.39	2.11	0.09	2.20	10.28
11a	44	5220	-1.39	-0.32	2.19	0.09	2.28	10.28
11a	48	5240	-1.06	-0.18	2.41	0.09	2.50	10.28
11ac VHT20	36	5180	-1.80	-0.59	1.86	0.13	1.99	10.28
11ac VHT20	44	5220	-1.80	-0.56	1.88	0.13	2.01	10.28
11ac VHT20	48	5240	-1.54	-0.51	2.01	0.13	2.14	10.28
11ac VHT40	38	5190	-4.89	-3.75	-1.27	0.25	-1.02	10.28
11ac VHT40	46	5230	-4.51	-3.64	-1.04	0.25	-0.79	10.28
11ac VHT80	42	5210	-8.04	-7.34	-4.67	0.54	-4.13	10.28

In the 5.3G Band

Modulation Type	CH	Freq. (MHz)	Meas PPSP (dBm/MHz)		Sum chain (dBm)	Duty Cycle CF(dB)	Total Corr'd PPSP (dBm/MHz)	PPSP Limit (dBm/MHz)
			ANT A	ANT B				
11a	52	5260	-0.99	-0.15	2.46	0.09	2.55	10.38
11a	60	5300	-0.87	-0.08	2.56	0.09	2.65	10.38
11a	64	5320	-0.77	-0.08	2.60	0.09	2.69	10.38
11ac VHT20	52	5260	-1.30	-0.32	2.23	0.13	2.36	10.38
11ac VHT20	60	5300	-1.10	-0.30	2.33	0.13	2.46	10.38
11ac VHT20	64	5320	-1.19	-0.34	2.27	0.13	2.40	10.38
11ac VHT40	54	5270	-4.18	-3.40	-0.76	0.25	-0.51	10.38
11ac VHT40	62	5310	-3.97	-3.43	-0.69	0.25	-0.44	10.38
11ac VHT80	58	5290	-7.47	-6.87	-4.15	0.54	-3.61	10.38

In the 5.5G Band

Modulation Type	CH	Freq. (MHz)	Meas PPSP (dBm/MHz)		Sum chain (dBm)	Duty Cycle CF(dB)	Total Corr'd PPSP (dBm/MHz)	PPSP Limit (dBm/MHz)
			ANT A	ANT B				
11a	100	5500	-1.47	-1.26	1.65	0.09	1.74	10.54
11a	116	5580	-0.43	0.01	2.80	0.09	2.89	10.54
11a	140	5700	-0.24	0.51	3.16	0.09	3.25	10.54
11ac VHT20	100	5500	-1.87	-1.51	1.33	0.13	1.46	10.54
11ac VHT20	116	5580	-0.80	-0.29	2.47	0.13	2.60	10.54
11ac VHT20	140	5700	-0.59	0.37	2.93	0.13	3.06	10.54
11ac VHT40	102	5510	-4.76	-4.53	-1.63	0.25	-1.38	10.54
11ac VHT40	110	5550	-4.25	-3.97	-1.10	0.25	-0.85	10.54
11ac VHT40	134	5670	-3.31	-2.73	0.00	0.25	0.25	10.54
11ac VHT80	106	5530	-7.95	-7.90	-4.91	0.54	-4.37	10.54

In the 5.8G Band

Modulation Type	CH	Freq. (MHz)	Meas PPSP (dBm/MHz)		Sum chain (dBm)	Duty Cycle CF(dB)	10log(500K Hz/RBW) CF (dB)	Total Corr'd PPSP (dBm/500kHz)	PPSP Limit (dBm/500kHz)
			ANT A	ANT B					
11a	149	5745	-0.94	0.28	2.72	0.09	-3.01	-0.20	30.00
11a	157	5785	-1.27	0.27	2.58	0.09	-3.01	-0.34	30.00
11a	165	5825	-1.51	0.25	2.47	0.09	-3.01	-0.45	30.00
11ac VHT20	149	5745	-0.65	0.28	2.85	0.13	-3.01	-0.03	30.00
11ac VHT20	157	5785	-1.23	0.24	2.58	0.13	-3.01	-0.30	30.00
11ac VHT20	165	5825	-1.81	0.25	2.35	0.13	-3.01	-0.53	30.00
11ac VHT40	151	5755	-4.21	-3.10	-0.61	0.25	-3.01	-3.37	30.00
11ac VHT40	159	5795	-4.59	-3.03	-0.73	0.25	-3.01	-3.49	30.00
11ac VHT80	155	5775	-7.92	-6.39	-4.08	0.54	-3.01	-6.55	30.00

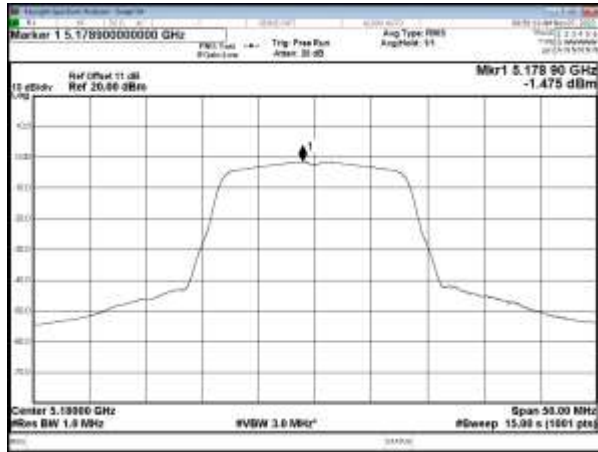


ANT A

5.2G, UNII-1

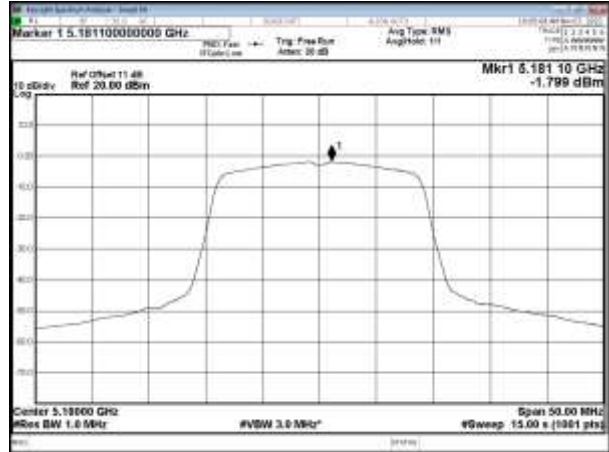
Modulation Standard: 802.11a (6Mbps)

CH36

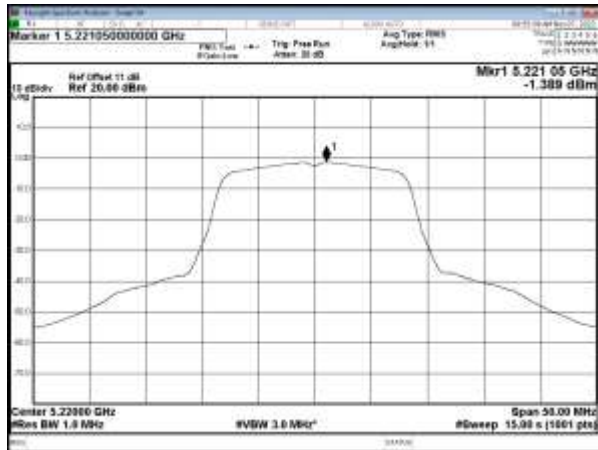


Modulation Standard: 802.11ac VHT20 (6.5Mbps)

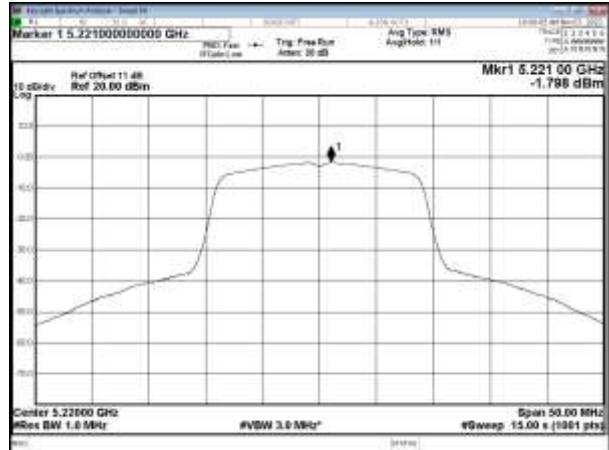
CH36



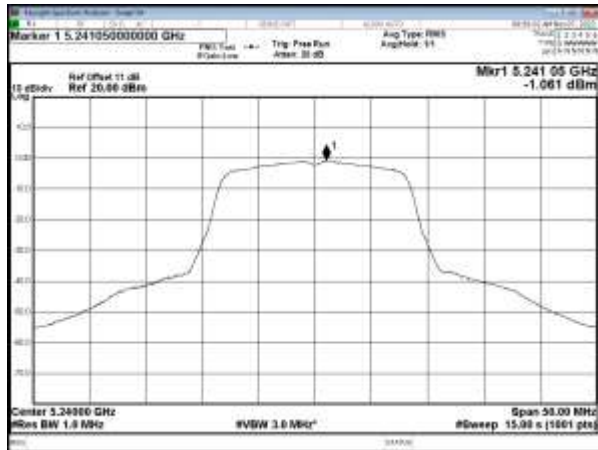
CH44



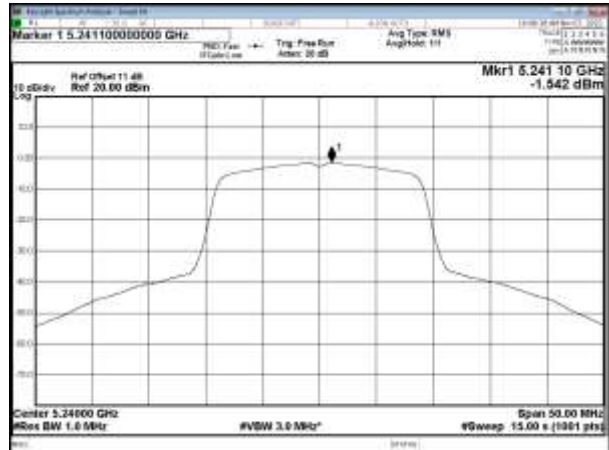
CH44



CH48



CH48

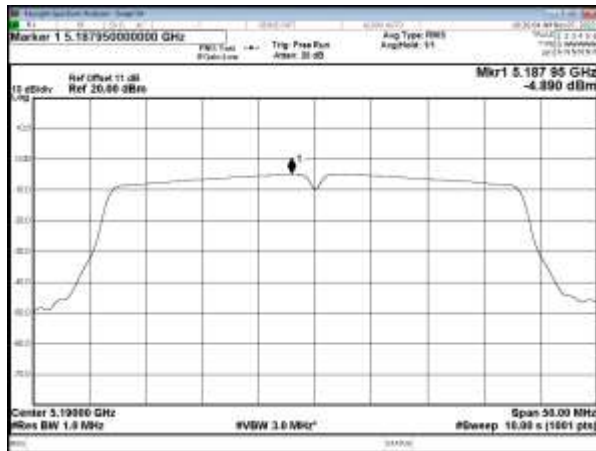




5.2G, UNII-1

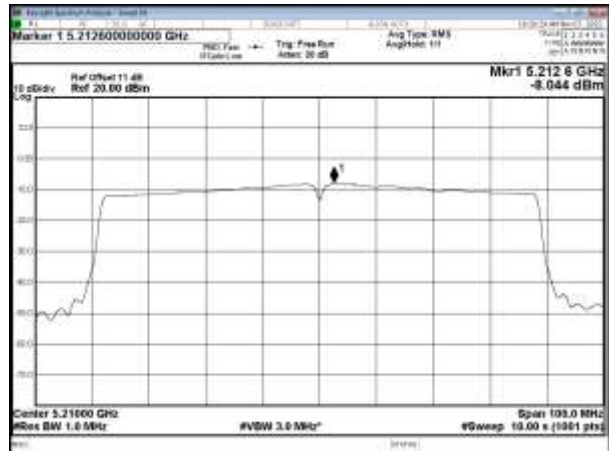
Modulation Standard: 802.11ac VHT40 (13.5Mbps)

CH38

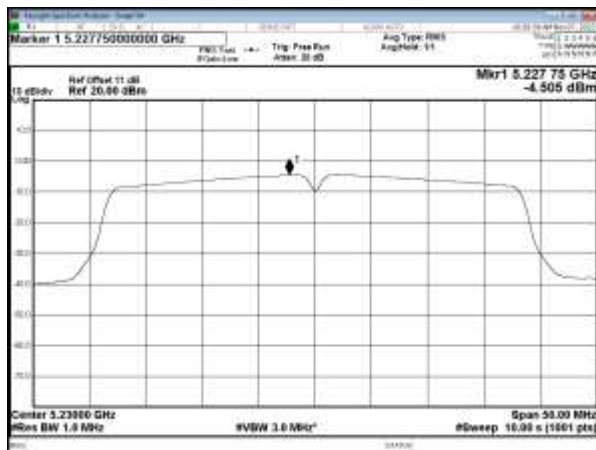


Modulation Standard: 802.11ac VHT80 (29.3Mbps)

CH42



CH46

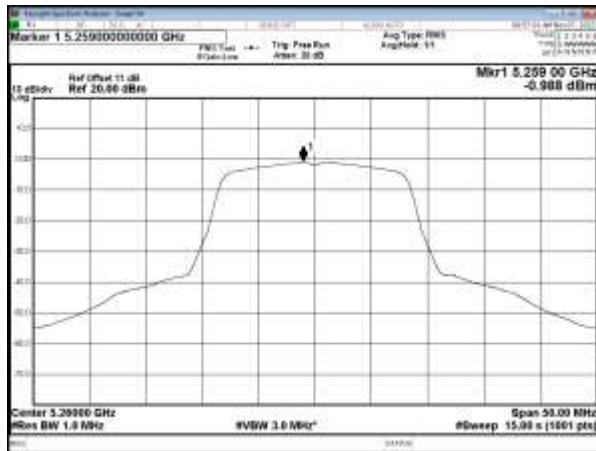




5.3G, UNII-2A

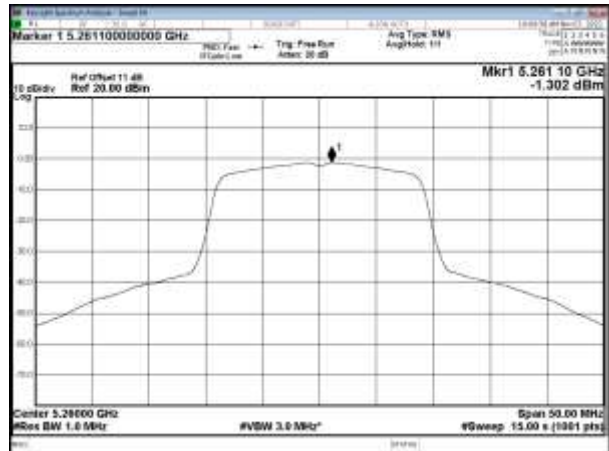
Modulation Standard: 802.11a (6Mbps)

CH52

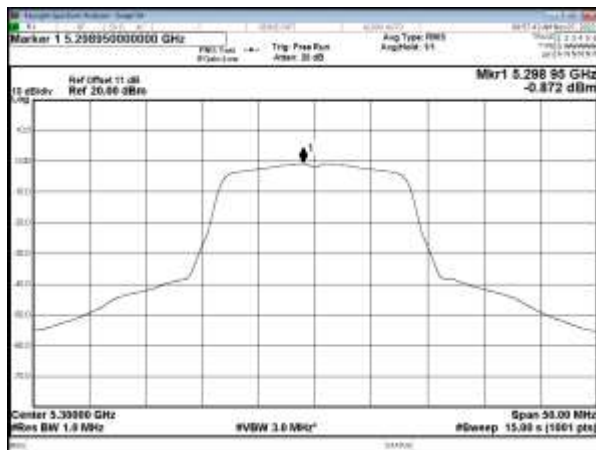


Modulation Standard: 802.11ac VHT20 (6.5Mbps)

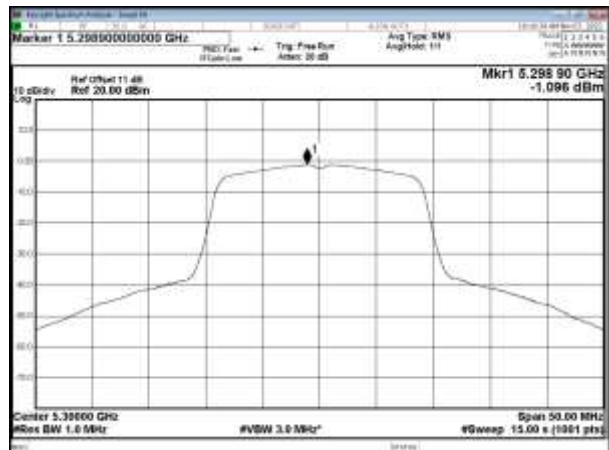
CH52



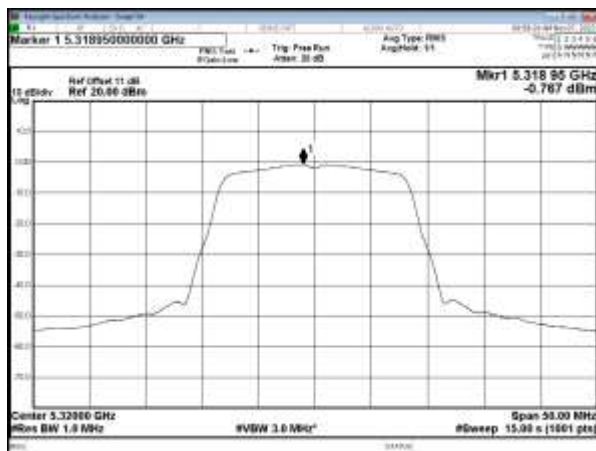
CH60



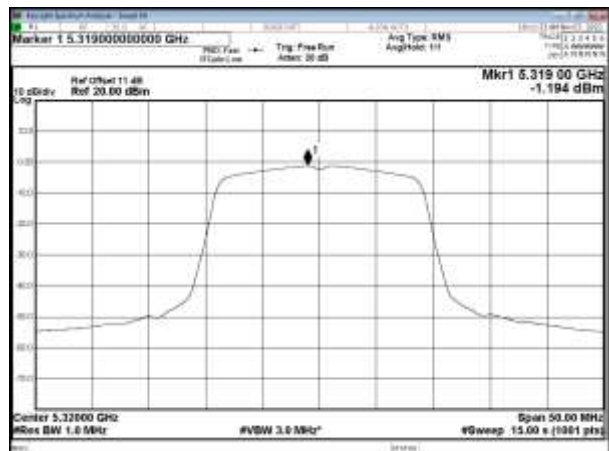
CH60



CH64



CH64

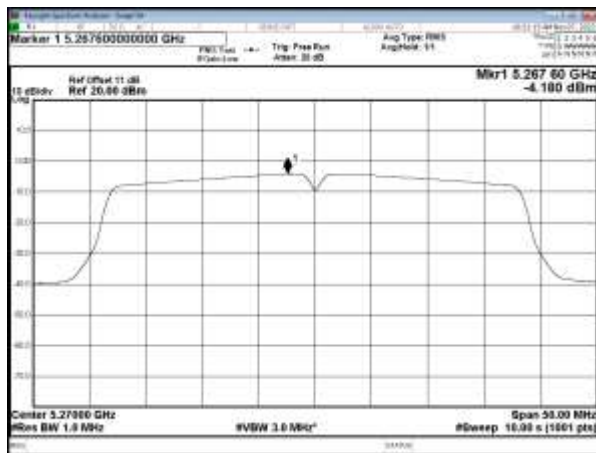




5.3G, UNII-2A

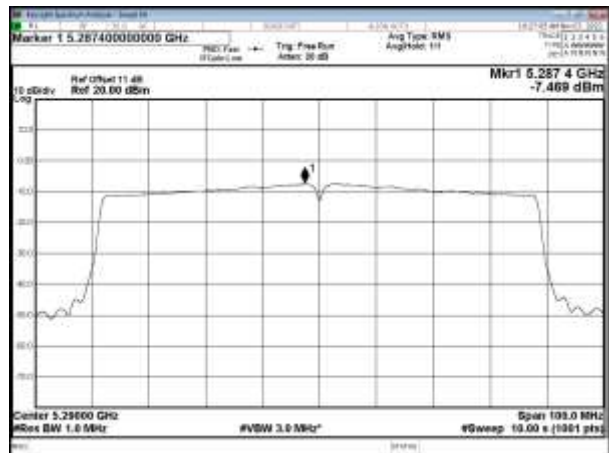
Modulation Standard: 802.11ac VHT40 (13.5Mbps)

CH54

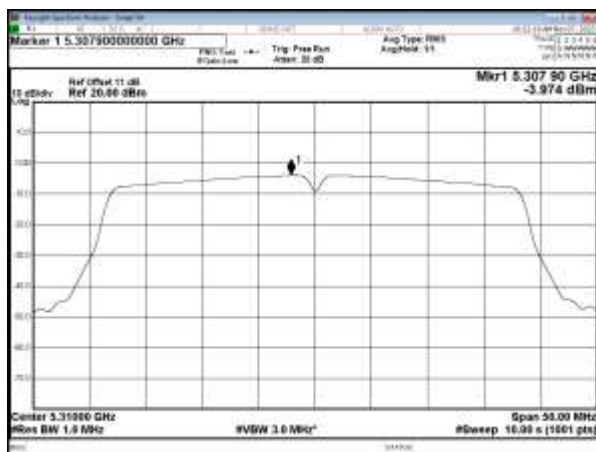


Modulation Standard: 802.11ac VHT80 (29.3Mbps)

CH58



CH62

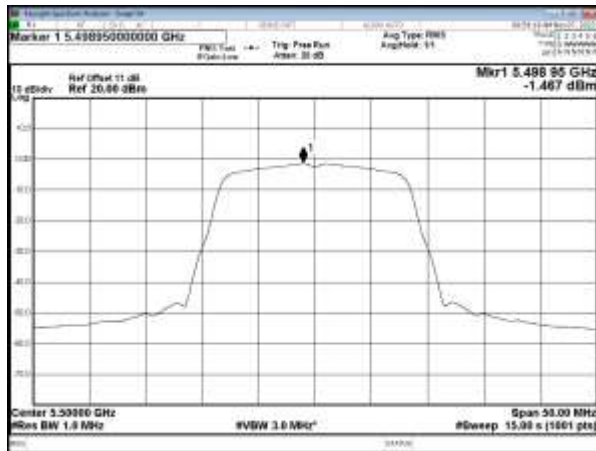




5.5G, UNII-2C

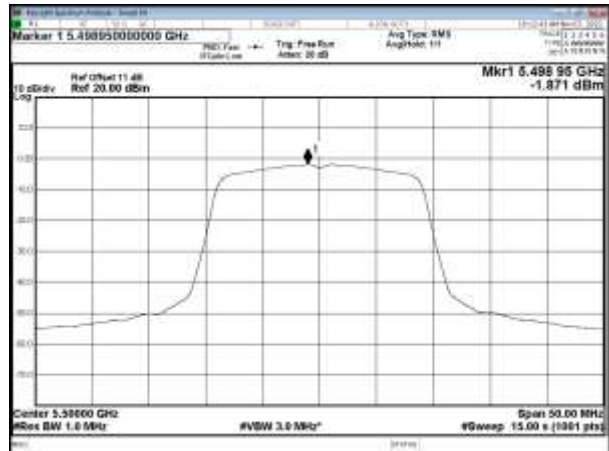
Modulation Standard: 802.11a (6Mbps)

CH100

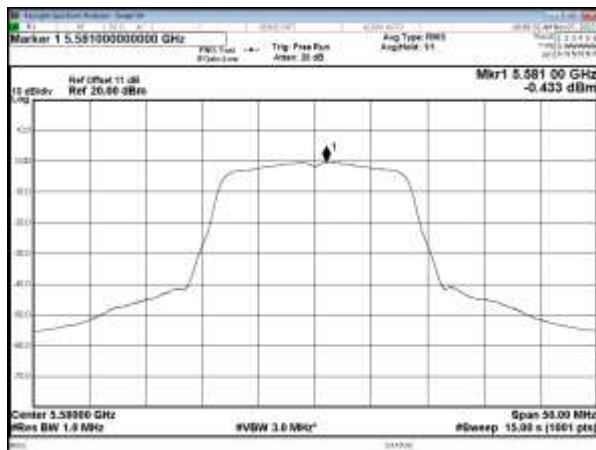


Modulation Standard: 802.11ac VHT20 (6.5Mbps)

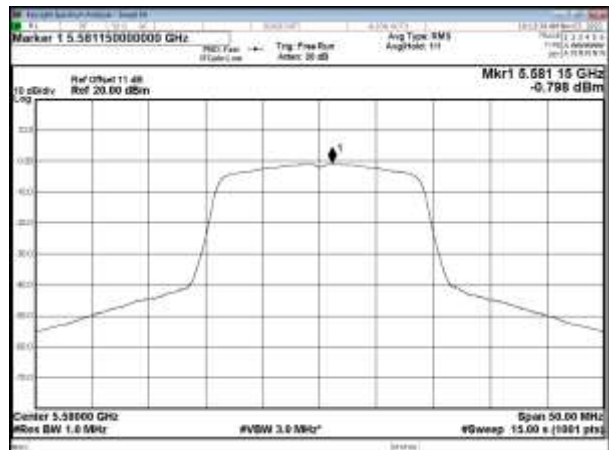
CH100



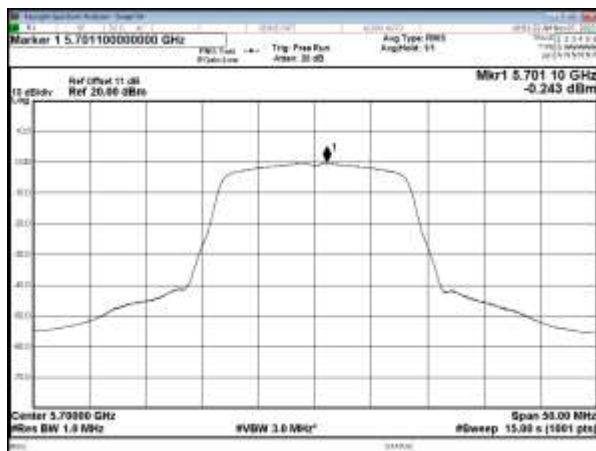
CH116



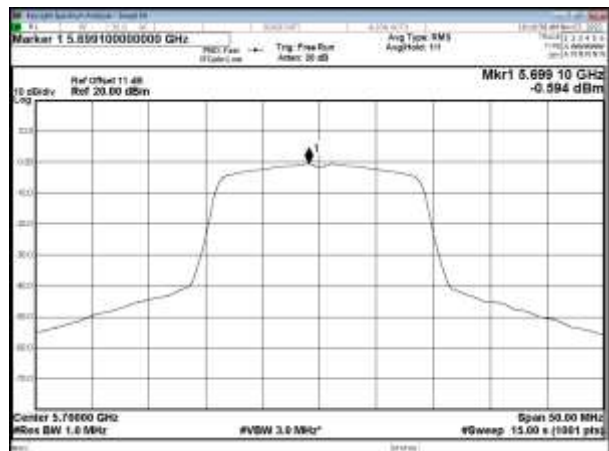
CH116



CH140



CH140

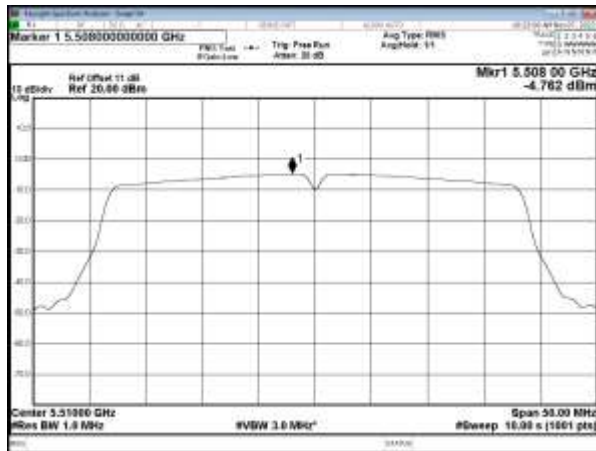




5.5G, UNII-2C

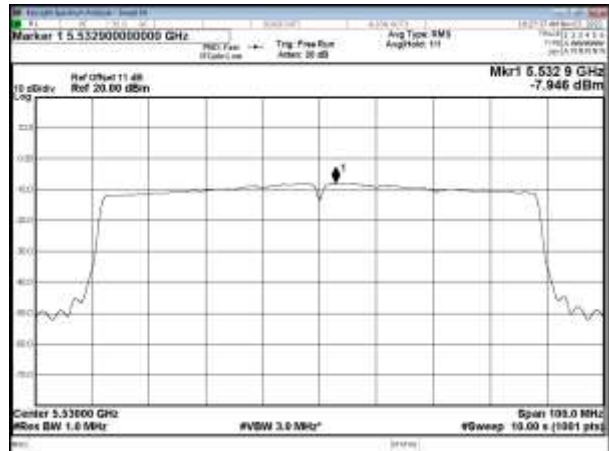
Modulation Standard: 802.11ac VHT40 (13.5Mbps)

CH102

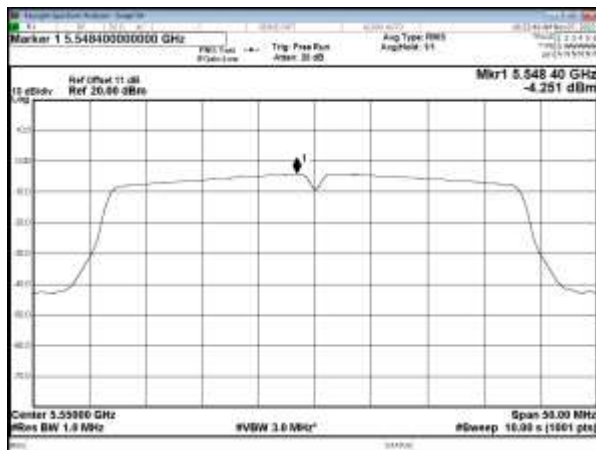


Modulation Standard: 802.11ac VHT80 (29.3Mbps)

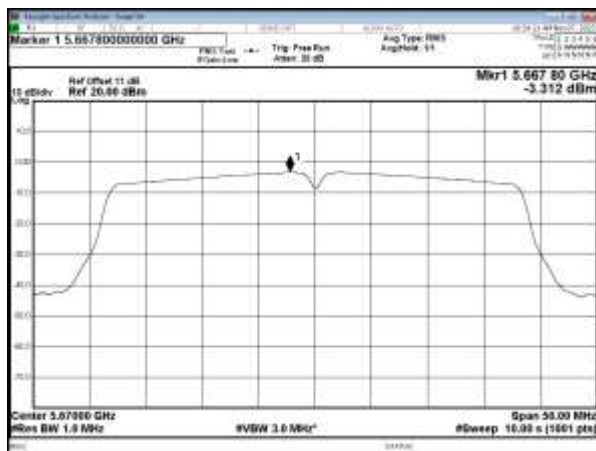
CH106



CH1110



CH134

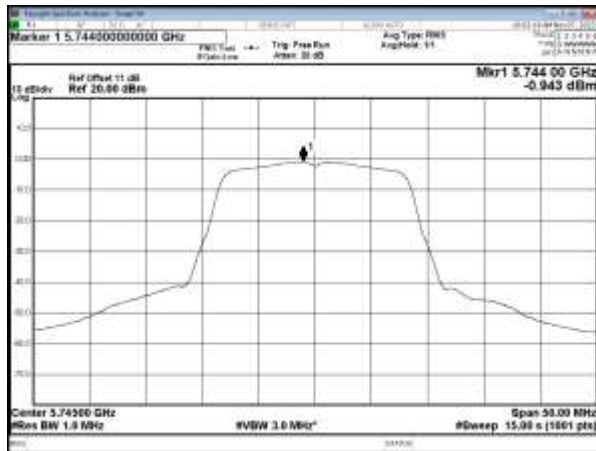




5.8G, UNII-3

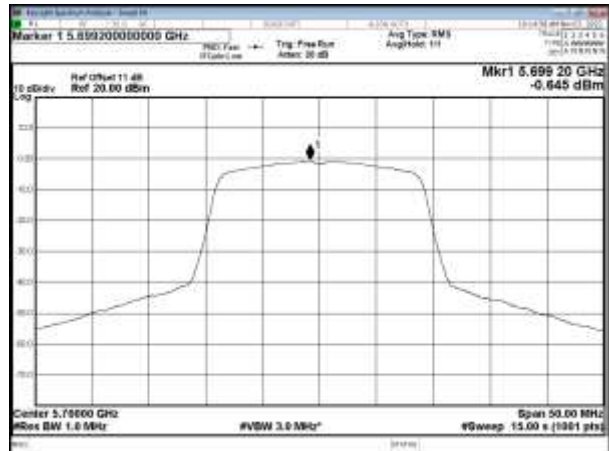
Modulation Standard: 802.11a (6Mbps)

CH149

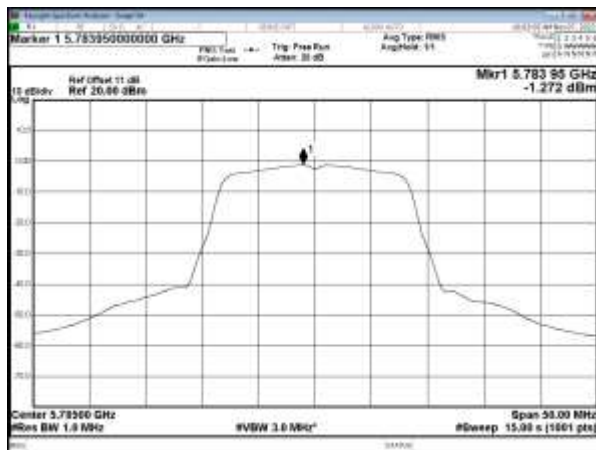


Modulation Standard: 802.11ac VHT20 (6.5Mbps)

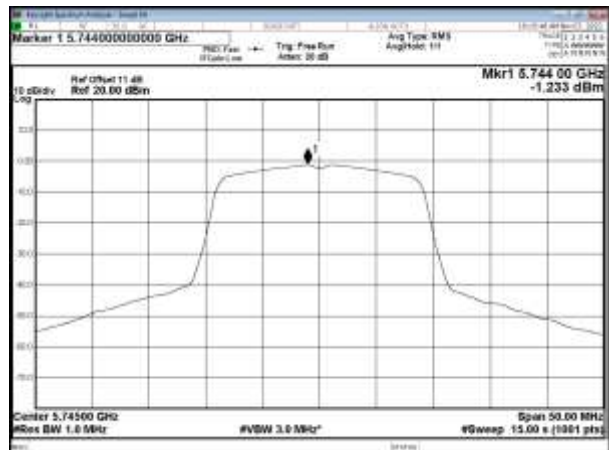
CH149



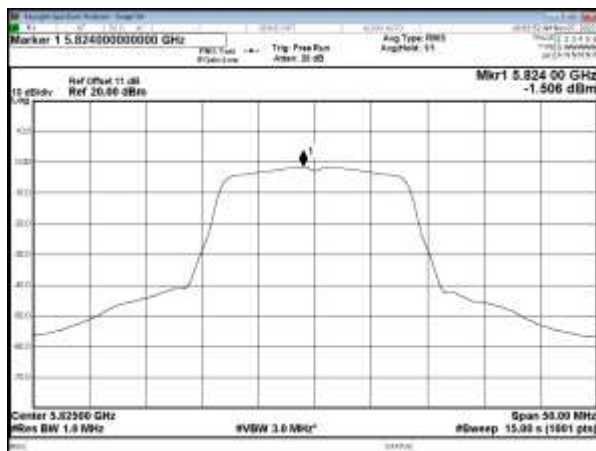
CH157



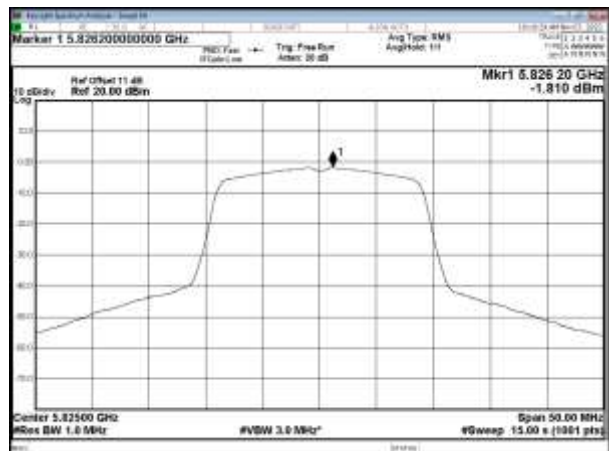
CH157



CH165



CH165

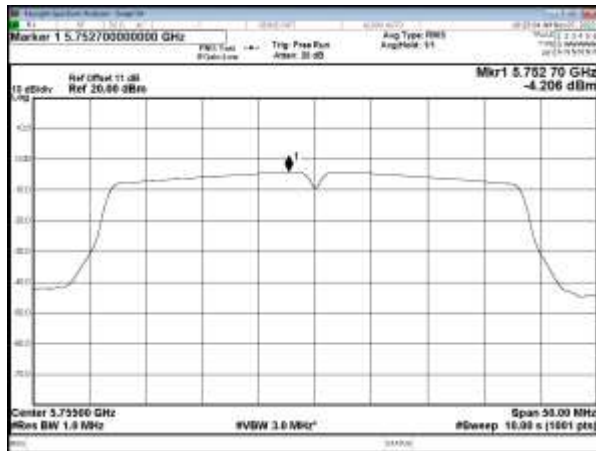




5.8G, UNII-3

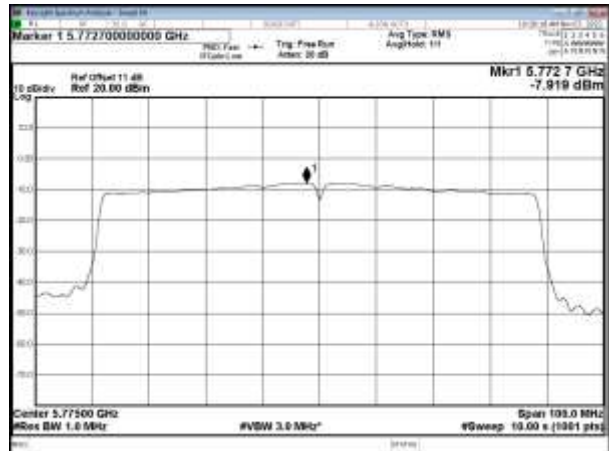
Modulation Standard: 802.11ac VHT40 (13.5Mbps)

CH151

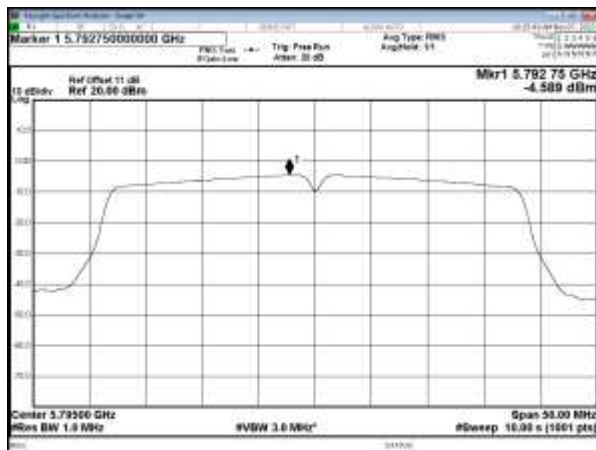


Modulation Standard: 802.11ac VHT80 (29.3Mbps)

CH155



CH159



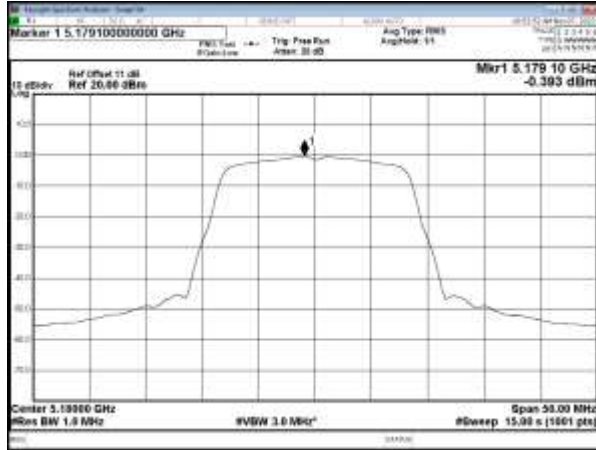


ANT B

5.2G, UNII-1

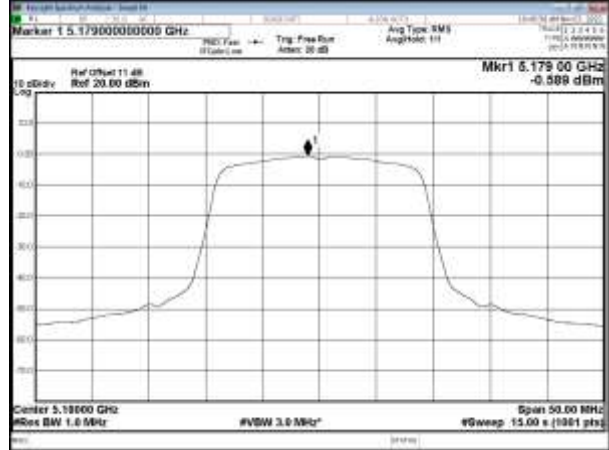
Modulation Standard: 802.11a (6Mbps)

CH36

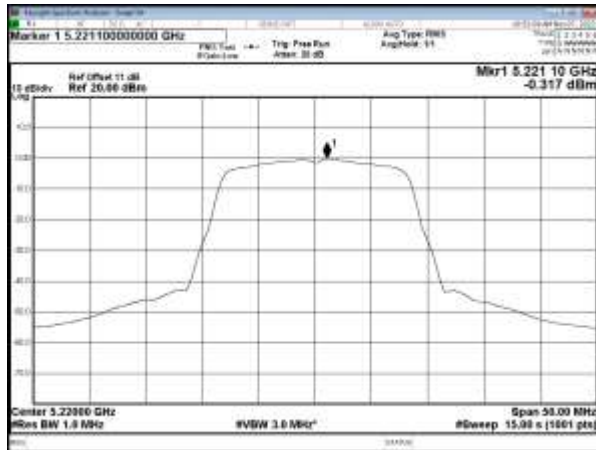


Modulation Standard: 802.11ac VHT20 (6.5Mbps)

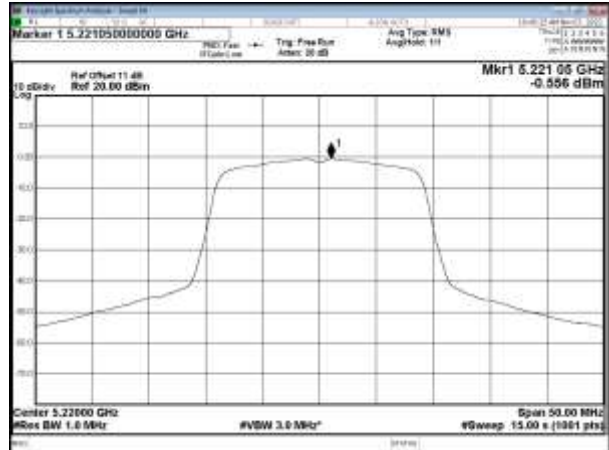
CH36



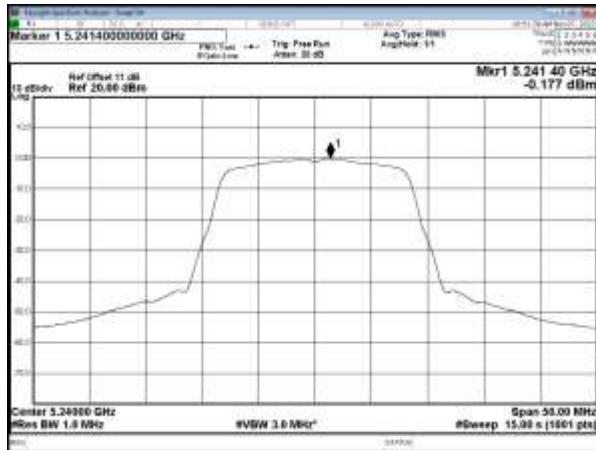
CH44



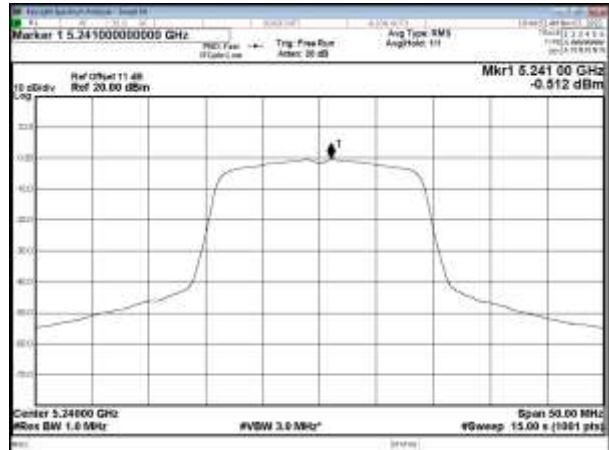
CH44



CH48



CH48

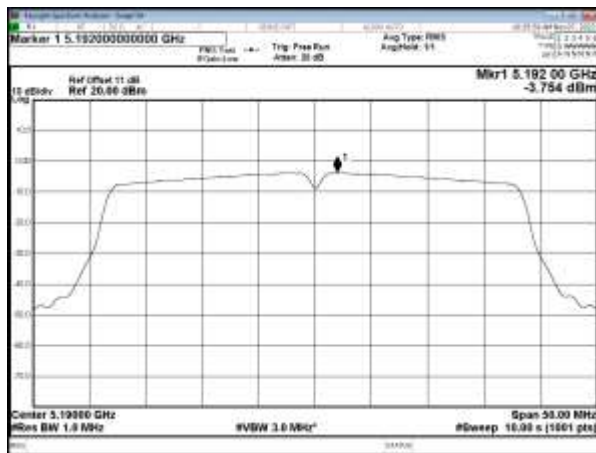




5.2G, UNII-1

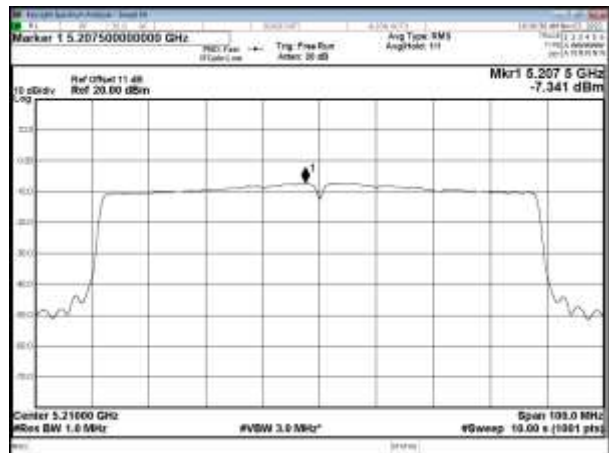
Modulation Standard: 802.11ac VHT40 (13.5Mbps)

CH38



Modulation Standard: 802.11ac VHT80 (29.3Mbps)

CH42



CH46

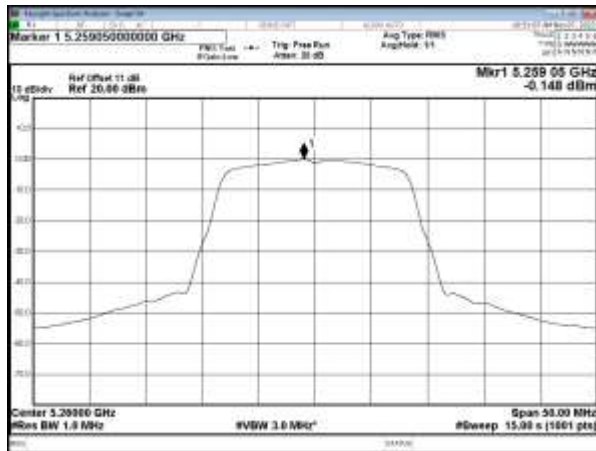




5.3G, UNII-2A

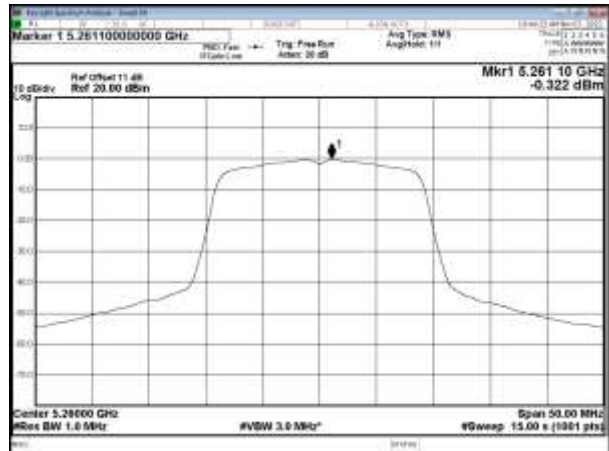
Modulation Standard: 802.11a (6Mbps)

CH52

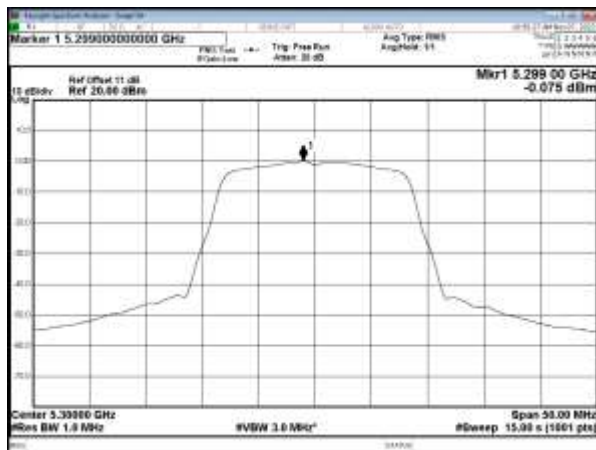


Modulation Standard: 802.11ac VHT20 (6.5Mbps)

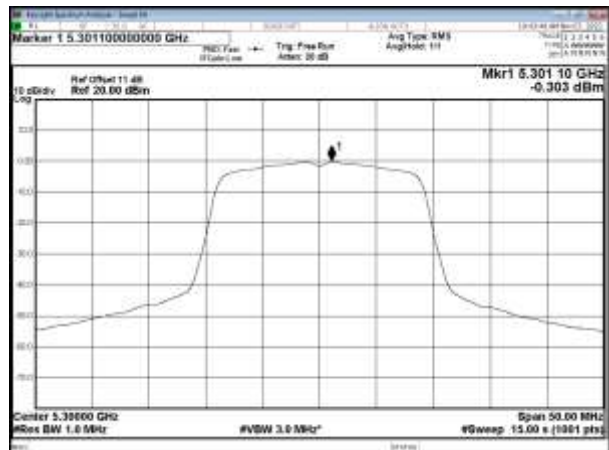
CH52



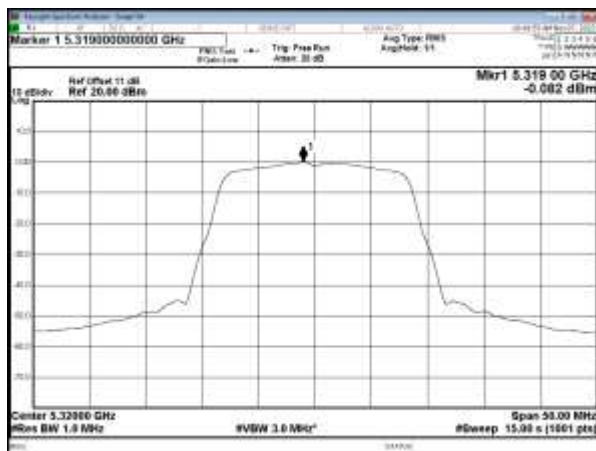
CH60



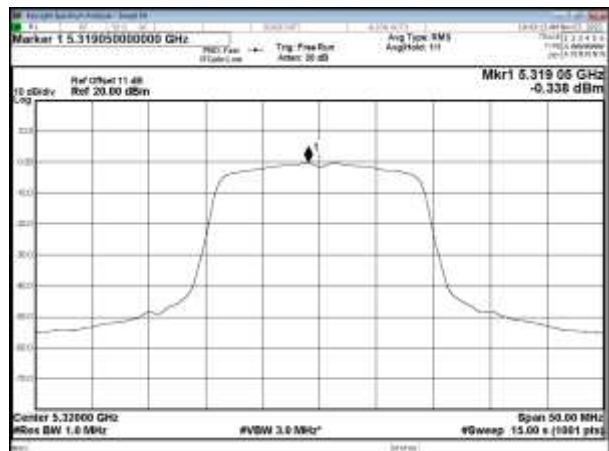
CH60



CH64



CH64

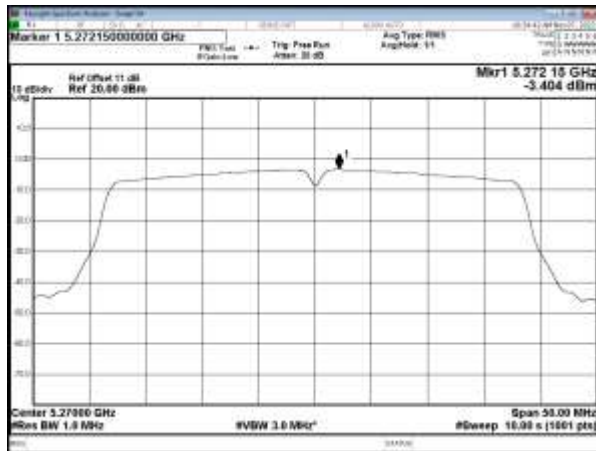




5.3G, UNII-2A

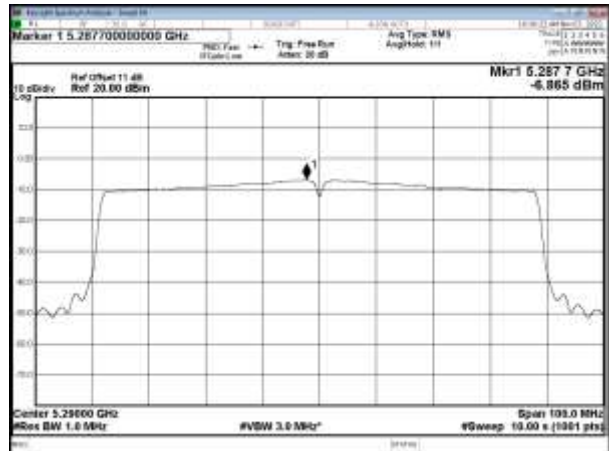
Modulation Standard: 802.11ac VHT40 (13.5Mbps)

CH54

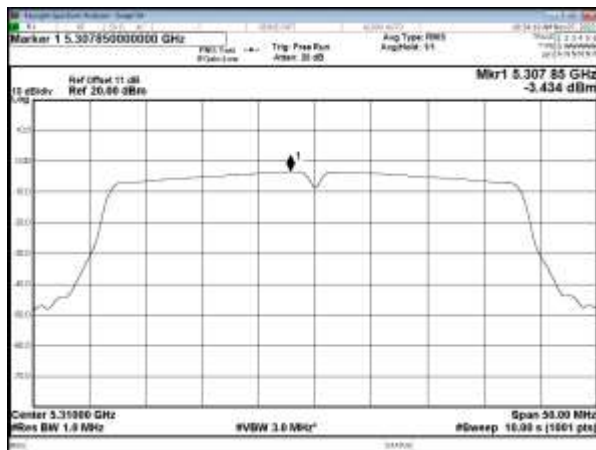


Modulation Standard: 802.11ac VHT80 (29.3Mbps)

CH58



CH62

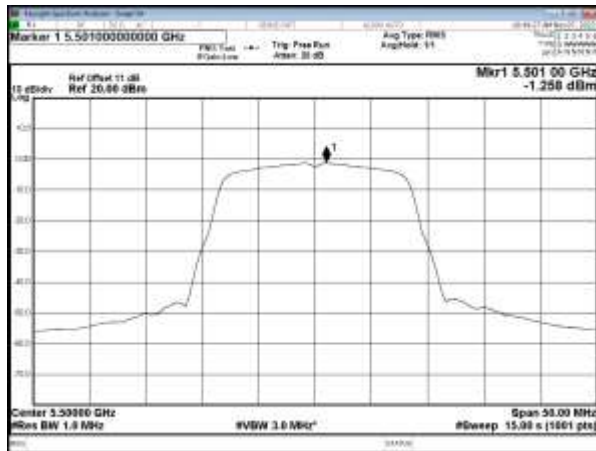




5.5G, UNII-2C

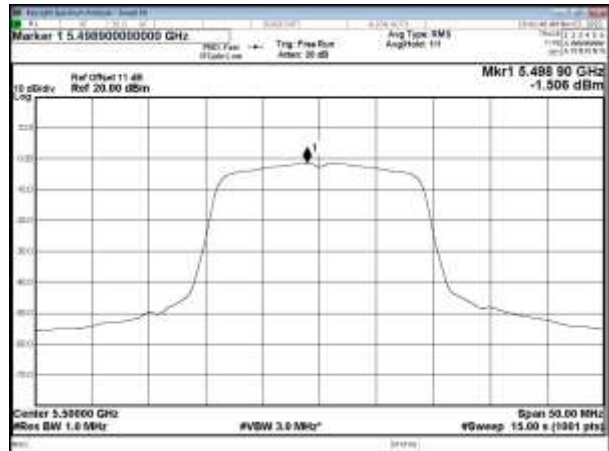
Modulation Standard: 802.11a (6Mbps)

CH100

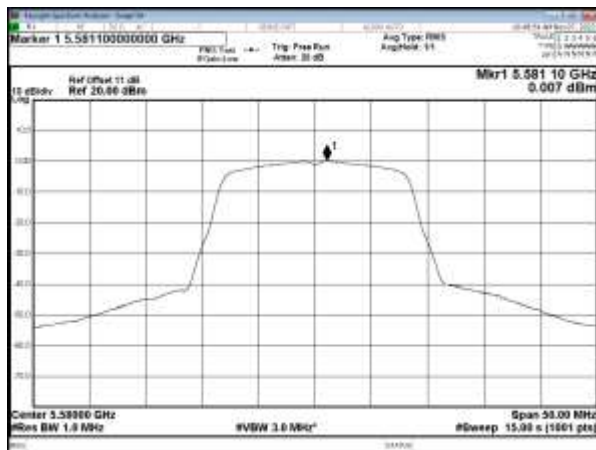


Modulation Standard: 802.11ac VHT20 (6.5Mbps)

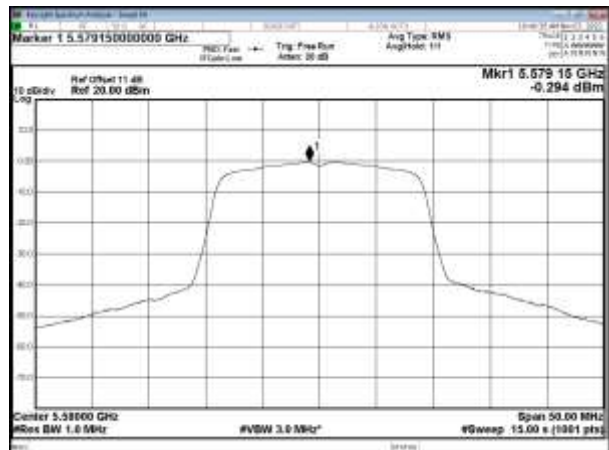
CH100



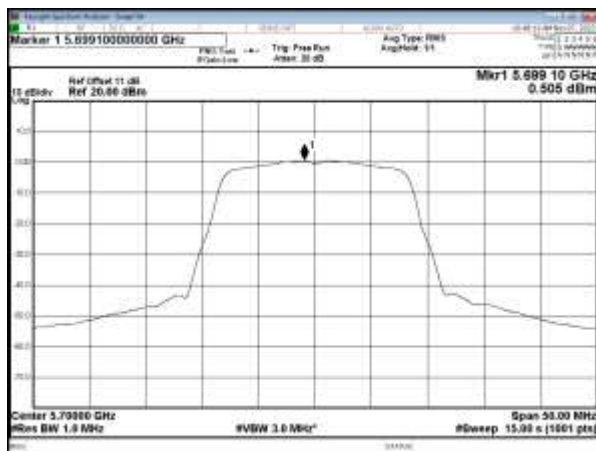
CH116



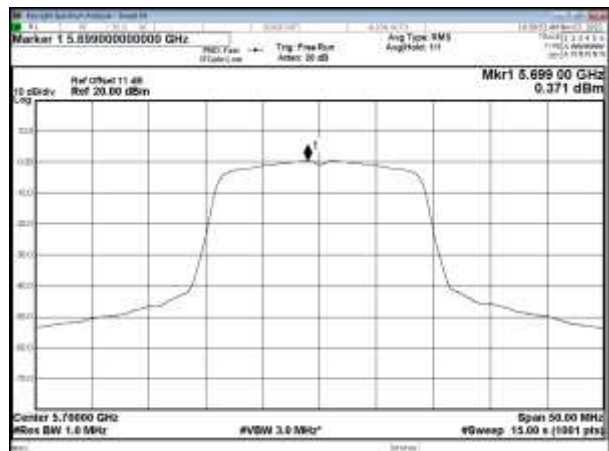
CH116



CH140



CH140

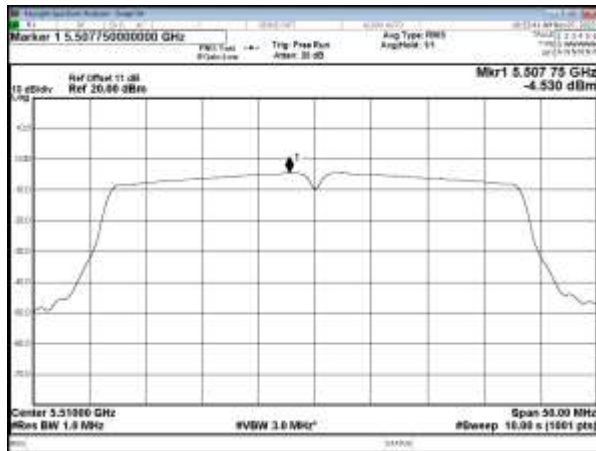




5.5G, UNII-2C

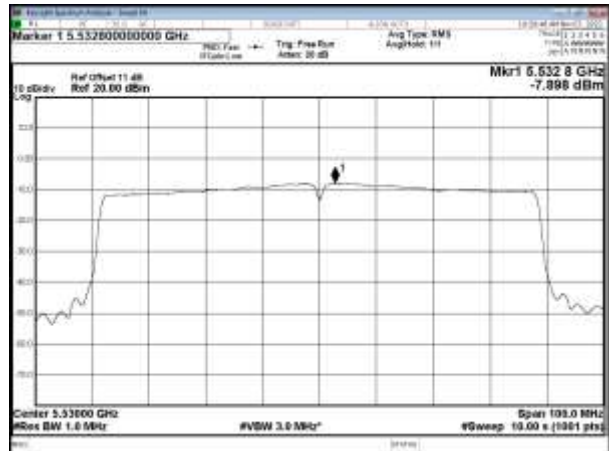
Modulation Standard: 802.11ac VHT40 (13.5Mbps)

CH102

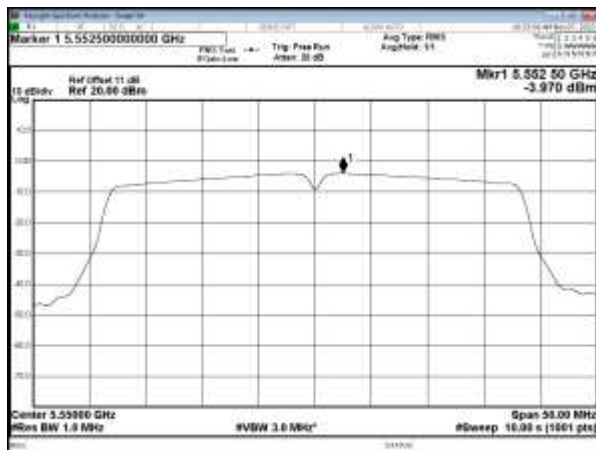


Modulation Standard: 802.11ac VHT80 (29.3Mbps)

CH106



CH1110



CH134

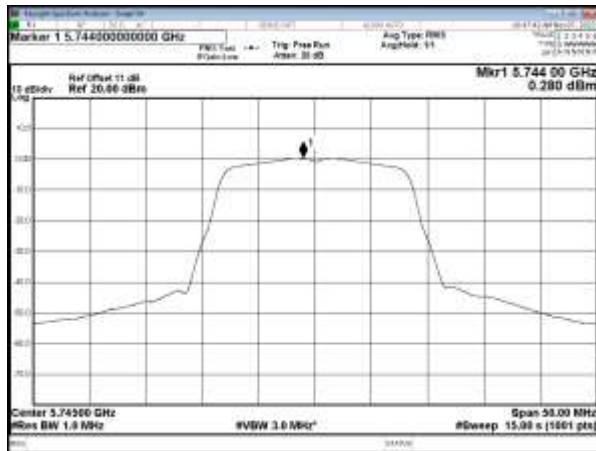




5.8G, UNII-3

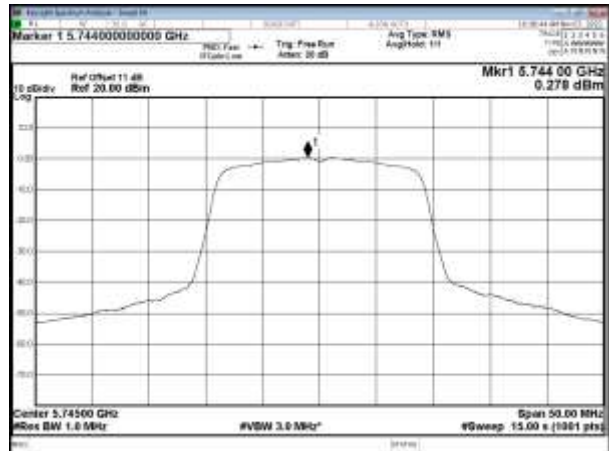
Modulation Standard: 802.11a (6Mbps)

CH149

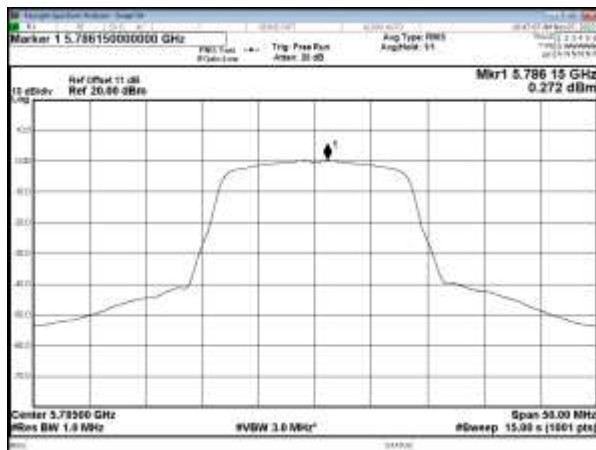


Modulation Standard: 802.11ac VHT20 (6.5Mbps)

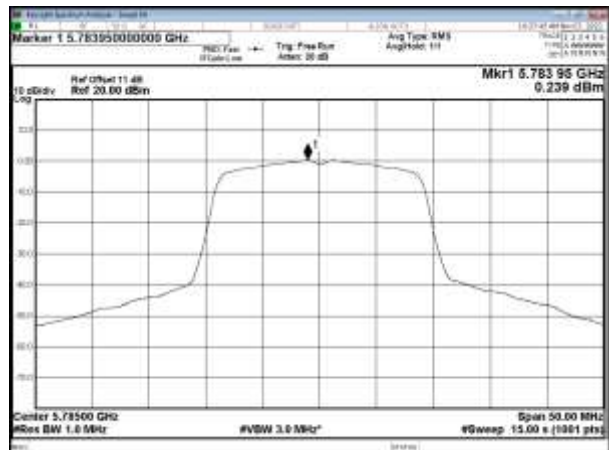
CH149



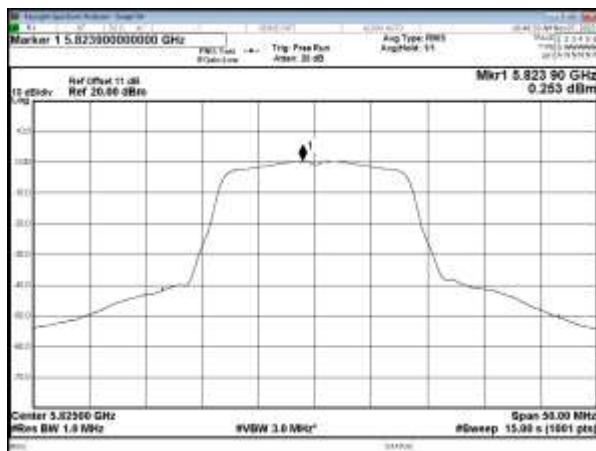
CH157



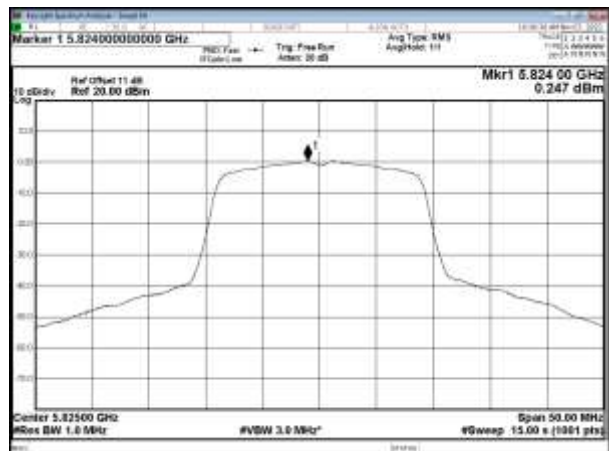
CH157



CH165



CH165





5.8G, UNII-3

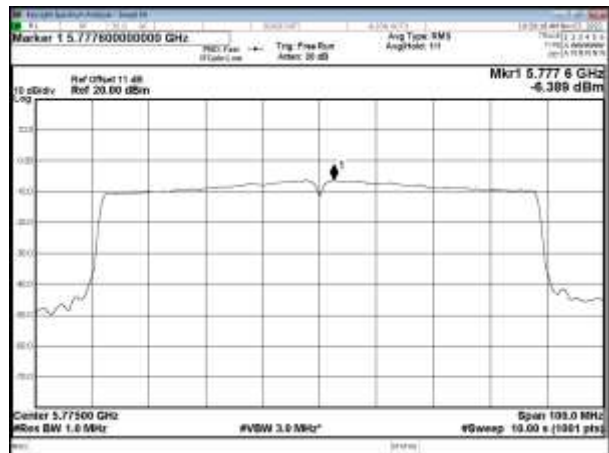
Modulation Standard: 802.11ac VHT40 (13.5Mbps)

CH151

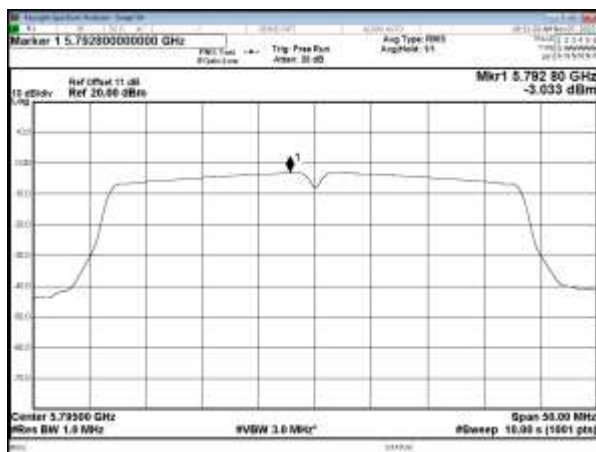


Modulation Standard: 802.11ac VHT80 (29.3Mbps)

CH155



CH159



-----End of the report -----