

**802.11ac (VHT20) Test mode**

Channel	Frequency (MHz)	Measured Peak Power (dBm)	Limit (dBm)	Verdict
36	5180	16.44	24	PASS
44	5220	16.83		
48	5240	17.35		
52	5260	17.87		
60	5300	18.06		
64	5320	18.57		
100	5500	19.60		
120	5600	19.06		
144	5720	18.38		
149	5745	18.41	30	
157	5785	17.62		
165	5825	17.44		

Channel	Frequency (MHz)	Measured Peak Power (dBm)	Limit 11 dBm + 10 log B (dBm)	Verdict
52	5260	17.87	24	PASS
60	5300	18.06	24	
64	5320	18.57	24	
100	5500	19.60	24	
120	5600	19.06	24	
144	5720	18.38	24	



Channel	Frequency (MHz)	Measured Average Power (dBm)	Limit (dBm)	Verdict
36	5180	9.79	24	PASS
44	5220	10.17		
48	5240	10.51		
52	5260	11.43		
60	5300	11.70		
64	5320	12.24		
100	5500	12.20		
120	5600	11.82		
144	5720	11.13		
149	5745	11.33	30	
157	5785	10.37		
165	5825	10.12		

Channel	Frequency (MHz)	Measured Average Power (dBm)	Limit 11 dBm + 10 log B (dBm)	Verdict
52	5260	11.43	24	PASS
60	5300	11.70	24	
64	5320	12.24	24	
100	5500	12.20	24	
120	5600	11.82	24	
144	5720	11.13	24	

**802.11ac (VHT40) Test mode**

Channel	Frequency (MHz)	Measured Peak Power (dBm)	Limit (dBm)	Verdict
38	5190	16.65	24	PASS
46	5230	16.77		
54	5270	17.87		
62	5310	18.47		
102	5510	19.46		
126	5630	18.78		
142	5710	18.23		
151	5755	18.07	30	
159	5795	17.76		

Channel	Frequency (MHz)	Measured Peak Power (dBm)	Limit 11 dBm + 10 log B (dBm)	Verdict
54	5270	17.87	24	PASS
62	5310	18.47	24	
102	5510	19.46	24	
126	5630	18.78	24	
142	5710	18.23	24	



Channel	Frequency (MHz)	Measured Average Power (dBm)	Limit (dBm)	Verdict
38	5190	9.23	24	PASS
46	5230	9.63		
54	5270	10.87		
62	5310	11.37		
102	5510	11.59		
126	5630	11.02		
142	5710	10.33		
151	5755	10.43	30	
159	5795	9.79		

Channel	Frequency (MHz)	Measured Average Power (dBm)	Limit 11 dBm + 10 log B (dBm)	Verdict
54	5270	10.87	24	PASS
62	5310	11.37	24	
102	5510	11.59	24	
126	5630	11.02	24	
142	5710	10.33	24	

**802.11ac (VHT80) Test mode**

Channel	Frequency (MHz)	Measured Peak Power (dBm)	Limit (dBm)	Verdict
42	5210	16.21	24	PASS
58	5290	17.90		
106	5530	18.97		
122	5610	18.72		
138	5690	18.17		
155	5775	17.76	30	

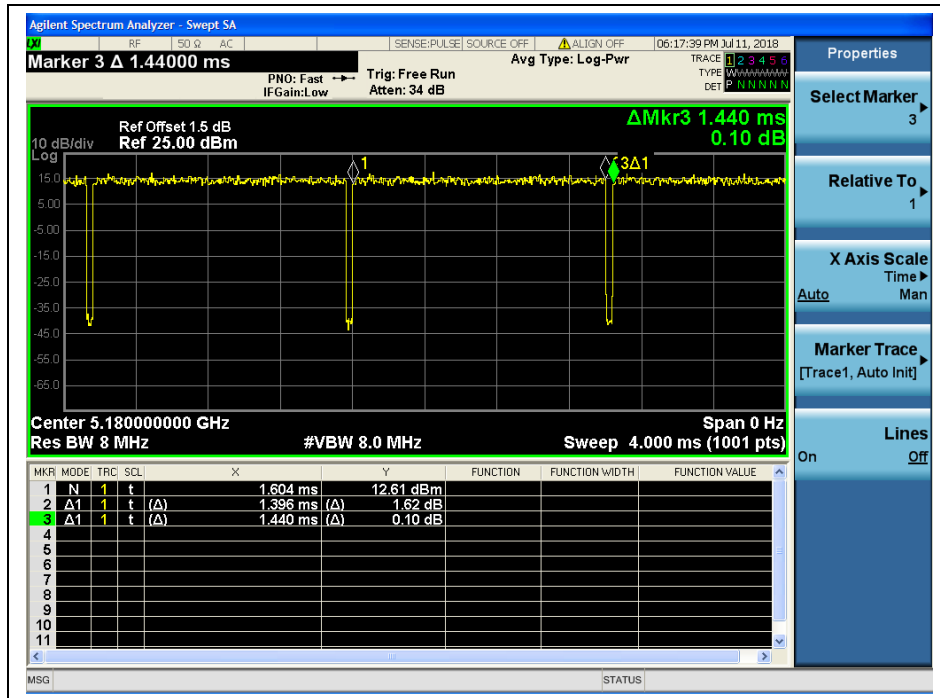
Channel	Frequency (MHz)	Measured Peak Power (dBm)	Limit 11 dBm + 10 log B (dBm)	Verdict
54	5270	16.21	24	PASS
62	5310	17.90	24	
102	5510	18.97	24	
126	5630	18.72	24	
142	5710	18.17	24	

Channel	Frequency (MHz)	Measured Average Power (dBm)	Limit (dBm)	Verdict
42	5210	8.84	24	PASS
58	5290	10.56		
106	5530	10.89		
122	5610	10.59		
138	5690	10.09		
155	5775	9.59	30	

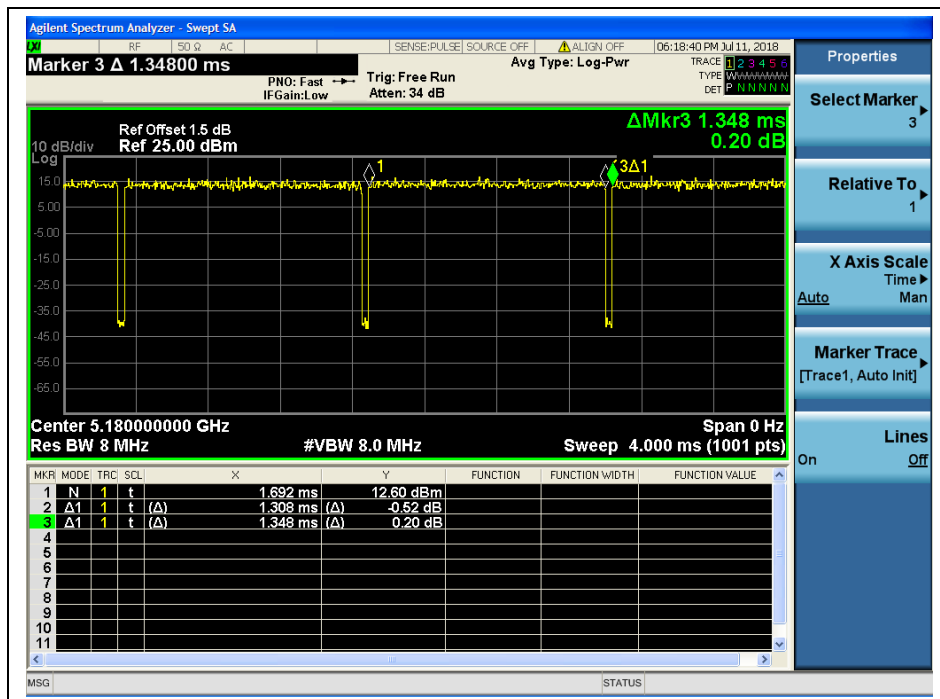
Channel	Frequency (MHz)	Measured Average Power (dBm)	Limit 11 dBm + 10 log B (dBm)	Verdict
54	5270	8.84	24	PASS
62	5310	10.56	24	
102	5510	10.89	24	
126	5630	10.59	24	
142	5710	10.09	24	



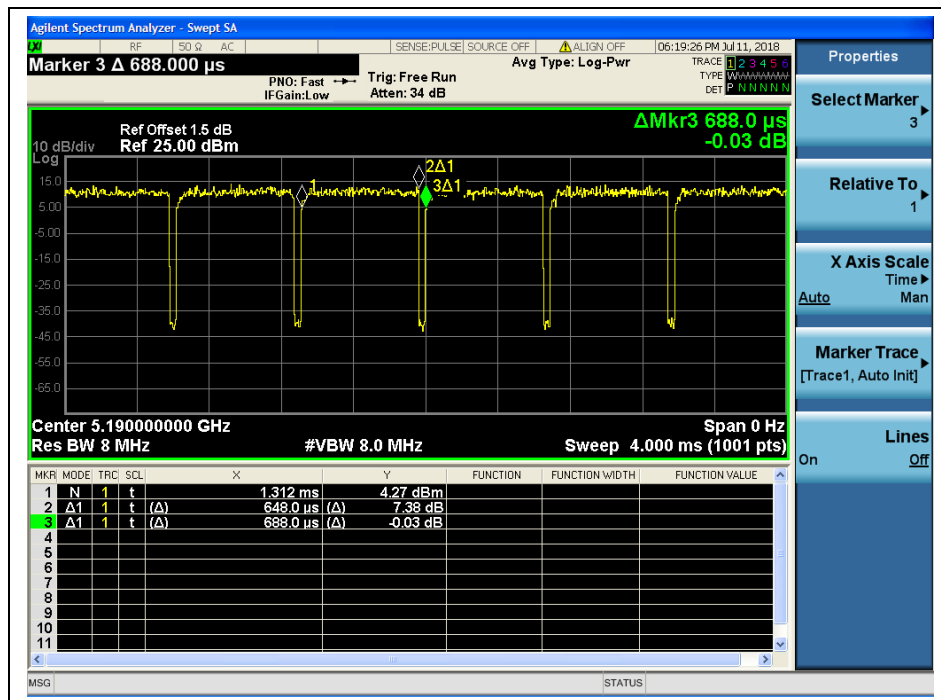
Plot for duty cycle



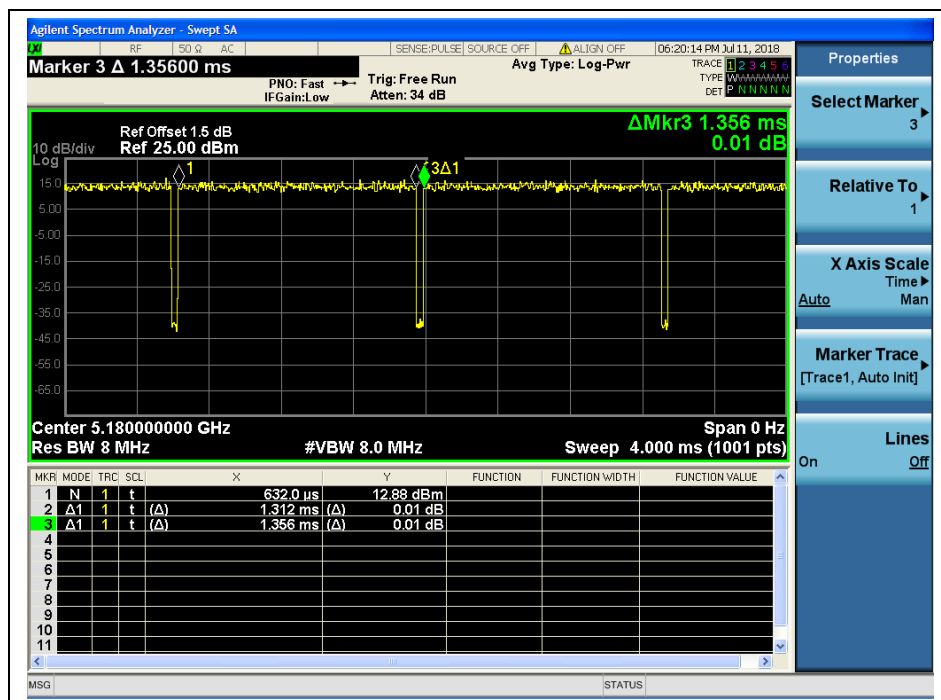
(Duty cycle for 802.11 a)



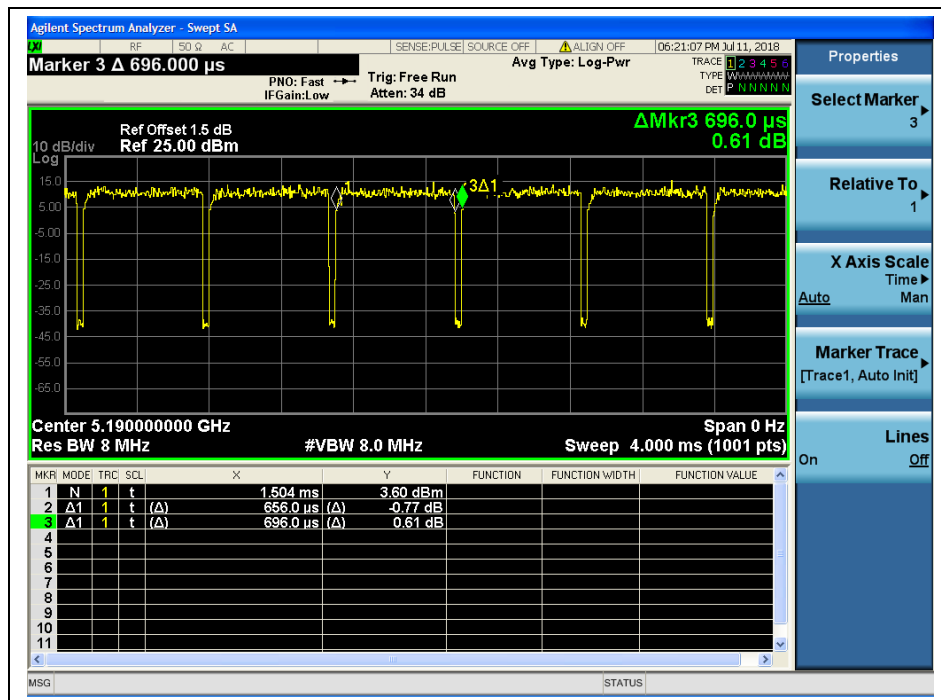
(Duty cycle for 802.11 n(HT20))



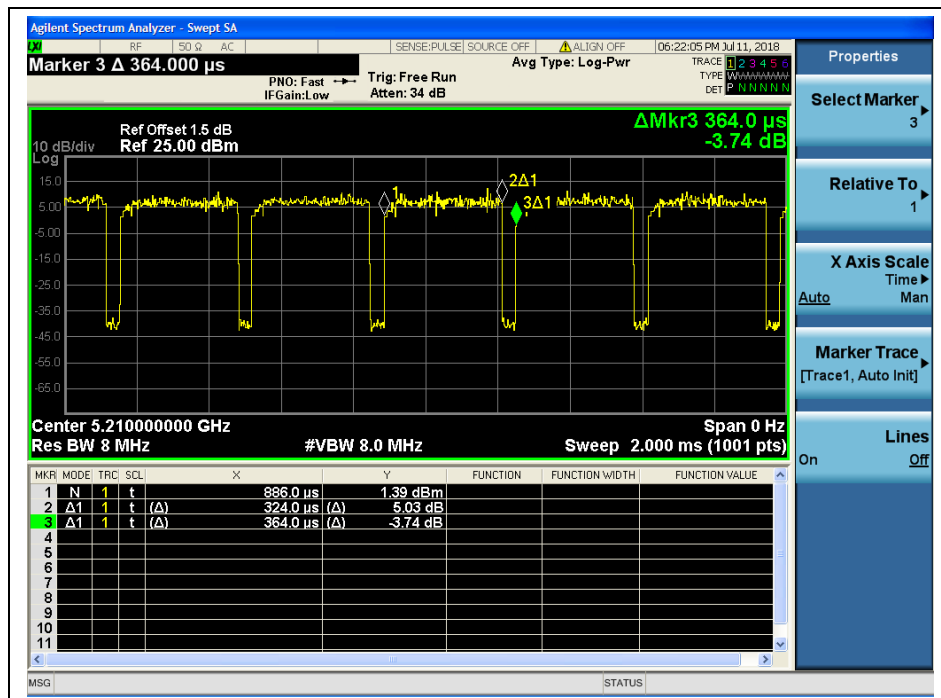
(Duty cycle for 802.11 n(HT40))



(Duty cycle for 802.11 ac(VHT20))



(Duty cycle for 802.11 ac(VHT40))



(Duty cycle for 802.11 ac(VHT80))

2.4. Peak Power spectral density

2.4.1. Requirement

- (1) For 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.
- (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.
- (3) For the band 5.725-5.85 GHz, the maximum power spectral density shall not exceed 30 dBm in any 500KHz band.

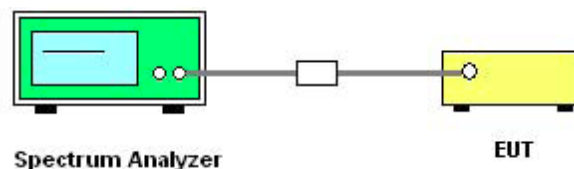
If transmitting antennas of directional gain greater than 6 dBi are used, the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

(4) According to KDB662911D01 Measure-and-sum technique, the conducted emission level (e.g., transmit power or power in specified bandwidth) is measured at each antenna port. The measured results at the various antenna ports are then summed mathematically to determine the total emission level from the device. Summing is performed in units that are directly proportional to power.

(5) According to KDB 662911 D01, the directional gain = $G_{ANT} + 10\log(N_{ANT})$ dBi, where G_{ANT} is the antenna gain in dBi, N_{ANT} is the number of outputs.

2.4.2. Test Description

A. Test Set:



The EUT is coupled to the Spectrum Analyzer; the RF load attached to the EUT antenna terminal is 50 Ohm; the path loss as the factor is calibrated to correct the reading.

B. Test Procedure

KDB 789033 Section F) Maximum Power Spectral Density (PSD) Method SA-1 was used in order to prove compliance

- 1) Set span to encompass the entire 26-dB emission bandwidth
- 2) Set RBW = 1 MHz. Set VBW $\geq$ 3 MHz.
- 3) Number of points in sweep $\geq$ 2 Span / RBW. Sweep time = auto.
- 4) Detector = RMS (i.e., power averaging)
- 5) Trace average at least 100 traces in power averaging (i.e., RMS) mode
- 6) Record the max value



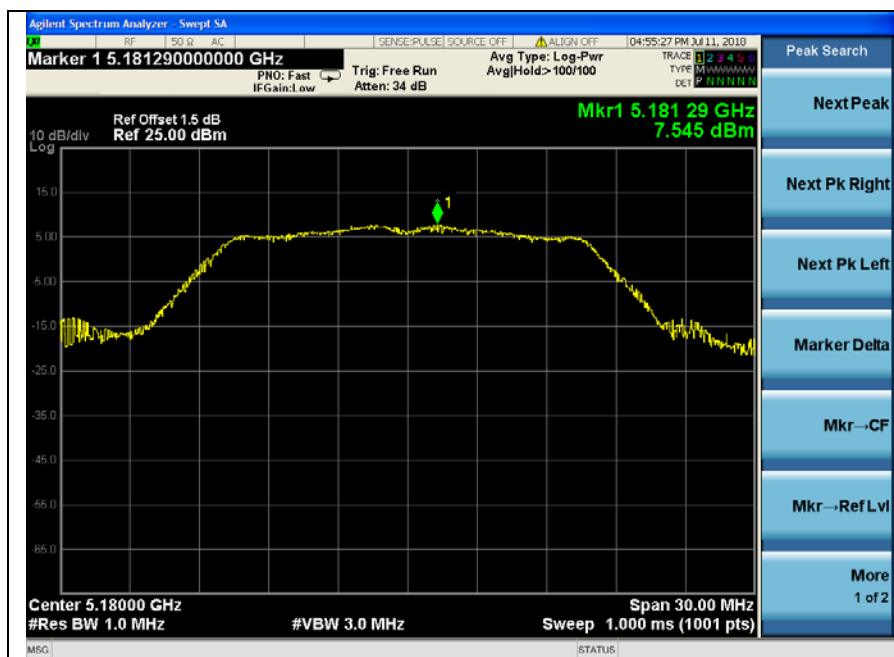
2.4.3. Test Result

802.11a Test mode

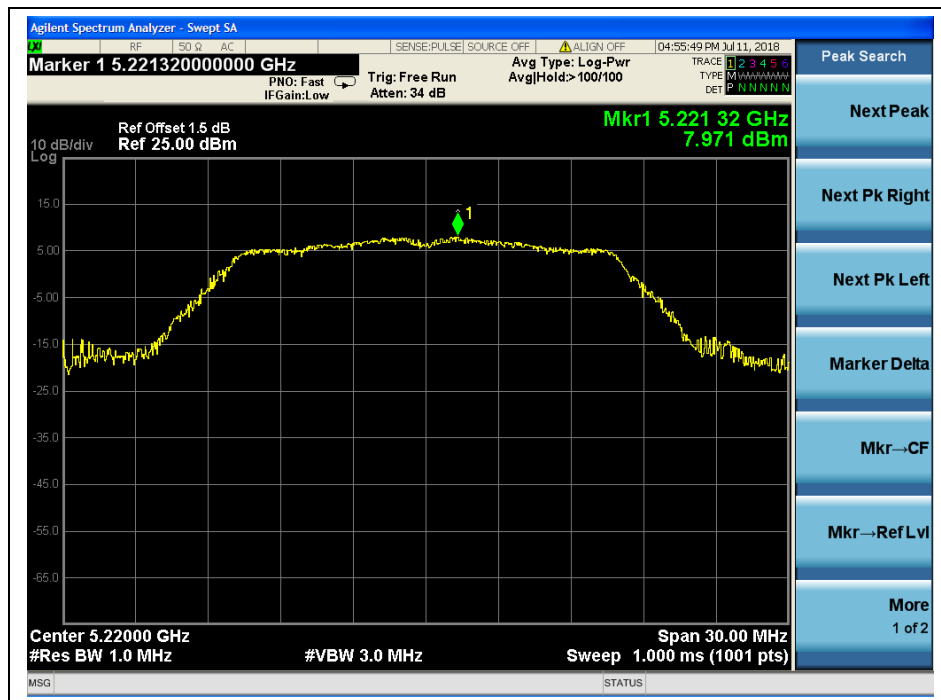
A. Test Verdict:

Channel	Frequency (MHz)	Measured PPSD (dBm/MHz)	Limit (dBm/MHz)	Verdict
36	5180	7.55	11	PASS
44	5220	7.97		
48	5240	8.62		
52	5260	9.76		
60	5300	10.68		
64	5320	10.90		
100	5500	10.04		
120	5600	9.63		
144	5720	8.67		
Channel	Frequency (MHz)	Measured PPSD (dBm/500KHz)	Limit (dBm/500KHz)	Verdict
144	5720	5.14	30	PASS
149	5745	6.39		
157	5785	5.78		
165	5825	4.75		

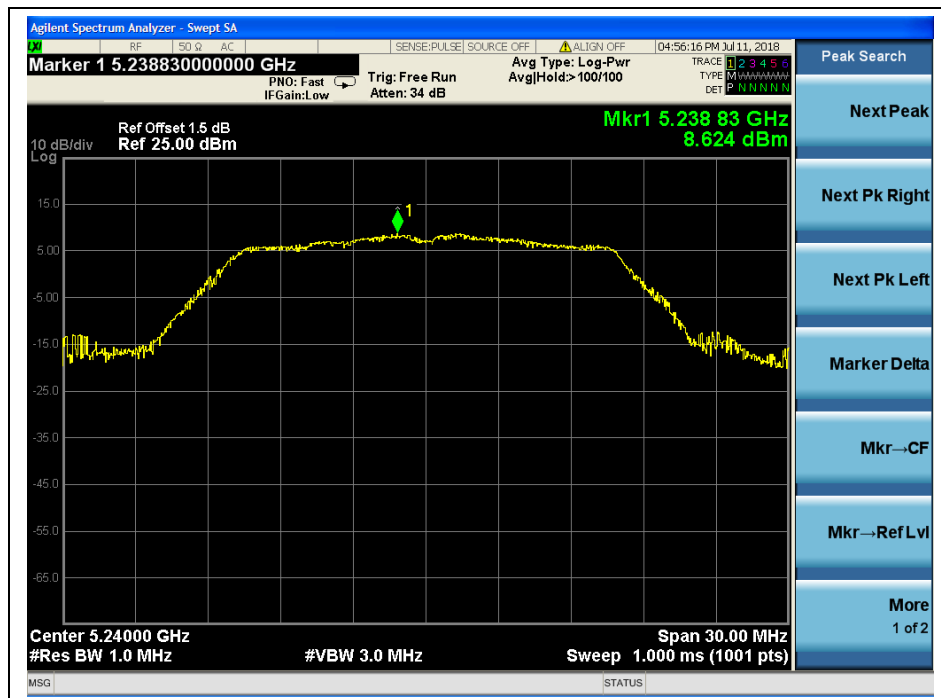
B. Test Plots



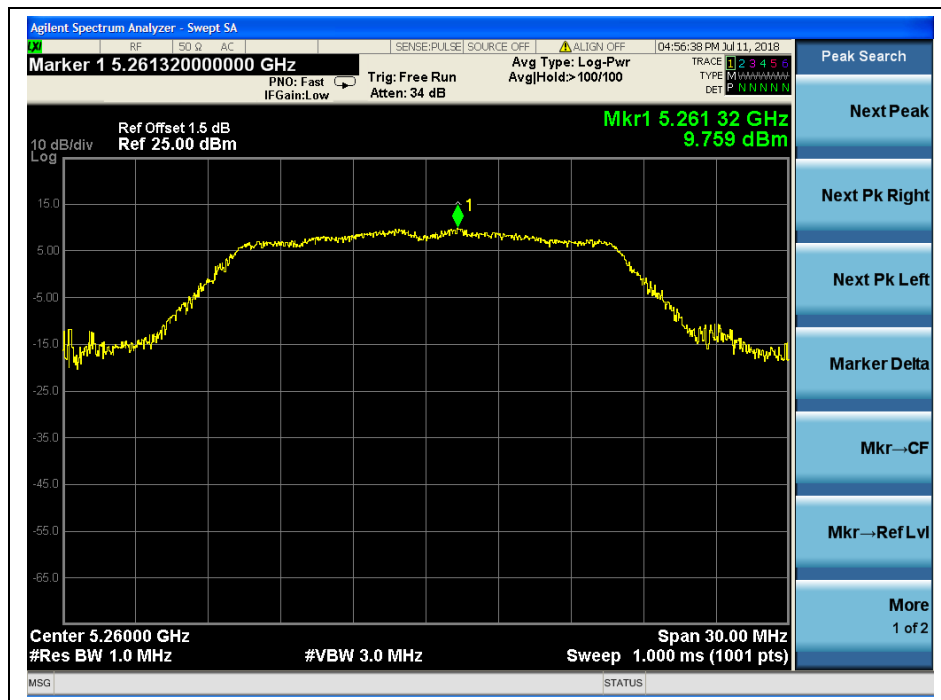
(Channel 36, 5180MHz, 802.11a,)



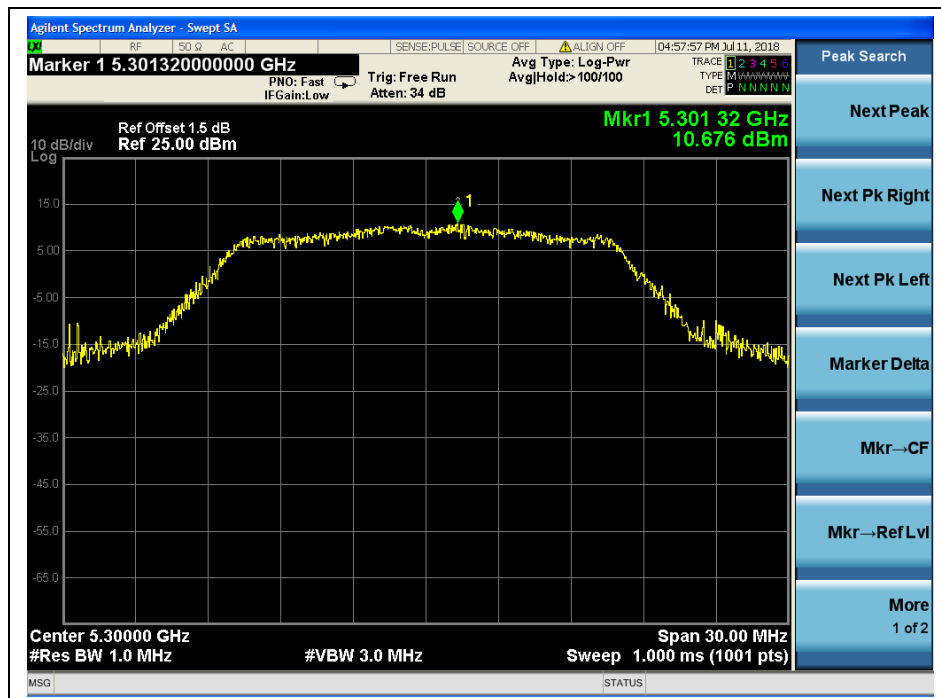
(Channel 44, 5220 MHz, 802.11a,)



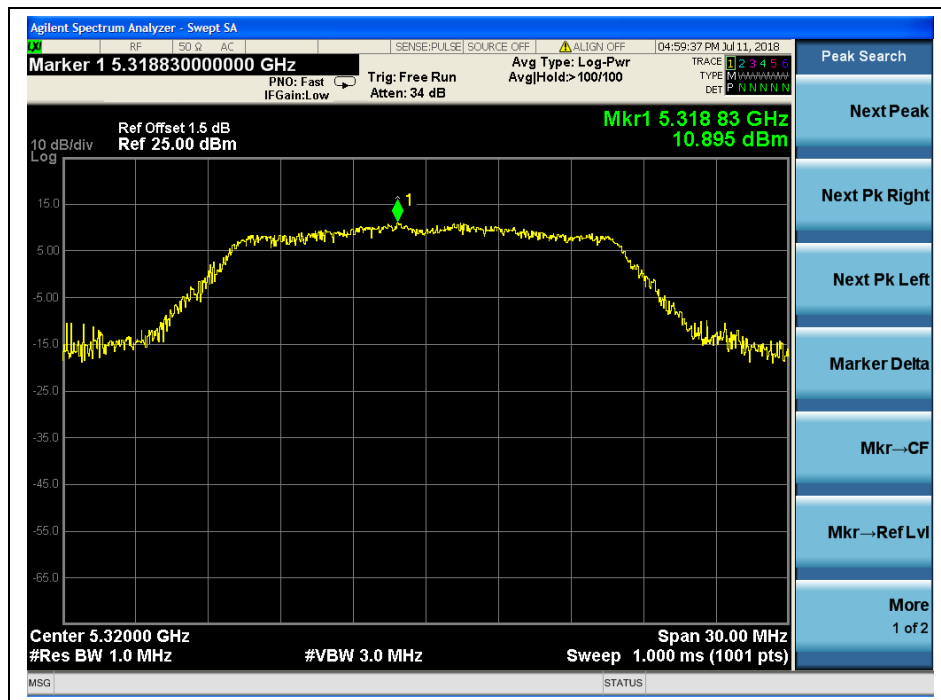
(Channel 48, 5240MHz, 802.11a,)



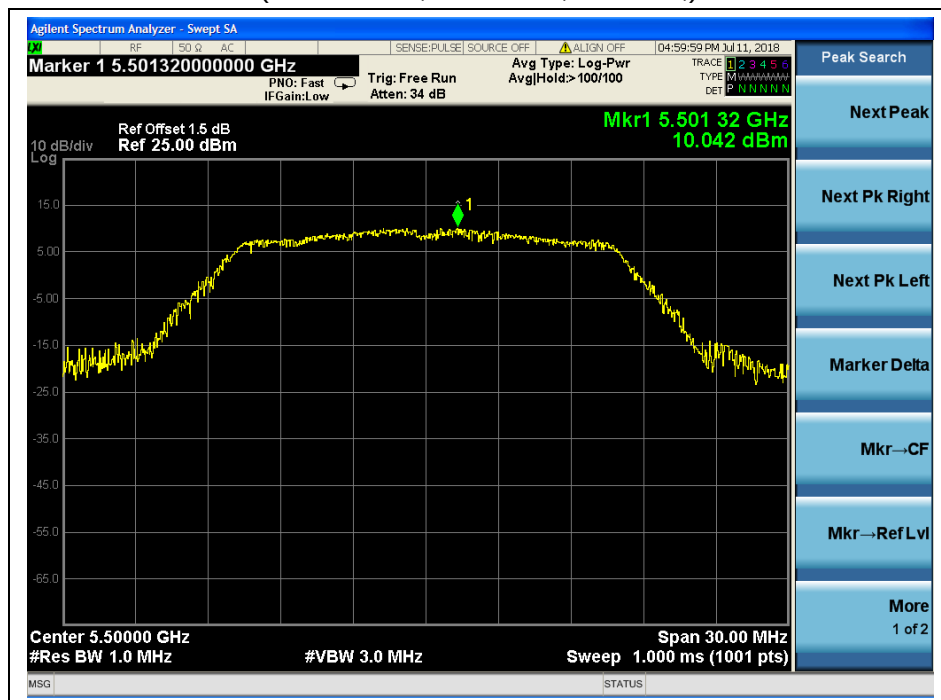
(Channel 52, 5260MHz, 802.11a,)



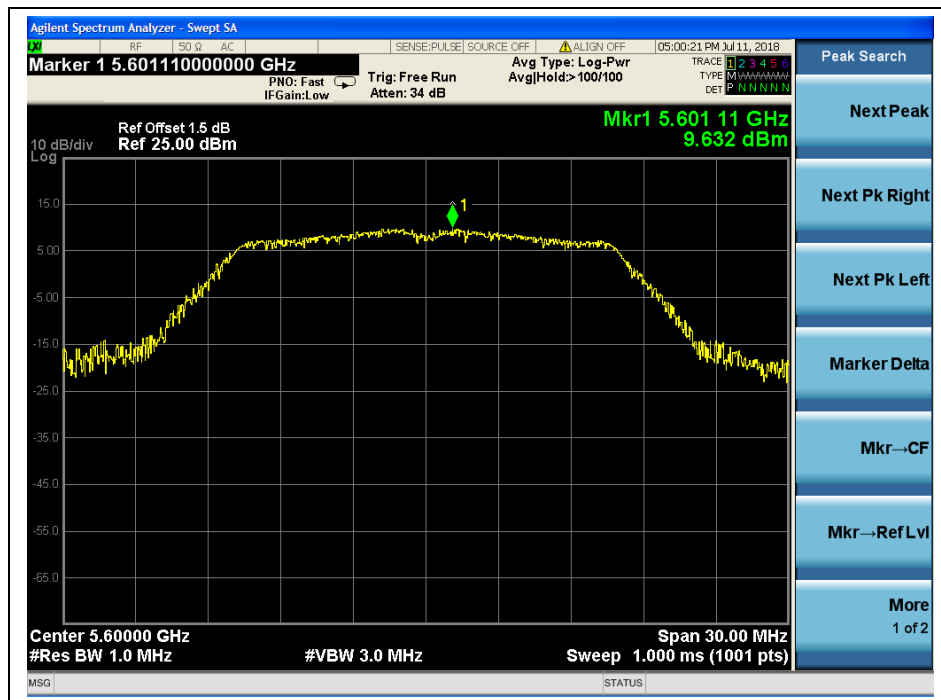
(Channel 60, 5300 MHz, 802.11a,)



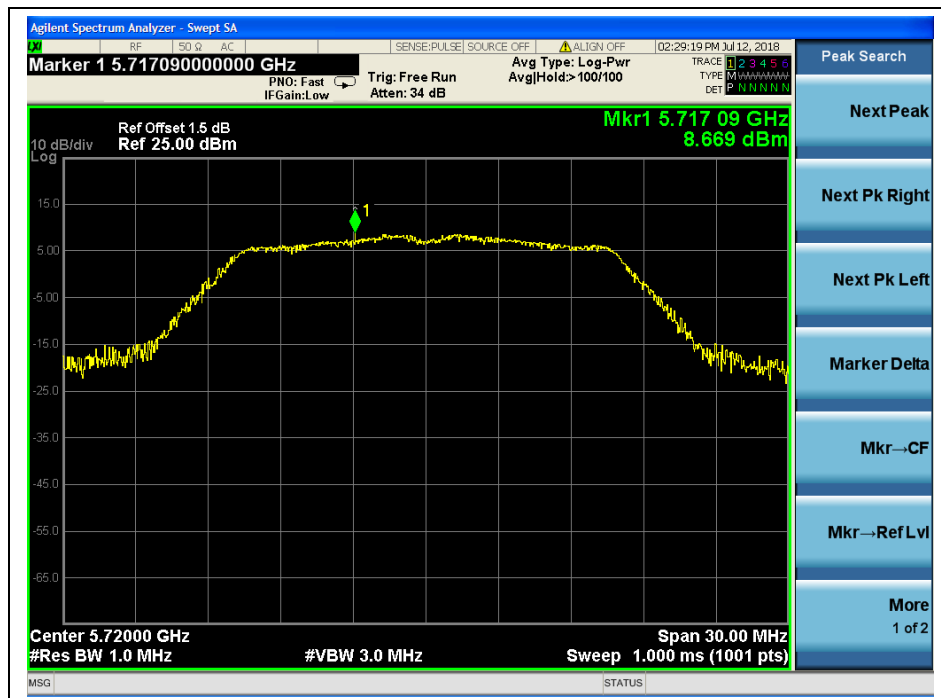
(Channel 64, 5320MHz, 802.11a,)



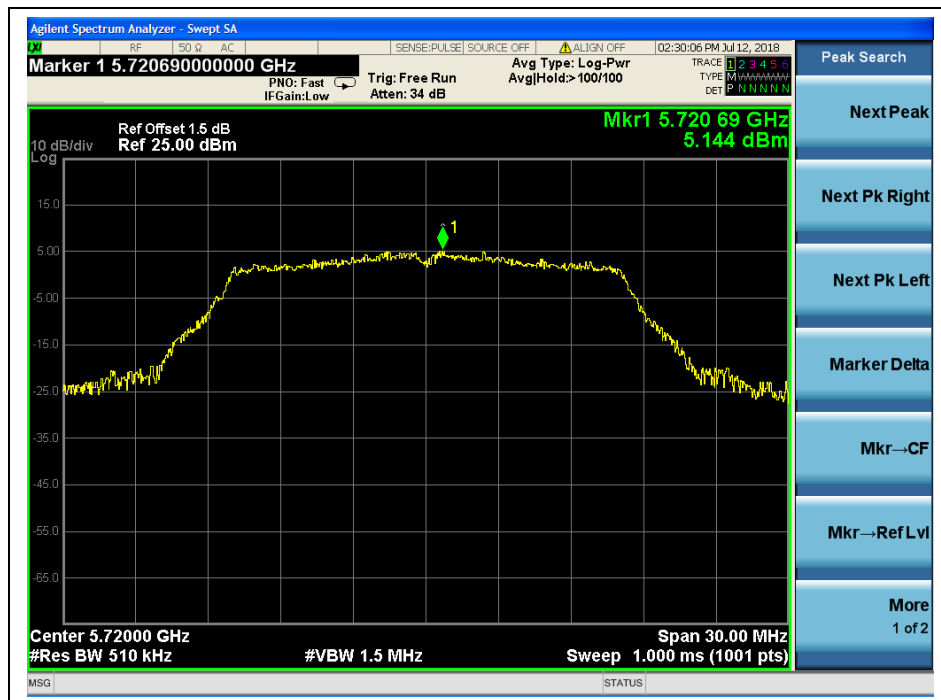
(Channel 100, 5500MHz, 802.11a,)



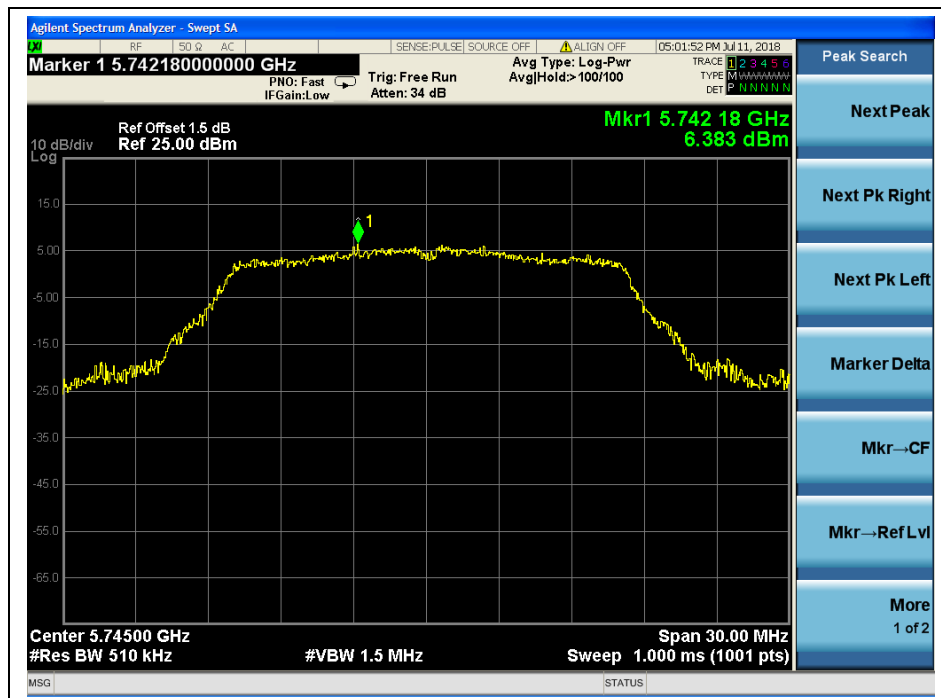
(Channel 120, 5600 MHz, 802.11a,)



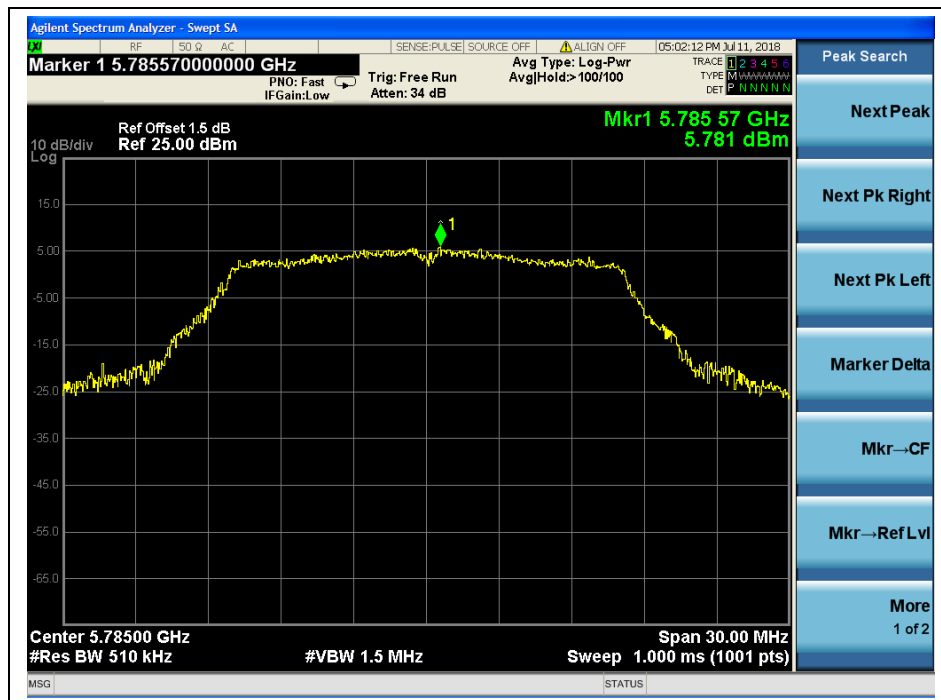
(Channel 144, 5720MHz, 802.11a,)



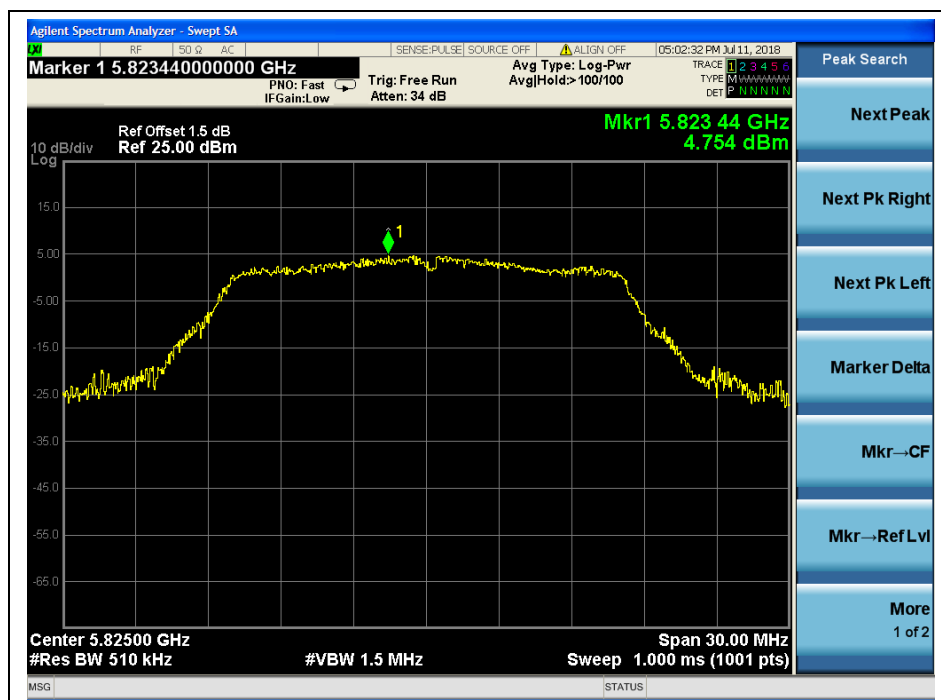
(Channel 144, 5720MHz, 802.11a,)



(Channel 149, 5745MHz, 802.11a)



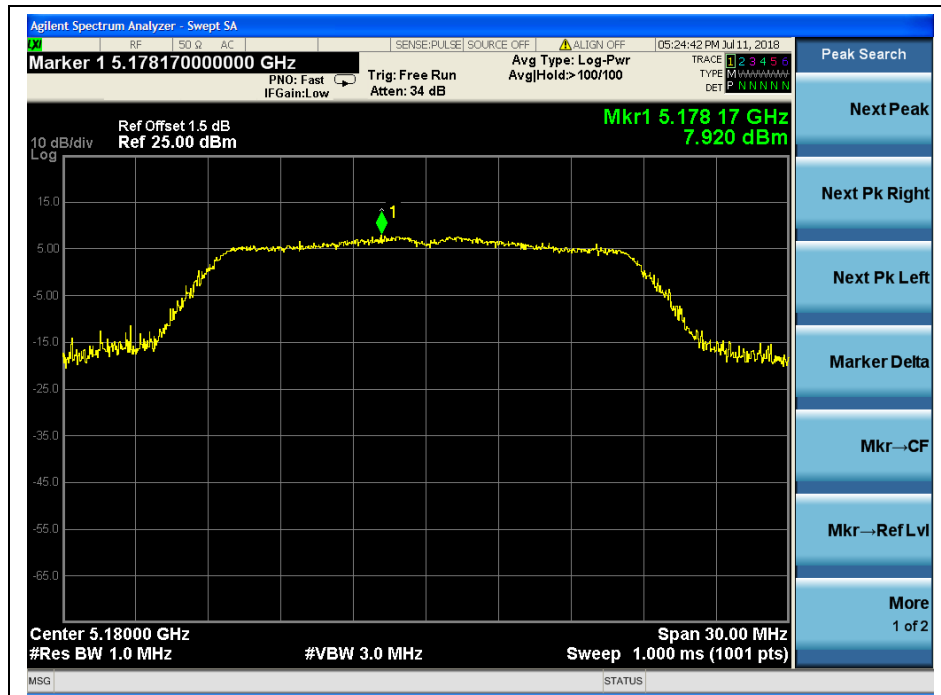
(Channel 157, 5785MHz, 802.11a)



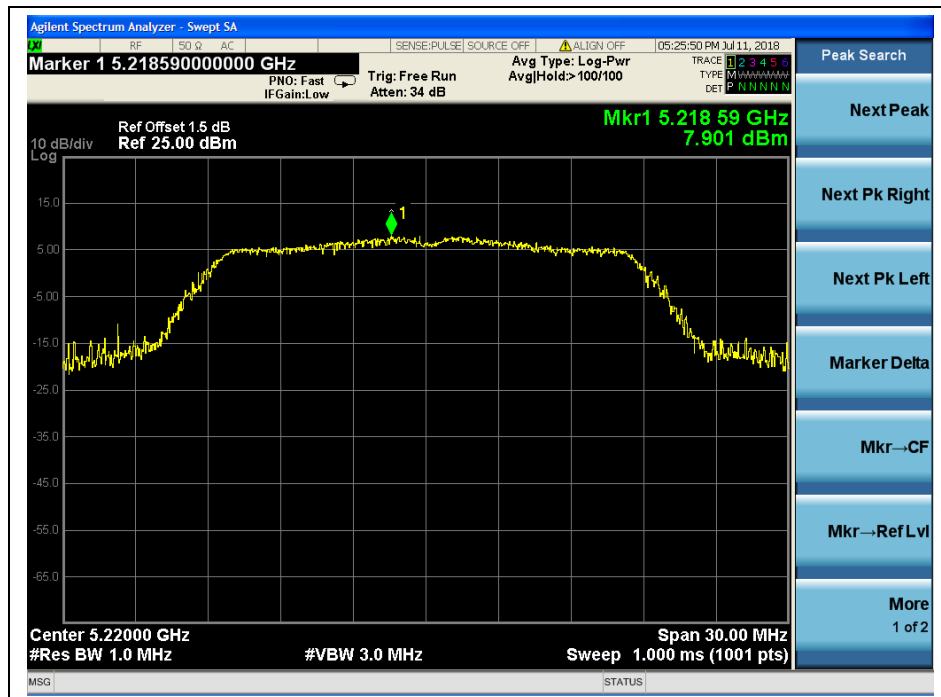
(Channel 165, 5825MHz, 802.11a)

**802.11n (HT20) Test mode****A. Test Verdict:**

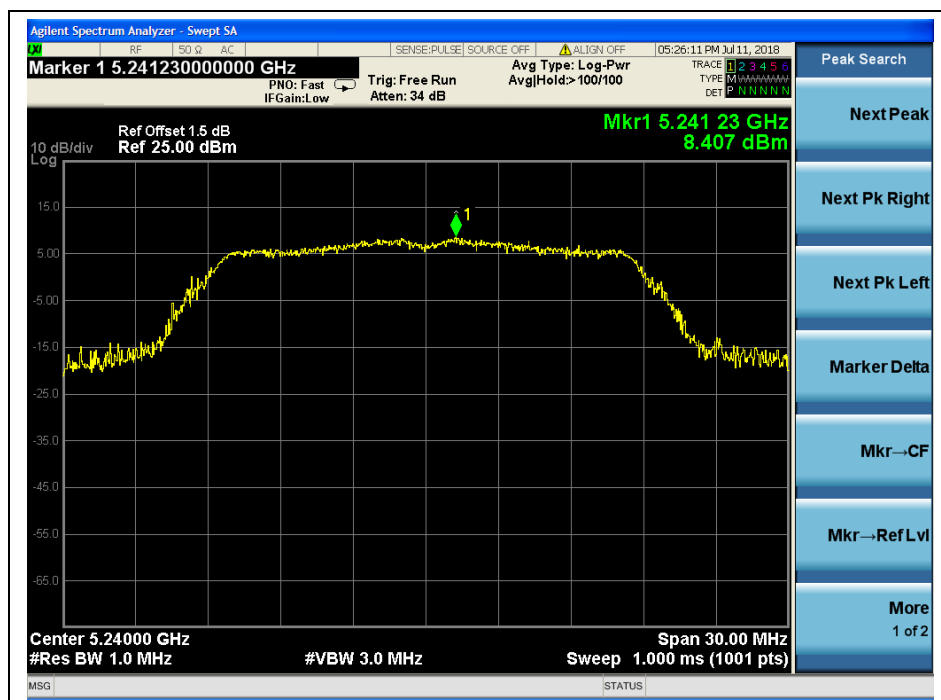
Channel	Frequency (MHz)	Measured PPSD (dBm/MHz)	Limit (dBm/MHz)	Verdict
36	5180	7.92	11	PASS
44	5220	7.90		
48	5240	8.41		
52	5260	10.74		
60	5300	10.43		
64	5320	10.82		
100	5500	9.96		
116	5600	10.35		
144	5720	8.38		
Channel	Frequency (MHz)	Measured PPSD (dBm/500KHz)	Limit (dBm/500KHz)	Verdict
144	5720	5.92	30	PASS
149	5745	5.91		
157	5785	6.28		
165	5825	5.38		

B. Test Plots

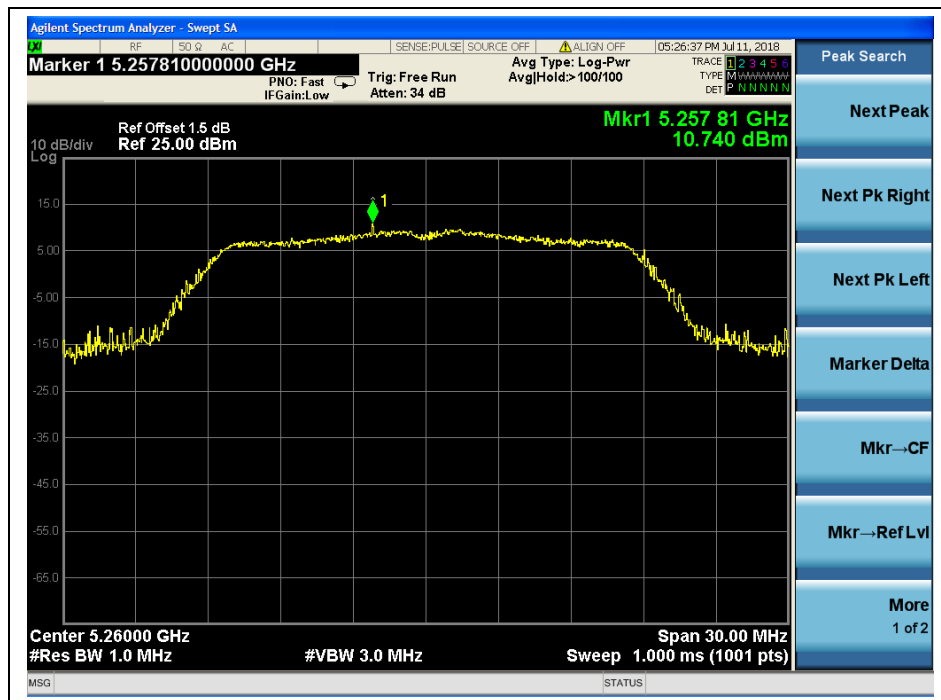
(Channel 36, 5180MHz, 802.11 n (HT20))



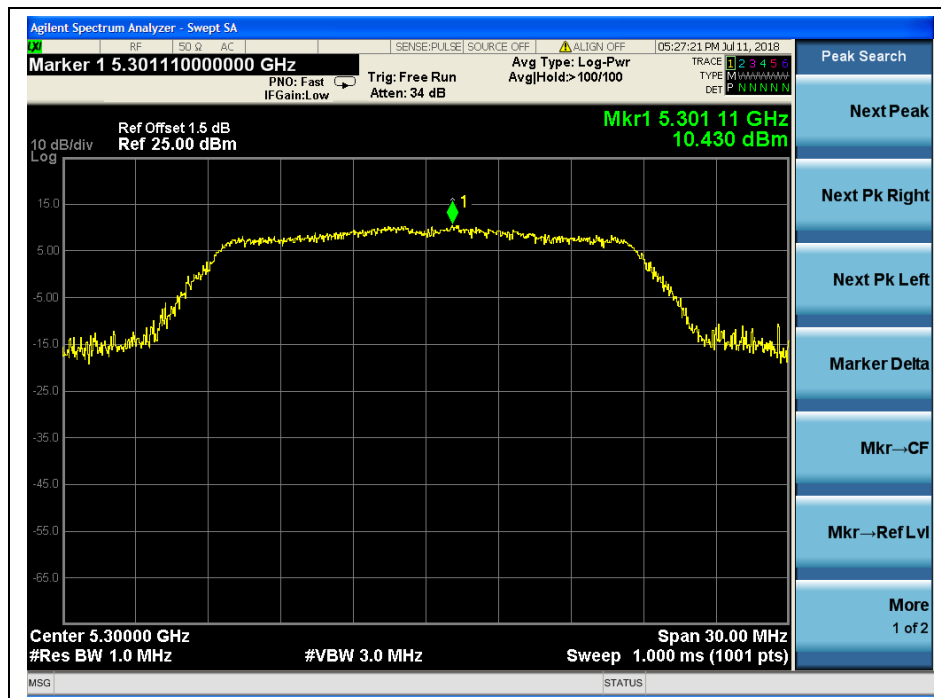
(Channel 44, 5220 MHz, 802.11 n (HT20))



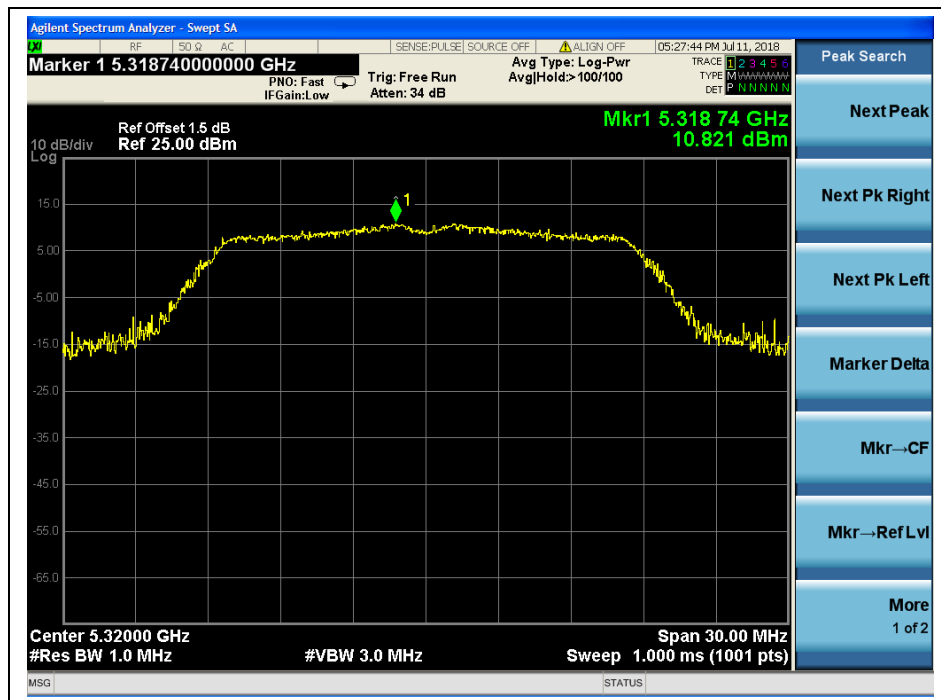
(Channel 48, 5240MHz, 802.11 n (HT20))



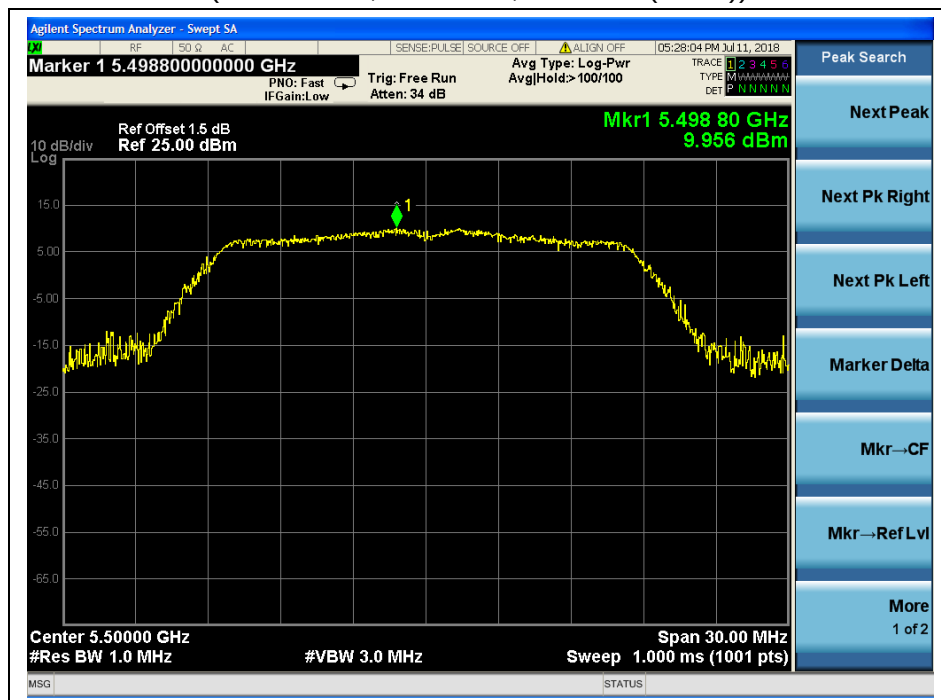
(Channel 52, 5260MHz, 802.11 n (HT20))



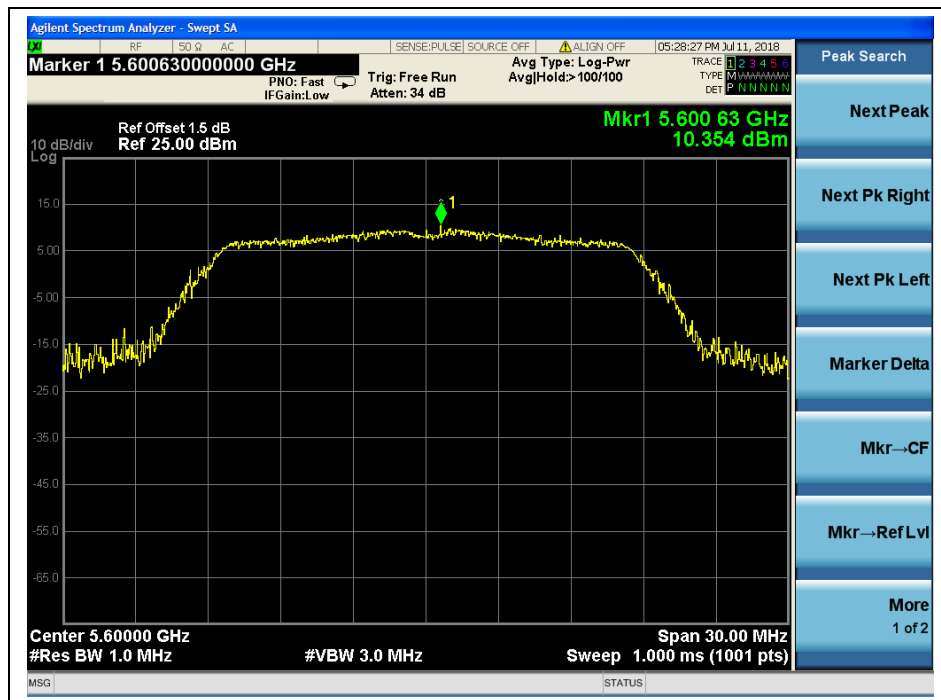
(Channel 60, 5300 MHz, 802.11 n (HT20))



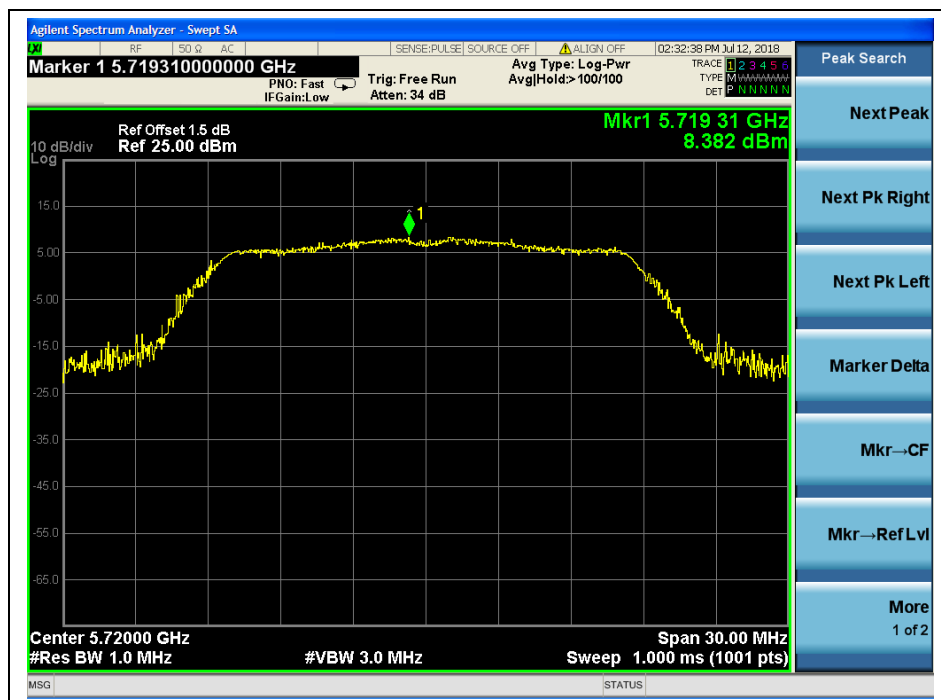
(Channel 64, 5320MHz, 802.11 n (HT20))



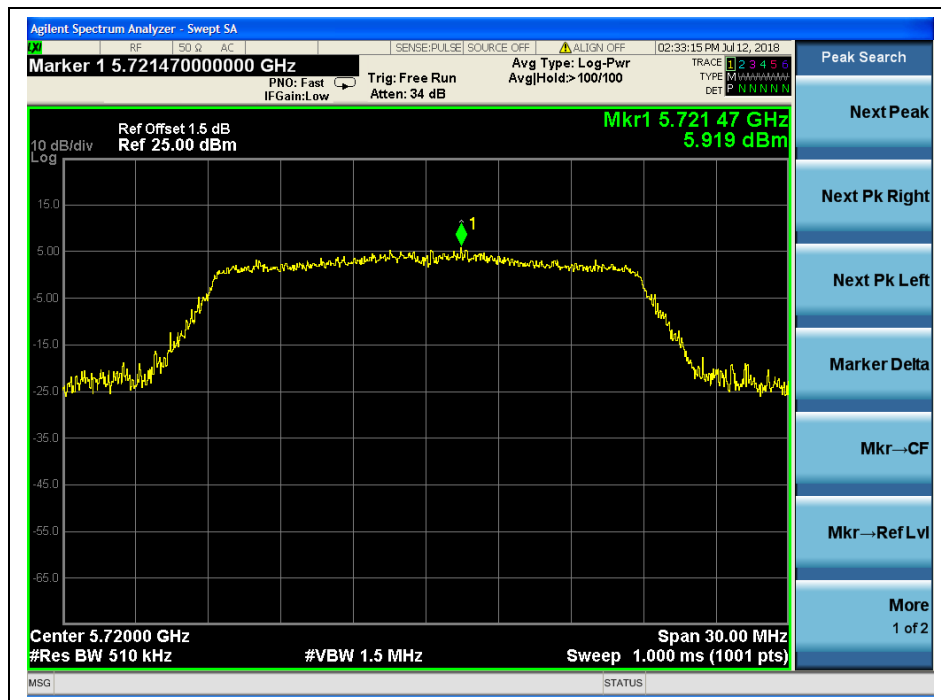
(Channel 100, 5500MHz, 802.11 n (HT20))



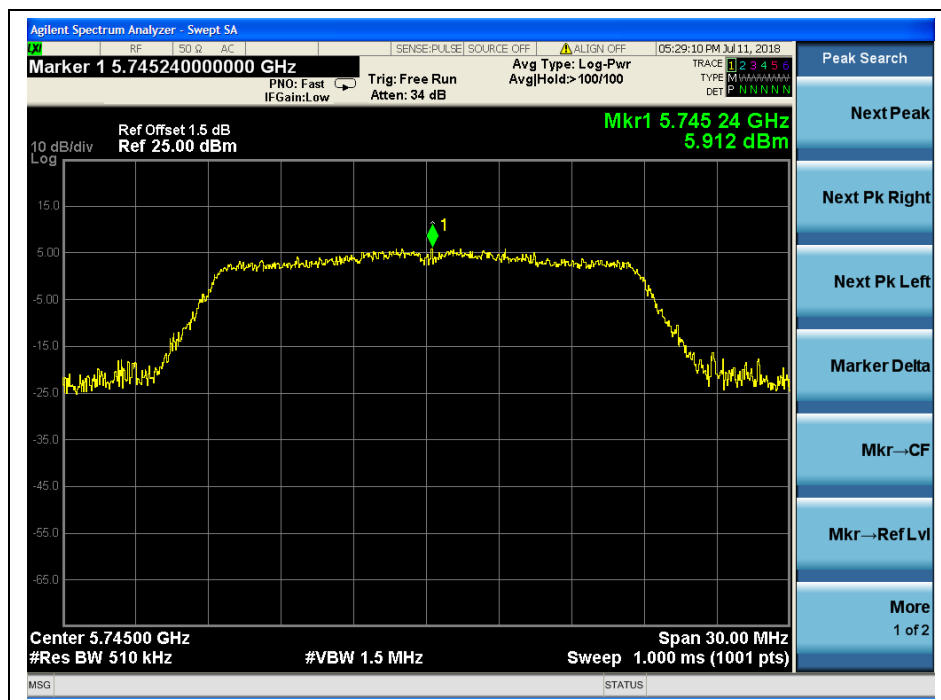
(Channel 120, 5600 MHz, 802.11 n (HT20))



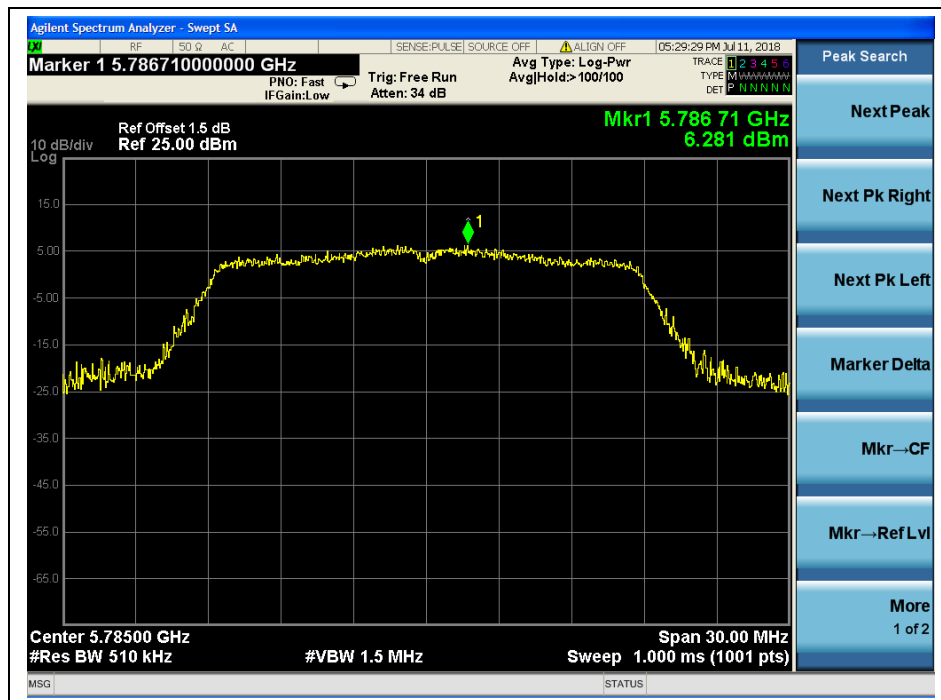
(Channel 144, 5720MHz, 802.11 n (HT20))



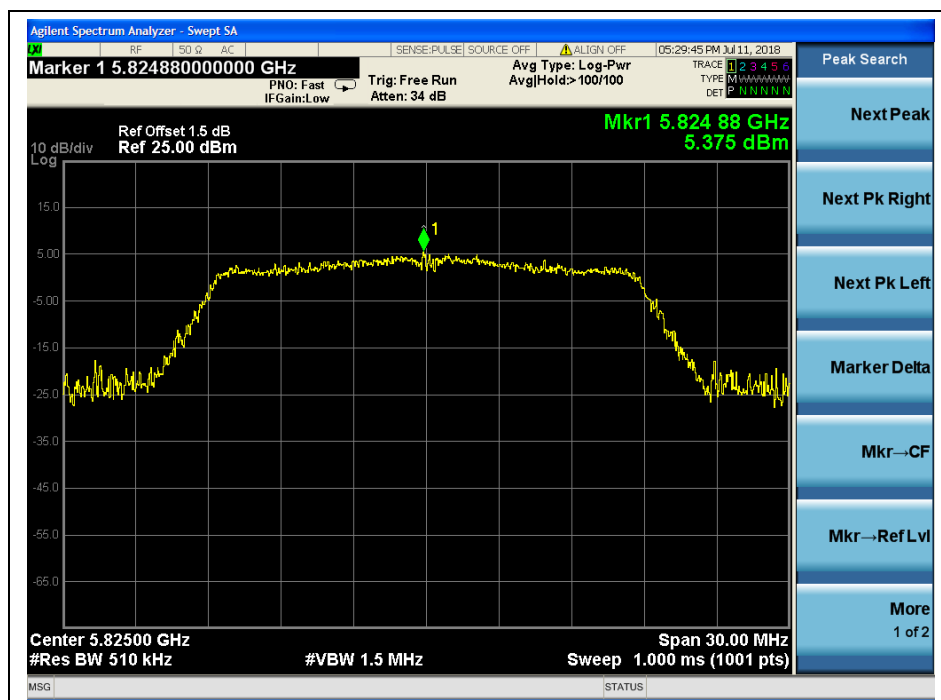
(Channel 144, 5720MHz, 802.11 n (HT20))



(Channel 149, 5745MHz, 802.11 n (HT20))



(Channel 157, 5785MHz, 802.11 n (HT20))



(Channel 165, 5825MHz, 802.11 n (HT20))

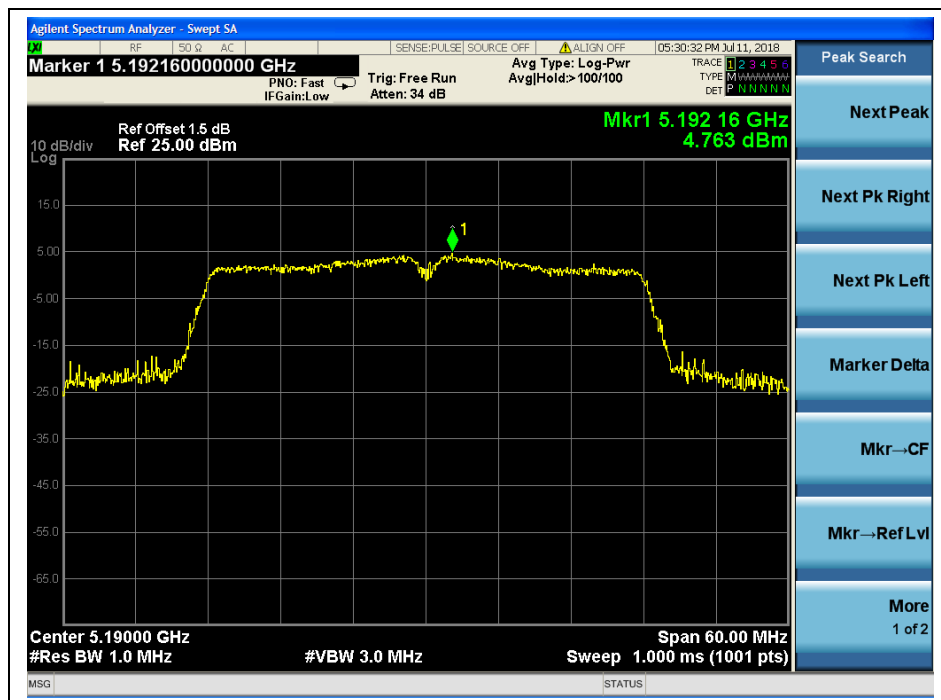


802.11n (HT40) Test mode

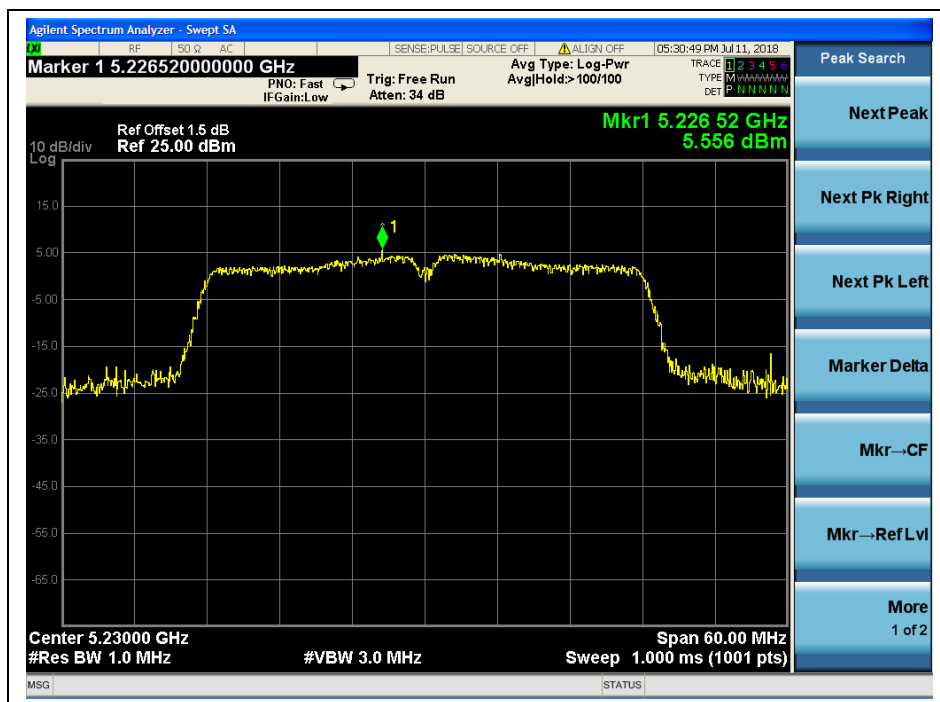
A. Test Verdict:

Channel	Frequency (MHz)	Measured PPSD (dBm/MHz)	Limit (dBm/MHz)	Verdict
38	5190	4.76	11	PASS
46	5230	5.56		
54	5270	6.79		
62	5310	7.50		
102	5510	6.60		
126	5630	6.39		
142	5710	6.02		
Channel	Frequency (MHz)	Measured PPSD (dBm/500KHz)	Limit (dBm/500KHz)	Verdict
142	5710	2.01	30	PASS
151	5755	2.57		
159	5795	2.69		

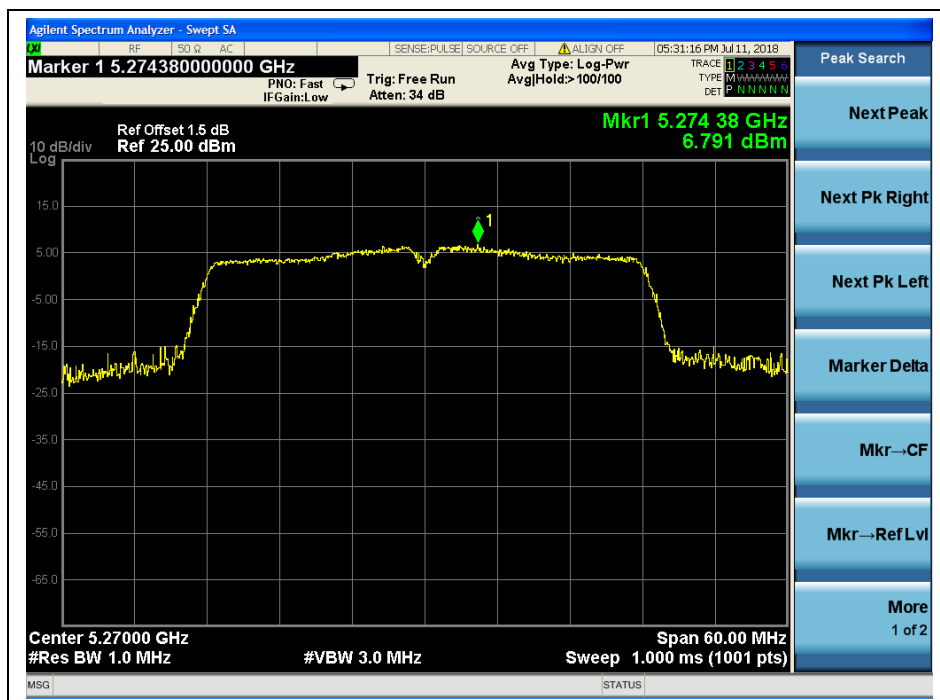
B. Test Plots



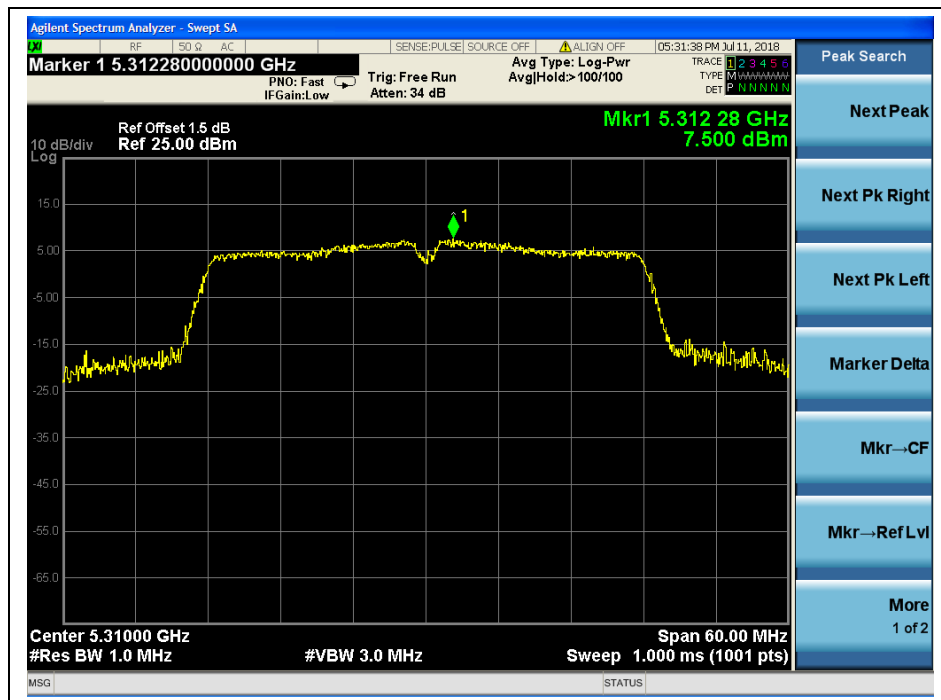
(Channel 38, 5190MHz, 802.11n (HT40))



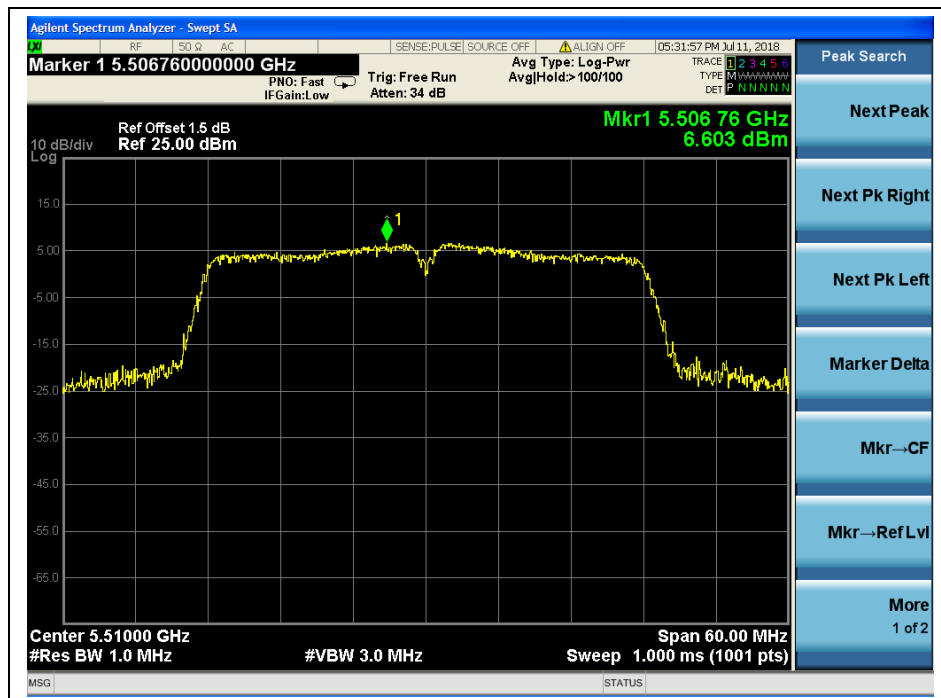
(Channel 46, 5230 MHz, 802.11n (HT40))



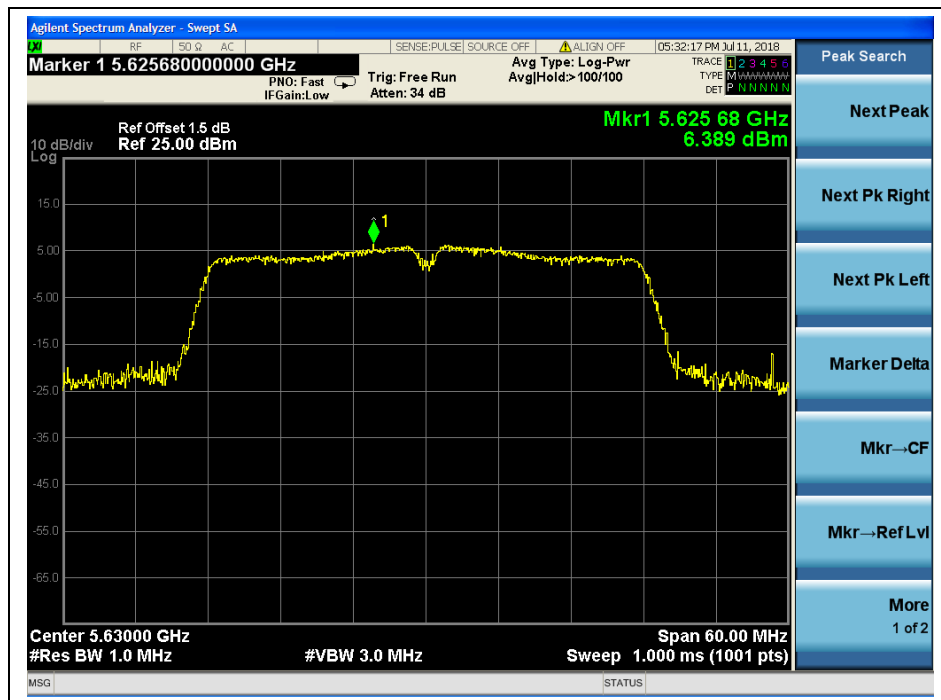
(Channel 54, 5270MHz, 802.11n (HT40))



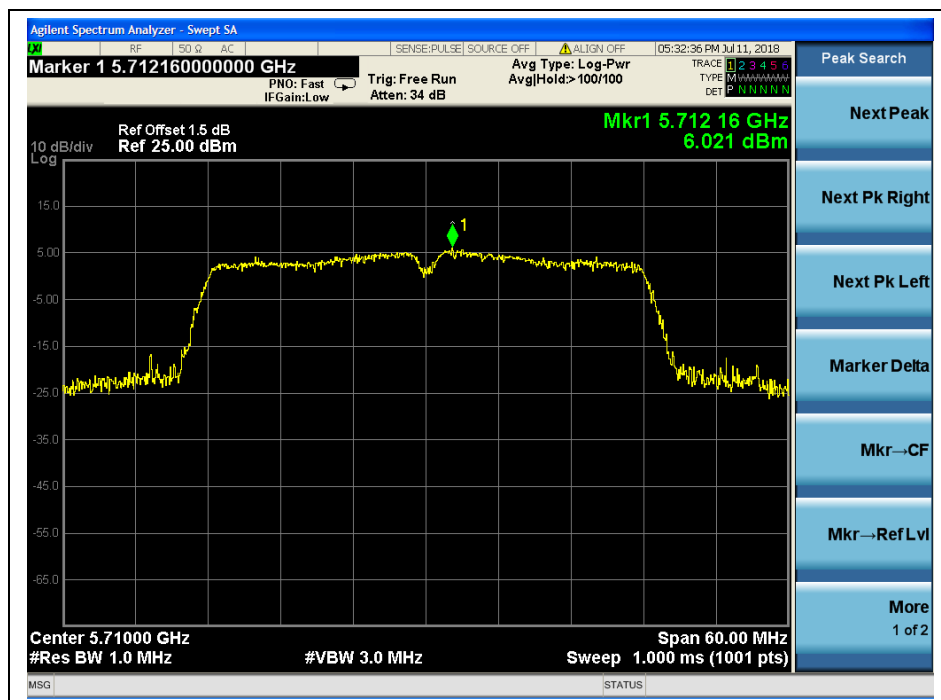
(Channel 62, 5310 MHz, 802.11n (HT40))



(Channel 102, 5510MHz, 802.11n (HT40))



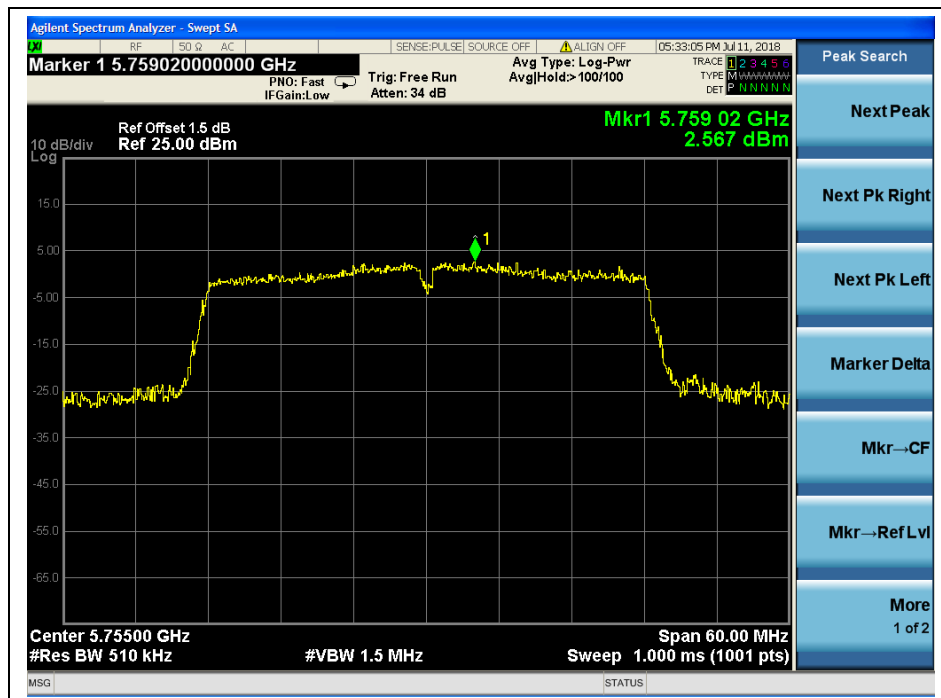
(Channel 126, 5630 MHz, 802.11n (HT40))



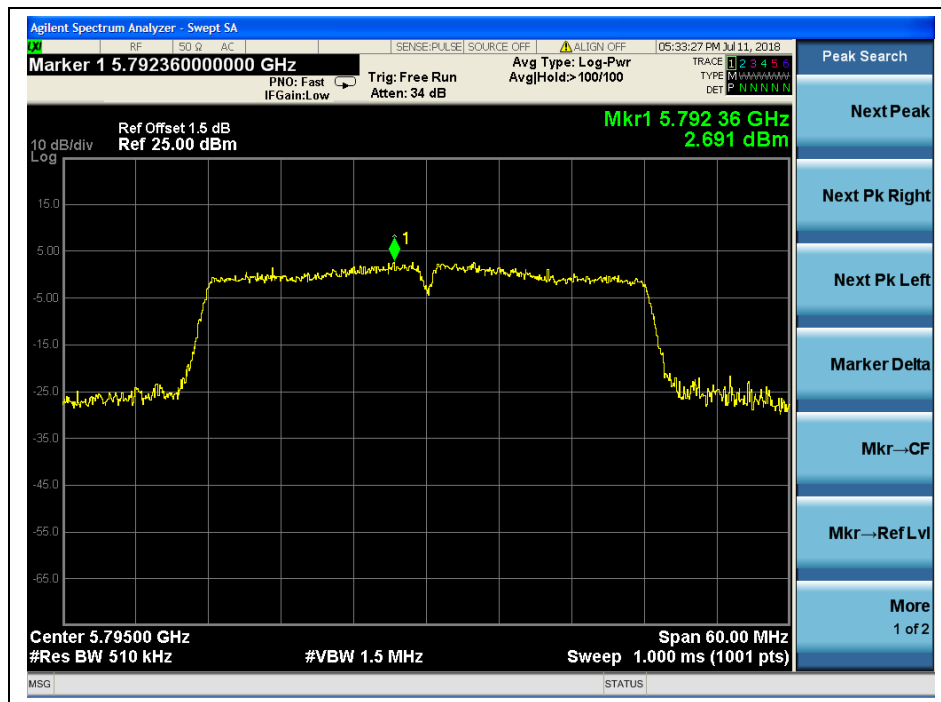
(Channel 142, 5710MHz, 802.11n (HT40))



(Channel 142, 5710MHz, 802.11n (HT40))



(Channel 151, 5755 MHz, 802.11n (HT40))



(Channel 159, 5795MHz, 802.11n (HT40))

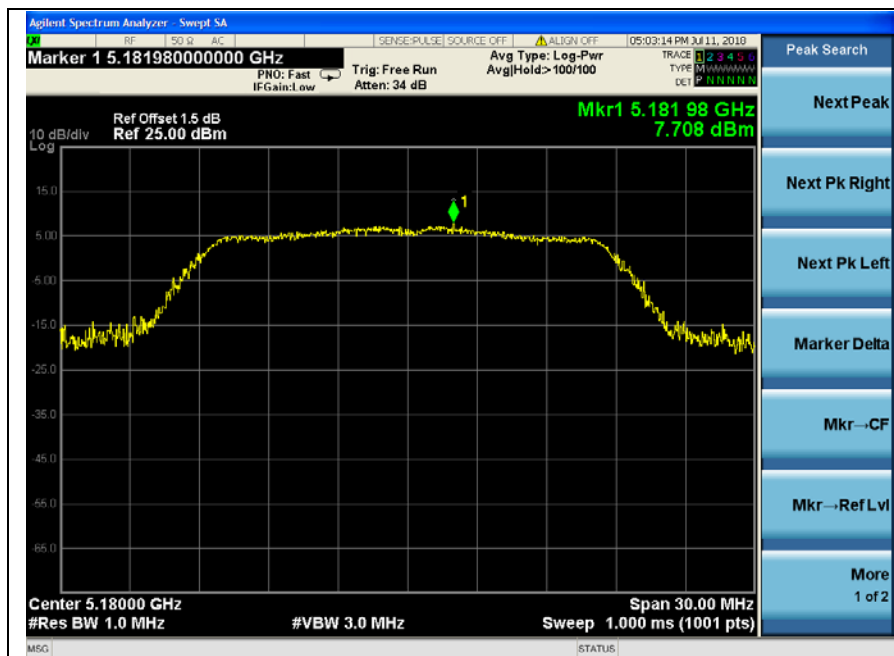


802.11ac (VHT20) Test mode

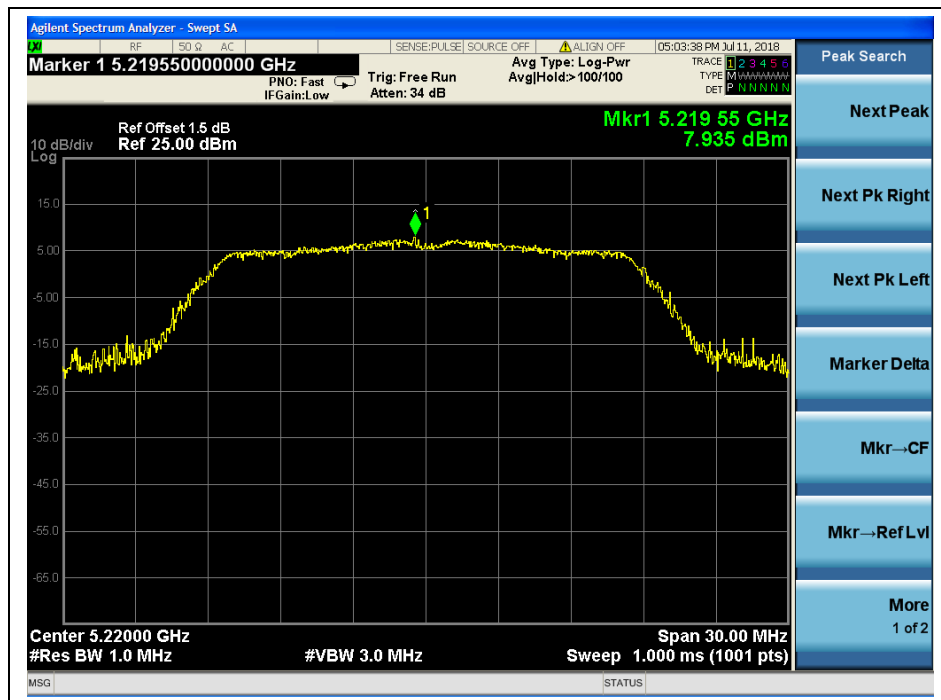
A. Test Verdict:

Channel	Frequency (MHz)	Measured PPSD (dBm/MHz)	Limit (dBm/MHz)	Verdict
36	5180	7.71	11	PASS
44	5220	7.94		
48	5240	8.24		
52	5260	9.32		
60	5300	10.02		
64	5320	10.30		
100	5500	9.78		
120	5600	9.67		
144	5720	7.99		
Channel	Frequency (MHz)	Measured PPSD (dBm/500KHz)	Limit (dBm/500KHz)	Verdict
144	5720	5.20	30	PASS
149	5745	5.89		
157	5785	6.12		
165	5825	5.33		

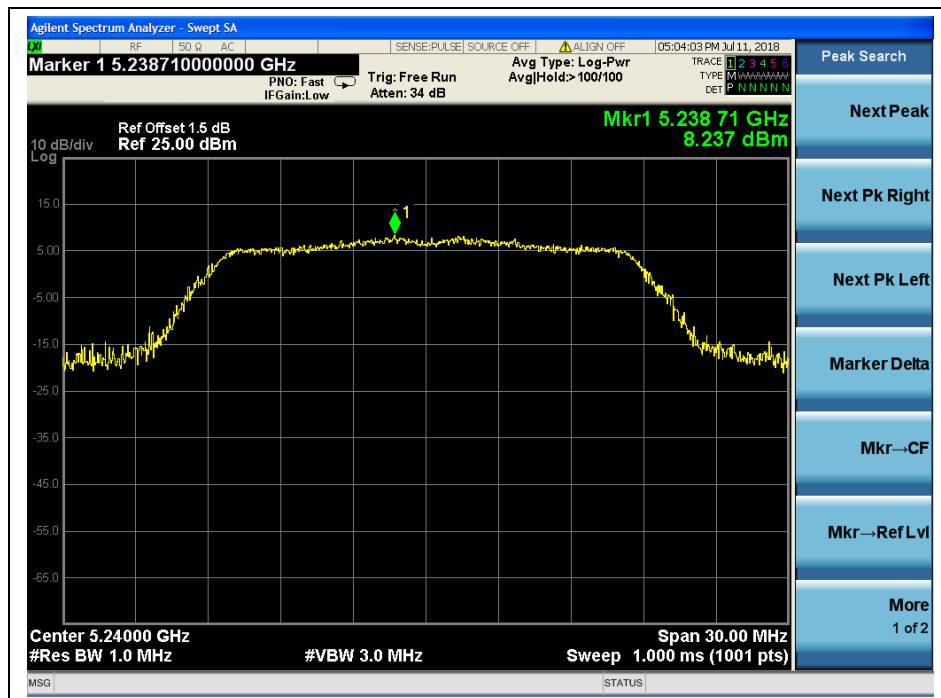
B. Test Plots



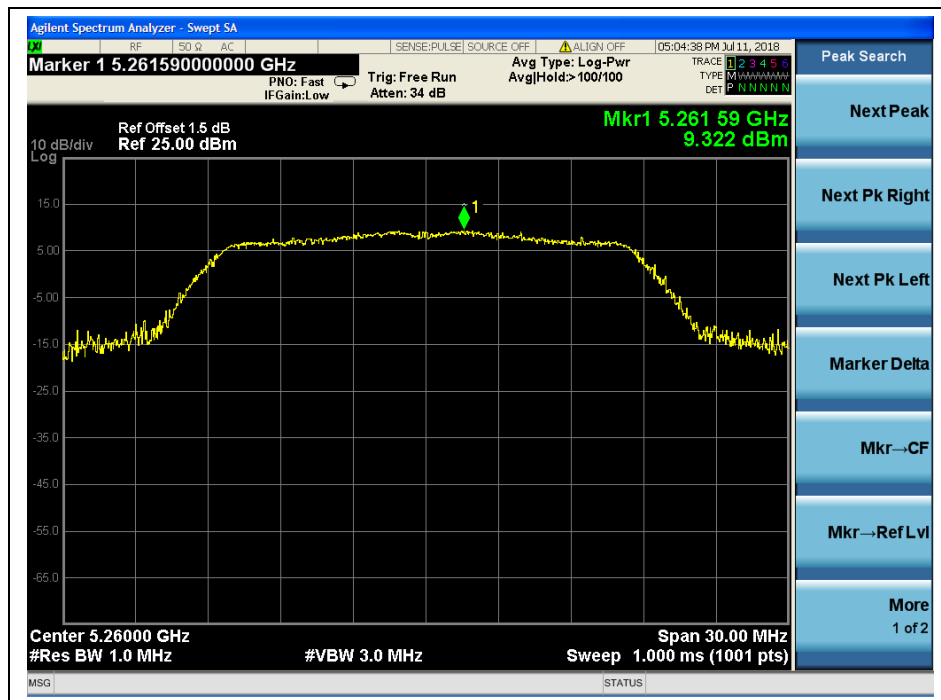
(Channel 36, 5180MHz, 802.11ac (VHT20))



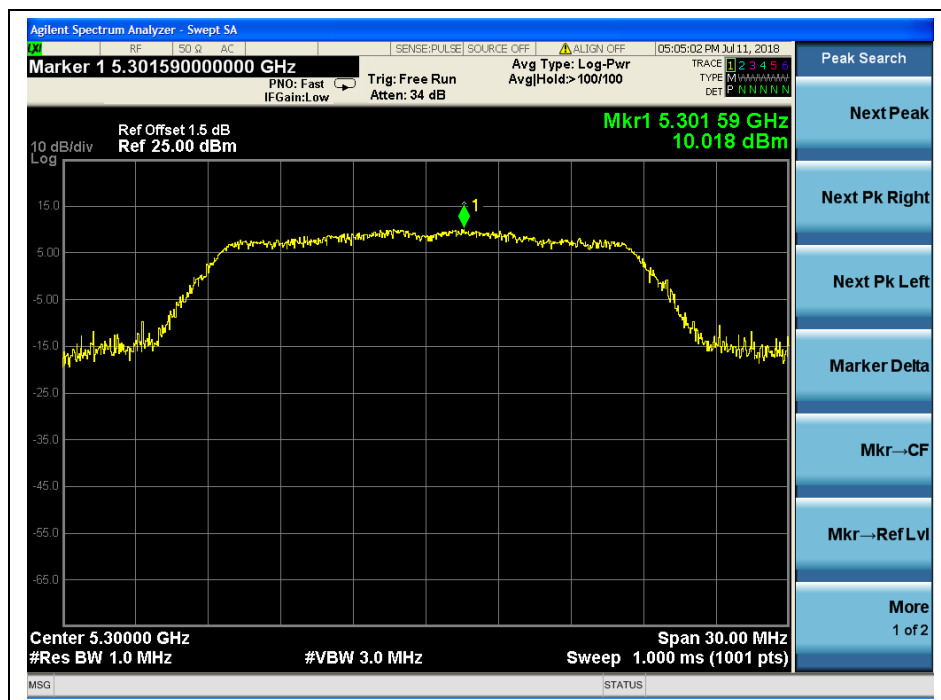
(Channel 44, 5220 MHz, 802.11 ac (VHT20))



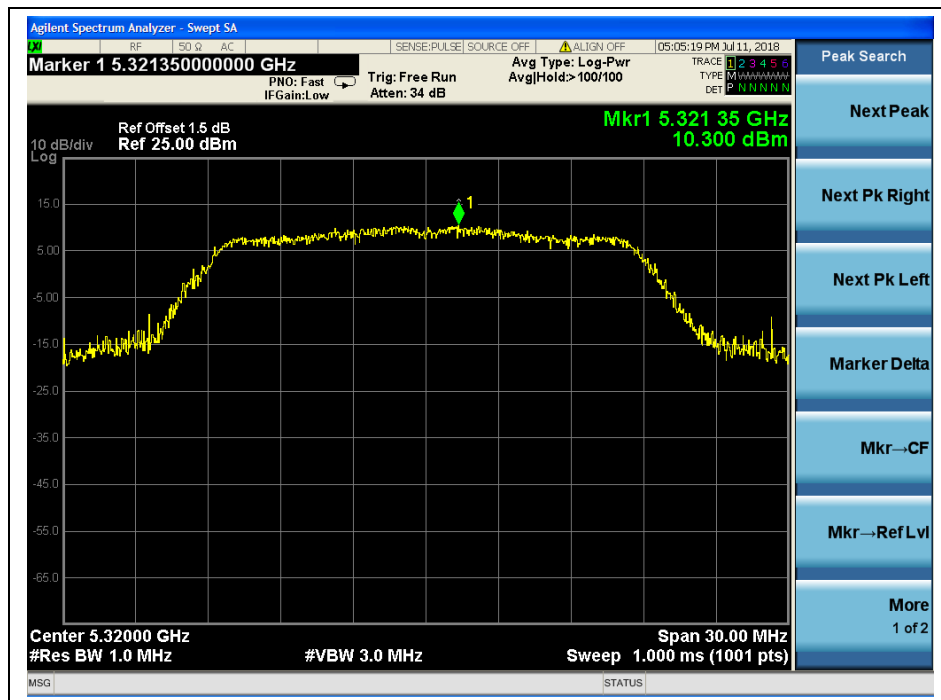
(Channel 48, 5240MHz, 802.11 ac (VHT20))



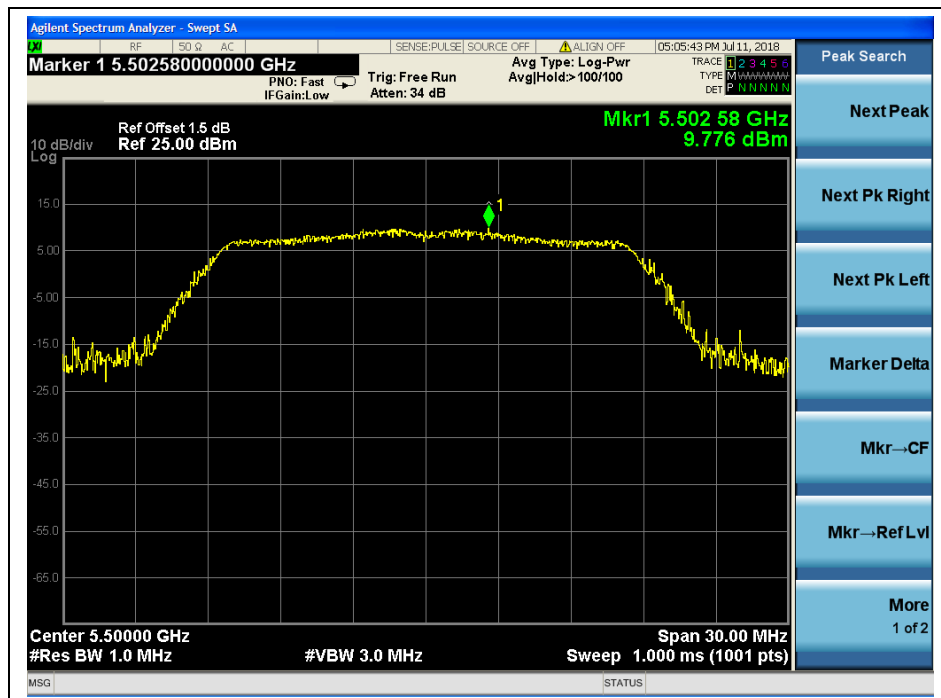
(Channel 52, 5260MHz, 802.11 ac (VHT20))



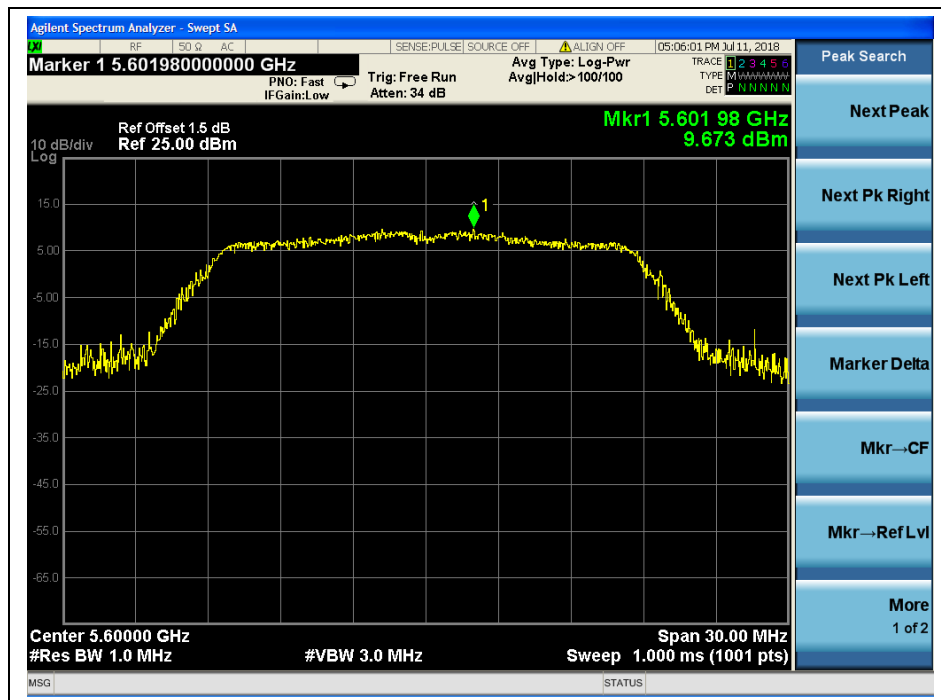
(Channel 60, 5300 MHz, 802.11 ac (VHT20))



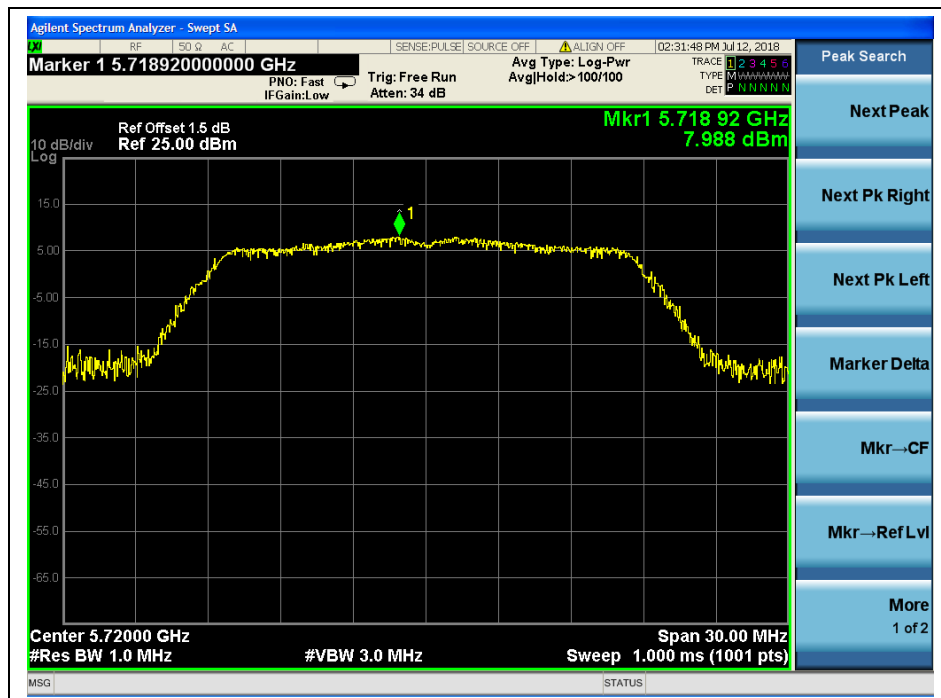
(Channel 64, 5320MHz, 802.11 ac (VHT20))



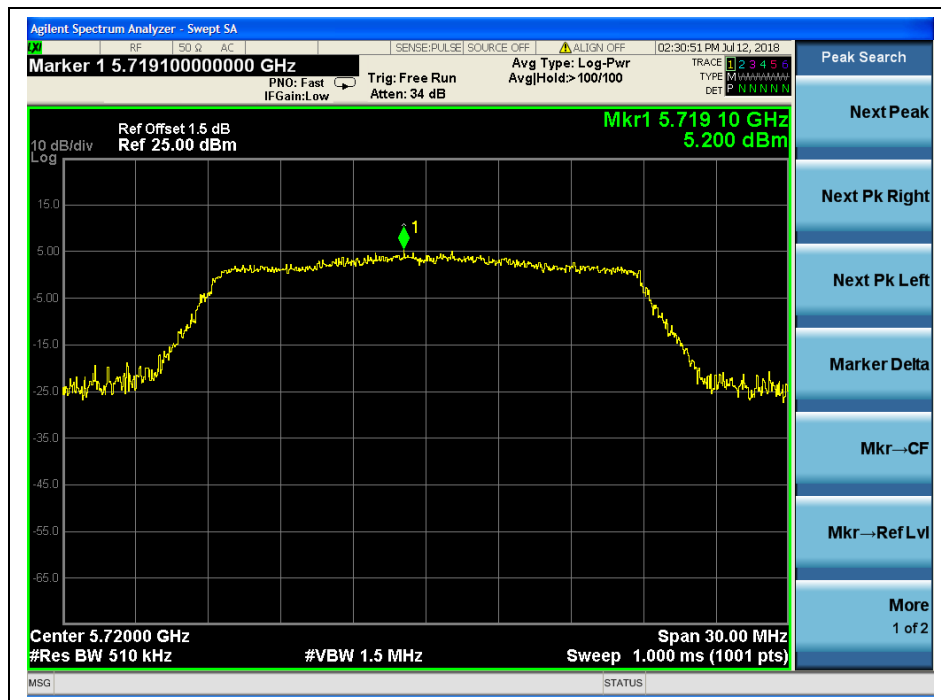
(Channel 100, 5500MHz, 802.11 ac (VHT20))



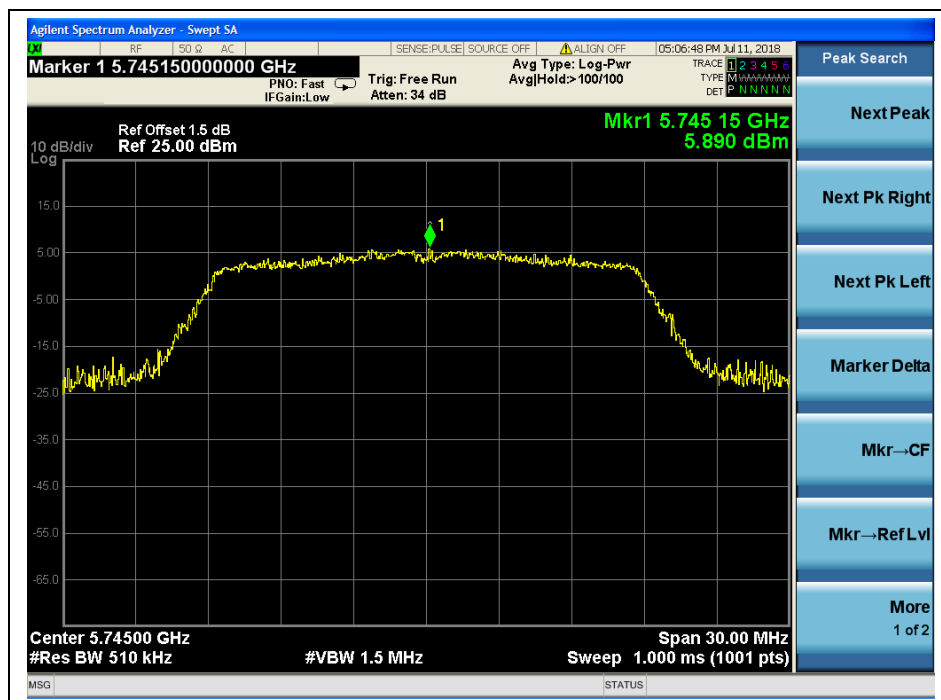
(Channel 120, 5600 MHz, 802.11 ac (VHT20))



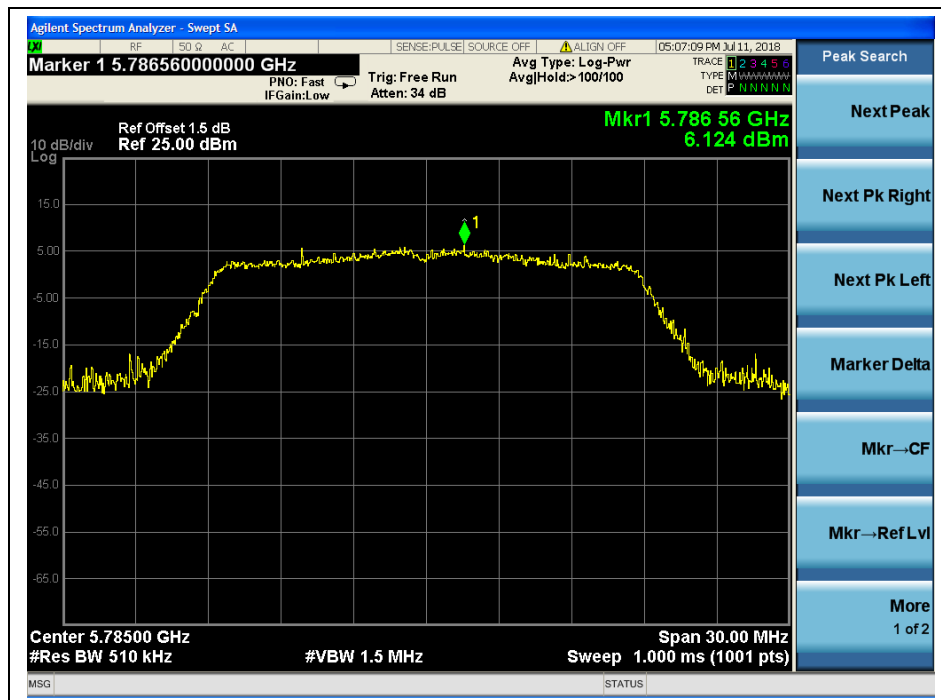
(Channel 144, 5720MHz, 802.11 ac (VHT20))



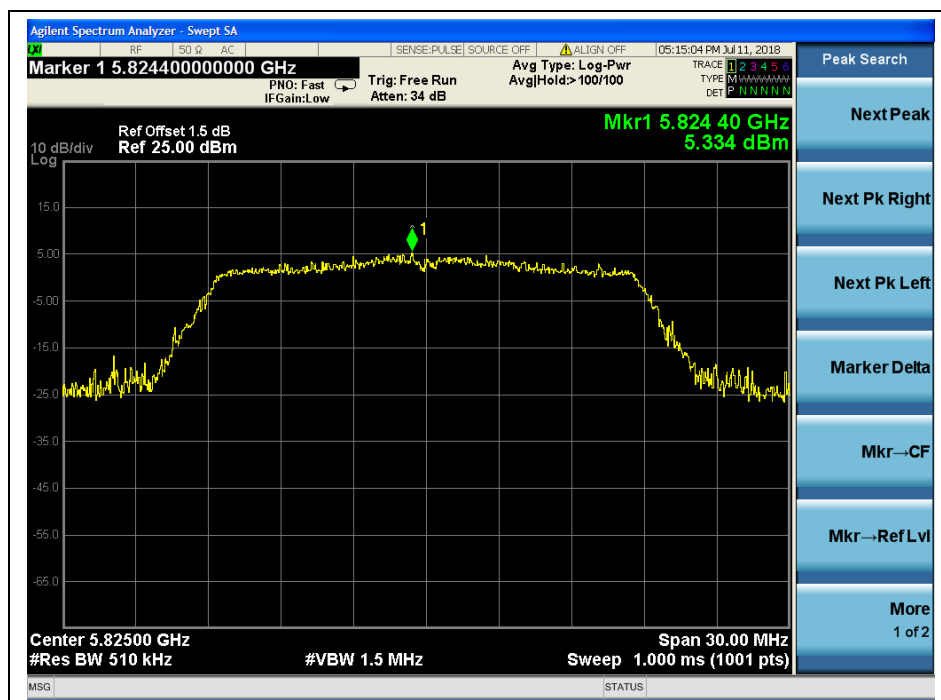
(Channel 144, 5720MHz, 802.11 ac (VHT20))



(Channel 149, 5745MHz, 802.11 ac (VHT20))



(Channel 157, 5785MHz, 802.11 ac (VHT20))



(Channel 165, 5825MHz, 802.11 ac (VHT20))

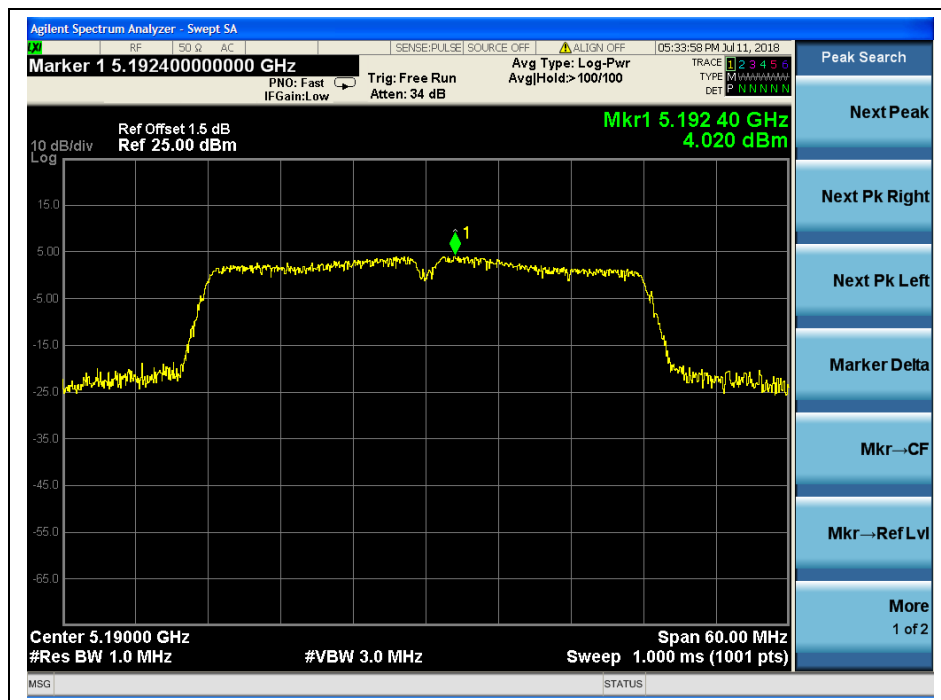


802.11ac (VHT40) Test mode

A. Test Verdict:

Channel	Frequency (MHz)	Measured PPSP (dBm/MHz)	Limit (dBm/MHz)	Verdict
38	5190	4.02	11	PASS
46	5230	4.61		
54	5270	6.52		
62	5310	7.45		
102	5510	6.90		
126	5630	6.06		
142	5710	5.47		
Channel	Frequency (MHz)	Measured PPSP (dBm/500KHz)	Limit (dBm/500KHz)	Verdict
142	5710	1.92	30	PASS
151	5755	3.42		
155	5795	2.76		

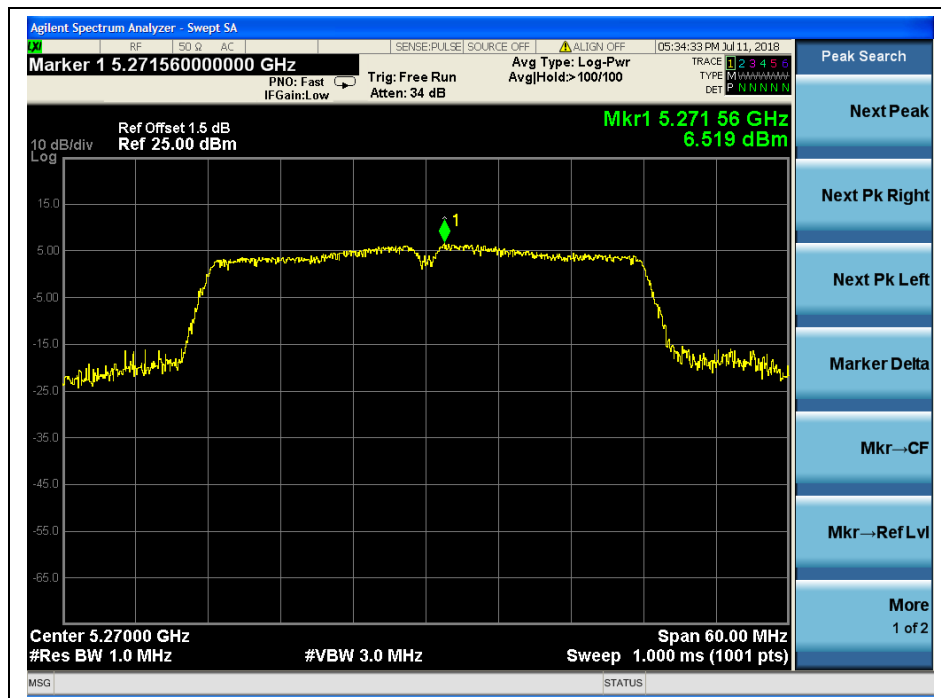
B. Test Plots



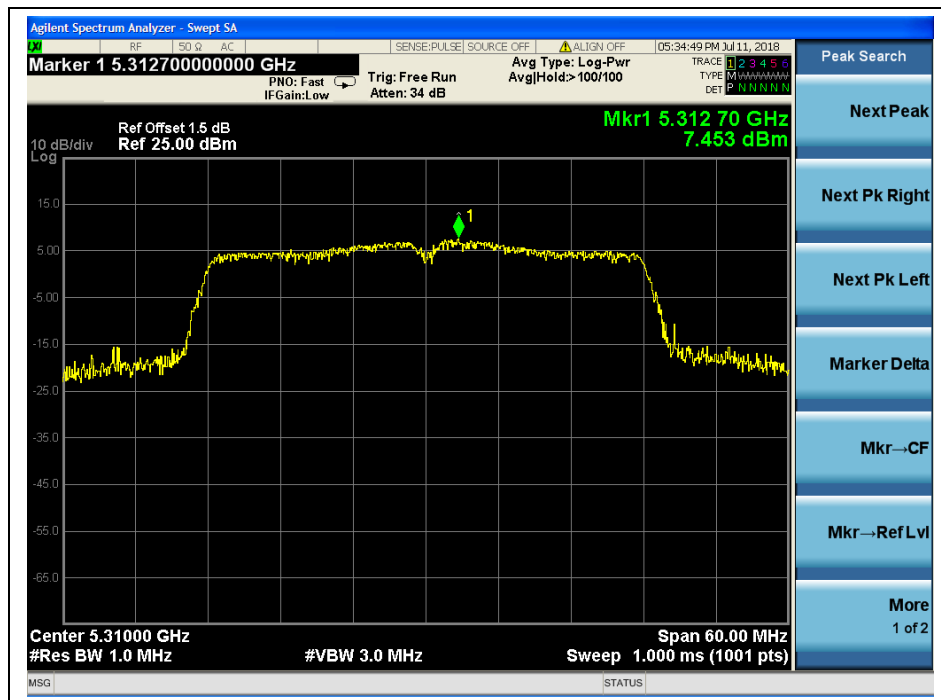
(Channel 38, 5190MHz, 802.11 ac (VHT40))



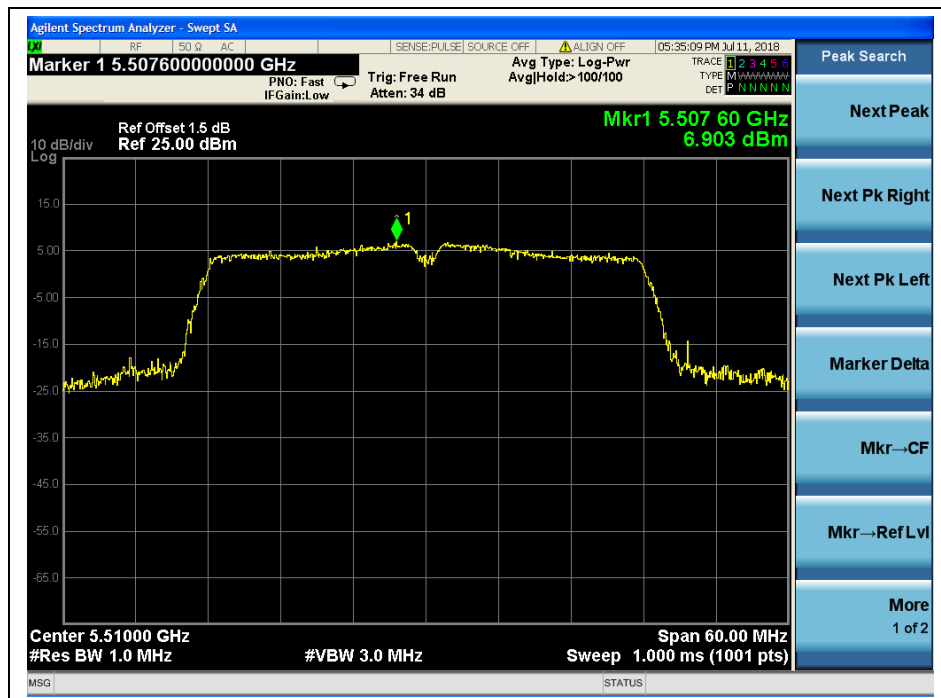
(Channel 46, 5230 MHz, 802.11 ac (VHT40))



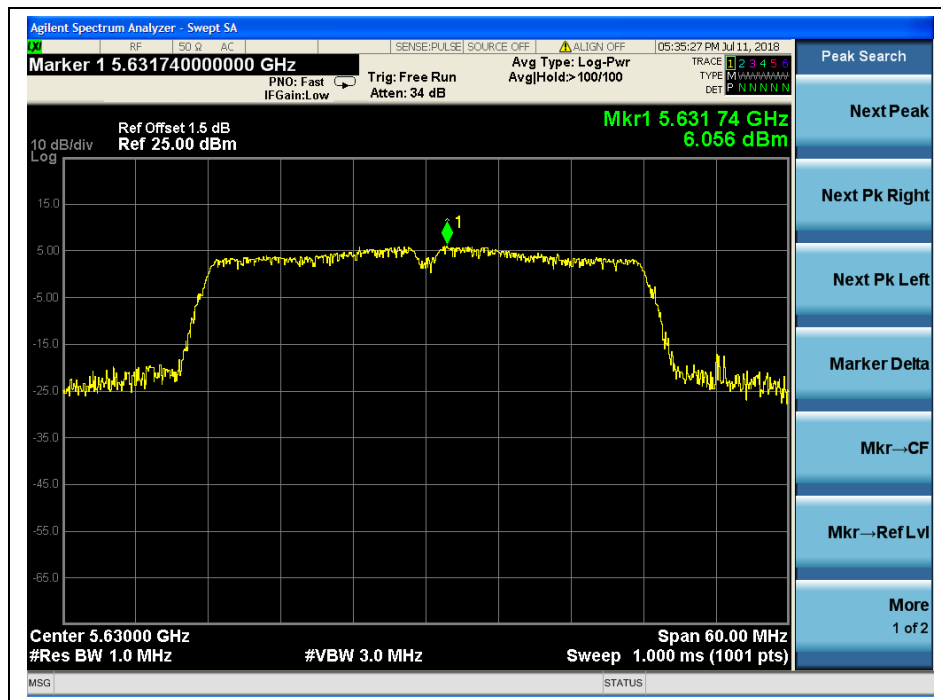
(Channel 54, 5270MHz, 802.11 ac (VHT40))



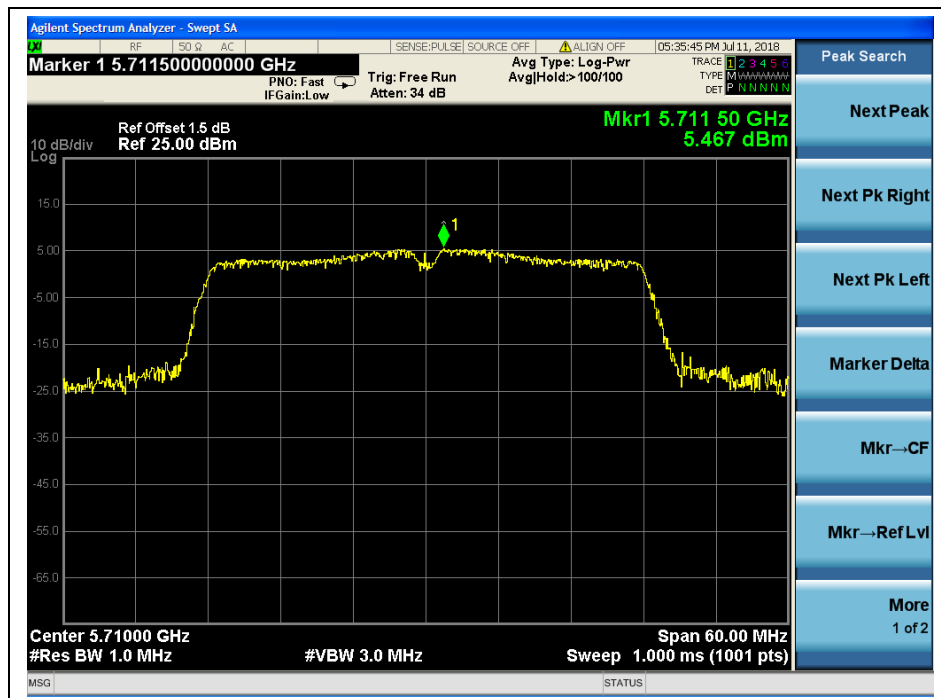
(Channel 62, 5310MHz, 802.11 ac (VHT40))



(Channel 102, 5510 MHz, 802.11 ac (VHT40))



(Channel 126, 5630MHz, 802.11 ac (VHT40))



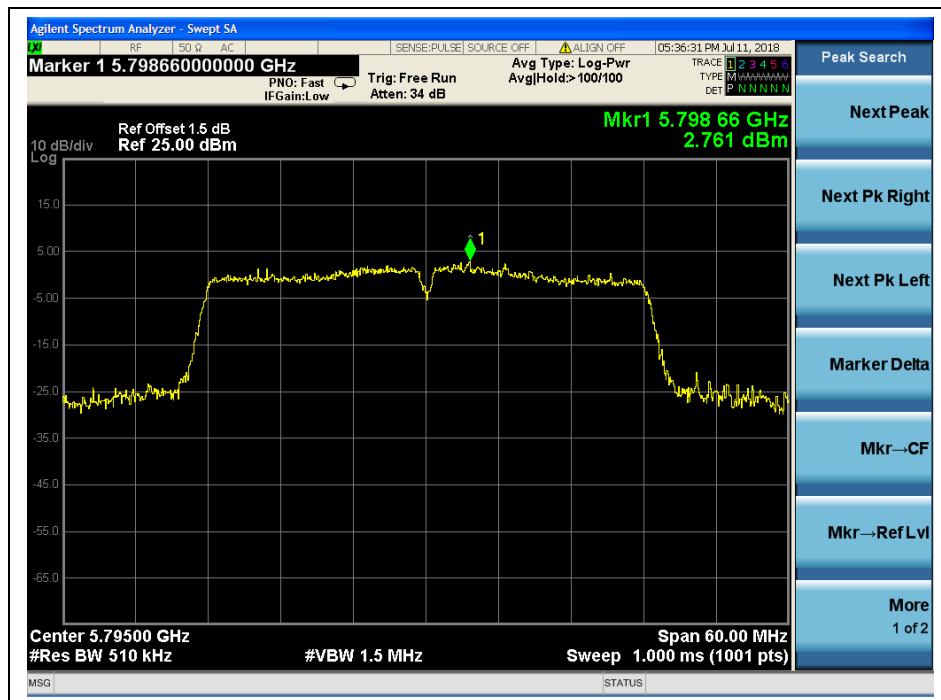
(Channel 142, 5710MHz, 802.11 ac (VHT40))



(Channel 142, 5710 MHz, 802.11 ac (VHT40))



(Channel 151, 5755MHz, 802.11 ac (VHT40))



(Channel 159, 5795MHz, 802.11 ac (VHT40))

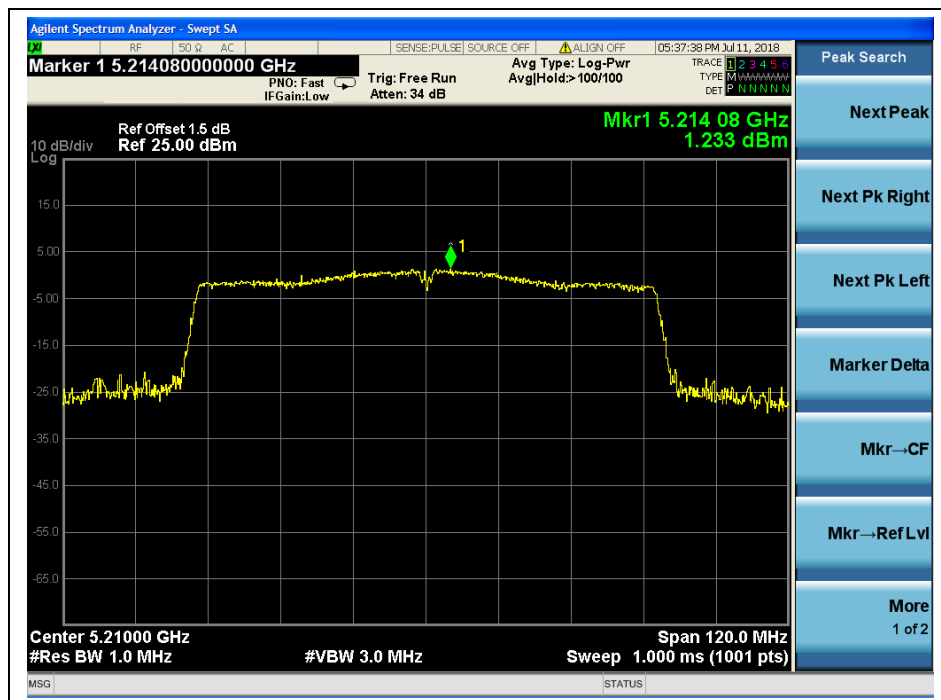


802.11ac (VHT80) Test mode

A. Test Verdict:

Channel	Frequency (MHz)	Measured PPSP (dBm/MHz)	Limit (dBm/MHz)	Verdict
42	5210	1.23	11	PASS
58	5290	4.48		
106	5530	3.82		
122	5610	3.83		
138	5690	3.52		
Channel	Frequency (MHz)	Measured PPSP (dBm/500KHz)	Limit (dBm/500KHz)	Verdict
138	5690	-0.18	30	PASS
155	5775	0.52		

B. Test Plots



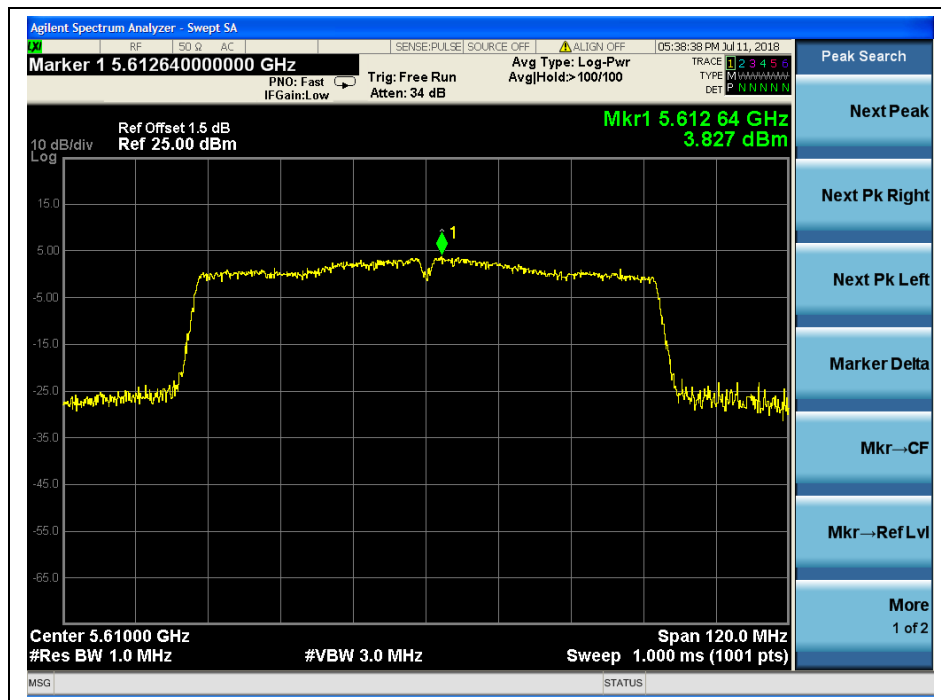
(Channel 42, 5210MHz, 802.11ac (VHT80))



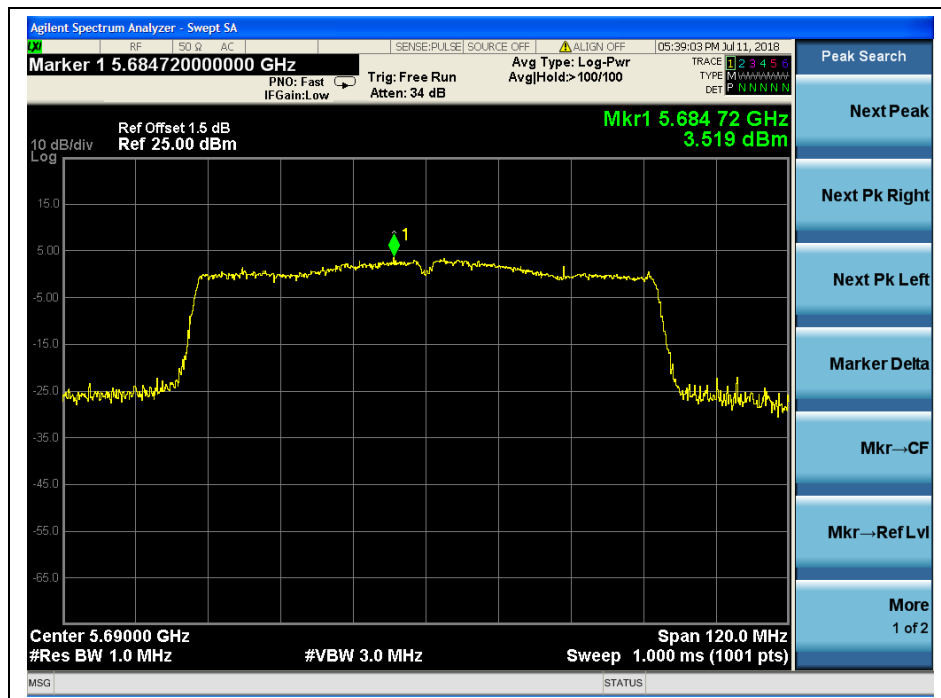
(Channel 58, 5290 MHz, 802.11 ac (VHT80))



(Channel 106, 5530MHz, 802.11 ac (VHT80))



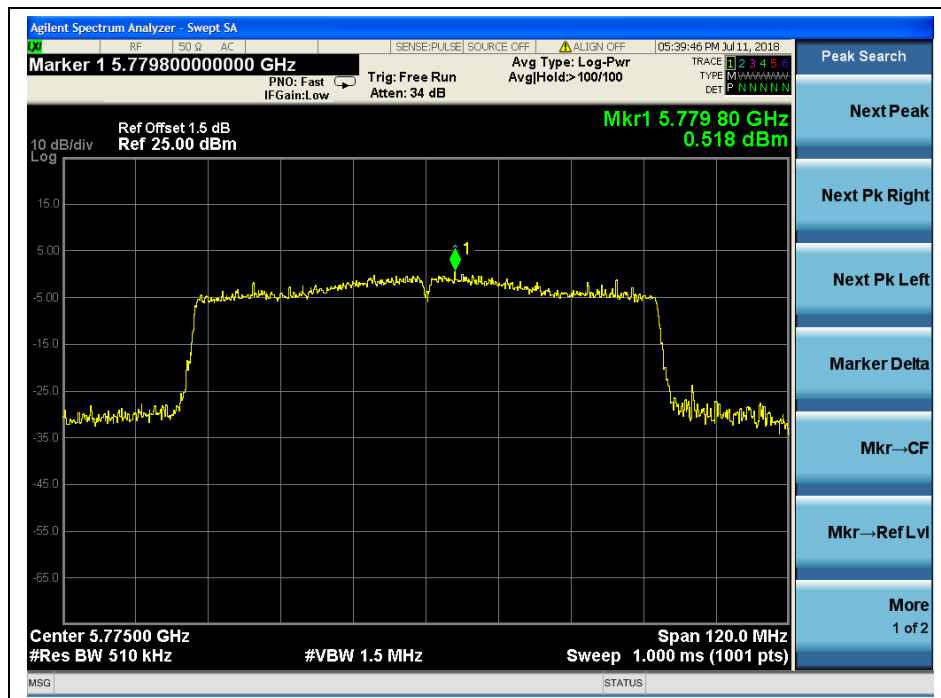
(Channel 122, 5610 MHz, 802.11 ac (VHT80))



(Channel 138, 5690MHz, 802.11 ac (VHT80))



(Channel 138, 5690 MHz, 802.11 ac (VHT80))



(Channel 155, 5775MHz, 802.11 ac (VHT80))



2.5. Frequency Stability

2.5.1. Requirement

Manufacturers of U-NII devices are responsible for ensuring frequency stability such that an emission is maintained within the band of operation under all conditions of normal operation as specified in the user's manual.

2.5.2. Test Procedure

The EUT was placed inside of an environmental chamber as the temperature in the chamber was varied between 5°C to 40°C. The temperature was incremented by 10° intervals and the unit was allowed to stabilize at each temperature before each measurement. The center frequency of the transmitting channel was evaluated at each temperature and the frequency deviation from the channel's center frequency was recorded. Data for the worst case channel is shown below.

2.5.3. Test Result

Frequency Stability Measurements for UNII Band 1 (Ch. 36)

VOLTAGE (%)	POWER (VDC)	TEMP (°C)	FREQUENCY (Hz)	Freq Dev. (Hz)	Deviation (%)
100%	12.0	+20(Ref)	5,179,999,985	-15	-0.0000003
100%		-30	5,180,000,022	22	0.0000004
100%		-20	5,180,000,019	19	0.0000004
100%		-10	5,179,999,991	-9	-0.0000002
100%		0	5,180,000,022	22	0.0000004
100%		+10	5,180,000,021	21	0.0000004
100%		+20	5,179,999,988	-12	-0.0000002
100%		+30	5,179,999,993	-7	-0.0000001
100%		+40	5,180,000,020	20	0.0000004
100%		+50	5,180,000,015	15	0.0000003
85%	10.8	+20	5,179,999,993	-7	-0.0000001
115%	13.2	+20	5,179,999,987	-13	-0.0000003



Frequency Stability Measurements for UNII Band 2A (Ch. 52)

VOLTAGE (%)	POWER (VDC)	TEMP (°C)	FREQUENCY (Hz)	Freq Dev. (Hz)	Deviation (%)
100%	12.0	+20(Ref)	5,259,999,989	-11	-0.0000002
100%		-30	5,259,999,992	-8	-0.0000002
100%		-20	5,260,000,024	24	0.0000005
100%		-10	5,260,000,023	23	0.0000004
100%		0	5,259,999,993	-7	-0.0000001
100%		+10	5,260,000,021	21	0.0000004
100%		+20	5,260,000,025	25	0.0000005
100%		+30	5,260,000,018	18	0.0000003
100%		+40	5,259,999,986	-14	-0.0000003
100%		+50	5,260,000,027	27	0.0000005
85%	10.8	+20	5,260,000,020	20	0.0000004
115%	13.2	+20	5,259,999,987	-13	-0.0000002

Frequency Stability Measurements for UNII Band 2C (Ch. 100)

VOLTAGE (%)	POWER (VDC)	TEMP (°C)	FREQUENCY (Hz)	Freq Dev. (Hz)	Deviation (%)
100%	12.0	+20(Ref)	5,499,999,982	-18	-0.0000003
100%		-30	5,500,000,026	26	0.0000005
100%		-20	5,500,000,021	21	0.0000004
100%		-10	5,499,999,985	-15	-0.0000003
100%		0	5,500,000,023	23	0.0000004
100%		+10	5,499,999,992	-8	-0.0000001
100%		+20	5,500,000,019	19	0.0000003
100%		+30	5,500,000,018	18	0.0000003
100%		+40	5,499,999,993	-7	-0.0000001
100%		+50	5,500,000,025	25	0.0000005
85%	10.8	+20	5,500,000,021	21	0.0000004
115%	13.2	+20	5,499,999,989	-11	-0.0000002



Frequency Stability Measurements for UNII Band 3 (Ch. 149)

VOLTAGE (%)	POWER (VDC)	TEMP (°C)	FREQUENCY (Hz)	Freq Dev. (Hz)	Deviation (%)
100%	12.0	+20(Ref)	5,745,000,028	28	0.0000005
100%		-30	5,744,999,982	-18	-0.0000003
100%		-20	5,745,000,026	26	0.0000005
100%		-10	5,744,999,984	-16	-0.0000003
100%		0	5,745,000,023	23	0.0000004
100%		+10	5,744,999,987	-13	-0.0000002
100%		+20	5,745,000,024	24	0.0000004
100%		+30	5,745,000,021	21	0.0000004
100%		+40	5,744,999,982	-18	-0.0000003
100%		+50	5,745,000,018	18	0.0000003
85%	10.8	+20	5,745,000,019	19	0.0000003
115%	13.2	+20	5,745,000,023	23	0.0000004

Note: Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency deviation noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

2.6. Conducted Emission

2.6.1. Requirement

According to FCC section 15.207, for an intentional radiator that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency within the band 150kHz to 30MHz shall not exceed the limits in the following table, as measured using a 50 μ H/50 Ω line impedance stabilization network (LISN).

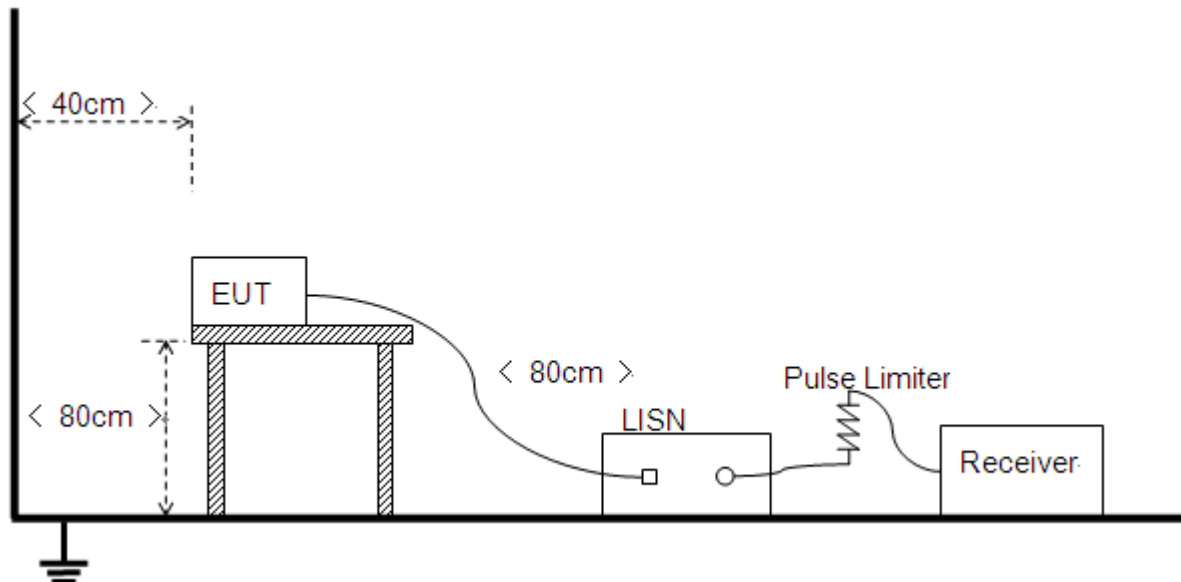
Frequency range (MHz)	Conducted Limit (dB μ V)	
	Quai-peak	Average
0.15 - 0.50	66 to 56	56 to 46
0.50 - 5	56	46
5 - 30	60	50

NOTE:

- The lower limit shall apply at the band edges.
- The limit decreases linearly with the logarithm of the frequency in the range 0.15 - 0.50MHz.

2.6.2. Test Description

A. Test Setup:



The Table-top EUT was placed upon a non-metallic table 0.8m above the horizontal metal reference ground plane. EUT was connected to LISN and LISN was connected to reference Ground Plane. EUT was 80cm from LISN. The set-up and test methods were according to ANSI C63.10: 2013.

2.6.3. Test Result

The maximum conducted interference is searched using Peak (PK), if the emission levels more than the AV and QP limits, and that have narrow margins from the AV and QP limits will be re-measured with AV and QP detectors. Tests for both L phase and N phase lines of the power mains connected to the EUT are performed. Refer to recorded points and plots below.

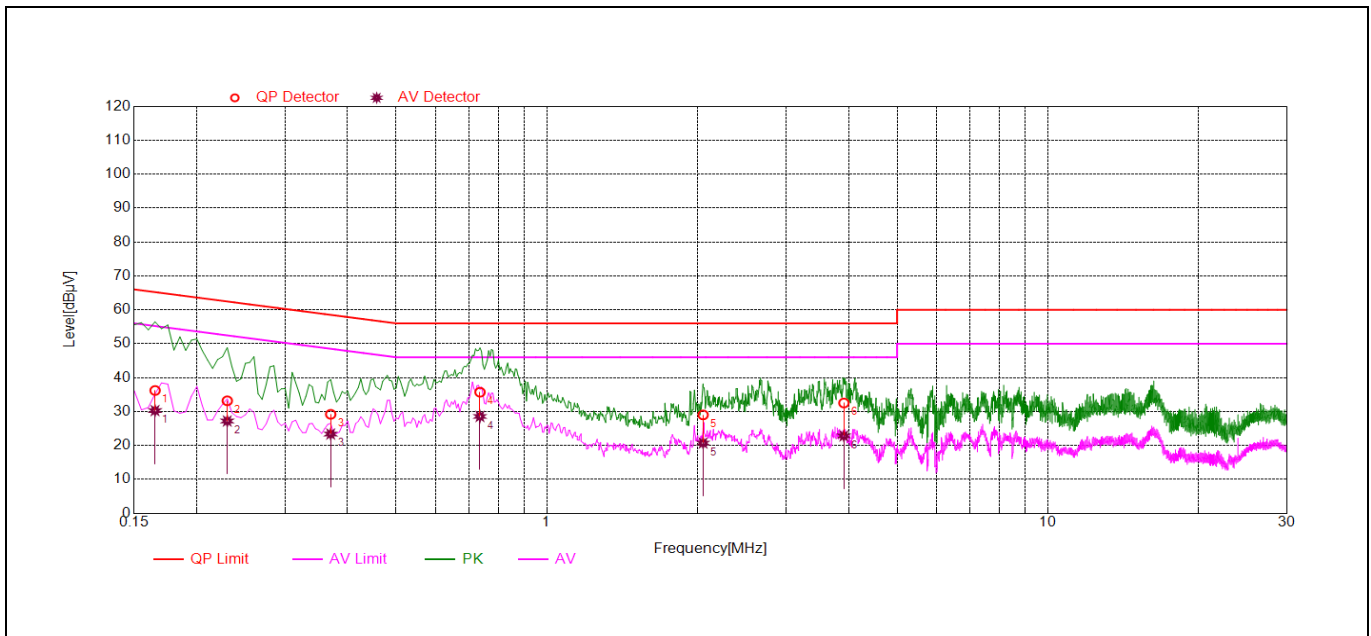
Note: Both of the test voltage AC 120V/60Hz and AC 230V/50Hz were considered and tested respectively, only the results of the worst case AC 120V/60Hz were recorded in this report.

A. Test setup:

The EUT configuration of the emission tests is EUT + Link.

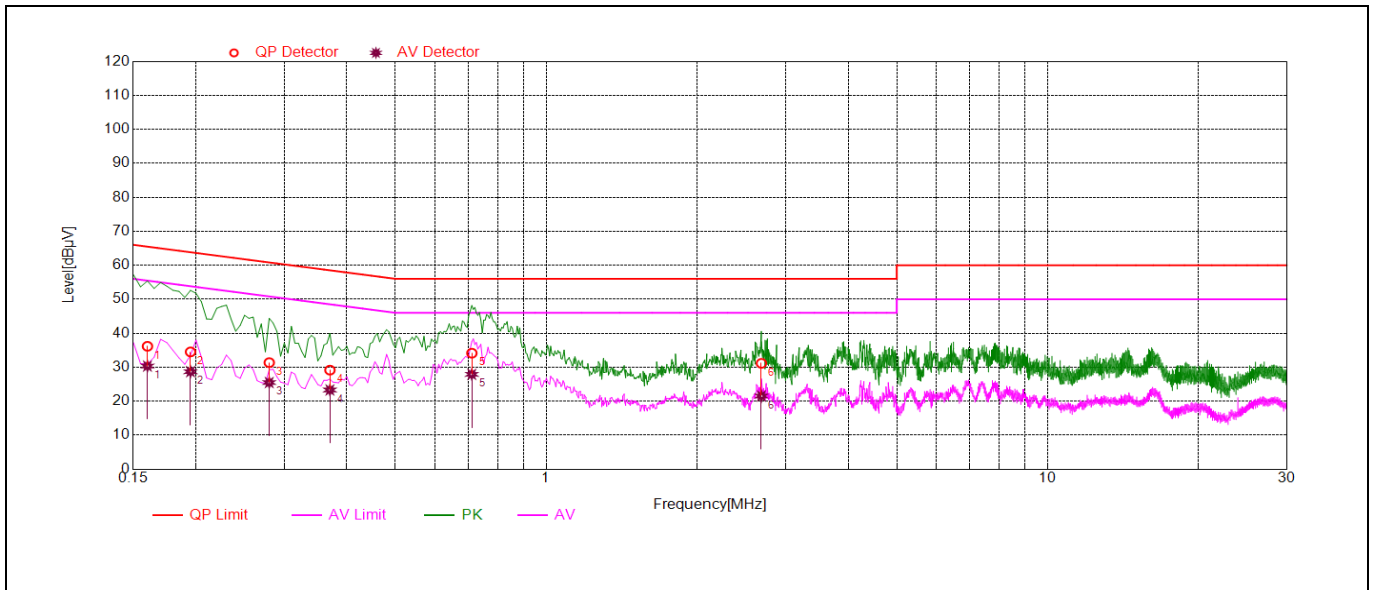
Note: The test voltage is AC 120V/60Hz.

B. Test Plots:



(L Phase)

NO.	Fre. (MHz)	Emission Level (dBμV)		Limit (dBμV)		Power-line	Verdict
		Quai-peak	Average	Quai-peak	Average		
1	0.17	36.21	30.27	65.21	55.21	Line	PASS
2	0.23	33.17	27.20	62.45	52.45		PASS
3	0.37	29.18	23.36	58.50	48.50		PASS
4	0.73	35.70	28.55	56.00	46.00		PASS
5	2.05	29.00	20.71	56.00	46.00		PASS
6	3.92	32.52	22.81	56.00	46.00		PASS



(N Phase)

NO.	Fre. (MHz)	Emission Level (dBμV)		Limit (dBμV)		Power-line	Verdict
		Quai-peak	Average	Quai-peak	Average		
1	0.16	36.15	30.32	65.46	55.46	Neutral	PASS
2	0.20	34.50	28.67	63.82	53.82		PASS
3	0.28	31.35	25.48	60.82	50.82		PASS
4	0.37	29.14	23.29	58.50	48.50		PASS
5	0.71	34.12	27.89	56.00	46.00		PASS
6	2.69	31.13	21.51	56.00	46.00		PASS

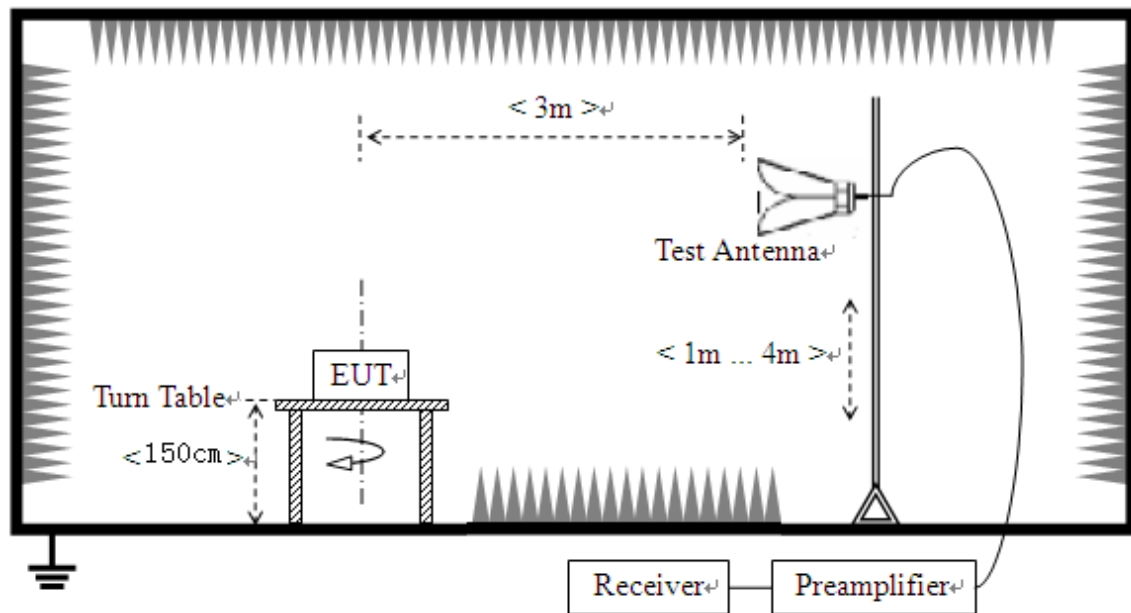
2.7. Restricted Frequency Bands

2.7.1. Requirement

According to FCC section 15.407(b)(7), in any 100kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20dB below that in the 100kHz bandwidth within the band that contains the highest level of the desired power, In addition, radiated emissions which fall in the restricted bands, as defined in 15.205(a), must also comply with the radiated emission limits specified in 15.209(a).

2.7.2. Test Description

A. Test Setup



The Module is located in a 3m Semi-Anechoic Chamber; the antenna factors, cable loss and so on of the site as factors are calculated to correct the reading.

KDB 789033 Section H) 3)5)6(d)) was used in order to prove compliance

For the Test Antenna:

Test Antenna is 3m away from the EUT. Test Antenna height is varied from 1m to 4m above the ground to determine the maximum value of the field strength.



2.7.3. Test Result

The lowest and highest channels are tested to verify Restricted Frequency Bands.

The measurement results are obtained as below:

$$E \text{ [dB}\mu\text{V/m]} = U_R + A_T + A_{\text{Factor}} \text{ [dB]}; A_T = L_{\text{Cable loss}} \text{ [dB]} - G_{\text{preamp}} \text{ [dB]}$$

A_T : Total correction Factor except Antenna; U_R : Receiver Reading

G_{preamp} : Preamplifier Gain; A_{Factor} : Antenna Factor at 3m

Note: Restricted Frequency Bands were performed when antenna was at vertical and horizontal polarity, and only the worse test condition (vertical) was recorded in this test report.

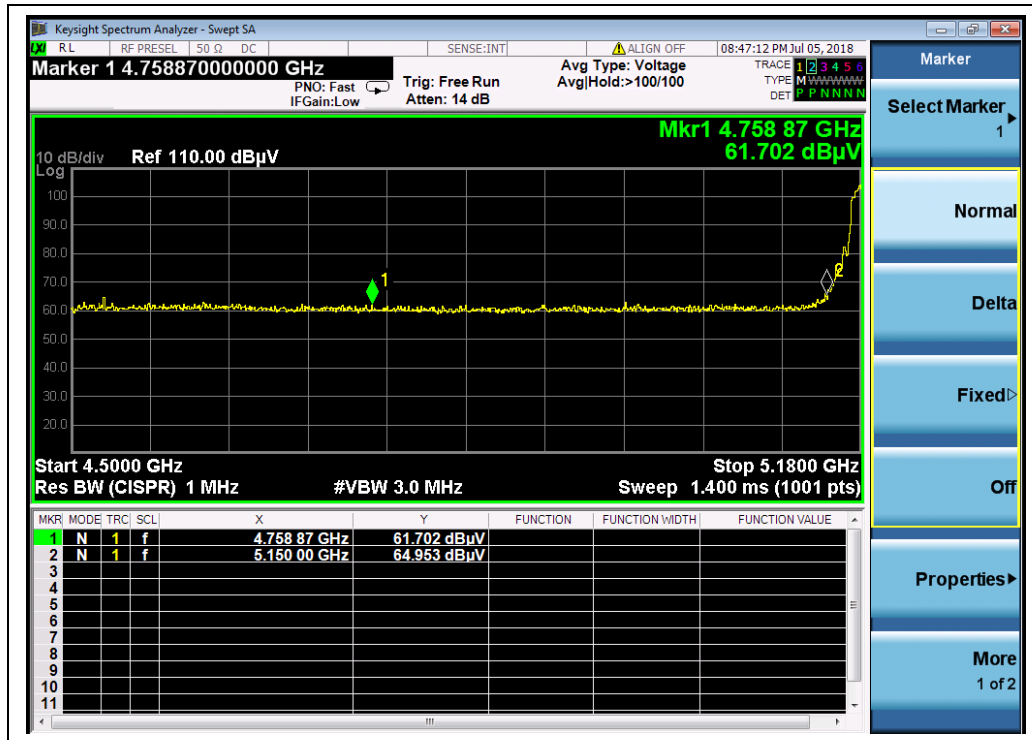
802.11a Test mode

A. Test Verdict:

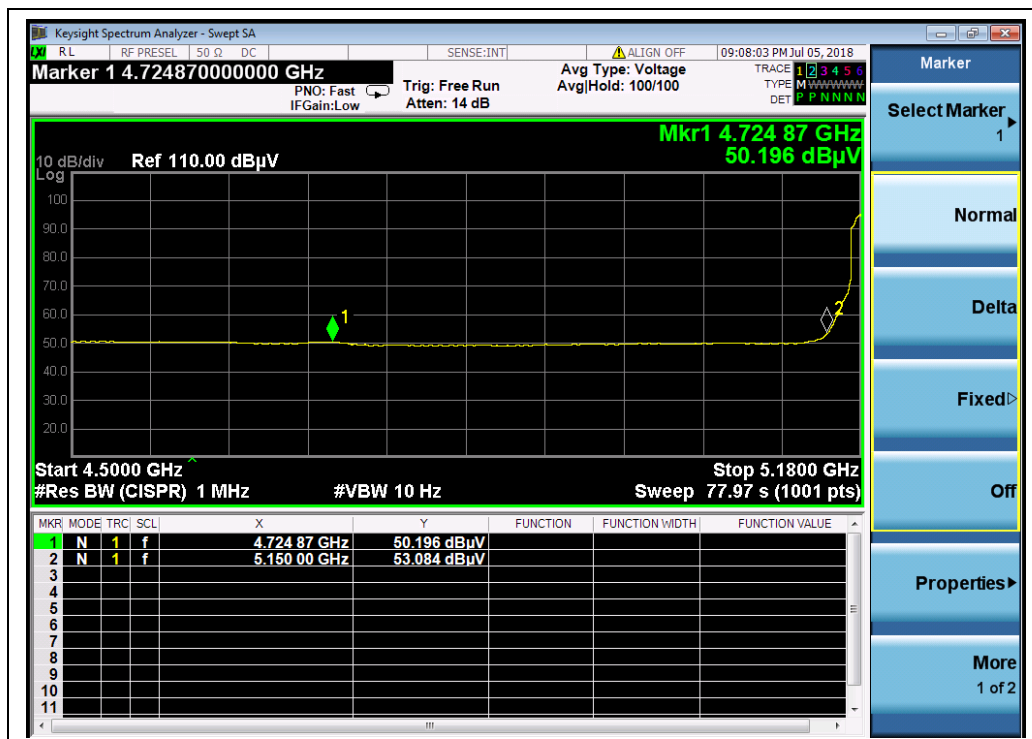
Channel	Frequency (MHz)	Detector	Receiver Reading U_R (dBuV)	A_T (dB)	A_{Factor} (dB@3m)	Max. Emission E (dB μ V/m)	Limit (dB μ V/m)	Verdict
		PK/ AV						
36	4758.87	PK	61.70	-50.65	32.11	43.16	74	PASS
36	4724.87	AV	50.20	-50.65	32.11	31.66	54	PASS
64	5358.16	PK	61.24	-50.65	32.11	42.70	74	PASS
64	5374.54	AV	48.54	-50.65	32.11	30.00	54	PASS
100	5275.10	PK	47.52	-50.65	32.11	28.98	68.23	PASS
100	5182.60	AV	35.62	-50.65	32.11	17.08	54	PASS
144	5752.10	PK	62.08	-50.65	32.11	43.54	68.23	PASS
144	5773.10	AV	50.65	-50.65	32.11	32.11	54	PASS
149	5721.92	PK	72.07	-50.65	32.11	53.53	115.21	PASS
149	5721.92	AV	56.87	-50.65	32.11	38.33	54	PASS
165	5851.43	PK	62.53	-50.65	32.11	43.99	118.97	PASS
165	5751.08	AV	51.84	-50.65	32.11	33.30	54	PASS



B. Test Plots:



(Channel 36, PEAK, 802.11a)



(Channel 36, AVG, 802.11a)