



Antenna 3:

Channel	Frequency (MHz)	Measured Average Output Power(dBm)	Limit (dBm)	Verdict
36	5180	11.96	30	PASS
44	5220	11.89		
48	5240	11.66		
149	5745	2.03	30	
157	5785	2.34		
165	5825	1.51		

**Note: 1** Each antenna port was measured individually, and the aggregated power was summed mathematically.

Remark:

The MIMO test requirement, RF conducted output power shall measure each transmitter chain. And after obtain each individual transmitter chain power, then sum the output power by using the following formula;

$$((\text{dBm}/\text{Chain 1})/10^{\text{Log}}) + (\text{dBm}/\text{Chain 2})/10^{\text{Log}} + \dots + (\text{dBm}/\text{Chain N})/10^{\text{Log}} = \text{Combined peak output power in mW.}$$

**Note: 2** For those cases where the rule specifies that the conducted output power be reduced by the amount in dB that the directional gain of the transmitting antenna exceeds 6 dBi, the applicable output power limit shall be calculated as follows:

$$P_{\text{Out}} = P_{\text{Limit}} - (G_{\text{Tx}} - 6)$$

where:

$P_{\text{Out}}$  is the maximum conducted output power in dBm,

$P_{\text{Limit}}$  is the output power limit in dBm,

$G_{\text{Tx}}$  is the maximum transmitting antenna directional gain in dBi.

## 2.4 Peak Power spectral density

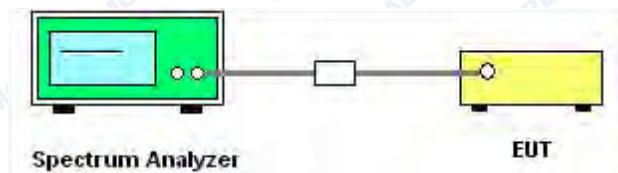
### 2.4.1 Requirement

- (1) 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.
- (2) 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, 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.*

### 2.4.2 Test Description

#### A. Test Set:



The EUT which is powered by the Battery, is coupled to the Spectrum Analyzer; the RF load attached to the EUT antenna terminal is 50Ohm; 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

#### 2.4.3.1 802.11ac-20MHz Test mode

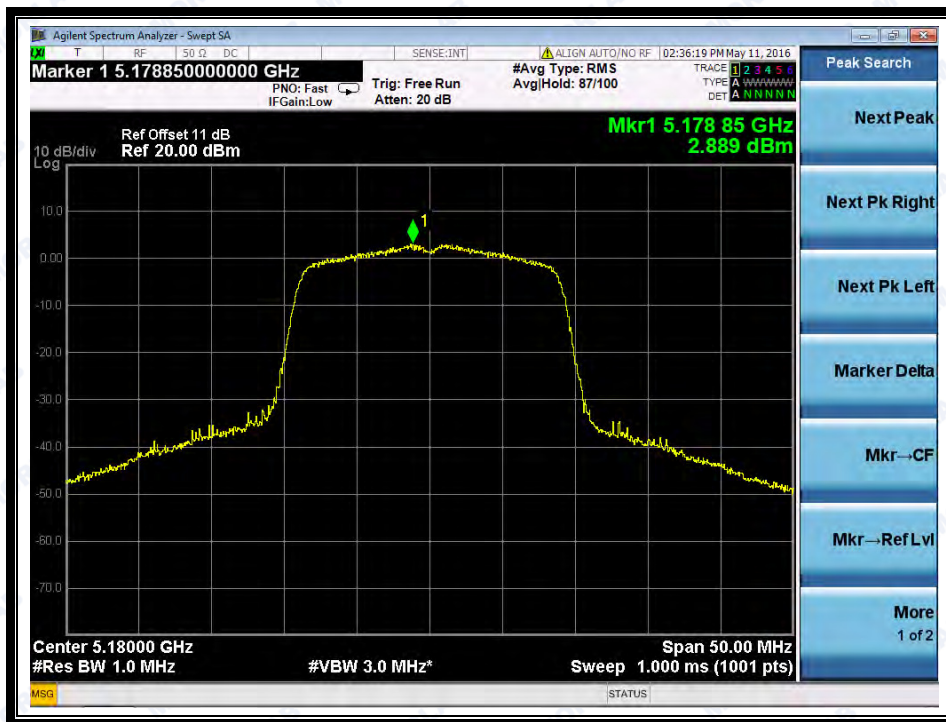


Antenna 1

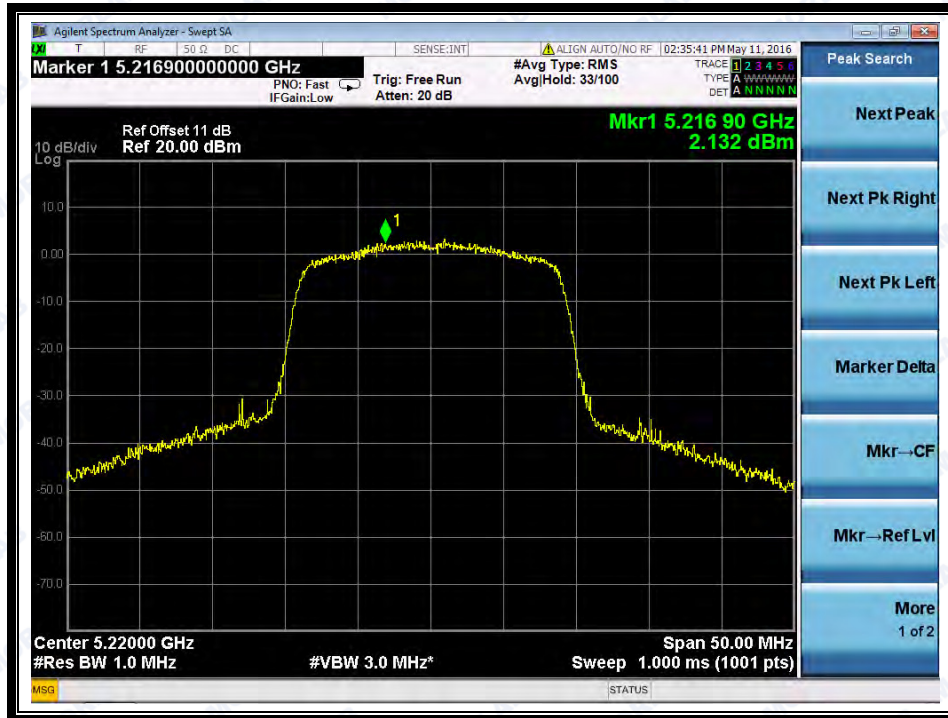
A. Test Verdict:

Channel	Frequency (MHz)	Measured PPSD (dBm/MHz)	Limit (dBm/MHz)	Verdict
36	5180	2.889	17	PASS
44	5220	2.132		
48	5240	2.035		
Channel	Frequency (MHz)	Measured PPSD (dBm/500KHz)	Limit (dBm/500KHz)	Verdict
149	5745	-2.801	30	PASS
157	5785	-2.506		
165	5825	-2.711		

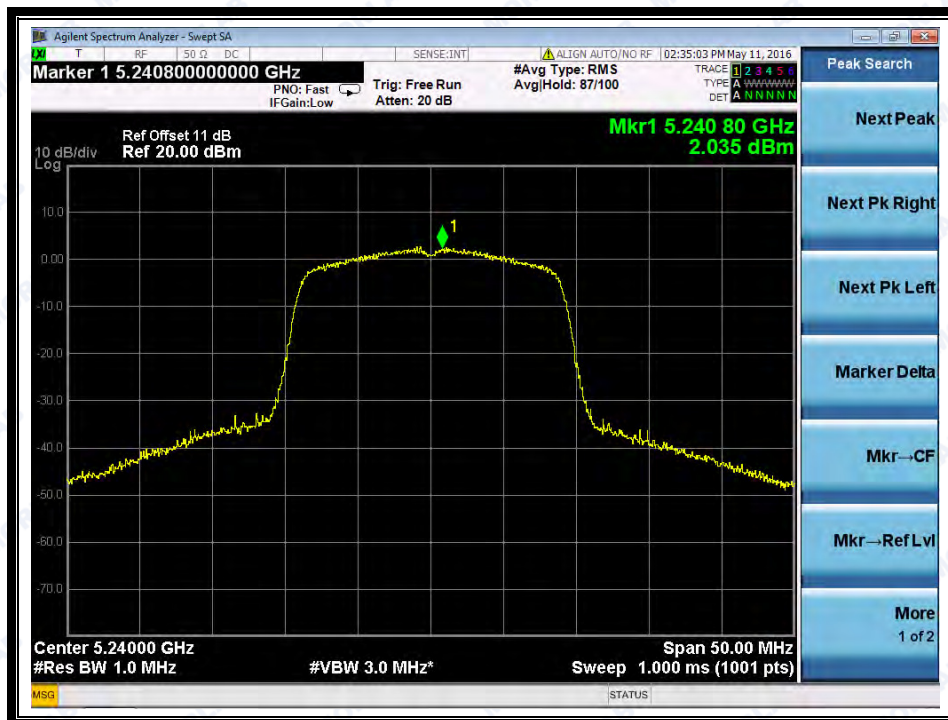
B. Test Plots



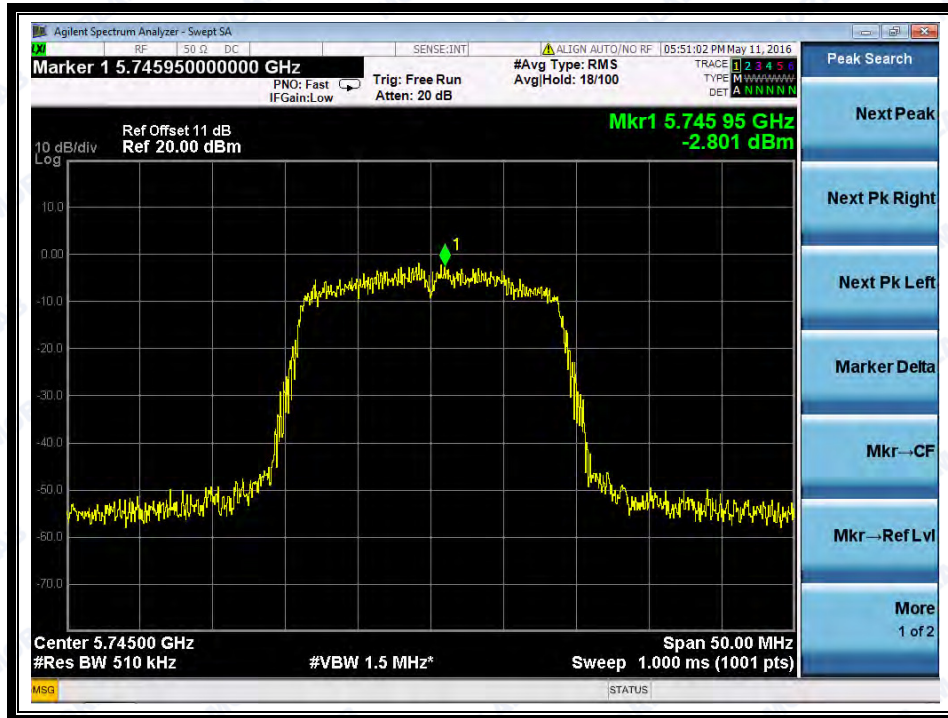
(Channel 36: 5180MHz @ 802.11ac)



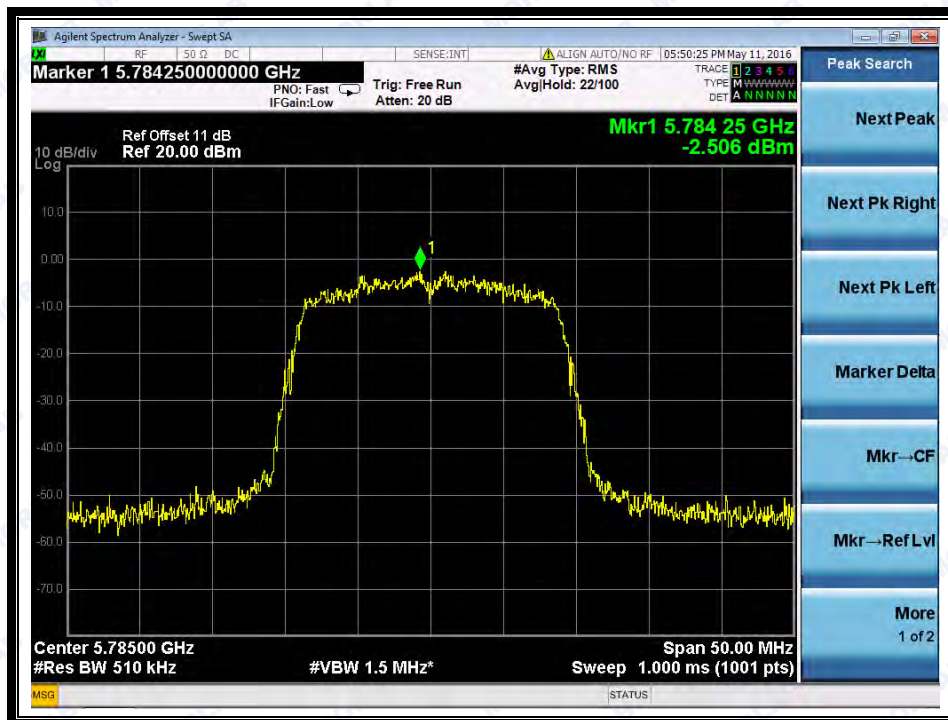
(Channel 44: 5220 MHz @ 802.11ac)



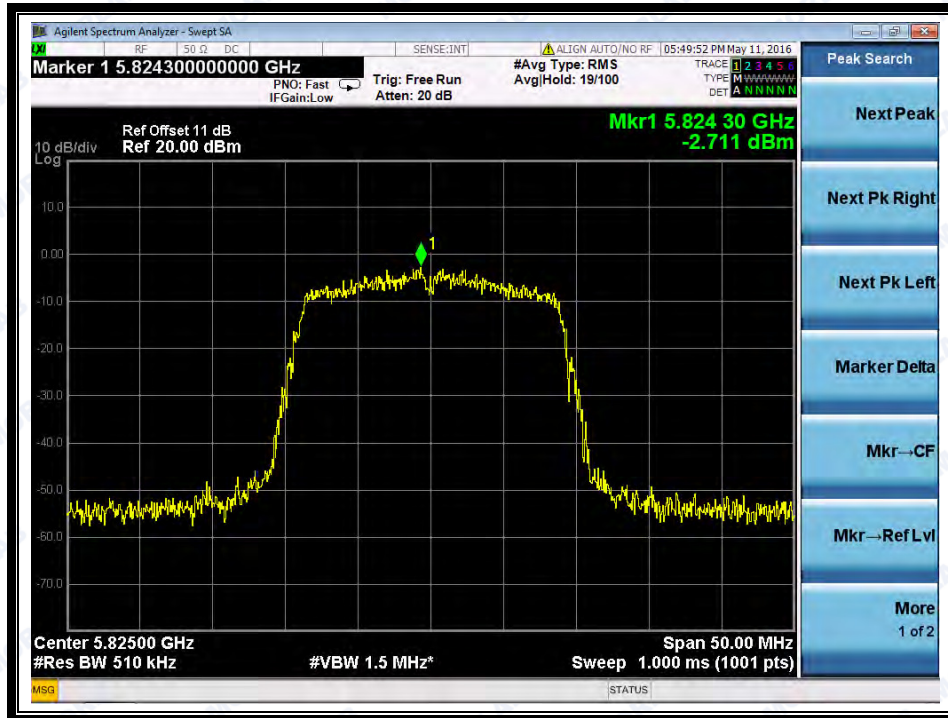
(Channel 48: 5240MHz @ 802.11ac)



(Channel 149: 5745MHz @ 802.11ac)



(Channel 157: 5785MHz @ 802.11ac)



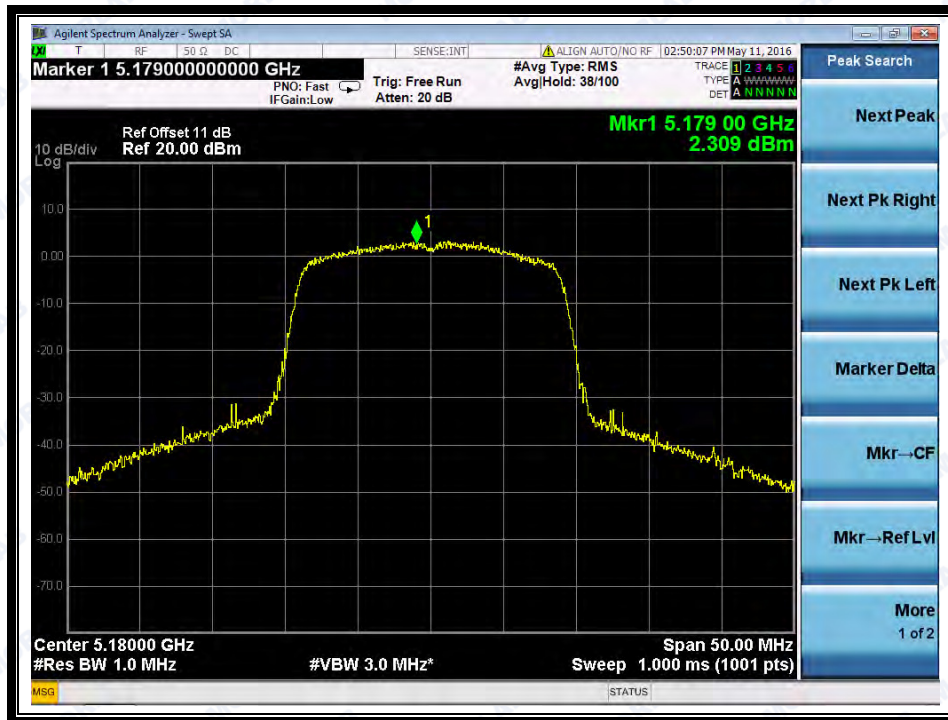
(Channel 165: 5825MHz @ 802.11ac)

**Antenna 2:**

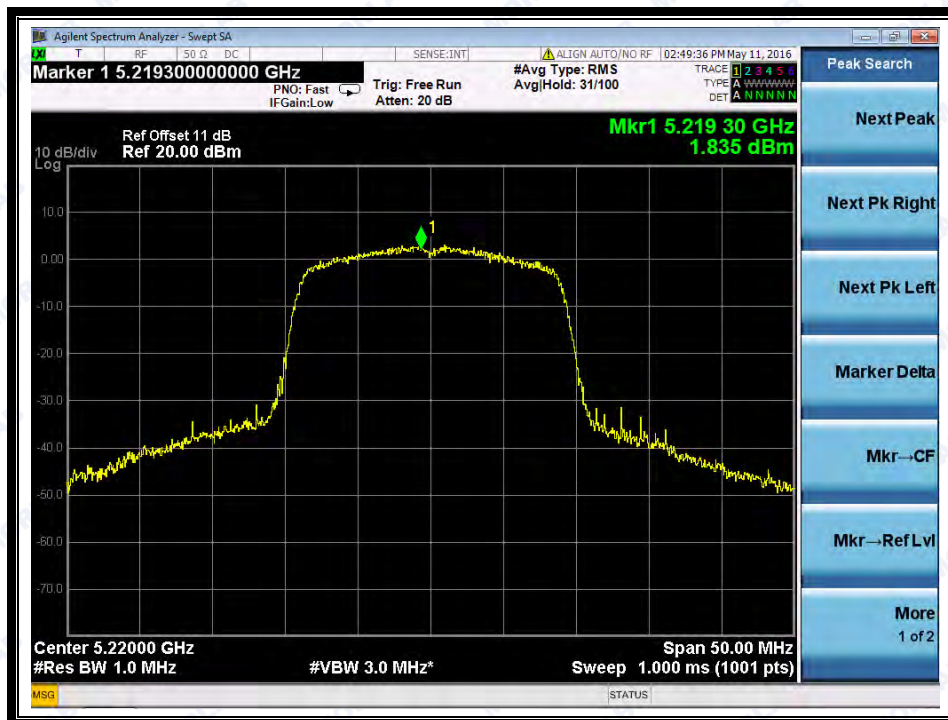
**A. Test Verdict:**

Channel	Frequency (MHz)	Measured PPSD (dBm/MHz)	Limit (dBm/MHz)	Verdict
36	5180	2.309	17	PASS
44	5220	1.835		
48	5240	2.555		
Channel	Frequency (MHz)	Measured PPSD (dBm/500KHz)	Limit (dBm/500KHz)	Verdict
149	5745	-3.566	30	
157	5785	-3.941		
165	5825	-4.740		

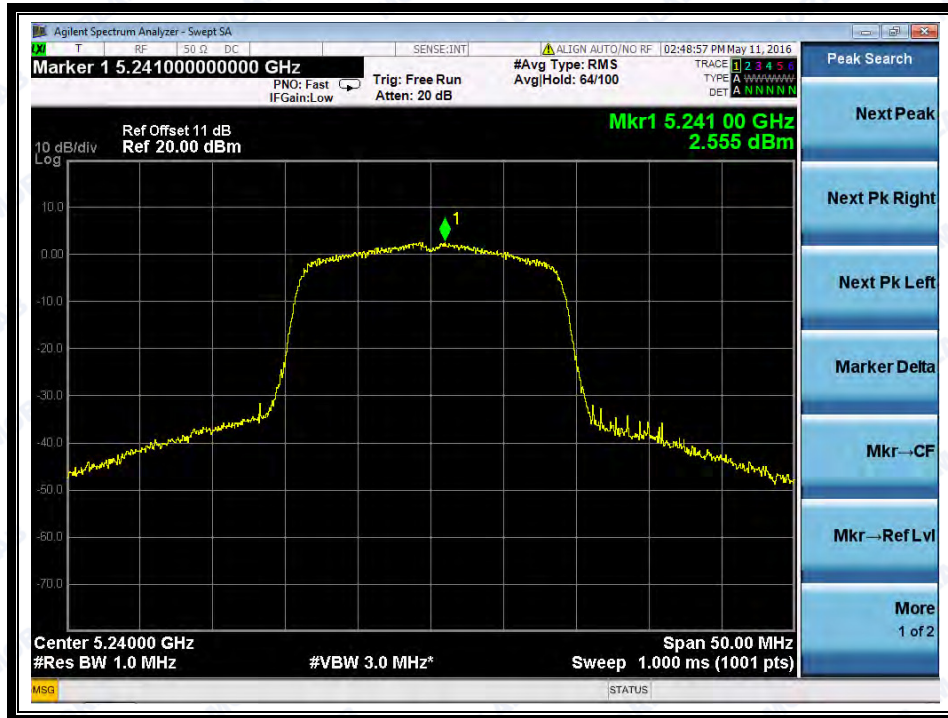
**B. Test Plots**



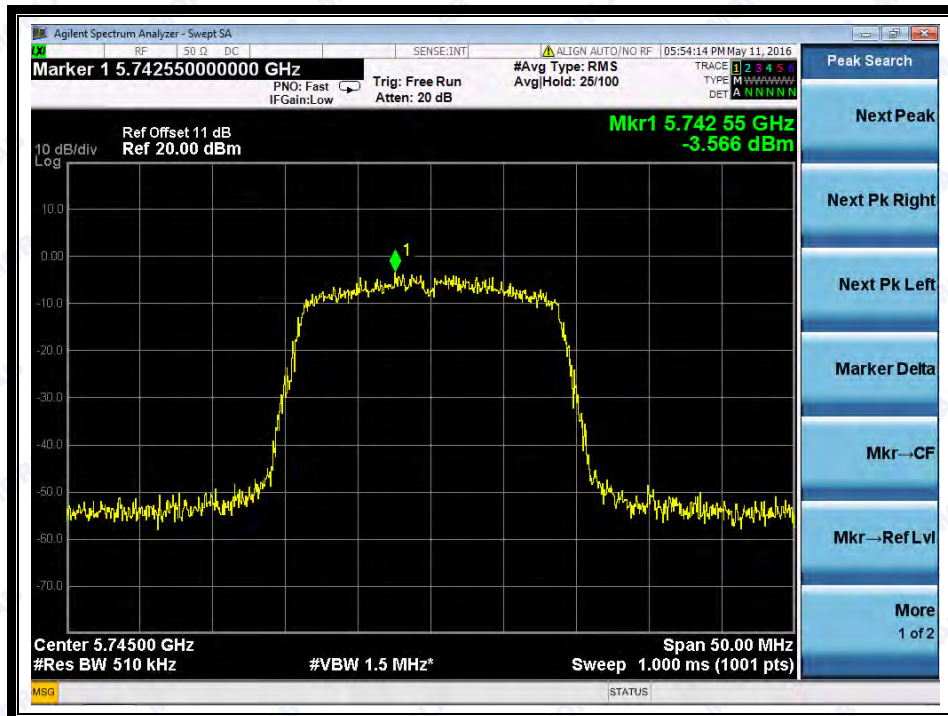
(Channel 36: 5180MHz @ 802.11ac)



(Channel 44: 5220 MHz @ 802.11ac)

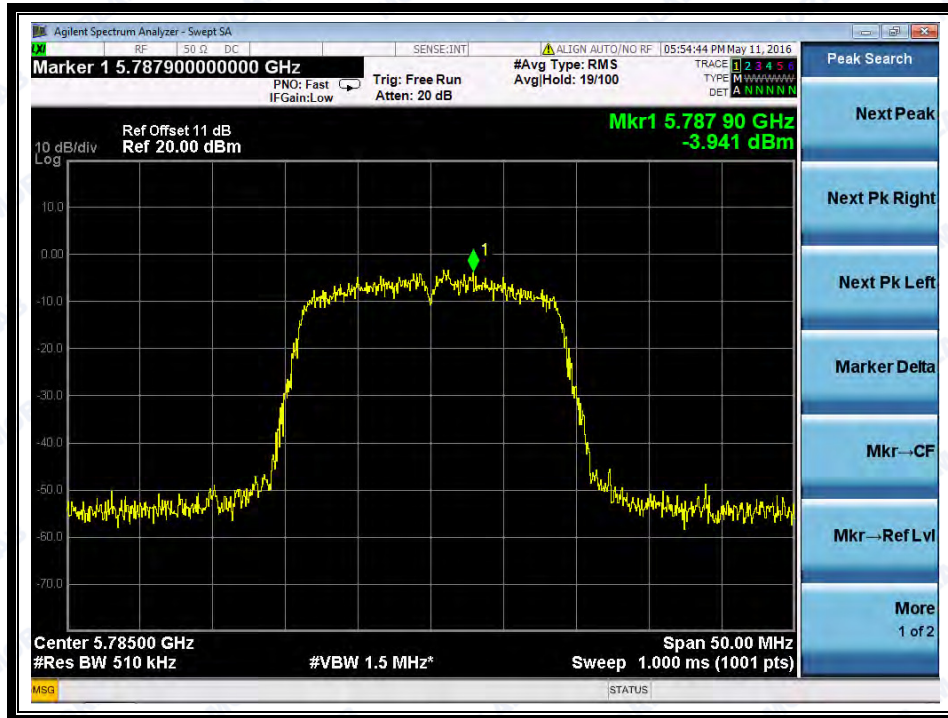


(Channel 48: 5240MHz @ 802.11ac)

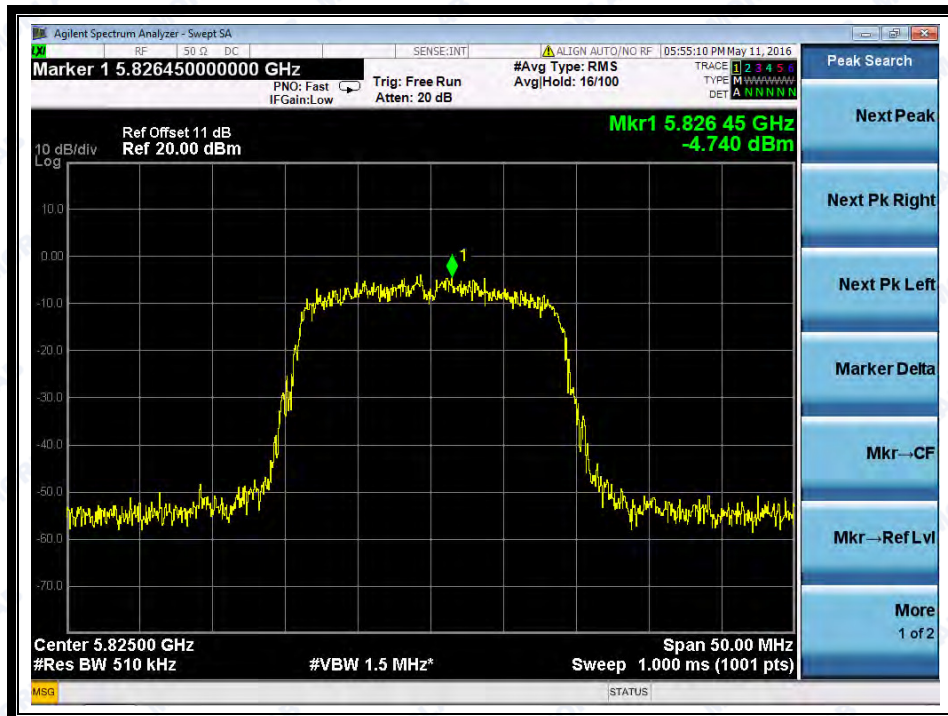


(Channel 149: 5745MHz @ 802.11ac)





(Channel 157: 5785MHz @ 802.11ac)



(Channel 165: 5825MHz @ 802.11ac)

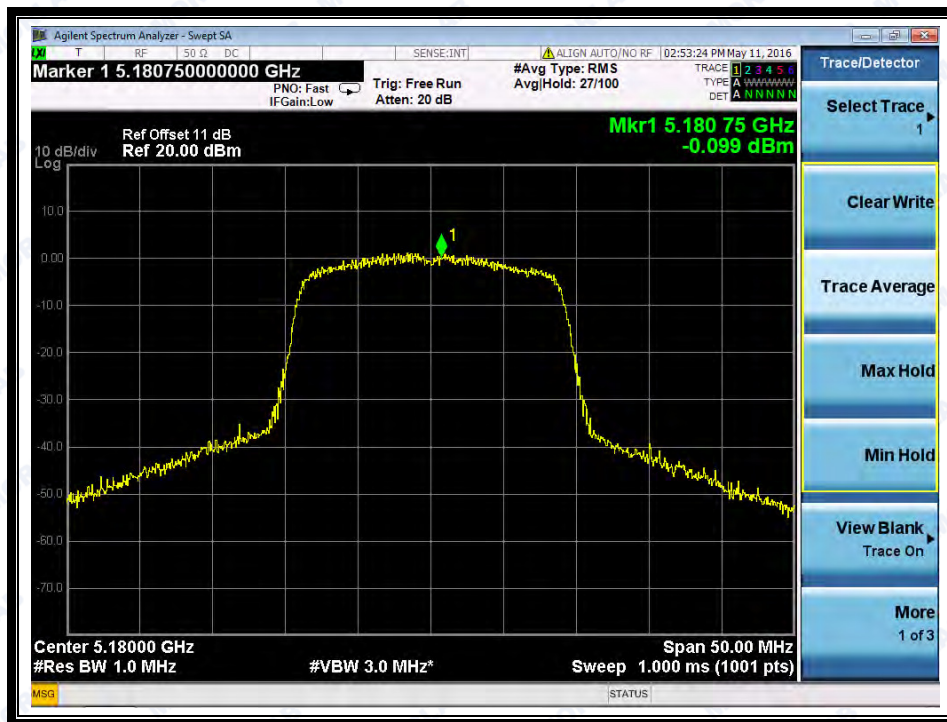


**Antenna 3:**

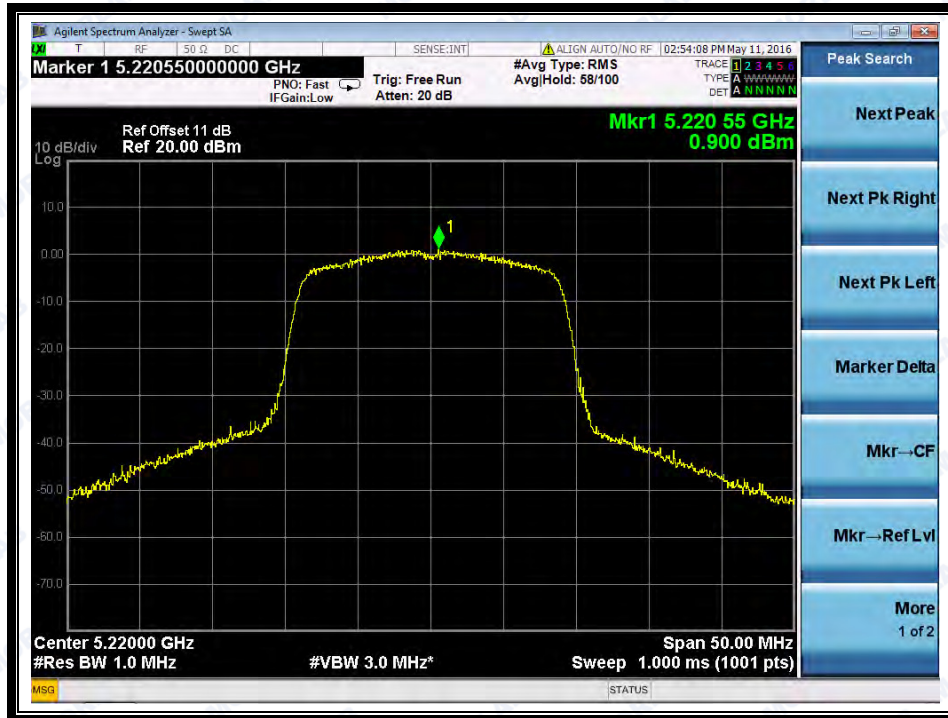
**A. Test Verdict:**

Channel	Frequency (MHz)	Measured PPSD (dBm/MHz)	Limit (dBm/MHz)	Verdict
36	5180	-0.099	17	PASS
44	5220	0.900		
48	5240	-0.047		
Channel	Frequency (MHz)	Measured PPSD (dBm/500KHz)	Limit (dBm/500KHz)	Verdict
149	5745	-0.702	30	PASS
157	5785	-1.028		
165	5825	-2.859		

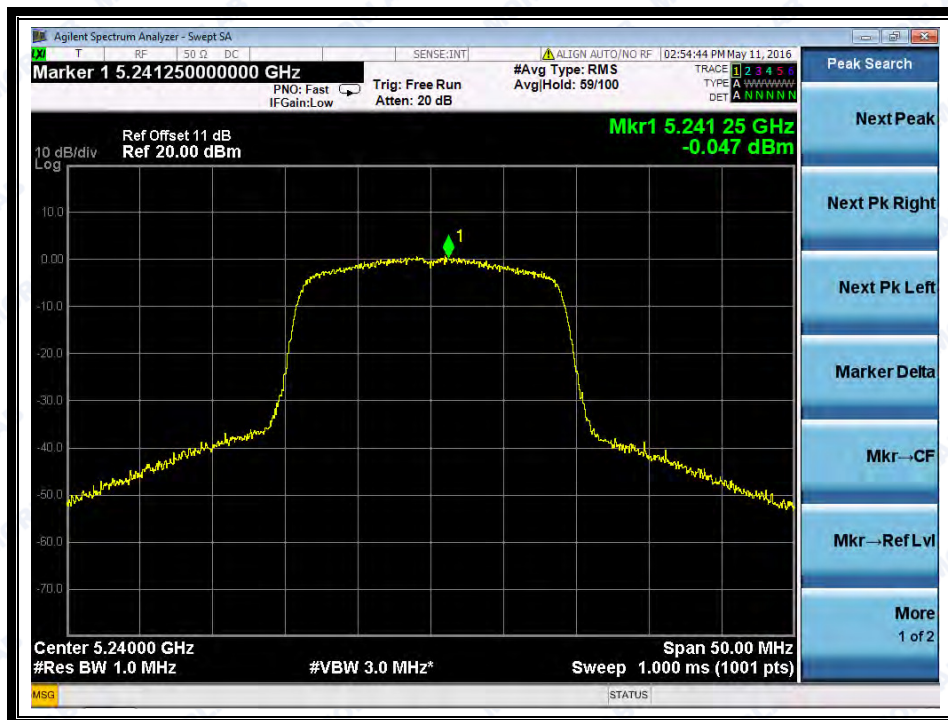
**B. Test Plots**



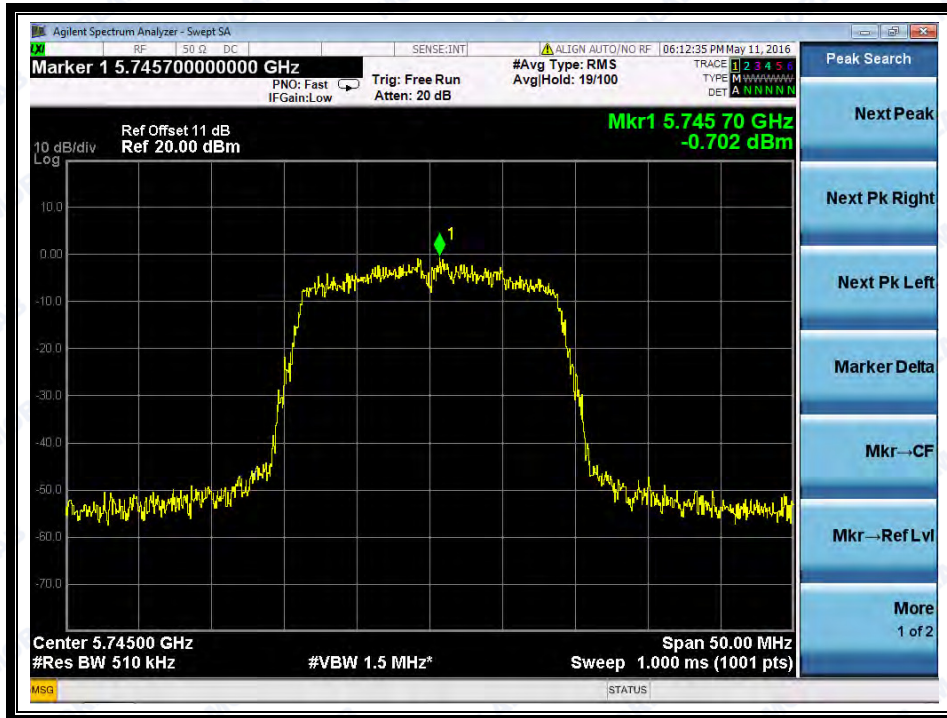
(Channel 36: 5180MHz @ 802.11ac)



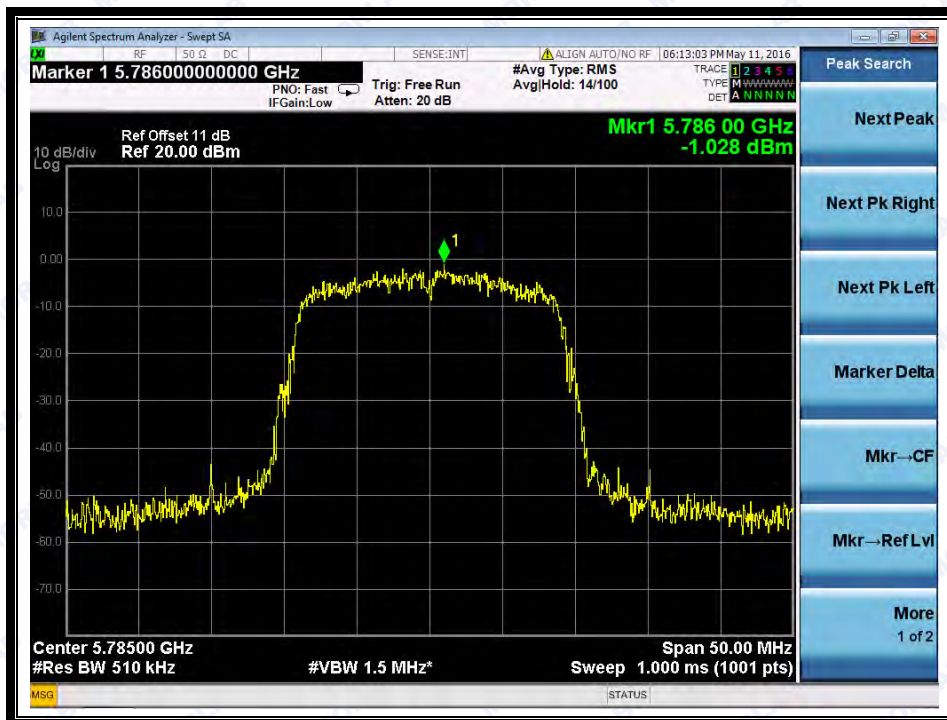
(Channel 44: 5220 MHz @ 802.11ac)



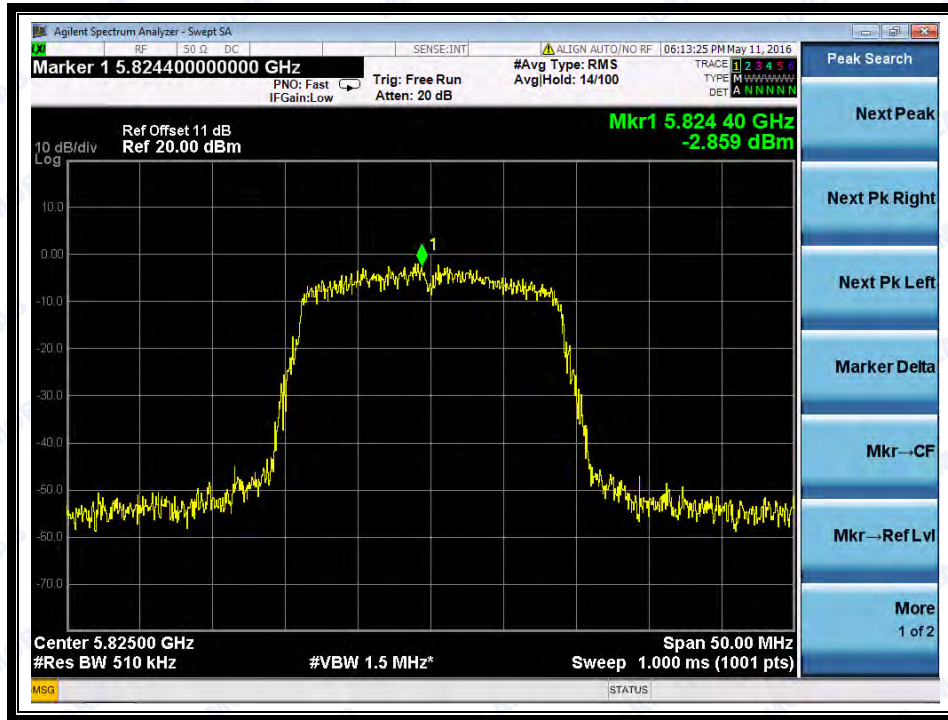
(Channel 48: 5240MHz @ 802.11ac)



(Channel 149: 5745MHz @ 802.11ac)



(Channel 157: 5785MHz @ 802.11ac)



(Channel 165: 5825MHz @ 802.11ac)

**Antenna 1 + Antenna 2 + Antenna 3:**

Channel	Frequency (MHz)	Measured PPSD (dBm/MHz)	Limit (dBm/MHz)	Verdict
36	5180	6.65	15.63 <sup>Note</sup>	PASS
44	5220	6.42		
48	5240	6.42		
Channel	Frequency (MHz)	Measured PPSD (dBm/500KHz)	Limit (dBm/500KHz)	Verdict
149	5745	2.59	28.63 <sup>Note</sup>	PASS
157	5785	2.44		
165	5825	1.43		

Note: For those cases where the rule specifies that the Spectral power density be reduced by the amount in dB that the directional gain of the transmitting antenna exceeds 6 dBi, the applicable Spectral power density limit shall be calculated as follows:

$$P_{Out} = P_{Limit} - (G_{Tx} - 6)$$

Where:

$P_{Out}$  is the maximum Spectral power density in dBm/MHz or dBm/500KHz,

$P_{Limit}$  is the Spectral power density limit in dBm/MHz or dBm/500KHz,

$G_{Tx}$  is the maximum transmitting antenna directional gain in dBi.



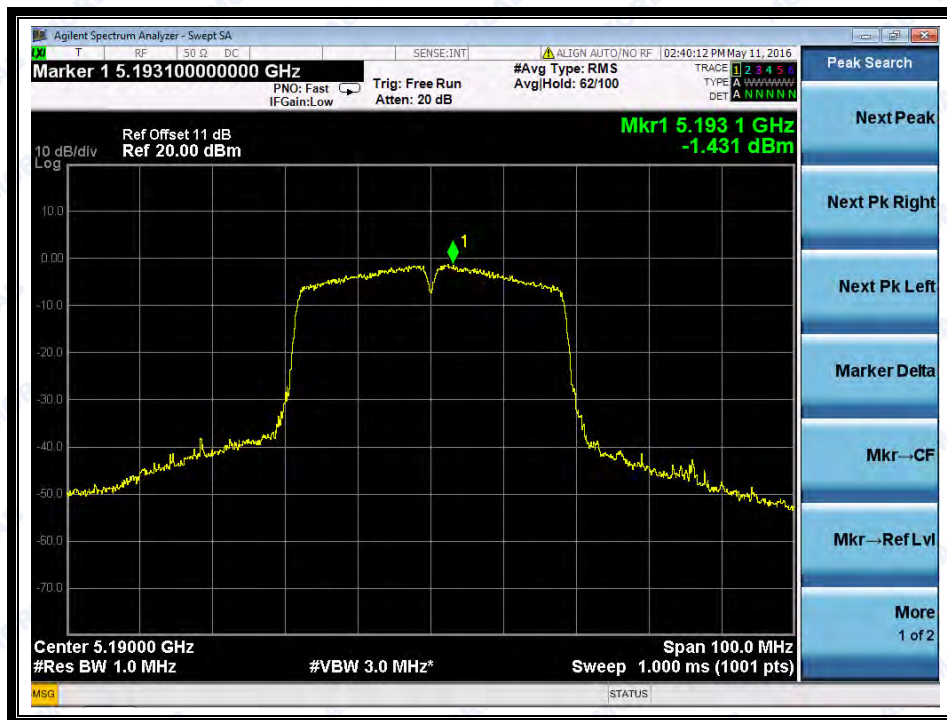
2.4.3.2 802.11ac-40MHz Test mode

Antenna 1:

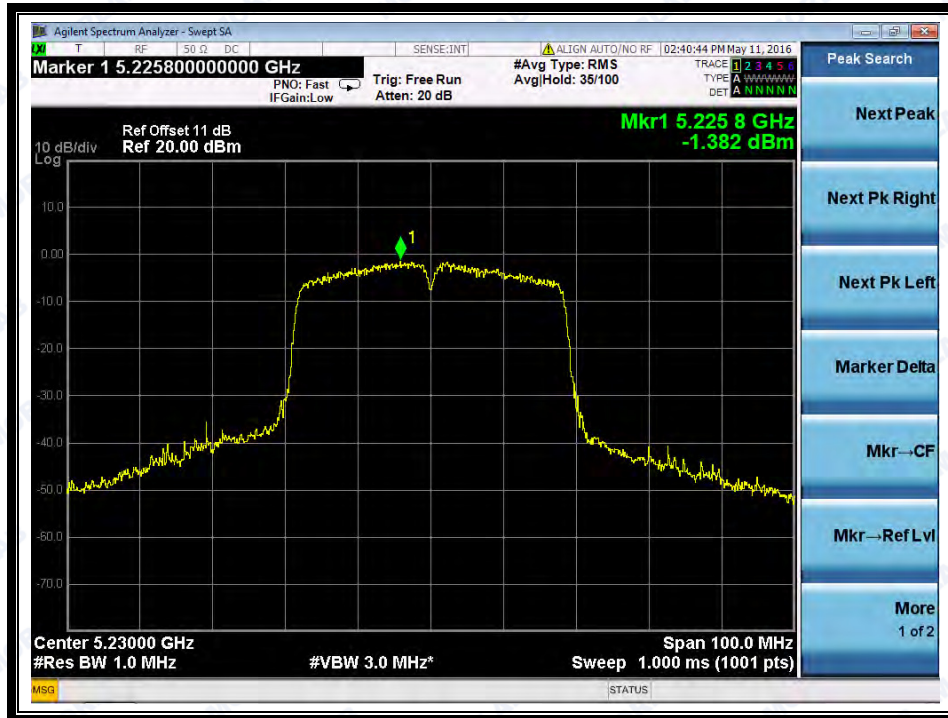
A. Test Verdict:

Channel	Frequency (MHz)	Measured PPSD (dBm/MHz)	Limit (dBm/MHz)	Verdict
38	5190	-1.431	17	PASS
46	5230	-1.382		
Channel	Frequency (MHz)	Measured PPSD (dBm/500KHz)	Limit (dBm/500KHz)	Verdict
151	5755	-5.680	30	PASS
159	5795	-6.076		

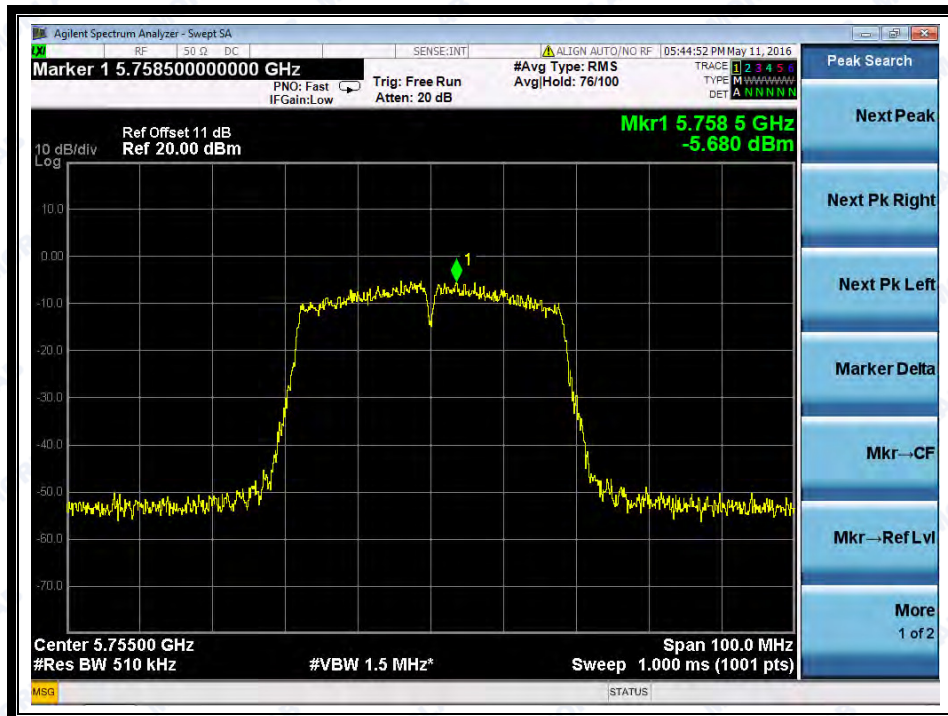
B. Test Plots



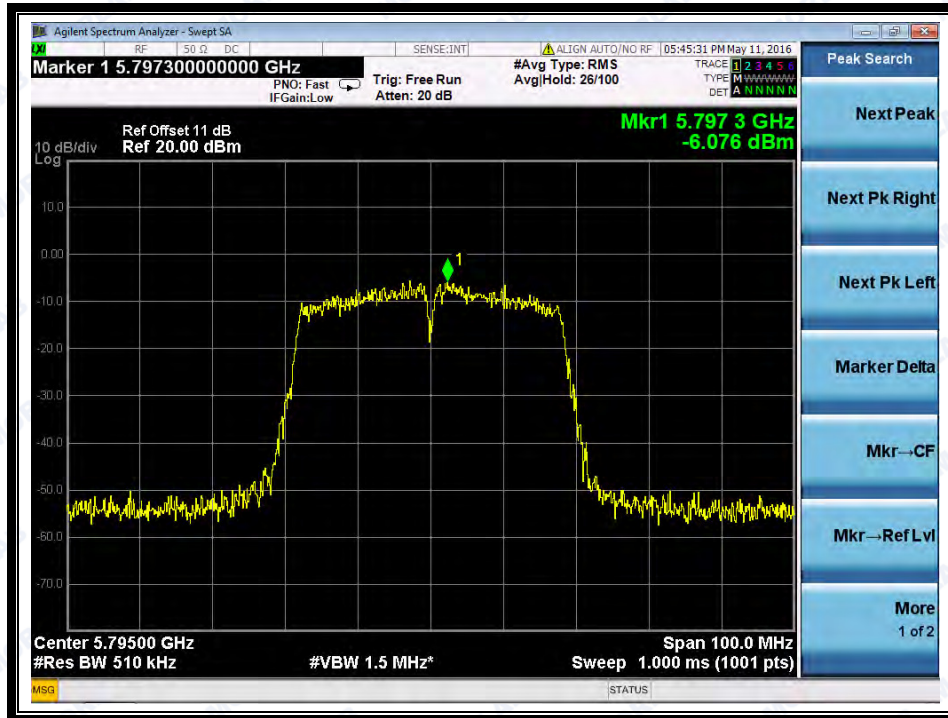
(Channel 38: 5190MHz @ 802.11ac)



(Channel 46: 5230 MHz @ 802.11ac)



(Channel 151: 5755MHz @ 802.11ac)



(Channel 159: 5795MHz @ 802.11ac)

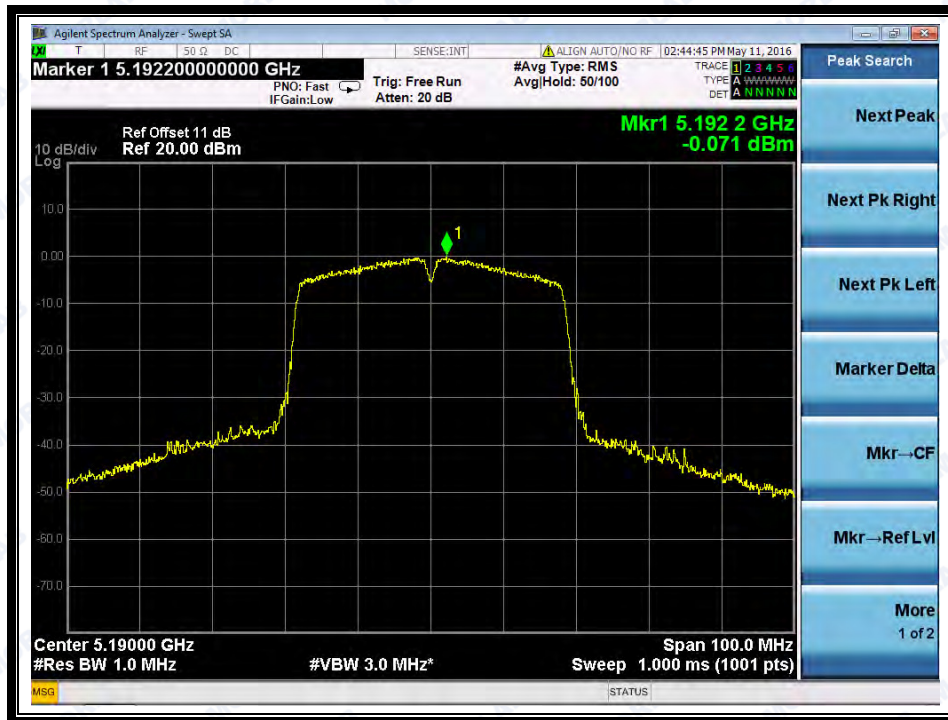
**Antenna 2:**

**A. Test Verdict:**

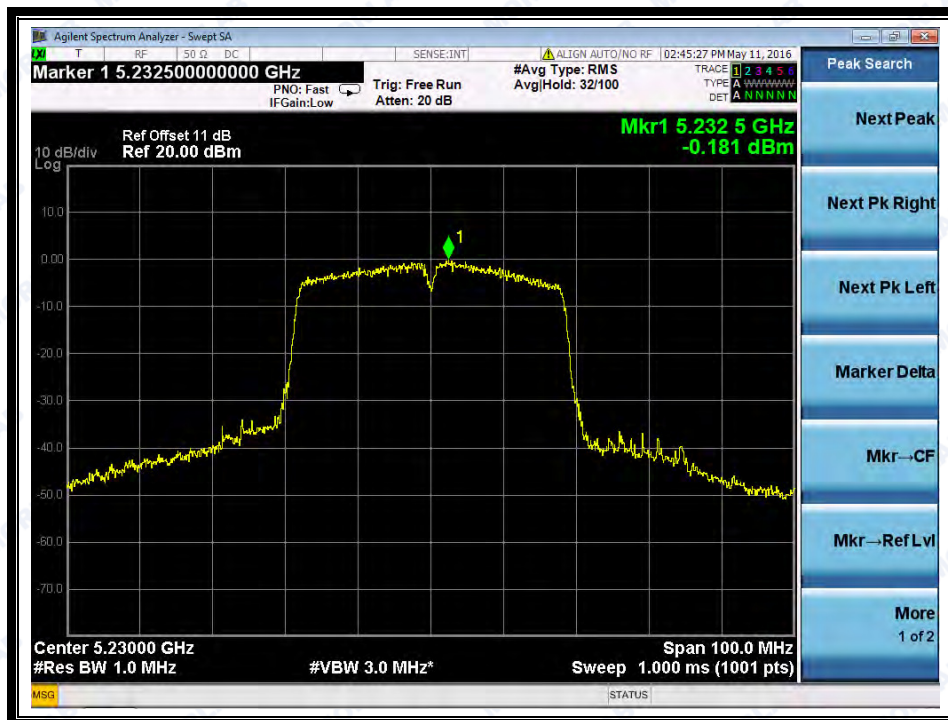
Channel	Frequency (MHz)	Measured PPSD (dBm/MHz)	Limit (dBm/MHz)	Verdict
38	5190	-0.071	17	PASS
46	5230	-0.181		
Channel	Frequency (MHz)	Measured PPSD (dBm/500KHz)	Limit (dBm/500KHz)	Verdict
151	5755	-6.205	30	PASS
159	5795	-7.273		

**B. Test Plots**

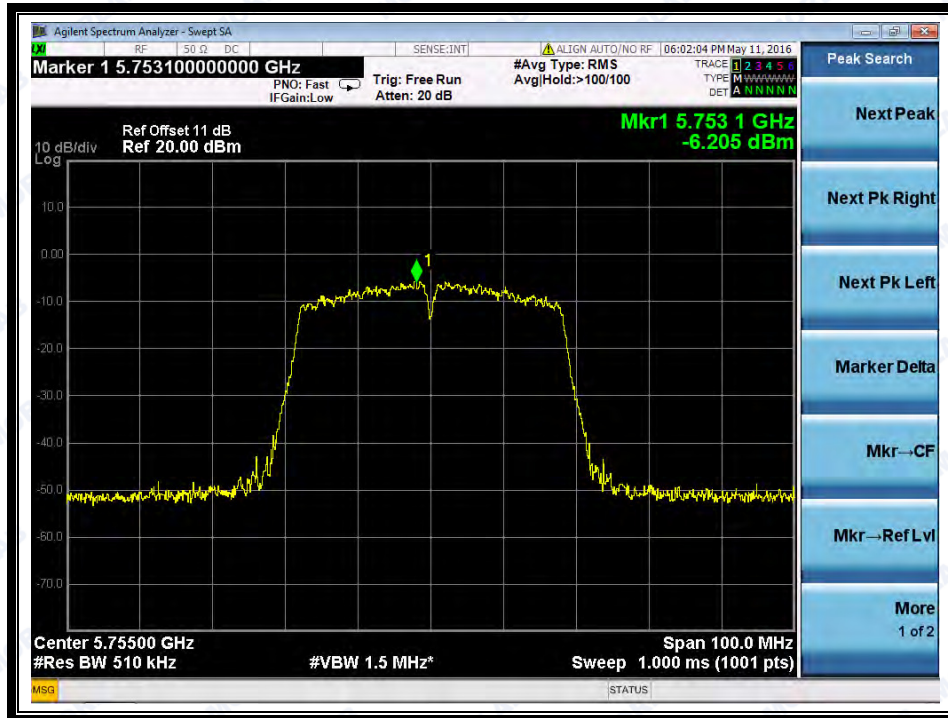




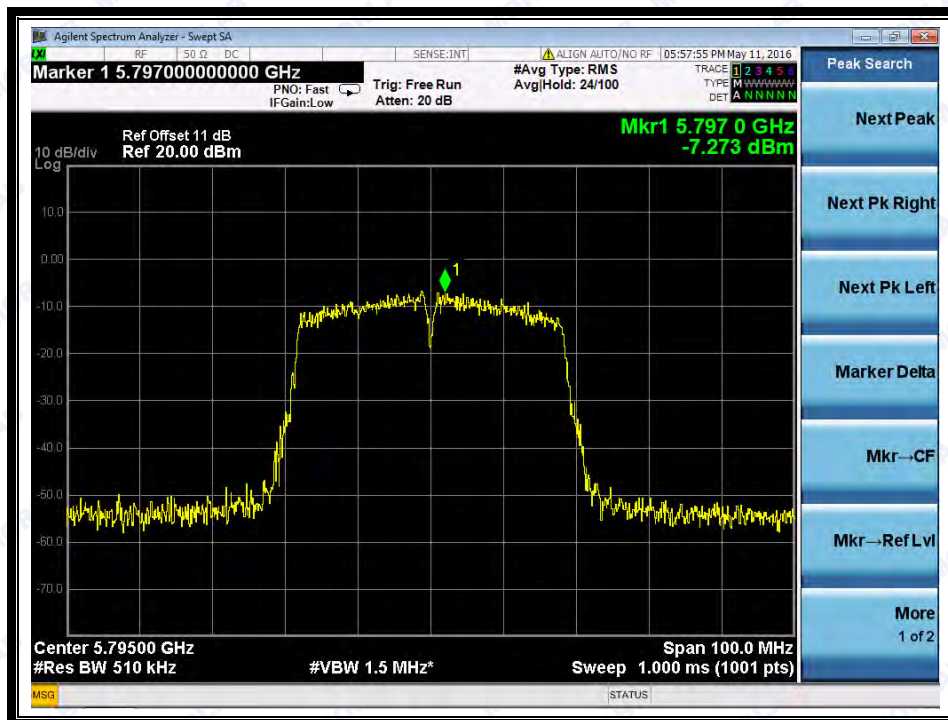
(Channel 38: 5190MHz @ 802.11ac)



(Channel 46: 5230 MHz @ 802.11ac)



(Channel 151: 5755MHz @ 802.11ac)



(Channel 159: 5795MHz @ 802.11ac)

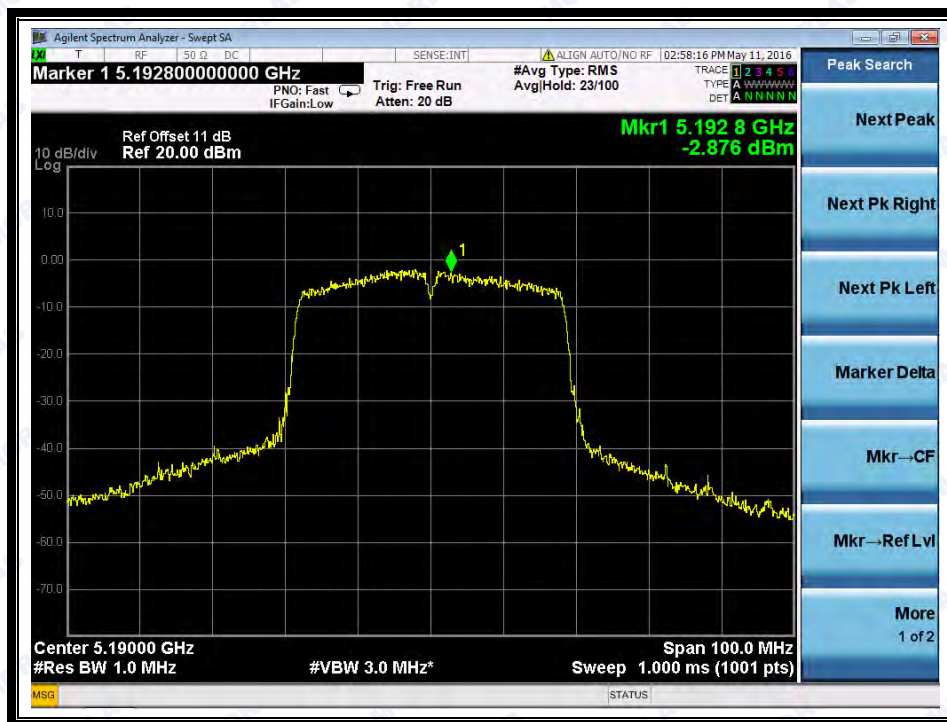


**Antenna 3:**

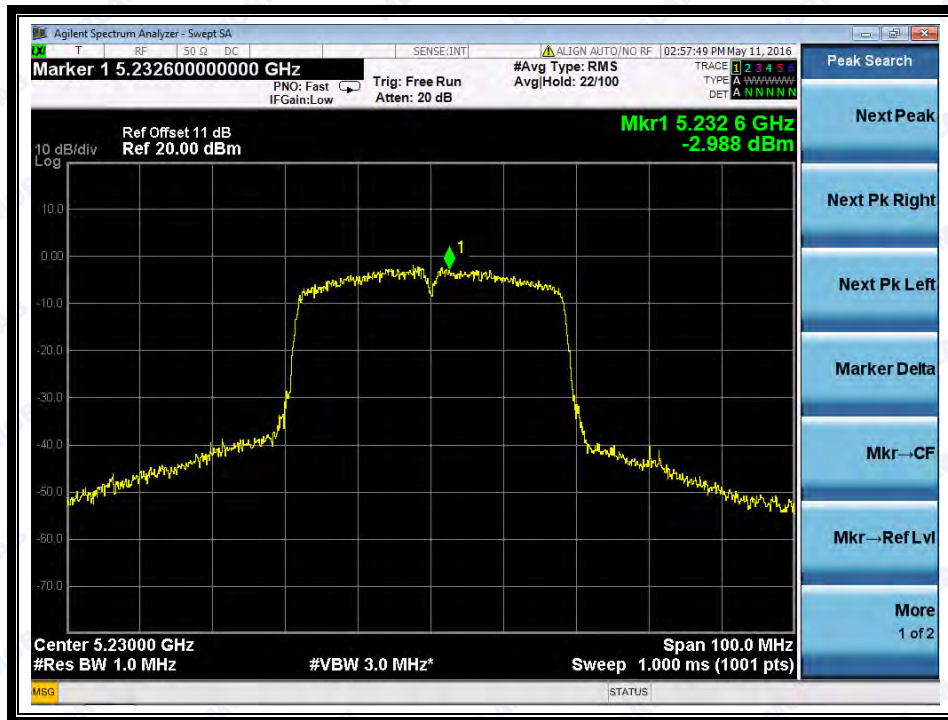
**A. Test Verdict:**

Channel	Frequency (MHz)	Measured PPSD (dBm/MHz)	Limit (dBm/MHz)	Verdict
38	5190	-2.876	17	PASS
46	5230	-2.988		
Channel	Frequency (MHz)	Measured PPSD (dBm/500KHz)	Limit (dBm/500KHz)	Verdict
151	5755	-4.123	30	PASS
159	5795	-5.140		

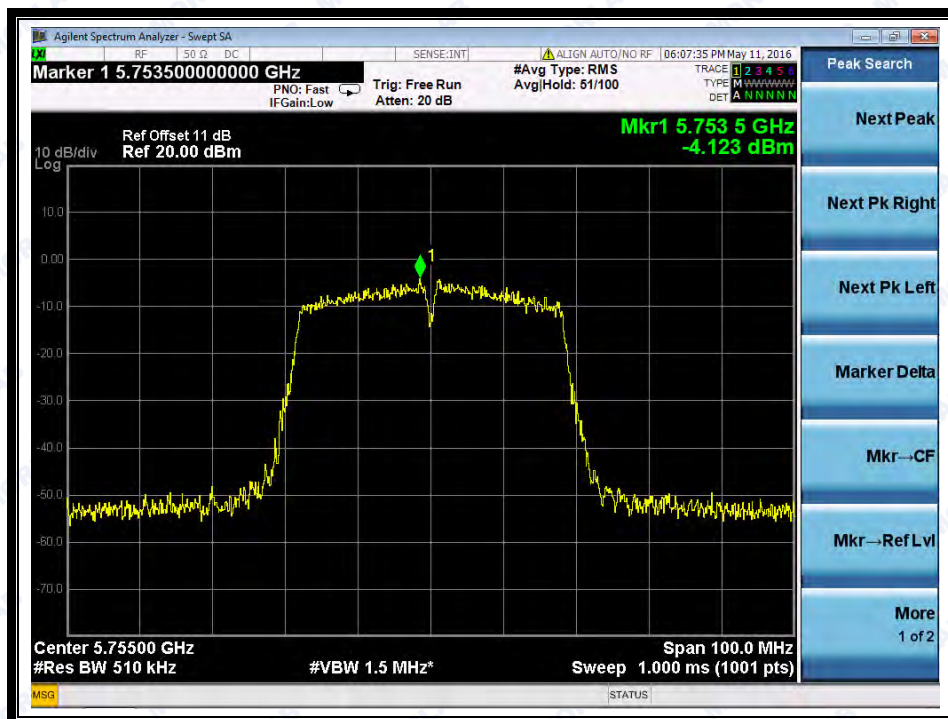
**B. Test Plots**



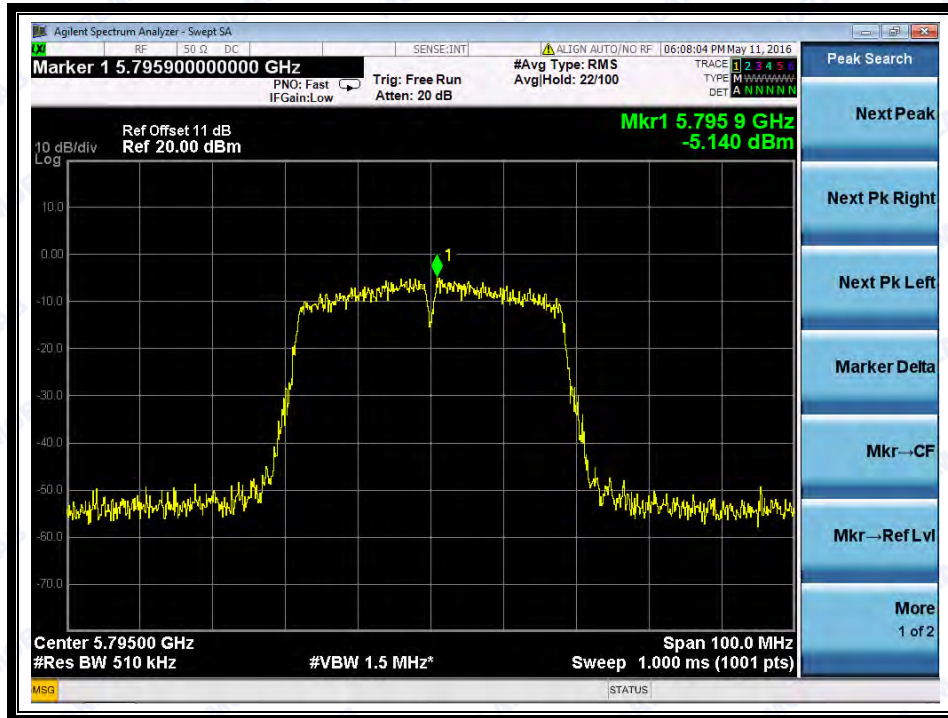
(Channel 38: 5190MHz @ 802.11ac)



(Channel 46: 5230 MHz @ 802.11ac)



(Channel 151: 5755MHz @ 802.11ac)



(Channel 159: 5795MHz @ 802.11ac)

**Antenna 1 + Antenna 2 +Antenna 3:**

Channel	Frequency (MHz)	Measured PPSD (dBm/MHz)	Limit (dBm/MHz)	Verdict
38	5190	3.46	15.63 <sub>Note</sub>	PASS
46	5230	3.40		
Channel	Frequency (MHz)	Measured PPSD (dBm/500KHz)	Limit (dBm/500KHz)	Verdict
151	5755	-0.47	28.63 <sub>Note</sub>	PASS
159	5795	-1.31		

Note: For those cases where the rule specifies that the Spectral power density be reduced by the amount in dB that the directional gain of the transmitting antenna exceeds 6 dBi, the applicable Spectral power density limit shall be calculated as follows:

$$P_{Out} = P_{Limit} - (G_{Tx} - 6)$$

Where:

$P_{Out}$  is the maximum Spectral power density in dBm/MHz or dBm/500KHz,

$P_{Limit}$  is the Spectral power density limit in dBm/MHz or dBm/500KHz,

$G_{Tx}$  is the maximum transmitting antenna directional gain in dBi.



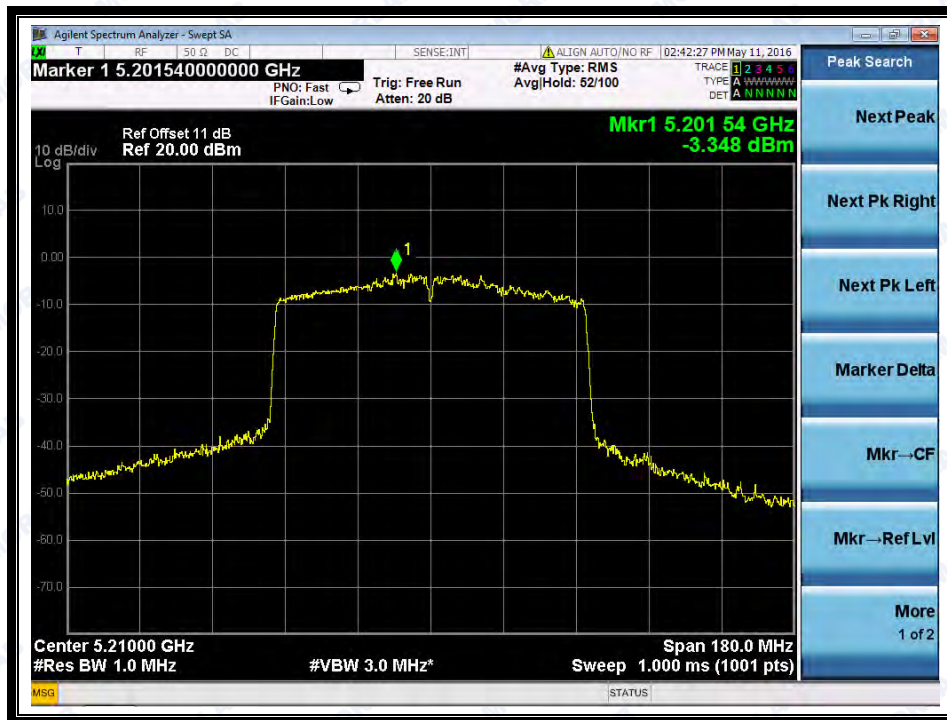
2.4.3.3 802.11ac-80MHz Test mode

Antenna 1:

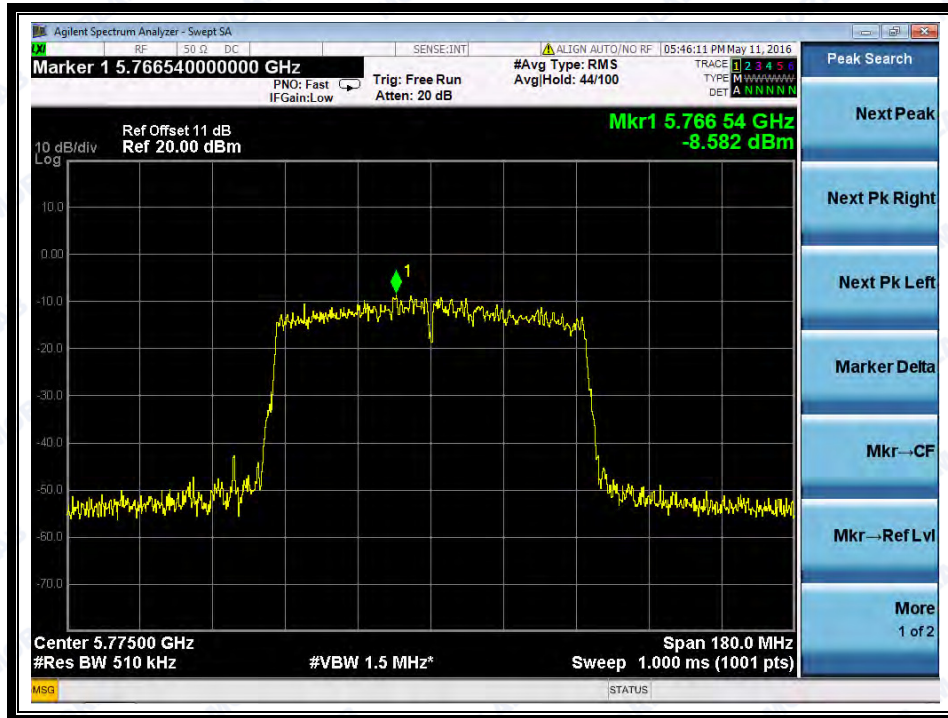
A. Test Verdict:

Channel	Frequency (MHz)	Measured PPSD (dBm/MHz)	Limit (dBm/MHz)	Verdict
42	5210	-3.348	17	PASS
Channel	Frequency (MHz)	Measured PPSD (dBm/500KHz)	Limit (dBm/500KHz)	Verdict
155	5775	-8.582	30	PASS

B. Test Plots



(Channel 42: 5210MHz @ 802.11ac)



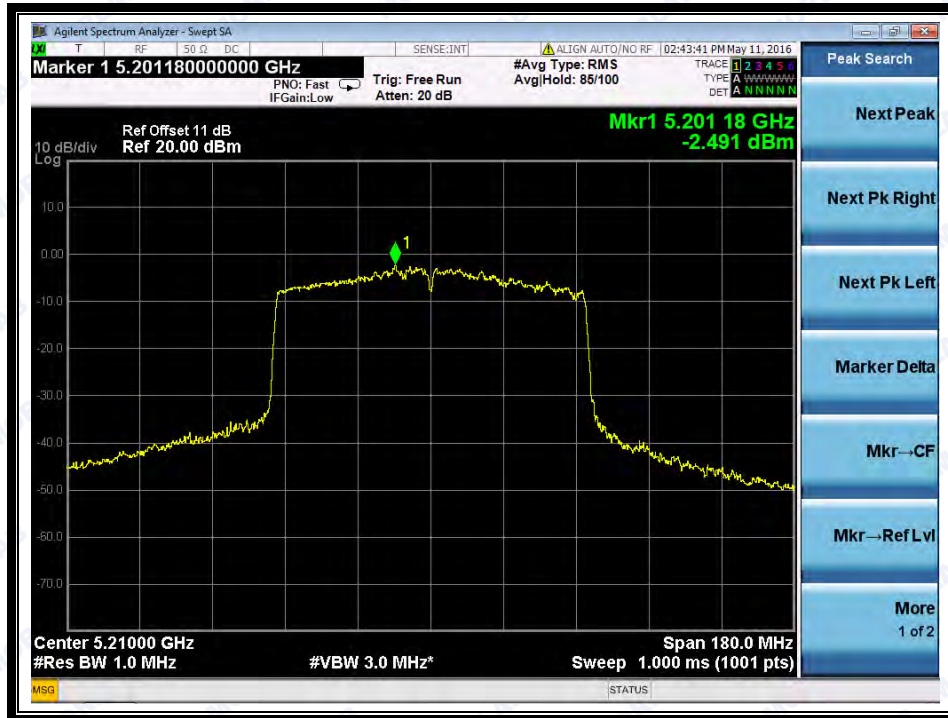
(Channel 155: 5775MHz @ 802.11ac)

**Antenna 2:**

**A. Test Verdict:**

Channel	Frequency (MHz)	Measured PSD (dBm/MHz)	Limit (dBm/MHz)	Verdict
42	5210	-2.491	17	PASS
Channel	Frequency (MHz)	Measured PSD (dBm/500KHz)	Limit (dBm/500KHz)	Verdict
155	5775	-7.307	30	PASS

**B. Test Plots**



(Channel 42: 5210MHz @ 802.11ac)



(Channel 155: 5775MHz @ 802.11ac)



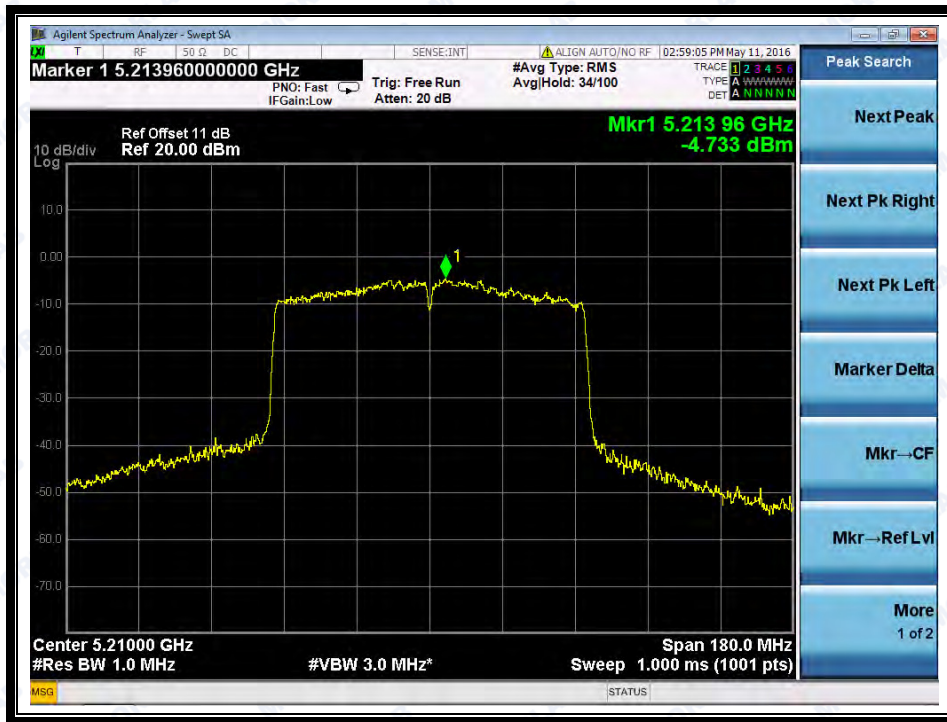


Antenna 3:

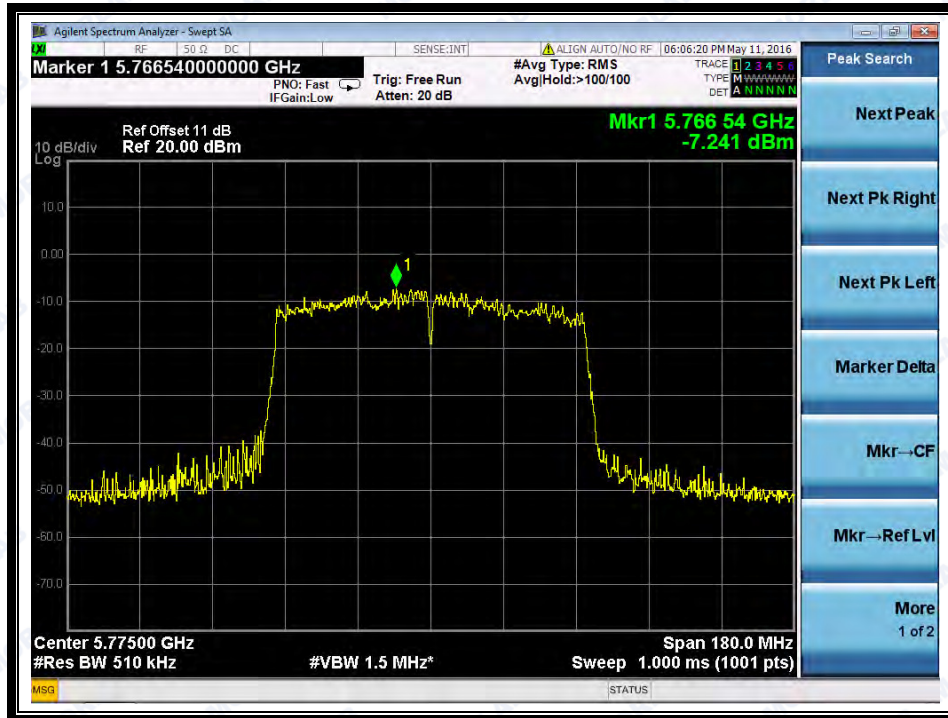
A. Test Verdict:

Channel	Frequency (MHz)	Measured PPSD (dBm/MHz)	Limit (dBm/MHz)	Verdict
42	5210	-4.733	17	PASS
Channel	Frequency (MHz)	Measured PPSD (dBm/500KHz)	Limit (dBm/500KHz)	Verdict
155	5775	-7.241	30	PASS

B. Test Plots



(Channel 42: 5210MHz @ 802.11ac)



(Channel 155: 5775MHz @ 802.11ac)

**Antenna 1 + Antenna 2 + Antenna 3:**

Channel	Frequency (MHz)	Measured PSD (dBm/MHz)	Limit (dBm/MHz)	Verdict
42	5210	1.34	15.63 <sub>Note</sub>	PASS
Channel	Frequency (MHz)	Measured PSD (dBm/500KHz)	Limit (dBm/500KHz)	Verdict
155	5775	-2.90	28.63 <sub>Note</sub>	PASS

Note: For those cases where the rule specifies that the Spectral power density be reduced by the amount in dB that the directional gain of the transmitting antenna exceeds 6 dBi, the applicable Spectral power density limit shall be calculated as follows:

$$P_{Out} = P_{Limit} - (G_{Tx} - 6)$$

Where:

$P_{Out}$  is the maximum Spectral power density in dBm/MHz or dBm/500KHz,

$P_{Limit}$  is the Spectral power density limit in dBm/MHz or dBm/500KHz,

$G_{Tx}$  is the maximum transmitting antenna directional gain in dBi.



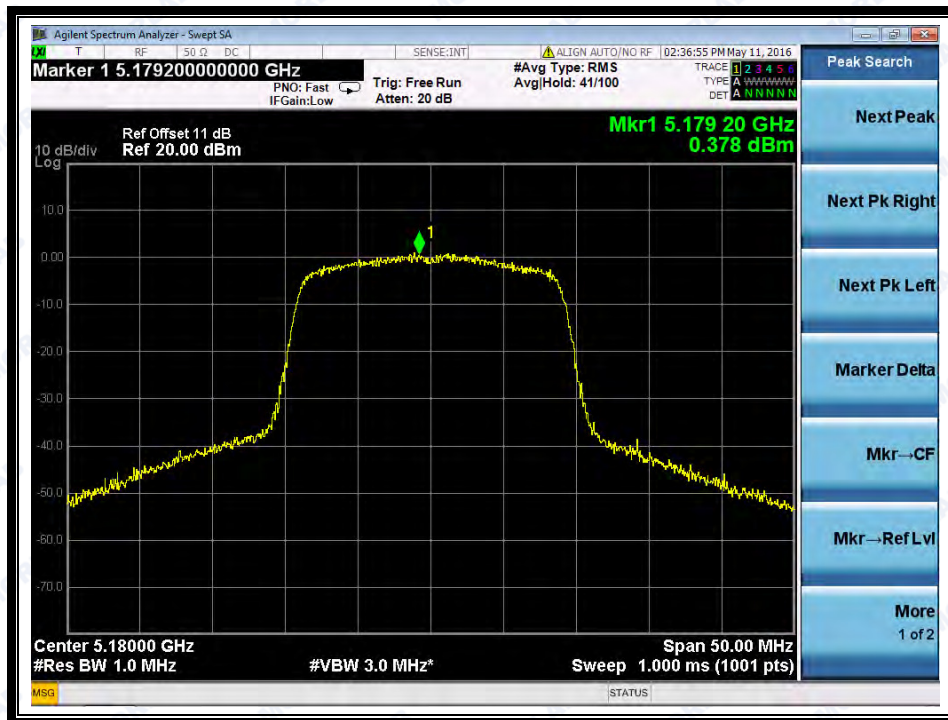
2.4.3.4 802.11n-20MHz Test mode

Antenna 1:

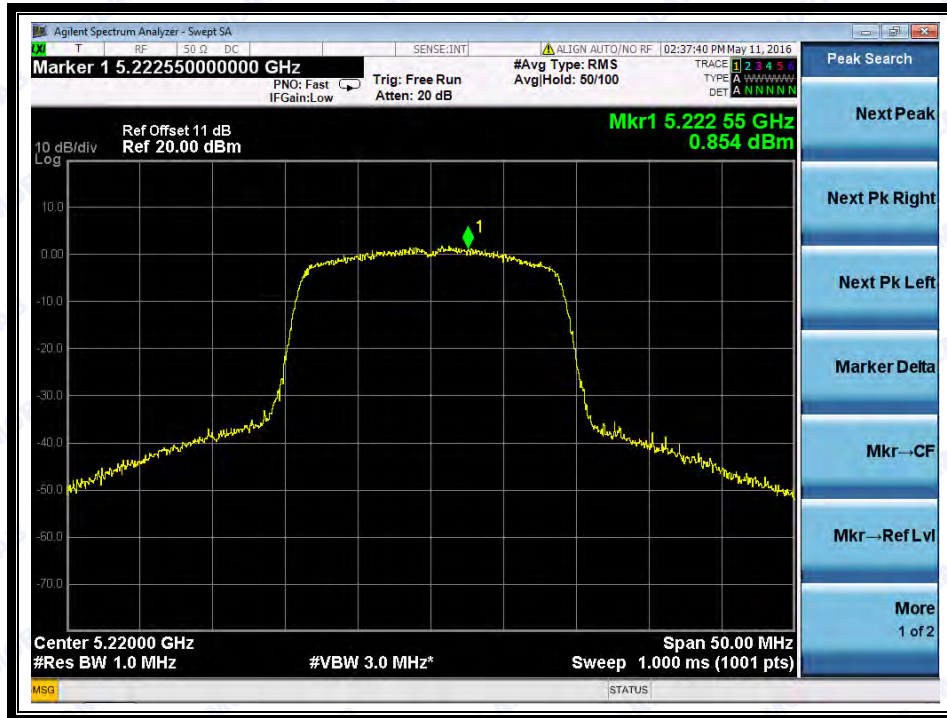
A. Test Verdict:

Channel	Frequency (MHz)	Measured PPSD (dBm/MHz)	Limit (dBm/MHz)	Verdict
36	5180	0.378	17	PASS
44	5220	0.854		
48	5240	1.301		
Channel	Frequency (MHz)	Measured PPSD (dBm/500KHz)	Limit (dBm/500KHz)	Verdict
149	5745	-1.995	30	PASS
157	5785	-2.795		
165	5825	-2.765		

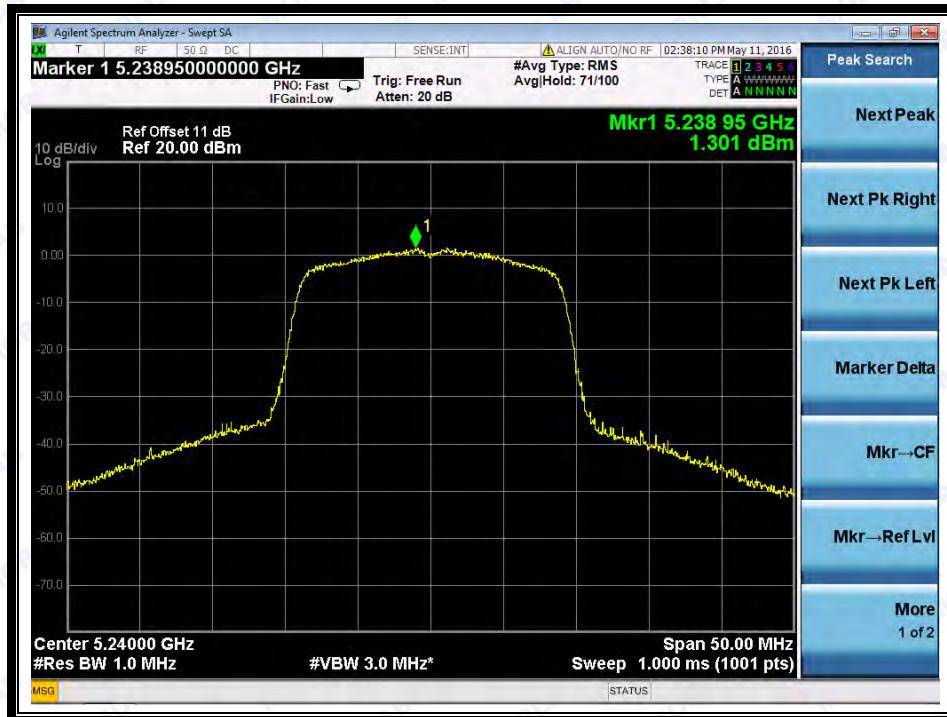
B. Test Plots



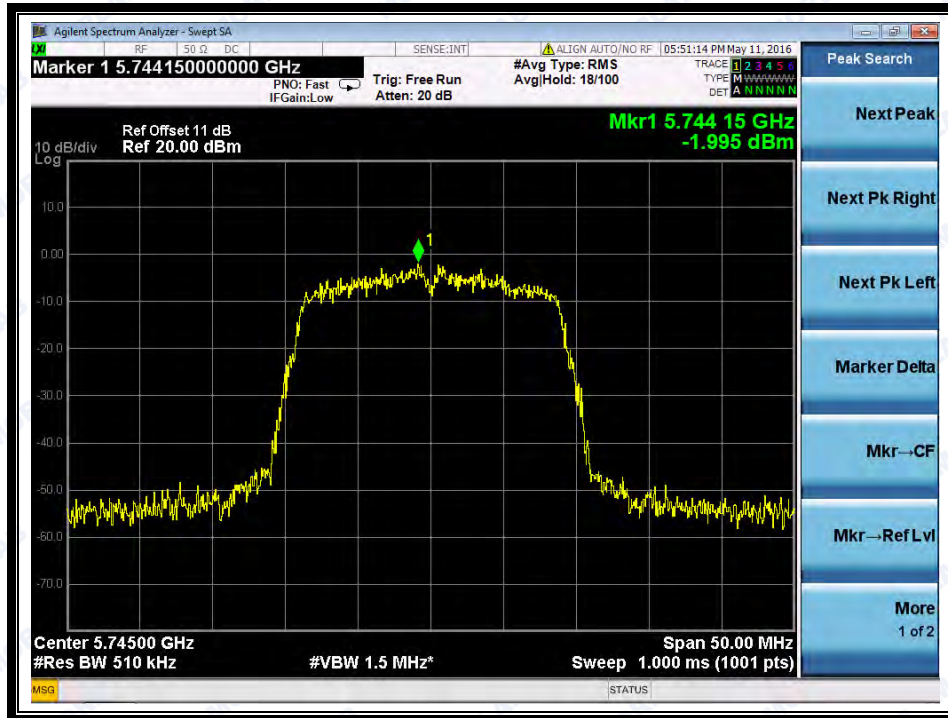
(Channel 36: 5180MHz @ 802.11n-20MHz)



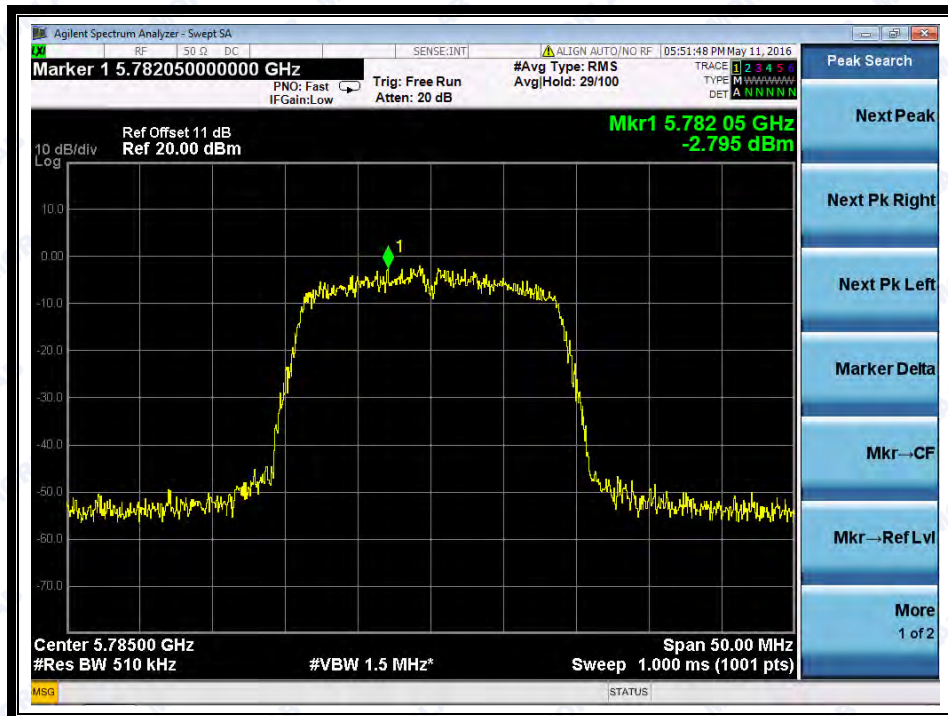
(Channel 44: 5220 MHz @ 802.11n-20MHz)



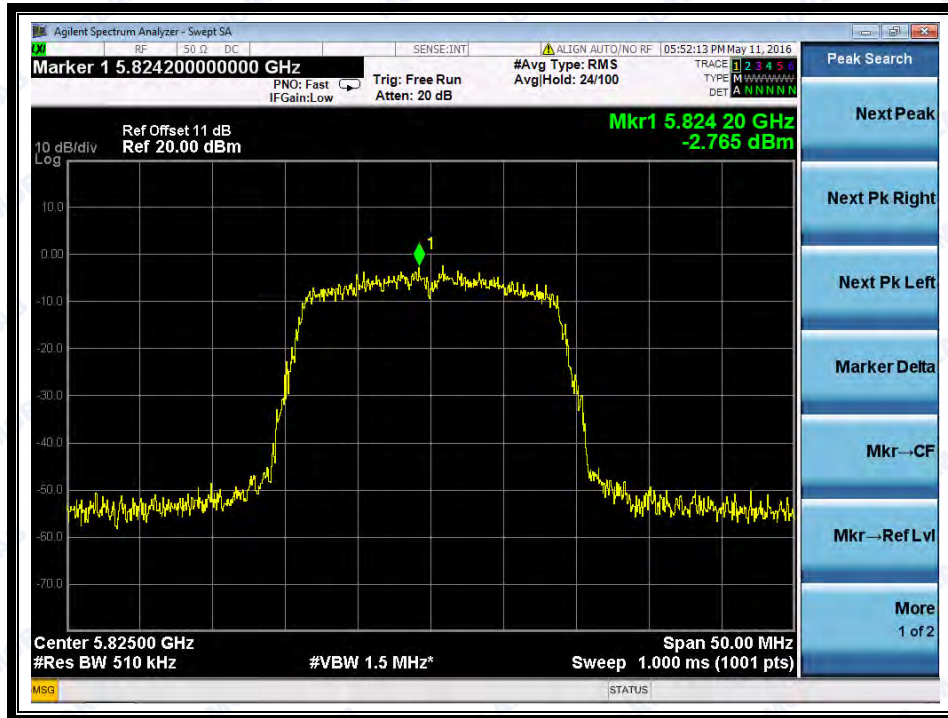
(Channel 48: 5240MHz @ 802.11n-20MHz)



(Channel 149: 5745MHz @ 802.11n-20MHz)



(Channel 157: 5785MHz @802.11n-20MHz)



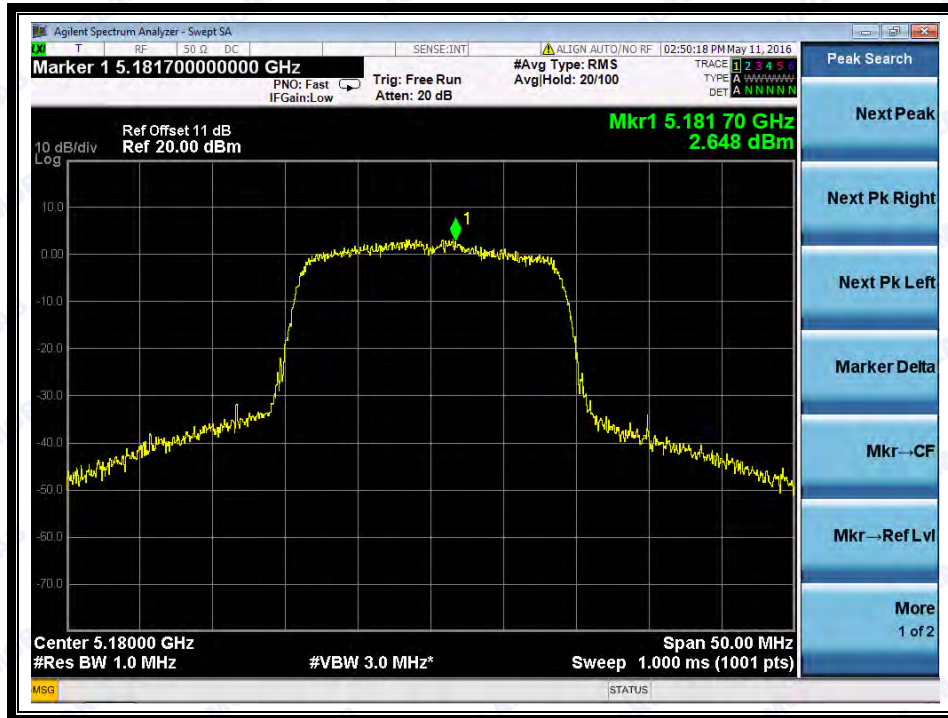
(Channel 165: 5825MHz @ 802.11n-20MHz)

**Antenna 2:**

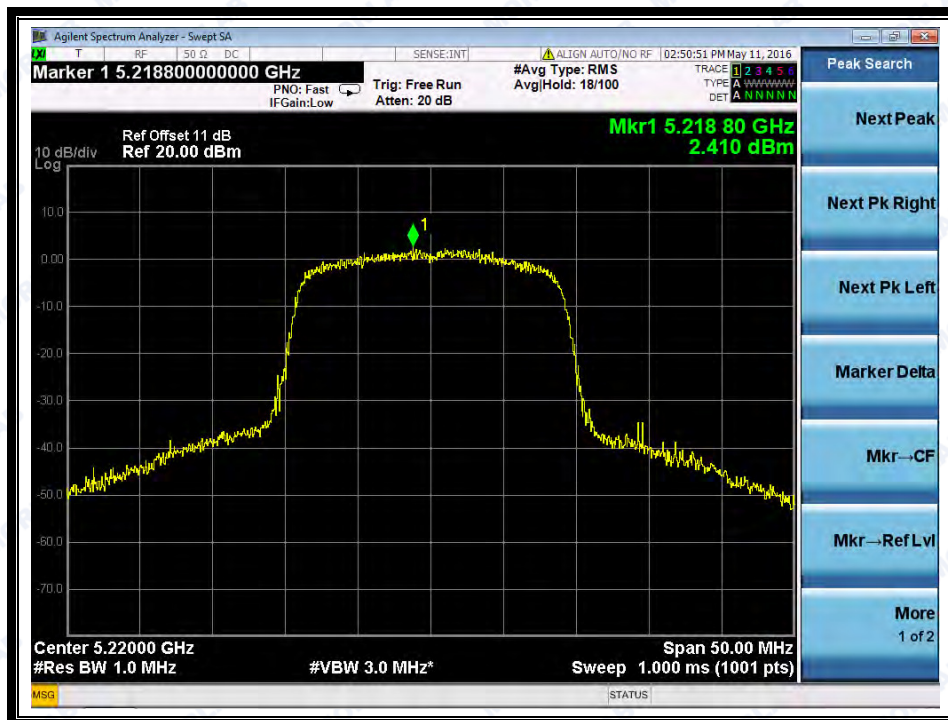
**A. Test Verdict:**

Channel	Frequency (MHz)	Measured PSD (dBm/MHz)	Limit (dBm/MHz)	Verdict
36	5180	2.648	17	PASS
44	5220	2.410		
48	5240	2.454		
Channel	Frequency (MHz)	Measured PSD (dBm/500KHz)	Limit (dBm/500KHz)	Verdict
149	5745	-2.919	30	PASS
157	5785	-3.317		
165	5825	-4.463		

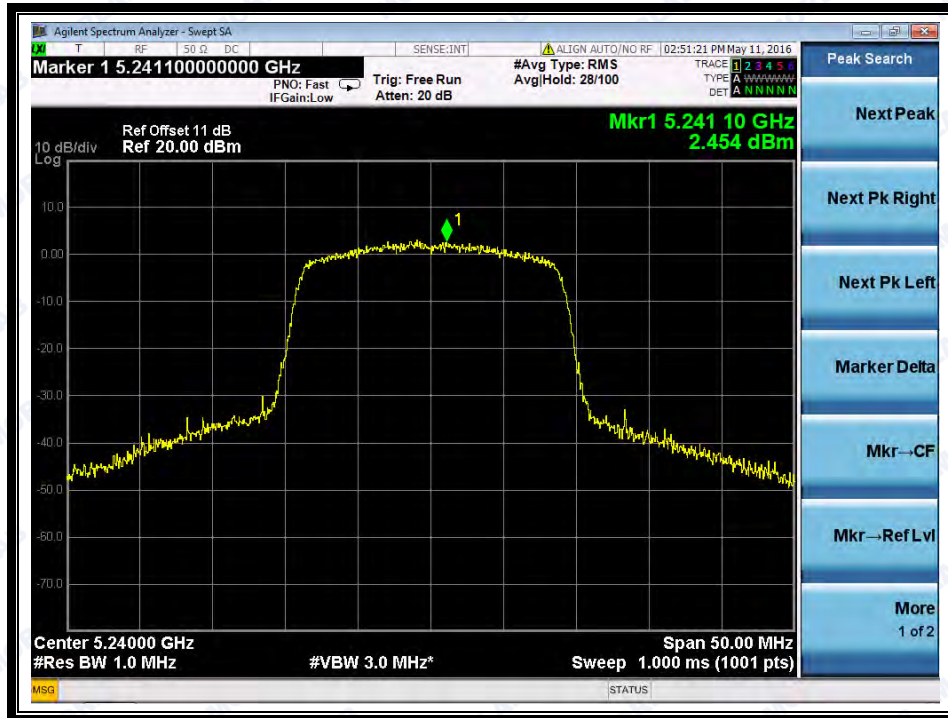
**B. Test Plots**



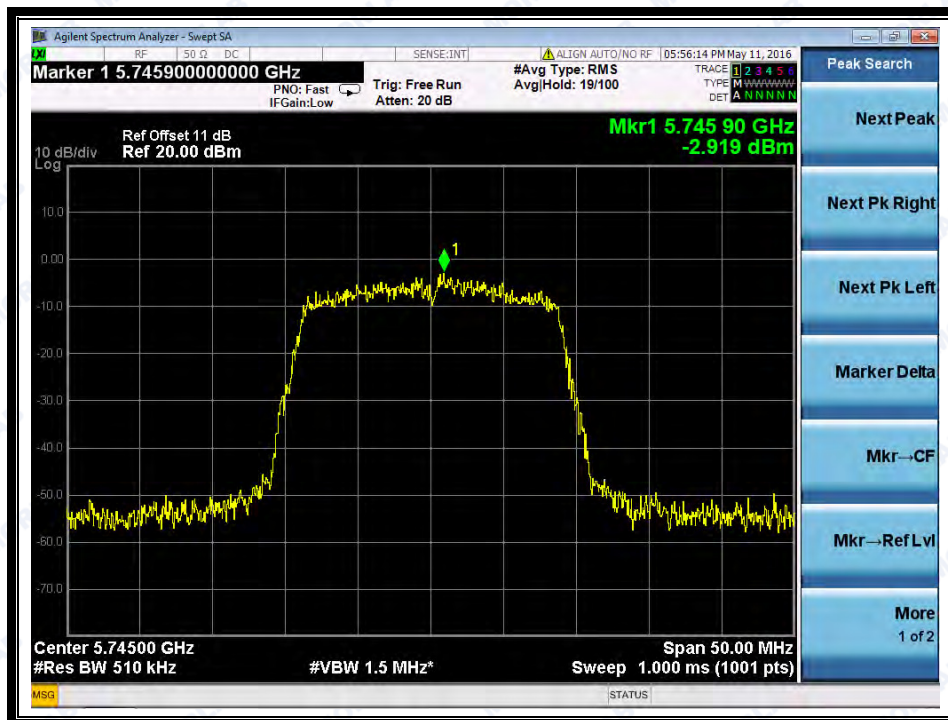
(Channel 36: 5180MHz @ 802.11n-20MHz)



(Channel 44: 5220 MHz @ 802.11n-20MHz)

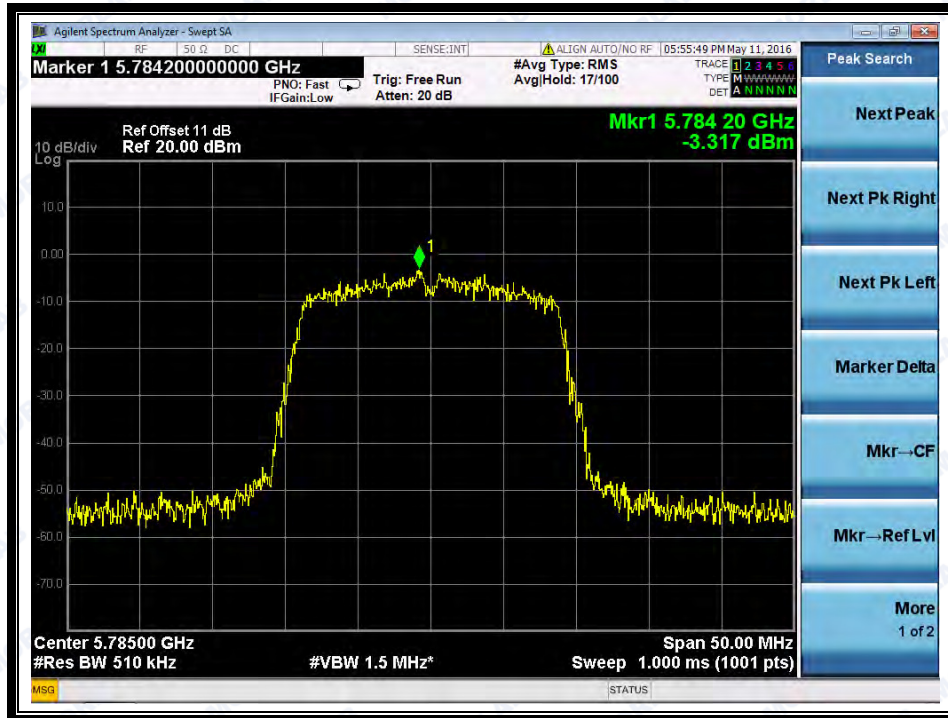


(Channel 48: 5240MHz @ 802.11n-20MHz)

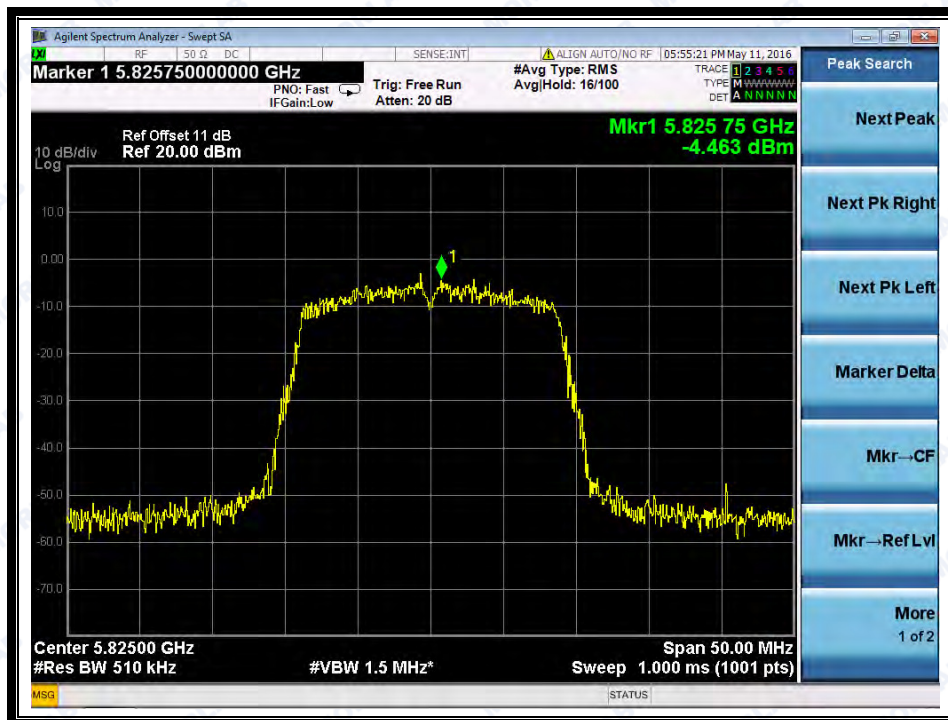


(Channel 149: 5745MHz @ 802.11n-20MHz)





(Channel 157: 5785MHz @802.11n-20MHz)



(Channel 165: 5825MHz @ 802.11n-20MHz)

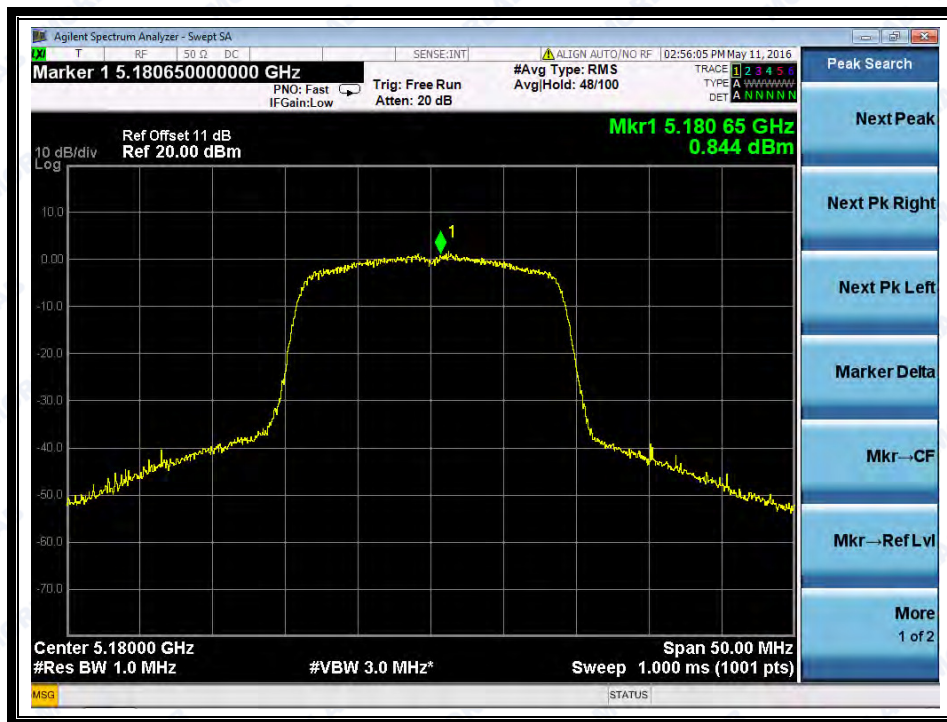


Antenna 3:

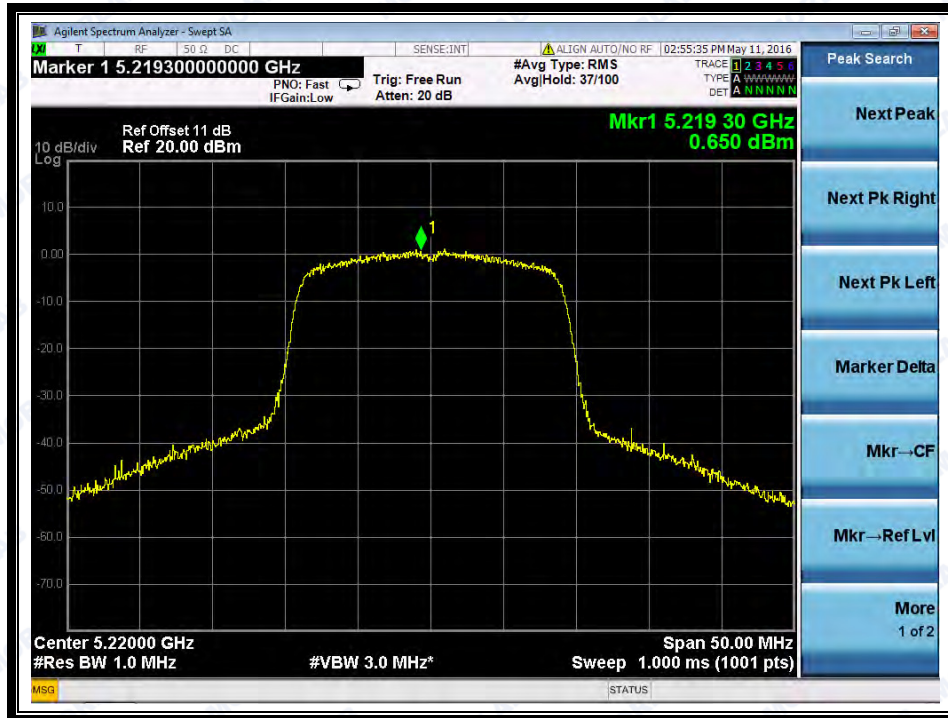
A. Test Verdict:

Channel	Frequency (MHz)	Measured PPSD (dBm/MHz)	Limit (dBm/MHz)	Verdict
36	5180	0.844	17	PASS
44	5220	0.650		
48	5240	0.279		
Channel	Frequency (MHz)	Measured PPSD (dBm/500KHz)	Limit (dBm/500KHz)	Verdict
149	5745	-0.515	30	PASS
157	5785	-2.492		
165	5825	-3.347		

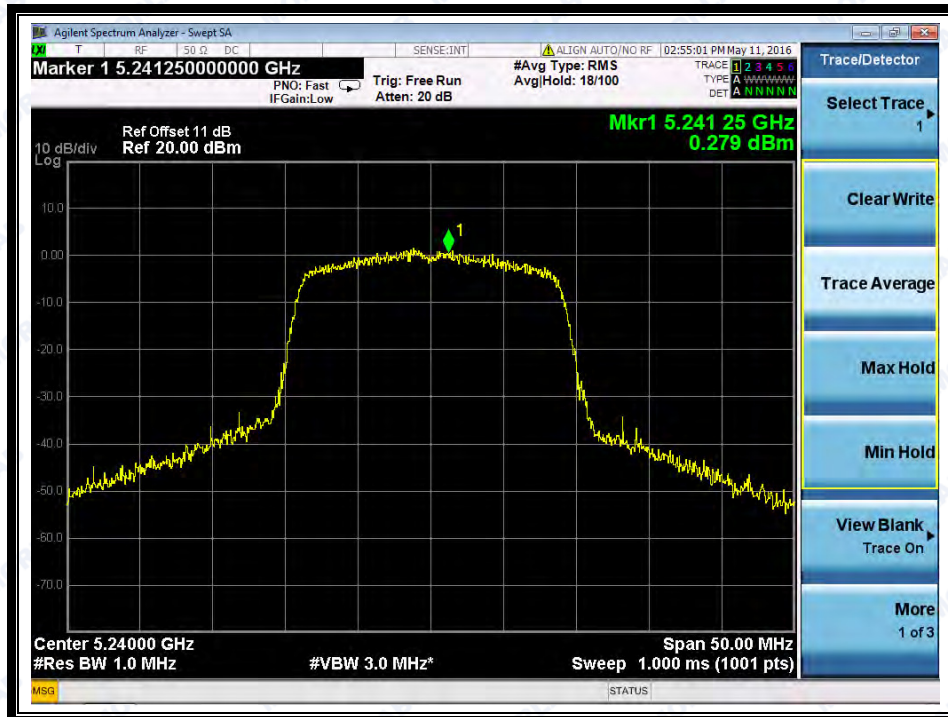
B. Test Plots



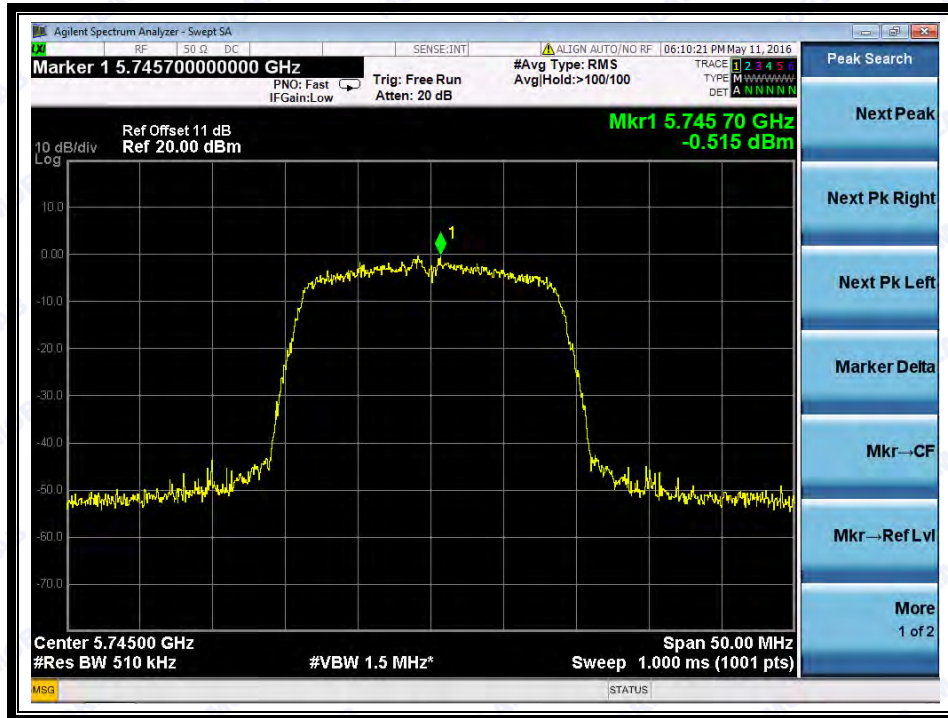
(Channel 36: 5180MHz @ 802.11n-20MHz)



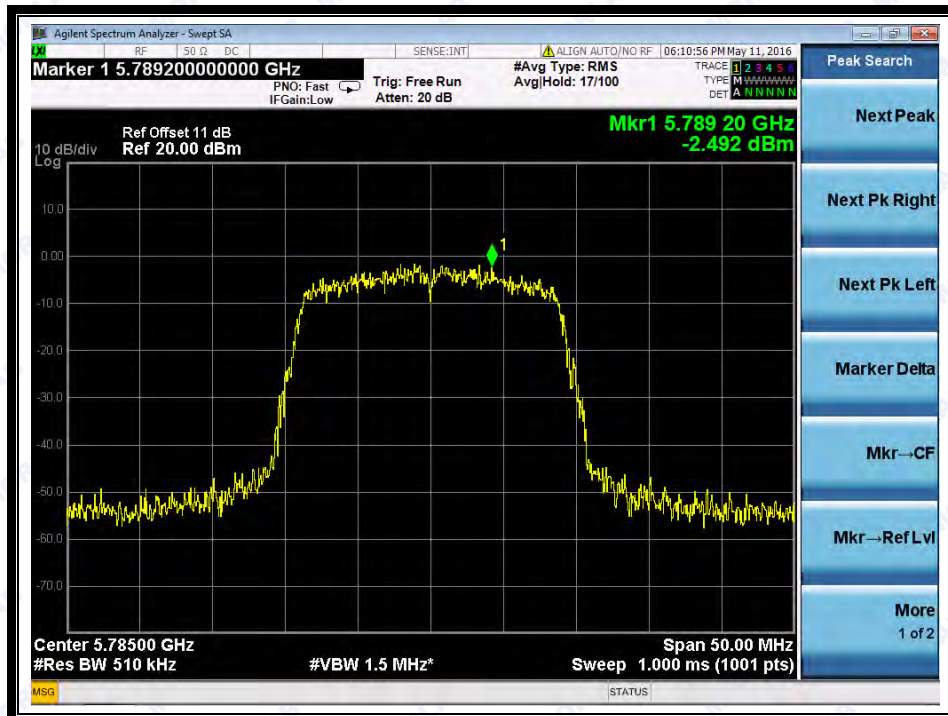
(Channel 44: 5220 MHz @ 802.11n-20MHz)



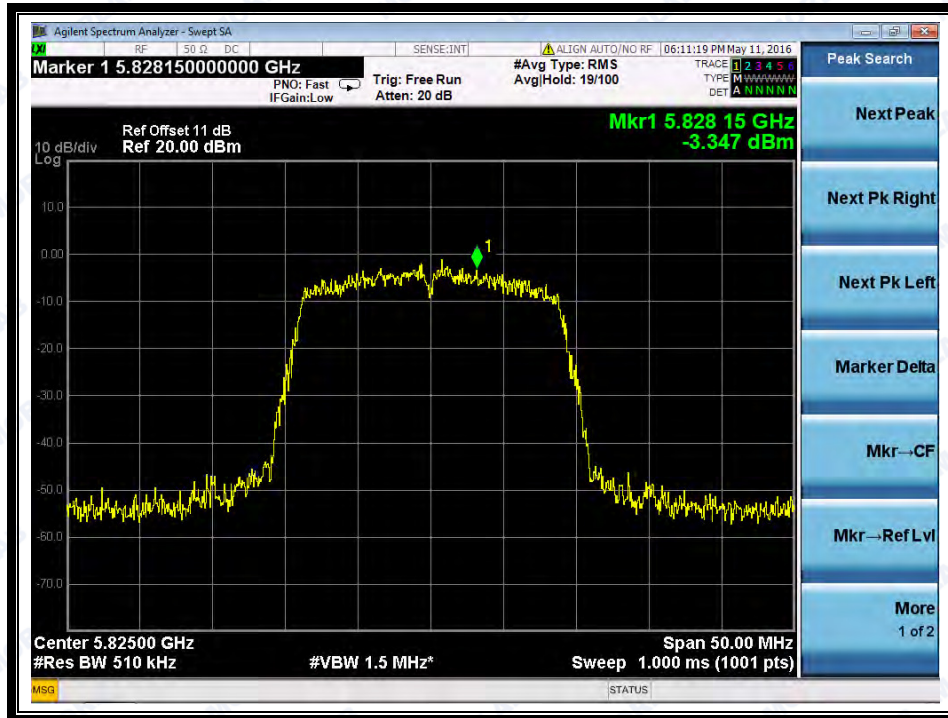
(Channel 48: 5240MHz @ 802.11n-20MHz)



(Channel 149: 5745MHz @ 802.11n-20MHz)



(Channel 157: 5785MHz @802.11n-20MHz)



(Channel 165: 5825MHz @ 802.11n-20MHz)

**Antenna 1 + Antenna 2 + Antenna 3:**

Channel	Frequency (MHz)	Measured PPSD (dBm/MHz)	Limit (dBm/MHz)	Verdict
36	5180	6.18	15.63 <sub>Note</sub>	PASS
44	5220	6.15		
48	5240	6.21		
Channel	Frequency (MHz)	Measured PPSD (dBm/500KHz)	Limit (dBm/500KHz)	Verdict
149	5745	3.08	28.63 <sub>Note</sub>	PASS
157	5785	1.92		
165	5825	1.30		

Note: For those cases where the rule specifies that the Spectral power density be reduced by the amount in dB that the directional gain of the transmitting antenna exceeds 6 dBi, the applicable Spectral power density limit shall be calculated as follows:

$$P_{Out} = P_{Limit} - (G_{Tx} - 6)$$

Where:

$P_{Out}$  is the maximum Spectral power density in dBm/MHz or dBm/500KHz,

$P_{Limit}$  is the Spectral power density limit in dBm/MHz or dBm/500KHz,

$G_{Tx}$  is the maximum transmitting antenna directional gain in dBi.



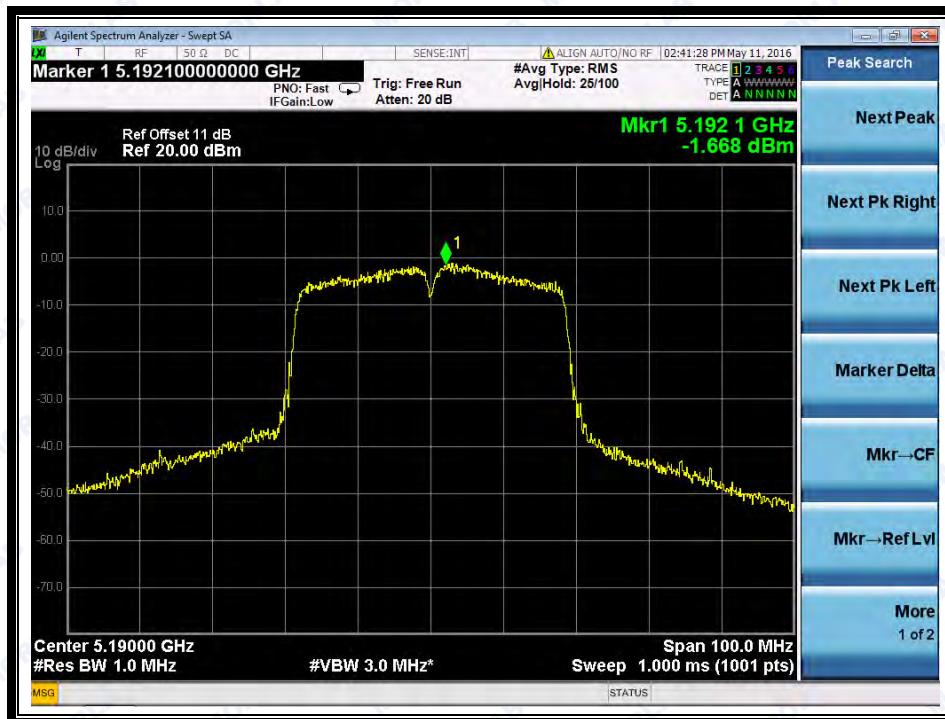
2.4.3.5 802.11n-40MHz Test mode

Antenna 1:

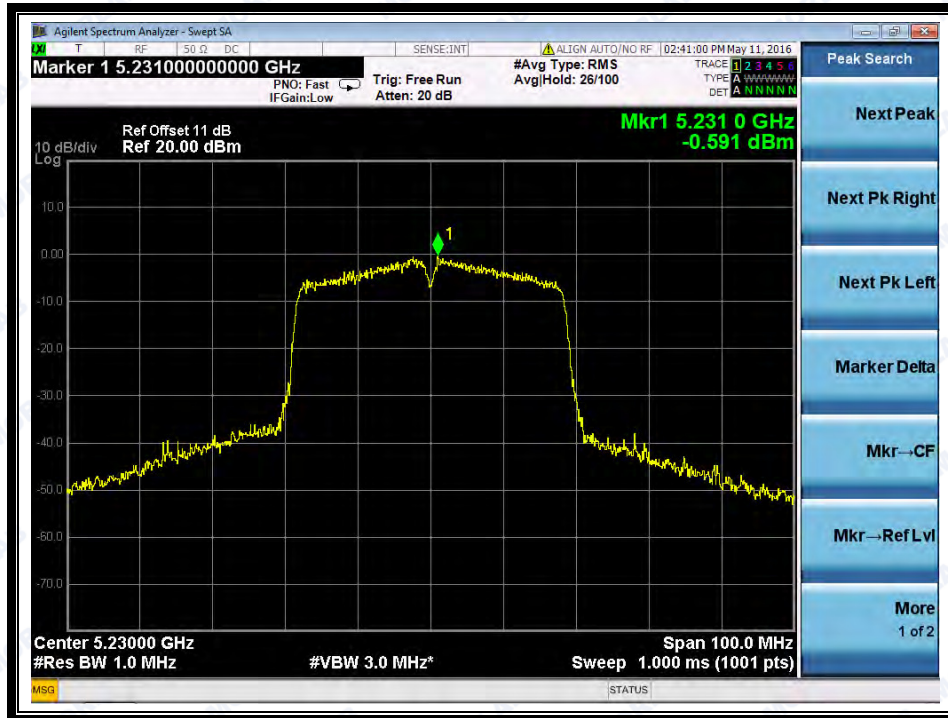
A. Test Verdict:

Channel	Frequency (MHz)	Measured PPSD (dBm/MHz)	Limit (dBm/MHz)	Verdict
38	5190	-1.668	17	PASS
46	5230	-0.591		
Channel	Frequency (MHz)	Measured PPSD (dBm/500KHz)	Limit (dBm/500KHz)	Verdict
151	5755	-5.499	30	PASS
159	5795	-7.124		

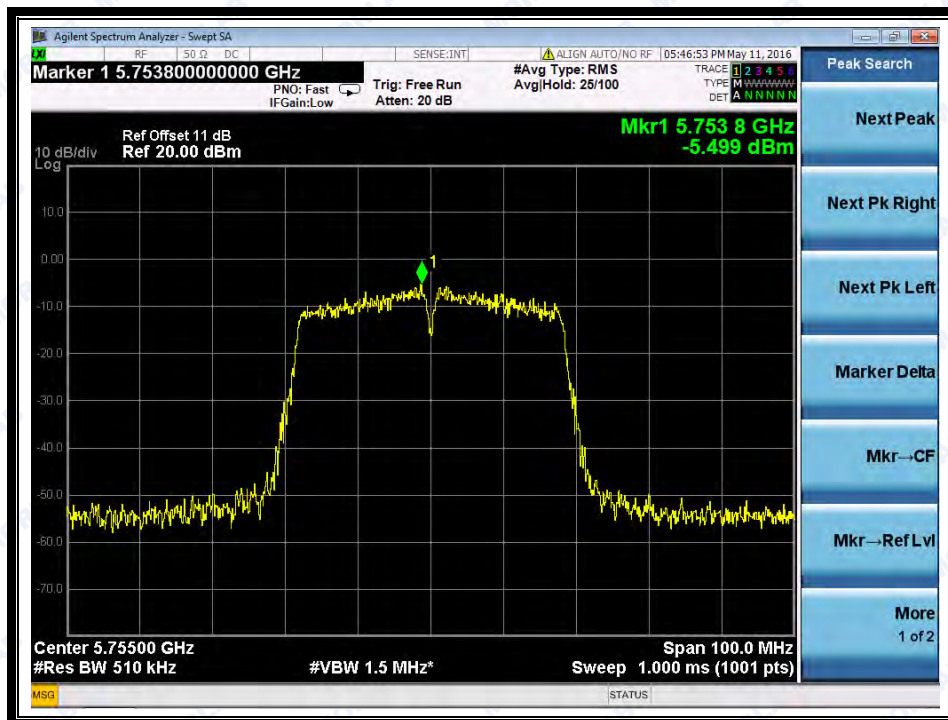
B. Test Plots



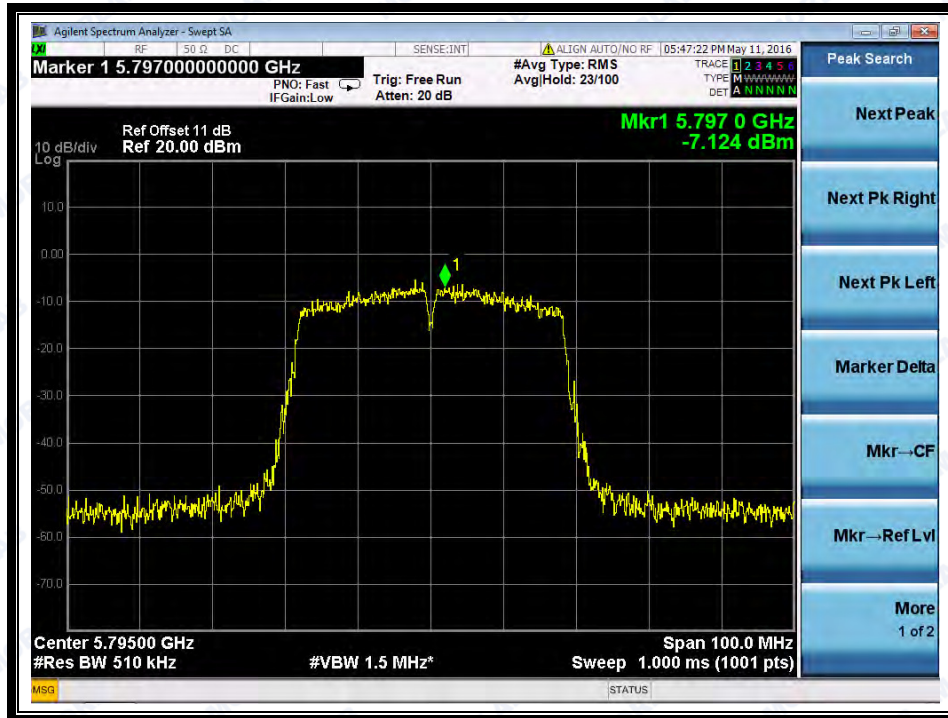
(Channel 38: 5190MHz @ 802.11n-40MHz)



(Channel 46: 5230 MHz @ 802.11n-40MHz)



(Channel 151: 5755MHz @ 802.11n-40MHz)



(Channel 159: 5795MHz @802.11n-40MHz)

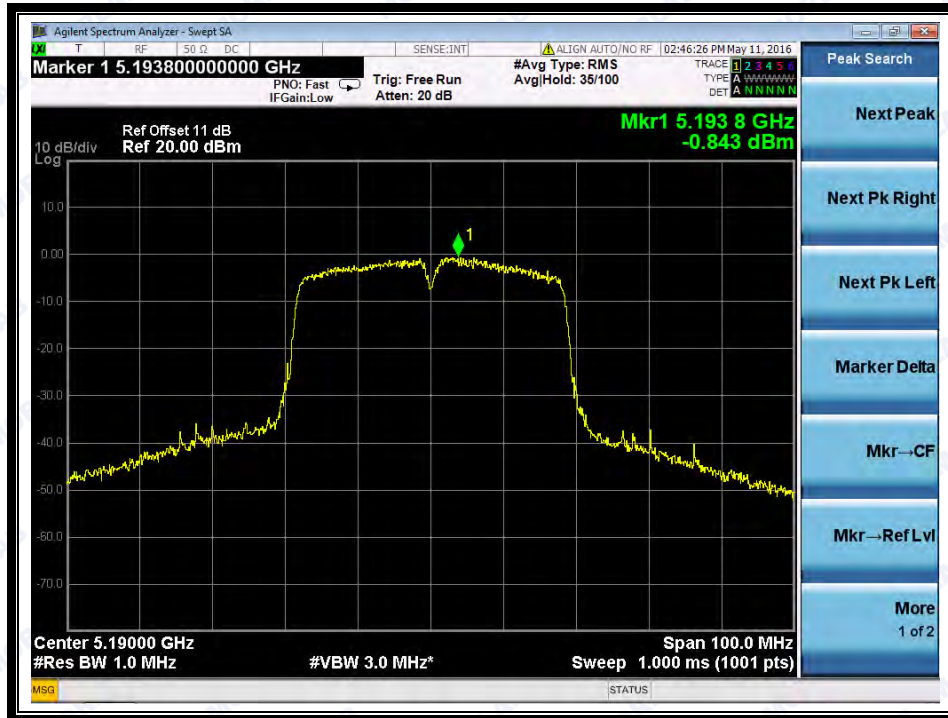
**Antenna 2:**

**A. Test Verdict:**

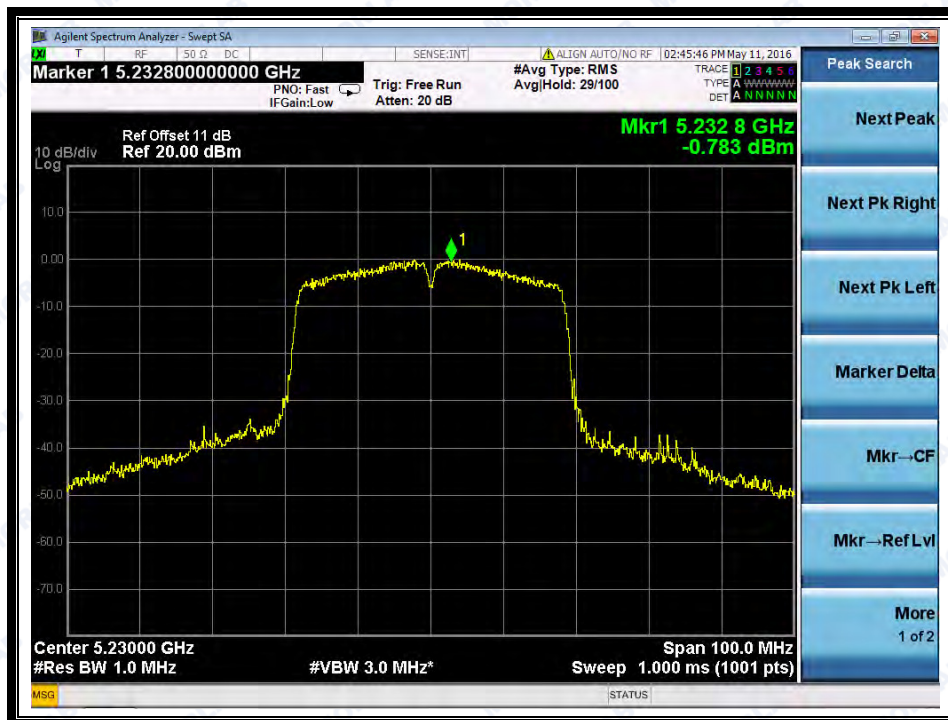
Channel	Frequency (MHz)	Measured PPSD (dBm/MHz)	Limit (dBm/MHz)	Verdict
38	5190	-0.843	17	PASS
46	5230	-0.783		
Channel	Frequency (MHz)	Measured PPSD (dBm/500KHz)	Limit (dBm/500KHz)	Verdict
151	5755	-6.569	30	PASS
159	5795	-6.921		

**B. Test Plots**

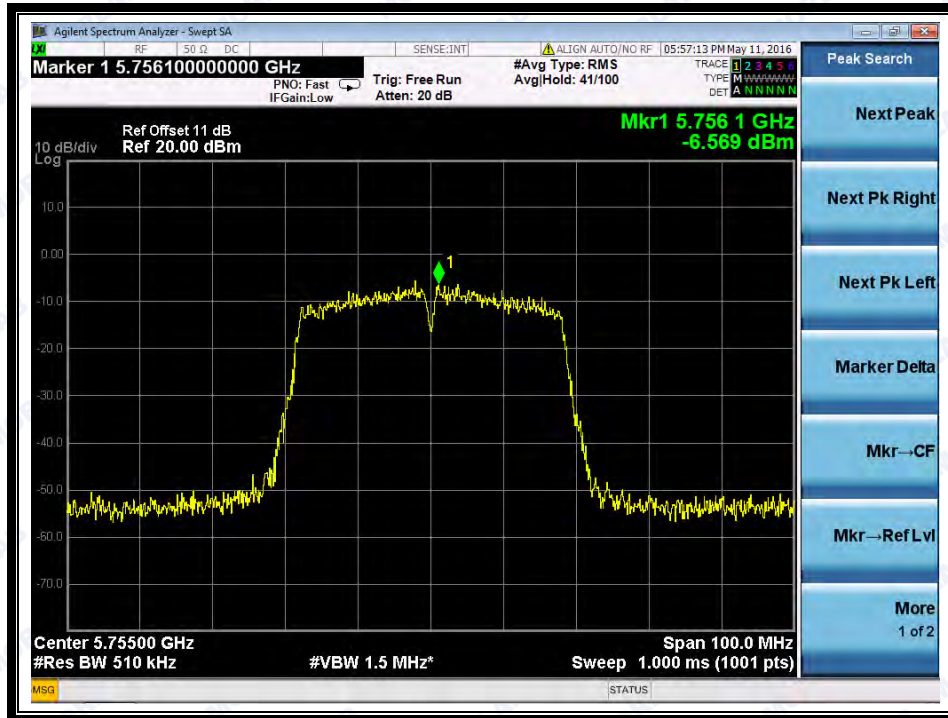




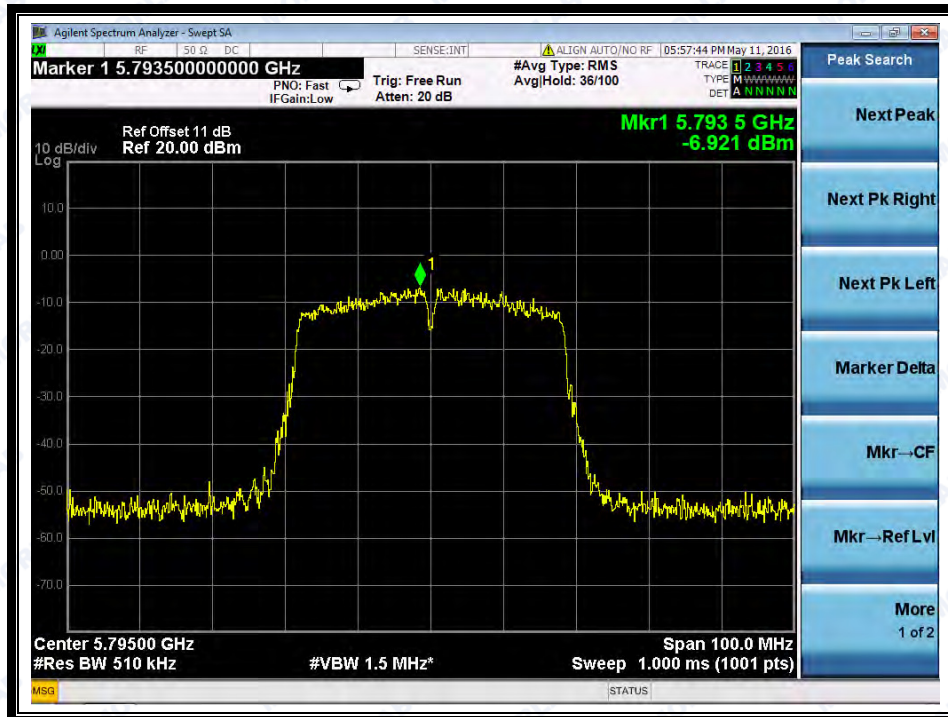
(Channel 38: 5190MHz @ 802.11n-40MHz)



(Channel 46: 5230 MHz @ 802.11n-40MHz)



(Channel 151: 5755MHz @ 802.11n-40MHz)



(Channel 159: 5795MHz @802.11n-40MHz)

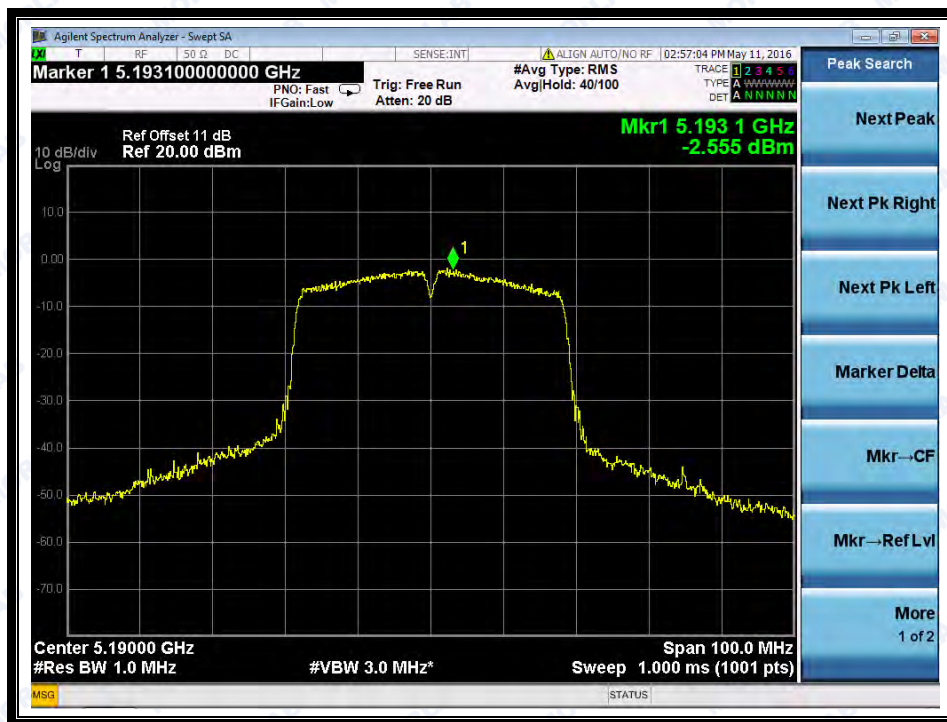


Antenna 3:

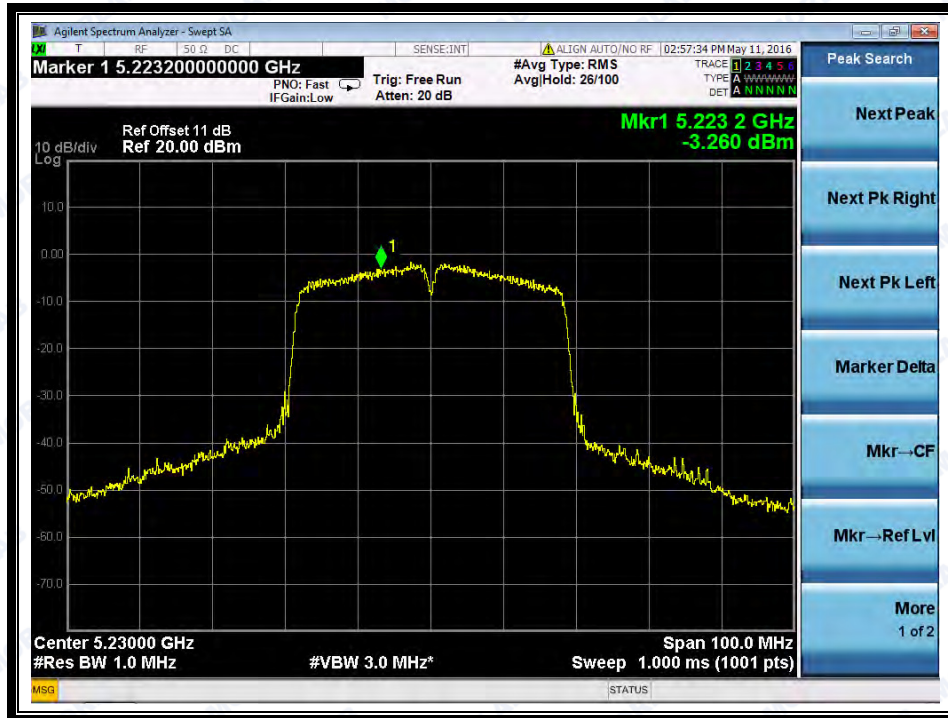
A. Test Verdict:

Channel	Frequency (MHz)	Measured PPSD (dBm/MHz)	Limit (dBm/MHz)	Verdict
38	5190	-2.555	17	PASS
46	5230	-3.260		
Channel	Frequency (MHz)	Measured PPSD (dBm/500KHz)	Limit (dBm/500KHz)	Verdict
151	5755	-4.217	30	PASS
159	5795	-5.336		

B. Test Plots



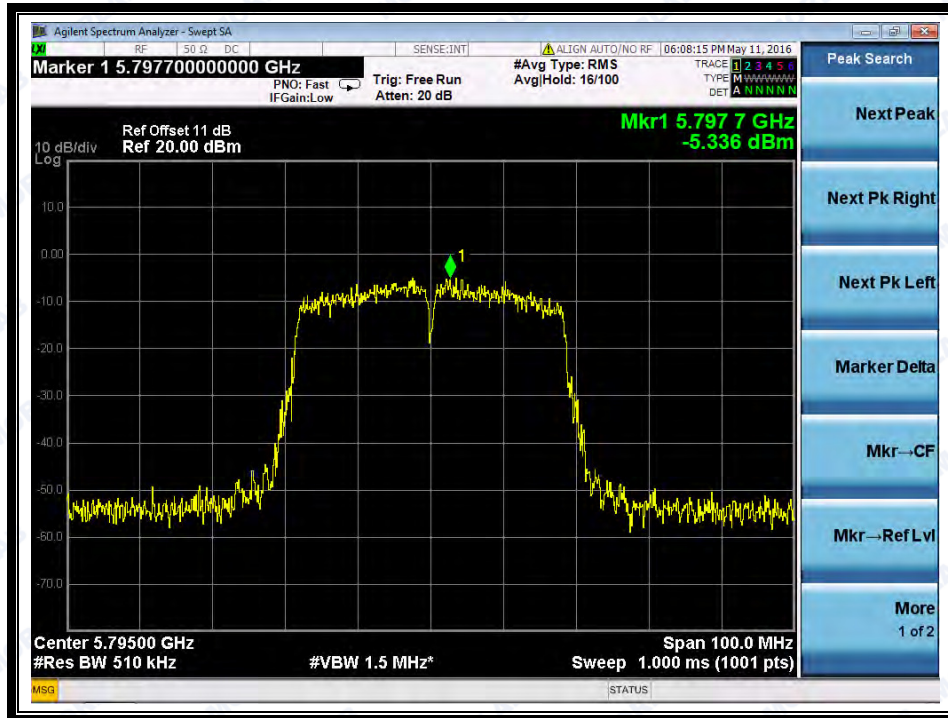
(Channel 38: 5190MHz @ 802.11n-40MHz)



(Channel 46: 5230 MHz @ 802.11n-40MHz)



(Channel 151: 5755MHz @ 802.11n-40MHz)



(Channel 159: 5795MHz @802.11n-40MHz)

**Antenna 1 + Antenna 2 + Antenna 3:**

Channel	Frequency (MHz)	Measured PPSD (dBm/MHz)	Limit (dBm/MHz)	Verdict
38	5190	3.14	15.63 <sub>Note</sub>	PASS
46	5230	3.38		
Channel	Frequency (MHz)	Measured PPSD (dBm/500KHz)	Limit (dBm/500KHz)	Verdict
151	5755	-0.55	28.63 <sub>Note</sub>	PASS
159	5795	-1.61		

Note: For those cases where the rule specifies that the Spectral power density be reduced by the amount in dB that the directional gain of the transmitting antenna exceeds 6 dBi, the applicable Spectral power density limit shall be calculated as follows:

$$P_{Out} = P_{Limit} - (G_{Tx} - 6)$$

Where:

$P_{Out}$  is the maximum Spectral power density in dBm/MHz or dBm/500KHz,

$P_{Limit}$  is the Spectral power density limit in dBm/MHz or dBm/500KHz,

$G_{Tx}$  is the maximum transmitting antenna directional gain in dBi.



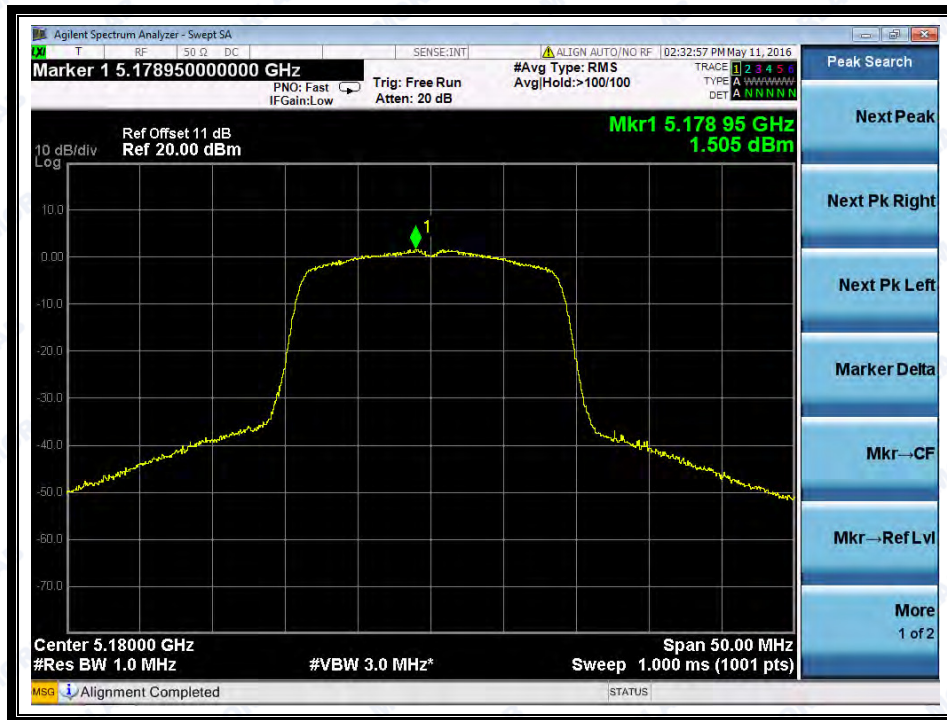
2.4.3.6 802.11a Test mode

Antenna 1:

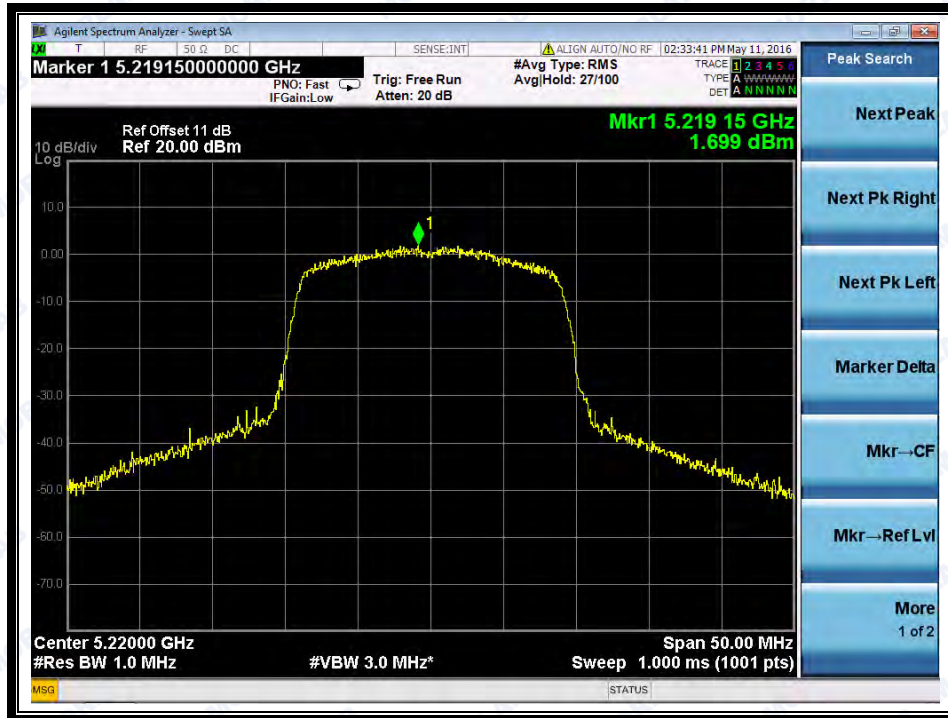
A. Test Verdict:

Channel	Frequency (MHz)	Measured PPSD (dBm/MHz)	Limit (dBm/MHz)	Verdict
36	5180	1.505	17	PASS
44	5220	1.699		
48	5240	1.941		
Channel	Frequency (MHz)	Measured PPSD (dBm/500KHz)	Limit (dBm/500KHz)	Verdict
149	5745	-1.522	30	PASS
157	5785	-2.320		
165	5825	-2.938		

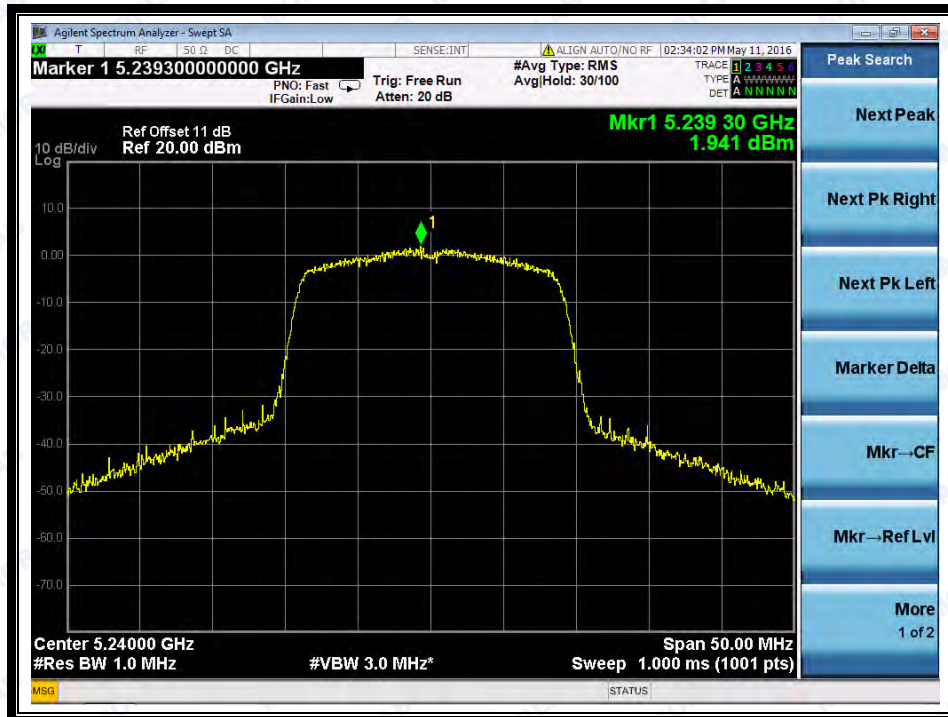
B. Test Plots



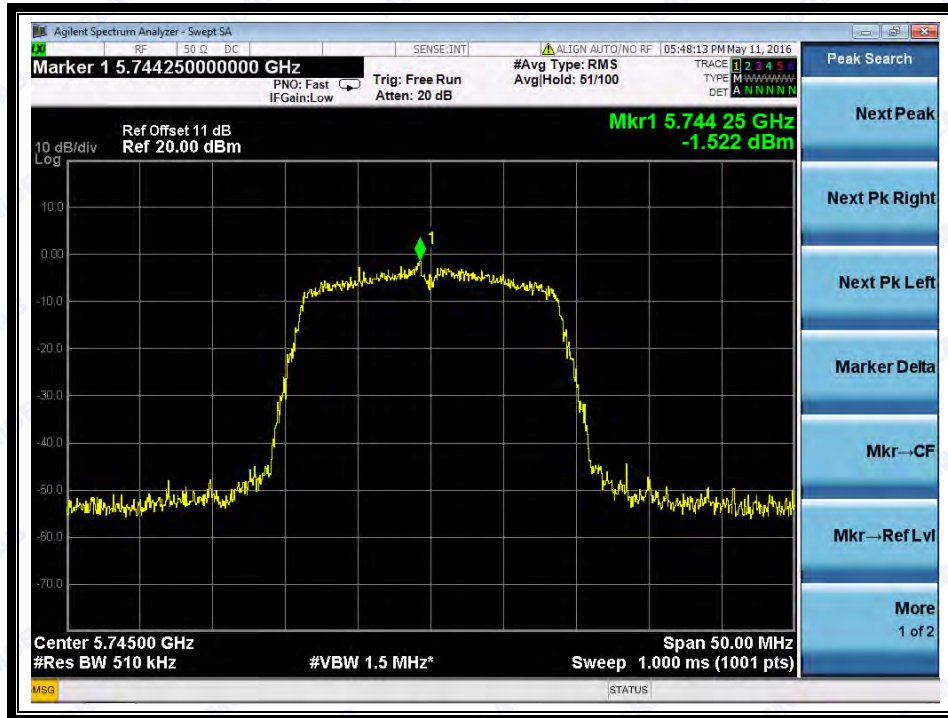
(Channel 36: 5180MHz @ 802.11a)



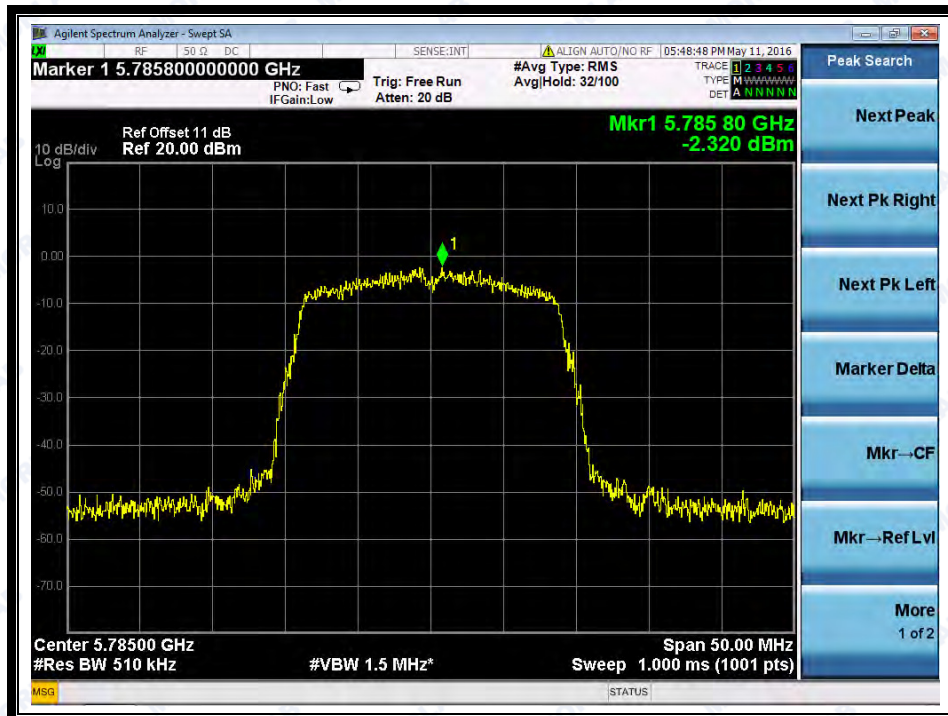
(Channel 44: 5220 MHz @802.11a)



(Channel 48: 5240MHz @802.11a)

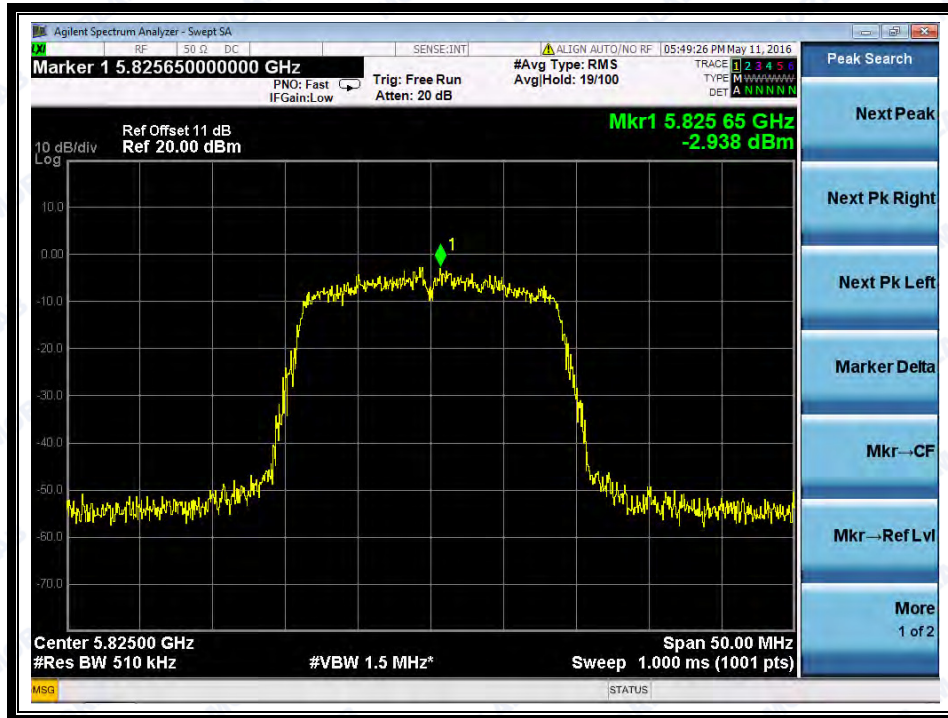


(Channel 149: 5745MHz @ 802.11a)



(Channel 157: 5785MHz @ 802.11a)





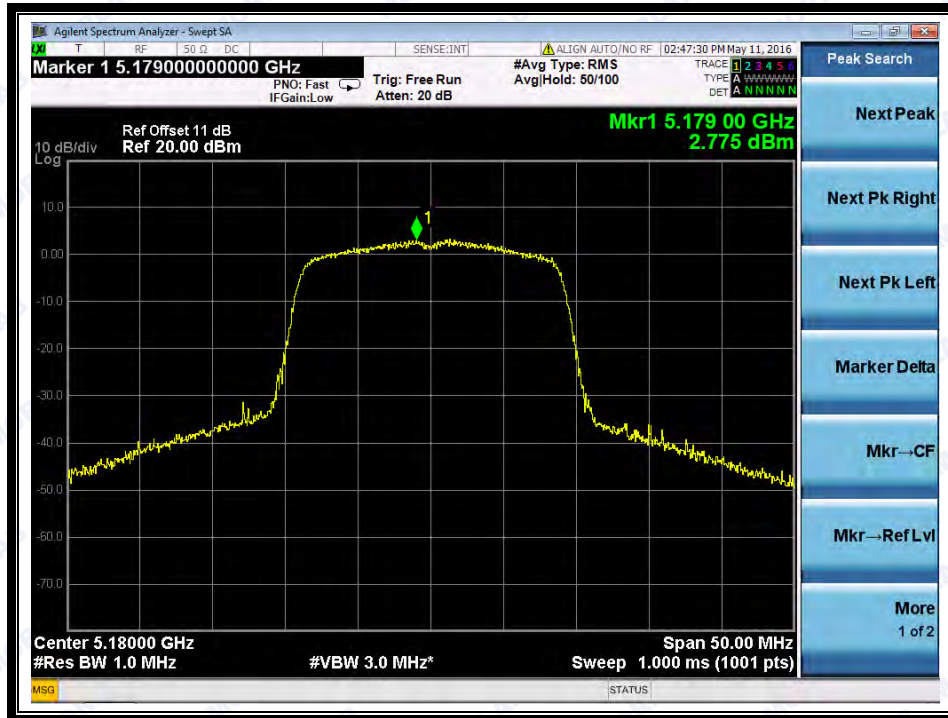
(Channel 165: 5825MHz @ 802.11a)

**Antenna 2:**

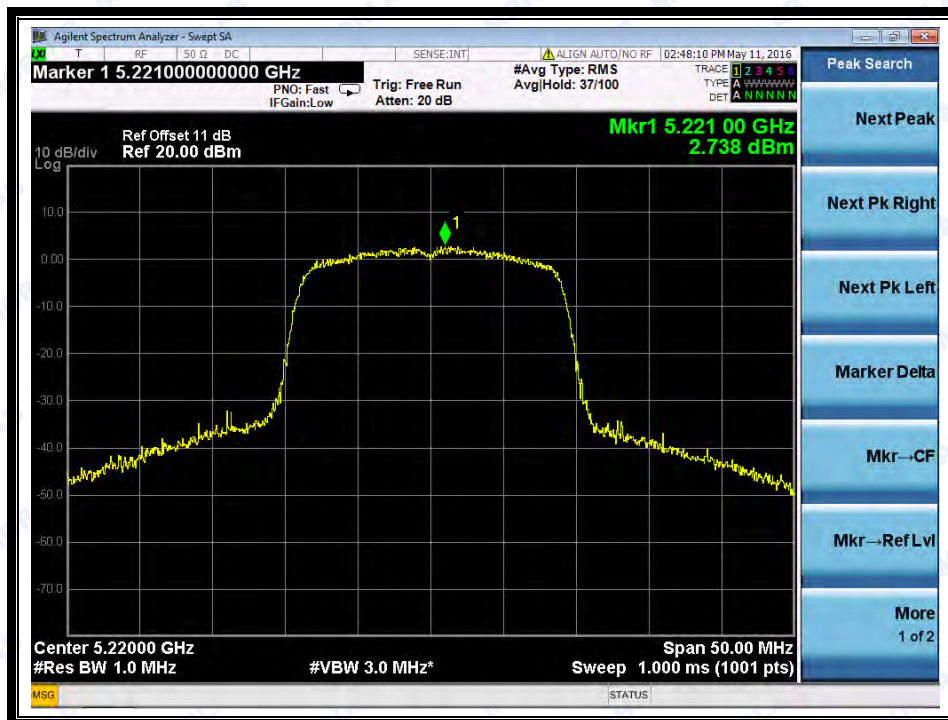
**A. Test Verdict:**

Channel	Frequency (MHz)	Measured PPSD (dBm/MHz)	Limit (dBm/MHz)	Verdict
36	5180	2.775	17	PASS
44	5220	2.738		
48	5240	2.965		
Channel	Frequency (MHz)	Measured PPSD (dBm/500KHz)	Limit (dBm/500KHz)	Verdict
149	5745	-3.767	30	PASS
157	5785	-3.601		
165	5825	-4.255		

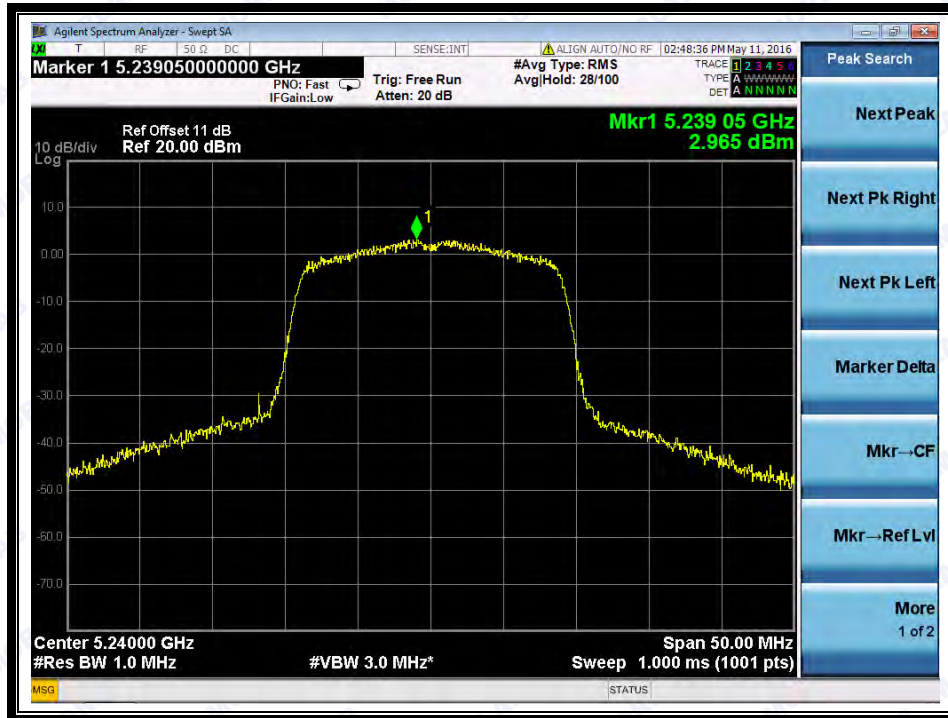
**B. Test Plots**



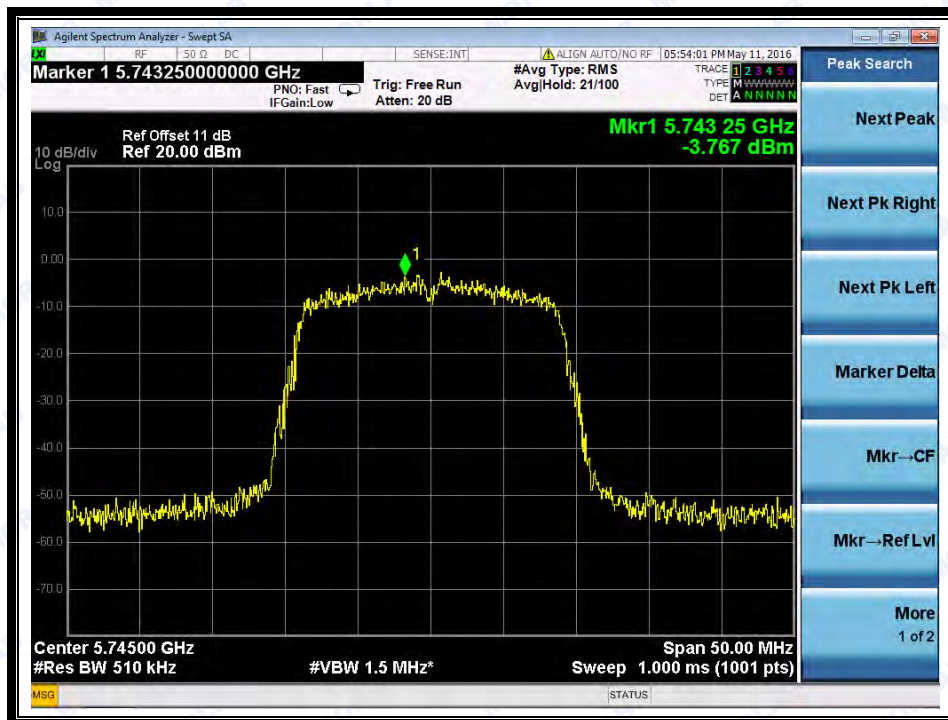
(Channel 36: 5180MHz @ 802.11a)



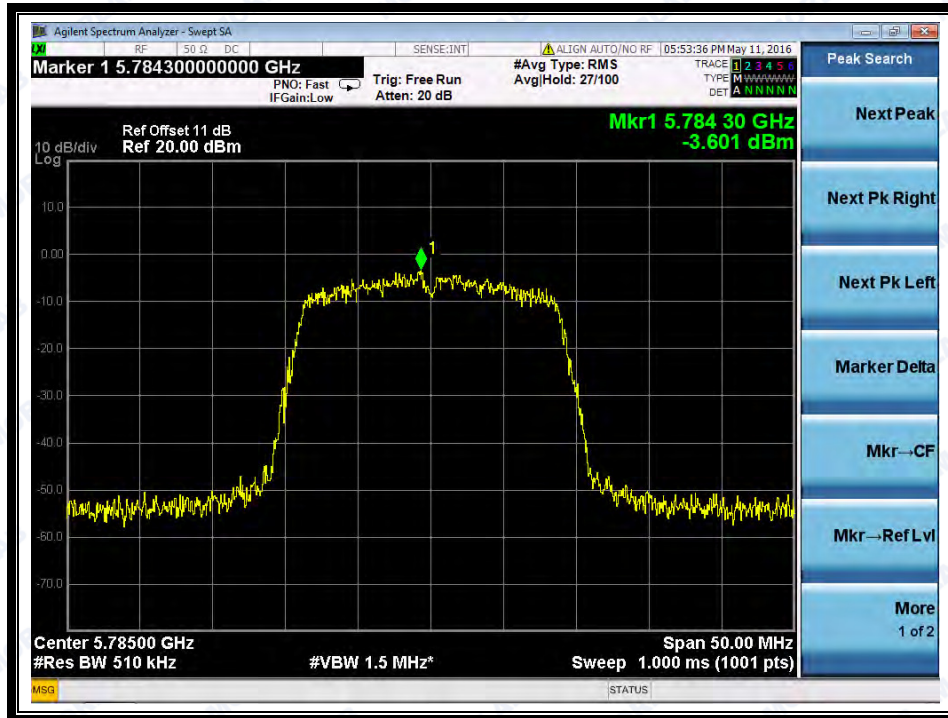
(Channel 44: 5220 MHz @802.11a)



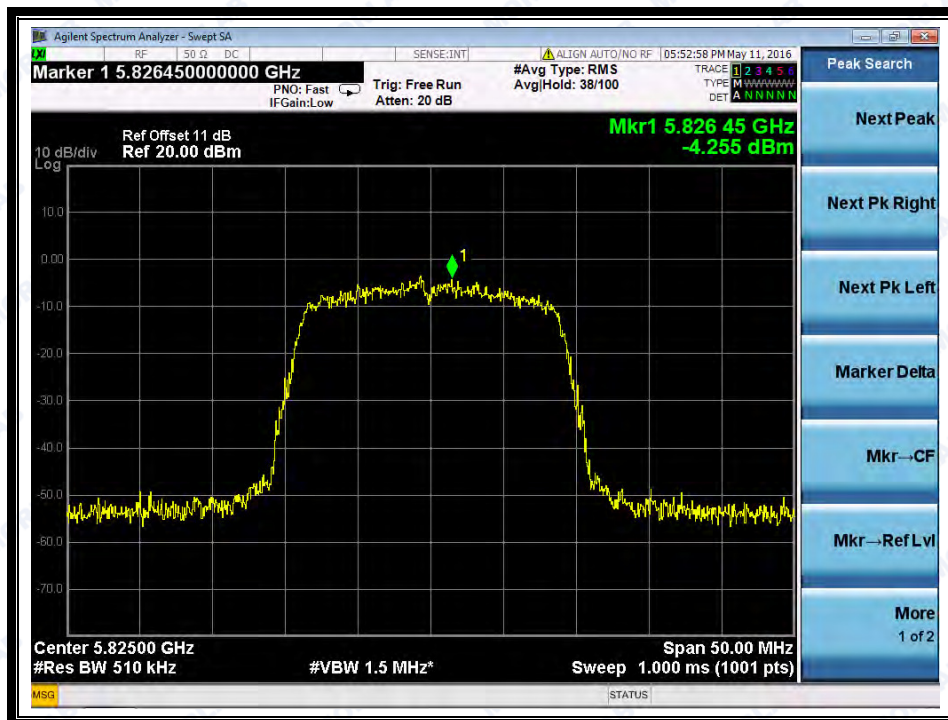
(Channel 48: 5240MHz @802.11a)



(Channel 149: 5745MHz @ 802.11a)



(Channel 157: 5785MHz @ 802.11a)



(Channel 165: 5825MHz @ 802.11a)

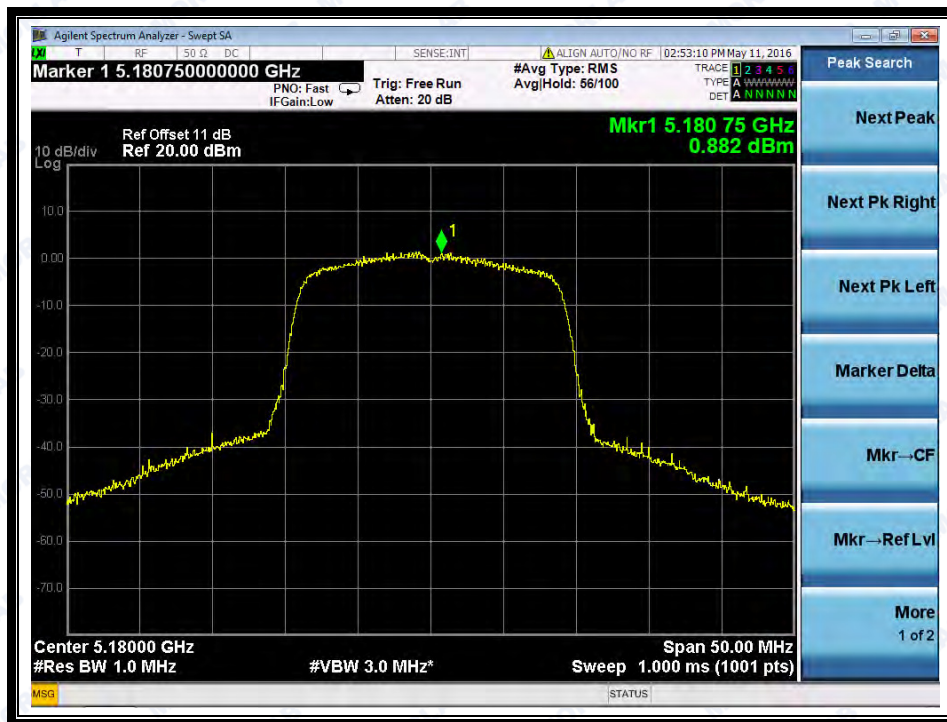


**Antenna 3:**

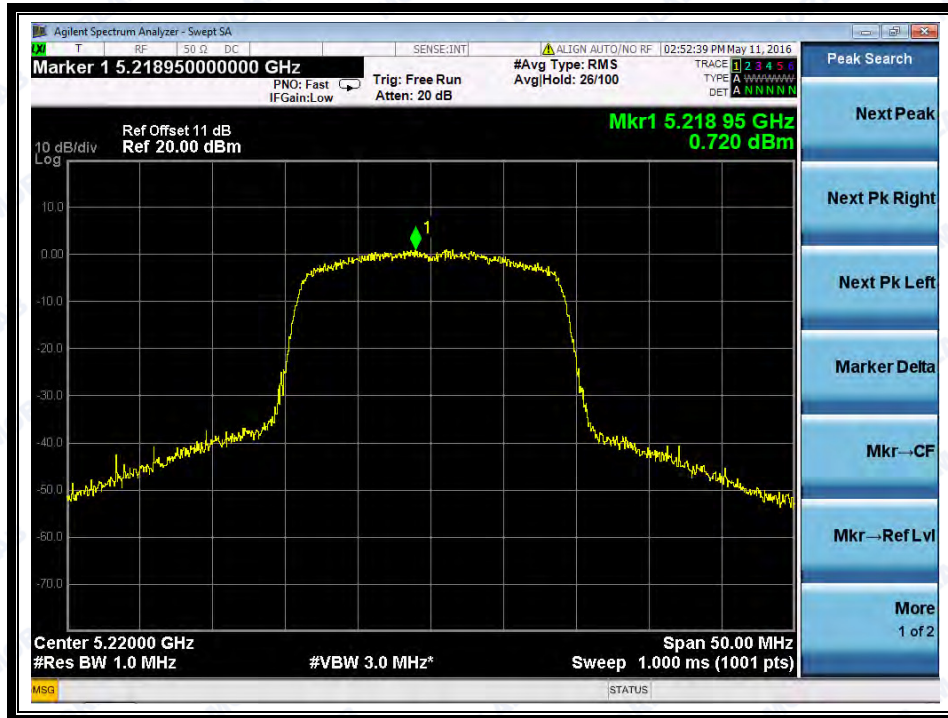
**A. Test Verdict:**

Channel	Frequency (MHz)	Measured PPSD (dBm/MHz)	Limit (dBm/MHz)	Verdict
36	5180	0.882	17	PASS
44	5220	0.720		
48	5240	0.947		
Channel	Frequency (MHz)	Measured PPSD (dBm/500KHz)	Limit (dBm/500KHz)	Verdict
149	5745	-2.898	30	PASS
157	5785	-0.959		
165	5825	-1.428		

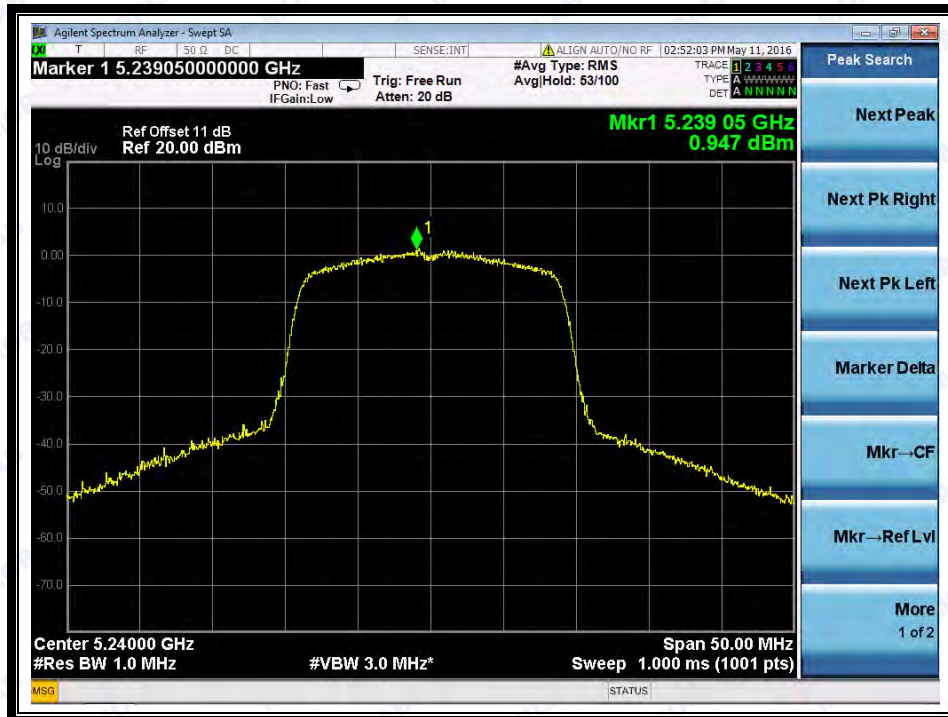
**B. Test Plots**



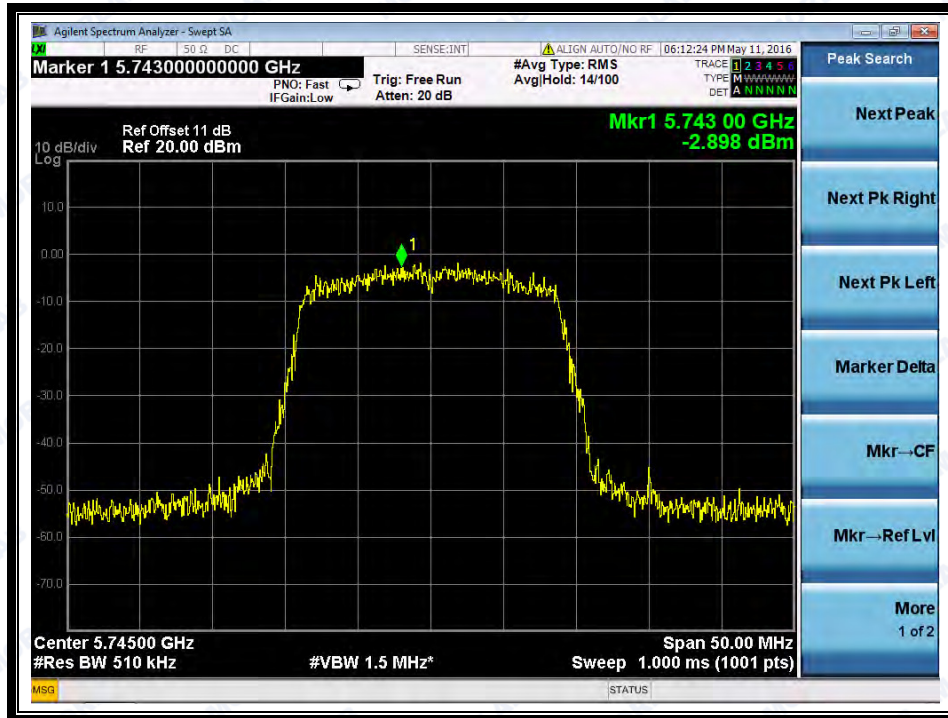
(Channel 36: 5180MHz @ 802.11a)



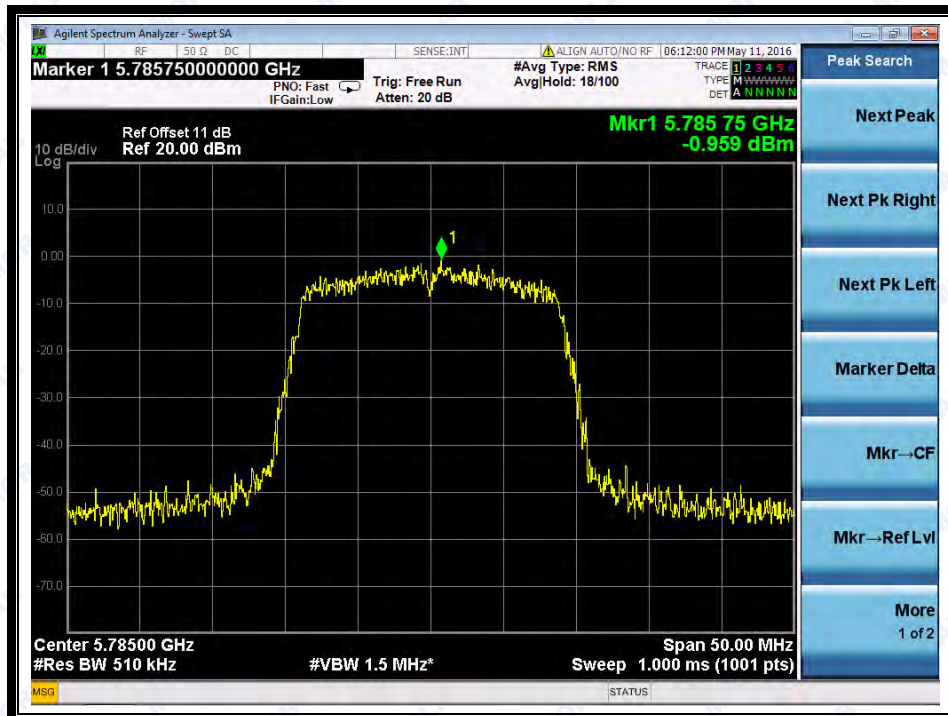
(Channel 44: 5220 MHz @802.11a)



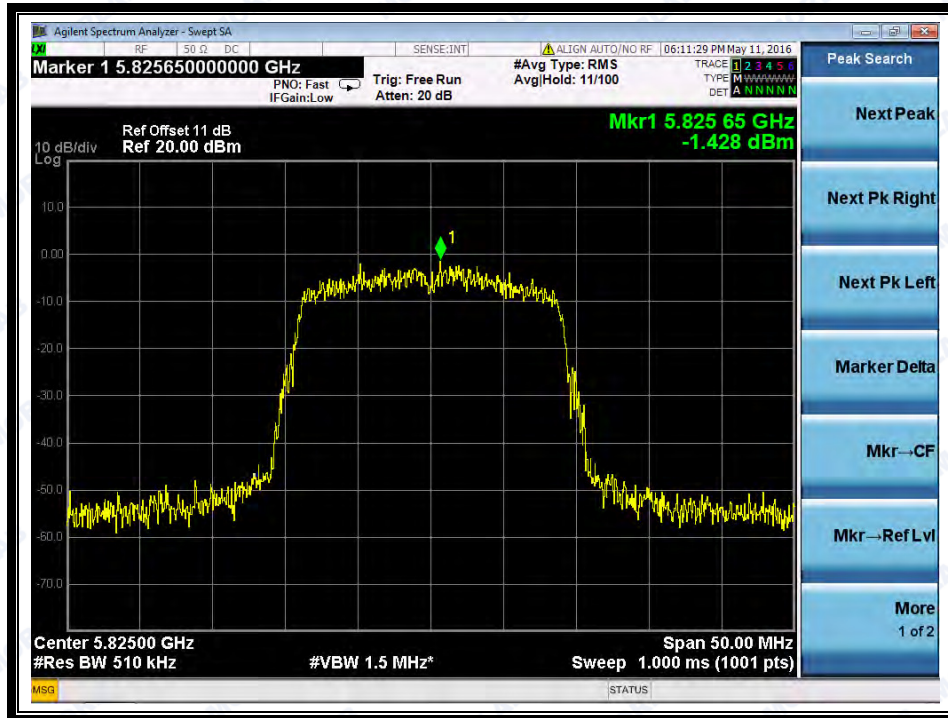
(Channel 48: 5240MHz @802.11a)



(Channel 149: 5745MHz @ 802.11a)



(Channel 157: 5785MHz @ 802.11a)



(Channel 165: 5825MHz @ 802.11a)



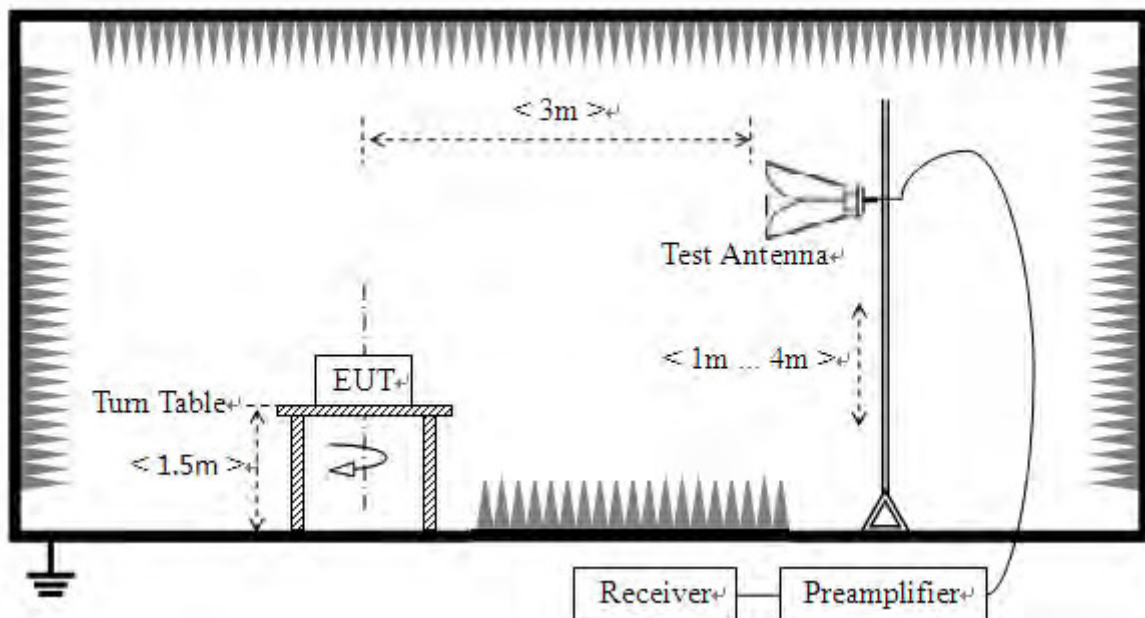
## 2.5 Restricted Frequency Bands

### 2.5.1 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).

### 2.5.2 Test Description

#### A. Test Setup



The EUT 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.



### 2.5.3 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

$G_{\text{preamp}}$ : Pre-amplifier Gain

$A_{\text{Factor}}$ : 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.

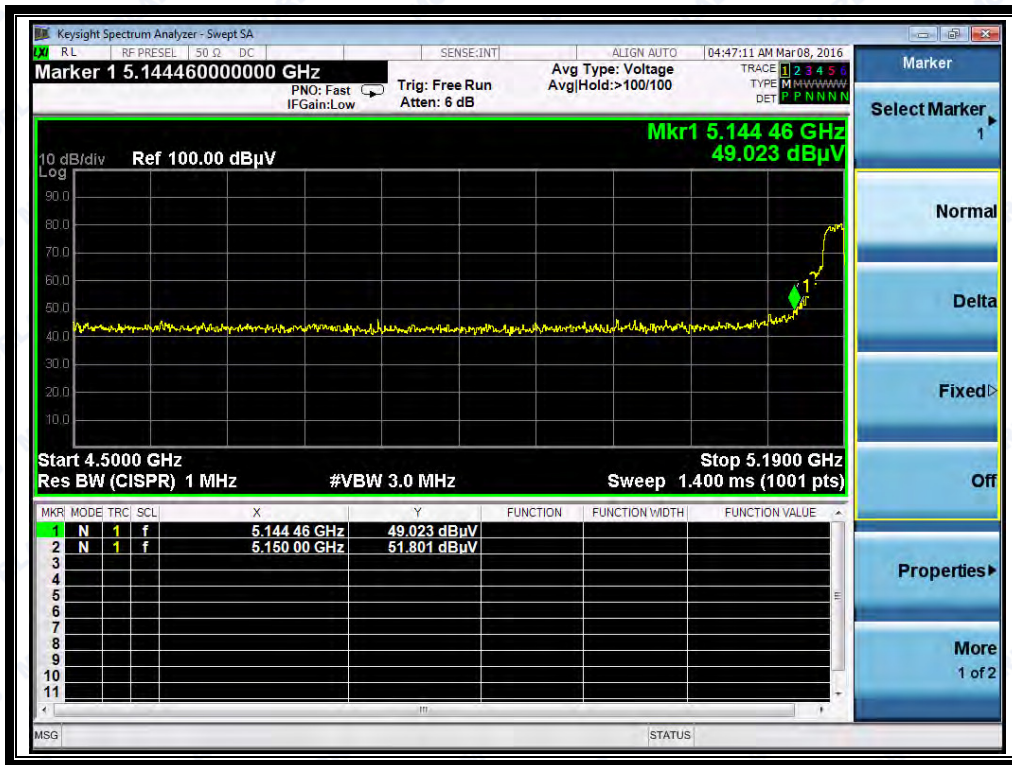
#### 2.5.3.1 802.11ac-20MHz MIMO Test mode

The lowest and highest channels are tested to verify the band edge emissions.

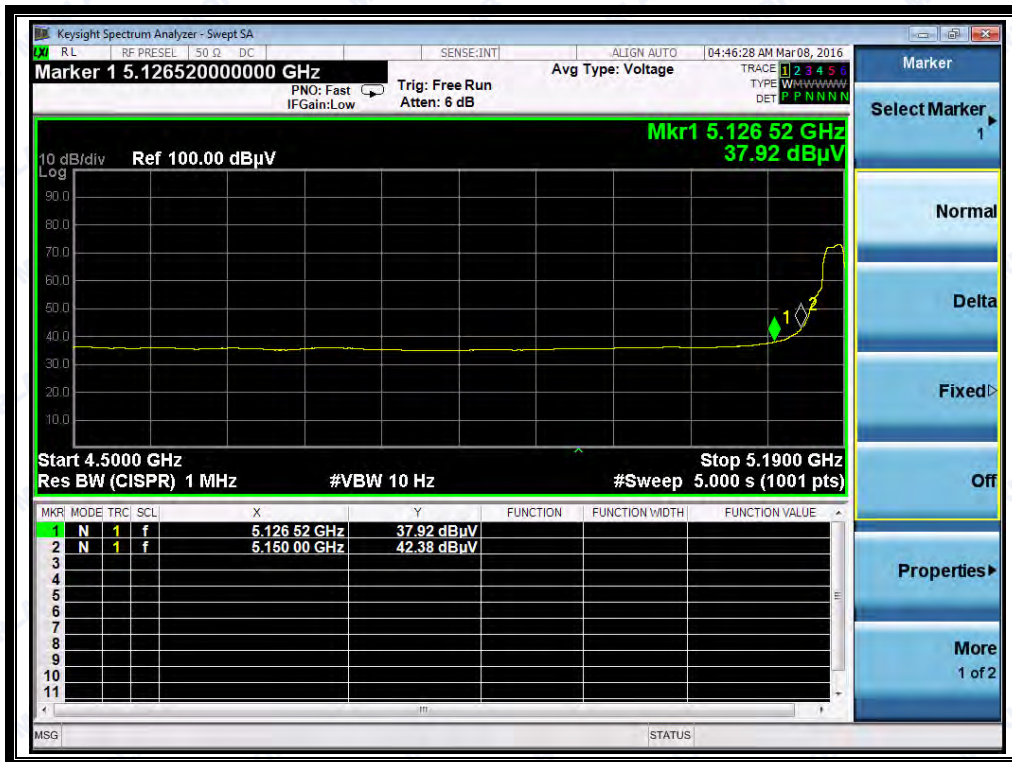
##### A. Test Verdict:

Channel	Frequency (MHz)	Detector	Receiver Reading	$A_T$ (dB)	$A_{\text{Factor}}$ (dB@3m)	Max. Emission E (dB $\mu$ V/m)	Limit (dB $\mu$ V/m)	Verdict
		PK/ AV	$U_R$ (dB $\mu$ V)					
36	5144.46	PK	49.02	-50.65	32.11	30.48	74	Pass
36	5126.52	AV	37.92	-50.65	32.11	19.38	54	Pass
48	5371.98	PK	44.67	-50.65	32.11	26.13	74	Pass
48	5371.32	AV	34.76	-50.65	32.11	16.22	54	Pass

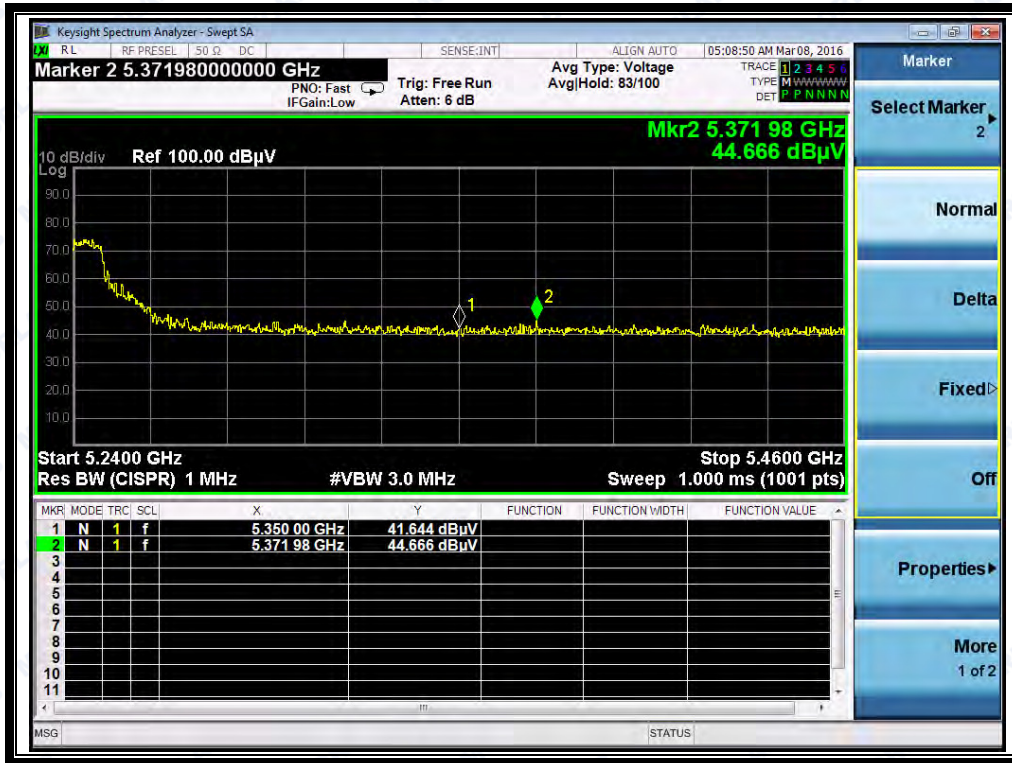
##### B. Test Plots:



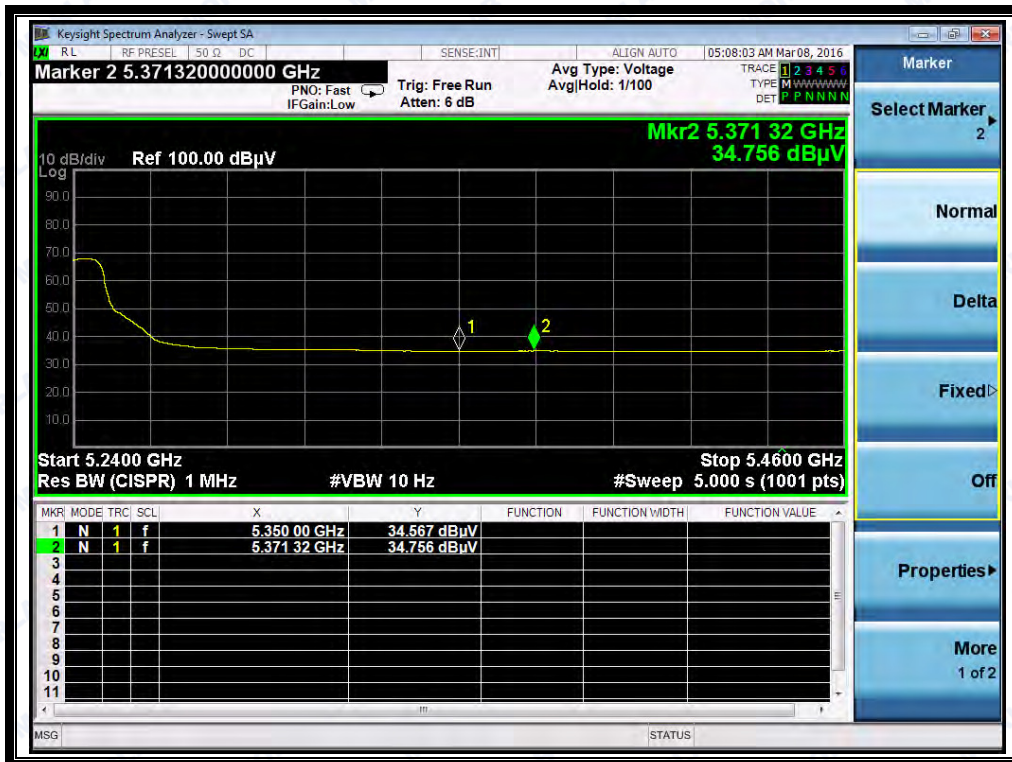
(Channel = 36 PEAK @ 802.11ac)



(Channel = 36 AVG @ 802.11ac)



(Channel = 48 PEAK @ 802.11ac)



(Channel = 48 AVG @ 802.11ac)