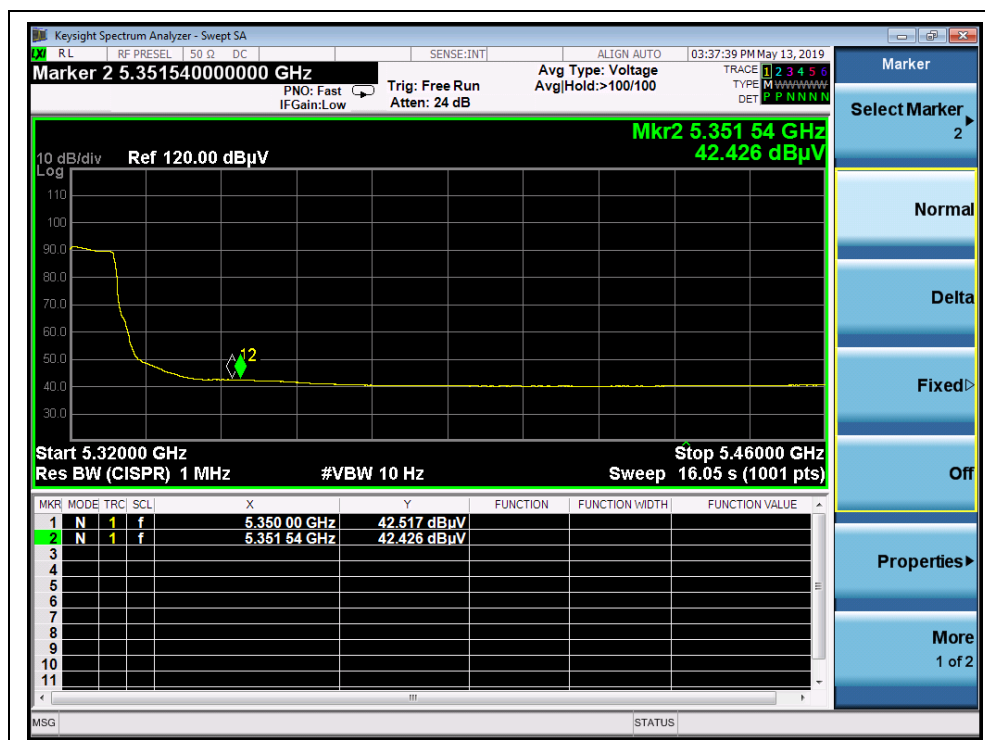
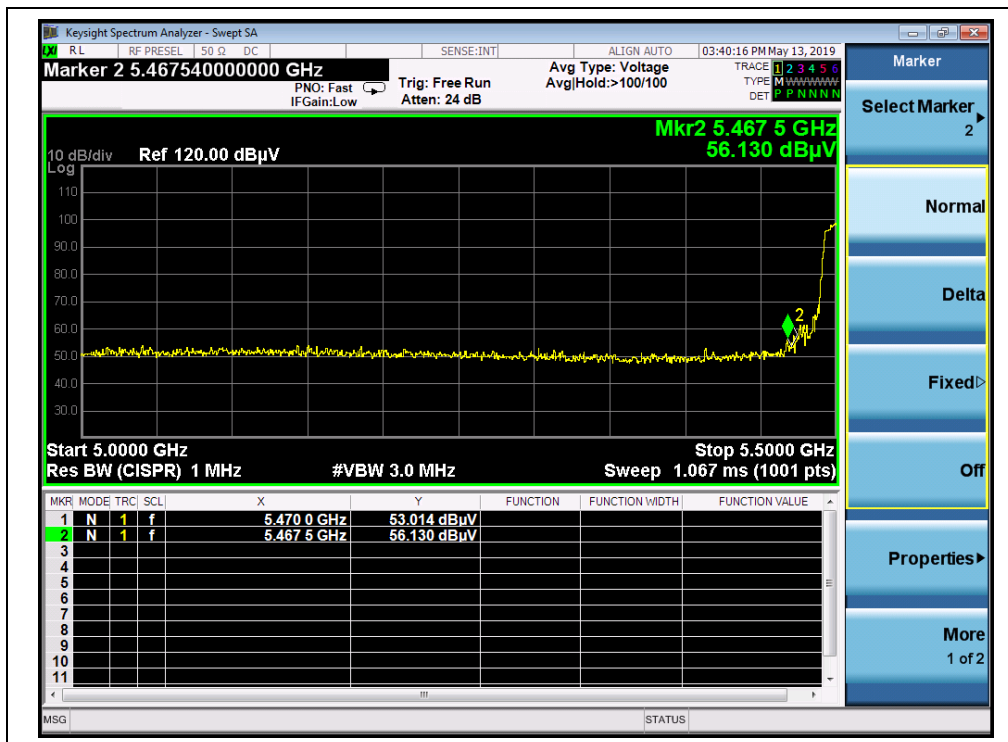


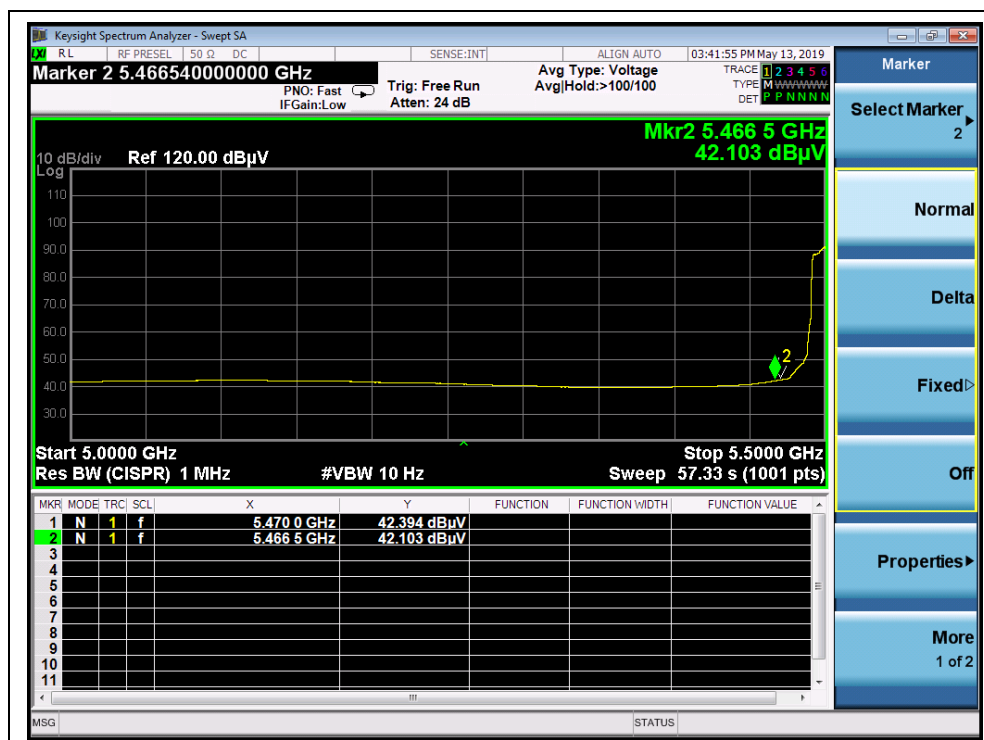
(Channel 64, PEAK, 802.11a)



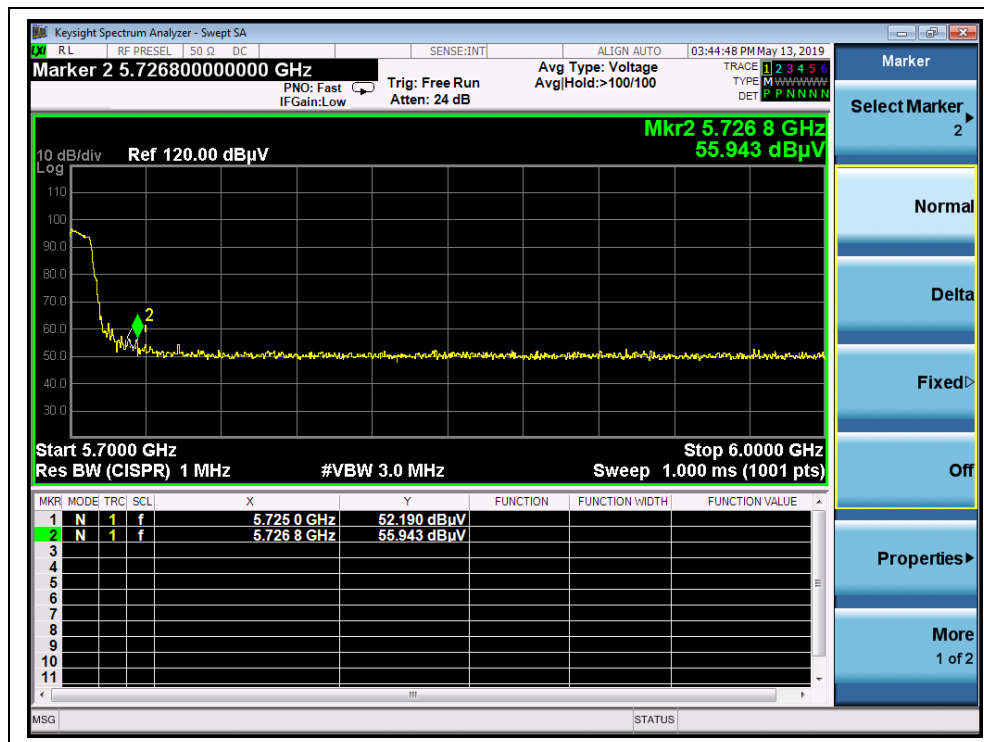
(Channel 64, AVG, 802.11a)



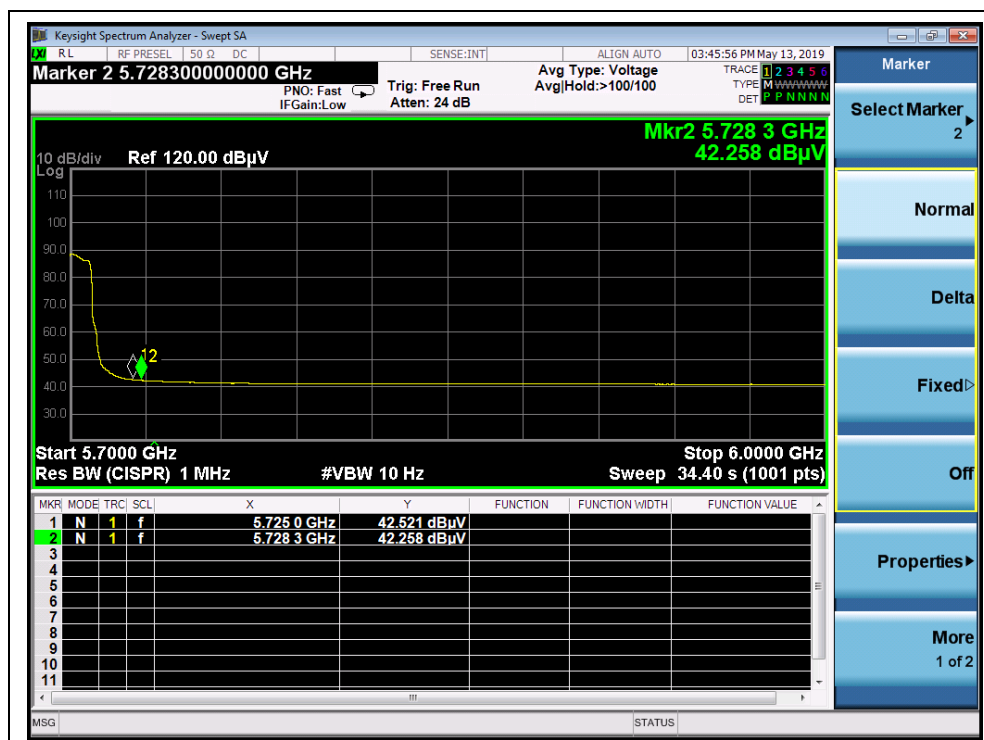
(Channel 100, PEAK, 802.11a)



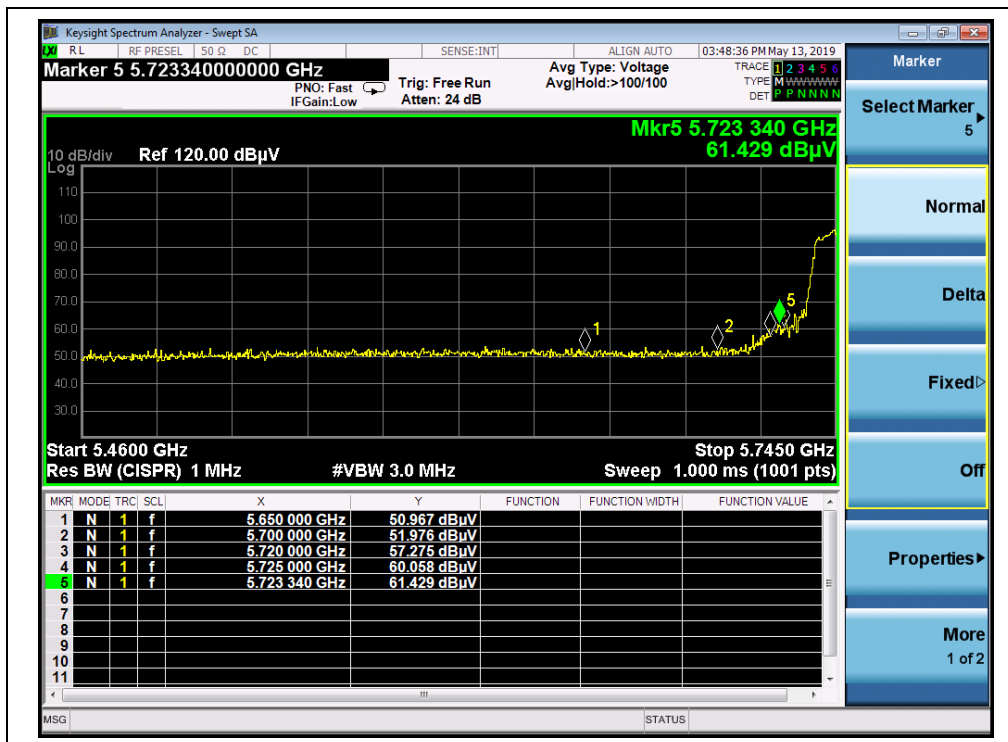
(Channel 100, AVG, 802.11a)



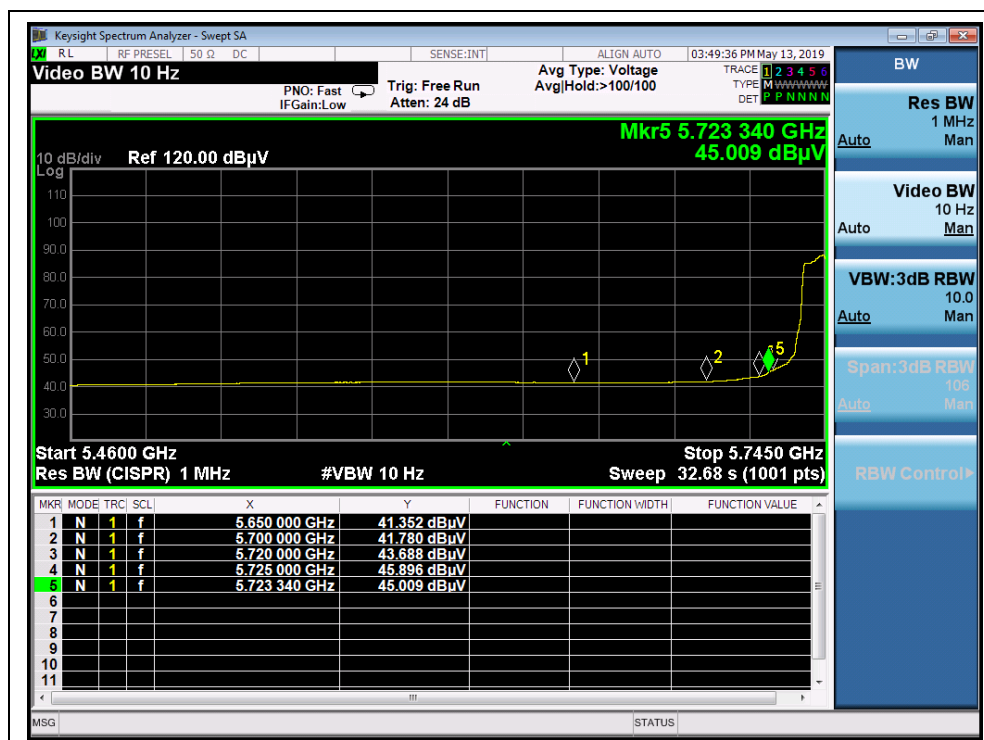
(Channel 144, PEAK, 802.11a)



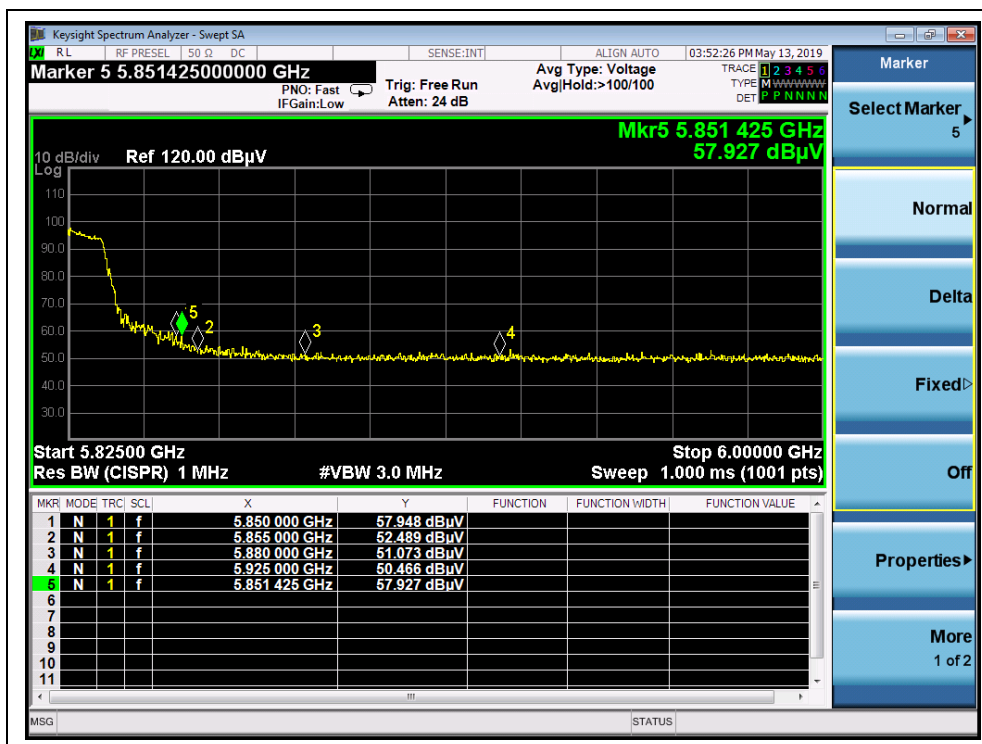
(Channel 144, AVG, 802.11a)



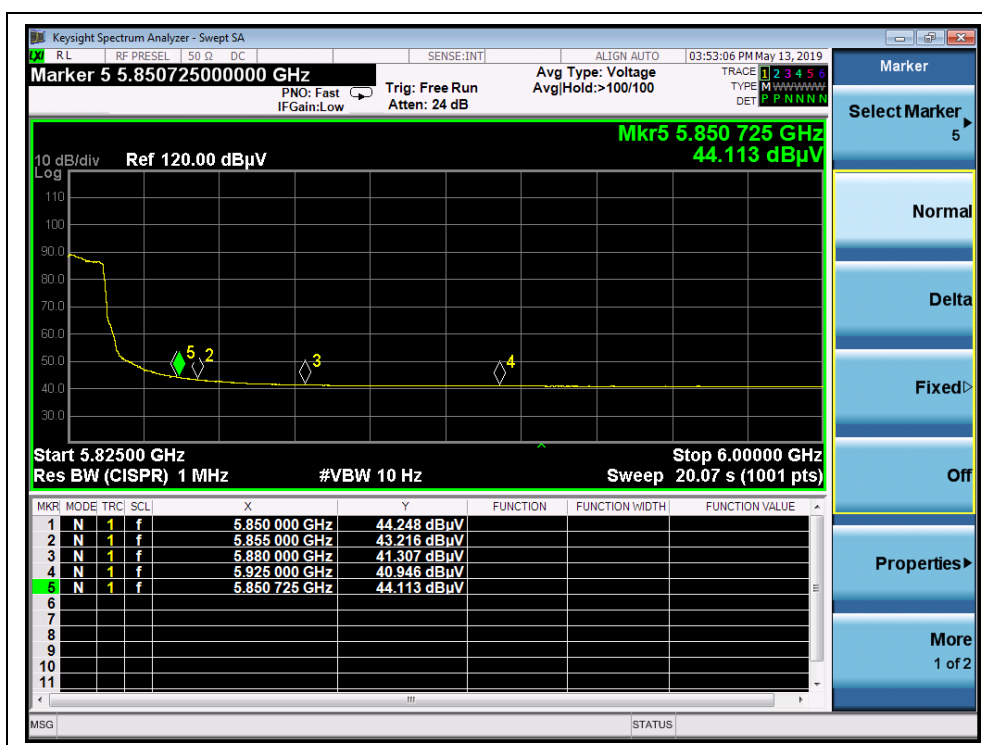
(Channel 149, PEAK, 802.11a)



(Channel 149, AVG, 802.11a)



(Channel 165, PEAK, 802.11a)



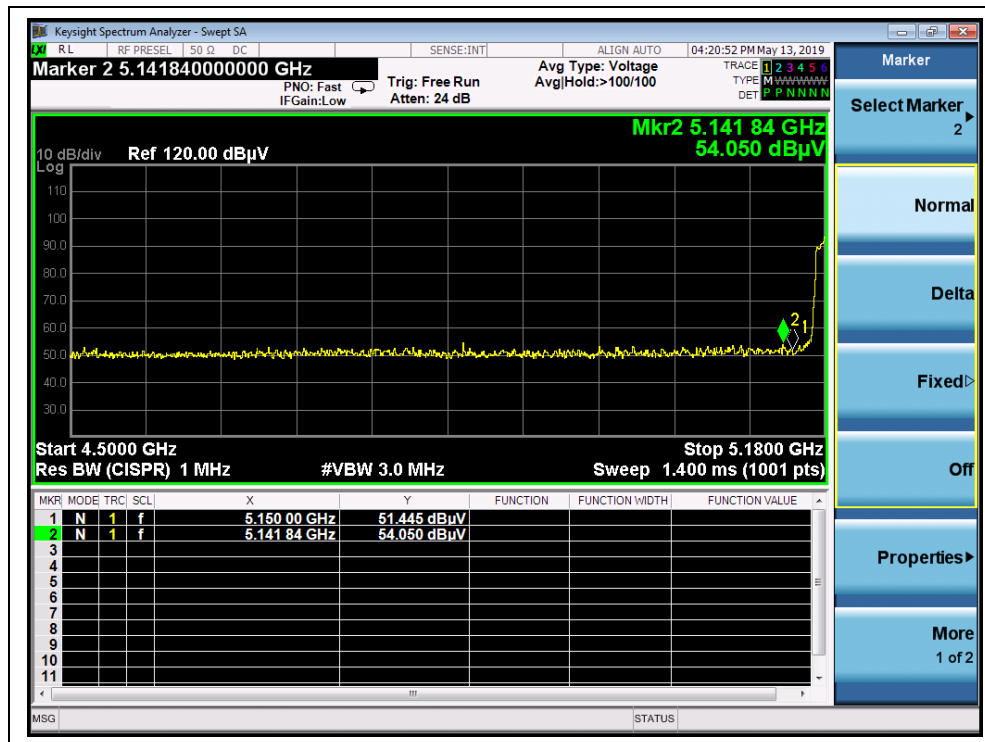
(Channel 165, AVG, 802.11a)

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

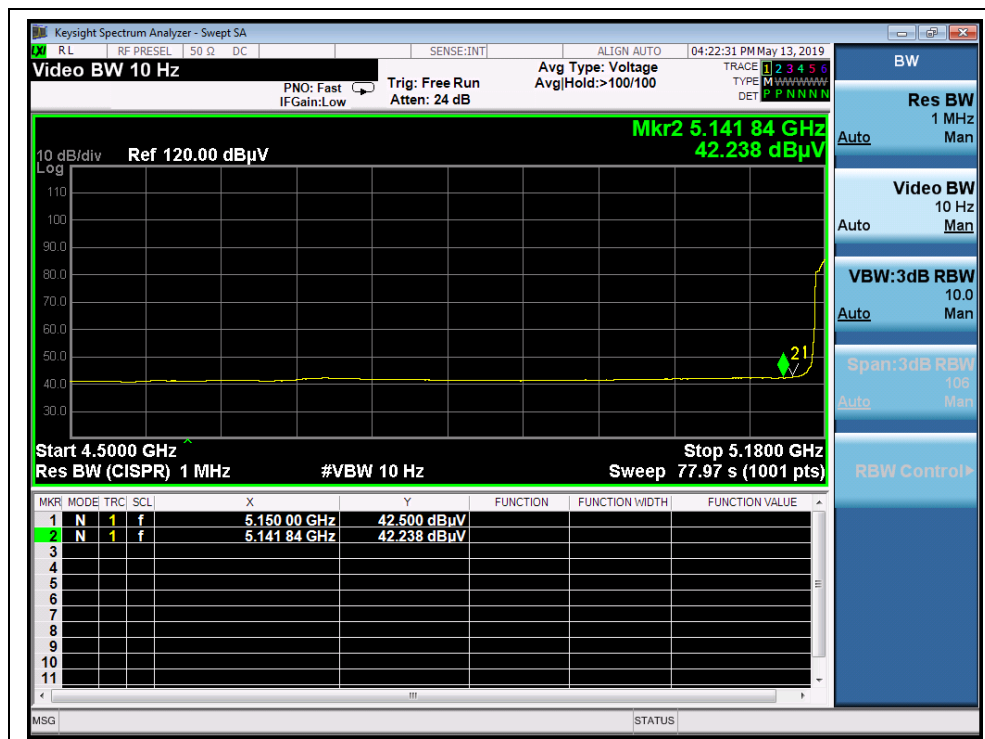
Channel	Frequency (MHz)	Detector	Receiver Reading $U_R$ (dBuV)	$A_T$ (dB)	$A_{Factor}$ (dB@3m)	Max. Emission E (dBμV/m)	Limit (dBμV/m)	Verdict
		PK/ AV						
36	5141.84	PK	54.05	-26.92	32.20	59.33	74	PASS
36	5150.00	AV	42.50	-26.92	32.20	47.78	54	PASS
64	5354.34	PK	51.83	-26.80	32.20	57.23	74	PASS
64	5350.00	AV	40.36	-26.80	32.20	45.76	54	PASS
100	5468.00	PK	53.04	-26.64	32.20	58.6	68.23	PASS
100	5470.00	AV	41.95	-26.64	32.20	47.51	54	PASS
144	5733.00	PK	52.44	-26.64	32.20	58.00	68.23	PASS
144	5725.00	AV	41.84	-26.64	32.20	47.40	54	PASS
149	5725.00	PK	61.89	-26.23	32.20	67.86	122.23	PASS
149	5725.00	AV	43.49	-26.23	32.20	49.46	54	PASS
165	5851.78	PK	55.57	-26.23	32.20	61.54	118.17	PASS
165	5850.00	AV	42.39	-26.23	32.20	48.36	54	PASS



## B. Test Plots:

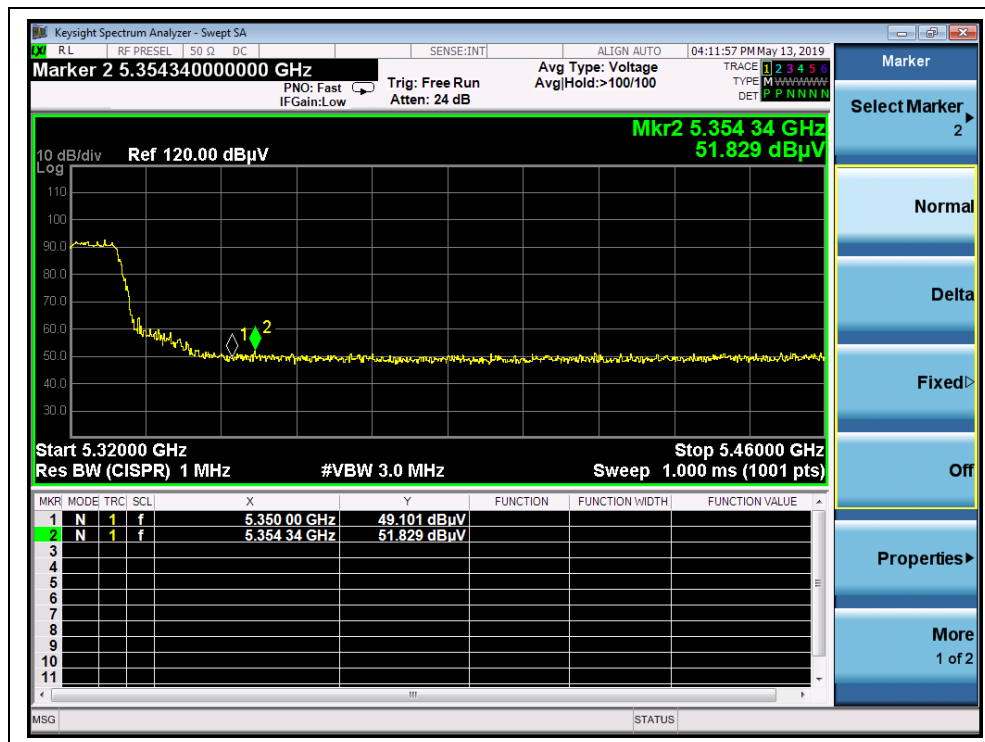


(Channel 36, PEAK, 802.11n (HT20))

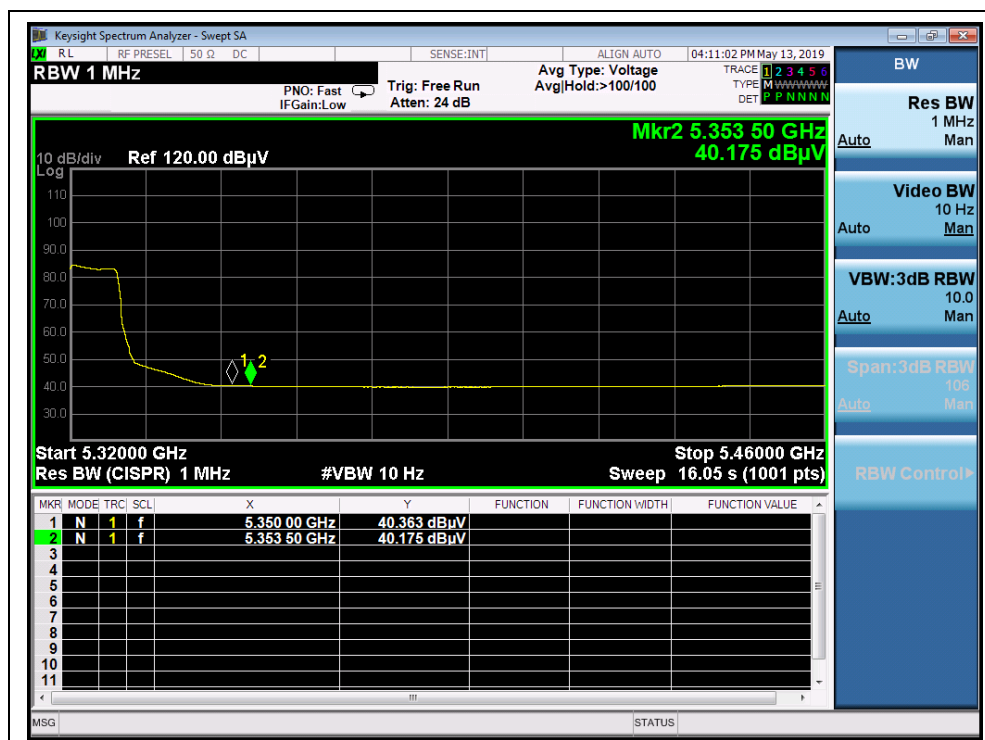


(Channel 36, AVG, 802.11 n (HT20))



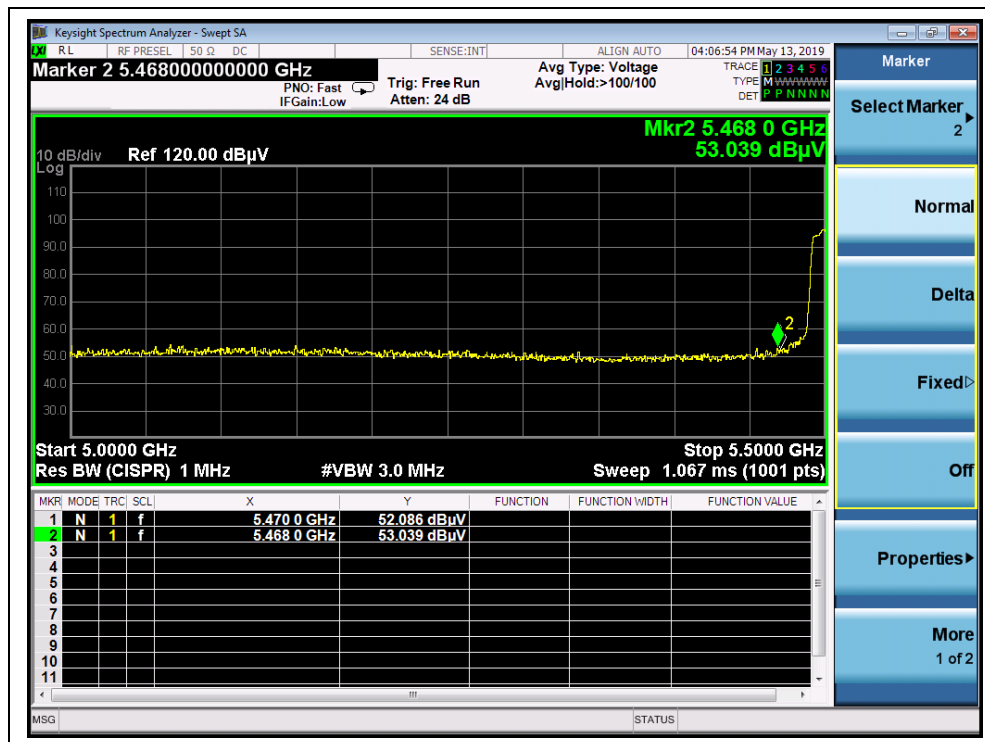


(Channel 64, PEAK, 802.11 n (HT20))

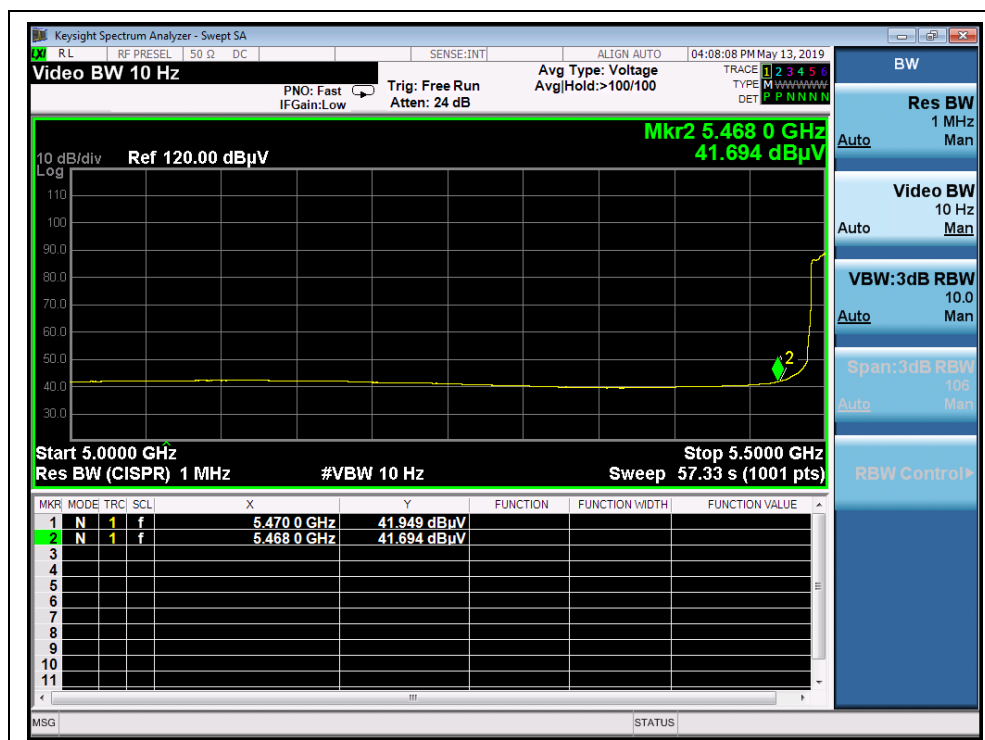


(Channel 64, AVG, 802.11n (HT20))

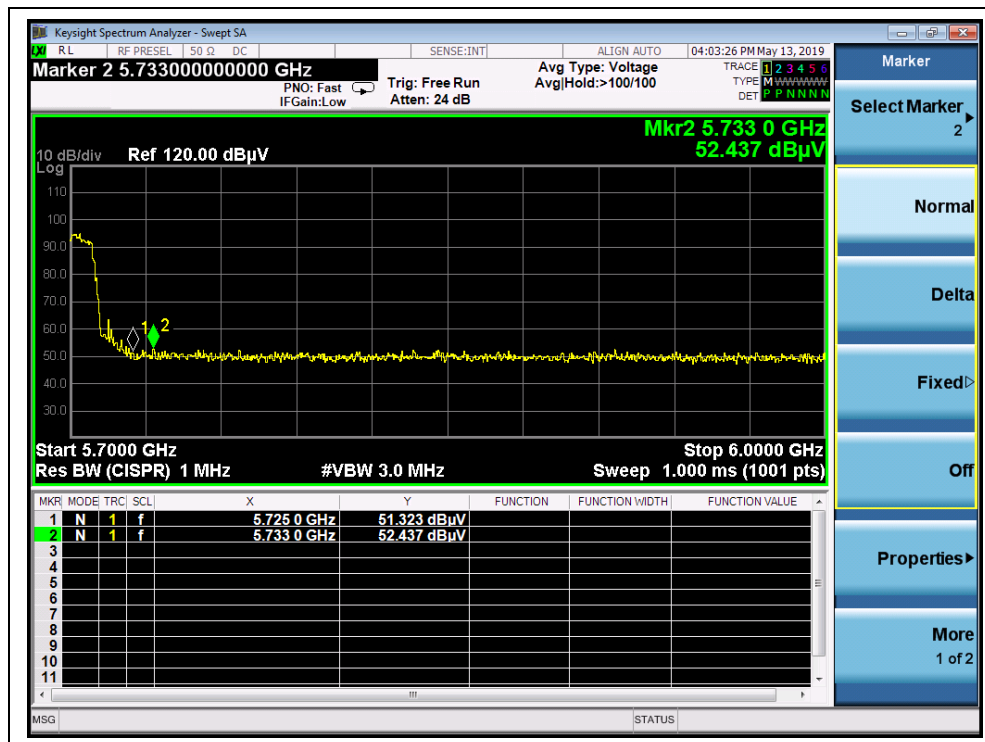




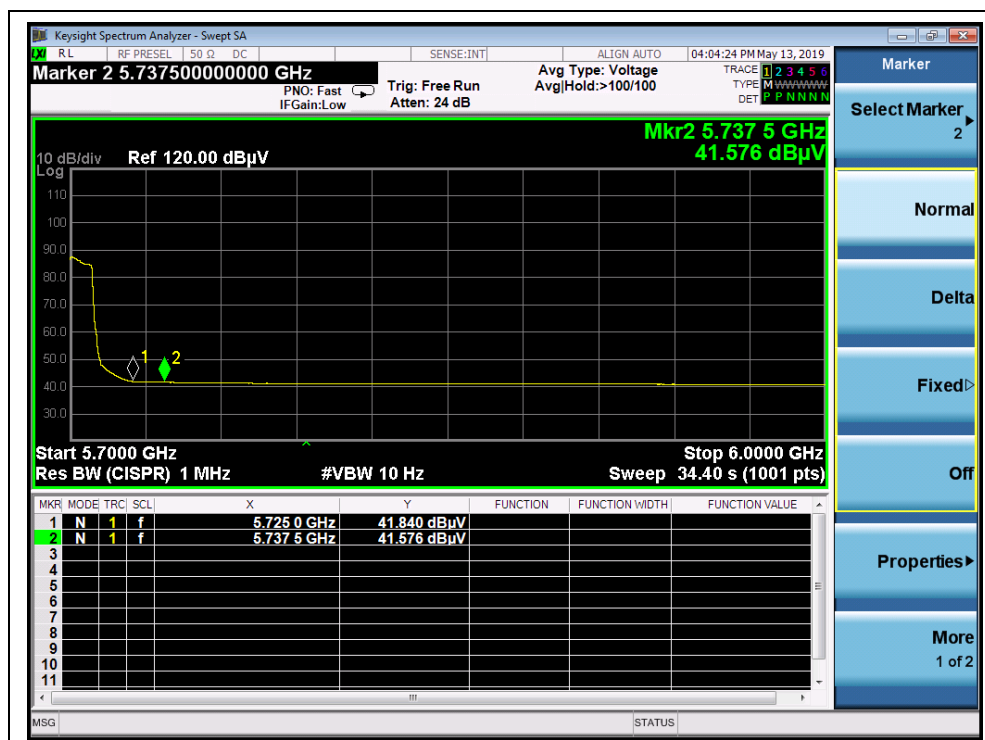
(Channel 100, PEAK, 802.11 n (HT20))



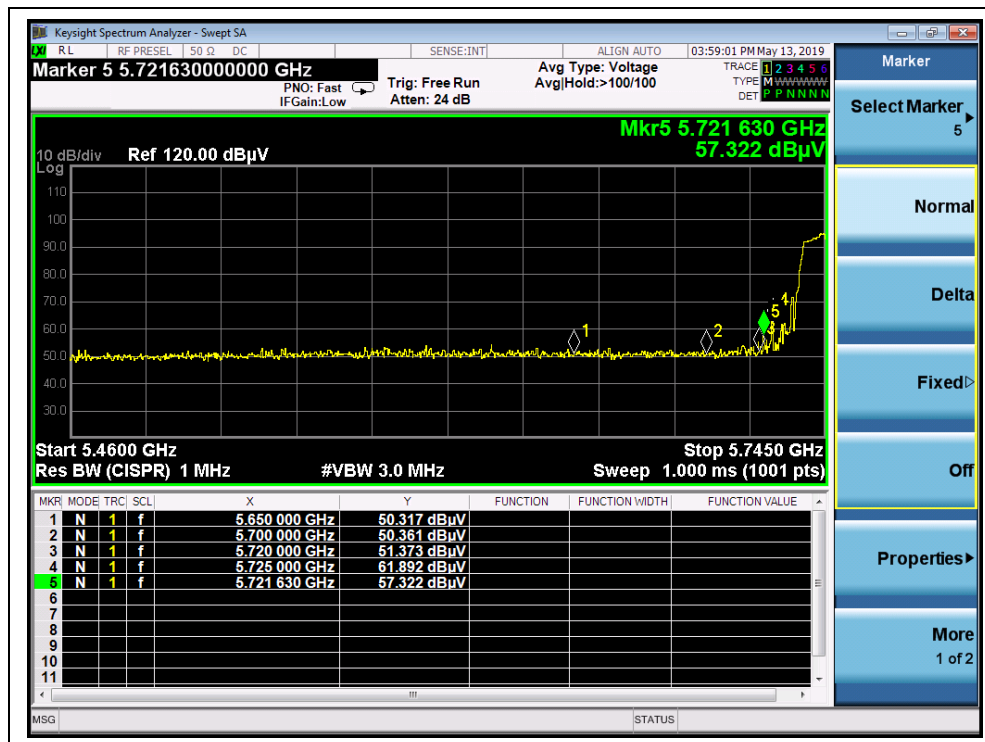
(Channel 100, AVG, 802.11n (HT20))



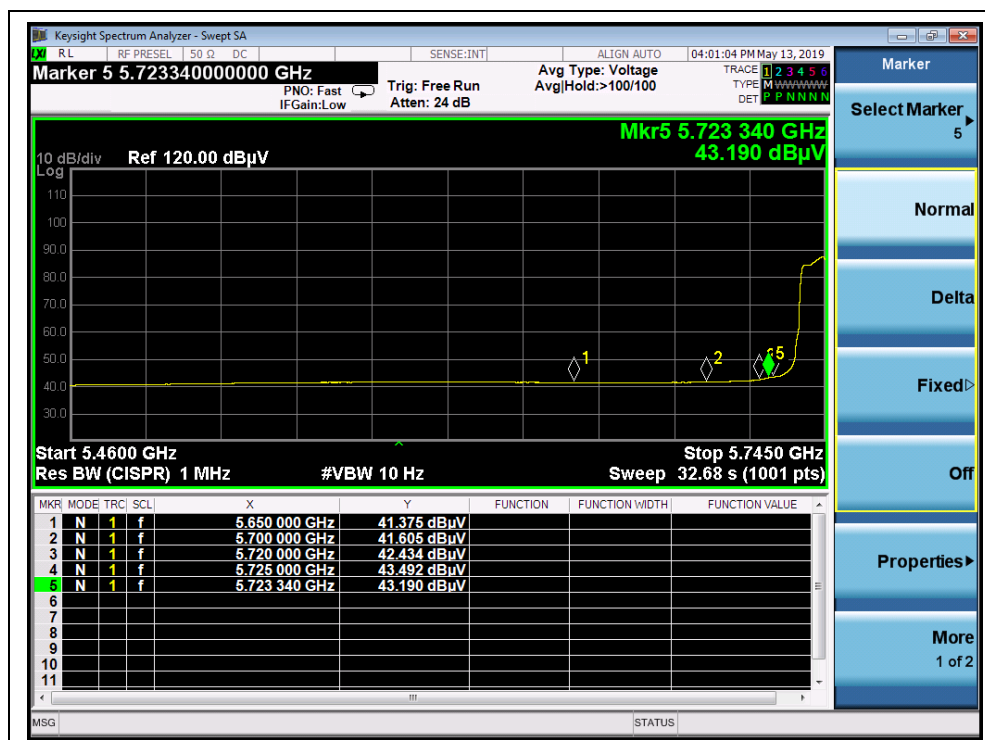
(Channel 144, PEAK, 802.11 n (HT20))



(Channel 144, AVG, 802.11n (HT20))



(Channel 149, PEAK, 802.11 n (HT20))



(Channel 149, AVG, 802.11n (HT20))



(Channel 165, PEAK, 802.11 n (HT20))

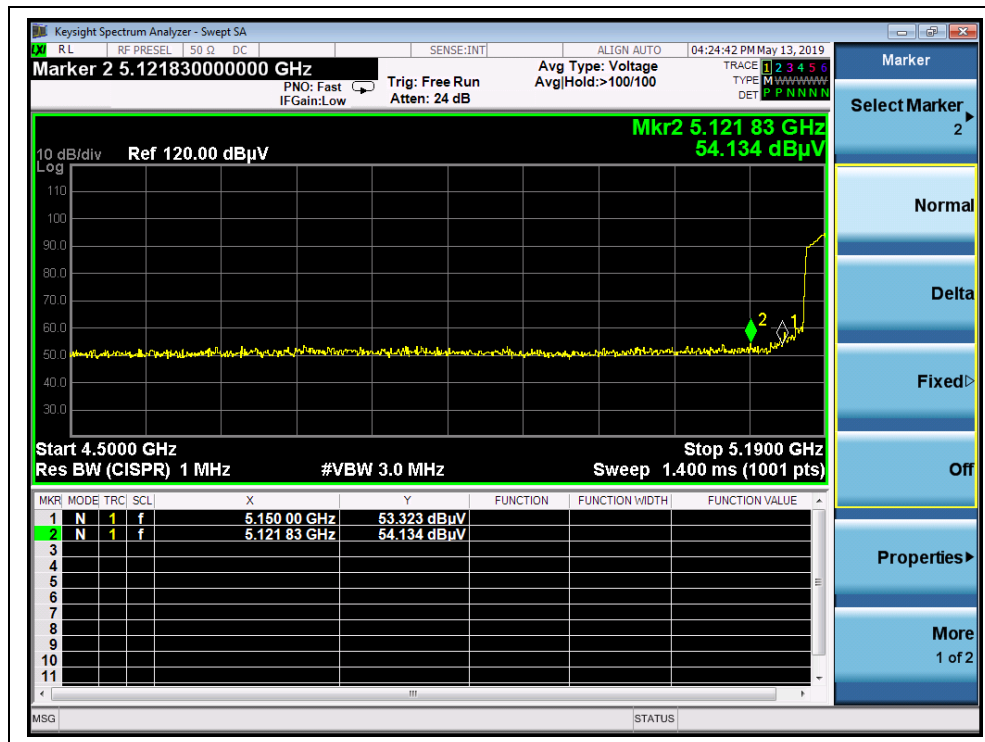


(Channel 165, AVG, 802.11n (HT20))

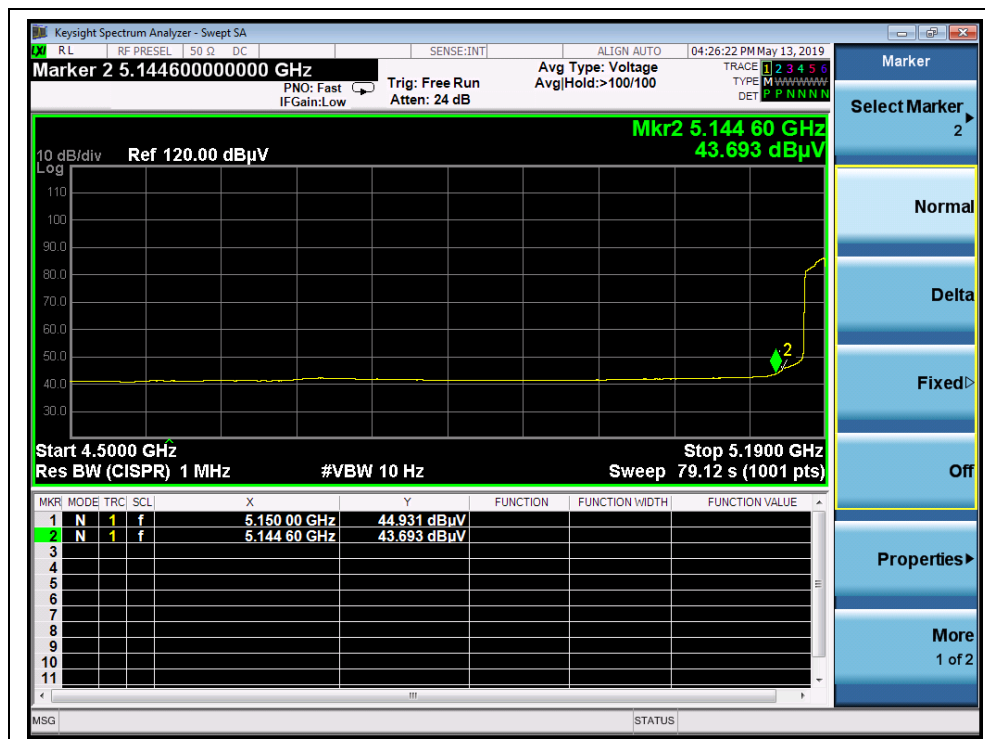
**802.11n (HT40) Test mode****A. Test Verdict:**

Channel	Frequency (MHz)	Detector	Receiver Reading $U_R$ (dBuV)	$A_T$ (dB)	$A_{Factor}$ (dB@3m)	Max. Emission E (dBuV/m)	Limit (dBuV/m)	Verdict
		PK/ AV						
38	5121.83	PK	54.13	-26.92	32.20	59.41	74	PASS
38	5150.00	AV	44.93	-26.92	32.20	50.21	54	PASS
62	5353.90	PK	52.17	-26.80	32.20	57.57	74	PASS
62	5350.00	AV	41.74	-26.80	32.20	47.14	54	PASS
102	5469.20	PK	55.84	-26.64	32.20	61.40	68.23	PASS
102	5470.00	AV	44.96	-26.64	32.20	50.52	54	PASS
142	5739.52	PK	52.42	-26.64	32.20	57.98	68.23	PASS
142	5727.64	AV	41.54	-26.64	32.20	47.10	54	PASS
151	5721.67	PK	57.01	-26.23	32.20	62.98	122.23	PASS
151	5725.00	AV	44.55	-26.23	32.20	50.52	54	PASS
159	5853.22	PK	52.79	-26.23	32.20	58.76	118.49	PASS
159	5850.00	AV	41.32	-26.23	32.20	47.29	54	PASS

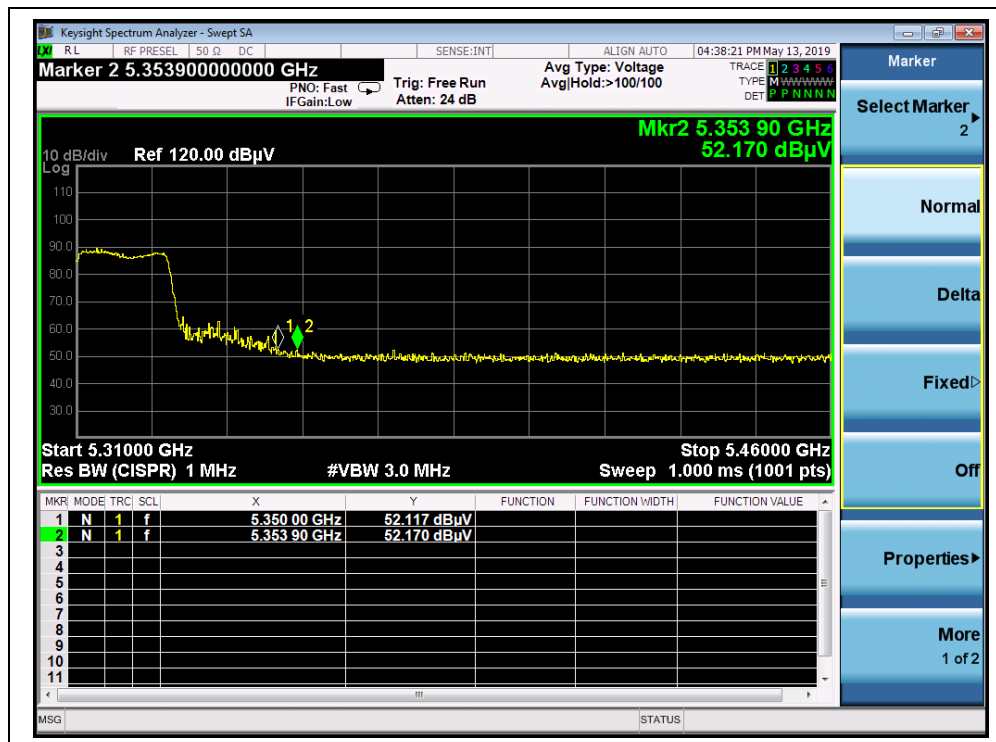
## B. Test Plots:



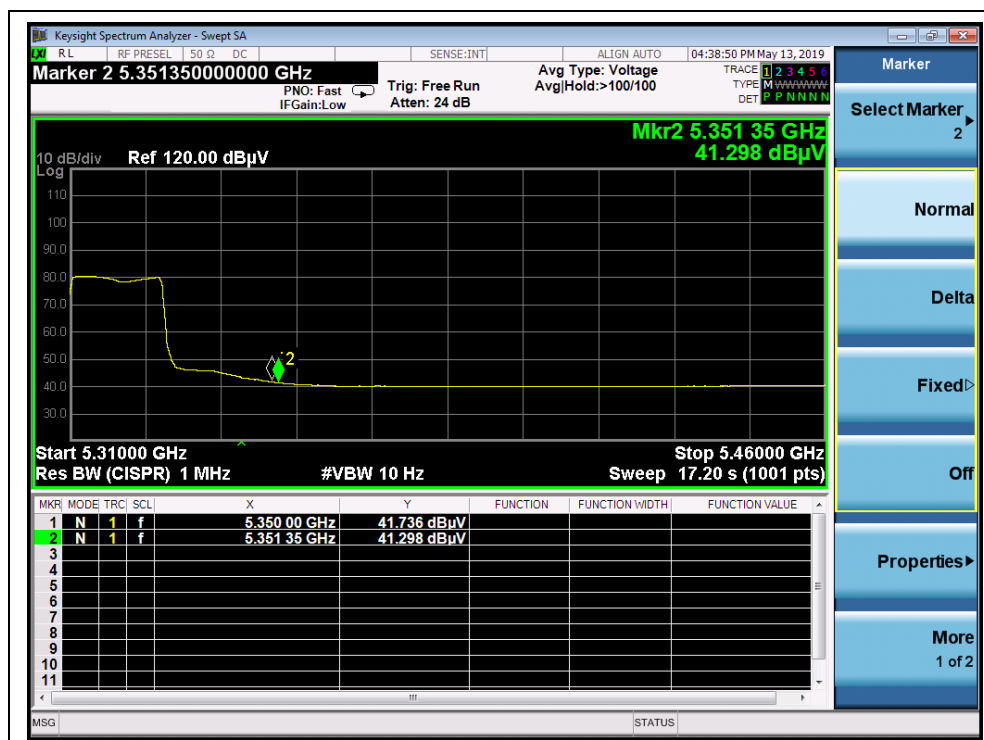
(Channel 38, PEAK, 802.11n (HT40))



(Channel 38, AVG, 802.11n (HT40))

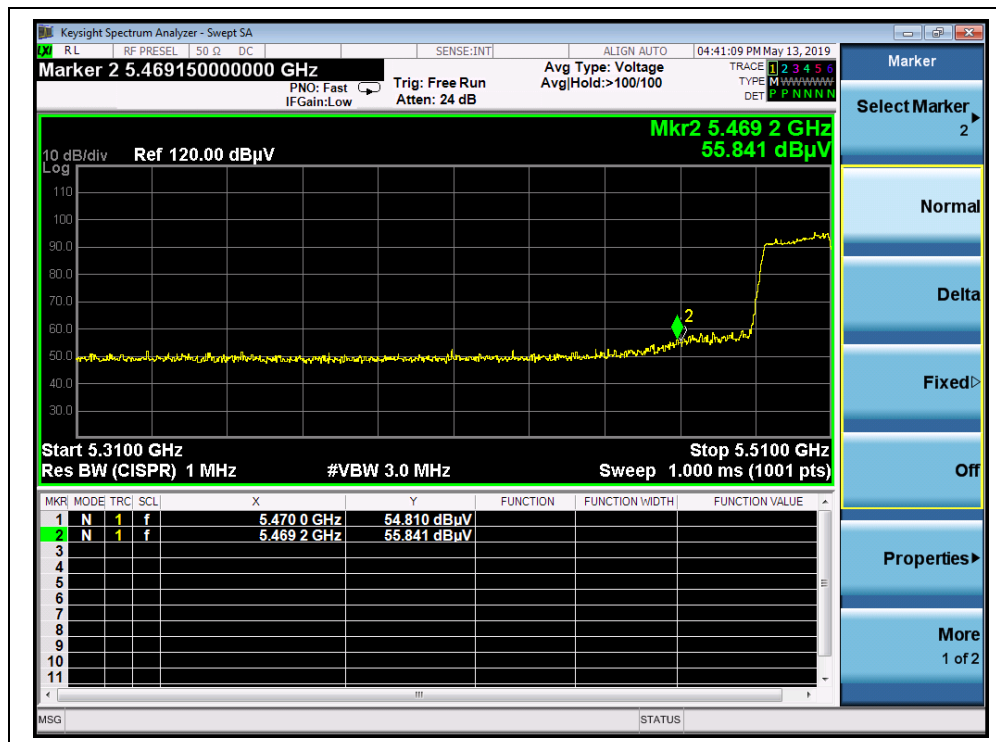


(Channel 62, PEAK, 802.11n (HT40))

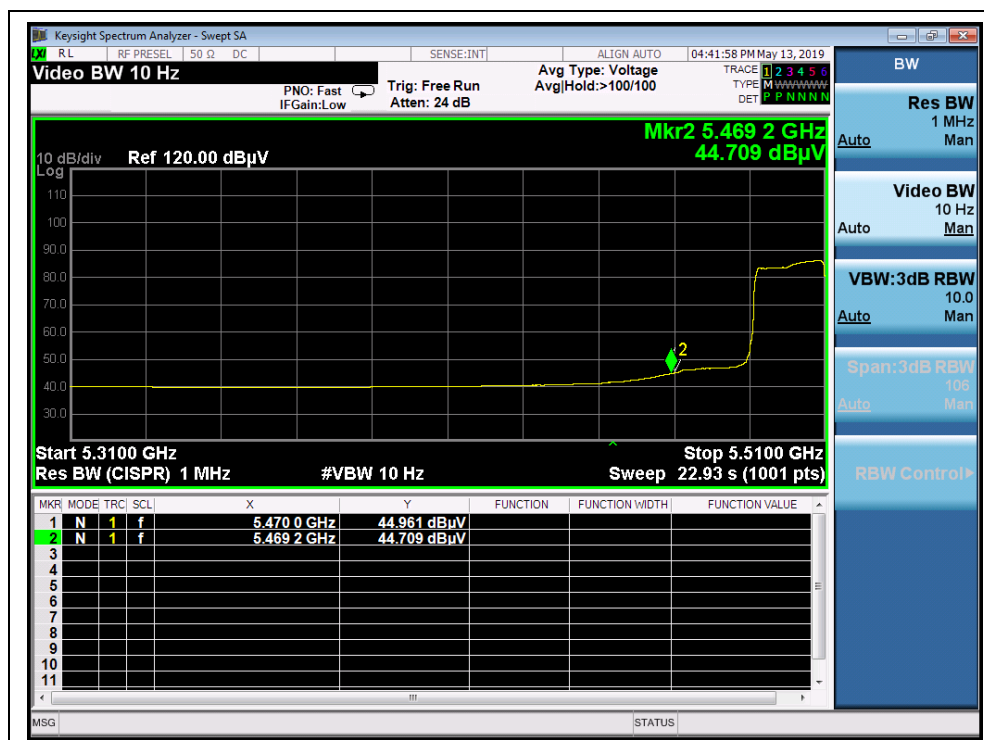


(Channel 62, AVG, 802.11n (HT40))

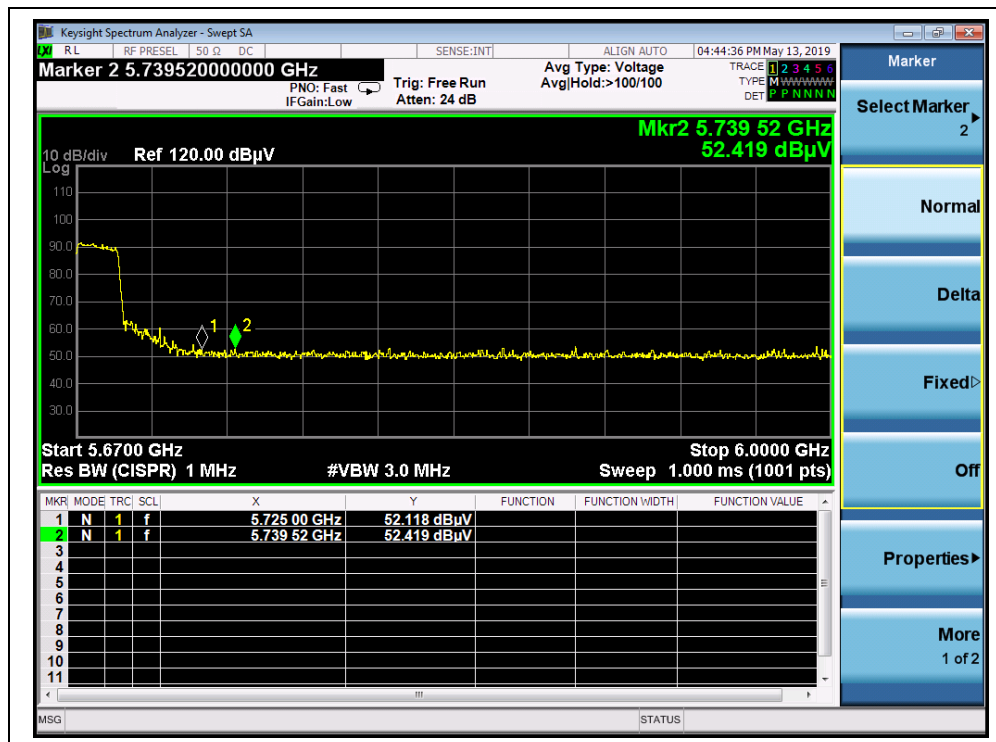




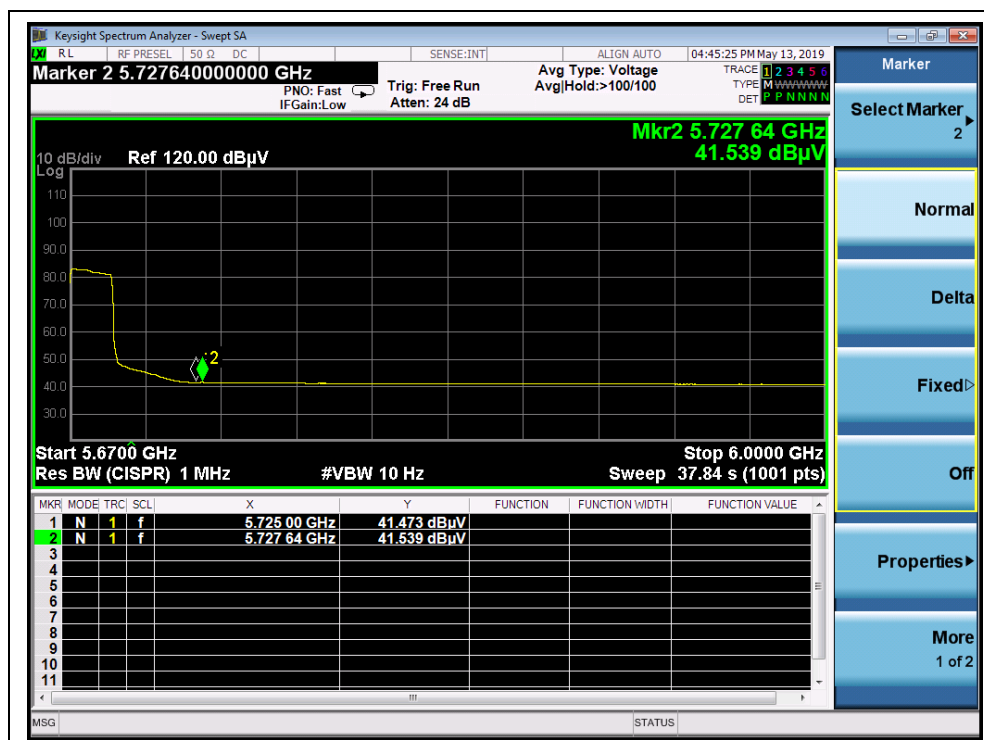
(Channel 102, PEAK, 802.11n (HT40))



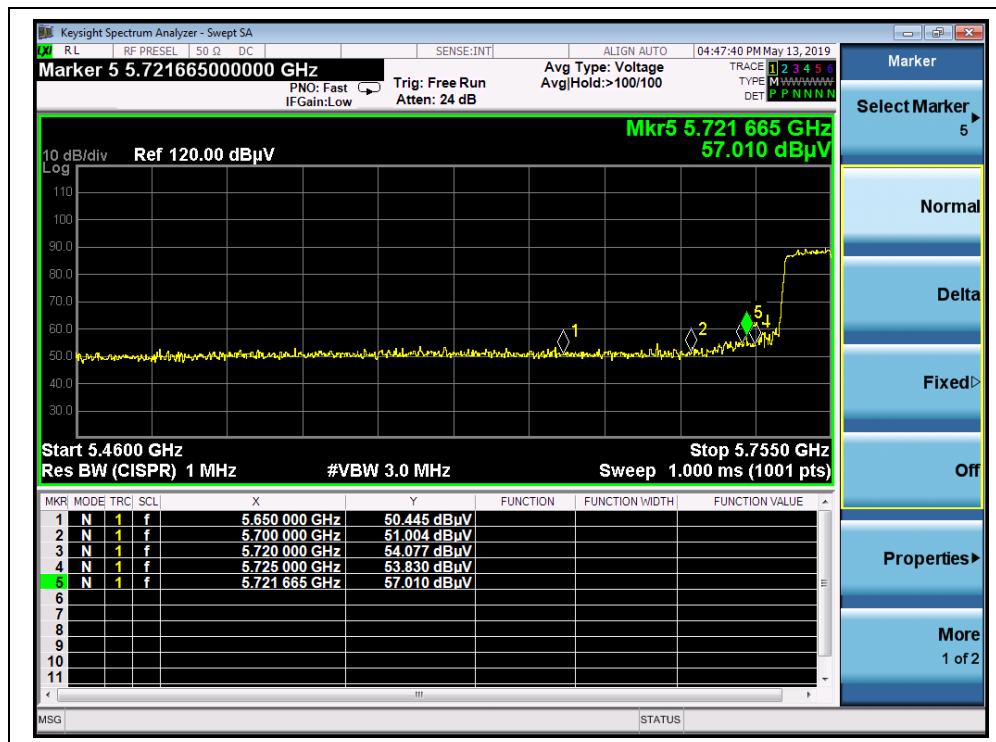
(Channel 102, AVG, 802.11n (HT40))



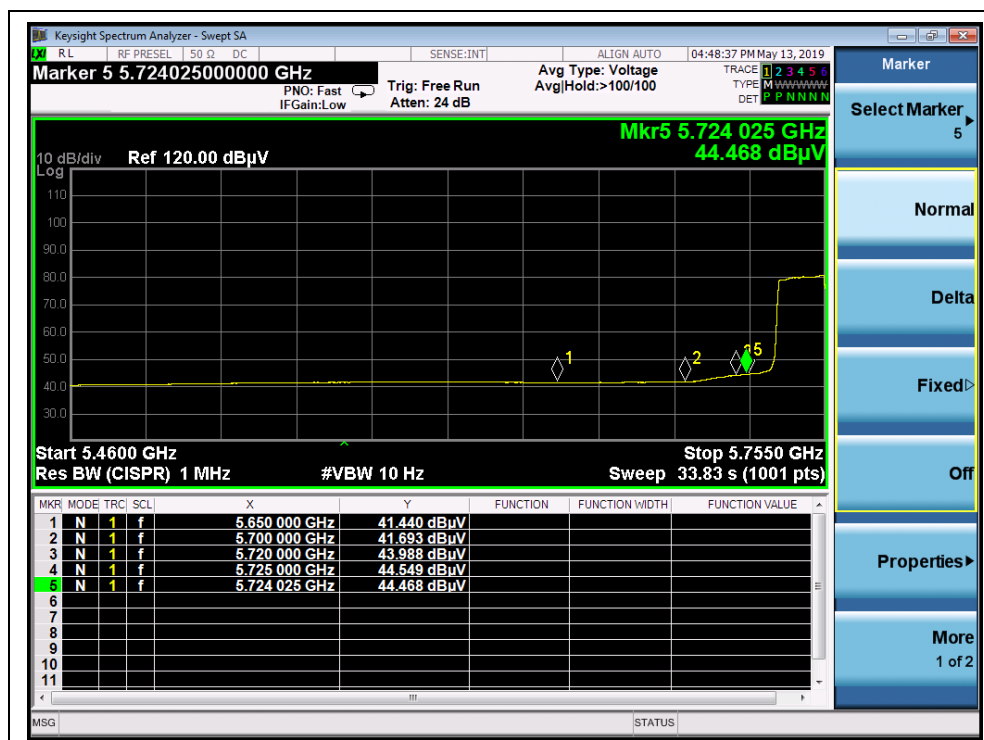
(Channel 142, PEAK, 802.11n (HT40))



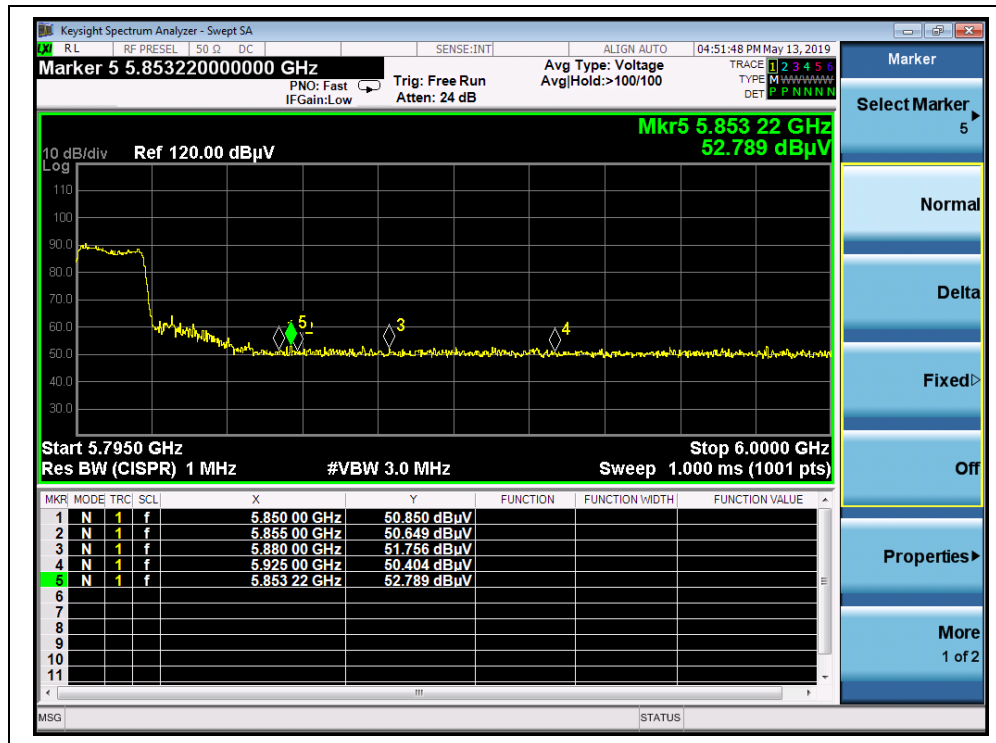
(Channel 142, AVG, 802.11n (HT40))



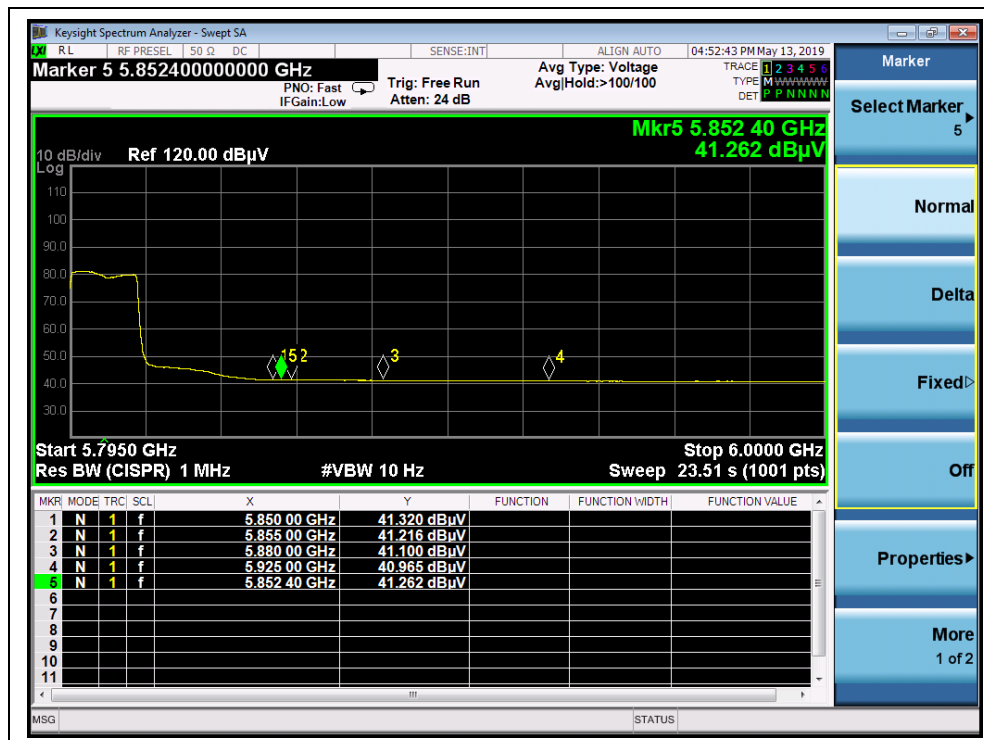
(Channel 151, PEAK, 802.11n (HT40))



(Channel 151, AVG, 802.11n (HT40))



(Channel 159, PEAK, 802.11n (HT40))



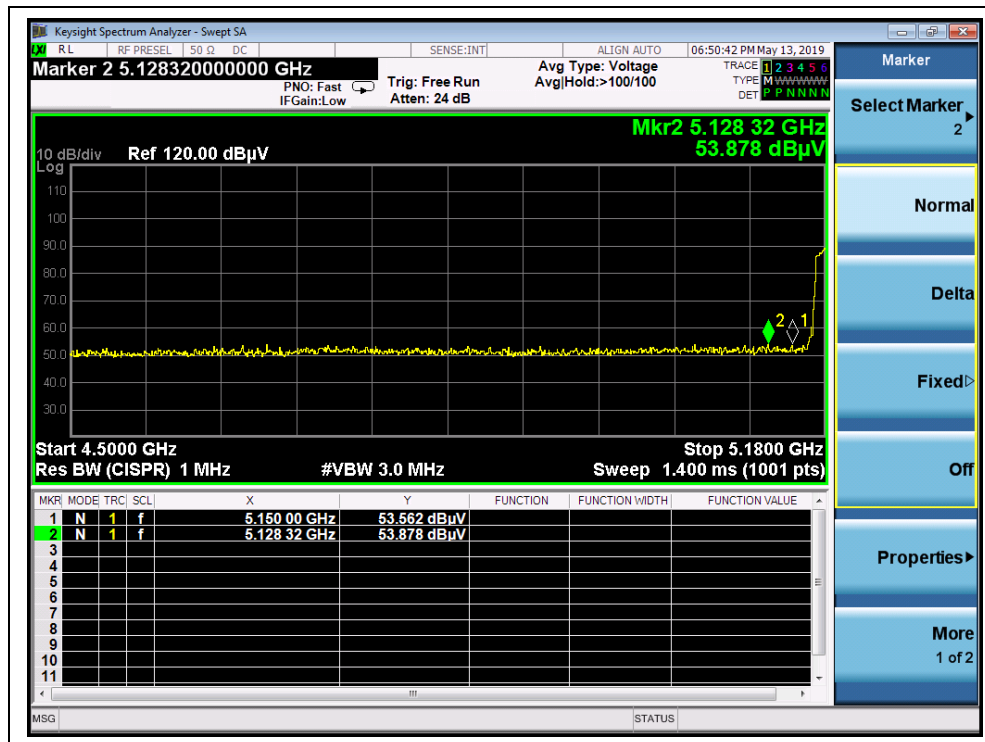
(Channel 159, AVG, 802.11n (HT40))

**802.11ac (VHT20) Test mode****A. Test Verdict:**

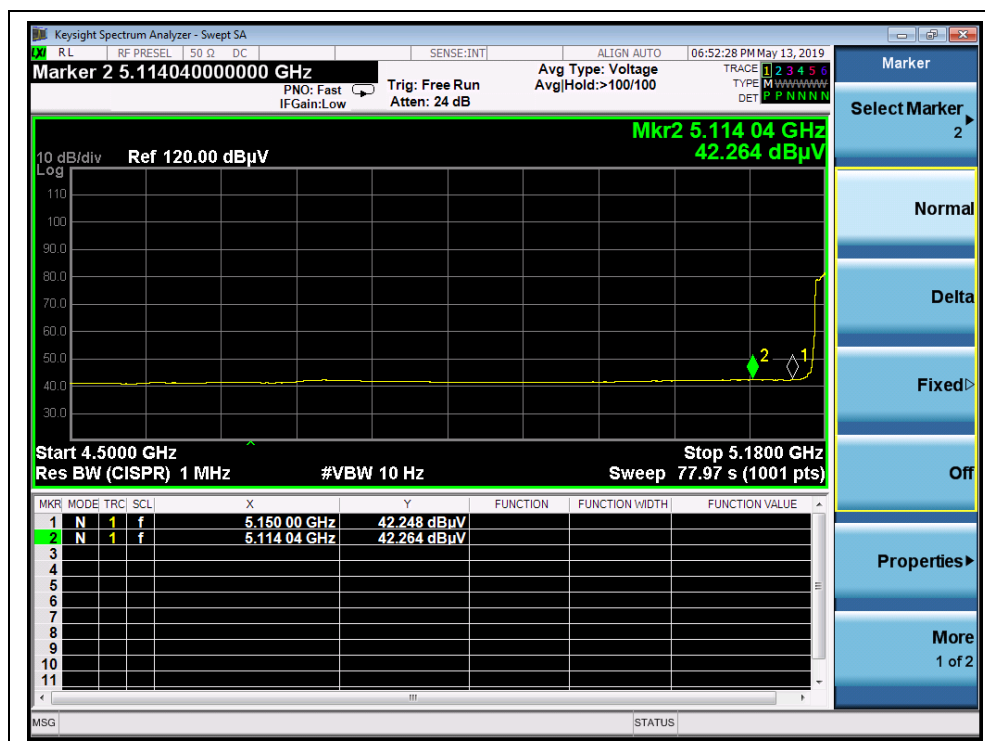
Channel	Frequency (MHz)	Detector	Receiver Reading $U_R$ (dBuV)	$A_T$ (dB)	$A_{Factor}$ (dB@3m)	Max. Emission E (dBuV/m)	Limit (dBuV/m)	Verdict
		PK/ AV						
36	5128.32	PK	53.88	-26.92	32.20	59.16	74	PASS
36	5114.04	AV	42.26	-26.92	32.20	47.54	54	PASS
64	5351.26	PK	50.92	-26.80	32.20	56.32	74	PASS
64	5350.00	AV	40.27	-26.80	32.20	45.67	54	PASS
100	5445.80	PK	51.98	-26.64	32.20	57.54	74	PASS
100	5470.00	AV	40.92	-26.64	32.20	46.48	54	PASS
144	5755.90	PK	52.44	-26.64	32.20	58.00	68.23	PASS
144	5726.80	AV	41.53	-26.64	32.20	47.09	54	PASS
149	5723.63	PK	56.13	-26.23	32.20	62.10	119.11	PASS
149	5725.00	AV	42.58	-26.23	32.20	48.55	54	PASS
165	5851.75	PK	51.63	-26.23	32.20	57.60	118.24	PASS
165	5850.00	AV	41.78	-26.23	32.20	47.75	54	PASS



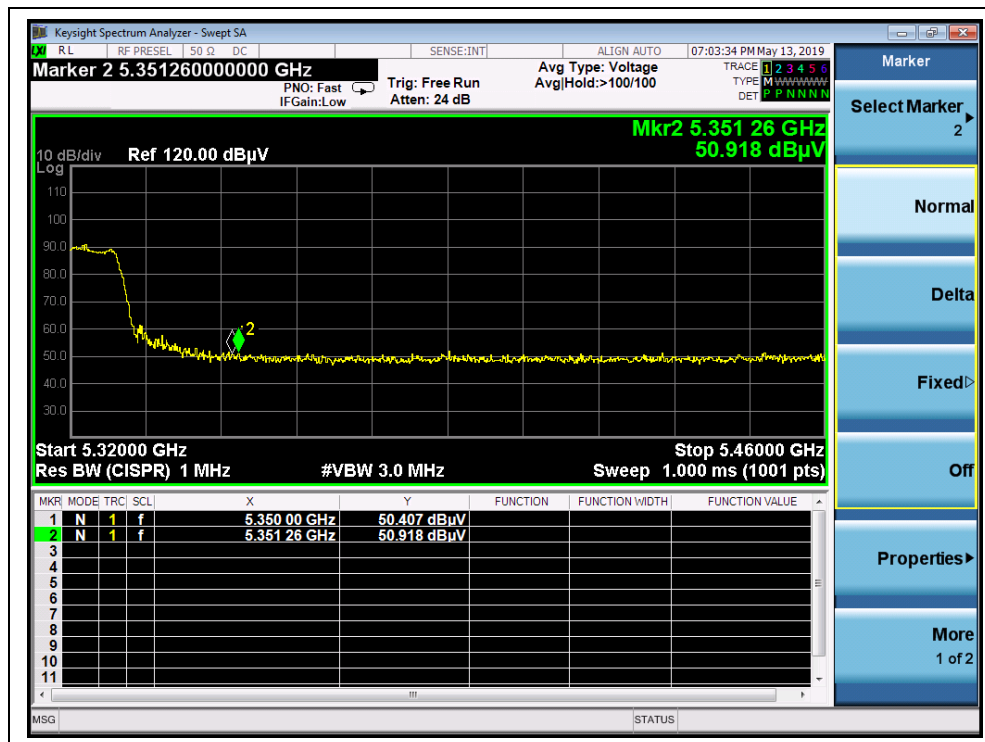
## B. Test Plots:



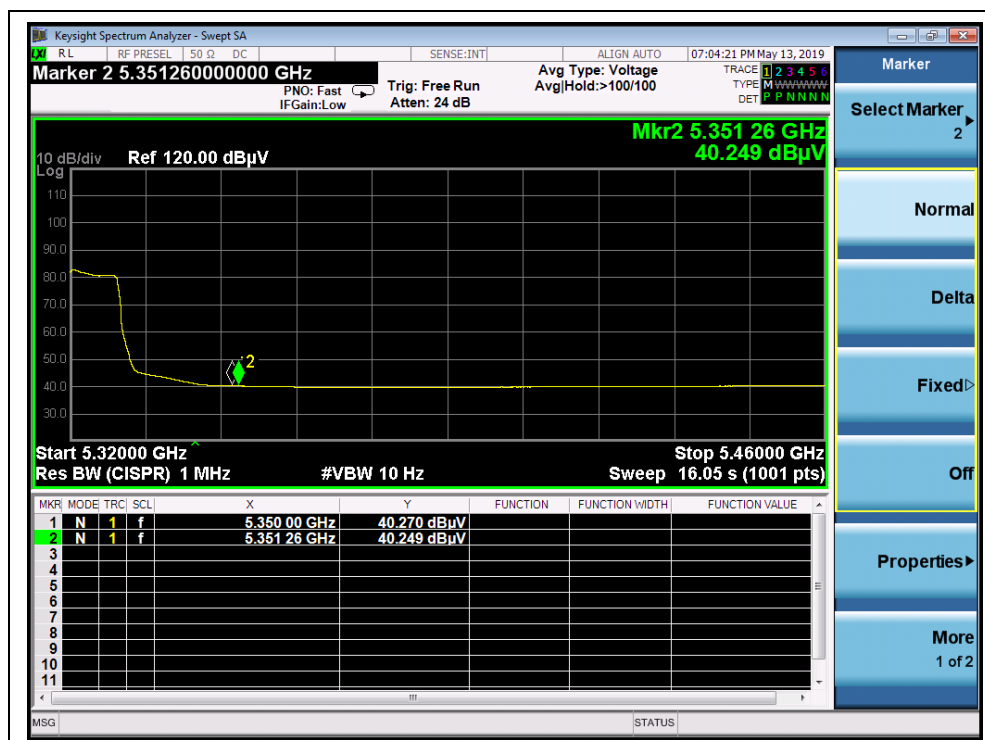
(Channel 36, PEAK, 802.11 ac (VHT20))



(Channel 36, AVG, 802.11 ac (VHT20))

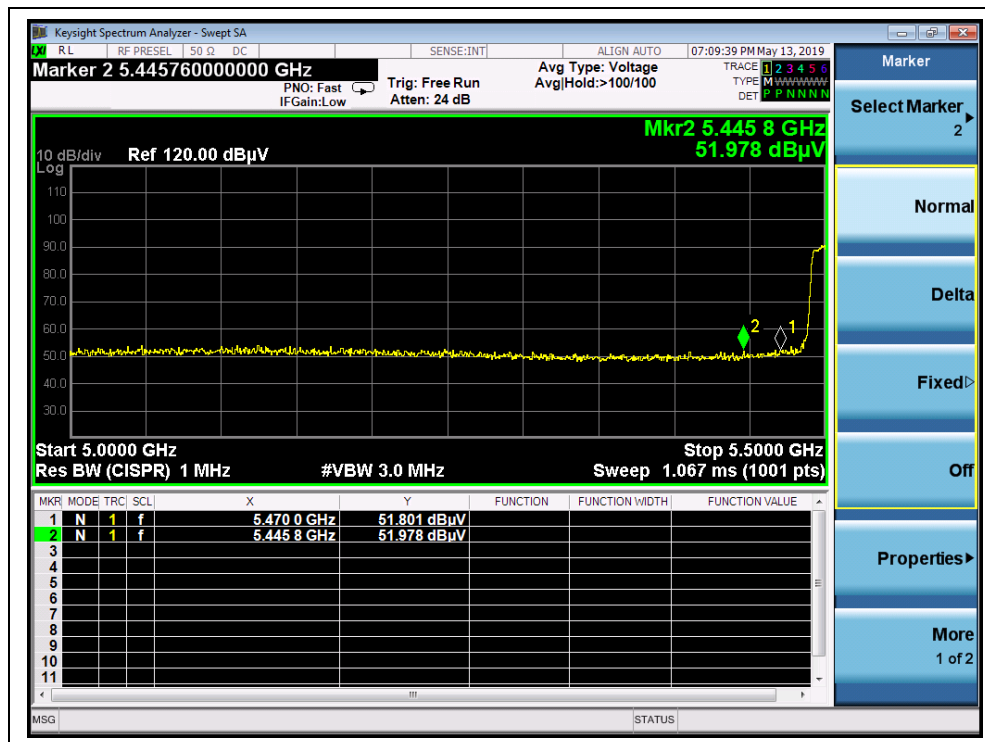


(Channel 64, PEAK, 802.11 ac (VHT20))

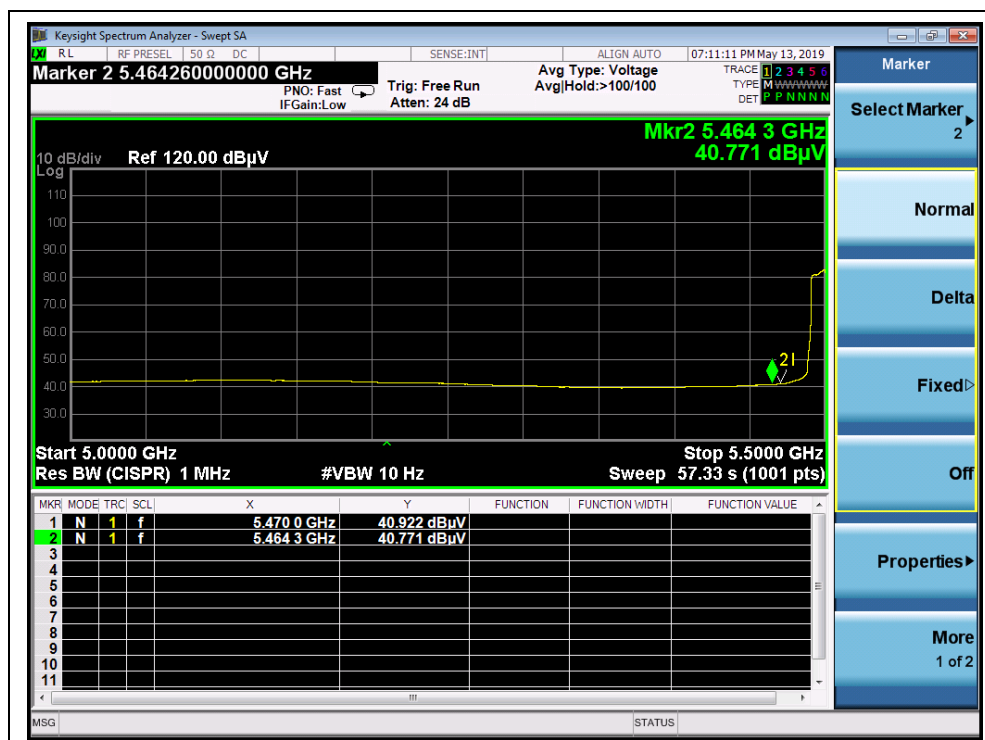


(Channel 64, AVG, 802.11 ac (VHT20))

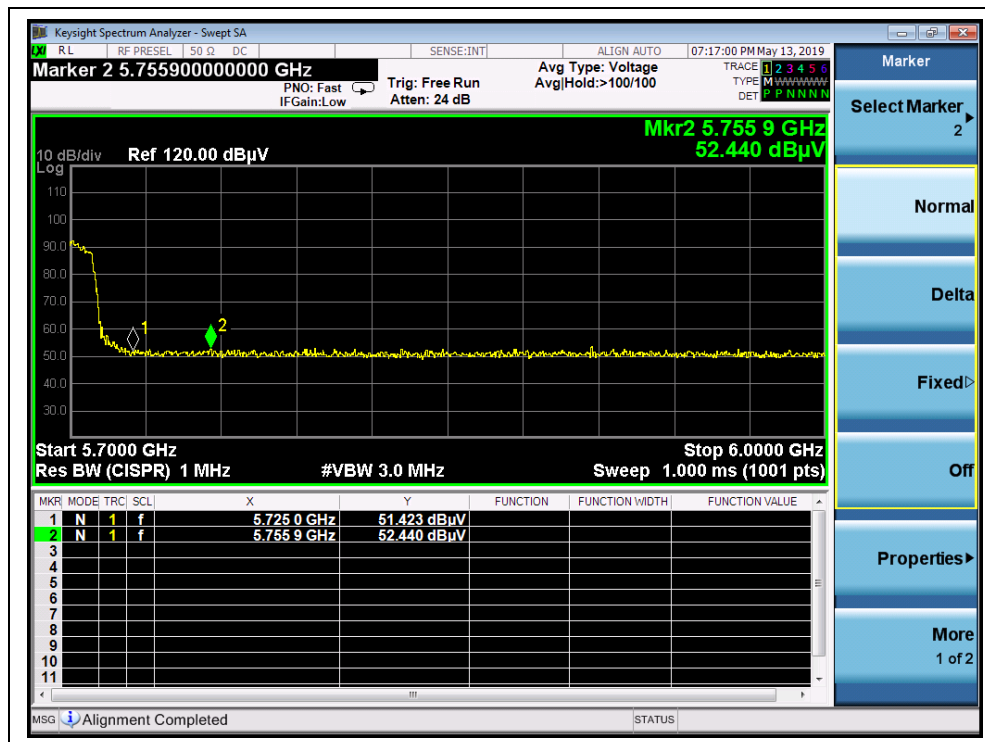




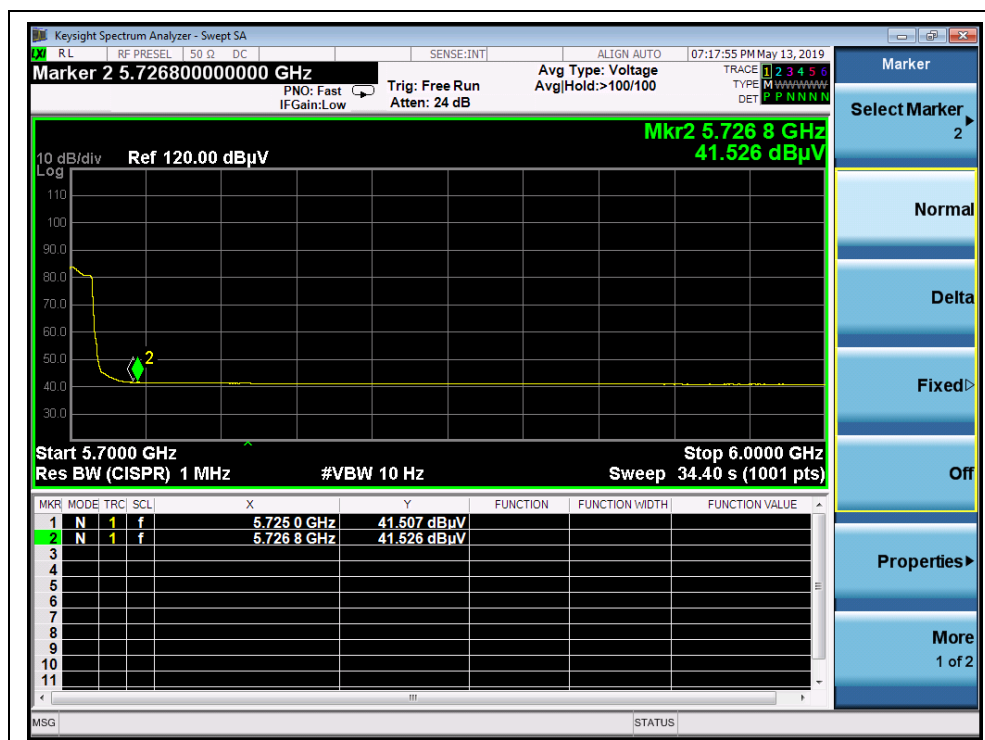
(Channel 100, PEAK, 802.11 ac (VHT20))



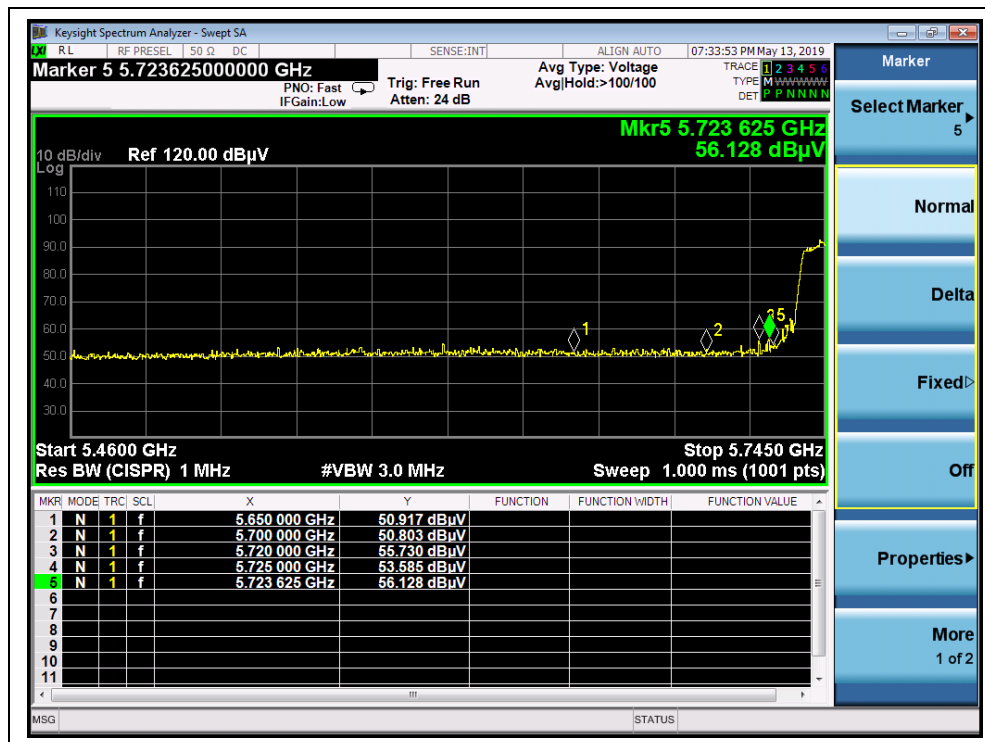
(Channel 100, AVG, 802.11 ac (VHT20))



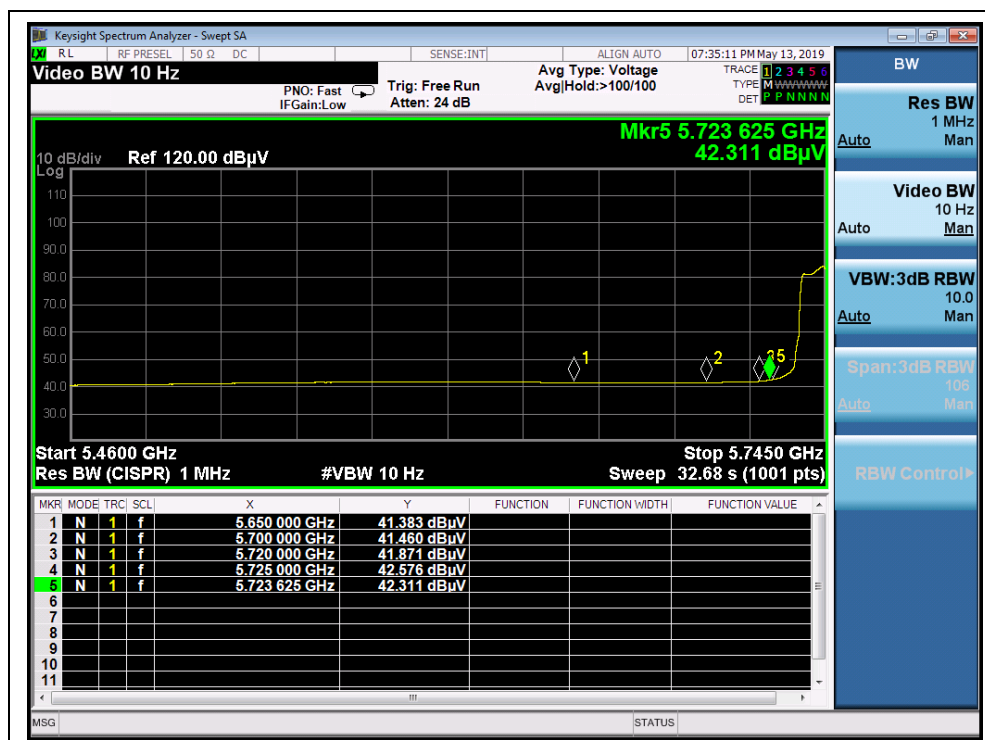
(Channel 144, PEAK, 802.11 ac (VHT20))



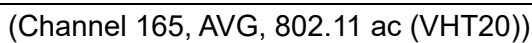
(Channel 144, AVG, 802.11 ac (VHT20))



(Channel 149, PEAK, 802.11 ac (VHT20))



(Channel 149, AVG, 802.11 ac (VHT20))

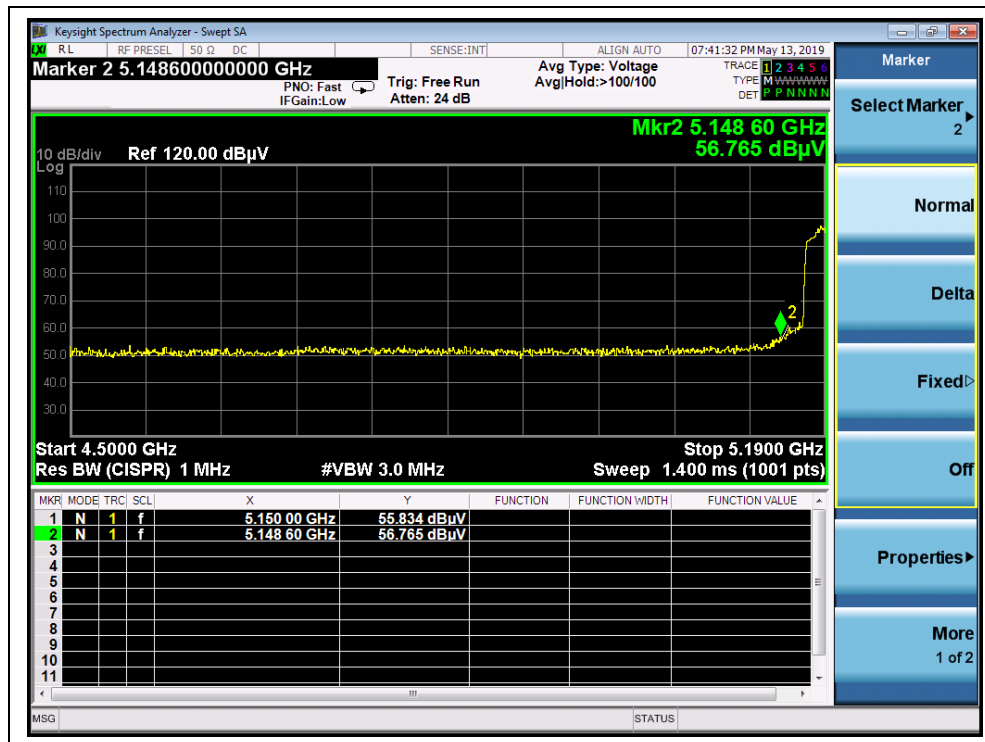


**802.11ac (VHT40) Test mode****A. Test Verdict:**

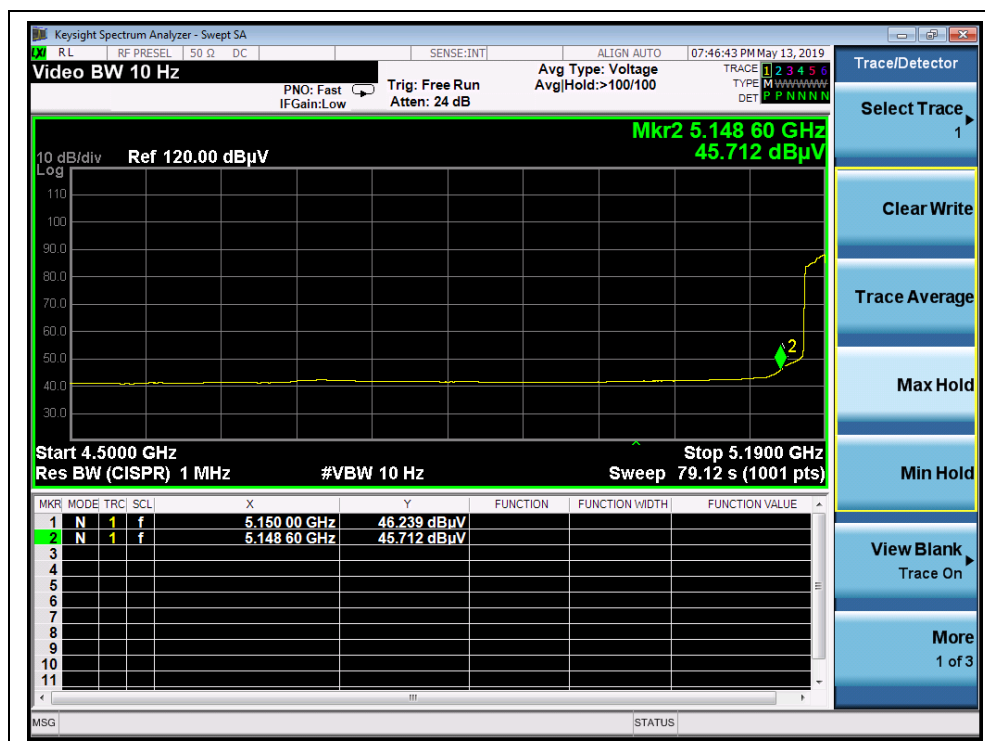
Channel	Frequency (MHz)	Detector	Receiver Reading $U_R$ (dBuV)	$A_T$ (dB)	$A_{Factor}$ (dB@3m)	Max. Emission E (dBμV/m)	Limit (dBμV/m)	Verdict
		PK/ AV						
38	5148.60	PK	56.77	-26.92	32.20	62.05	74	PASS
38	5150.00	AV	46.24	-26.92	32.20	51.52	54	PASS
62	5351.95	PK	54.43	-26.80	32.20	59.83	74	PASS
62	5350.00	AV	42.91	-26.80	32.20	48.31	54	PASS
102	5467.33	PK	54.86	-26.64	32.20	60.42	68.23	PASS
102	5470.00	AV	43.83	-26.64	32.20	49.39	54	PASS
142	5751.07	PK	53.50	-26.64	32.20	59.06	68.23	PASS
142	5726.98	AV	41.44	-26.64	32.20	47.00	54	PASS
151	5725.00	PK	56.79	-26.23	32.20	62.76	122.23	PASS
151	5725.00	AV	44.10	-26.23	32.20	50.07	54	PASS
159	5880.00	PK	52.21	-26.23	32.20	58.18	118.49	PASS
159	5851.85	AV	41.36	-26.23	32.20	47.33	54	PASS



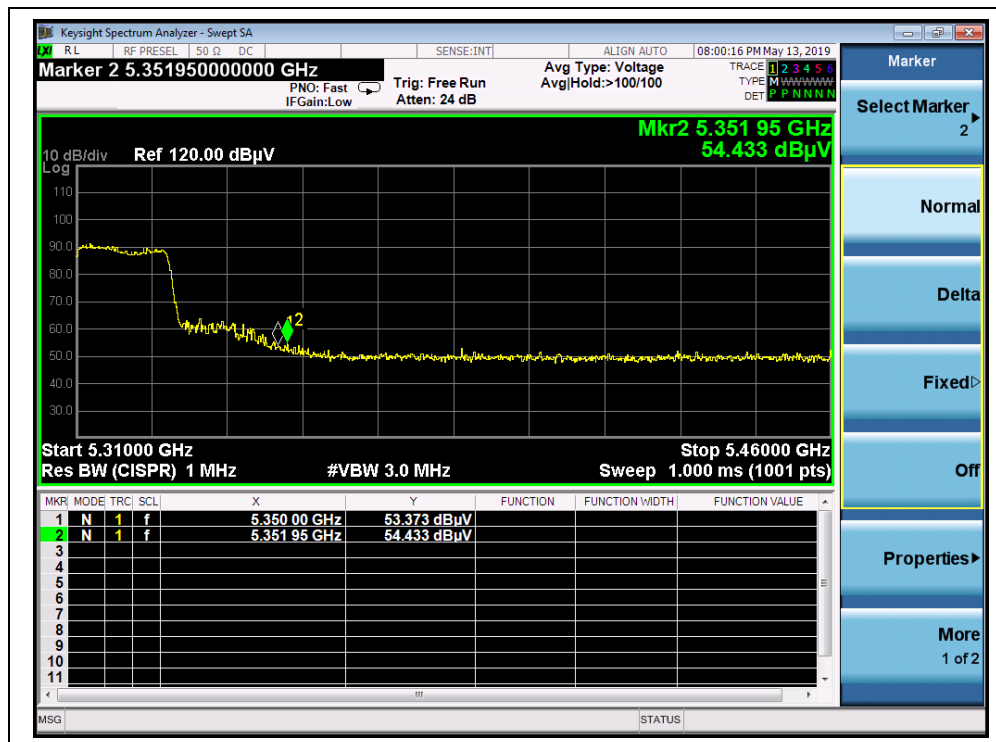
## B. Test Plots:



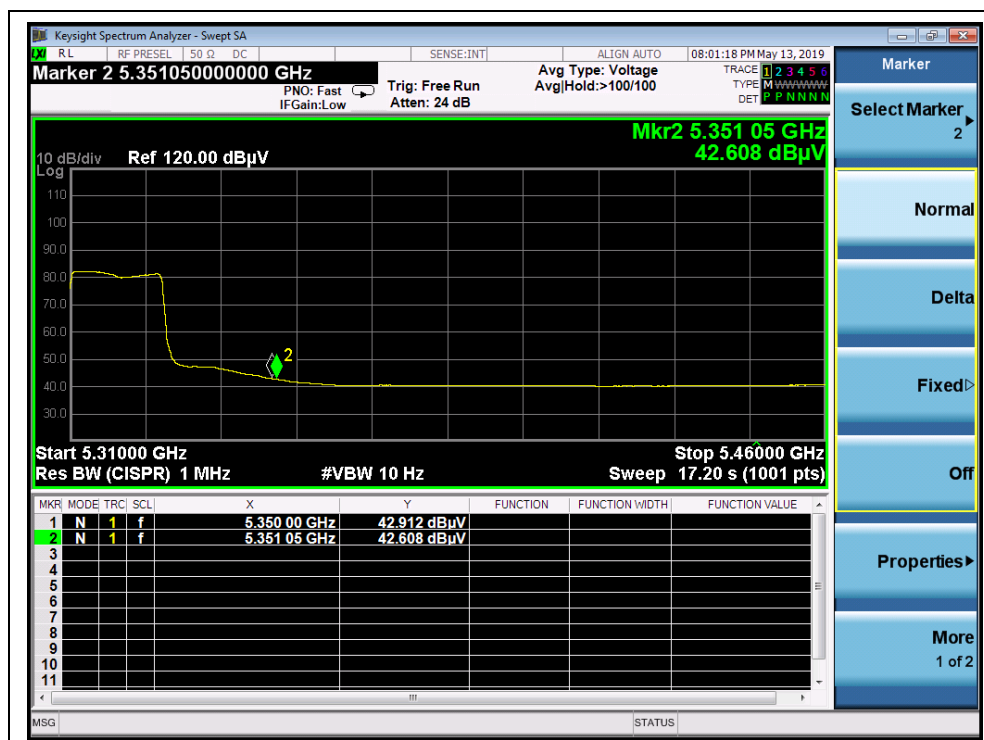
(Channel 38, PEAK, 802.11ac (VHT40))



(Channel 38, AVG, 802.11ac (VHT40))

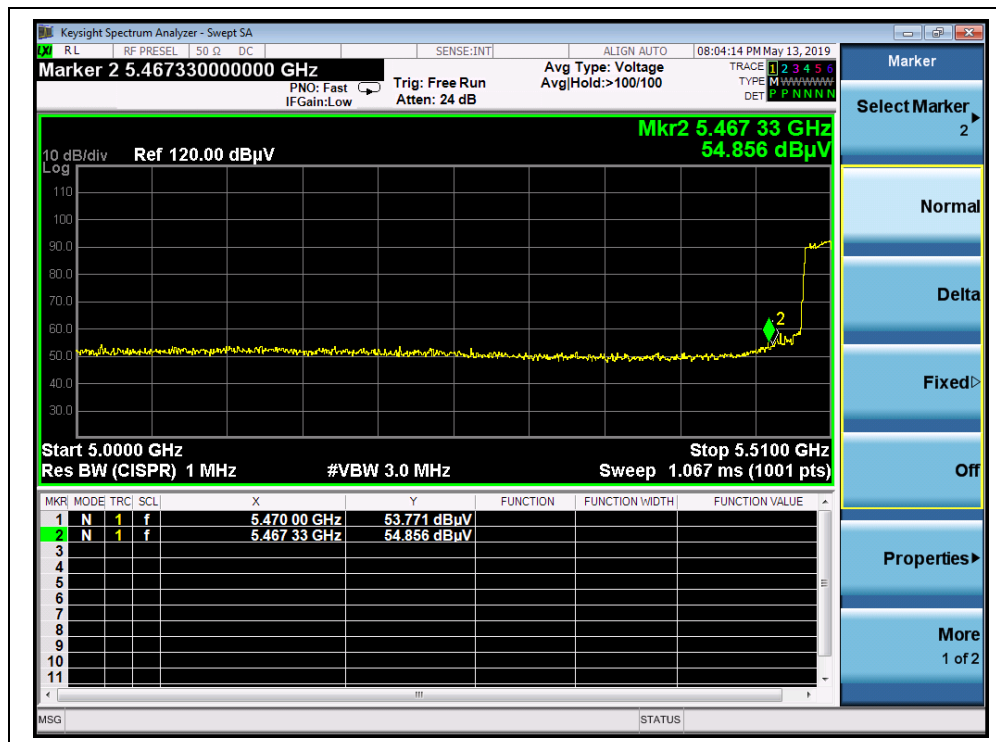


(Channel 62, PEAK, 802.11ac (VHT40))

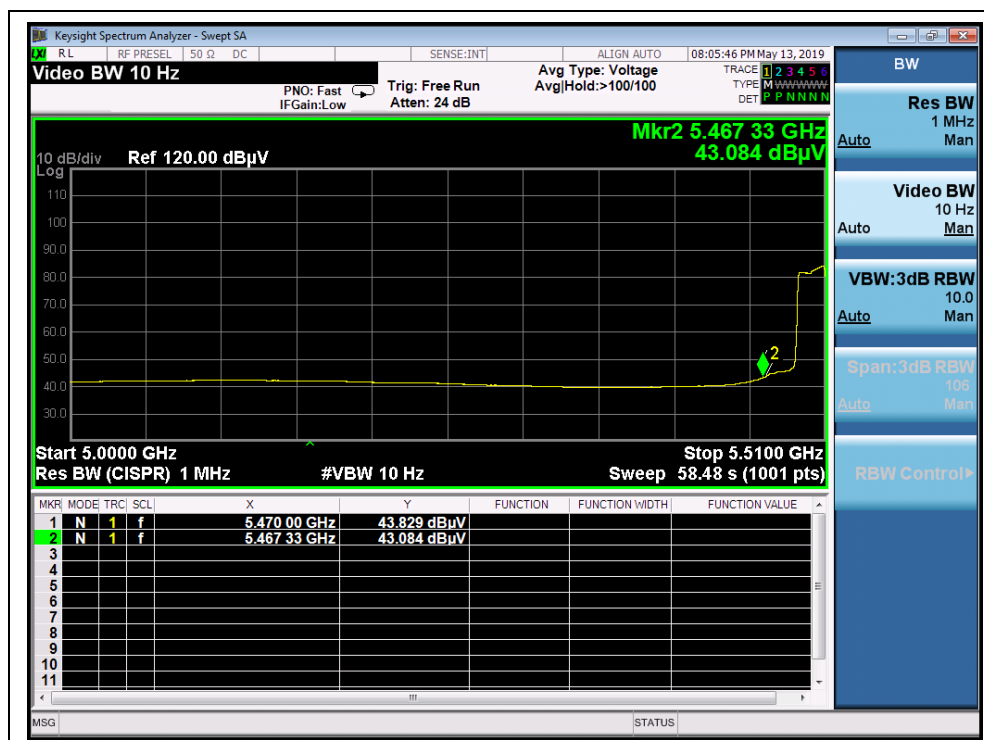


(Channel 62, AVG, 802.11ac (VHT40))

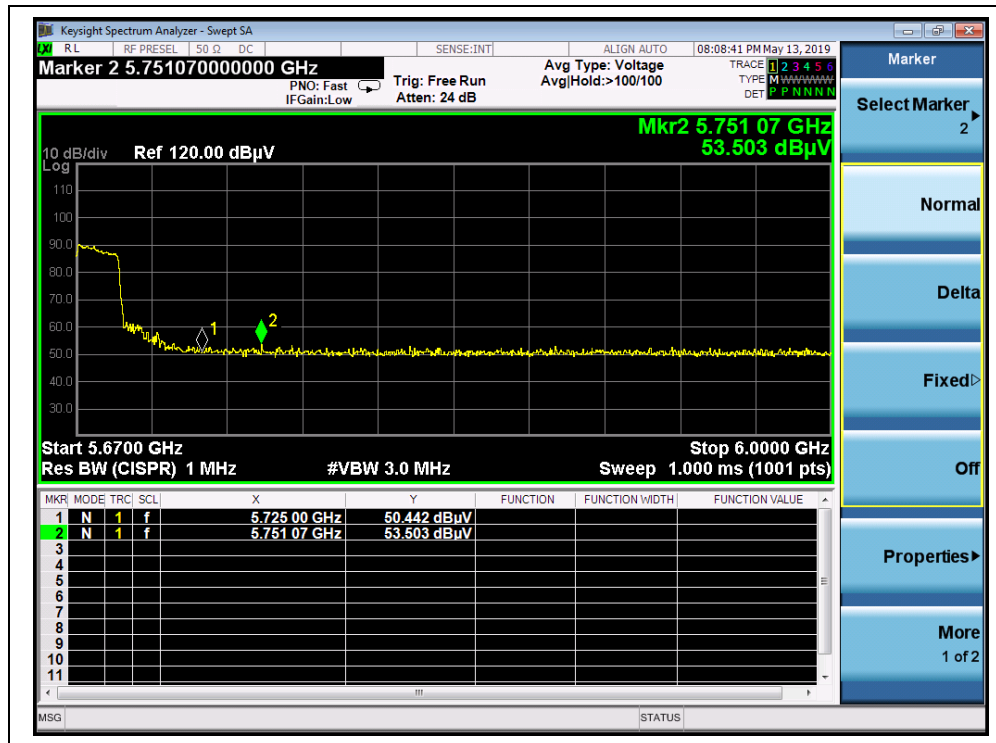




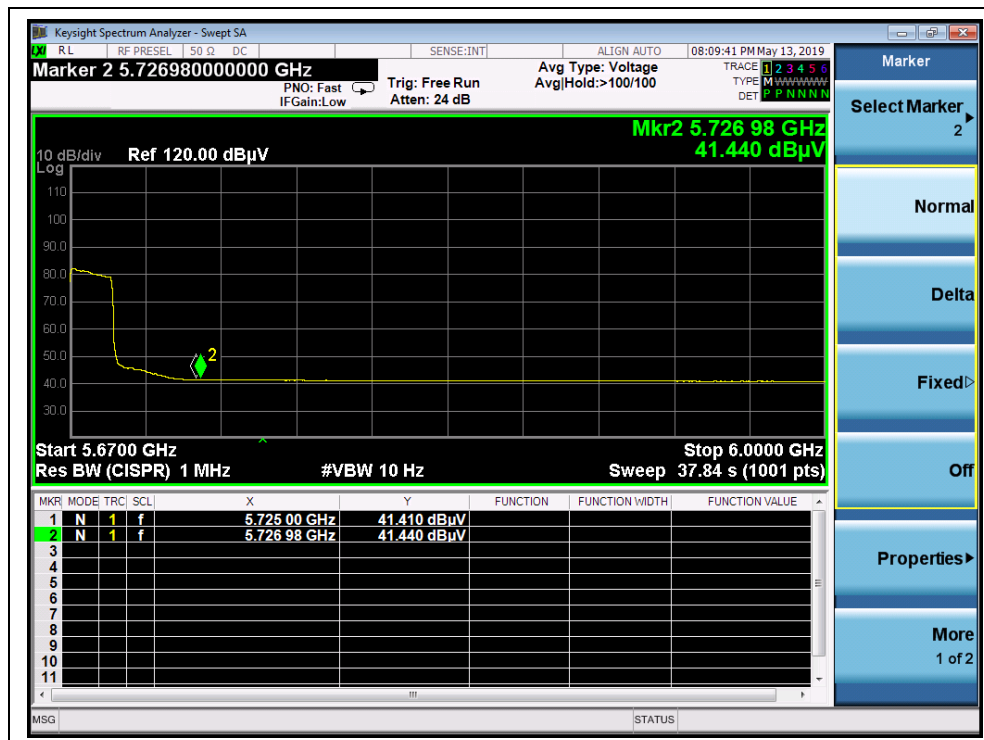
(Channel 102, PEAK, 802.11ac (VHT40))



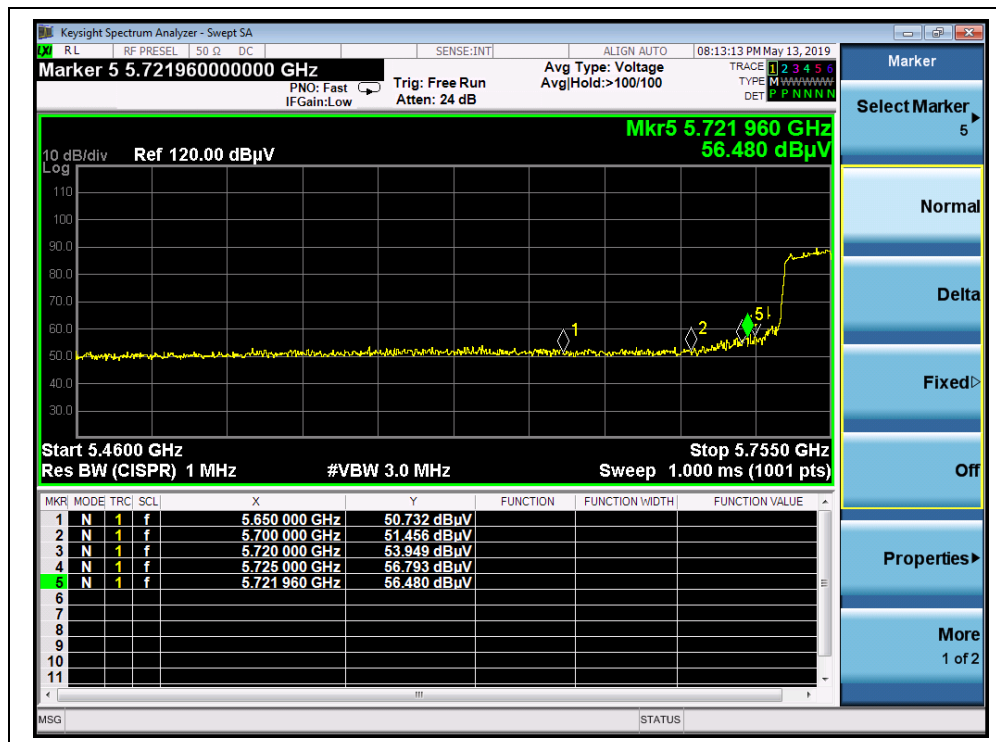
(Channel 102, AVG, 802.11ac (VHT40))



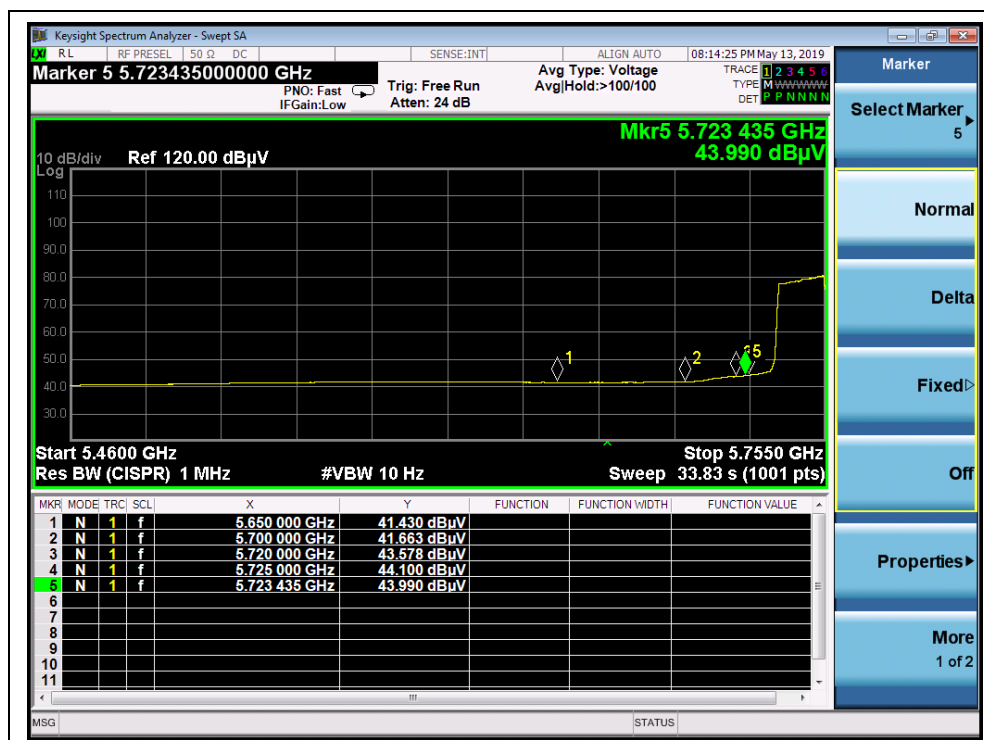
(Channel 142, PEAK, 802.11ac (VHT40))



(Channel 142, AVG, 802.11ac (VHT40))



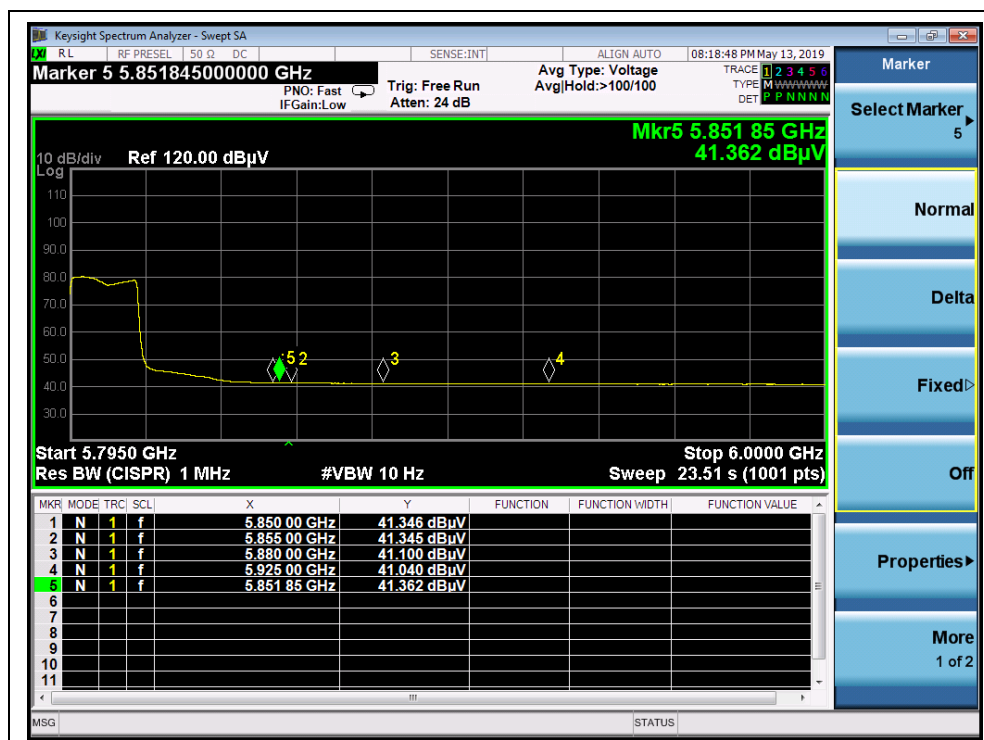
(Channel 151, PEAK, 802.11ac (VHT40))



(Channel 151, AVG, 802.11ac (VHT40))



(Channel 159, PEAK, 802.11ac (VHT40))



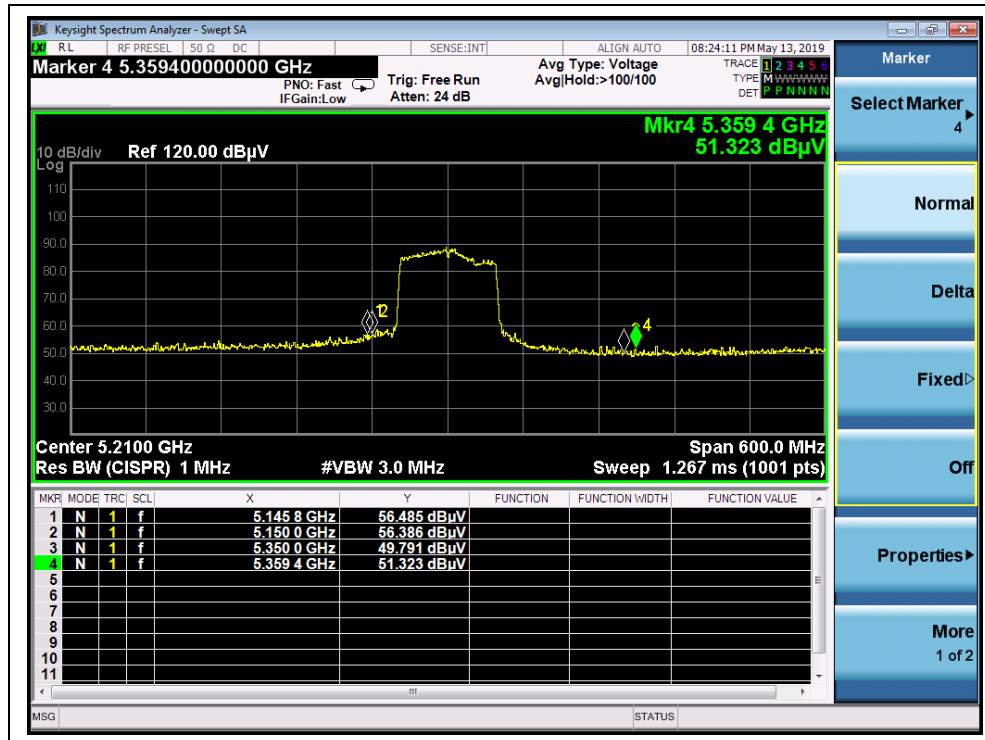
(Channel 159, AVG, 802.11ac (VHT40))

**802.11ac (VHT80) Test mode****A. Test Verdict:**

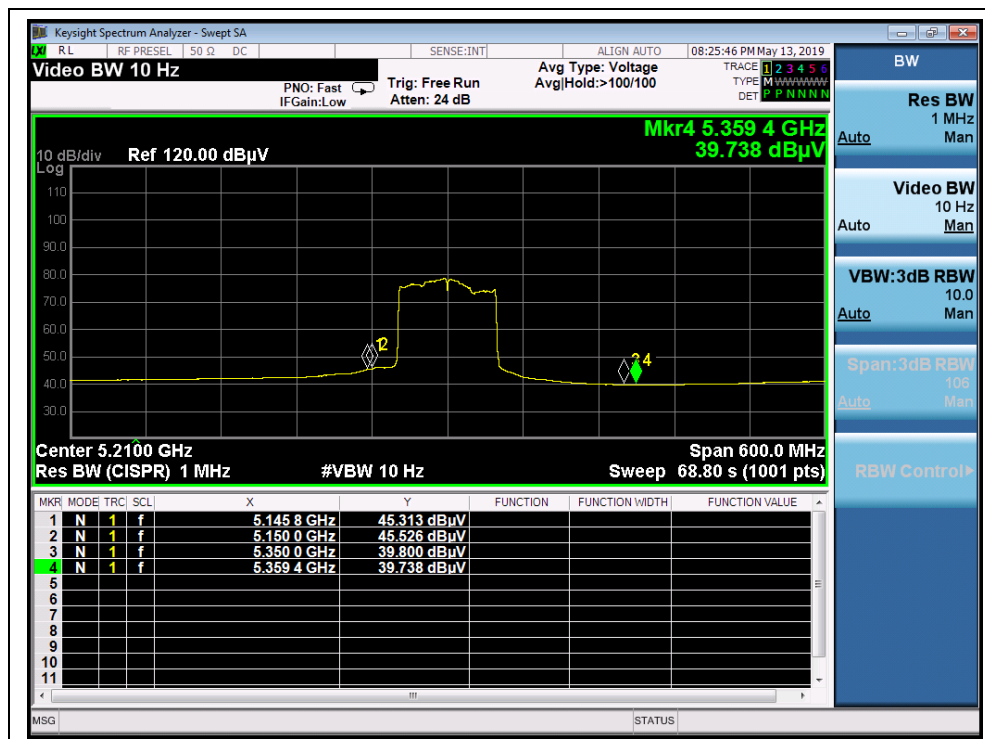
Channel	Frequency (MHz)	Detector	Receiver Reading $U_R$ (dBuV)	$A_T$ (dB)	$A_{Factor}$ (dB@3m)	Max. Emission E (dBuV/m)	Limit (dBuV/m)	Verdict
		PK/ AV						
42	5145.80	PK	56.49	-26.92	32.20	61.77	74	PASS
42	5150.00	AV	45.53	-26.92	32.20	50.81	54	PASS
58	5355.20	PK	53.49	-26.80	32.20	58.89	74	PASS
58	5350.00	AV	42.19	-26.80	32.20	47.59	54	PASS
106	5456.33	PK	57.84	-26.64	32.20	63.40	74	PASS
106	5470.00	AV	45.74	-26.64	32.20	51.30	54	PASS
138	579.04	PK	53.45	-26.64	32.20	59.01	68.23	PASS
138	5736.31	AV	41.45	-26.64	32.20	47.01	54	PASS
155	5721.77	PK	55.65	-26.23	32.20	61.62	114.86	PASS
155	5723.34	AV	44.45	-26.23	32.20	50.42	54	PASS
155	5850.00	PK	45.34	-26.23	32.20	51.31	122.23	PASS
155	5850.00	AV	36.26	-26.23	32.20	42.23	54	PASS



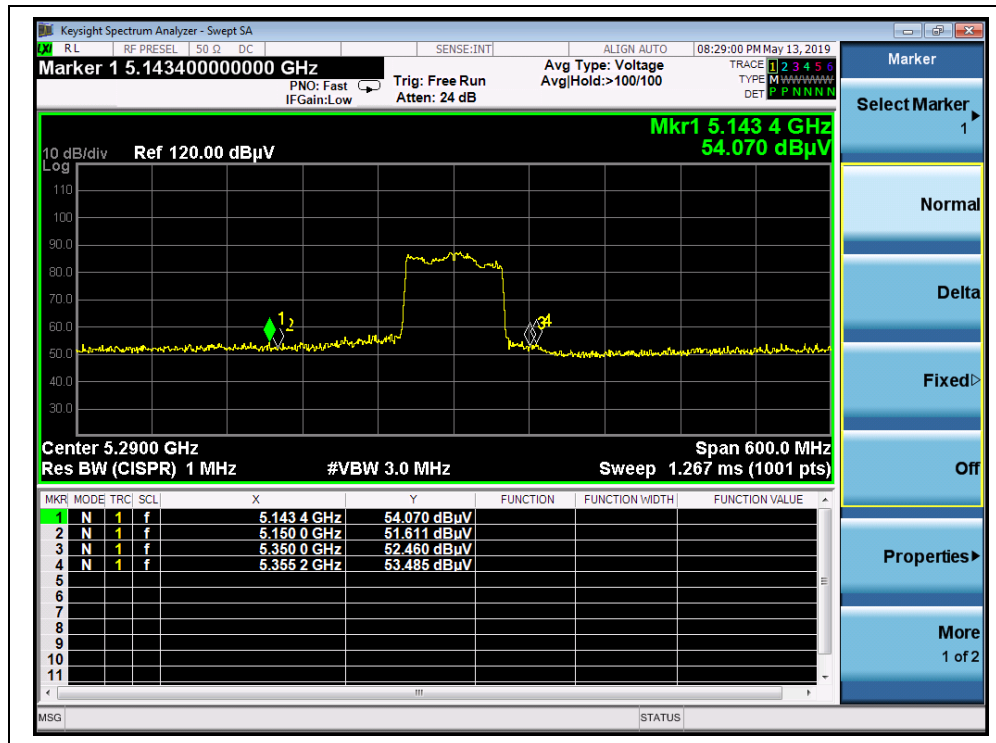
## B. Test Plots:



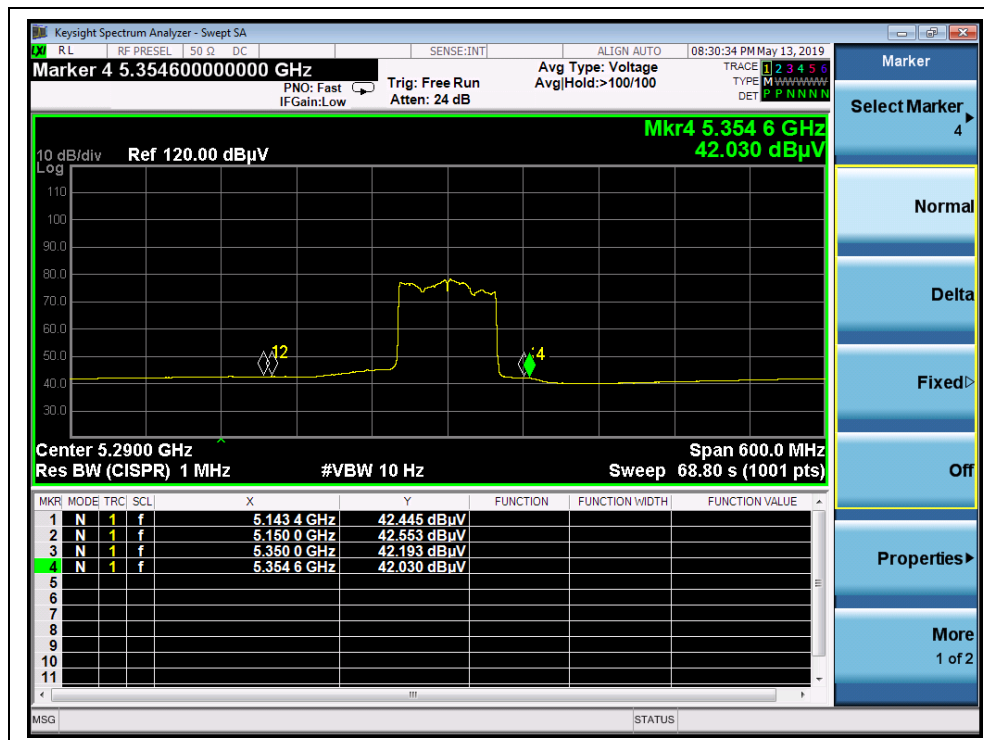
(Channel 42, PEAK, 802.11ac (VHT80))



(Channel 42, AVG, 802.11ac (VHT80))

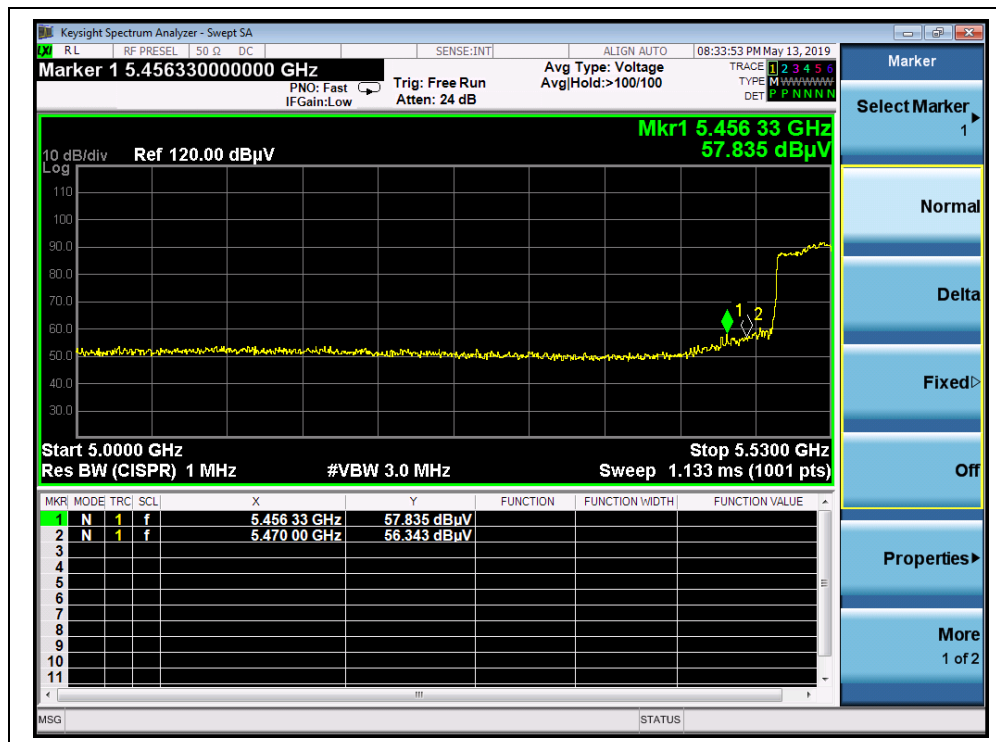


(Channel 58, PEAK, 802.11ac (VHT80))

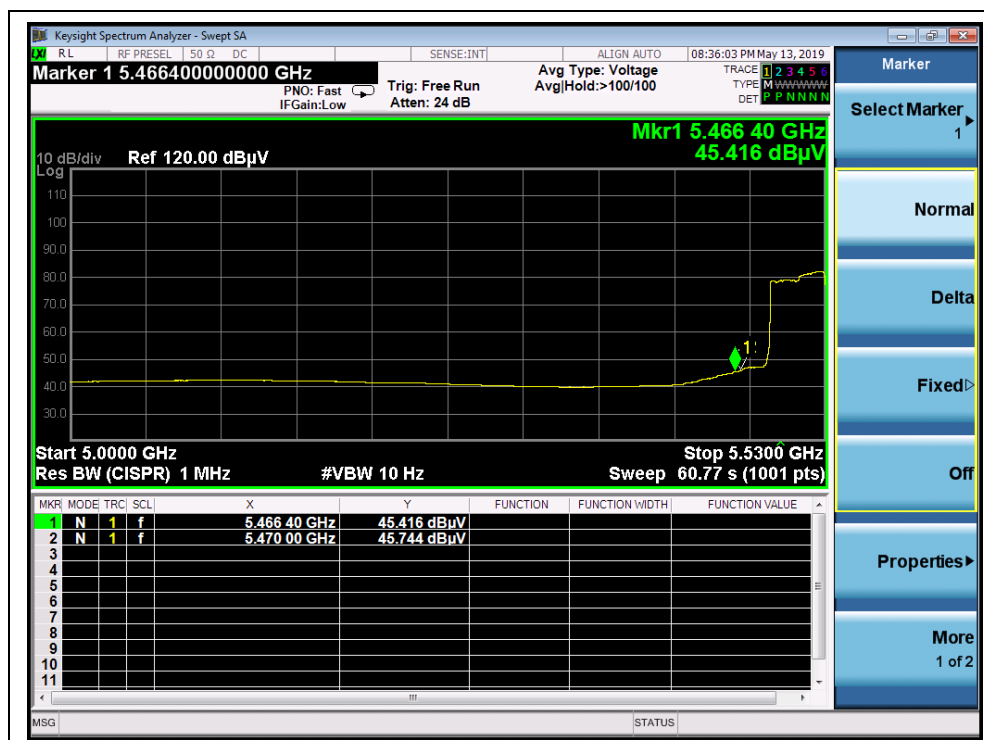


(Channel 58, AVG, 802.11ac (VHT80))

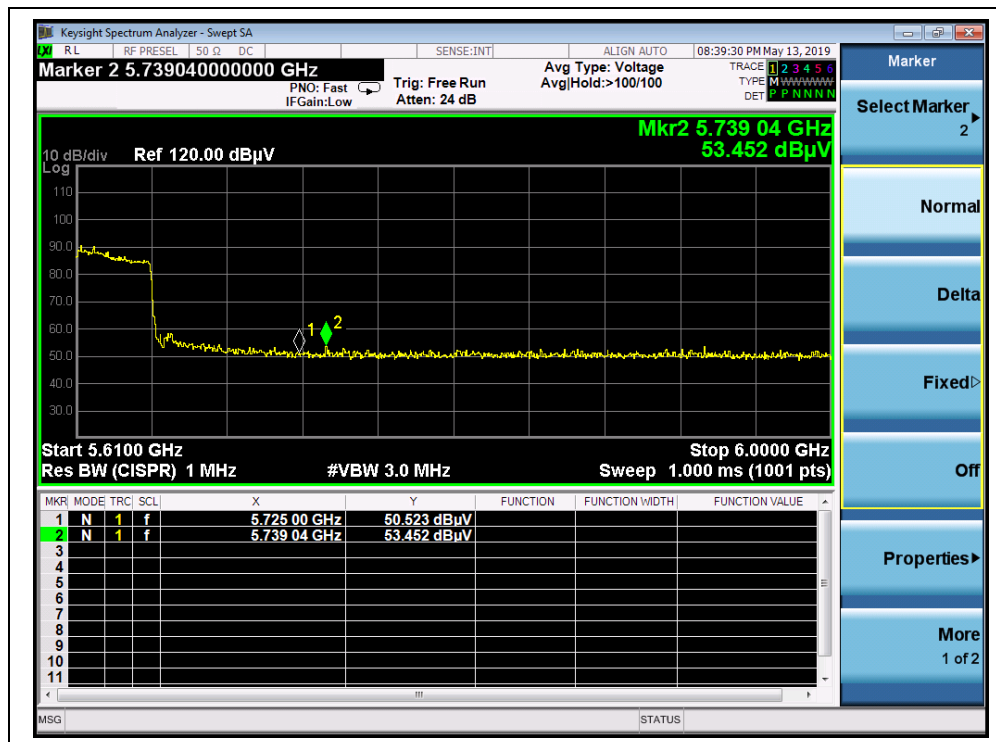




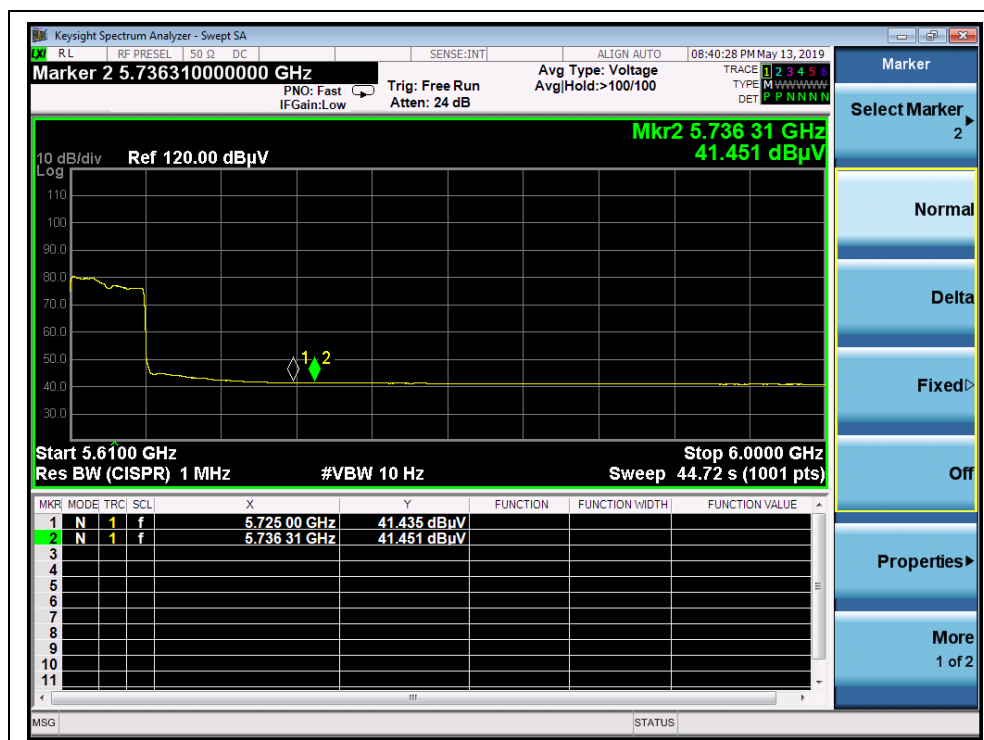
(Channel 106, PEAK, 802.11ac (VHT80))



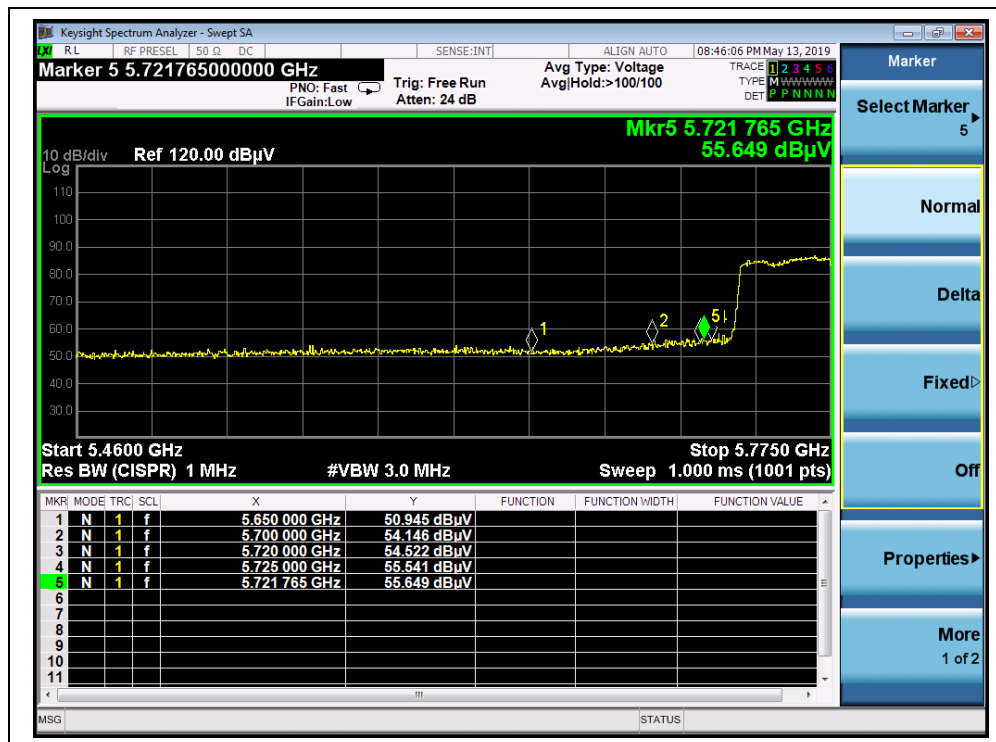
(Channel 106, AVG, 802.11ac (VHT80))



(Channel 138, PEAK, 802.11ac (VHT80))



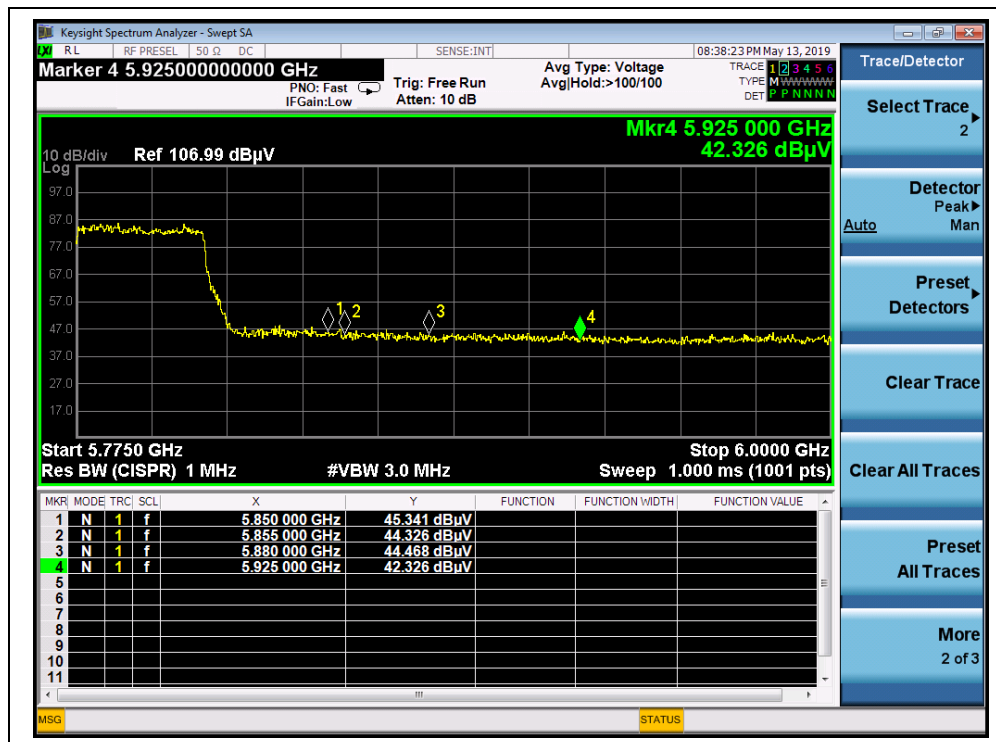
(Channel 138, AVG, 802.11ac (VHT80))



(Channel 155, PEAK, 802.11ac (VHT80))



(Channel 155, AVG, 802.11ac (VHT80))



(Channel 155, PEAK, 802.11ac (VHT80))



(Channel 155, AVG, 802.11ac (VHT80))

## 2.9. Radiated Emission

### 2.9.1. Requirement

The peak emissions outside of the frequency bands of operation shall be attenuated in accordance with the following limits:

- (1) For transmitters operating in the 5.15–5.25 GHz band: all emissions outside of the 5.15–5.35 GHz band shall not exceed an EIRP of -27dBm/MHz.
- (2) For transmitters operating in the 5.25–5.35 GHz band: all emissions outside of the 5.15–5.35 GHz band shall not exceed an EIRP of -27dBm/MHz.
- (3) For transmitters operating in the 5.47–5.725 GHz band: all emissions outside of the 5.47–5.725 GHz band shall not exceed an EIRP of -27dBm/MHz.
- (4) For transmitters operating in the 5.725-5.85 GHz band: All emissions within the frequency range from the band edge to 10 MHz above or below the band edge shall not exceed an e.i.r.p. of -17 dBm/MHz; for frequencies 10 MHz or greater above or below the band edge, emissions shall not exceed an e.i.r.p. of -27 dBm/MHz.

The following formula is used to convert the equipment isotropic radiated power(eirp) to field strength (dBμV/m);

$$E = 1000000 \times \sqrt{30P} / 3 \mu\text{V/m}$$

where P is the EIRP in Watts

Therefore: -27 dBm/MHz = 68.23 dBuV/m

Unwanted emissions below 1 GHz must comply with the general field strength limits set forth in § 15.209. According to FCC section 15.209 (a), except as provided elsewhere in this subpart, the emissions from an intentional radiator shall not exceed the field strength levels specified in the following table:

Frequency (MHz)	Field Strength (μV/m)	Measurement Distance (m)
0.009 - 0.490	2400/F(kHz)	300
0.490 - 1.705	24000/F(kHz)	30
1.705 - 30.0	30	30
30 - 88	100	3
88 - 216	150	3
216 - 960	200	3
Above 960	500	3

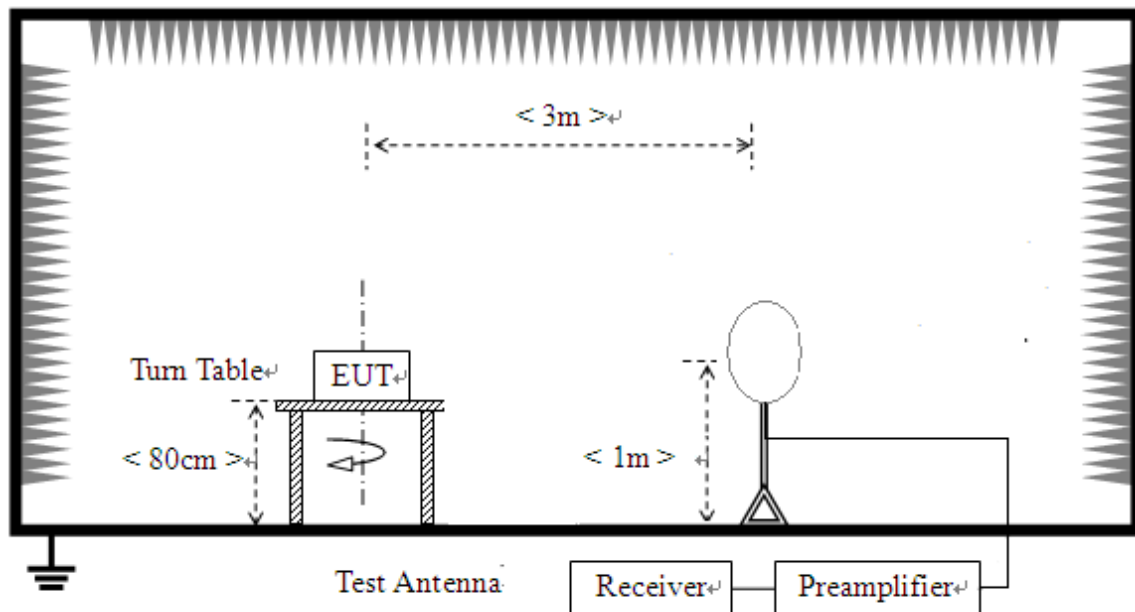
**Note:**

For Above 1000MHz, the emission limit in this paragraph is based on measurement instrumentation employing an average detector, measurement using instrumentation with a peak detector function, corresponding to 20dB above the maximum permitted average limit.

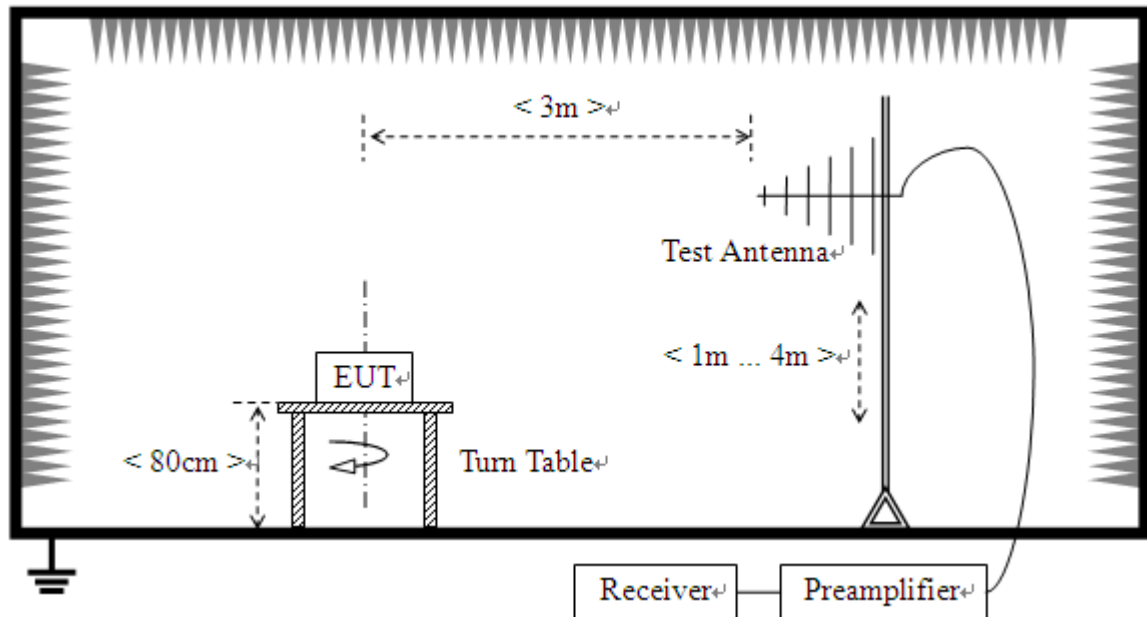
In addition, radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), also should comply with the radiated emission limits specified in Section 15.209(a)(above table)

**2.9.2. Test Description**
**A. Test Setup:**

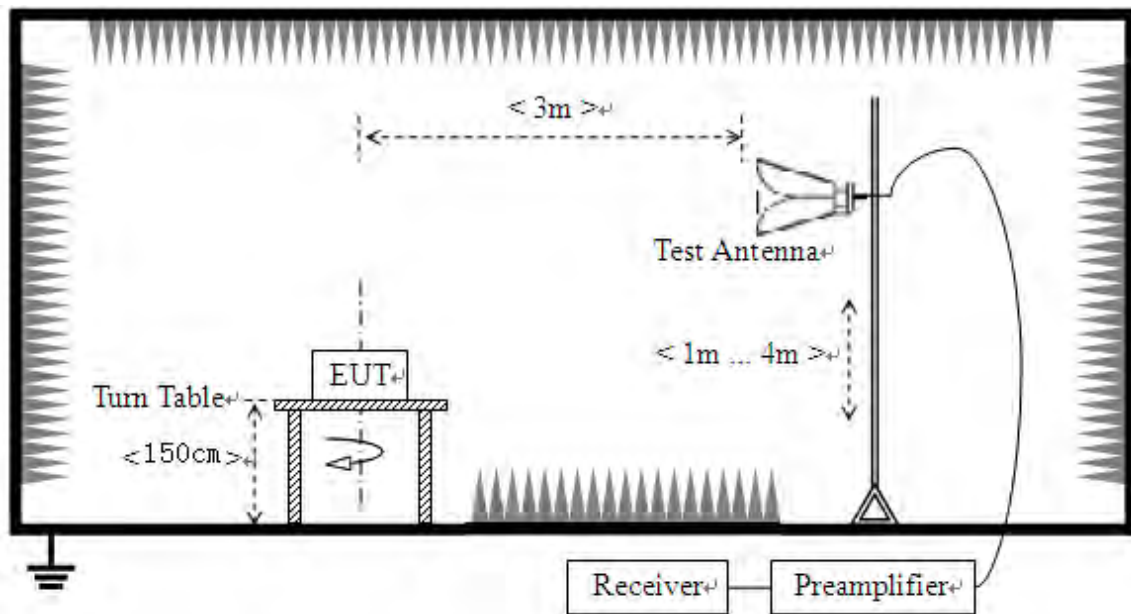
- 1) For radiated emissions from 9kHz to 30MHz



## 2) For radiated emissions from 30MHz to1GHz



## 3) For radiated emissions above 1GHz



The RF absorbing material used on the reference ground plane and on the turntable have a maximum height (thickness) of 30 cm (12 in) and have a minimum-rated attenuation of 20 dB at all frequencies from 1 GHz to 18 GHz.

The test site semi-anechoic chamber has met the requirement of NSA tolerance 4dB according to the standards: ANSI C63.10 (2013). For radiated emissions below or equal to 1GHz, The EUT was set-up on insulator 80cm above the Ground Plane, For radiated emissions above 1GHz, The EUT





was set-up on insulator 150cm above the Ground Plane. The set-up and test methods were according to ANSI C63.10

For the radiated emission test above 1GHz:

Place the measurement antenna away from each area of the EUT determined to be a source of emissions at the specified measurement distance, while keeping the measurement antenna aimed at the source of emissions at each frequency of significant emissions, with polarization oriented for maximum response. The measurement antenna may have to be higher or lower than the EUT, depending on the radiation pattern of the emission and staying aimed at the emission source for receiving the maximum signal. The final measurement antenna elevation shall be that which maximizes the emissions. The measurement antenna elevation for maximum emissions shall be restricted to a range of heights of from 1 m to 4 m above the ground or reference ground plane.

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

For the Test Antenna:

(a) In the frequency range of 9kHz to 30MHz, magnetic field is measured with Loop Test Antenna. The Test Antenna is positioned with its plane vertical at 1m distance from the EUT. The center of the Loop Test Antenna is 1m above the ground. During the measurement the Loop Test Antenna rotates about its vertical axis for maximum response at each azimuth about the EUT.

(b) In the frequency range above 30MHz, Bi-Log Test Antenna (30MHz to 1GHz) and Horn Test Antenna (above 1GHz) are used. Place the test antenna at 3m away from area of the EUT, while keeping the test antenna aimed at the source of emissions at each frequency of significant emissions, with polarization oriented for maximum response. The test antenna may have to be higher or lower than the EUT, depending on the radiation pattern of the emission and staying aimed at the emission source for receiving the maximum signal. The final test antenna elevation shall be that which maximizes the emissions. The test antenna elevation for maximum emissions shall be restricted to a range of heights of from 1 m to 4 m above the ground or reference ground plane. The emission levels at both horizontal and vertical polarizations should be tested.



### 2.9.3. Test Result

According to ANSI C63.4 selection 4.2.2, because of peak detection will yield amplitudes equal to or greater than amplitudes measured with the quasi-peak (or average) detector, the measurement data from a spectrum analyzer peak detector will represent the worst-case results, if the peak measured value complies with the quasi-peak limit, it is unnecessary to perform an quasi-peak measurement.

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

$G_{\text{preamp}}$ : Preamplifier Gain

$A_{\text{Factor}}$ : Antenna Factor at 3m

During the test, the total correction Factor  $A_T$  and  $A_{\text{Factor}}$  were built in test software.

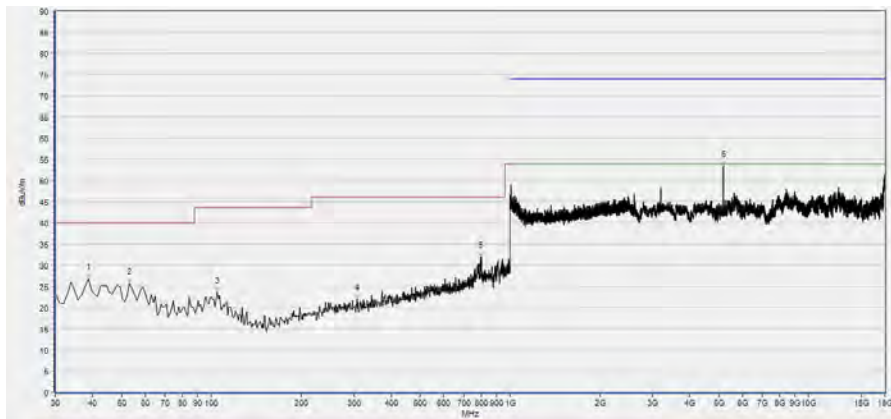
**Note1:** All radiated emission tests were performed in X, Y, Z axis direction. And only the worst axis test condition was recorded in this test report.

**Note2:** For the frequency, which started from 9 kHz to 30MHz, was pre-scanned and the result which was 20dB lower than the limit was not recorded.

**Note3:** For the frequency, which started from 25GHz to 40GHz, was pre-scanned and the result which was 20dB lower than the limit was not recorded.

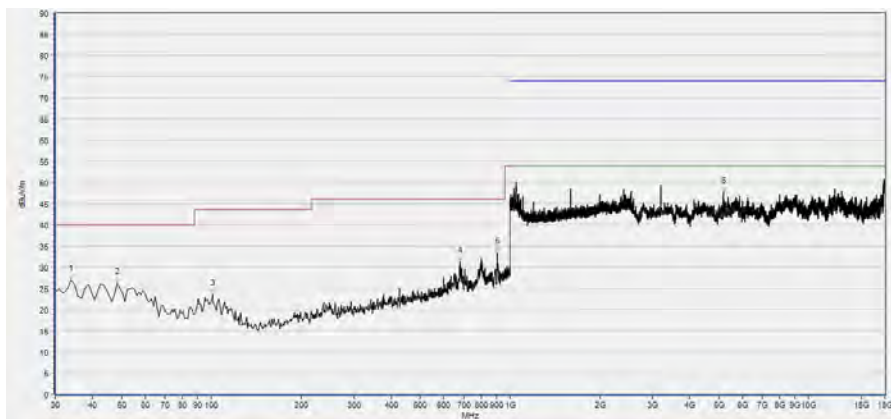
**802.11a Test mode**

Plots for Channel = 36



Fre. (MHz)	Pk (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
38.739	26.80	N/A	N/A	N/A	40.00	N/A	Horizontal	PASS
53.303	25.64	N/A	N/A	N/A	40.00	N/A	Horizontal	PASS
104.765	23.52	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
307.698	22.05	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
798.038	31.92	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
5178.476	53.33	N/A	N/A	N/A	N/A	54.00	Horizontal	N/A

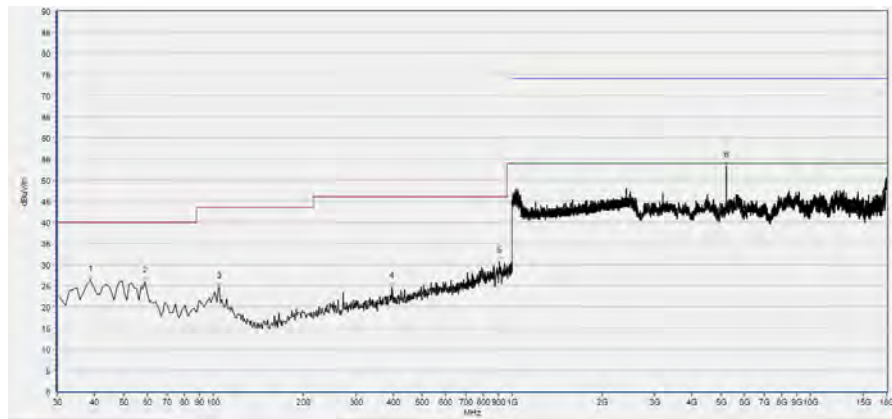
(Antenna Horizontal, 30MHz to 25GHz)



Fre. (MHz)	Pk (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
33.884	26.94	N/A	N/A	N/A	40.00	N/A	Vertical	PASS
48.448	26.26	N/A	N/A	N/A	40.00	N/A	Vertical	PASS
100.881	23.51	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
679.580	31.19	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
906.787	33.43	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
5178.476	47.61	N/A	N/A	N/A	N/A	54.00	Vertical	N/A

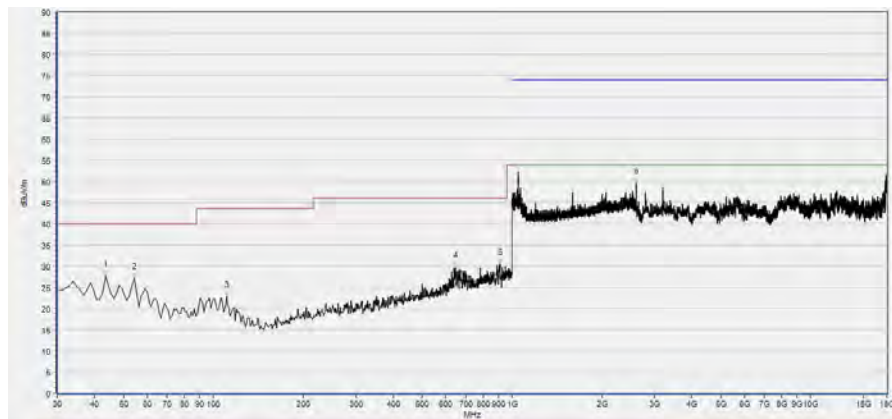
(Antenna Vertical, 30MHz to 25GHz)

### Plots for Channel = 44



Fre. (MHz)	Pk (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
38.739	26.27	N/A	N/A	N/A	40.00	N/A	Horizontal	PASS
59.129	25.83	N/A	N/A	N/A	40.00	N/A	Horizontal	PASS
104.765	24.71	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
395.085	24.64	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
906.787	30.67	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
5221.604	53.27	N/A	N/A	N/A	N/A	54.00	Horizontal	N/A

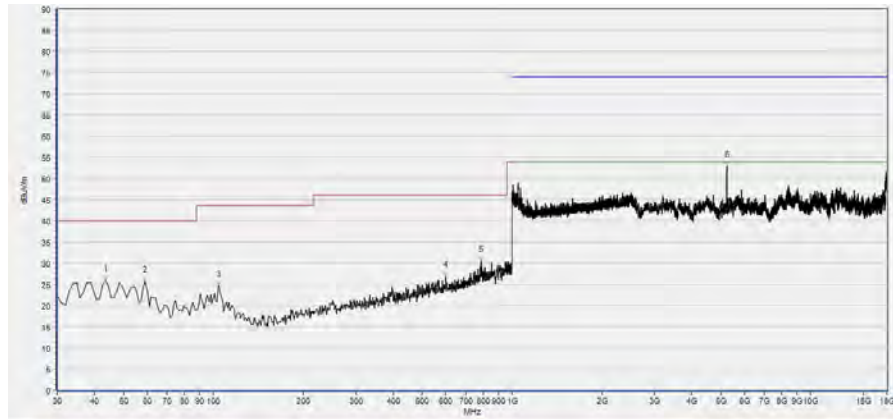
(Antenna Horizontal, 30MHz to 25GHz)



Fre. (MHz)	Pk (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
43.594	27.67	N/A	N/A	N/A	40.00	N/A	Vertical	PASS
54.274	27.15	N/A	N/A	N/A	40.00	N/A	Vertical	PASS
110.591	22.83	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
646.567	29.90	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
913.584	30.60	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
2609.242	49.72	N/A	N/A	68.23	N/A	54.00	Vertical	PASS

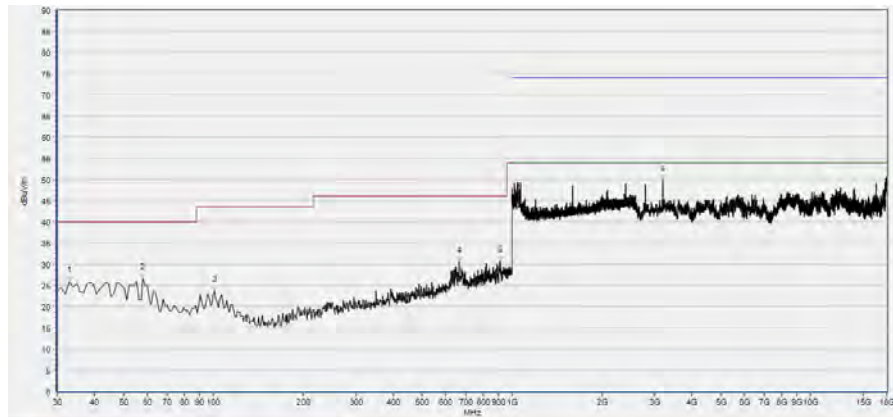
(Antenna Vertical, 30MHz to 25GHz)

### Plot for Channel = 48



Fre. (MHz)	Pk (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
43.594	25.98	N/A	N/A	N/A	40.00	N/A	Horizontal	PASS
59.129	25.69	N/A	N/A	N/A	40.00	N/A	Horizontal	PASS
103.794	24.59	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
599.960	26.99	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
789.299	30.47	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
5240.088	52.79	N/A	N/A	N/A	N/A	54.00	Horizontal	N/A

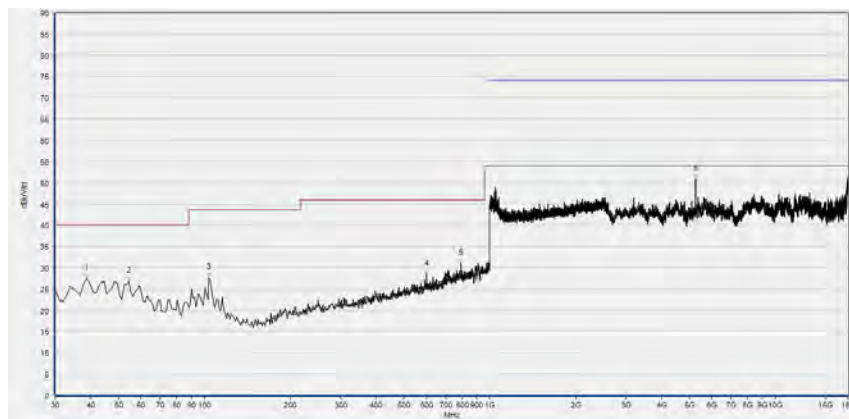
(Antenna Horizontal, 30MHz to 25GHz)



Fre. (MHz)	Pk (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
32.913	25.96	N/A	N/A	N/A	40.00	N/A	Vertical	PASS
58.158	26.69	N/A	N/A	N/A	40.00	N/A	Vertical	PASS
100.881	23.77	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
665.986	30.55	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
914.555	30.68	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
3200.720	49.90	N/A	N/A	68.23	N/A	54.00	Vertical	PASS

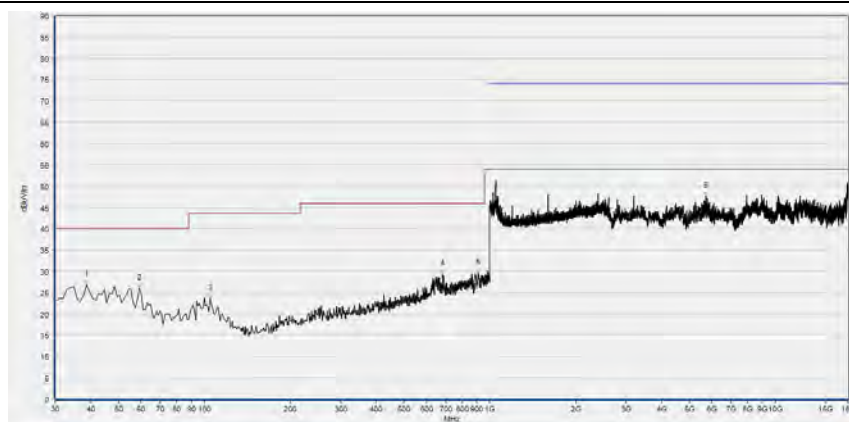
(Antenna Vertical, 30MHz to 25GHz)

### Plots for Channel = 52



Fre. (MHz)	Pk (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
38.739	27.45	N/A	N/A	N/A	40.00	N/A	Horizontal	PASS
54.274	26.76	N/A	N/A	N/A	40.00	N/A	Horizontal	PASS
103.794	27.70	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
599.960	28.48	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
792.212	31.09	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
5261.652	50.79	N/A	N/A	N/A	N/A	54.00	Horizontal	N/A

(Antenna Horizontal, 30MHz to 25GHz)

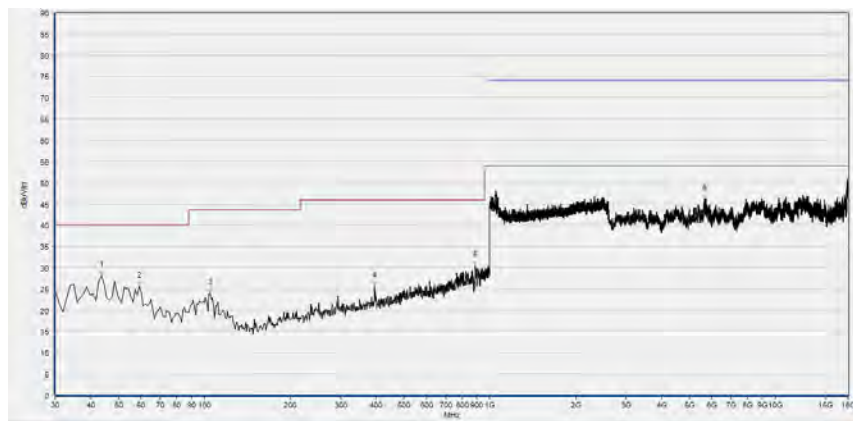


Fre. (MHz)	Pk (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
38.739	26.75	N/A	N/A	N/A	40.00	N/A	Vertical	PASS
59.129	26.01	N/A	N/A	N/A	40.00	N/A	Vertical	PASS
104.765	23.66	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
683.463	29.30	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
908.729	29.71	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
5720.664	47.60	N/A	N/A	68.23	N/A	54.00	Vertical	PASS

(Antenna Vertical, 30MHz to 25GHz)

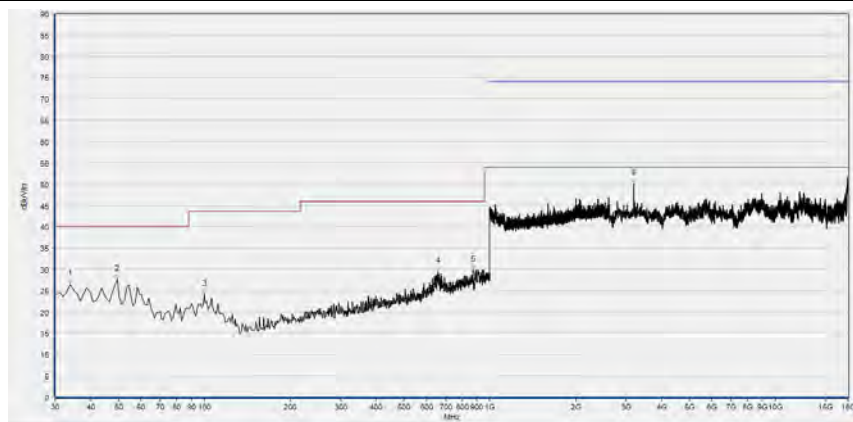


### Plots for Channel = 60



Fre. (MHz)	Pk (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
43.594	28.23	N/A	N/A	N/A	40.00	N/A	Horizontal	PASS
59.129	25.57	N/A	N/A	N/A	40.00	N/A	Horizontal	PASS
104.765	23.92	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
395.085	25.61	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
891.251	30.52	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
5643.649	46.28	N/A	N/A	68.23	N/A	54.00	Horizontal	PASS

(Antenna Horizontal, 30MHz to 25GHz)



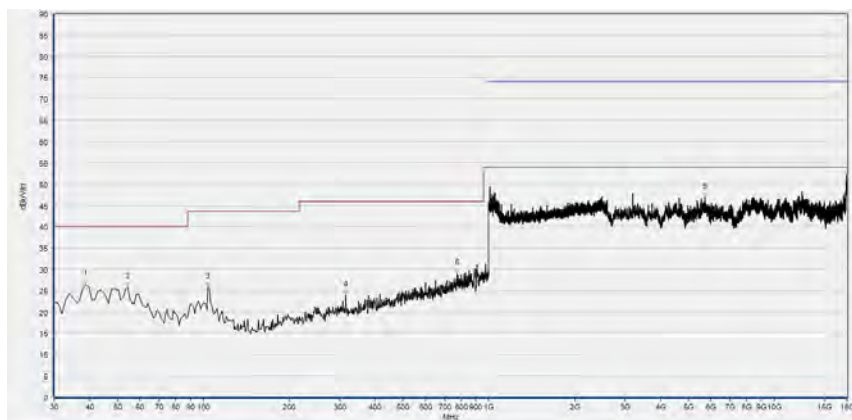
Fre. (MHz)	Pk (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
33.884	26.49	N/A	N/A	N/A	40.00	N/A	Vertical	PASS
49.419	27.66	N/A	N/A	N/A	40.00	N/A	Vertical	PASS
99.910	24.08	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
660.160	29.55	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
871.832	29.76	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
3200.720	50.03	N/A	N/A	68.23	N/A	54.00	Vertical	PASS

(Antenna Vertical, 30MHz to 25GHz)



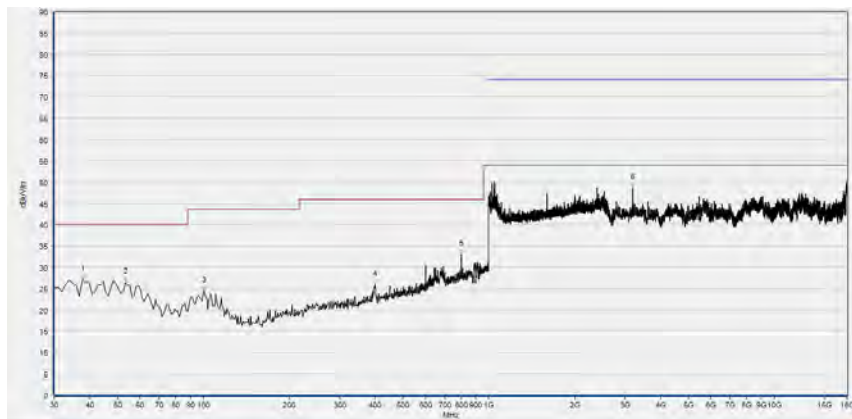


## Plot for Channel = 64



Fre. (MHz)	Pk (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
38.739	26.54	N/A	N/A	N/A	40.00	N/A	Horizontal	PASS
54.274	25.85	N/A	N/A	N/A	40.00	N/A	Horizontal	PASS
103.794	25.85	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
315.465	23.99	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
775.706	29.03	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
5711.422	46.85	N/A	N/A	68.23	N/A	54.00	Horizontal	PASS

(Antenna Horizontal, 30MHz to 25GHz)

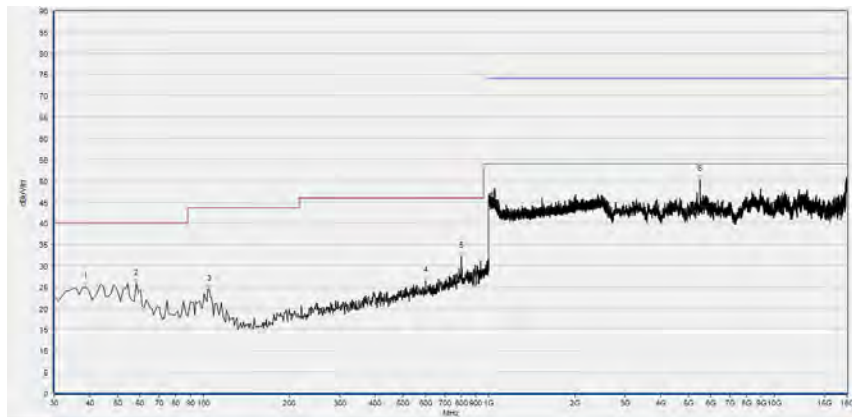


Fre. (MHz)	Pk (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
37.768	27.15	N/A	N/A	N/A	40.00	N/A	Vertical	PASS
53.303	26.49	N/A	N/A	N/A	40.00	N/A	Vertical	PASS
100.881	24.46	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
399.940	25.95	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
799.980	33.09	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
3200.720	48.54	N/A	N/A	68.23	N/A	54.00	Vertical	PASS

(Antenna Vertical, 30MHz to 25GHz)

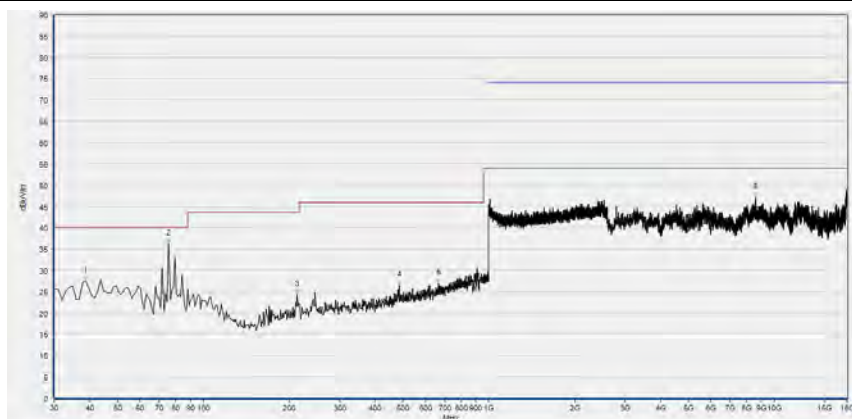


## Plots for Channel = 100



Fre. (MHz)	Pk (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
38.739	25.05	N/A	N/A	N/A	40.00	N/A	Horizontal	PASS
58.158	25.77	N/A	N/A	N/A	40.00	N/A	Horizontal	PASS
104.765	24.47	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
599.960	26.55	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
799.980	32.14	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
5492.699	50.22	N/A	N/A	68.23	N/A	54.00	Horizontal	PASS

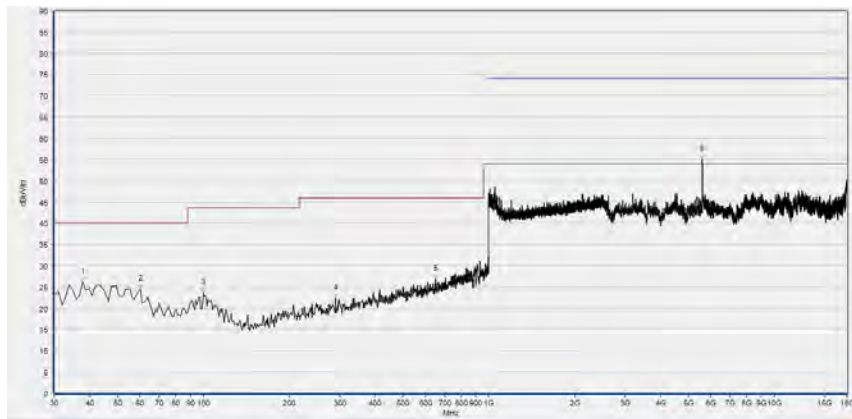
(Antenna Horizontal, 30MHz to 25GHz)



Fre. (MHz)	Pk (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
38.739	26.71	N/A	N/A	N/A	40.00	N/A	Vertical	PASS
48.448	27.60	N/A	N/A	N/A	40.00	N/A	Vertical	PASS
100.881	24.36	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
640.741	29.33	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
893.193	30.16	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
2609.242	51.04	N/A	N/A	68.23	N/A	54.00	Vertical	PASS

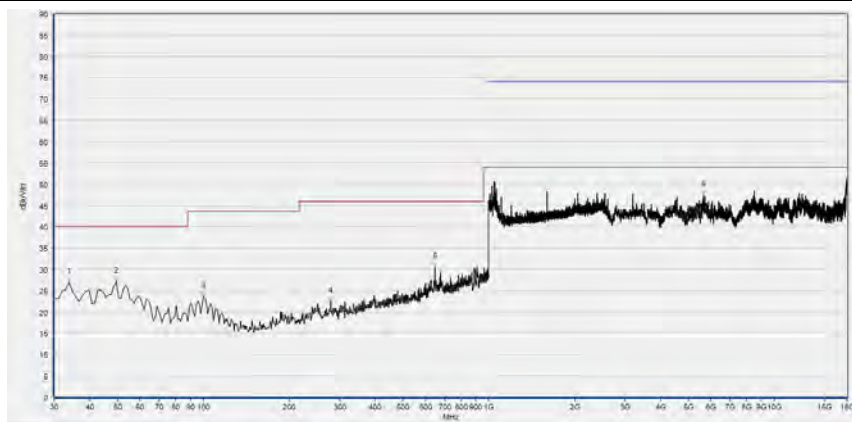
(Antenna Vertical, 30MHz to 25GHz)

### Plots for Channel = 120



Fre. (MHz)	Pk (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
37.768	26.17	N/A	N/A	N/A	40.00	N/A	Horizontal	PASS
60.100	24.40	N/A	N/A	N/A	40.00	N/A	Horizontal	PASS
99.910	23.60	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
290.220	22.26	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
650.450	26.85	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
5600.520	55.00	N/A	N/A	68.23	N/A	54.00	Horizontal	PASS

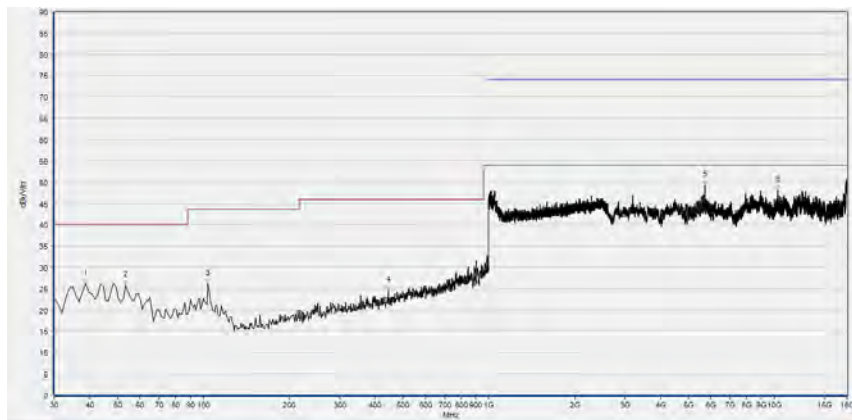
(Antenna Horizontal, 30MHz to 25GHz)



Fre. (MHz)	Pk (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
33.884	27.01	N/A	N/A	N/A	40.00	N/A	Vertical	PASS
49.419	27.18	N/A	N/A	N/A	40.00	N/A	Vertical	PASS
99.910	23.57	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
279.540	22.47	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
647.538	30.48	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
5646.729	47.50	N/A	N/A	68.23	N/A	54.00	Vertical	PASS

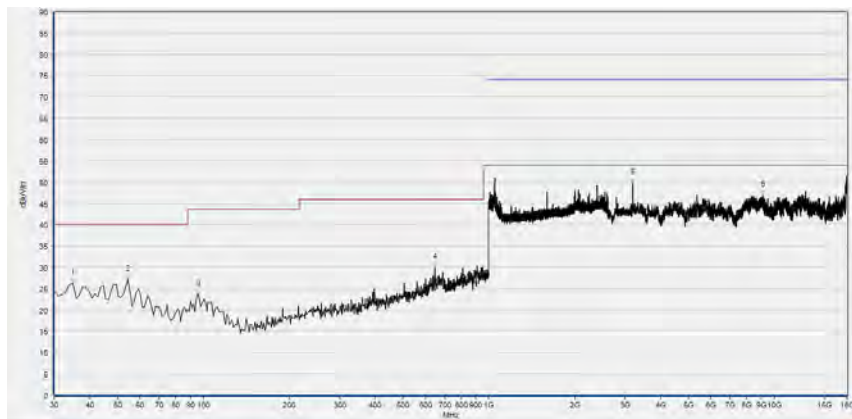
(Antenna Vertical, 30MHz to 25GHz)

### Plot for Channel = 144



Fre. (MHz)	Pk (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
38.739	26.13	N/A	N/A	N/A	40.00	N/A	Horizontal	PASS
53.303	25.88	N/A	N/A	N/A	40.00	N/A	Horizontal	PASS
103.794	26.18	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
444.605	24.59	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
5717.584	49.22	N/A	N/A	N/A	N/A	54.00	Horizontal	N/A
10264.573	48.04	N/A	N/A	68.23	N/A	54.00	Horizontal	PASS

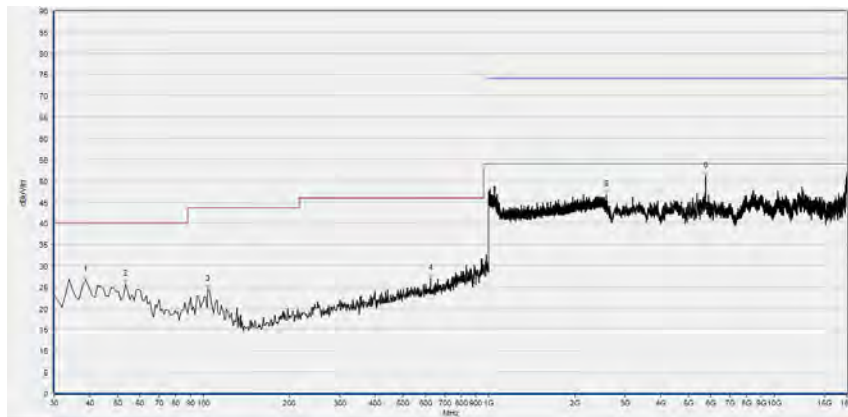
(Antenna Horizontal, 30MHz to 25GHz)



Fre. (MHz)	Pk (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
34.855	26.25	N/A	N/A	N/A	40.00	N/A	Vertical	PASS
54.274	27.21	N/A	N/A	N/A	40.00	N/A	Vertical	PASS
96.026	23.62	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
646.567	29.98	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
3200.720	49.80	N/A	N/A	68.23	N/A	54.00	Vertical	PASS
9133.987	46.93	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

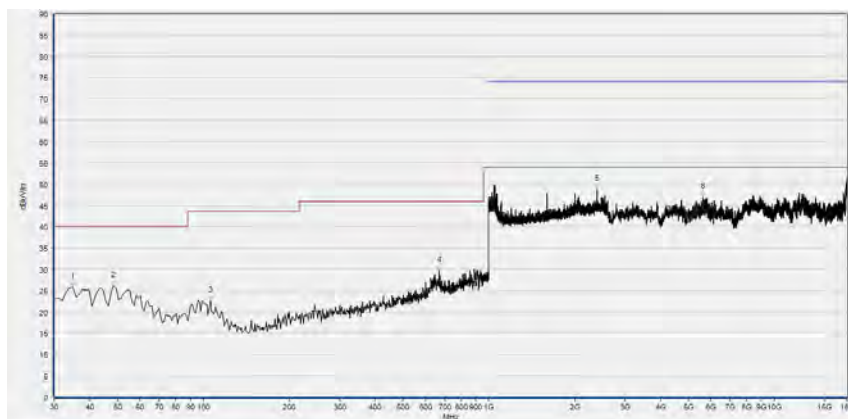
(Antenna Vertical, 30MHz to 25GHz)

### Plots for Channel = 149



Fre. (MHz)	Pk (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
38.739	26.64	N/A	N/A	N/A	40.00	N/A	Horizontal	PASS
53.303	25.63	N/A	N/A	N/A	40.00	N/A	Horizontal	PASS
103.794	24.43	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
624.234	26.91	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
2577.593	46.76	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
5745.309	51.20	N/A	N/A	N/A	N/A	54.00	Horizontal	N/A

(Antenna Horizontal, 30MHz to 25GHz)



Fre. (MHz)	Pk (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
34.855	25.75	N/A	N/A	N/A	40.00	N/A	Vertical	PASS
48.448	26.08	N/A	N/A	N/A	40.00	N/A	Vertical	PASS
105.736	22.60	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
670.841	29.71	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
2399.400	48.80	N/A	N/A	68.23	N/A	54.00	Vertical	PASS
5631.326	47.00	N/A	N/A	68.23	N/A	54.00	Vertical	PASS

(Antenna Vertical, 30MHz to 25GHz)