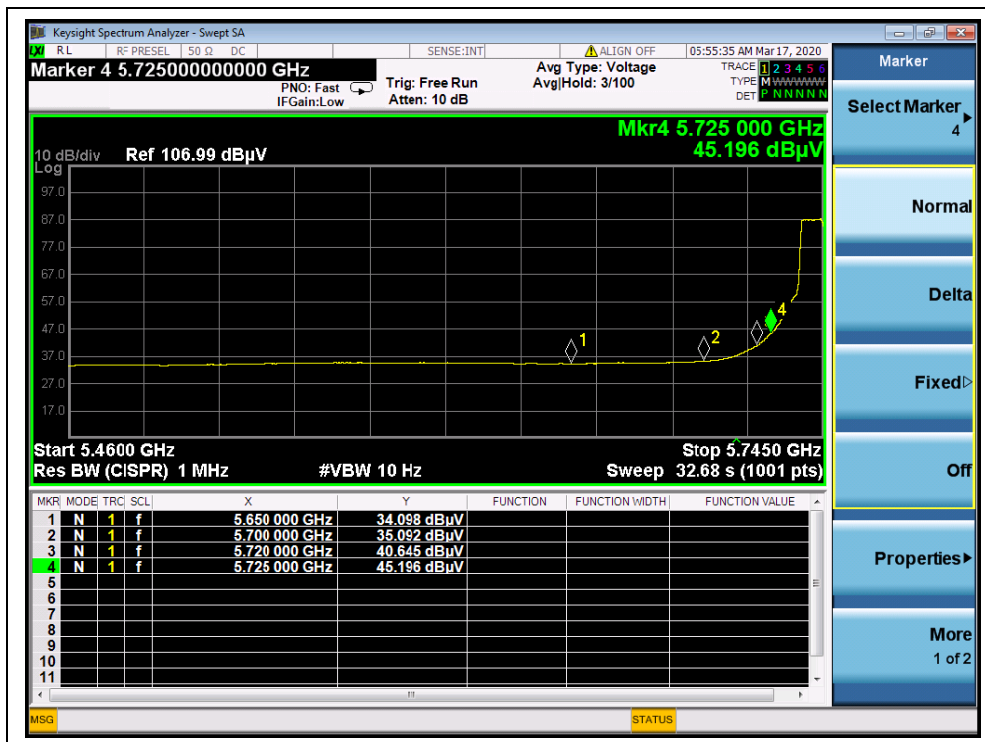
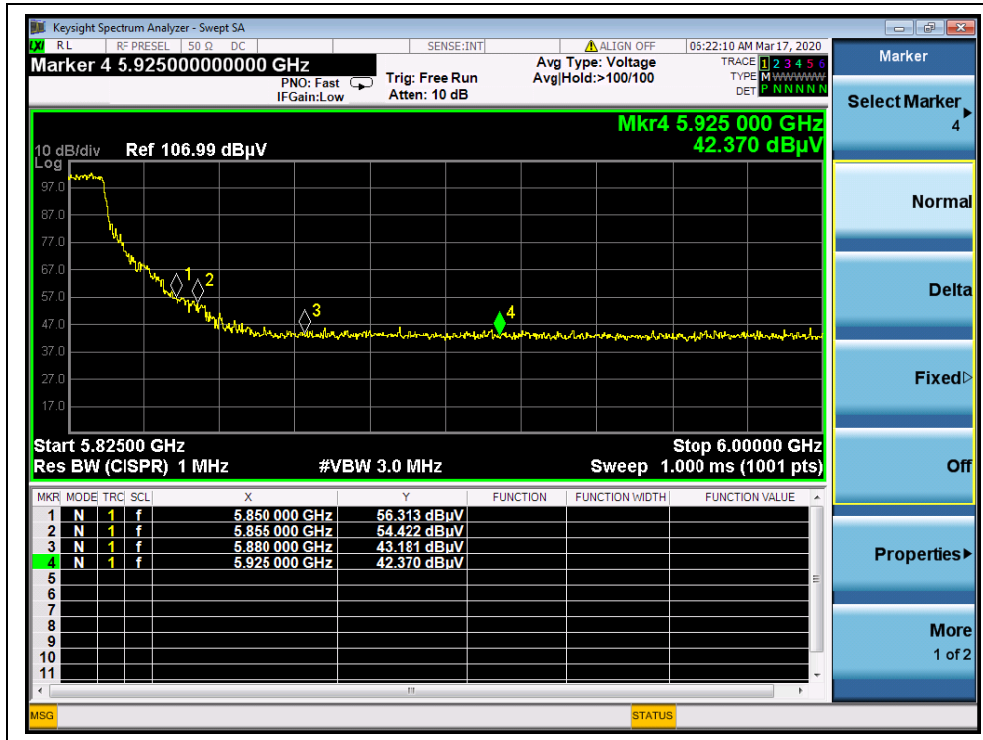


(Channel 149, PEAK, 802.11a)



(Channel 149, AVG, 802.11a)



(Channel 165, PEAK, 802.11a)



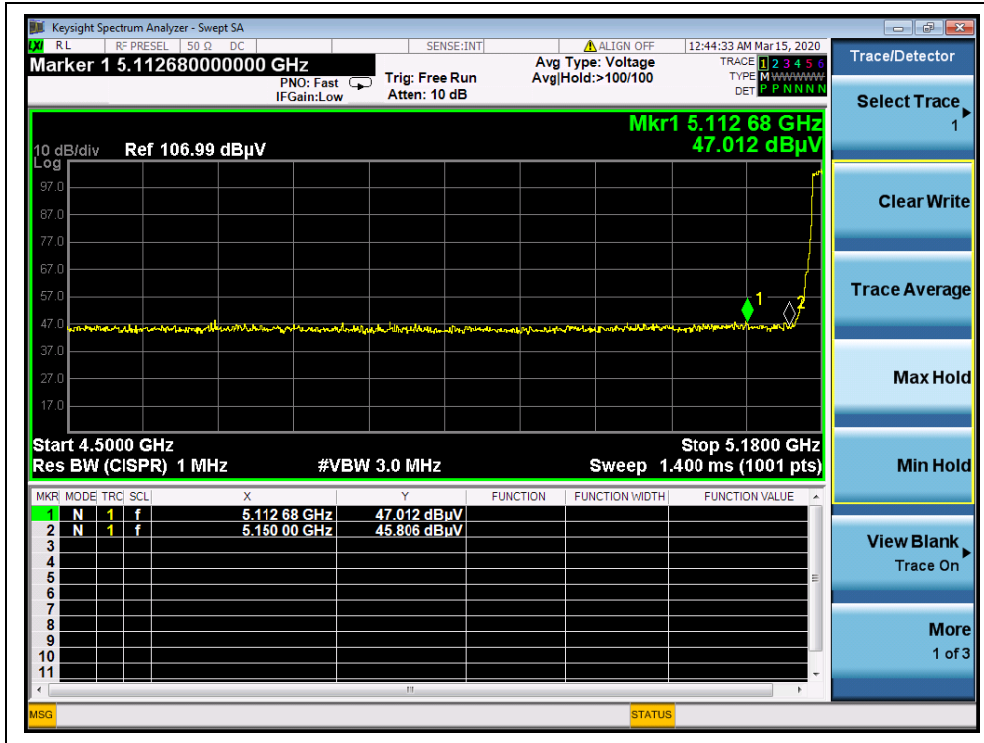
(Channel 165, AVG, 802.11a)

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

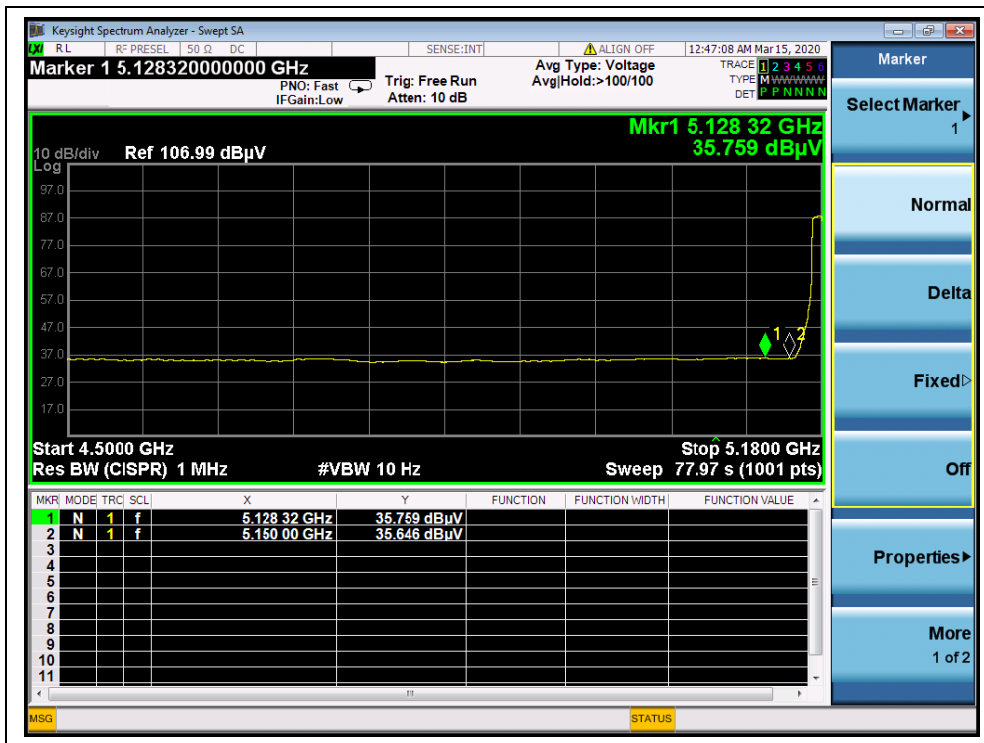
Channel	Frequency (MHz)	Detector	Receiver Reading U_R (dBuV)	A_T (dB)	A_{Factor} (dB@3m)	Max. Emission E (dB μ V/m)	Limit (dB μ V/m)	Verdict
		PK/ AV						
36	5112.68	PK	47.01	-26.92	32.20	52.29	74	PASS
36	5128.32	AV	35.76	-26.92	32.20	41.04	54	PASS
64	5351.36	PK	46.66	-26.80	32.20	52.06	74	PASS
64	5350.38	AV	34.31	-26.80	32.20	39.71	54	PASS
100	5470.00	PK	45.21	-26.64	32.20	50.77	68.23	PASS
100	5470.00	AV	35.39	-26.64	32.20	40.95	54	PASS
144	5725.00	PK	47.98	-26.64	32.20	53.54	68.23	PASS
144	5725.00	AV	37.92	-26.64	32.20	43.48	54	PASS
149	5725.00	PK	44.12	-26.23	32.20	50.09	122.23	PASS
149	5725.00	AV	36.24	-26.23	32.20	42.21	54	PASS
165	5925.00	PK	43.74	-26.23	32.20	49.71	68.23	PASS
165	5850.00	AV	35.05	-26.23	32.20	41.02	54	PASS



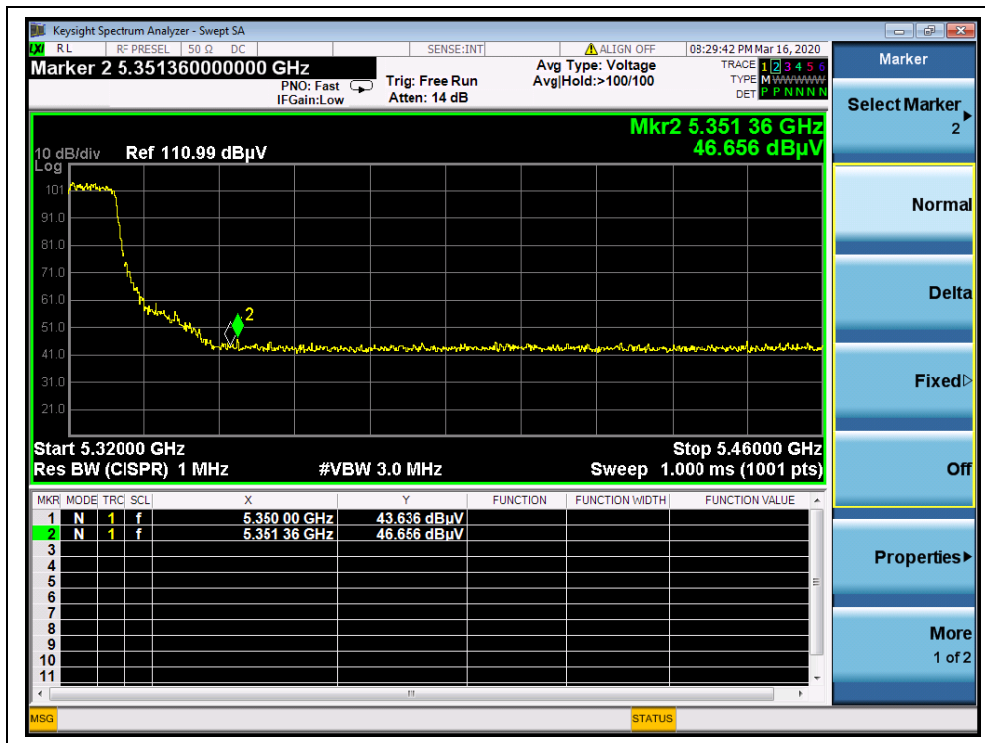
B. Test Plots:



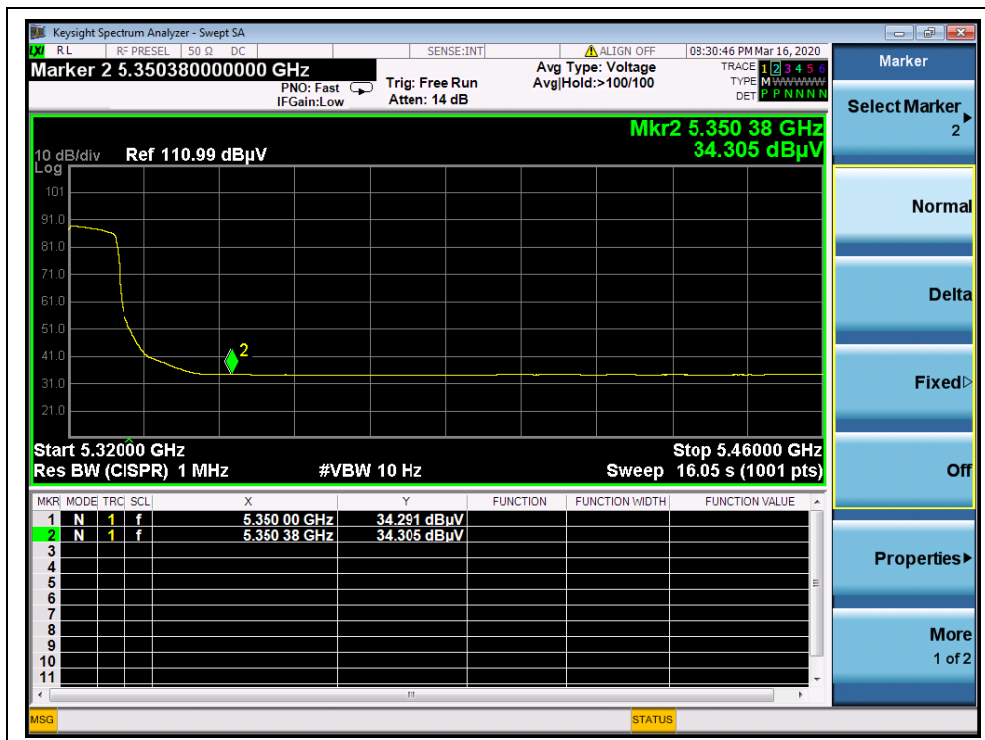
(Channel 36, PEAK, 802.11n (HT20))



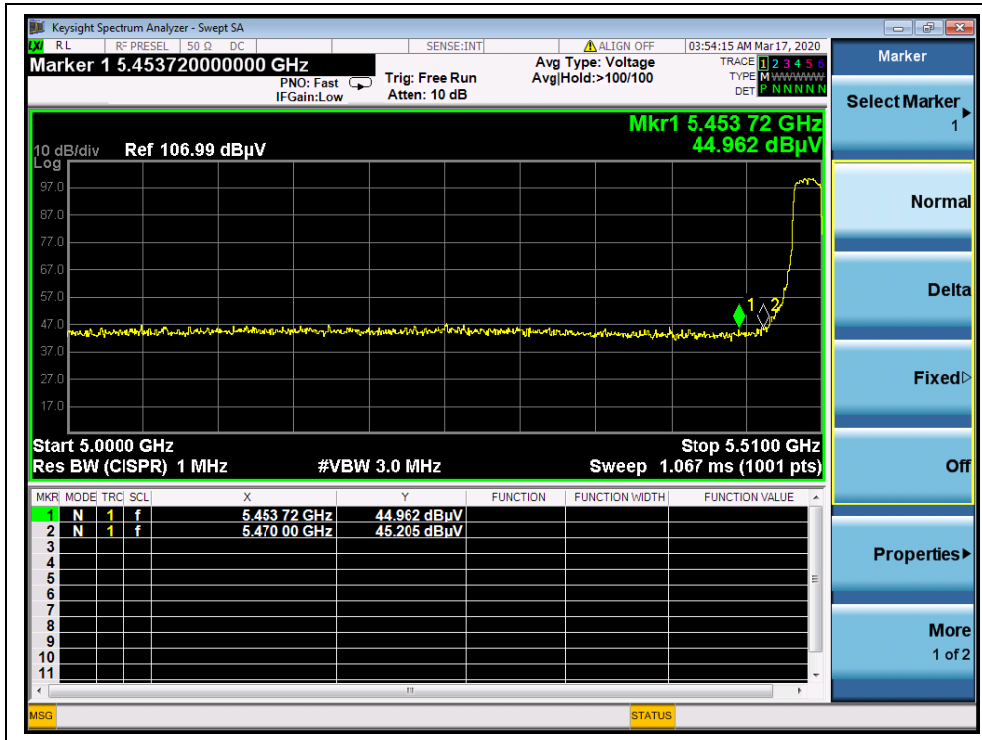
(Channel 36, AVG, 802.11 n (HT20))



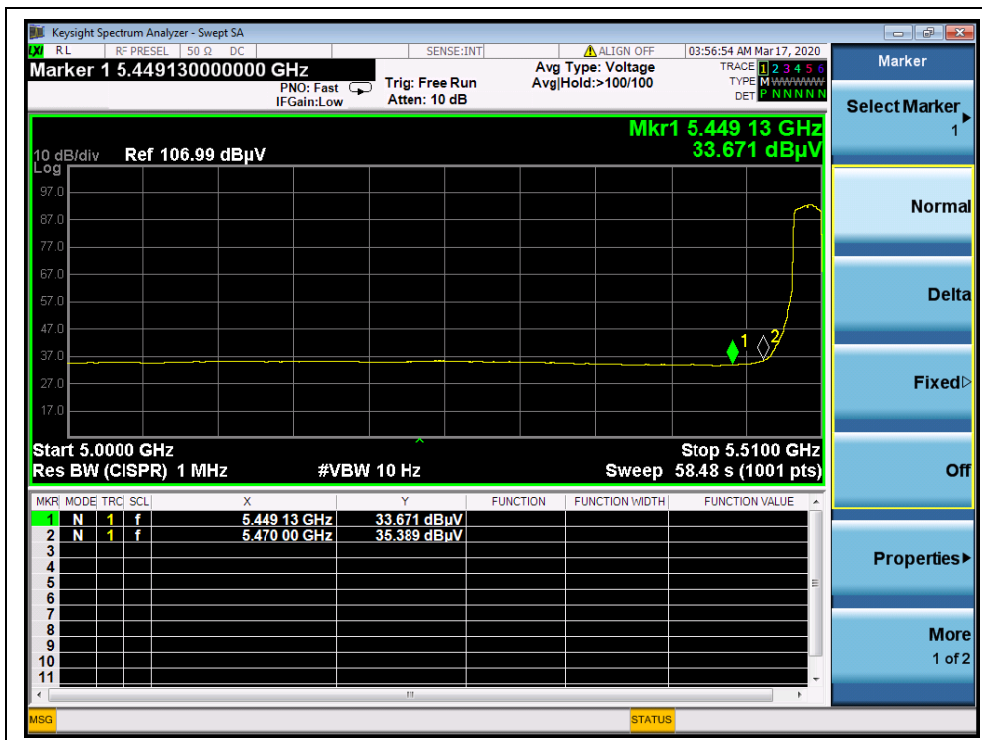
(Channel 64, PEAK, 802.11 n (HT20))



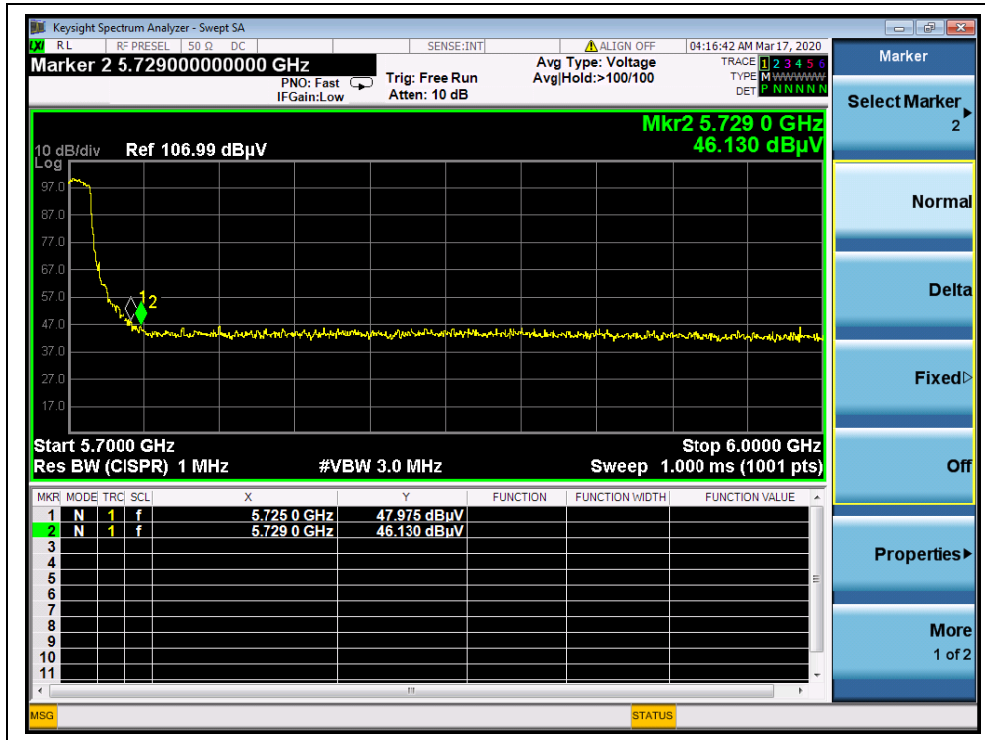
(Channel 64, AVG, 802.11n (HT20))



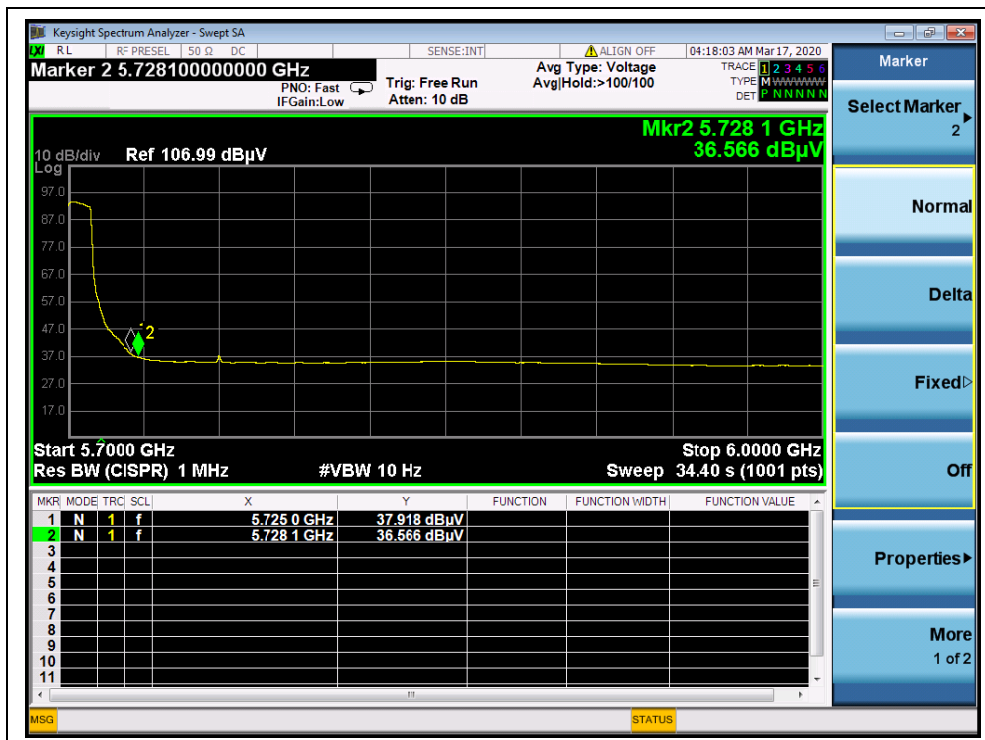
(Channel 100, PEAK, 802.11 n (HT20))



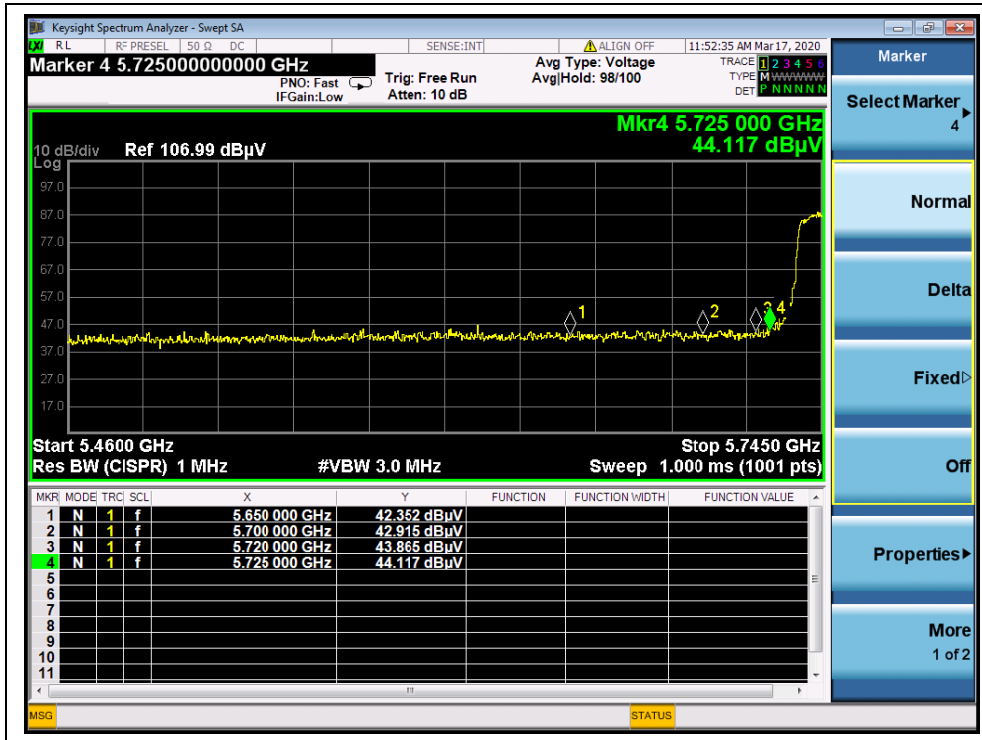
(Channel 100, AVG, 802.11n (HT20))



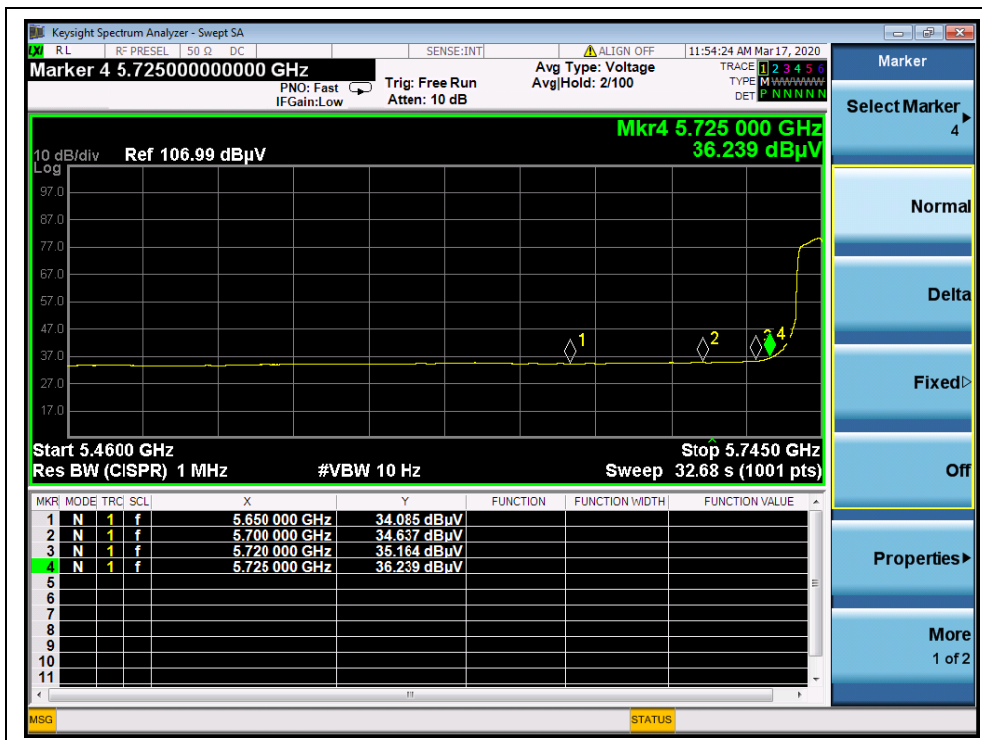
(Channel 144, PEAK, 802.11 n (HT20))



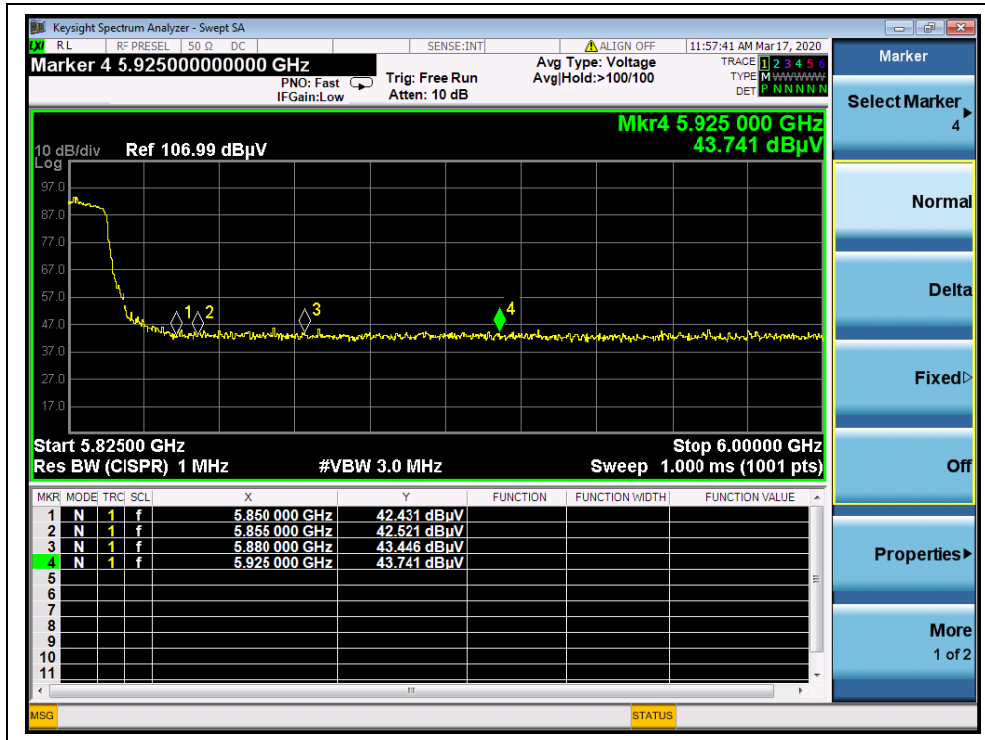
(Channel 144, AVG, 802.11n (HT20))



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



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



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



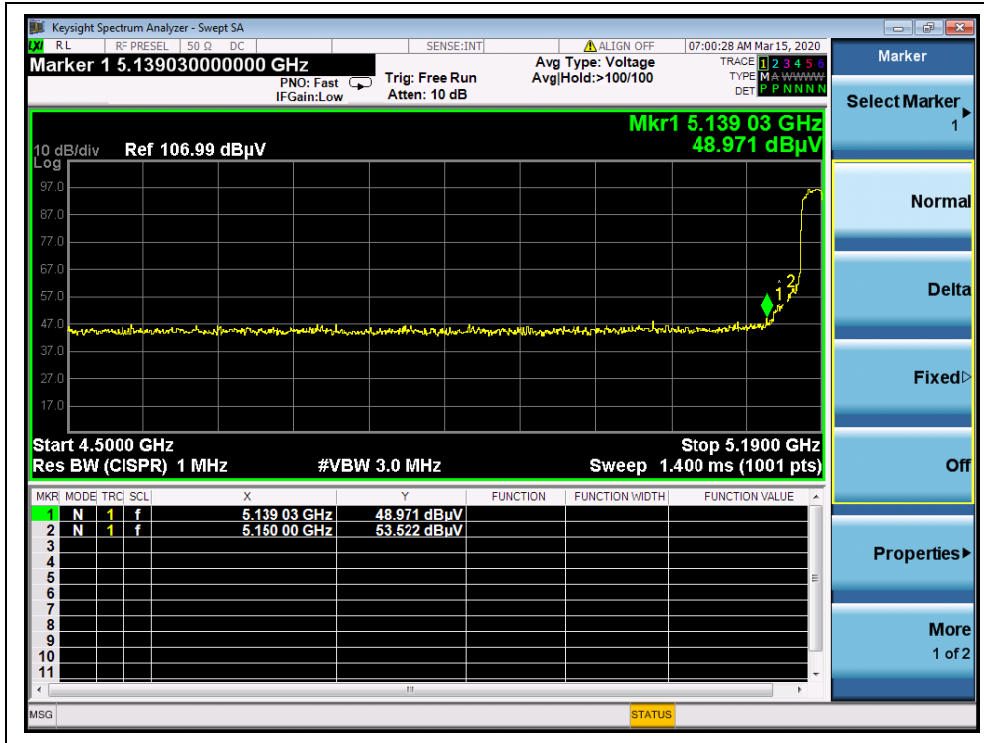
(Channel 165, AVG, 802.11n (HT20))

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

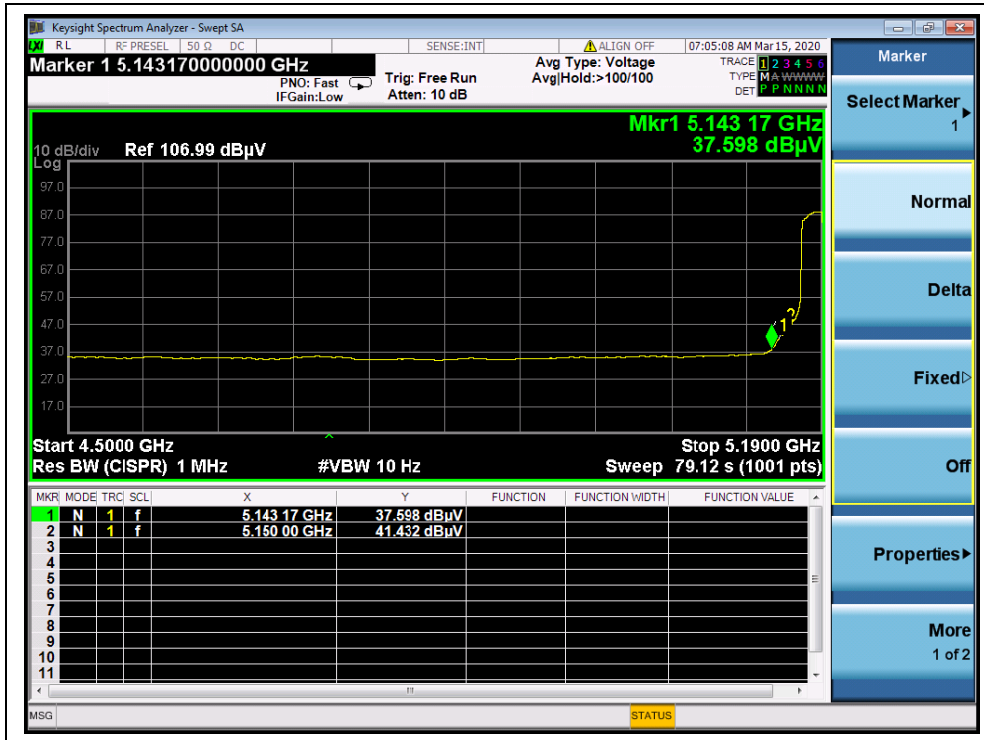
Channel	Frequency (MHz)	Detector	Receiver Reading U_R (dBuV)	A_T (dB)	A_{Factor} (dB@3m)	Max. Emission E (dB μ V/m)	Limit (dB μ V/m)	Verdict
		PK/ AV						
38	5150.00	PK	53.52	-26.92	32.20	58.80	74	PASS
38	5150.00	AV	41.43	-26.92	32.20	46.71	54	PASS
62	5351.70	PK	58.22	-26.80	32.20	63.62	74	PASS
62	5350.00	AV	39.98	-26.80	32.20	45.38	54	PASS
102	5470.00	PK	56.63	-26.64	32.20	62.19	68.23	PASS
102	5470.00	AV	44.59	-26.64	32.20	50.15	54	PASS
142	5731.61	PK	47.30	-26.64	32.20	52.86	68.23	PASS
142	5725.00	AV	37.70	-26.64	32.20	43.26	54	PASS
151	5719.31	PK	63.25	-26.23	32.20	69.22	110.64	PASS
151	5725.00	AV	50.32	-26.23	32.20	56.29	54	PASS
159	5850.00	PK	47.36	-26.23	32.20	53.33	122.23	PASS
159	5850.00	AV	37.54	-26.23	32.20	43.51	54	PASS



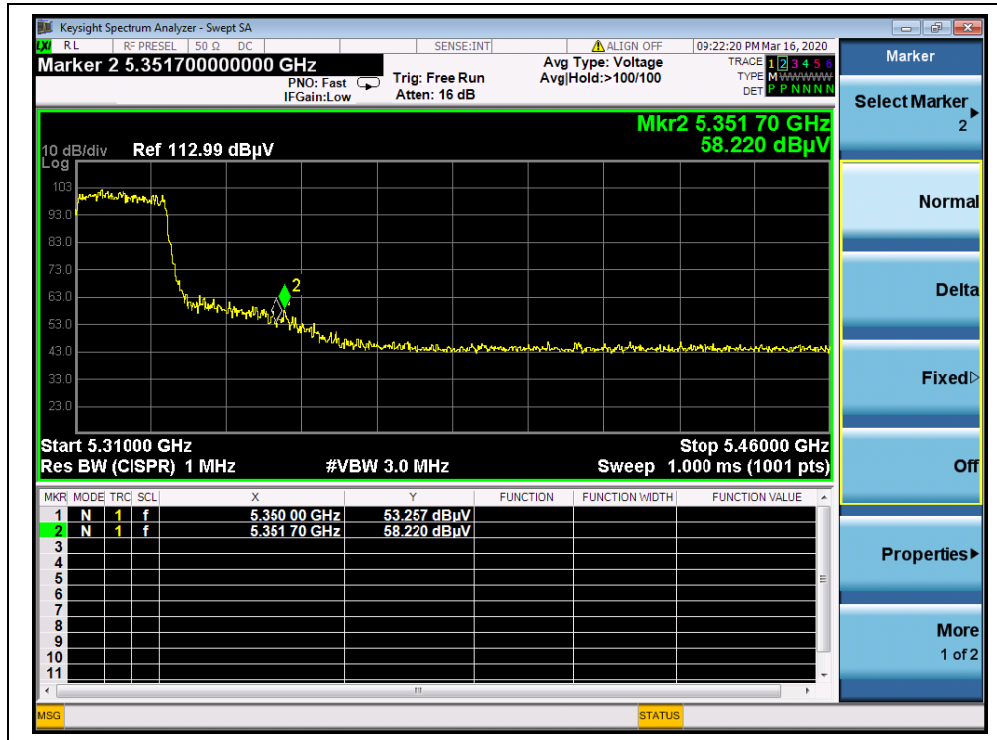
B. Test Plots:



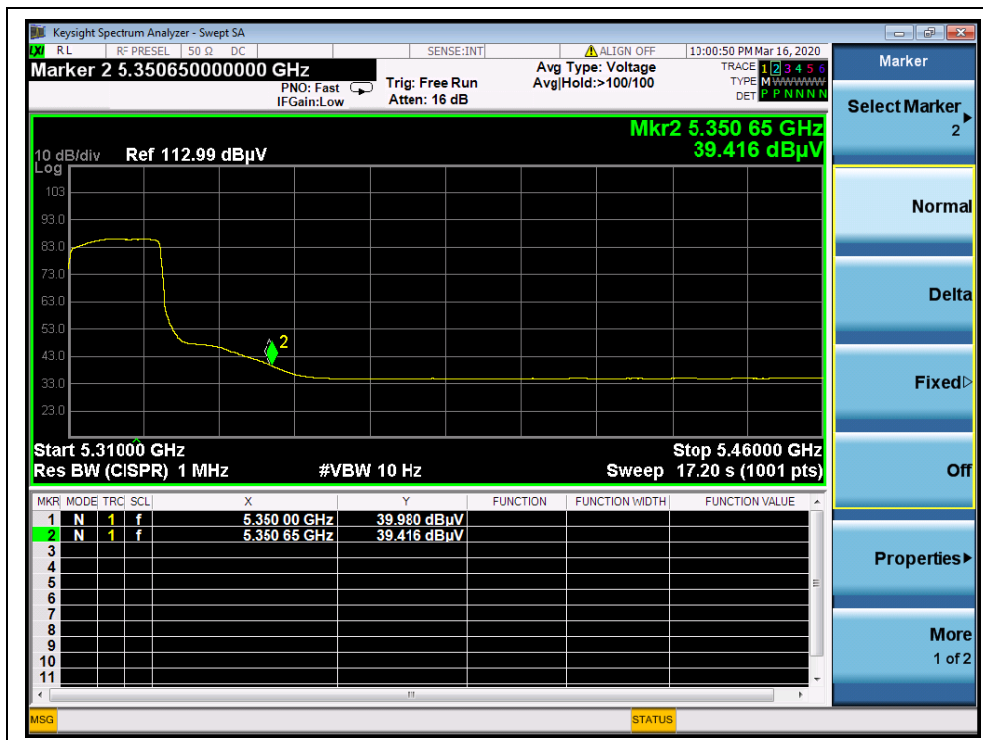
(Channel 38, PEAK, 802.11n (HT40))



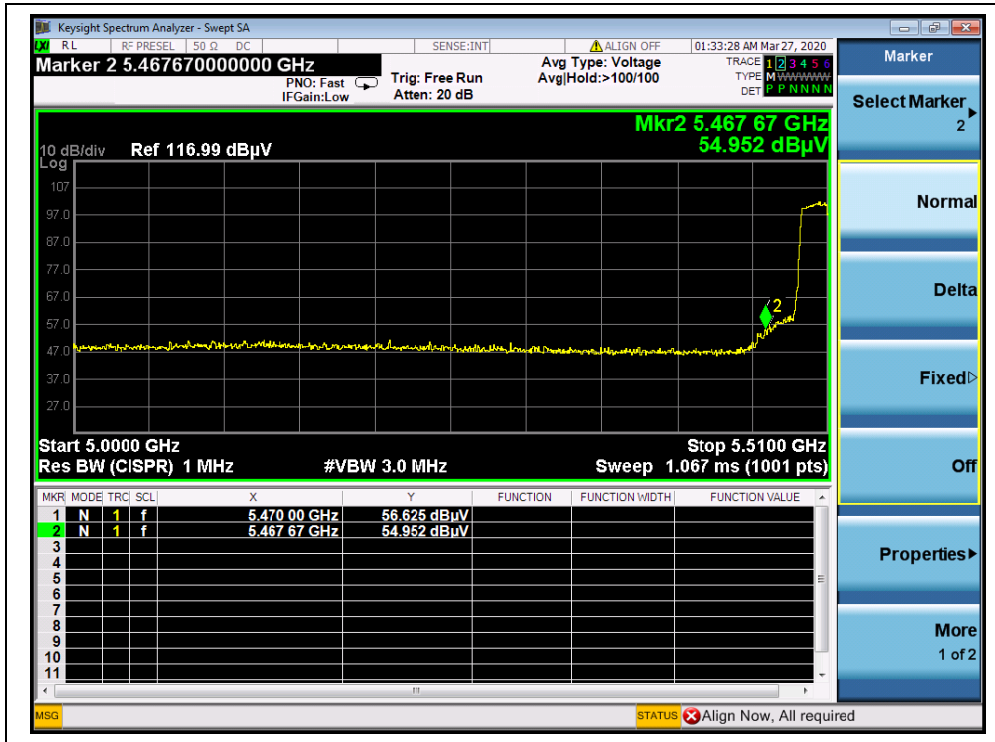
(Channel 38, AVG, 802.11n (HT40))



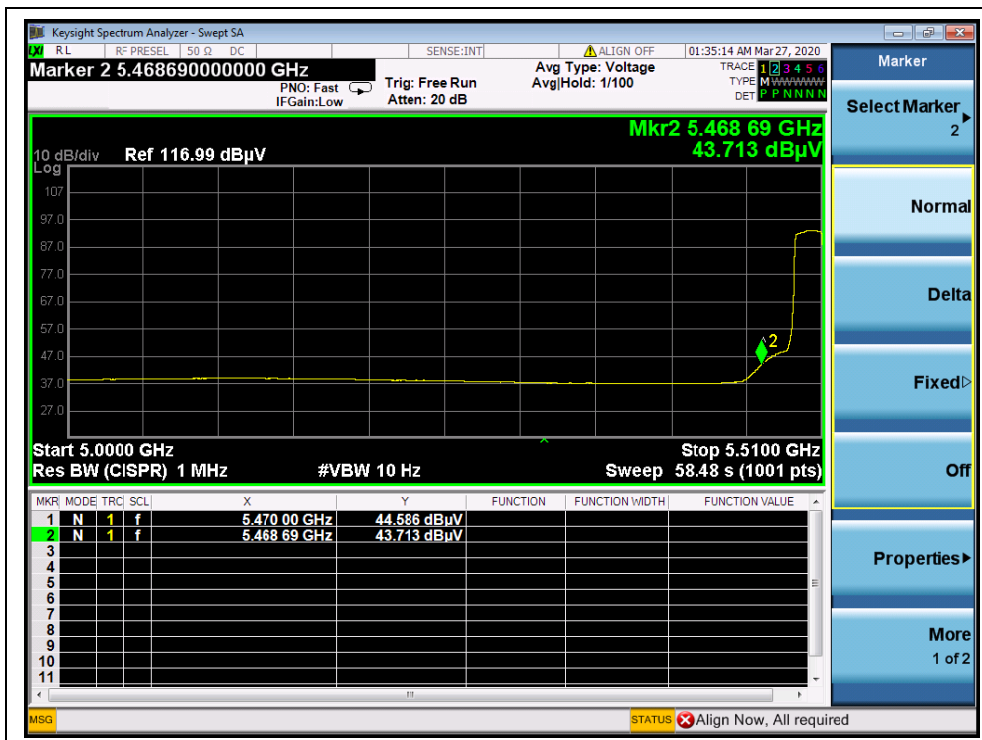
(Channel 62, PEAK, 802.11n (HT40))



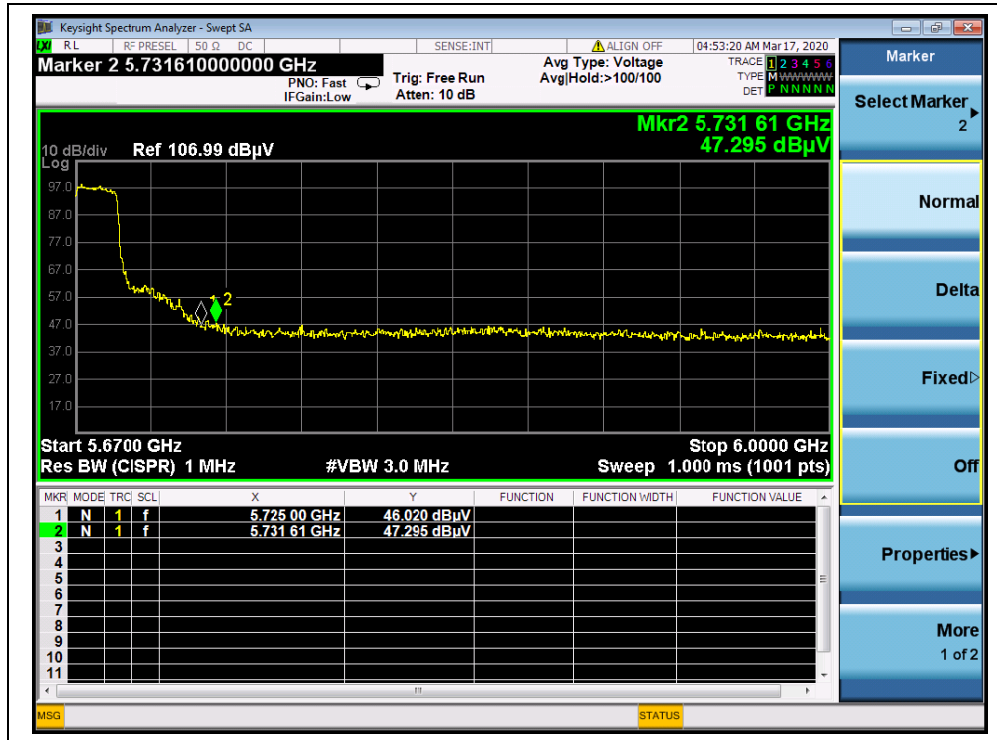
(Channel 62, AVG, 802.11n (HT40))



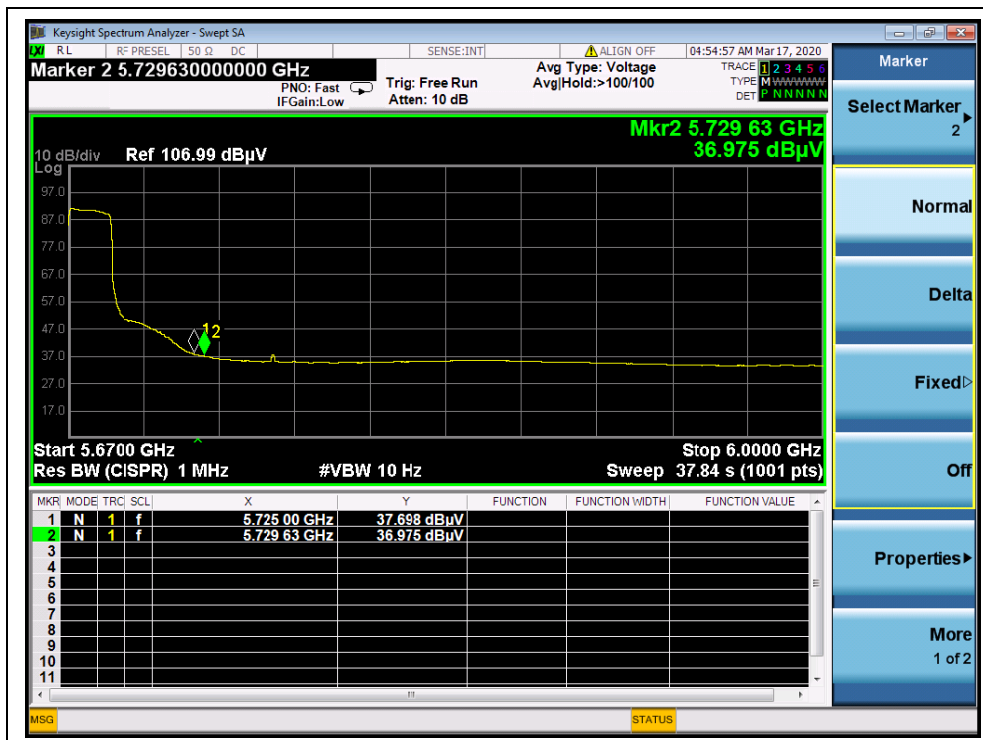
(Channel 102, PEAK, 802.11n (HT40))



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



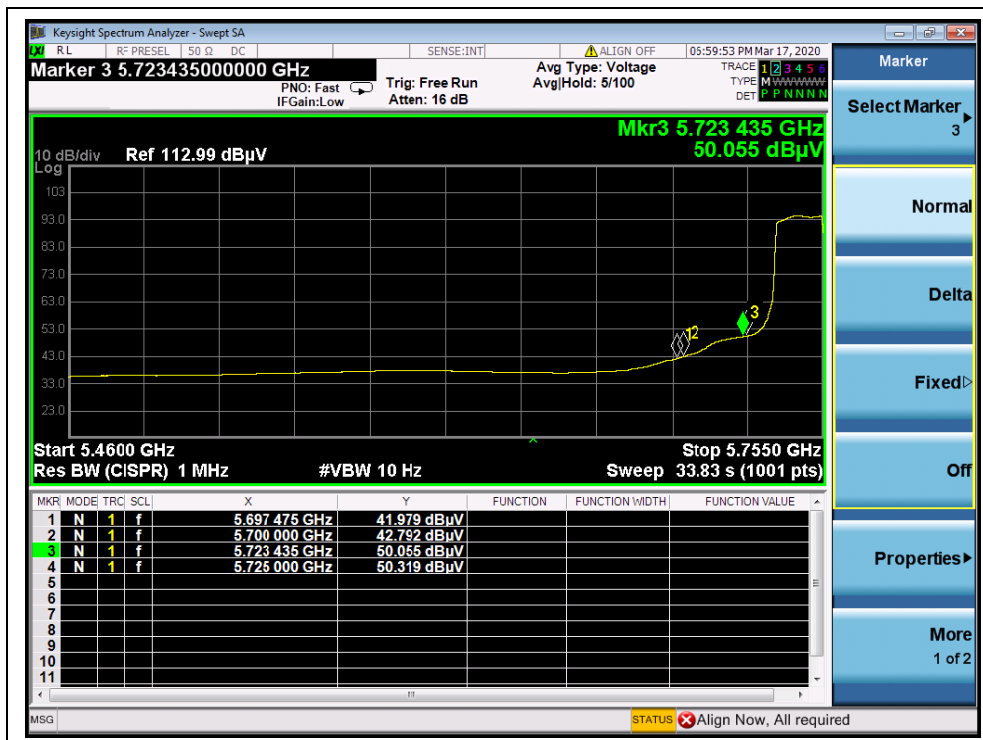
(Channel 142, PEAK, 802.11n (HT40))



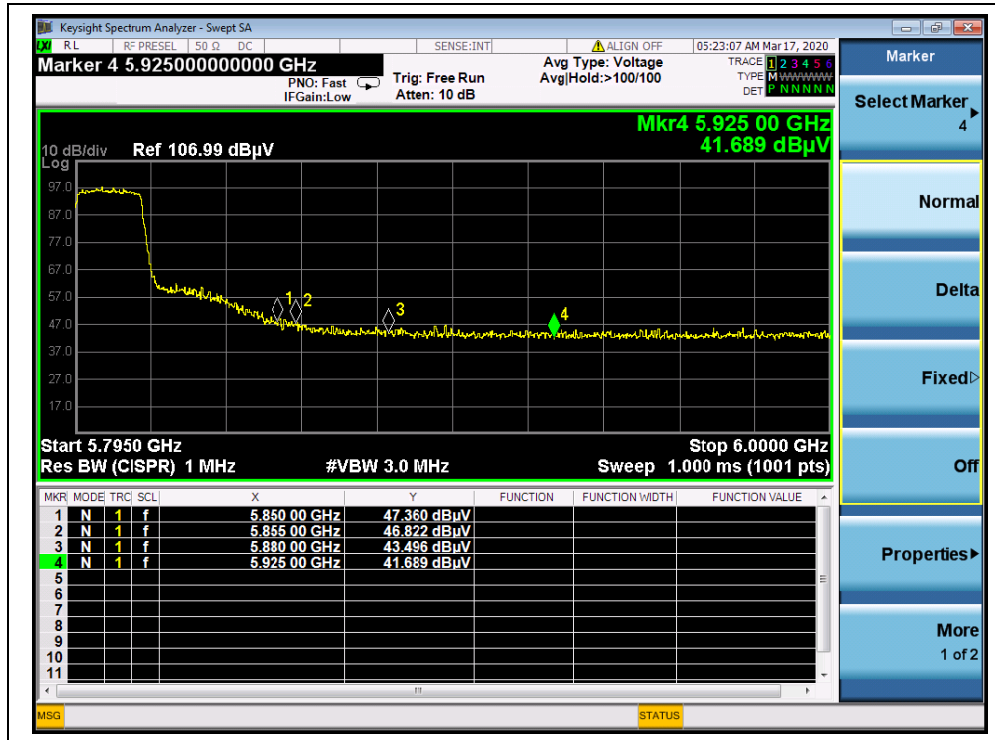
(Channel 142, AVG, 802.11n (HT40))



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



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



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



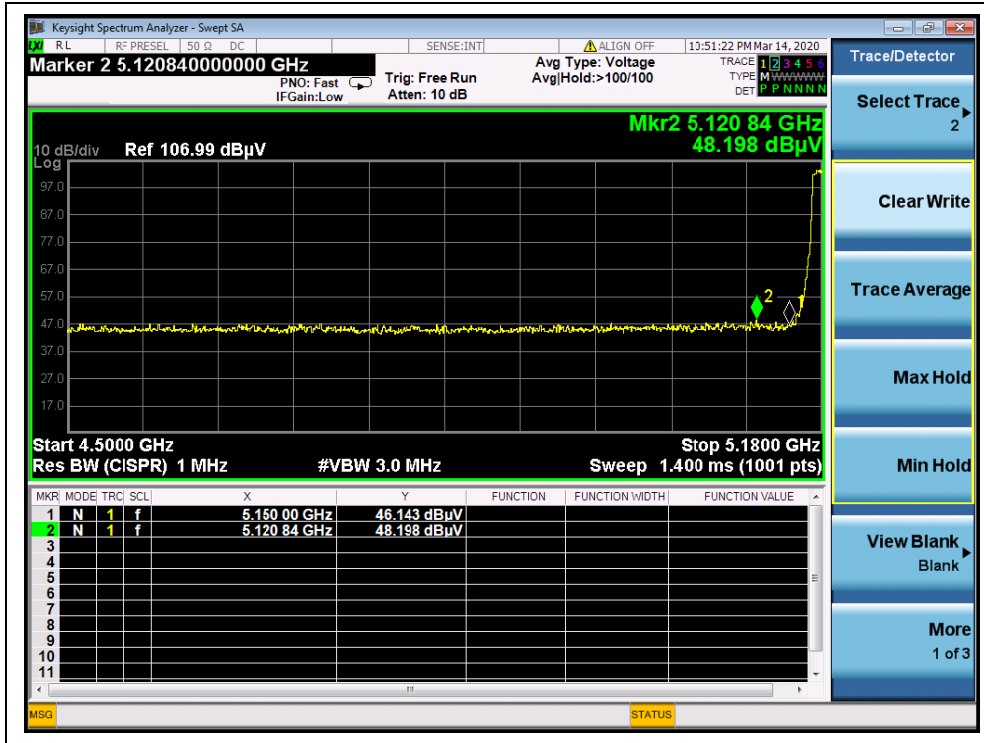
(Channel 159, AVG, 802.11n (HT40))

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

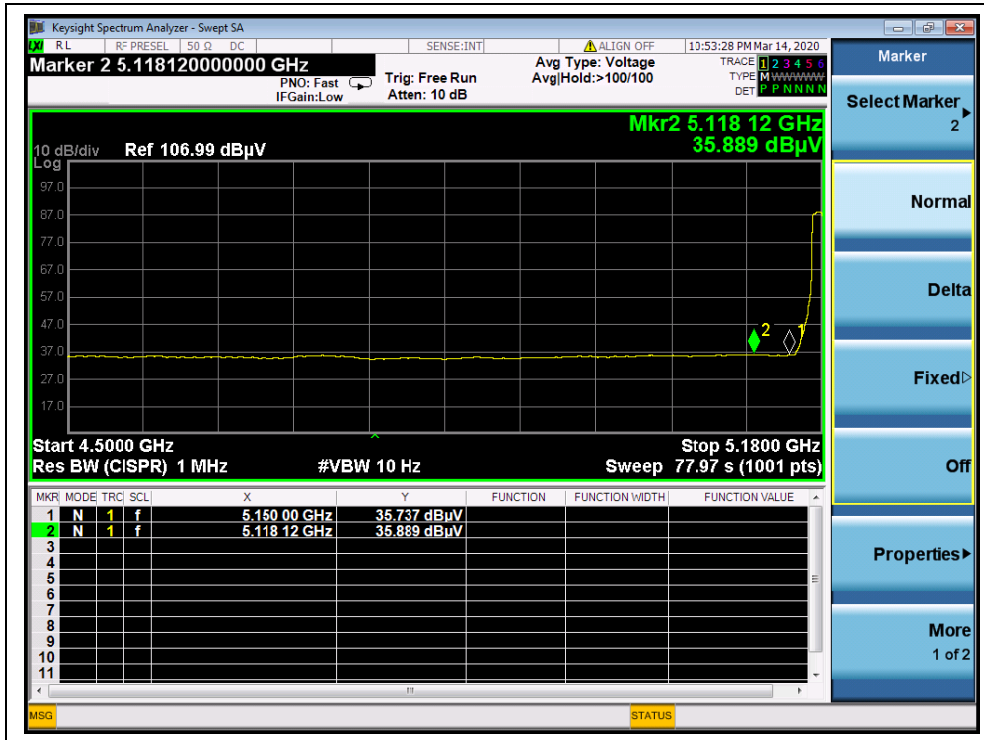
Channel	Frequency (MHz)	Detector	Receiver Reading U_R (dBuV)	A_T (dB)	A_{Factor} (dB@3m)	Max. Emission E (dB μ V/m)	Limit (dB μ V/m)	Verdict
		PK/ AV						
36	5120.84	PK	48.20	-26.92	32.20	53.48	74	PASS
36	5118.12	AV	35.89	-26.92	32.20	41.17	54	PASS
64	5350.52	PK	55.07	-26.80	32.20	60.47	74	PASS
64	5350.00	AV	34.55	-26.80	32.20	39.95	54	PASS
100	5236.64	PK	48.57	-26.64	32.20	54.13	68.23	PASS
100	5264.69	AV	35.22	-26.64	32.20	40.78	54	PASS
144	5729.40	PK	48.79	-26.64	32.20	54.35	68.23	PASS
144	5760.00	AV	38.39	-26.64	32.20	43.95	54	PASS
149	5721.35	PK	55.43	-26.23	32.20	61.40	113.91	PASS
149	5725.00	AV	44.27	-26.23	32.20	50.24	54	PASS
165	5850.00	PK	44.03	-26.23	32.20	50.00	122.23	PASS
165	5850.00	AV	35.00	-26.23	32.20	40.97	54	PASS



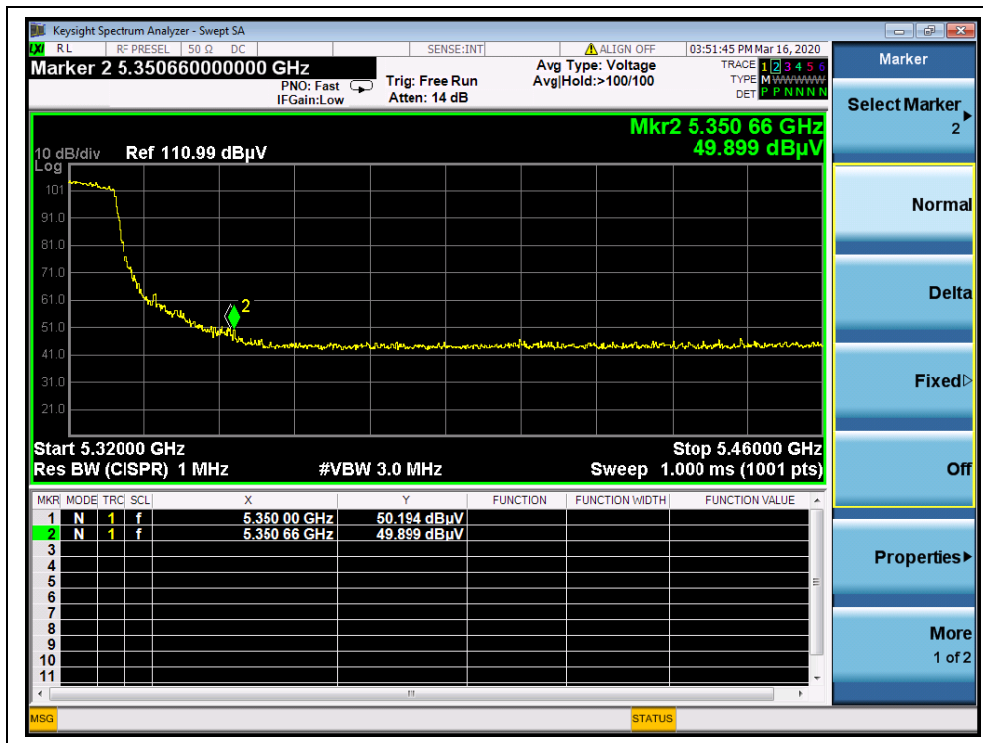
B. Test Plots:



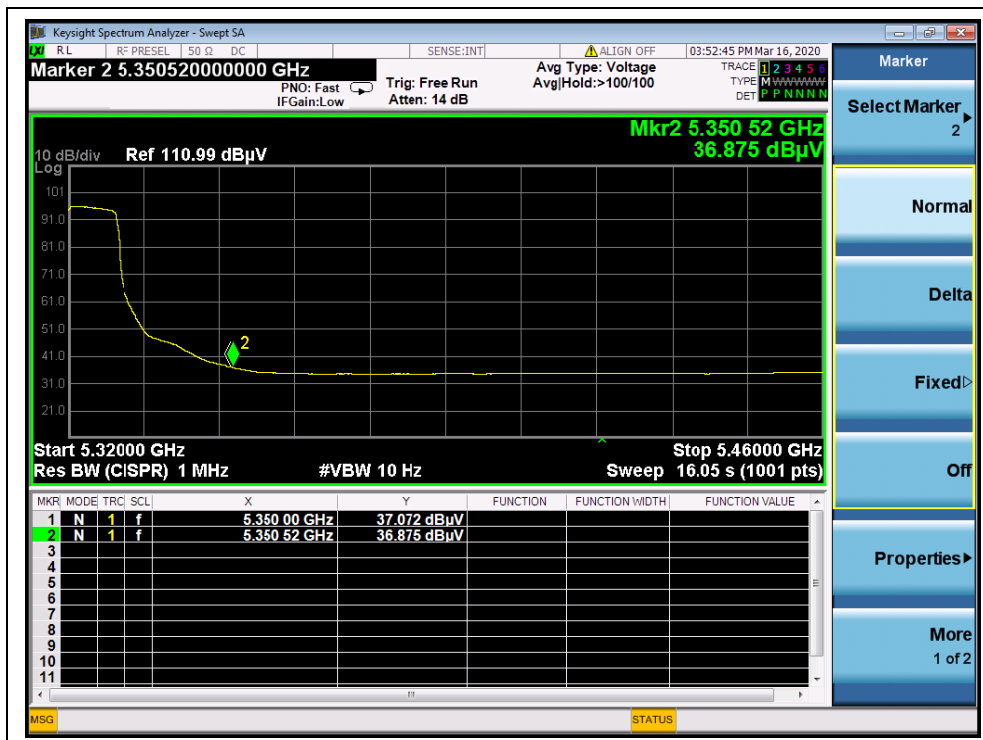
(Channel 36, PEAK, 802.11ac (VHT20))



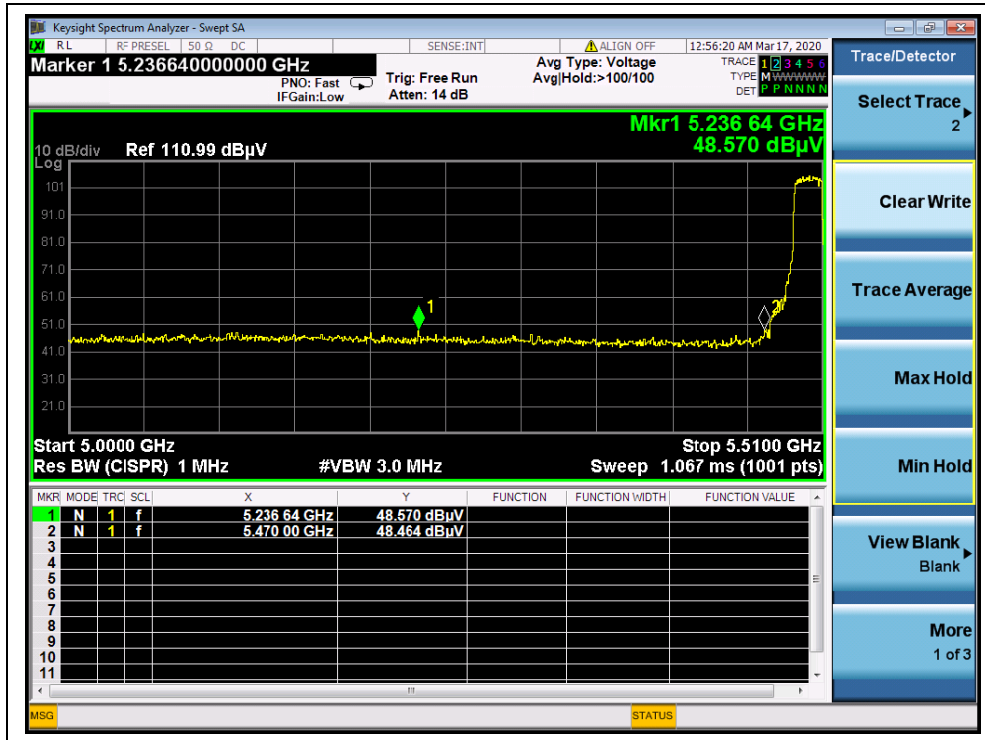
(Channel 36, AVG, 802.11ac (VHT20))



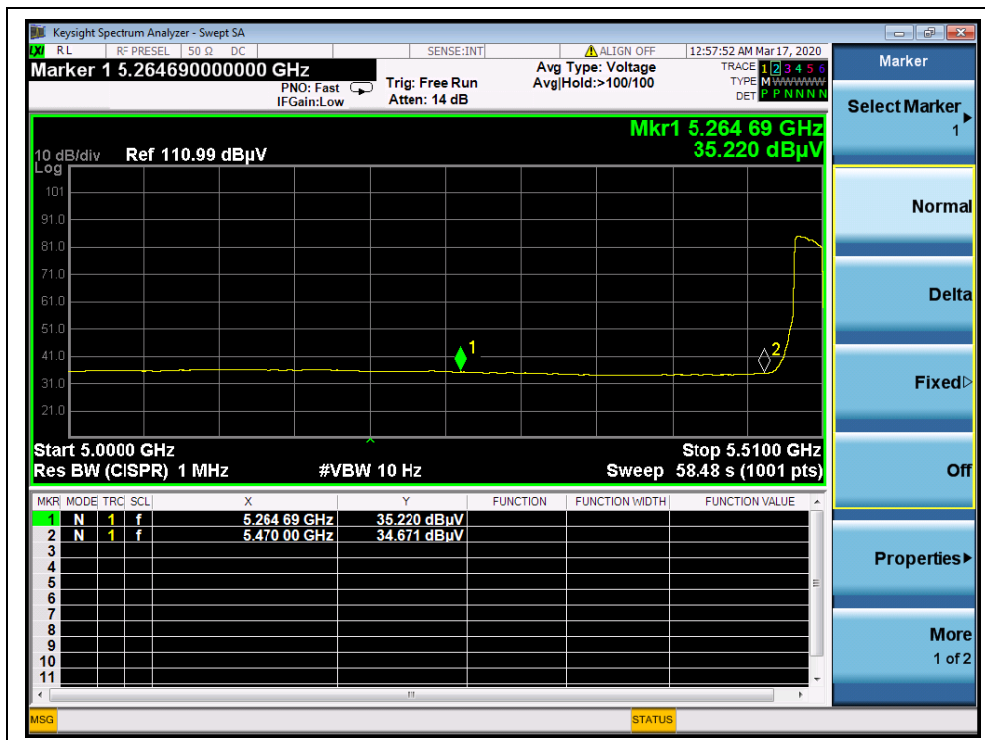
(Channel 64, PEAK, 802.11ac (VHT20))



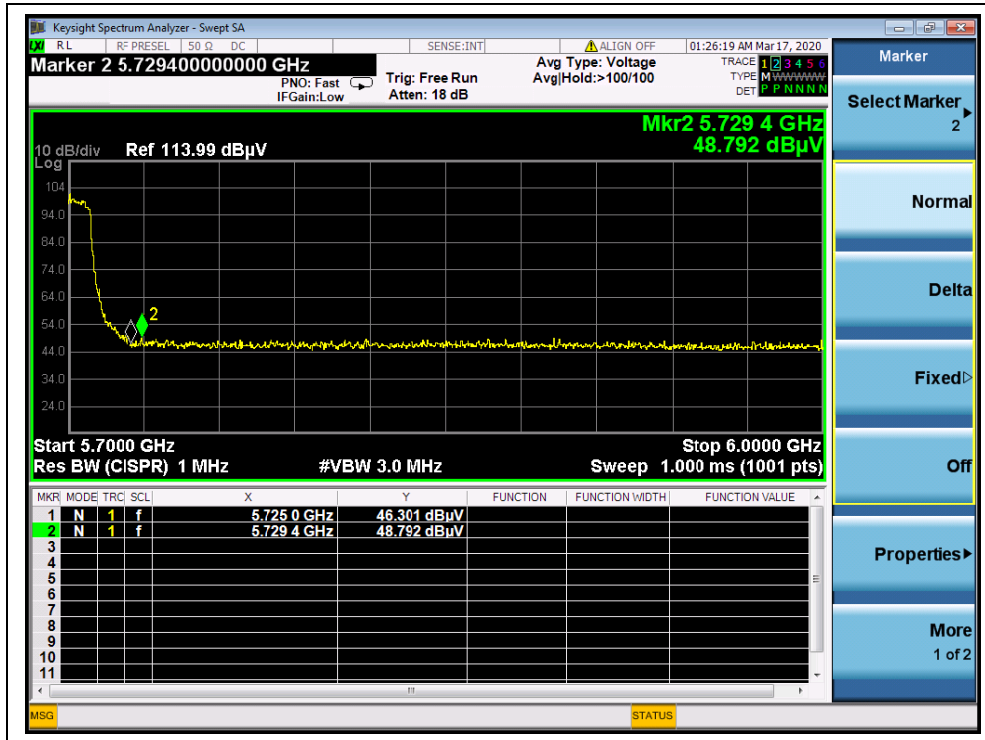
(Channel 64, AVG, 802.11 ac (VHT20))



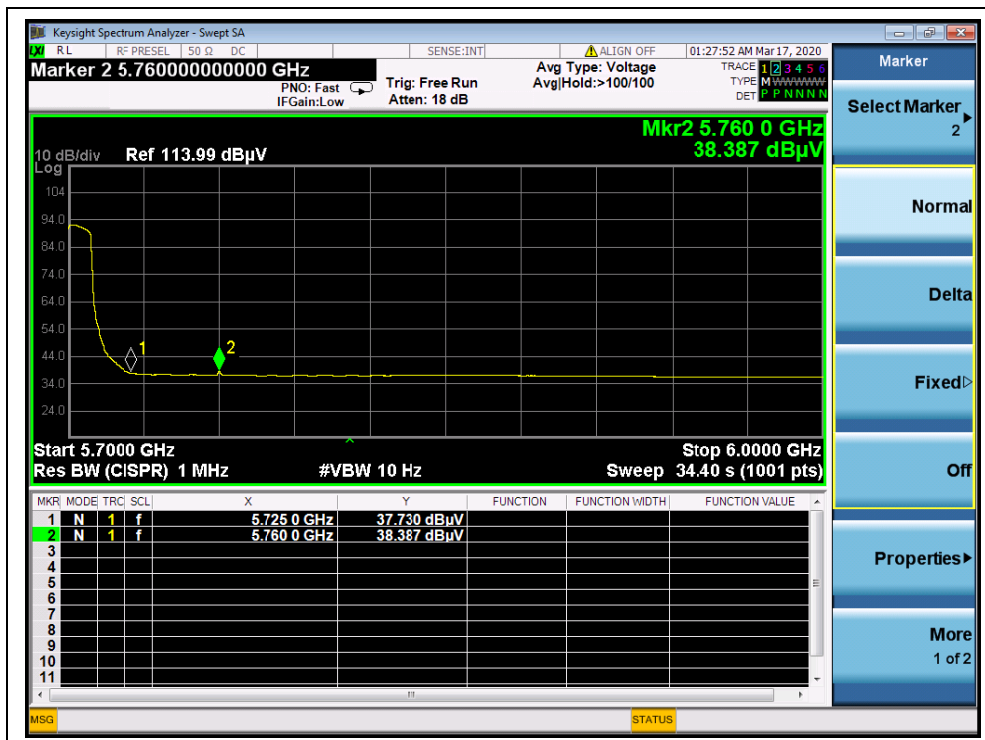
(Channel 100, PEAK, 802.11ac (VHT20))



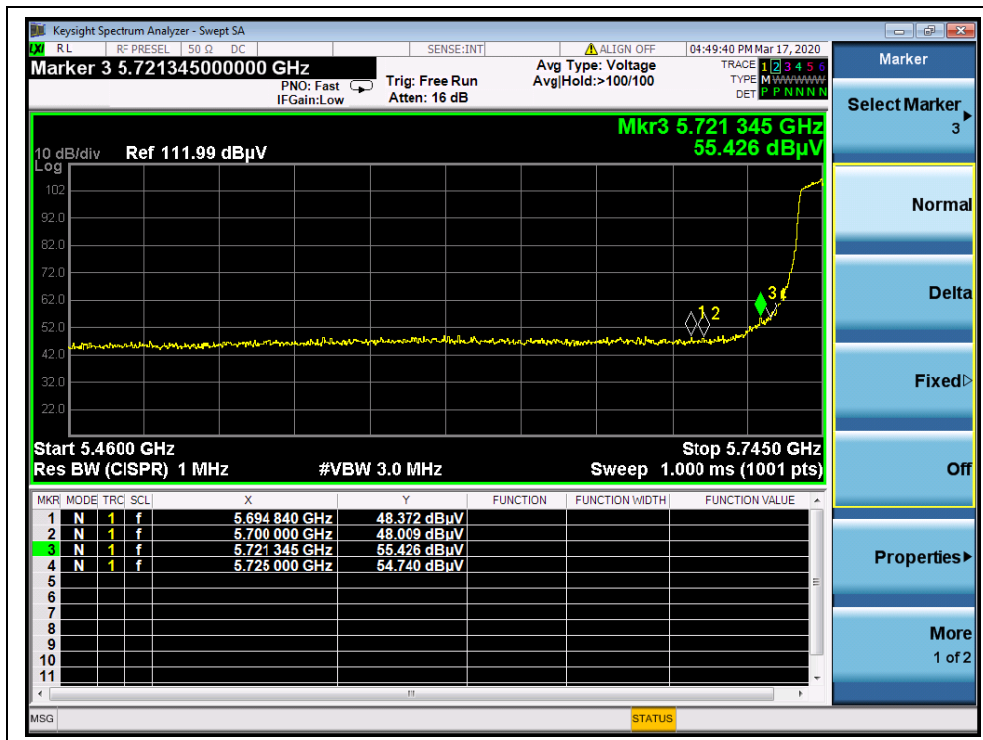
(Channel 100, AVG, 802.11 ac (VHT20))



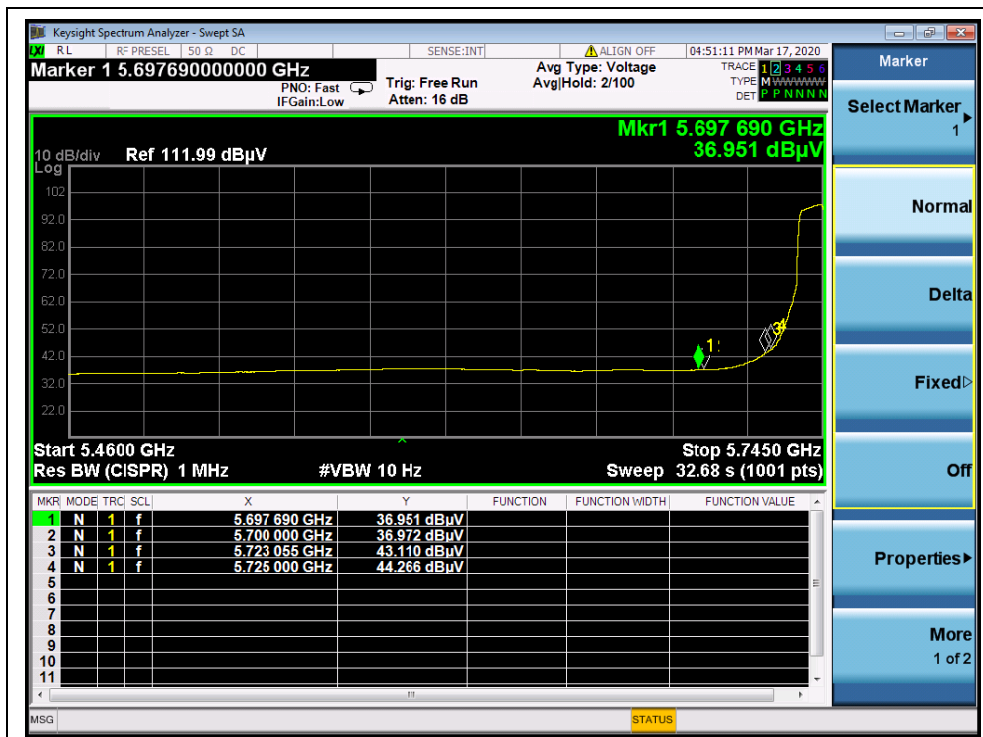
(Channel 144, PEAK, 802.11ac (VHT20))



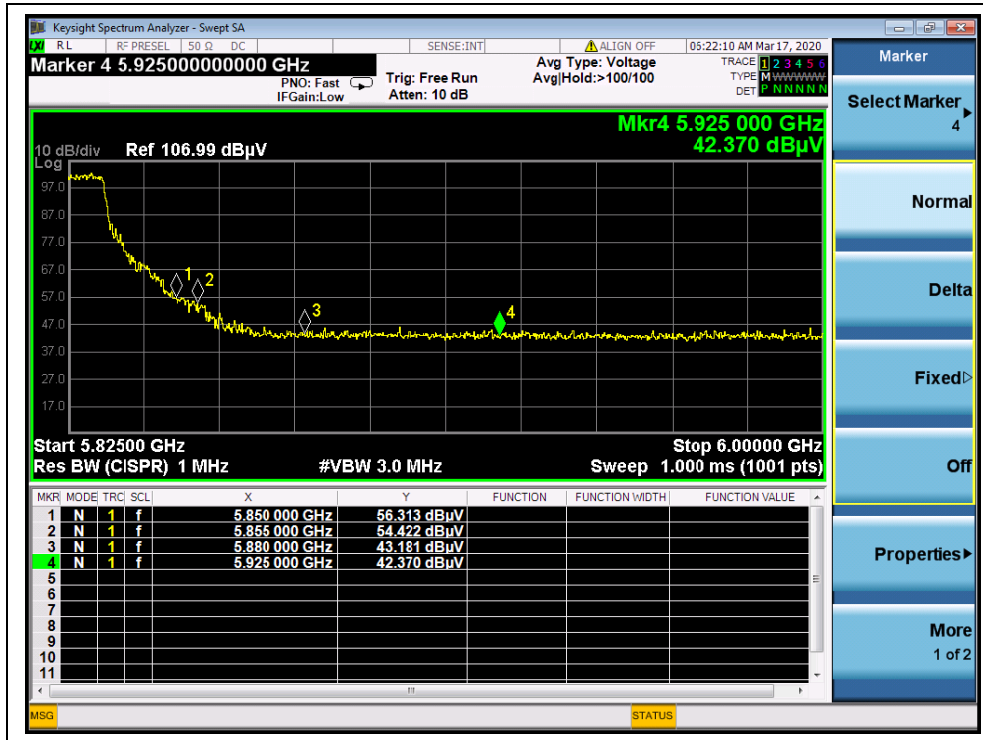
(Channel 144, AVG, 802.11 ac (VHT20))



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



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



(Channel 165, PEAK, 802.11ac (VHT20))



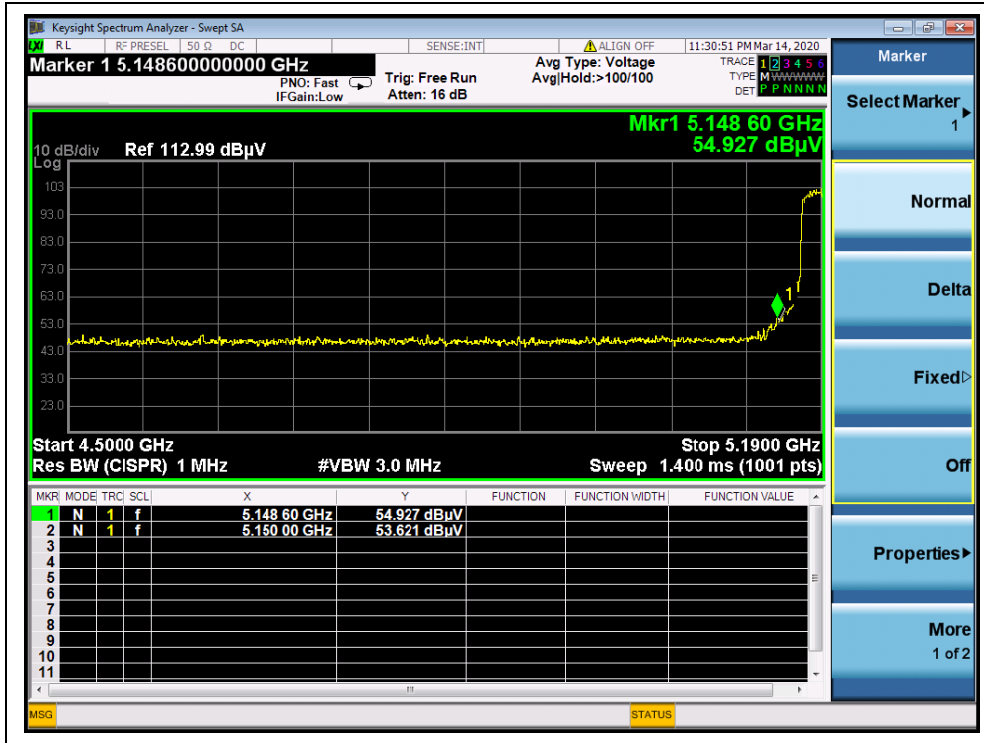
(Channel 165, AVG, 802.11 ac (VHT20))

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

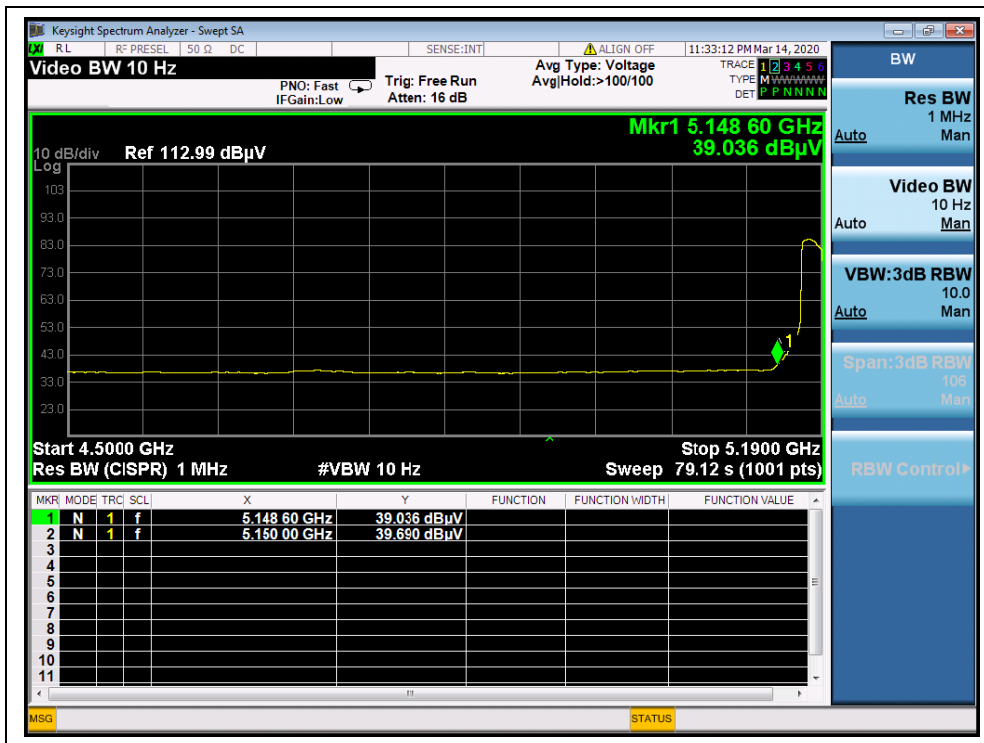
Channel	Frequency (MHz)	Detector	Receiver Reading U_R (dBuV)	A_T (dB)	A_{Factor} (dB@3m)	Max. Emission E (dB μ V/m)	Limit (dB μ V/m)	Verdict
		PK/ AV						
38	5148.90	PK	54.93	-26.92	32.20	60.21	74	PASS
38	5150.00	AV	39.69	-26.92	32.20	44.97	54	PASS
62	5351.85	PK	57.76	-26.80	32.20	63.16	74	PASS
62	5350.00	AV	38.55	-26.80	32.20	43.95	54	PASS
102	5466.14	PK	56.51	-26.64	32.20	62.07	68.23	PASS
102	5470.00	AV	45.31	-26.64	32.20	50.87	54	PASS
142	5728.08	PK	54.25	-26.64	32.20	59.81	68.23	PASS
142	5725.00	AV	42.71	-26.64	32.20	48.27	54	PASS
151	5721.37	PK	61.47	-26.23	32.20	67.44	113.95	PASS
151	5725.00	AV	48.40	-26.23	32.20	54.37	54	PASS
159	5850.00	PK	46.17	-26.23	32.20	52.14	122.23	PASS
159	5850.00	AV	37.60	-26.23	32.20	43.57	54	PASS



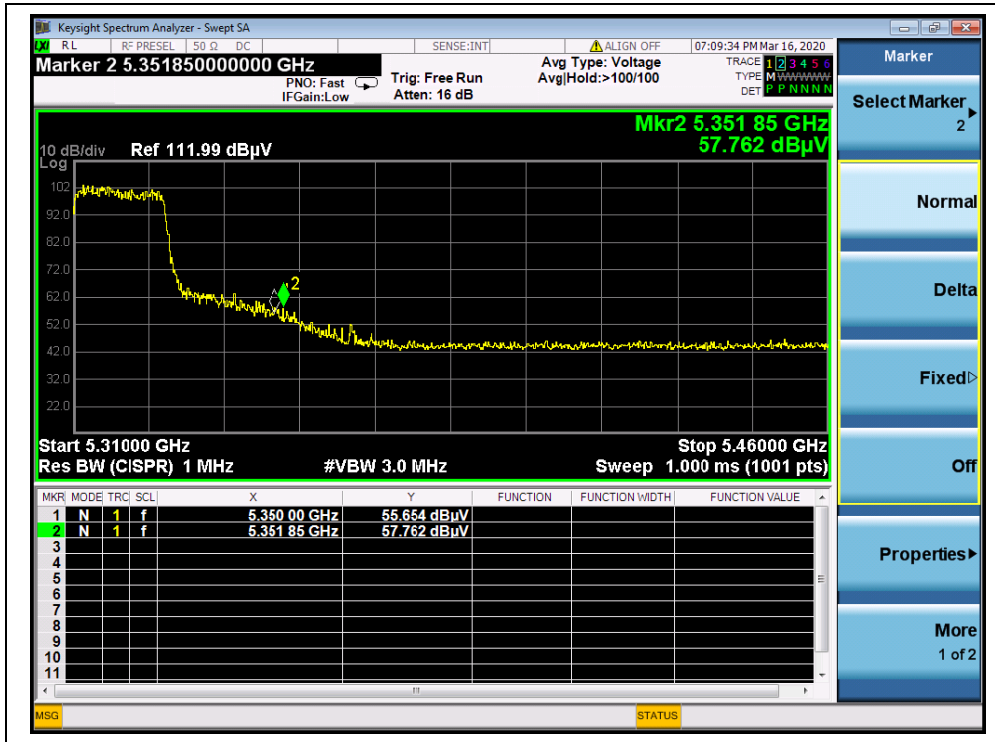
B. Test Plots:



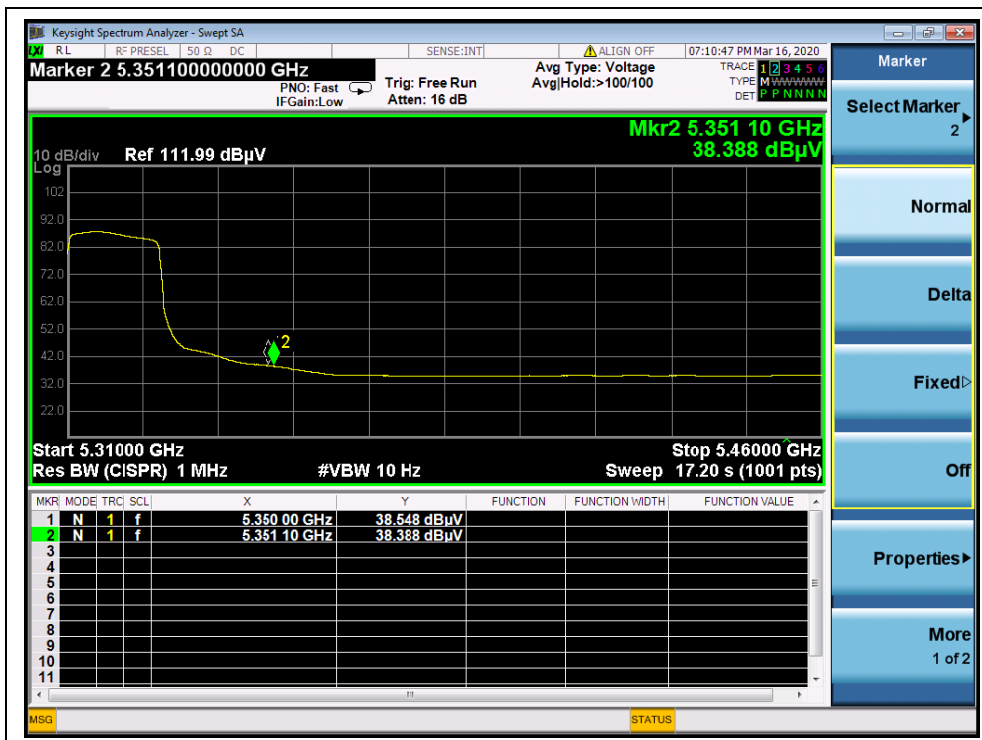
(Channel 38, PEAK, 802.11ac (VHT40))



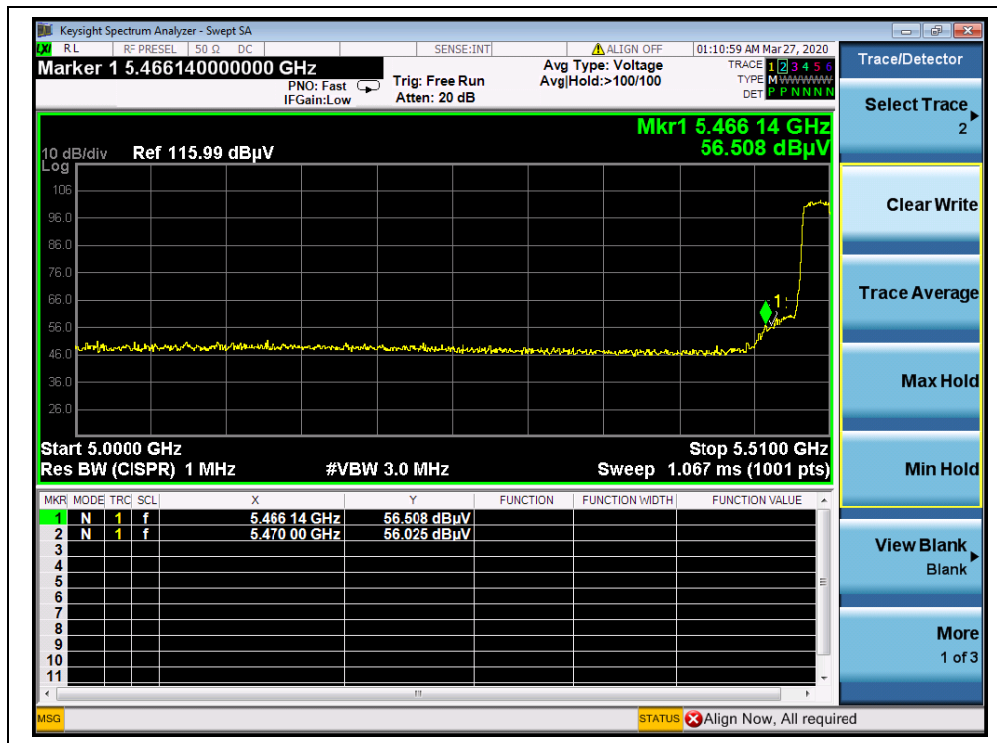
(Channel 38, AVG, 802.11ac (VHT40))



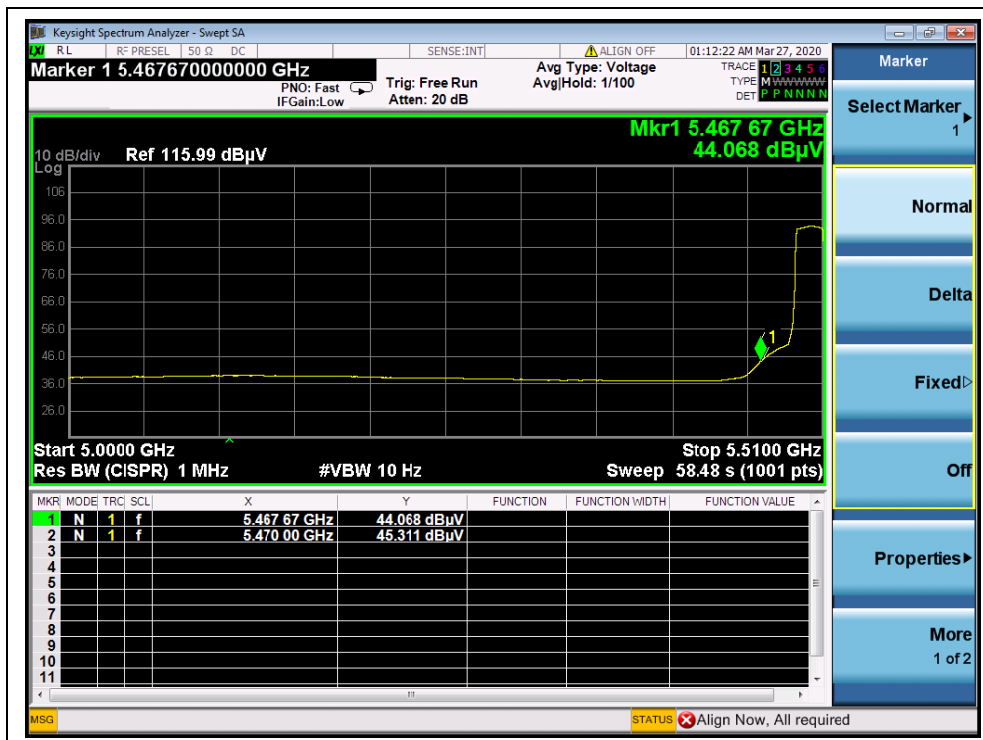
(Channel 62, PEAK, 802.11ac (VHT40))



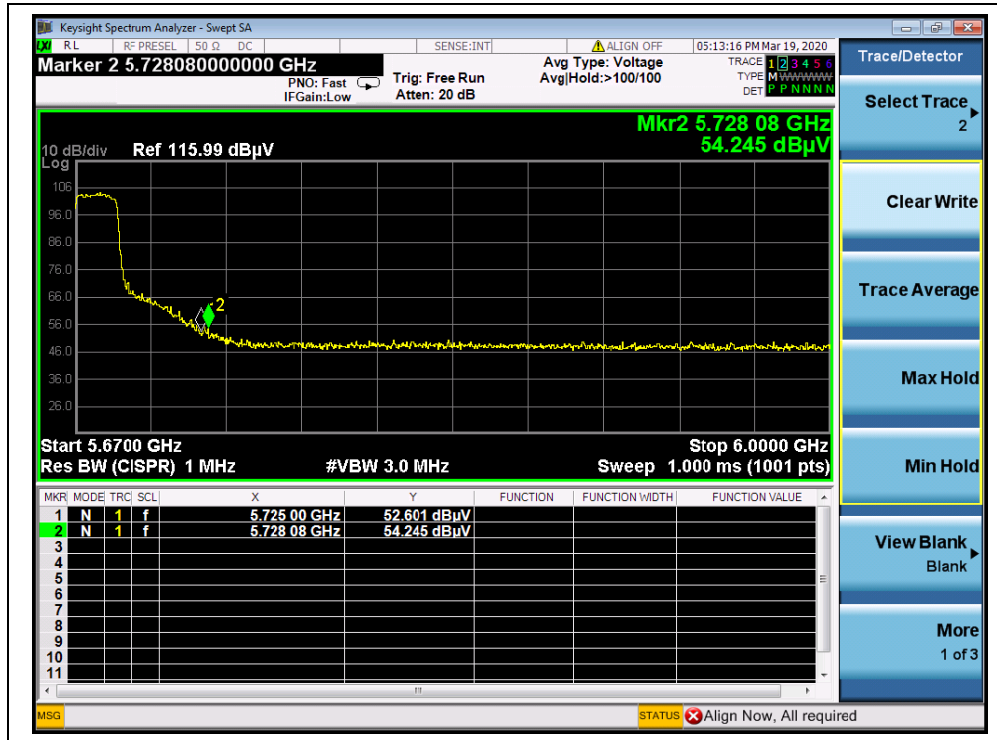
(Channel 62, AVG, 802.11ac (VHT40))



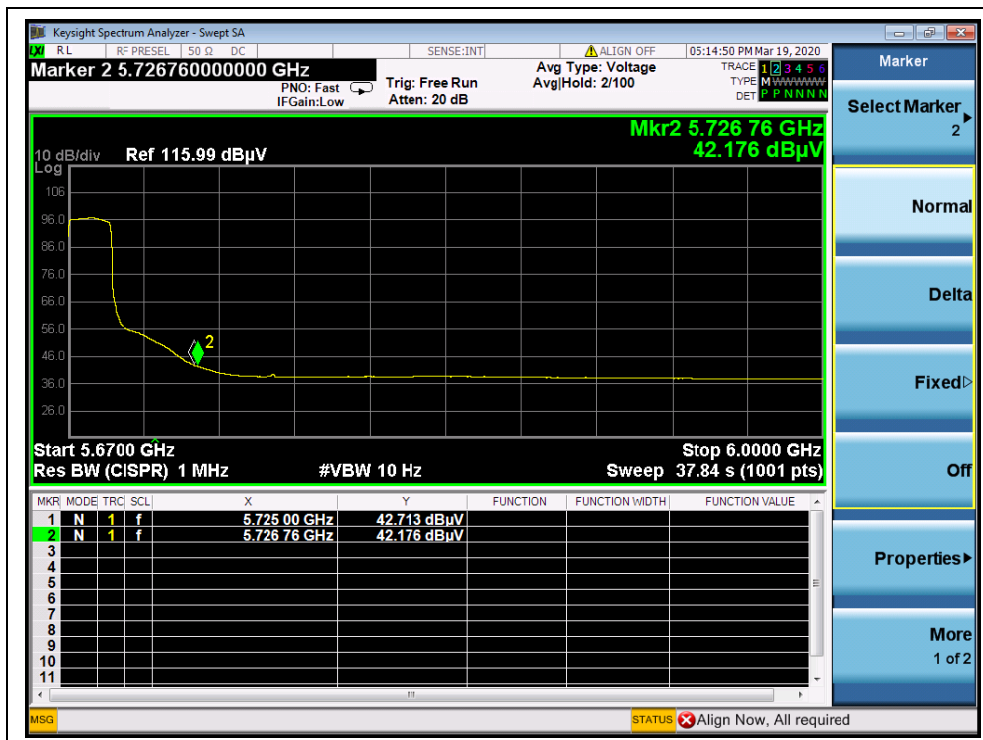
(Channel 102, PEAK, 802.11ac (VHT40))



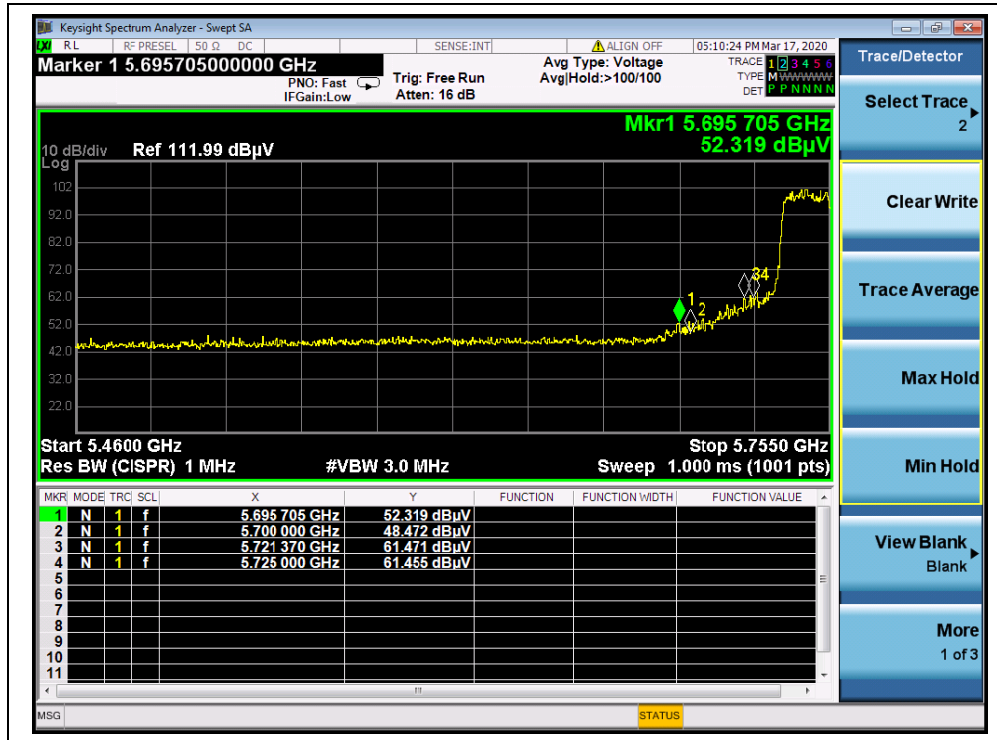
(Channel 102, AVG, 802.11ac (VHT40))



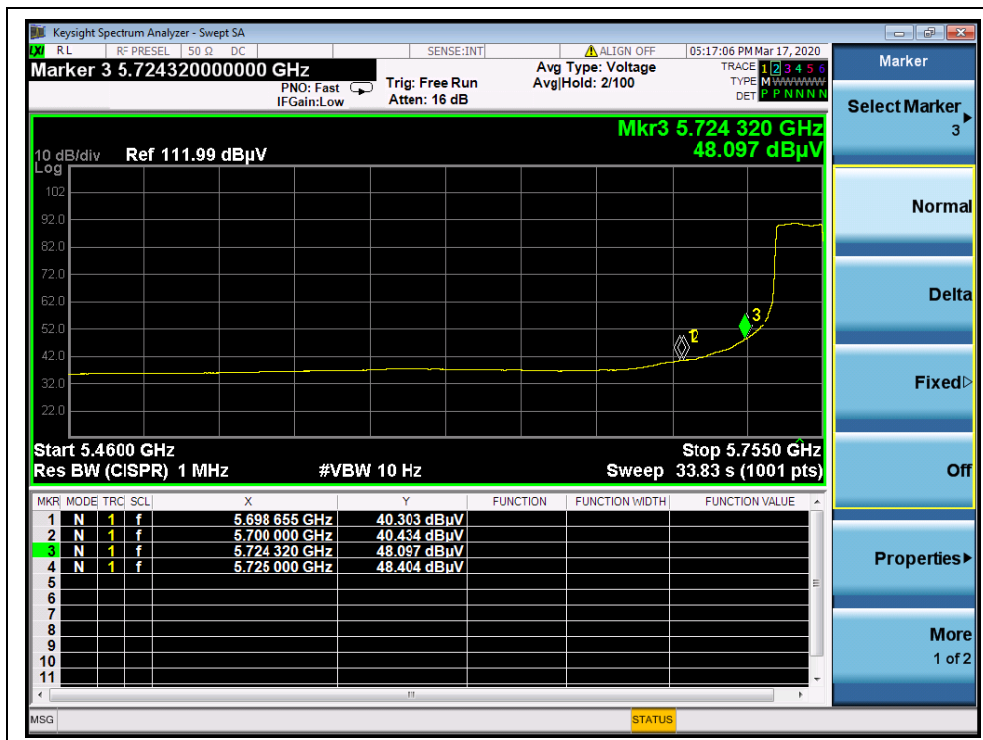
(Channel 142, PEAK, 802.11ac (VHT40))



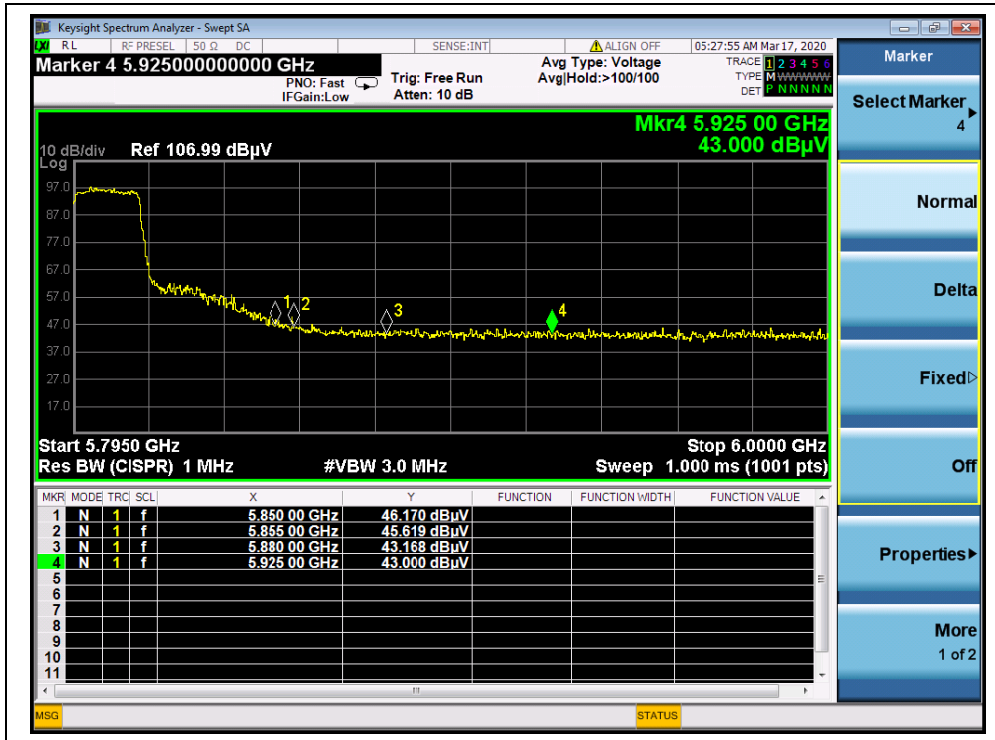
(Channel 142, AVG, 802.11ac (VHT40))



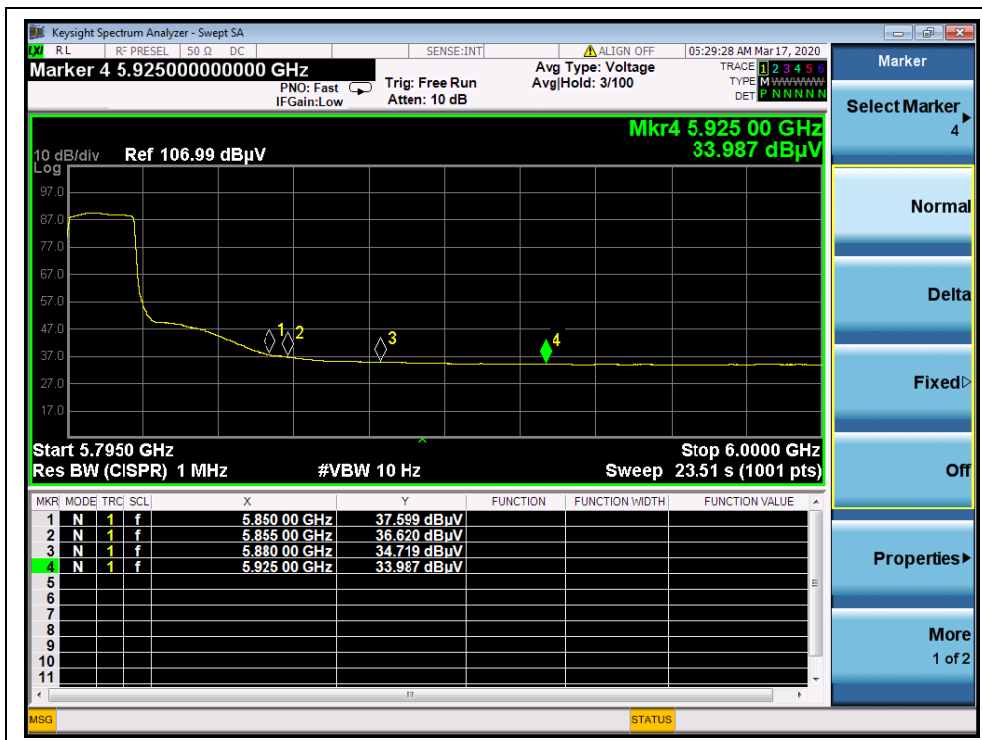
(Channel 151, PEAK, 802.11ac (VHT40))



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



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



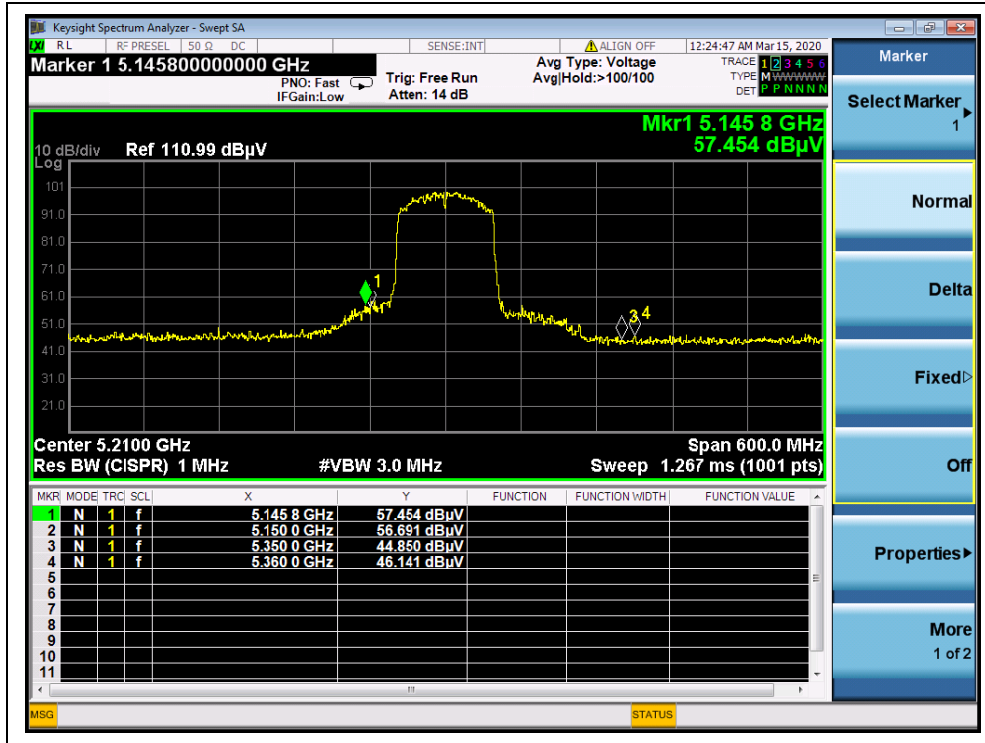
(Channel 159, AVG, 802.11ac (VHT40))

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

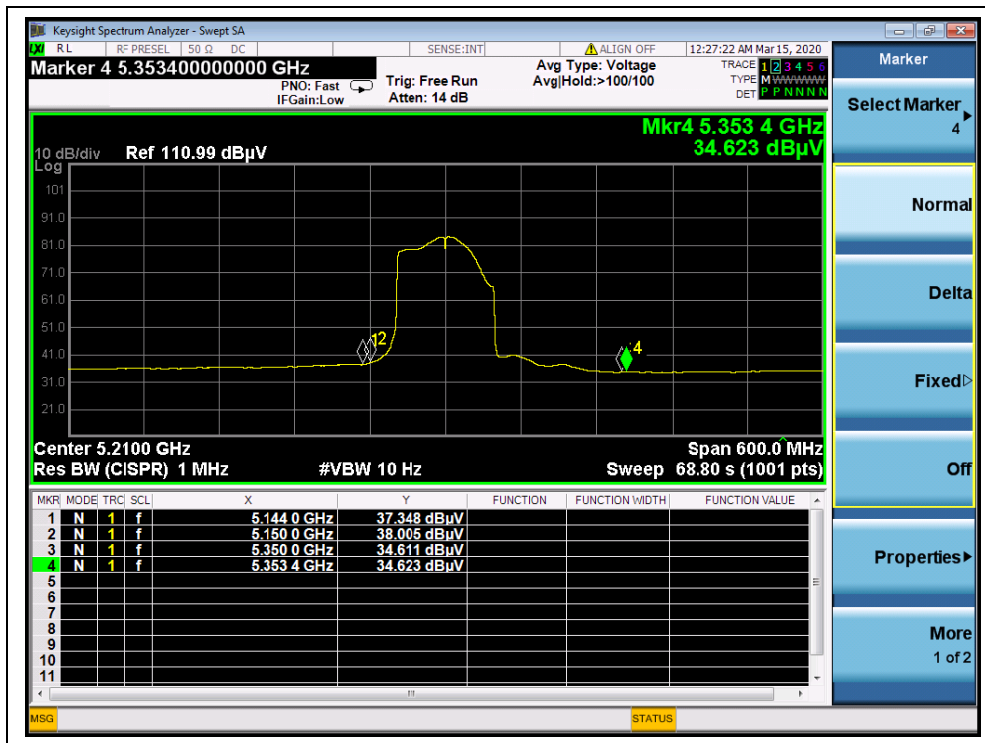
Channel	Frequency (MHz)	Detector	Receiver Reading U_R (dBuV)	A_T (dB)	A_{Factor} (dB@3m)	Max. Emission E (dB μ V/m)	Limit (dB μ V/m)	Verdict
		PK/ AV						
42	5145.80	PK	57.45	-26.92	32.20	62.73	74	PASS
42	5150.00	AV	38.01	-26.92	32.20	43.29	54	PASS
58	5350.00	PK	64.23	-26.80	32.20	69.63	74	PASS
58	5350.00	AV	48.29	-26.80	32.20	53.69	54	PASS
106	5467.46	PK	52.51	-26.64	32.20	58.07	68.23	PASS
106	5470.00	AV	41.54	-26.64	32.20	47.1	54	PASS
138	5740.43	PK	46.24	-26.64	32.20	51.8	68.23	PASS
138	5725.00	AV	35.59	-26.64	32.20	41.15	54	PASS
155	5725.00	PK	58.80	-26.23	32.20	64.77	122.23	PASS
155	5722.84	AV	48.65	-26.23	32.20	54.62	54	PASS
155	5858.70	PK	61.27	-26.23	32.20	67.24	100.47	PASS
155	5850.00	AV	49.06	-26.23	32.20	55.03	54	PASS



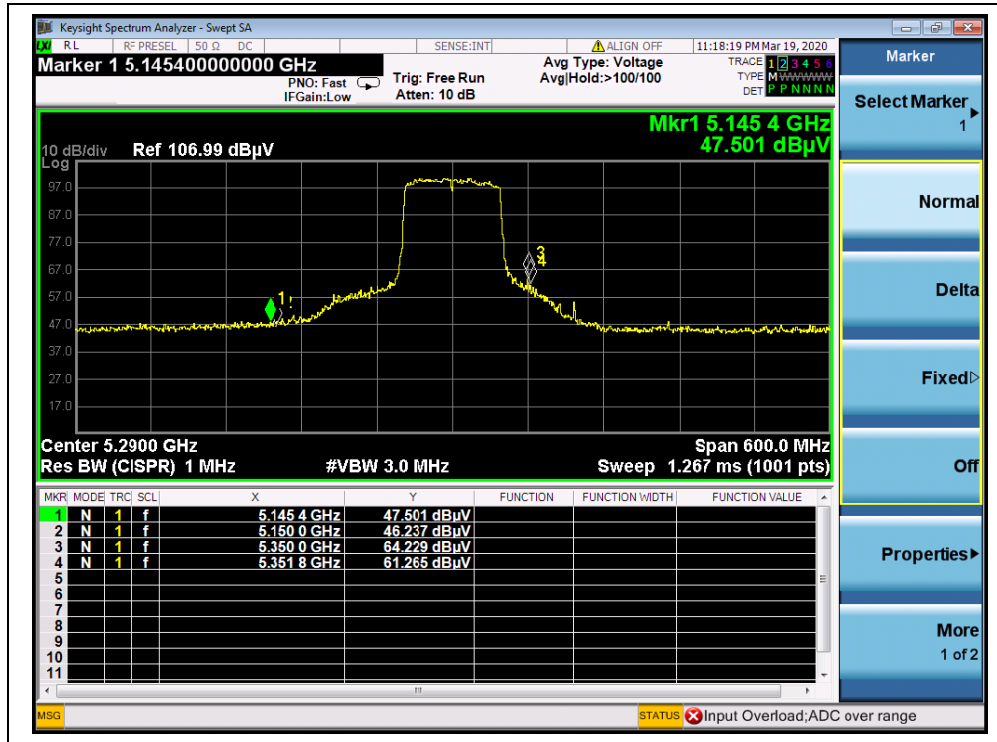
B. Test Plots:



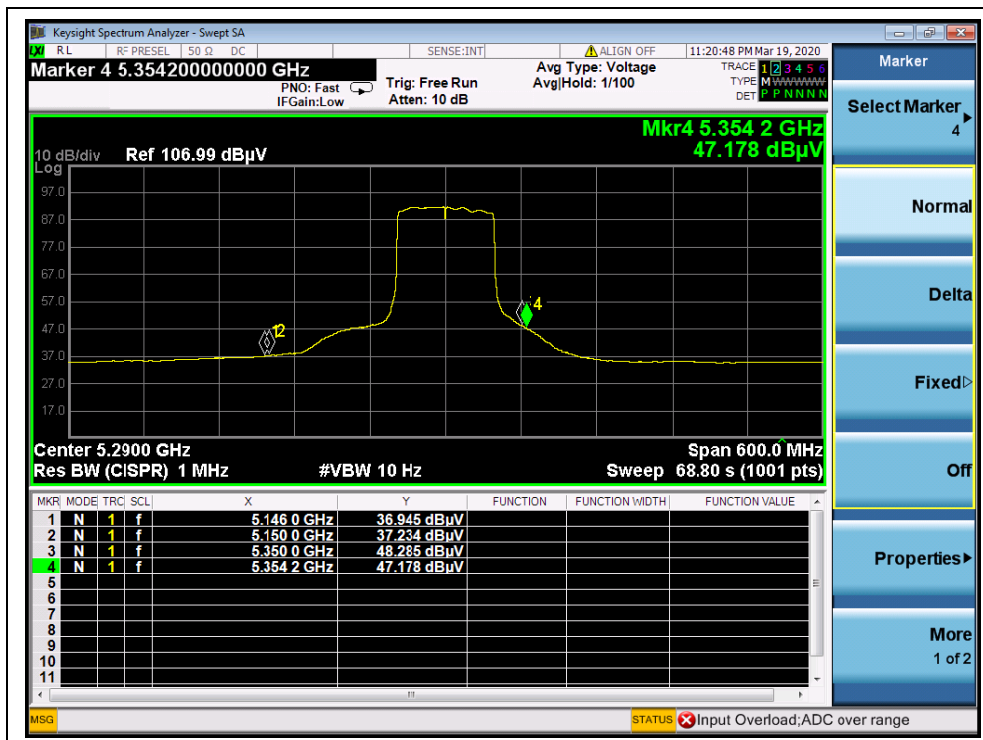
(Channel 42, PEAK, 802.11ac (VHT80))



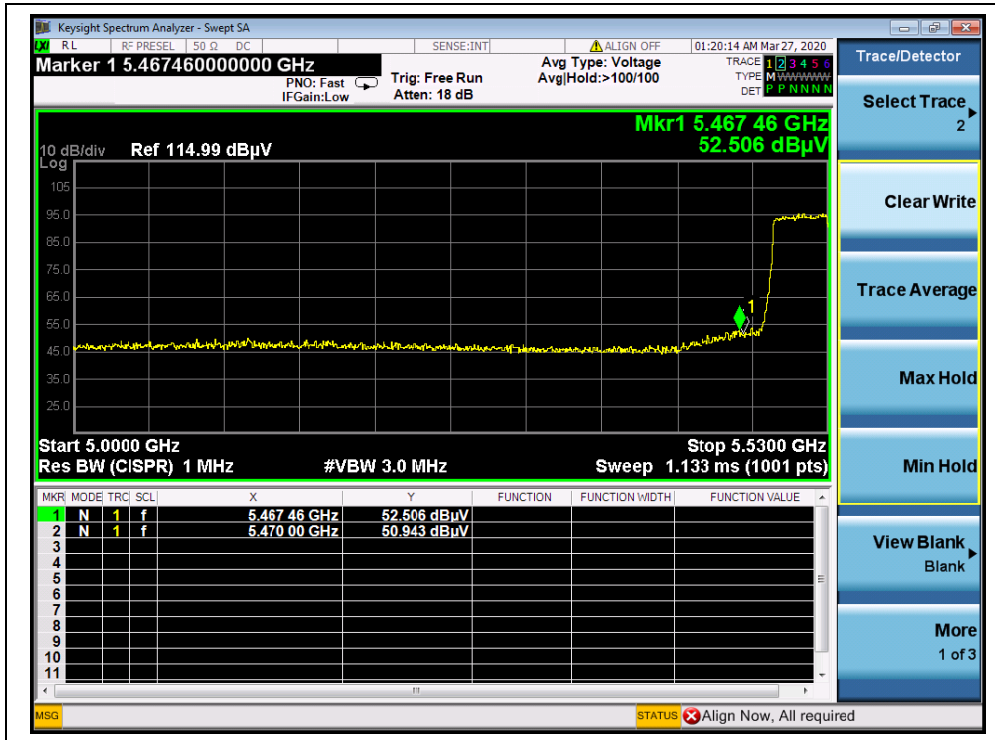
(Channel 42, AVG, 802.11ac (VHT80))



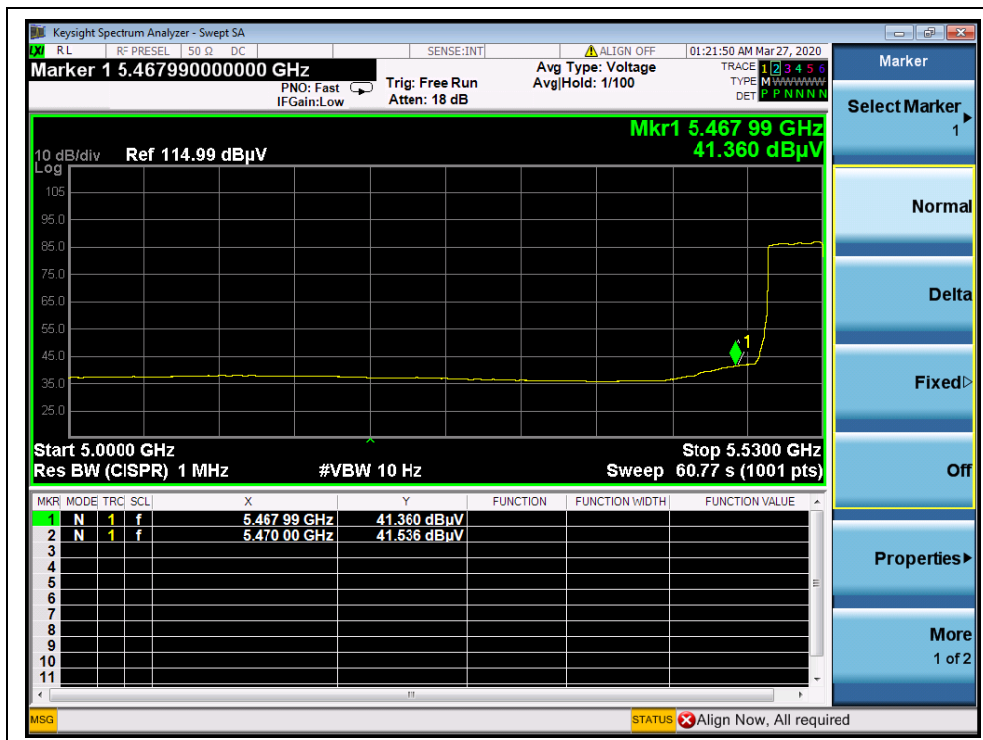
(Channel 58, PEAK, 802.11ac (VHT80))



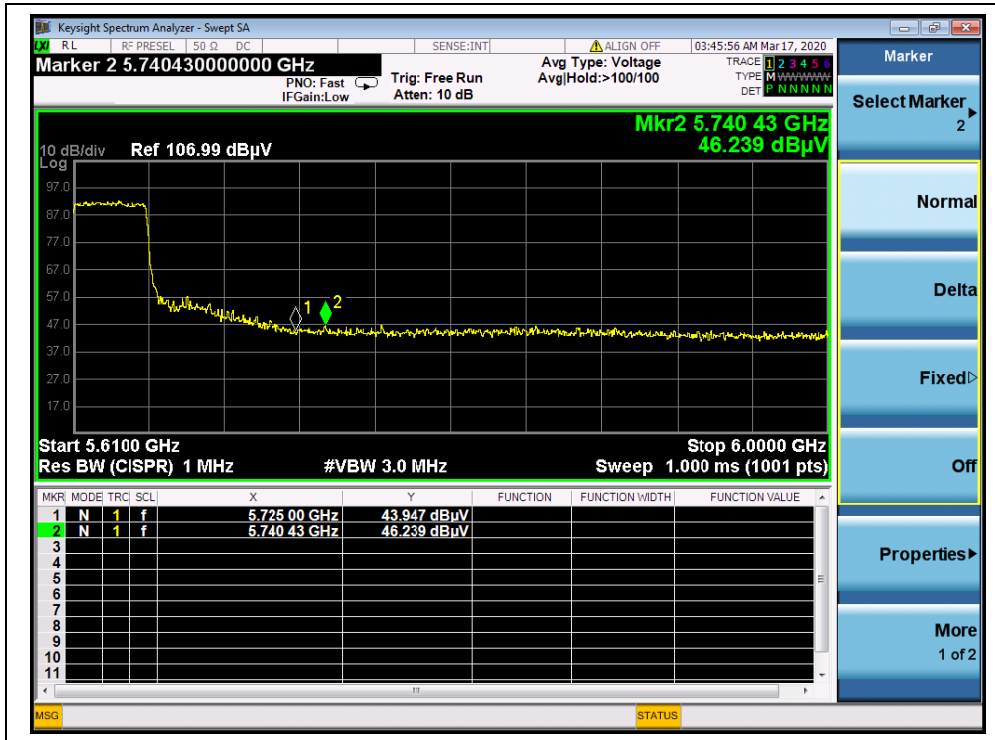
(Channel 58, AVG, 802.11ac (VHT80))



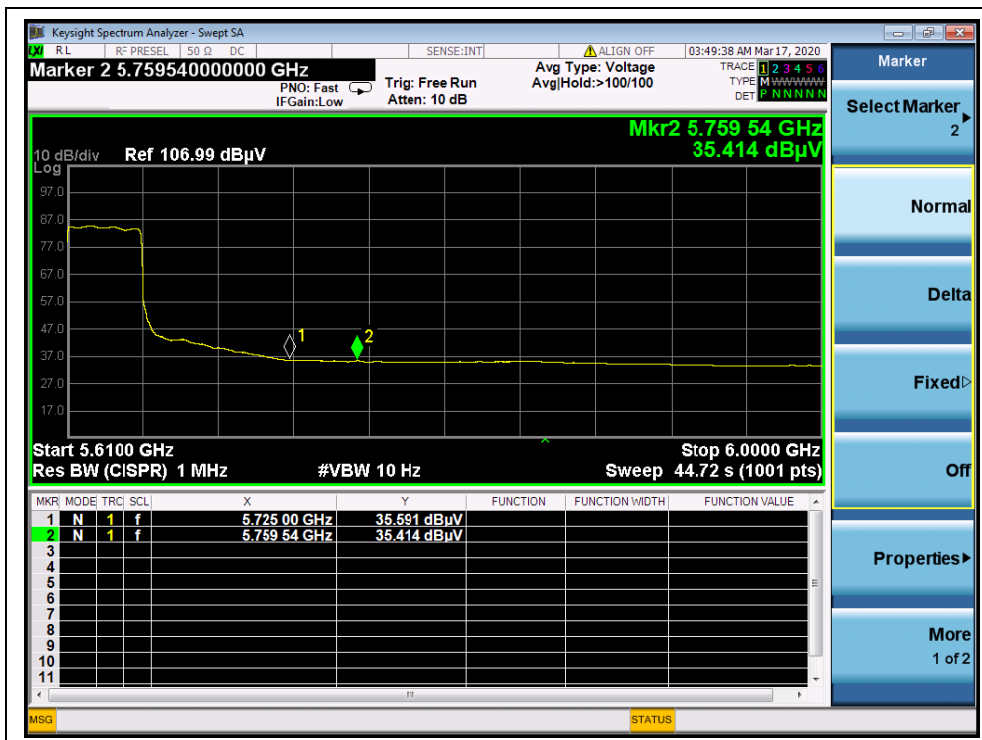
(Channel 106, PEAK, 802.11ac (VHT80))



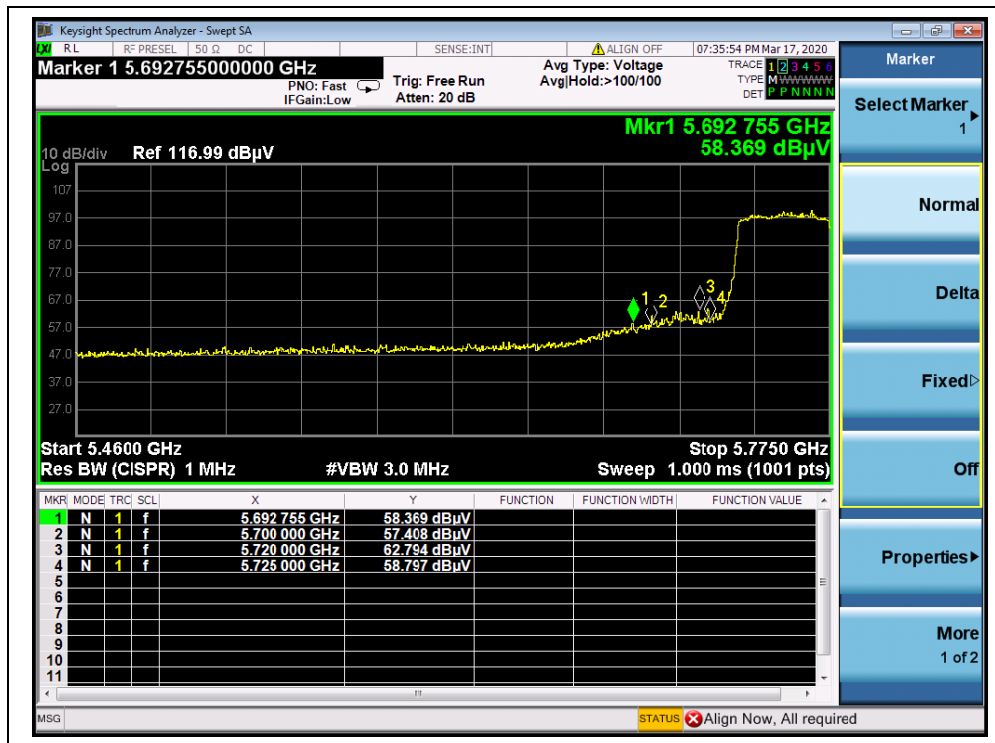
(Channel 106, AVG, 802.11ac (VHT80))



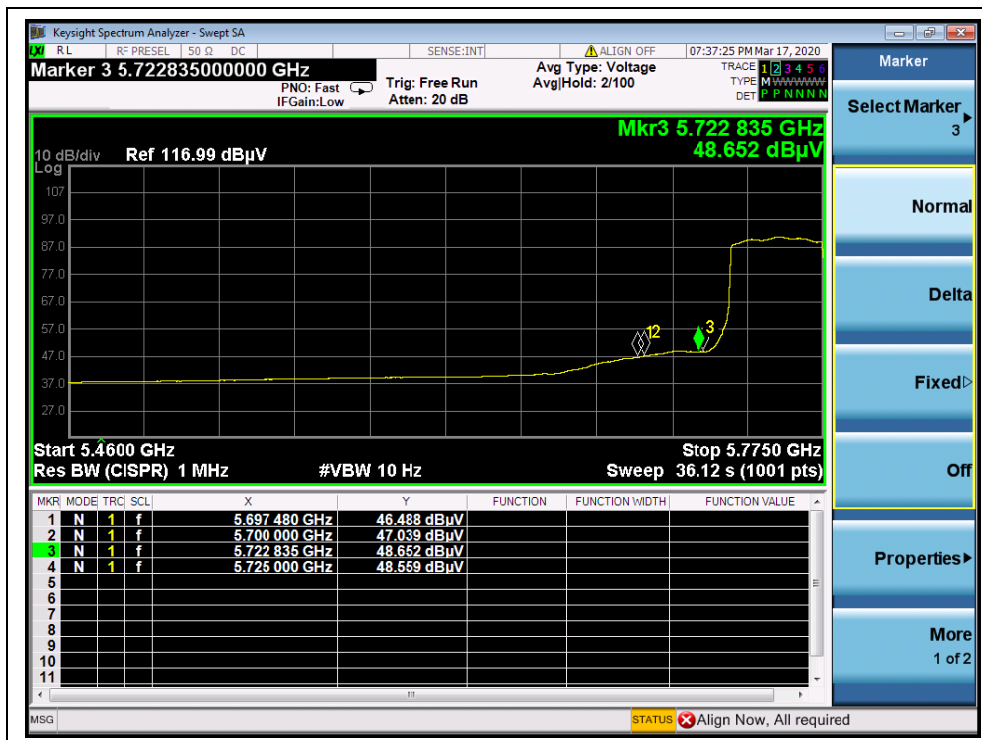
(Channel 138, PEAK, 802.11ac (VHT80))



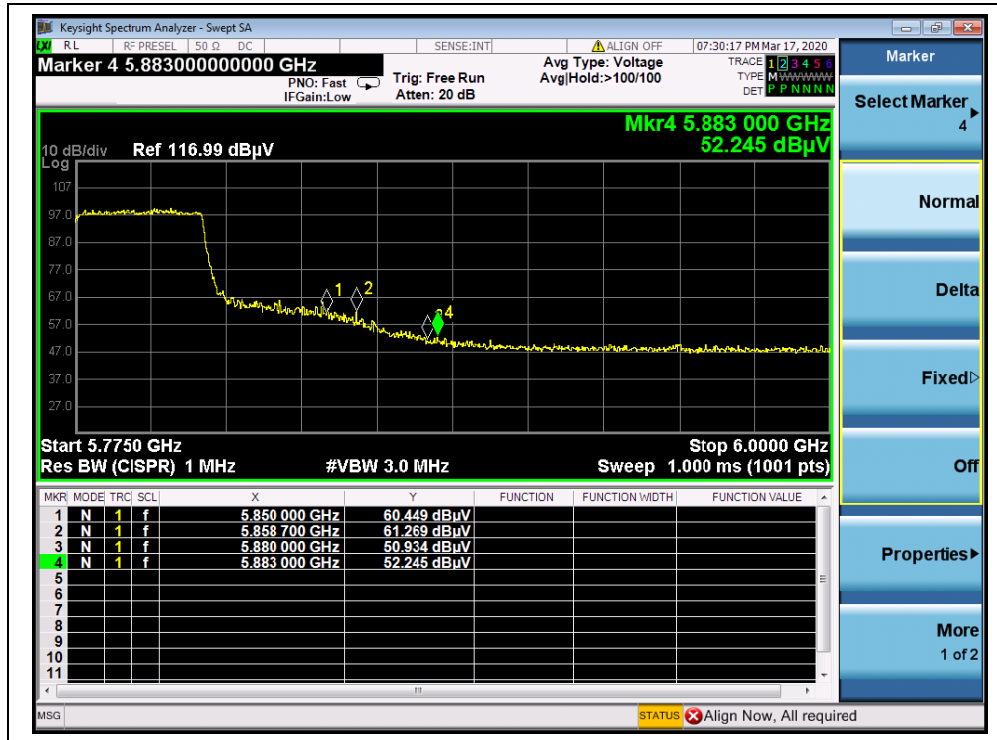
(Channel 138, AVG, 802.11ac (VHT80))



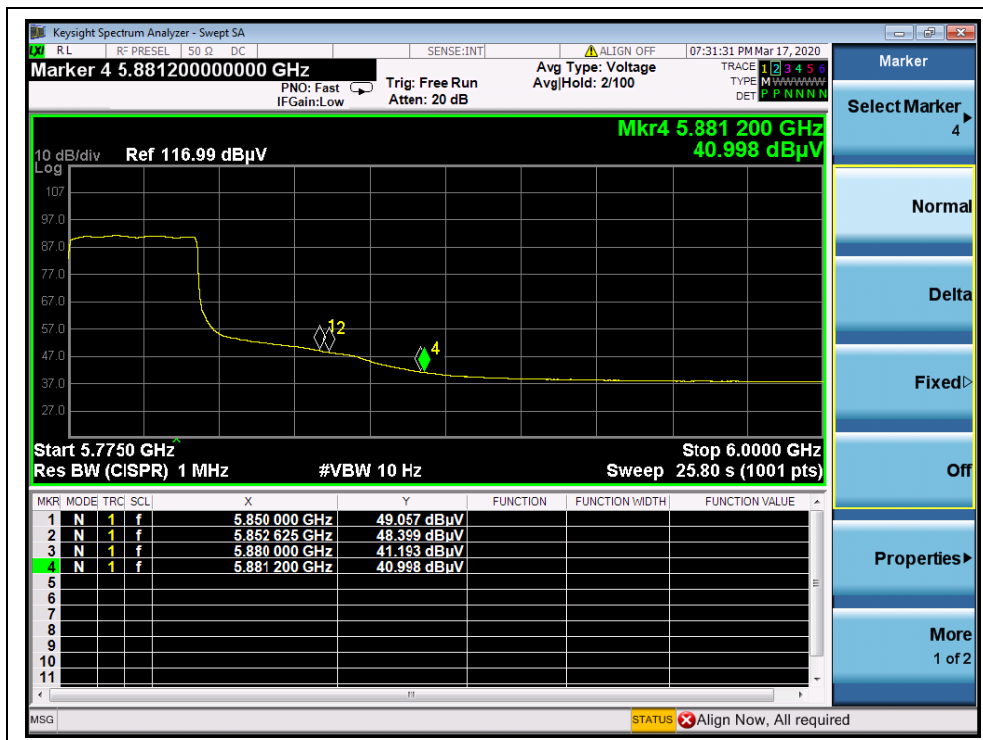
(Channel 155, PEAK, 802.11ac (VHT80))



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



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



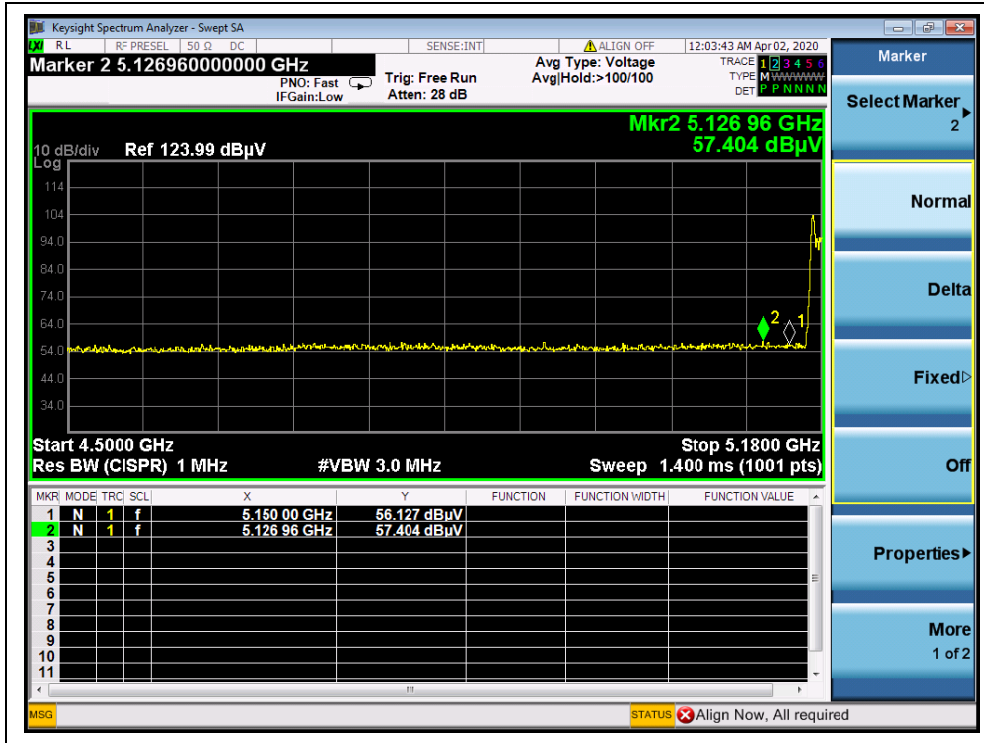
(Channel 155, AVG, 802.11ac (VHT80))

**802.11ax (HEW20) Test mode****C. Test Verdict:**

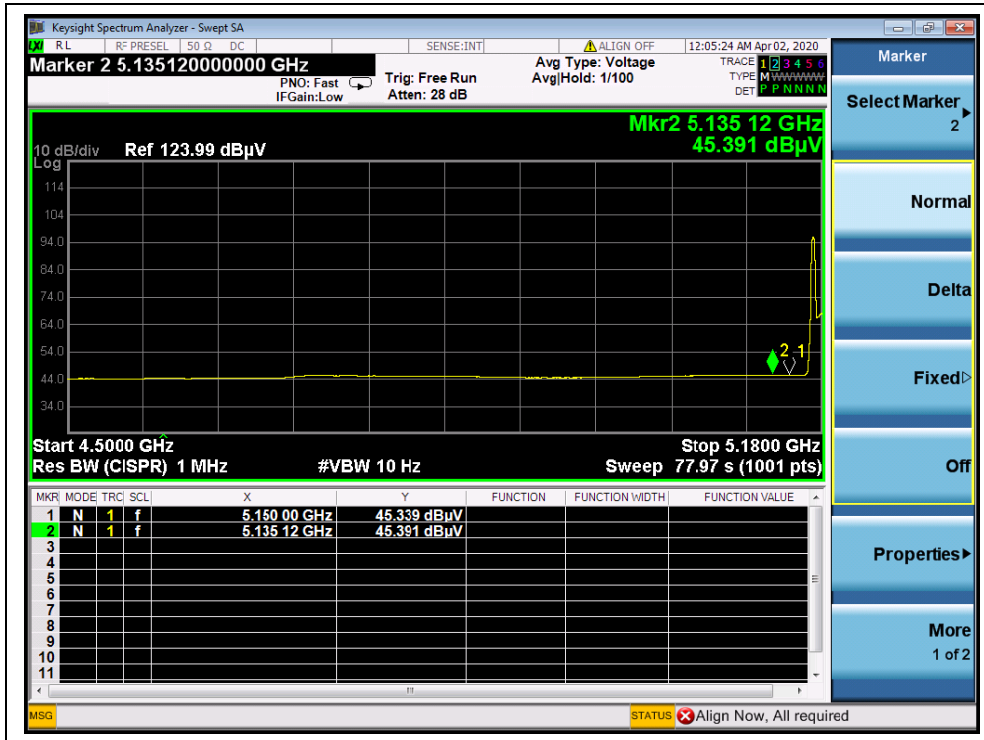
Channel	Frequency (MHz)	Detector	Receiver Reading U_R (dBuV)	A_T (dB)	A_{Factor} (dB@3m)	Max. Emission E (dB μ V/m)	Limit (dB μ V/m)	Verdict
		PK/ AV						
36	5126.96	PK	57.40	-26.92	32.20	62.68	74	PASS
36	5135.12	AV	45.39	-26.92	32.20	50.67	54	PASS
64	5381.18	PK	45.02	-26.80	32.20	50.42	74	PASS
64	5351.08	AV	34.49	-26.80	32.20	39.89	54	PASS
100	5184.11	PK	51.21	-26.64	32.20	56.77	68.23	PASS
100	5223.38	AV	38.31	-26.64	32.20	43.87	54	PASS
144	5744.10	PK	47.81	-26.64	32.20	53.37	68.23	PASS
144	5738.10	AV	37.29	-26.64	32.20	42.85	54	PASS
149	5712.80	PK	48.71	-26.23	32.20	54.68	108.81	PASS
149	5725.00	AV	36.79	-26.23	32.20	42.76	54	PASS
165	5892.38	PK	45.98	-26.23	32.20	51.95	92.37	PASS
165	5851.78	AV	34.88	-26.23	32.20	40.85	54	PASS



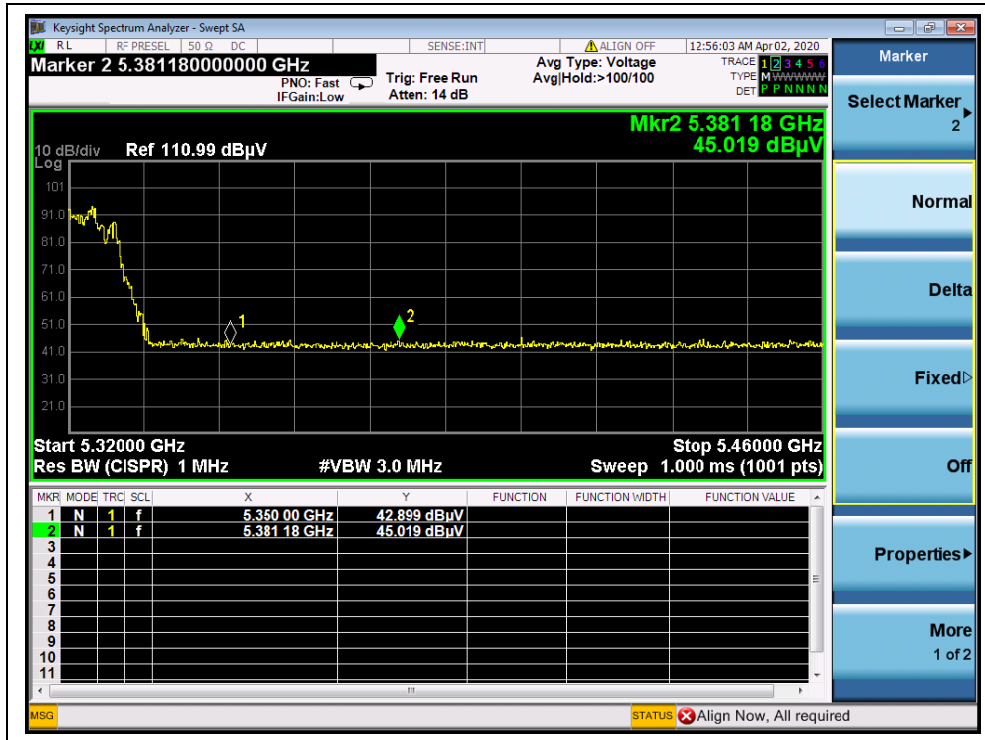
D. Test Plots:



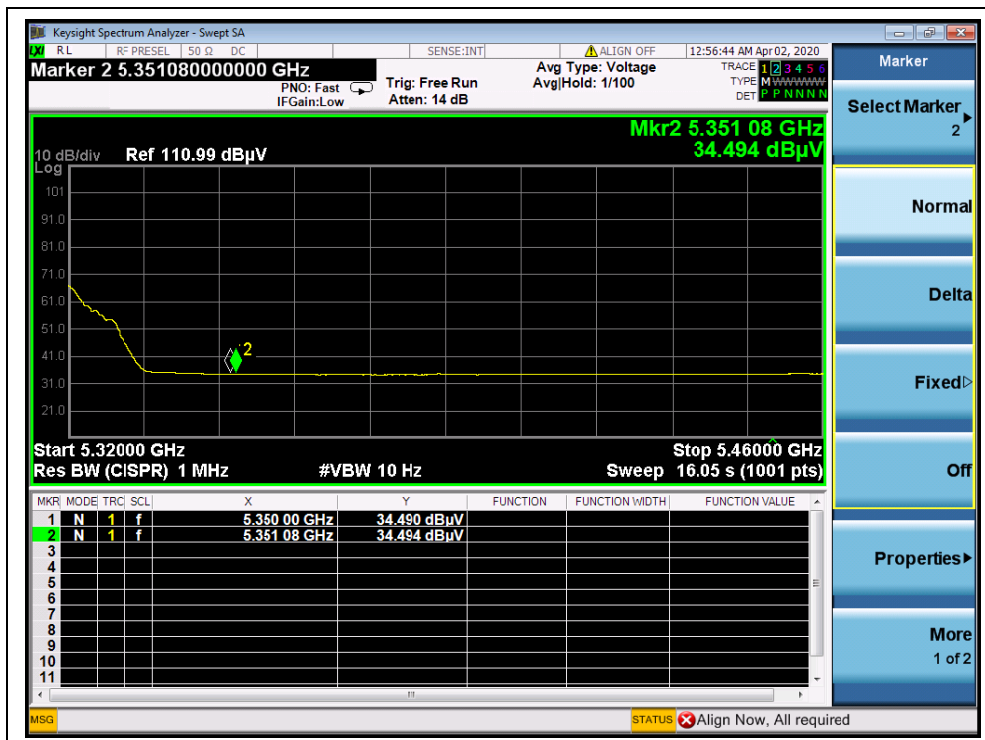
(Channel 36, PEAK, 802.11ax (HEW20))



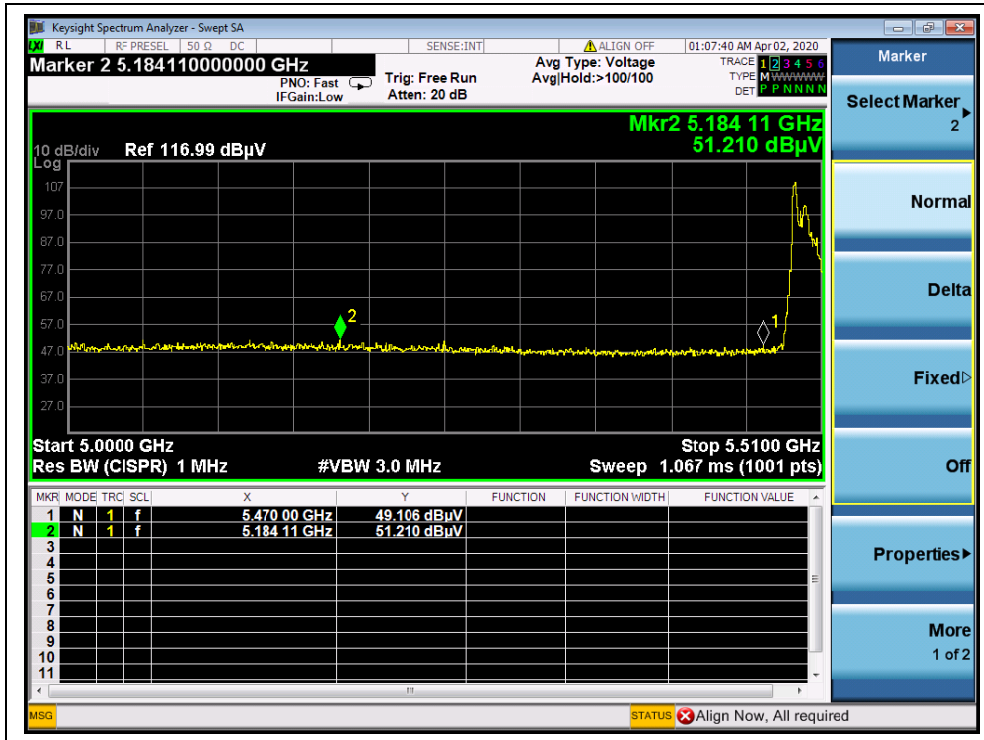
(Channel 36, AVG, 802.11ax (HEW20))



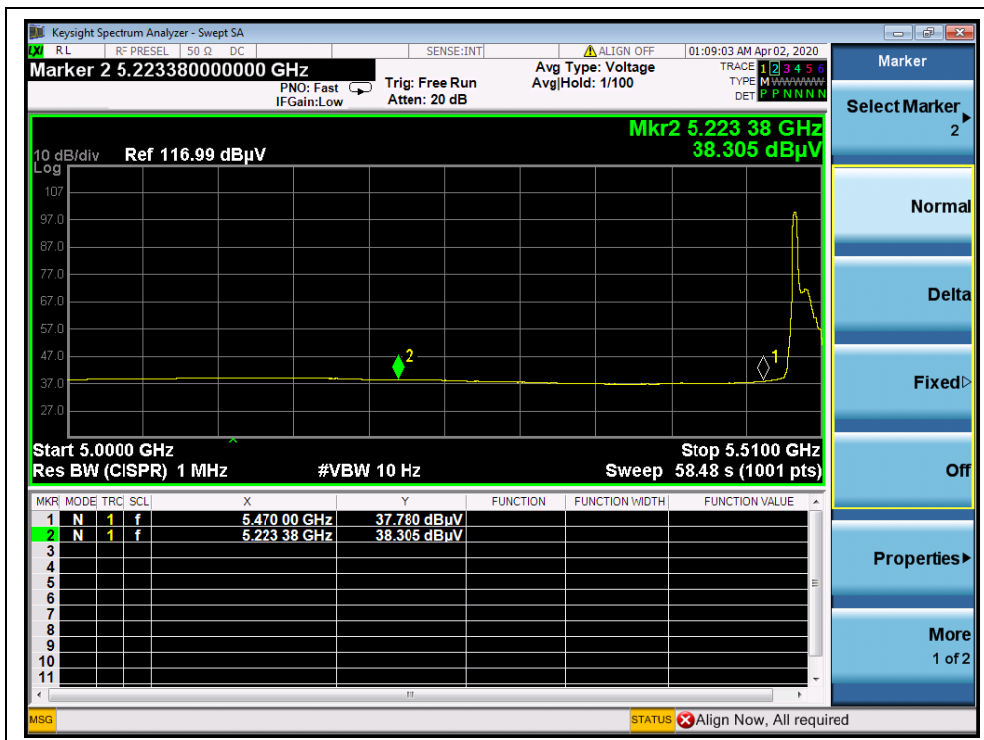
(Channel 64, PEAK, 802.11ax (HEW20))



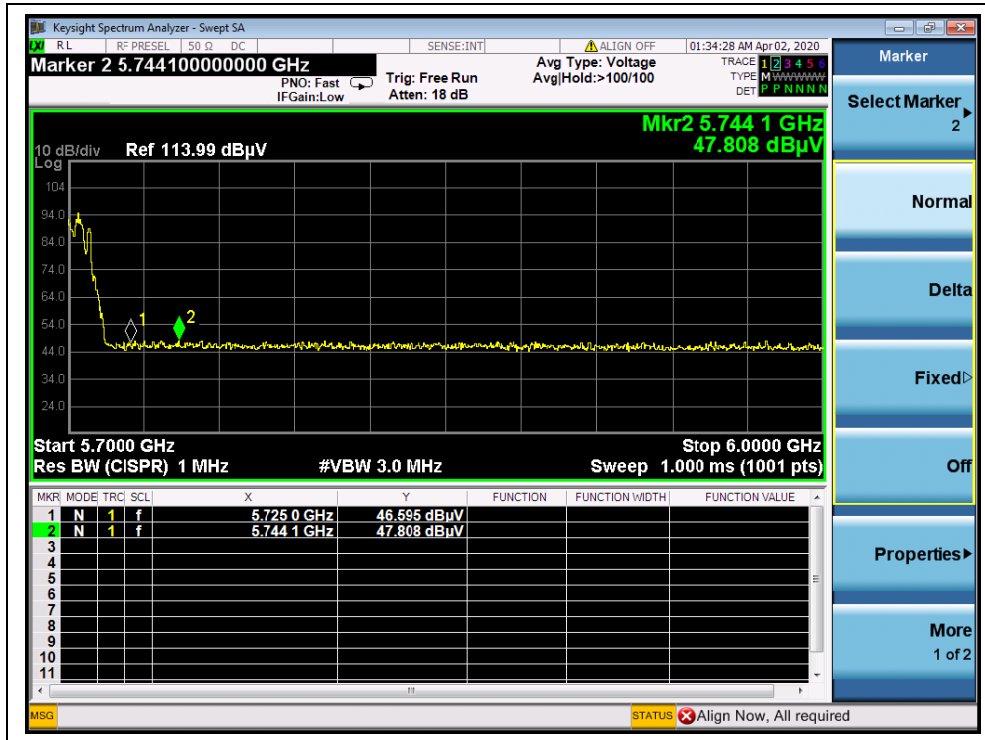
(Channel 64, AVG, 802.11 ax (HEW20))



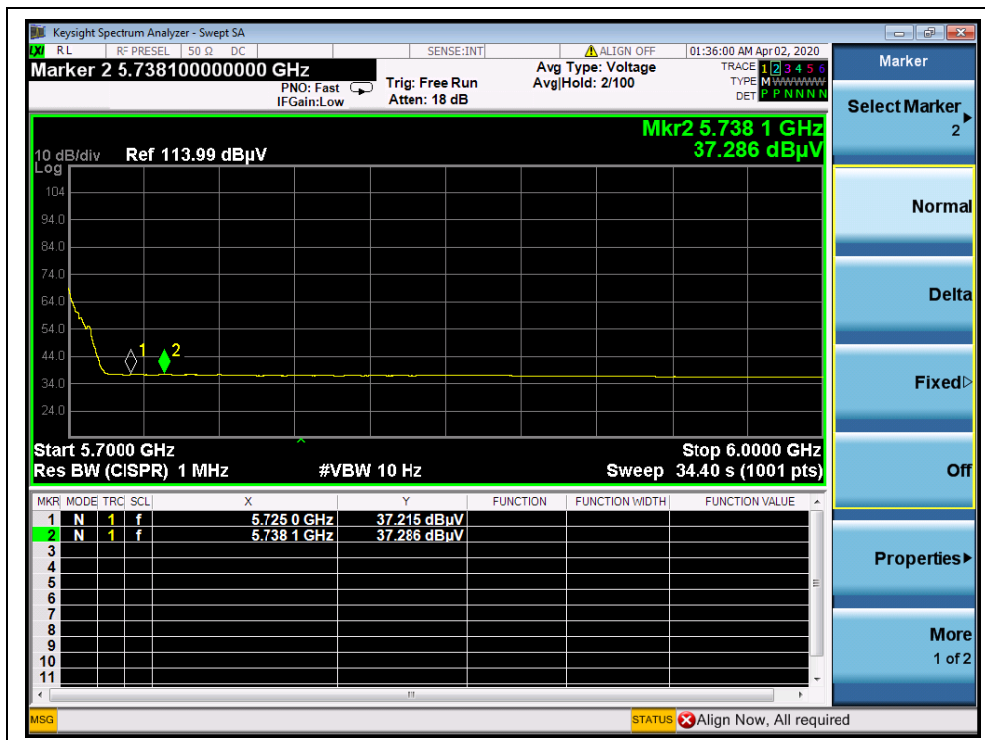
(Channel 100, PEAK, 802.11ax (HEW20))



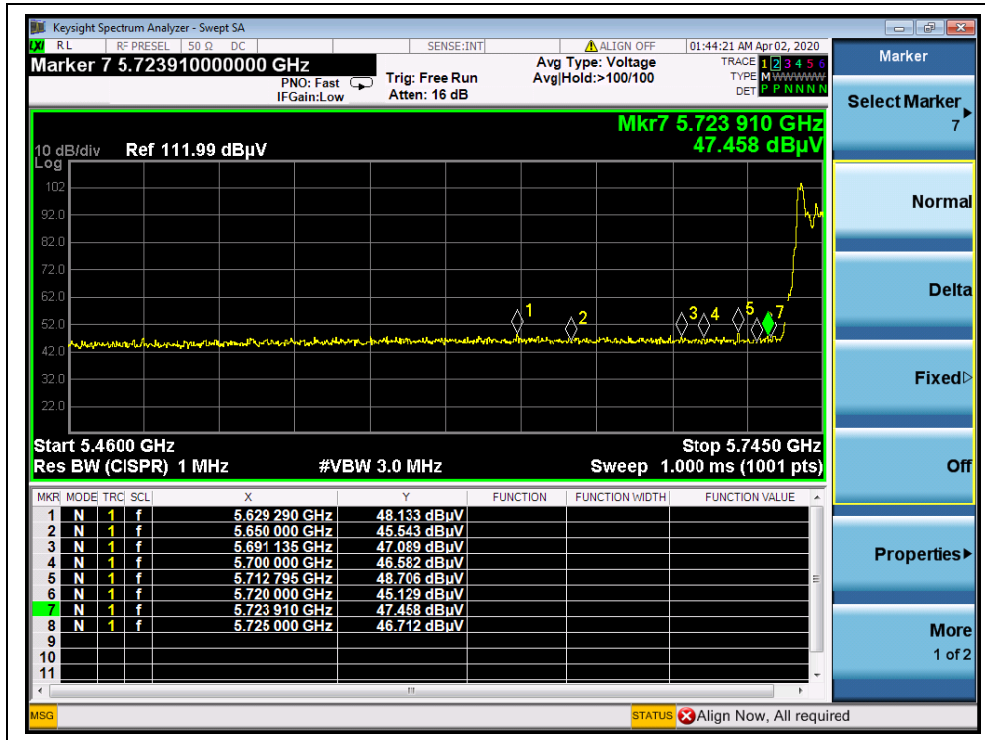
(Channel 100, AVG, 802.11 ax (HEW20))



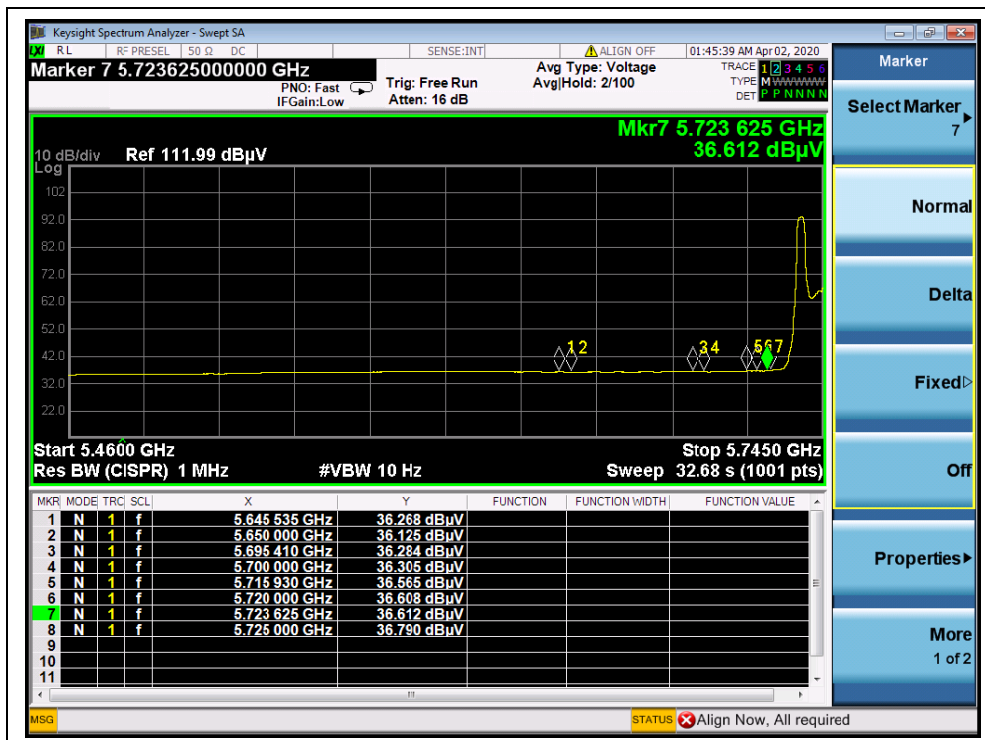
(Channel 144, PEAK, 802.11ax (HEW20))



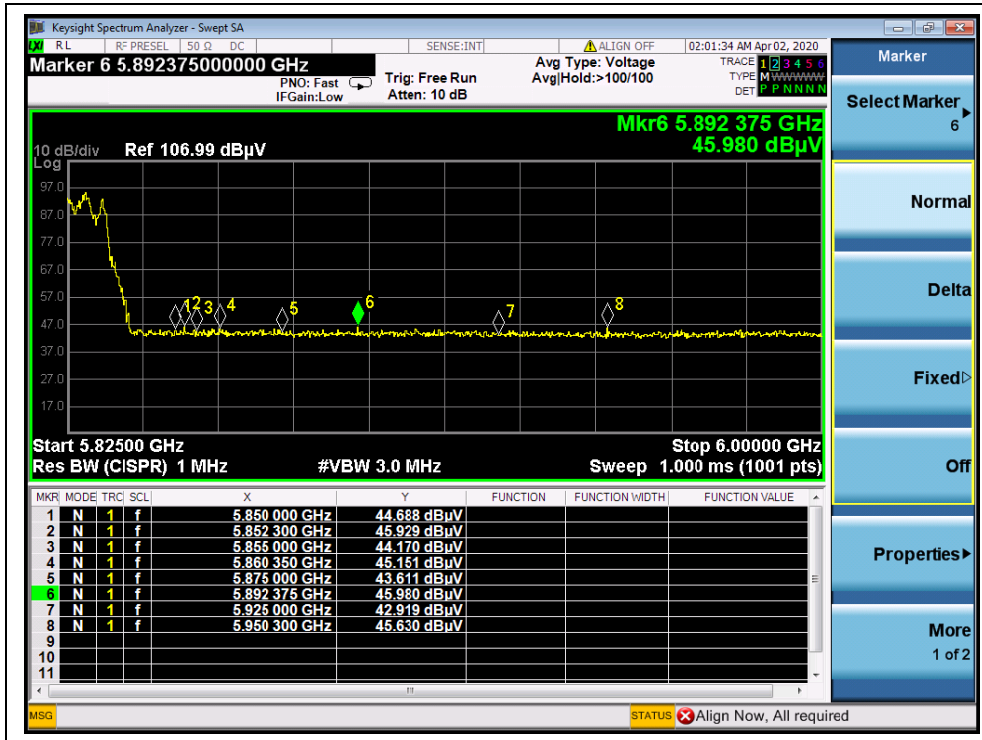
(Channel 144, AVG, 802.11 ax (HEW20))



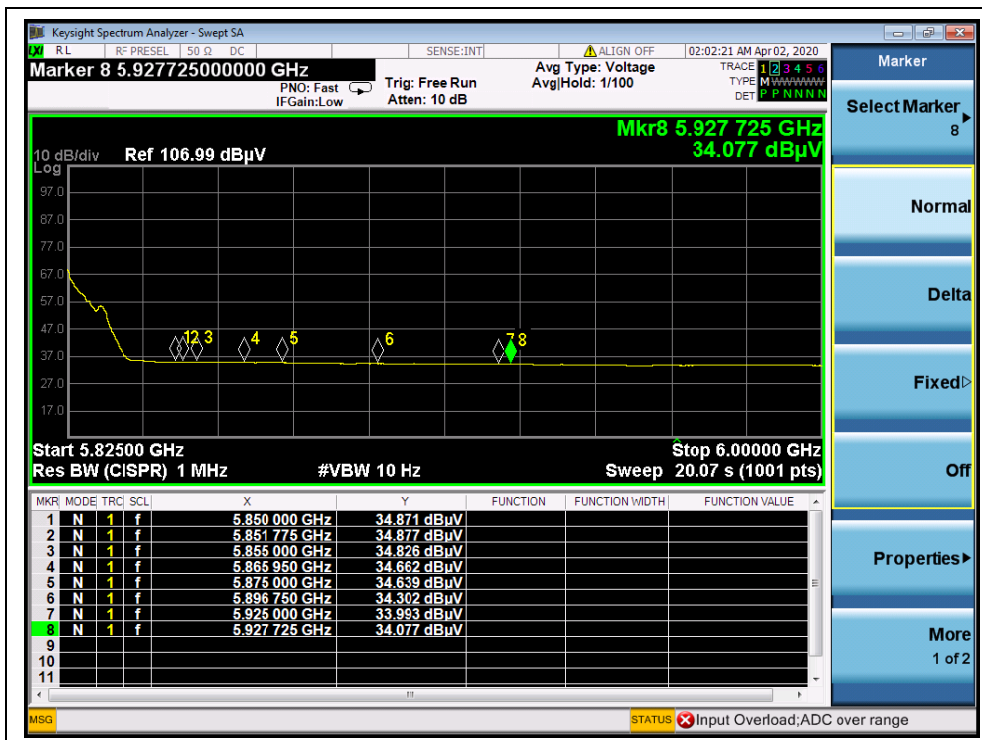
(Channel 149, PEAK, 802.11ax (HEW20))



(Channel 149, AVG, 802.11 ax (HEW20))



(Channel 165, PEAK, 802.11ax (HEW20))



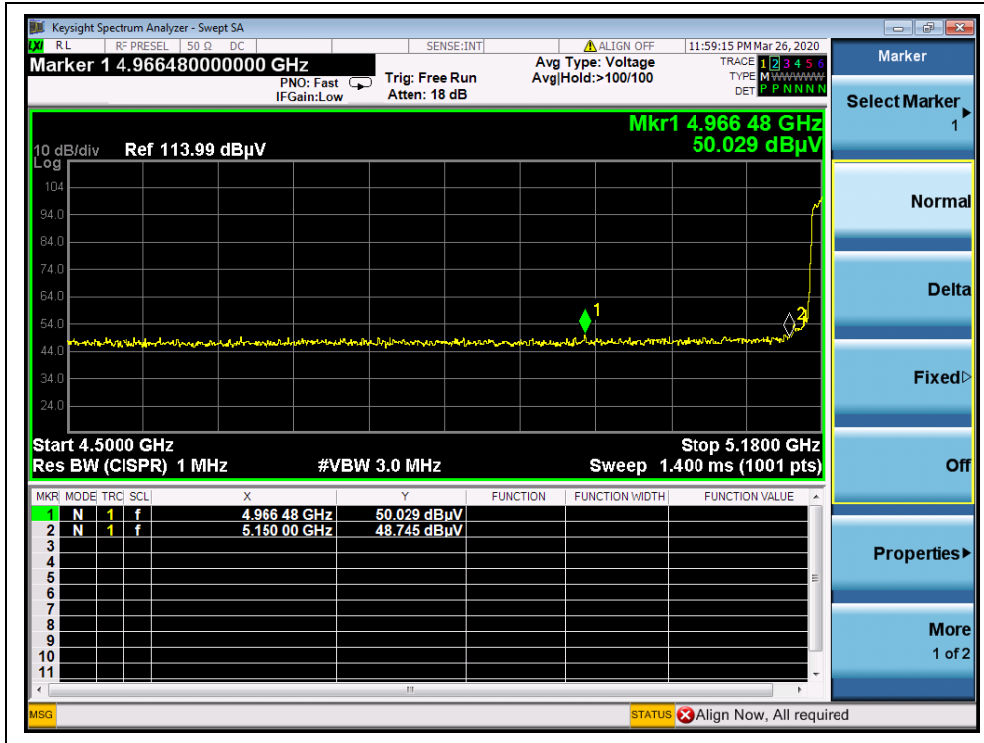
(Channel 165, AVG, 802.11 ax (HEW20))

**802.11ax (HEW40) Test mode****C. Test Verdict:**

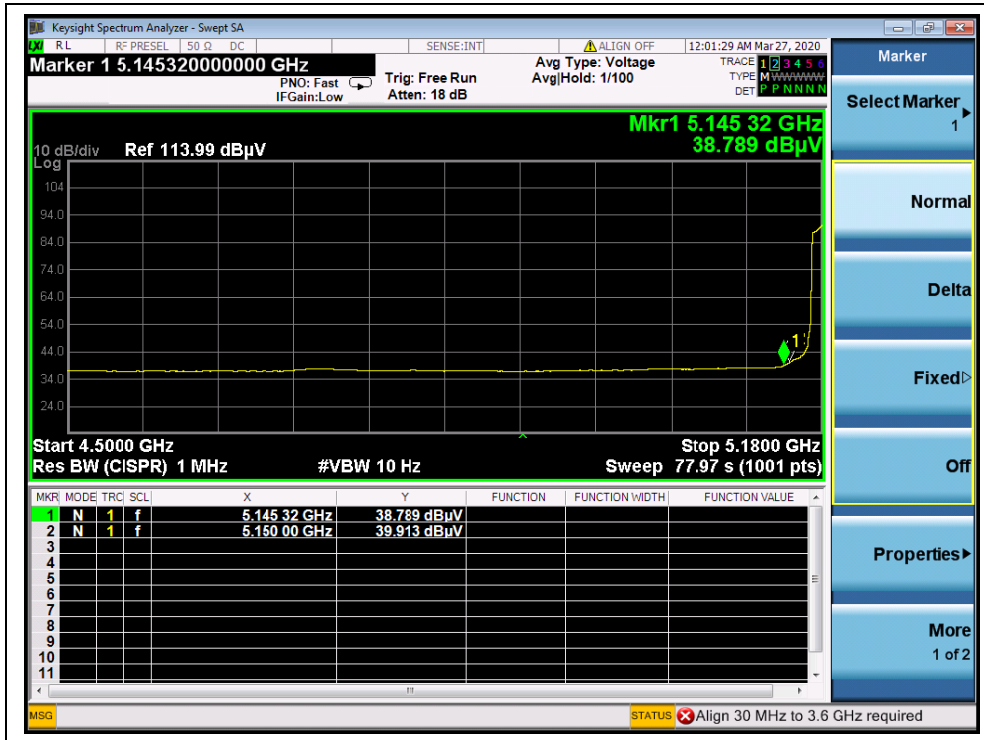
Channel	Frequency (MHz)	Detector	Receiver Reading U_R (dBuV)	A_T (dB)	A_{Factor} (dB@3m)	Max. Emission E (dB μ V/m)	Limit (dB μ V/m)	Verdict
		PK/ AV						
38	4966.48	PK	50.03	-26.92	32.20	55.31	74	PASS
38	5150.00	AV	39.91	-26.92	32.20	45.19	54	PASS
62	5350.95	PK	51.73	-26.80	32.20	57.13	74	PASS
62	5350.00	AV	41.40	-26.80	32.20	46.80	54	PASS
102	5470.00	PK	55.82	-26.64	32.20	61.38	68.23	PASS
102	5470.00	AV	45.69	-26.64	32.20	51.25	54	PASS
142	5725.00	PK	51.35	-26.64	32.20	56.91	68.23	PASS
142	5725.00	AV	38.29	-26.64	32.20	43.85	54	PASS
151	5725.00	PK	65.81	-26.23	32.20	71.78	122.23	PASS
151	5725.00	AV	50.28	-26.23	32.20	56.25	54	PASS
159	5850.00	PK	54.66	-26.23	32.20	60.63	122.23	PASS
159	5850.00	AV	39.81	-26.23	32.20	45.78	54	PASS



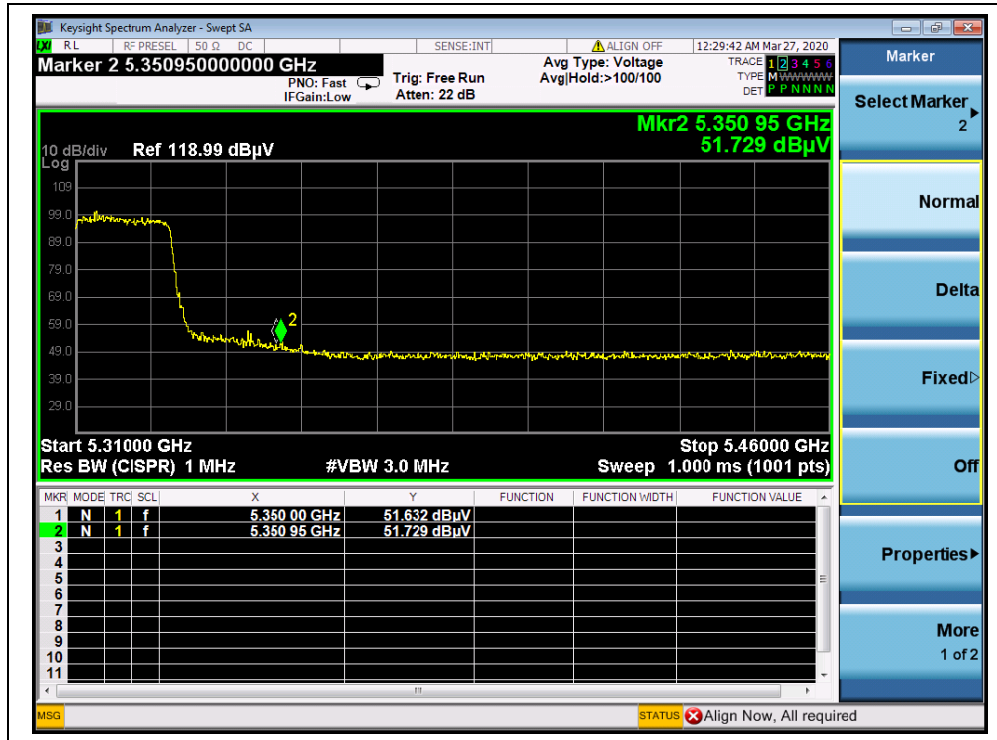
D. Test Plots:



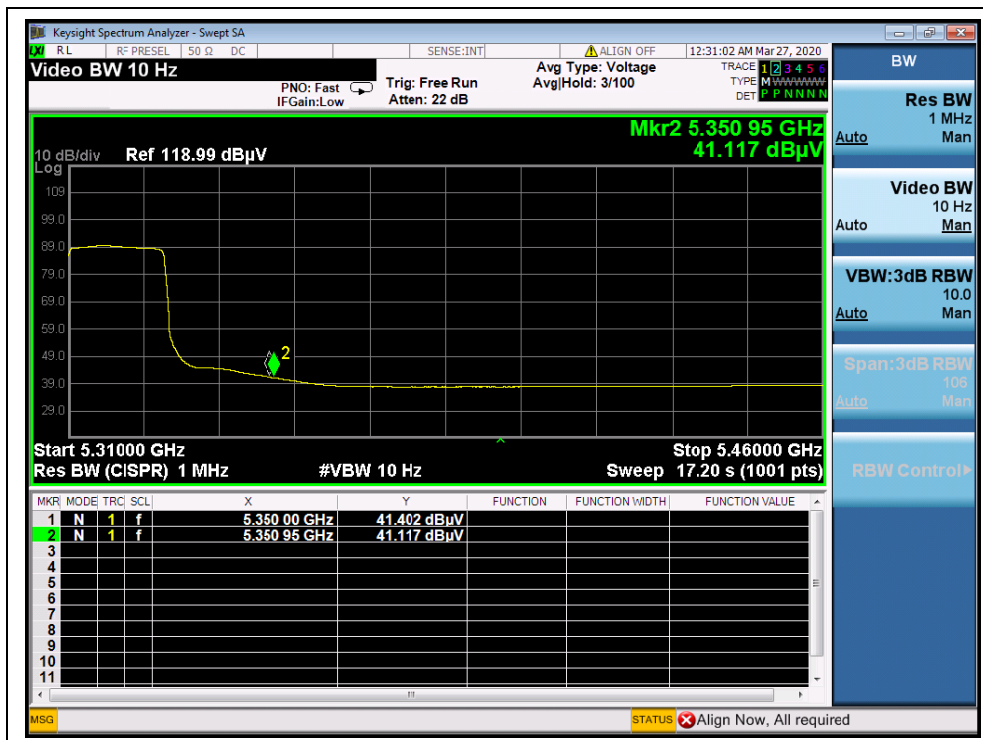
(Channel 38, PEAK, 802.11 ax (HEW40))



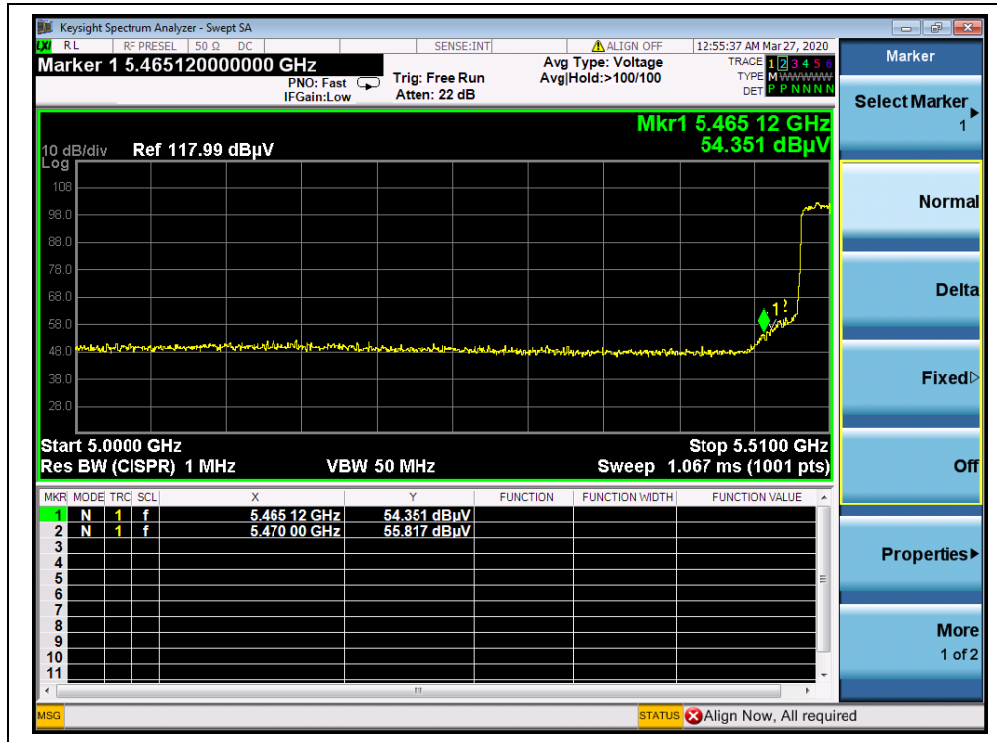
(Channel 38, AVG, 802.11 ax (HEW40))



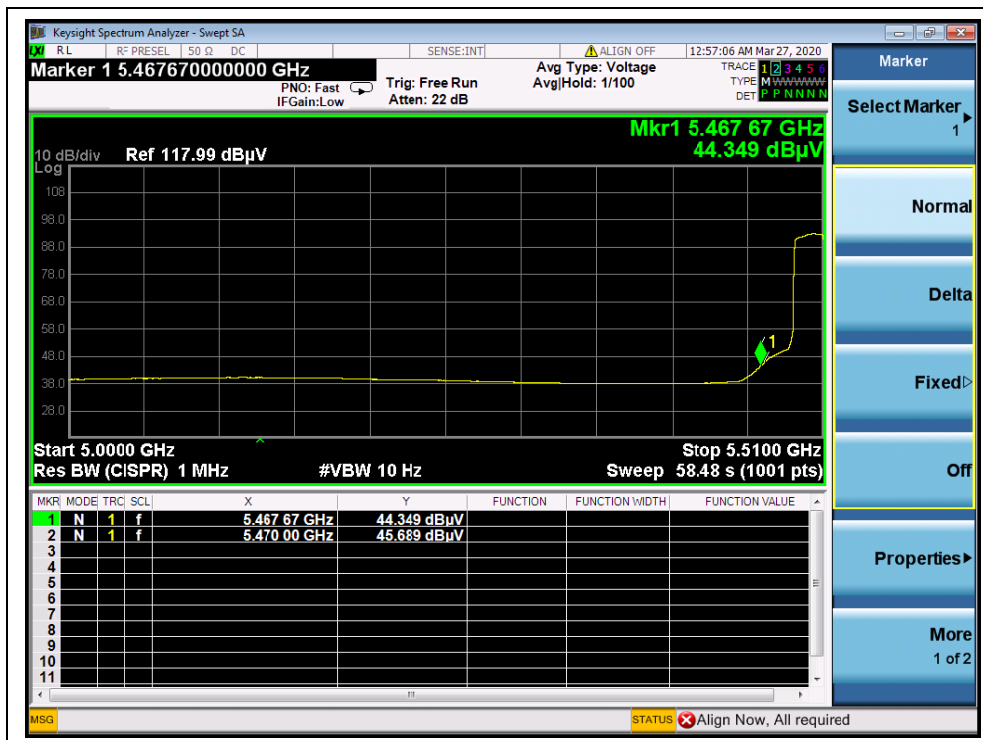
(Channel 62, PEAK, 802.11 ax (HEW40))



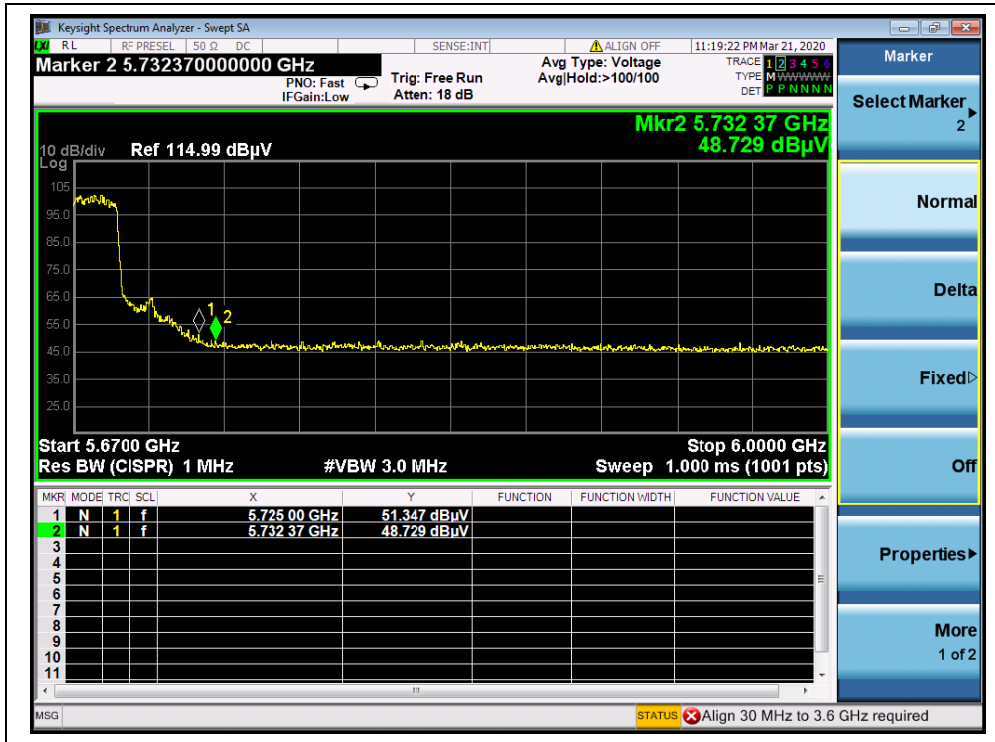
(Channel 62, AVG, 802.11 ax (HEW40))



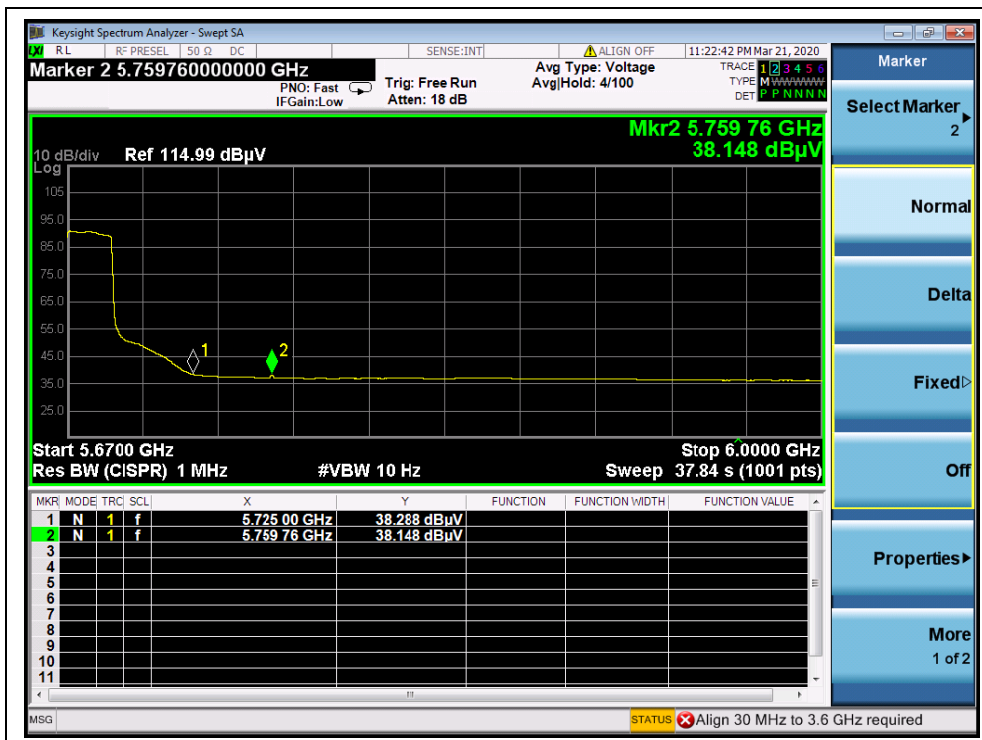
(Channel 102, PEAK, 802.11 ax (HEW40))



(Channel 102, AVG, 802.11 ax (HEW40))



(Channel 142, PEAK, 802.11 ax (HEW40))



(Channel 142, AVG, 802.11 ax (HEW40))



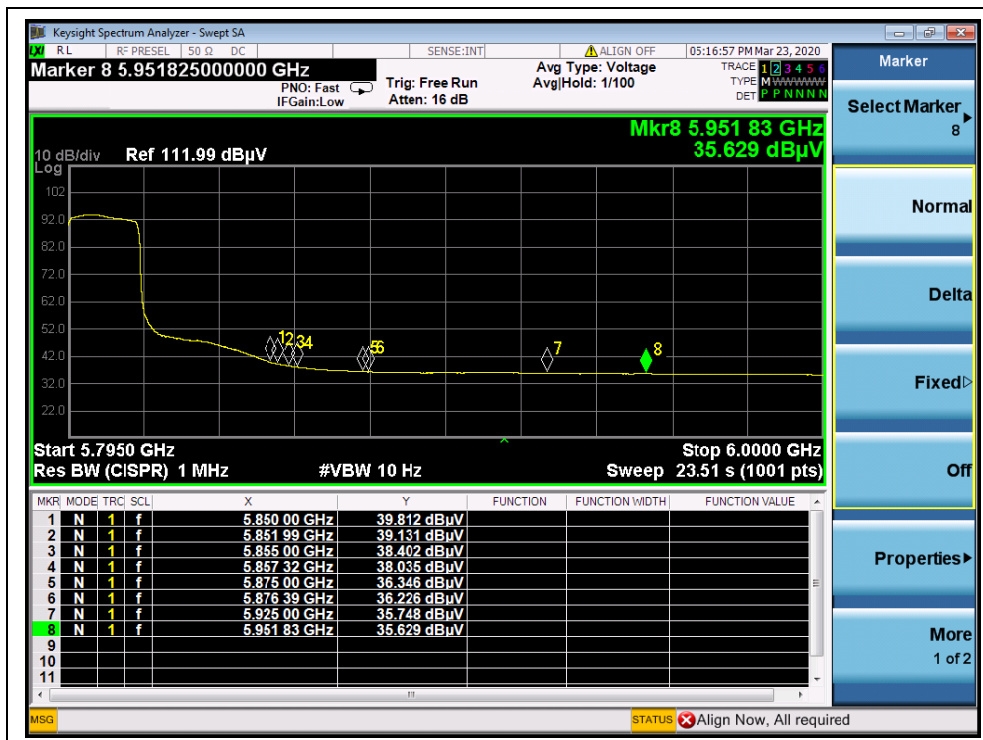
(Channel 151, PEAK, 802.11 ax (HEW40))



(Channel 151, AVG, 802.11 ax (HEW40))



(Channel 159, PEAK, 802.11 ax (HEW40))



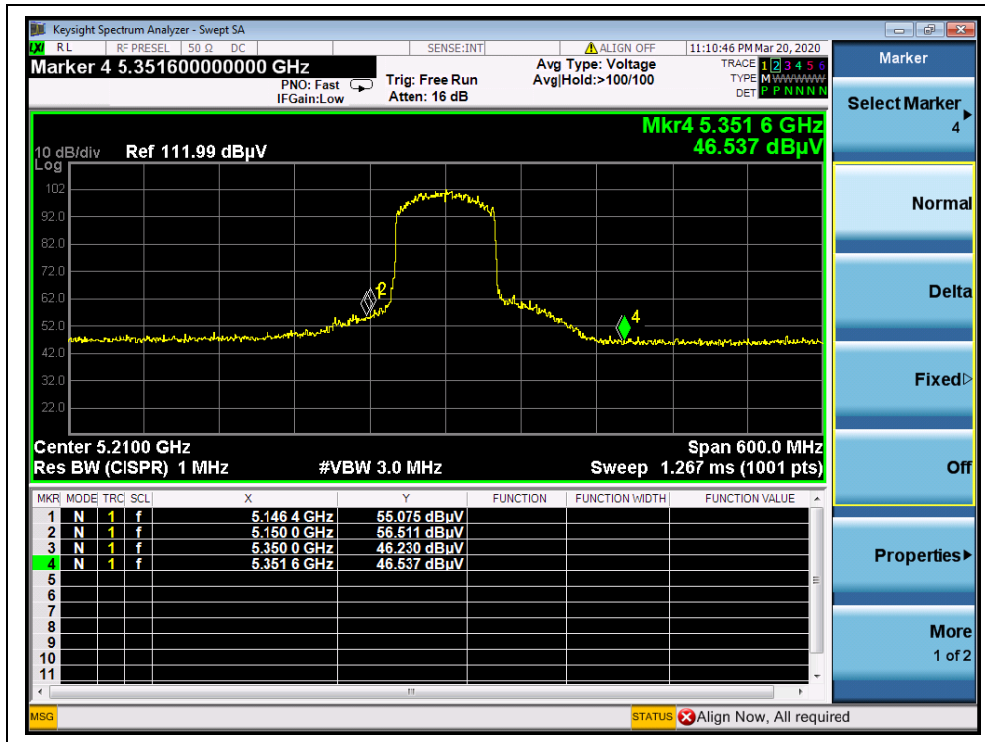
(Channel 159, AVG, 802.11ax (HEW40))

**802.11ax (HEW80) Test mode****C. Test Verdict:**

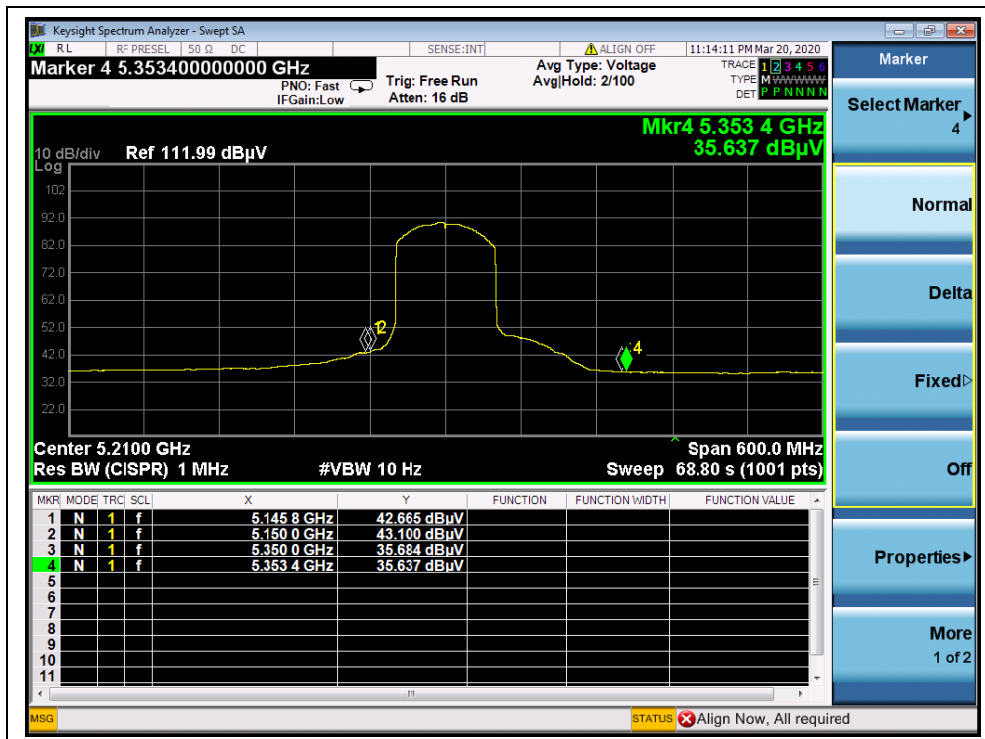
Channel	Frequency (MHz)	Detector	Receiver Reading U_R (dBuV)	A_T (dB)	A_{Factor} (dB@3m)	Max. Emission E (dB μ V/m)	Limit (dB μ V/m)	Verdict
		PK/ AV						
42	5150.00	PK	56.51	-26.92	32.20	61.79	74	PASS
42	5150.00	AV	43.10	-26.92	32.20	48.38	54	PASS
58	5353.60	PK	53.98	-26.80	32.20	59.38	74	PASS
58	5353.00	AV	41.79	-26.80	32.20	47.19	54	PASS
106	5469.40	PK	58.01	-26.64	32.20	63.57	68.23	PASS
106	5470.00	AV	48.02	-26.64	32.20	53.58	54	PASS
138	5726.40	PK	48.75	-26.64	32.20	54.31	68.23	PASS
138	5725.00	AV	37.36	-26.64	32.20	42.92	54	PASS
155	5718.30	PK	58.26	-26.23	32.20	64.23	110.35	PASS
155	5725.00	AV	46.25	-26.23	32.20	52.22	54	PASS
155	5850.00	PK	56.97	-26.23	32.20	62.94	122.23	PASS
155	5850.00	AV	43.01	-26.23	32.20	48.98	54	PASS



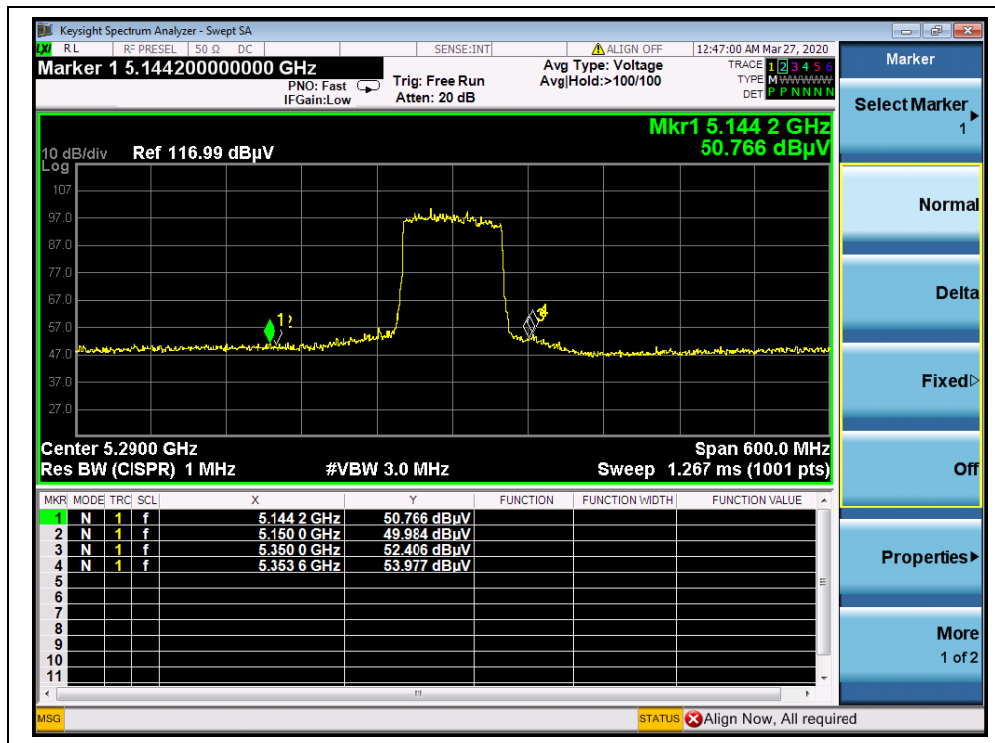
D. Test Plots:



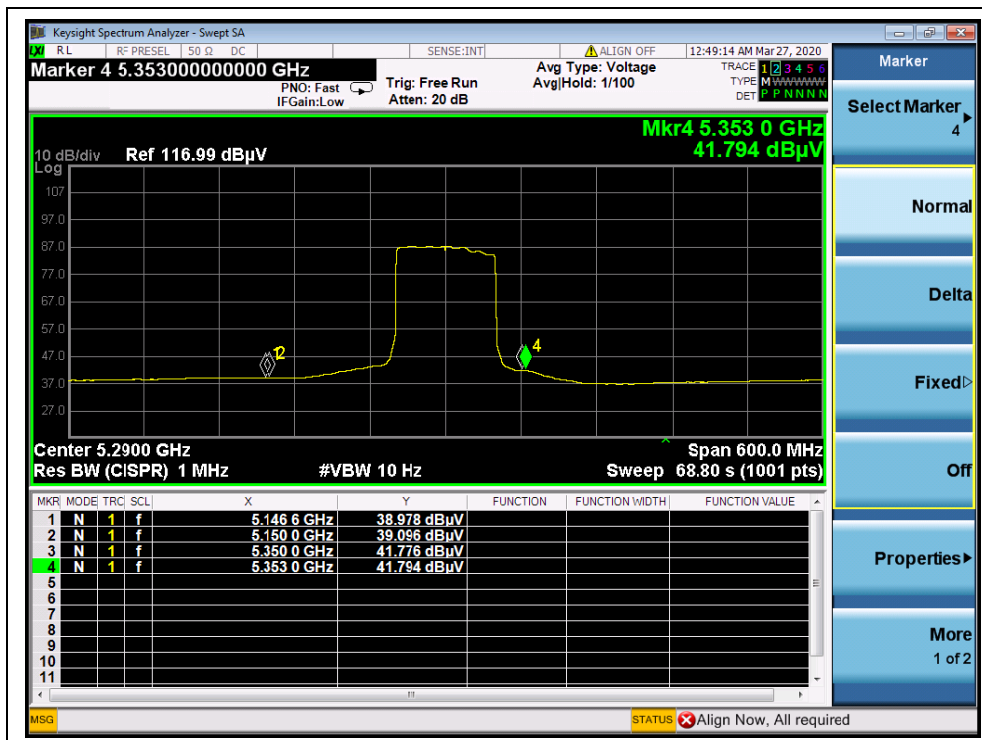
(Channel 42, PEAK, 802.11 ax (HEW80))



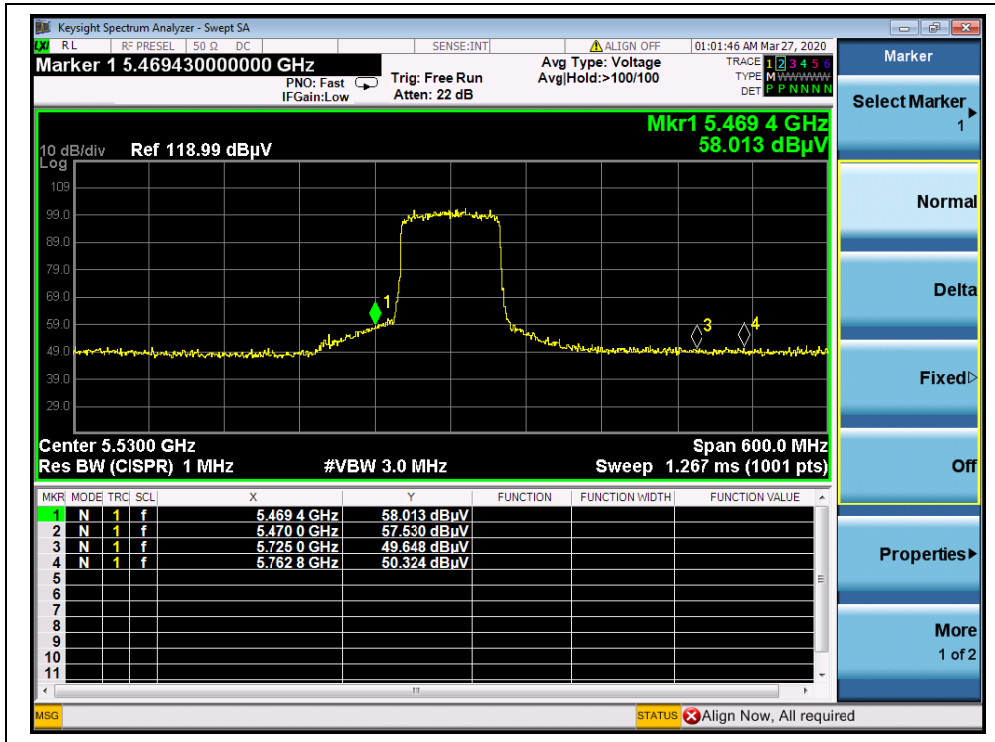
(Channel 42, AVG, 802.11 ax (HEW80))



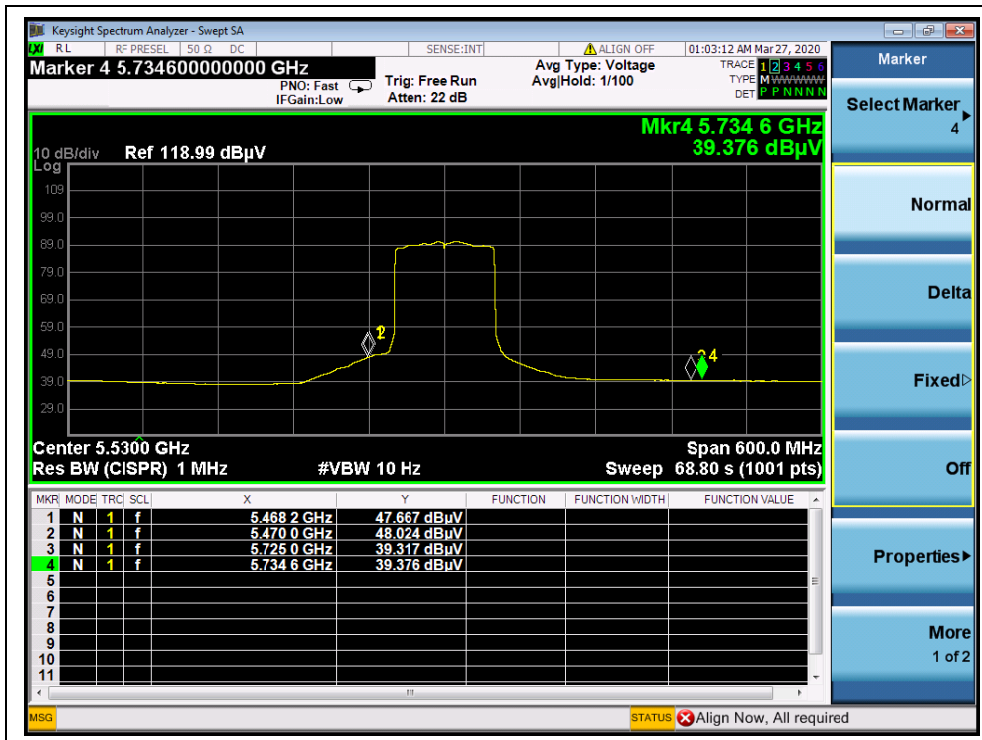
(Channel 58, PEAK, 802.11 ax (HEW80))



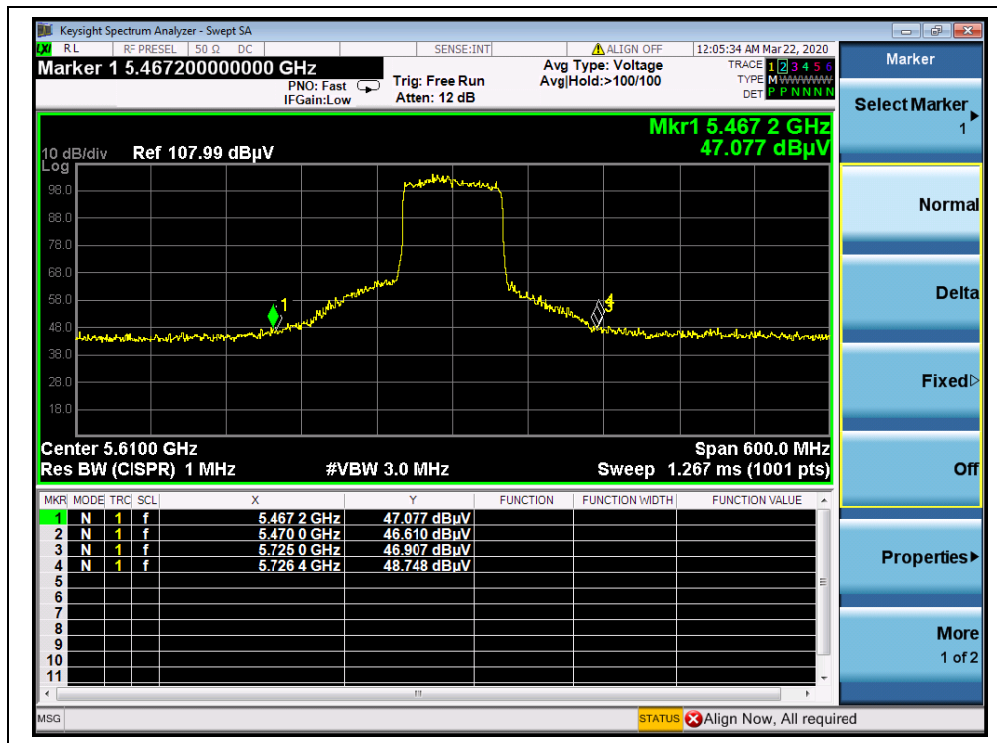
(Channel 58, AVG, 802.11 ax (HEW80))



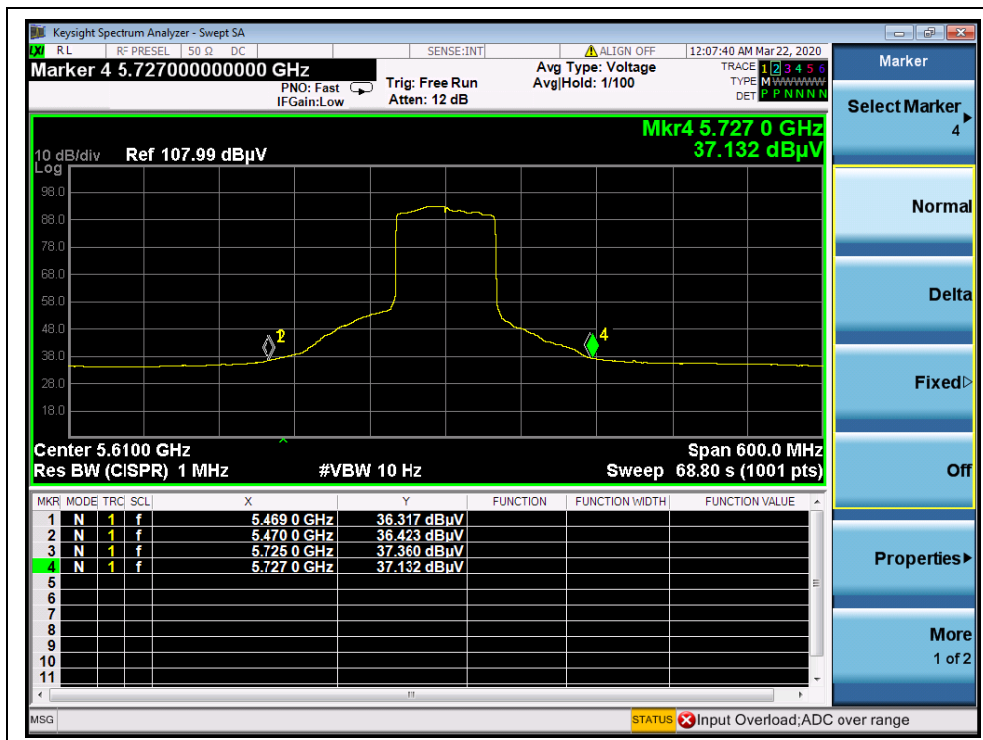
(Channel 106, PEAK, 802.11 ax (HEW80))



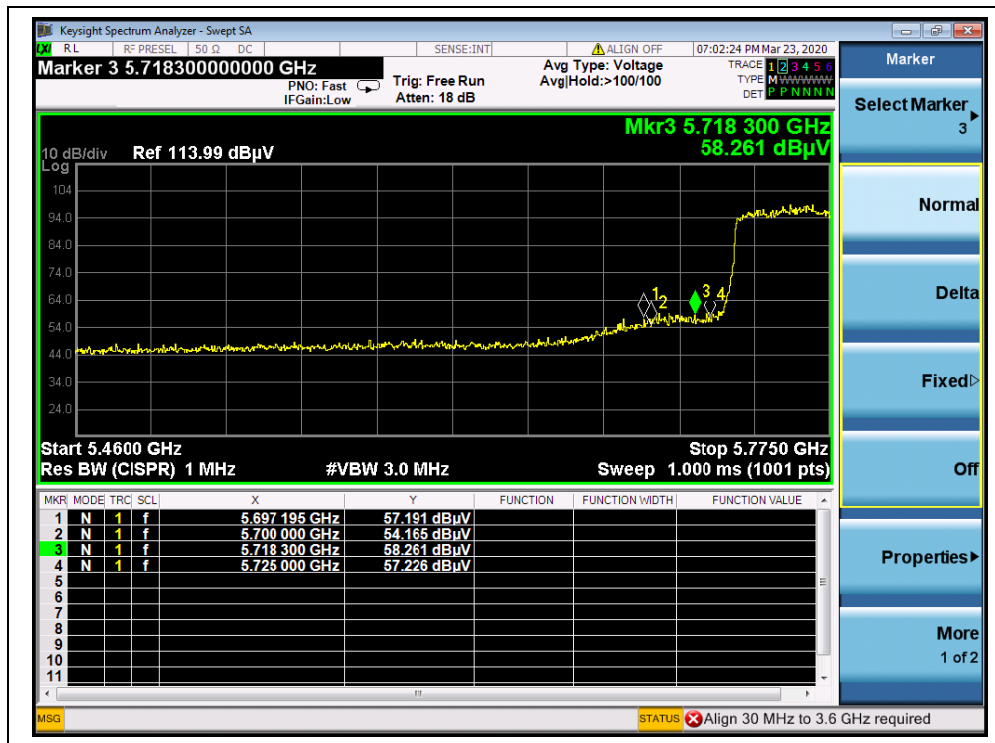
(Channel 106, AVG, 802.11 ax (HEW80))



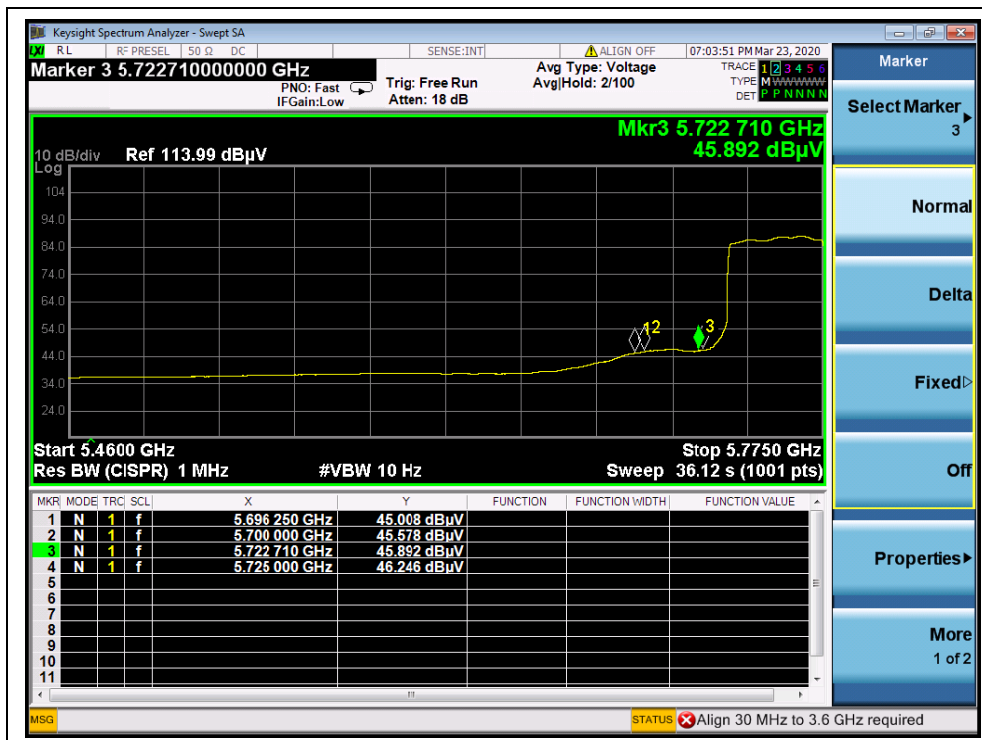
(Channel 138, PEAK, 802.11 ax (HEW80))



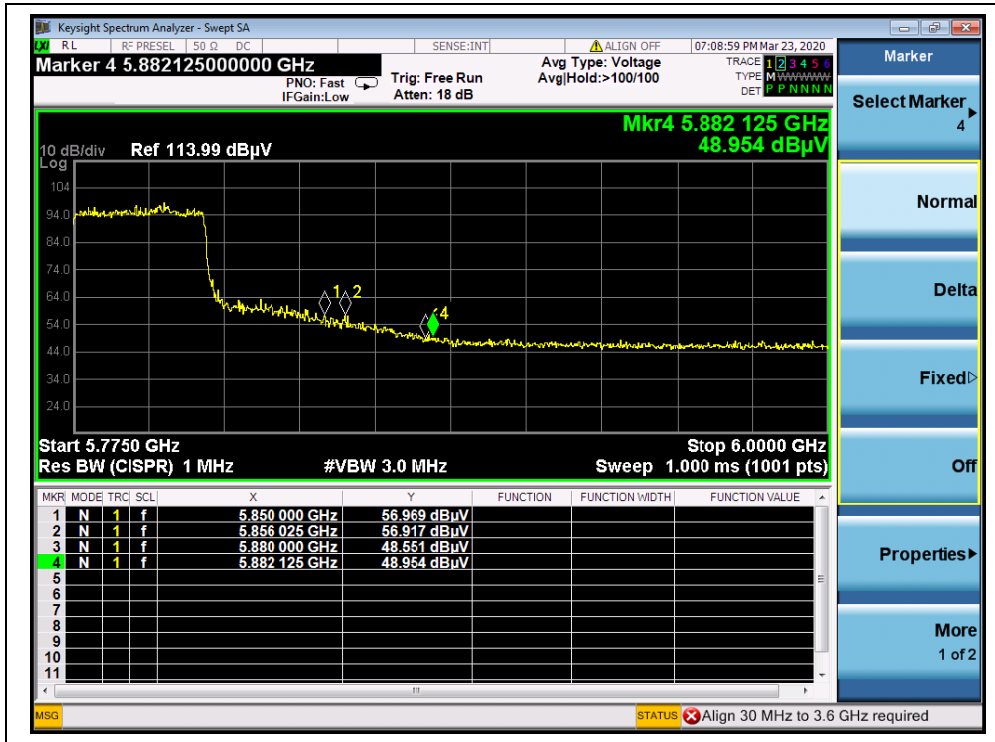
(Channel 138, AVG, 802.11 ax (HEW80))



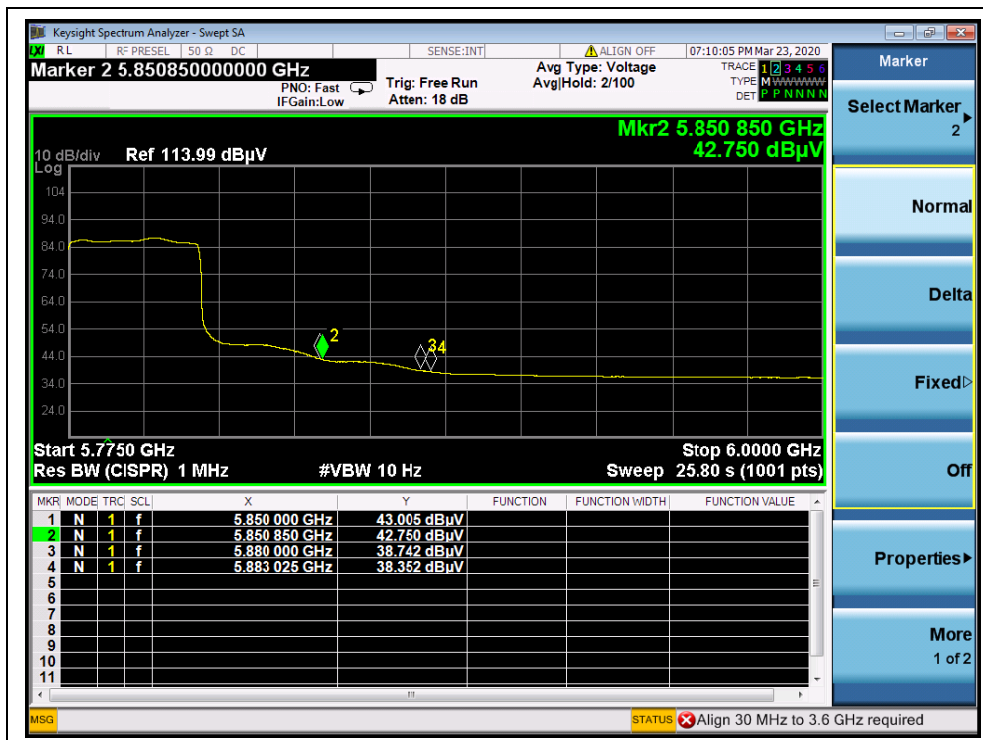
(Channel 155, PEAK, 802.11 ax (HEW80))



(Channel 155, AVG, 802.11 ax (HEW80))



(Channel 155, PEAK, 802.11 ax (HEW80))



(Channel 155, AVG, 802.11ax (HEW80))



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

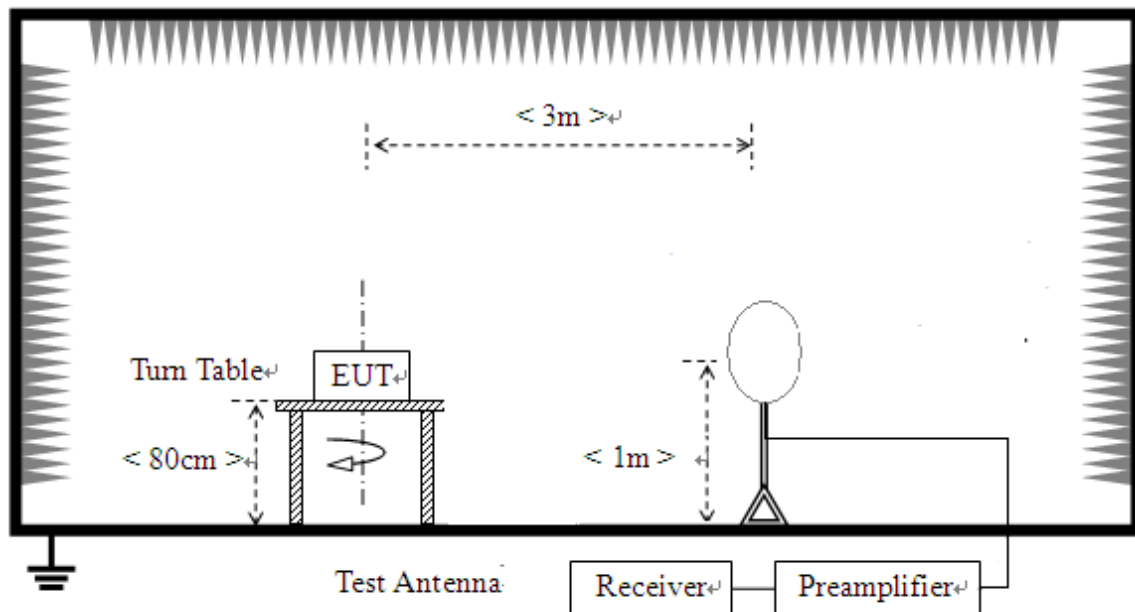
Note:

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.

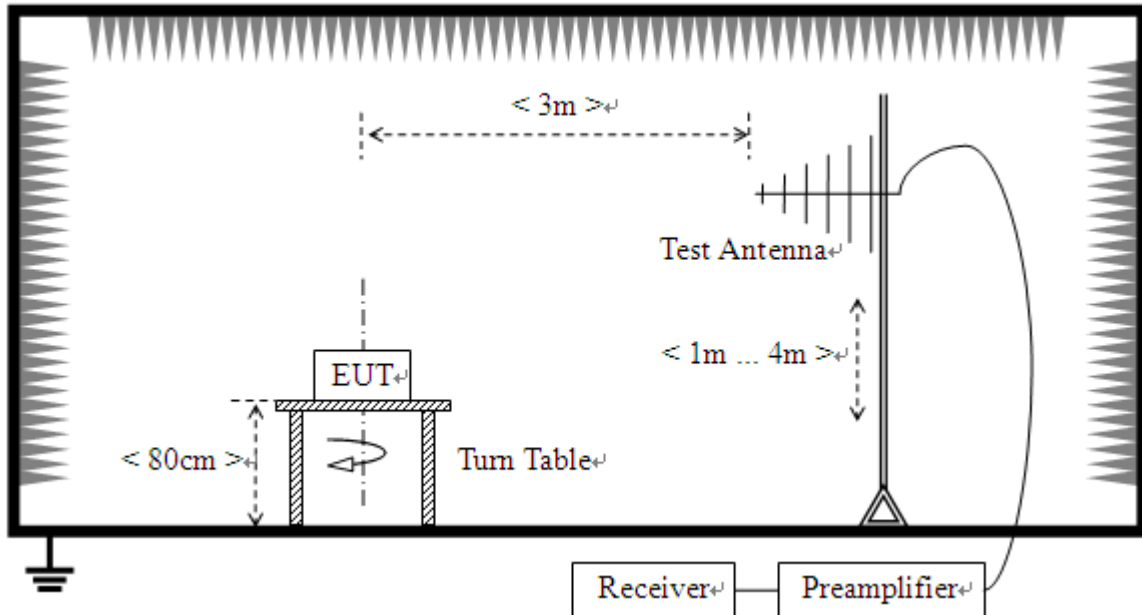
In addition, radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), also should comply with the radiated emission limits specified in Section 15.209(a)(above table)

2.9.2. Test Description**Test Setup:**

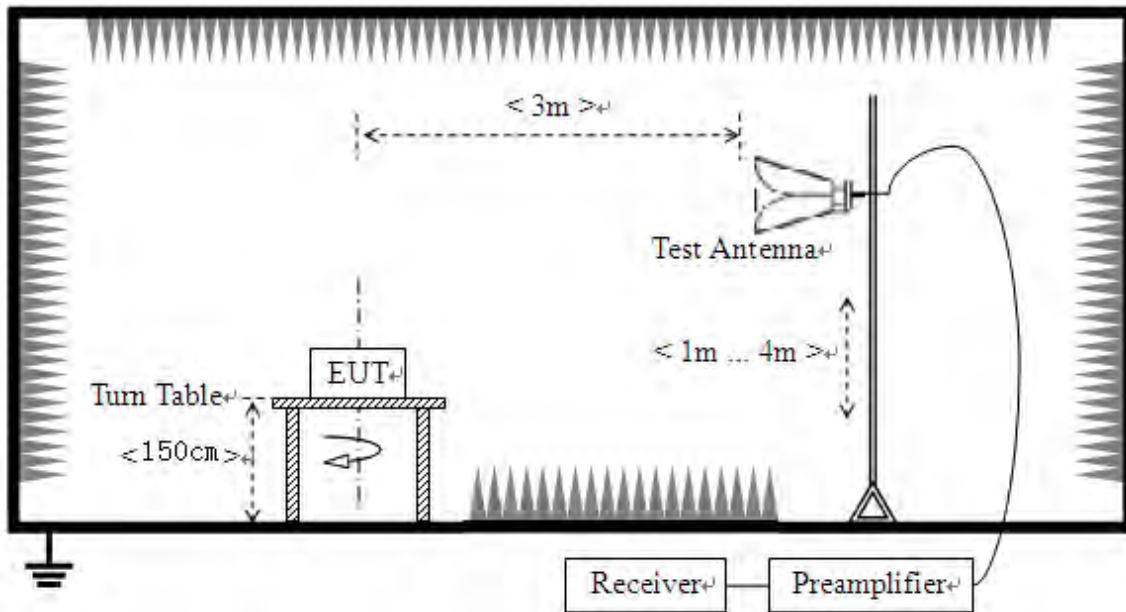
- 1) For radiated emissions from 9kHz to 30MHz



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:

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

A_T : Total correction Factor except Antenna

U_R : Receiver Reading

G_{preamp} : Preamplifier Gain

A_{Factor} : Antenna Factor at 3m

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

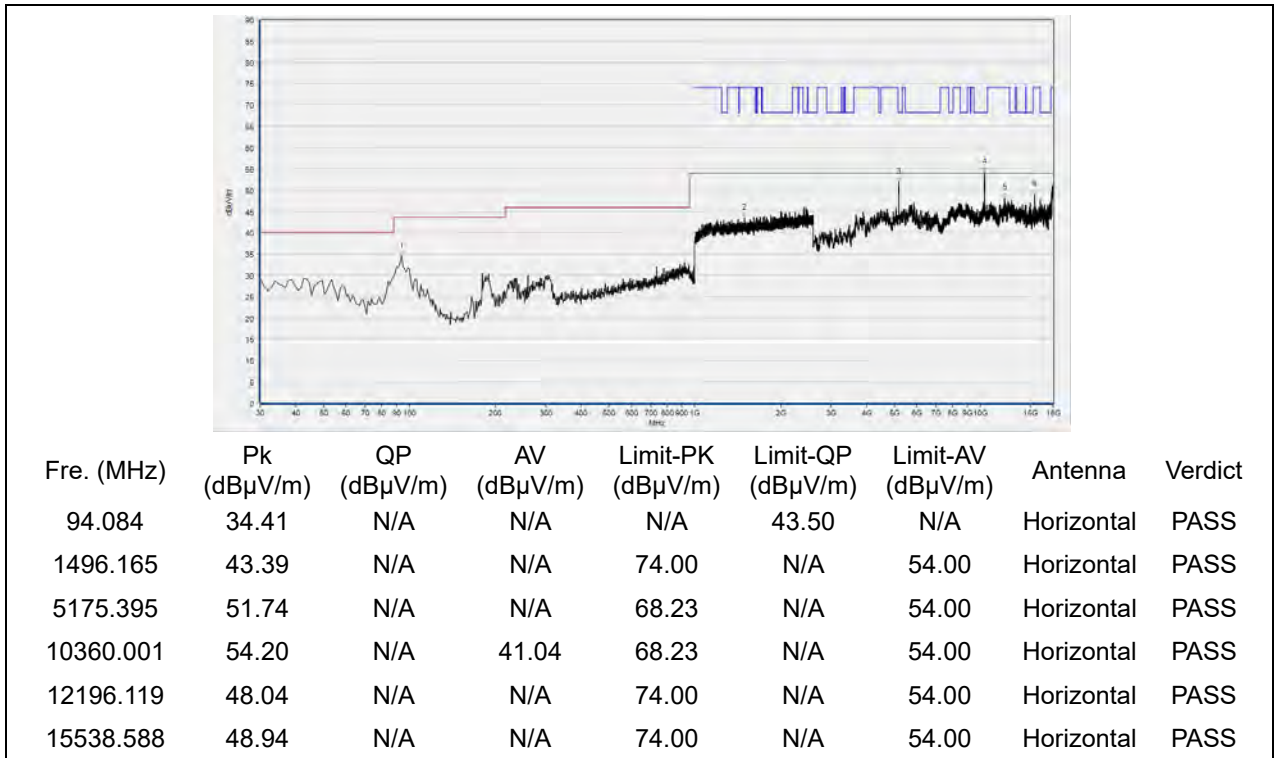
Note1: All radiated emission tests were performed in X, Y, Z axis direction. And only the worst axis test condition was recorded in this test report.

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

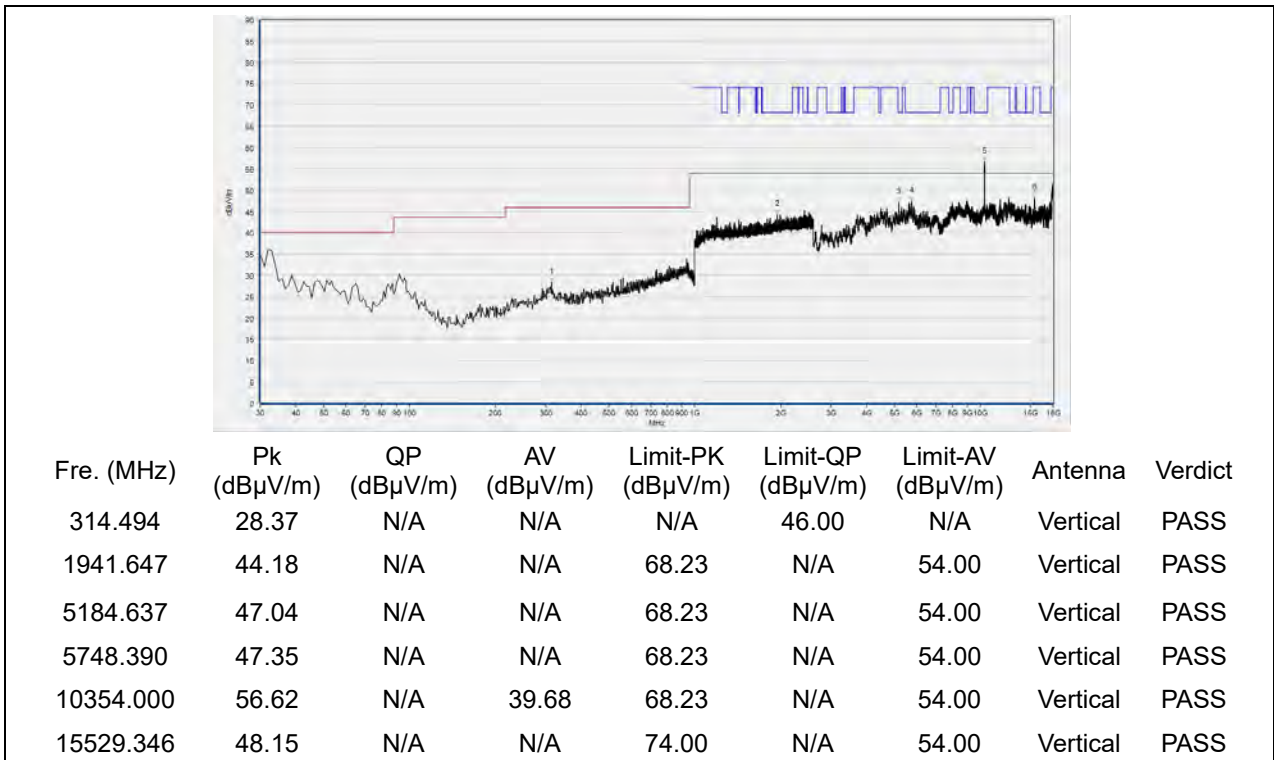
Note3: For the frequency, which started from 18GHz to 40GHz, was pre-scanned and the result which was 20dB lower than the limit was not recorded.

802.11a Test mode

Plots for Channel = 36

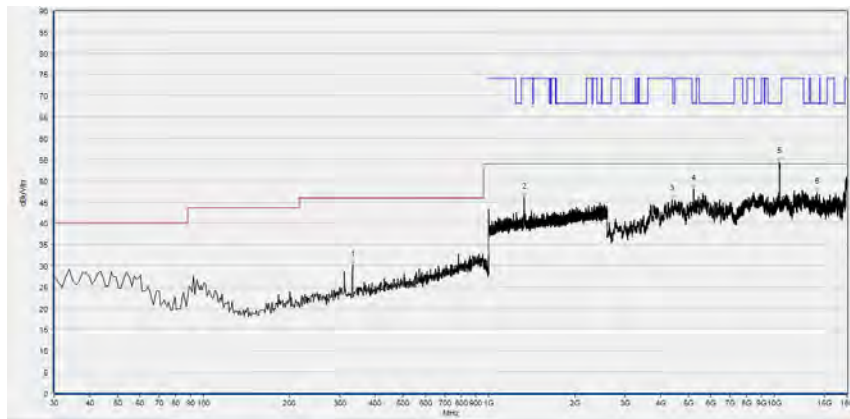


(Antenna Horizontal, 30MHz to 18GHz)



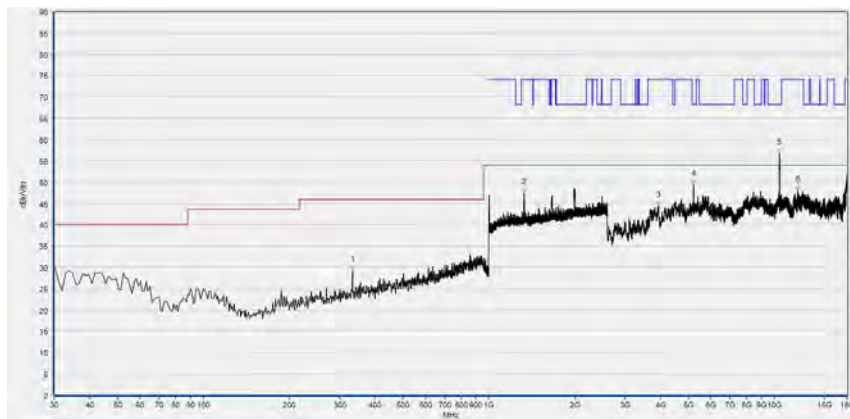
(Antenna Vertical, 30MHz to 18GHz)

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
332.943	30.14	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
1329.710	46.12	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
4383.677	45.66	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
5215.443	48.17	N/A	N/A	68.23	N/A	54.00	Horizontal	PASS
10434.000	54.43	N/A	40.82	68.23	N/A	54.00	Horizontal	PASS
14090.698	47.21	N/A	N/A	68.23	N/A	54.00	Horizontal	PASS

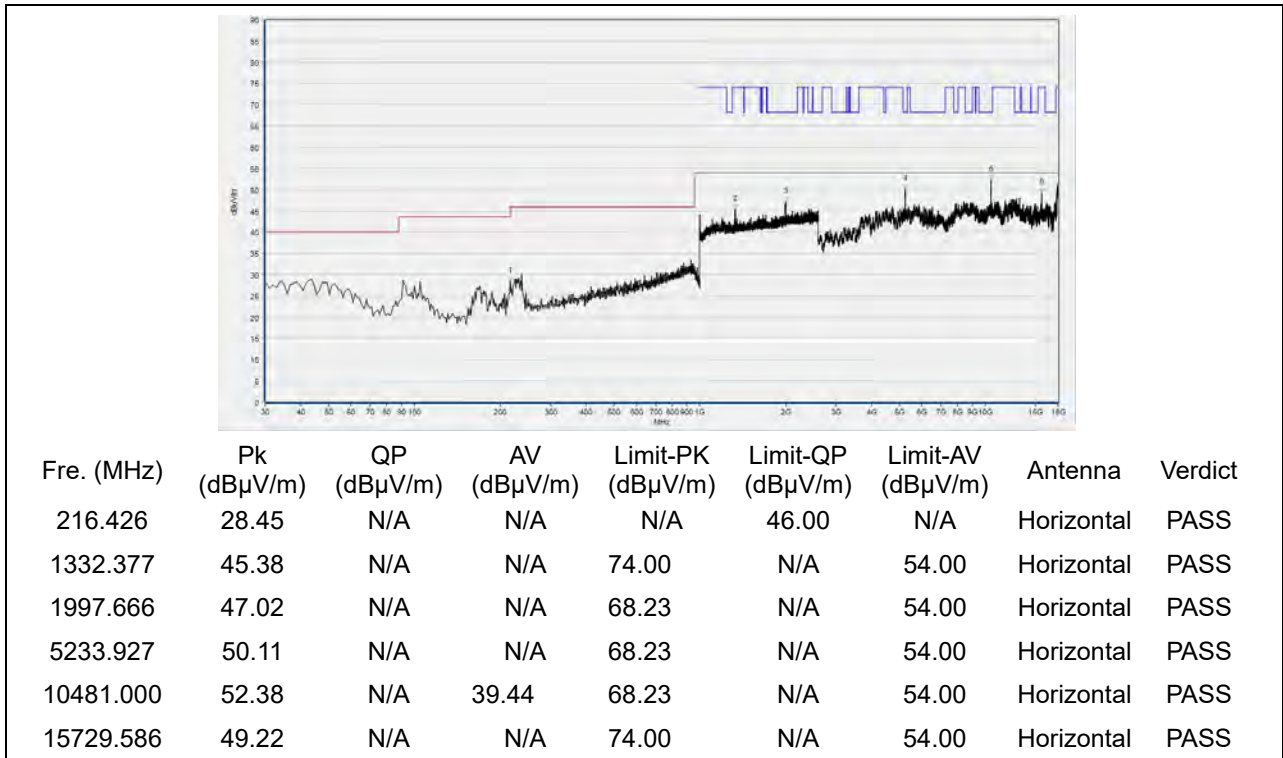
(Antenna Horizontal, 30MHz to 18GHz)



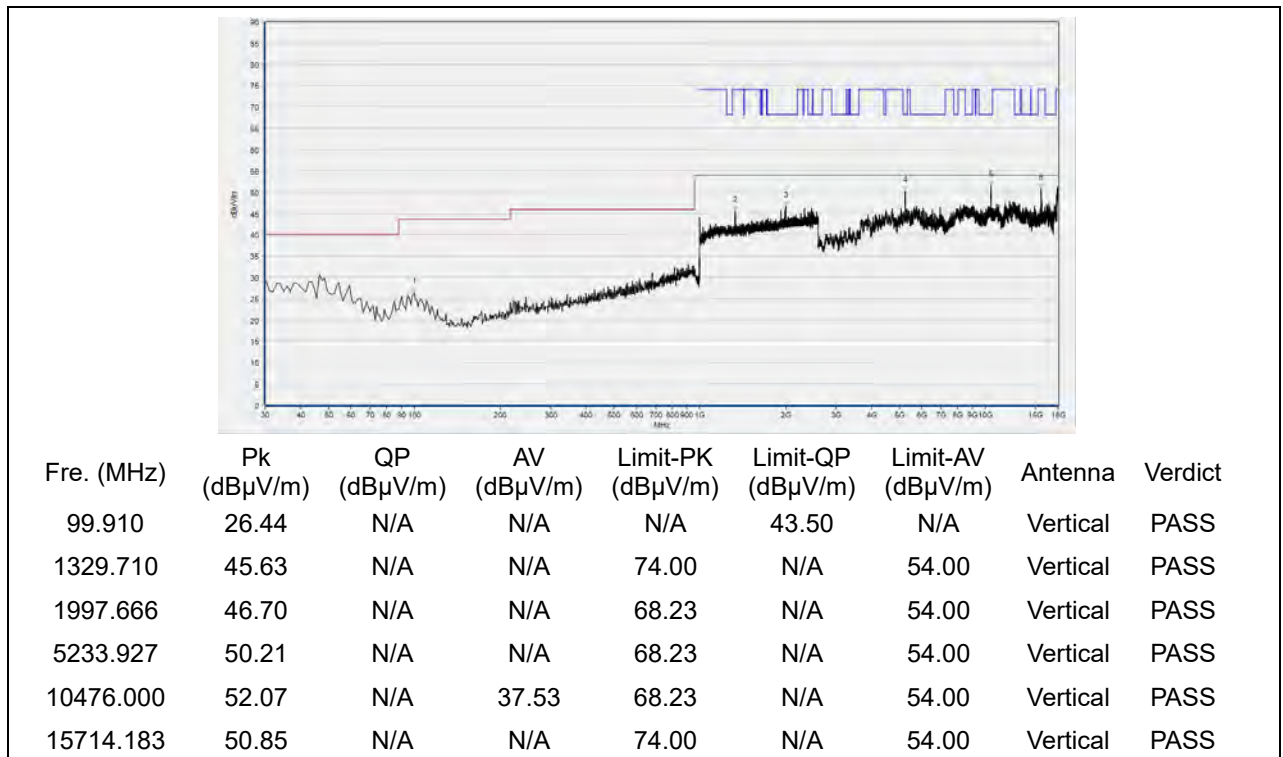
Fre. (MHz)	Pk (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
332.943	29.37	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
1331.310	47.35	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
3921.584	44.50	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
5212.362	49.37	N/A	N/A	68.23	N/A	54.00	Vertical	PASS
10439.999	56.88	N/A	42.39	68.23	N/A	54.00	Vertical	PASS
12066.733	48.08	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

(Antenna Vertical, 30MHz to 18GHz)

Plot for Channel = 48

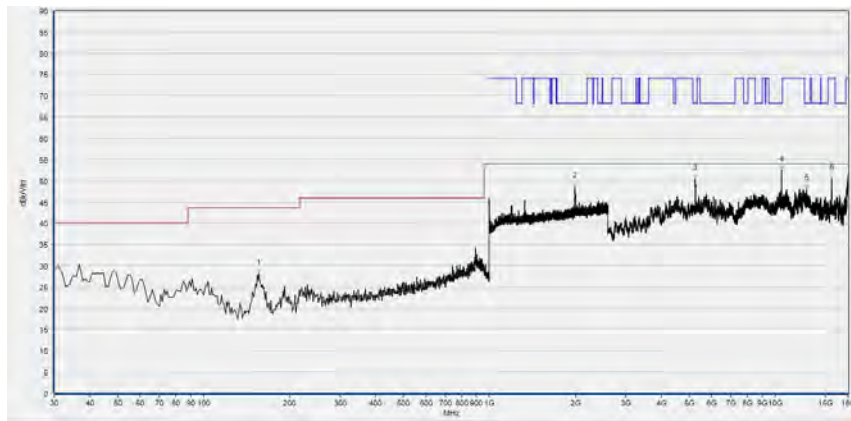


(Antenna Horizontal, 30MHz to 18GHz)



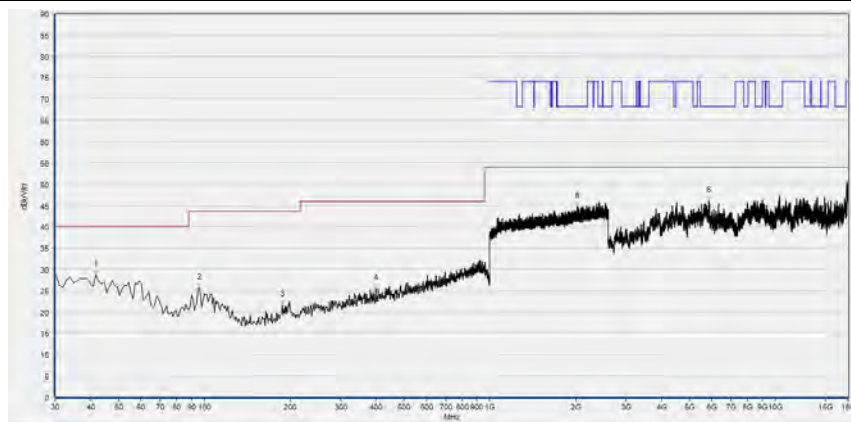
(Antenna Vertical, 30MHz to 18GHz)

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
156.226	28.07	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
1994.465	48.57	N/A	N/A	68.23	N/A	54.00	Horizontal	PASS
5255.491	50.40	N/A	N/A	68.23	N/A	54.00	Horizontal	PASS
10516.000	52.49	N/A	38.32	68.23	N/A	54.00	Horizontal	PASS
12876.935	48.13	N/A	N/A	68.23	N/A	54.00	Horizontal	PASS
15781.956	50.42	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

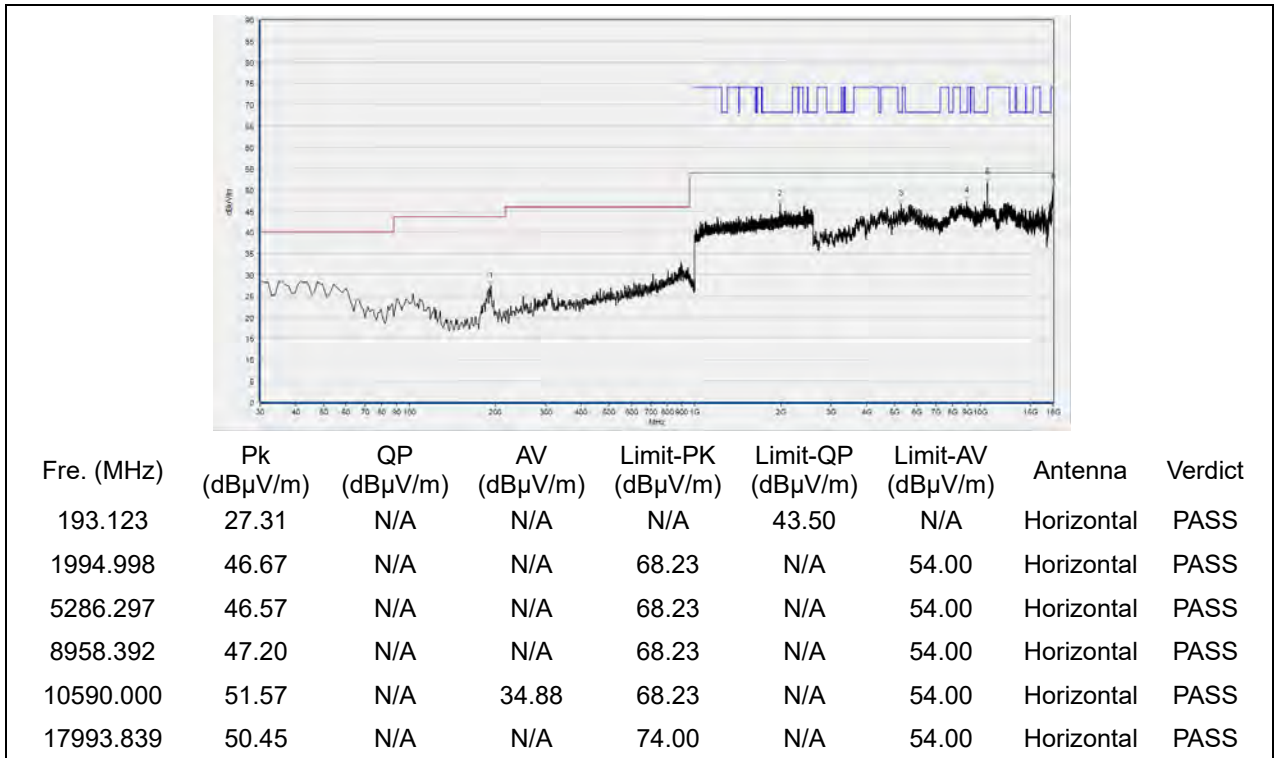
(Antenna Horizontal, 30MHz to 18GHz)



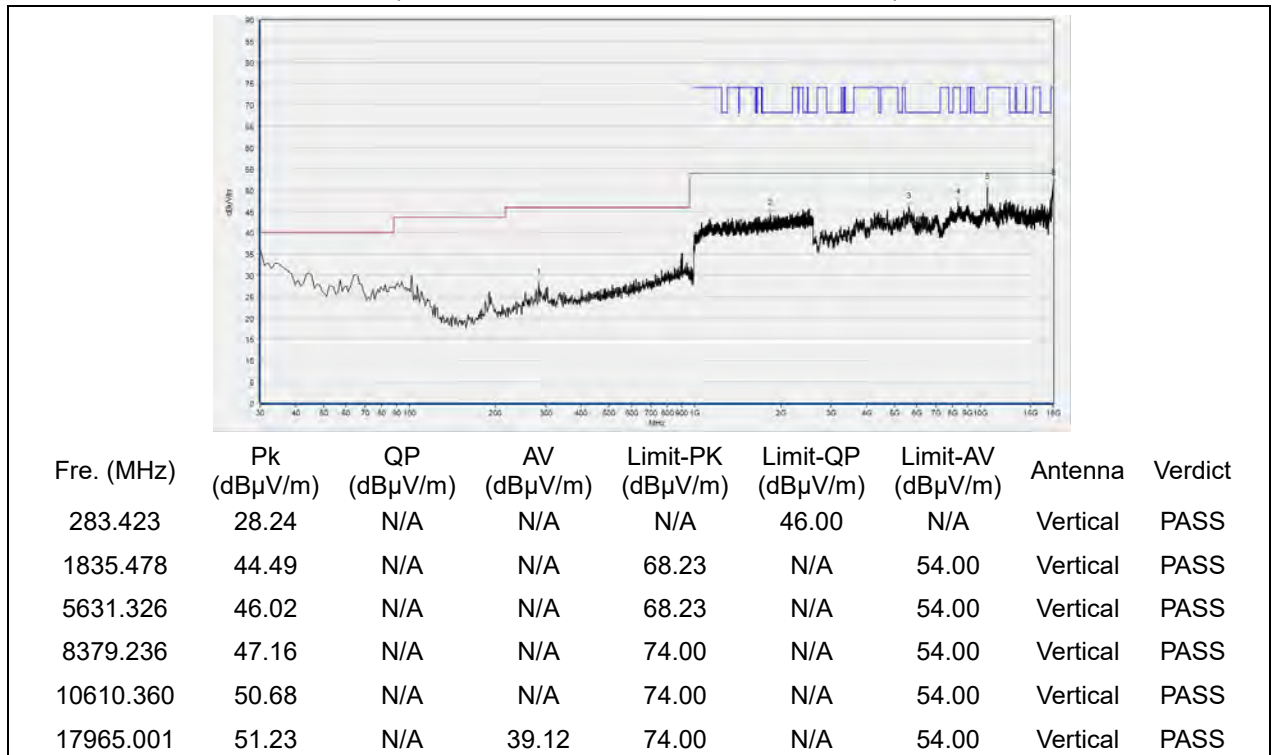
Fre. (MHz)	Pk (dBµV/m)	QP (dBµV/m)	AV (dBµV/m)	Limit-PK (dBµV/m)	Limit-QP (dBµV/m)	Limit-AV (dBµV/m)	Antenna	Verdict
100.881	25.99	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
1917.106	45.54	N/A	N/A	68.23	N/A	54.00	Vertical	PASS
4506.901	45.84	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
8616.443	47.45	N/A	N/A	68.23	N/A	54.00	Vertical	PASS
10520.001	57.04	N/A	40.63	68.23	N/A	54.00	Vertical	PASS
17990.758	50.25	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

(Antenna Vertical, 30MHz to 18GHz)

Plots for Channel = 60

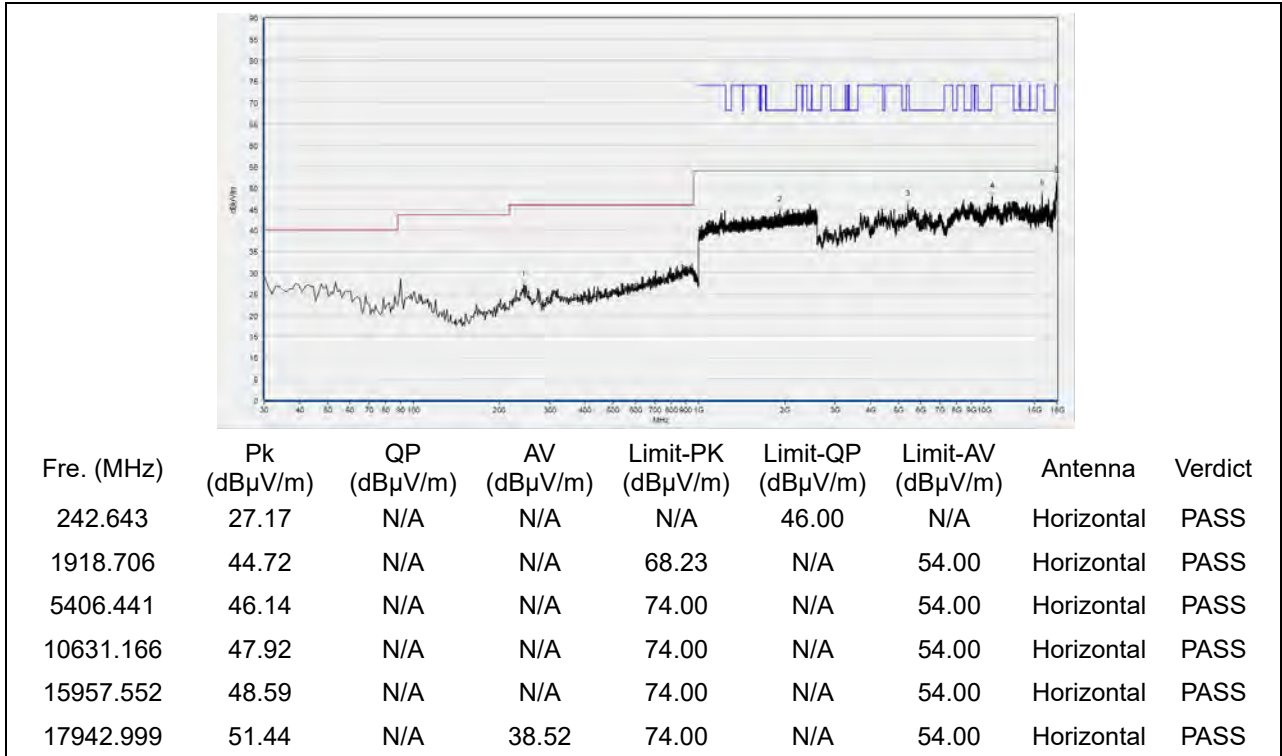


(Antenna Horizontal, 30MHz to 18GHz)

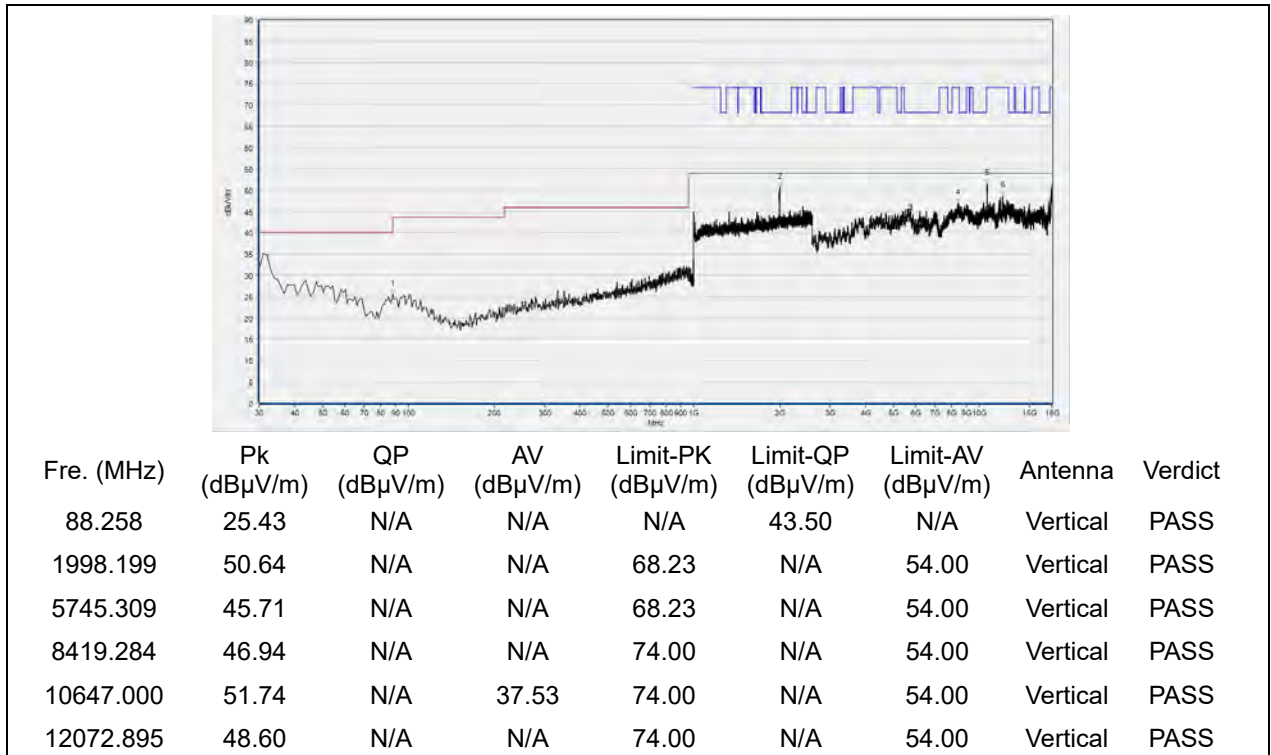


(Antenna Vertical, 30MHz to 18GHz)

Plot for Channel = 64

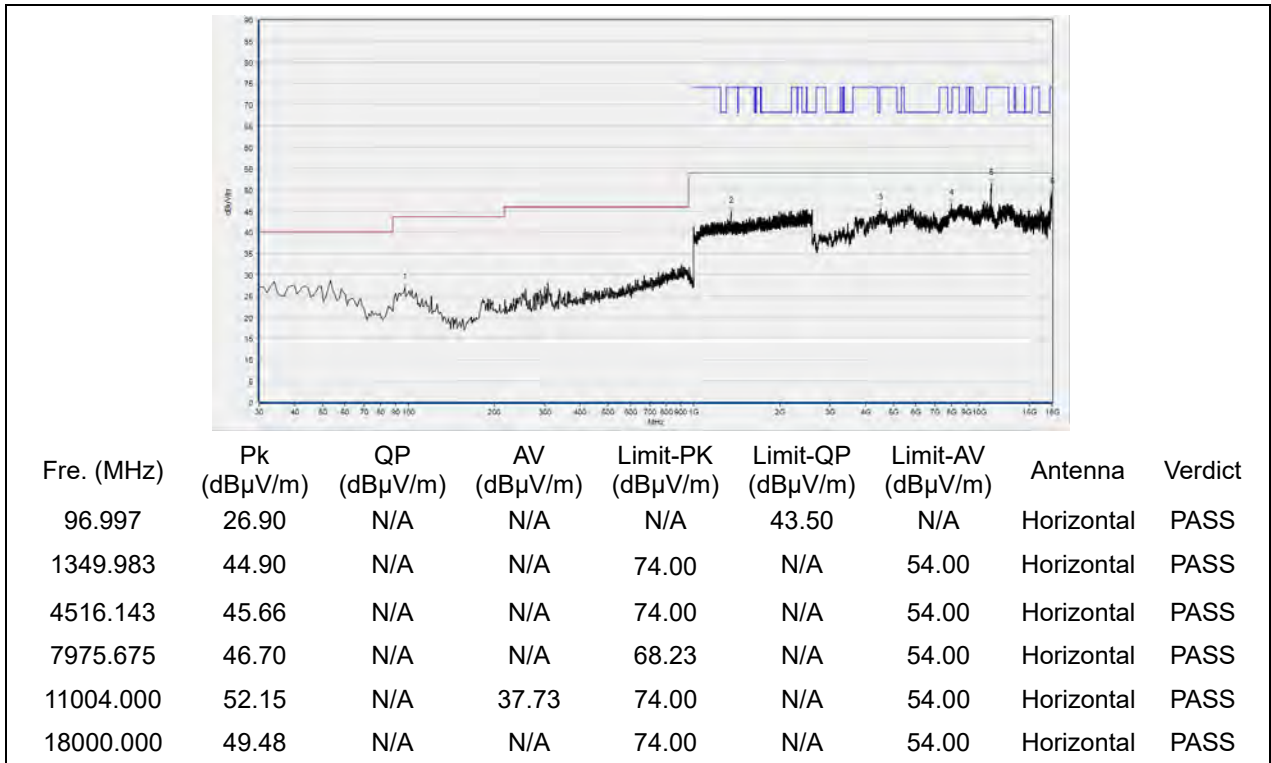


(Antenna Horizontal, 30MHz to 18GHz)

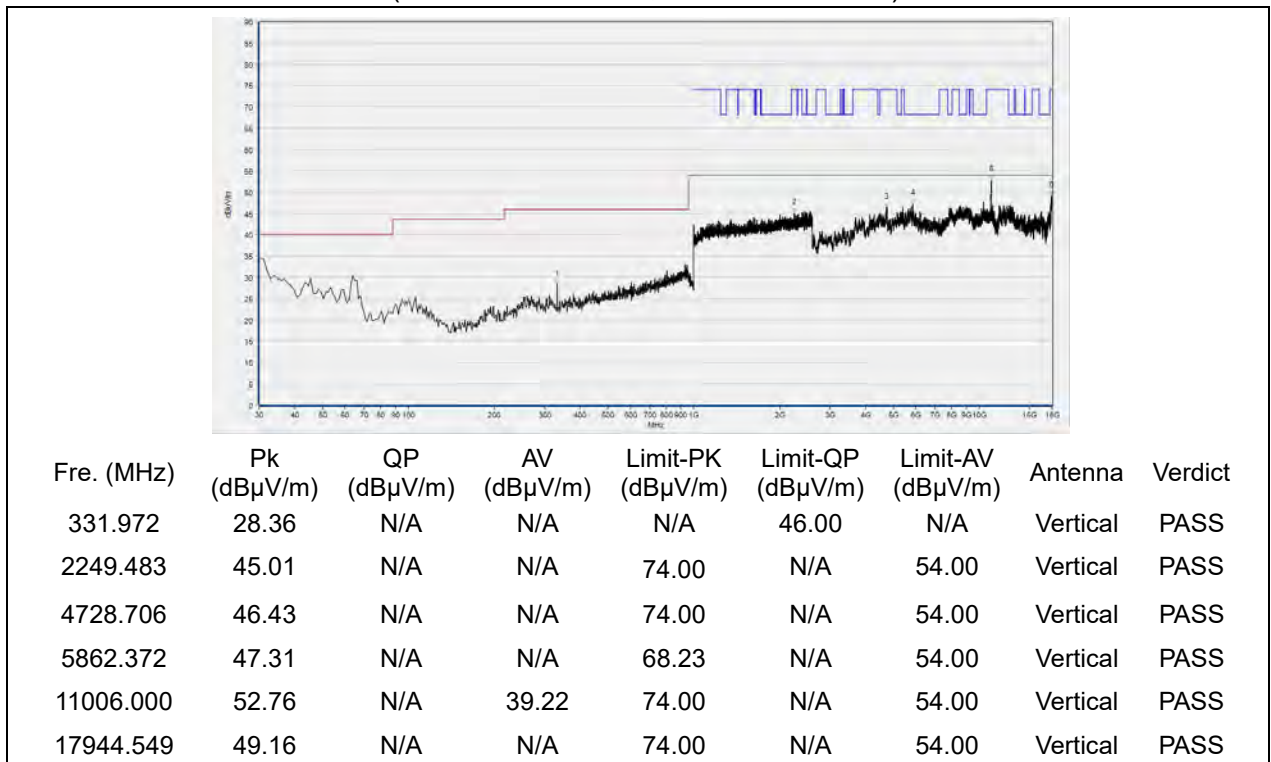


(Antenna Vertical, 30MHz to 18GHz)

Plots for Channel = 100

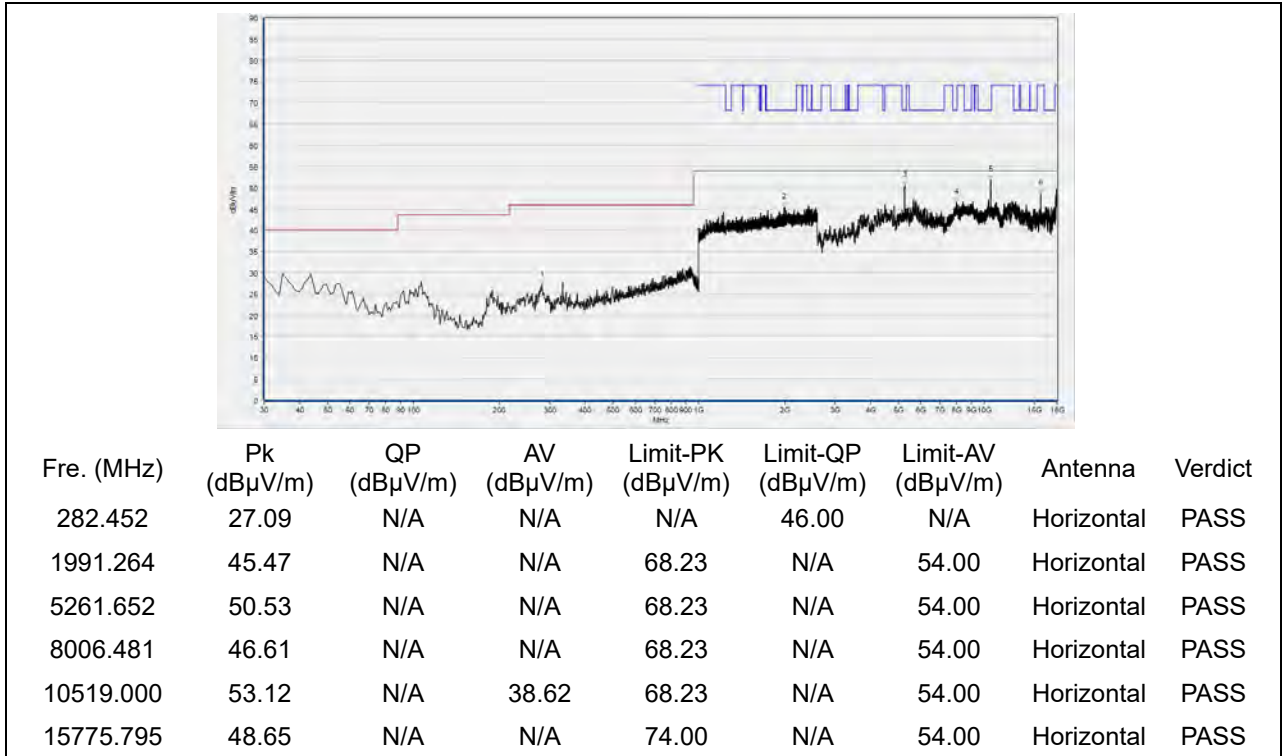


(Antenna Horizontal, 30MHz to 18GHz)

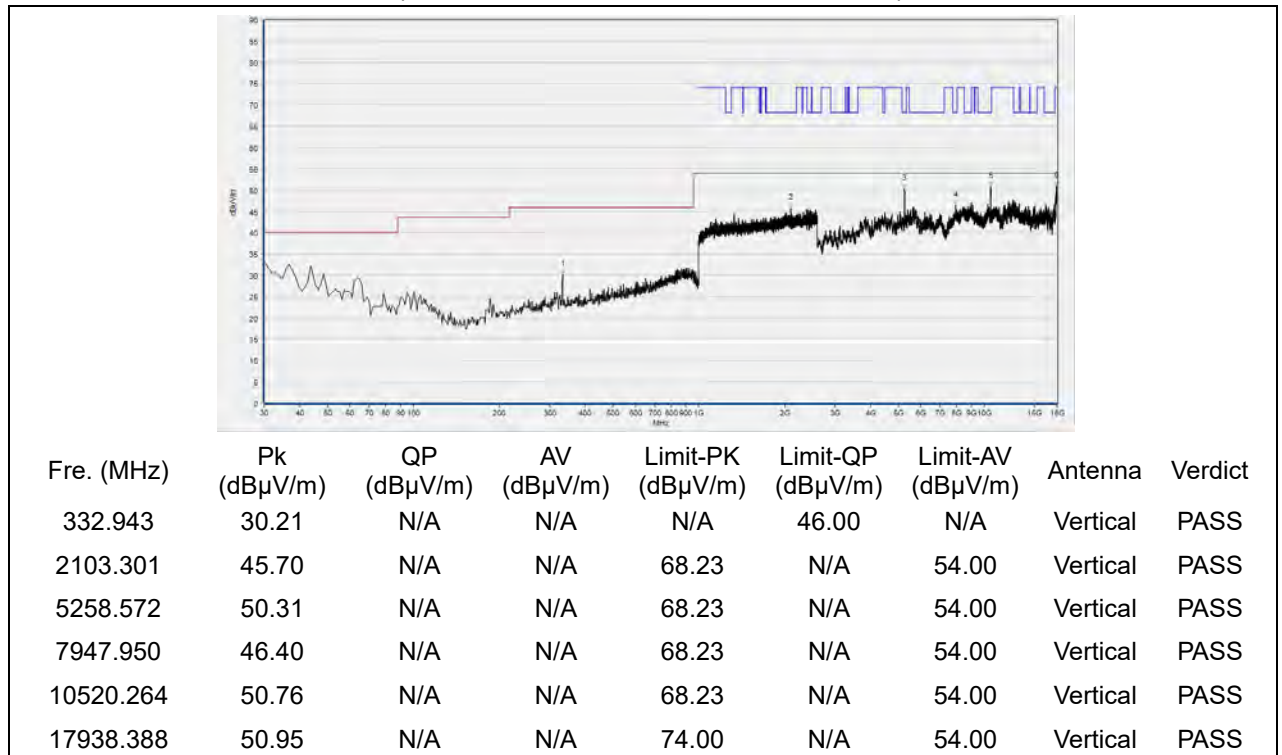


(Antenna Vertical, 30MHz to 18GHz)

Plots for Channel = 120

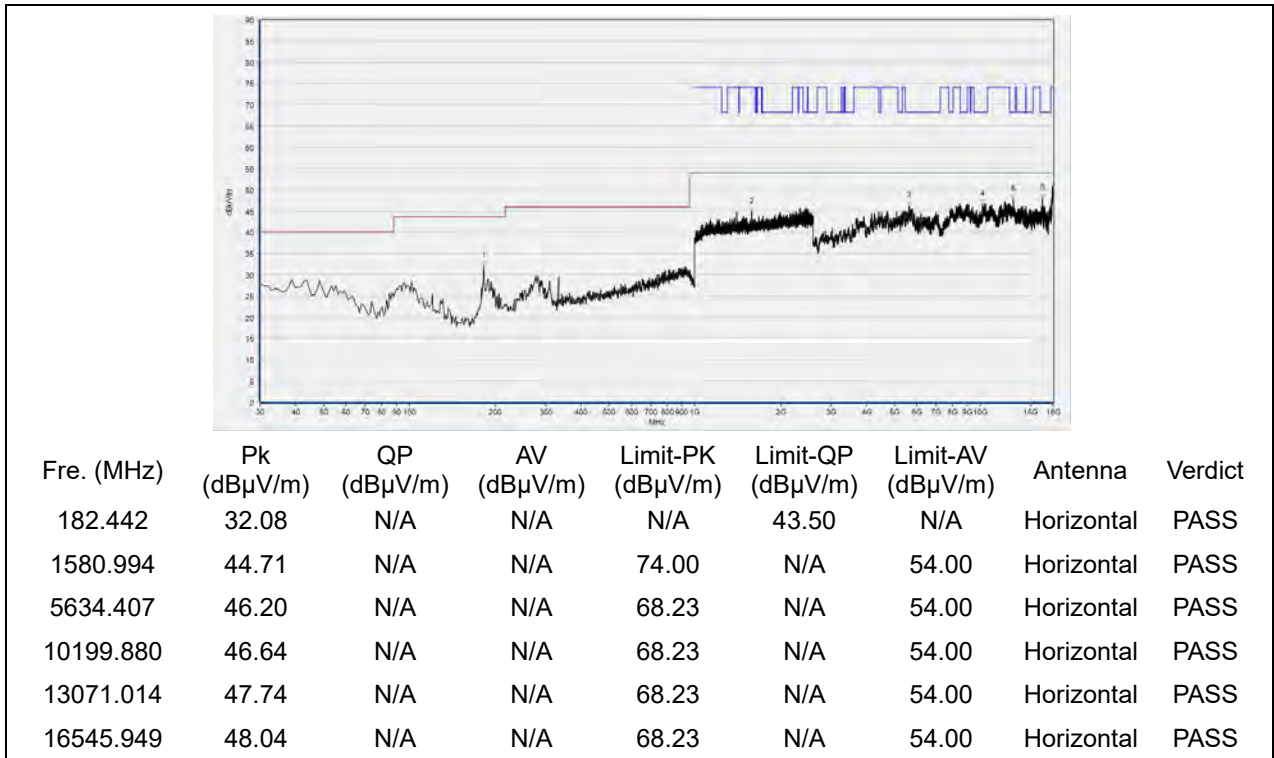


(Antenna Horizontal, 30MHz to 18GHz)

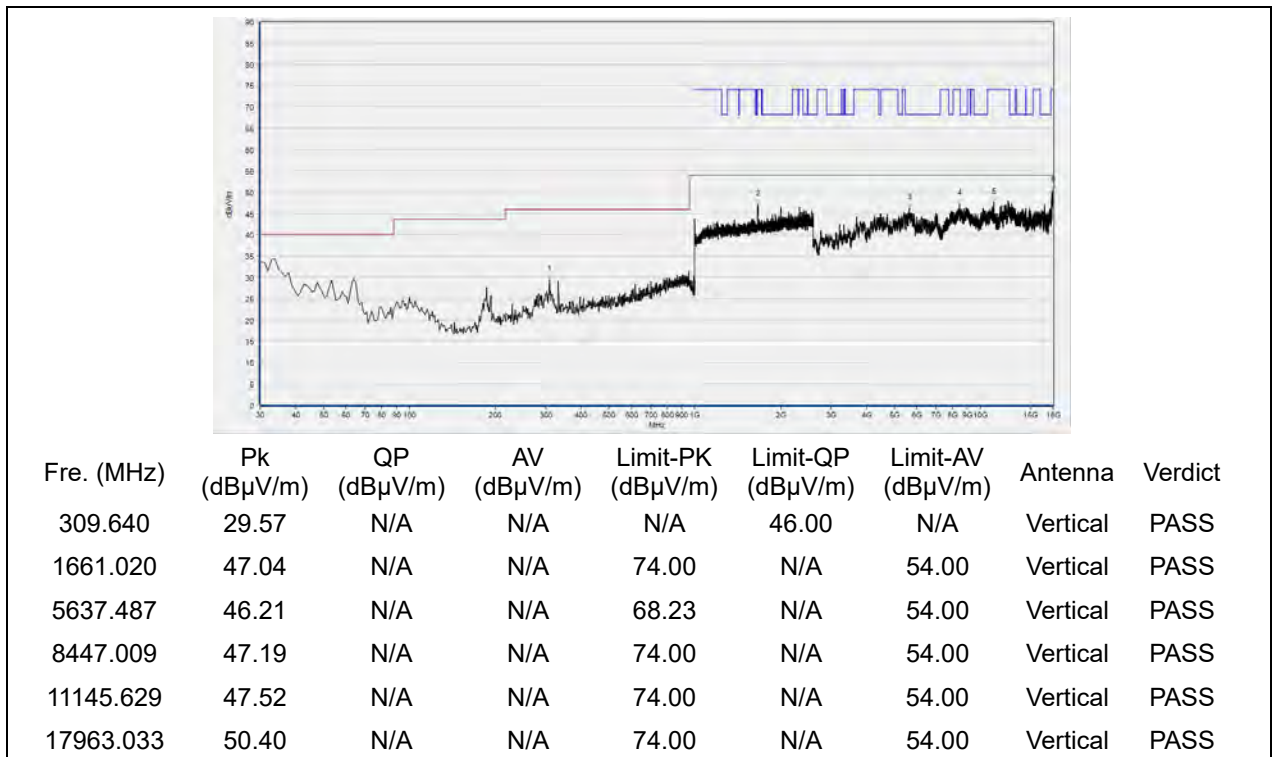


(Antenna Vertical, 30MHz to 18GHz)

Plot for Channel = 144

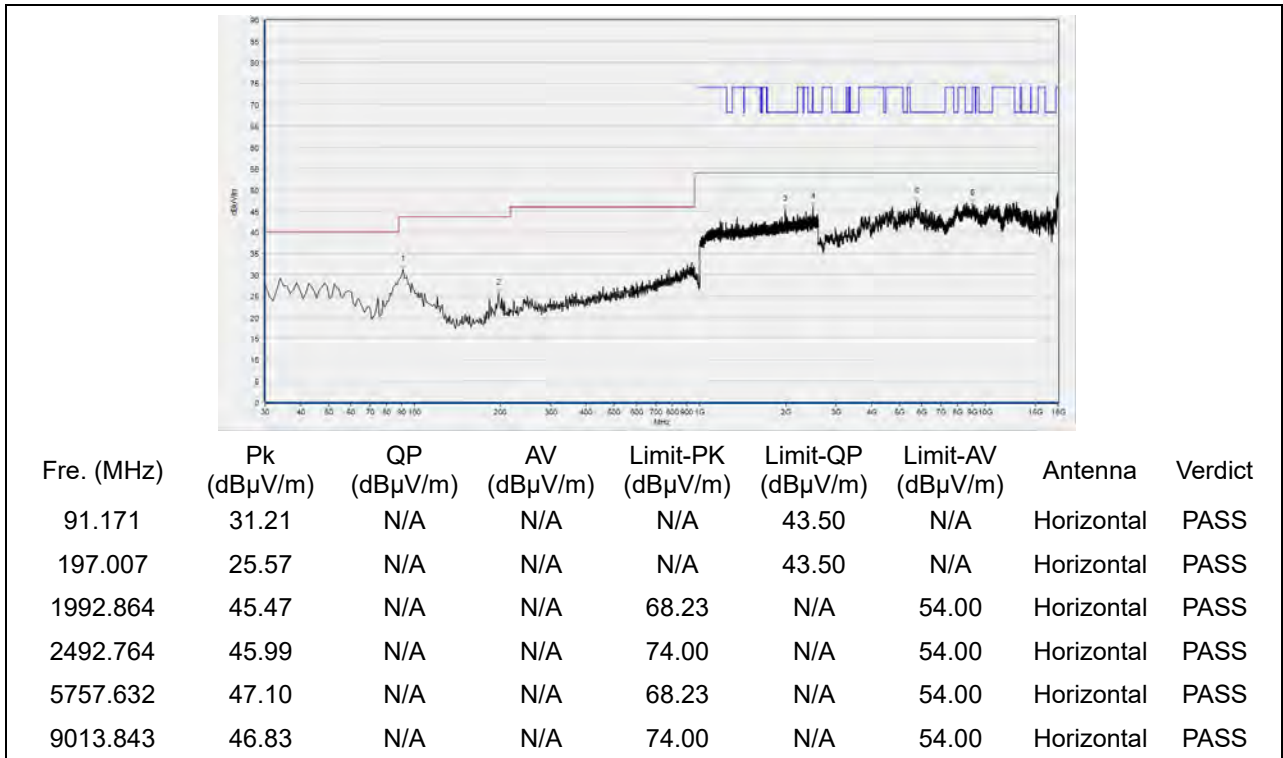


(Antenna Horizontal, 30MHz to 18GHz)

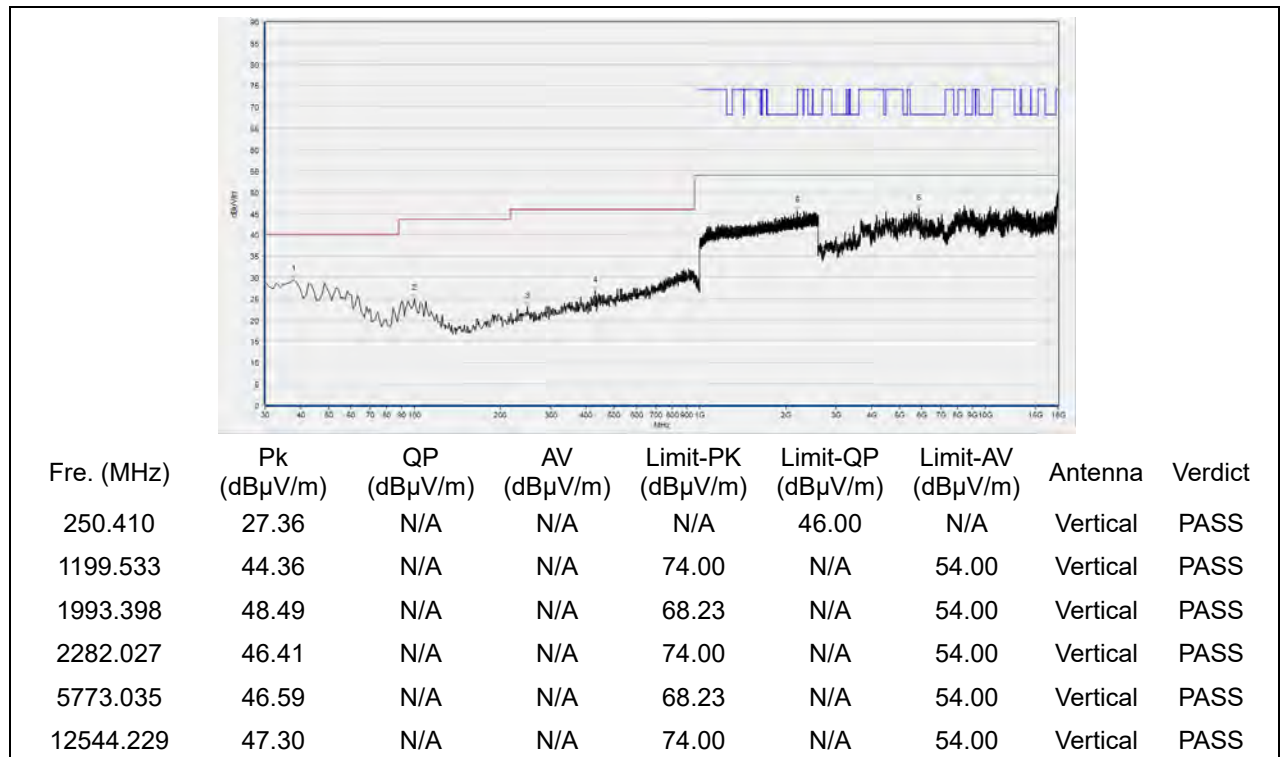


(Antenna Vertical, 30MHz to 18GHz)

Plots for Channel = 149

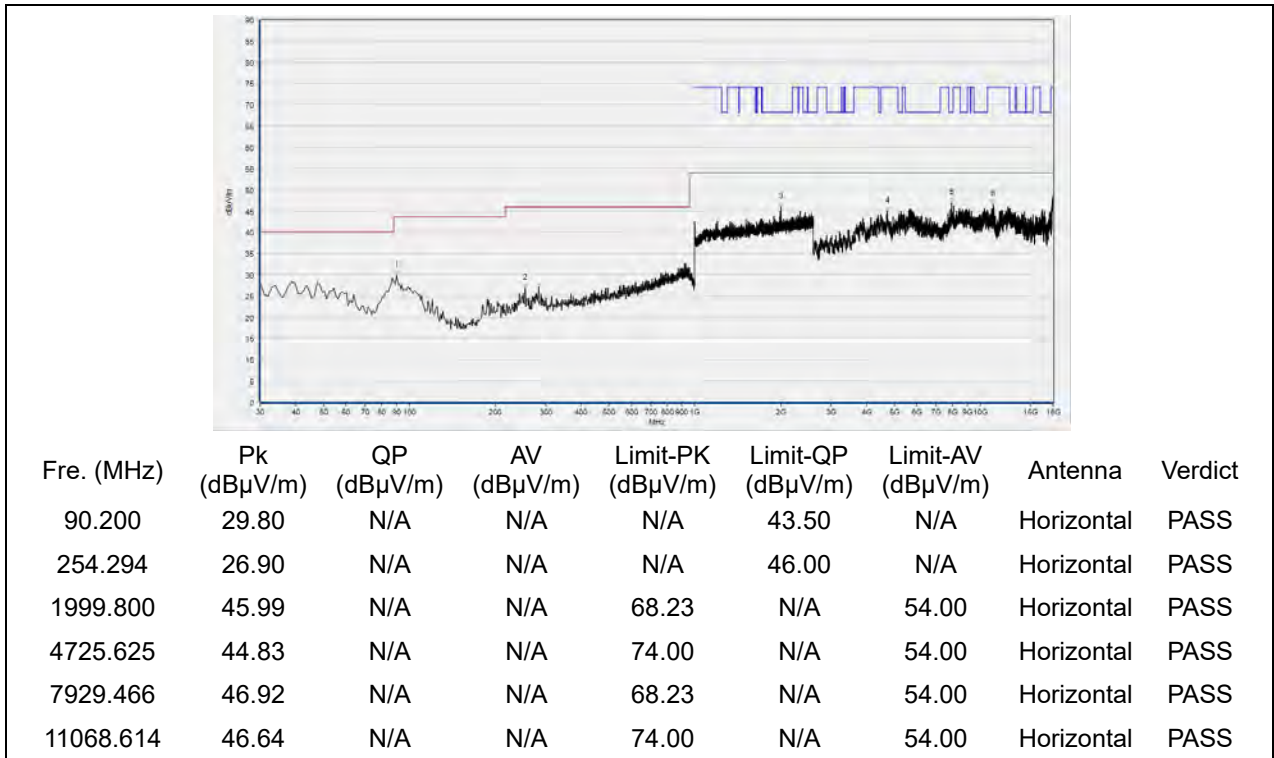


(Antenna Horizontal, 30MHz to 18GHz)

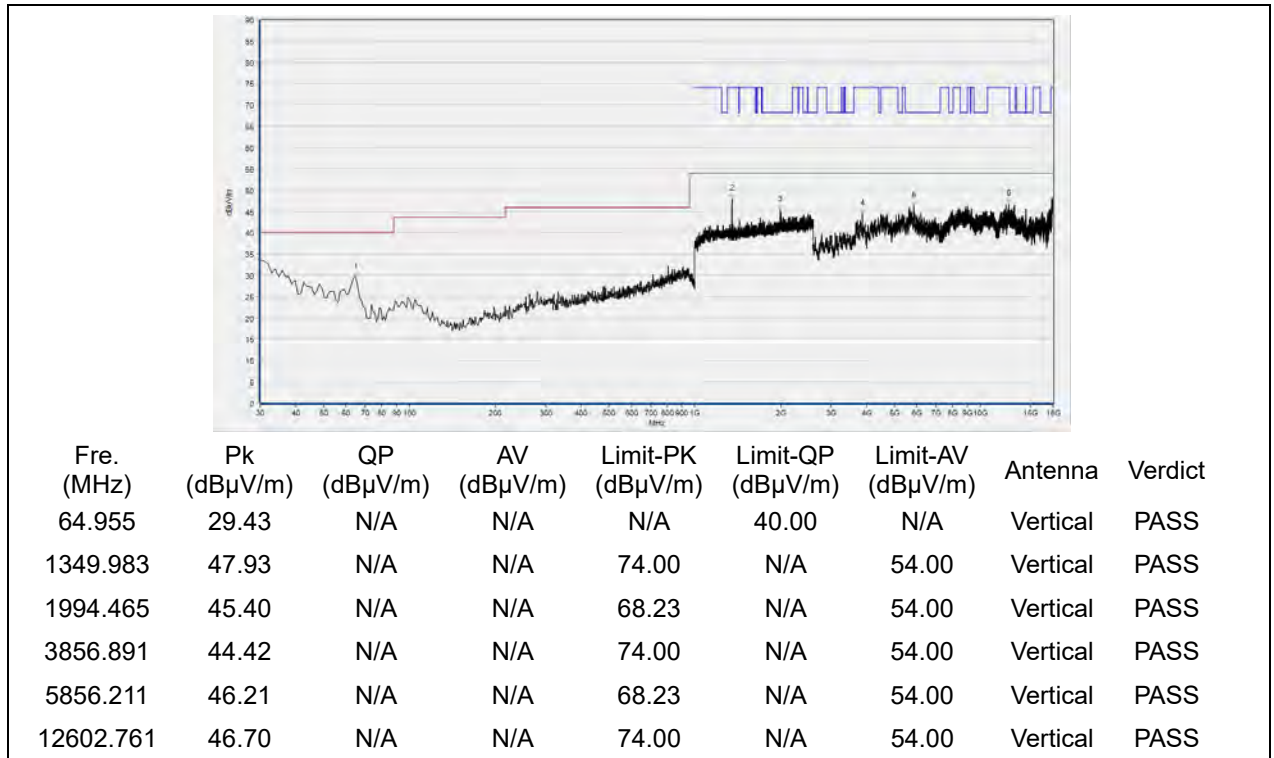


(Antenna Vertical, 30MHz to 18GHz)

Plot for Channel = 157

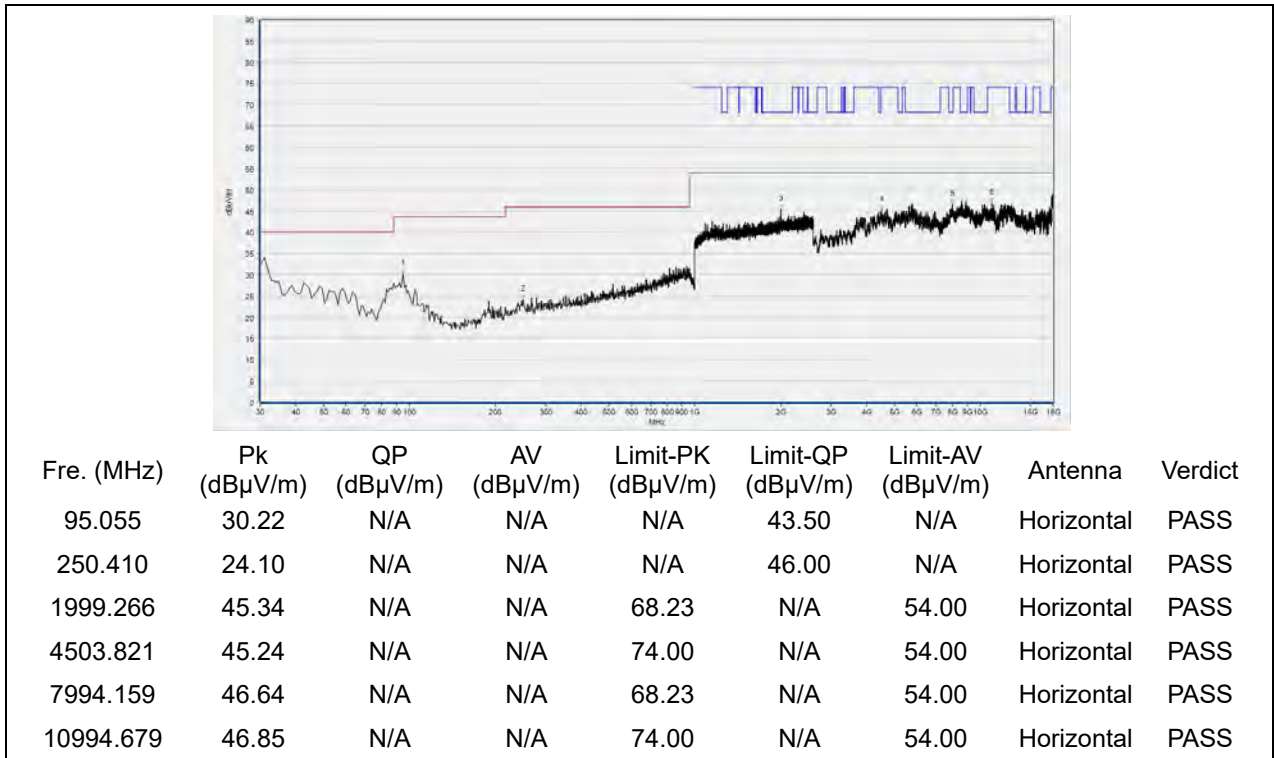


(Antenna Horizontal, 30MHz to 18GHz)

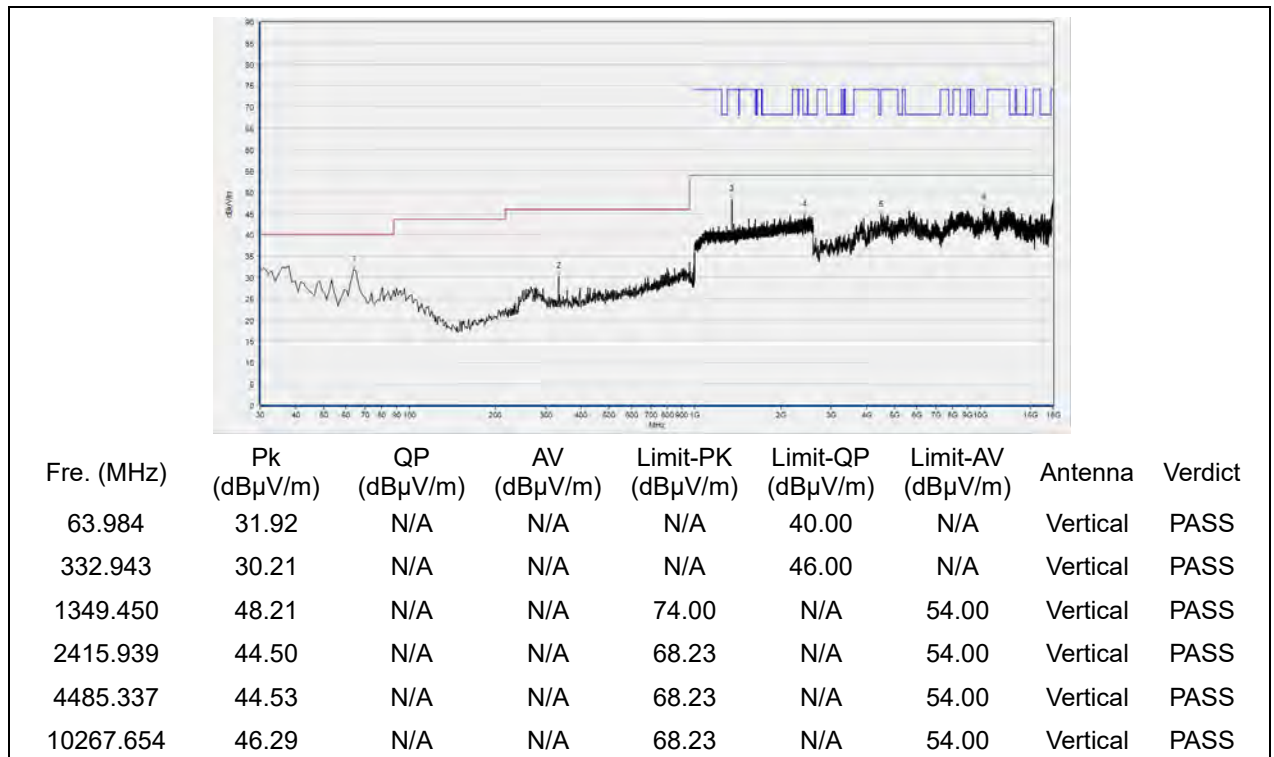


(Antenna Vertical, 30MHz to 18GHz)

Plot for Channel = 165



(Antenna Horizontal, 30MHz to 18GHz)

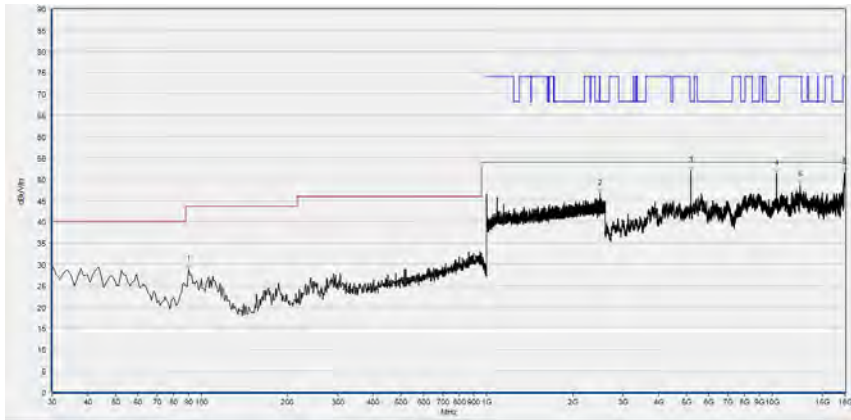


(Antenna Vertical, 30MHz to 18GHz)



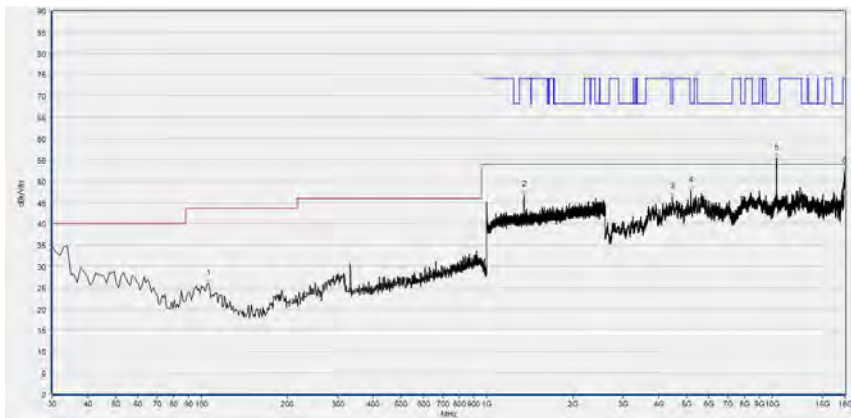
802.11n (HT20) Test mode

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
90.200	28.80	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
2495.965	46.51	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
5184.637	51.95	N/A	N/A	68.23	N/A	54.00	Horizontal	PASS
10356.000	51.25	N/A	38.58	68.23	N/A	54.00	Horizontal	PASS
12525.745	48.62	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
17917.000	51.15	N/A	38.09	74.00	N/A	54.00	Horizontal	PASS

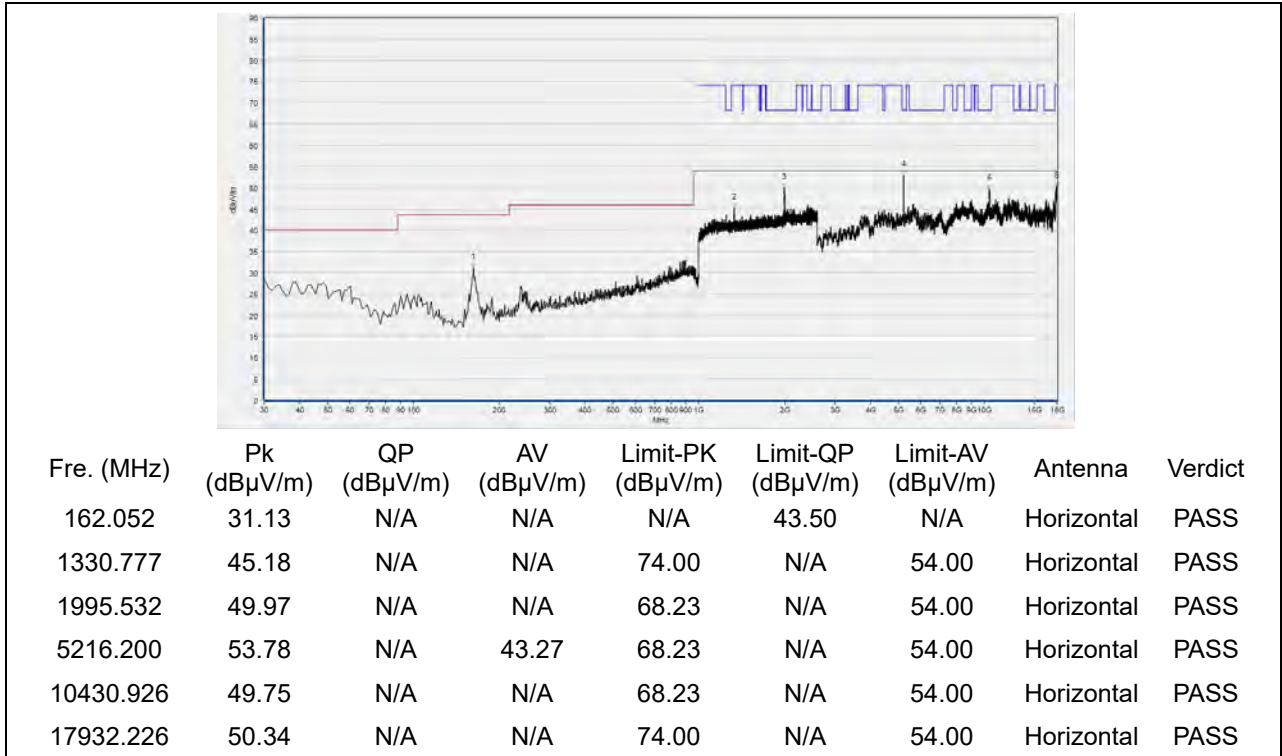
(Antenna Horizontal, 30MHz to 18GHz)



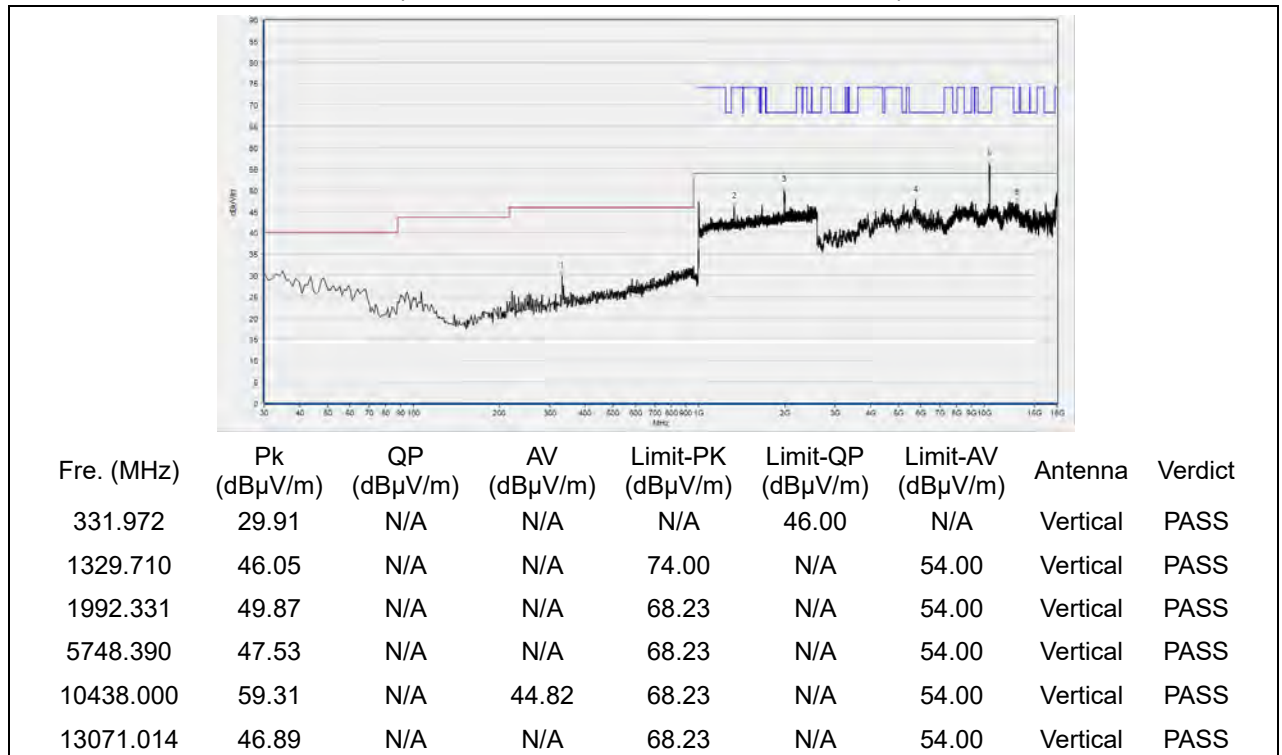
Fre. (MHz)	Pk (dBµV/m)	QP (dBµV/m)	AV (dBµV/m)	Limit-PK (dBµV/m)	Limit-QP (dBµV/m)	Limit-AV (dBµV/m)	Antenna	Verdict
105.736	25.93	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
1349.983	46.69	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
4469.934	46.20	N/A	N/A	68.23	N/A	54.00	Vertical	PASS
5178.476	47.72	N/A	N/A	68.23	N/A	54.00	Vertical	PASS
10358.000	55.33	N/A	43.51	68.23	N/A	54.00	Vertical	PASS
17944.001	52.37	N/A	39.07	74.00	N/A	54.00	Vertical	PASS

(Antenna Vertical, 30MHz to 18GHz)

Plots for Channel = 44

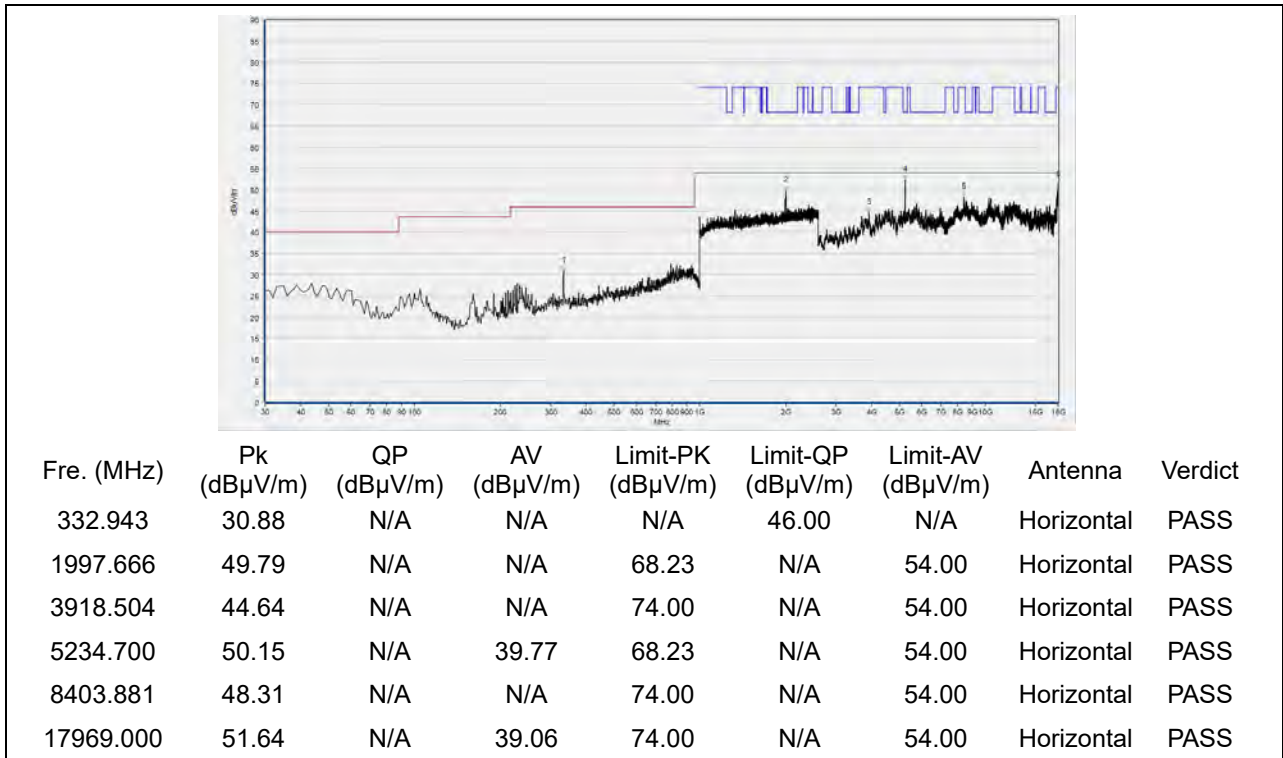


(Antenna Horizontal, 30MHz to 18GHz)

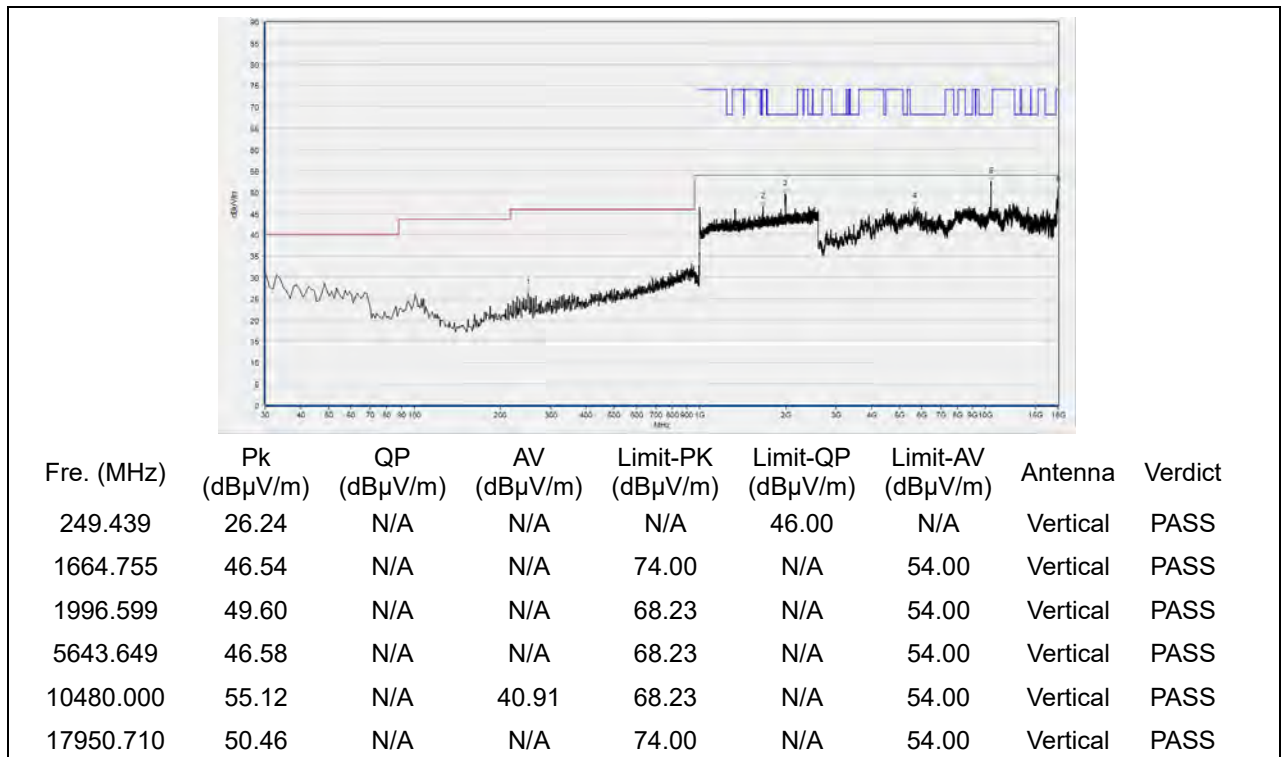


(Antenna Vertical, 30MHz to 18GHz)

Plot for Channel = 48

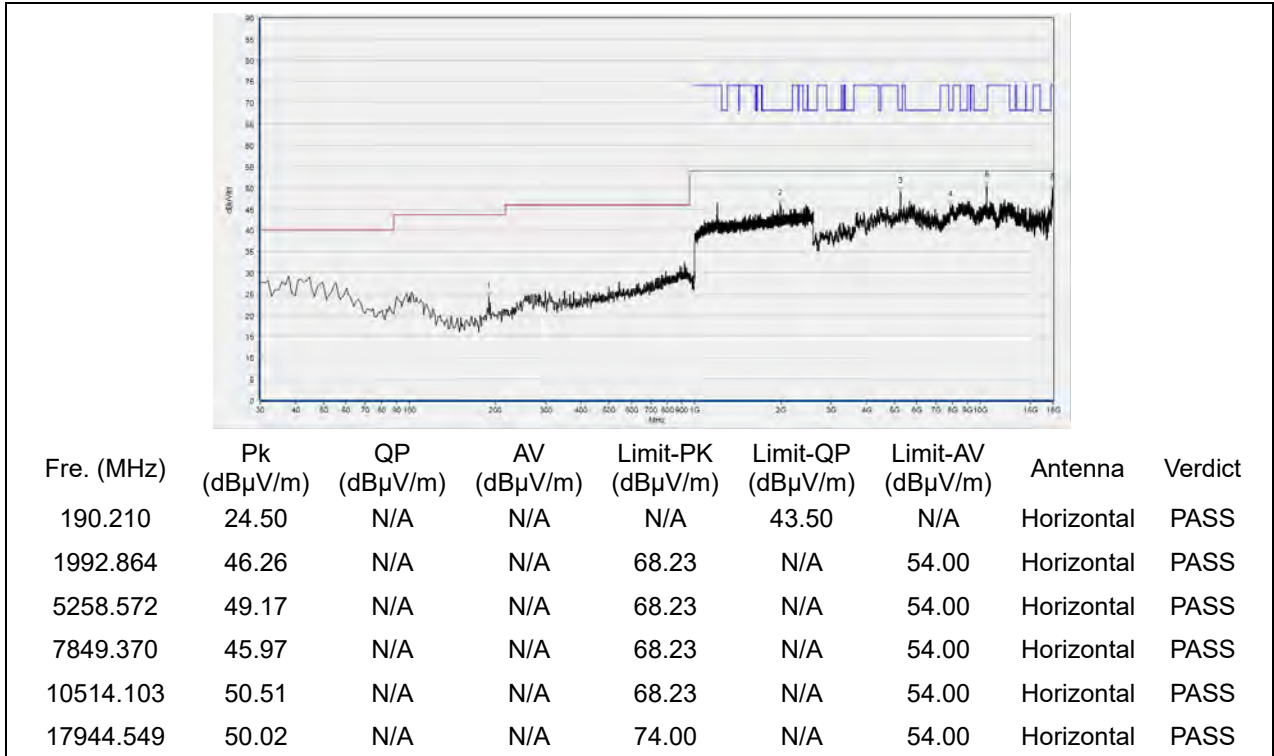


(Antenna Horizontal, 30MHz to 18GHz)

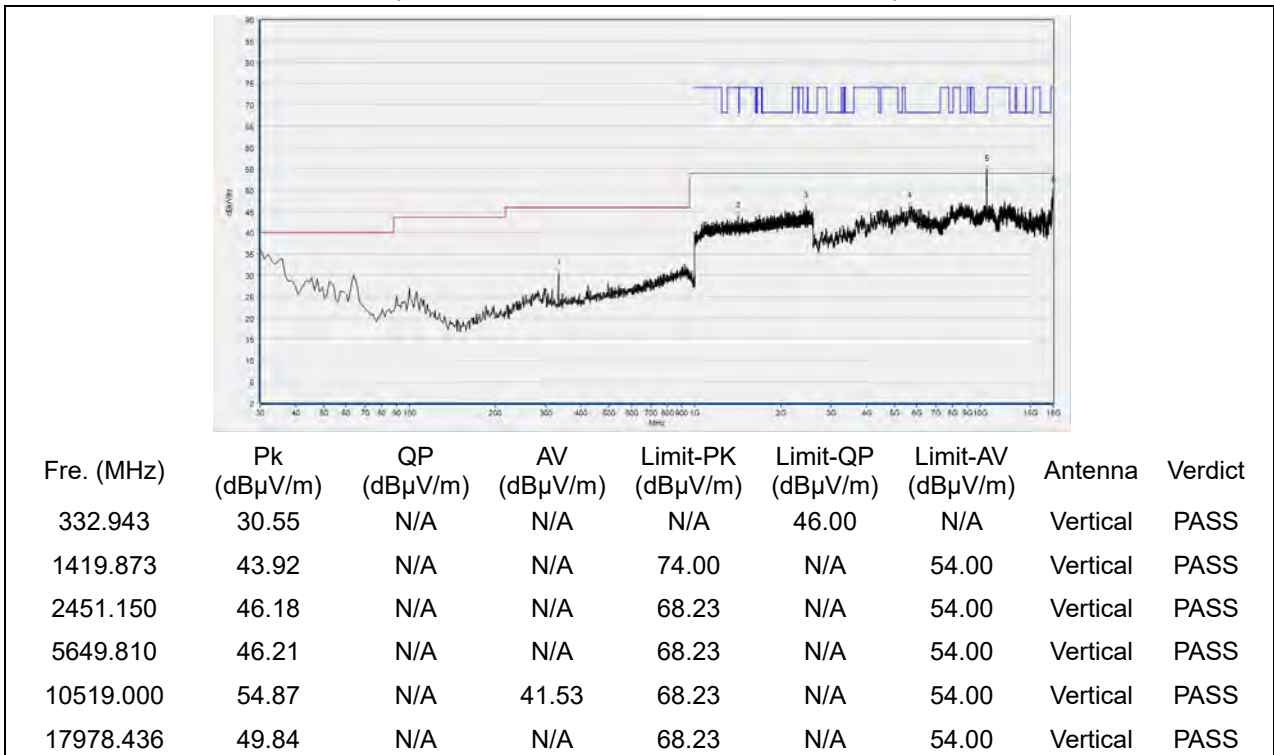


(Antenna Vertical, 30MHz to 18GHz)

Plots for Channel = 52

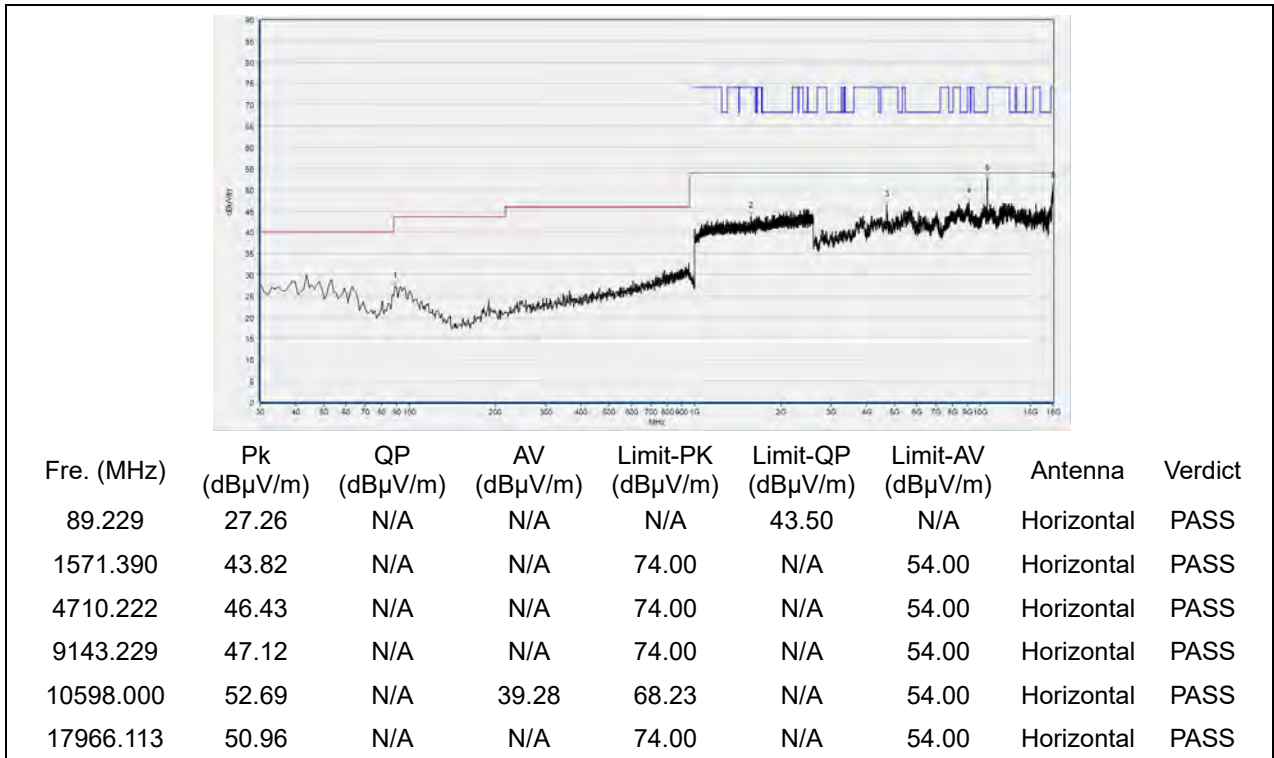


(Antenna Horizontal, 30MHz to 18GHz)

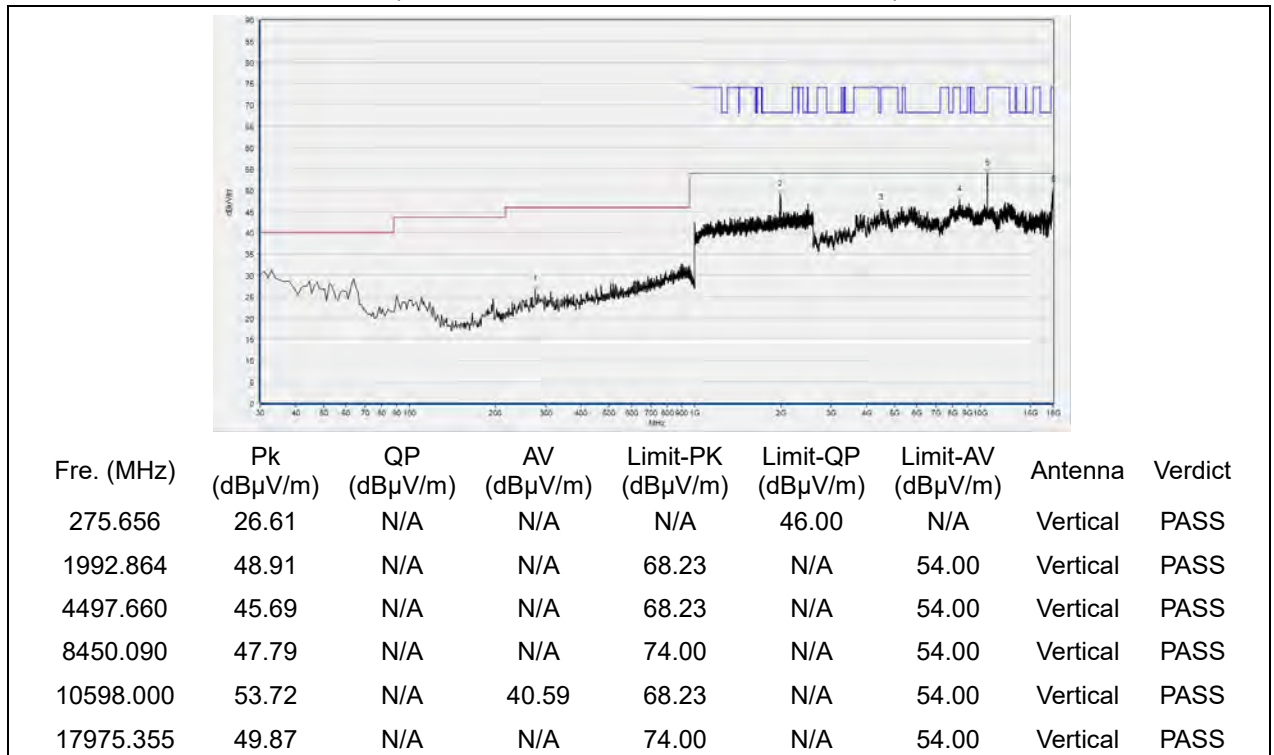


(Antenna Vertical, 30MHz to 18GHz)

Plots for Channel = 60



(Antenna Horizontal, 30MHz to 18GHz)



(Antenna Vertical, 30MHz to 18GHz)