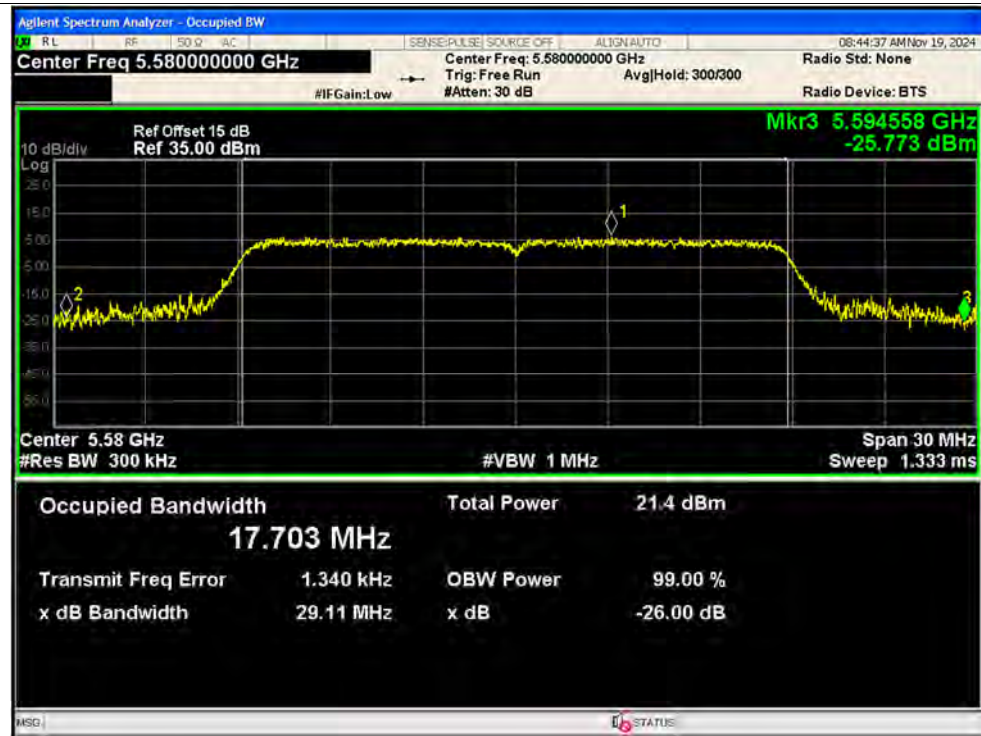
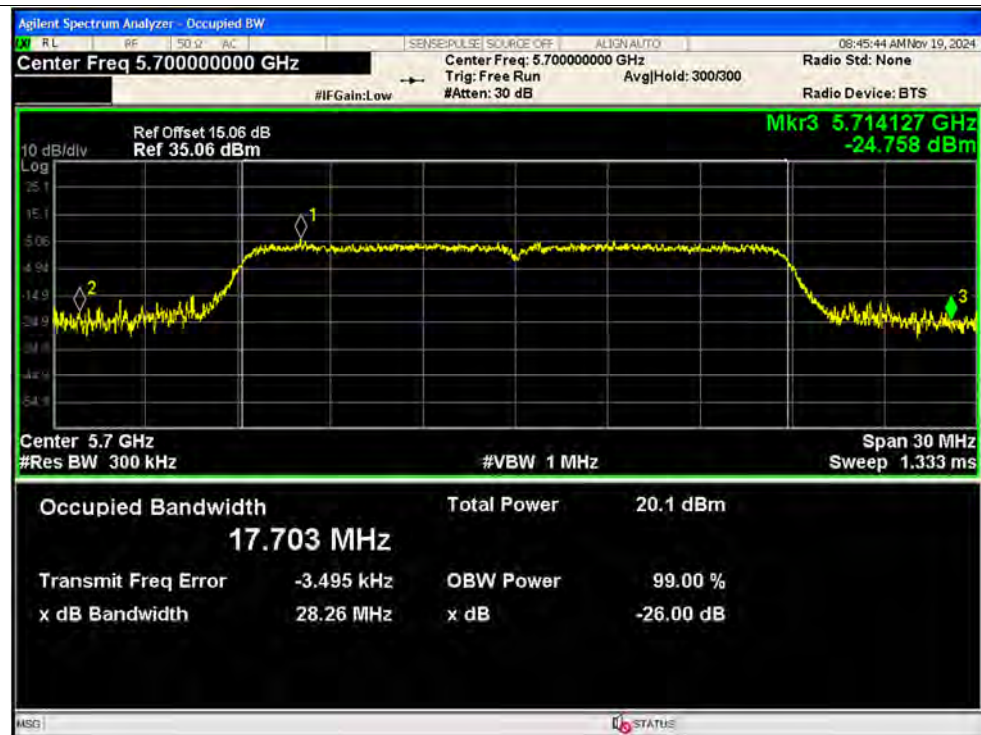


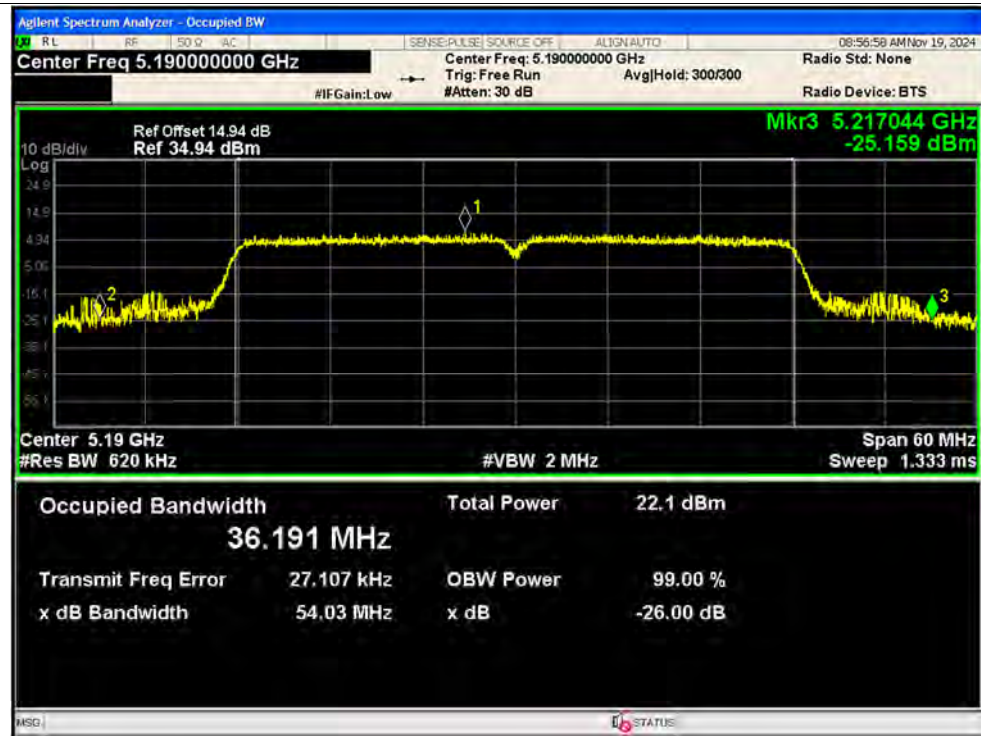
-26dB Bandwidth NVNT ac20 5580MHz Ant1



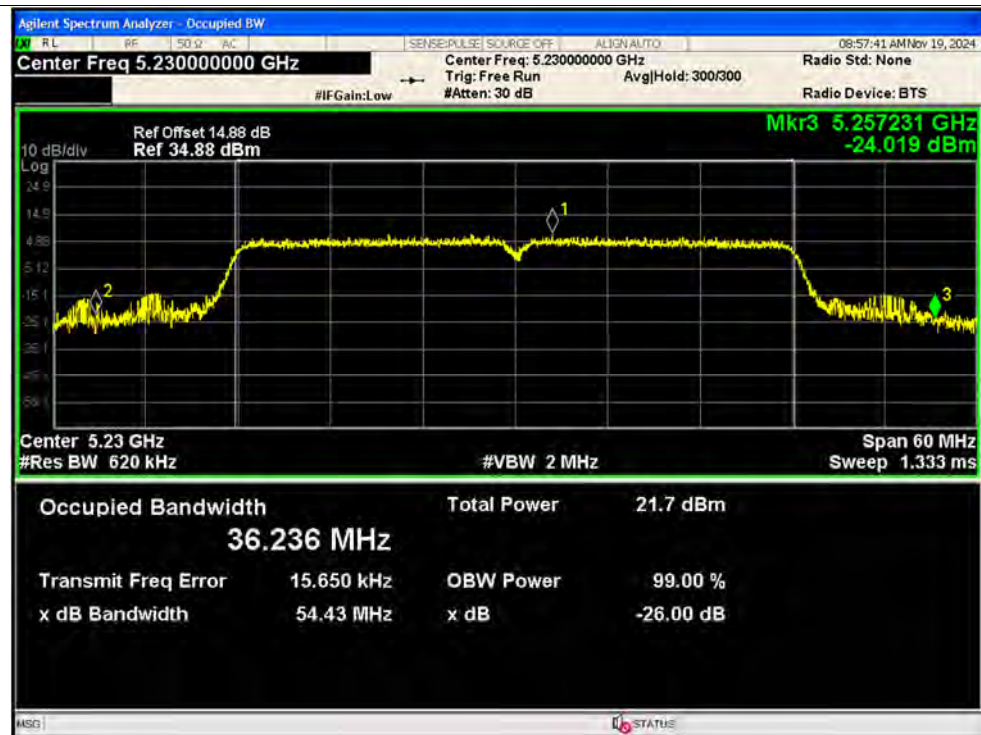
-26dB Bandwidth NVNT ac20 5700MHz Ant1



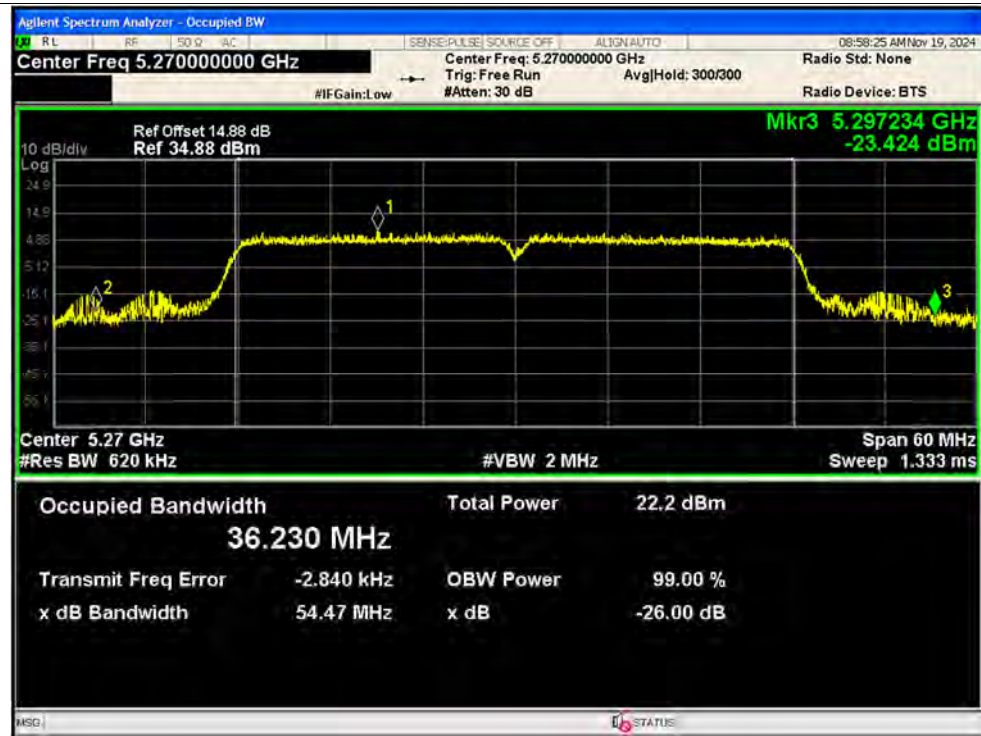
-26dB Bandwidth NVNT ac40 5190MHz Ant1



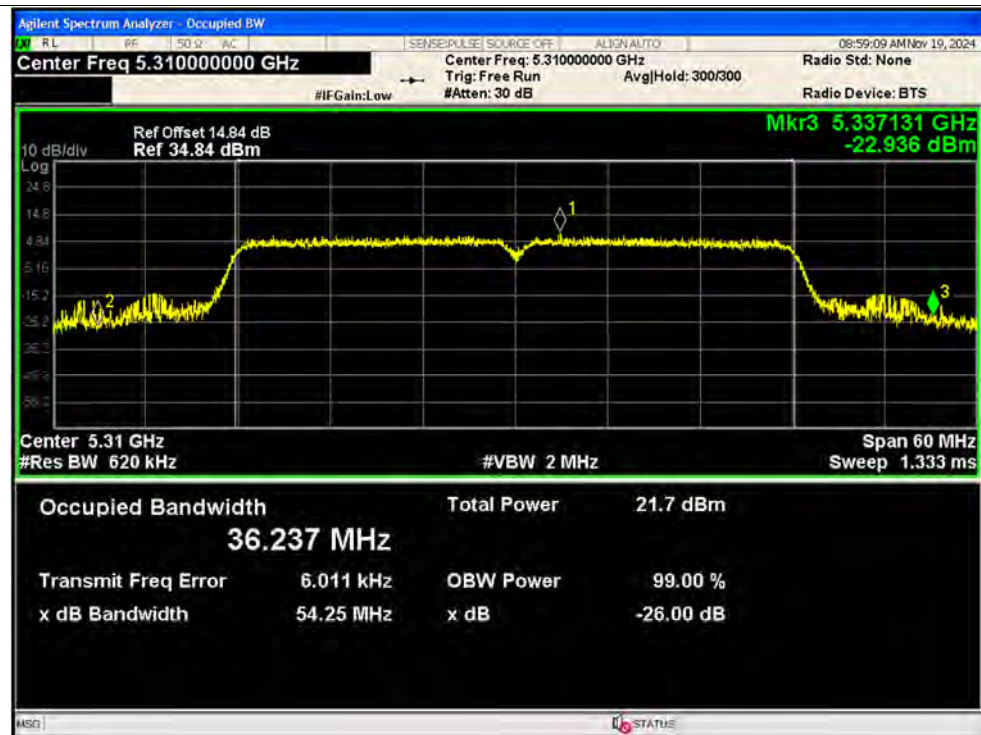
-26dB Bandwidth NVNT ac40 5230MHz Ant1



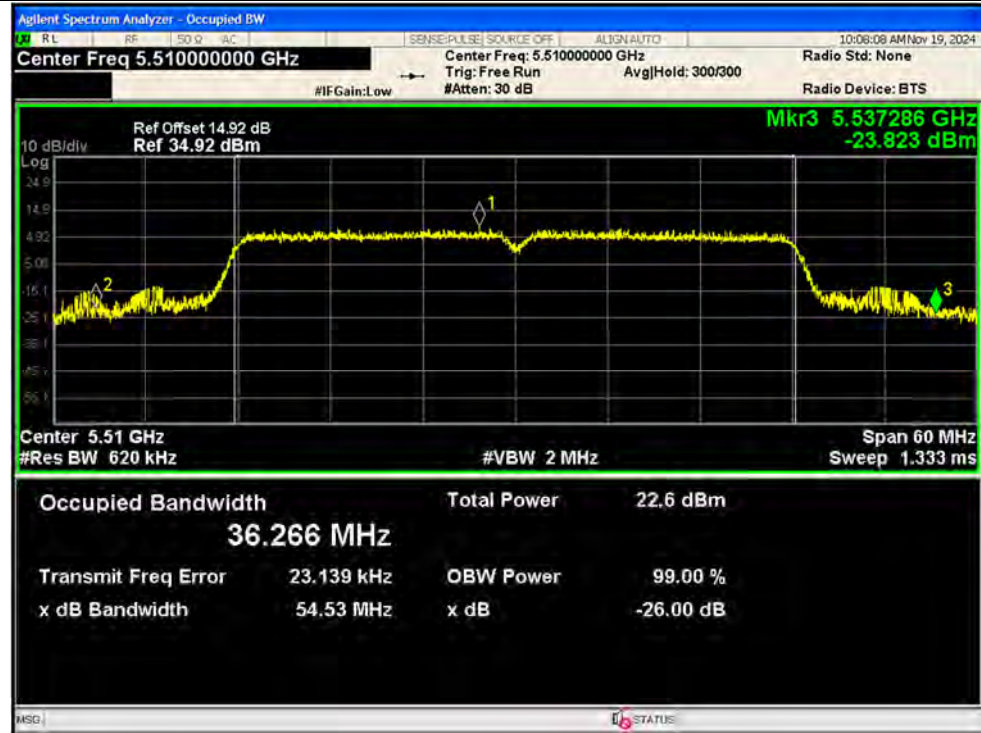
-26dB Bandwidth NVNT ac40 5270MHz Ant1



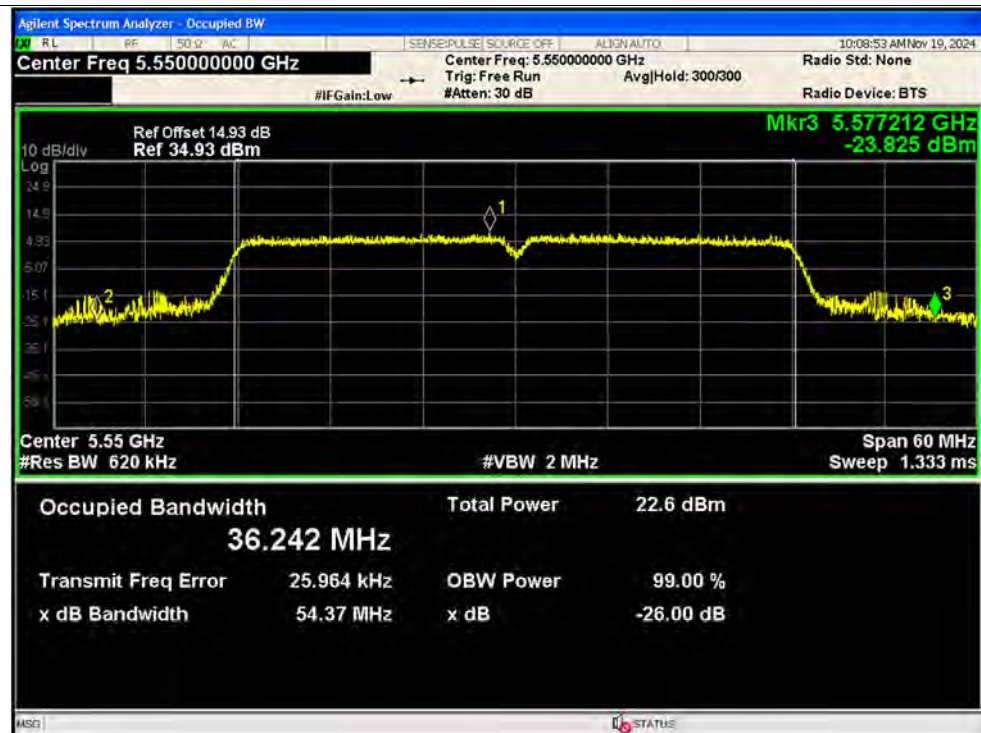
-26dB Bandwidth NVNT ac40 5310MHz Ant1



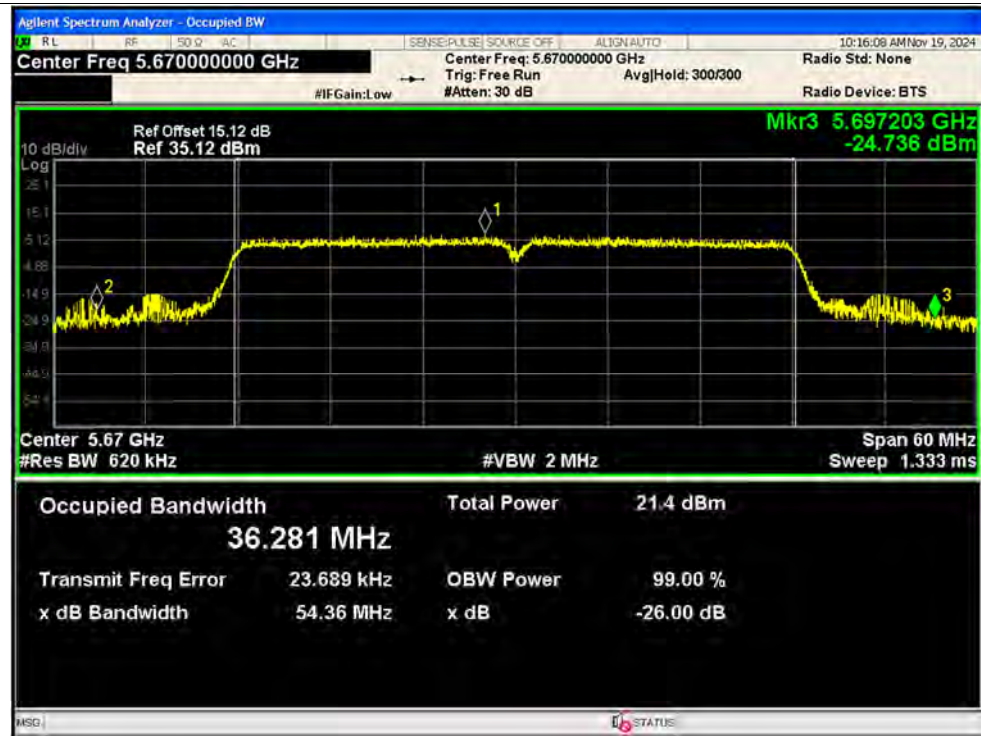
-26dB Bandwidth NVNT ac40 5510MHz Ant1



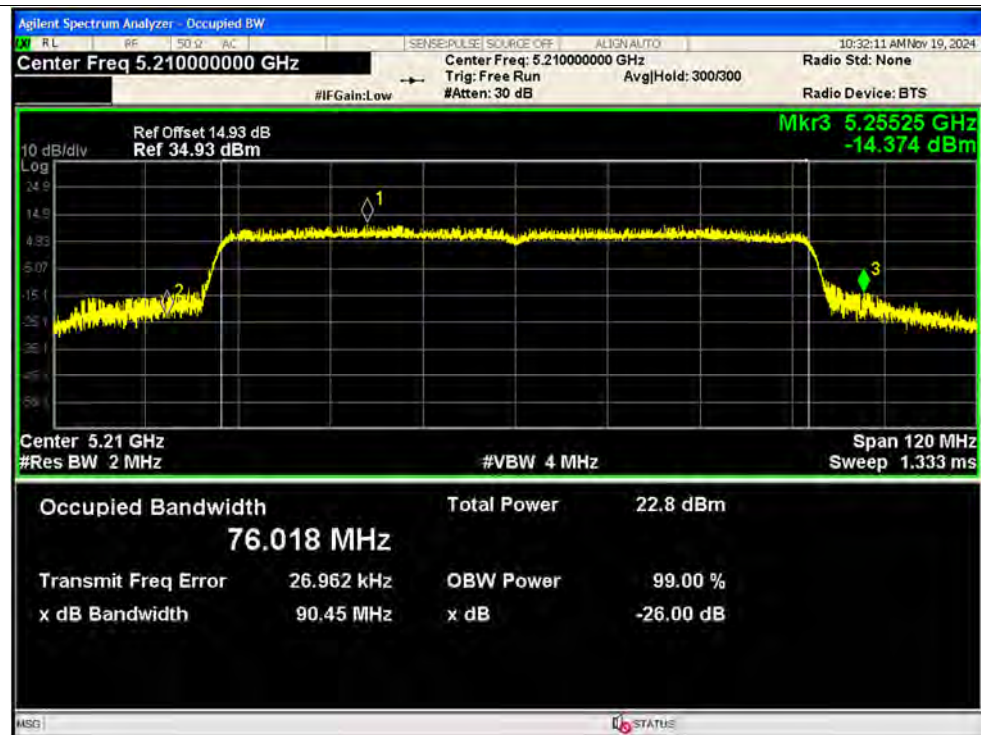
-26dB Bandwidth NVNT ac40 5550MHz Ant1



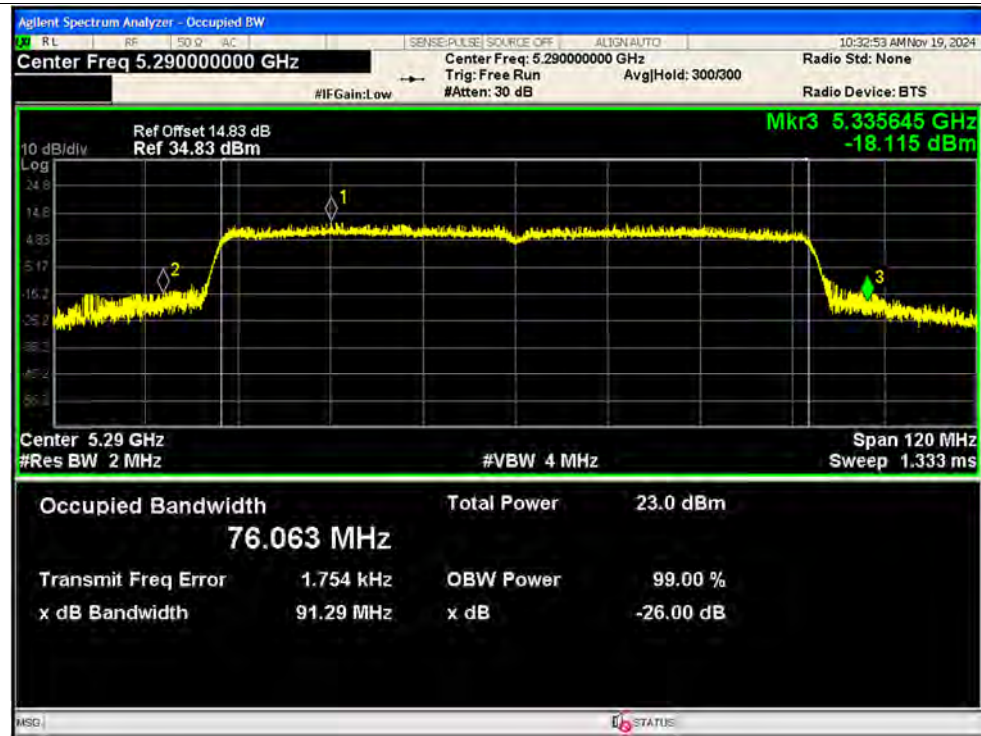
-26dB Bandwidth NVNT ac40 5670MHz Ant1



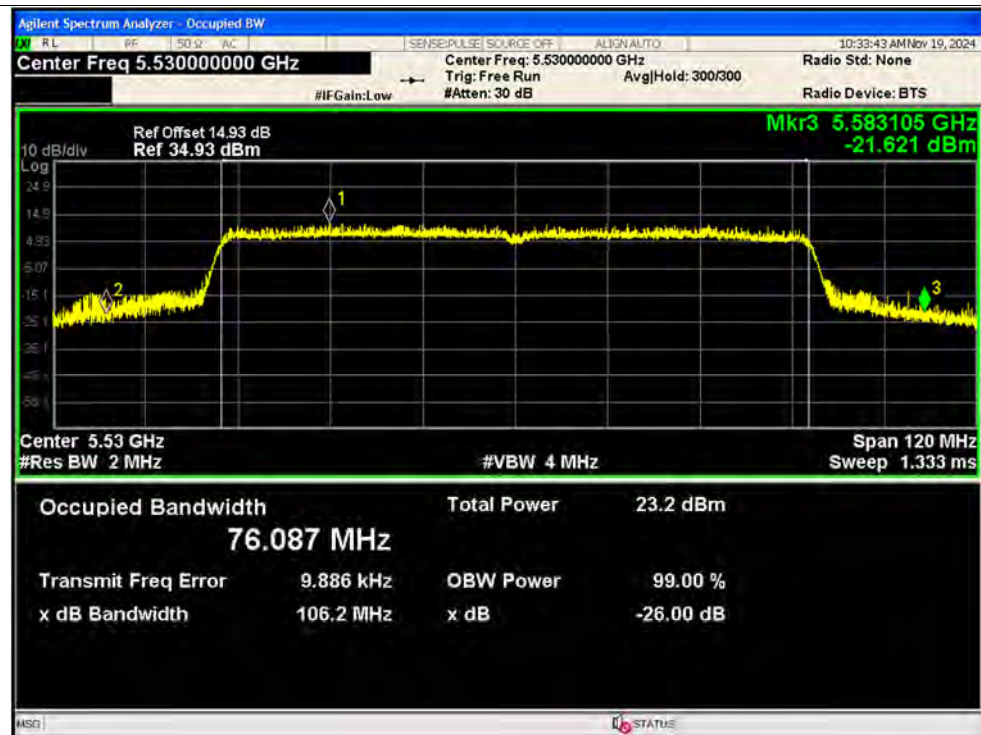
-26dB Bandwidth NVNT ac80 5210MHz Ant1

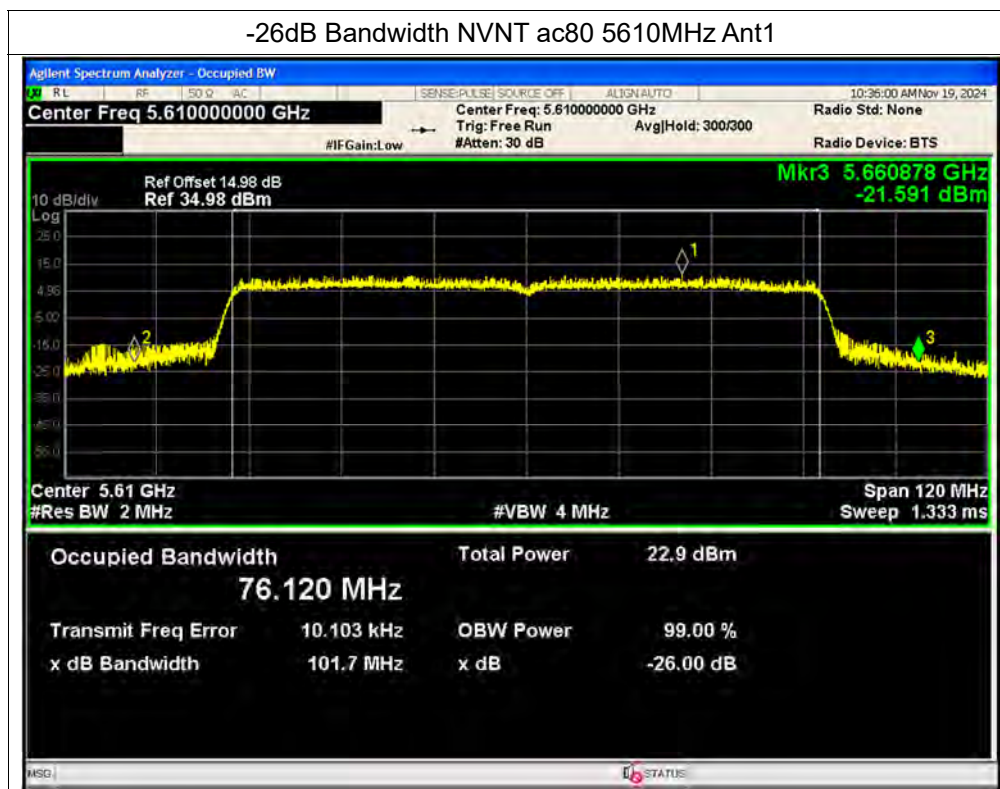


-26dB Bandwidth NVNT ac80 5290MHz Ant1



-26dB Bandwidth NVNT ac80 5530MHz Ant1

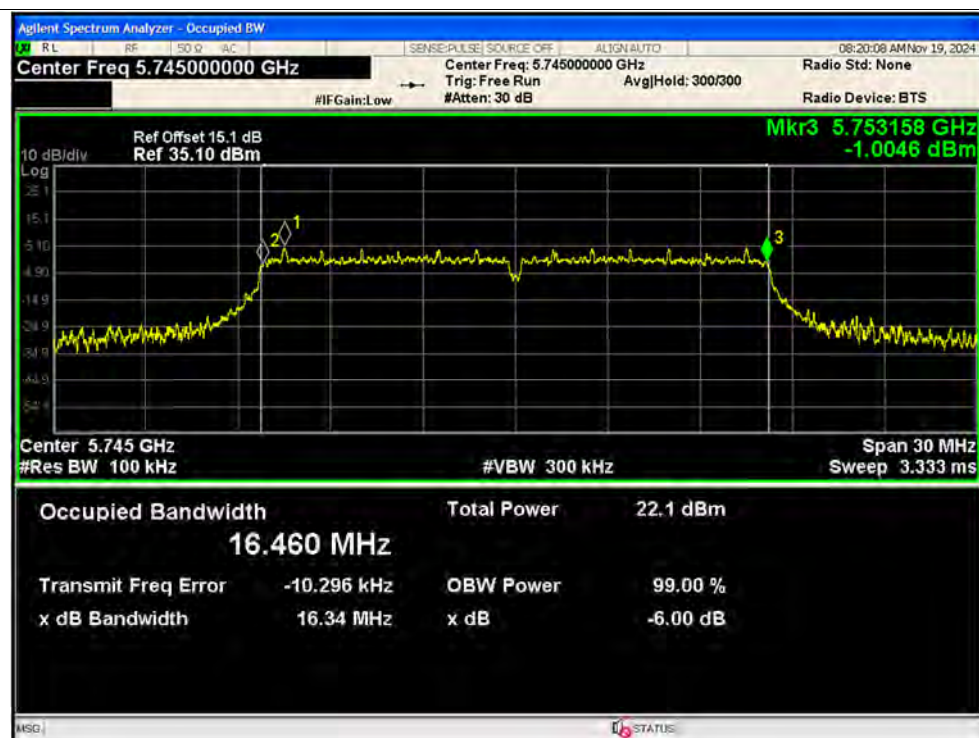




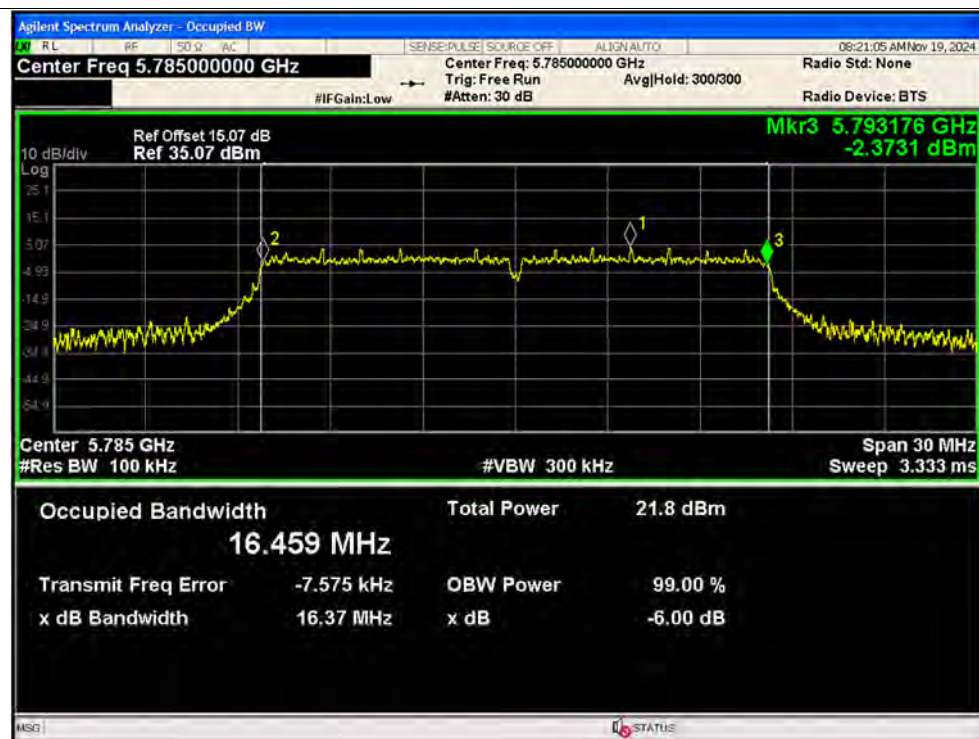


Test Graphs

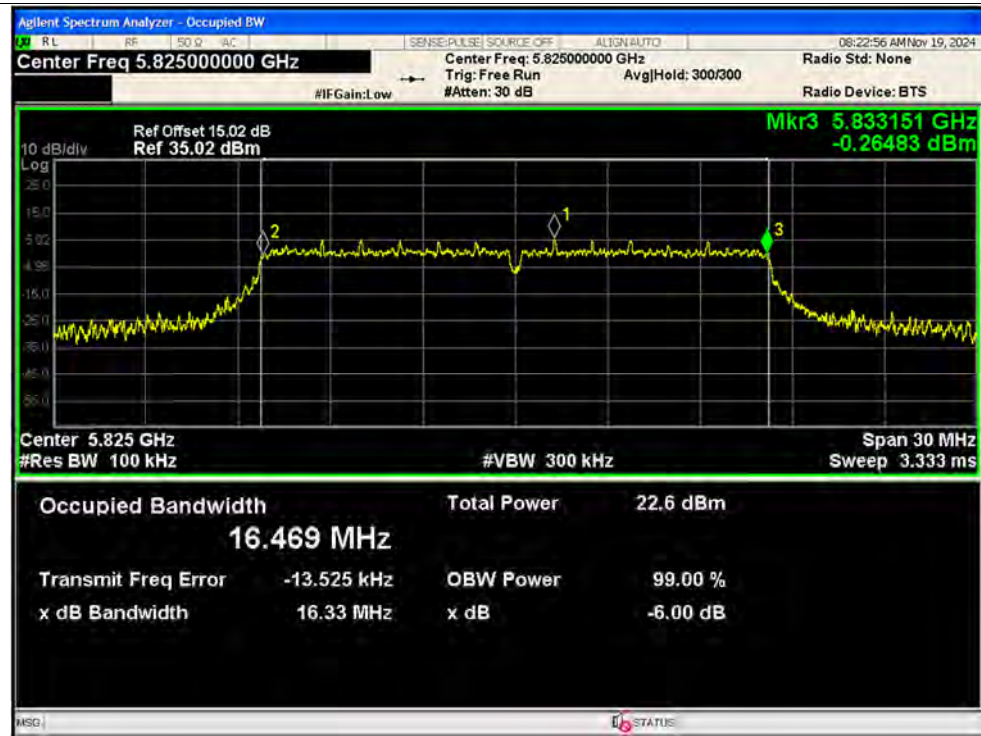
-6dB Bandwidth NVNT a 5745MHz Ant1



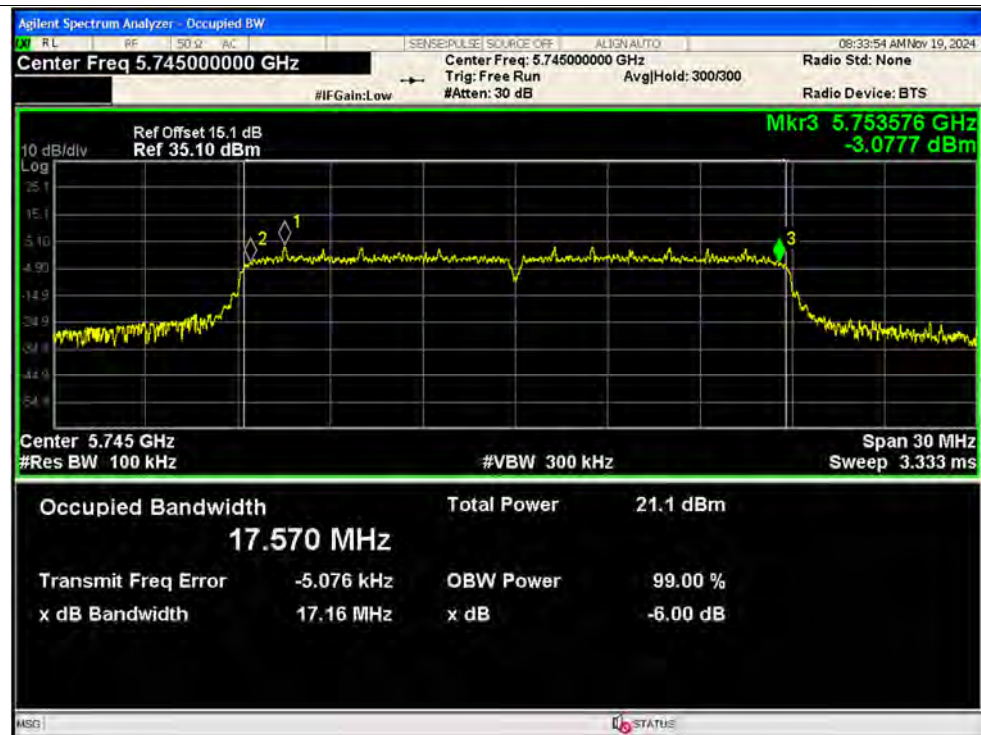
-6dB Bandwidth NVNT a 5785MHz Ant1



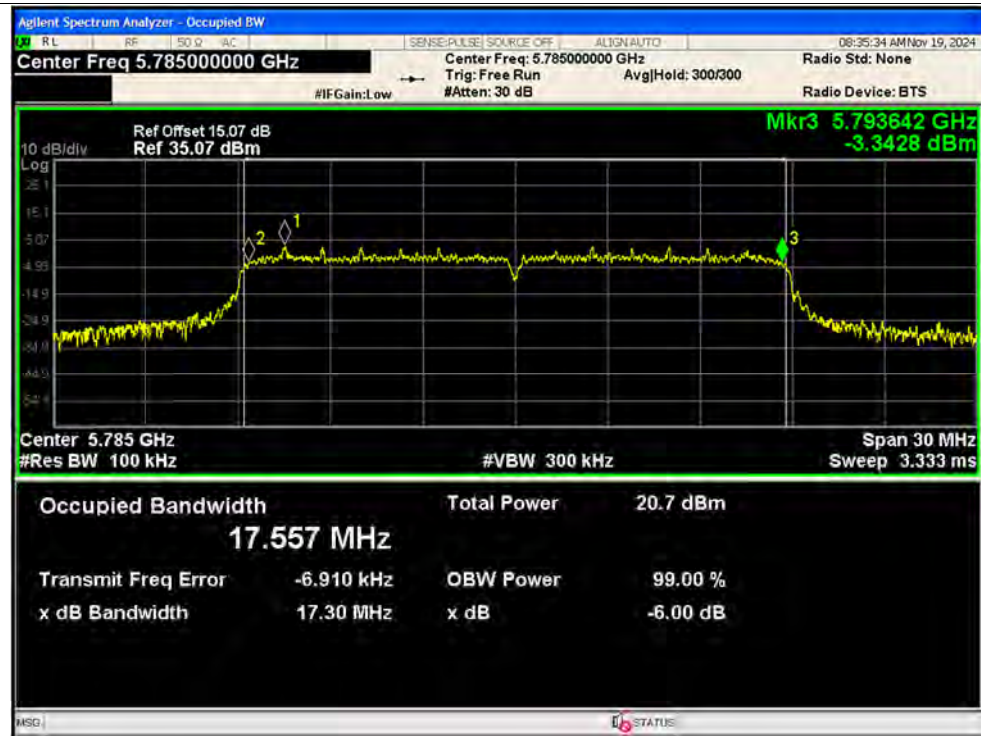
-6dB Bandwidth NVNT a 5825MHz Ant1



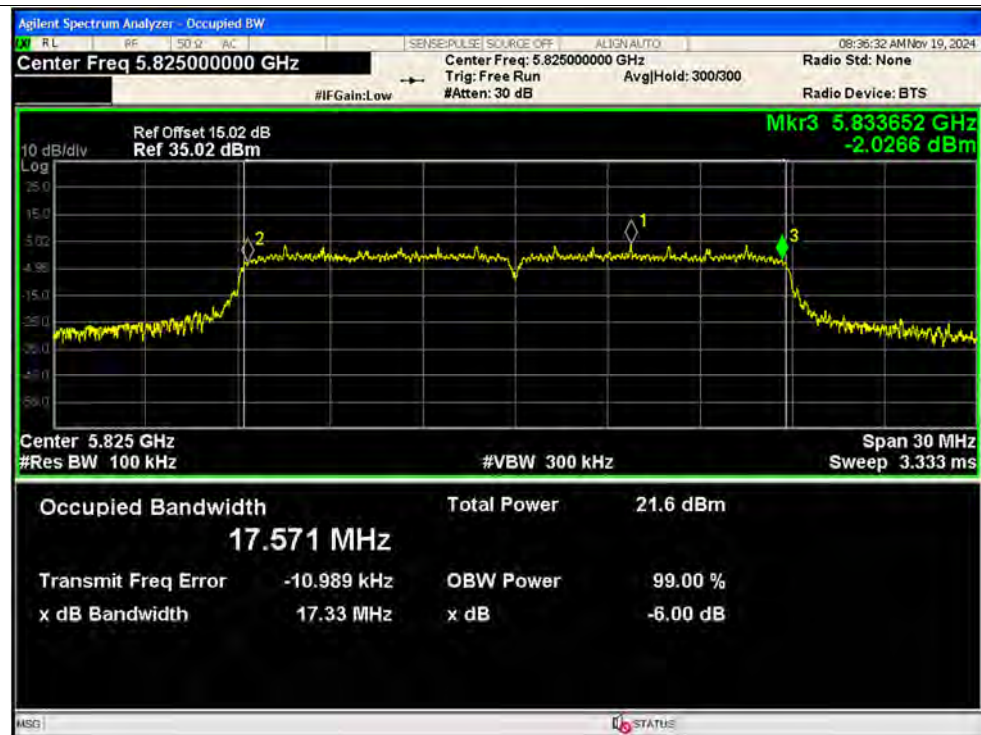
-6dB Bandwidth NVNT n20 5745MHz Ant1



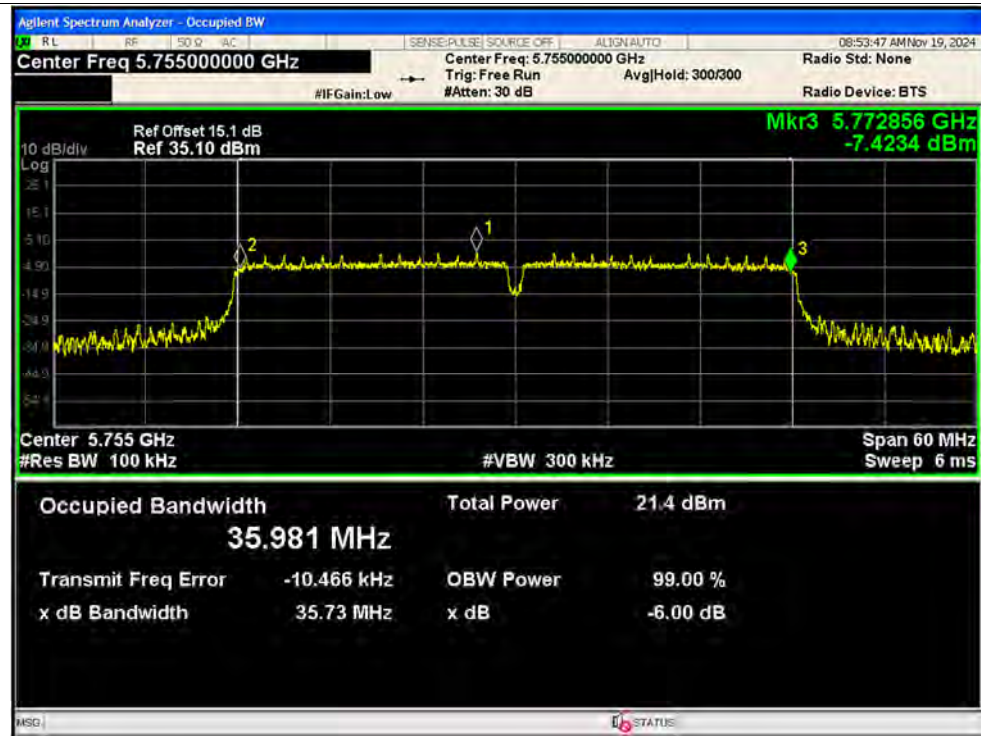
-6dB Bandwidth NVNT n20 5785MHz Ant1



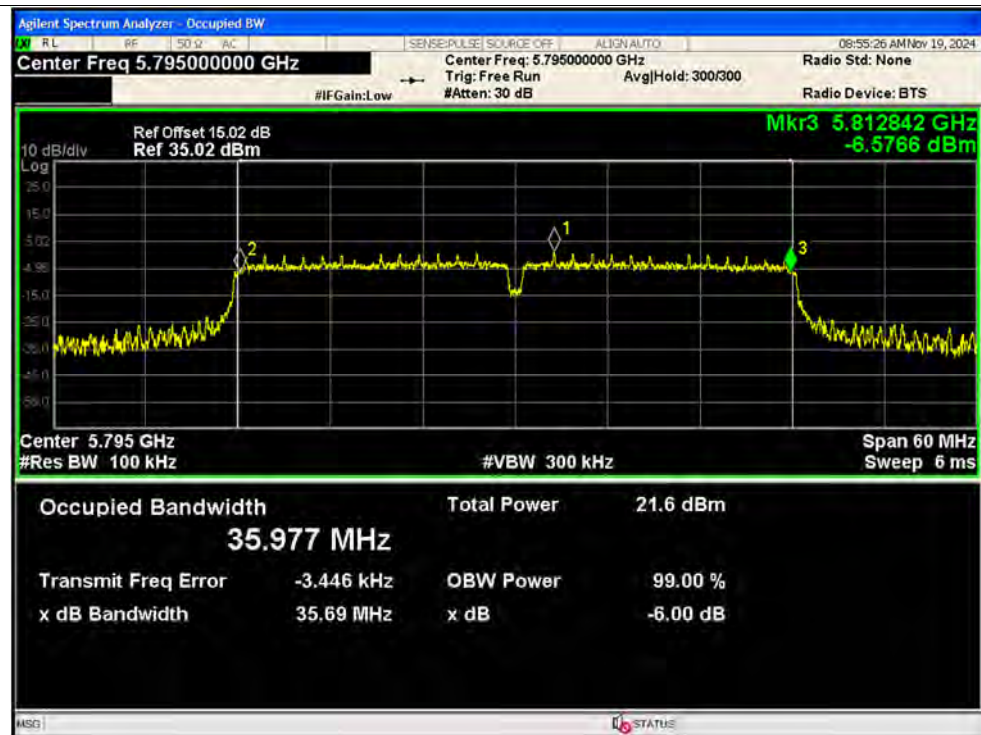
-6dB Bandwidth NVNT n20 5825MHz Ant1



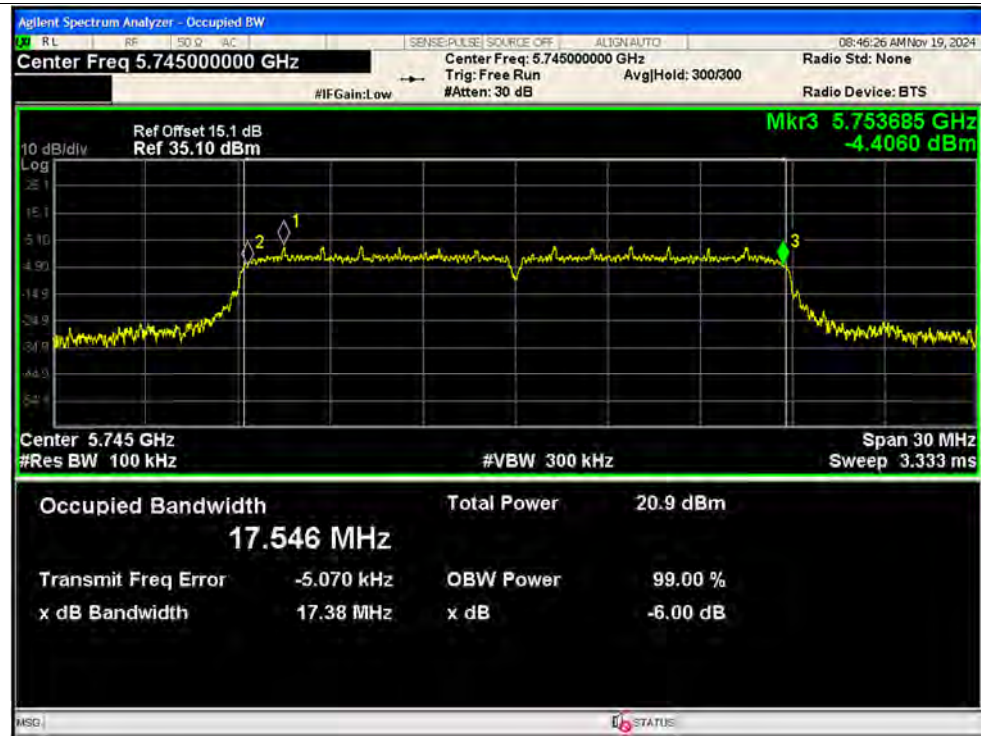
-6dB Bandwidth NVNT n40 5755MHz Ant1



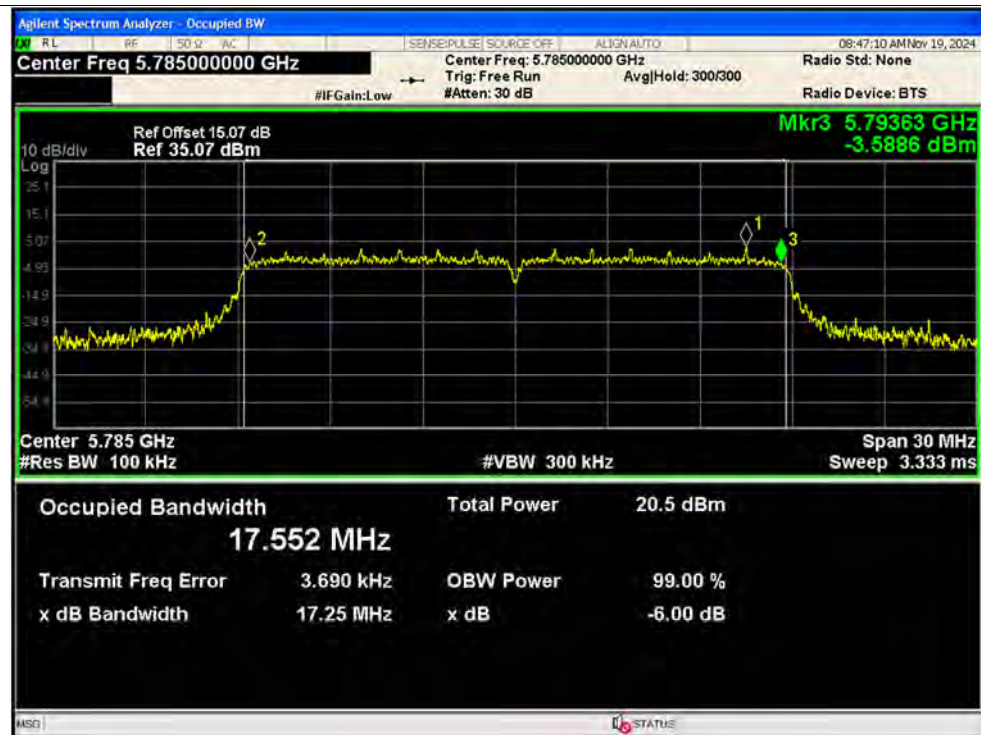
-6dB Bandwidth NVNT n40 5795MHz Ant1



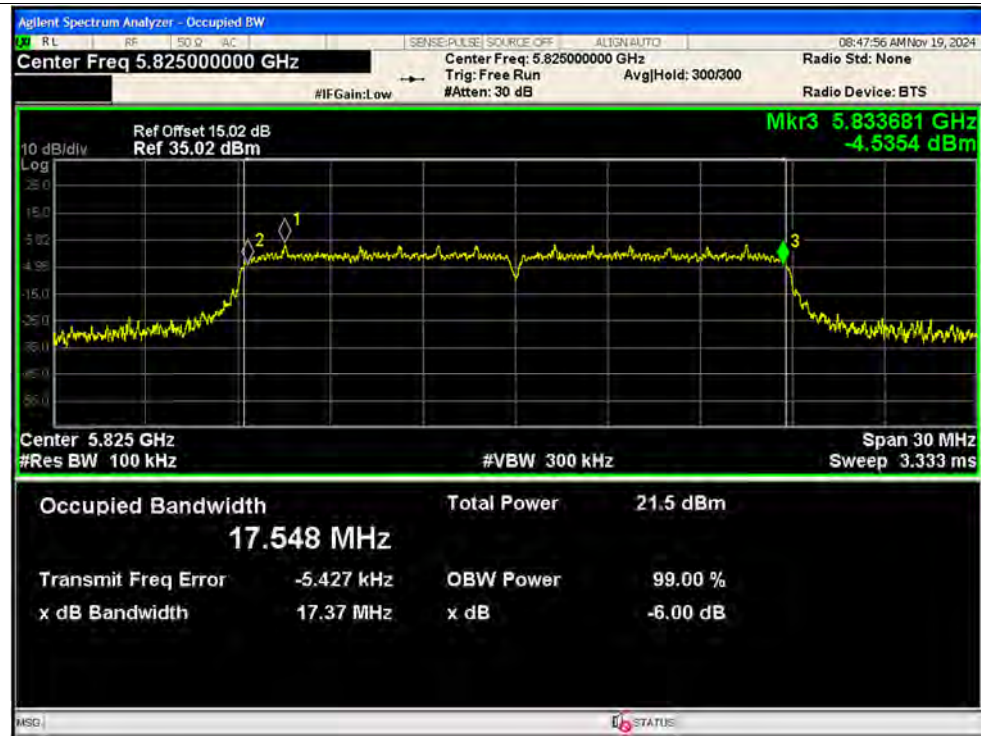
-6dB Bandwidth NVNT ac20 5745MHz Ant1



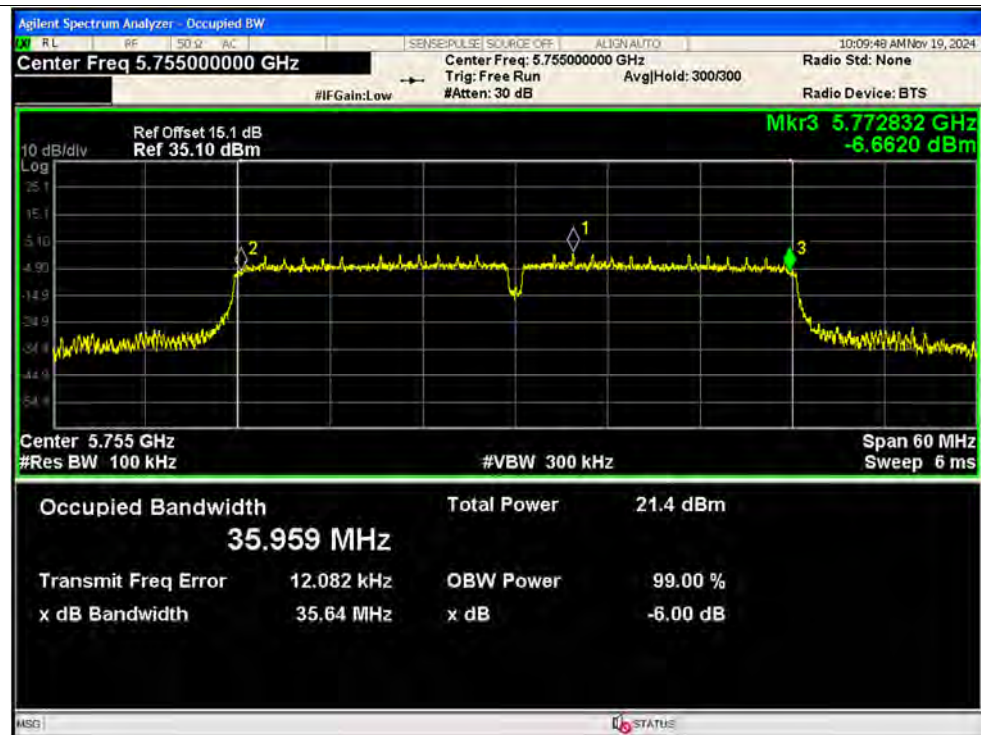
-6dB Bandwidth NVNT ac20 5785MHz Ant1



-6dB Bandwidth NVNT ac20 5825MHz Ant1

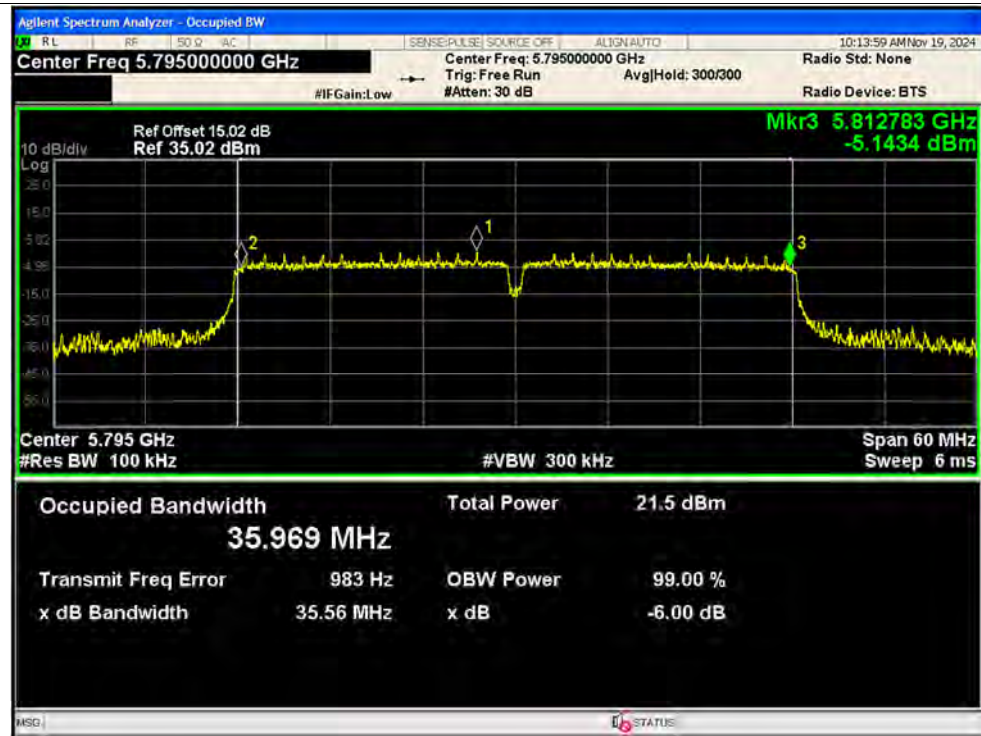


-6dB Bandwidth NVNT ac40 5755MHz Ant1

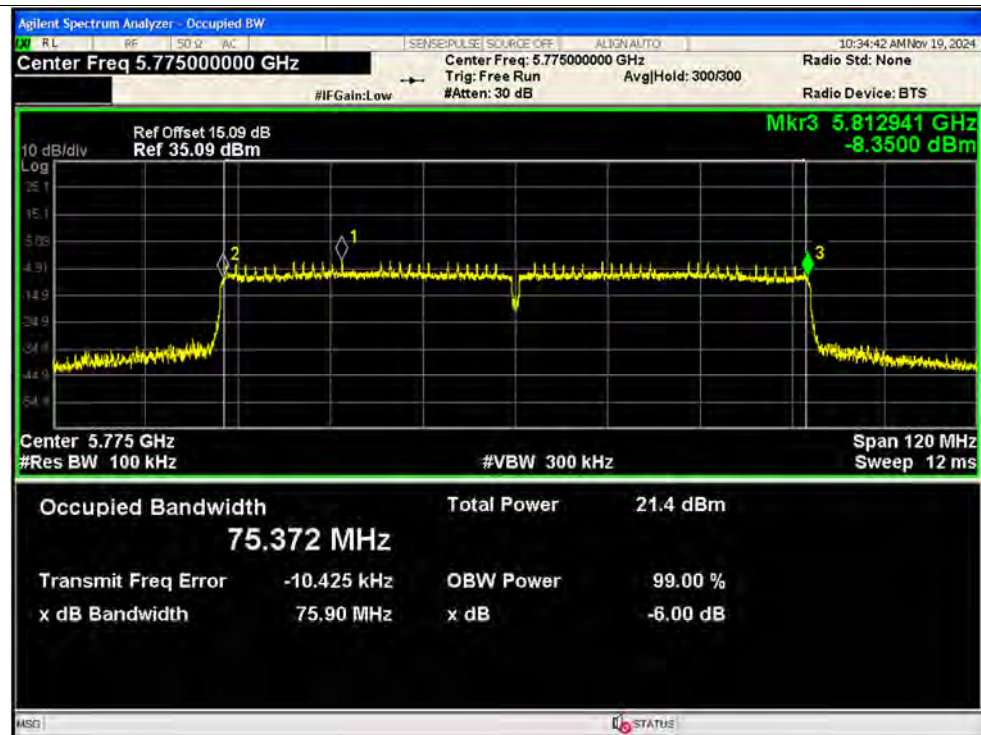




-6dB Bandwidth NVNT ac40 5795MHz Ant1



-6dB Bandwidth NVNT ac80 5775MHz Ant1



**A.4. Peak Power Spectral Density**

Condition	Mode	Frequency (MHz)	Antenna	Conducted PSD (dBm/MHz) (dBm/500kHz @U-NII-3)	Duty Factor (dB)	Total Conducted PSD (dBm/MHz) (dBm/500kHz @ U-NII-3)	Total Conducted PSD (dBm/MHz) (dBm/500kHz @ U-NII-3)	Verdict
NVNT	a	5180	Ant1	5.05	0.5	5.55	11	Pass
NVNT	a	5220	Ant1	4.73	0.53	5.26	11	Pass
NVNT	a	5240	Ant1	4.48	0.74	5.22	11	Pass
NVNT	a	5260	Ant1	5.15	0.53	5.68	11	Pass
NVNT	a	5300	Ant1	4.48	0.5	4.98	11	Pass
NVNT	a	5320	Ant1	4.35	0.53	4.88	11	Pass
NVNT	a	5500	Ant1	5.12	0.5	5.62	11	Pass
NVNT	a	5580	Ant1	5.13	0.53	5.66	11	Pass
NVNT	a	5700	Ant1	3.84	0.5	4.34	11	Pass
NVNT	a	5745	Ant1	1.09	0.5	1.59	30	Pass
NVNT	a	5785	Ant1	0.88	0.58	1.46	30	Pass
NVNT	a	5825	Ant1	1.67	0.72	2.39	30	Pass
NVNT	n20	5180	Ant1	3.29	0.55	3.84	11	Pass
NVNT	n20	5220	Ant1	2.8	0.58	3.38	11	Pass
NVNT	n20	5240	Ant1	2.83	0.59	3.42	11	Pass
NVNT	n20	5260	Ant1	3.5	0.55	4.05	11	Pass
NVNT	n20	5300	Ant1	2.75	0.75	3.5	11	Pass
NVNT	n20	5320	Ant1	2.63	0.68	3.31	11	Pass
NVNT	n20	5500	Ant1	3.55	0.62	4.17	11	Pass
NVNT	n20	5580	Ant1	3.81	0.58	4.39	11	Pass
NVNT	n20	5700	Ant1	2.39	0.69	3.08	11	Pass
NVNT	n20	5745	Ant1	-0.51	0.59	0.08	30	Pass
NVNT	n20	5785	Ant1	-0.77	0.59	-0.18	30	Pass
NVNT	n20	5825	Ant1	0	0.62	0.62	30	Pass
NVNT	n40	5190	Ant1	0.27	1.1	1.37	11	Pass
NVNT	n40	5230	Ant1	-0.32	1.56	1.24	11	Pass
NVNT	n40	5270	Ant1	0.37	1.1	1.47	11	Pass
NVNT	n40	5310	Ant1	-0.1	1.34	1.24	11	Pass
NVNT	n40	5510	Ant1	0.63	1.04	1.67	11	Pass
NVNT	n40	5550	Ant1	0.71	1.34	2.05	11	Pass
NVNT	n40	5670	Ant1	-0.64	1.61	0.97	11	Pass



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NVNT	n40	5755	Ant1	-2.96	0.28	-2.68	30	Pass
NVNT	n40	5795	Ant1	-3.64	1.12	-2.52	30	Pass
NVNT	ac20	5180	Ant1	3.31	0.62	3.93	11	Pass
NVNT	ac20	5220	Ant1	2.74	0.8	3.54	11	Pass
NVNT	ac20	5240	Ant1	2.29	0.71	3	11	Pass
NVNT	ac20	5260	Ant1	3.3	0.58	3.88	11	Pass
NVNT	ac20	5300	Ant1	2.46	0.58	3.04	11	Pass
NVNT	ac20	5320	Ant1	2.38	0.58	2.96	11	Pass
NVNT	ac20	5500	Ant1	3.43	0.61	4.04	11	Pass
NVNT	ac20	5580	Ant1	3.37	0.58	3.95	11	Pass
NVNT	ac20	5700	Ant1	1.96	0.55	2.51	11	Pass
NVNT	ac20	5745	Ant1	-0.86	0.55	-0.31	30	Pass
NVNT	ac20	5785	Ant1	-1.03	0.58	-0.45	30	Pass
NVNT	ac20	5825	Ant1	-0.22	0.58	0.36	30	Pass
NVNT	ac40	5190	Ant1	0.02	1.27	1.29	11	Pass
NVNT	ac40	5230	Ant1	-0.42	1.1	0.68	11	Pass
NVNT	ac40	5270	Ant1	0.11	1.1	1.21	11	Pass
NVNT	ac40	5310	Ant1	-0.48	1.04	0.56	11	Pass
NVNT	ac40	5510	Ant1	0.42	1.16	1.58	11	Pass
NVNT	ac40	5550	Ant1	0.41	1.19	1.6	11	Pass
NVNT	ac40	5670	Ant1	-0.74	1.04	0.31	11	Pass
NVNT	ac40	5755	Ant1	-3.85	1.32	-2.53	30	Pass
NVNT	ac40	5795	Ant1	-3.74	1.1	-2.64	30	Pass
NVNT	ac80	5210	Ant1	-4.21	1.86	-2.35	11	Pass
NVNT	ac80	5290	Ant1	-3.79	2	-1.79	11	Pass
NVNT	ac80	5530	Ant1	-3.19	1.91	-1.28	11	Pass
NVNT	ac80	5610	Ant1	-3.62	2.28	-1.34	11	Pass
NVNT	ac80	5775	Ant1	-7.3	2.1	-5.2	30	Pass

Test Graphs

PSD NVNT a 5180MHz Ant1



PSD NVNT a 5220MHz Ant1





PSD NVNT a 5240MHz Ant1



PSD NVNT a 5260MHz Ant1



PSD NVNT a 5300MHz Ant1



PSD NVNT a 5320MHz Ant1





PSD NVNT a 5500MHz Ant1



PSD NVNT a 5580MHz Ant1

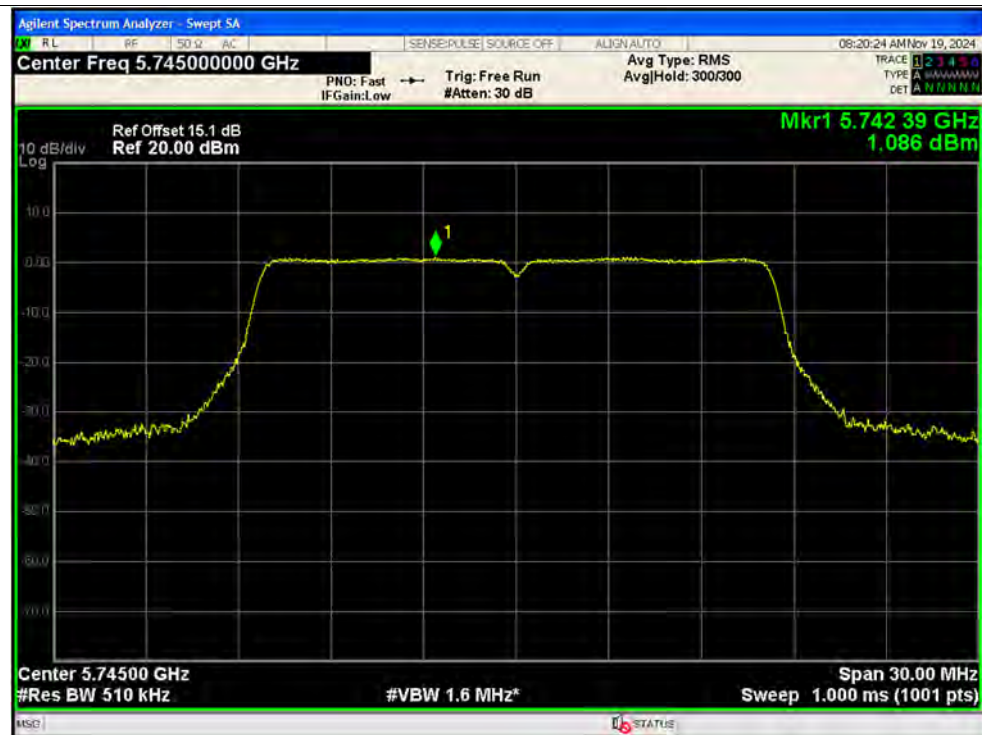




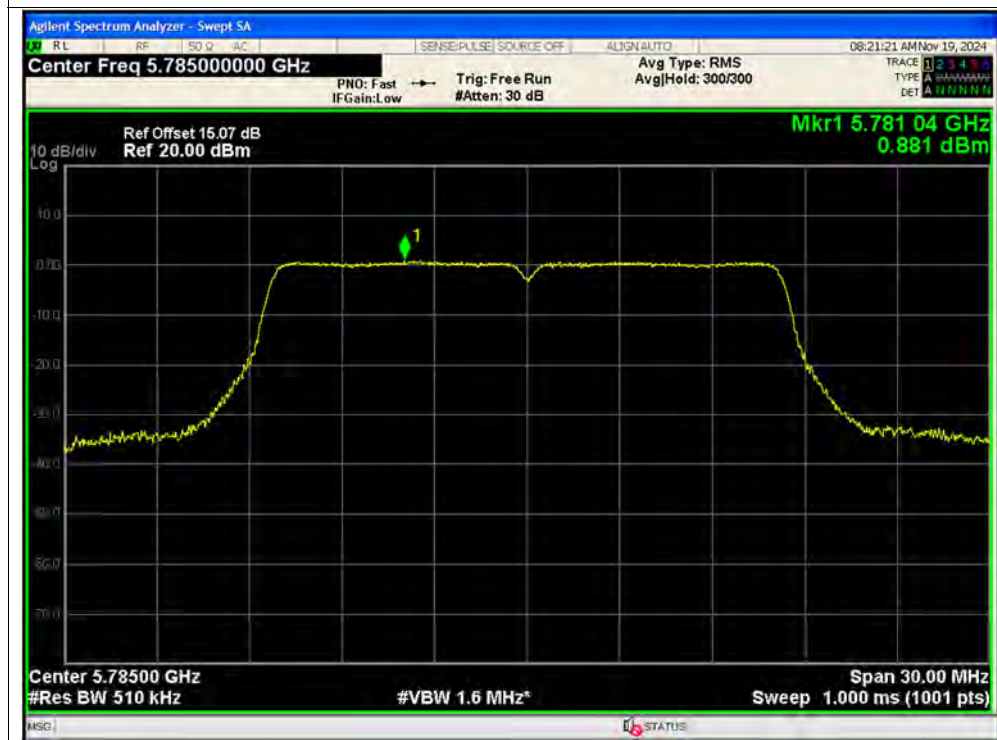
PSD NVNT a 5700MHz Ant1



PSD NVNT a 5745MHz Ant1



PSD NVNT a 5785MHz Ant1



PSD NVNT a 5825MHz Ant1



PSD NVNT n20 5180MHz Ant1



PSD NVNT n20 5220MHz Ant1



PSD NVNT n20 5240MHz Ant1



PSD NVNT n20 5260MHz Ant1



PSD NVNT n20 5300MHz Ant1



PSD NVNT n20 5320MHz Ant1





PSD NVNT n20 5500MHz Ant1



PSD NVNT n20 5580MHz Ant1



PSD NVNT n20 5700MHz Ant1



PSD NVNT n20 5745MHz Ant1





PSD NVNT n20 5785MHz Ant1



PSD NVNT n20 5825MHz Ant1





PSD NVNT n40 5190MHz Ant1



PSD NVNT n40 5230MHz Ant1





PSD NVNT n40 5270MHz Ant1



PSD NVNT n40 5310MHz Ant1





PSD NVNT n40 5510MHz Ant1



PSD NVNT n40 5550MHz Ant1



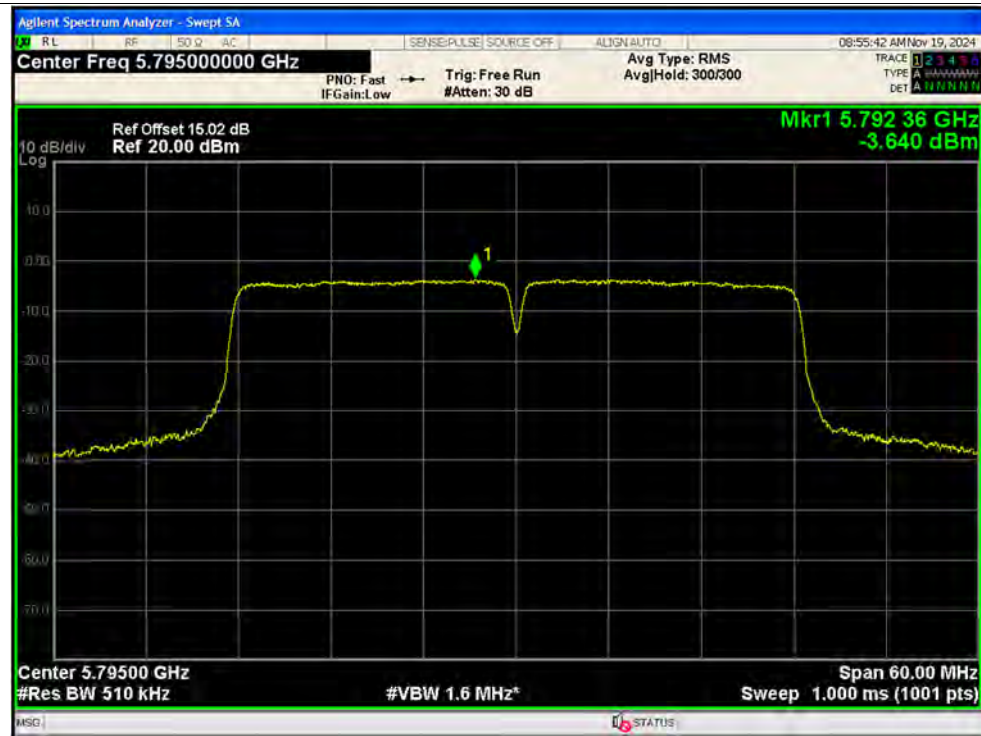
PSD NVNT n40 5670MHz Ant1



PSD NVNT n40 5755MHz Ant1



PSD NVNT n40 5795MHz Ant1



PSD NVNT ac20 5180MHz Ant1





PSD NVNT ac20 5220MHz Ant1



PSD NVNT ac20 5240MHz Ant1



PSD NVNT ac20 5260MHz Ant1



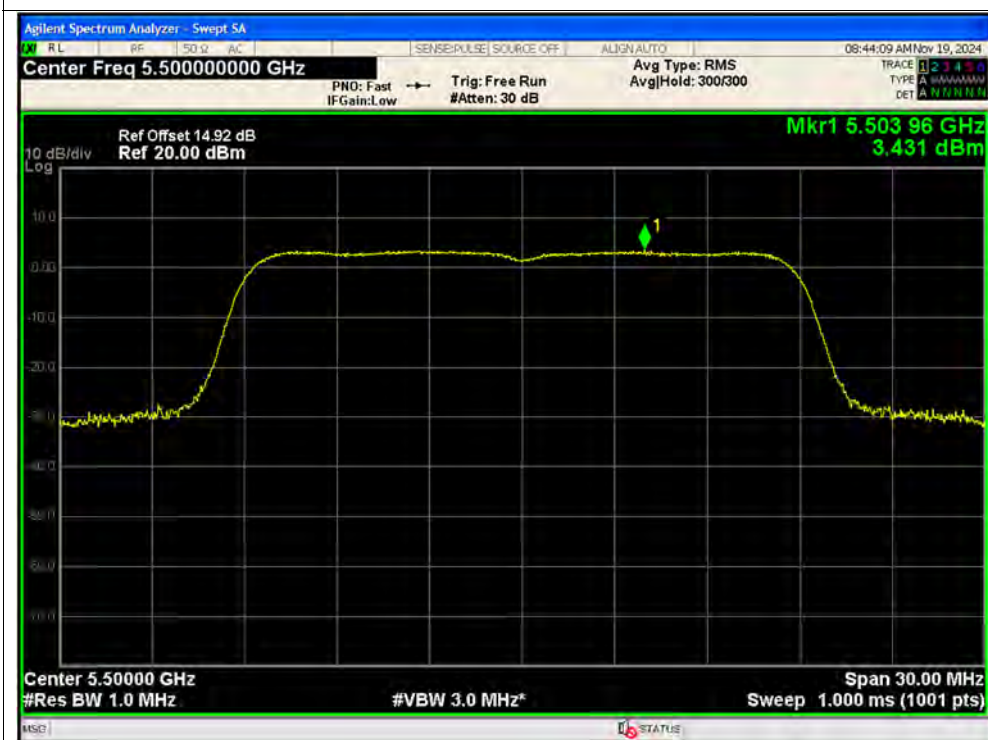
PSD NVNT ac20 5300MHz Ant1



PSD NVNT ac20 5320MHz Ant1



PSD NVNT ac20 5500MHz Ant1





PSD NVNT ac20 5580MHz Ant1



PSD NVNT ac20 5700MHz Ant1



PSD NVNT ac20 5745MHz Ant1



PSD NVNT ac20 5785MHz Ant1



PSD NVNT ac20 5825MHz Ant1



PSD NVNT ac40 5190MHz Ant1





PSD NVNT ac40 5230MHz Ant1



PSD NVNT ac40 5270MHz Ant1





PSD NVNT ac40 5310MHz Ant1



PSD NVNT ac40 5510MHz Ant1



PSD NVNT ac40 5550MHz Ant1



PSD NVNT ac40 5670MHz Ant1



PSD NVNT ac40 5755MHz Ant1



PSD NVNT ac40 5795MHz Ant1



PSD NVNT ac80 5210MHz Ant1



PSD NVNT ac80 5290MHz Ant1





PSD NVNT ac80 5530MHz Ant1

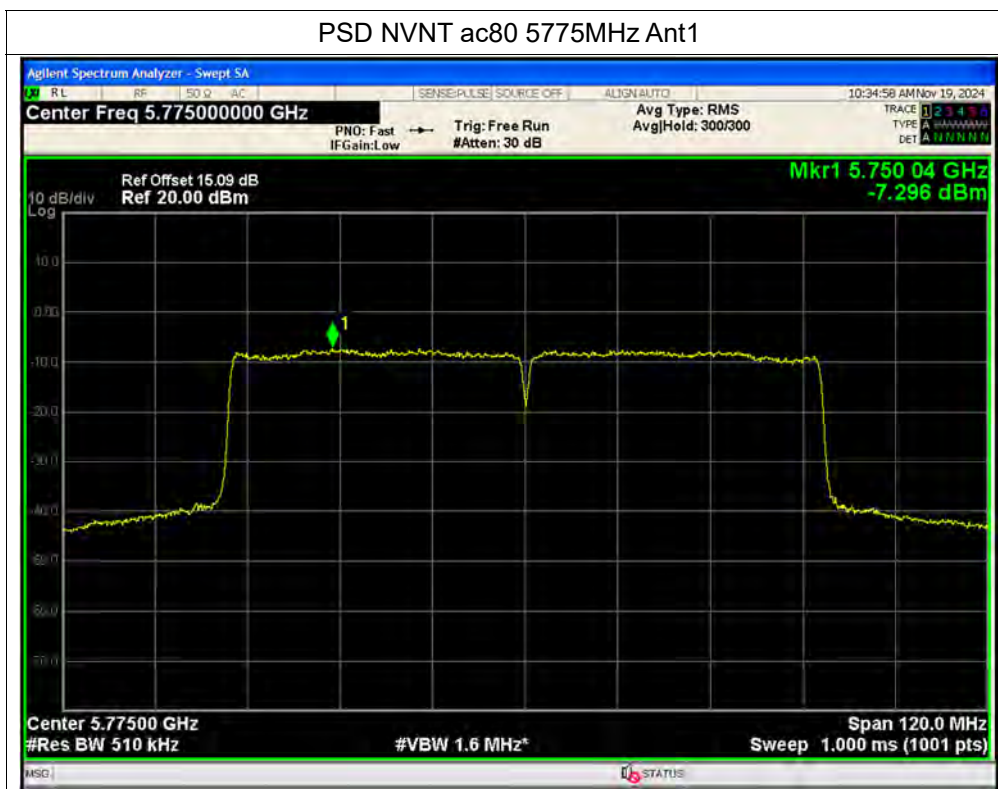


PSD NVNT ac80 5610MHz Ant1





PSD NVNT ac80 5775MHz Ant1



**A.5. Frequency Stability**

Condition	Mode	Frequency (MHz)	Antenna	Measured Frequency (MHz)	Frequency Error (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
20C 3.4V	Carrier	5180	Ant1	5179.99	-10000	-1.93	25	Pass
20C 3.85V	Carrier	5180	Ant1	5179.99	-10000	-1.93	25	Pass
20C 4.4V	Carrier	5180	Ant1	5179.99	-10000	-1.93	25	Pass
-10C 3.85V	Carrier	5180	Ant1	5179.99	-10000	-1.93	25	Pass
0C 3.85V	Carrier	5180	Ant1	5179.99	-10000	-1.93	25	Pass
10C 3.85V	Carrier	5180	Ant1	5179.99	-10000	-1.93	25	Pass
30C 3.85V	Carrier	5180	Ant1	5179.99	-10000	-1.93	25	Pass
40C 3.85V	Carrier	5180	Ant1	5179.989	-11000	-2.12	25	Pass
50C 3.85V	Carrier	5180	Ant1	5179.989	-11000	-2.12	25	Pass
55C 3.85V	Carrier	5180	Ant1	5179.989	-11000	-2.12	25	Pass
20C 3.4V	Carrier	5260	Ant1	5259.989	-11000	-2.09	25	Pass
20C 3.85V	Carrier	5260	Ant1	5259.989	-11000	-2.09	25	Pass
20C 4.4V	Carrier	5260	Ant1	5259.989	-11000	-2.09	25	Pass
-10C 3.85V	Carrier	5260	Ant1	5259.989	-11000	-2.09	25	Pass
0C 3.85V	Carrier	5260	Ant1	5259.989	-11000	-2.09	25	Pass
10C 3.85V	Carrier	5260	Ant1	5259.989	-11000	-2.09	25	Pass
30C 3.85V	Carrier	5260	Ant1	5259.989	-11000	-2.09	25	Pass
40C 3.85V	Carrier	5260	Ant1	5259.989	-11000	-2.09	25	Pass
50C 3.85V	Carrier	5260	Ant1	5259.989	-11000	-2.09	25	Pass
55C 3.85V	Carrier	5260	Ant1	5259.989	-11000	-2.09	25	Pass
20C 3.4V	Carrier	5500	Ant1	5499.988	-12000	-2.18	25	Pass
20C 3.85V	Carrier	5500	Ant1	5499.988	-12000	-2.18	25	Pass
20C 4.4V	Carrier	5500	Ant1	5499.988	-12000	-2.18	25	Pass
-10C 3.85V	Carrier	5500	Ant1	5499.988	-12000	-2.18	25	Pass
0C 3.85V	Carrier	5500	Ant1	5499.988	-12000	-2.18	25	Pass
10C 3.85V	Carrier	5500	Ant1	5499.988	-12000	-2.18	25	Pass
30C 3.85V	Carrier	5500	Ant1	5499.988	-12000	-2.18	25	Pass
40C 3.85V	Carrier	5500	Ant1	5499.988	-12000	-2.18	25	Pass
50C 3.85V	Carrier	5500	Ant1	5499.987	-13000	-2.36	25	Pass
55C 3.85V	Carrier	5500	Ant1	5499.987	-13000	-2.36	25	Pass
20C 3.4V	Carrier	5745	Ant1	5744.987	-13000	-2.26	25	Pass
20C 3.85V	Carrier	5745	Ant1	5744.987	-13000	-2.26	25	Pass
20C 4.4V	Carrier	5745	Ant1	5744.987	-13000	-2.26	25	Pass
-10C 3.85V	Carrier	5745	Ant1	5744.987	-13000	-2.26	25	Pass



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0C 3.85V	Carrier	5745	Ant1	5744.987	-13000	-2.26	25	Pass
10C 3.85V	Carrier	5745	Ant1	5744.987	-13000	-2.26	25	Pass
30C 3.85V	Carrier	5745	Ant1	5744.987	-13000	-2.26	25	Pass
40C 3.85V	Carrier	5745	Ant1	5744.987	-13000	-2.26	25	Pass
50C 3.85V	Carrier	5745	Ant1	5744.987	-13000	-2.26	25	Pass
55C 3.85V	Carrier	5745	Ant1	5744.987	-13000	-2.26	25	Pass



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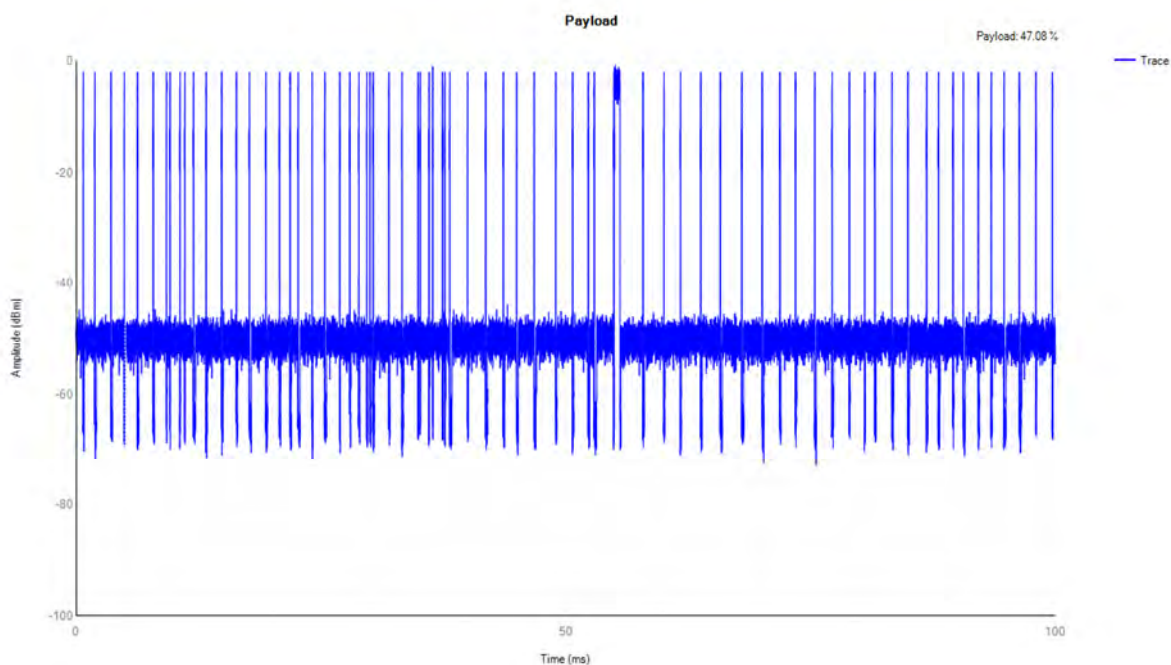
A.6. Dynamic Frequency Selection

Payload

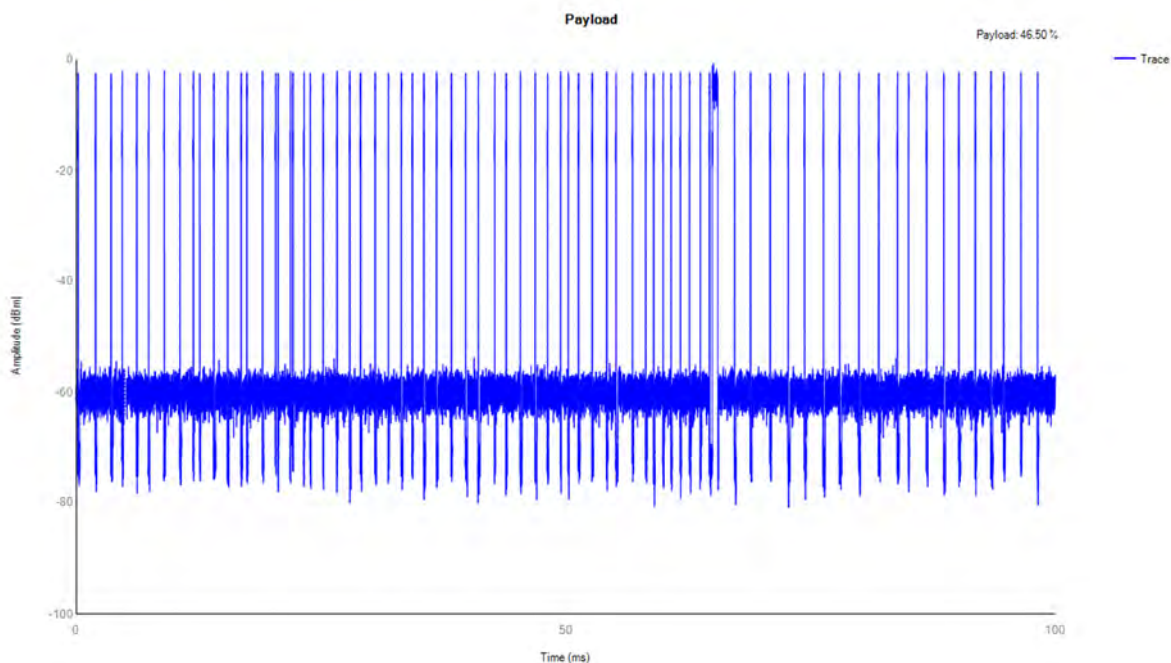
Mode	Frequency (MHz)	Result	Verdict
ac20	5260	47.08	Pass
ac20	5500	46.5	Pass
ac80	5290	38.22	Pass
ac80	5530	36.11	Pass

Test Graphs

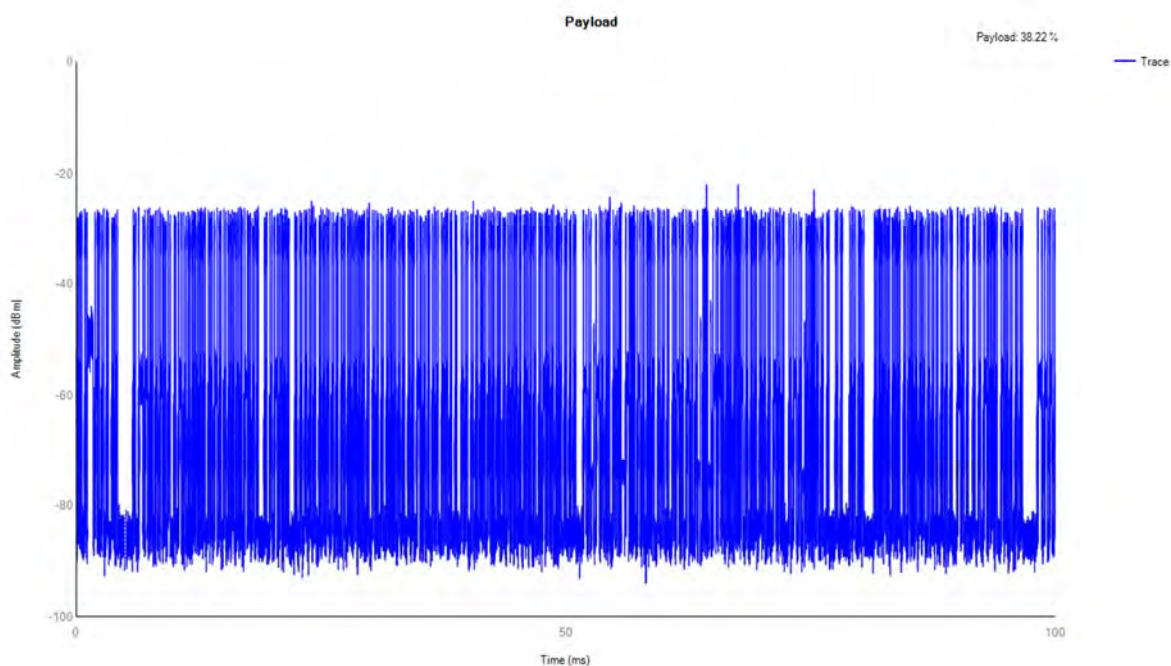
ac20 5260MHz Payload



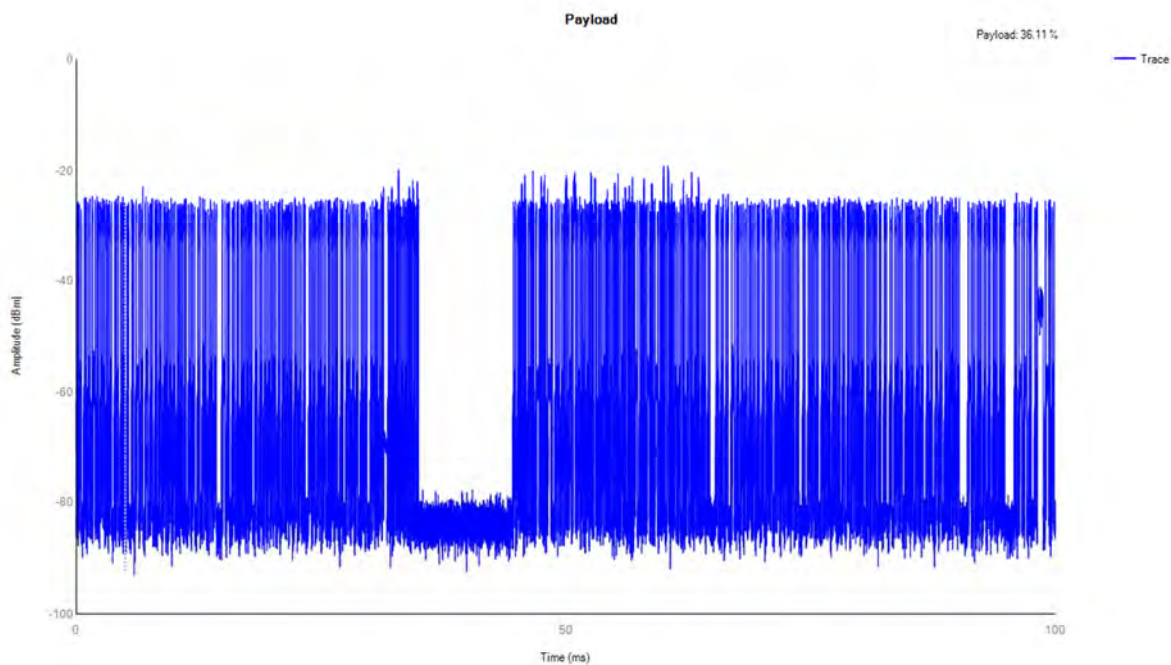
ac20 5500MHz Payload



ac80 5290MHz Payload



ac80 5530MHz Payload





Detection Thresholds

Mode	Frequency (MHz)	Type	Result	Verdict
ac20	5260	DFS_FCC_T0	See test Graph	Pass
ac20	5500	DFS_FCC_T0	See test Graph	Pass
ac80	5290	DFS_FCC_T0	See test Graph	Pass
ac80	5530	DFS_FCC_T0	See test Graph	Pass

Spectrum analyzer settings:

Span: Zero

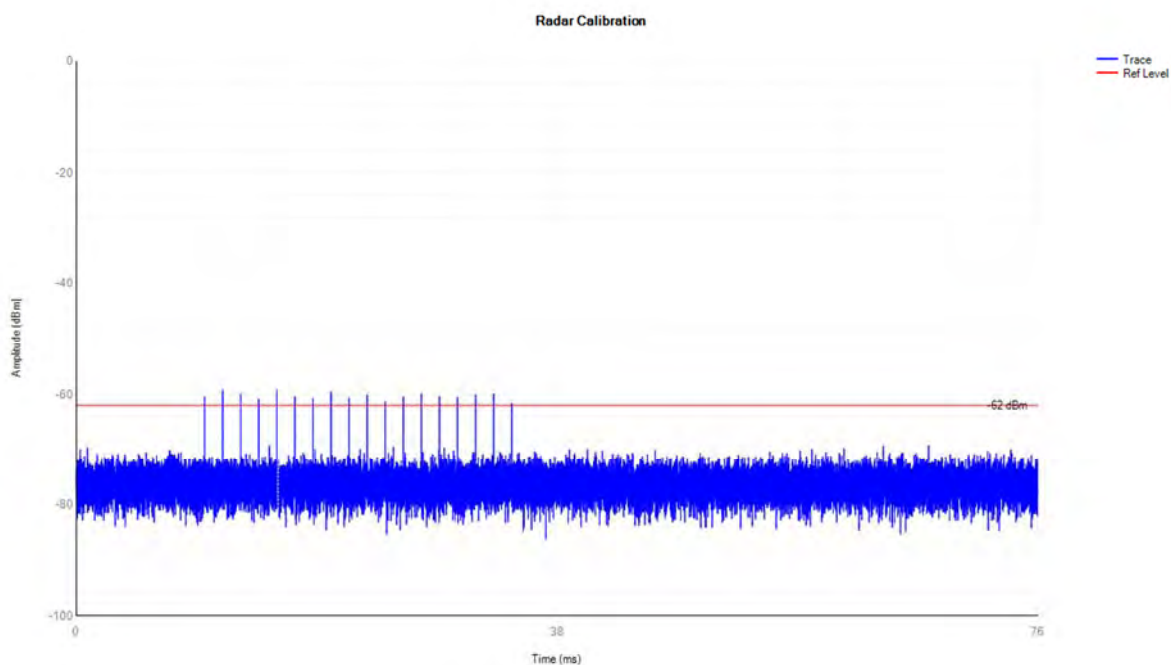
Detector Type: Peak

RBW: 3MHz

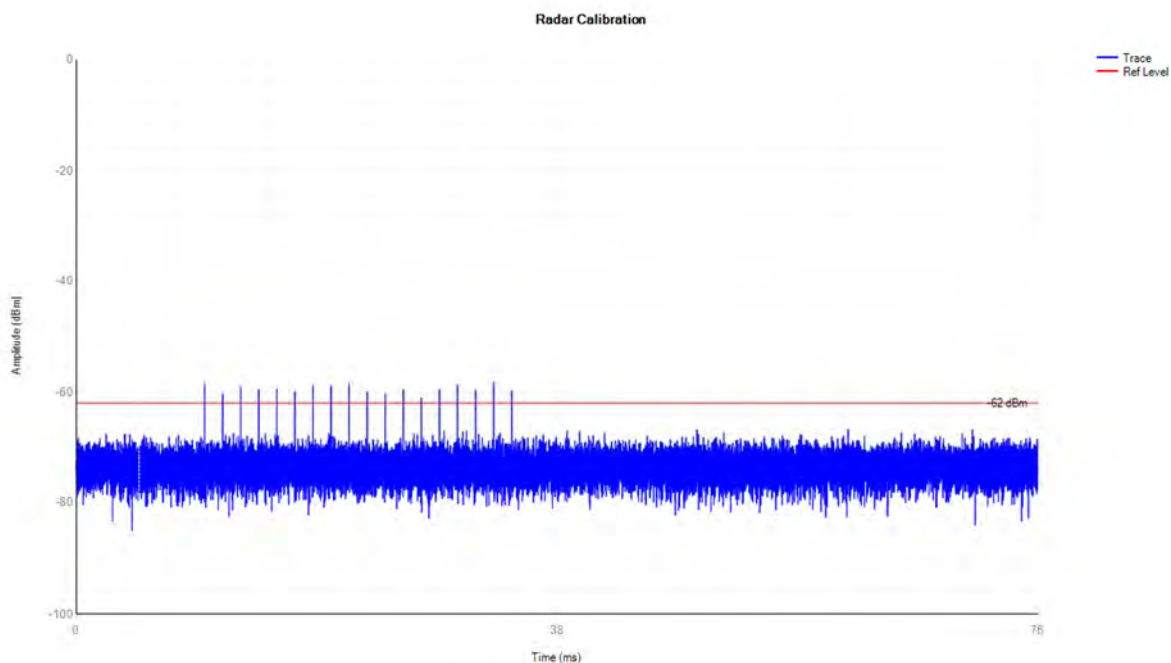
VBW: 3MHz

Test Graphs

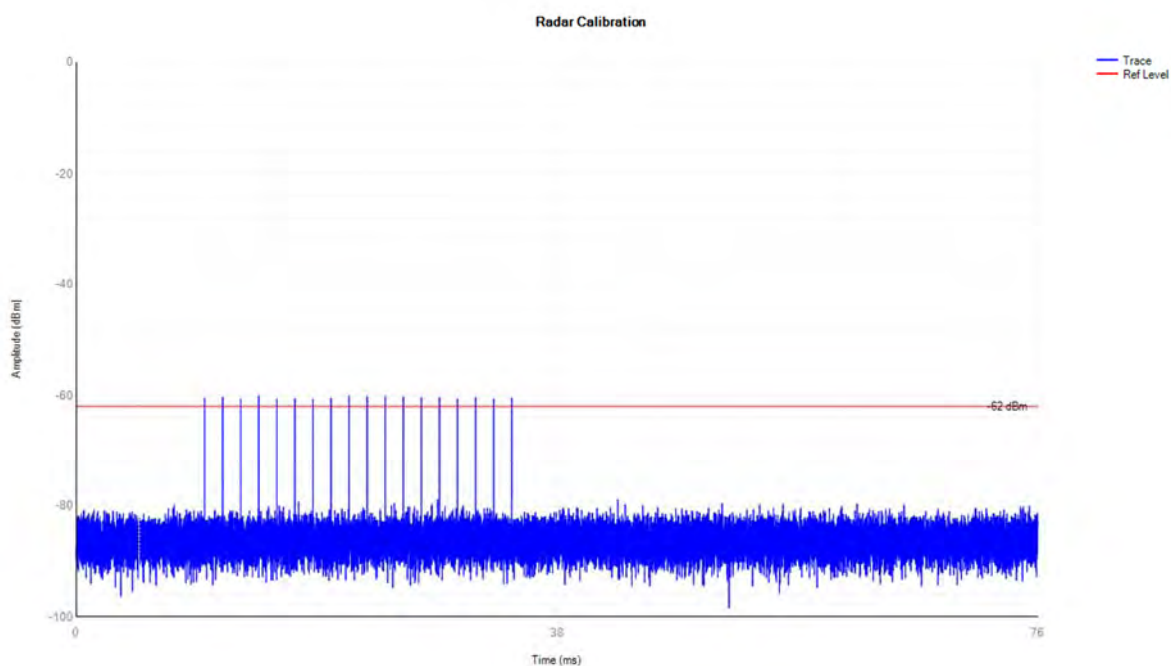
5260MHz DFS_FCC_T0



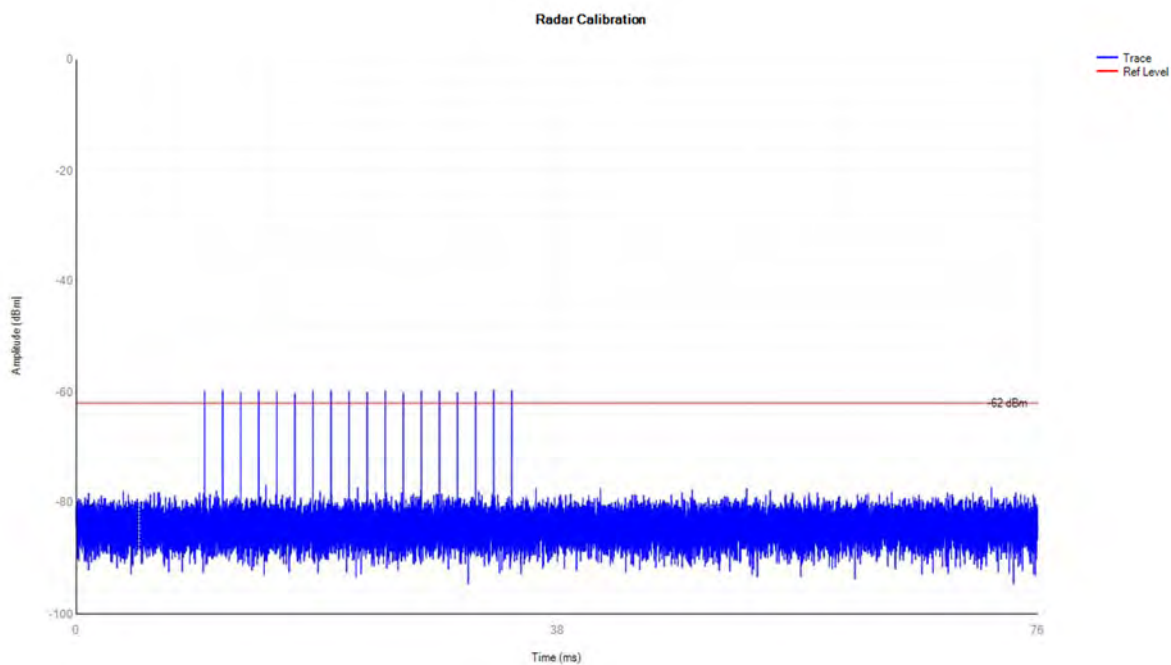
5500MHz DFS_FCC_T0



5290MHz DFS_FCC_T0



5530MHz DFS_FCC_T0





Channel Move Time and Channel Closing Transmission Time

Mode	Frequency (MHz)	Channel Move Time (s)	Limit Channel Move Time (s)	Close Transmission Time (s)	Limit Close Transmission Time (s)	Close Transmission Time after 200ms(s)	Limit Close Transmission Time after 200ms (s)	Verdict
ac20	5260	0.873	10	0.029	0.26	0.009	0.06	Pass
ac20	5500	0.796	10	0.023	0.26	0.007	0.06	Pass
ac80	5290	0.802	10	0.025	0.26	0.008	0.06	Pass
ac80	5530	0.818	10	0.015	0.26	0.009	0.06	Pass

Spectrum analyzer settings:

Span: Zero

Detector type: Peak

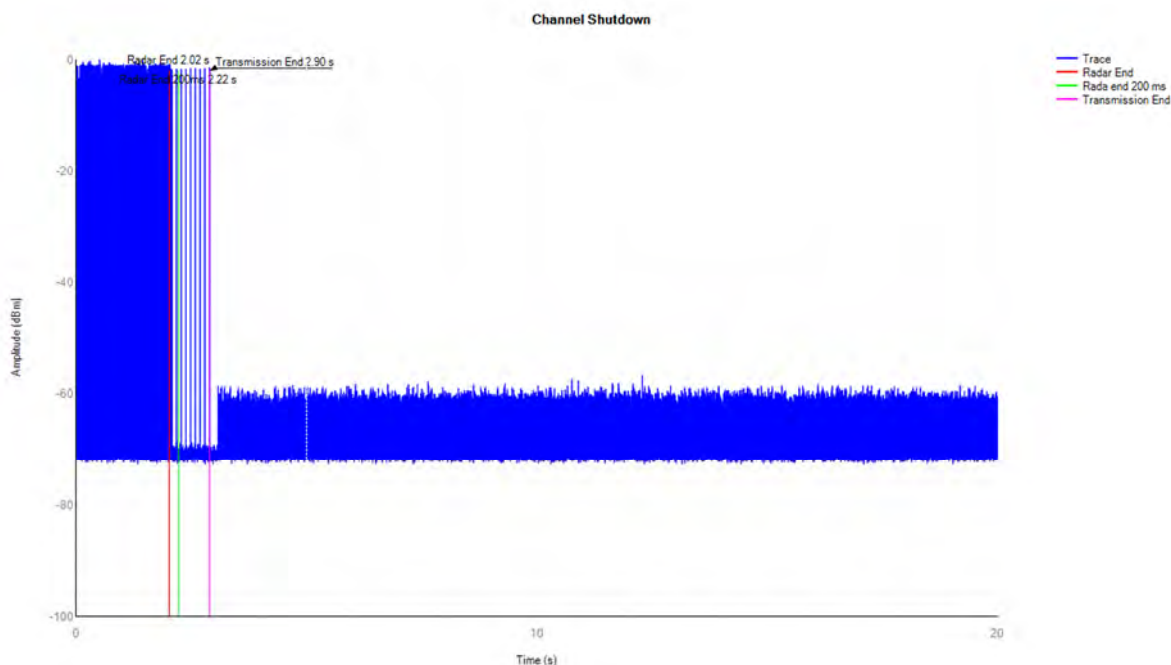
RBW: 3MHz

VBW: 3MHz

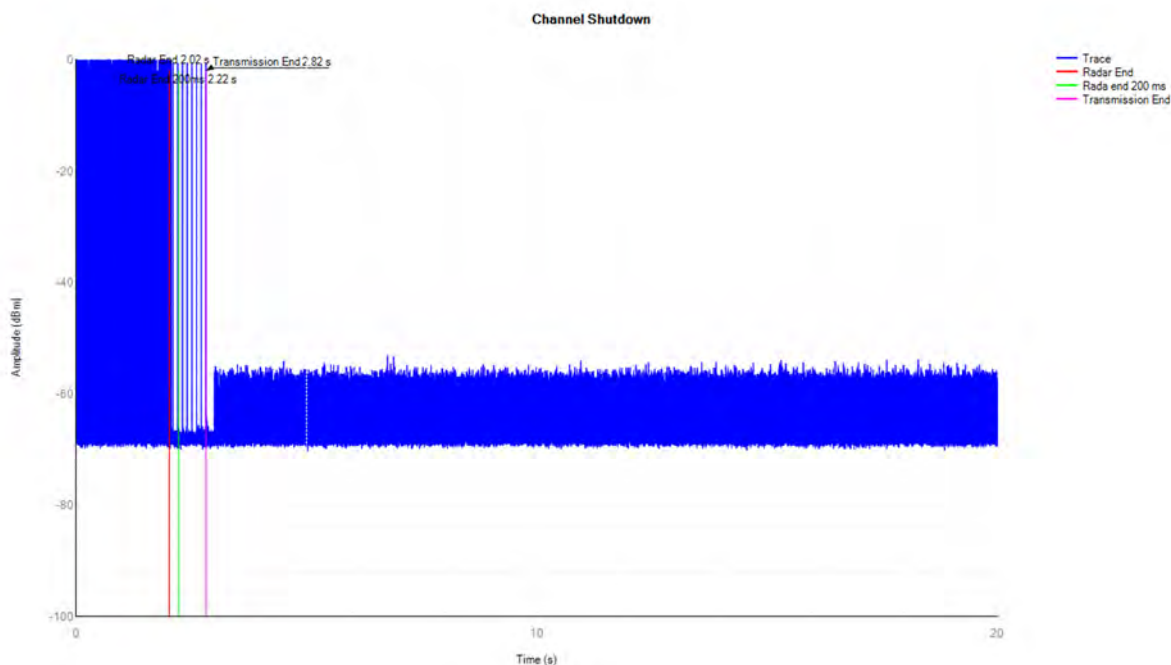
Sweep time: 20s

Test Graphs

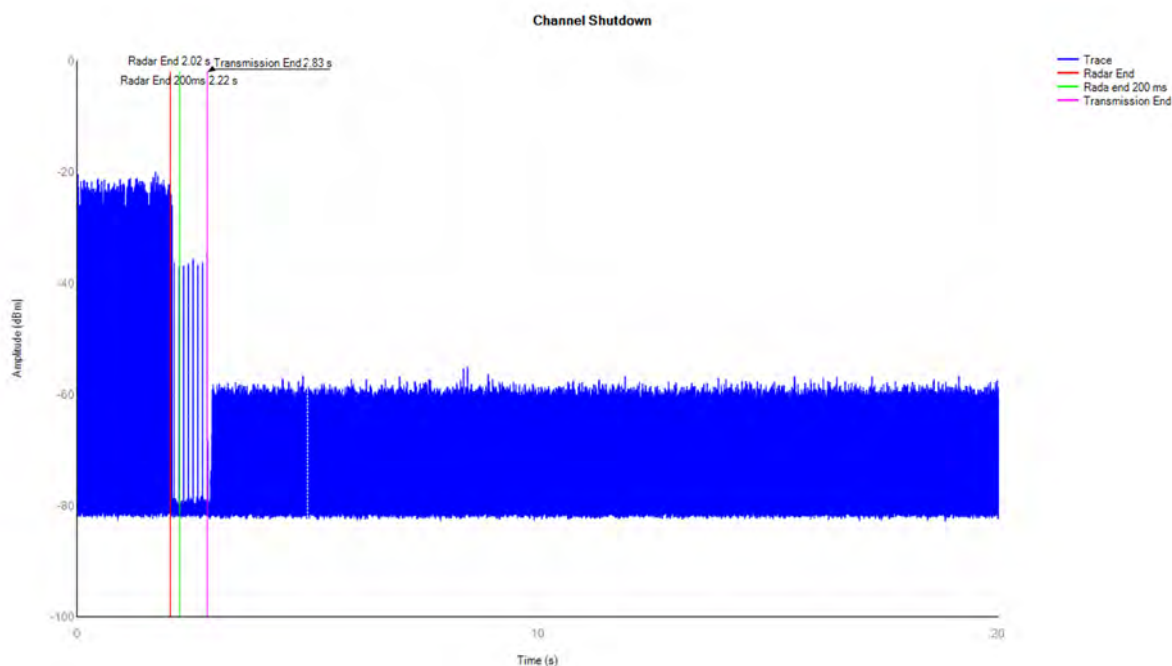
ac20 5260MHz Shutdown



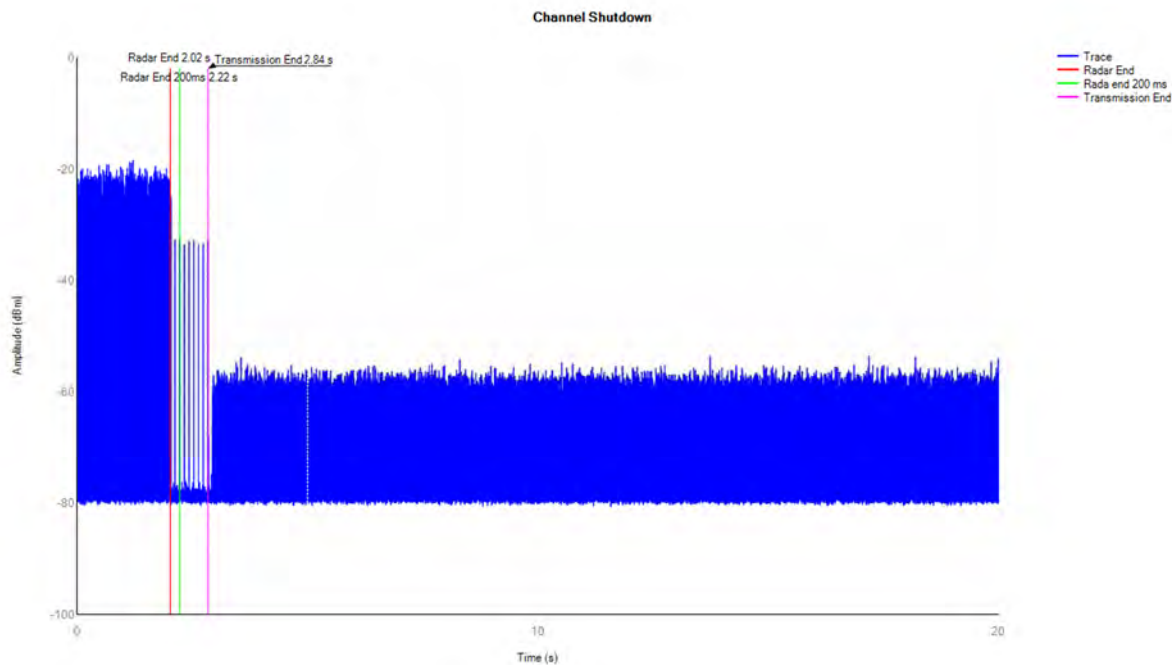
ac20 5500MHz Shutdown



ac80 5290MHz Shutdown



ac80 5530MHz Shutdown



Note: The signal above the noise floor after the radar signal ends is the signal which leaked from other channels that have been moved following the Master device.



REPORT No.: SZ24100315W04

Non-Occupancy Period

Mode	Frequency (MHz)	Result	Verdict
ac20	5260	See test Graph	Pass
ac20	5500	See test Graph	Pass

Spectrum analyzer settings:

Span: Zero

Detector type: Peak

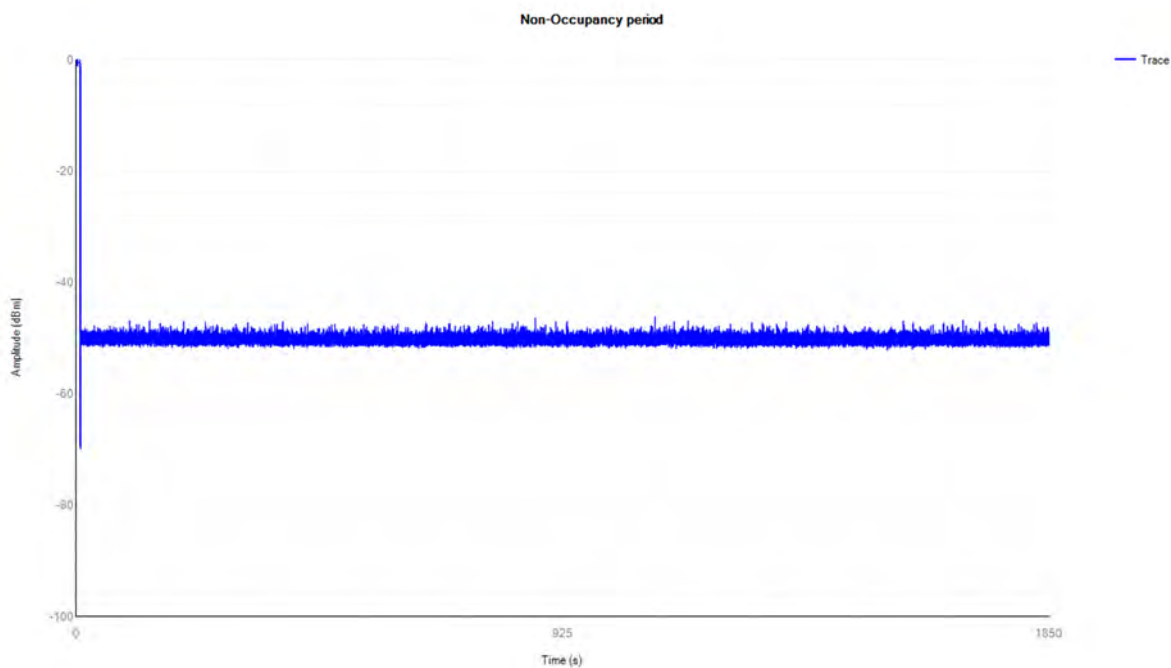
RBW: 3MHz

VBW: 3MHz

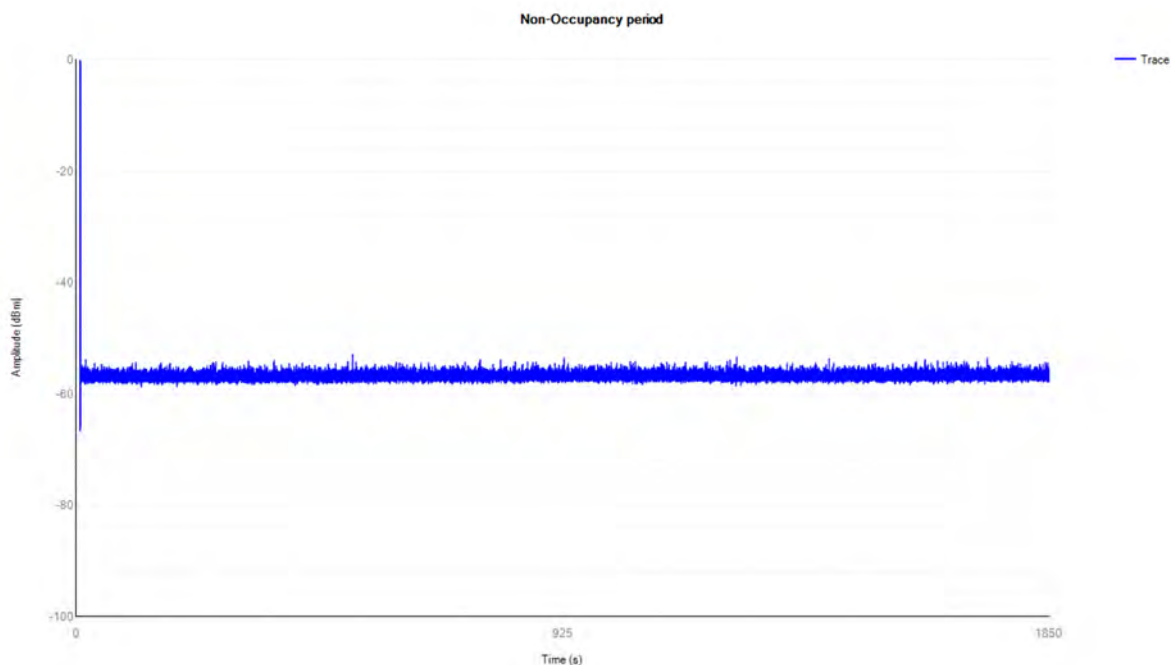
Sweep time: 1850s

Test Graphs

ac20 5260MHz Non-Occupancy



ac20 5500MHz Non-Occupancy





A.7. Conducted Emission

The maximum conducted interference is searched using Peak (PK), if the emission levels more than the AV and QP limits, and that have narrow margins from the AV and QP limits will be re-measured with AV and QP detectors. Tests for both L phase and N phase lines of the power mains connected to the EUT are performed. Set RBW=9kHz, VBW=30kHz. Refer to recorded points and plots below.

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

A. Test Setup:

Test Mode: EUT + Adapter + USB Cable + Headset + WIFI TX

Test voltage: AC 120V/60Hz

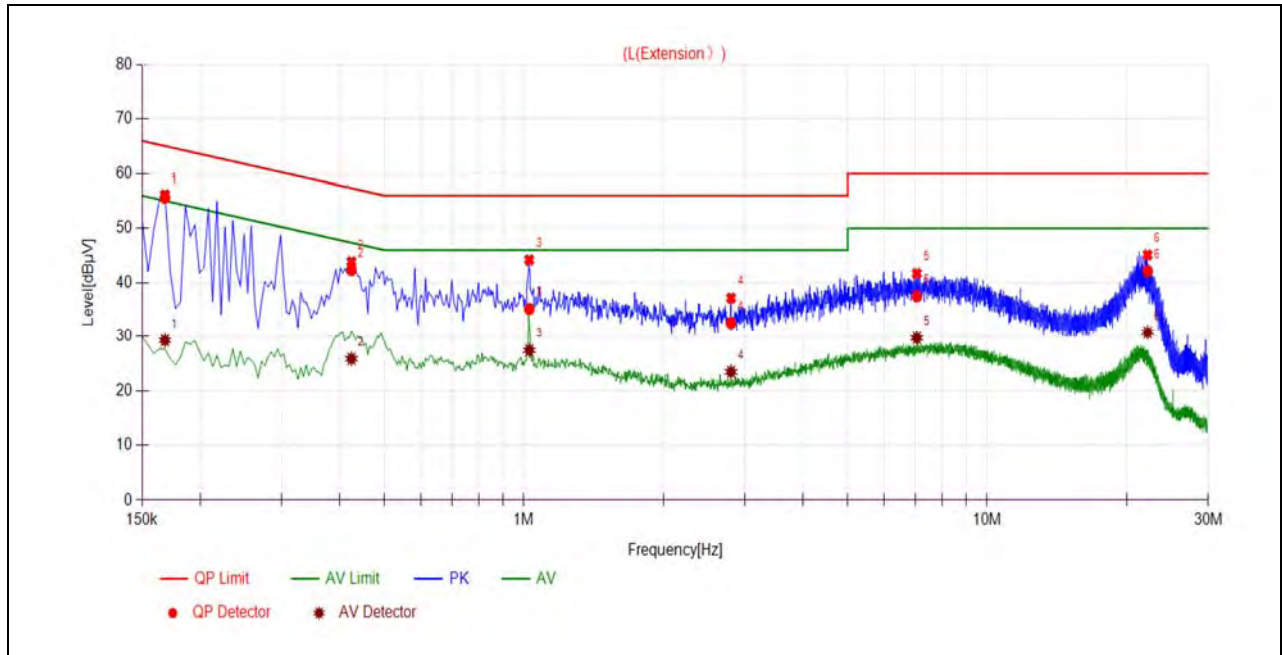
The measurement results are obtained as below:

$$E \text{ [dB}\mu\text{V]} = U_R + L_{\text{Cable loss}} \text{ [dB]} + A_{\text{Factor}}$$

U_R : Receiver Reading

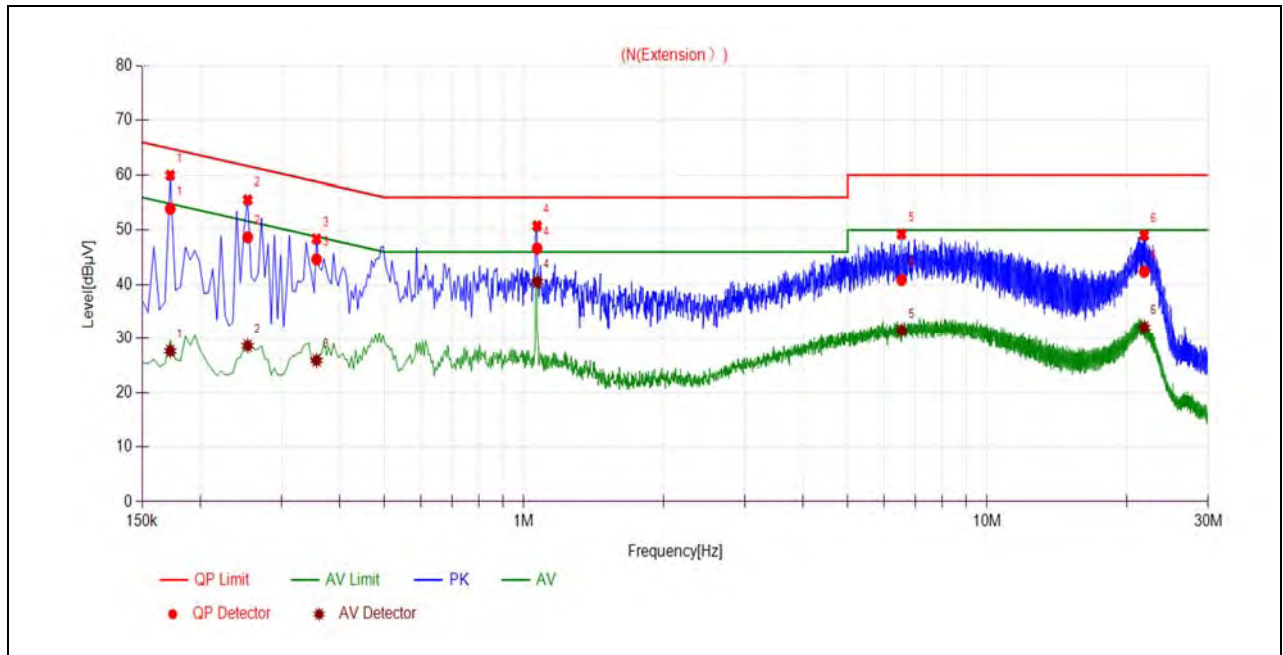
A_{Factor} : Voltage division factor of LISN

B. Test Plot:



(L Phase)

No.	Fre. (MHz)	Emission Level (dBμV)		Limit (dBμV)		Power-line	Verdict
		Quai-peak	Average	Quai-peak	Average		
1	0.1680	55.60	29.25	65.06	55.06	Line	PASS
2	0.4245	42.34	25.85	57.36	47.36		PASS
3	1.0275	35.15	27.42	56.00	46.00		PASS
4	2.8005	32.51	23.43	56.00	46.00		PASS
5	7.0482	37.49	29.68	60.00	50.00		PASS
6	22.1993	42.16	30.74	60.00	50.00		PASS



(N Phase)

No.	Fre. (MHz)	Emission Level (dBμV)		Limit (dBμV)		Power-line	Verdict
		Quai-peak	Average	Quai-peak	Average		
1	0.1725	64.84	27.64	64.84	54.84	Neutral	PASS
2	0.2535	61.64	28.61	61.64	51.64		PASS
3	0.3570	58.80	25.90	58.80	48.80		PASS
4	1.0680	56.00	40.52	56.00	46.00		PASS
5	6.5356	60.00	31.52	60.00	50.00		PASS
6	21.8258	60.00	32.14	60.00	50.00		PASS



A.8. Restricted Frequency Bands

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

The measurement results are obtained as below:

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

A_T : Total correction Factor except Antenna

U_R : Receiver Reading

G_{preamp} : Preamplifier Gain

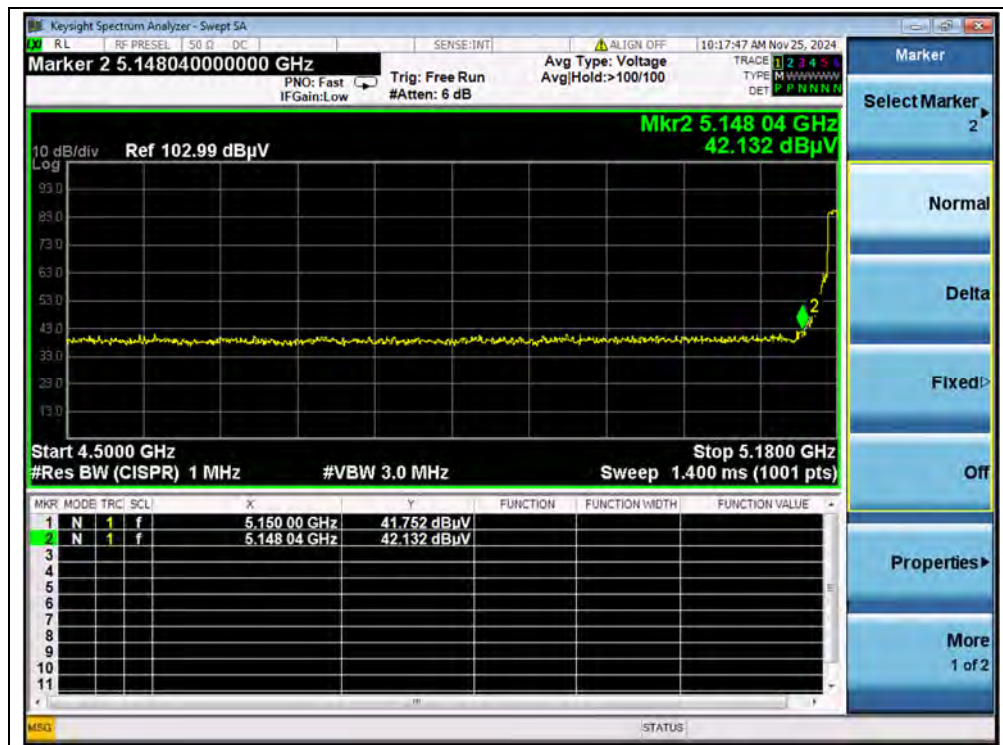
A_{Factor} : Antenna Factor at 3m

Note 1: Restricted Frequency Bands were performed when antenna was at vertical and horizontal polarity, and only the worse test condition (vertical) was recorded in this test report.

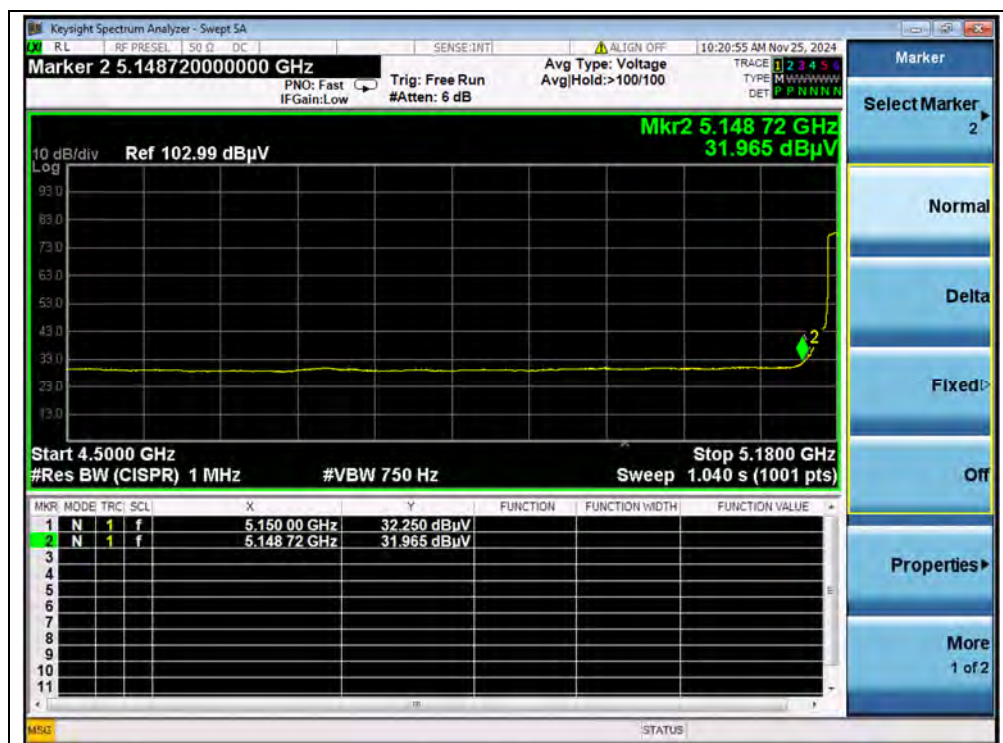
Note 2 All test modes and bandwidth were considered and evaluated respectively by performing full test, only the worst data were recorded for each bandwidth.

802.11a Mode

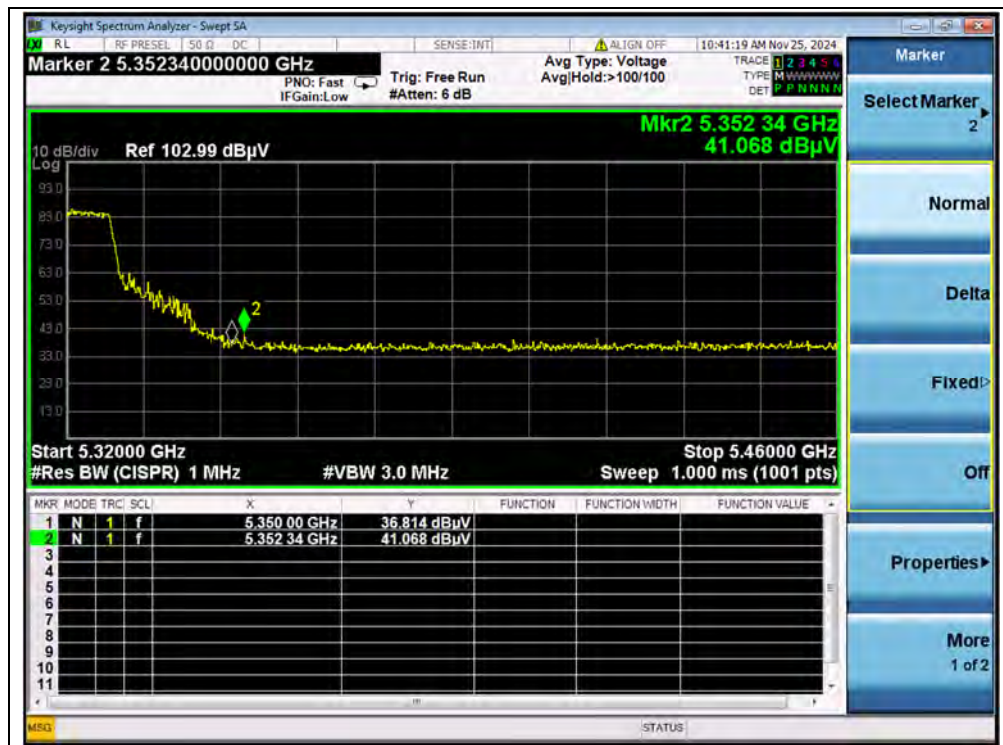
Channel	Frequency (MHz)	Detector	Receiver Reading U_R (dB μ V)	A_T (dB)	A_{Factor} (dB)	Max. Emission E (dB μ V/m)	Limit (dB μ V/m)	Verdict
		PK/ AV						
36	5148.04	PK	42.13	-16.90	33.10	58.33	74	PASS
36	5150.00	AV	32.25	-16.90	33.10	48.45	54	PASS
64	5352.34	PK	41.07	-15.40	33.00	58.67	74	PASS
64	5350.38	AV	29.87	-15.40	33.00	47.47	54	PASS
100	5468.50	PK	42.35	-16.00	33.60	59.95	68.23	PASS
100	5094.00	AV	30.11	-16.00	33.60	47.71	54	PASS
140	5727.00	PK	44.13	-16.00	33.60	61.73	68.23	PASS
149	5725.00	PK	46.70	-14.70	33.50	65.50	122.23	PASS
165	5855.00	PK	39.64	-14.70	33.50	58.44	110.83	PASS



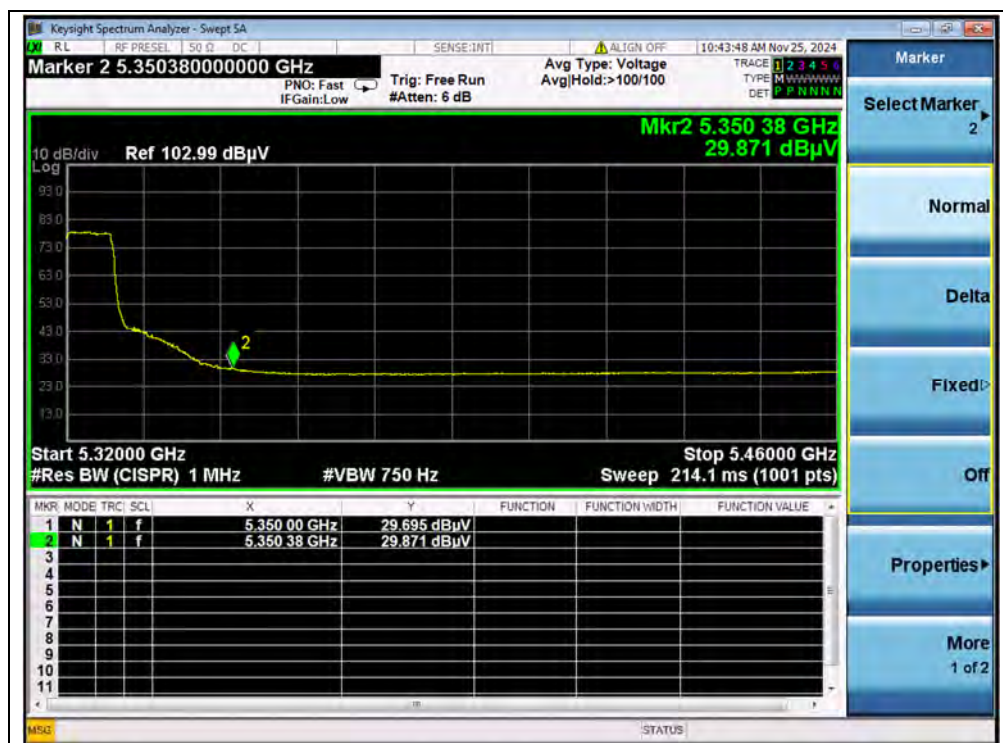
(PEAK, Channel 36, 802.11a)



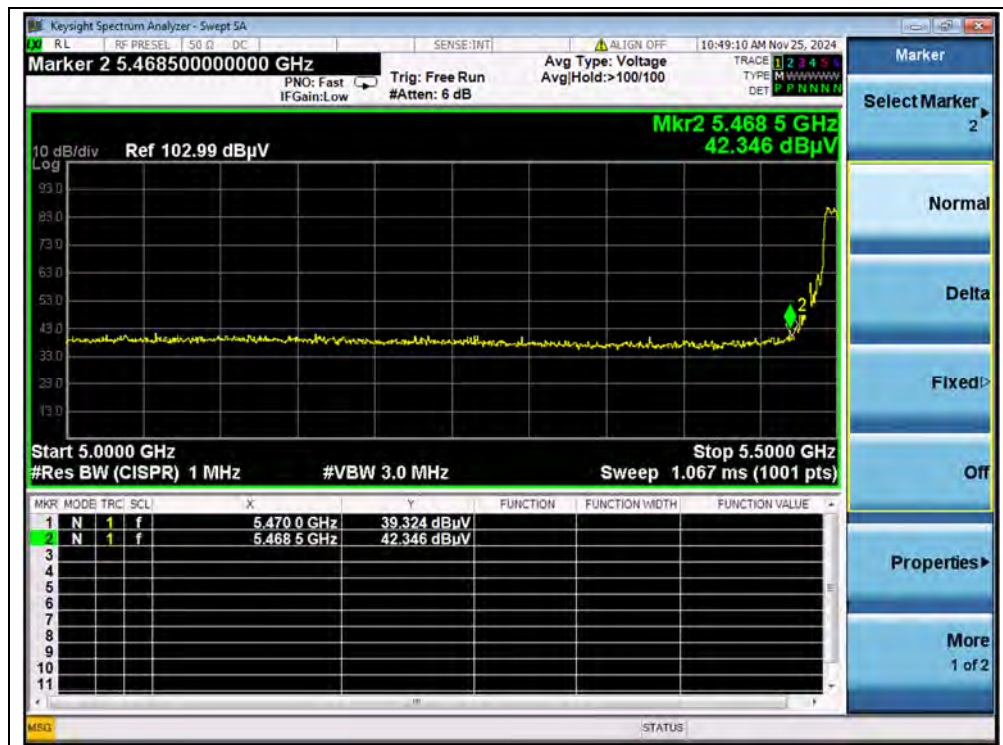
(AVERAGE, Channel 36, 802.11a)



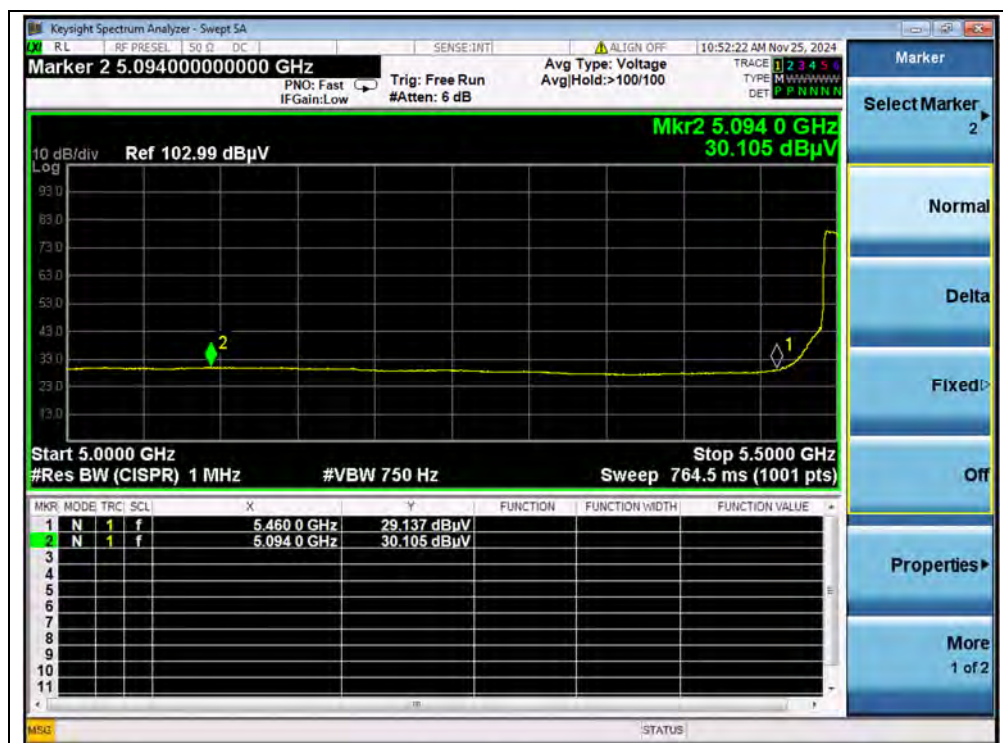
(PEAK, Channel 64, 802.11a)



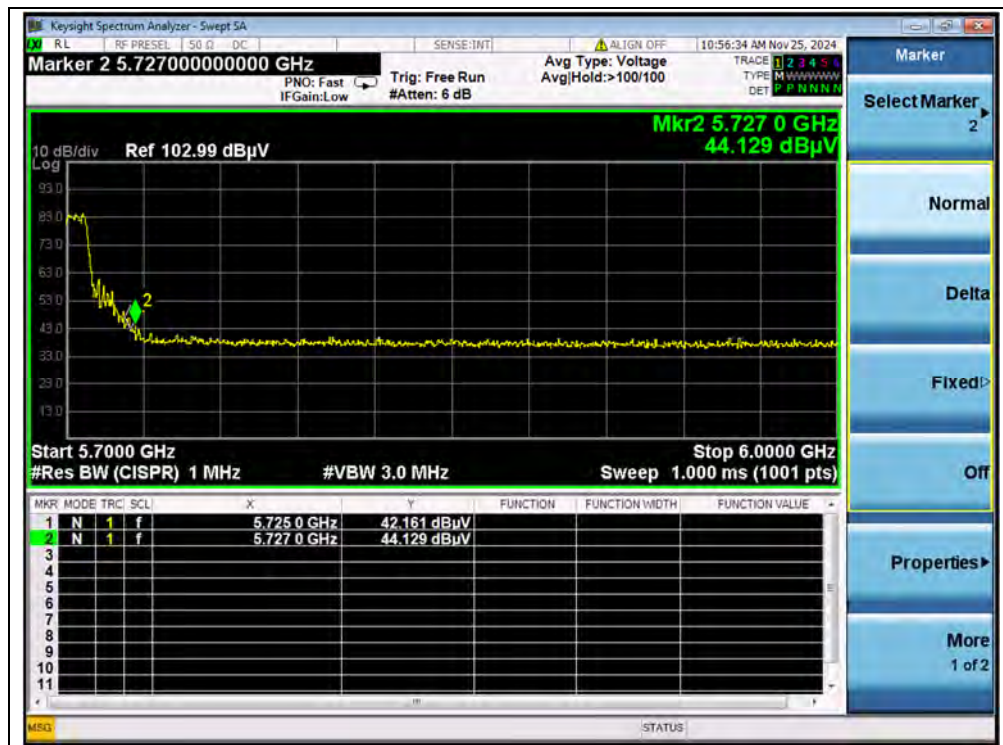
(AVERAGE, Channel 64, 802.11a)



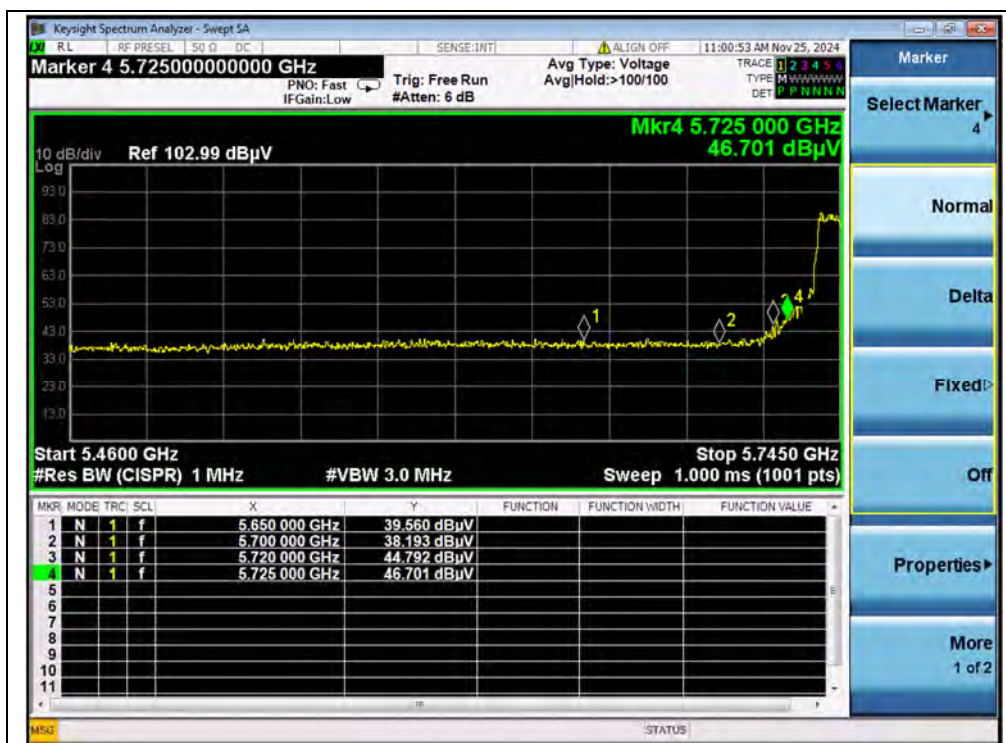
(PEAK, Channel 100, 802.11a)



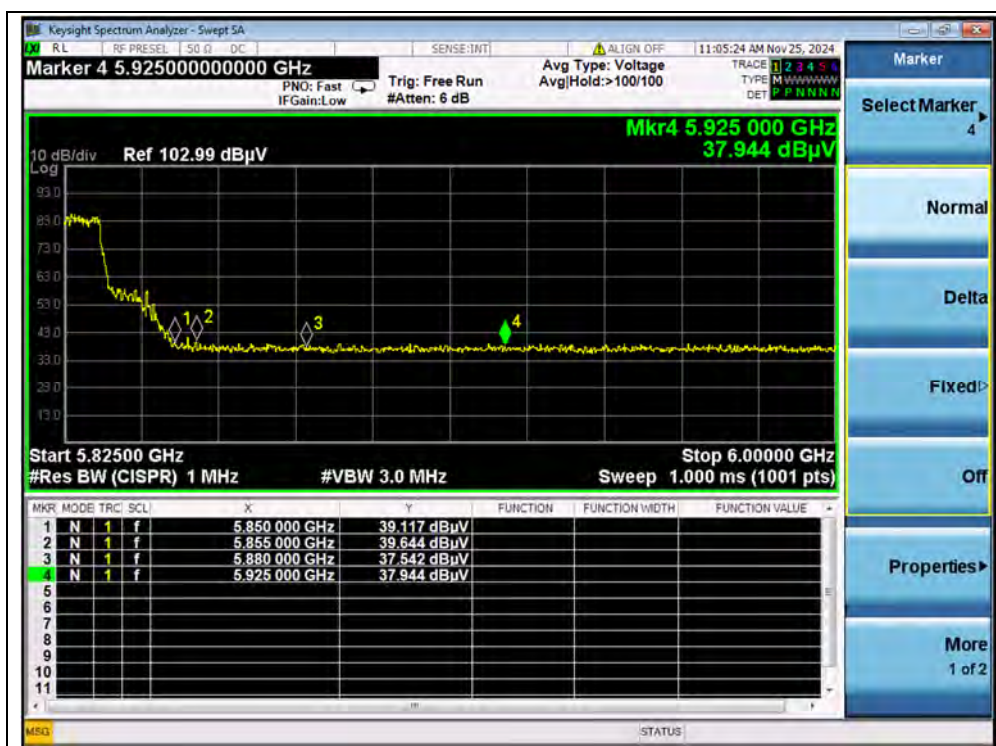
(AVERAGE, Channel 100, 802.11a)



(PEAK, Channel 140, 802.11a)



(PEAK, Channel 149, 802.11a)

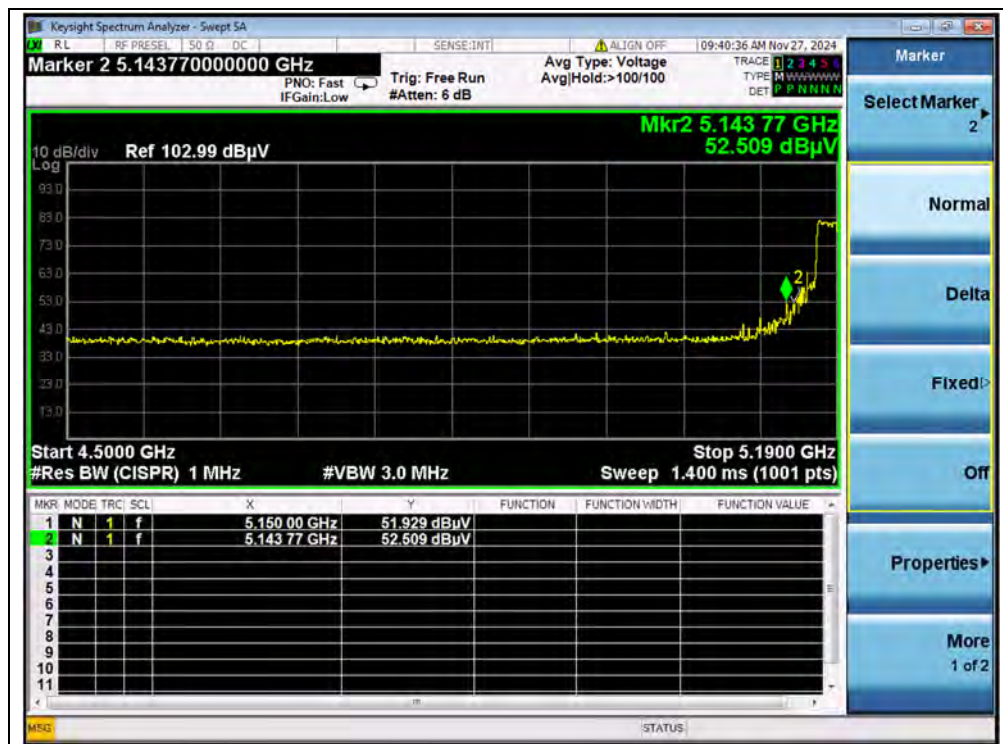


(PEAK, Channel 165, 802.11a)

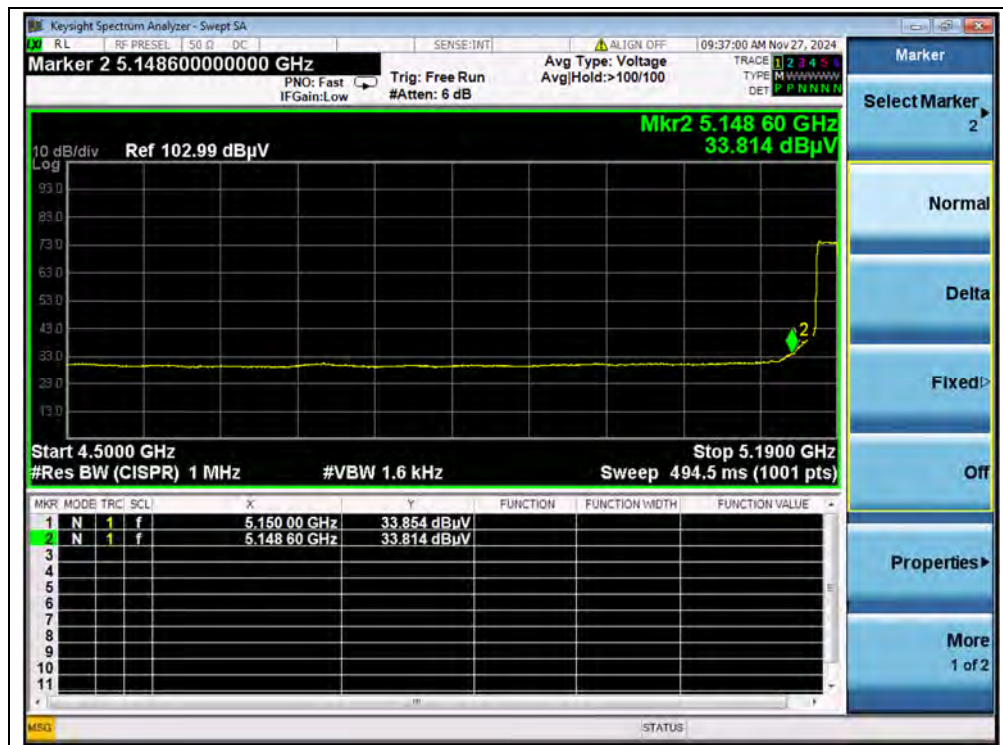


802.11n (HT40) Mode

Channel	Frequency (MHz)	Detector	Receiver Reading U_R (dBμV)	A_T (dB)	A_{Factor} (dB)	Max. Emission E (dBμV/m)	Limit (dBμV/m)	Verdict
		PK/ AV						
38	5143.77	PK	52.51	-16.90	33.10	68.71	74	PASS
38	5150.00	AV	33.85	-16.90	33.10	50.05	54	PASS
62	5350.65	PK	46.86	-15.40	33.00	64.46	74	PASS
62	5350.00	AV	32.14	-15.40	33.00	49.74	54	PASS
102	5469.741	PK	44.58	-16.00	33.60	62.18	68.23	PASS
102	5460.00	AV	30.67	-16.00	33.60	48.27	54	PASS
134	5788.14	PK	40.23	-16.00	33.60	57.83	68.23	PASS
151	5725.00	PK	51.94	-14.70	33.50	70.74	122.23	PASS
159	5850.00	PK	42.61	-14.70	33.50	61.41	122.23	PASS



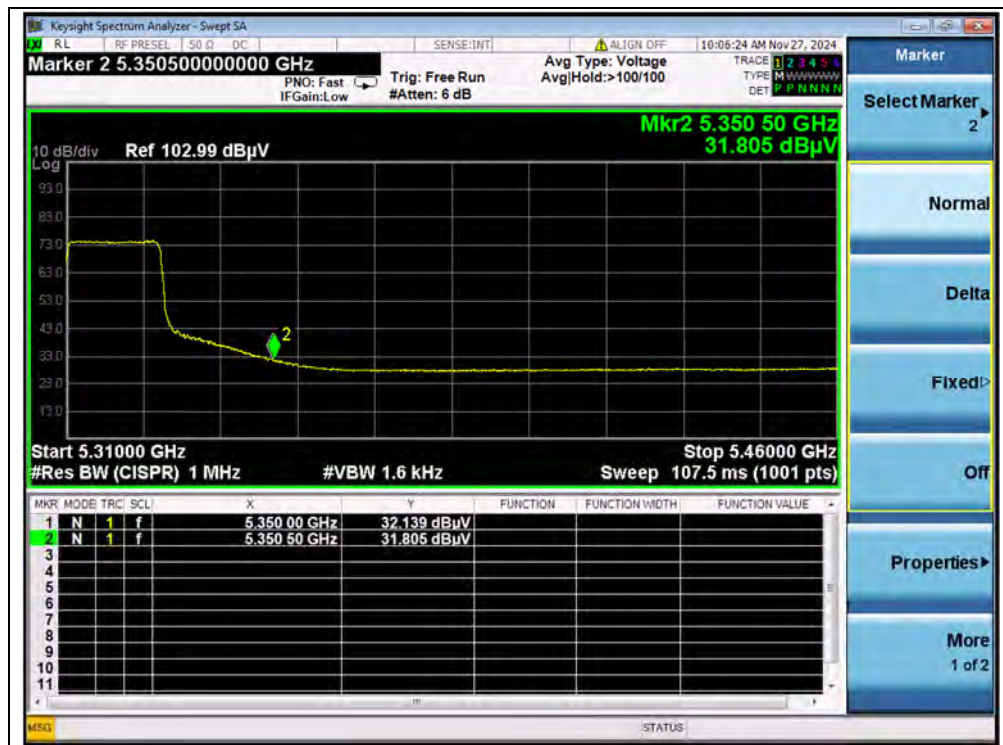
(PEAK, Channel 38, 802.11n (HT40))



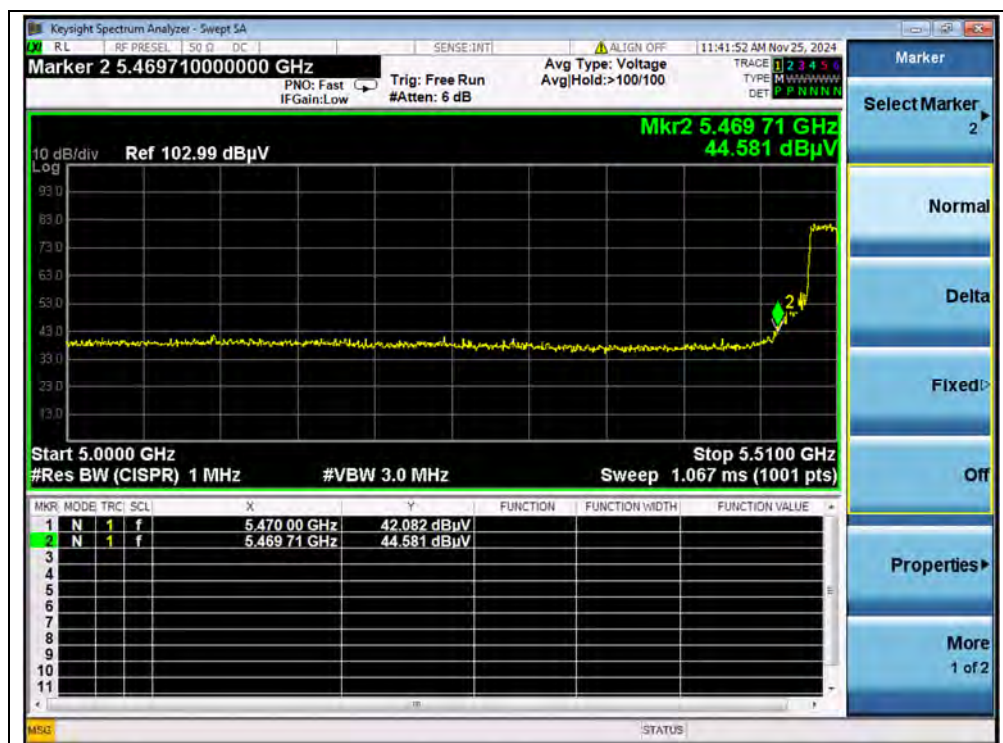
(AVERAGE, Channel 38, 802.11n (HT40))



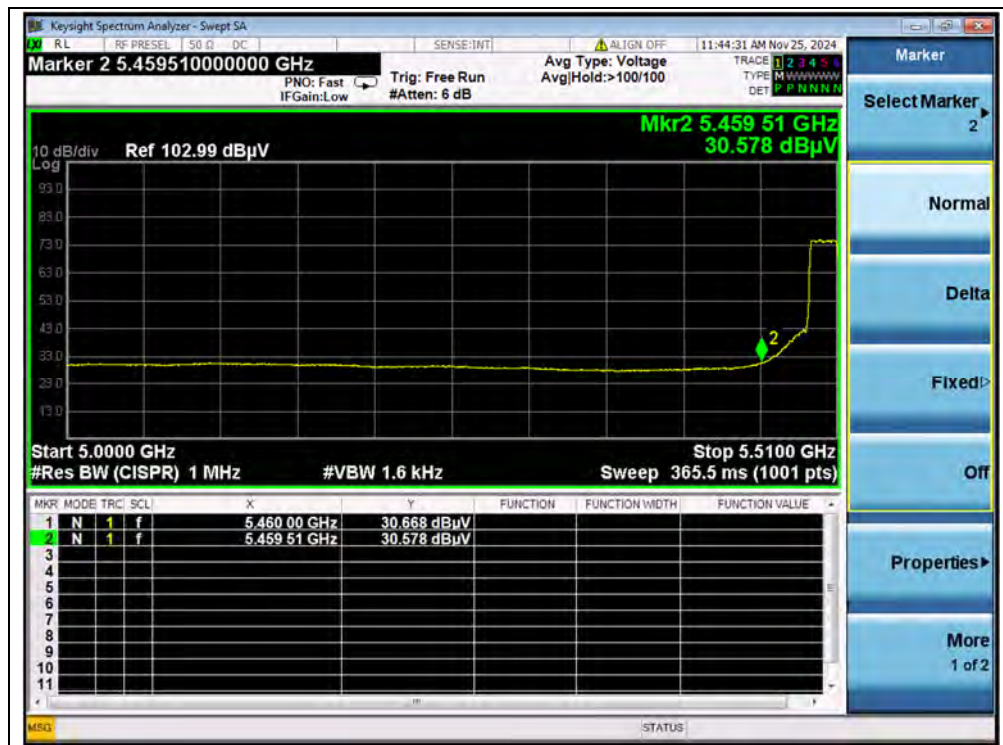
(PEAK, Channel 62, 802.11n (HT40))



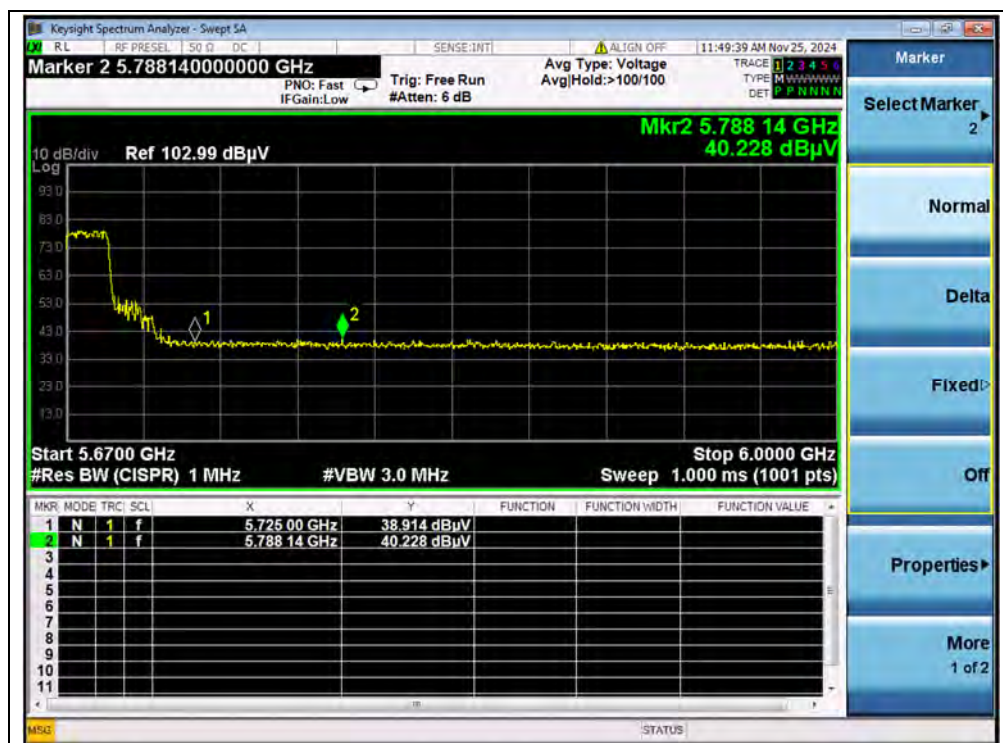
(AVERAGE, Channel 62, 802.11n (HT40))



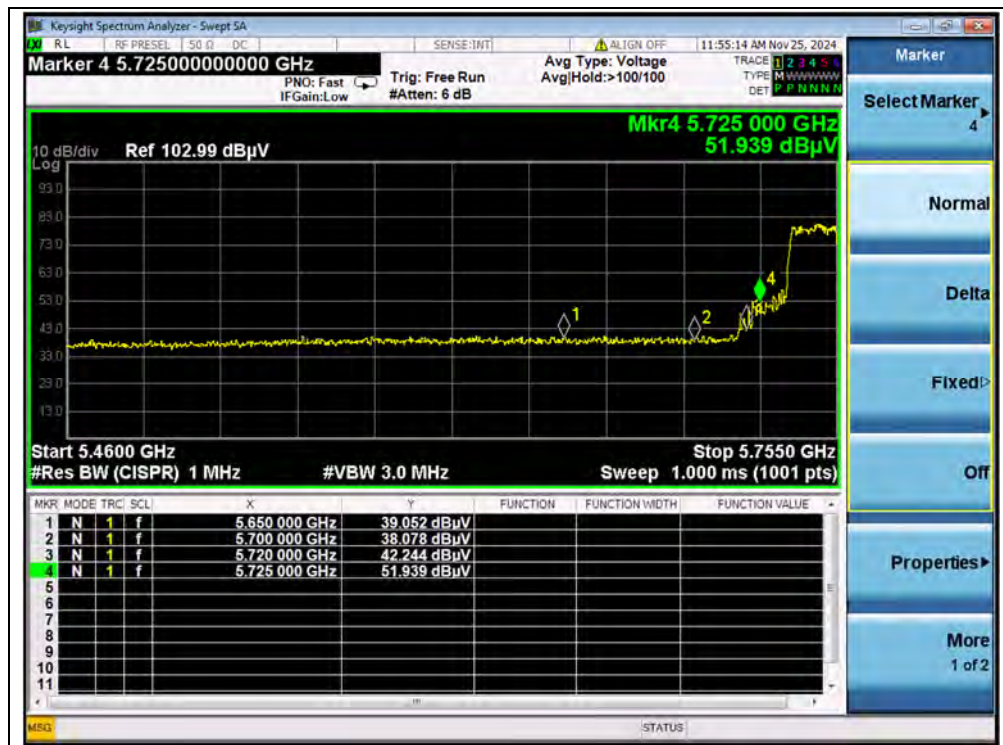
(PEAK, Channel 102, 802.11n (HT40))



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



(PEAK, Channel 134, 802.11n (HT40))



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

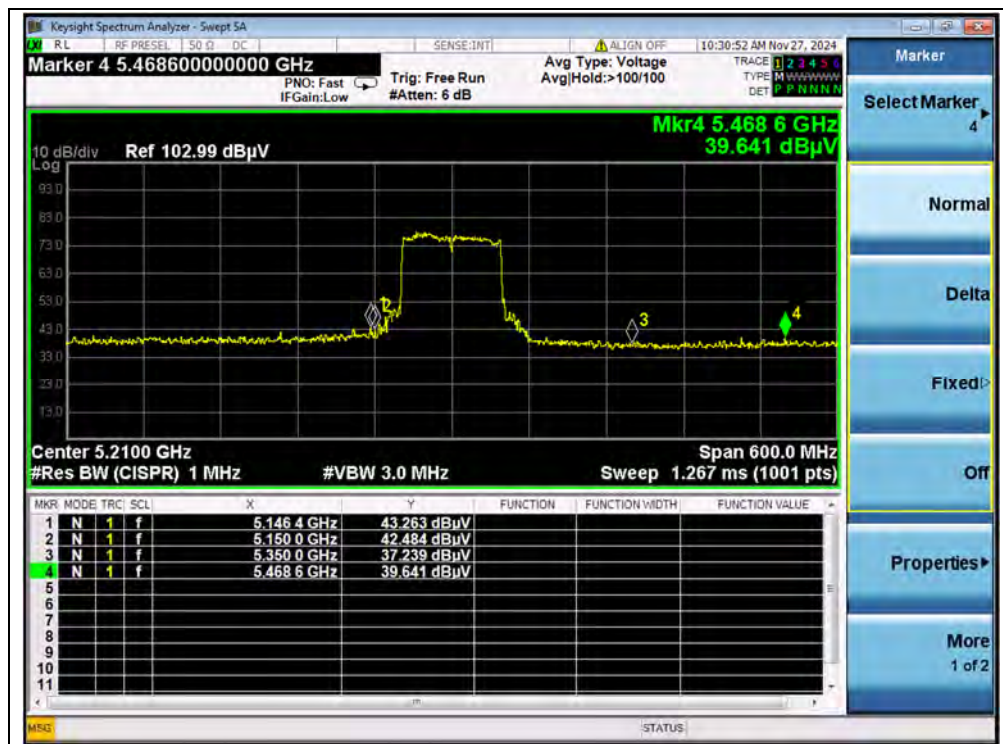


(PEAK, Channel 159, 802.11n (HT40))

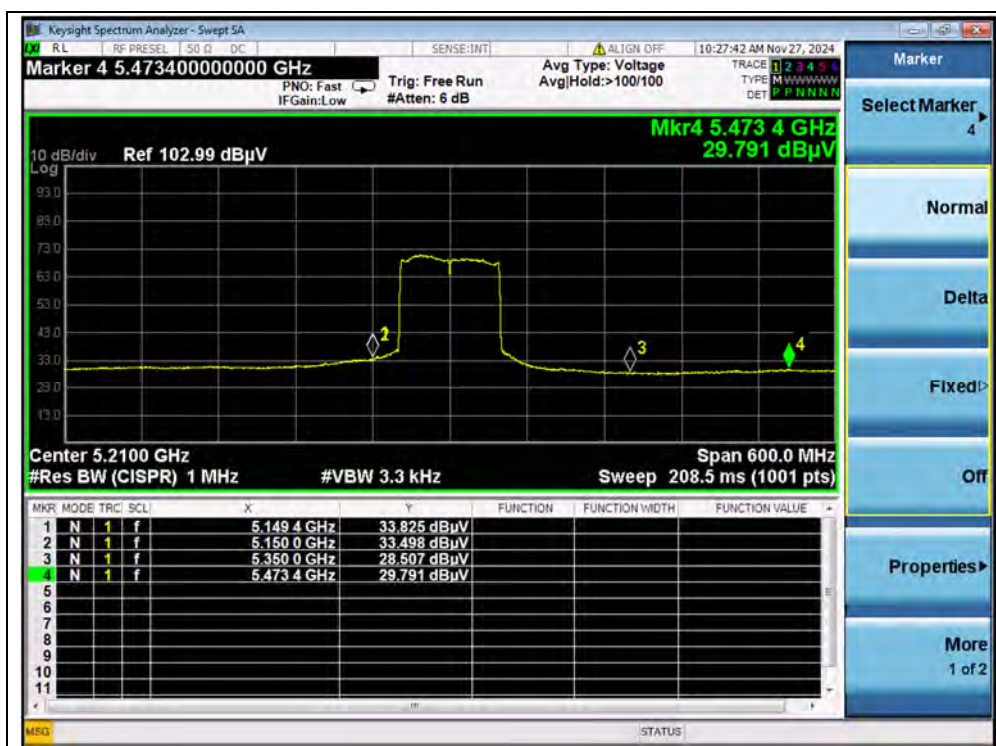


802.11ac (VHT80) Mode

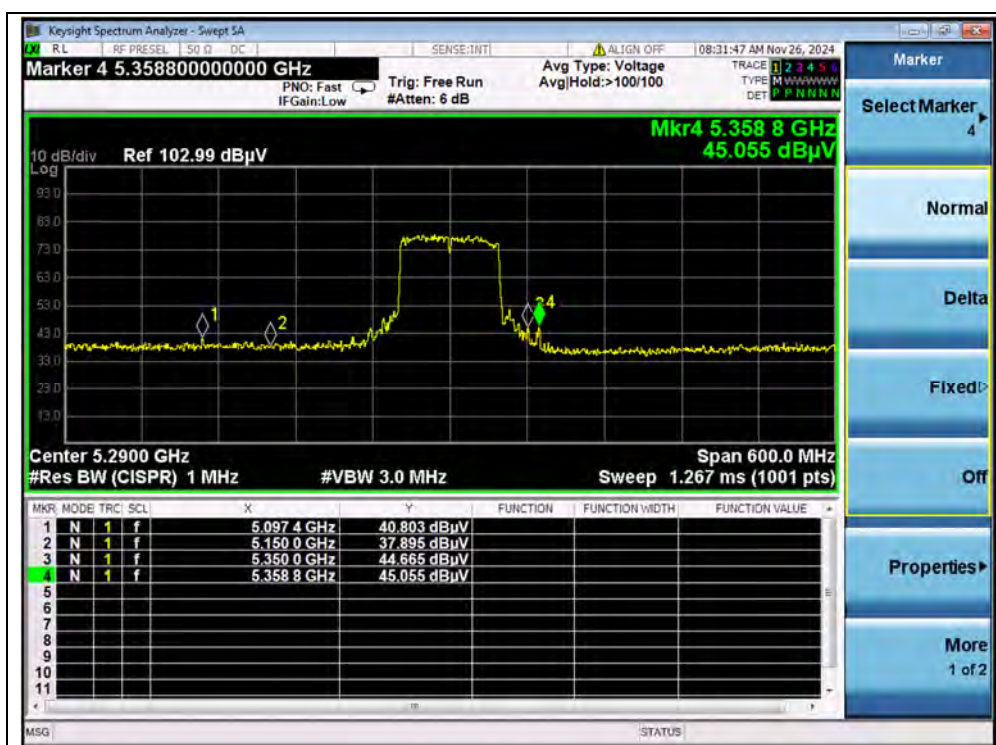
Channel	Frequency (MHz)	Detector	Receiver Reading U _R (dBμV)	A _T (dB)	A _{Factor} (dB)	Max. Emission E (dBμV/m)	Limit (dBμV/m)	Verdict
		PK/ AV						
42	5146.40	PK	43.26	-16.90	33.10	59.46	74	PASS
42	5149.40	AV	33.83	-16.90	33.10	50.03	54	PASS
58	5358.80	PK	45.06	-15.40	33.00	62.66	74	PASS
58	5350.40	AV	32.26	-15.40	33.00	49.86	54	PASS
106	5469.05	PK	45.32	-16.00	33.60	62.92	68.23	PASS
106	5460.00	AV	32.99	-16.00	33.60	50.59	54	PASS
138	5783.55	PK	40.36	-16.00	33.60	57.96	68.23	PASS
155	5725.00	PK	44.23	-14.70	33.50	63.03	122.23	PASS
155	5850.00	PK	38.38	-14.70	33.50	57.18	122.23	PASS



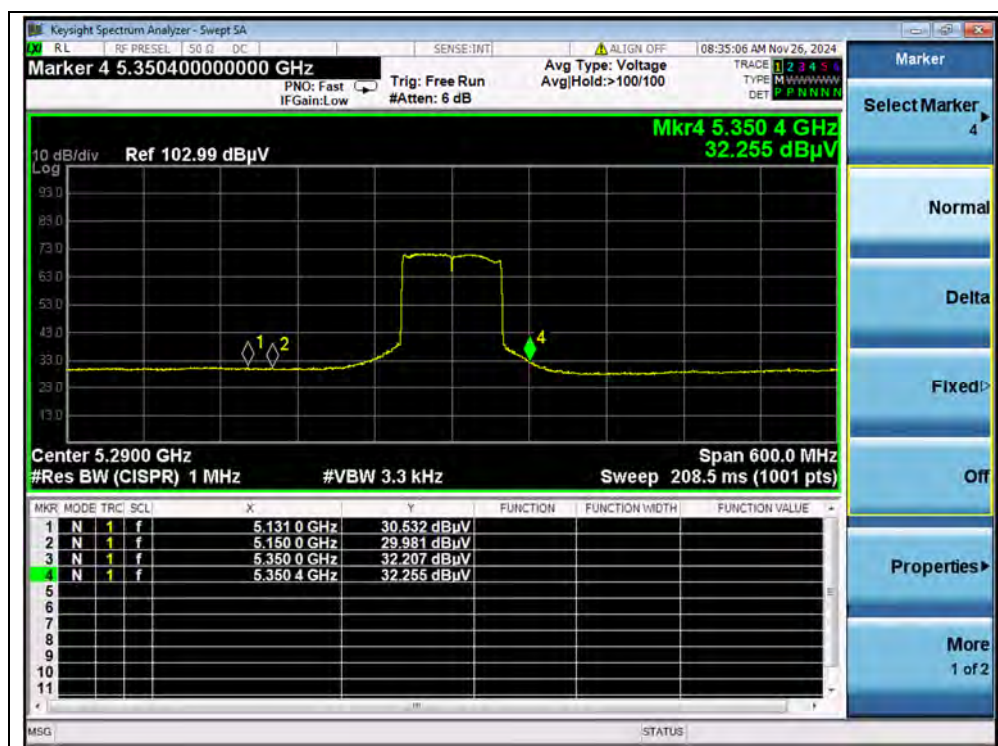
(PEAK, Channel 42, 802.11ac (VHT80))



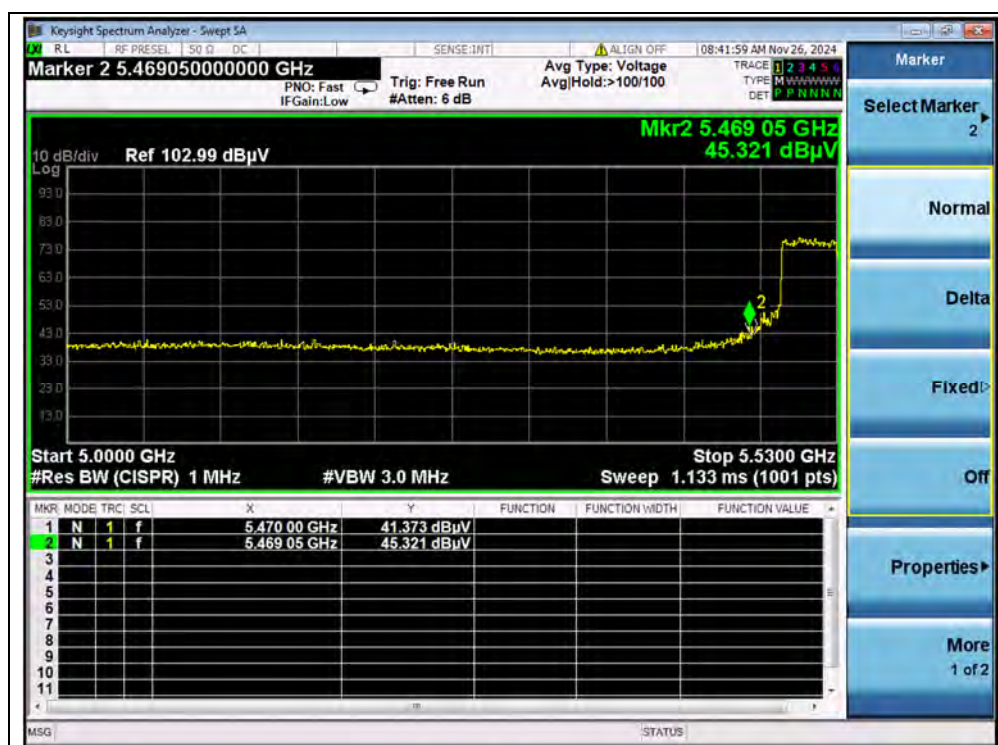
(AVERAGE, Channel 42, 802.11ac (VHT80))



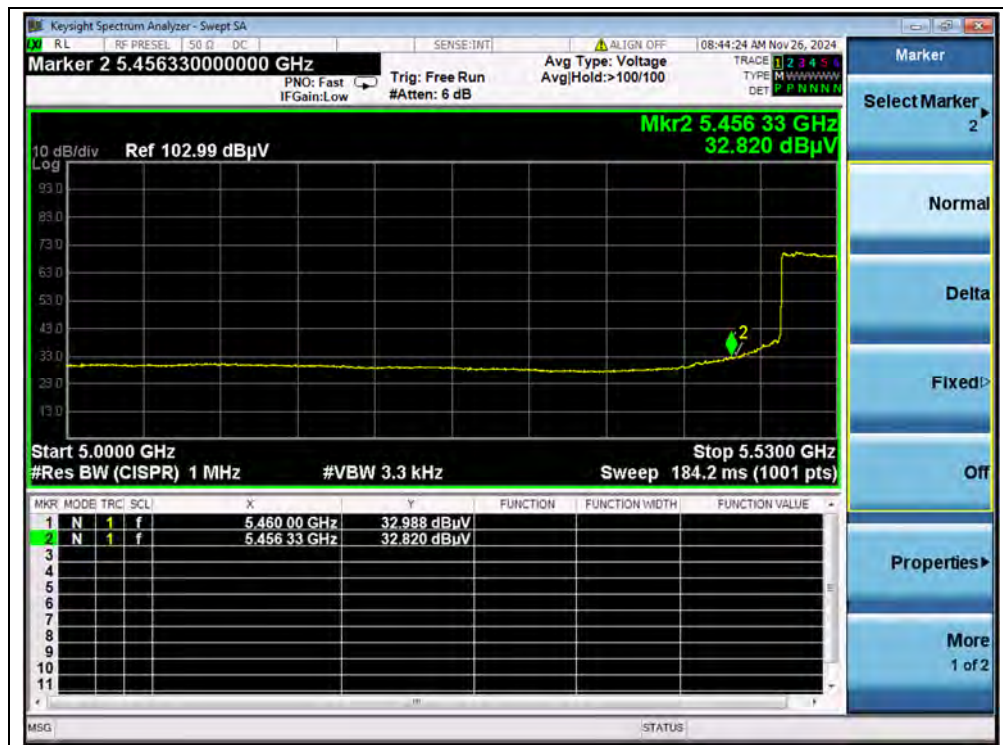
(PEAK, Channel 58, 802.11ac (VHT80))



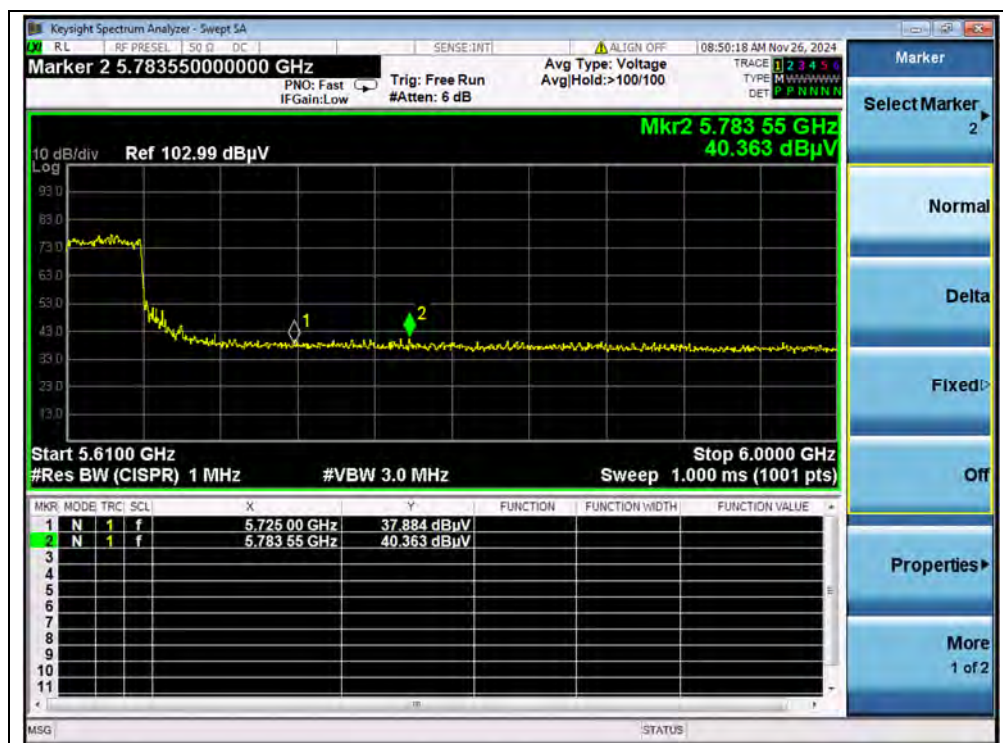
(AVERAGE, Channel 58, 802.11ac (VHT80))



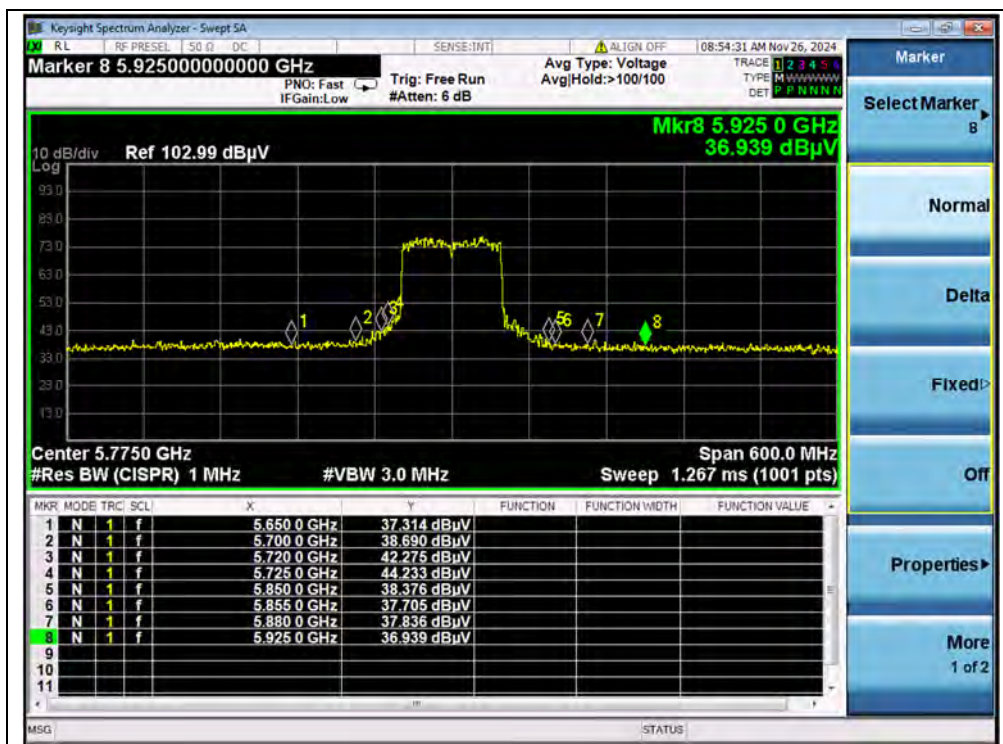
(PEAK, Channel 106, 802.11ac (VHT80))



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



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



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



A.9. Radiated Emission

According to ANSI C63.10, 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 (or average) limit, it is unnecessary to perform an quasi-peak measurement (or average).

The measurement results are obtained as below:

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

A_T : Total correction Factor except Antenna

U_R : Receiver Reading

G_{preamp} : Preamplifier Gain

A_{Factor} : Antenna Factor at 3m

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 harmonic of the highest frequency, was pre-scanned and the result which was 20dB lower than the limit was not recorded.

Note 4: All test modes and bandwidth were considered and evaluated respectively by performing full test, only the worst data were recorded for each bandwidth.

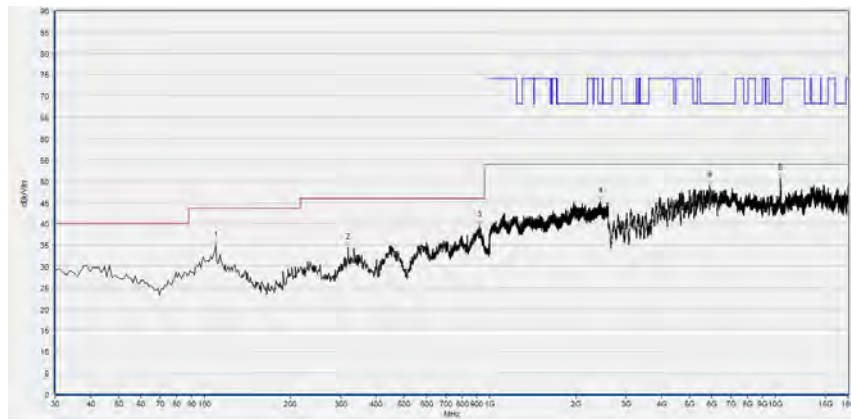
Field strength of fundamental:

Frequency (MHz)	Reading_Peak (dB μ V/m)	Path Loss (dB)	Antenna Factor (dB)	Final_Peak (dB μ V/m)	Antenna Polarity
5783.80	77.55	-14.70	33.50	96.35	Horizontal

The field strength (the lowest) of fundamenta is more than 20dB higher than the unwanted emissions, in accordance with FCC part 15.215(b).

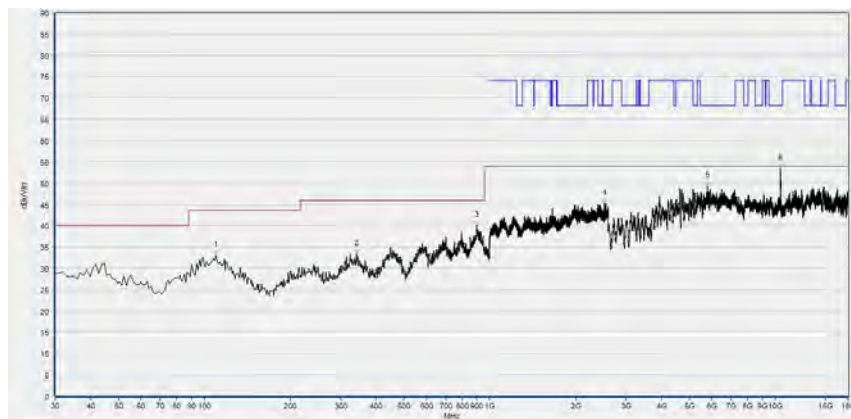
**802.11a Mode**

Plot 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
109.540	34.81	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
319.060	34.31	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
920.460	39.60	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
2438.400	45.25	N/A	N/A	68.23	N/A	N/A	Horizontal	PASS
5898.680	48.91	N/A	N/A	68.23	N/A	N/A	Horizontal	PASS
10438.600	50.61	N/A	N/A	68.23	N/A	N/A	Horizontal	PASS

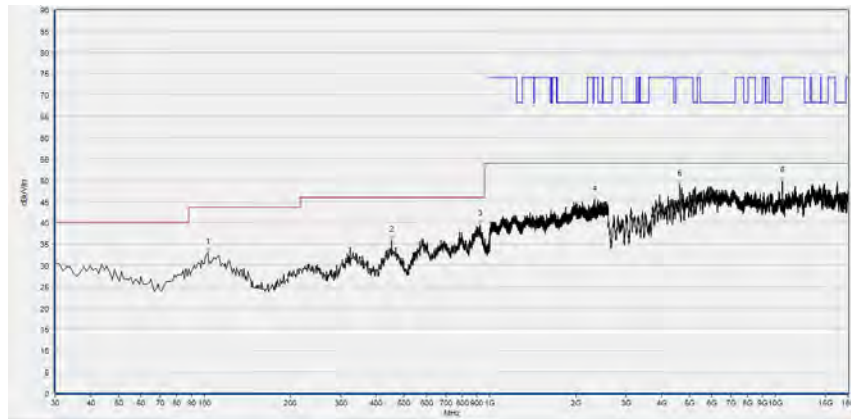
(Antenna Horizontal, 30MHz to 18GHz)



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
109.540	33.10	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
341.370	33.30	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
900.090	39.99	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
2526.400	45.28	N/A	N/A	68.23	N/A	N/A	Vertical	PASS
5790.880	49.23	N/A	N/A	68.23	N/A	N/A	Vertical	PASS
10438.600	53.52	N/A	N/A	68.23	N/A	N/A	Vertical	PASS

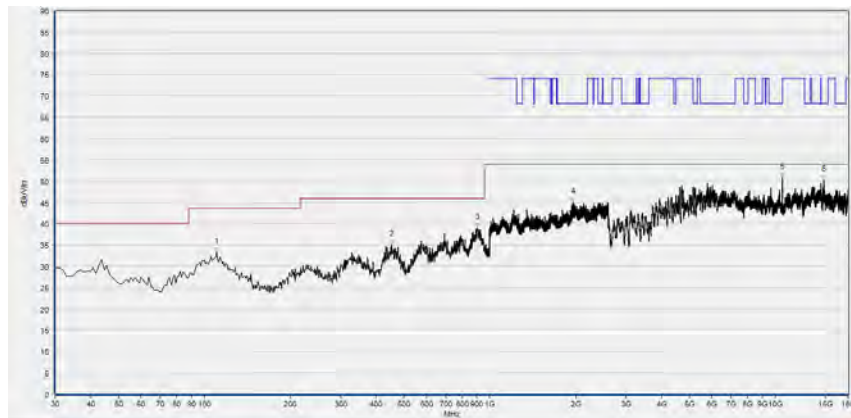
(Antenna Vertical, 30MHz to 18GHz)

Plot 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
102.750	32.94	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
452.920	35.81	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
925.310	39.56	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
2324.800	45.37	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
4629.720	48.98	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
10598.760	49.81	N/A	N/A	68.23	N/A	N/A	Horizontal	PASS

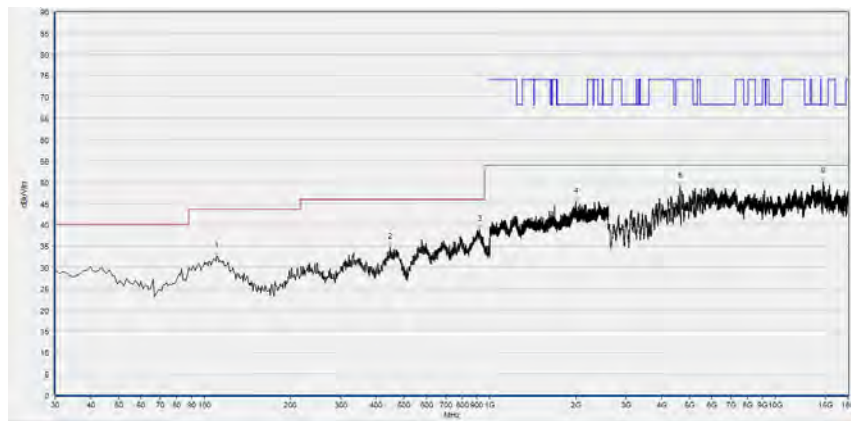
(Antenna Horizontal, 30MHz to 18GHz)



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
110.510	33.28	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
453.890	34.98	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
903.000	39.09	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
1961.600	45.07	N/A	N/A	68.23	N/A	N/A	Vertical	PASS
10601.840	50.74	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
14790.640	50.24	N/A	N/A	68.23	N/A	N/A	Vertical	PASS

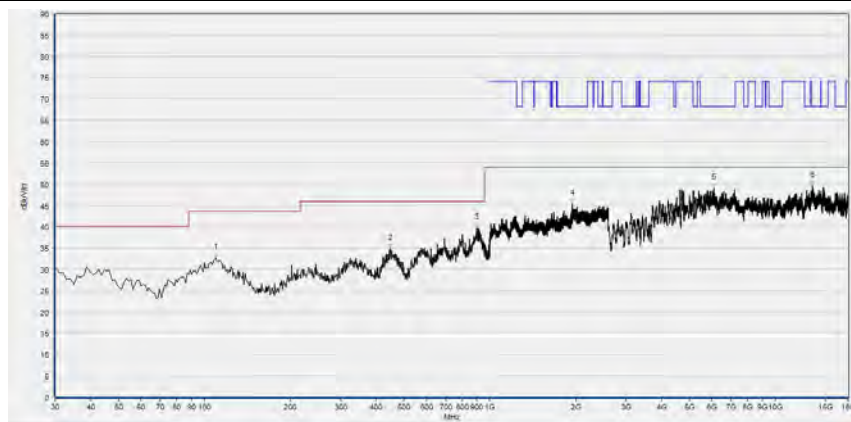
(Antenna Vertical, 30MHz to 18GHz)

Plot 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
110.510	32.55	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
448.070	34.75	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
922.400	38.86	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
1998.400	45.45	N/A	N/A	68.23	N/A	N/A	Horizontal	PASS
4635.880	48.88	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
14747.520	50.06	N/A	N/A	68.23	N/A	N/A	Horizontal	PASS

(Antenna Horizontal, 30MHz to 18GHz)

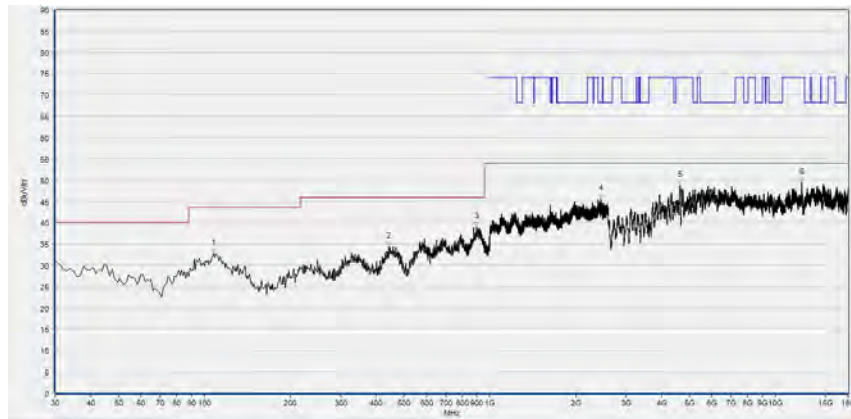


Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
109.540	32.71	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
448.070	34.79	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
900.090	39.72	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
1947.200	45.34	N/A	N/A	68.23	N/A	N/A	Vertical	PASS
6108.120	49.07	N/A	N/A	68.23	N/A	N/A	Vertical	PASS
13472.400	49.58	N/A	N/A	68.23	N/A	N/A	Vertical	PASS

(Antenna Vertical, 30MHz to 18GHz)

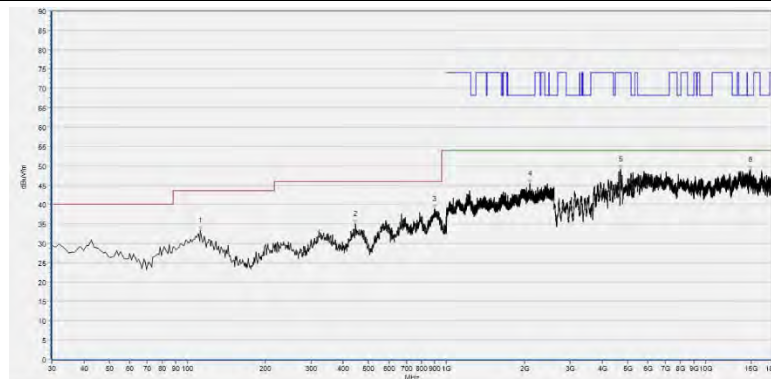


Plot for Channel 157



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
107.600	32.69	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
441.280	34.33	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
899.120	39.01	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
2447.467	45.56	N/A	N/A	68.23	N/A	N/A	Horizontal	PASS
4635.880	48.82	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
12406.720	49.50	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
112.450	33.34	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
446.130	35.06	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
900.090	38.88	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
2098.133	45.42	N/A	N/A	68.23	N/A	N/A	Vertical	PASS
4694.400	49.06	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
14843.000	48.97	N/A	N/A	68.23	N/A	N/A	Vertical	PASS

(Antenna Vertical, 30MHz to 18GHz)

END OF REPORT