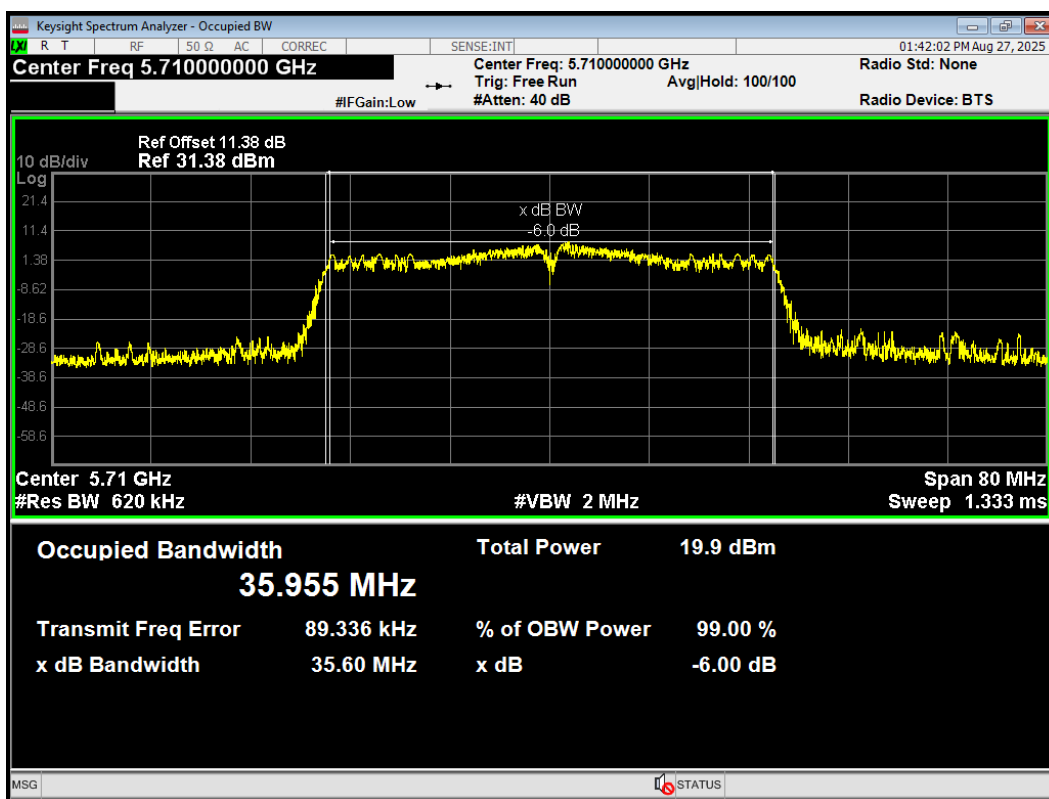
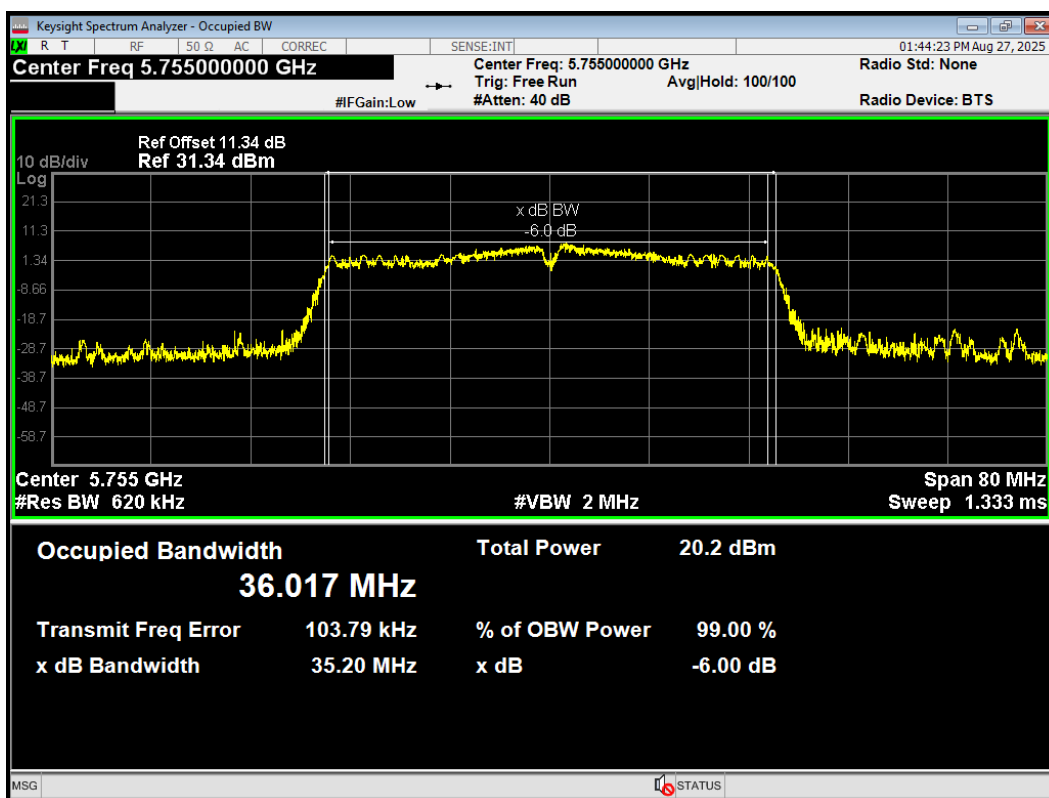


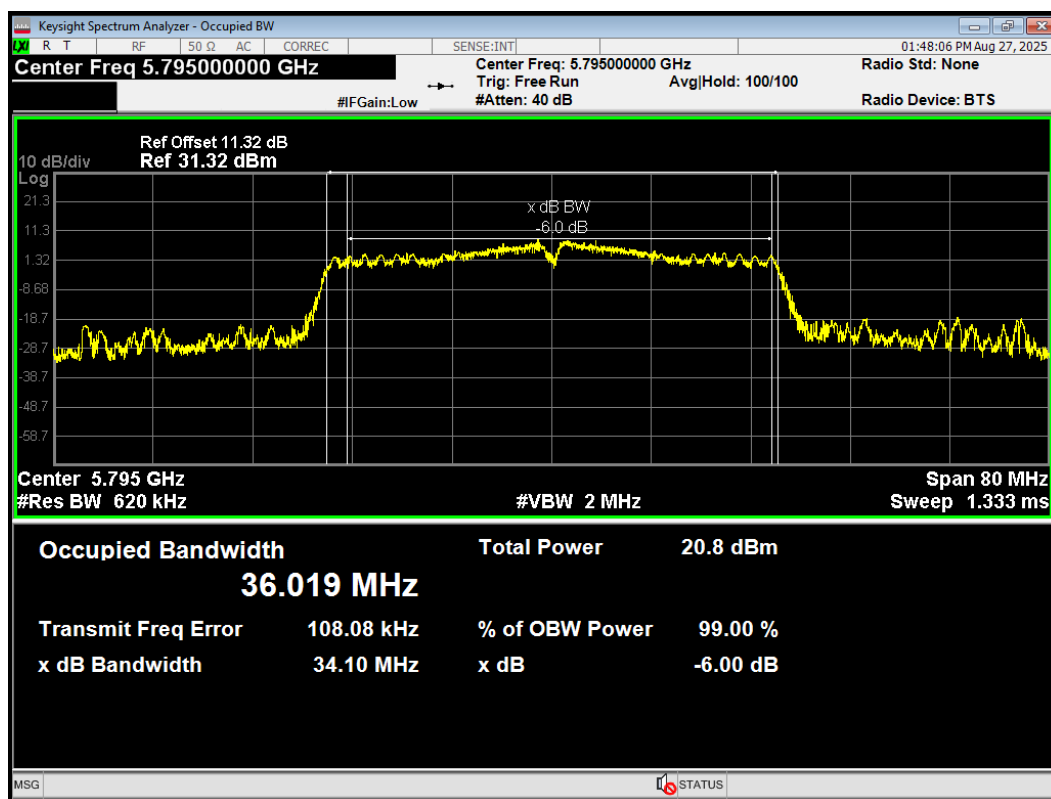
OBW 802.11ac(VHT40) 5710MHz



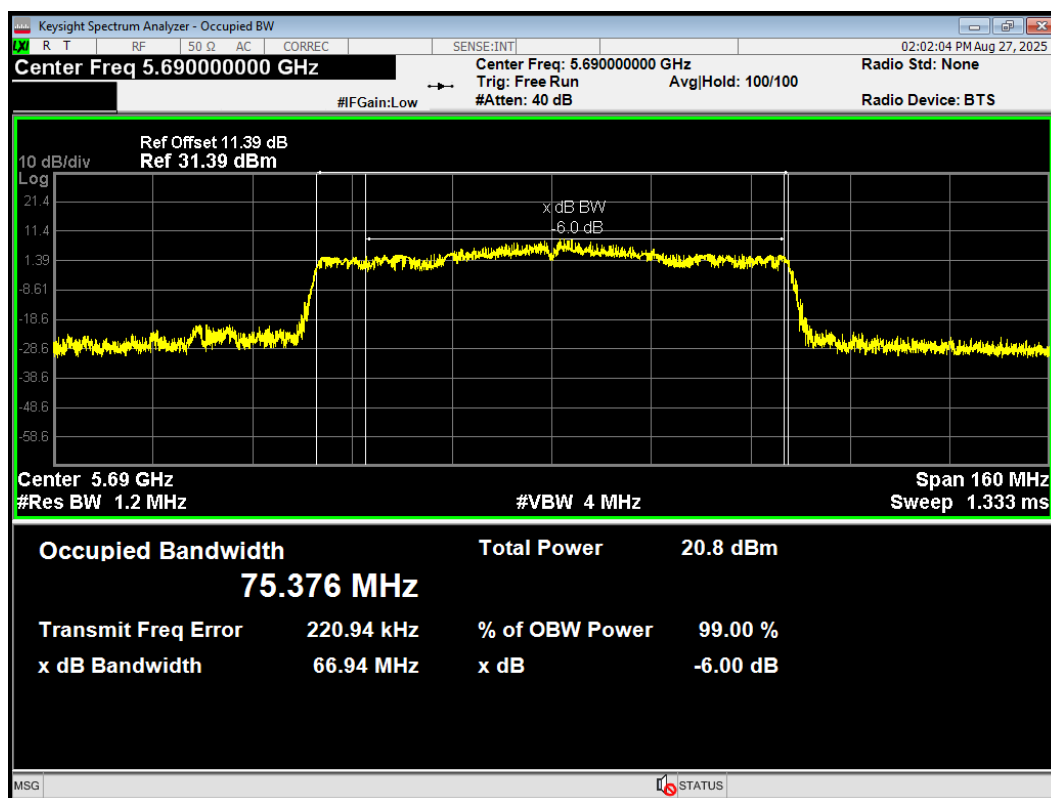
OBW 802.11ac(VHT40) 5755MHz



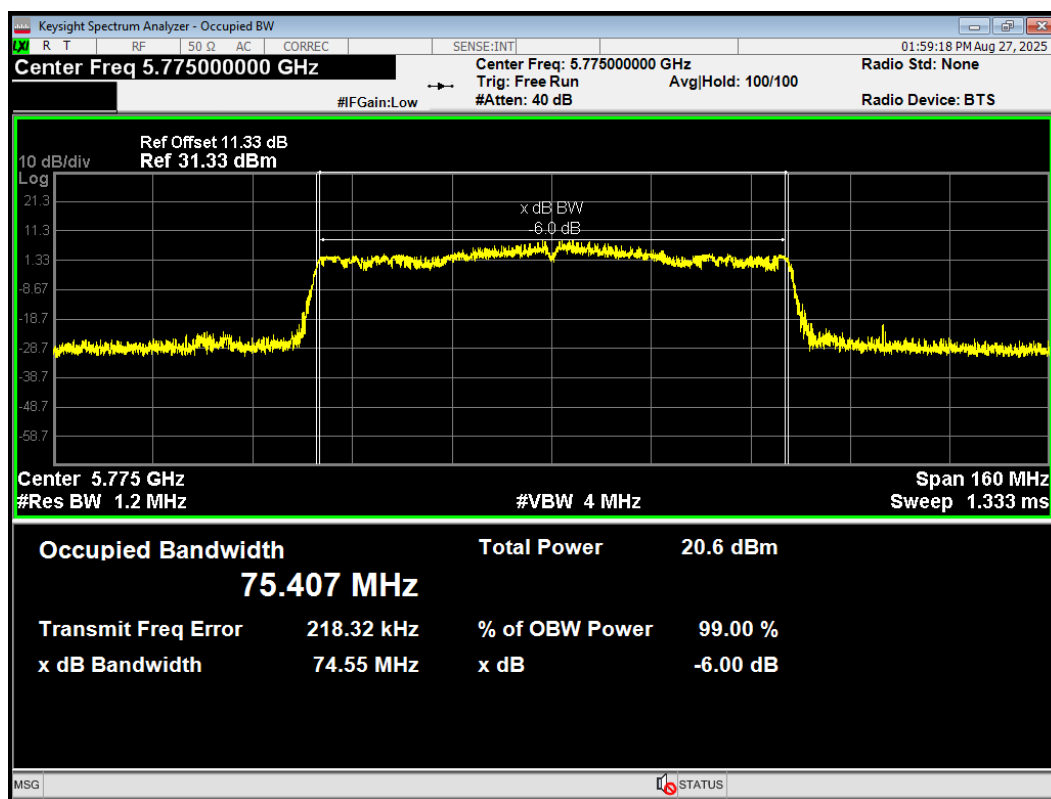
OBW 802.11ac(VHT40) 5795MHz



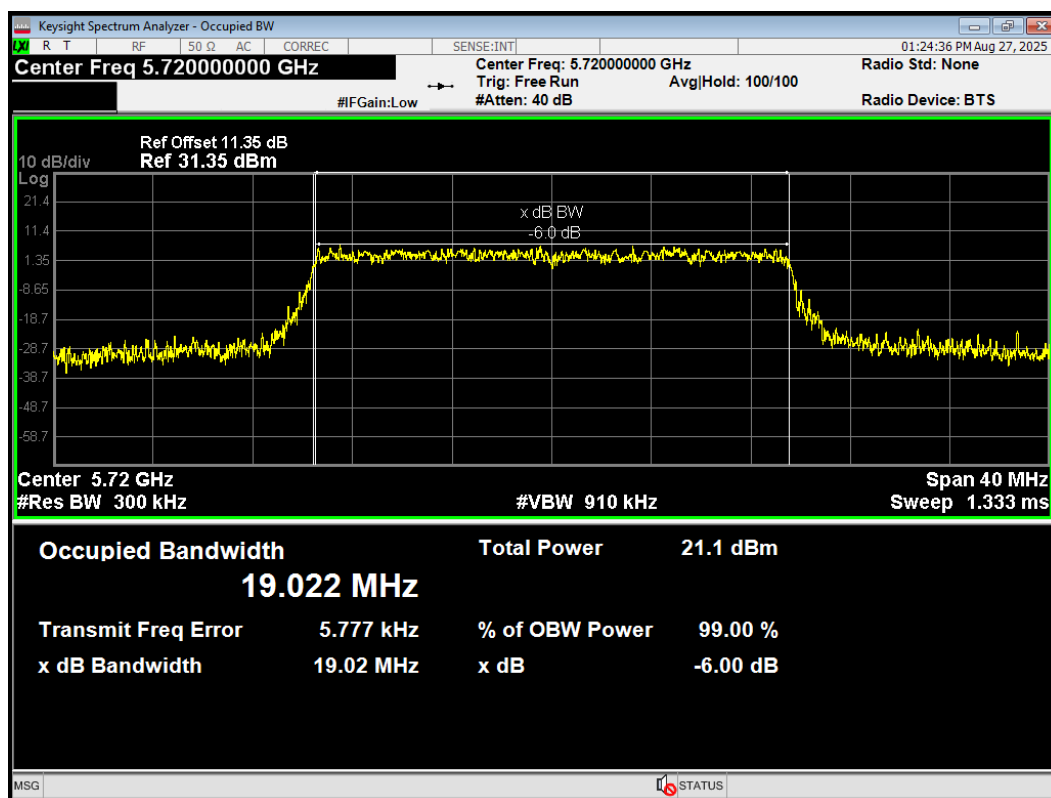
OBW 802.11ac(VHT80) 5690MHz



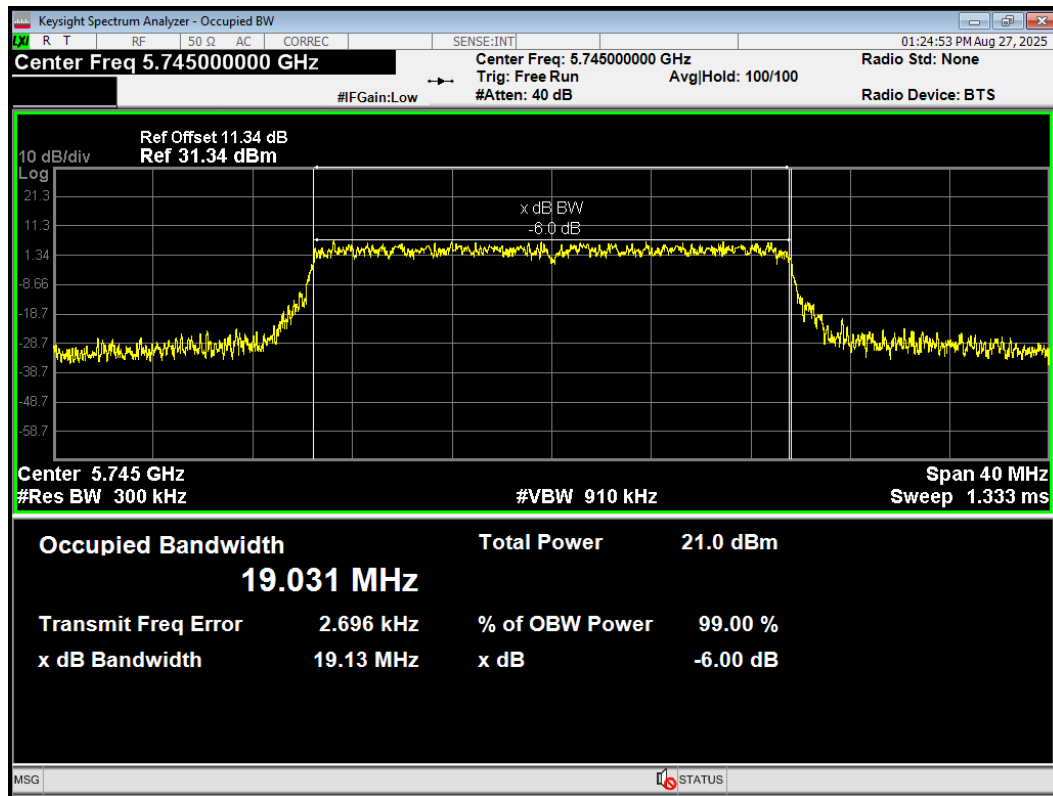
OBW 802.11ac(VHT80) 5775MHz



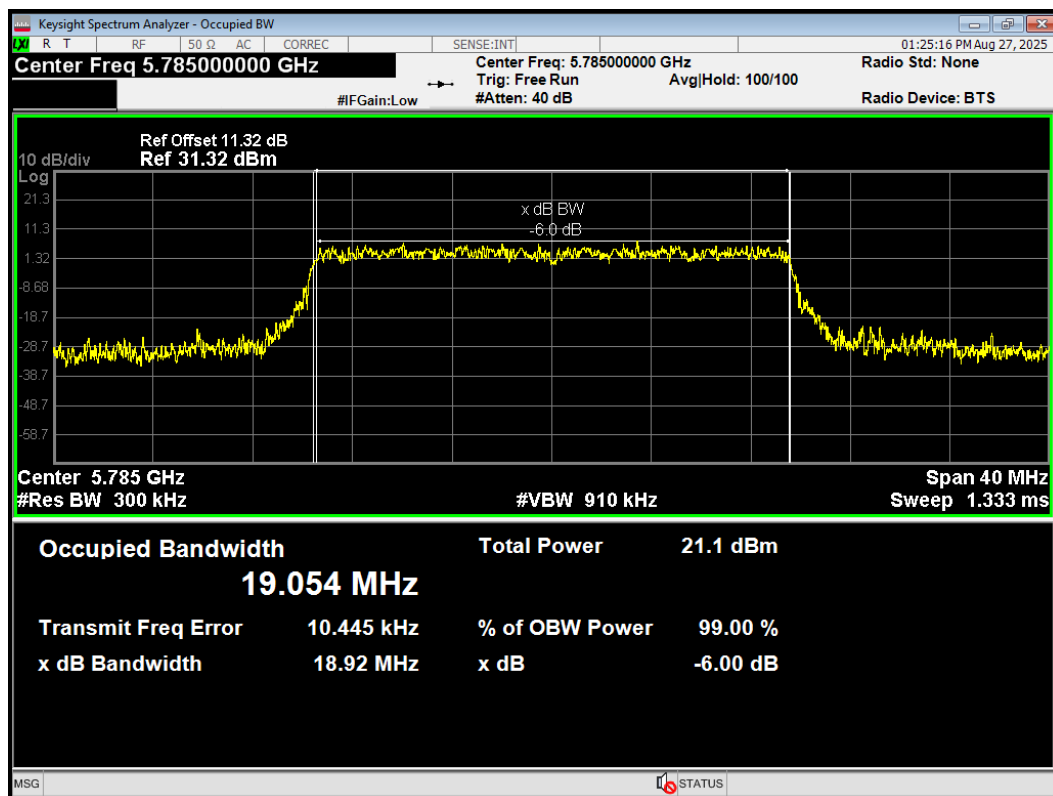
OBW 802.11ax(HE20) 5720MHz



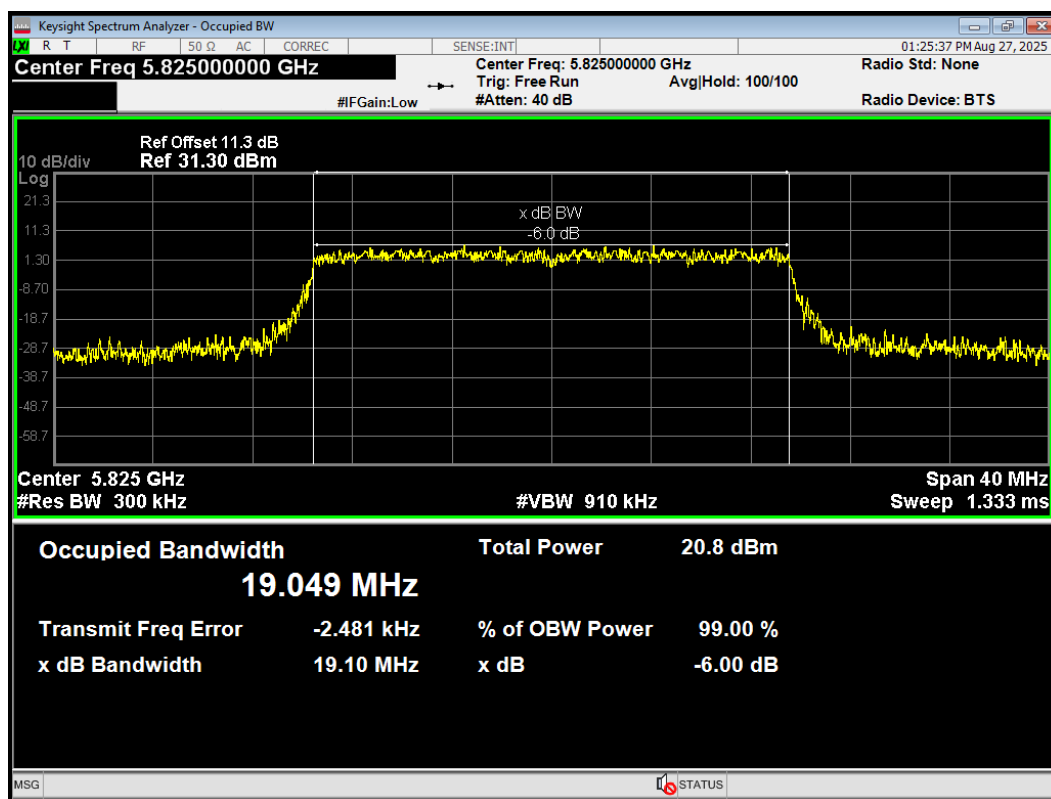
OBW 802.11ax(HE20) 5745MHz



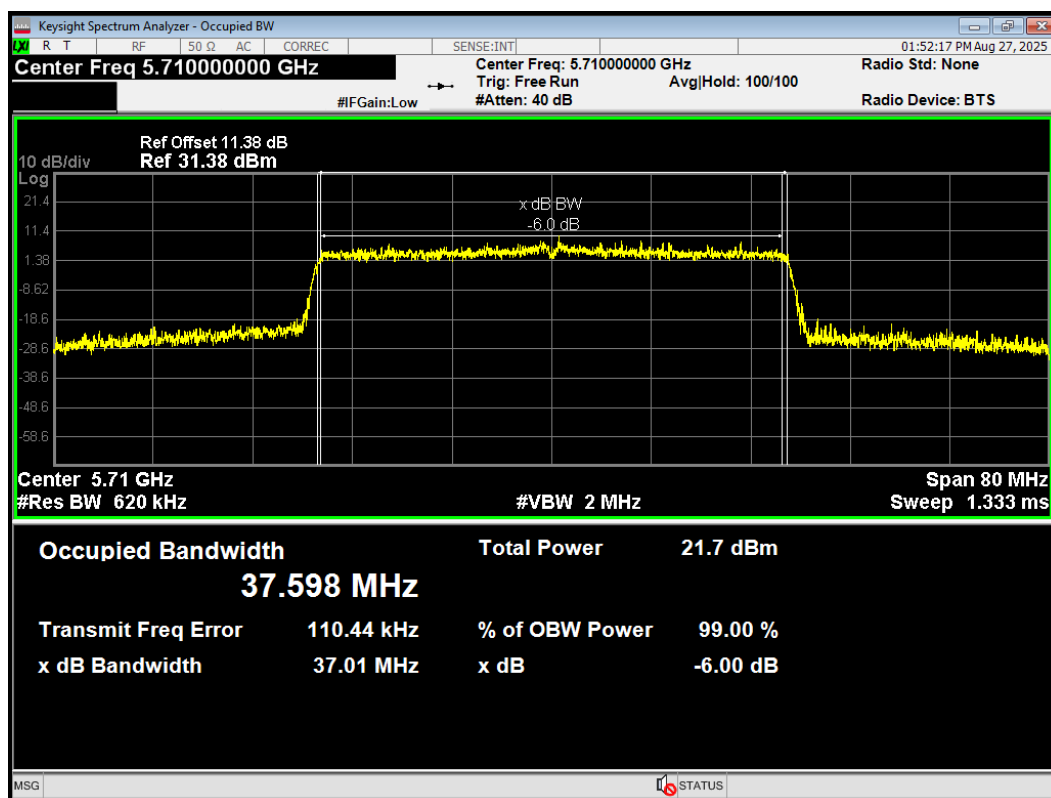
OBW 802.11ax(HE20) 5785MHz



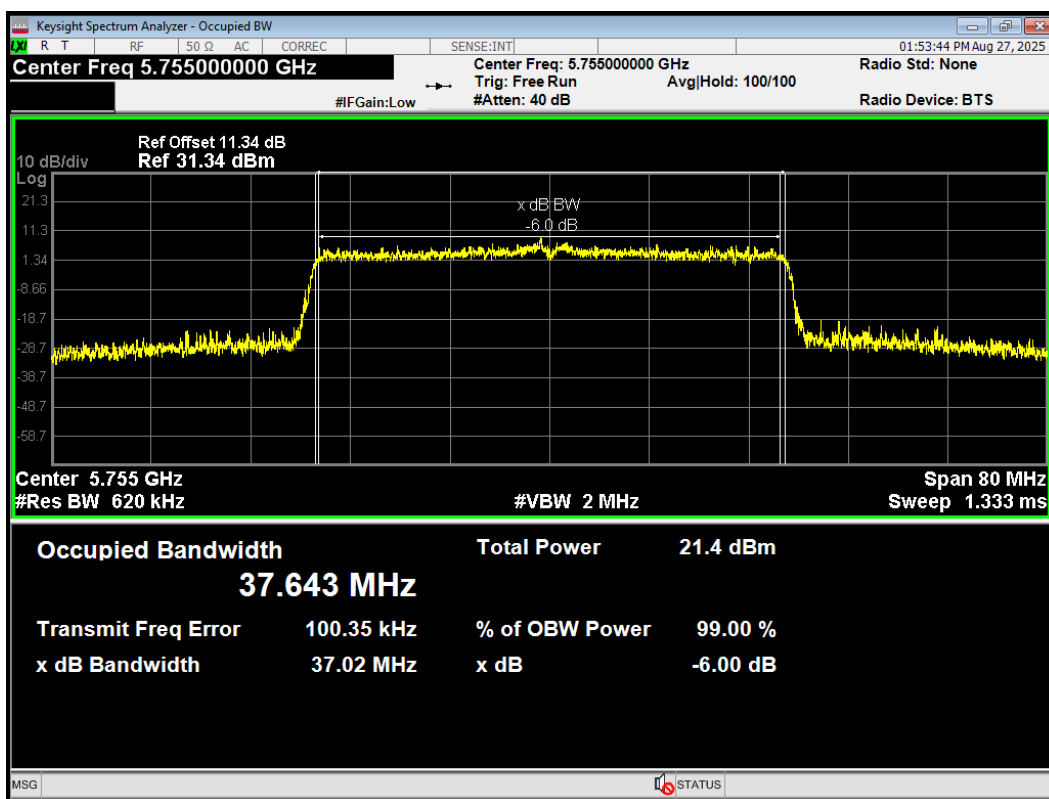
OBW 802.11ax(HE20) 5825MHz



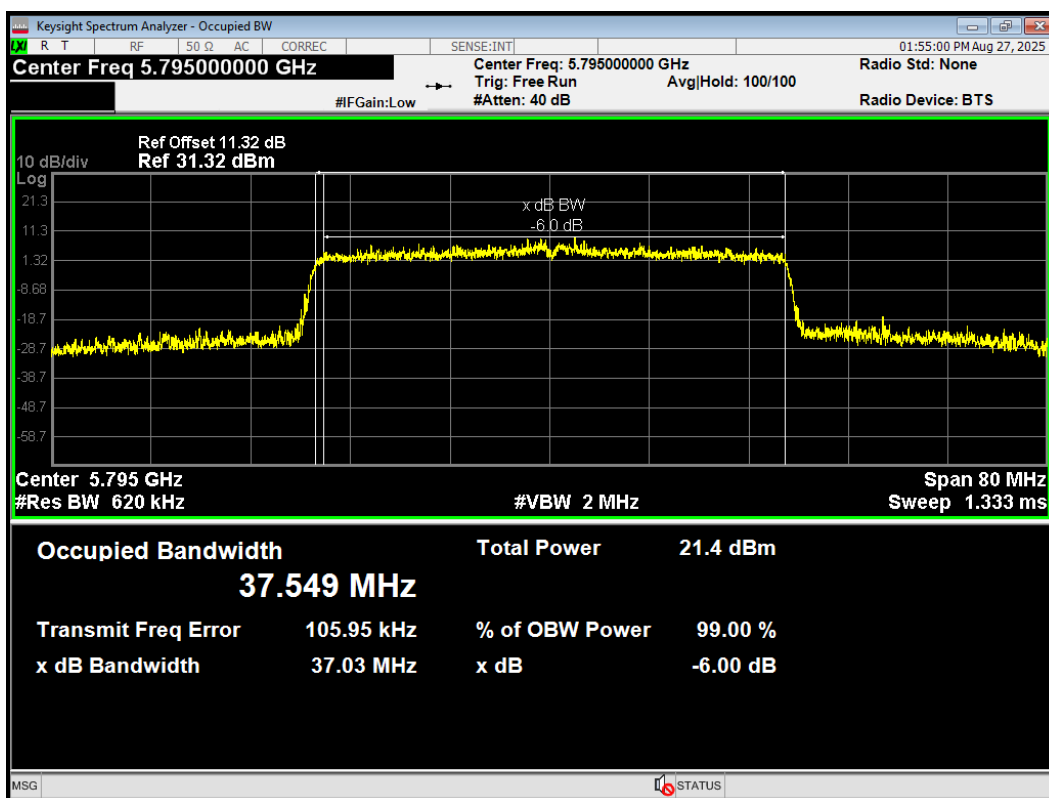
OBW 802.11ax(HE40) 5710MHz



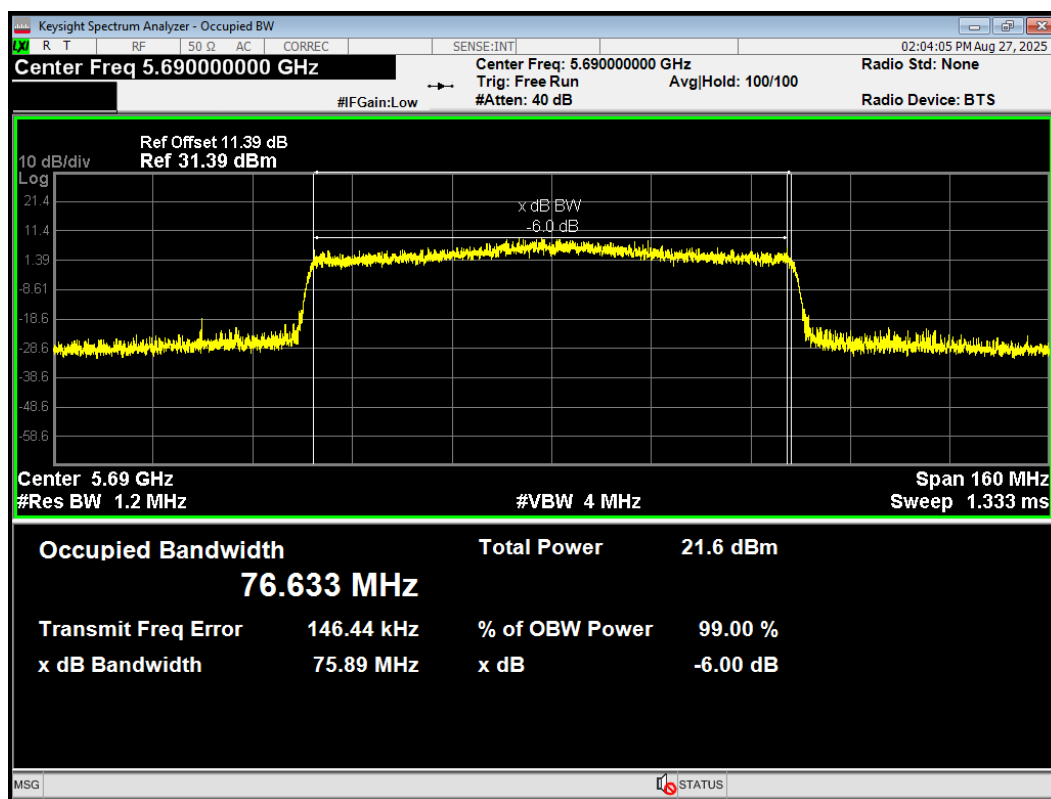
OBW 802.11ax(HE40) 5755MHz



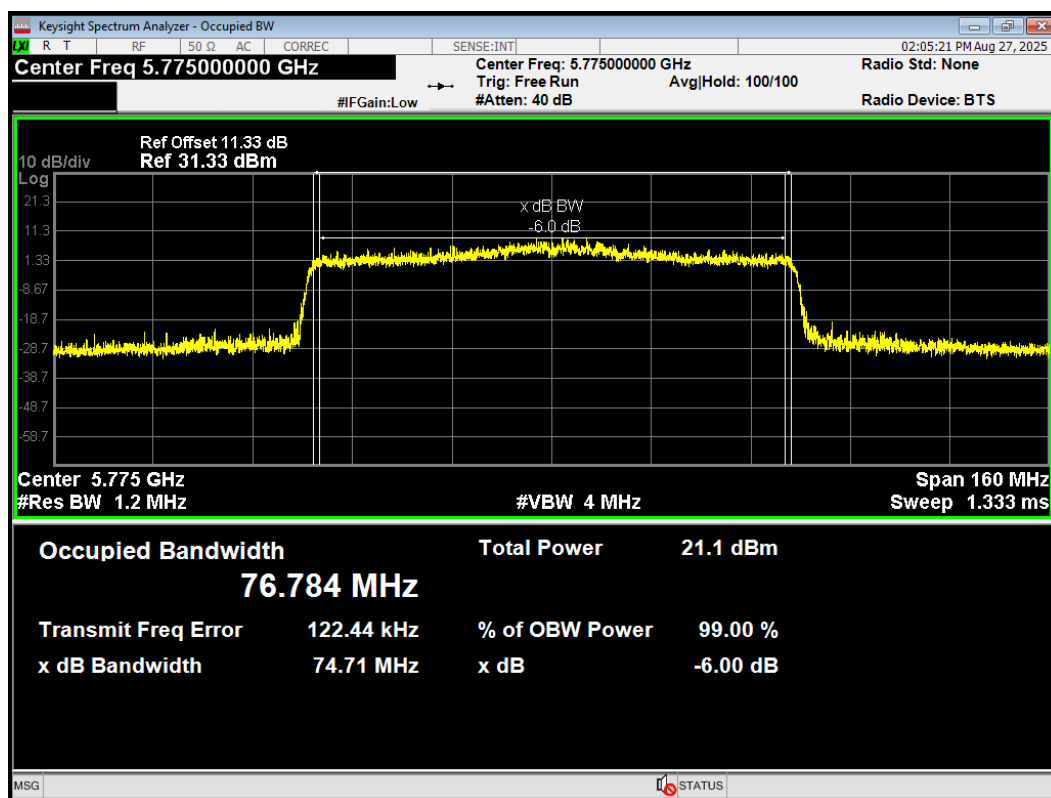
OBW 802.11ax(HE40) 5795MHz



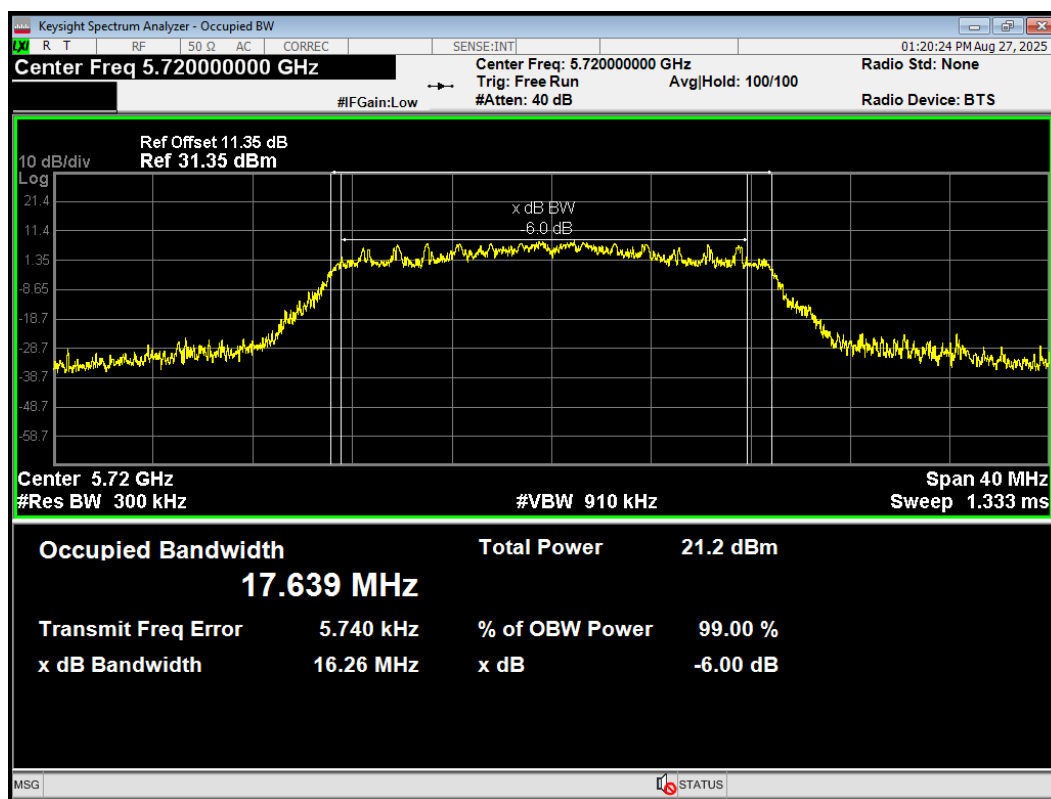
OBW 802.11ax(HE80) 5690MHz



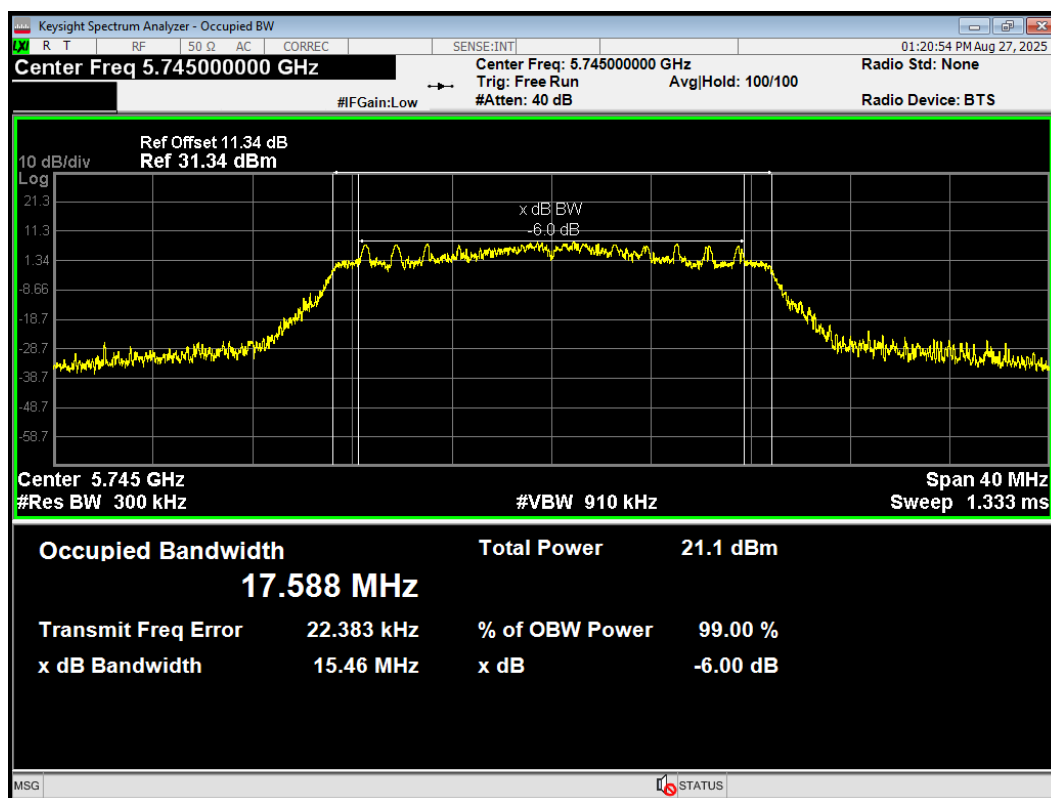
OBW 802.11ax(HE80) 5775MHz



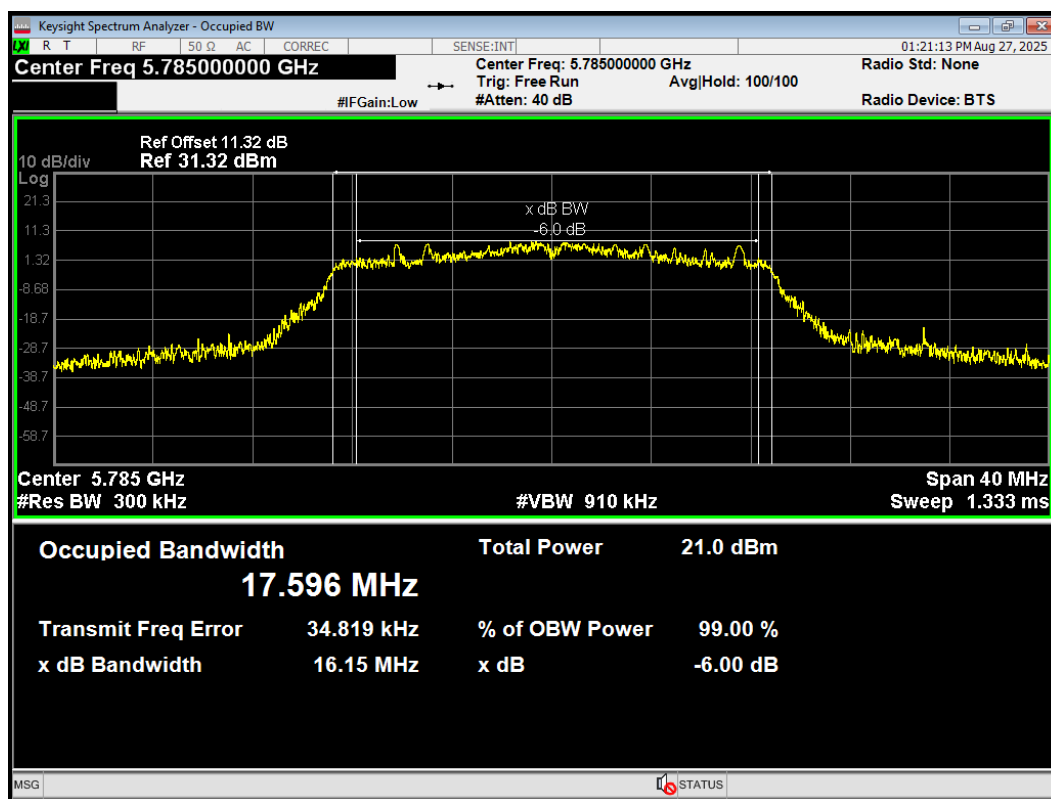
OBW 802.11n(HT20) 5720MHz



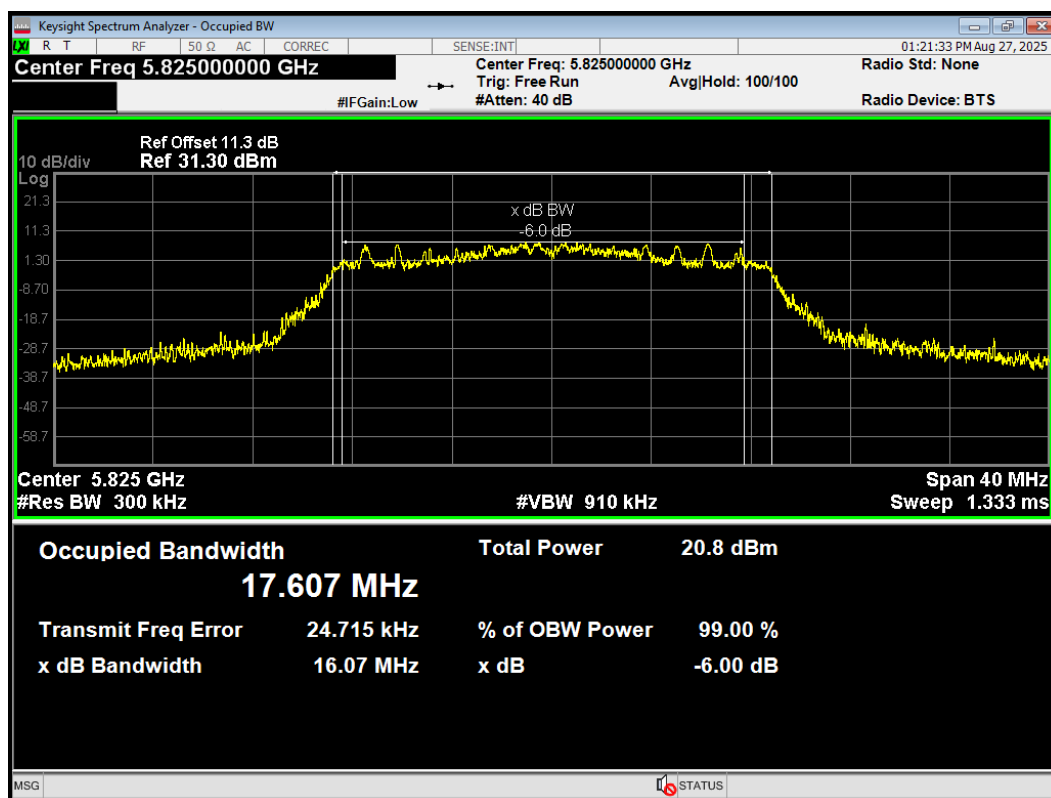
OBW 802.11n(HT20) 5745MHz



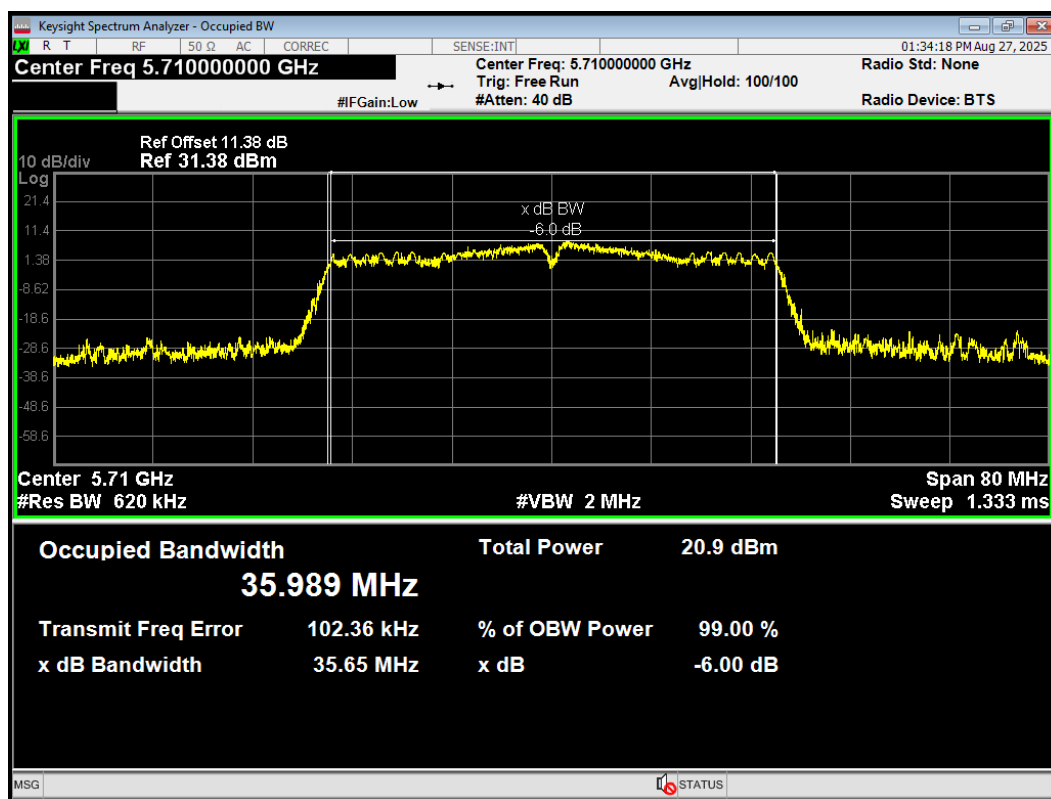
OBW 802.11n(HT20) 5785MHz



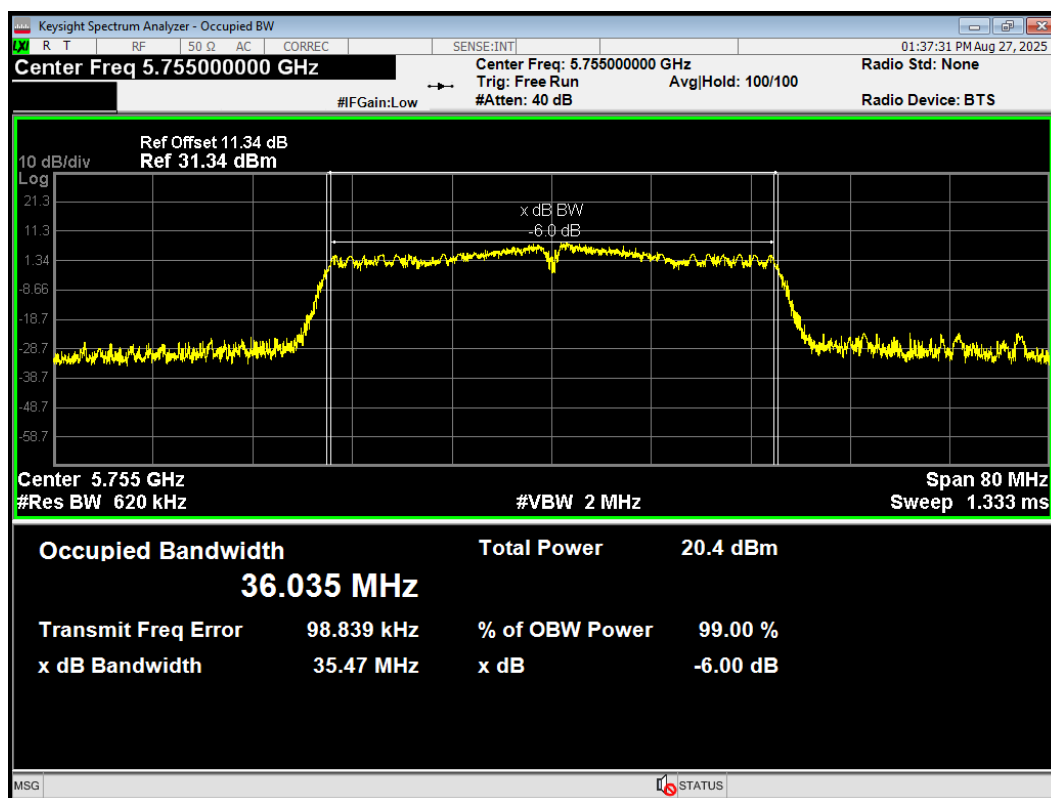
OBW 802.11n(HT20) 5825MHz



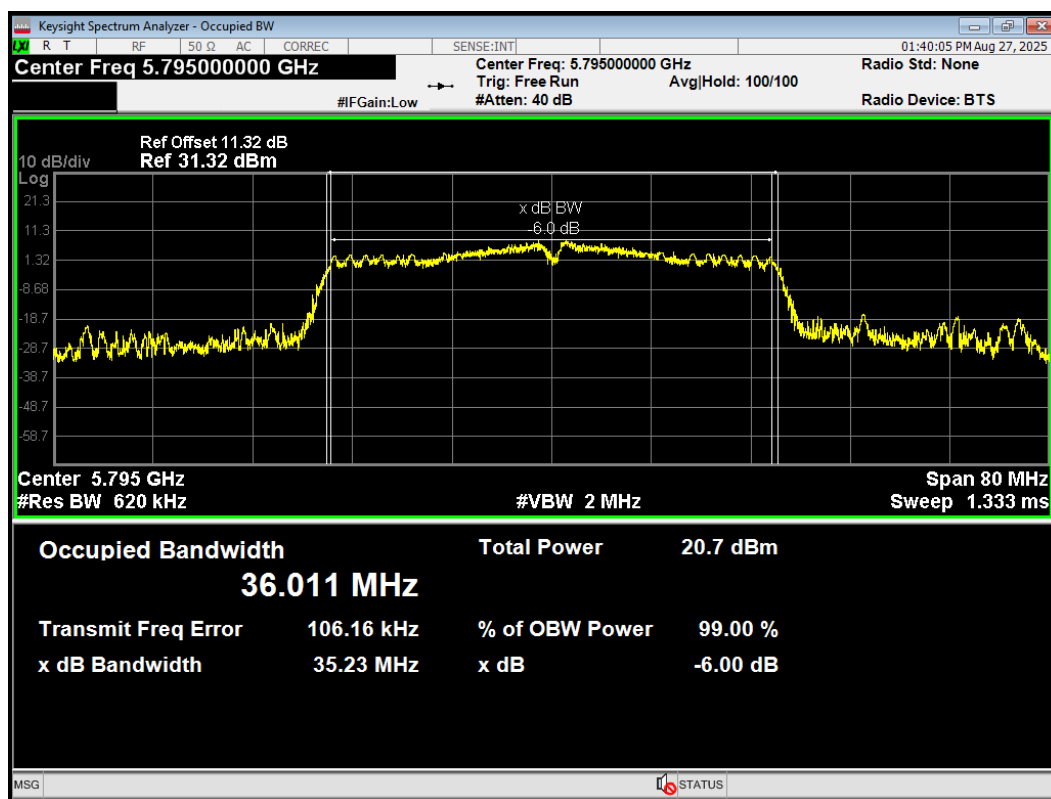
OBW 802.11n(HT40) 5710MHz



OBW 802.11n(HT40) 5755MHz

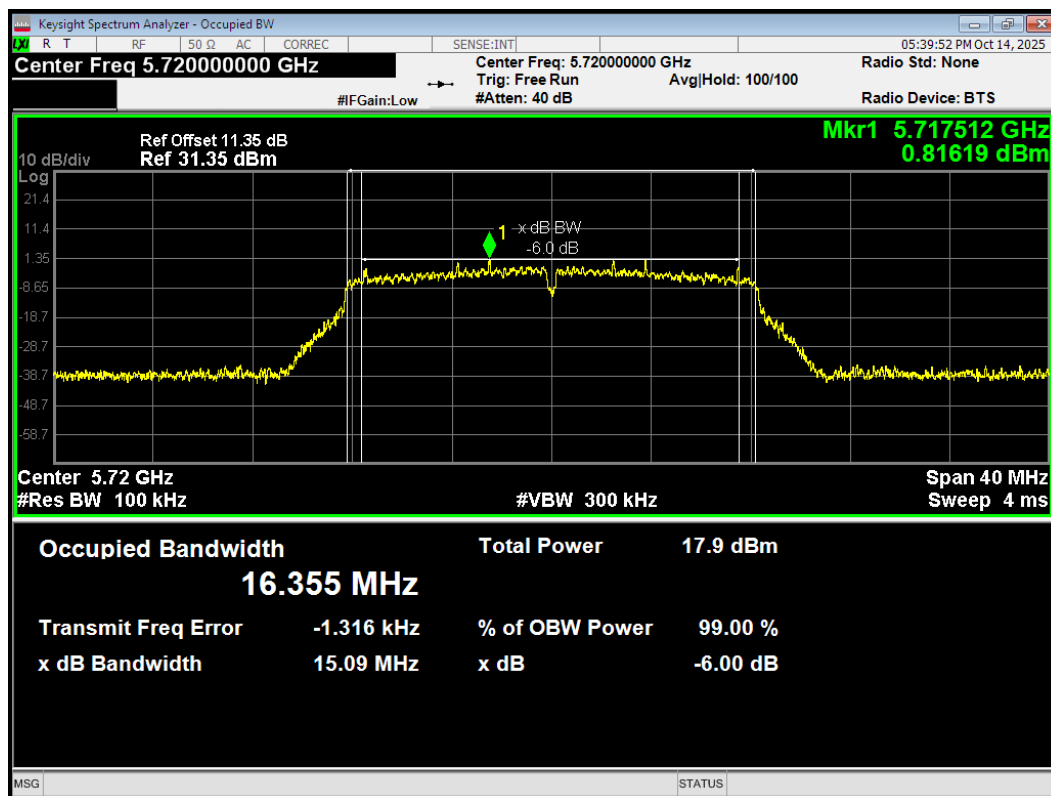


OBW 802.11n(HT40) 5795MHz

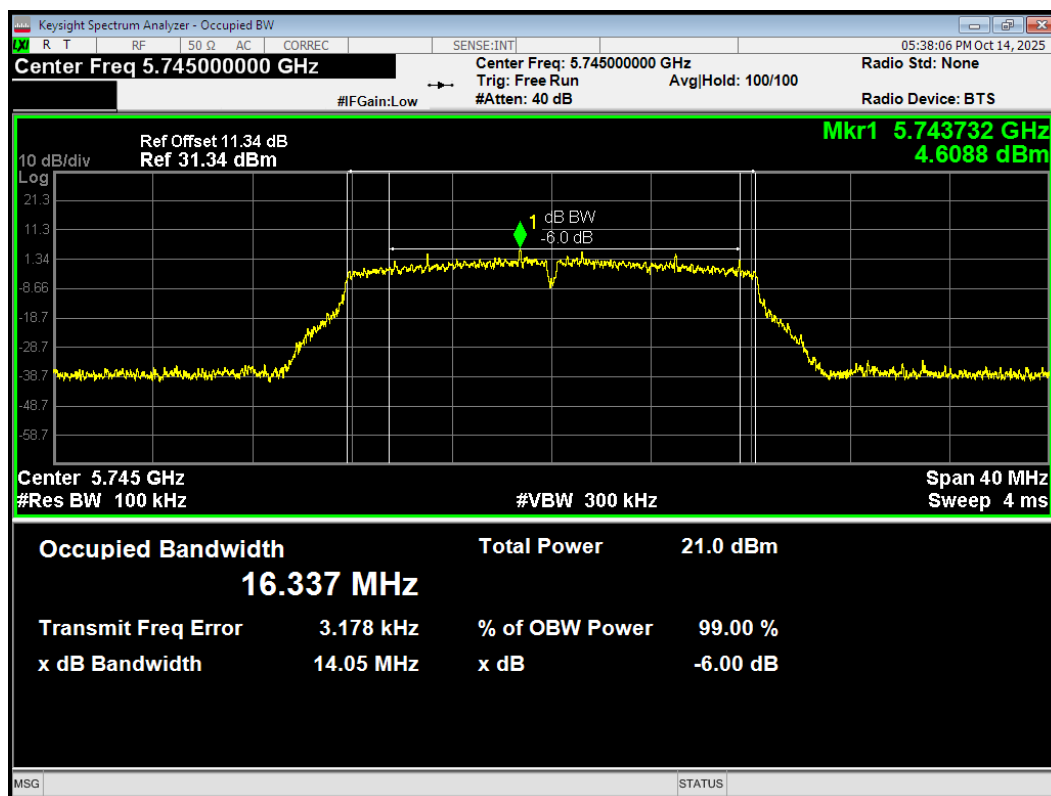


Minimum 6 dB bandwidth

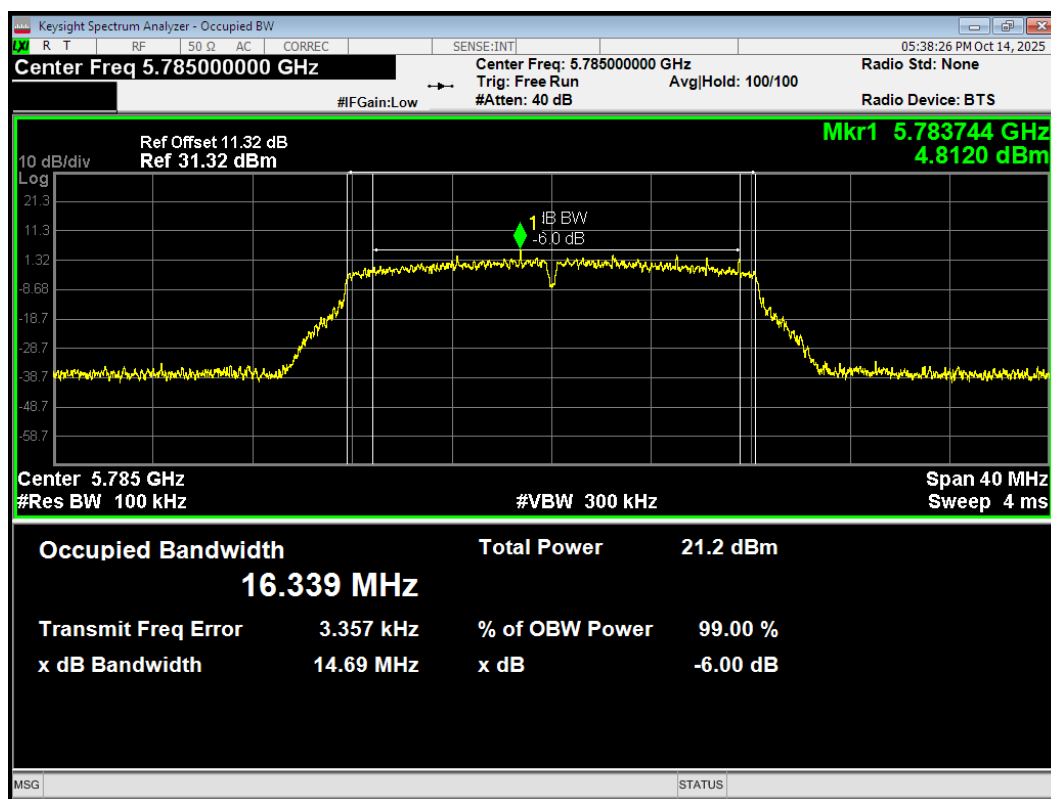
-6dB Bandwidth 802.11a 5720MHz



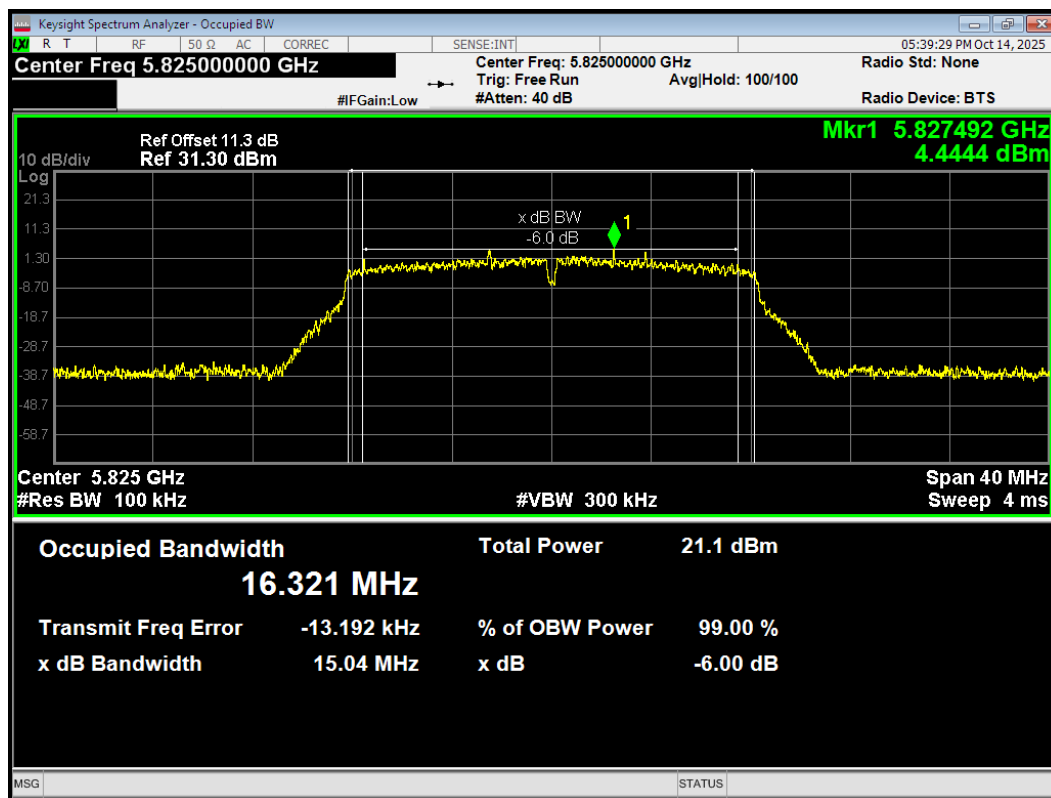
-6dB Bandwidth 802.11a 5745MHz



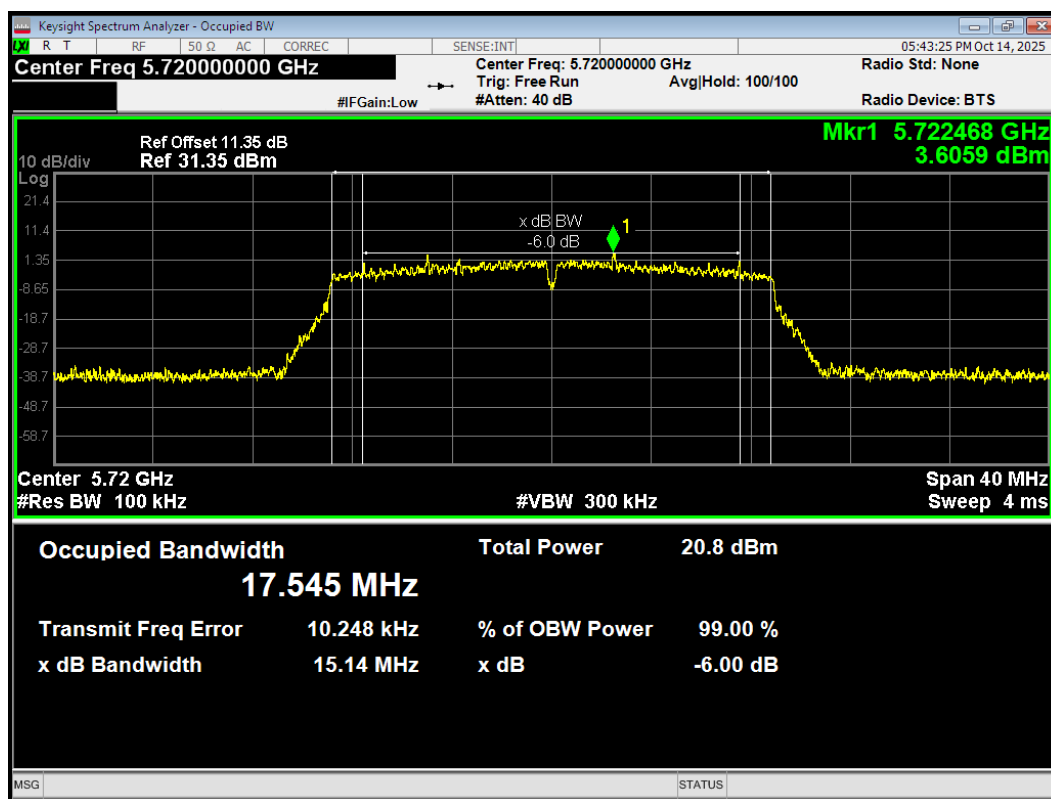
-6dB Bandwidth 802.11a 5785MHz



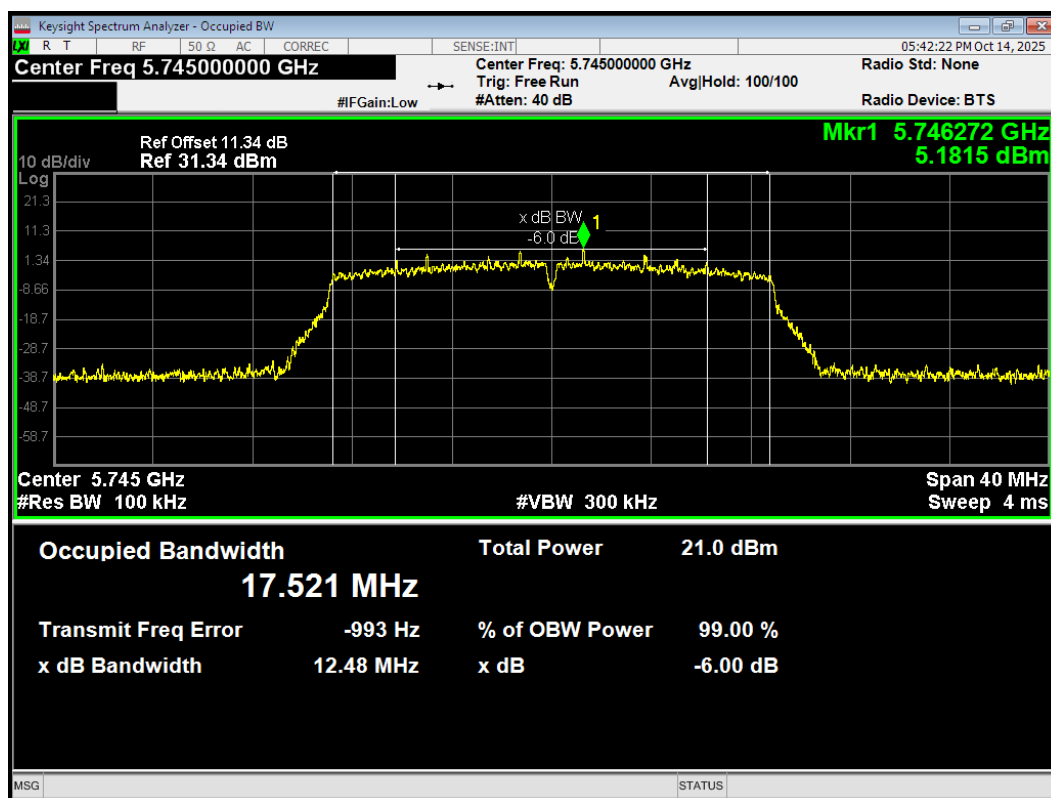
-6dB Bandwidth 802.11a 5825MHz



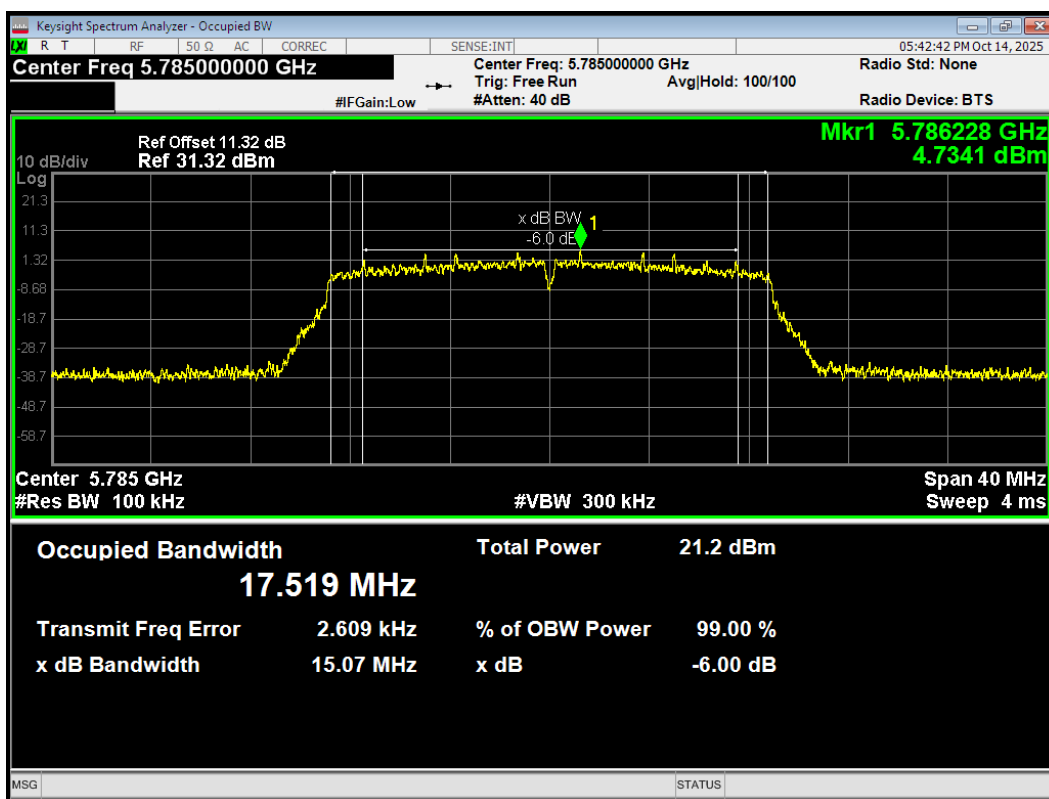
-6dB Bandwidth 802.11ac(VHT20) 5720MHz



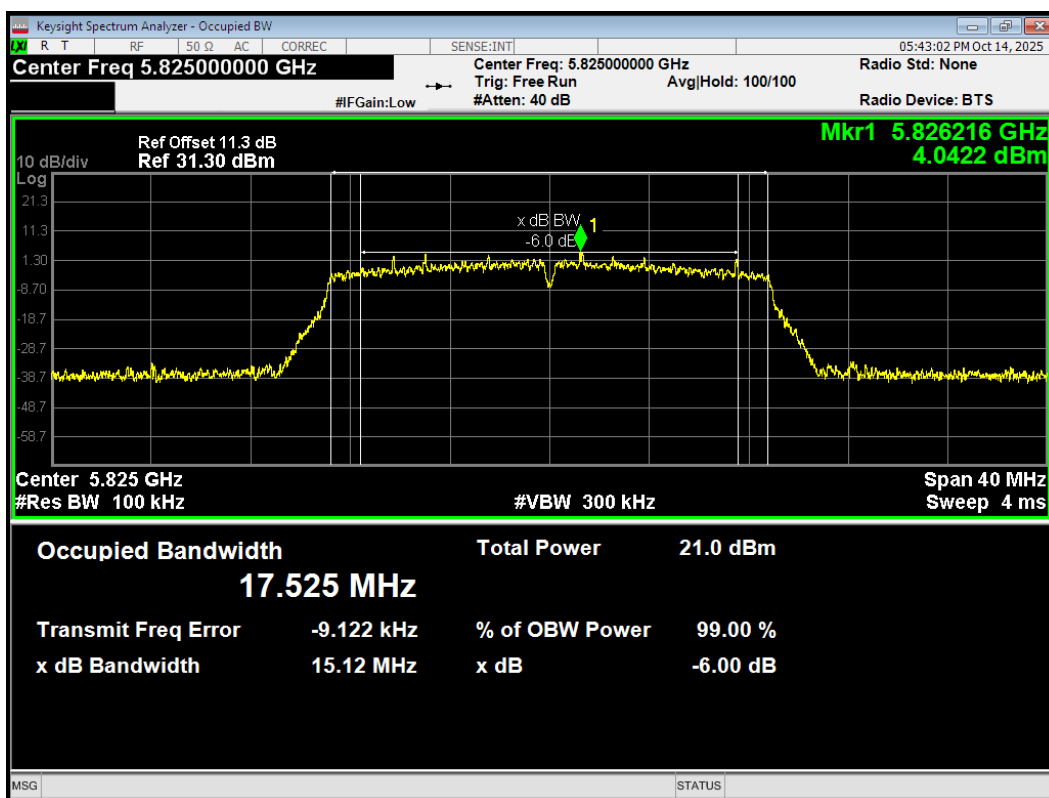
-6dB Bandwidth 802.11ac(VHT20) 5745MHz



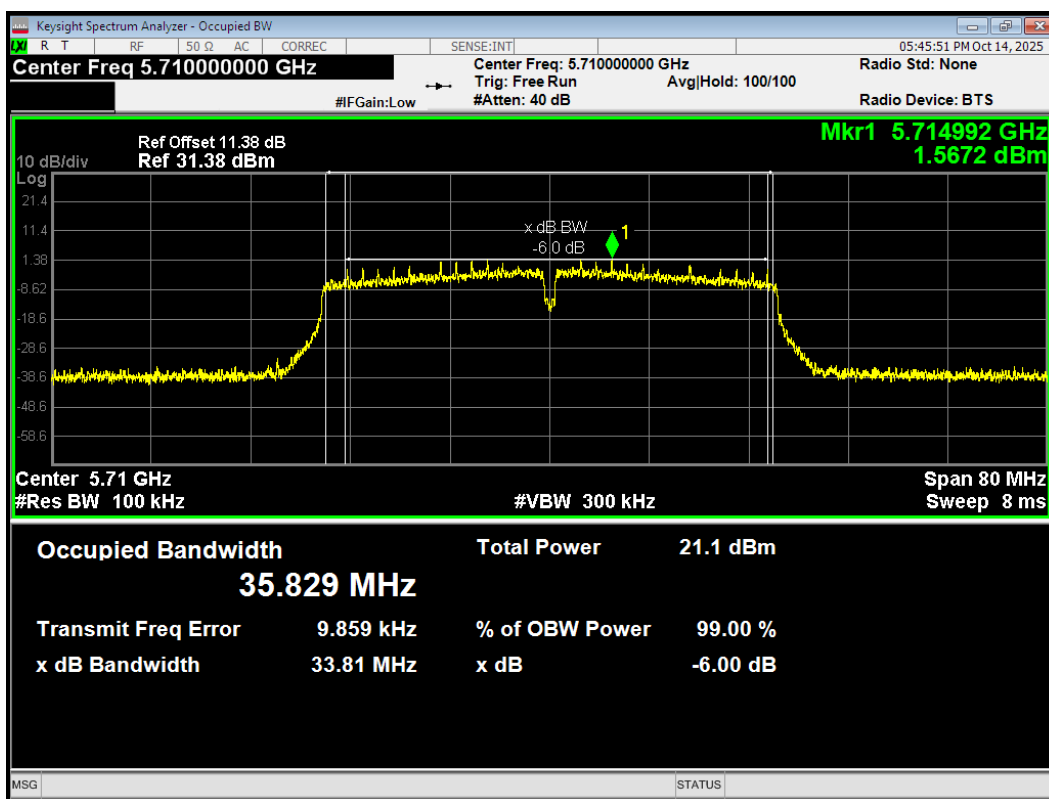
-6dB Bandwidth 802.11ac(VHT20) 5785MHz



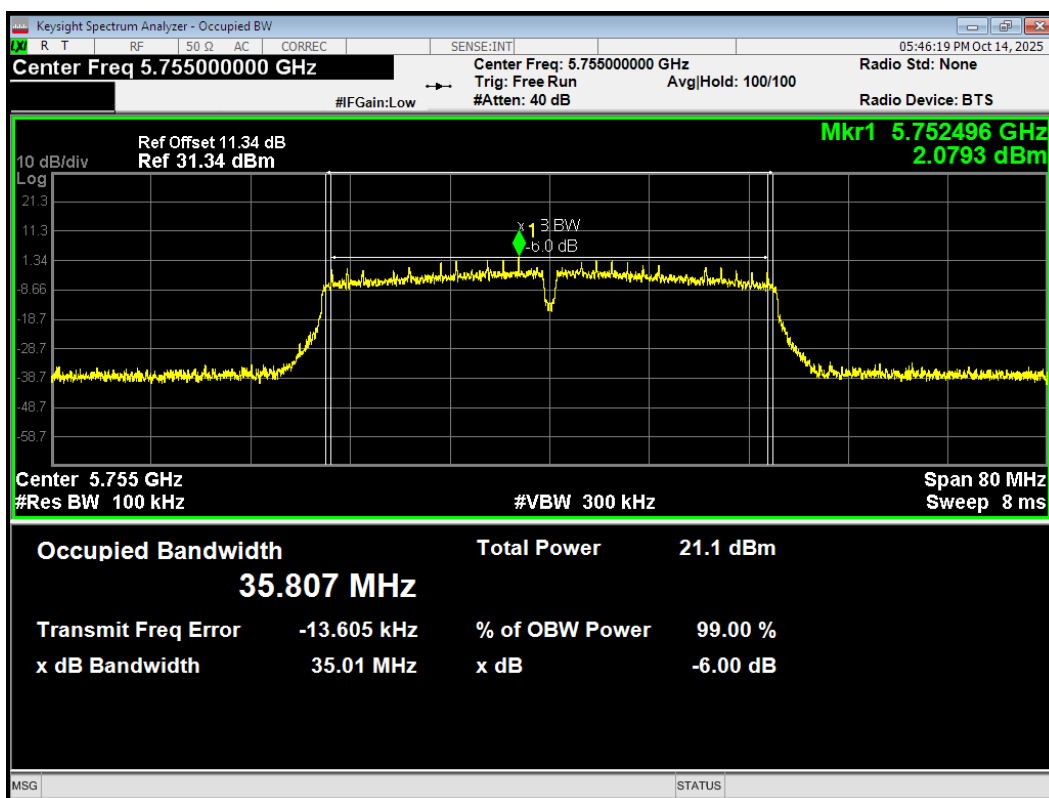
-6dB Bandwidth 802.11ac(VHT20) 5825MHz



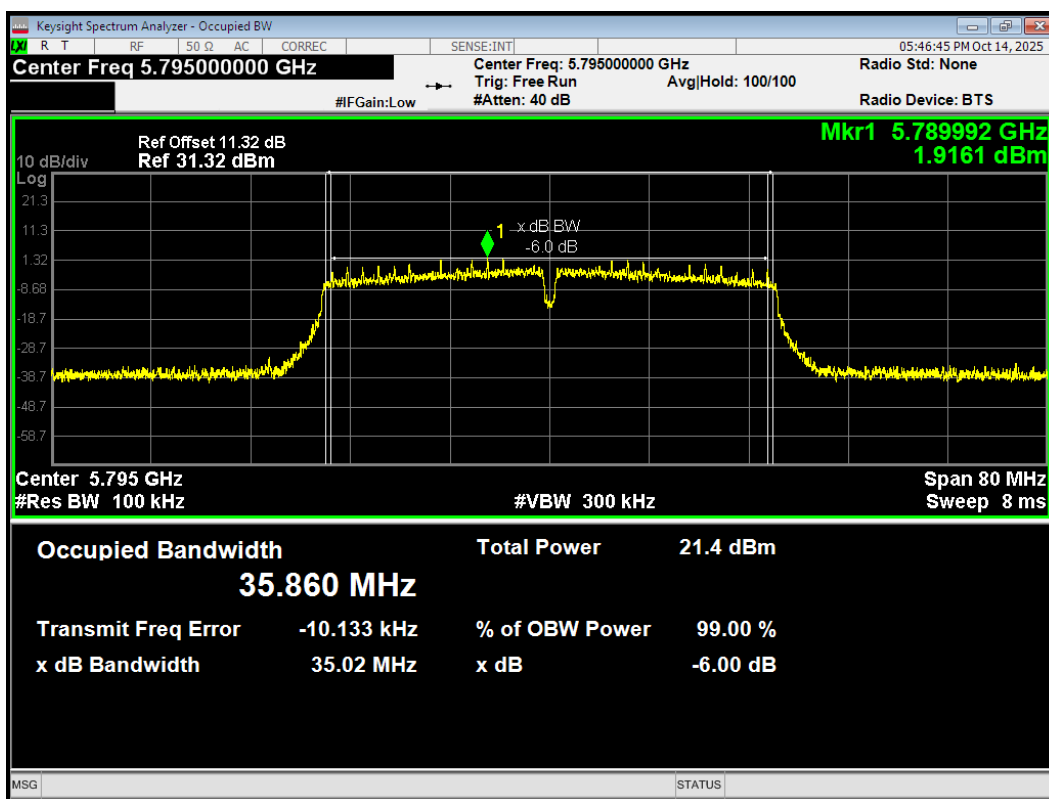
-6dB Bandwidth 802.11ac(VHT40) 5710MHz



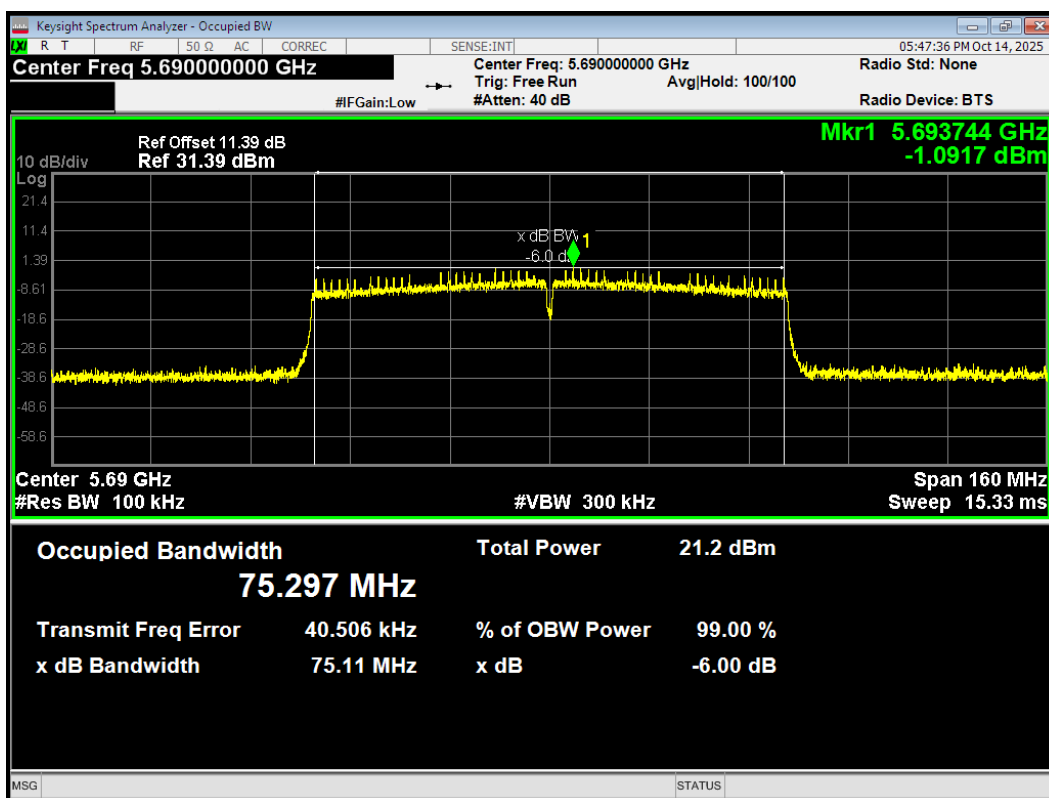
-6dB Bandwidth 802.11ac(VHT40) 5755MHz



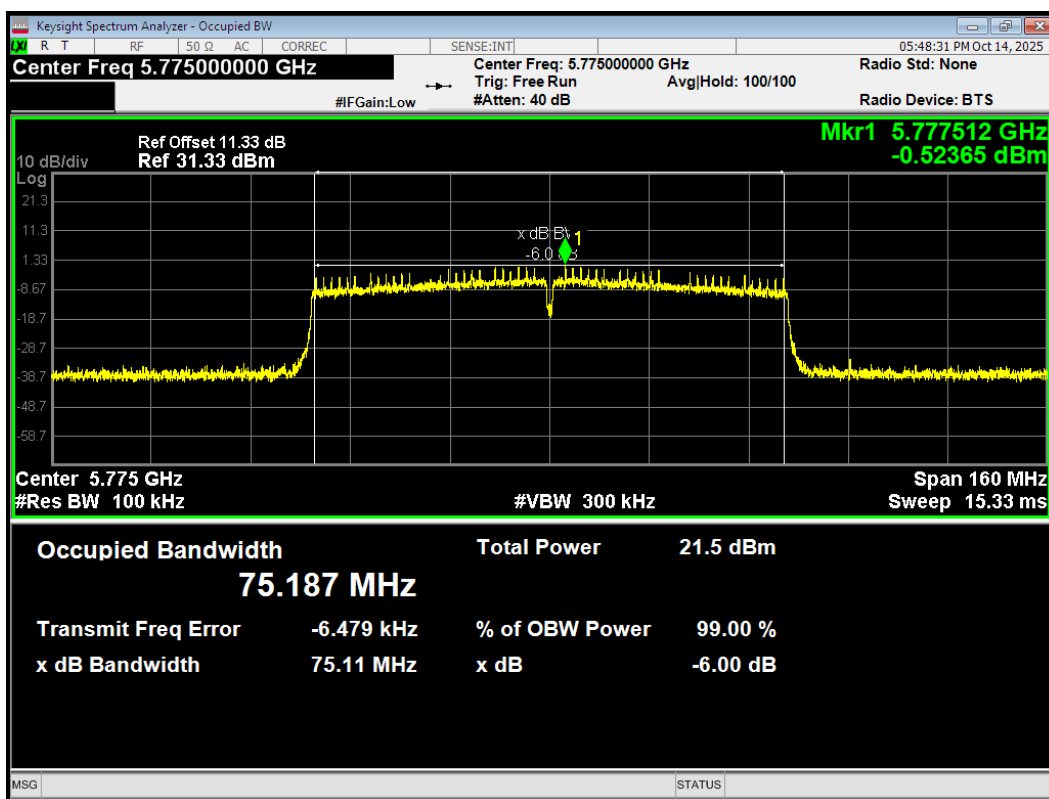
-6dB Bandwidth 802.11ac(VHT40) 5795MHz



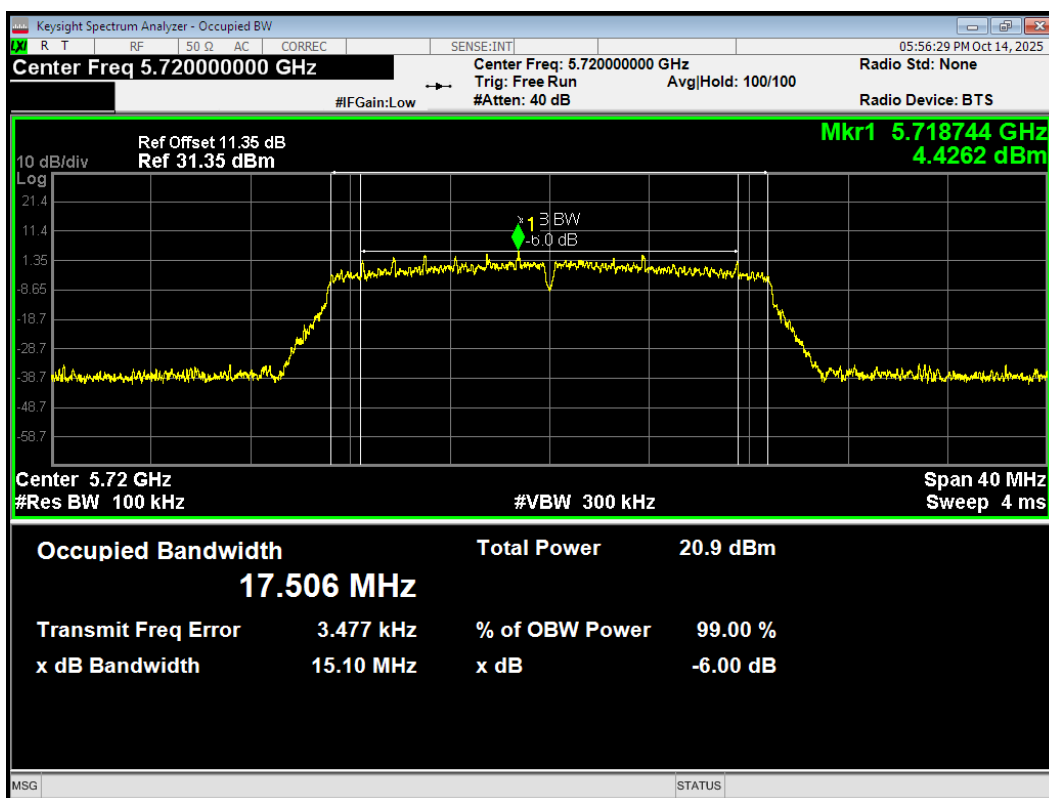
-6dB Bandwidth 802.11ac(VHT80) 5690MHz



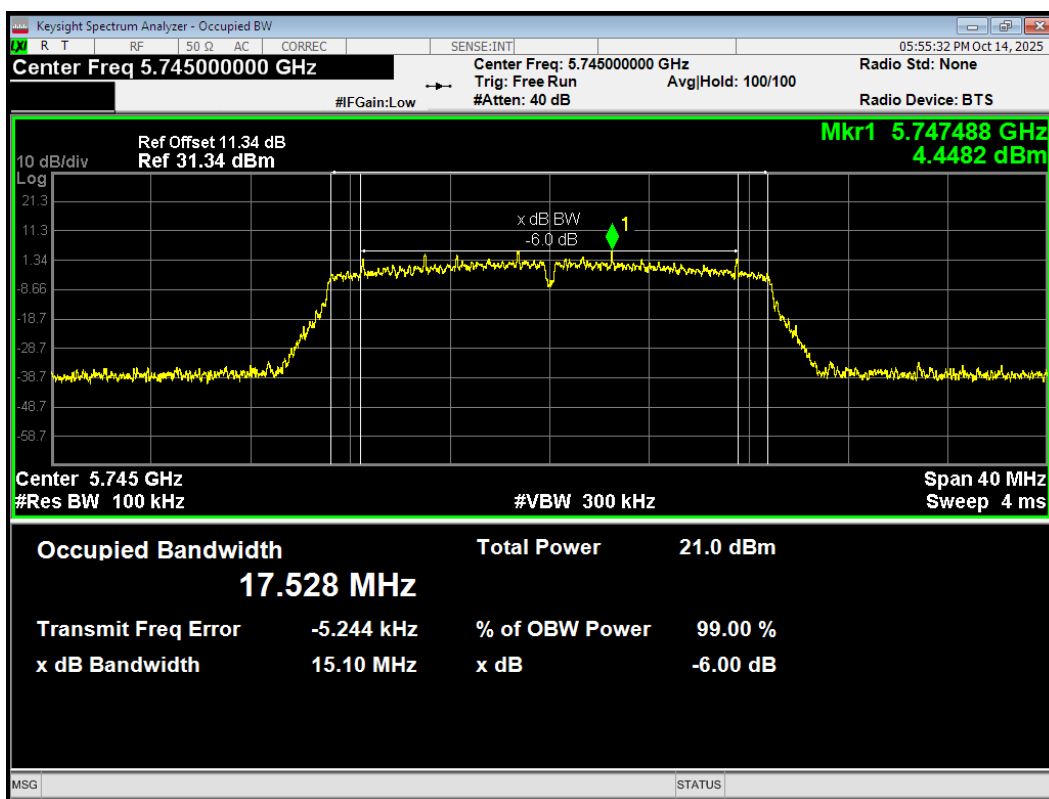
-6dB Bandwidth 802.11ac(VHT80) 5775MHz



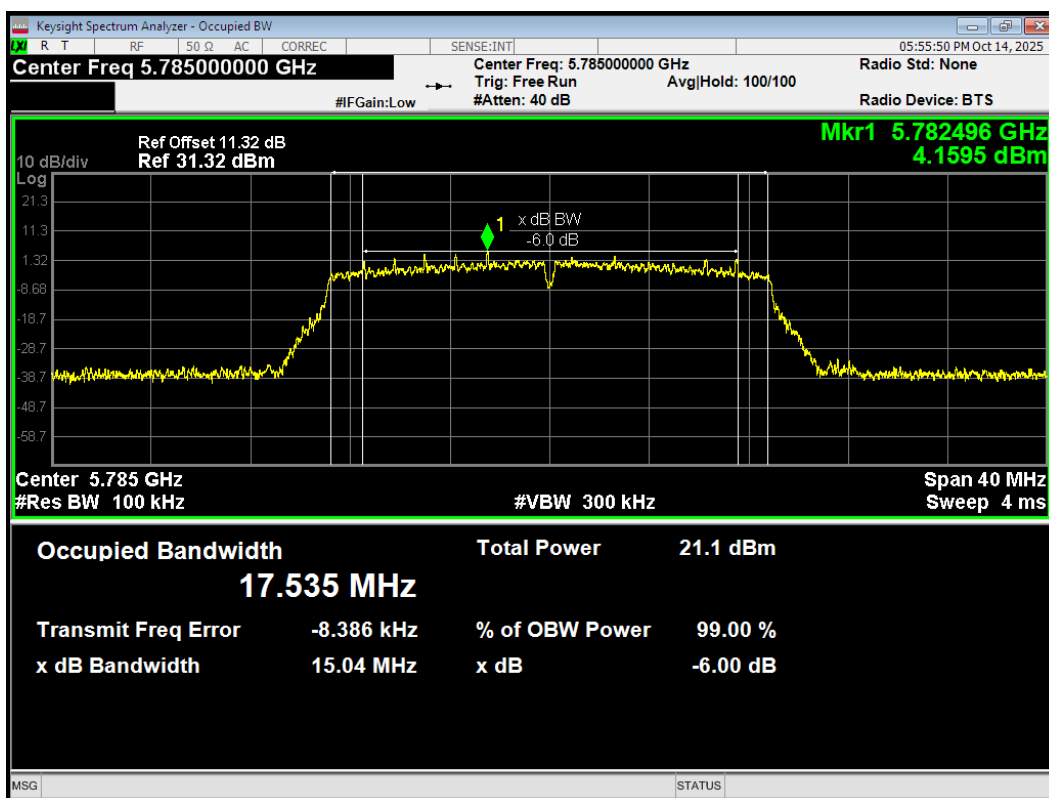
-6dB Bandwidth 802.11ax(HE20) 5720MHz



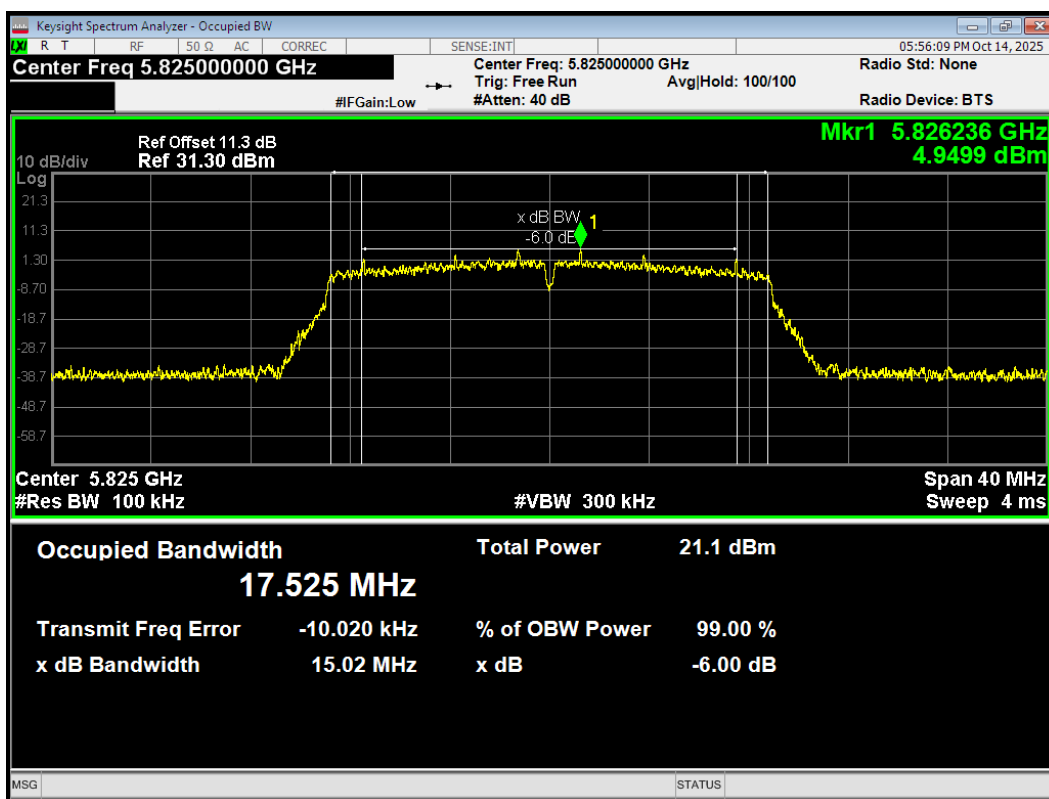
-6dB Bandwidth 802.11ax(HE20) 5745MHz



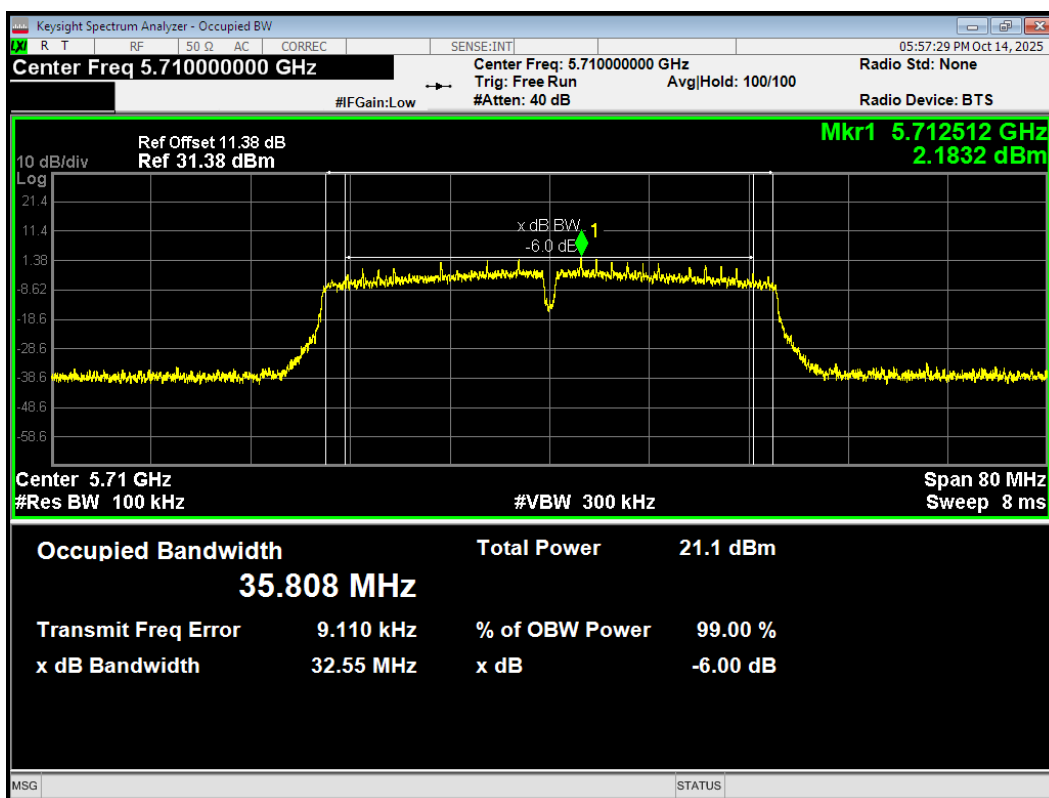
-6dB Bandwidth 802.11ax(HE20) 5785MHz



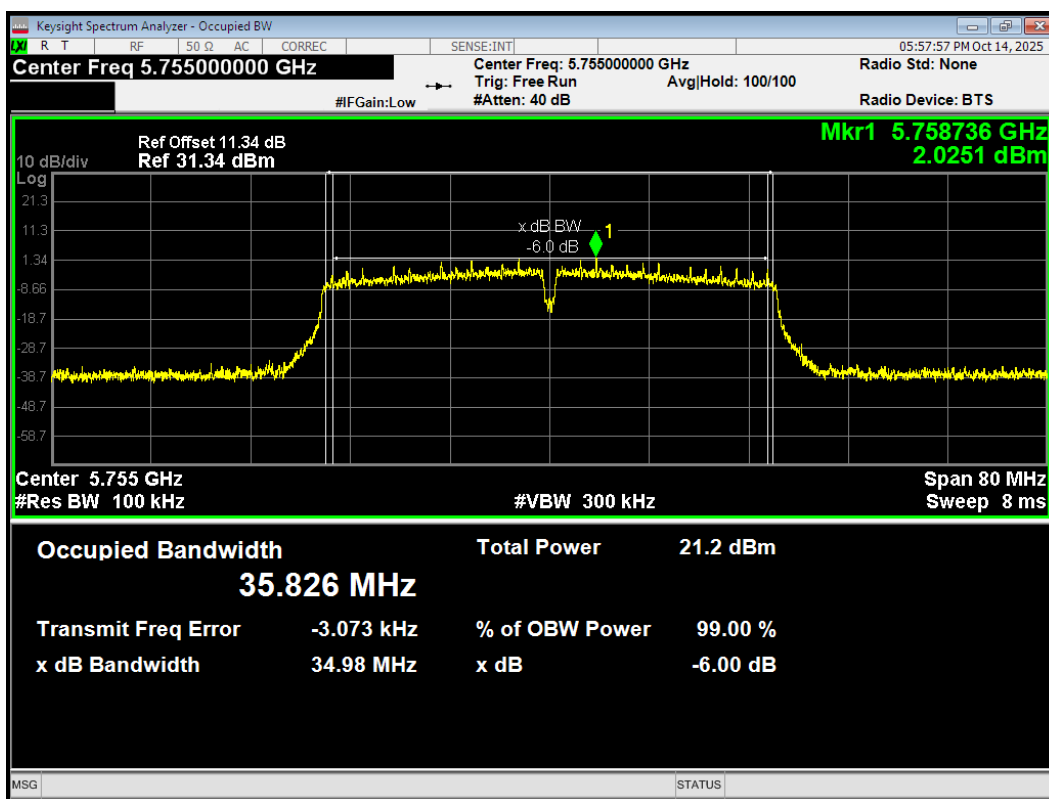
-6dB Bandwidth 802.11ax(HE20) 5825MHz



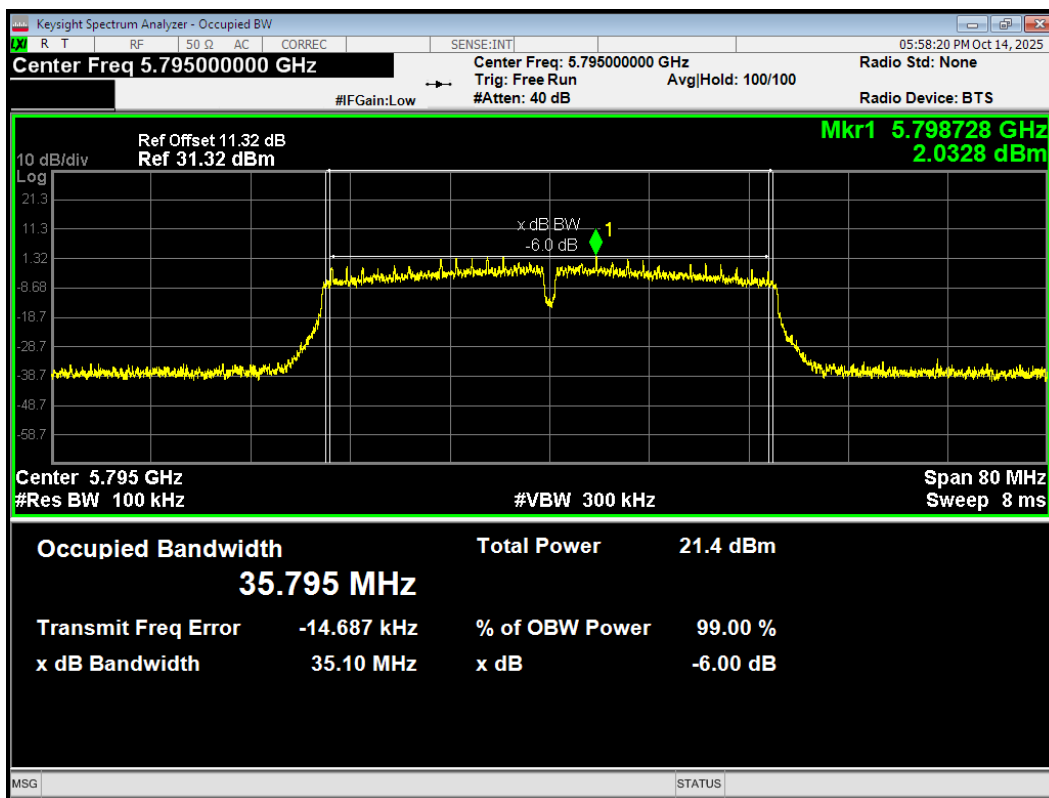
-6dB Bandwidth 802.11ax(HE40) 5710MHz



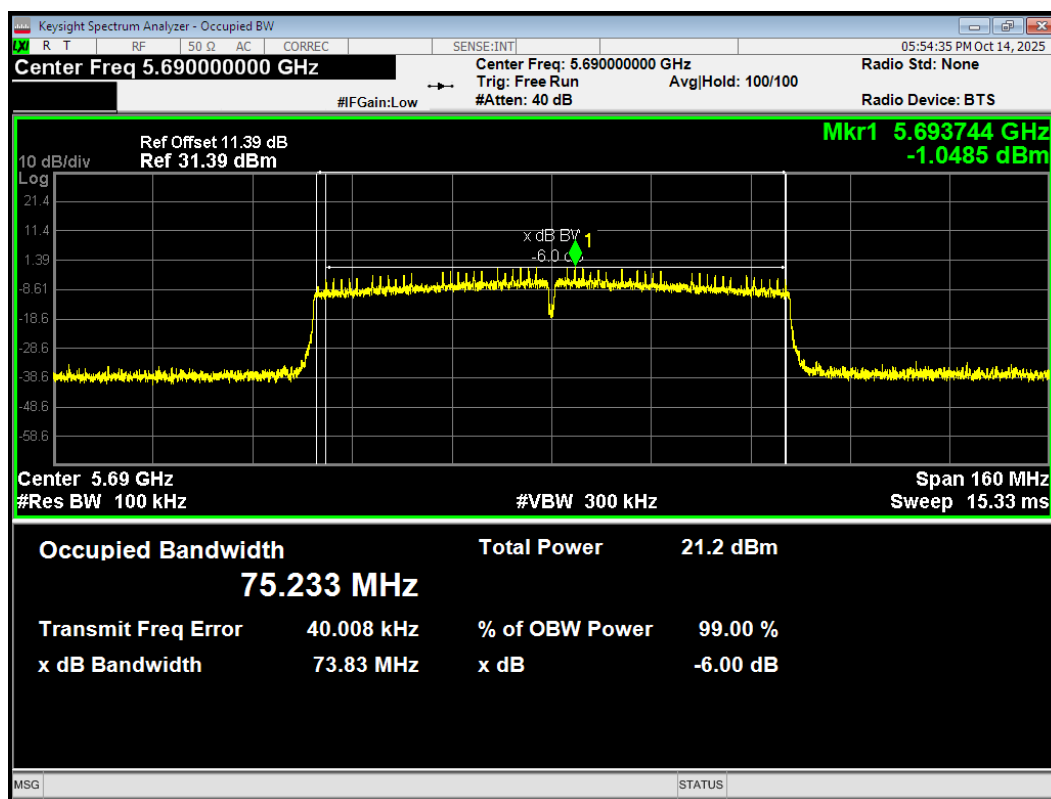
-6dB Bandwidth 802.11ax(HE40) 5755MHz



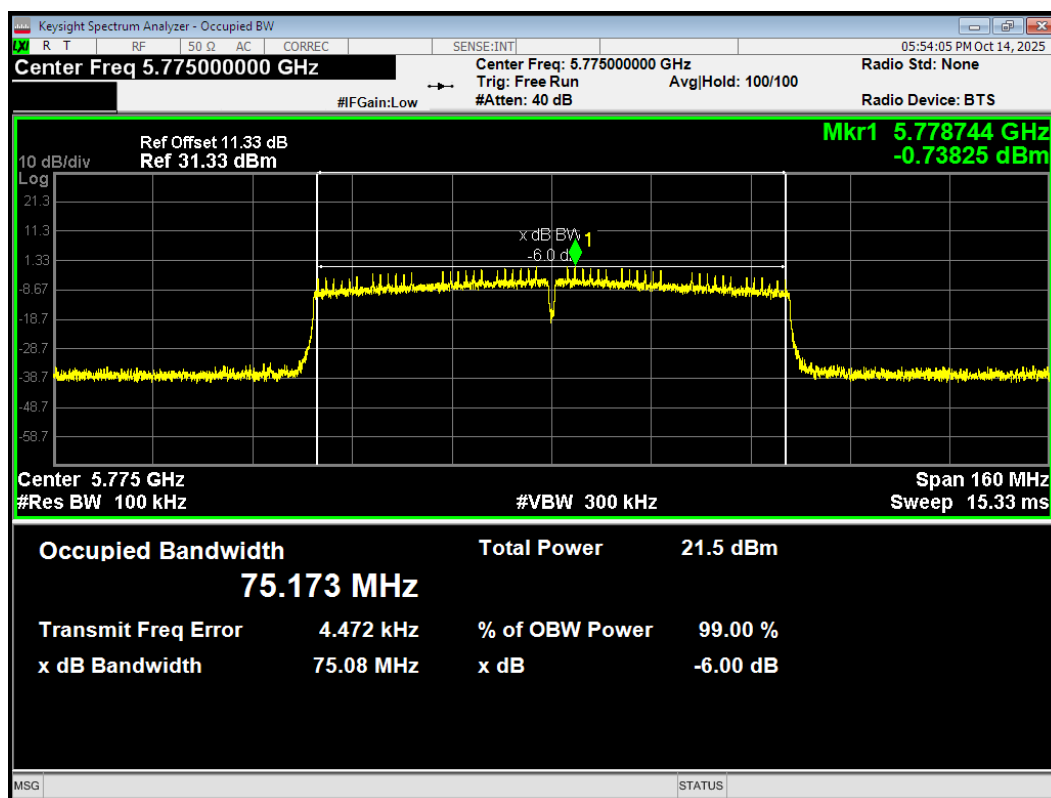
-6dB Bandwidth 802.11ax(HE40) 5795MHz



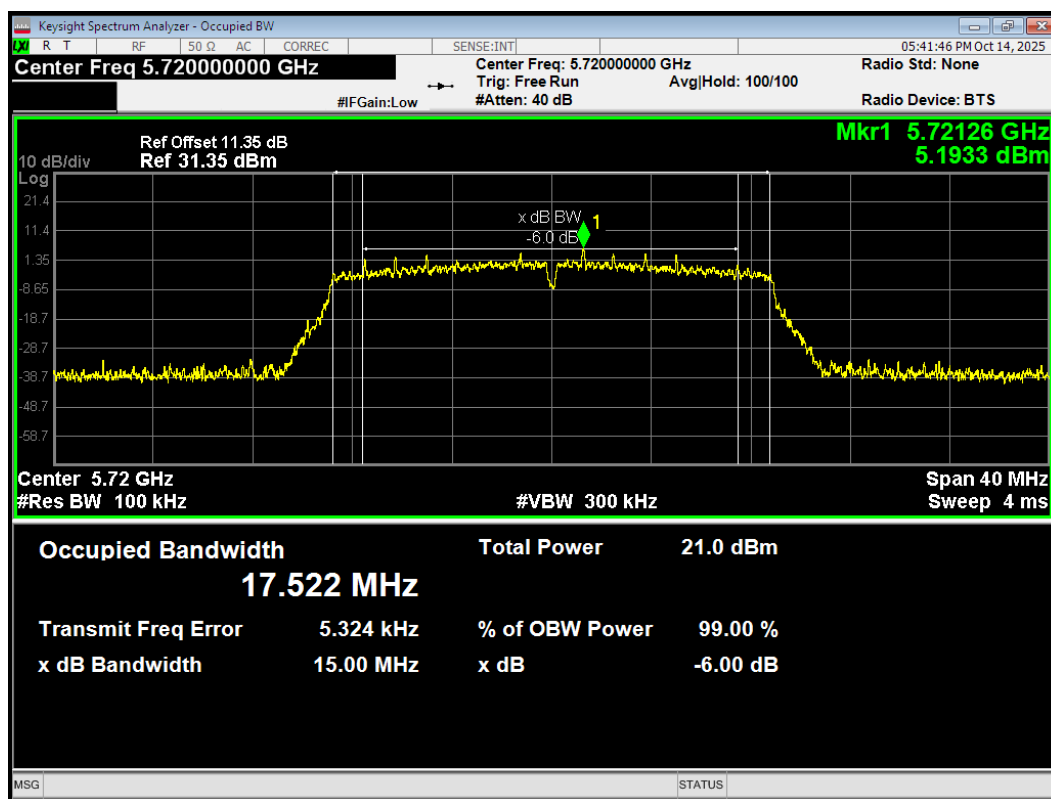
-6dB Bandwidth 802.11ax(HE80) 5690MHz



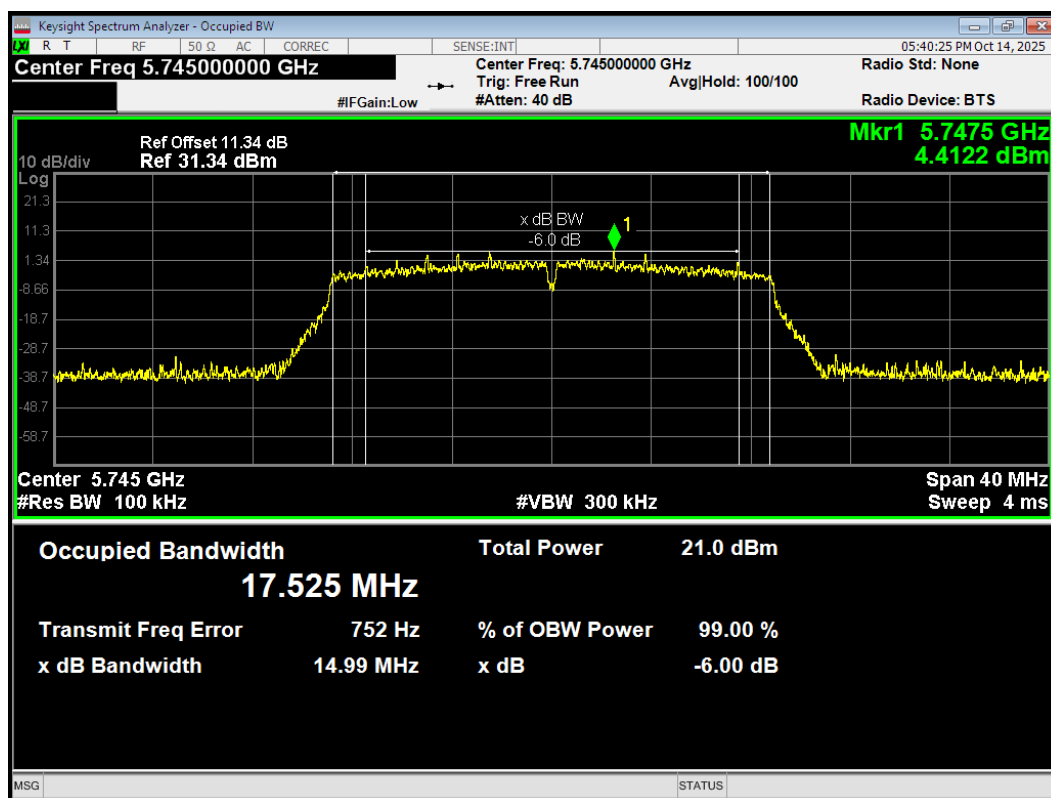
-6dB Bandwidth 802.11ax(HE80) 5775MHz



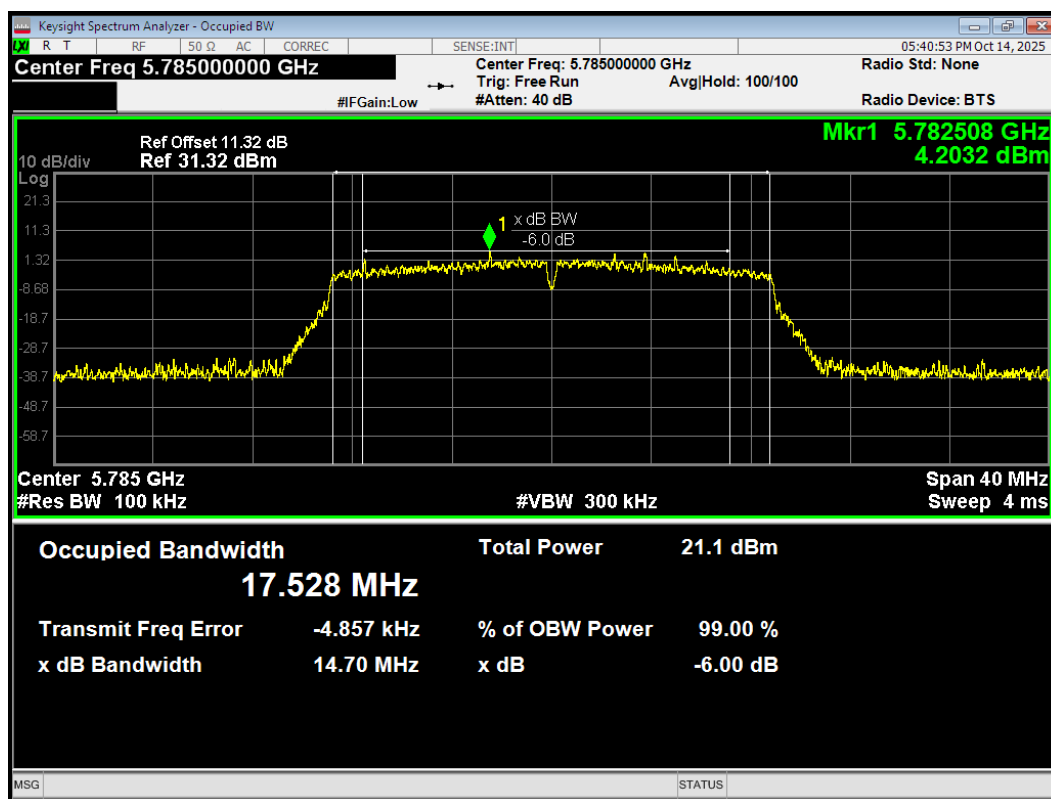
-6dB Bandwidth 802.11n(HT20) 5720MHz



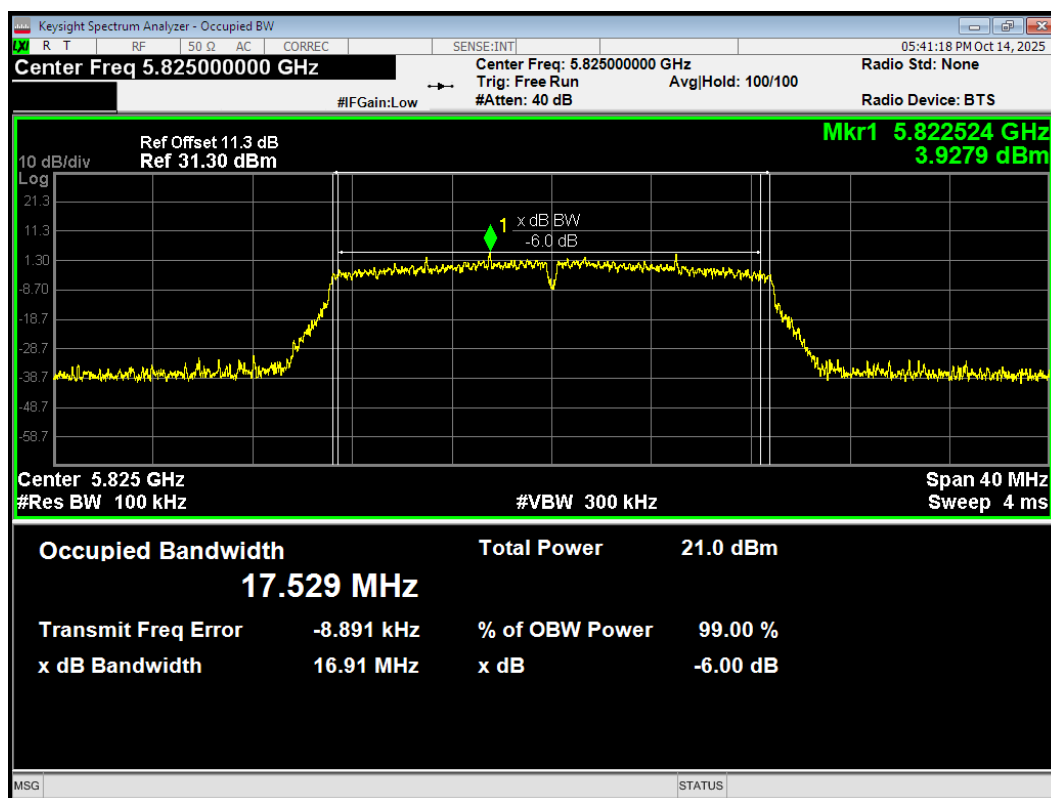
-6dB Bandwidth 802.11n(HT20) 5745MHz



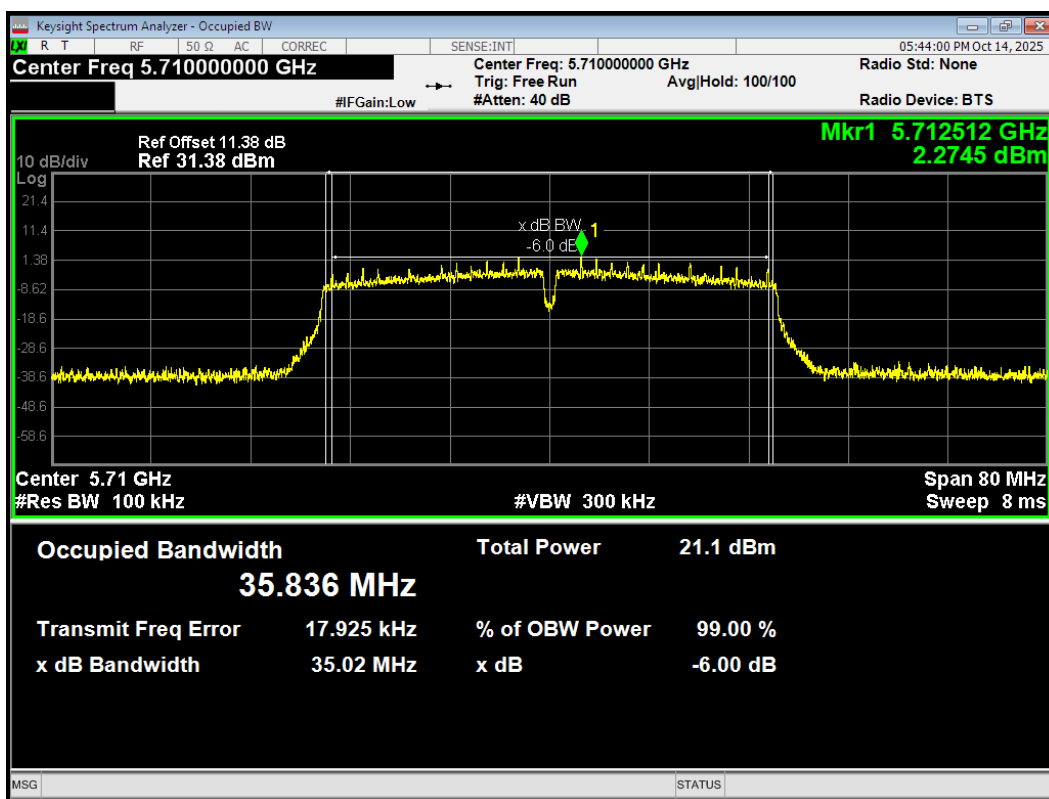
-6dB Bandwidth 802.11n(HT20) 5785MHz



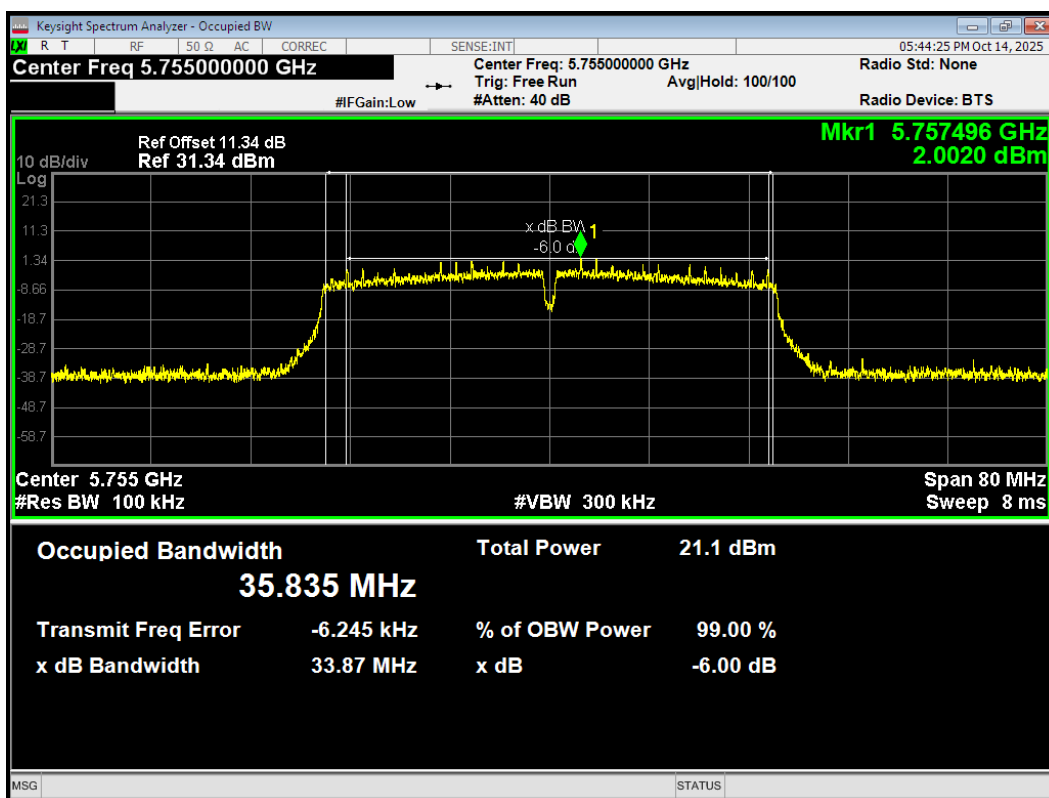
-6dB Bandwidth 802.11n(HT20) 5825MHz



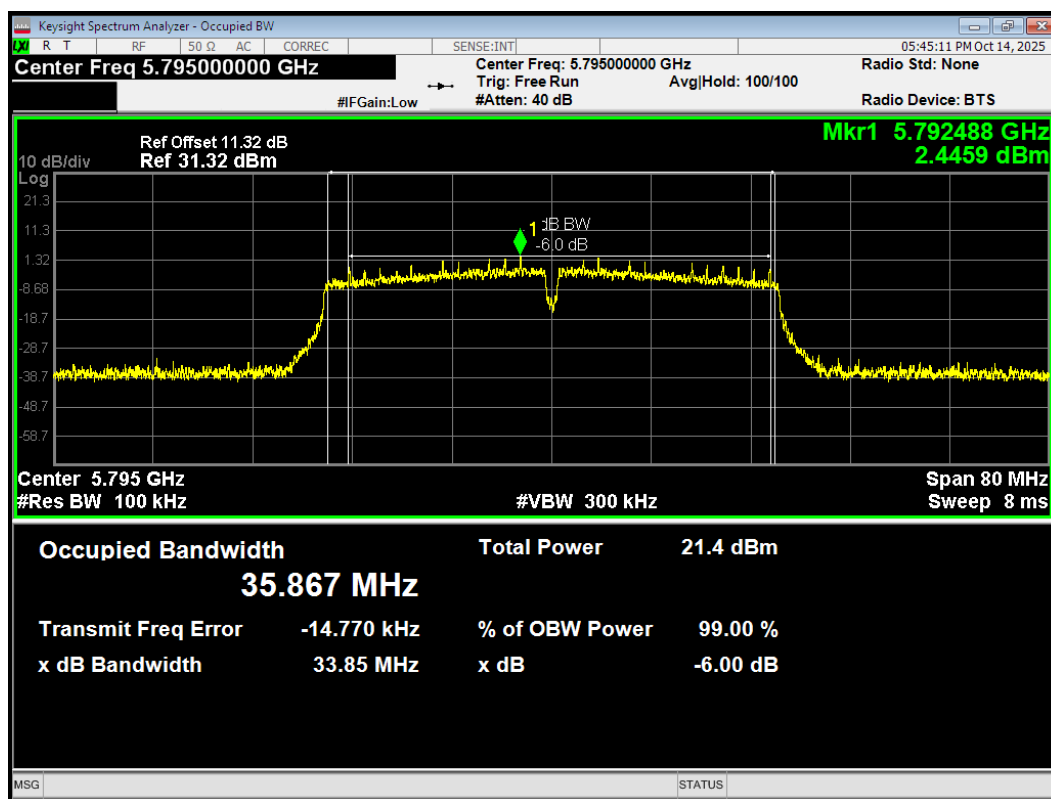
-6dB Bandwidth 802.11n(HT40) 5710MHz



-6dB Bandwidth 802.11n(HT40) 5755MHz



-6dB Bandwidth 802.11n(HT40) 5795MHz



6.2. Average Power Output

Mode	Duty cycle	Duty cycle correction Factor (dB)
802.11a	0.907	0.430
802.11n HT20	0.824	0.840
802.11n HT40	0.710	1.490
802.11ac VHT20	0.825	0.830
802.11ac VHT40	0.711	1.480
802.11ac VHT80	0.570	2.440
802.11ax HE20	0.826	0.830
802.11ax HE40	0.711	1.480
802.11ax HE80	0.570	2.440
Note: when Duty cycle ≥ 0.98 , Duty cycle correction Factor not required.		

Power Index	15
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Test Mode		Channel/ Frequency (MHz)	B=26 dB bandwidth (MHz)	Limit 11 dBm + 10 log B (dBm)	Final Limit (dBm)
U-NII-2A	802.11a	52/5260	25.89	25.13	24.00
		60/5300	20.86	24.19	24.00
		64/5320	21.23	24.27	24.00
	802.11n HT20	52/5260	21.59	24.34	24.00
		60/5300	20.90	24.20	24.00
		64/5320	21.12	24.25	24.00
	802.11n HT40	54/5270	39.73	26.99	24.00
		62/5310	39.06	26.92	24.00
	802.11ac VHT20	52/5260	25.65	25.09	24.00
		60/5300	21.39	24.30	24.00
		64/5320	21.41	24.31	24.00
	802.11ac VHT40	54/5270	39.51	26.97	24.00
		62/5310	39.45	26.96	24.00
	802.11ac VHT80	58/5290	80.83	30.08	24.00
	802.11ax HE20	52/5260	21.22	24.27	24.00
		60/5300	21.04	24.23	24.00
		64/5320	21.06	24.23	24.00
	802.11ax HE40	54/5270	42.28	27.26	24.00
		62/5310	39.53	26.97	24.00
	802.11ax HE80	58/5290	80.72	30.07	24.00
U-NII-2C	802.11a	100/5500	20.79	24.18	24.00
		120/5600	20.50	24.12	24.00
		140/5700	21.03	24.23	24.00
		144/5720	21.19	24.26	24.00
	802.11n HT20	100/5500	21.61	24.35	24.00
		120/5600	21.15	24.25	24.00
		140/5700	21.11	24.24	24.00
		144/5720	21.33	24.29	24.00
	802.11n HT40	102/5510	39.38	26.95	24.00
		118/5590	39.53	26.97	24.00
		134/5670	39.39	26.95	24.00
		142/5710	39.46	26.96	24.00
	802.11ac VHT20	100/5500	21.04	24.23	24.00
		120/5600	22.35	24.49	24.00
		140/5700	20.95	24.21	24.00
		144/5720	21.01	24.22	24.00

RF Test Report		Report No.: E7-1A20070074-12-02-R471			
	802.11ac VHT40	102/5510	39.66	26.98	24.00
		118/5590	39.05	26.92	24.00
		134/5670	39.59	26.98	24.00
		142/5710	40.05	27.03	24.00
	802.11ac VHT80	122/5610	79.74	30.02	24.00
		138/5690	80.81	30.07	24.00
	802.11ax HE20	100/5500	21.37	24.30	24.00
		120/5600	21.36	24.30	24.00
		140/5700	21.35	24.29	24.00
		144/5720	21.41	24.31	24.00
	802.11ax HE40	102/5510	39.99	27.02	24.00
		118/5590	40.07	27.03	24.00
		134/5670	40.01	27.02	24.00
		142/5710	39.99	27.02	24.00
802.11ax HE80	122/5610	81.13	30.09	24.00	
	138/5690	80.67	30.07	24.00	
Note: 250mW=24dBm					

CDD/MIMO

U-NII-1

Test Mode	Channel/ Frequency (MHz)	MIMO Antenna 1		MIMO Antenna 2		Total Power (dBm)	Limit (dBm)	Conclusion
		Average Power Measured (dBm)	Average Power with duty factor (dBm)	Average Power Measured (dBm)	Average Power with duty factor (dBm)			
802.11a	36/5180	15.01	15.44	14.69	15.12	18.29	24.00	PASS
	40/5200	15.06	15.49	14.88	15.31	18.41	24.00	PASS
	48/5240	15.08	15.51	15.09	15.52	18.52	24.00	PASS
802.11n HT20	36/5180	14.43	15.27	14.11	14.95	18.12	24.00	PASS
	40/5200	14.49	15.33	14.04	14.88	18.12	24.00	PASS
	48/5240	14.75	15.59	14.28	15.12	18.37	24.00	PASS
802.11n HT40	38/5190	13.43	14.92	12.59	14.08	17.53	24.00	PASS
	46/5230	13.83	15.32	13.11	14.60	17.98	24.00	PASS
802.11ac VHT20	36/5180	14.38	15.21	14.26	15.09	18.16	24.00	PASS
	40/5200	14.62	15.45	14.18	15.01	18.25	24.00	PASS
	48/5240	14.77	15.60	14.66	15.49	18.56	24.00	PASS
802.11ac VHT40	38/5190	13.43	14.91	12.63	14.11	17.54	24.00	PASS
	46/5230	13.68	15.16	13.22	14.70	17.95	24.00	PASS
802.11ac VHT80	42/5210	12.66	15.10	12.45	14.89	18.00	24.00	PASS
802.11ax HE20	36/5180	14.53	15.36	14.04	14.87	18.13	24.00	PASS
	40/5200	14.62	15.45	14.22	15.05	18.27	24.00	PASS
	48/5240	14.58	15.41	14.38	15.21	18.32	24.00	PASS
802.11ax HE40	38/5190	13.30	14.78	12.69	14.17	17.49	24.00	PASS
	46/5230	13.90	15.38	13.20	14.68	18.06	24.00	PASS
802.11ax HE80	42/5210	12.56	15.00	12.18	14.62	17.83	24.00	PASS

Note: 1. For Total Power, according to KDB 662911 D01 Multiple Transmitter Output v02r01 1),

The Total Power = $10\log(10^{(\text{Power antenna1 in dBm}/10)} + 10^{(\text{Power antenna2 in dBm}/10)})$.

2. According to KDB 662911 D01 Multiple Transmitter Output v02r01 F)2)f(ii): If antenna gains are not equal, the user may use either of the following methods to calculate directional gain, provided that each transmit antenna is driven by only one spatial stream:

Directional gain may be calculated by using the formulas applicable to equal gain antennas with G_{ANT} set equal to the gain of the antenna having the highest gain;

For power measurements on IEEE 802.11 devices,

Directional gain = $G_{\text{ANT MAX}} + \text{Array Gain} = -0.21 \text{ dBi} < 6 \text{ dBi}$. So the power limit is 24dBm.

U-NII-2A

Test Mode	Channel/ Frequency (MHz)	MIMO Antenna 1		MIMO Antenna 2		Total Power (dBm)	Limit (dBm)	Conclusion
		Average Power Measured (dBm)	Average Power with duty factor (dBm)	Average Power Measured (dBm)	Average Power with duty factor (dBm)			
802.11a	52/5260	15.23	15.66	14.46	14.89	18.30	24.00	PASS
	60/5300	14.89	15.32	14.27	14.70	18.03	24.00	PASS
	64/5320	14.92	15.35	14.31	14.74	18.07	24.00	PASS
802.11n HT20	52/5260	14.48	15.32	13.84	14.68	18.02	24.00	PASS
	60/5300	14.48	15.32	13.64	14.48	17.93	24.00	PASS
	64/5320	14.24	15.08	13.88	14.72	17.91	24.00	PASS
802.11n HT40	54/5270	13.56	15.05	12.83	14.32	17.71	24.00	PASS
	62/5310	13.38	14.87	12.64	14.13	17.53	24.00	PASS
802.11ac VHT20	52/5260	14.70	15.53	13.99	14.82	18.20	24.00	PASS
	60/5300	14.40	15.23	13.75	14.58	17.93	24.00	PASS
	64/5320	14.45	15.28	13.89	14.72	18.02	24.00	PASS
802.11ac VHT40	54/5270	13.54	15.02	12.88	14.36	17.71	24.00	PASS
	62/5310	13.38	14.86	12.63	14.11	17.51	24.00	PASS
802.11ac VHT80	58/5290	12.46	14.90	11.77	14.21	17.58	24.00	PASS
802.11ax HE20	52/5260	14.44	15.27	13.79	14.62	17.97	24.00	PASS
	60/5300	14.31	15.14	13.79	14.62	17.90	24.00	PASS
	64/5320	14.39	15.22	13.90	14.73	17.99	24.00	PASS
802.11ax HE40	54/5270	13.42	14.90	12.84	14.32	17.63	24.00	PASS
	62/5310	13.41	14.89	12.68	14.16	17.55	24.00	PASS
802.11ax HE80	58/5290	12.37	14.81	11.72	14.16	17.51	24.00	PASS

Note: 1. For Total Power, according to KDB 662911 D01 Multiple Transmitter Output v02r01 1),

The Total Power = $10\log(10^{(\text{Power antenna1 in dBm}/10)} + 10^{(\text{Power antenna2 in dBm}/10)})$.

2. According to KDB 662911 D01 Multiple Transmitter Output v02r01 F)2)f(ii): If antenna gains are not equal, the user may use either of the following methods to calculate directional gain, provided that each transmit antenna is driven by only one spatial stream:

Directional gain may be calculated by using the formulas applicable to equal gain antennas with G_{ANT} set equal to the gain of the antenna having the highest gain;

For power measurements on IEEE 802.11 devices,

Directional gain = $G_{\text{ANT MAX}} + \text{Array Gain} = 0.23 \text{ dBi} < 6 \text{ dBi}$. So the power limit is 24dBm.

U-NII-2C

Test Mode	Channel/ Frequency (MHz)	MIMO Antenna 1		MIMO Antenna 2		Total Power (dBm)	Limit (dBm)	Conclusion
		Average Power Measured (dBm)	Average Power with duty factor (dBm)	Average Power Measured (dBm)	Average Power with duty factor (dBm)			
802.11a	100/5500	14.39	14.82	14.88	15.31	18.08	24.00	PASS
	120/5600	14.83	15.26	15.00	15.43	18.36	24.00	PASS
	140/5700	15.28	15.71	15.30	15.73	18.73	24.00	PASS
	144/5720	14.38	14.81	14.88	15.31	18.08	24.00	PASS
802.11n HT20	100/5500	13.71	14.55	14.49	15.33	17.97	24.00	PASS
	120/5600	14.21	15.05	14.29	15.13	18.10	24.00	PASS
	140/5700	14.74	15.58	14.71	15.55	18.57	24.00	PASS
	144/5720	13.80	14.64	14.10	14.94	17.80	24.00	PASS
802.11n HT40	102/5510	12.63	14.12	13.25	14.74	17.45	24.00	PASS
	118/5590	12.91	14.40	13.24	14.73	17.58	24.00	PASS
	134/5670	13.54	15.03	13.80	15.29	18.17	24.00	PASS
	142/5710	13.05	14.54	13.48	14.97	17.77	24.00	PASS
802.11ac VHT20	100/5500	13.90	14.73	14.16	14.99	17.87	24.00	PASS
	120/5600	14.22	15.05	14.26	15.09	18.08	24.00	PASS
	140/5700	14.80	15.63	14.73	15.56	18.61	24.00	PASS
	144/5720	13.86	14.69	13.86	14.69	17.70	24.00	PASS
802.11ac VHT40	102/5510	12.59	14.07	13.18	14.66	17.38	24.00	PASS
	118/5590	12.92	14.40	13.21	14.69	17.56	24.00	PASS
	134/5670	13.51	14.99	13.76	15.24	18.13	24.00	PASS
	142/5710	13.24	14.72	13.57	15.05	17.90	24.00	PASS
802.11ac VHT80	122/5610	12.23	14.67	12.68	15.12	17.91	24.00	PASS
	138/5690	11.90	14.34	12.29	14.73	17.55	24.00	PASS
802.11ax HE20	100/5500	13.88	14.71	14.48	15.31	18.03	24.00	PASS
	120/5600	14.44	15.27	14.53	15.36	18.33	24.00	PASS
	140/5700	14.68	15.51	14.80	15.63	18.58	24.00	PASS
	144/5720	13.89	14.72	13.81	14.64	17.69	24.00	PASS
802.11ax HE40	102/5510	13.15	14.63	13.63	15.11	17.89	24.00	PASS
	118/5590	13.25	14.73	13.67	15.15	17.96	24.00	PASS
	134/5670	13.56	15.04	13.81	15.29	18.18	24.00	PASS
	142/5710	13.13	14.61	13.52	15.00	17.82	24.00	PASS
802.11ax HE80	122/5610	12.19	14.63	12.52	14.96	17.81	24.00	PASS
	138/5690	12.18	14.62	12.64	15.08	17.87	24.00	PASS

Note: 1. For Total Power, according to KDB 662911 D01 Multiple Transmitter Output v02r01 1),

The Total Power = $10\log(10^{(\text{Power antenna1 in dBm}/10)} + 10^{(\text{Power antenna2 in dBm}/10)})$.

2. According to KDB 662911 D01 Multiple Transmitter Output v02r01 F)2)f(ii): If antenna gains are not equal, the user may use either of the following methods to calculate directional gain, provided that each transmit antenna is driven by only one spatial stream:

Directional gain may be calculated by using the formulas applicable to equal gain antennas with G_{ANT} set equal to the gain of the antenna having the highest gain;

For power measurements on IEEE 802.11 devices,

Directional gain = $G_{ANT\ MAX} + \text{Array Gain} = -1.13\ \text{dBi} < 6\ \text{dBi}$. So the power limit is 24dBm.

U-NII-3

Test Mode	Channel/ Frequency (MHz)	MIMO Antenna 1		MIMO Antenna 2		Total Power (dBm)	Limit (dBm)	Conclusion
		Average Power Measured (dBm)	Average Power with duty factor (dBm)	Average Power Measured (dBm)	Average Power with duty factor (dBm)			
802.11a	144/5720	5.61	6.04	5.87	6.30	9.18	30.00	PASS
	149/5745	15.11	15.54	15.02	15.45	18.50	30.00	PASS
	157/5785	14.79	15.22	14.95	15.38	18.31	30.00	PASS
	165/5825	14.69	15.12	14.77	15.20	18.17	30.00	PASS
802.11n HT20	144/5720	5.79	6.63	5.55	6.39	9.52	30.00	PASS
	149/5745	14.31	15.15	14.47	15.31	18.24	30.00	PASS
	157/5785	14.31	15.15	14.47	15.31	18.24	30.00	PASS
	165/5825	14.27	15.11	14.44	15.28	18.20	30.00	PASS
802.11n HT40	142/5710	0.19	1.68	0.37	1.86	4.78	30.00	PASS
	151/5755	12.78	14.27	13.25	14.74	17.52	30.00	PASS
	159/5795	13.23	14.72	13.51	15.00	17.87	30.00	PASS
802.11ac VHT20	144/5720	5.90	6.73	5.56	6.39	9.58	30.00	PASS
	149/5745	14.29	15.12	14.46	15.29	18.22	30.00	PASS
	157/5785	14.46	15.29	14.65	15.48	18.40	30.00	PASS
	165/5825	14.18	15.01	14.33	15.16	18.10	30.00	PASS
802.11ac VHT40	142/5710	0.83	2.31	1.22	2.70	5.52	30.00	PASS
	151/5755	12.80	14.28	13.31	14.79	17.56	30.00	PASS
	159/5795	13.28	14.76	13.61	15.09	17.94	30.00	PASS
802.11ac VHT80	138/5690	-3.66	-1.22	-3.30	-0.86	1.98	30.00	PASS
	155/5775	11.83	14.27	12.03	14.47	17.38	30.00	PASS
802.11ax HE20	144/5720	7.98	8.81	8.04	8.87	11.85	30.00	PASS
	149/5745	14.58	15.41	14.65	15.48	18.46	30.00	PASS
	157/5785	14.42	15.25	14.71	15.54	18.41	30.00	PASS
	165/5825	14.46	15.29	14.58	15.41	18.36	30.00	PASS
802.11ax HE40	142/5710	2.80	4.28	3.29	4.77	7.54	30.00	PASS
	151/5755	13.35	14.83	13.67	15.15	18.00	30.00	PASS
	159/5795	13.21	14.69	13.55	15.03	17.88	30.00	PASS
802.11ax HE80	138/5690	-1.83	0.61	-2.79	-0.35	3.17	30.00	PASS
	155/5775	12.19	14.63	12.44	14.88	17.77	30.00	PASS

Note: 1. For Total Power, according to KDB 662911 D01 Multiple Transmitter Output v02r01 1),

The Total Power = $10\log(10^{(\text{Power antenna1 in dBm}/10)} + 10^{(\text{Power antenna2 in dBm}/10)})$.

2. According to KDB 662911 D01 Multiple Transmitter Output v02r01 F)2)f(ii): If antenna gains are not equal, the user may use either of the following methods to calculate directional gain, provided that each transmit antenna is driven by only one spatial stream:

Directional gain may be calculated by using the formulas applicable to equal gain antennas with G_{ANT} set equal to the gain of the antenna having the highest gain;

For power measurements on IEEE 802.11 devices,

Directional gain = $G_{\text{ANT MAX}} + \text{Array Gain} = -0.02 \text{ dBi} < 6 \text{ dBi}$. So the power limit is 30dBm.

6.3. Frequency Stability

Voltage (V)	Temperature (°C)	U-NII-1 Test Results			
		5200MHz			
		1min	2min	5min	10min
7.74	-30	5199.998551	5199.990778	5199.983472	5199.976843
7.74	-20	5200.001951	5199.985411	5199.980066	5199.972662
7.74	-10	5199.993937	5199.977697	5199.973803	5199.963208
7.74	0	5200.001226	5199.979665	5199.970381	5199.967736
7.74	10	5199.995876	5199.974336	5199.963249	5199.965515
7.74	20	5199.986363	5199.968649	5199.957402	5199.964133
7.74	30	5199.983561	5199.960416	5199.948699	5199.956891
7.74	40	5199.974158	5199.955902	5199.947754	5199.954299
7.74	50	5199.969393	5199.946119	5199.943251	5199.948181
6.6	20	5199.964293	5199.937239	5199.939193	5199.947309
8.9	20	5199.954965	5199.931820	5199.935373	5199.944957
Max. ΔMHz		-0.045035	-0.068180	-0.064627	-0.055043
PPM		-8.660577	-13.111538	-12.428269	-10.585192

Voltage (V)	Temperature (°C)	U-NII-2A Test Results			
		5300MHz			
		1min	2min	5min	10min
7.74	-30	5299.991412	5299.987628	5299.978942	5299.978495
7.74	-20	5299.989476	5299.983925	5299.978320	5299.974506
7.74	-10	5299.983310	5299.976922	5299.969292	5299.967631
7.74	0	5299.987758	5299.978610	5299.970668	5299.973219
7.74	10	5299.982669	5299.976125	5299.963119	5299.969567
7.74	20	5299.974637	5299.973400	5299.953254	5299.965431
7.74	30	5299.972888	5299.965094	5299.948736	5299.957907
7.74	40	5299.963767	5299.955134	5299.945587	5299.957048
7.74	50	5299.955166	5299.950718	5299.941645	5299.948386
6.6	20	5299.946382	5299.948999	5299.932297	5299.938645
8.9	20	5299.937871	5299.945354	5299.932119	5299.935301
Max. ΔMHz		-0.062129	-0.054646	-0.067881	-0.064699
PPM		-11.722453	-10.310566	-12.807736	-12.207358

Voltage (V)	Temperature (°C)	U-NII-2C Test Results			
		5580MHz			
		1min	2min	5min	10min
7.74	-30	5579.998034	5579.995036	5579.985226	5579.976717
7.74	-20	5579.990257	5579.986830	5579.978866	5579.967693
7.74	-10	5579.982079	5579.982440	5579.974462	5579.960349
7.74	0	5579.988836	5579.985418	5579.972917	5579.957783
7.74	10	5579.987583	5579.978600	5579.965202	5579.949346
7.74	20	5579.981411	5579.976784	5579.962689	5579.942424
7.74	30	5579.977870	5579.968478	5579.959826	5579.936197
7.74	40	5579.969288	5579.959373	5579.956843	5579.931782
7.74	50	5579.961205	5579.959362	5579.953448	5579.923033
6.6	20	5579.951613	5579.955666	5579.949973	5579.918666
8.9	20	5579.949676	5579.950056	5579.945076	5579.911608
Max. ΔMHz		-0.050324	-0.049944	-0.054924	-0.088392
PPM		-9.018638	-8.950538	-9.843011	-15.840860

Voltage (V)	Temperature (°C)	U-NII-3 Test Results			
		5785MHz			
		1min	2min	5min	10min
7.74	-30	5785.003389	5784.996886	5784.991979	5784.990299
7.74	-20	5784.995180	5784.994532	5784.985697	5784.981876
7.74	-10	5784.992090	5784.985166	5784.979991	5784.981731
7.74	0	5784.990845	5784.993795	5784.983373	5784.981198
7.74	10	5784.987898	5784.991762	5784.975300	5784.973282
7.74	20	5784.986028	5784.983099	5784.967405	5784.967301
7.74	30	5784.980388	5784.976904	5784.959485	5784.964564
7.74	40	5784.972302	5784.976199	5784.950589	5784.964034
7.74	50	5784.967294	5784.972828	5784.948998	5784.957491
6.6	20	5784.961410	5784.963213	5784.947385	5784.950755
8.9	20	5784.952326	5784.961215	5784.939394	5784.942606
Max. ΔMHz		-0.047674	-0.038785	-0.060606	-0.057394
PPM		-8.240968	-6.704408	-10.476404	-9.921175

6.4. Power Spectral Density

CDD/MIMO

U-NII-1

Mode	Channel/ Frequency (MHz)	Power Spectral Density					Limit (dBm /MHz)	Conclusion
		Antenna 1		Antenna 2		Total PSD (dBm/MHz)		
		Read Value (dBm/MHz)	PSD (dBm/MHz)	Read Value (dBm/MHz)	PSD (dBm/MHz)			
802.11a	36/5180	7.35	7.78	6.85	7.28	10.55	11.00	PASS
	40/5200	7.08	7.51	6.64	7.07	10.31	11.00	PASS
	48/5240	7.24	7.67	6.88	7.31	10.50	11.00	PASS
802.11n HT20	36/5180	6.35	7.19	5.45	6.29	9.77	11.00	PASS
	40/5200	5.97	6.81	5.96	6.80	9.82	11.00	PASS
	48/5240	6.90	7.74	6.56	7.40	10.58	11.00	PASS
802.11n HT40	38/5190	2.54	4.03	1.27	2.76	6.45	11.00	PASS
	46/5230	2.82	4.31	2.07	3.56	6.96	11.00	PASS
802.11ac VHT20	36/5180	6.29	7.12	7.19	8.02	10.60	11.00	PASS
	40/5200	6.75	7.58	6.23	7.06	10.34	11.00	PASS
	48/5240	6.21	7.04	6.25	7.08	10.07	11.00	PASS
802.11ac VHT40	38/5190	2.08	3.56	1.83	3.31	6.45	11.00	PASS
	46/5230	2.88	4.36	1.86	3.34	6.89	11.00	PASS
802.11ac VHT80	42/5210	-0.60	1.84	-0.85	1.59	4.73	11.00	PASS
802.11ax HE20	36/5180	6.25	7.08	6.01	6.84	9.97	11.00	PASS
	40/5200	6.28	7.11	5.84	6.67	9.91	11.00	PASS
	48/5240	6.61	7.44	6.80	7.63	10.55	11.00	PASS
802.11ax HE40	38/5190	1.96	3.44	2.09	3.57	6.52	11.00	PASS
	46/5230	2.86	4.34	1.99	3.47	6.94	11.00	PASS
802.11ax HE80	42/5210	-1.25	1.19	-1.42	1.02	4.12	11.00	PASS

Note: 1. Power Spectral Density = Read Value + Duty cycle correction factor

2. According to KDB 662911 D01 Multiple Transmitter Output v02r01 F)2)f)(ii): If antenna gains are not equal, the user may use either of the following methods to calculate directional gain, provided that each transmit antenna is driven by only one spatial stream:

Directional gain may be calculated by using the formulas applicable to equal gain antennas with GANT set equal to the gain of the antenna having the highest gain; For power spectral density (PSD) measurements on all devices,

Directional gain = $G_{ANT\ MAX} + \text{Array Gain} = 2.80\ \text{dBi} < 6\ \text{dBi}$. So the power limit is 11dBm / MHz.

U-NII-2A

Mode	Channel /Frequency (MHz)	Power Spectral Density					Limit (dBm /MHz)	Conclusion
		Antenna 1		Antenna 2		Total PSD (dBm/MHz)		
		Read Value (dBm/MHz)	PSD (dBm/MHz)	Read Value (dBm/MHz)	PSD (dBm/MHz)			
802.11a	52/5260	7.30	7.73	6.24	6.67	10.24	11.00	PASS
	60/5300	6.94	7.37	6.17	6.60	10.01	11.00	PASS
	64/5320	6.88	7.31	6.15	6.58	9.97	11.00	PASS
802.11n HT20	52/5260	6.11	6.95	5.54	6.38	9.68	11.00	PASS
	60/5300	5.81	6.65	5.52	6.36	9.52	11.00	PASS
	64/5320	6.24	7.08	5.71	6.55	9.83	11.00	PASS
802.11n HT40	54/5270	2.36	3.85	1.81	3.30	6.59	11.00	PASS
	62/5310	2.43	3.92	1.67	3.16	6.57	11.00	PASS
802.11ac VHT20	52/5260	6.60	7.43	5.91	6.74	10.11	11.00	PASS
	60/5300	5.88	6.71	5.48	6.31	9.52	11.00	PASS
	64/5320	6.07	6.90	5.61	6.44	9.69	11.00	PASS
802.11ac VHT40	54/5270	2.67	4.15	2.17	3.65	6.92	11.00	PASS
	62/5310	2.46	3.94	1.95	3.43	6.70	11.00	PASS
802.11ac VHT80	58/5290	-1.63	0.81	-2.25	0.19	3.52	11.00	PASS
802.11ax HE20	52/5260	6.06	6.89	6.07	6.90	9.91	11.00	PASS
	60/5300	6.11	6.94	6.09	6.92	9.94	11.00	PASS
	64/5320	6.44	7.27	5.68	6.51	9.92	11.00	PASS
802.11ax HE40	54/5270	2.24	3.72	1.62	3.10	6.43	11.00	PASS
	62/5310	2.29	3.77	1.70	3.18	6.50	11.00	PASS
802.11ax HE80	58/5290	-1.17	1.27	-1.71	0.73	4.02	11.00	PASS

Note: 1. Power Spectral Density =Read Value+Duty cycle correction factor

2. According to KDB 662911 D01 Multiple Transmitter Output v02r01 F)2)f(ii): If antenna gains are not equal, the user may use either of the following methods to calculate directional gain, provided that each transmit antenna is driven by only one spatial stream:

Directional gain may be calculated by using the formulas applicable to equal gain antennas with GANT set equal to the gain of the antenna having the highest gain;For power spectral density (PSD) measurements on all devices,

Directional gain = $G_{ANT\ MAX} + \text{Array Gain}$ = 3.24 dBi < 6dBi. So the power limit is 11dBm / MHz.

U-NII-2C

Mode	Channel /Frequency (MHz)	Power Spectral Density					Limit (dBm /MHz)	Conclusion
		Antenna 1		Antenna 2		Total PSD (dBm/MHz)		
		Read Value (dBm/MHz)	PSD (dBm/MHz)	Read Value (dBm/MHz)	PSD (dBm/MHz)			
802.11a	100/5500	6.40	6.83	7.09	7.52	10.20	11.00	PASS
	120/5600	7.02	7.45	6.75	7.18	10.33	11.00	PASS
	140/5700	7.14	7.57	7.31	7.74	10.67	11.00	PASS
	144/5720	6.63	7.06	7.16	7.59	10.34	11.00	PASS
802.11n HT20	100/5500	6.00	6.84	6.53	7.37	10.12	11.00	PASS
	120/5600	6.20	7.04	6.19	7.03	10.05	11.00	PASS
	140/5700	6.78	7.62	7.02	7.86	10.75	11.00	PASS
	144/5720	6.23	7.07	6.75	7.59	10.35	11.00	PASS
802.11n HT40	102/5510	1.35	2.84	2.20	3.69	6.30	11.00	PASS
	118/5590	1.80	3.29	1.85	3.34	6.33	11.00	PASS
	134/5670	2.70	4.19	2.91	4.40	7.31	11.00	PASS
	142/5710	2.48	3.97	2.87	4.36	7.18	11.00	PASS
802.11ac VHT20	100/5500	5.91	6.74	6.08	6.91	9.84	11.00	PASS
	120/5600	5.97	6.80	6.35	7.18	10.00	11.00	PASS
	140/5700	6.54	7.37	6.65	7.48	10.44	11.00	PASS
	144/5720	6.49	7.32	6.29	7.12	10.23	11.00	PASS
802.11ac VHT40	102/5510	1.53	3.01	2.06	3.54	6.29	11.00	PASS
	118/5590	1.48	2.96	2.25	3.73	6.37	11.00	PASS
	134/5670	2.46	3.94	2.74	4.22	7.09	11.00	PASS
	142/5710	2.08	3.56	3.44	4.92	7.30	11.00	PASS
802.11ac VHT80	122/5610	-1.78	0.66	-1.16	1.28	3.99	11.00	PASS
	138/5690	-1.52	0.92	-1.51	0.93	3.94	11.00	PASS
802.11ax HE20	100/5500	4.96	5.79	4.73	5.56	8.69	11.00	PASS
	120/5600	5.08	5.91	5.00	5.83	8.88	11.00	PASS
	140/5700	5.56	6.39	5.09	5.92	9.17	11.00	PASS
	144/5720	5.48	6.31	5.07	5.90	9.12	11.00	PASS
802.11ax HE40	102/5510	-0.01	1.47	0.39	1.87	4.68	11.00	PASS
	118/5590	0.76	2.24	0.98	2.46	5.36	11.00	PASS
	134/5670	0.89	2.37	0.87	2.35	5.37	11.00	PASS
	142/5710	0.89	2.37	1.37	2.85	5.63	11.00	PASS
802.11ax HE80	122/5610	-1.94	0.50	-1.82	0.62	3.57	11.00	PASS
	138/5690	-2.42	0.02	-1.76	0.68	3.37	11.00	PASS

Note: 1. Power Spectral Density =Read Value+Duty cycle correction factor

2. According to KDB 662911 D01 Multiple Transmitter Output v02r01 F)2)f)(ii): If antenna gains are not equal, the user may use either of the following methods to calculate directional gain, provided that each transmit antenna is driven by only one spatial stream:

Directional gain may be calculated by using the formulas applicable to equal gain antennas with GANT set equal to the gain of the antenna having the highest gain; For power spectral density (PSD) measurements on all devices,
Directional gain = $G_{ANT\ MAX} + \text{Array Gain} = 3.55\ \text{dBi} < 6\ \text{dBi}$. So the power limit is 11dBm / MHz.

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Mode	Channel/ Frequency (MHz)	Power Spectral Density					Limit (dBm/ 500kHz)	Conclusion
		Antenna 1		Antenna 2		Total Power (dBm/500kHz)		
		Read Value (dBm/470kHz)	PSD (dBm/500kHz)	Read Value (dBm470kHz)	PSD (dBm/500kHz)			
802.11a	144/5720	-1.33	-0.63	-1.30	-0.60	2.40	30.00	PASS
	149/5745	4.21	4.91	3.94	4.64	7.79	30.00	PASS
	157/5785	4.14	4.84	3.99	4.69	7.78	30.00	PASS
	165/5825	3.57	4.27	3.63	4.33	7.31	30.00	PASS
802.11n HT20	144/5720	-1.91	-0.80	-1.78	-0.67	2.28	30.00	PASS
	149/5745	3.02	4.13	3.92	5.03	7.61	30.00	PASS
	157/5785	3.07	4.18	3.23	4.34	7.27	30.00	PASS
	165/5825	3.55	4.66	3.60	4.71	7.70	30.00	PASS
802.11n HT40	142/5710	-5.71	-3.95	-5.40	-3.64	-0.78	30.00	PASS
	151/5755	-0.98	0.78	-0.69	1.07	3.94	30.00	PASS
	159/5795	-0.84	0.92	-0.43	1.33	4.14	30.00	PASS
802.11ac VHT20	144/5720	-1.25	-0.15	-1.29	-0.19	2.84	30.00	PASS
	149/5745	3.38	4.48	3.53	4.63	7.57	30.00	PASS
	157/5785	3.91	5.01	3.57	4.67	7.85	30.00	PASS
	165/5825	2.99	4.09	3.12	4.22	7.17	30.00	PASS
802.11ac VHT40	142/5710	-6.22	-4.47	-5.74	-3.99	-1.21	30.00	PASS
	151/5755	-1.23	0.52	0.01	1.76	4.19	30.00	PASS
	159/5795	0.12	1.87	-0.34	1.41	4.66	30.00	PASS
802.11ac VHT80	138/5690	-9.75	-7.04	-8.69	-5.98	-3.47	30.00	PASS
	155/5775	-4.93	-2.22	-5.30	-2.59	0.61	30.00	PASS
802.11ax HE20	144/5720	0.08	1.18	-0.04	1.06	4.13	30.00	PASS
	149/5745	1.53	2.63	1.87	2.97	5.81	30.00	PASS
	157/5785	2.03	3.13	2.07	3.17	6.16	30.00	PASS
	165/5825	2.14	3.24	1.98	3.08	6.17	30.00	PASS
802.11ax HE40	142/5710	-4.25	-2.50	-4.15	-2.40	0.56	30.00	PASS
	151/5755	-2.71	-0.96	-2.09	-0.34	2.37	30.00	PASS
	159/5795	-2.69	-0.94	-2.04	-0.29	2.41	30.00	PASS
802.11ax HE80	138/5690	-9.50	-6.79	-8.80	-6.09	-3.42	30.00	PASS
	155/5775	-5.56	-2.85	-5.67	-2.96	0.11	30.00	PASS

Note: 1. Power Spectral Density = Read Value + Duty cycle correction factor + $10 \cdot \log(500/470)$.

2. According to KDB 662911 D01 Multiple Transmitter Output v02r01 F)2)f(ii): If antenna gains are not equal, the user may use either of the following methods to calculate directional gain, provided that each transmit antenna is driven by only one spatial stream:

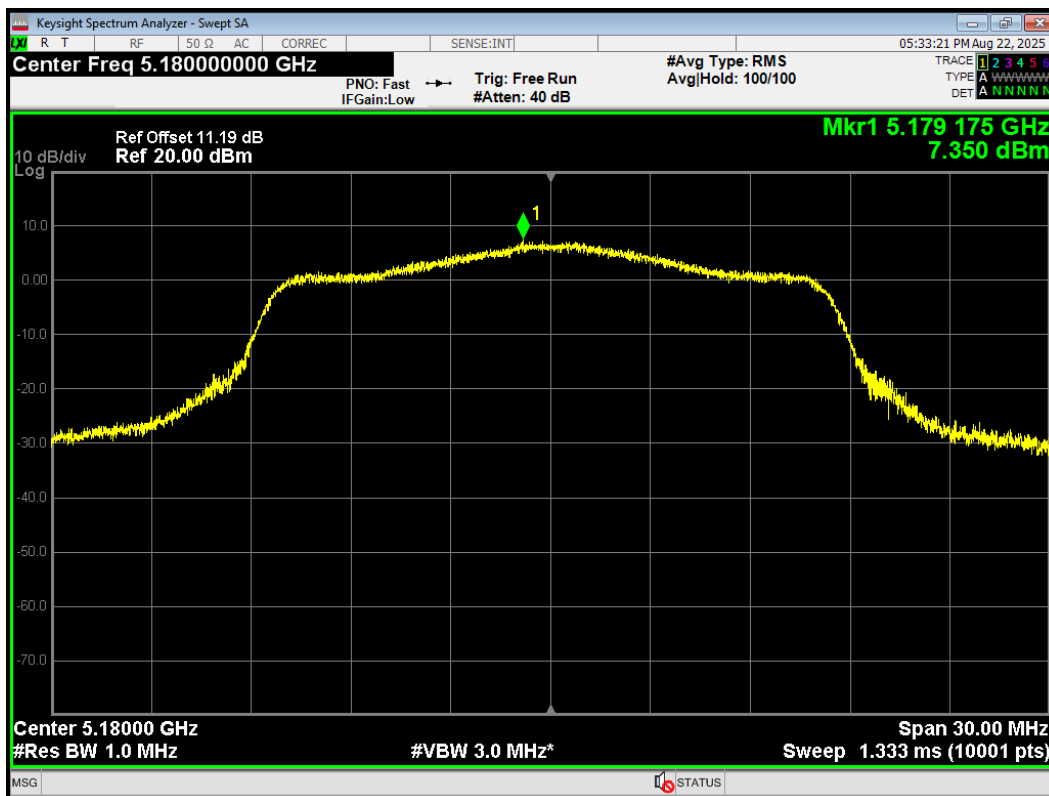
Directional gain may be calculated by using the formulas applicable to equal gain antennas with GANT set equal to the gain of the antenna having the highest gain; For power spectral density (PSD) measurements on all devices,

Directional gain = $G_{ANT\ MAX} + \text{Array Gain} = 2.99\ \text{dBi} < 6\ \text{dBi}$. So the power limit is 30 dBm/ 500kHz.

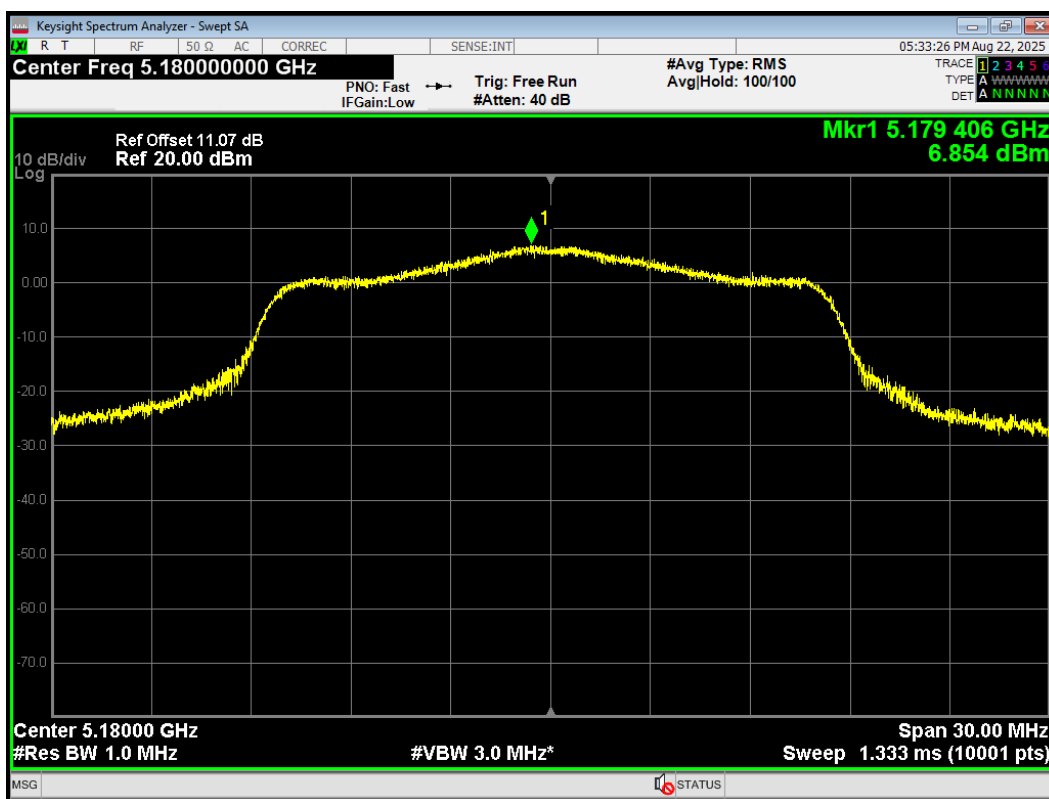
CDD/MIMO

U-NII-1

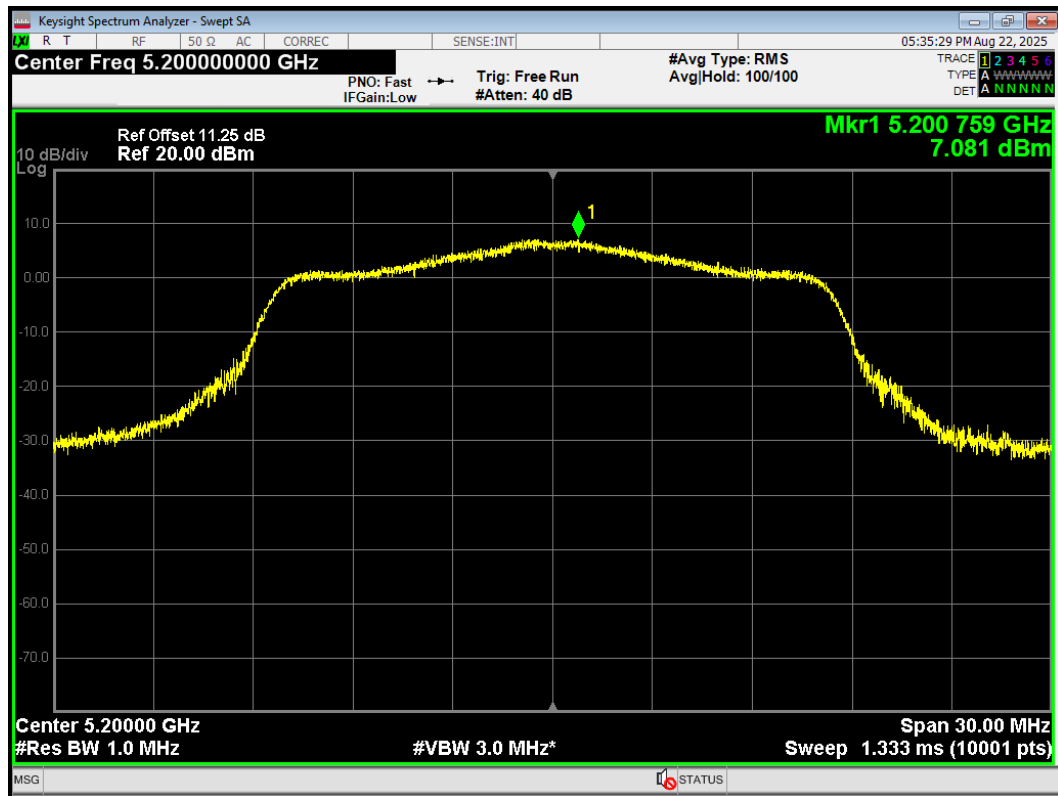
PSD 802.11a 5180MHz Ant1



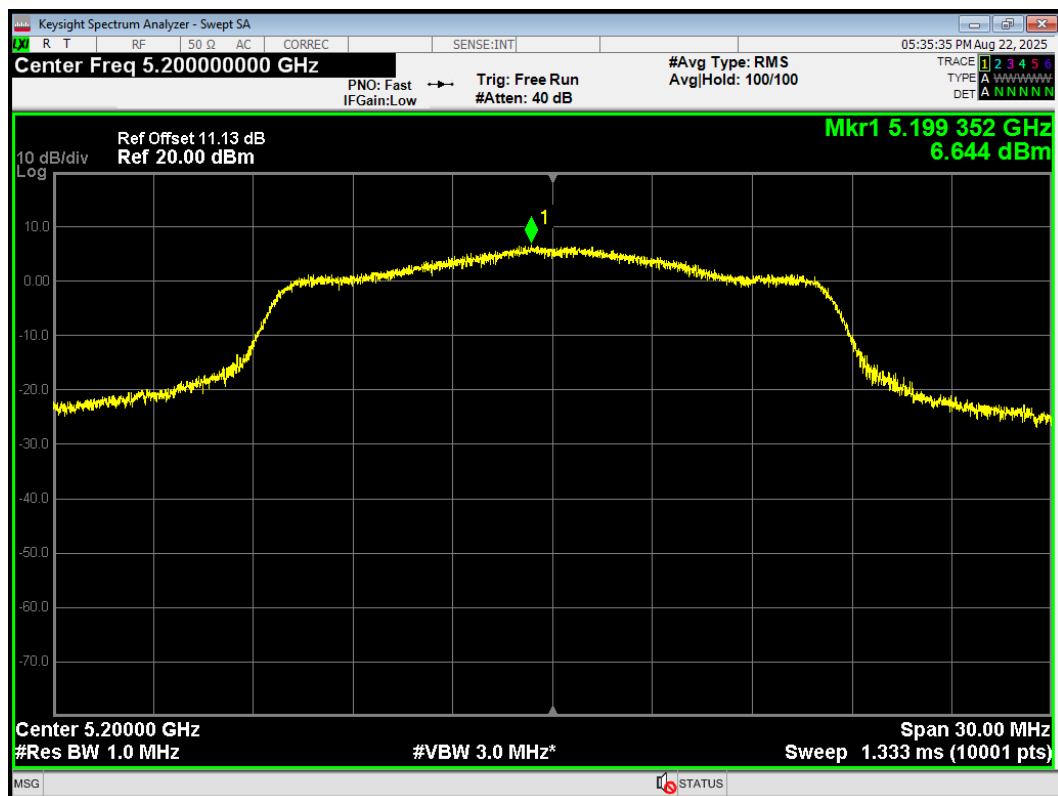
PSD 802.11a 5180MHz Ant2



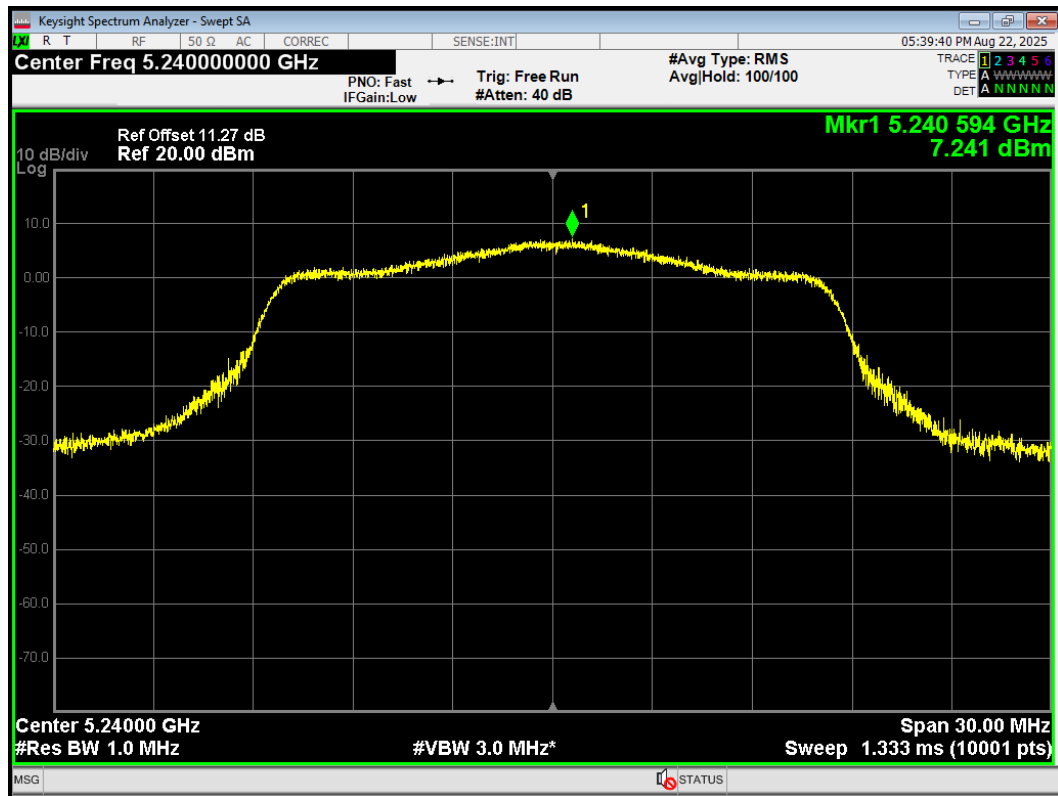
PSD 802.11a 5200MHz Ant1



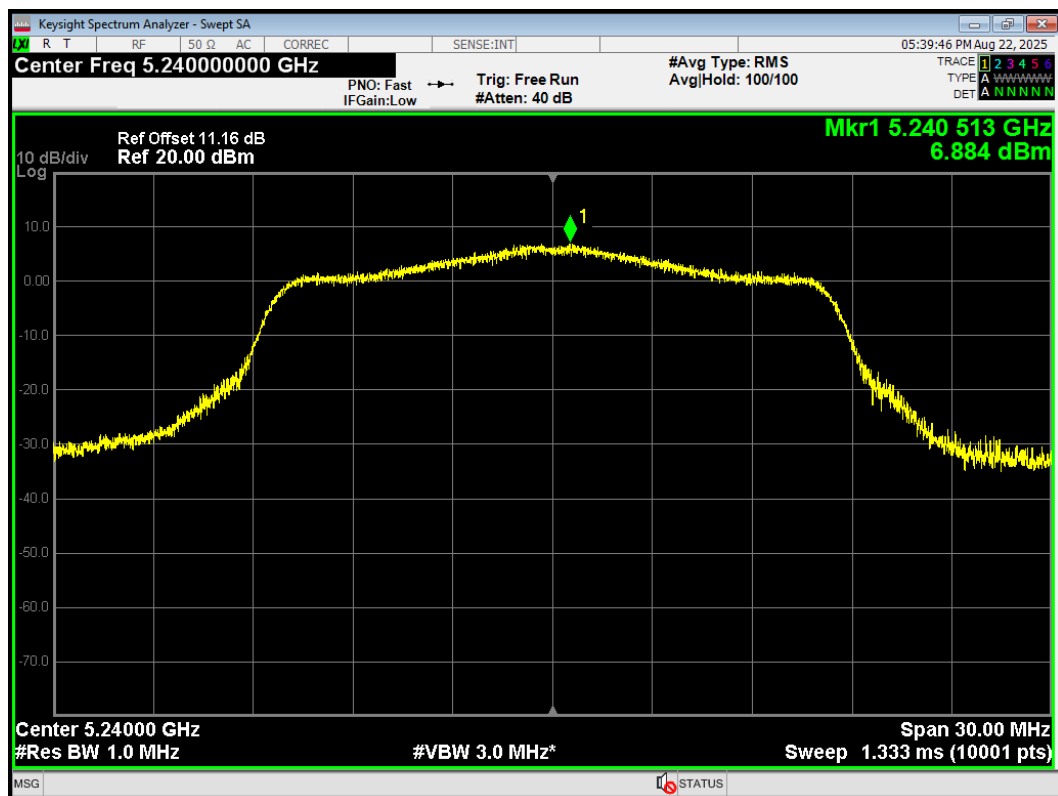
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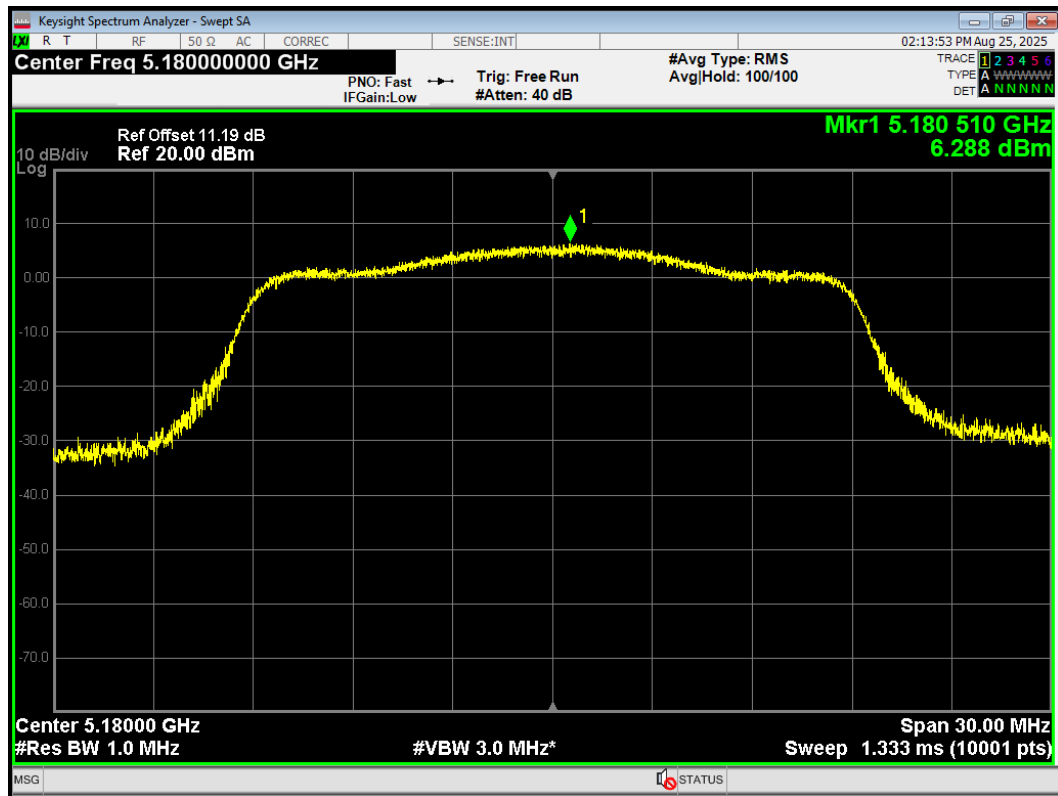
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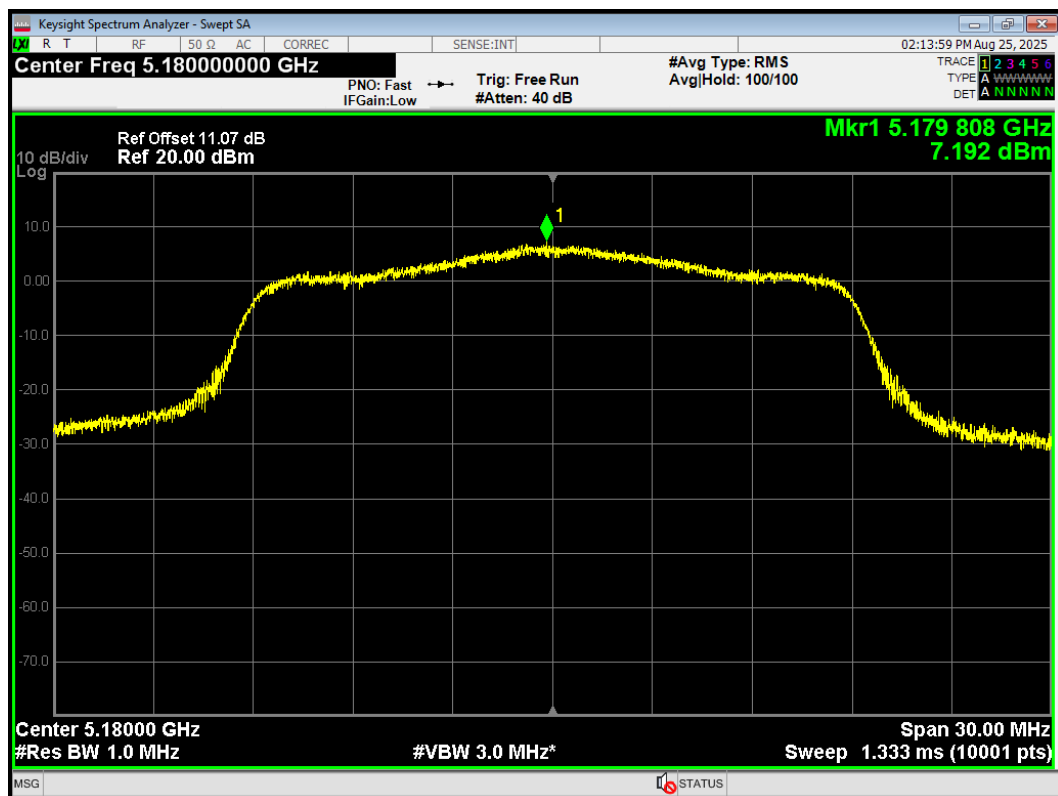
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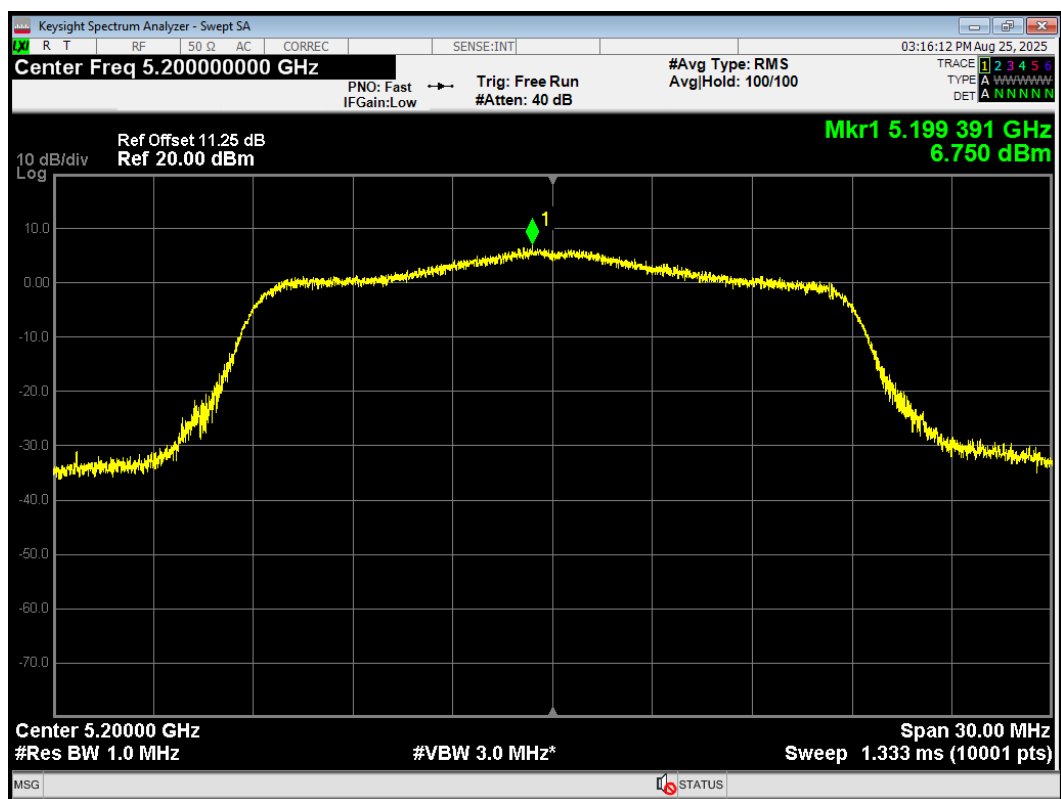
PSD 802.11ac(VHT20) 5180MHz Ant1



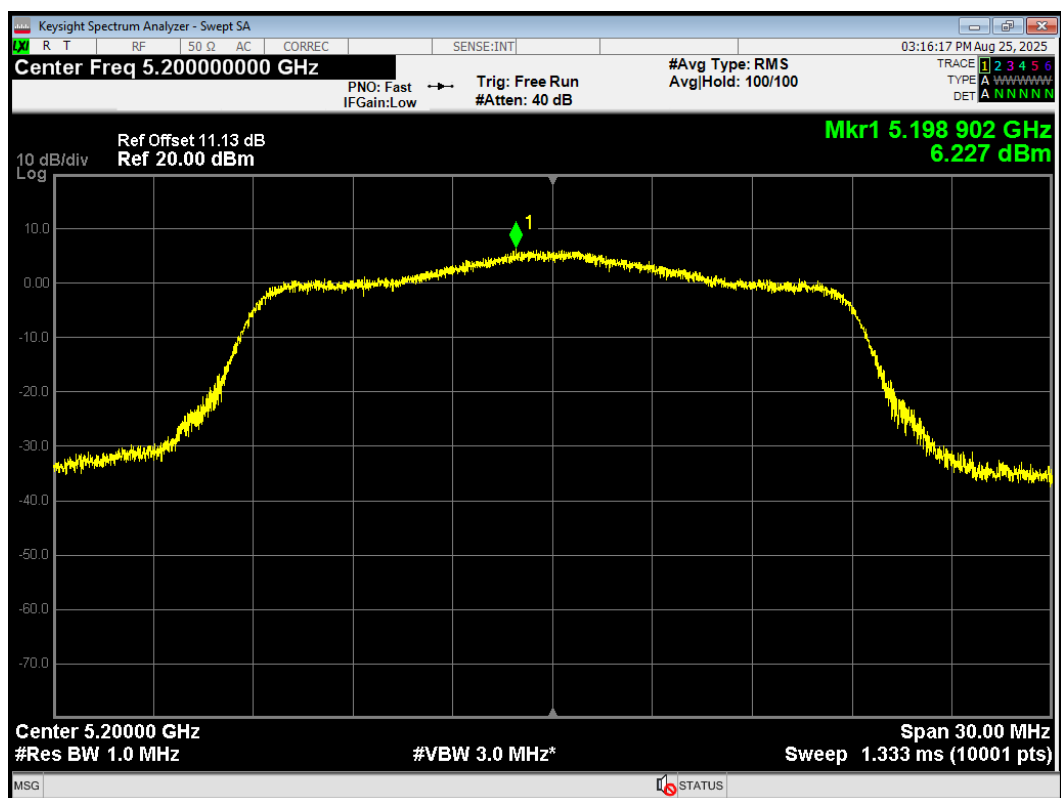
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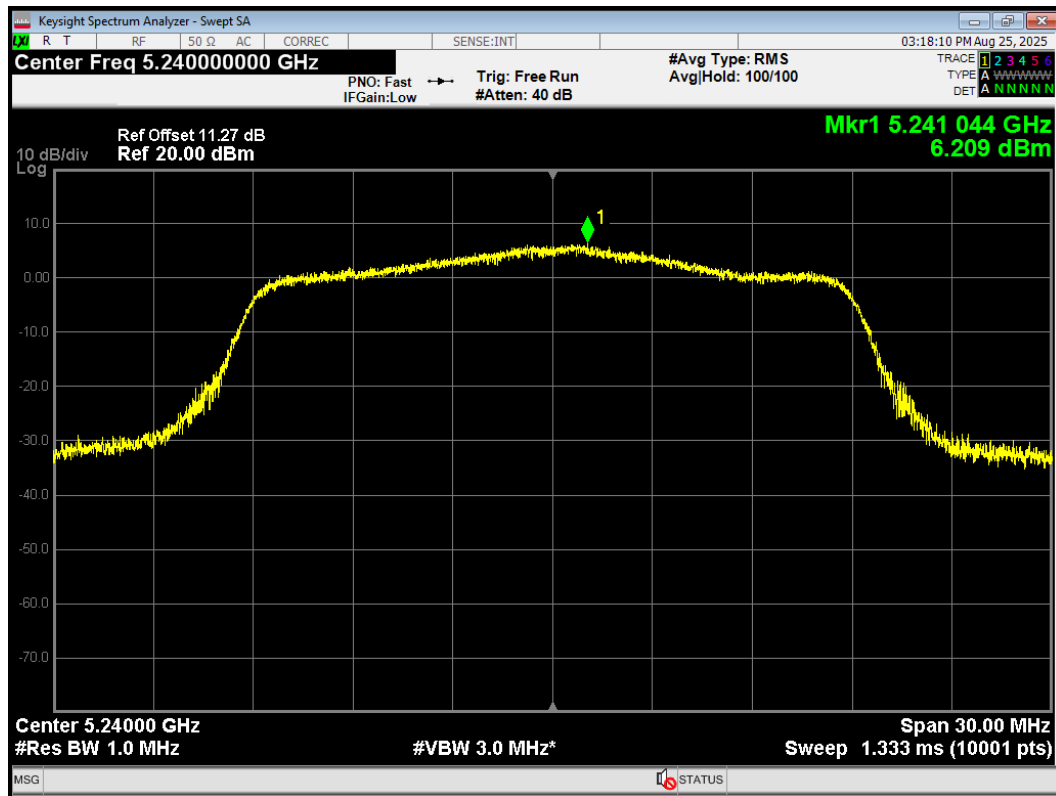
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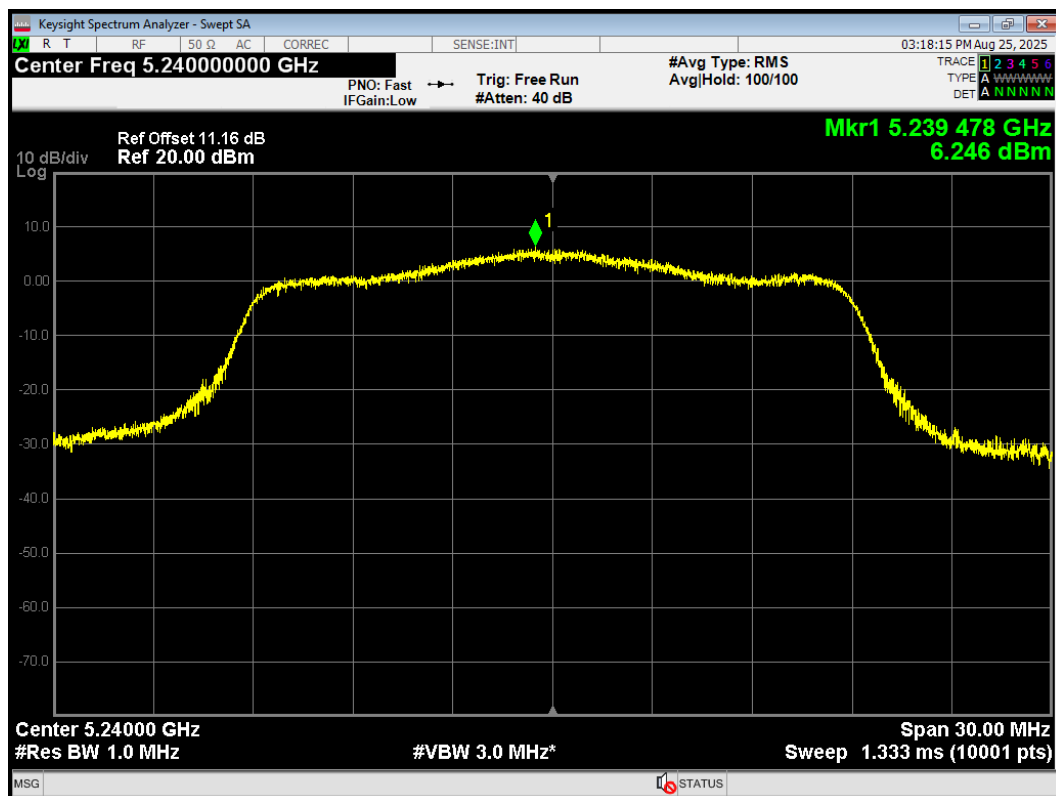
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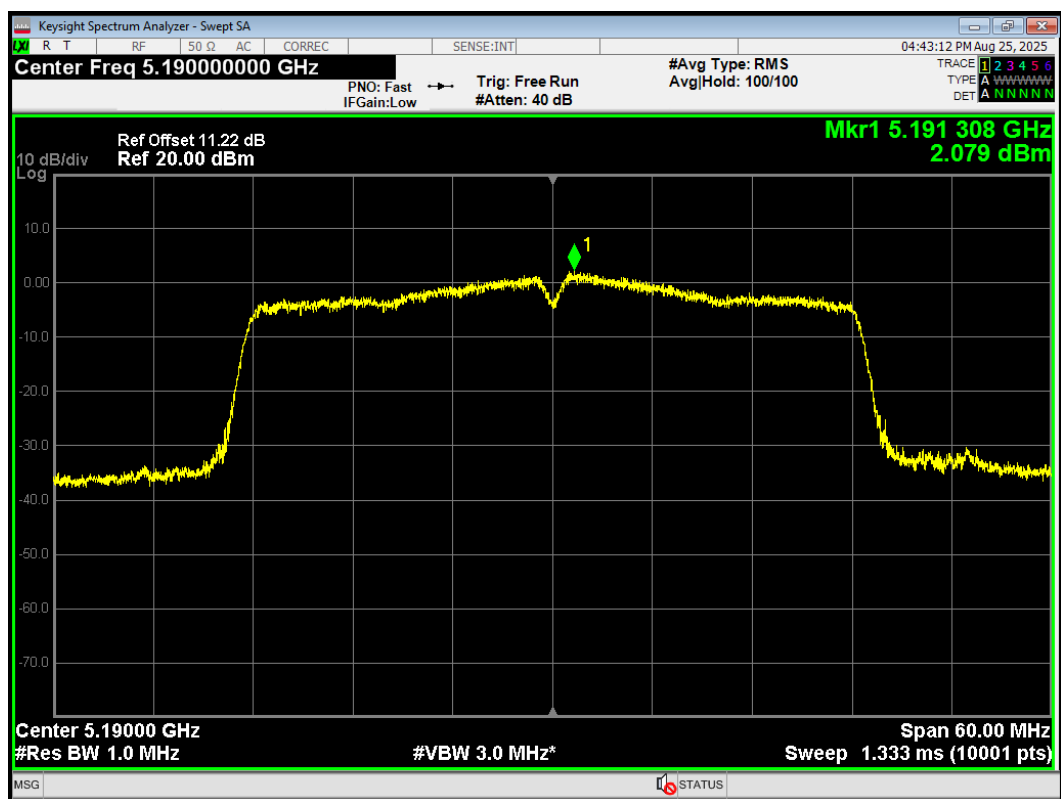
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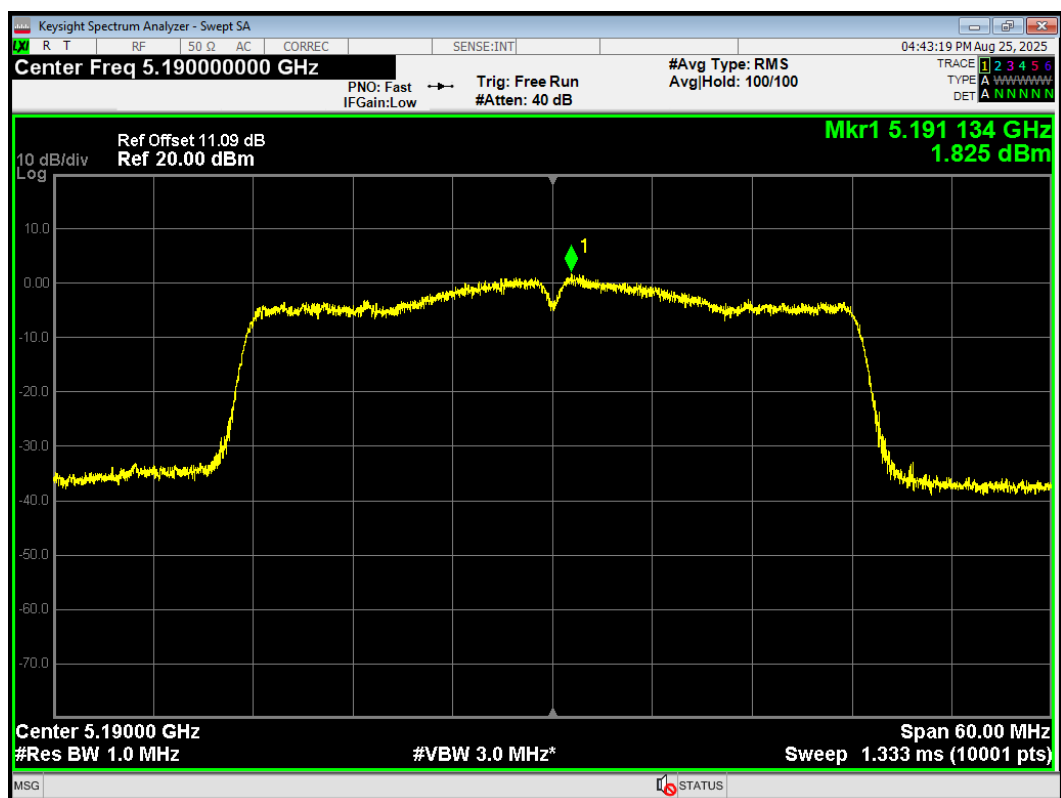
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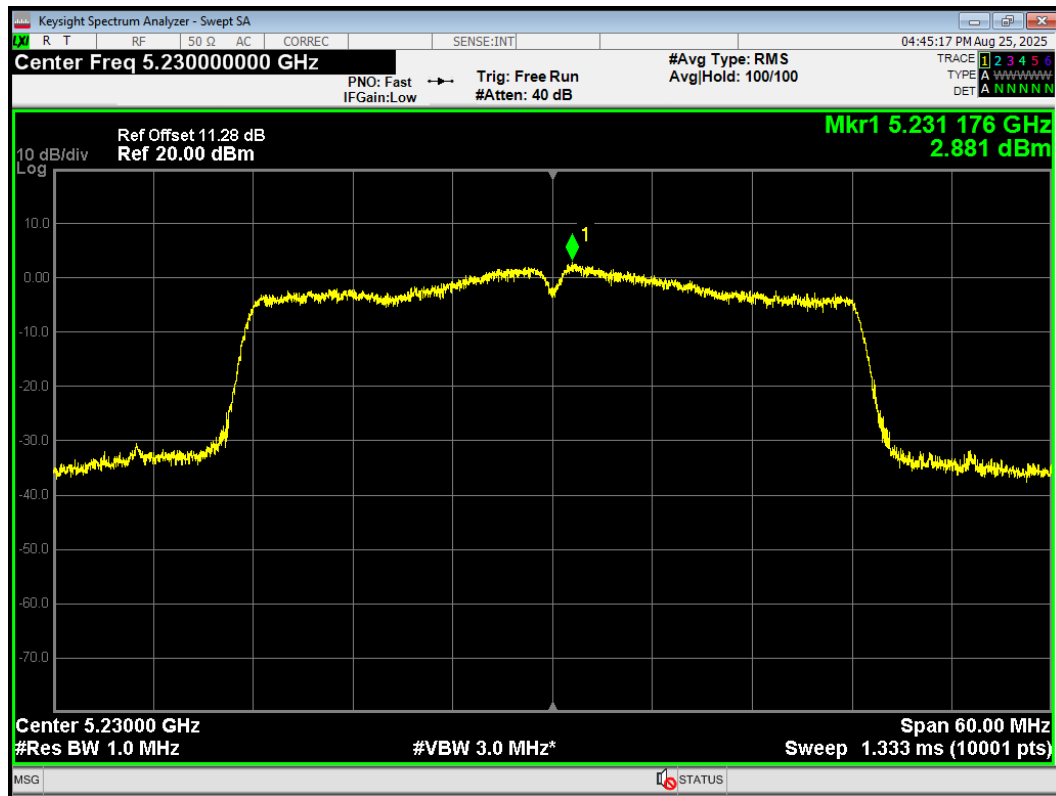
PSD 802.11ac(VHT40) 5190MHz Ant1



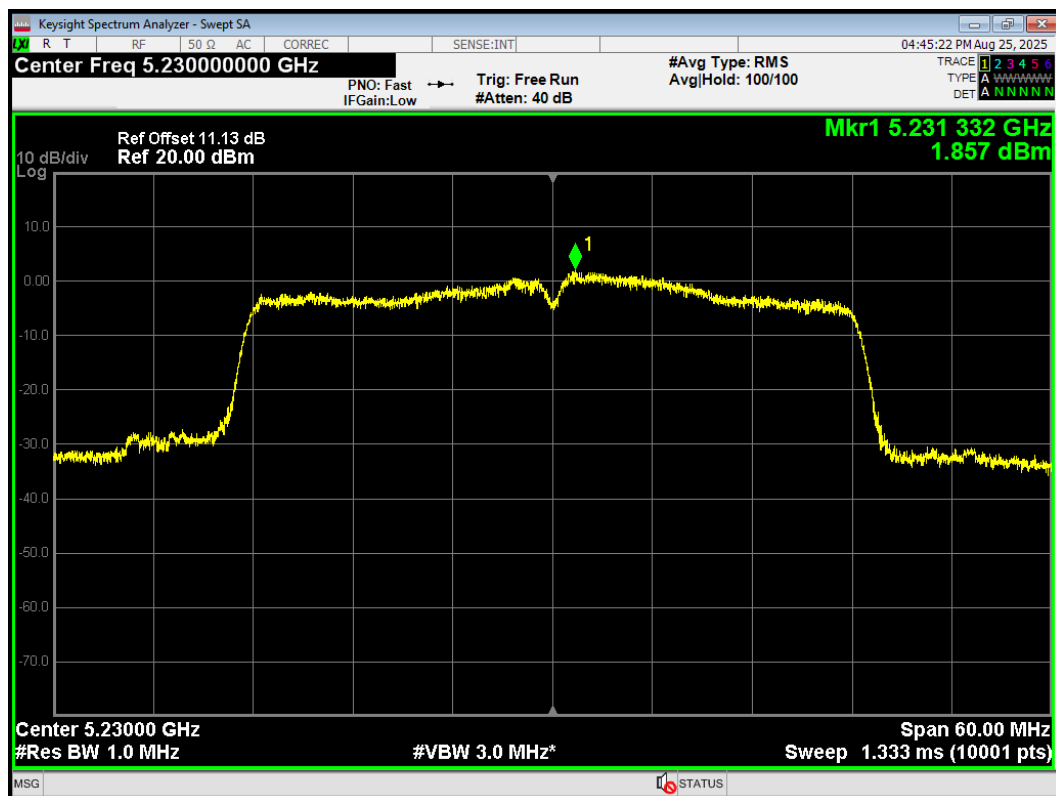
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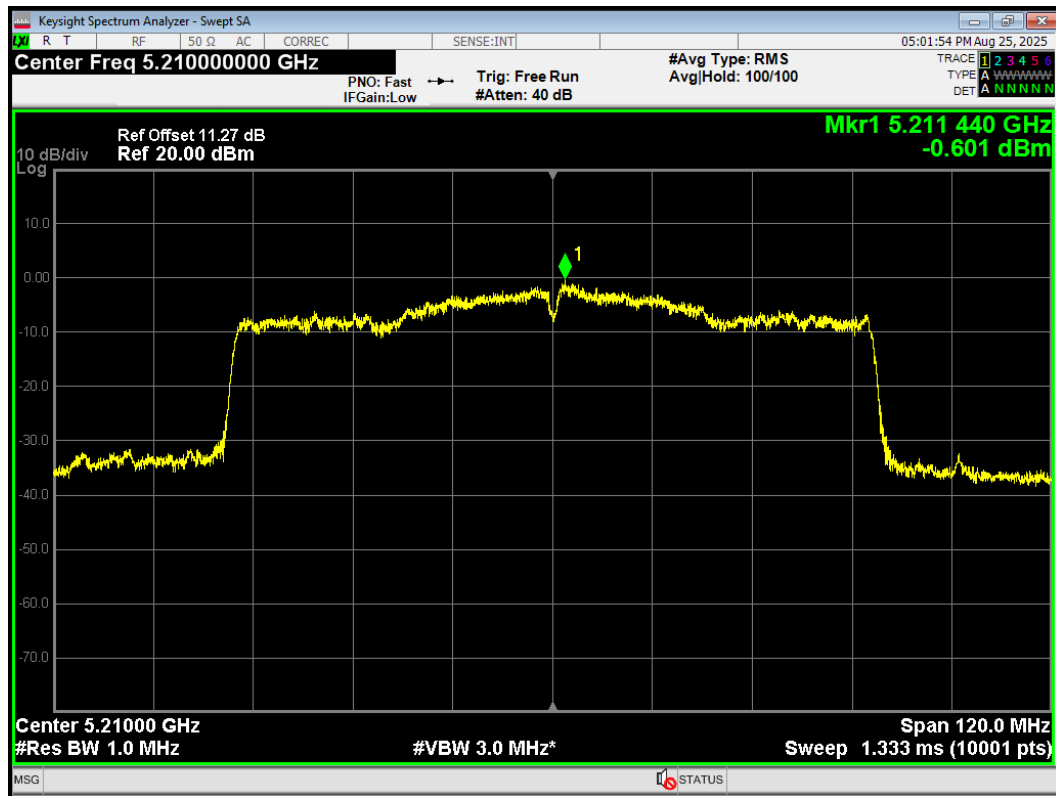
PSD 802.11ac(VHT40) 5230MHz Ant1



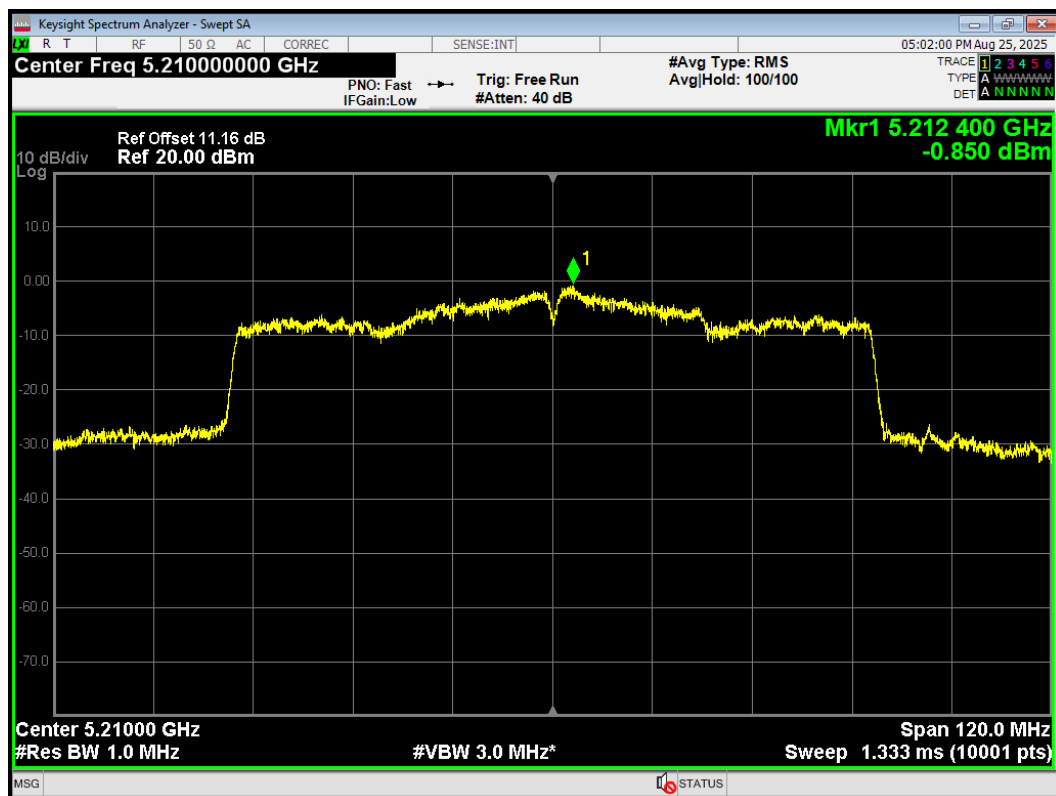
PSD 802.11ac(VHT40) 5230MHz Ant2



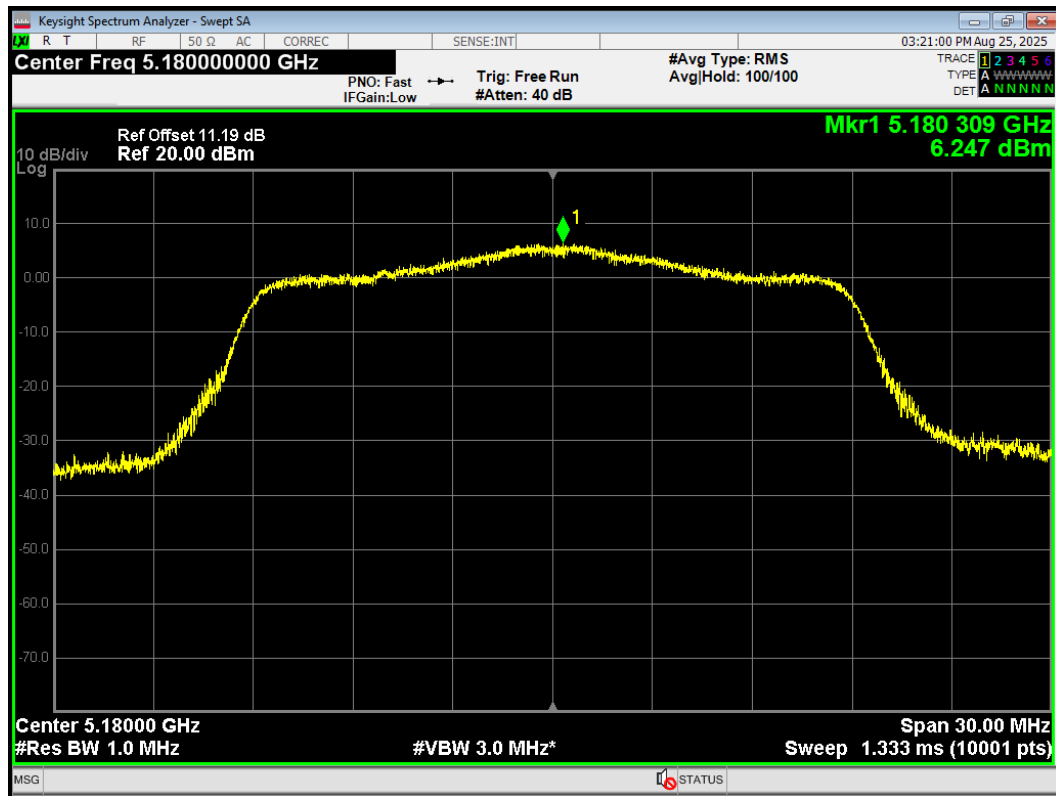
PSD 802.11ac(VHT80) 5210MHz Ant1



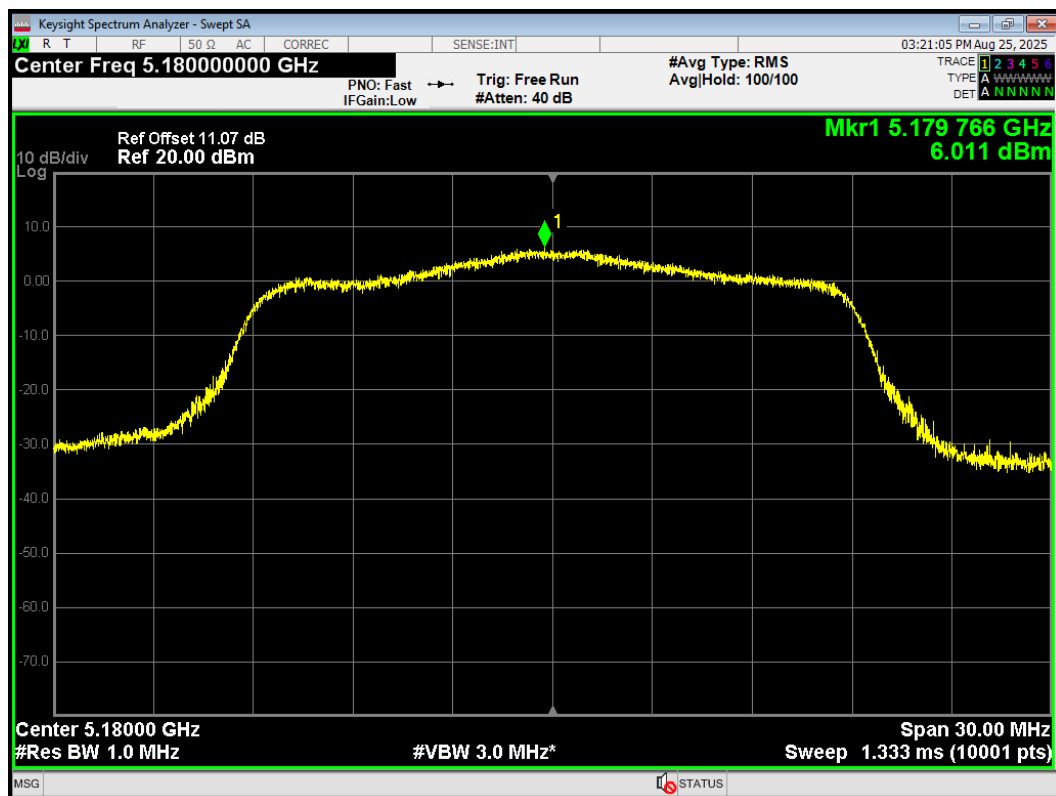
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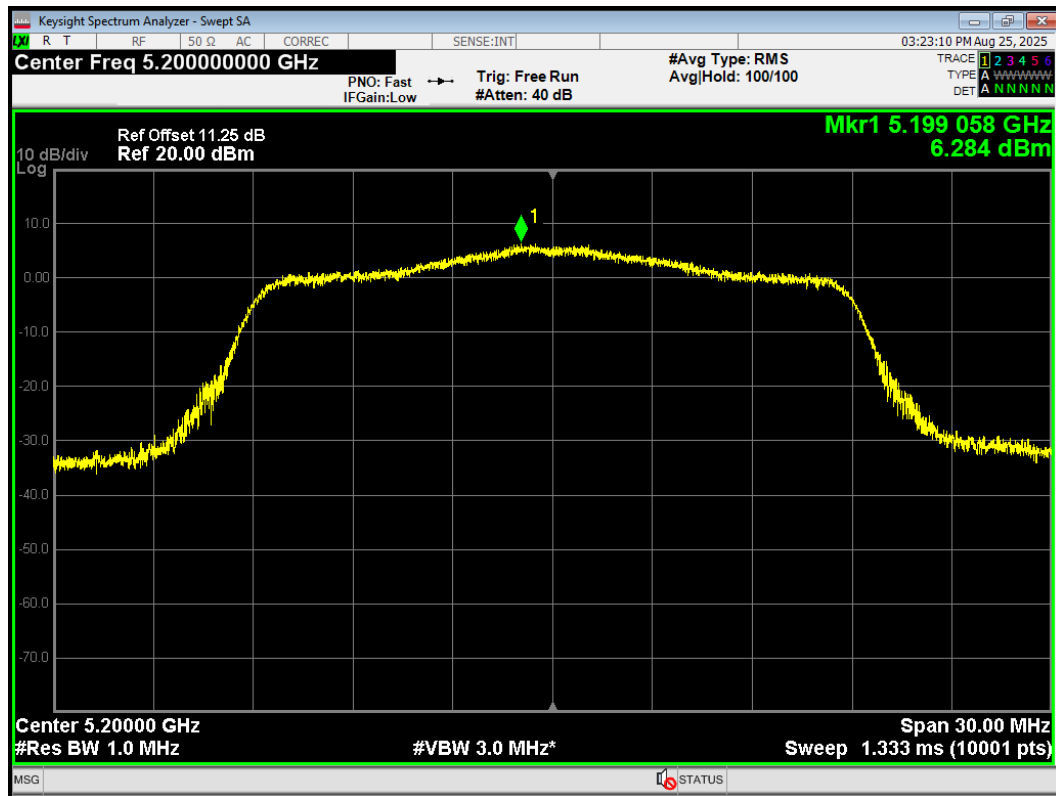
PSD 802.11ax(HE20) 5180MHz Ant1



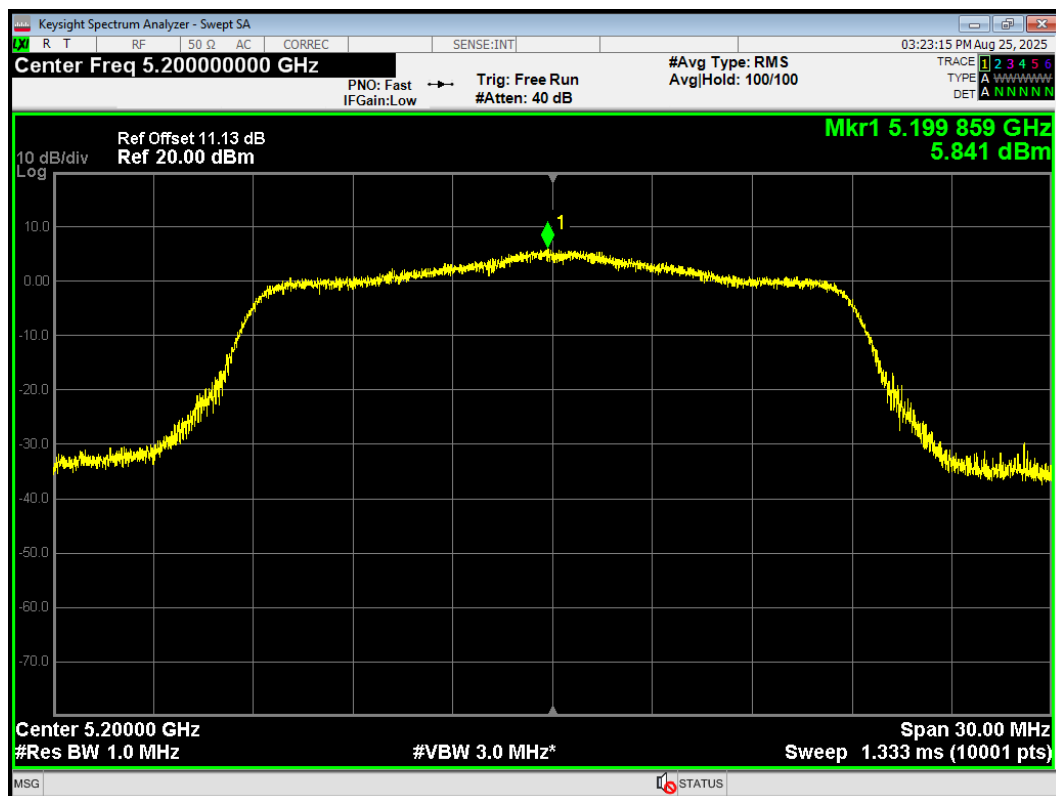
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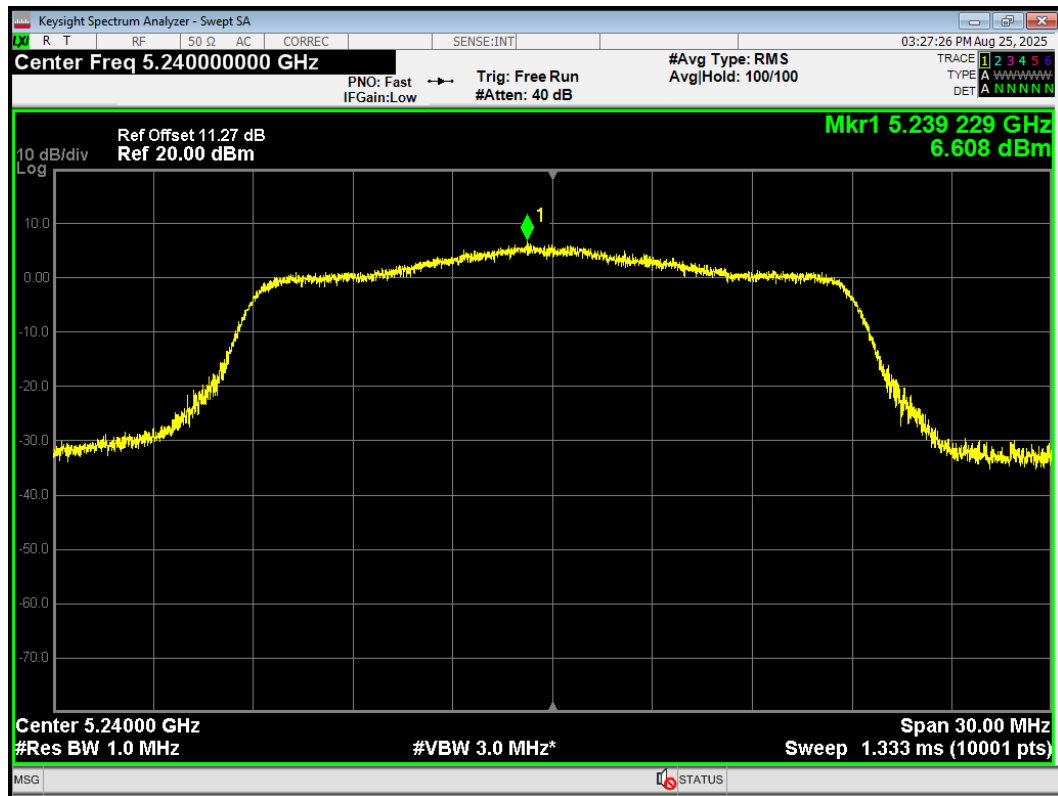
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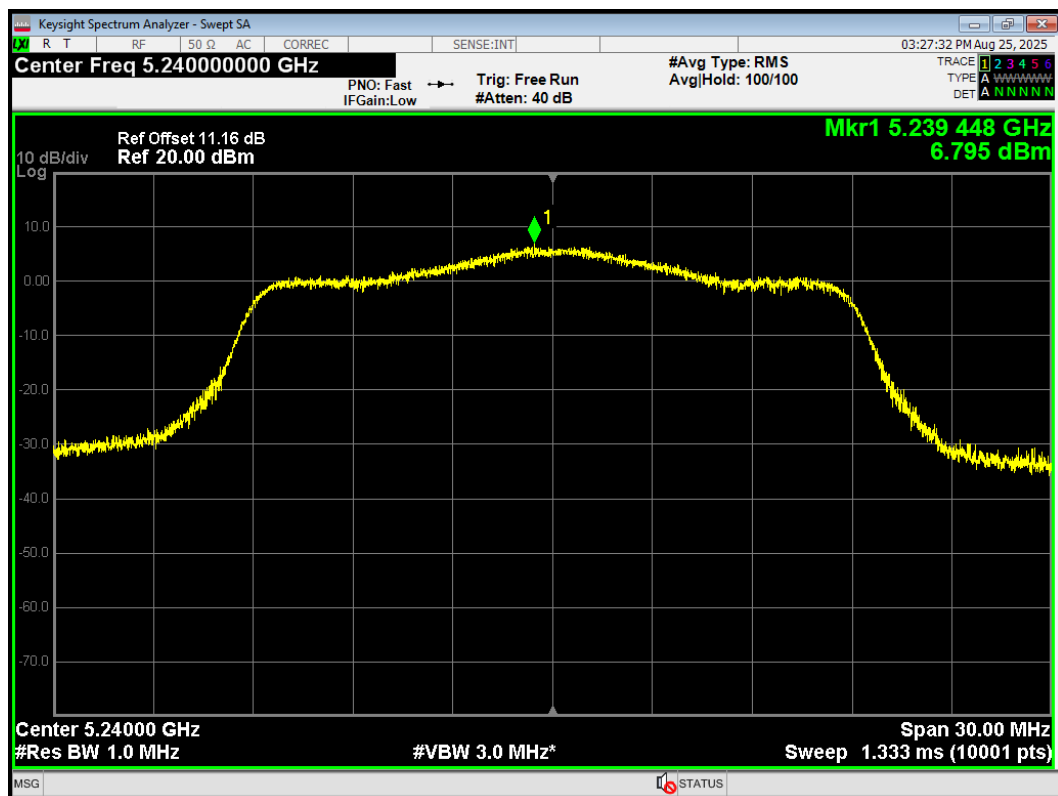
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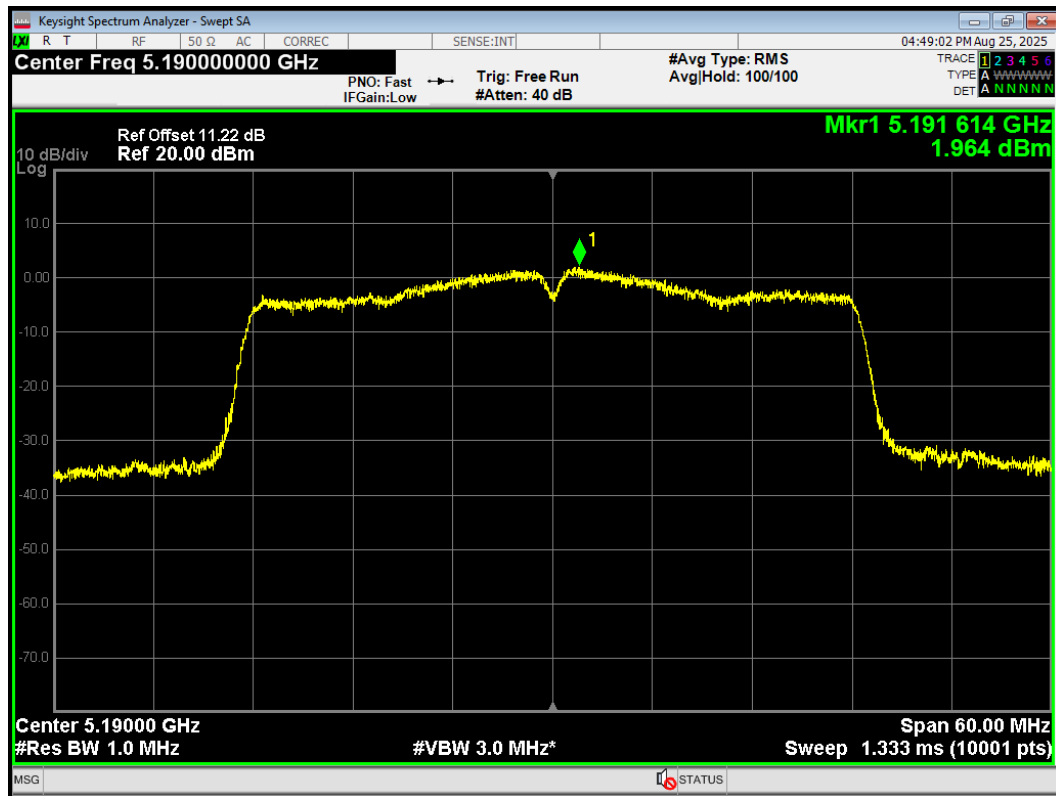
PSD 802.11ax(HE20) 5240MHz Ant1



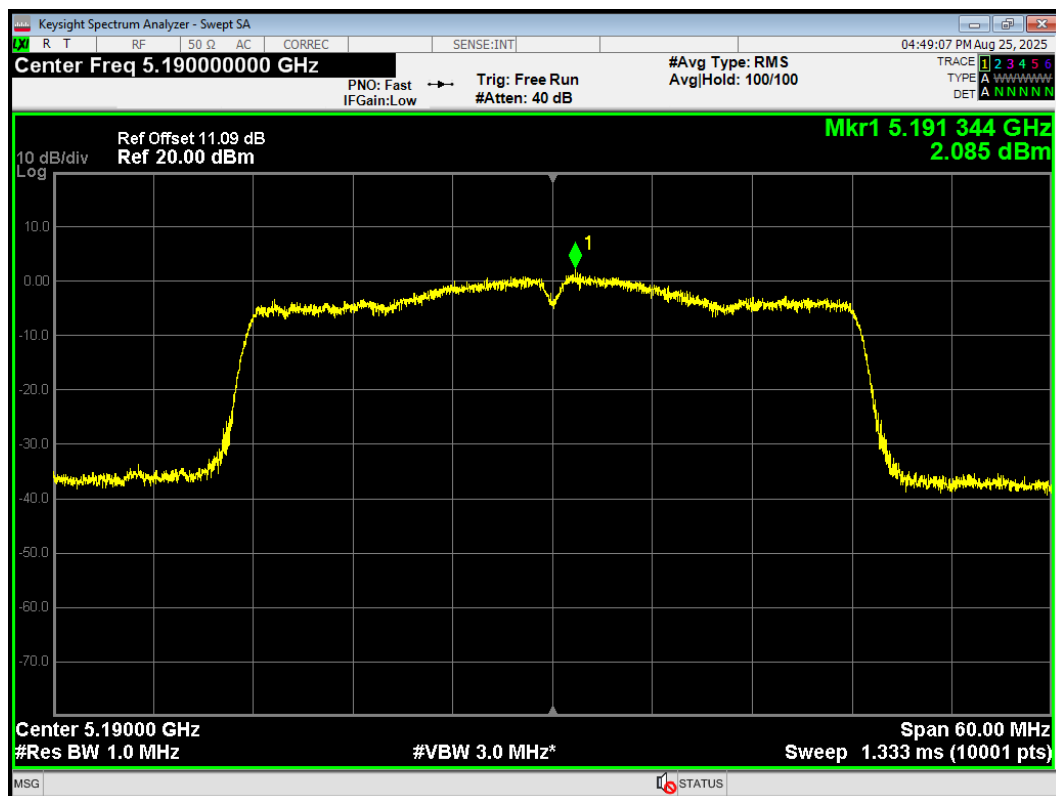
PSD 802.11ax(HE20) 5240MHz Ant2



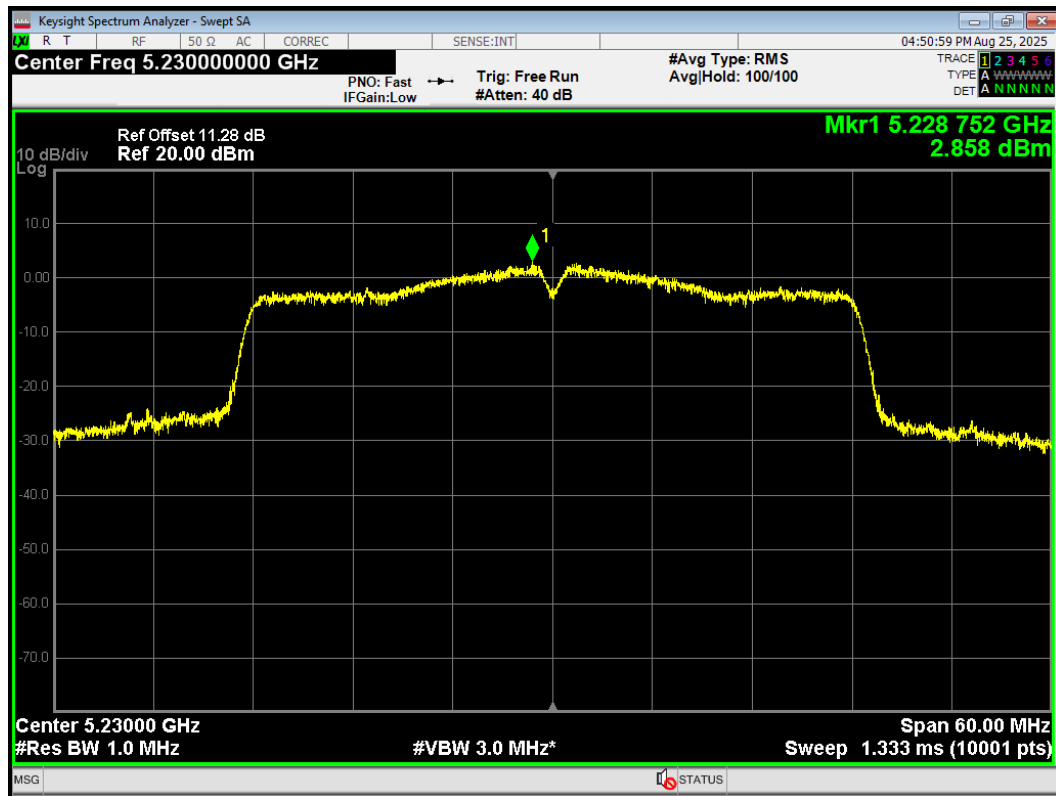
PSD 802.11ax(HE40) 5190MHz Ant1



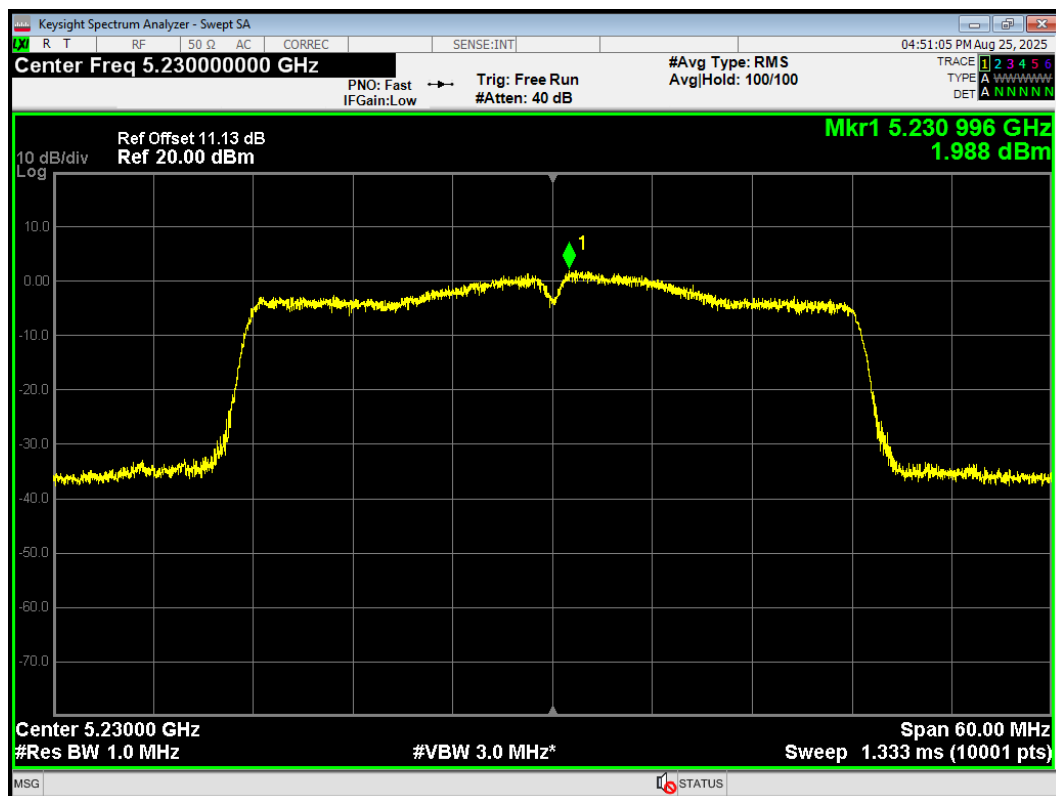
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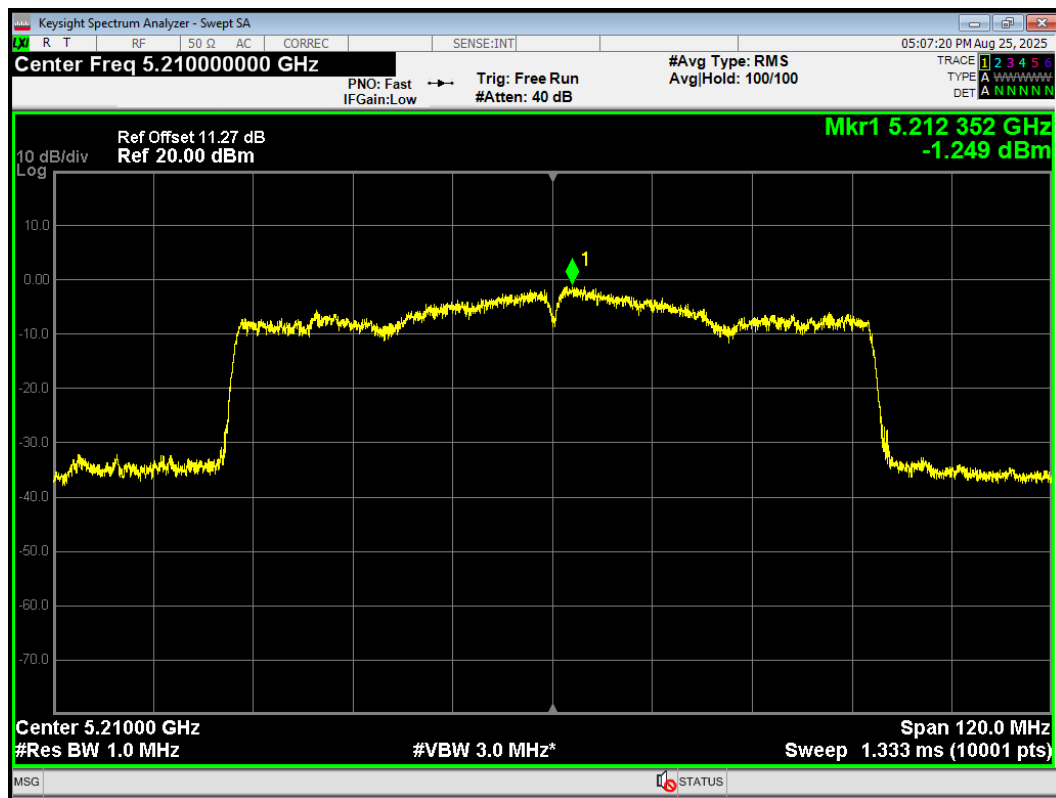
PSD 802.11ax(HE40) 5230MHz Ant1



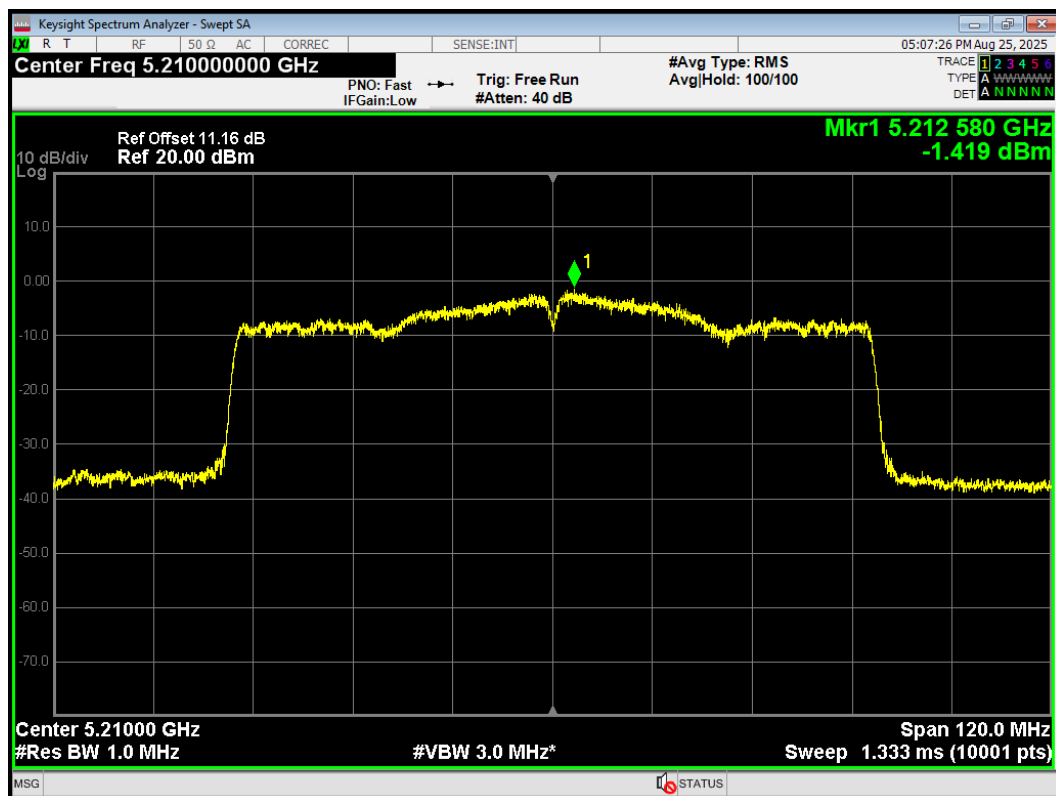
PSD 802.11ax(HE40) 5230MHz Ant2



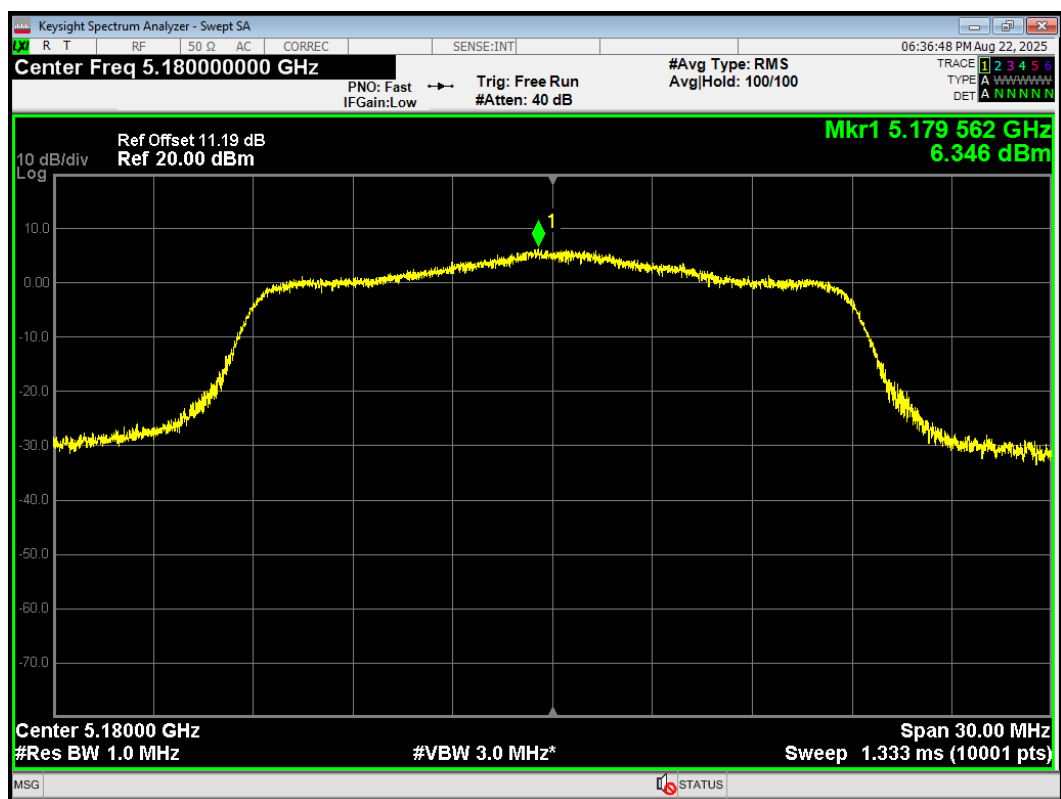
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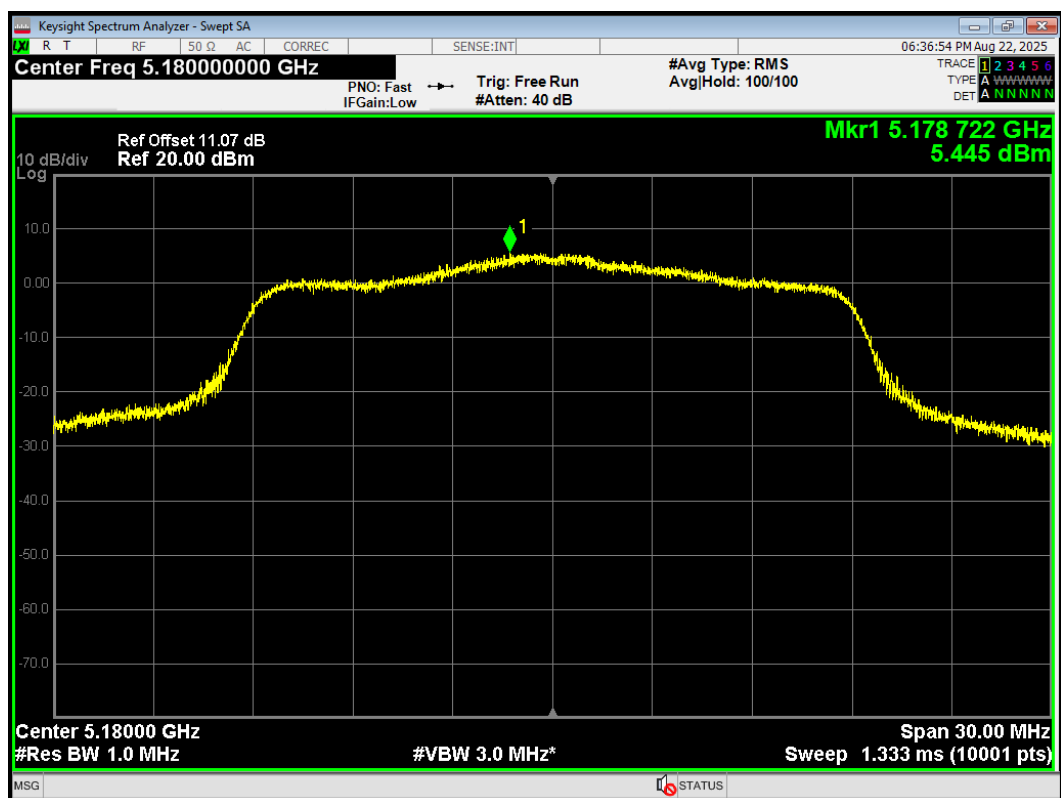
PSD 802.11ax(HE80) 5210MHz Ant2



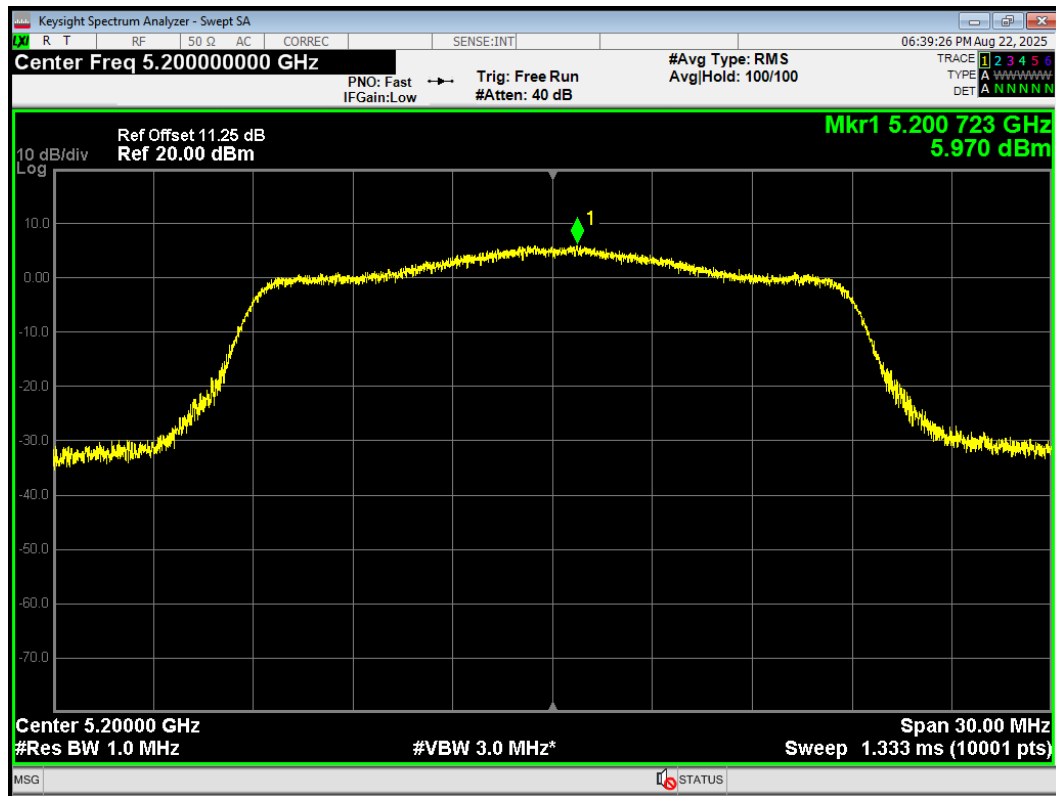
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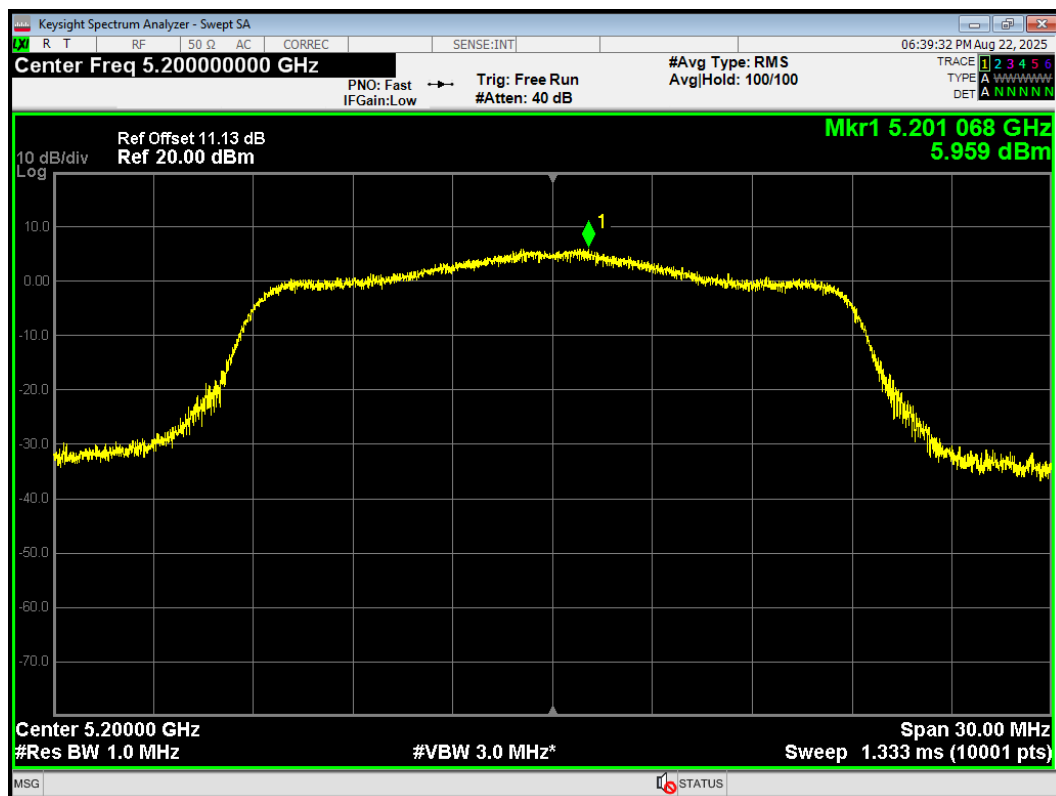
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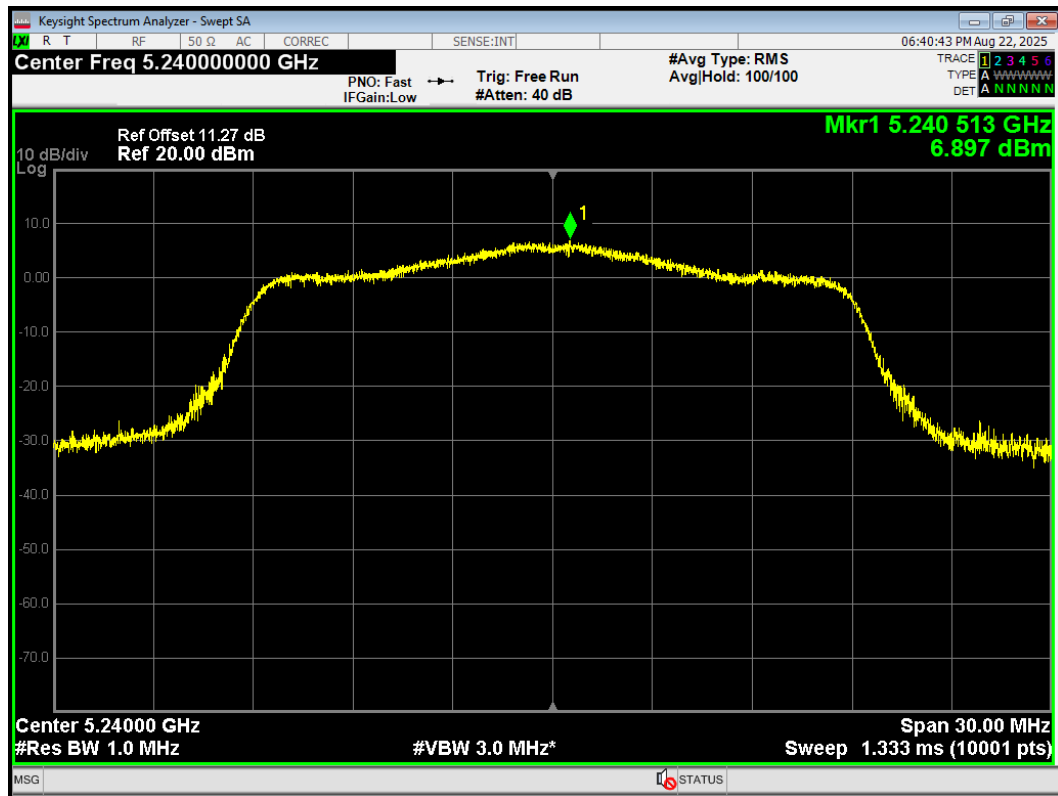
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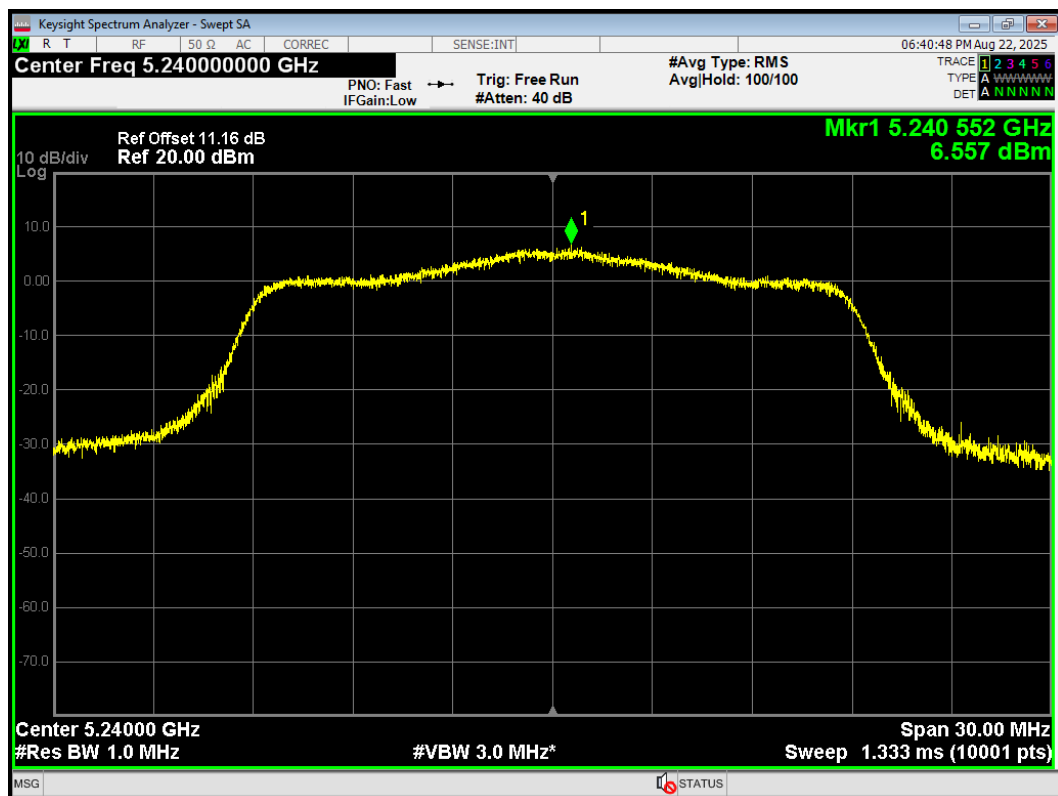
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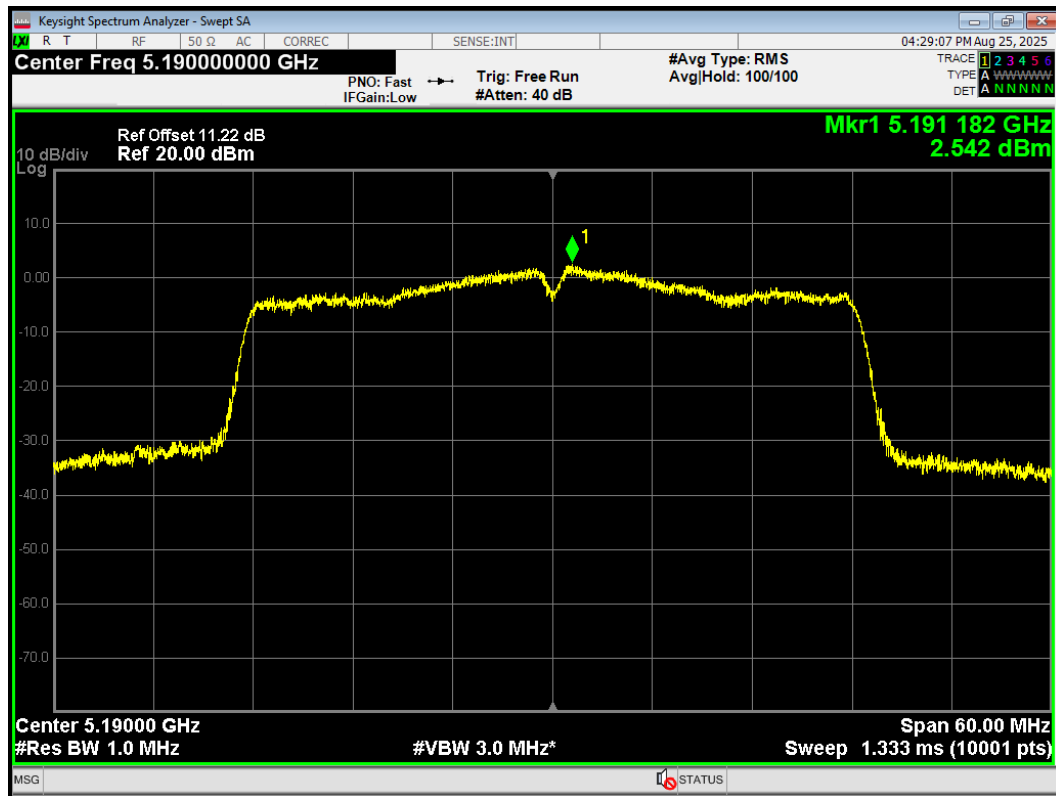
PSD 802.11n(HT20) 5240MHz Ant1



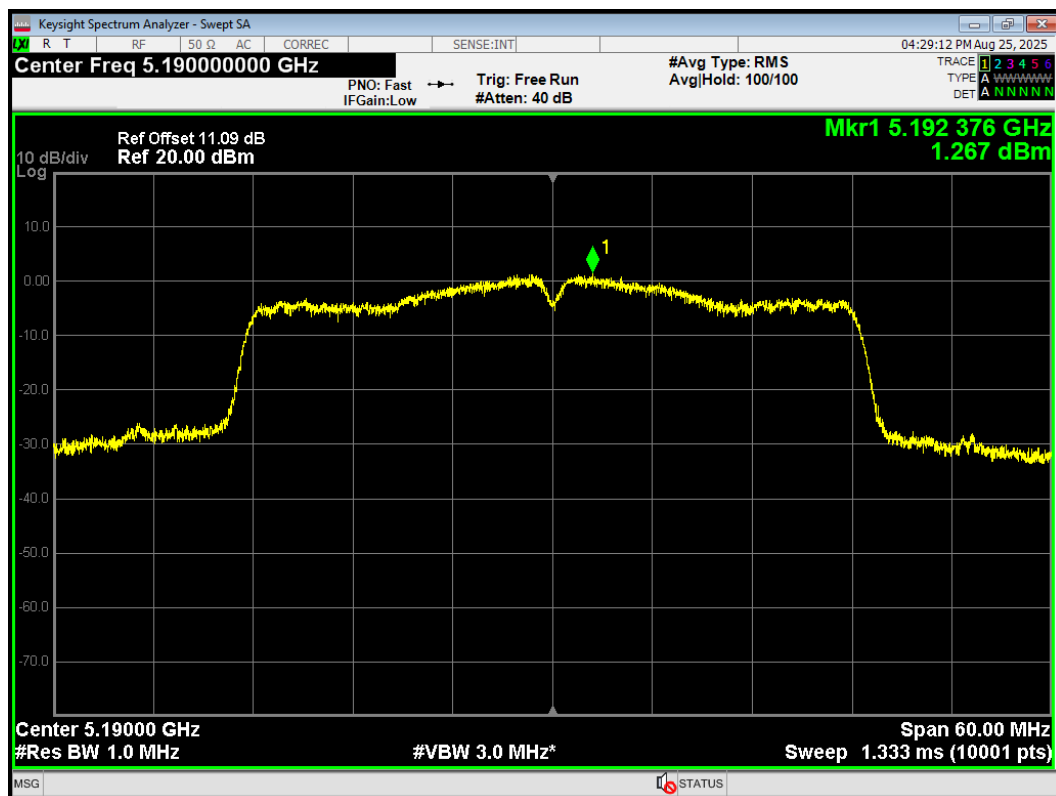
PSD 802.11n(HT20) 5240MHz Ant2



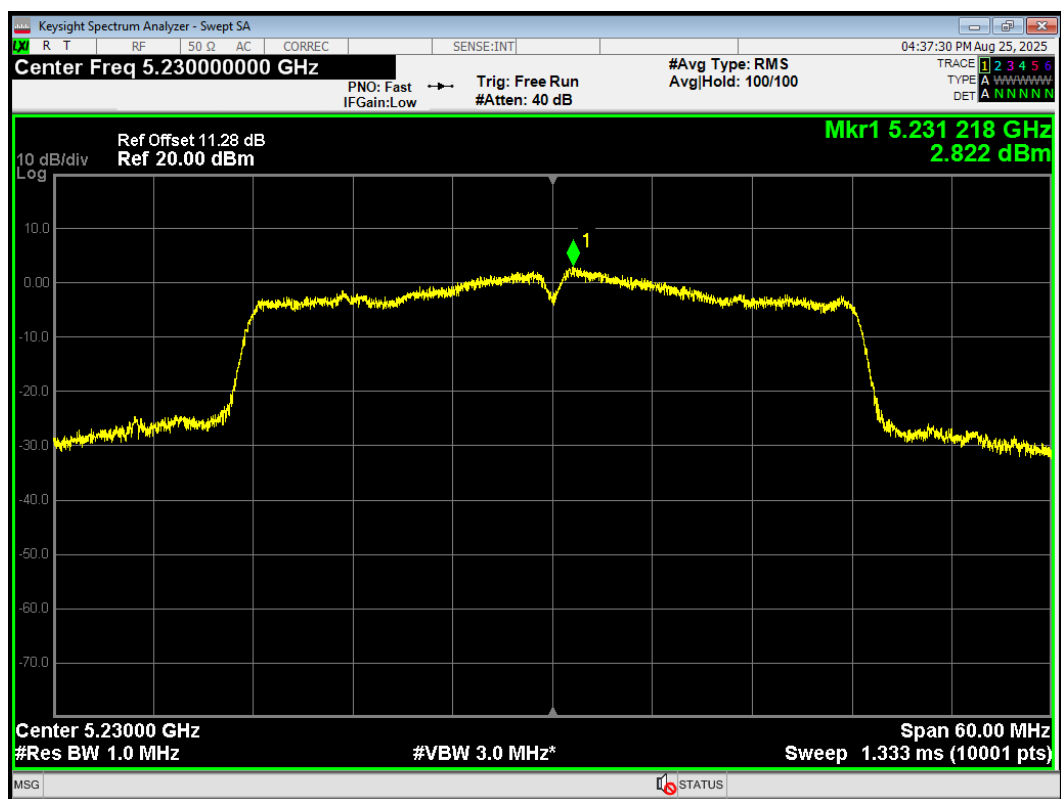
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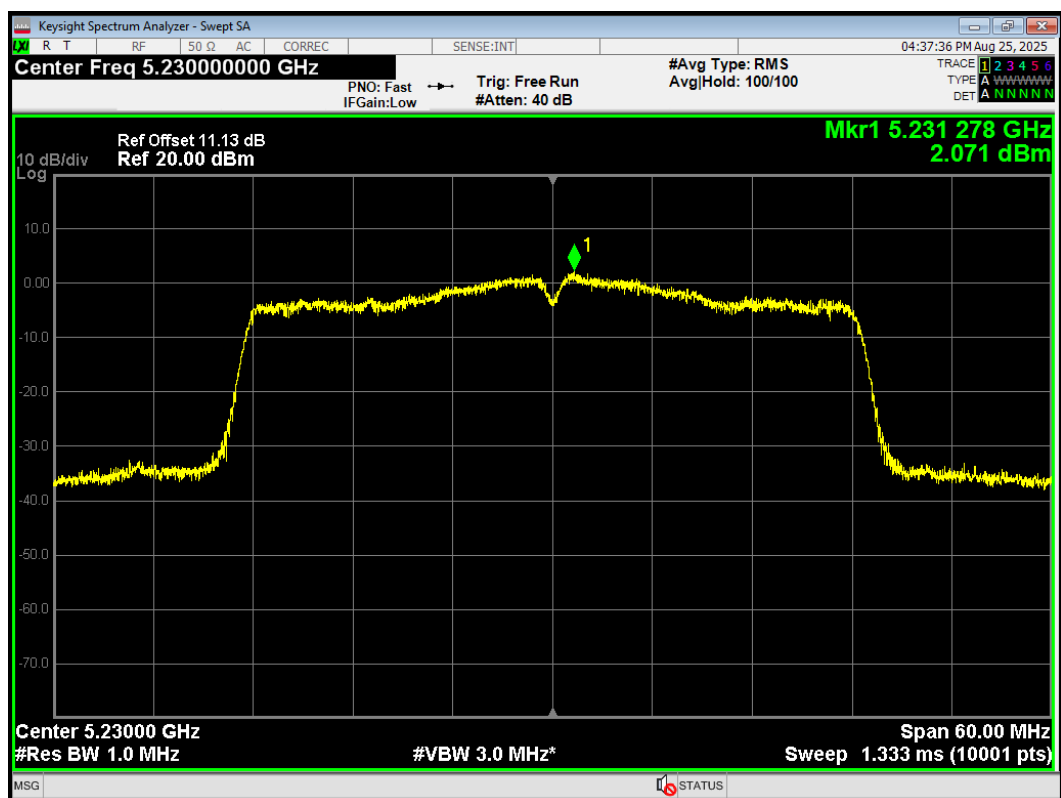
PSD 802.11n(HT40) 5190MHz Ant2



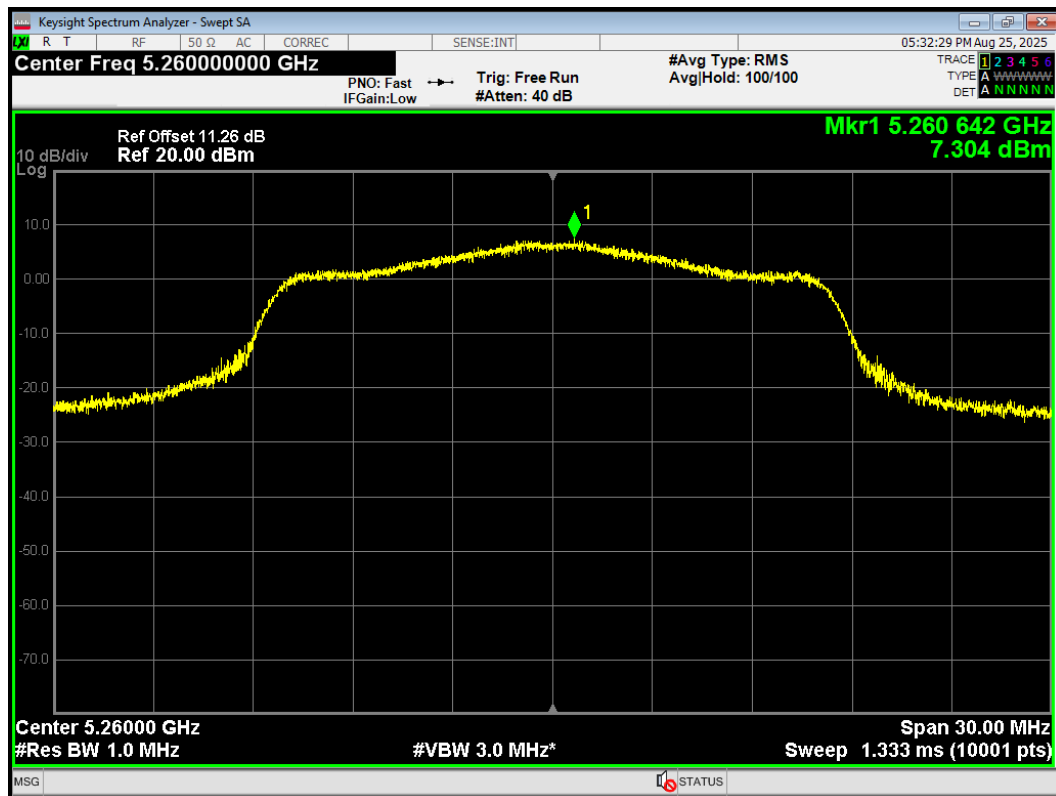
PSD 802.11n(HT40) 5230MHz Ant1



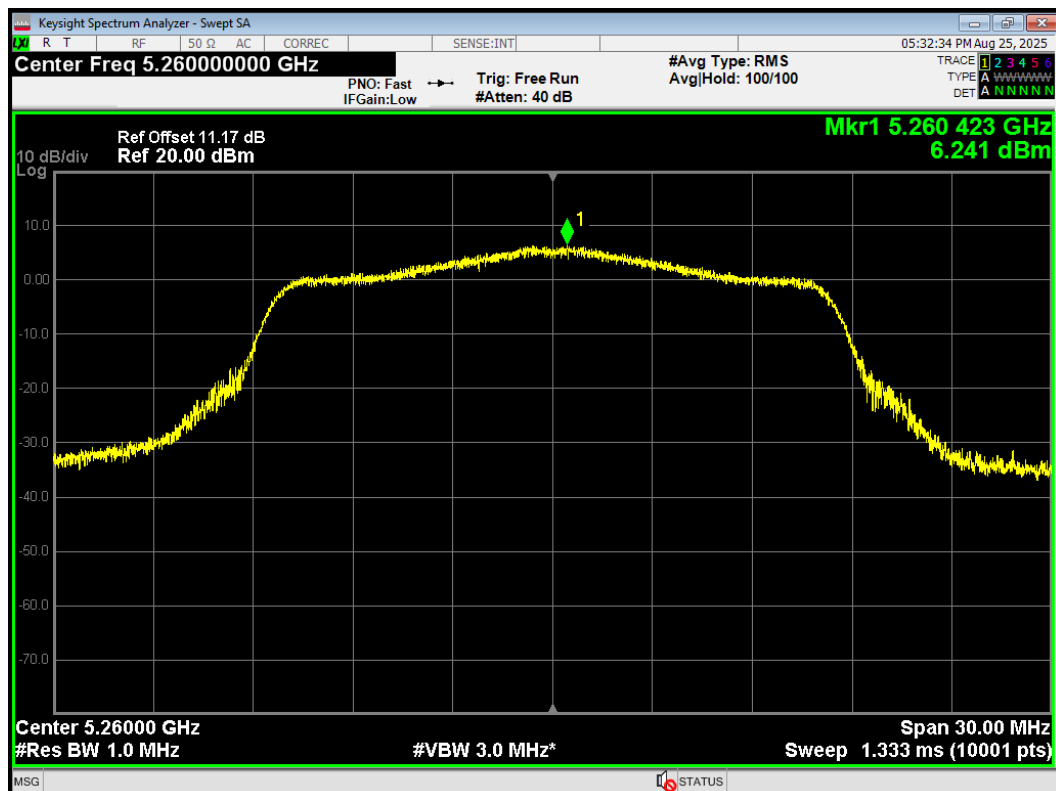
PSD 802.11n(HT40) 5230MHz Ant2



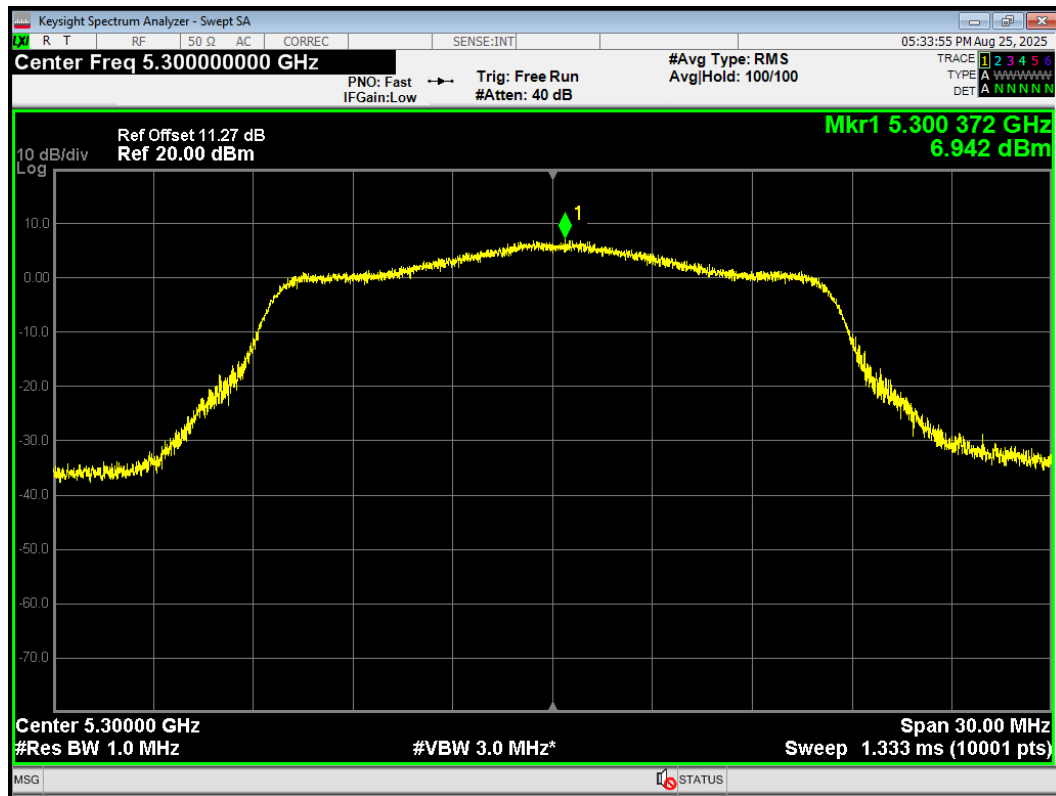
PSD 802.11a 5260MHz Ant1



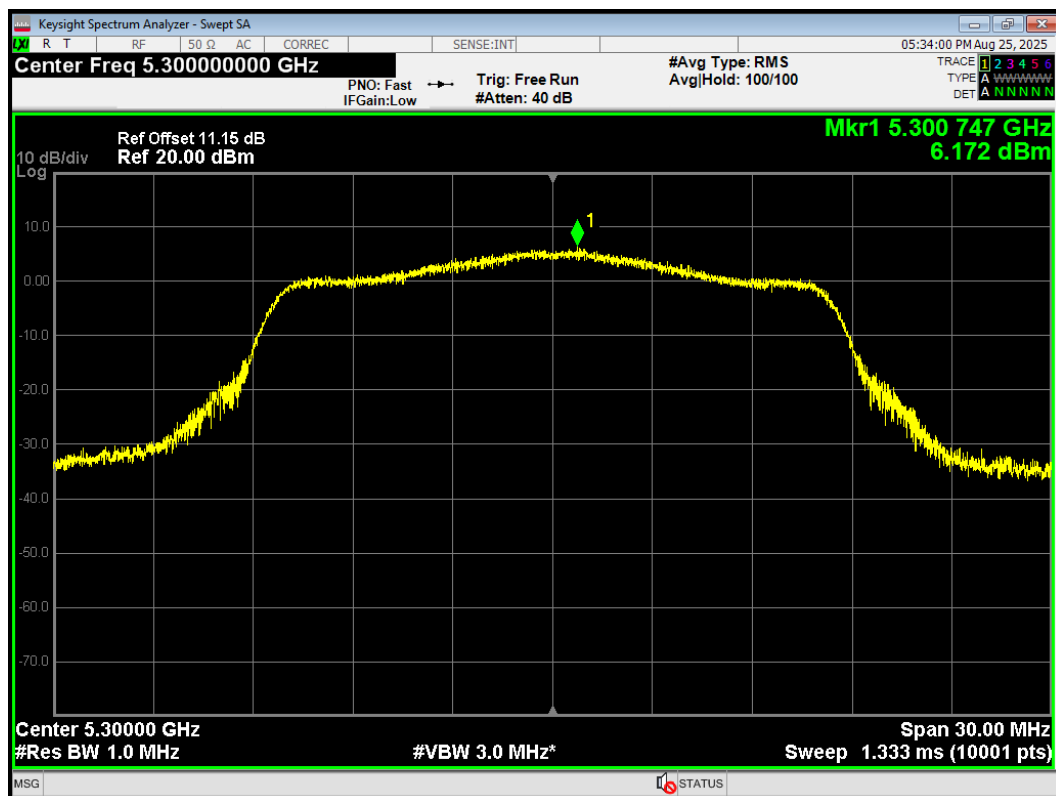
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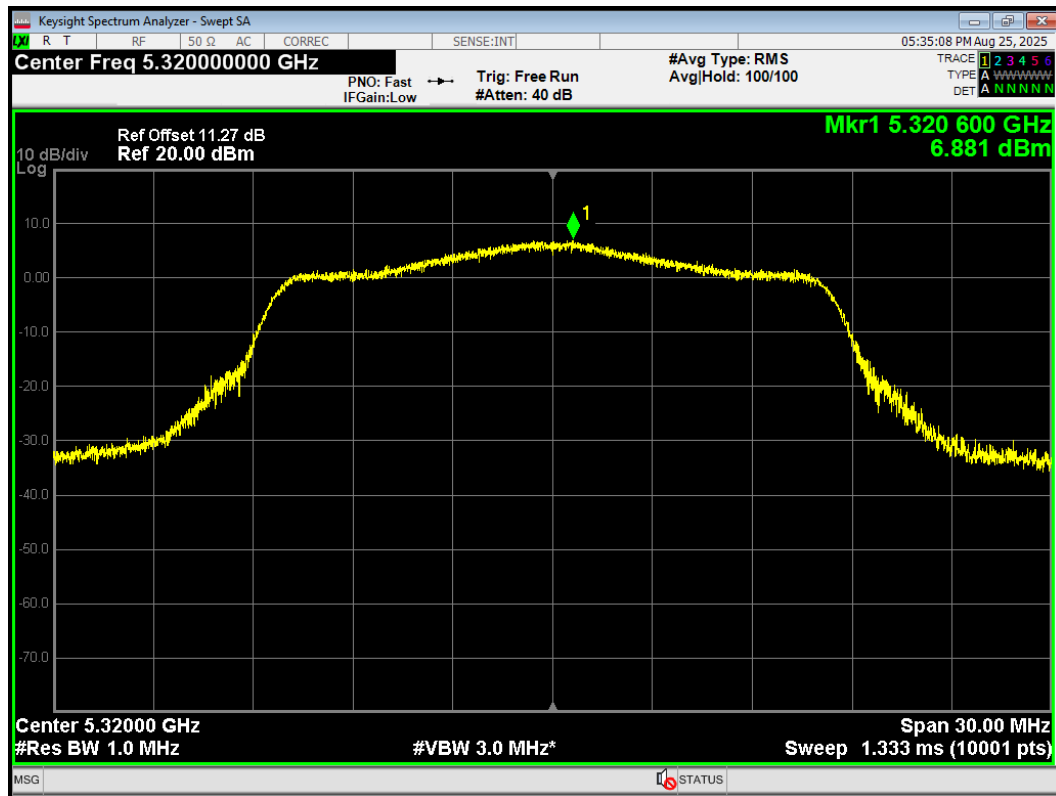
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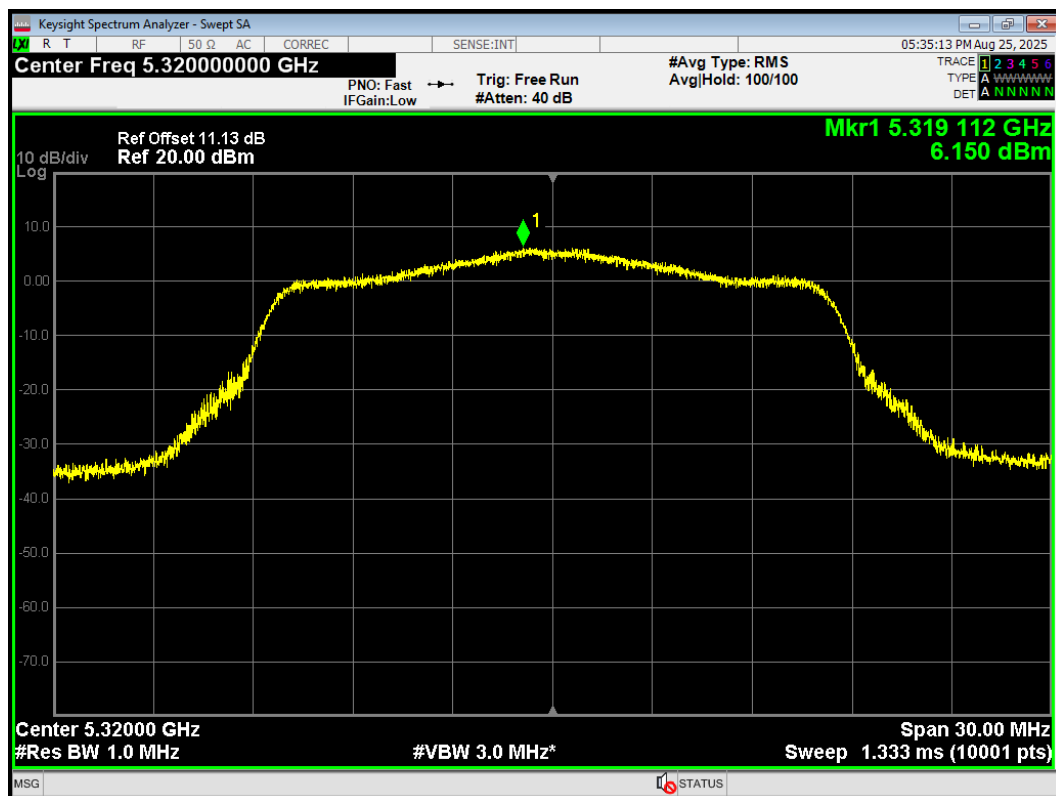
PSD 802.11a 5300MHz Ant2



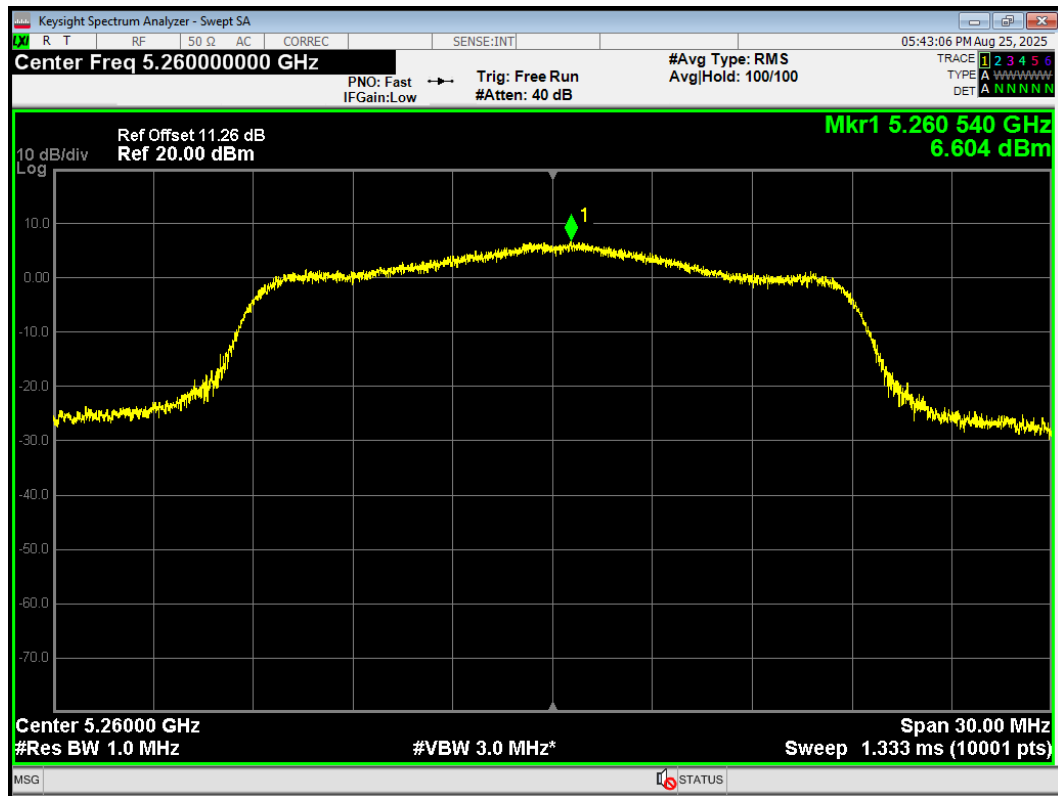
PSD 802.11a 5320MHz Ant1



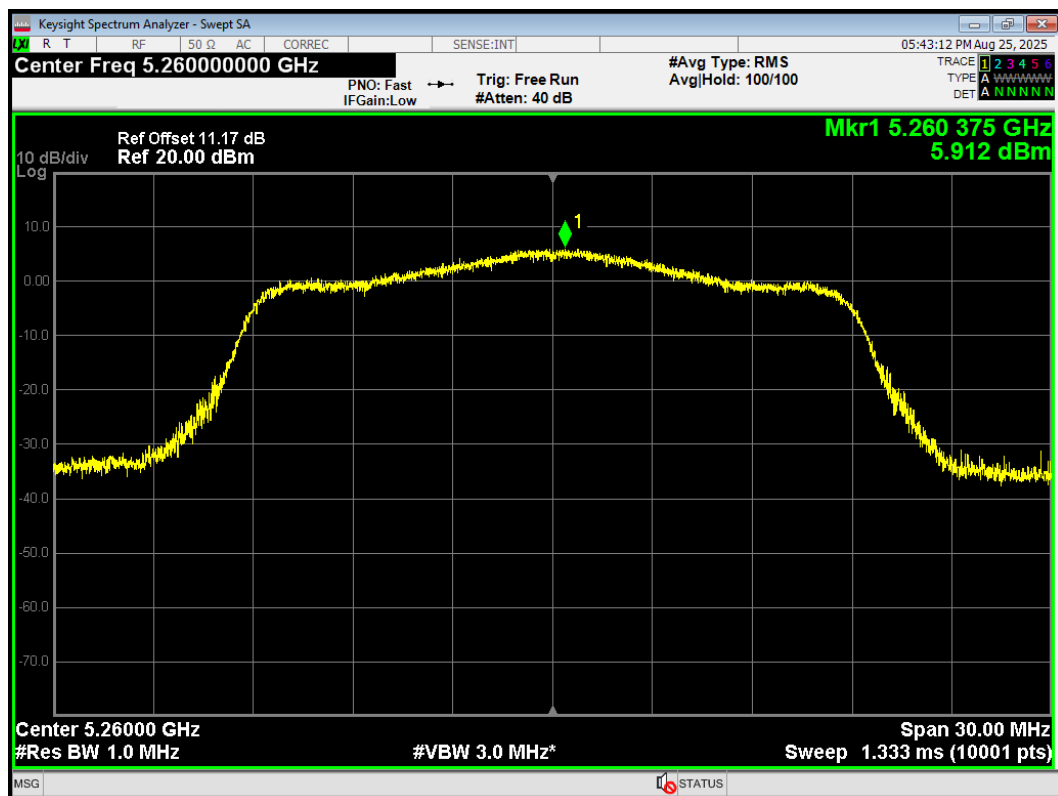
PSD 802.11a 5320MHz Ant2



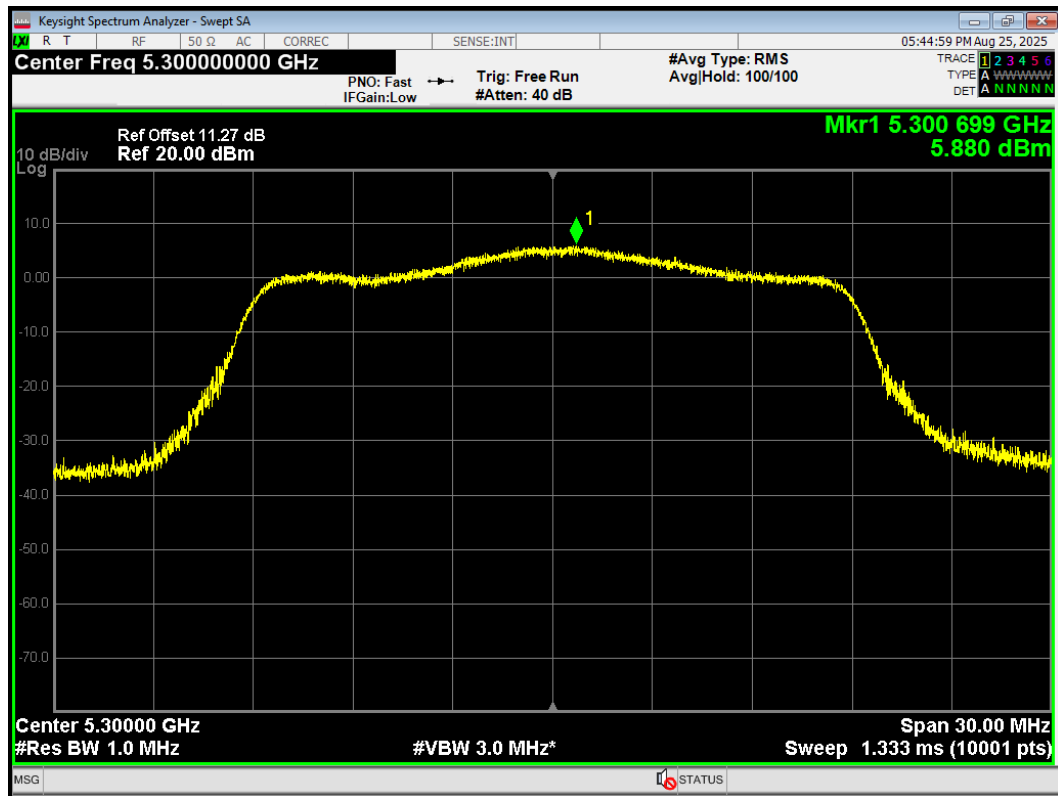
PSD 802.11ac(VHT20) 5260MHz Ant1



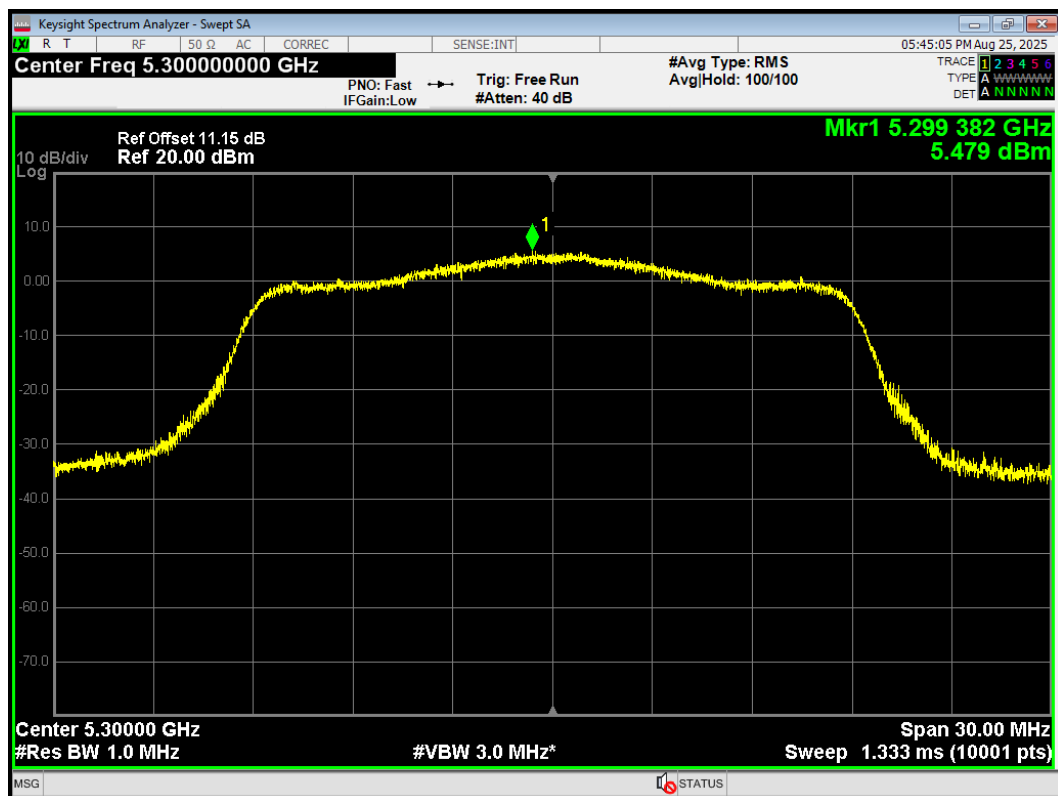
PSD 802.11ac(VHT20) 5260MHz Ant2



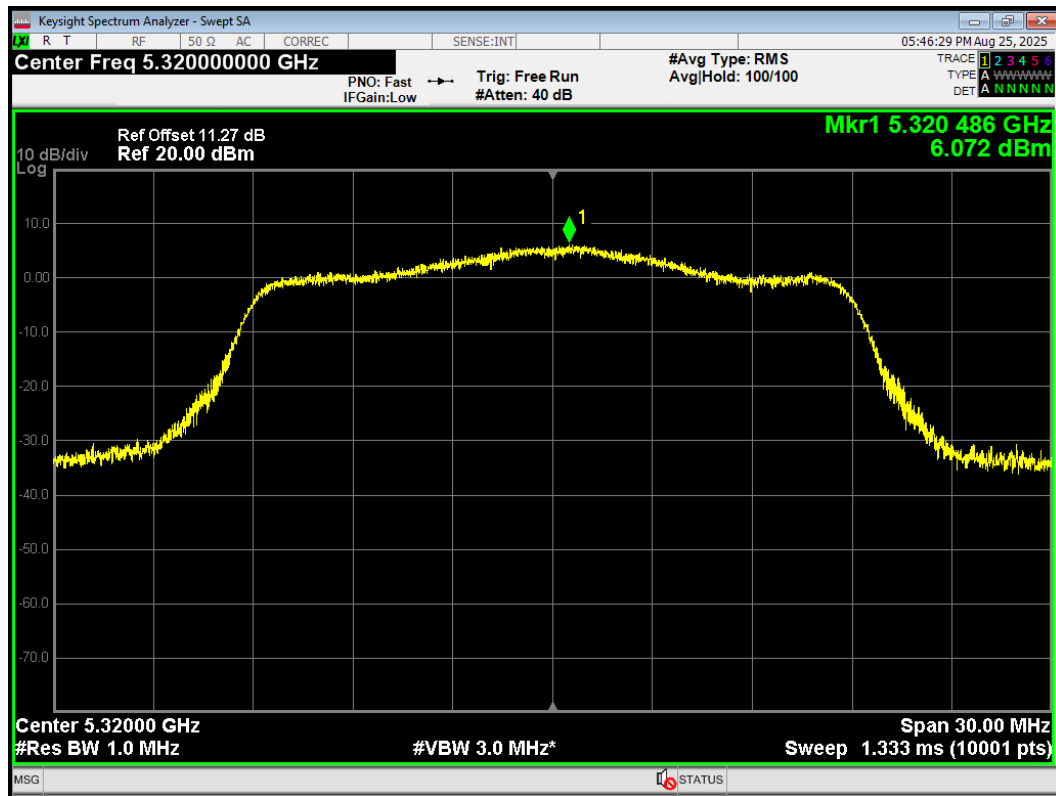
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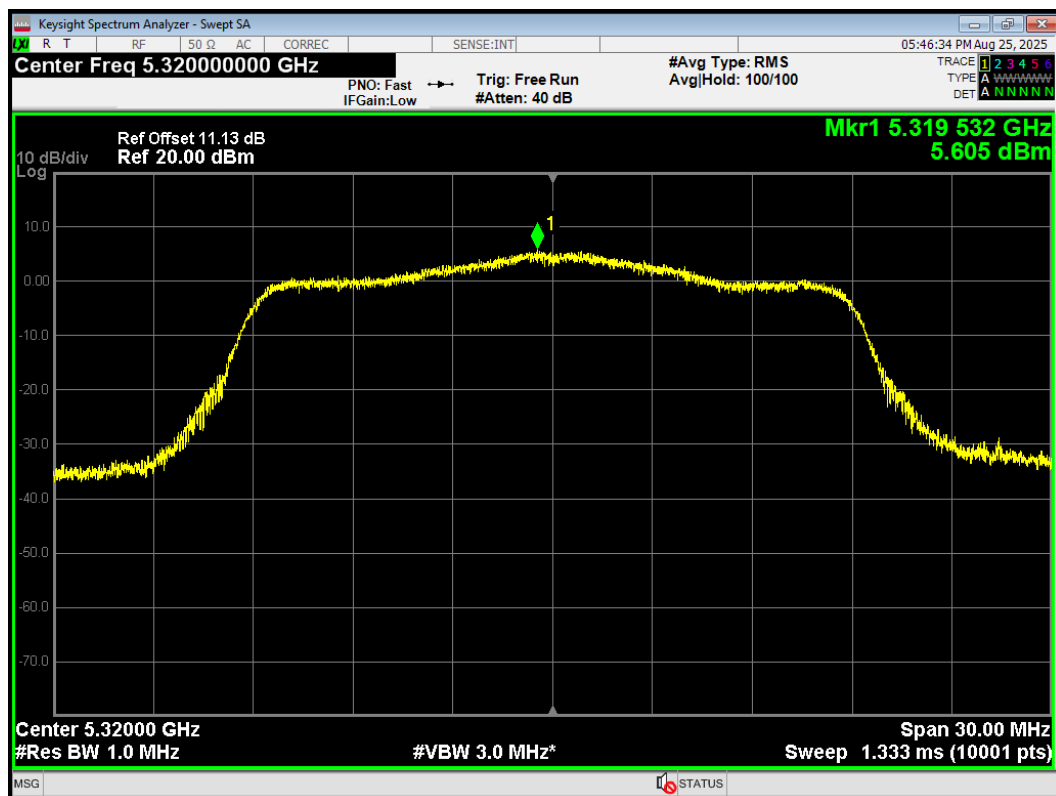
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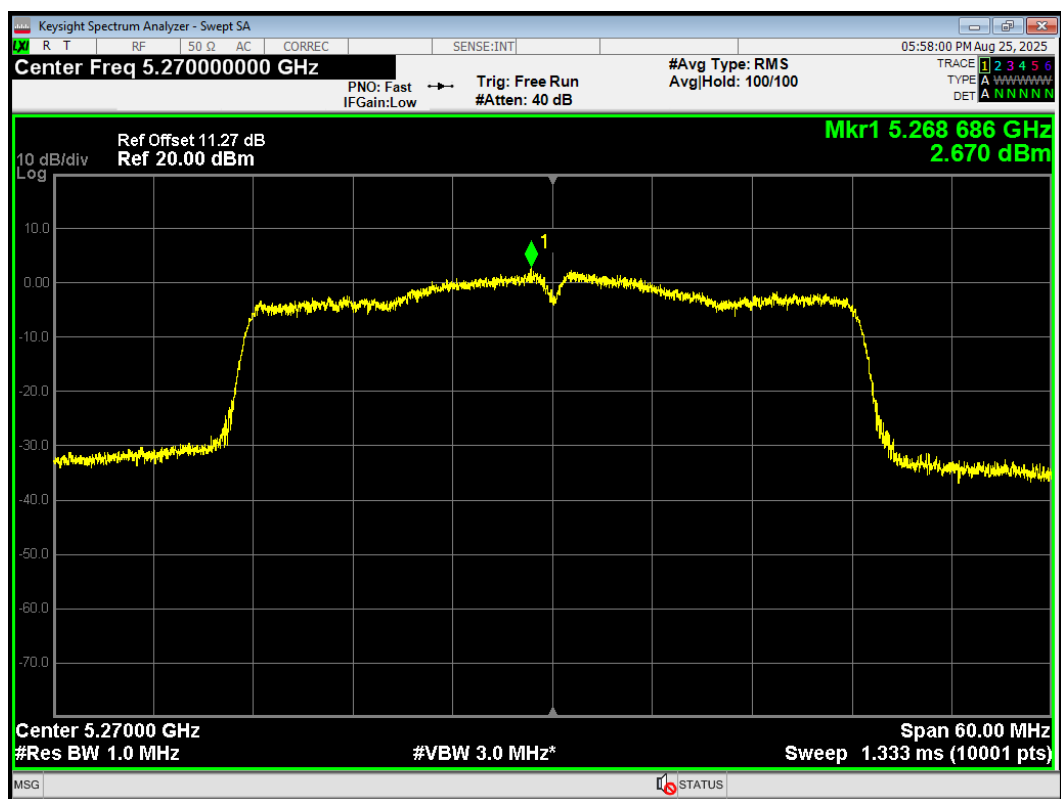
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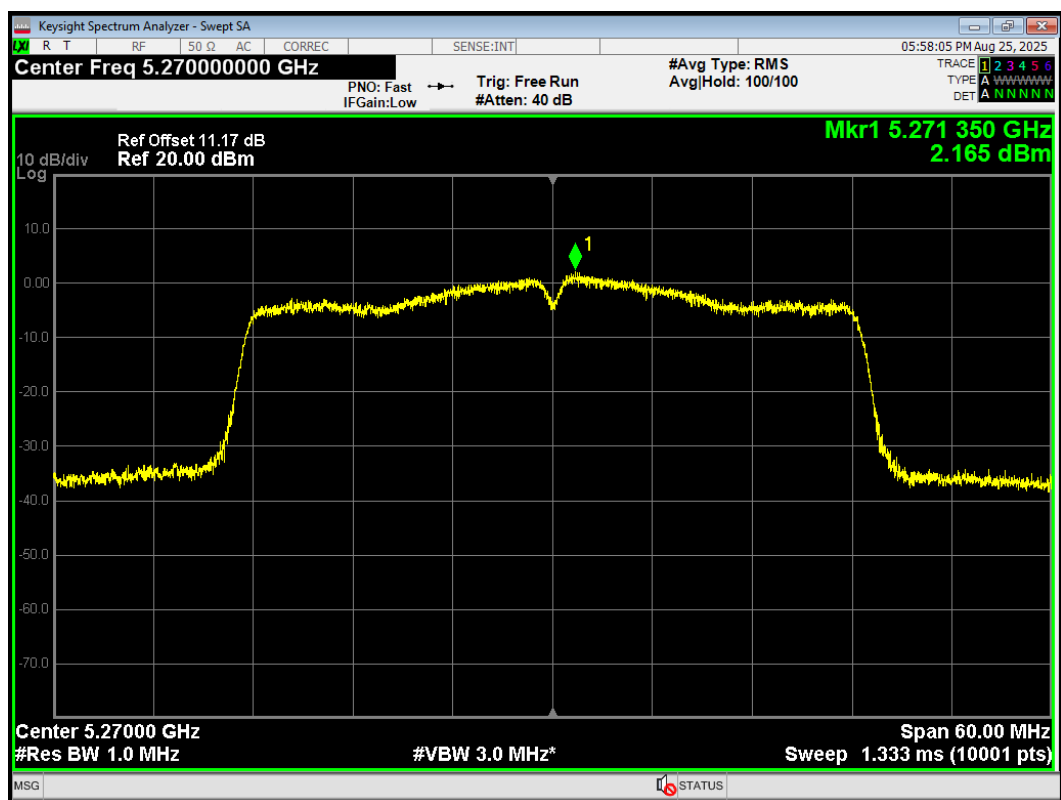
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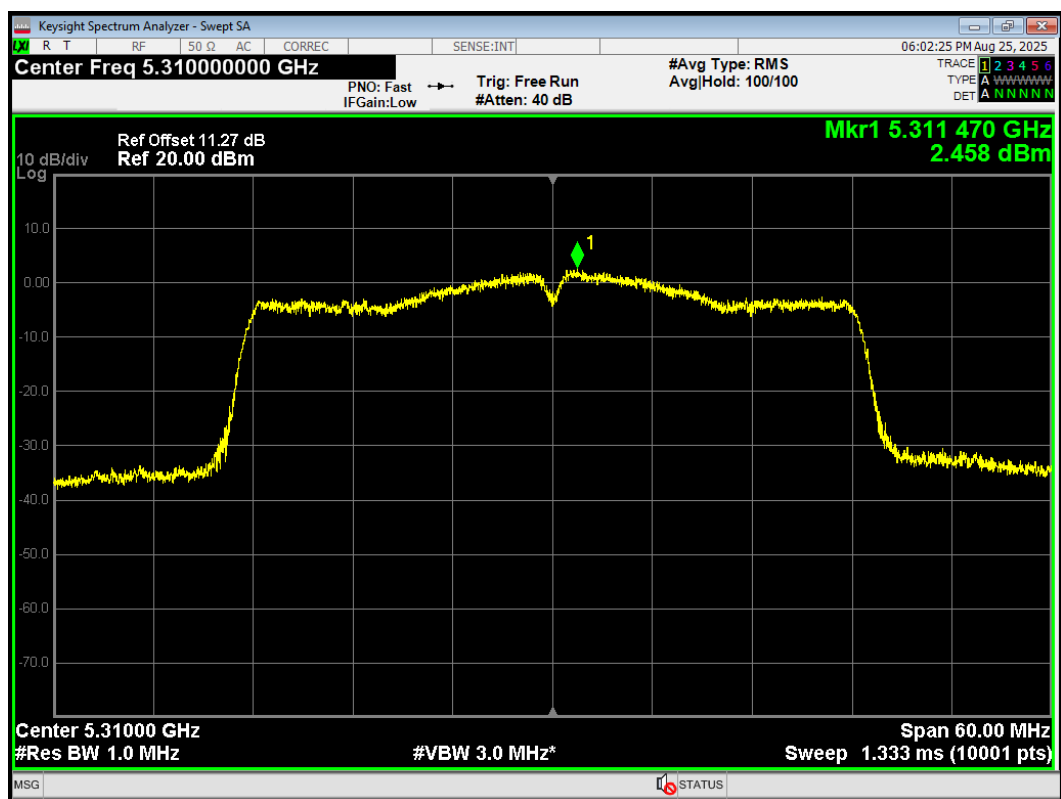
PSD 802.11ac(VHT40) 5270MHz Ant1



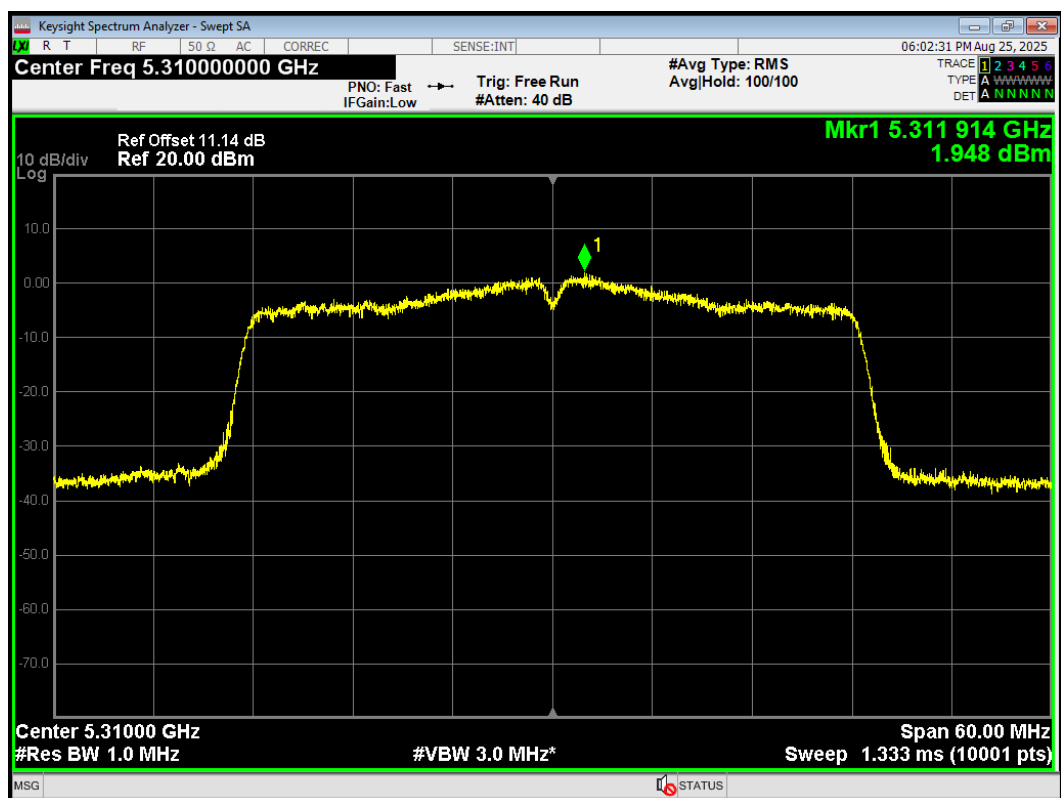
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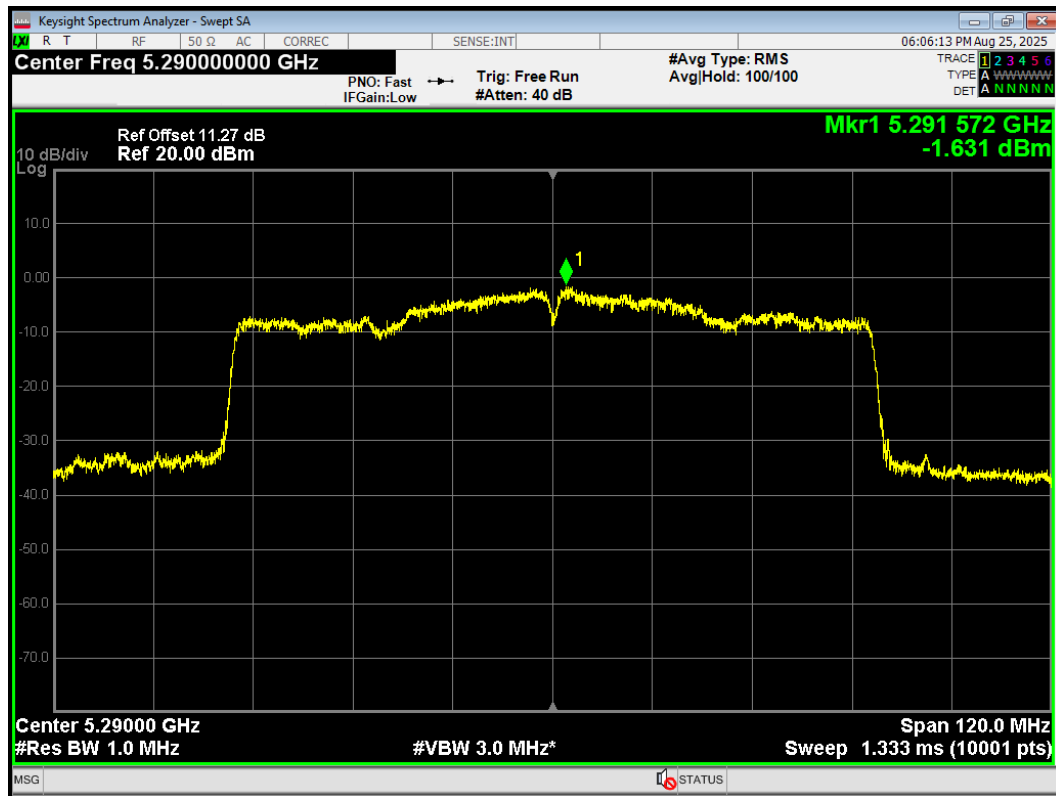
PSD 802.11ac(VHT40) 5310MHz Ant1



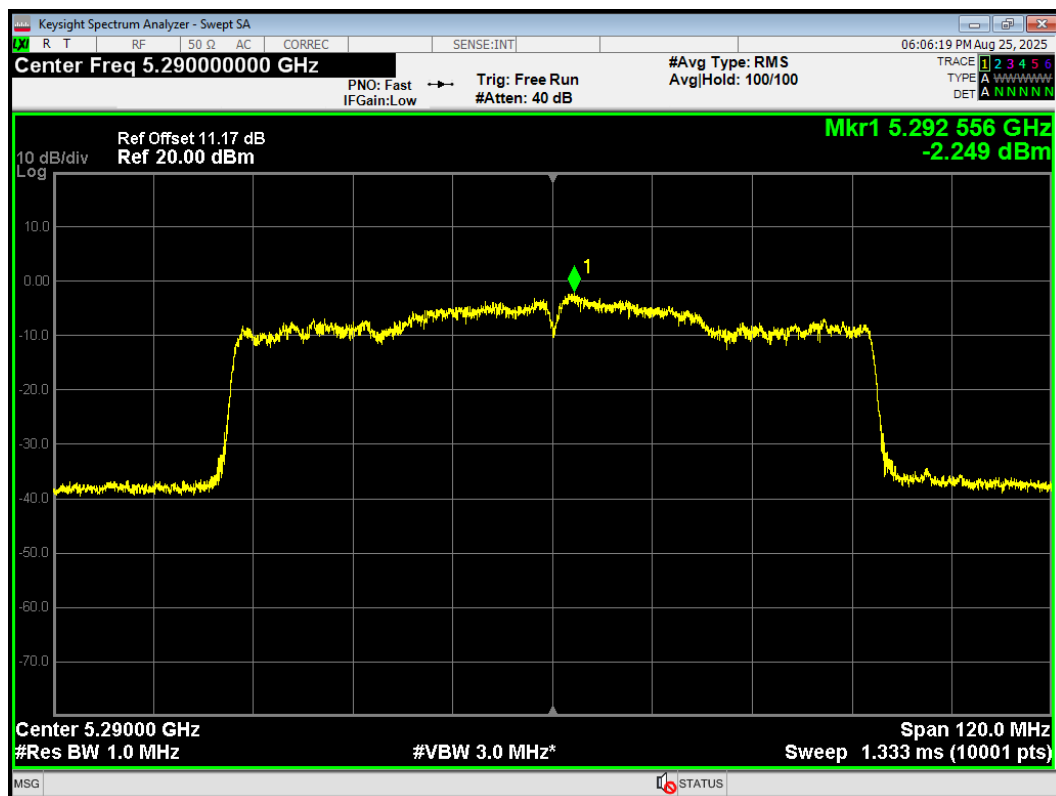
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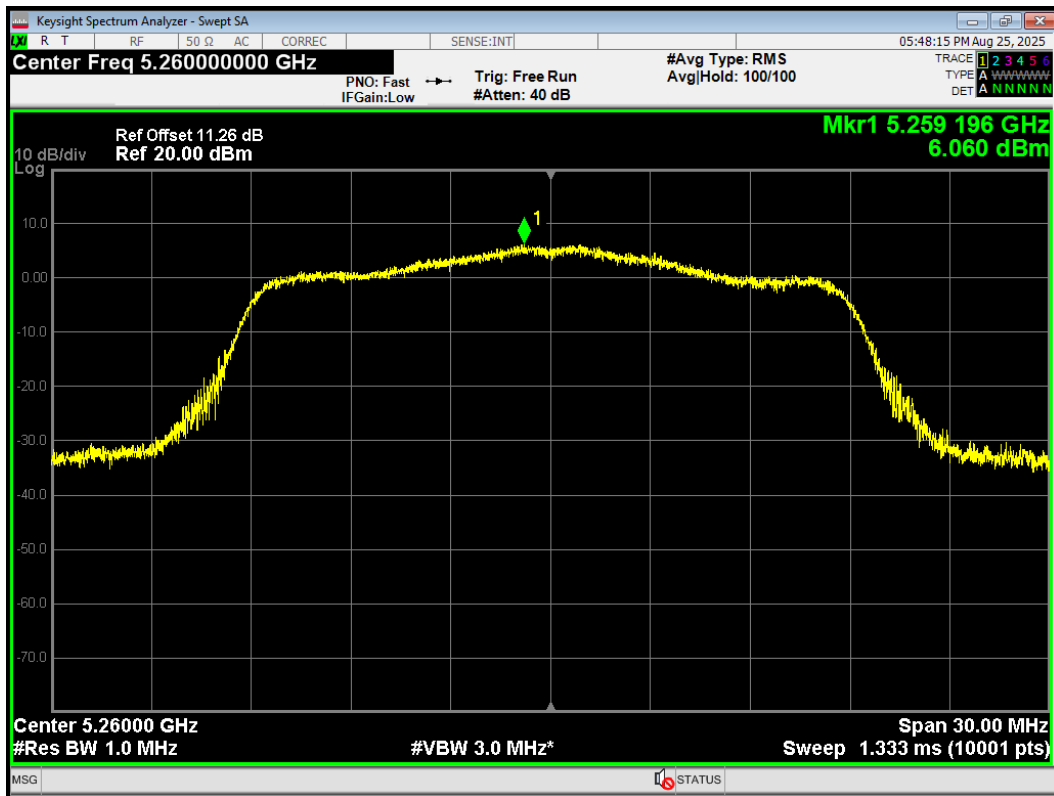
PSD 802.11ac(VHT80) 5290MHz Ant1



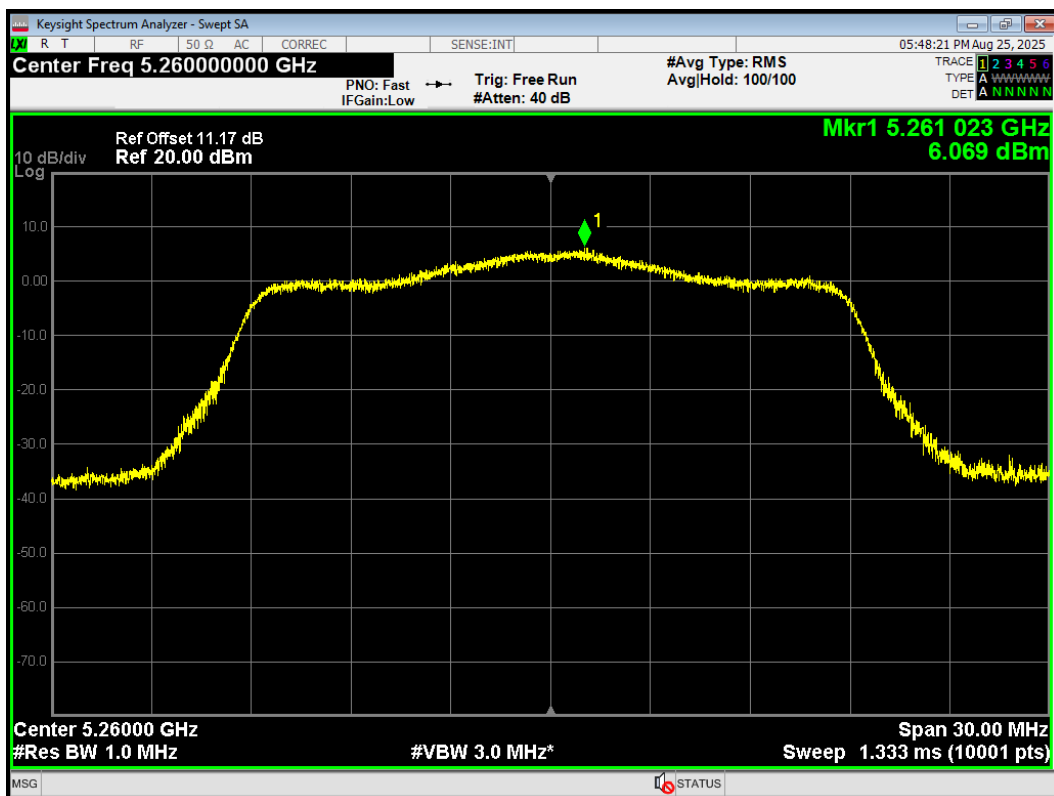
PSD 802.11ac(VHT80) 5290MHz Ant2



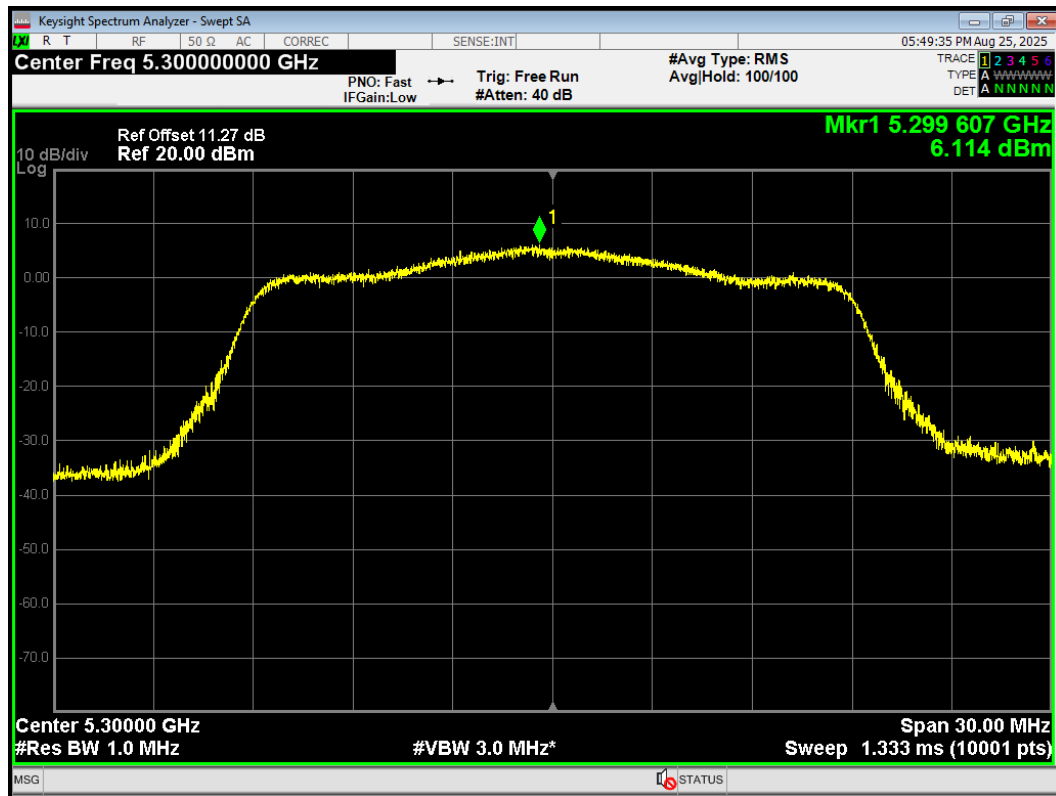
PSD 802.11ax(HE20) 5260MHz Ant1



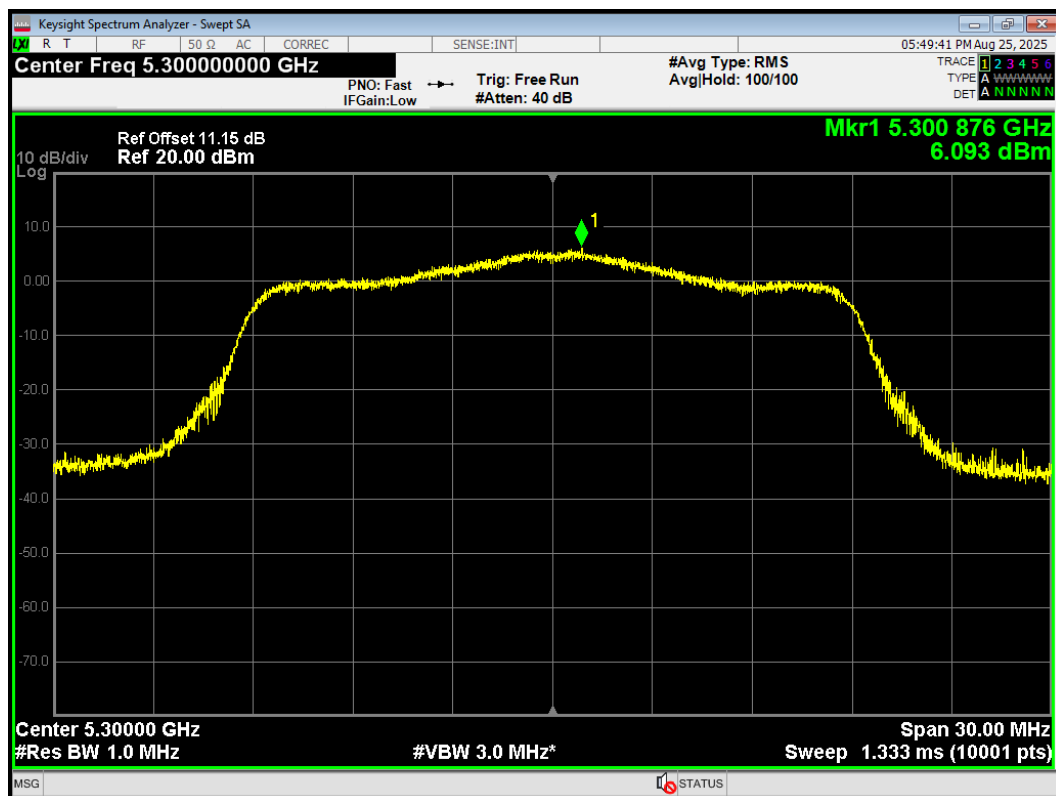
PSD 802.11ax(HE20) 5260MHz Ant2



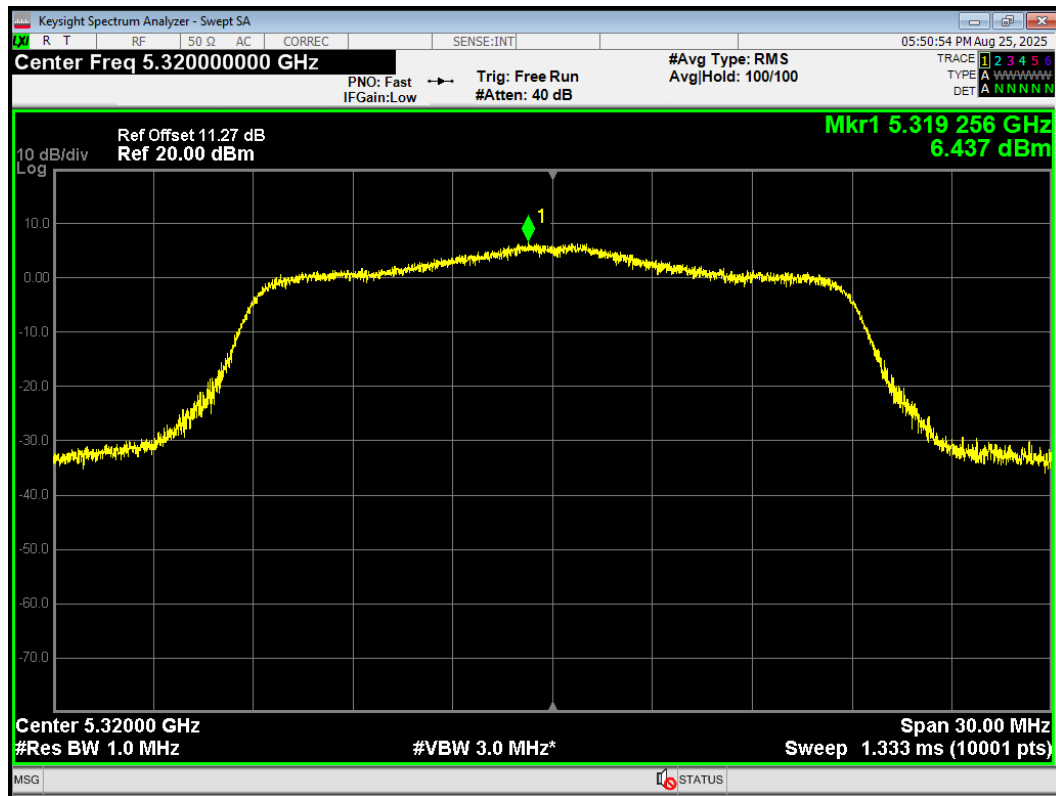
PSD 802.11ax(HE20) 5300MHz Ant1



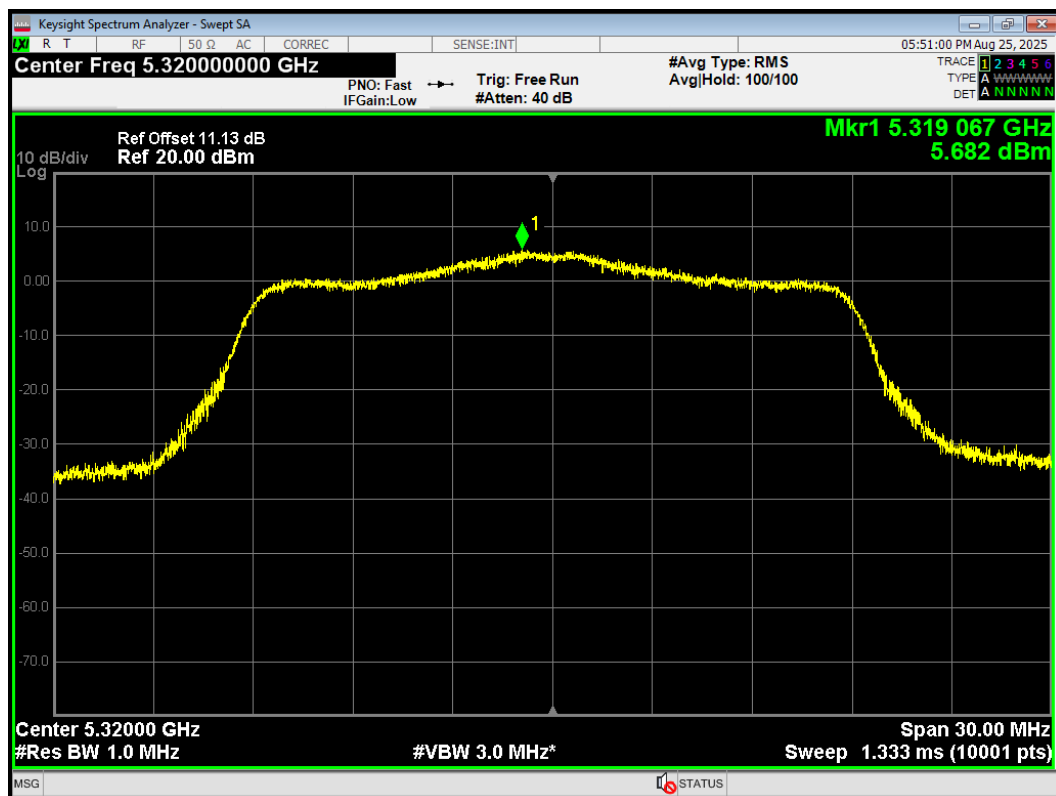
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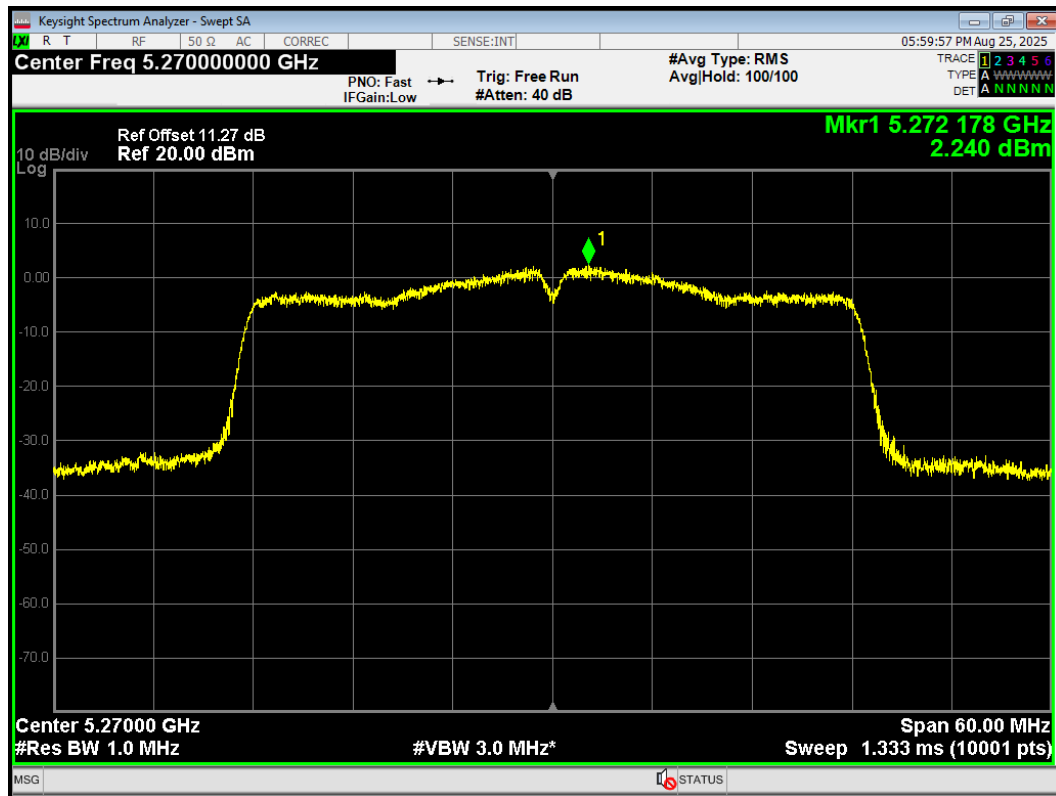
PSD 802.11ax(HE20) 5320MHz Ant1



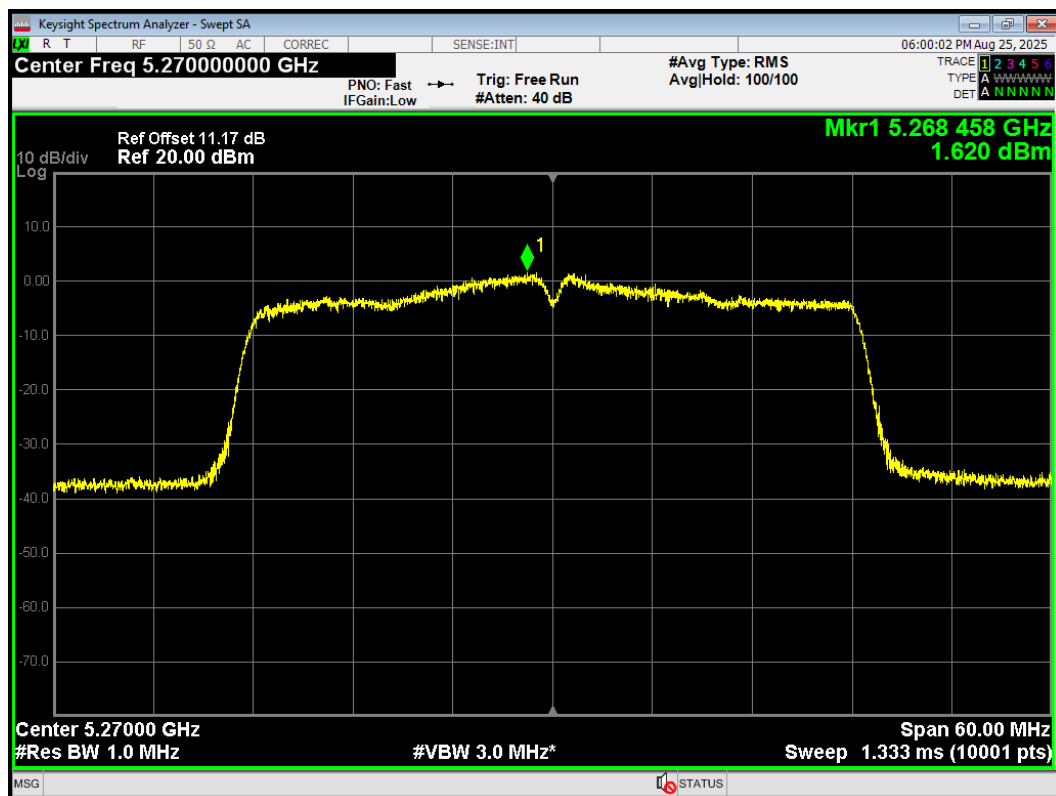
PSD 802.11ax(HE20) 5320MHz Ant2



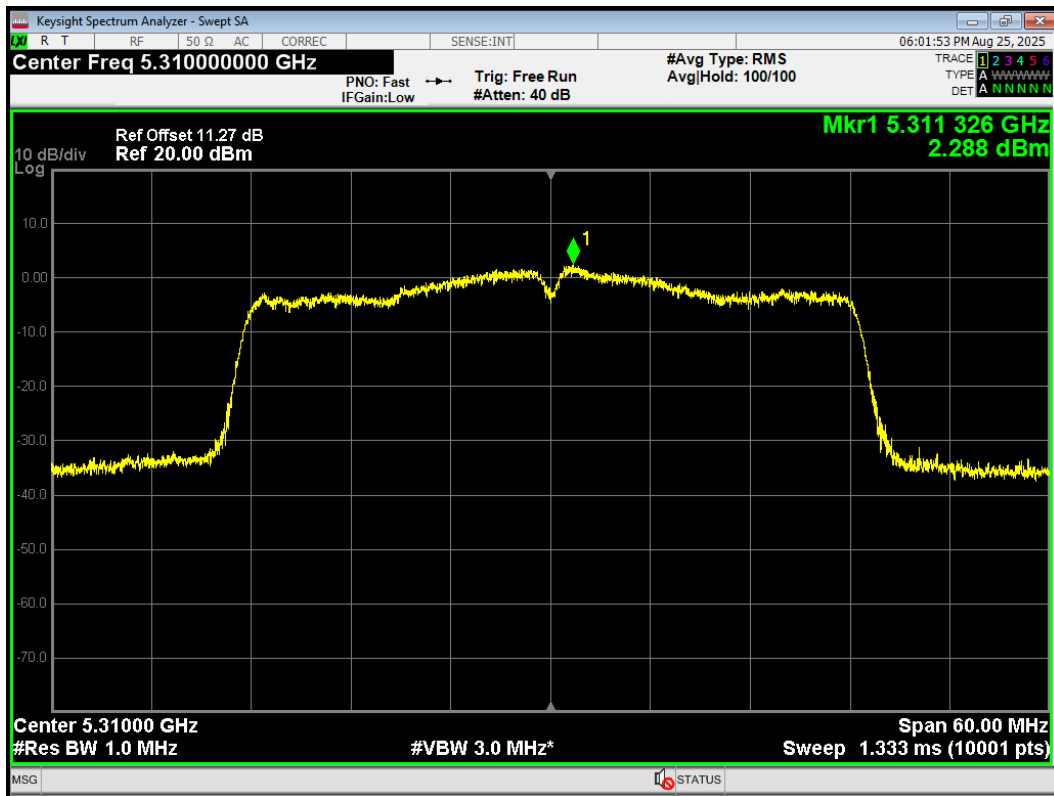
PSD 802.11ax(HE40) 5270MHz Ant1



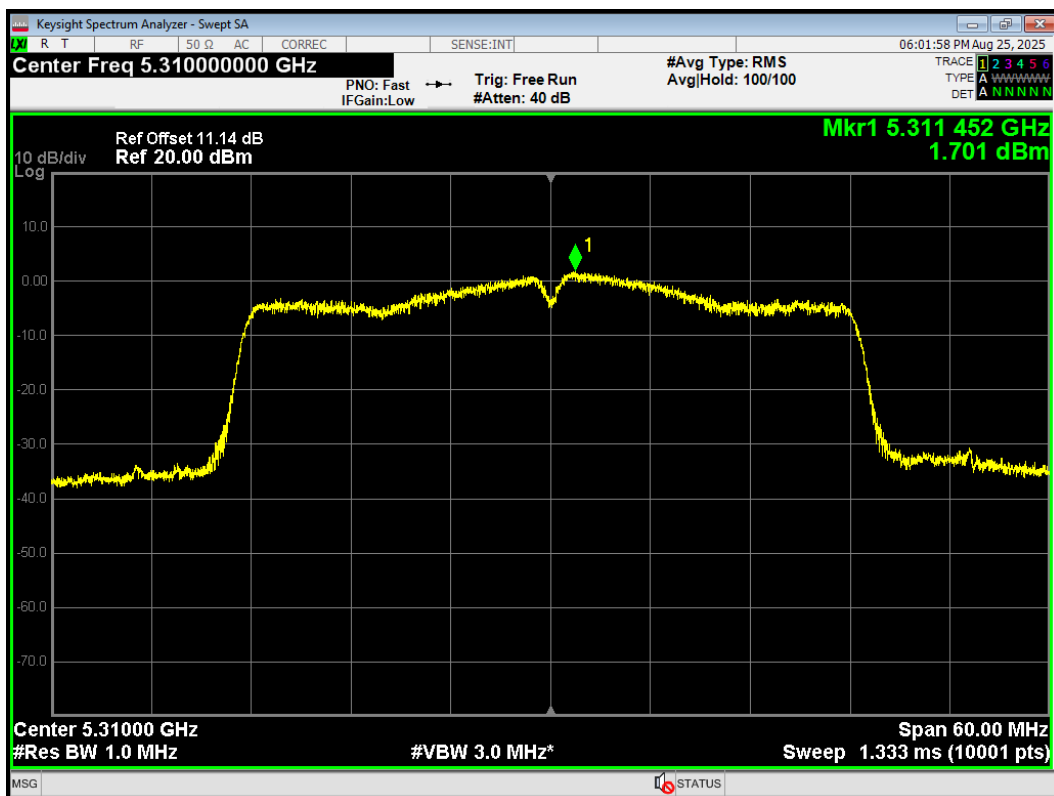
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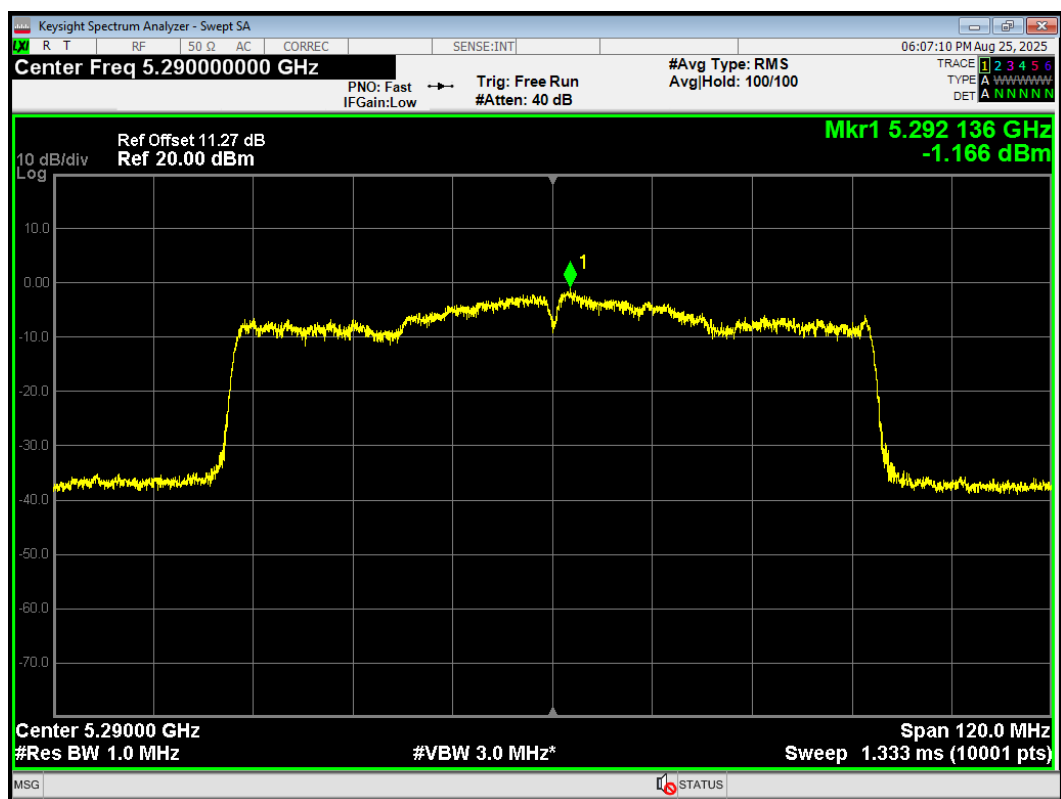
PSD 802.11ax(HE40) 5310MHz Ant1



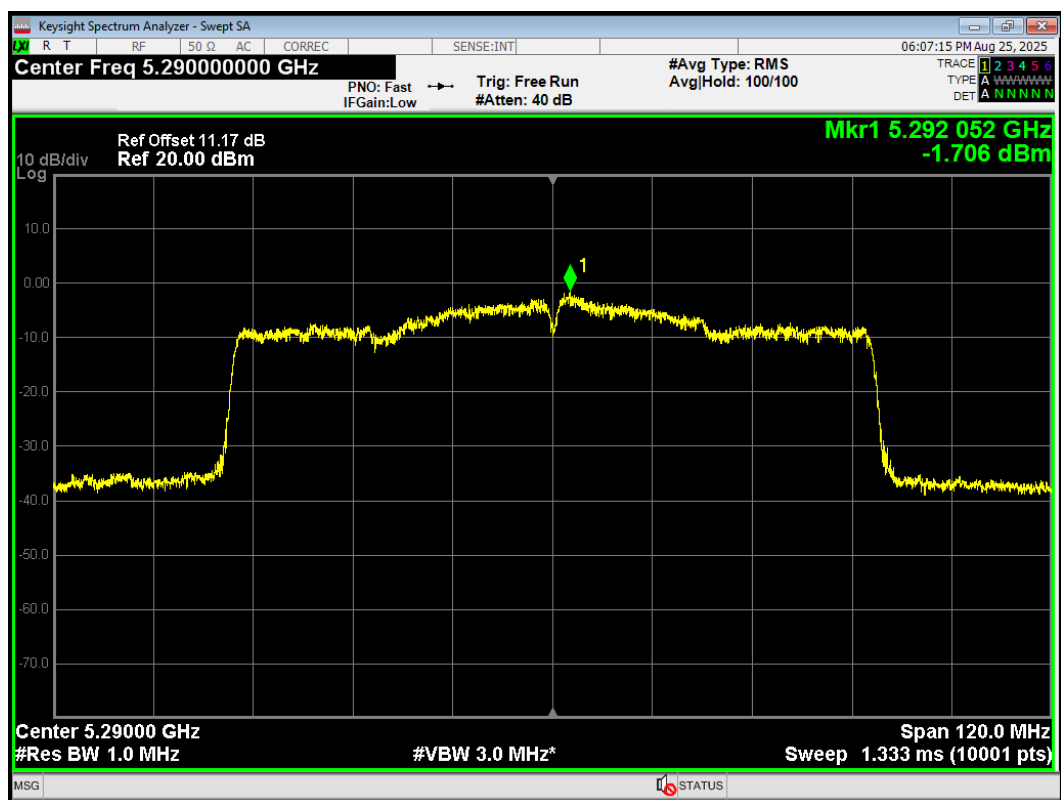
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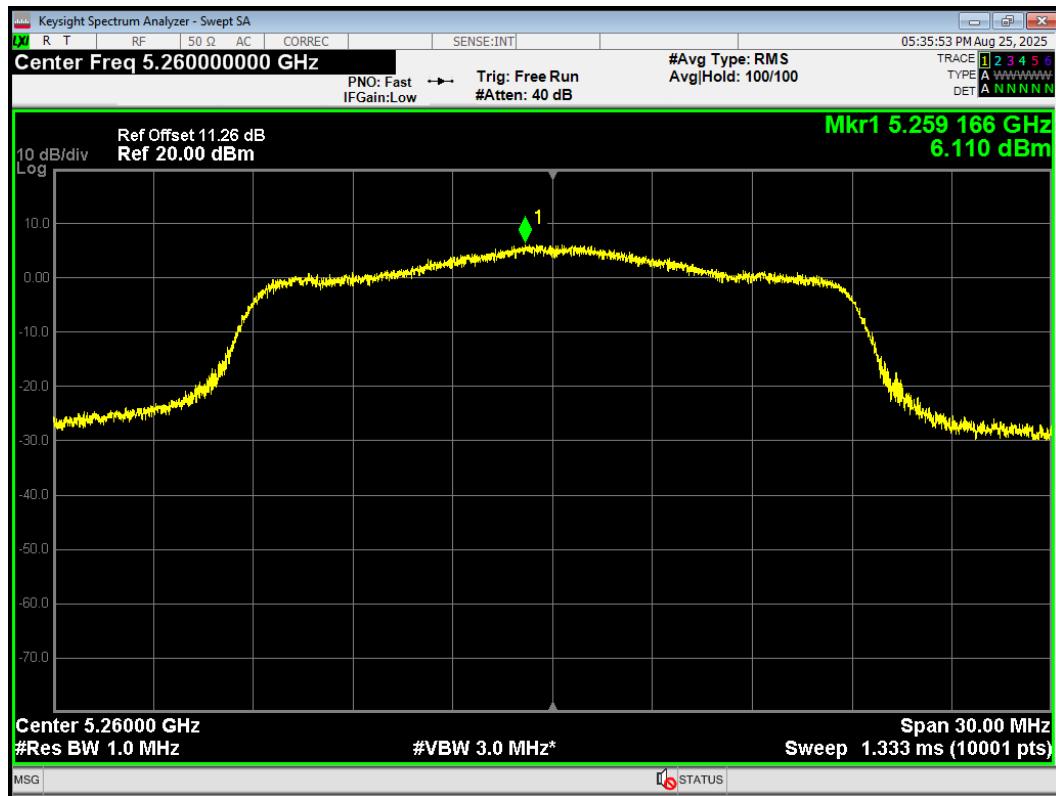
PSD 802.11ax(HE80) 5290MHz Ant1



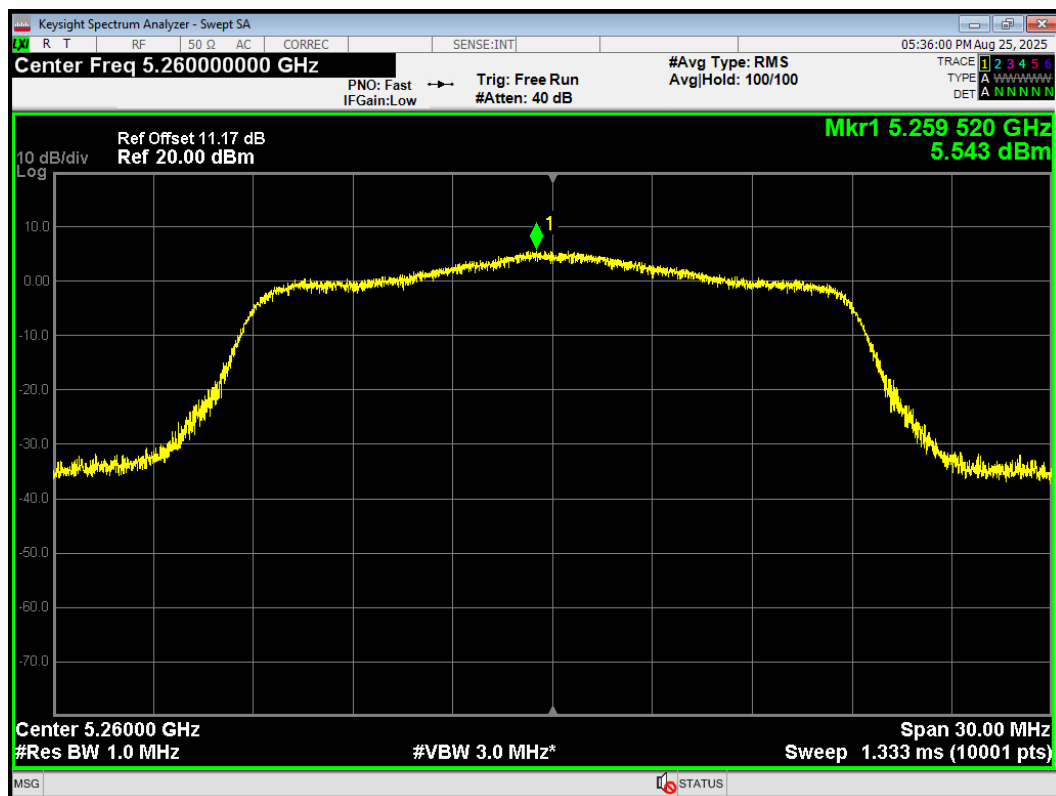
PSD 802.11ax(HE80) 5290MHz Ant2



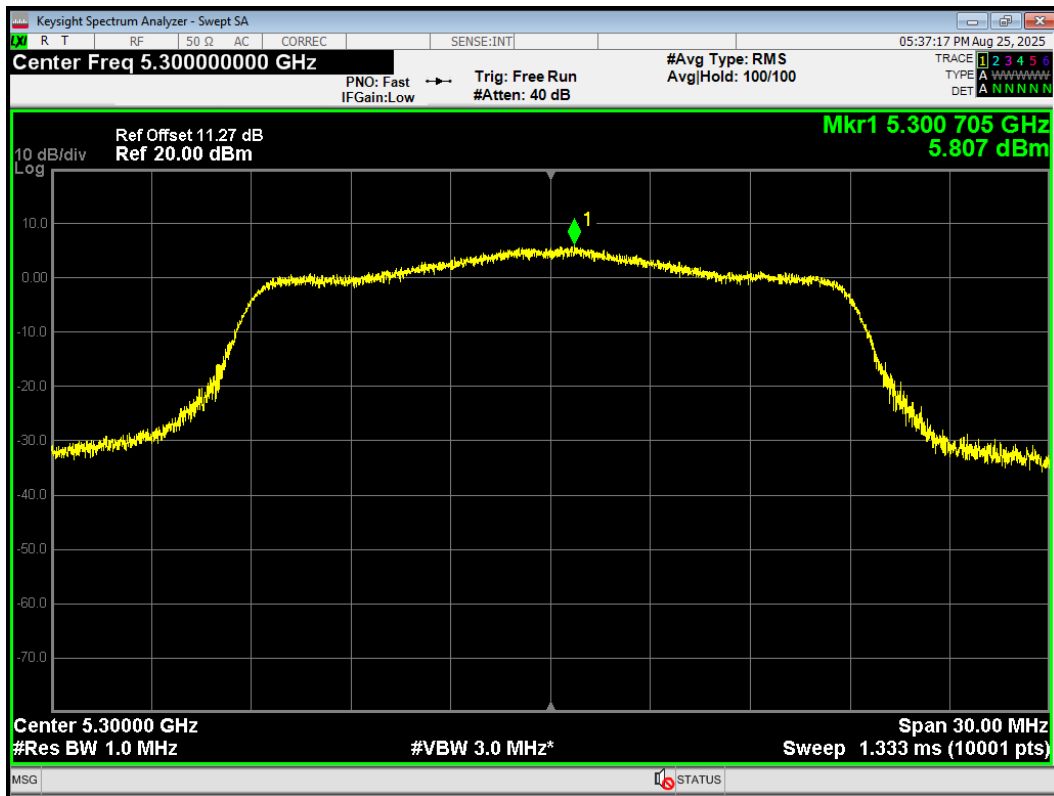
PSD 802.11n(HT20) 5260MHz Ant1



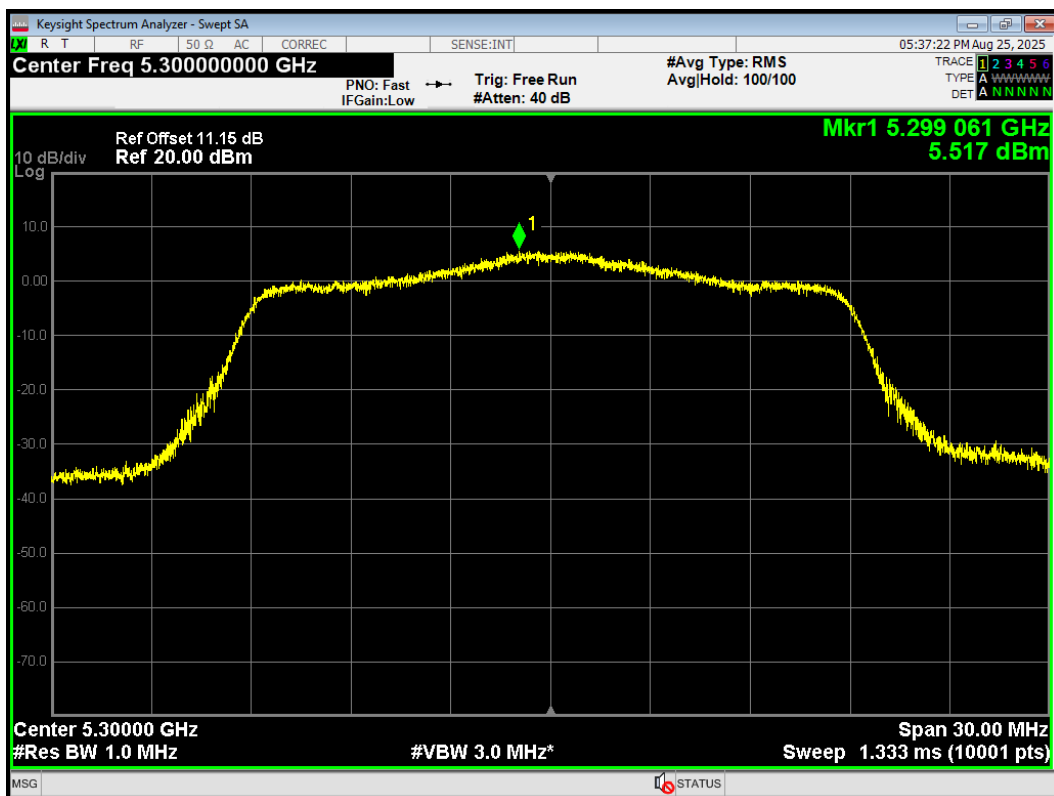
PSD 802.11n(HT20) 5260MHz Ant2



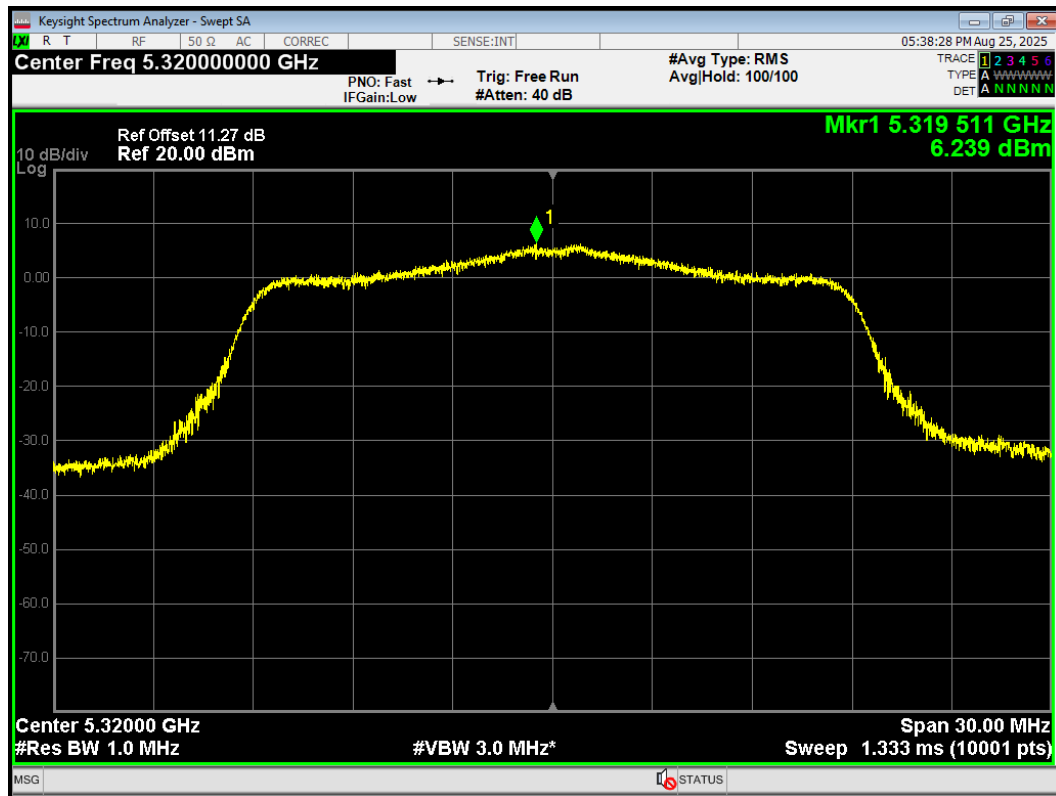
PSD 802.11n(HT20) 5300MHz Ant1



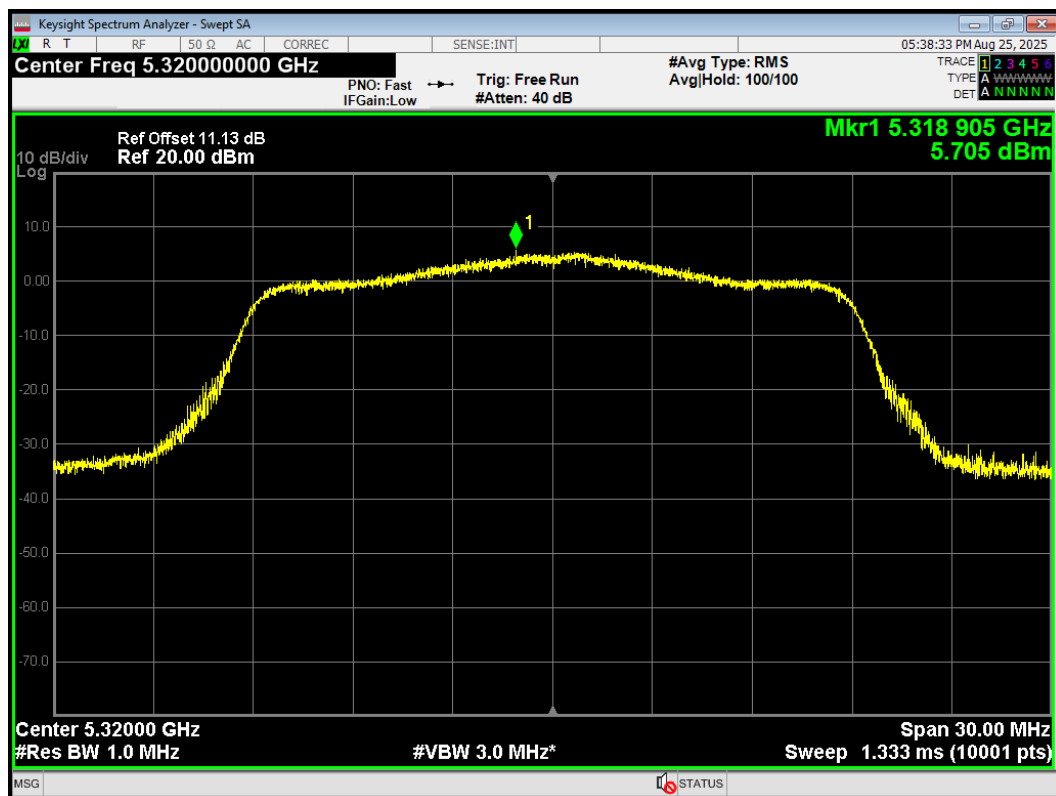
PSD 802.11n(HT20) 5300MHz Ant2



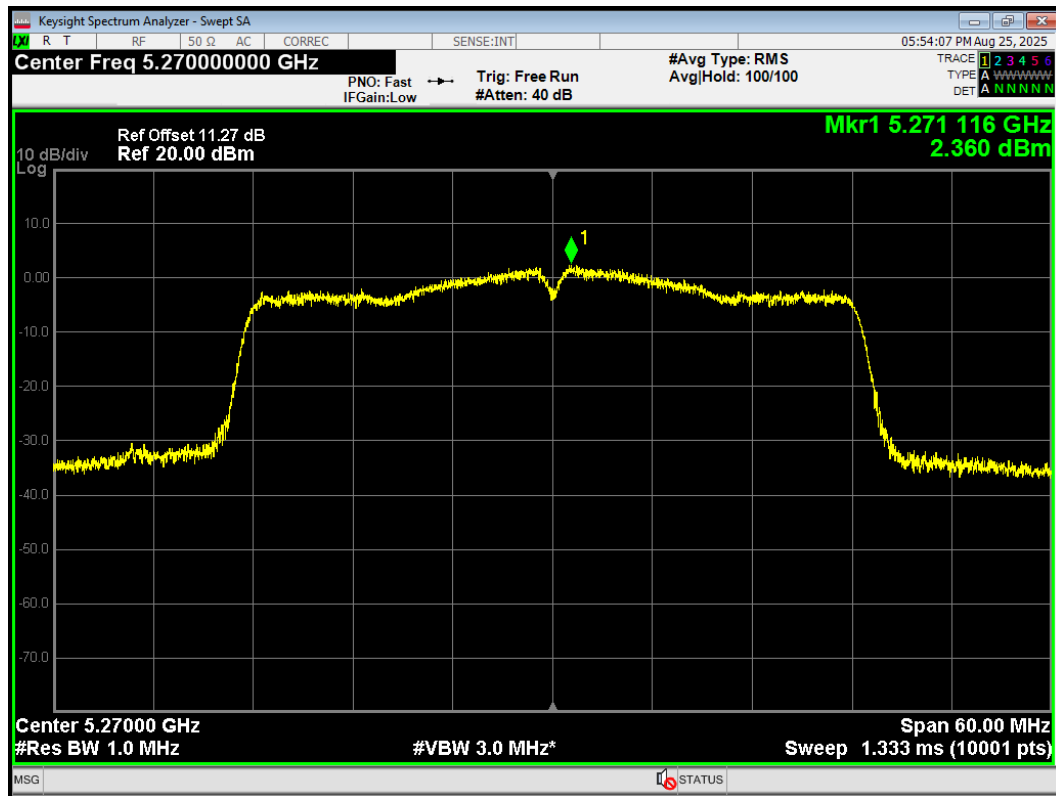
PSD 802.11n(HT20) 5320MHz Ant1



PSD 802.11n(HT20) 5320MHz Ant2



PSD 802.11n(HT40) 5270MHz Ant1



PSD 802.11n(HT40) 5270MHz Ant2

