

Appendix B

RF Test Data for 5.2G WLAN (Conducted Measurement)

Product Name: Wireless network card

Trade Mark: DIEWU

Test Model: TXA069

Environmental Conditions

Temperature:	23.9° C
Relative Humidity:	52.6%
ATM Pressure:	100.0 kPa
Test Engineer:	DiamonB.Lu
Supervised by:	Li Huan

B.1 Duty Cycle

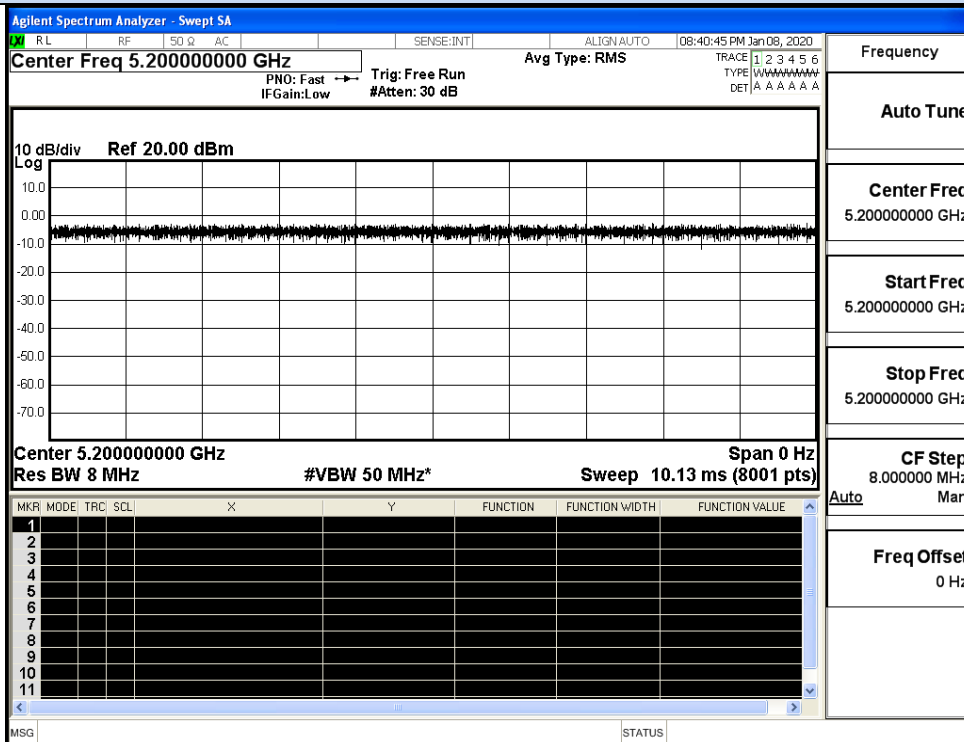
Ant_0

Test Mode	Test Frequency (MHz)	Duty Cycle (%)	10log(1/x) Factor (dB)	1/B Minimum VBW(KHz)
11A	5200	100	0.00	0.01
11N20	5200	100	0.00	0.01
11N40	5190	100	0.00	0.01
11AC20	5200	100	0.00	0.01
11AC40	5190	100	0.00	0.01
11AC80	5210	100	0.00	0.01

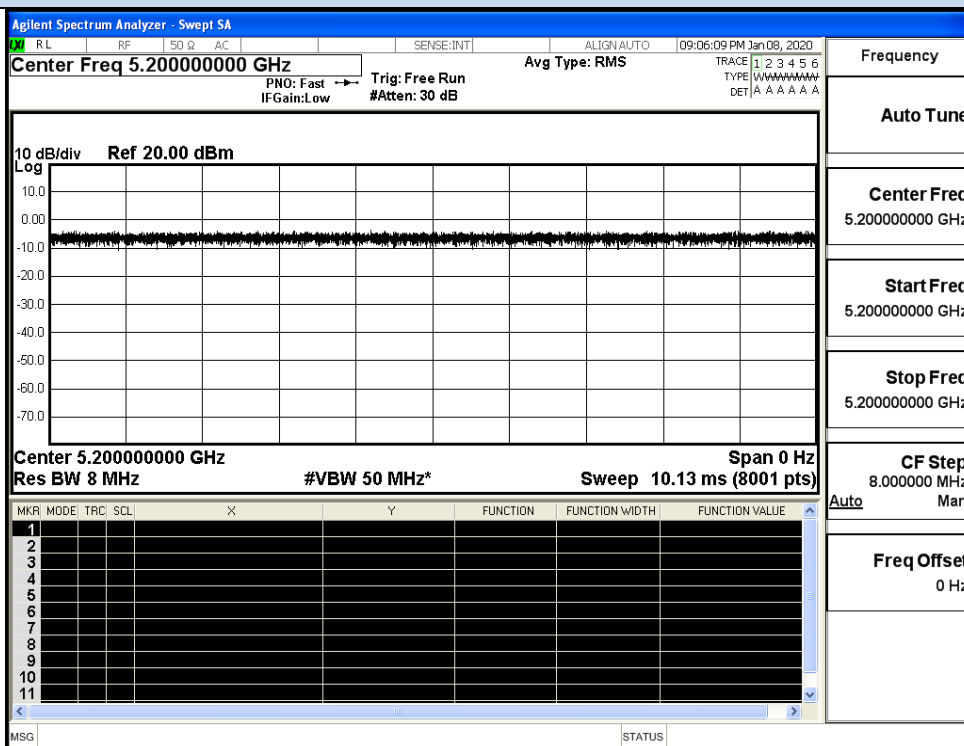
Ant_1

Test Mode	Test Frequency (MHz)	Duty Cycle (%)	10log(1/x) Factor (dB)	1/B Minimum VBW(KHz)
11A	5200	100	0.00	0.01
11N20	5200	100	0.00	0.01
11N40	5190	100	0.00	0.01
11AC20	5200	100	0.00	0.01
11AC40	5190	100	0.00	0.01
11AC80	5210	100	0.00	0.01

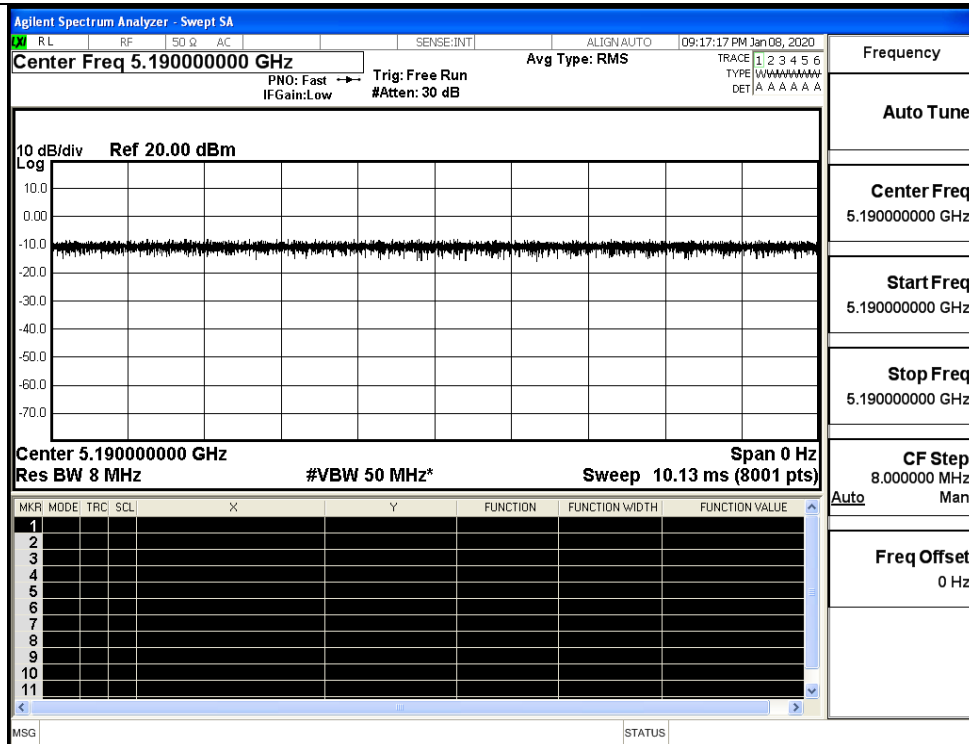
On Time and Duty Cycle_Ant_0



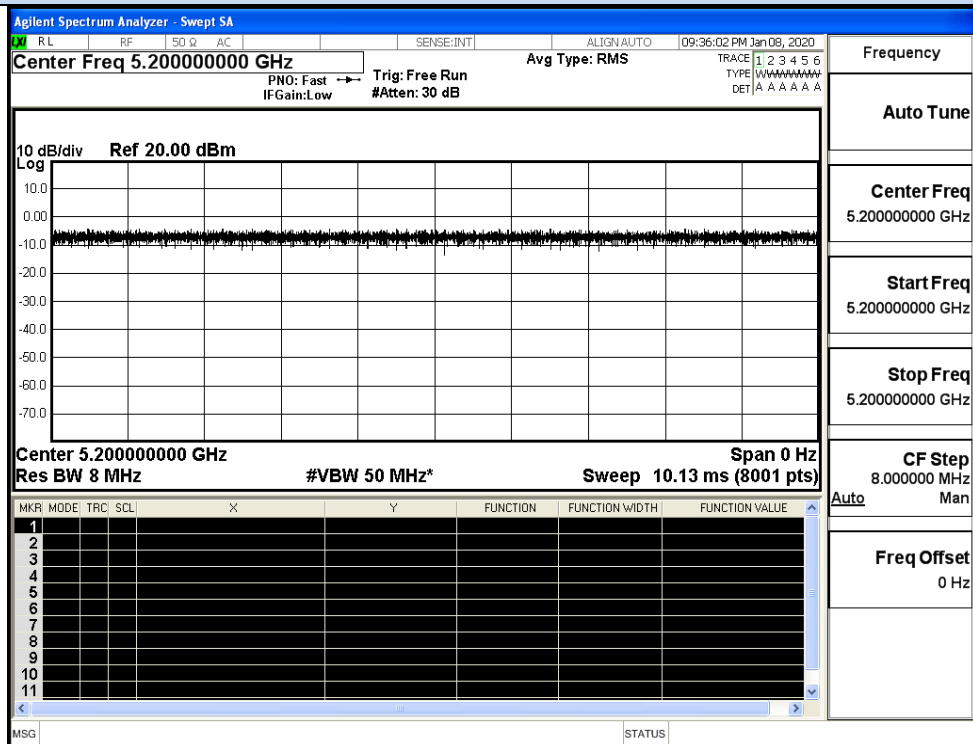
IEEE 802.11a



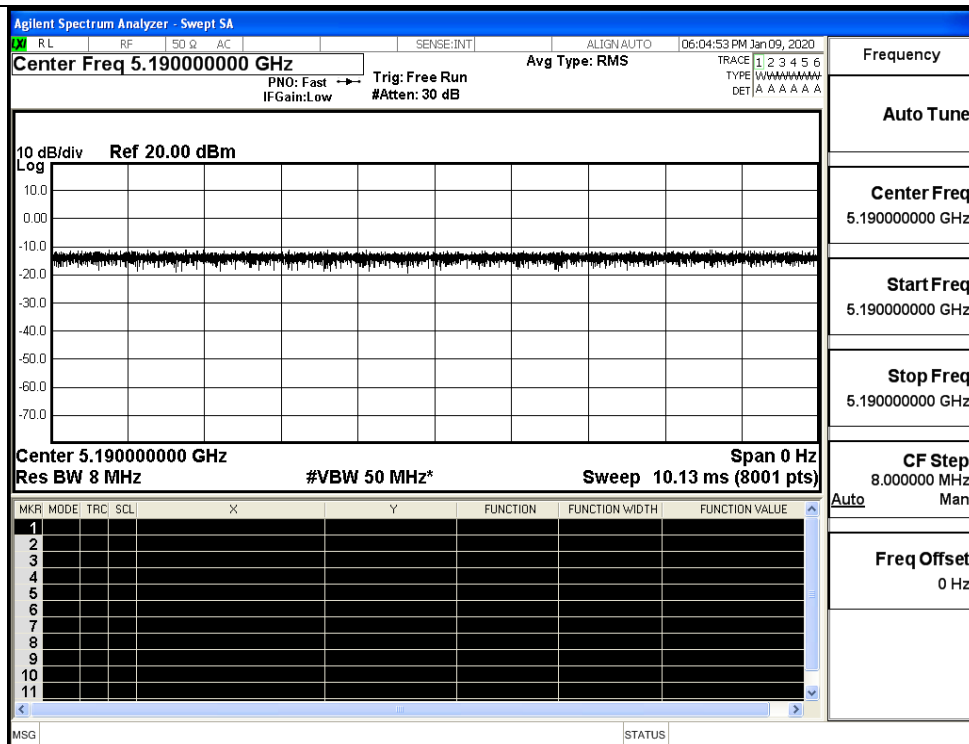
IEEE 802.11n HT20



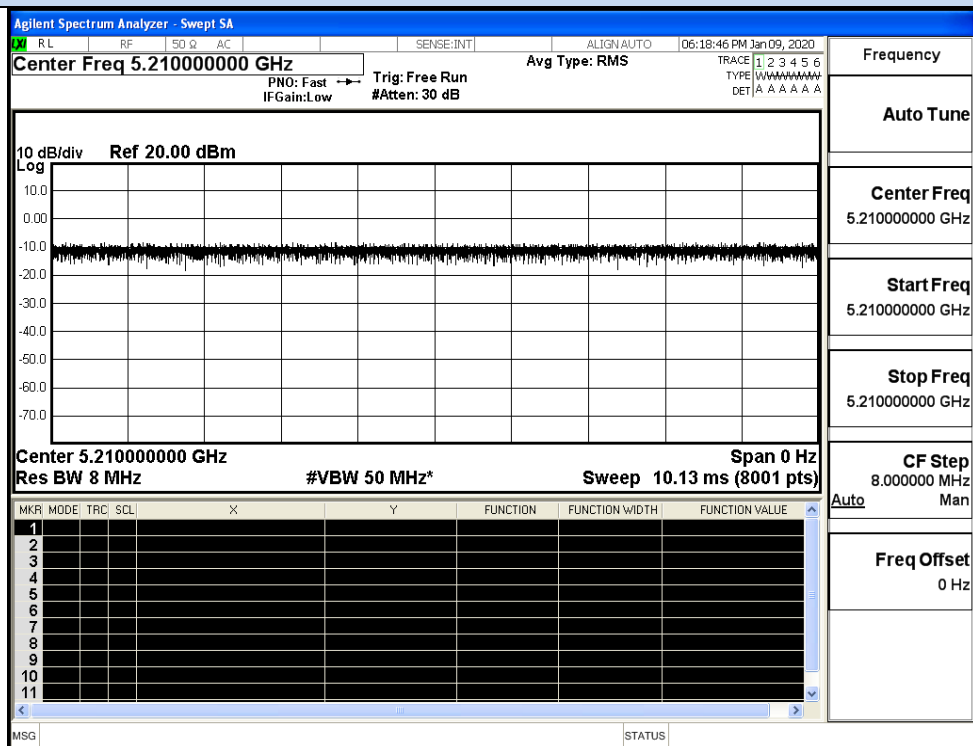
IEEE 802.11n HT40



IEEE 802.11AC20

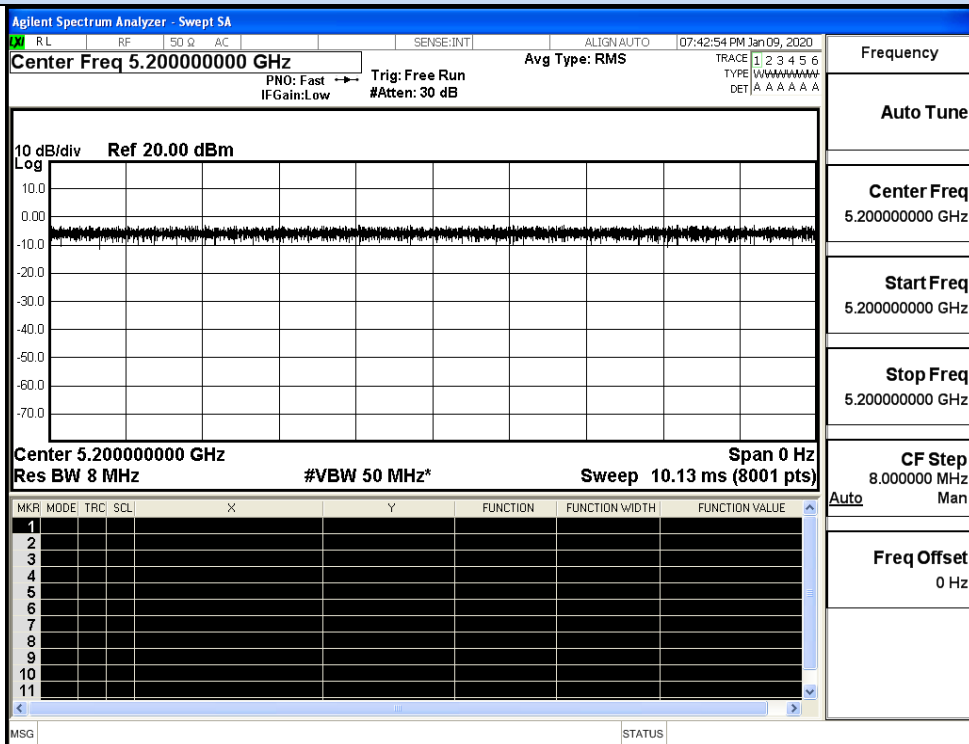


IEEE 802.11 AC40

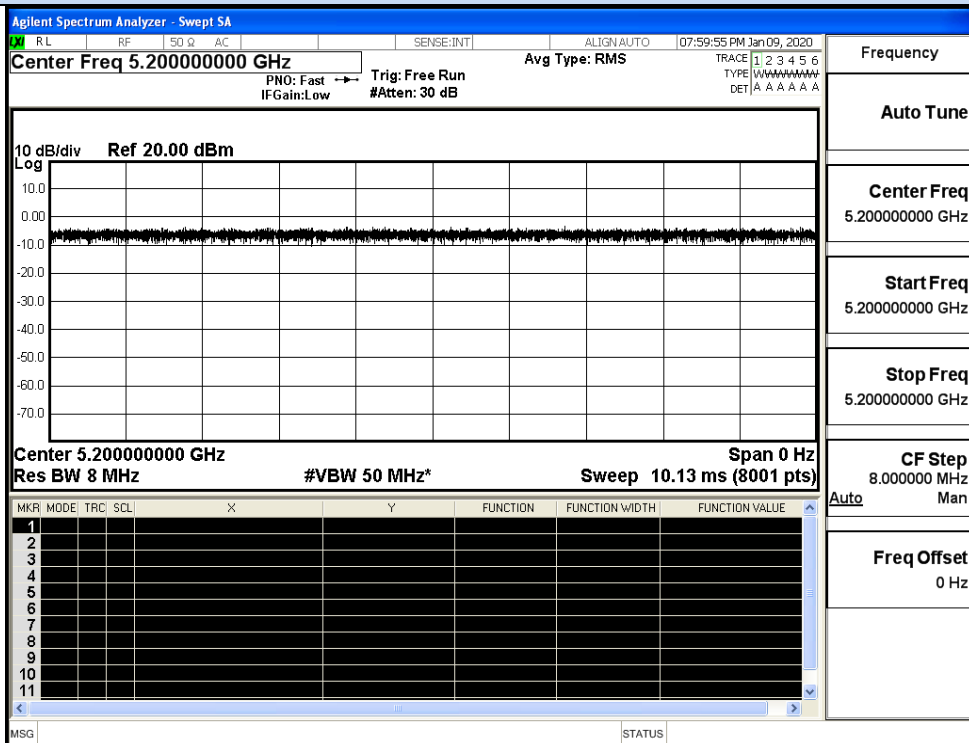


IEEE 802.11AC80

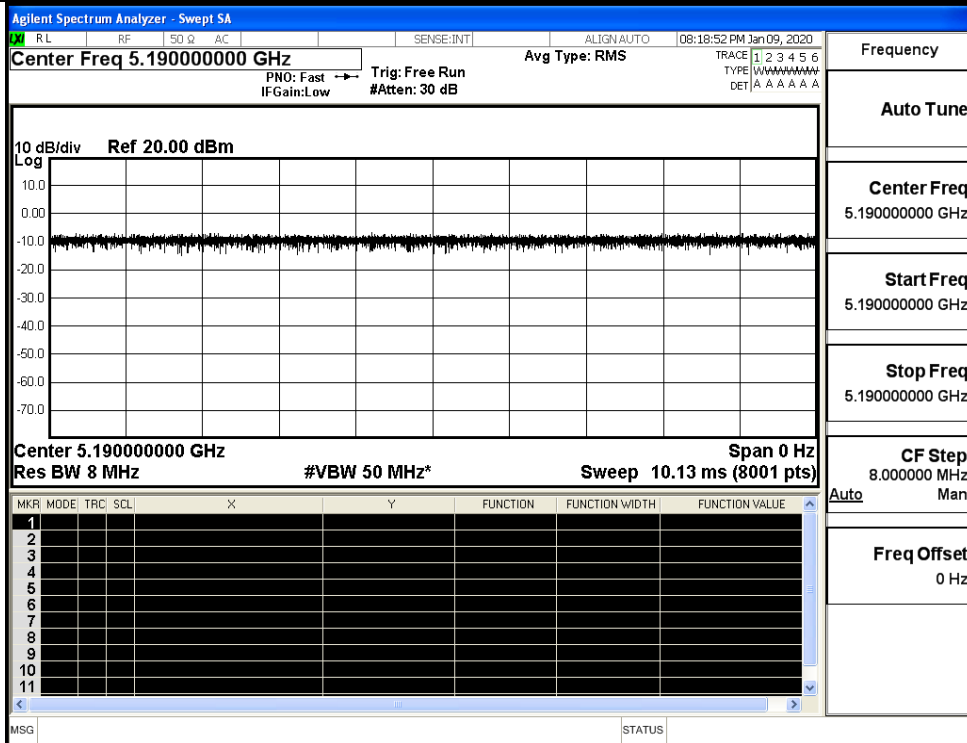
On Time and Duty Cycle_Ant_1



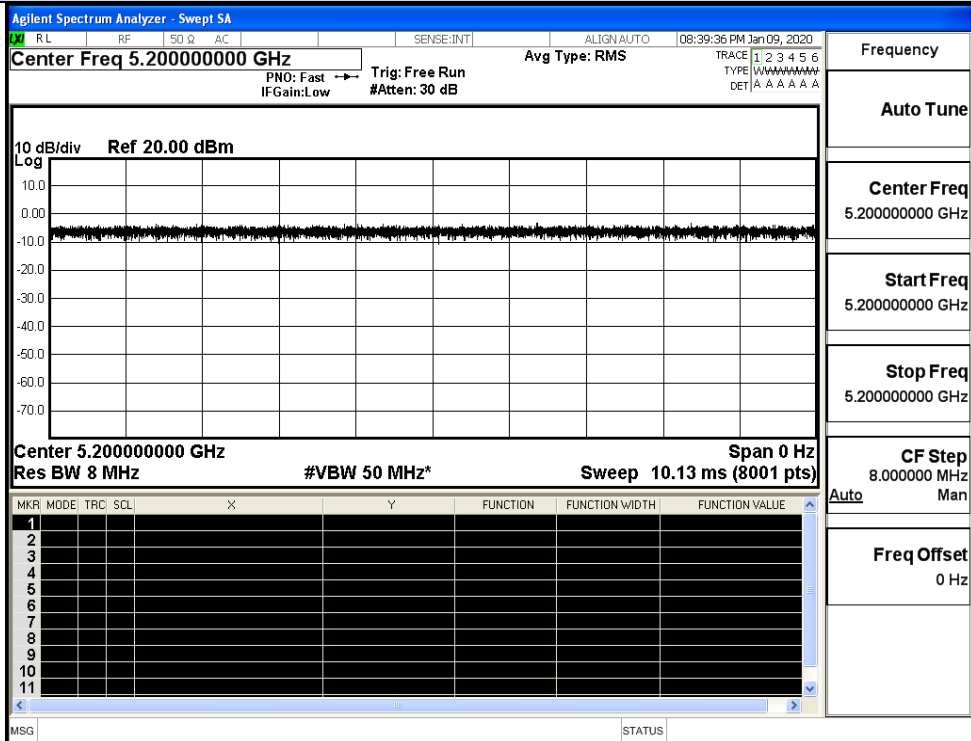
IEEE 802.11a



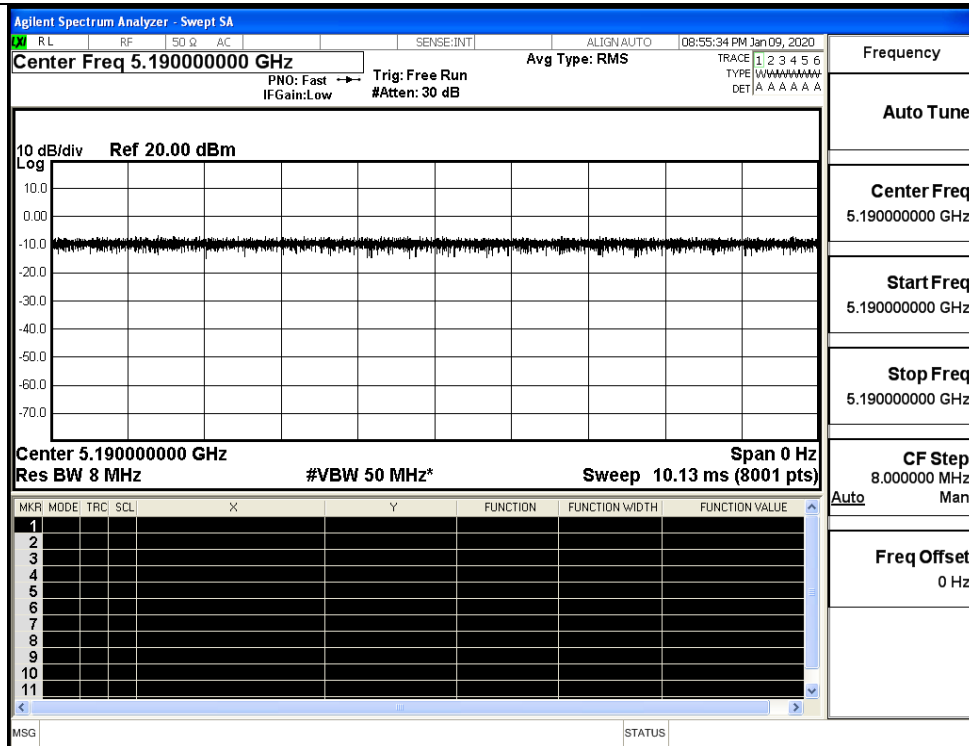
IEEE 802.11n HT20



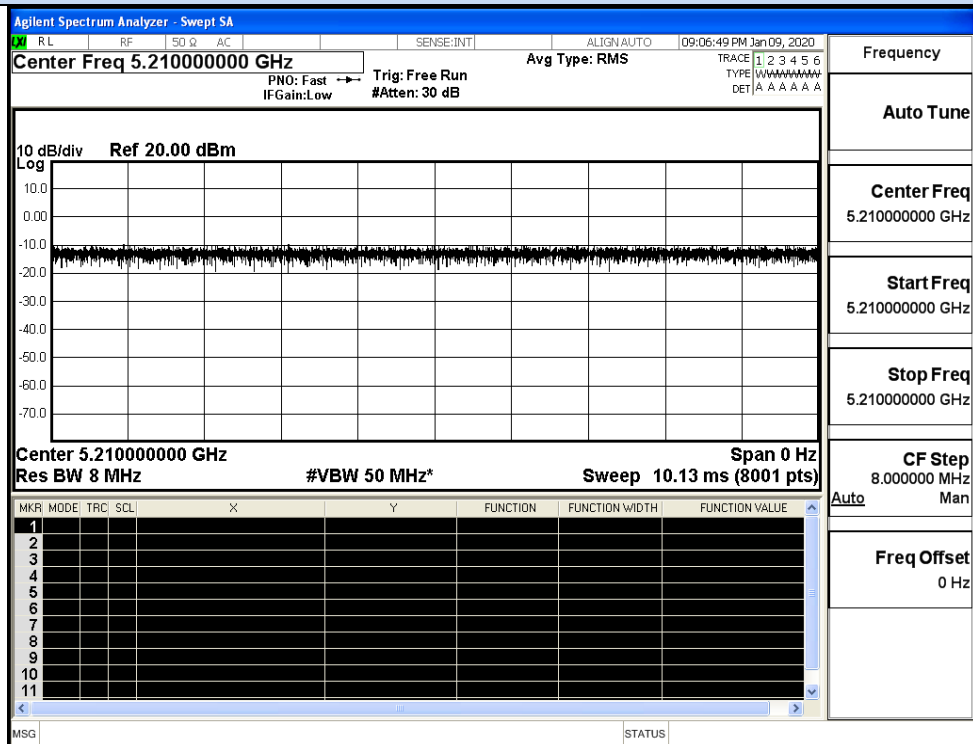
IEEE 802.11n HT40



IEEE 802.11AC20



IEEE 802.11 AC40



IEEE 802.11AC80

B.2 Maximum Conduct Output Power**Ant_0**

Test Mode	Channel	Frequency (MHz)	AVG Conducted Power (dBm)	Duty Cycle Factor (dB)	Report Conducted Power(dBm)	Limit (dBm)	Verdict
11A	36	5180	12.67	0	12.67	30	Pass
	40	5200	11.77	0	11.77		Pass
	48	5240	11.84	0	11.84		Pass
11N20	36	5180	11.42	0	11.42	30	Pass
	40	5200	10.99	0	10.99		Pass
	48	5240	11.82	0	11.82		Pass
11N40	38	5190	9.48	0	9.48	30	Pass
	46	5230	11.23	0	11.23		Pass
11AC20	36	5180	10.09	0	10.09	30	Pass
	40	5200	10.49	0	10.49		Pass
	48	5240	10.9	0	10.9		Pass
11AC40	38	5190	10.36	0	10.36	30	Pass
	46	5230	10.08	0	10.08		Pass
11AC80	42	5210	11.82	0	11.82	30	Pass

Ant_1

Test Mode	Channel	Frequency (MHz)	AVG Conducted Power (dBm)	Duty Cycle Factor (dB)	Report Conducted Power(dBm)	Limit (dBm)	Verdict
11A	36	5180	10.8	0	10.8	30	Pass
	40	5200	11.6	0	11.6		Pass
	48	5240	11.83	0	11.83		Pass
11N20	36	5180	10.6	0	10.6	30	Pass
	40	5200	10.82	0	10.82		Pass
	48	5240	11.7	0	11.7		Pass
11N40	38	5190	10.46	0	10.46	30	Pass
	46	5230	11.17	0	11.17		Pass
11AC20	36	5180	10.61	0	10.61	30	Pass
	40	5200	10.87	0	10.87		Pass
	48	5240	11.26	0	11.26		Pass
11AC40	38	5190	10.44	0	10.44	30	Pass
	46	5230	10.14	0	10.14		Pass
11AC80	42	5210	10.3	0	10.3	30	Pass

Combined Ant_0 and Ant_1

Test Mode	Channel	Frequency (MHz)	Report Conducted Power (dBm)			Limit (dBm)
			Ant_0	Ant_1	Sum	
11N20	36	5180	11.42	10.6	14.04	27.99
	40	5200	10.99	10.82	13.92	
	48	5240	11.82	11.7	14.77	
11N40	38	5190	9.48	10.46	13.01	27.99
	46	5230	11.23	11.17	14.21	
11AC20	36	5180	10.09	10.61	13.37	27.99
	40	5200	10.49	10.87	13.69	
	48	5240	10.9	11.26	14.09	
11AC40	38	5190	10.36	10.44	13.41	27.99
	46	5230	10.08	10.14	13.12	
11AC80	42	5210	11.82	10.3	14.14	27.99

B.3 Power Spectral Density

Ant_0

Test Mode	Channel	Frequency (MHz)	Power Density (dBm/MHz)	Duty Cycle Factor(dB)	Report Power Density (dBm/MHz)	Limit (dBm/MHz)	Verdict
11A	36	5180	1.61	0	1.61	17	Pass
	40	5200	0.58	0	0.58		Pass
	48	5240	0.82	0	0.82		Pass
11N20	36	5180	1.23	0	1.23	17	Pass
	40	5200	0.84	0	0.84		Pass
	48	5240	1.93	0	1.93		Pass
11N40	38	5190	-4.02	0	-4.02	17	Pass
	46	5230	-2.48	0	-2.48		Pass
11AC20	36	5180	-0.80	0	-0.80	17	Pass
	40	5200	-0.50	0	-0.50		Pass
	48	5240	0.14	0	0.14		Pass
11AC40	38	5190	-2.99	0	-2.99	17	Pass
	46	5230	-3.81	0	-3.81		Pass
11AC80	42	5210	-3.83	0	-3.83	17	Pass

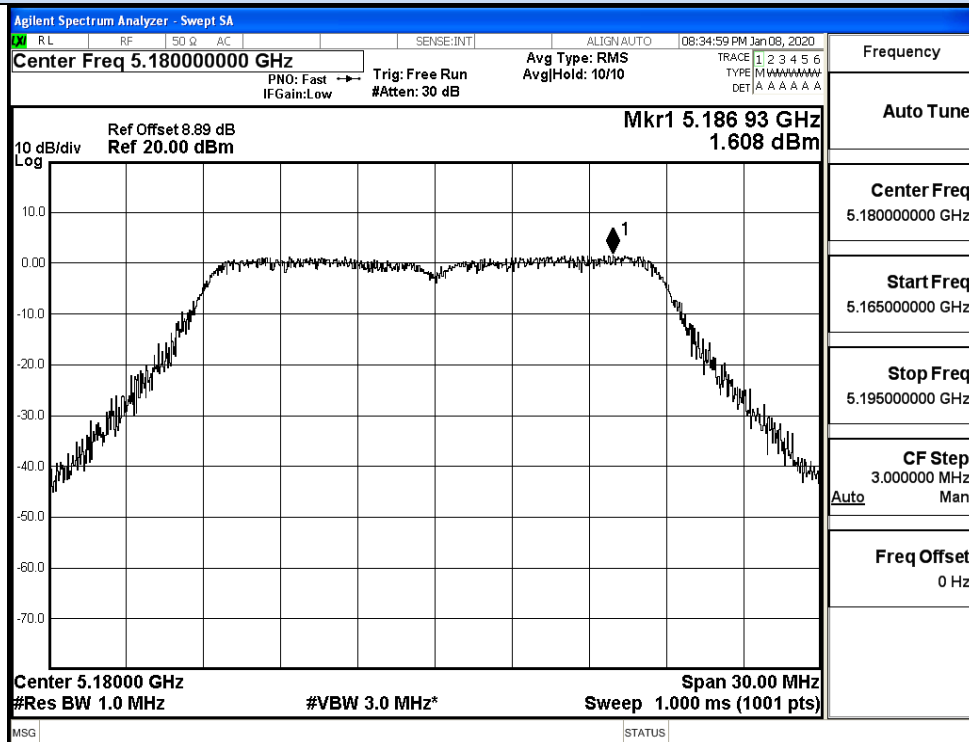
Ant_1

Test Mode	Channel	Frequency (MHz)	Power Density (dBm/MHz)	Duty Cycle Factor(dB)	Report Power Density (dBm/MHz)	Limit (dBm/MHz)	Verdict
11A	36	5180	-0.19	0	-0.19	17	Pass
	40	5200	0.68	0	0.68		Pass
	48	5240	1.15	0	1.15		Pass
11N20	36	5180	0.69	0	0.69	17	Pass
	40	5200	1.13	0	1.13		Pass
	48	5240	2.17	0	2.17		Pass
11N40	38	5190	-3.05	0	-3.05	17	Pass
	46	5230	-2.69	0	-2.69		Pass
11AC20	36	5180	0.34	0	0.34	17	Pass
	40	5200	0.69	0	0.69		Pass
	48	5240	1.44	0	1.44		Pass
11AC40	38	5190	-3.29	0	-3.29	17	Pass
	46	5230	-3.40	0	-3.40		Pass
11AC80	42	5210	-5.09	0	-5.09	17	Pass

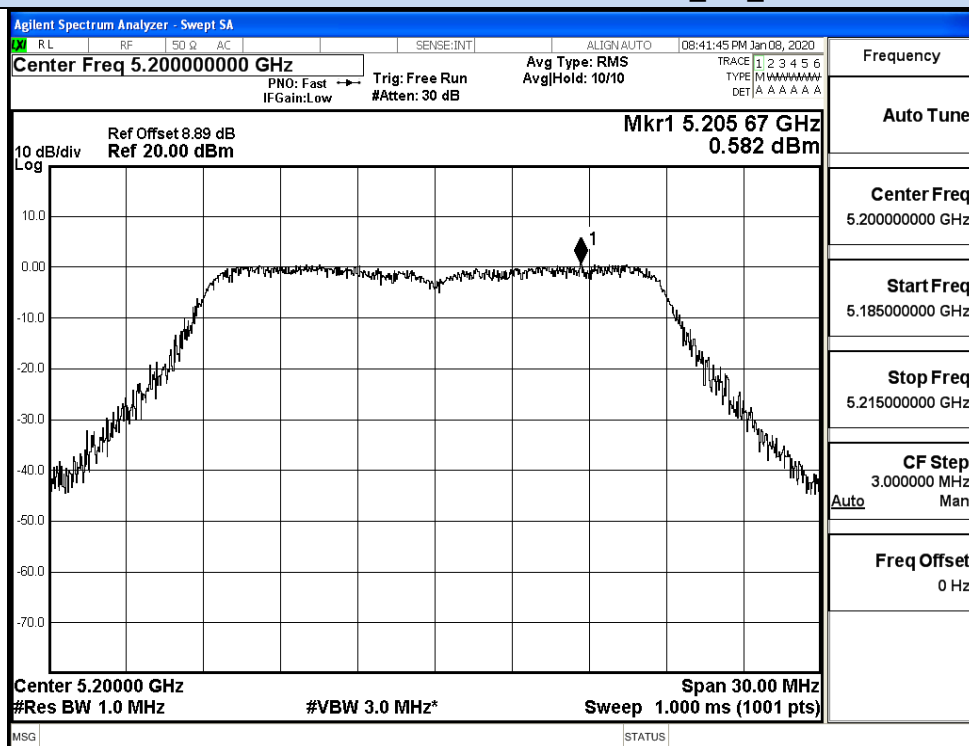
Combined Ant_0 and Ant_1

Test Mode	Channel	Frequency (MHz)	Report Power Density (dBm/MHz)			Limit (dBm/MHz)
			Ant_0	Ant_1	Sum	
11N20	36	5180	1.23	0.69	3.98	14.99
	40	5200	0.84	1.13	4.00	
	48	5240	1.93	2.17	5.06	
11N40	38	5190	-4.02	-3.05	-0.50	14.99
	46	5230	-2.48	-2.69	0.43	
11AC20	36	5180	-0.80	0.34	2.82	14.99
	40	5200	-0.50	0.69	3.15	
	48	5240	0.14	1.44	3.85	
11AC40	38	5190	-2.99	-3.29	-0.13	14.99
	46	5230	-3.81	-3.40	-0.59	
11AC80	42	5210	-3.83	-5.09	-1.40	14.99

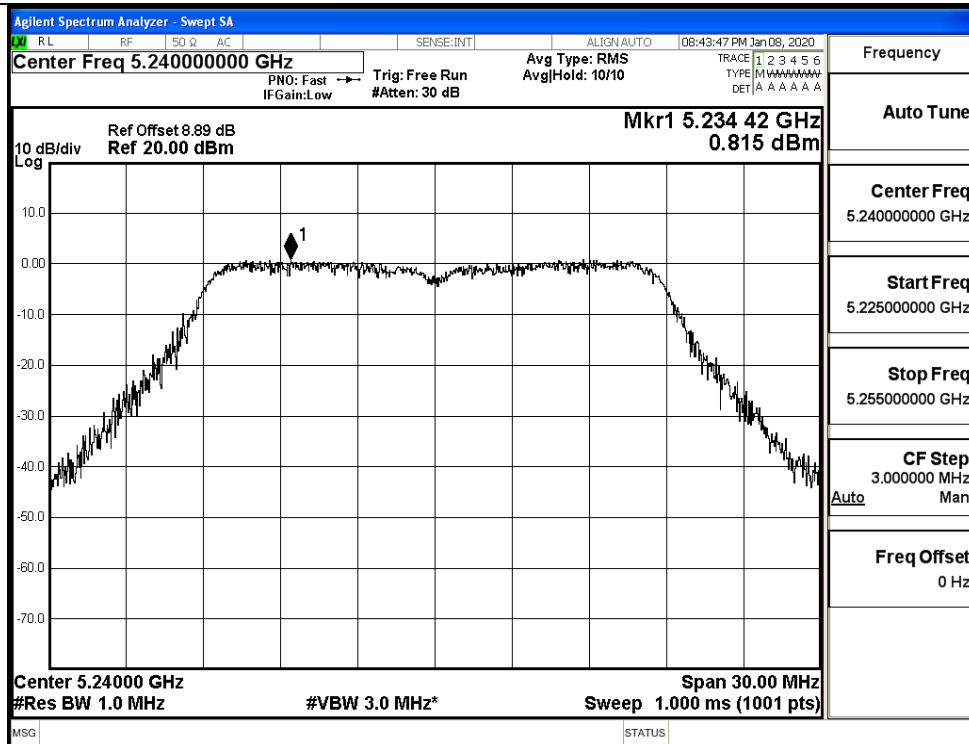
Power Spectral Density_Ant_0



IEEE 802.11a / Channel 36 / 5180MHz_Ant_0

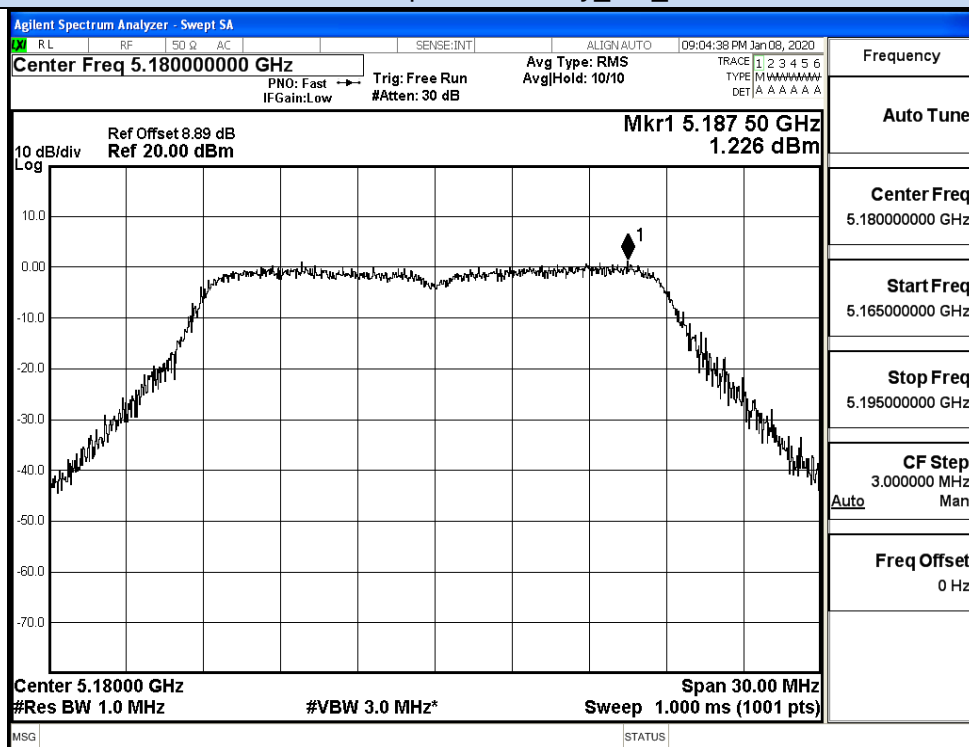


IEEE 802.11a / Channel 40 / 5200MHz_Ant_0

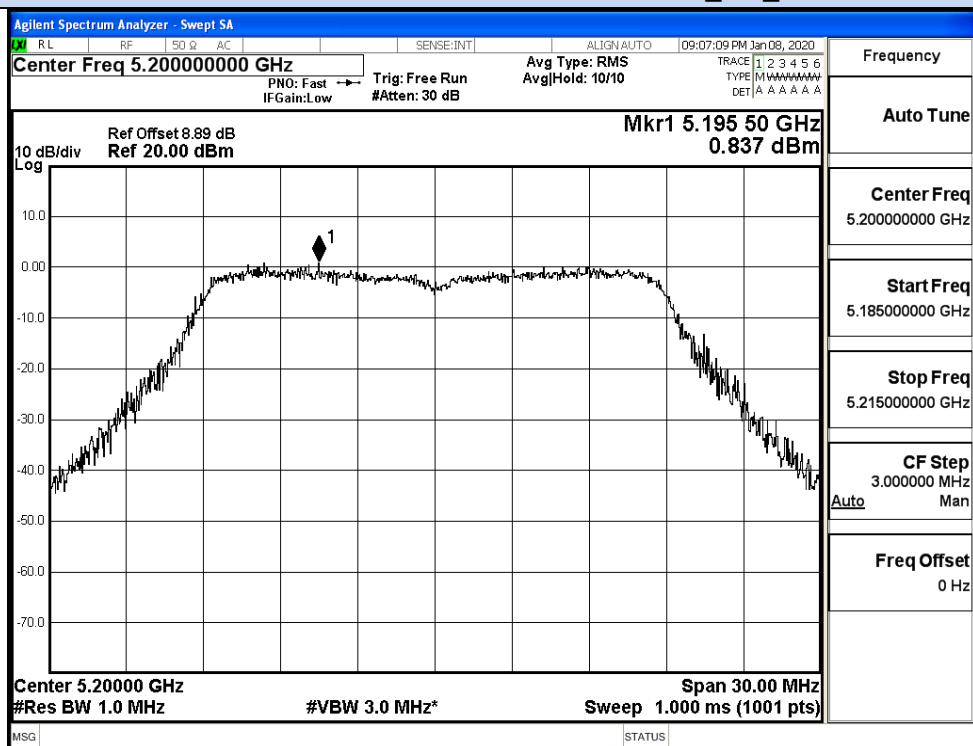


IEEE 802.11a / Channel 48 / 5240MHz_Ant_0

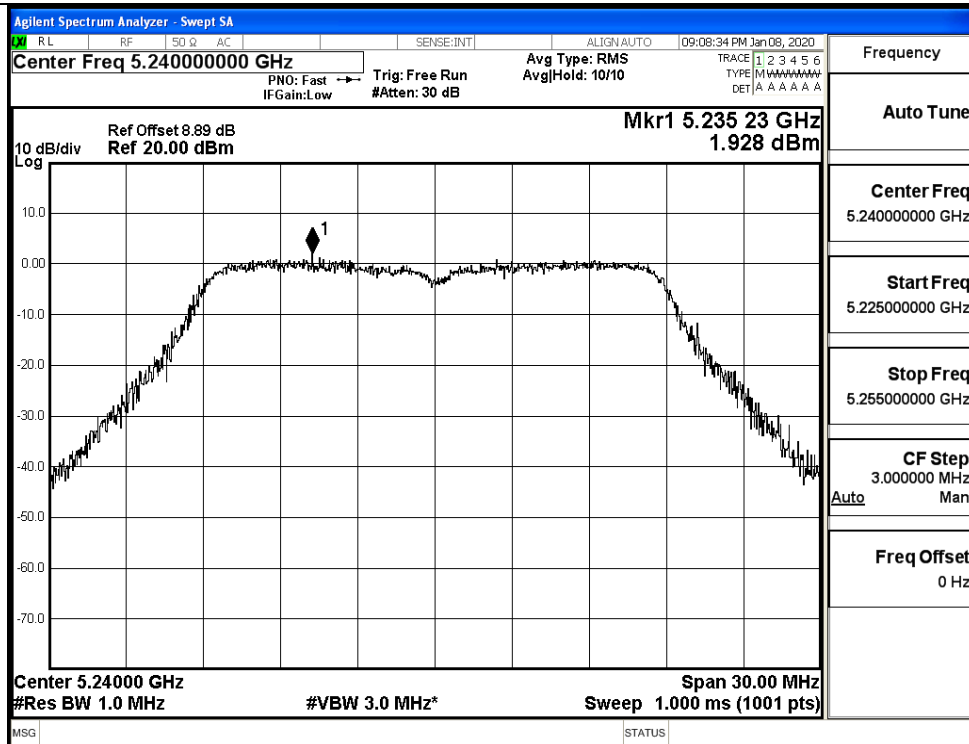
Power Spectral Density_Ant_0



IEEE 802.11n20 / Channel 36 / 5180MHz_Ant_0

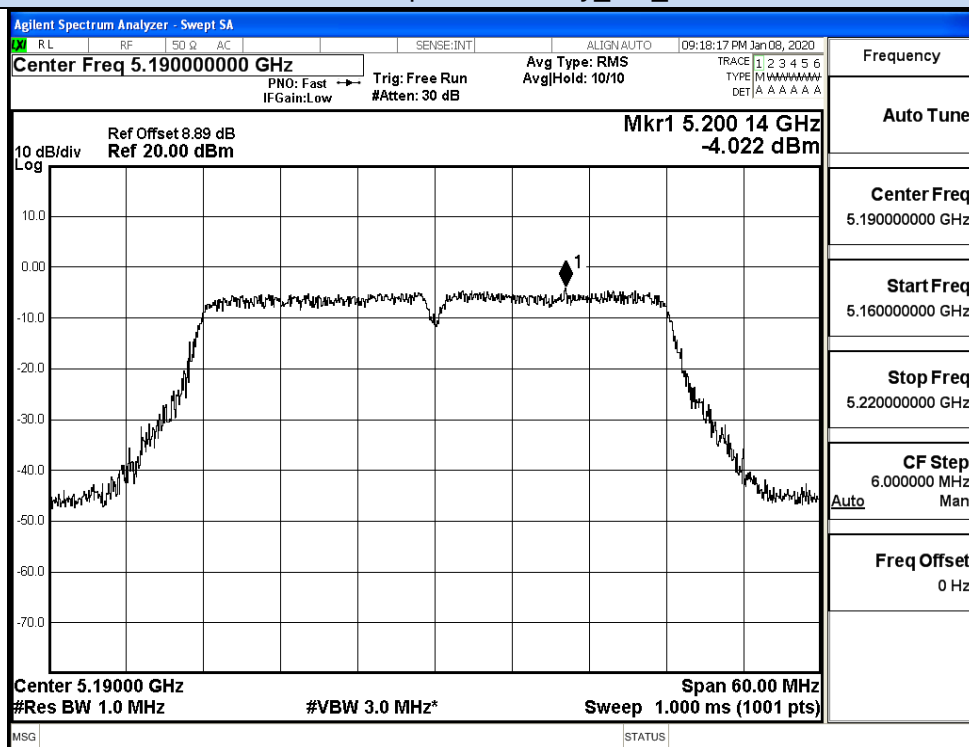


IEEE 802.11n20 / Channel 40 / 5200MHz_Ant_0

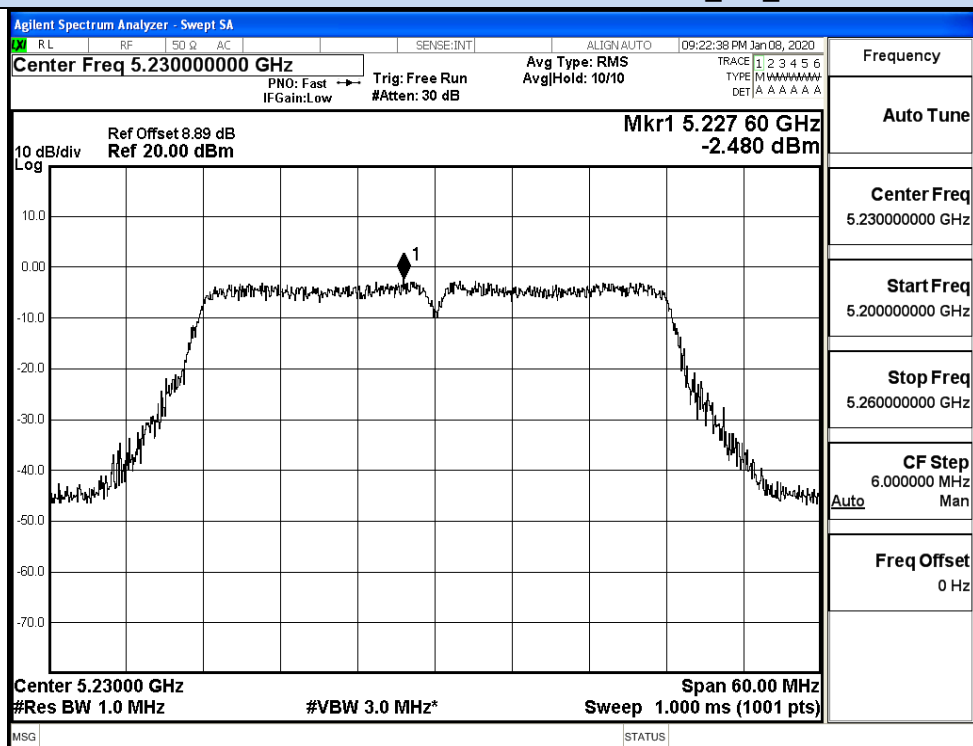


IEEE 802.11n20 / Channel 48 / 5240MHz_Ant_0

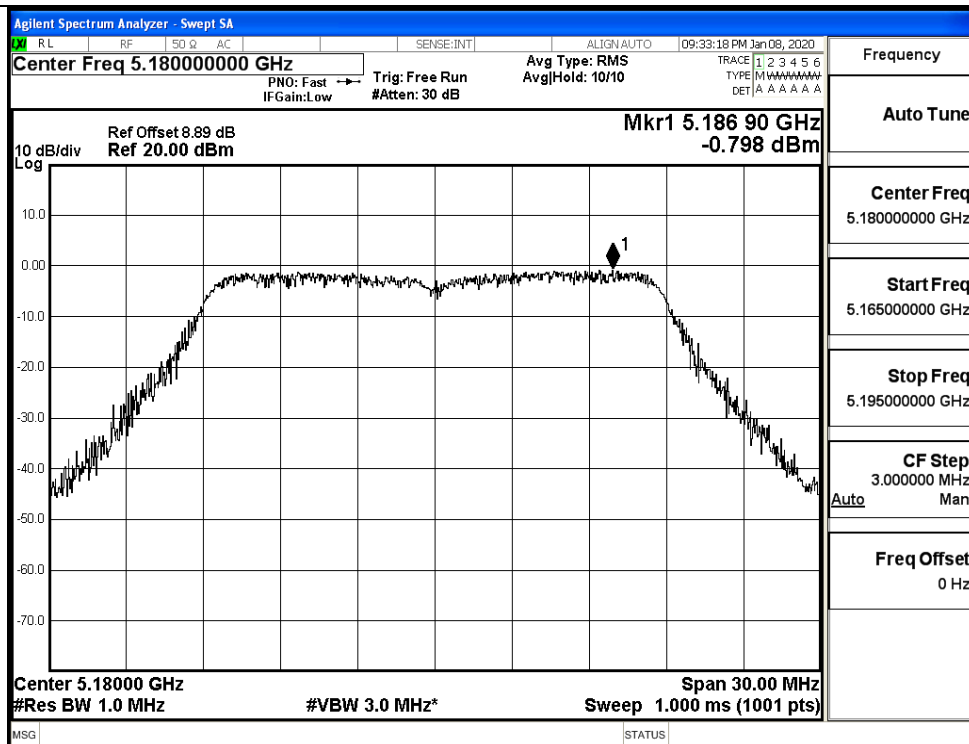
Power Spectral Density_Ant_0



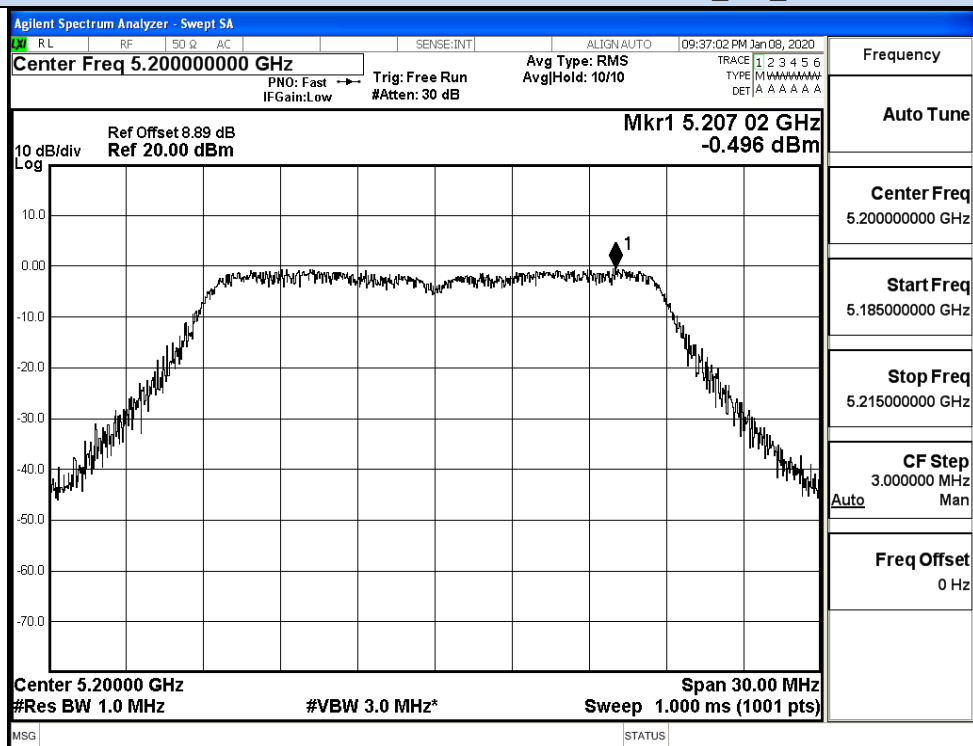
IEEE 802.11n40 / Channel 38 / 5190MHz_Ant_0



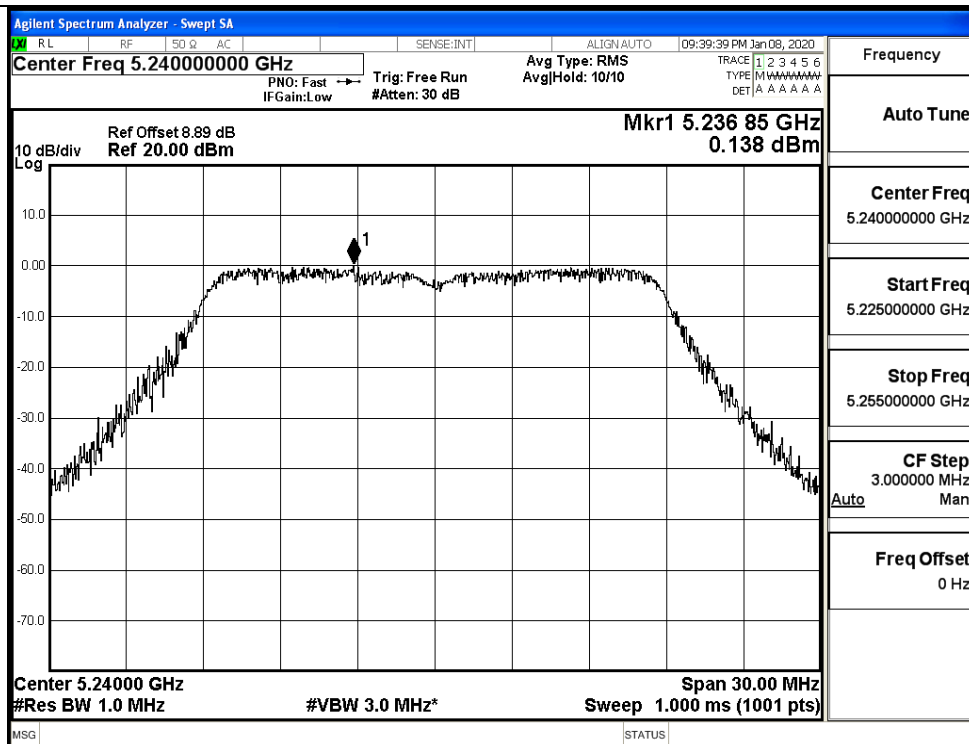
IEEE 802.11n40 / Channel 46 / 5230MHz_Ant_0



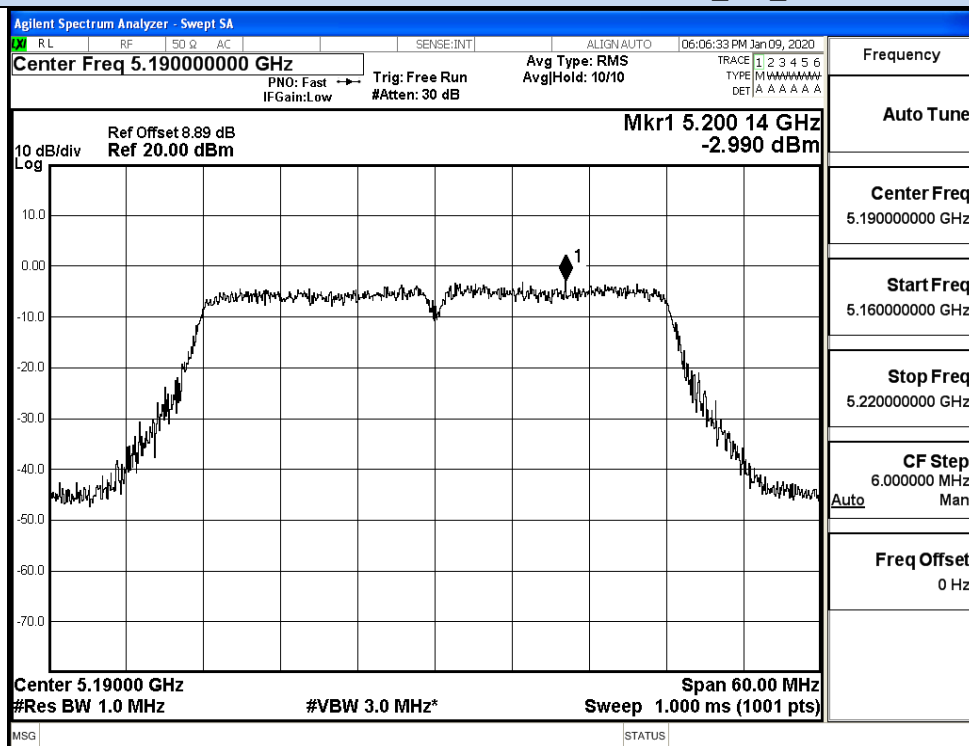
IEEE 802.11ac20 / Channel 36 / 5180MHz_Ant_0



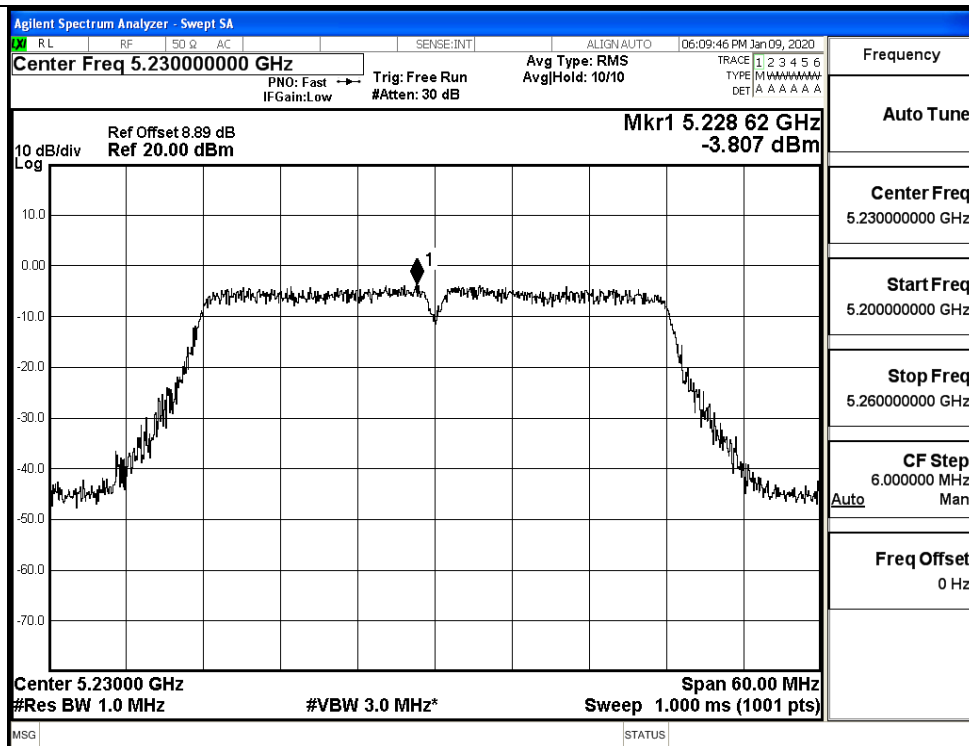
IEEE 802.11ac20 / Channel 40 / 5200MHz_Ant_0



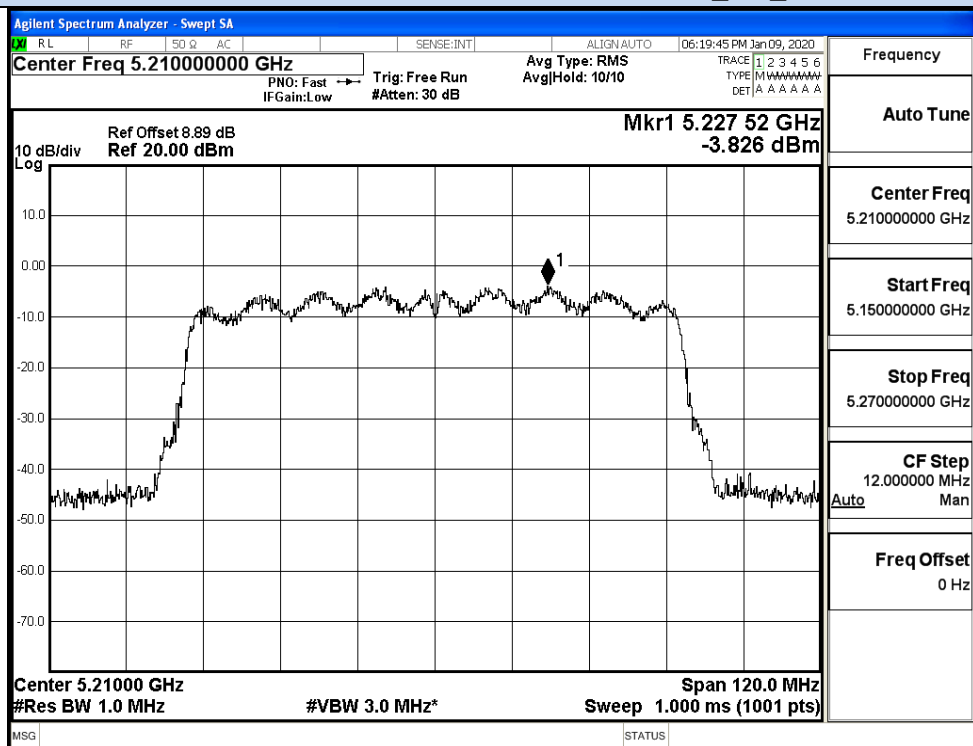
IEEE 802.11ac20 / Channel 48 / 5240MHz_Ant_0



IEEE 802.11ac40 / Channel 38 / 5190MHz_Ant_0

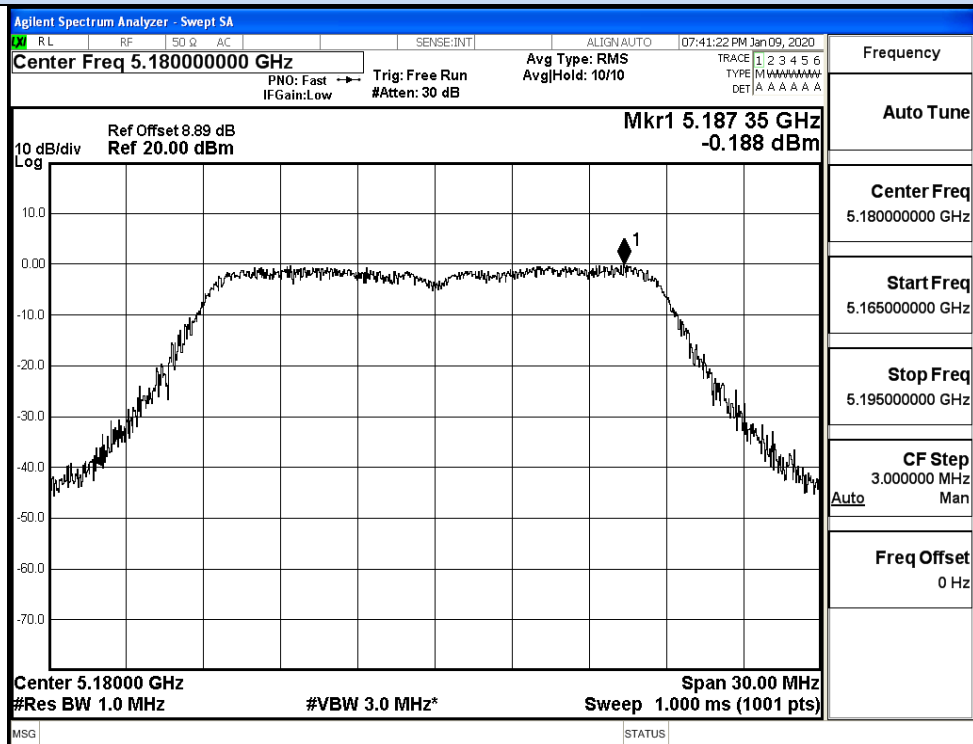


IEEE 802.11ac40 / Channel 46 / 5230MHz_Ant_0

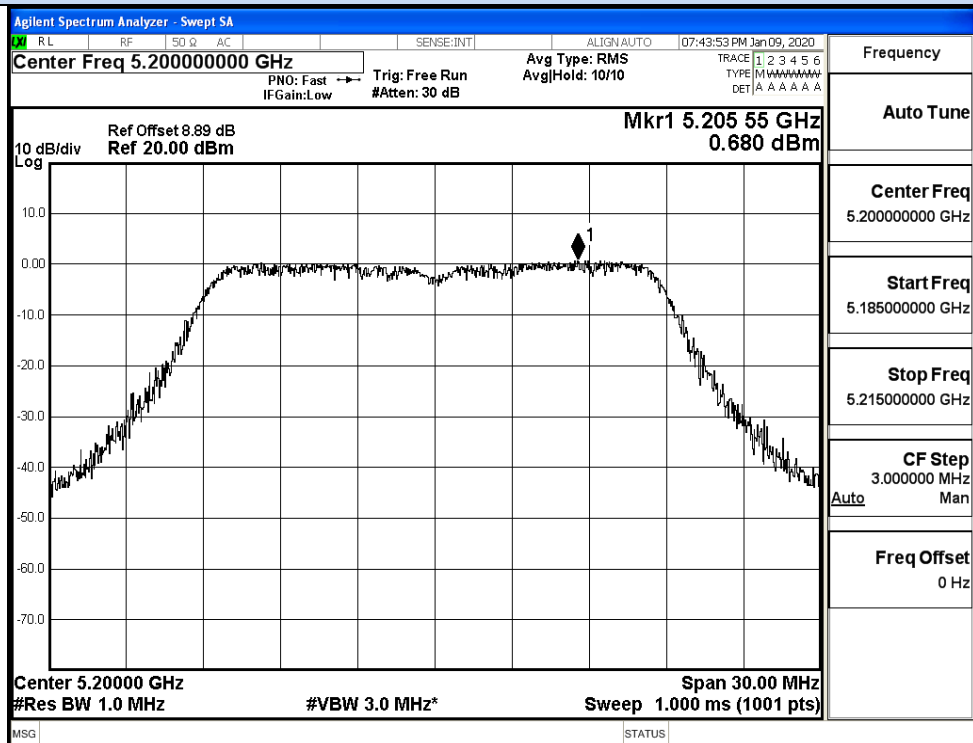


IEEE 802.11ac80 / Channel 42 / 5210MHz_Ant_0

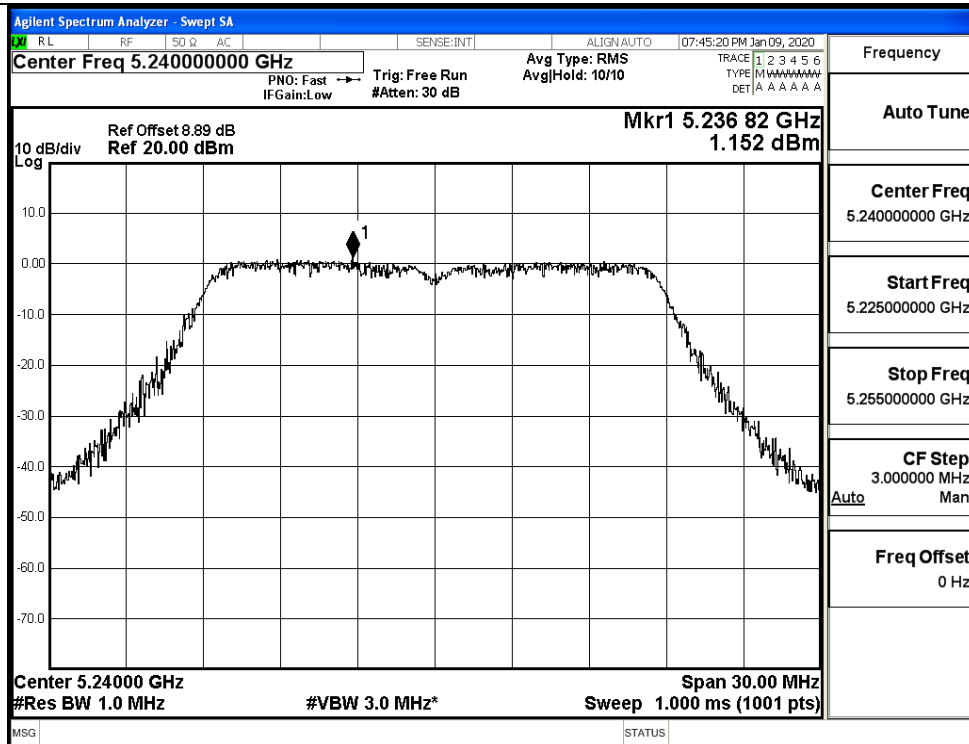
Power Spectral Density_Ant_1



IEEE 802.11a / Channel 36 / 5180MHz_Ant_1

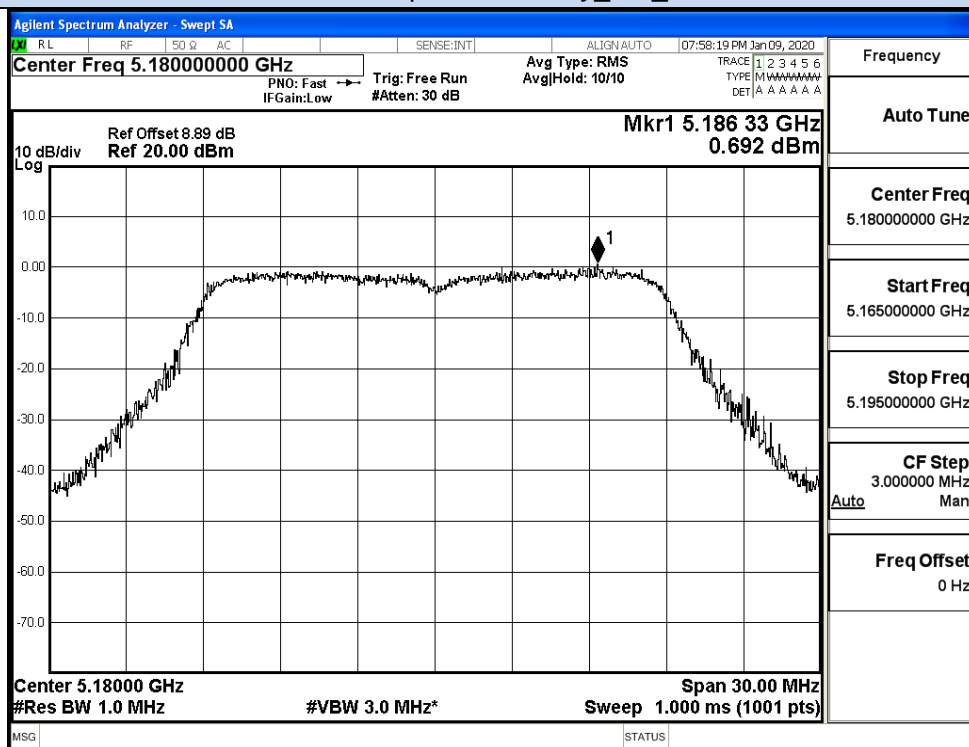


IEEE 802.11a / Channel 40 / 5200MHz_Ant_1

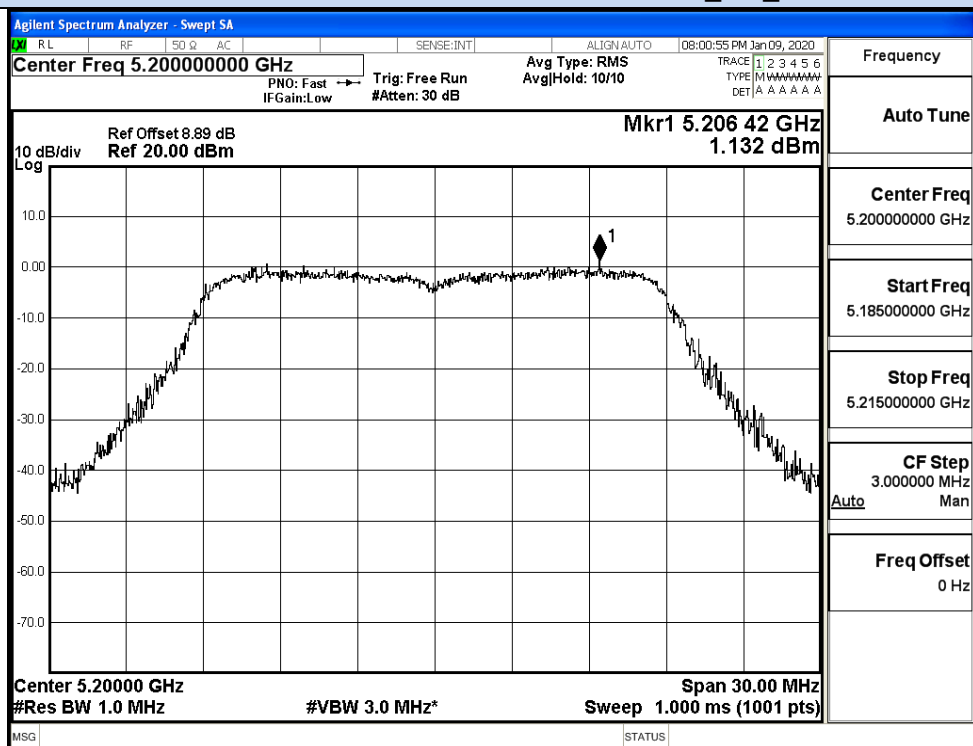


IEEE 802.11a / Channel 48 / 5240MHz_Ant_1

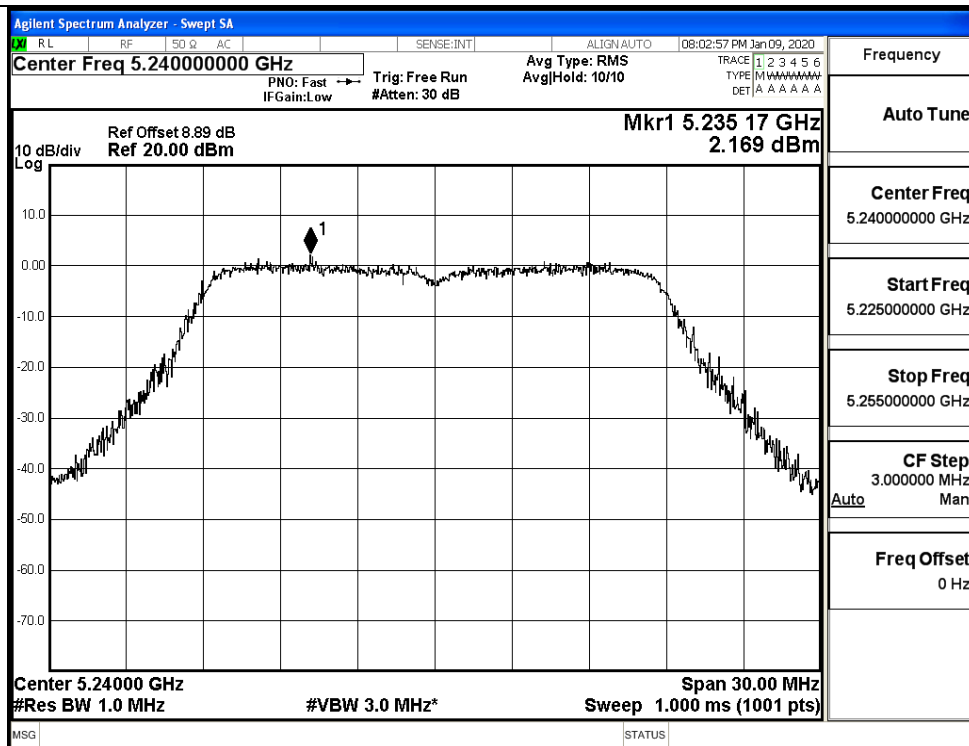
Power Spectral Density_Ant_1



IEEE 802.11n20 / Channel 36 / 5180MHz_Ant_1

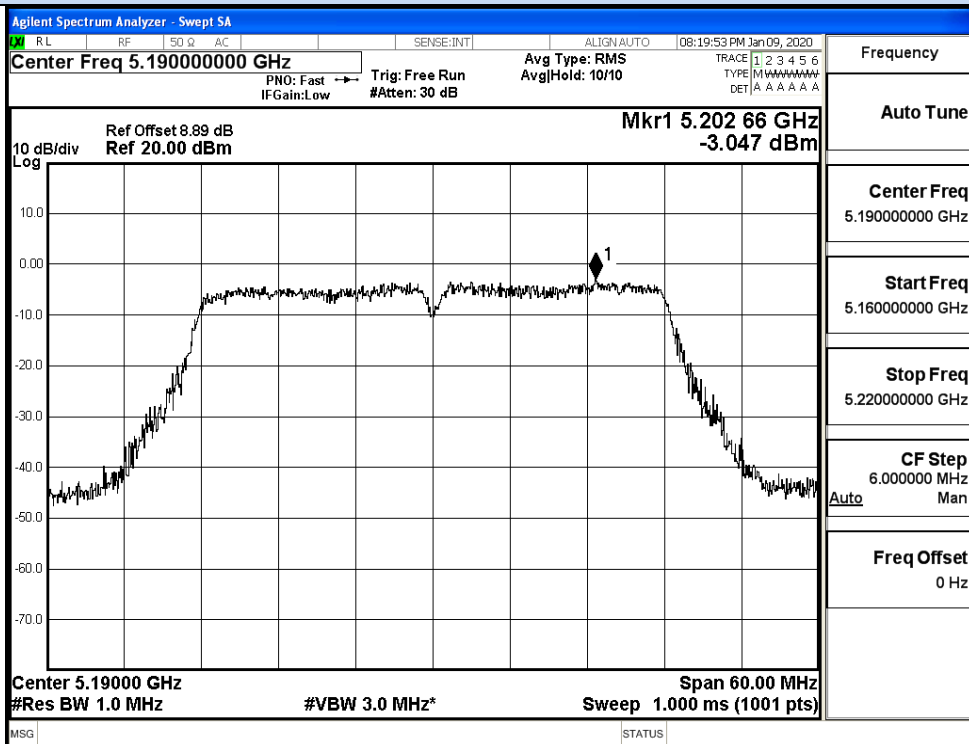


IEEE 802.11n20 / Channel 40 / 5200MHz_Ant_1

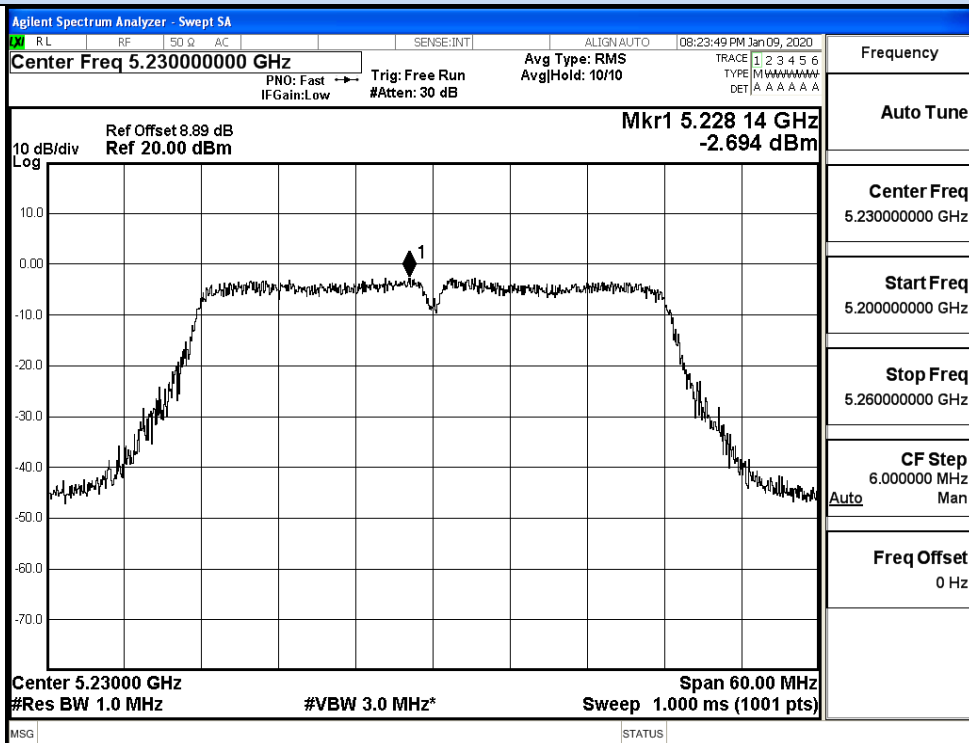


IEEE 802.11n20 / Channel 48 / 5240MHz_Ant_1

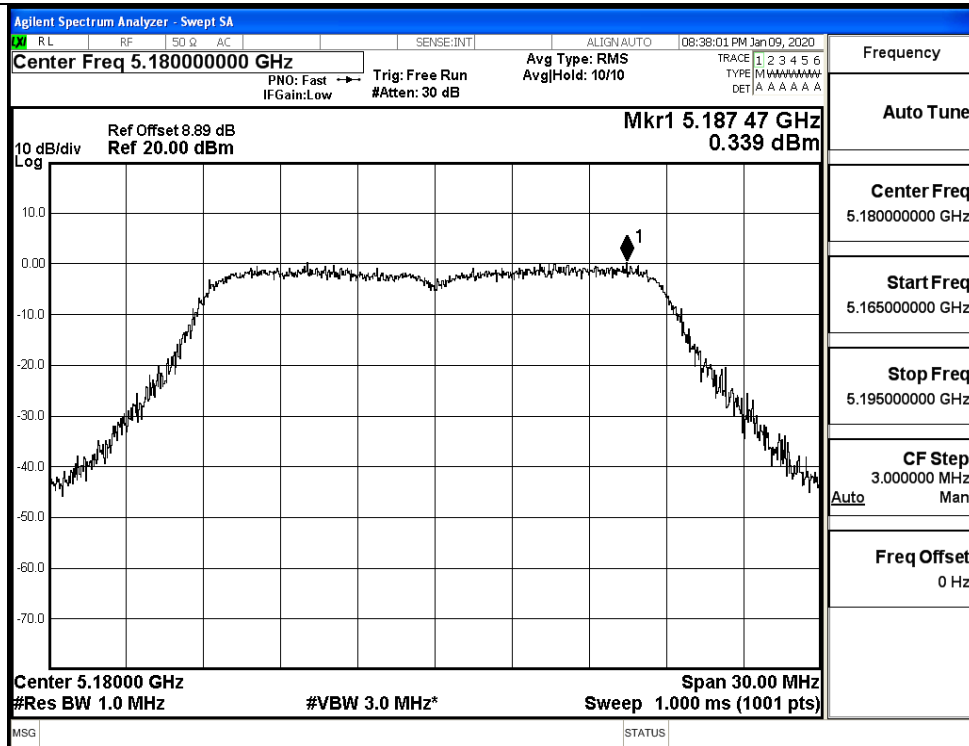
Power Spectral Density_Ant_1



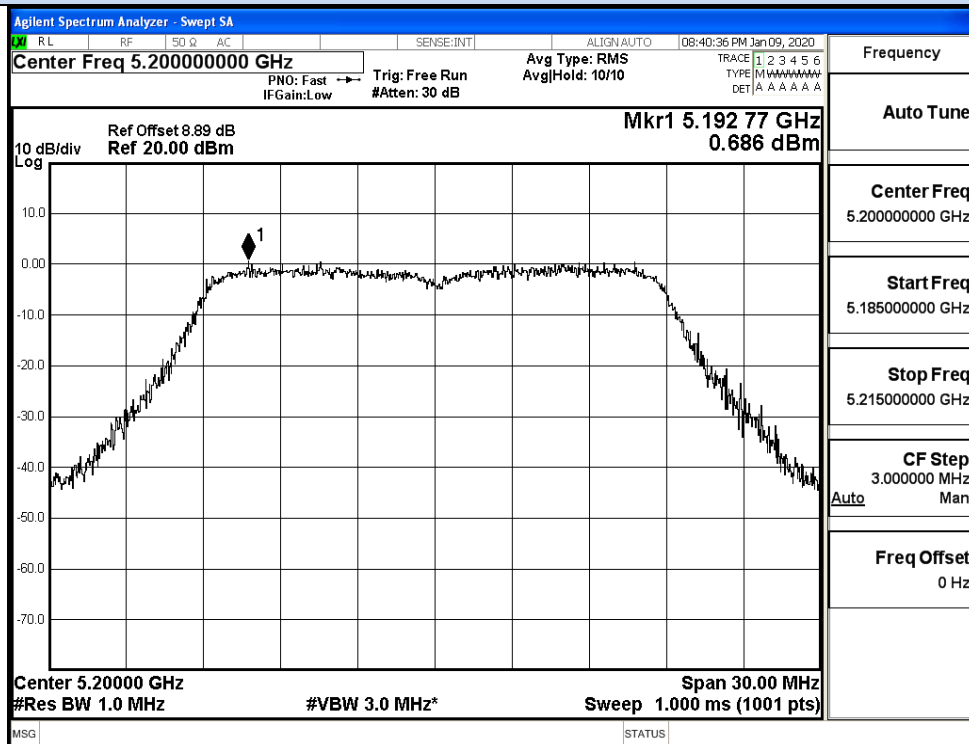
IEEE 802.11n40 / Channel 38 / 5190MHz_Ant_1



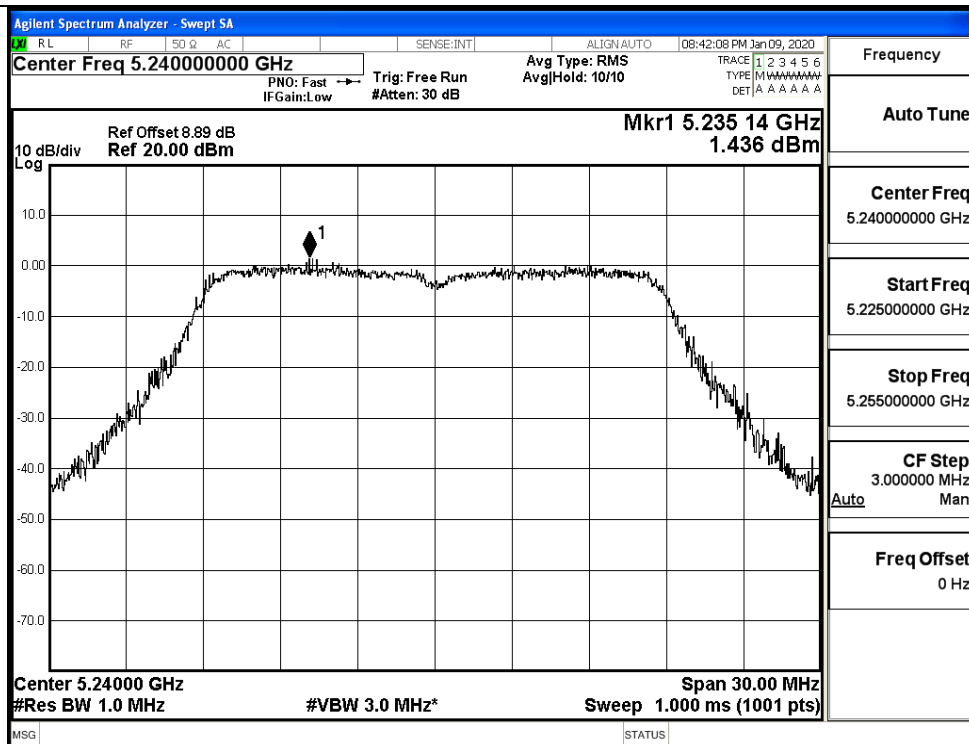
IEEE 802.11n40 / Channel 46 / 5230MHz_Ant_1



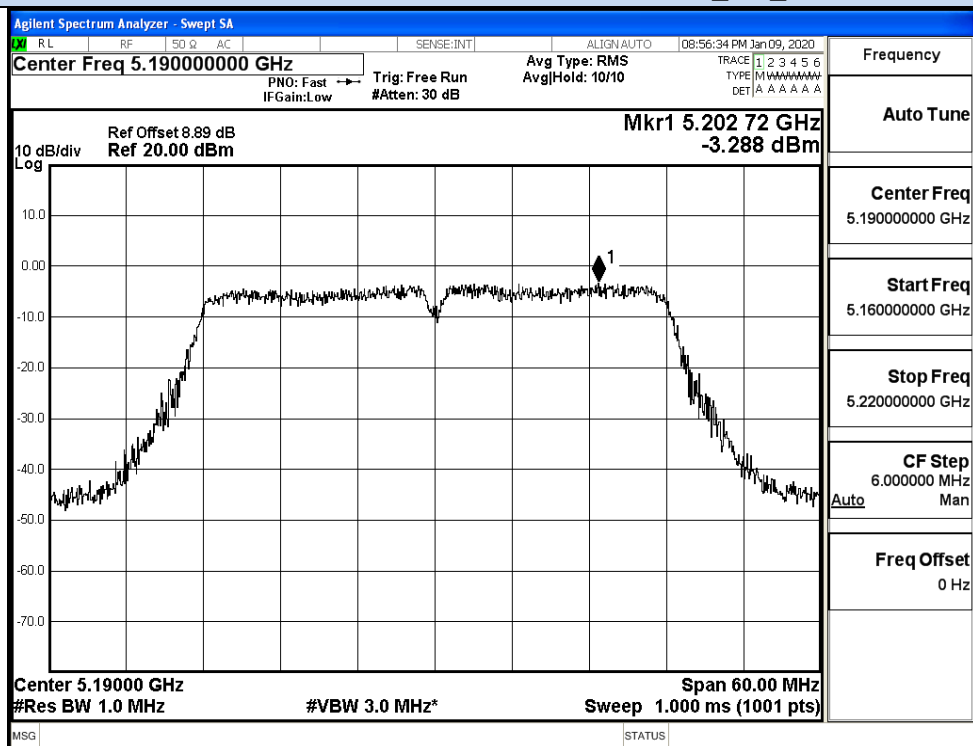
IEEE 802.11ac20 / Channel 36 / 5180MHz_Ant_1



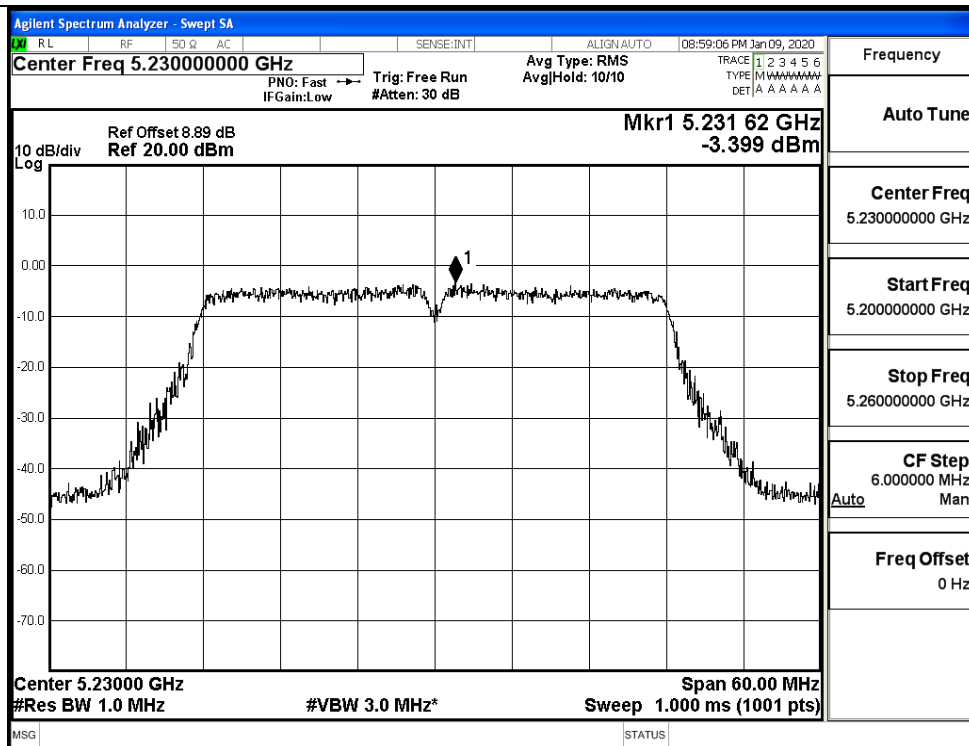
IEEE 802.11ac20 / Channel 40 / 5200MHz_Ant_1



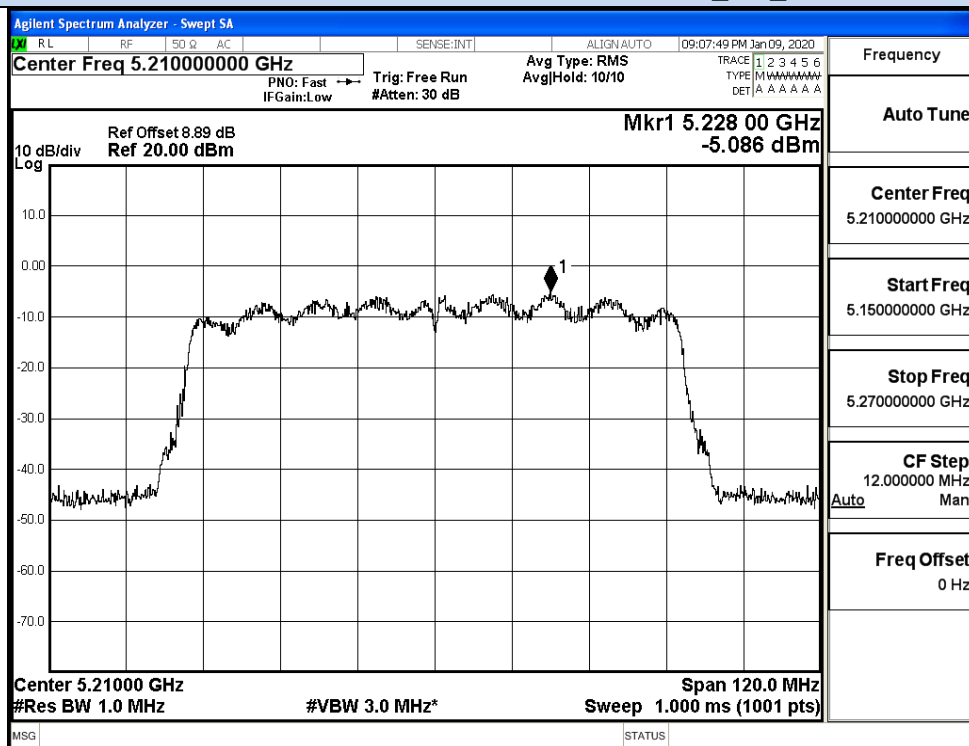
IEEE 802.11ac20 / Channel 48 / 5240MHz_Ant_1



IEEE 802.11ac40 / Channel 38 / 5190MHz_Ant_1



IEEE 802.11ac40 / Channel 46 / 5230MHz_Ant_1

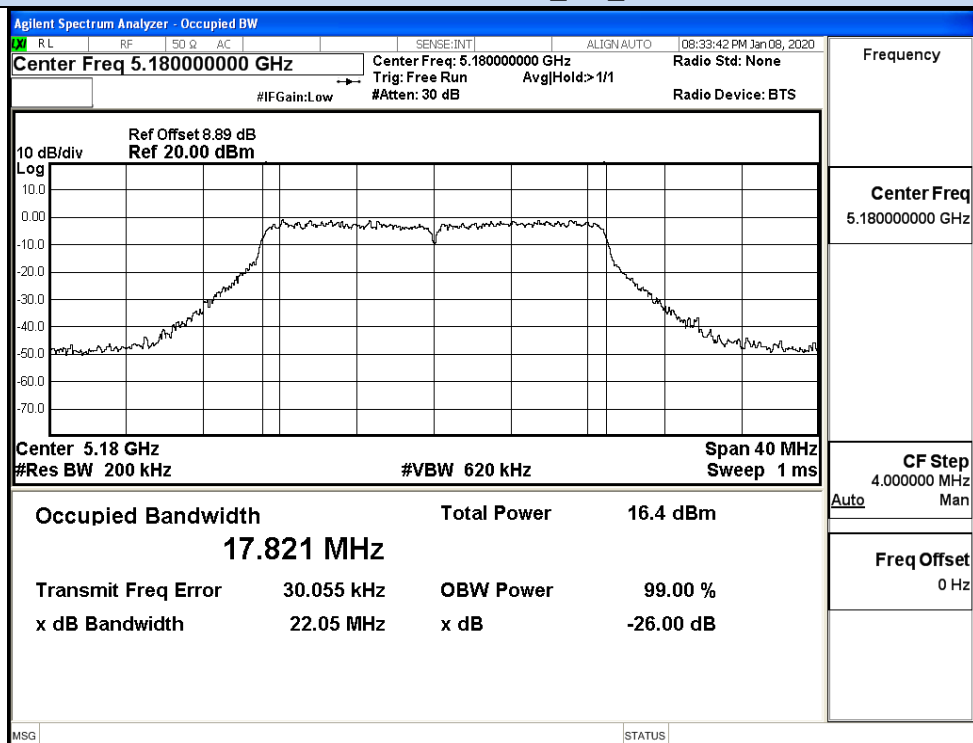


IEEE 802.11ac80 / Channel 42 / 5210MHz_Ant_1

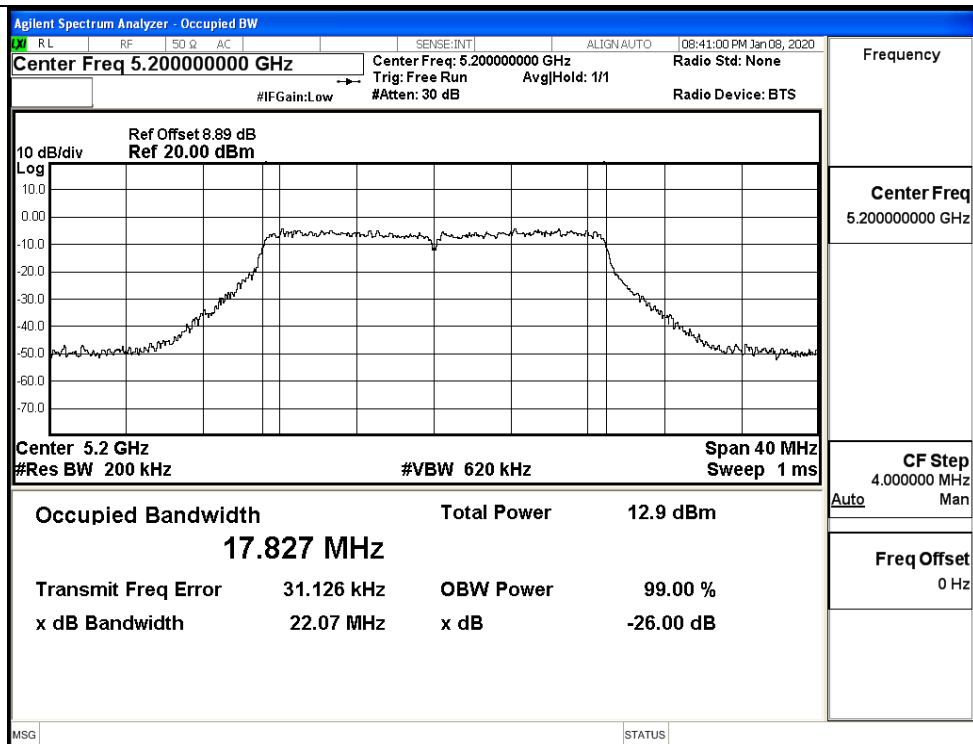
B.4 Emission Bandwidth

Test Mode	Channel	Frequency (MHz)	26dB Bandwidth (MHz)		Limit (MHz)	Verdict
			Ant_0	Ant_1		
11A	36	5180	22.05	21.15	No Limit	Pass
	40	5200	22.07	21.26		Pass
	48	5240	21.78	21.20		Pass
11N20	36	5180	21.99	21.24	No Limit	Pass
	40	5200	21.59	21.20		Pass
	48	5240	22.00	21.23		Pass
11N40	38	5190	43.17	43.22	No Limit	Pass
	46	5230	43.00	42.64		Pass
11AC20	36	5180	21.87	21.45	No Limit	Pass
	40	5200	21.86	21.43		Pass
	48	5240	21.94	21.59		Pass
11AC40	38	5190	42.19	42.33	No Limit	Pass
	46	5230	42.35	42.37		Pass
11AC80	42	5210	81.64	80.84	No Limit	Pass

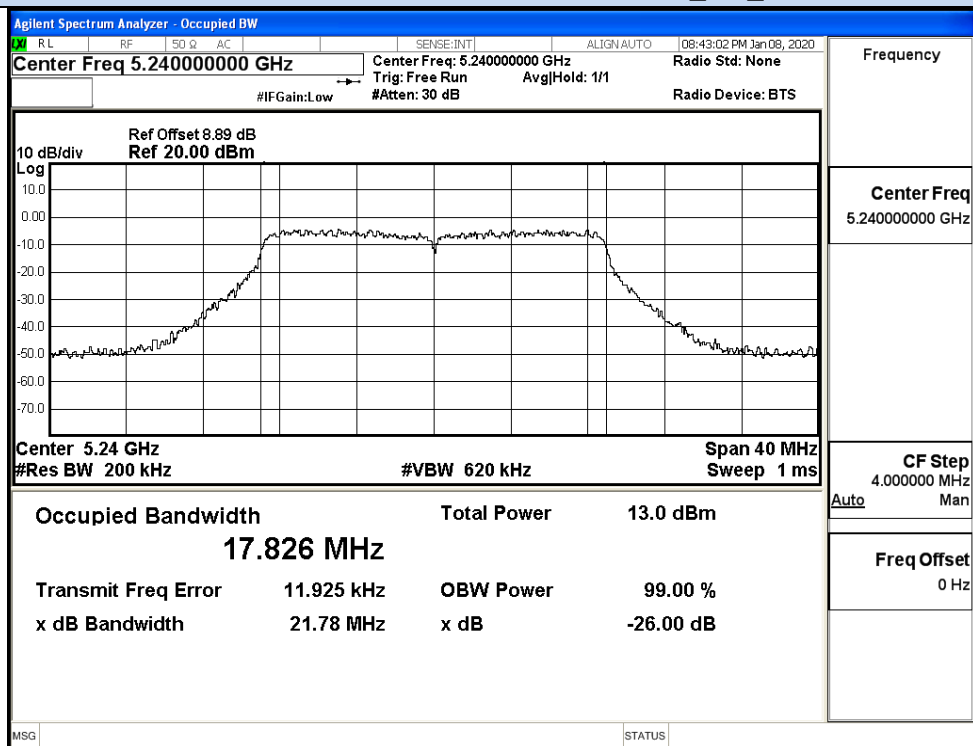
26dB Bandwidth_Ant_0



IEEE 802.11a / Channel 36 / 5180MHz_Ant_0

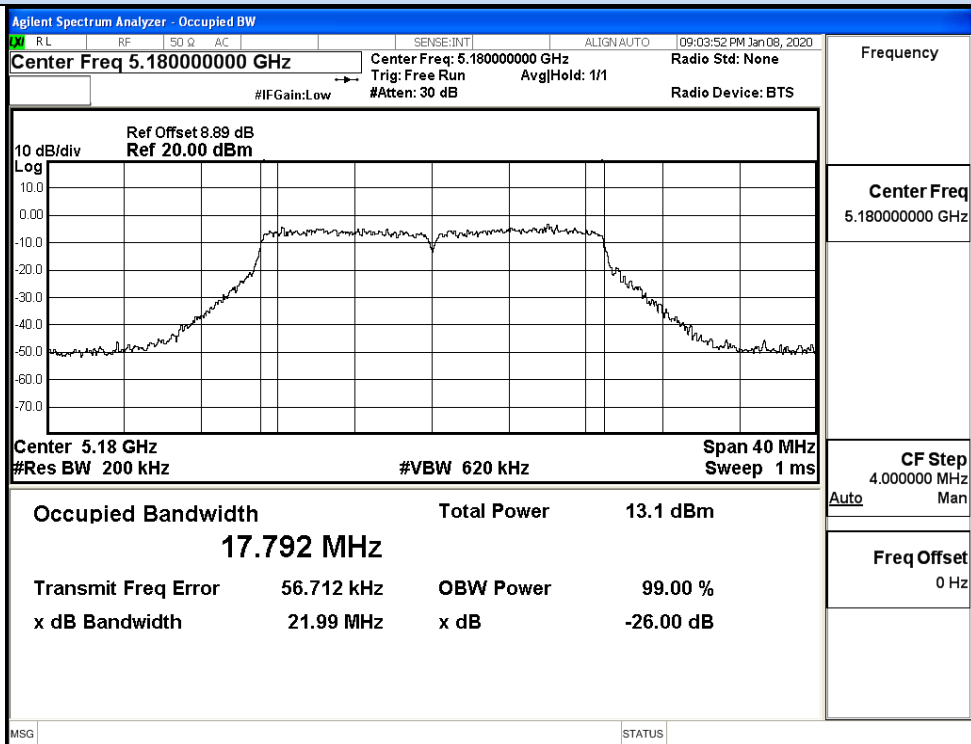


IEEE 802.11a / Channel 40 / 5200MHz_Ant_0

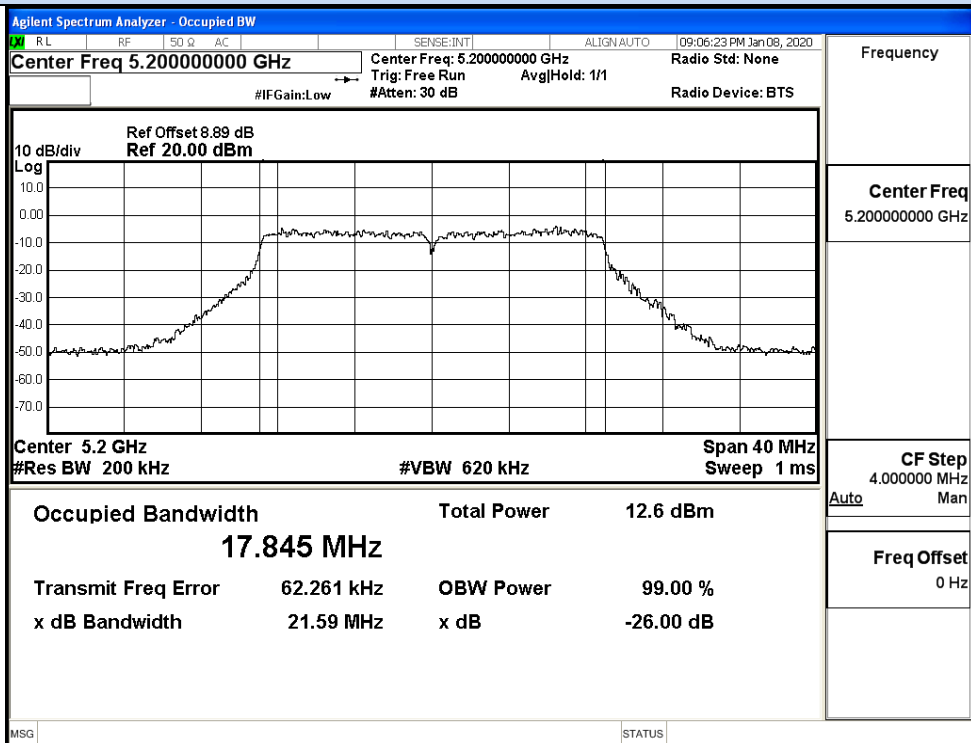


IEEE 802.11a / Channel 48 / 5240MHz_Ant_0

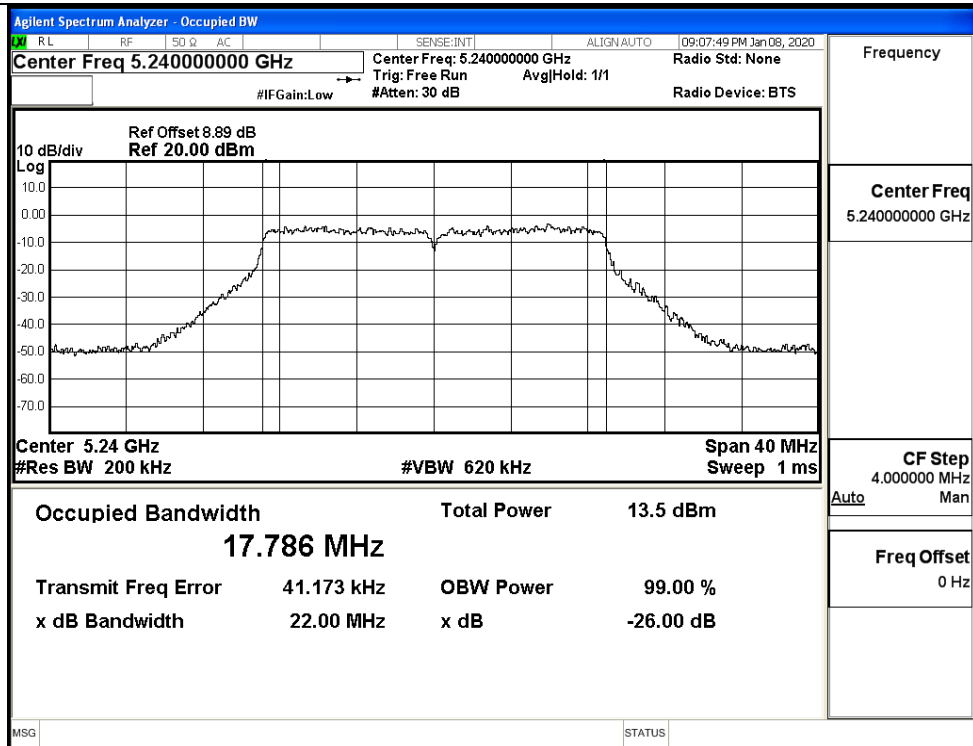
26dB Bandwidth_Ant_0



IEEE 802.11n20 / Channel 36 / 5180MHz_Ant_0

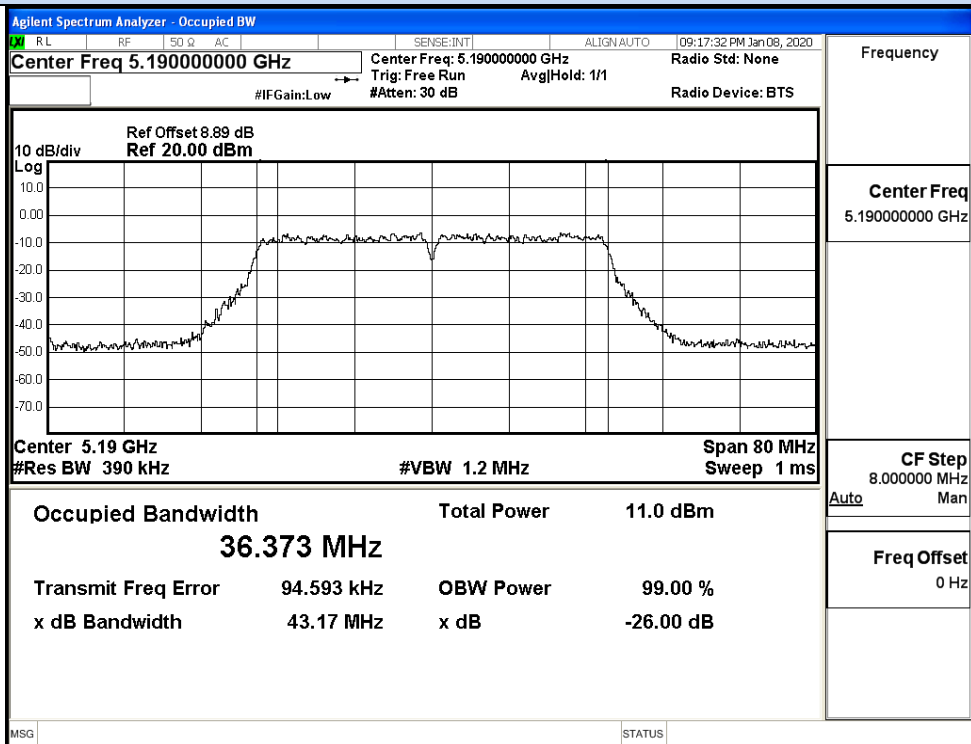


IEEE 802.11n20 / Channel 40 / 5200MHz_Ant_0

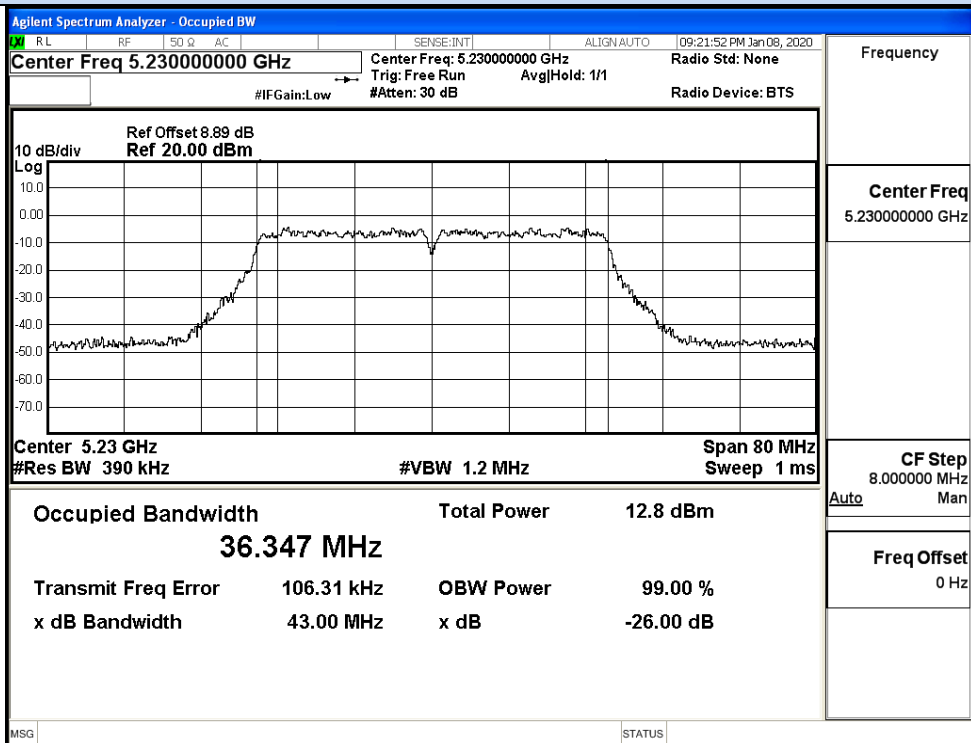


IEEE 802.11n20 / Channel 48 / 5240MHz_Ant_0

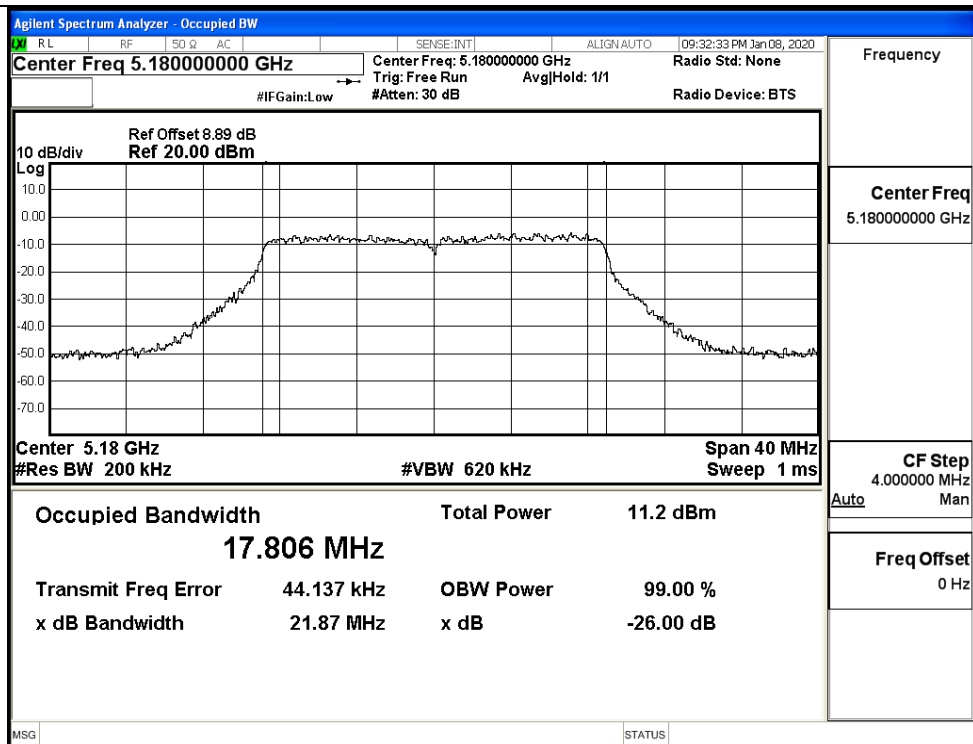
26dB Bandwidth_Ant_0



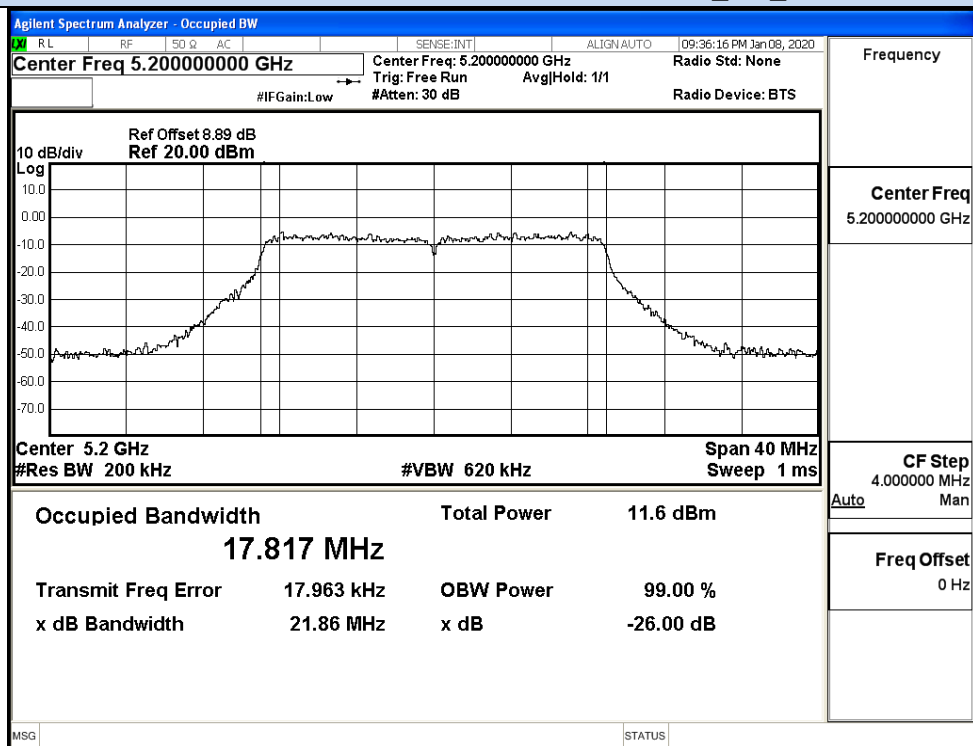
IEEE 802.11n40 / Channel 38 / 5190MHz_Ant_0



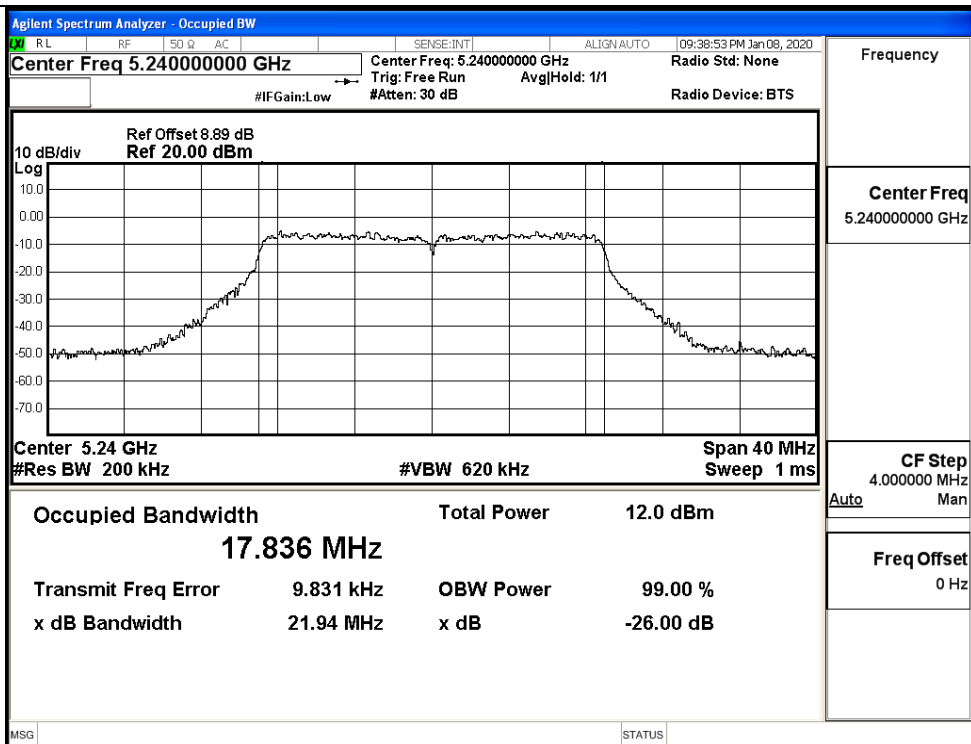
IEEE 802.11n40 / Channel 46 / 5230MHz_Ant_0



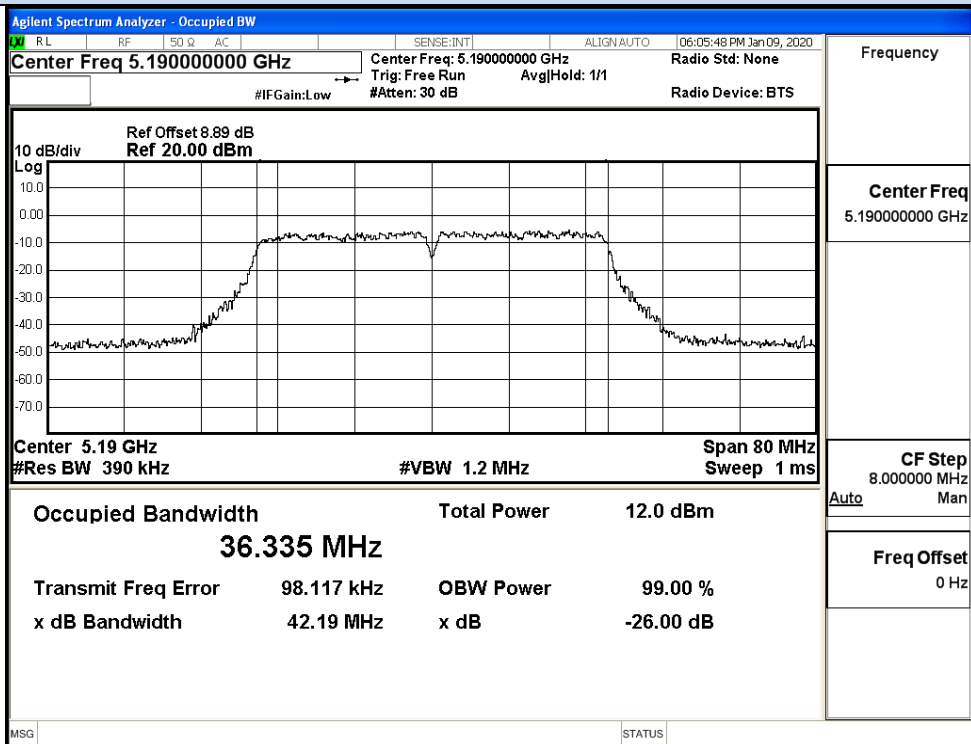
IEEE 802.11ac20 / Channel 36 / 5180MHz_Ant_0



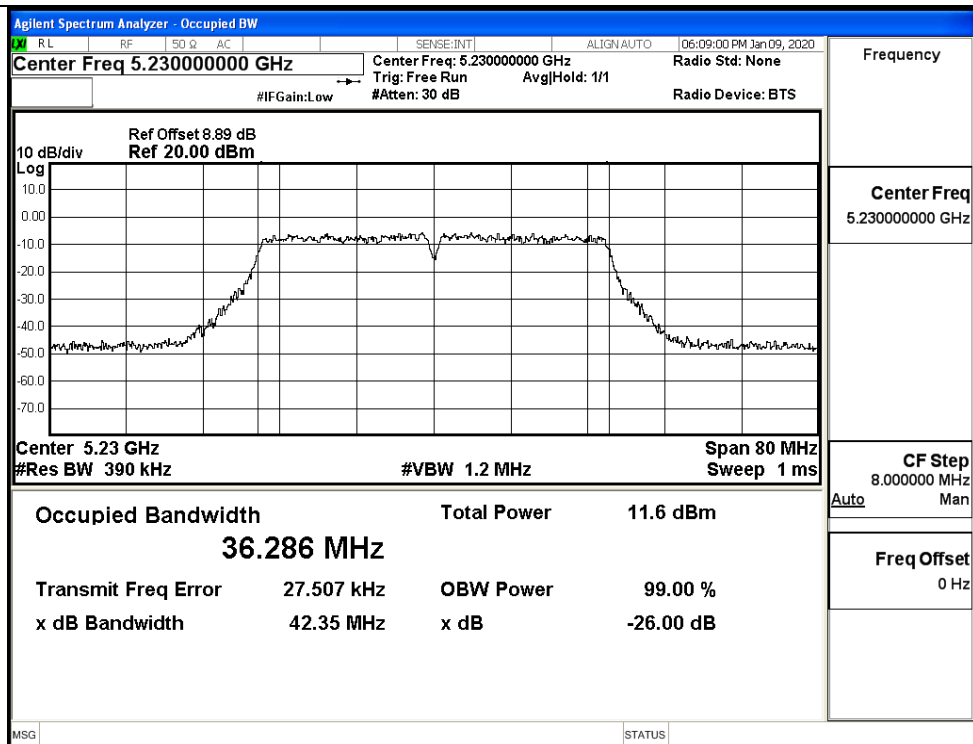
IEEE 802.11ac20 / Channel 40 / 5200MHz_Ant_0



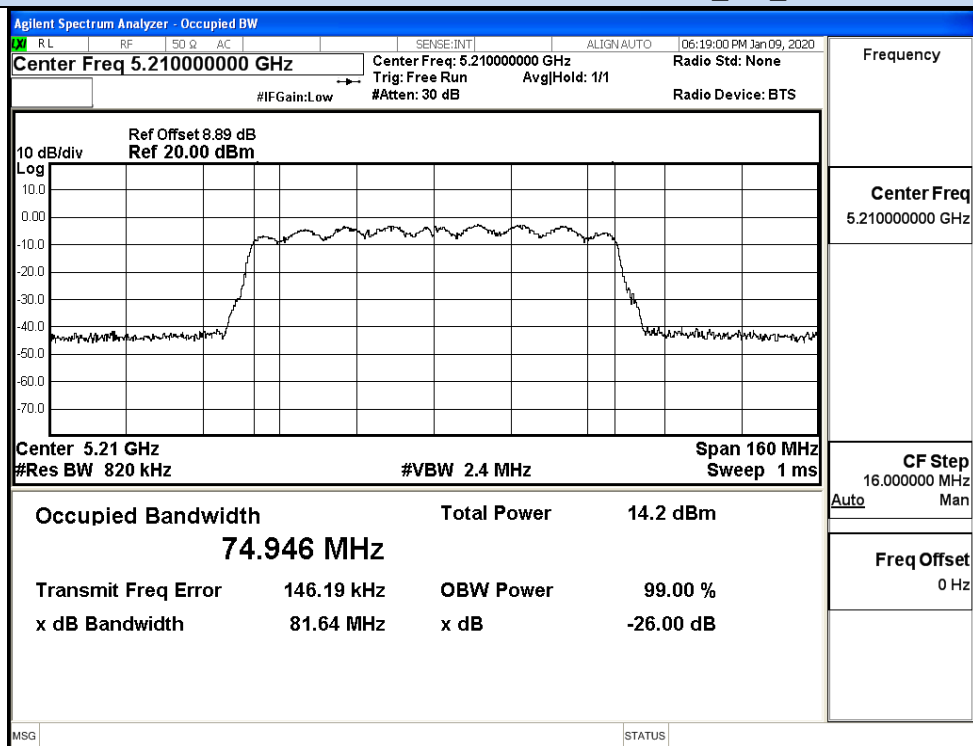
IEEE 802.11ac20 / Channel 48 / 5240MHz_Ant_0



IEEE 802.11ac40 / Channel 38 / 5190MHz_Ant_0

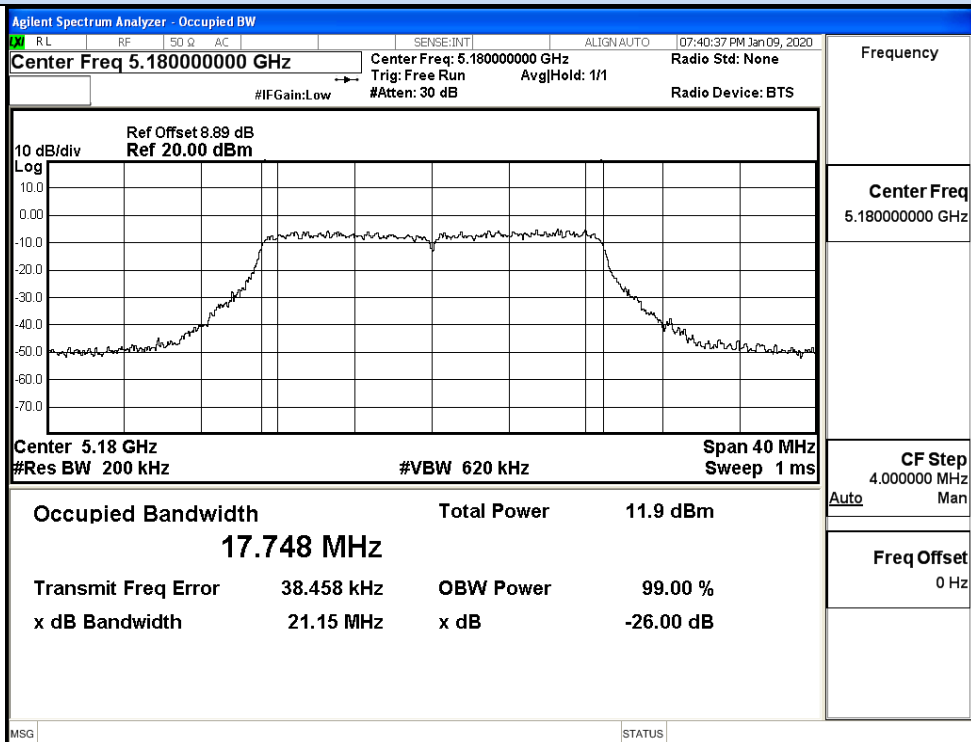


IEEE 802.11ac40 / Channel 46 / 5230MHz_Ant_0

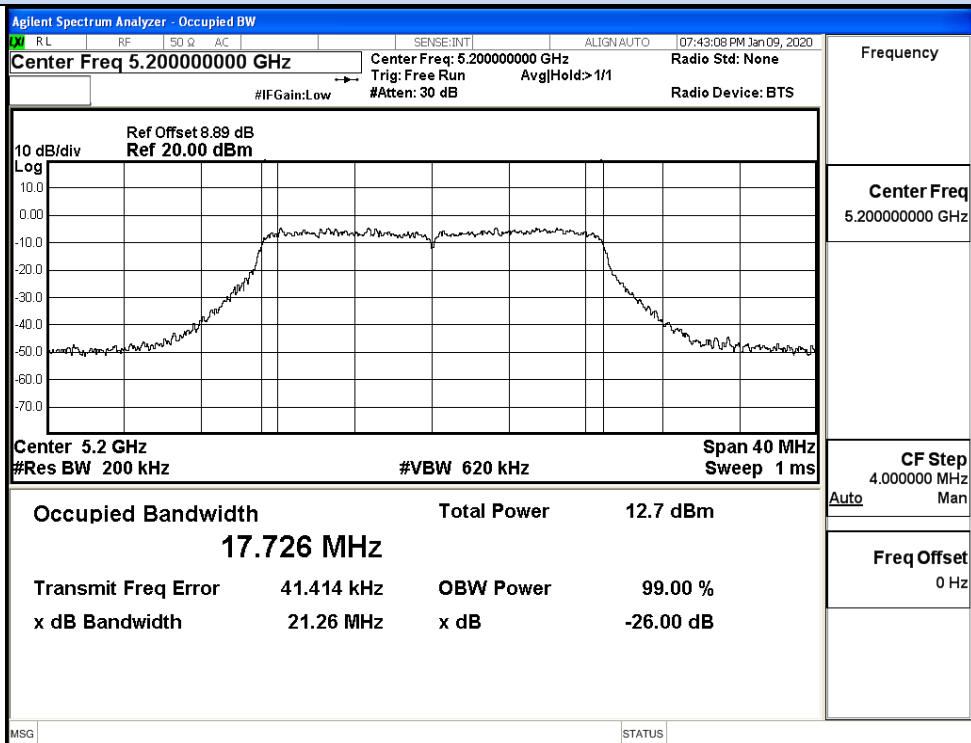


IEEE 802.11ac80 / Channel 42 / 5210MHz_Ant_0

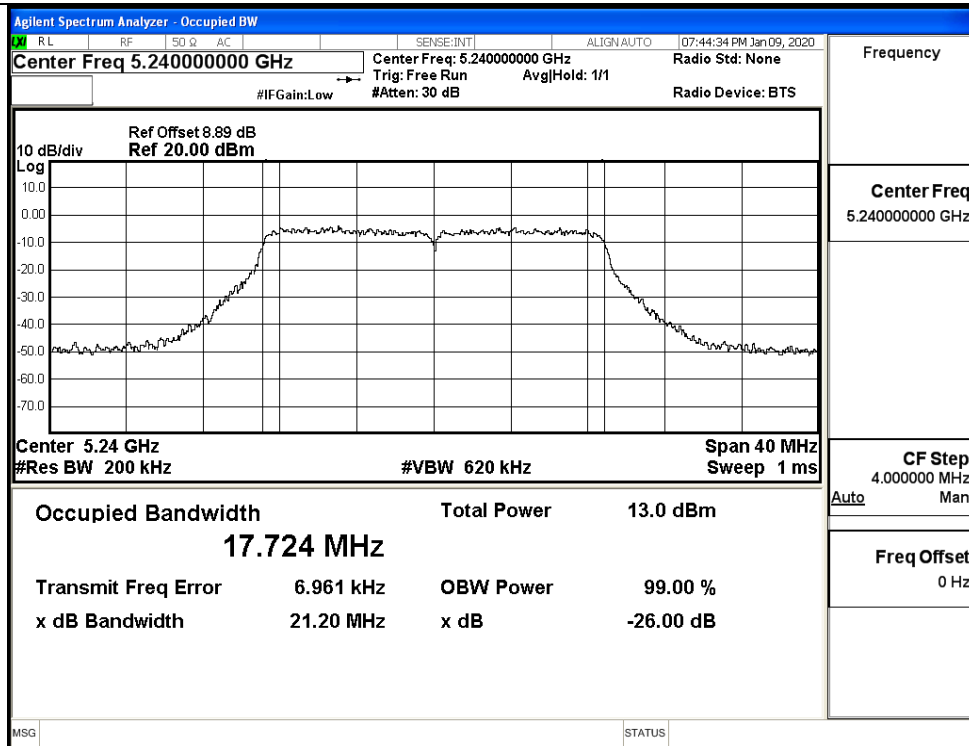
26dB Bandwidth_Ant_1



IEEE 802.11a / Channel 36 / 5180MHz_Ant_1

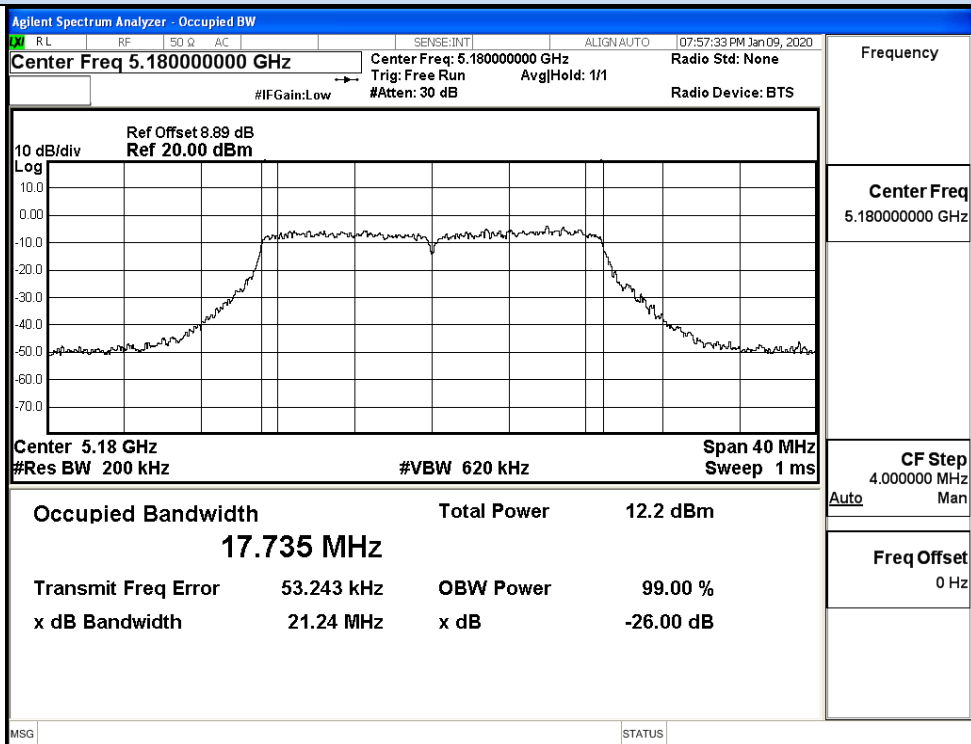


IEEE 802.11a / Channel 40 / 5200MHz_Ant_1

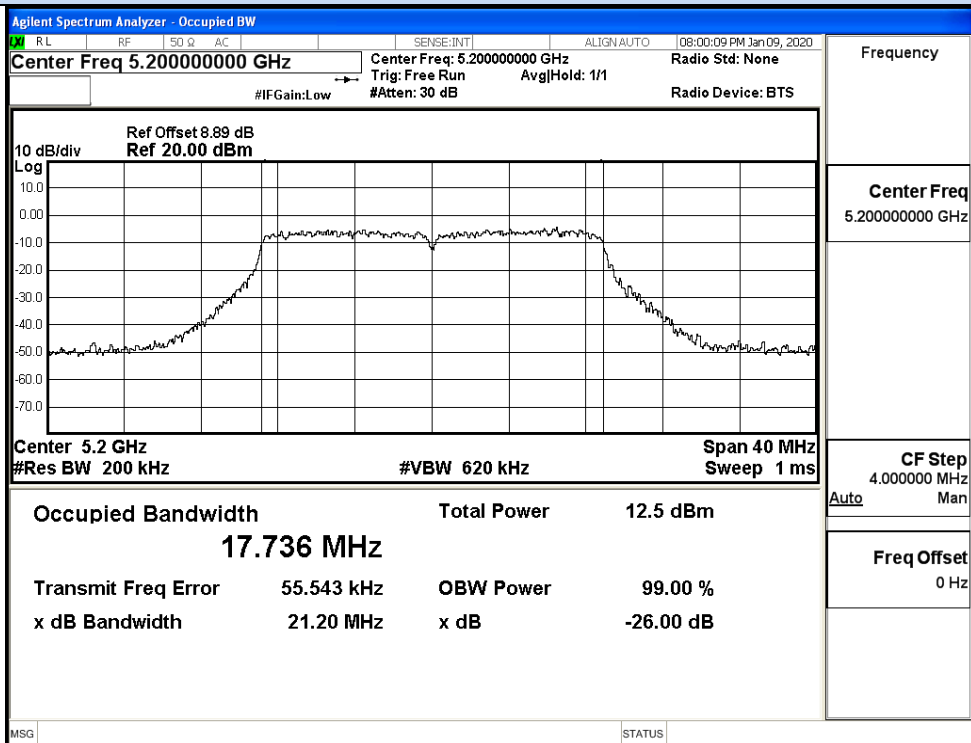


IEEE 802.11a / Channel 48 / 5240MHz_Ant_1

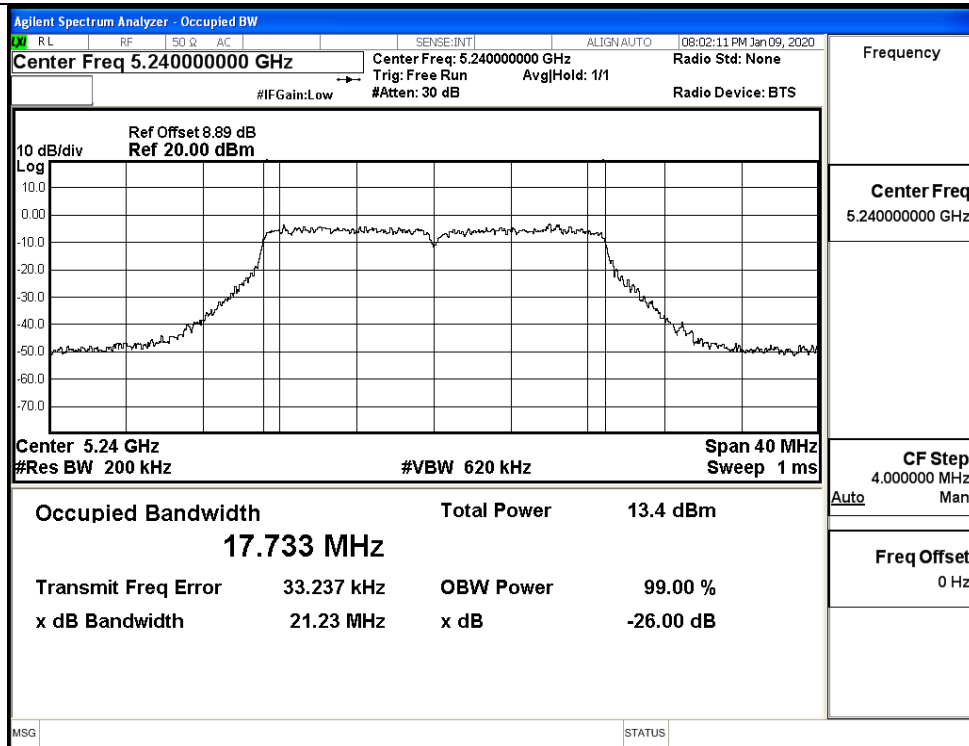
26dB Bandwidth_Ant_1



IEEE 802.11n20 / Channel 36 / 5180MHz_Ant_1

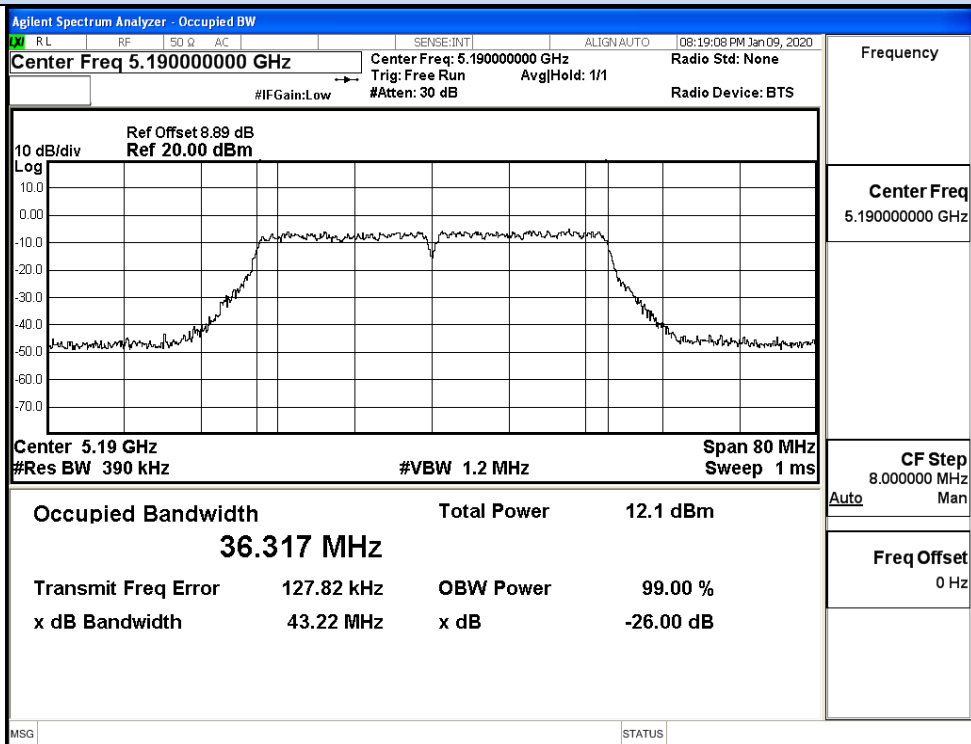


IEEE 802.11n20 / Channel 40 / 5200MHz_Ant_1

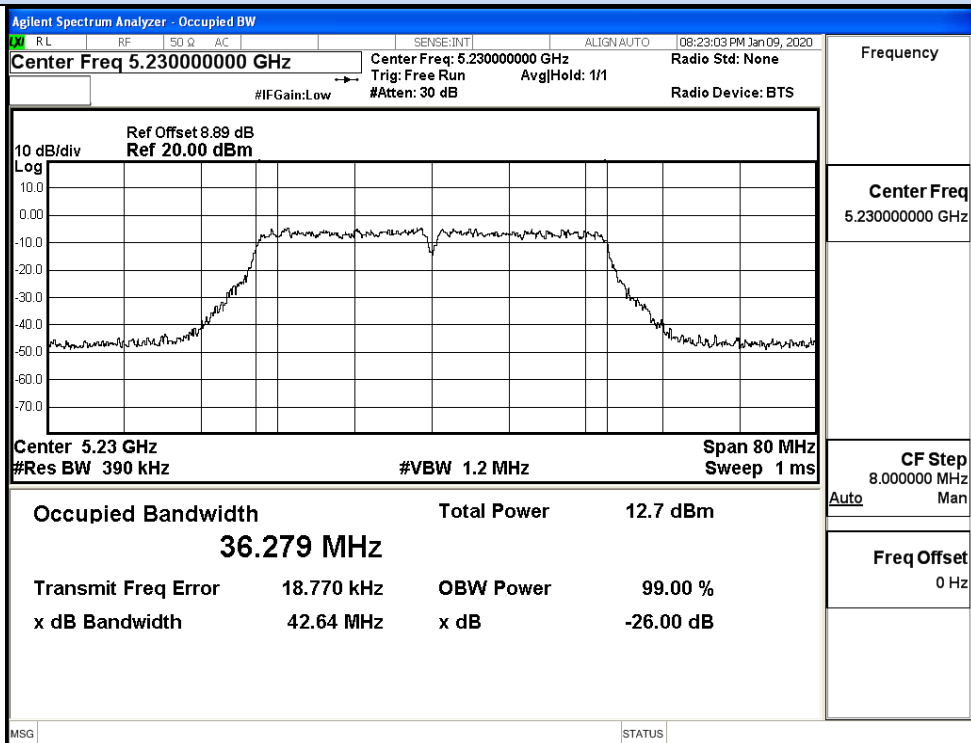


IEEE 802.11n20 / Channel 48 / 5240MHz_Ant_1

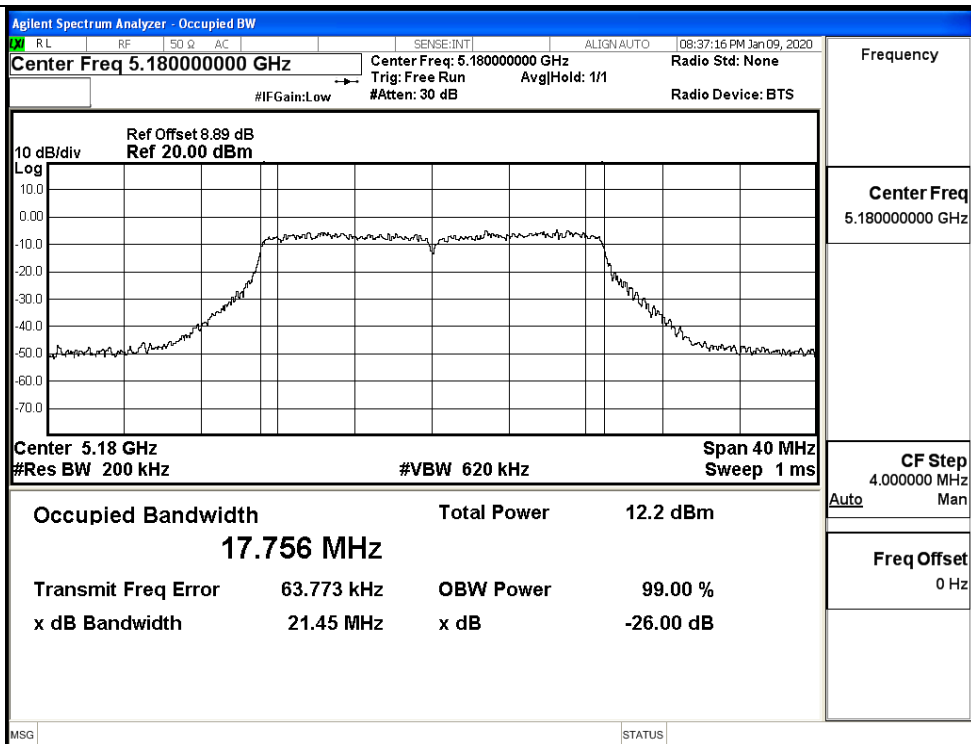
26dB Bandwidth_Ant_1



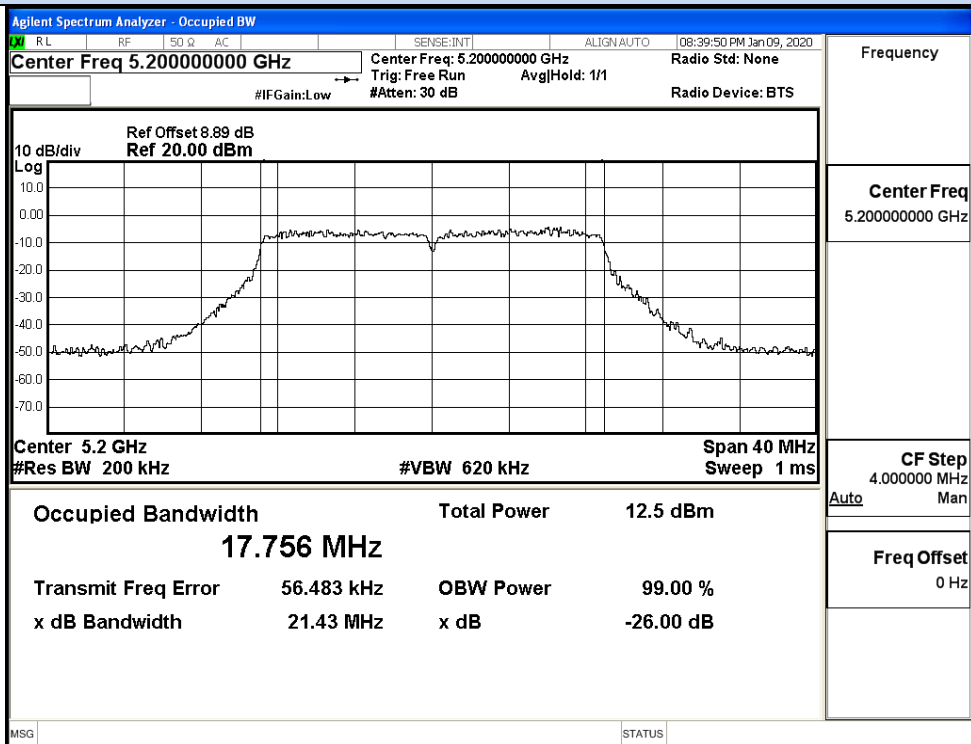
IEEE 802.11n40 / Channel 38 / 5190MHz_Ant_1



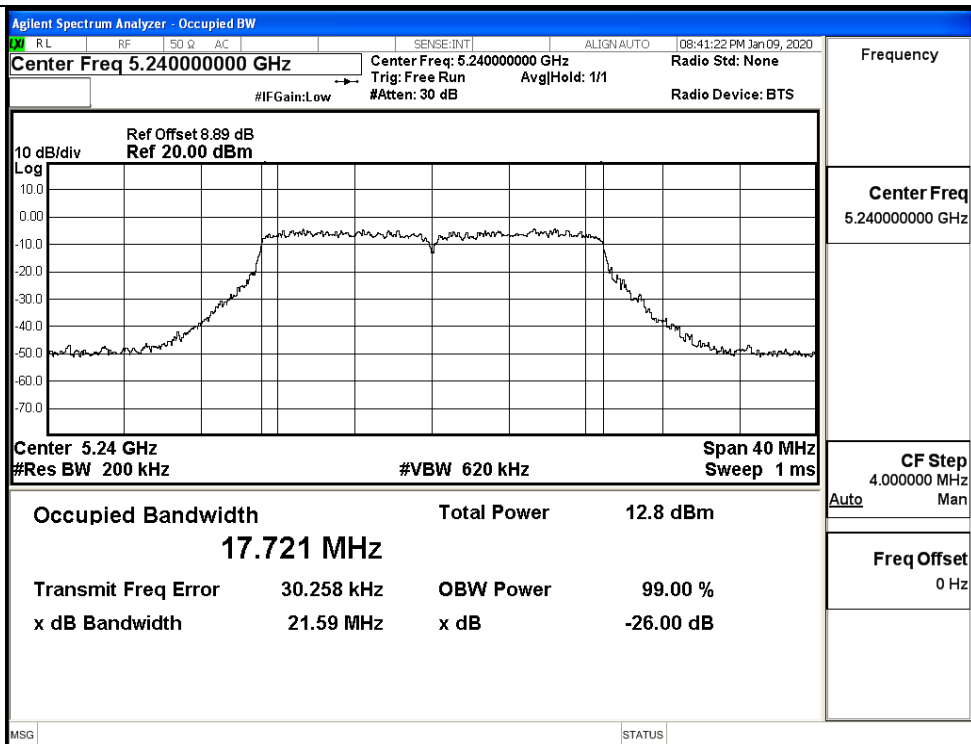
IEEE 802.11n40 / Channel 46 / 5230MHz_Ant_1



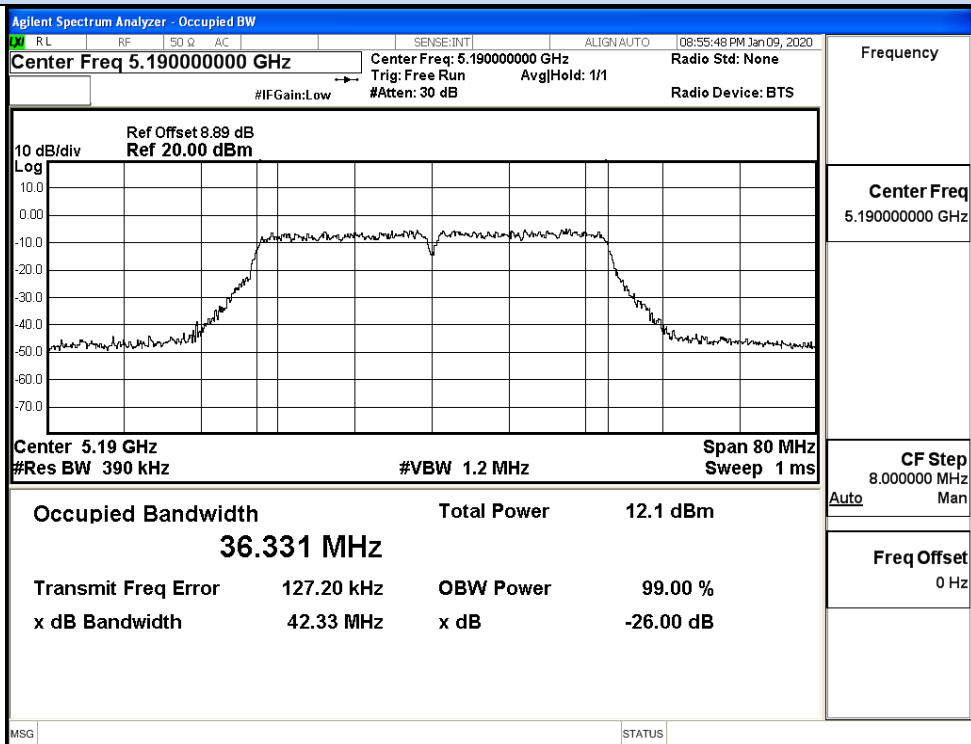
IEEE 802.11ac20 / Channel 36 / 5180MHz_Ant_1



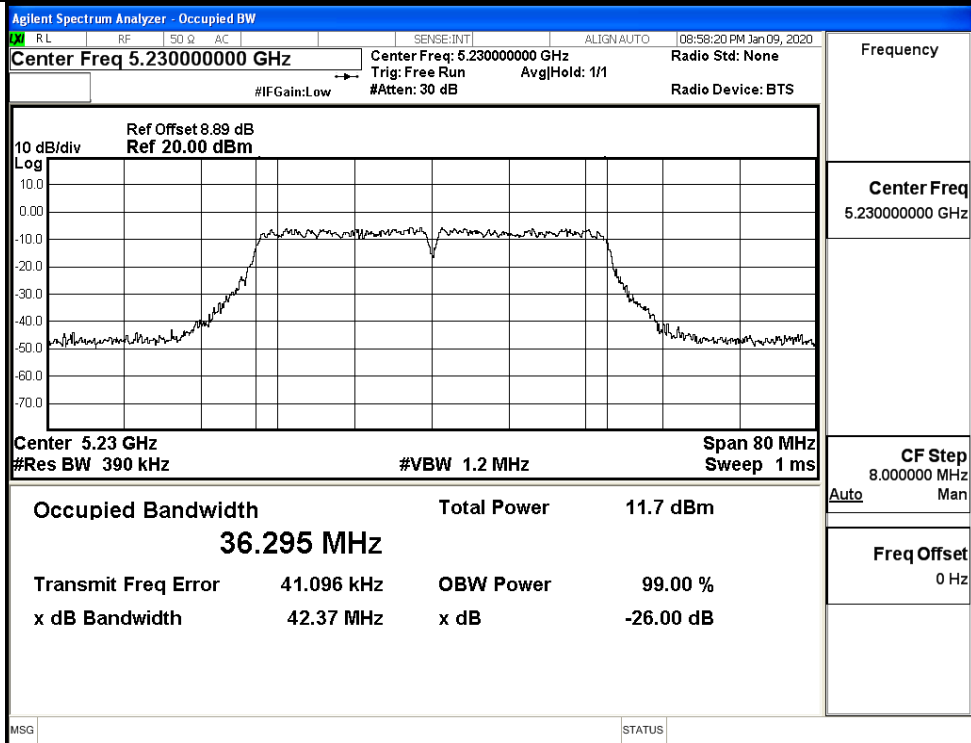
IEEE 802.11ac20 / Channel 40 / 5200MHz_Ant_1



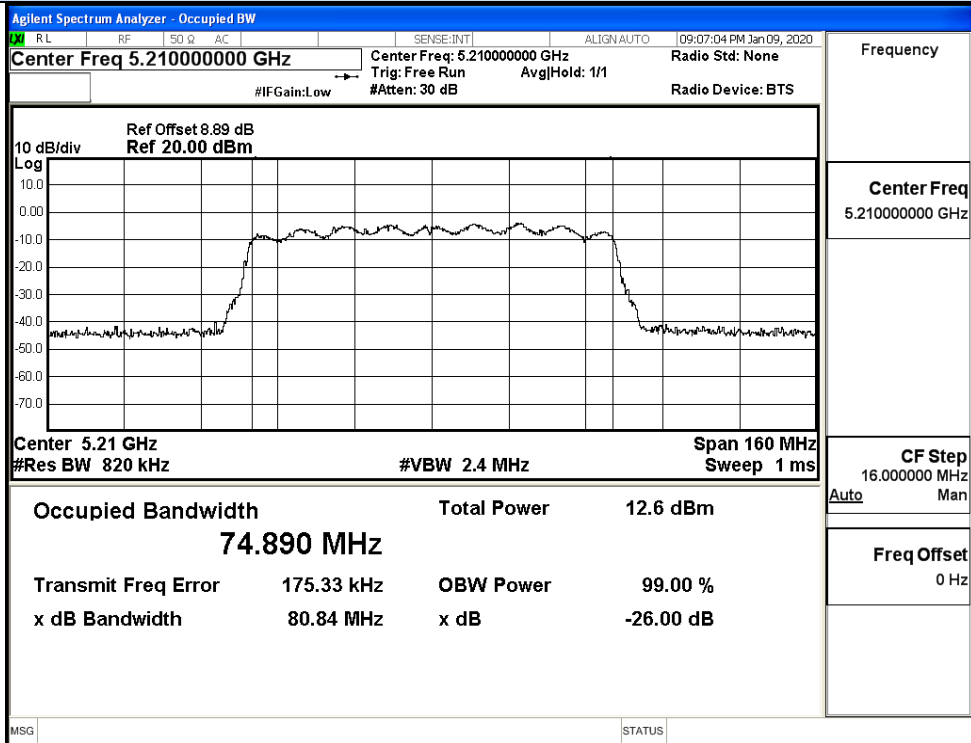
IEEE 802.11ac20 / Channel 48 / 5240MHz_Ant_1



IEEE 802.11ac40 / Channel 38 / 5190MHz_Ant_1



IEEE 802.11ac40 / Channel 46 / 5230MHz_Ant_1



IEEE 802.11ac80 / Channel 42 / 5210MHz_Ant_1

B.5 Undesirable Emissions Measurement

Ant_0

Test Mode	Channel	Frequency (MHz)	Conducted Power (dBm)	Antenna Gain (dBi)	Ground Reflection Factor (dB)	Covert Radiated E Level At 3m (dBuV/m)	Detector	Limit (dBuV/m)	Verdict
11A	36	4500.0	-50.13	5.00	0	50.13	Peak	68.20	Pass
		4500.0	-60.20	5.00	0	40.06	Average	54.00	Pass
		5150.0	-47.17	5.00	0	53.09	Peak	68.20	Pass
		5150.0	-57.53	5.00	0	42.73	Average	54.00	Pass
	48	5350.0	-47.96	5.00	0	52.30	Peak	68.20	Pass
		5350.0	-58.00	5.00	0	42.26	Average	54.00	Pass
		5460.0	-47.54	5.00	0	52.72	Peak	68.20	Pass
		5460.0	-57.89	5.00	0	42.37	Average	54.00	Pass
11N20 SISO	36	4500.0	-51.04	5.00	0	49.22	Peak	68.20	Pass
		4500.0	-60.22	5.00	0	40.04	Average	54.00	Pass
		5150.0	-45.65	5.00	0	54.61	Peak	68.20	Pass
		5150.0	-57.65	5.00	0	42.61	Average	54.00	Pass
	48	5350.0	-47.48	5.00	0	52.78	Peak	68.20	Pass
		5350.0	-58.10	5.00	0	42.16	Average	54.00	Pass
		5460.0	-47.37	5.00	0	52.89	Peak	68.20	Pass
		5460.0	-57.97	5.00	0	42.29	Average	54.00	Pass
11N40 SISO	38	4500.0	-50.50	5.00	0	49.76	Peak	68.20	Pass
		4500.0	-60.22	5.00	0	40.04	Average	54.00	Pass
		5150.0	-47.38	5.00	0	52.88	Peak	68.20	Pass
		5150.0	-57.47	5.00	0	42.79	Average	54.00	Pass
	46	5350.0	-47.58	5.00	0	52.68	Peak	68.20	Pass
		5350.0	-57.83	5.00	0	42.43	Average	54.00	Pass
		5460.0	-47.54	5.00	0	52.72	Peak	68.20	Pass
		5460.0	-57.79	5.00	0	42.47	Average	54.00	Pass
11AC2 0	36	4500.0	-49.67	5.00	0	50.59	Peak	68.20	Pass
		4500.0	-60.26	5.00	0	40.00	Average	54.00	Pass
		5150.0	-48.28	5.00	0	51.98	Peak	68.20	Pass
		5150.0	-57.72	5.00	0	42.54	Average	54.00	Pass
	48	4500.0	-49.67	5.00	0	50.59	Peak	68.20	Pass
		4500.0	-60.26	5.00	0	40.00	Average	54.00	Pass
		5150.0	-48.28	5.00	0	51.98	Peak	68.20	Pass
		5150.0	-57.72	5.00	0	42.54	Average	54.00	Pass
11AC4 0	38	4500.0	-50.96	5.00	0	49.30	Peak	68.20	Pass
		4500.0	-60.34	5.00	0	39.92	Average	54.00	Pass
		5150.0	-46.97	5.00	0	53.29	Peak	68.20	Pass

	46	5150.0	-57.46	5.00	0	42.80	Average	54.00	Pass
		5350.0	-48.13	5.00	0	52.13	Peak	68.20	Pass
		5350.0	-58.66	5.00	0	41.60	Average	54.00	Pass
		5460.0	-48.89	5.00	0	51.37	Peak	68.20	Pass
		5460.0	-58.85	5.00	0	41.41	Average	54.00	Pass
11AC8 0	42	4500.0	-48.04	5.00	0	52.22	Peak	68.20	Pass
		5150.0	-58.12	5.00	0	42.14	Average	54.00	Pass
		4500.0	-48.72	5.00	0	51.54	Peak	68.20	Pass
		5150.0	-58.38	5.00	0	41.88	Average	54.00	Pass
		5350.0	-48.04	5.00	0	52.22	Peak	68.20	Pass
		5460.0	-58.12	5.00	0	42.14	Average	54.00	Pass
		5350.0	-48.72	5.00	0	51.54	Peak	68.20	Pass
		5460.0	-58.38	5.00	0	41.88	Average	54.00	Pass

Ant 1

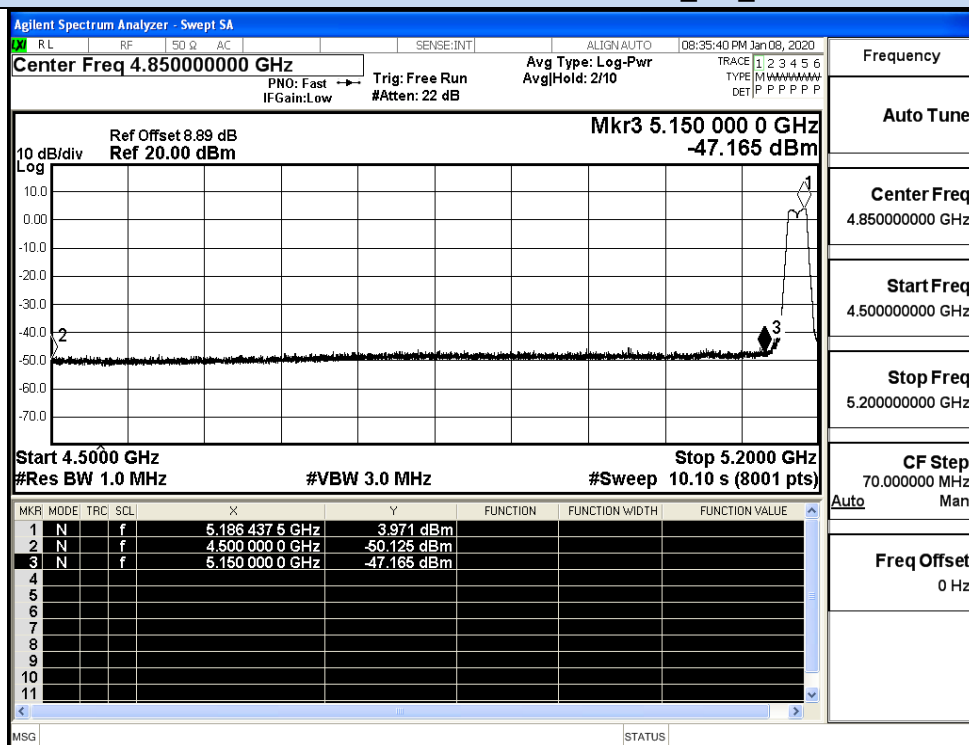
Test Mode	Channel	Frequency (MHz)	Conducted Power (dBm)	Antenna Gain (dBi)	Ground Reflection Factor (dB)	Covert Radiated E Level At 3m (dBuV/m)	Detector	Limit (dBuV/m)	Verdict
11A	36	4500.0	-50.32	5.00	0	49.94	Peak	68.20	Pass
		4500.0	-60.35	5.00	0	39.91	Average	54.00	Pass
		5150.0	-49.39	5.00	0	50.87	Peak	68.20	Pass
		5150.0	-58.31	5.00	0	41.95	Average	54.00	Pass
	48	5350.0	-47.07	5.00	0	53.19	Peak	68.20	Pass
		5350.0	-58.96	5.00	0	41.30	Average	54.00	Pass
		5460.0	-49.44	5.00	0	50.82	Peak	68.20	Pass
		5460.0	-59.16	5.00	0	41.10	Average	54.00	Pass
11N20 SISO	36	4500.0	-50.31	5.00	0	49.95	Peak	68.20	Pass
		4500.0	-60.33	5.00	0	39.93	Average	54.00	Pass
		5150.0	-49.54	5.00	0	50.72	Peak	68.20	Pass
		5150.0	-58.32	5.00	0	41.94	Average	54.00	Pass
	48	5350.0	-47.55	5.00	0	52.71	Peak	68.20	Pass
		5350.0	-58.96	5.00	0	41.30	Average	54.00	Pass
		5460.0	-49.48	5.00	0	50.78	Peak	68.20	Pass
		5460.0	-59.12	5.00	0	41.14	Average	54.00	Pass
11N40 SISO	38	4500.0	-50.41	5.00	0	49.85	Peak	68.20	Pass
		4500.0	-60.35	5.00	0	39.91	Average	54.00	Pass
		5150.0	-46.81	5.00	0	53.45	Peak	68.20	Pass
		5150.0	-57.50	5.00	0	42.76	Average	54.00	Pass
	46	5350.0	-48.98	5.00	0	51.28	Peak	68.20	Pass
		5350.0	-58.72	5.00	0	41.54	Average	54.00	Pass
		5460.0	-48.84	5.00	0	51.42	Peak	68.20	Pass
		5460.0	-58.88	5.00	0	41.38	Average	54.00	Pass
11AC 20	36	4500.0	-50.46	5.00	0	49.80	Peak	68.20	Pass
		4500.0	-60.34	5.00	0	39.92	Average	54.00	Pass
		5150.0	-48.99	5.00	0	51.27	Peak	68.20	Pass
		5150.0	-58.30	5.00	0	41.96	Average	54.00	Pass
	48	4500.0	-50.46	5.00	0	49.80	Peak	68.20	Pass
		4500.0	-60.34	5.00	0	39.92	Average	54.00	Pass
		5150.0	-48.99	5.00	0	51.27	Peak	68.20	Pass
		5150.0	-58.30	5.00	0	41.96	Average	54.00	Pass
11AC 40	38	4500.0	-49.94	5.00	0	50.32	Peak	68.20	Pass
		4500.0	-60.31	5.00	0	39.95	Average	54.00	Pass
		5150.0	-47.68	5.00	0	52.58	Peak	68.20	Pass
		5150.0	-57.47	5.00	0	42.79	Average	54.00	Pass

	46	5350.0	-48.55	5.00	0	51.71	Peak	68.20	Pass
		5350.0	-58.73	5.00	0	41.53	Average	54.00	Pass
		5460.0	-47.92	5.00	0	52.34	Peak	68.20	Pass
		5460.0	-58.90	5.00	0	41.36	Average	54.00	Pass
11AC 80	42	4500.0	-47.95	5.00	0	52.31	Peak	68.20	Pass
		5150.0	-58.17	5.00	0	42.09	Average	54.00	Pass
		4500.0	-48.81	5.00	0	51.45	Peak	68.20	Pass
		5150.0	-58.39	5.00	0	41.87	Average	54.00	Pass
		5350.0	-47.95	5.00	0	52.31	Peak	68.20	Pass
		5460.0	-58.17	5.00	0	42.09	Average	54.00	Pass
		5350.0	-48.81	5.00	0	51.45	Peak	68.20	Pass
		5460.0	-58.39	5.00	0	41.87	Average	54.00	Pass

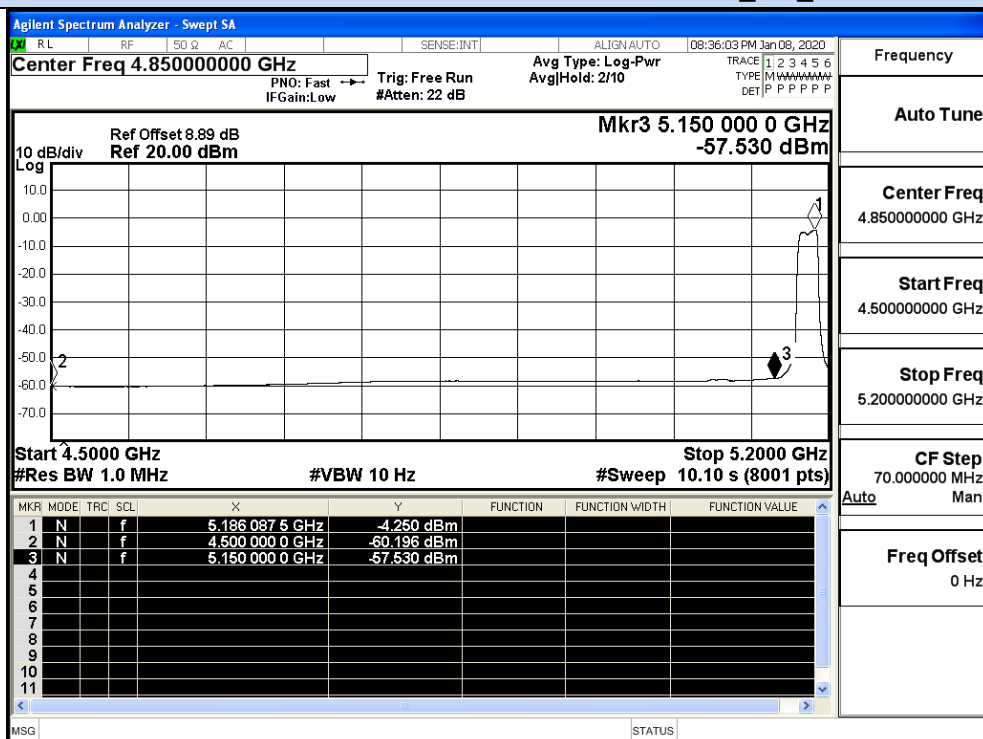
Combined Ant_0 and Ant_1

Test Mode	Channel	Frequency (MHz)	Covert Radiated E Level At 3m (dBuV/m)			Antenna Gain (dBi)	Ground Reflection Factor (dB)	Covert Radiated E Level At 3m (dBuV/m)	Detector	Limit (dBuV/m)
			Ant0	Ant1	Sum					
11N20 MIMO	36	4500.0	-51.04	-50.31	-47.65	8.01	0	55.62	Peak	68.20
		4500.0	-60.22	-60.33	-57.26	8.01	0	46.01	Average	54.00
		5150.0	-45.65	-49.54	-44.16	8.01	0	59.11	Peak	68.20
		5150.0	-57.65	-58.32	-54.96	8.01	0	48.31	Average	54.00
	48	5350.0	-47.48	-47.55	-44.50	8.01	0	58.77	Peak	68.20
		5350.0	-58.10	-58.96	-55.50	8.01	0	47.77	Average	54.00
		5460.0	-47.37	-49.48	-45.29	8.01	0	57.98	Peak	68.20
		5460.0	-57.97	-59.12	-55.50	8.01	0	47.77	Average	54.00
11N40 MIMO	38	4500.0	-50.50	-50.41	-47.44	8.01	0	55.83	Peak	68.20
		4500.0	-60.22	-60.35	-57.27	8.01	0	46.00	Average	54.00
		5150.0	-47.38	-46.81	-44.08	8.01	0	59.19	Peak	68.20
		5150.0	-57.47	-57.50	-54.47	8.01	0	48.80	Average	54.00
	46	5350.0	-47.58	-48.98	-45.21	8.01	0	58.06	Peak	68.20
		5350.0	-57.83	-58.72	-55.24	8.01	0	48.03	Average	54.00
		5460.0	-47.54	-48.84	-45.13	8.01	0	58.14	Peak	68.20
		5460.0	-57.79	-58.88	-55.29	8.01	0	47.98	Average	54.00
11AC20 MIMO	36	4500.0	-49.67	-50.46	-47.04	8.01	0	56.23	Peak	68.20
		4500.0	-60.26	-60.34	-57.29	8.01	0	45.98	Average	54.00
		5150.0	-48.28	-48.99	-45.61	8.01	0	57.66	Peak	68.20
		5150.0	-57.72	-58.30	-54.99	8.01	0	48.28	Average	54.00
	48	5350.0	-49.67	-50.46	-47.04	8.01	0	56.23	Peak	68.20
		5350.0	-60.26	-60.34	-57.29	8.01	0	45.98	Average	54.00
		5460.0	-48.28	-48.99	-45.61	8.01	0	57.66	Peak	68.20
		5460.0	-57.72	-58.30	-54.99	8.01	0	48.28	Average	54.00
11AC40 MIMO	38	4500.0	-50.96	-49.94	-47.41	8.01	0	55.86	Peak	68.20
		4500.0	-60.34	-60.31	-57.31	8.01	0	45.96	Average	54.00
		5150.0	-46.97	-47.68	-44.30	8.01	0	58.97	Peak	68.20
		5150.0	-57.46	-57.47	-54.45	8.01	0	48.82	Average	54.00
	46	5350.0	-48.13	-48.55	-45.32	8.01	0	57.95	Peak	68.20
		5350.0	-58.66	-58.73	-55.68	8.01	0	47.59	Average	54.00
		5460.0	-48.89	-47.92	-45.37	8.01	0	57.90	Peak	68.20
		5460.0	-58.85	-58.90	-55.86	8.01	0	47.41	Average	54.00
11AC80 MIMO	42	4500.0	-48.04	-47.95	-44.98	8.01	0	58.29	Peak	68.20
		4500.0	-58.12	-58.17	-55.13	8.01	0	48.14	Average	54.00
		5150.0	-48.72	-48.81	-45.75	8.01	0	57.52	Peak	68.20
		5150.0	-58.38	-58.39	-55.37	8.01	0	47.90	Average	54.00
		5350.0	-48.04	-47.95	-44.98	8.01	0	58.29	Peak	68.20
		5350.0	-58.12	-58.17	-55.13	8.01	0	48.14	Average	54.00
		5460.0	-48.72	-48.81	-45.75	8.01	0	57.52	Peak	68.20
		5460.0	-58.38	-58.39	-55.37	8.01	0	47.90	Average	54.00

Undesirable Emissions Measurement_Ant_0

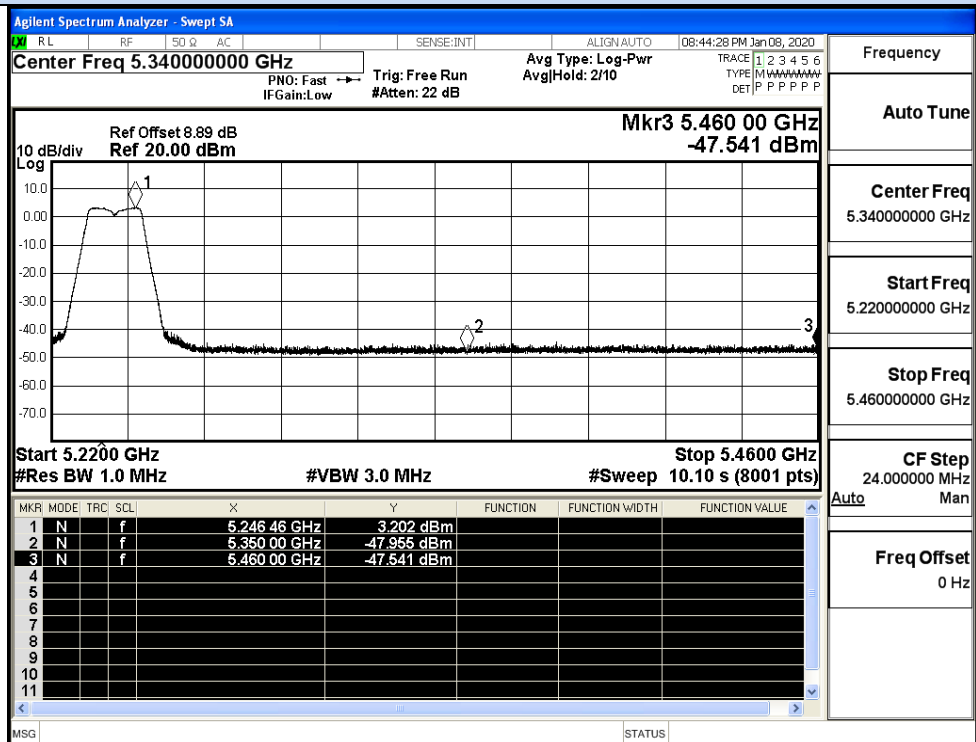


IEEE 802.11a / Channel 36 / 5180MHz / Peak_Ant_0

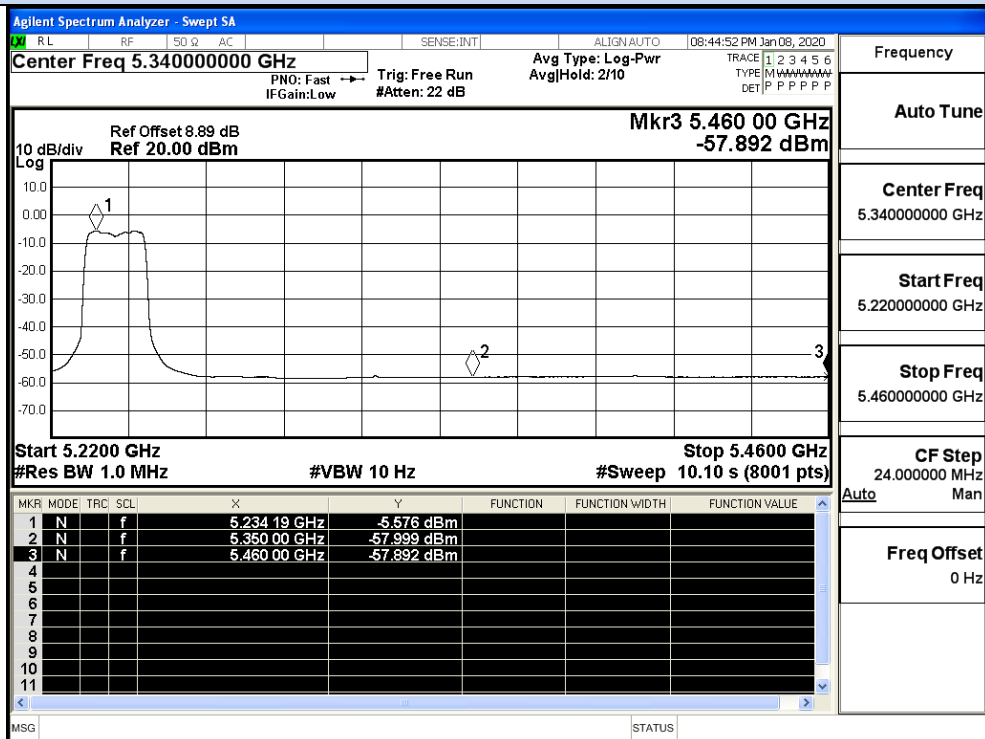


IEEE 802.11a / Channel 36 / 5180MHz / Average_Ant_0

Undesirable Emissions Measurement_Ant_0

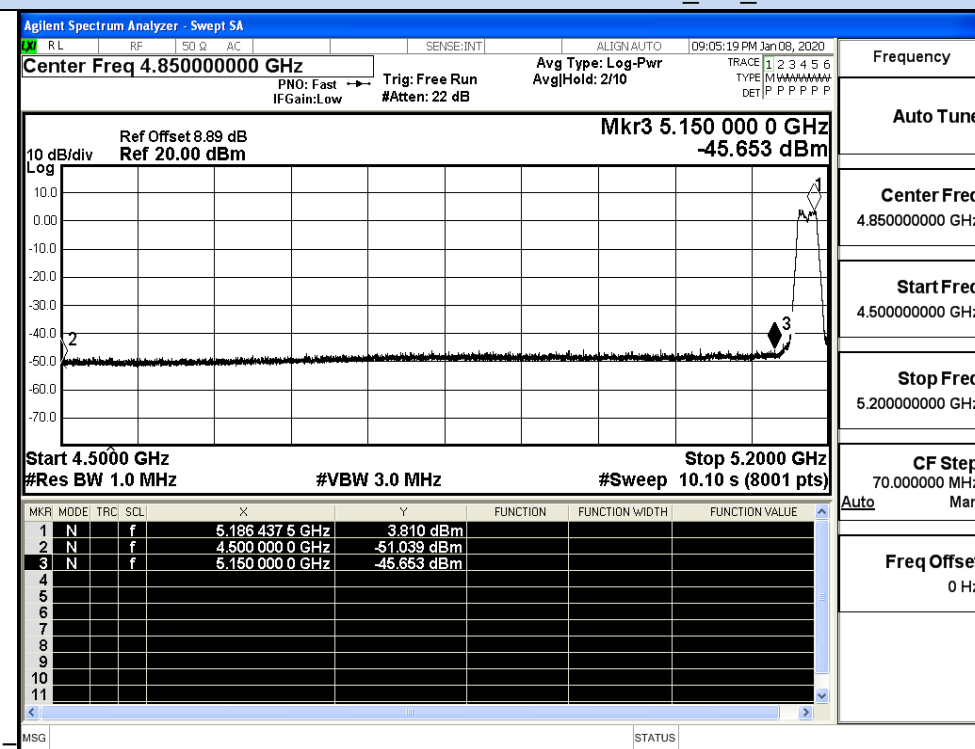


IEEE 802.11a / Channel 48 / 5240MHz / Peak_Ant_0

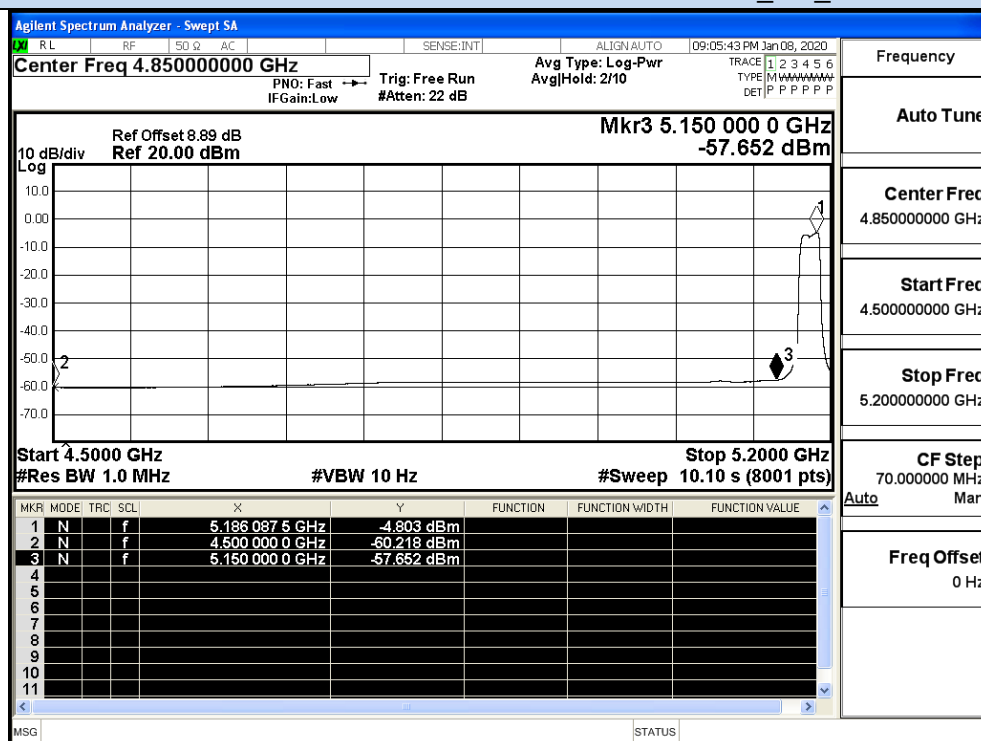


IEEE 802.11a / Channel 48 / 5240MHz / Average_Ant_0

Undesirable Emissions Measurement_Ant_0

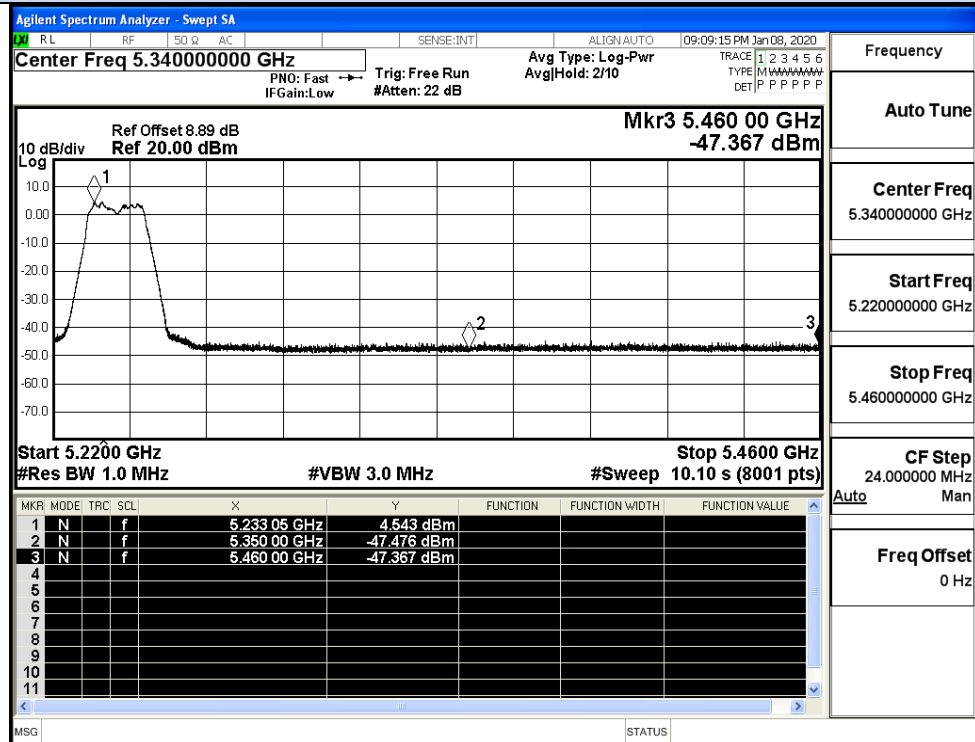


IEEE 802.11n20 / Channel 36 / 5180MHz / Peak_Ant_0

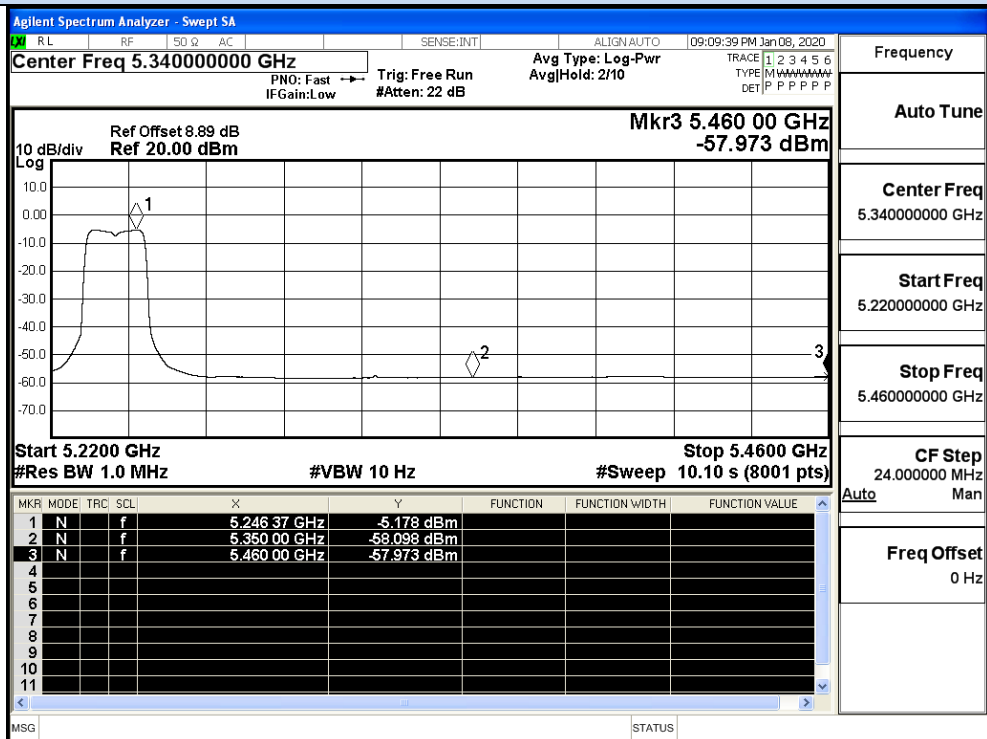


IEEE 802.11n20 / Channel 36 / 5180MHz / Average_Ant_0

Undesirable Emissions Measurement_Ant_0



IEEE 802.11n20 / Channel 48 / 5240MHz / Peak_Ant_0



IEEE 802.11n20 / Channel 48 / 5240MHz / Average_Ant_0

Agilent Spectrum Analyzer - Swept SA

RL RF 50 Ω AC SENSE:INT ALIGN:AUTO 09:18:58 PM Jan 08, 2020

Center Freq 4.860000000 GHz PNO: Fast → Trig: Free Run Avg Type: Log-Pwr Avg/Hold: 210

IF Gain: Low #Atten: 22 dB

TRACE 1 2 3 4 5 6 TYPE M W U L P P P P P DET P P P P P P P

Ref Offset 8.89 dB Mkr3 5.150 00 GHz
Ref 20.00 dBm -47.376 dBm

10 dB/div Log

Start 4.5000 GHz Stop 5.2200 GHz
#Res BW 1.0 MHz #VBW 3.0 MHz #Sweep 10.10 s (8001 pts)

MKR	MODE	TRC	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE
1	N	f		5.187 69 GHz	-1.883 dBm			
2	N	f		4.500 00 GHz	-50.497 dBm			
3	N	f		5.150 00 GHz	-47.376 dBm			
4								
5								
6								
7								
8								
9								
10								
11								

MSG STATUS

Frequency
Auto Tune
Center Freq 4.860000000 GHz
Start Freq 4.500000000 GHz
Stop Freq 5.220000000 GHz
CF Step 72.000000 MHz
Auto Man
Freq Offset 0 Hz

IEEE 802.11n40 / Channel 38 / 5190MHz / Peak_Ant_0

Agilent Spectrum Analyzer - Swept SA

RL RF SQ AC SENSE:INT ALIGN:AUTO 09:19:22 PM Jan 08, 2020

Center Freq 4.860000000 GHz PNO: Fast Trig: Free Run Avg Type: Log-Pwr
IF Gain: Low #Atten: 22 dB Avg Hold: 2/10 TYPE: MWWWWWW DET: P P P P P P

Ref Offset 8.89 dB Mkr3 5.150 00 GHz
Ref 20.00 dBm -57.469 dBm

10 dB/div Log

The plot shows a frequency spectrum from 4.500 GHz to 5.220 GHz. The y-axis represents power density in dBm/Hz, ranging from -70.0 to 10.0. A sharp peak is visible at 5.150 GHz, labeled with a marker '3'. Other markers are present at 4.500 GHz (marker '2') and 5.187 GHz (marker '1'). The baseline noise floor is around -60 dBm.

Start 4.5000 GHz Stop 5.2200 GHz
#Res BW 1.0 MHz #VBW 10 Hz #Sweep 10.10 s (8001 pts)

MKR	MODE	TRC	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE
1	N	f		5.187 96 GHz	-10.131 dBm			
2	N	f		4.500 00 GHz	-60.218 dBm			
3	N	f		5.150 00 GHz	-57.469 dBm			
4								
5								
6								
7								
8								
9								
10								
11								

MSG STATUS

Frequency

Auto Tune

Center Freq
4.860000000 GHz

Start Freq
4.500000000 GHz

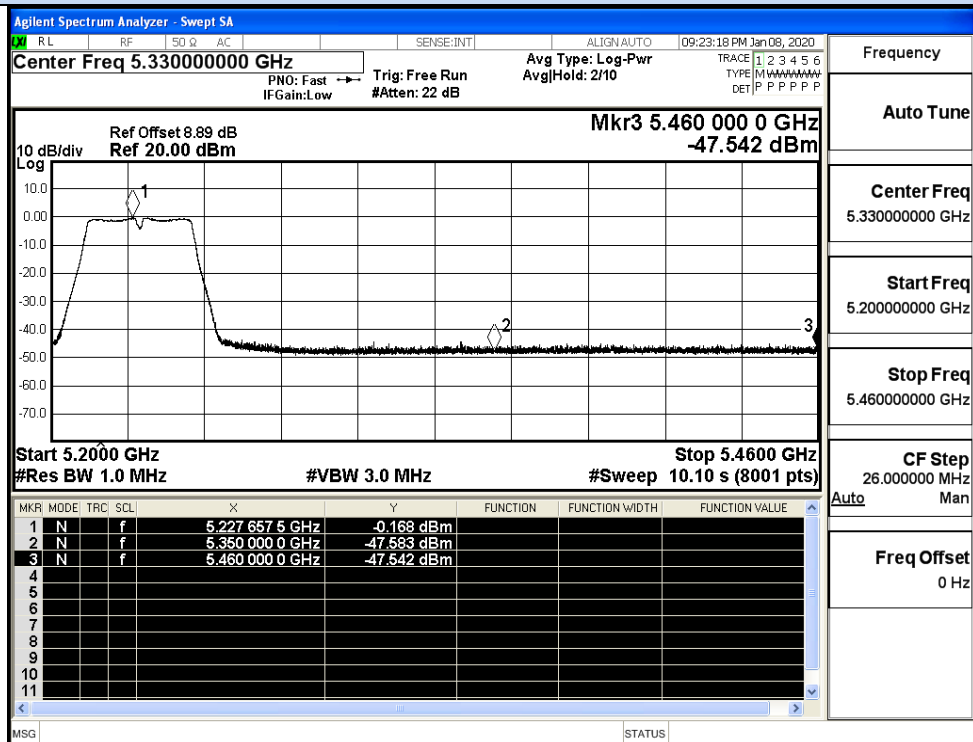
Stop Freq
5.220000000 GHz

CF Step
72.000000 MHz
Auto Man

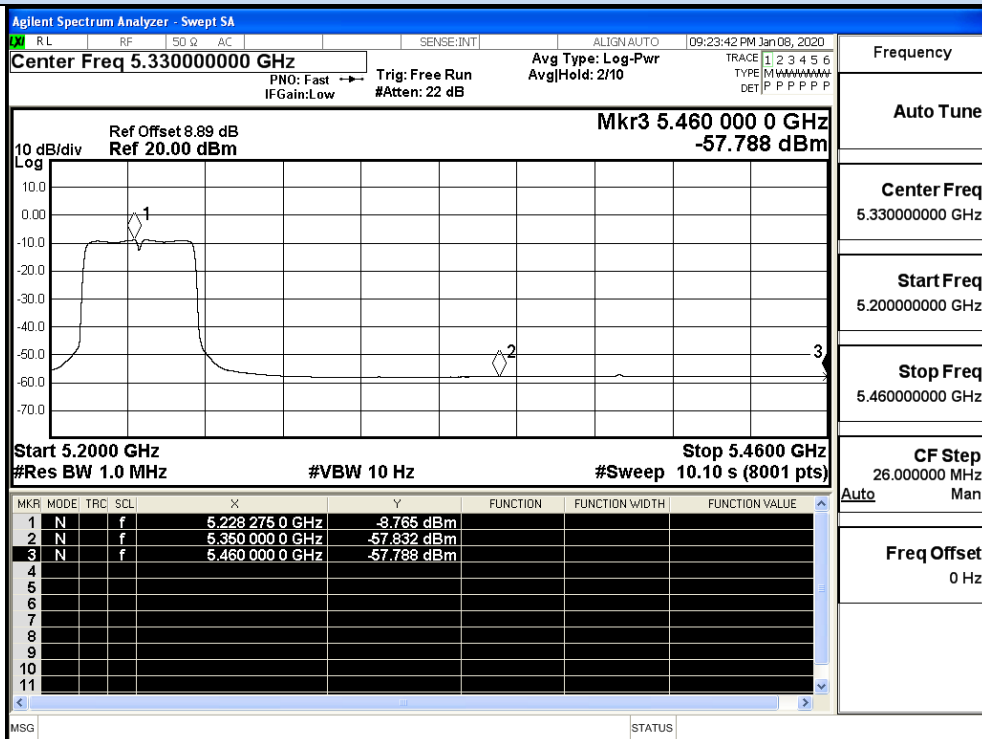
Freq Offset
0 Hz

IEEE 802.11n40 / Channel 38 / 5190MHz / Average_Ant_0

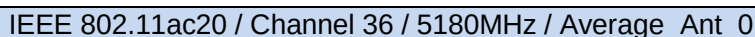
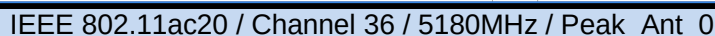
Undesirable Emissions Measurement_Ant_0

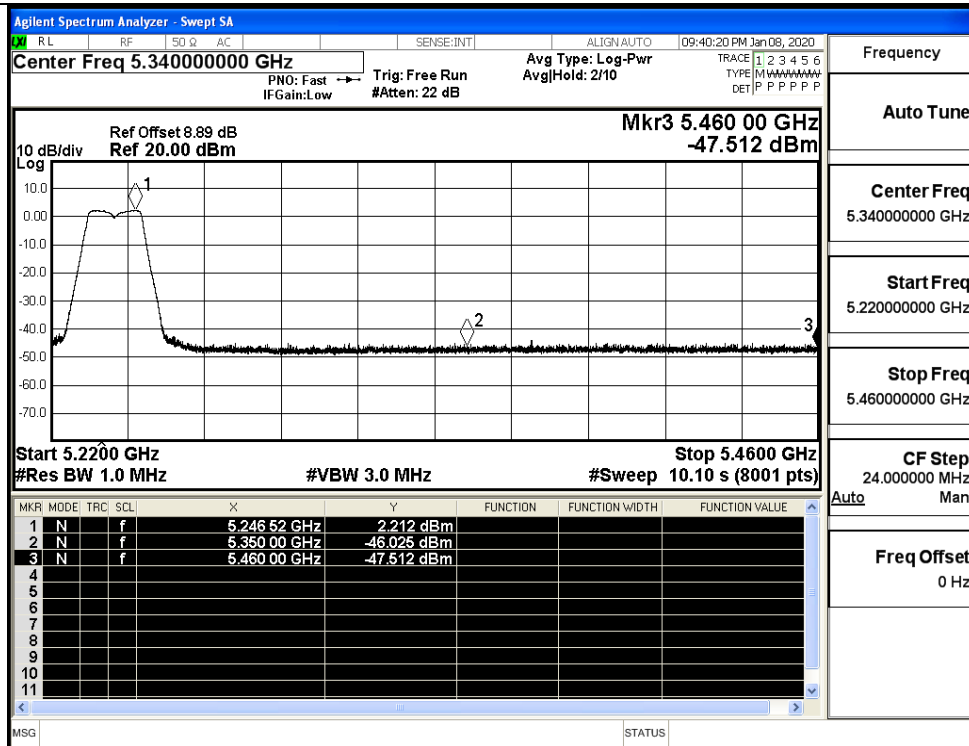


IEEE 802.11n40 / Channel 46 / 5230MHz / Peak_Ant_0

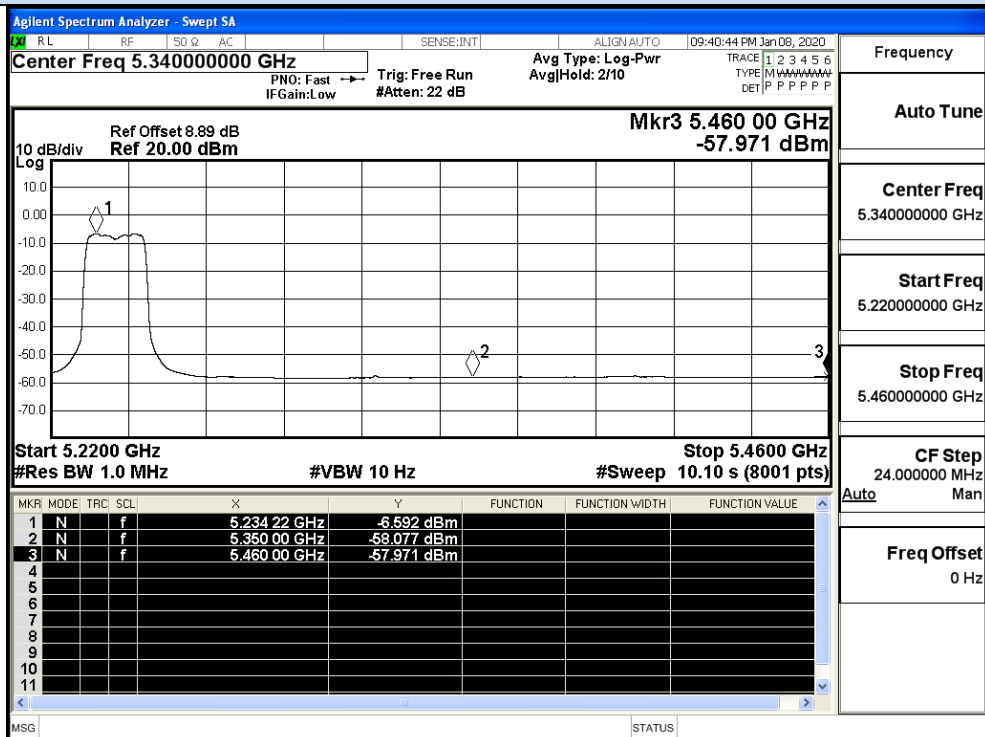


IEEE 802.11n40 / Channel 46 / 5230MHz / Average_Ant_0

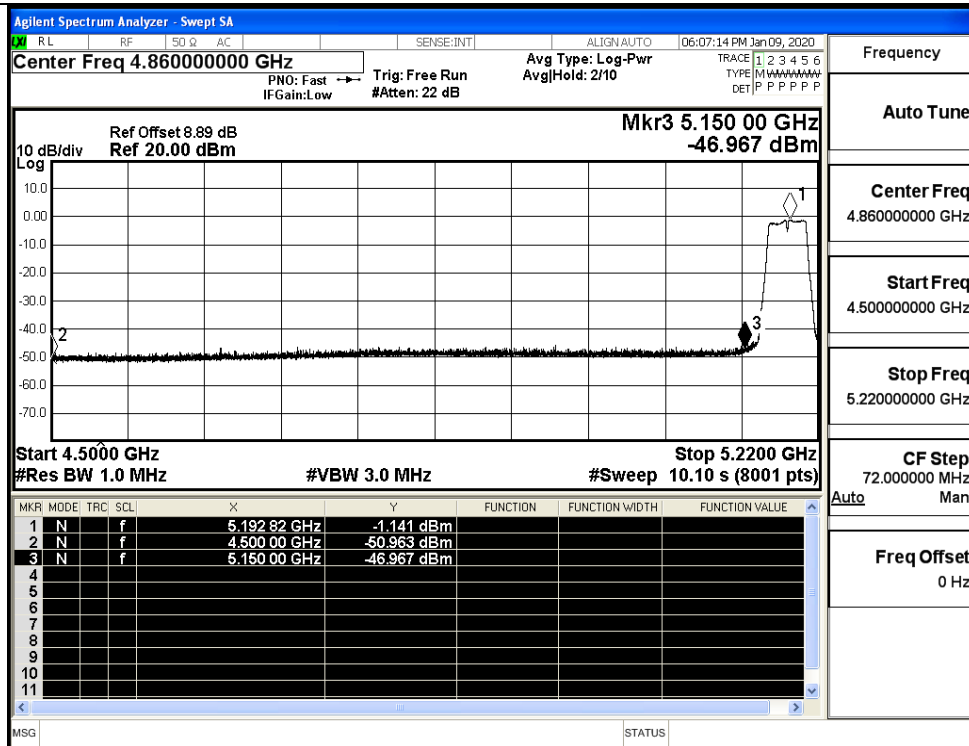




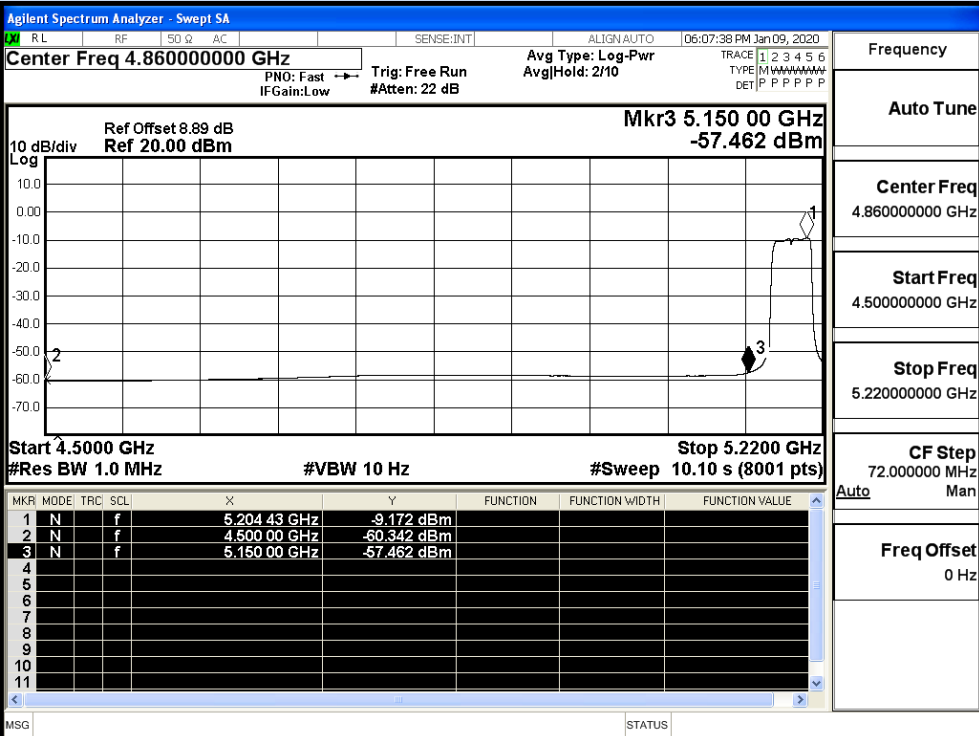
IEEE 802.11ac20 / Channel 48 / 5240MHz / Peak_Ant_0



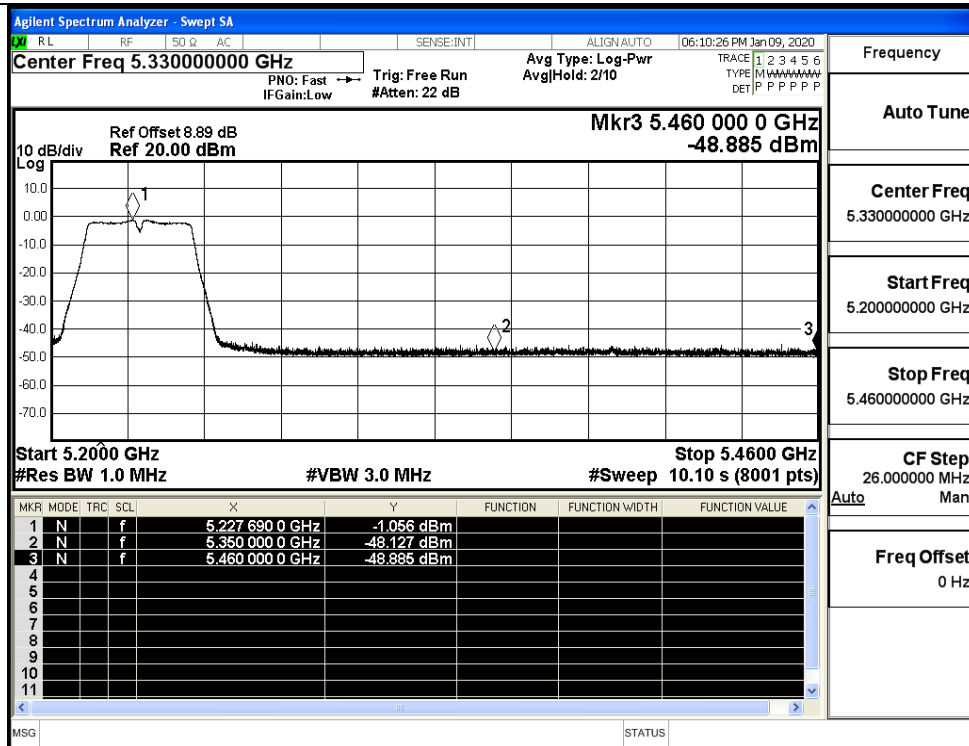
IEEE 802.11ac20 / Channel 48 / 5240MHz / Average_Ant_0



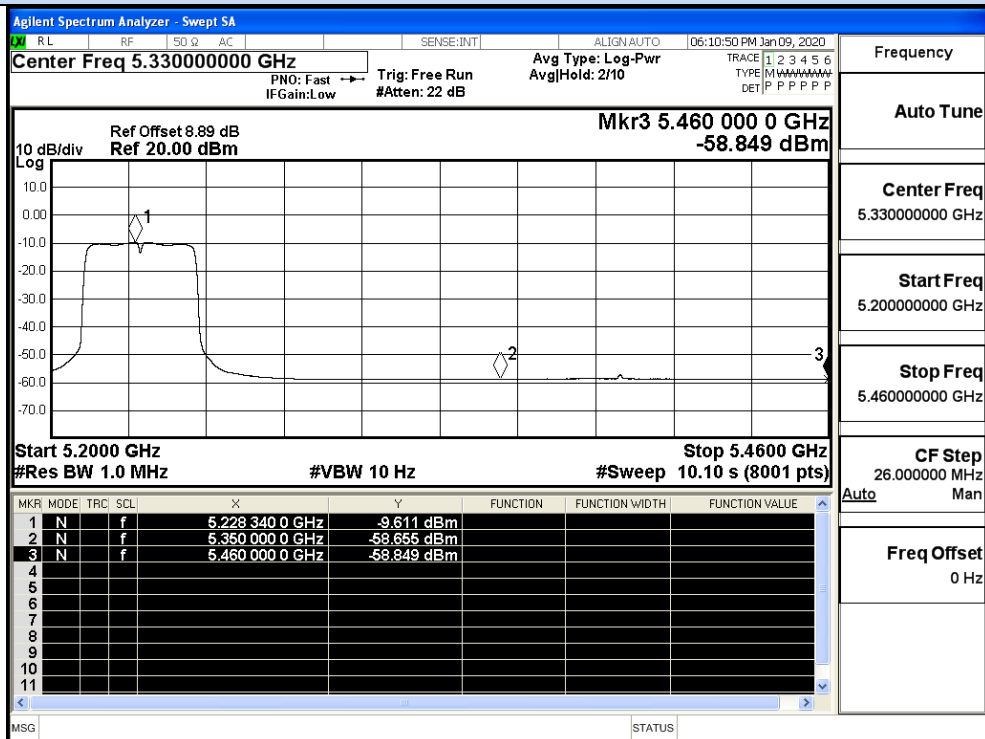
IEEE 802.11ac40 / Channel 38 / 5190MHz / Peak_Ant_0



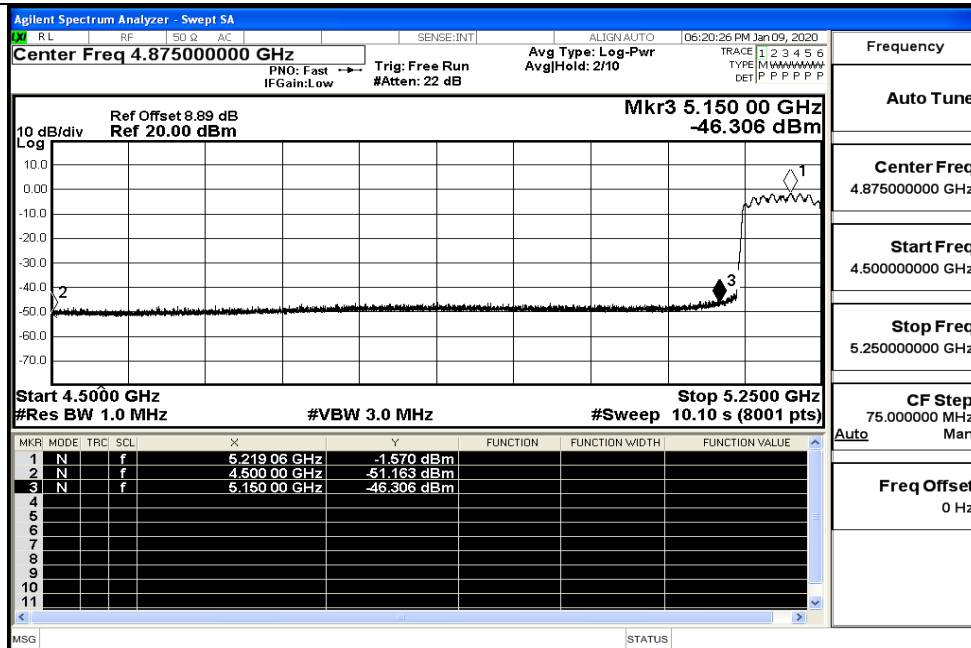
IEEE 802.11ac40 / Channel 38 / 5190MHz / Average_Ant_0



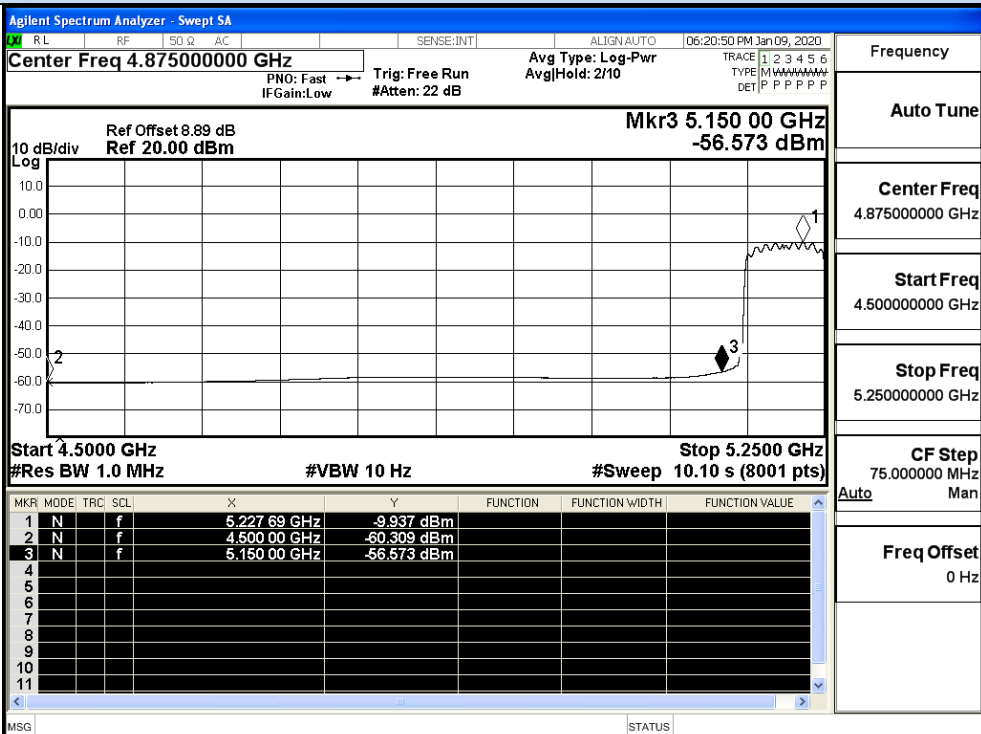
IEEE 802.11ac40 / Channel 46/ 5230MHz / Peak_Ant_0



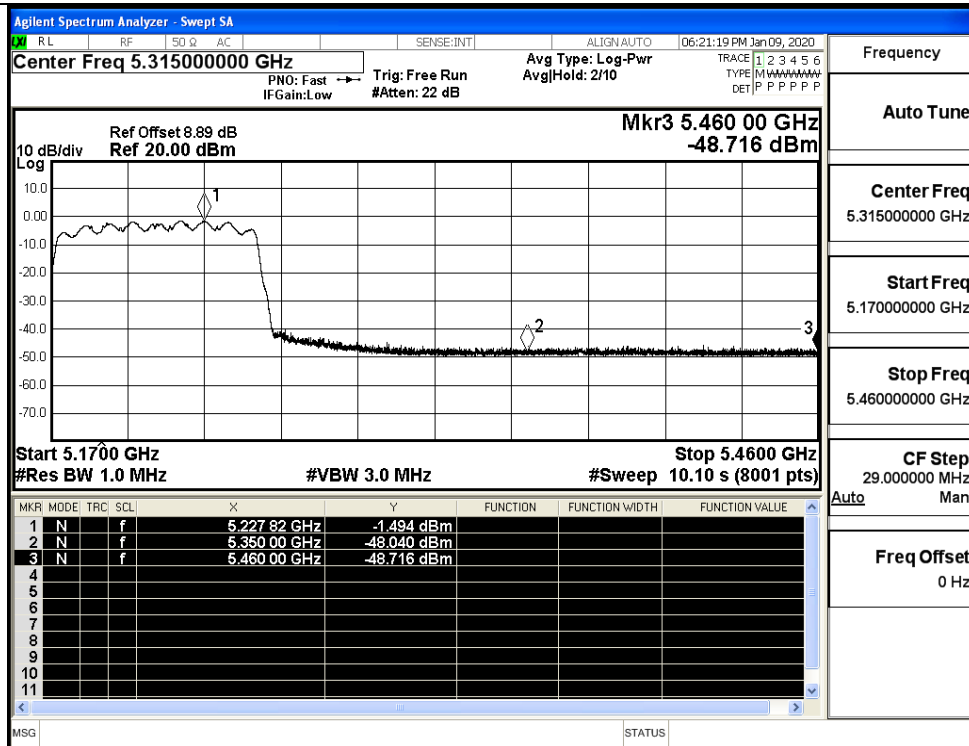
IEEE 802.11ac40 / Channel 46 / 5230MHz / Average_Ant_0



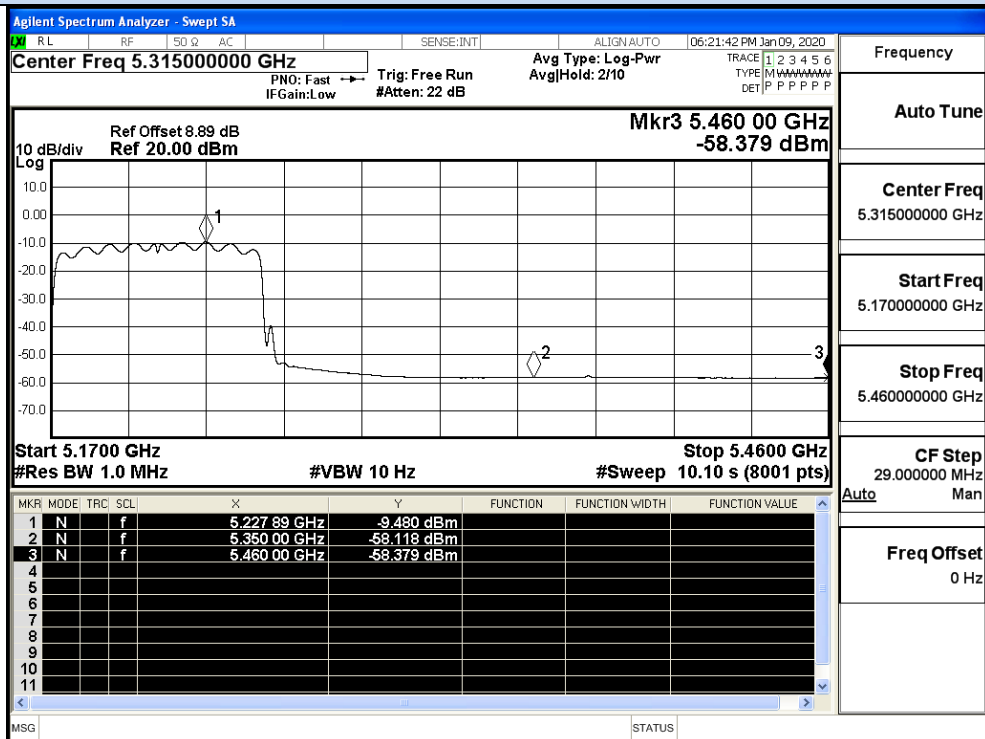
IEEE 802.11ac80 / Channel 42 / 5210MHz / Peak_Ant_0



IEEE 802.11ac80 / Channel 42 / 5210MHz / Average_Ant_0

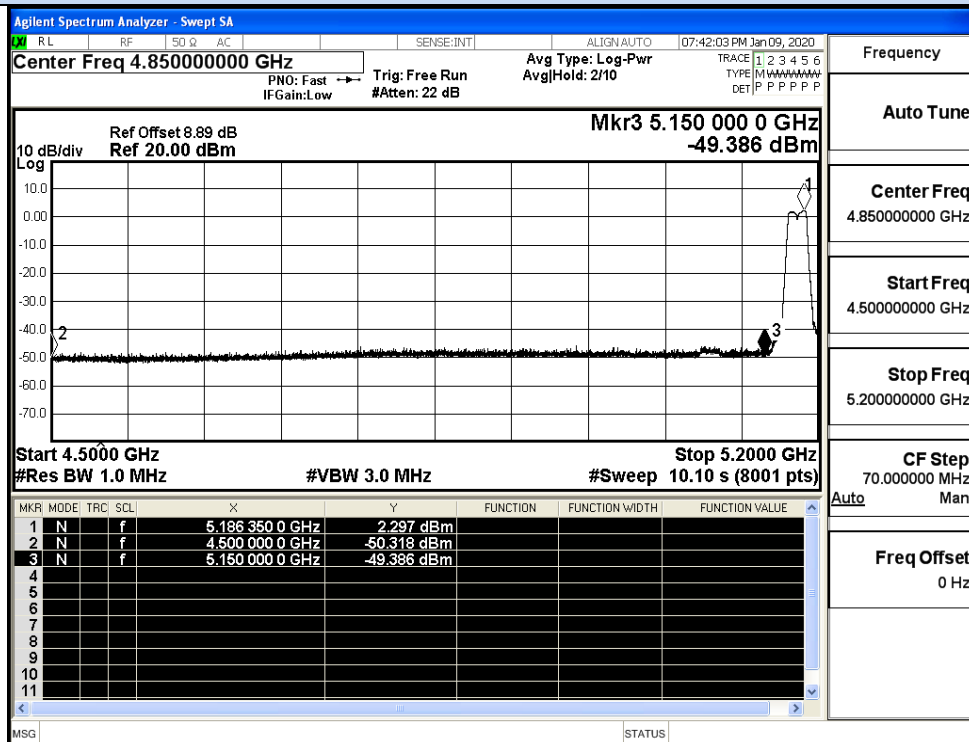


IEEE 802.11ac80 / Channel 42/ 5210MHz / Peak_Ant_0

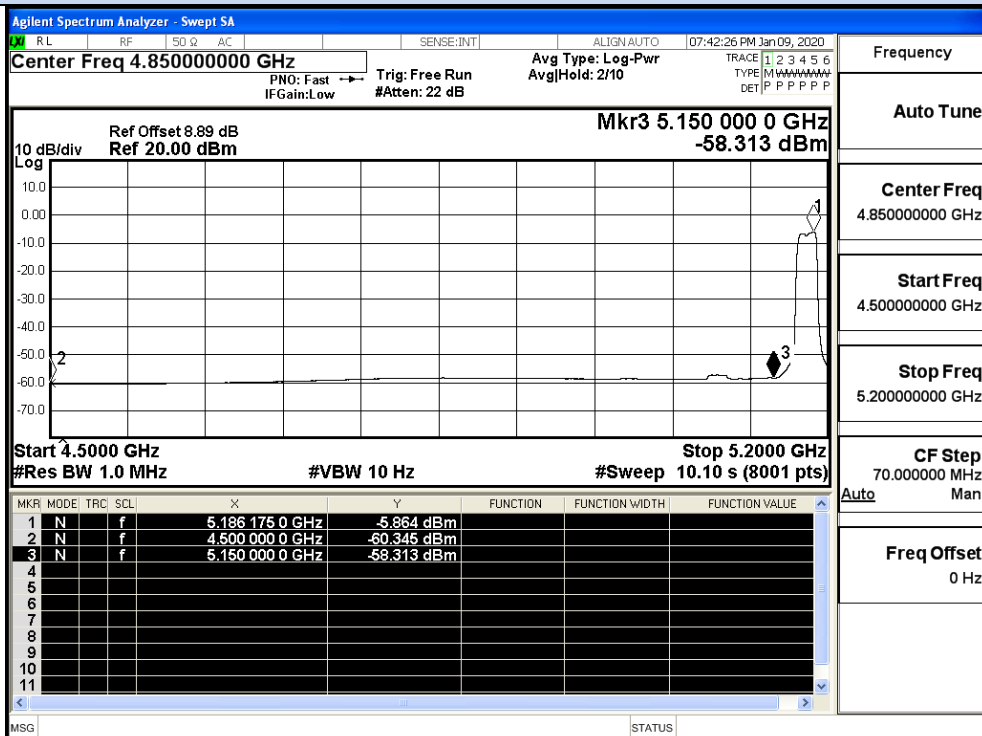


IEEE 802.11ac80 / Channel 42 / 5210MHz / Average_Ant_0

Undesirable Emissions Measurement_Ant_1

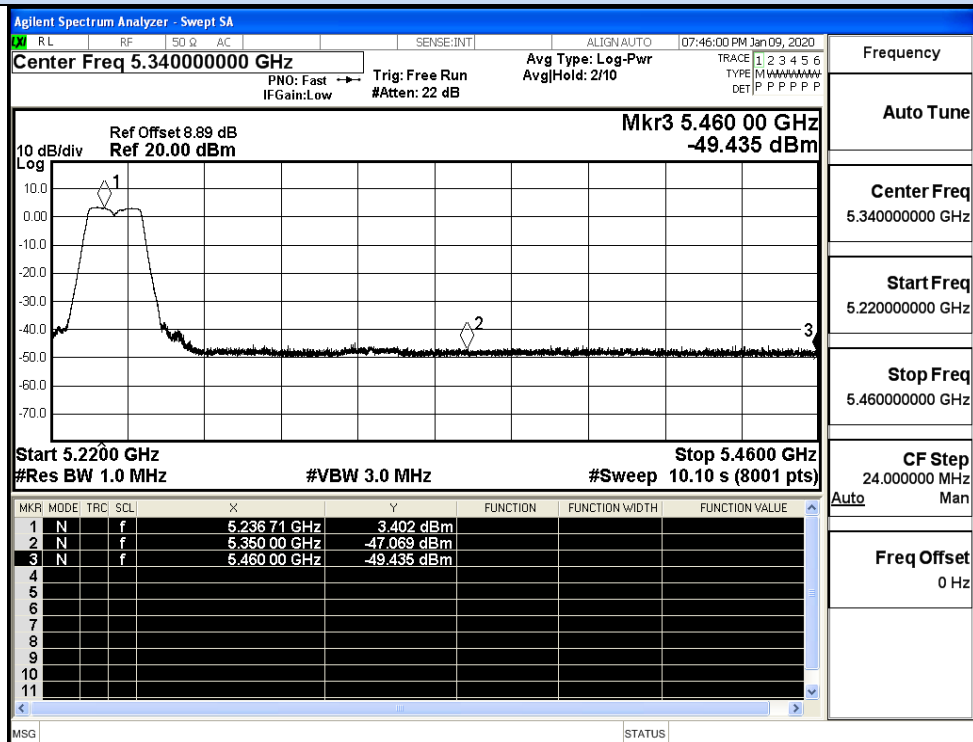


IEEE 802.11a / Channel 36 / 5180MHz / Peak_Ant_1

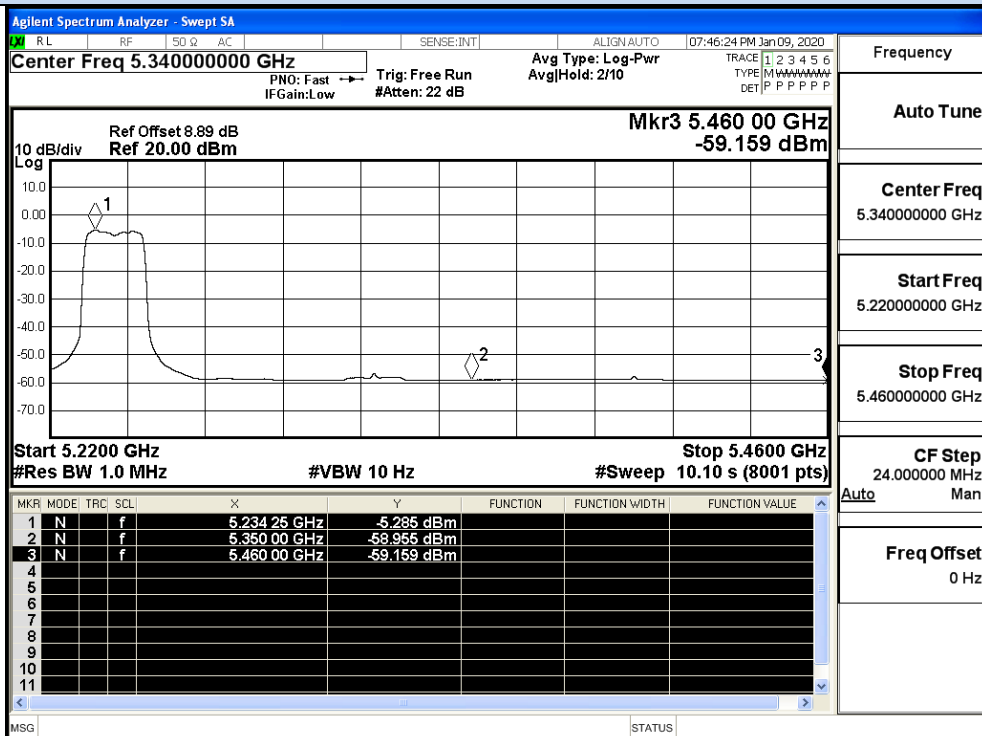


IEEE 802.11a / Channel 36 / 5180MHz / Average_Ant_1

Undesirable Emissions Measurement_Ant_1

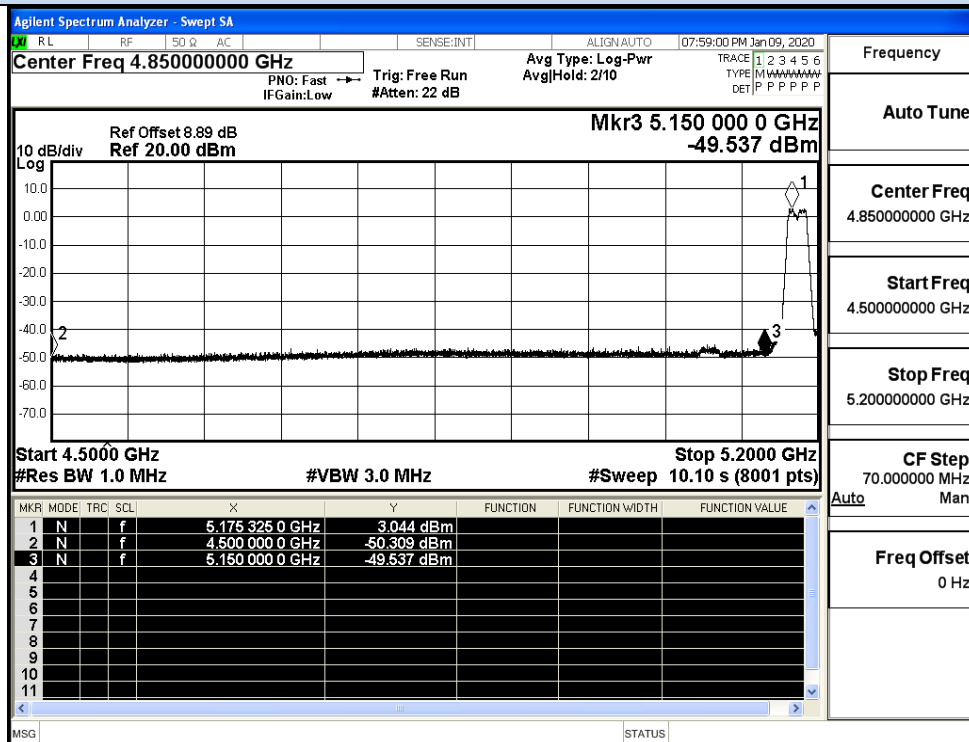


IEEE 802.11a / Channel 48 / 5240MHz / Peak_Ant_1

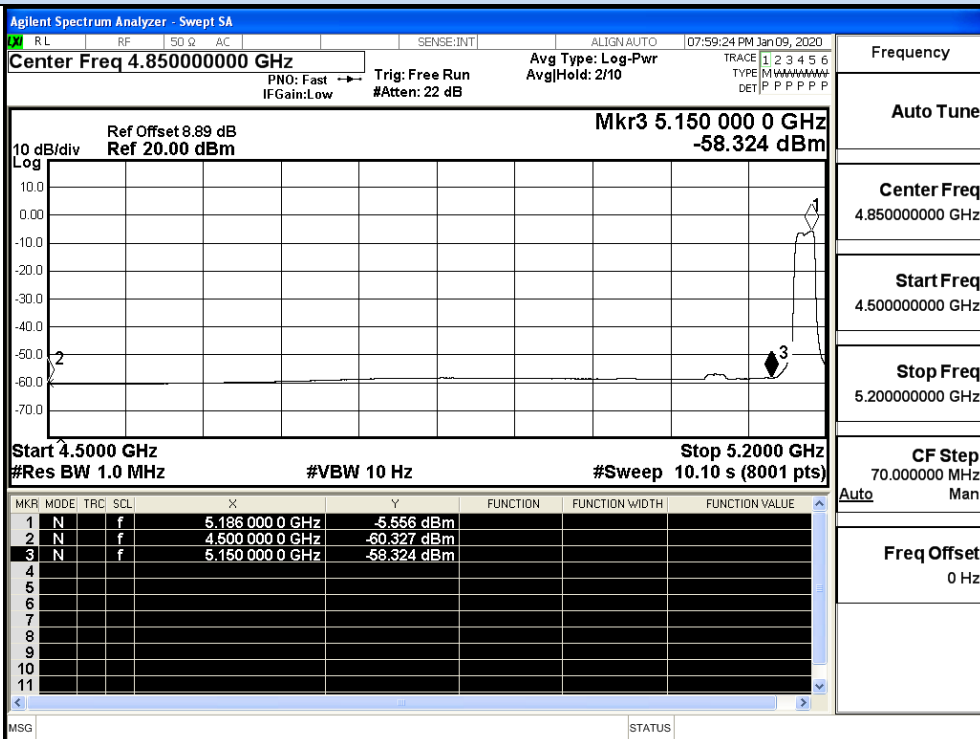


IEEE 802.11a / Channel 48 / 5240MHz / Average_Ant_1

Undesirable Emissions Measurement_Ant_1

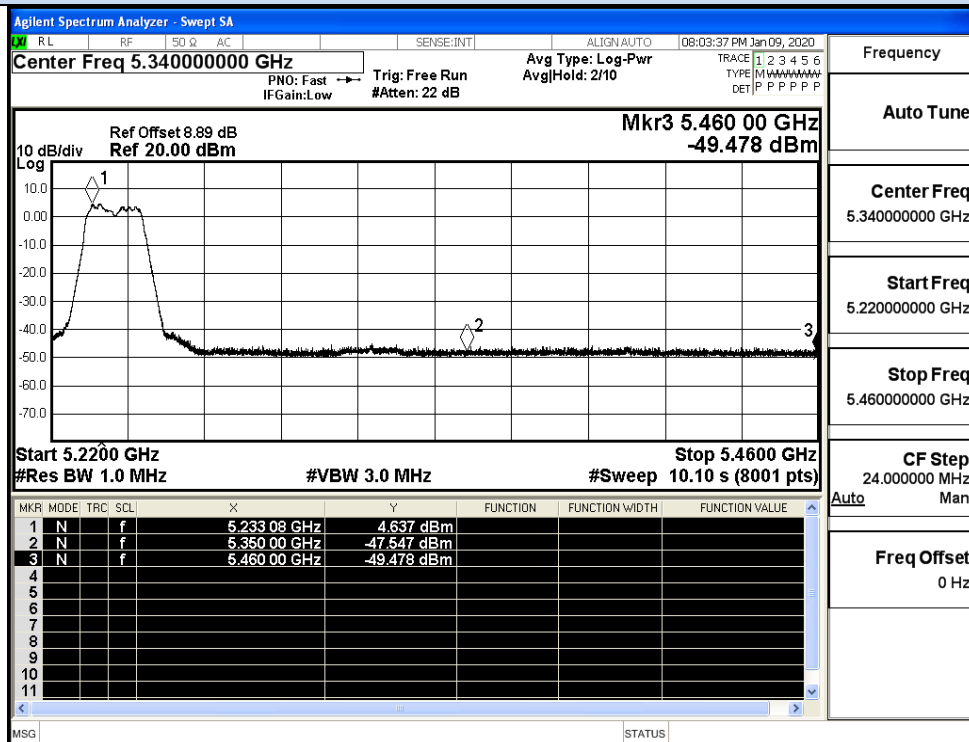


IEEE 802.11n20 / Channel 36 / 5180MHz / Peak_Ant_1

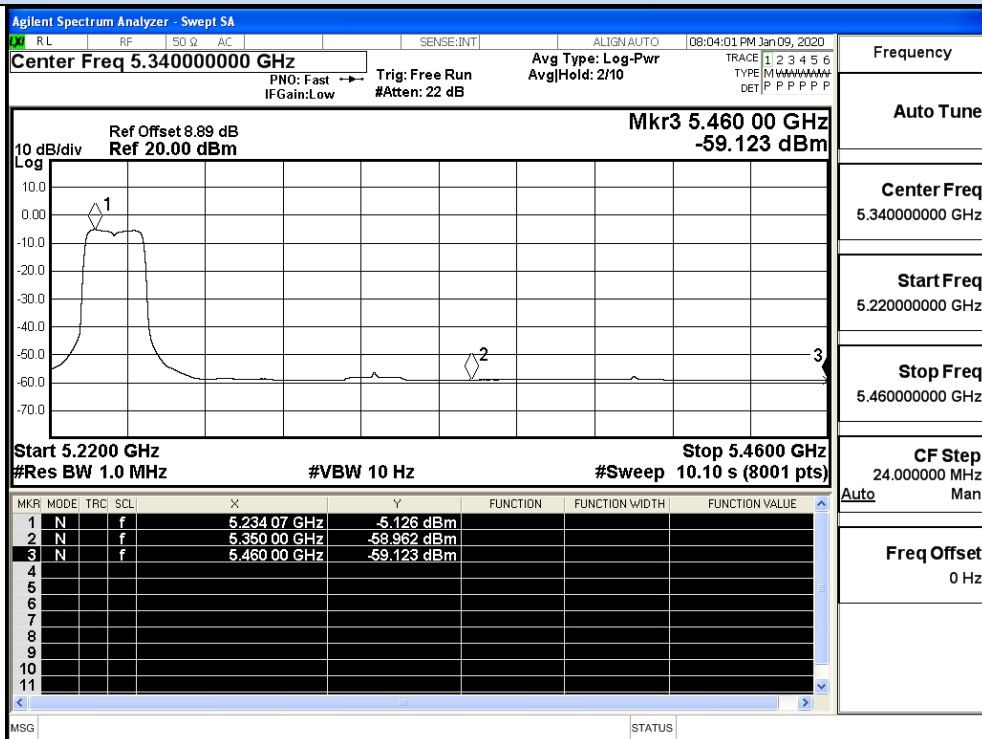


IEEE 802.11n20 / Channel 36 / 5180MHz / Average_Ant_1

Undesirable Emissions Measurement_Ant_1

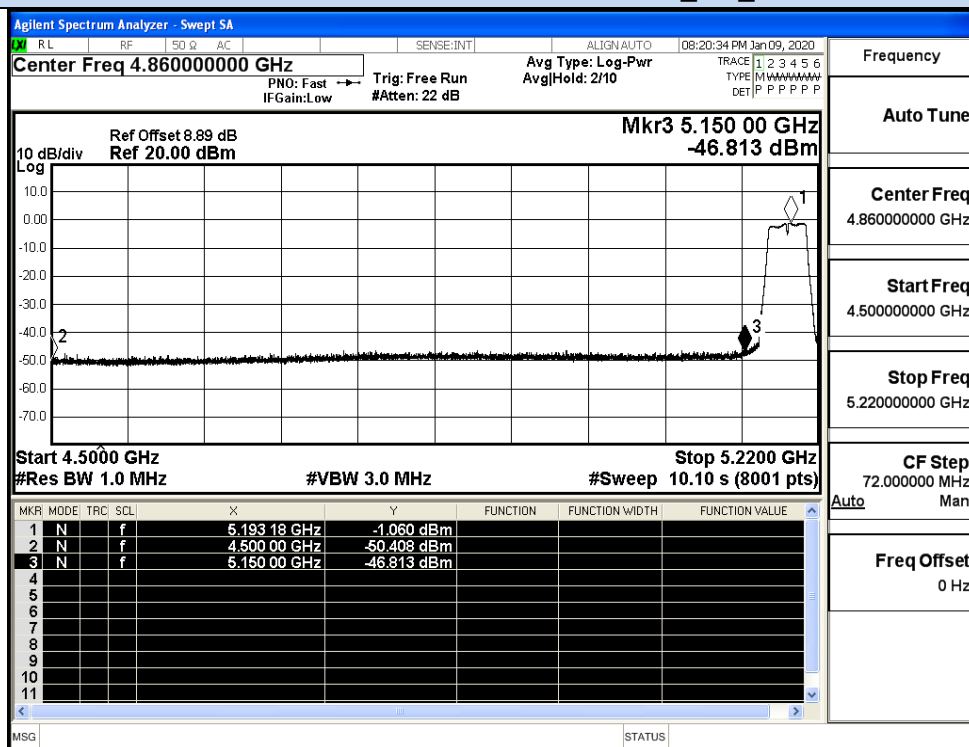


IEEE 802.11n20 / Channel 48 / 5240MHz / Peak_Ant_1

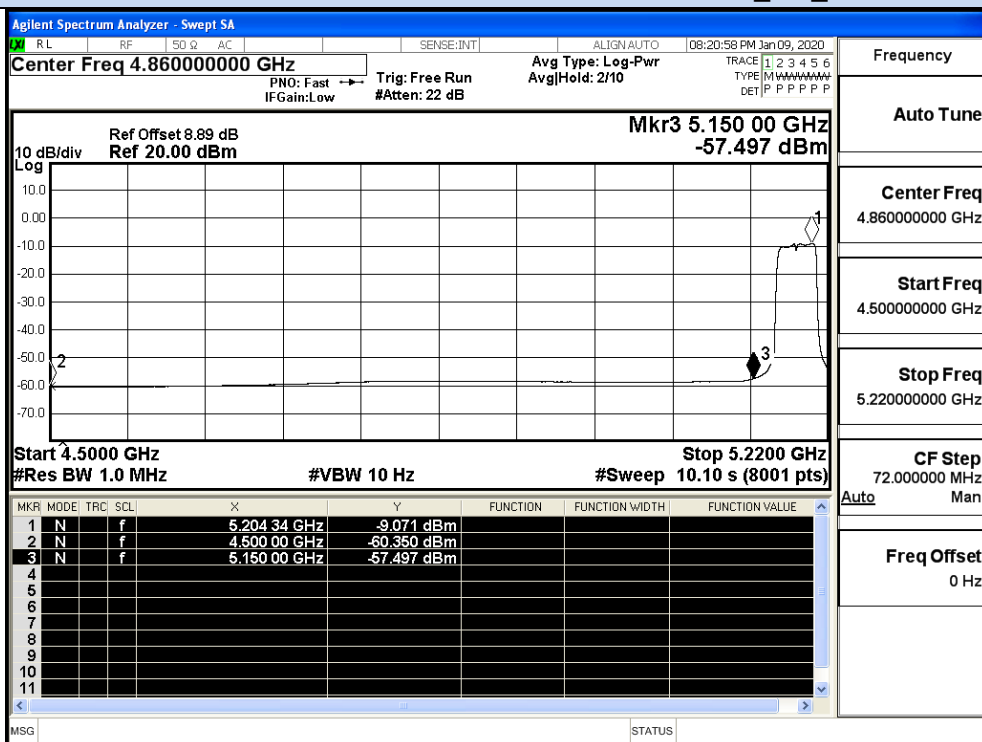


IEEE 802.11n20 / Channel 48 / 5240MHz / Average_Ant_1

Undesirable Emissions Measurement_Ant_1

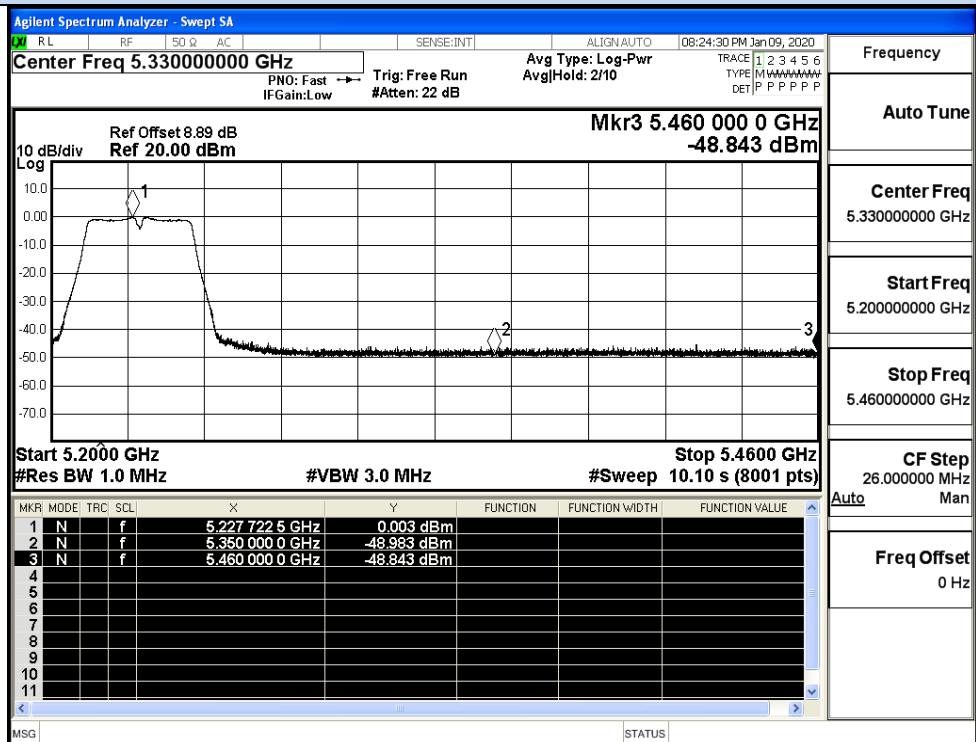


IEEE 802.11n40 / Channel 38 / 5190MHz / Peak_Ant_1

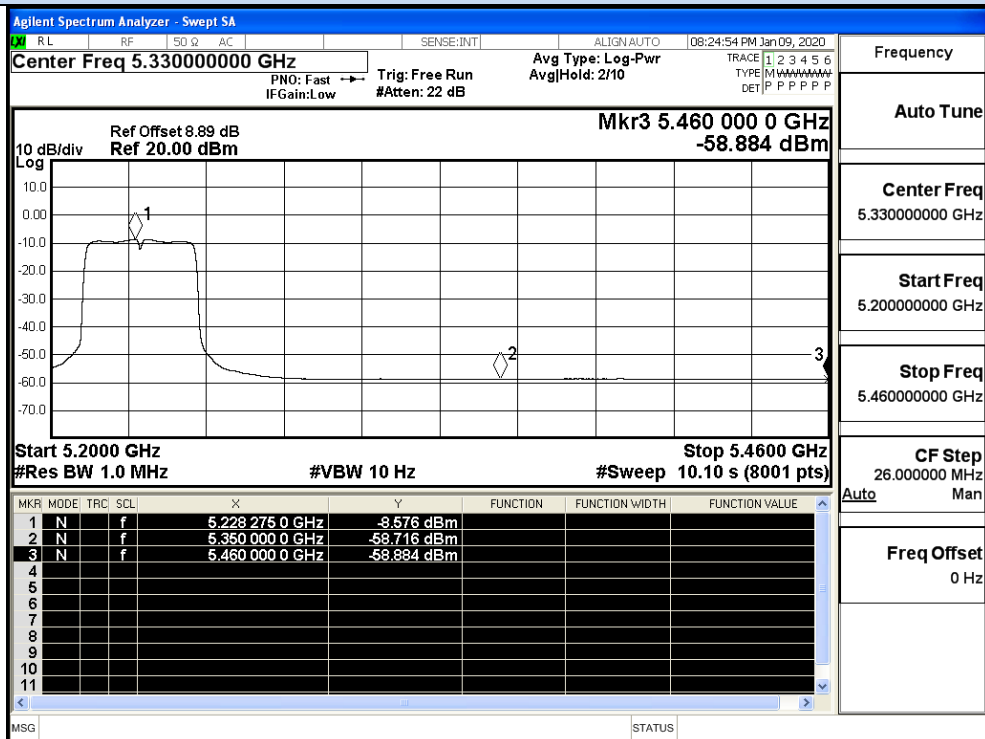


IEEE 802.11n40 / Channel 38 / 5190MHz / Average_Ant_1

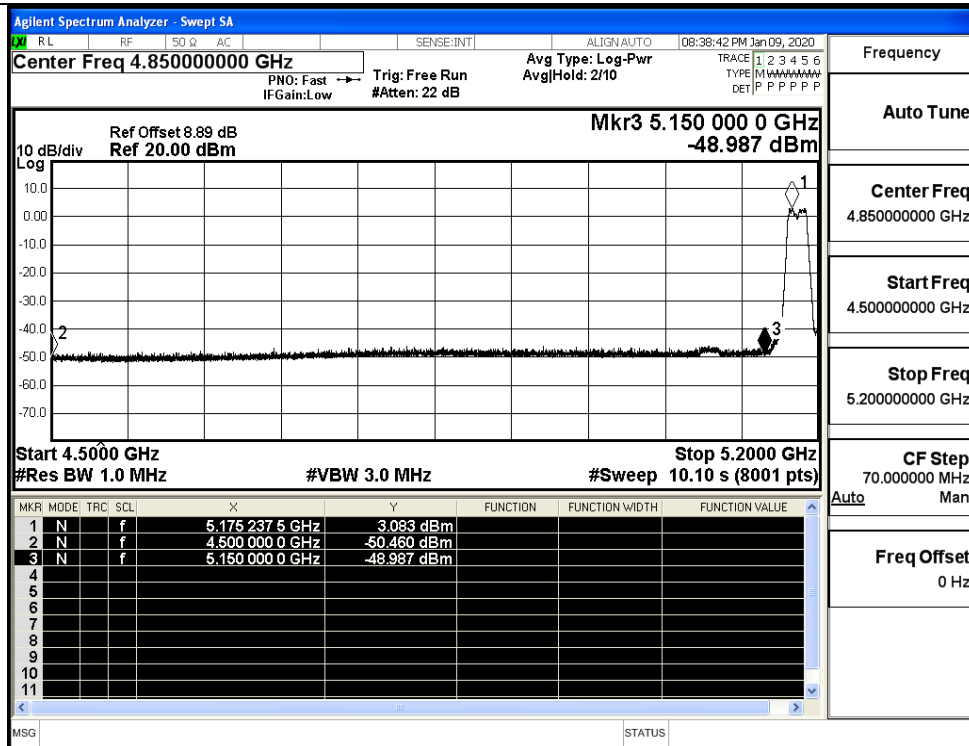
Undesirable Emissions Measurement_Ant_1



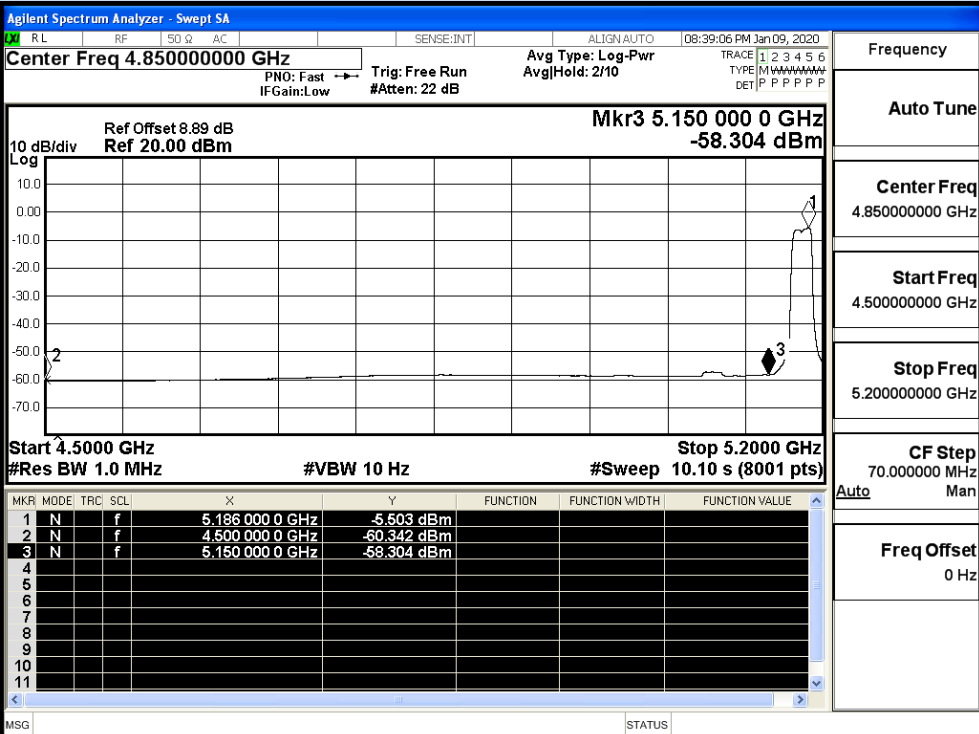
IEEE 802.11n40 / Channel 46 / 5230MHz / Peak_Ant_1



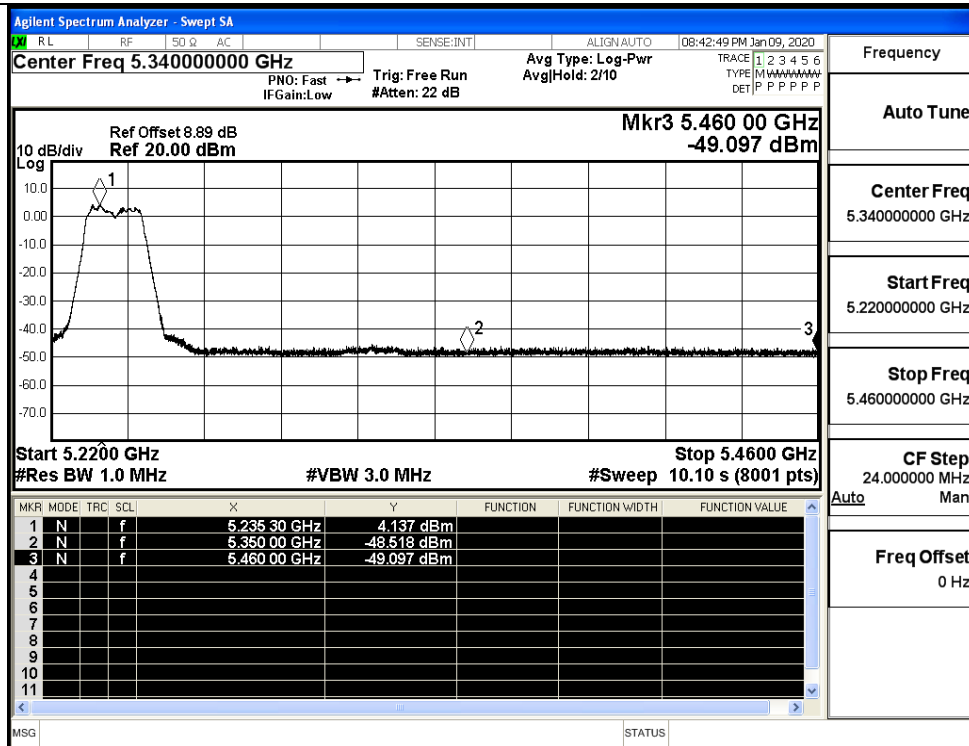
IEEE 802.11n40 / Channel 46 / 5230MHz / Average_Ant_1



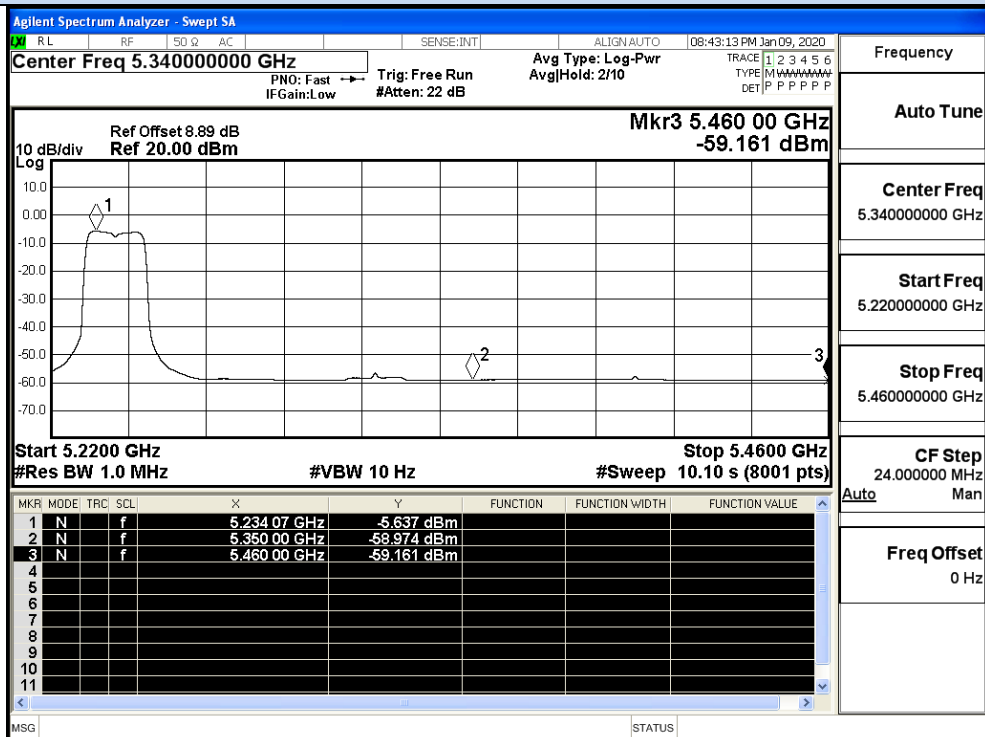
IEEE 802.11ac20 / Channel 36 / 5180MHz / Peak_Ant_1



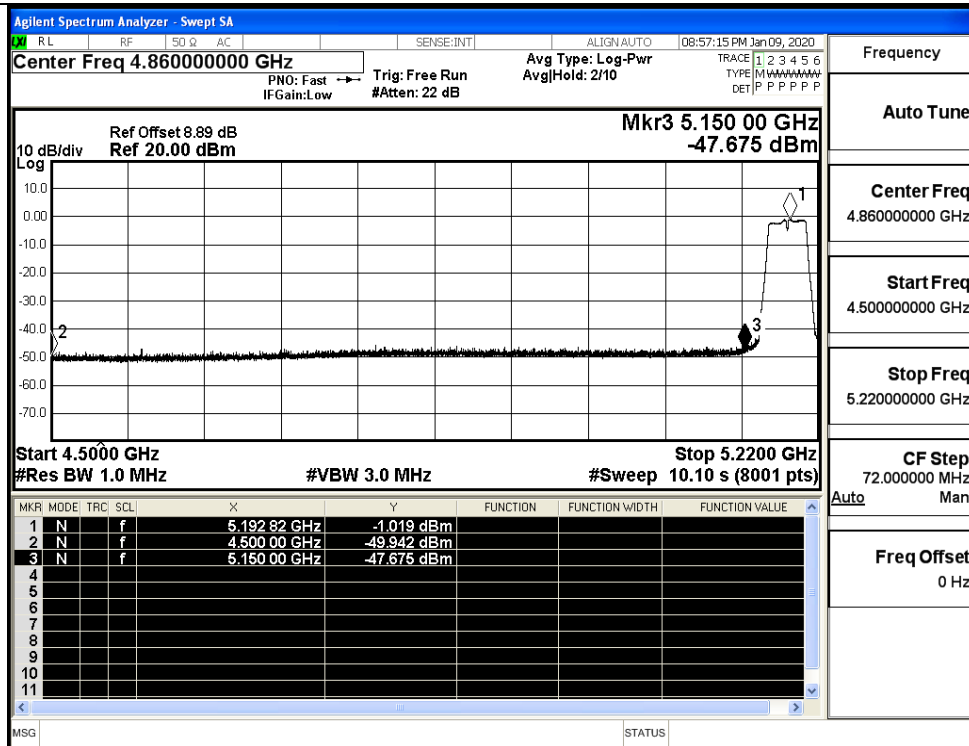
IEEE 802.11ac20 / Channel 36 / 5180MHz / Average_Ant_1



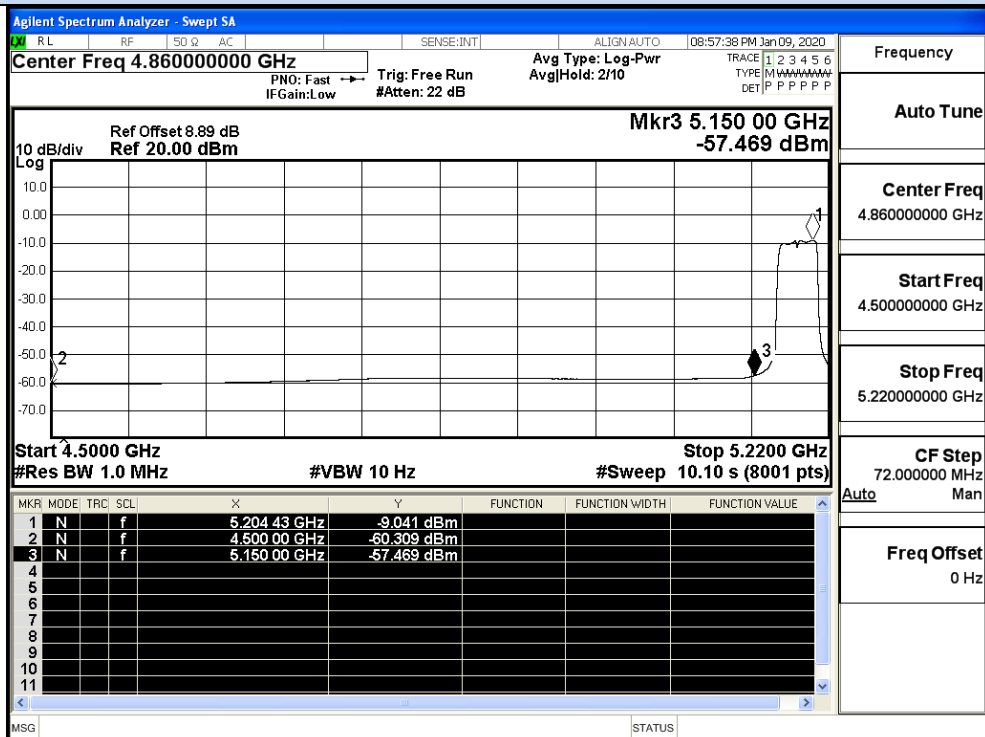
IEEE 802.11ac20 / Channel 48 / 5240MHz / Peak_Ant_1



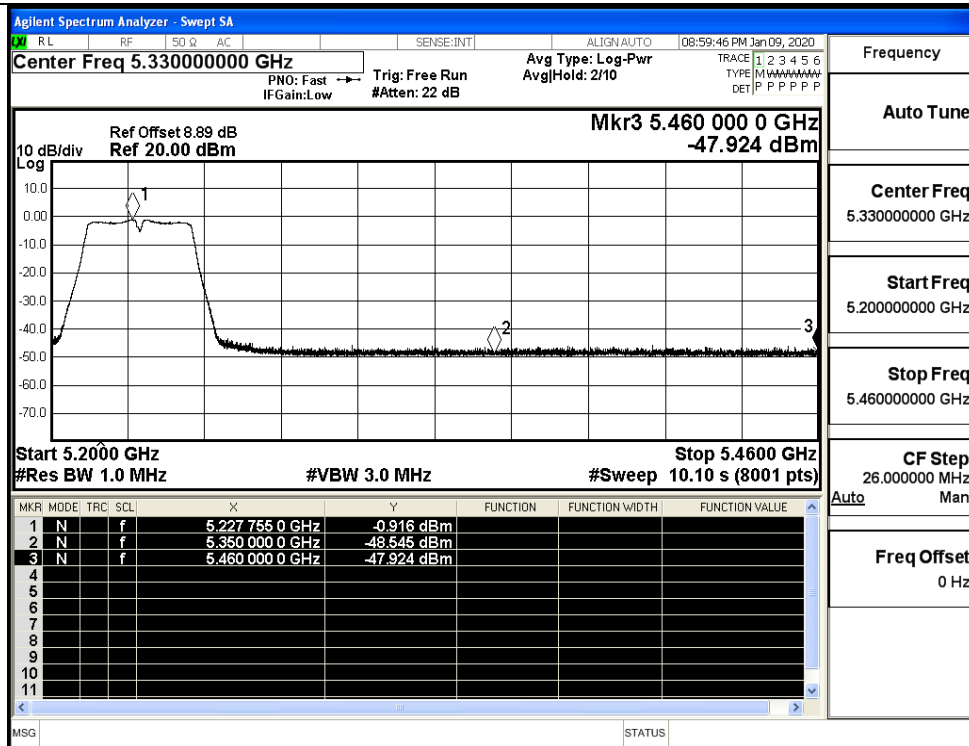
IEEE 802.11ac20 / Channel 48 / 5240MHz / Average_Ant_1



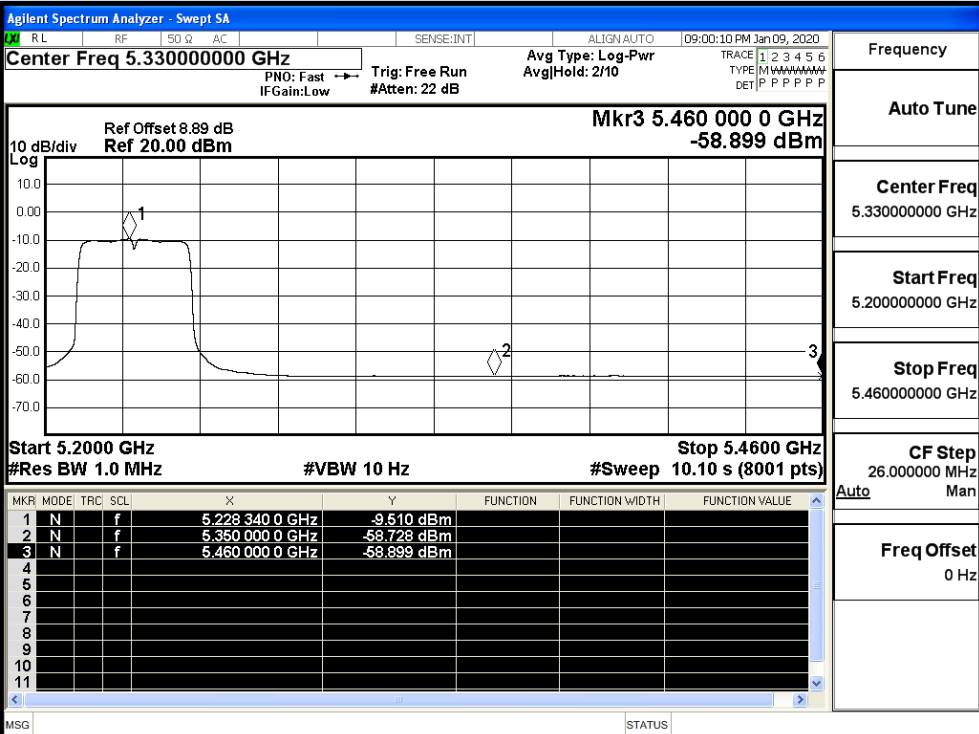
IEEE 802.11ac40 / Channel 38/ 5190MHz / Peak_Ant_1



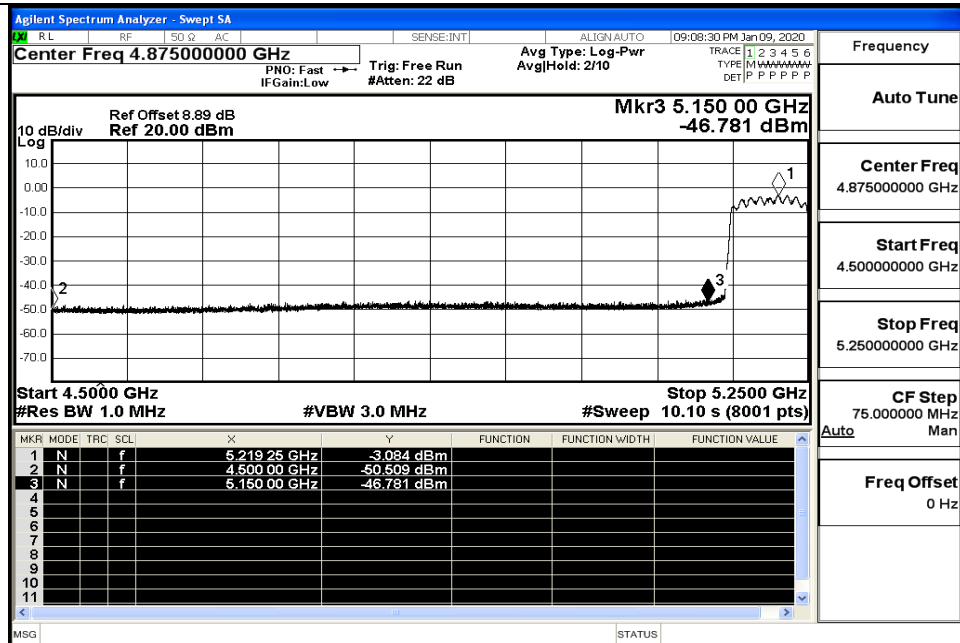
IEEE 802.11ac40 / Channel 38 / 5190MHz / Average_Ant_1



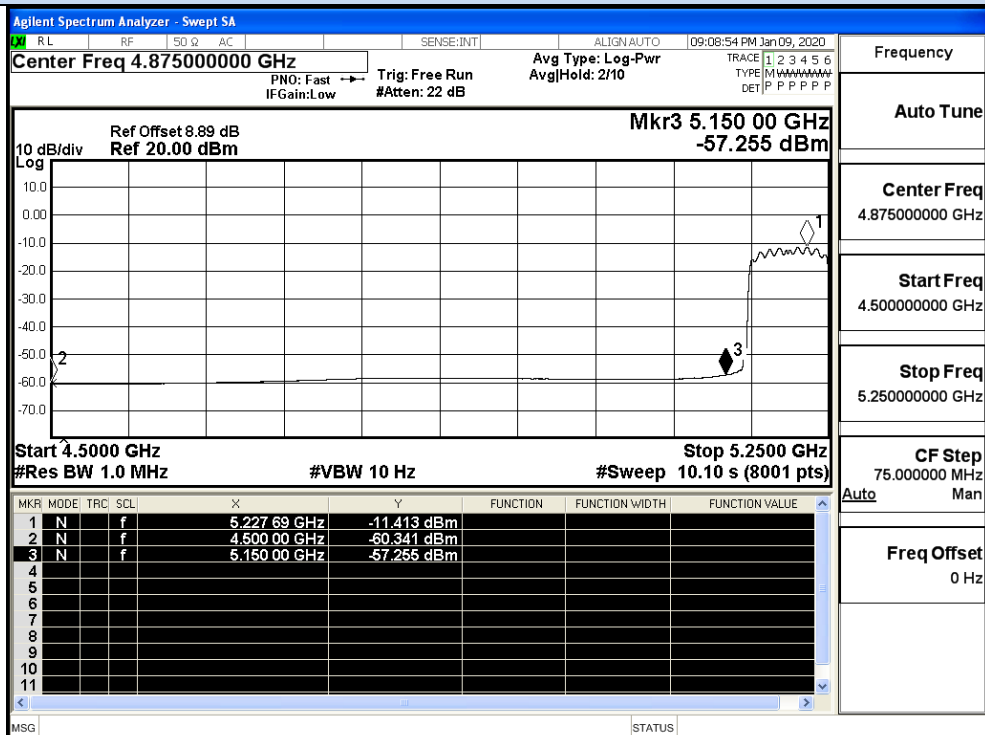
IEEE 802.11ac40 / Channel 46/ 5230MHz / Peak_Ant_1



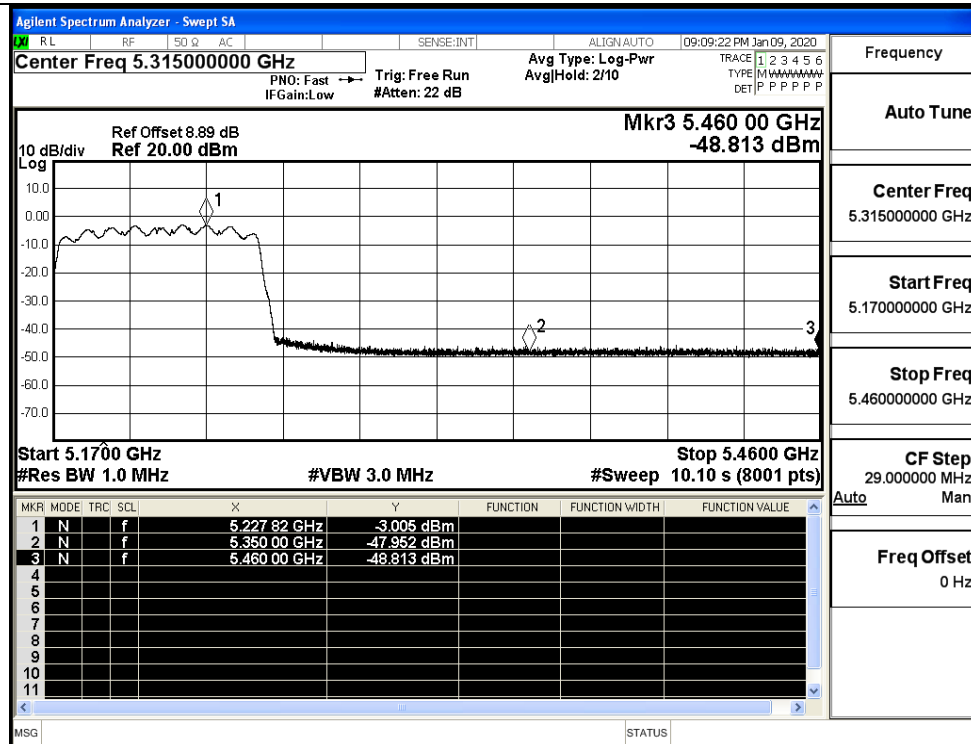
IEEE 802.11ac40 / Channel 46 / 5230MHz / Average_Ant_1



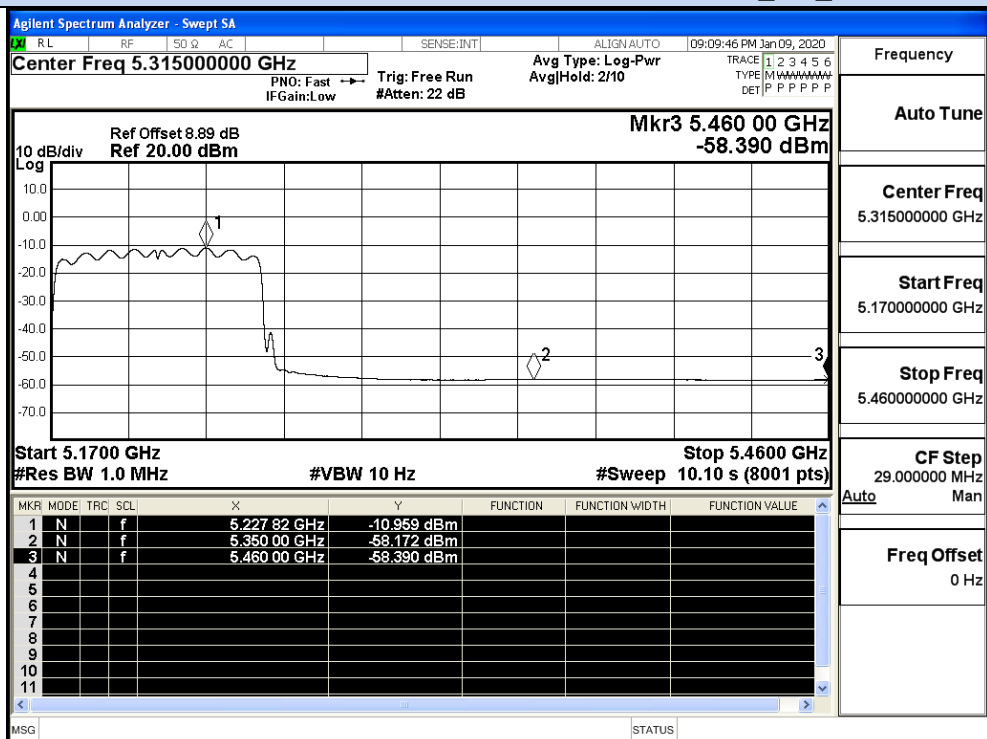
IEEE 802.11ac80 / Channel 42 / 5210MHz / Peak_Ant_1



IEEE 802.11ac80 / Channel 42 / 5210MHz / Average_Ant_1



IEEE 802.11ac80 / Channel 42/ 5210MHz / Peak_Ant_1



IEEE 802.11ac80 / Channel 42 / 5210MHz / Average_Ant_1