

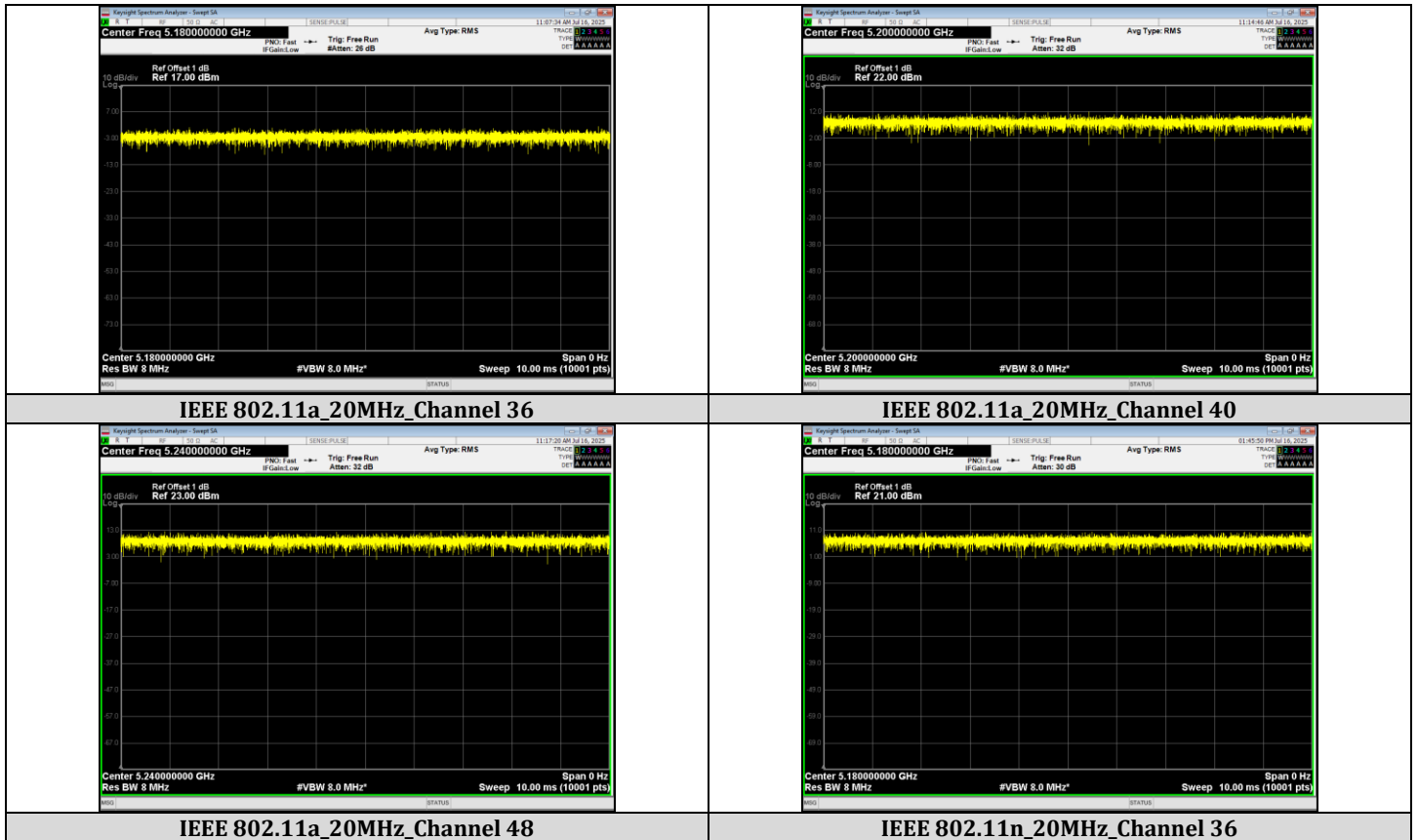
Appendix RF test data for 5G WIFI_NII band 1

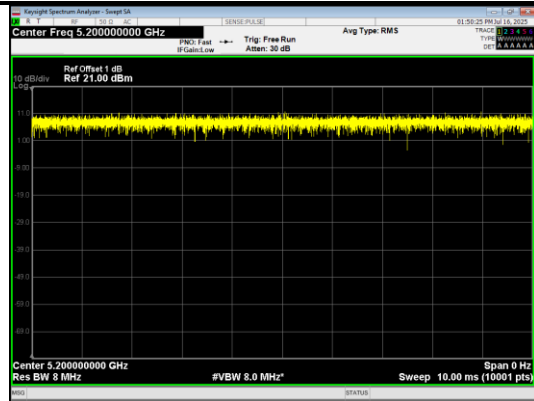
Duty Cycle

Test Result

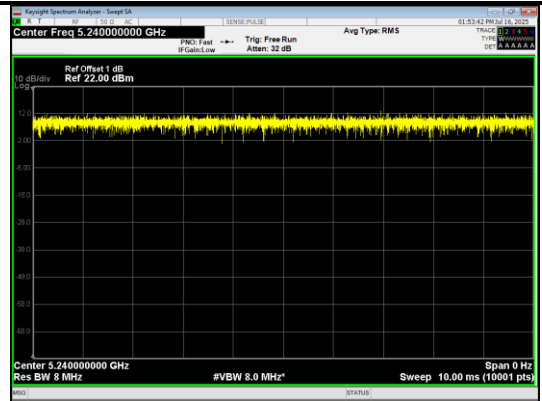
Mode	Data rates	Channel	Antenna	On Time (ms)	Period (ms)	Duty Cycle (%)	Duty Cycle (linear)	Duty Cycle Factor (dB)	1/T
IEEE 802.11a	6	36	1	10.000	10.000	100	1	0.0	0.1000
		40		10.000	10.000	100	1	0.0	0.1000
		48		10.000	10.000	100	1	0.0	0.1000
IEEE 802.11n_20	36	10.000		10.000	100	1	0.0	0.1000	
	40	10.000		10.000	100	1	0.0	0.1000	
	48	10.000		10.000	100	1	0.0	0.1000	
IEEE 802.11n_40	38	10.000		10.000	100	1	0.0	0.1000	
	46	10.000		10.000	100	1	0.0	0.1000	
IEEE 802.11ac_20	MCS 0	36		10.000	10.000	100	1	0.0	0.1000
		40		10.000	10.000	100	1	0.0	0.1000
		48		10.000	10.000	100	1	0.0	0.1000
IEEE 802.11ac_40		38		10.000	10.000	100	1	0.0	0.1000
		46		10.000	10.000	100	1	0.0	0.1000
IEEE 802.11ac_80		42		10.000	10.000	100	1	0.0	0.1000

Test Graphs





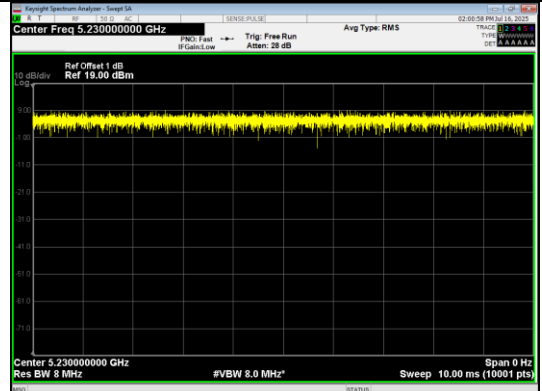
IEEE 802.11n 20MHz_Channel 40



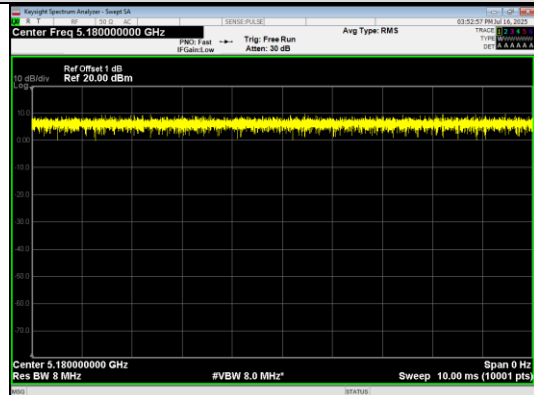
IEEE 802.11n 20MHz_Channel 48



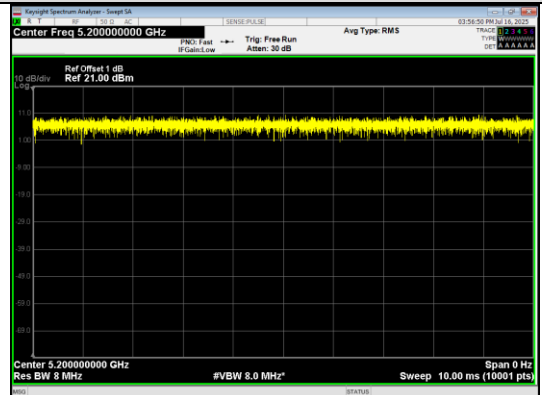
IEEE 802.11n 40MHz_Channel 38



IEEE 802.11n 40MHz_Channel 46



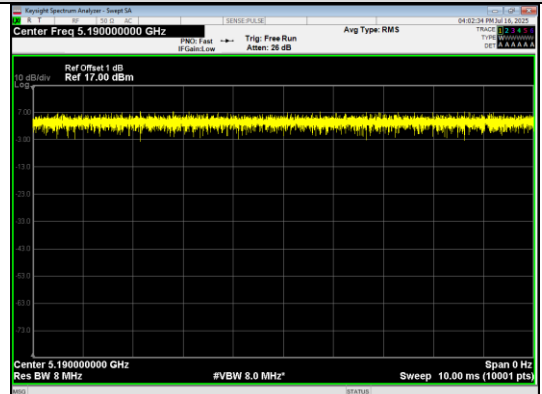
IEEE 802.11ac 20MHz_Channel 36



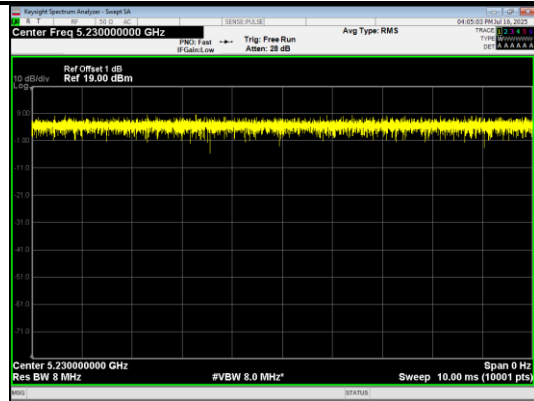
IEEE 802.11ac 20MHz_Channel 40



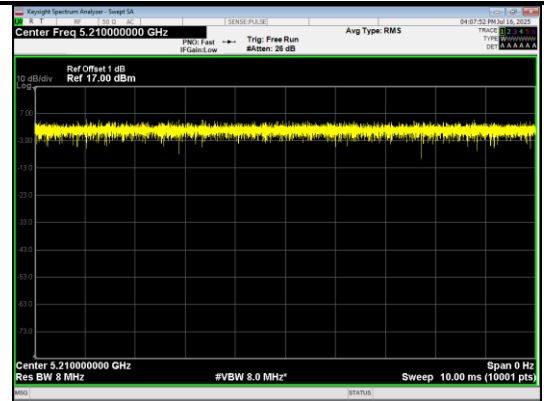
IEEE 802.11ac 20MHz_Channel 48



IEEE 802.11ac 40MHz_Channel 38



IEEE 802.11ac_40MHz_Channel 46



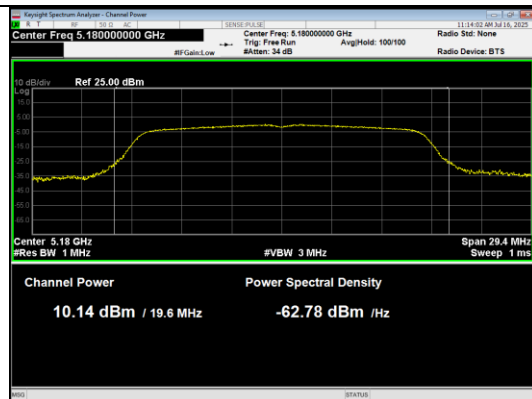
IEEE 802.11ac_80MHz_Channel 42

Conducted Output Power

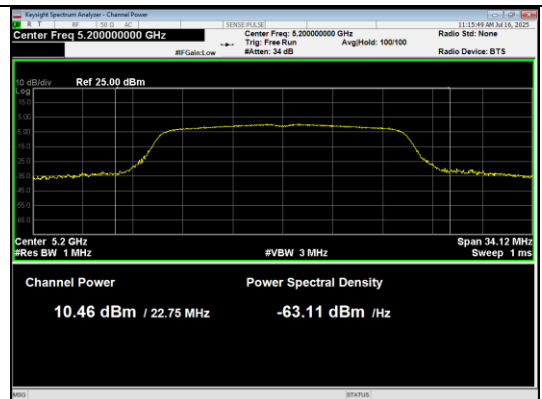
Conducted output power

Mode	Channel	Ant. 0 (dBm)	Corr'd Value Ant. 0 (dBm)	Limit (dBm)	Result
IEEE 802.11a	36	10.14	10.14	≤24	PASS
	40	10.46	10.46	≤24	PASS
	48	11.30	11.3	≤24	PASS
IEEE 802.11n_20	36	10.03	10.03	≤24	PASS
	40	10.60	10.6	≤24	PASS
	48	11.28	11.28	≤24	PASS
IEEE 802.11n_40	38	10.20	10.2	≤24	PASS
	46	11.14	11.14	≤24	PASS
IEEE 802.11ac_20	36	9.12	9.12	≤24	PASS
	40	9.55	9.55	≤24	PASS
	48	10.09	10.09	≤24	PASS
IEEE 802.11ac_40	38	9.38	9.38	≤24	PASS
	46	10.22	10.22	≤24	PASS
IEEE 802.11ac_80	42	9.66	9.66	≤24	PASS

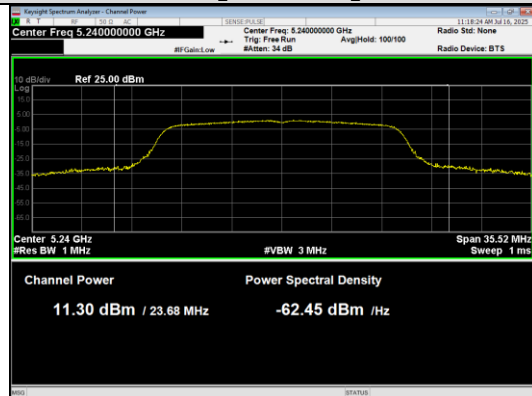
Note: Corrected Value = Antenna Power + Duty Cycle Factor.



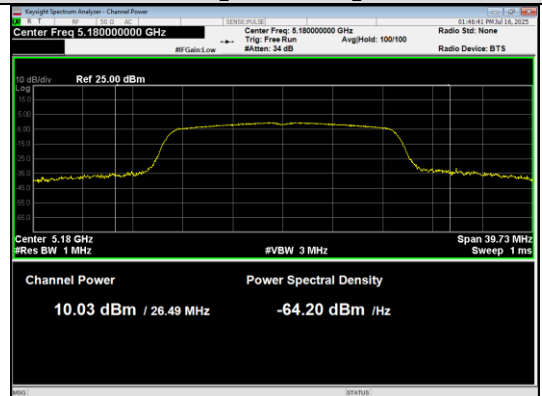
Conducted AVG output power
IEEE 802.11a_Channel 36_Antenna 0



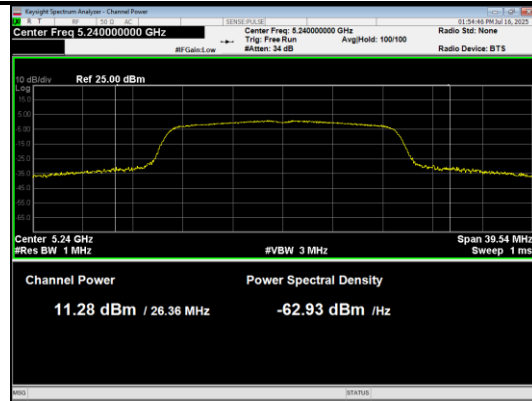
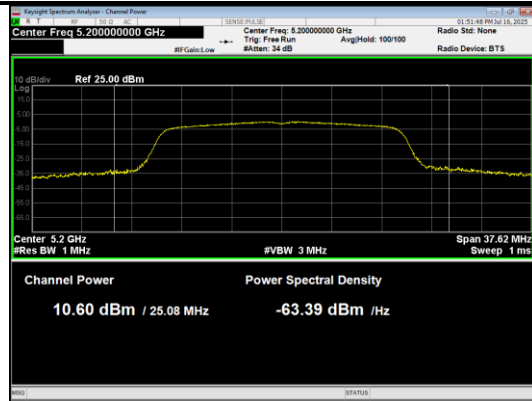
Conducted AVG output power
IEEE 802.11a_Channel 40_Antenna 0



Conducted AVG output power
IEEE 802.11a_Channel 48_Antenna 0

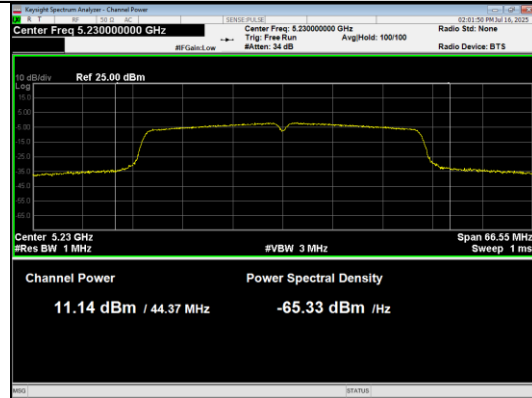
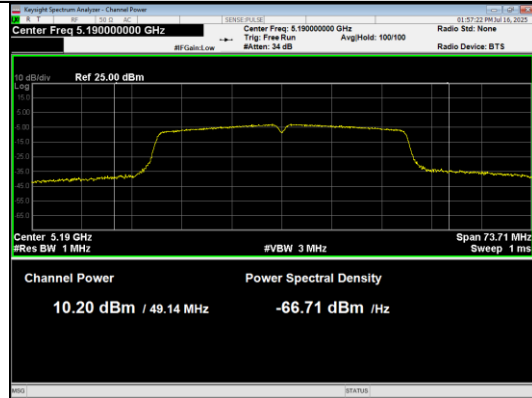


Conducted AVG output power
IEEE 802.11n_20_Channel 36_Antenna 0



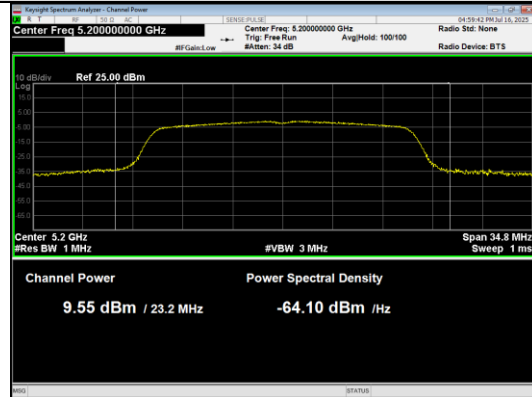
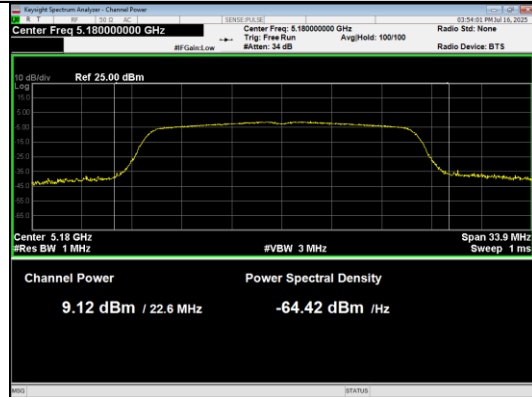
Conducted AVG output power
IEEE 802.11n_20_Channel 40_Antenna 0

Conducted AVG output power
IEEE 802.11n_20_Channel 48_Antenna 0



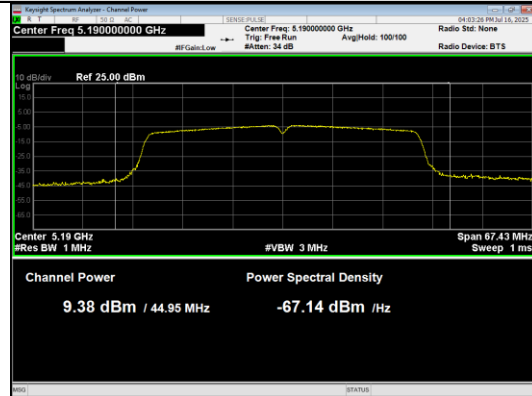
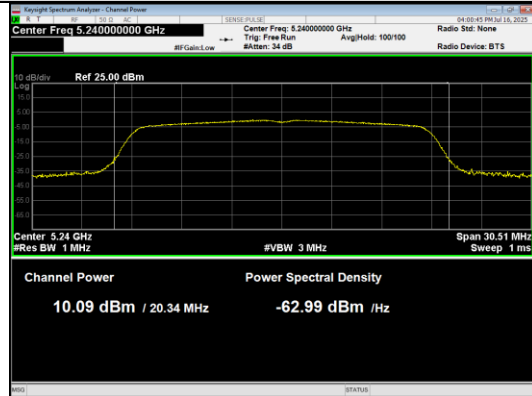
Conducted AVG output power
IEEE 802.11n_40_Channel 38_Antenna 0

Conducted AVG output power
IEEE 802.11n_40_Channel 46_Antenna 0



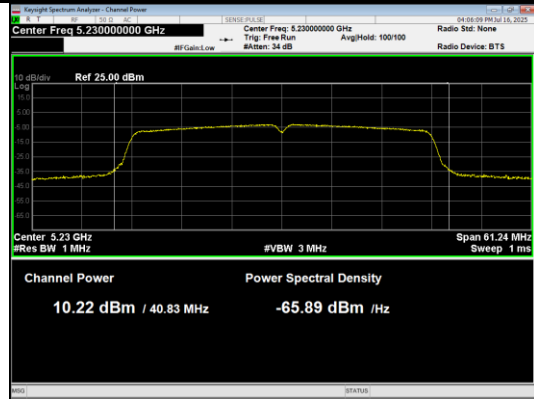
Conducted AVG output power
IEEE 802.11ac_20_Channel 36_Antenna 0

Conducted AVG output power
IEEE 802.11ac_20_Channel 40_Antenna 0

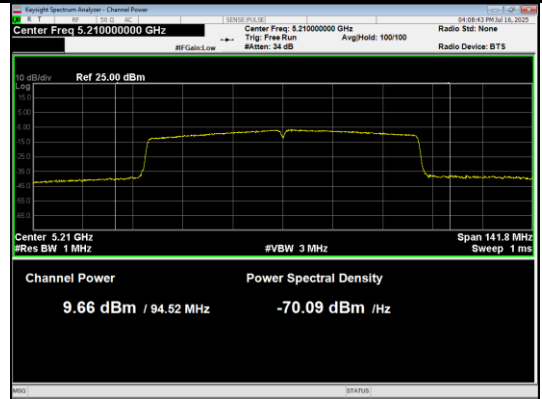


Conducted AVG output power
IEEE 802.11ac_20_Channel 48_Antenna 0

Conducted AVG output power
IEEE 802.11ac_40_Channel 38_Antenna 0



**Conducted AVG output power
IEEE 802.11ac_40_Channel 46_Antenna 0**



**Conducted AVG output power
IEEE 802.11ac_80_Channel 42_Antenna 0**

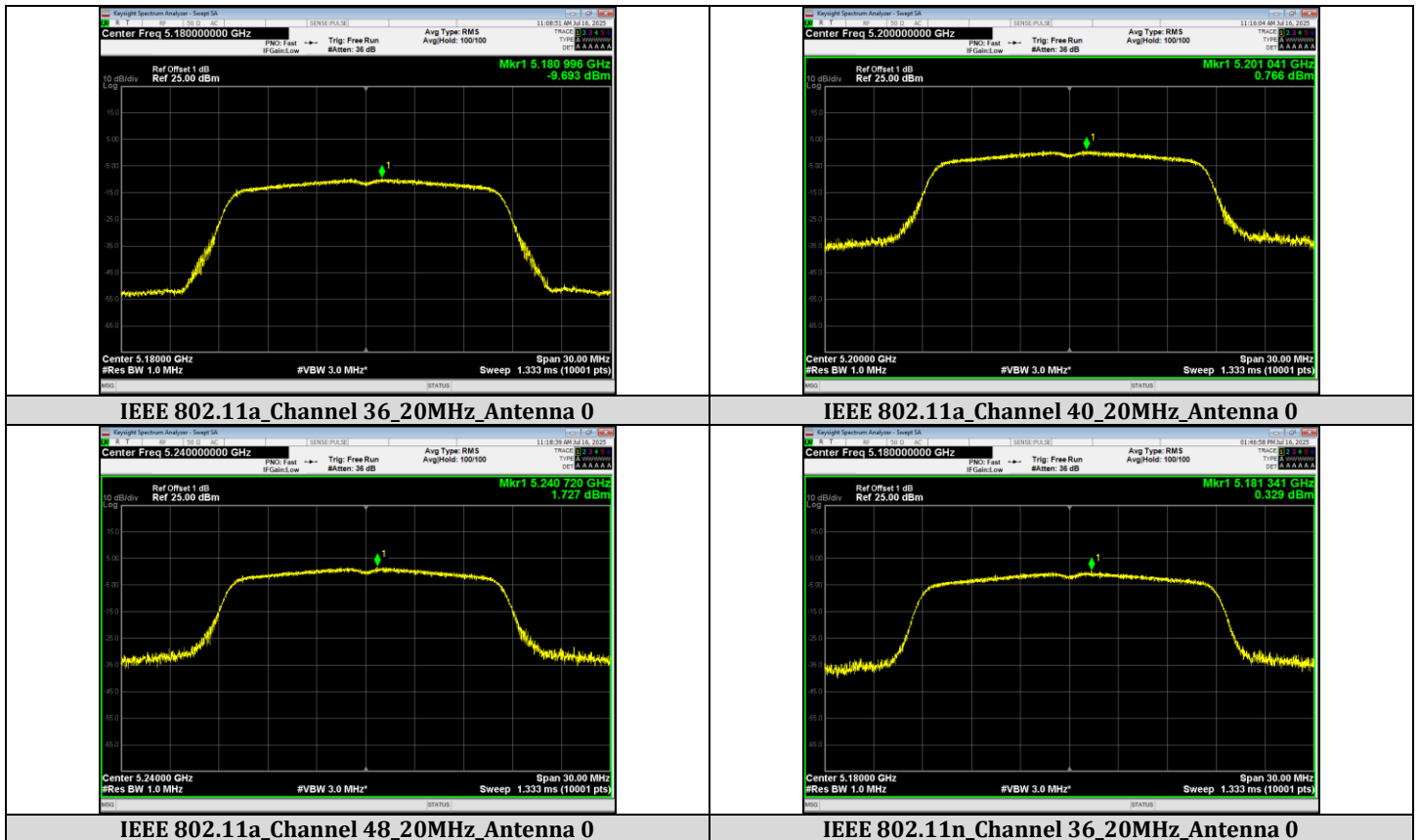
Peak Power Spectral Density

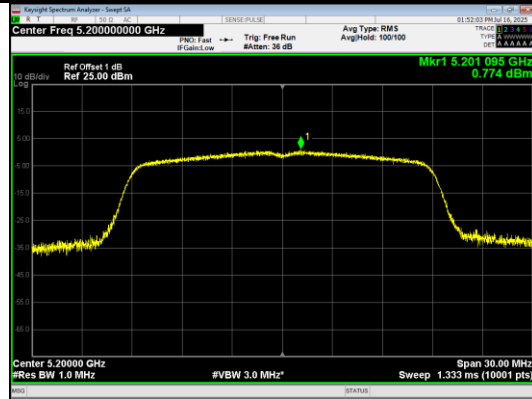
Test Result

Mode	Channel	Ant. 0 Meas PSD (dBm/MHz or dBm/0.51MHz)	Ant. 0 Corr'd PSD (dBm/MHz or dBm/0.5MHz)	Limit (dBm/MHz or dBm/0.5MHz)	Result
IEEE 802.11a	36	-9.690	-9.690	11	PASS
	40	0.770	0.770		PASS
	48	1.730	1.730		PASS
IEEE 802.11n_20	36	0.330	0.330		PASS
	40	0.770	0.770		PASS
	48	1.410	1.410		PASS
IEEE 802.11n_40	38	-2.480	-2.480		PASS
	46	-1.540	-1.540		PASS
IEEE 802.11ac_20	36	-1.110	-1.110		PASS
	40	-0.390	-0.390		PASS
	48	0.340	0.340		PASS
IEEE 802.11ac_40	38	-3.170	-3.170		PASS
	46	-2.510	-2.510		PASS
IEEE 802.11ac_80	42	-6.030	-6.030		PASS

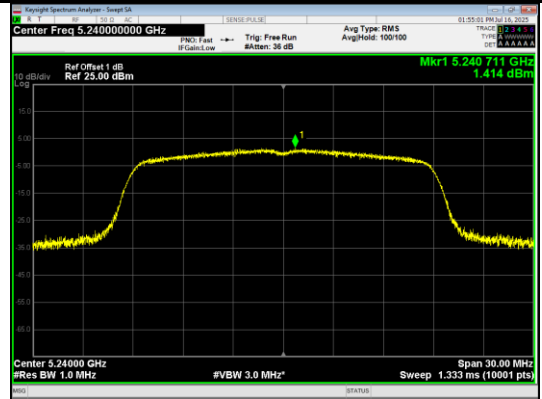
Note: Corr'd PSD = Meas PSD +Duty cycle Factor

Test Graphs

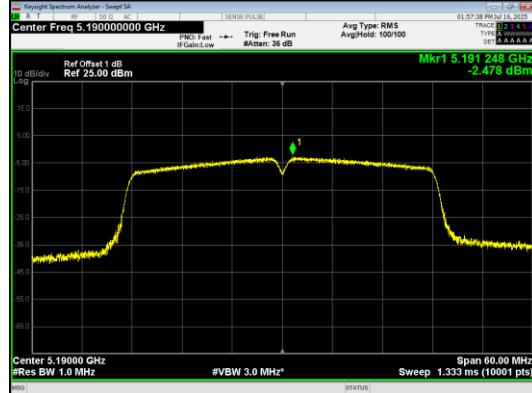




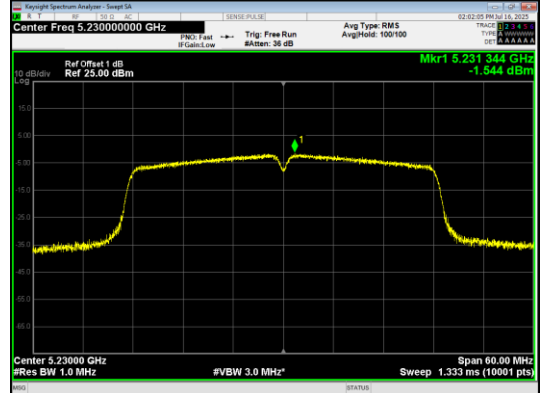
IEEE 802.11n_Channel 40_20MHz_Antenna 0



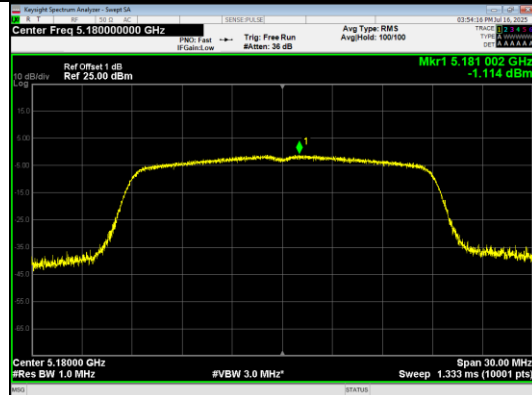
IEEE 802.11n_Channel 48_20MHz_Antenna 0



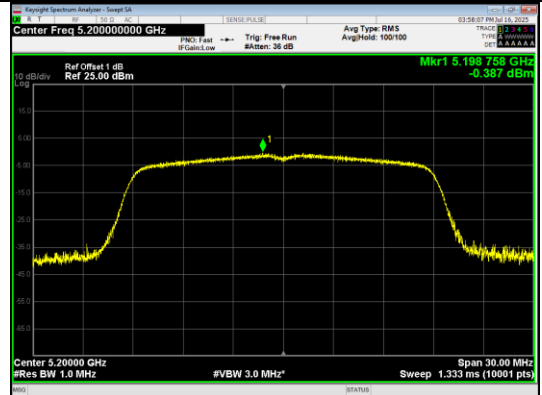
IEEE 802.11n_Channel 38_40MHz_Antenna 0



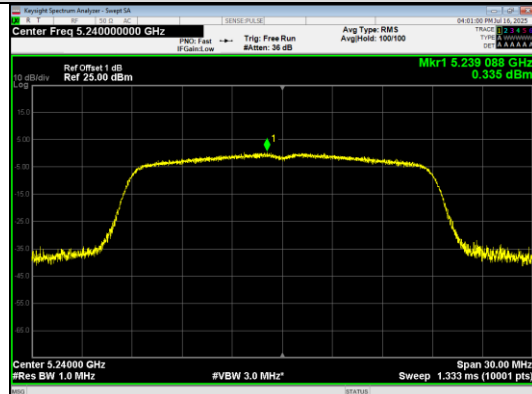
IEEE 802.11n_Channel 46_40MHz_Antenna 0



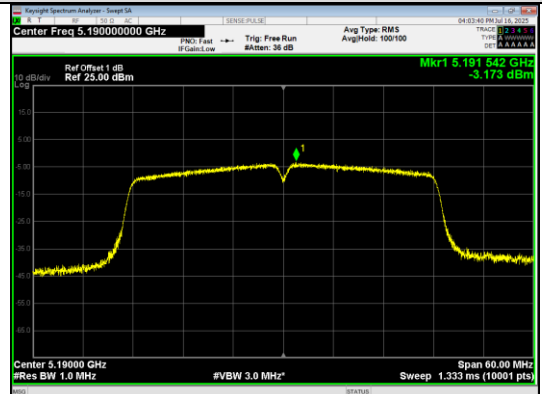
IEEE 802.11ac_Channel 36_20MHz_Antenna 0



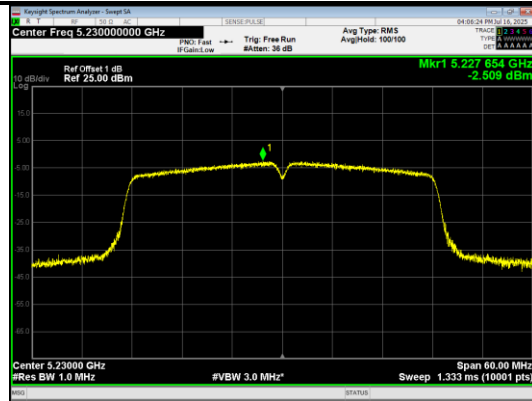
IEEE 802.11ac_Channel 40_20MHz_Antenna 0



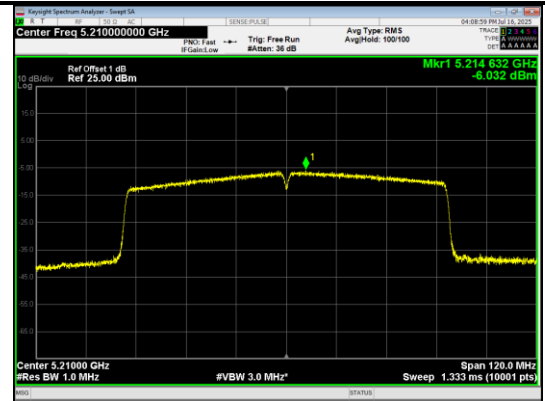
IEEE 802.11ac_Channel 48_20MHz_Antenna 0



IEEE 802.11ac_Channel 38_40MHz_Antenna 0



IEEE 802.11ac_Channel 46_40MHz_Antenna 0



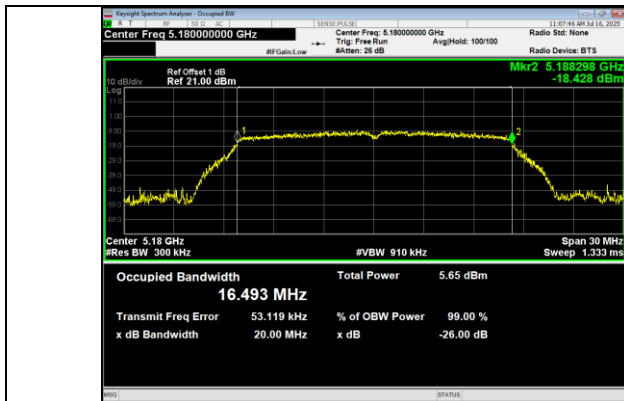
IEEE 802.11ac_Channel 42_80MHz_Antenna 0

99% Bandwidth

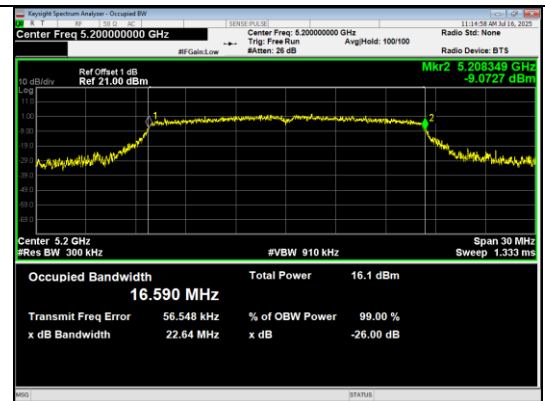
Test Result

Mode	Channel	Ant.	Center Frequency (MHz)	99% BW (MHz)
IEEE 802.11a	36	0	5180	16.493
	40		5200	16.590
	48		5240	16.637
IEEE 802.11n_20	36		5180	17.710
	40		5200	17.660
	48		5240	17.698
IEEE 802.11n_40	38		5190	35.986
	46		5230	36.031
IEEE 802.11ac_20	36		5180	17.626
	40		5200	17.689
	48		5240	17.653
IEEE 802.11ac_40	38		5190	35.979
	46		5230	35.985
IEEE 802.11ac_80	42		5210	75.086

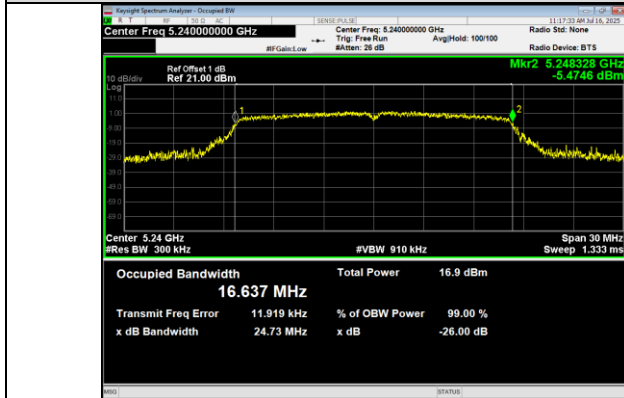
Test Graphs



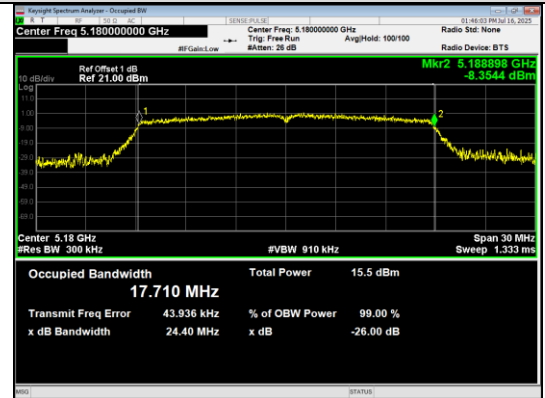
IEEE 802.11a_Channel 36_20MHz_Antenna 0



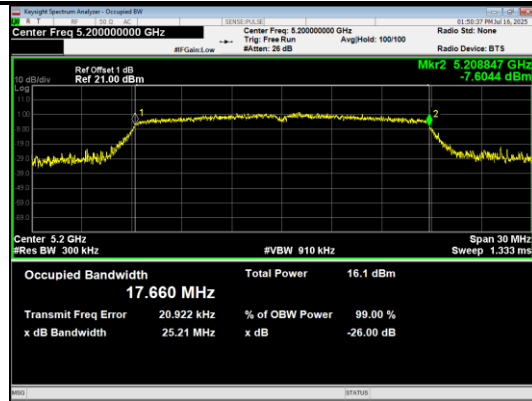
IEEE 802.11a_Channel 40_20MHz_Antenna 0



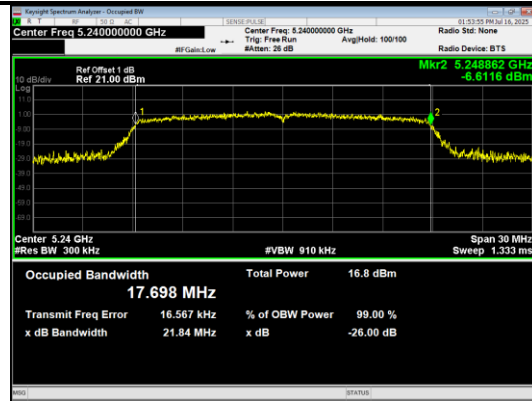
IEEE 802.11a_Channel 48_20MHz_Antenna 0



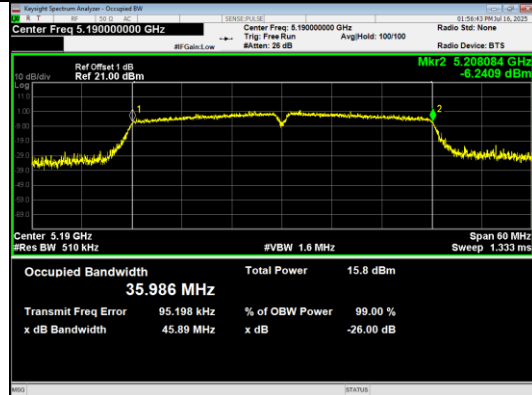
IEEE 802.11n_Channel 36_20MHz_Antenna 0



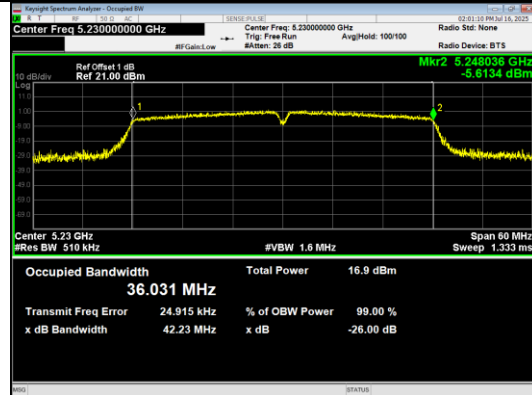
IEEE 802.11n_Channel 40_20MHz_Antenna 0



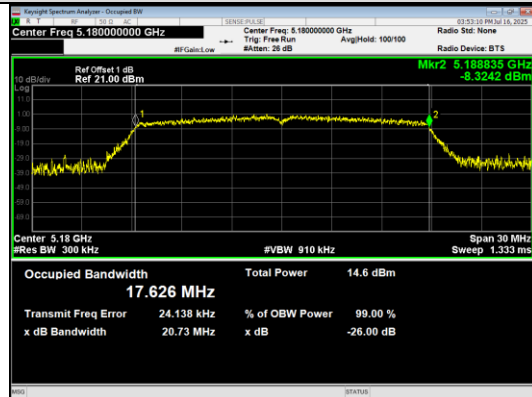
IEEE 802.11n_Channel 48_20MHz_Antenna 0



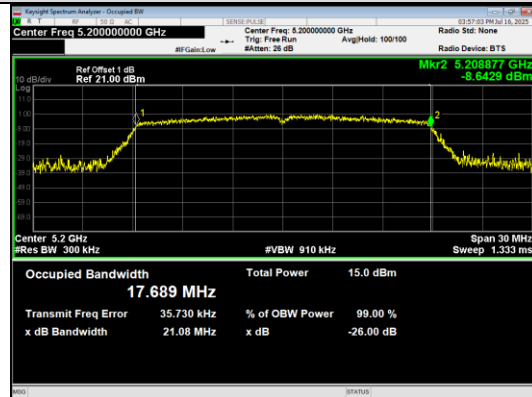
IEEE 802.11n_Channel 38_40MHz_Antenna 0



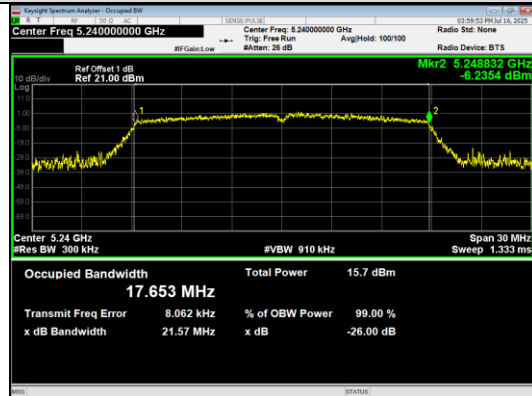
IEEE 802.11n_Channel 46_40MHz_Antenna 0



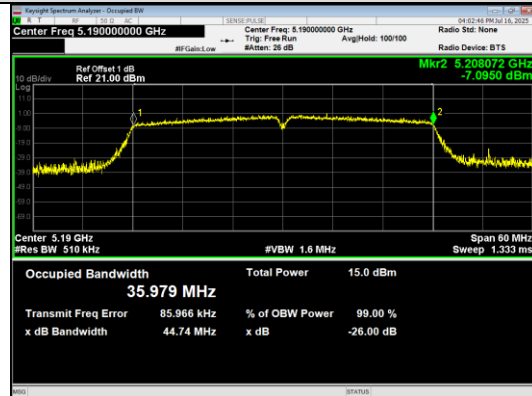
IEEE 802.11ac_Channel 36_20MHz_Antenna 0



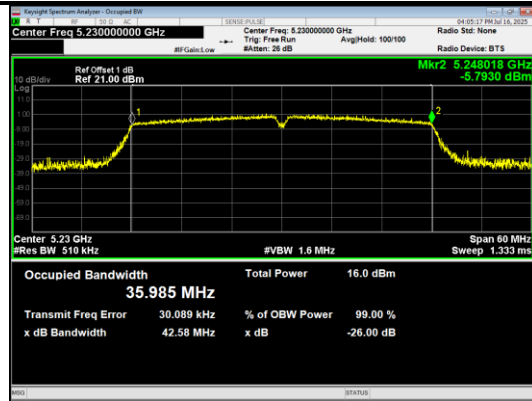
IEEE 802.11ac_Channel 40_20MHz_Antenna 0



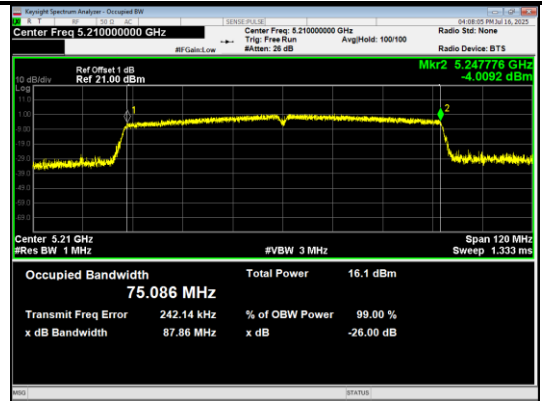
IEEE 802.11ac_Channel 48_20MHz_Antenna 0



IEEE 802.11ac_Channel 38_40MHz_Antenna 0



IEEE 802.11ac_Channel 46_40MHz_Antenna 0



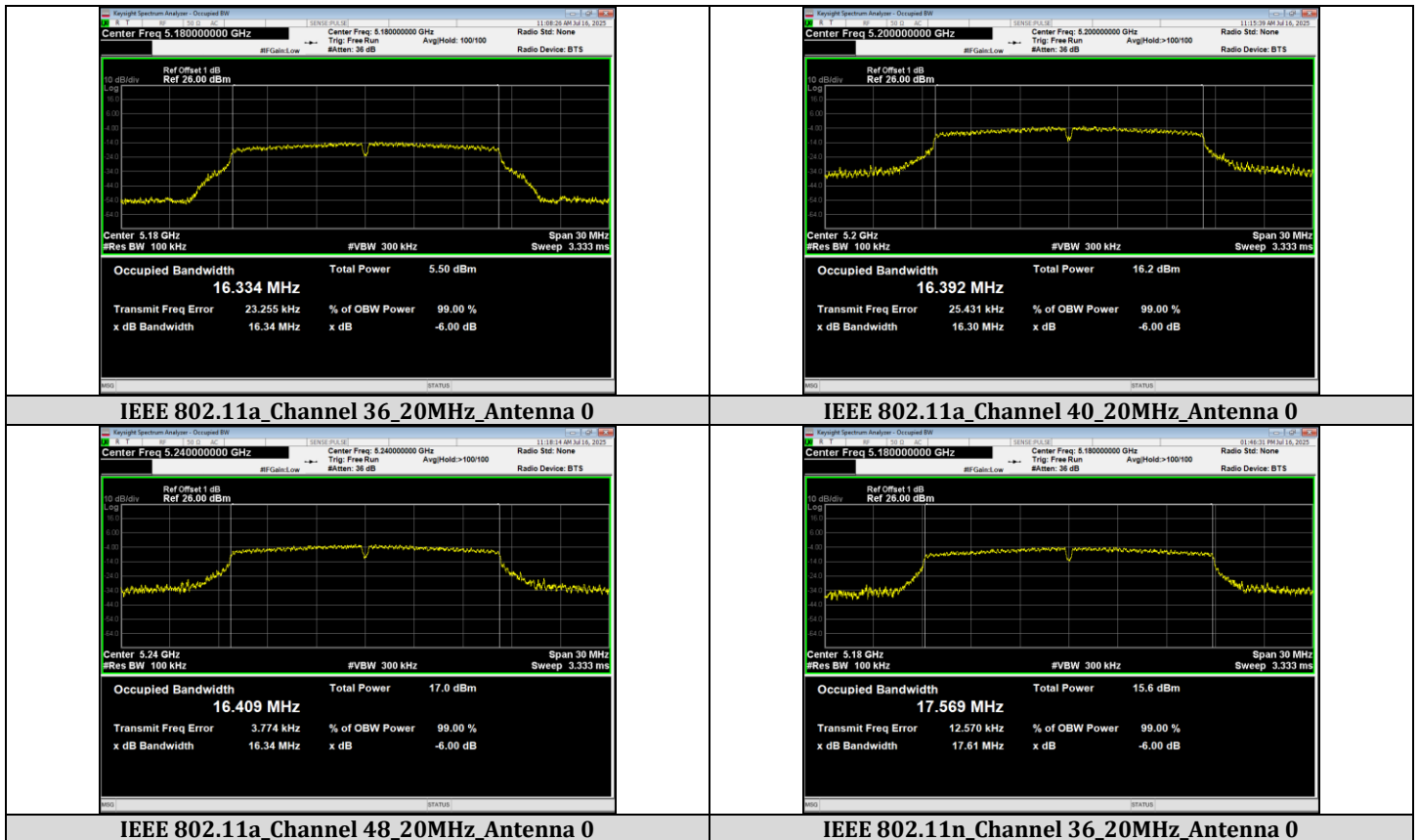
IEEE 802.11ac_Channel 42_80MHz_Antenna 0

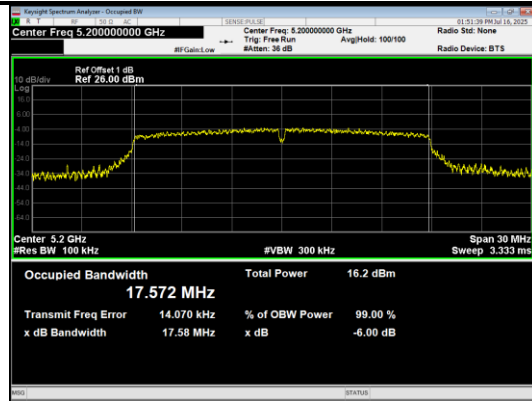
6dB Bandwidth

Test Result

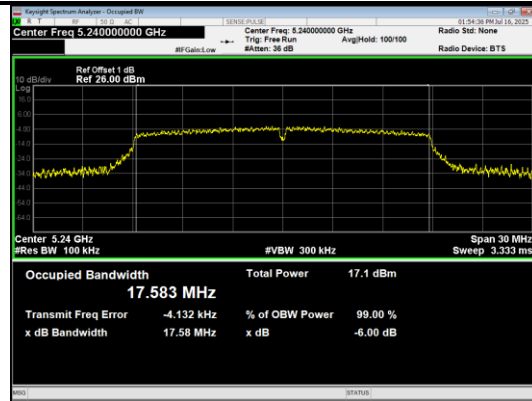
Mode	Channel	Ant.	Center Frequency (MHz)	6 dB Bandwidth (MHz)	Limit (MHz)	Result
IEEE 802.11a	36	0	5180	16.34	≥0.5	PASS
	40		5200	16.30		PASS
	48		5240	16.34		PASS
IEEE 802.11n_20	36		5180	17.61		PASS
	40		5200	17.58		PASS
	48		5240	17.58		PASS
IEEE 802.11n_40	38		5190	35.40		PASS
	46		5230	35.94		PASS
IEEE 802.11ac_20	36		5180	17.56		PASS
	40		5200	17.58		PASS
	48		5240	17.58		PASS
IEEE 802.11ac_40	38		5190	35.69		PASS
	46		5230	35.67		PASS
IEEE 802.11ac_80	42		5210	75.07		PASS

Test Graphs

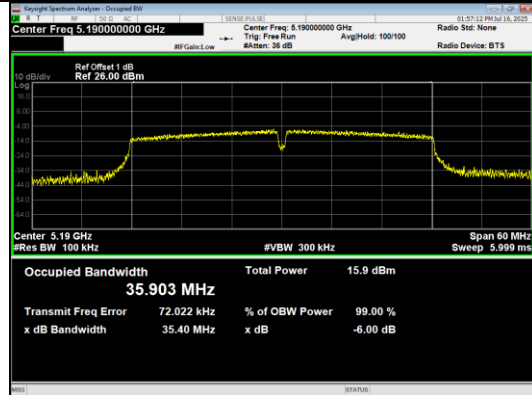




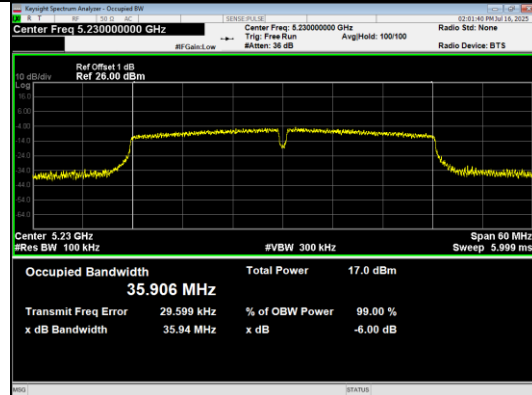
IEEE 802.11n_Channel 40_20MHz_Antenna 0



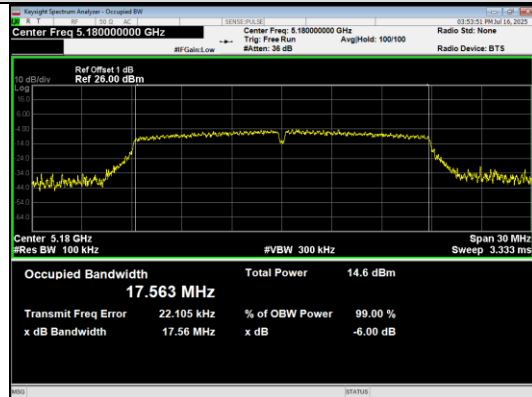
IEEE 802.11n_Channel 48_20MHz_Antenna 0



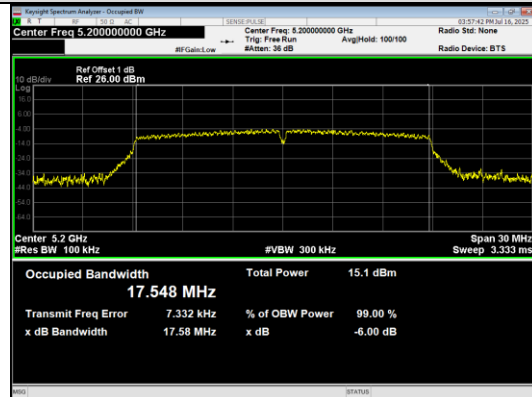
IEEE 802.11n_Channel 38_40MHz_Antenna 0



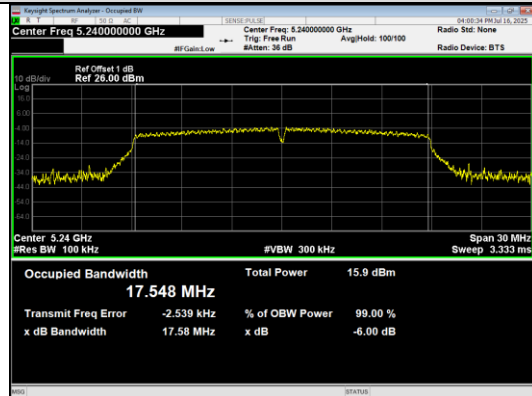
IEEE 802.11n_Channel 46_40MHz_Antenna 0



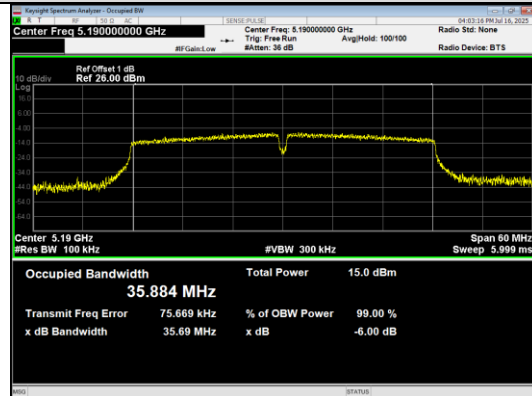
IEEE 802.11ac_Channel 36_20MHz_Antenna 0



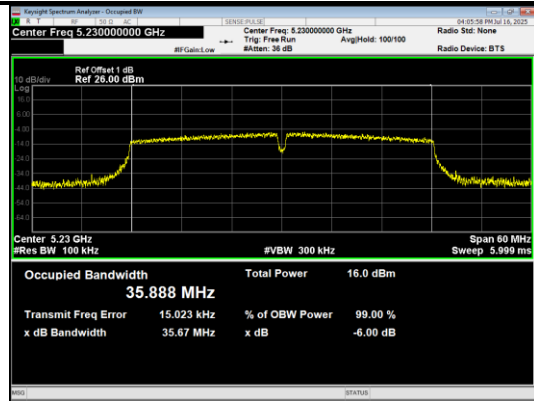
IEEE 802.11ac_Channel 40_20MHz_Antenna 0



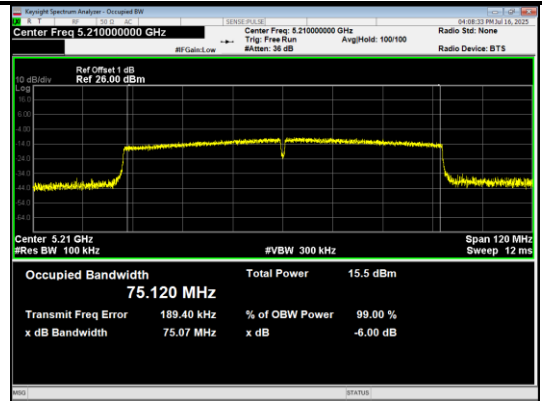
IEEE 802.11ac_Channel 48_20MHz_Antenna 0



IEEE 802.11ac_Channel 38_40MHz_Antenna 0



IEEE 802.11ac_Channel 46_40MHz_Antenna 0



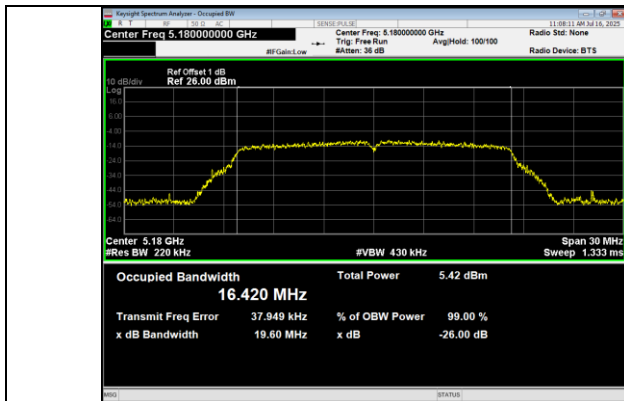
IEEE 802.11ac_Channel 42_80MHz_Antenna 0

26dB Bandwidth

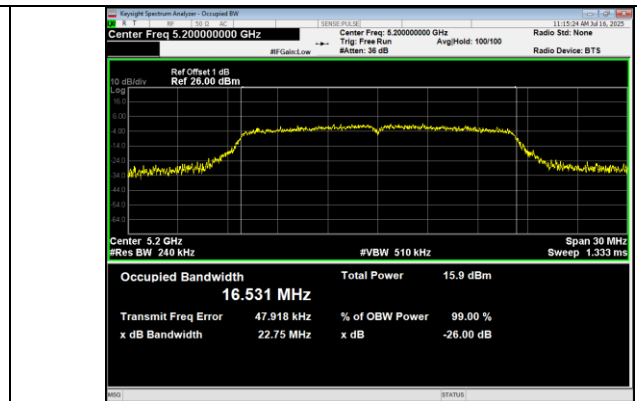
Test Result

Mode	Channel	Ant.	Center Frequency (MHz)	26 dB Bandwidth (MHz)	RBW/EBW
IEEE 802.11a	36	0	5180	19.60	1.12
	40		5200	22.75	1.11
	48		5240	23.68	1.06
IEEE 802.11n_20	36		5180	26.49	1.13
	40		5200	25.08	1.07
	48		5240	26.36	0.99
IEEE 802.11n_40	38		5190	49.14	1.04
	46		5230	44.37	1.15
IEEE 802.11ac_20	36		5180	22.60	1.01
	40		5200	23.20	1.03
	48		5240	20.34	1.14
IEEE 802.11ac_40	38		5190	44.95	1.13
	46		5230	40.83	1.04
IEEE 802.11ac_80	42		5210	94.52	1.06

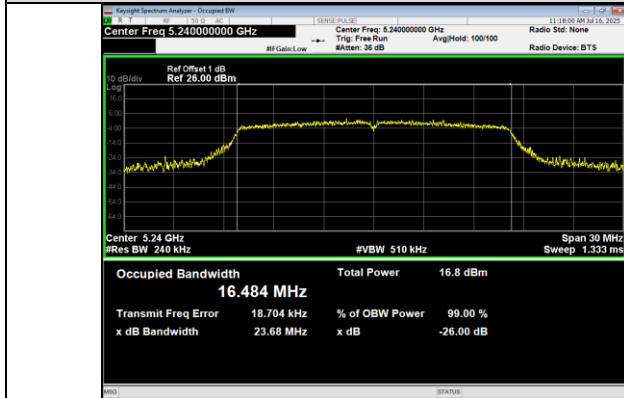
Test Graphs



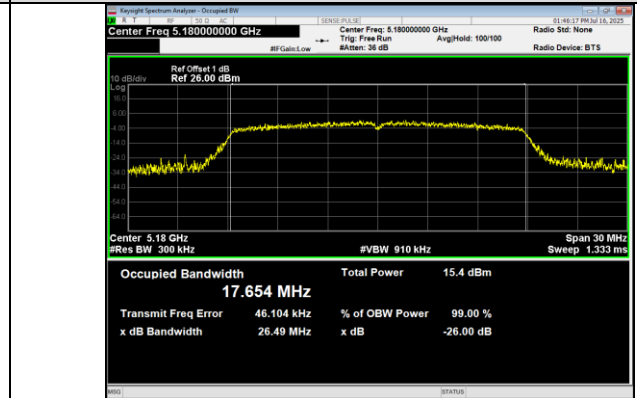
IEEE 802.11a_Channel 36_20MHz_Antenna 0



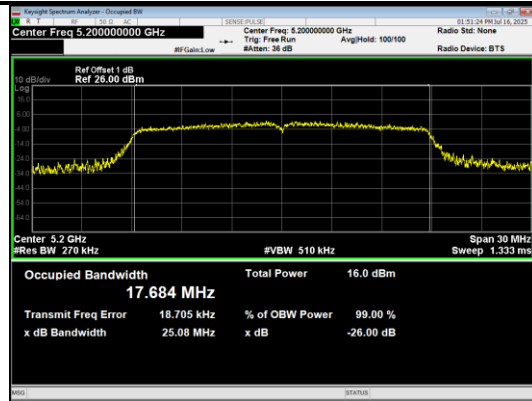
IEEE 802.11a_Channel 40_20MHz_Antenna 0



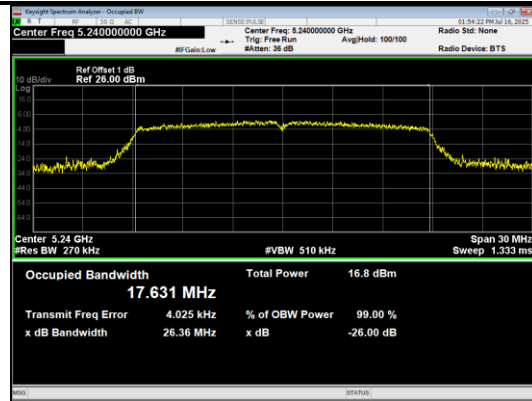
IEEE 802.11a_Channel 48_20MHz_Antenna 0



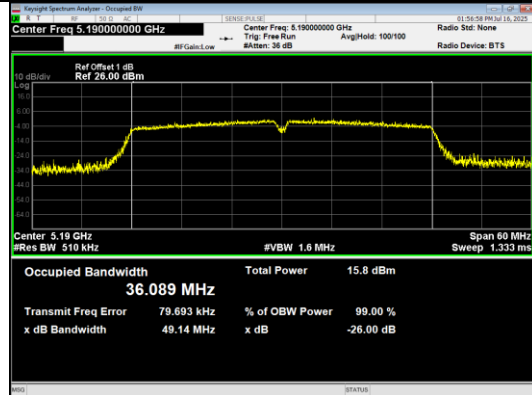
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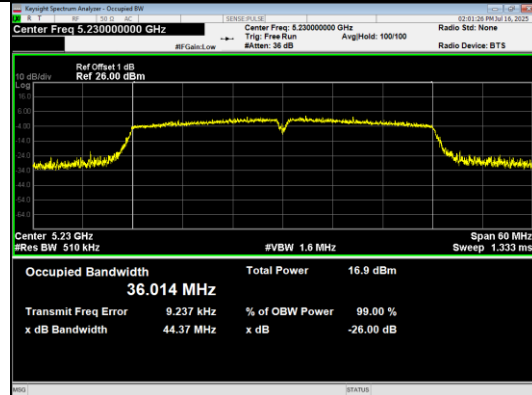
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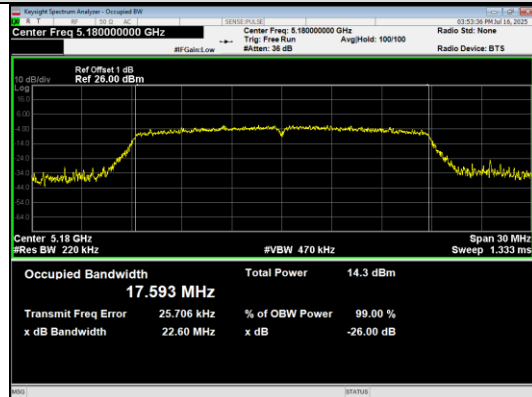
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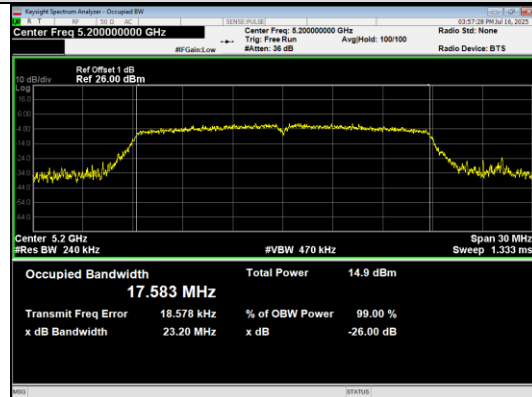
IEEE 802.11n_Channel 38_40MHz_Antenna 0



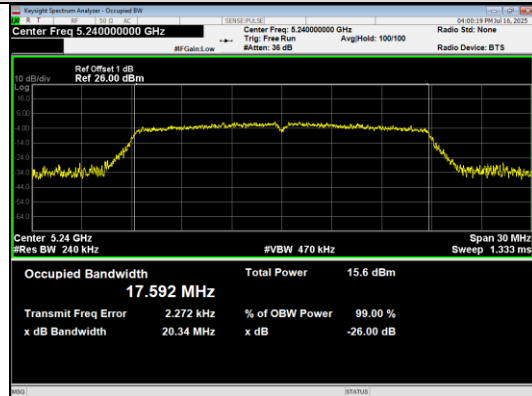
IEEE 802.11n_Channel 46_40MHz_Antenna 0



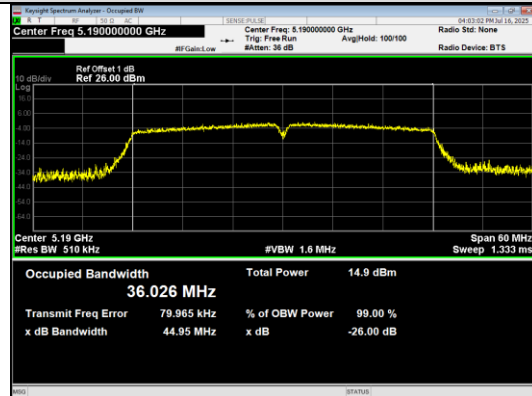
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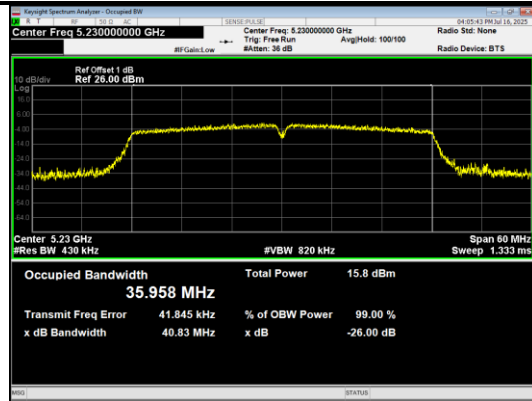
IEEE 802.11ac_Channel 40_20MHz_Antenna 0



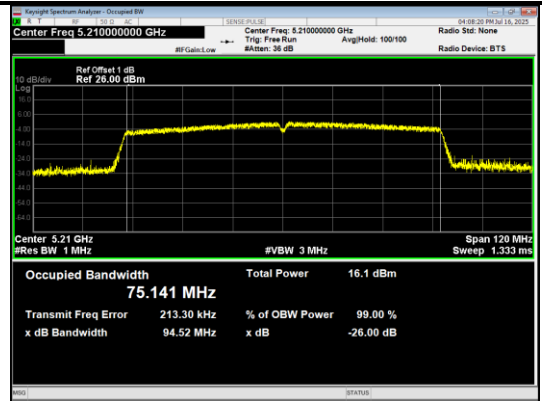
IEEE 802.11ac_Channel 48_20MHz_Antenna 0



IEEE 802.11ac_Channel 38_40MHz_Antenna 0



IEEE 802.11ac_Channel 46_40MHz_Antenna 0



IEEE 802.11ac_Channel 42_80MHz_Antenna 0

Conducted Out Of Band Emission

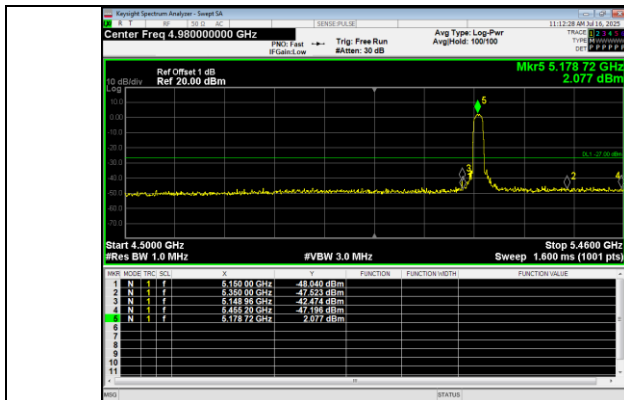
Test Result

Mode	Channel	Ant.	OOB Emission Frequency (MHz)	OOB Emission Level (dBm)	Limit (dBm)	Over Limit (dB)	Result
IEEE 802.11a	36	0	5147.18	-37.660	-27	-10.660	PASS
			5148.96	-42.474	-27	-15.000	PASS
			5150.00	-48.040	-27	-21.000	PASS
			5350.00	-47.520	-27	-21.000	PASS
			5455.20	-47.196	-27	-20.000	PASS
			24926.8	-55.140	-27	-28.140	PASS
	40		5147.31	-42.830	-27	-15.830	PASS
			5148.00	-42.024	-27	-15.000	PASS
			5150.00	-42.420	-27	-15.000	PASS
			5350.00	-48.770	-27	-22.000	PASS
			5460.00	-47.322	-27	-20.000	PASS
			24949.4	-54.470	-27	-27.470	PASS
	48		2471.09	-49.990	-27	-22.990	PASS
			5149.92	-48.536	-27	-22.000	PASS
			5150.00	-48.540	-27	-22.000	PASS
			5350.00	-48.600	-27	-22.000	PASS
			5460.00	-46.373	-27	-19.000	PASS
			20963.4	-53.370	-27	-26.370	PASS
IEEE 802.11n_20	36		5149.36	-32.210	-27	-5.210	PASS
			5150.00	-33.040	-27	-6.000	PASS
			5350.00	-48.130	-27	-21.000	PASS
			5457.12	-47.531	-27	-21.000	PASS
			24962.2	-54.570	-27	-27.570	PASS
			5146.54	-44.060	-27	-17.060	PASS
	40		5148.96	-41.814	-27	-15.000	PASS
			5150.00	-42.560	-27	-16.000	PASS
			5350.00	-47.040	-27	-20.000	PASS
			5412.96	-46.880	-27	-20.000	PASS
			24993.6	-54.700	-27	-27.700	PASS
			5148.96	-48.764	-27	-22.000	PASS
48	5149.87		-53.460	-27	-26.460	PASS	
	5150.00		-49.010	-27	-22.000	PASS	
	5350.00		-48.730	-27	-22.000	PASS	
	5457.12		-48.085	-27	-21.000	PASS	
	20968.3		-53.610	-27	-26.610	PASS	
	5147.57		-30.910	-27	-3.910	PASS	
IEEE 802.11n_40	38		5150.00	-30.110	-27	-3.000	PASS
			5350.00	-47.020	-27	-20.000	PASS
			5392.80	-46.963	-27	-20.000	PASS
			24972.5	-54.520	-27	-27.520	PASS
			5148.08	-41.710	-27	-14.710	PASS
			5148.96	-42.499	-27	-15.000	PASS
	46		5150.00	-43.930	-27	-17.000	PASS
			5350.00	-48.020	-27	-21.000	PASS
			5460.00	-47.644	-27	-21.000	PASS
			5803.91	-44.110	-27	-17.110	PASS
			5147.70	-36.810	-27	-9.810	PASS
			5149.92	-37.597	-27	-11.000	PASS
IEEE 802.11ac_20	36	5150.00	-37.600	-27	-11.000	PASS	
		5350.00	-49.130	-27	-22.000	PASS	
		5459.04	-48.219	-27	-21.000	PASS	
		24416.4	-54.870	-27	-27.870	PASS	
		5147.70	-41.500	-27	-14.500	PASS	
		5149.92	-46.519	-27	-20.000	PASS	
	40	5150.00	-46.520	-27	-20.000	PASS	

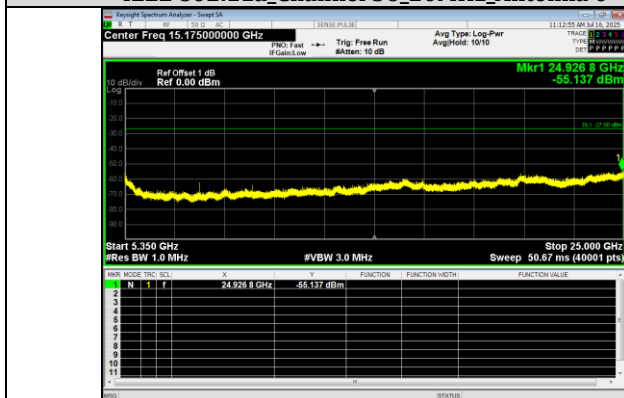


	48	5350.00	-46.130	-27	-19.000	PASS
		5399.52	-46.067	-27	-19.000	PASS
		24960.7	-54.370	-27	-27.370	PASS
		5147.04	-47.991	-27	-21.000	PASS
		5147.70	-54.670	-27	-27.670	PASS
		5150.00	-48.130	-27	-21.000	PASS
		5350.00	-47.690	-27	-21.000	PASS
		5353.93	-53.740	-27	-26.740	PASS
		5453.28	-47.443	-27	-20.000	PASS
		5147.82	-33.760	-27	-6.760	PASS
IEEE 802.11ac_40	38	5149.92	-31.969	-27	-5.000	PASS
		5150.00	-31.970	-27	-5.000	PASS
		5350.00	-48.090	-27	-21.000	PASS
		5458.08	-47.050	-27	-20.000	PASS
		24981.8	-54.110	-27	-27.110	PASS
	46	5143.73	-43.730	-27	-16.730	PASS
		5147.04	-44.936	-27	-18.000	PASS
		5150.00	-44.990	-27	-18.000	PASS
		5350.00	-46.360	-27	-19.000	PASS
		5352.46	-52.710	-27	-25.710	PASS
IEEE 802.11ac_80	42	5383.20	-46.349	-27	-19.000	PASS
		5146.42	-31.560	-27	-4.560	PASS
		5149.92	-32.368	-27	-5.000	PASS
		5150.00	-32.370	-27	-5.000	PASS
		5350.00	-41.550	-27	-15.000	PASS
		5354.40	-40.455	-27	-13.000	PASS
		5355.90	-41.530	-27	-14.530	PASS

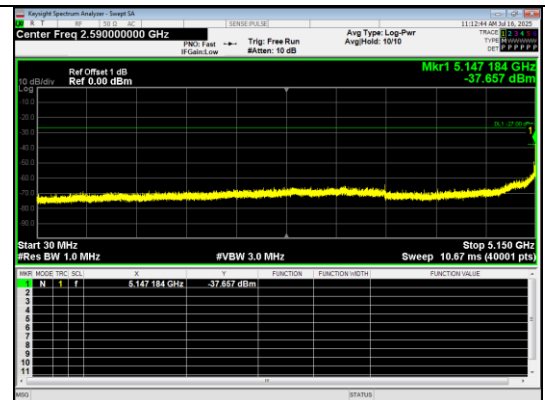
Test Graphs



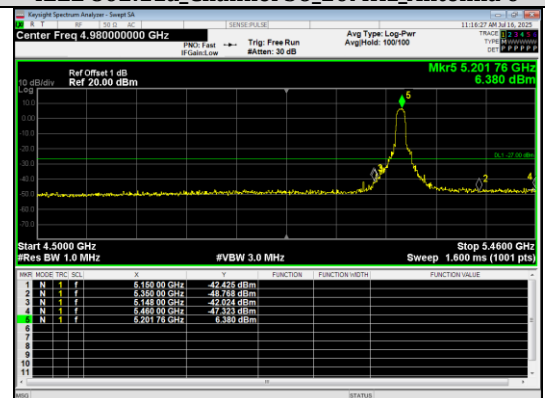
Out Of Band Emission
IEEE 802.11a_Channel 36_20MHz_Antenna 0



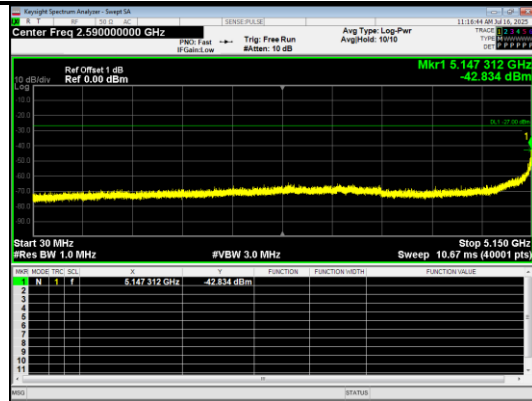
Spurious Emission:5350~25000.0 MHz
IEEE 802.11a_Channel 36_20MHz_Antenna 0



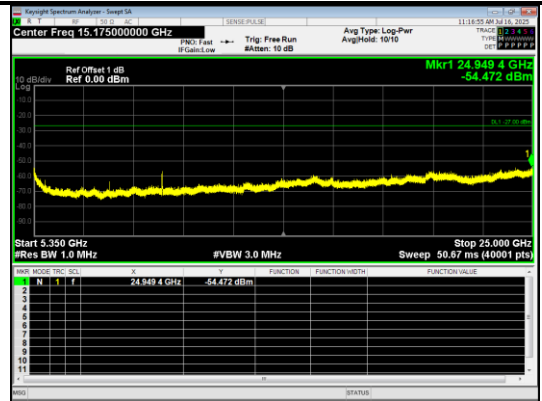
Spurious Emission:30.0~5150 MHz
IEEE 802.11a_Channel 36_20MHz_Antenna 0



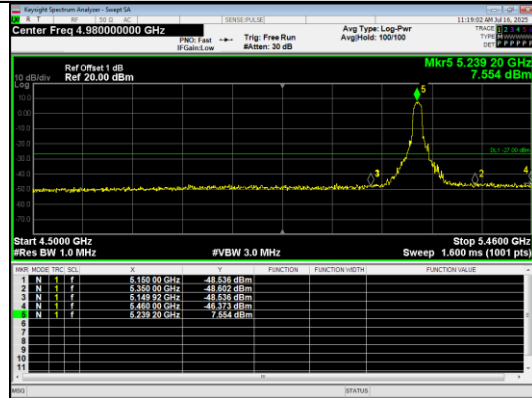
Out Of Band Emission
IEEE 802.11a_Channel 40_20MHz_Antenna 0



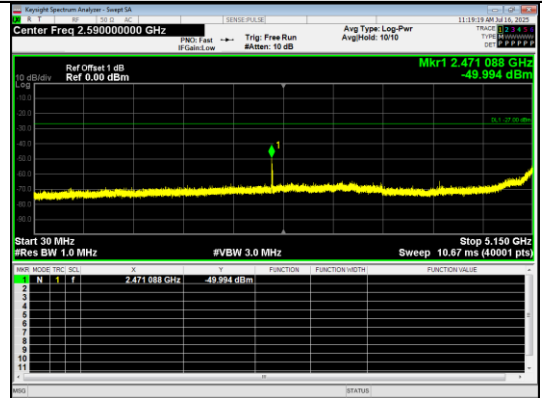
Spurious Emission:30.0~5150 MHz
IEEE 802.11a_Channel 40_20MHz_Antenna 0



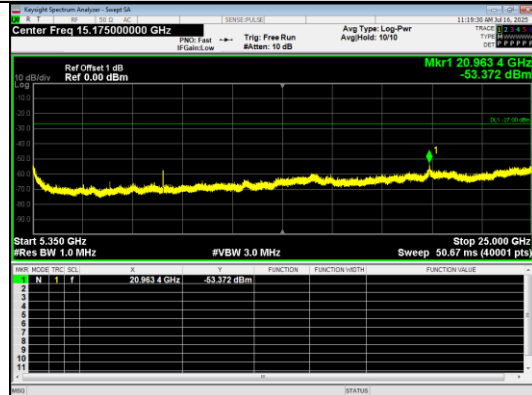
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IEEE 802.11a_Channel 40_20MHz_Antenna 0



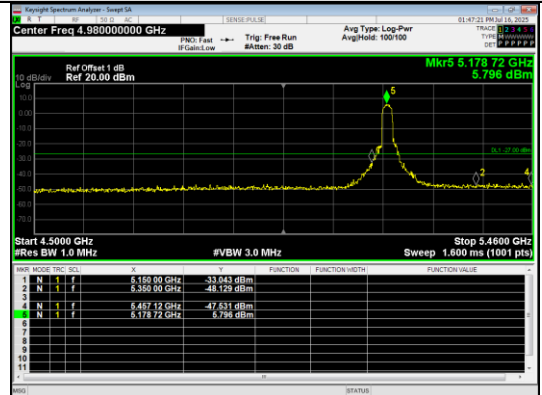
Out Of Band Emission
IEEE 802.11a_Channel 48_20MHz_Antenna 0



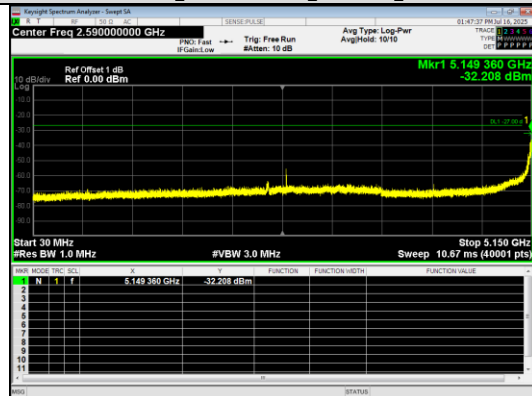
Spurious Emission:30.0~5150 MHz
IEEE 802.11a_Channel 48_20MHz_Antenna 0



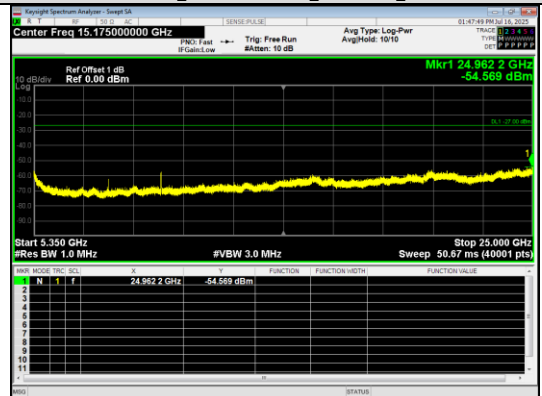
Spurious Emission:5350~25000.0 MHz
IEEE 802.11a_Channel 48_20MHz_Antenna 0



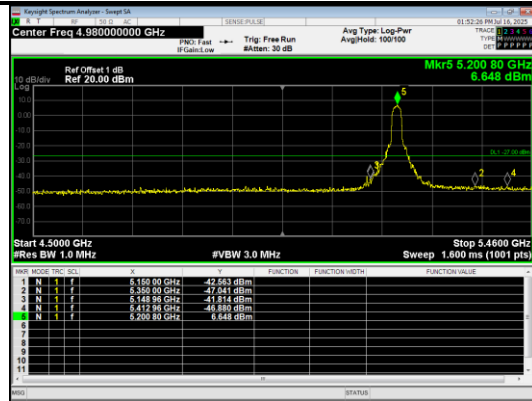
Out Of Band Emission
IEEE 802.11n_Channel 36_20MHz_Antenna 0



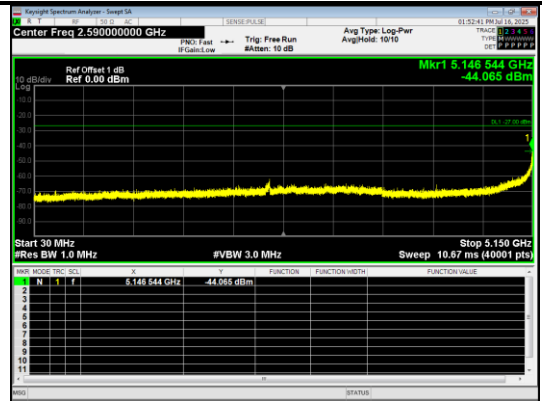
Spurious Emission:30.0~5150 MHz
IEEE 802.11n_Channel 36_20MHz_Antenna 0



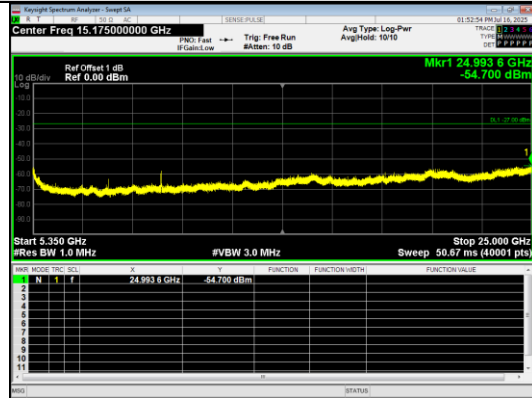
Spurious Emission:5350~25000.0 MHz
IEEE 802.11n_Channel 36_20MHz_Antenna 0



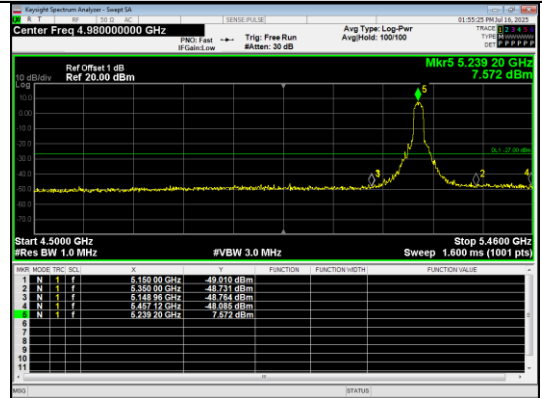
Out Of Band Emission
IEEE 802.11n_Channel 40_20MHz_Antenna 0



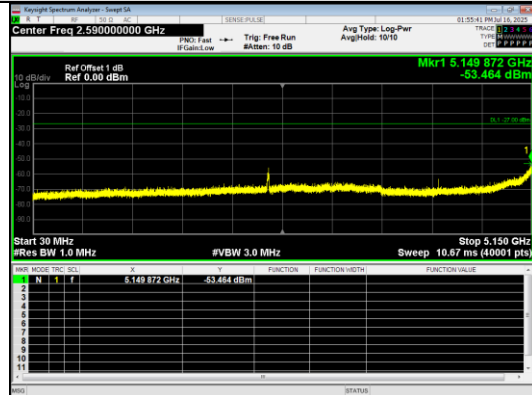
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IEEE 802.11n_Channel 40_20MHz_Antenna 0



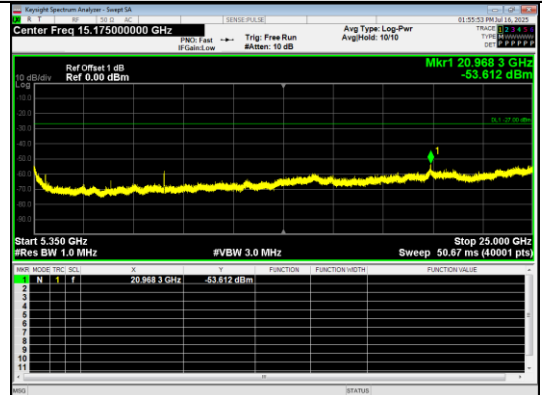
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IEEE 802.11n_Channel 40_20MHz_Antenna 0



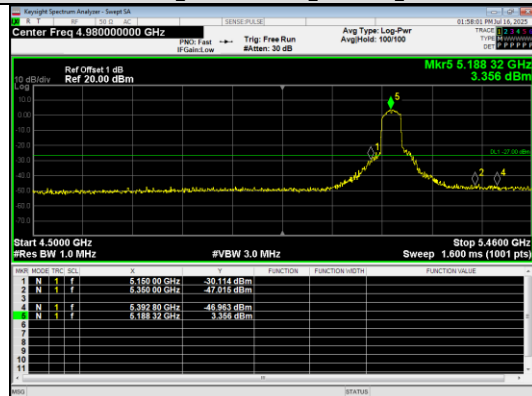
Out Of Band Emission
IEEE 802.11n_Channel 48_20MHz_Antenna 0



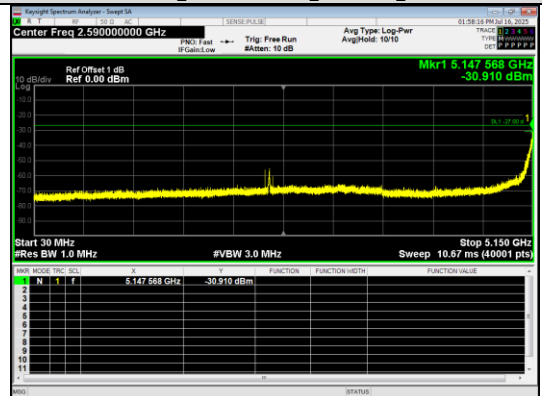
Spurious Emission:30.0~5150 MHz
IEEE 802.11n_Channel 48_20MHz_Antenna 0



Spurious Emission:5350~25000.0 MHz
IEEE 802.11n_Channel 48_20MHz_Antenna 0



Out Of Band Emission
IEEE 802.11n_Channel 38_40MHz_Antenna 0



Spurious Emission:30.0~5150 MHz
IEEE 802.11n_Channel 38_40MHz_Antenna 0