

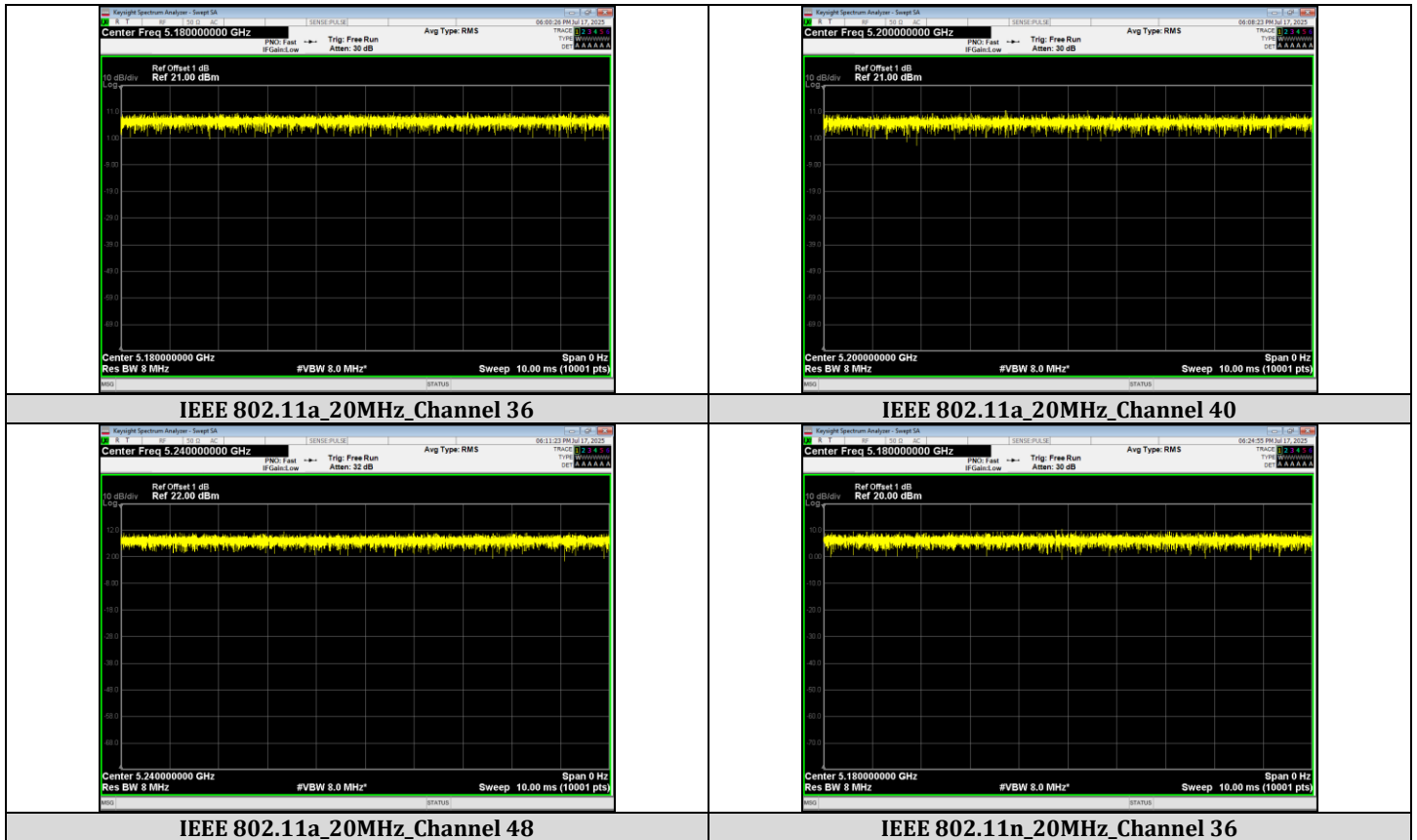
Appendix RF test data for 5G WIFI_NII band 1

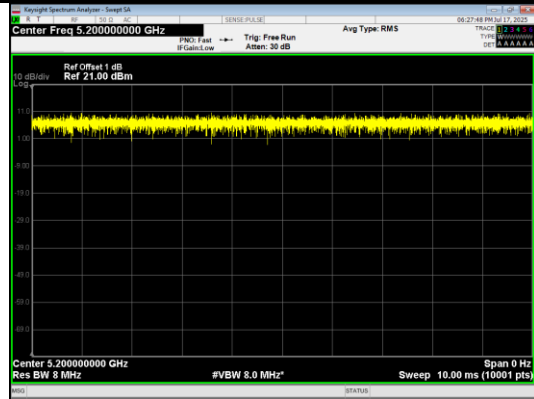


Duty Cycle Test Result

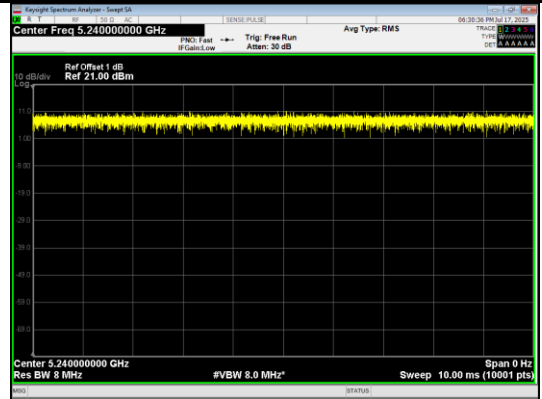
Mode	Data rates	Channel	Antenna	On Time (ms)	Period (ms)	Duty Cycle (%)	Duty Cycle (linear)	Duty Cycle Factor (dB)	1/T
IEEE 802.11a	6	36	1	10.000	10.000	100	1	0.0	0.1000
		40		10.000	10.000	100	1	0.0	0.1000
		48		10.000	10.000	100	1	0.0	0.1000
IEEE 802.11n_20	36	10.000		10.000	100	1	0.0	0.1000	
	40	10.000		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

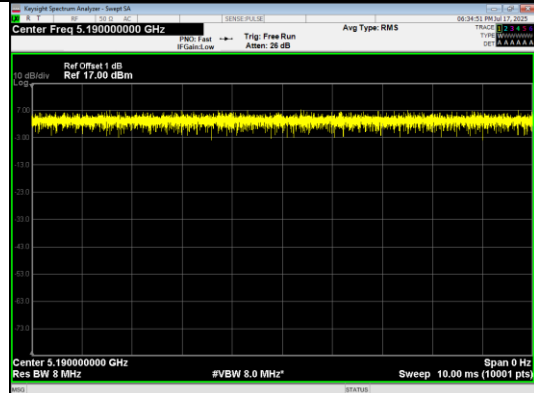




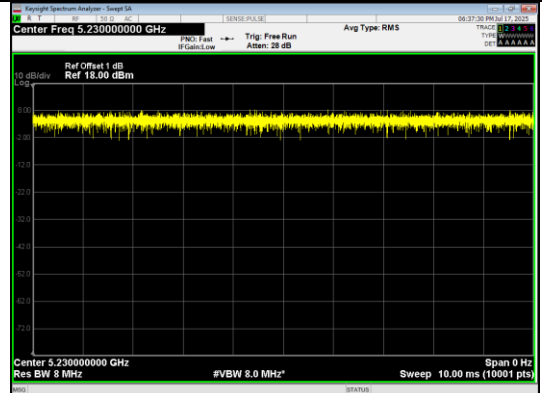
IEEE 802.11n 20MHz_Channel 40



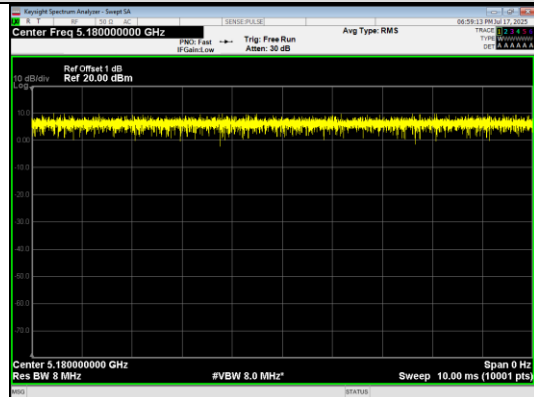
IEEE 802.11n 20MHz_Channel 48



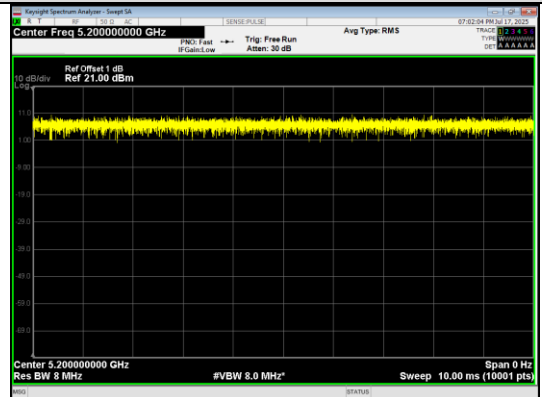
IEEE 802.11n 40MHz_Channel 38



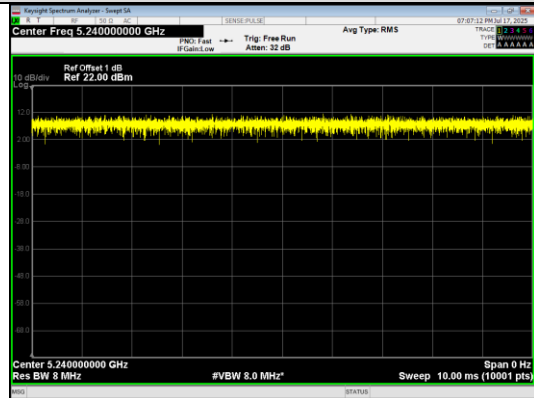
IEEE 802.11n 40MHz_Channel 46



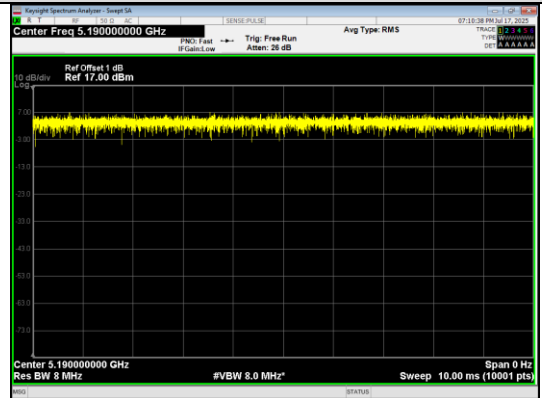
IEEE 802.11ac 20MHz_Channel 36



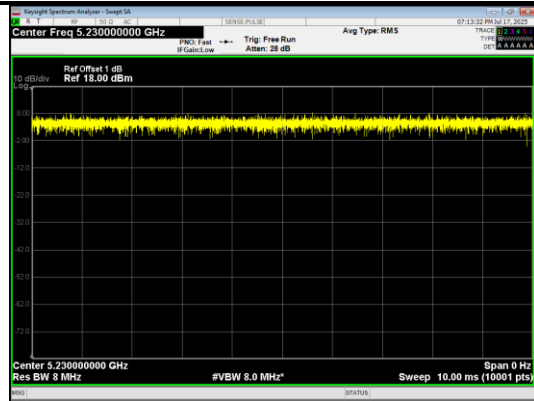
IEEE 802.11ac 20MHz_Channel 40



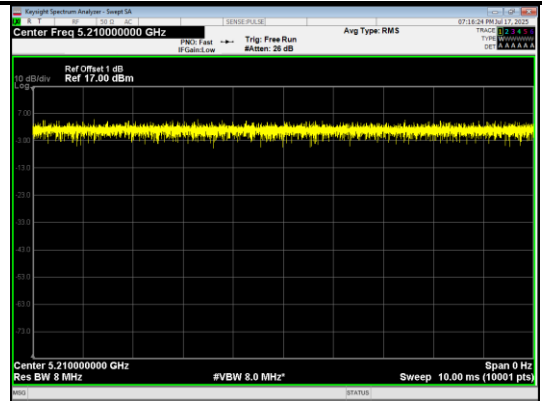
IEEE 802.11ac 20MHz_Channel 48



IEEE 802.11ac 40MHz_Channel 38



IEEE 802.11ac_40MHz_Channel 46



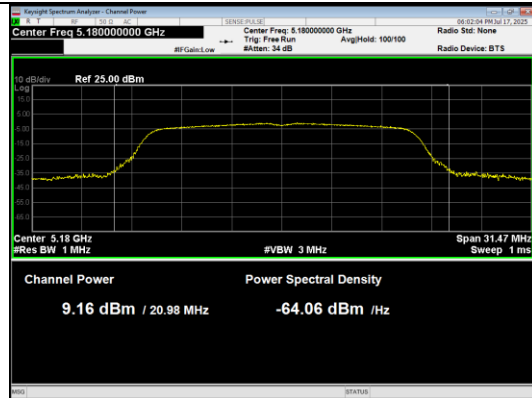
IEEE 802.11ac_80MHz_Channel 42

Conducted Output Power

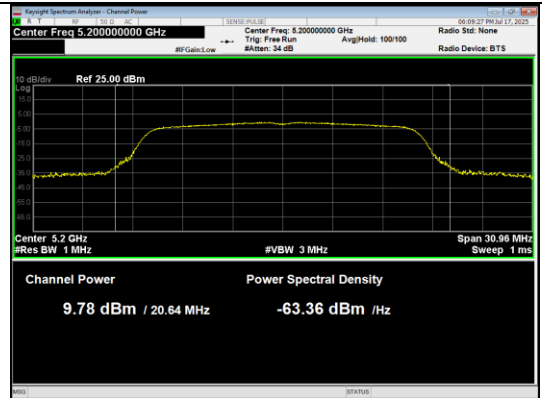
Conducted output power

Mode	Channel	Ant. 0 (dBm)	Corr'd Value Ant. 0 (dBm)	Limit (dBm)	Result
IEEE 802.11a	36	9.16	9.16	≤24	PASS
	40	9.78	9.78	≤24	PASS
	48	10.51	10.51	≤24	PASS
IEEE 802.11n_20	36	9.29	9.29	≤24	PASS
	40	9.59	9.59	≤24	PASS
	48	10.28	10.28	≤24	PASS
IEEE 802.11n_40	38	9.29	9.29	≤24	PASS
	46	10.03	10.03	≤24	PASS
IEEE 802.11ac_20	36	9.31	9.31	≤24	PASS
	40	9.48	9.48	≤24	PASS
	48	10.36	10.36	≤24	PASS
IEEE 802.11ac_40	38	9.30	9.3	≤24	PASS
	46	10.14	10.14	≤24	PASS
IEEE 802.11ac_80	42	9.73	9.73	≤24	PASS

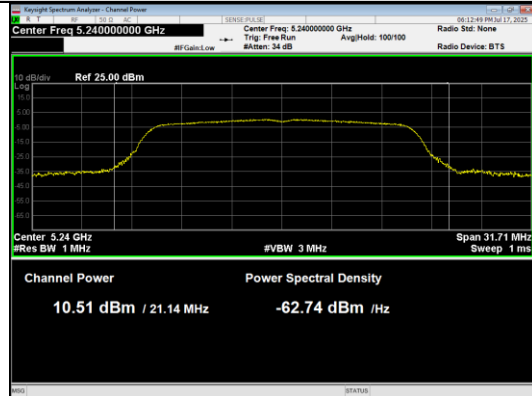
Note: Corrected Value = Antenna Power + Duty Cycle Factor.



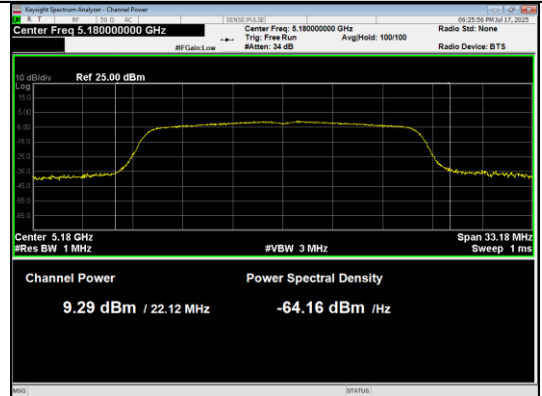
Conducted AVG output power
IEEE 802.11a_Channel 36_Antenna 0



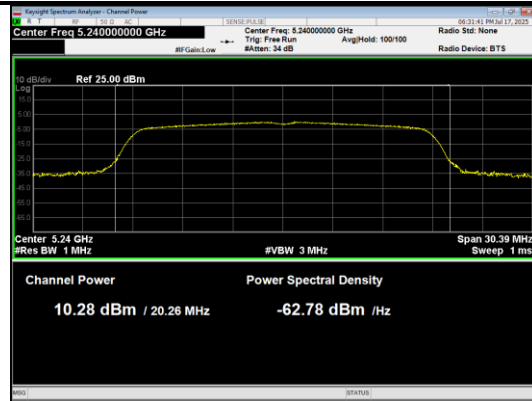
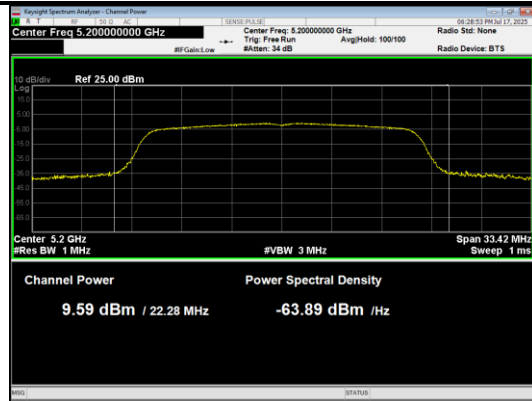
Conducted AVG output power
IEEE 802.11a_Channel 40_Antenna 0



Conducted AVG output power
IEEE 802.11a_Channel 48_Antenna 0

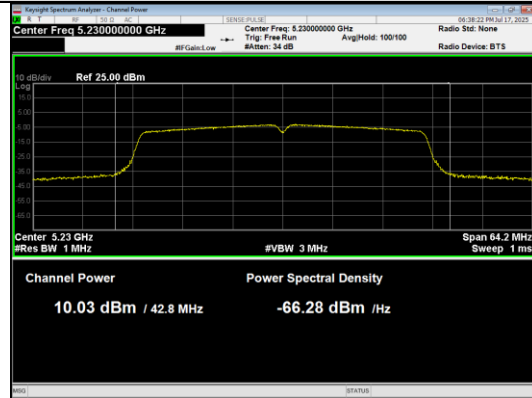
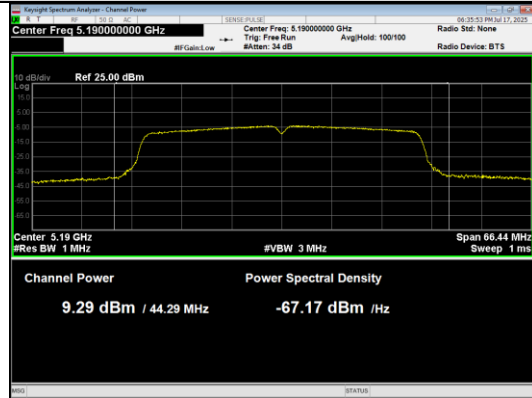


Conducted AVG output power
IEEE 802.11n_20_Channel 36_Antenna 0



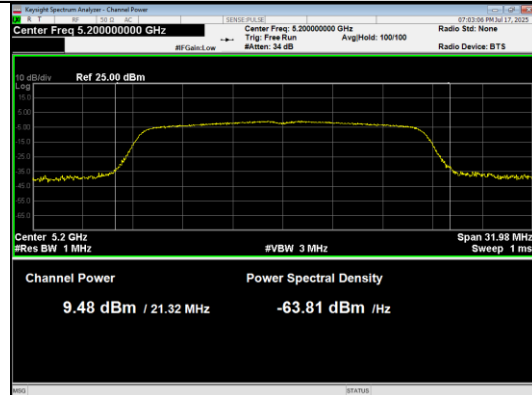
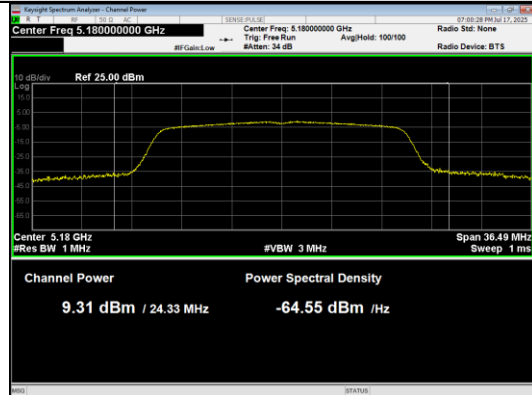
Conducted AVG output power
IEEE 802.11n_20_Channel 40_Antenna 0

Conducted AVG output power
IEEE 802.11n_20_Channel 48_Antenna 0



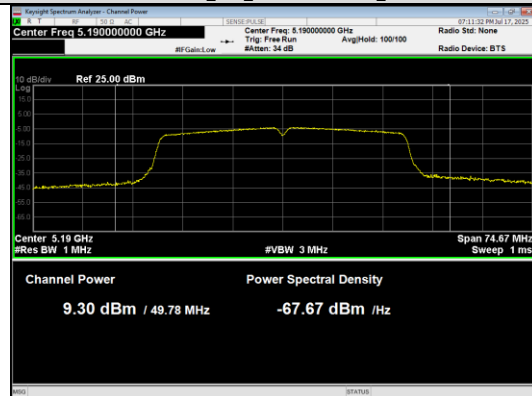
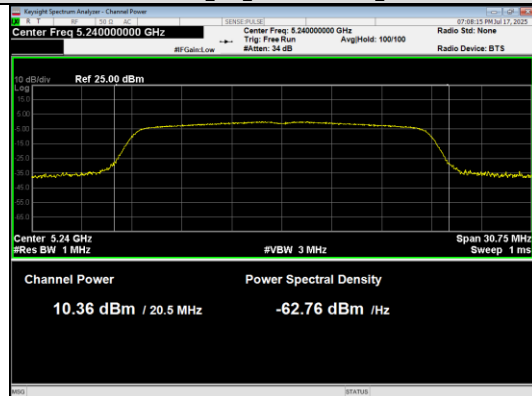
Conducted AVG output power
IEEE 802.11n_40_Channel 38_Antenna 0

Conducted AVG output power
IEEE 802.11n_40_Channel 46_Antenna 0



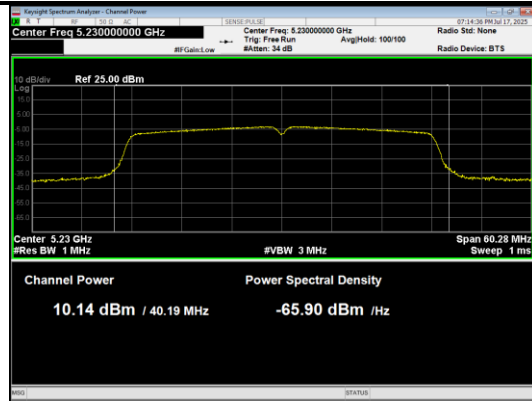
Conducted AVG output power
IEEE 802.11ac_20_Channel 36_Antenna 0

Conducted AVG output power
IEEE 802.11ac_20_Channel 40_Antenna 0

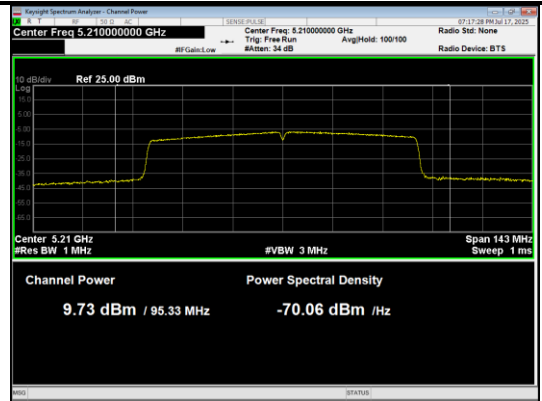


Conducted AVG output power
IEEE 802.11ac_20_Channel 48_Antenna 0

Conducted AVG output power
IEEE 802.11ac_40_Channel 38_Antenna 0



Conducted AVG output power
IEEE 802.11ac_40_Channel 46_Antenna 0



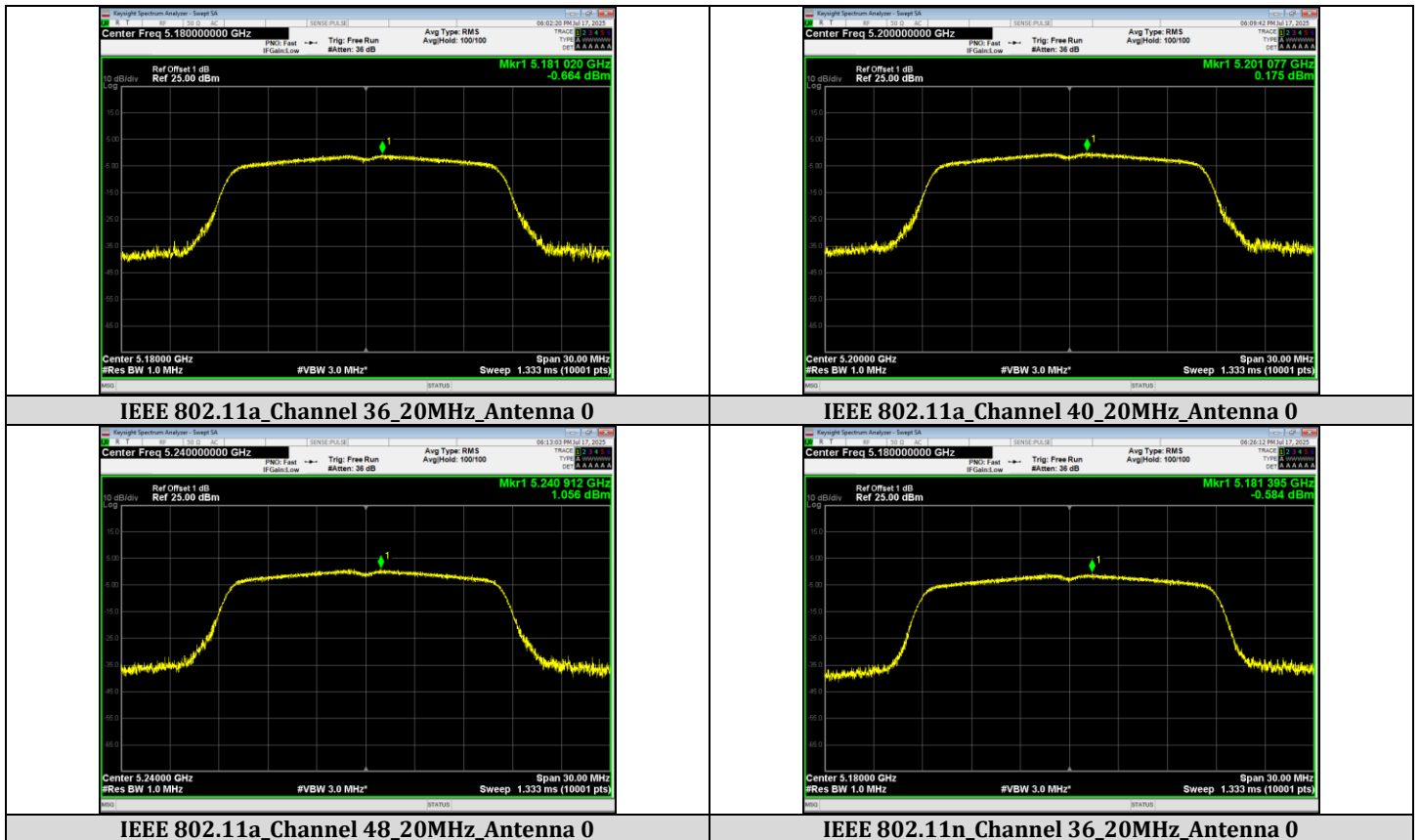
Conducted AVG output power
IEEE 802.11ac_80_Channel 42_Antenna 0

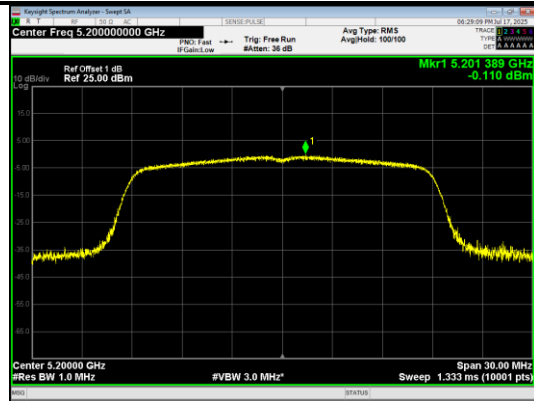
Peak Power Spectral Density

Test Result

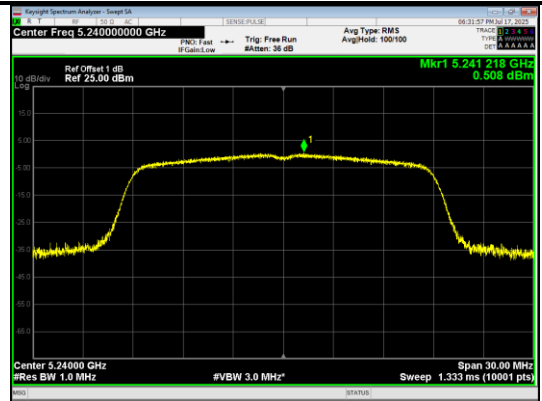
Mode	Channel	Ant. 0 Meas PSD (dBm/MHz or dBm/0.5MHz)	Ant. 0 Corr'd PSD (dBm/MHz or dBm/0.5MHz)	Limit (dBm/MHz or dBm/0.5MHz)	Result
IEEE 802.11a	36	-0.660	-0.66	11	PASS
	40	0.170	0.17		PASS
	48	1.060	1.06		PASS
IEEE 802.11n_20	36	-0.580	-0.58		PASS
	40	-0.110	-0.11		PASS
	48	0.510	0.51		PASS
IEEE 802.11n_40	38	-3.500	-3.5		PASS
	46	-2.650	-2.65		PASS
IEEE 802.11ac_20	36	-0.670	-0.67		PASS
	40	-0.360	-0.36		PASS
	48	0.510	0.51		PASS
IEEE 802.11ac_40	38	-3.380	-3.38		PASS
	46	-2.310	-2.31		PASS
IEEE 802.11ac_80	42	-5.970	-5.97		PASS

Test Graphs

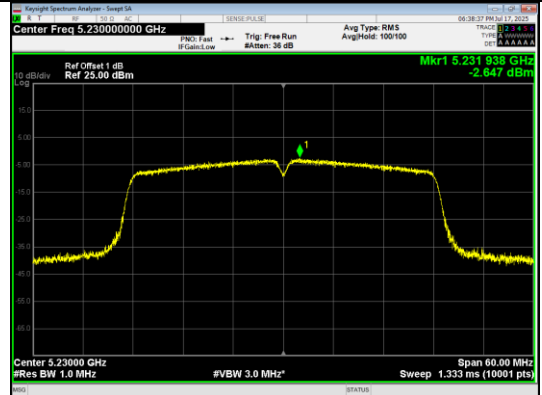
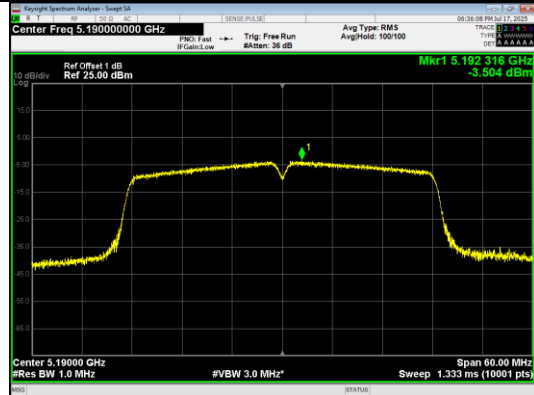




IEEE 802.11n_Channel 40_20MHz_Antenna 0

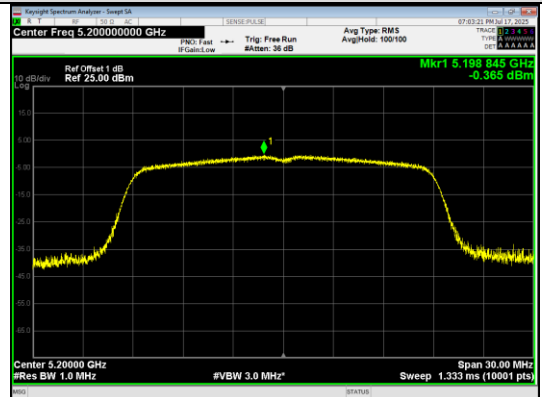
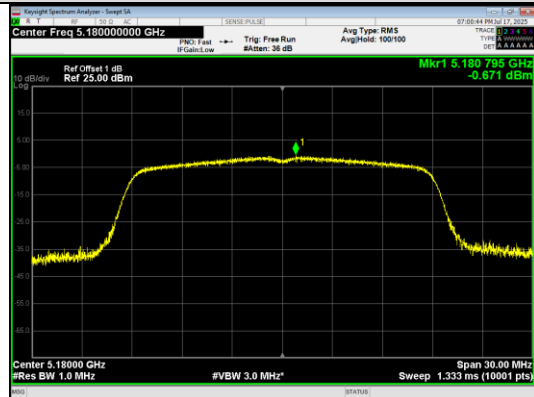


IEEE 802.11n_Channel 48_20MHz_Antenna 0



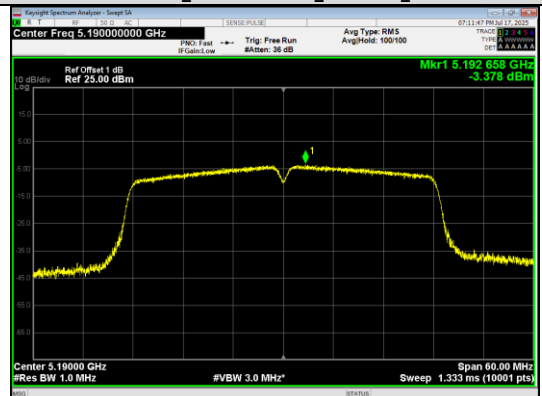
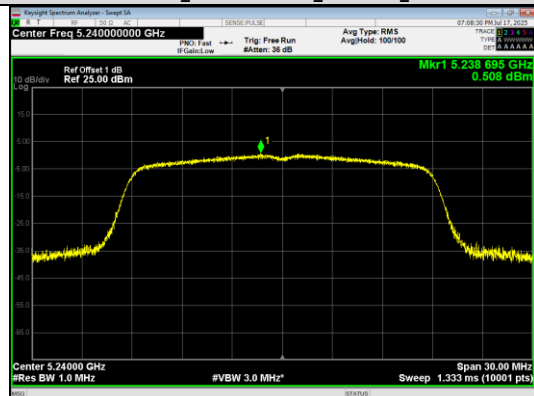
IEEE 802.11n_Channel 38_40MHz_Antenna 0

IEEE 802.11n_Channel 46_40MHz_Antenna 0



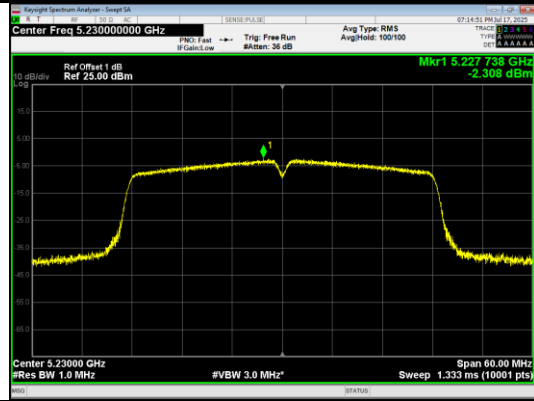
IEEE 802.11ac_Channel 36_20MHz_Antenna 0

IEEE 802.11ac_Channel 40_20MHz_Antenna 0

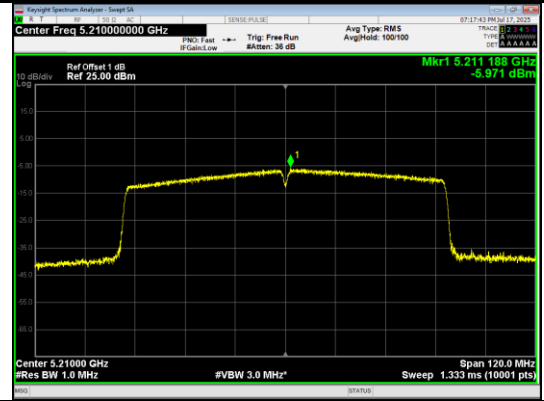


IEEE 802.11ac_Channel 48_20MHz_Antenna 0

IEEE 802.11ac_Channel 38_40MHz_Antenna 0



IEEE 802.11ac_Channel 46_40MHz_Antenna 0



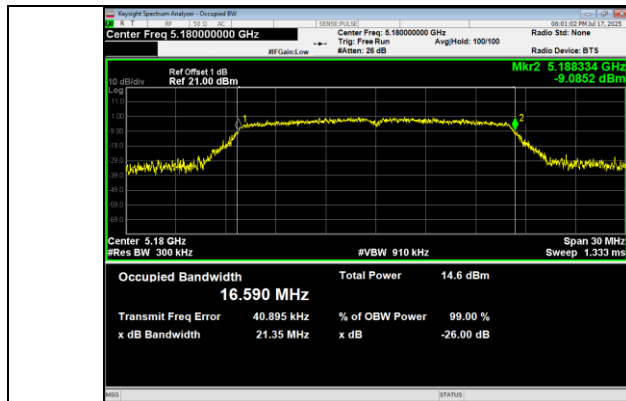
IEEE 802.11ac_Channel 42_80MHz_Antenna 0

99% Bandwidth

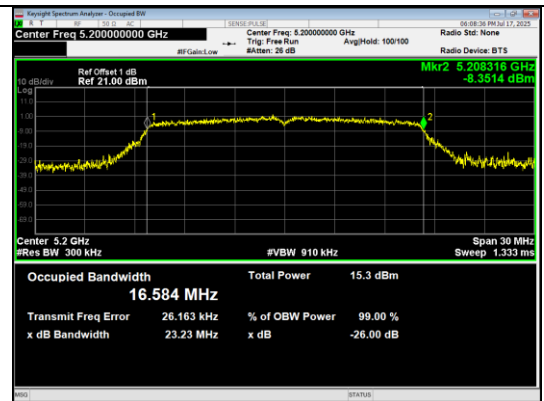
Test Result

Mode	Channel	Ant.	Center Frequency (MHz)	99% BW (MHz)
IEEE 802.11a	36	0	5180	16.590
	40		5200	16.584
	48		5240	16.529
IEEE 802.11n_20	36		5180	17.682
	40		5200	17.671
	48		5240	17.633
IEEE 802.11n_40	38		5190	36.021
	46		5230	35.970
IEEE 802.11ac_20	36		5180	17.666
	40		5200	17.647
	48		5240	17.669
IEEE 802.11ac_40	38		5190	36.014
	46		5230	35.991
IEEE 802.11ac_80	42		5210	75.140

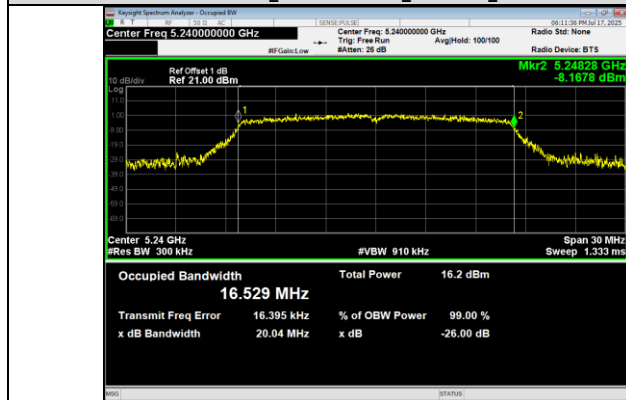
Test Graphs



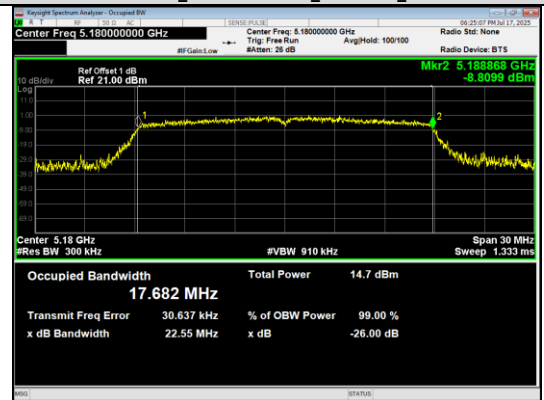
IEEE 802.11a_Channel 36_20MHz_Antenna 0



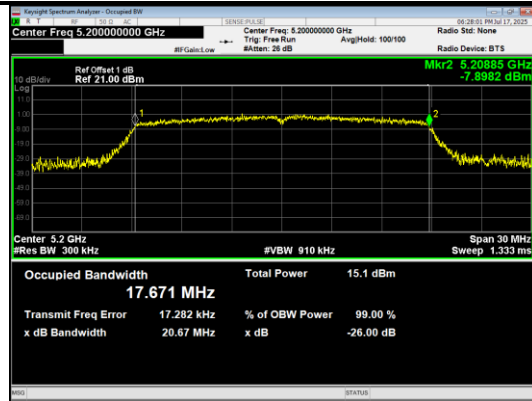
IEEE 802.11a_Channel 40_20MHz_Antenna 0



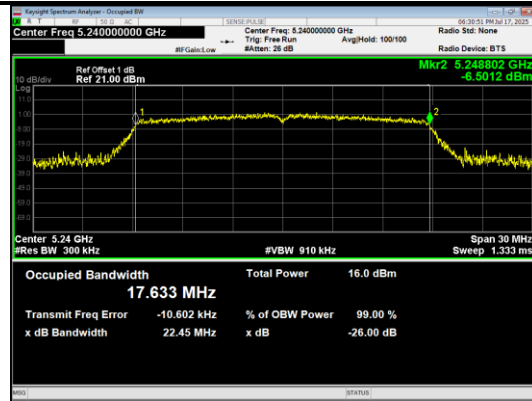
IEEE 802.11a_Channel 48_20MHz_Antenna 0



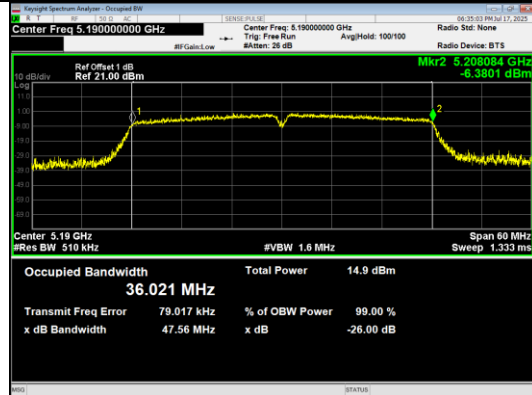
IEEE 802.11n_Channel 36_20MHz_Antenna 0



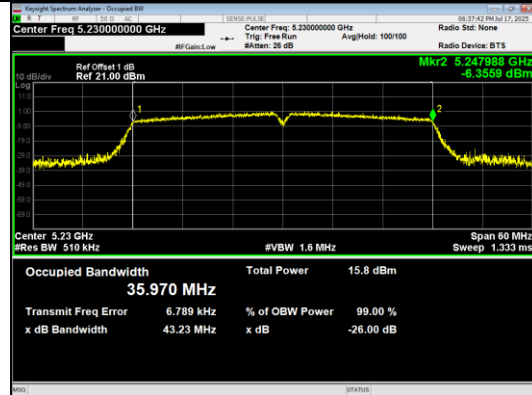
IEEE 802.11n_Channel 40_20MHz_Antenna 0



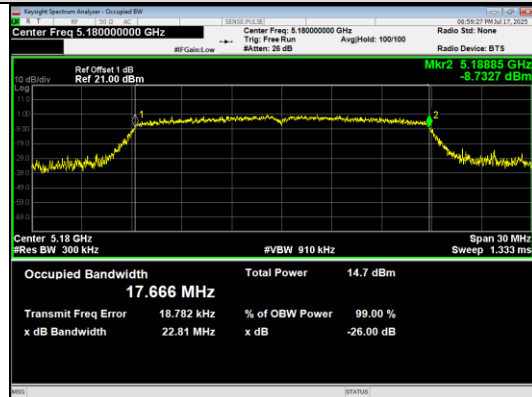
IEEE 802.11n_Channel 48_20MHz_Antenna 0



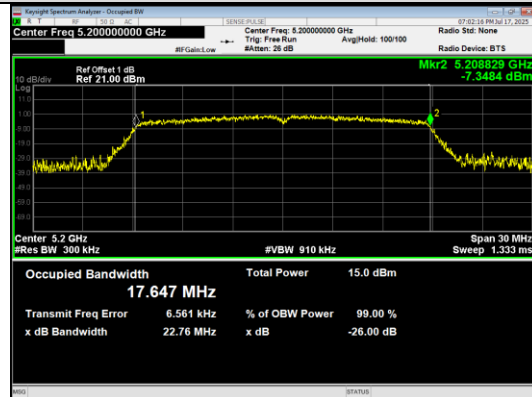
IEEE 802.11n_Channel 38_40MHz_Antenna 0



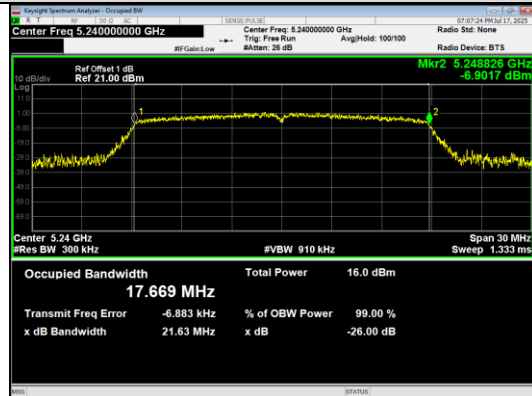
IEEE 802.11n_Channel 46_40MHz_Antenna 0



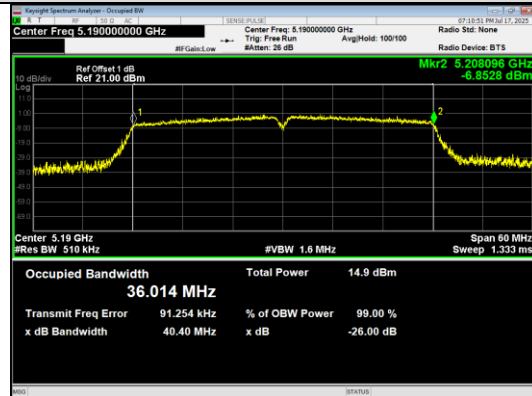
IEEE 802.11ac_Channel 36_20MHz_Antenna 0



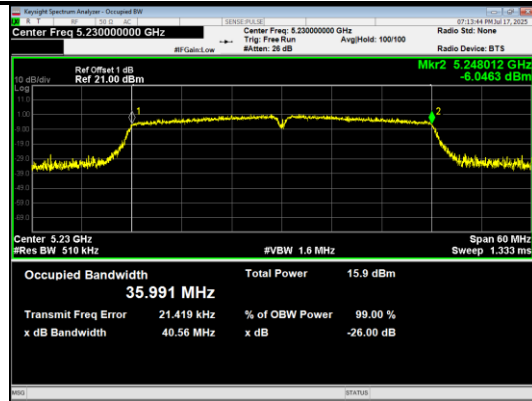
IEEE 802.11ac_Channel 40_20MHz_Antenna 0



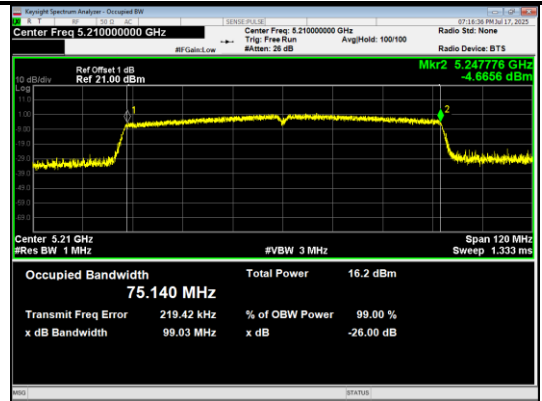
IEEE 802.11ac_Channel 48_20MHz_Antenna 0



IEEE 802.11ac_Channel 38_40MHz_Antenna 0



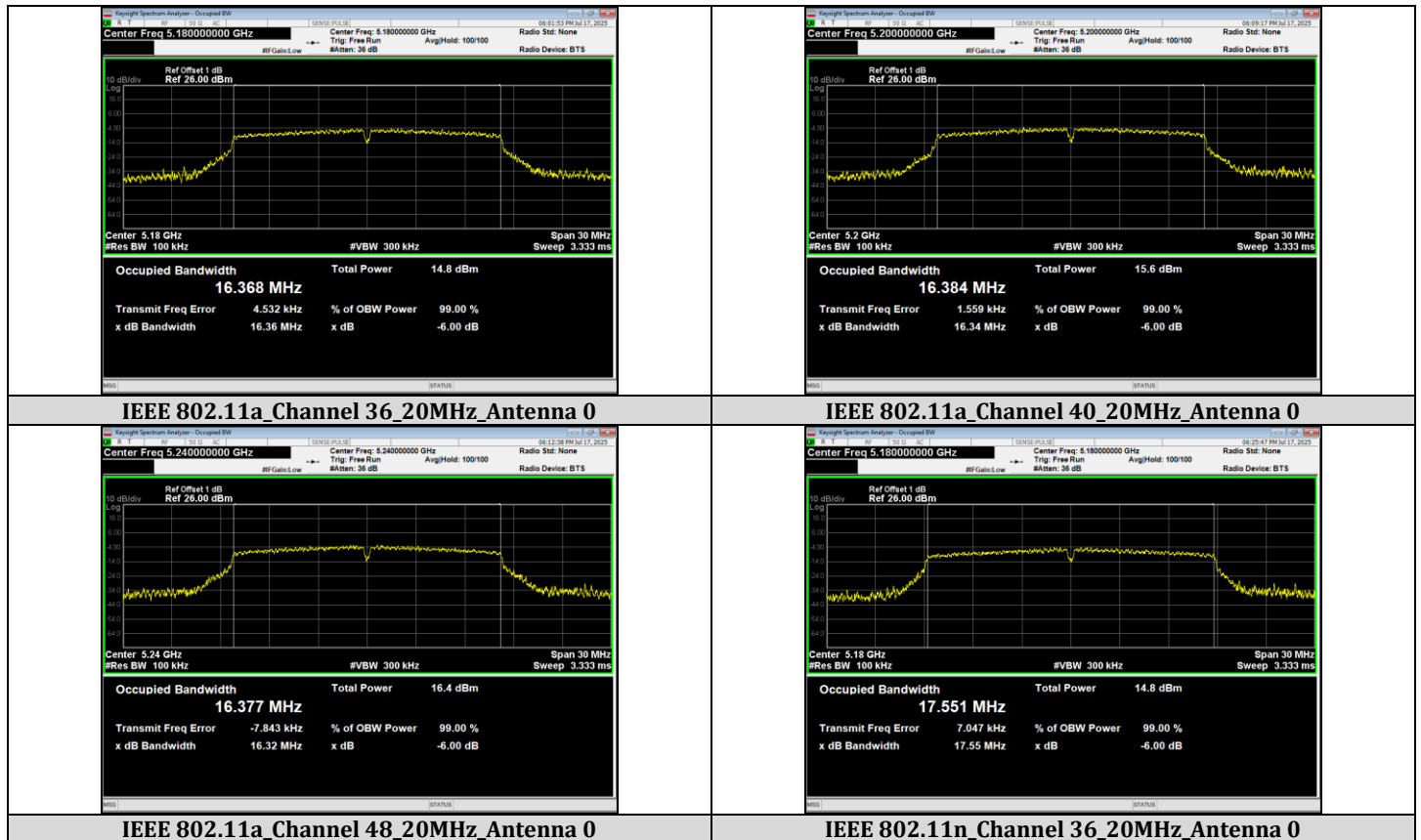
IEEE 802.11ac_Channel 46_40MHz_Antenna 0

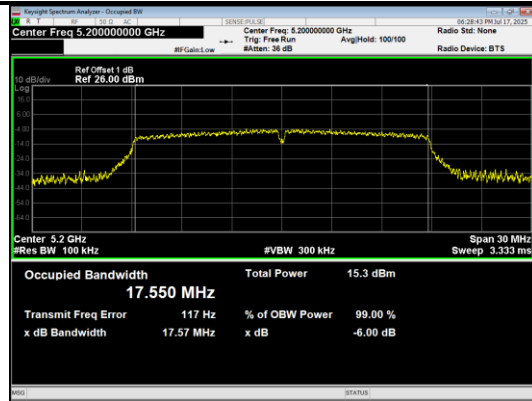


IEEE 802.11ac_Channel 42_80MHz_Antenna 0

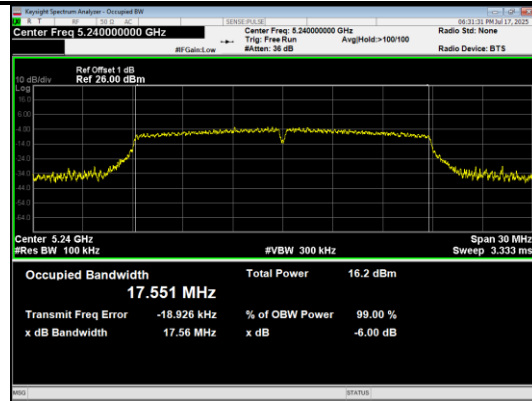
**6dB Bandwidth****Test Result**

Mode	Channel	Ant.	Center Frequency (MHz)	6 dB Bandwidth (MHz)	Limit (MHz)	Result
IEEE 802.11a	36	0	5180	16.36	≥0.5	PASS
	40		5200	16.34		PASS
	48		5240	16.32		PASS
IEEE 802.11n_20	36		5180	17.55		PASS
	40		5200	17.57		PASS
	48		5240	17.56		PASS
IEEE 802.11n_40	38		5190	35.93		PASS
	46		5230	36.28		PASS
IEEE 802.11ac_20	36		5180	17.56		PASS
	40		5200	17.56		PASS
	48		5240	17.58		PASS
IEEE 802.11ac_40	38		5190	35.42		PASS
	46		5230	36.06		PASS
IEEE 802.11ac_80	42		5210	74.07		PASS

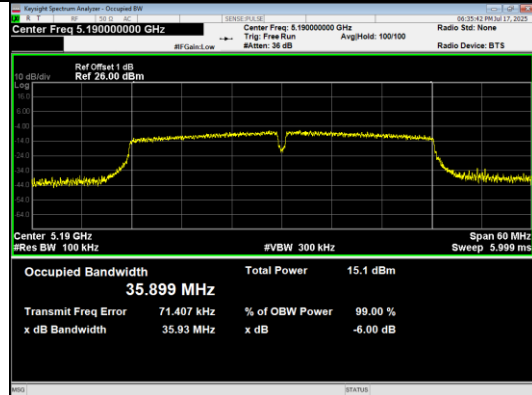
Test Graphs



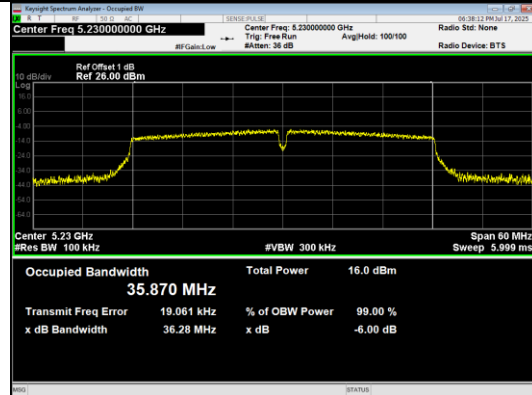
IEEE 802.11n_Channel 40_20MHz_Antenna 0



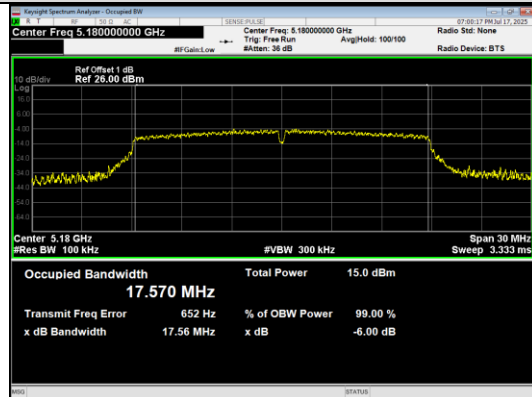
IEEE 802.11n_Channel 48_20MHz_Antenna 0



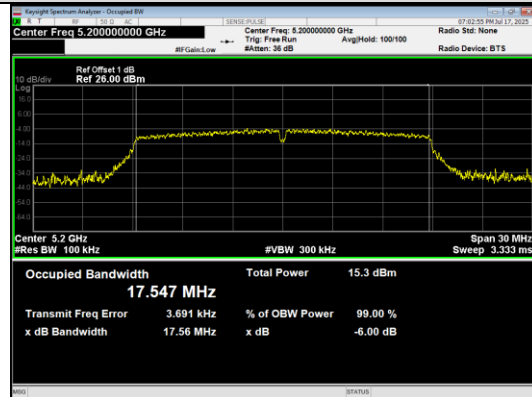
IEEE 802.11n_Channel 38_40MHz_Antenna 0



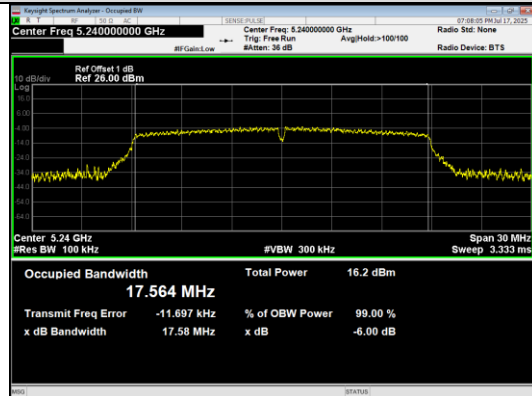
IEEE 802.11n_Channel 46_40MHz_Antenna 0



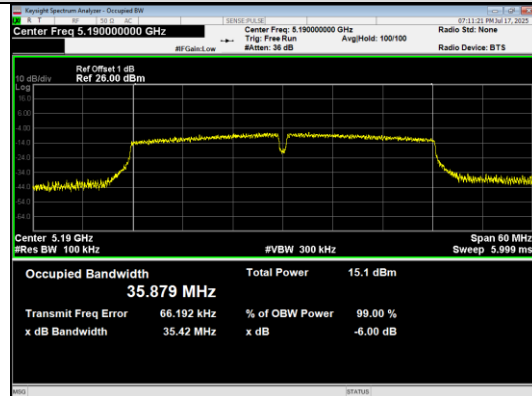
IEEE 802.11ac_Channel 36_20MHz_Antenna 0



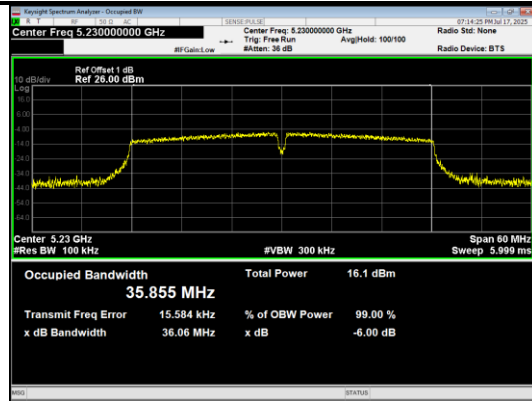
IEEE 802.11ac_Channel 40_20MHz_Antenna 0



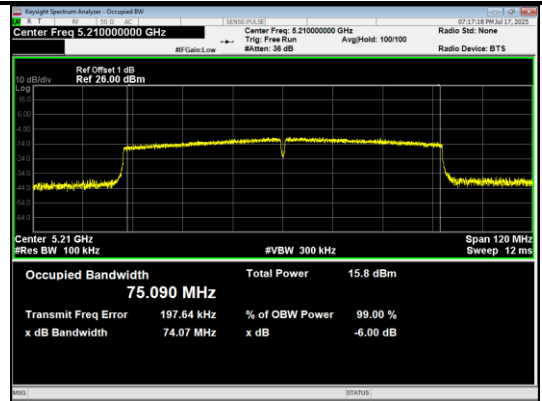
IEEE 802.11ac_Channel 48_20MHz_Antenna 0



IEEE 802.11ac_Channel 38_40MHz_Antenna 0



IEEE 802.11ac_Channel 46_40MHz_Antenna 0



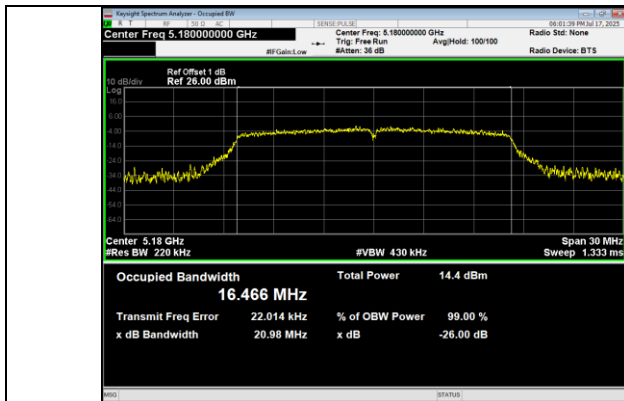
IEEE 802.11ac_Channel 42_80MHz_Antenna 0

26dB Bandwidth

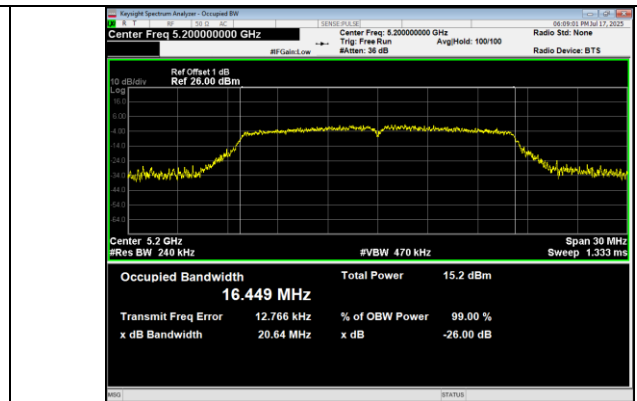
Test Result

Mode	Channel	Ant.	Center Frequency (MHz)	26 dB Bandwidth (MHz)	RBW/EBW
IEEE 802.11a	36	0	5180	20.98	1.04
	40		5200	20.64	1.18
	48		5240	21.14	1.16
IEEE 802.11n_20	36		5180	22.12	1.19
	40		5200	22.28	1.09
	48		5240	20.26	1.11
IEEE 802.11n_40	38		5190	44.29	0.96
	46		5230	42.80	1.19
IEEE 802.11ac_20	36		5180	24.33	1.11
	40		5200	21.32	1.13
	48		5240	20.50	1.1
IEEE 802.11ac_40	38		5190	49.78	1.02
	46		5230	40.19	1.05
IEEE 802.11ac_80	42		5210	95.33	1.12

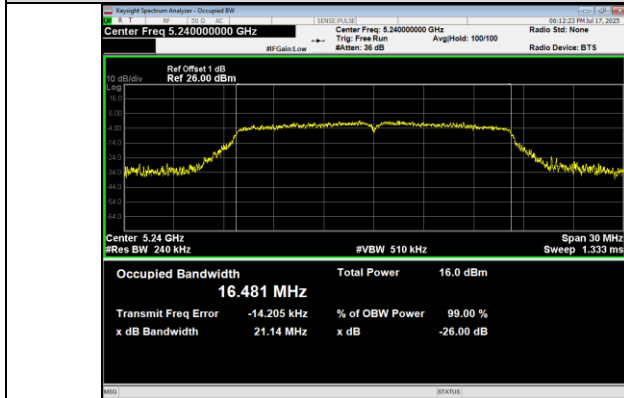
Test Graphs



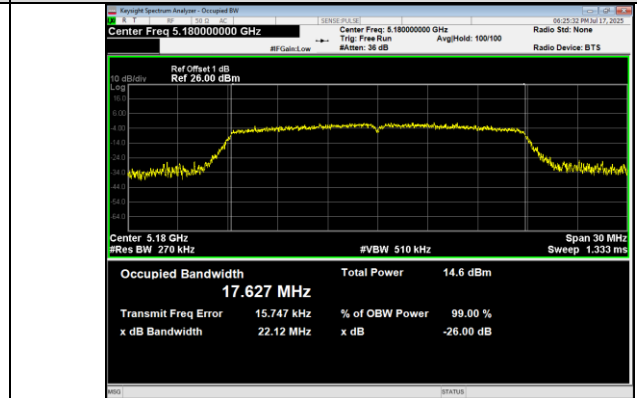
IEEE 802.11a_Channel 36_20MHz_Antenna 0



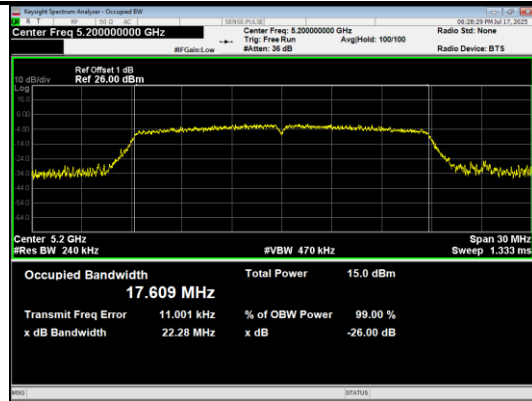
IEEE 802.11a_Channel 40_20MHz_Antenna 0



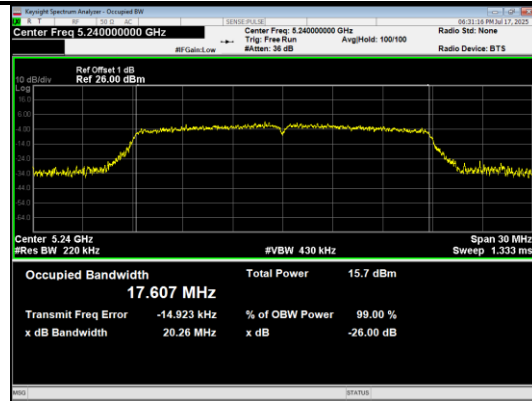
IEEE 802.11a_Channel 48_20MHz_Antenna 0



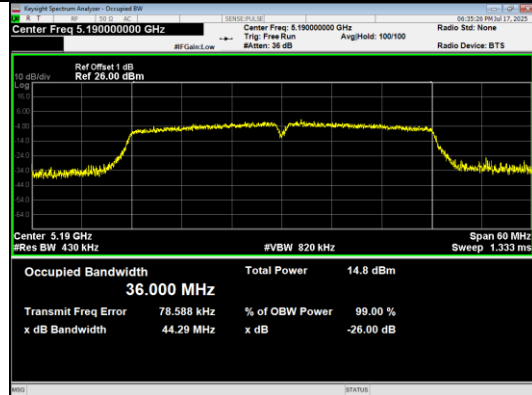
IEEE 802.11n_Channel 36_20MHz_Antenna 0



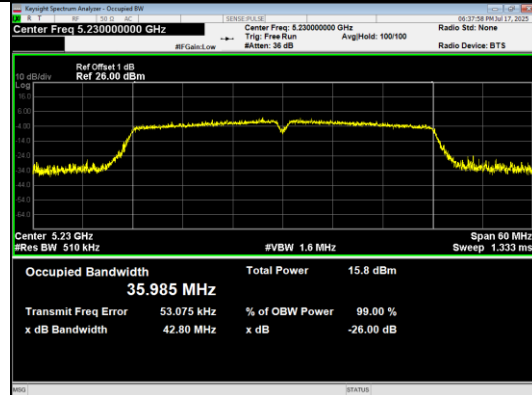
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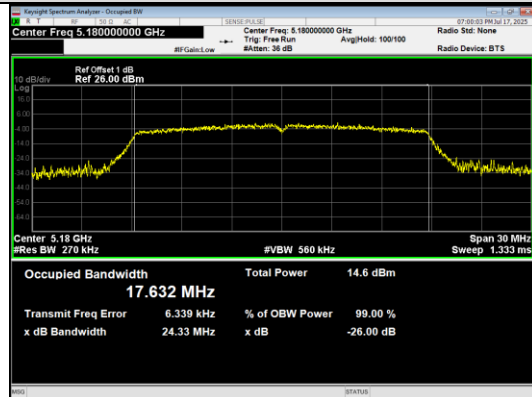
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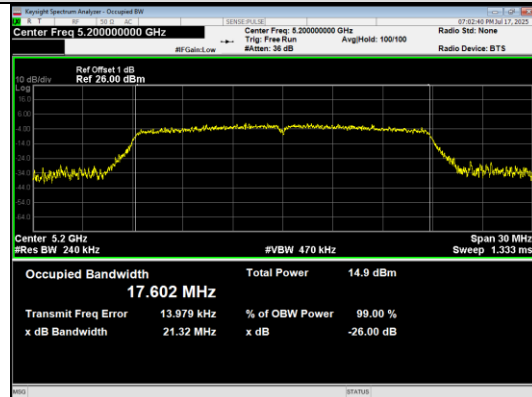
IEEE 802.11n_Channel 38_40MHz_Antenna 0



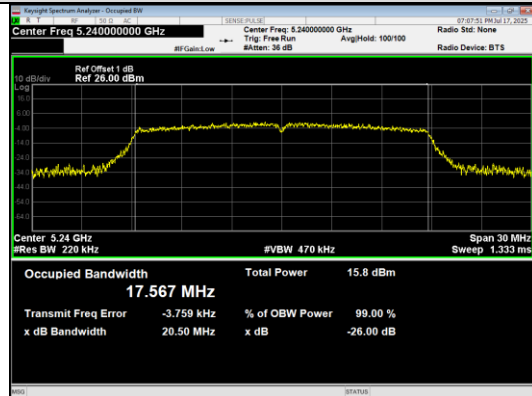
IEEE 802.11n_Channel 46_40MHz_Antenna 0



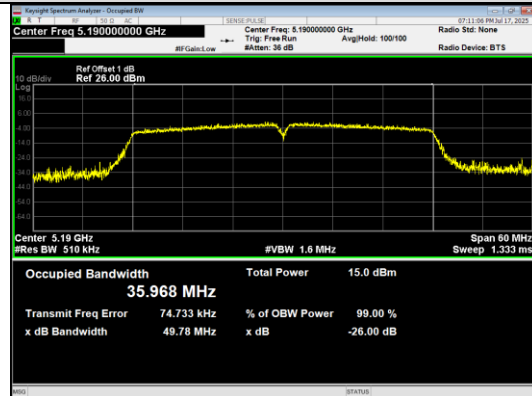
IEEE 802.11ac_Channel 36_20MHz_Antenna 0



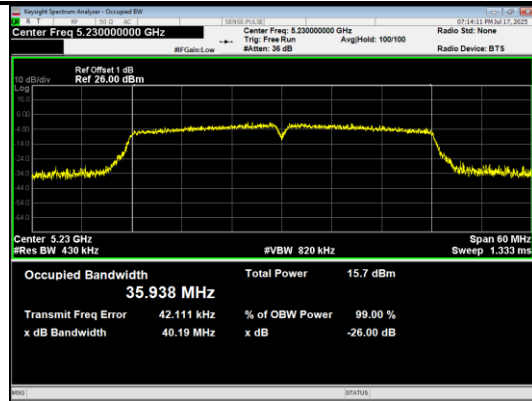
IEEE 802.11ac_Channel 40_20MHz_Antenna 0



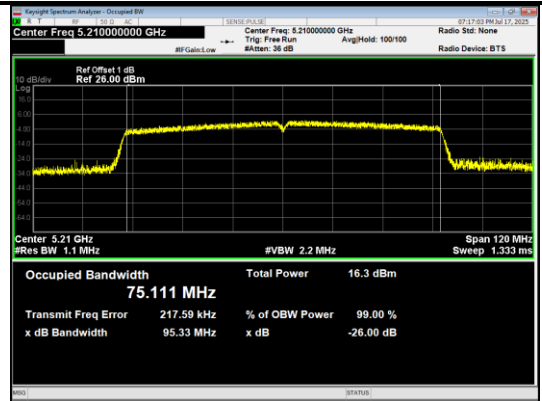
IEEE 802.11ac_Channel 48_20MHz_Antenna 0



IEEE 802.11ac_Channel 38_40MHz_Antenna 0



IEEE 802.11ac_Channel 46_40MHz_Antenna 0



IEEE 802.11ac_Channel 42_80MHz_Antenna 0

Conducted Out Of Band Emission

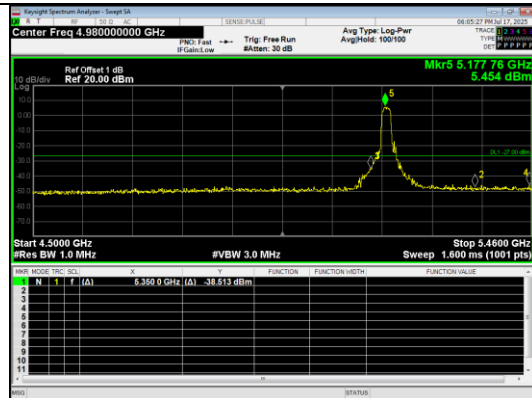
Test Result

Mode	Channel	Ant.	OOB Emission Frequency (MHz)	OOB Emission Level (dBm)	Limit (dBm)	Over Limit (dB)	Result	
IEEE 802.11a	36	0	5149.92	-35.857	-27	-9.000	PASS	
			5150.00	-35.860	-27	-9.000	PASS	
			5150.00	-34.440	-27	-7.440	PASS	
			5350.00	-48.080	-27	-21.000	PASS	
			5455.20	-46.496	-27	-19.000	PASS	
			24932.2	-54.330	-27	-27.330	PASS	
	40		1752.24	-31.520	-27	-4.520	PASS	
			5150.00	-43.660	-27	-17.000	PASS	
			5350.00	-48.300	-27	-21.000	PASS	
			5459.04	-47.674	-27	-21.000	PASS	
			24927.8	-53.530	-27	-26.530	PASS	
			48	3544.75	-35.990	-27	-8.990	PASS
	5141.28			-48.069	-27	-21.000	PASS	
	5150.00			-48.390	-27	-21.000	PASS	
	5350.00			-48.310	-27	-21.000	PASS	
	5460.00			-48.105	-27	-21.000	PASS	
	20979.1			-54.320	-27	-27.320	PASS	
	IEEE 802.11n_20			36	5147.04	-35.771	-27	-9.000
5148.34					-33.200	-27	-6.200	PASS
5150.00			-36.120		-27	-9.000	PASS	
5350.00			-46.900		-27	-20.000	PASS	
5408.16			-46.715		-27	-20.000	PASS	
24958.2			-54.020		-27	-27.020	PASS	
40	5142.96		-45.440	-27	-18.440	PASS		
	5149.92		-41.416	-27	-14.000	PASS		
	5150.00		-41.420	-27	-14.000	PASS		
	5350.00		-48.600	-27	-22.000	PASS		
	5459.04		-48.175	-27	-21.000	PASS		
	24938.6		-53.460	-27	-26.460	PASS		
48	5146.03		-54.770	-27	-27.770	PASS		
	5148.96		-49.188	-27	-22.000	PASS		
	5150.00		-49.630	-27	-23.000	PASS		
	5350.00		-48.460	-27	-21.000	PASS		
	5353.93		-53.400	-27	-26.400	PASS		
	5460.00		-48.365	-27	-21.000	PASS		
IEEE 802.11n_40	38		5149.10	-32.000	-27	-5.000	PASS	
			5149.92	-33.096	-27	-6.000	PASS	
			5150.00	-33.100	-27	-6.000	PASS	
			5350.00	-47.290	-27	-20.000	PASS	
			5429.28	-47.149	-27	-20.000	PASS	
			24974.5	-53.890	-27	-26.890	PASS	
	46		5145.78	-44.150	-27	-17.150	PASS	
			5148.96	-44.824	-27	-18.000	PASS	
			5150.00	-45.490	-27	-18.000	PASS	
			5350.00	-48.460	-27	-21.000	PASS	
			5350.49	-49.610	-27	-22.610	PASS	
			5460.00	-48.245	-27	-21.000	PASS	
IEEE 802.11ac_20	36		5149.87	-33.610	-27	-6.610	PASS	
			5149.92	-35.608	-27	-9.000	PASS	
			5150.00	-35.610	-27	-9.000	PASS	
			5350.00	-47.440	-27	-20.000	PASS	
			5434.08	-47.054	-27	-20.000	PASS	
			24907.2	-54.010	-27	-27.010	PASS	
	40		5140.14	-44.770	-27	-17.770	PASS	
			5148.00	-43.616	-27	-17.000	PASS	

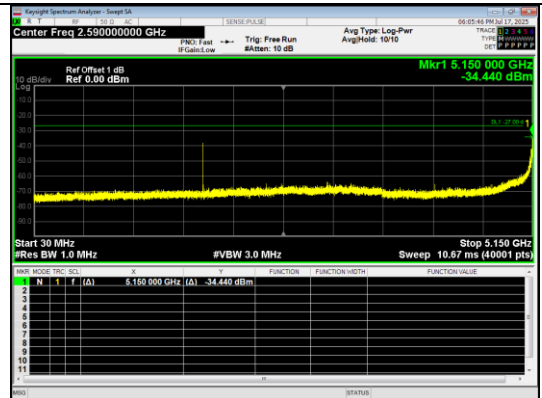


	48	5150.00	-44.430	-27	-17.000	PASS
		5350.00	-48.520	-27	-22.000	PASS
		5460.00	-48.514	-27	-22.000	PASS
		24321.1	-54.470	-27	-27.470	PASS
		2407.09	-48.690	-27	-21.690	PASS
		5149.92	-49.860	-27	-23.000	PASS
		5150.00	-49.860	-27	-23.000	PASS
		5350.00	-47.930	-27	-21.000	PASS
		5363.26	-53.140	-27	-26.140	PASS
		5455.20	-47.846	-27	-21.000	PASS
IEEE 802.11ac_40	38	1752.62	-27.020	-27	-0.020	PASS
		5147.04	-32.708	-27	-6.000	PASS
		5150.00	-33.160	-27	-6.000	PASS
		5350.00	-48.990	-27	-22.000	PASS
		5460.00	-48.465	-27	-21.000	PASS
		24953.8	-53.800	-27	-26.800	PASS
		1746.22	-35.560	-27	-8.560	PASS
		5150.00	-42.160	-27	-15.000	PASS
		5350.00	-48.270	-27	-21.000	PASS
		5354.91	-52.120	-27	-25.120	PASS
IEEE 802.11ac_80	42	5459.04	-48.117	-27	-21.000	PASS
		5145.39	-29.880	-27	-2.880	PASS
		5148.96	-30.785	-27	-4.000	PASS
		5150.00	-31.930	-27	-5.000	PASS
		5350.00	-43.460	-27	-16.000	PASS
		5350.98	-41.800	-27	-14.800	PASS
		5364.00	-43.446	-27	-16.000	PASS

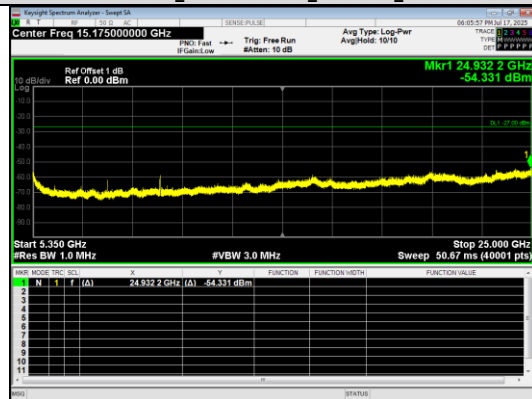
Test Graphs



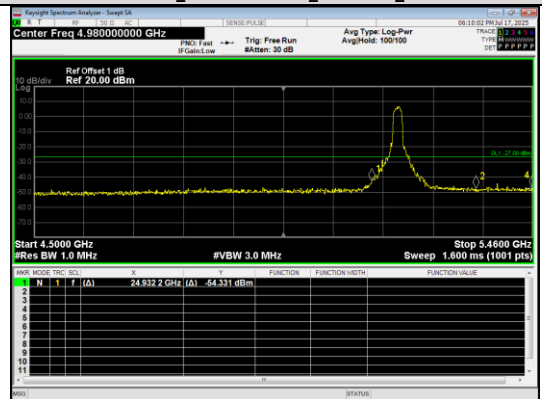
Out Of Band Emission
IEEE 802.11a_Channel 36_20MHz_Antenna 0



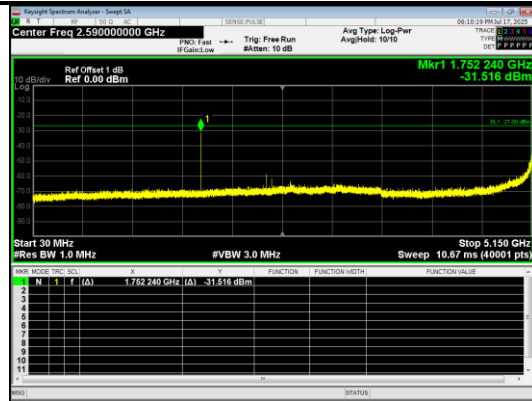
Spurious Emission:30.0~5150 MHz
IEEE 802.11a_Channel 36_20MHz_Antenna 0



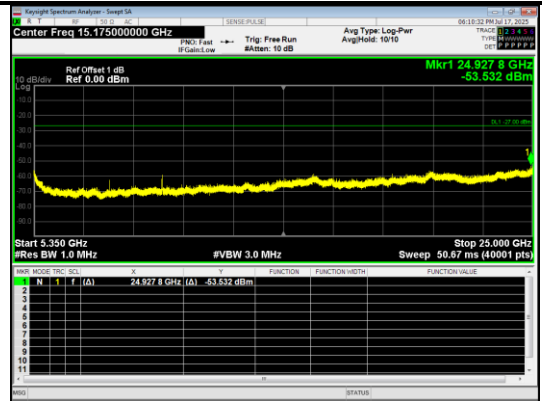
Spurious Emission:5350~25000.0 MHz
IEEE 802.11a_Channel 36_20MHz_Antenna 0



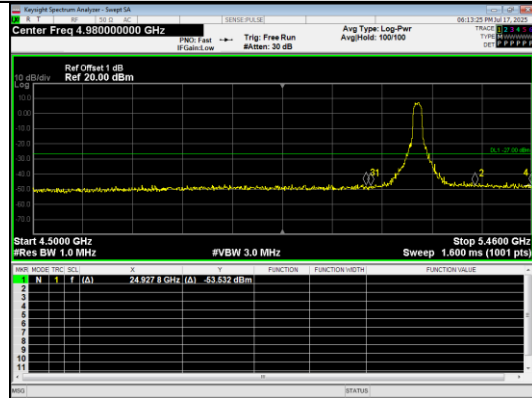
Out Of Band Emission
IEEE 802.11a_Channel 40_20MHz_Antenna 0



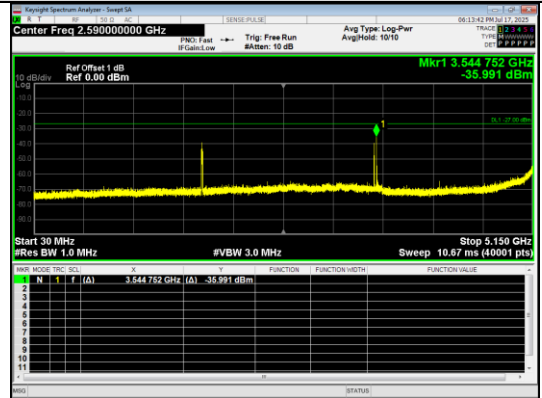
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IEEE 802.11a_Channel 40_20MHz_Antenna 0



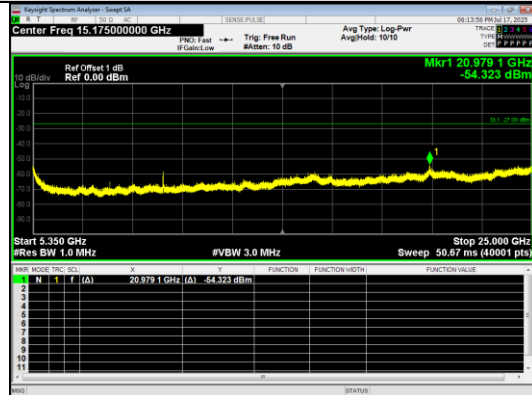
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IEEE 802.11a_Channel 40_20MHz_Antenna 0



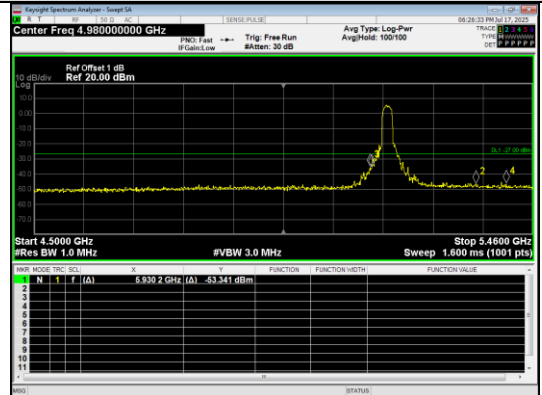
Out Of Band Emission
IEEE 802.11a_Channel 48_20MHz_Antenna 0



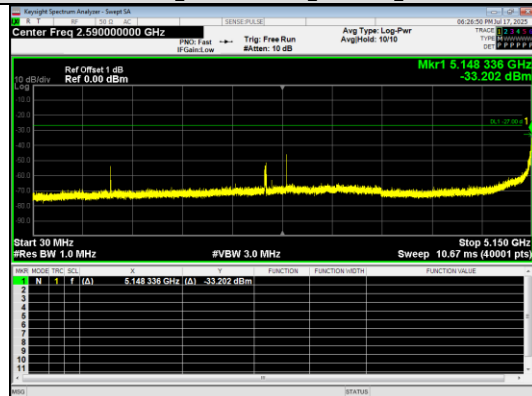
Spurious Emission:30.0~5150 MHz
IEEE 802.11a_Channel 48_20MHz_Antenna 0



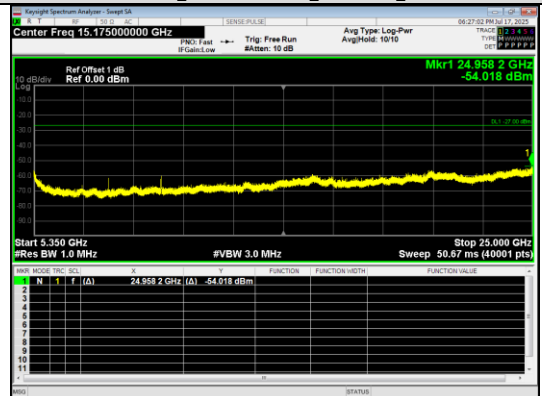
Spurious Emission:5350~25000.0 MHz
IEEE 802.11a_Channel 48_20MHz_Antenna 0



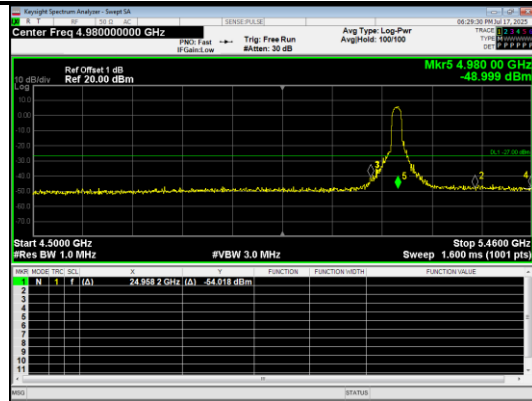
Out Of Band Emission
IEEE 802.11n_Channel 36_20MHz_Antenna 0



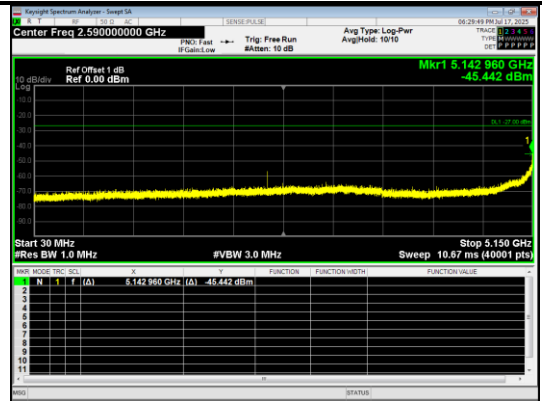
Spurious Emission:30.0~5150 MHz
IEEE 802.11n_Channel 36_20MHz_Antenna 0



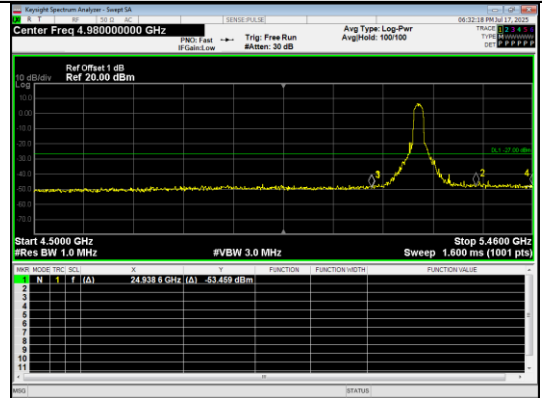
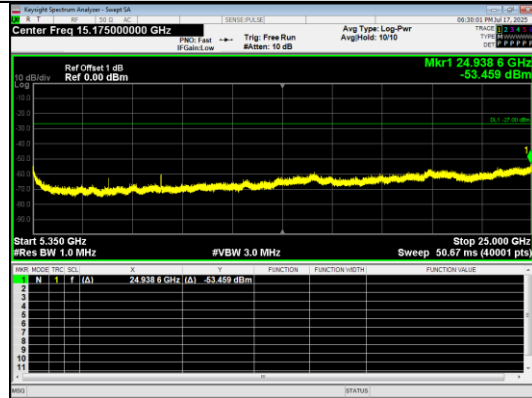
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IEEE 802.11n_Channel 36_20MHz_Antenna 0



Out Of Band Emission
IEEE 802.11n_Channel 40_20MHz_Antenna 0

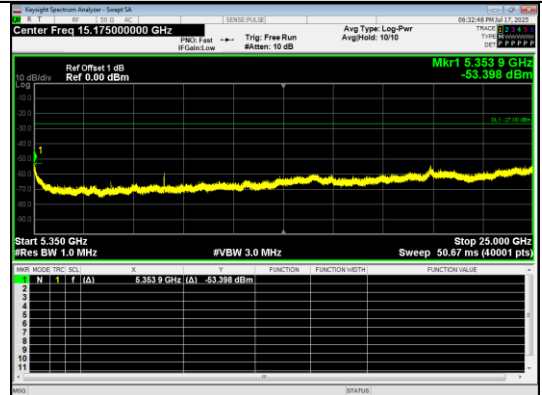
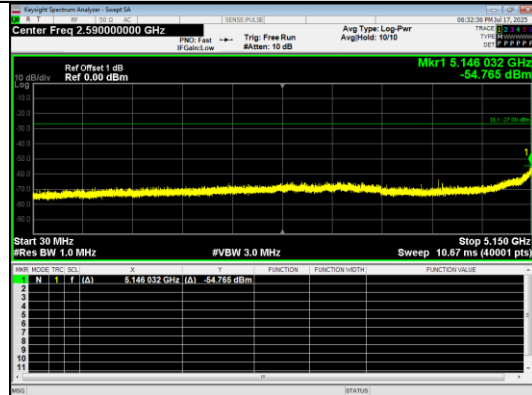


Spurious Emission:30.0~5150 MHz
IEEE 802.11n_Channel 40_20MHz_Antenna 0



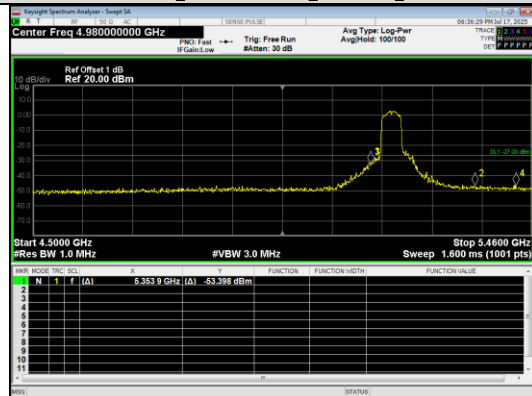
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IEEE 802.11n_Channel 40_20MHz_Antenna 0

Out Of Band Emission
IEEE 802.11n_Channel 48_20MHz_Antenna 0

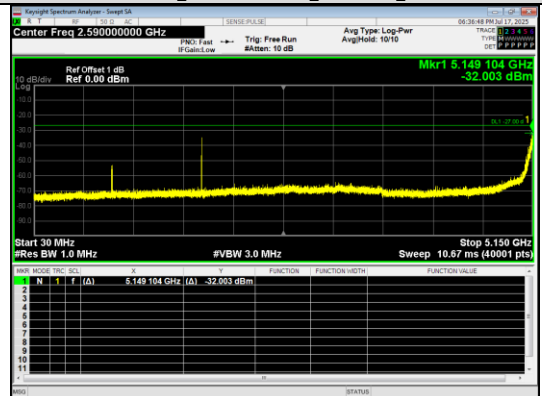


Spurious Emission:30.0~5150 MHz
IEEE 802.11n_Channel 48_20MHz_Antenna 0

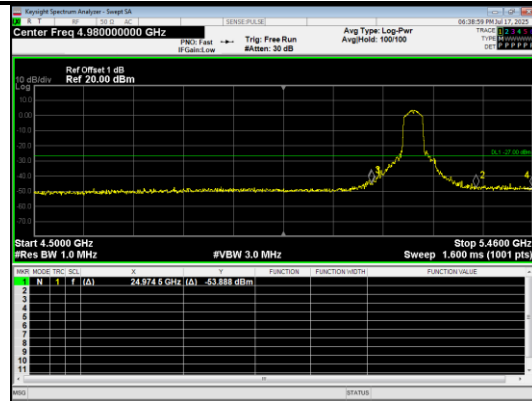
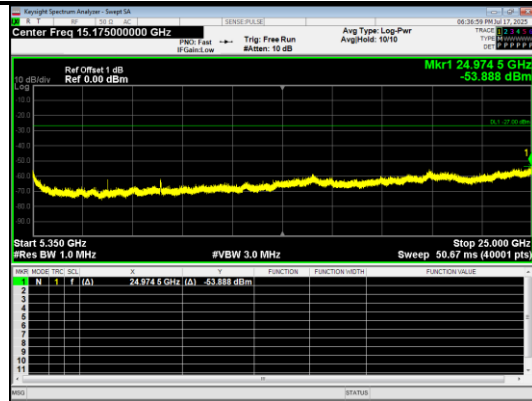
Spurious Emission:5350~25000.0 MHz
IEEE 802.11n_Channel 48_20MHz_Antenna 0



Out Of Band Emission
IEEE 802.11n_Channel 38_40MHz_Antenna 0

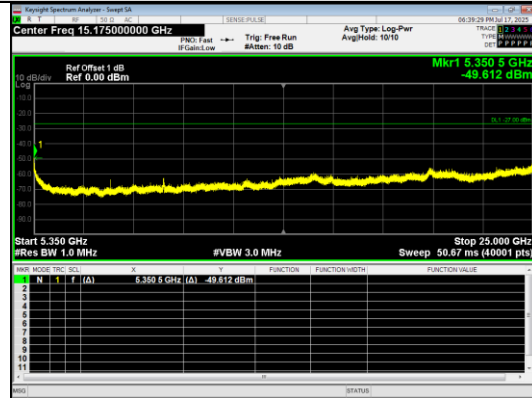
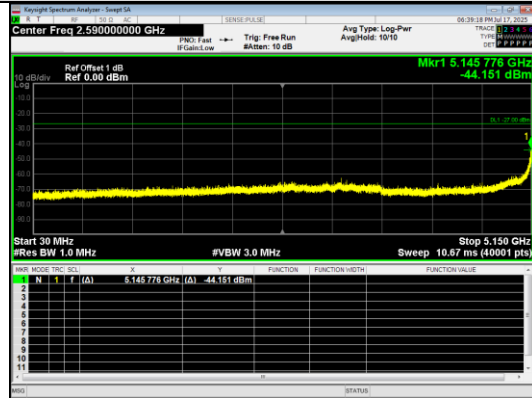


Spurious Emission:30.0~5150 MHz
IEEE 802.11n_Channel 38_40MHz_Antenna 0



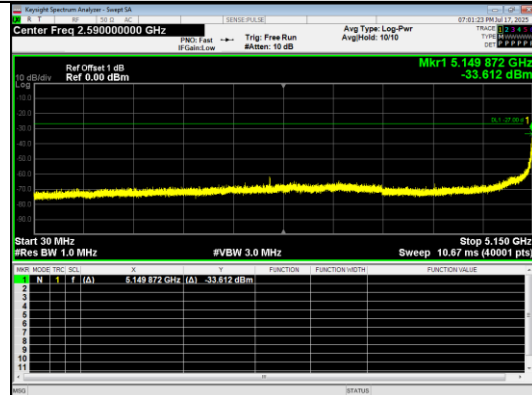
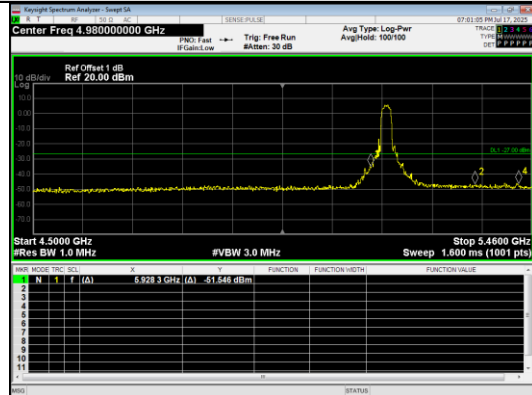
Spurious Emission:5350~25000.0 MHz
IEEE 802.11n_Channel 38_40MHz_Antenna 0

Out Of Band Emission
IEEE 802.11n_Channel 46_40MHz_Antenna 0



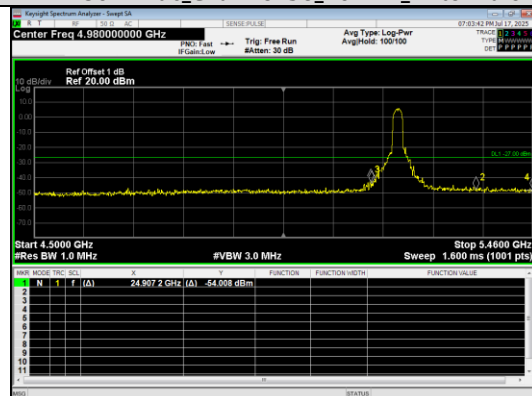
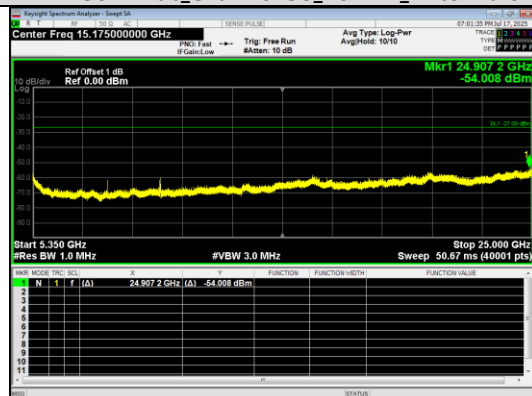
Spurious Emission:30.0~5150 MHz
IEEE 802.11n_Channel 46_40MHz_Antenna 0

Spurious Emission:5350~25000.0 MHz
IEEE 802.11n_Channel 46_40MHz_Antenna 0



Out Of Band Emission
IEEE 802.11ac_Channel 36_20MHz_Antenna 0

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



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

Out Of Band Emission
IEEE 802.11ac_Channel 40_20MHz_Antenna 0