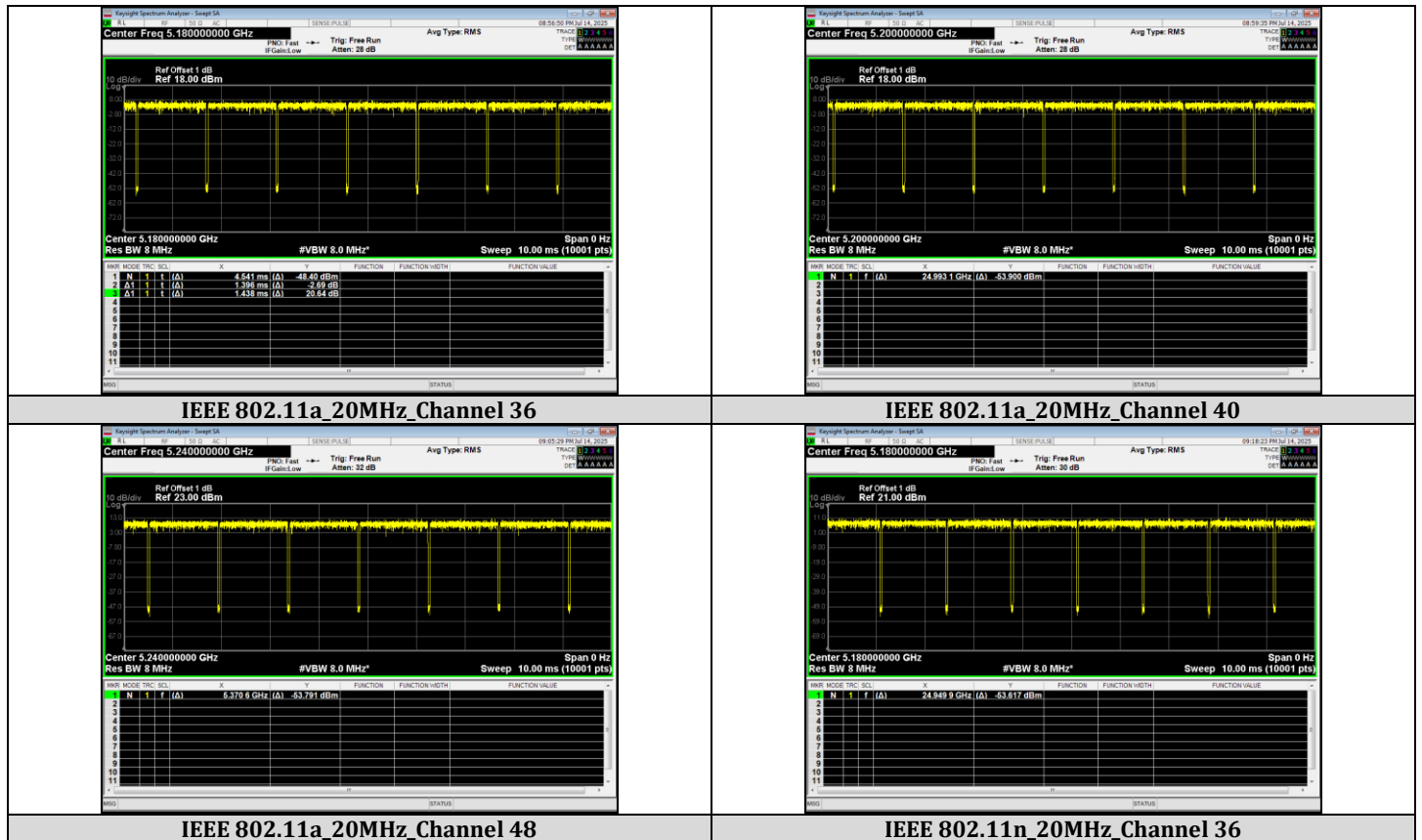


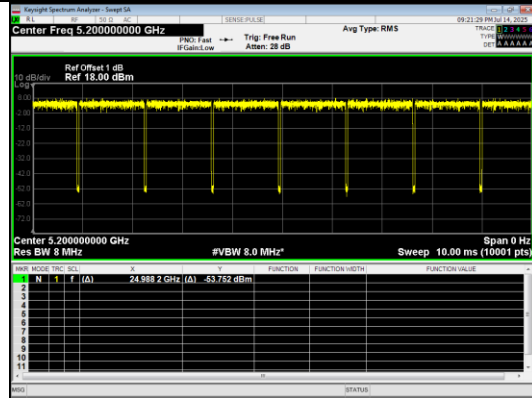
Appendix RF test data for 5G WIFI_NII band 1

Duty Cycle Test Result

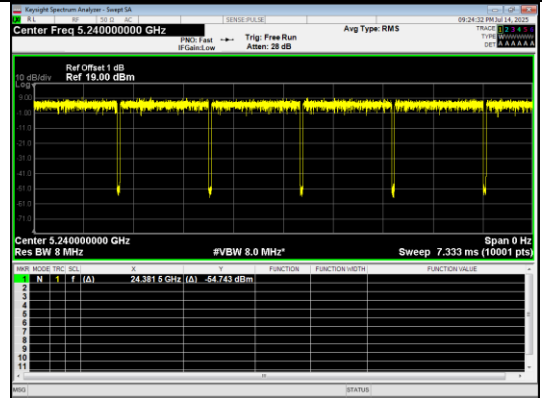
Mode	Data rates	Channel	Antenna	On Time (ms)	Period (ms)	Duty Cycle (%)	Duty Cycle (linear)	Duty Cycle Factor (dB)	1/T
IEEE 802.11a	6	36	1	1.396	1.437	97.15	0.9715	0.1256	0.7163
		40		1.396	1.437	97.15	0.9715	0.1256	0.7163
		48		1.396	1.437	97.15	0.9715	0.1256	0.7163
IEEE 802.11n_20	36	1.304		1.346	96.88	0.9688	0.1377	0.7669	
	40	1.304		1.346	96.88	0.9688	0.1377	0.7669	
	48	1.303		1.345	96.89	0.9689	0.1372	0.7675	
IEEE 802.11n_40	38	0.650		0.693	93.84	0.9384	0.2761	1.5385	
	46	0.650		0.692	93.84	0.9384	0.2761	1.5385	
IEEE 802.11ac_20	MCS 0	36		1.315	1.357	96.87	0.9687	0.1381	0.7605
		40		1.316	1.357	96.98	0.9698	0.1332	0.7599
		48		1.315	1.357	96.87	0.9687	0.1381	0.7605
IEEE 802.11ac_40		38		0.654	0.696	93.87	0.9387	0.2747	1.5291
		46		0.654	0.696	93.87	0.9387	0.2747	1.5291
IEEE 802.11ac_80		42		0.325	0.369	88.21	0.8821	0.5448	3.0769

Test Graphs

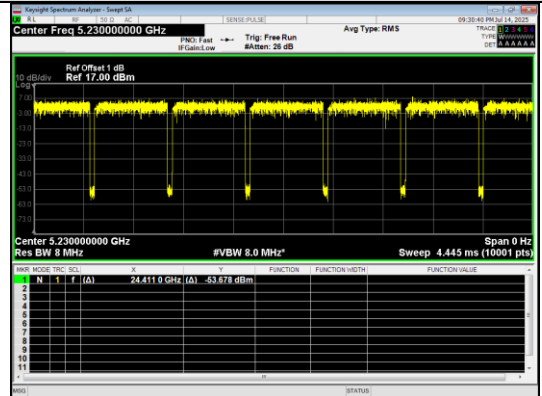
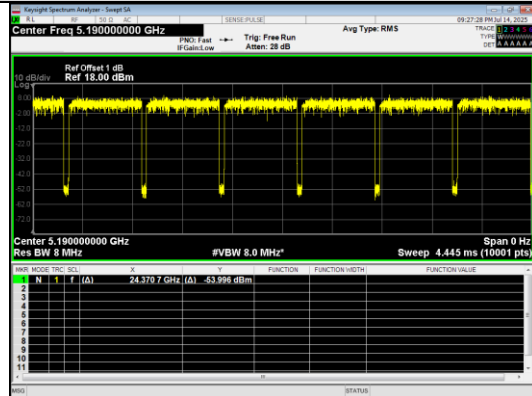




IEEE 802.11n_20MHz_Channel 40

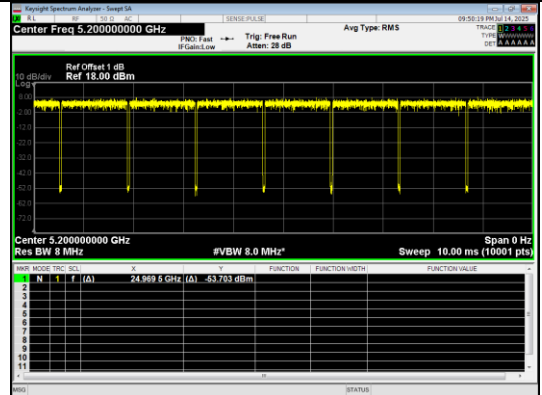
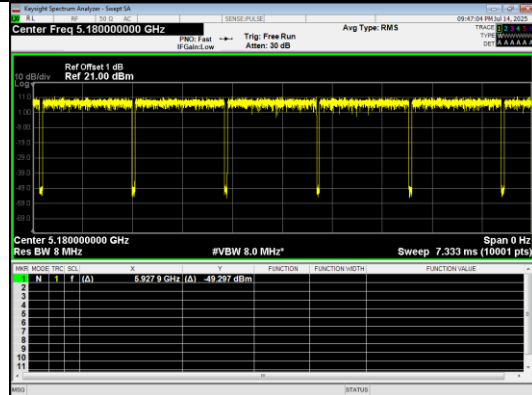


IEEE 802.11n_20MHz_Channel 48



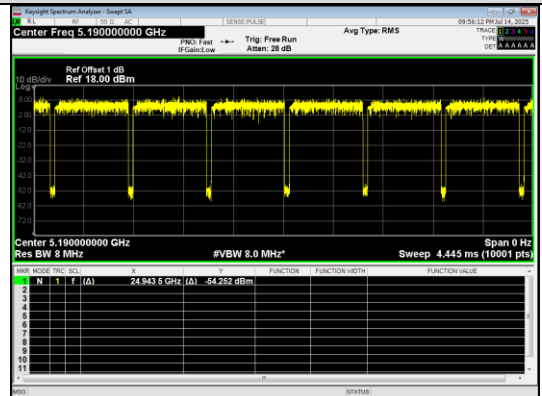
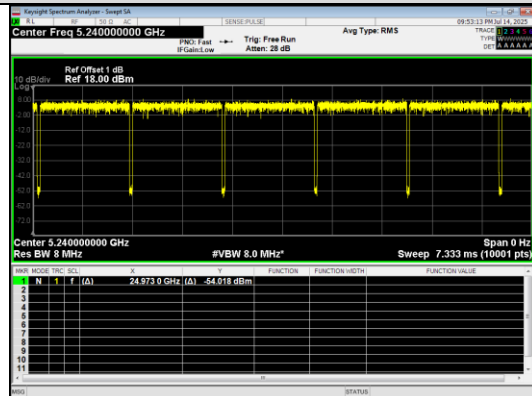
IEEE 802.11n_40MHz_Channel 38

IEEE 802.11n_40MHz_Channel 46



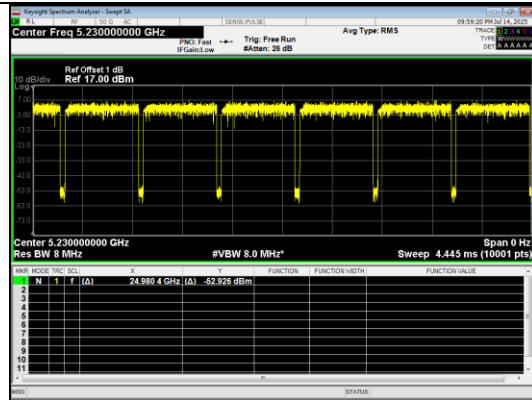
IEEE 802.11ac_20MHz_Channel 36

IEEE 802.11ac_20MHz_Channel 40

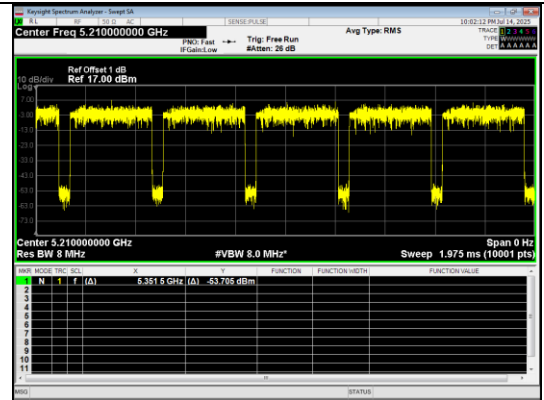


IEEE 802.11ac_20MHz_Channel 48

IEEE 802.11ac_40MHz_Channel 38



IEEE 802.11ac_40MHz_Channel 46



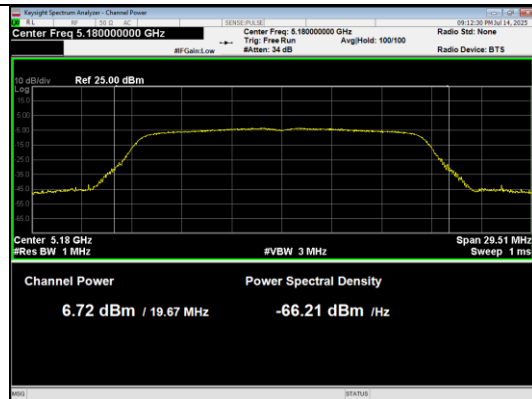
IEEE 802.11ac_80MHz_Channel 42

Conducted Output Power

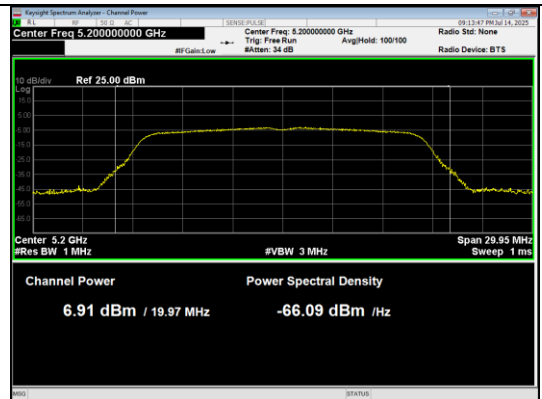
Conducted output power

Mode	Channel	Ant. 0 (dBm)	Corr'd Value Ant. 0 (dBm)	Limit (dBm)	Result
IEEE 802.11a	36	6.72	6.85	≤24	PASS
	40	6.91	7.04	≤24	PASS
	48	7.72	7.85	≤24	PASS
IEEE 802.11n_20	36	6.22	6.36	≤24	PASS
	40	6.82	6.96	≤24	PASS
	48	7.48	7.62	≤24	PASS
IEEE 802.11n_40	38	6.53	6.81	≤24	PASS
	46	7.18	7.46	≤24	PASS
IEEE 802.11ac_20	36	6.80	6.94	≤24	PASS
	40	6.98	7.11	≤24	PASS
	48	6.92	7.06	≤24	PASS
IEEE 802.11ac_40	38	6.50	6.77	≤24	PASS
	46	7.09	7.36	≤24	PASS
IEEE 802.11ac_80	42	6.64	7.18	≤24	PASS

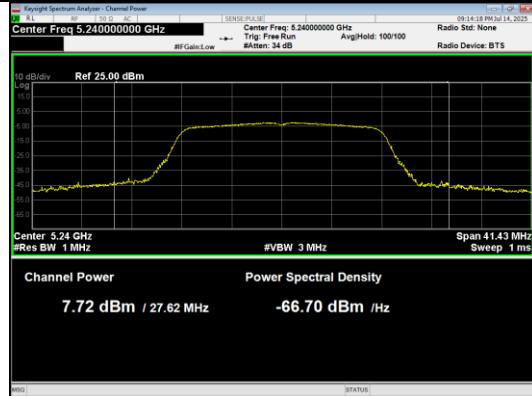
Note: Corr'd Value= Ant. 0 (dBm)+Duty cycle Factor.



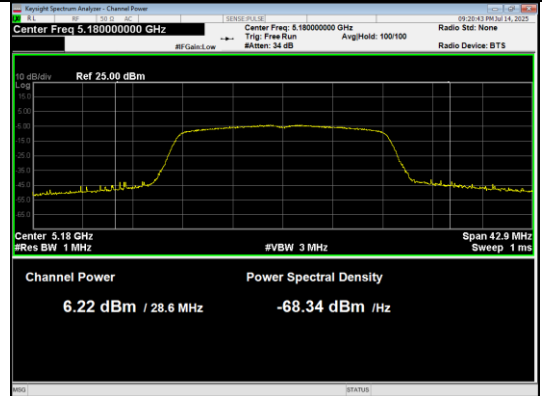
Conducted AVG output power
IEEE 802.11a_Channel 36_Antenna 0



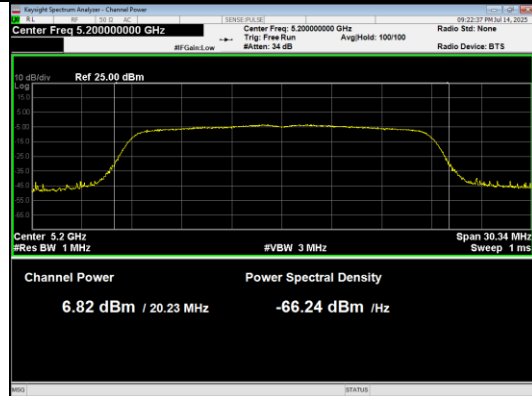
Conducted AVG output power
IEEE 802.11a_Channel 40_Antenna 0



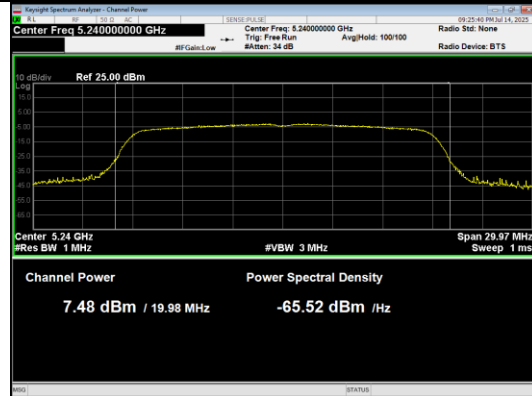
Conducted AVG output power
IEEE 802.11a_Channel 48_Antenna 0



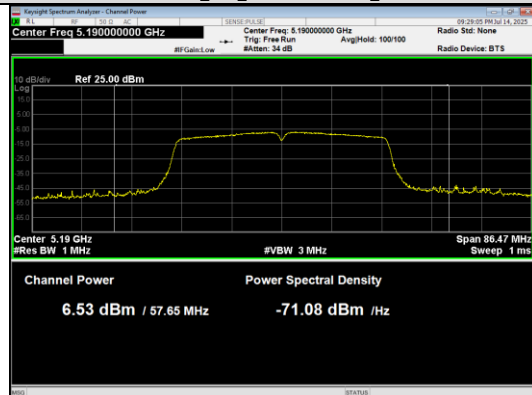
Conducted AVG output power
IEEE 802.11n_20_Channel 36_Antenna 0



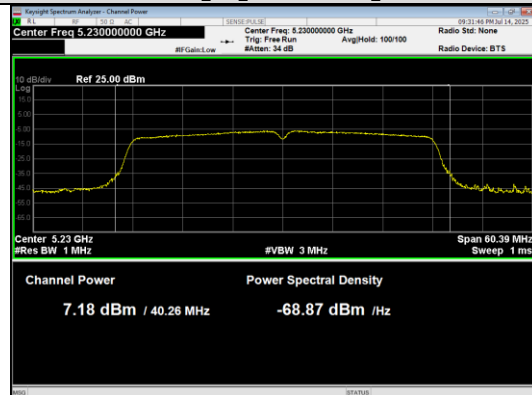
Conducted AVG output power
IEEE 802.11n_20_Channel 40_Antenna 0



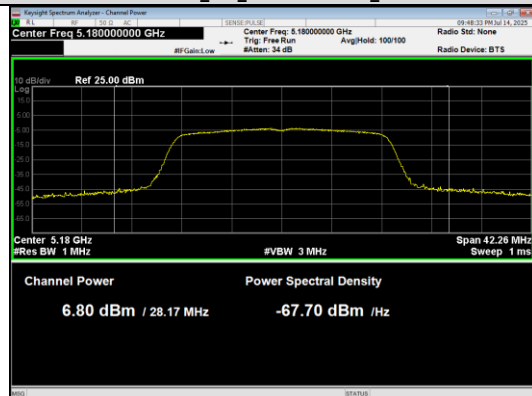
Conducted AVG output power
IEEE 802.11n_20_Channel 48_Antenna 0



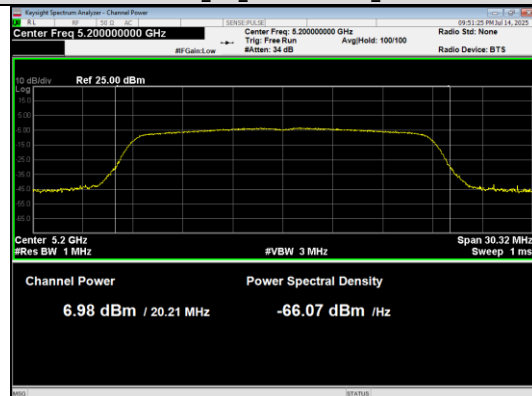
Conducted AVG output power
IEEE 802.11n_40_Channel 38_Antenna 0



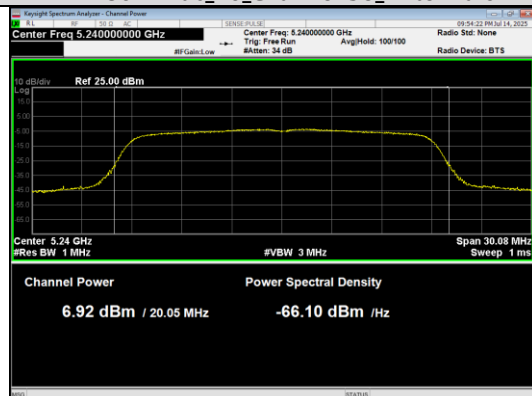
Conducted AVG output power
IEEE 802.11n_40_Channel 46_Antenna 0



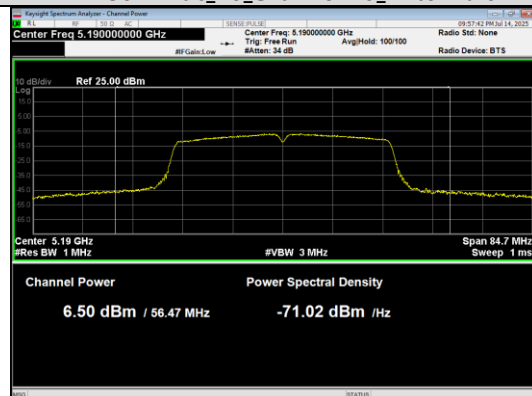
Conducted AVG output power
IEEE 802.11ac_20_Channel 36_Antenna 0



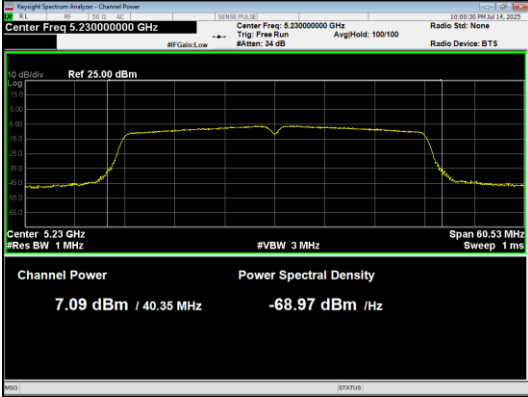
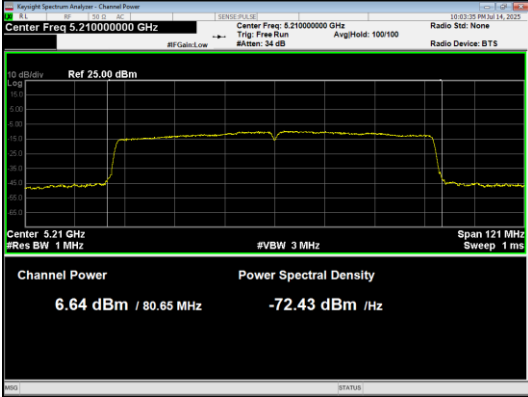
Conducted AVG output power
IEEE 802.11ac_20_Channel 40_Antenna 0



Conducted AVG output power



Conducted AVG output power

IEEE 802.11ac_20_Channel 48_Antenna 0	IEEE 802.11ac_40_Channel 38_Antenna 0
 Center Freq 5.23000000 GHz Center Freq 5.23000000 GHz Avg/Hold: 100/100 Radio Std: None Radio Device: BTS Ref 25.00 dBm Center 5.23 GHz #Res BW 1 MHz #VBW 3 MHz Span 60.53 MHz Sweep 1 ms Channel Power 7.09 dBm / 40.35 MHz Power Spectral Density -68.97 dBm / Hz	 Center Freq 5.21000000 GHz Center Freq 5.21000000 GHz Avg/Hold: 100/100 Radio Std: None Radio Device: BTS Ref 25.00 dBm Center 5.21 GHz #Res BW 1 MHz #VBW 3 MHz Span 121 MHz Sweep 1 ms Channel Power 6.64 dBm / 80.65 MHz Power Spectral Density -72.43 dBm / Hz
Conducted AVG output power IEEE 802.11ac_40_Channel 46_Antenna 0	Conducted AVG output power IEEE 802.11ac_80_Channel 42_Antenna 0

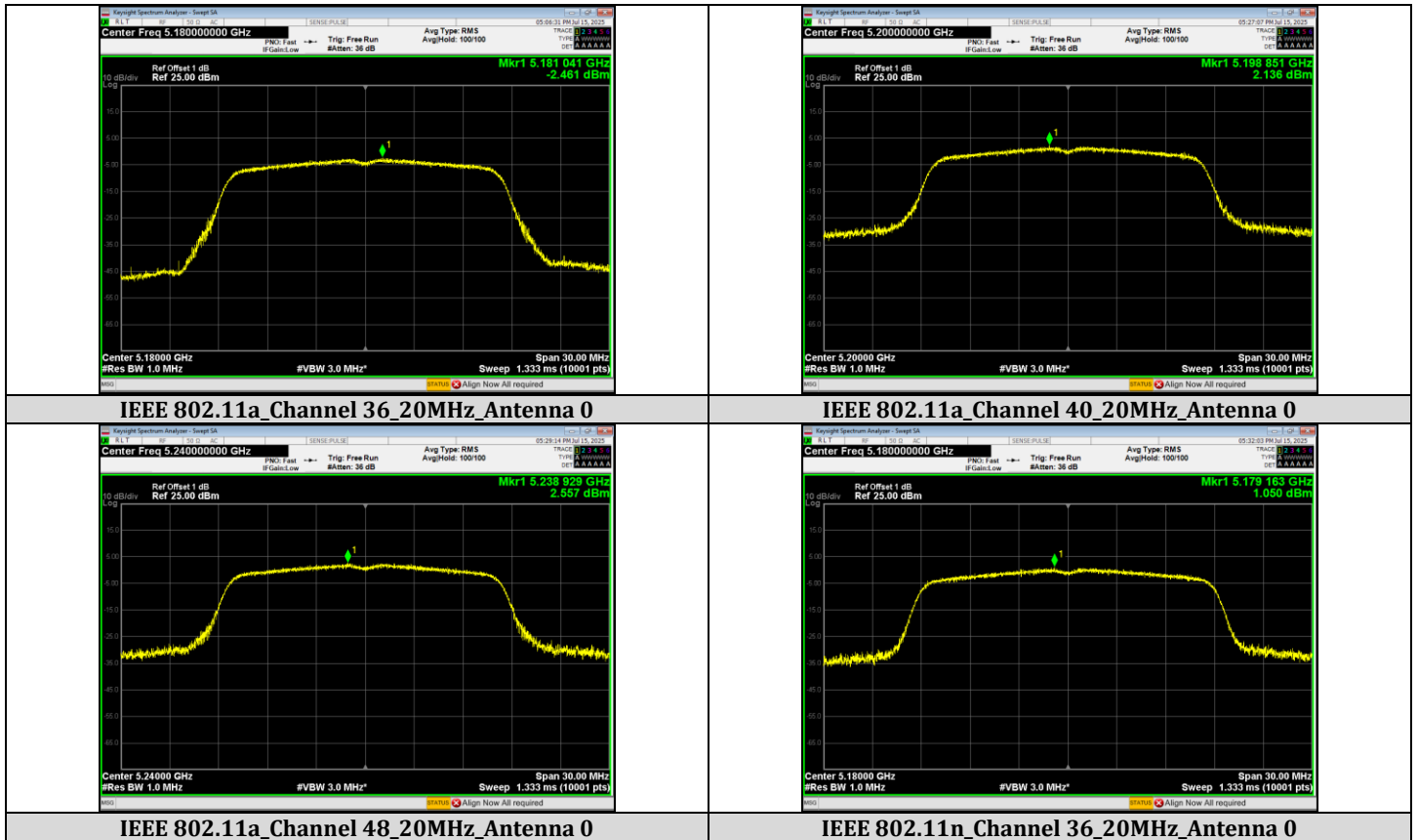
Peak Power Spectral Density

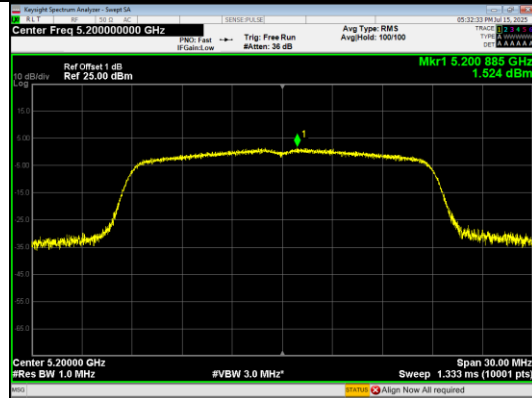
Test Result

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	-2.460	-2.33	11	PASS
	40	2.140	2.27		PASS
	48	2.560	2.69		PASS
IEEE 802.11n_20	36	1.050	1.19		PASS
	40	1.520	1.66		PASS
	48	1.810	1.95		PASS
IEEE 802.11n_40	38	-1.950	-1.67		PASS
	46	-0.900	-0.62		PASS
IEEE 802.11ac_20	36	-3.480	-3.34		PASS
	40	-2.880	-2.75		PASS
	48	-1.930	-1.79		PASS
IEEE 802.11ac_40	38	-6.320	-6.05		PASS
	46	-4.780	-4.51		PASS
IEEE 802.11ac_80	42	-8.640	-8.10		PASS

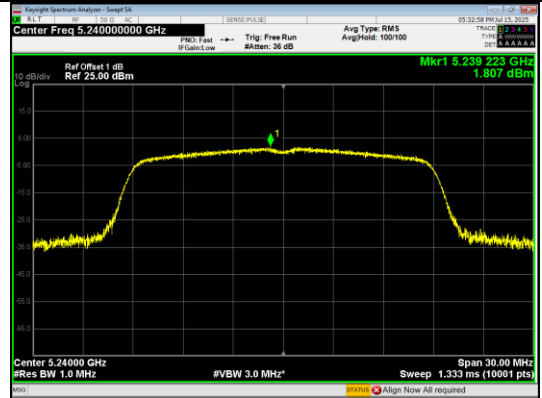
Note: Corr'd PSD = Meas PSD +Duty cycle Factor.

Test Graphs

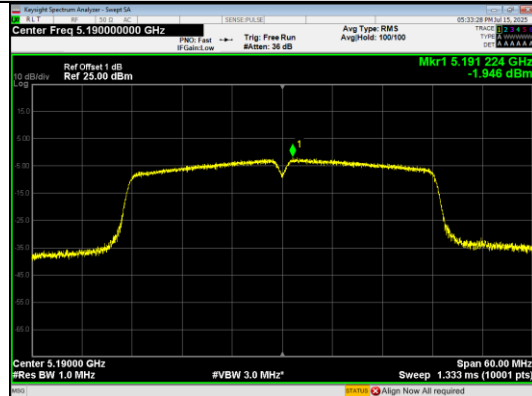




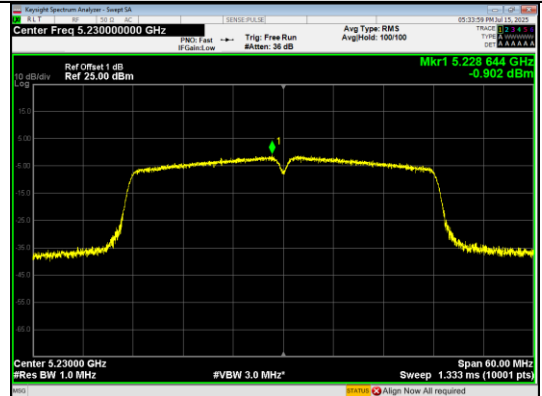
IEEE 802.11n_Channel 40_20MHz_Antenna 0



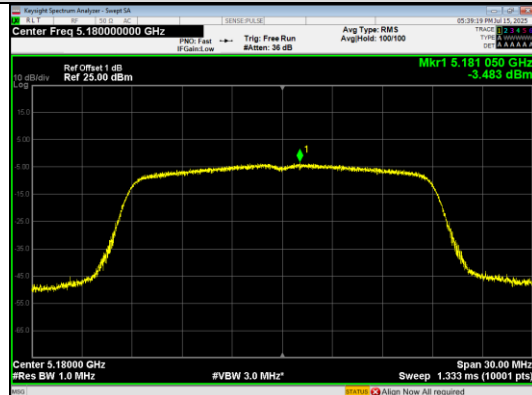
IEEE 802.11n_Channel 48_20MHz_Antenna 0



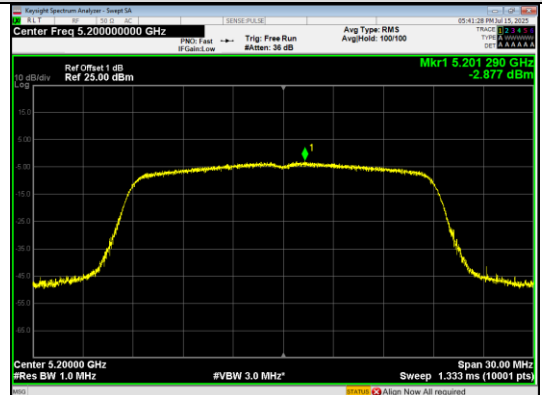
IEEE 802.11n_Channel 38_40MHz_Antenna 0



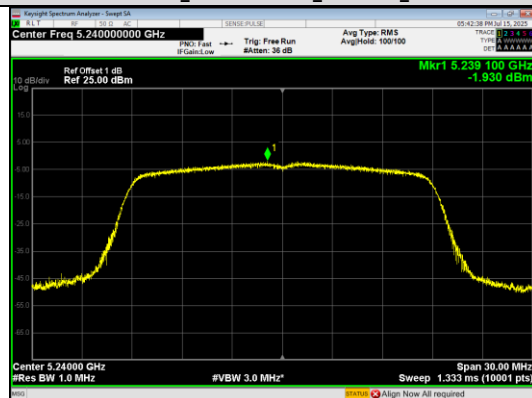
IEEE 802.11n_Channel 46_40MHz_Antenna 0



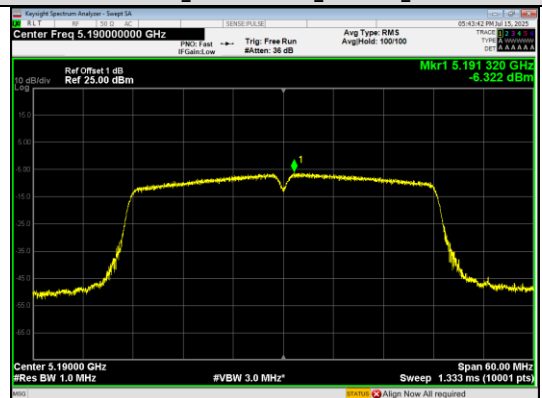
IEEE 802.11ac_Channel 36_20MHz_Antenna 0



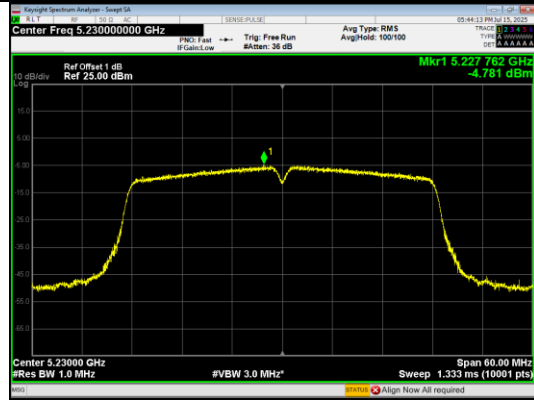
IEEE 802.11ac_Channel 40_20MHz_Antenna 0



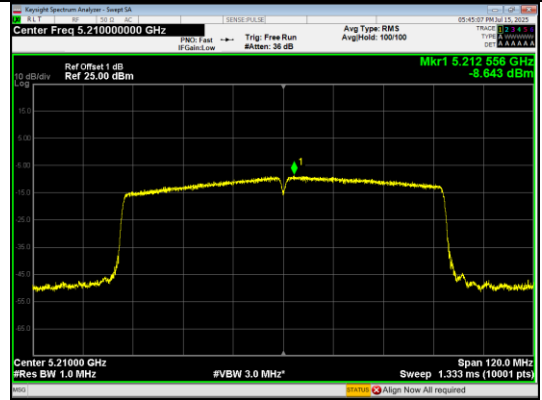
IEEE 802.11ac_Channel 48_20MHz_Antenna 0



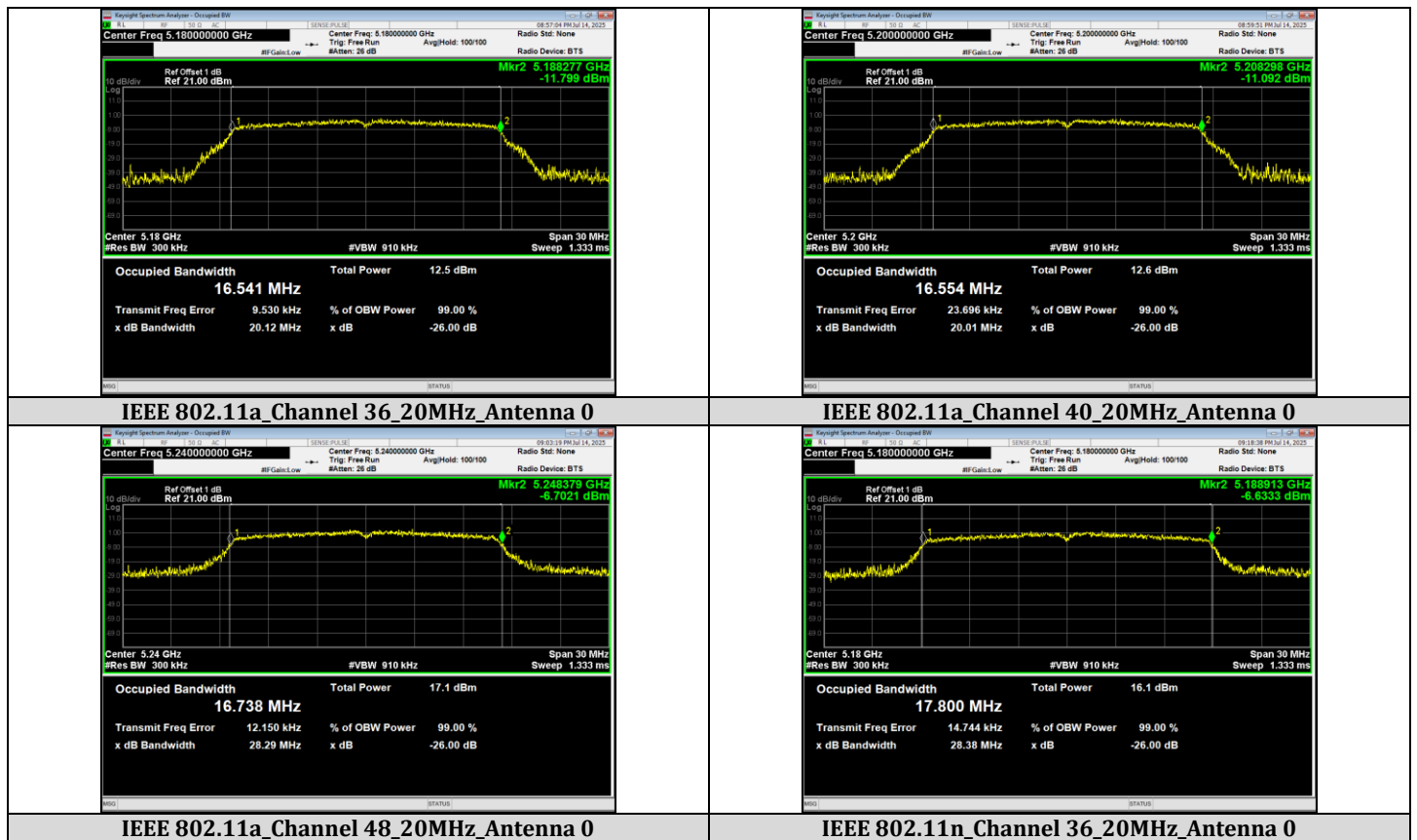
IEEE 802.11ac_Channel 38_40MHz_Antenna 0

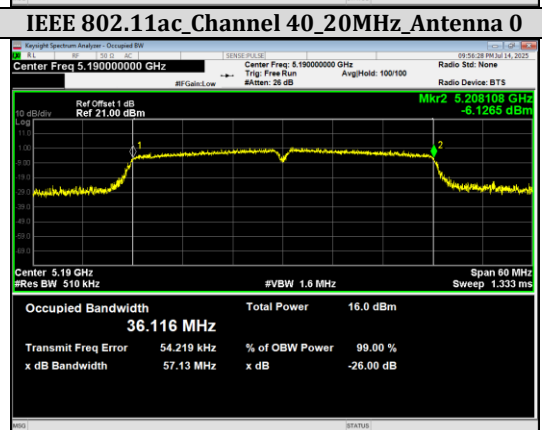
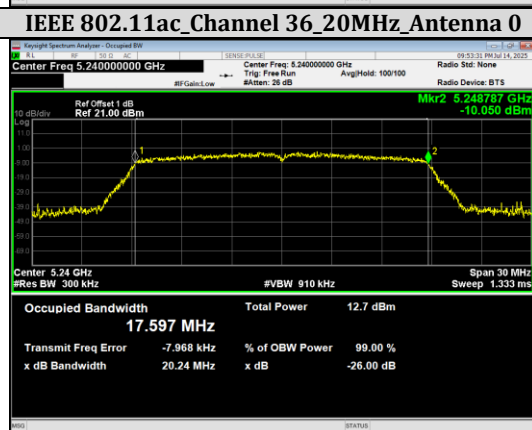
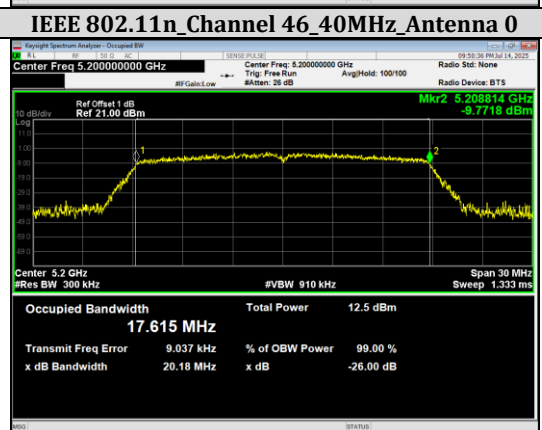
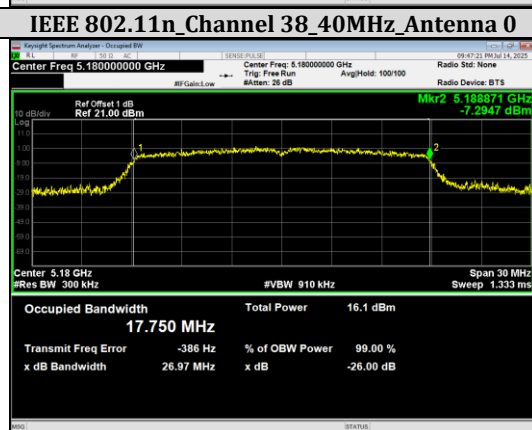
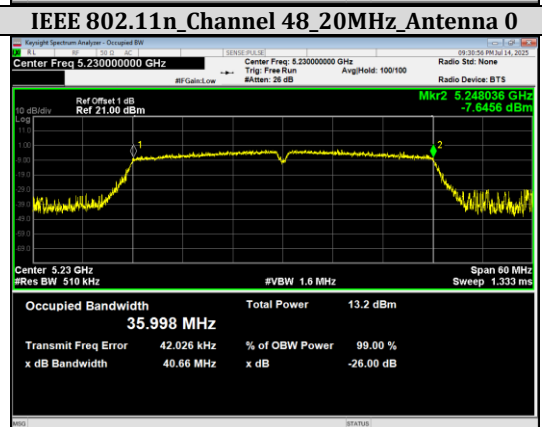
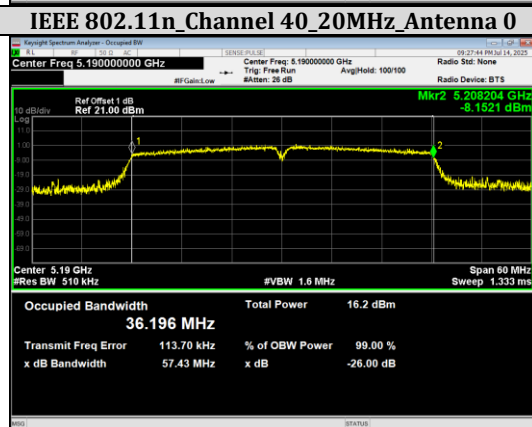
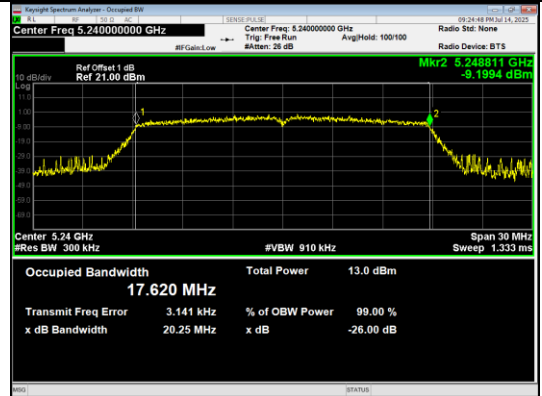
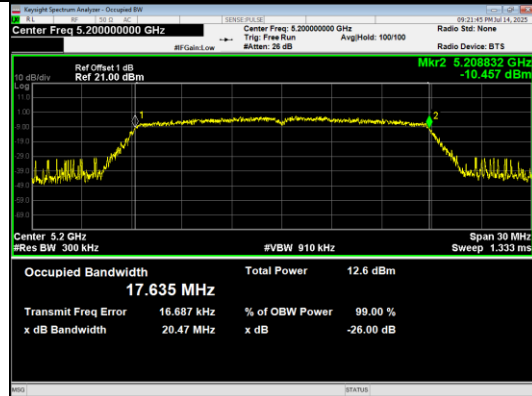


IEEE 802.11ac_Channel 46_40MHz_Antenna 0



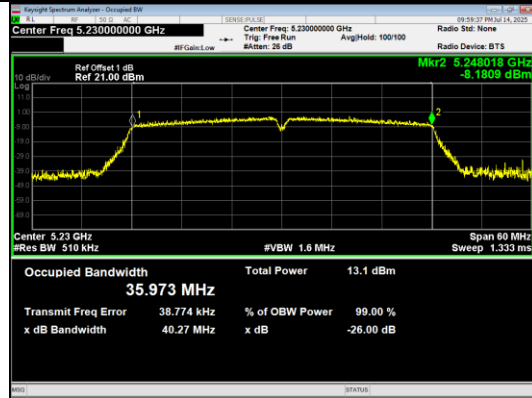
IEEE 802.11ac_Channel 42_80MHz_Antenna 0



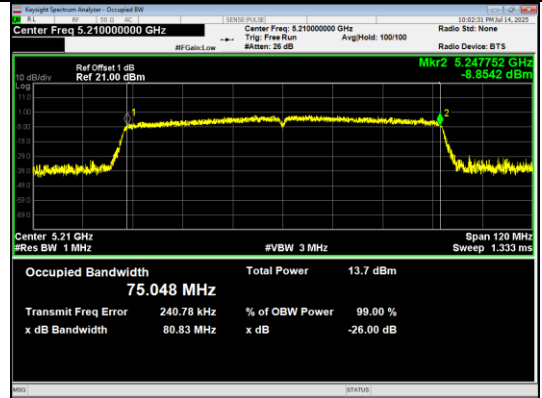


IEEE 802.11ac_Channel 48_20MHz_Antenna 0

IEEE 802.11ac_Channel 38_40MHz_Antenna 0



IEEE 802.11ac_Channel 46_40MHz_Antenna 0



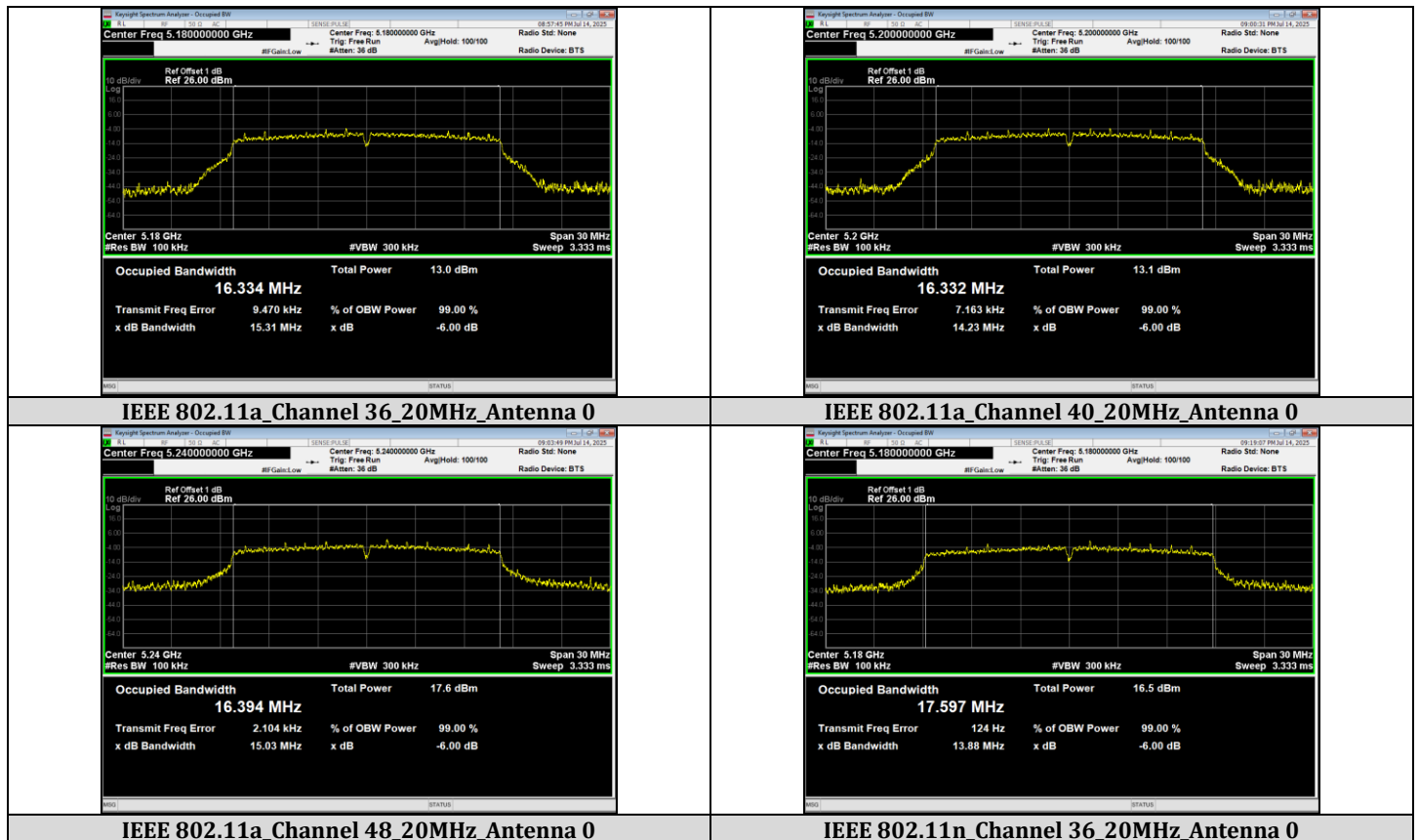
IEEE 802.11ac_Channel 42_80MHz_Antenna 0

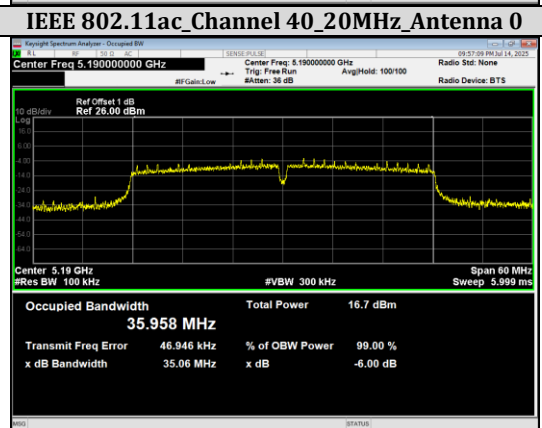
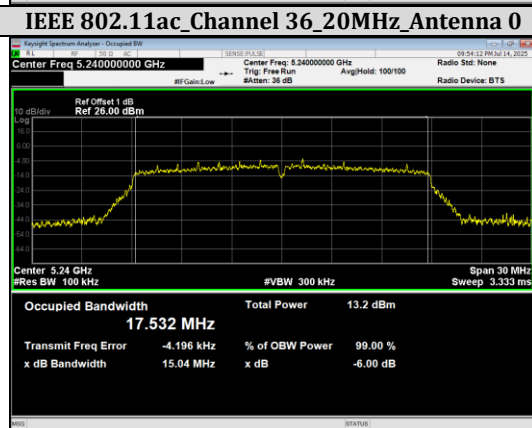
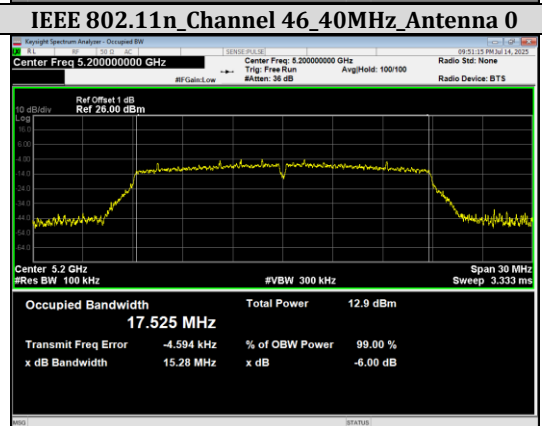
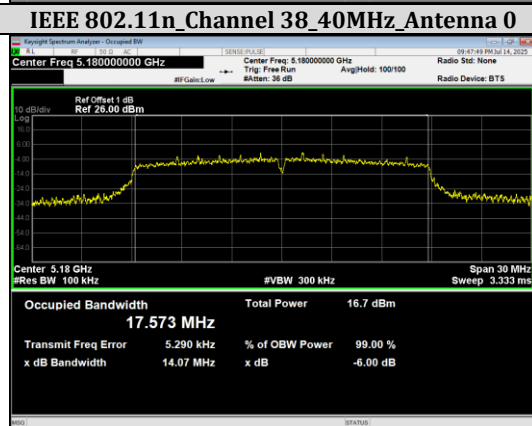
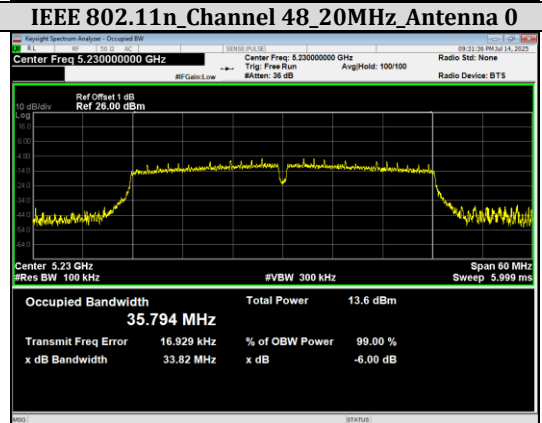
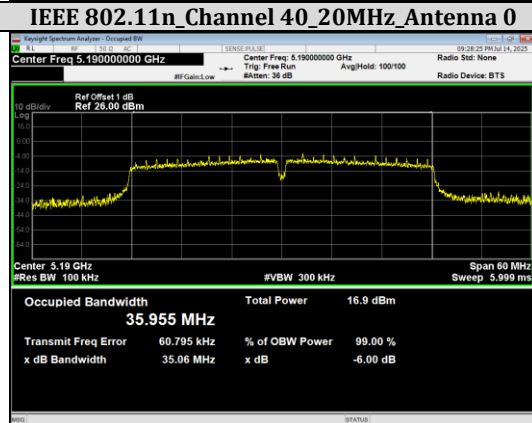
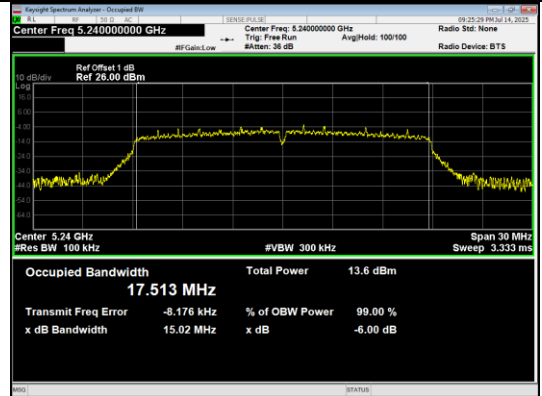
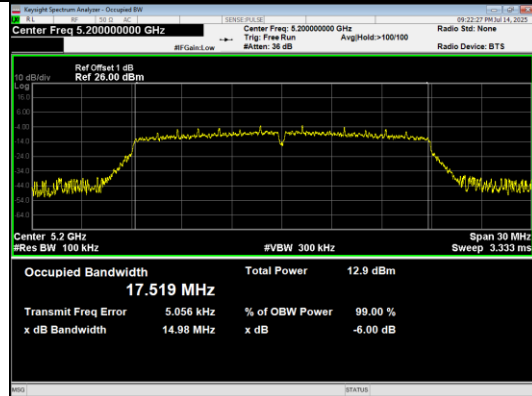
6dB Bandwidth

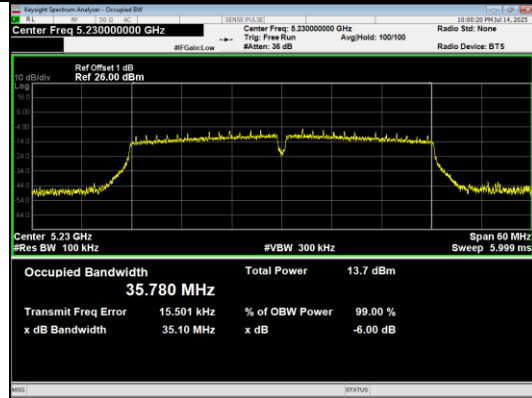
Test Result

Mode	Channel	Ant.	Center Frequency (MHz)	6 dB Bandwidth (MHz)	Limit (MHz)	Result
IEEE 802.11a	36	0	5180	15.31	≥0.5	PASS
	40		5200	14.23		PASS
	48		5240	15.03		PASS
IEEE 802.11n_20	36		5180	13.88		PASS
	40		5200	14.98		PASS
	48		5240	15.02		PASS
IEEE 802.11n_40	38		5190	35.06		PASS
	46		5230	33.82		PASS
IEEE 802.11ac_20	36		5180	14.07		PASS
	40		5200	15.28		PASS
	48		5240	15.04		PASS
IEEE 802.11ac_40	38		5190	35.06		PASS
	46		5230	35.10		PASS
IEEE 802.11ac_80	42		5210	75.10		PASS

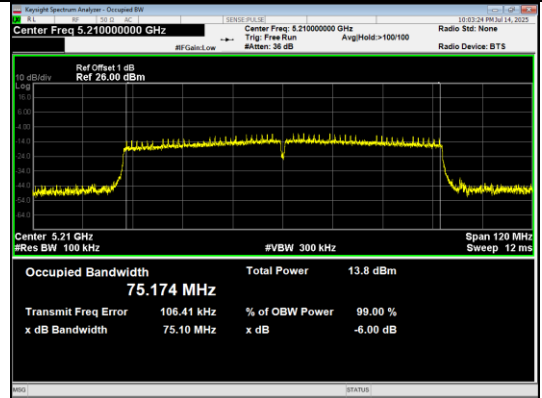
Test Graphs







IEEE 802.11ac_Channel 46_40MHz_Antenna 0



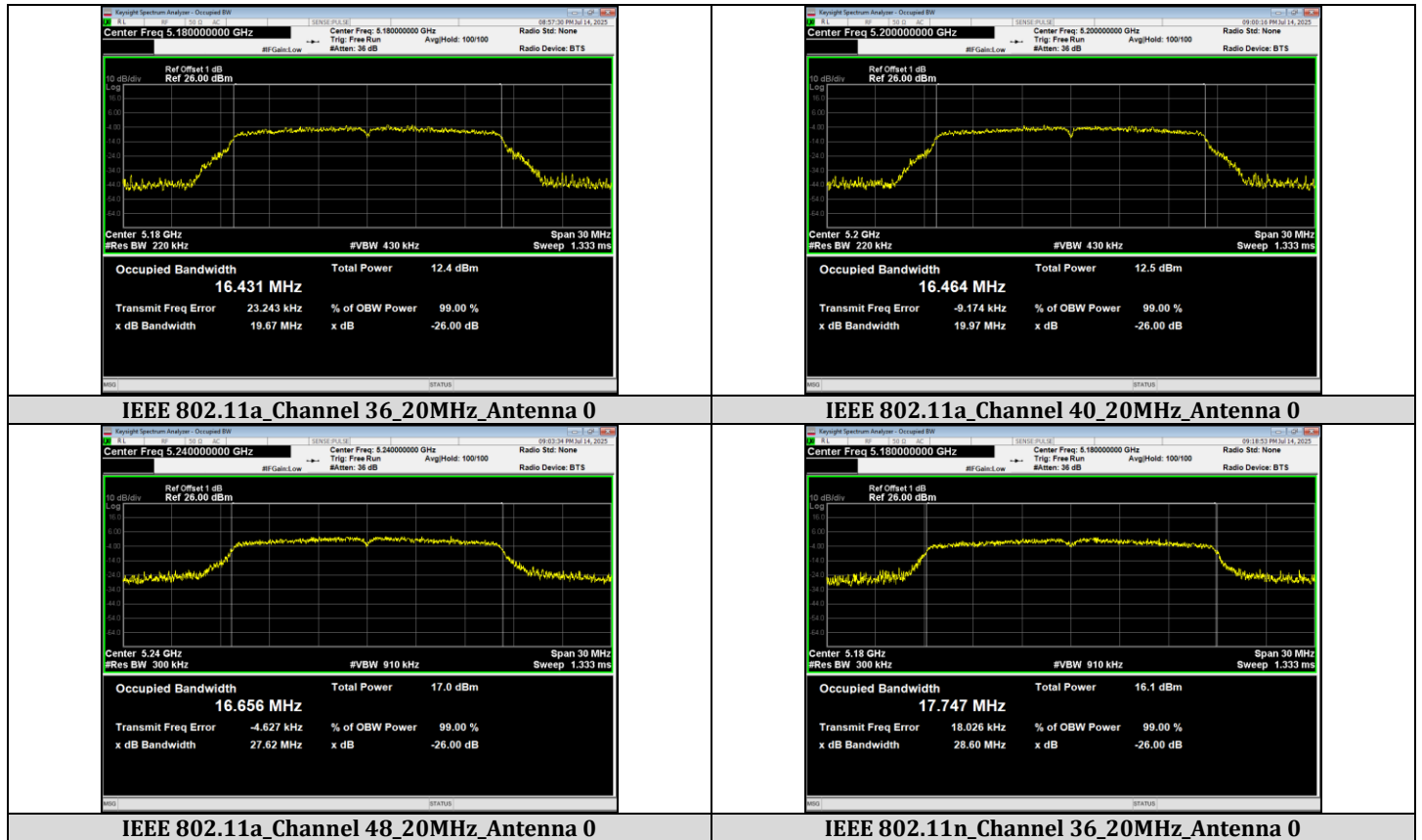
IEEE 802.11ac_Channel 42_80MHz_Antenna 0

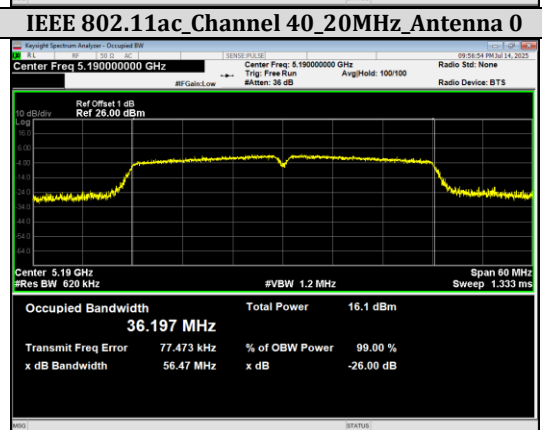
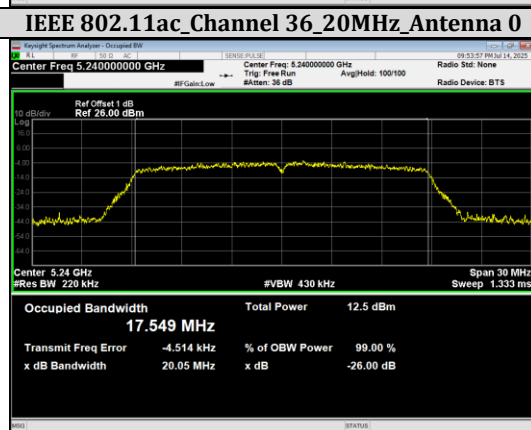
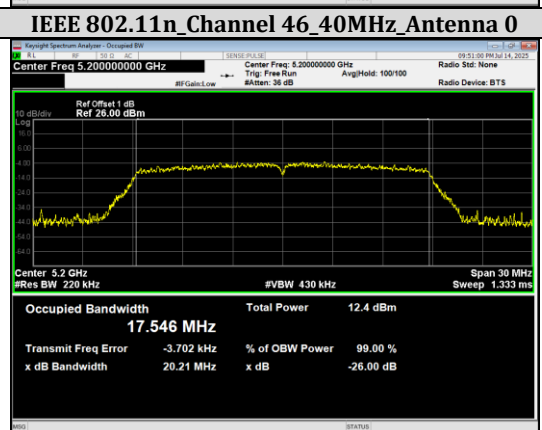
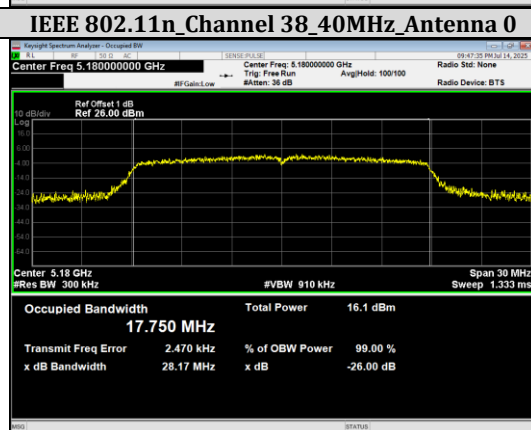
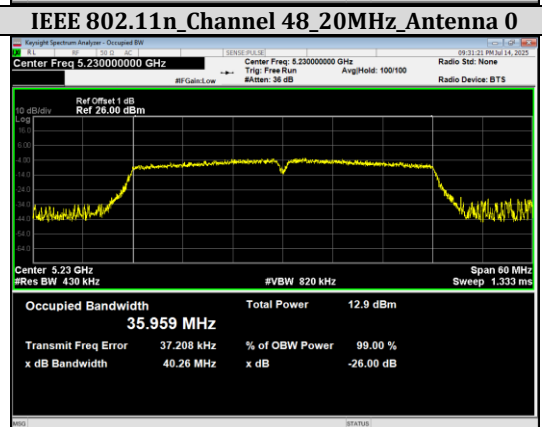
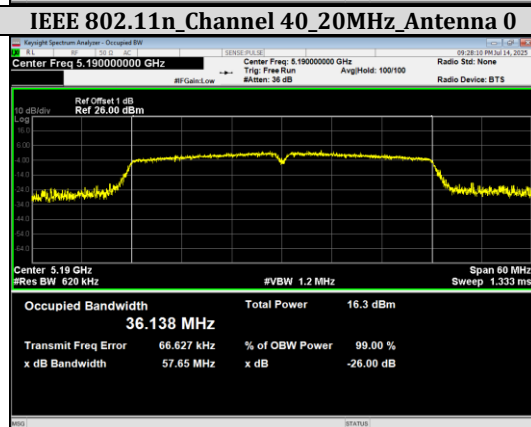
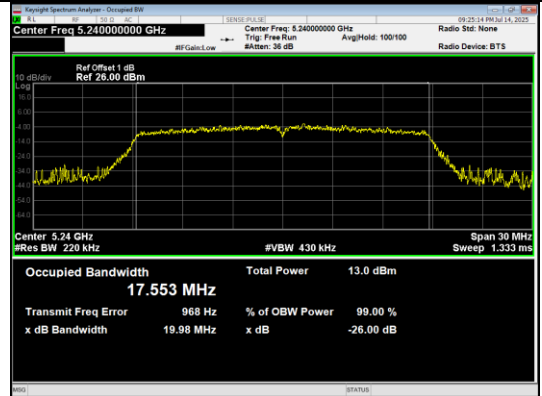
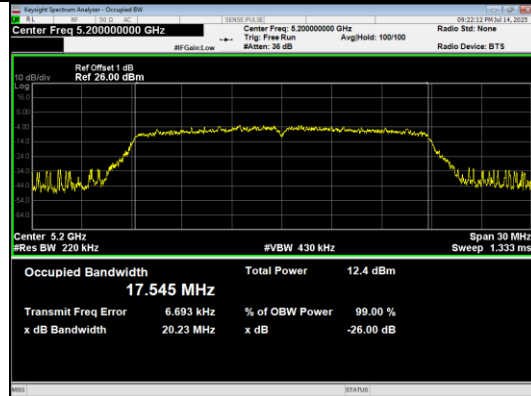
26dB Bandwidth

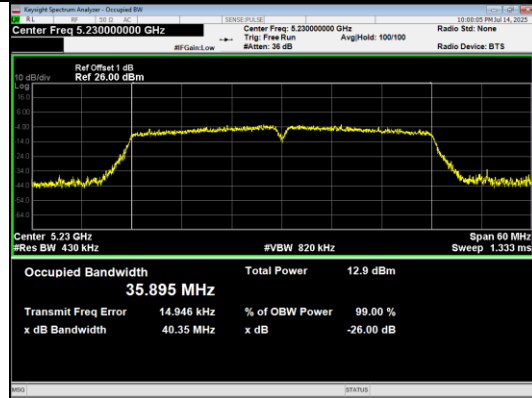
Test Result

Mode	Channel	Ant.	Center Frequency (MHz)	26 dB Bandwidth (MHz)	RBW/EBW
IEEE 802.11a	36	0	5180	19.67	1.12
	40		5200	19.97	1.1
	48		5240	27.62	1.09
IEEE 802.11n_20	36		5180	28.60	1.05
	40		5200	20.23	1.1
	48		5240	19.98	1.12
IEEE 802.11n_40	38		5190	57.65	1.03
	46		5230	40.26	1.05
	36		5180	28.17	1.06
IEEE 802.11ac_20	40		5200	20.21	1.1
	48		5240	20.05	1.11
	38		5190	56.47	1.09
IEEE 802.11ac_40	46		5230	40.35	1.06
	42		5210	80.65	1.11

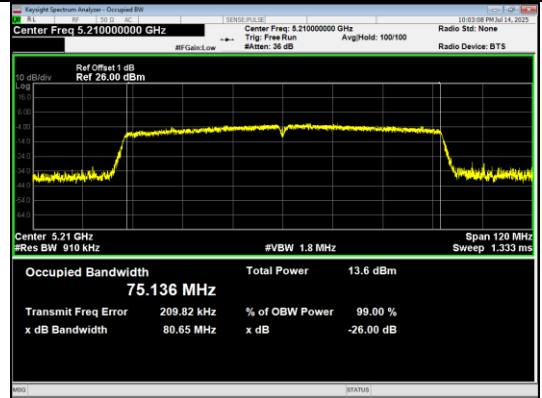
Test Graphs







IEEE 802.11ac_Channel 46_40MHz_Antenna 0



IEEE 802.11ac_Channel 42_80MHz_Antenna 0

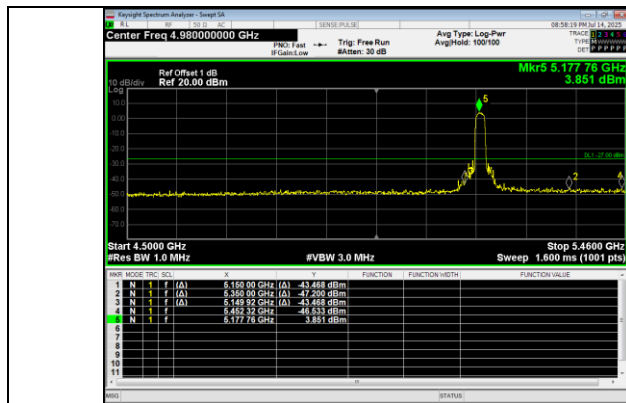
Conducted Out Of Band Emission

Test Result

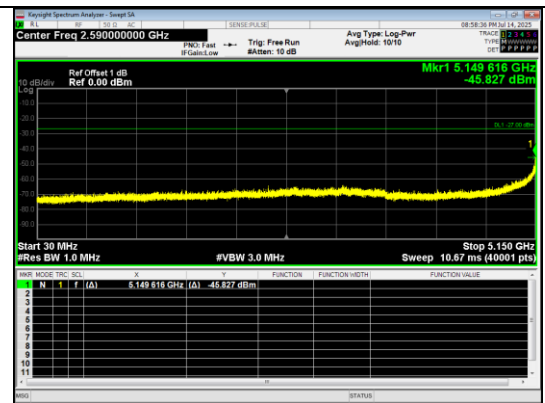
Mode	Channel	Ant.	OOB Emission Frequency (MHz)	OOB Emission Level (dBm)	Limit (dBm)	Over Limit (dB)	Result
IEEE 802.11a	36	0	5149.62	-45.830	-27	-18.830	PASS
			5149.92	-43.468	-27	-16.000	PASS
			5150.00	-43.470	-27	-16.000	PASS
			5350.00	-47.200	-27	-20.000	PASS
			5452.32	-46.533	-27	-20.000	PASS
			24993.1	-53.900	-27	-26.900	PASS
	40		2413.49	-37.360	-27	-10.360	PASS
			5149.92	-47.367	-27	-20.000	PASS
			5150.00	-47.370	-27	-20.000	PASS
			5350.00	-47.790	-27	-21.000	PASS
			5453.28	-47.069	-27	-20.000	PASS
			24933.7	-54.140	-27	-27.140	PASS
	48		5136.30	-54.660	-27	-27.660	PASS
			5149.92	-47.747	-27	-21.000	PASS
			5150.00	-47.750	-27	-21.000	PASS
			5350.00	-48.000	-27	-21.000	PASS
			5370.63	-53.790	-27	-26.790	PASS
			5456.16	-47.856	-27	-21.000	PASS
IEEE 802.11n_20	36		5149.10	-29.930	-27	-2.930	PASS
			5149.92	-31.405	-27	-4.000	PASS
			5150.00	-31.410	-27	-4.000	PASS
			5350.00	-48.490	-27	-21.000	PASS
			5459.04	-48.399	-27	-21.000	PASS
			24988.2	-53.750	-27	-26.750	PASS
	40		2415.79	-37.130	-27	-10.130	PASS
			5149.92	-47.896	-27	-21.000	PASS
			5150.00	-47.900	-27	-21.000	PASS
			5350.00	-46.340	-27	-19.000	PASS
			5368.80	-46.031	-27	-19.000	PASS
			24381.5	-54.740	-27	-27.740	PASS
	48		5147.44	-56.140	-27	-29.140	PASS
			5149.92	-48.306	-27	-21.000	PASS
			5150.00	-48.310	-27	-21.000	PASS
			5350.00	-47.660	-27	-21.000	PASS
			5457.12	-47.446	-27	-20.000	PASS
			24370.7	-54.000	-27	-27.000	PASS
IEEE 802.11n_40	38		5147.18	-34.900	-27	-7.900	PASS
			5150.00	-30.860	-27	-4.000	PASS
			5350.00	-48.540	-27	-22.000	PASS
			5460.00	-48.153	-27	-21.000	PASS
			24411.0	-53.680	-27	-26.680	PASS
	46		5145.90	-42.920	-27	-15.920	PASS
			5149.92	-43.340	-27	-16.000	PASS
			5150.00	-43.340	-27	-16.000	PASS
			5350.00	-47.850	-27	-21.000	PASS
			5460.00	-47.709	-27	-21.000	PASS
IEEE 802.11ac_20	36		24987.2	-54.230	-27	-27.230	PASS
			5144.62	-43.970	-27	-16.970	PASS
		5149.92	-47.945	-27	-21.000	PASS	
		5150.00	-47.950	-27	-21.000	PASS	
		5350.00	-47.450	-27	-20.000	PASS	
		5454.24	-46.673	-27	-20.000	PASS	
		24359.4	-54.310	-27	-27.310	PASS	

	40	5148.85	-49.310	-27	-22.310	PASS
		5149.92	-47.919	-27	-21.000	PASS
		5150.00	-47.920	-27	-21.000	PASS
		5350.00	-48.490	-27	-21.000	PASS
		5460.00	-46.998	-27	-20.000	PASS
		24973.0	-54.020	-27	-27.020	PASS
	48	1751.98	-49.850	-27	-22.850	PASS
		5000.16	-46.478	-27	-19.000	PASS
		5150.00	-46.880	-27	-20.000	PASS
		5350.00	-47.590	-27	-21.000	PASS
		5458.08	-47.435	-27	-20.000	PASS
		24943.5	-54.250	-27	-27.250	PASS
IEEE 802.11ac_40	38	5142.32	-33.420	-27	-6.420	PASS
		5149.92	-36.907	-27	-10.000	PASS
		5150.00	-36.910	-27	-10.000	PASS
		5350.00	-47.600	-27	-21.000	PASS
		5438.88	-47.173	-27	-20.000	PASS
		24980.3	-52.930	-27	-25.930	PASS
	46	5140.40	-50.800	-27	-23.800	PASS
		5149.92	-48.089	-27	-21.000	PASS
		5150.00	-48.090	-27	-21.000	PASS
		5350.00	-47.350	-27	-20.000	PASS
		5351.47	-53.700	-27	-26.700	PASS
		5458.08	-47.339	-27	-20.000	PASS
IEEE 802.11ac_80	42	5148.59	-34.740	-27	-7.740	PASS
		5149.92	-35.998	-27	-9.000	PASS
		5150.00	-36.000	-27	-9.000	PASS
		5350.00	-46.140	-27	-19.000	PASS
		5351.97	-47.050	-27	-20.050	PASS
		5412.96	-45.969	-27	-19.000	PASS

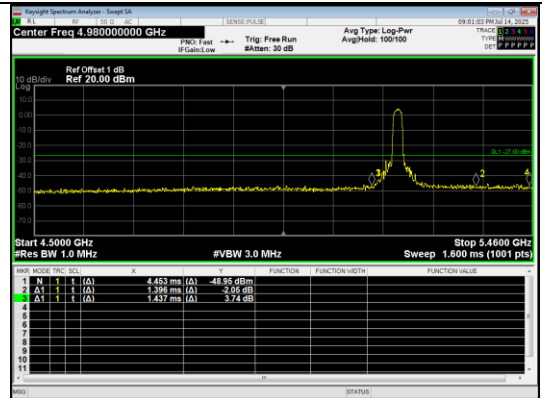
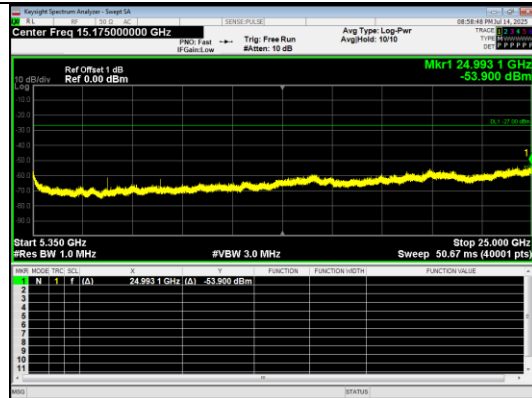
Test Graphs



Out Of Band Emission
IEEE 802.11a_Channel 36_20MHz_Antenna 0

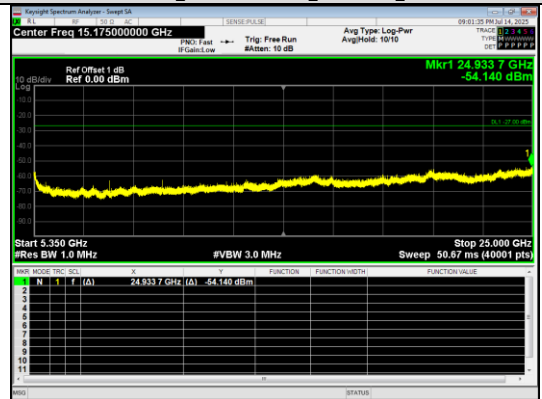
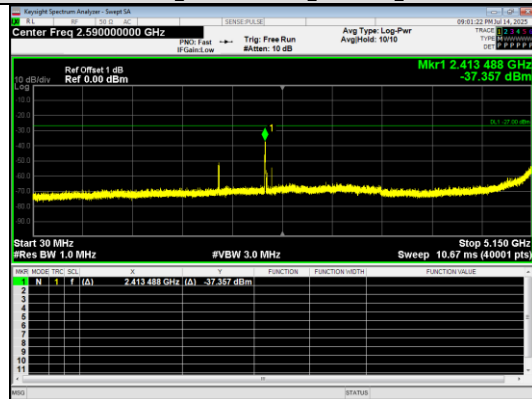


Spurious Emission:30.0~5150 MHz
IEEE 802.11a_Channel 36_20MHz_Antenna 0



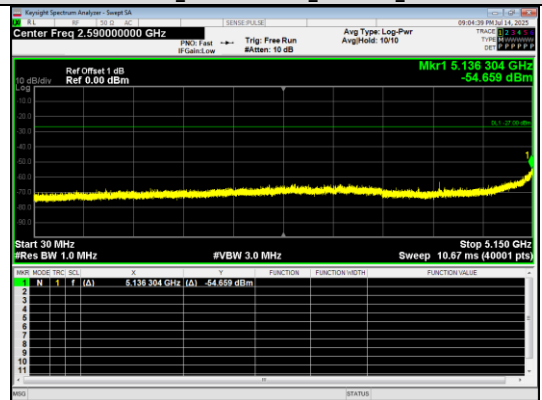
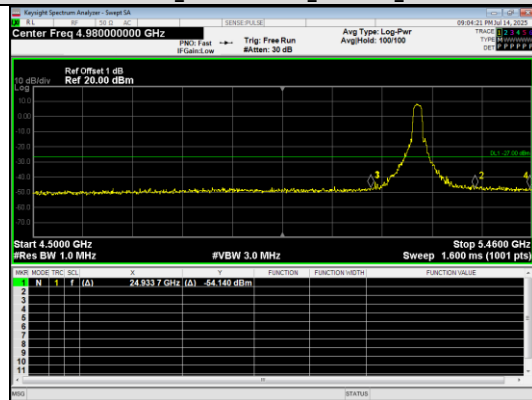
Spurious Emission:5350~25000.0 MHz
IEEE 802.11a_Channel 36_20MHz_Antenna 0

Out Of Band Emission
IEEE 802.11a_Channel 40_20MHz_Antenna 0



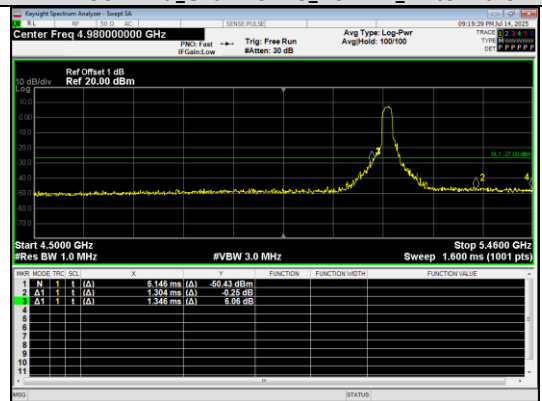
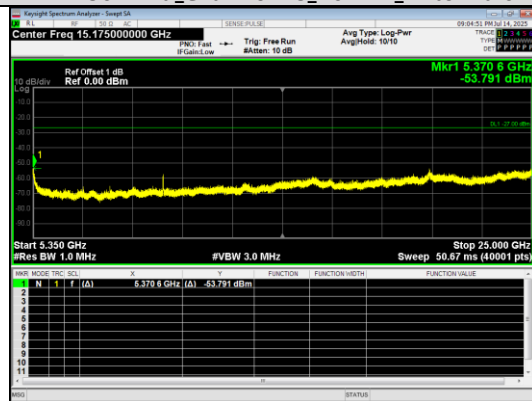
Spurious Emission:30.0~5150 MHz
IEEE 802.11a_Channel 40_20MHz_Antenna 0

Spurious Emission:5350~25000.0 MHz
IEEE 802.11a_Channel 40_20MHz_Antenna 0



Out Of Band Emission
IEEE 802.11a_Channel 48_20MHz_Antenna 0

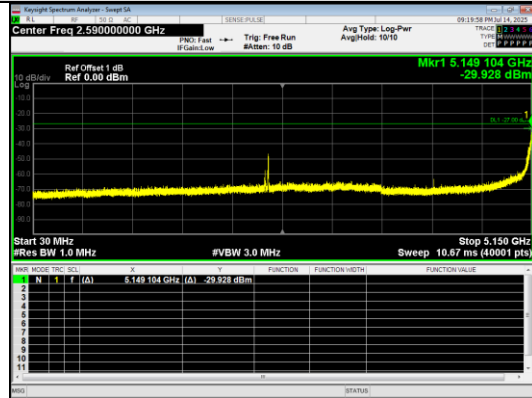
Spurious Emission:30.0~5150 MHz
IEEE 802.11a_Channel 48_20MHz_Antenna 0



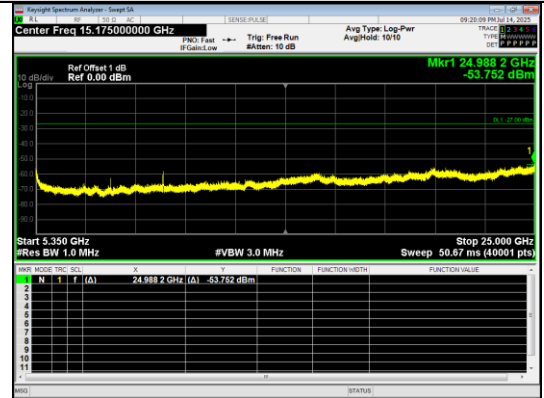
Spurious Emission:5350~25000.0 MHz

Out Of Band Emission

IEEE 802.11a_Channel 48_20MHz_Antenna 0

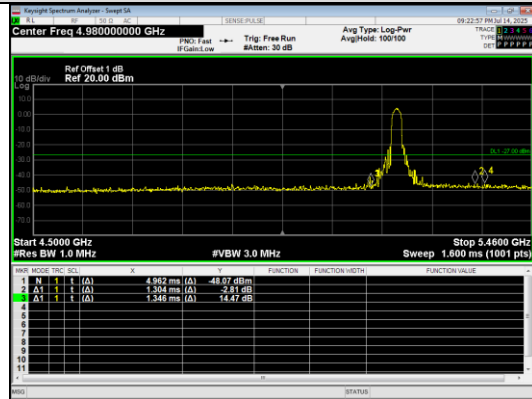


IEEE 802.11n_Channel 36_20MHz_Antenna 0



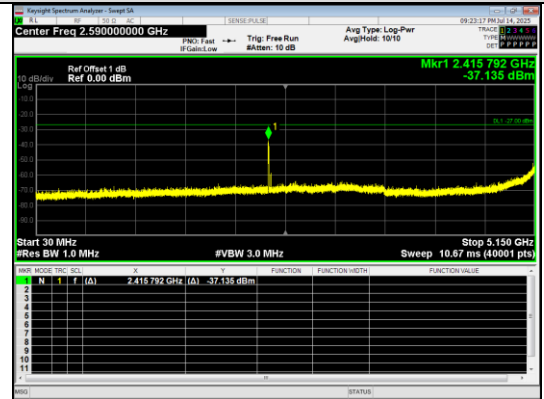
Spurious Emission:30.0~5150 MHz

IEEE 802.11n_Channel 36_20MHz_Antenna 0



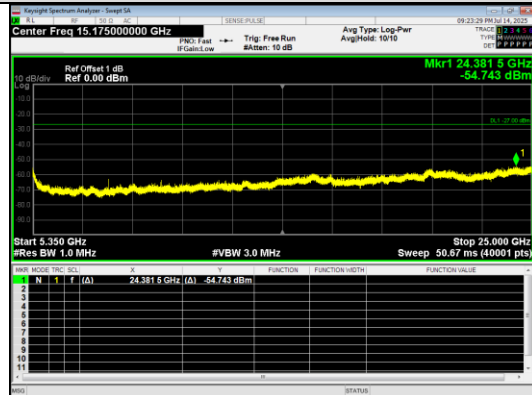
Spurious Emission:5350~25000.0 MHz

IEEE 802.11n_Channel 36_20MHz_Antenna 0



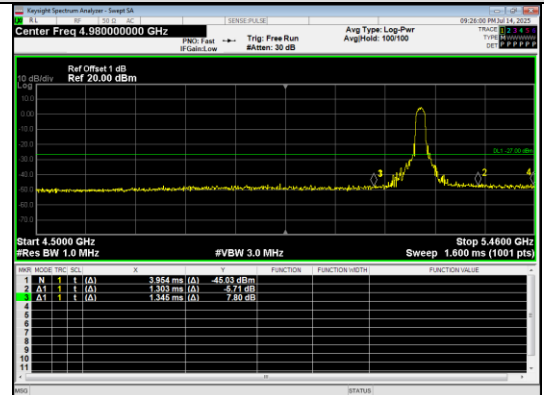
Out Of Band Emission

IEEE 802.11n_Channel 40_20MHz_Antenna 0



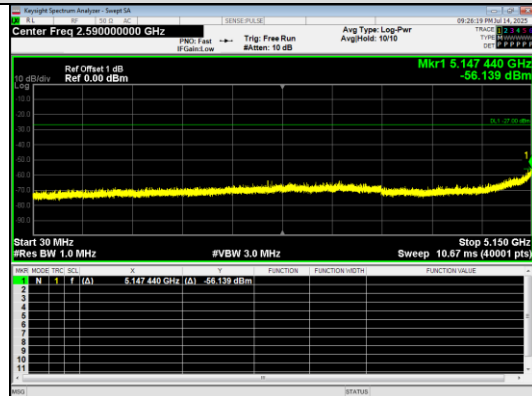
Spurious Emission:30.0~5150 MHz

IEEE 802.11n_Channel 40_20MHz_Antenna 0



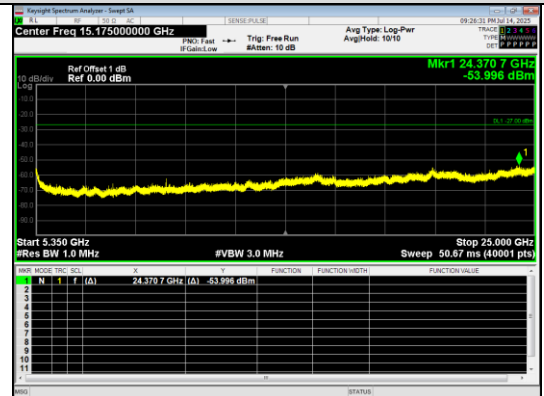
Spurious Emission:5350~25000.0 MHz

IEEE 802.11n_Channel 40_20MHz_Antenna 0

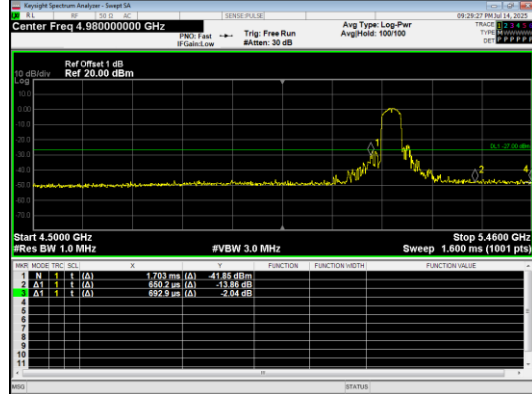


Out Of Band Emission

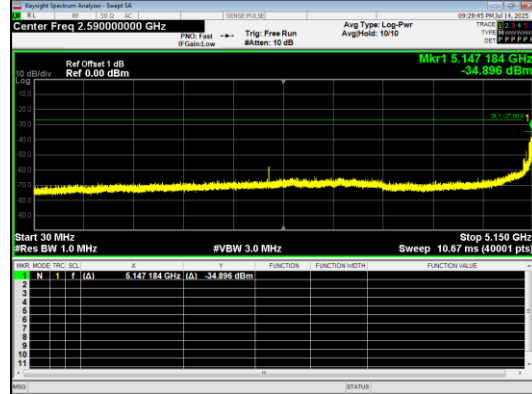
IEEE 802.11n_Channel 48_20MHz_Antenna 0



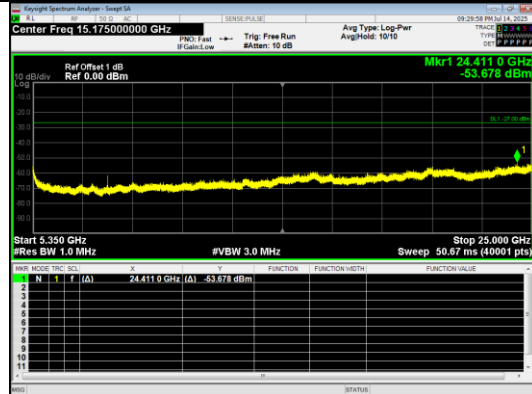
Spurious Emission:30.0~5150 MHz IEEE 802.11n_Channel 48_20MHz_Antenna 0



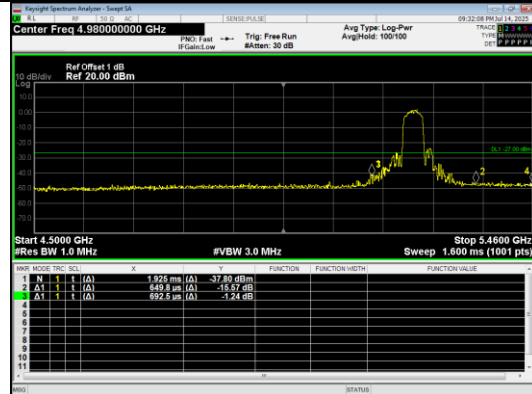
Spurious Emission:5350~25000.0 MHz IEEE 802.11n_Channel 48_20MHz_Antenna 0



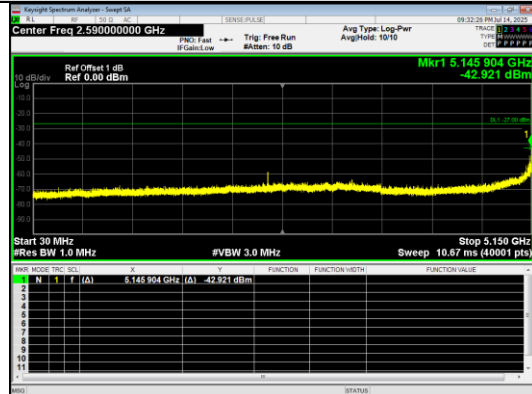
Out Of Band Emission IEEE 802.11n_Channel 38_40MHz_Antenna 0



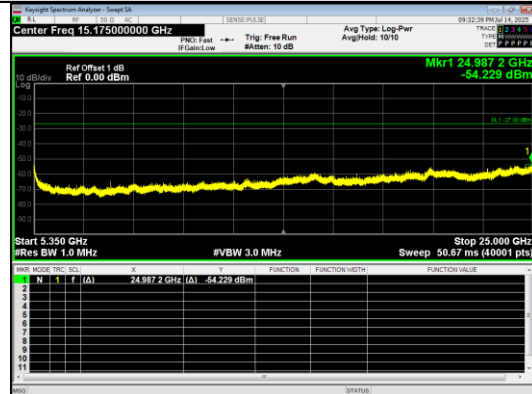
Spurious Emission:30.0~5150 MHz IEEE 802.11n_Channel 38_40MHz_Antenna 0



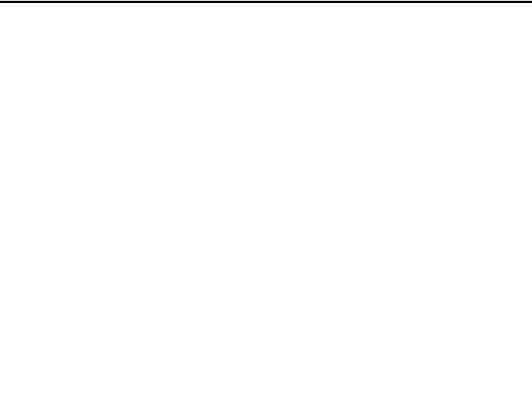
Spurious Emission:5350~25000.0 MHz IEEE 802.11n_Channel 38_40MHz_Antenna 0



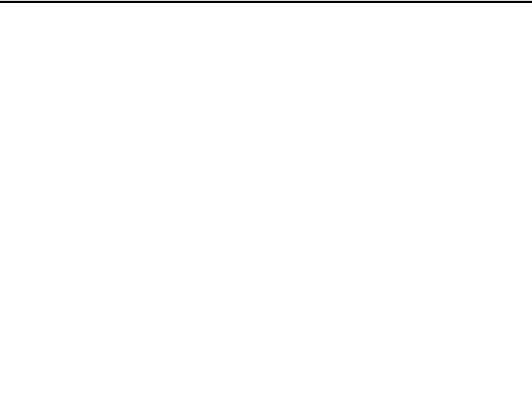
Out Of Band Emission IEEE 802.11n_Channel 46_40MHz_Antenna 0

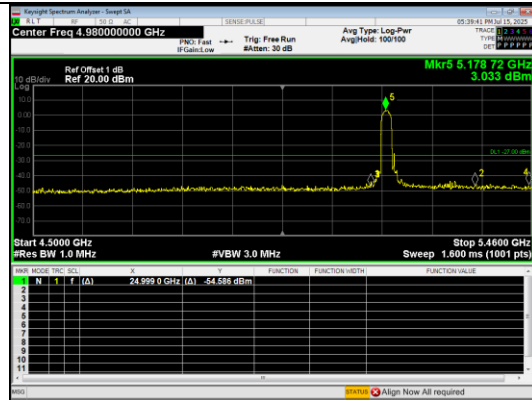


Spurious Emission:30.0~5150 MHz IEEE 802.11n_Channel 46_40MHz_Antenna 0

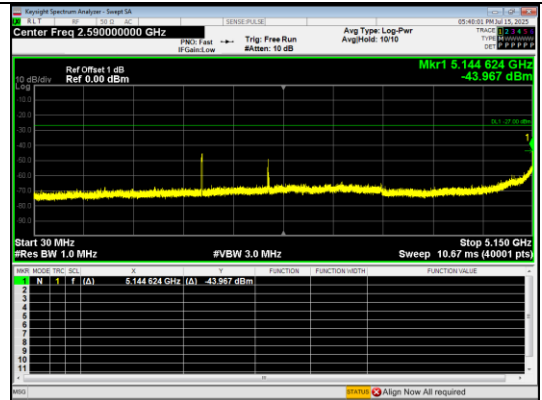


Spurious Emission:5350~25000.0 MHz IEEE 802.11n_Channel 46_40MHz_Antenna 0

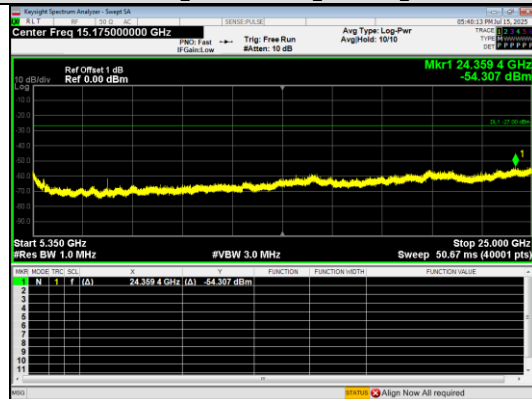




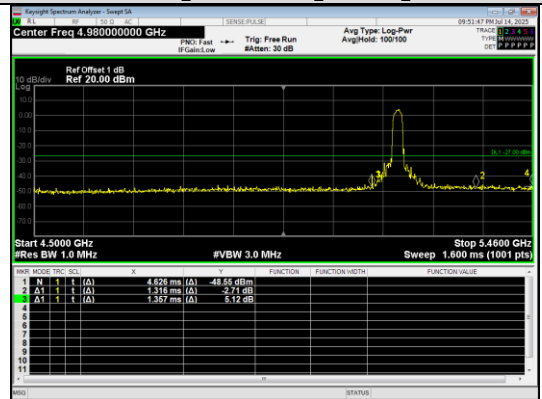
Out Of Band Emission
IEEE 802.11ac_Channel 36_20MHz_Antenna 0



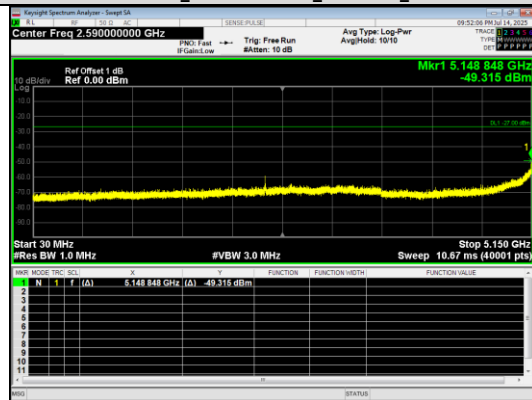
Spurious Emission:30.0~5150 MHz
IEEE 802.11ac_Channel 36_20MHz_Antenna 0



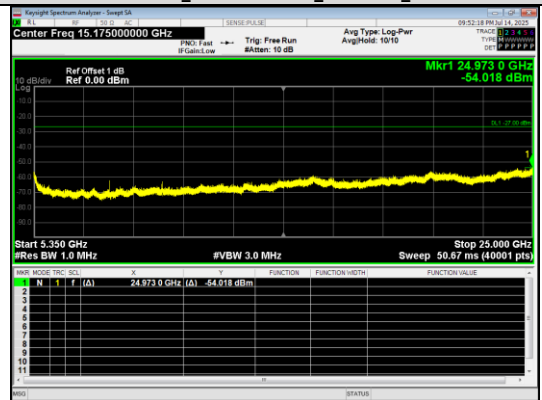
Spurious Emission:5350~25000.0 MHz
IEEE 802.11ac_Channel 36_20MHz_Antenna 0



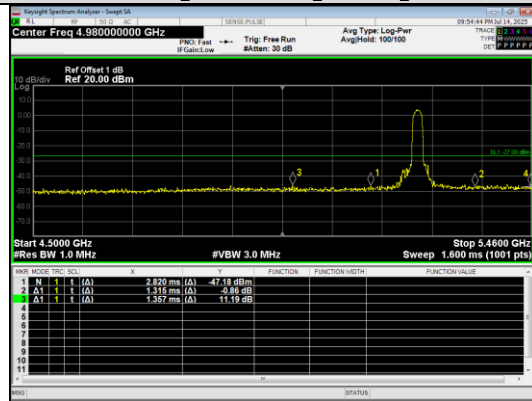
Out Of Band Emission
IEEE 802.11ac_Channel 40_20MHz_Antenna 0



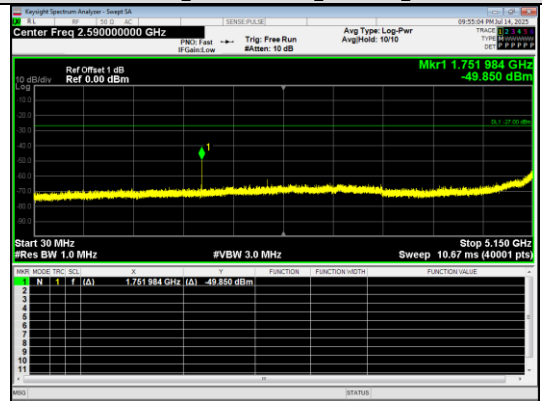
Spurious Emission:30.0~5150 MHz
IEEE 802.11ac_Channel 40_20MHz_Antenna 0



Spurious Emission:5350~25000.0 MHz
IEEE 802.11ac_Channel 40_20MHz_Antenna 0



Out Of Band Emission



Spurious Emission:30.0~5150 MHz