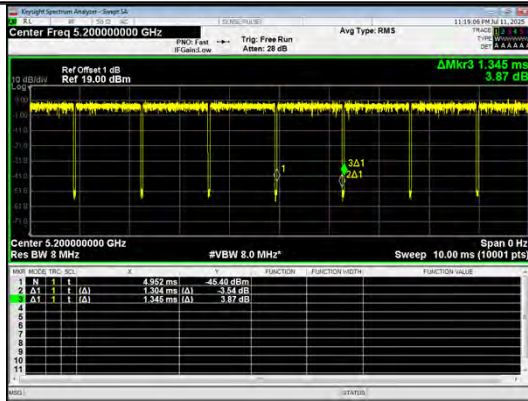
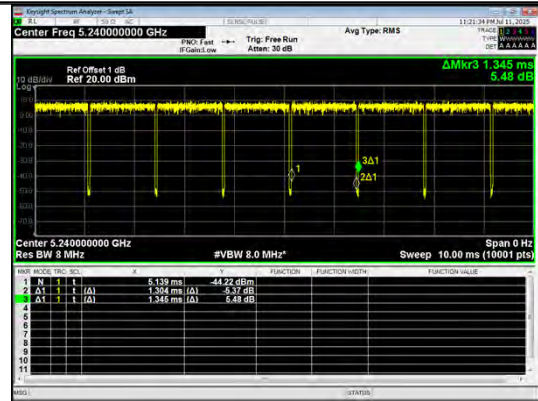


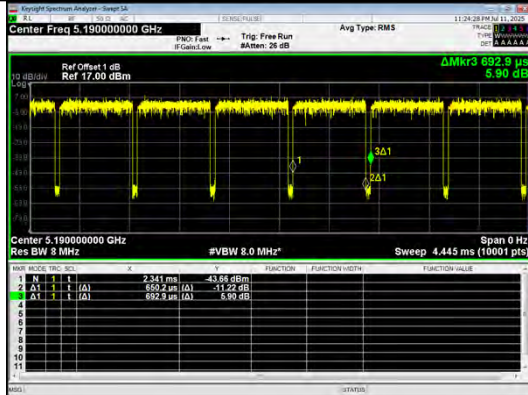
Appendix RF test data for 5G WIFI_NII band 1



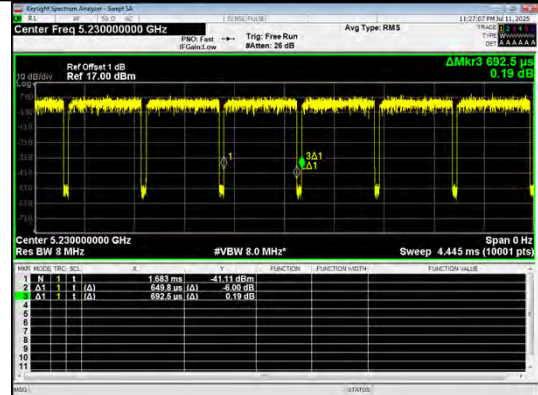
IEEE 802.11n_20MHz_Channel 40



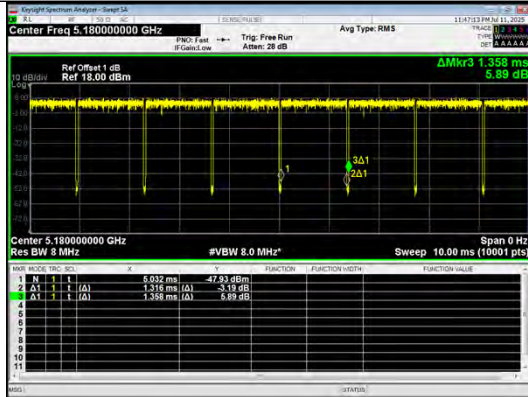
IEEE 802.11n_20MHz_Channel 48



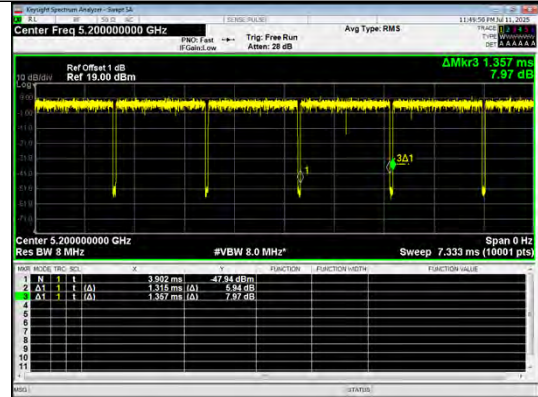
IEEE 802.11n_40MHz_Channel 38



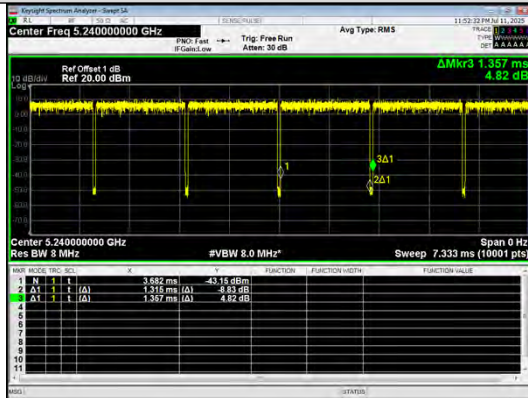
IEEE 802.11n_40MHz_Channel 46



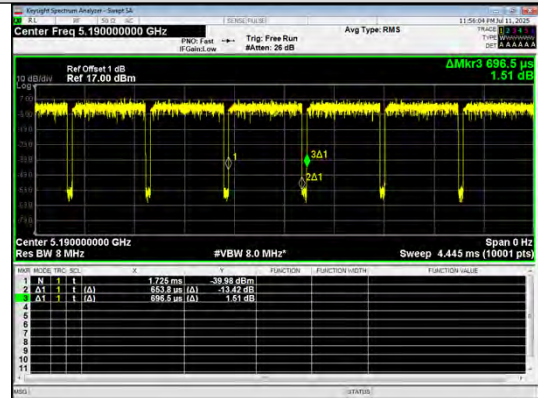
IEEE 802.11ac_20MHz_Channel 36



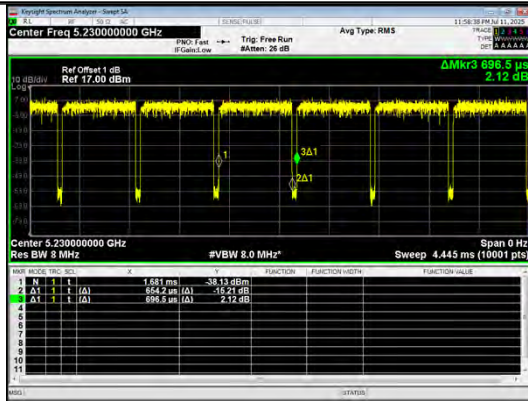
IEEE 802.11ac_20MHz_Channel 40



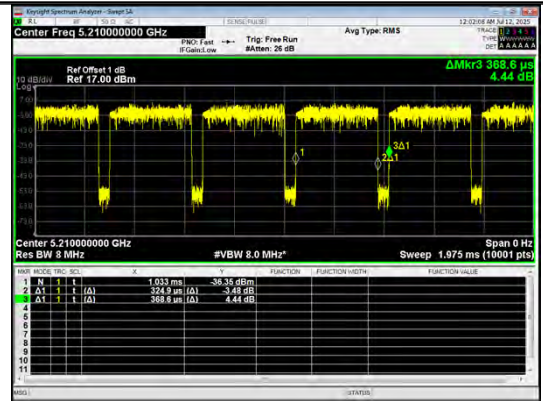
IEEE 802.11ac_20MHz_Channel 48



IEEE 802.11ac_40MHz_Channel 38



IEEE 802.11ac_40MHz_Channel 46

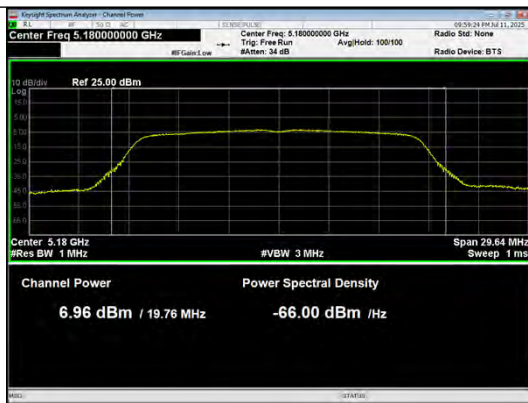


IEEE 802.11ac_80MHz_Channel 42

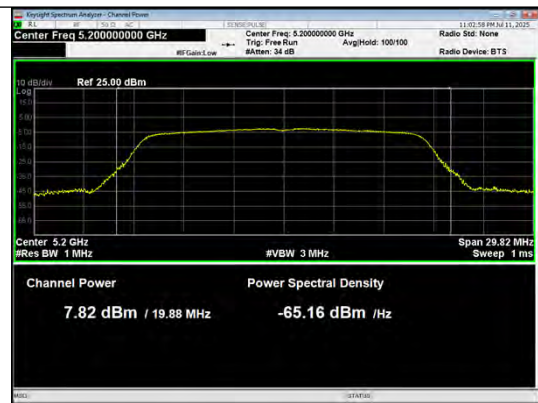
**Conducted Output Power****Test Result**

Mode	Channel	Ant. 0 (dBm)	Corr'd Value Ant. 0 (dBm)	Limit (dBm)	Result
IEEE 802.11a	36	6.96	7.09	≤24	PASS
	40	7.82	7.95	≤24	PASS
	48	8.48	8.61	≤24	PASS
IEEE 802.11n_20	36	7.49	7.62	≤24	PASS
	40	7.76	7.89	≤24	PASS
	48	8.46	8.59	≤24	PASS
IEEE 802.11n_40	38	7.49	7.77	≤24	PASS
	46	8.42	8.70	≤24	PASS
IEEE 802.11ac_20	36	7.50	7.64	≤24	PASS
	40	7.78	7.92	≤24	PASS
	48	8.45	8.59	≤24	PASS
IEEE 802.11ac_40	38	7.61	7.88	≤24	PASS
	46	8.39	8.66	≤24	PASS
IEEE 802.11ac_80	42	7.30	7.85	≤24	PASS

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



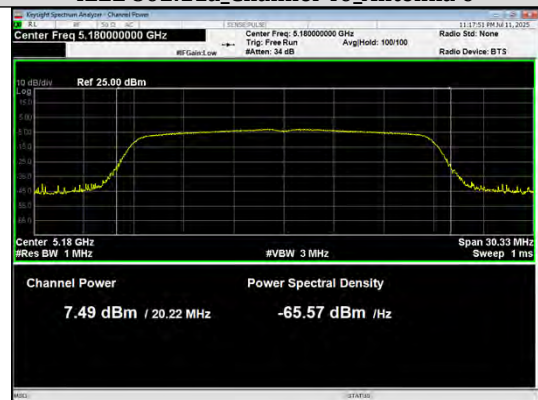
**Conducted AVG output power
IEEE 802.11a_Channel 36_Antenna 0**



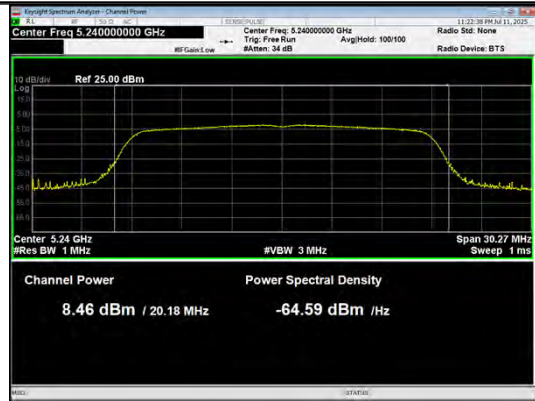
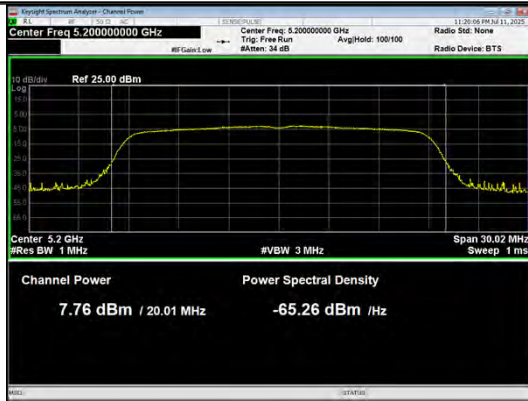
**Conducted AVG output power
IEEE 802.11a_Channel 40_Antenna 0**



**Conducted AVG output power
IEEE 802.11a_Channel 48_Antenna 0**

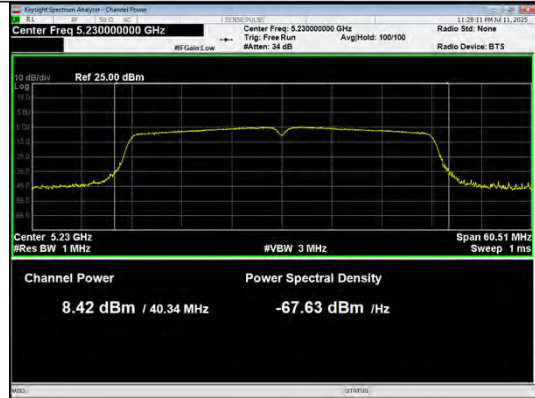
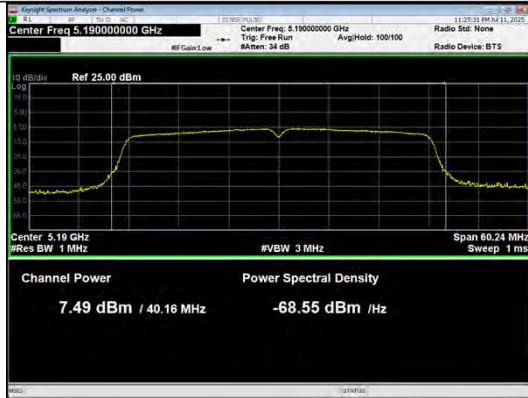


**Conducted AVG output power
IEEE 802.11n_20_Channel 36_Antenna 0**



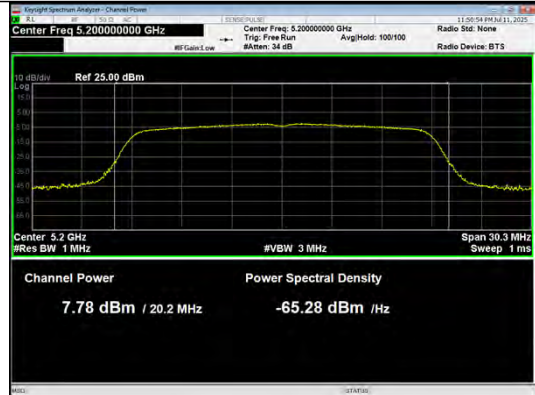
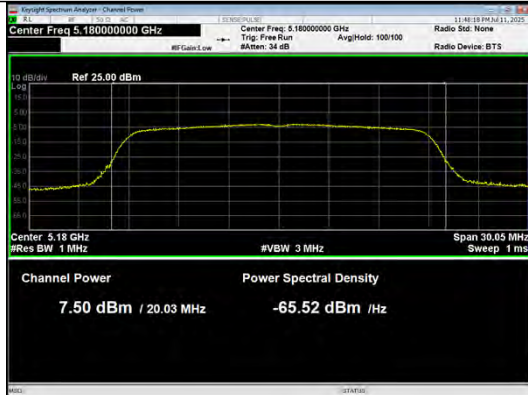
Conducted AVG output power
IEEE 802.11n_20_Channel 40_Antenna 0

Conducted AVG output power
IEEE 802.11n_20_Channel 48_Antenna 0



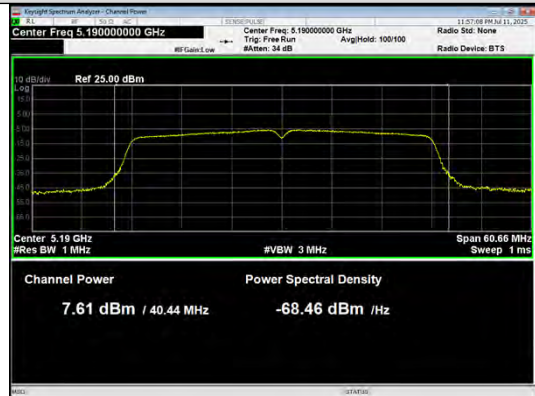
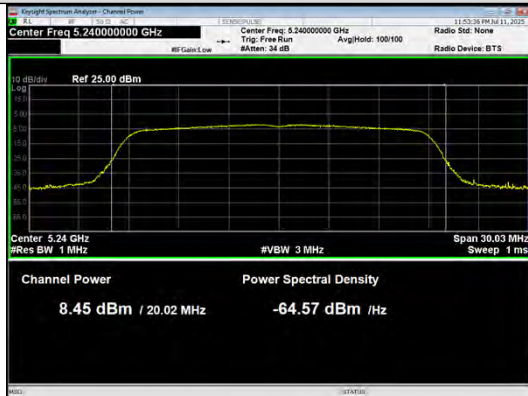
Conducted AVG output power
IEEE 802.11n_40_Channel 38_Antenna 0

Conducted AVG output power
IEEE 802.11n_40_Channel 46_Antenna 0



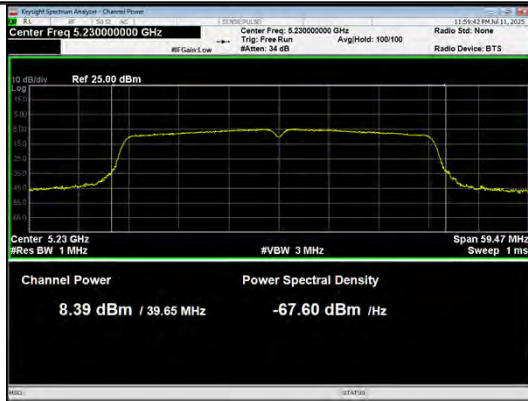
Conducted AVG output power
IEEE 802.11ac_20_Channel 36_Antenna 0

Conducted AVG output power
IEEE 802.11ac_20_Channel 40_Antenna 0

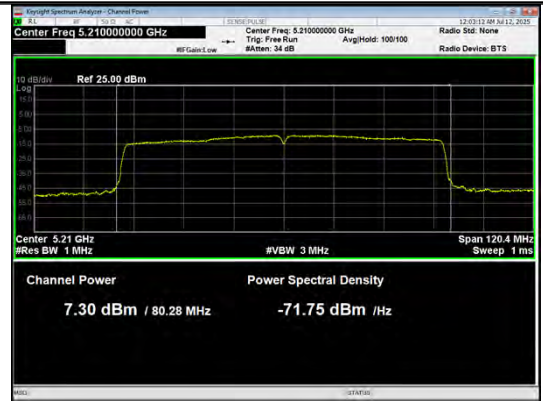


Conducted AVG output power
IEEE 802.11ac_20_Channel 48_Antenna 0

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

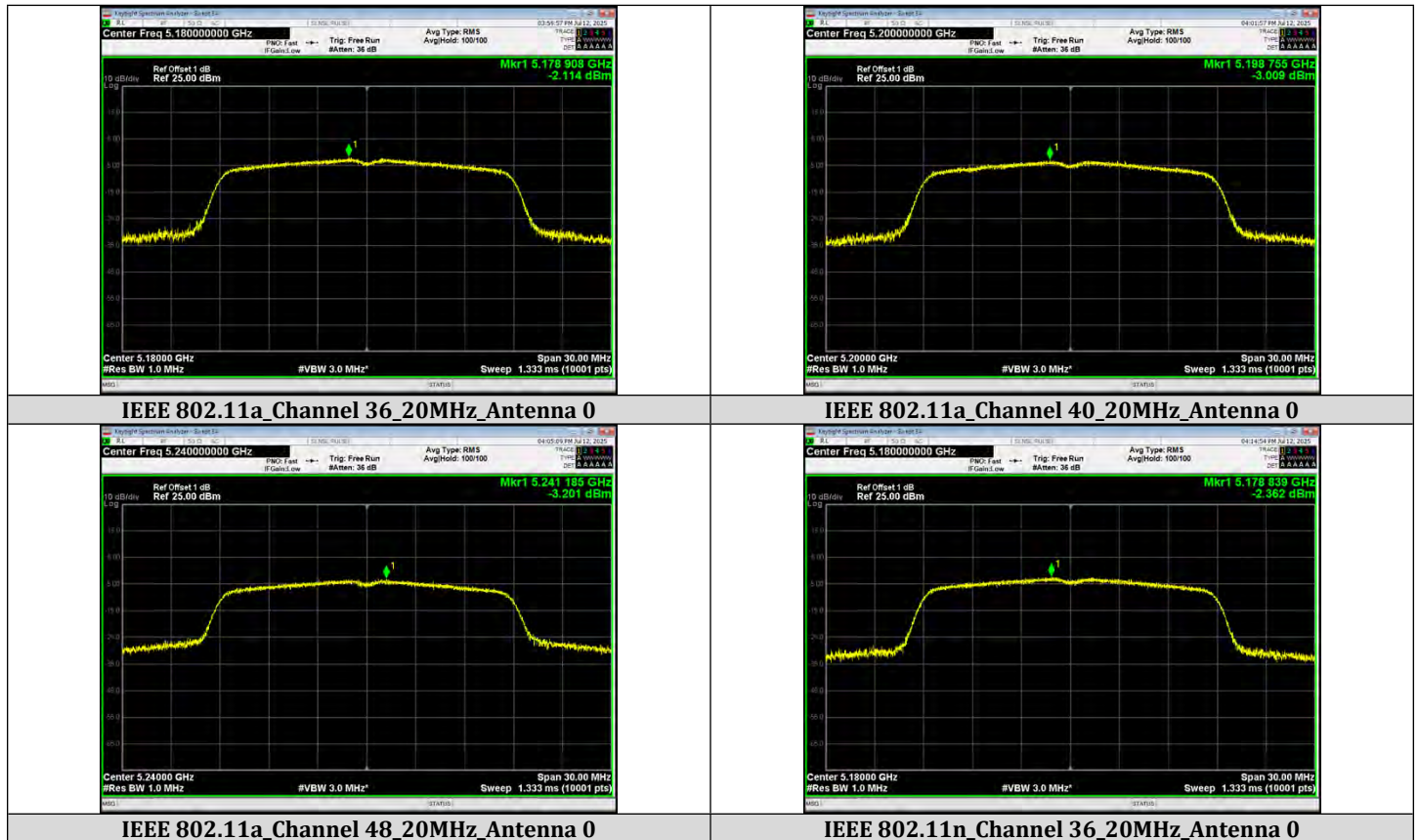
Power Spectral Density

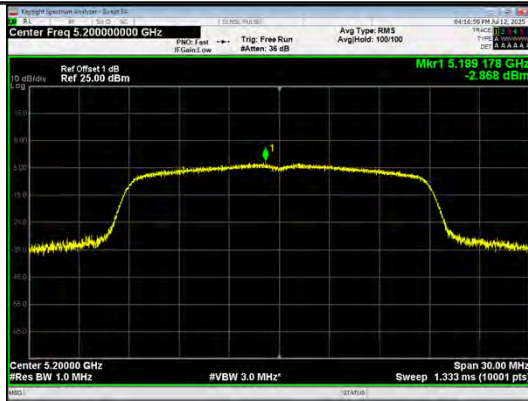
Test Result

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	-2.114	-1.988	11	PASS
	40	-3.009	-2.883		PASS
	48	-3.201	-3.072		PASS
IEEE 802.11n_20	36	-2.362	-2.228		PASS
	40	-2.868	-2.734		PASS
	48	-3.395	-3.261		PASS
IEEE 802.11n_40	38	-6.202	-5.926		PASS
	46	-6.901	-6.625		PASS
IEEE 802.11ac_20	36	-2.526	-2.390		PASS
	40	-3.177	-3.039		PASS
	48	-3.590	-3.454		PASS
IEEE 802.11ac_40	38	-5.781	-5.506		PASS
	46	-5.815	-5.544		PASS
IEEE 802.11ac_80	42	-8.572	-8.025		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



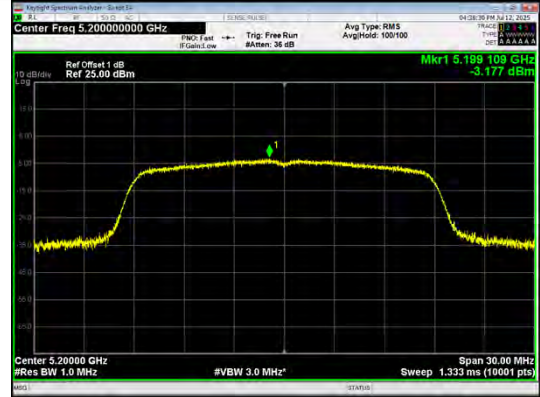
IEEE 802.11n_Channel 38_40MHz_Antenna 0



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



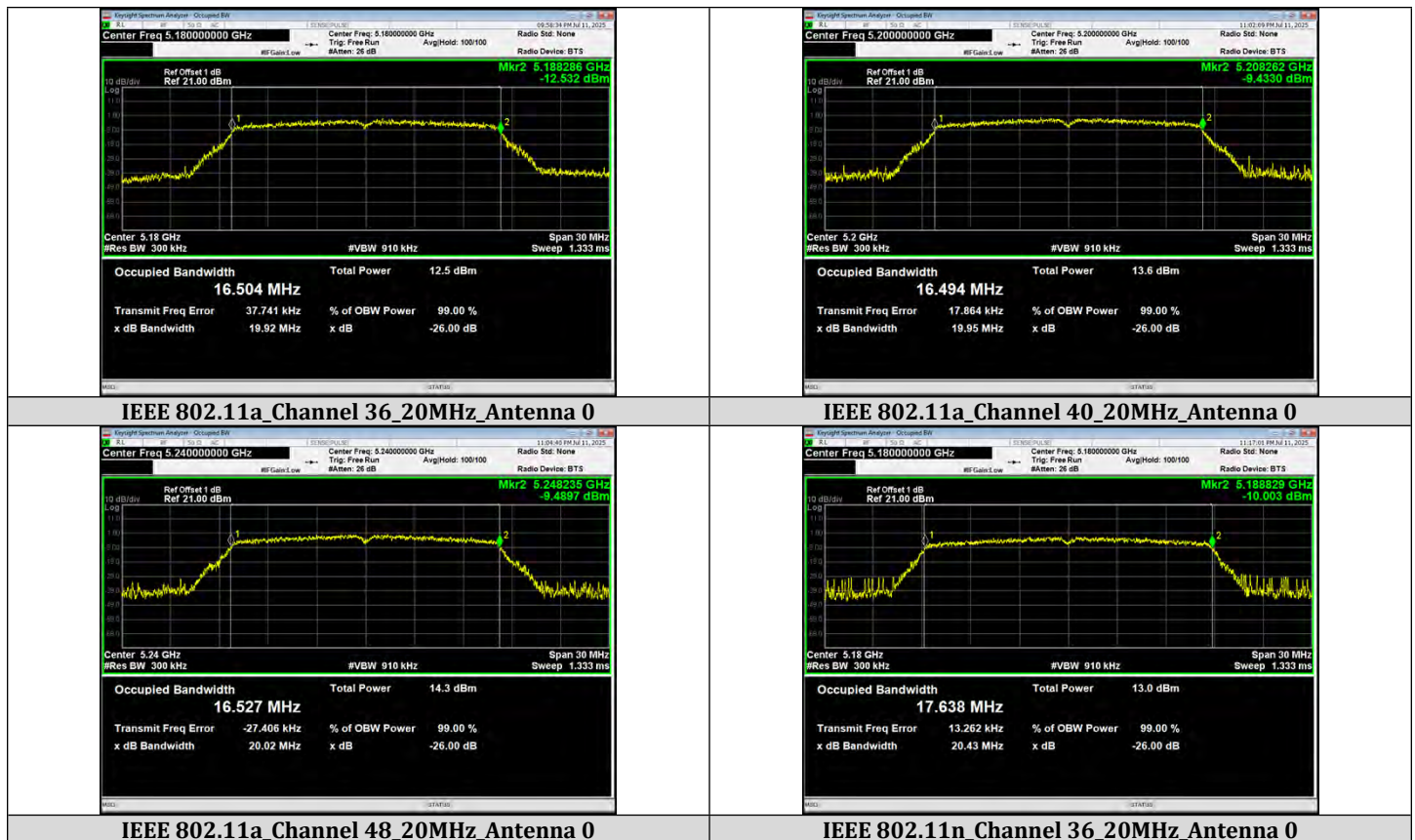
IEEE 802.11ac_Channel 42_80MHz_Antenna 0

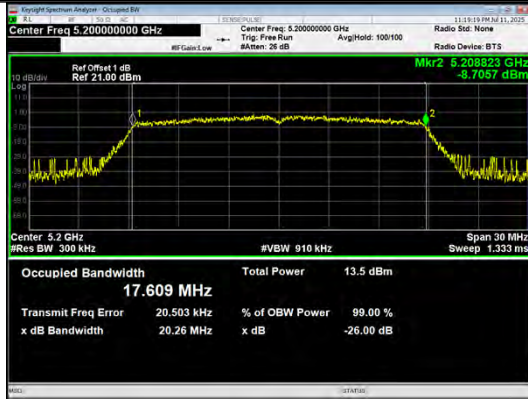
99% Bandwidth

Test Result

Mode	Channel	Ant.	Center Frequency (MHz)	99% BW (MHz)
IEEE 802.11a	36	0	5180	16.504
	40		5200	16.494
	48		5240	16.527
IEEE 802.11n_20	36		5180	17.638
	40		5200	17.609
	48		5240	17.605
IEEE 802.11n_40	38		5190	35.961
	46		5230	35.937
IEEE 802.11ac_20	36		5180	17.591
	40		5200	17.609
	48		5240	17.616
IEEE 802.11ac_40	38		5190	35.983
	46		5230	35.903
IEEE 802.11ac_80	42		5210	75.020

Test Graphs





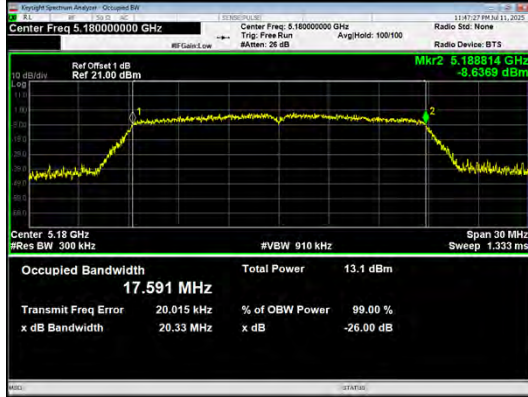
IEEE 802.11n_Channel 40_20MHz_Antenna 0

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

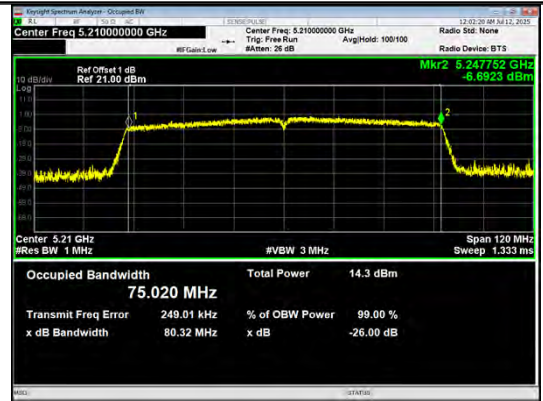


IEEE 802.11ac_Channel 48_20MHz_Antenna 0

IEEE 802.11ac_Channel 38_40MHz_Antenna 0



IEEE 802.11ac_Channel 46_40MHz_Antenna 0



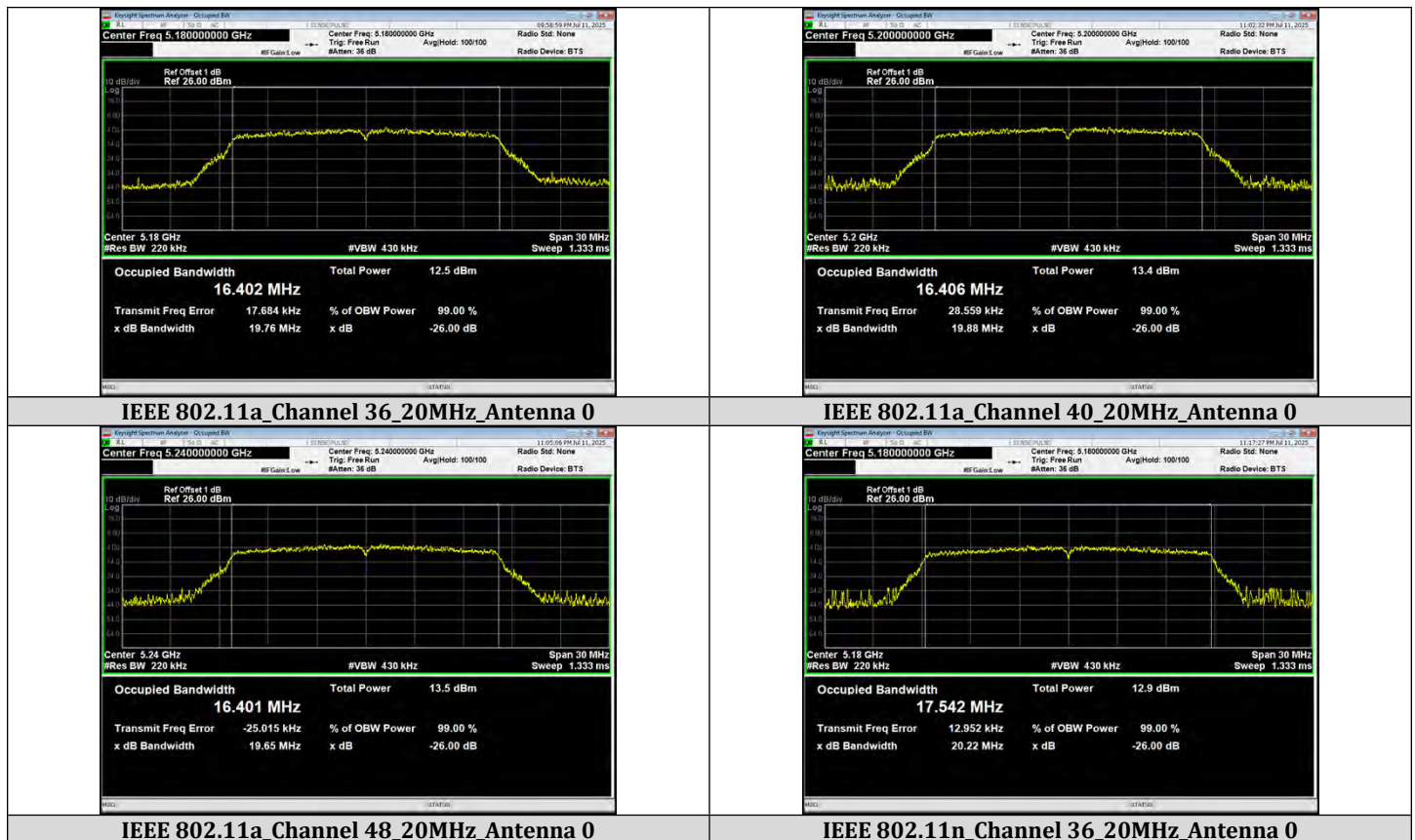
IEEE 802.11ac_Channel 42_80MHz_Antenna 0

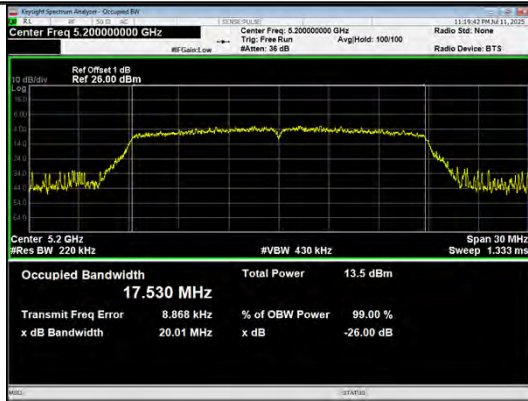
26dB Bandwidth

Test Result

Mode	Channel	Ant.	Center Frequency (MHz)	26 dB Bandwidth (MHz)	RBW/EBW
IEEE 802.11a	36	0	5180	19.76	1.11
	40		5200	19.88	1.11
	48		5240	19.65	1.12
IEEE 802.11n_20	36		5180	20.22	1.1
	40		5200	20.01	1.11
	48		5240	20.18	1.11
IEEE 802.11n_40	38		5190	40.16	1.06
	46		5230	40.34	1.05
IEEE 802.11ac_20	36		5180	20.03	1.11
	40		5200	20.20	1.1
	48		5240	20.02	1.12
IEEE 802.11ac_40	38		5190	40.44	1.05
	46		5230	39.65	1.07
IEEE 802.11ac_80	42		5210	80.28	1.03

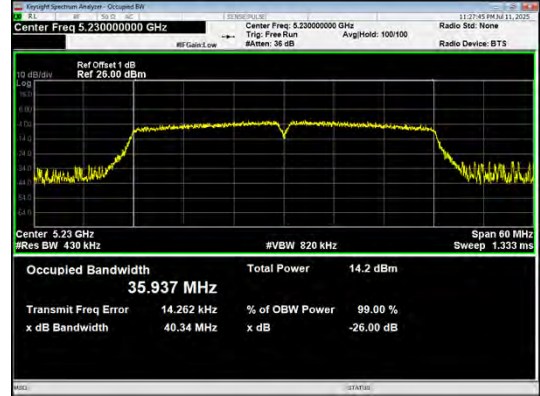
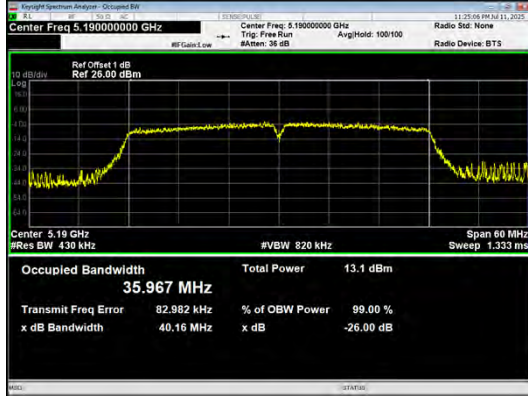
Test Graphs





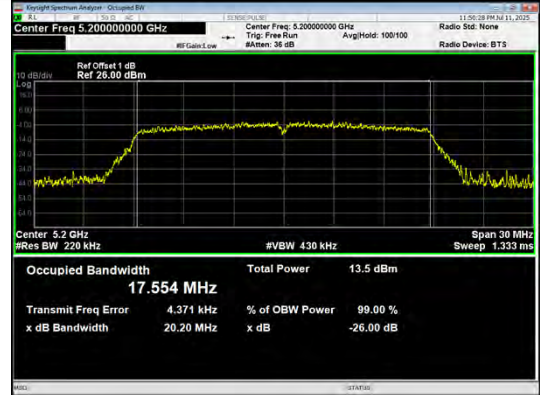
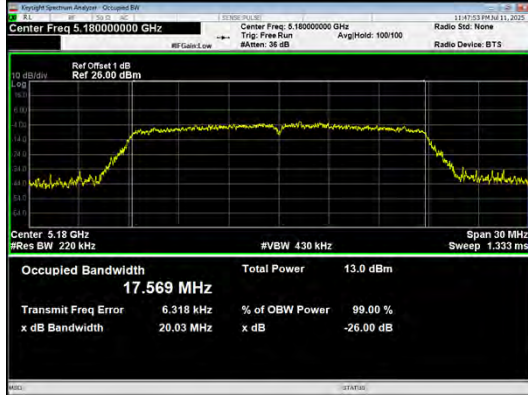
IEEE 802.11n_Channel 40_20MHz_Antenna 0

IEEE 802.11n_Channel 48_20MHz_Antenna 0



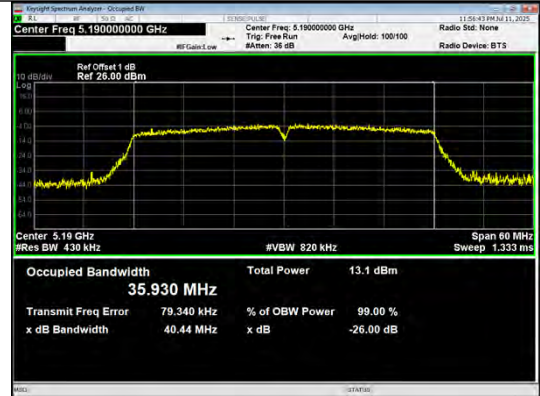
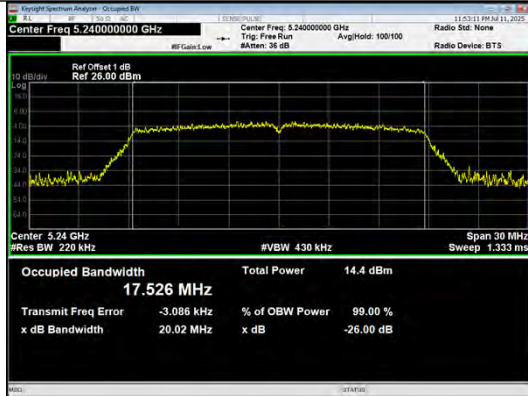
IEEE 802.11n_Channel 38_40MHz_Antenna 0

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

Conducted Out Of Band Emission

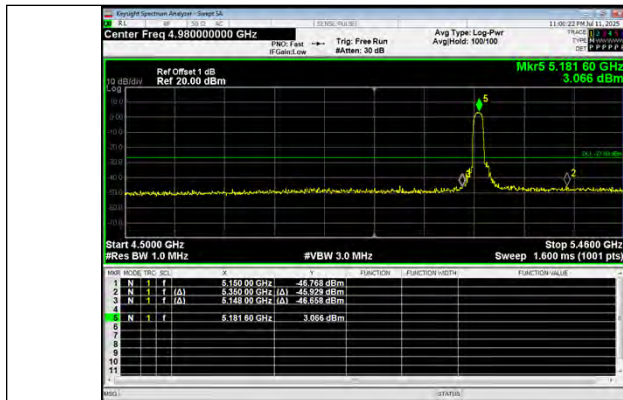
Test Result

Mode	Channel	Ant.	OOB Emission Frequency (MHz)	OOB Emission Level (dBm)	Limit (dBm)	Over Limit (dB)	Result
IEEE 802.11a	36	0	825.01	-35.746	-27	-8.750	PASS
			5148.00	-46.658	-27	-20.000	PASS
			5150.00	-46.768	-27	-20.000	PASS
			5350.00	-45.929	-27	-19.000	PASS
			24979.4	-53.602	-27	-26.600	PASS
	40		5146.16	-51.383	-27	-24.380	PASS
			5148.96	-47.446	-27	-20.000	PASS
			5150.00	-48.815	-27	-22.000	PASS
			5350.00	-47.662	-27	-21.000	PASS
			5458.08	-47.039	-27	-20.000	PASS
	48		24860.5	-54.454	-27	-27.450	PASS
			5146.93	-54.749	-27	-27.750	PASS
			5148.96	-48.520	-27	-22.000	PASS
			5150.00	-48.881	-27	-22.000	PASS
			5350.00	-48.674	-27	-22.000	PASS
			5459.04	-47.273	-27	-20.000	PASS
IEEE 802.11n_20	36		24911.6	-53.856	-27	-26.860	PASS
			5146.54	-35.327	-27	-8.330	PASS
			5148.96	-36.759	-27	-10.000	PASS
			5150.00	-38.277	-27	-11.000	PASS
			5350.00	-47.253	-27	-20.000	PASS
			5446.56	-47.197	-27	-20.000	PASS
	40		24980.3	-54.079	-27	-27.080	PASS
			1752.88	-38.733	-27	-11.730	PASS
			5147.04	-47.955	-27	-21.000	PASS
			5150.00	-48.094	-27	-21.000	PASS
			5350.00	-48.417	-27	-21.000	PASS
			5453.28	-48.345	-27	-21.000	PASS
	48		24952.8	-54.270	-27	-27.270	PASS
			1754.42	-40.382	-27	-13.380	PASS
			5149.92	-47.003	-27	-20.000	PASS
			5150.00	-47.003	-27	-20.000	PASS
5350.00			-47.979	-27	-21.000	PASS	
5359.33			-53.797	-27	-26.800	PASS	
IEEE 802.11n_40	38		5459.04	-47.683	-27	-21.000	PASS
			5137.71	-34.597	-27	-7.600	PASS
			5150.00	-31.561	-27	-5.000	PASS
			5350.00	-47.838	-27	-21.000	PASS
			5456.16	-46.098	-27	-19.000	PASS
	46		24853.1	-54.634	-27	-27.630	PASS
			828.46	-38.965	-27	-11.970	PASS
			5149.92	-40.241	-27	-13.000	PASS
			5150.00	-40.241	-27	-13.000	PASS
			5350.00	-48.068	-27	-21.000	PASS
			5357.86	-53.686	-27	-26.690	PASS
			5458.08	-46.700	-27	-20.000	PASS
IEEE 802.11ac_20	36		5147.82	-40.375	-27	-13.380	PASS
			5150.00	-36.157	-27	-9.000	PASS
		5350.00	-47.713	-27	-21.000	PASS	
		5459.04	-46.898	-27	-20.000	PASS	
		24948.9	-54.151	-27	-27.150	PASS	
	40	5149.92	-46.931	-27	-20.000	PASS	
		5150.00	-46.931	-27	-20.000	PASS	
		5150.00	-43.462	-27	-16.460	PASS	
		5350.00	-48.115	-27	-21.000	PASS	

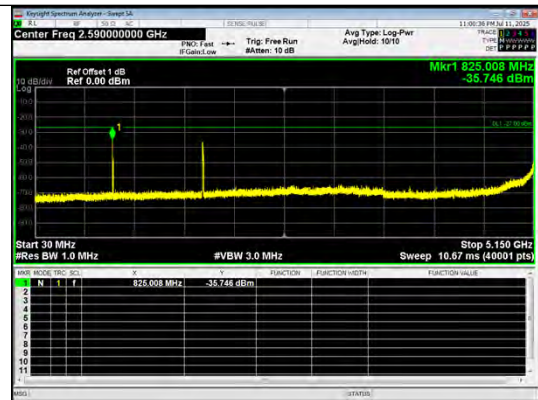


	48	5457.12	-47.626	-27	-21.000	PASS
		24941.5	-53.528	-27	-26.530	PASS
		1748.02	-44.303	-27	-17.300	PASS
		5148.96	-48.508	-27	-22.000	PASS
		5150.00	-49.433	-27	-22.000	PASS
		5350.00	-47.746	-27	-21.000	PASS
		5458.08	-47.688	-27	-21.000	PASS
		20955.0	-53.076	-27	-26.080	PASS
IEEE 802.11ac_40	38	5148.96	-38.984	-27	-12.000	PASS
		5149.62	-35.850	-27	-8.850	PASS
		5150.00	-40.099	-27	-13.000	PASS
		5350.00	-47.814	-27	-21.000	PASS
	46	5460.00	-45.968	-27	-19.000	PASS
		24977.9	-54.649	-27	-27.650	PASS
		1746.10	-40.265	-27	-13.270	PASS
		5148.96	-46.766	-27	-20.000	PASS
		5150.00	-47.060	-27	-20.000	PASS
		5350.00	-47.406	-27	-20.000	PASS
		5458.08	-46.935	-27	-20.000	PASS
		5800.48	-52.813	-27	-25.810	PASS
IEEE 802.11ac_80	42	5135.41	-38.134	-27	-11.130	PASS
		5148.96	-37.807	-27	-11.000	PASS
		5150.00	-38.853	-27	-12.000	PASS
		5350.00	-47.461	-27	-20.000	PASS
		5350.00	-47.431	-27	-20.430	PASS
		5457.12	-46.147	-27	-19.000	PASS

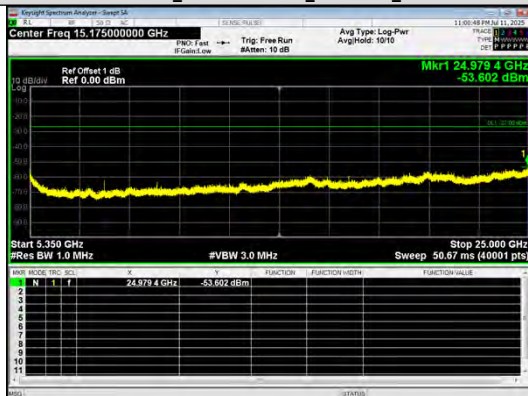
Test Graphs



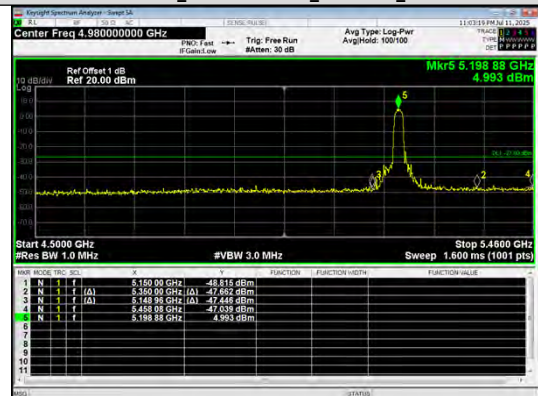
Out Of Band Emission
IEEE 802.11a_Channel 36_20MHz_Antenna 0



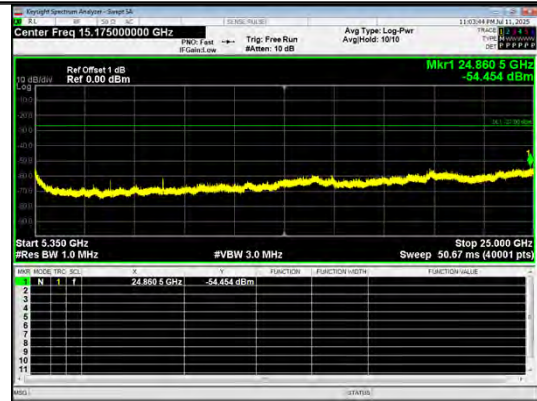
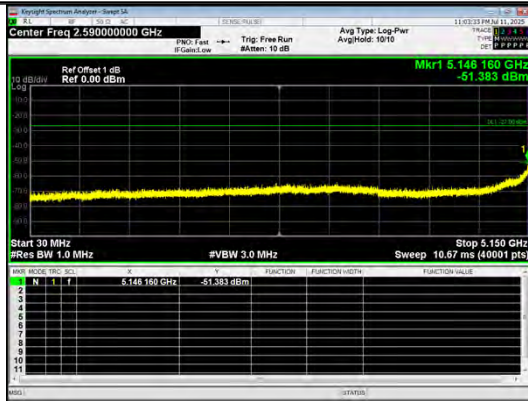
Spurious Emission:30.0~5150 MHz
IEEE 802.11a_Channel 36_20MHz_Antenna 0



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

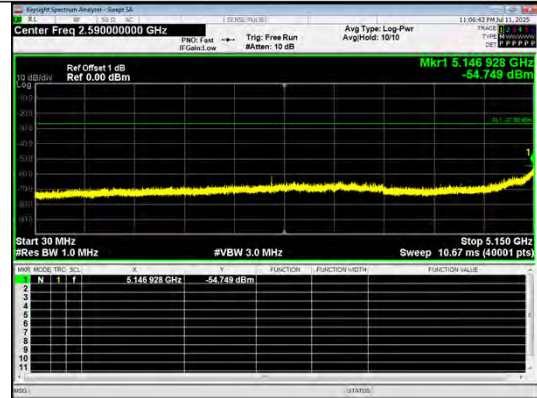
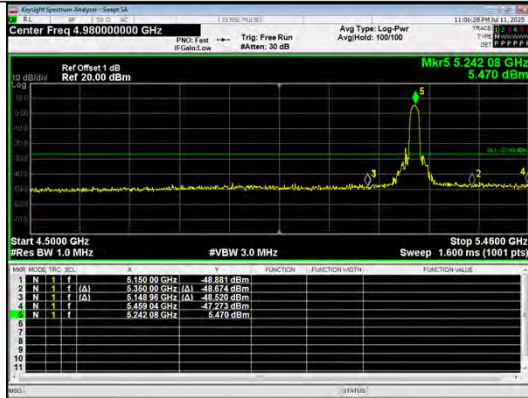


Out Of Band Emission
IEEE 802.11a_Channel 40_20MHz_Antenna 0



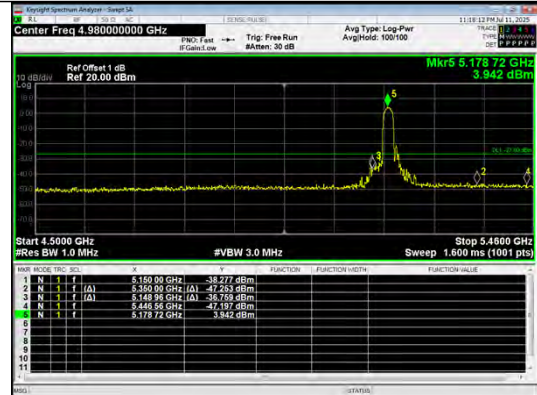
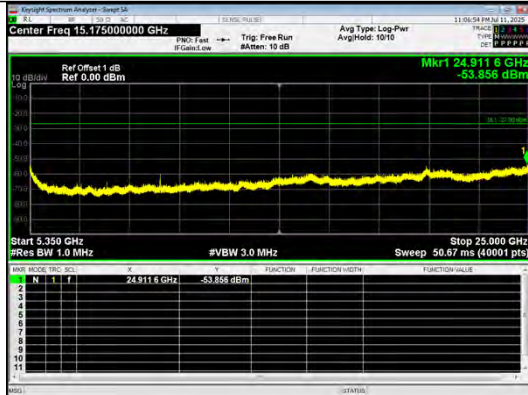
Spurious Emission:30.0~5150 MHz
IEEE 802.11a_Channel 40_20MHz_Antenna 0

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



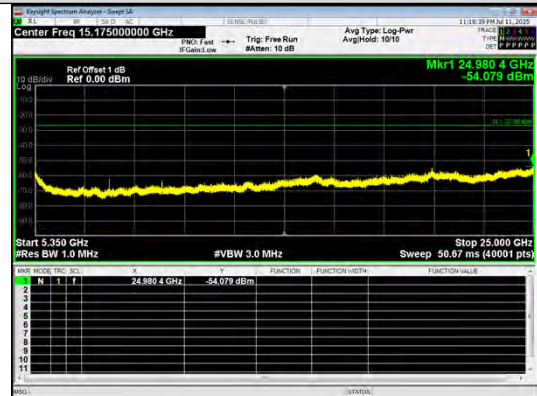
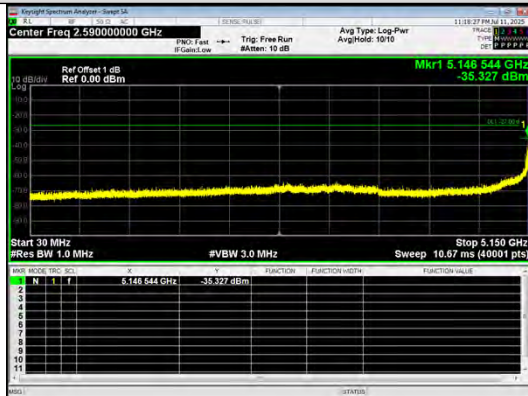
Out Of Band Emission
IEEE 802.11a_Channel 48_20MHz_Antenna 0

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



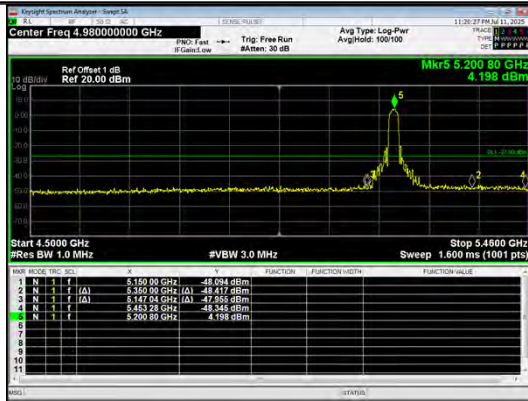
Spurious Emission:5350~25000.0 MHz
IEEE 802.11a_Channel 48_20MHz_Antenna 0

Out Of Band Emission
IEEE 802.11n_Channel 36_20MHz_Antenna 0

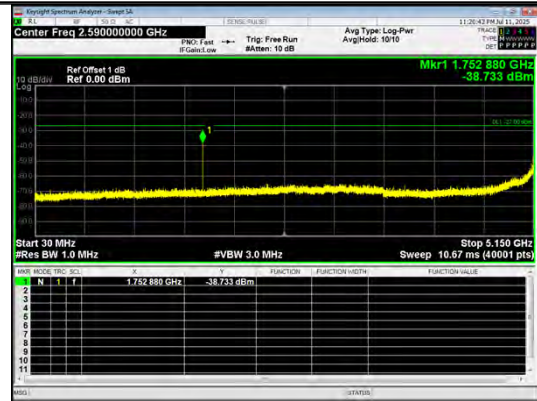


Spurious Emission:30.0~5150 MHz
IEEE 802.11n_Channel 36_20MHz_Antenna 0

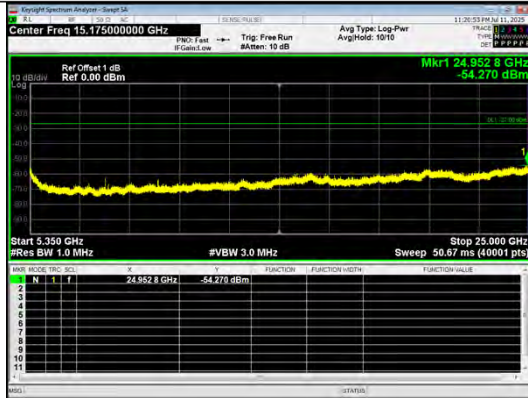
Spurious Emission:5350~25000.0 MHz
IEEE 802.11n_Channel 36_20MHz_Antenna 0



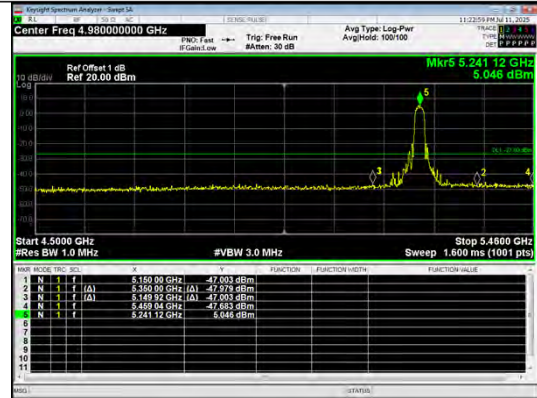
Out Of Band Emission
IEEE 802.11n_Channel 40_20MHz_Antenna 0



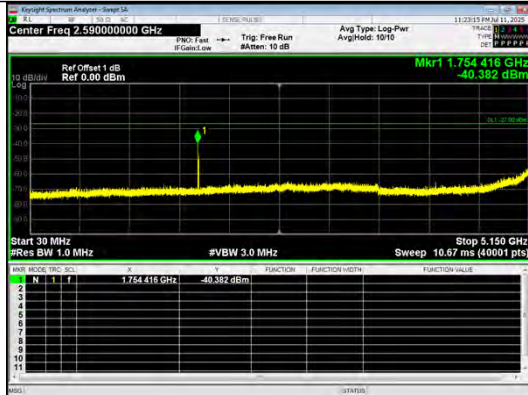
Spurious Emission:30.0~5150 MHz
IEEE 802.11n_Channel 40_20MHz_Antenna 0



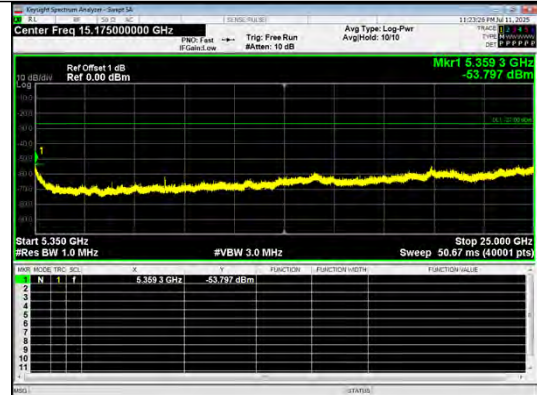
Spurious Emission:5350~25000.0 MHz
IEEE 802.11n_Channel 40_20MHz_Antenna 0



Out Of Band Emission
IEEE 802.11n_Channel 48_20MHz_Antenna 0



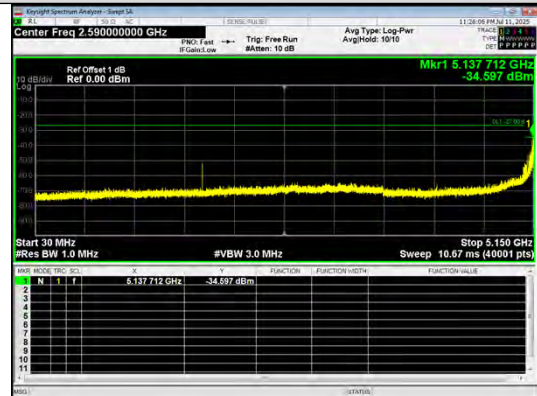
Spurious Emission:30.0~5150 MHz
IEEE 802.11n_Channel 48_20MHz_Antenna 0



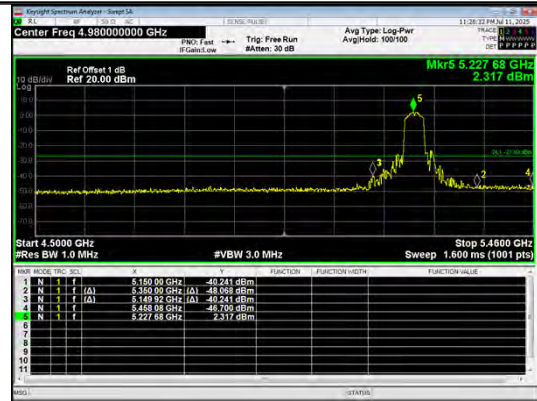
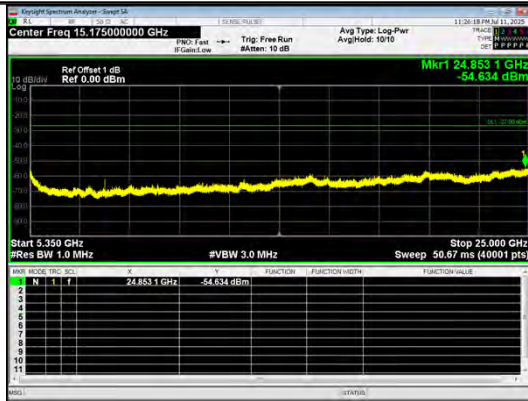
Spurious Emission:5350~25000.0 MHz
IEEE 802.11n_Channel 48_20MHz_Antenna 0



Out Of Band Emission
IEEE 802.11n_Channel 38_40MHz_Antenna 0

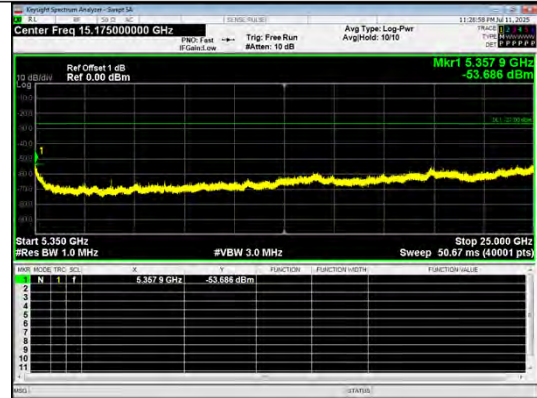
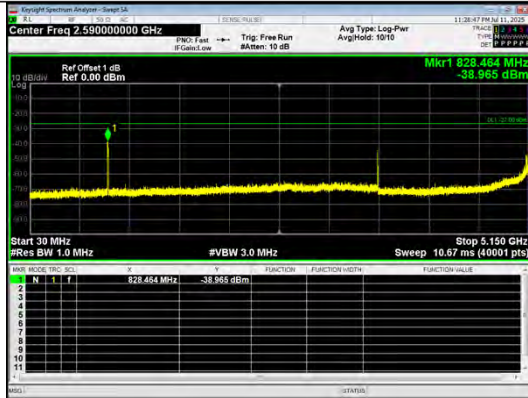


Spurious Emission:30.0~5150 MHz
IEEE 802.11n_Channel 38_40MHz_Antenna 0



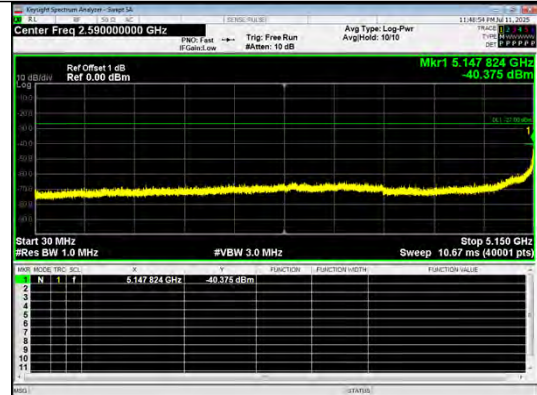
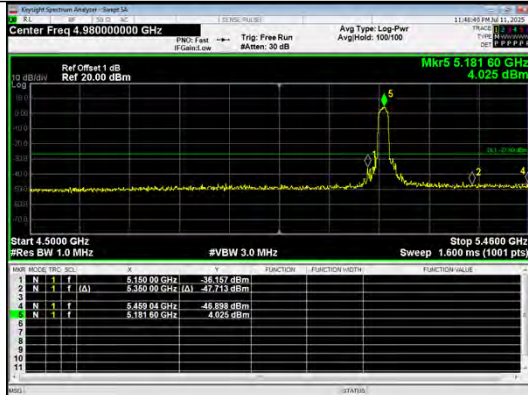
**Spurious Emission:5350~25000.0 MHz
IEEE 802.11n_Channel 38_40MHz_Antenna 0**

**Out Of Band Emission
IEEE 802.11n_Channel 46_40MHz_Antenna 0**



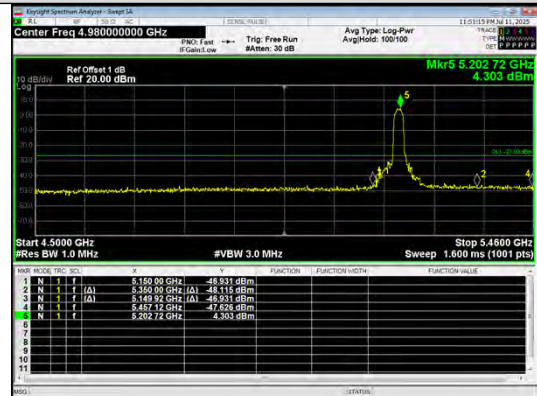
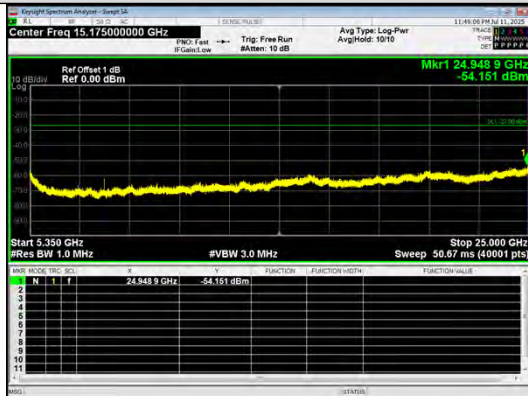
**Spurious Emission:30.0~5150 MHz
IEEE 802.11n_Channel 46_40MHz_Antenna 0**

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



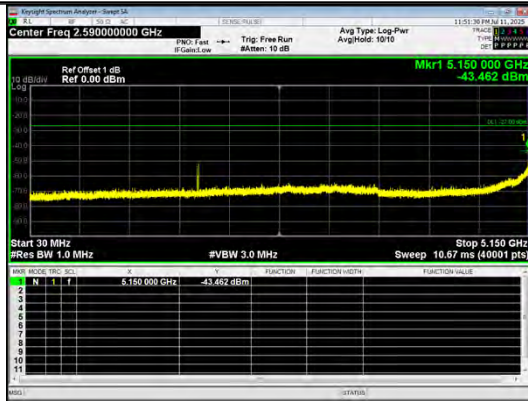
**Out Of Band Emission
IEEE 802.11ac_Channel 36_20MHz_Antenna 0**

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

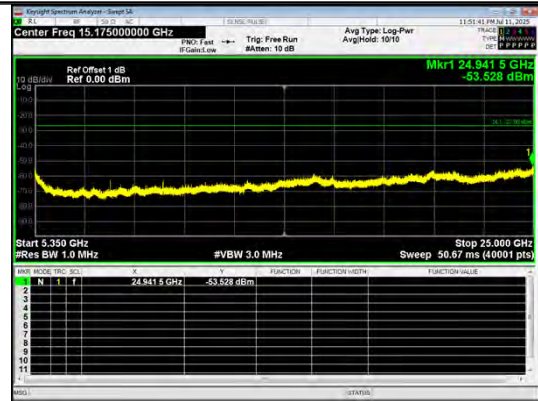


**Spurious Emission:5350~25000.0 MHz
IEEE 802.11ac_Channel 36_20MHz_Antenna 0**

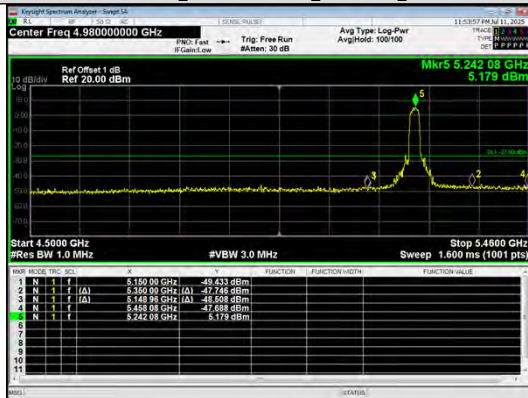
**Out Of Band Emission
IEEE 802.11ac_Channel 40_20MHz_Antenna 0**



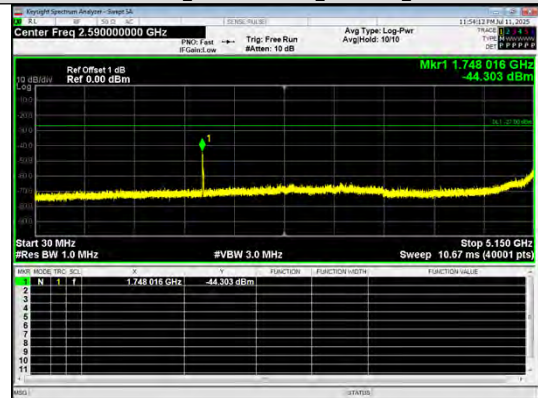
Spurious Emission:30.0~5150 MHz
IEEE 802.11ac_Channel 40_20MHz_Antenna 0



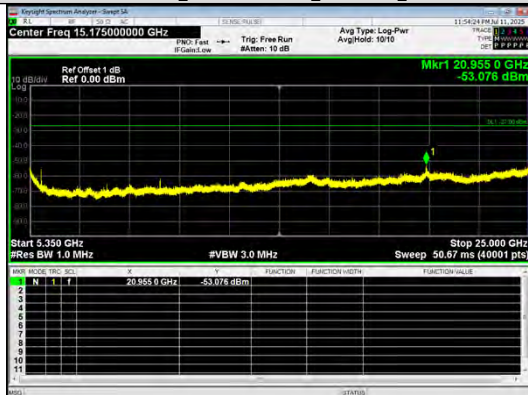
Spurious Emission:5350~25000.0 MHz
IEEE 802.11ac_Channel 40_20MHz_Antenna 0



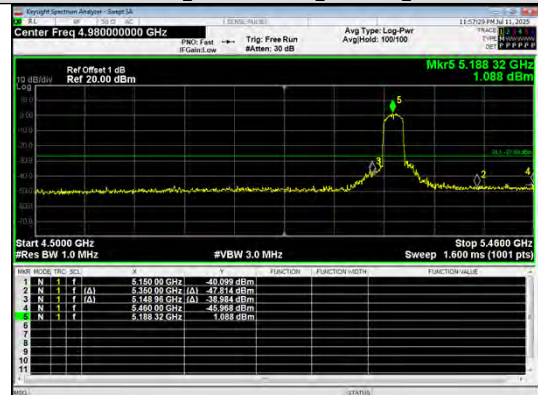
Out Of Band Emission
IEEE 802.11ac_Channel 48_20MHz_Antenna 0



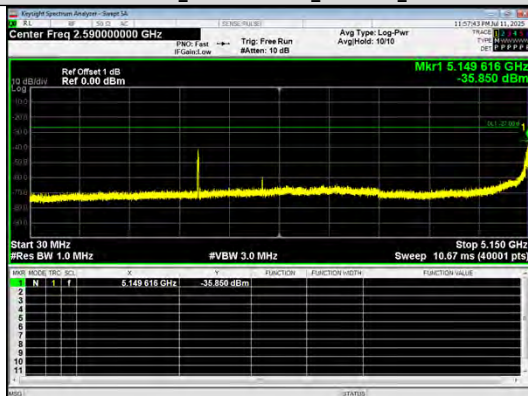
Spurious Emission:30.0~5150 MHz
IEEE 802.11ac_Channel 48_20MHz_Antenna 0



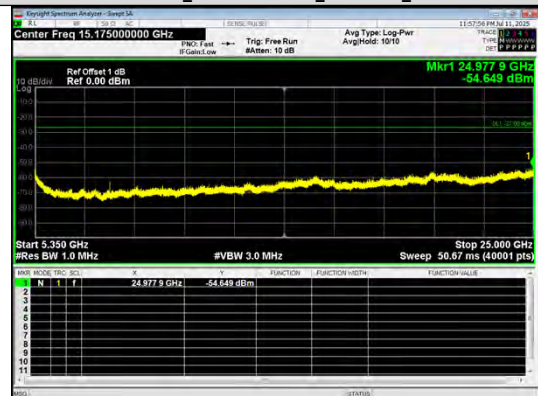
Spurious Emission:5350~25000.0 MHz
IEEE 802.11ac_Channel 48_20MHz_Antenna 0



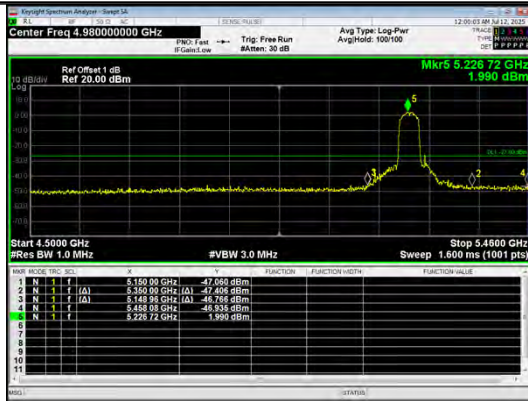
Out Of Band Emission
IEEE 802.11ac_Channel 38_40MHz_Antenna 0



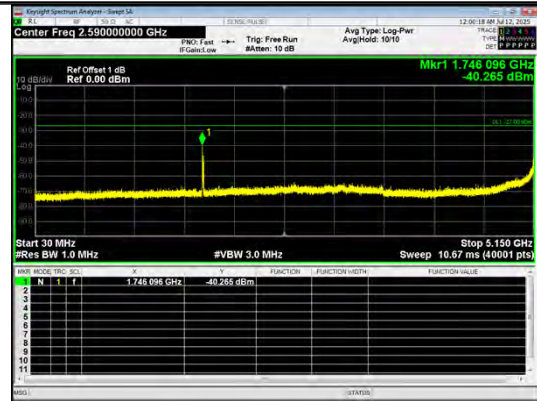
Spurious Emission:30.0~5150 MHz
IEEE 802.11ac_Channel 38_40MHz_Antenna 0



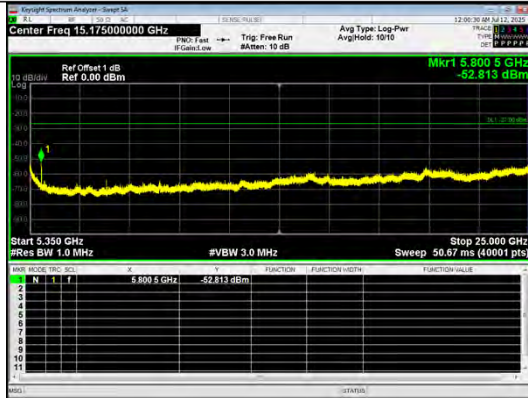
Spurious Emission:5350~25000.0 MHz
IEEE 802.11ac_Channel 38_40MHz_Antenna 0



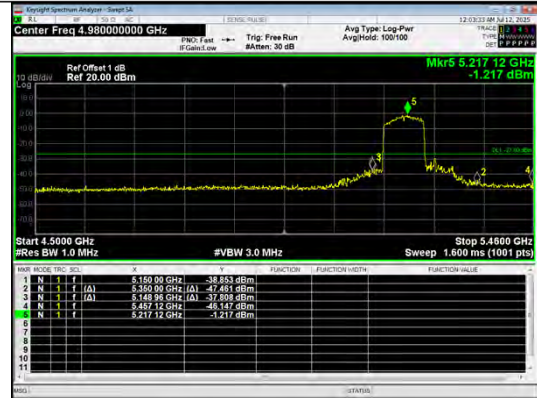
Out Of Band Emission
IEEE 802.11ac_Channel 46_40MHz_Antenna 0



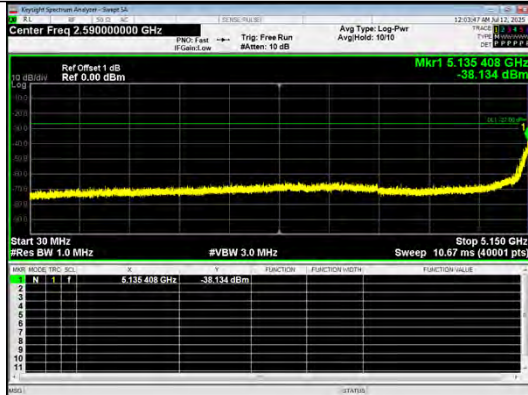
Spurious Emission:30.0~5150 MHz
IEEE 802.11ac_Channel 46_40MHz_Antenna 0



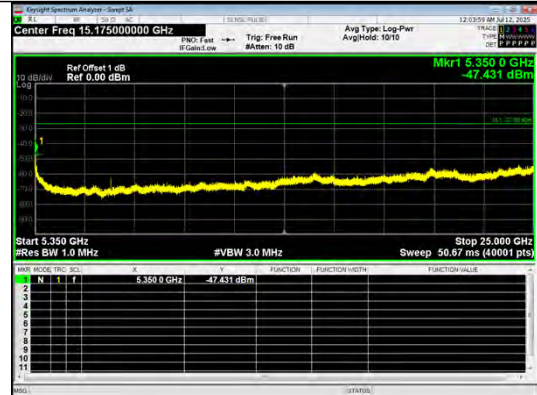
Spurious Emission:5350~25000.0 MHz
IEEE 802.11ac_Channel 46_40MHz_Antenna 0



Out Of Band Emission
IEEE 802.11ac_Channel 42_80MHz_Antenna 0



Spurious Emission:30.0~5150 MHz
IEEE 802.11ac_Channel 42_80MHz_Antenna 0



Spurious Emission:5350~25000.0 MHz
IEEE 802.11ac_Channel 42_80MHz_Antenna 0

**Frequency Stability****Test Result**

Condition	Mode	Ch.	Antenna	Center Frequency (MHz)	Calculated Value of Center Frequency(MHz)	Result (ppm)	Limit (ppm)	State
NT/NV	IEEE 802.11a	36	0	5180.0	5179.973768	-5.06	Within authorized band	PASS
		40		5200.0	5199.972718	-5.25		PASS
		48		5240.0	5239.971756	-5.39		PASS
	IEEE 802.11n_20	36		5180.0	5179.976181	-4.6		PASS
		40		5200.0	5199.974568	-4.89		PASS
		48		5240.0	5239.973681	-5.02		PASS
	IEEE 802.11n_40	38		5190.0	5189.973281	-5.15		PASS
		46		5230.0	5229.972418	-5.27		PASS
	IEEE 802.11ac_20	36		5180.0	5179.971893	-5.43		PASS
		40		5200.0	5199.971268	-5.53		PASS
		48		5240.0	5239.971356	-5.47		PASS
	IEEE 802.11ac_40	38		5190.0	5189.971656	-5.46		PASS
		46		5230.0	5229.971006	-5.54		PASS
	IEEE 802.11ac_80	42		5210.0	5209.971506	-5.47		PASS

***** End of Report *****