

Appendix A _ Conducted Test Data

1. Conducted Peak Output Power

Test Result

Conducted peak output power

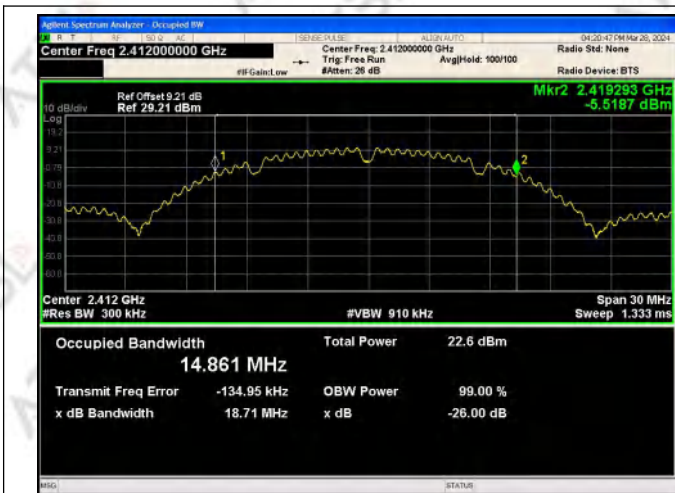
Mode	Channel	Ant. 0 (dBm)	Ant. 1 (dBm)	Ant. 2 (dBm)	Ant. 3 (dBm)	Total (dBm)	Limit (dBm)	Result
IEEE 802.11b	1	21.73	--	--	--	N/A	30	PASS
	6	21.55	--	--	--	N/A	30	PASS
	11	18.91	--	--	--	N/A	30	PASS
IEEE 802.11g	1	22.74	--	--	--	N/A	30	PASS
	6	22.82	--	--	--	N/A	30	PASS
	11	22.81	--	--	--	N/A	30	PASS
IEEE 802.11n_20	1	23.65	--	--	--	N/A	30	PASS
	6	23.60	--	--	--	N/A	30	PASS
	11	23.53	--	--	--	N/A	30	PASS
IEEE 802.11n_40	3	21.93	--	--	--	N/A	30	PASS
	6	21.54	--	--	--	N/A	30	PASS
	10	21.73	--	--	--	N/A	30	PASS

2.99% Bandwidth

Test Result

Mode	Channel	Ant.	99% BW (MHz)
IEEE 802.11b	1	0	14.861
	6		14.606
	11		14.297
IEEE 802.11g	1		16.651
	6		16.496
	11		16.564
IEEE 802.11n_20	1		17.774
	6		17.681
	11		17.636
IEEE 802.11n_40	3		35.975
	6		35.833
	10		35.951

Test Graphs



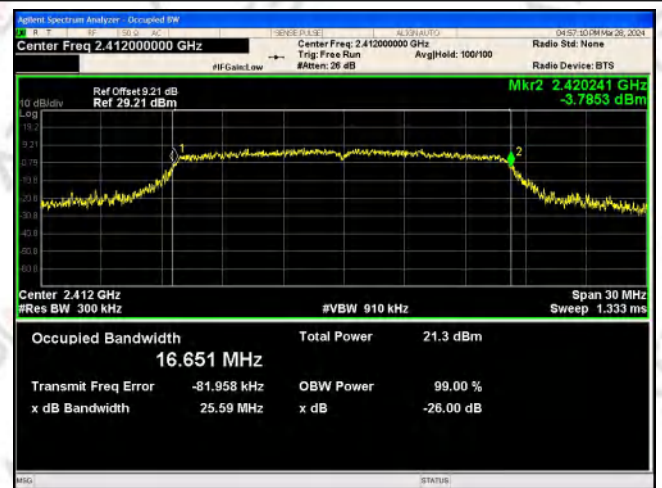
IEEE 802.11b_Channel 1_20MHz_Antenna 0



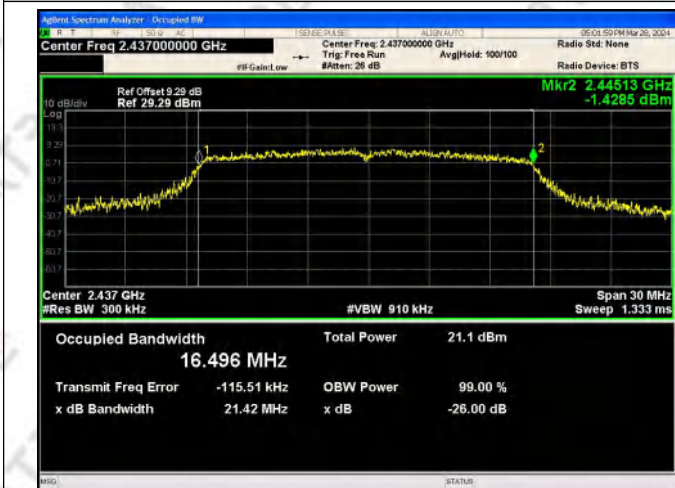
IEEE 802.11b_Channel 6_20MHz_Antenna 0



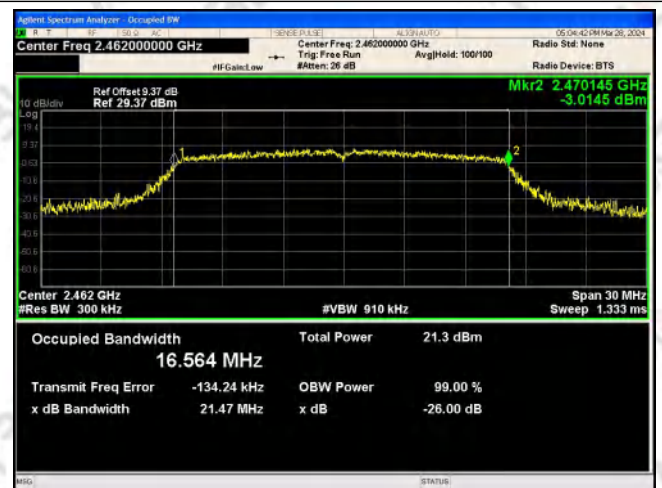
IEEE 802.11b_Channel 11_20MHz_Antenna 0



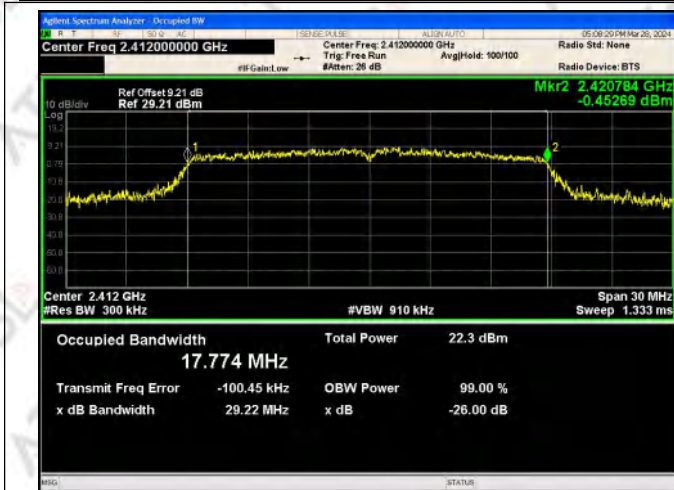
IEEE 802.11g_Channel 1_20MHz_Antenna 0



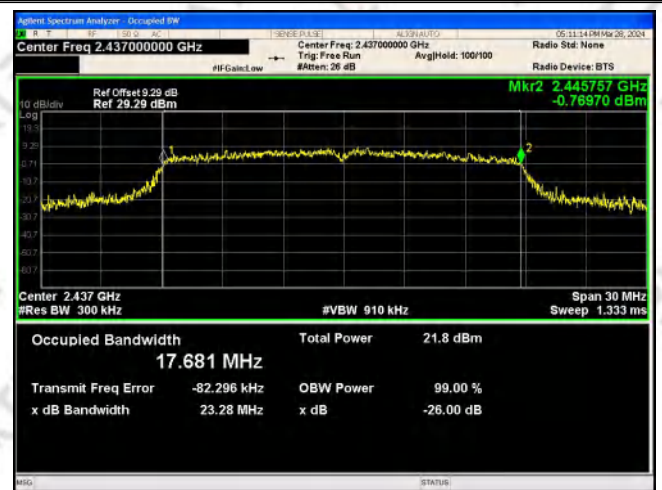
IEEE 802.11g_Channel 6_20MHz_Antenna 0



IEEE 802.11g_Channel 11_20MHz_Antenna 0



IEEE 802.11n_Channel 1_20MHz_Antenna 0



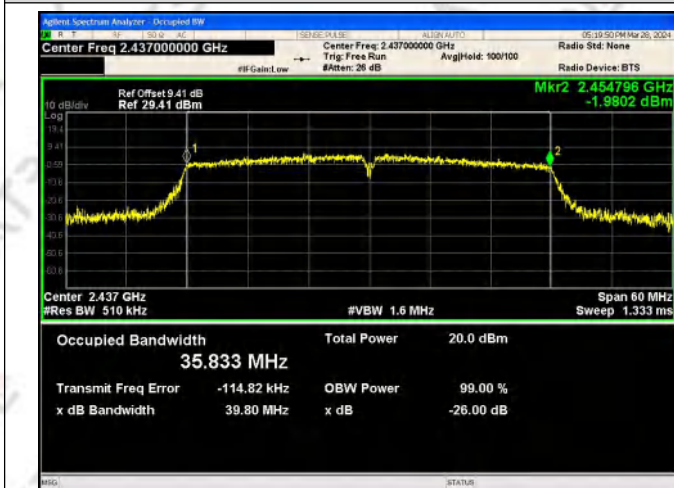
IEEE 802.11n_Channel 6_20MHz_Antenna 0



IEEE 802.11n_Channel 11_20MHz_Antenna 0



IEEE 802.11n_Channel 3_40MHz_Antenna 0



IEEE 802.11n_Channel 6_40MHz_Antenna 0



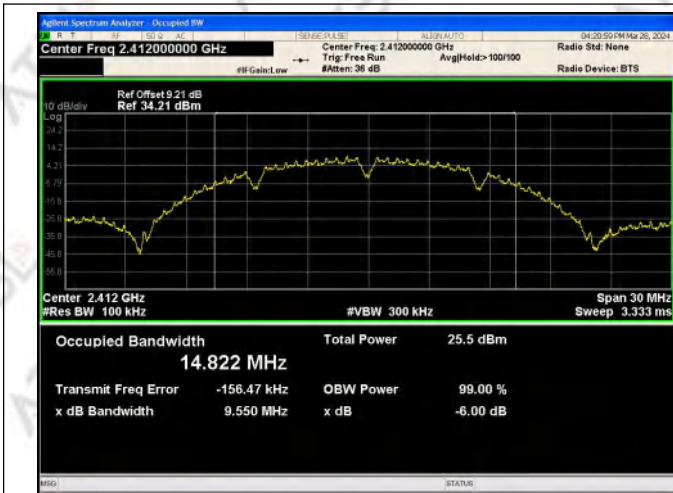
IEEE 802.11n_Channel 10_40MHz_Antenna 0

3.6dB Bandwidth

Test Result

Mode	Channel	Ant.	Center Frequency (MHz)	6 dB Bandwidth (MHz)	Limit (MHz)	Result
IEEE 802.11b	1	0	2412	9.550	0.5	PASS
	6		2437	9.567		PASS
	11		2462	9.567		PASS
IEEE 802.11g	1		2412	12.66		PASS
	6		2437	15.05		PASS
	11		2462	13.87		PASS
IEEE 802.11n_20	1		2412	13.87		PASS
	6		2437	15.09		PASS
	11		2462	13.87		PASS
IEEE 802.11n_40	3		2422	33.85		PASS
	6		2437	32.58		PASS
	10		2457	35.02		PASS

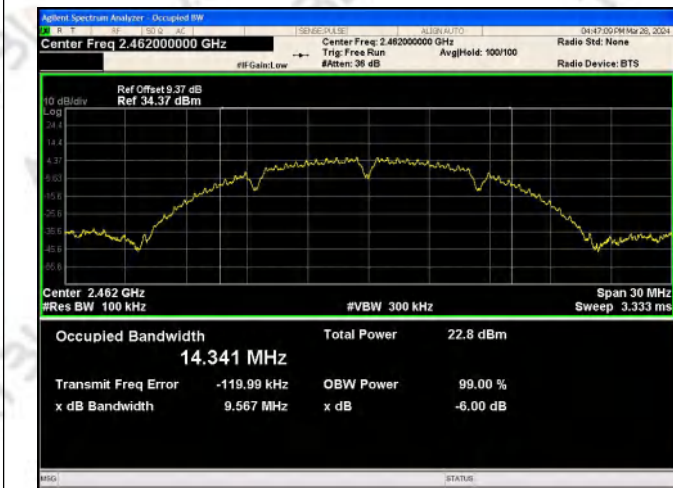
Test Graphs



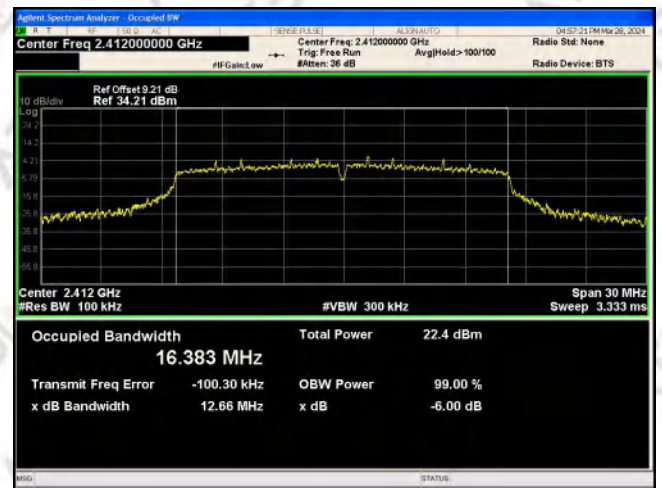
IEEE 802.11b_Channel 1_20MHz_Antenna 0



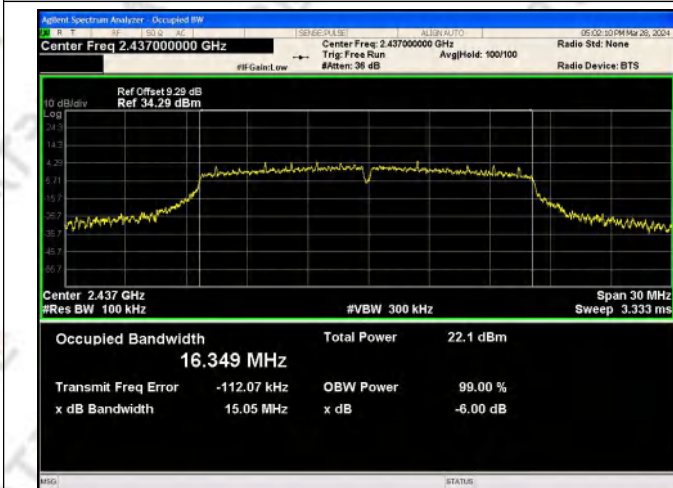
IEEE 802.11b_Channel 6_20MHz_Antenna 0



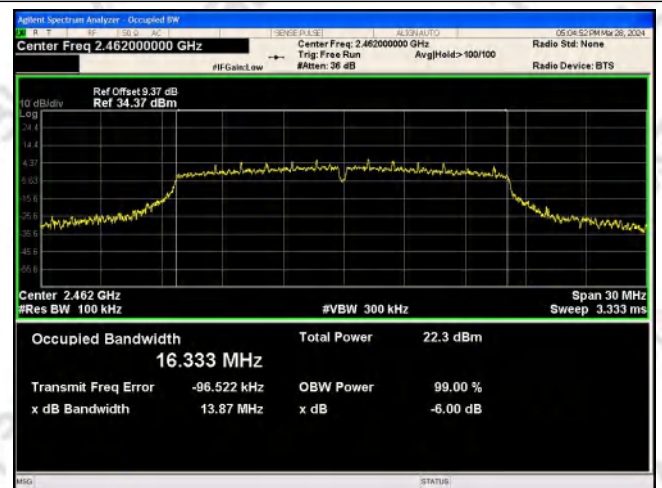
IEEE 802.11b_Channel 11_20MHz_Antenna 0



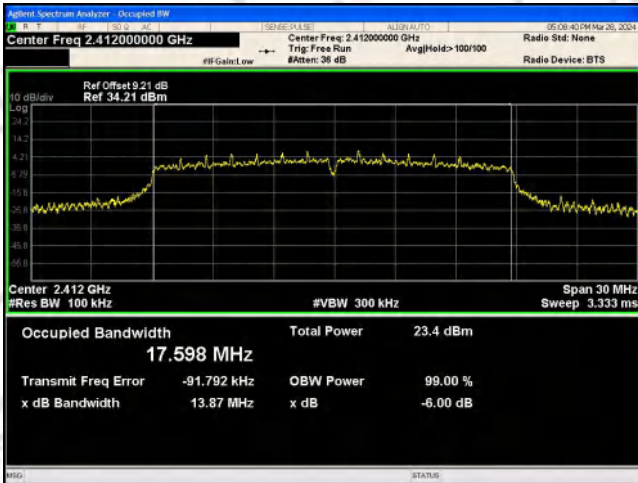
IEEE 802.11g_Channel 1_20MHz_Antenna 0



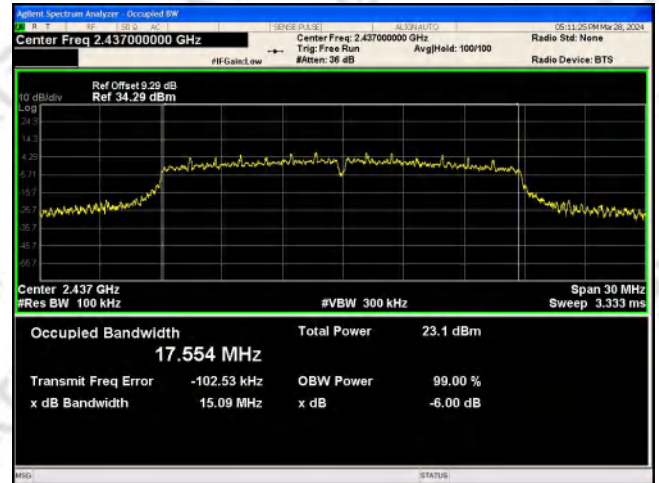
IEEE 802.11g_Channel 6_20MHz_Antenna 0



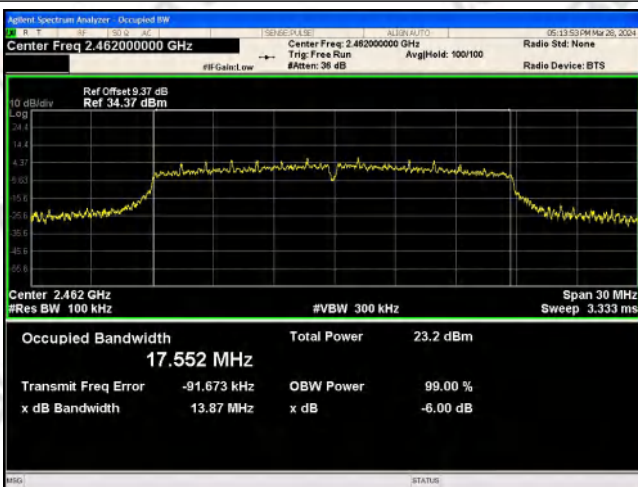
IEEE 802.11g_Channel 11_20MHz_Antenna 0



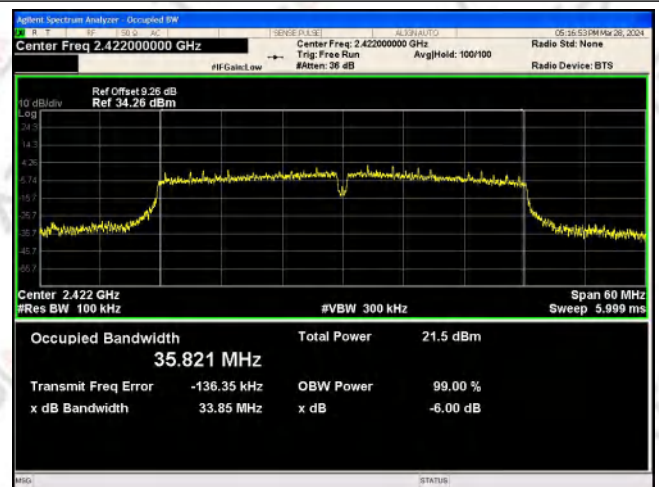
IEEE 802.11n_Channel 1_20MHz_Antenna 0



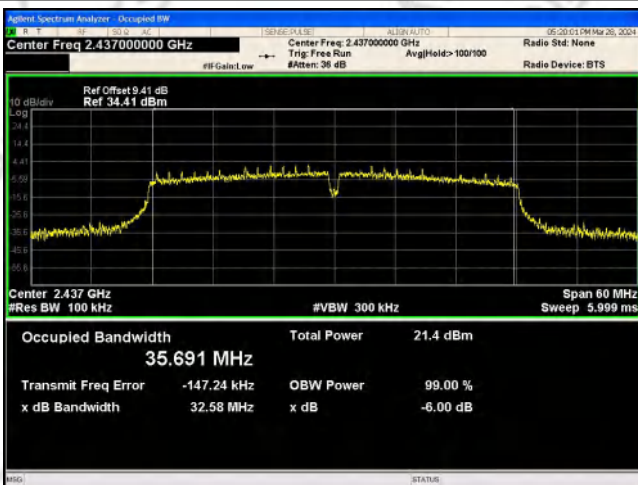
IEEE 802.11n_Channel 6_20MHz_Antenna 0



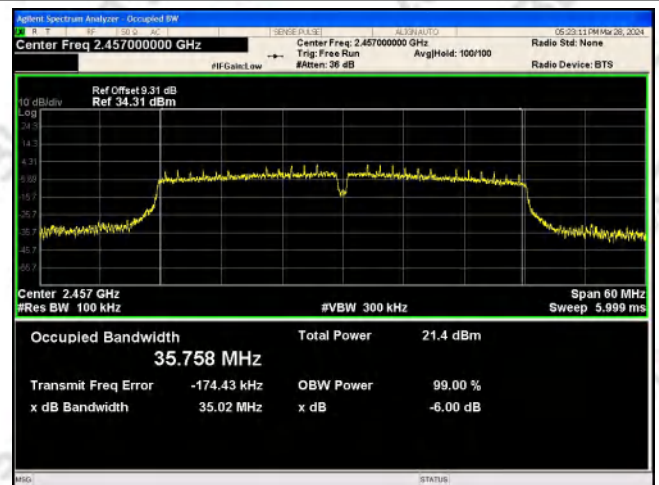
IEEE 802.11n_Channel 11_20MHz_Antenna 0



IEEE 802.11n_Channel 3_40MHz_Antenna 0



IEEE 802.11n_Channel 6_40MHz_Antenna 0



IEEE 802.11n_Channel 10_40MHz_Antenna 0

4. Conducted Out Of Band Emission

Test Result

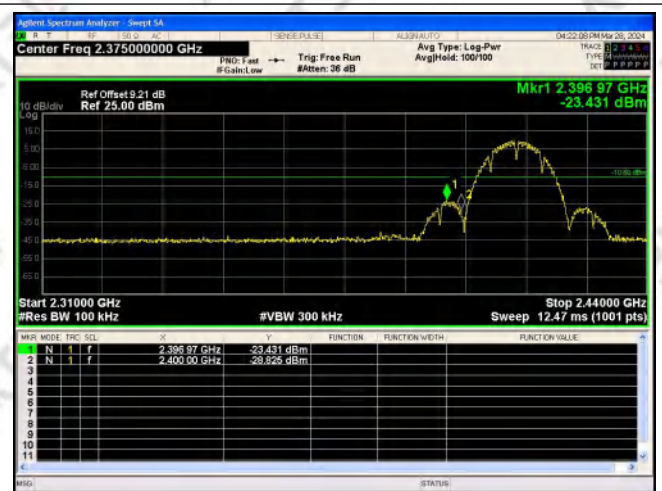
Mode	Channel	Ant.	OOB Emission Frequency (MHz)	OOB Emission Level (dBm)	Limit (dBm)	Over Limit (dB)	Result
IEEE 802.11b	1	0	2400.00	-28.825	-10.6	-18.225	PASS
			2396.97	-23.431	-10.6	-12.831	PASS
			4823.70	-50.299	-10.6	-39.699	PASS
			7235.30	-56.078	-10.6	-45.478	PASS
			9636.80	-58.388	-10.6	-47.788	PASS
			24858.3	-44.232	-10.6	-33.632	PASS
	6		4873.68	-51.148	-10.85	-40.298	PASS
			7307.69	-56.643	-10.85	-45.793	PASS
			9731.71	-58.579	-10.85	-47.729	PASS
			24886.4	-44.076	-10.85	-33.226	PASS
	11		2483.50	-44.335	-13.36	-30.975	PASS
			4923.62	-54.699	-13.36	-41.339	PASS
			7396.96	-57.895	-13.36	-44.535	PASS
			9828.47	-58.136	-13.36	-44.776	PASS
			24956.9	-44.332	-13.36	-30.972	PASS
IEEE 802.11g	1		2400.00	-24.446	-14.24	-10.206	PASS
			2397.62	-24.201	-14.24	-9.961	PASS
			4833.10	-58.755	-14.24	-44.515	PASS
			7254.60	-58.184	-14.24	-43.944	PASS
			9630.00	-59.251	-14.24	-45.011	PASS
			24872.6	-44.042	-14.24	-29.802	PASS
	6		4872.43	-58.649	-13.3	-45.349	PASS
			7328.91	-57.559	-13.3	-44.259	PASS
			9732.96	-59.008	-13.3	-45.707	PASS
			24922.0	-43.650	-13.3	-30.350	PASS
	11		2483.50	-40.140	-13.24	-26.900	PASS
			4939.22	-58.834	-13.24	-45.594	PASS
			7397.58	-57.301	-13.24	-44.061	PASS
			9828.47	-58.202	-13.24	-44.962	PASS
			24877.0	-44.500	-13.24	-31.260	PASS
IEEE 802.11n_20	1		2400.00	-22.138	-12.65	-9.488	PASS
			2398.79	-20.698	-12.65	-8.048	PASS
			4824.40	-57.962	-12.65	-45.312	PASS
			7242.80	-58.415	-12.65	-45.765	PASS
			9643.10	-59.524	-12.65	-46.874	PASS
			24922.0	-44.366	-12.65	-31.716	PASS
	6		4888.66	-58.481	-12.16	-46.321	PASS

	11	7310.19	-58.263	-12.16	-46.103	PASS
		9735.46	-57.360	-12.16	-45.200	PASS
		24913.2	-42.724	-12.16	-30.564	PASS
		2483.50	-35.496	-12.93	-22.566	PASS
		4919.87	-58.395	-12.93	-45.465	PASS
		7403.83	-57.996	-12.93	-45.066	PASS
		9849.07	-58.340	-12.93	-45.410	PASS
		24864.5	-44.676	-12.93	-31.746	PASS
		2400.00	-30.923	-16.76	-14.163	PASS
		2397.23	-28.675	-16.76	-11.915	PASS
		4862.40	-59.448	-16.76	-42.688	PASS
IEEE 802.11n_40	3	7297.70	-58.221	-16.76	-41.461	PASS
		9695.50	-58.950	-16.76	-42.189	PASS
		24721.6	-44.229	-16.76	-27.469	PASS
		4903.64	-59.954	-16.87	-43.084	PASS
		7303.94	-57.391	-16.87	-40.521	PASS
		9711.74	-58.614	-16.87	-41.744	PASS
		24952.6	-44.871	-16.87	-28.001	PASS
	6	2483.50	-35.273	-17.58	-17.693	PASS
		4938.60	-58.542	-17.58	-40.962	PASS
		7386.97	-57.651	-17.58	-40.071	PASS
		9842.21	-58.215	-17.58	-40.635	PASS
		24910.7	-44.459	-17.58	-26.879	PASS
	10					

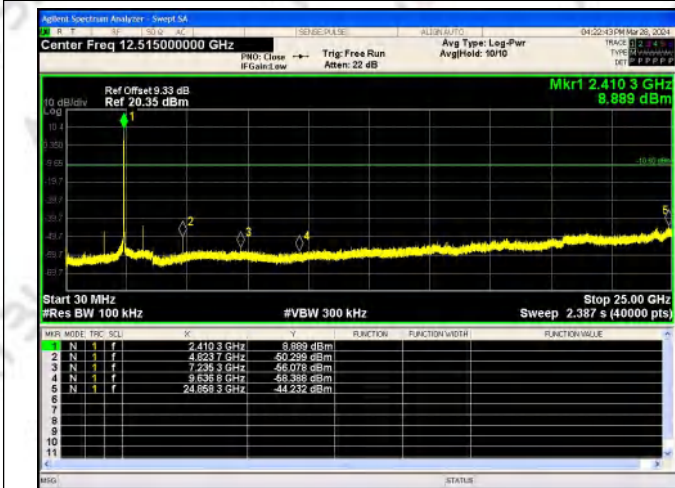
Test Graphs



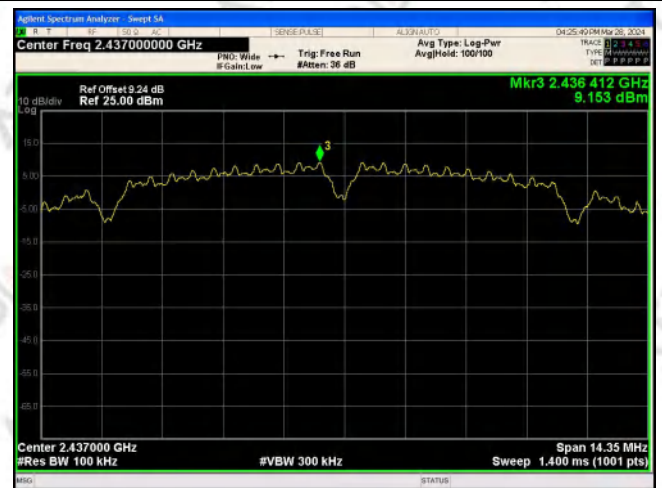
In-Band Reference Level
IEEE 802.11b_Channel 1_20MHz_Antenna 0



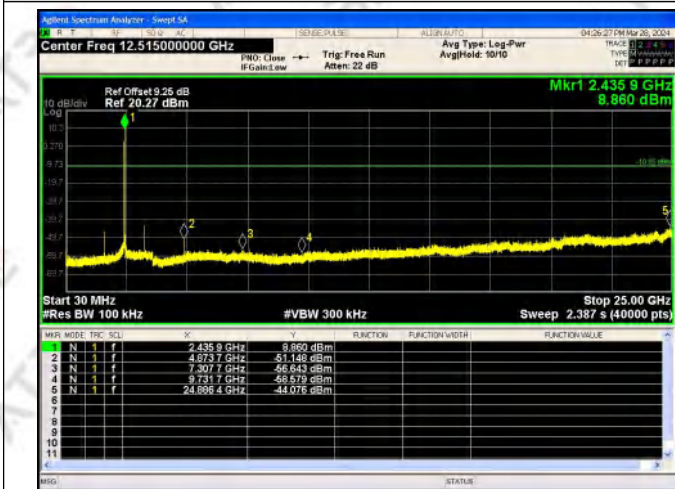
Out Of Band Emission
IEEE 802.11b_Channel 1_20MHz_Antenna 0



Spurious Emission
IEEE 802.11b_Channel 1_20MHz_Antenna 0



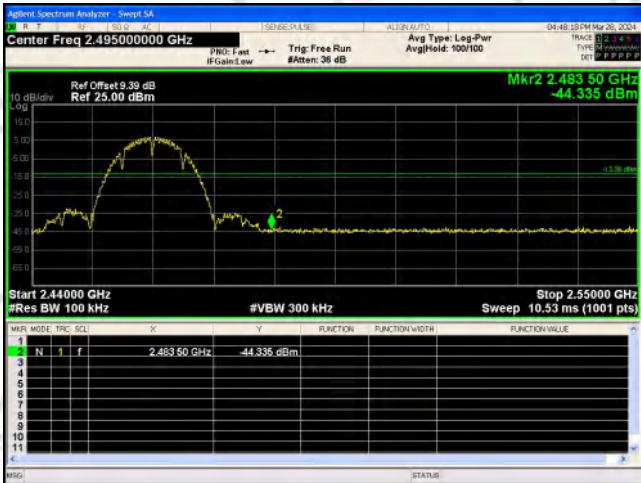
In-Band Reference Level
IEEE 802.11b_Channel 6_20MHz_Antenna 0



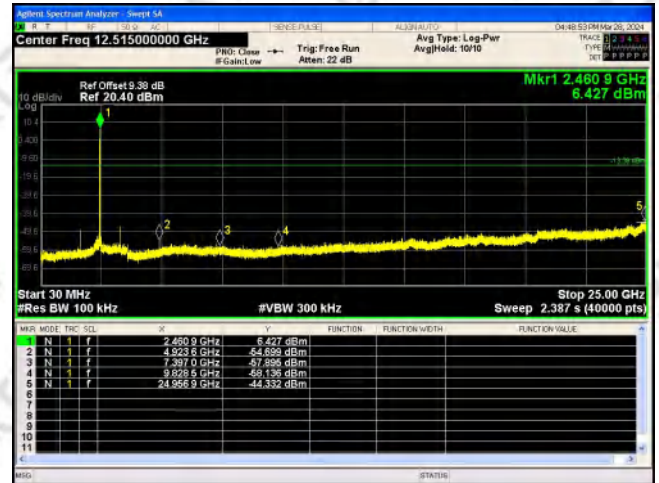
Spurious Emissions
IEEE 802.11b_Channel 6_20MHz_Antenna 0



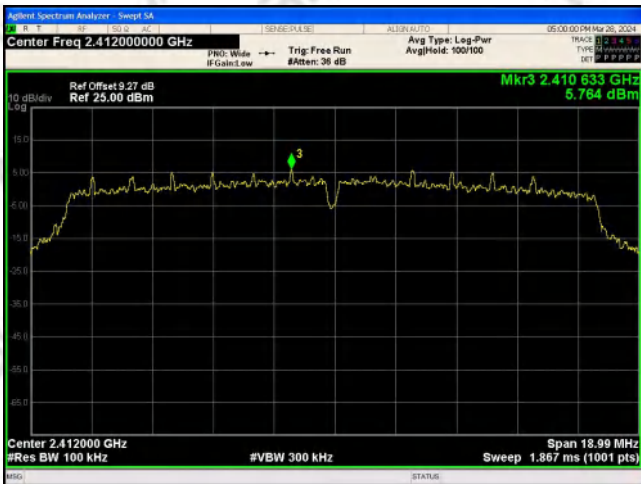
In-Band Reference Level
IEEE 802.11b_Channel 11_20MHz_Antenna 0



Out Of Band Emission
IEEE 802.11b_Channel 11_20MHz_Antenna 0



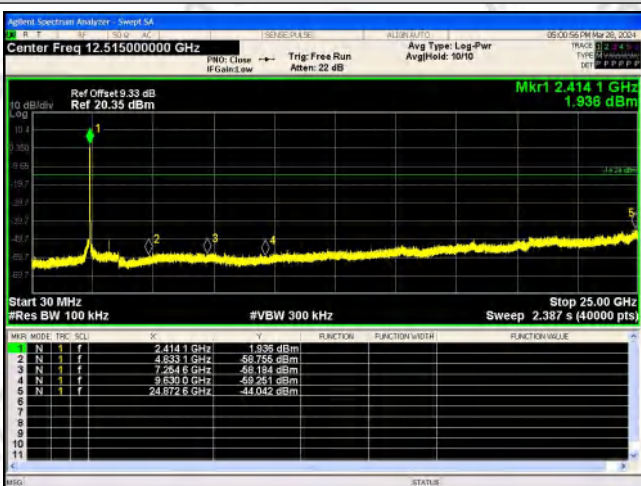
Spurious Emission
IEEE 802.11b_Channel 11_20MHz_Antenna 0



In-Band Reference Level
IEEE 802.11g_Channel 1_20MHz_Antenna 0



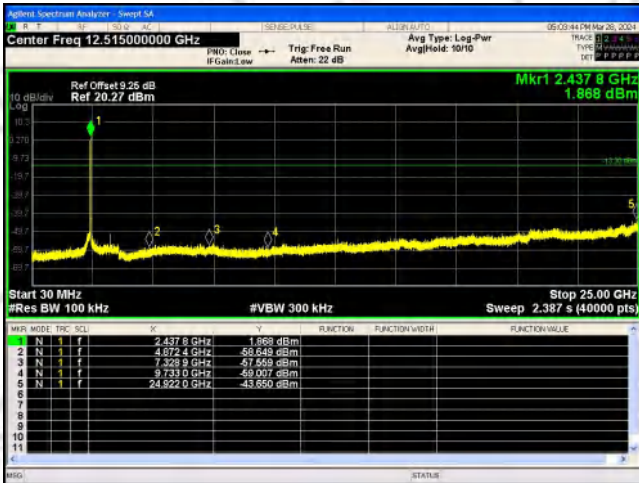
Out Of Band Emission
IEEE 802.11g_Channel 1_20MHz_Antenna 0



Spurious Emission
IEEE 802.11g_Channel 1_20MHz_Antenna 0

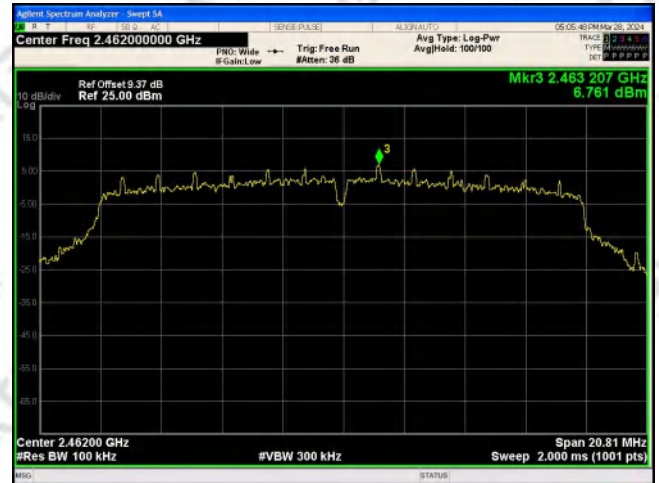


In-Band Reference Level
IEEE 802.11g_Channel 6_20MHz_Antenna 0



Spurious Emissions

IEEE 802.11g_Channel 6_20MHz_Antenna 0



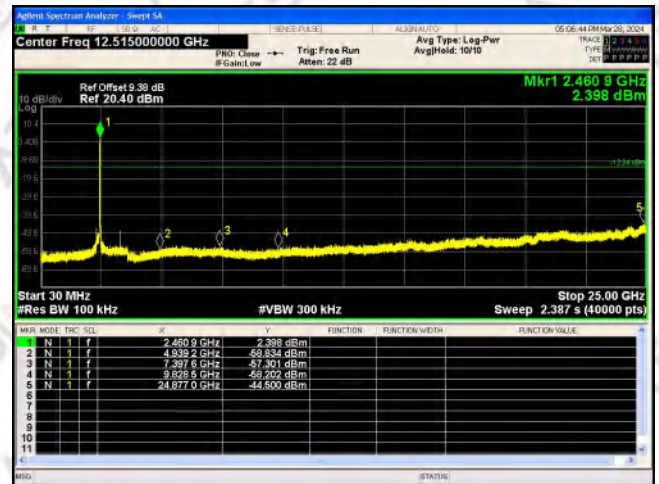
In-Band Reference Level

IEEE 802.11g_Channel 11_20MHz_Antenna 0



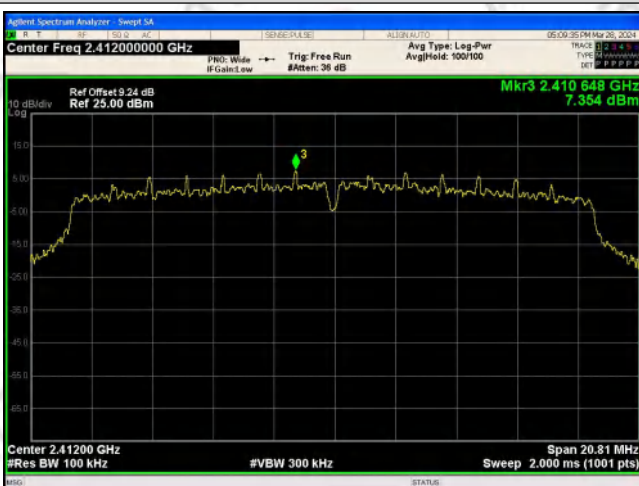
Out Of Band Emission

IEEE 802.11g_Channel 11_20MHz_Antenna 0



Spurious Emission

IEEE 802.11g_Channel 11_20MHz_Antenna 0



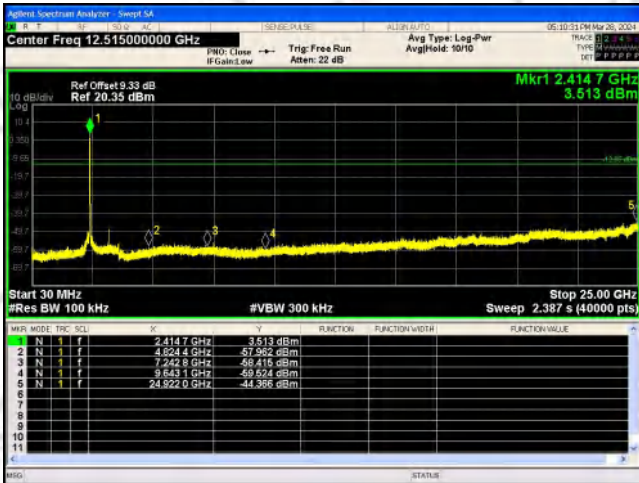
In-Band Reference Level

IEEE 802.11n_Channel 1_20MHz_Antenna 0



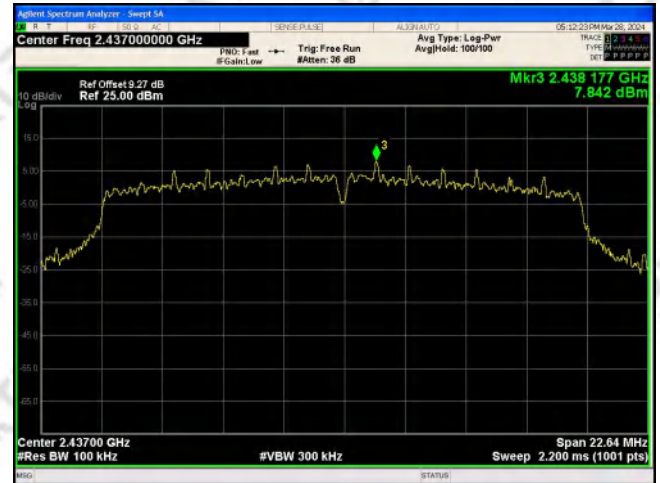
Out Of Band Emission

IEEE 802.11n_Channel 1_20MHz_Antenna 0



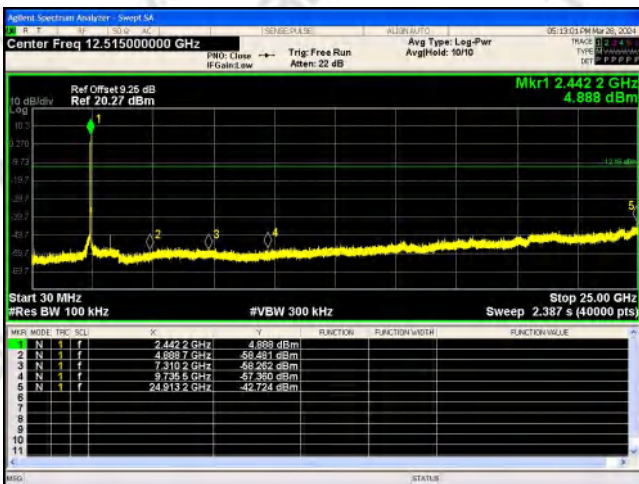
Spurious Emission

IEEE 802.11n_Channel 1_20MHz_Antenna 0



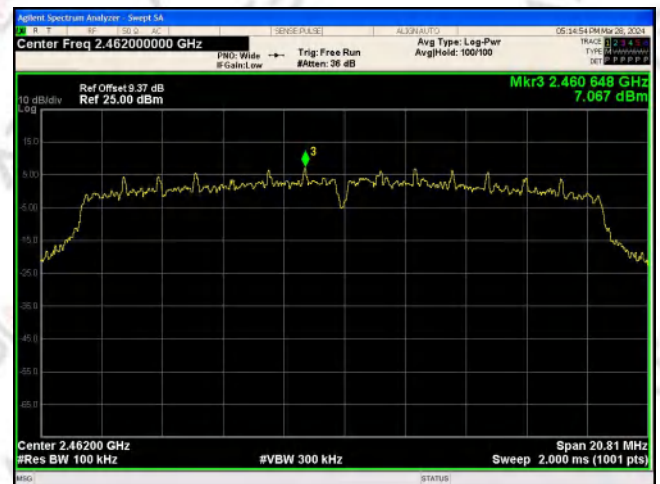
In-Band Reference Level

IEEE 802.11n_Channel 6_20MHz_Antenna 0



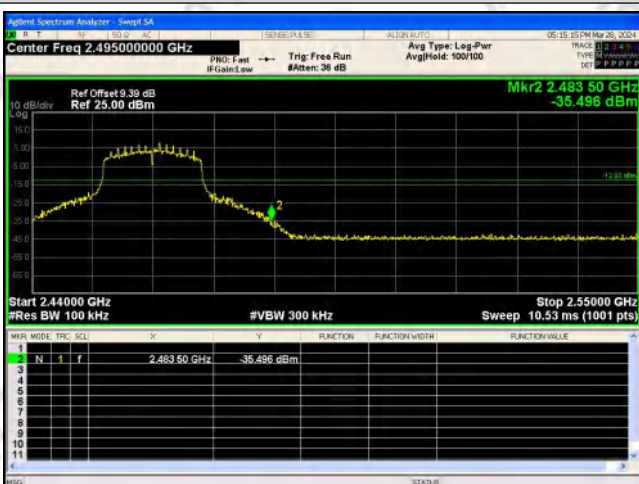
Spurious Emissions

IEEE 802.11n_Channel 6_20MHz_Antenna 0



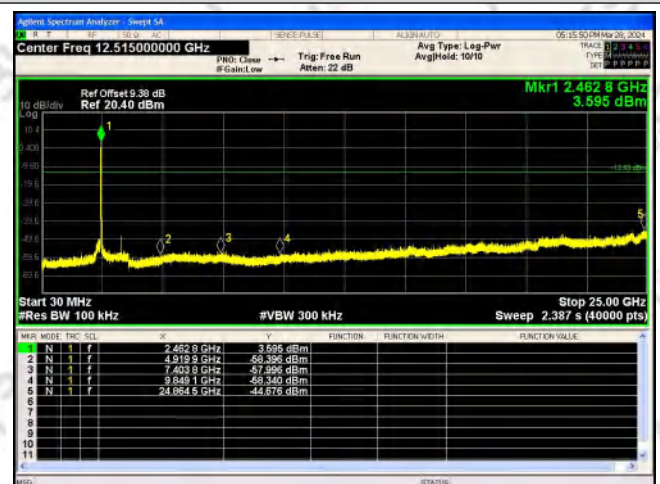
In-Band Reference Level

IEEE 802.11n_Channel 11_20MHz_Antenna 0



Out Of Band Emission

IEEE 802.11n_Channel 11_20MHz_Antenna 0



Spurious Emission

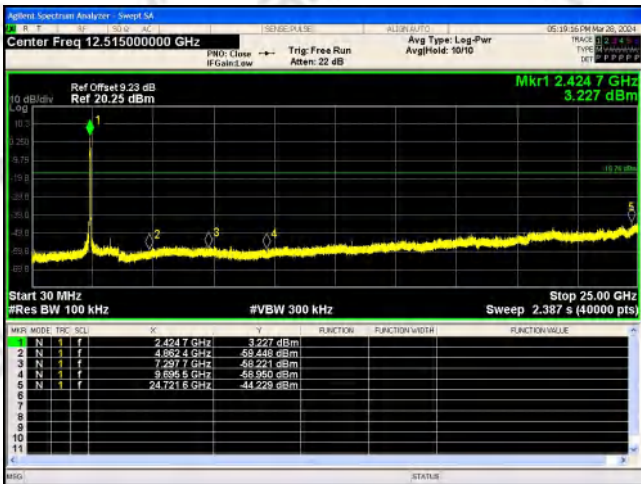
IEEE 802.11n_Channel 11_20MHz_Antenna 0



In-Band Reference Level
IEEE 802.11n_Channel 3_40MHz_Antenna 0



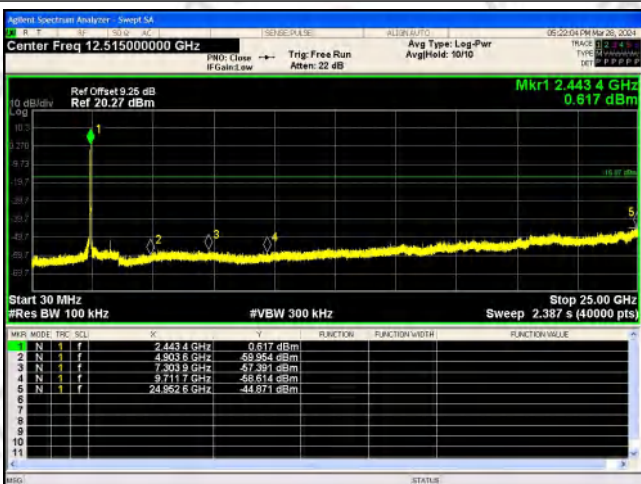
Out Of Band Emission
IEEE 802.11n_Channel 3_40MHz_Antenna 0



Spurious Emission
IEEE 802.11n_Channel 3_40MHz_Antenna 0



In-Band Reference Level
IEEE 802.11n_Channel 6_40MHz_Antenna 0



Spurious Emissions
IEEE 802.11n_Channel 6_40MHz_Antenna 0

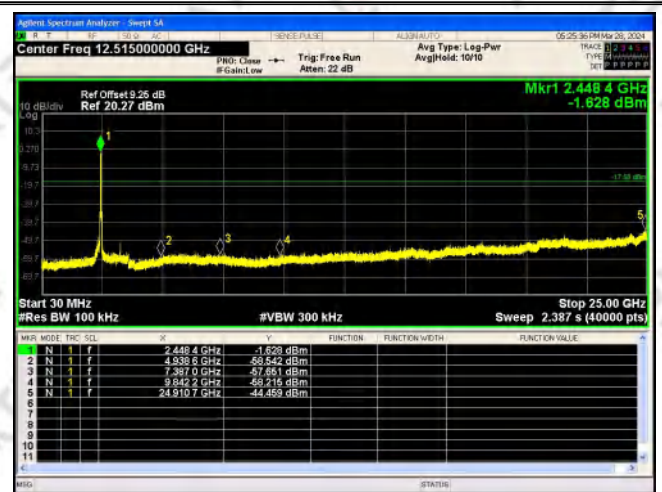


In-Band Reference Level
IEEE 802.11n_Channel 10_40MHz_Antenna 0



Out Of Band Emission

IEEE 802.11n_Channel 10_40MHz_Antenna 4



Spurious Emission

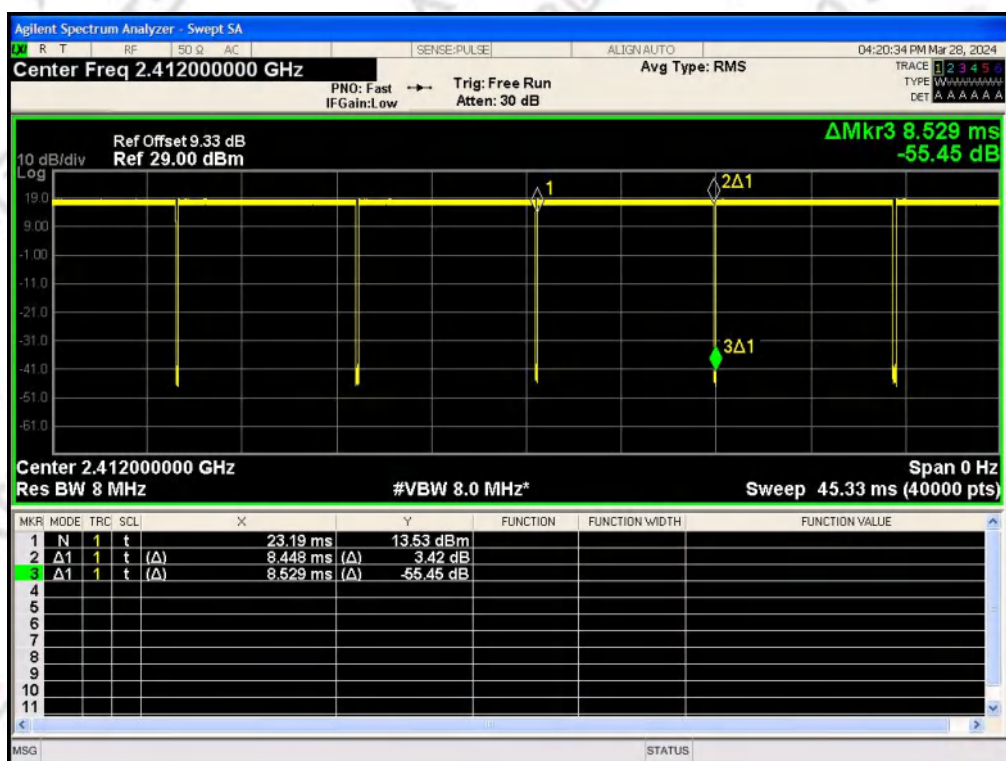
IEEE 802.11n_Channel 10_40MHz_Antenna 4

5.Duty Cycle

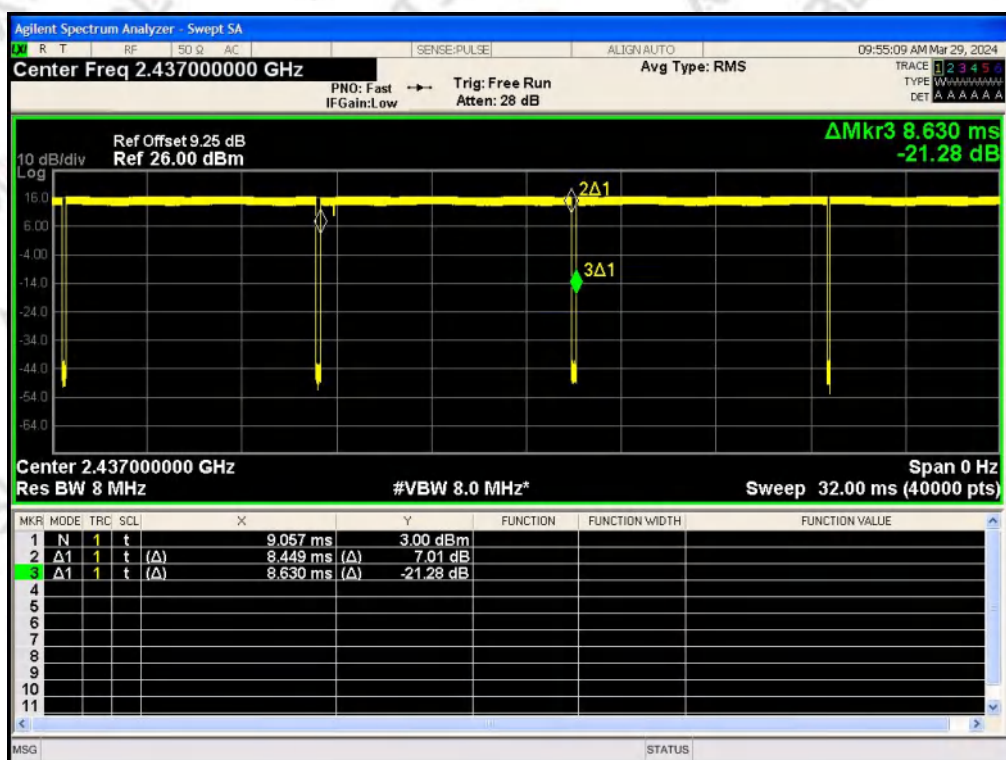
Test Result

Mode	Data rates	Channel	Antenna	On Time (ms)	Period (ms)	Duty Cycle (%)	Duty Cycle (linear)	Duty Cycle Factor (dB)
IEEE 802.11b	1	1	1	8.448	8.529	99.04	0.9904	0.0419
		6		8.449	8.630	97.90	0.9790	0.0922
		11		8.449	8.566	98.63	0.9863	0.0599
IEEE 802.11g	6	1		1.404	1.589	88.36	0.8836	0.5374
		6		1.405	1.572	89.38	0.8938	0.4876
		11		1.404	1.571	89.37	0.8937	0.4881
IEEE 802.11n_20	MCS 0	1		1.317	1.474	89.35	0.8935	0.4891
		6		1.316	1.420	92.68	0.9268	0.3301
		11		1.316	1.438	91.52	0.9152	0.3848
IEEE 802.11n_40		3		0.656	0.777	84.43	0.8443	0.735
		6		0.656	0.786	83.46	0.8346	0.7852
		10		0.657	0.760	86.45	0.8645	0.6324

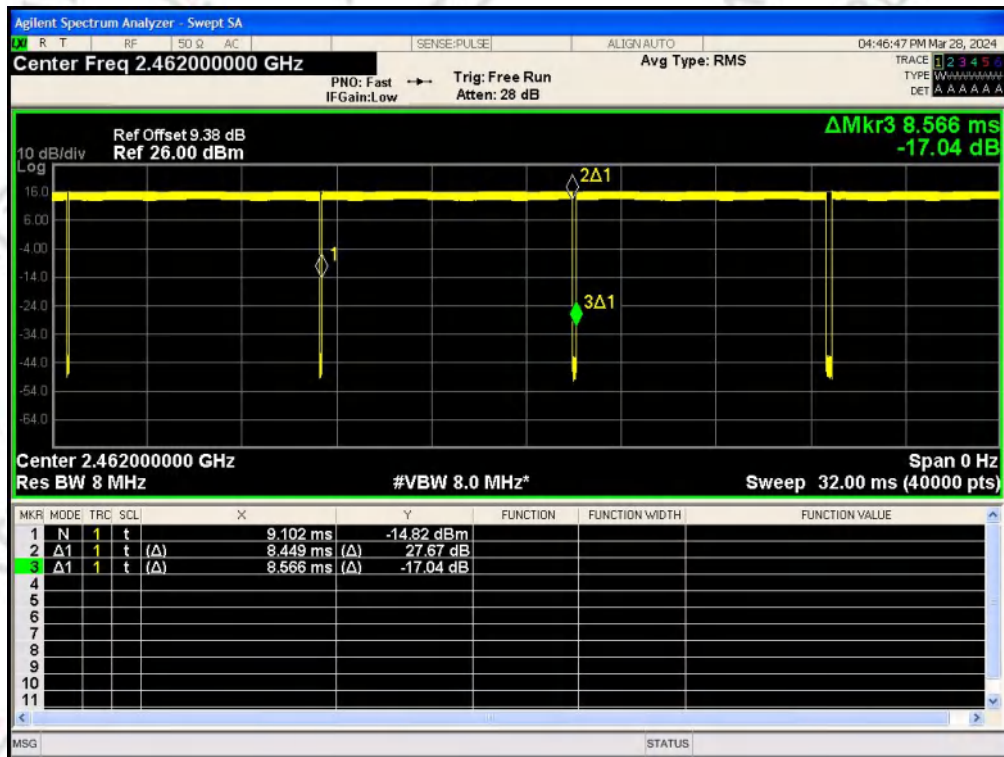
Test Graphs



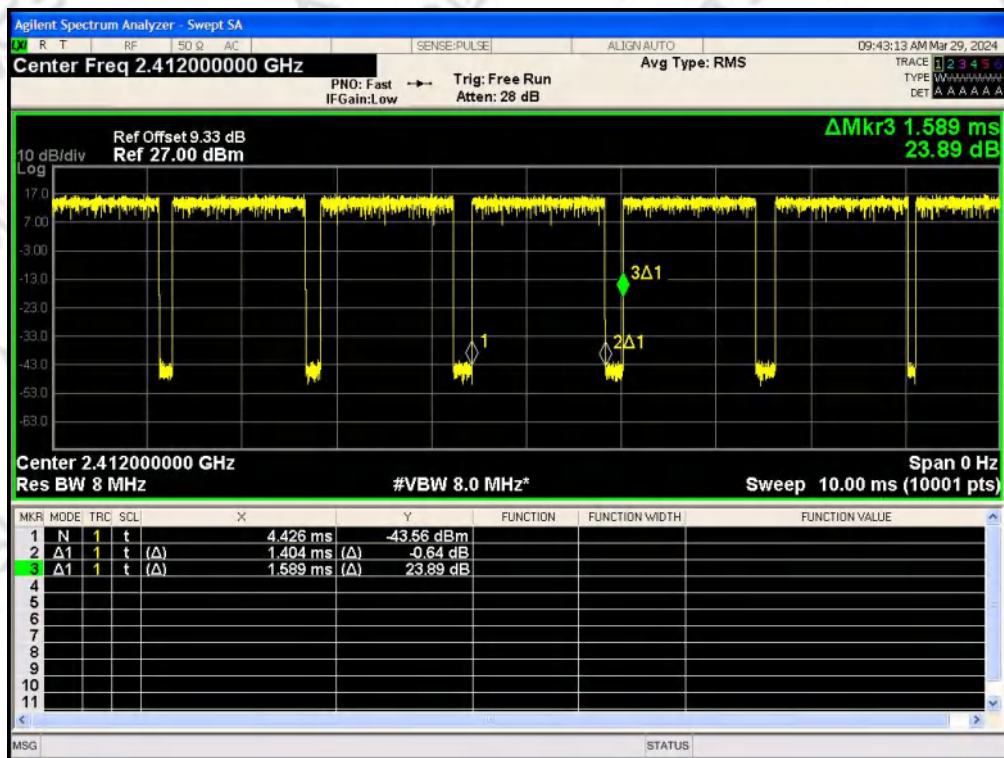
IEEE 802.11b_20MHz_Channel 1



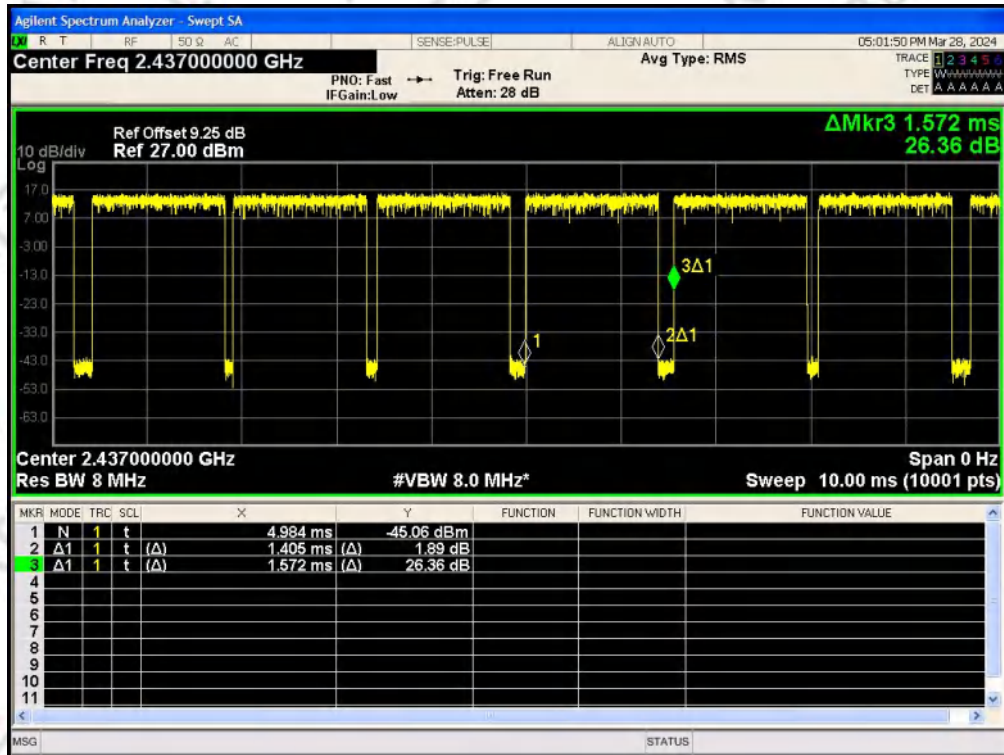
IEEE 802.11b_20MHz_Channel 6



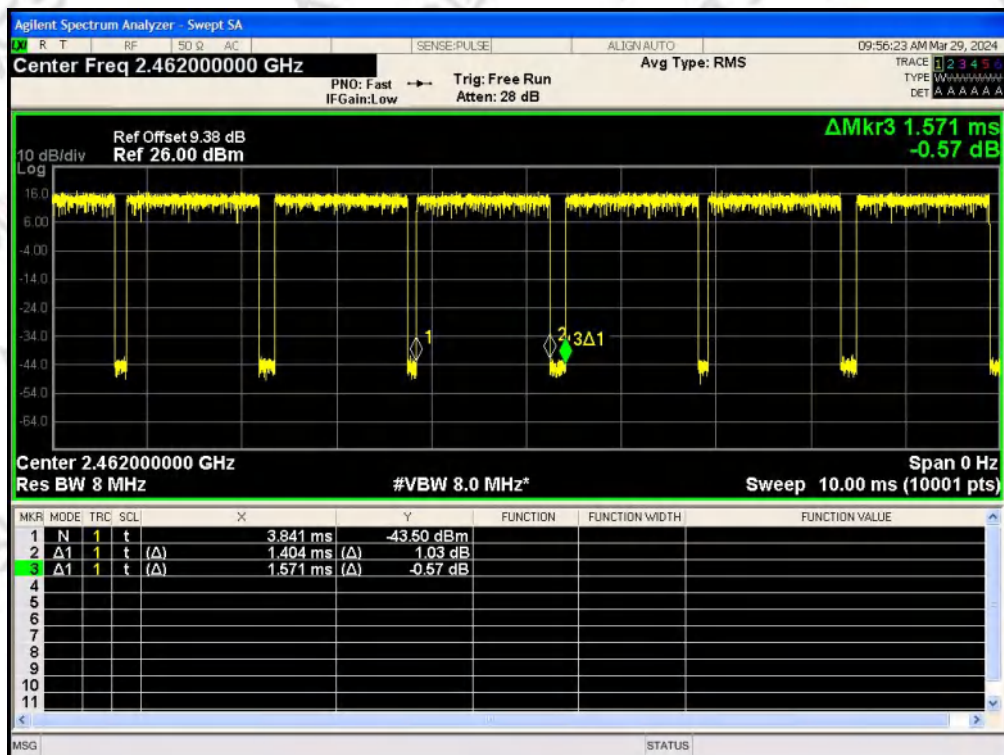
IEEE 802.11b_20MHz_Channel 11



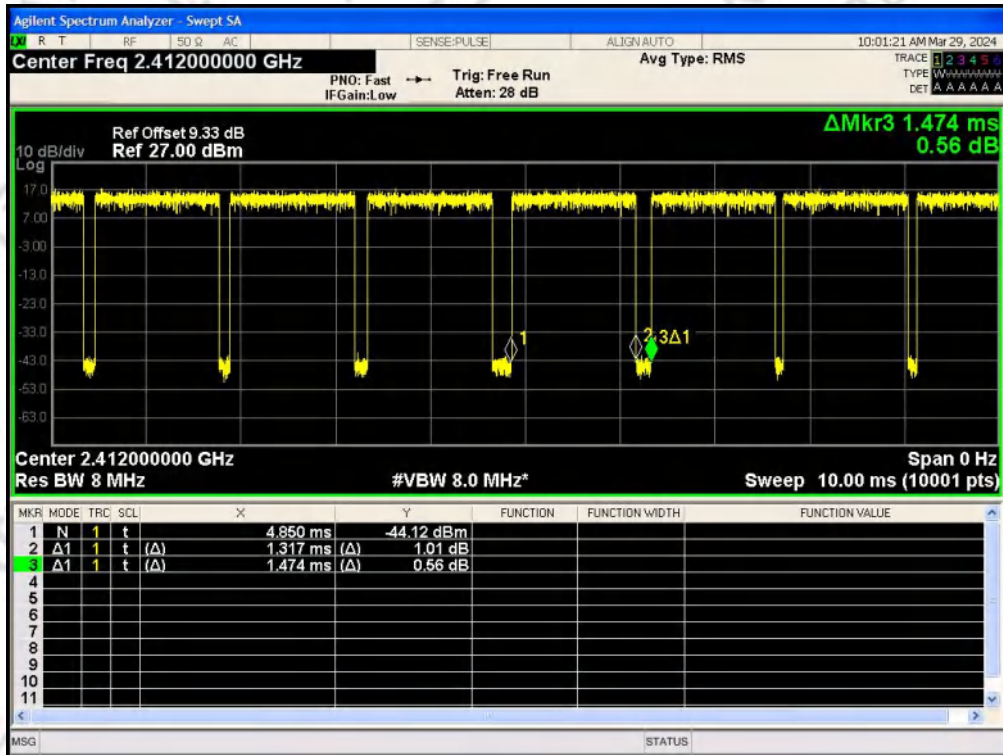
IEEE 802.11g_20MHz_Channel 1



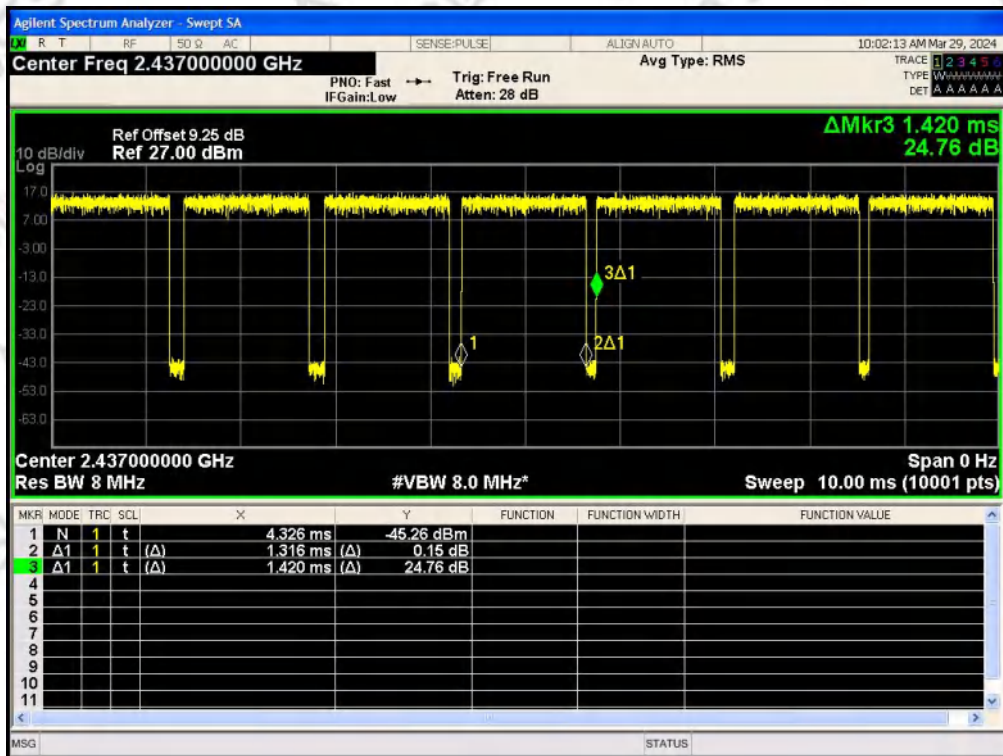
IEEE 802.11g_20MHz_Channel 6



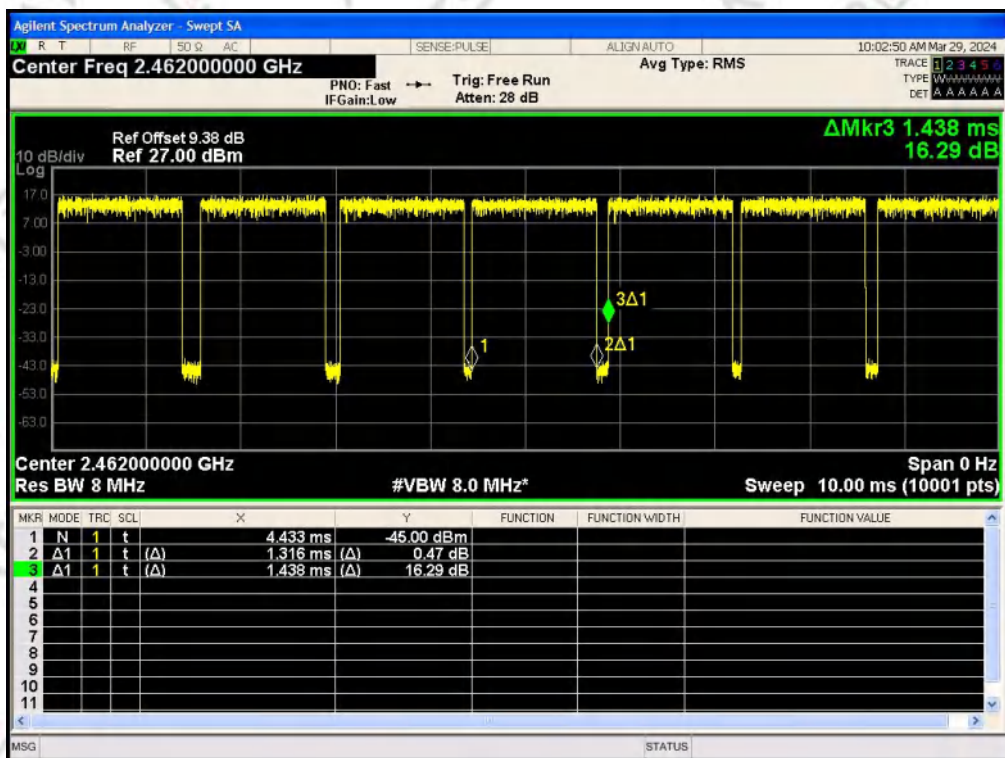
IEEE 802.11g_20MHz_Channel 11



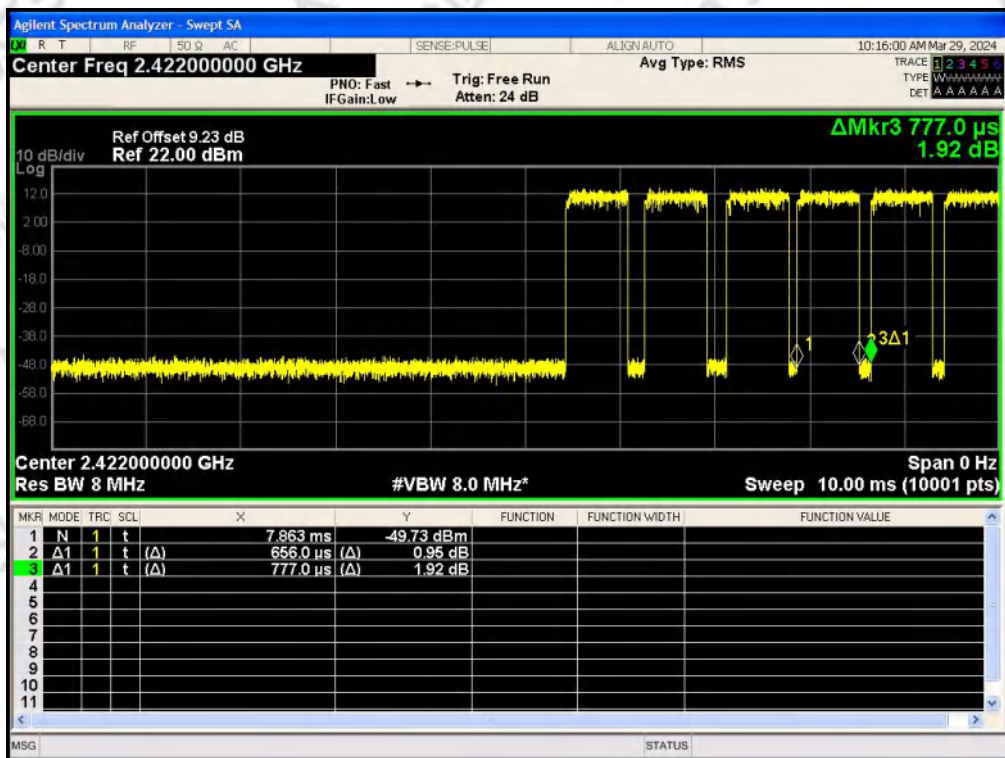
IEEE 802.11n_20MHz_Channel 1



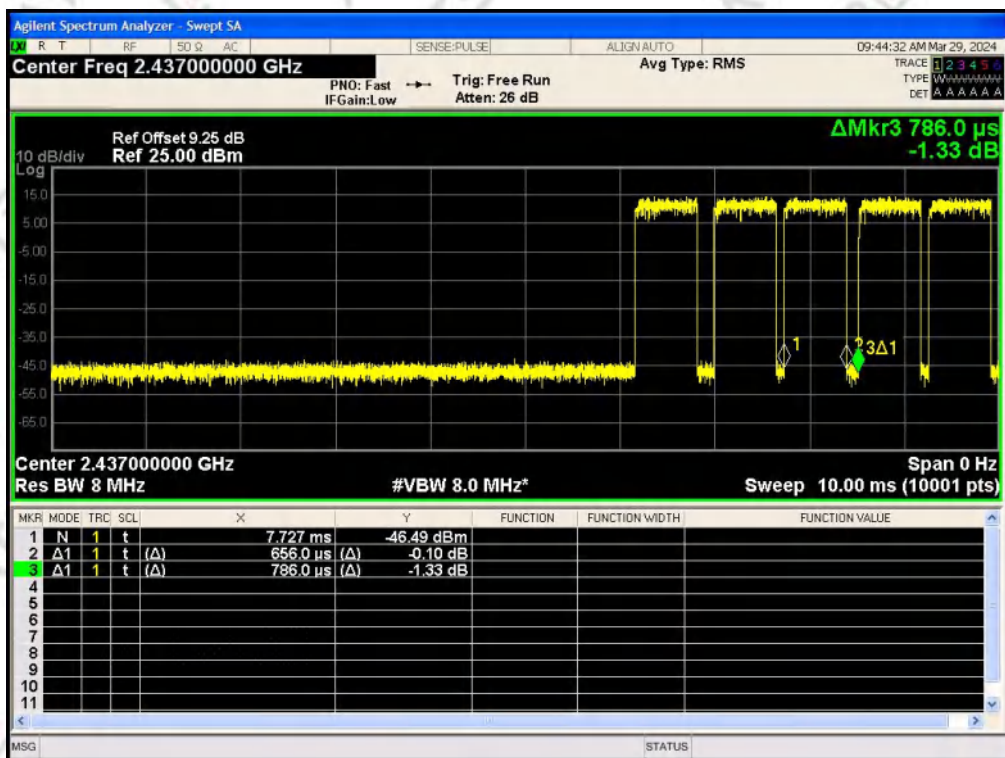
IEEE 802.11n_20MHz_Channel 6



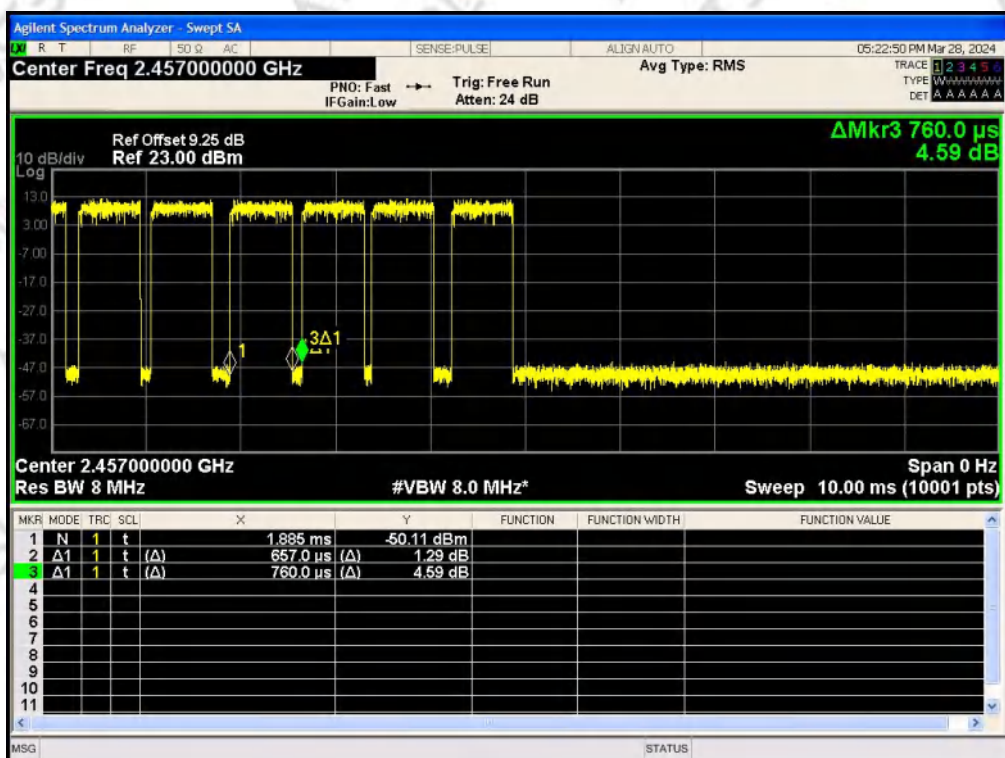
IEEE 802.11n_20MHz_Channel 11



IEEE 802.11n_40MHz_Channel 3



IEEE 802.11n_40MHz_Channel 6



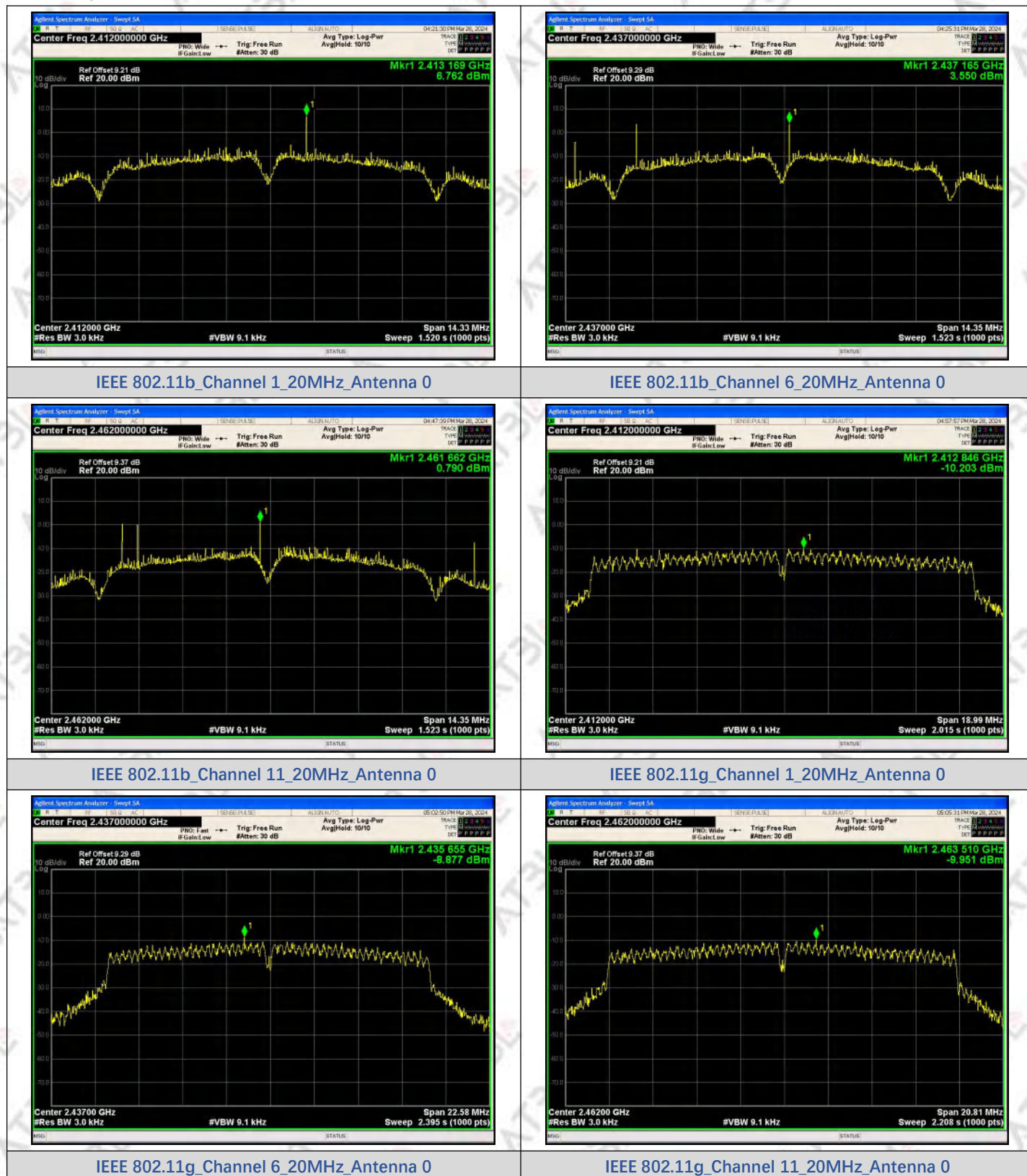
IEEE 802.11n_40MHz_Channel 10

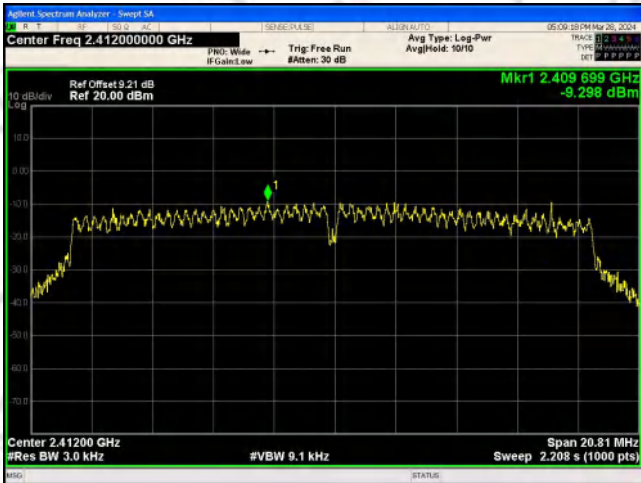
6.Power Spectral Density

Test Result

Mode	Channel	PSD (dBm/3kHz) Ant. 0	Limit (dBm/3kHz)	Result
IEEE 802.11b	1	6.762	8	PASS
	6	3.550		PASS
	11	0.790		PASS
IEEE 802.11g	1	-10.203		PASS
	6	-8.877		PASS
	11	-9.951		PASS
IEEE 802.11n_20	1	-9.298		PASS
	6	-8.873		PASS
	11	-7.922		PASS
IEEE 802.11n_40	3	-12.831		PASS
	6	-12.234		PASS
	10	-13.212		PASS

Test Graphs

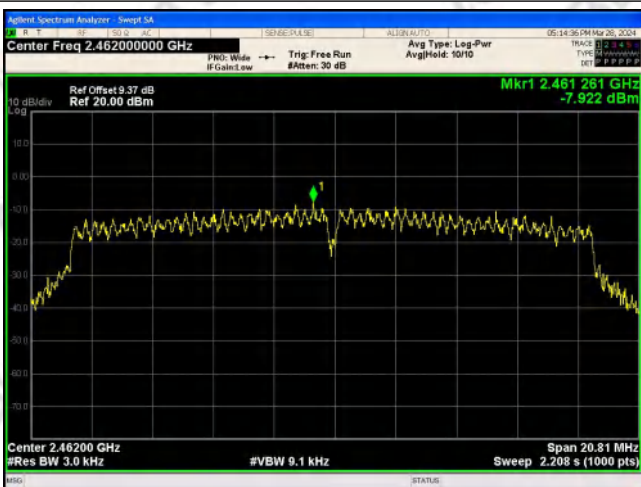




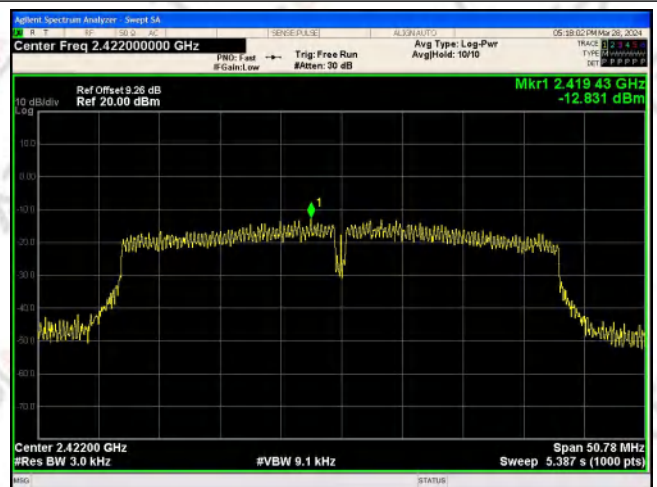
IEEE 802.11n_Channel 1_20MHz_Antenna 0



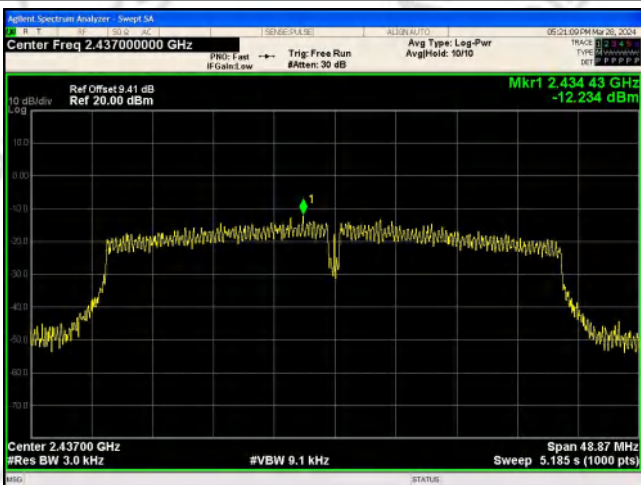
IEEE 802.11n_Channel 6_20MHz_Antenna 0



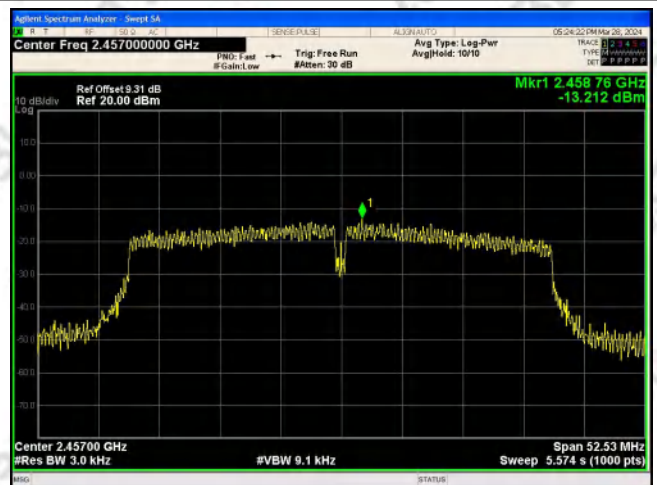
IEEE 802.11n_Channel 11_20MHz_Antenna 0



IEEE 802.11n_Channel 3_40MHz_Antenna 0



IEEE 802.11n_Channel 6_40MHz_Antenna 0



IEEE 802.11n_Channel 10_40MHz_Antenna 0

*****END OF APPENDIX D*****