

Appendix A _ Conducted Test Data

1. Conducted Output Power

Test Result

Conducted 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	16.18	--	--	--	N/A	30	PASS
	6	16.68	--	--	--	N/A	30	PASS
	11	14.51	--	--	--	N/A	30	PASS
IEEE 802.11g	1	7.50	--	--	--	N/A	30	PASS
	6	7.32	--	--	--	N/A	30	PASS
	11	6.95	--	--	--	N/A	30	PASS
IEEE 802.11n_20	1	7.17	--	--	--	N/A	30	PASS
	6	7.12	--	--	--	N/A	30	PASS
	11	7.14	--	--	--	N/A	30	PASS
IEEE 802.11n_40	3	7.24	--	--	--	N/A	30	PASS
	6	7.16	--	--	--	N/A	30	PASS
	10	7.16	--	--	--	N/A	30	PASS

2.99% Bandwidth

Test Result

Mode	Channel	Ant.	99% BW (MHz)
IEEE 802.11b	1	0	13.313
	6		13.405
	11		13.486
IEEE 802.11g	1		16.722
	6		16.773
	11		16.826
IEEE 802.11n_20	1		17.774
	6		17.797
	11		17.849
IEEE 802.11n_40	3		36.263
	6		36.285
	10		36.269

Test Graphs



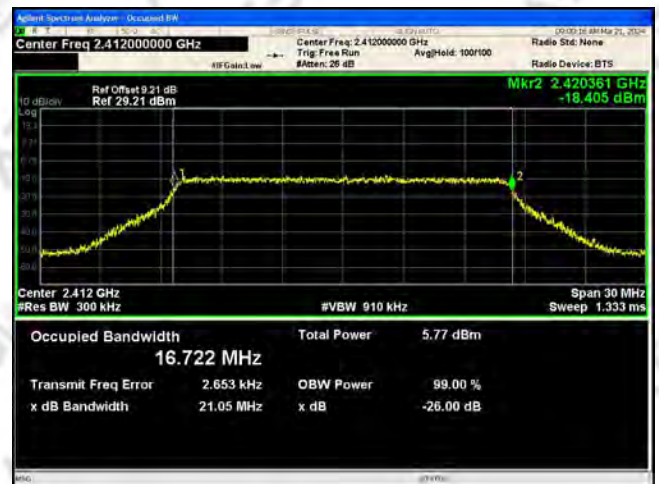
IEEE 802.11b_Channel 1_20MHz_Antenna 0



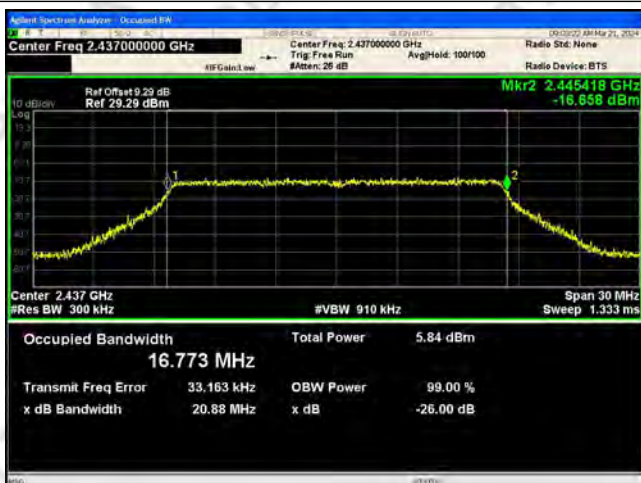
IEEE 802.11b_Channel 6_20MHz_Antenna 0



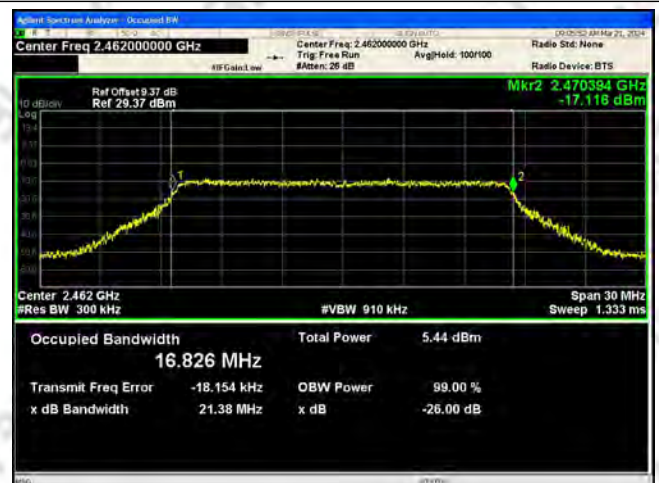
IEEE 802.11b_Channel 11_20MHz_Antenna 0



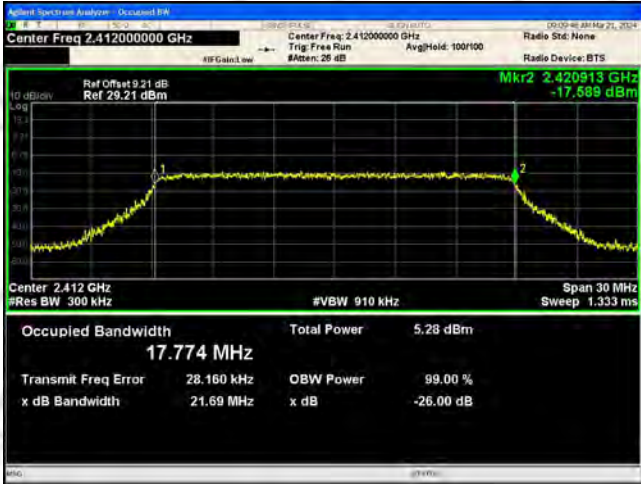
IEEE 802.11g_Channel 1_20MHz_Antenna 0



IEEE 802.11g_Channel 6_20MHz_Antenna 0



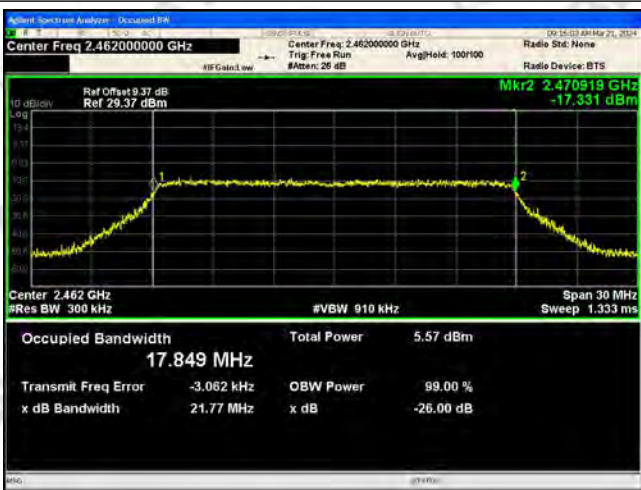
IEEE 802.11g_Channel 11_20MHz_Antenna 0



IEEE 802.11n_Channel 1_20MHz_Antenna 0



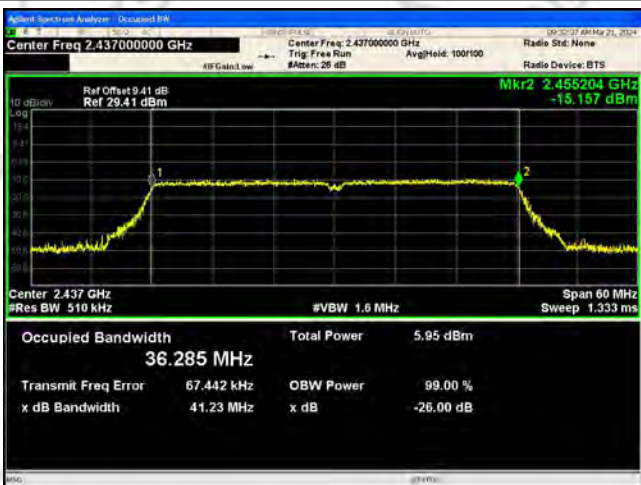
IEEE 802.11n_Channel 6_20MHz_Antenna 0



IEEE 802.11n_Channel 11_20MHz_Antenna 0



IEEE 802.11n_Channel 3_40MHz_Antenna 0



IEEE 802.11n_Channel 6_40MHz_Antenna 0



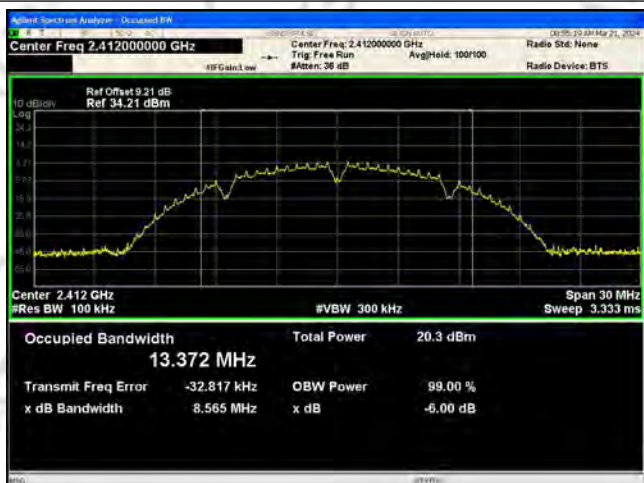
IEEE 802.11n_Channel 10_40MHz_Antenna 0

3.6dB Bandwidth

Test Result

Mode	Channel	Ant.	Center Frequency (MHz)	6 dB Bandwidth (MHz)	Limit (MHz)	Result
IEEE 802.11b	1	0	2412	8.565	0.5	PASS
	6		2437	8.567		PASS
	11		2462	8.558		PASS
IEEE 802.11g	1		2412	16.37		PASS
	6		2437	16.36		PASS
	11		2462	16.35		PASS
IEEE 802.11n_20	1		2412	17.56		PASS
	6		2437	17.55		PASS
	11		2462	17.55		PASS
IEEE 802.11n_40	3		2422	36.32		PASS
	6		2437	36.29		PASS
	10		2457	36.07		PASS

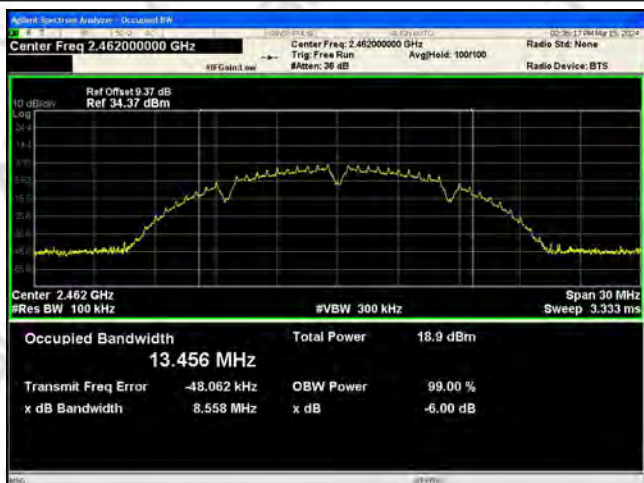
Test Graphs



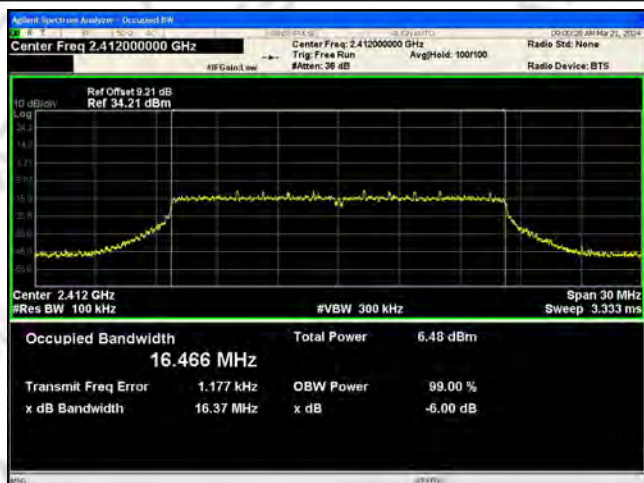
IEEE 802.11b_Channel 1_20MHz_Antenna 0



IEEE 802.11b_Channel 6_20MHz_Antenna 0



IEEE 802.11b_Channel 11_20MHz_Antenna 0



IEEE 802.11g_Channel 1_20MHz_Antenna 0



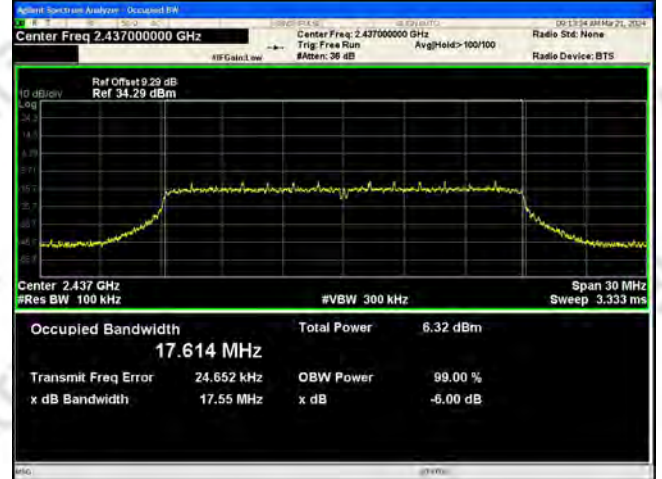
IEEE 802.11g_Channel 6_20MHz_Antenna 0



IEEE 802.11g_Channel 11_20MHz_Antenna 0



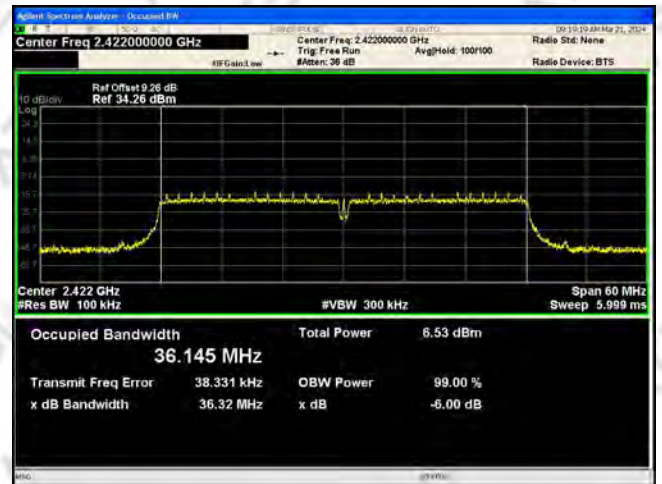
IEEE 802.11n_Channel 1_20MHz_Antenna 0



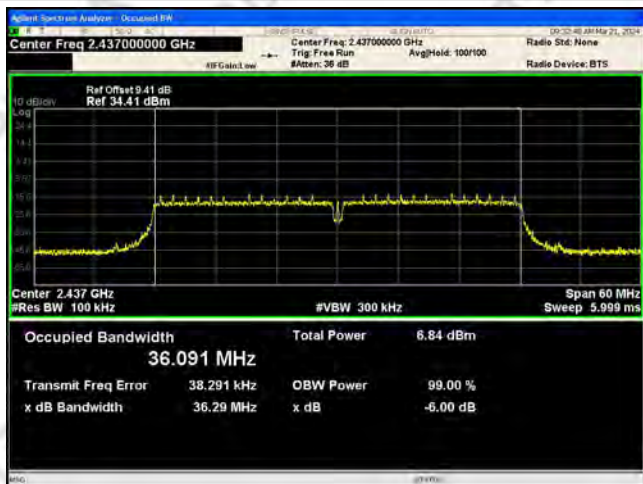
IEEE 802.11n_Channel 6_20MHz_Antenna 0



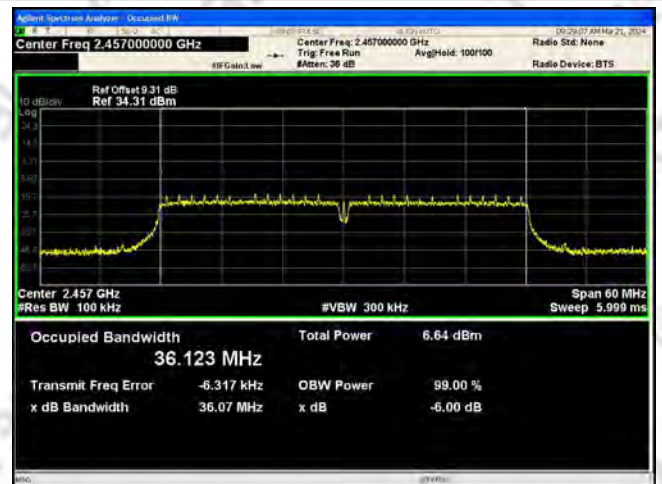
IEEE 802.11n_Channel 11_20MHz_Antenna 0



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

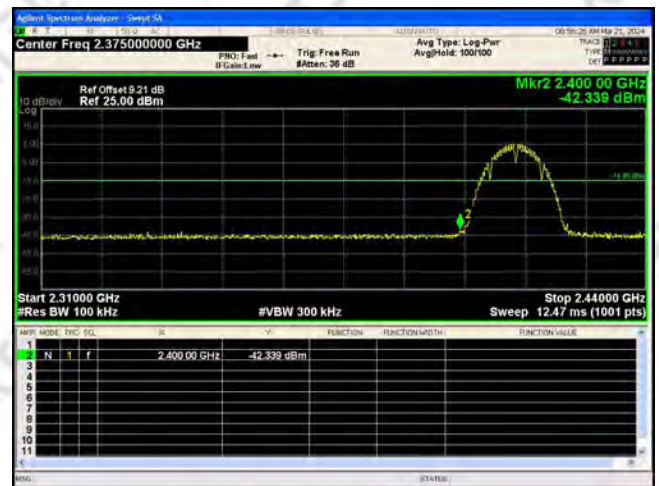
Mode	Channel	Ant.	OOB Emission Frequency (MHz)	OOB Emission Level (dBm)	Limit (dBm)	Over Limit (dB)	Result
IEEE 802.11b	1	0	2400.00	-42.339	-14.9	-27.439	PASS
			4823.74	-41.306	-14.9	-26.406	PASS
			7232.15	-56.588	-14.9	-41.688	PASS
			9653.05	-59.581	-14.9	-44.681	PASS
			24898.9	-44.691	-14.9	-29.791	PASS
	6		4874.30	-44.056	-14.2	-29.856	PASS
			7306.44	-58.368	-14.2	-44.168	PASS
			9741.08	-59.397	-14.2	-45.197	PASS
			24865.8	-43.875	-14.2	-29.675	PASS
	11		2483.50	-45.041	-16.34	-28.701	PASS
			4924.24	-49.086	-16.34	-32.746	PASS
			7383.22	-57.846	-16.34	-41.506	PASS
			9857.81	-58.312	-16.34	-41.972	PASS
			24891.4	-43.929	-16.34	-27.589	PASS
IEEE 802.11g	1		2400.00	-43.893	-31.06	-12.833	PASS
			2365.51	-43.676	-31.06	-12.616	PASS
			4835.60	-58.186	-31.06	-27.126	PASS
			7247.80	-58.282	-31.06	-27.223	PASS
			9649.90	-58.829	-31.06	-27.769	PASS
			24834.6	-43.925	-31.06	-12.865	PASS
	6		4859.94	-57.563	-30.94	-26.623	PASS
			7318.93	-57.946	-30.94	-27.006	PASS
			9735.46	-59.325	-30.94	-28.385	PASS
			24923.2	-44.506	-30.94	-13.566	PASS
			2483.50	-43.700	-31.17	-12.530	PASS
			4922.37	-59.956	-31.17	-28.785	PASS
			7390.09	-57.516	-31.17	-26.346	PASS
			9865.93	-57.876	-31.17	-26.706	PASS
24920.7	-45.031		-31.17	-13.861	PASS		
IEEE 802.11n_20	1		2400.00	-43.878	-31.19	-12.688	PASS
			2387.74	-42.842	-31.19	-11.652	PASS
			4820.60	-59.414	-31.19	-28.224	PASS
			7242.80	-58.460	-31.19	-27.270	PASS
			9633.10	-58.871	-31.19	-27.681	PASS
			24874.5	-45.034	-31.19	-13.844	PASS
	6		4865.56	-59.382	-31.21	-28.172	PASS
		7325.79	-57.809	-31.21	-26.599	PASS	

	11	9762.93	-59.566	-31.21	-28.356	PASS
		24852.0	-45.178	-31.21	-13.968	PASS
		2483.50	-43.758	-31.09	-12.668	PASS
		4931.73	-57.829	-31.09	-26.739	PASS
		7395.71	-57.453	-31.09	-26.363	PASS
		9859.69	-59.461	-31.09	-28.371	PASS
		24821.5	-44.160	-31.09	-13.070	PASS
		2400.00	-43.299	-33.99	-9.309	PASS
		2315.98	-42.732	-33.99	-8.742	PASS
		4877.40	-59.064	-33.99	-25.074	PASS
		7262.10	-58.421	-33.99	-24.431	PASS
IEEE 802.11n_40	3	9676.80	-58.847	-33.99	-24.857	PASS
		24890.1	-44.428	-33.99	-10.438	PASS
		4875.55	-59.334	-33.66	-25.675	PASS
		7327.66	-56.742	-33.66	-23.082	PASS
		9744.82	-58.883	-33.66	-25.223	PASS
		24850.8	-44.288	-33.66	-10.628	PASS
		2483.50	-45.063	-33.58	-11.483	PASS
		4928.61	-59.065	-33.58	-25.485	PASS
		7363.87	-57.618	-33.58	-24.038	PASS
		9838.46	-59.272	-33.58	-25.692	PASS
		24915.7	-44.056	-33.58	-10.476	PASS
	6					
	10					

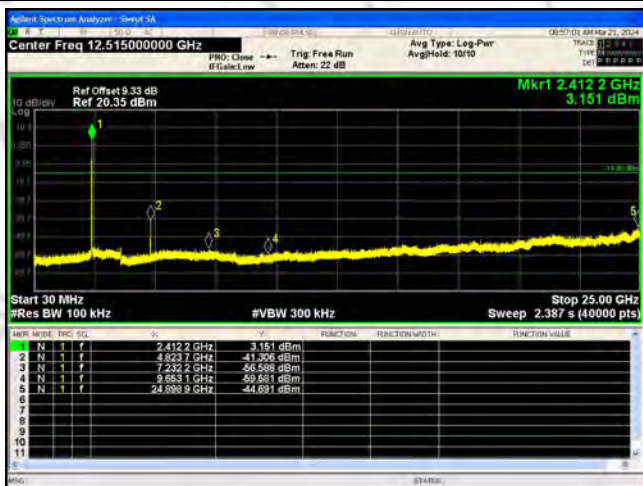
Test Graphs



In-Band Reference Level
IEEE 802.11b_Channel 1_20MHz_Antenna 0



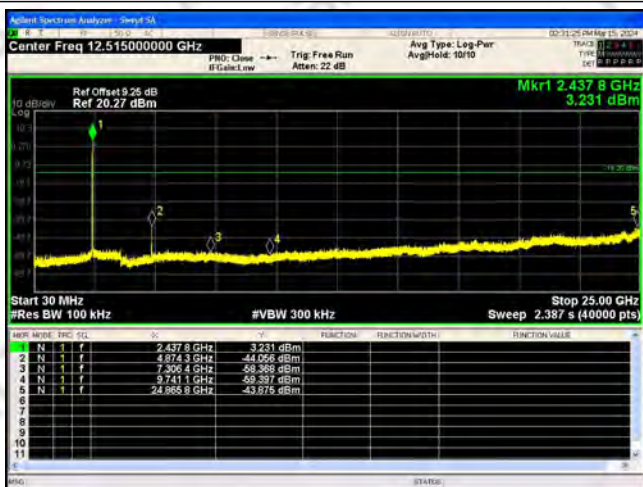
Out Of Band Emission
IEEE 802.11b_Channel 1_20MHz_Antenna 0



Spurious Emission
IEEE 802.11b_Channel 1_20MHz_Antenna 0



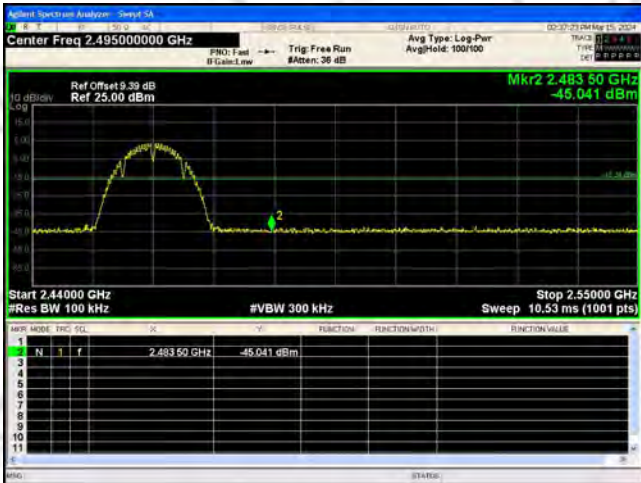
In-Band Reference Level
IEEE 802.11b_Channel 6_20MHz_Antenna 0



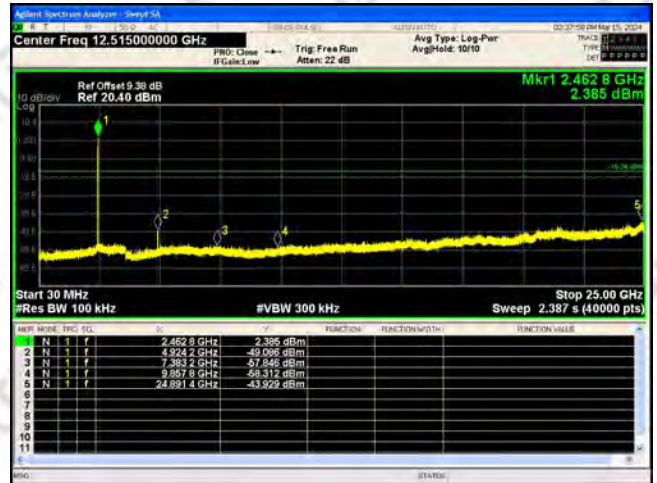
Spurious Emissions
IEEE 802.11b_Channel 6_20MHz_Antenna 0



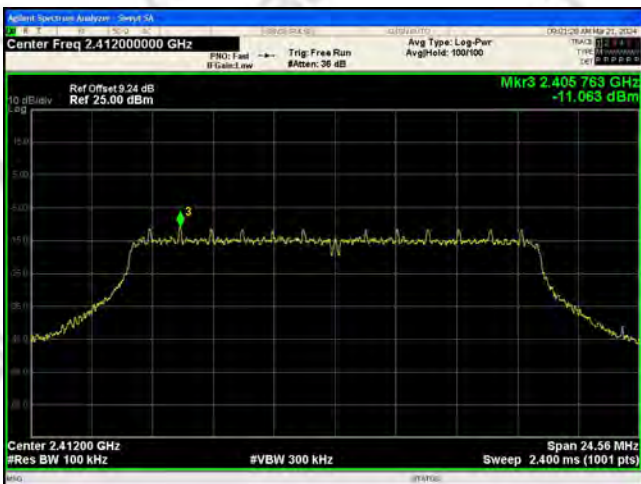
In-Band Reference Level
IEEE 802.11b_Channel 11_20MHz_Antenna 0



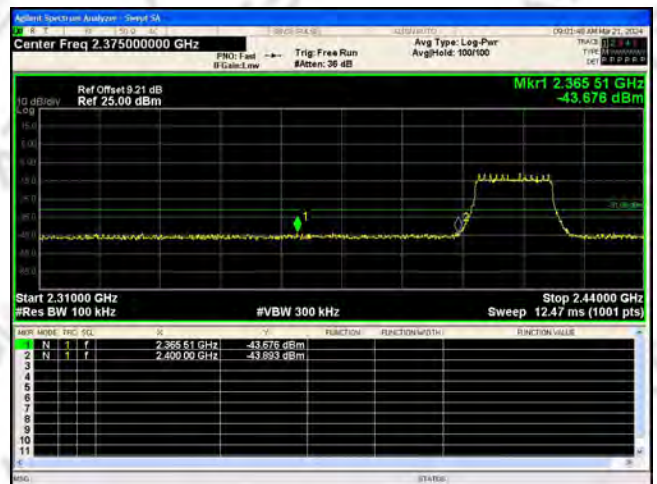
Out Of Band Emission
IEEE 802.11b_Channel 11_20MHz_Antenna 0



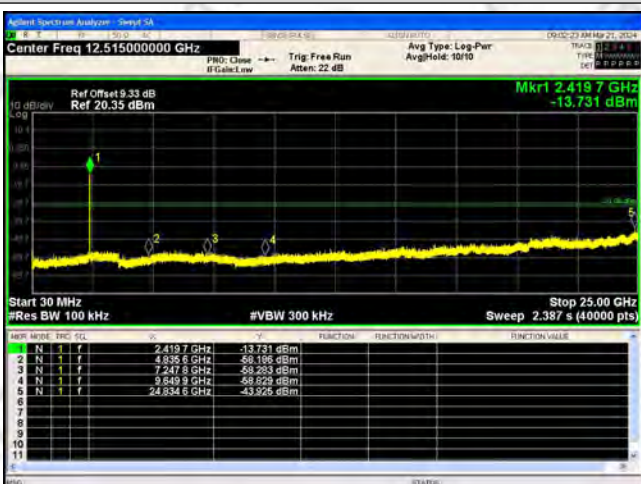
Spurious Emission
IEEE 802.11b_Channel 11_20MHz_Antenna 0



In-Band Reference Level
IEEE 802.11g_Channel 1_20MHz_Antenna 0



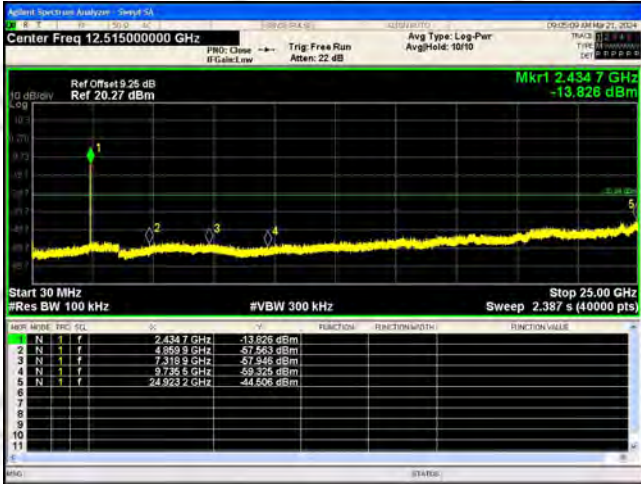
Out Of Band Emission
IEEE 802.11g_Channel 1_20MHz_Antenna 0



Spurious Emission
IEEE 802.11g_Channel 1_20MHz_Antenna 0



In-Band Reference Level
IEEE 802.11g_Channel 6_20MHz_Antenna 0



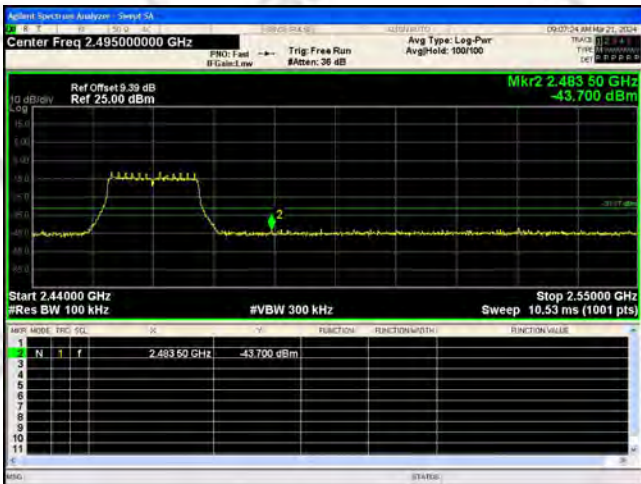
Spurious Emissions

IEEE 802.11g_Channel 6_20MHz_Antenna 0



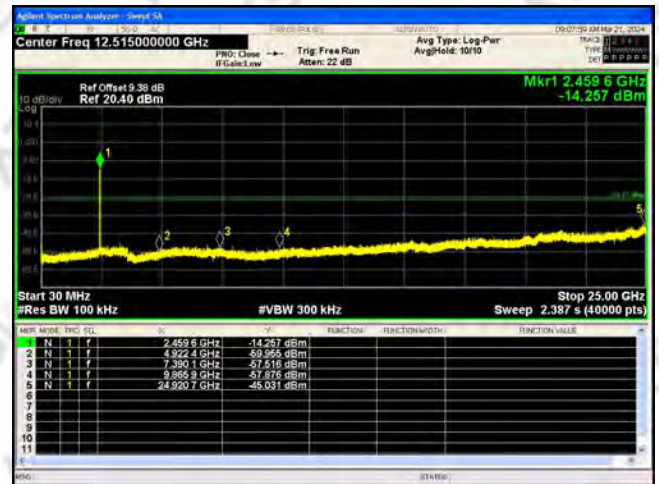
In-Band Reference Level

IEEE 802.11g_Channel 11_20MHz_Antenna 0



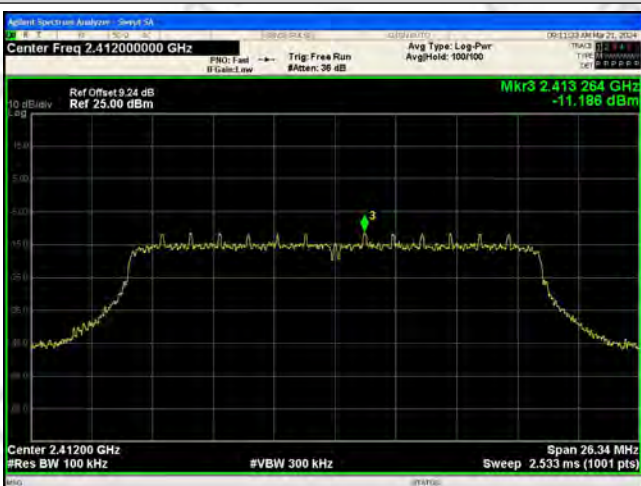
Out Of Band Emission

IEEE 802.11g_Channel 11_20MHz_Antenna 0



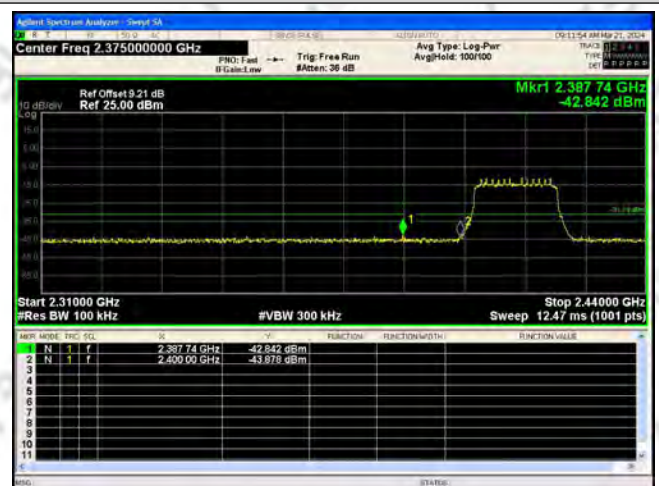
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IEEE 802.11g_Channel 11_20MHz_Antenna 0



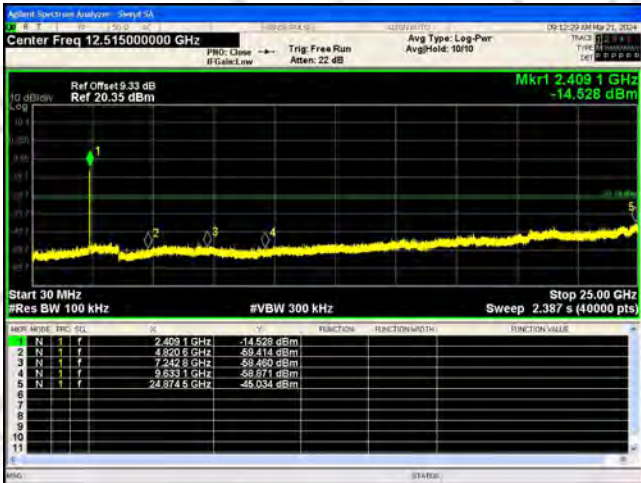
In-Band Reference Level

IEEE 802.11n_Channel 1_20MHz_Antenna 0



Out Of Band Emission

IEEE 802.11n_Channel 1_20MHz_Antenna 0



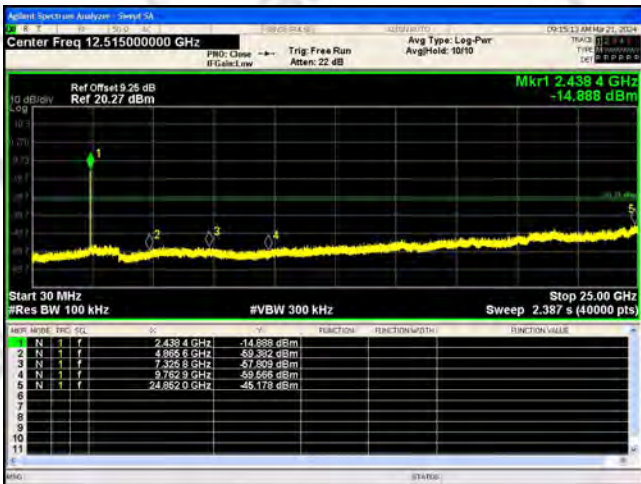
Spurious Emission

IEEE 802.11n_Channel 1_20MHz_Antenna 0



In-Band Reference Level

IEEE 802.11n_Channel 6_20MHz_Antenna 0



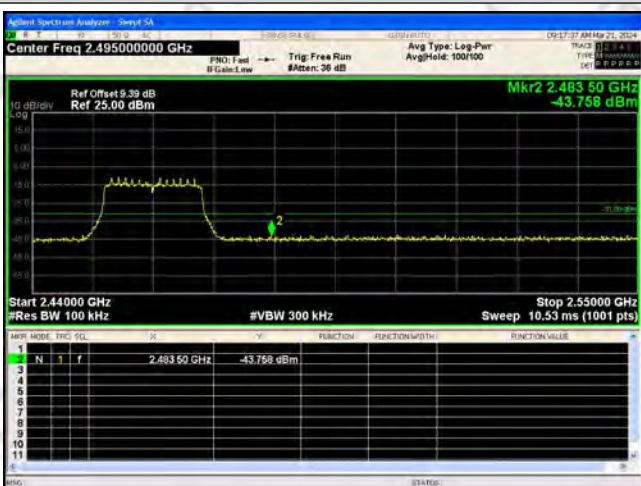
Spurious Emissions

IEEE 802.11n_Channel 6_20MHz_Antenna 0



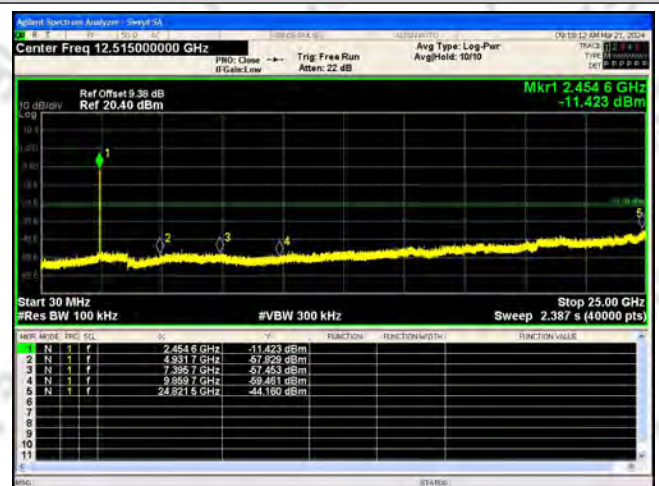
In-Band Reference Level

IEEE 802.11n_Channel 11_20MHz_Antenna 0



Out Of Band Emission

IEEE 802.11n_Channel 11_20MHz_Antenna 0

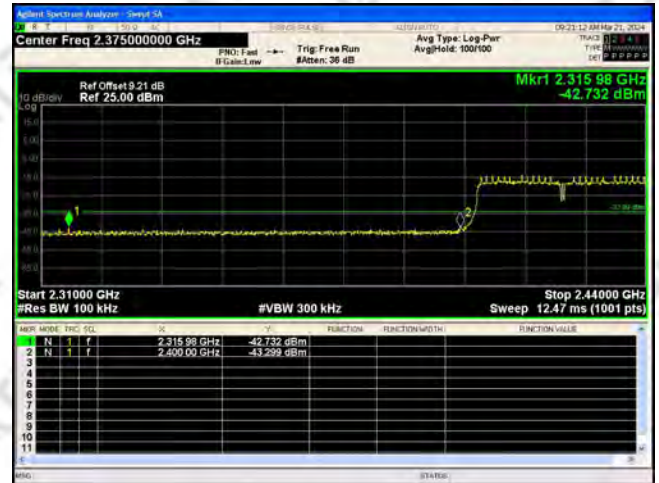


Spurious Emission

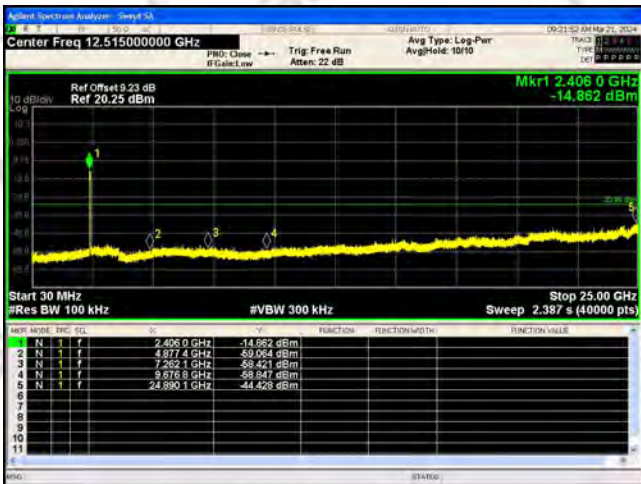
IEEE 802.11n_Channel 11_20MHz_Antenna 0



In-Band Reference Level
IEEE 802.11n_Channel 3_40MHz_Antenna 0



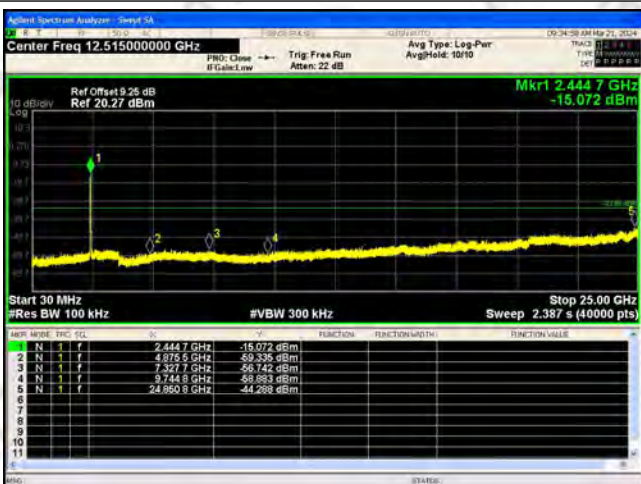
Out Of Band Emission
IEEE 802.11n_Channel 3_40MHz_Antenna 0



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

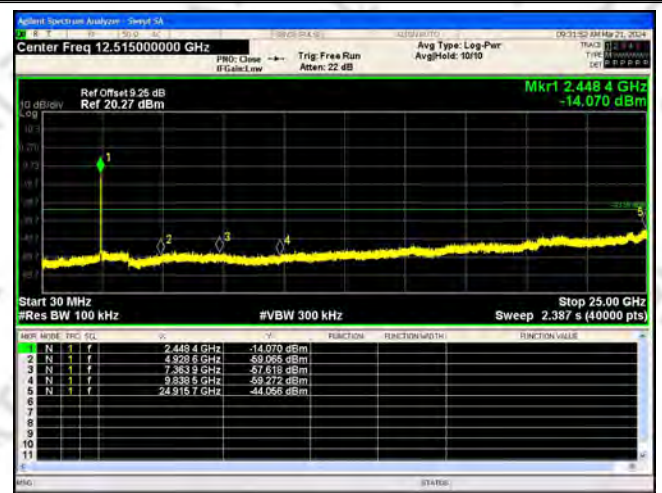


In-Band Reference Level
IEEE 802.11n_Channel 10_40MHz_Antenna 0



Out Of Band Emission

IEEE 802.11n_Channel 10_40MHz_Antenna 0



Spurious Emission

IEEE 802.11n_Channel 10_40MHz_Antenna 0

5.Duty Cycle

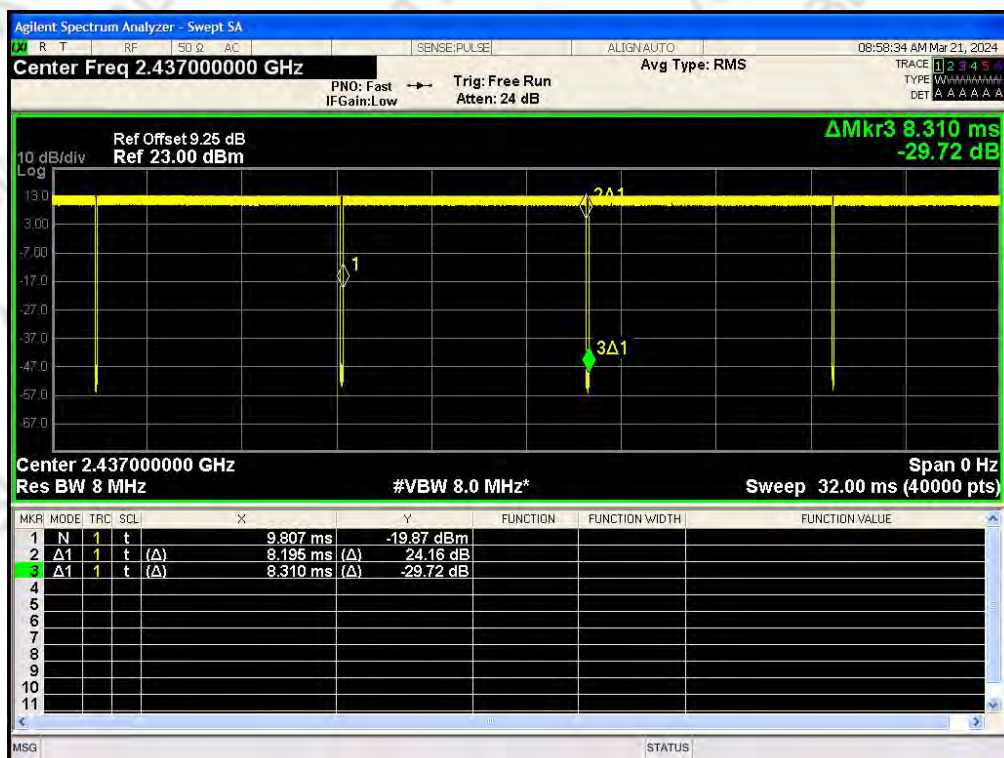
Test Result

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	8.194	8.292	98.82	0.9882	0.0516
		6		8.195	8.310	98.61	0.9861	0.0608
		11		8.194	8.273	99.04	0.9904	0.0419
IEEE 802.11g	6	1		1.365	1.415	96.47	0.9647	0.1561
		6		1.364	1.415	96.40	0.9640	0.1592
		11		1.365	1.505	90.70	0.9070	0.4239
IEEE 802.11n_20	MCS 0	1		1.276	1.399	91.21	0.9121	0.3996
		6		1.276	1.336	95.51	0.9551	0.1995
		11		1.275	1.336	95.44	0.9544	0.2027
IEEE 802.11n_40		3		0.634	0.677	93.64	0.9364	0.2854
		6		0.635	0.768	82.69	0.8269	0.8255
		10		0.635	0.723	87.82	0.8782	0.5641

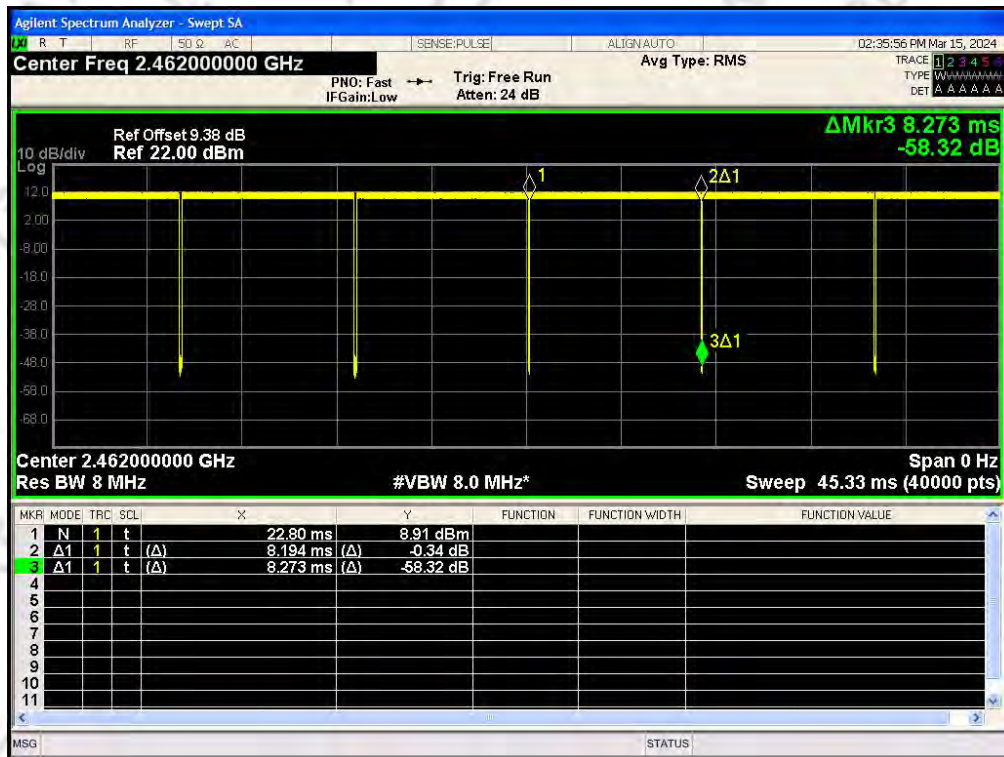
Test Graphs



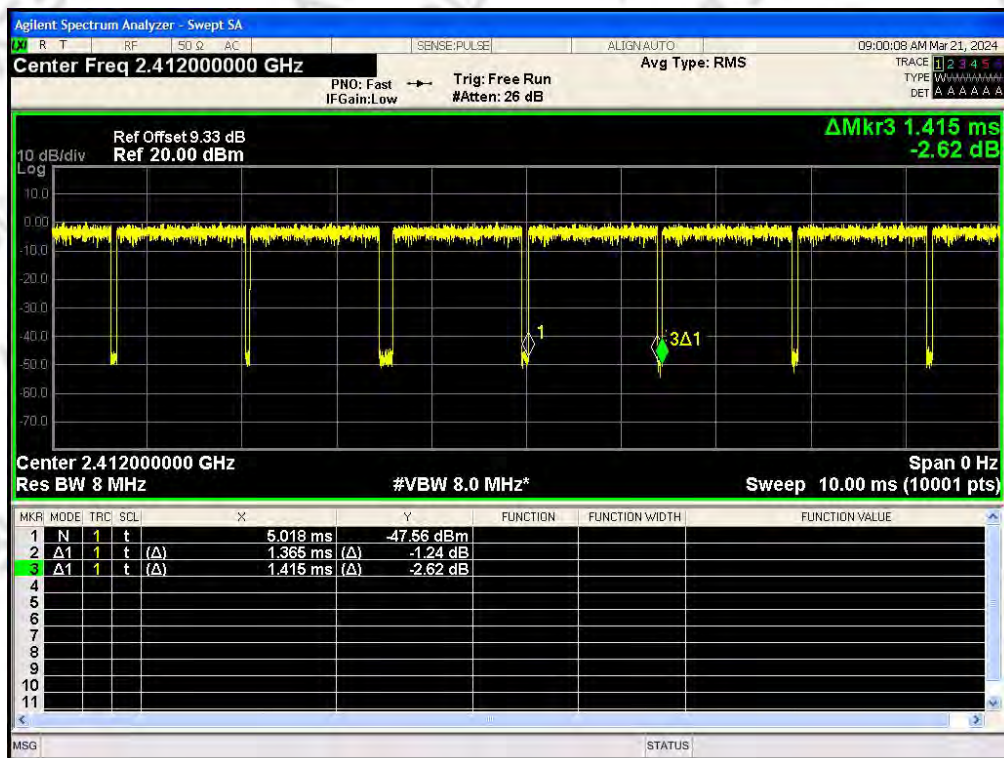
IEEE 802.11b_20MHz_Channel 1



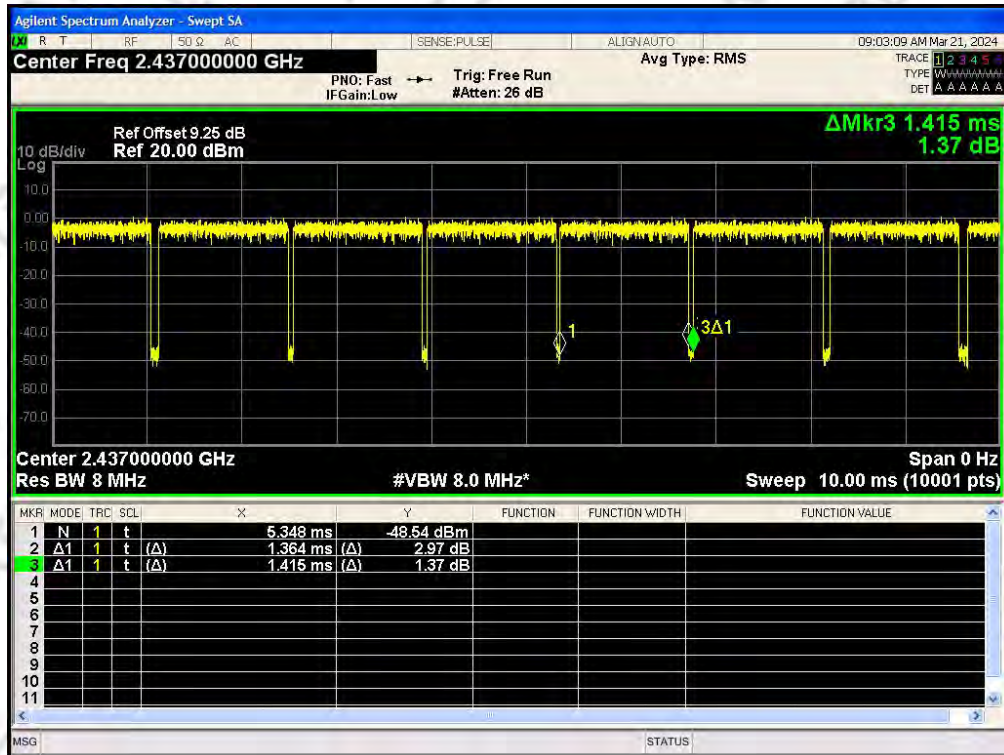
IEEE 802.11b_20MHz_Channel 6



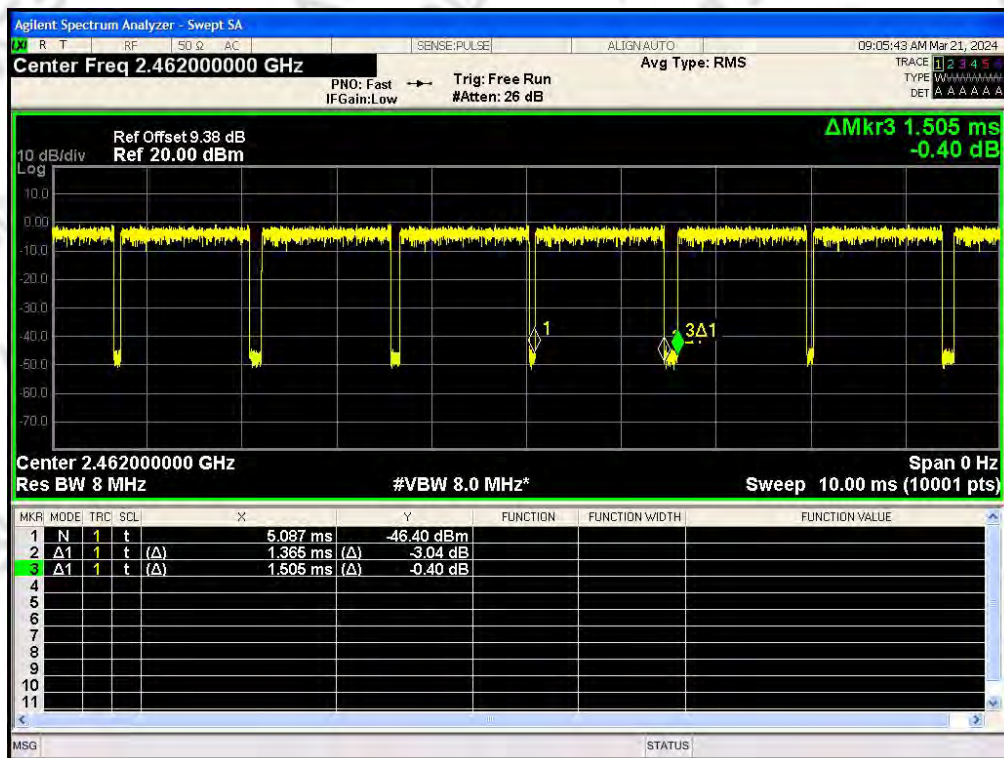
IEEE 802.11b_20MHz_Channel 11



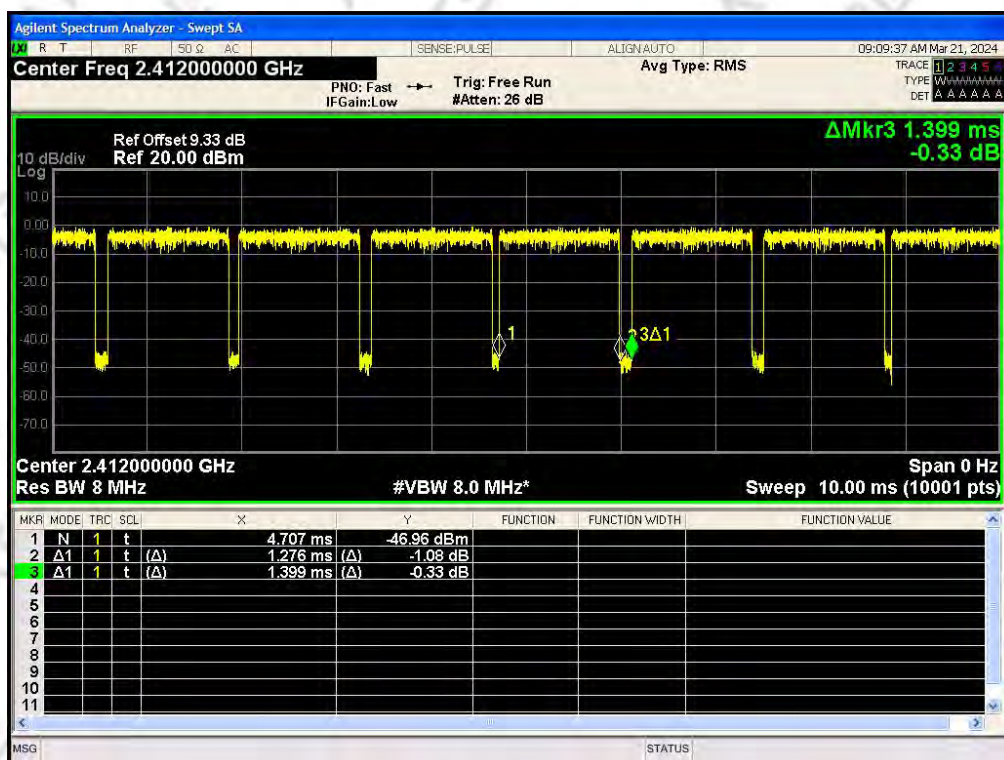
IEEE 802.11g_20MHz_Channel 1



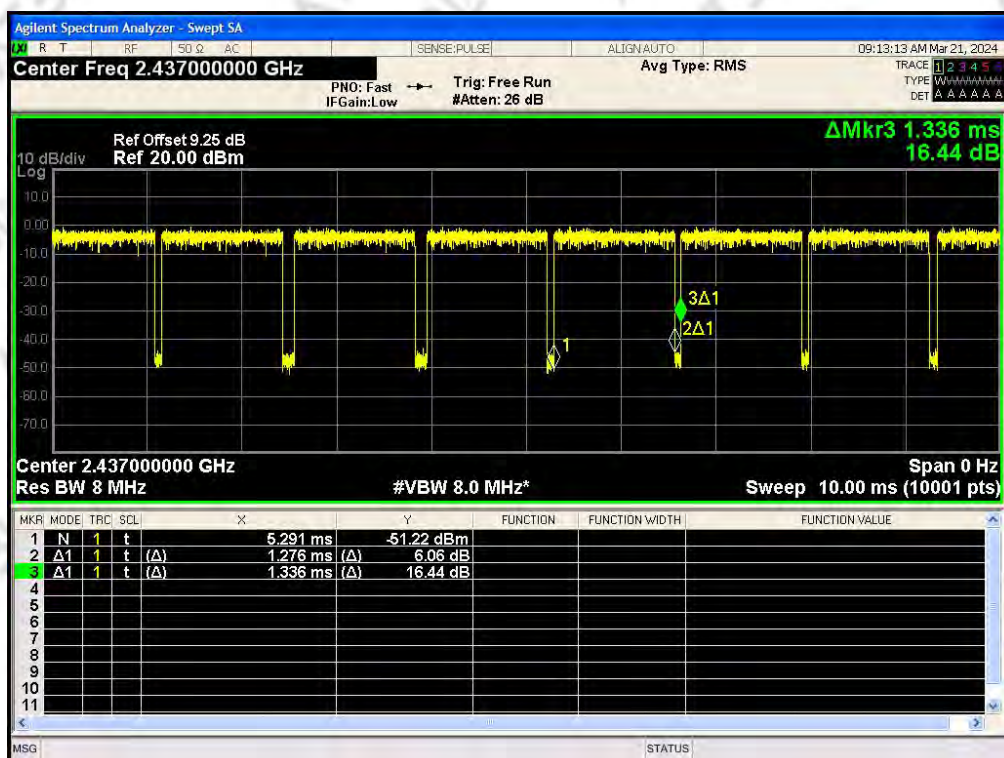
IEEE 802.11g_20MHz_Channel 6



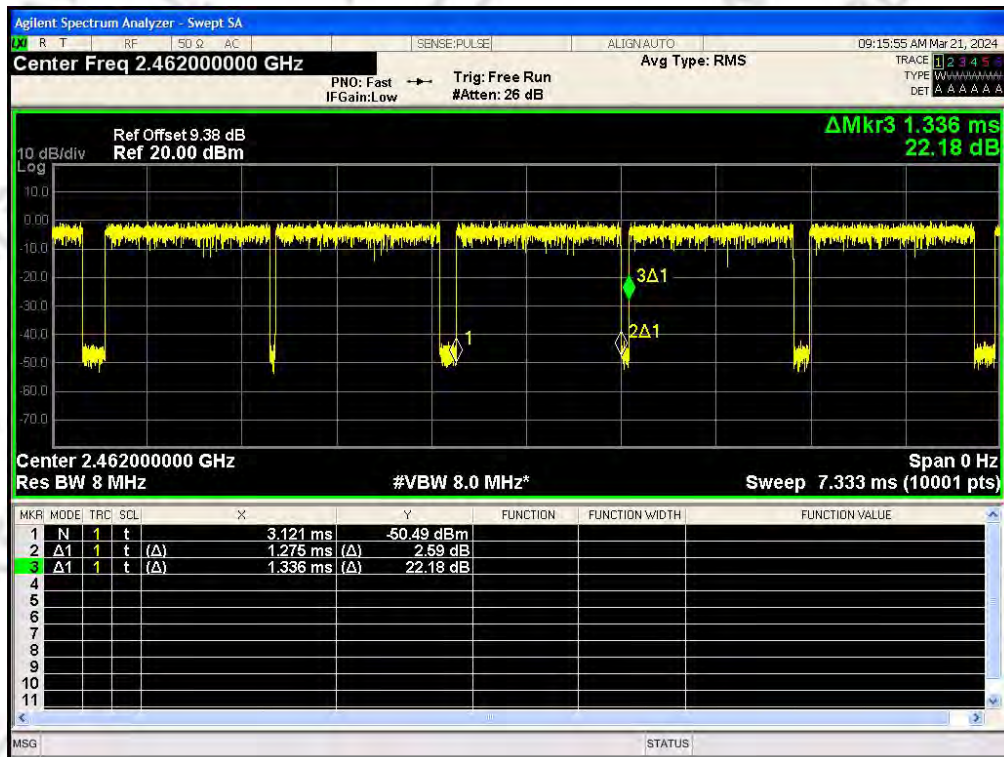
IEEE 802.11g_20MHz_Channel 11



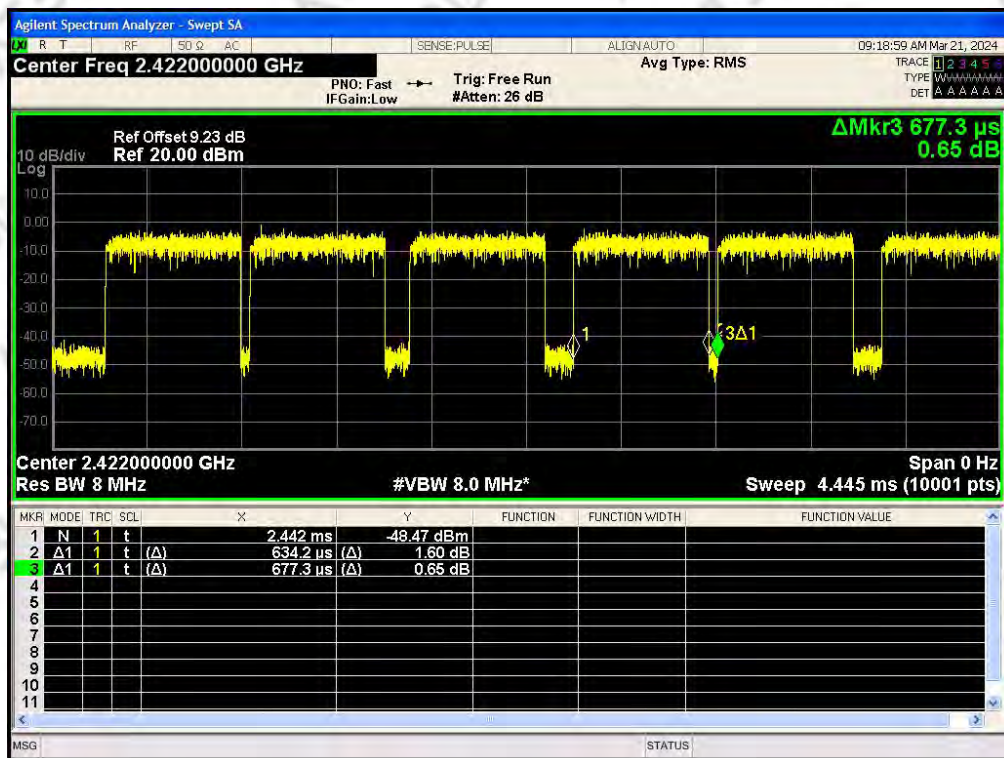
IEEE 802.11n 20MHz Channel 1



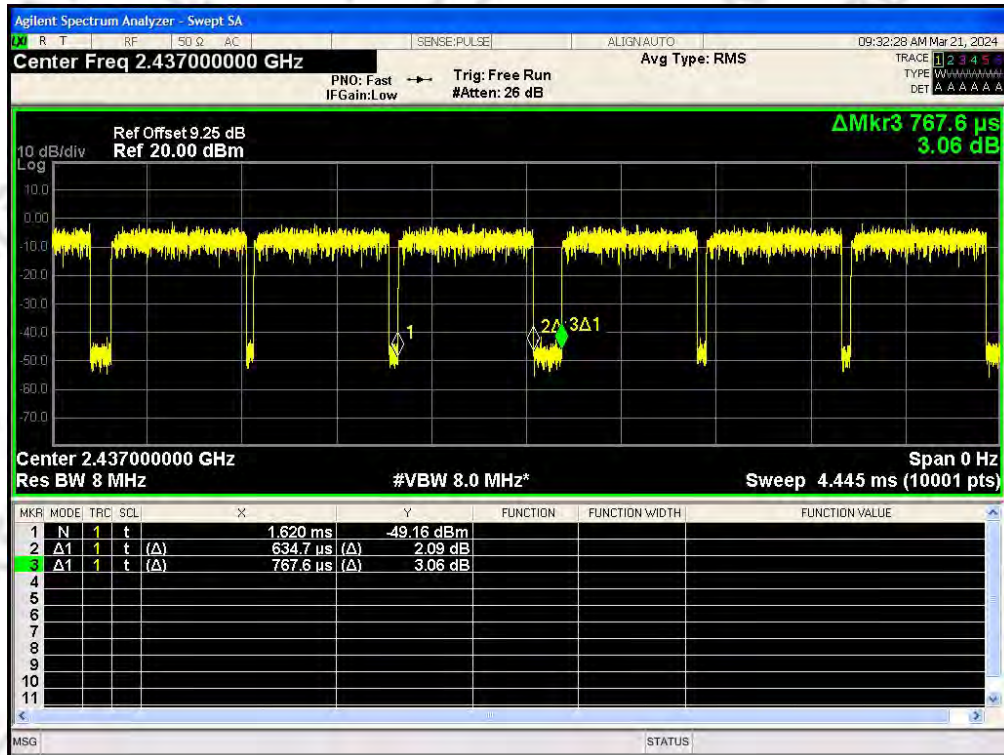
IEEE 802.11n 20MHz Channel 6



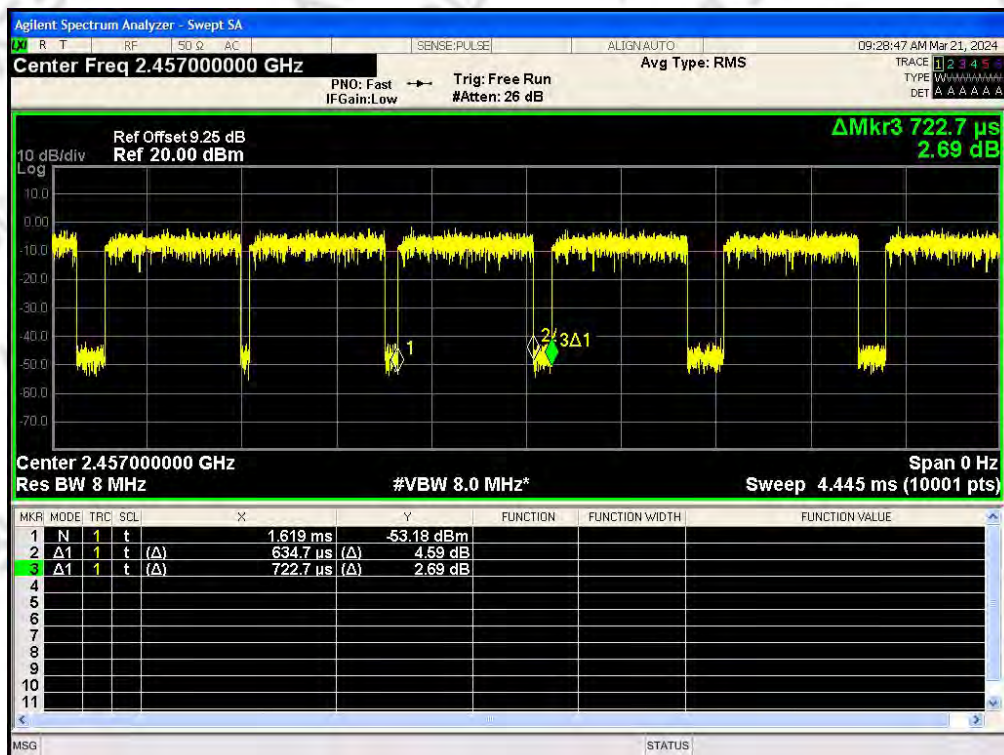
IEEE 802.11n_20MHz_Channel 11



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	-8.990	8	PASS
	6	-8.295		PASS
	11	-10.082		PASS
IEEE 802.11g	1	-18.126		PASS
	6	-20.786		PASS
	11	-21.180		PASS
IEEE 802.11n_20	1	-18.299		PASS
	6	-19.486		PASS
	11	-20.944		PASS
IEEE 802.11n_40	3	-19.898		PASS
	6	-20.139		PASS
	10	-20.229		PASS

Test Graphs



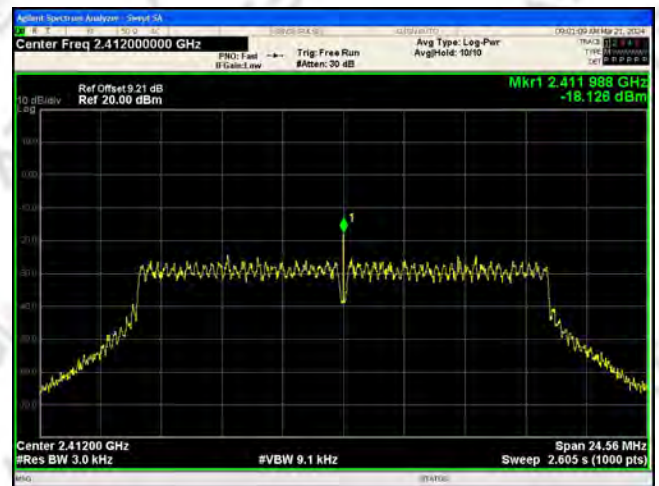
IEEE 802.11b_Channel 1_20MHz_Antenna 0



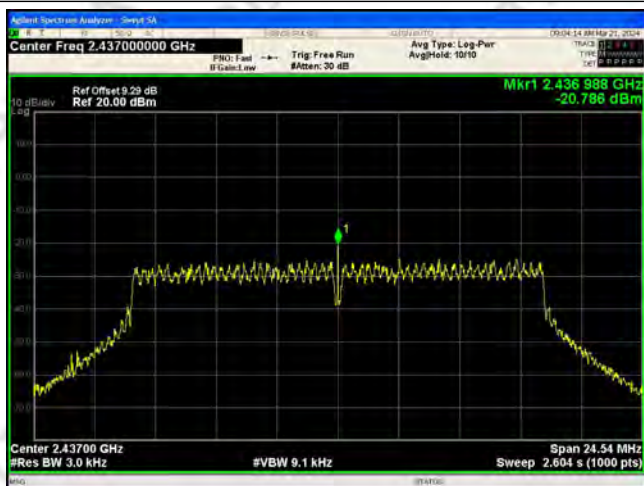
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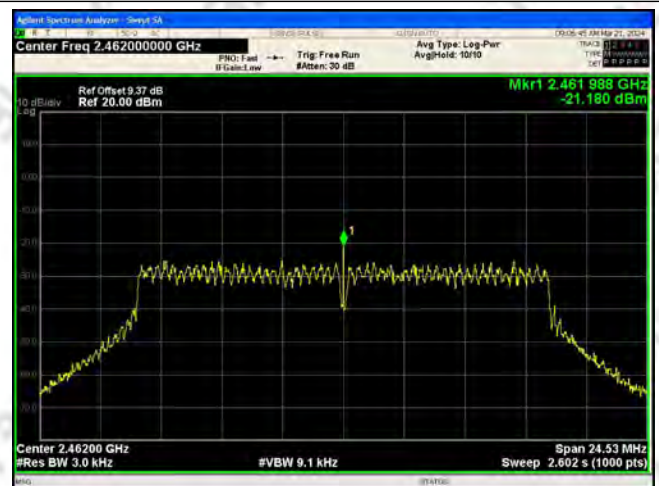
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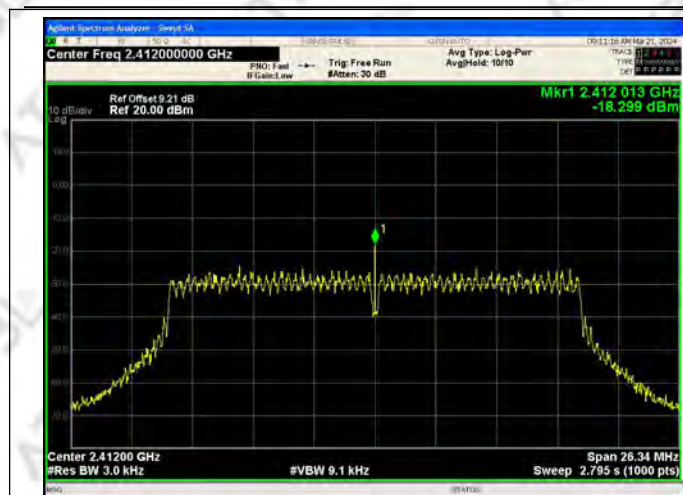
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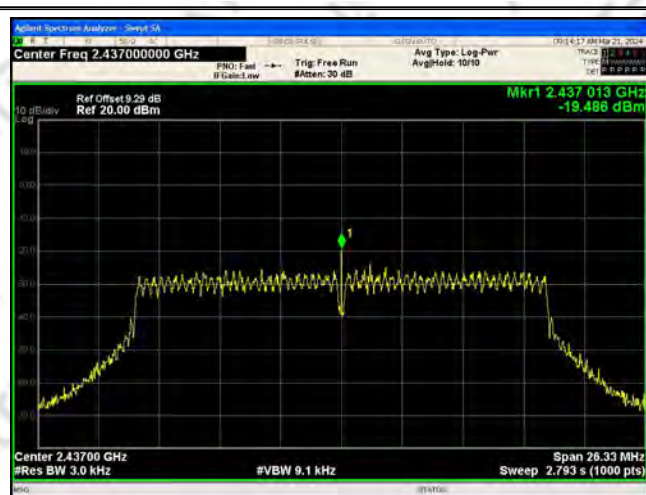
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IEEE 802.11g_Channel 11_20MHz_Antenna 0



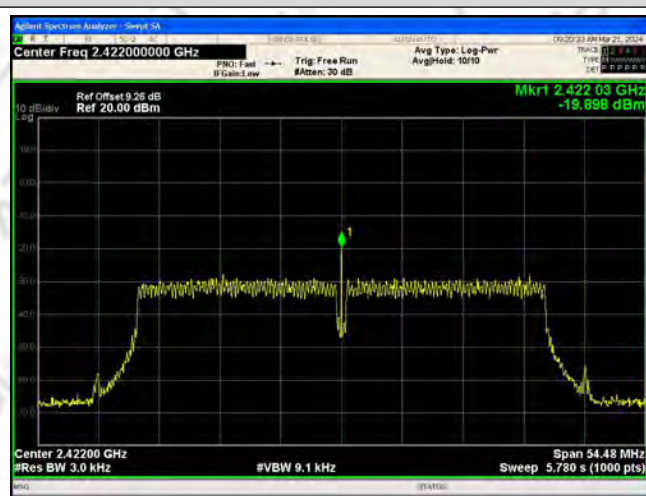
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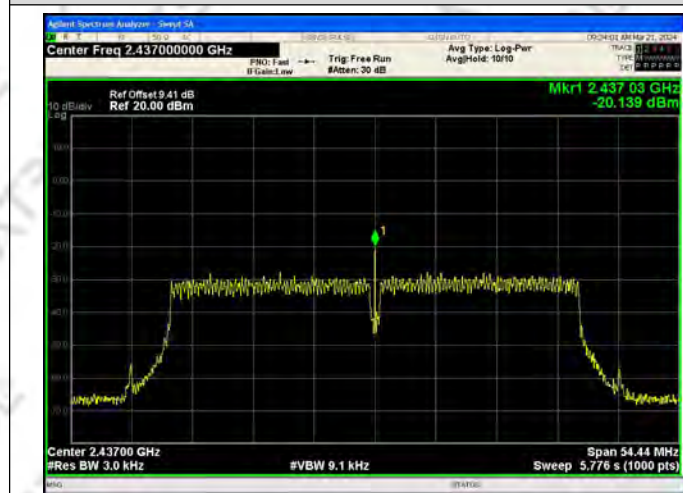
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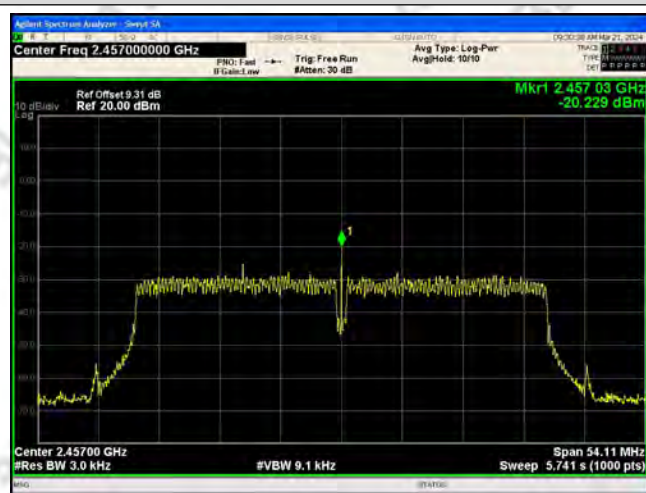
IEEE 802.11n_Channel 11_20MHz_Antenna 0



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*****