

Appendix Report

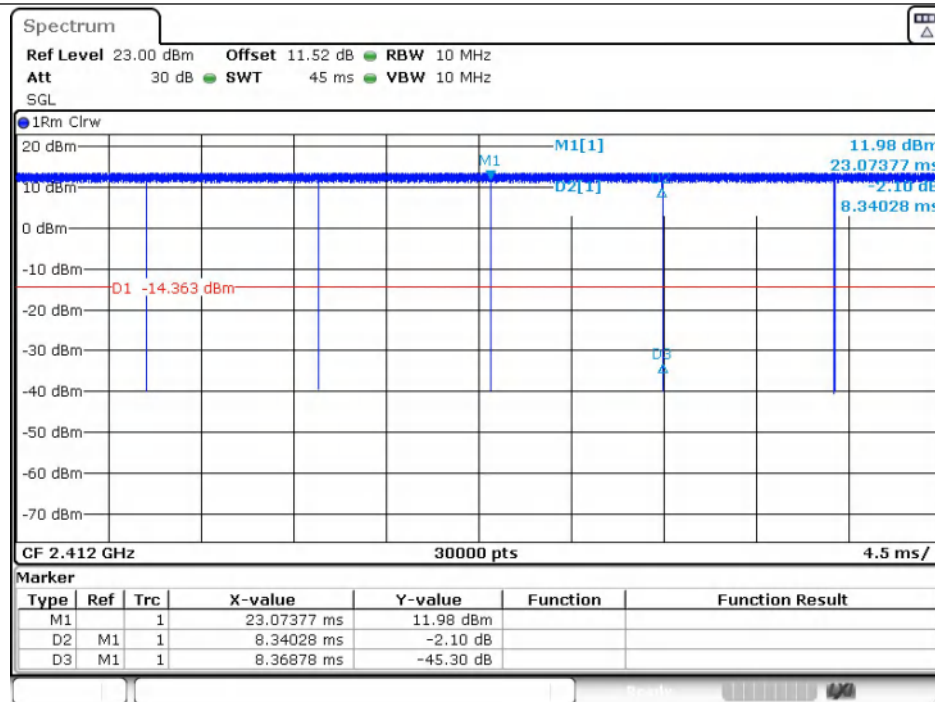
Report No.:	CISRR24120200701
Test Engineer:	Mark Fu
Supervised by:	Rory Huang

Duty Cycle

Test Result

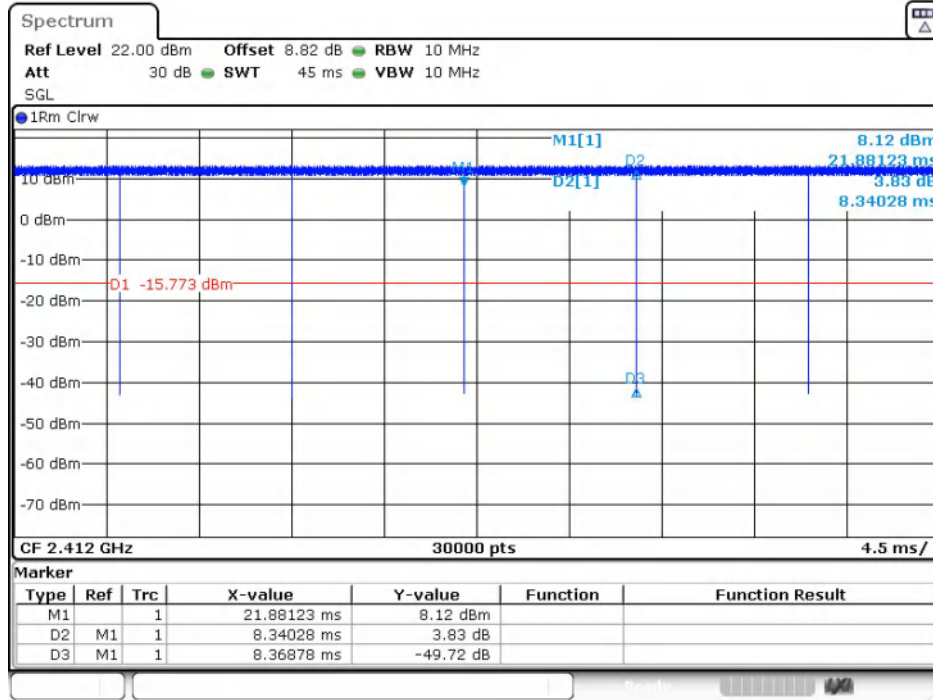
Mode	Data rates	Channel	Antenna	On Time (ms)	Period (ms)	Duty Cycle (%)	Duty Cycle (linear)	Duty Cycle Factor (dB)	1/T
IEEE 802.11b	1	1	1	8.340	8.369	99.66	0.9966	0.0148	0.1199
			2	8.340	8.369	99.66	0.9966	0.0148	0.1199
		6	1	8.319	8.348	99.65	0.9965	0.0152	0.1202
			2	8.340	8.369	99.66	0.9966	0.0148	0.1199
		11	1	8.340	8.369	99.66	0.9966	0.0148	0.1199
			2	8.342	8.370	99.66	0.9966	0.0148	0.1199
IEEE 802.11g	1	1	1	1.396	1.429	97.69	0.9769	0.1015	0.7163
			2	1.396	1.429	97.69	0.9769	0.1015	0.7163
		6	1	1.396	1.429	97.69	0.9769	0.1015	0.7163
			2	1.396	1.429	97.69	0.9769	0.1015	0.7163
		11	1	1.396	1.429	97.69	0.9769	0.1015	0.7163
			2	1.396	1.430	97.62	0.9762	0.1046	0.7163
IEEE 802.11n_20	MCS 0	1	1	1.293	1.327	97.44	0.9744	0.1126	0.7734
			2	1.304	1.338	97.46	0.9746	0.1117	0.7669
		6	1	1.292	1.326	97.44	0.9744	0.1126	0.7740
			2	1.304	1.337	97.53	0.9753	0.1086	0.7669
		11	1	1.293	1.327	97.44	0.9744	0.1126	0.7734
			2	1.293	1.326	97.49	0.9749	0.1104	0.7734
IEEE 802.11n_40	MCS 0	3	1	0.650	0.684	95.00	0.9500	0.2228	1.5385
			2	0.650	0.684	95.00	0.9500	0.2228	1.5385
		6	1	0.650	0.684	95.00	0.9500	0.2228	1.5385
			2	0.650	0.684	95.00	0.9500	0.2228	1.5385
		9	1	0.650	0.684	95.00	0.9500	0.2228	1.5385
			2	0.650	0.684	95.00	0.9500	0.2228	1.5385

Test Graphs



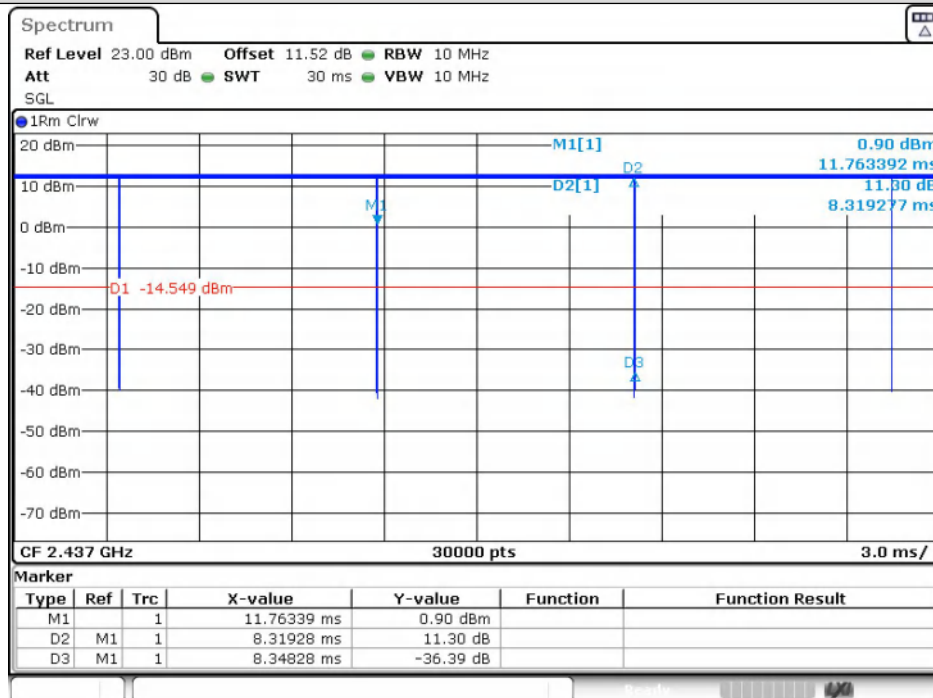
Date: 7.DEC.2024 09:21:24

IEEE 802.11b_20MHz_Channel 1



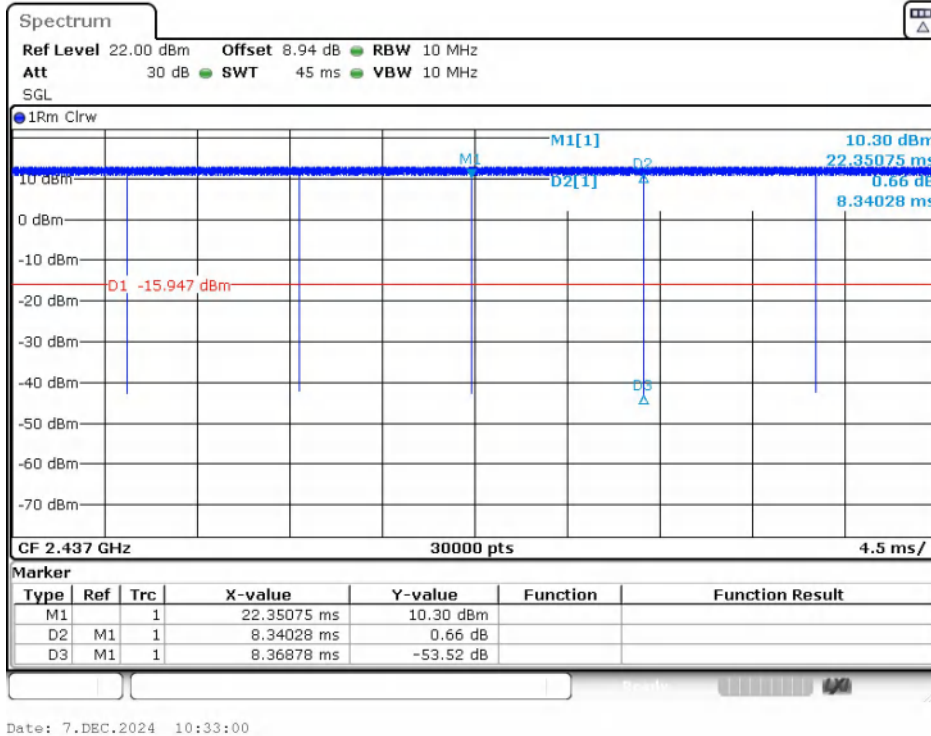
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IEEE 802.11b_20MHz_Channel 1

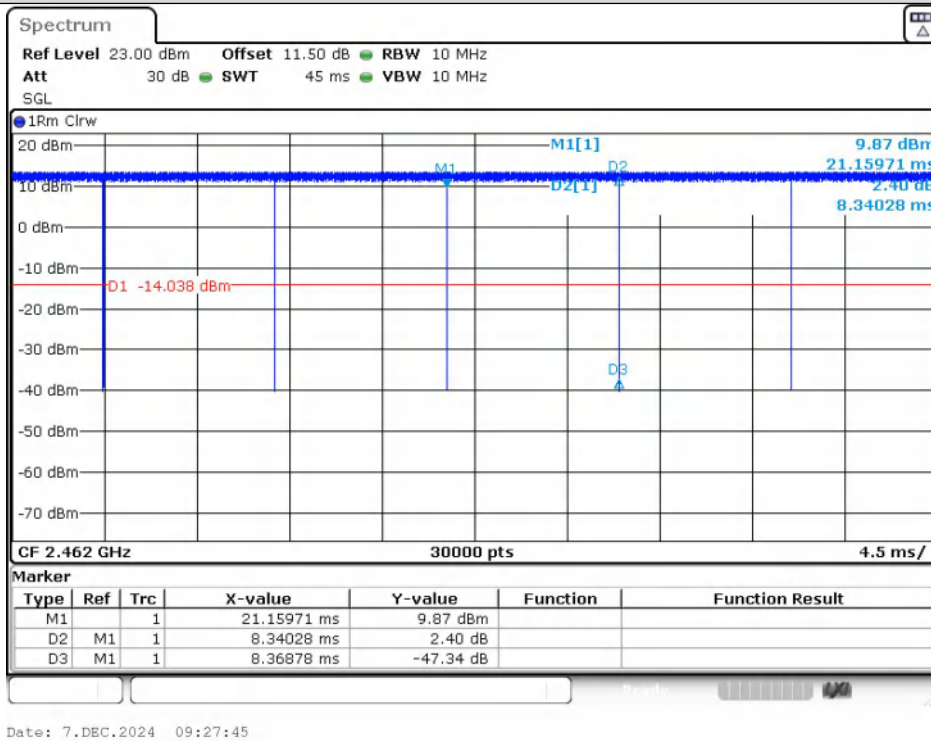


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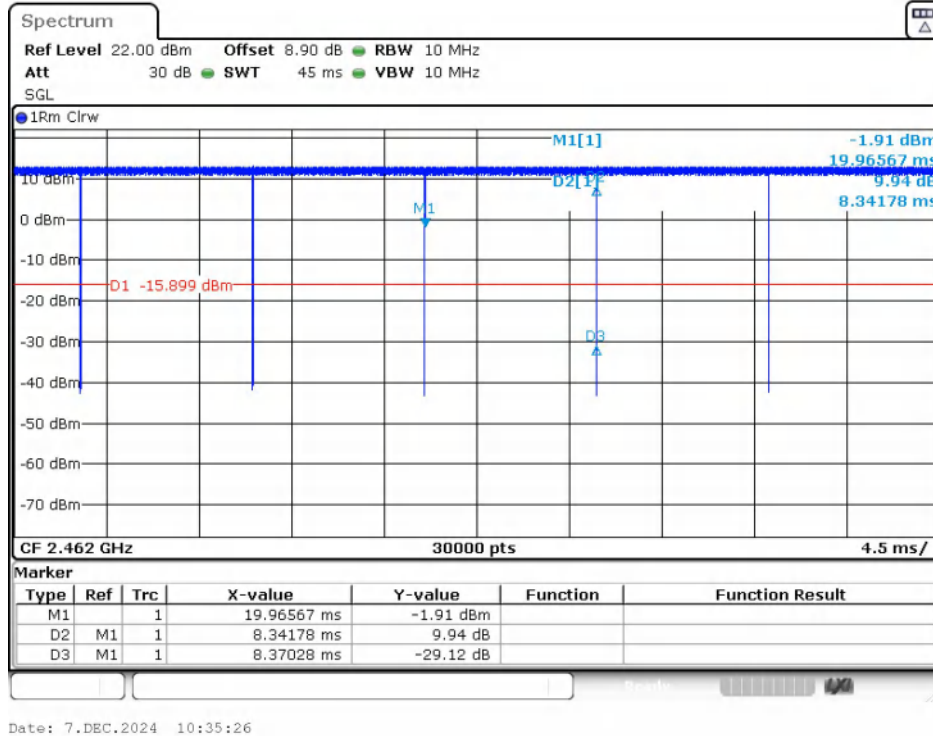
IEEE 802.11b_20MHz_Channel 6



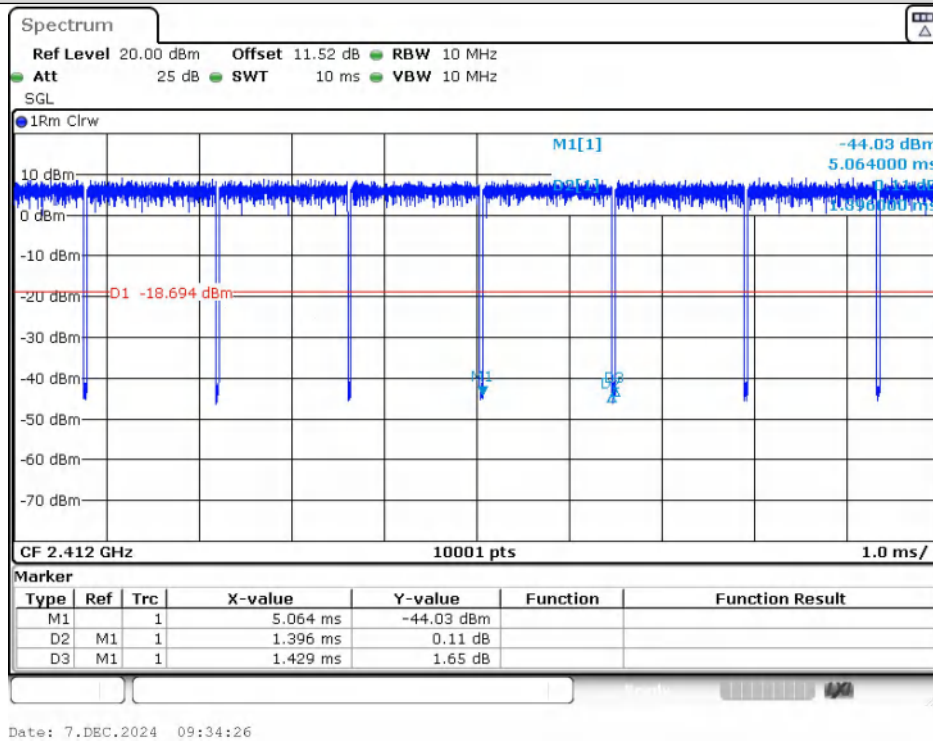
IEEE 802.11b_20MHz_Channel 6



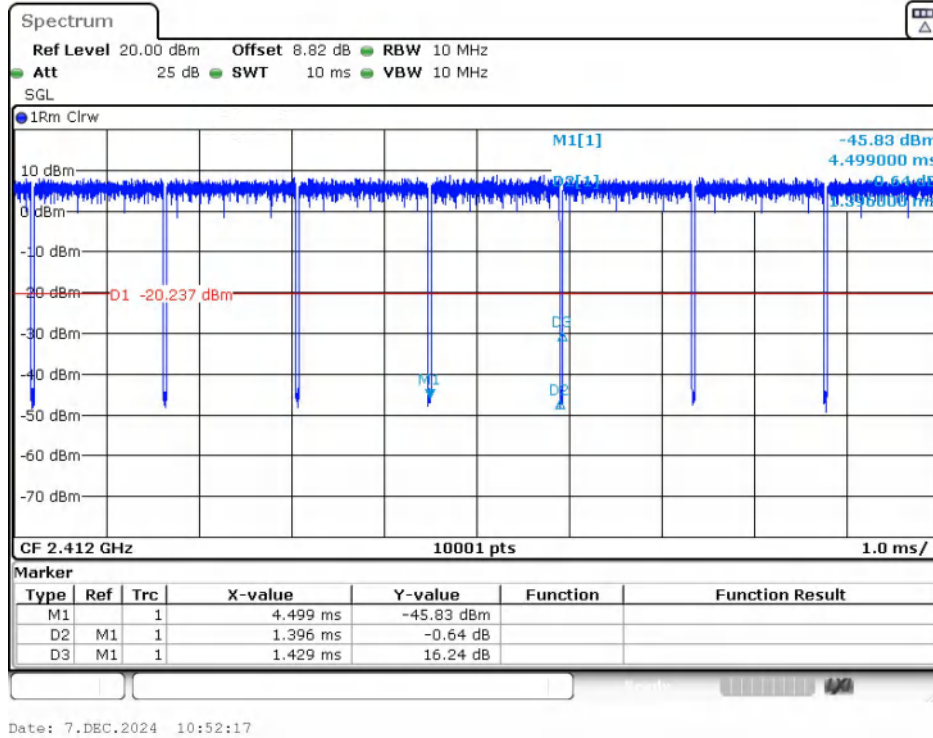
IEEE 802.11b_20MHz_Channel 11



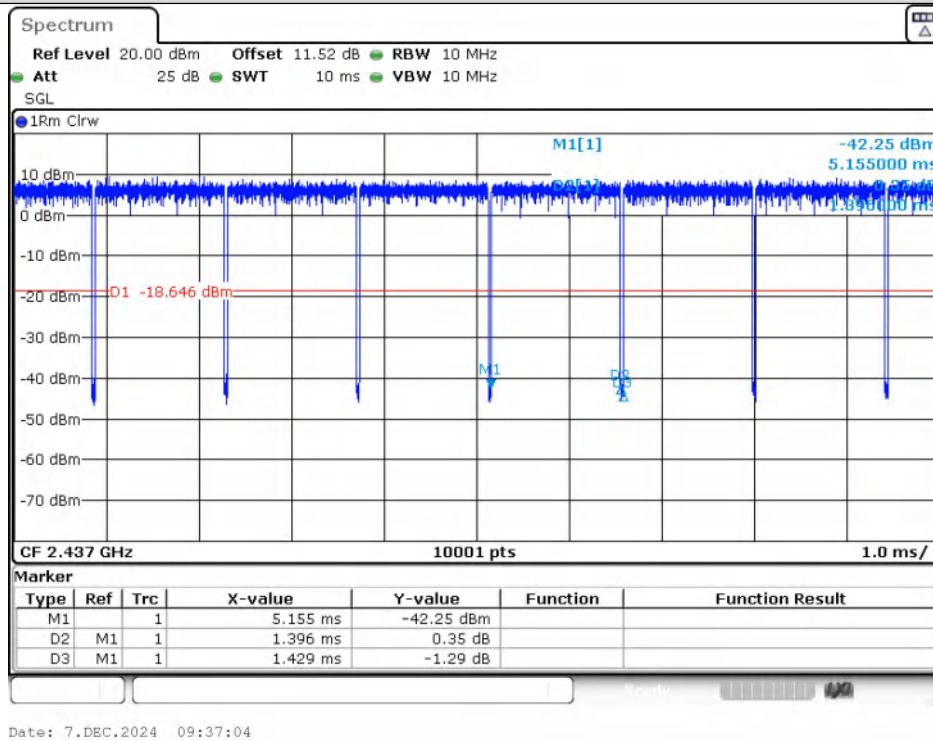
IEEE 802.11b_20MHz_Channel 11



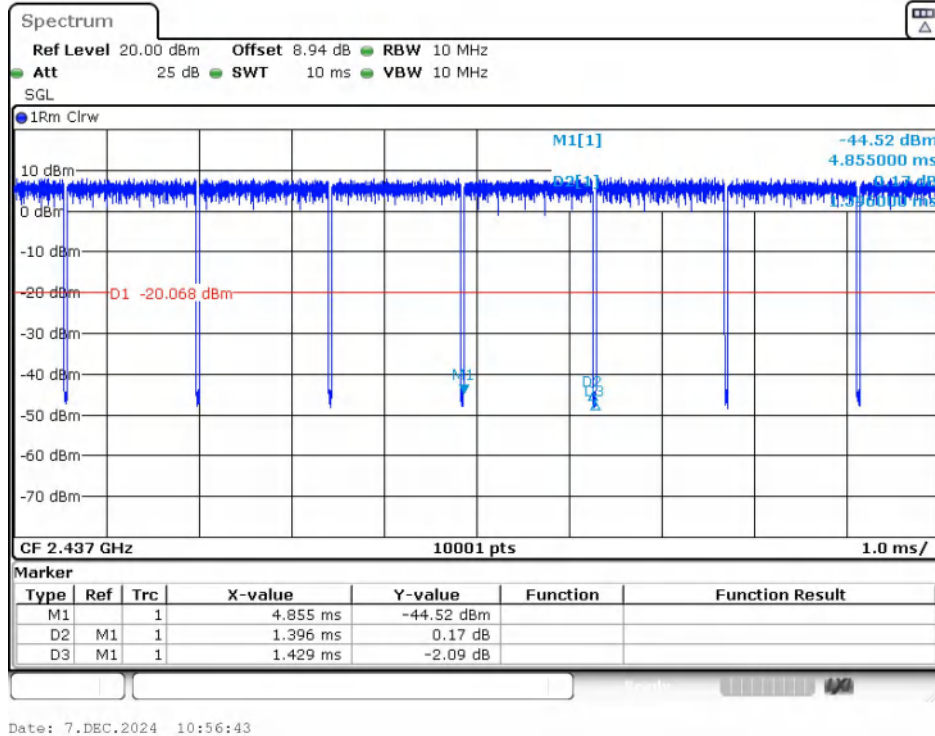
IEEE 802.11g_20MHz_Channel 1



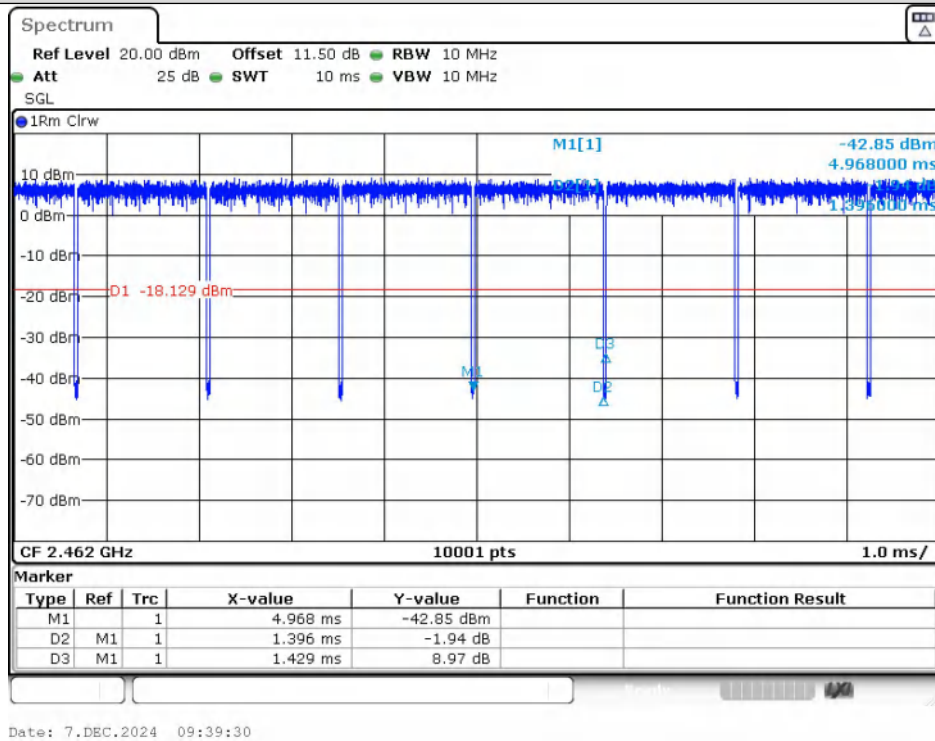
IEEE 802.11g_20MHz_Channel 1



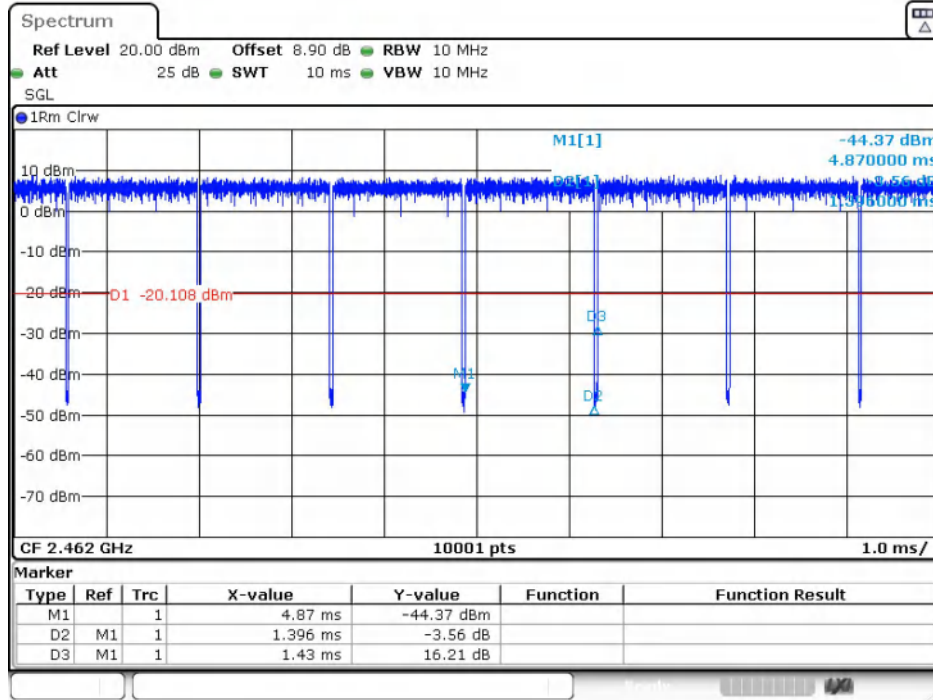
IEEE 802.11g_20MHz_Channel 6



IEEE 802.11g_20MHz_Channel 6

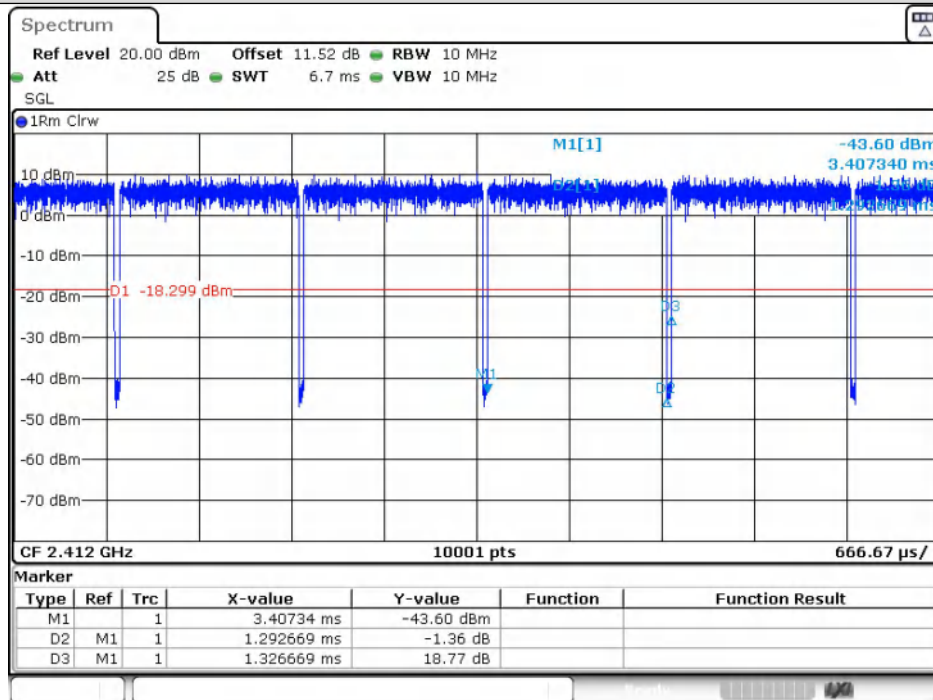


IEEE 802.11g_20MHz_Channel 11



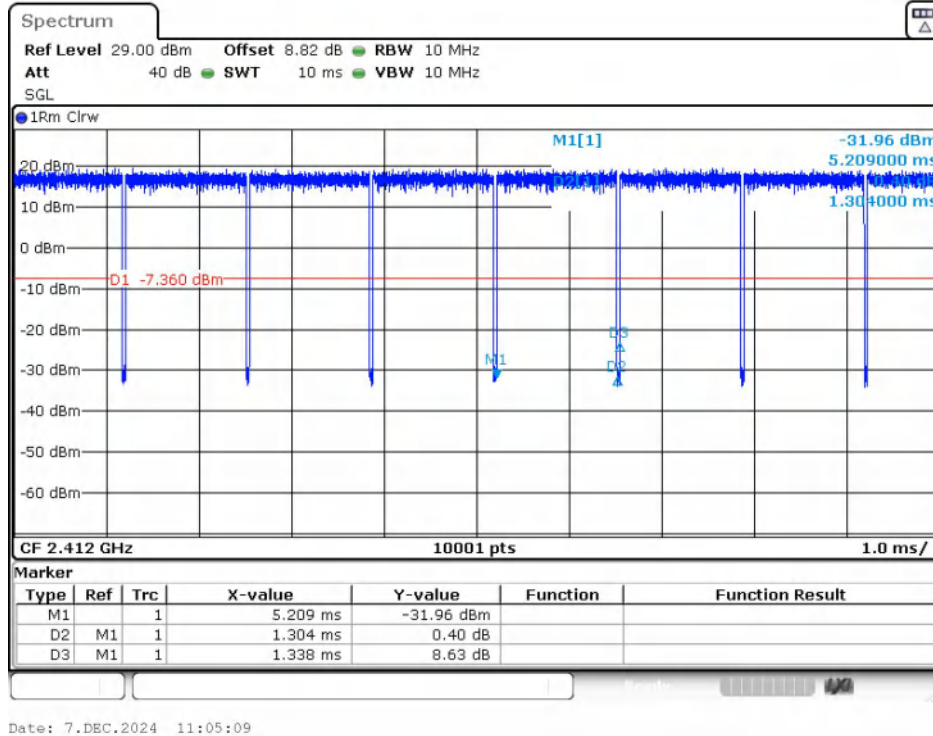
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IEEE 802.11g_20MHz_Channel 11

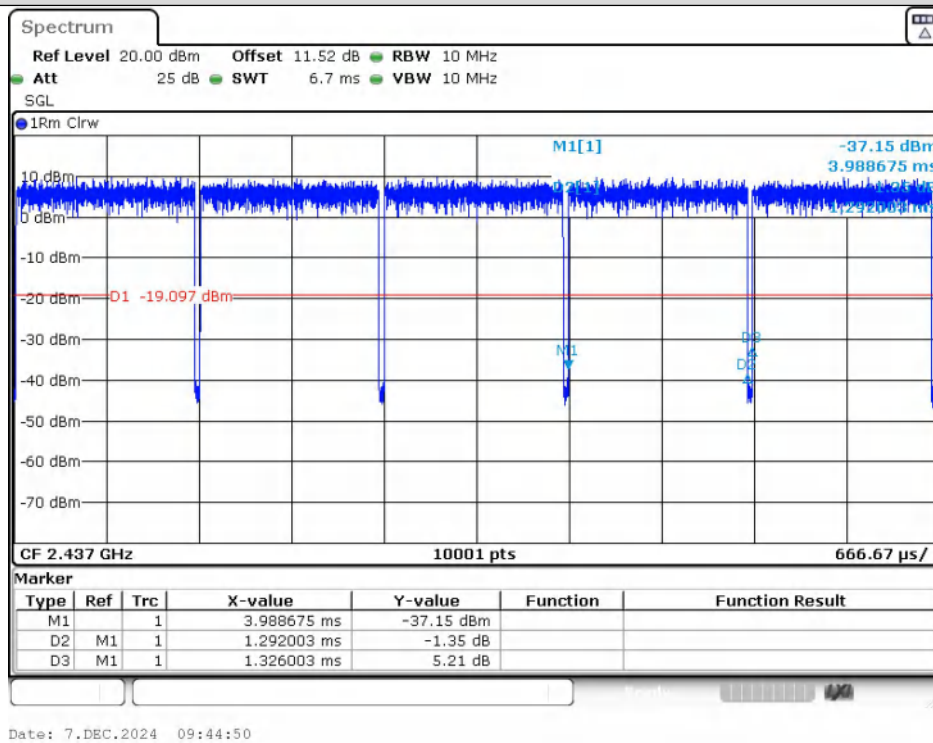


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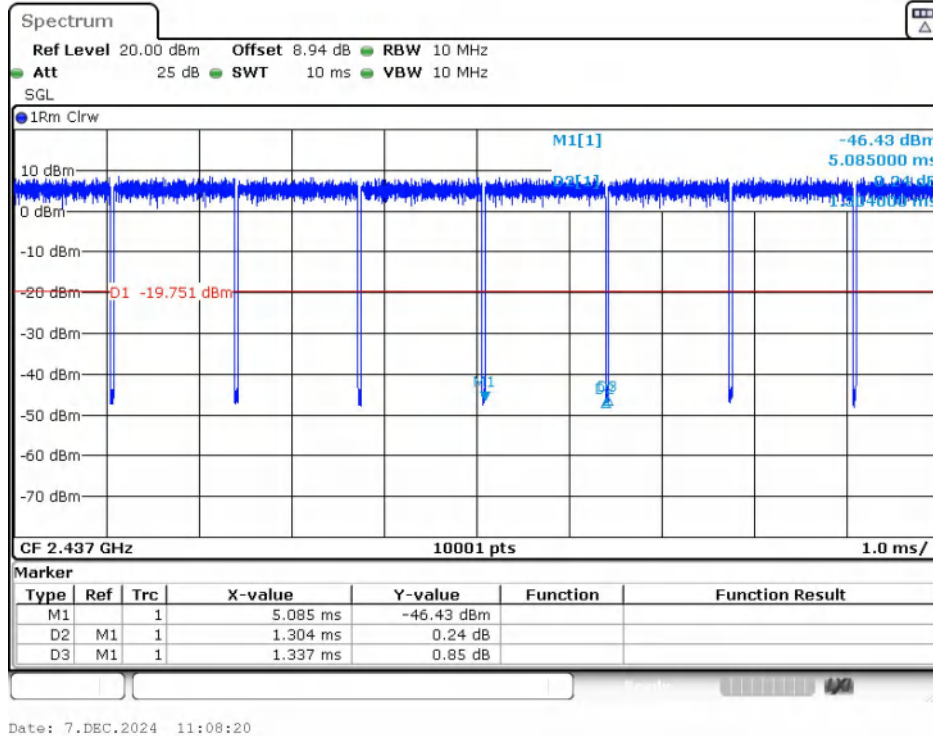
IEEE 802.11n_20MHz_Channel 1



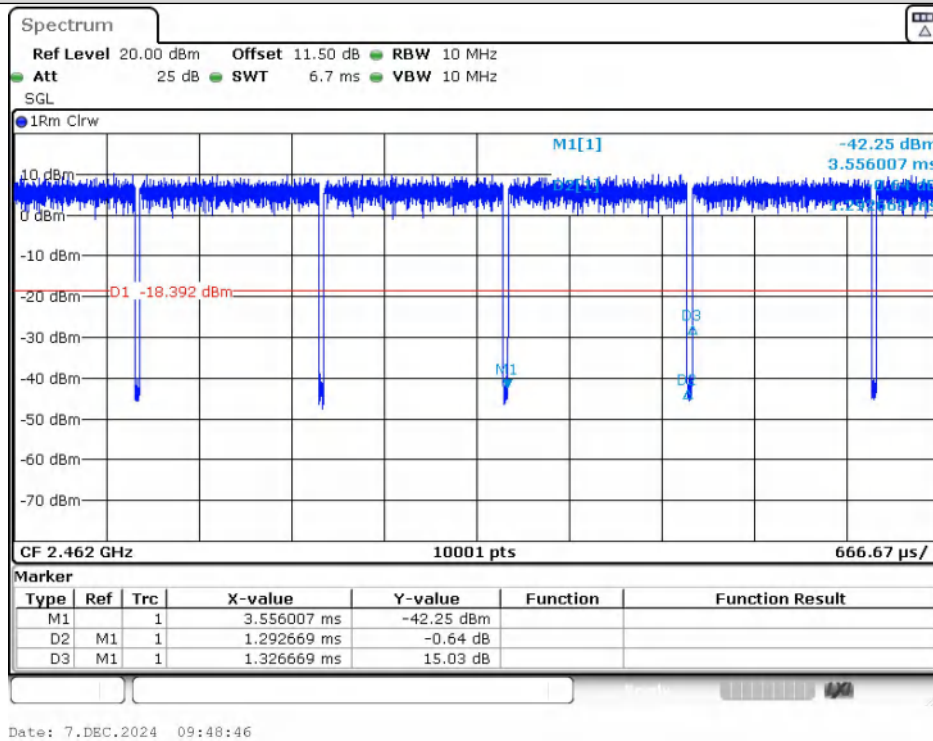
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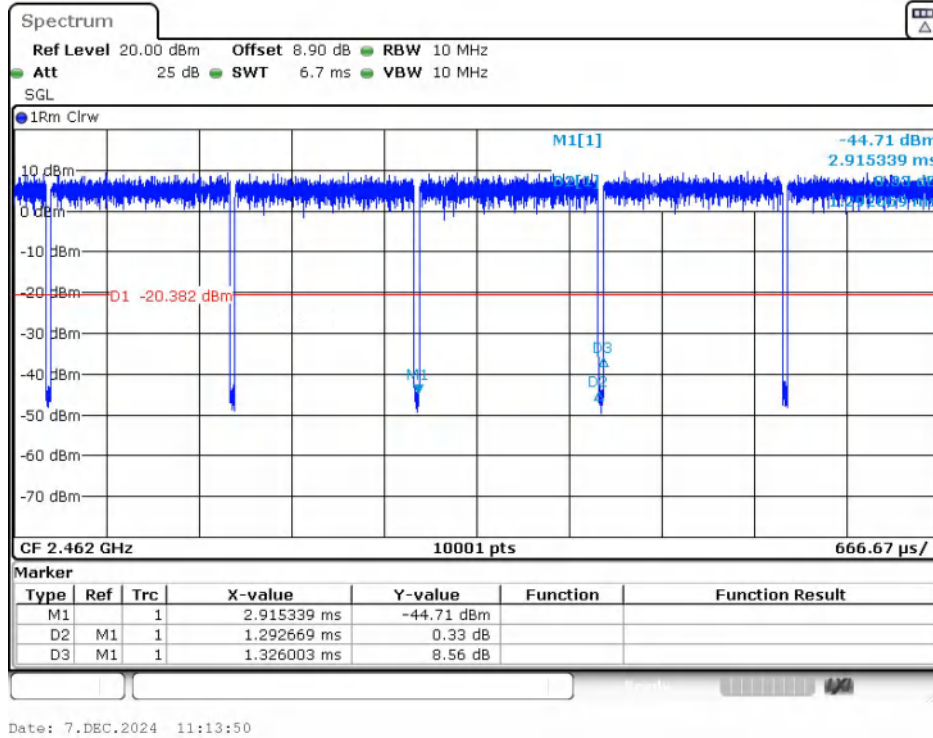
IEEE 802.11n_20MHz_Channel 6



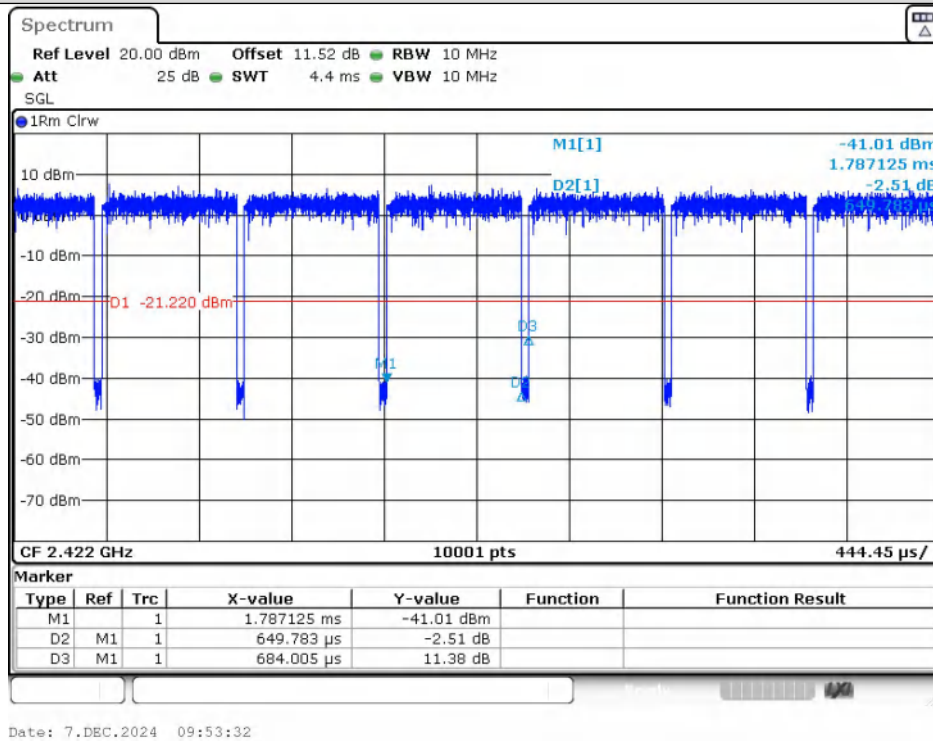
IEEE 802.11n_20MHz_Channel 6



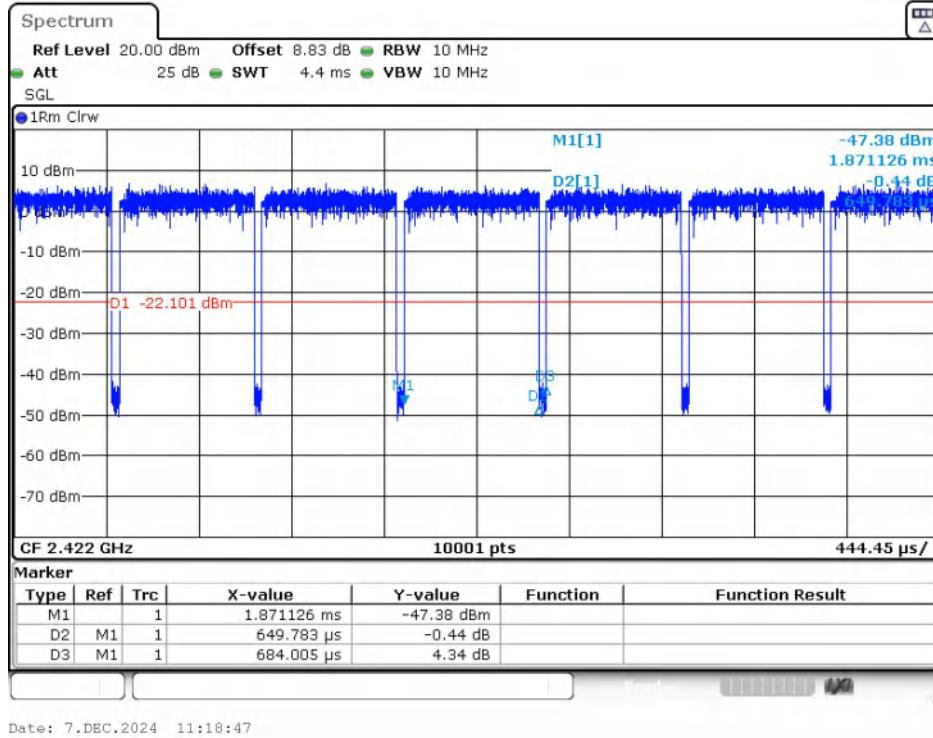
IEEE 802.11n_20MHz_Channel 11



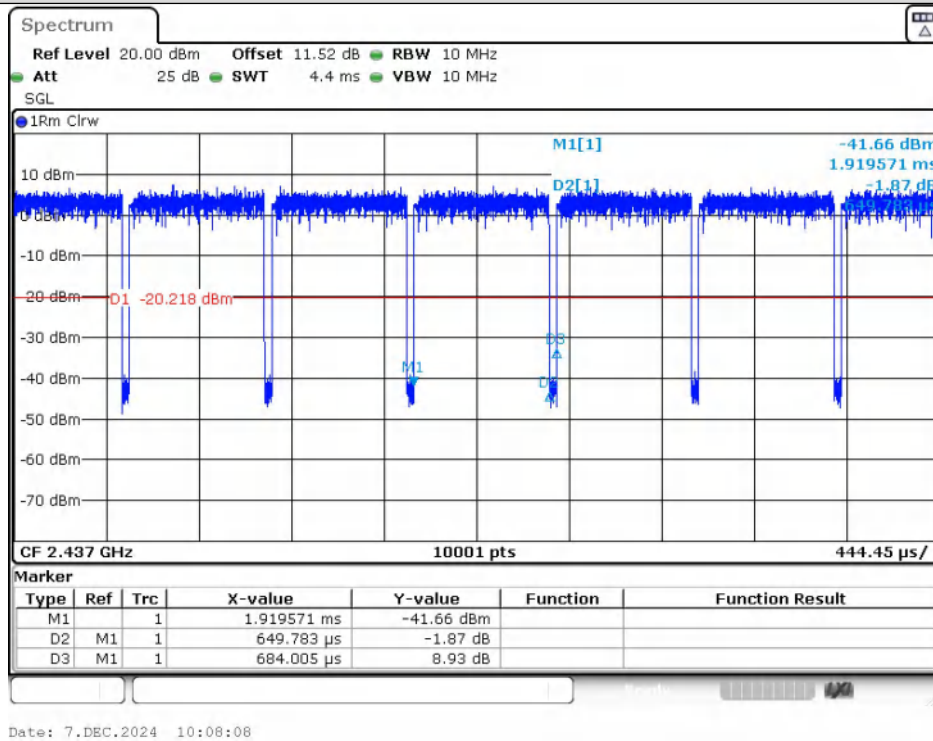
IEEE 802.11n_20MHz_Channel 11



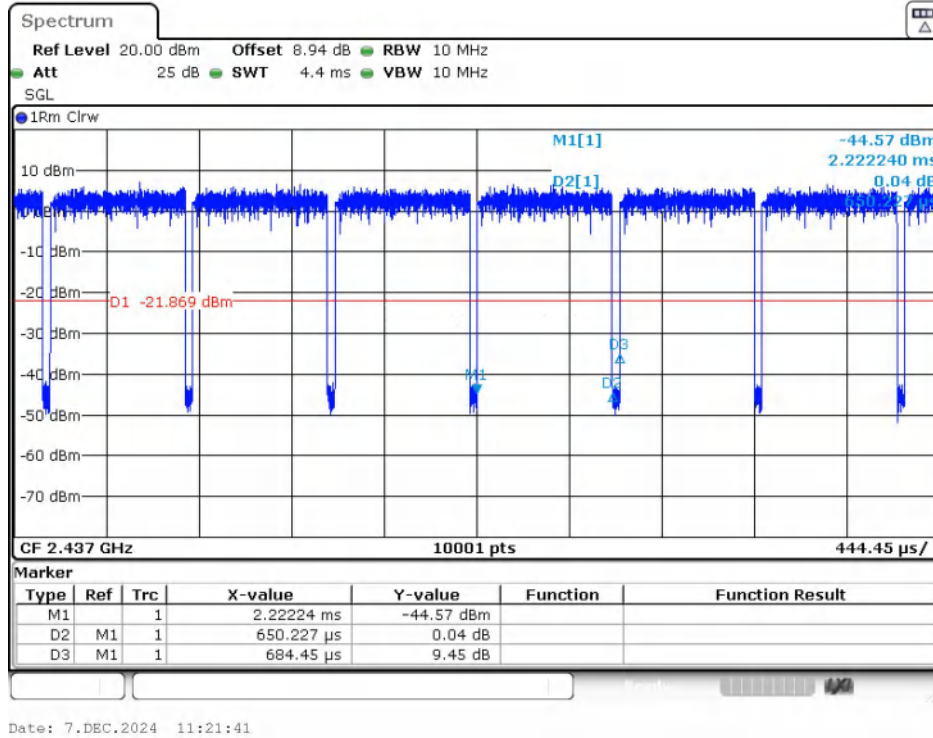
IEEE 802.11n_40MHz_Channel 3



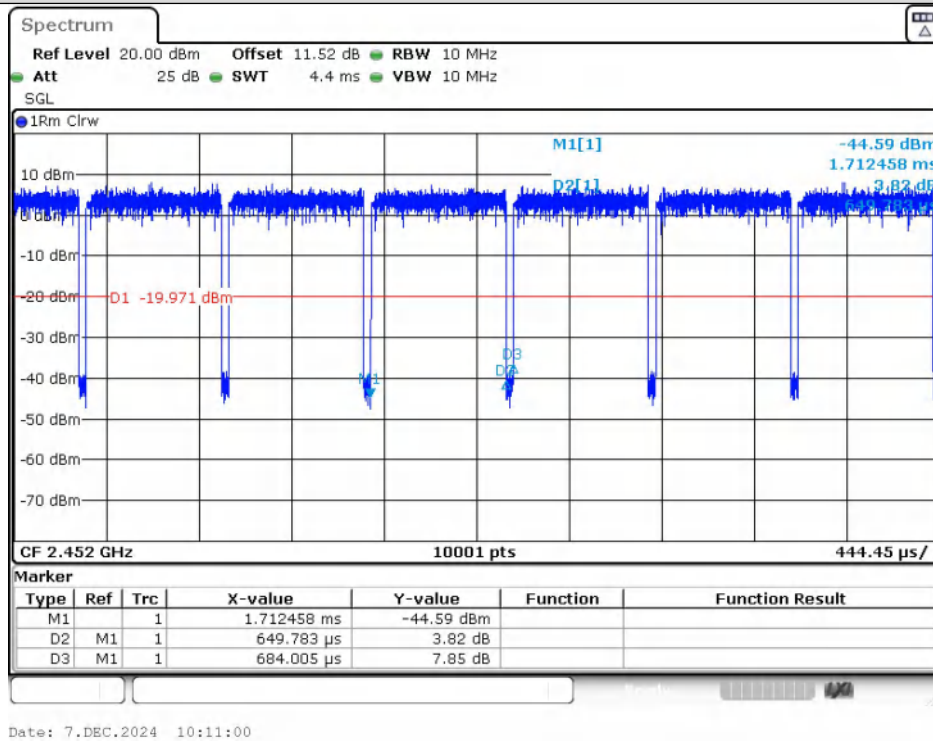
IEEE 802.11n_40MHz_Channel 3



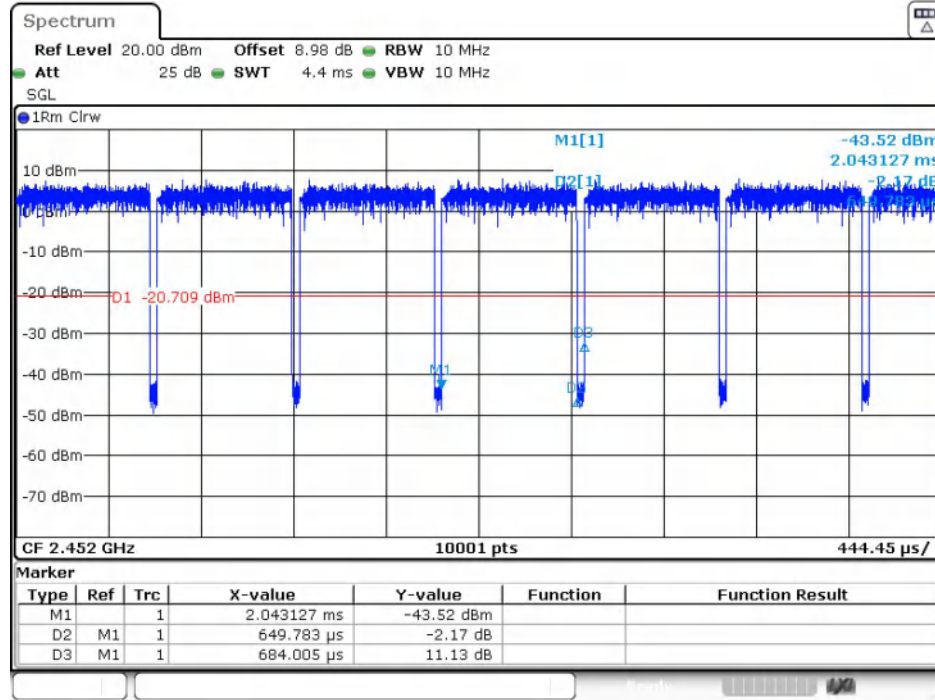
IEEE 802.11n_40MHz_Channel 6



IEEE 802.11n_40MHz_Channel 6



IEEE 802.11n_40MHz_Channel 9



Date: 7,DEC.2024 11:24:26

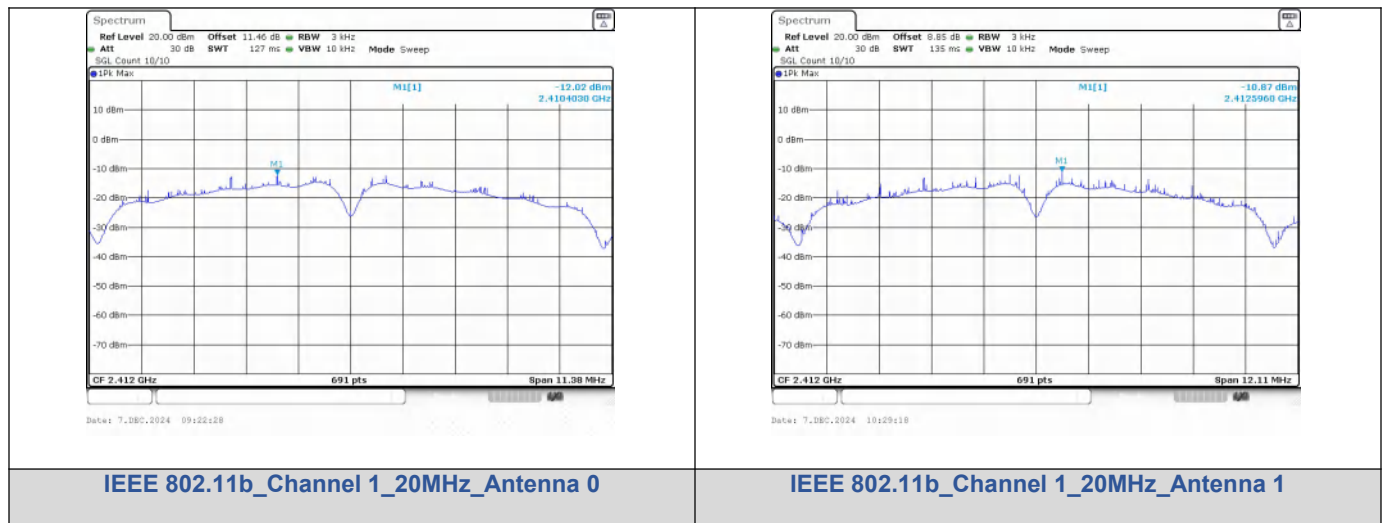
IEEE 802.11n_40MHz_Channel 9

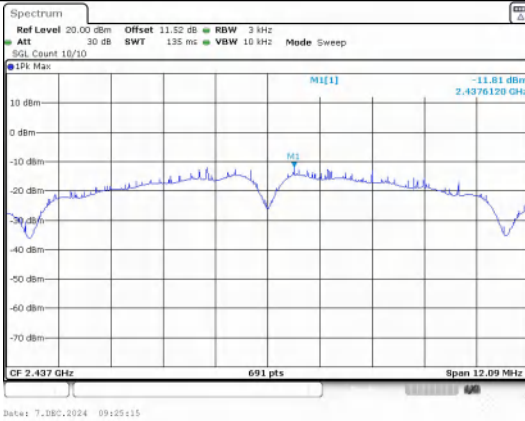
Power Spectral Density

Test Result

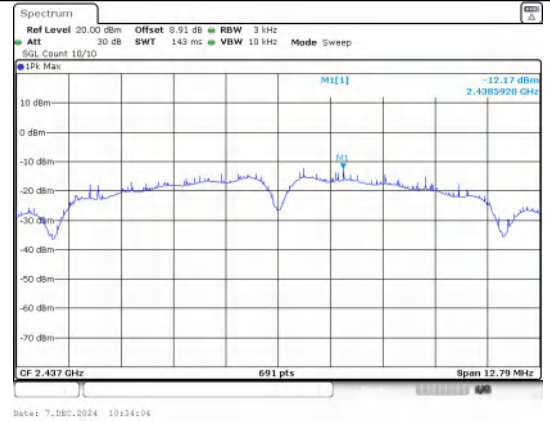
Mode	Channel	PSD (dBm/3kHz) Ant. 0	PSD (dBm/3kHz) Ant. 1	MIMO	Limit (dBm/3kHz)	Result
IEEE 802.11b	1	-12.020	-10.870	/	≤8	PASS
	6	-11.810	-12.170	/		PASS
	11	-11.210	-11.270	/		PASS
IEEE 802.11g	1	-18.480	-18.820	/		PASS
	6	-18.370	-18.730	/		PASS
	11	-18.790	-19.460	/		PASS
IEEE 802.11n_20	1	-19.120	-7.180	-6.91		PASS
	6	-18.550	-18.490	-15.51		PASS
	11	-19.010	-18.780	-15.88		PASS
IEEE 802.11n_40	3	-21.630	-20.810	-18.19		PASS
	6	-20.640	-21.560	-18.07		PASS
	9	-20.720	-20.890	-17.79		PASS

Test Graphs

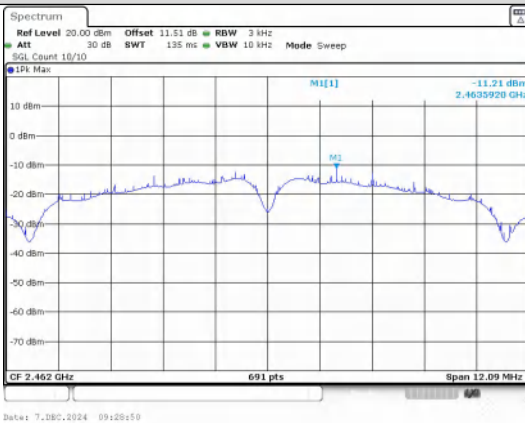




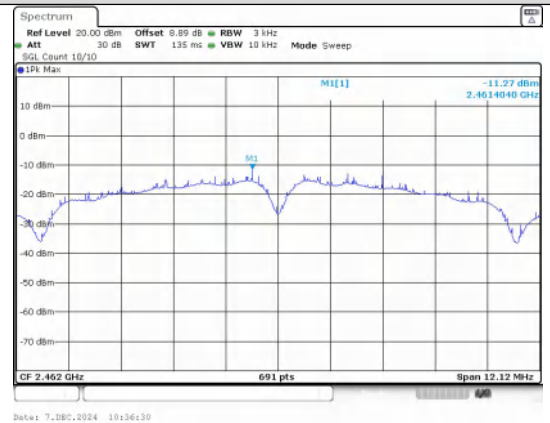
IEEE 802.11b_Channel 6_20MHz_Antenna 0



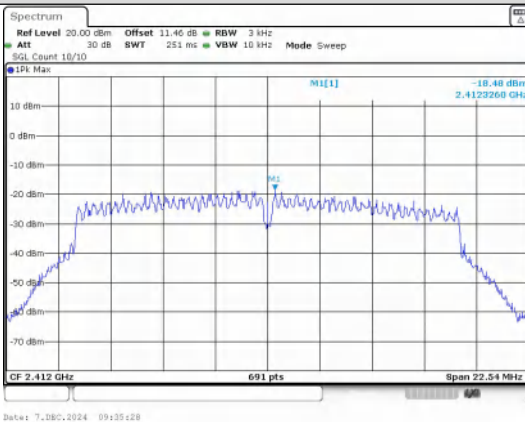
IEEE 802.11b_Channel 6_20MHz_Antenna 1



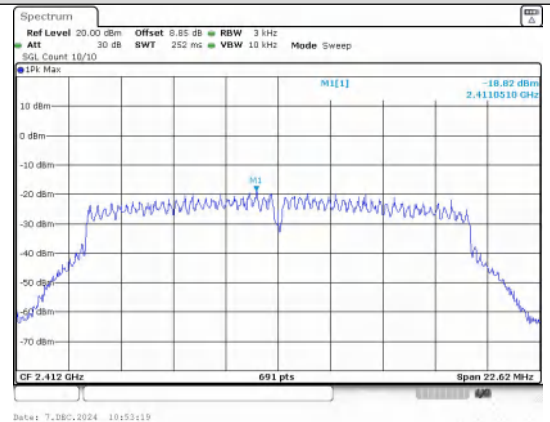
IEEE 802.11b_Channel 11_20MHz_Antenna 0



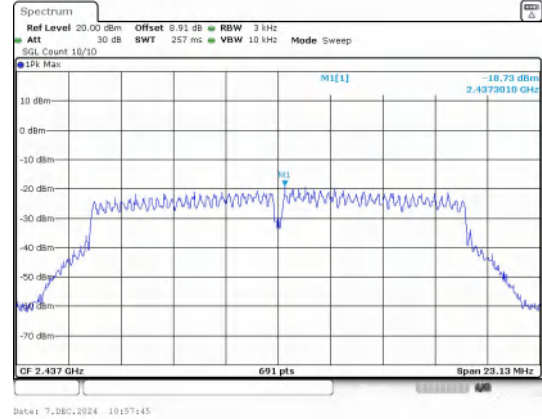
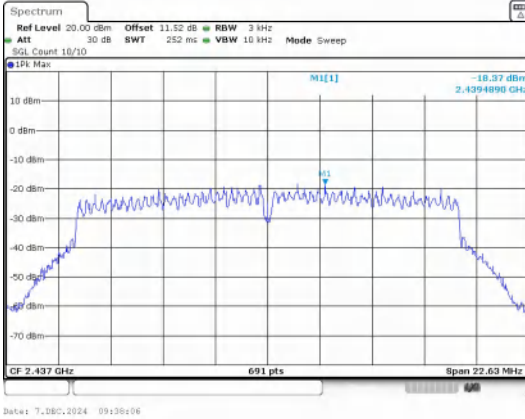
IEEE 802.11b_Channel 11_20MHz_Antenna 1



IEEE 802.11g_Channel 1_20MHz_Antenna 0

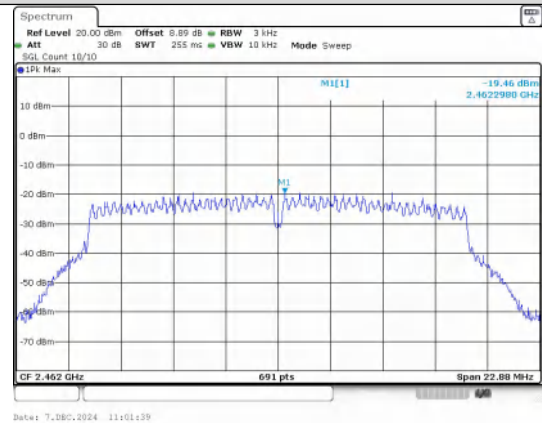
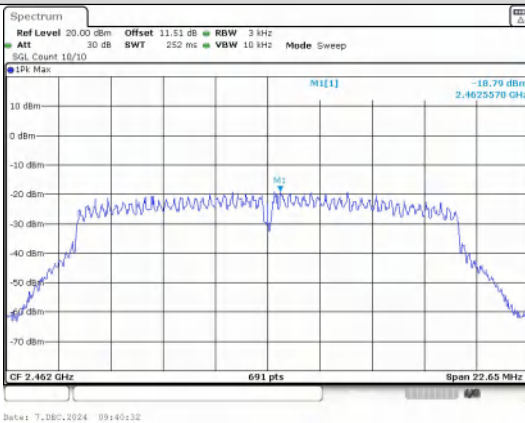


IEEE 802.11g_Channel 1_20MHz_Antenna 1



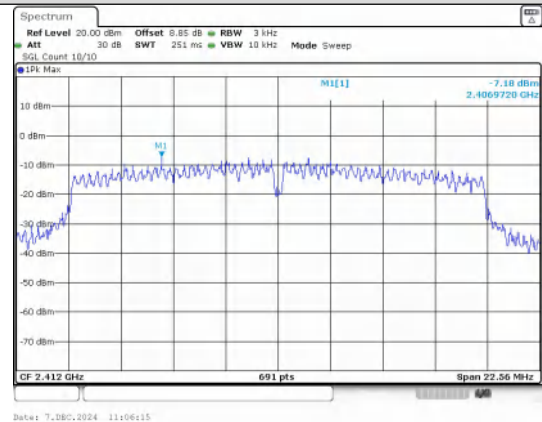
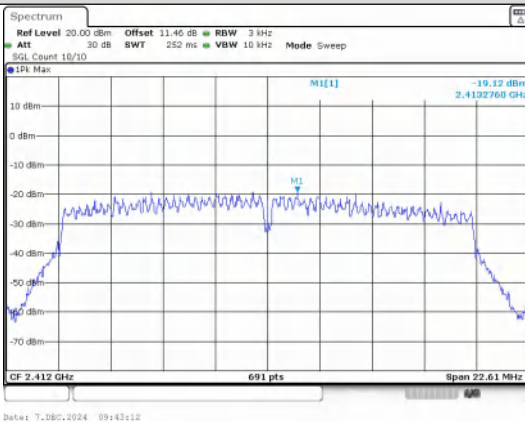
IEEE 802.11g_Channel 6_20MHz_Antenna 0

IEEE 802.11g_Channel 6_20MHz_Antenna 1



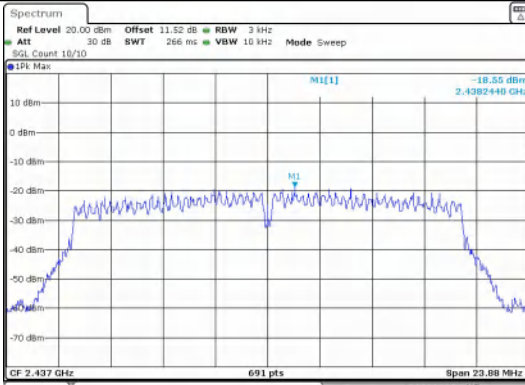
IEEE 802.11g_Channel 11_20MHz_Antenna 0

IEEE 802.11g_Channel 11_20MHz_Antenna 1

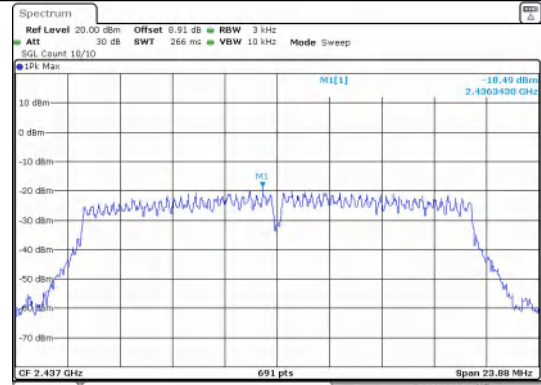


IEEE 802.11n_Channel 1_20MHz_Antenna 0

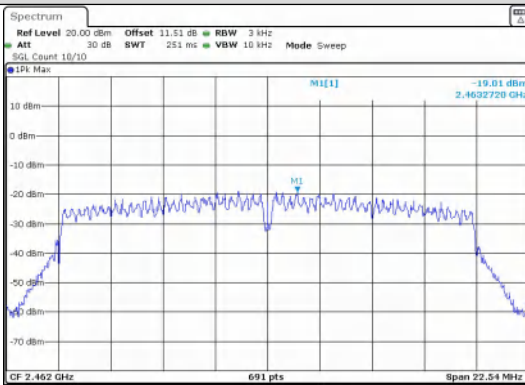
IEEE 802.11n_Channel 1_20MHz_Antenna 1



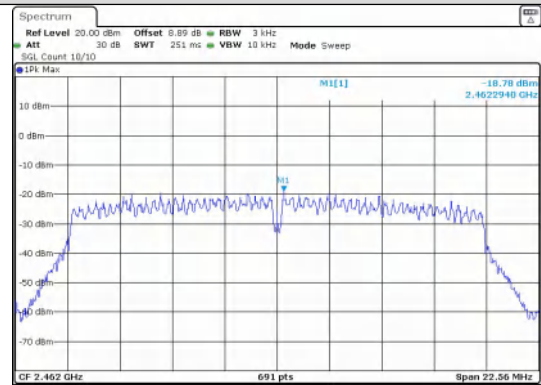
IEEE 802.11n_Channel 6_20MHz_Antenna 0



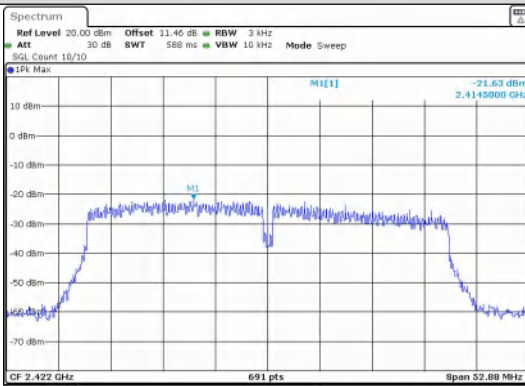
IEEE 802.11n_Channel 6_20MHz_Antenna 1



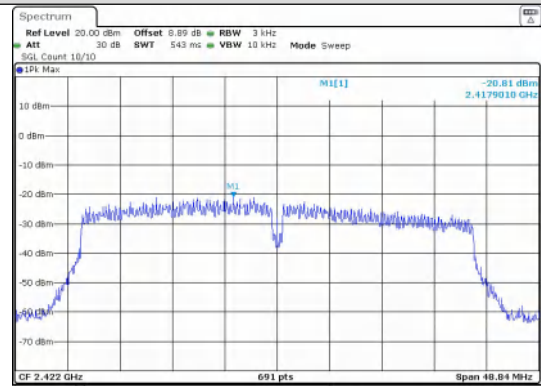
IEEE 802.11n_Channel 11_20MHz_Antenna 0



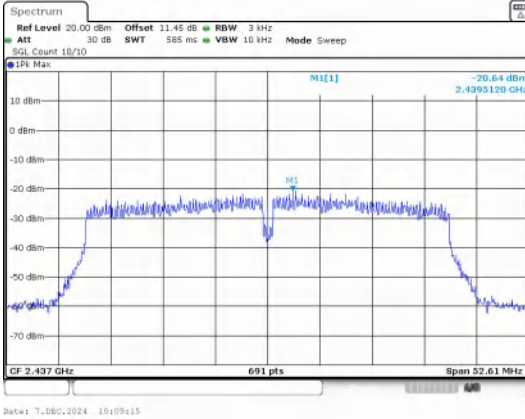
IEEE 802.11n_Channel 11_20MHz_Antenna 1



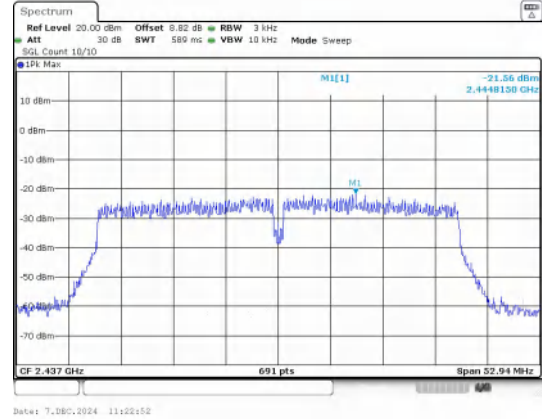
IEEE 802.11n_Channel 3_40MHz_Antenna 0



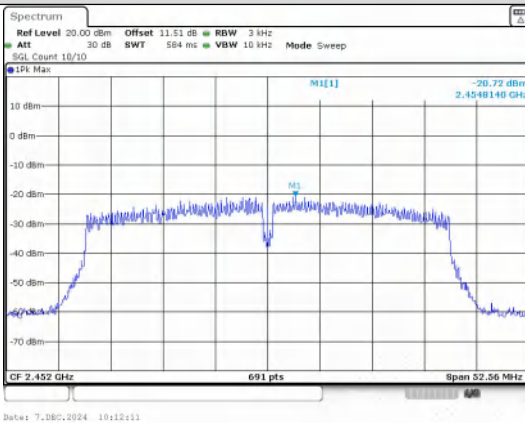
IEEE 802.11n_Channel 3_40MHz_Antenna 1



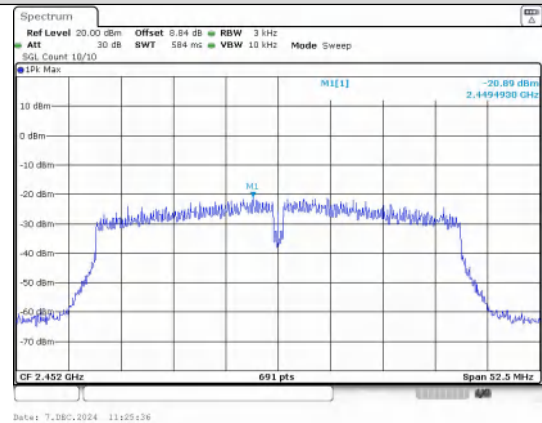
IEEE 802.11n_Channel 6_40MHz_Antenna 0



IEEE 802.11n_Channel 6_40MHz_Antenna 1



IEEE 802.11n_Channel 9_40MHz_Antenna 0



IEEE 802.11n_Channel 9_40MHz_Antenna 1

Conducted Output Power

Test Result

Conducted Output Power

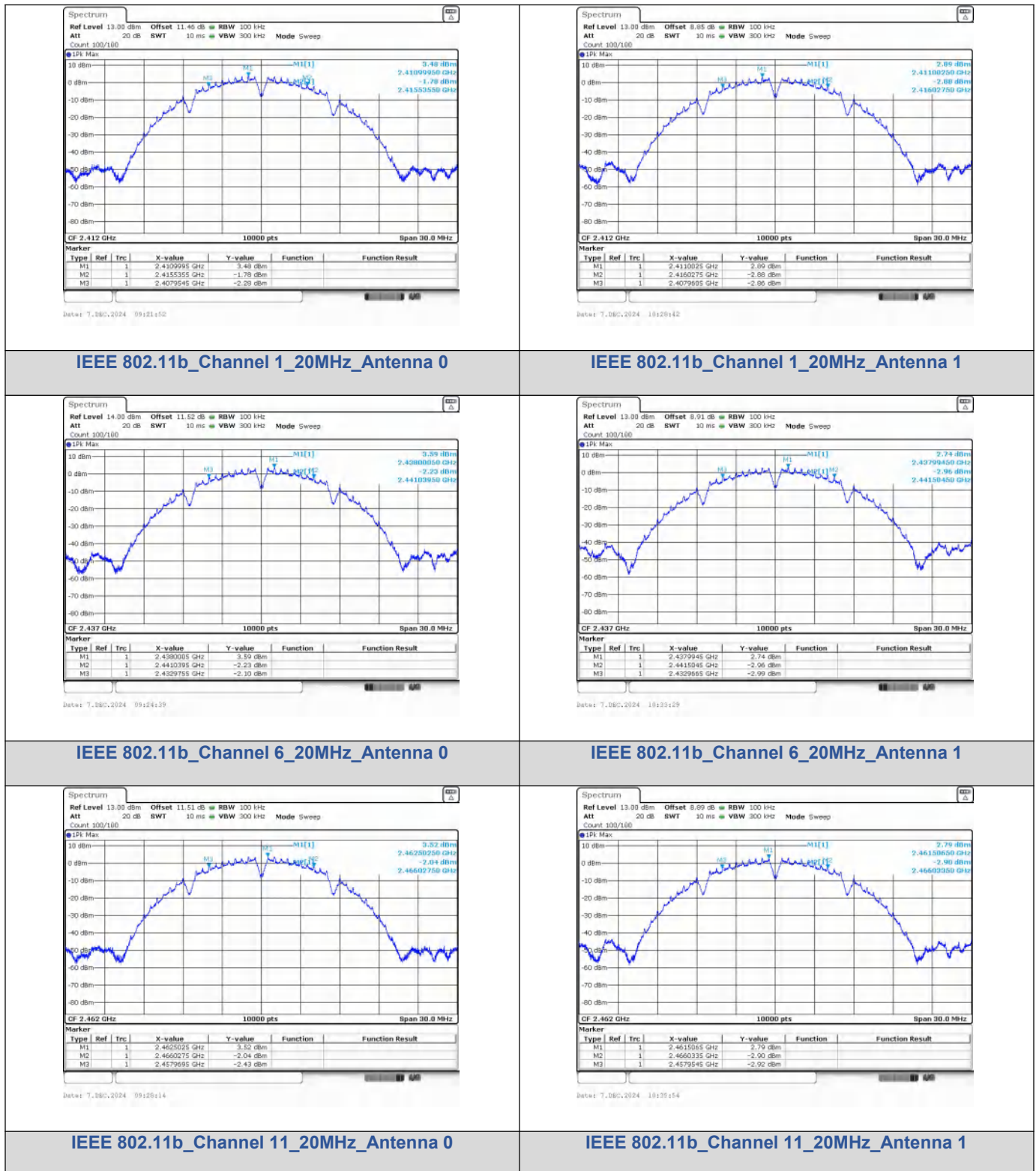
Mode	Channel	Ant. 0 (dBm)	Ant. 1 (dBm)	MIMO	Limit (dBm)	Result
IEEE 802.11b	1	15.46	15.05	/	≤30	PASS
	6	15.75	15.09	/	≤30	PASS
	11	15.67	15.09	/	≤30	PASS
IEEE 802.11g	1	15.20	14.78	/	≤30	PASS
	6	15.30	14.95	/	≤30	PASS
	11	15.33	15.07	/	≤30	PASS
IEEE 802.11n_20	1	15.10	15.99	18.58	≤30	PASS
	6	15.22	14.91	18.08	≤30	PASS
	11	15.13	14.89	18.02	≤30	PASS
IEEE 802.11n_40	3	15.38	14.87	18.14	≤30	PASS
	6	15.51	15.26	18.40	≤30	PASS
	9	15.70	15.44	18.58	≤30	PASS

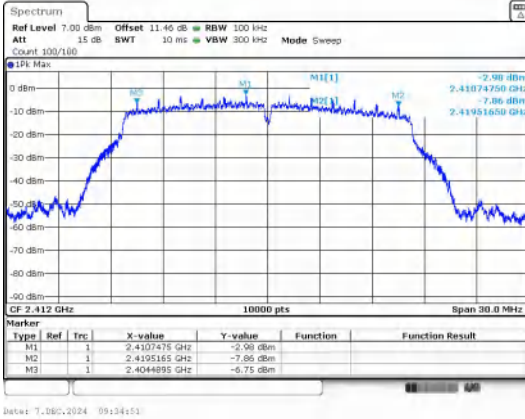
6dB Bandwidth

Test Result

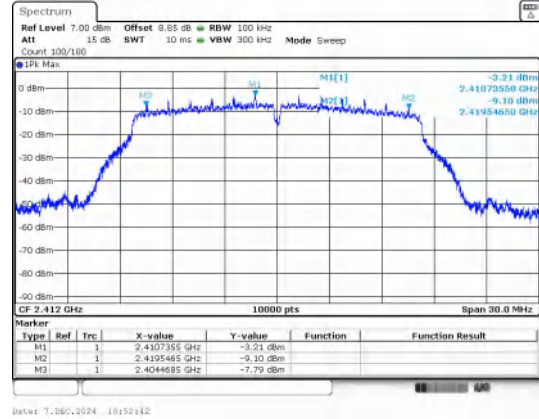
Mode	Channel	Ant.	Center Frequency (MHz)	6 dB Bandwidth (MHz)	Limit (MHz)	Result
IEEE 802.11b	1	0	2412	7.590	≥0.5	PASS
		1	2412	8.070		PASS
	6	0	2437	8.060		PASS
		1	2437	8.530		PASS
	11	0	2462	8.060		PASS
		1	2462	8.080		PASS
IEEE 802.11g	1	0	2412	15.03		PASS
		1	2412	15.08		PASS
	6	0	2437	15.09		PASS
		1	2437	15.42		PASS
	11	0	2462	15.10		PASS
		1	2462	15.25		PASS
IEEE 802.11n_20	1	0	2412	15.07		PASS
		1	2412	15.04		PASS
	6	0	2437	15.92		PASS
		1	2437	15.92		PASS
	11	0	2462	15.03		PASS
		1	2462	15.04		PASS
IEEE 802.11n_40	3	0	2422	35.25		PASS
		1	2422	32.56		PASS
	6	0	2437	35.07		PASS
		1	2437	35.29		PASS
	9	0	2452	35.04		PASS
		1	2452	35.00		PASS

Test Graphs

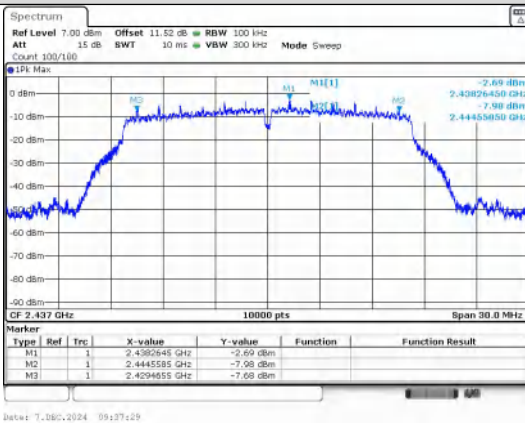




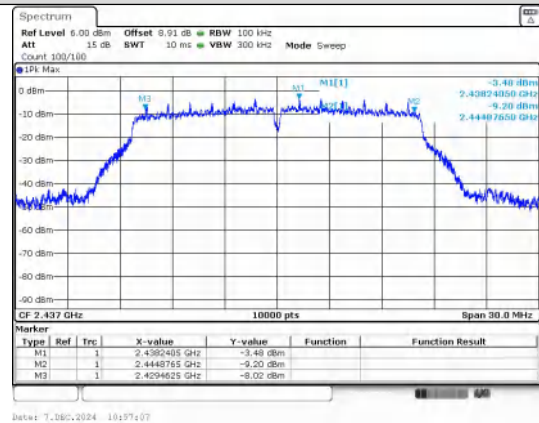
IEEE 802.11g_Channel 1_20MHz_Antenna 0



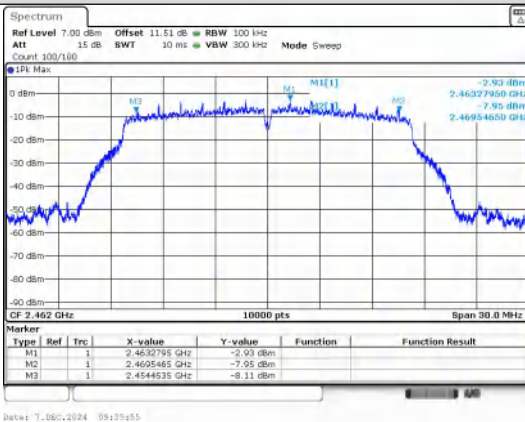
IEEE 802.11g_Channel 1_20MHz_Antenna 1



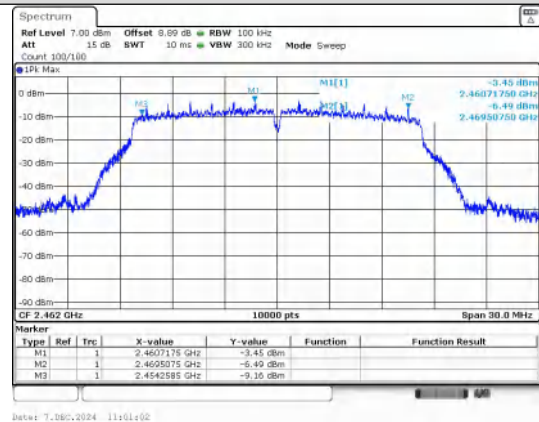
IEEE 802.11g_Channel 6_20MHz_Antenna 0



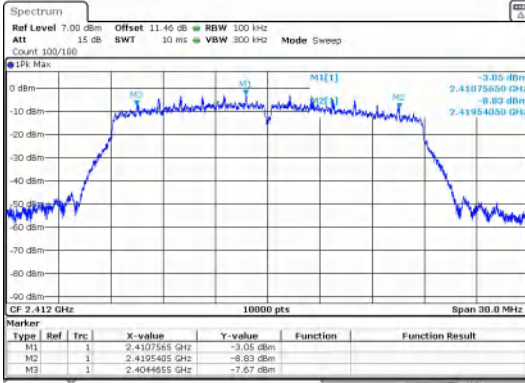
IEEE 802.11g_Channel 6_20MHz_Antenna 1



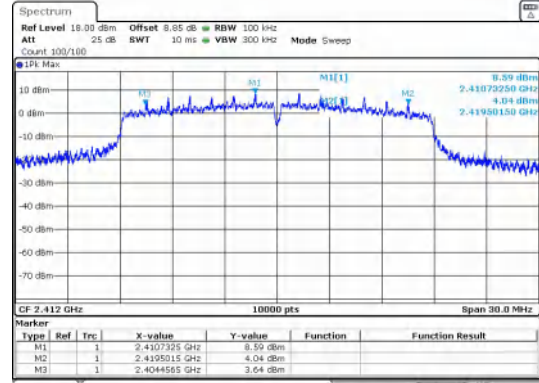
IEEE 802.11g_Channel 11_20MHz_Antenna 0



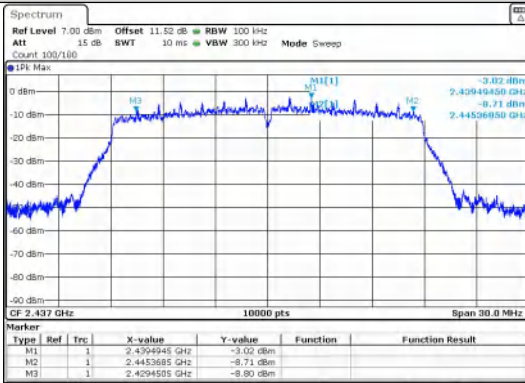
IEEE 802.11g_Channel 11_20MHz_Antenna 1



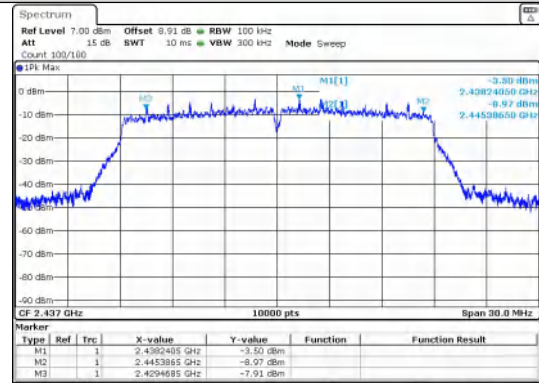
IEEE 802.11n_Channel 1_20MHz_Antenna 0



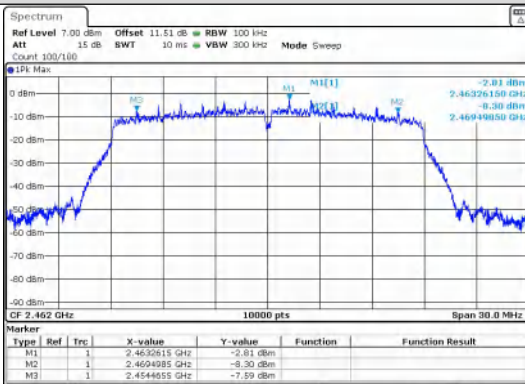
IEEE 802.11n_Channel 1_20MHz_Antenna 1



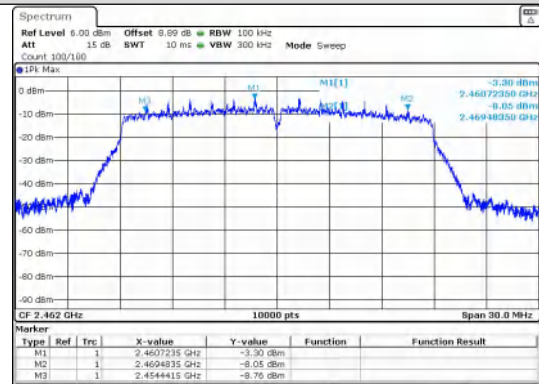
IEEE 802.11n_Channel 6_20MHz_Antenna 0



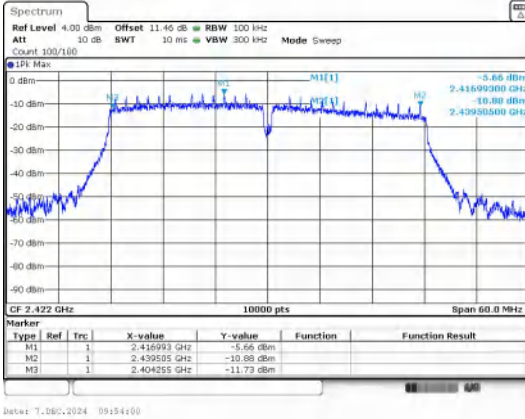
IEEE 802.11n_Channel 6_20MHz_Antenna 1



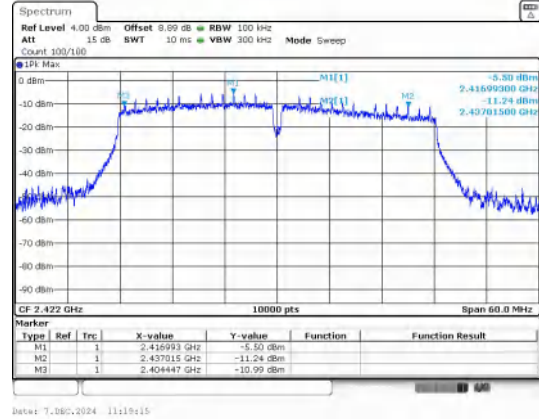
IEEE 802.11n_Channel 11_20MHz_Antenna 0



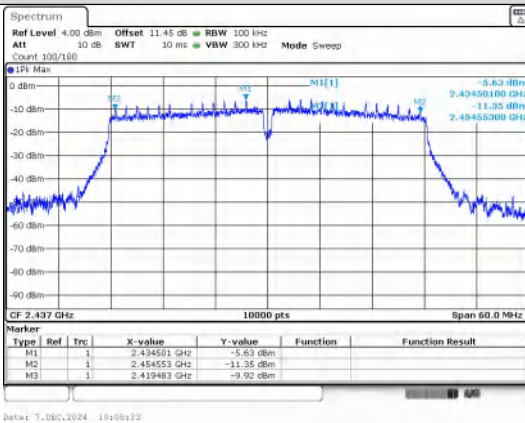
IEEE 802.11n_Channel 11_20MHz_Antenna 1



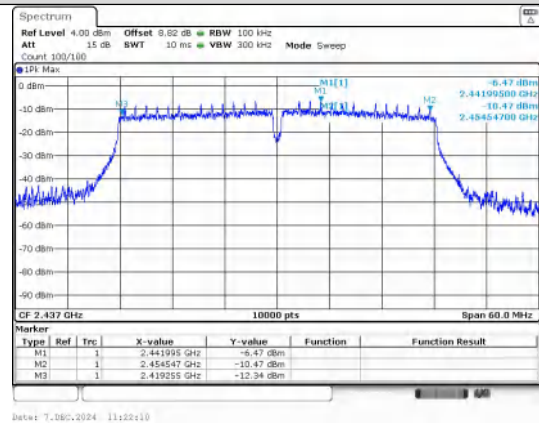
IEEE 802.11n_Channel 3_40MHz_Antenna 0



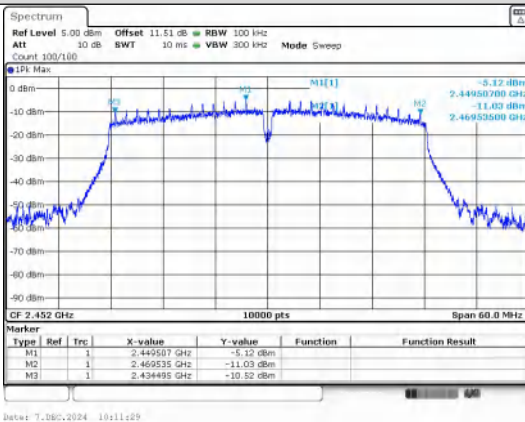
IEEE 802.11n_Channel 3_40MHz_Antenna 1



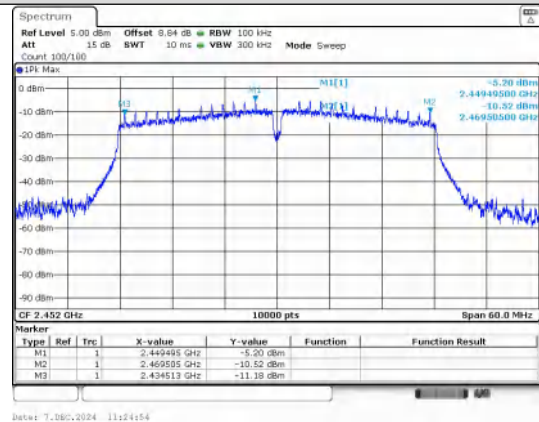
IEEE 802.11n_Channel 6_40MHz_Antenna 0



IEEE 802.11n_Channel 6_40MHz_Antenna 1



IEEE 802.11n_Channel 9_40MHz_Antenna 0



IEEE 802.11n_Channel 9_40MHz_Antenna 1

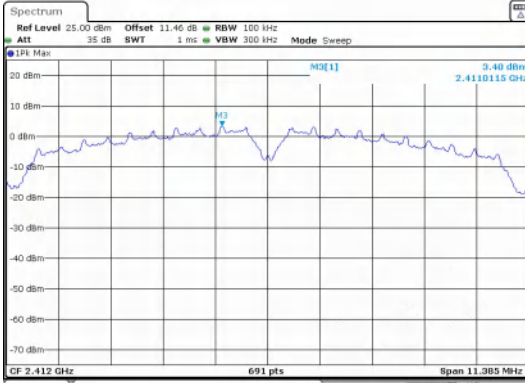
Conducted Out Of Band Emission

Test Result

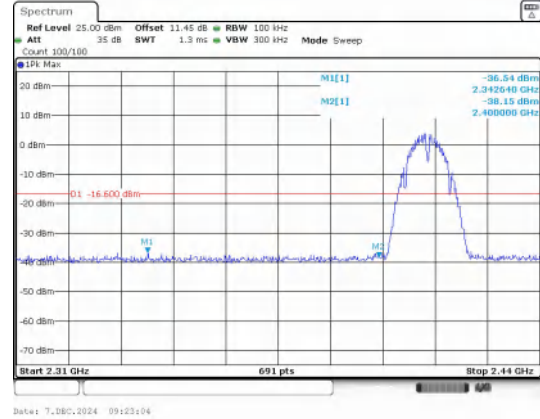
Mode	Channel	Ant.	OOB Emission Frequency (MHz)	OOB Emission Level (dBm)	Limit (dBm)	Over Limit (dB)	Result
IEEE 802.11b	1	0	2342.64	-36.537	-16.6	-19.937	PASS
			2400.00	-38.150	-16.6	-21.550	PASS
			6928.00	-41.381	-16.6	-24.781	PASS
		1	2395.51	-39.827	-17.11	-22.717	PASS
			2400.00	-41.370	-17.11	-24.260	PASS
			17239.7	-39.936	-17.11	-22.826	PASS
	6	0	6909.65	-43.198	-16.47	-26.728	PASS
		1	22044.8	-40.295	-17.31	-22.985	PASS
	11	0	2483.50	-38.500	-16.59	-21.910	PASS
			6912.98	-43.050	-16.59	-26.460	PASS
		1	2483.50	-41.400	-17.22	-24.180	PASS
			22059.0	-40.104	-17.22	-22.884	PASS
IEEE 802.11g	1	0	2352.99	-36.542	-22.88	-13.662	PASS
			2400.00	-38.020	-22.88	-15.140	PASS
			24363.7	-42.883	-22.88	-20.003	PASS
		1	2369.73	-40.036	-23.41	-16.626	PASS
			2400.00	-40.920	-23.41	-17.510	PASS
			16261.7	-40.062	-23.41	-16.652	PASS
	6	0	18286.8	-43.116	-23.35	-19.766	PASS
		1	22106.4	-40.193	-23.49	-16.703	PASS
	11	0	2483.50	-38.070	-22.8	-15.270	PASS
			6548.42	-43.454	-22.8	-20.654	PASS
		1	2483.50	-40.370	-23.13	-17.240	PASS
			18256.0	-40.080	-23.13	-16.950	PASS

IEEE 802.11n_20	1	0	2366.72	-36.877	-22.74	-14.137	PASS
			2400.00	-38.250	-22.74	-15.510	PASS
			6218.00	-43.385	-22.74	-20.645	PASS
		1	2400.00	-16.020	-11.49	-4.530	PASS
			20042.2	-40.208	-11.49	-28.718	PASS
	6	0	6906.32	-43.341	-23.46	-19.881	PASS
		1	16598.0	-40.067	-23.52	-16.547	PASS
	11	0	2483.50	-38.870	-22.77	-16.100	PASS
			6905.49	-42.276	-22.77	-19.506	PASS
		1	2483.50	-41.450	-23.27	-18.180	PASS
			22105.6	-39.396	-23.27	-16.126	PASS
IEEE 802.11n_40	3	0	2379.70	-36.197	-25.54	-10.657	PASS
			2400.00	-38.970	-25.54	-13.430	PASS
			5867.60	-43.218	-25.54	-17.678	PASS
		1	2398.52	-38.949	-25.69	-13.259	PASS
			2400.00	-40.580	-25.69	-14.890	PASS
			16330.0	-39.979	-25.69	-14.289	PASS
	6	0	6922.97	-43.501	-25.61	-17.891	PASS
		1	16571.4	-39.369	-26.18	-13.189	PASS
	9	0	2483.50	-37.770	-25.03	-12.740	PASS
			6925.47	-42.525	-25.03	-17.495	PASS
		1	2483.50	-40.900	-25.07	-15.830	PASS
			16750.3	-40.271	-25.07	-15.201	PASS

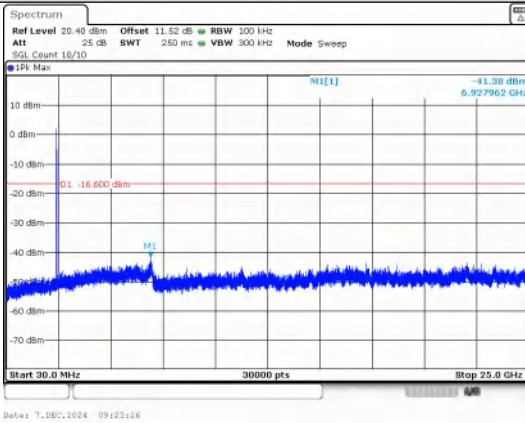
Test Graphs



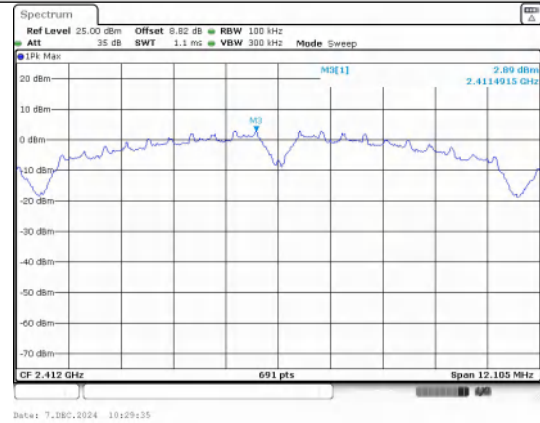
In-Band Reference Level
IEEE 802.11b_Channel 1_20MHz_Antenna 0



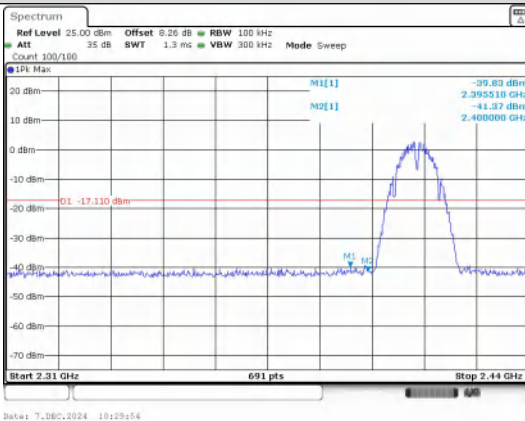
Out Of Band Emission
IEEE 802.11b_Channel 1_20MHz_Antenna 0



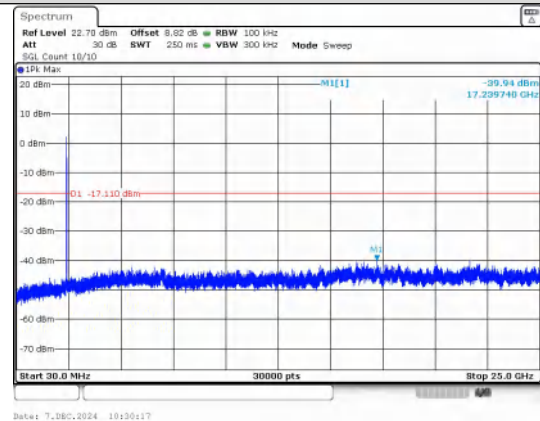
30.0 MHz - 25000.0 MHz
IEEE 802.11b_Channel 1_20MHz_Antenna 0



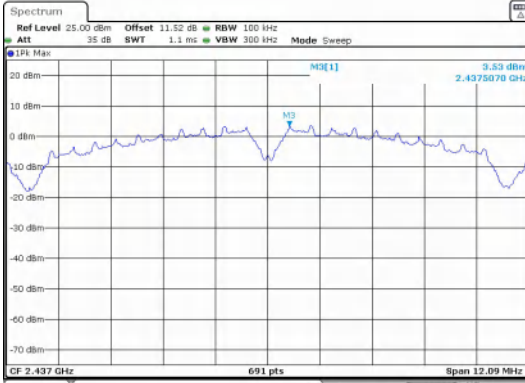
In-Band Reference Level
IEEE 802.11b_Channel 1_20MHz_Antenna 1



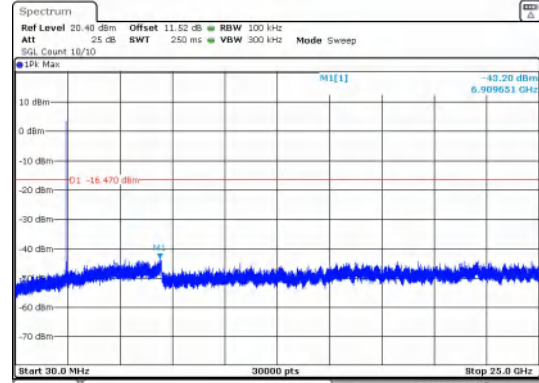
Out Of Band Emission
IEEE 802.11b_Channel 1_20MHz_Antenna 1



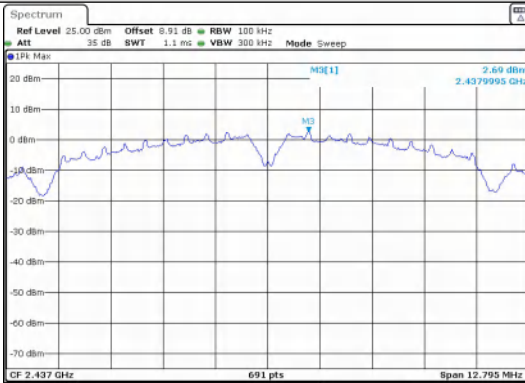
30.0 MHz - 25000.0 MHz
IEEE 802.11b_Channel 1_20MHz_Antenna 1



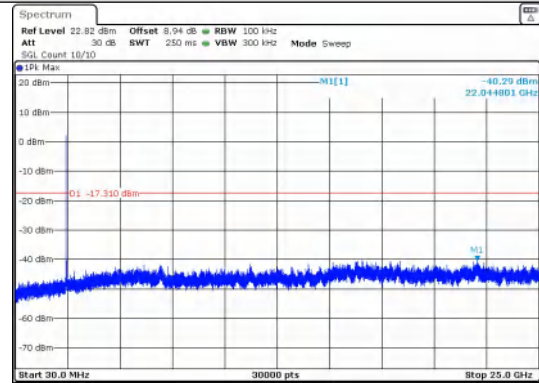
In-Band Reference Level
IEEE 802.11b_Channel 6_20MHz_Antenna 0



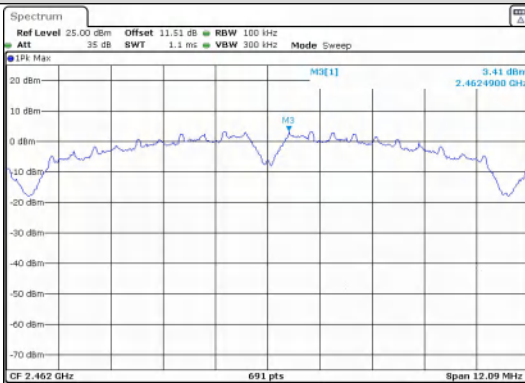
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IEEE 802.11b_Channel 6_20MHz_Antenna 0



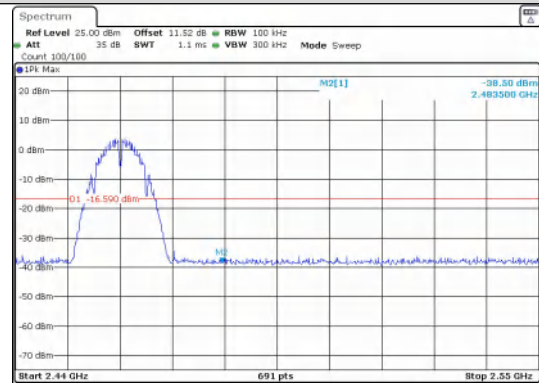
In-Band Reference Level
IEEE 802.11b_Channel 6_20MHz_Antenna 1



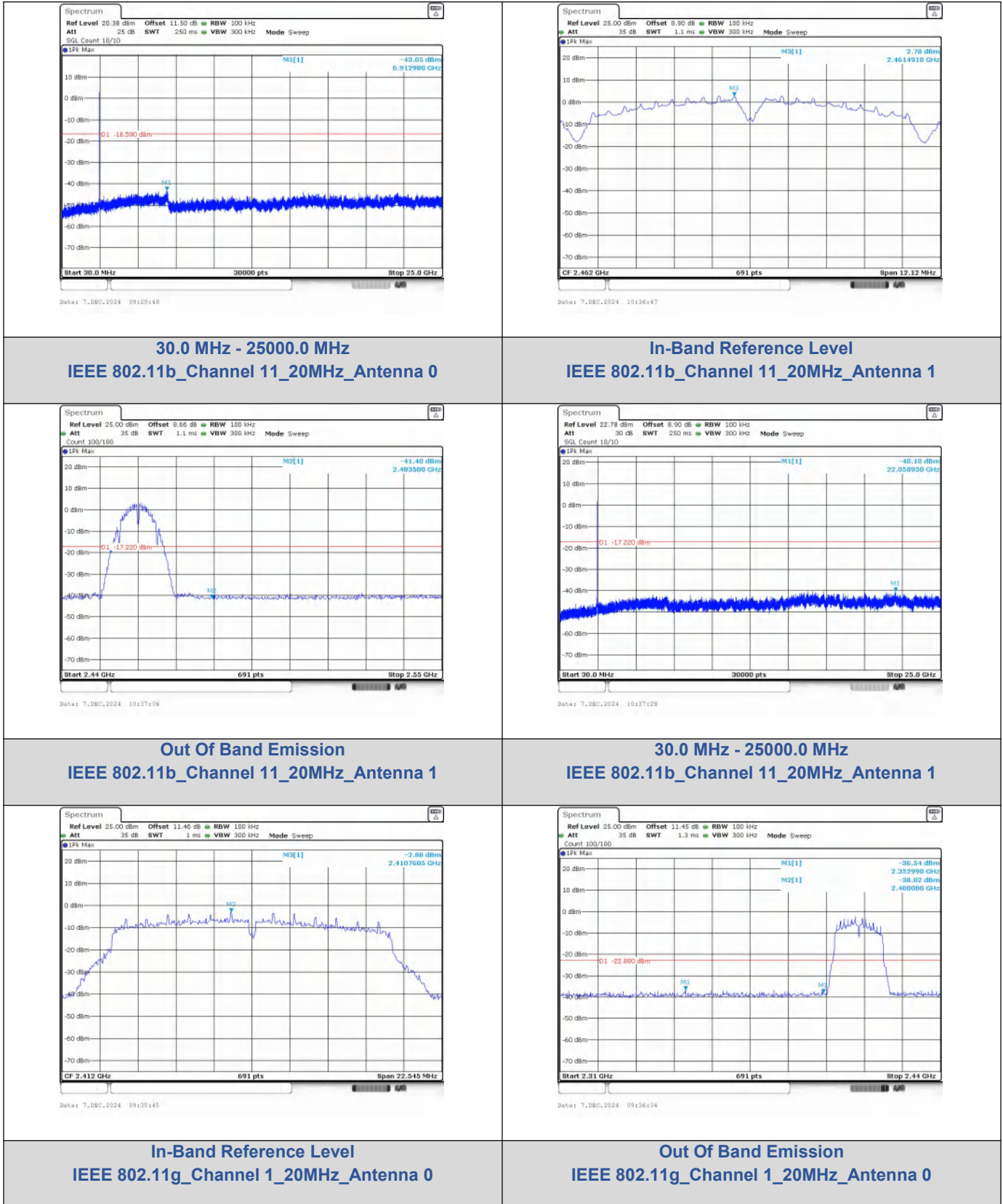
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IEEE 802.11b_Channel 6_20MHz_Antenna 1

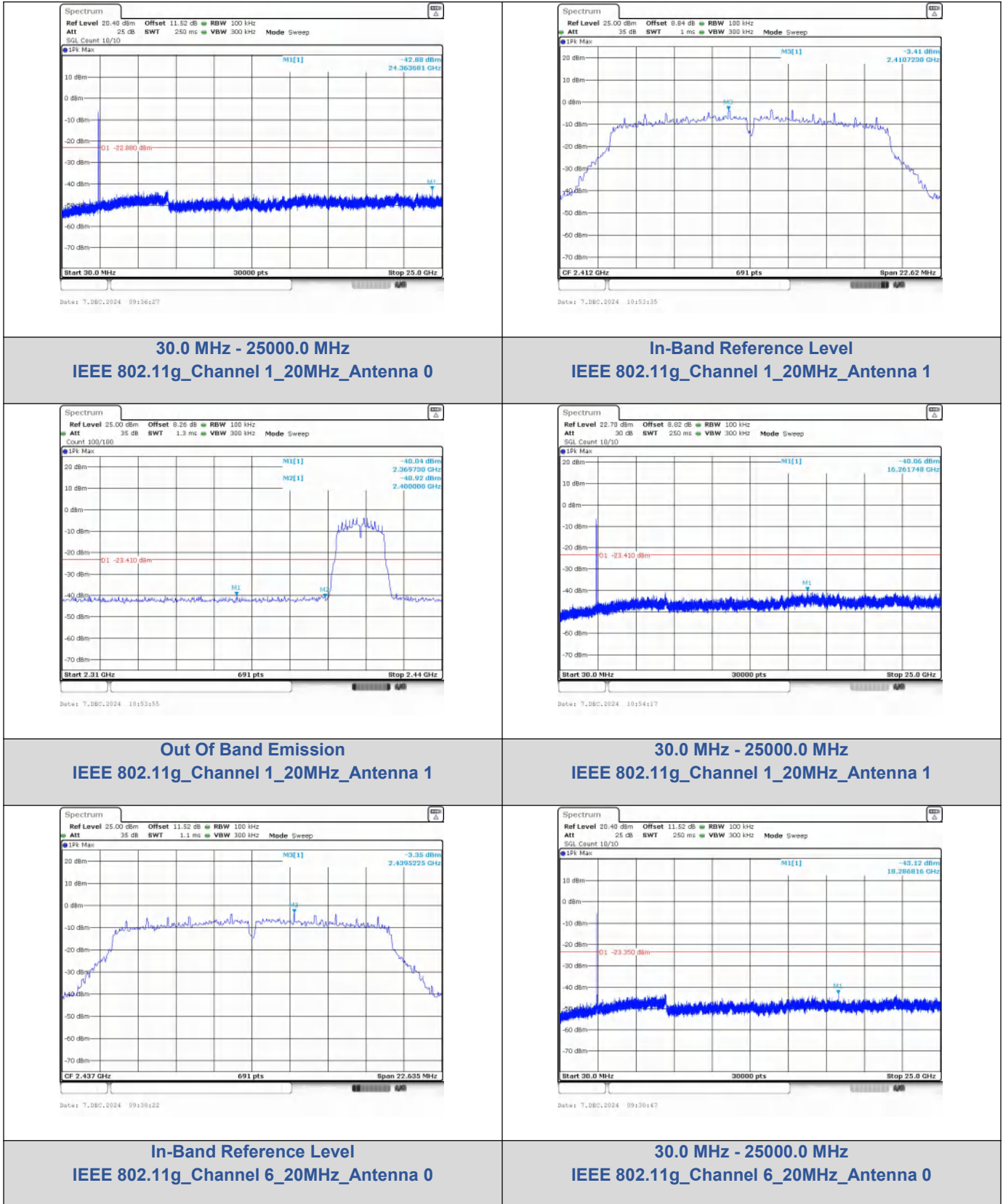


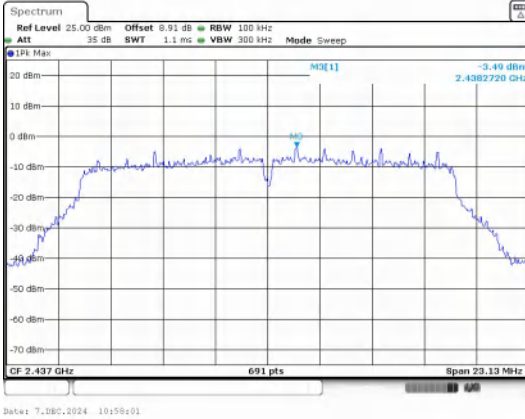
In-Band Reference Level
IEEE 802.11b_Channel 11_20MHz_Antenna 0



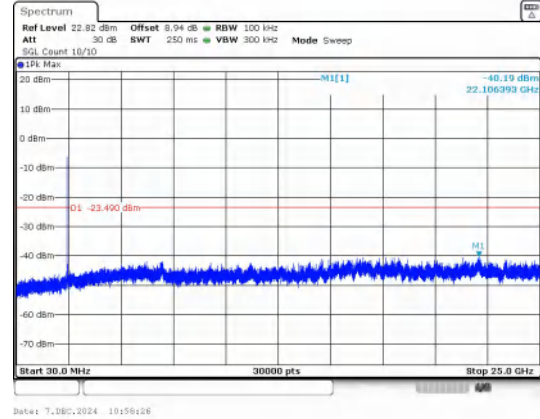
Out Of Band Emission
IEEE 802.11b_Channel 11_20MHz_Antenna 0



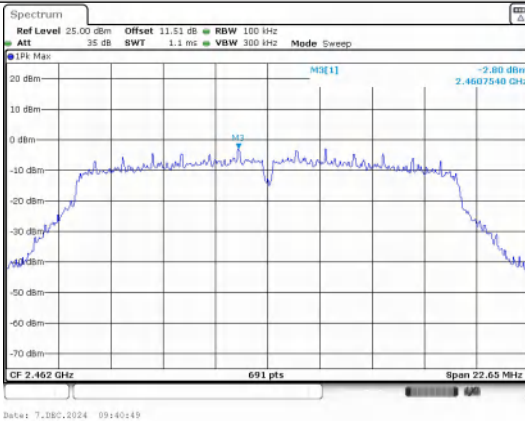




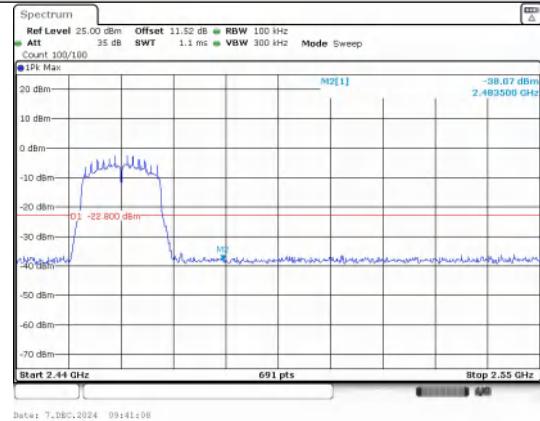
In-Band Reference Level
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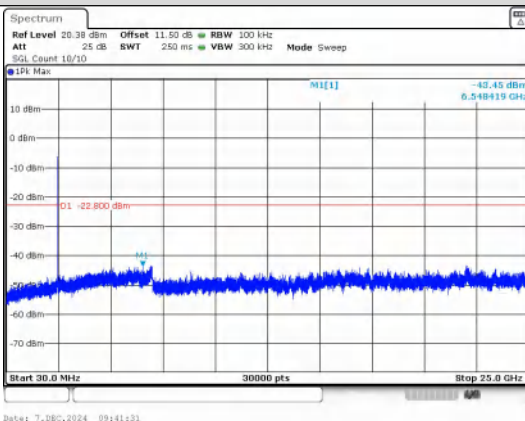
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IEEE 802.11g_Channel 6_20MHz_Antenna 1



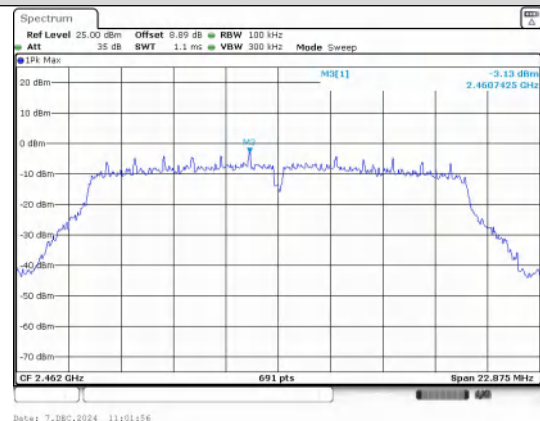
In-Band Reference Level
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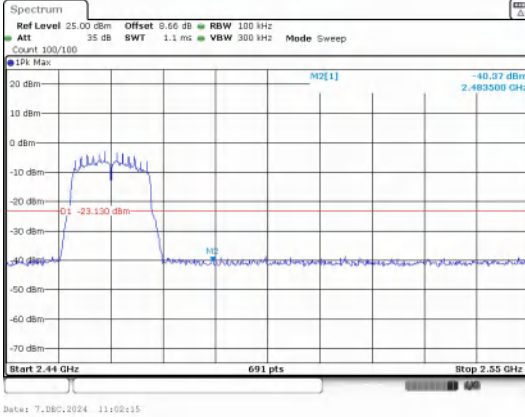
Out Of Band Emission
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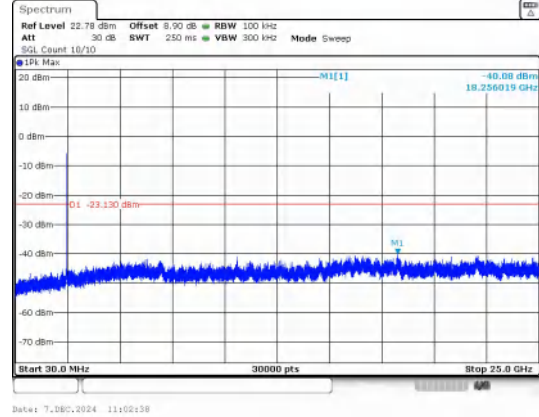
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IEEE 802.11g_Channel 11_20MHz_Antenna 0



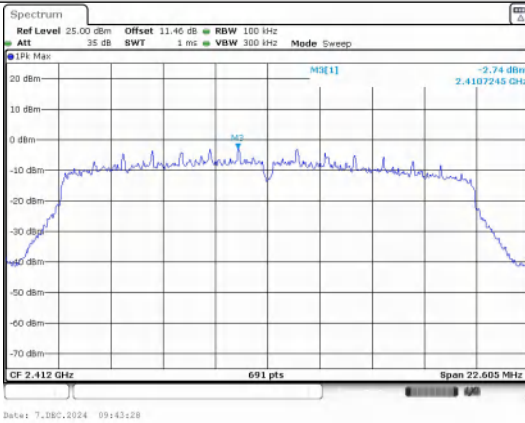
In-Band Reference Level
IEEE 802.11g_Channel 11_20MHz_Antenna 1



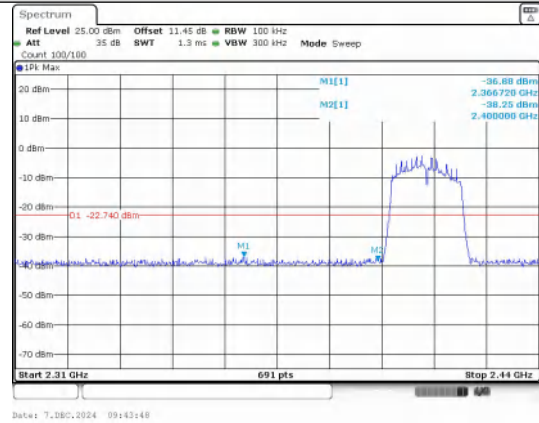
Out Of Band Emission
IEEE 802.11g_Channel 11_20MHz_Antenna 1



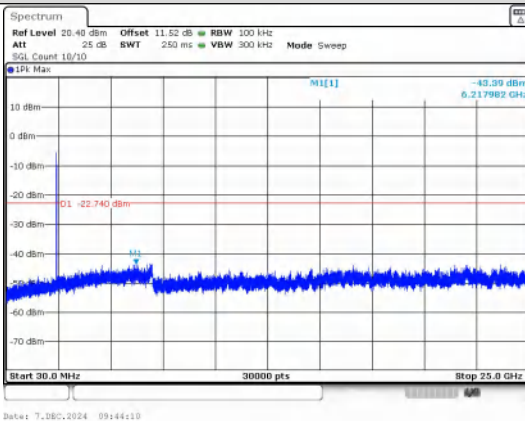
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IEEE 802.11g_Channel 11_20MHz_Antenna 1



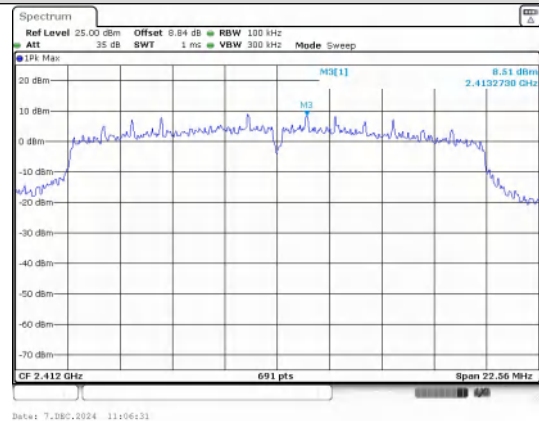
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IEEE 802.11n_Channel 1_20MHz_Antenna 0



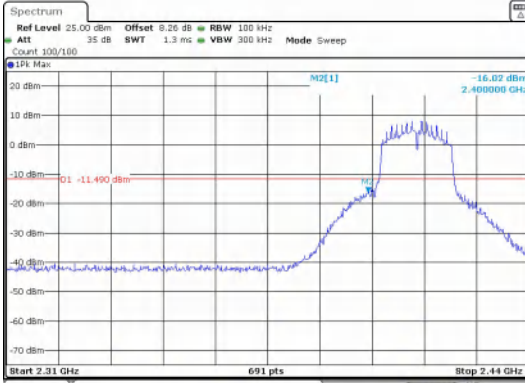
Out Of Band Emission
IEEE 802.11n_Channel 1_20MHz_Antenna 0



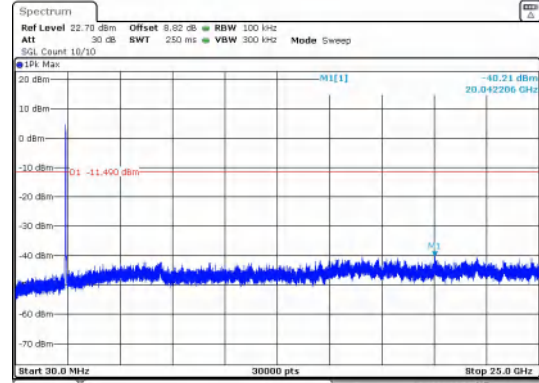
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IEEE 802.11n_Channel 1_20MHz_Antenna 0



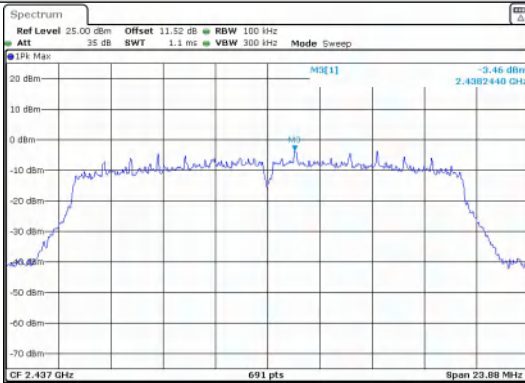
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IEEE 802.11n_Channel 1_20MHz_Antenna 1



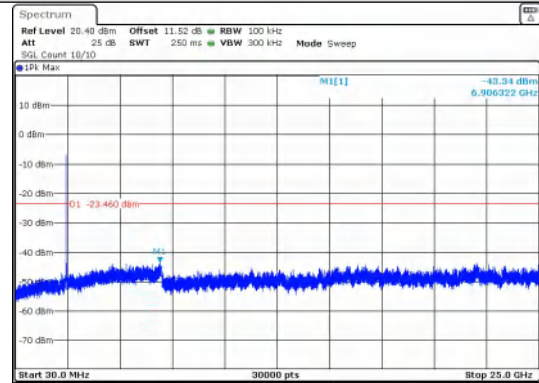
Out Of Band Emission
IEEE 802.11n_Channel 1_20MHz_Antenna 1



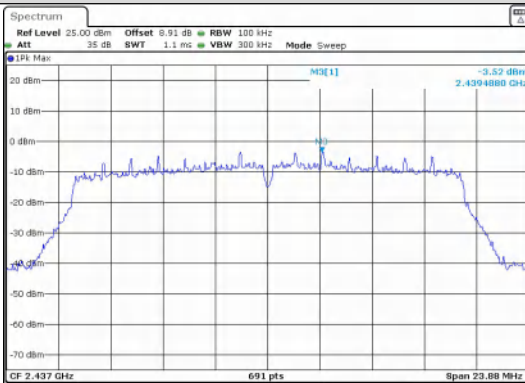
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IEEE 802.11n_Channel 1_20MHz_Antenna 1



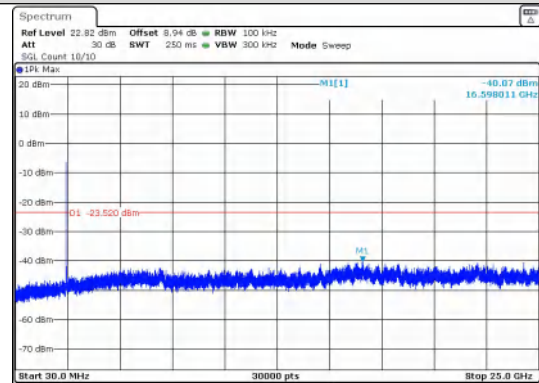
In-Band Reference Level
IEEE 802.11n_Channel 6_20MHz_Antenna 0



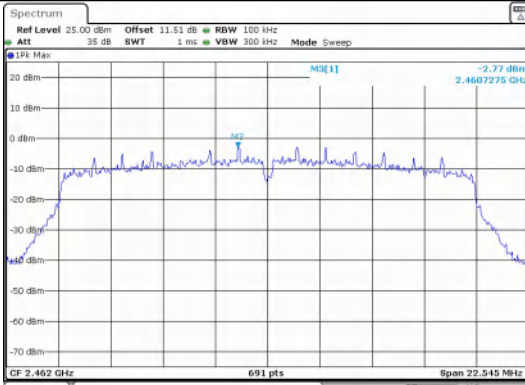
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IEEE 802.11n_Channel 6_20MHz_Antenna 0



In-Band Reference Level
IEEE 802.11n_Channel 6_20MHz_Antenna 1

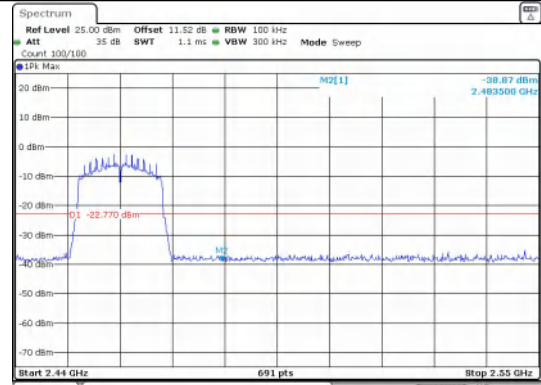


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IEEE 802.11n_Channel 6_20MHz_Antenna 1



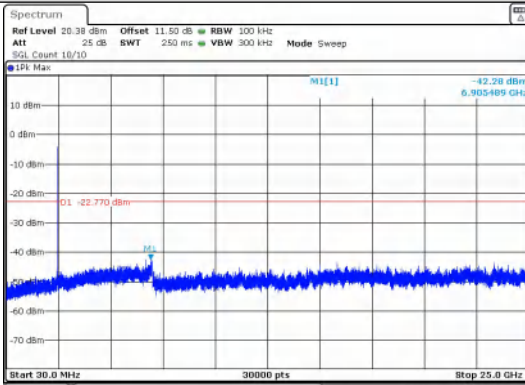
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In-Band Reference Level
IEEE 802.11n_Channel 11_20MHz_Antenna 0



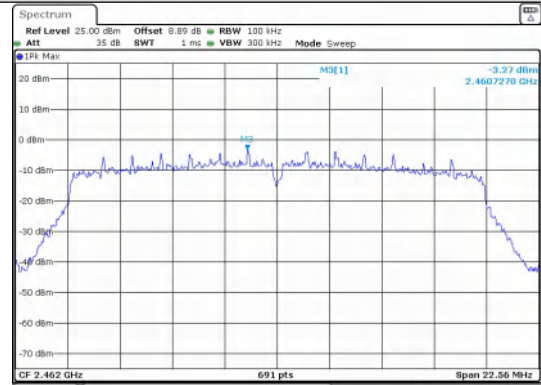
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Out Of Band Emission
IEEE 802.11n_Channel 11_20MHz_Antenna 0



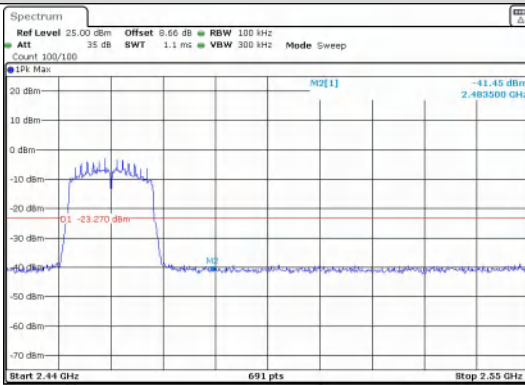
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IEEE 802.11n_Channel 11_20MHz_Antenna 0



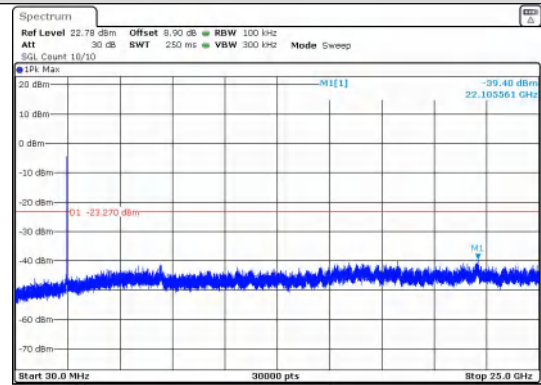
Date: 7, DEC, 2024 11:15:09

In-Band Reference Level
IEEE 802.11n_Channel 11_20MHz_Antenna 1



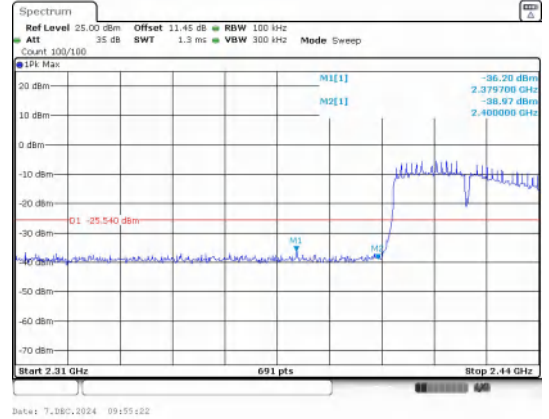
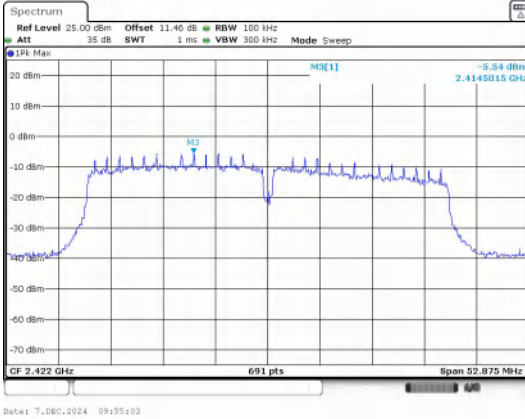
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Out Of Band Emission
IEEE 802.11n_Channel 11_20MHz_Antenna 1



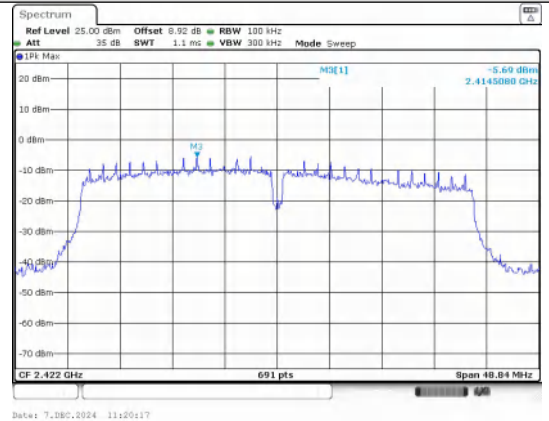
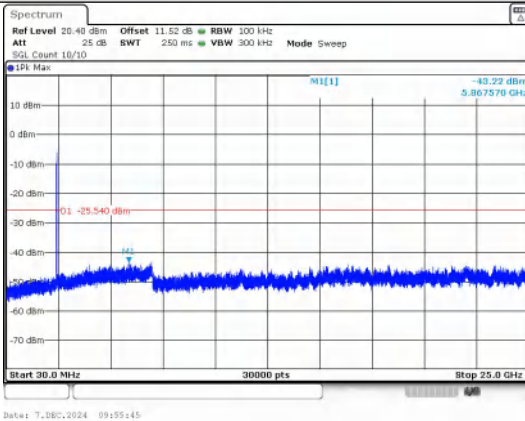
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30.0 MHz - 25000.0 MHz
IEEE 802.11n_Channel 11_20MHz_Antenna 1



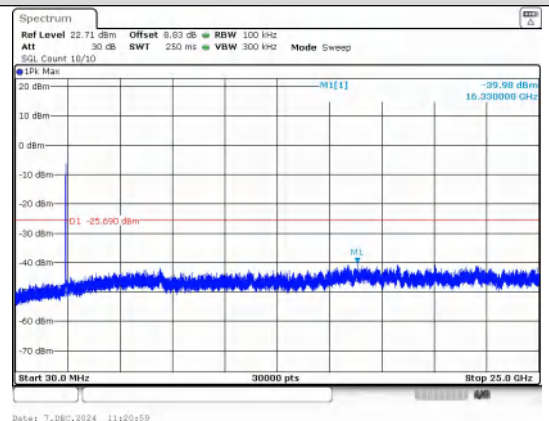
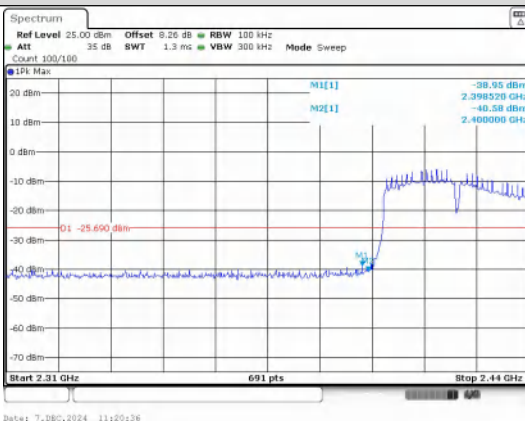
In-Band Reference Level
IEEE 802.11n_Channel 3_40MHz_Antenna 0

Out Of Band Emission
IEEE 802.11n_Channel 3_40MHz_Antenna 0



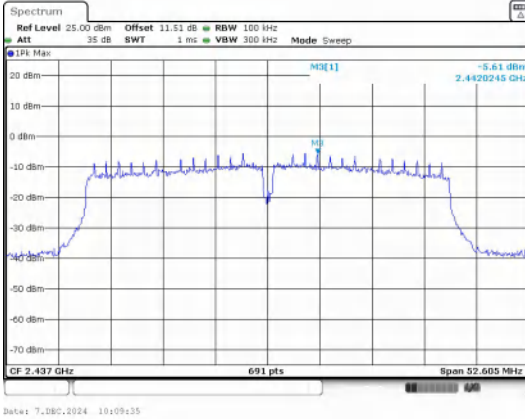
30.0 MHz - 25000.0 MHz
IEEE 802.11n_Channel 3_40MHz_Antenna 0

In-Band Reference Level
IEEE 802.11n_Channel 3_40MHz_Antenna 1

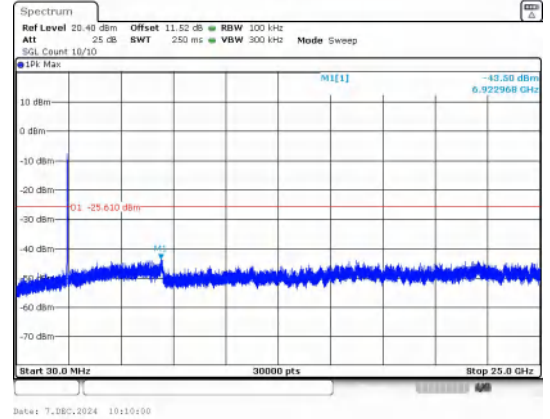


Out Of Band Emission
IEEE 802.11n_Channel 3_40MHz_Antenna 1

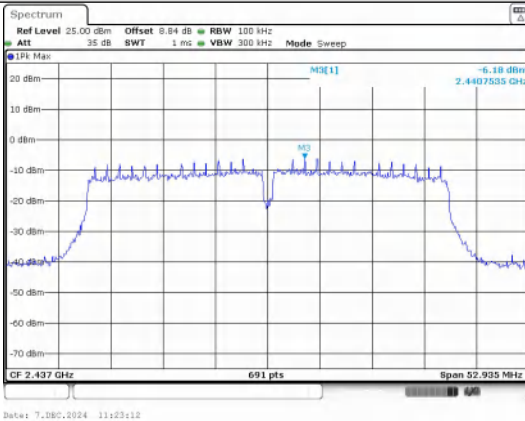
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IEEE 802.11n_Channel 3_40MHz_Antenna 1



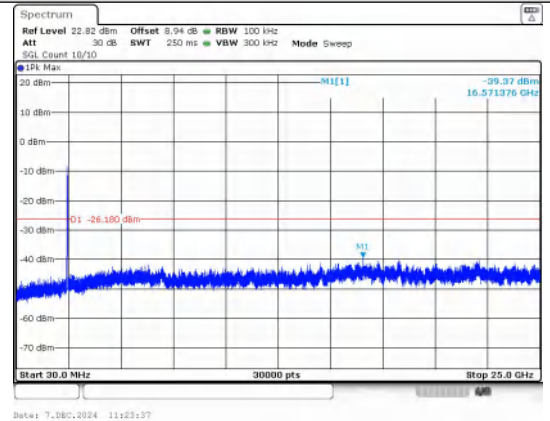
In-Band Reference Level
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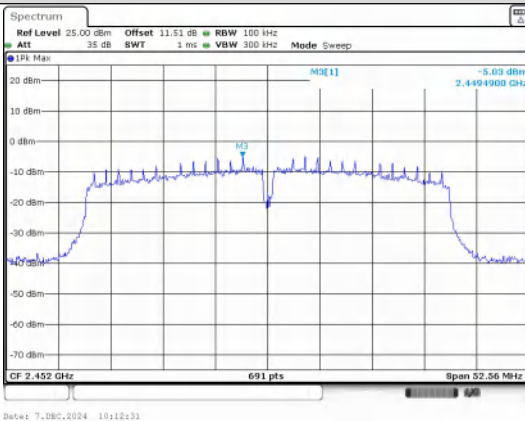
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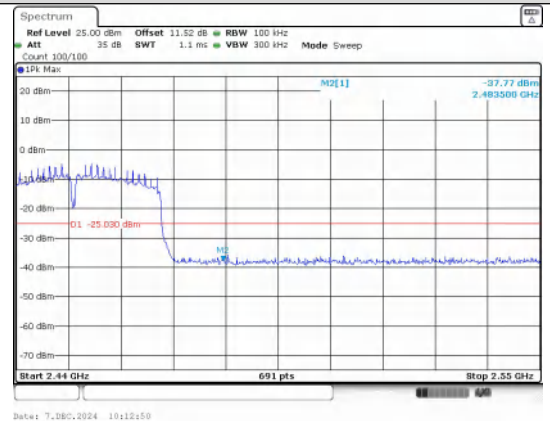
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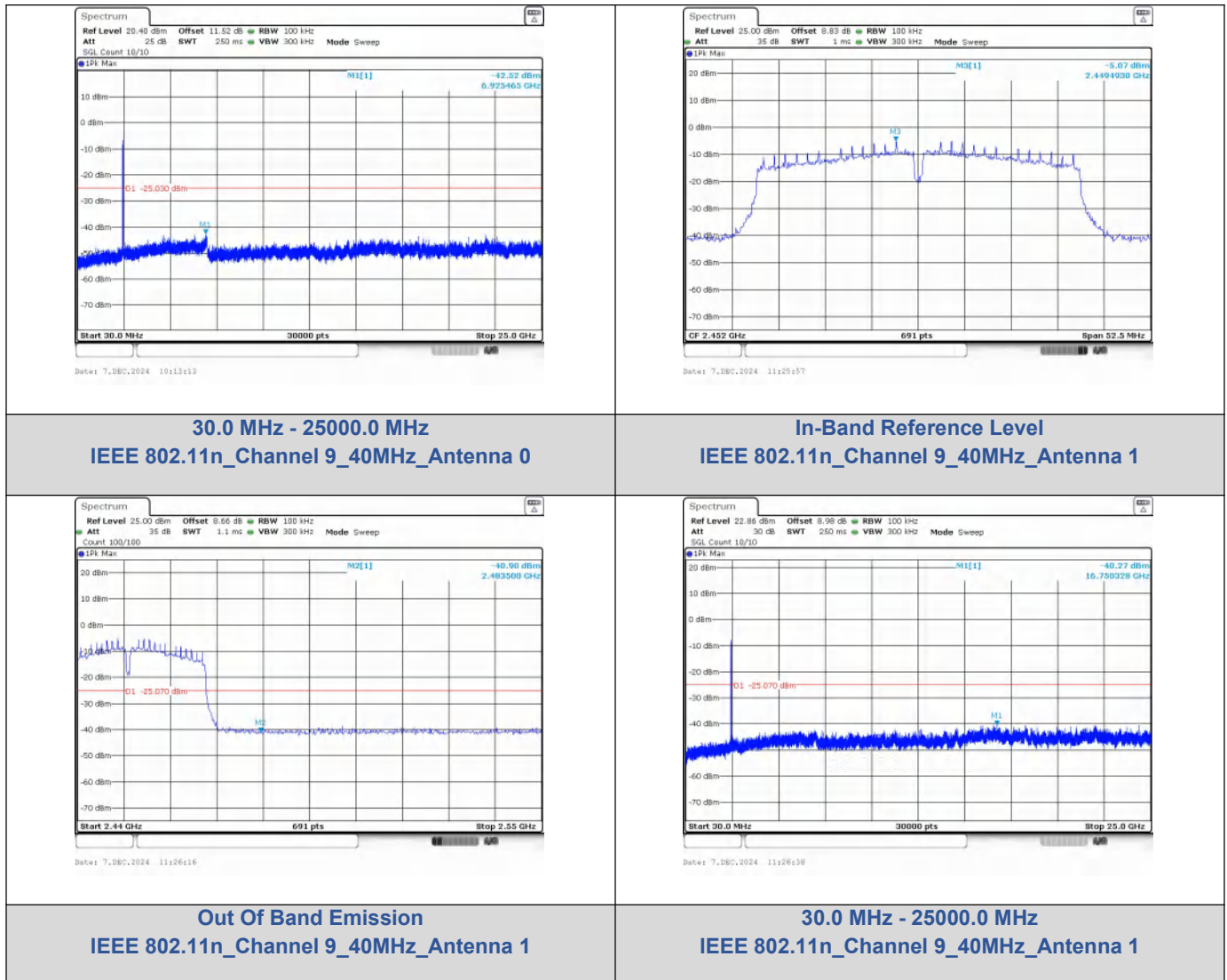
30.0 MHz - 25000.0 MHz
IEEE 802.11n_Channel 6_40MHz_Antenna 1



In-Band Reference Level
IEEE 802.11n_Channel 9_40MHz_Antenna 0



Out Of Band Emission
IEEE 802.11n_Channel 9_40MHz_Antenna 0



-----End of the report-----