

Appendix Report

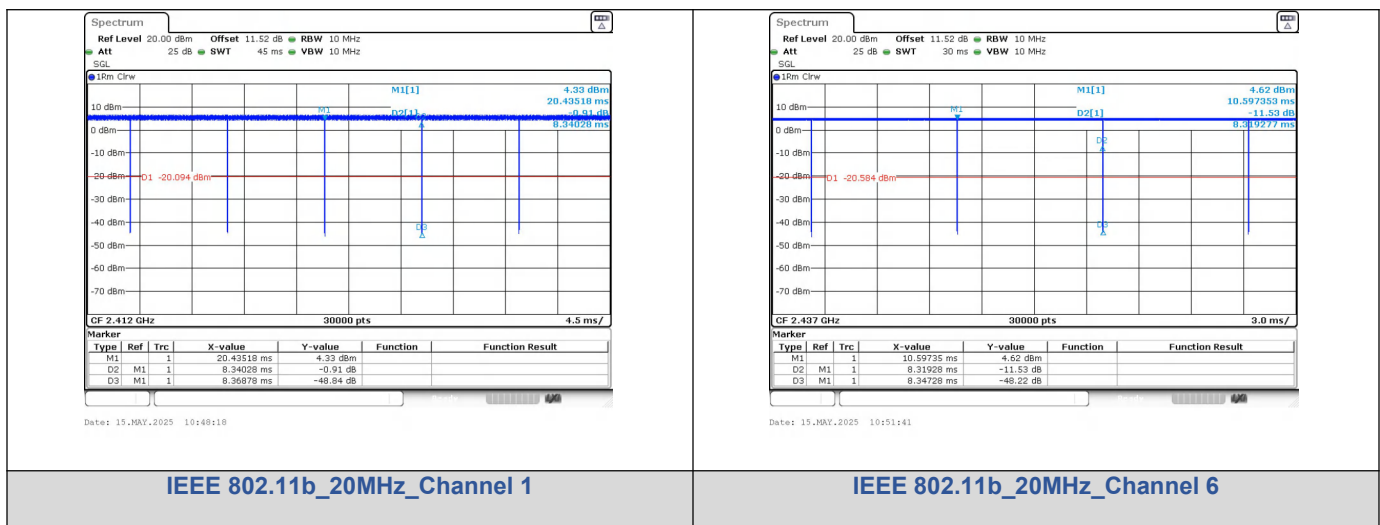
Project No.:	CISR250512039
Test Engineer:	James Wang
Supervised by:	Rory Huang

Duty Cycle

Test Result

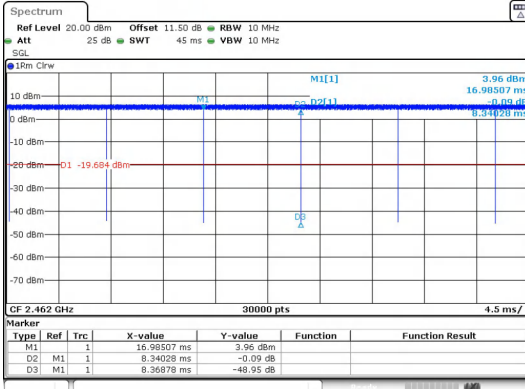
Mode	Data rates	Channel	Antenna	On Time (ms)	Period (ms)	Duty Cycle (%)	Duty Cycle (linear)	Duty Cycle Factor (dB)	1/T
IEEE 802.11b	1	1	1	8.340	8.369	99.66	0.9966	0.0148	0.1199
		6		8.319	8.347	99.66	0.9966	0.0148	0.1202
		11		8.340	8.369	99.66	0.9966	0.0148	0.1199
IEEE 802.11g	1	1		1.396	1.429	97.69	0.9769	0.1015	0.7163
		6		1.396	1.429	97.69	0.9769	0.1015	0.7163
		11		1.396	1.430	97.62	0.9762	0.1046	0.7163
IEEE 802.11n_20	MCS 0	1		1.293	1.327	97.44	0.9744	0.1126	0.7734
		6		1.304	1.337	97.53	0.9753	0.1086	0.7669
		11		1.293	1.327	97.44	0.9744	0.1126	0.7734
IEEE 802.11n_40	MCS 0	3		0.650	0.684	94.94	0.9494	0.2255	1.5385
		6		0.650	0.684	94.94	0.9494	0.2255	1.5385
		9		0.650	0.684	95.00	0.9500	0.2228	1.5385

Test Graphs

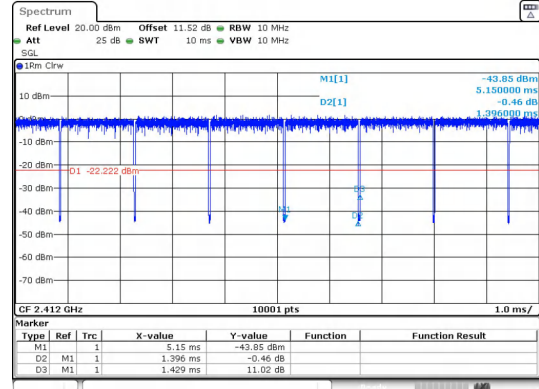


IEEE 802.11b_20MHz_Channel 1

IEEE 802.11b_20MHz_Channel 6



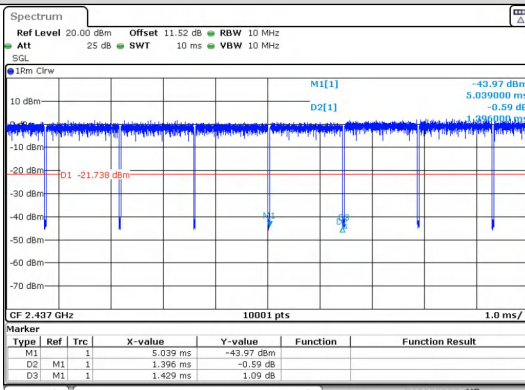
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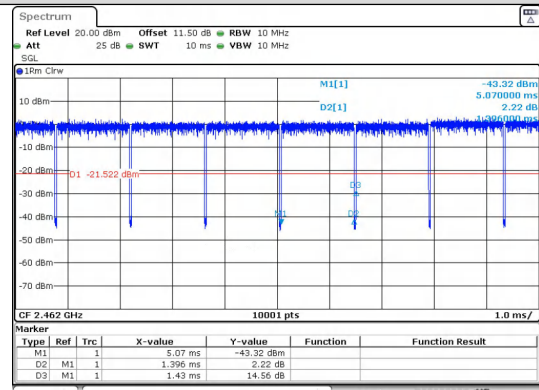
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IEEE 802.11b_20MHz_Channel 11

IEEE 802.11g_20MHz_Channel 1



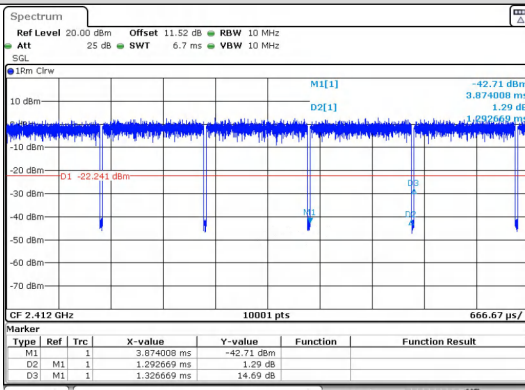
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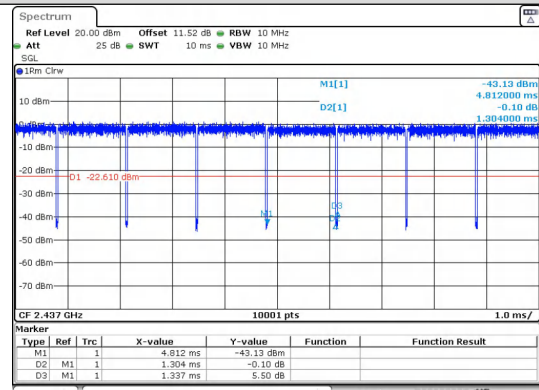
Date: 15.MAY.2025 11:02:58

IEEE 802.11g_20MHz_Channel 6

IEEE 802.11g_20MHz_Channel 11



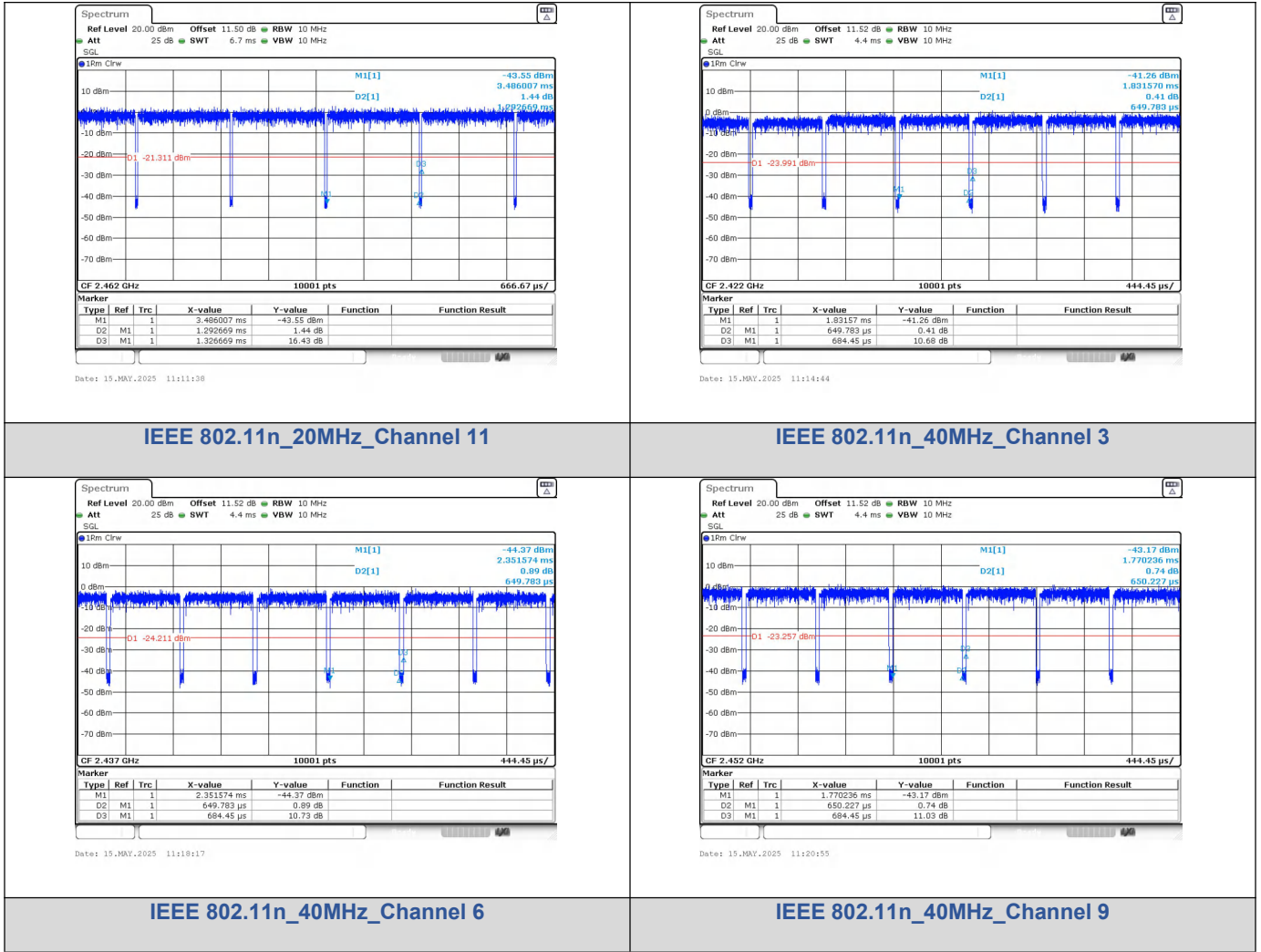
Date: 15.MAY.2025 11:06:13



Date: 15.MAY.2025 11:09:08

IEEE 802.11n_20MHz_Channel 1

IEEE 802.11n_20MHz_Channel 6

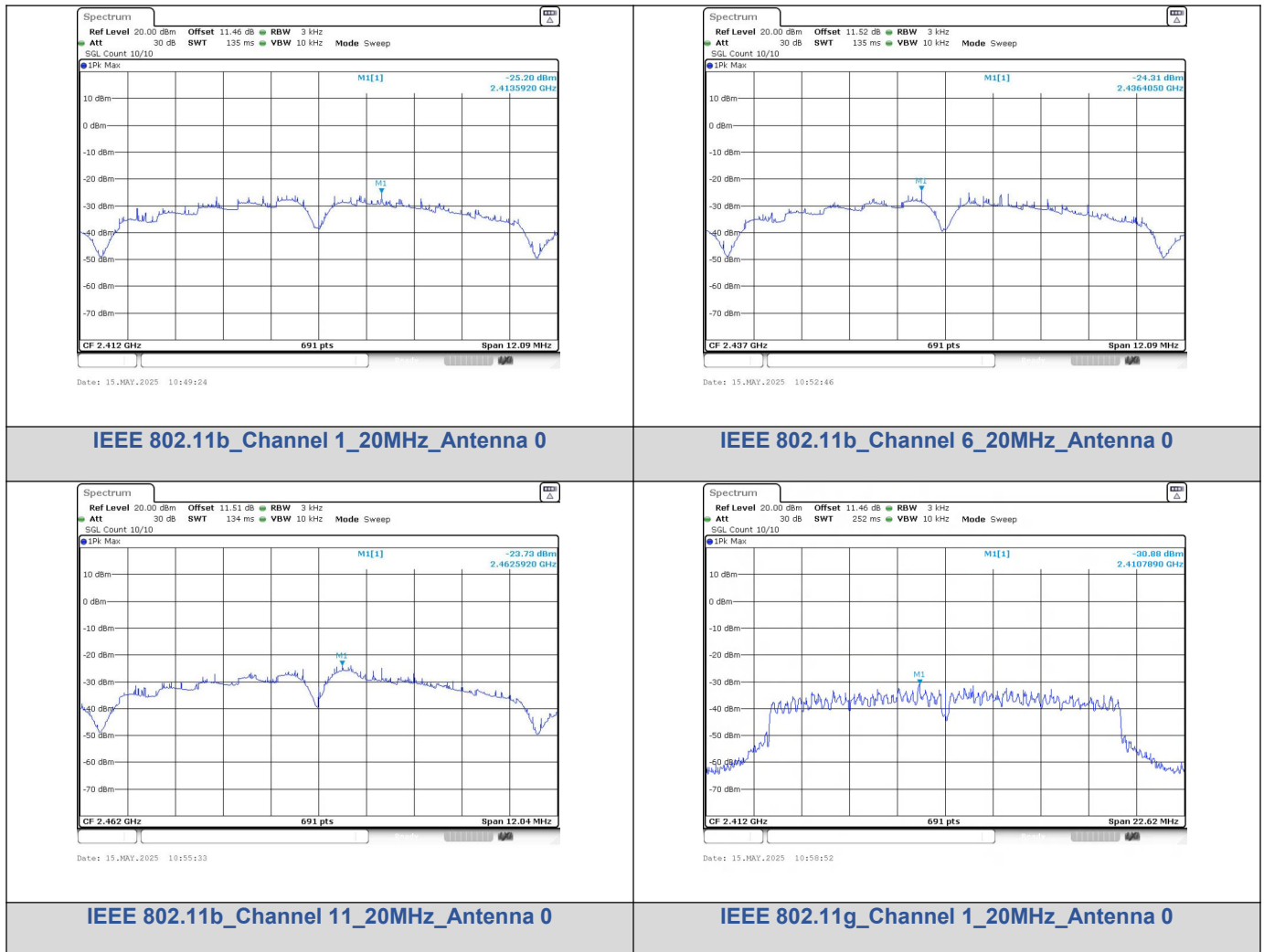


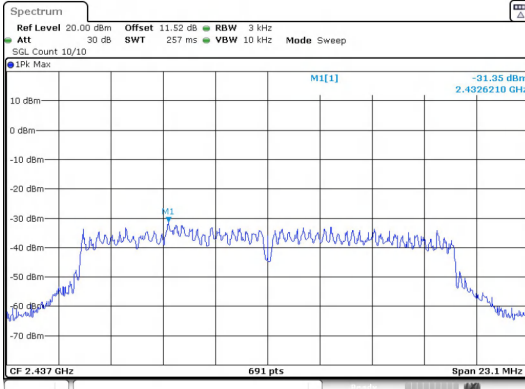
Power Spectral Density Test Result

Mode	Channel	PSD (dBm/3kHz) Ant. 0	Limit (dBm/3kHz)	Result
IEEE 802.11b	1	-25.200	≤8	PASS
	6	-24.310		PASS
	11	-23.730		PASS
IEEE 802.11g	1	-30.880		PASS
	6	-31.350		PASS
	11	-30.190		PASS
IEEE 802.11n_20	1	-31.570		PASS

IEEE 802.11n_40	6	-31.510		PASS
	11	-31.170		PASS
	3	-33.680		PASS
	6	-32.450		PASS
	9	-34.010		PASS

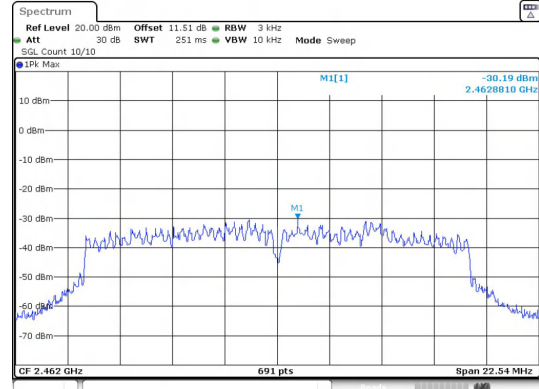
Test Graphs





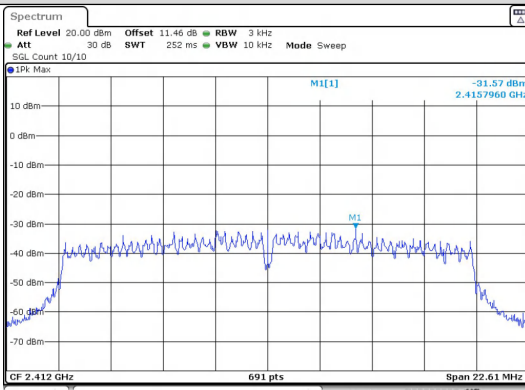
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IEEE 802.11g_Channel 6_20MHz_Antenna 0



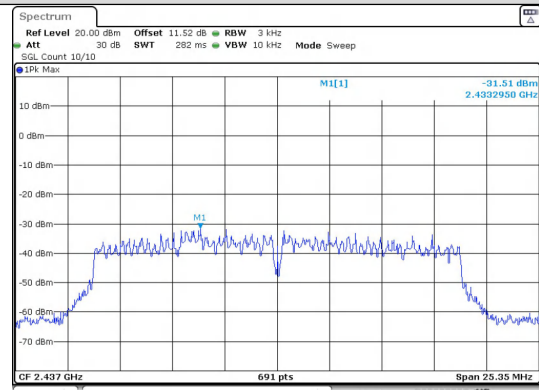
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IEEE 802.11g_Channel 11_20MHz_Antenna 0



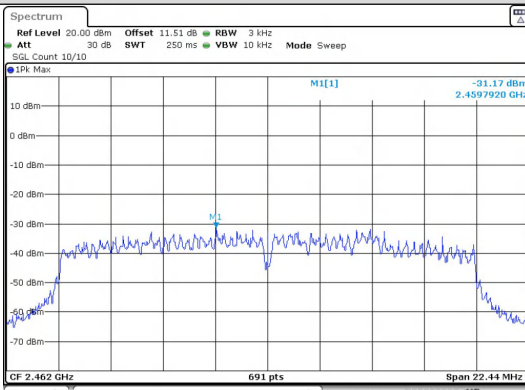
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IEEE 802.11n_Channel 1_20MHz_Antenna 0



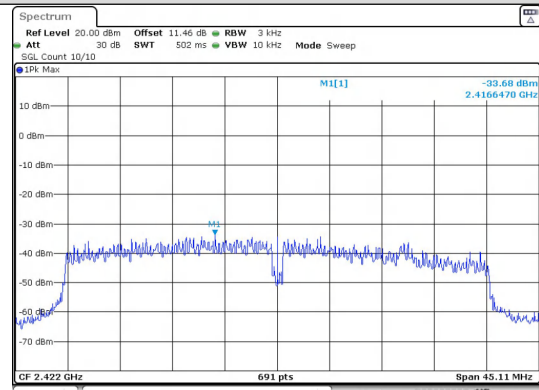
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IEEE 802.11n_Channel 6_20MHz_Antenna 0



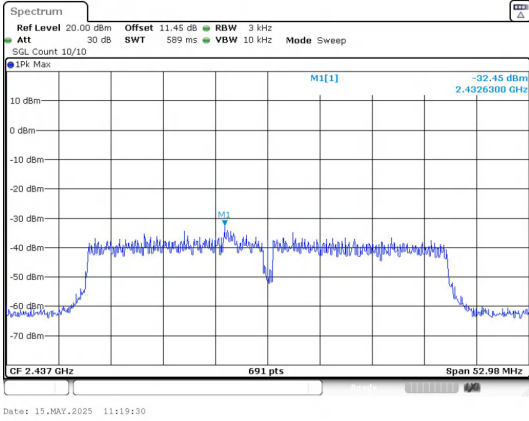
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IEEE 802.11n_Channel 11_20MHz_Antenna 0

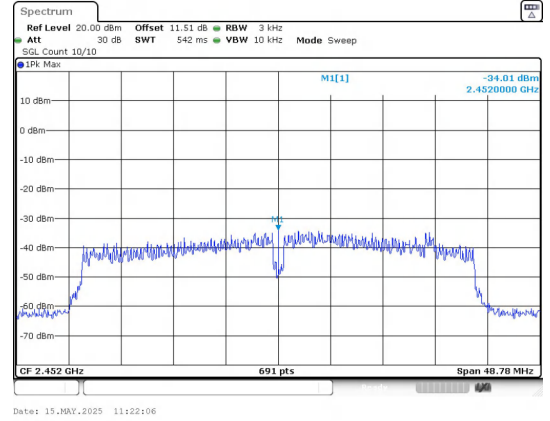


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IEEE 802.11n_Channel 3_40MHz_Antenna 0



IEEE 802.11n_Channel 6_40MHz_Antenna 0



IEEE 802.11n_Channel 9_40MHz_Antenna 0

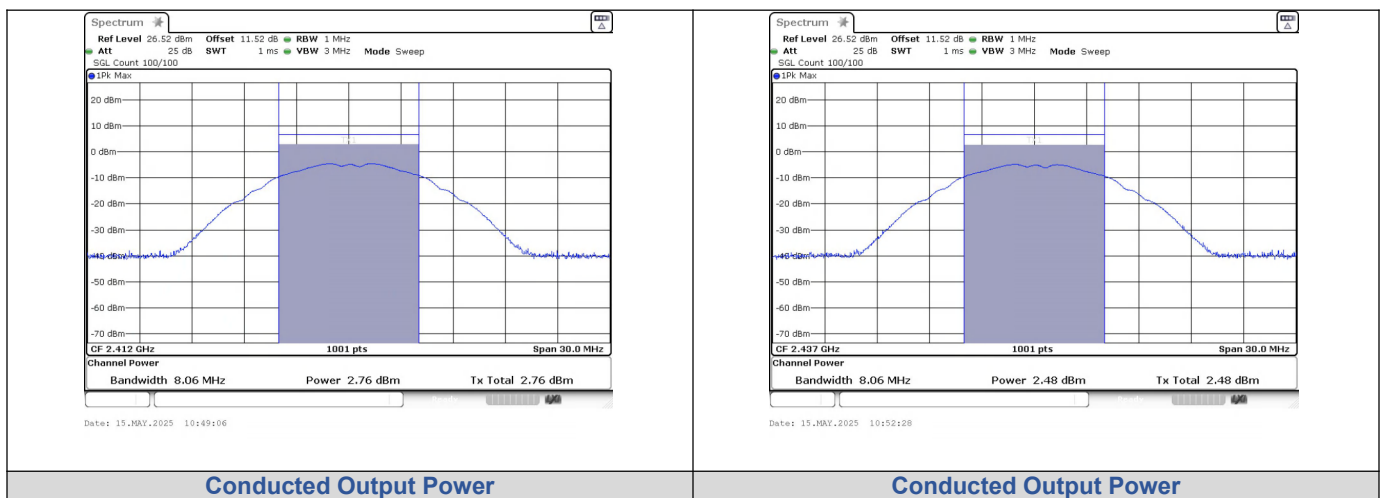
Conducted Output Power

Test Result

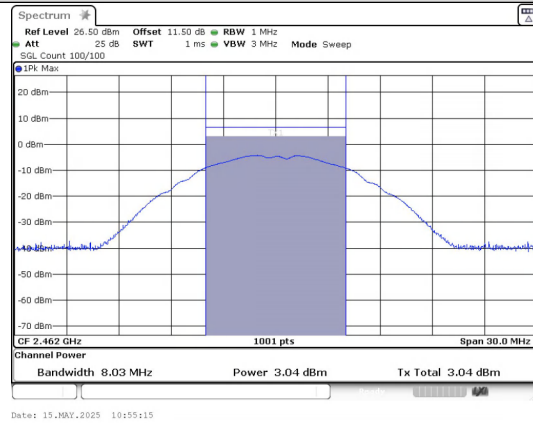
Conducted Output Power

Mode	Channel	Ant. 0 (dBm)	Limit (dBm)	Result
IEEE 802.11b	1	2.76	≤30	PASS
	6	2.48	≤30	PASS
	11	3.04	≤30	PASS
IEEE 802.11g	1	2.84	≤30	PASS
	6	2.54	≤30	PASS
	11	3.49	≤30	PASS
IEEE 802.11n_20	1	2.44	≤30	PASS
	6	2.40	≤30	PASS
	11	2.91	≤30	PASS
IEEE 802.11n_40	3	2.37	≤30	PASS
	6	2.27	≤30	PASS
	9	2.42	≤30	PASS

Test Graphs

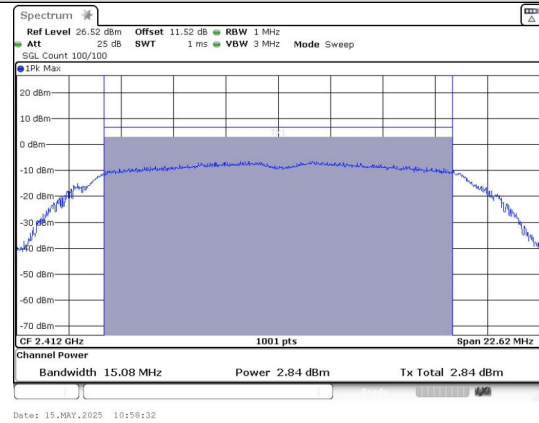


IEEE 802.11b_Channel 1_Antenna 0



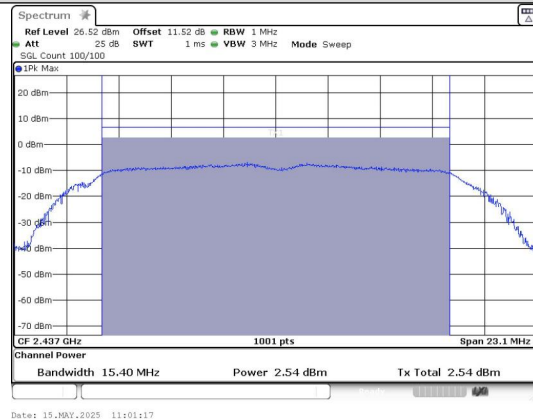
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IEEE 802.11b_Channel 6_Antenna 0



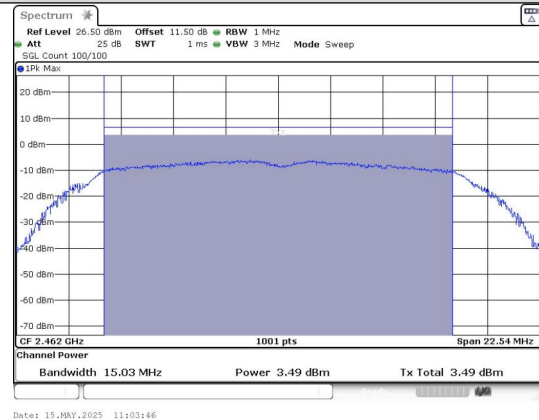
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Conducted Output Power IEEE 802.11b_Channel 11_Antenna 0



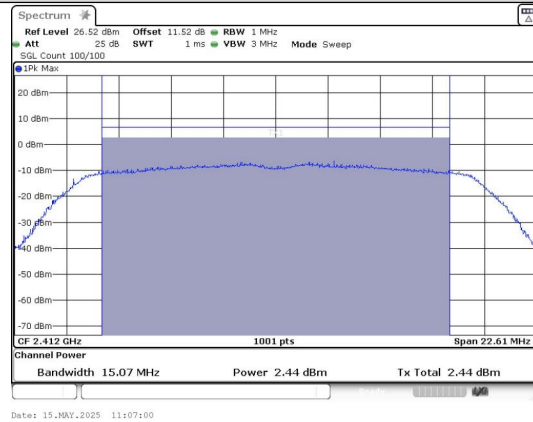
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Conducted Output Power IEEE 802.11g_Channel 1_Antenna 0



Date: 15.MAY.2025 11:03:46

Conducted Output Power IEEE 802.11g_Channel 6_Antenna 0



Date: 15.MAY.2025 11:07:00

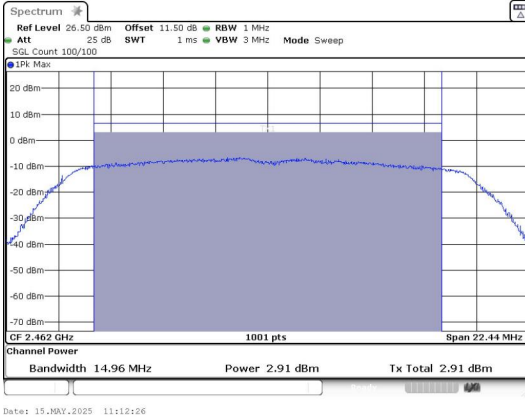
Conducted Output Power IEEE 802.11g_Channel 11_Antenna 0



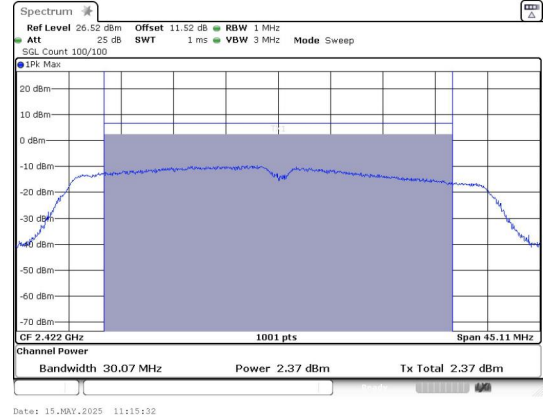
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Conducted Output Power IEEE 802.11n_20_Channel 1_Antenna 0

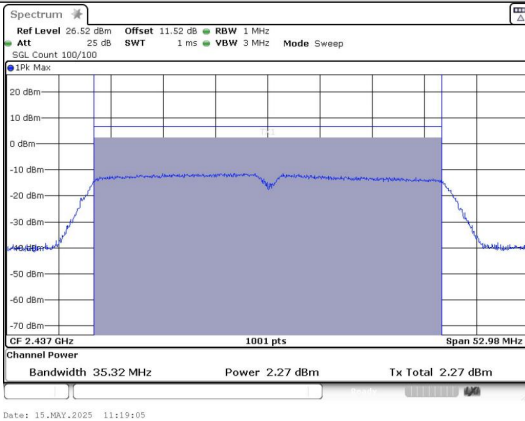
Conducted Output Power IEEE 802.11n_20_Channel 6_Antenna 0



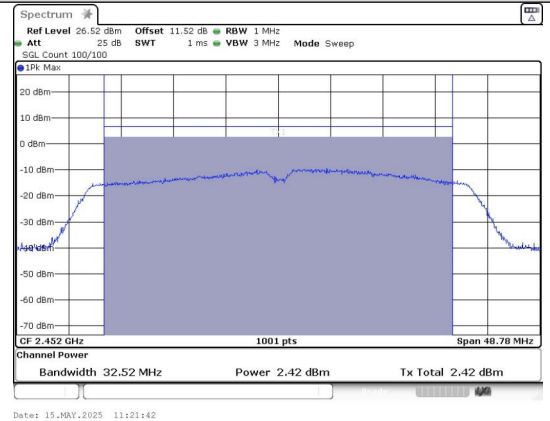
Conducted Output Power
IEEE 802.11n_20_Channel 11_Antenna 0



Conducted Output Power
IEEE 802.11n_40_Channel 3_Antenna 0



Conducted Output Power
IEEE 802.11n_40_Channel 6_Antenna 0



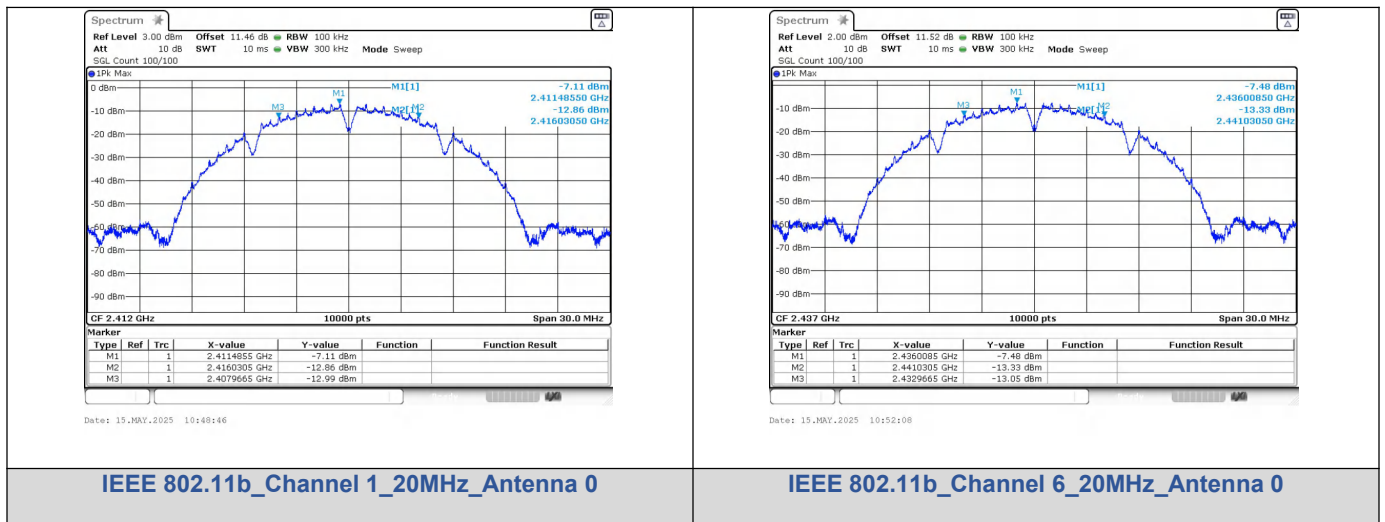
Conducted Output Power
IEEE 802.11n_40_Channel 9_Antenna 0

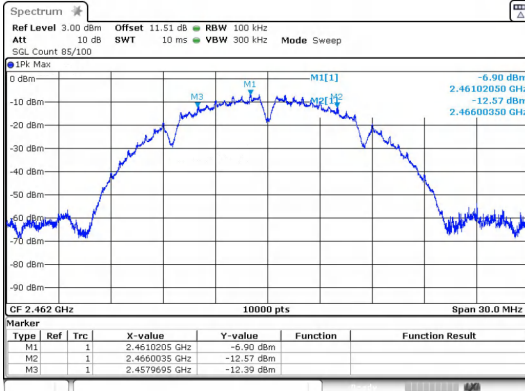
6dB Bandwidth

Test Result

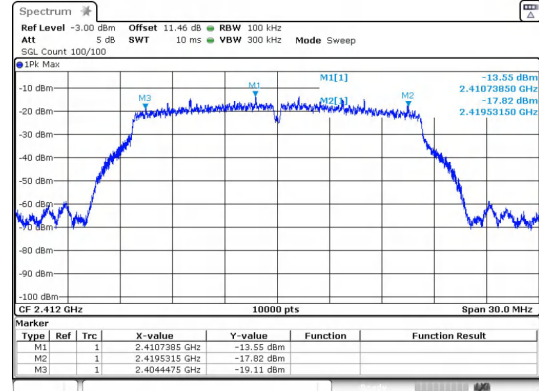
Mode	Channel	Ant.	Center Frequency (MHz)	6 dB Bandwidth (MHz)	Limit (MHz)	Result
IEEE 802.11b	1	0	2412	8.060	≥0.5	PASS
	6		2437	8.060		PASS
	11		2462	8.030		PASS
IEEE 802.11g	1		2412	15.08		PASS
	6		2437	15.40		PASS
	11		2462	15.03		PASS
IEEE 802.11n_20	1		2412	15.07		PASS
	6		2437	16.90		PASS
	11		2462	14.96		PASS
IEEE 802.11n_40	3		2422	30.07		PASS
	6		2437	35.32		PASS
	9		2452	32.52		PASS

Test Graphs



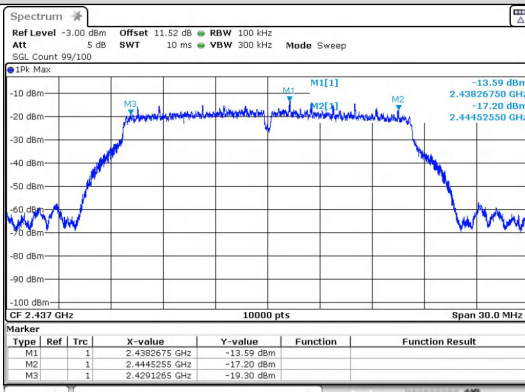


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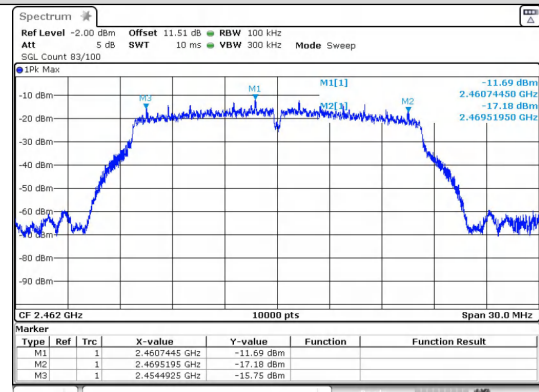
Date: 15.MAY.2025 10:58:12

IEEE 802.11b_Channel 11_20MHz_Antenna 0



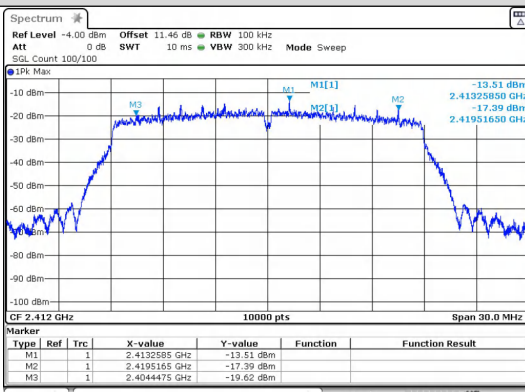
Date: 15.MAY.2025 11:00:57

IEEE 802.11g_Channel 1_20MHz_Antenna 0

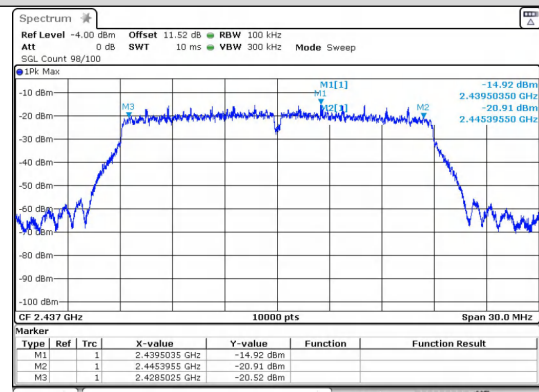


Date: 15.MAY.2025 11:03:25

IEEE 802.11g_Channel 6_20MHz_Antenna 0



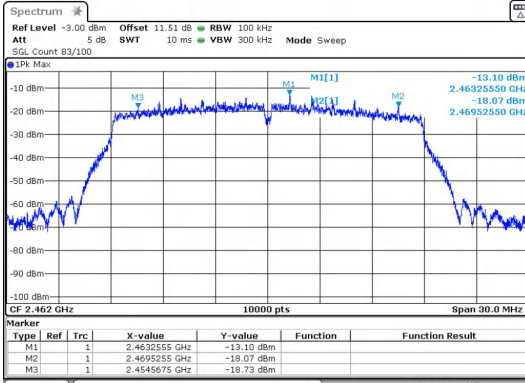
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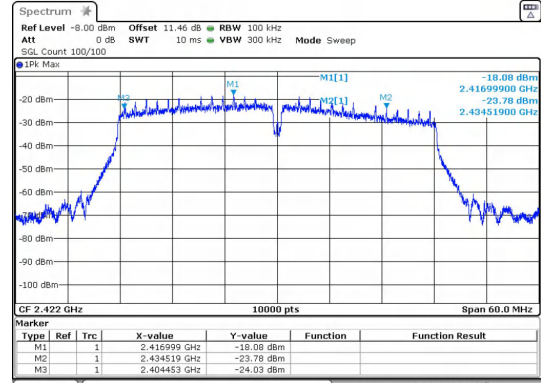
Date: 15.MAY.2025 11:09:35

IEEE 802.11n_Channel 1_20MHz_Antenna 0

IEEE 802.11n_Channel 6_20MHz_Antenna 0



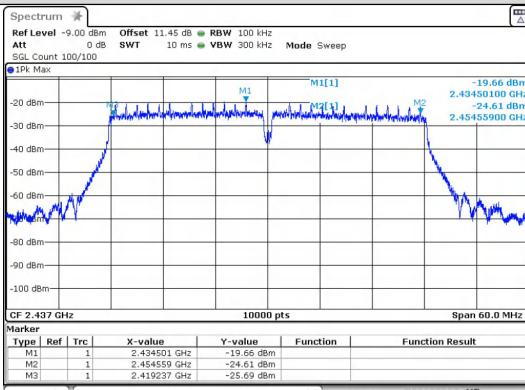
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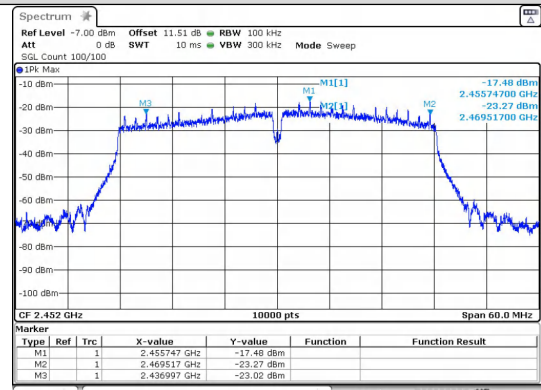
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IEEE 802.11n_Channel 11_20MHz_Antenna 0

IEEE 802.11n_Channel 3_40MHz_Antenna 0



Date: 15.MAY.2025 11:18:45



Date: 15.MAY.2025 11:21:22

IEEE 802.11n_Channel 6_40MHz_Antenna 0

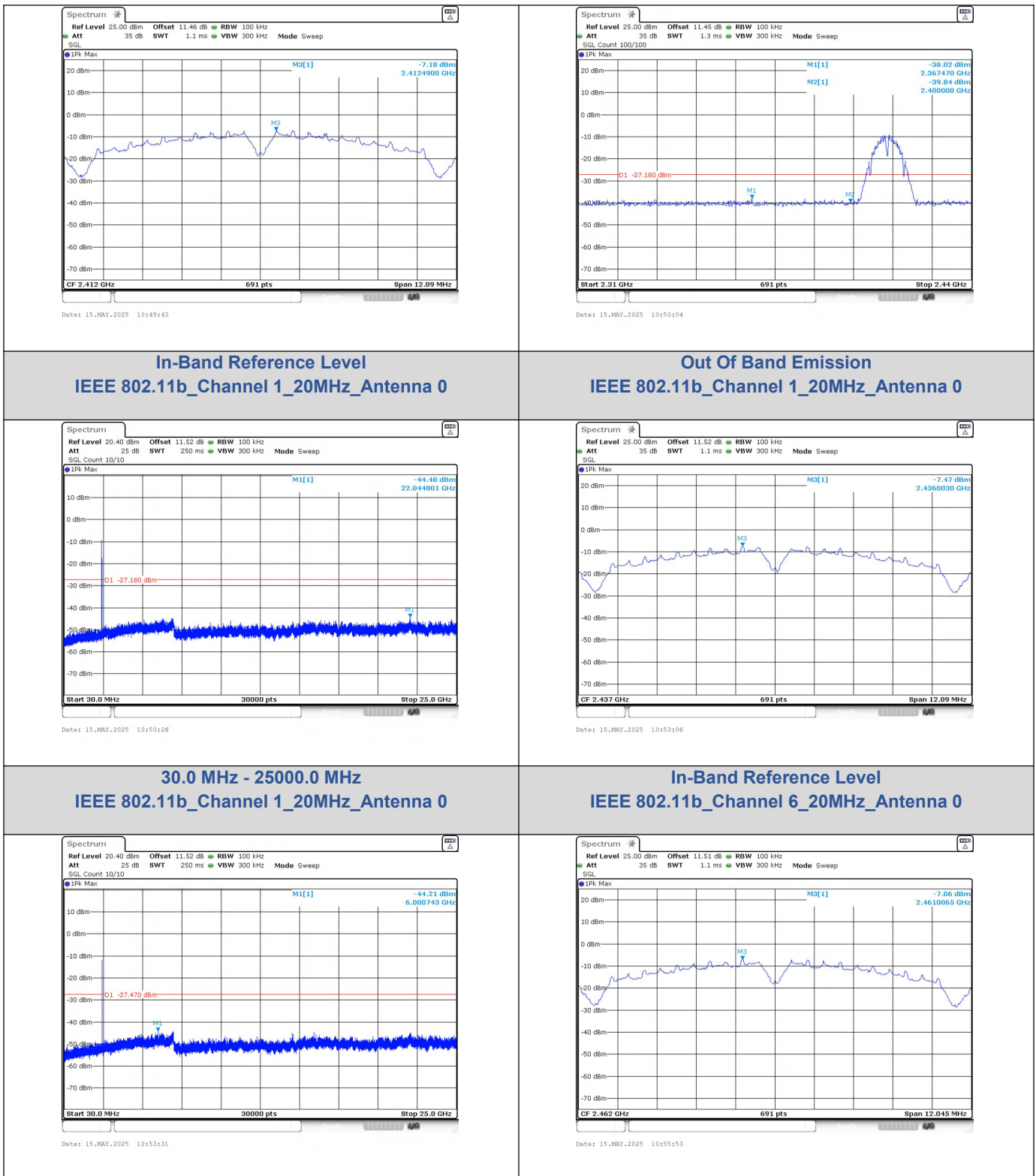
IEEE 802.11n_Channel 9_40MHz_Antenna 0

Conducted Out Of Band Emission

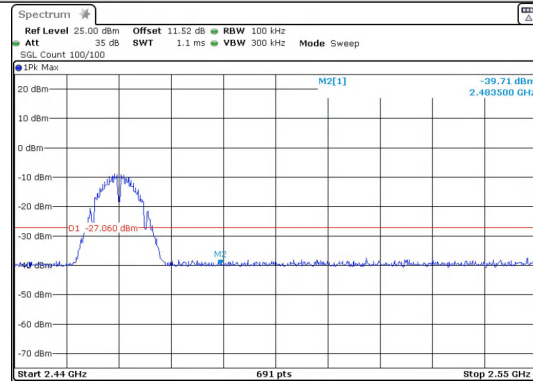
Test Result

Mode	Channel	Ant.	OOB Emission Frequency (MHz)	OOB Emission Level (dBm)	Limit (dBm)	Over Limit (dB)	Result
IEEE 802.11b	1	0	2367.47	-38.020	-27.18	-10.840	PASS
			2400.00	-39.840	-27.18	-12.660	PASS
			22044.8	-44.477	-27.18	-17.297	PASS
	6		6000.74	-44.210	-27.47	-16.740	PASS
	11		2483.50	-39.710	-27.06	-12.650	PASS
			21975.7	-44.995	-27.06	-17.935	PASS
IEEE 802.11g	1		2391.56	-38.093	-34.08	-4.013	PASS
			2400.00	-41.110	-34.08	-7.030	PASS
			6902.20	-43.818	-34.08	-9.738	PASS
	6		6973.74	-43.502	-34.12	-9.382	PASS
	11		2483.50	-39.680	-32.81	-6.870	PASS
			6972.91	-44.097	-32.81	-11.287	PASS
IEEE 802.11n_20	1		2377.26	-37.984	-33.53	-4.454	PASS
			2400.00	-40.870	-33.53	-7.340	PASS
			6901.30	-44.122	-33.53	-10.592	PASS
	6		22062.3	-43.695	-33.97	-9.725	PASS
	11		2483.50	-39.240	-32.82	-6.420	PASS
			6931.29	-44.109	-32.82	-11.289	PASS
IEEE 802.11n_40	3		2377.82	-37.544	-35.61	-1.934	PASS
			2400.00	-39.510	-35.61	-3.900	PASS
			6954.60	-43.875	-35.61	-8.265	PASS
	6		23880.9	-44.285	-38.84	-5.445	PASS
	9		2483.50	-39.290	-35.31	-3.980	PASS
			6262.10	-43.681	-35.31	-8.371	PASS

Test Graphs

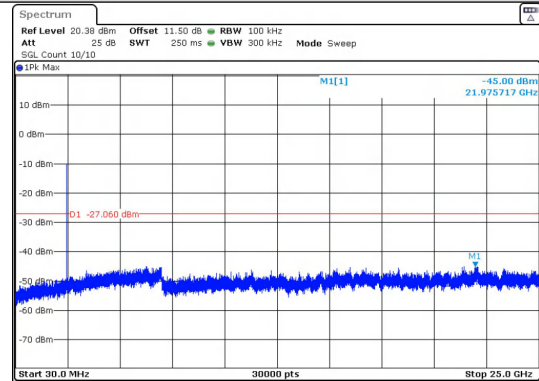


30.0 MHz - 25000.0 MHz
IEEE 802.11b_Channel 6_20MHz_Antenna 0



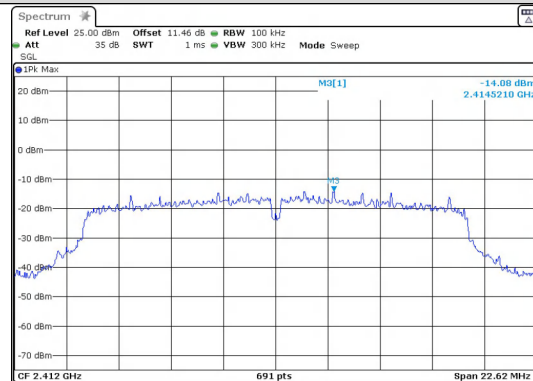
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In-Band Reference Level
IEEE 802.11b_Channel 11_20MHz_Antenna 0



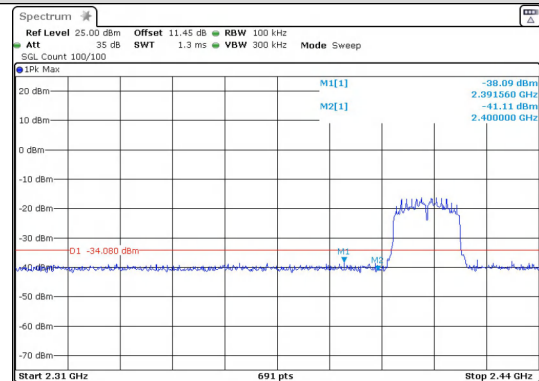
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Out Of Band Emission
IEEE 802.11b_Channel 11_20MHz_Antenna 0



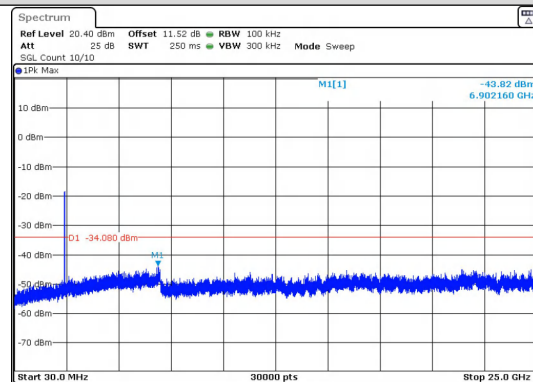
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30.0 MHz - 25000.0 MHz
IEEE 802.11b_Channel 11_20MHz_Antenna 0



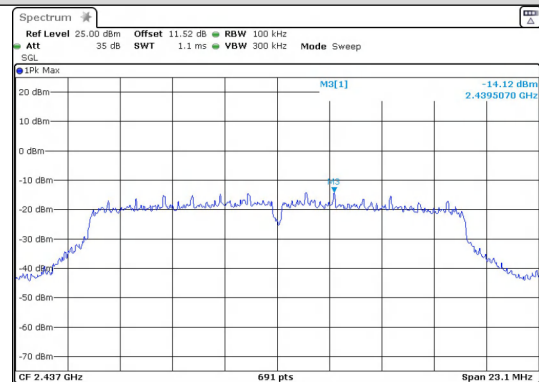
Date: 15.MAY.2025 10:59:32

In-Band Reference Level
IEEE 802.11g_Channel 1_20MHz_Antenna 0



Date: 15.MAY.2025 10:59:55

Out Of Band Emission
IEEE 802.11g_Channel 1_20MHz_Antenna 0

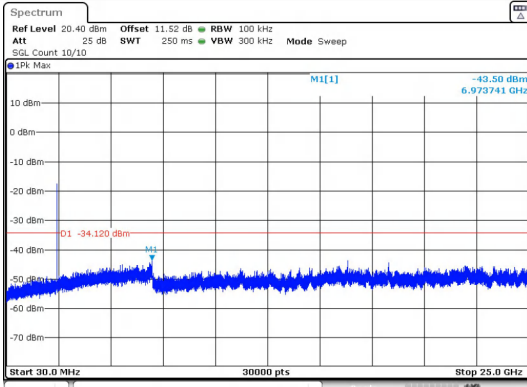


Date: 15.MAY.2025 11:01:57

30.0 MHz - 25000.0 MHz

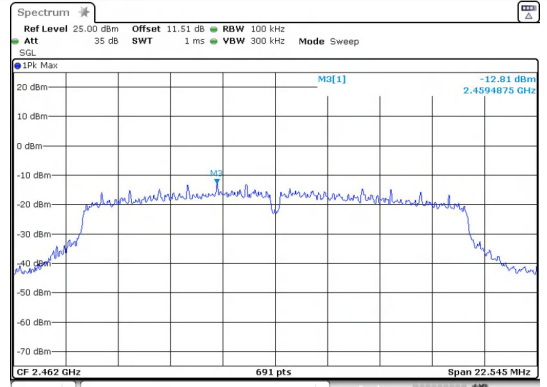
In-Band Reference Level

IEEE 802.11g_Channel 1_20MHz_Antenna 0



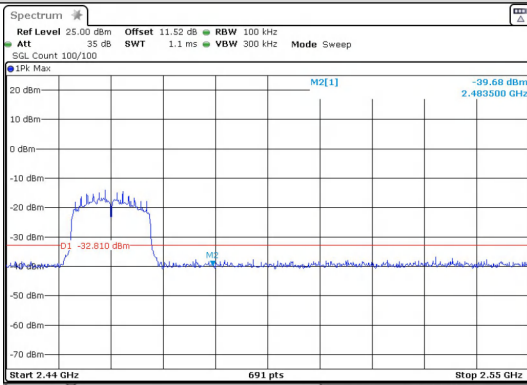
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IEEE 802.11g_Channel 6_20MHz_Antenna 0



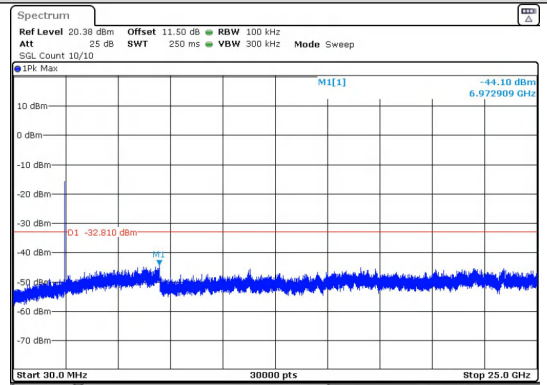
Date: 15.MAY.2025 11:04:25

30.0 MHz - 25000.0 MHz IEEE 802.11g_Channel 6_20MHz_Antenna 0



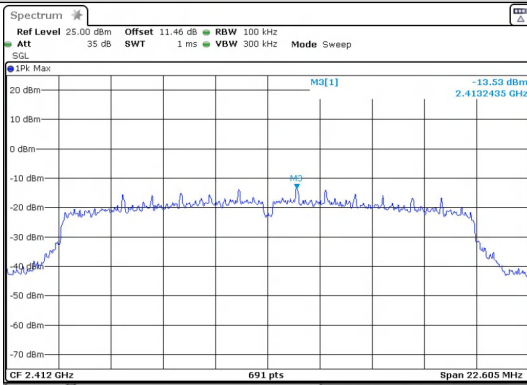
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In-Band Reference Level IEEE 802.11g_Channel 11_20MHz_Antenna 0



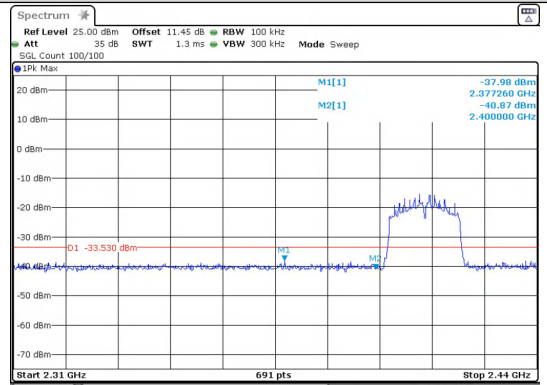
Date: 15.MAY.2025 11:05:08

Out Of Band Emission IEEE 802.11g_Channel 11_20MHz_Antenna 0



Date: 15.MAY.2025 11:07:40

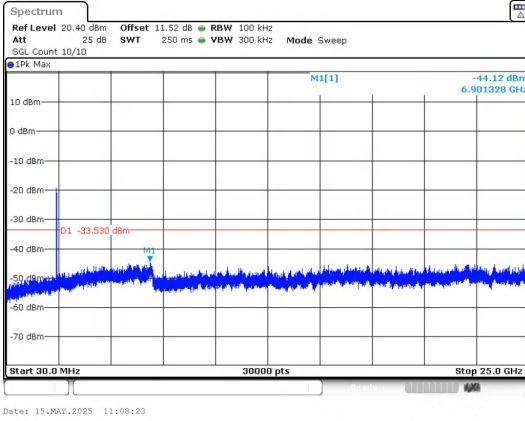
30.0 MHz - 25000.0 MHz IEEE 802.11g_Channel 11_20MHz_Antenna 0



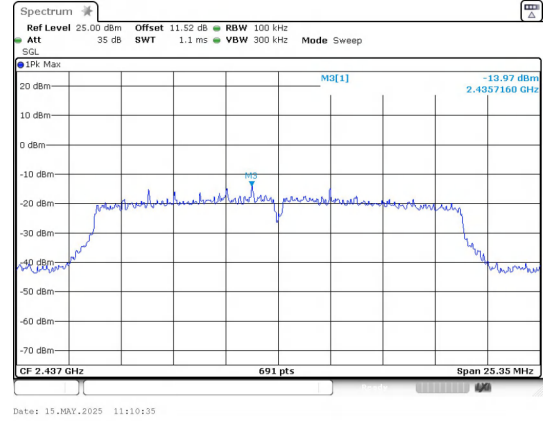
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In-Band Reference Level IEEE 802.11n_Channel 1_20MHz_Antenna 0

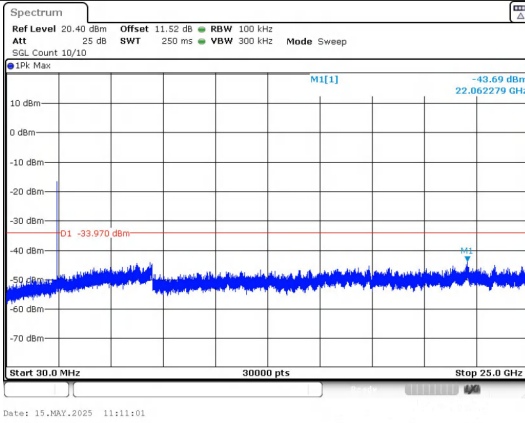
Out Of Band Emission IEEE 802.11n_Channel 1_20MHz_Antenna 0



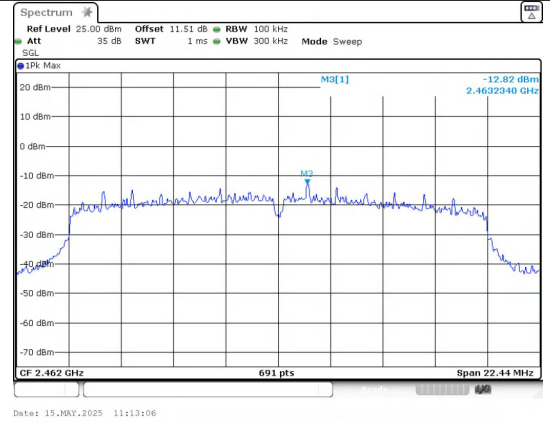
30.0 MHz - 25000.0 MHz
IEEE 802.11n_Channel 1_20MHz_Antenna 0



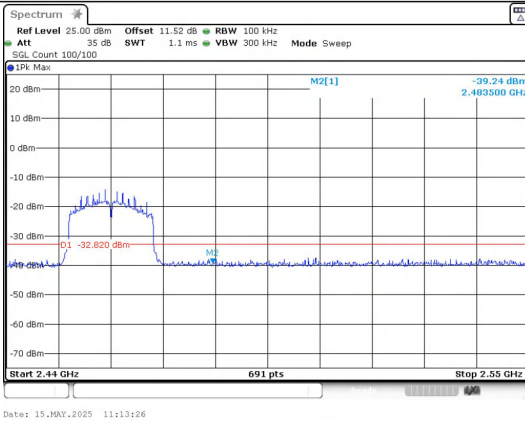
In-Band Reference Level
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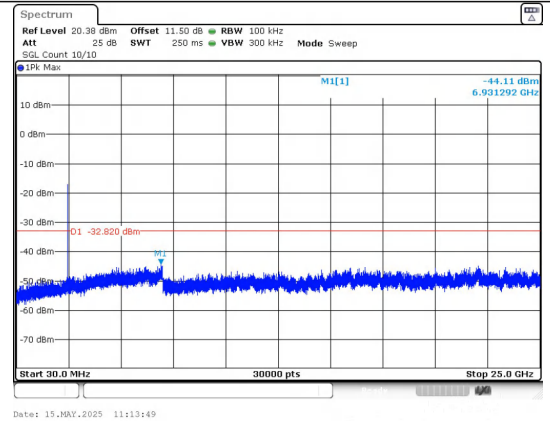
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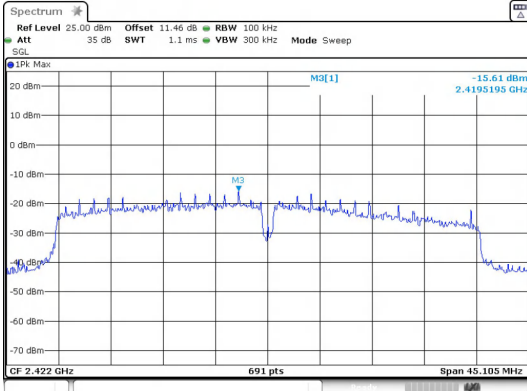
In-Band Reference Level
IEEE 802.11n_Channel 11_20MHz_Antenna 0



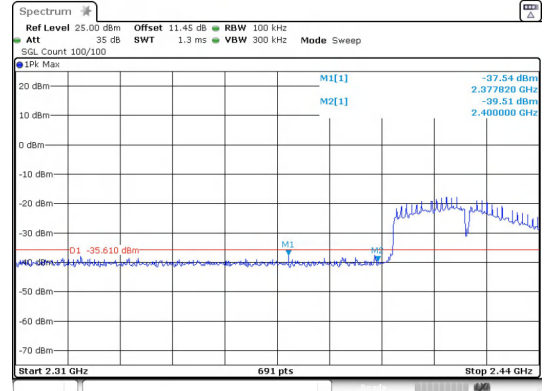
Out Of Band Emission
IEEE 802.11n_Channel 11_20MHz_Antenna 0



30.0 MHz - 25000.0 MHz
IEEE 802.11n_Channel 11_20MHz_Antenna 0



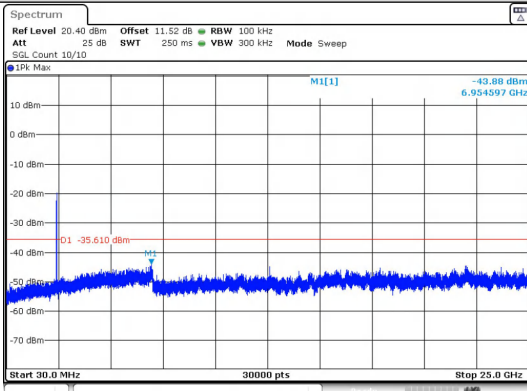
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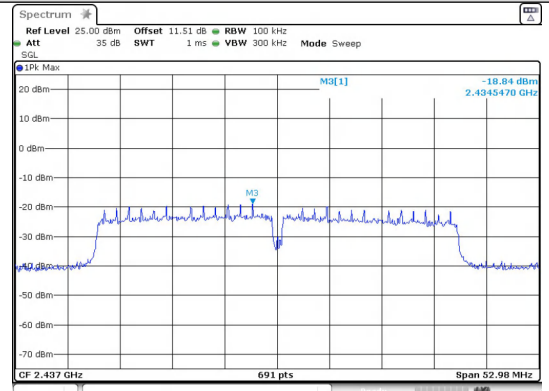
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In-Band Reference Level IEEE 802.11n_Channel 3_40MHz_Antenna 0

Out Of Band Emission IEEE 802.11n_Channel 3_40MHz_Antenna 0



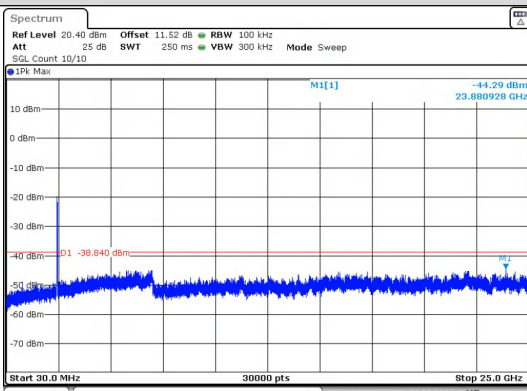
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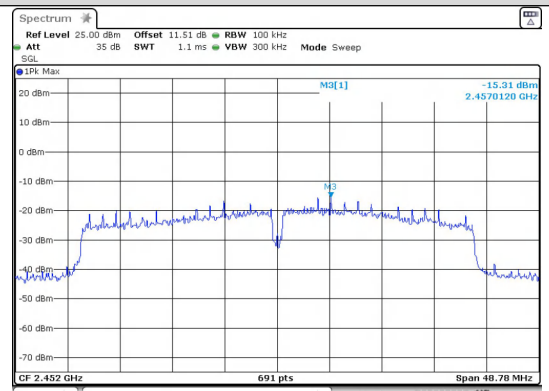
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30.0 MHz - 25000.0 MHz IEEE 802.11n_Channel 3_40MHz_Antenna 0

In-Band Reference Level IEEE 802.11n_Channel 6_40MHz_Antenna 0



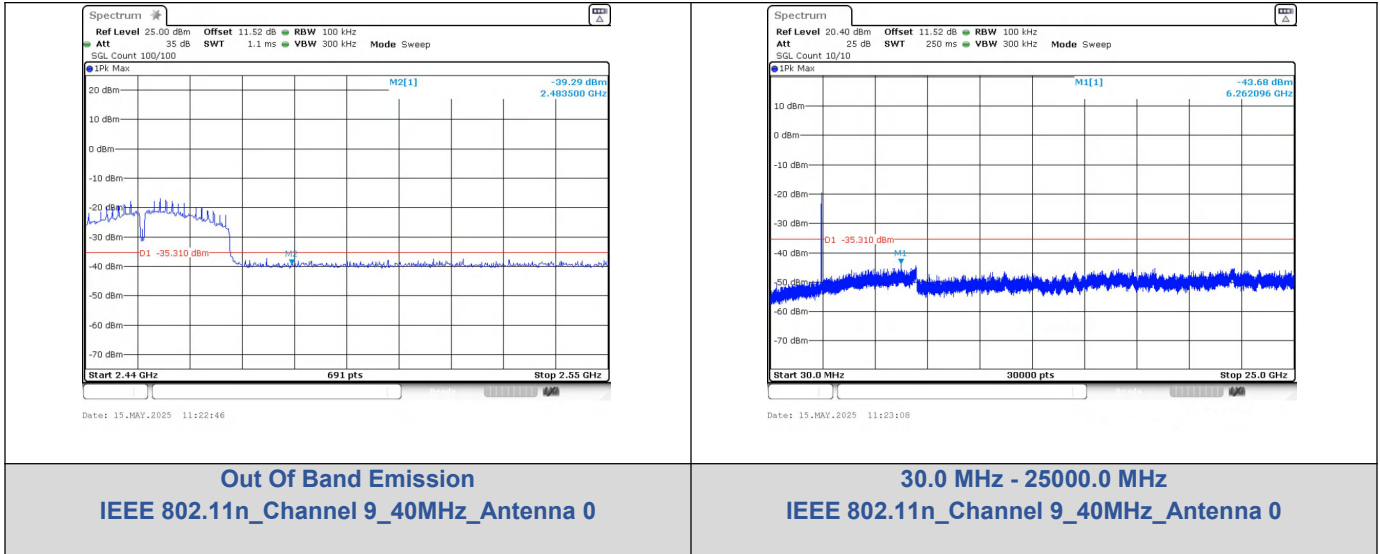
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Date: 15.MAY.2025 11:22:26

30.0 MHz - 25000.0 MHz IEEE 802.11n_Channel 6_40MHz_Antenna 0

In-Band Reference Level IEEE 802.11n_Channel 9_40MHz_Antenna 0



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