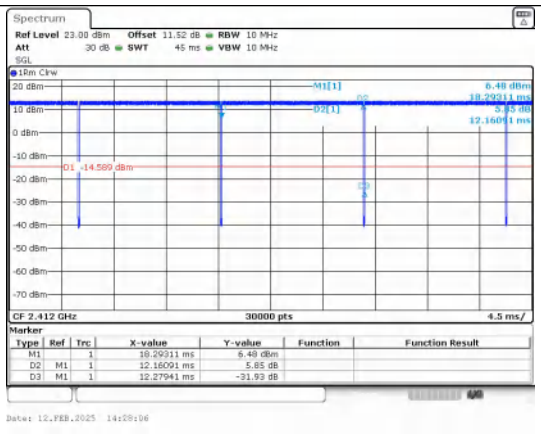
Appendix Report

Report No.:	CISRR25011311103
Test Engineer:	Mark Fu
Supervised by:	Rory Huang

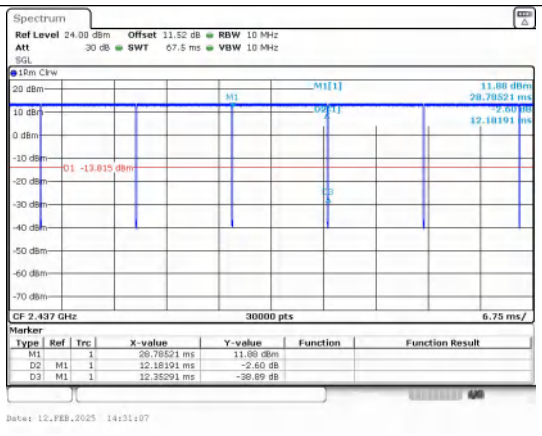
Test Result

Mode	Data rates	Channel	RU & Index	Antenna	On Time (ms)	Period (ms)	Duty Cycle (%)	Duty Cycle (linear)	Duty Cycle Factor (dB)	1/T
IEEE 802.11b	1	1	N/A	1	12.161	12.279	99.03	0.9903	0.0423	0.0822
		6			12.182	12.353	98.62	0.9862	0.0604	0.0821
		11			12.182	12.402	98.22	0.9822	0.078	0.0821
IEEE 802.11g		1			2.036	2.163	94.13	0.9413	0.2627	0.4912
		6			2.036	2.159	94.30	0.9430	0.2549	0.4912
		11			2.036	2.244	90.73	0.9073	0.4225	0.4912
IEEE 802.11n_20	MCS 0	1			0.546	0.675	80.90	0.8090	0.9205	1.8315
		6			0.546	0.671	81.38	0.8138	0.8948	1.8315
		11			0.546	0.692	78.82	0.7882	1.0336	1.8315
IEEE 802.11n_40		3			0.526	0.926	56.84	0.5684	2.4535	1.9011
		6			0.526	0.890	59.09	0.5909	2.2849	1.9011
		9			0.526	0.650	80.92	0.8092	0.9194	1.9011
IEEE 802.11ax_20		1	SU		0.520	0.648	80.12	0.8012	0.9626	1.9231
		6			0.520	0.662	78.46	0.7846	1.0535	1.9231
		11			0.520	0.657	79.04	0.7904	1.0215	1.9231
IEEE 802.11ax_40		3			0.292	0.465	62.72	0.6272	2.0259	3.4247
		6			0.292	0.519	56.21	0.5621	2.5019	3.4247
		9			0.292	0.492	59.30	0.5930	2.2695	3.4247

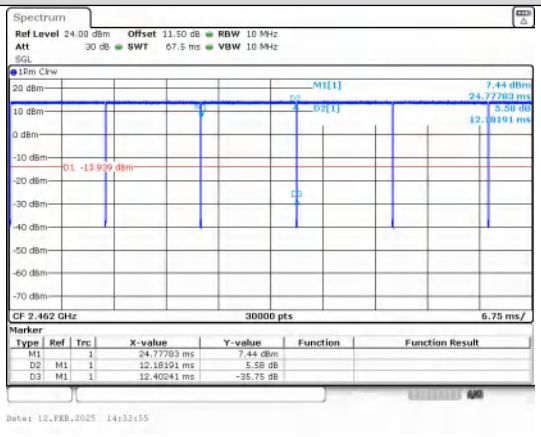
Test Graphs



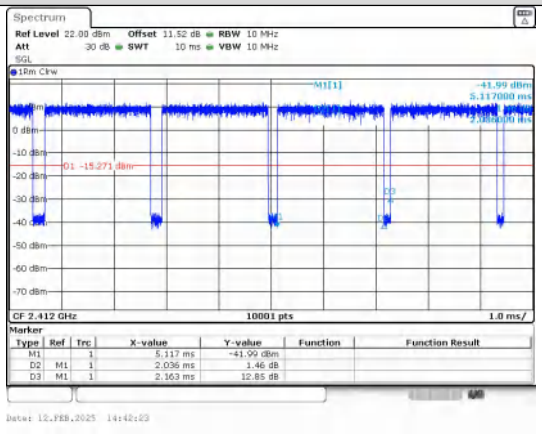
IEEE 802.11b_20MHz_Channel 1



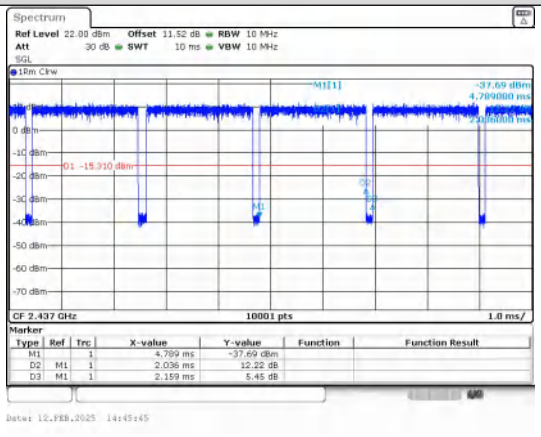
IEEE 802.11b_20MHz_Channel 6



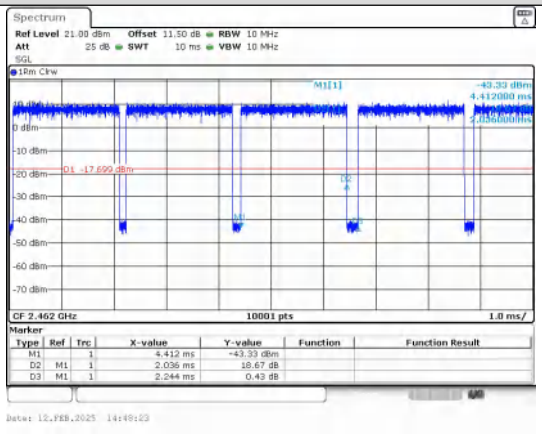
IEEE 802.11b_20MHz_Channel 11



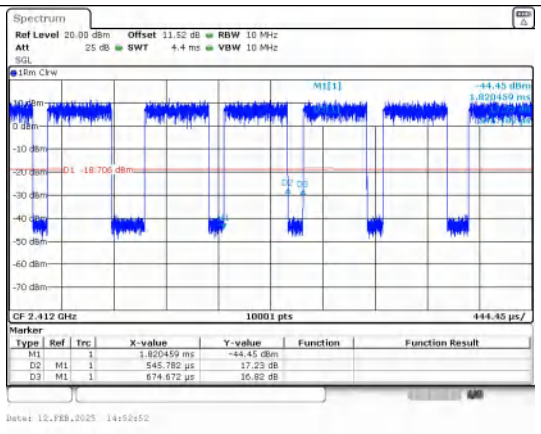
IEEE 802.11g_20MHz_Channel 1



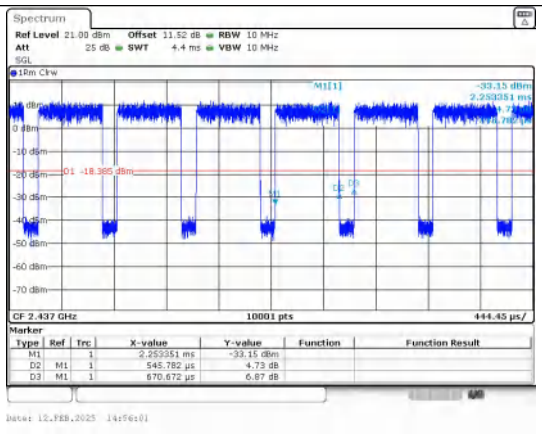
IEEE 802.11g_20MHz_Channel 6



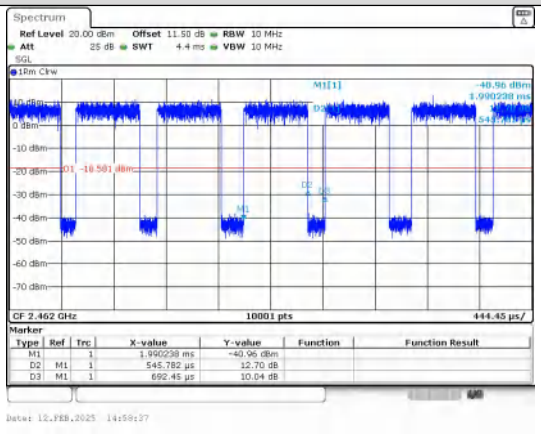
IEEE 802.11g_20MHz_Channel 11



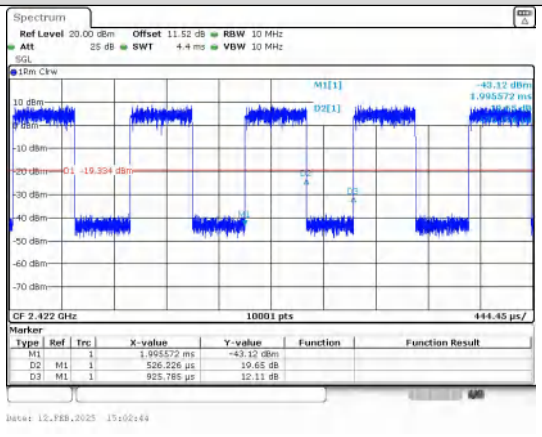
IEEE 802.11n_20MHz_Channel 1



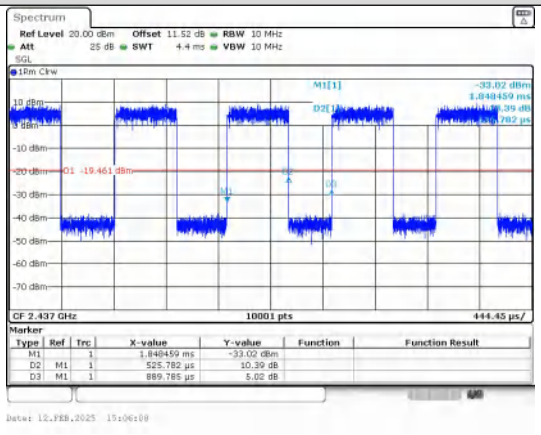
IEEE 802.11n_20MHz_Channel 6



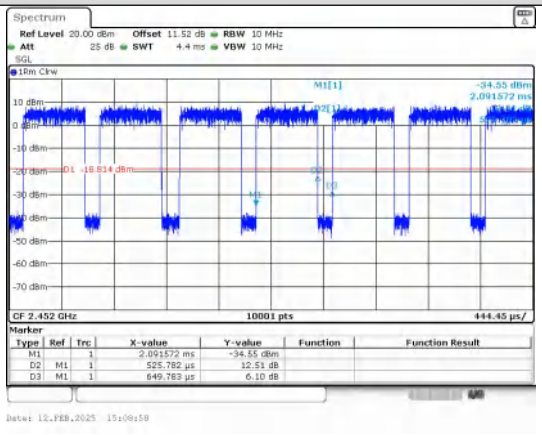
IEEE 802.11n_20MHz_Channel 11



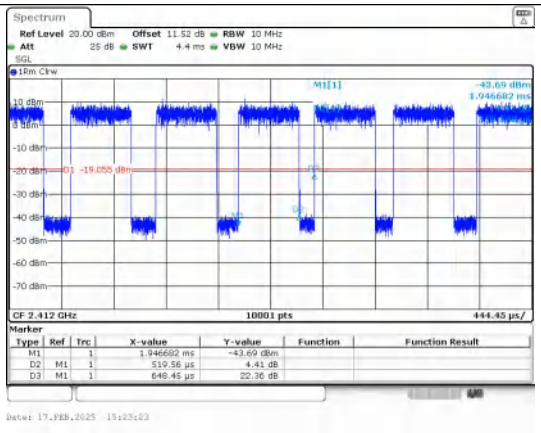
IEEE 802.11n_40MHz_Channel 3



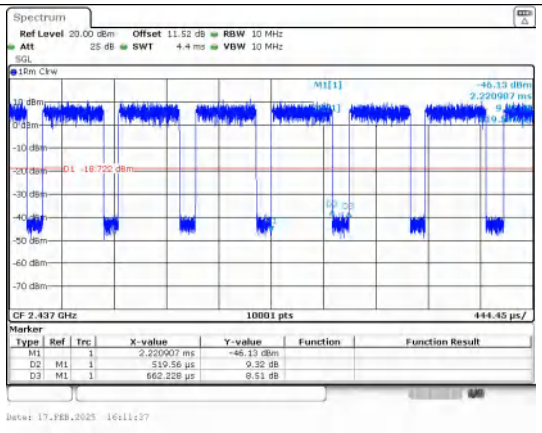
IEEE 802.11n_40MHz_Channel 6



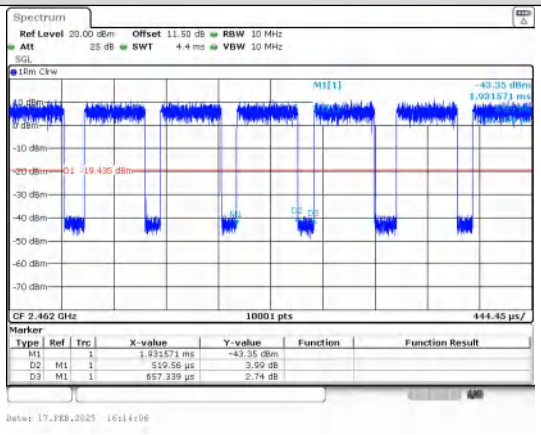
IEEE 802.11n_40MHz_Channel 9



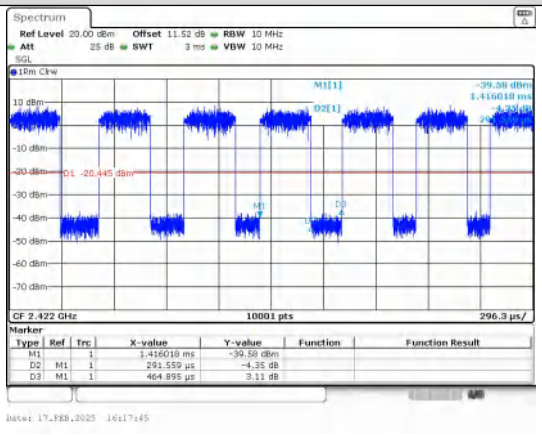
IEEE 802.11ax_20MHz_Channel 1



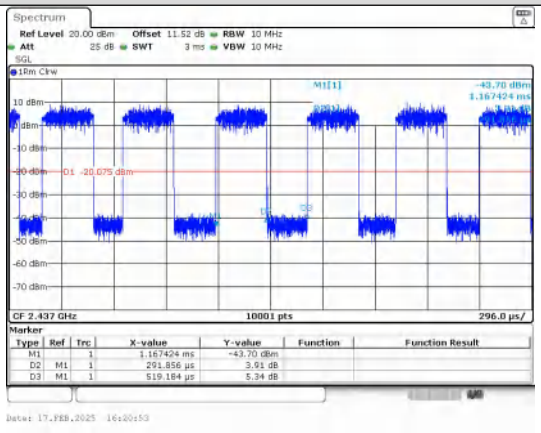
IEEE 802.11ax_20MHz_Channel 6



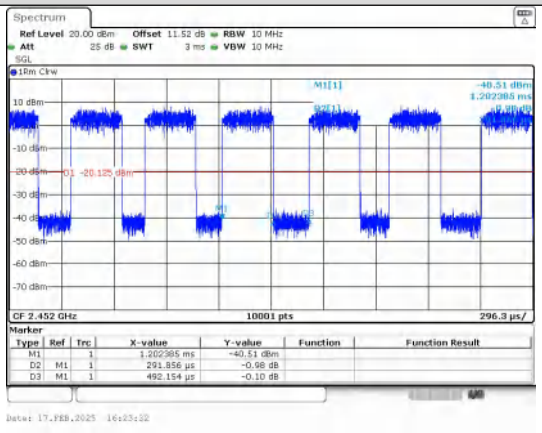
IEEE 802.11ax_20MHz_Channel 11



IEEE 802.11ax_40MHz_Channel 3



IEEE 802.11ax_40MHz_Channel 6



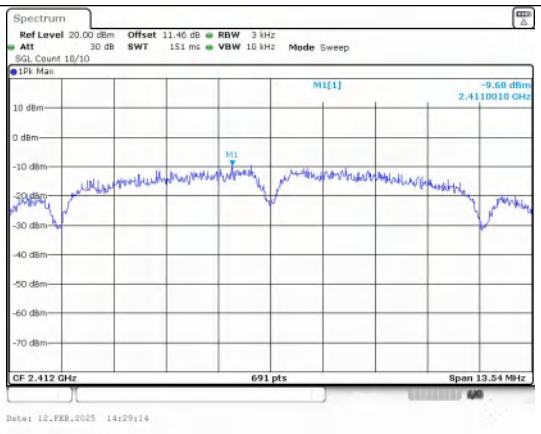
IEEE 802.11ax_40MHz_Channel 9

Power Spectral Density

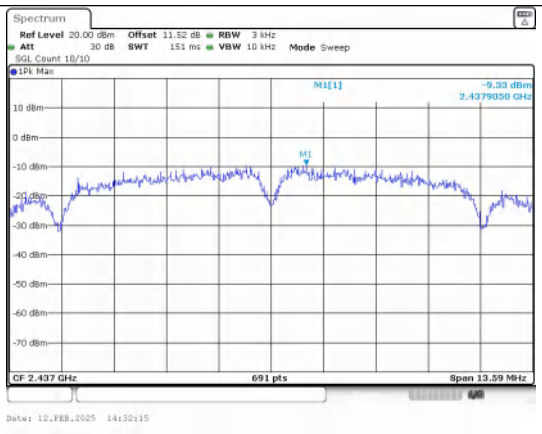
Test Result

Mode	Channel	RU & Index	PSD (dBm/3kHz) Ant. 0	Limit (dBm/3kHz)	Result
IEEE 802.11b	1	N/A	-9.680	≤8	PASS
	6		-9.330		PASS
	11		-8.690		PASS
IEEE 802.11g	1		-15.030		PASS
	6		-14.730		PASS
	11		-15.640		PASS
IEEE 802.11n_20	1		-16.070		PASS
	6		-16.000		PASS
	11		-17.520		PASS
IEEE 802.11n_40	3		-19.120		PASS
	6		-17.980		PASS
	9		-19.300		PASS
IEEE 802.11ax_20	1	SU	-19.160		PASS
	6		-18.900		PASS
	11		-18.220		PASS
IEEE 802.11ax_40	3		-22.500		PASS
	6		-20.270		PASS
	9		-22.620		PASS

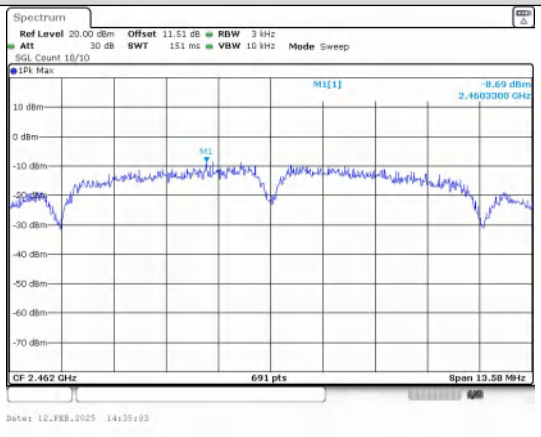
Test Graphs



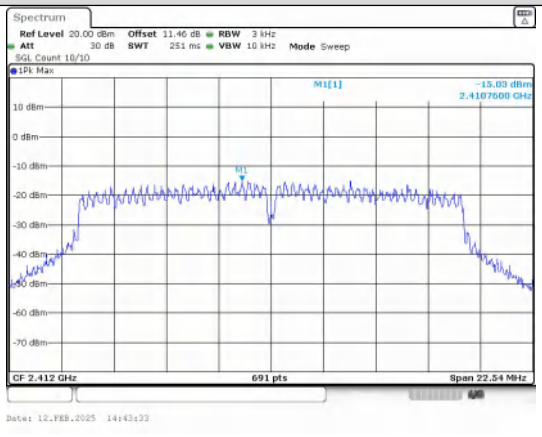
IEEE 802.11b_Channel 1_20MHz_Antenna 0



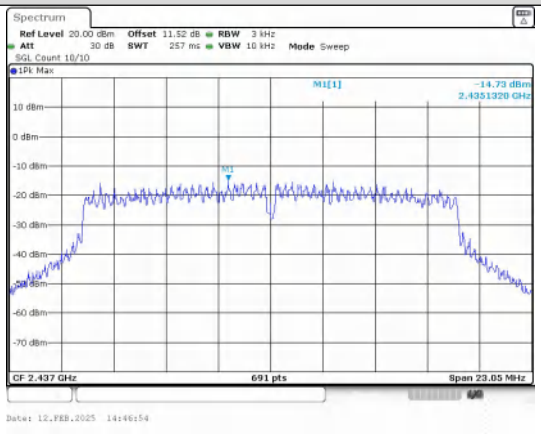
IEEE 802.11b_Channel 6_20MHz_Antenna 0



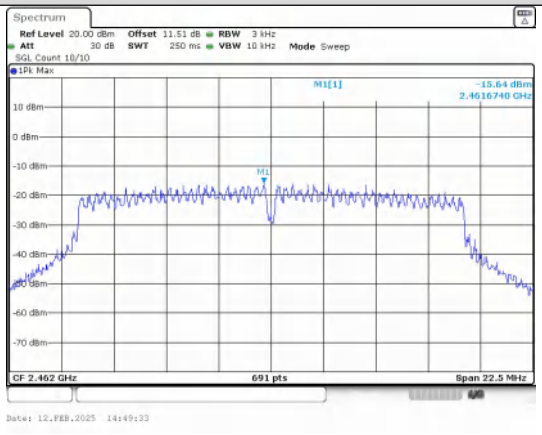
IEEE 802.11b_Channel 11_20MHz_Antenna 0



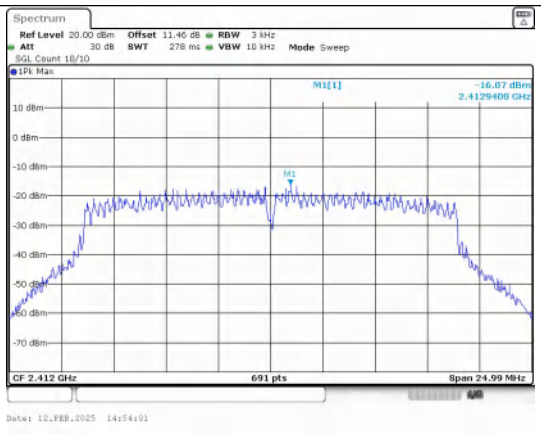
IEEE 802.11g_Channel 1_20MHz_Antenna 0



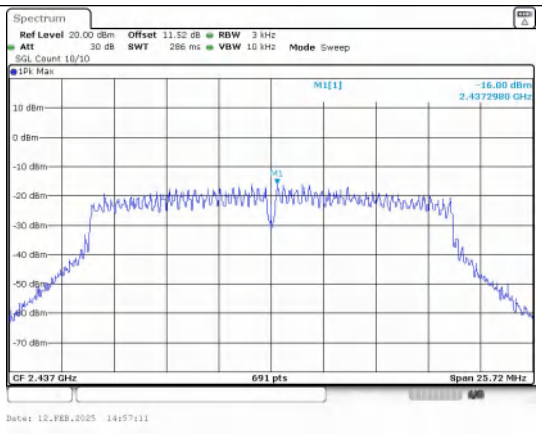
IEEE 802.11g_Channel 6_20MHz_Antenna 0



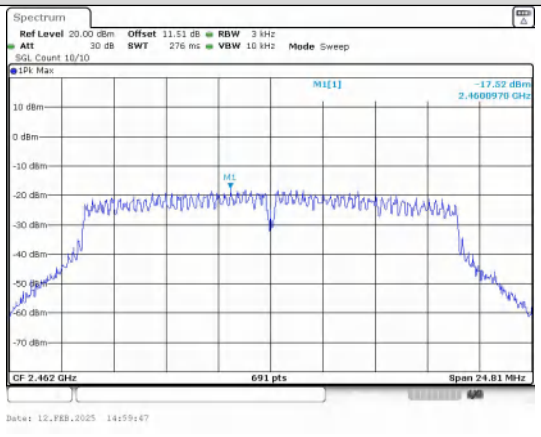
IEEE 802.11g_Channel 11_20MHz_Antenna 0



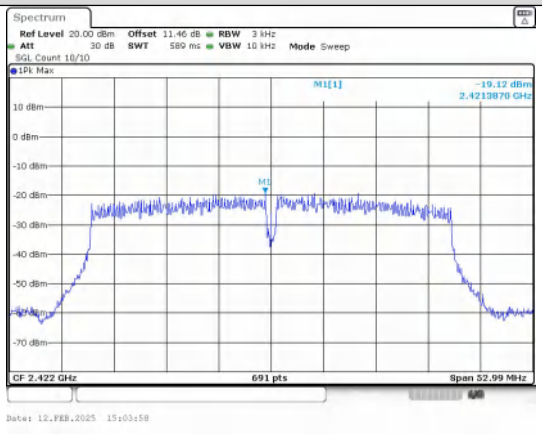
IEEE 802.11n_Channel 1_20MHz_Antenna 0



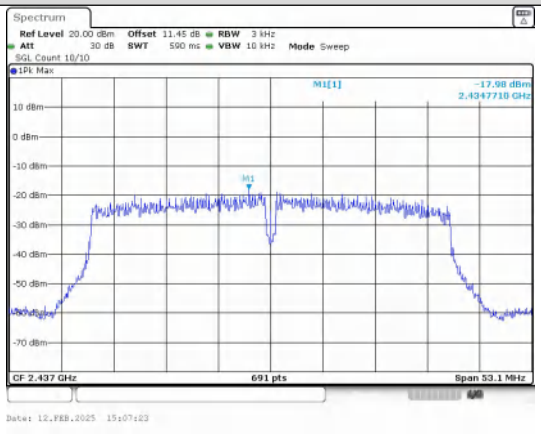
IEEE 802.11n_Channel 6_20MHz_Antenna 0



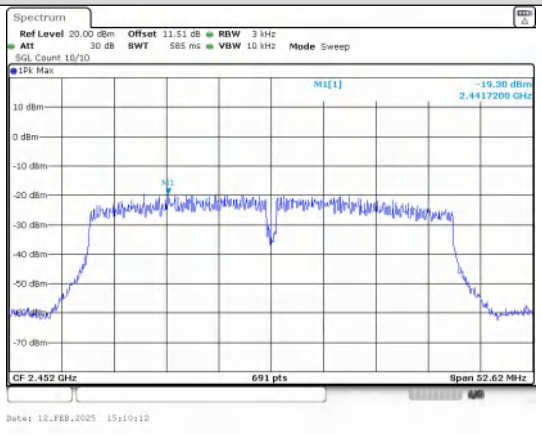
IEEE 802.11n_Channel 11_20MHz_Antenna 0



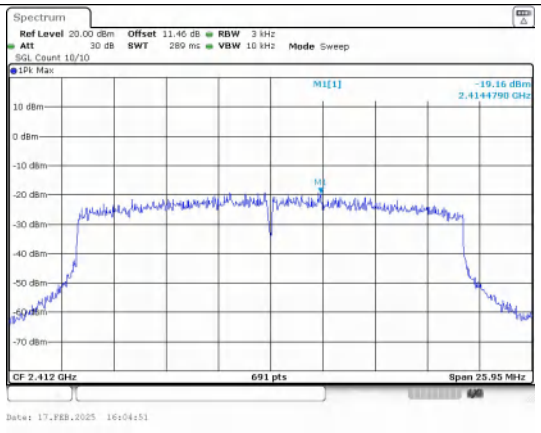
IEEE 802.11n_Channel 3_40MHz_Antenna 0



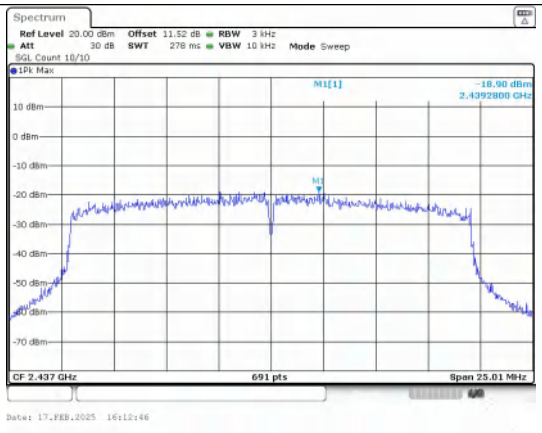
IEEE 802.11n_Channel 6_40MHz_Antenna 0



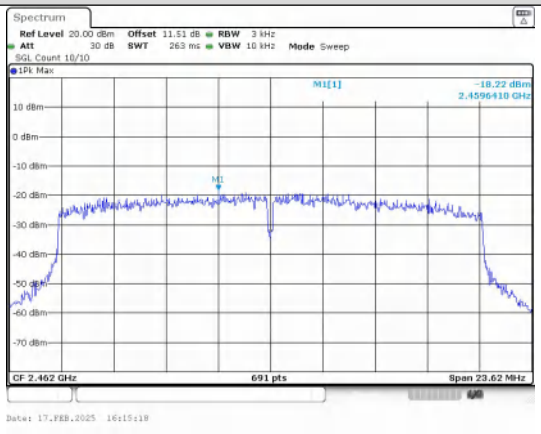
IEEE 802.11n_Channel 9_40MHz_Antenna 0



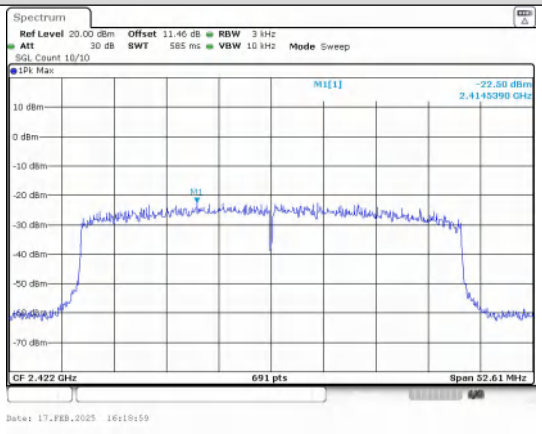
IEEE 802.11ax_Channel 1_20MHz_Antenna 0_RU&Index SU



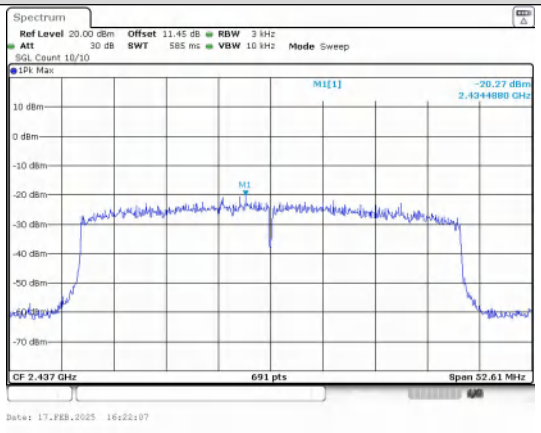
IEEE 802.11ax_Channel 6_20MHz_Antenna 0_RU&Index SU



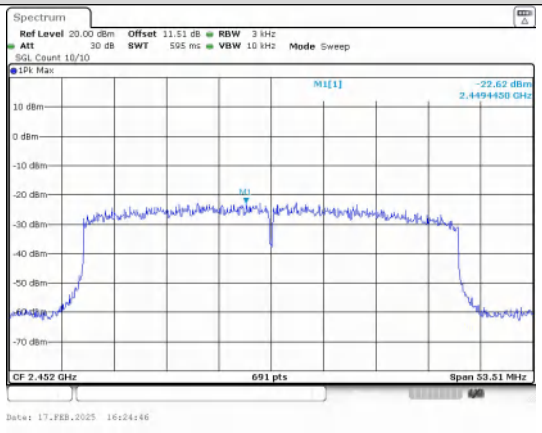
IEEE 802.11ax_Channel 11_20MHz_Antenna 0_RU&Index SU



IEEE 802.11ax_Channel 3_40MHz_Antenna 0_RU&Index SU



IEEE 802.11ax_Channel 6_40MHz_Antenna 0_RU&Index SU



IEEE 802.11ax_Channel 9_40MHz_Antenna 0_RU&Index SU

Conducted Output Power

Test Result

Conducted Output Power

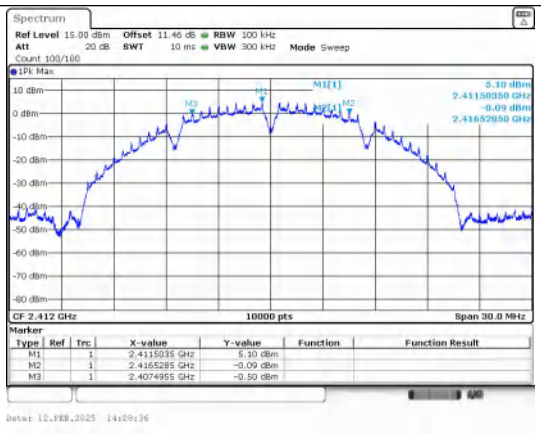
Mode	Channel	Ant. 0 (dBm)	Limit (dBm)	Result
IEEE 802.11b	1	16.24	≤30	PASS
	6	16.48	≤30	PASS
	11	17.11	≤30	PASS
IEEE 802.11g	1	18.28	≤30	PASS
	6	18.10	≤30	PASS
	11	17.41	≤30	PASS
IEEE 802.11n_20	1	16.97	≤30	PASS
	6	17.58	≤30	PASS
	11	16.62	≤30	PASS
IEEE 802.11n_40	3	17.53	≤30	PASS
	6	17.89	≤30	PASS
	9	17.50	≤30	PASS
IEEE 802.11ax_20	1	15.93	≤30	PASS
	6	16.38	≤30	PASS
	11	16.52	≤30	PASS
IEEE 802.11ax_40	3	16.11	≤30	PASS
	6	16.91	≤30	PASS
	9	16.31	≤30	PASS

6dB Bandwidth

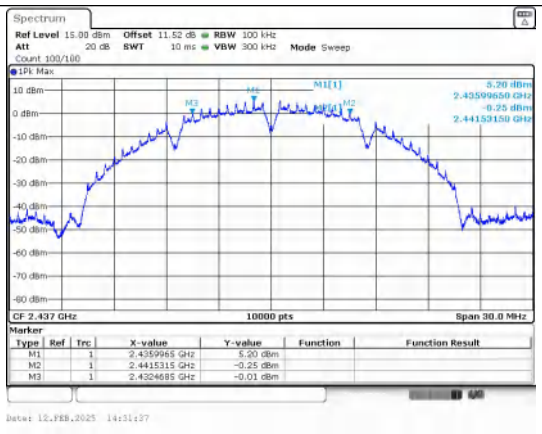
Test Result

Mode	Channel	RU & Index	Ant.	Center Frequency (MHz)	6 dB Bandwidth (MHz)	Limit (MHz)	Result
IEEE 802.11b	1	N/A	0	2412	9.030	≥0.5	PASS
	6			2437	9.060		PASS
	11			2462	9.050		PASS
IEEE 802.11g	1			2412	15.03		PASS
	6			2437	15.37		PASS
	11			2462	15.00		PASS
IEEE 802.11n_20	1			2412	16.66		PASS
	6			2437	17.15		PASS
	11			2462	16.54		PASS
IEEE 802.11n_40	3			2422	35.33		PASS
	6			2437	35.40		PASS
	9			2452	35.08		PASS
IEEE 802.11ax_20	1	SU		2412	17.30		PASS
	6			2437	16.67		PASS
	11			2462	15.75		PASS
IEEE 802.11ax_40	3			2422	35.07		PASS
	6			2437	35.07		PASS
	9			2452	35.67		PASS

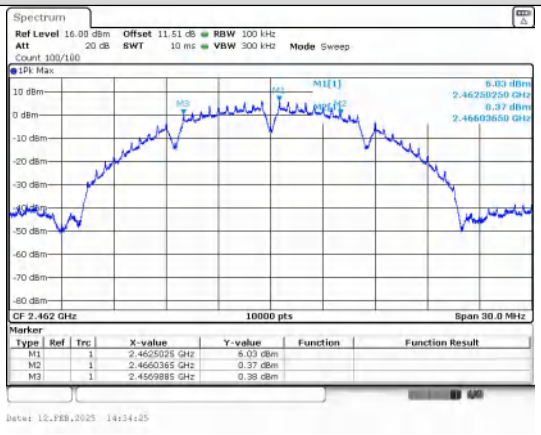
Test Graphs



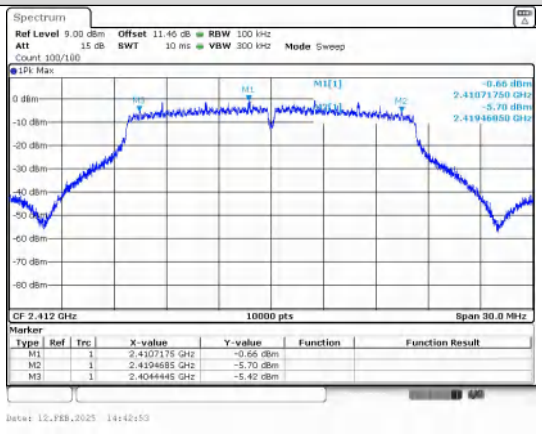
IEEE 802.11b_Channel 1_20MHz_Antenna 0



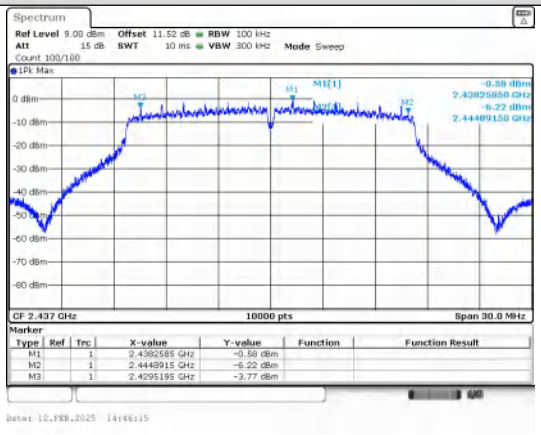
IEEE 802.11b_Channel 6_20MHz_Antenna 0



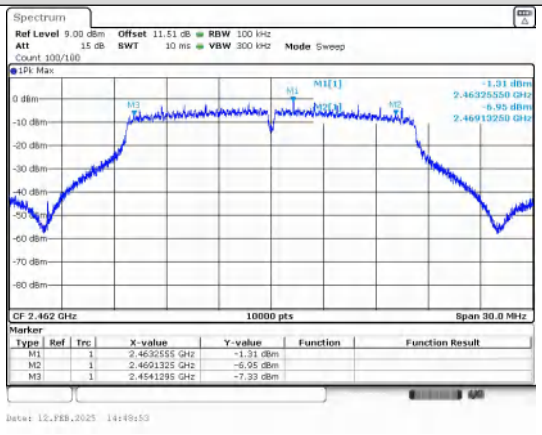
IEEE 802.11b_Channel 11_20MHz_Antenna 0



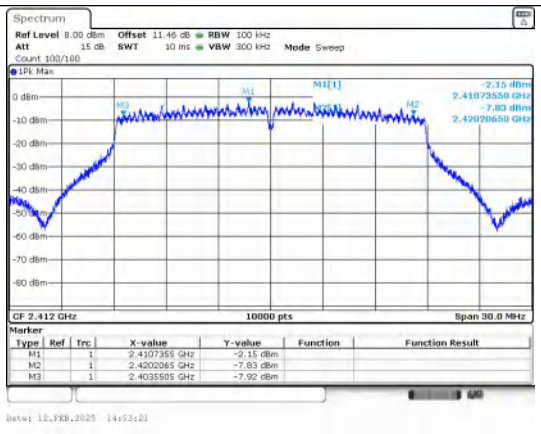
IEEE 802.11g_Channel 1_20MHz_Antenna 0



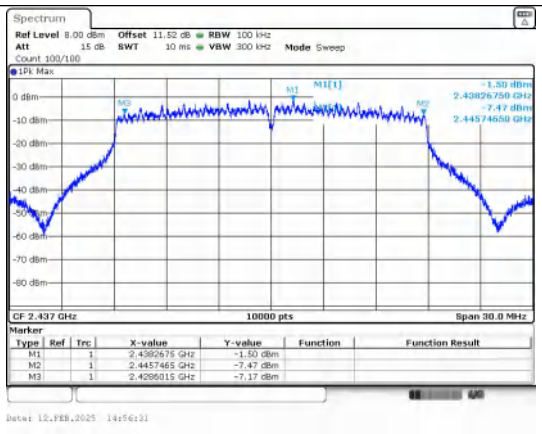
IEEE 802.11g_Channel 6_20MHz_Antenna 0



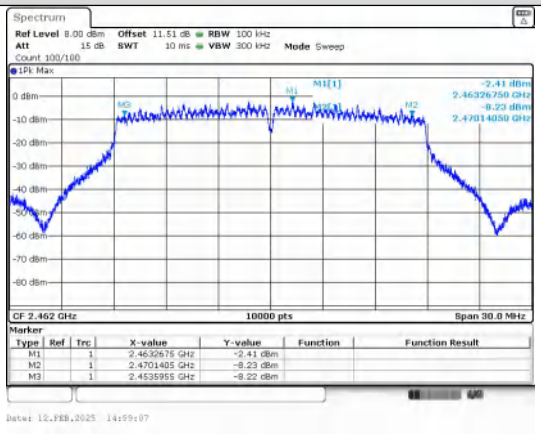
IEEE 802.11g_Channel 11_20MHz_Antenna 0



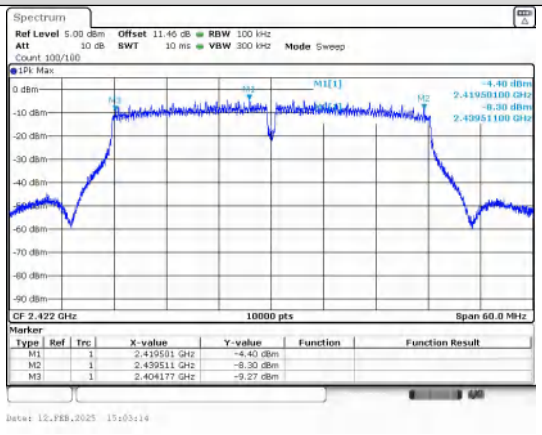
IEEE 802.11n_Channel 1_20MHz_Antenna 0



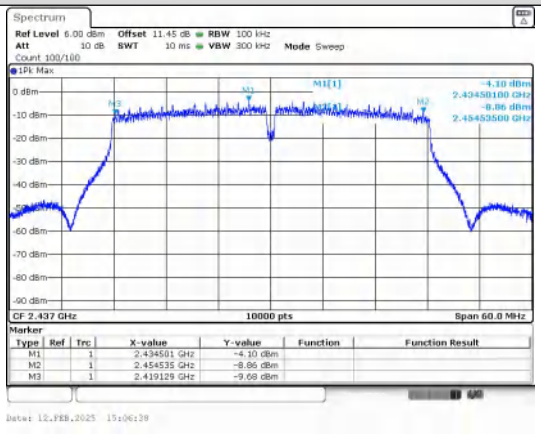
IEEE 802.11n_Channel 6_20MHz_Antenna 0



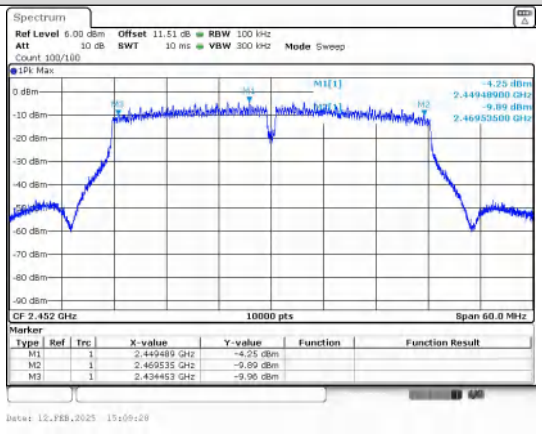
IEEE 802.11n_Channel 11_20MHz_Antenna 0



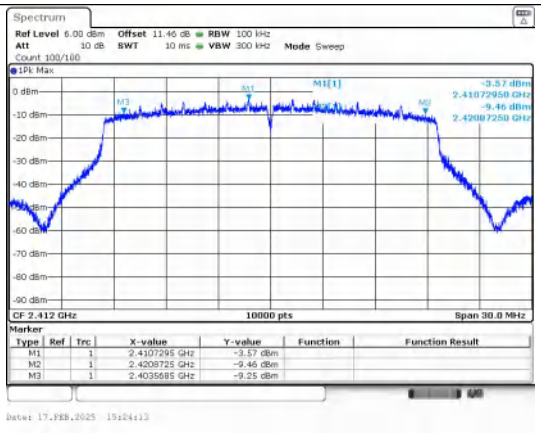
IEEE 802.11n_Channel 3_40MHz_Antenna 0



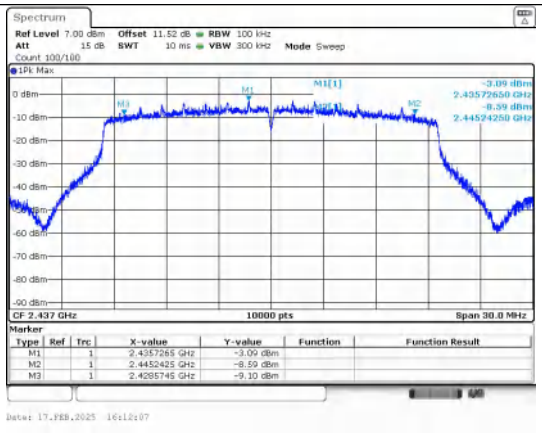
IEEE 802.11n_Channel 6_40MHz_Antenna 0



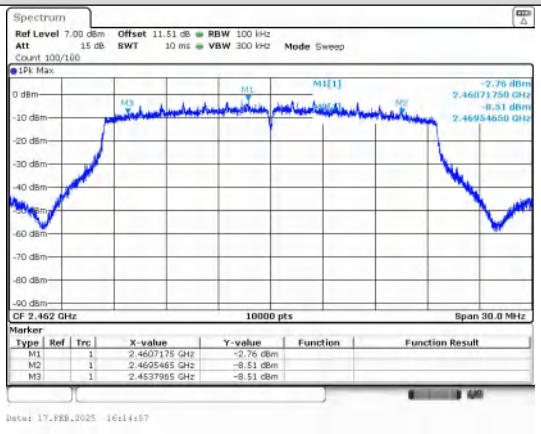
IEEE 802.11n_Channel 9_40MHz_Antenna 0



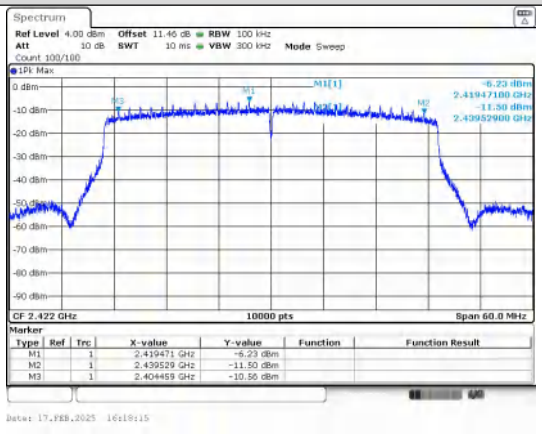
IEEE 802.11ax_Channel 1_20MHz_Antenna 0_RU&Index SU



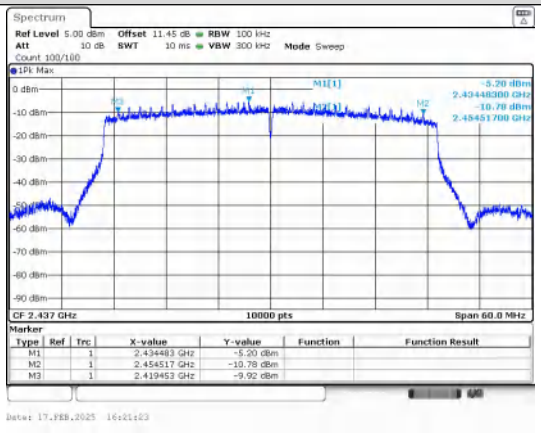
IEEE 802.11ax_Channel 6_20MHz_Antenna 0_RU&Index SU



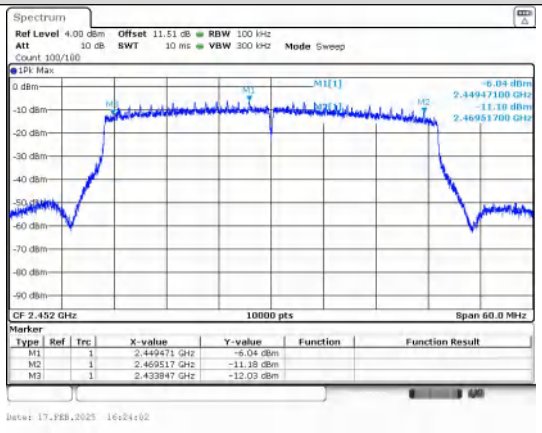
IEEE 802.11ax_Channel 11_20MHz_Antenna 0_RU&Index SU



IEEE 802.11ax_Channel 3_40MHz_Antenna 0_RU&Index SU



IEEE 802.11ax_Channel 6_40MHz_Antenna 0_RU&Index SU



IEEE 802.11ax_Channel 9_40MHz_Antenna 0_RU&Index SU

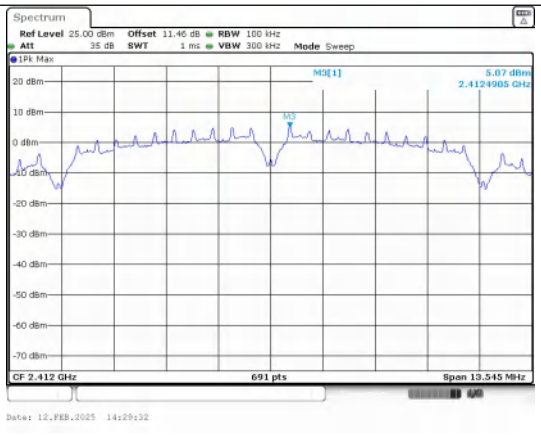
Conducted Out Of Band Emission

Test Result

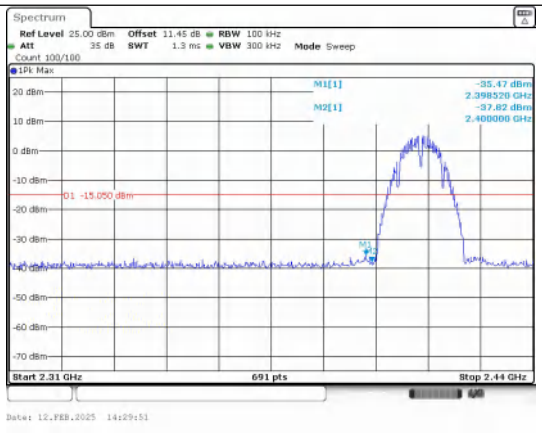
Mode	Channel	RU & Index	Ant.	OOB Emission Frequency (MHz)	OOB Emission Level (dBm)	Limit (dBm)	Over Limit (dB)	Result
IEEE 802.11b	1	N/A	0	2398.52	-35.466	-15.05	-20.416	PASS
				2400.00	-37.820	-15.05	-22.770	PASS
				4823.80	-39.838	-15.05	-24.788	PASS
	6			4873.76	-41.009	-14.71	-26.299	PASS
	11			2483.50	-37.980	-14.13	-23.850	PASS
				4923.70	-39.862	-14.13	-25.732	PASS
IEEE 802.11g	1			2397.01	-35.087	-20.49	-14.597	PASS
				2400.00	-36.890	-20.49	-16.400	PASS
				6916.30	-42.559	-20.49	-22.069	PASS
	6			6952.10	-43.009	-20.52	-22.489	PASS
	11			2483.50	-37.810	-21.34	-16.470	PASS
				6282.90	-43.391	-21.34	-22.051	PASS
IEEE 802.11n_20	1			2345.27	-36.137	-22.18	-13.957	PASS
				2400.00	-36.660	-22.18	-14.480	PASS
				6340.30	-42.685	-22.18	-20.505	PASS
	6			6263.76	-43.582	-21.64	-21.942	PASS
	11			2483.50	-37.870	-22.5	-15.370	PASS
				6948.77	-42.943	-22.5	-20.443	PASS
IEEE 802.11n_40	3			2341.51	-36.717	-24.2	-12.517	PASS
				2400.00	-38.090	-24.2	-13.890	PASS
				6914.60	-43.473	-24.2	-19.273	PASS
	6			6966.25	-43.418	-23.83	-19.588	PASS
	9			2483.50	-38.500	-24.13	-14.370	PASS
				22056.5	-42.859	-24.13	-18.729	PASS

IEEE 802.11ax_20	1	SU		43.70	-37.649	-23.61	-14.039	PASS
				2397.20	-36.058	-23.61	-12.448	PASS
				2400.00	-38.280	-23.61	-14.670	PASS
	6			44.57	-42.263	-22.9	-19.363	PASS
	11			2483.50	-38.460	-22.64	-15.820	PASS
				6936.29	-42.550	-22.64	-19.910	PASS
IEEE 802.11ax_40	3			44.60	-39.243	-25.83	-13.413	PASS
				2375.38	-36.462	-25.83	-10.632	PASS
				2400.00	-37.990	-25.83	-12.160	PASS
	6			44.57	-39.030	-25.02	-14.010	PASS
	9			44.57	-38.217	-25.72	-12.497	PASS
				2483.50	-38.210	-25.72	-12.490	PASS

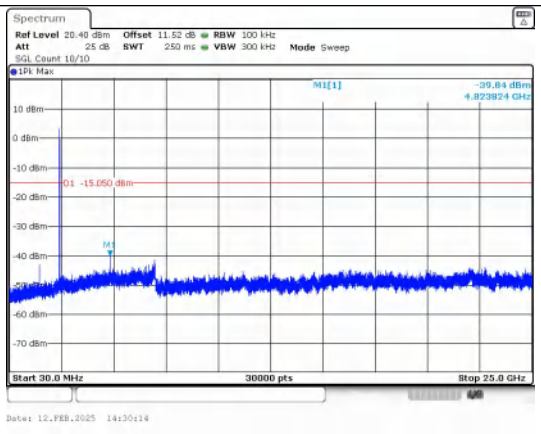
Test Graphs



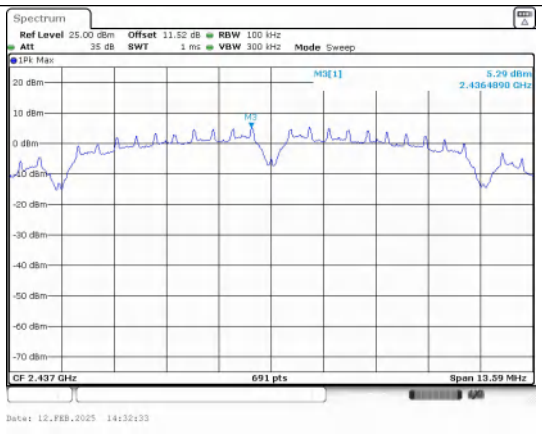
In-Band Reference Level
IEEE 802.11b_Channel 1_20MHz_Antenna 0



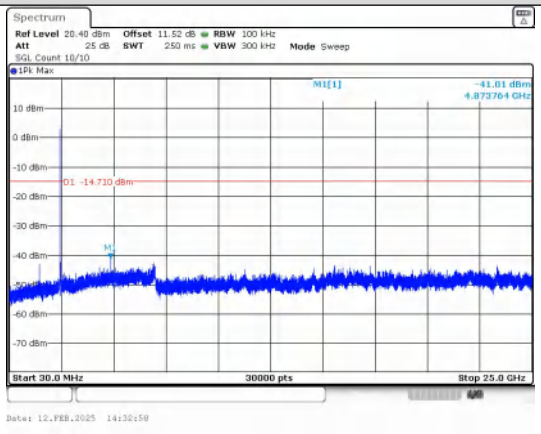
Out Of Band Emission
IEEE 802.11b_Channel 1_20MHz_Antenna 0



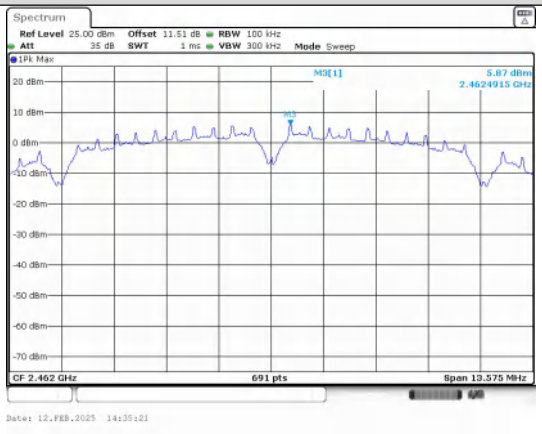
30.0 MHz - 25000.0 MHz
IEEE 802.11b_Channel 1_20MHz_Antenna 0



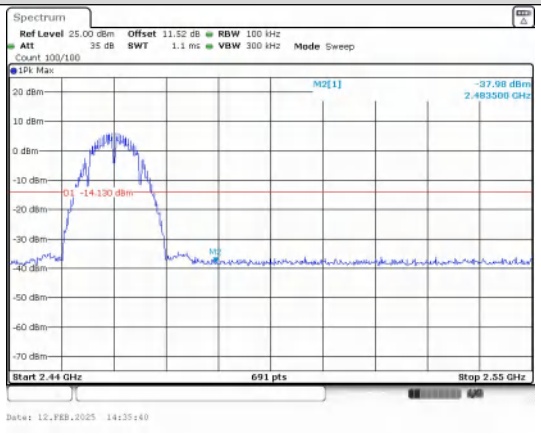
In-Band Reference Level
IEEE 802.11b_Channel 6_20MHz_Antenna 0



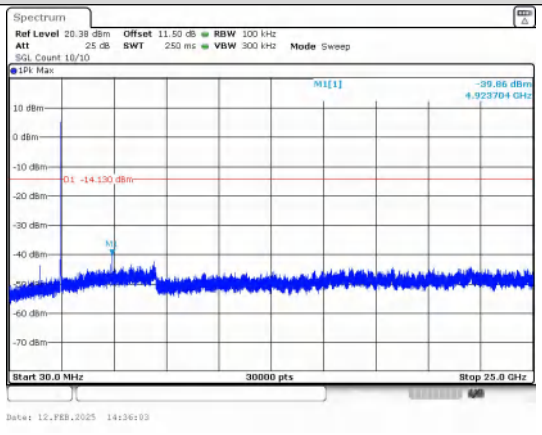
30.0 MHz - 25000.0 MHz
IEEE 802.11b_Channel 6_20MHz_Antenna 0



In-Band Reference Level
IEEE 802.11b_Channel 11_20MHz_Antenna 0



Out Of Band Emission
IEEE 802.11b_Channel 11_20MHz_Antenna 0



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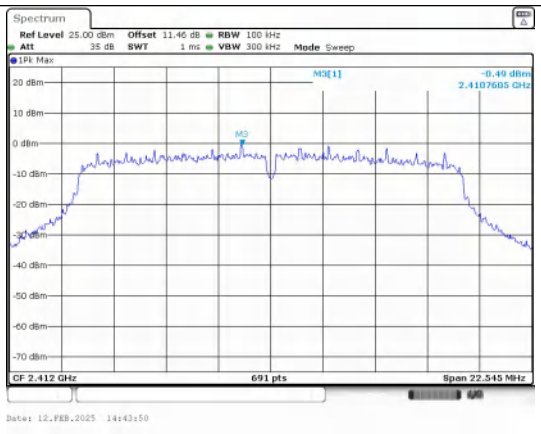
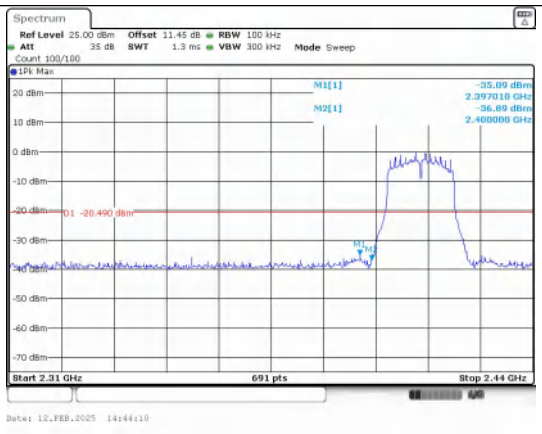
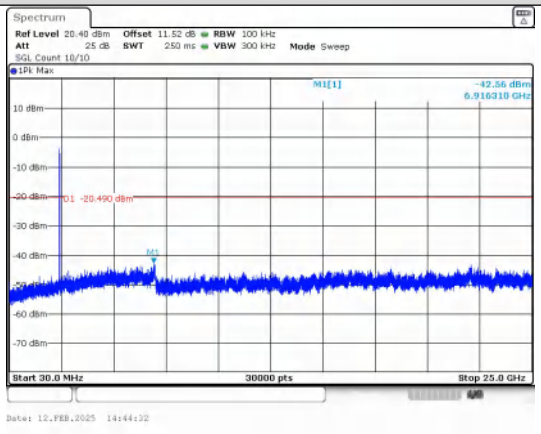
IEEE 802.11b_Channel 11_20MHz_Antenna 0



In-Band Reference Level
IEEE 802.11g_Channel 1_20MHz_Antenna 0



Out Of Band Emission
IEEE 802.11g_Channel 1_20MHz_Antenna 0



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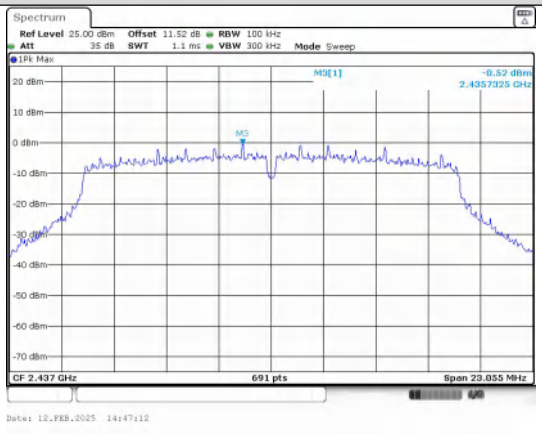
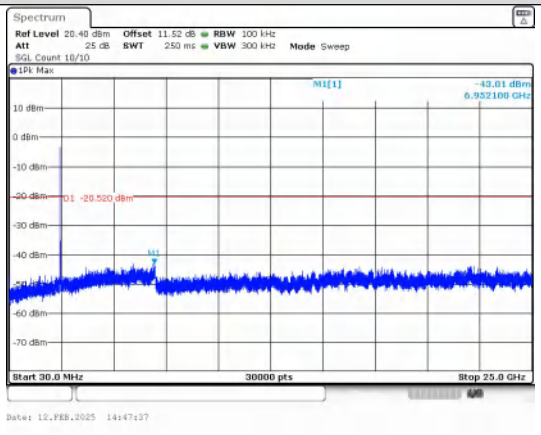
IEEE 802.11g_Channel 1_20MHz_Antenna 0



In-Band Reference Level
IEEE 802.11g_Channel 6_20MHz_Antenna 0



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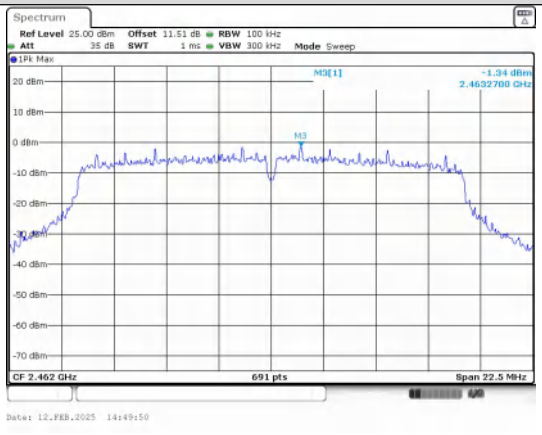
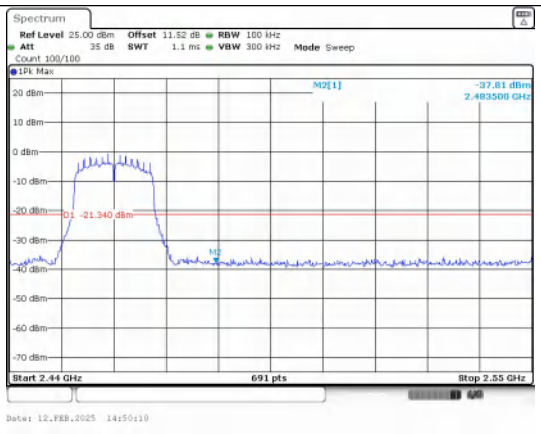
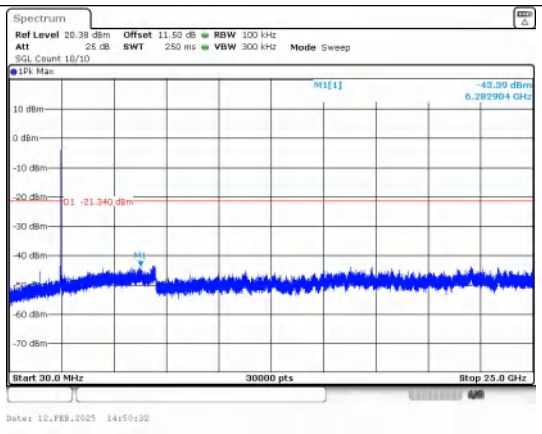
IEEE 802.11g_Channel 6_20MHz_Antenna 0



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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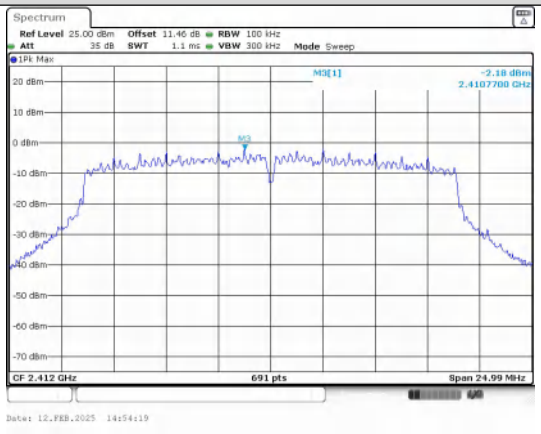
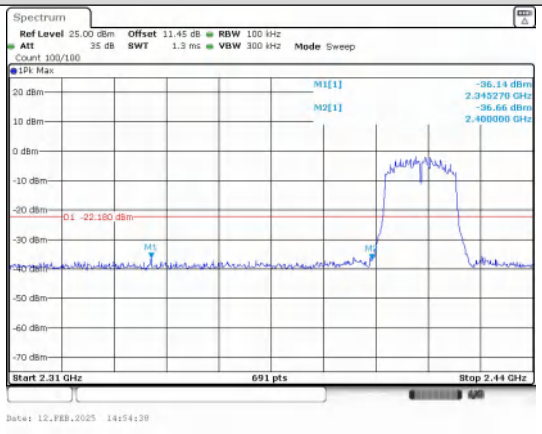
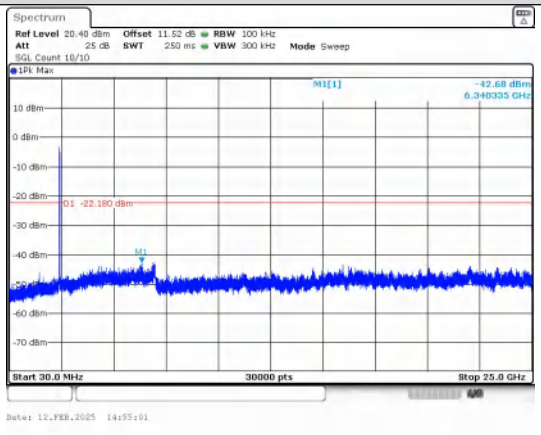
IEEE 802.11g_Channel 11_20MHz_Antenna 0



In-Band Reference Level
IEEE 802.11n_Channel 1_20MHz_Antenna 0



Out Of Band Emission
IEEE 802.11n_Channel 1_20MHz_Antenna 0



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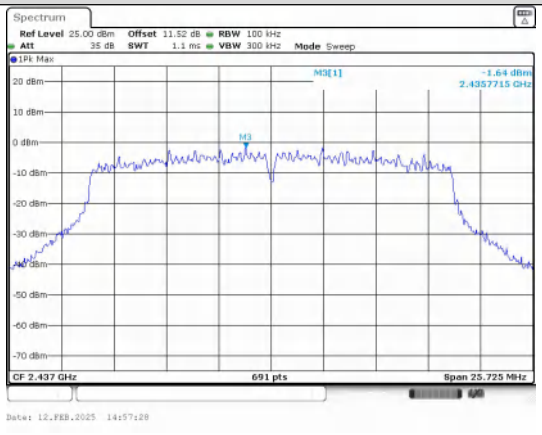
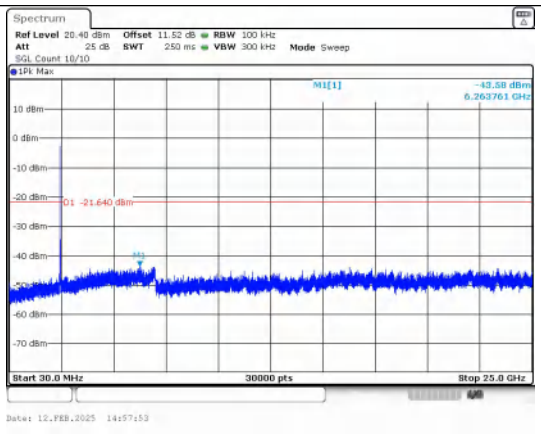
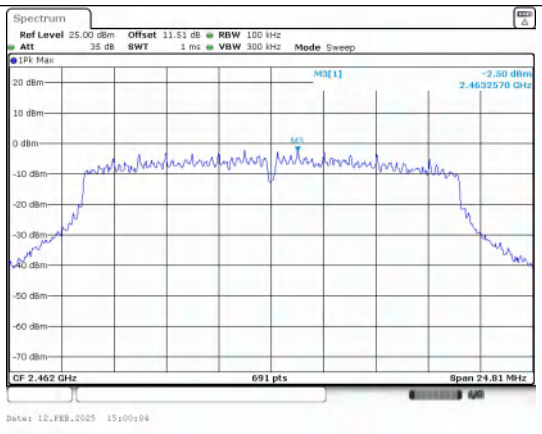
IEEE 802.11n_Channel 1_20MHz_Antenna 0



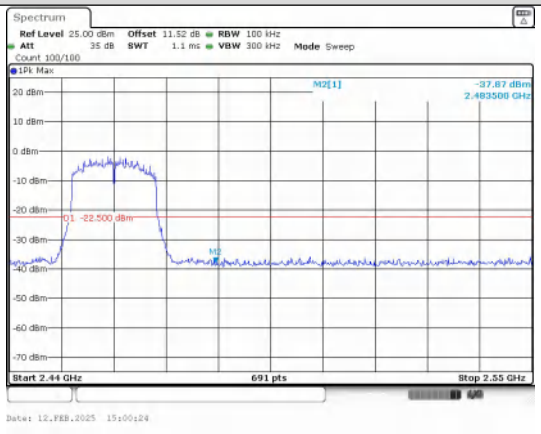
In-Band Reference Level
IEEE 802.11n_Channel 6_20MHz_Antenna 0



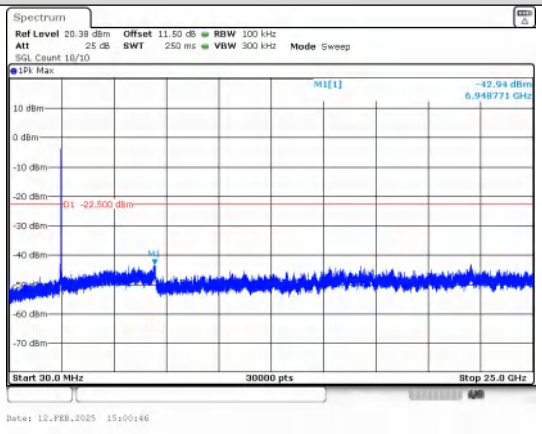
30.0 MHz - 25000.0 MHz
IEEE 802.11n_Channel 6_20MHz_Antenna 0



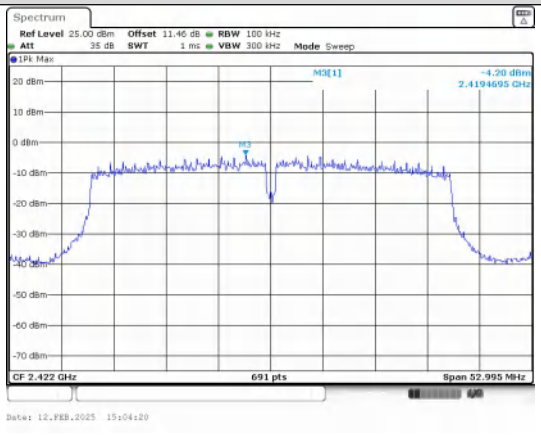
In-Band Reference Level
IEEE 802.11n_Channel 11_20MHz_Antenna 0



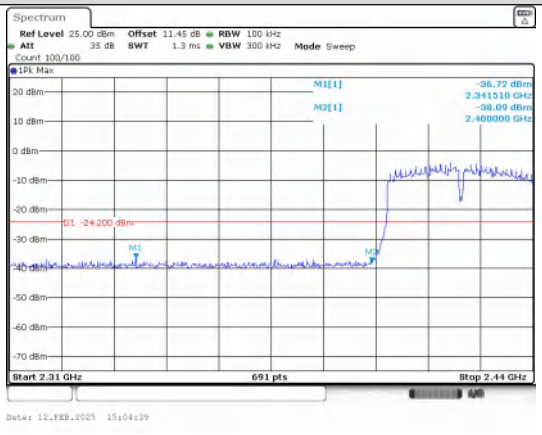
Out Of Band Emission
IEEE 802.11n_Channel 11_20MHz_Antenna 0



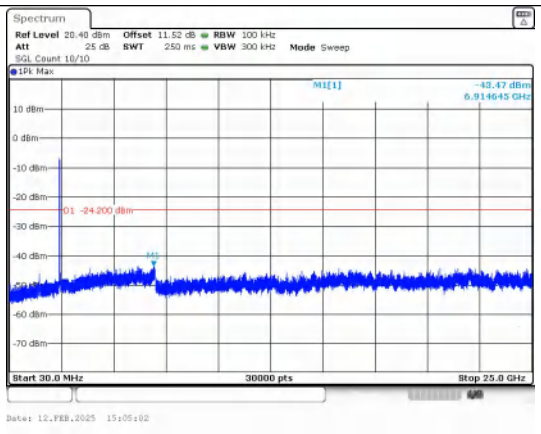
30.0 MHz - 25000.0 MHz
IEEE 802.11n_Channel 11_20MHz_Antenna 0



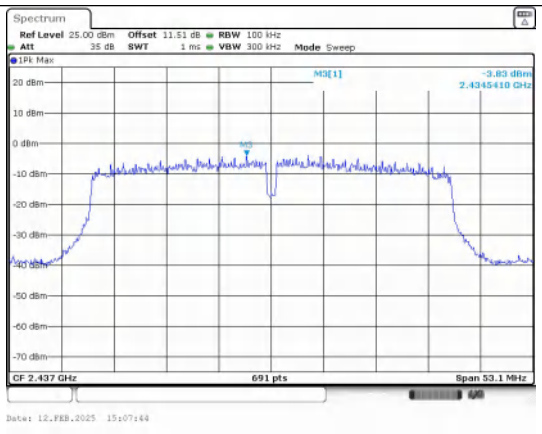
In-Band Reference Level
IEEE 802.11n_Channel 3_40MHz_Antenna 0



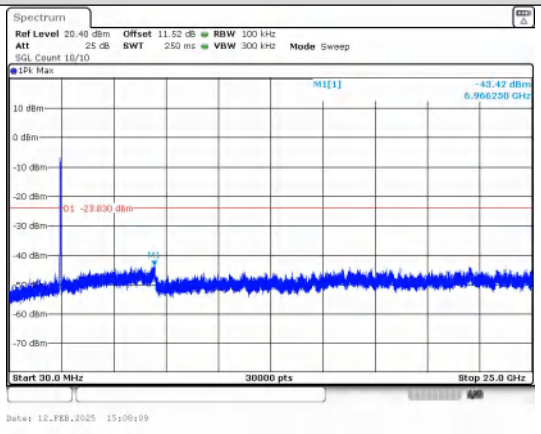
Out Of Band Emission
IEEE 802.11n_Channel 3_40MHz_Antenna 0



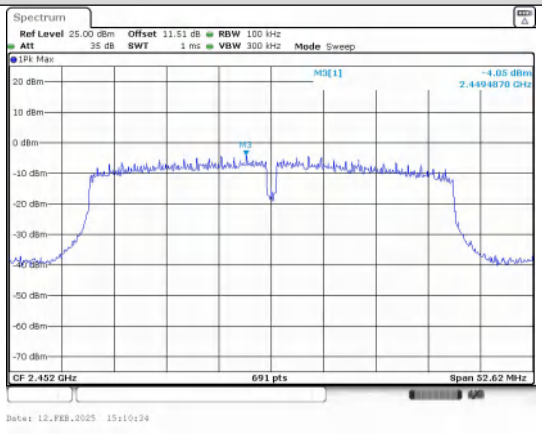
30.0 MHz - 25000.0 MHz
IEEE 802.11n_Channel 3_40MHz_Antenna 0



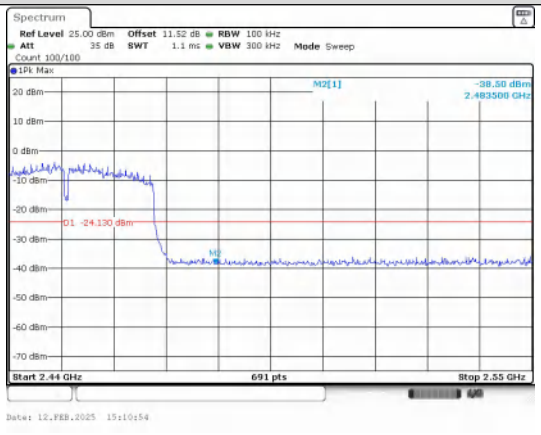
In-Band Reference Level
IEEE 802.11n_Channel 6_40MHz_Antenna 0



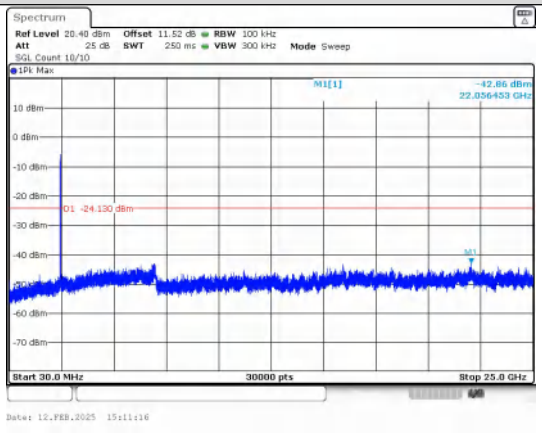
30.0 MHz - 25000.0 MHz
IEEE 802.11n_Channel 6_40MHz_Antenna 0



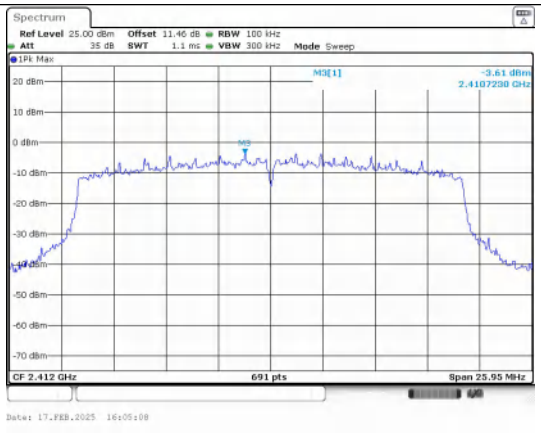
In-Band Reference Level
IEEE 802.11n_Channel 9_40MHz_Antenna 0

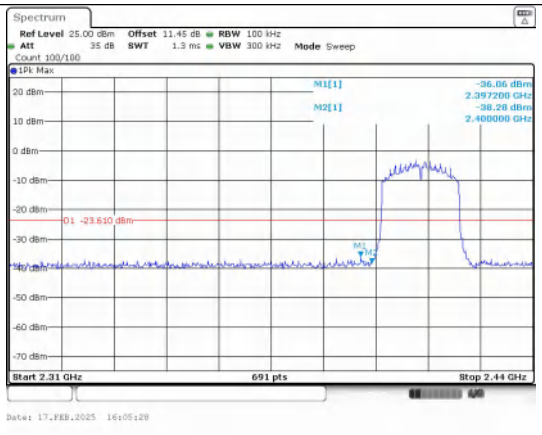


Out Of Band Emission
IEEE 802.11n_Channel 9_40MHz_Antenna 0

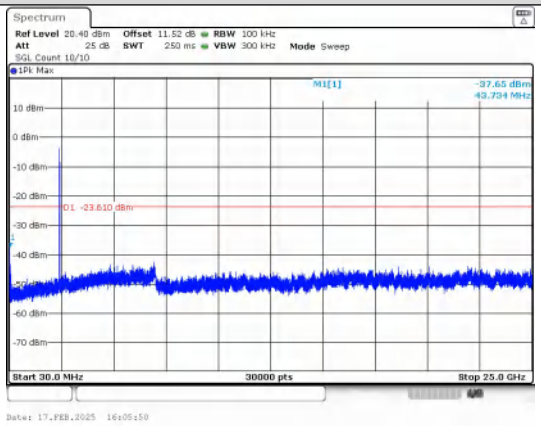


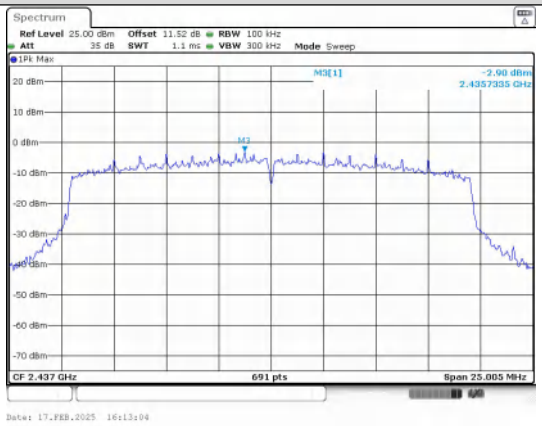
30.0 MHz - 25000.0 MHz
IEEE 802.11n_Channel 9_40MHz_Antenna 0



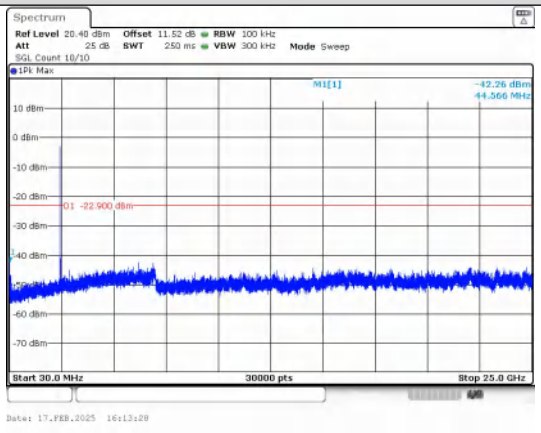


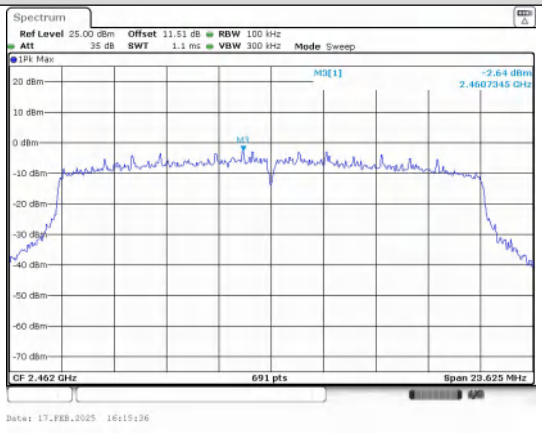
In-Band Reference Level **IEEE 802.11ax_Channel 1_20MHz_Antenna 0_RU&Index SU**	**Out Of Band Emission** **IEEE 802.11ax_Channel 1_20MHz_Antenna 0_RU&Index SU**



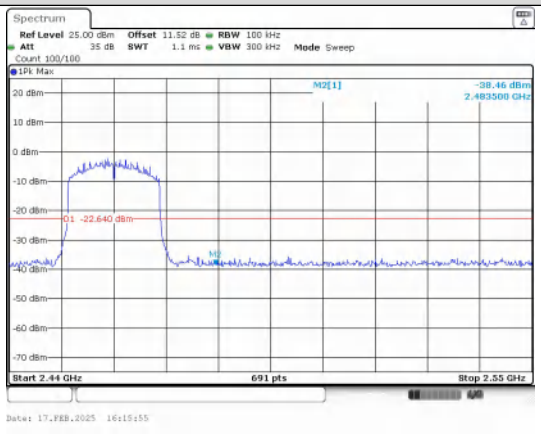
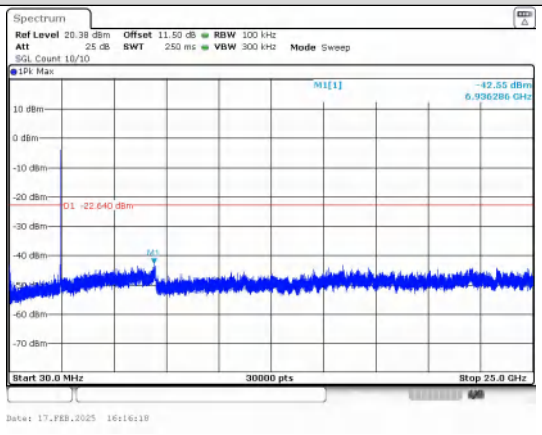
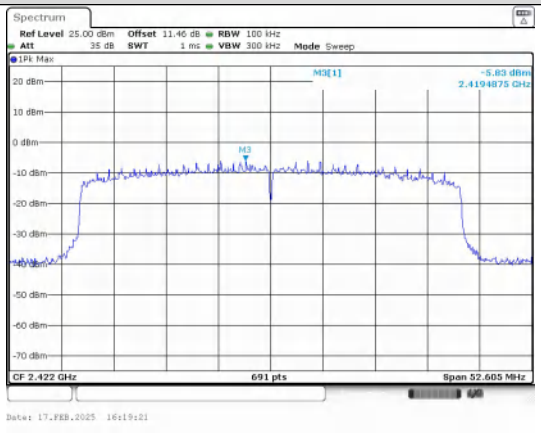
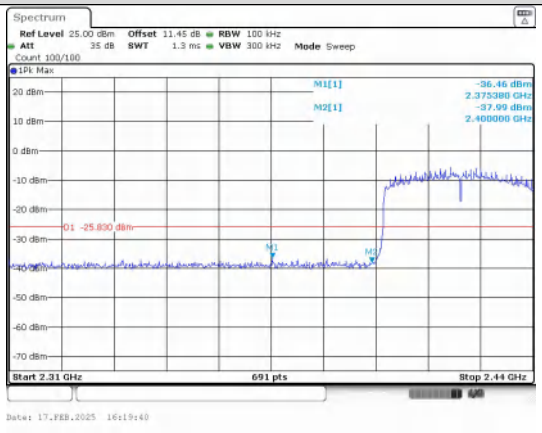
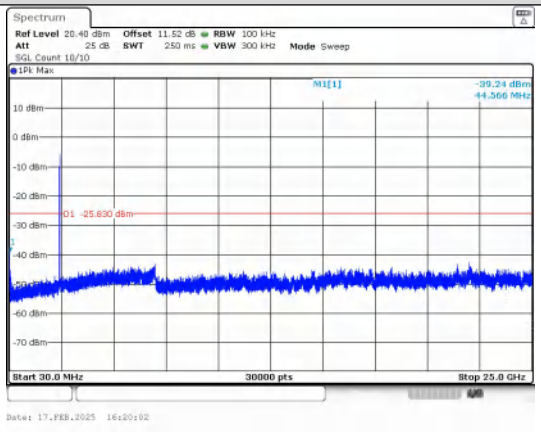
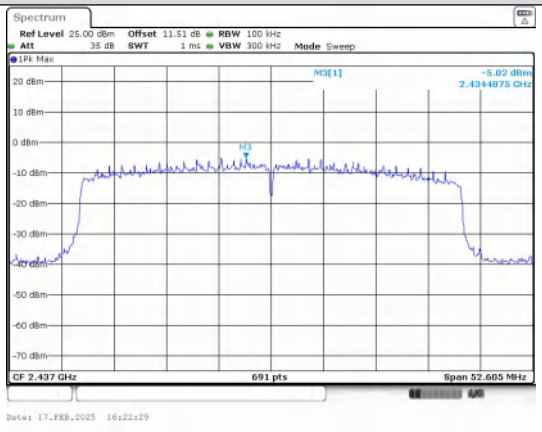


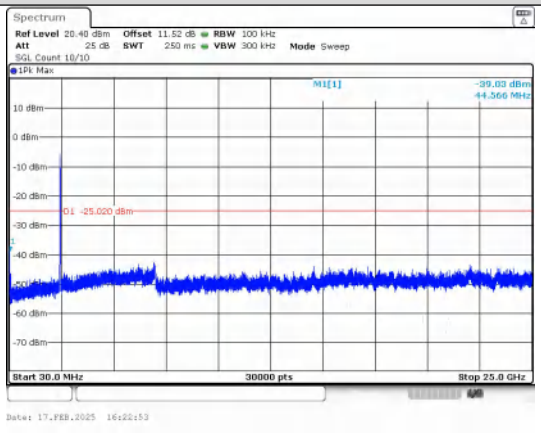
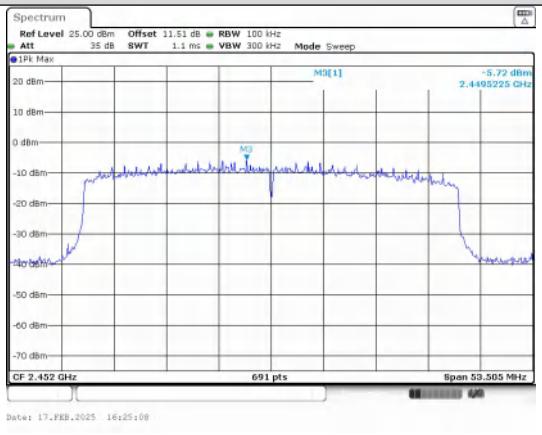
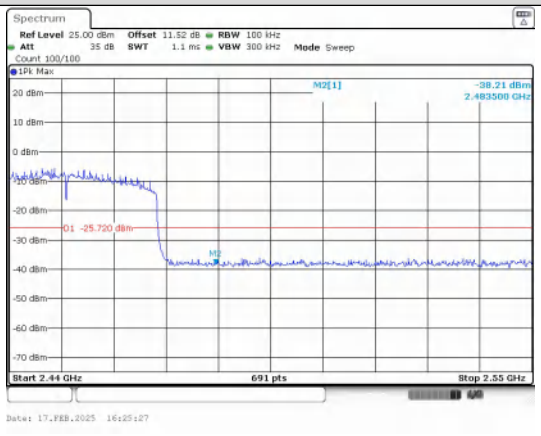
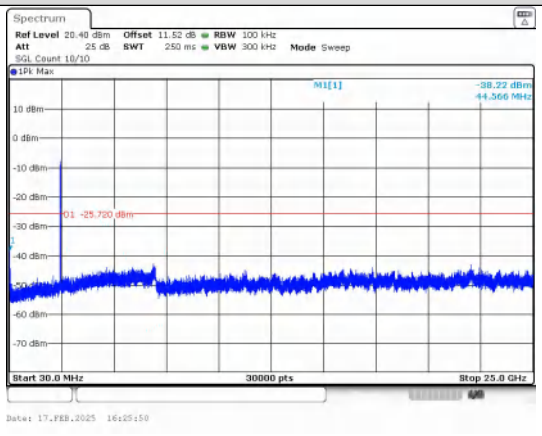
30.0 MHz - 25000.0 MHz **IEEE 802.11ax_Channel 1_20MHz_Antenna 0_RU&Index SU**	**In-Band Reference Level** **IEEE 802.11ax_Channel 6_20MHz_Antenna 0_RU&Index SU**





30.0 MHz - 25000.0 MHz **IEEE 802.11ax_Channel 6_20MHz_Antenna 0_RU&Index**	**In-Band Reference Level** **IEEE 802.11ax_Channel 11_20MHz_Antenna 0_RU&Index**

SU	SU
	
Out Of Band Emission **IEEE 802.11ax_Channel 11_20MHz_Antenna 0_RU&Index** **SU**	**30.0 MHz - 25000.0 MHz** **IEEE 802.11ax_Channel 11_20MHz_Antenna 0_RU&Index** **SU**
	
In-Band Reference Level **IEEE 802.11ax_Channel 3_40MHz_Antenna 0_RU&Index** **SU**	**Out Of Band Emission** **IEEE 802.11ax_Channel 3_40MHz_Antenna 0_RU&Index** **SU**
	
30.0 MHz - 25000.0 MHz	**In-Band Reference Level**

IEEE 802.11ax_Channel 3_40MHz_Antenna 0_RU&Index SU	IEEE 802.11ax_Channel 6_40MHz_Antenna 0_RU&Index SU
	
30.0 MHz - 25000.0 MHz **IEEE 802.11ax_Channel 6_40MHz_Antenna 0_RU&Index SU**	**In-Band Reference Level** **IEEE 802.11ax_Channel 9_40MHz_Antenna 0_RU&Index SU**
	
Out Of Band Emission **IEEE 802.11ax_Channel 9_40MHz_Antenna 0_RU&Index SU**	**30.0 MHz - 25000.0 MHz** **IEEE 802.11ax_Channel 9_40MHz_Antenna 0_RU&Index SU**

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