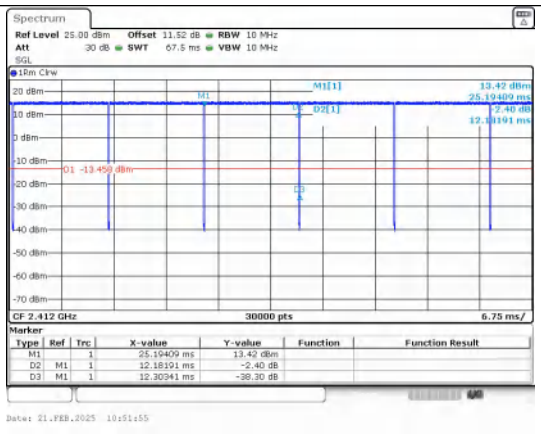
Appendix Report

Report No.:	CISRR25011311003
Test Engineer:	Mark Fu
Supervised by:	Rory Huang

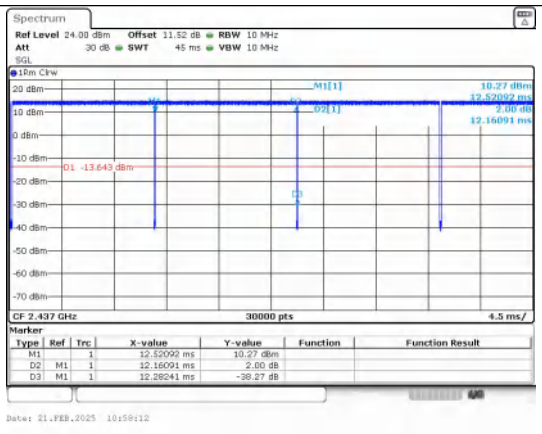
Test Result

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	12.182	12.303	99.01	0.9901	0.0432	0.0821
		6			12.161	12.282	99.01	0.9901	0.0432	0.0822
		11			12.184	12.402	98.24	0.9824	0.0771	0.0821
IEEE 802.11g		1			2.036	2.208	92.21	0.9221	0.3522	0.4912
		6			2.036	2.217	91.84	0.9184	0.3697	0.4912
		11			2.036	2.190	92.97	0.9297	0.3166	0.4912
IEEE 802.11n_20	MCS 0	1			0.546	0.674	80.95	0.8095	0.9178	1.8315
		6			0.546	0.692	78.82	0.7882	1.0336	1.8315
		11			0.546	0.783	69.73	0.6973	1.5658	1.8315
IEEE 802.11n_40		3			0.526	0.762	69.02	0.6902	1.6103	1.9011
		6			0.526	0.654	80.42	0.8042	0.9464	1.9011
		9			0.526	0.650	80.92	0.8092	0.9194	1.9011
IEEE 802.11ax_20		1	SU		0.520	0.693	74.94	0.7494	1.2529	1.9231
		6			0.520	0.648	80.12	0.8012	0.9626	1.9231
		11			0.520	0.729	71.28	0.7128	1.4703	1.9231
IEEE 802.11ax_40		3			0.292	0.447	65.21	0.6521	1.8569	3.4247
		6			0.292	0.456	63.96	0.6396	1.9409	3.4247
		9			0.292	0.701	41.66	0.4166	3.8028	3.4247

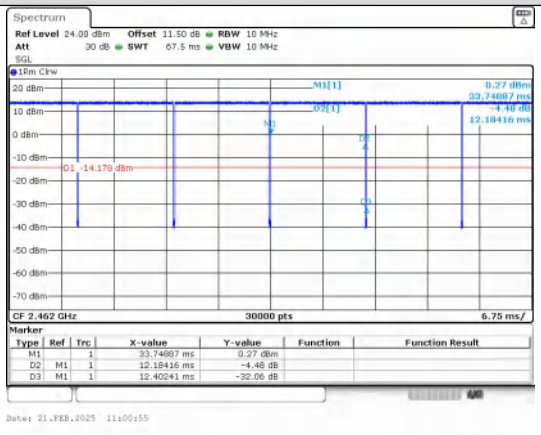
Test Graphs



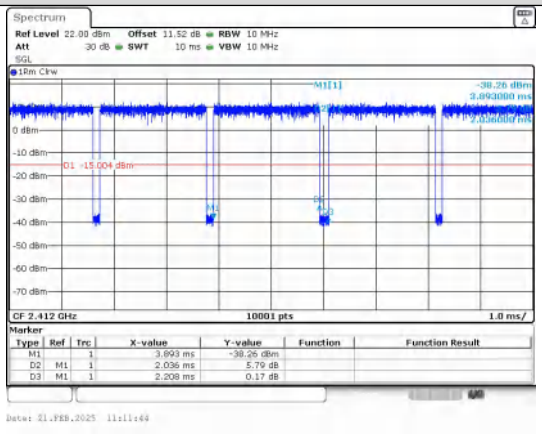
IEEE 802.11b_20MHz_Channel 1



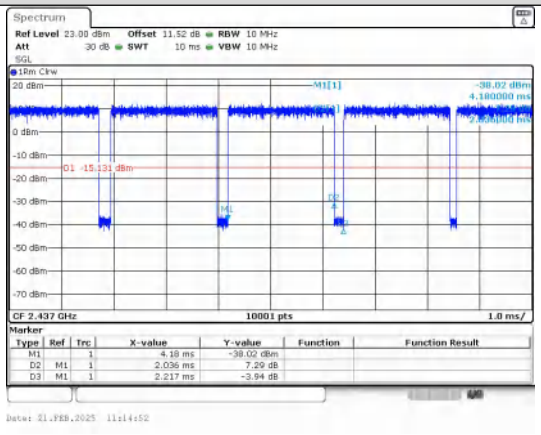
IEEE 802.11b_20MHz_Channel 6



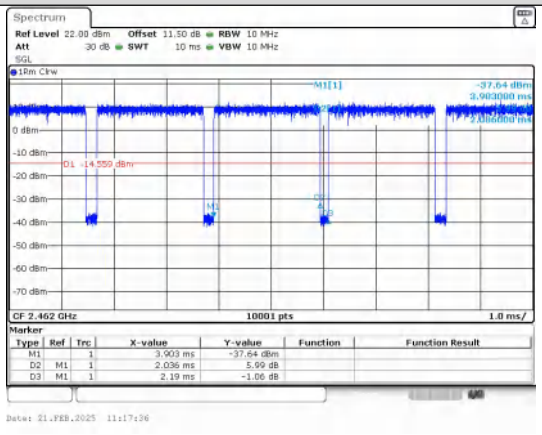
IEEE 802.11b_20MHz_Channel 11



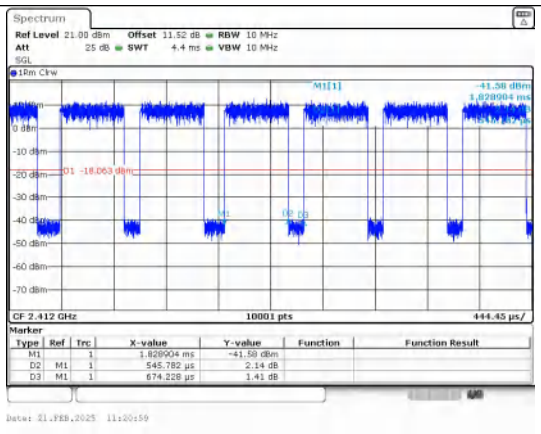
IEEE 802.11g_20MHz_Channel 1



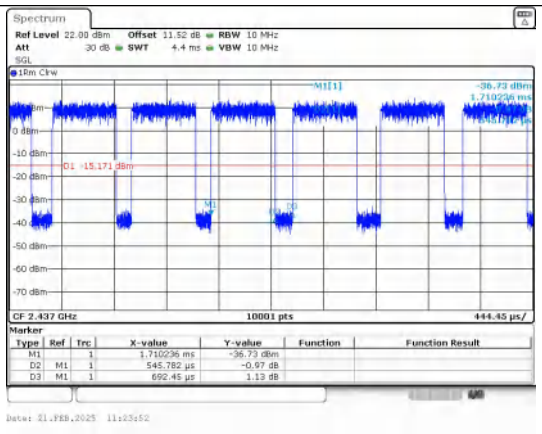
IEEE 802.11g_20MHz_Channel 6



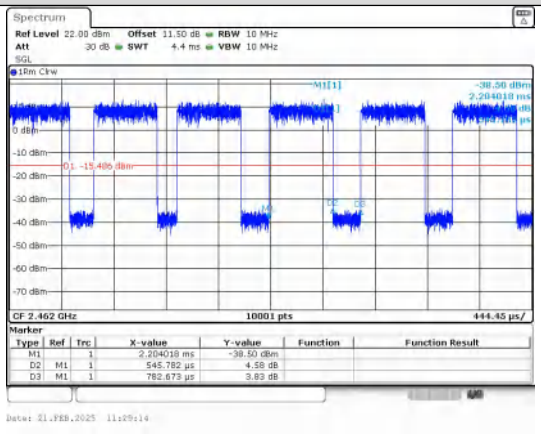
IEEE 802.11g_20MHz_Channel 11



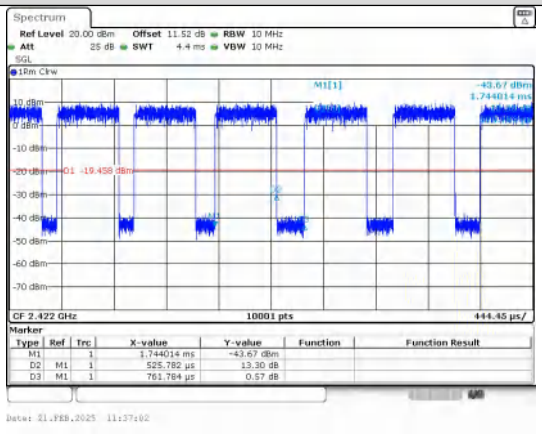
IEEE 802.11n_20MHz_Channel 1



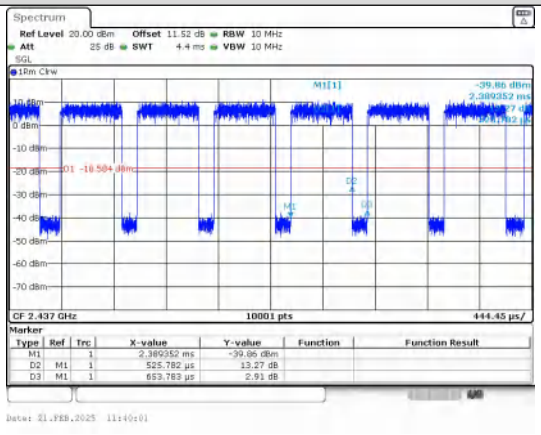
IEEE 802.11n_20MHz_Channel 6



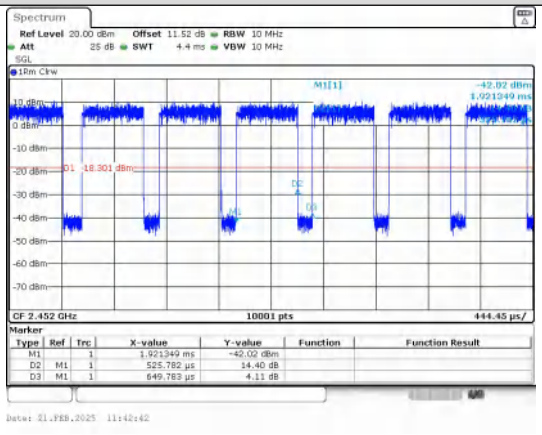
IEEE 802.11n_20MHz_Channel 11



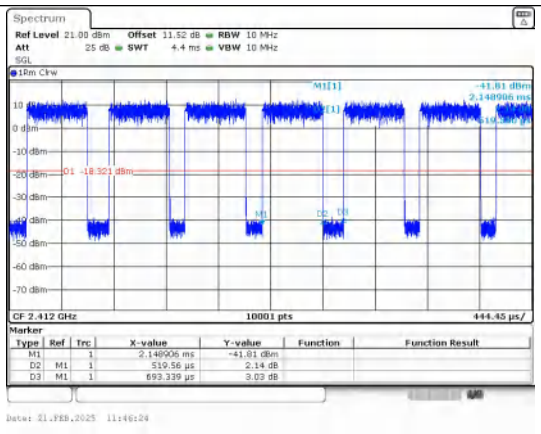
IEEE 802.11n_40MHz_Channel 3



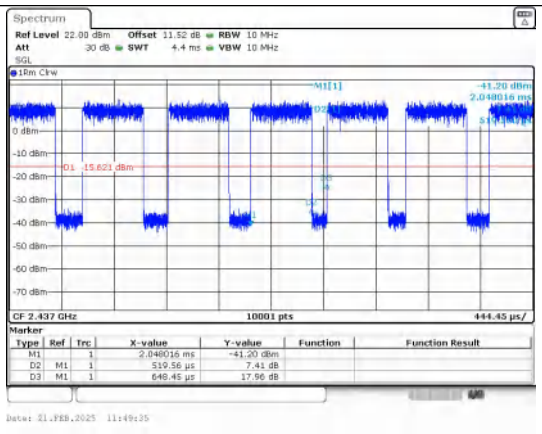
IEEE 802.11n_40MHz_Channel 6



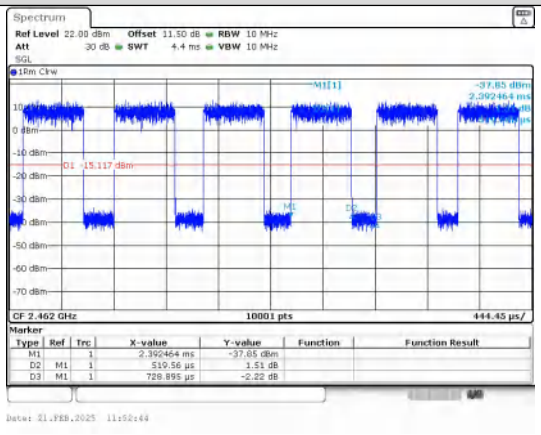
IEEE 802.11n_40MHz_Channel 9



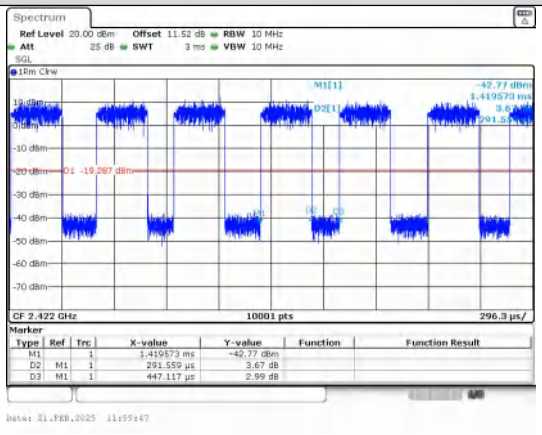
IEEE 802.11ax_20MHz_Channel 1



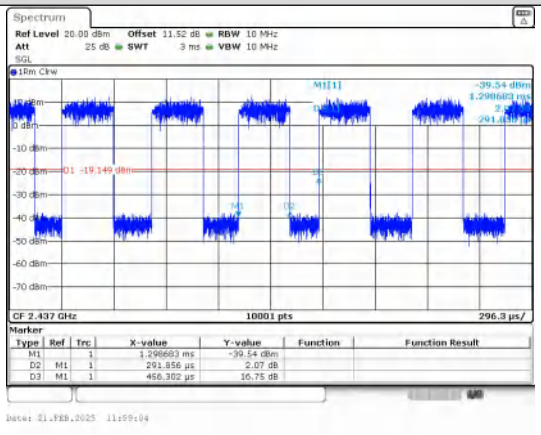
IEEE 802.11ax_20MHz_Channel 6



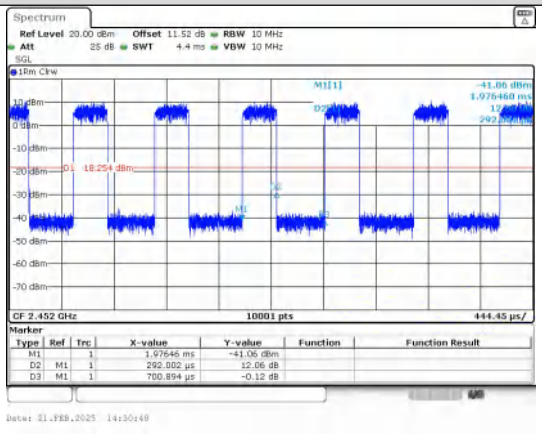
IEEE 802.11ax_20MHz_Channel 11



IEEE 802.11ax_40MHz_Channel 3



IEEE 802.11ax_40MHz_Channel 6



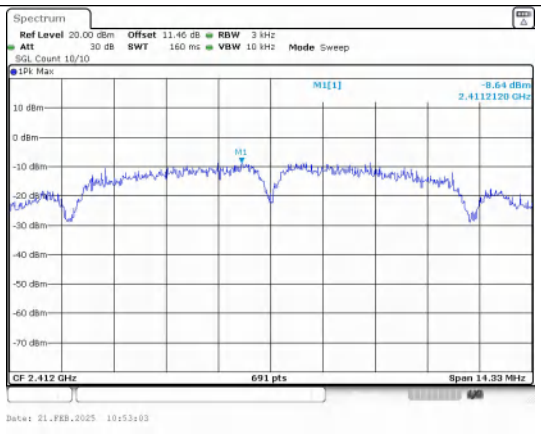
IEEE 802.11ax_40MHz_Channel 9

Power Spectral Density

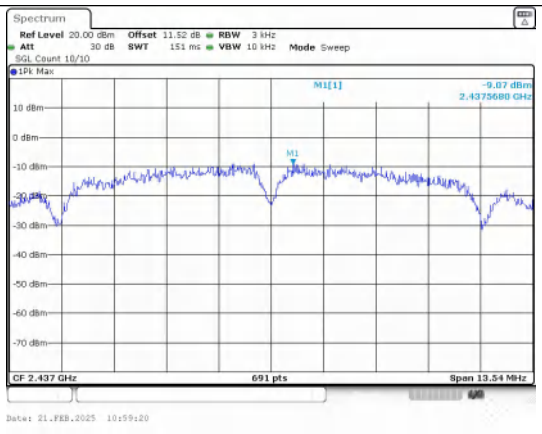
Test Result

Mode	Channel	RU & Index	PSD (dBm/3kHz) Ant. 0	Limit (dBm/3kHz)	Result
IEEE 802.11b	1	N/A	-8.640	≤8	PASS
	6		-9.070		PASS
	11		-9.100		PASS
IEEE 802.11g	1		-14.930		PASS
	6		-13.660		PASS
	11		-13.710		PASS
IEEE 802.11n_20	1		-14.290		PASS
	6		-14.870		PASS
	11		-15.750		PASS
IEEE 802.11n_40	3		-17.540		PASS
	6		-16.230		PASS
	9		-17.510		PASS
IEEE 802.11ax_20	1	SU	-16.420		PASS
	6		-15.950		PASS
	11		-16.720		PASS
IEEE 802.11ax_40	3		-19.830		PASS
	6		-18.590		PASS
	9		-19.360		PASS

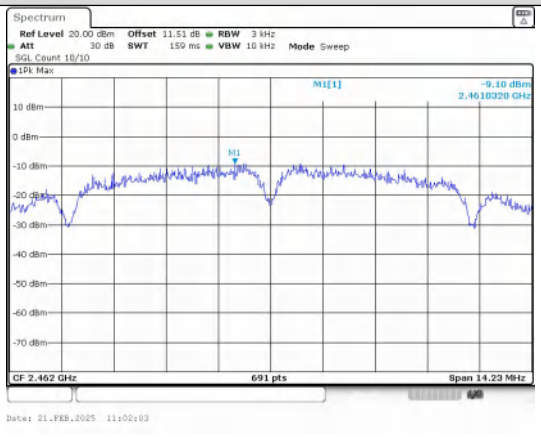
Test Graphs



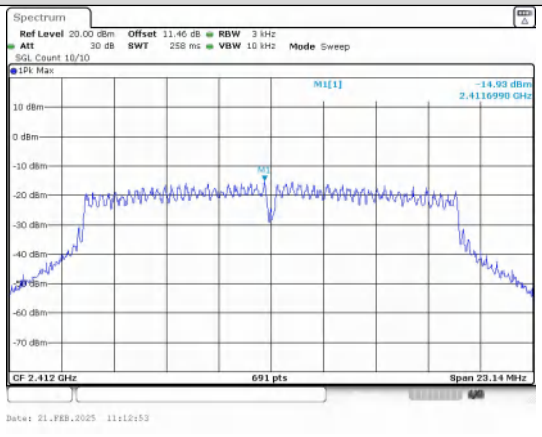
IEEE 802.11b_Channel 1_20MHz_Antenna 0



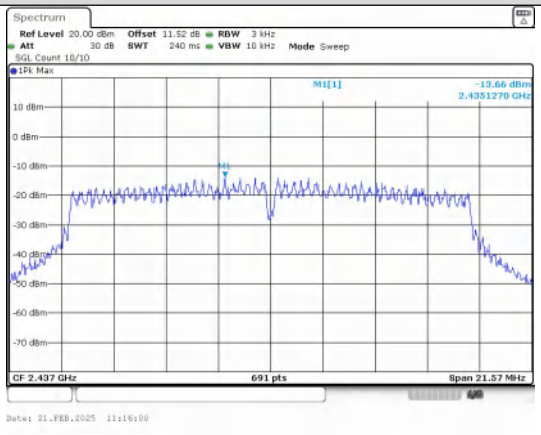
IEEE 802.11b_Channel 6_20MHz_Antenna 0



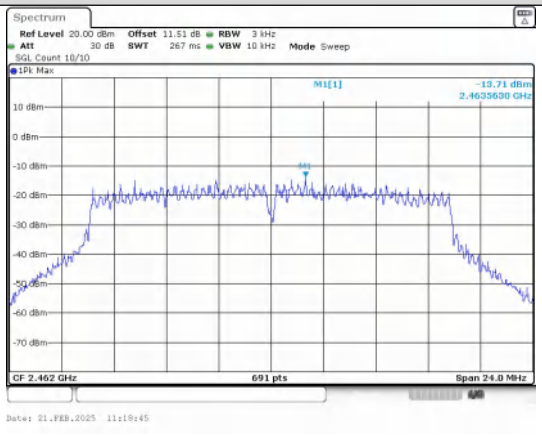
IEEE 802.11b_Channel 11_20MHz_Antenna 0



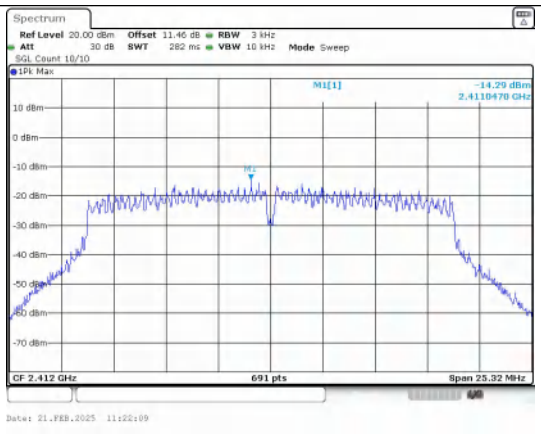
IEEE 802.11g_Channel 1_20MHz_Antenna 0



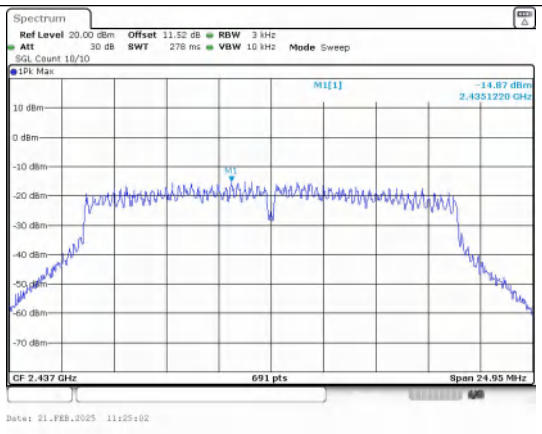
IEEE 802.11g_Channel 6_20MHz_Antenna 0



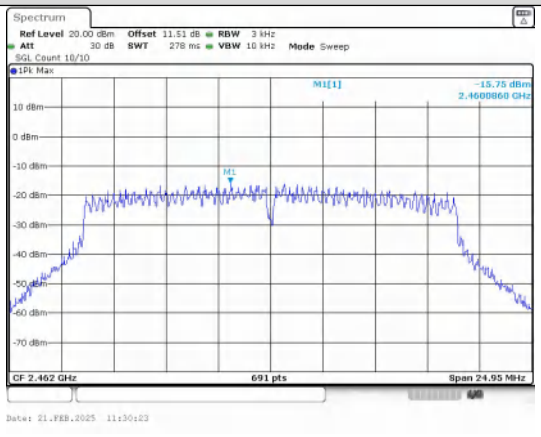
IEEE 802.11g_Channel 11_20MHz_Antenna 0



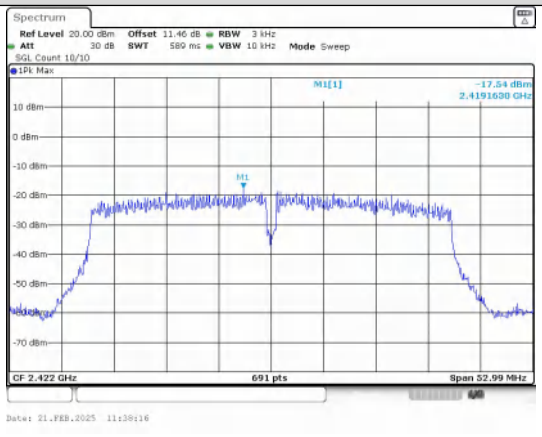
IEEE 802.11n_Channel 1_20MHz_Antenna 0



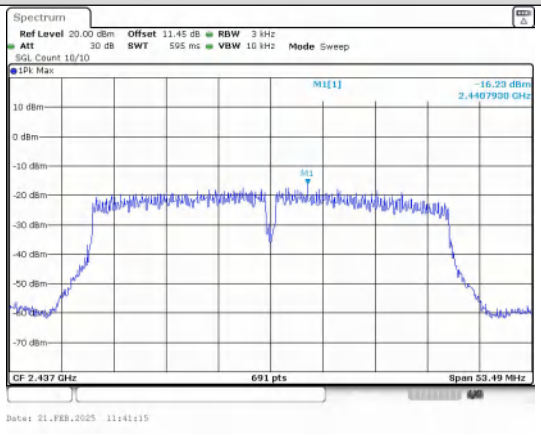
IEEE 802.11n_Channel 6_20MHz_Antenna 0



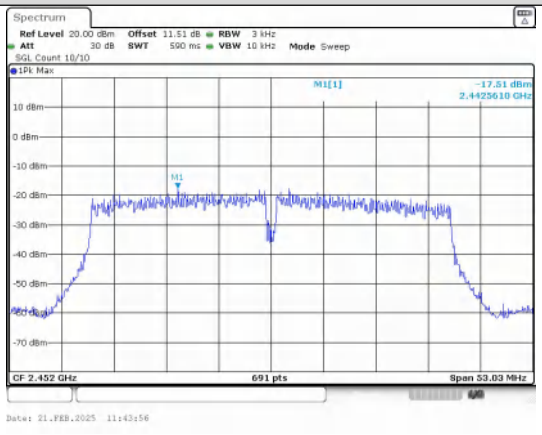
IEEE 802.11n_Channel 11_20MHz_Antenna 0



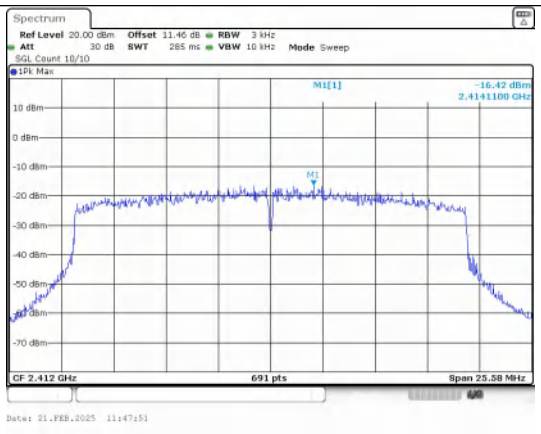
IEEE 802.11n_Channel 3_40MHz_Antenna 0



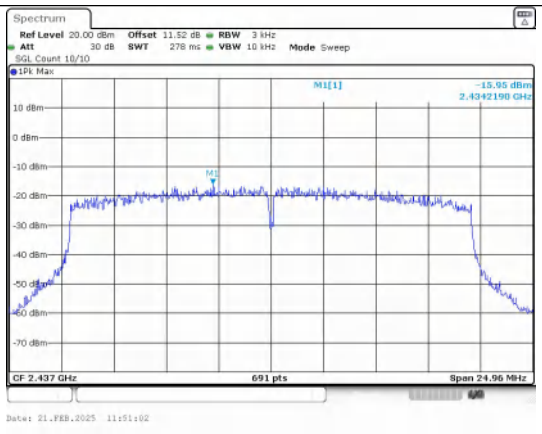
IEEE 802.11n_Channel 6_40MHz_Antenna 0



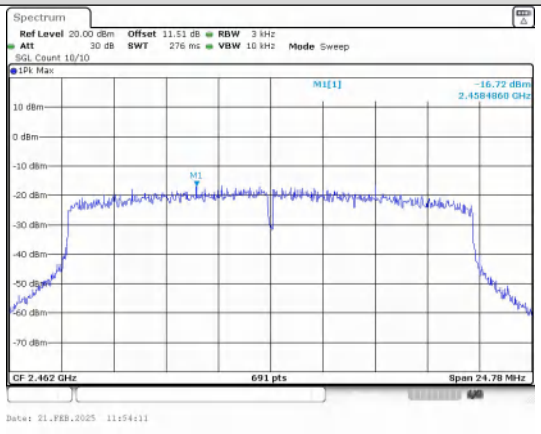
IEEE 802.11n_Channel 9_40MHz_Antenna 0



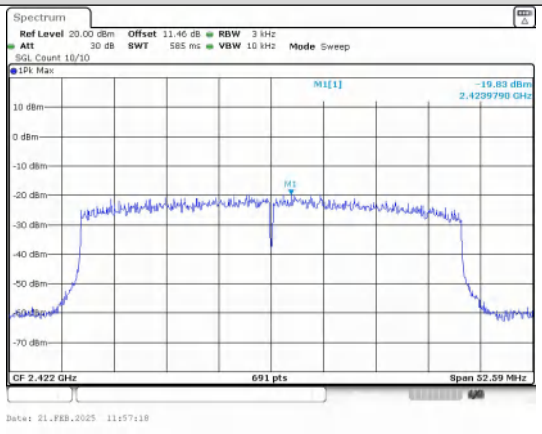
IEEE 802.11ax_Channel 1_20MHz_Antenna 0_RU&Index SU



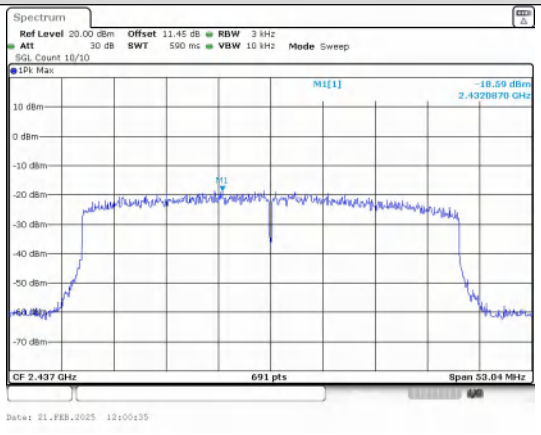
IEEE 802.11ax_Channel 6_20MHz_Antenna 0_RU&Index SU



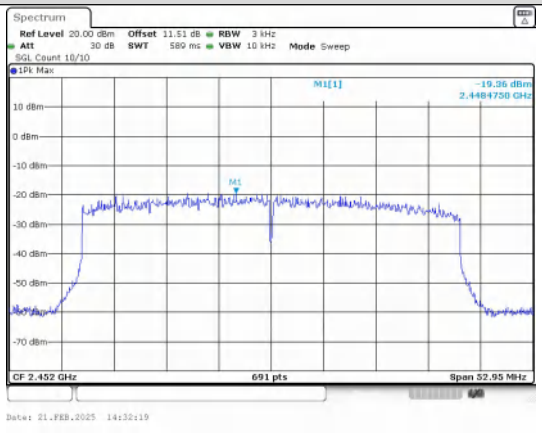
IEEE 802.11ax_Channel 11_20MHz_Antenna 0_RU&Index SU



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

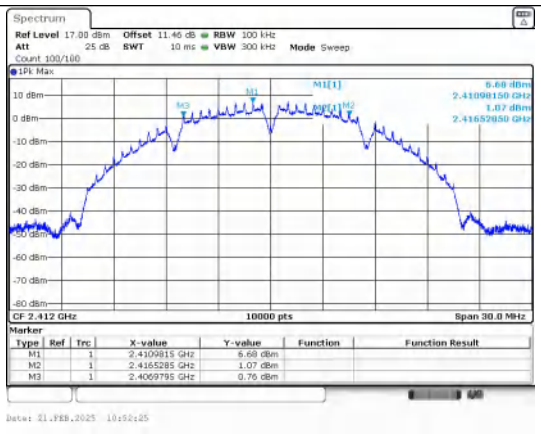
Mode	Channel	Ant. 0 (dBm)	Limit (dBm)	Result
IEEE 802.11b	1	18.27	≤30	PASS
	6	17.37	≤30	PASS
	11	17.02	≤30	PASS
IEEE 802.11g	1	18.25	≤30	PASS
	6	18.65	≤30	PASS
	11	18.41	≤30	PASS
IEEE 802.11n_20	1	17.84	≤30	PASS
	6	18.97	≤30	PASS
	11	18.18	≤30	PASS
IEEE 802.11n_40	3	18.35	≤30	PASS
	6	19.55	≤30	PASS
	9	18.79	≤30	PASS
IEEE 802.11ax_20	1	18.52	≤30	PASS
	6	19.31	≤30	PASS
	11	18.51	≤30	PASS
IEEE 802.11ax_40	3	18.74	≤30	PASS
	6	19.97	≤30	PASS
	9	19.14	≤30	PASS

6dB Bandwidth

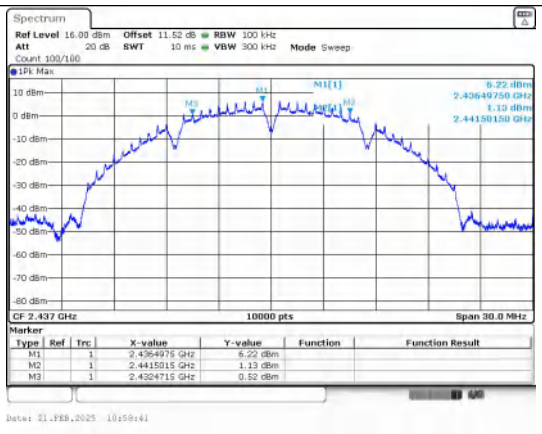
Test Result

Mode	Channel	RU & Index	Ant.	Center Frequency (MHz)	6 dB Bandwidth (MHz)	Limit (MHz)	Result
IEEE 802.11b	1	N/A	0	2412	9.550	≥0.5	PASS
	6			2437	9.030		PASS
	11			2462	9.490		PASS
IEEE 802.11g	1			2412	15.43		PASS
	6			2437	14.38		PASS
	11			2462	16.00		PASS
IEEE 802.11n_20	1			2412	16.88		PASS
	6			2437	16.63		PASS
	11			2462	16.63		PASS
IEEE 802.11n_40	3			2422	35.33		PASS
	6			2437	35.66		PASS
	9			2452	35.35		PASS
IEEE 802.11ax_20	1	SU		2412	17.05		PASS
	6			2437	16.64		PASS
	11			2462	16.52		PASS
IEEE 802.11ax_40	3			2422	35.06		PASS
	6			2437	35.36		PASS
	9			2452	35.30		PASS

Test Graphs



IEEE 802.11b_Channel 1_20MHz_Antenna 0



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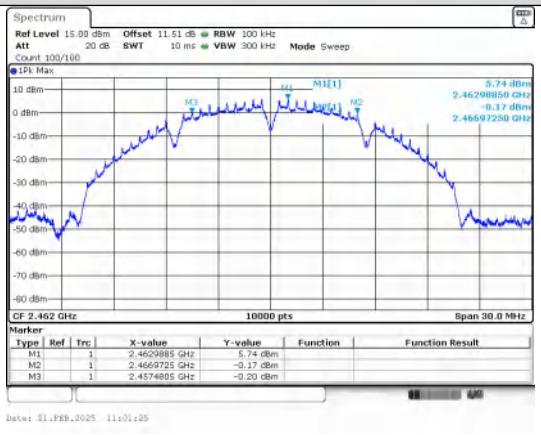
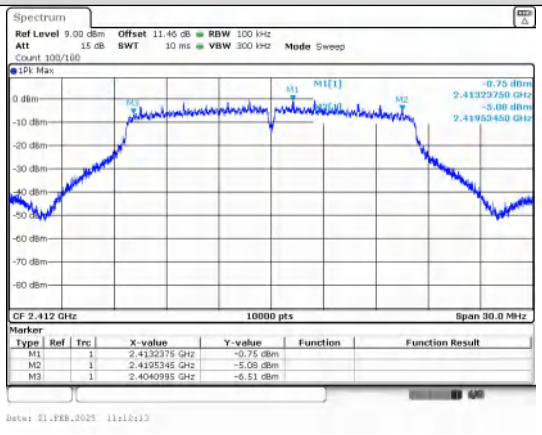
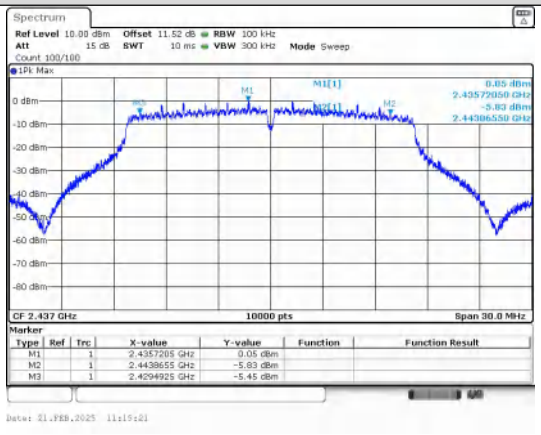


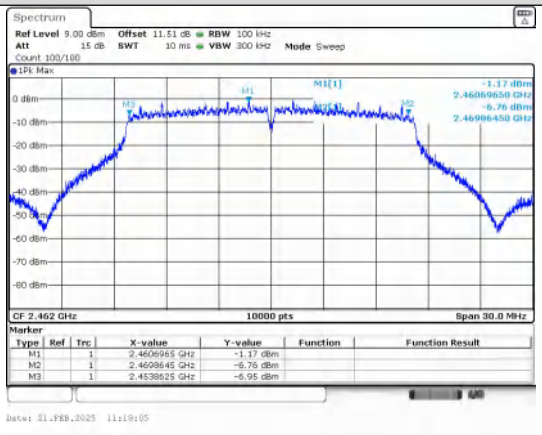
IEEE 802.11b_Channel 11_20MHz_Antenna 0



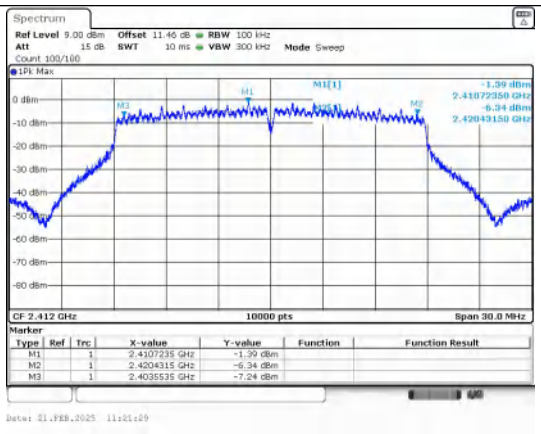
IEEE 802.11g_Channel 1_20MHz_Antenna 0



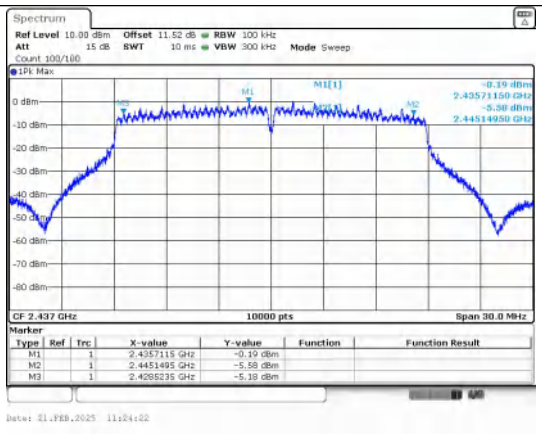
IEEE 802.11g_Channel 6_20MHz_Antenna 0



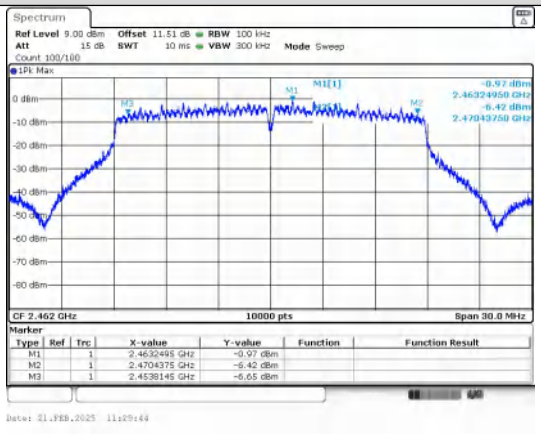
IEEE 802.11g_Channel 11_20MHz_Antenna 0



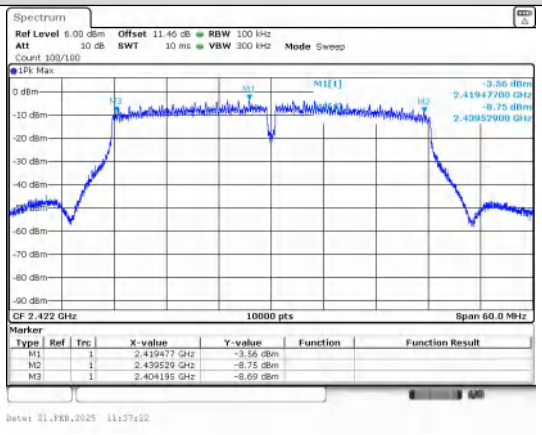
IEEE 802.11n_Channel 1_20MHz_Antenna 0



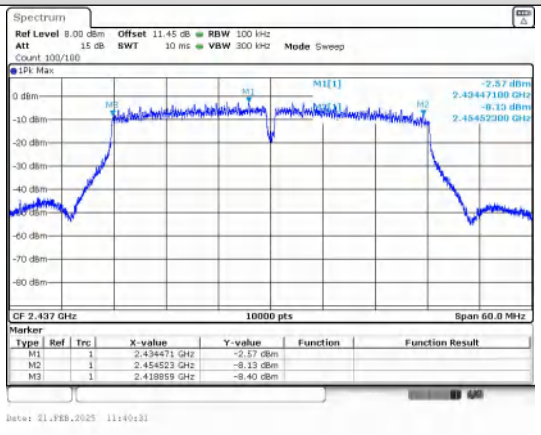
IEEE 802.11n_Channel 6_20MHz_Antenna 0



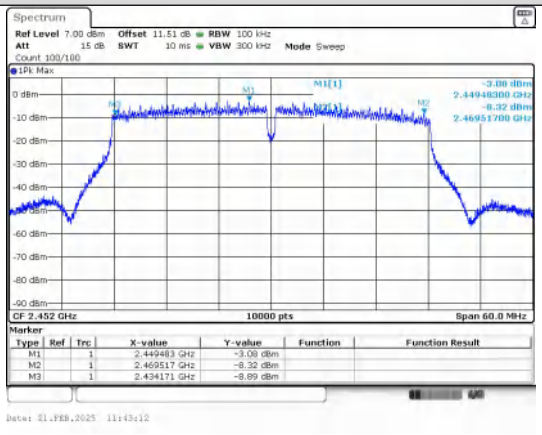
IEEE 802.11n_Channel 11_20MHz_Antenna 0



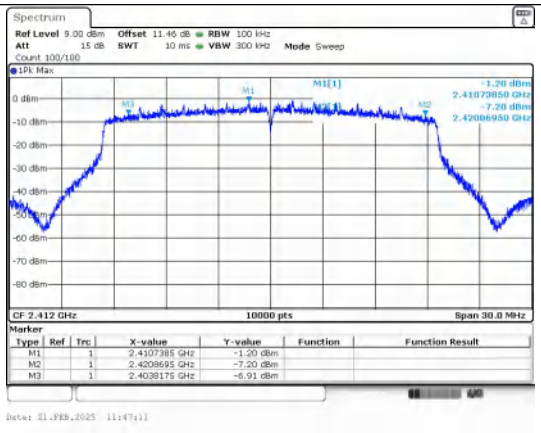
IEEE 802.11n_Channel 3_40MHz_Antenna 0



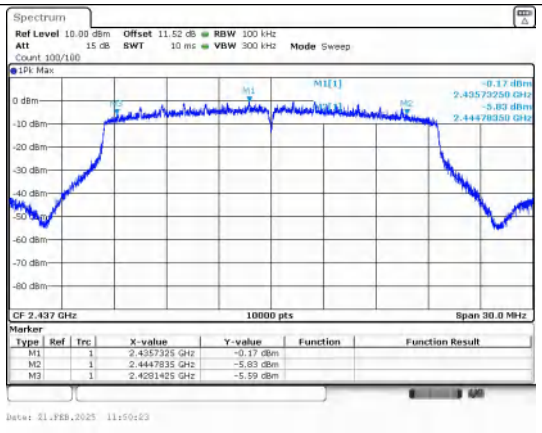
IEEE 802.11n_Channel 6_40MHz_Antenna 0



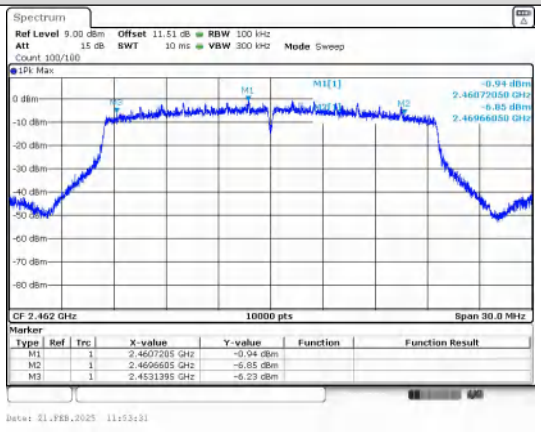
IEEE 802.11n_Channel 9_40MHz_Antenna 0



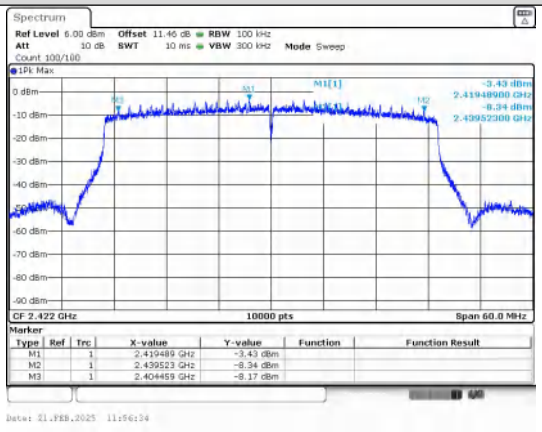
IEEE 802.11ax_Channel 1_20MHz_Antenna 0_RU&Index SU



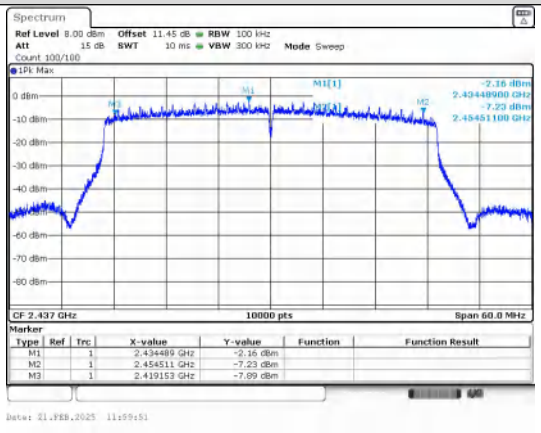
IEEE 802.11ax_Channel 6_20MHz_Antenna 0_RU&Index SU



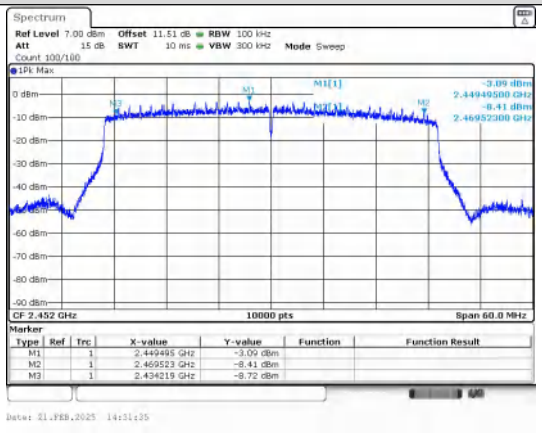
IEEE 802.11ax_Channel 11_20MHz_Antenna 0_RU&Index SU



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

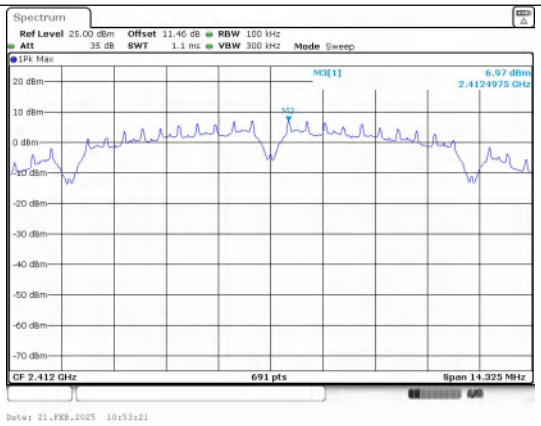
Conducted Out Of Band Emission

Test Result

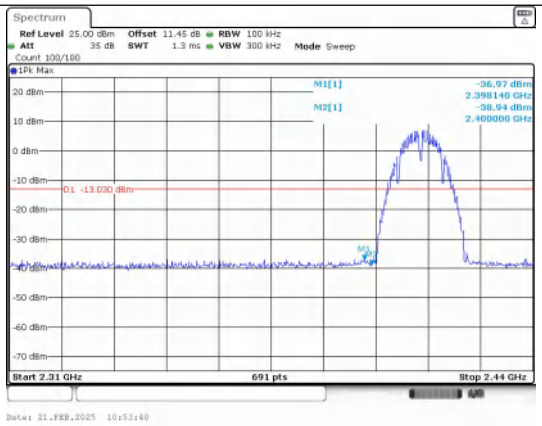
Mode	Channel	RU & Index	Ant.	OOB Emission Frequency (MHz)	OOB Emission Level (dBm)	Limit (dBm)	Over Limit (dB)	Result
IEEE 802.11b	1	N/A	0	2398.14	-36.971	-13.03	-23.941	PASS
				2400.00	-38.940	-13.03	-25.910	PASS
				4823.80	-36.348	-13.03	-23.318	PASS
	6			1462.86	-37.545	-13.89	-23.655	PASS
	11			2483.50	-37.490	-14.48	-23.010	PASS
				4923.70	-37.924	-14.48	-23.444	PASS
IEEE 802.11g	1			2397.01	-35.133	-20.48	-14.653	PASS
				2400.00	-35.370	-20.48	-14.890	PASS
				6207.20	-43.351	-20.48	-22.871	PASS
	6			6942.94	-42.455	-19.92	-22.535	PASS
	11			2483.50	-36.050	-20.47	-15.580	PASS
				21970.7	-42.595	-20.47	-22.125	PASS
IEEE 802.11n_20	1			2397.20	-36.323	-21.16	-15.163	PASS
				2400.00	-37.090	-21.16	-15.930	PASS
				6949.60	-43.331	-21.16	-22.171	PASS
	6			5897.53	-43.371	-20.38	-22.991	PASS
	11			2483.50	-38.660	-20.78	-17.880	PASS
				6915.48	-42.820	-20.78	-22.040	PASS
IEEE 802.11n_40	3			2396.45	-36.467	-23.39	-13.077	PASS
				2400.00	-38.160	-23.39	-14.770	PASS
				24602.6	-43.659	-23.39	-20.269	PASS
	6			6371.96	-42.784	-22.03	-20.754	PASS
	9			2483.50	-38.200	-22.94	-15.260	PASS
				6955.43	-42.955	-22.94	-20.015	PASS

IEEE 802.11ax_20	1	SU		2395.88	-34.999	-21.06	-13.939	PASS
				2400.00	-37.760	-21.06	-16.700	PASS
				6957.10	-42.598	-21.06	-21.538	PASS
	6			6839.74	-42.954	-20.27	-22.684	PASS
	11			2483.50	-38.830	-21.05	-17.780	PASS
				6917.97	-43.269	-21.05	-22.219	PASS
IEEE 802.11ax_40	3			2334.55	-36.947	-23.34	-13.607	PASS
				2400.00	-38.500	-23.34	-15.160	PASS
				6770.70	-43.172	-23.34	-19.832	PASS
	6			4688.15	-42.934	-21.98	-20.954	PASS
	9			2483.50	-38.190	-22.82	-15.370	PASS
				22064.8	-42.157	-22.82	-19.337	PASS

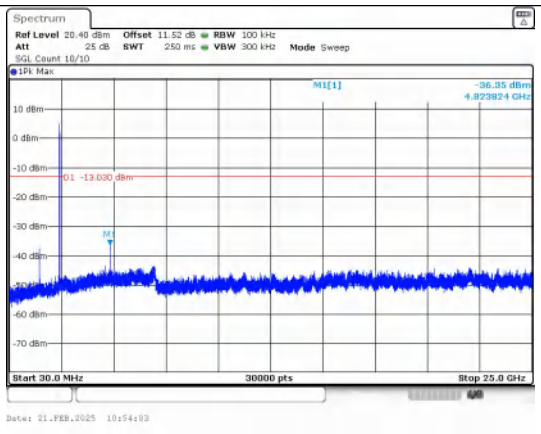
Test Graphs



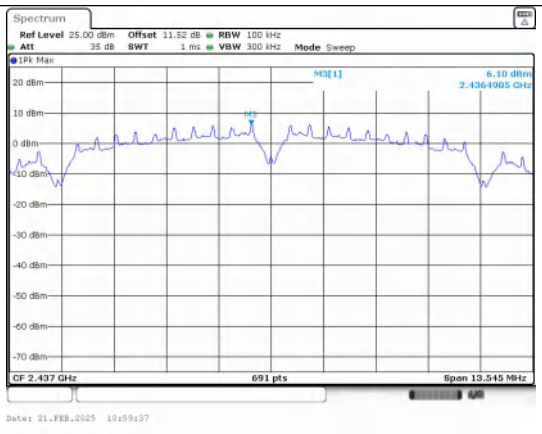
In-Band Reference Level
IEEE 802.11b_Channel 1_20MHz_Antenna 0



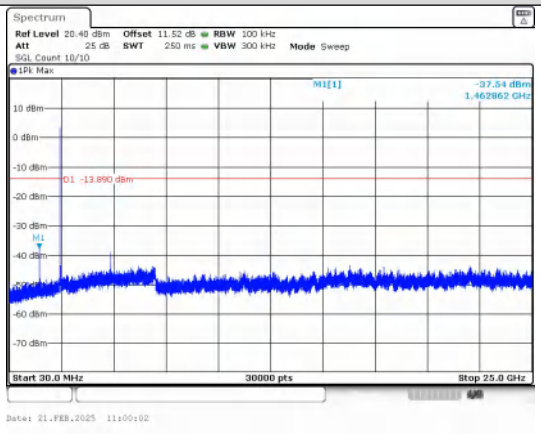
Out Of Band Emission
IEEE 802.11b_Channel 1_20MHz_Antenna 0



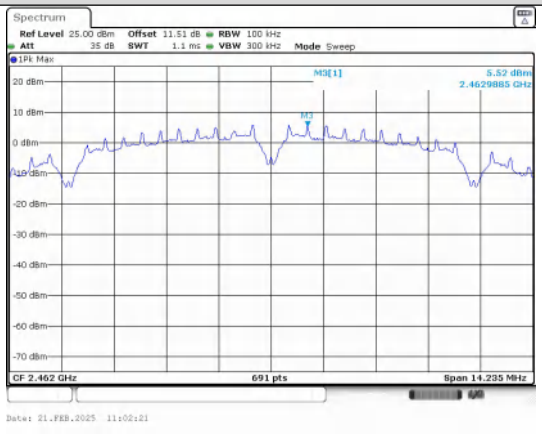
30.0 MHz - 25000.0 MHz
IEEE 802.11b_Channel 1_20MHz_Antenna 0



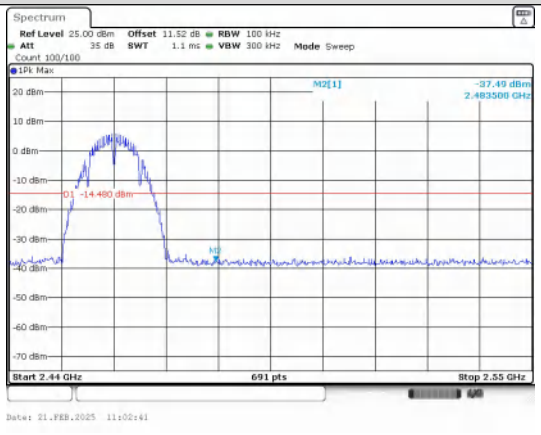
In-Band Reference Level
IEEE 802.11b_Channel 6_20MHz_Antenna 0



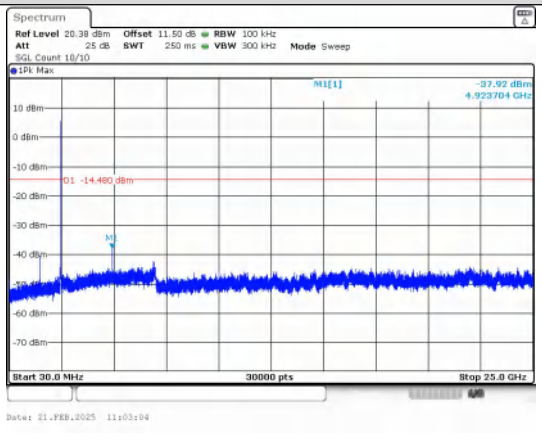
30.0 MHz - 25000.0 MHz
IEEE 802.11b_Channel 6_20MHz_Antenna 0



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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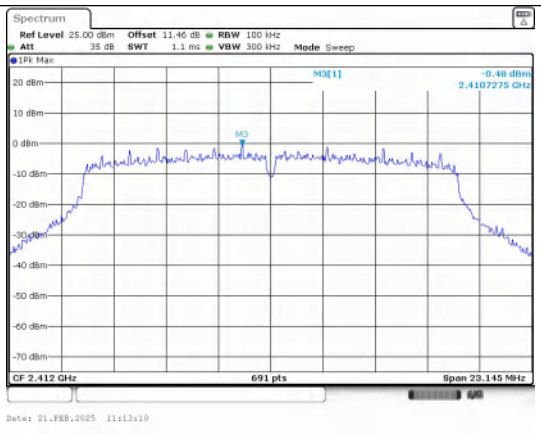
IEEE 802.11b_Channel 11_20MHz_Antenna 0



In-Band Reference Level
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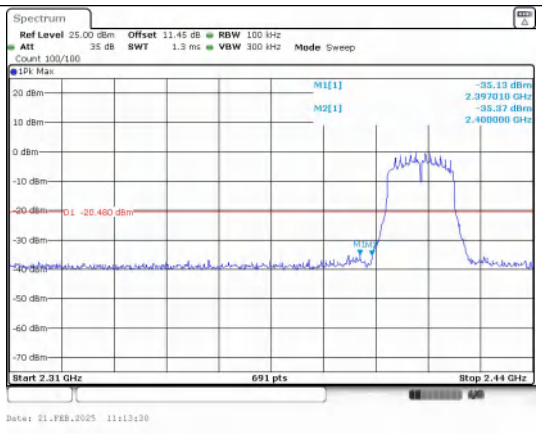
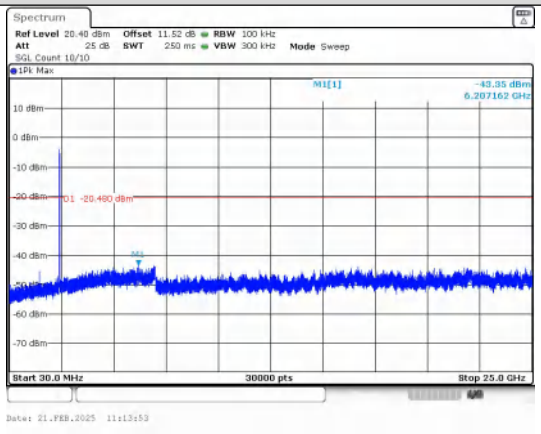


Out Of Band Emission
IEEE 802.11g_Channel 1_20MHz_Antenna 0



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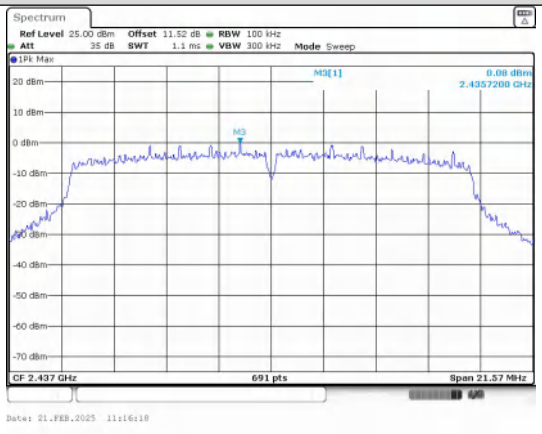
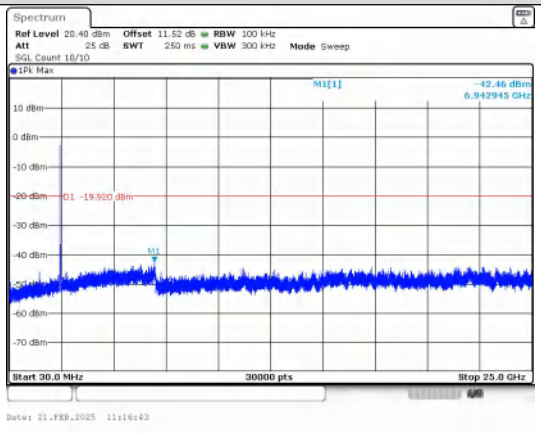
IEEE 802.11g_Channel 1_20MHz_Antenna 0



In-Band Reference Level
IEEE 802.11g_Channel 6_20MHz_Antenna 0



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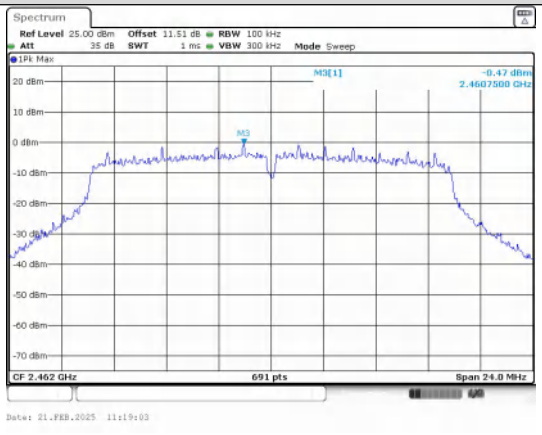
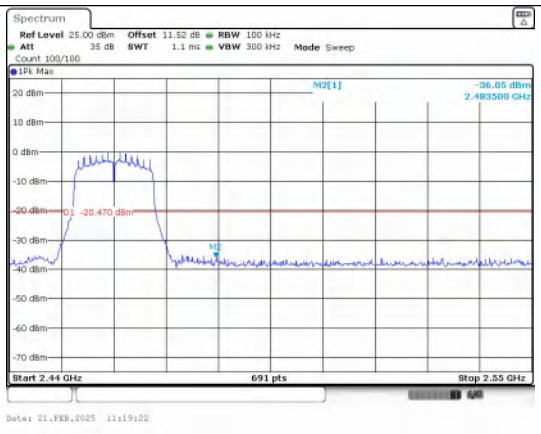
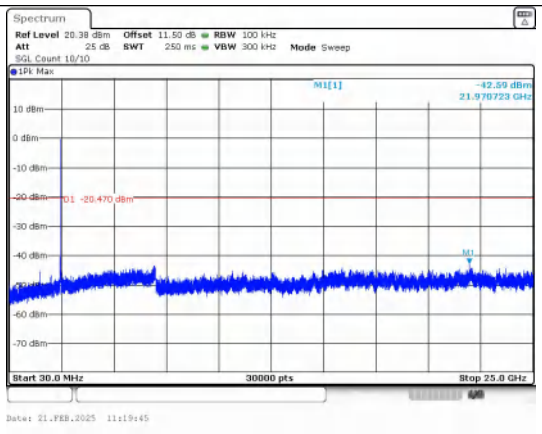
IEEE 802.11g_Channel 6_20MHz_Antenna 0



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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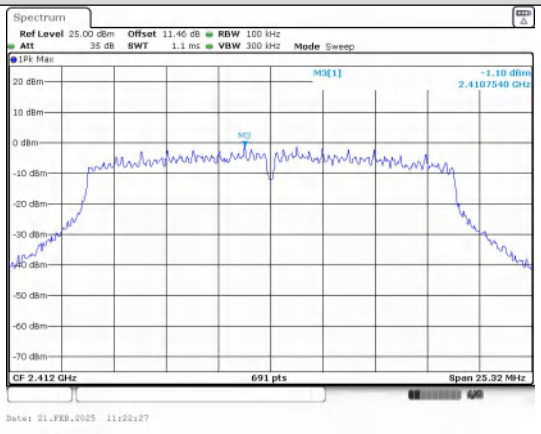
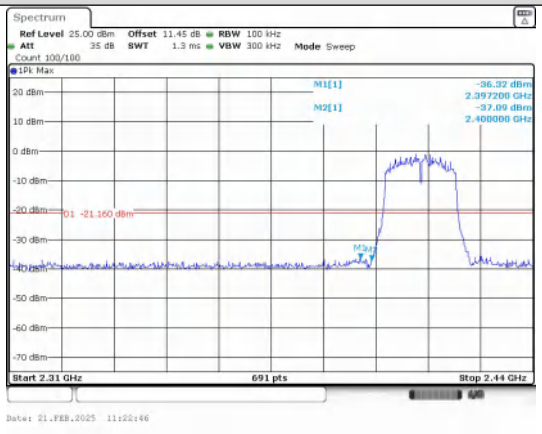
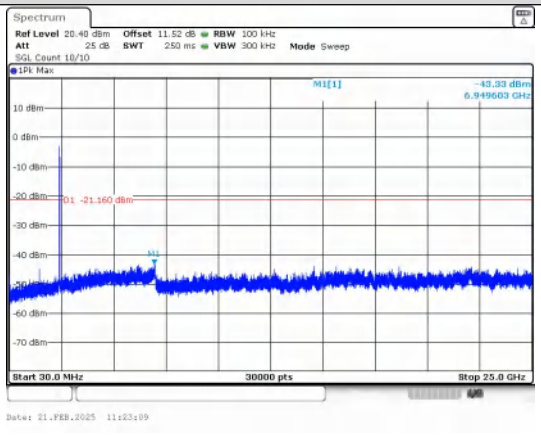
IEEE 802.11g_Channel 11_20MHz_Antenna 0



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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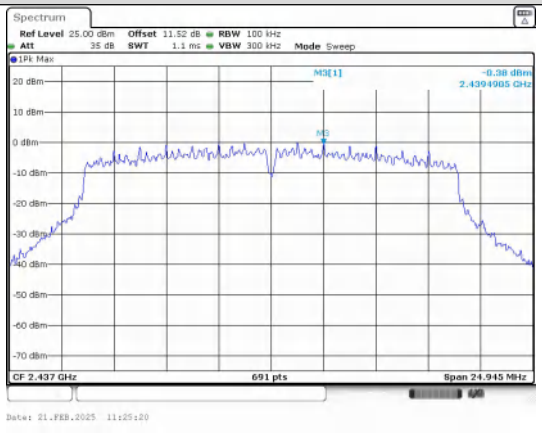
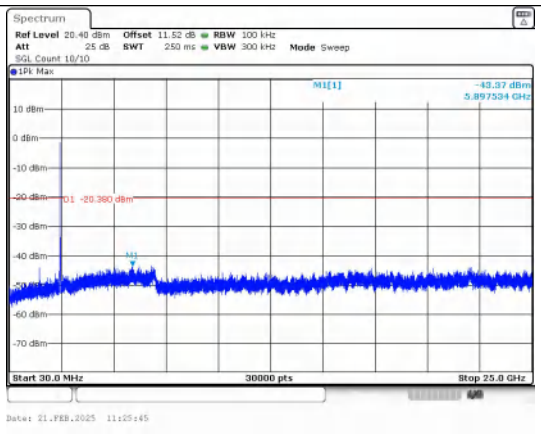
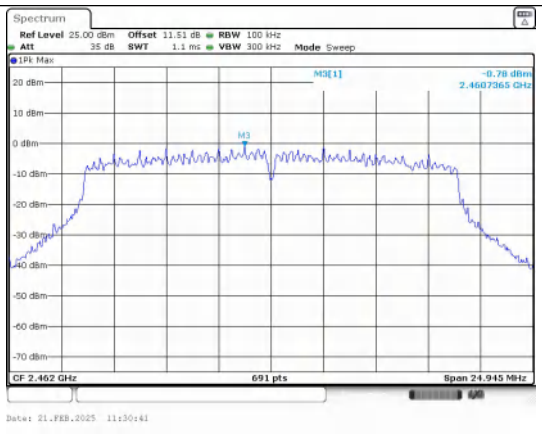
IEEE 802.11n_Channel 1_20MHz_Antenna 0



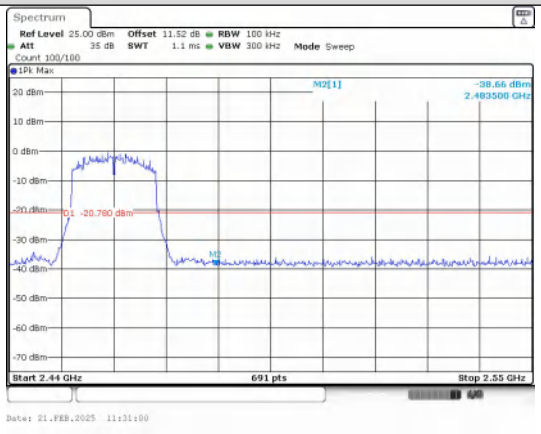
In-Band Reference Level
IEEE 802.11n_Channel 6_20MHz_Antenna 0



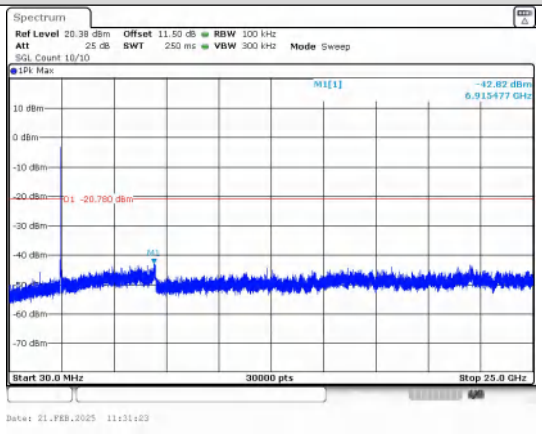
30.0 MHz - 25000.0 MHz
IEEE 802.11n_Channel 6_20MHz_Antenna 0



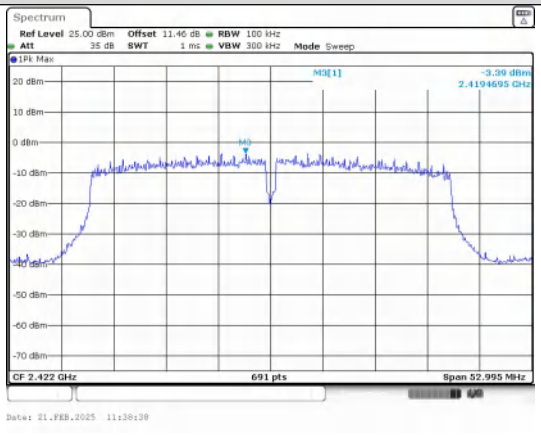
In-Band Reference Level
IEEE 802.11n_Channel 11_20MHz_Antenna 0



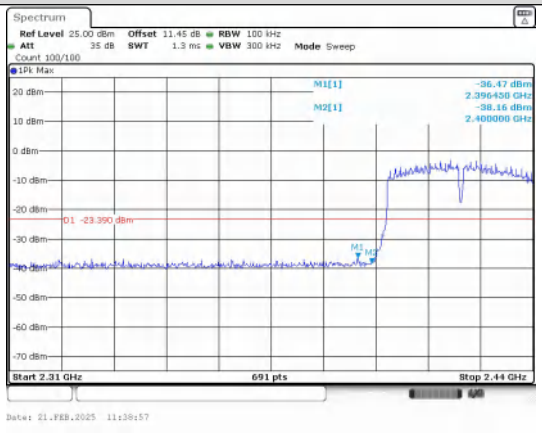
Out Of Band Emission
IEEE 802.11n_Channel 11_20MHz_Antenna 0



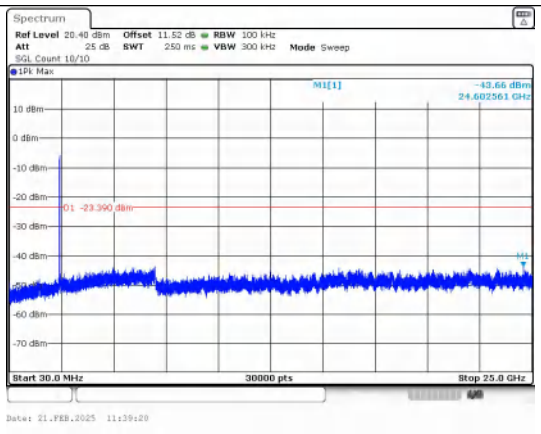
30.0 MHz - 25000.0 MHz
IEEE 802.11n_Channel 11_20MHz_Antenna 0



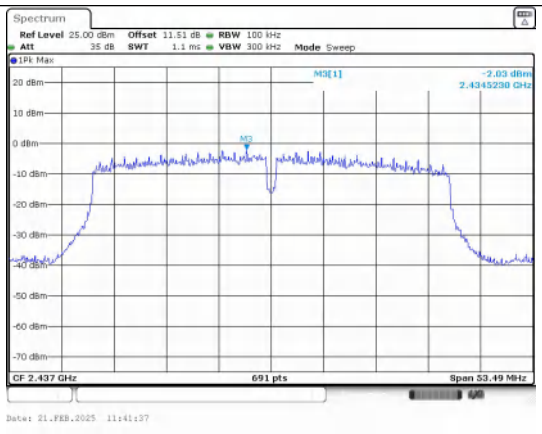
In-Band Reference Level
IEEE 802.11n_Channel 3_40MHz_Antenna 0



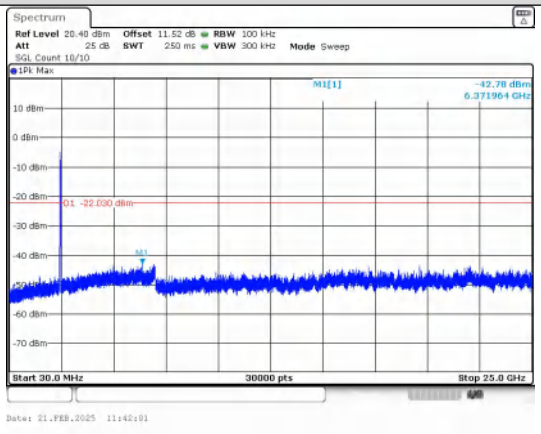
Out Of Band Emission
IEEE 802.11n_Channel 3_40MHz_Antenna 0



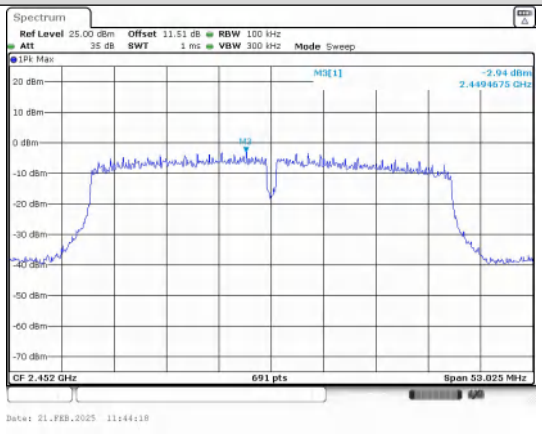
30.0 MHz - 25000.0 MHz
IEEE 802.11n_Channel 3_40MHz_Antenna 0



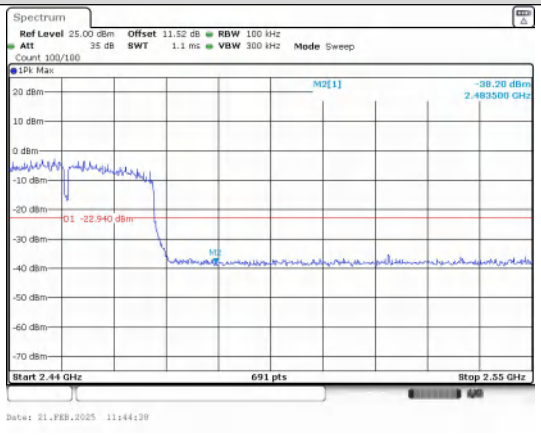
In-Band Reference Level
IEEE 802.11n_Channel 6_40MHz_Antenna 0



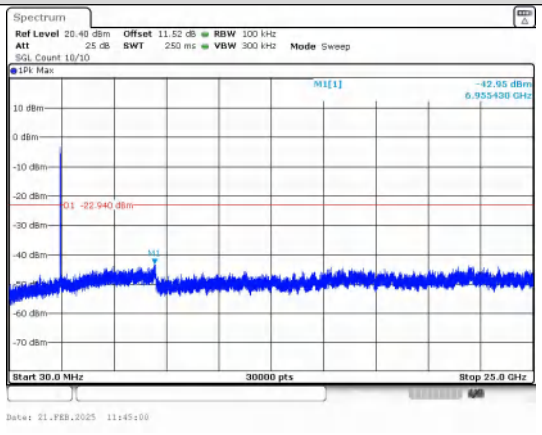
30.0 MHz - 25000.0 MHz
IEEE 802.11n_Channel 6_40MHz_Antenna 0



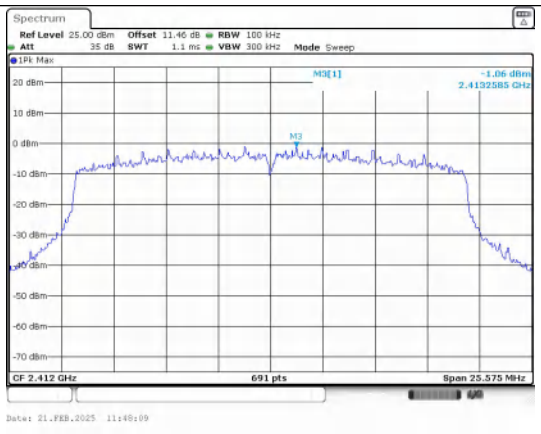
In-Band Reference Level
IEEE 802.11n_Channel 9_40MHz_Antenna 0



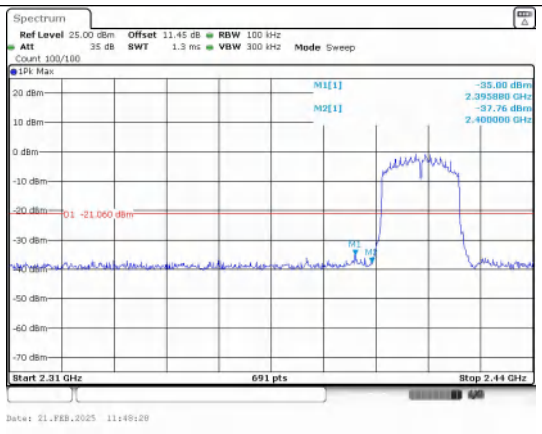
Out Of Band Emission
IEEE 802.11n_Channel 9_40MHz_Antenna 0



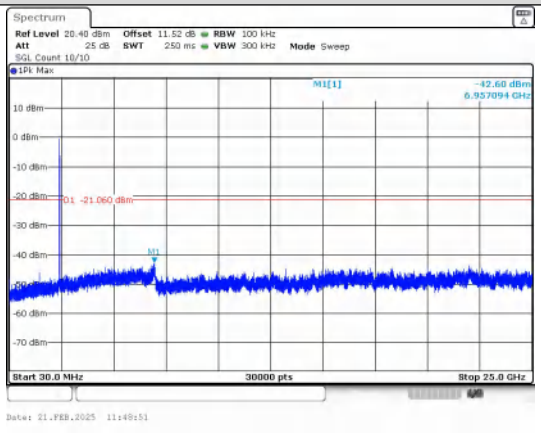
30.0 MHz - 25000.0 MHz
IEEE 802.11n_Channel 9_40MHz_Antenna 0



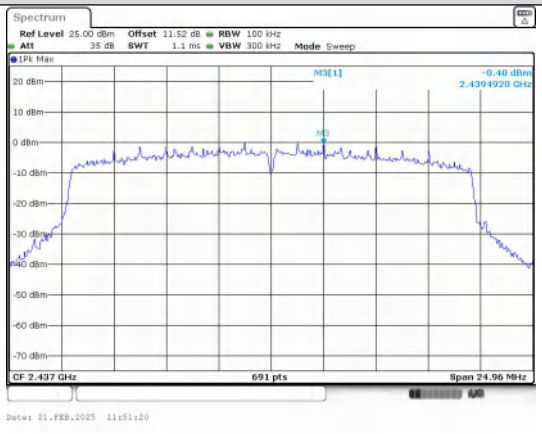
In-Band Reference Level
IEEE 802.11ax_Channel 1_20MHz_Antenna 0_RU&Index SU



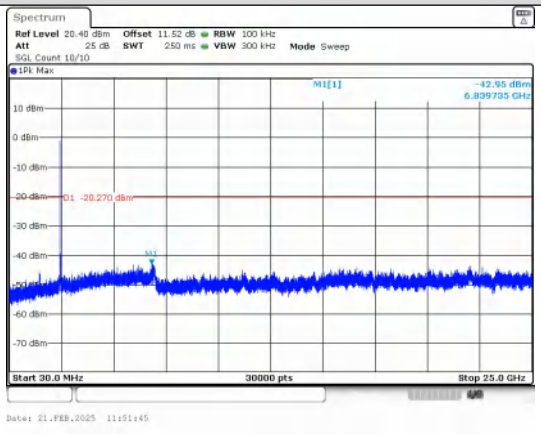
Out Of Band Emission
IEEE 802.11ax_Channel 1_20MHz_Antenna 0_RU&Index SU



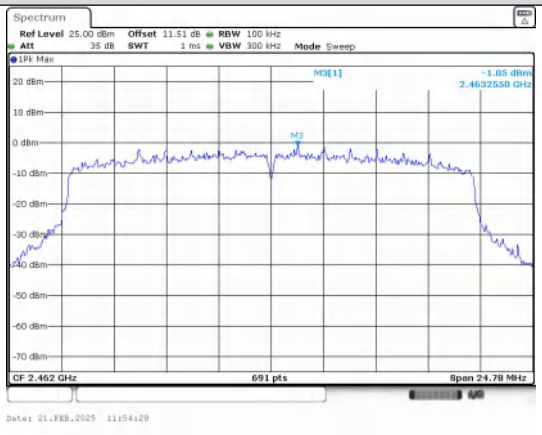
30.0 MHz - 25000.0 MHz
IEEE 802.11ax_Channel 1_20MHz_Antenna 0_RU&Index SU



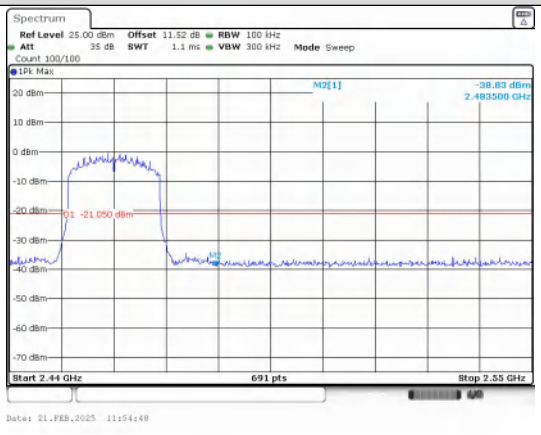
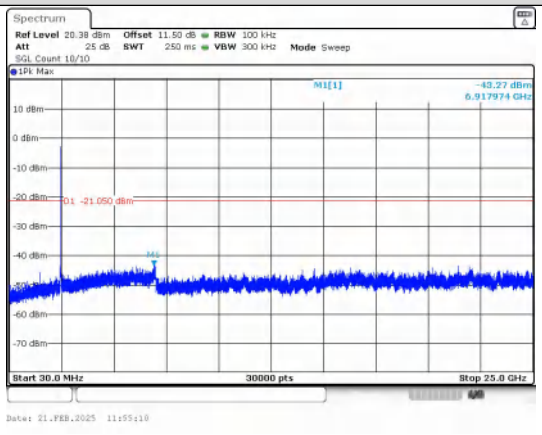
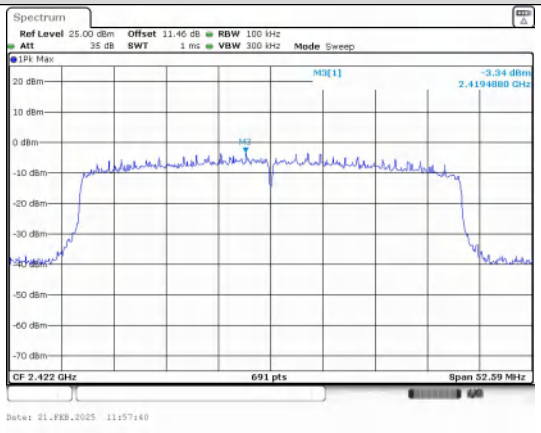
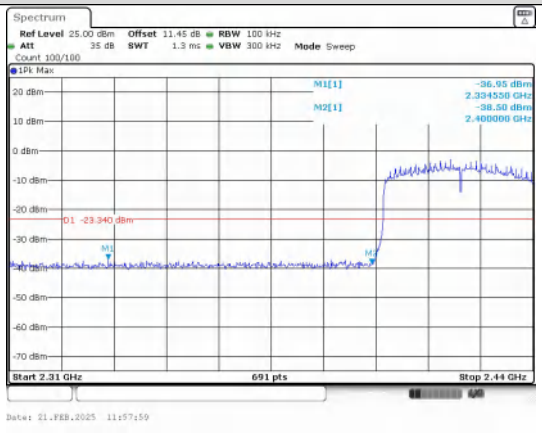
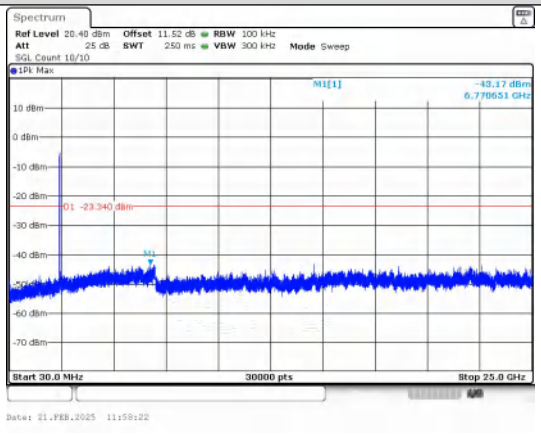
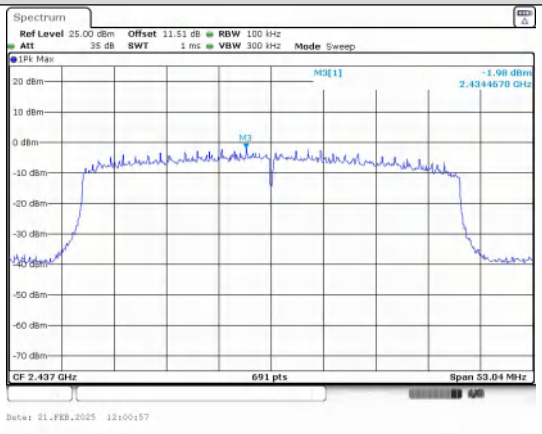
In-Band Reference Level
IEEE 802.11ax_Channel 6_20MHz_Antenna 0_RU&Index SU

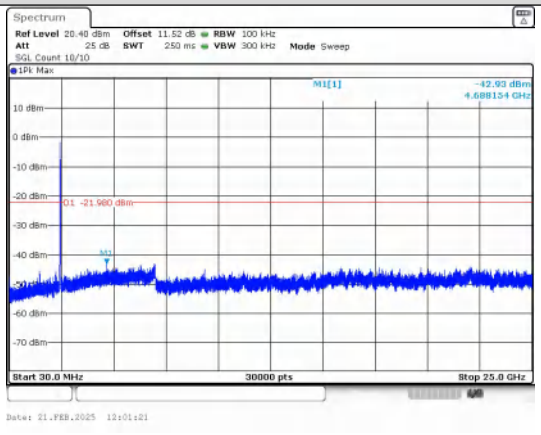
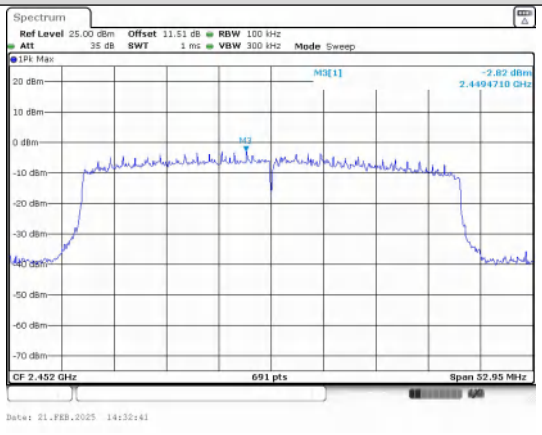
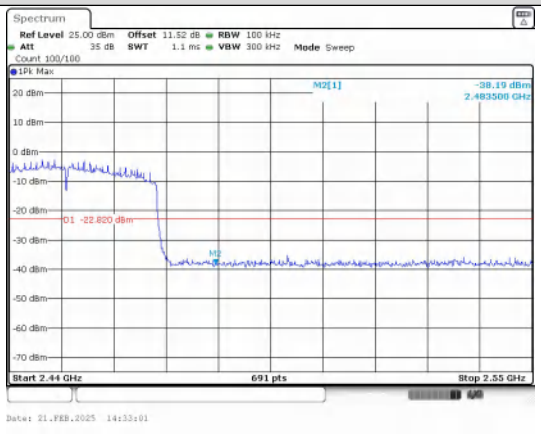
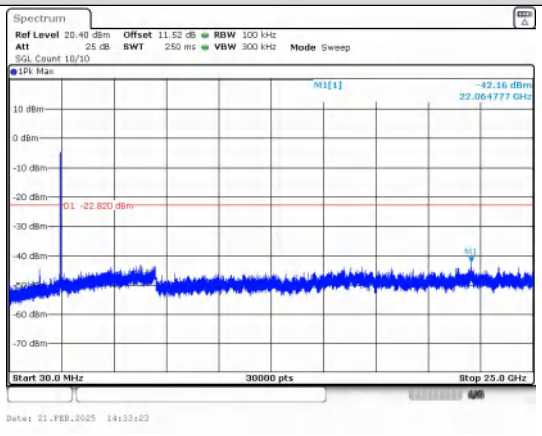


30.0 MHz - 25000.0 MHz
IEEE 802.11ax_Channel 6_20MHz_Antenna 0_RU&Index



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-----