Appendix

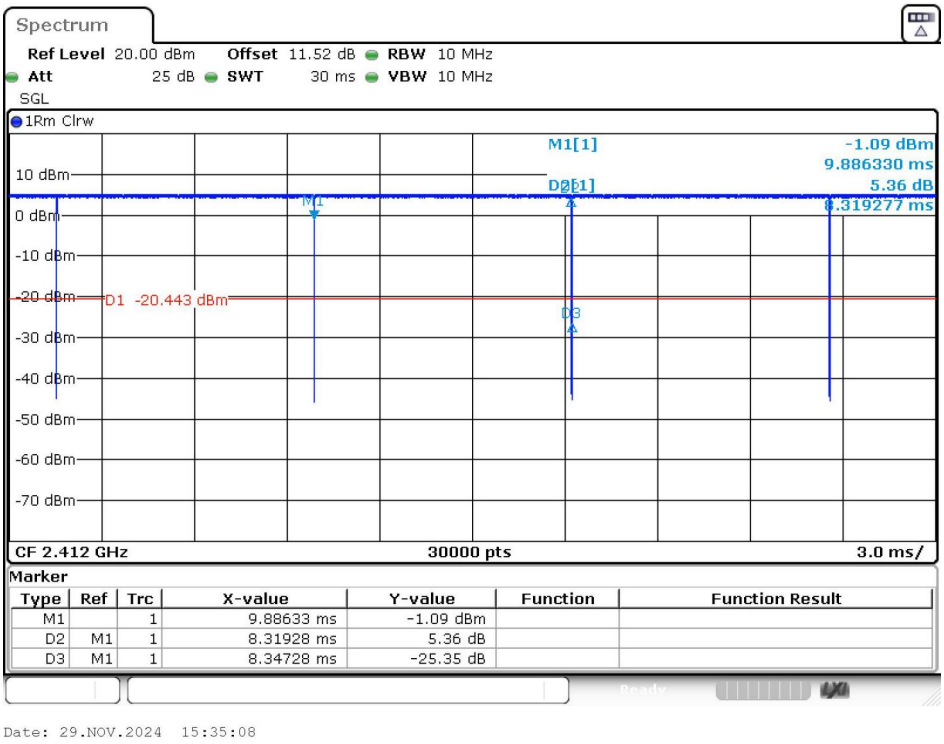
Report No.:	CISRR24112214306
FCC ID:	2BME5-D8
Product Name:	Handheld Translation Device
Model No.:	D8
Test Engineer:	Mark Fu
Supervised by:	Rory Huang

1) Duty Cycle

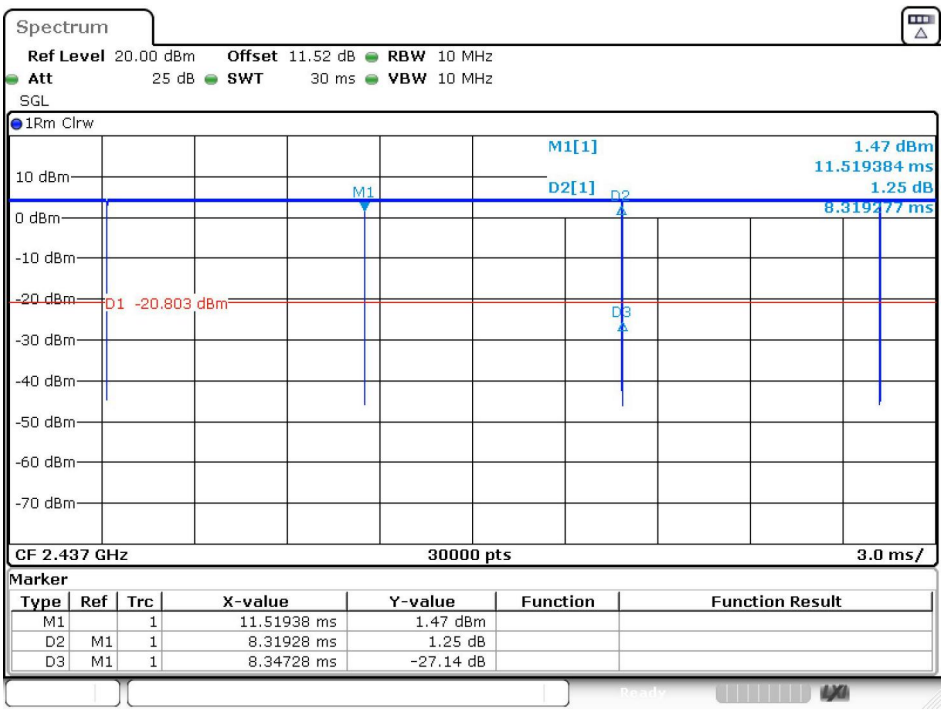
Test Result

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	8.319	8.347	99.66	0.9966	0.0148	0.1202
		6		8.319	8.347	99.66	0.9966	0.0148	0.1202
		11		8.319	8.347	99.66	0.9966	0.0148	0.1202
IEEE 802.11g		1		1.398	1.429	97.83	0.9783	0.0953	0.7153
		6		1.397	1.429	97.76	0.9776	0.0984	0.7158
		11		1.386	1.417	97.79	0.9779	0.0971	0.7215
IEEE 802.11n_20	MCS 0	1		1.295	1.326	97.69	0.9769	0.1015	0.7722
		6		1.306	1.337	97.68	0.9768	0.1019	0.7657
		11		1.295	1.327	97.64	0.9764	0.1037	0.7722
IEEE 802.11n_40		3		0.652	0.683	95.38	0.9538	0.2054	1.5337
		6		0.652	0.683	95.38	0.9538	0.2054	1.5337
		9		0.652	0.684	95.38	0.9538	0.2054	1.5337

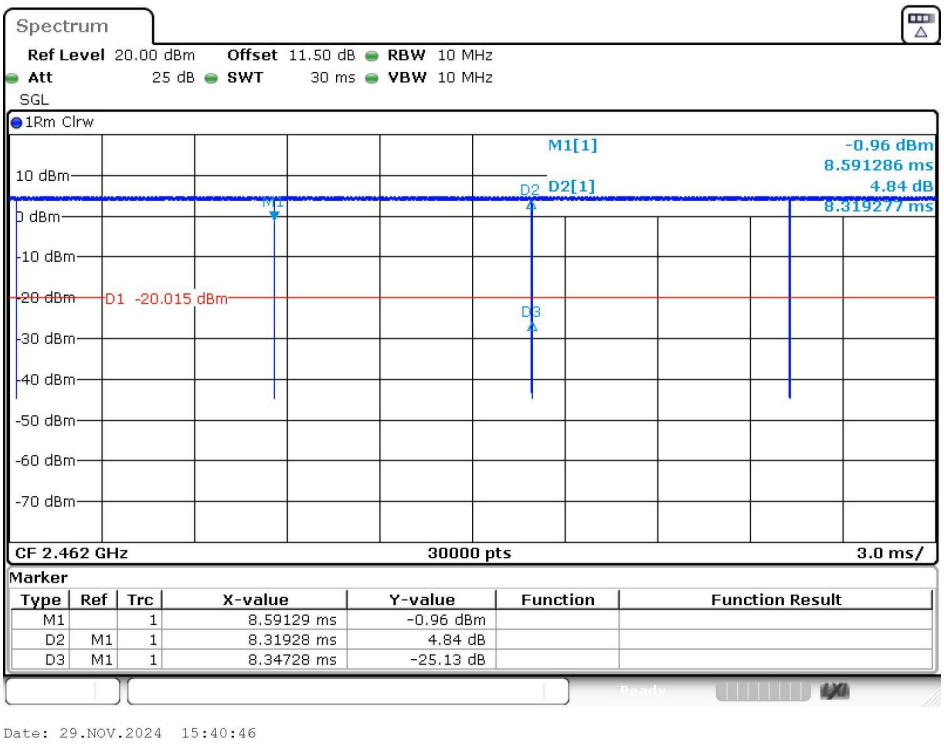
Test Graphs



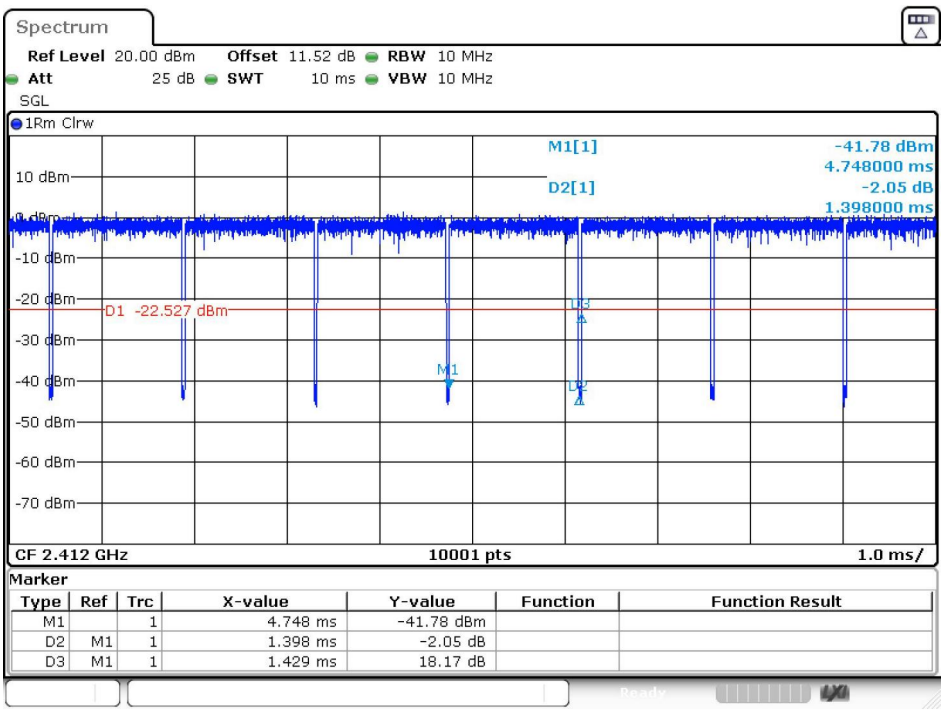
IEEE 802.11b_20MHz_Channel 1



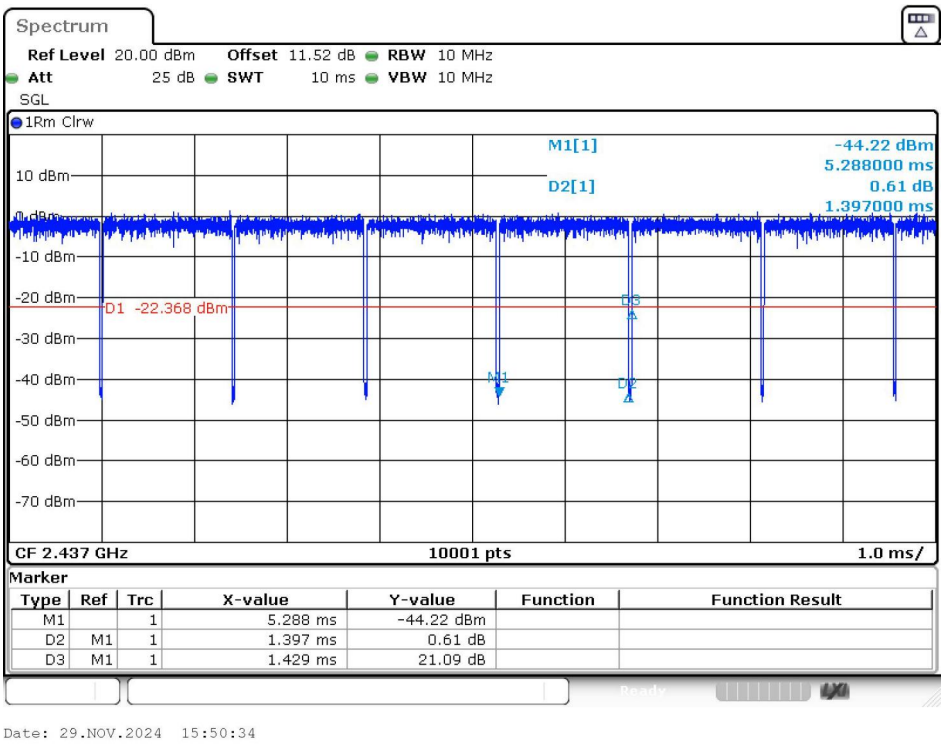
IEEE 802.11b_20MHz_Channel 6



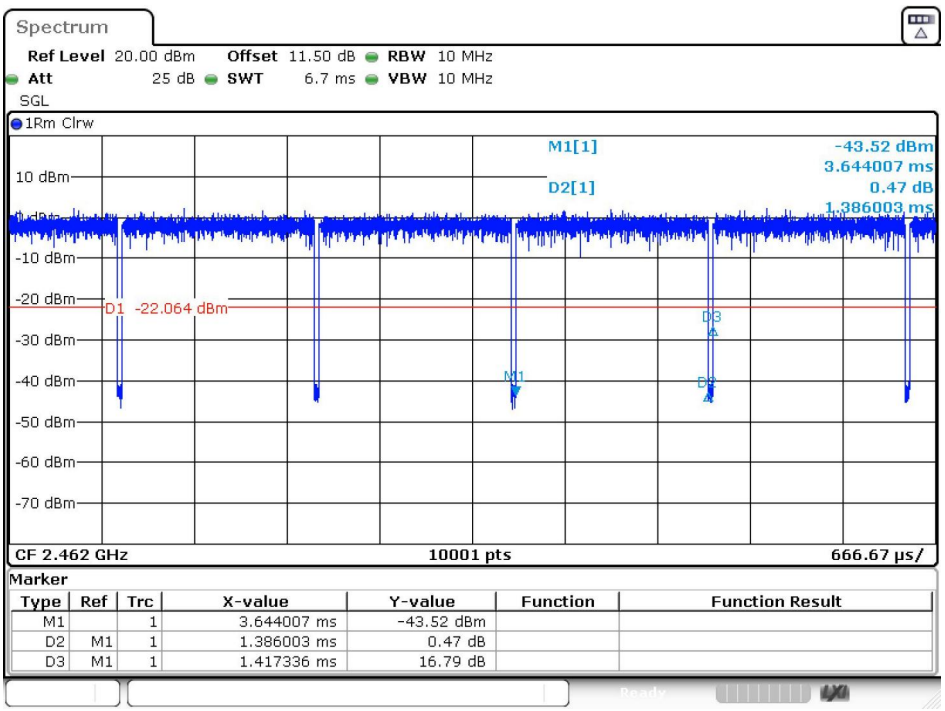
IEEE 802.11b_20MHz_Channel 11



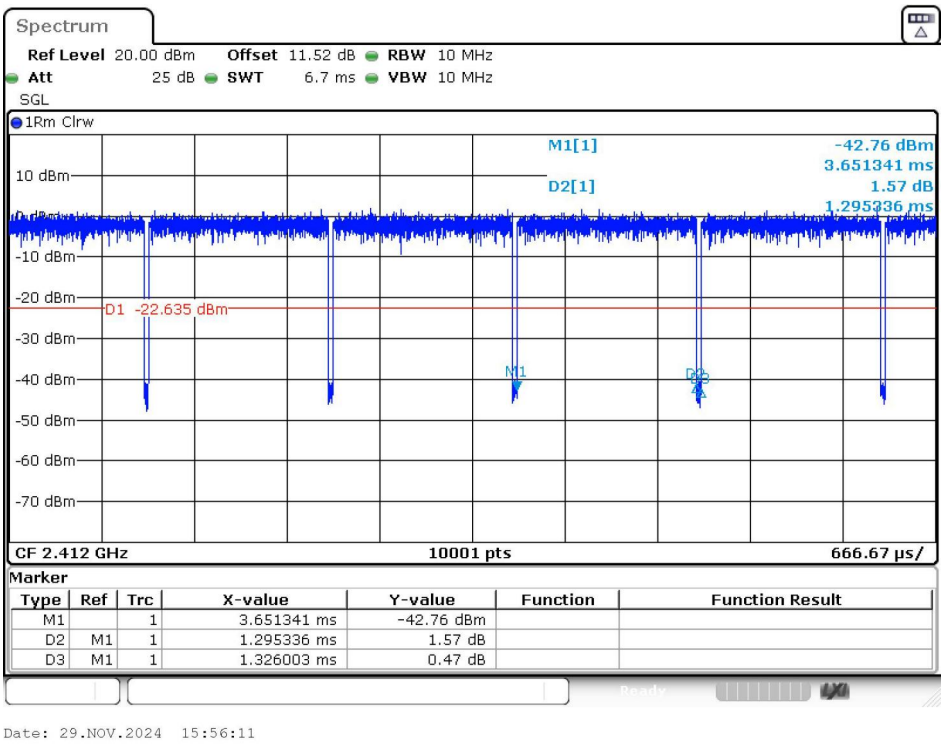
IEEE 802.11g_20MHz_Channel 1



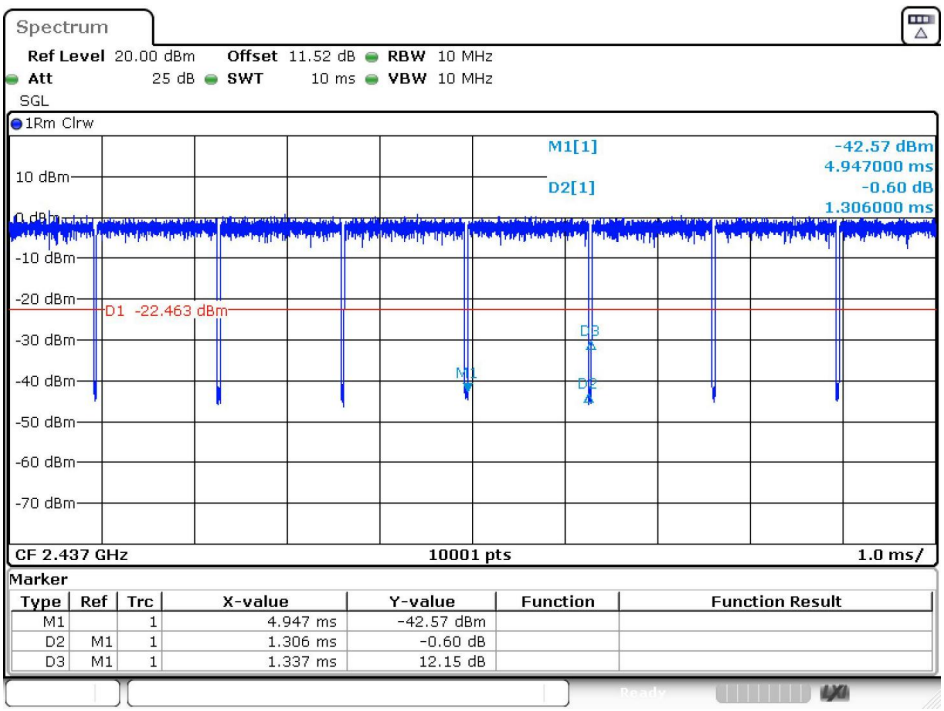
IEEE 802.11g_20MHz_Channel 6



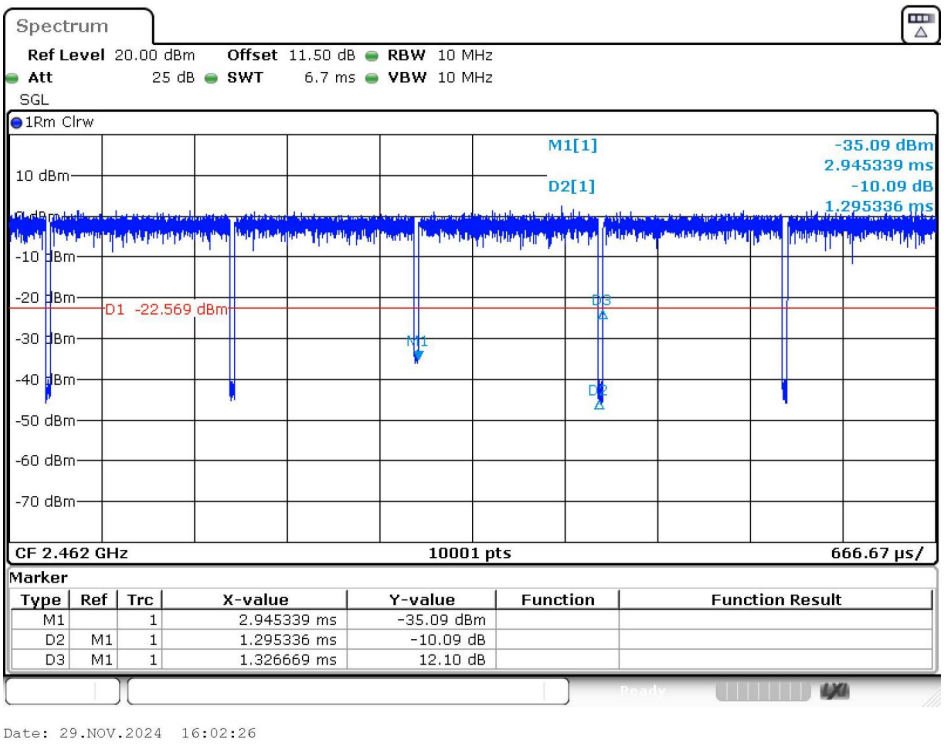
IEEE 802.11g_20MHz_Channel 11



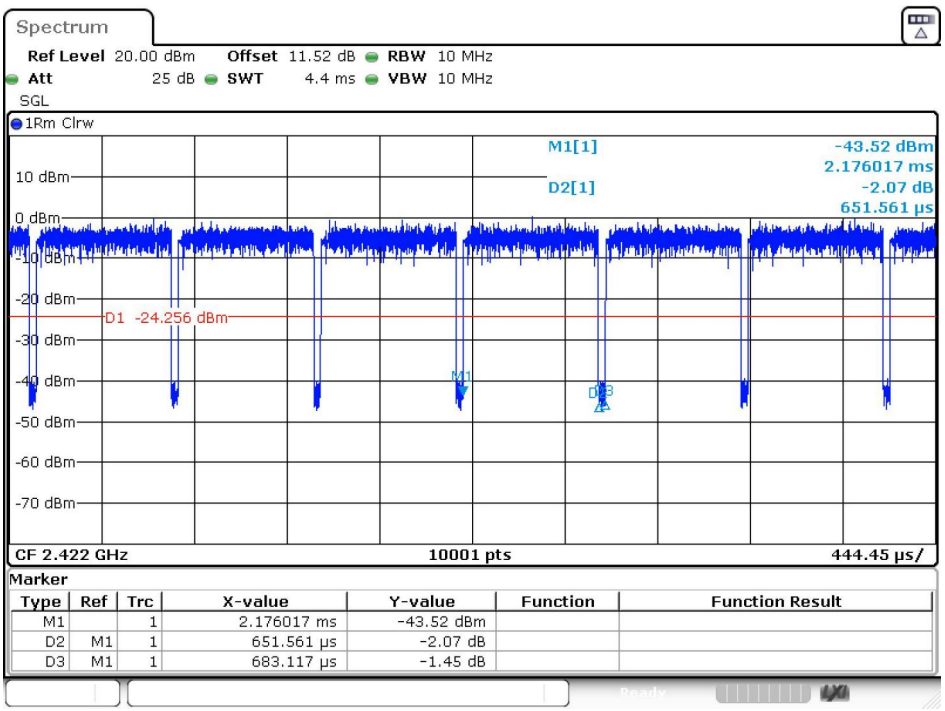
IEEE 802.11n_20MHz_Channel 1



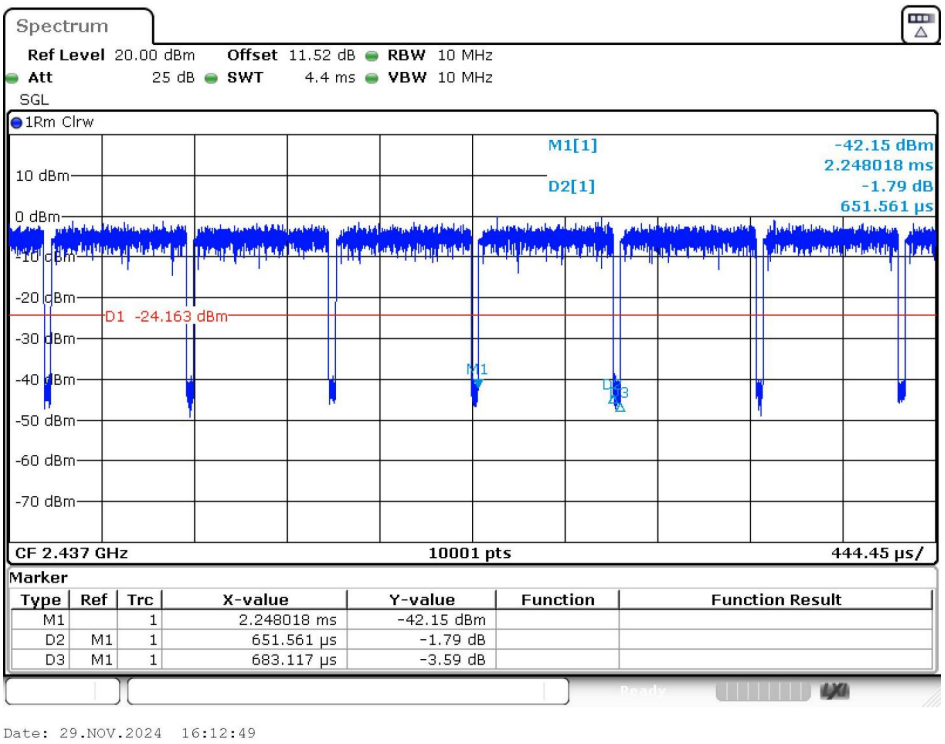
IEEE 802.11n_20MHz_Channel 6



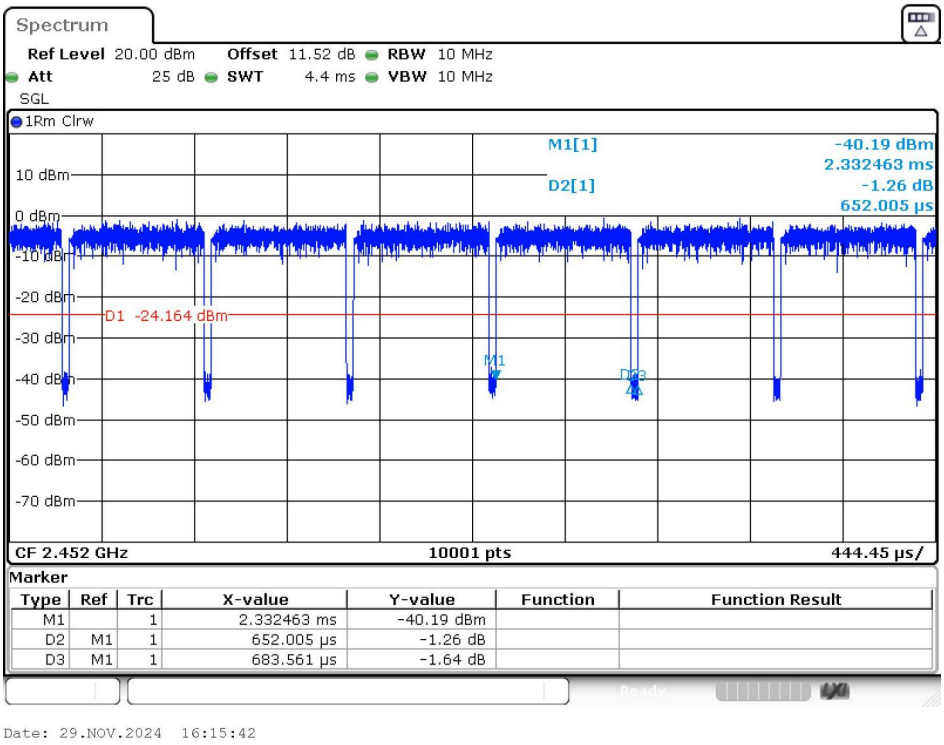
IEEE 802.11n_20MHz_Channel 11



IEEE 802.11n_40MHz_Channel 3



IEEE 802.11n_40MHz_Channel 6



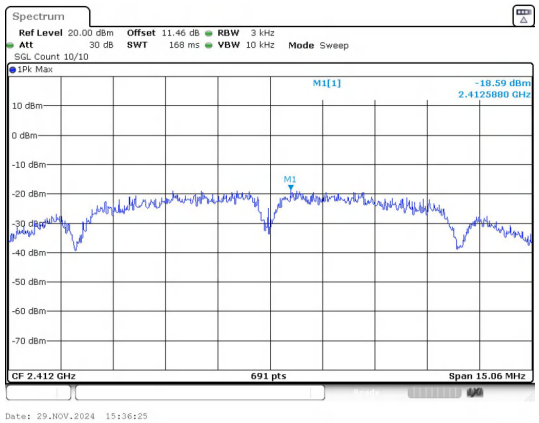
IEEE 802.11n_40MHz_Channel 9

2) Power Spectral Density

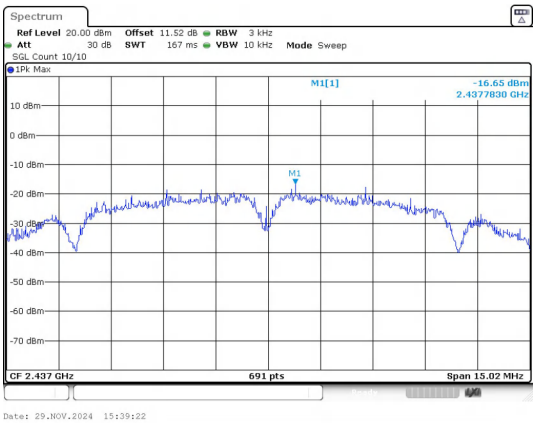
Test Result

Mode	Channel	PSD (dBm/3kHz) Ant. 0	Limit (dBm/3kHz)	Result
IEEE 802.11b	1	-18.590	≤8	PASS
	6	-16.650		PASS
	11	-18.310		PASS
IEEE 802.11g	1	-20.210		PASS
	6	-20.320		PASS
	11	-20.400		PASS
IEEE 802.11n_20	1	-20.450		PASS
	6	-20.520		PASS
	11	-20.260		PASS
IEEE 802.11n_40	3	-20.680		PASS
	6	-20.540		PASS
	9	-20.850		PASS

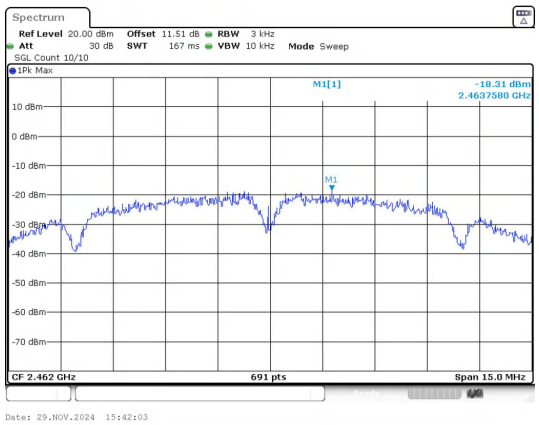
Test Graphs



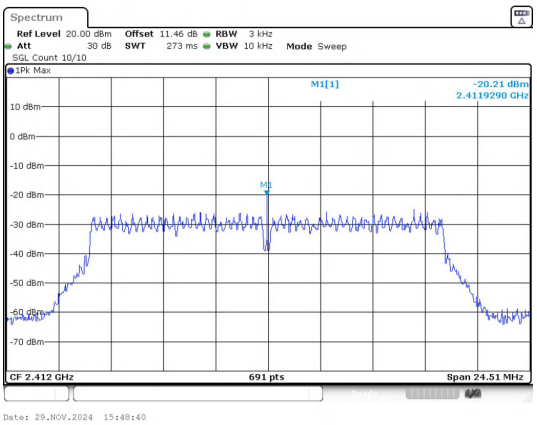
IEEE 802.11b_Channel 1_20MHz_Antenna 0



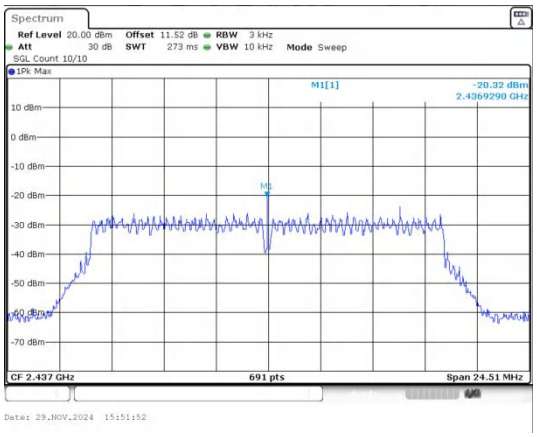
IEEE 802.11b_Channel 6_20MHz_Antenna 0



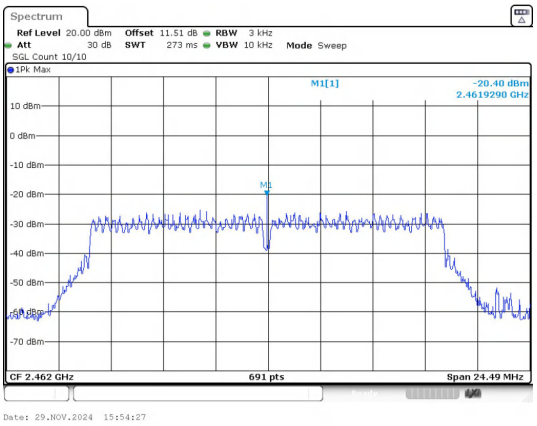
IEEE 802.11b_Channel 11_20MHz_Antenna 0



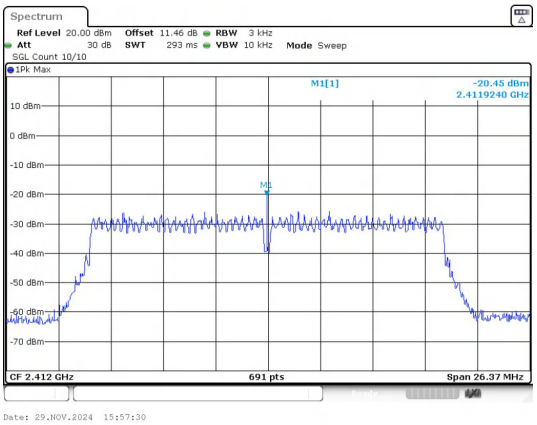
IEEE 802.11g_Channel 1_20MHz_Antenna 0



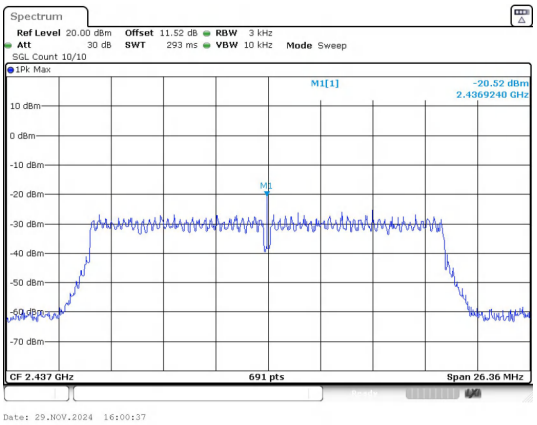
IEEE 802.11g_Channel 6_20MHz_Antenna 0



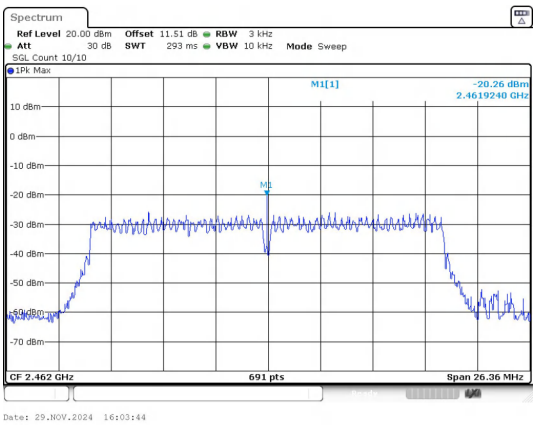
IEEE 802.11g_Channel 11_20MHz_Antenna 0



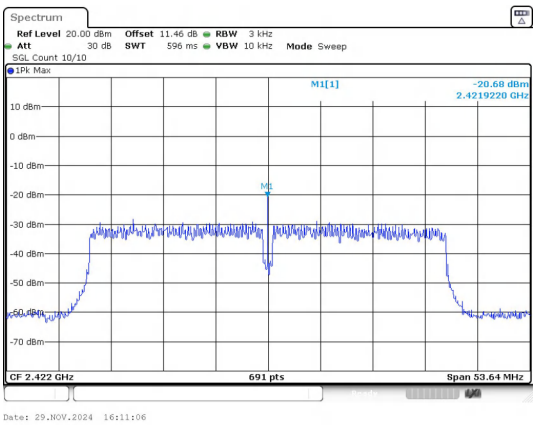
IEEE 802.11n_Channel 1_20MHz_Antenna 0



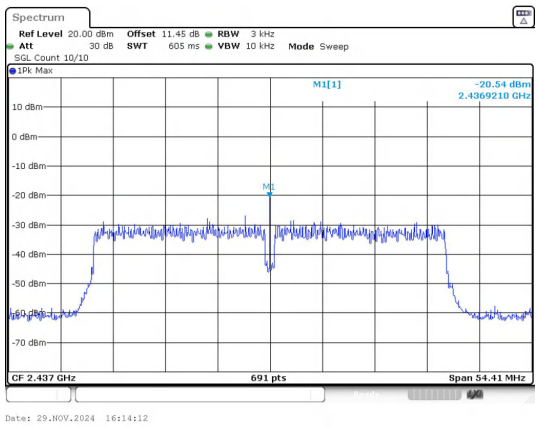
IEEE 802.11n_Channel 6_20MHz_Antenna 0



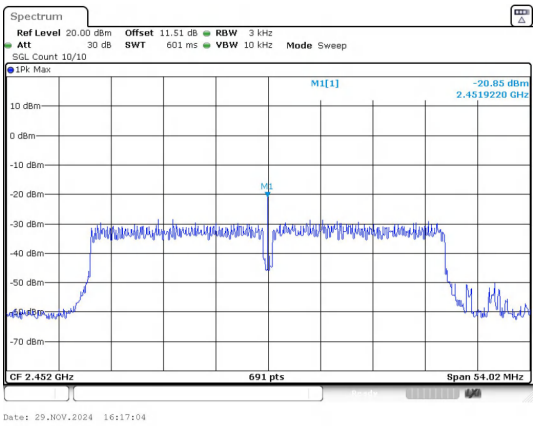
IEEE 802.11n_Channel 11_20MHz_Antenna 0



IEEE 802.11n_Channel 3_40MHz_Antenna 0



IEEE 802.11n_Channel 6_40MHz_Antenna 0



IEEE 802.11n_Channel 9_40MHz_Antenna 0

3) Conducted Peak Output Power

Test Result

Conducted Output Power

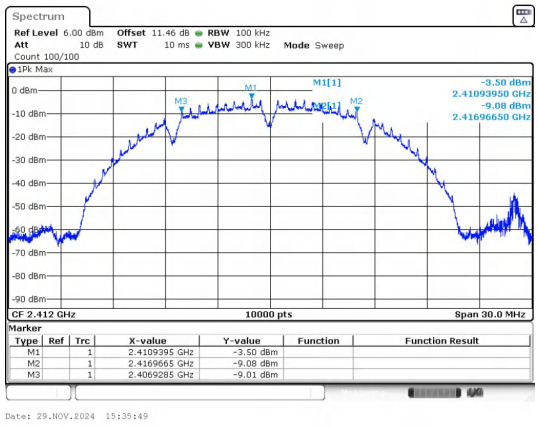
Mode	Channel	Ant. 0 (dBm)	Limit (dBm)	Result
IEEE 802.11b	1	8.19	≤30	PASS
	6	7.97	≤30	PASS
	11	8.07	≤30	PASS
IEEE 802.11g	1	8.14	≤30	PASS
	6	7.83	≤30	PASS
	11	8.13	≤30	PASS
IEEE 802.11n_20	1	8.17	≤30	PASS
	6	7.86	≤30	PASS
	11	8.17	≤30	PASS
IEEE 802.11n_40	3	8.17	≤30	PASS
	6	8.06	≤30	PASS
	9	8.10	≤30	PASS

4) 6dB Bandwidth

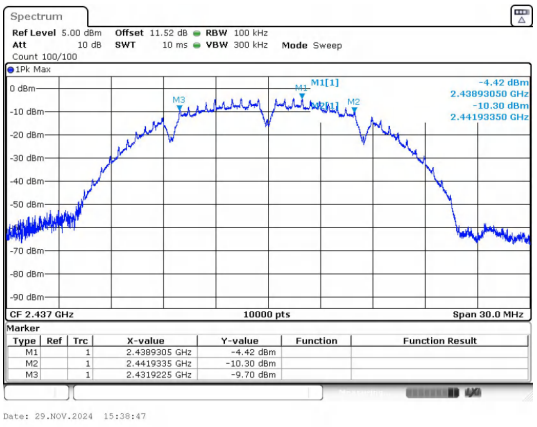
Test Result

Mode	Channel	Ant.	Center Frequency (MHz)	6 dB Bandwidth (MHz)	Limit (MHz)	Result
IEEE 802.11b	1	0	2412	10.04	≥0.5	PASS
	6		2437	10.01		PASS
	11		2462	10.00		PASS
IEEE 802.11g	1		2412	16.34		PASS
	6		2437	16.34		PASS
	11		2462	16.33		PASS
IEEE 802.11n_20	1		2412	17.58		PASS
	6		2437	17.57		PASS
	11		2462	17.57		PASS
IEEE 802.11n_40	3		2422	35.76		PASS
	6		2437	36.27		PASS
	9		2452	36.01		PASS

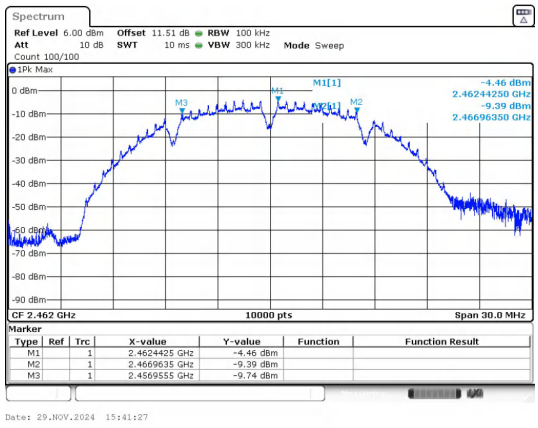
Test Graphs



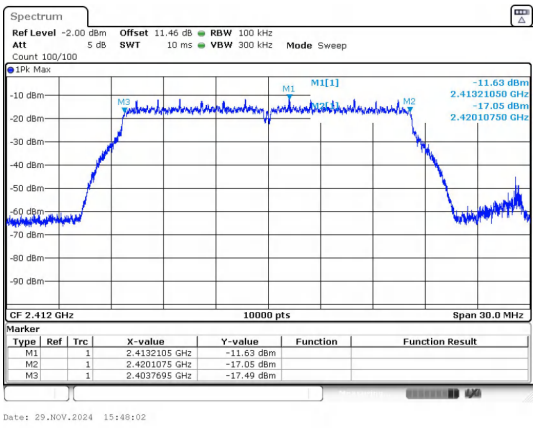
IEEE 802.11b_Channel 1_20MHz_Antenna 0



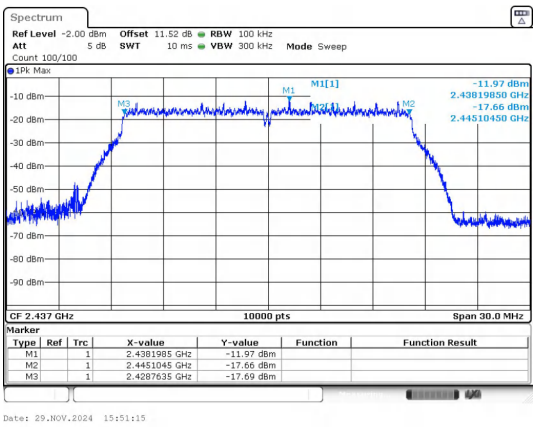
IEEE 802.11b_Channel 6_20MHz_Antenna 0



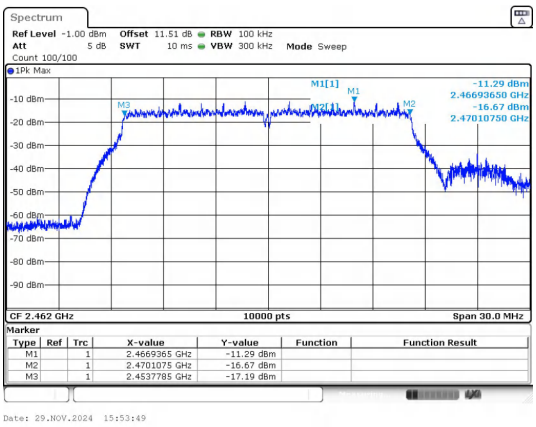
IEEE 802.11b_Channel 11_20MHz_Antenna 0



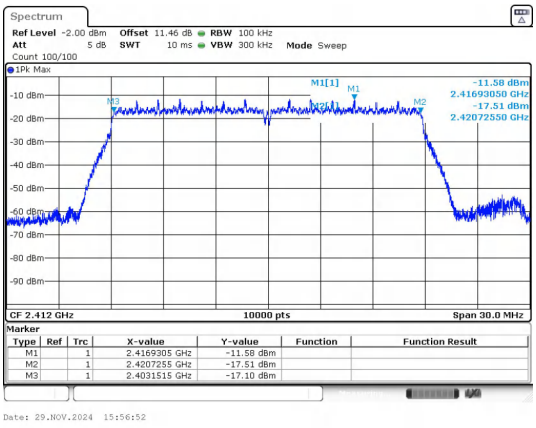
IEEE 802.11g_Channel 1_20MHz_Antenna 0



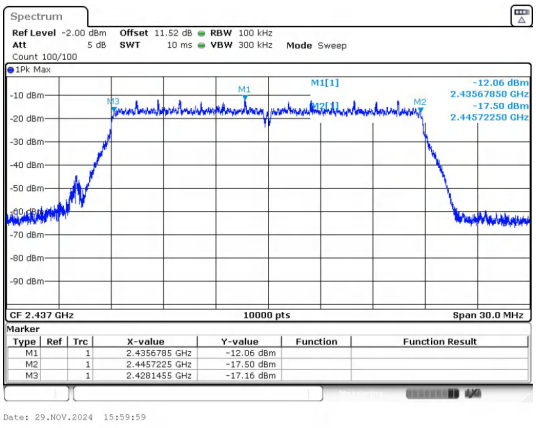
IEEE 802.11g_Channel 6_20MHz_Antenna 0



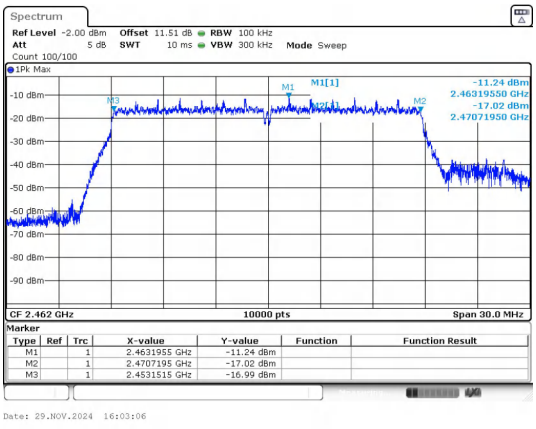
IEEE 802.11g_Channel 11_20MHz_Antenna 0



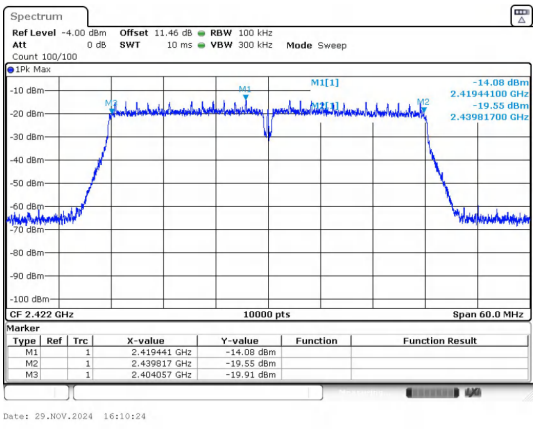
IEEE 802.11n_Channel 1_20MHz_Antenna 0



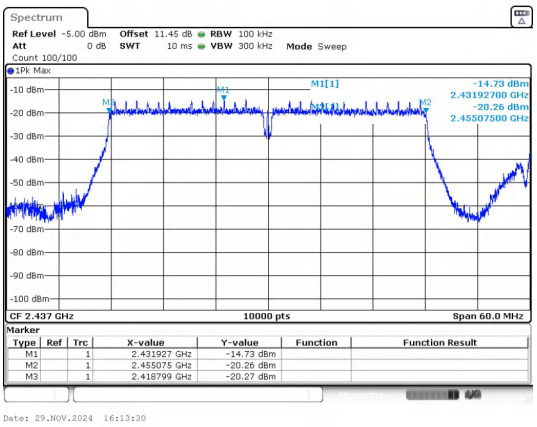
IEEE 802.11n_Channel 6_20MHz_Antenna 0



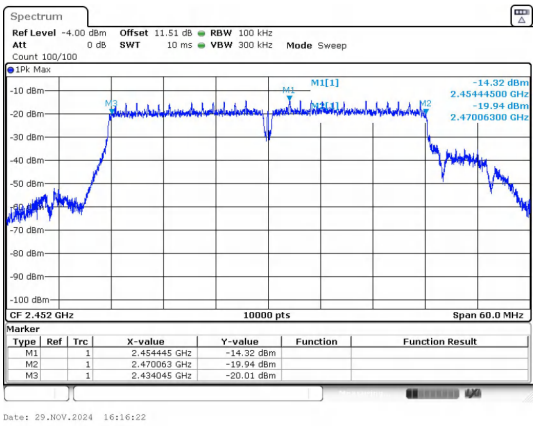
IEEE 802.11n_Channel 11_20MHz_Antenna 0



IEEE 802.11n_Channel 3_40MHz_Antenna 0



IEEE 802.11n_Channel 6_40MHz_Antenna 0



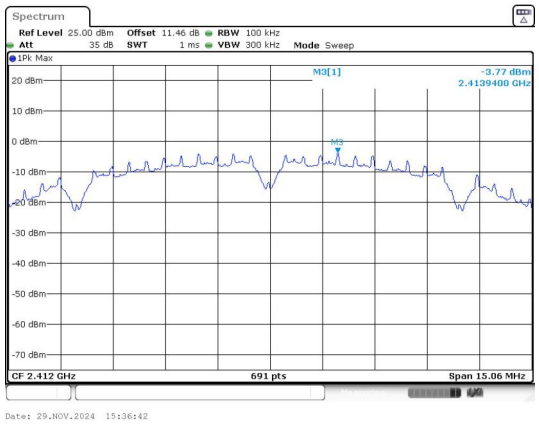
IEEE 802.11n_Channel 9_40MHz_Antenna 0

5) Conducted Out Of Band Emission

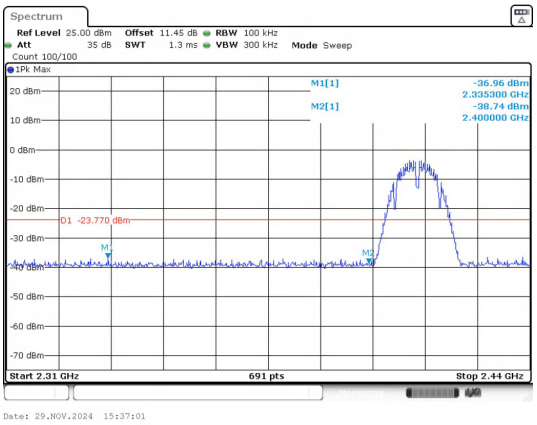
Test Result

Mode	Channel	Ant.	OOB Emission Frequency (MHz)	OOB Emission Level (dBm)	Limit (dBm)	Over Limit (dB)	Result
IEEE 802.11b	1	0	2335.30	-36.959	-23.77	-13.189	PASS
			2400.00	-38.740	-23.77	-14.970	PASS
			22069.8	-43.288	-23.77	-19.518	PASS
	6		6932.12	-42.949	-23.99	-18.959	PASS
	11		2483.50	-38.740	-24.14	-14.600	PASS
			6170.54	-42.076	-24.14	-17.936	PASS
IEEE 802.11g	1		2364.46	-36.749	-31.37	-5.379	PASS
			2400.00	-38.770	-31.37	-7.400	PASS
			6873.00	-43.091	-31.37	-11.721	PASS
	6		6931.29	-43.016	-31.71	-11.306	PASS
	11		2483.50	-39.120	-31.36	-7.760	PASS
			6897.17	-42.818	-31.36	-11.458	PASS
IEEE 802.11n_20	1		2392.50	-36.978	-31.47	-5.508	PASS
			2400.00	-39.860	-31.47	-8.390	PASS
			6972.90	-43.478	-31.47	-12.008	PASS
	6		22071.4	-42.855	-31.62	-11.235	PASS
	11		2483.50	-38.470	-32.18	-6.290	PASS
			6907.99	-42.607	-32.18	-10.427	PASS
IEEE 802.11n_40	3		1941.50	-42.590	-33.88	-8.710	PASS
			2314.04	-36.639	-33.88	-2.759	PASS
			2400.00	-38.300	-33.88	-4.420	PASS
	6		2024.69	-39.167	-34.24	-4.927	PASS
	9		2483.50	-38.730	-34.09	-4.640	PASS
			5675.30	-43.421	-34.09	-9.331	PASS

Test Graphs

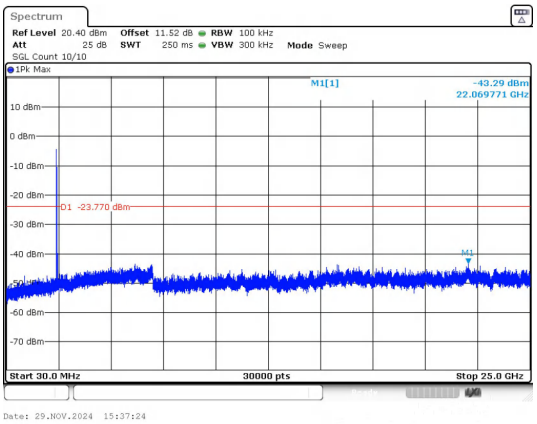


In-Band Reference Level

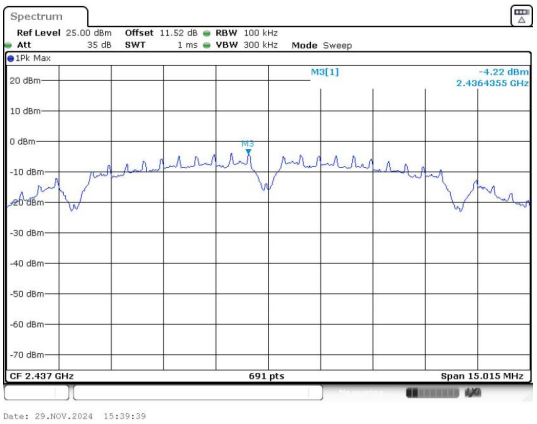


Out Of Band Emission

IEEE 802.11b_Channel 1_20MHz_Antenna 0

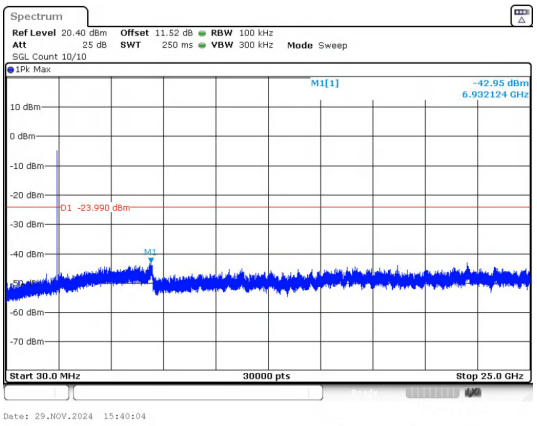


IEEE 802.11b_Channel 1_20MHz_Antenna 0



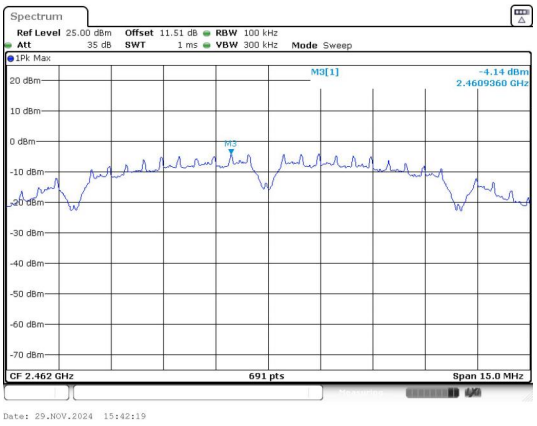
30.0 MHz - 25000.0 MHz

IEEE 802.11b_Channel 1_20MHz_Antenna 0



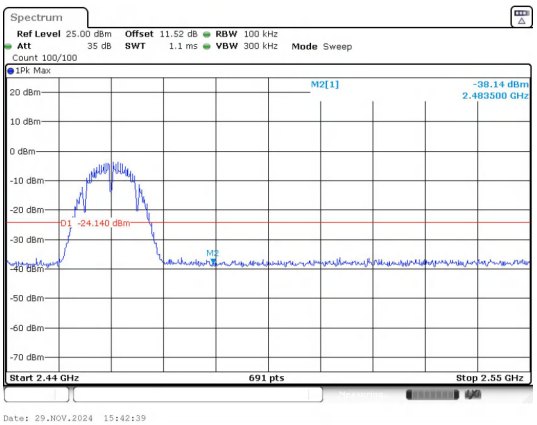
In-Band Reference Level

IEEE 802.11b_Channel 6_20MHz_Antenna 0



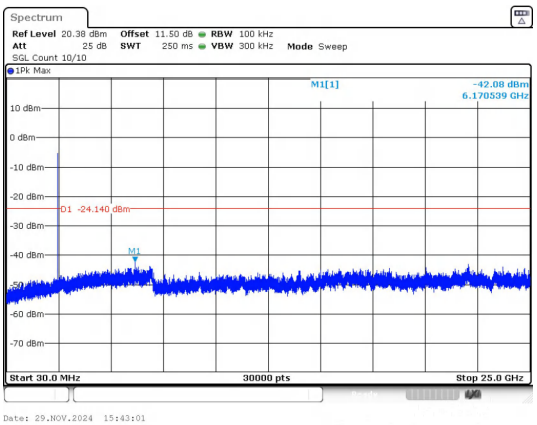
30.0 MHz - 25000.0 MHz

IEEE 802.11b_Channel 6_20MHz_Antenna 0



In-Band Reference Level

IEEE 802.11b_Channel 11_20MHz_Antenna 0

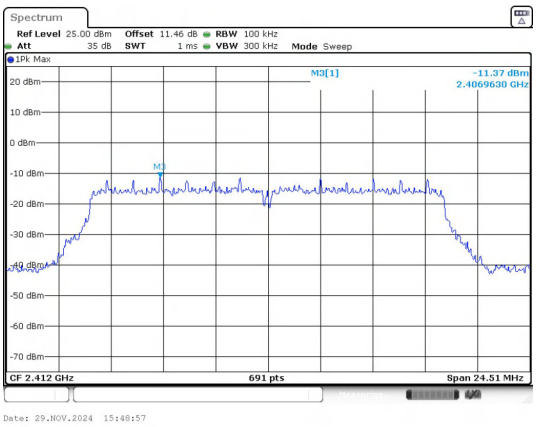


Out Of Band Emission

IEEE 802.11b_Channel 11_20MHz_Antenna 0

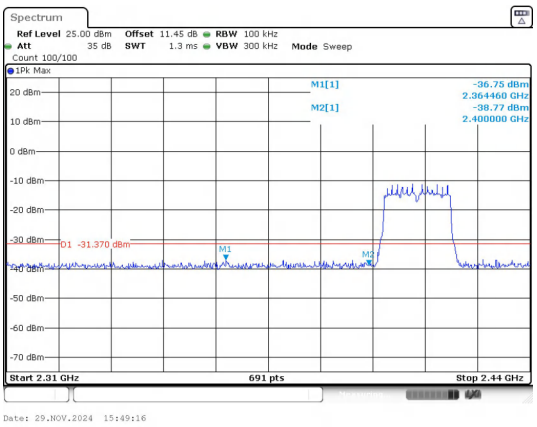
30.0 MHz - 25000.0 MHz

IEEE 802.11b_Channel 11_20MHz_Antenna 0



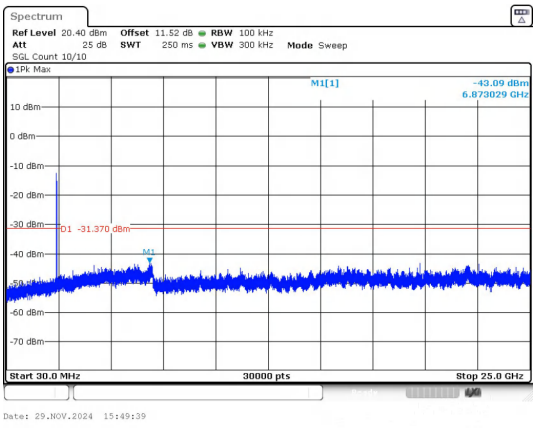
In-Band Reference Level

IEEE 802.11g_Channel 1_20MHz_Antenna 0



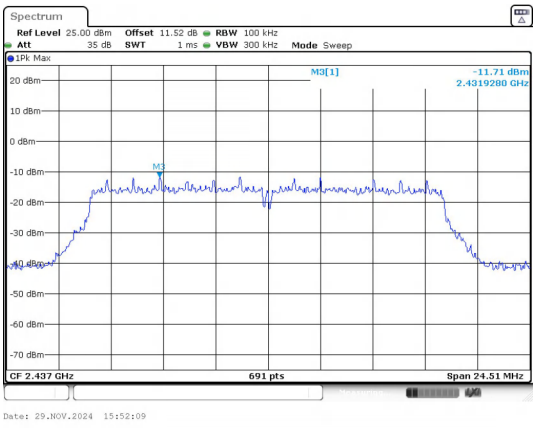
Out Of Band Emission

IEEE 802.11g_Channel 1_20MHz_Antenna 0



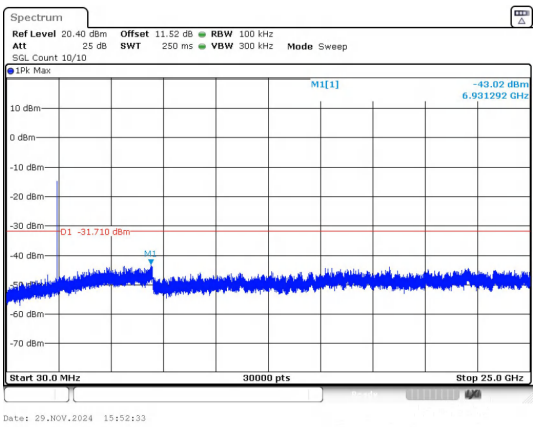
30.0 MHz - 25000.0 MHz

IEEE 802.11g_Channel 1_20MHz_Antenna 0



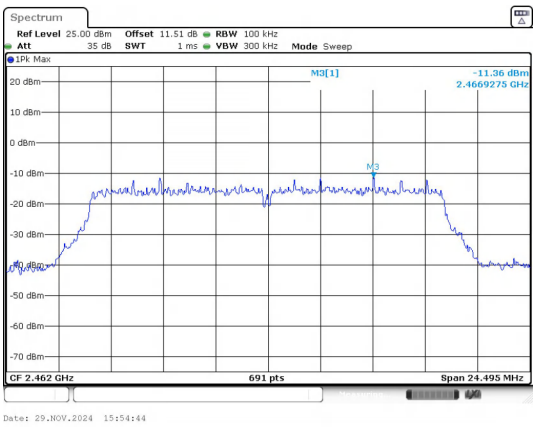
In-Band Reference Level

IEEE 802.11g_Channel 6_20MHz_Antenna 0



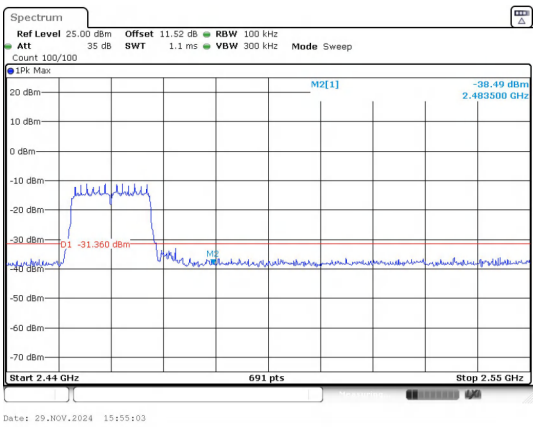
30.0 MHz - 25000.0 MHz

IEEE 802.11g_Channel 6_20MHz_Antenna 0



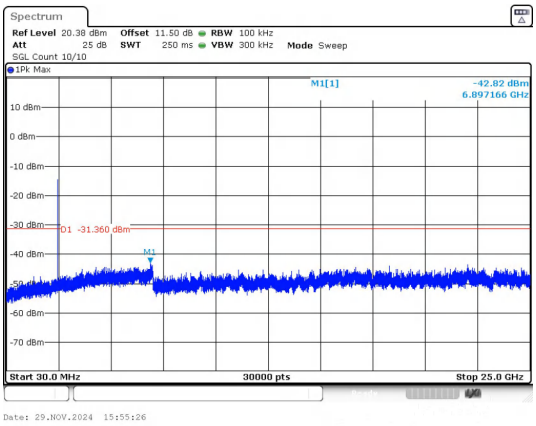
In-Band Reference Level

IEEE 802.11g_Channel 11_20MHz_Antenna 0



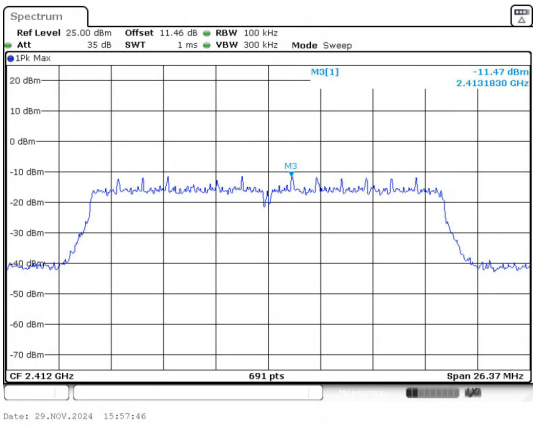
Out Of Band Emission

IEEE 802.11g_Channel 11_20MHz_Antenna 0



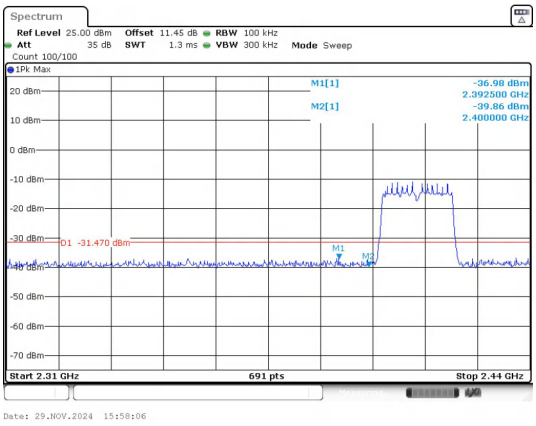
30.0 MHz - 25000.0 MHz

IEEE 802.11g_Channel 11_20MHz_Antenna 0



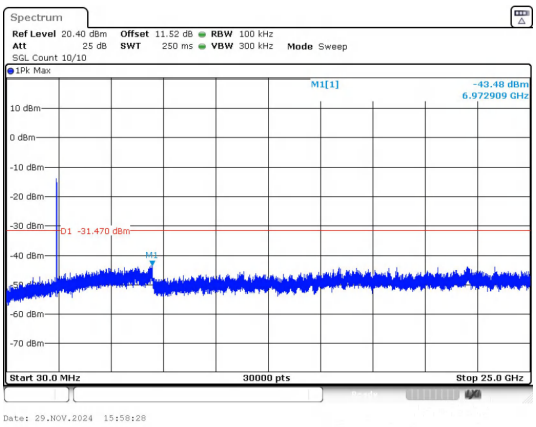
In-Band Reference Level

IEEE 802.11n_Channel 1_20MHz_Antenna 0



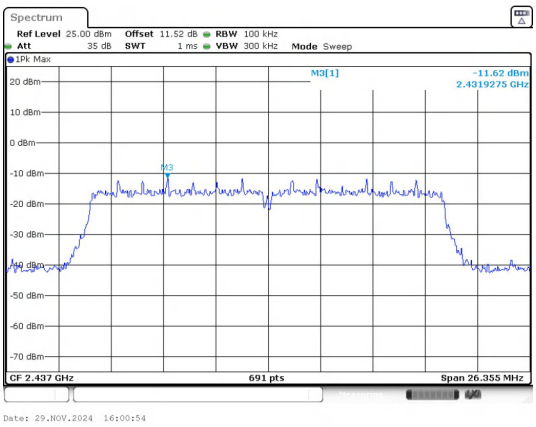
Out Of Band Emission

IEEE 802.11n_Channel 1_20MHz_Antenna 0



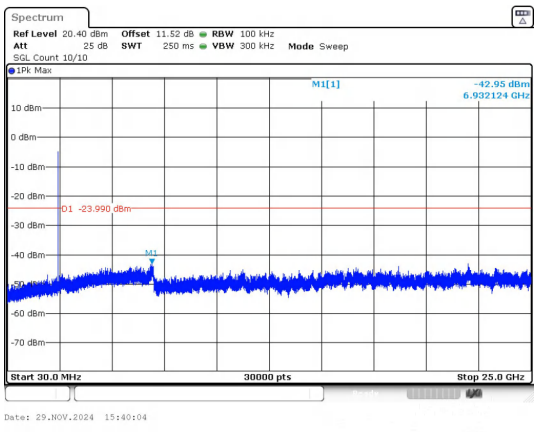
30.0 MHz - 25000.0 MHz

IEEE 802.11n_Channel 1_20MHz_Antenna 0



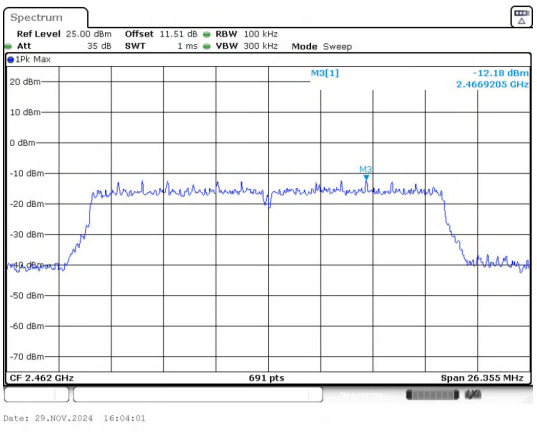
In-Band Reference Level

IEEE 802.11n_Channel 6_20MHz_Antenna 0



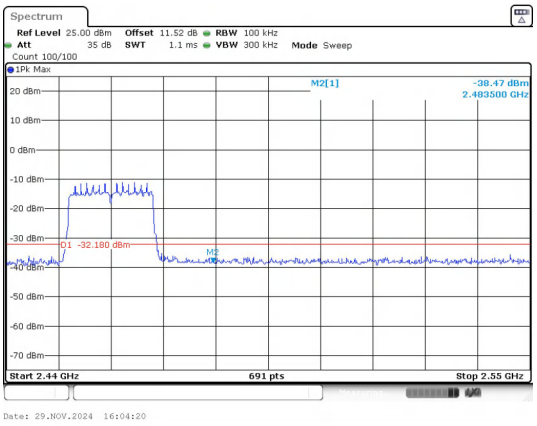
30.0 MHz - 25000.0 MHz

IEEE 802.11n_Channel 6_20MHz_Antenna 0



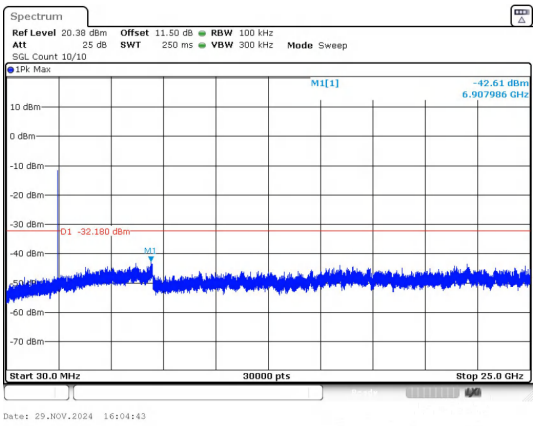
In-Band Reference Level

IEEE 802.11n_Channel 11_20MHz_Antenna 0



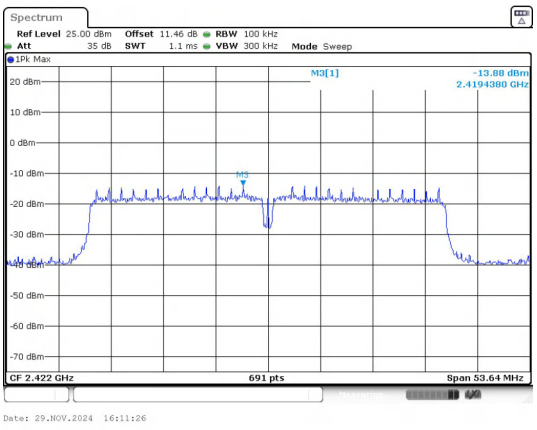
Out Of Band Emission

IEEE 802.11n_Channel 11_20MHz_Antenna 0



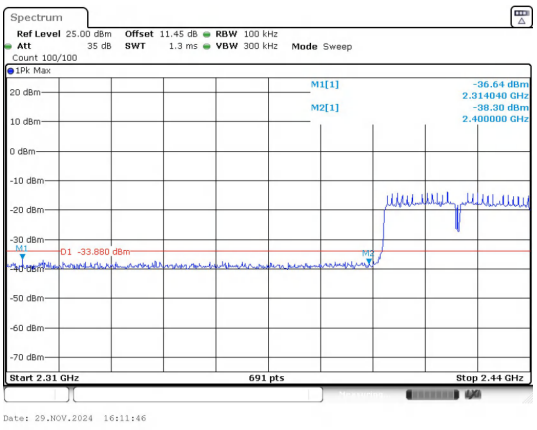
30.0 MHz - 25000.0 MHz

IEEE 802.11n_Channel 11_20MHz_Antenna 0



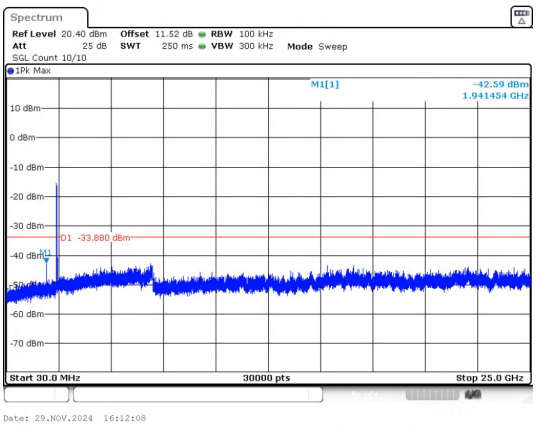
In-Band Reference Level

IEEE 802.11n_Channel 3_40MHz_Antenna 0



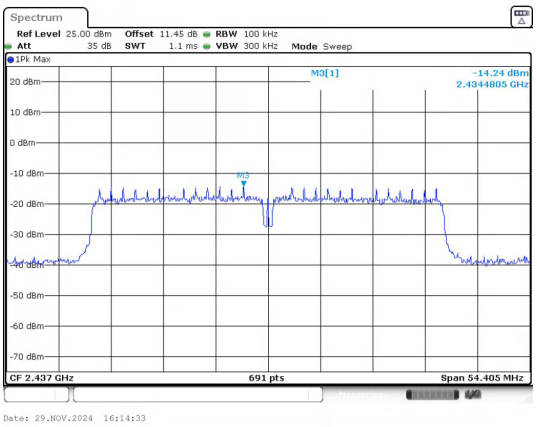
Out Of Band Emission

IEEE 802.11n_Channel 3_40MHz_Antenna 0



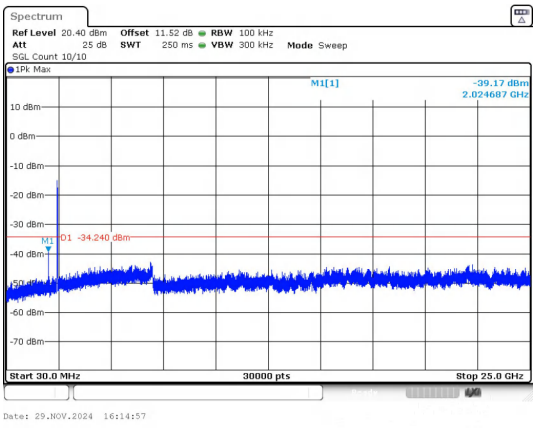
30.0 MHz - 25000.0 MHz

IEEE 802.11n_Channel 3_40MHz_Antenna 0



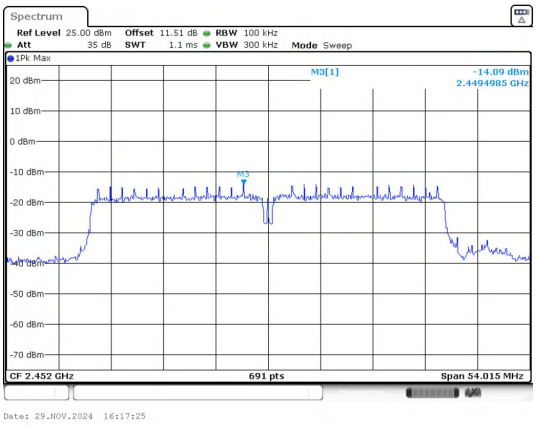
In-Band Reference Level

IEEE 802.11n_Channel 6_40MHz_Antenna 0



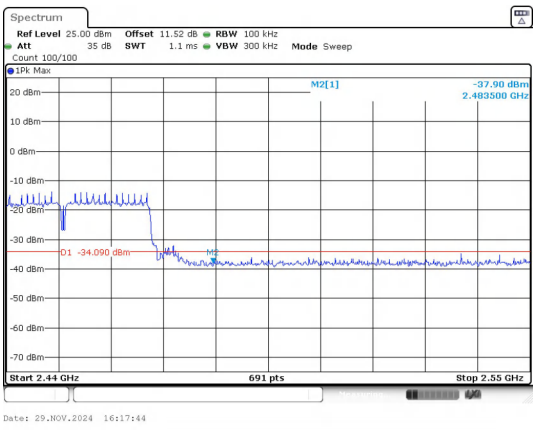
30.0 MHz - 25000.0 MHz

IEEE 802.11n_Channel 6_40MHz_Antenna 0



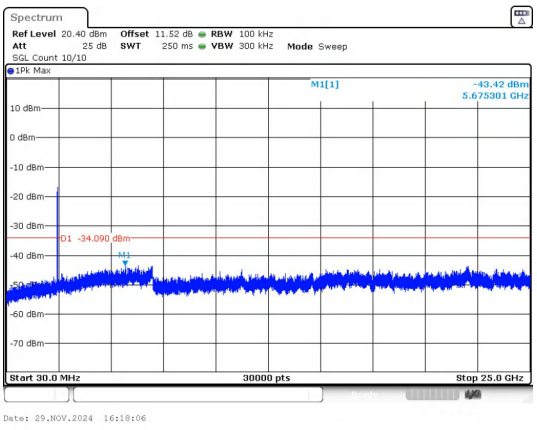
In-Band Reference Level

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

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