Appendix Report

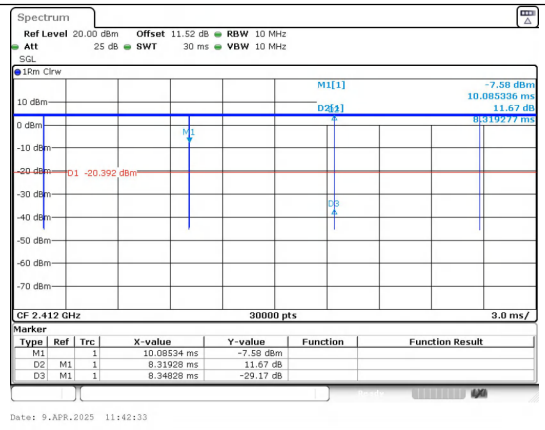
Project No.:	CISR250403062
Test Engineer:	James Wang
Supervised by:	Rory Huang

Duty Cycle

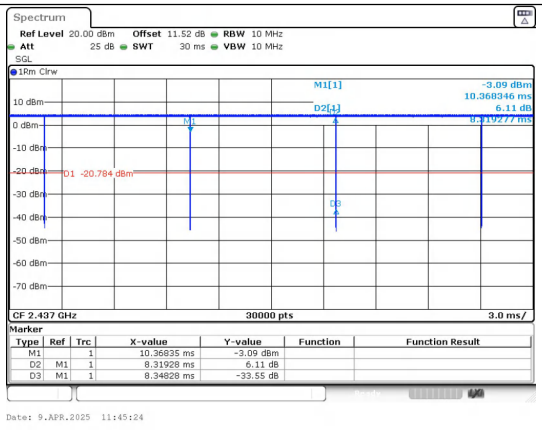
Test Result

Mode	Data rates	Channel	Antenna	On Time (ms)	Period (ms)	Duty Cycle (%)	Duty Cycle (linear)	Duty Cycle Factor (dB)	1/T
IEEE 802.11b	1	1	1	8.319	8.348	99.65	0.9965	0.0152	0.1202
		6		8.319	8.348	99.65	0.9965	0.0152	0.1202
		11		8.319	8.347	99.66	0.9966	0.0148	0.1202
IEEE 802.11g		1		1.396	1.429	97.69	0.9769	0.1015	0.7163
		6		1.396	1.429	97.69	0.9769	0.1015	0.7163
		11		1.396	1.429	97.69	0.9769	0.1015	0.7163
IEEE 802.11n_20	MCS 0	1		1.304	1.337	97.53	0.9753	0.1086	0.7669
		6		1.293	1.327	97.44	0.9744	0.1126	0.7734
		11		1.304	1.337	97.53	0.9753	0.1086	0.7669

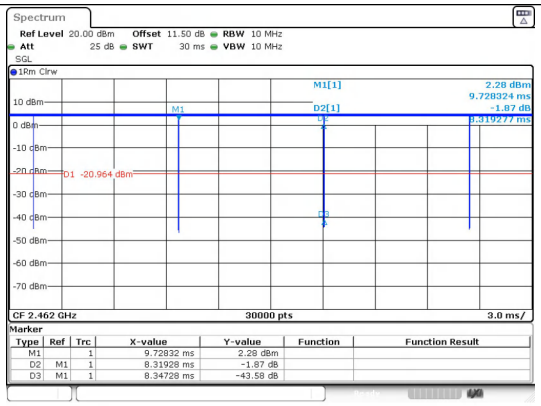
Test Graphs



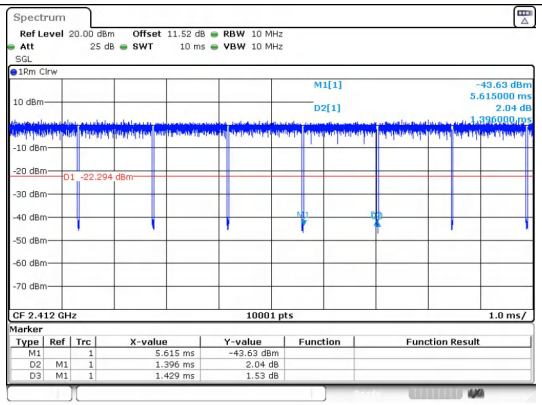
IEEE 802.11b_20MHz_Channel 1



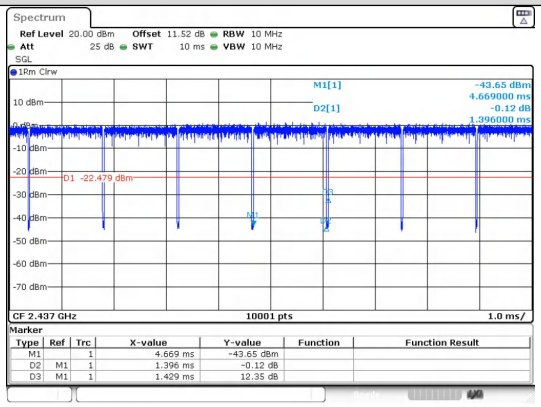
IEEE 802.11b_20MHz_Channel 6



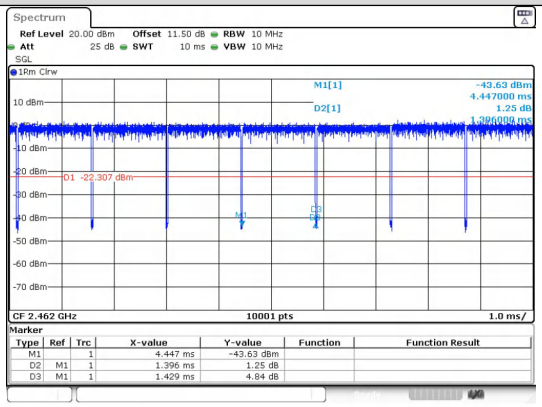
IEEE 802.11b_20MHz_Channel 11



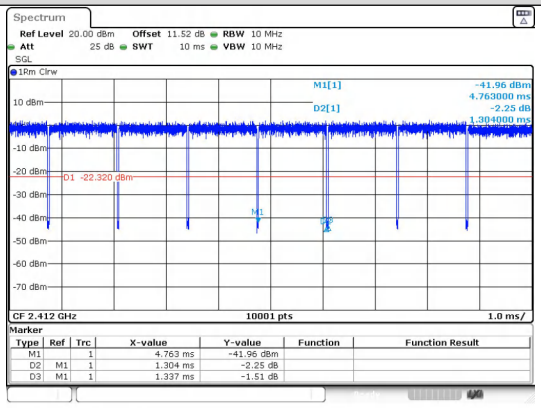
IEEE 802.11g_20MHz_Channel 1



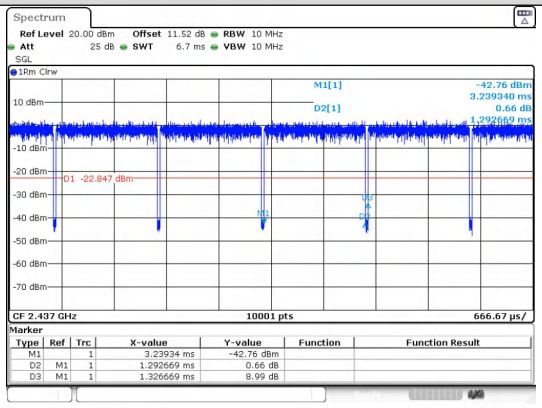
IEEE 802.11g_20MHz_Channel 6



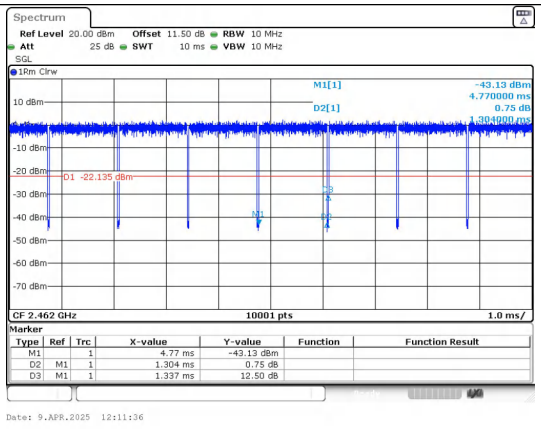
IEEE 802.11g_20MHz_Channel 11



IEEE 802.11n_20MHz_Channel 1



IEEE 802.11n_20MHz_Channel 6



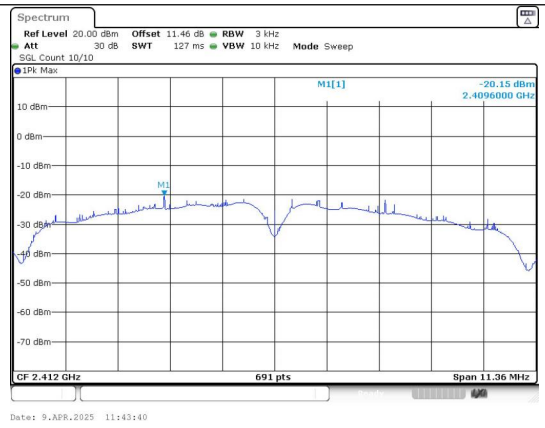
IEEE 802.11n_20MHz_Channel 11

Power Spectral Density

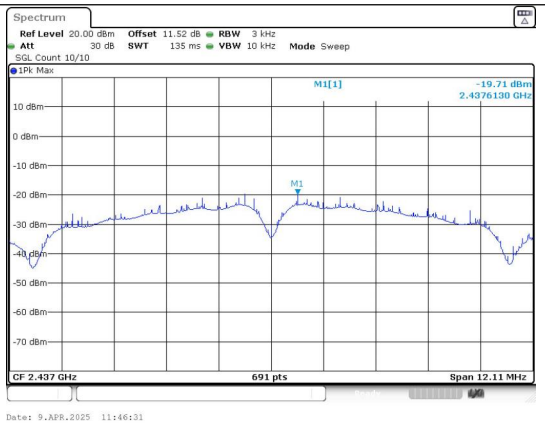
Test Result

Mode	Channel	PSD (dBm/3kHz) Ant. 0	Limit (dBm/3kHz)	Result
IEEE 802.11b	1	-20.150	≤8	PASS
	6	-19.710		PASS
	11	-21.300		PASS
IEEE 802.11g	1	-24.130		PASS
	6	-26.600		PASS
	11	-25.530		PASS
IEEE 802.11n_20	1	-24.910		PASS
	6	-26.120		PASS
	11	-25.220		PASS

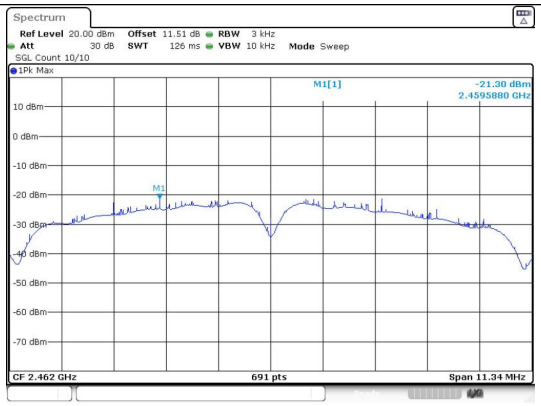
Test Graphs



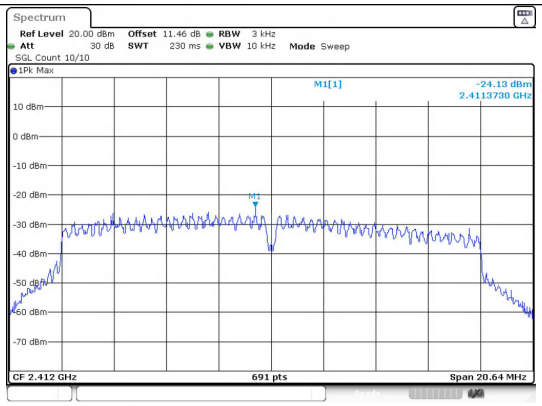
IEEE 802.11b_Channel 1_20MHz_Antenna 0



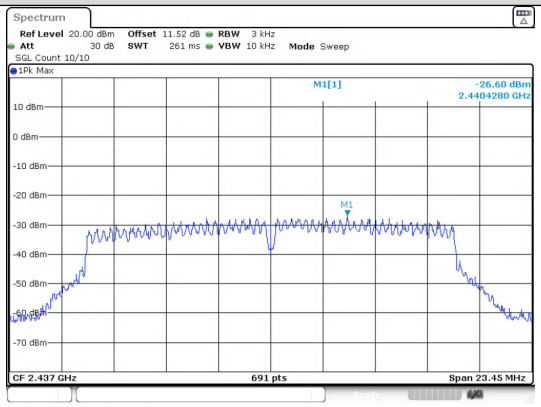
IEEE 802.11b_Channel 6_20MHz_Antenna 0



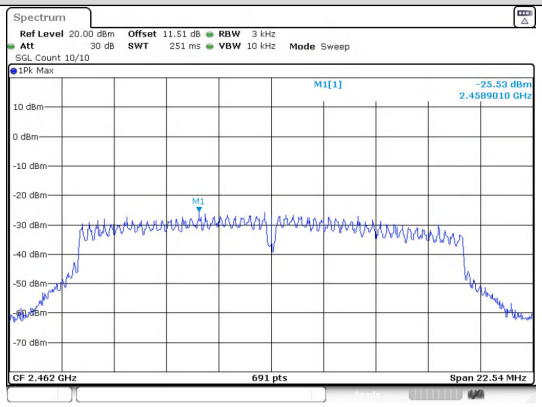
IEEE 802.11b_Channel 11_20MHz_Antenna 0



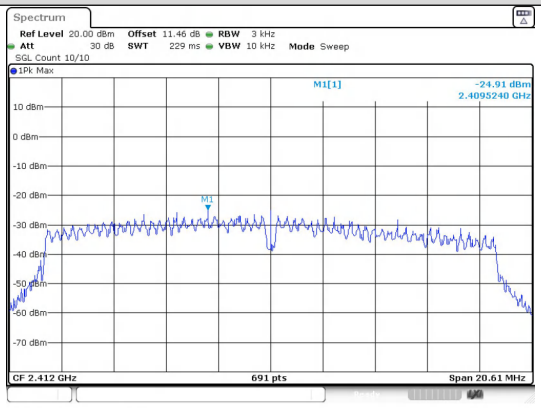
IEEE 802.11g_Channel 1_20MHz_Antenna 0



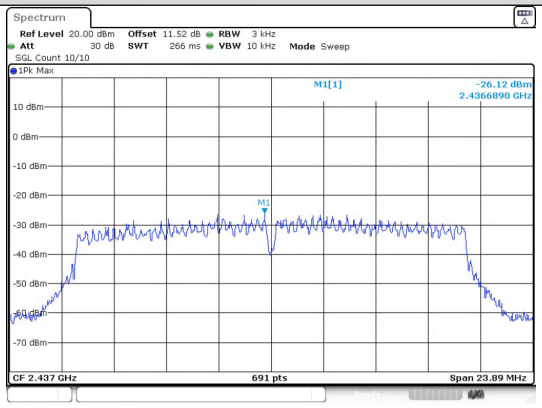
IEEE 802.11g_Channel 6_20MHz_Antenna 0



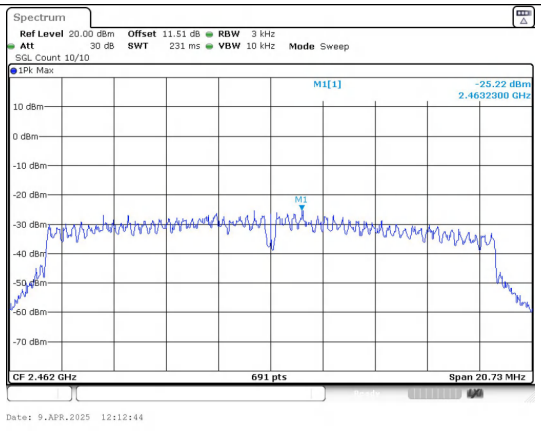
IEEE 802.11g_Channel 11_20MHz_Antenna 0



IEEE 802.11n_Channel 1_20MHz_Antenna 0



IEEE 802.11n_Channel 6_20MHz_Antenna 0



IEEE 802.11n_Channel 11_20MHz_Antenna 0

Conducted Output Power

Test Result

Conducted Output Power

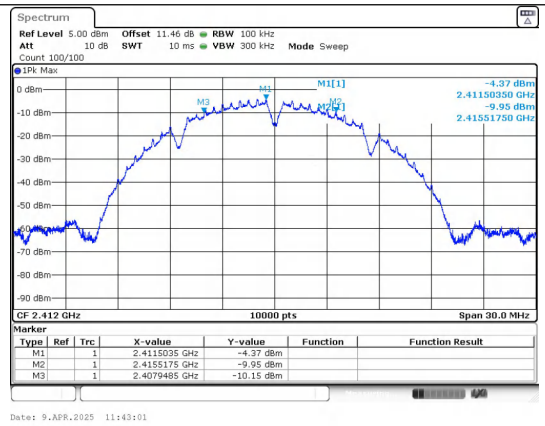
Mode	Channel	Ant. 0 (dBm)	Limit (dBm)	Result
IEEE 802.11b	1	7.43	≤30	PASS
	6	7.12	≤30	PASS
	11	7.46	≤30	PASS
IEEE 802.11g	1	8.45	≤30	PASS
	6	7.88	≤30	PASS
	11	8.31	≤30	PASS
IEEE 802.11n_20	1	7.87	≤30	PASS
	6	7.89	≤30	PASS
	11	8.62	≤30	PASS

6dB Bandwidth

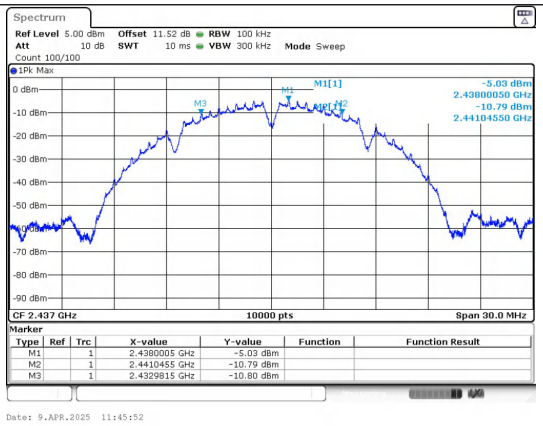
Test Result

Mode	Channel	Ant.	Center Frequency (MHz)	6 dB Bandwidth (MHz)	Limit (MHz)	Result
IEEE 802.11b	1	0	2412	7.570	≥0.5	PASS
	6		2437	8.070		PASS
	11		2462	7.560		PASS
IEEE 802.11g	1		2412	13.76		PASS
	6		2437	15.63		PASS
	11		2462	15.03		PASS
IEEE 802.11n_20	1		2412	13.74		PASS
	6		2437	15.93		PASS
	11		2462	13.82		PASS

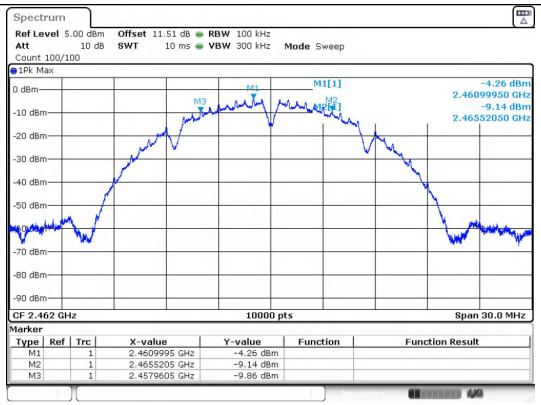
Test Graphs



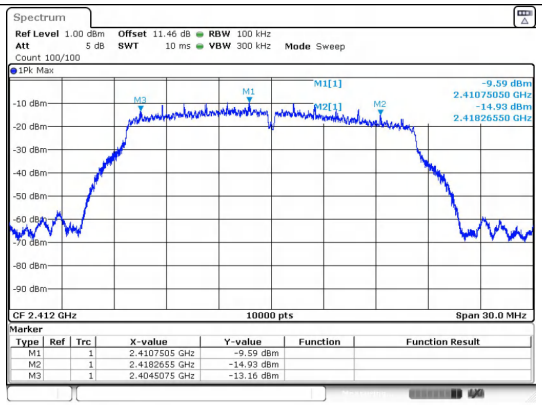
IEEE 802.11b_Channel 1_20MHz_Antenna 0



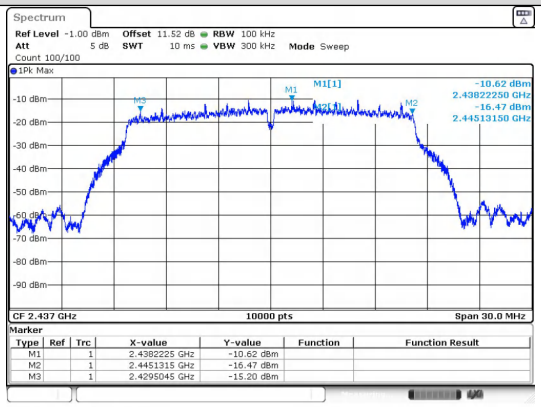
IEEE 802.11b_Channel 6_20MHz_Antenna 0



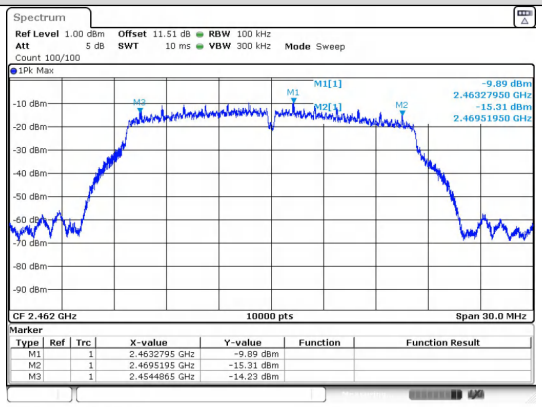
IEEE 802.11b_Channel 11_20MHz_Antenna 0



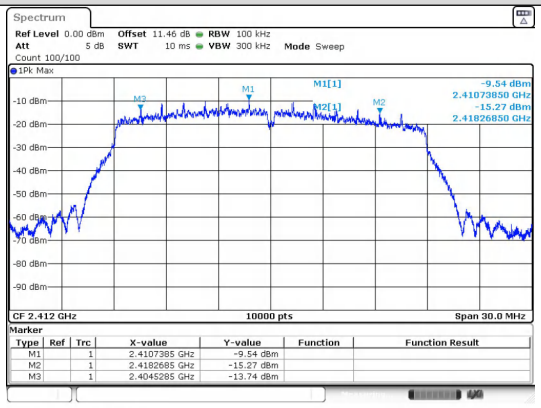
IEEE 802.11g_Channel 1_20MHz_Antenna 0



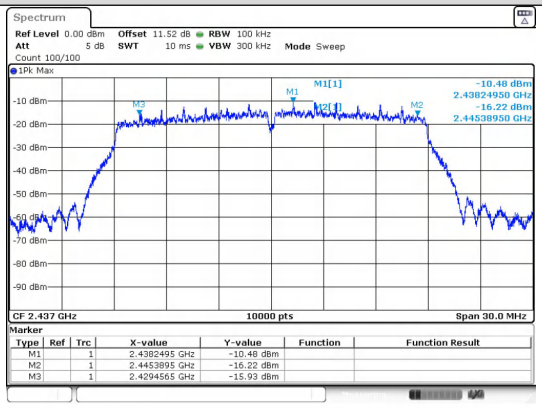
IEEE 802.11g_Channel 6_20MHz_Antenna 0



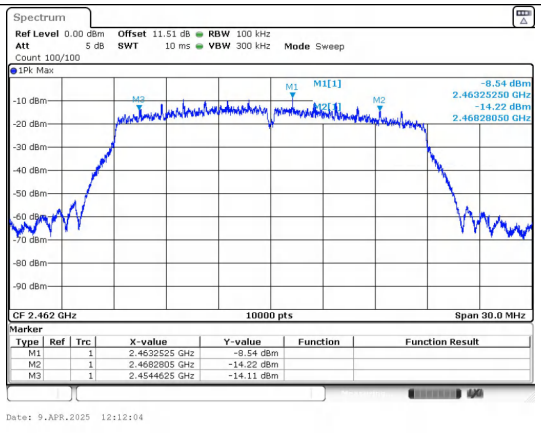
IEEE 802.11g_Channel 11_20MHz_Antenna 0



IEEE 802.11n_Channel 1_20MHz_Antenna 0



IEEE 802.11n_Channel 6_20MHz_Antenna 0



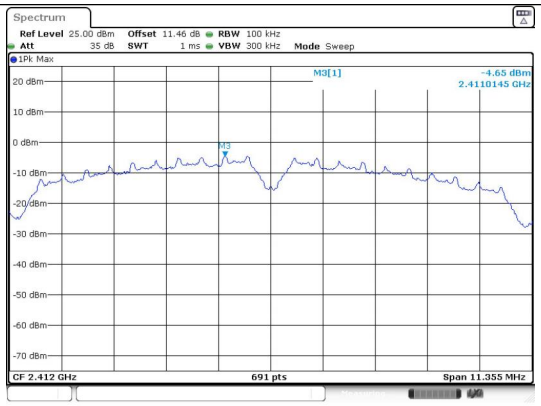
IEEE 802.11n_Channel 11_20MHz_Antenna 0

Conducted Out Of Band Emission

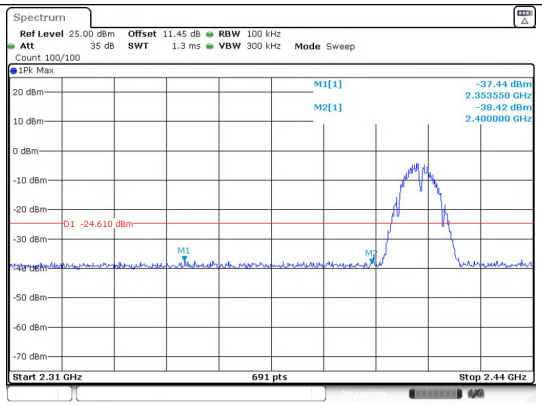
Test Result

Mode	Channel	Ant.	OOB Emission Frequency (MHz)	OOB Emission Level (dBm)	Limit (dBm)	Over Limit (dB)	Result
IEEE 802.11b	1	0	2353.55	-37.440	-24.61	-12.830	PASS
			2400.00	-38.420	-24.61	-13.810	PASS
			6972.90	-43.114	-24.61	-18.504	PASS
	6		4953.67	-42.765	-25.14	-17.625	PASS
	11		2483.50	-38.330	-24.59	-13.740	PASS
			4958.66	-43.194	-24.59	-18.604	PASS
IEEE 802.11g	1		2396.07	-36.616	-29.07	-7.546	PASS
			2400.00	-39.100	-29.07	-10.030	PASS
			6917.10	-42.925	-29.07	-13.855	PASS
	6		6957.93	-42.613	-30.79	-11.823	PASS
	11		2483.50	-38.660	-29.18	-9.480	PASS
			6900.50	-43.078	-29.18	-13.898	PASS
IEEE 802.11n_20	1		2327.21	-36.753	-29.58	-7.173	PASS
			2400.00	-39.080	-29.58	-9.500	PASS
			6746.50	-42.925	-29.58	-13.345	PASS
	6		6959.59	-42.446	-31.19	-11.256	PASS
	11		2483.50	-37.650	-29.85	-7.800	PASS
			6899.66	-43.549	-29.85	-13.699	PASS

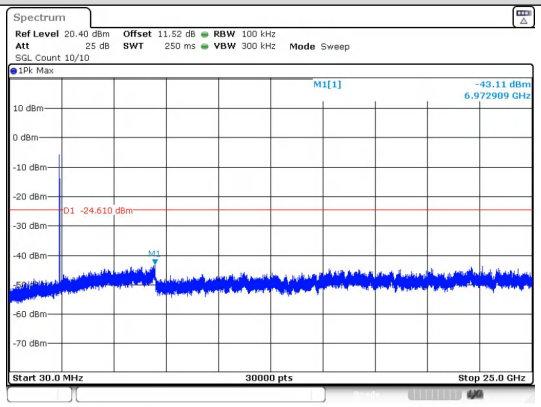
Test Graphs



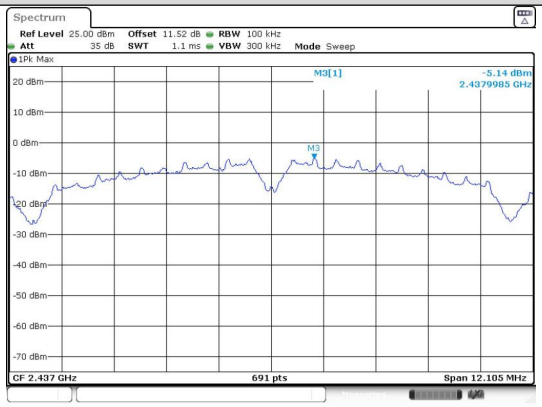
In-Band Reference Level
IEEE 802.11b_Channel 1_20MHz_Antenna 0



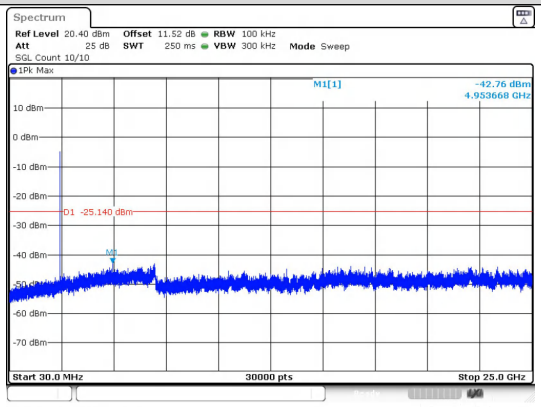
Out Of Band Emission
IEEE 802.11b_Channel 1_20MHz_Antenna 0



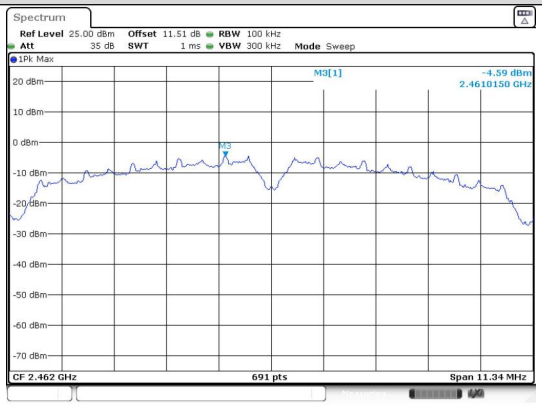
30.0 MHz - 25000.0 MHz
IEEE 802.11b_Channel 1_20MHz_Antenna 0



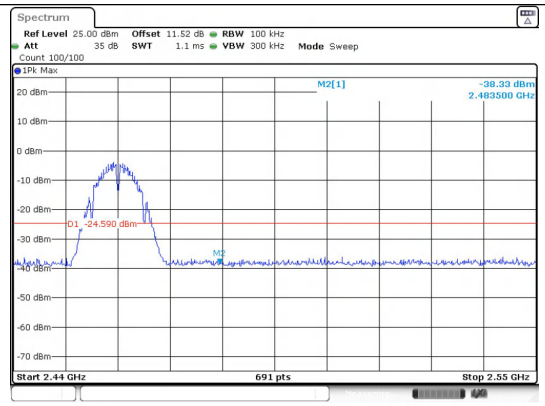
In-Band Reference Level
IEEE 802.11b_Channel 6_20MHz_Antenna 0



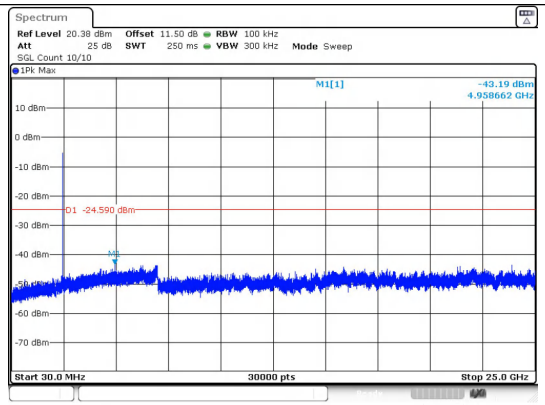
30.0 MHz - 25000.0 MHz
IEEE 802.11b_Channel 6_20MHz_Antenna 0



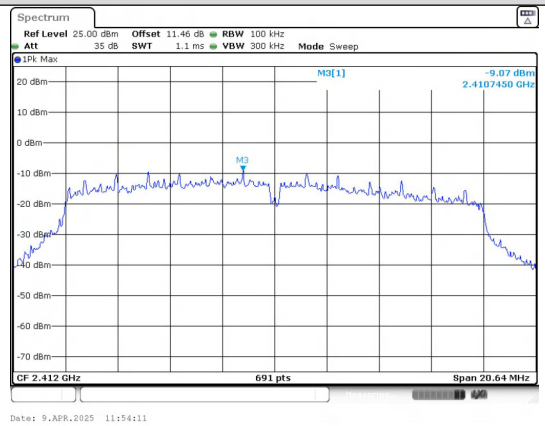
In-Band Reference Level
IEEE 802.11b_Channel 11_20MHz_Antenna 0



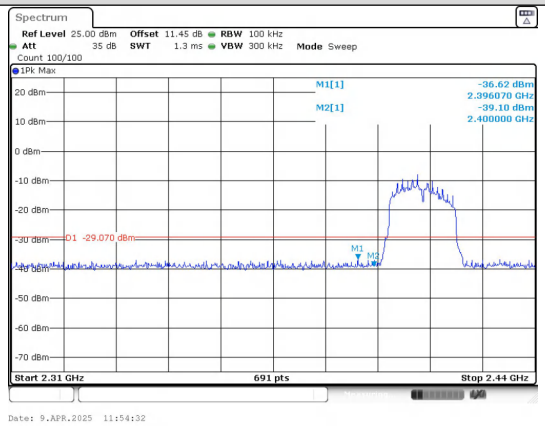
Out Of Band Emission
IEEE 802.11b_Channel 11_20MHz_Antenna 0



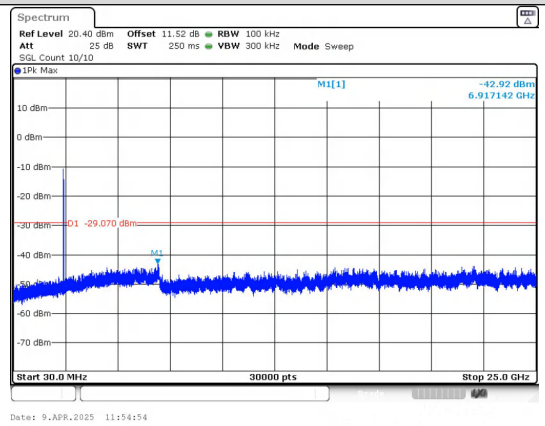
30.0 MHz - 25000.0 MHz
IEEE 802.11b_Channel 11_20MHz_Antenna 0



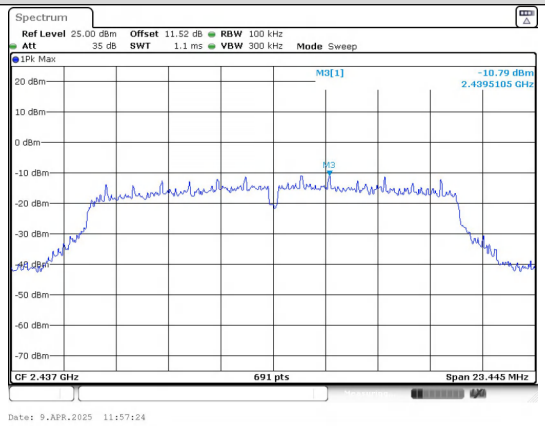
In-Band Reference Level
IEEE 802.11g_Channel 1_20MHz_Antenna 0



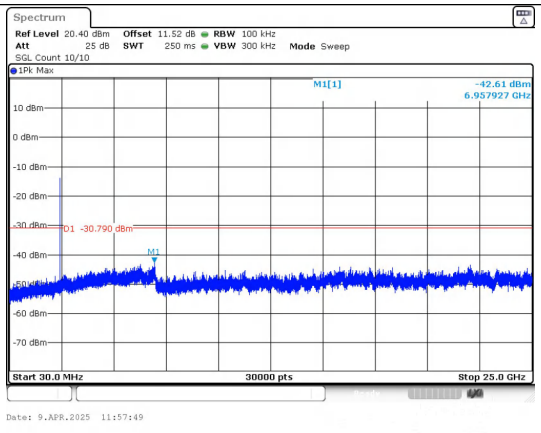
Out Of Band Emission
IEEE 802.11g_Channel 1_20MHz_Antenna 0



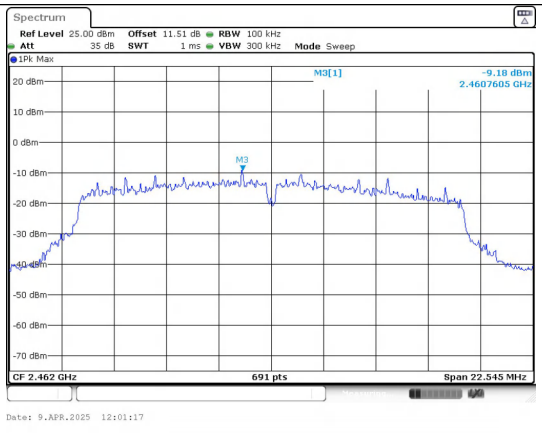
30.0 MHz - 25000.0 MHz
IEEE 802.11g_Channel 1_20MHz_Antenna 0



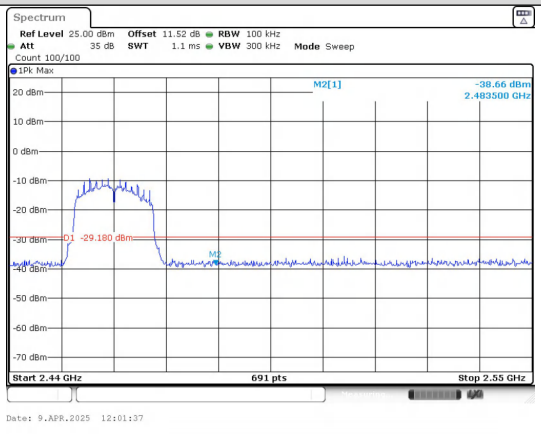
In-Band Reference Level
IEEE 802.11g_Channel 6_20MHz_Antenna 0



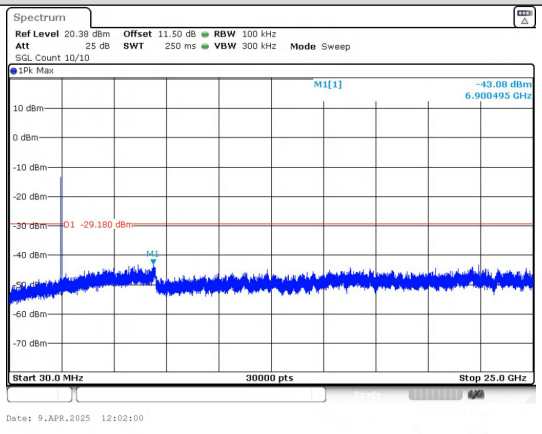
30.0 MHz - 25000.0 MHz
IEEE 802.11g_Channel 6_20MHz_Antenna 0



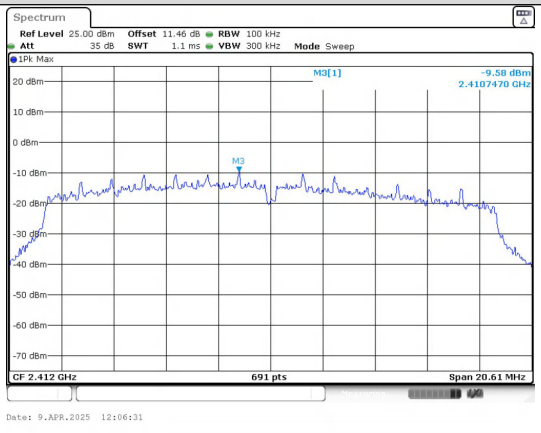
In-Band Reference Level
IEEE 802.11g_Channel 11_20MHz_Antenna 0



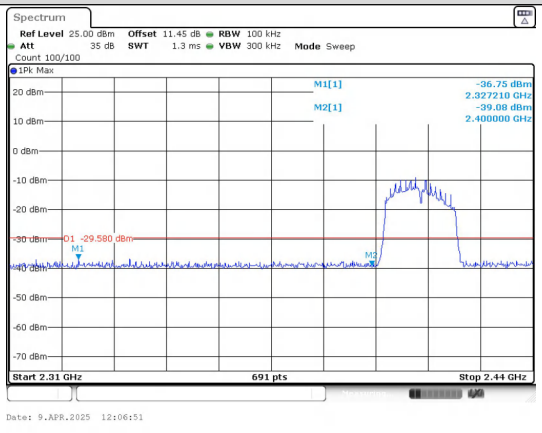
Out Of Band Emission
IEEE 802.11g_Channel 11_20MHz_Antenna 0



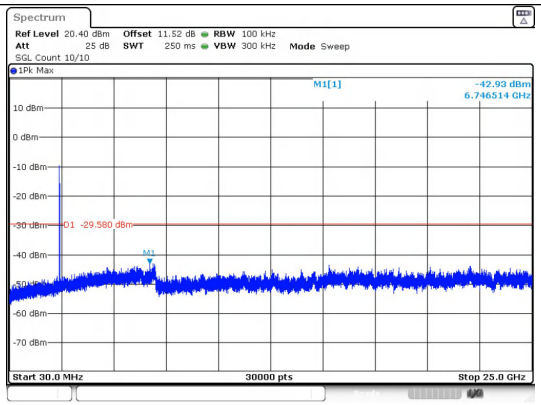
30.0 MHz - 25000.0 MHz
IEEE 802.11g_Channel 11_20MHz_Antenna 0



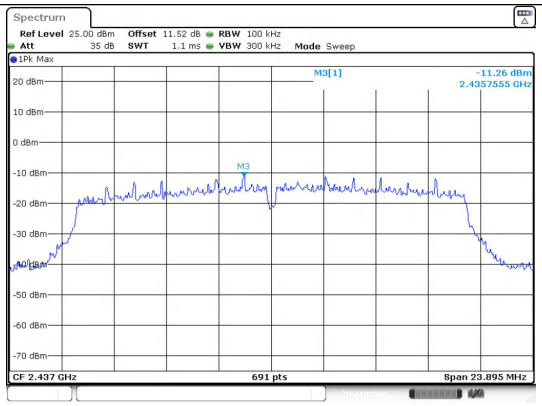
In-Band Reference Level
IEEE 802.11n_Channel 1_20MHz_Antenna 0



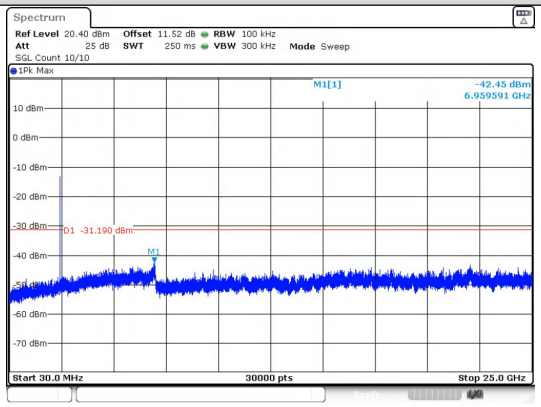
Out Of Band Emission
IEEE 802.11n_Channel 1_20MHz_Antenna 0



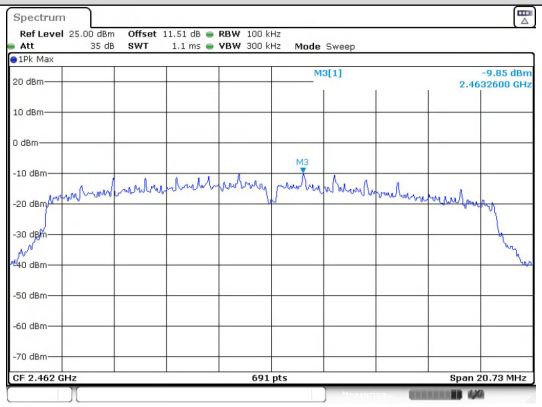
30.0 MHz - 25000.0 MHz
IEEE 802.11n_Channel 1_20MHz_Antenna 0



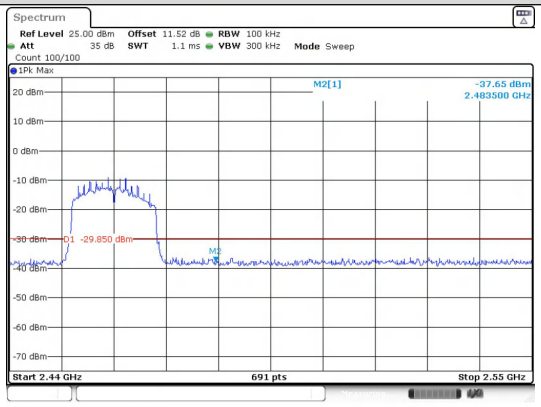
In-Band Reference Level
IEEE 802.11n_Channel 6_20MHz_Antenna 0



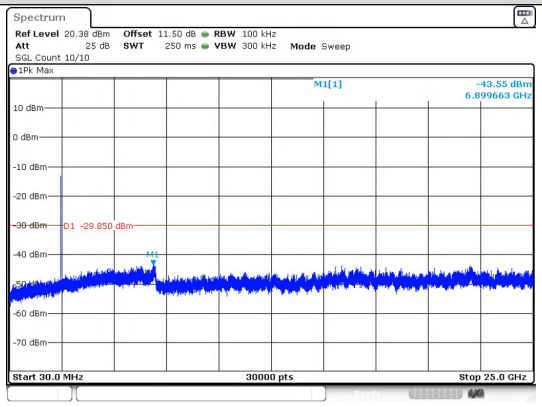
30.0 MHz - 25000.0 MHz
IEEE 802.11n_Channel 6_20MHz_Antenna 0



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

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