

Appendix A

Report No.:	CISRR24080100501
FCC ID:	2AIT9-PG-500
Product Name:	Alarm Host
Model No.:	PG-500
Test Engineer:	Lucas Huang
Supervised by:	Rory Huang

Conducted Peak Output Power

Test Result

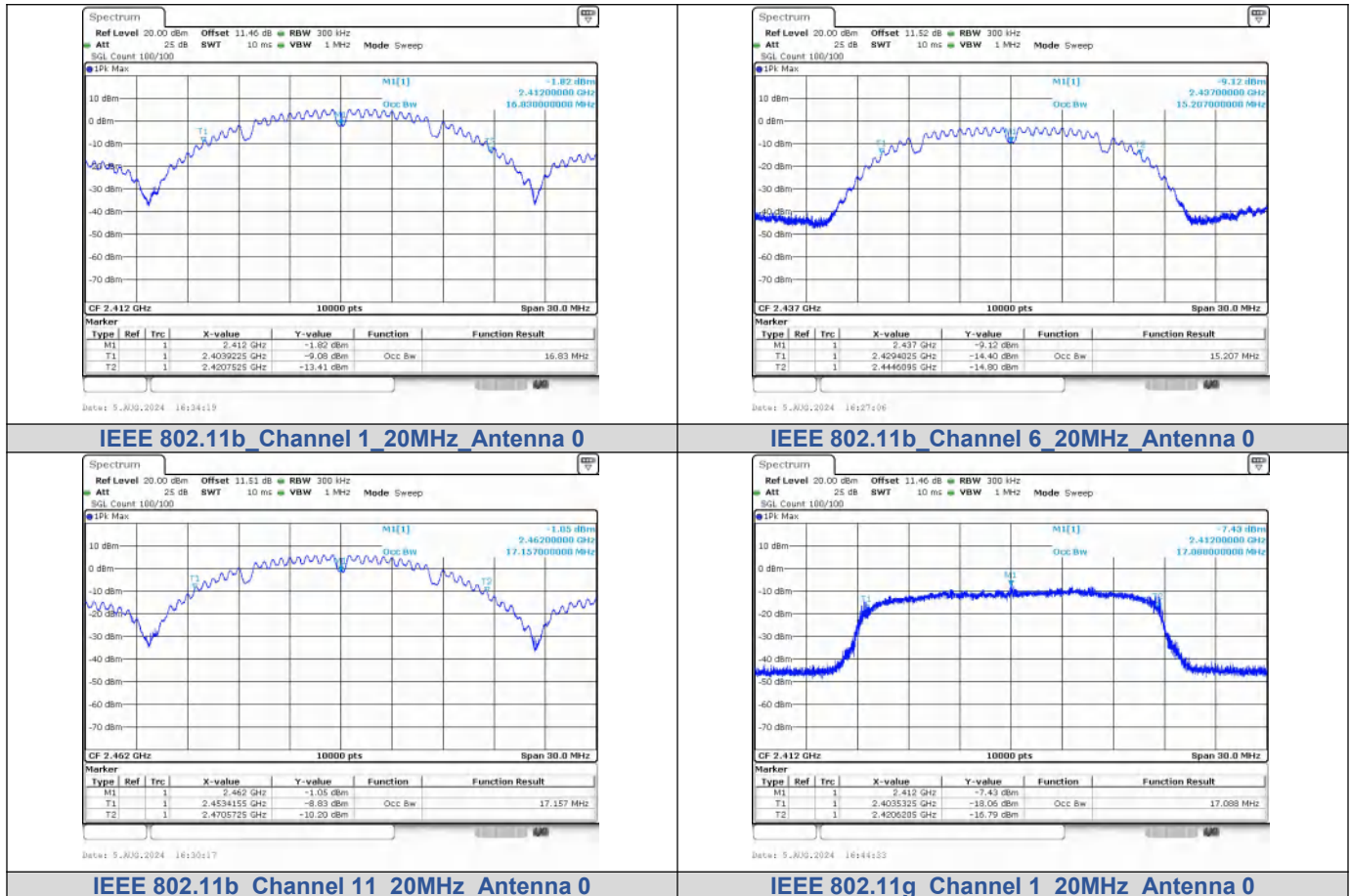
Mode	Channel	Ant. 0 (dBm)	Limit (dBm)	Result
IEEE 802.11b	1	17.42	30	PASS
	6	16.71	30	PASS
	11	17.84	30	PASS
IEEE 802.11g	1	18.97	30	PASS
	6	18.42	30	PASS
	11	19.80	30	PASS
IEEE 802.11n_20	1	18.83	30	PASS
	6	18.21	30	PASS
	11	19.67	30	PASS
IEEE 802.11n_40	3	17.88	30	PASS
	6	17.81	30	PASS
	9	18.03	30	PASS

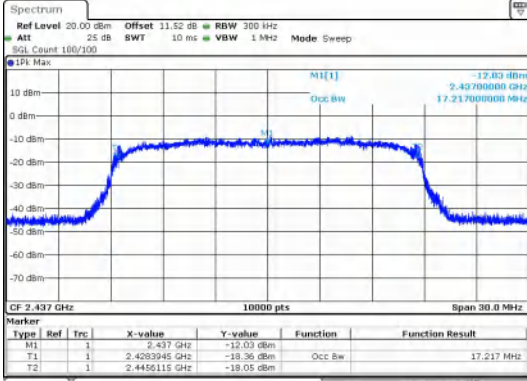
99% Bandwidth

Test Result

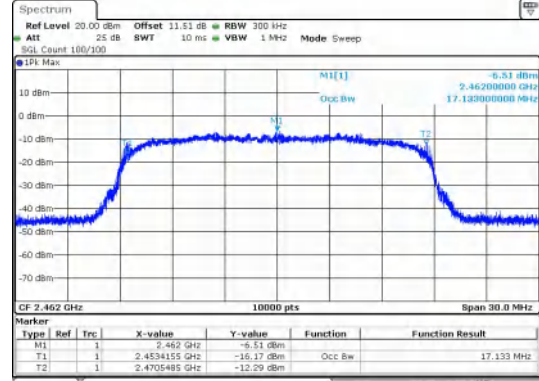
Mode	Channel	Ant.	Center Frequency (MHz)	99% BW (MHz)
IEEE 802.11b	1	0	2412	16.830
	6		2437	15.207
	11		2462	17.157
IEEE 802.11g	1		2412	17.088
	6		2437	17.217
	11		2462	17.133
IEEE 802.11n_20	1		2412	17.979
	6		2437	18.315
	11		2462	18.243
IEEE 802.11n_40	3		2422	35.628
	6		2437	36.288
	9		2452	35.742

Test Graphs

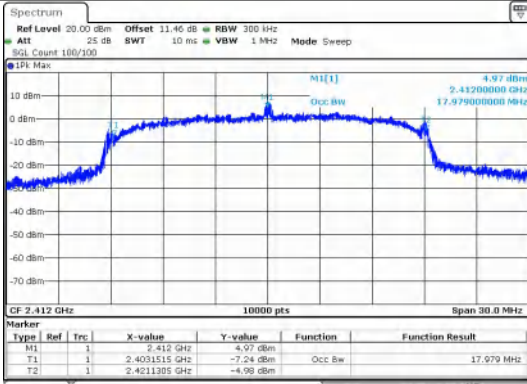




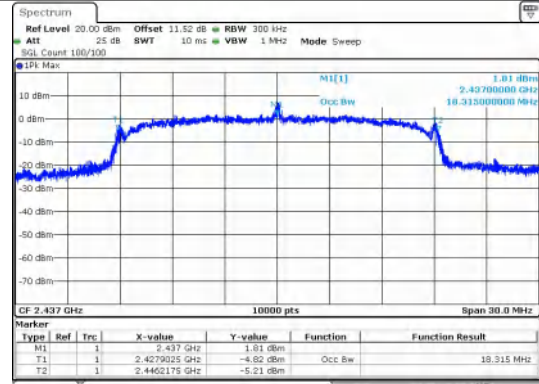
IEEE 802.11g_Channel 6_20MHz_Antenna 0



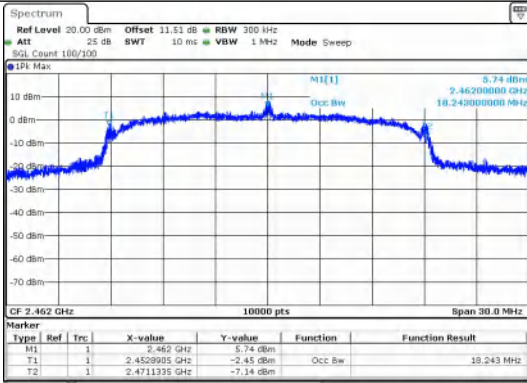
IEEE 802.11g_Channel 11_20MHz_Antenna 0



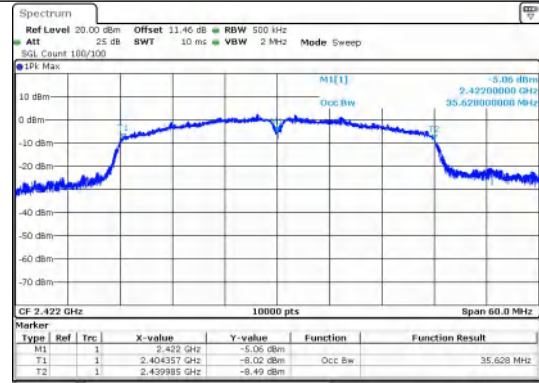
IEEE 802.11n_Channel 1_20MHz_Antenna 0



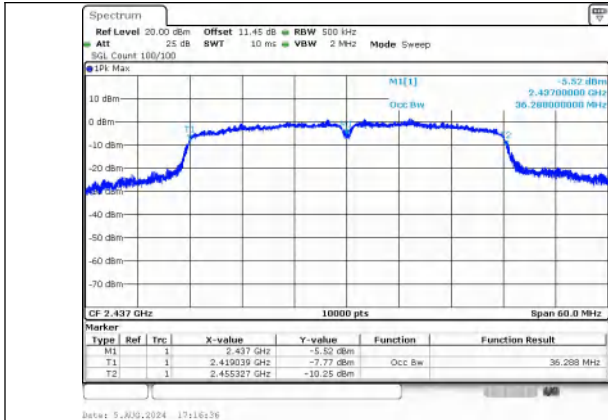
IEEE 802.11n_Channel 6_20MHz_Antenna 0



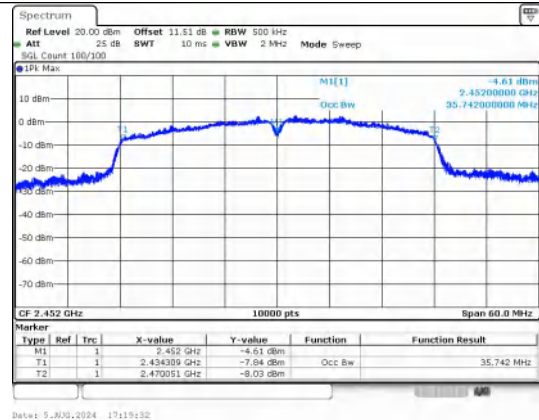
IEEE 802.11n_Channel 11_20MHz_Antenna 0



IEEE 802.11n_Channel 3_40MHz_Antenna 0



IEEE 802.11n_Channel 6_40MHz_Antenna 0



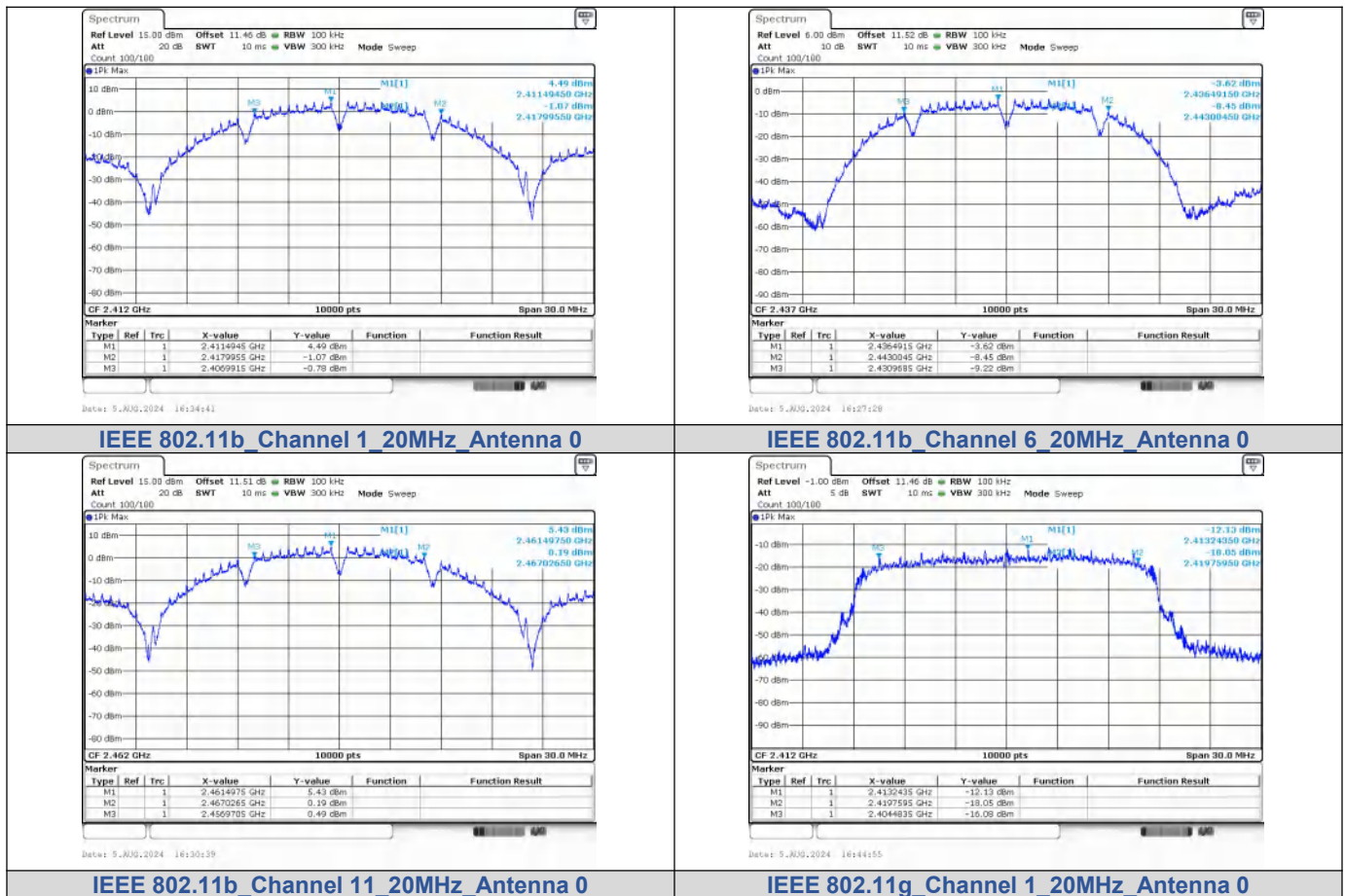
IEEE 802.11n_Channel 9_40MHz_Antenna 0

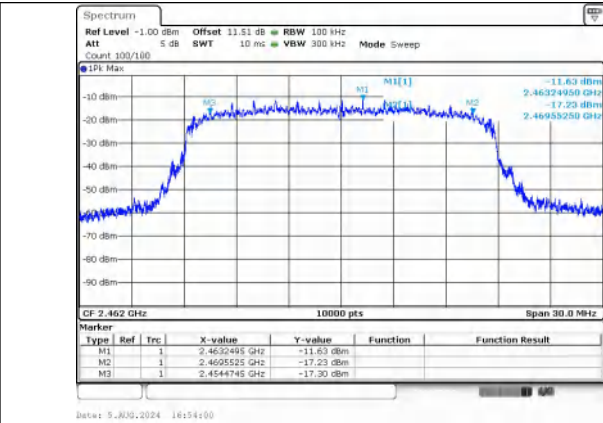
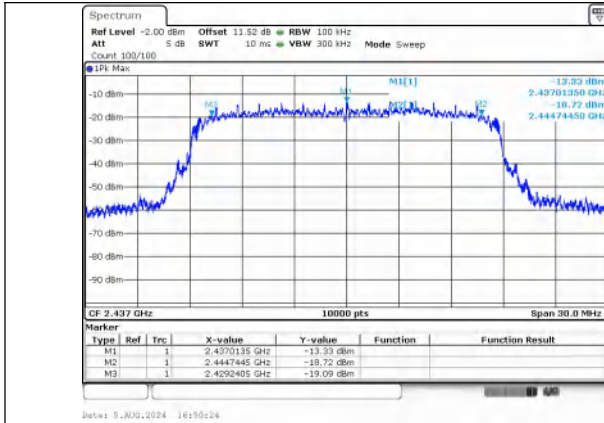
6dB Bandwidth

Test Result

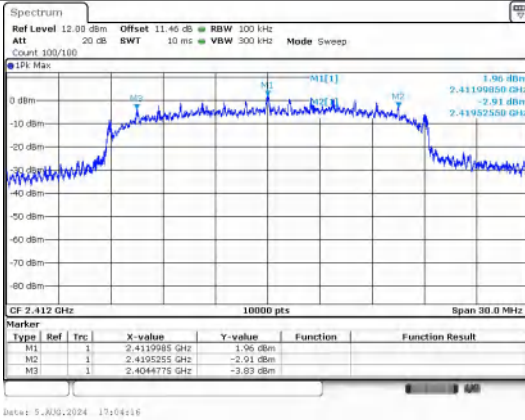
Mode	Channel	Ant.	Center Frequency (MHz)	6 dB Bandwidth (MHz)	Limit (MHz)	Result
IEEE 802.11b	1	0	2412	11.01	≥0.5	PASS
	6		2437	12.03		PASS
	11		2462	10.06		PASS
IEEE 802.11g	1		2412	15.28		PASS
	6		2437	15.50		PASS
	11		2462	15.08		PASS
IEEE 802.11n_20	1		2412	15.05		PASS
	6		2437	15.06		PASS
	11		2462	15.05		PASS
IEEE 802.11n_40	3		2422	31.27		PASS
	6		2437	35.03		PASS
	9		2452	28.79		PASS

Test Graphs

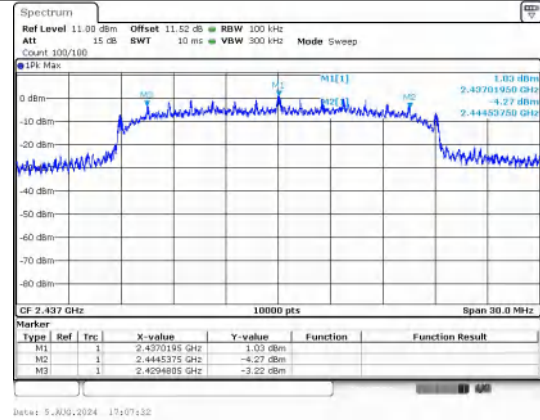




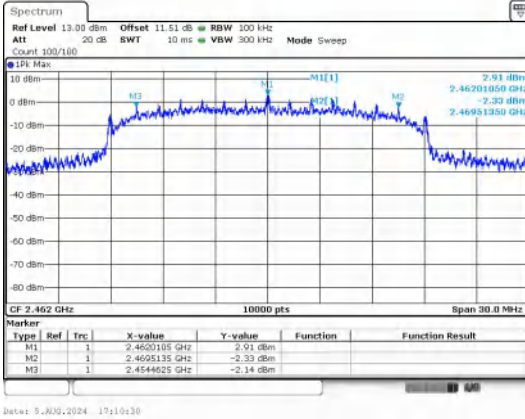
IEEE 802.11g_Channel 6_20MHz_Antenna 0



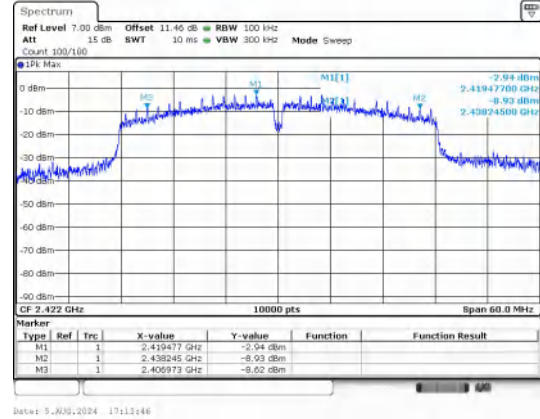
IEEE 802.11g_Channel 11_20MHz_Antenna 0



IEEE 802.11n_Channel 1_20MHz_Antenna 0

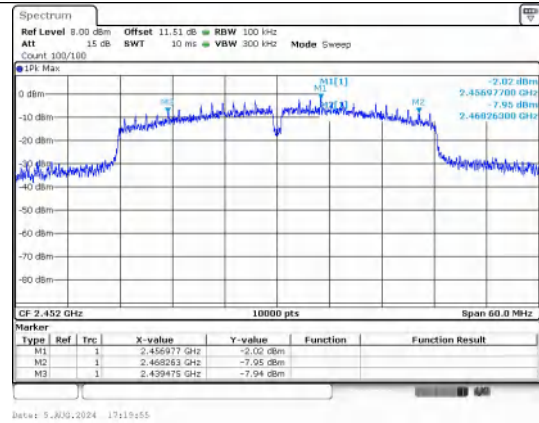
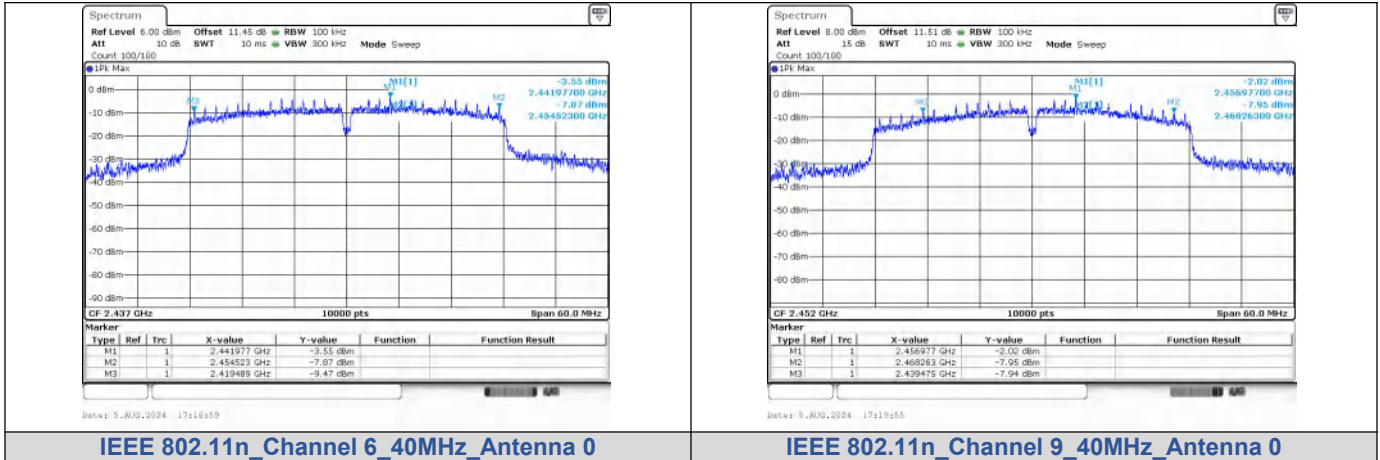


IEEE 802.11n_Channel 6_20MHz_Antenna 0



IEEE 802.11n_Channel 11_20MHz_Antenna 0

IEEE 802.11n_Channel 3_40MHz_Antenna 0

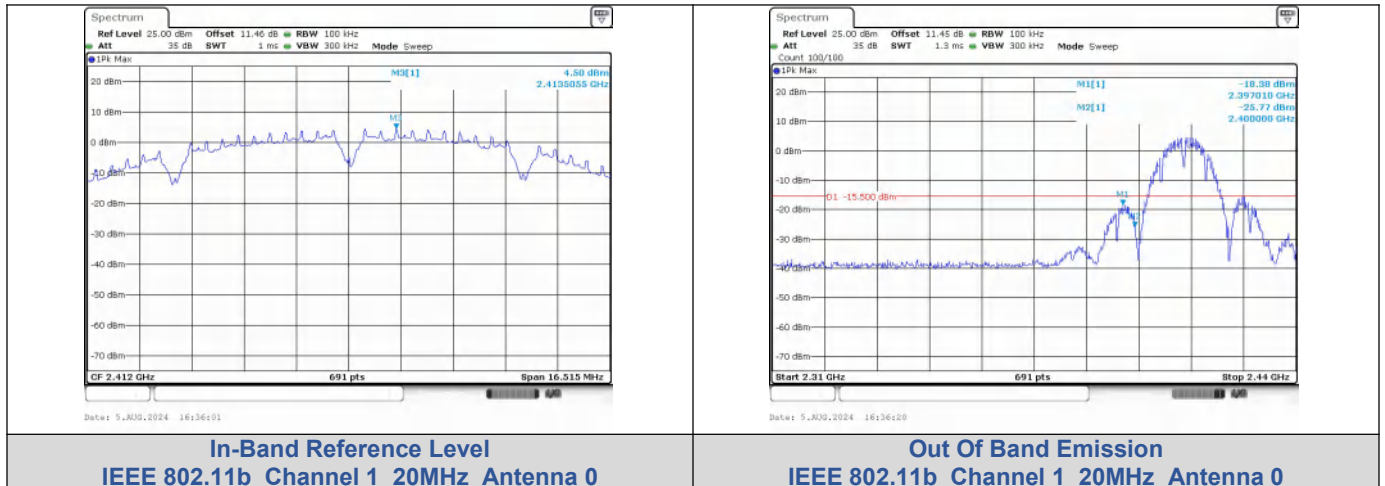


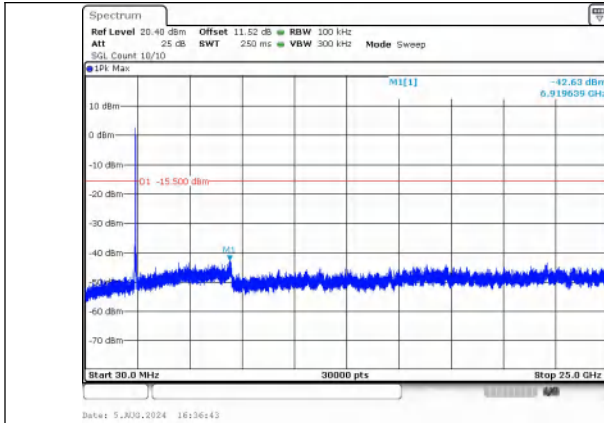
Conducted Out Of Band Emission

Test Result

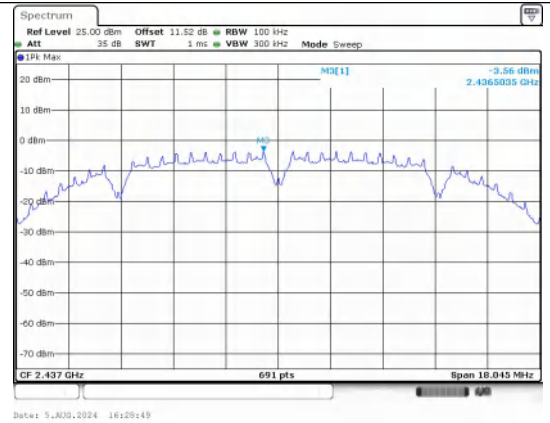
Mode	Channel	Ant.	OOB Emission Frequency (MHz)	OOB Emission Level (dBm)	Limit (dBm)	Over Limit (dB)	Result
IEEE 802.11b	1	0	2397.01	-18.376	-15.5	-2.876	PASS
			2400.00	-25.775	-15.5	-10.275	PASS
	6		6919.60	-42.627	-15.5	-27.127	PASS
			22020.7	-43.272	-23.56	-19.712	PASS
	11		2483.50	-29.602	-15.01	-14.592	PASS
			4923.70	-38.120	-15.01	-23.110	PASS
IEEE 802.11g	1		2373.49	-36.865	-31.31	-5.555	PASS
			2400.00	-37.772	-31.31	-6.462	PASS
	6		6918.80	-43.673	-31.31	-12.363	PASS
			6909.65	-43.455	-32.09	-11.365	PASS
	11		2483.50	-32.066	-18.89	-13.176	PASS
			22001.5	-43.566	-18.89	-24.676	PASS
IEEE 802.11n_20	1	2397.95	-29.066	-18.15	-10.916	PASS	
		2400.00	-29.935	-18.15	-11.785	PASS	
	6	6955.40	-42.766	-18.15	-24.616	PASS	
		6943.78	-42.705	-18.93	-23.775	PASS	
	11	2483.50	-31.703	-17.45	-14.253	PASS	
		6915.48	-43.473	-17.45	-26.023	PASS	
IEEE 802.11n_40	3	2396.26	-30.606	-22.58	-8.026	PASS	
		2400.00	-33.431	-22.58	-10.851	PASS	
	6	6976.20	-41.844	-22.58	-19.264	PASS	
		5900.86	-43.366	-23.07	-20.296	PASS	
	9	2483.50	-29.400	-21.73	-7.670	PASS	
		6977.90	-41.721	-21.73	-19.991	PASS	

Test Graphs

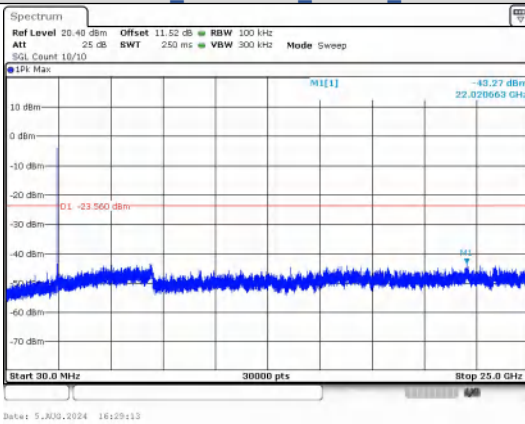




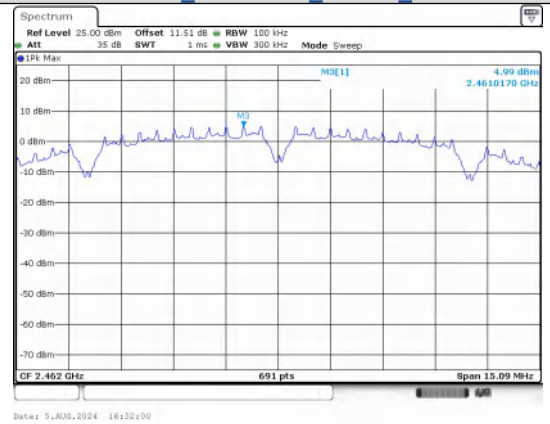
30.0 MHz - 25000.0 MHz
IEEE 802.11b Channel 1 20MHz Antenna 0



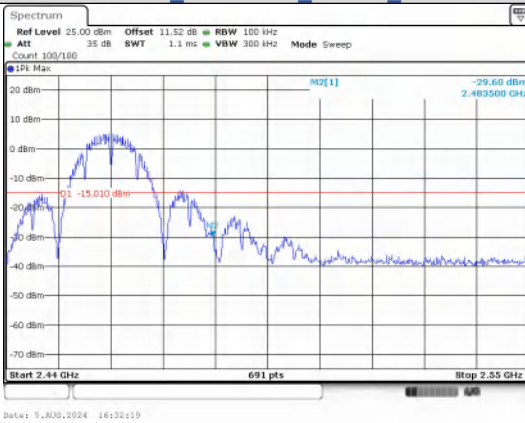
In-Band Reference Level
IEEE 802.11b Channel 6 20MHz Antenna 0



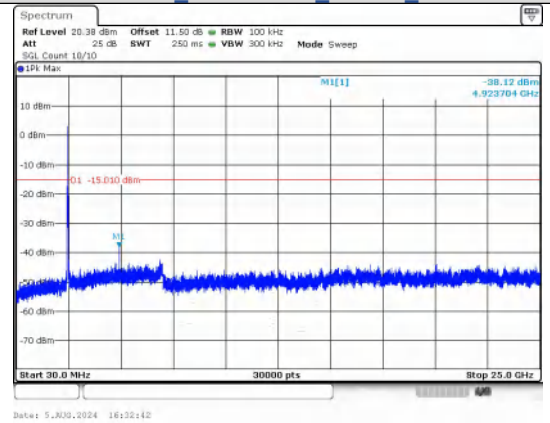
30.0 MHz - 25000.0 MHz
IEEE 802.11b Channel 6 20MHz Antenna 0



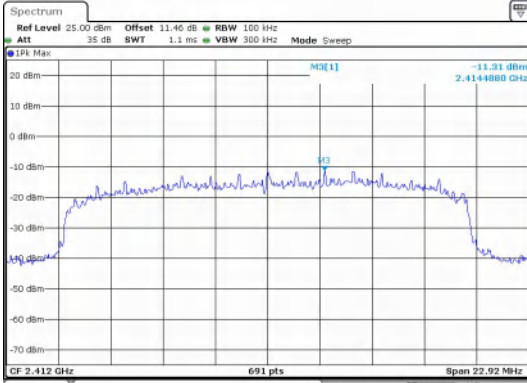
In-Band Reference Level
IEEE 802.11b Channel 11 20MHz Antenna 0



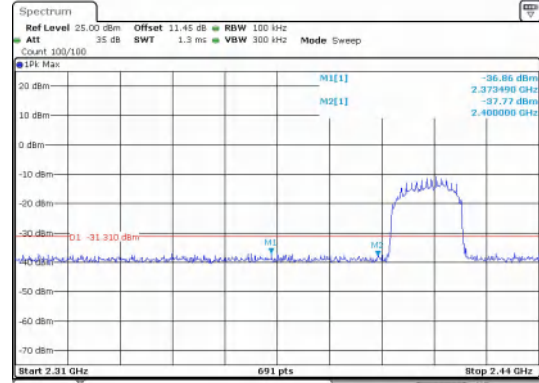
Out Of Band Emission
IEEE 802.11b Channel 11 20MHz Antenna 0



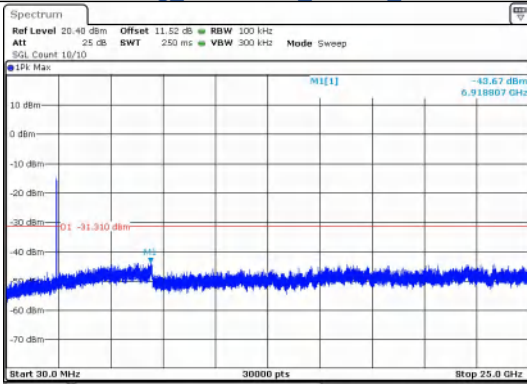
30.0 MHz - 25000.0 MHz
IEEE 802.11b Channel 11 20MHz Antenna 0



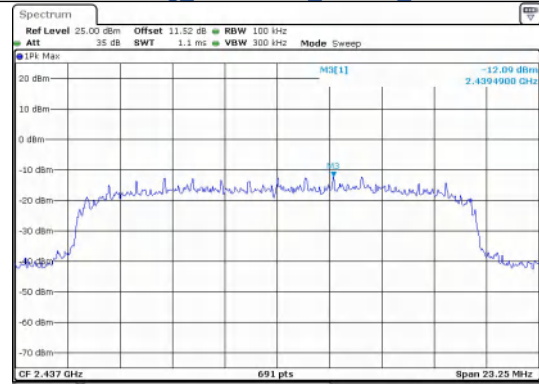
In-Band Reference Level
IEEE 802.11g_Channel 1_20MHz_Antenna 0



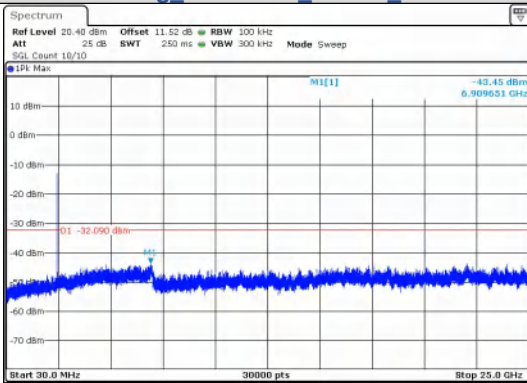
Out Of Band Emission
IEEE 802.11g_Channel 1_20MHz_Antenna 0



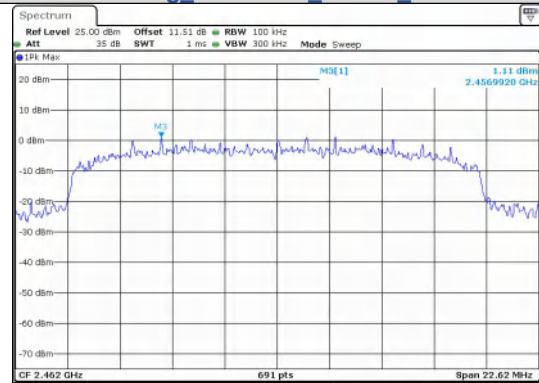
30.0 MHz - 25000.0 MHz
IEEE 802.11g_Channel 1_20MHz_Antenna 0



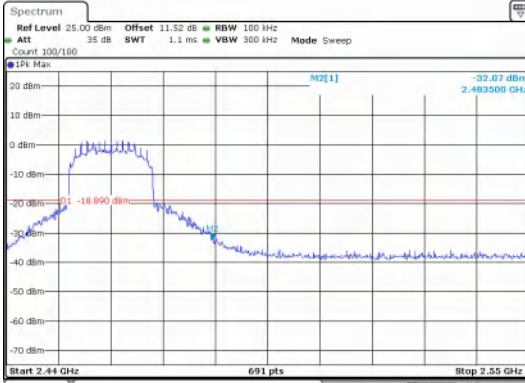
In-Band Reference Level
IEEE 802.11g_Channel 6_20MHz_Antenna 0



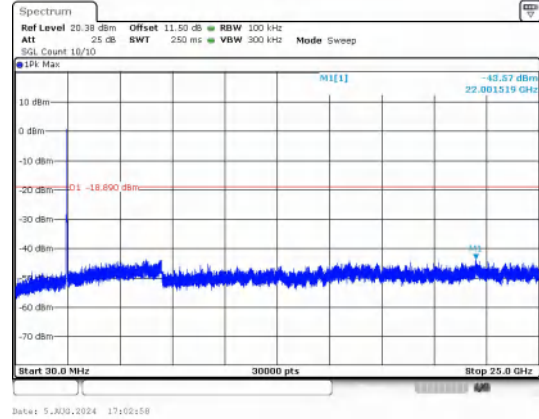
30.0 MHz - 25000.0 MHz
IEEE 802.11g_Channel 6_20MHz_Antenna 0



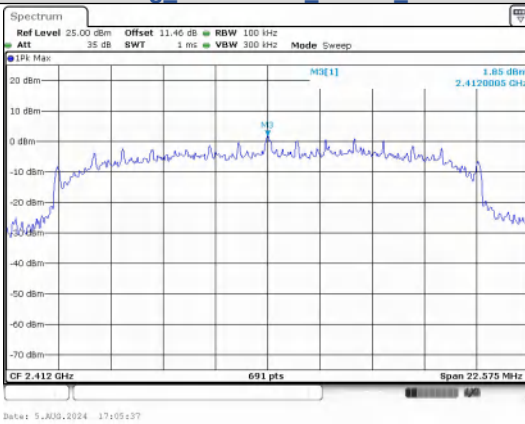
In-Band Reference Level
IEEE 802.11g_Channel 11_20MHz_Antenna 0



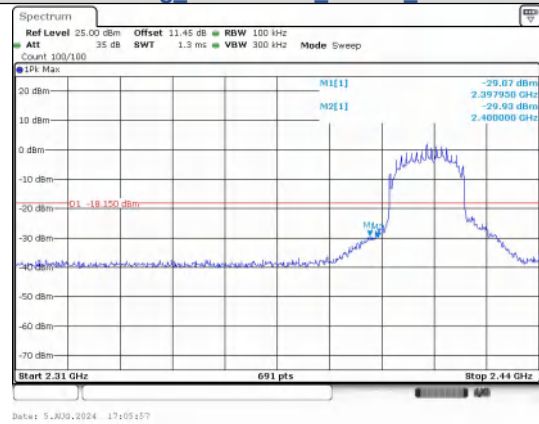
Out Of Band Emission
IEEE 802.11g_Channel 11_20MHz_Antenna 0



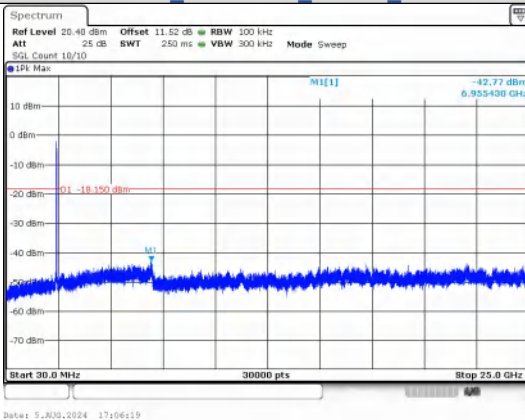
30.0 MHz - 25000.0 MHz
IEEE 802.11g_Channel 11_20MHz_Antenna 0



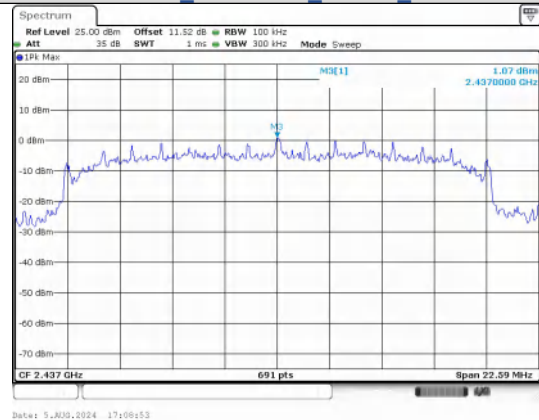
In-Band Reference Level
IEEE 802.11n_Channel 1_20MHz_Antenna 0



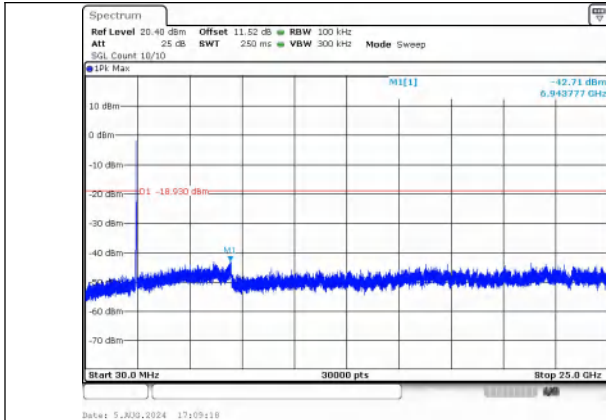
Out Of Band Emission
IEEE 802.11n_Channel 1_20MHz_Antenna 0



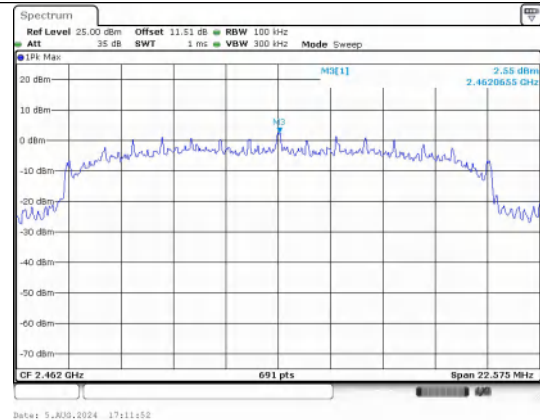
30.0 MHz - 25000.0 MHz
IEEE 802.11n_Channel 1_20MHz_Antenna 0



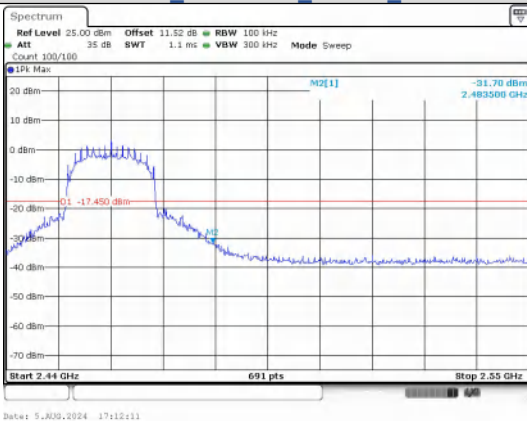
In-Band Reference Level
IEEE 802.11n_Channel 6_20MHz_Antenna 0



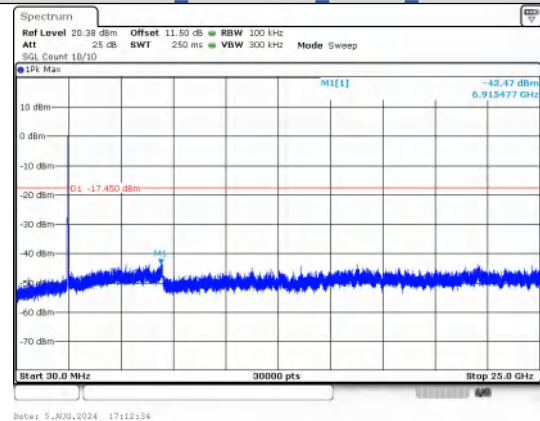
30.0 MHz - 25000.0 MHz
IEEE 802.11n Channel 6 20MHz Antenna 0



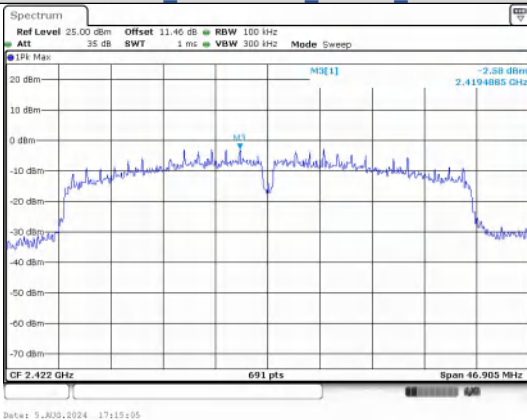
In-Band Reference Level
IEEE 802.11n Channel 11 20MHz Antenna 0



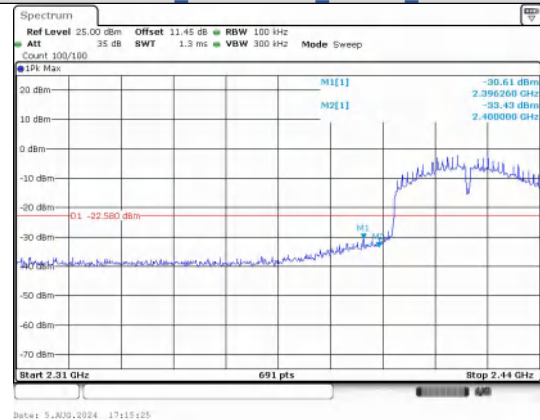
Out Of Band Emission
IEEE 802.11n Channel 11 20MHz Antenna 0



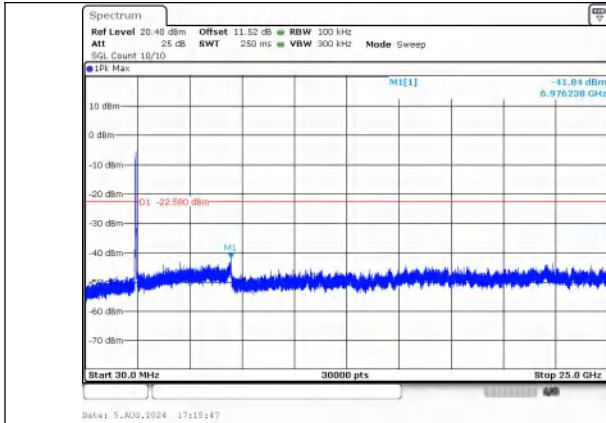
30.0 MHz - 25000.0 MHz
IEEE 802.11n Channel 11 20MHz Antenna 0



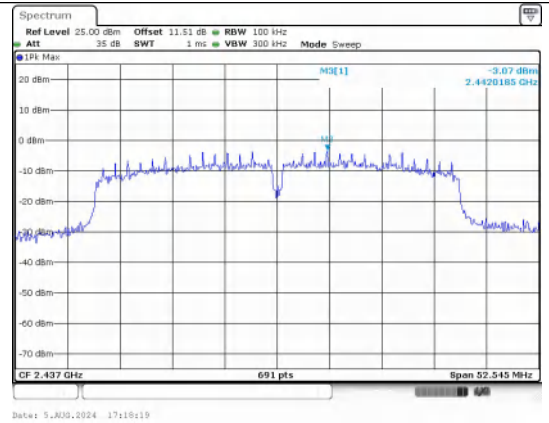
In-Band Reference Level
IEEE 802.11n Channel 3 40MHz Antenna 0



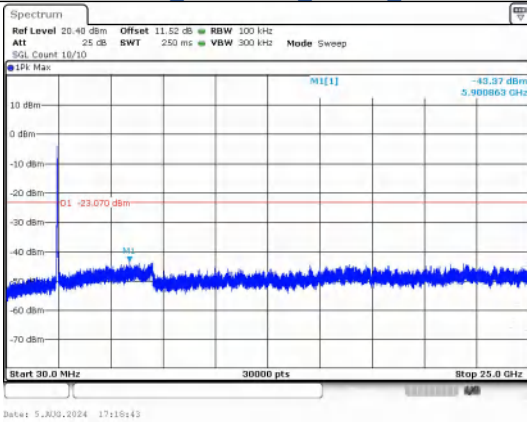
Out Of Band Emission
IEEE 802.11n Channel 3 40MHz Antenna 0



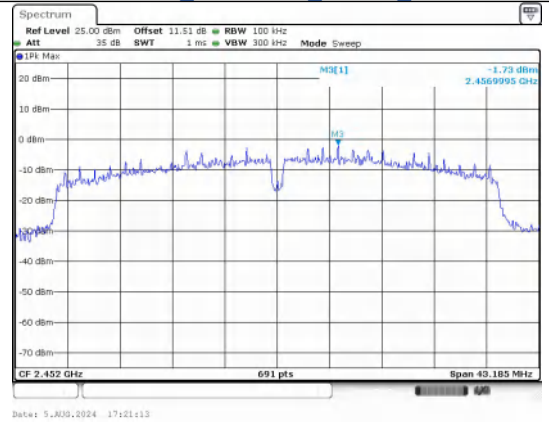
30.0 MHz - 25000.0 MHz
IEEE 802.11n Channel 3 40MHz Antenna 0



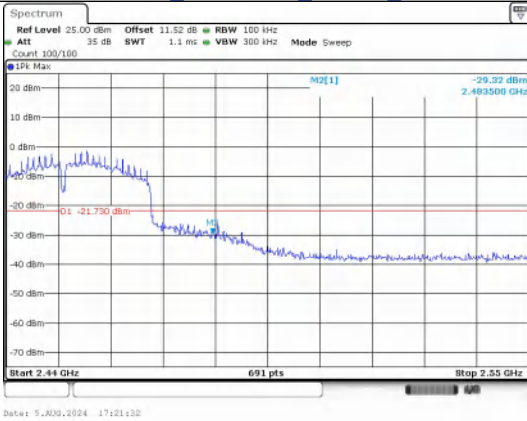
In-Band Reference Level
IEEE 802.11n Channel 6 40MHz Antenna 0



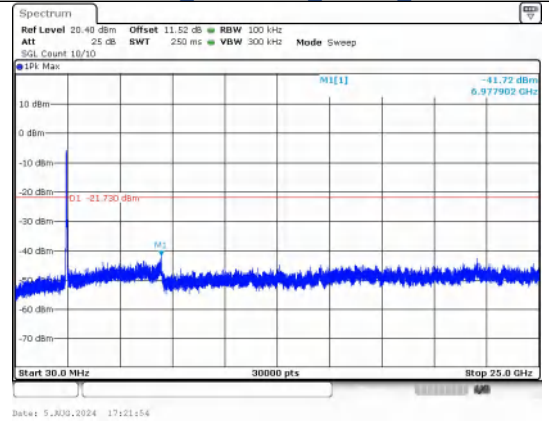
30.0 MHz - 25000.0 MHz
IEEE 802.11n Channel 6 40MHz Antenna 0



In-Band Reference Level
IEEE 802.11n Channel 9 40MHz Antenna 0



Out Of Band Emission
IEEE 802.11n Channel 9 40MHz Antenna 0



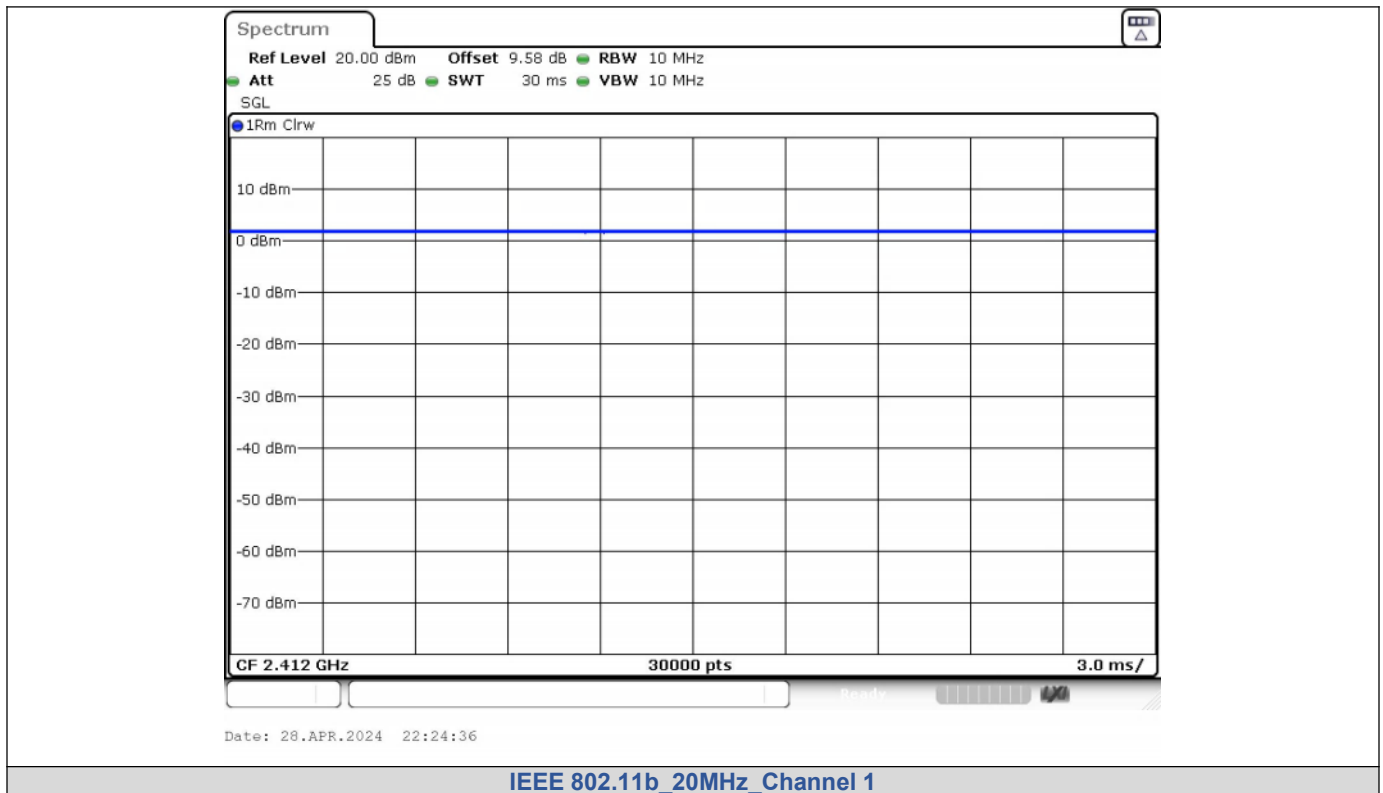
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IEEE 802.11n Channel 9 40MHz Antenna 0

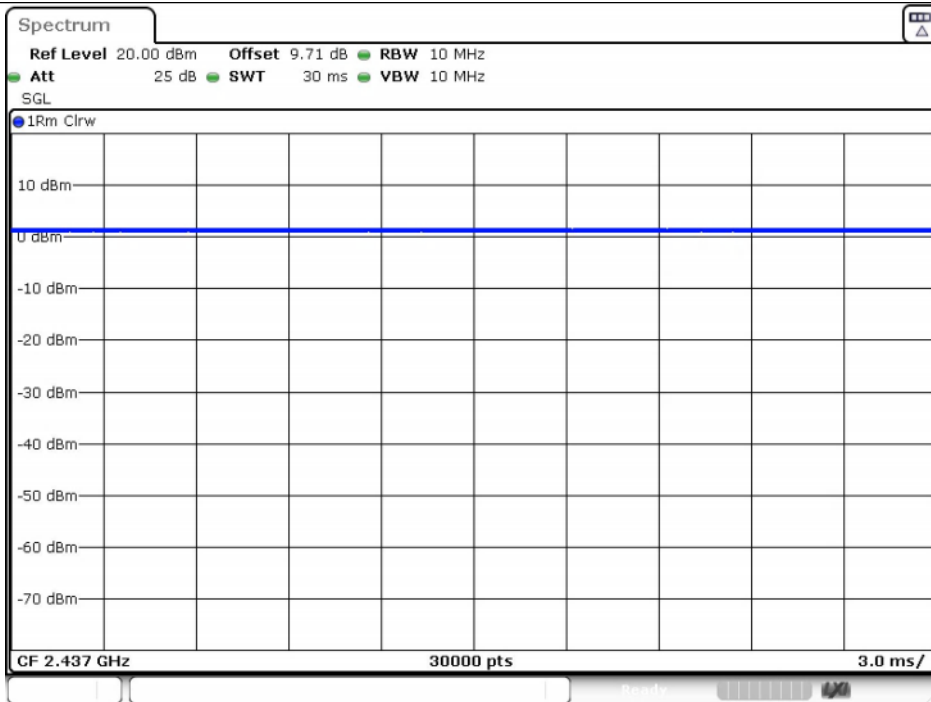
Duty Cycle

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	8.342	8.427	98.99	0.9899	0.0441	0.12
		6		8.342	8.429	98.97	0.9897	0.045	0.12
		11		8.342	8.427	98.99	0.9899	0.0441	0.12
IEEE 802.11g		1		1.396	1.410	99.01	0.9901	0.0432	0.72
		6		1.383	1.399	98.86	0.9886	0.0498	0.72
		11		1.396	1.411	98.94	0.9894	0.0463	0.72
IEEE 802.11n_20	MCS 0	1		1.293	1.307	98.93	0.9893	0.0467	0.77
		6		1.293	1.307	98.88	0.9888	0.0489	0.77
		11		1.304	1.317	99.01	0.9901	0.0432	0.77
IEEE 802.11n_40		3		0.650	0.659	98.65	0.9865	0.059	1.54
		6		0.650	0.659	98.65	0.9865	0.059	1.54
		9		0.650	0.658	98.72	0.9872	0.0559	1.54

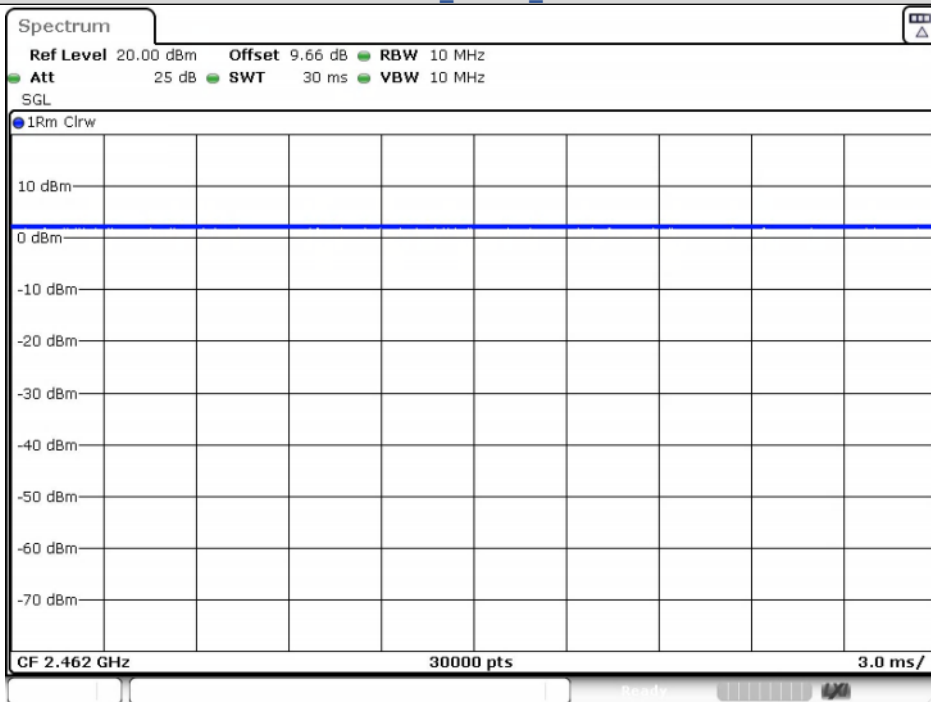
Test Graphs





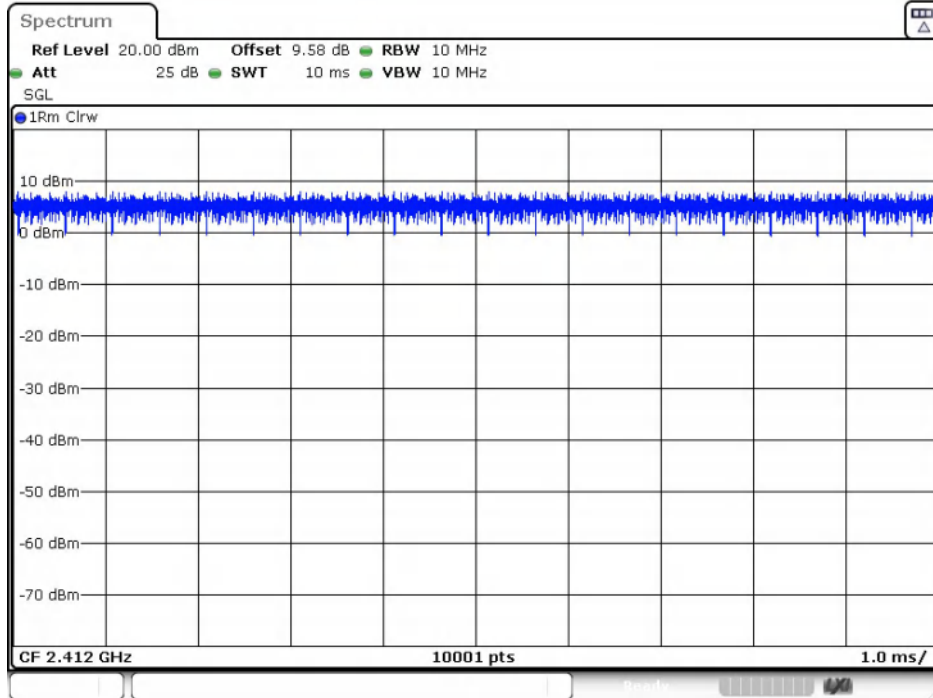
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IEEE 802.11b_20MHz_Channel 6



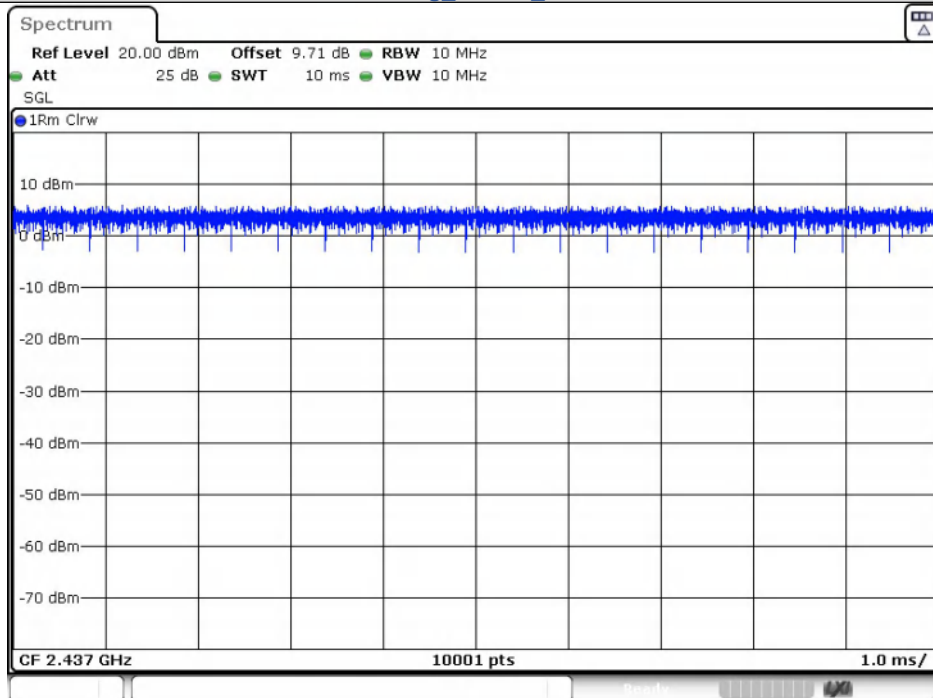
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IEEE 802.11b_20MHz_Channel 11



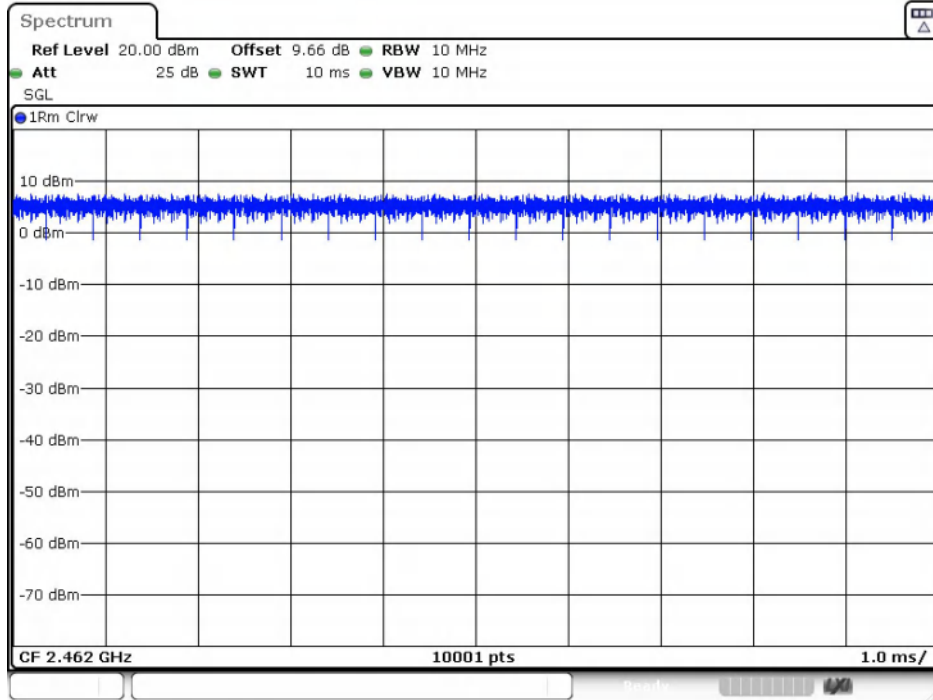
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IEEE 802.11g_20MHz_Channel 1



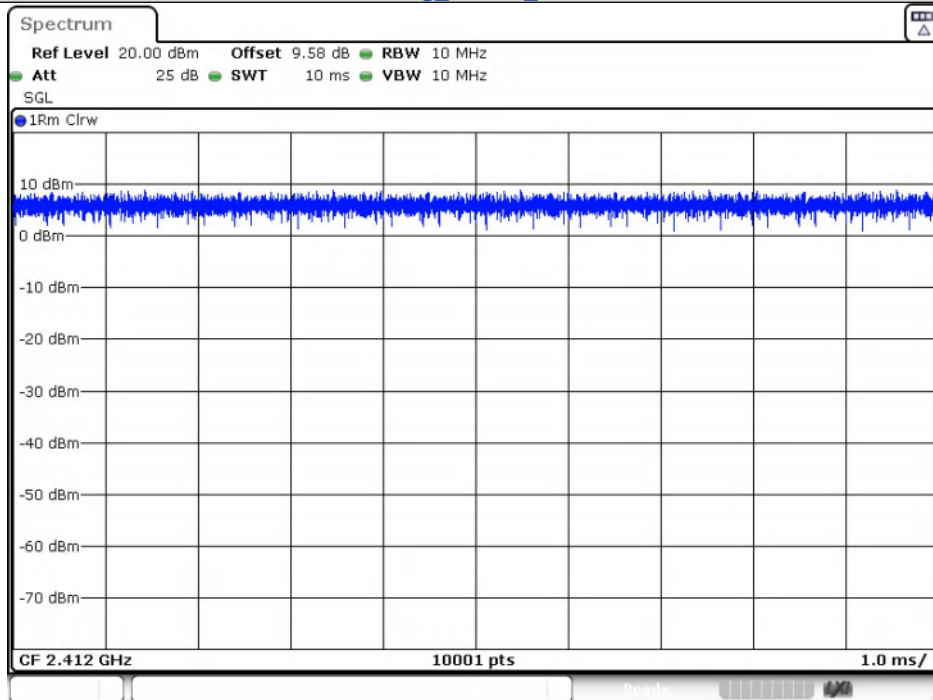
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IEEE 802.11g_20MHz_Channel 6



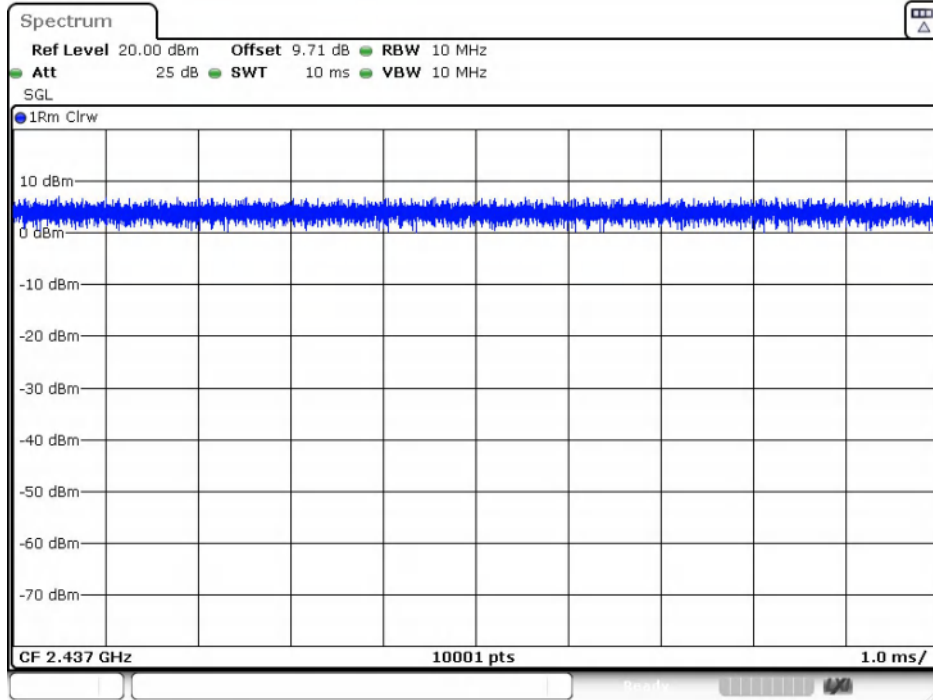
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IEEE 802.11g_20MHz_Channel 11



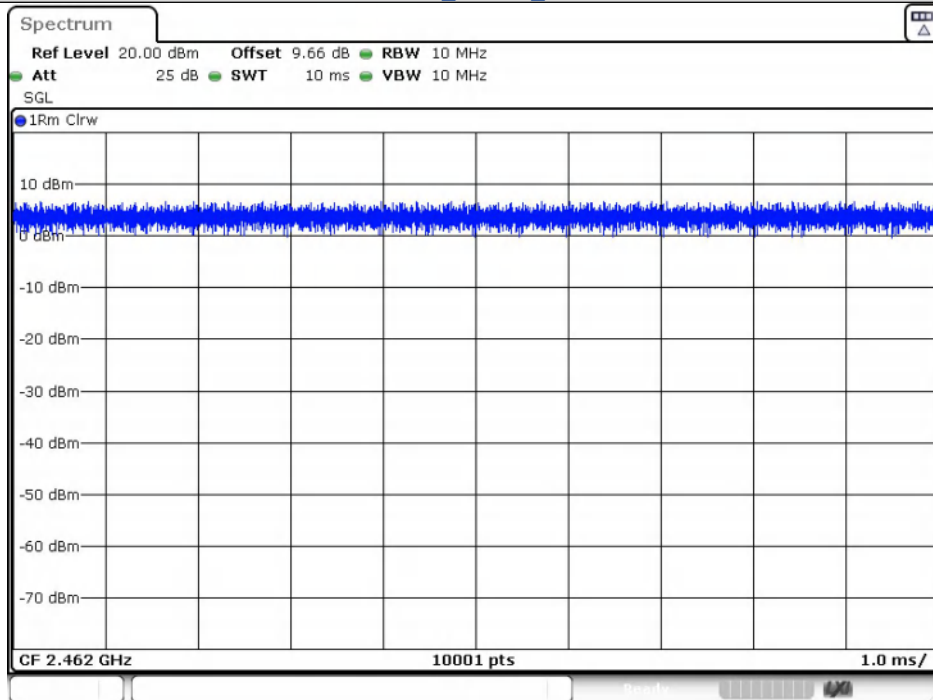
Date: 28.APR.2024 23:39:38

IEEE 802.11n_20MHz_Channel 1



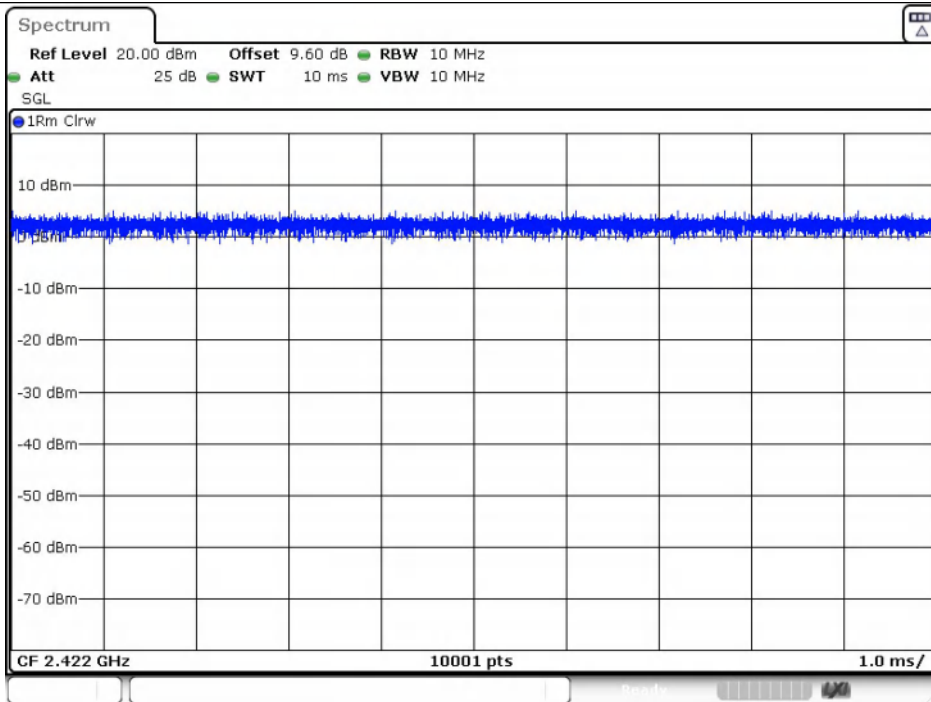
Date: 28.APR.2024 23:42:24

IEEE 802.11n_20MHz_Channel 6



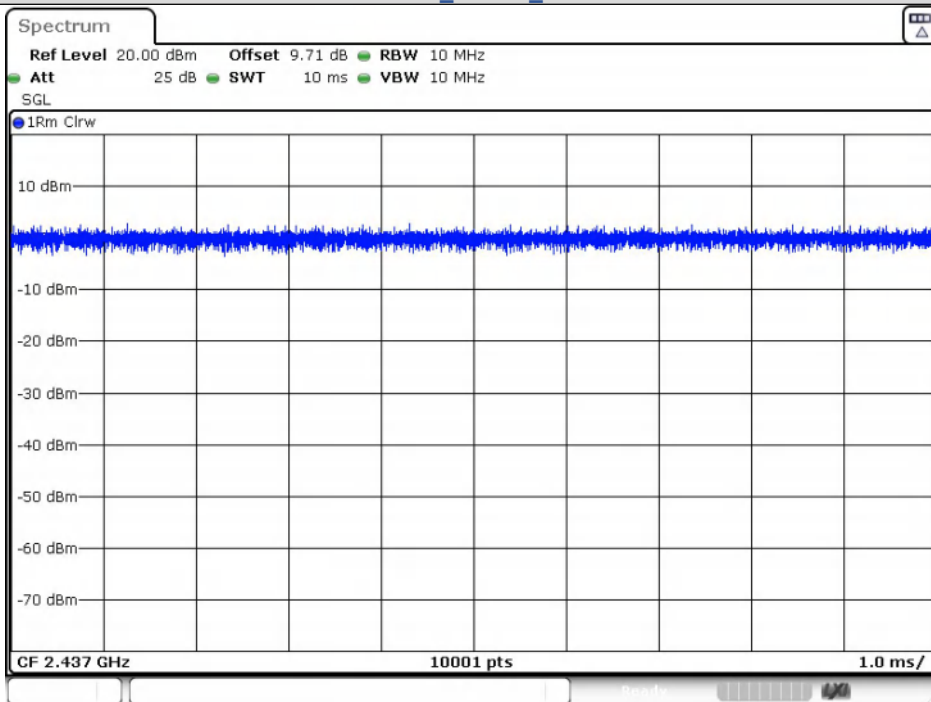
Date: 28.APR.2024 23:44:52

IEEE 802.11n_20MHz_Channel 11



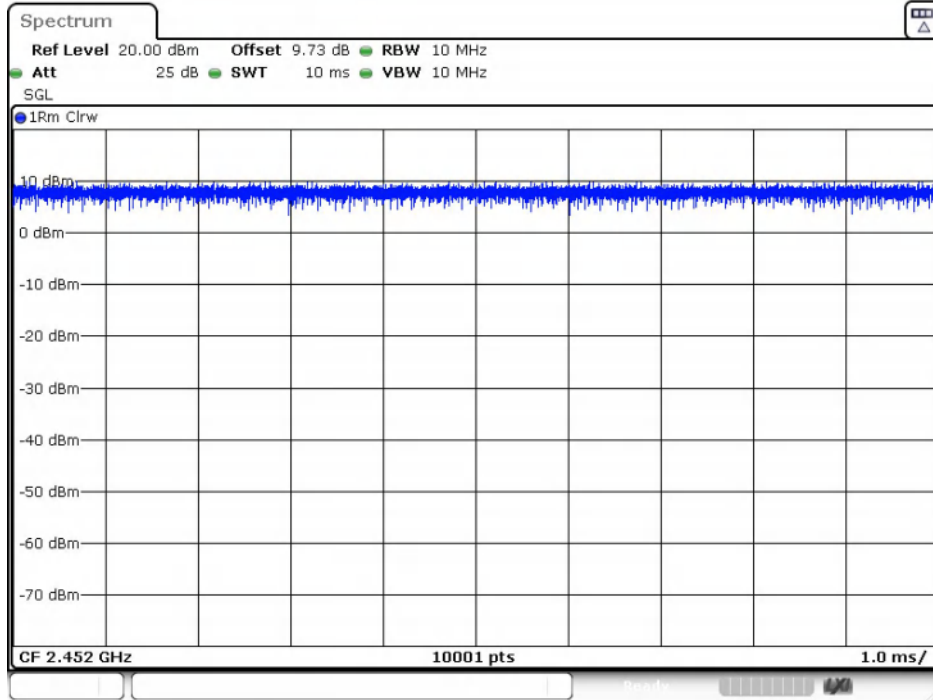
Date: 28.APR.2024 23:47:33

IEEE 802.11n_40MHz_Channel 3



Date: 28.APR.2024 23:50:20

IEEE 802.11n_40MHz_Channel 6



Date: 28.APR.2024 23:52:41

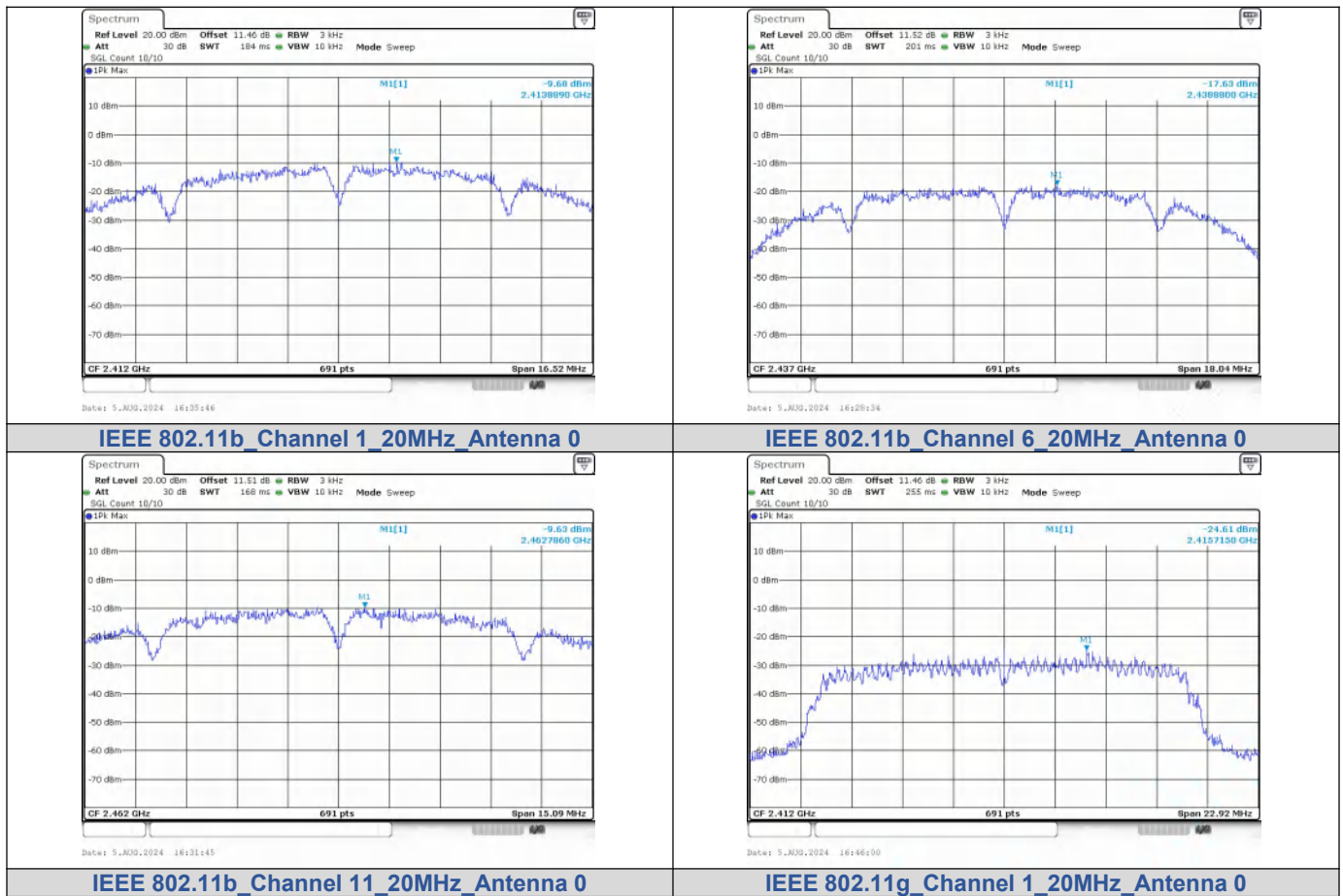
IEEE 802.11n_40MHz_Channel 9

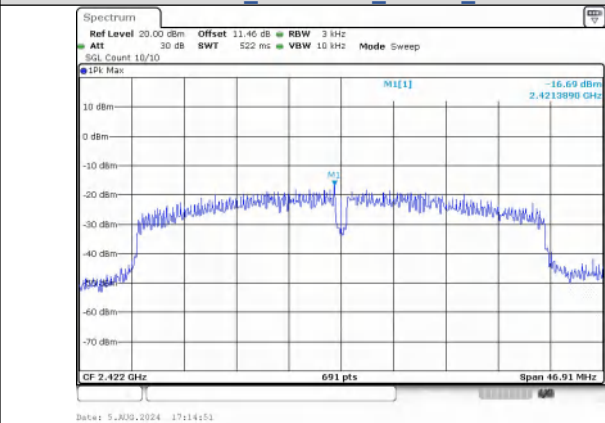
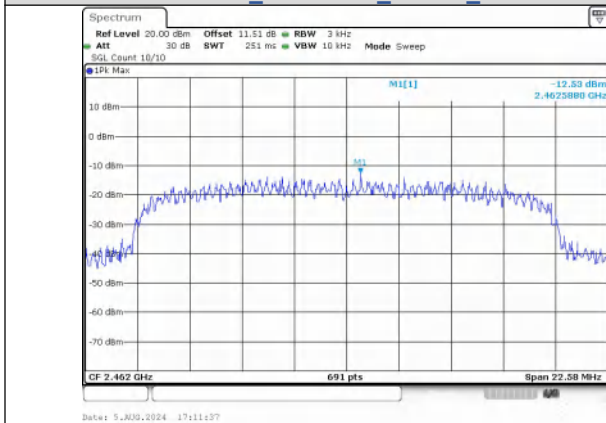
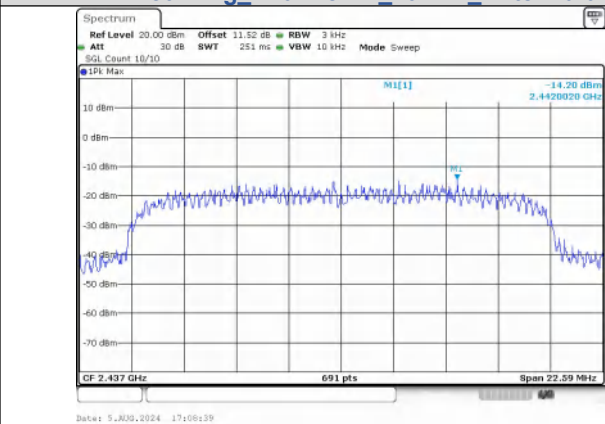
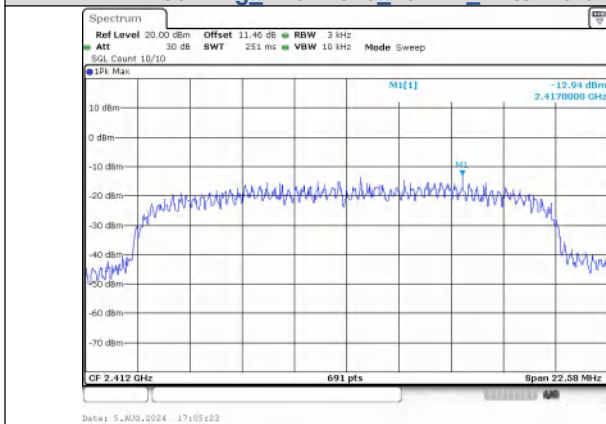
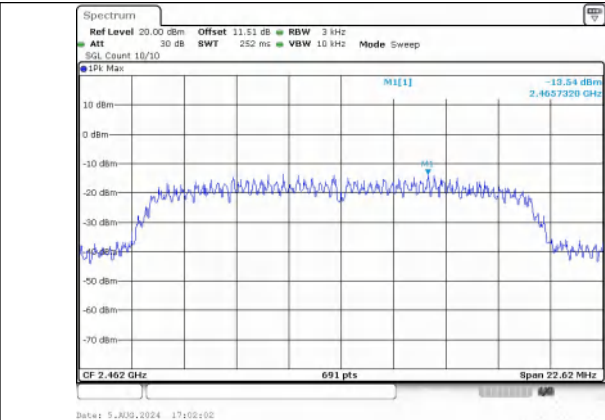
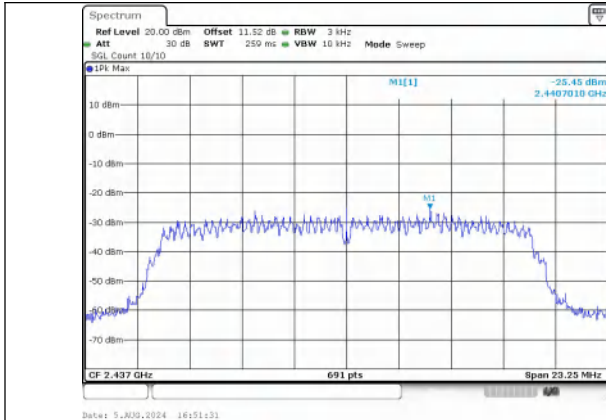
Power Spectral Density

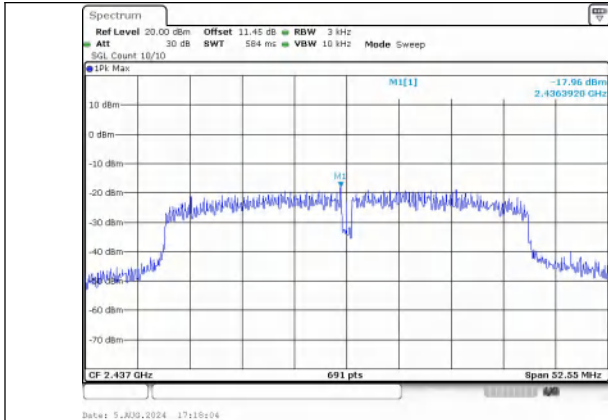
Test Result

Mode	Channel	PSD (dBm/3kHz) Ant. 0	Limit (dBm/3kHz)	Result
IEEE 802.11b	1	-9.684	≤8	PASS
	6	-17.633		PASS
	11	-9.631		PASS
IEEE 802.11g	1	-24.609		PASS
	6	-25.454		PASS
	11	-13.541		PASS
IEEE 802.11n_20	1	-12.941		PASS
	6	-14.200		PASS
	11	-12.528		PASS
IEEE 802.11n_40	3	-16.694		PASS
	6	-17.962		PASS
	9	-16.503		PASS

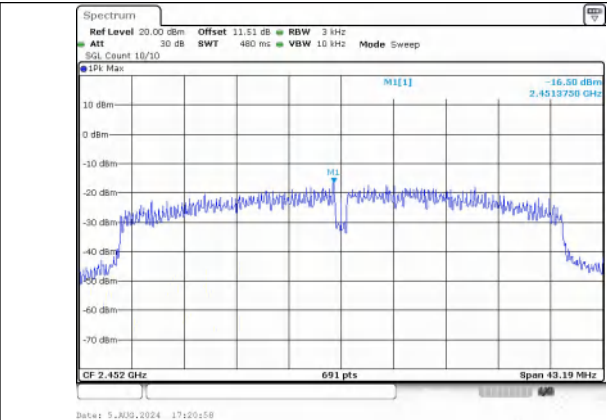
Test Graphs







IEEE 802.11n_Channel 6_40MHz_Antenna 0



IEEE 802.11n_Channel 9_40MHz_Antenna 0