

Appendix RF test data for WIFI2.4G

Conducted Output Power

Test Result

Conducted Output Power

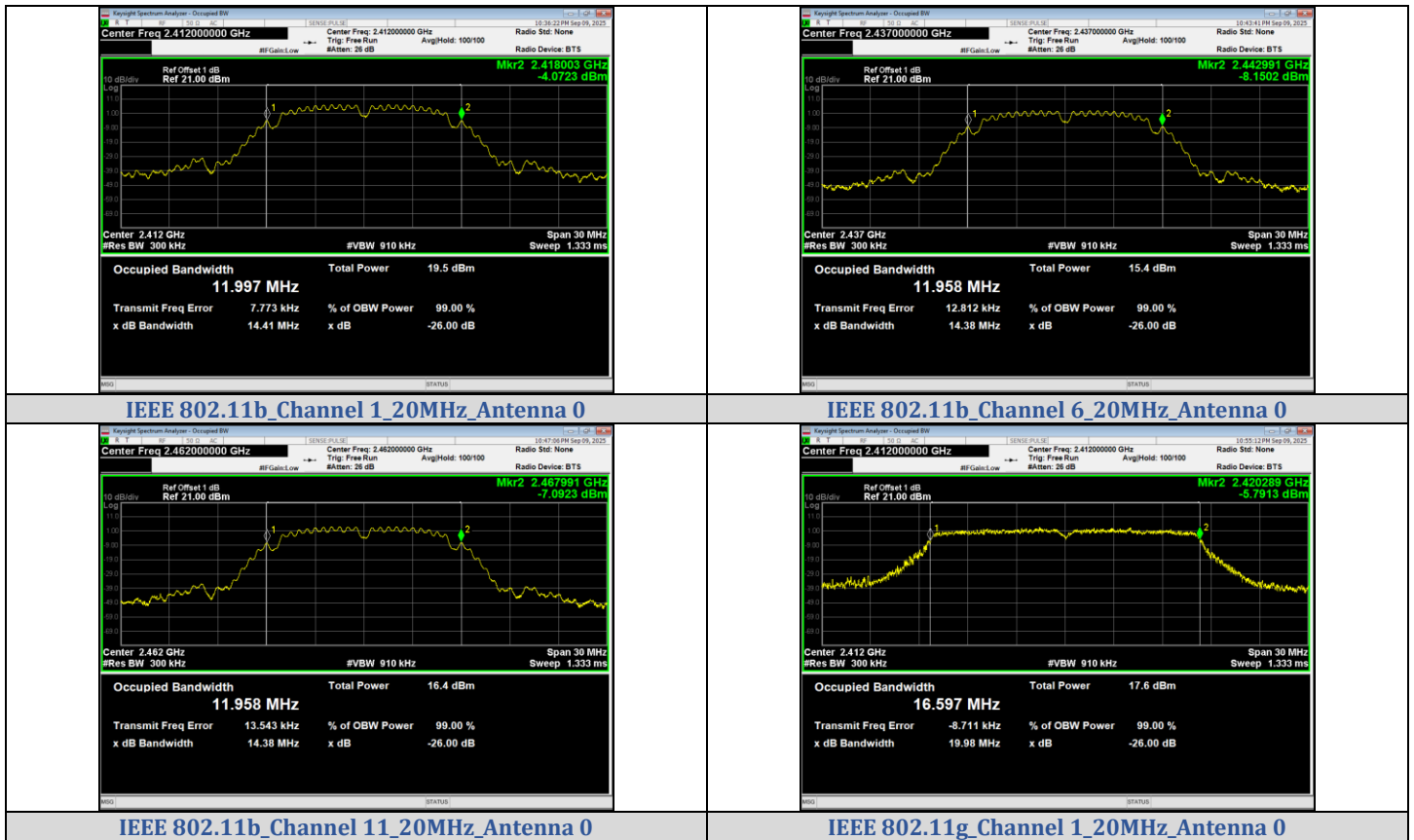
Mode	Channel	Ant. 0 (dBm)	Total (dBm)	Limit (dBm)	Result
IEEE 802.11b	1	14.93	N/A	≤30	PASS
	6	14.63	N/A	≤30	PASS
	11	15.54	N/A	≤30	PASS
IEEE 802.11g	1	17.00	N/A	≤30	PASS
	6	12.27	N/A	≤30	PASS
	11	11.93	N/A	≤30	PASS
IEEE 802.11n_20	1	15.98	N/A	≤30	PASS
	6	11.96	N/A	≤30	PASS
	11	12.55	N/A	≤30	PASS
IEEE 802.11n_40	3	12.15	N/A	≤30	PASS
	6	11.63	N/A	≤30	PASS
	9	12.18	N/A	≤30	PASS

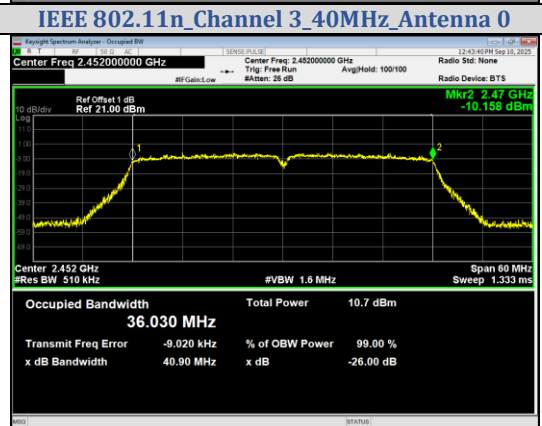
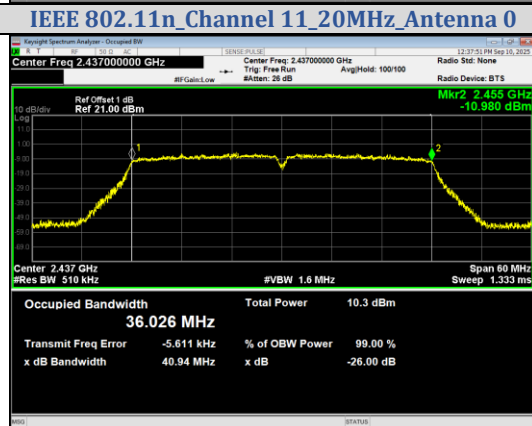
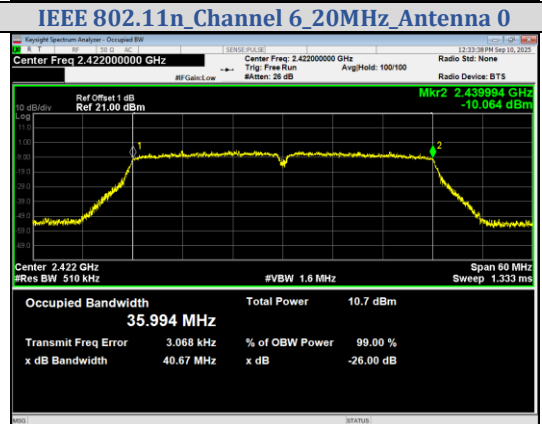
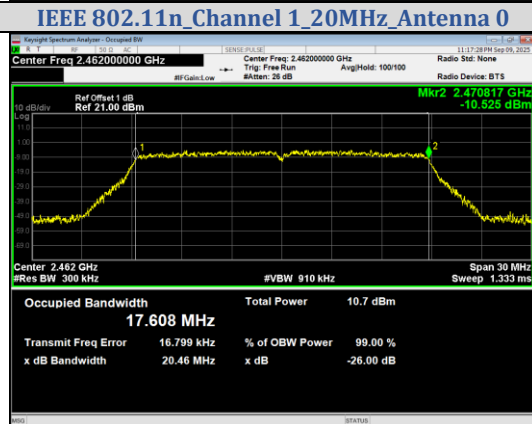
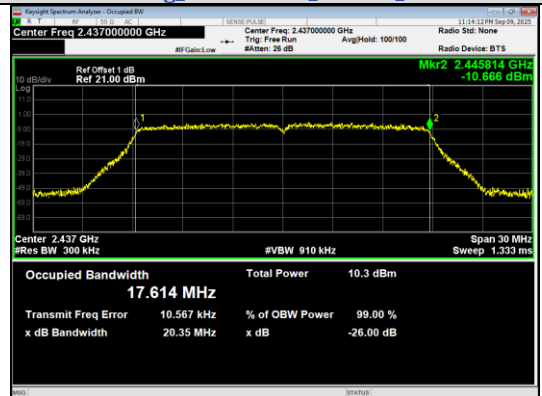
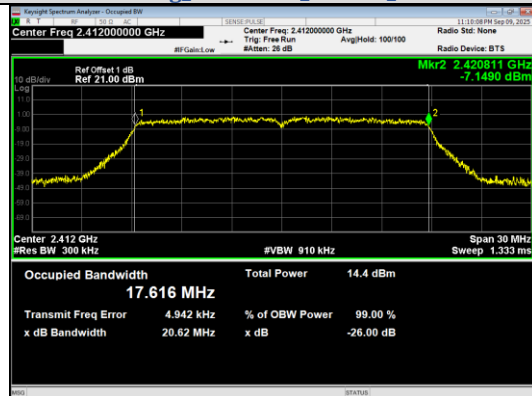
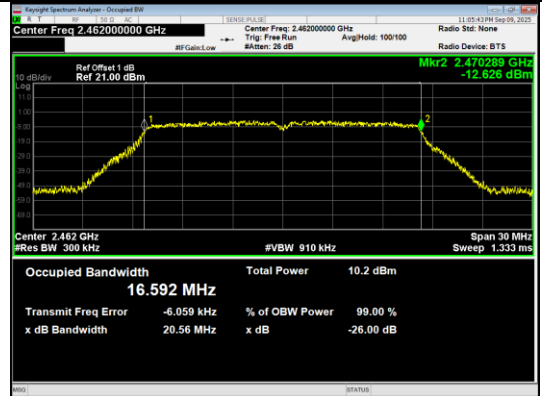
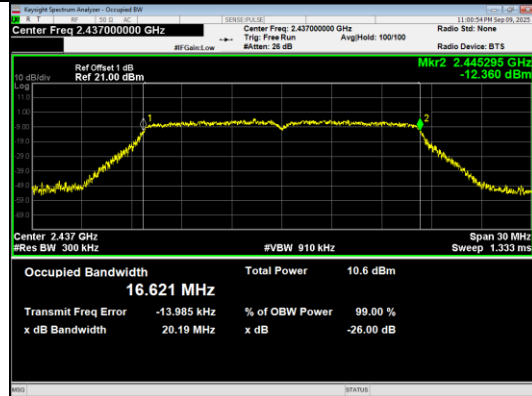
99% Bandwidth

Test Result

Mode	Channel	Ant.	Center Frequency (MHz)	99% BW (MHz)
IEEE 802.11b	1	0	2412	11.997
	6		2437	11.958
	11		2462	11.958
IEEE 802.11g	1		2412	16.597
	6		2437	16.621
	11		2462	16.592
IEEE 802.11n_20	1		2412	17.616
	6		2437	17.614
	11		2462	17.608
IEEE 802.11n_40	3		2422	35.994
	6		2437	36.026
	9		2452	36.030

Test Graphs





IEEE 802.11n Channel 6 40MHz Antenna 0

IEEE 802.11n Channel 9 40MHz Antenna 0

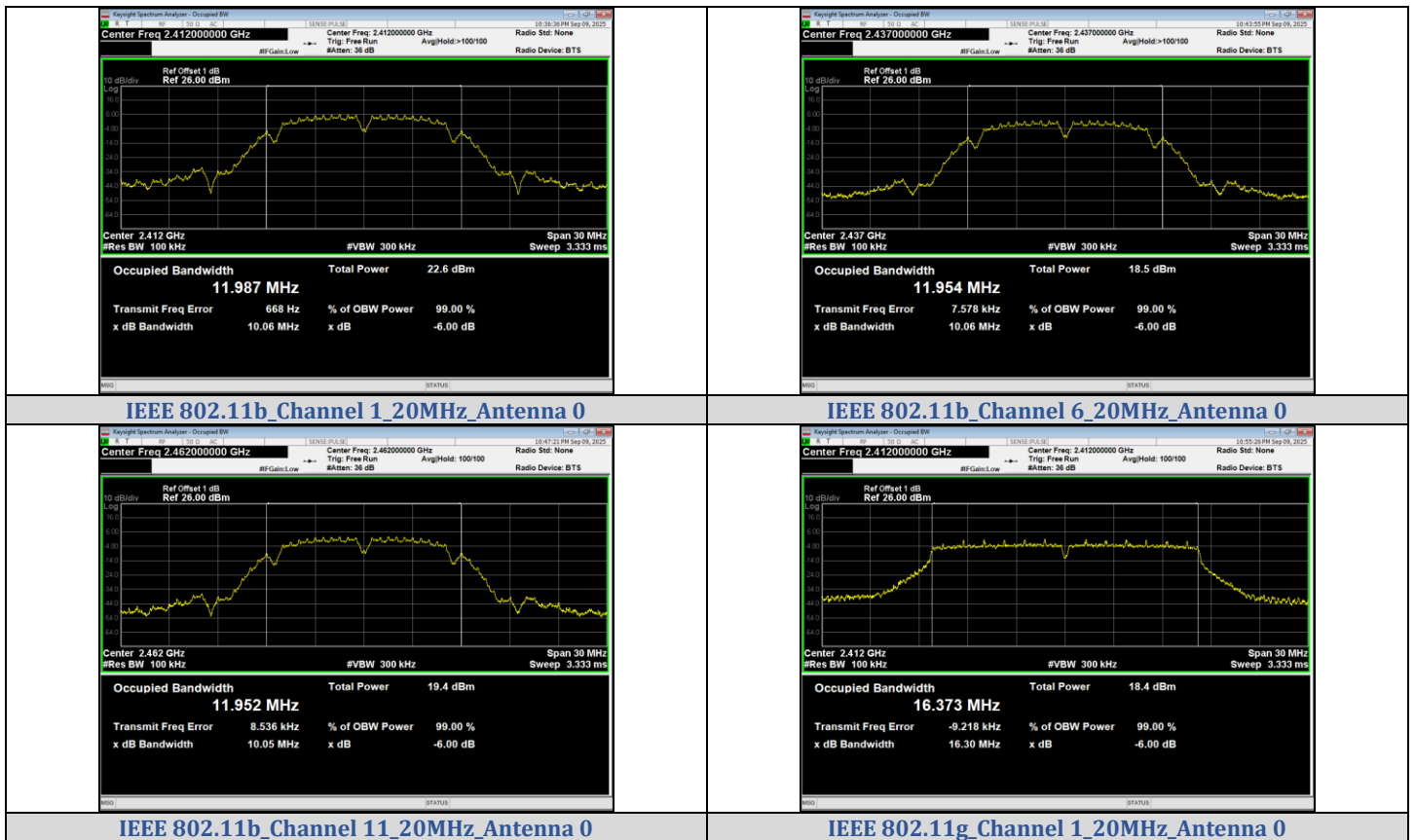


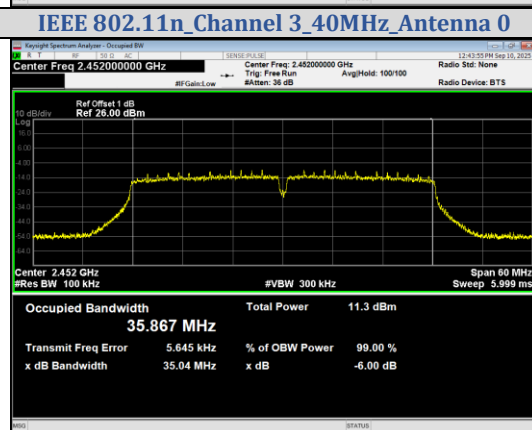
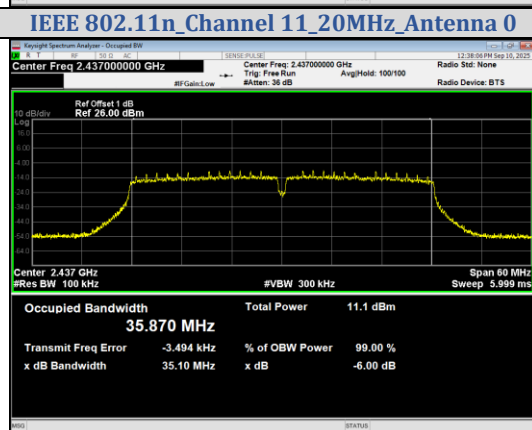
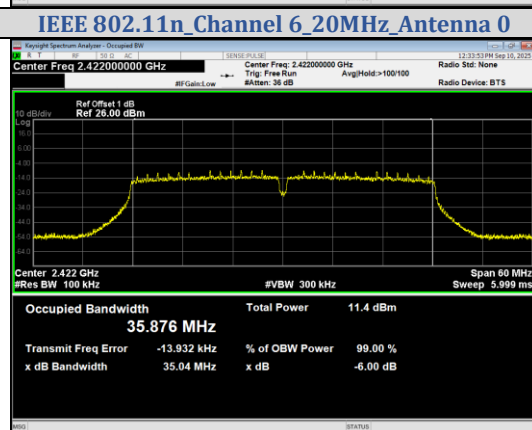
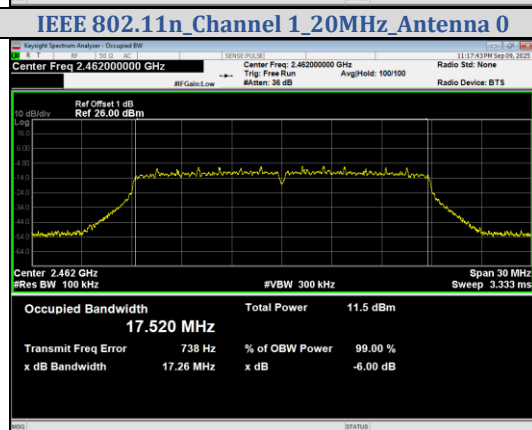
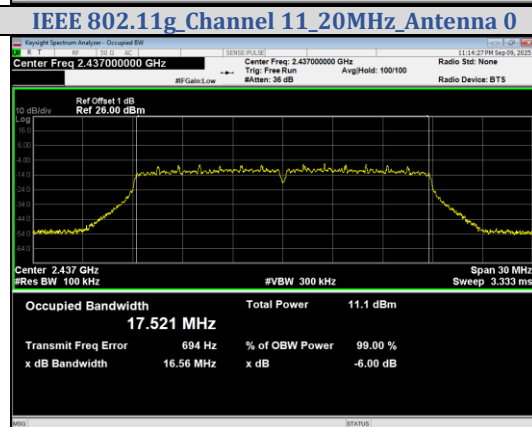
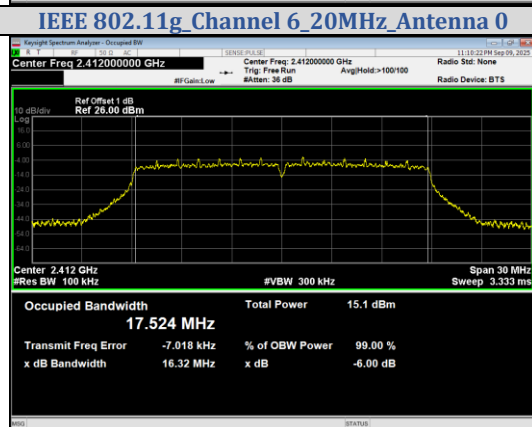
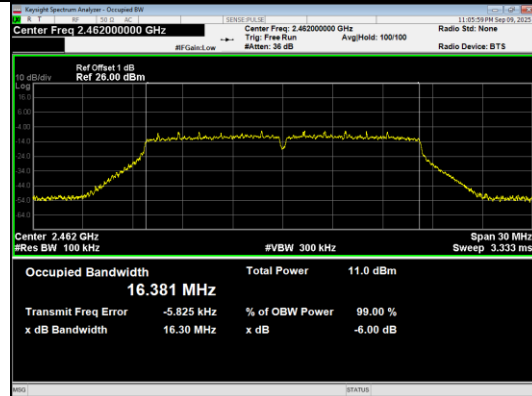
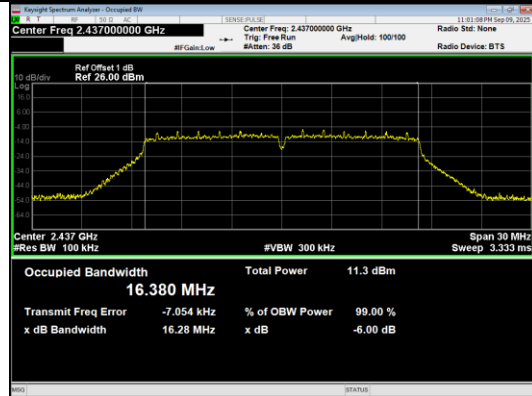
6dB Bandwidth

Test Result

Mode	Channel	Ant.	Center Frequency (MHz)	6 dB Bandwidth (MHz)	Limit (MHz)	Result
IEEE 802.11b	1	0	2412	10.06	≥0.5	PASS
	6		2437	10.06		PASS
	11		2462	10.05		PASS
IEEE 802.11g	1		2412	16.30		PASS
	6		2437	16.28		PASS
	11		2462	16.30		PASS
IEEE 802.11n_20	1		2412	16.32		PASS
	6		2437	16.56		PASS
	11		2462	17.26		PASS
IEEE 802.11n_40	3		2422	35.04		PASS
	6		2437	35.10		PASS
	9		2452	35.04		PASS

Test Graphs





IEEE 802.11n Channel 6 40MHz Antenna 0

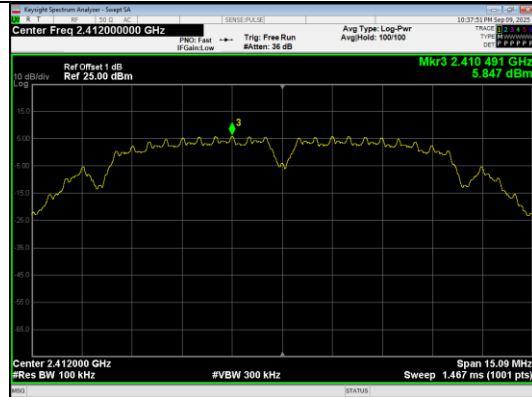
IEEE 802.11n Channel 9 40MHz Antenna 0

Conducted Out Of Band Emission

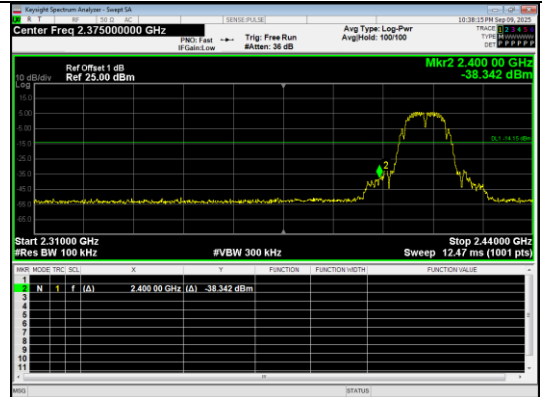
Test Result

Mode	Channel	Ant.	OOB Emission Frequency (MHz)	OOB Emission Level (dBm)	Limit (dBm)	Over Limit (dB)	Result
IEEE 802.11b	1	0	2400.00	-38.340	-14.15	-24.190	PASS
			24928.8	-40.439	-14.15	-26.289	PASS
	6		24392.0	-40.274	-18.22	-22.054	PASS
	11		2483.50	-53.090	-17.2	-35.890	PASS
			24871.4	-38.875	-17.2	-21.675	PASS
IEEE 802.11g	1		2398.53	-37.311	-18.28	-19.031	PASS
			2400.00	-37.750	-18.28	-19.470	PASS
			24986.9	-40.456	-18.28	-22.176	PASS
	6		24890.1	-39.330	-25.61	-13.720	PASS
	11		2483.50	-52.260	-25.84	-26.420	PASS
			24940.7	-39.212	-25.84	-13.372	PASS
IEEE 802.11n_20	1		2400.00	-42.590	-21.76	-20.830	PASS
			24983.8	-40.370	-21.76	-18.610	PASS
	6		24989.4	-39.338	-25.88	-13.458	PASS
	11		2483.50	-51.800	-25.81	-25.990	PASS
			24981.3	-40.523	-25.81	-14.713	PASS
IEEE 802.11n_40	3		2400.00	-46.650	-28.79	-17.860	PASS
			24914.5	-40.203	-28.79	-11.413	PASS
	6		24383.8	-40.002	-29.16	-10.842	PASS
	9		2483.50	-53.520	-28.58	-24.940	PASS
			24970.0	-40.004	-28.58	-11.424	PASS

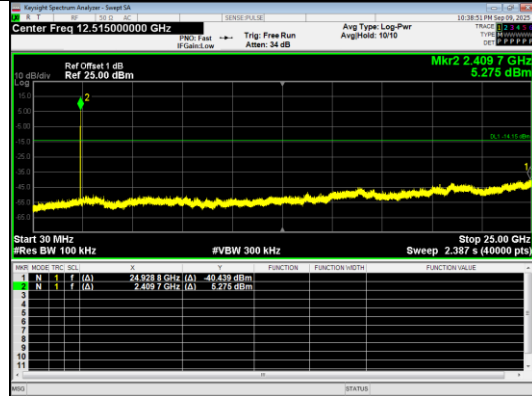
Test Graphs



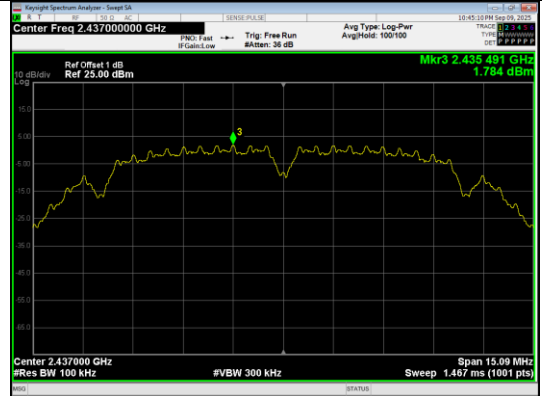
**In-Band Reference Level
IEEE 802.11b Channel 1_20MHz_Antenna 0**



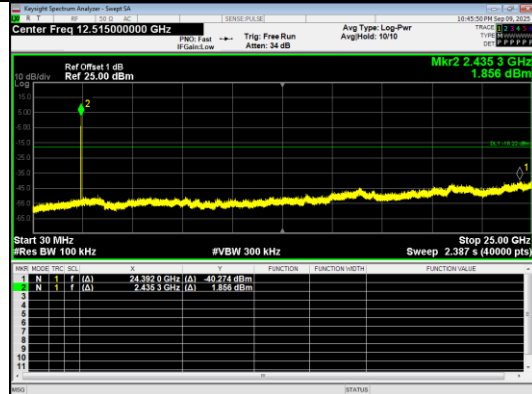
**Out Of Band Emission
IEEE 802.11b Channel 1_20MHz_Antenna 0**



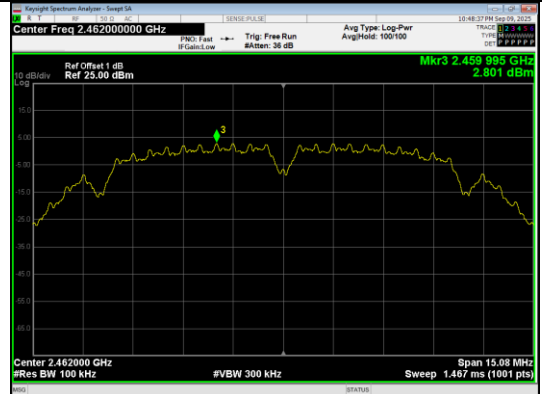
**30.0 MHz - 25000.0 MHz
IEEE 802.11b_Channel 1_20MHz_Antenna 0**



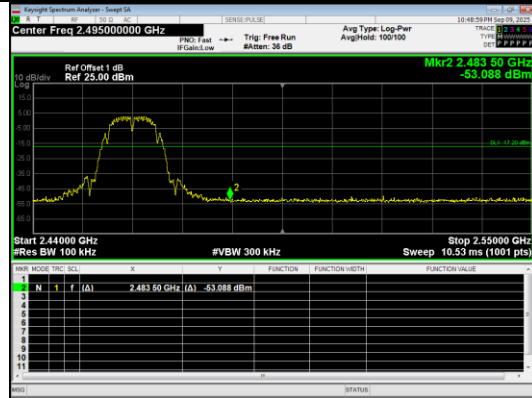
**In-Band Reference Level
IEEE 802.11b_Channel 6_20MHz_Antenna 0**



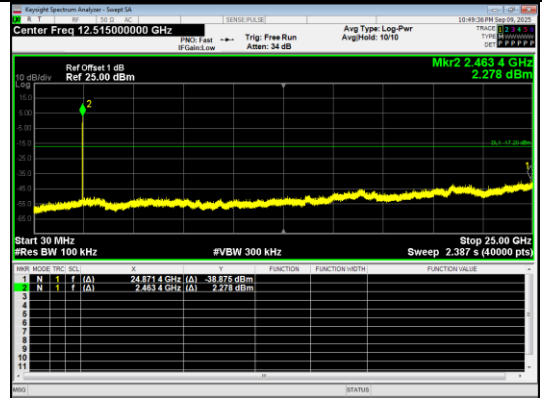
**30.0 MHz - 25000.0 MHz
IEEE 802.11b_Channel 6_20MHz_Antenna 0**



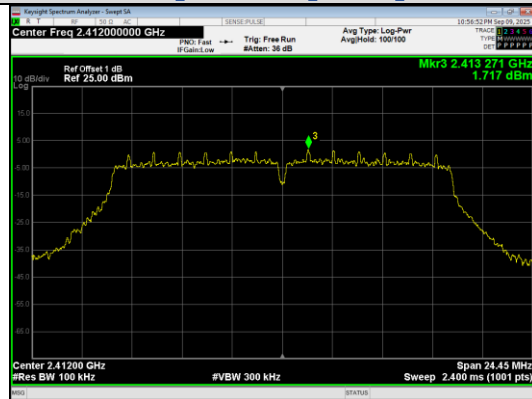
**In-Band Reference Level
IEEE 802.11b_Channel 11_20MHz_Antenna 0**



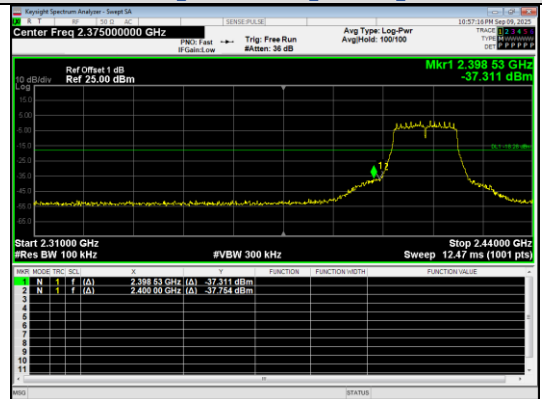
Out Of Band Emission
IEEE 802.11b Channel 11_20MHz_Antenna 0



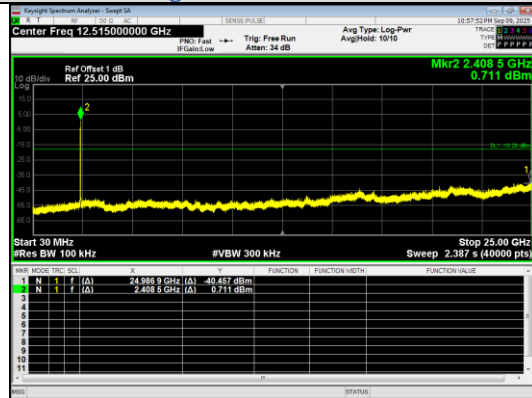
30.0 MHz - 25000.0 MHz
IEEE 802.11b Channel 11_20MHz_Antenna 0



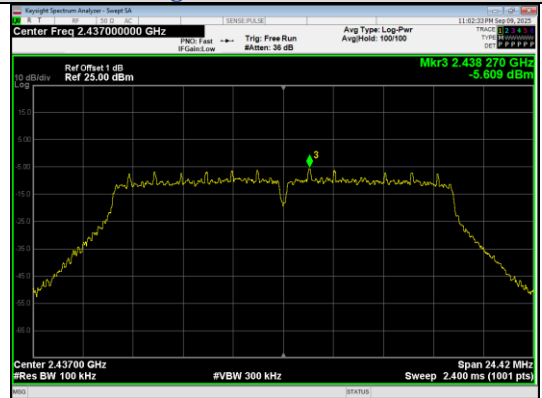
In-Band Reference Level
IEEE 802.11g Channel 1_20MHz_Antenna 0



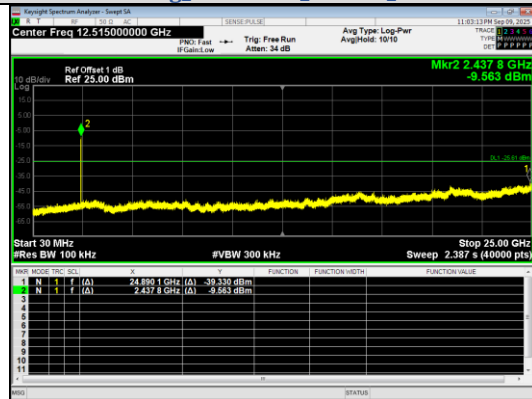
Out Of Band Emission
IEEE 802.11g Channel 1_20MHz_Antenna 0



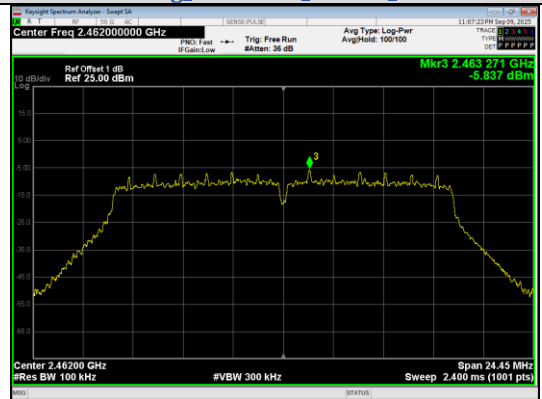
30.0 MHz - 25000.0 MHz
IEEE 802.11g Channel 1_20MHz_Antenna 0



In-Band Reference Level
IEEE 802.11g Channel 6_20MHz_Antenna 0

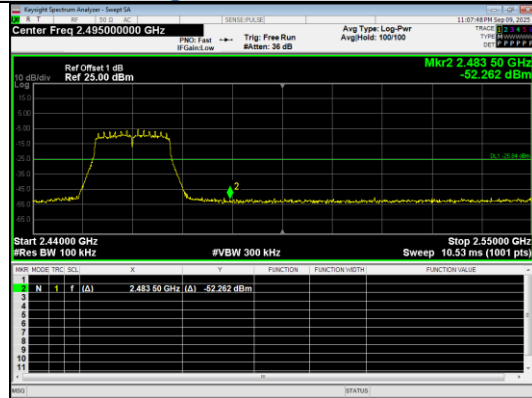


30.0 MHz - 25000.0 MHz

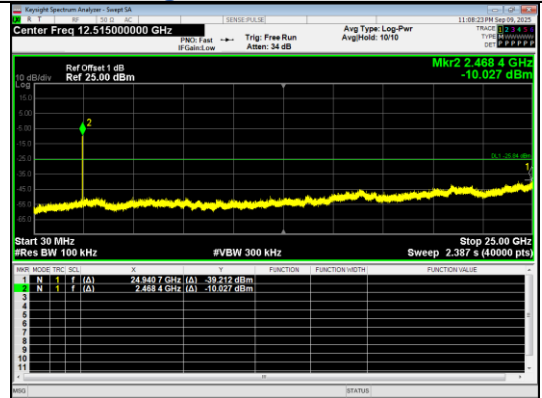


In-Band Reference Level

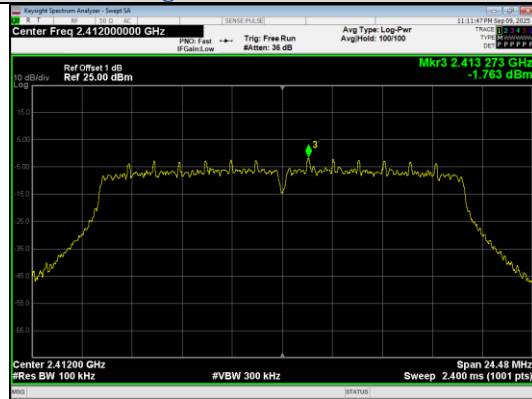
IEEE 802.11g_Channel 6_20MHz_Antenna 0



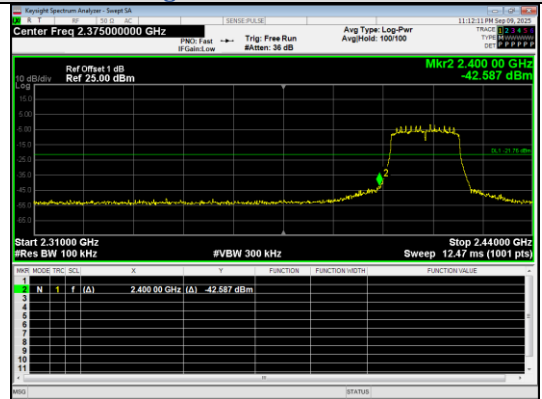
IEEE 802.11g_Channel 11_20MHz_Antenna 0



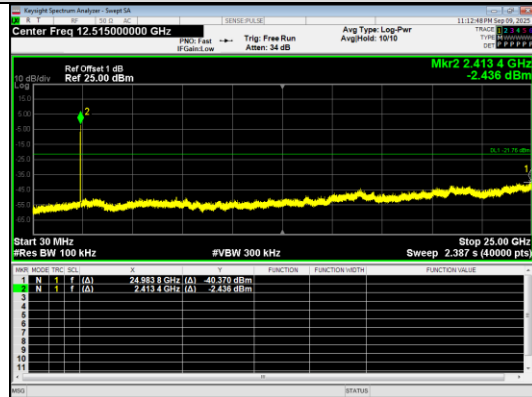
Out Of Band Emission IEEE 802.11g_Channel 11_20MHz_Antenna 0



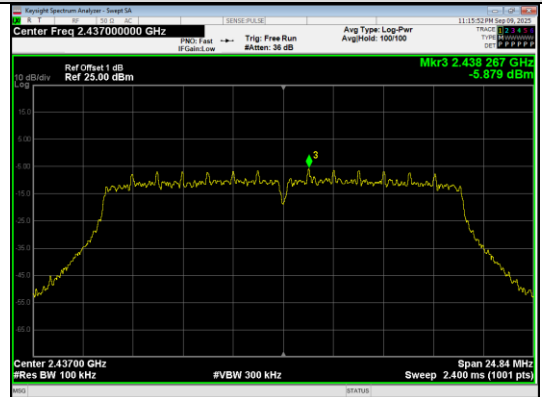
30.0 MHz - 25000.0 MHz IEEE 802.11g_Channel 11_20MHz_Antenna 0



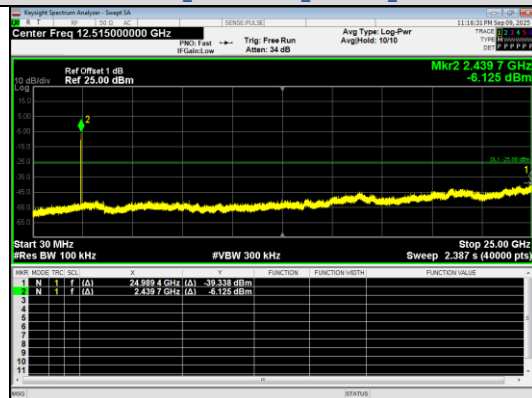
In-Band Reference Level IEEE 802.11n_Channel 1_20MHz_Antenna 0



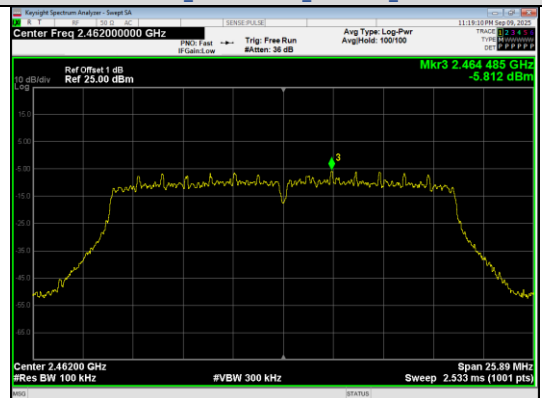
Out Of Band Emission IEEE 802.11n_Channel 1_20MHz_Antenna 0



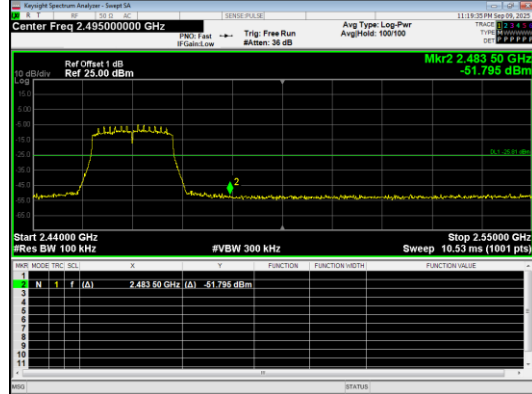
30.0 MHz - 25000.0 MHz IEEE 802.11n_Channel 1_20MHz_Antenna 0



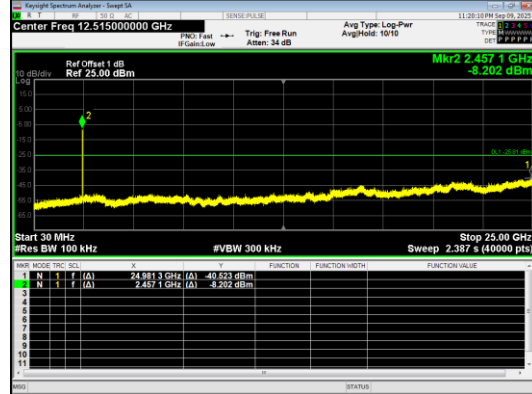
In-Band Reference Level IEEE 802.11n_Channel 6_20MHz_Antenna 0



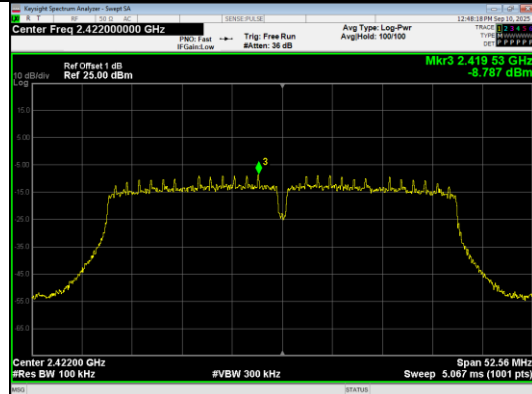
30.0 MHz - 25000.0 MHz IEEE 802.11n_Channel 6_20MHz_Antenna 0



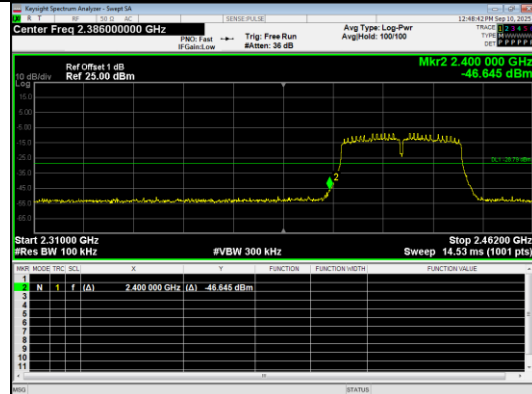
In-Band Reference Level IEEE 802.11n_Channel 11_20MHz_Antenna 0



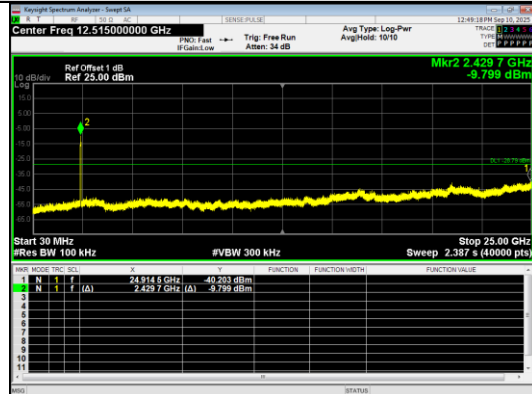
Out Of Band Emission IEEE 802.11n_Channel 11_20MHz_Antenna 0



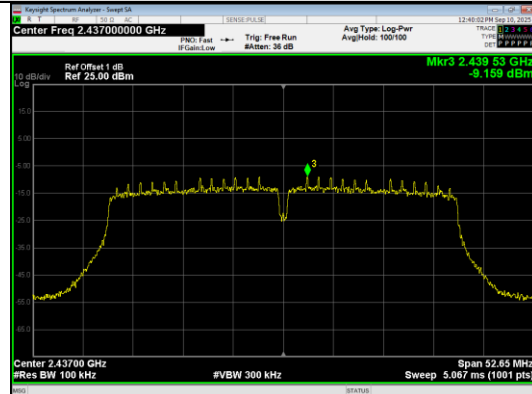
30.0 MHz - 25000.0 MHz IEEE 802.11n_Channel 11_20MHz_Antenna 0



In-Band Reference Level IEEE 802.11n_Channel 3_40MHz_Antenna 0

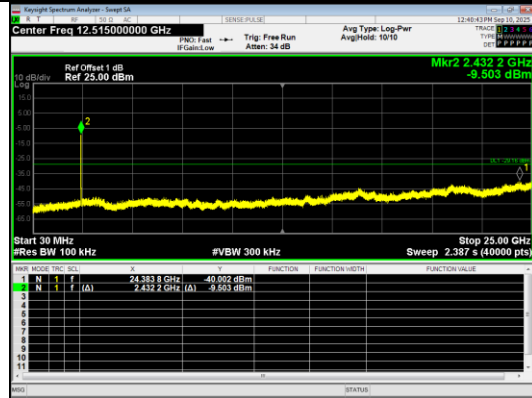


Out Of Band Emission IEEE 802.11n_Channel 3_40MHz_Antenna 0

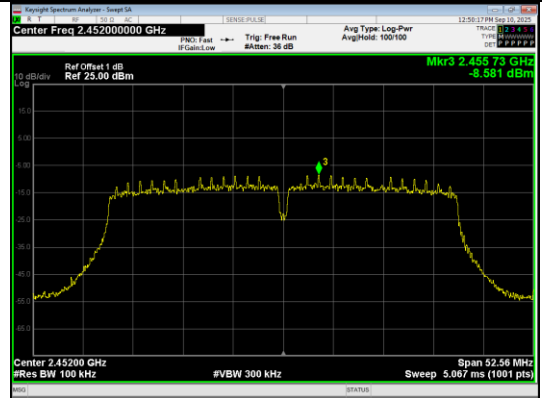


30.0 MHz - 25000.0 MHz IEEE 802.11n_Channel 3_40MHz_Antenna 0

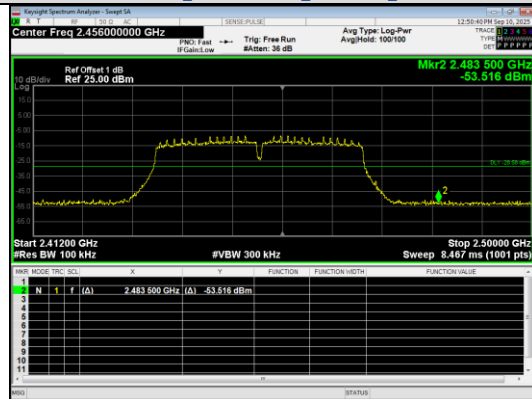
In-Band Reference Level IEEE 802.11n_Channel 6_40MHz_Antenna 0



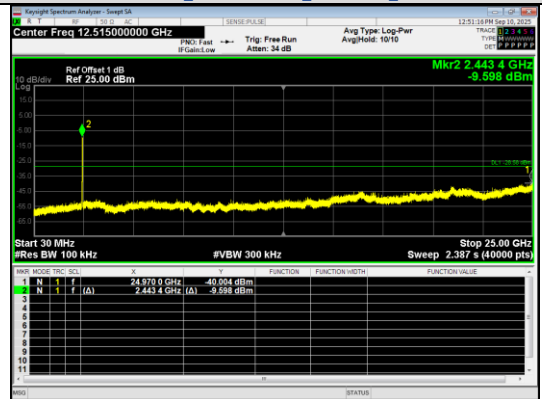
30.0 MHz - 25000.0 MHz
IEEE 802.11n_Channel 6_40MHz_Antenna 0



In-Band Reference Level
IEEE 802.11n_Channel 9_40MHz_Antenna 0



Out Of Band Emission
IEEE 802.11n_Channel 9_40MHz_Antenna 0



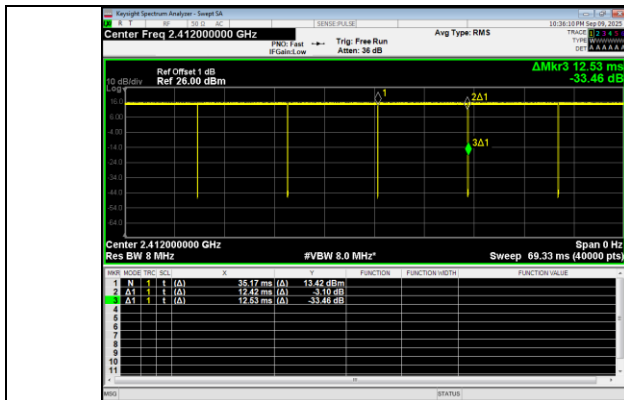
30.0 MHz - 25000.0 MHz
IEEE 802.11n_Channel 9_40MHz_Antenna 0

Duty Cycle

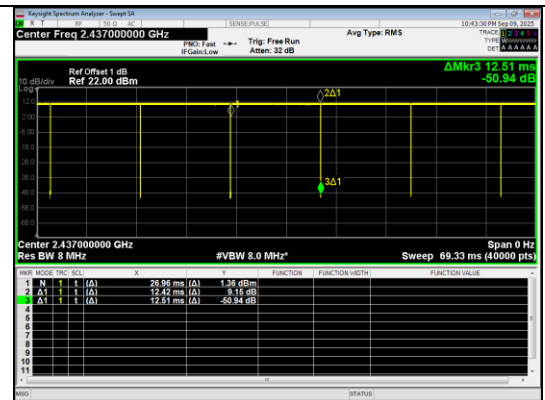
Test Result

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	12.416	12.534	99.06	0.9906	0.041	0.0805
		6		12.416	12.511	99.24	0.9924	0.0331	0.0805
		11		12.416	12.522	99.16	0.9916	0.0366	0.0805
IEEE 802.11g		1		2.068	2.171	95.26	0.9526	0.2109	0.4836
		6		2.068	2.165	95.52	0.9552	0.1991	0.4836
		11		2.069	2.191	94.43	0.9443	0.2489	0.4833
IEEE 802.11n_20	MCS 0	1		1.924	2.007	95.86	0.9586	0.1836	0.5198
		6		1.925	2.008	95.87	0.9587	0.1832	0.5195
		11		1.924	2.017	95.39	0.9539	0.205	0.5198
IEEE 802.11n_40		3		0.947	1.052	90.10	0.9010	0.4528	1.0560
		6		0.947	1.074	88.25	0.8825	0.5429	1.0560
		9		0.947	1.043	90.86	0.9086	0.4163	1.0560

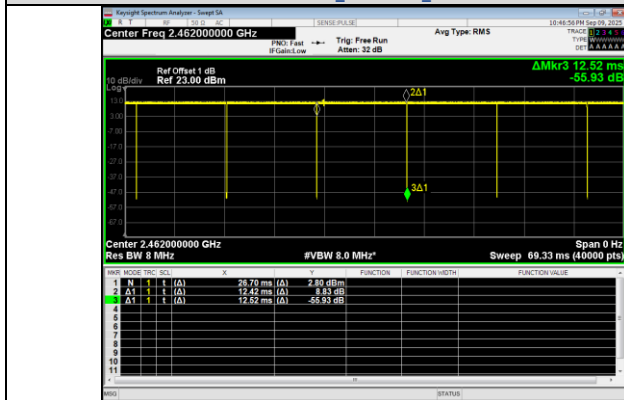
Test Graphs



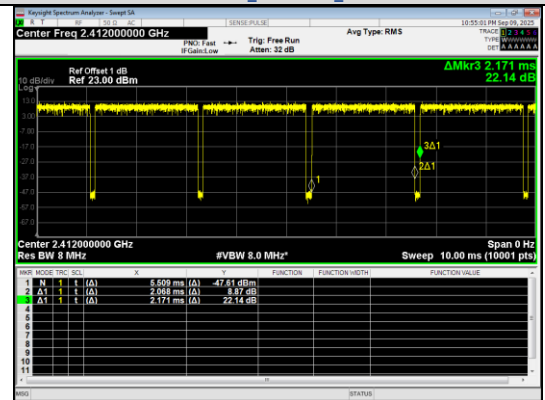
IEEE 802.11b_20MHz_Channel 1



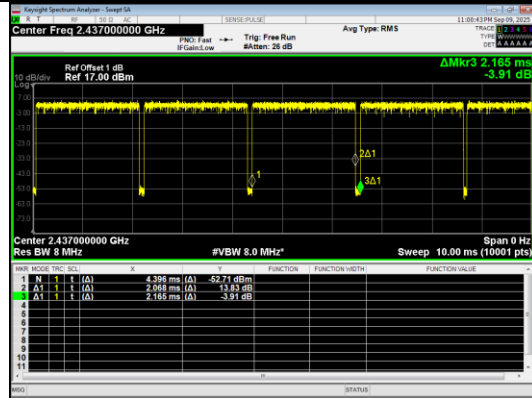
IEEE 802.11b_20MHz_Channel 6



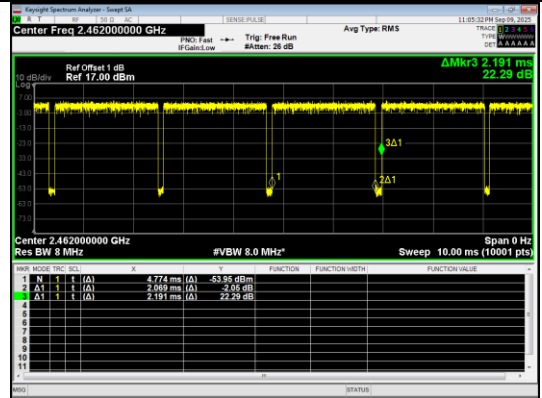
IEEE 802.11b_20MHz_Channel 11



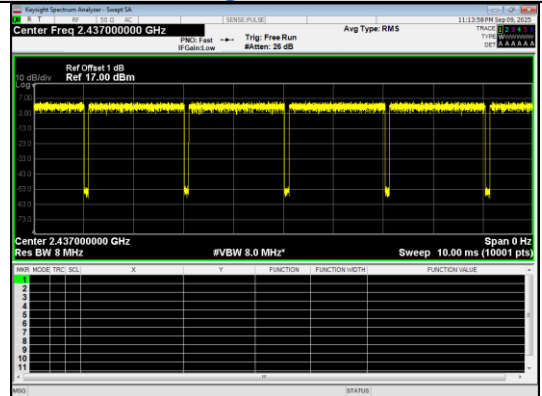
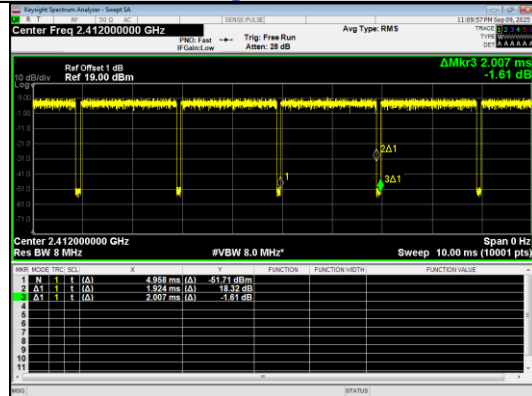
IEEE 802.11g_20MHz_Channel 1



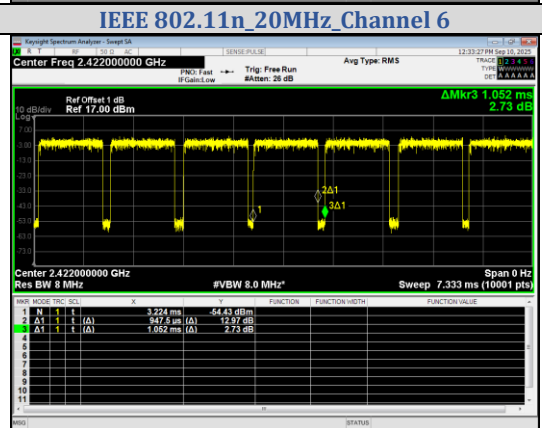
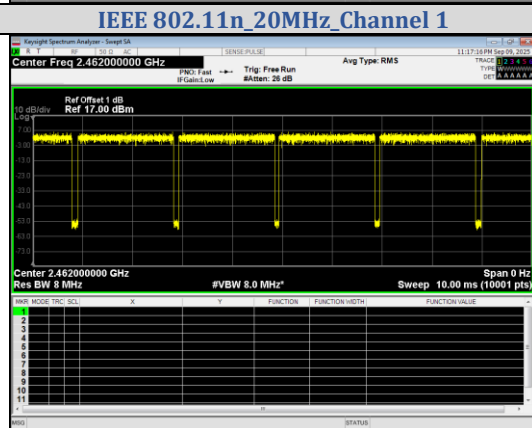
IEEE 802.11g 20MHz_Channel 6



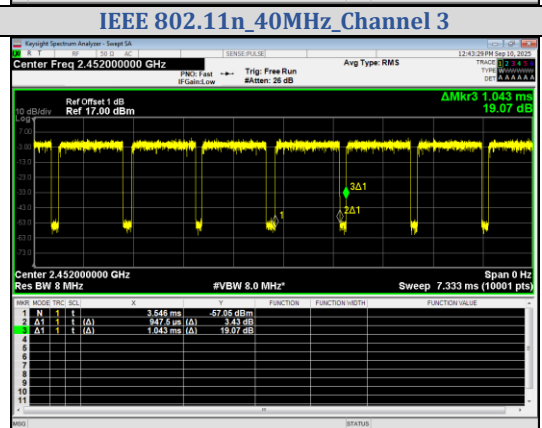
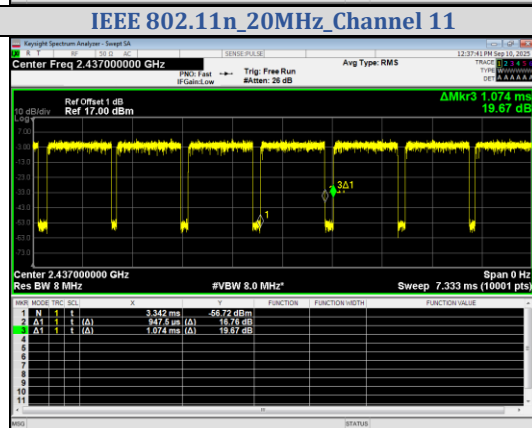
IEEE 802.11g 20MHz_Channel 11



IEEE 802.11g 20MHz_Channel 11



IEEE 802.11n 20MHz_Channel 6



IEEE 802.11n 40MHz_Channel 3

IEEE 802.11n 40MHz_Channel 6

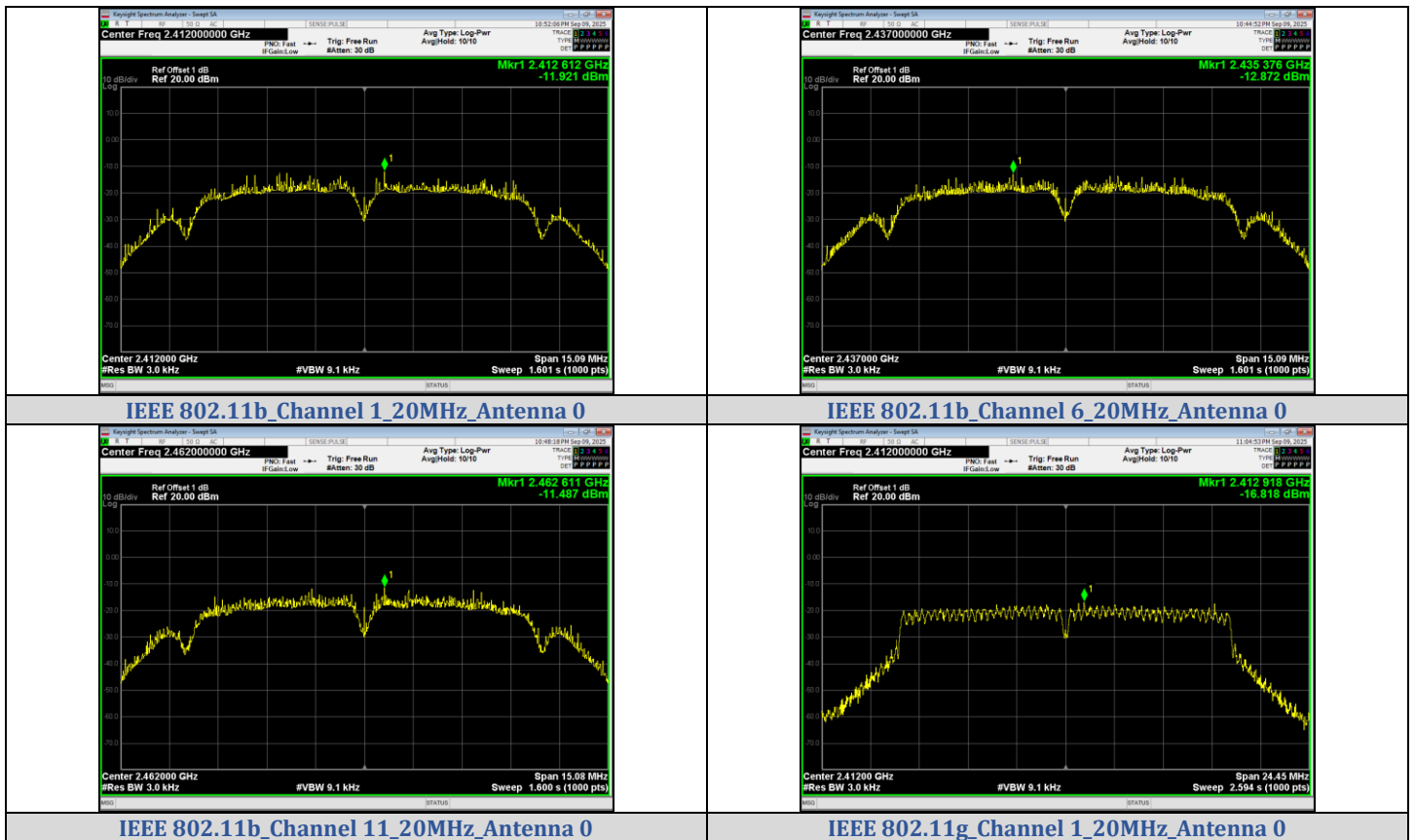
IEEE 802.11n 40MHz_Channel 9

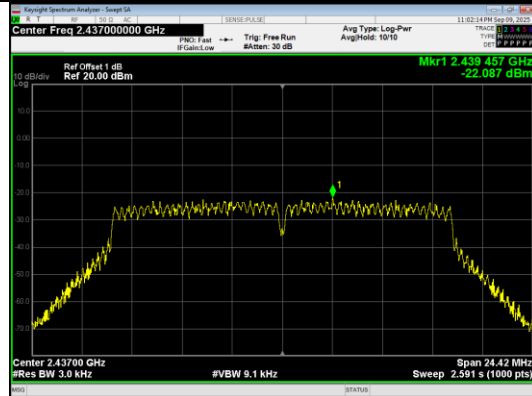
Power Spectral Density

Test Result

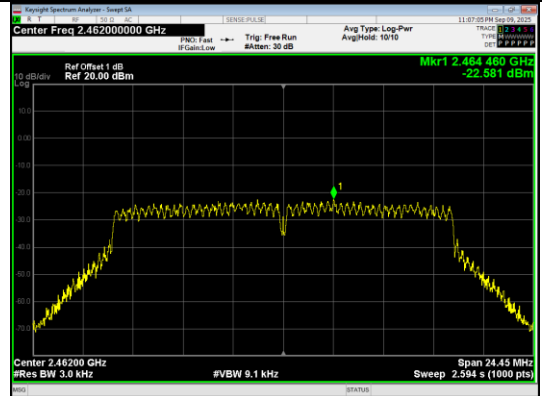
Mode	Channel	PSD (dBm/3kHz) Ant. 0	Limit (dBm/3kHz)	Result
IEEE 802.11b	1	-11.920	≤8	PASS
	6	-12.870		PASS
	11	-11.490		PASS
IEEE 802.11g	1	-16.820		PASS
	6	-22.090		PASS
	11	-22.580		PASS
IEEE 802.11n_20	1	-17.310		PASS
	6	-21.810		PASS
	11	-20.550		PASS
IEEE 802.11n_40	3	-23.830		PASS
	6	-24.010		PASS
	9	-23.750		PASS

Test Graphs

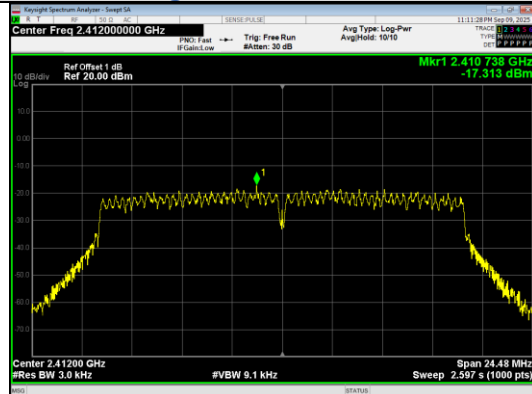




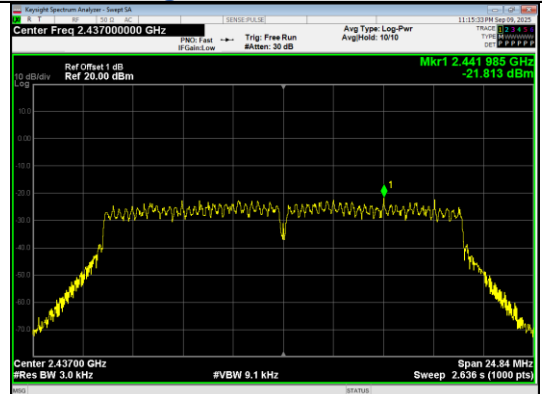
IEEE 802.11g_Channel 6_20MHz_Antenna 0



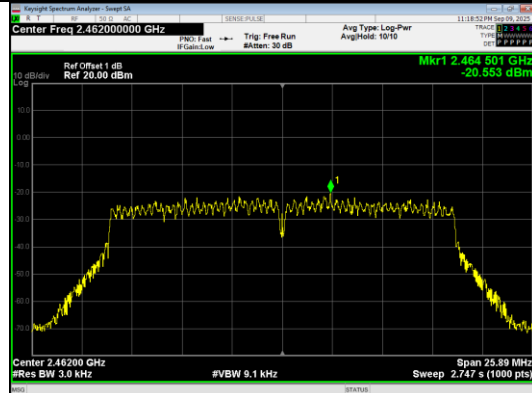
IEEE 802.11g_Channel 11_20MHz_Antenna 0



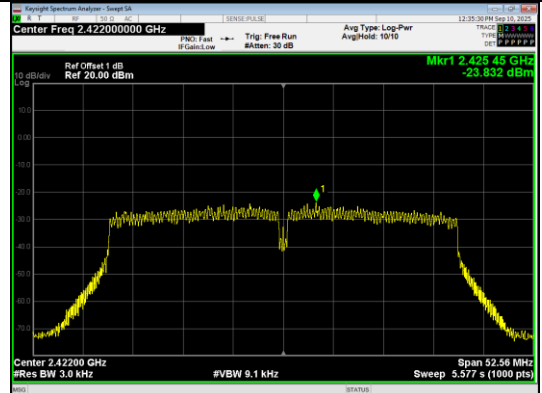
IEEE 802.11n_Channel 1_20MHz_Antenna 0



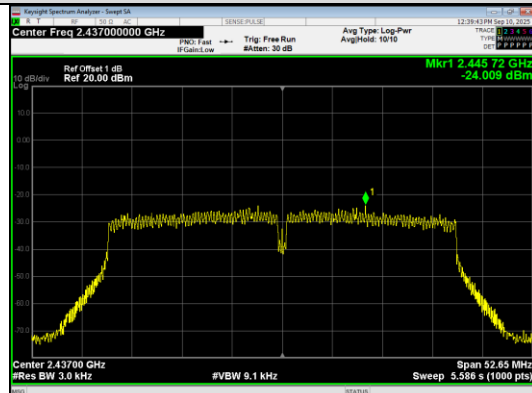
IEEE 802.11n_Channel 6_20MHz_Antenna 0



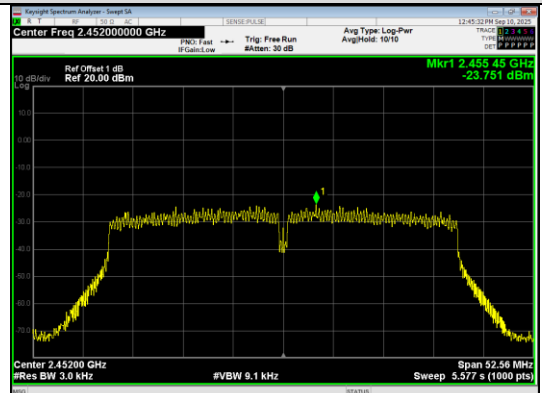
IEEE 802.11n_Channel 11_20MHz_Antenna 0



IEEE 802.11n_Channel 3_40MHz_Antenna 0



IEEE 802.11n_Channel 6_40MHz_Antenna 0



IEEE 802.11n_Channel 9_40MHz_Antenna 0

***** End of Report *****