

Appendix RF test data for WIFI2.4G



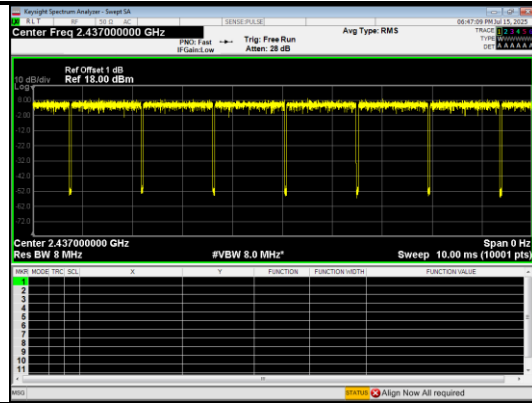
Duty Cycle

Test Result

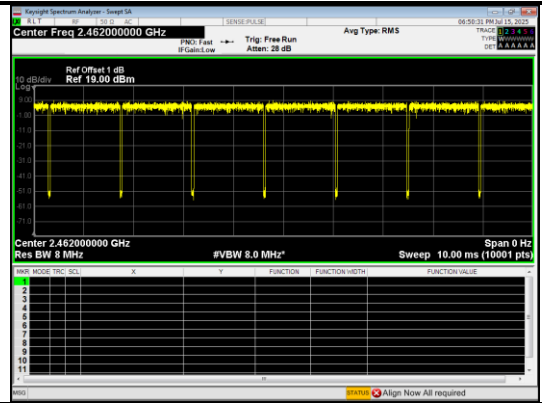
Mode	Data rates	Channel	Antenna	On Time (ms)	Period (ms)	Duty Cycle (%)	Duty Cycle (linear)	Duty Cycle Factor (dB)	1/T
IEEE 802.11b	1	1	1	32.000	32.000	100	1	0.0	0.0312
		6		32.000	32.000	100	1	0.0	0.0312
		11		32.000	32.000	100	1	0.0	0.0312
IEEE 802.11g		1		1.396	1.438	97.08	0.9708	0.1287	0.7163
		6		1.396	1.438	97.08	0.9708	0.1287	0.7163
		11		1.396	1.438	97.08	0.9708	0.1287	0.7163
IEEE 802.11n_20	MCS 0	1		10.000	10.000	100	1	0.0	0.1000
		6		10.000	10.000	100	1	0.0	0.1000
		11		10.000	10.000	100	1	0.0	0.1000
IEEE 802.11n_40		3		10.000	10.000	100	1	0.0	0.1000
		6		10.000	10.000	100	1	0.0	0.1000
		9		10.000	10.000	100	1	0.0	0.1000

Test Graphs

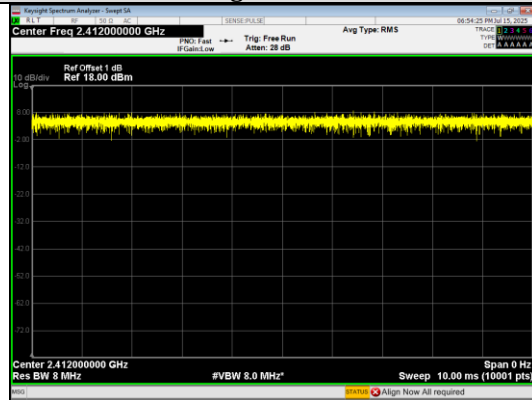




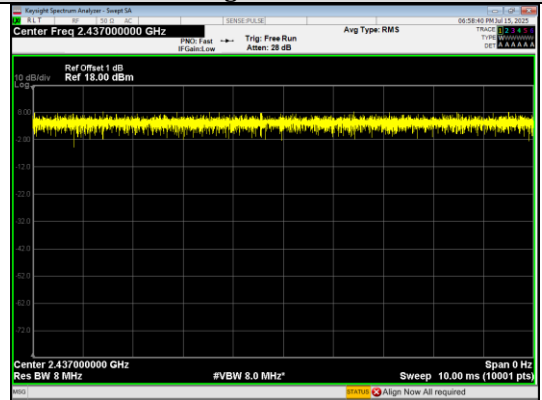
IEEE 802.11g 20MHz_Channel 6



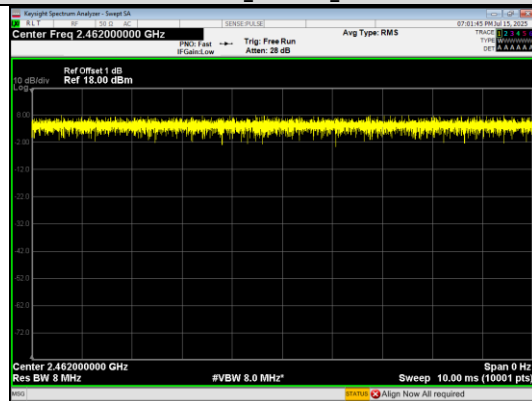
IEEE 802.11g 20MHz_Channel 11



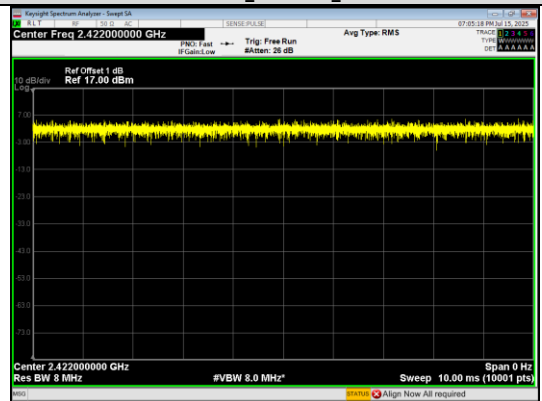
IEEE 802.11n 20MHz_Channel 1



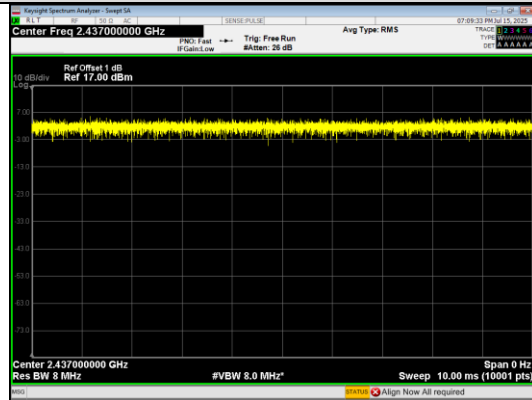
IEEE 802.11n 20MHz_Channel 6



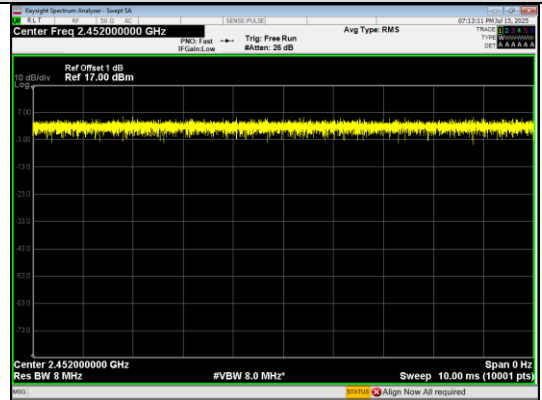
IEEE 802.11n 20MHz_Channel 11



IEEE 802.11n 40MHz_Channel 3



IEEE 802.11n 40MHz_Channel 6



IEEE 802.11n 40MHz_Channel 9

Conducted Output Power

Test Result

Conducted Output Power

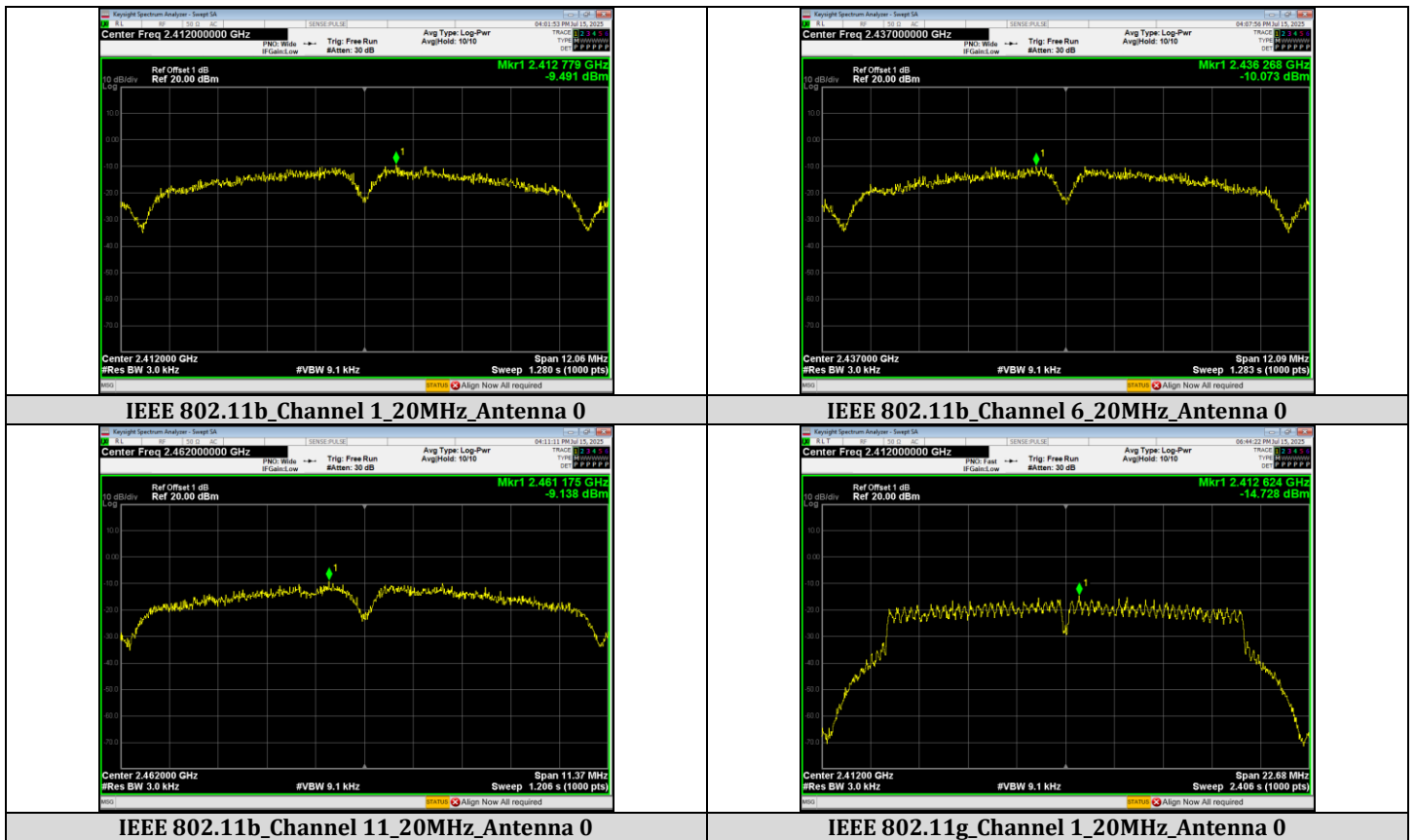
Mode	Channel	Ant. 0 (dBm)	Limit (dBm)	Result
IEEE 802.11b	1	14.76	≤30	PASS
	6	14.45	≤30	PASS
	11	14.33	≤30	PASS
IEEE 802.11g	1	14.97	≤30	PASS
	6	14.71	≤30	PASS
	11	14.74	≤30	PASS
IEEE 802.11n_20	1	14.57	≤30	PASS
	6	14.27	≤30	PASS
	11	14.40	≤30	PASS
IEEE 802.11n_40	3	14.93	≤30	PASS
	6	14.85	≤30	PASS
	9	14.91	≤30	PASS

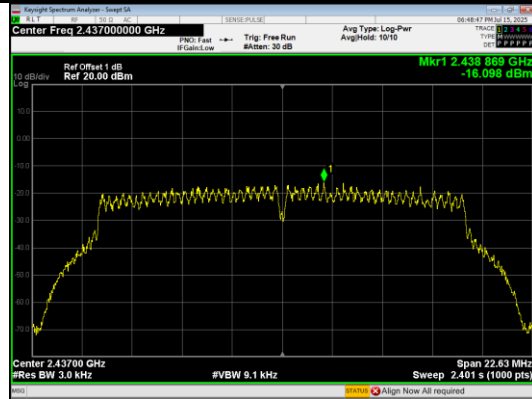
Power Spectral Density

Test Result

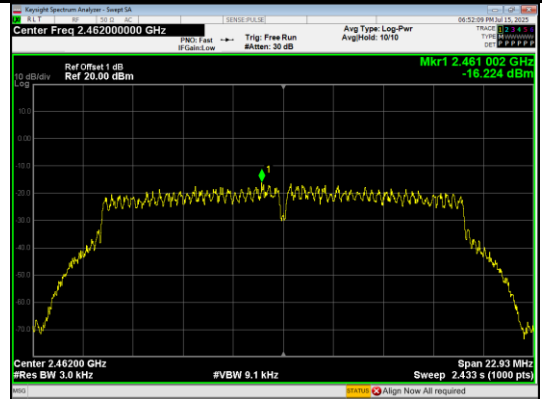
Mode	Channel	PSD (dBm/3kHz) Ant. 0	Limit (dBm/3kHz)	Result
IEEE 802.11b	1	-9.490	≤8	PASS
	6	-10.070		PASS
	11	-9.140		PASS
IEEE 802.11g	1	-14.730		PASS
	6	-16.100		PASS
	11	-16.220		PASS
IEEE 802.11n_20	1	-16.580		PASS
	6	-16.770		PASS
	11	-17.540		PASS
IEEE 802.11n_40	3	-18.720		PASS
	6	-19.340		PASS
	9	-19.560		PASS

Test Graphs

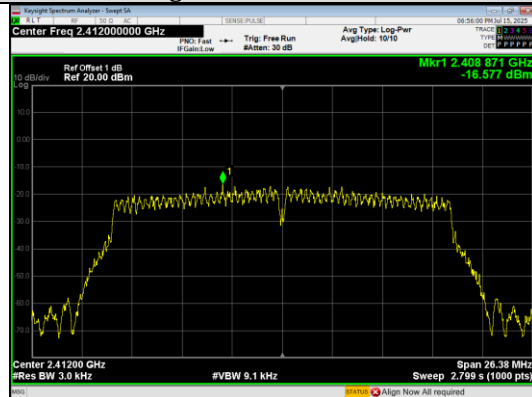




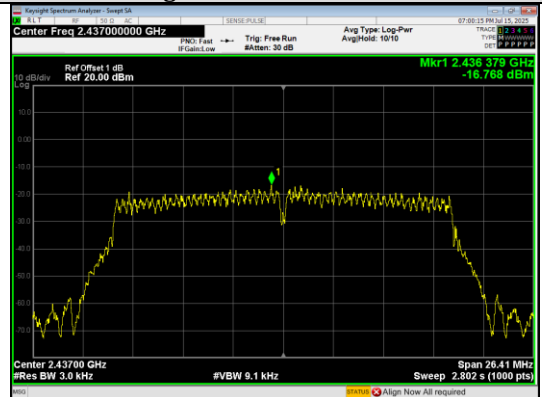
IEEE 802.11g_Channel 6_20MHz_Antenna 0



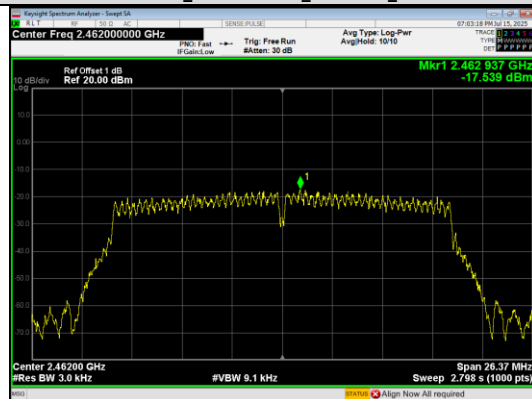
IEEE 802.11g_Channel 11_20MHz_Antenna 0



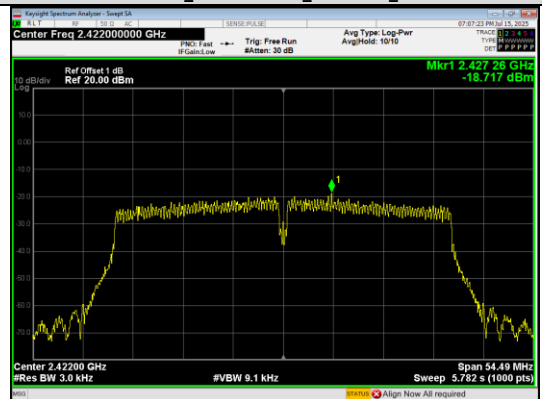
IEEE 802.11n_Channel 1_20MHz_Antenna 0



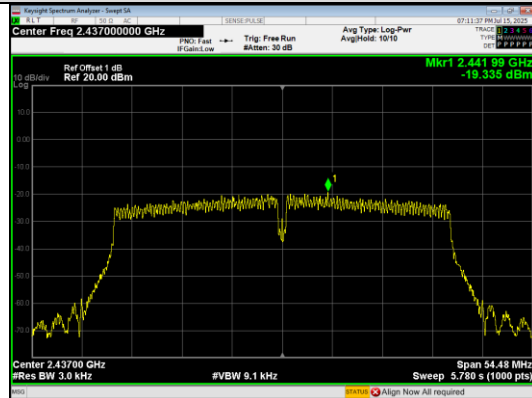
IEEE 802.11n_Channel 6_20MHz_Antenna 0



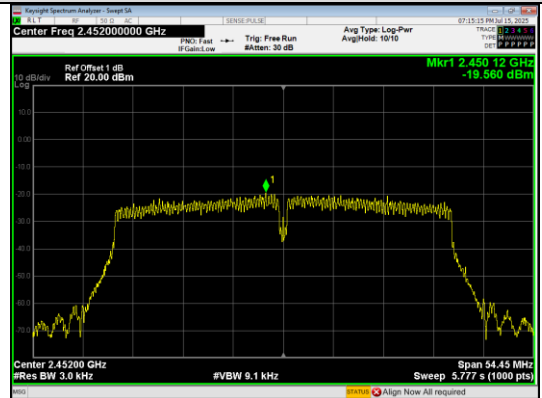
IEEE 802.11n_Channel 11_20MHz_Antenna 0



IEEE 802.11n_Channel 3_40MHz_Antenna 0



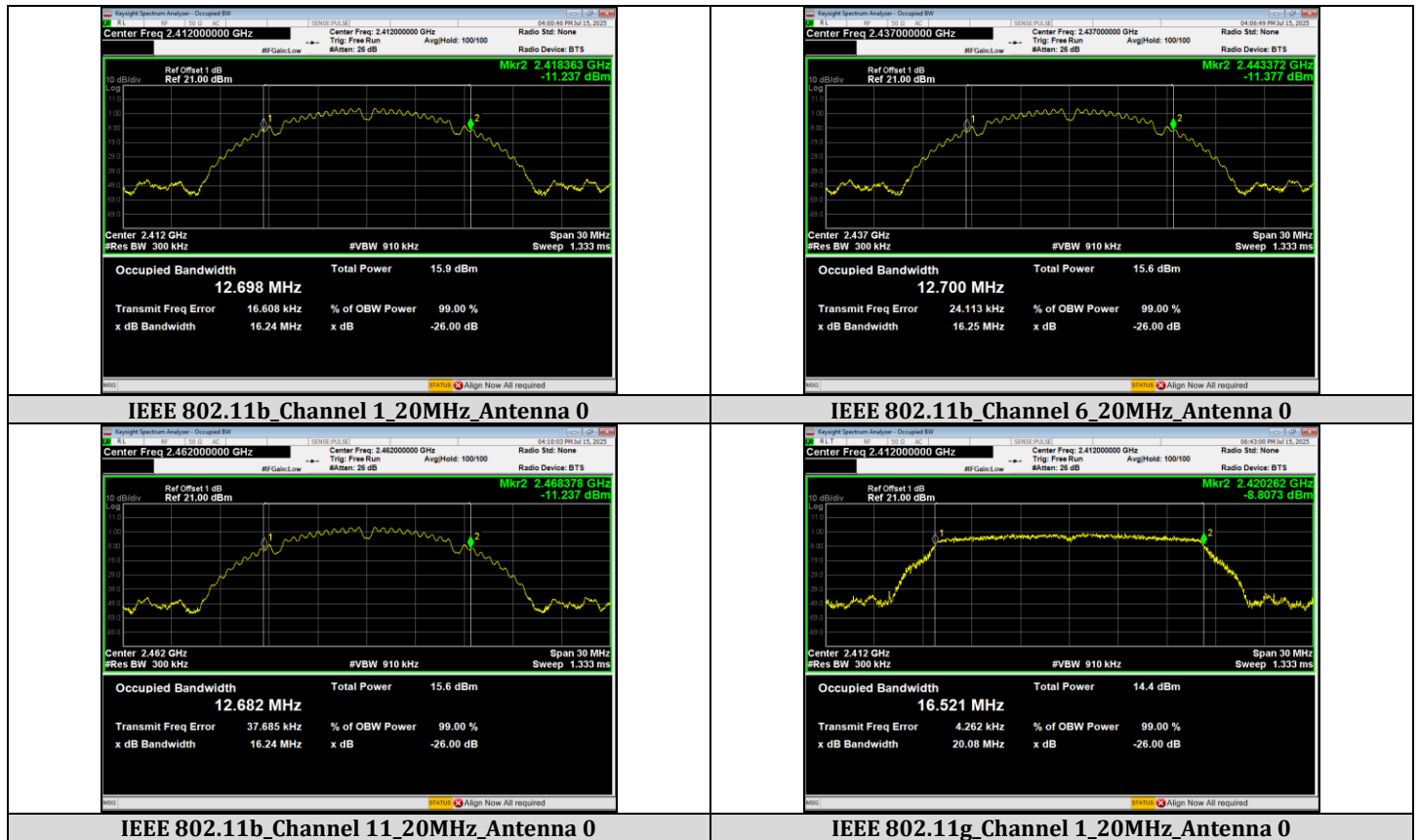
IEEE 802.11n_Channel 6_40MHz_Antenna 0

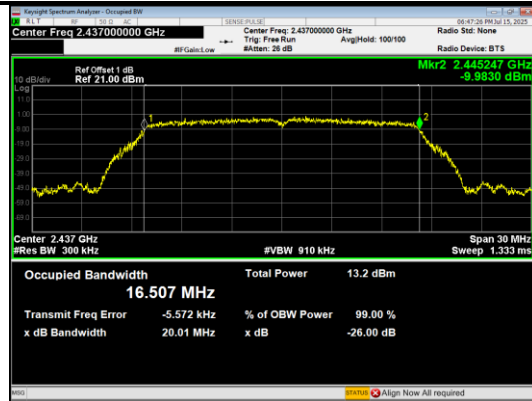


IEEE 802.11n_Channel 9_40MHz_Antenna 0

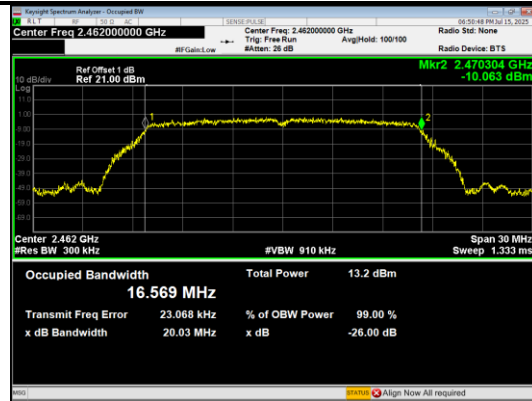
**99% Bandwidth****Test Result**

Mode	Channel	Ant.	Center Frequency (MHz)	99% BW (MHz)
IEEE 802.11b	1	0	2412	12.698
	6		2437	12.700
	11		2462	12.682
IEEE 802.11g	1		2412	16.521
	6		2437	16.507
	11		2462	16.569
IEEE 802.11n_20	1		2412	17.615
	6		2437	17.639
	11		2462	17.639
IEEE 802.11n_40	3		2422	36.021
	6		2437	35.995
	9		2452	35.996

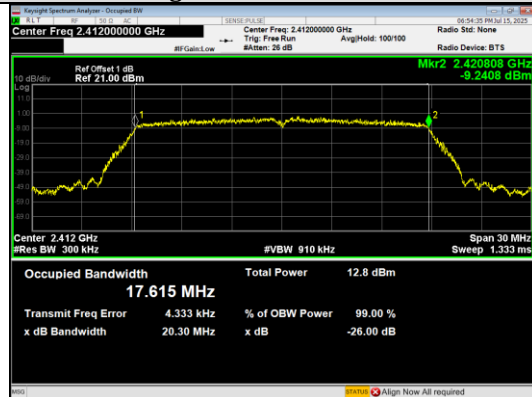
Test Graphs



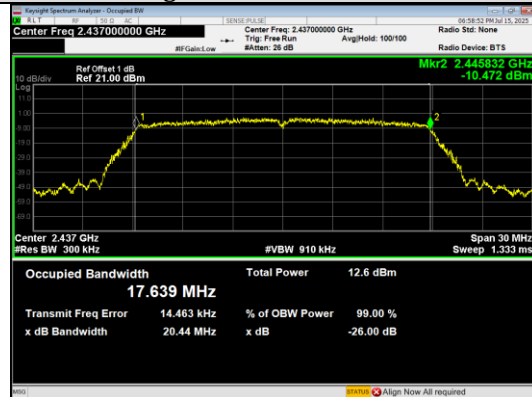
IEEE 802.11g_Channel 6_20MHz_Antenna 0



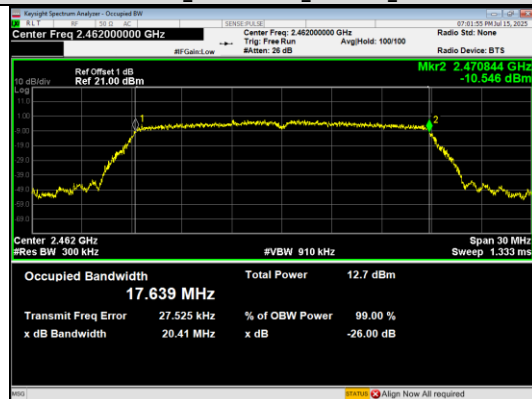
IEEE 802.11g_Channel 11_20MHz_Antenna 0



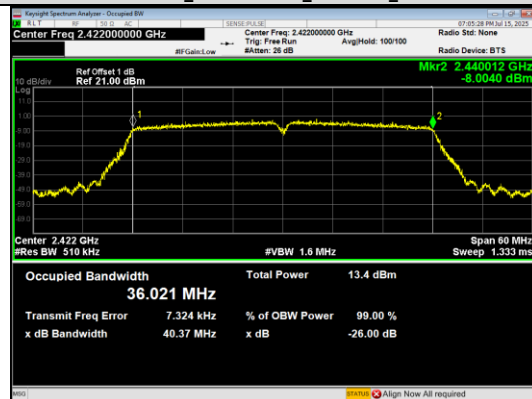
IEEE 802.11g_Channel 11_20MHz_Antenna 0



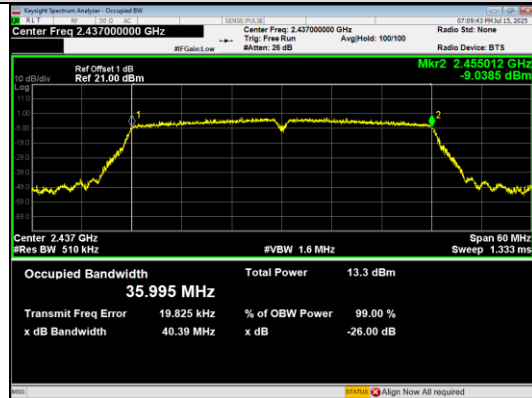
IEEE 802.11g_Channel 11_20MHz_Antenna 0



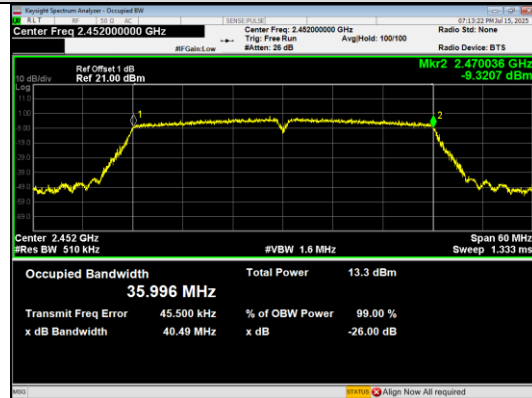
IEEE 802.11n_Channel 1_20MHz_Antenna 0



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

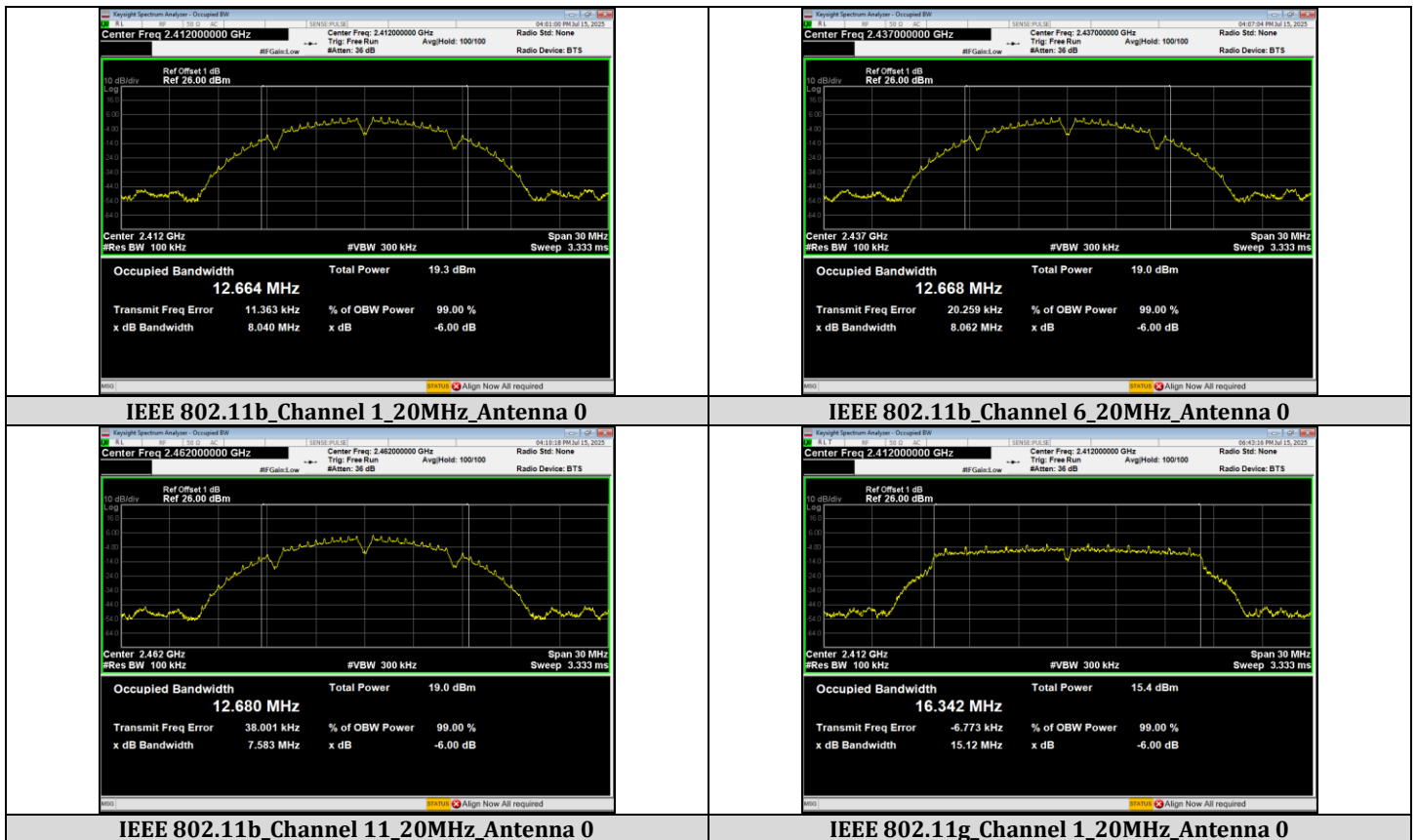
IEEE 802.11n_Channel 9_40MHz_Antenna 0

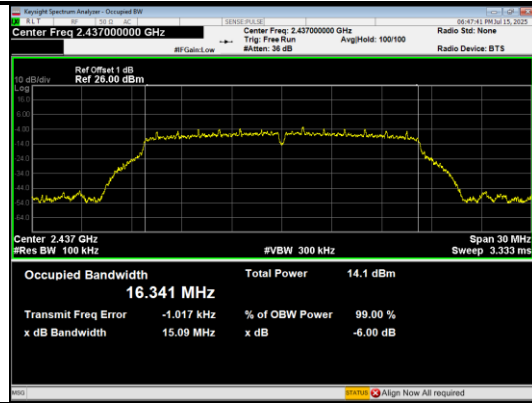
6dB Bandwidth

Test Result

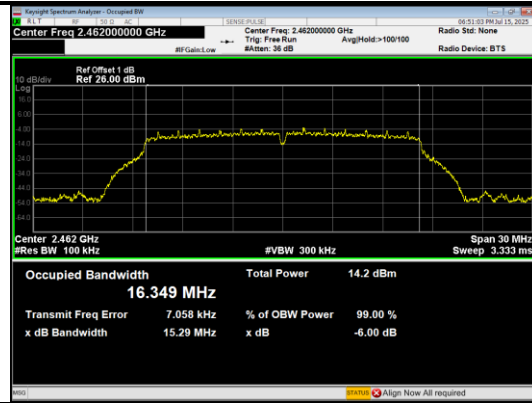
Mode	Channel	Ant.	Center Frequency (MHz)	6 dB Bandwidth (MHz)	Limit (MHz)	Result
IEEE 802.11b	1	0	2412	8.040	≥0.5	PASS
	6		2437	8.060		PASS
	11		2462	7.580		PASS
IEEE 802.11g	1		2412	15.12		PASS
	6		2437	15.09		PASS
	11		2462	15.29		PASS
IEEE 802.11n_20	1		2412	17.59		PASS
	6		2437	17.61		PASS
	11		2462	17.58		PASS
IEEE 802.11n_40	3		2422	36.33		PASS
	6		2437	36.32		PASS
	9		2452	36.30		PASS

Test Graphs

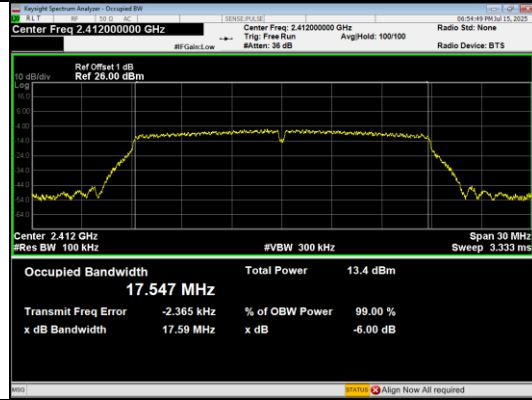




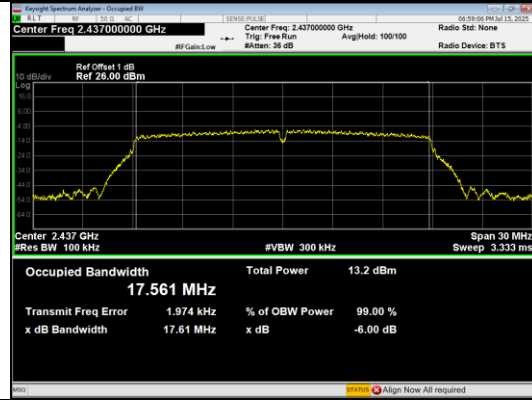
IEEE 802.11g_Channel 6_20MHz_Antenna 0



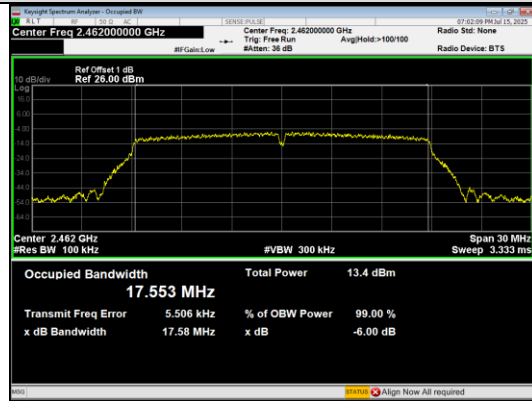
IEEE 802.11g_Channel 11_20MHz_Antenna 0



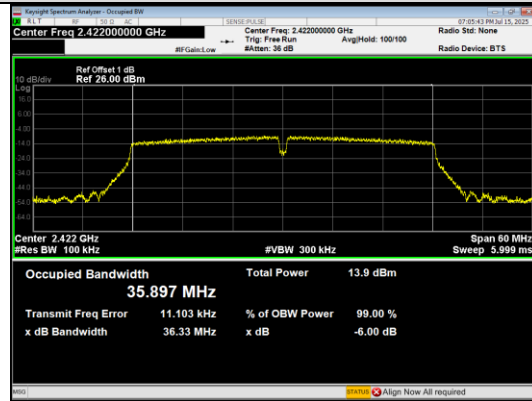
IEEE 802.11n_Channel 1_20MHz_Antenna 0



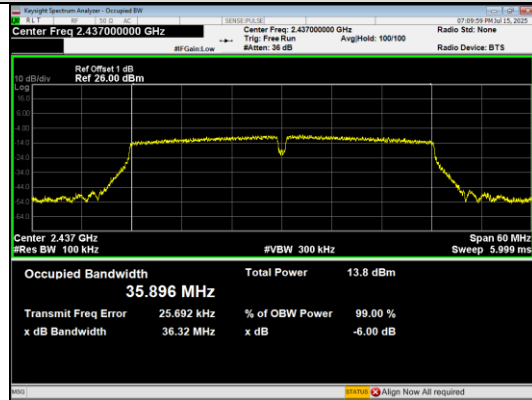
IEEE 802.11n_Channel 6_20MHz_Antenna 0



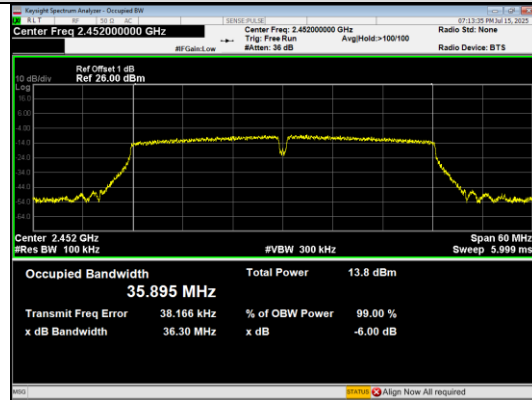
IEEE 802.11n_Channel 11_20MHz_Antenna 0



IEEE 802.11n_Channel 3_40MHz_Antenna 0



IEEE 802.11n_Channel 6_40MHz_Antenna 0



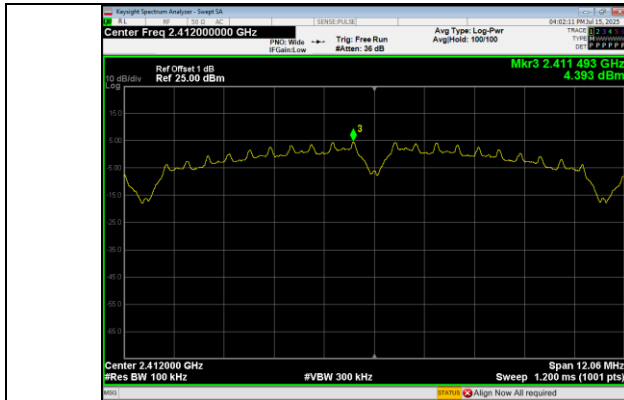
IEEE 802.11n_Channel 9_40MHz_Antenna 0

Conducted Out Of Band Emission

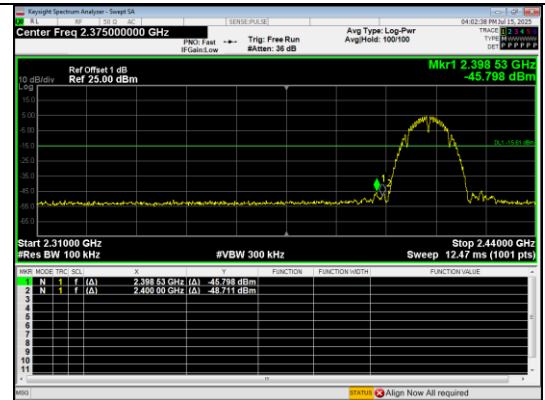
Test Result

Mode	Channel	Ant.	OOB Emission Frequency (MHz)	OOB Emission Level (dBm)	Limit (dBm)	Over Limit (dB)	Result
IEEE 802.11b	1	0	2398.53	-45.798	-15.61	-30.188	PASS
			2400.00	-48.710	-15.61	-33.100	PASS
	6		24938.2	-39.901	-15.61	-24.291	PASS
			24998.8	-38.274	-15.75	-22.524	PASS
	11		2483.50	-52.170	-15.68	-36.490	PASS
			24885.1	-39.594	-15.68	-23.914	PASS
IEEE 802.11g	1		2400.00	-46.870	-21.11	-25.760	PASS
			24435.0	-39.115	-21.11	-18.005	PASS
	6		24973.8	-39.196	-22.26	-16.936	PASS
			11	2483.50	-53.360	-22.37	-30.990
	24983.8			-39.171	-22.37	-16.801	PASS
IEEE 802.11n_20	1		2400.00	-47.830	-25.6	-22.230	PASS
			24940.1	-40.002	-25.6	-14.402	PASS
	6		24916.3	-39.699	-25.96	-13.739	PASS
			11	2483.50	-53.020	-25.8	-27.220
	24967.5			-39.252	-25.8	-13.452	PASS
IEEE 802.11n_40	3		2397.62	-48.471	-28.11	-20.361	PASS
			2400.00	-50.220	-28.11	-22.110	PASS
			24495.0	-39.141	-28.11	-11.031	PASS
	6		24992.5	-39.472	-28.42	-11.052	PASS
			9	2483.50	-51.670	-28.38	-23.290
	24849.6			-39.202	-28.38	-10.822	PASS

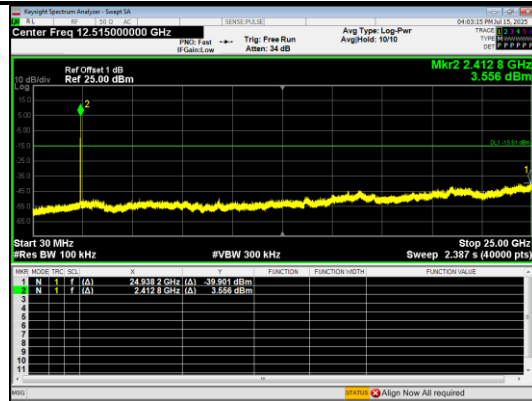
Test Graphs



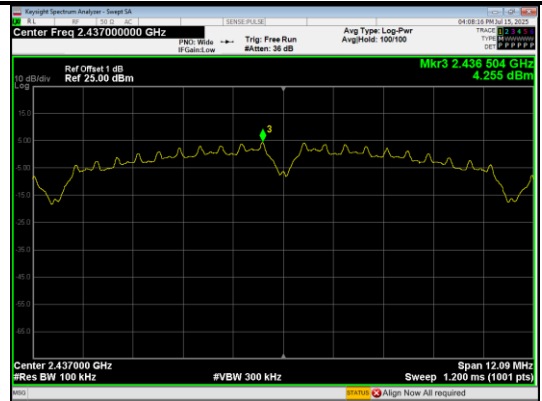
In-Band Reference Level
IEEE 802.11b_Channel 1_20MHz_Antenna 0



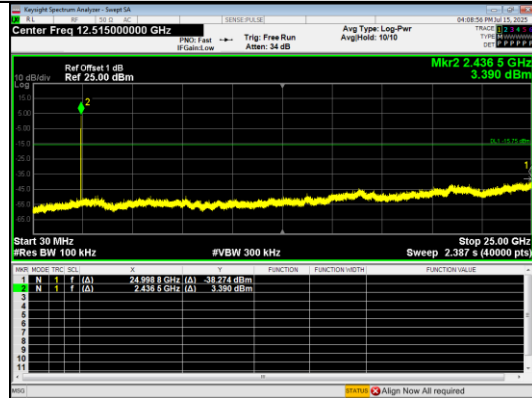
Out Of Band Emission
IEEE 802.11b_Channel 1_20MHz_Antenna 0



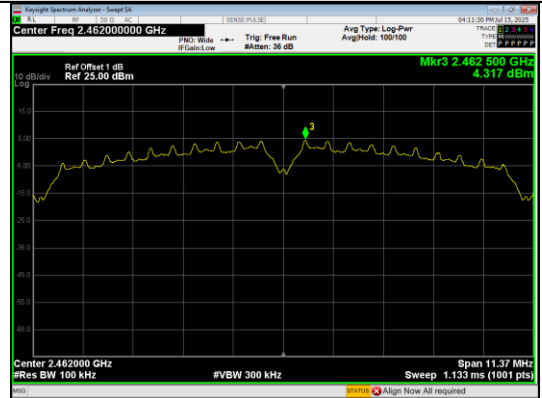
30.0 MHz - 25000.0 MHz
IEEE 802.11b_Channel 1_20MHz_Antenna 0



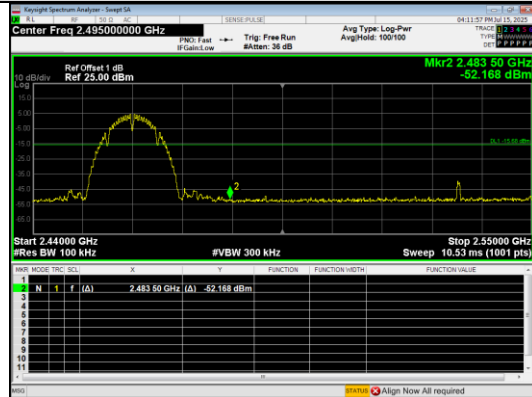
In-Band Reference Level
IEEE 802.11b_Channel 6_20MHz_Antenna 0



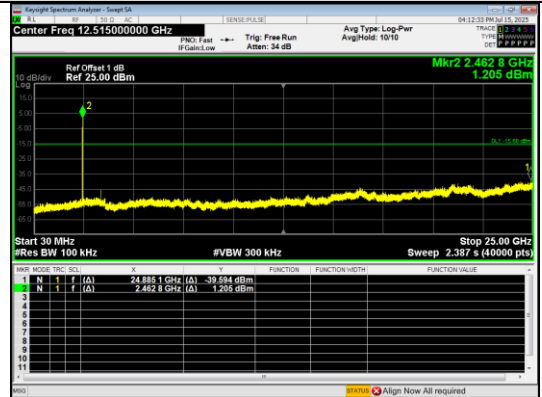
30.0 MHz - 25000.0 MHz
IEEE 802.11b_Channel 6_20MHz_Antenna 0



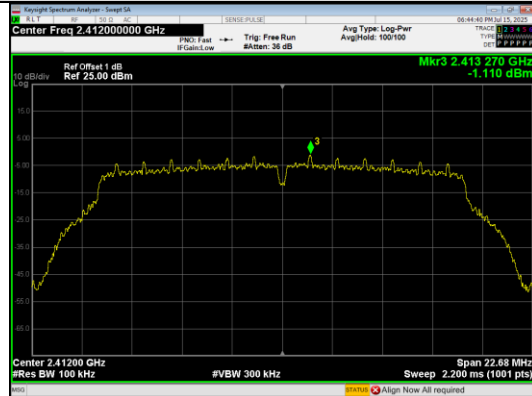
In-Band Reference Level
IEEE 802.11b_Channel 11_20MHz_Antenna 0



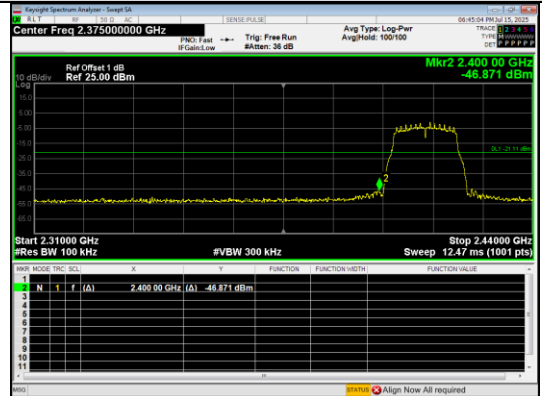
Out Of Band Emission
IEEE 802.11b_Channel 11_20MHz_Antenna 0



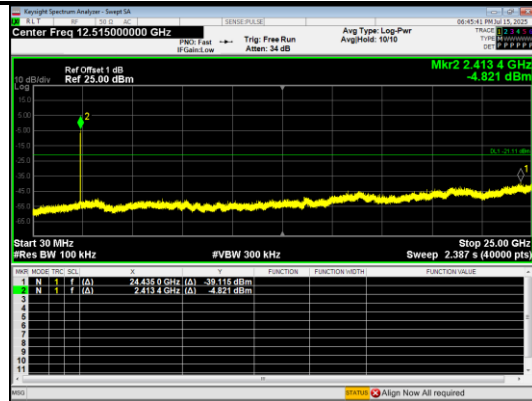
30.0 MHz - 25000.0 MHz
IEEE 802.11b_Channel 11_20MHz_Antenna 0



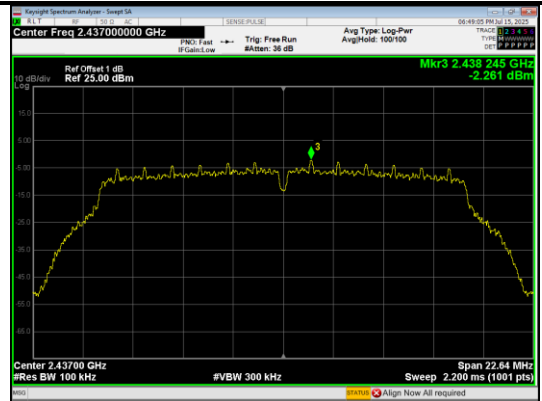
In-Band Reference Level
IEEE 802.11g_Channel 1_20MHz_Antenna 0



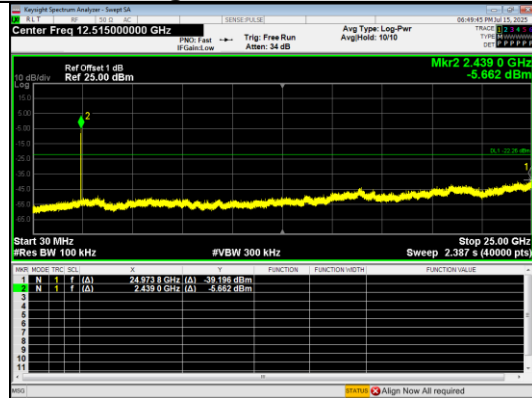
Out Of Band Emission
IEEE 802.11g_Channel 1_20MHz_Antenna 0



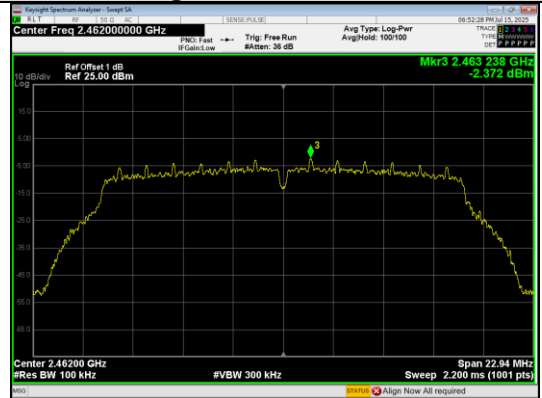
30.0 MHz - 25000.0 MHz
IEEE 802.11g Channel 1_20MHz_Antenna 0



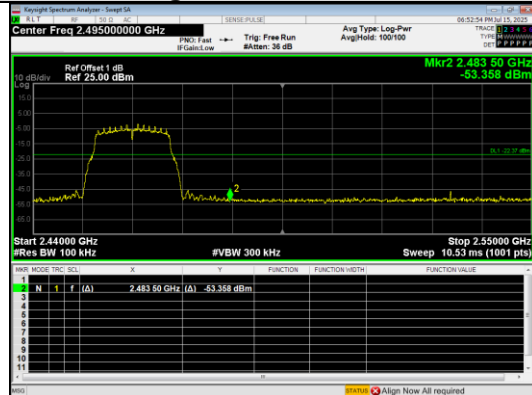
In-Band Reference Level
IEEE 802.11g Channel 6_20MHz_Antenna 0



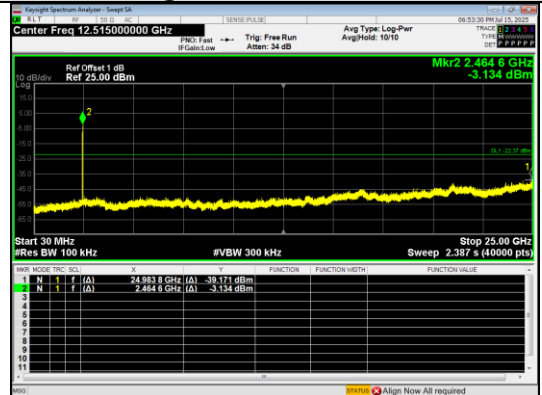
30.0 MHz - 25000.0 MHz
IEEE 802.11g Channel 6_20MHz_Antenna 0



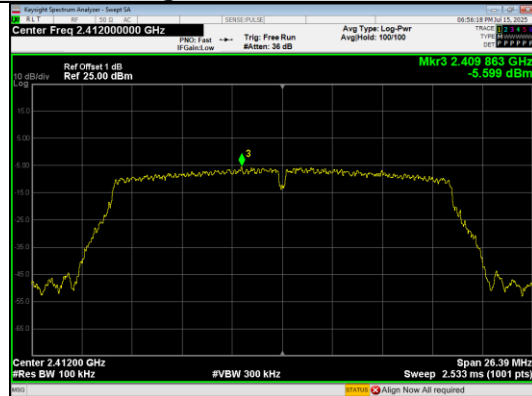
In-Band Reference Level
IEEE 802.11g Channel 11_20MHz_Antenna 0



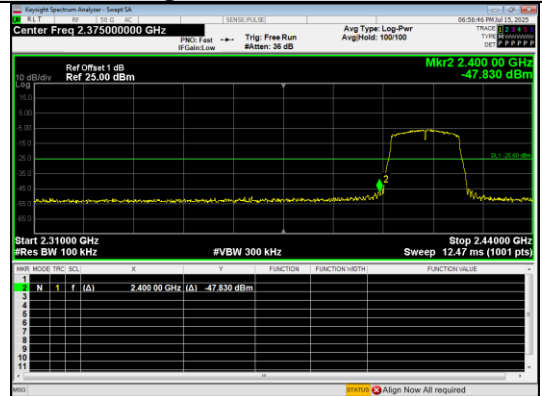
Out Of Band Emission
IEEE 802.11g Channel 11_20MHz_Antenna 0



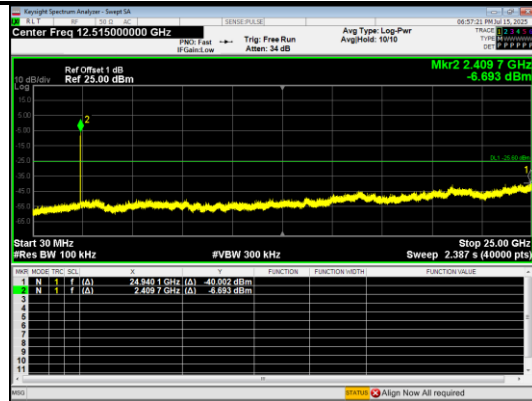
30.0 MHz - 25000.0 MHz
IEEE 802.11g Channel 11_20MHz_Antenna 0



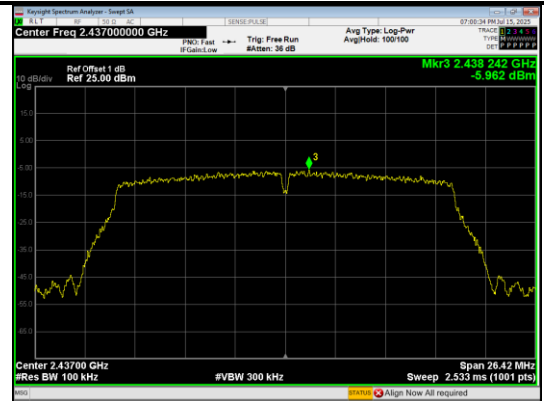
In-Band Reference Level
IEEE 802.11n Channel 1_20MHz_Antenna 0



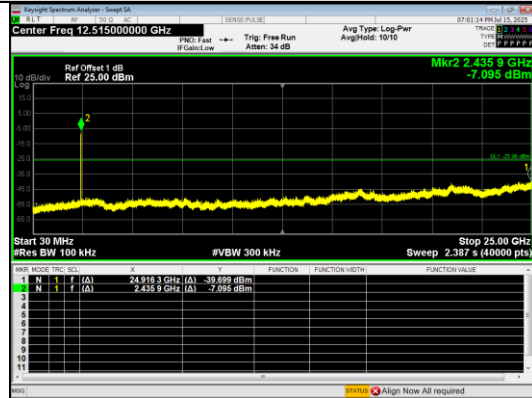
Out Of Band Emission
IEEE 802.11n Channel 1_20MHz_Antenna 0



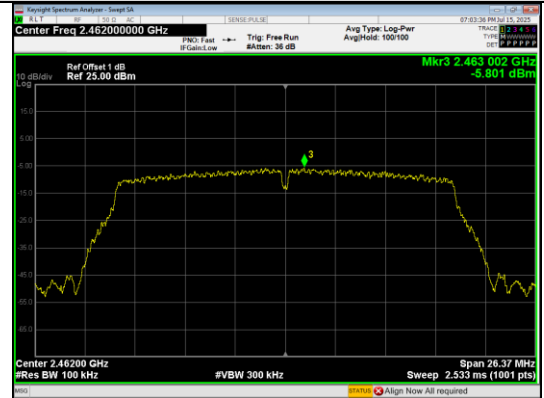
30.0 MHz - 25000.0 MHz
IEEE 802.11n_Channel 1_20MHz_Antenna 0



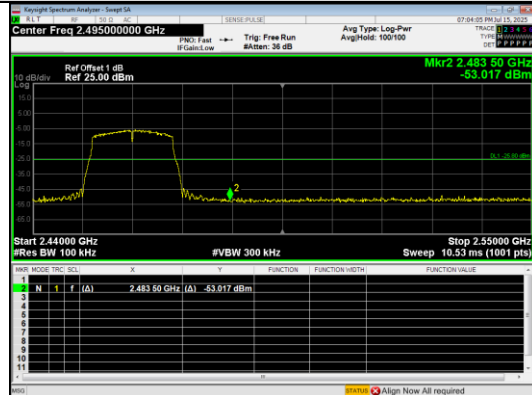
In-Band Reference Level
IEEE 802.11n_Channel 6_20MHz_Antenna 0



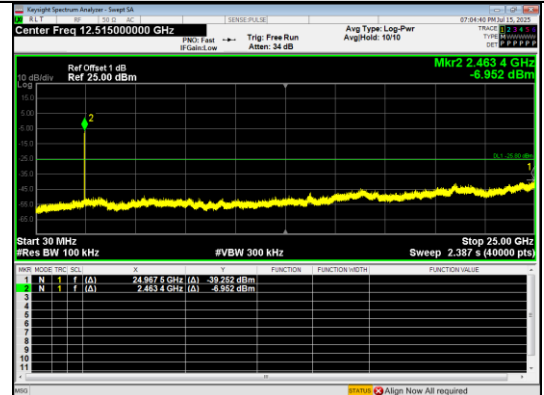
30.0 MHz - 25000.0 MHz
IEEE 802.11n_Channel 6_20MHz_Antenna 0



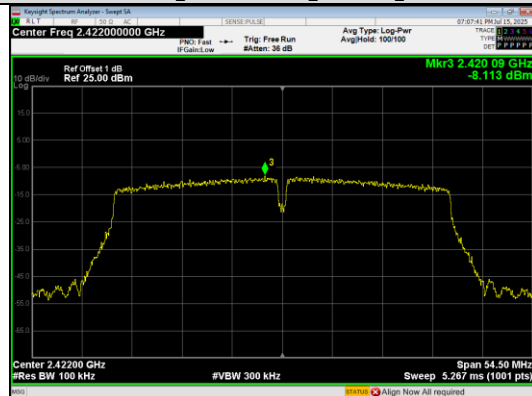
In-Band Reference Level
IEEE 802.11n_Channel 11_20MHz_Antenna 0



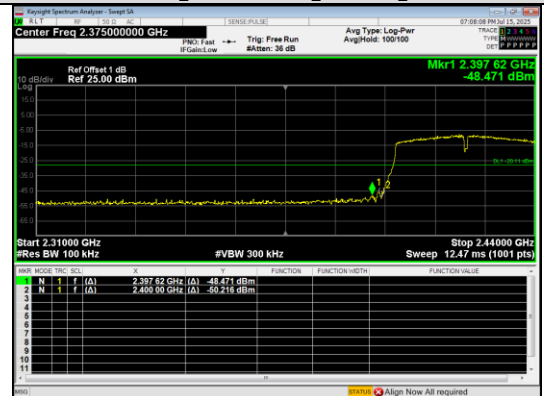
Out Of Band Emission
IEEE 802.11n_Channel 11_20MHz_Antenna 0



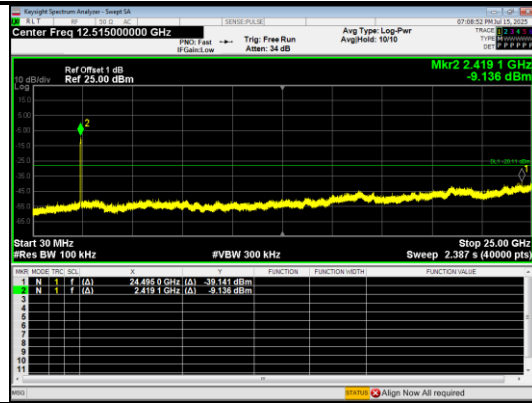
30.0 MHz - 25000.0 MHz
IEEE 802.11n_Channel 11_20MHz_Antenna 0



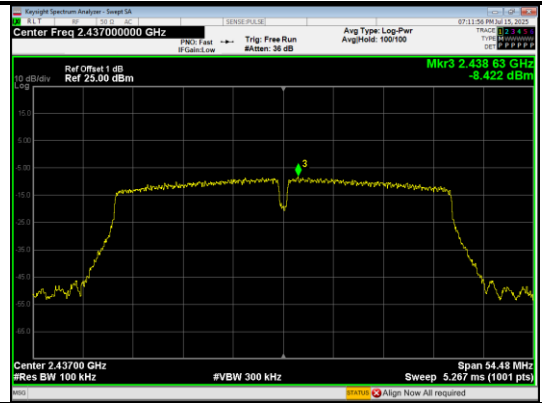
In-Band Reference Level
IEEE 802.11n_Channel 3_40MHz_Antenna 0



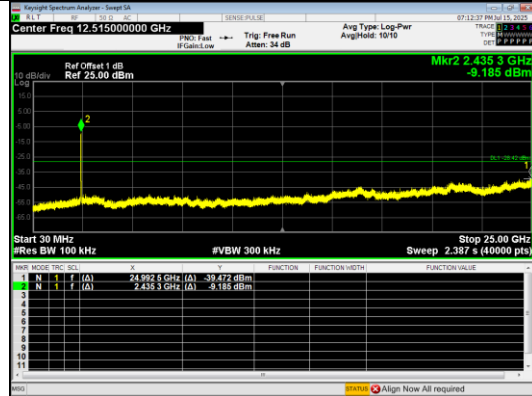
Out Of Band Emission
IEEE 802.11n_Channel 3_40MHz_Antenna 0



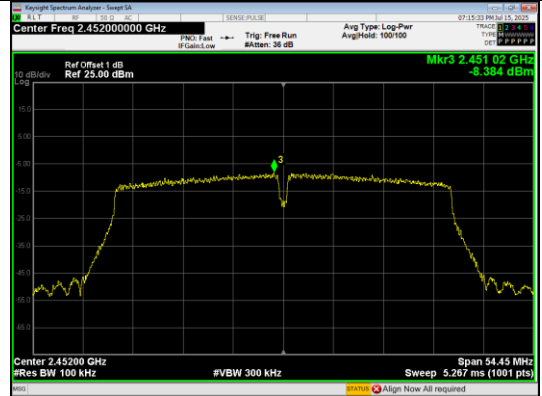
30.0 MHz - 25000.0 MHz
IEEE 802.11n_Channel 3_40MHz_Antenna 0



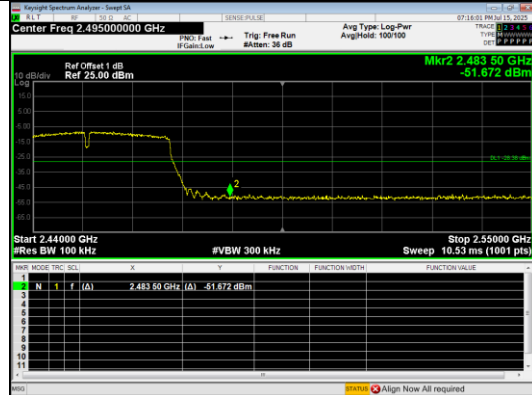
In-Band Reference Level
IEEE 802.11n_Channel 6_40MHz_Antenna 0



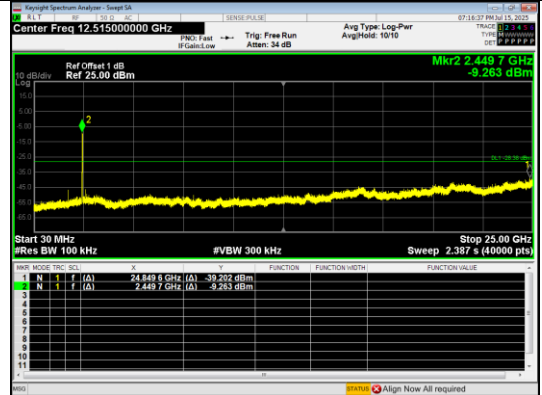
30.0 MHz - 25000.0 MHz
IEEE 802.11n_Channel 6_40MHz_Antenna 0



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

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