

Appendix RF test data for WIFI2.4G



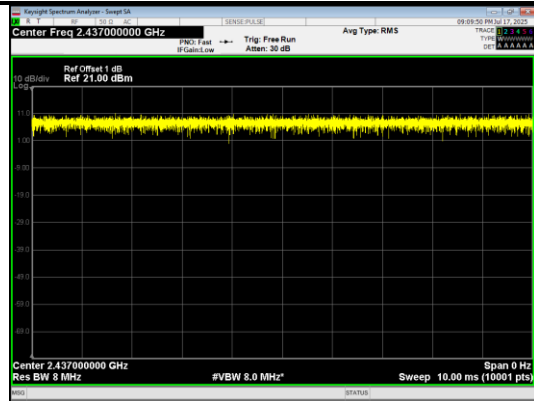
Duty Cycle

Test Result

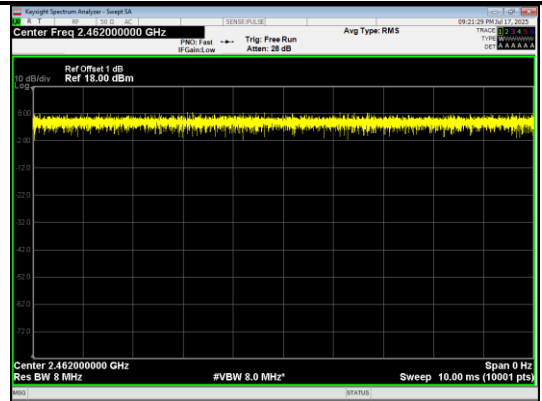
Mode	Data rates	Channel	Antenna	On Time (ms)	Period (ms)	Duty Cycle (%)	Duty Cycle (linear)	Duty Cycle Factor (dB)	1/T
IEEE 802.11b	1	1	1	32.000	32.000	100	1	0.0	0.0312
		6		32.000	32.000	100	1	0.0	0.0312
		11		32.000	32.000	100	1	0.0	0.0312
IEEE 802.11g		1		10.000	10.000	100	1	0.0	0.1000
		6		10.000	10.000	100	1	0.0	0.1000
		11		10.000	10.000	100	1	0.0	0.1000
IEEE 802.11n_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

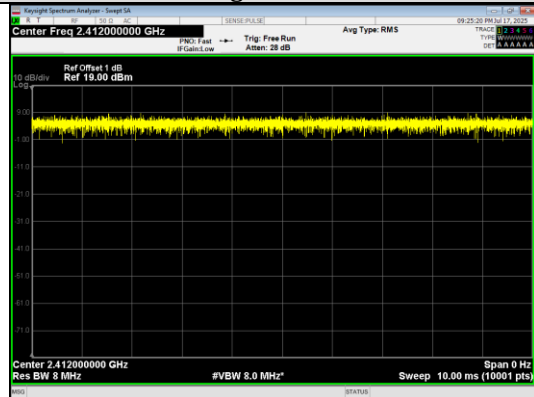




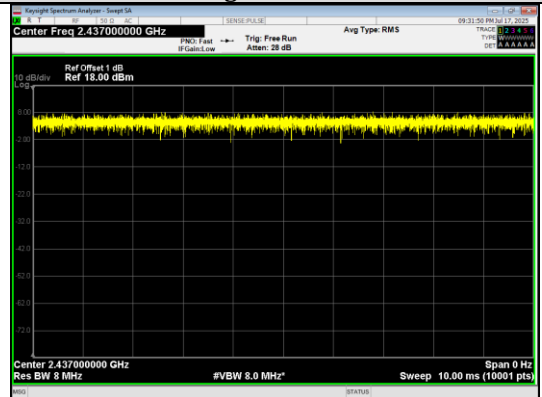
IEEE 802.11g_20MHz_Channel 6



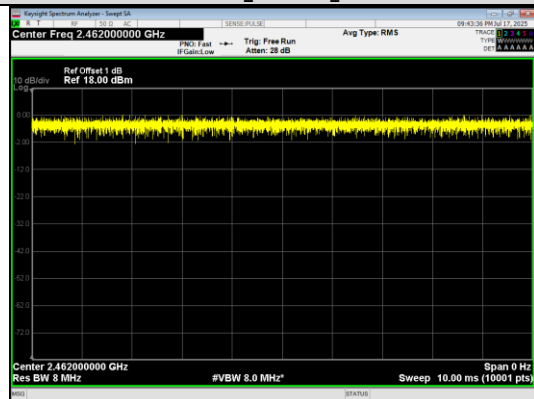
IEEE 802.11g_20MHz_Channel 11



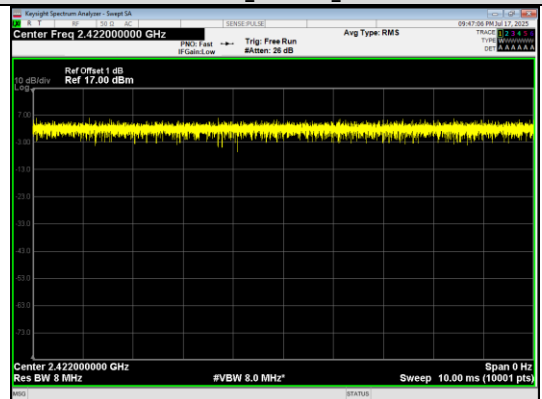
IEEE 802.11n_20MHz_Channel 1



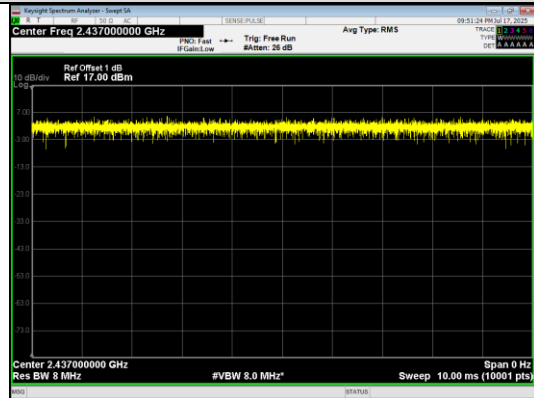
IEEE 802.11n_20MHz_Channel 6



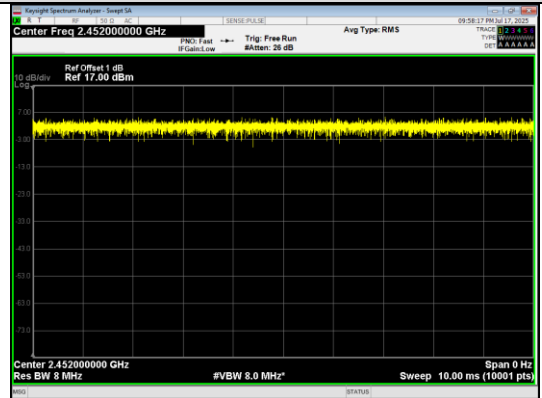
IEEE 802.11n_20MHz_Channel 11



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

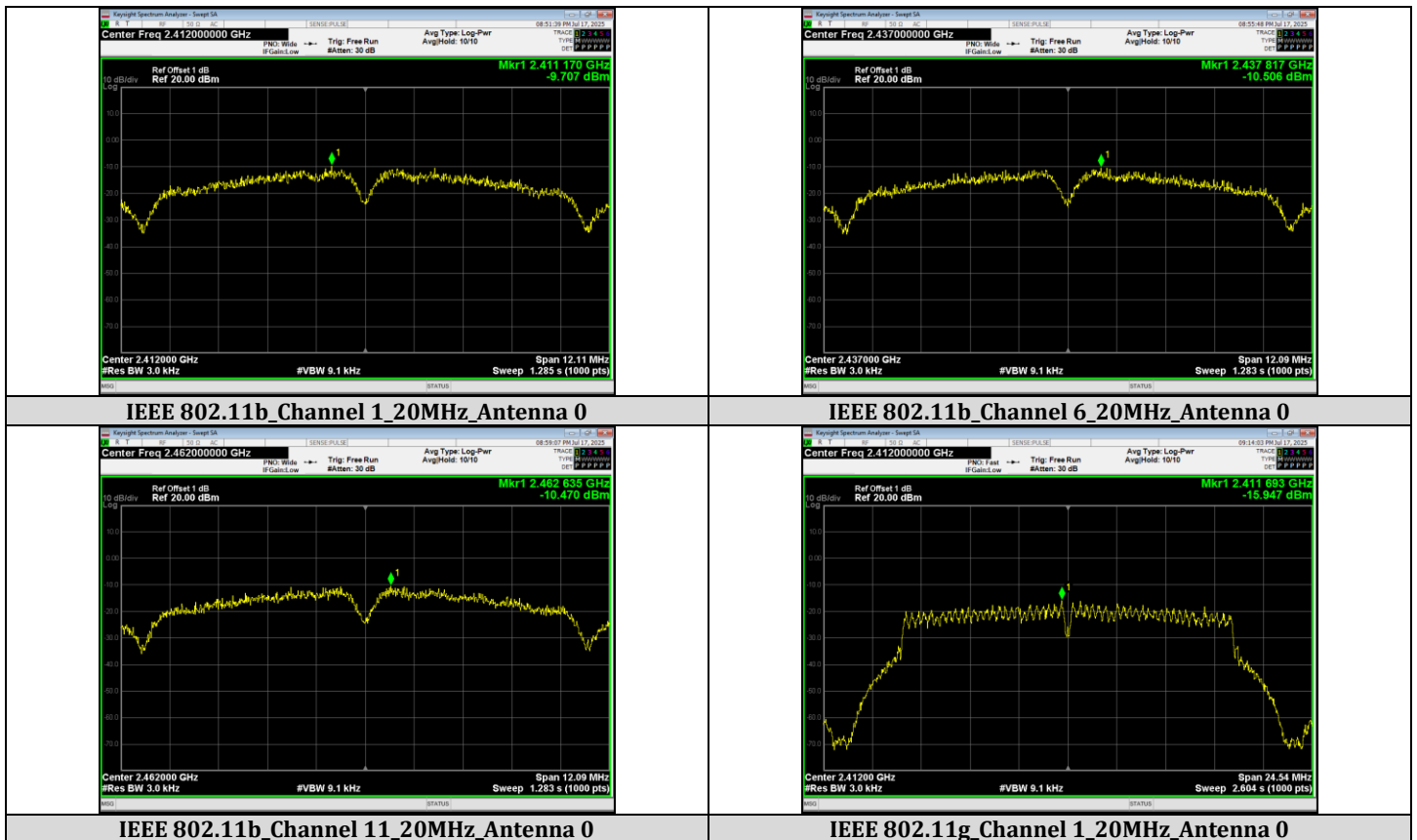
Mode	Channel	Ant. 0 (dBm)	Limit (dBm)	Result
IEEE 802.11b	1	14.12	≤30	PASS
	6	13.80	≤30	PASS
	11	13.77	≤30	PASS
IEEE 802.11g	1	14.97	≤30	PASS
	6	14.72	≤30	PASS
	11	14.70	≤30	PASS
IEEE 802.11n_20	1	14.86	≤30	PASS
	6	14.50	≤30	PASS
	11	14.56	≤30	PASS
IEEE 802.11n_40	3	15.12	≤30	PASS
	6	14.81	≤30	PASS
	9	14.94	≤30	PASS

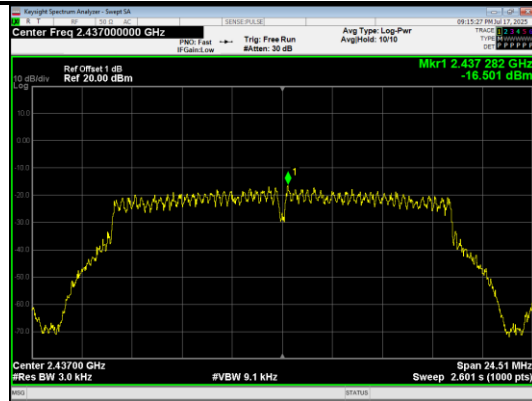
Power Spectral Density

Test Result

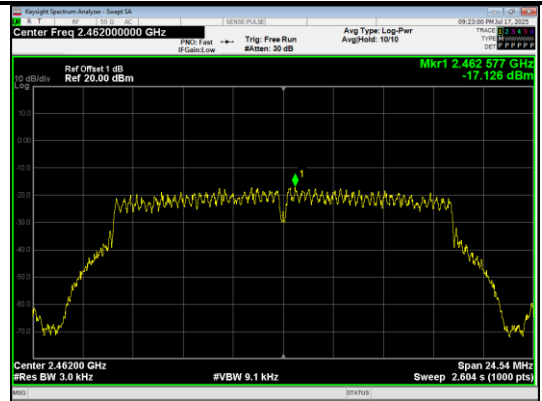
Mode	Channel	PSD (dBm/3kHz) Ant. 0	Limit (dBm/3kHz)	Result
IEEE 802.11b	1	-9.710	≤8	PASS
	6	-10.510		PASS
	11	-10.470		PASS
IEEE 802.11g	1	-15.950		PASS
	6	-16.500		PASS
	11	-17.130		PASS
IEEE 802.11n_20	1	-15.640		PASS
	6	-17.430		PASS
	11	-16.320		PASS
IEEE 802.11n_40	3	-19.320		PASS
	6	-19.830		PASS
	9	-18.420		PASS

Test Graphs

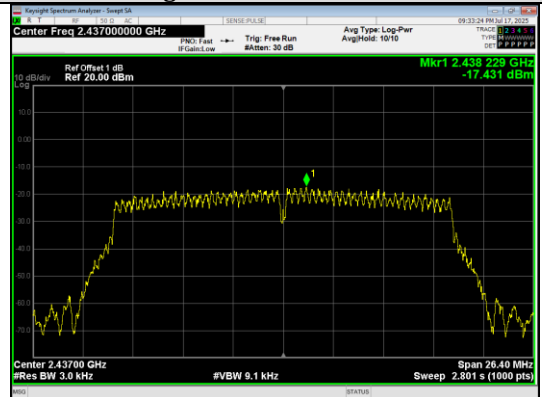
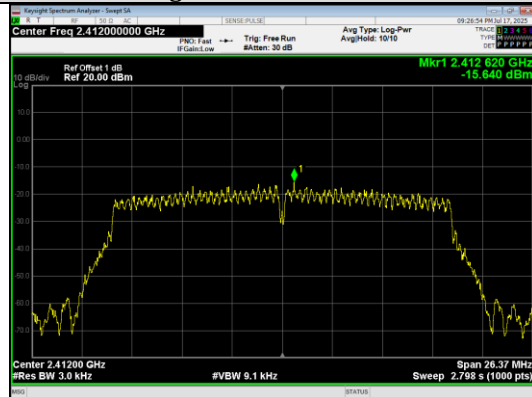




IEEE 802.11g_Channel 6_20MHz_Antenna 0

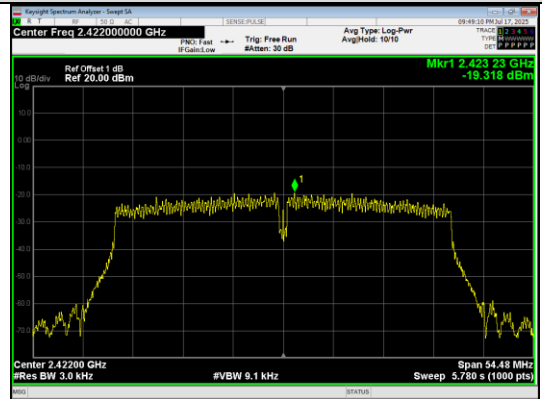
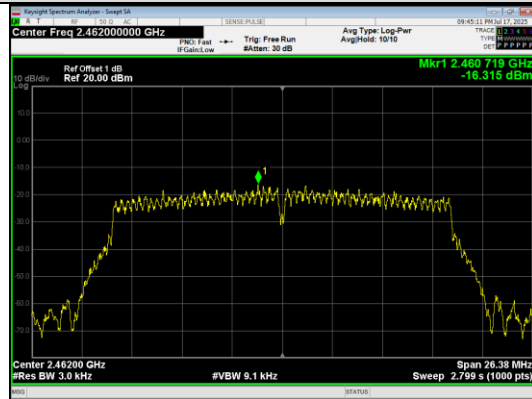


IEEE 802.11g_Channel 11_20MHz_Antenna 0



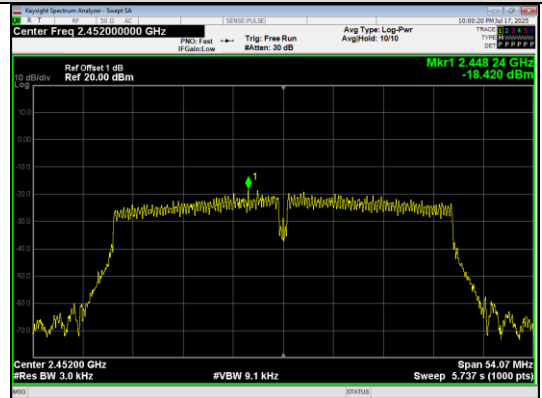
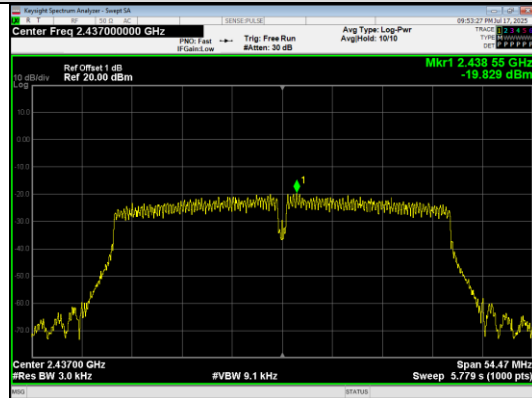
IEEE 802.11n_Channel 1_20MHz_Antenna 0

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

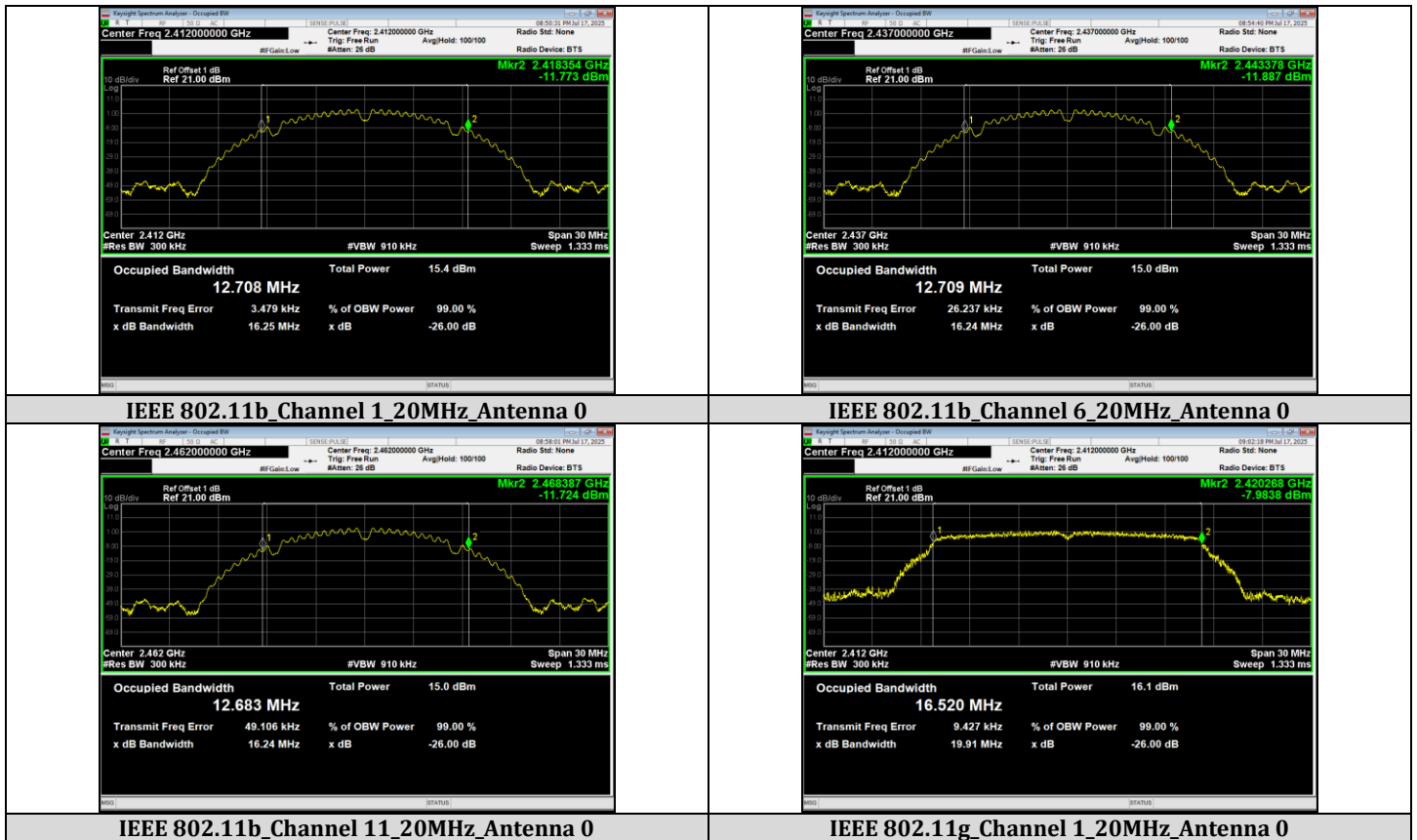
IEEE 802.11n_Channel 9_40MHz_Antenna 0

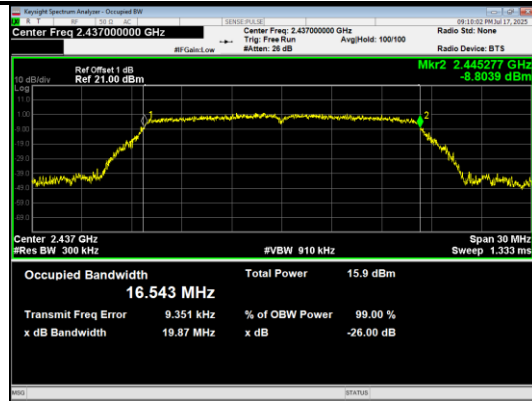
99% Bandwidth

Test Result

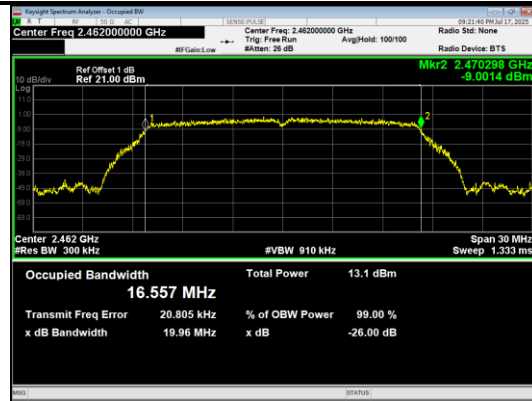
Mode	Channel	Ant.	Center Frequency (MHz)	99% BW (MHz)
IEEE 802.11b	1	0	2412	12.708
	6		2437	12.709
	11		2462	12.683
IEEE 802.11g	1		2412	16.520
	6		2437	16.543
	11		2462	16.557
IEEE 802.11n_20	1		2412	17.640
	6		2437	17.665
	11		2462	17.629
IEEE 802.11n_40	3		2422	36.018
	6		2437	36.052
	9		2452	36.014

Test Graphs

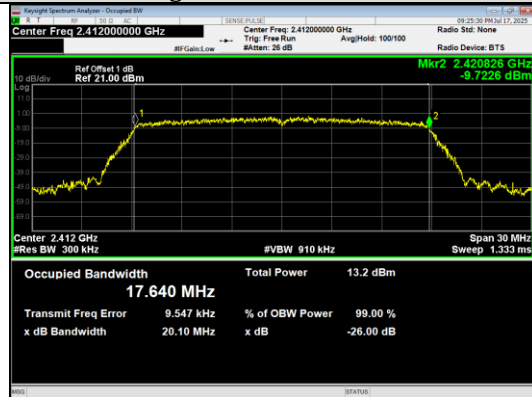




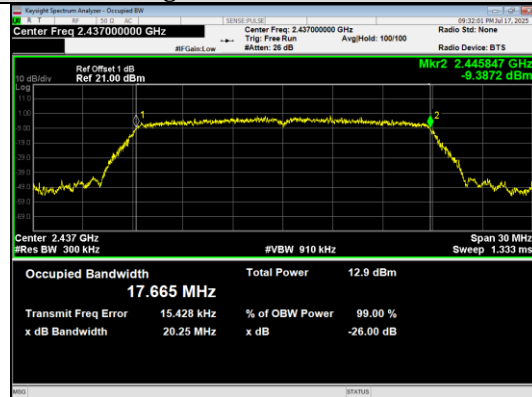
IEEE 802.11g_Channel 6_20MHz_Antenna 0



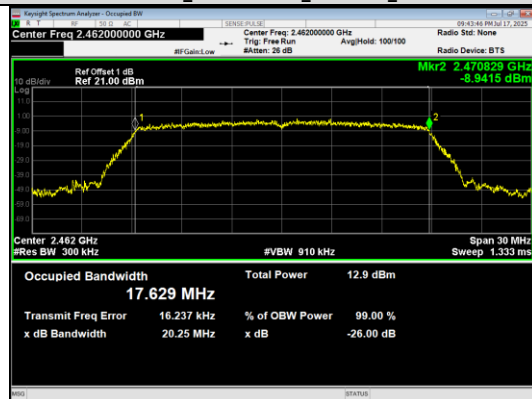
IEEE 802.11g_Channel 11_20MHz_Antenna 0



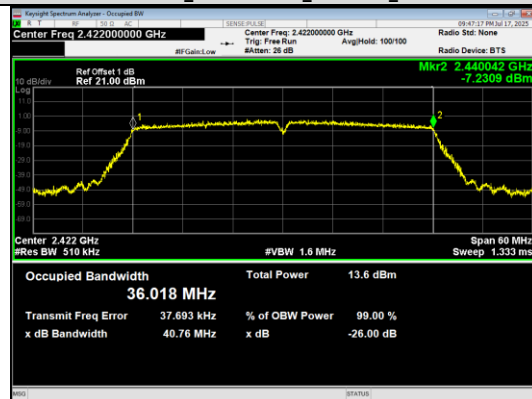
IEEE 802.11g_Channel 6_20MHz_Antenna 0



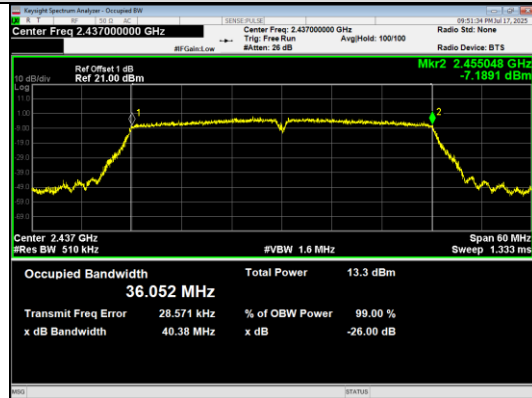
IEEE 802.11g_Channel 11_20MHz_Antenna 0



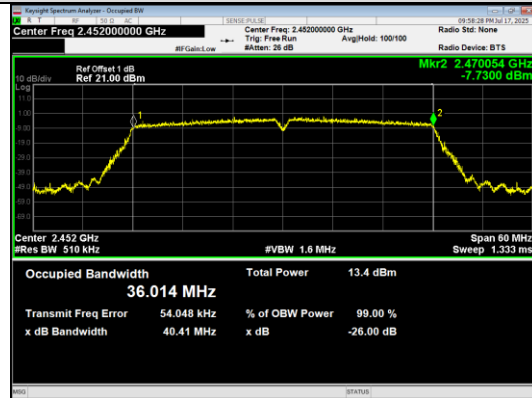
IEEE 802.11n_Channel 1_20MHz_Antenna 0



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

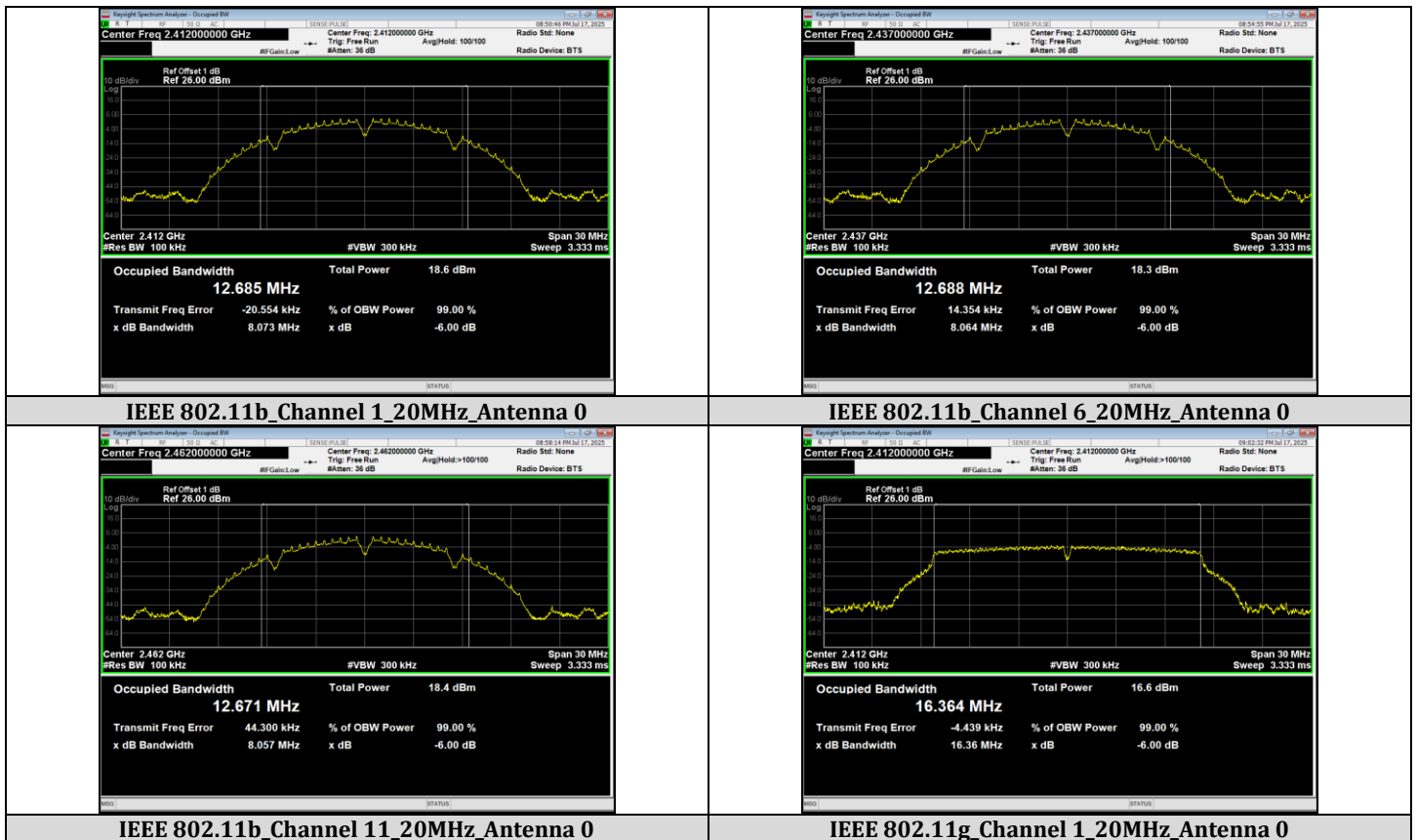
IEEE 802.11n_Channel 9_40MHz_Antenna 0

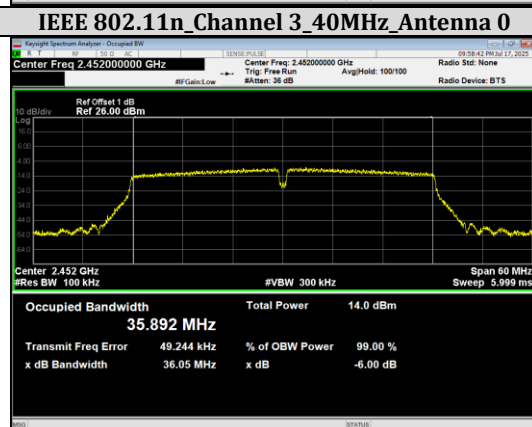
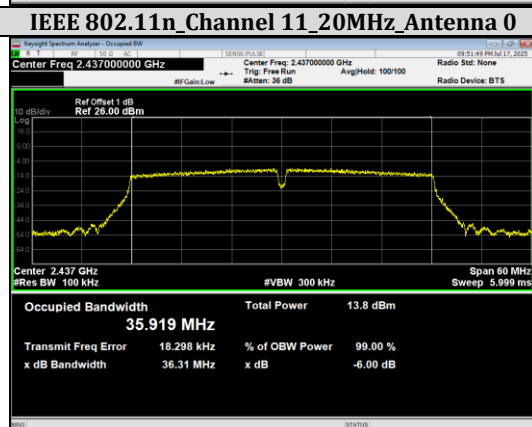
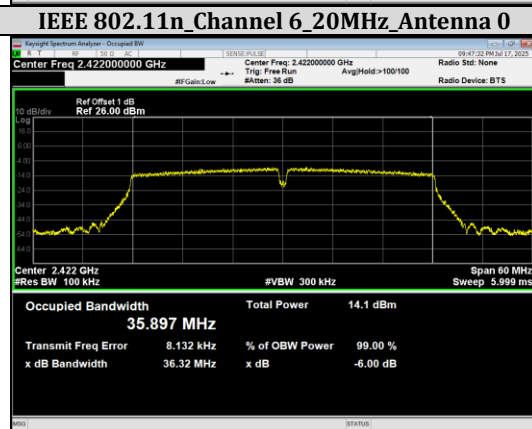
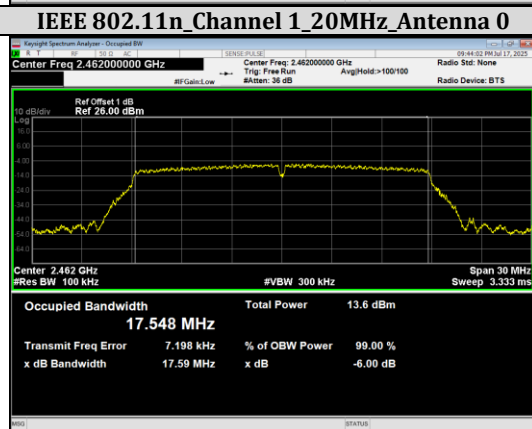
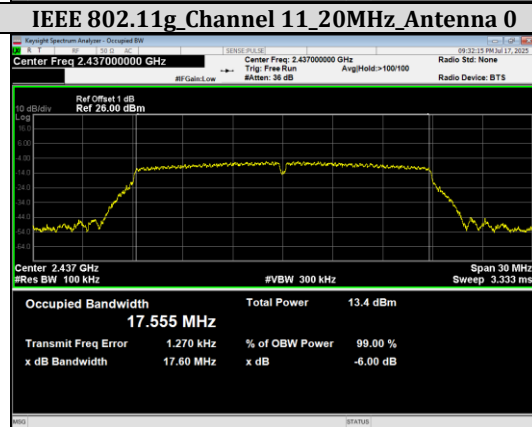
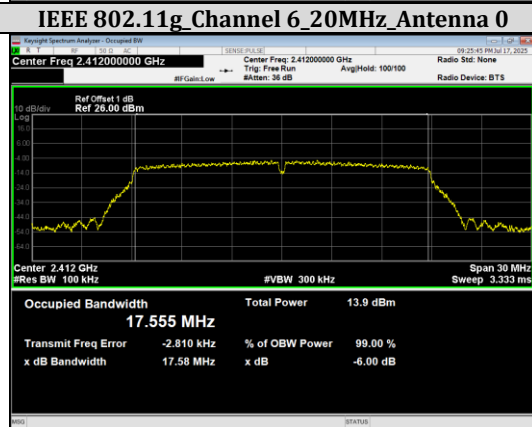
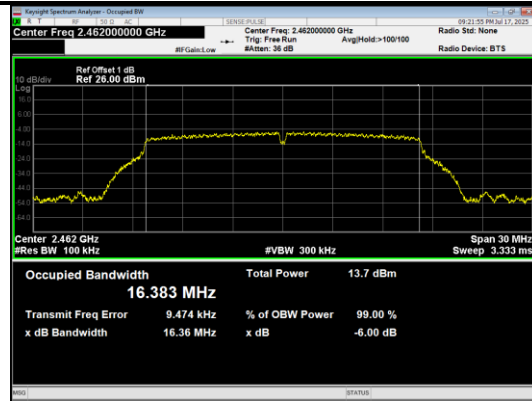
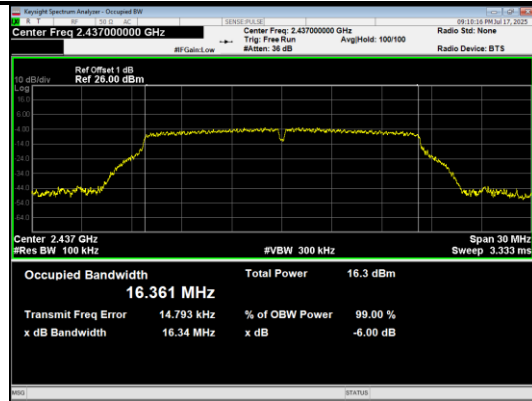
6dB Bandwidth

Test Result

Mode	Channel	Ant.	Center Frequency (MHz)	6 dB Bandwidth (MHz)	Limit (MHz)	Result
IEEE 802.11b	1	0	2412	8.070	≥0.5	PASS
	6		2437	8.060		PASS
	11		2462	8.060		PASS
IEEE 802.11g	1		2412	16.36		PASS
	6		2437	16.34		PASS
	11		2462	16.36		PASS
IEEE 802.11n_20	1		2412	17.58		PASS
	6		2437	17.60		PASS
	11		2462	17.59		PASS
IEEE 802.11n_40	3		2422	36.32		PASS
	6		2437	36.31		PASS
	9		2452	36.05		PASS

Test Graphs





IEEE 802.11n_Channel 6_40MHz_Antenna 0

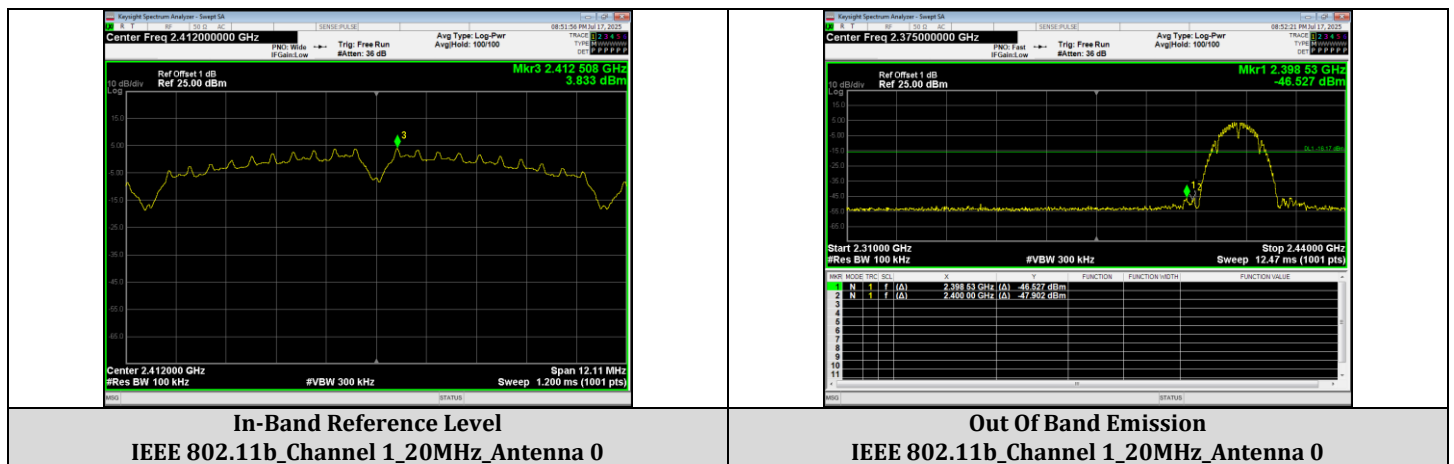
IEEE 802.11n_Channel 9_40MHz_Antenna 0

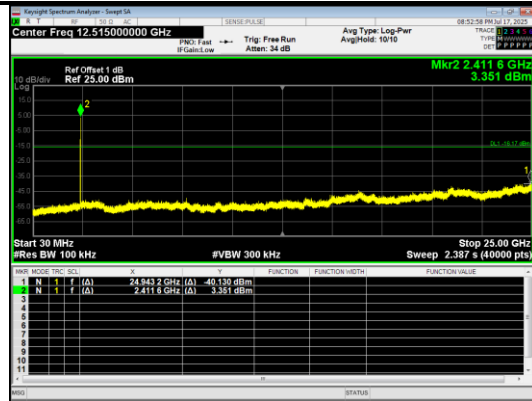
Conducted Out Of Band Emission

Test Result

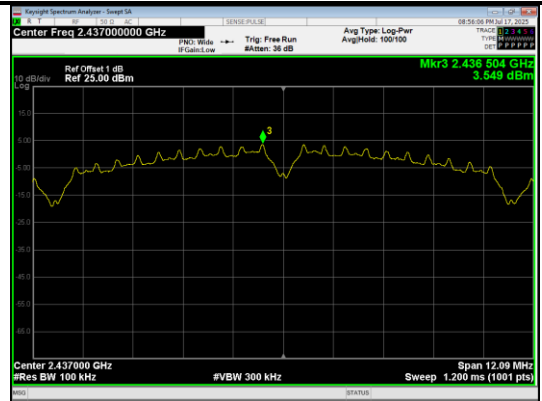
Mode	Channel	Ant.	OOB Emission Frequency (MHz)	OOB Emission Level (dBm)	Limit (dBm)	Over Limit (dB)	Result	
IEEE 802.11b	1	0	2398.53	-46.527	-16.17	-30.357	PASS	
			2400.00	-47.900	-16.17	-31.730	PASS	
	6		24943.2	-40.130	-16.17	-23.960	PASS	
			24855.2	-40.084	-16.45	-23.634	PASS	
			11	2483.50	-53.260	-16.59	-36.670	PASS
				24958.2	-39.753	-16.59	-23.163	PASS
IEEE 802.11g	1		2398.79	-42.885	-22.34	-20.545	PASS	
			2400.00	-43.490	-22.34	-21.150	PASS	
	6		24809.6	-39.804	-22.34	-17.464	PASS	
			24980.6	-38.052	-22.66	-15.392	PASS	
			11	2483.50	-52.920	-25.4	-27.520	PASS
				24241.5	-39.907	-25.4	-14.507	PASS
IEEE 802.11n_20	1		2398.92	-46.843	-25.52	-21.323	PASS	
			2400.00	-47.460	-25.52	-21.940	PASS	
	6		24999.4	-39.745	-25.52	-14.226	PASS	
			24904.5	-40.308	-25.55	-14.758	PASS	
			11	2483.50	-52.450	-26.06	-26.390	PASS
				24918.2	-39.822	-26.06	-13.762	PASS
IEEE 802.11n_40	3		2397.62	-48.068	-28.08	-19.988	PASS	
			2400.00	-51.160	-28.08	-23.080	PASS	
	6		24390.7	-39.570	-28.08	-11.490	PASS	
			24996.3	-39.680	-28.24	-11.440	PASS	
			9	2483.50	-52.330	-28.37	-23.960	PASS
				24881.4	-38.862	-28.37	-10.492	PASS

Test Graphs

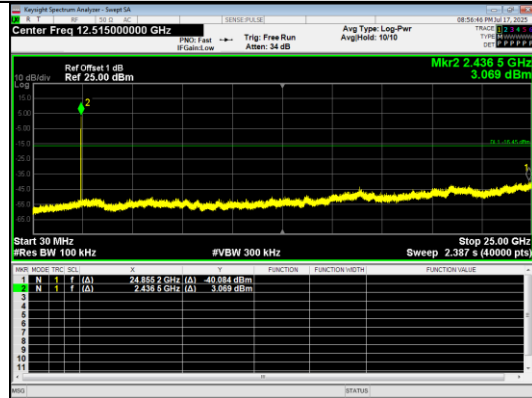




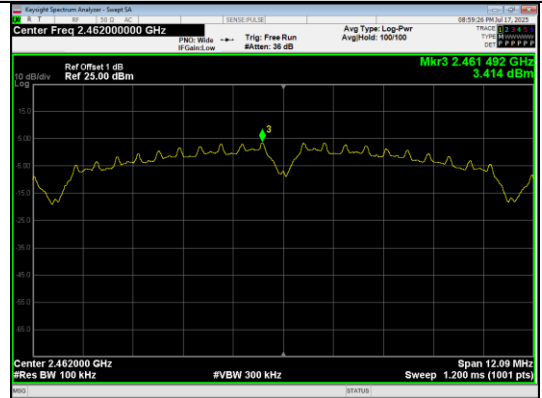
30.0 MHz - 25000.0 MHz
IEEE 802.11b_Channel 1_20MHz_Antenna 0



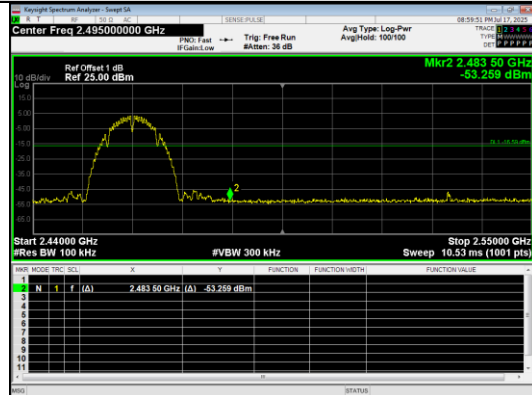
In-Band Reference Level
IEEE 802.11b_Channel 6_20MHz_Antenna 0



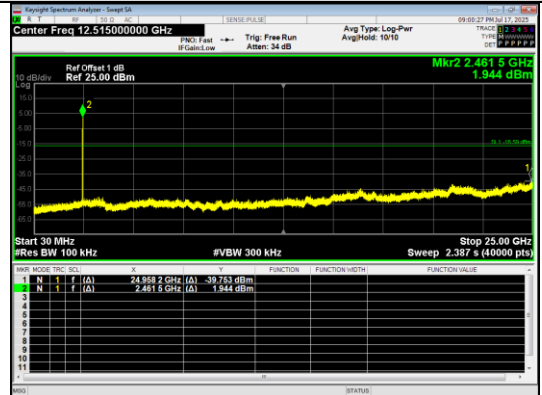
30.0 MHz - 25000.0 MHz
IEEE 802.11b_Channel 6_20MHz_Antenna 0



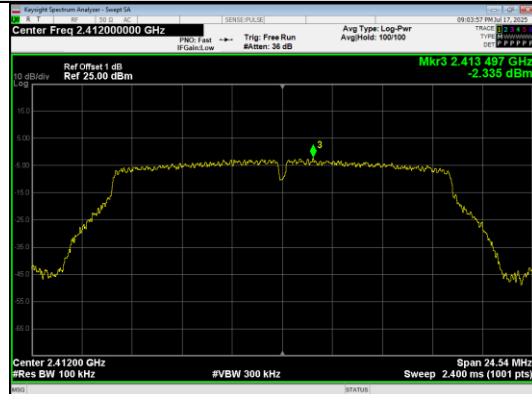
In-Band Reference Level
IEEE 802.11b_Channel 11_20MHz_Antenna 0



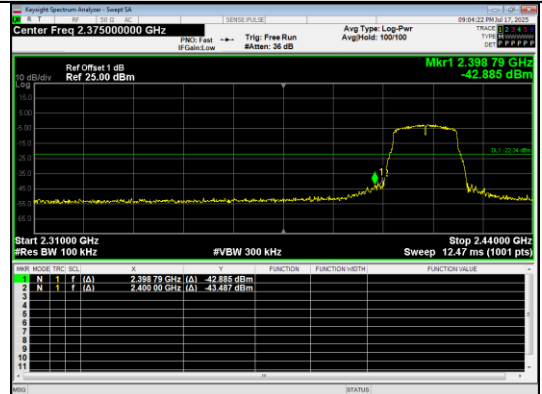
Out Of Band Emission
IEEE 802.11b_Channel 11_20MHz_Antenna 0



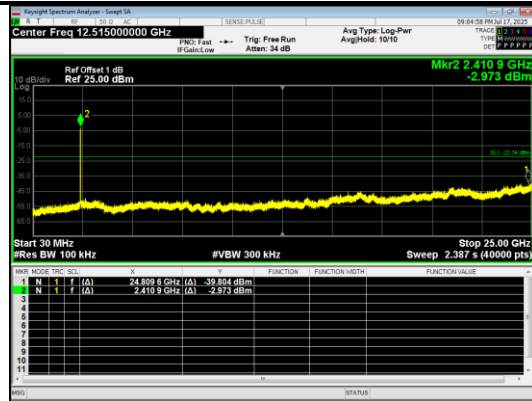
30.0 MHz - 25000.0 MHz
IEEE 802.11b_Channel 11_20MHz_Antenna 0



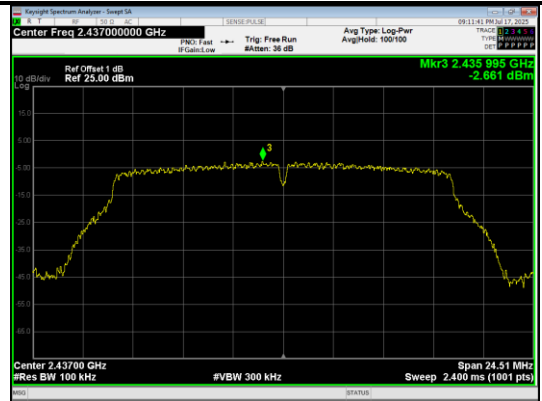
In-Band Reference Level
IEEE 802.11g_Channel 1_20MHz_Antenna 0



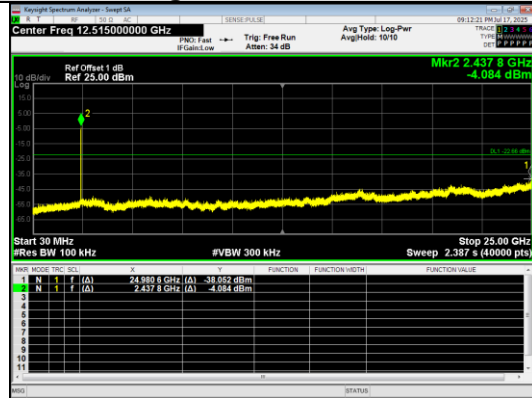
Out Of Band Emission
IEEE 802.11g_Channel 1_20MHz_Antenna 0



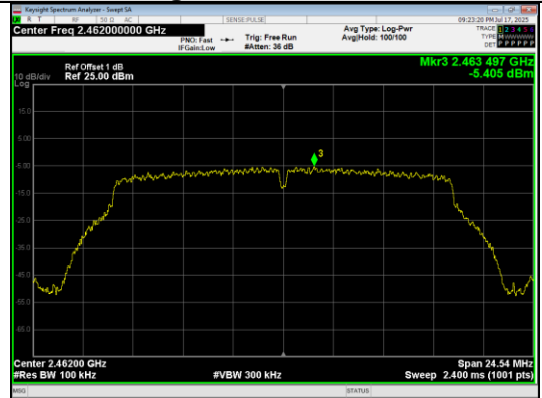
30.0 MHz - 25000.0 MHz
IEEE 802.11g_Channel 1_20MHz_Antenna 0



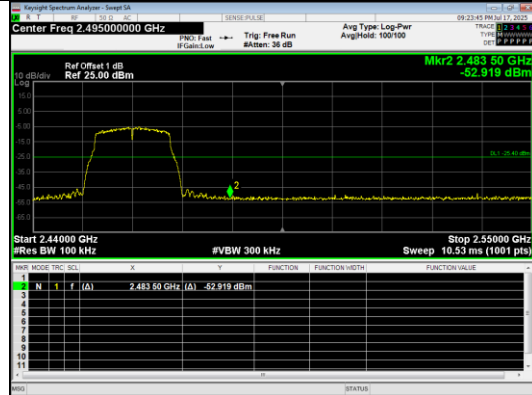
In-Band Reference Level
IEEE 802.11g_Channel 6_20MHz_Antenna 0



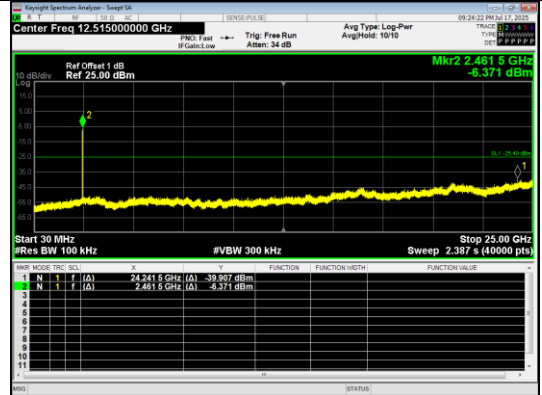
30.0 MHz - 25000.0 MHz
IEEE 802.11g_Channel 6_20MHz_Antenna 0



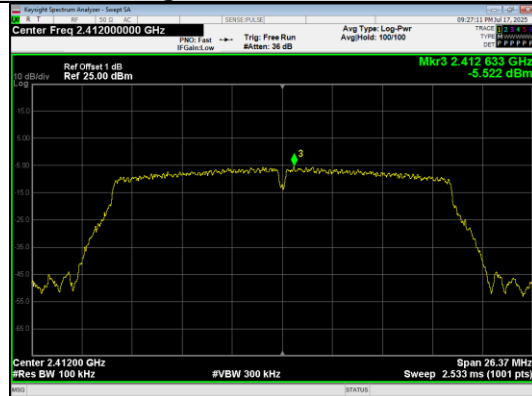
In-Band Reference Level
IEEE 802.11g_Channel 11_20MHz_Antenna 0



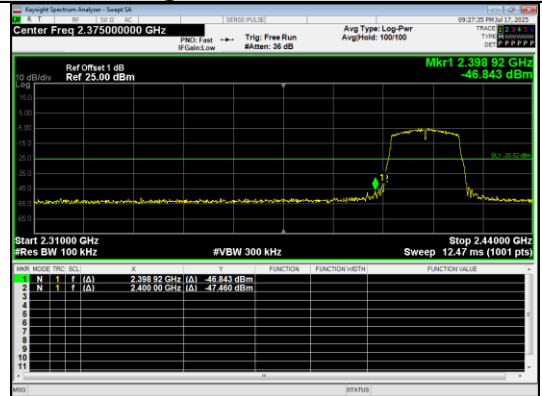
Out Of Band Emission
IEEE 802.11g_Channel 11_20MHz_Antenna 0



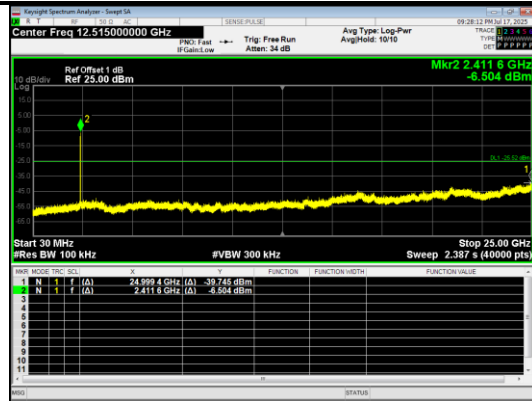
30.0 MHz - 25000.0 MHz
IEEE 802.11g_Channel 11_20MHz_Antenna 0



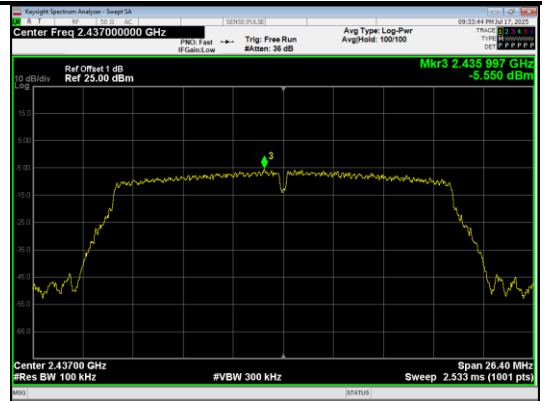
In-Band Reference Level
IEEE 802.11n_Channel 1_20MHz_Antenna 0



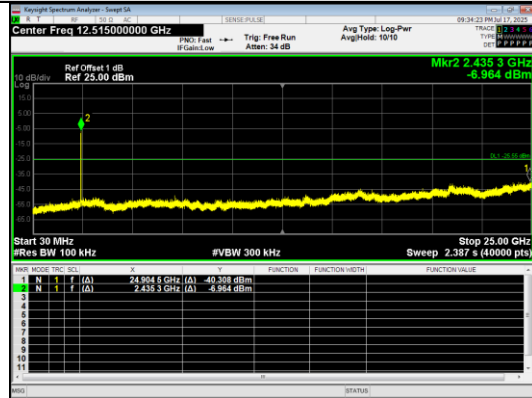
Out Of Band Emission
IEEE 802.11n_Channel 1_20MHz_Antenna 0



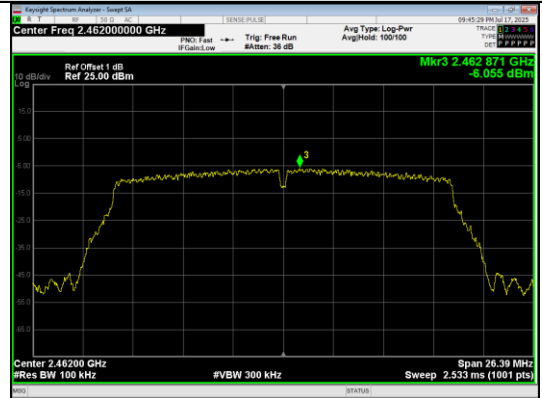
30.0 MHz - 25000.0 MHz
IEEE 802.11n_Channel 1_20MHz_Antenna 0



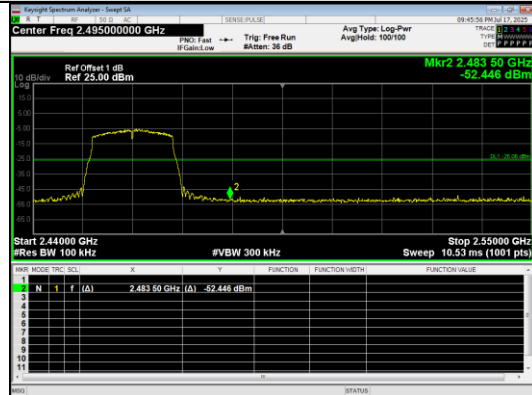
In-Band Reference Level
IEEE 802.11n_Channel 6_20MHz_Antenna 0



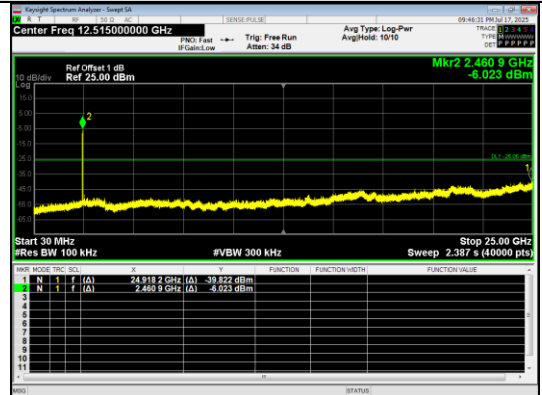
30.0 MHz - 25000.0 MHz
IEEE 802.11n_Channel 6_20MHz_Antenna 0



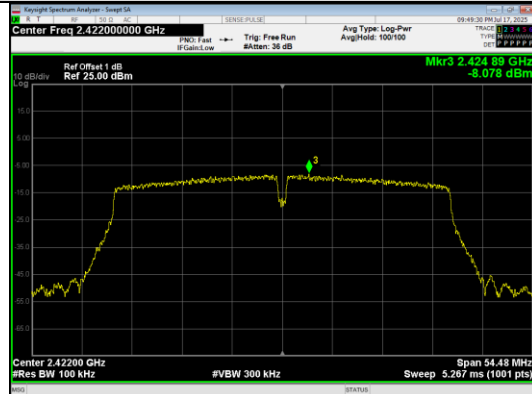
In-Band Reference Level
IEEE 802.11n_Channel 11_20MHz_Antenna 0



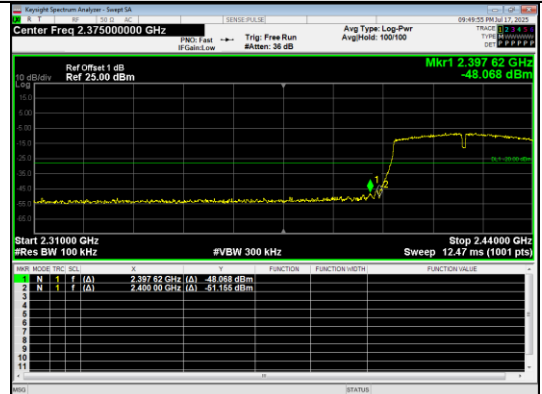
Out Of Band Emission
IEEE 802.11n_Channel 11_20MHz_Antenna 0



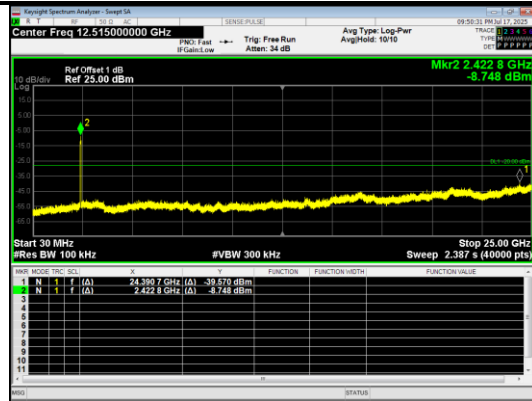
30.0 MHz - 25000.0 MHz
IEEE 802.11n_Channel 11_20MHz_Antenna 0



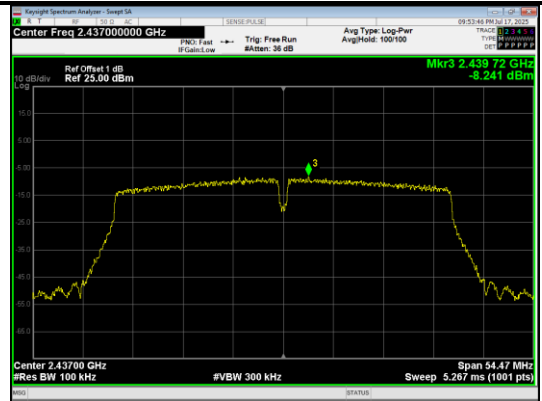
In-Band Reference Level
IEEE 802.11n_Channel 3_40MHz_Antenna 0



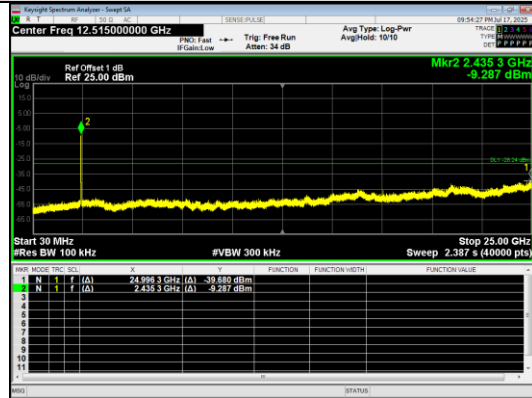
Out Of Band Emission
IEEE 802.11n_Channel 3_40MHz_Antenna 0



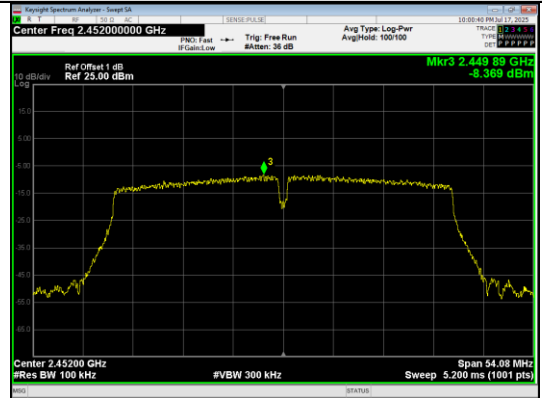
30.0 MHz - 25000.0 MHz
IEEE 802.11n_Channel 3_40MHz_Antenna 0



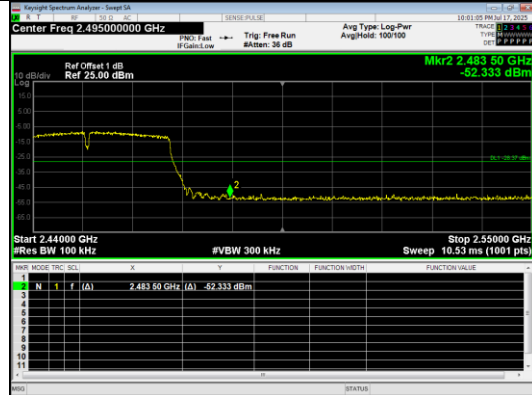
In-Band Reference Level
IEEE 802.11n_Channel 6_40MHz_Antenna 0



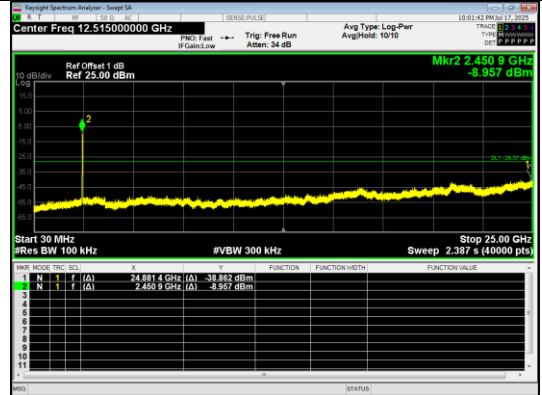
30.0 MHz - 25000.0 MHz
IEEE 802.11n_Channel 6_40MHz_Antenna 0



In-Band Reference Level
IEEE 802.11n_Channel 9_40MHz_Antenna 0



Out Of Band Emission
IEEE 802.11n_Channel 9_40MHz_Antenna 0



30.0 MHz - 25000.0 MHz
IEEE 802.11n_Channel 9_40MHz_Antenna 0

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