

Appendix A: Test Results of 2.4G WIFI.

Conducted Output Power

Test Result

Conducted Output Power

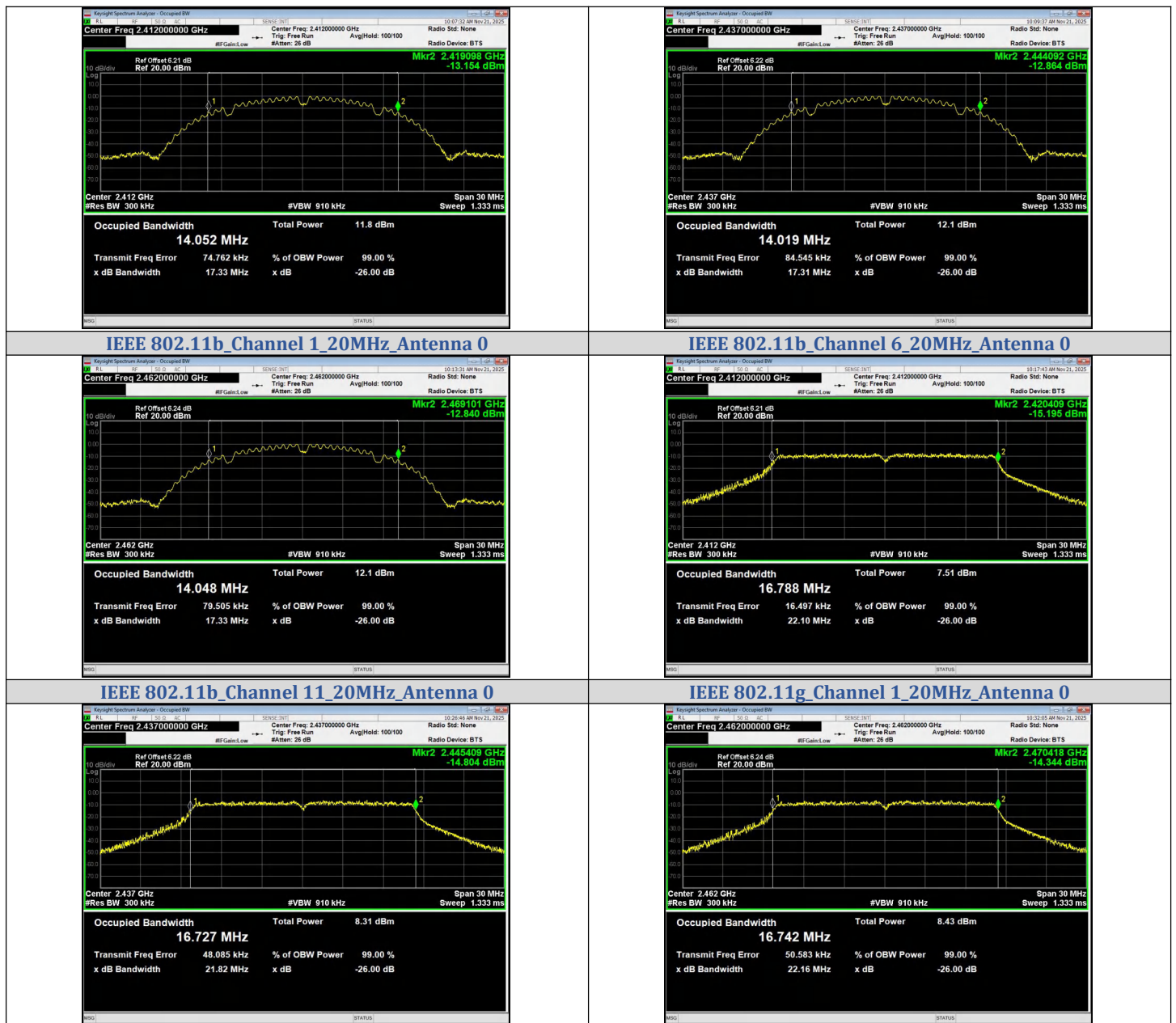
Mode	Channel	Ant. 0 (dBm)	Peak Output Power (mW)	Limit (dBm)	Result
IEEE 802.11b	1	10.81	12.050	≤30	PASS
	6	11.10	12.882	≤30	PASS
	11	11.18	13.12	≤30	PASS
IEEE 802.11g	1	8.98	7.91	≤30	PASS
	6	9.84	9.64	≤30	PASS
	11	9.98	9.95	≤30	PASS
IEEE 802.11n_20	1	9.41	8.73	≤30	PASS
	6	10.06	10.14	≤30	PASS
	11	10.12	10.28	≤30	PASS

99% Bandwidth

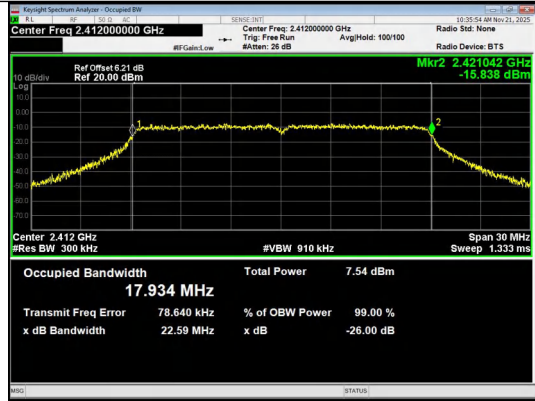
Test Result

Mode	Channel	Ant.	Center Frequency (MHz)	99% BW (MHz)
IEEE 802.11b	1	0	2412	14.052
	6		2437	14.019
	11		2462	14.048
IEEE 802.11g	1		2412	16.788
	6		2437	16.727
	11		2462	16.742
IEEE 802.11n_20	1		2412	17.934
	6		2437	17.869
	11		2462	17.928

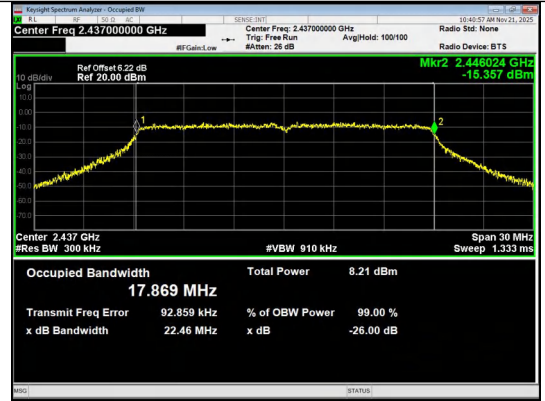
Test Graphs



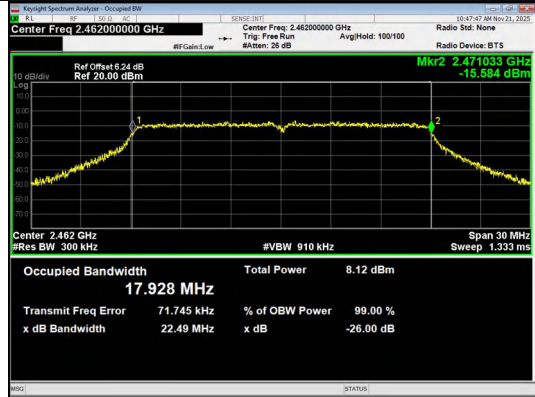
IEEE 802.11g_Channel 6_20MHz_Antenna 0



IEEE 802.11g_Channel 11_20MHz_Antenna 0



IEEE 802.11n_Channel 1_20MHz_Antenna 0



IEEE 802.11n_Channel 6_20MHz_Antenna 0

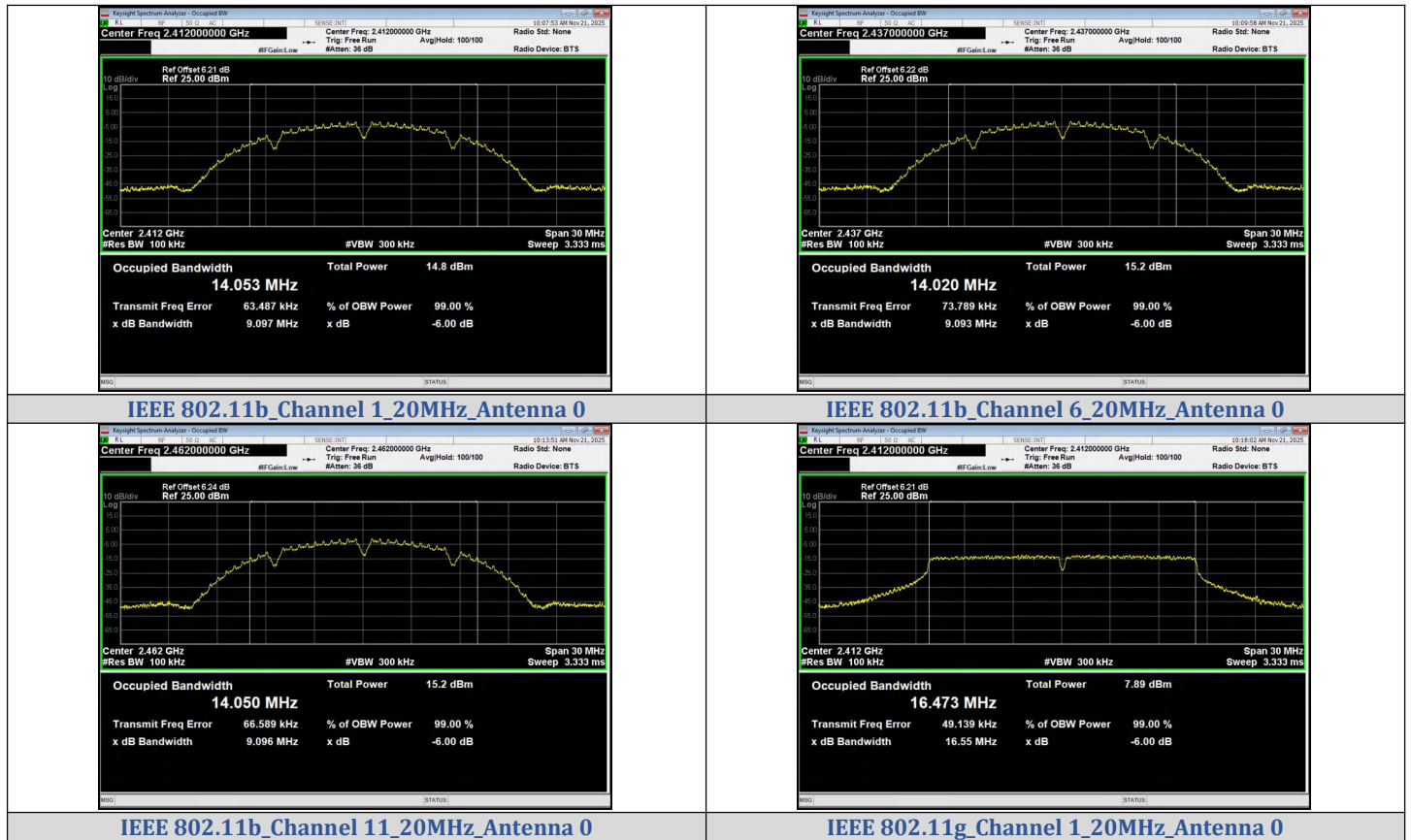
IEEE 802.11n_Channel 11_20MHz_Antenna 0

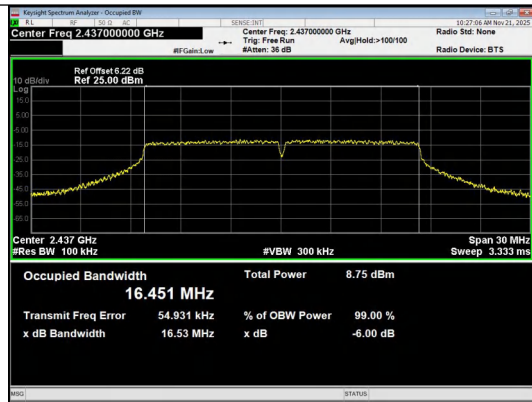
6dB Bandwidth

Test Result

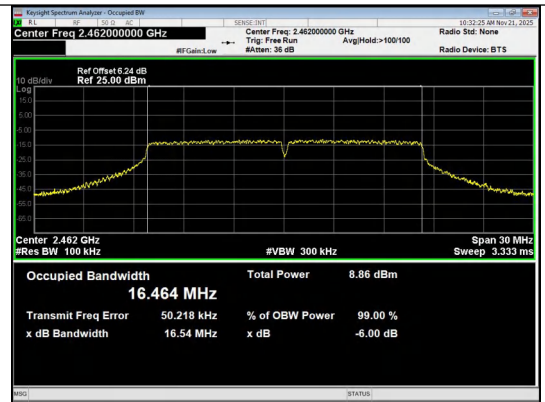
Mode	Channel	Ant.	Center Frequency (MHz)	6 dB Bandwidth (MHz)	Limit (MHz)	Result
IEEE 802.11b	1	0	2412	9.097	≥0.5	PASS
	6		2437	9.093		PASS
	11		2462	9.096		PASS
IEEE 802.11g	1		2412	16.55		PASS
	6		2437	16.53		PASS
	11		2462	16.54		PASS
IEEE 802.11n_20	1		2412	17.77		PASS
	6		2437	17.78		PASS
	11		2462	17.74		PASS

Test Graphs

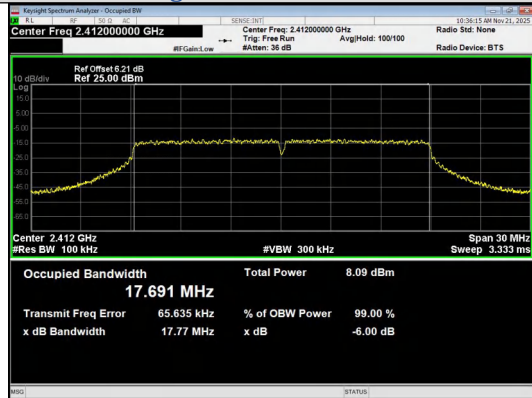




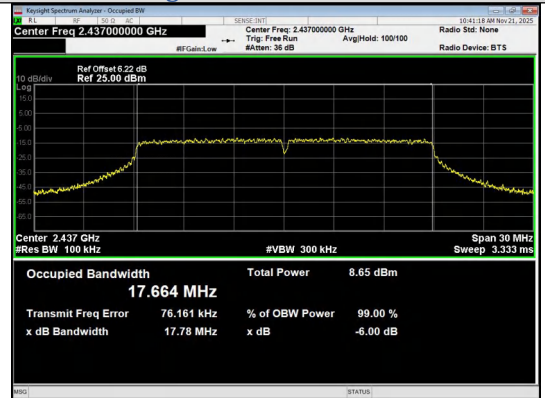
IEEE 802.11g Channel 6_20MHz_Antenna 0



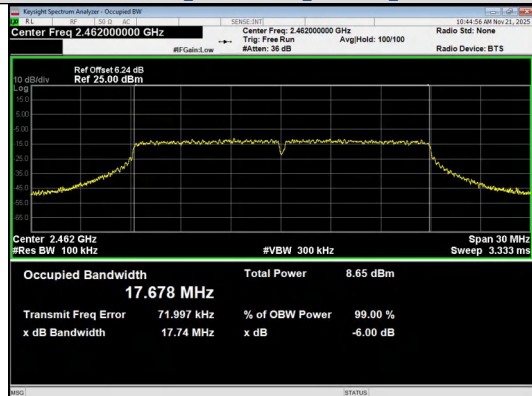
IEEE 802.11g Channel 11_20MHz_Antenna 0



IEEE 802.11n Channel 1_20MHz_Antenna 0



IEEE 802.11n Channel 6_20MHz_Antenna 0



IEEE 802.11n Channel 11_20MHz_Antenna 0

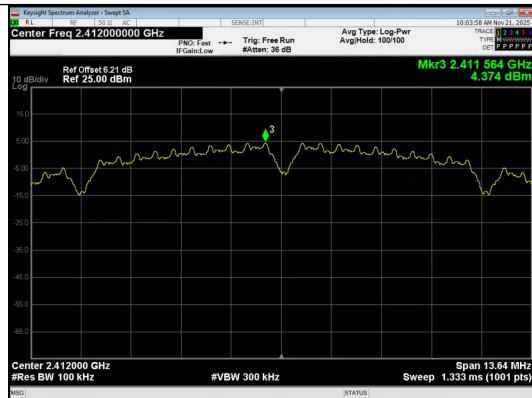
Conducted Spurious & Band Edge Emission

Test Result

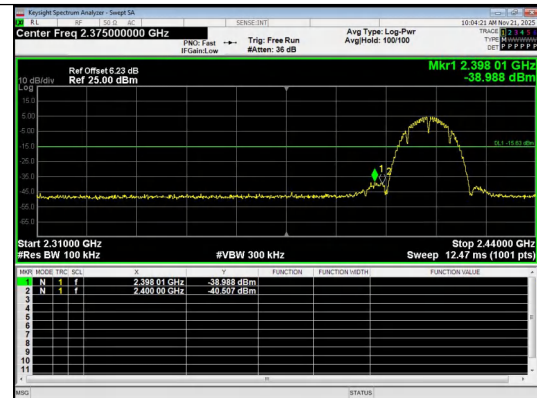
Mode	Channel	Ant.	OOB Emission Frequency (MHz)	OOB Emission Level (dBm)	Limit (dBm)	Over Limit (dB)	Result
IEEE 802.11b	1	0	2398.01	-38.988	-15.63	-23.358	PASS
			2400.00	-40.507	-15.63	-24.877	PASS
	6		24590.5	-45.662	-15.63	-30.032	PASS
			24984.4	-45.473	-20.76	-24.713	PASS
	11		2483.50	-48.595	-20.45	-28.145	PASS
			24682.3	-45.080	-20.45	-24.630	PASS
IEEE 802.11g	1		2400.00	-42.776	-32.2	-10.576	PASS
			24749.1	-45.901	-32.2	-13.701	PASS
	6		24935.7	-45.818	-31.27	-14.548	PASS
			2483.50	-48.415	-31.17	-17.245	PASS
	11		24940.7	-45.752	-31.17	-14.582	PASS
IEEE 802.11n_20	1		2400.00	-41.954	-31.59	-10.364	PASS
		24745.3	-45.117	-31.59	-13.527	PASS	
	6	24936.3	-45.353	-31.07	-14.283	PASS	
		2483.50	-47.949	-31.28	-16.669	PASS	
	11	24637.3	-45.828	-31.28	-14.548	PASS	

Note: input compensation coefficient (dB)= Cable Loss (dB)

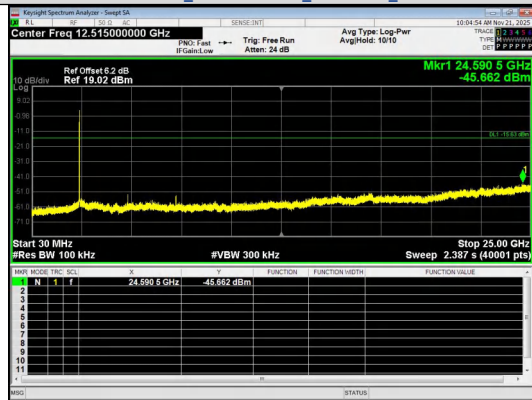
Test Graphs



In-Band Reference Level
IEEE 802.11b_Channel 1_20MHz_Antenna 0



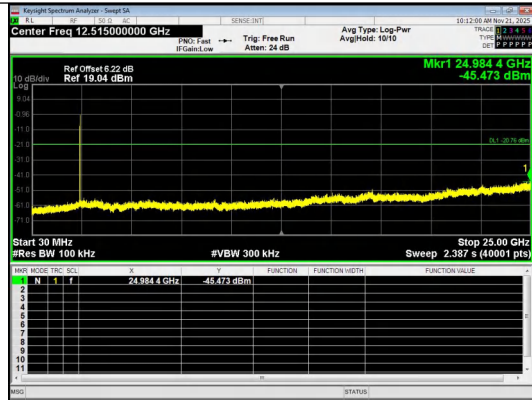
Out Of Band Emission
IEEE 802.11b_Channel 1_20MHz_Antenna 0



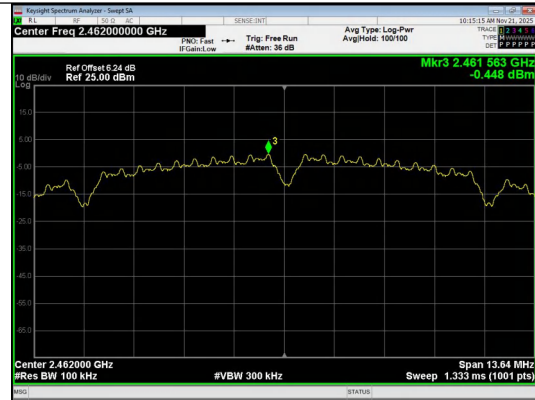
30.0 MHz - 25000.0 MHz
IEEE 802.11b_Channel 1_20MHz_Antenna 0



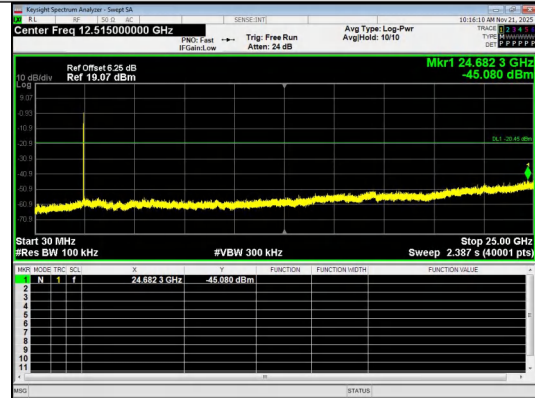
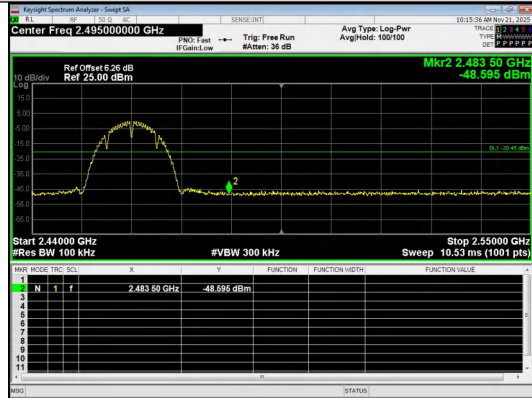
In-Band Reference Level
IEEE 802.11b_Channel 6_20MHz_Antenna 0



30.0 MHz - 25000.0 MHz
IEEE 802.11b_Channel 6_20MHz_Antenna 0

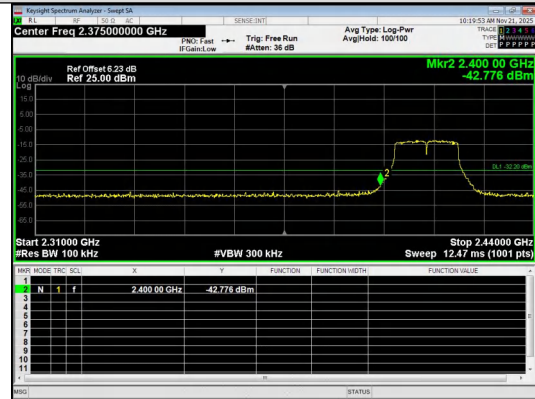
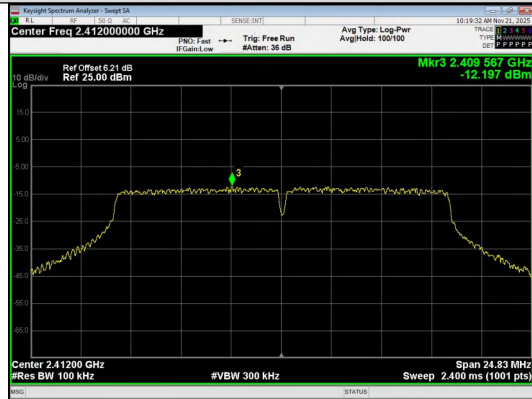


In-Band Reference Level
IEEE 802.11b_Channel 11_20MHz_Antenna 0



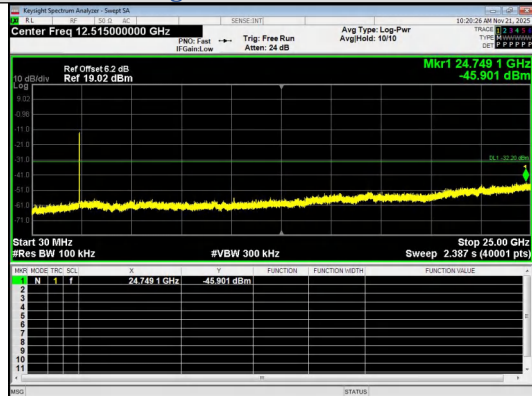
Out Of Band Emission
IEEE 802.11b_Channel 11_20MHz_Antenna 0

30.0 MHz - 25000.0 MHz
IEEE 802.11b_Channel 11_20MHz_Antenna 0

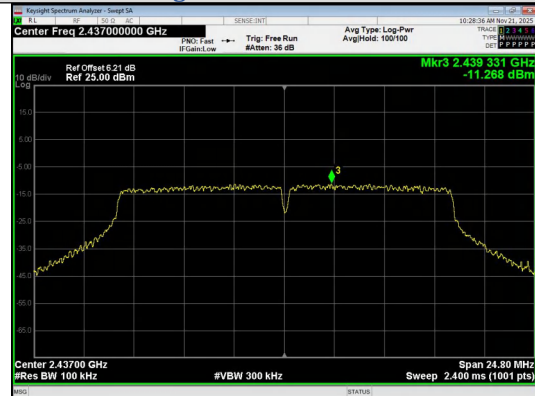


In-Band Reference Level
IEEE 802.11g_Channel 1_20MHz_Antenna 0

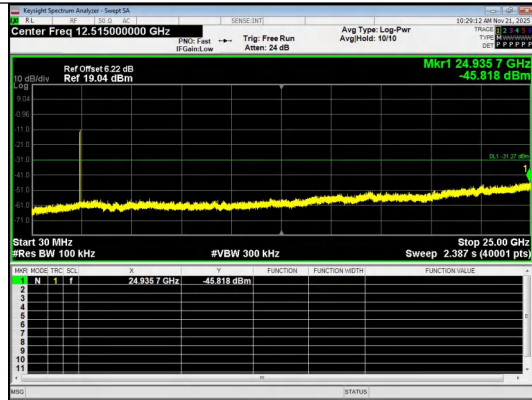
Out Of Band Emission
IEEE 802.11g_Channel 1_20MHz_Antenna 0



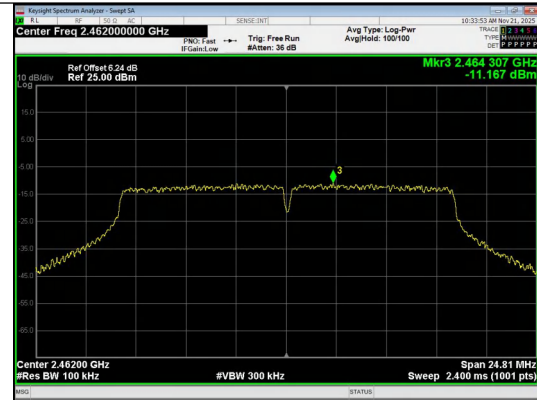
30.0 MHz - 25000.0 MHz
IEEE 802.11g_Channel 1_20MHz_Antenna 0



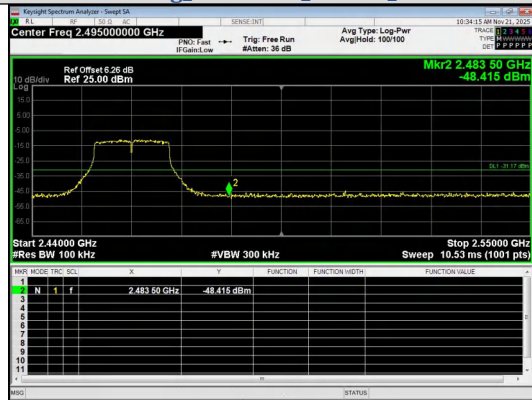
In-Band Reference Level
IEEE 802.11g_Channel 6_20MHz_Antenna 0



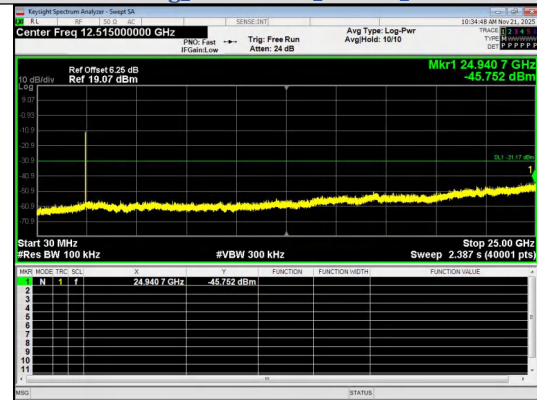
30.0 MHz - 25000.0 MHz
IEEE 802.11g Channel 6_20MHz_Antenna 0



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



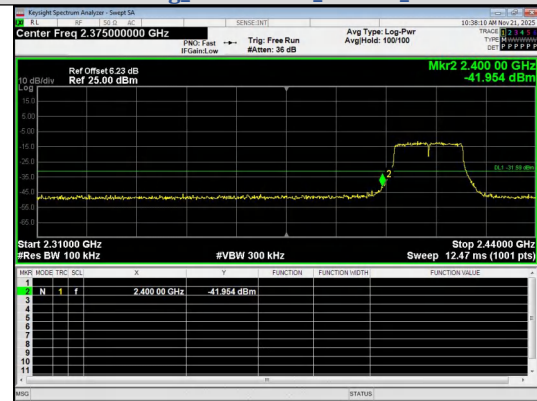
Out Of Band Emission
IEEE 802.11g Channel 11_20MHz_Antenna 0



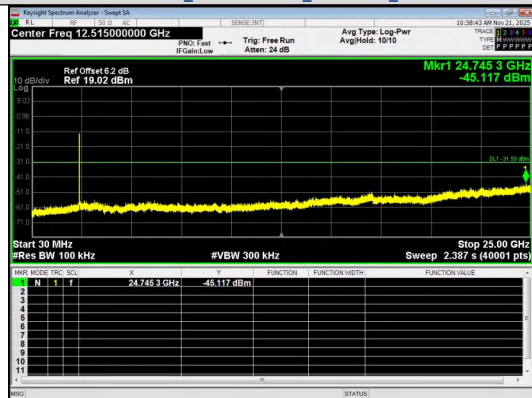
30.0 MHz - 25000.0 MHz
IEEE 802.11g Channel 11_20MHz_Antenna 0



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



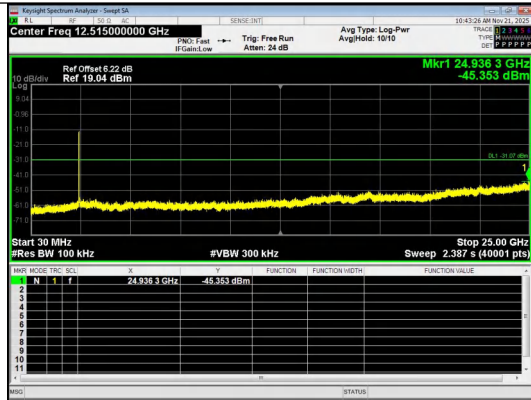
Out Of Band Emission
IEEE 802.11n Channel 1_20MHz_Antenna 0



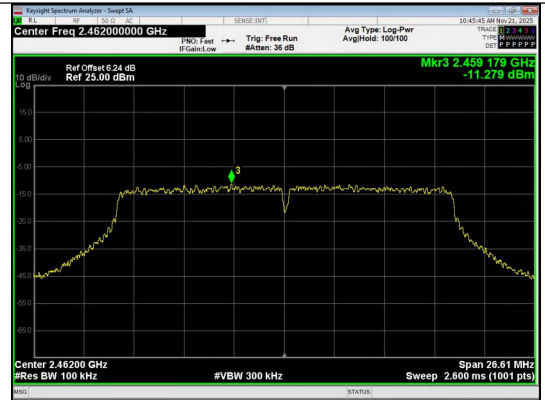
30.0 MHz - 25000.0 MHz
IEEE 802.11n Channel 1_20MHz_Antenna 0



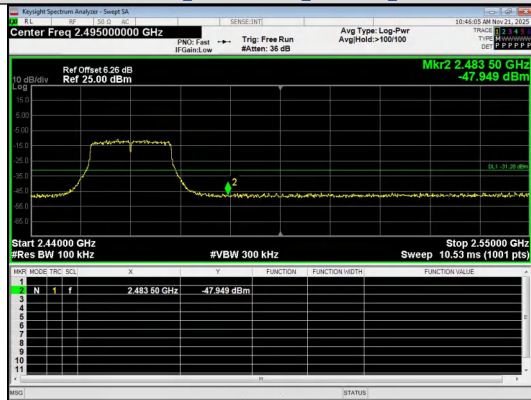
In-Band Reference Level
IEEE 802.11n Channel 6_20MHz_Antenna 0



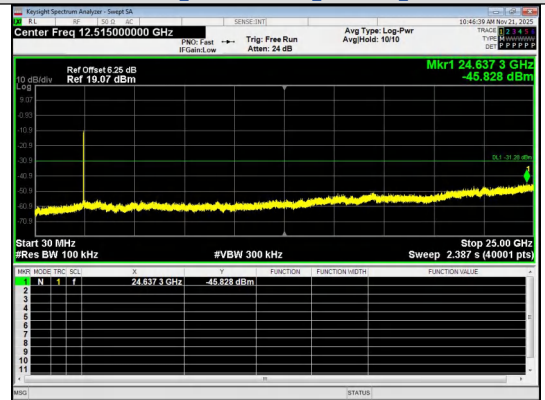
30.0 MHz - 25000.0 MHz
IEEE 802.11n_Channel 6_20MHz_Antenna 0



In-Band Reference Level
IEEE 802.11n_Channel 11_20MHz_Antenna 0



Out Of Band Emission
IEEE 802.11n_Channel 11_20MHz_Antenna 0



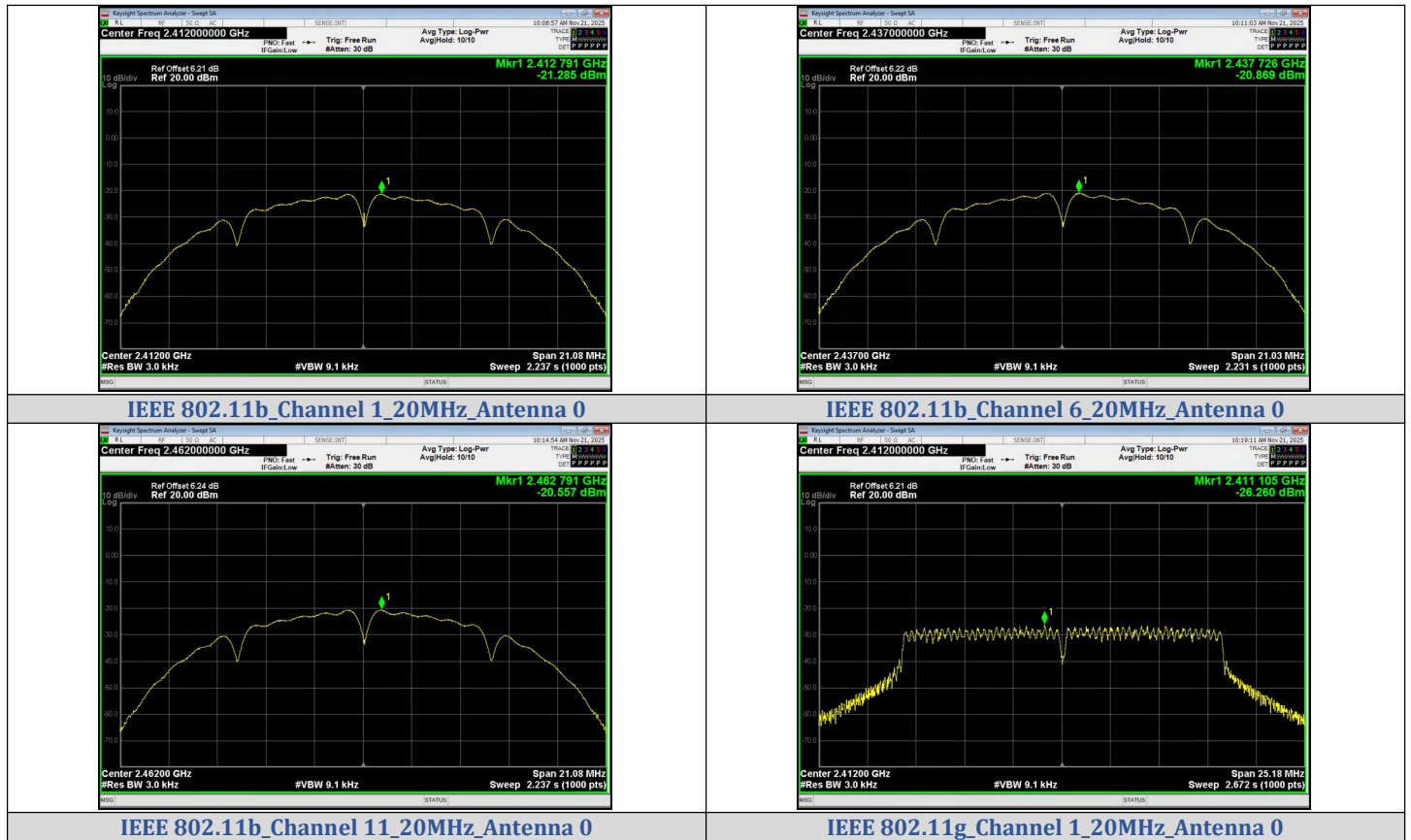
30.0 MHz - 25000.0 MHz
IEEE 802.11n_Channel 11_20MHz_Antenna 0

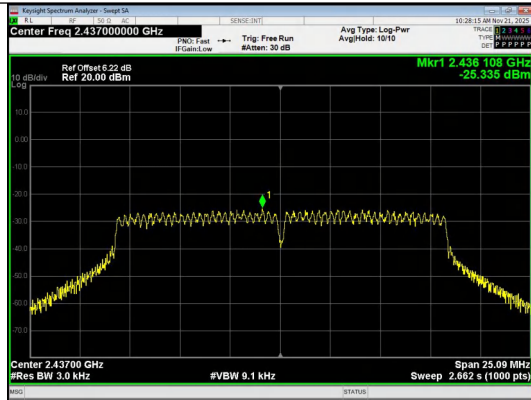
Power Spectral Density

Test Result

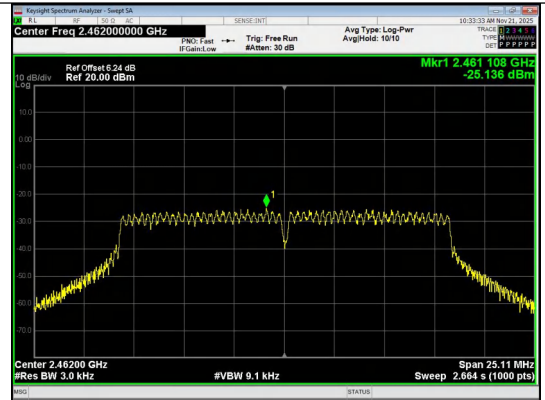
Mode	Channel	PSD (dBm/3kHz) Ant. 0	Limit (dBm/3kHz)	Result
IEEE 802.11b	1	-21.290	≤8	PASS
	6	-20.870		PASS
	11	-20.560		PASS
IEEE 802.11g	1	-26.260		PASS
	6	-25.340		PASS
	11	-25.140		PASS
IEEE 802.11n_20	1	-25.920		PASS
	6	-25.450		PASS
	11	-25.370		PASS

Test Graphs

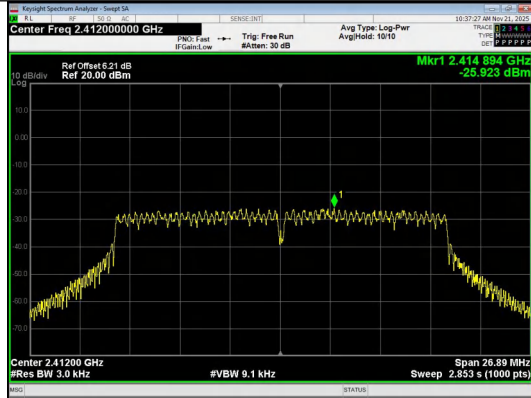




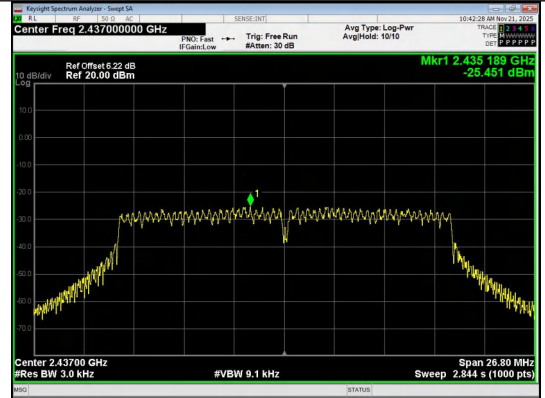
IEEE 802.11g Channel 6_20MHz_Antenna 0



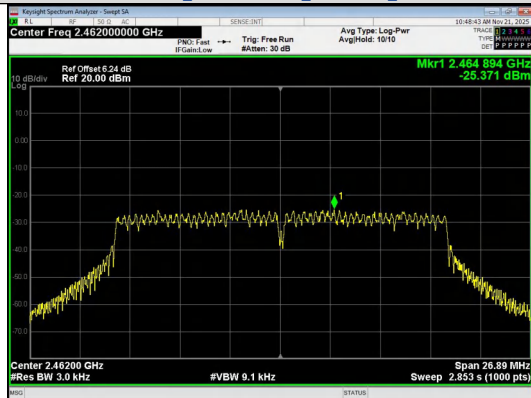
IEEE 802.11g Channel 11_20MHz_Antenna 0



IEEE 802.11n Channel 1_20MHz_Antenna 0



IEEE 802.11n Channel 6_20MHz_Antenna 0



IEEE 802.11n Channel 11_20MHz_Antenna 0