

Appendix A: Test Results of 2.4G WIFI

Conducted Output Power

Test Result

Conducted Output Power

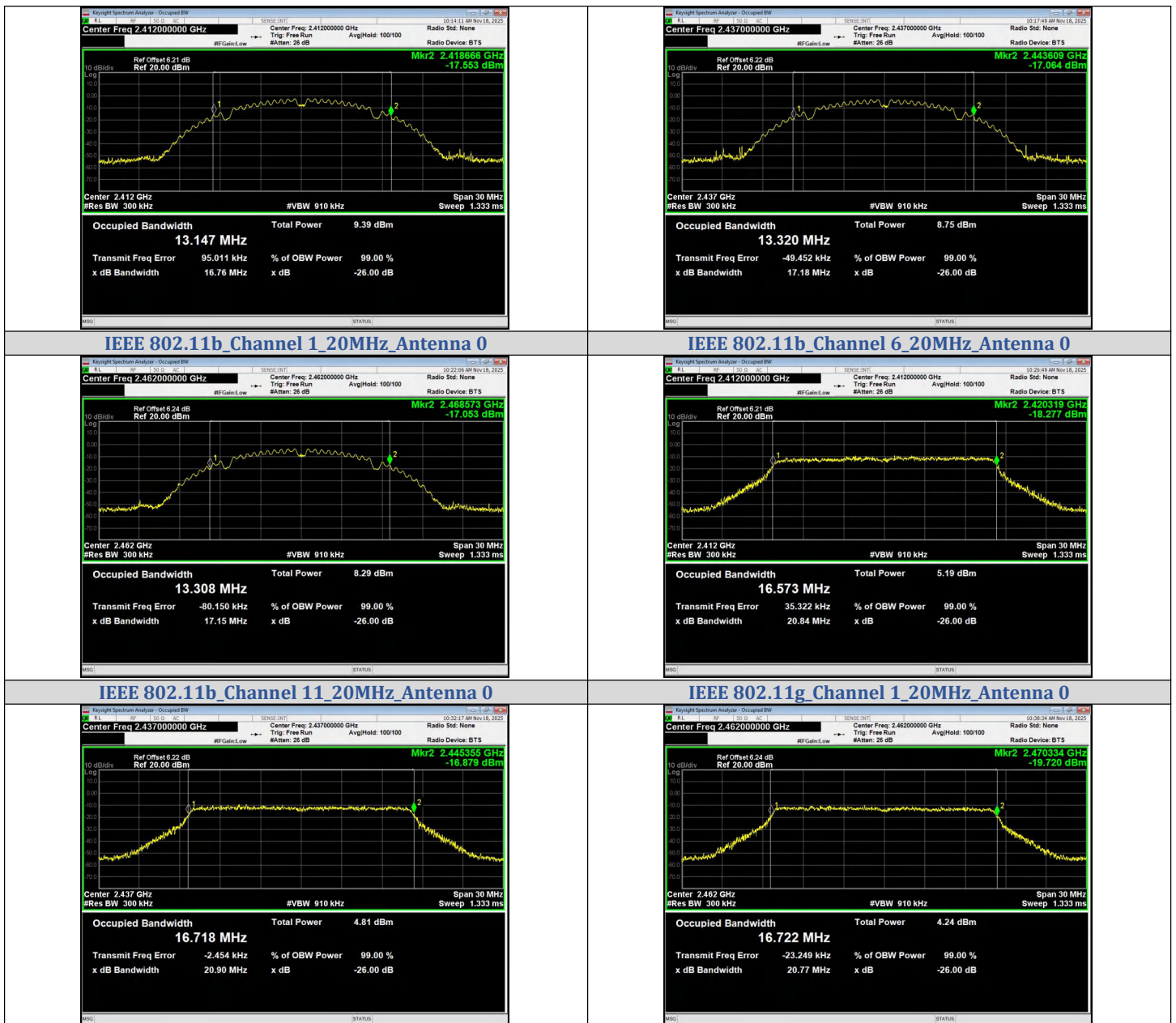
Mode	Channel	Ant. 0 (dBm)	Peak Output Power (mW)	Limit (dBm)	Result
IEEE 802.11b	1	8.28	6.73	≤30	PASS
	6	7.77	5.98	≤30	PASS
	11	7.28	5.35	≤30	PASS
IEEE 802.11g	1	6.74	4.72	≤30	PASS
	6	6.52	4.49	≤30	PASS
	11	5.84	3.84	≤30	PASS
IEEE 802.11n_20	1	6.52	4.49	≤30	PASS
	6	6.35	4.32	≤30	PASS
	11	5.80	3.80	≤30	PASS

99% Bandwidth

Test Result

Mode	Channel	Ant.	Center Frequency (MHz)	99% BW (MHz)
IEEE 802.11b	1	0	2412	13.147
	6		2437	13.320
	11		2462	13.308
IEEE 802.11g	1		2412	16.573
	6		2437	16.718
	11		2462	16.722
IEEE 802.11n_20	1		2412	17.677
	6		2437	17.720
	11		2462	17.774

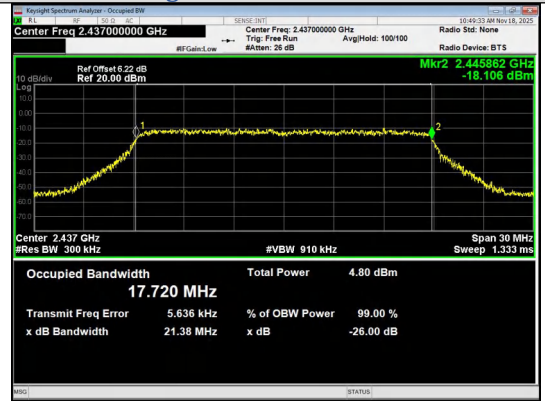
Test Graphs



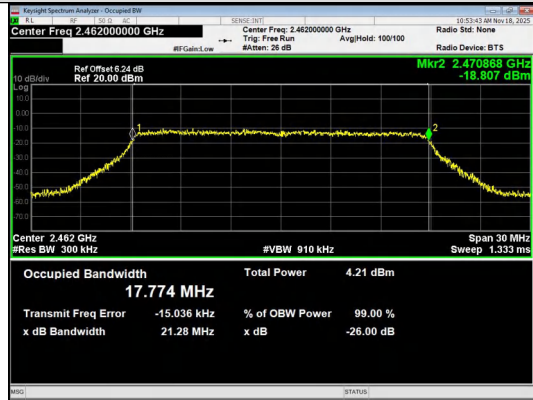
IEEE 802.11g_Channel 6_20MHz_Antenna 0



IEEE 802.11g_Channel 11_20MHz_Antenna 0



IEEE 802.11n_Channel 1_20MHz_Antenna 0



IEEE 802.11n_Channel 6_20MHz_Antenna 0

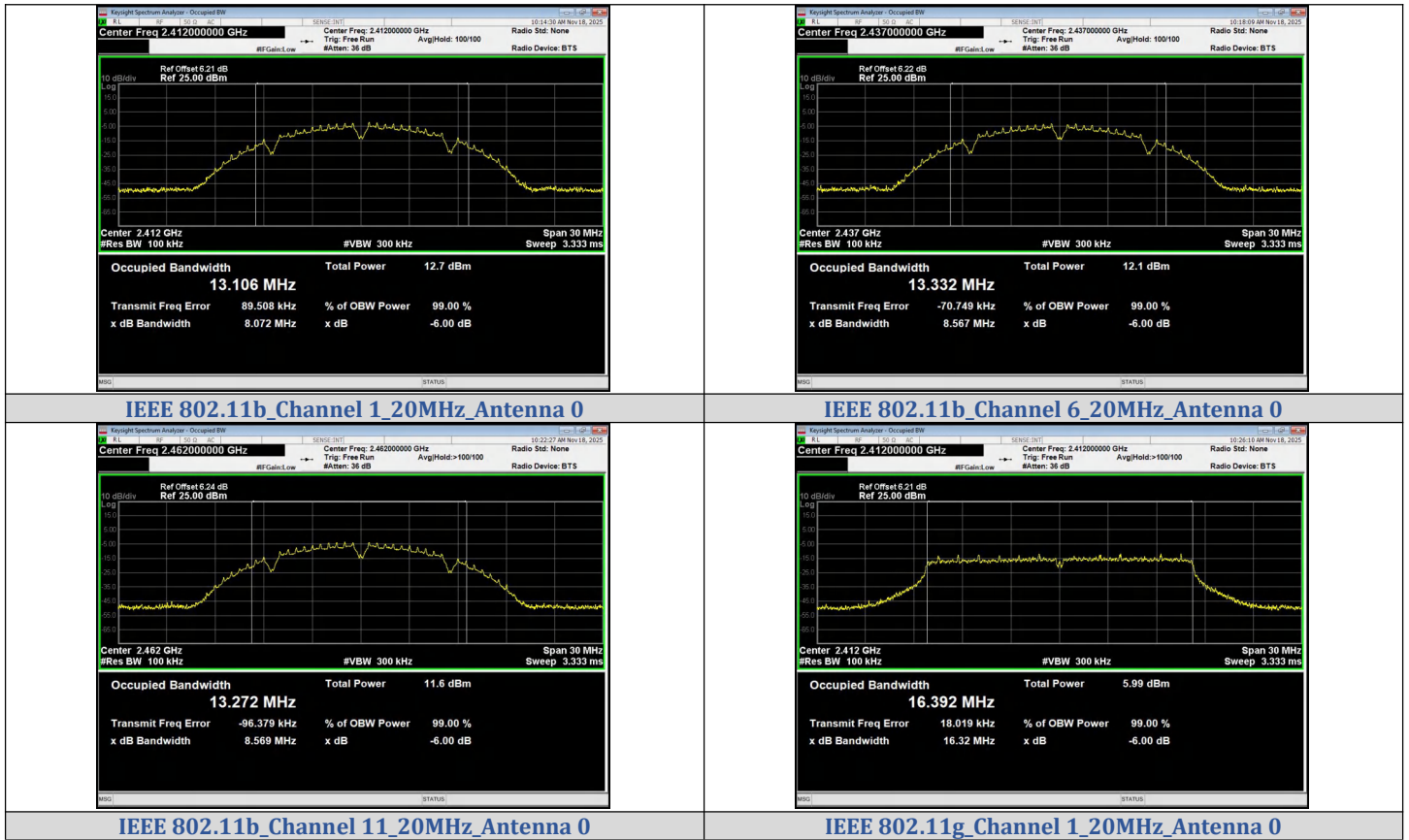
IEEE 802.11n_Channel 11_20MHz_Antenna 0

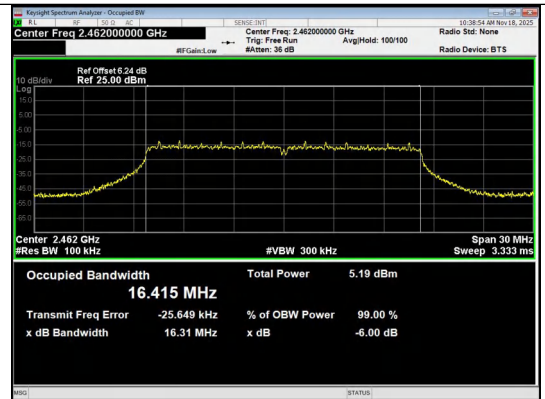
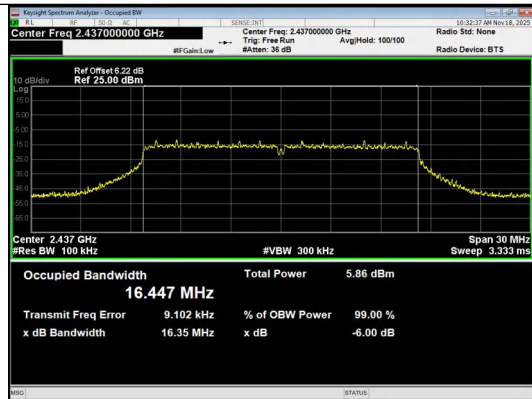
6dB Bandwidth

Test Result

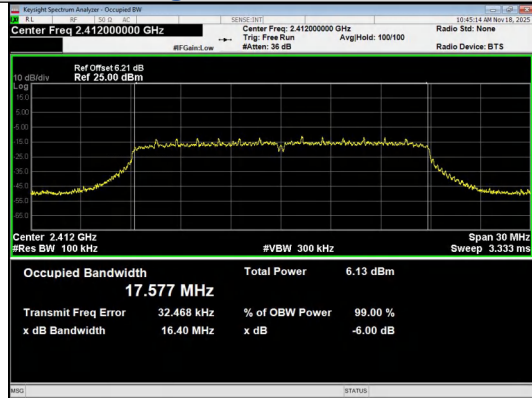
Mode	Channel	Ant.	Center Frequency (MHz)	6 dB Bandwidth (MHz)	Limit (MHz)	Result
IEEE 802.11b	1	0	2412	8.072	≥0.5	PASS
	6		2437	8.567		PASS
	11		2462	8.569		PASS
IEEE 802.11g	1		2412	16.32		PASS
	6		2437	16.35		PASS
	11		2462	16.31		PASS
IEEE 802.11n_20	1		2412	16.40		PASS
	6		2437	17.17		PASS
	11		2462	17.29		PASS

Test Graphs

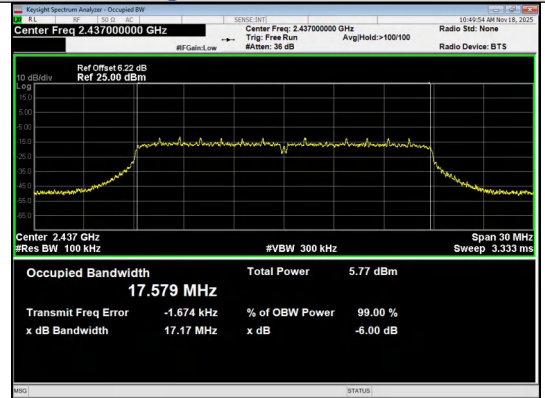




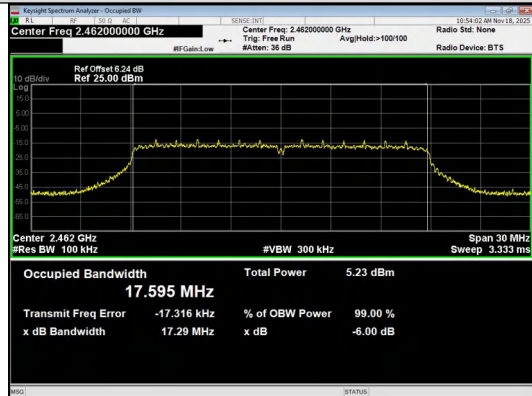
IEEE 802.11g_Channel 6_20MHz_Antenna 0



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

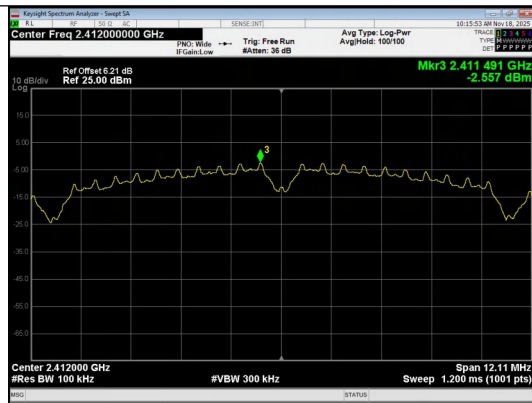
Conducted Spurious & Band Edge Emission

Test Result

Mode	Channel	Ant.	OOB Emission Frequency (MHz)	OOB Emission Level (dBm)	Limit (dBm)	Over Limit (dB)	Result
IEEE 802.11b	1	0	2365.64	-46.029	-22.56	-23.469	PASS
			2400.00	-47.830	-22.56	-25.270	PASS
	6		24951.3	-45.963	-22.56	-23.403	PASS
			24705.4	-45.232	-23.19	-22.042	PASS
	11		2483.50	-48.156	-23.78	-24.376	PASS
			24658.5	-45.690	-23.78	-21.910	PASS
IEEE 802.11g	1		2345.62	-46.788	-31.67	-15.118	PASS
			2400.00	-47.193	-31.67	-15.523	PASS
	6		24647.9	-45.617	-31.67	-13.947	PASS
			24689.7	-45.659	-31.87	-13.789	PASS
	11		2483.50	-47.625	-32.32	-15.305	PASS
			24723.5	-45.573	-32.32	-13.253	PASS
IEEE 802.11n_20	1		2398.92	-46.037	-31.25	-14.787	PASS
			2400.00	-47.327	-31.25	-16.077	PASS
	6		24741.6	-45.100	-31.25	-13.850	PASS
			24687.3	-45.701	-31.81	-13.891	PASS
	11		2483.50	-48.714	-32.45	-16.264	PASS
			24935.7	-45.565	-32.45	-13.115	PASS
Note: input compensation coefficient (dB)= Cable Loss (dB)							

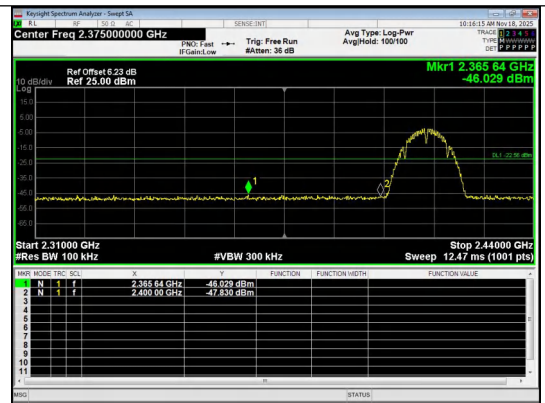
Note: input compensation coefficient (dB)= Cable Loss (dB)

Test Graphs



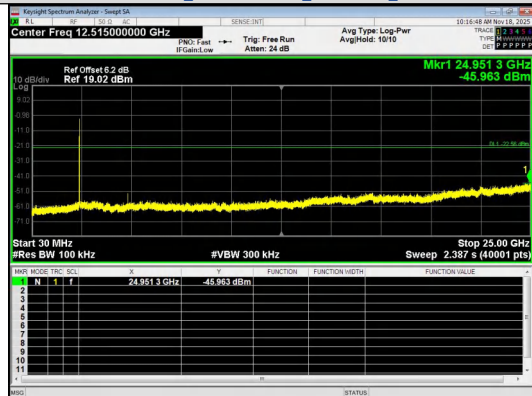
In-Band Reference Level

IEEE 802.11b_Channel 1_20MHz_Antenna 0



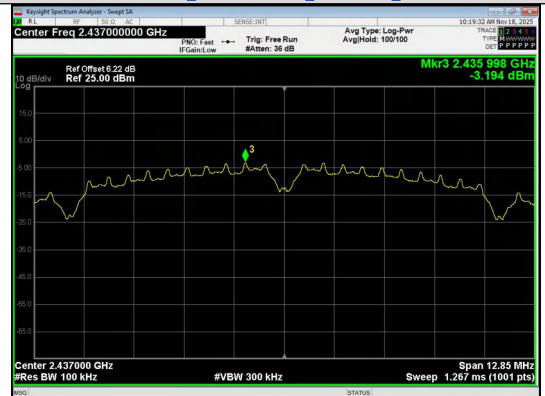
Out Of Band Emission

IEEE 802.11b_Channel 1_20MHz_Antenna 0



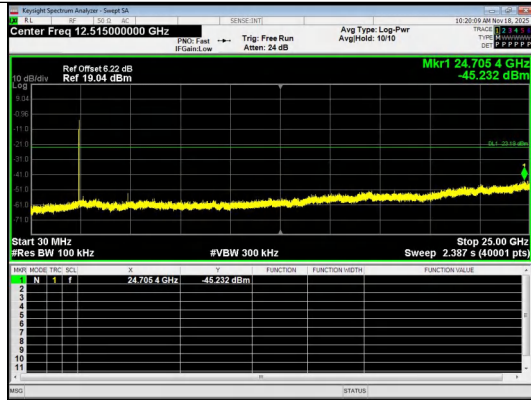
30.0 MHz - 25000.0 MHz

IEEE 802.11b_Channel 1_20MHz_Antenna 0

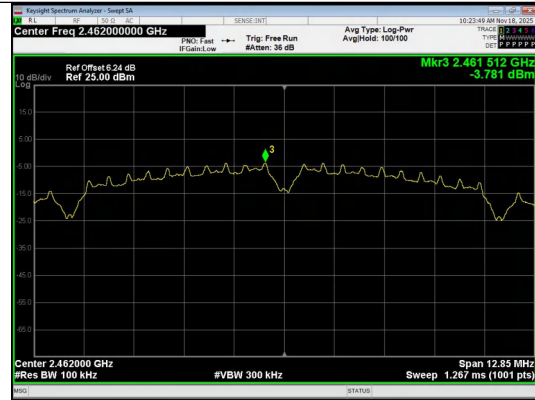


In-Band Reference Level

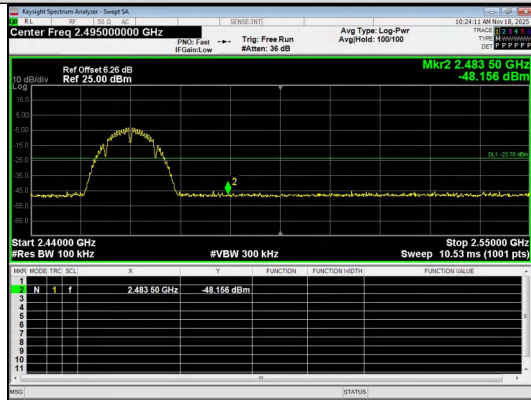
IEEE 802.11b_Channel 6_20MHz_Antenna 0



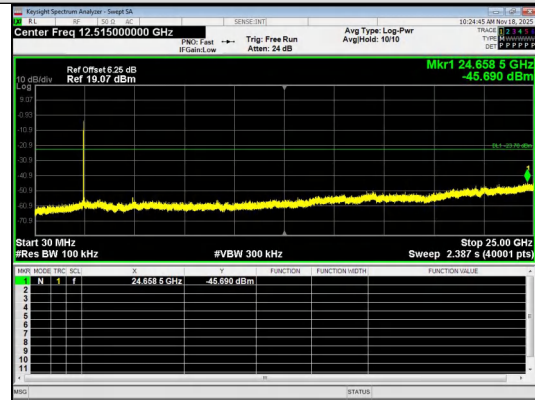
30.0 MHz - 25000.0 MHz
IEEE 802.11b_Channel 6_20MHz_Antenna 0



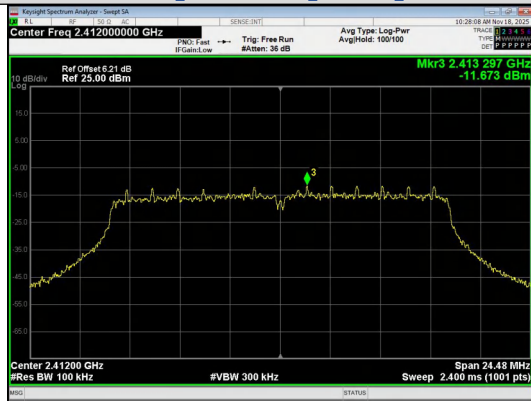
In-Band Reference Level
IEEE 802.11b_Channel 11_20MHz_Antenna 0



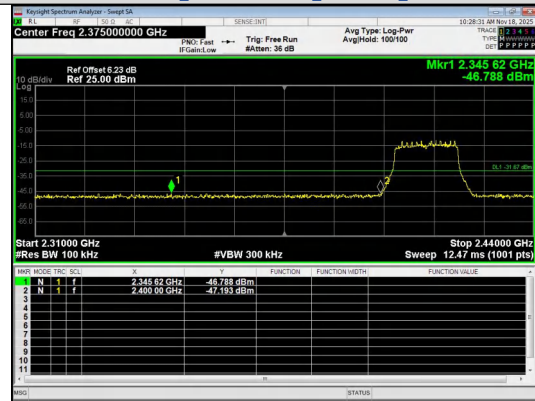
Out Of Band Emission
IEEE 802.11b_Channel 11_20MHz_Antenna 0



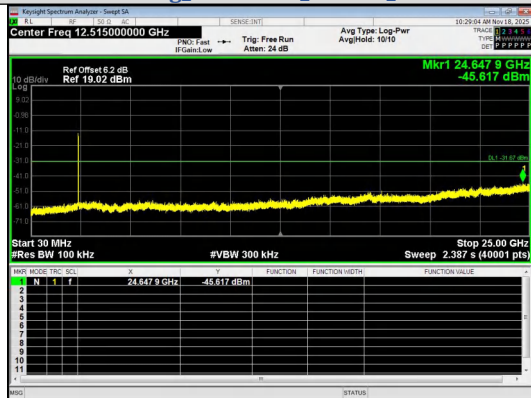
30.0 MHz - 25000.0 MHz
IEEE 802.11b_Channel 11_20MHz_Antenna 0



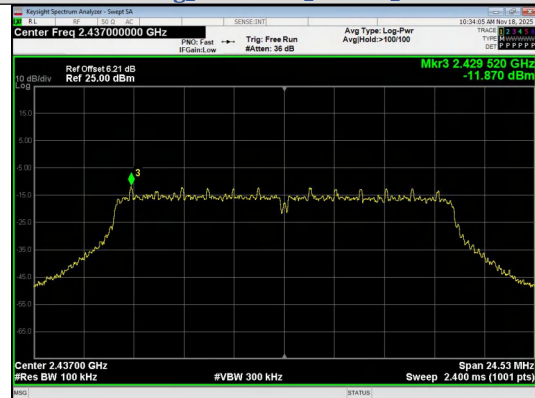
In-Band Reference Level
IEEE 802.11g_Channel 1_20MHz_Antenna 0



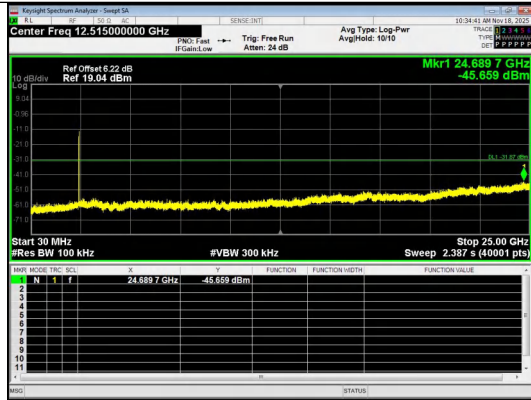
Out Of Band Emission
IEEE 802.11g_Channel 1_20MHz_Antenna 0



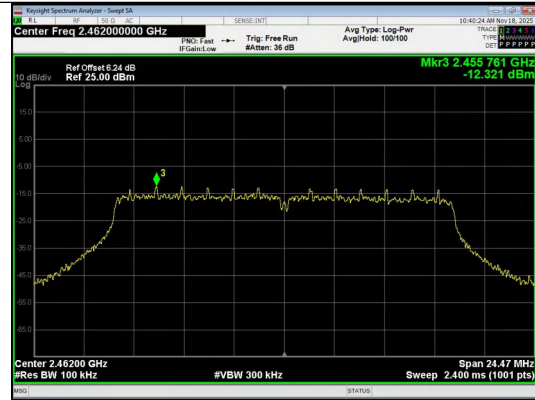
30.0 MHz - 25000.0 MHz
IEEE 802.11g_Channel 1_20MHz_Antenna 0



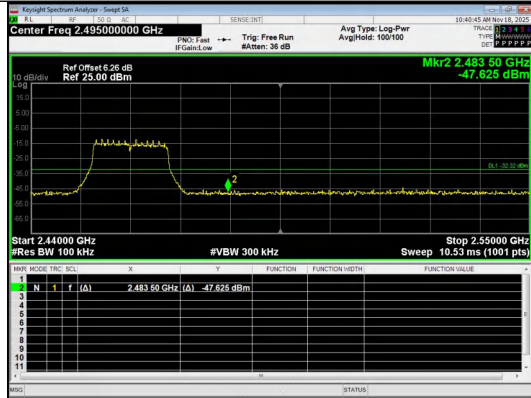
In-Band Reference Level
IEEE 802.11g_Channel 6_20MHz_Antenna 0



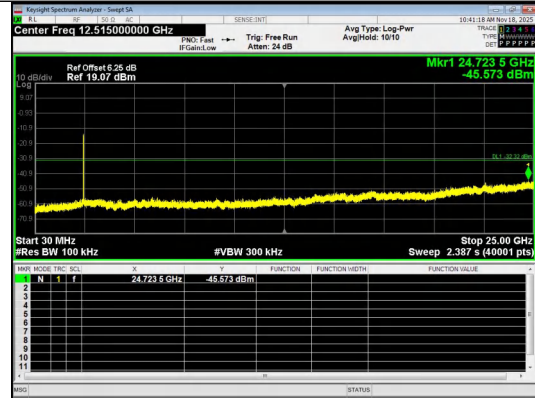
30.0 MHz - 25000.0 MHz
IEEE 802.11g_Channel 6_20MHz_Antenna 0



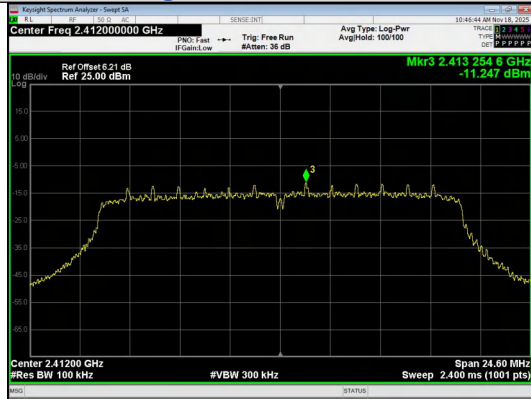
In-Band Reference Level
IEEE 802.11g_Channel 11_20MHz_Antenna 0



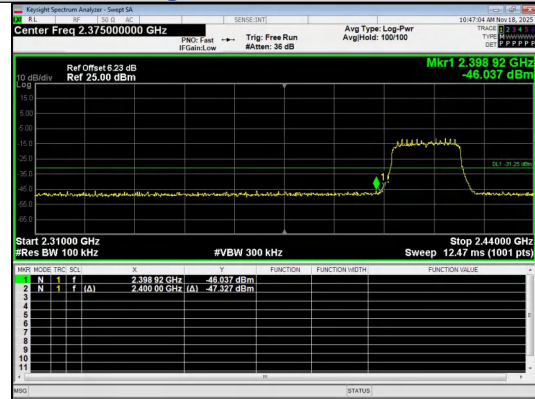
Out Of Band Emission
IEEE 802.11g_Channel 11_20MHz_Antenna 0



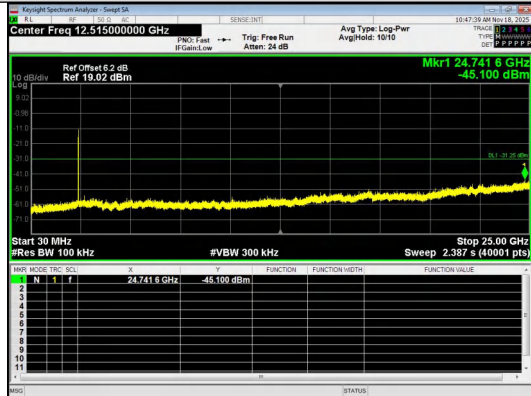
30.0 MHz - 25000.0 MHz
IEEE 802.11g_Channel 11_20MHz_Antenna 0



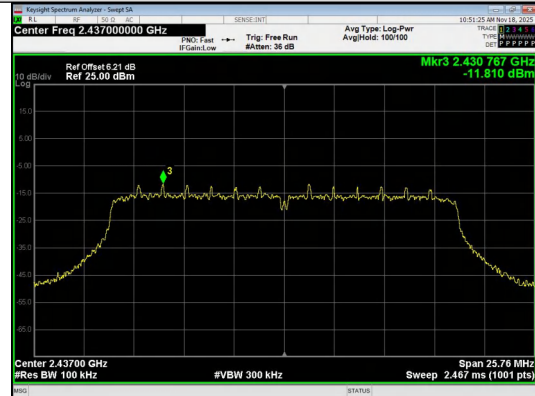
In-Band Reference Level
IEEE 802.11n_Channel 1_20MHz_Antenna 0



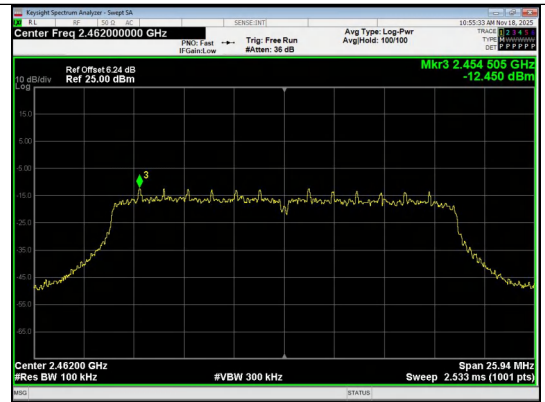
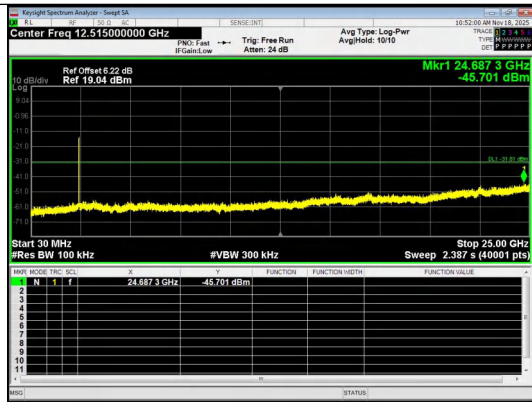
Out Of Band Emission
IEEE 802.11n_Channel 1_20MHz_Antenna 0



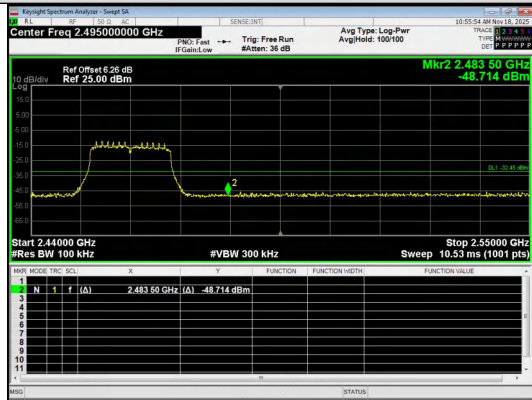
30.0 MHz - 25000.0 MHz
IEEE 802.11n_Channel 1_20MHz_Antenna 0



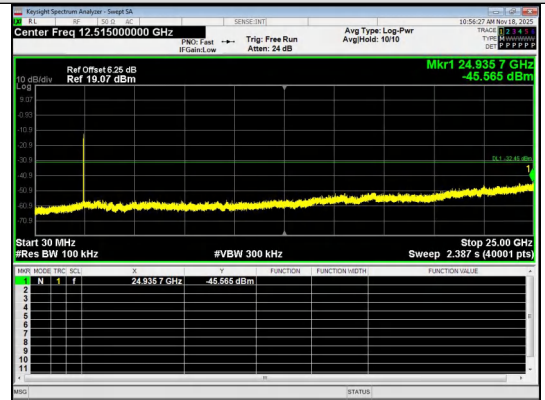
In-Band Reference Level
IEEE 802.11n_Channel 6_20MHz_Antenna 0



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

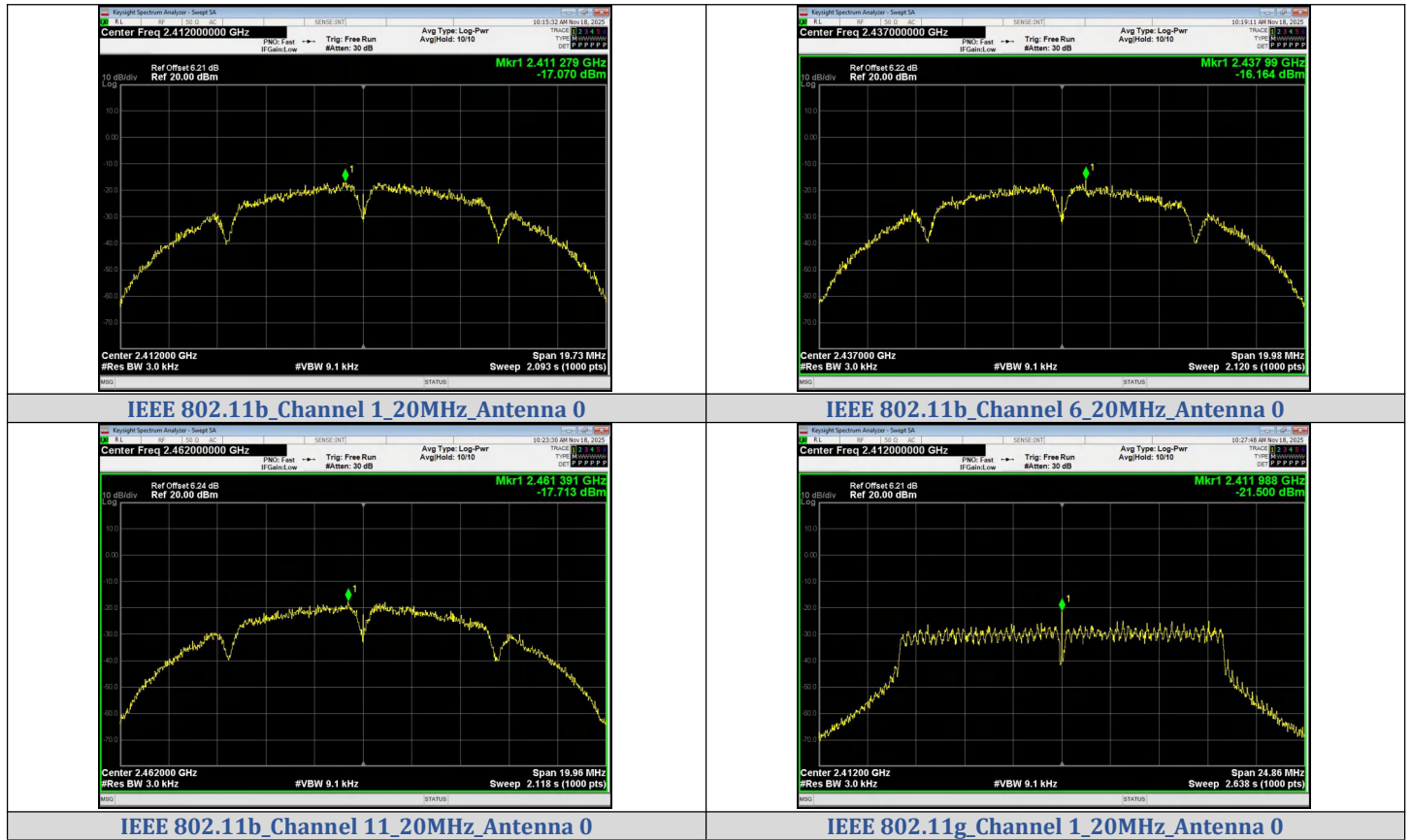
30.0 MHz - 25000.0 MHz IEEE 802.11n_Channel 11_20MHz_Antenna 0

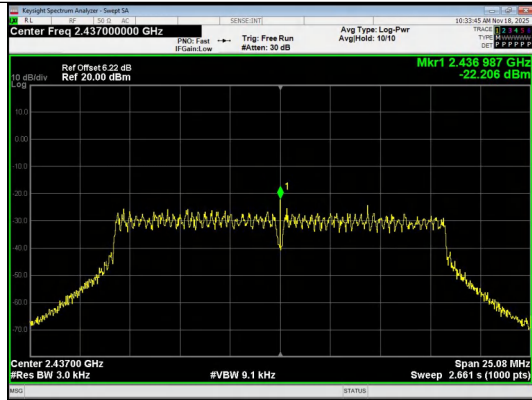
Power Spectral Density

Test Result

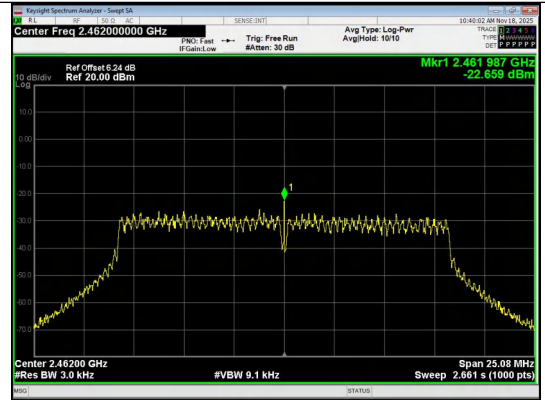
Mode	Channel	PSD (dBm/3kHz) Ant. 0	Limit (dBm/3kHz)	Result
IEEE 802.11b	1	-17.070	≤8	PASS
	6	-16.160		PASS
	11	-17.710		PASS
IEEE 802.11g	1	-21.500		PASS
	6	-22.210		PASS
	11	-22.660		PASS
IEEE 802.11n_20	1	-21.440		PASS
	6	-22.110		PASS
	11	-22.600		PASS

Test Graphs

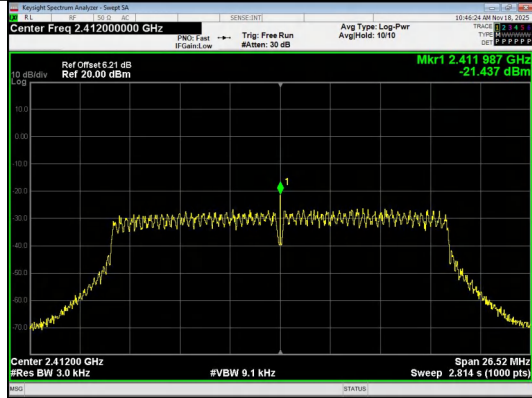




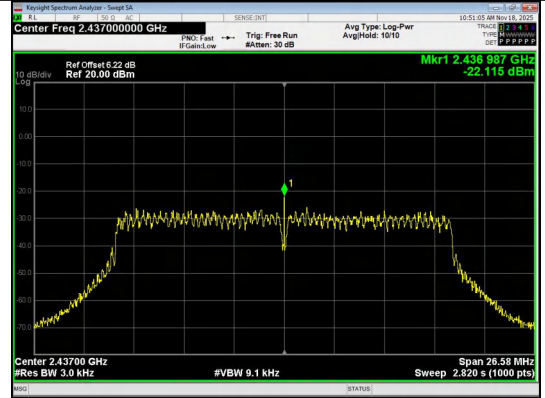
IEEE 802.11g_Channel 6_20MHz_Antenna 0



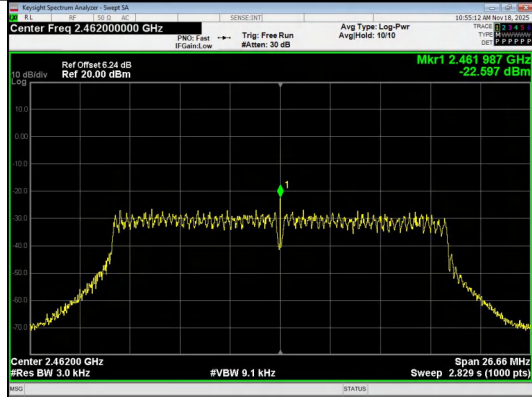
IEEE 802.11g_Channel 11_20MHz_Antenna 0



IEEE 802.11n_Channel 1_20MHz_Antenna 0



IEEE 802.11n_Channel 6_20MHz_Antenna 0



IEEE 802.11n_Channel 11_20MHz_Antenna 0