

Appendix RF test data for WIFI2.4G



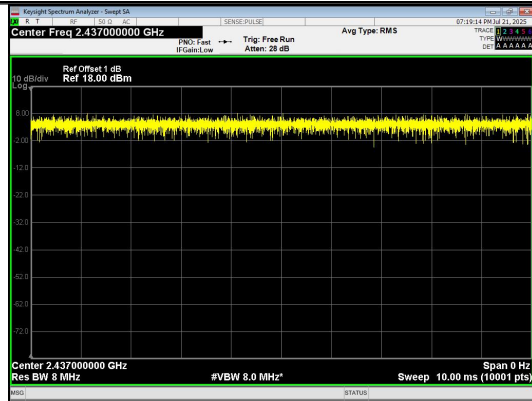
Duty Cycle

Test Result

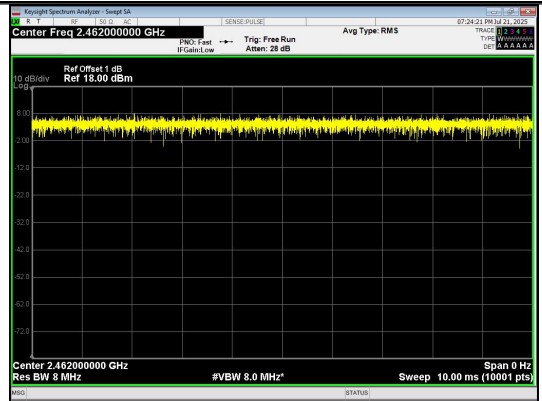
Mode	Data rates	Channel	Antenna	On Time (ms)	Period (ms)	Duty Cycle (%)	Duty Cycle (linear)	Duty Cycle Factor (dB)	1/T
IEEE 802.11b	1	1	1	32.000	32.000	100	1	0.0	0.0312
		6		32.000	32.000	100	1	0.0	0.0312
		11		32.000	32.000	100	1	0.0	0.0312
IEEE 802.11g		1		10.000	10.000	100	1	0.0	0.1000
		6		10.000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

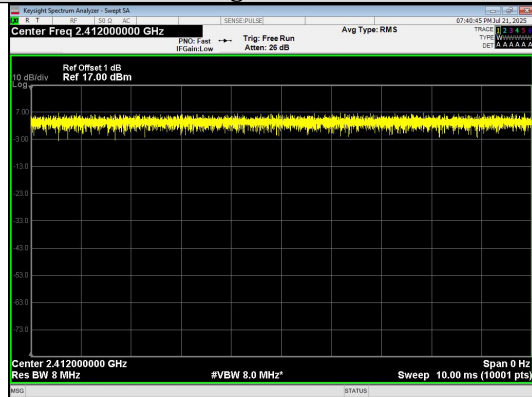




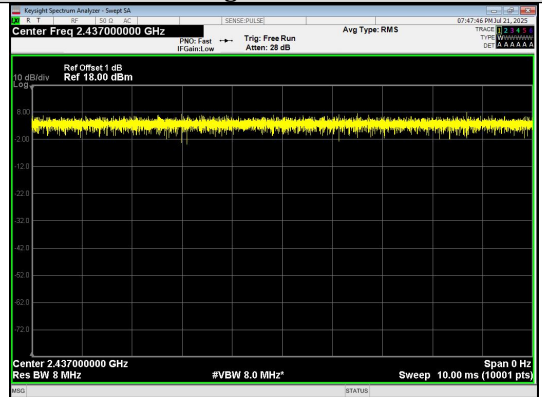
IEEE 802.11g_20MHz_Channel 6



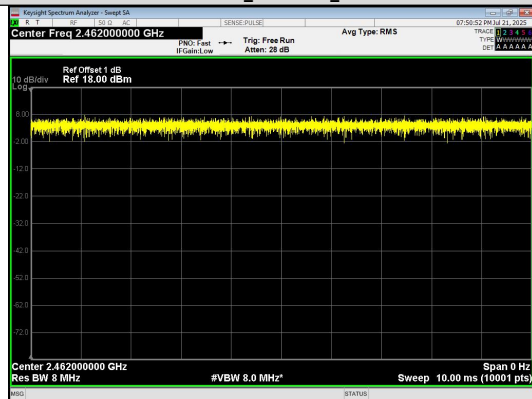
IEEE 802.11g_20MHz_Channel 11



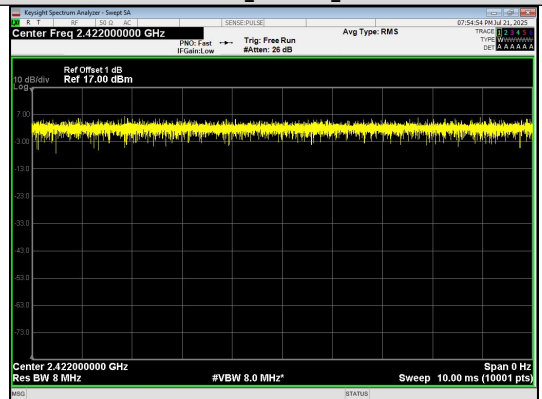
IEEE 802.11n_20MHz_Channel 1



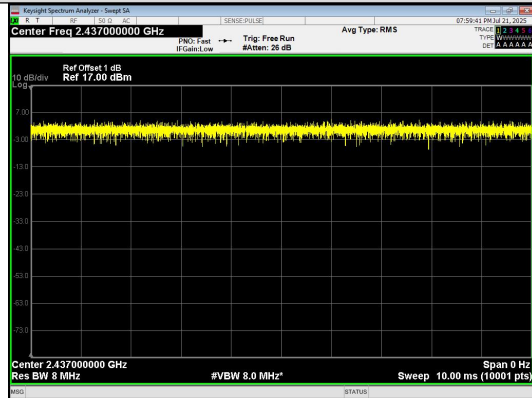
IEEE 802.11n_20MHz_Channel 6



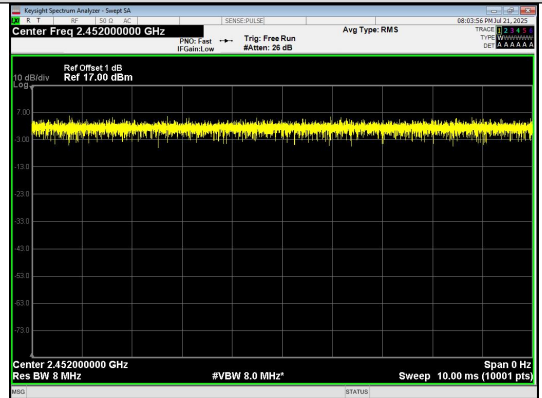
IEEE 802.11n_20MHz_Channel 11



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	13.43	≤30	PASS
	6	13.58	≤30	PASS
	11	13.32	≤30	PASS
IEEE 802.11g	1	13.97	≤30	PASS
	6	14.03	≤30	PASS
	11	13.67	≤30	PASS
IEEE 802.11n_20	1	13.68	≤30	PASS
	6	13.94	≤30	PASS
	11	13.66	≤30	PASS
IEEE 802.11n_40	3	14.08	≤30	PASS
	6	14.34	≤30	PASS
	9	14.00	≤30	PASS

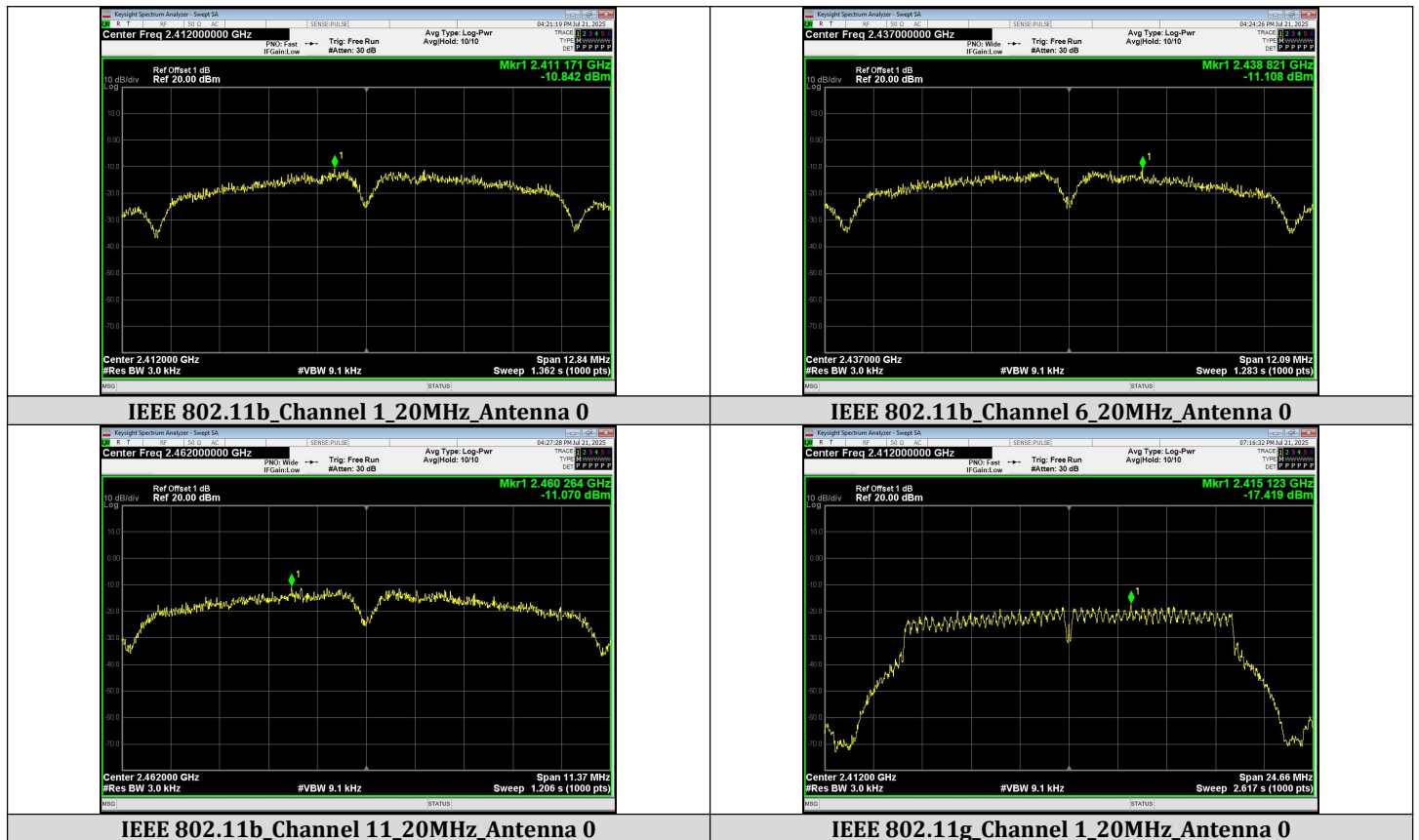


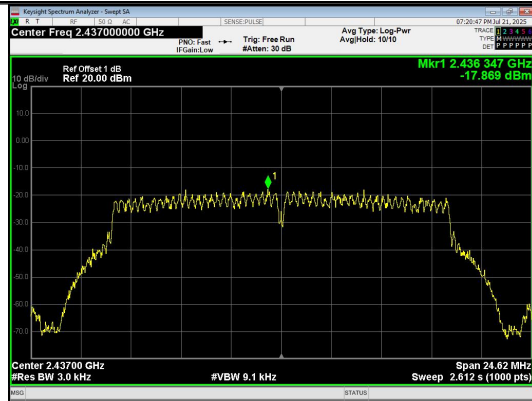
Power Spectral Density

Test Result

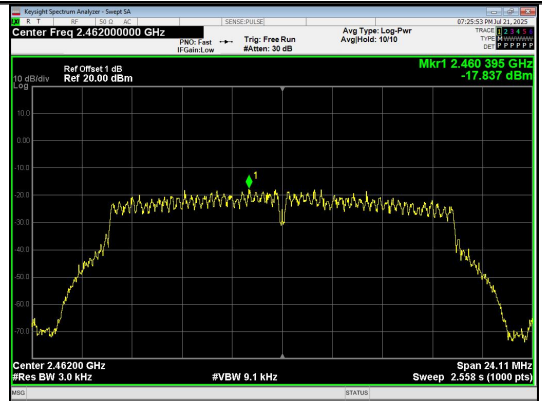
Mode	Channel	PSD (dBm/3kHz) Ant. 0	Limit (dBm/3kHz)	Result
IEEE 802.11b	1	-10.840	≤8	PASS
	6	-11.110		PASS
	11	-11.070		PASS
IEEE 802.11g	1	-17.420		PASS
	6	-17.870		PASS
	11	-17.840		PASS
IEEE 802.11n_20	1	-18.040		PASS
	6	-18.230		PASS
	11	-17.780		PASS
IEEE 802.11n_40	3	-19.580		PASS
	6	-21.010		PASS
	9	-19.560		PASS

Test Graphs

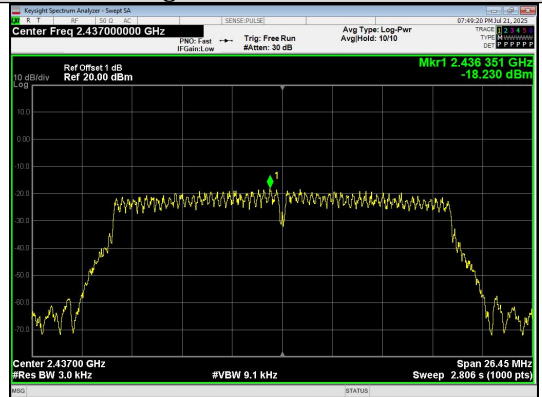
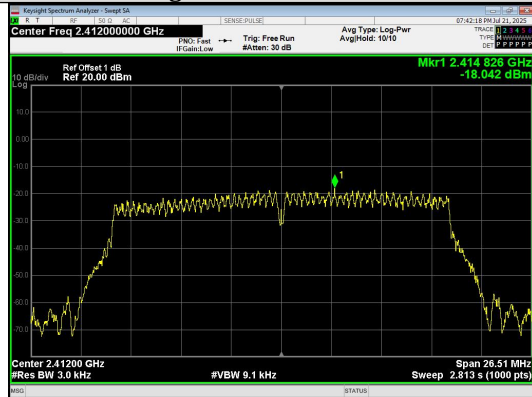




IEEE 802.11g_Channel 6_20MHz_Antenna 0

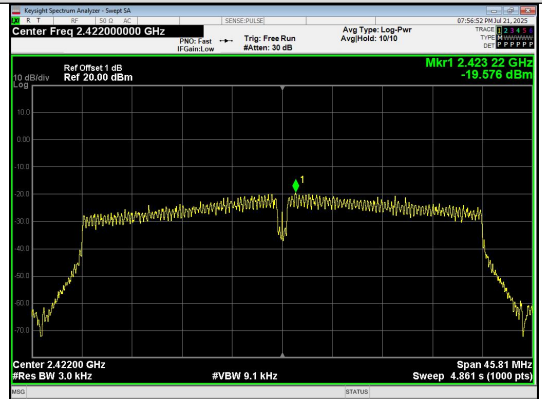
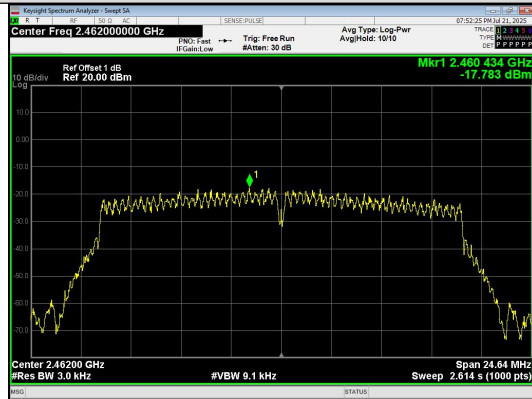


IEEE 802.11g_Channel 11_20MHz_Antenna 0



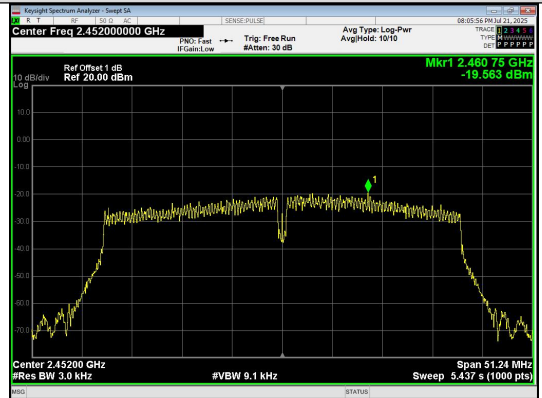
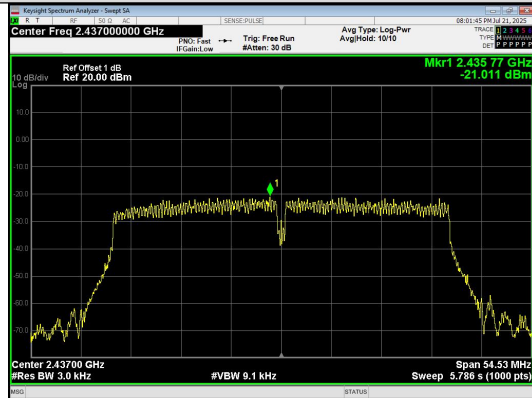
IEEE 802.11n_Channel 1_20MHz_Antenna 0

IEEE 802.11n_Channel 6_20MHz_Antenna 0



IEEE 802.11n_Channel 11_20MHz_Antenna 0

IEEE 802.11n_Channel 3_40MHz_Antenna 0

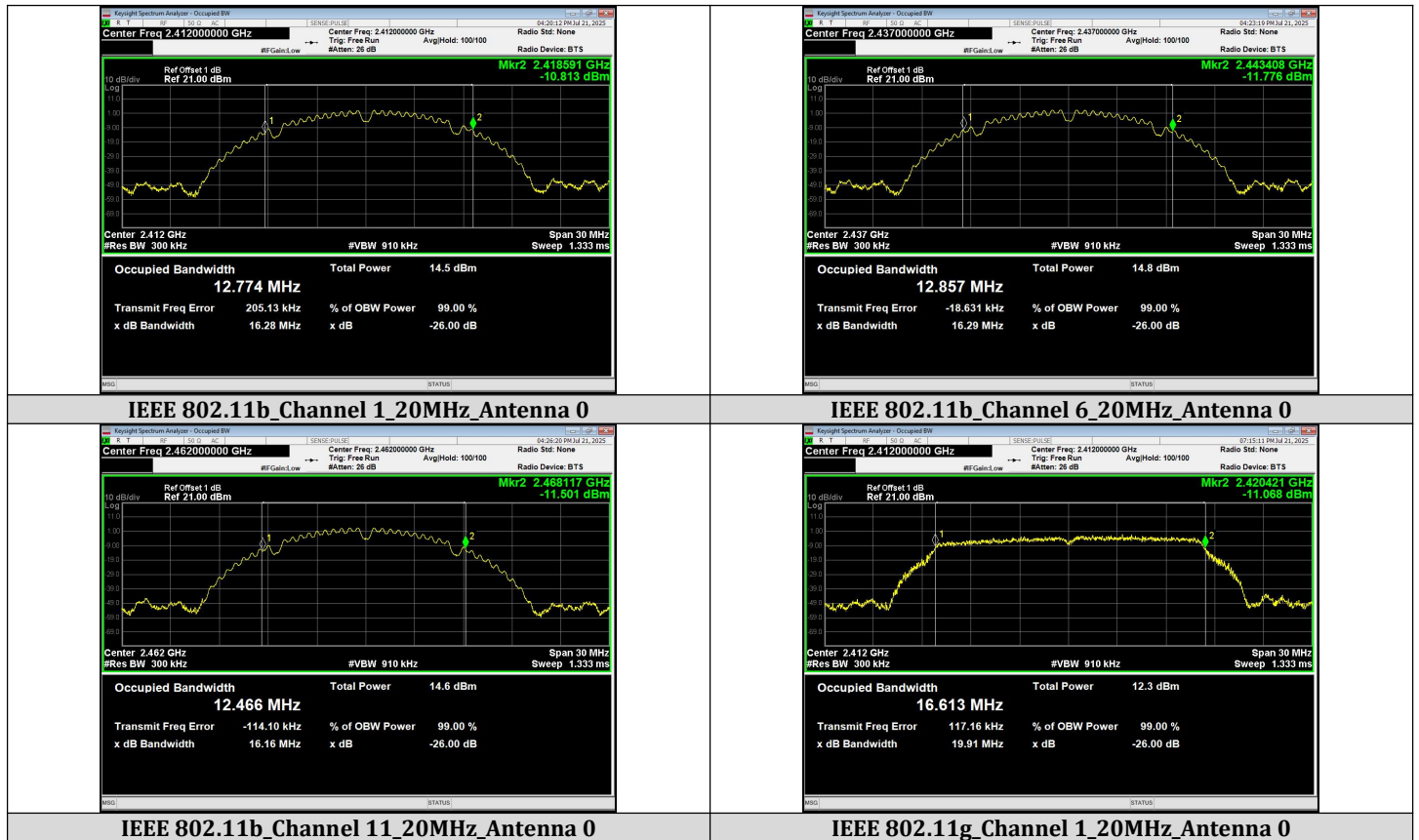


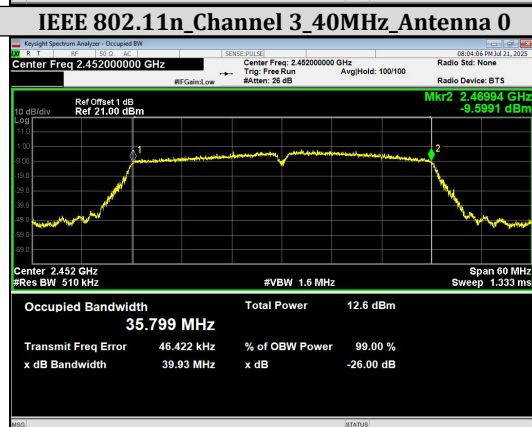
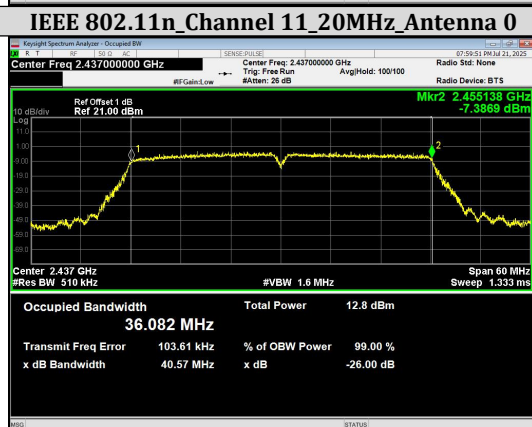
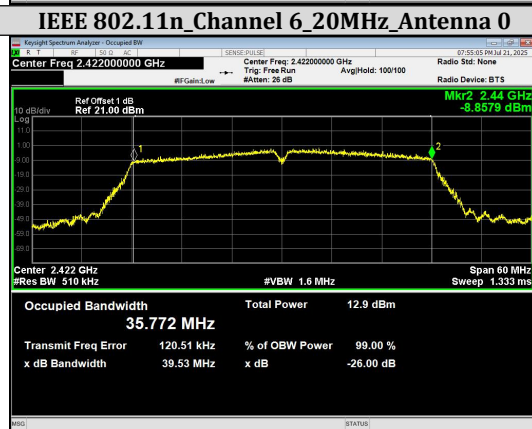
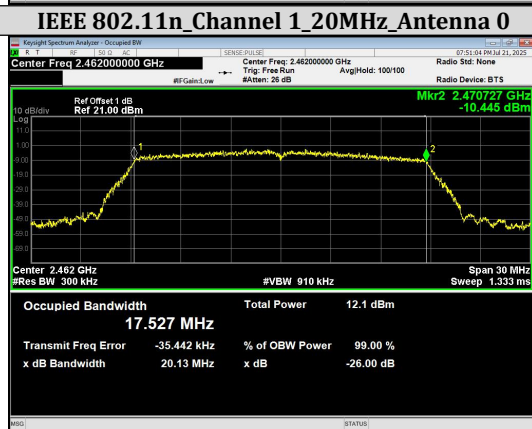
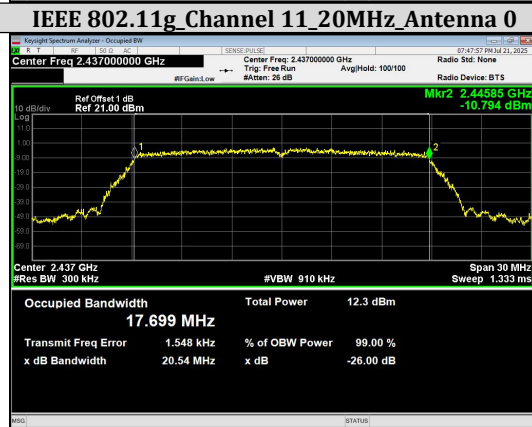
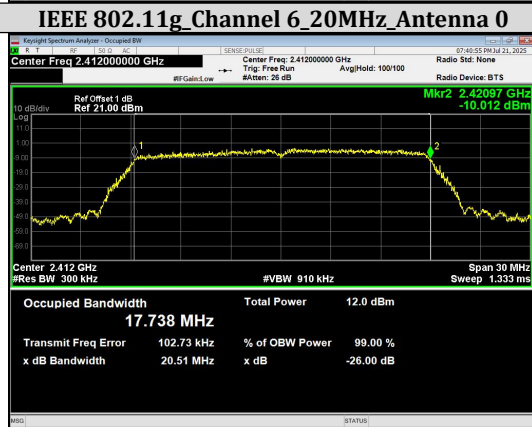
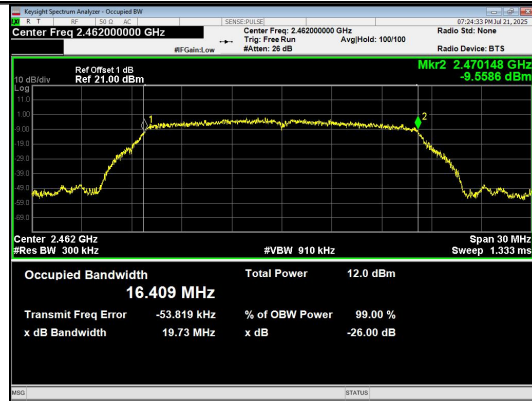
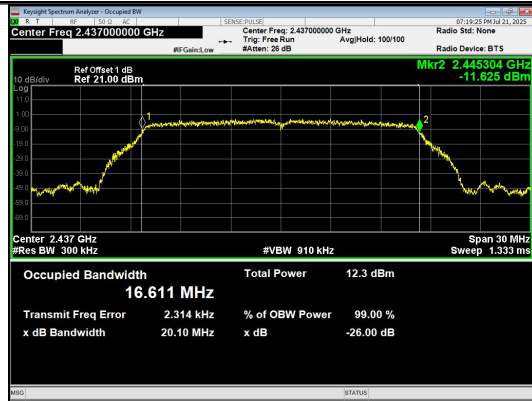
IEEE 802.11n_Channel 6_40MHz_Antenna 0

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	12.774
	6		2437	12.857
	11		2462	12.466
IEEE 802.11g	1		2412	16.613
	6		2437	16.611
	11		2462	16.409
IEEE 802.11n_20	1		2412	17.738
	6		2437	17.699
	11		2462	17.527
IEEE 802.11n_40	3		2422	35.772
	6		2437	36.082
	9		2452	35.799

Test Graphs



IEEE 802.11n_Channel 6_40MHz_Antenna 0

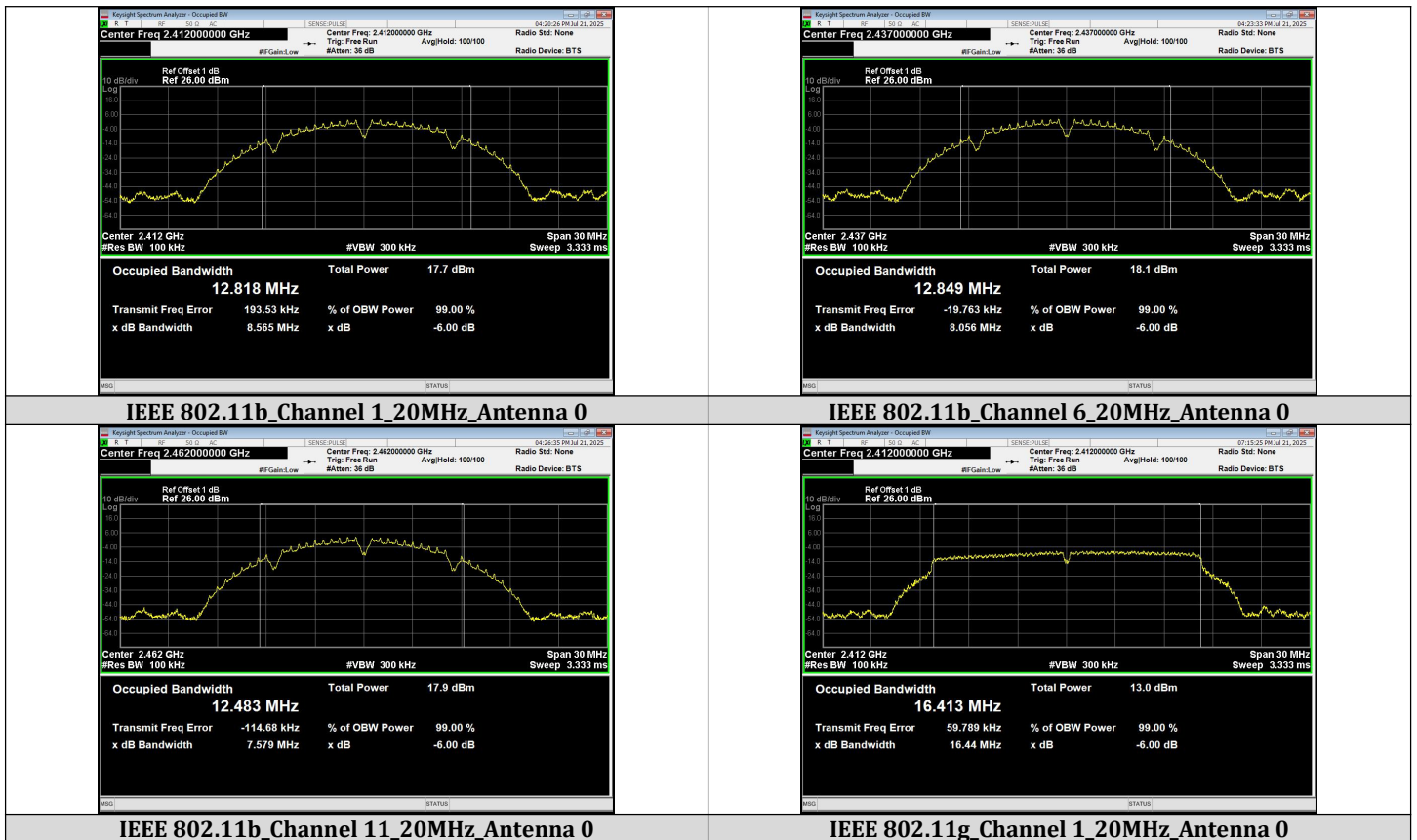
IEEE 802.11n_Channel 9_40MHz_Antenna 0

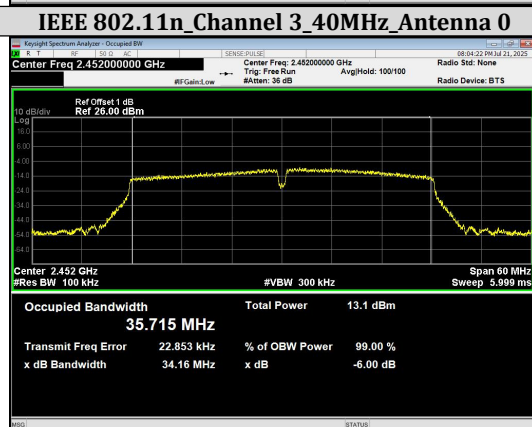
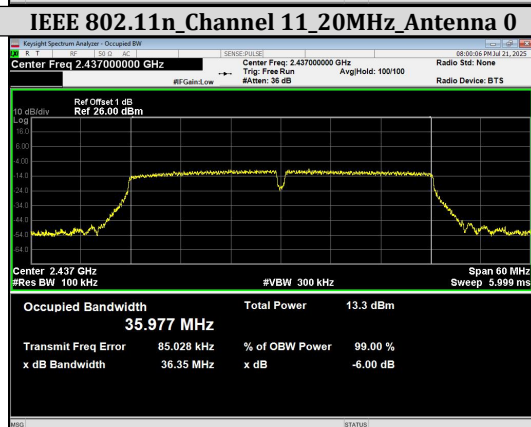
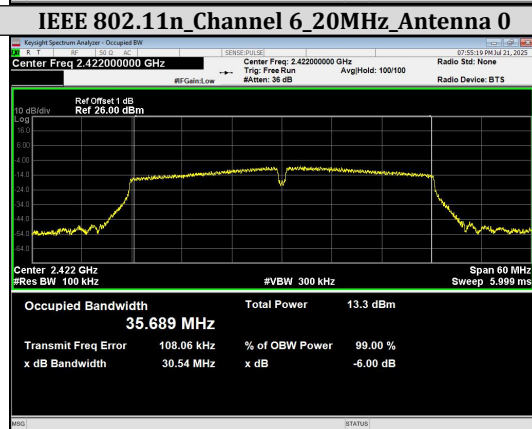
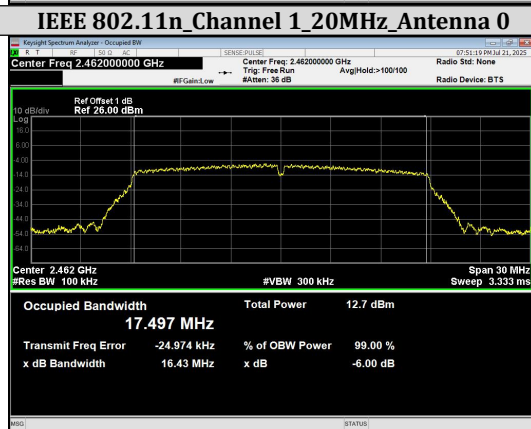
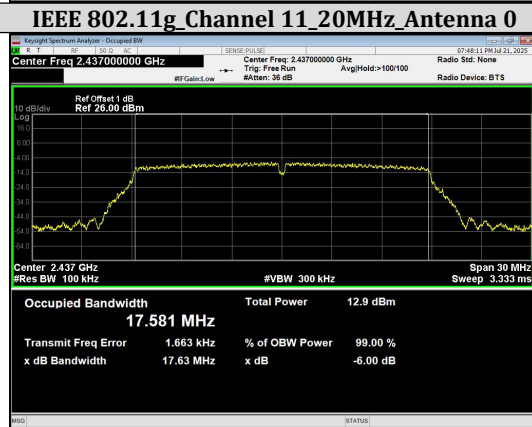
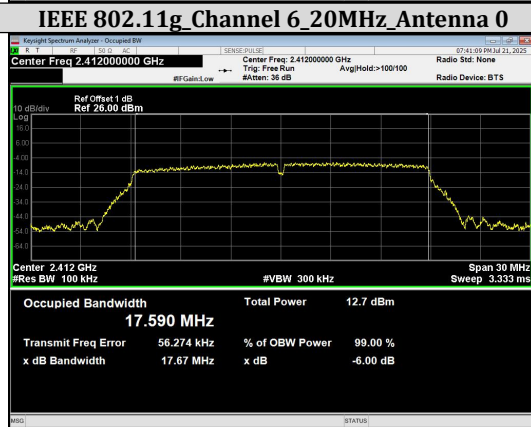
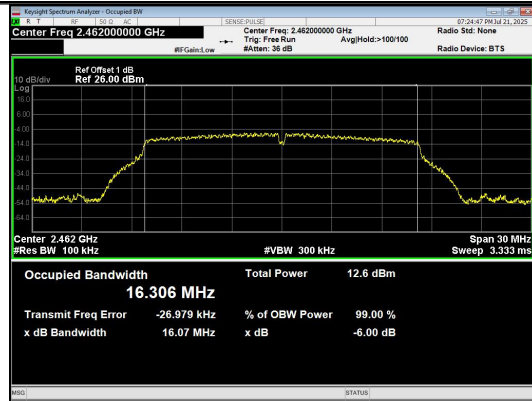
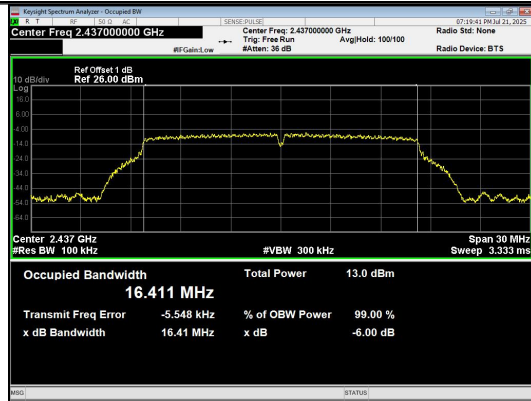
6dB Bandwidth

Test Result

Mode	Channel	Ant.	Center Frequency (MHz)	6 dB Bandwidth (MHz)	Limit (MHz)	Result
IEEE 802.11b	1	0	2412	8.560	≥0.5	PASS
	6		2437	8.060		PASS
	11		2462	7.580		PASS
IEEE 802.11g	1		2412	16.44		PASS
	6		2437	16.41		PASS
	11		2462	16.07		PASS
IEEE 802.11n_20	1		2412	17.67		PASS
	6		2437	17.63		PASS
	11		2462	16.43		PASS
IEEE 802.11n_40	3		2422	30.54		PASS
	6		2437	36.35		PASS
	9		2452	34.16		PASS

Test Graphs



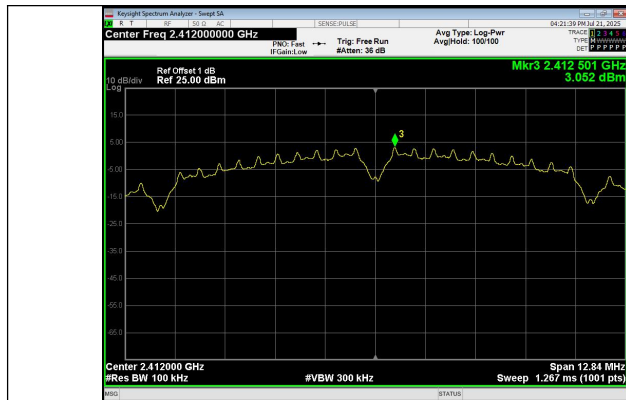


IEEE 802.11n_Channel 6_40MHz_Antenna 0

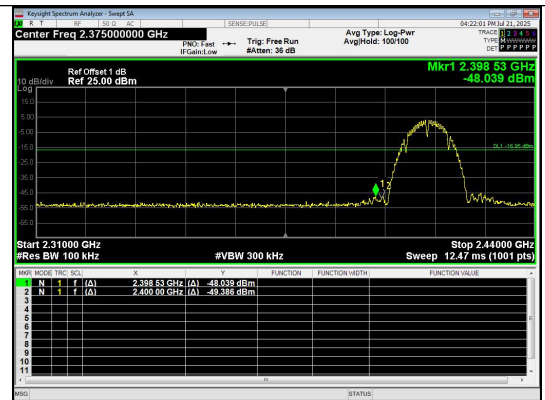
IEEE 802.11n_Channel 9_40MHz_Antenna 0

**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	-48.039	-16.95	-31.089	PASS	
			2400.00	-49.390	-16.95	-32.440	PASS	
			24972.5	-40.240	-16.95	-23.290	PASS	
	6		24982.5	-39.653	-16.68	-22.973	PASS	
			11	2483.50	-53.420	-16.82	-36.600	PASS
				24957.5	-40.370	-16.82	-23.550	PASS
IEEE 802.11g	1			2400.00	-47.870	-26.19	-21.680	PASS
			24971.3	-39.769	-26.19	-13.579	PASS	
			6	24998.8	-39.418	-25.88	-13.538	PASS
	11			2483.50	-53.370	-26.13	-27.240	PASS
				24331.4	-38.600	-26.13	-12.470	PASS
			IEEE 802.11n_20	1	2400.00	-47.750	-26.72	-21.030
24968.2	-39.668				-26.72	-12.948	PASS	
6	24986.3				-39.754	-26.71	-13.044	PASS
	11			2483.50	-52.620	-26.26	-26.360	PASS
				24863.9	-39.916	-26.26	-13.656	PASS
IEEE 802.11n_40				3	2397.62	-49.316	-27.89	-21.426
	2400.00		-52.010		-27.89	-24.120	PASS	
	24782.8		-40.026		-27.89	-12.136	PASS	
	6		24943.2	-39.825	-29.54	-10.285	PASS	
			9	2483.50	-52.040	-28.15	-23.890	PASS
				24957.5	-39.900	-28.15	-11.750	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