

Appendix-2.4G WiFi Test Data

Conducted Test Data

Conducted Output Power

Test Result

Mode	Channel	Peak Output Power (dBm)	Peak Power Limit (dBm)	EIRP (dBm)	EIRP Limit (dBm)	Result
IEEE 802.11b	1	17.47	≤30	20.17	≤36	PASS
	6	17.62	≤30	20.32	≤36	PASS
	11	17.80	≤30	20.50	≤36	PASS
IEEE 802.11g	1	21.70	≤30	24.40	≤36	PASS
	6	21.46	≤30	24.16	≤36	PASS
	11	21.62	≤30	24.32	≤36	PASS
IEEE 802.11n_20	1	21.62	≤30	24.32	≤36	PASS
	6	21.62	≤30	24.32	≤36	PASS
	11	21.81	≤30	24.51	≤36	PASS
IEEE 802.11n_40	3	20.39	≤30	23.09	≤36	PASS
	6	20.40	≤30	23.10	≤36	PASS
	9	20.58	≤30	23.28	≤36	PASS

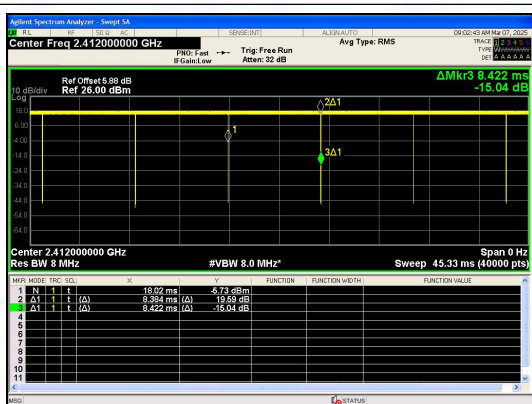
Note: $EIRP = P_{out} + G_{ant}$, where P_{out} is the conducted output power (i.e., the Peak Output Power in the table), and G_{ant} is the antenna gain equal to 2.7 dBi.

Duty Cycle

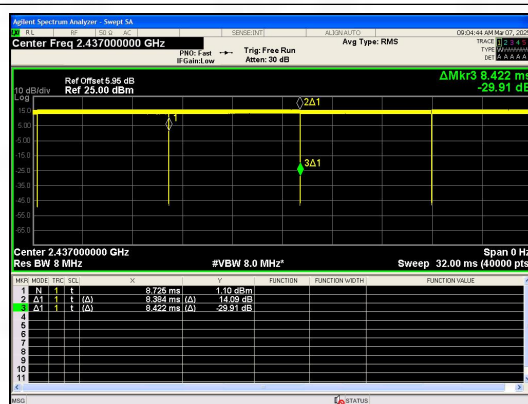
Test Result

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	8.384	8.422	99.56	0.9956	0.0192	0.1193
		6		8.384	8.422	99.55	0.9955	0.0196	0.1193
		11		8.384	8.421	99.56	0.9956	0.0192	0.1193
IEEE 802.11g	6	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	1.437	97.15	0.9715	0.1256	0.7163
IEEE 802.11n_20	MCS 0	1		1.303	1.345	96.91	0.9691	0.1363	0.7675
		6		1.303	1.345	96.86	0.9686	0.1386	0.7675
		11		1.303	1.345	96.86	0.9686	0.1386	0.7675
IEEE 802.11n_40		3		0.650	0.693	93.87	0.9387	0.2747	1.5385
		6		0.651	0.693	93.94	0.9394	0.2715	1.5361
		9		0.650	0.692	93.94	0.9394	0.2715	1.5385

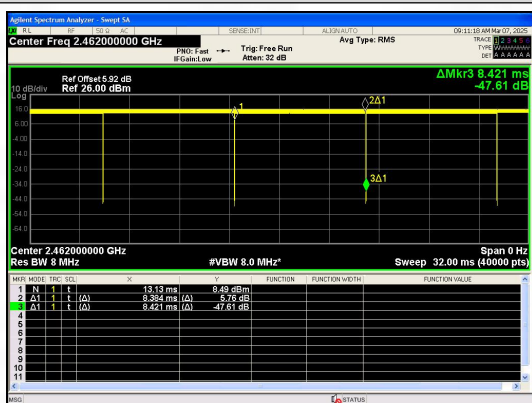
Test Graphs



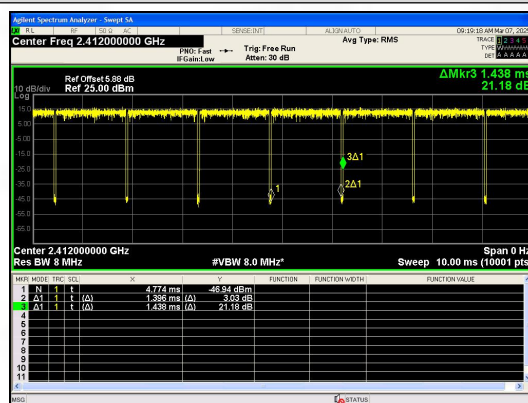
IEEE 802.11b_20MHz_Channel 1



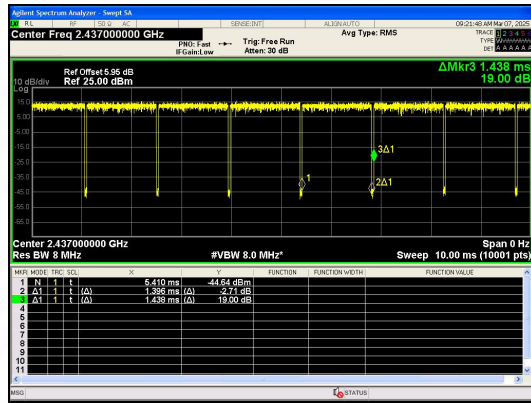
IEEE 802.11b_20MHz_Channel 6



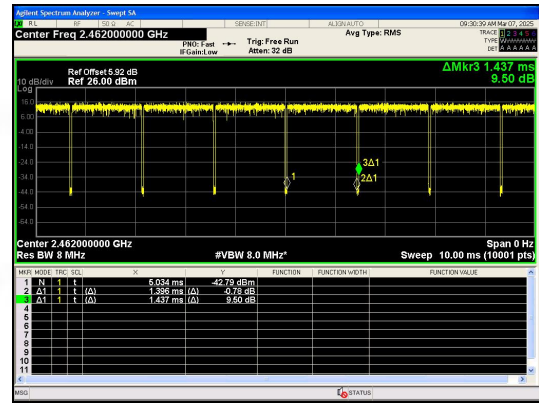
IEEE 802.11b_20MHz_Channel 11



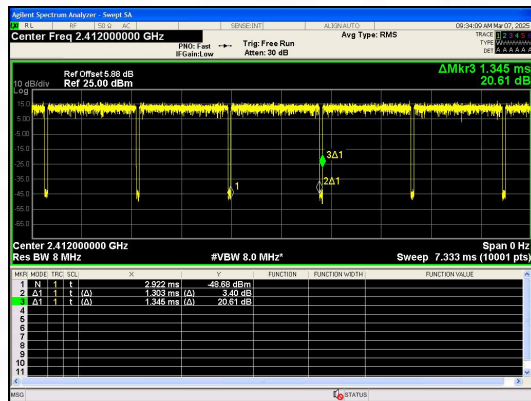
IEEE 802.11g_20MHz_Channel 1



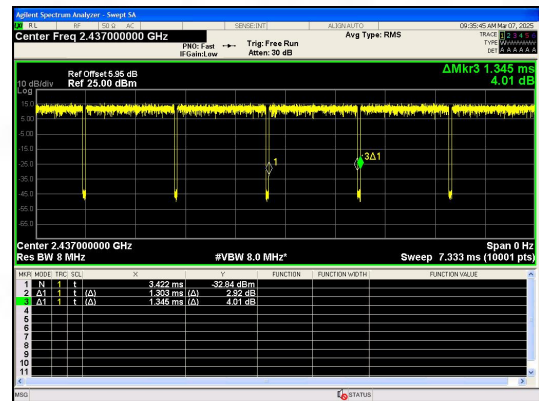
IEEE 802.11g_20MHz_Channel 6



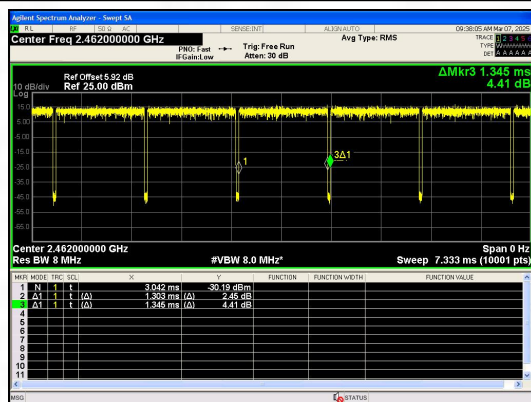
IEEE 802.11g_20MHz_Channel 11



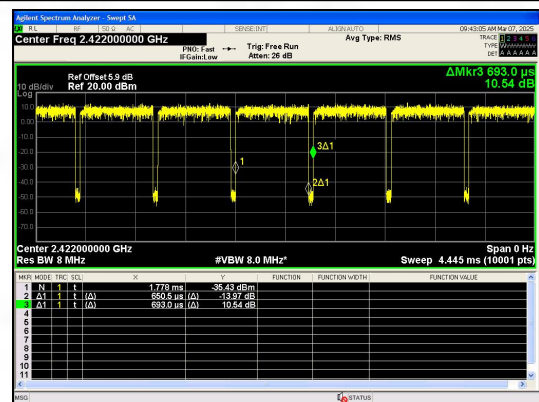
IEEE 802.11n_20MHz_Channel 1



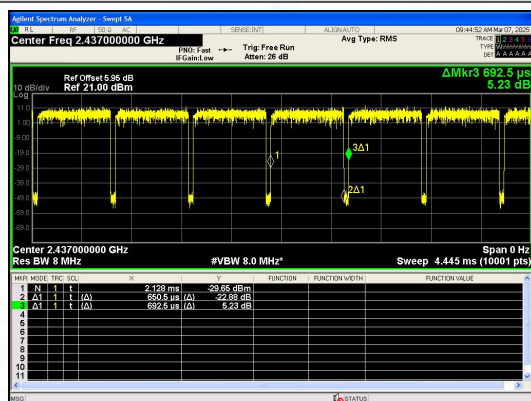
IEEE 802.11n_20MHz_Channel 6



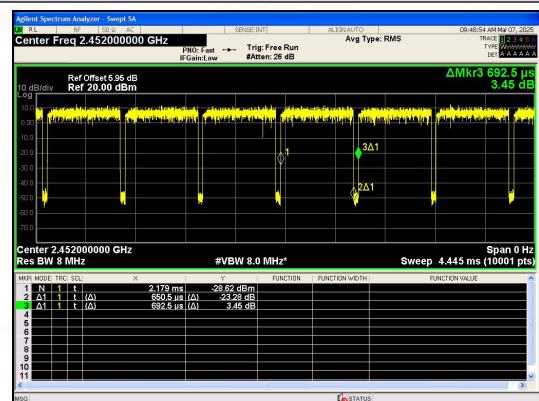
IEEE 802.11n_20MHz_Channel 11



IEEE 802.11n_40MHz_Channel 3



IEEE 802.11n_40MHz_Channel 6



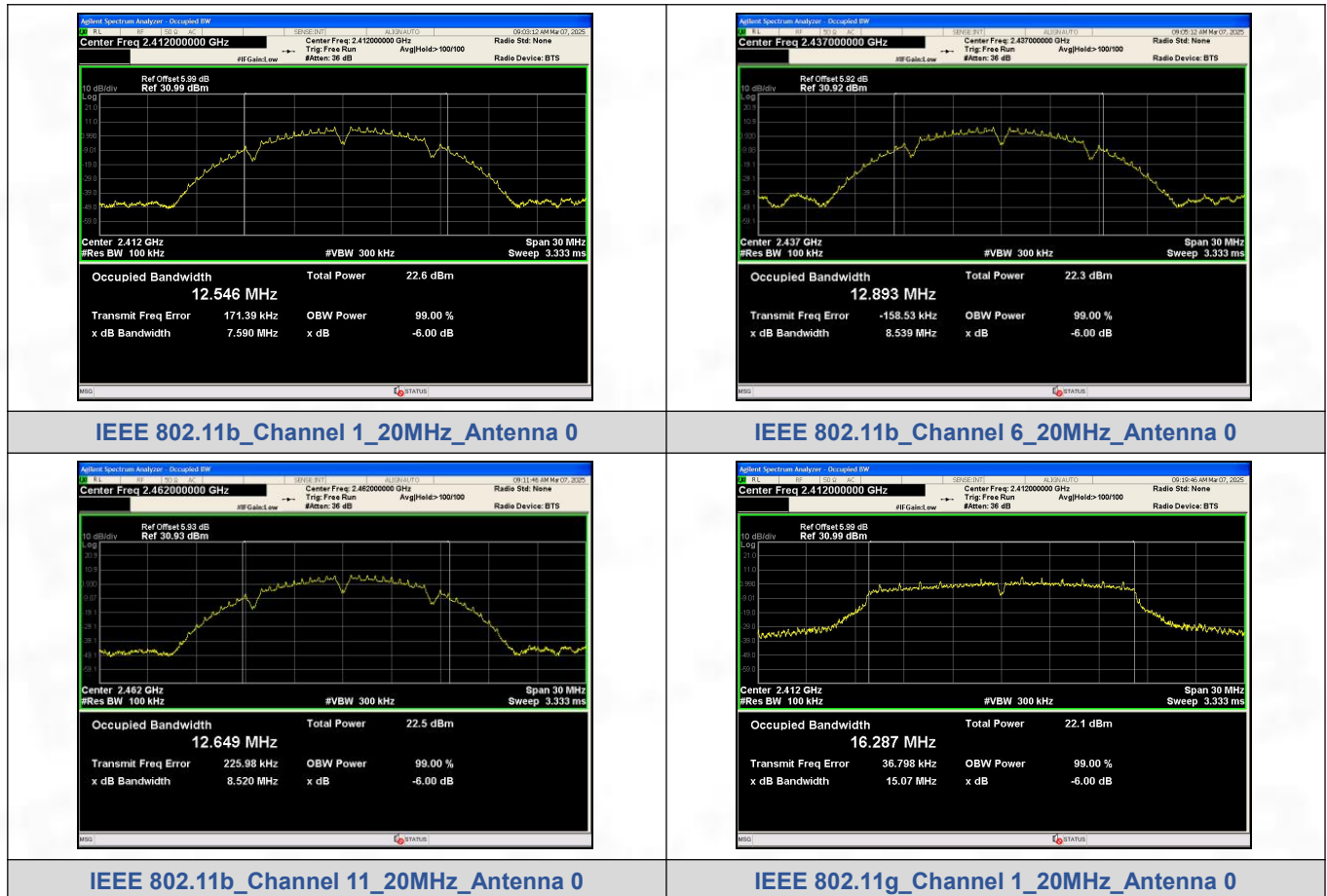
IEEE 802.11n_40MHz_Channel 9

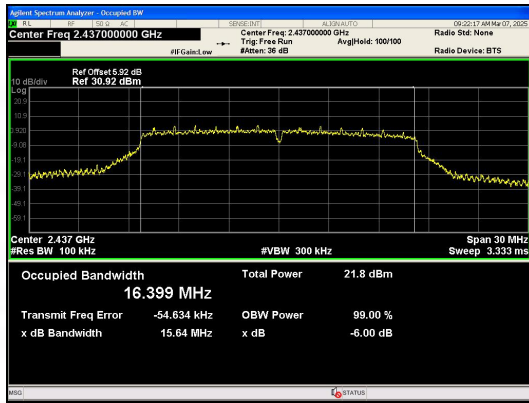
6dB Bandwidth

Test Result

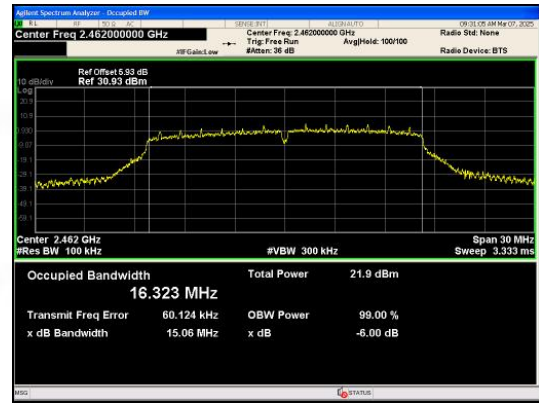
Mode	Channel	Ant.	Center Frequency (MHz)	6 dB Bandwidth (MHz)	Limit (MHz)	Result
IEEE 802.11b	1	0	2412	7.590	≥0.5	PASS
	6		2437	8.539		PASS
	11		2462	8.520		PASS
IEEE 802.11g	1		2412	15.07		PASS
	6		2437	15.64		PASS
	11		2462	15.06		PASS
IEEE 802.11n_20	1		2412	15.09		PASS
	6		2437	16.27		PASS
	11		2462	15.09		PASS
IEEE 802.11n_40	3		2422	31.29		PASS
	6		2437	35.68		PASS
	9		2452	35.69		PASS

Test Graphs

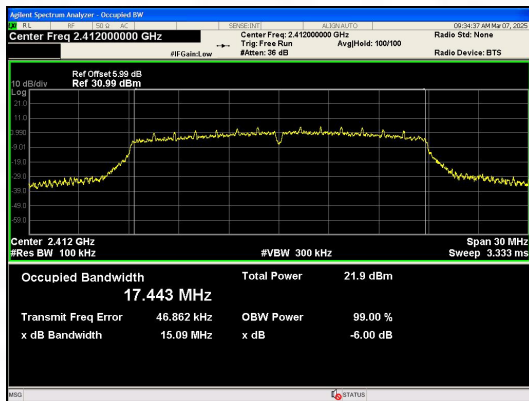




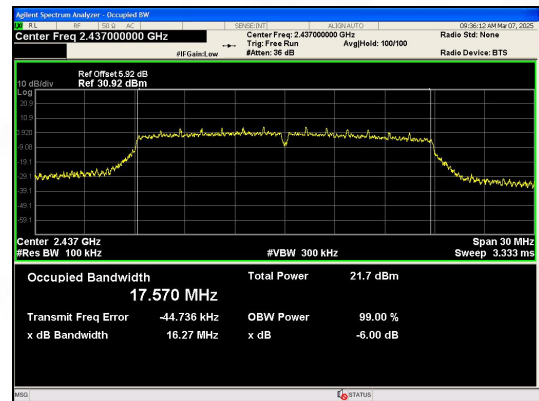
IEEE 802.11g_Channel 6_20MHz_Antenna 0



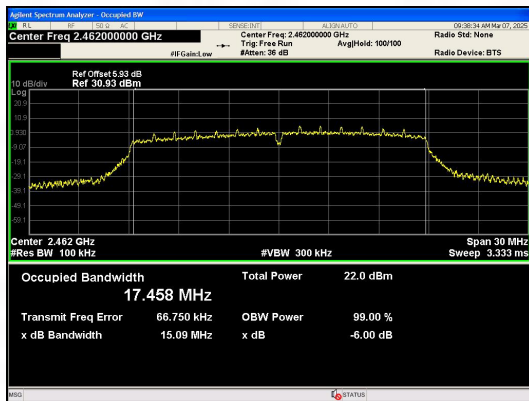
IEEE 802.11g_Channel 11_20MHz_Antenna 0



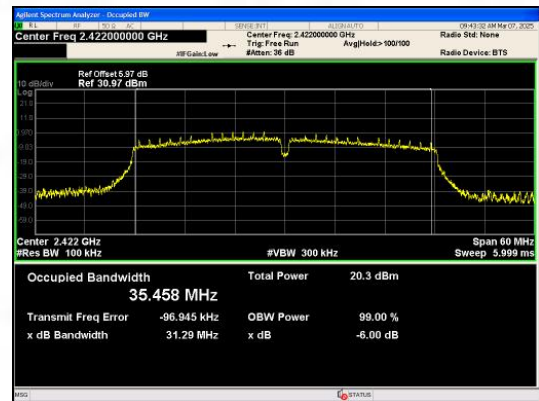
IEEE 802.11n_Channel 1_20MHz_Antenna 0



IEEE 802.11n_Channel 6_20MHz_Antenna 0



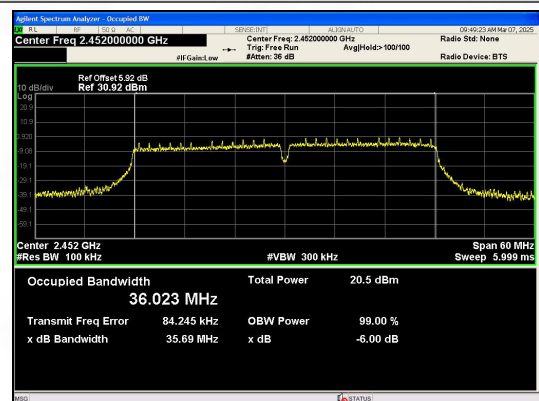
IEEE 802.11n_Channel 11_20MHz_Antenna 0



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	12.546
	6		2437	12.907
	11		2462	12.666
IEEE 802.11g	1		2412	16.438
	6		2437	16.628
	11		2462	16.482
IEEE 802.11n_20	1		2412	17.538
	6		2437	17.734
	11		2462	17.584
IEEE 802.11n_40	3		2422	35.662
	6		2437	36.234
	9		2452	36.275

Test Graphs



IEEE 802.11b_Channel 1_20MHz_Antenna 0



IEEE 802.11b_Channel 6_20MHz_Antenna 0



IEEE 802.11b_Channel 11_20MHz_Antenna 0



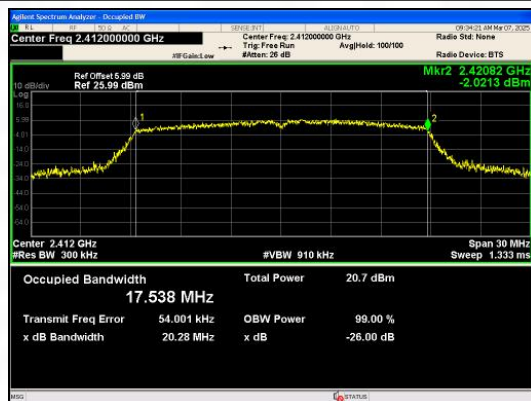
IEEE 802.11g_Channel 1_20MHz_Antenna 0



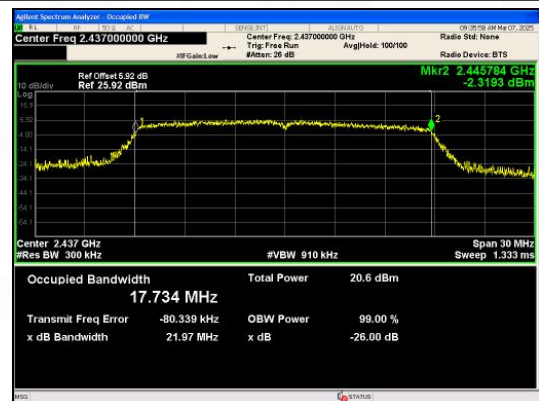
IEEE 802.11g_Channel 6_20MHz_Antenna 0



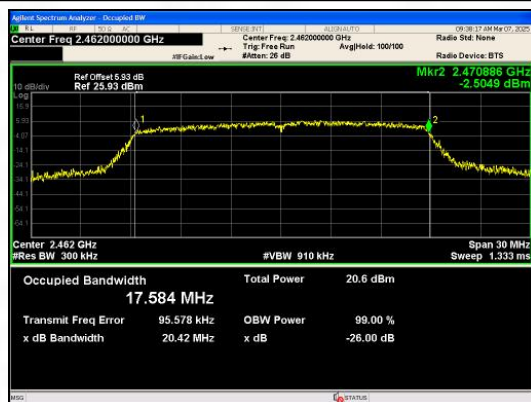
IEEE 802.11g_Channel 11_20MHz_Antenna 0



IEEE 802.11n_Channel 1_20MHz_Antenna 0



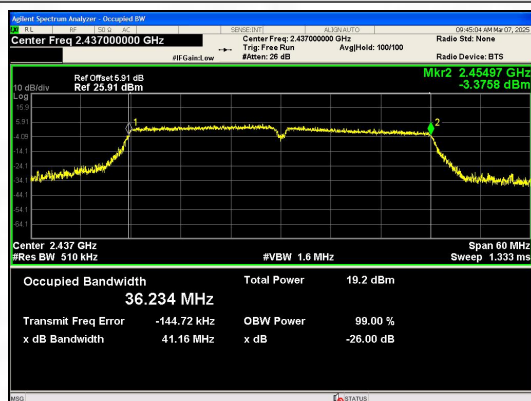
IEEE 802.11n_Channel 6_20MHz_Antenna 0



IEEE 802.11n_Channel 11_20MHz_Antenna 0



IEEE 802.11n_Channel 3_40MHz_Antenna 0



IEEE 802.11n_Channel 6_40MHz_Antenna 0



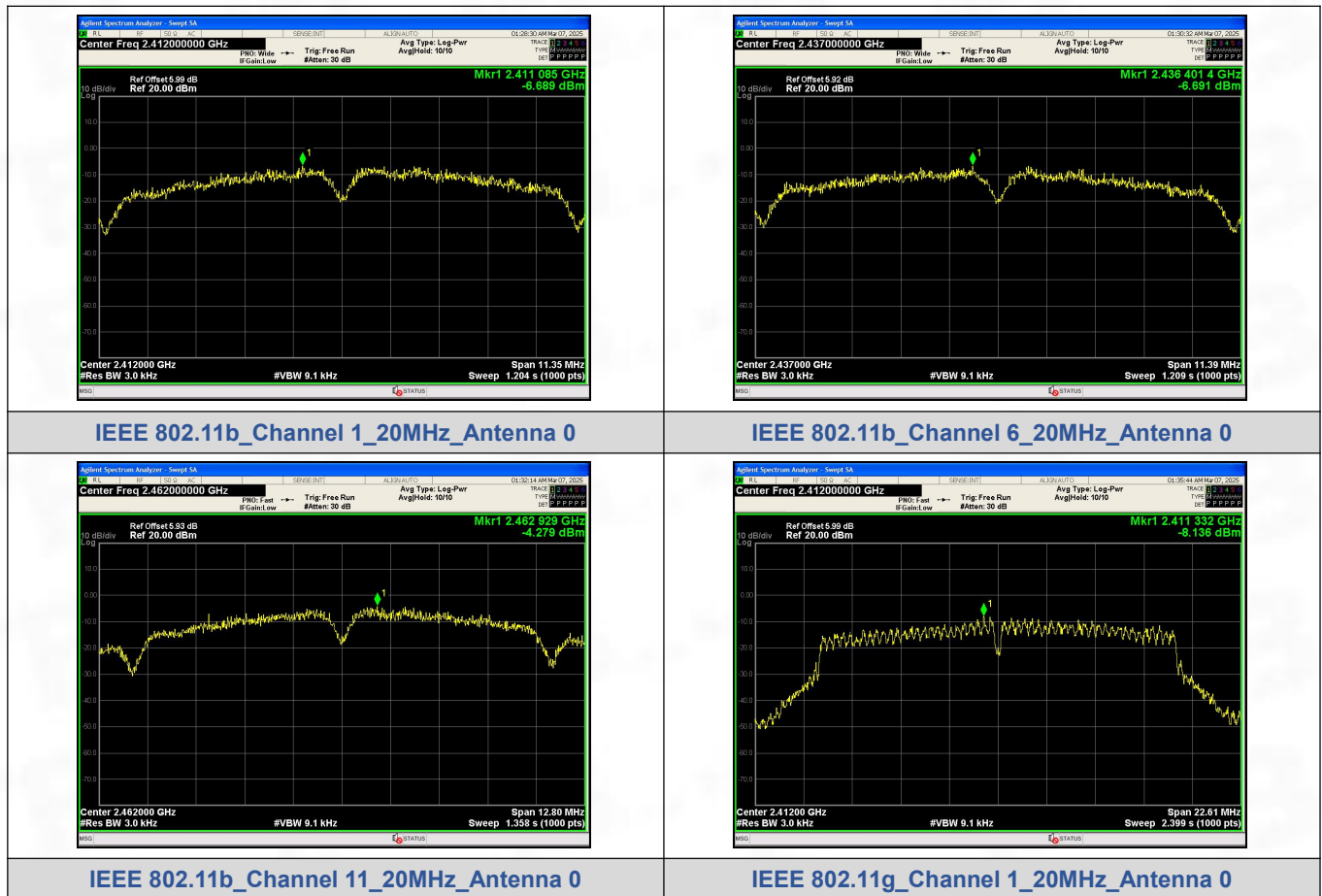
IEEE 802.11n_Channel 9_40MHz_Antenna 0

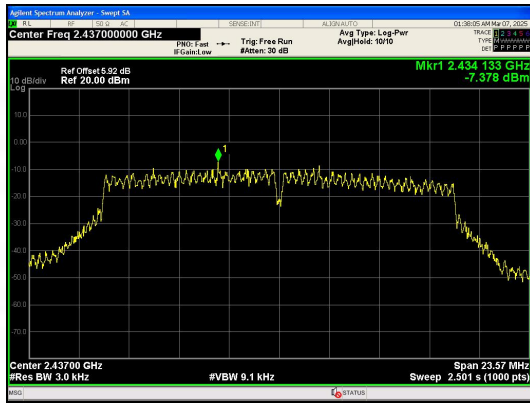
Power Spectral Density

Test Result

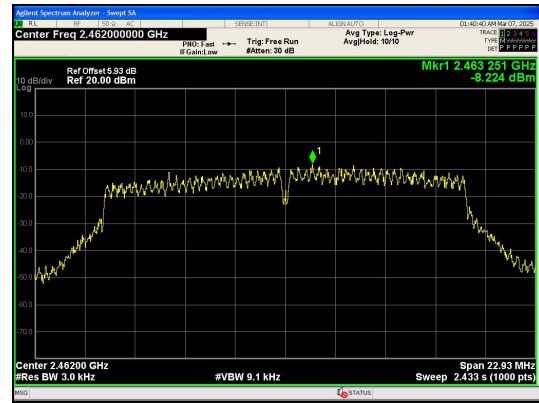
Mode	Channel	PSD (dBm/3kHz) Ant. 0	Limit (dBm/3kHz)	Result
IEEE 802.11b	1	-6.689	≤8	PASS
	6	-6.691		PASS
	11	-4.279		PASS
IEEE 802.11g	1	-8.136		PASS
	6	-7.378		PASS
	11	-8.224		PASS
IEEE 802.11n_20	1	-8.869		PASS
	6	-8.388		PASS
	11	-9.422		PASS
IEEE 802.11n_40	3	-11.211		PASS
	6	-11.387		PASS
	9	-13.085		PASS

Test Graphs

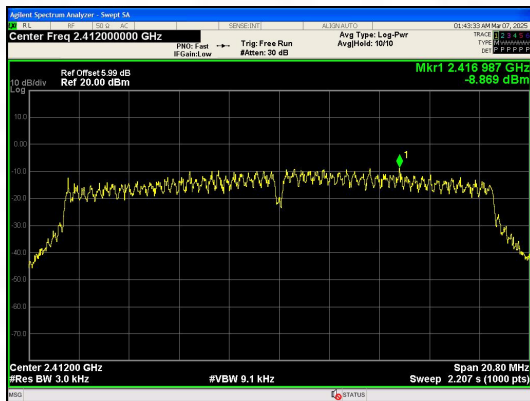




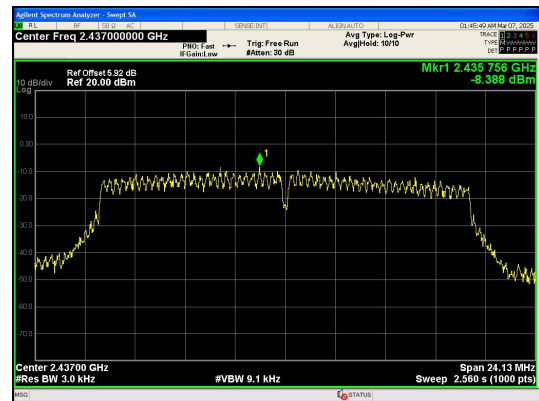
IEEE 802.11g_Channel 6_20MHz_Antenna 0



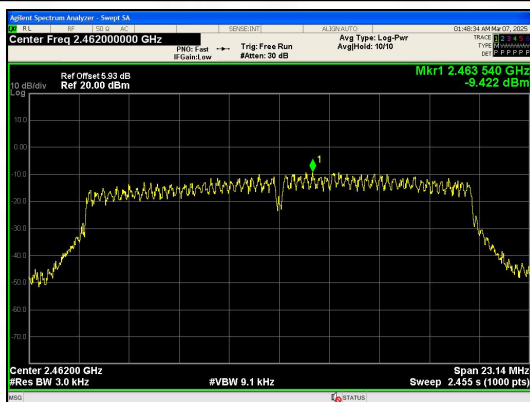
IEEE 802.11g_Channel 11_20MHz_Antenna 0



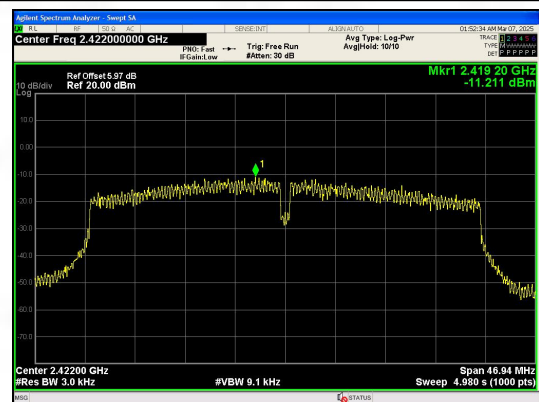
IEEE 802.11n_Channel 1_20MHz_Antenna 0



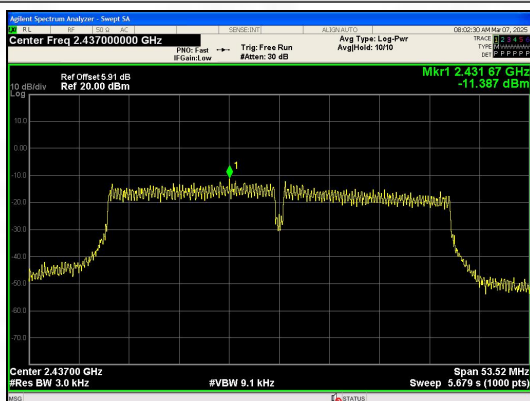
IEEE 802.11n_Channel 6_20MHz_Antenna 0



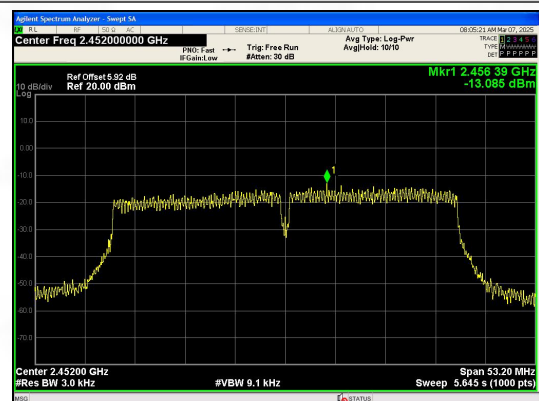
IEEE 802.11n_Channel 11_20MHz_Antenna 0



IEEE 802.11n_Channel 3_40MHz_Antenna 0



IEEE 802.11n_Channel 6_40MHz_Antenna 0



IEEE 802.11n_Channel 9_40MHz_Antenna 0