



Appendix B

RF Test Data for 2.4G WIFI (Conducted Measurement)

Product Name: Smart Switch
Test Model: ESW-12TWNVB-US

Environmental Conditions

Temperature:	25 ° C
Relative Humidity:	50%
ATM Pressure:	100.0 kPa
Test Engineer:	Wunder Wu
Supervised by:	Jay Li

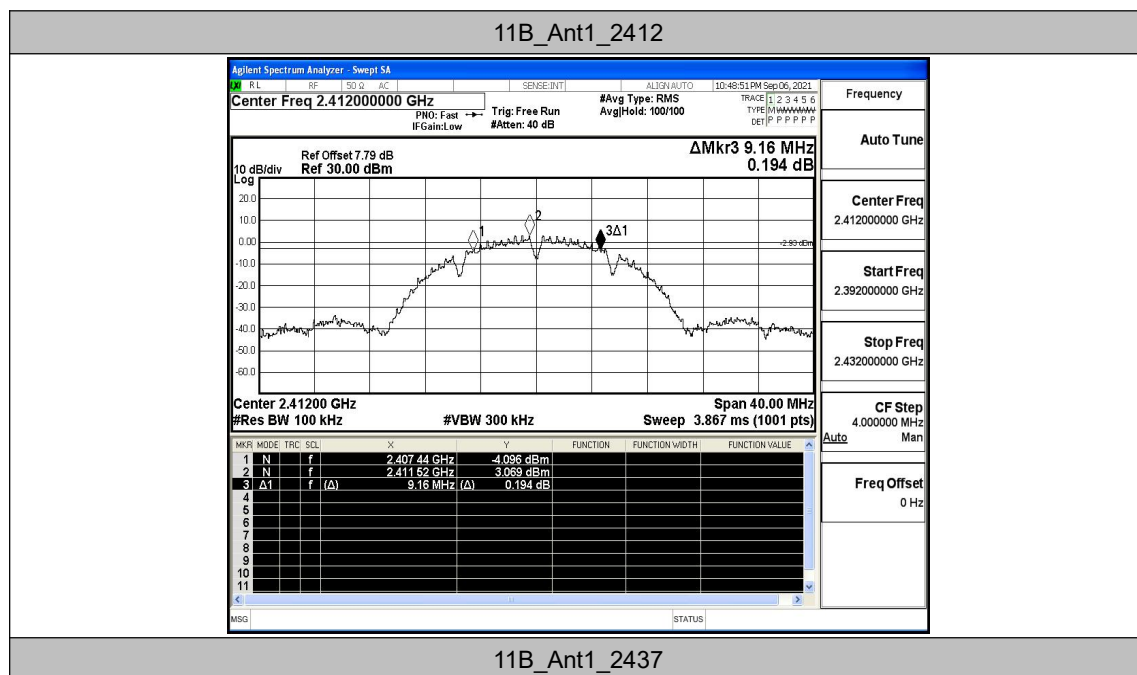


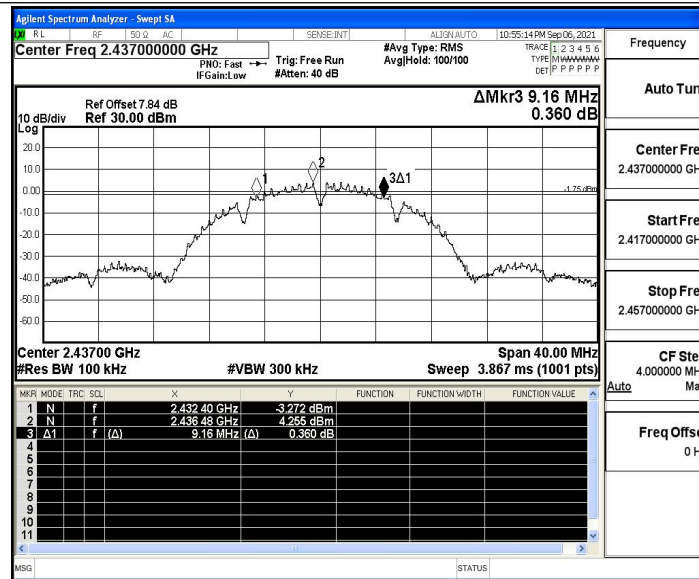
B.1 6dB Bandwidth

Test Result

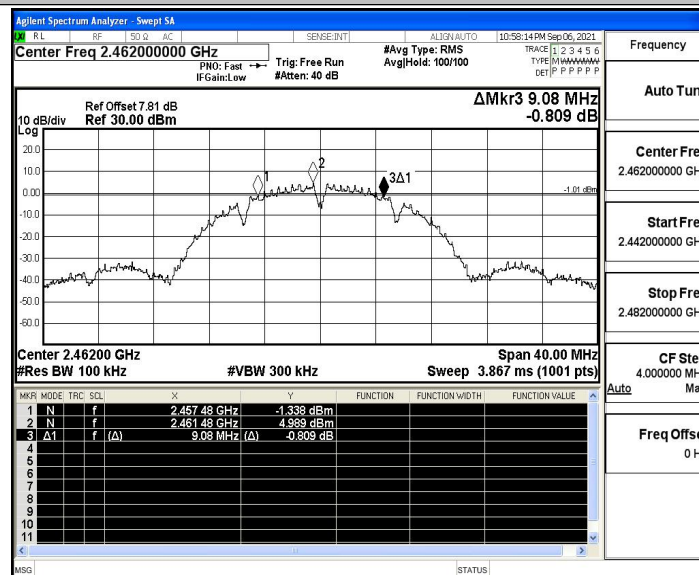
TestMode	Antenna	Channel	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	9.160	2407.440	2416.600	0.5	PASS
		2437	9.160	2432.400	2441.560	0.5	PASS
		2462	9.080	2457.480	2466.560	0.5	PASS
11G	Ant1	2412	13.880	2405.640	2419.520	0.5	PASS
		2437	8.880	2433.200	2442.080	0.5	PASS
		2462	10.400	2457.920	2468.320	0.5	PASS
11N20SISO	Ant1	2412	8.280	2408.360	2416.640	0.5	PASS
		2437	13.880	2430.680	2444.560	0.5	PASS
		2462	10.160	2456.920	2467.080	0.5	PASS
11N40SISO	Ant1	2422	30.240	2408.160	2438.400	0.5	PASS
		2437	28.960	2425.640	2454.600	0.5	PASS
		2452	30.160	2439.440	2469.600	0.5	PASS

Test Graphs

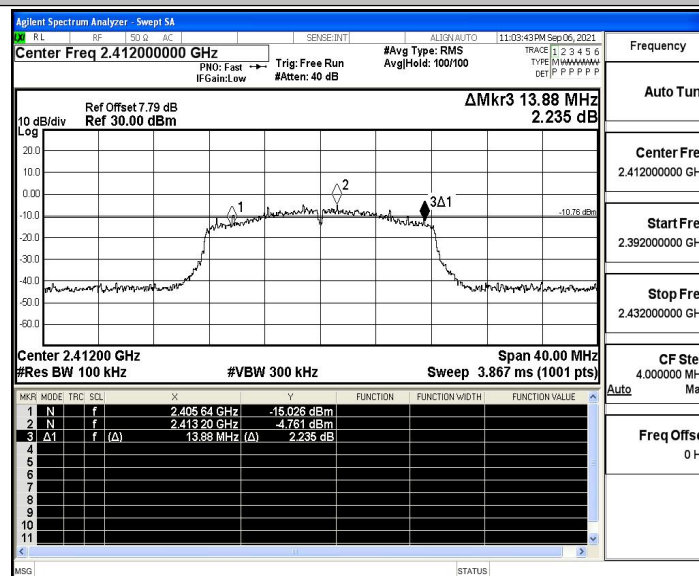




11B_Ant1_2462

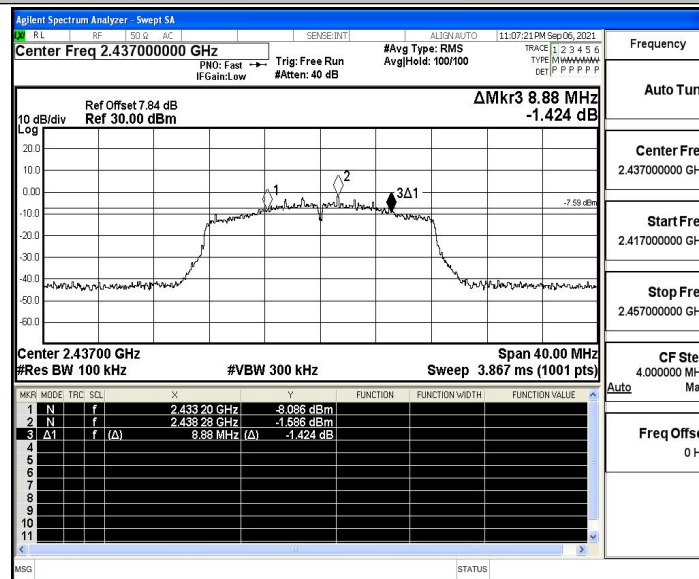


11G_Ant1_2412

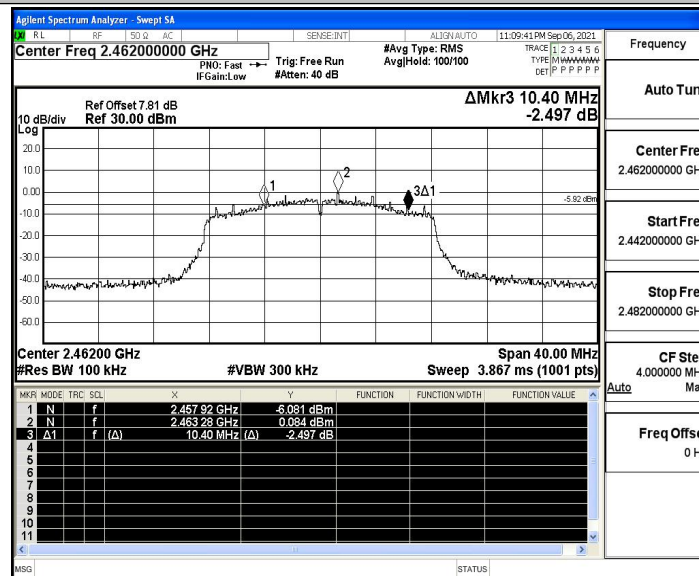




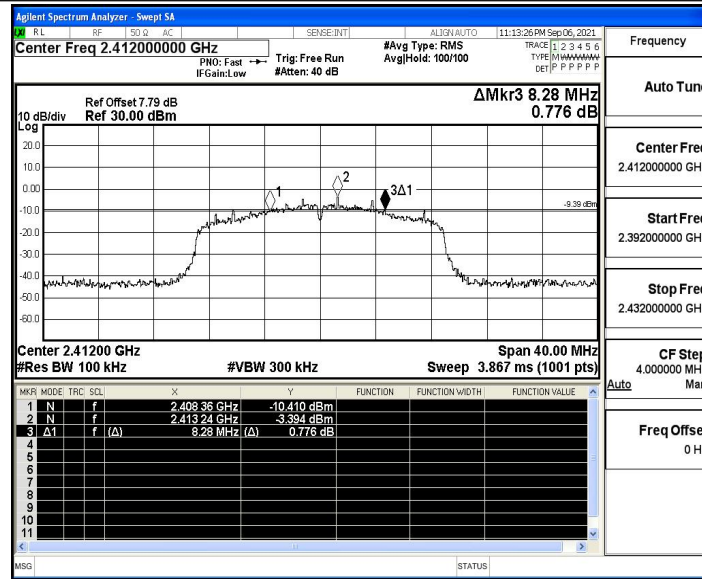
11G_Ant1_2437



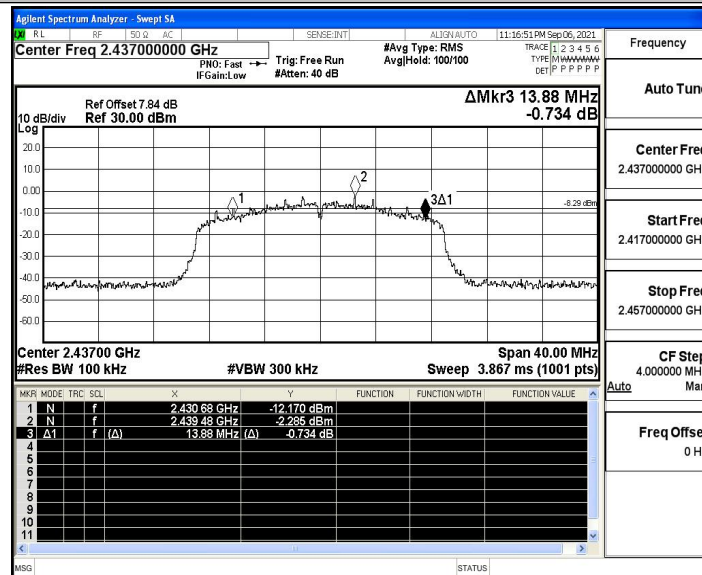
11G_Ant1_2462



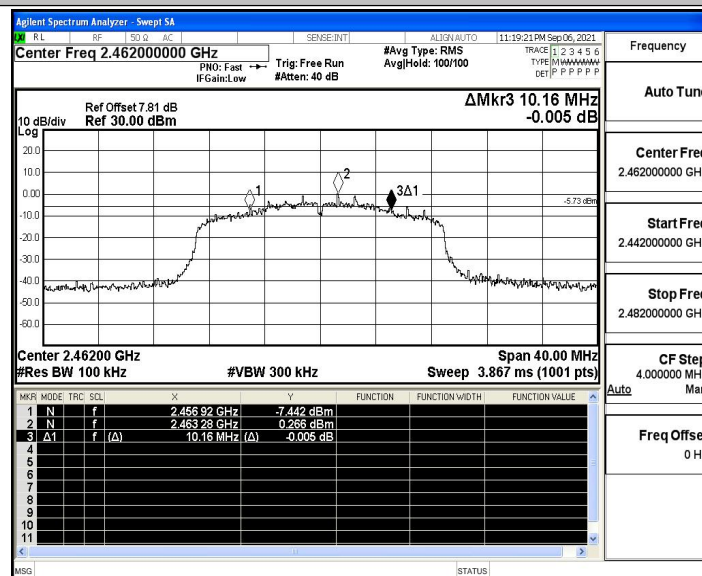
11N20SISO_Ant1_2412



11N20SISO_Ant1_2437

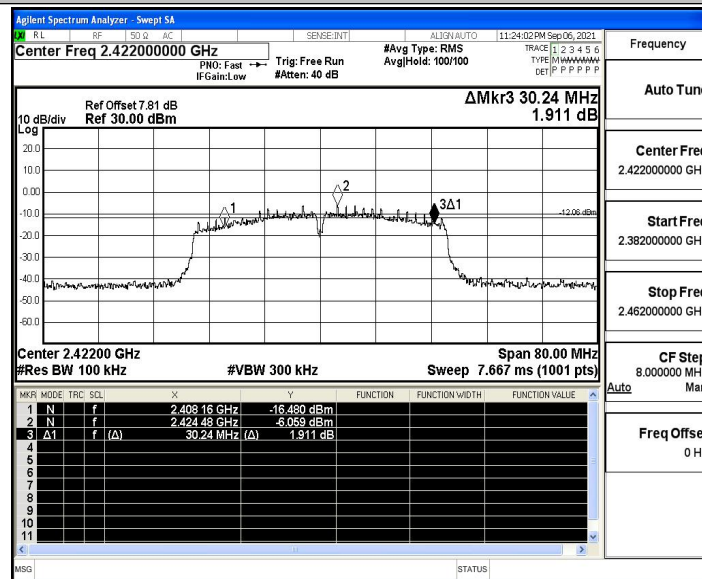


11N20SISO_Ant1_2462

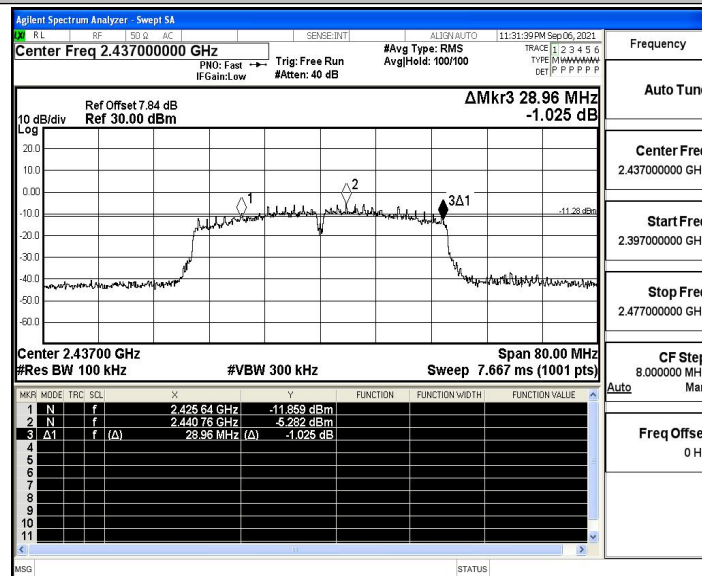




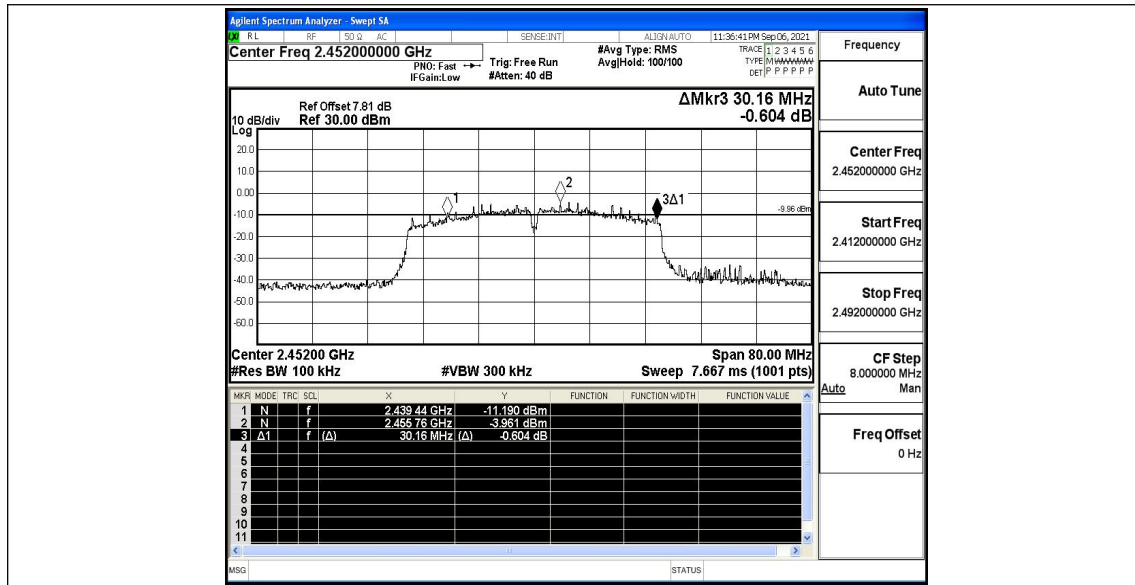
11N40SISO_Ant1_2422



11N40SISO_Ant1_2437



11N40SISO_Ant1_2452



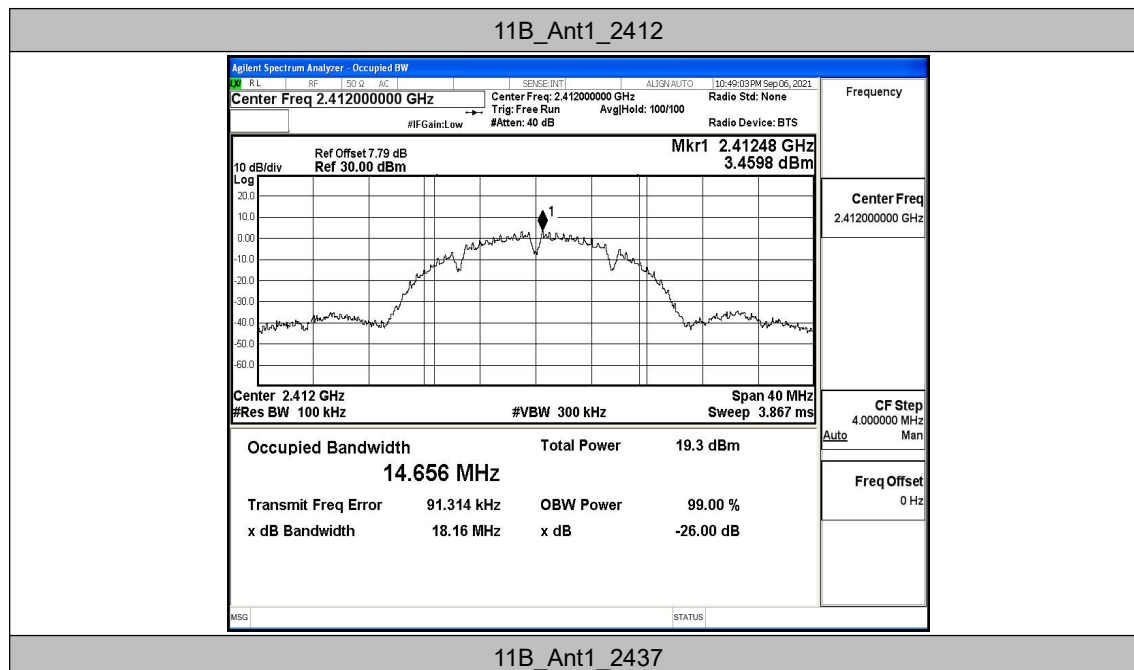


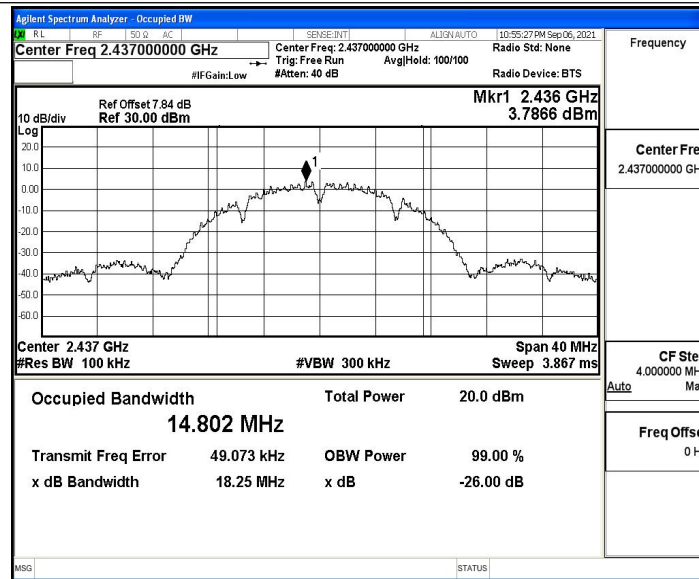
B.2 Occupied Channel Bandwidth

Test Result

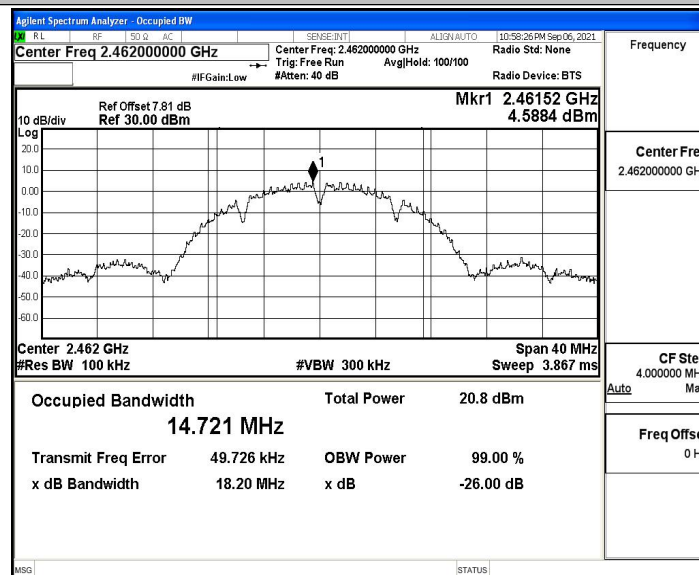
TestMode	Antenna	Channel	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	14.656	2404.763	2419.419	---	PASS
		2437	14.802	2429.648	2444.450	---	PASS
		2462	14.721	2454.689	2469.410	---	PASS
11G	Ant1	2412	15.976	2404.066	2420.042	---	PASS
		2437	15.987	2429.056	2445.043	---	PASS
		2462	15.989	2454.035	2470.024	---	PASS
11N20SISO	Ant1	2412	16.885	2403.602	2420.487	---	PASS
		2437	16.809	2428.644	2445.453	---	PASS
		2462	16.833	2453.607	2470.440	---	PASS
11N40SISO	Ant1	2422	35.423	2404.428	2439.851	---	PASS
		2437	35.394	2419.479	2454.873	---	PASS
		2452	35.450	2434.396	2469.846	---	PASS

Test Graphs

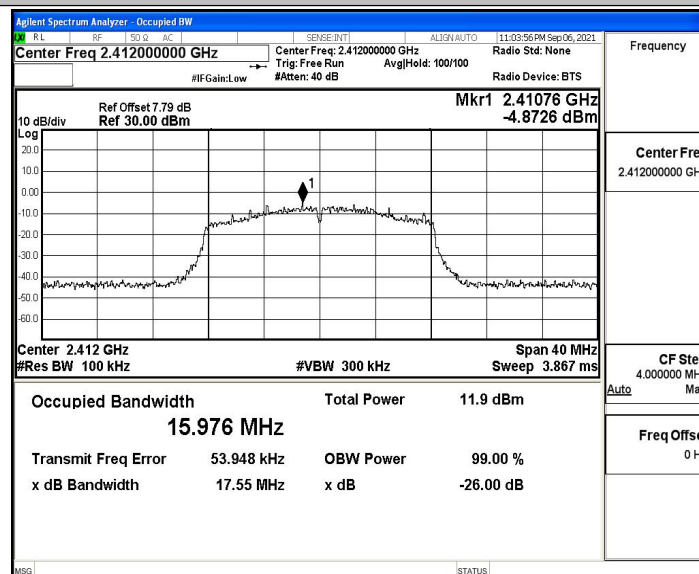




11B_Ant1_2462

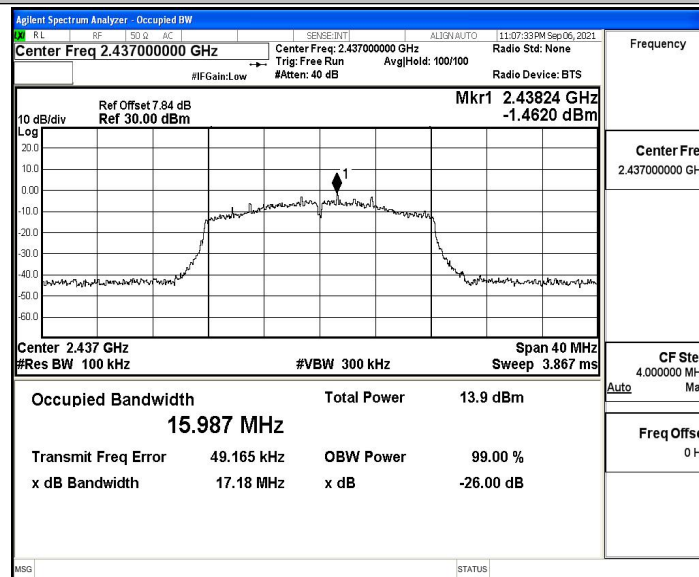


11G_Ant1_2412

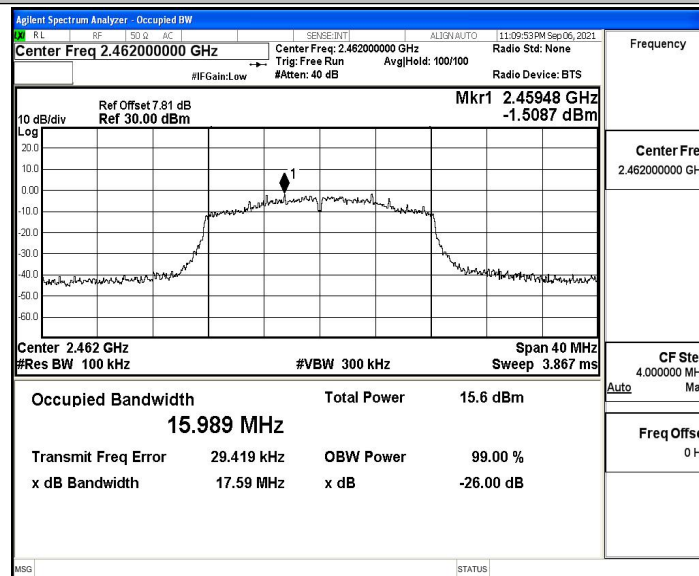




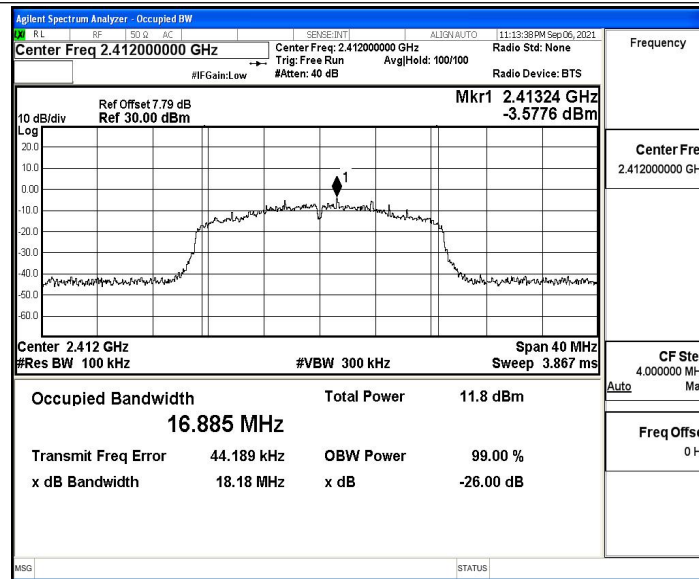
11G_Ant1_2437



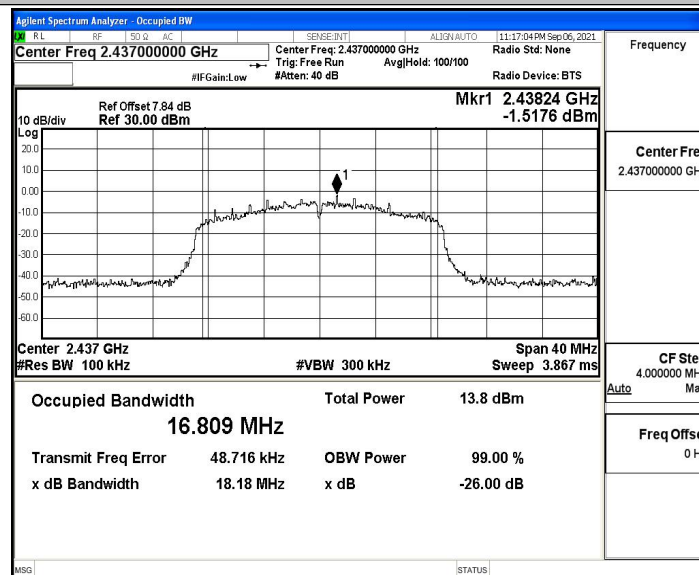
11G_Ant1_2462



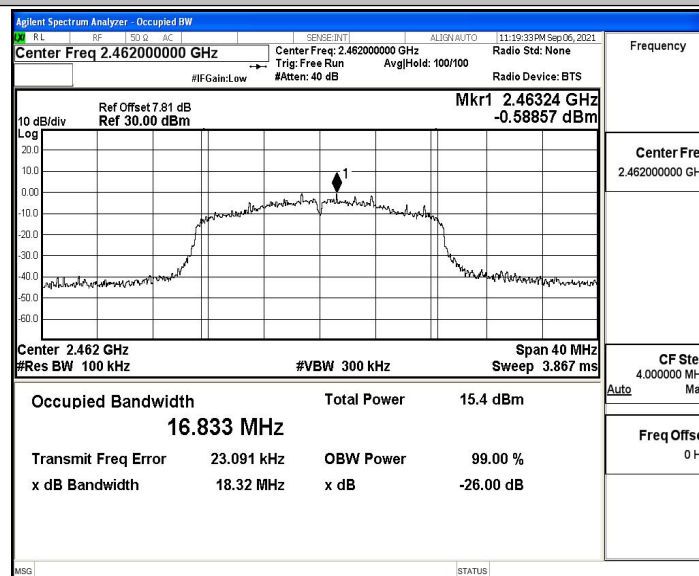
11N20SISO_Ant1_2412



11N20SISO_Ant1_2437

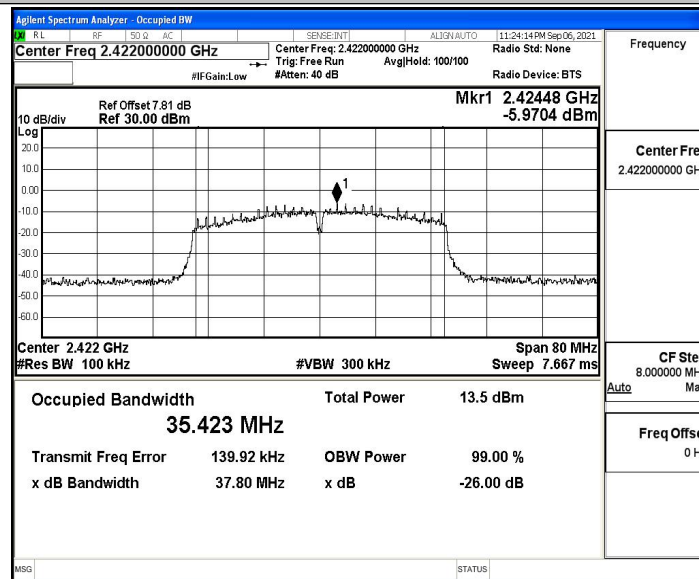


11N20SISO_Ant1_2462

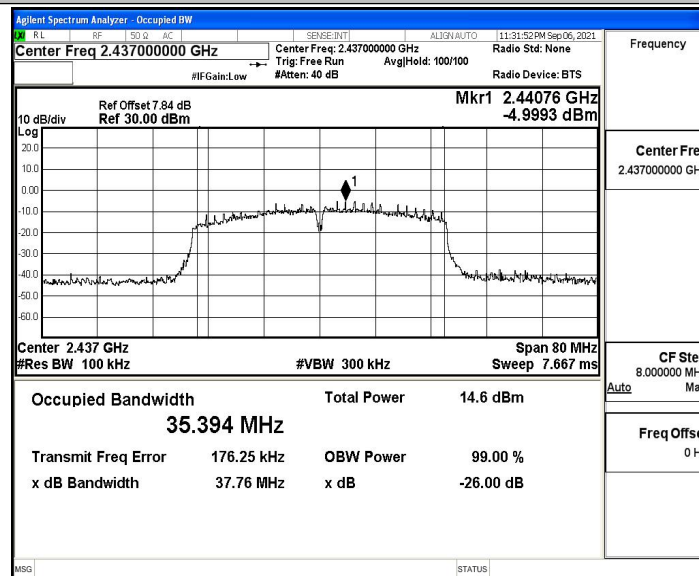




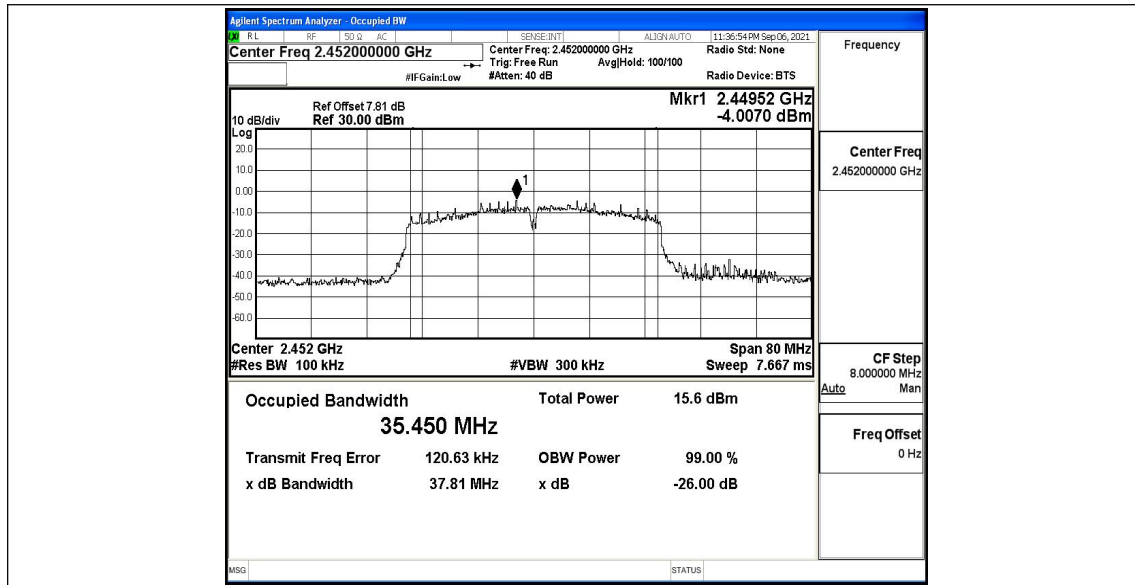
11N40SISO_Ant1_2422



11N40SISO_Ant1_2437



11N40SISO_Ant1_2452





B.3 Maximum conducted output power

Test Result

TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
11B	Ant1	2412	14.85	≤30	PASS
		2437	15.65	≤30	PASS
		2462	16.37	≤30	PASS
11G	Ant1	2412	12.71	≤30	PASS
		2437	13.73	≤30	PASS
		2462	13.20	≤30	PASS
11N20SISO	Ant1	2412	11.16	≤30	PASS
		2437	12.40	≤30	PASS
		2462	12.96	≤30	PASS
11N40SISO	Ant1	2422	13.42	≤30	PASS
		2437	12.68	≤30	PASS
		2452	13.45	≤30	PASS

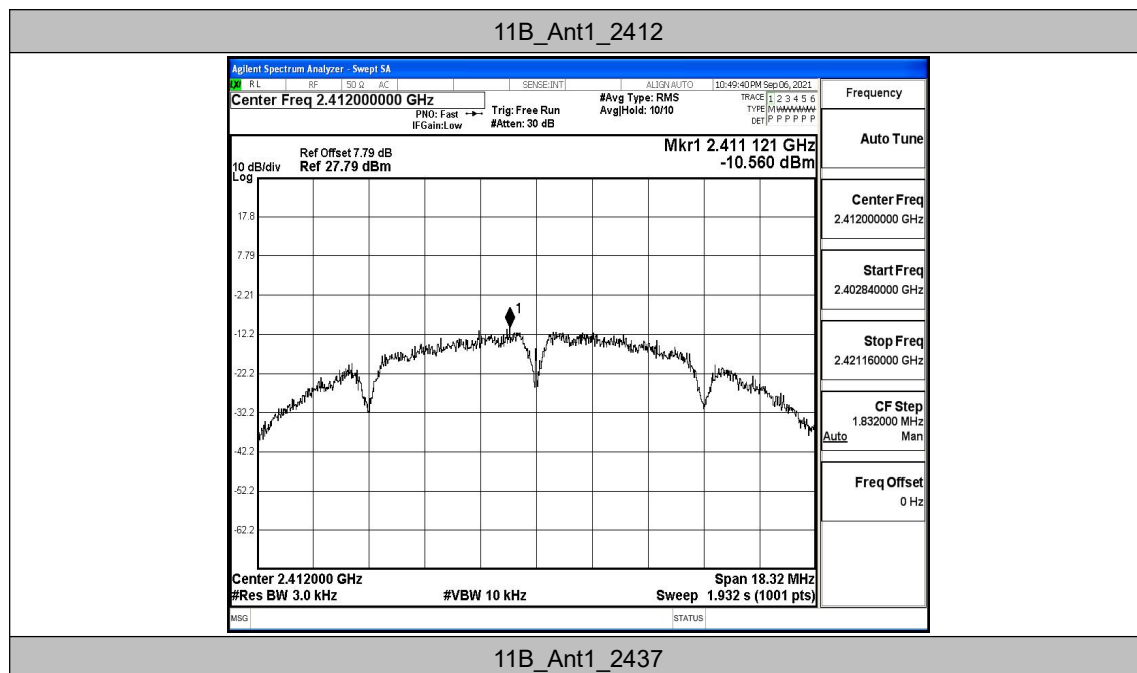


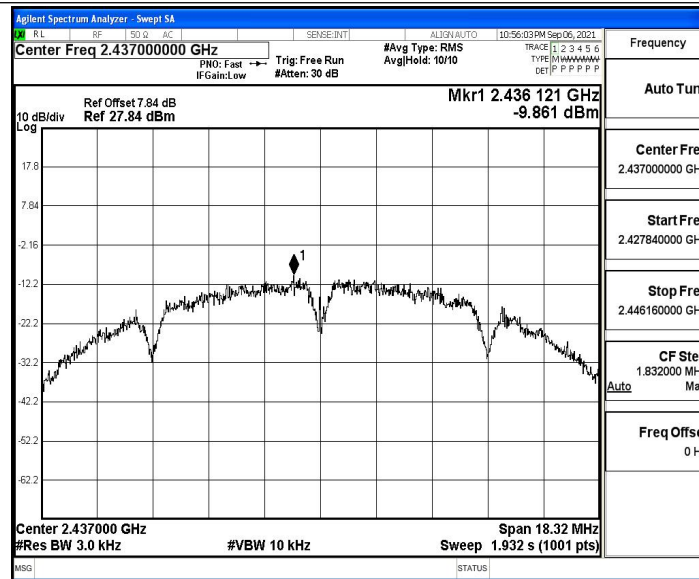
B.4 Maximum power spectral density

Test Result

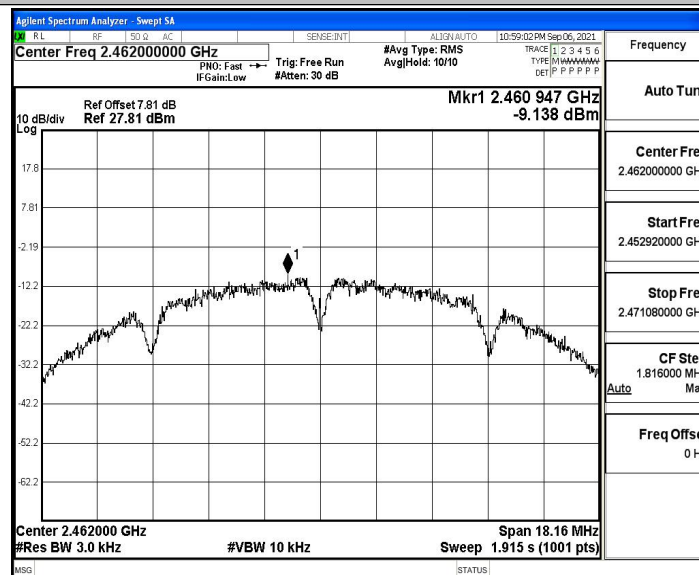
TestMode	Antenna	Channel	Result[dBm/3-100kHz]	Limit[dBm/3kHz]	Verdict
11B	Ant1	2412	-10.56	≤8	PASS
		2437	-9.86	≤8	PASS
		2462	-9.14	≤8	PASS
11G	Ant1	2412	-19.28	≤8	PASS
		2437	-17.35	≤8	PASS
		2462	-15.43	≤8	PASS
11N20SISO	Ant1	2412	-18.84	≤8	PASS
		2437	-18.13	≤8	PASS
		2462	-17.16	≤8	PASS
11N40SISO	Ant1	2422	-19.97	≤8	PASS
		2437	-20.08	≤8	PASS
		2452	-19.18	≤8	PASS

Test Graphs

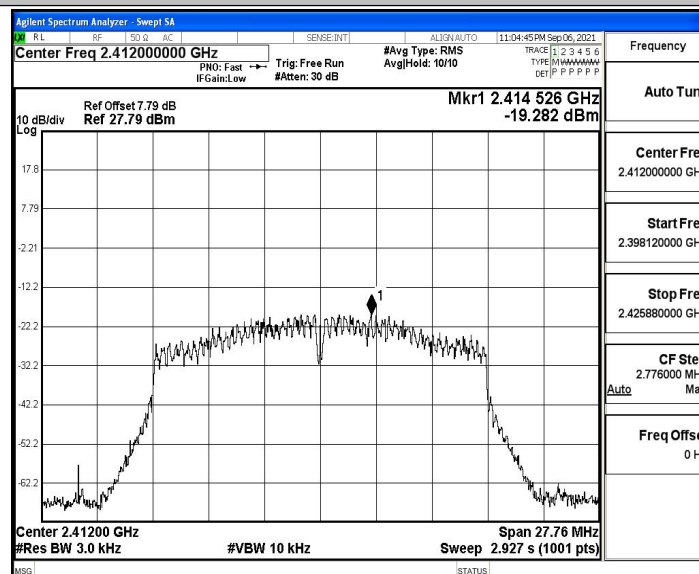




11B_Ant1_2462

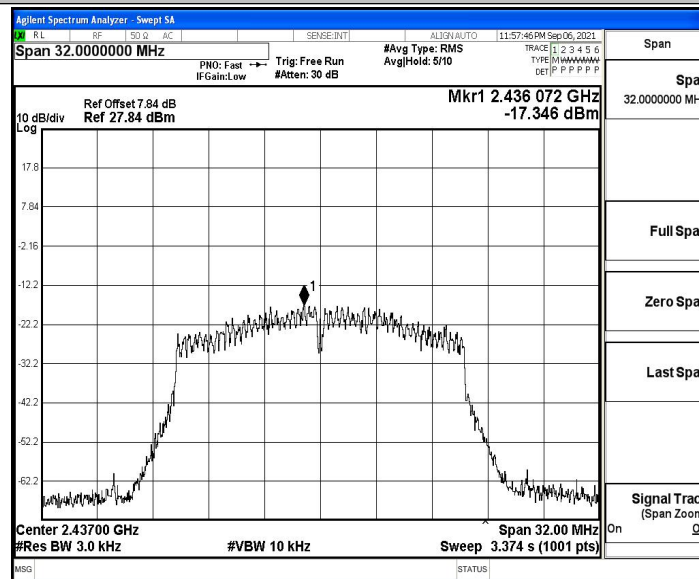


11G_Ant1_2412

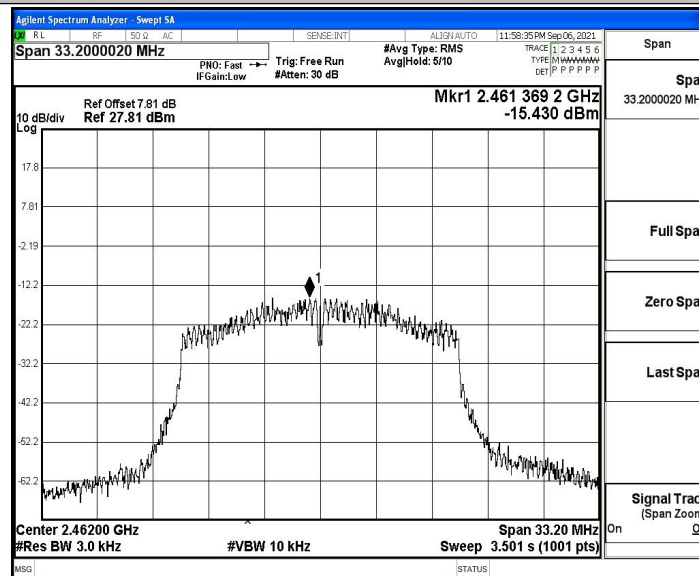




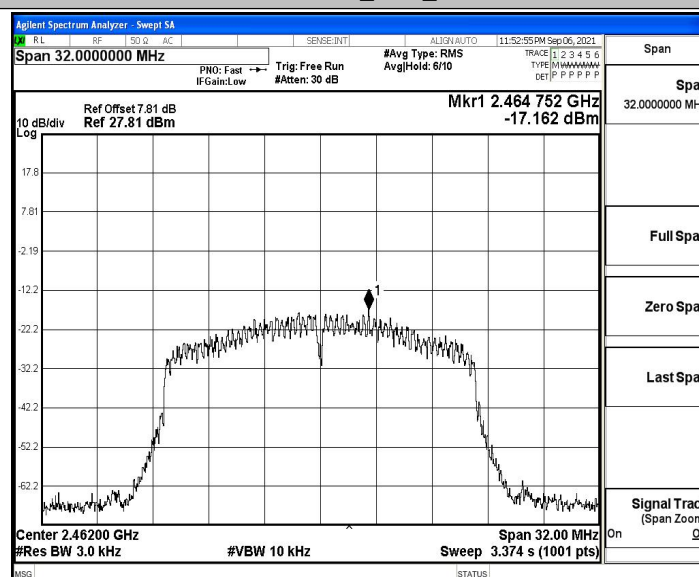
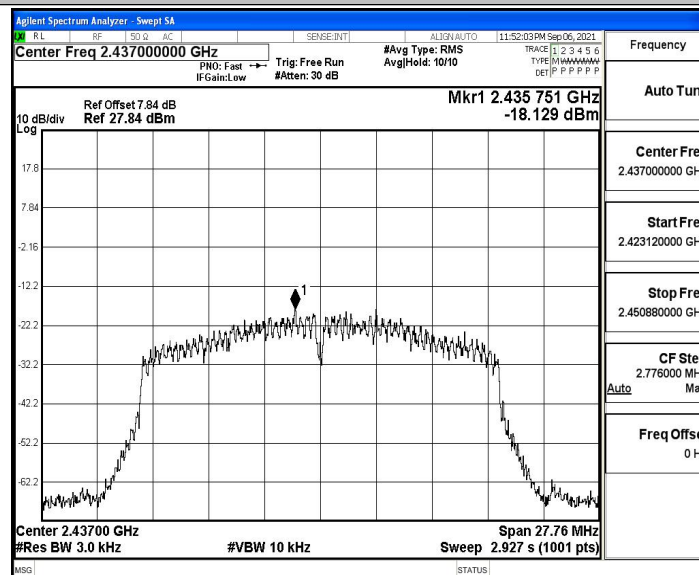
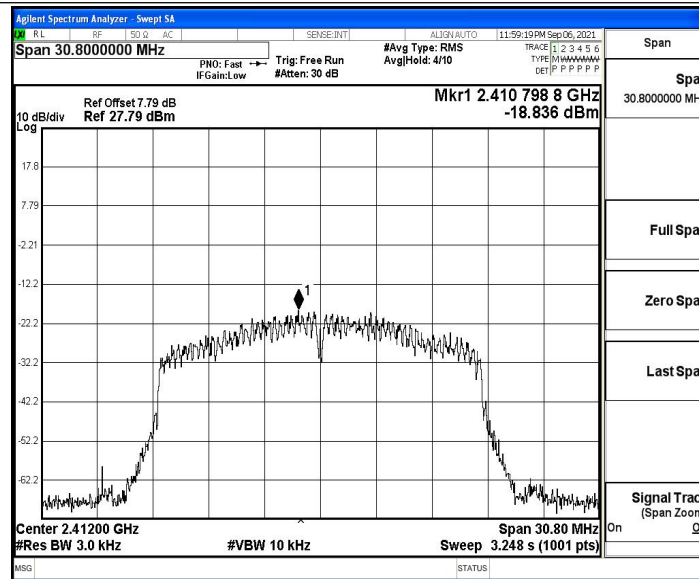
11G_Ant1_2437



11G_Ant1_2462

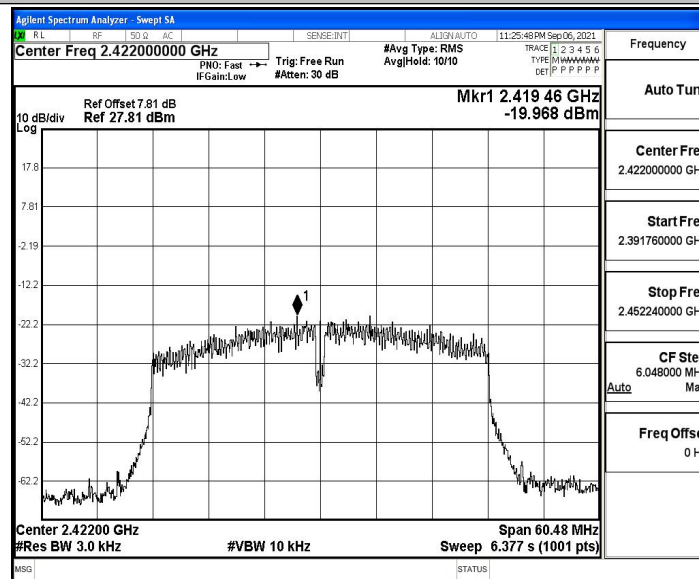


11N20SISO_Ant1_2412

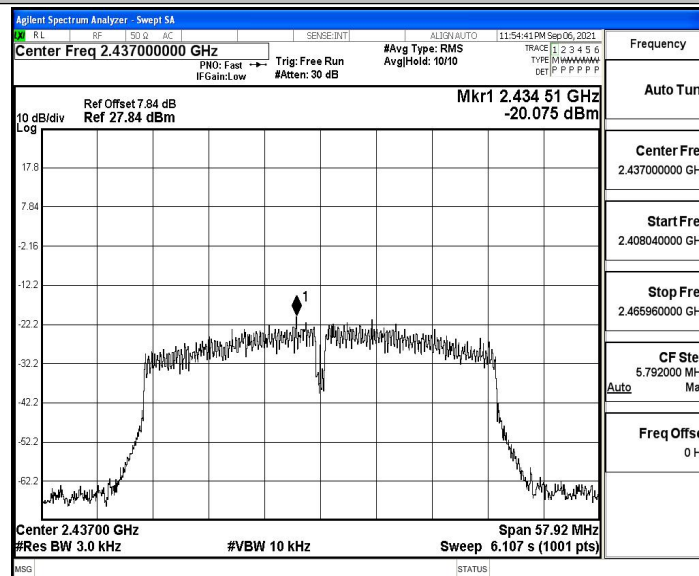




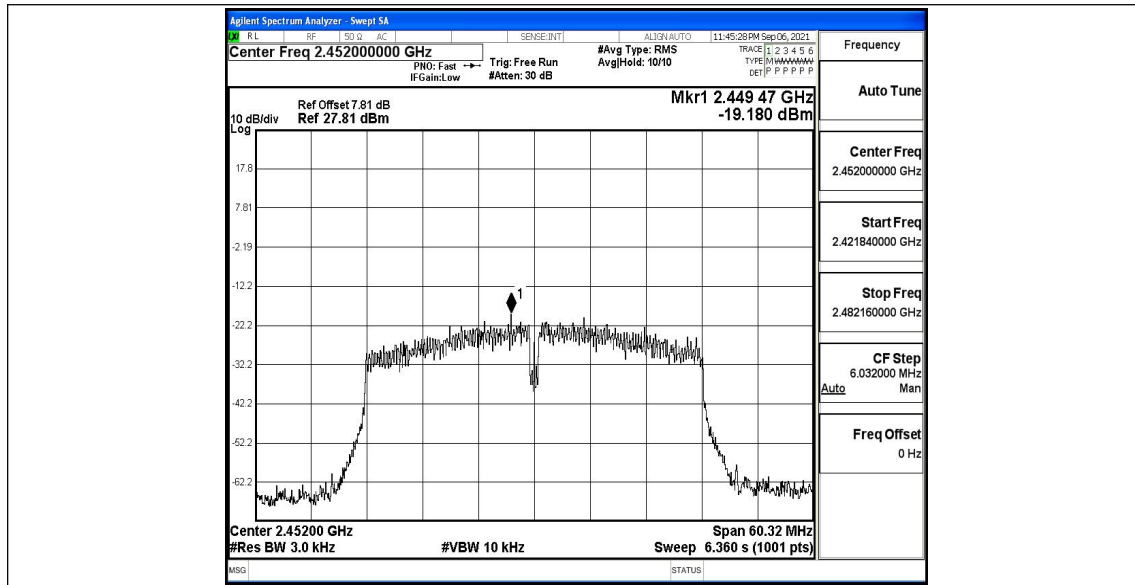
11N40SISO_Ant1_2422



11N40SISO_Ant1_2437



11N40SISO_Ant1_2452





B.5 Band edge measurements

Test Result

TestMode	Antenna	ChName	Channel	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
11B	Ant1	Low	2412	2.78	-34.84	≤ -17.22	PASS
		High	2462	5.03	-47.98	≤ -14.97	PASS
11G	Ant1	Low	2412	-3.25	-49.13	≤ -23.25	PASS
		High	2462	0.10	-47.72	≤ -19.9	PASS
11N20SISO	Ant1	Low	2412	-3.79	-48.66	≤ -23.79	PASS
		High	2462	-0.45	-47.69	≤ -20.45	PASS
11N40SISO	Ant1	Low	2422	-5.91	-47.3	≤ -25.91	PASS
		High	2452	-3.66	-36.96	≤ -23.66	PASS