

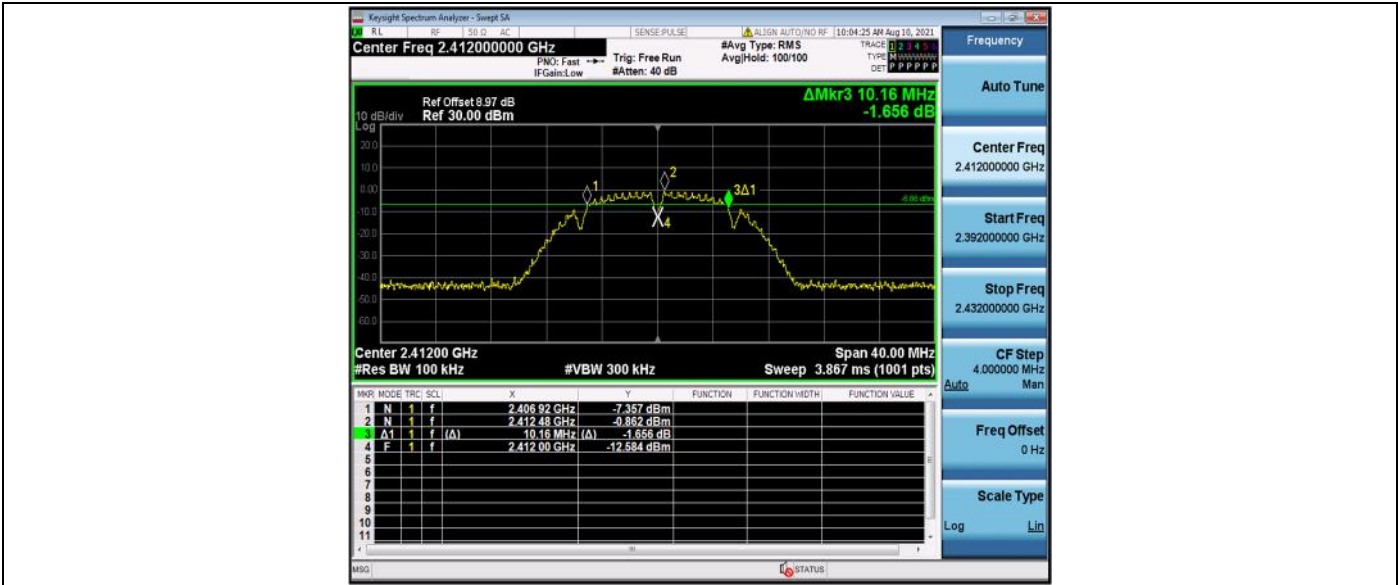
Annex for FCC 2.4G WIFI

Appendix A: DTS Bandwidth

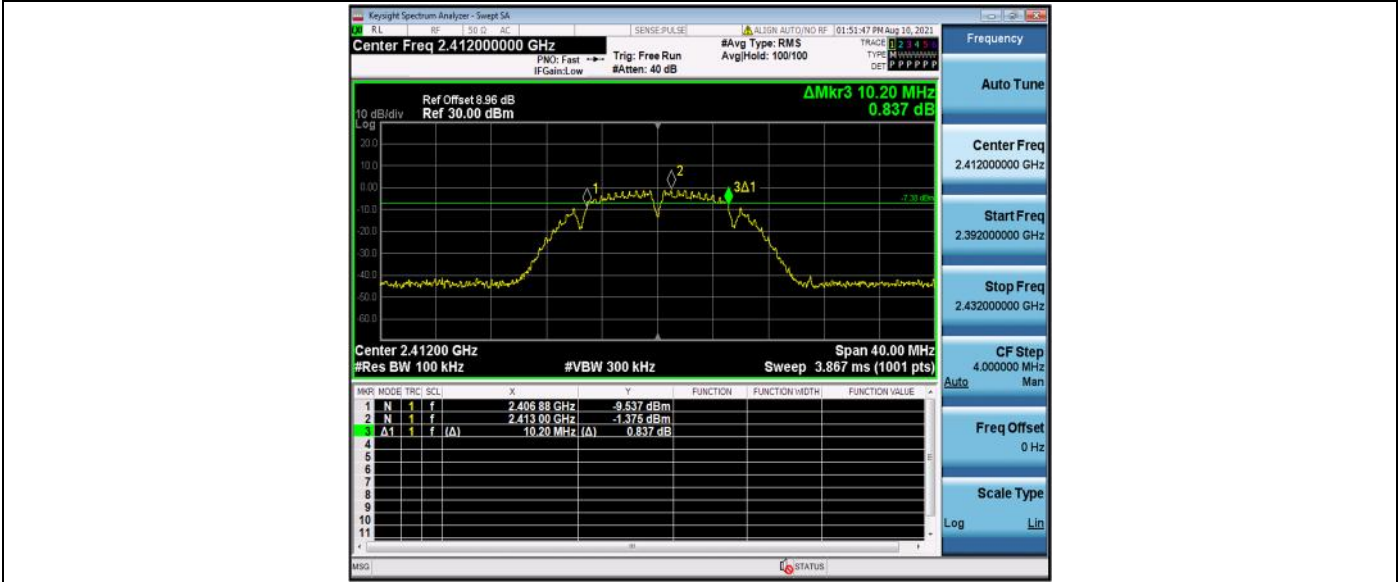
Test Result

TestMode	Antenna	Channel	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	10.160	2406.920	2417.080	0.5	PASS
	Ant2	2412	10.200	2406.880	2417.080	0.5	PASS
	Ant1	2437	10.120	2431.920	2442.040	0.5	PASS
	Ant2	2437	10.160	2431.880	2442.040	0.5	PASS
	Ant1	2462	10.200	2456.880	2467.080	0.5	PASS
	Ant2	2462	10.160	2456.920	2467.080	0.5	PASS
11G	Ant1	2412	14.480	2405.040	2419.520	0.5	PASS
	Ant2	2412	14.480	2405.080	2419.560	0.5	PASS
	Ant1	2437	14.120	2430.040	2444.160	0.5	PASS
	Ant2	2437	14.120	2430.040	2444.160	0.5	PASS
	Ant1	2462	14.200	2455.080	2469.280	0.5	PASS
	Ant2	2462	14.480	2455.040	2469.520	0.5	PASS
11N20SISO	Ant1	2412	13.120	2405.480	2418.600	0.5	PASS
	Ant2	2412	13.720	2405.440	2419.160	0.5	PASS
	Ant1	2437	13.200	2430.440	2443.640	0.5	PASS
	Ant2	2437	13.480	2430.080	2443.560	0.5	PASS
	Ant1	2462	13.040	2455.480	2468.520	0.5	PASS
	Ant2	2462	12.960	2455.720	2468.680	0.5	PASS
11N40SISO	Ant1	2422	25.200	2410.240	2435.440	0.5	PASS
	Ant2	2422	25.200	2410.240	2435.440	0.5	PASS
	Ant1	2437	24.800	2424.360	2449.160	0.5	PASS
	Ant2	2437	26.080	2424.360	2450.440	0.5	PASS
	Ant1	2452	24.880	2439.440	2464.320	0.5	PASS
	Ant2	2452	26.240	2439.360	2465.600	0.5	PASS
11N20MIMO	Ant1	2412	13.640	2405.280	2418.920	0.5	PASS
	Ant2	2412	15.160	2403.800	2418.960	0.5	PASS
	Ant1	2437	13.400	2430.280	2443.680	0.5	PASS
	Ant2	2437	13.880	2430.040	2443.920	0.5	PASS
	Ant1	2462	13.800	2455.280	2469.080	0.5	PASS
	Ant2	2462	13.600	2455.320	2468.920	0.5	PASS
11N40MIMO	Ant1	2422	23.920	2410.400	2434.320	0.5	PASS
	Ant2	2422	20.800	2412.560	2433.360	0.5	PASS
	Ant1	2437	27.040	2422.920	2449.960	0.5	PASS
	Ant2	2437	22.080	2425.640	2447.720	0.5	PASS
	Ant1	2452	25.360	2440.240	2465.600	0.5	PASS
	Ant2	2452	22.720	2440.640	2463.360	0.5	PASS

Test Graphs



11B_Ant1_2412



11B_Ant2_2412



11B_Ant1_2437



11B_Ant2_2437



11B_Ant1_2462



11B_Ant2_2462



11G_Ant1_2412



11G_Ant2_2412



11G_Ant1_2437



11G_Ant2_2437



11G_Ant1_2462



11G_Ant2_2462



11N20SISO_Ant1_2412



11N20SISO_Ant2_2412



11N20SISO_Ant1_2437



11N20SISO_Ant2_2437



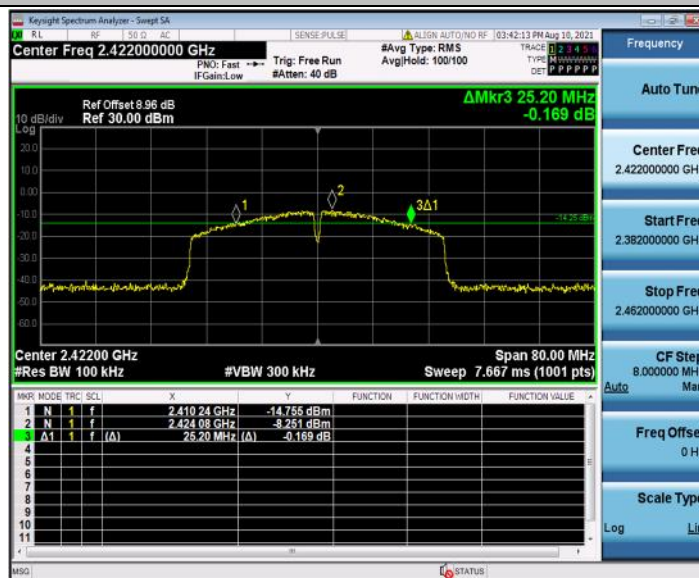
11N20SISO_Ant1_2462



11N20SISO_Ant2_2462



11N40SISO_Ant1_2422



11N40SISO_Ant2_2422



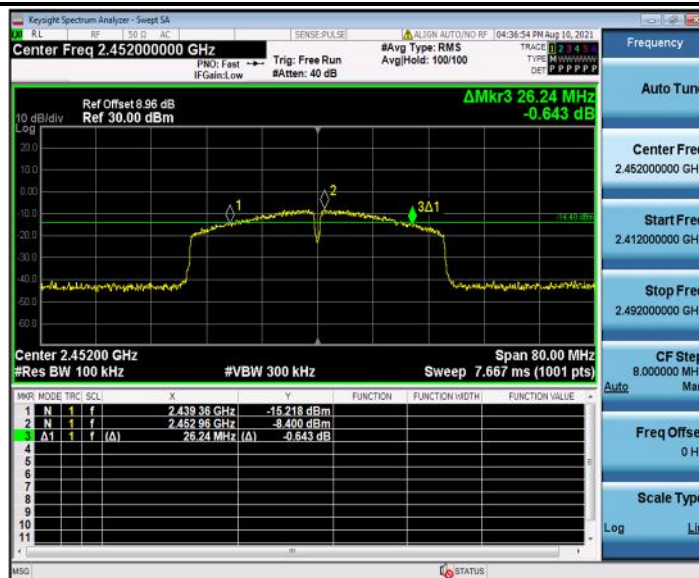
11N40SISO_Ant1_2437



11N40SISO_Ant2_2437



11N40SISO_Ant1_2452



11N40SISO_Ant2_2452



11N20MIMO_Ant1_2412



11N20MIMO_Ant2_2412



11N20MIMO_Ant1_2437



11N20MIMO_Ant2_2437



11N20MIMO_Ant1_2462



11N20MIMO_Ant2_2462



11N40MIMO_Ant1_2422



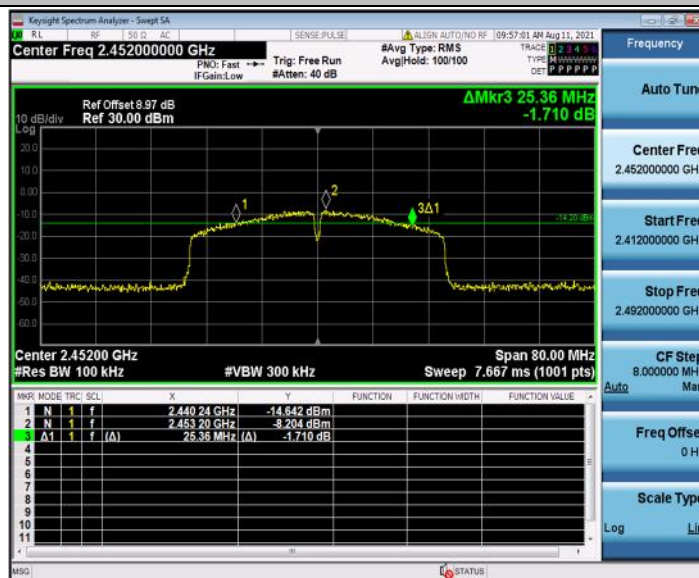
11N40MIMO_Ant2_2422



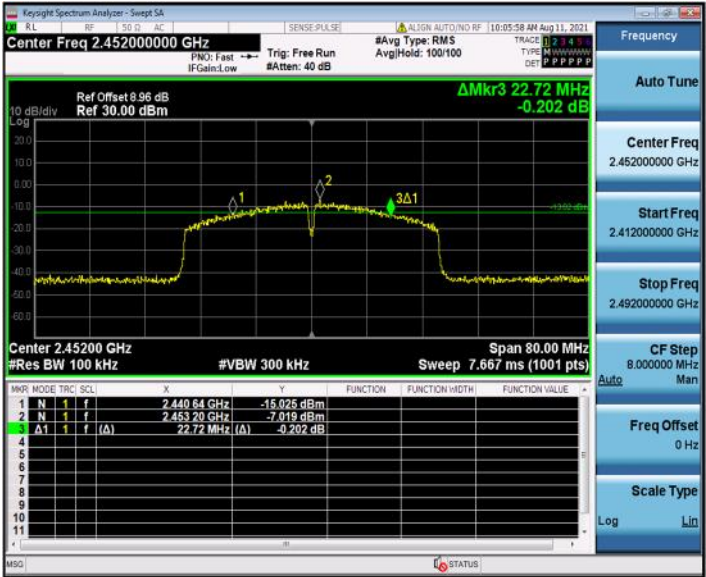
11N40MIMO_Ant1_2437



11N40MIMO_Ant2_2437



11N40MIMO_Ant1_2452



11N40MIMO_Ant2_2452

Appendix B: Occupied Channel Bandwidth

Test Result

TestMode	Antenna	Channel	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	13.539	2405.285	2418.824	---	PASS
	Ant2	2412	13.511	2405.280	2418.791	---	PASS
	Ant1	2437	13.531	2430.246	2443.777	---	PASS
	Ant2	2437	13.506	2430.240	2443.746	---	PASS
	Ant1	2462	13.524	2455.286	2468.810	---	PASS
	Ant2	2462	13.464	2455.296	2468.760	---	PASS
11G	Ant1	2412	16.295	2403.867	2420.162	---	PASS
	Ant2	2412	16.284	2403.878	2420.162	---	PASS
	Ant1	2437	16.322	2428.817	2445.139	---	PASS
	Ant2	2437	16.267	2428.864	2445.131	---	PASS
	Ant1	2462	16.320	2453.825	2470.145	---	PASS
	Ant2	2462	16.273	2453.867	2470.140	---	PASS
11N20SISO	Ant1	2412	17.346	2403.360	2420.706	---	PASS
	Ant2	2412	17.315	2403.352	2420.667	---	PASS
	Ant1	2437	17.358	2428.319	2445.677	---	PASS
	Ant2	2437	17.349	2428.322	2445.671	---	PASS
	Ant1	2462	17.371	2453.333	2470.704	---	PASS
	Ant2	2462	17.351	2453.335	2470.686	---	PASS
11N40SISO	Ant1	2422	34.522	2404.843	2439.365	---	PASS
	Ant2	2422	34.485	2404.845	2439.330	---	PASS
	Ant1	2437	34.592	2419.774	2454.366	---	PASS
	Ant2	2437	34.588	2419.775	2454.363	---	PASS
	Ant1	2452	34.588	2434.803	2469.391	---	PASS
	Ant2	2452	34.583	2434.806	2469.389	---	PASS
11N20MIMO	Ant1	2412	17.356	2403.348	2420.704	---	PASS
	Ant2	2412	17.348	2403.321	2420.669	---	PASS
	Ant1	2437	17.376	2428.315	2445.691	---	PASS
	Ant2	2437	17.386	2428.308	2445.694	---	PASS
	Ant1	2462	17.353	2453.337	2470.690	---	PASS
	Ant2	2462	17.310	2453.364	2470.674	---	PASS
11N40MIMO	Ant1	2422	34.531	2404.843	2439.374	---	PASS
	Ant2	2422	34.475	2404.865	2439.340	---	PASS
	Ant1	2437	34.560	2419.791	2454.351	---	PASS
	Ant2	2437	34.479	2419.857	2454.336	---	PASS
	Ant1	2452	34.588	2434.772	2469.360	---	PASS
	Ant2	2452	34.584	2434.748	2469.332	---	PASS

Test Graphs



11B_Ant1_2412



11B_Ant2_2412



11B_Ant1_2437



11B_Ant2_2437



11B_Ant1_2462



11B_Ant2_2462



11G_Ant1_2412



11G_Ant2_2412



11G_Ant1_2437



11G_Ant2_2437



11G_Ant1_2462



11G_Ant2_2462



11N20SISO_Ant1_2412



11N20SISO_Ant2_2412



11N20SISO_Ant1_2437



11N20SISO_Ant2_2437



11N20SISO_Ant1_2462



11N20SISO_Ant2_2462



11N40SISO_Ant1_2422



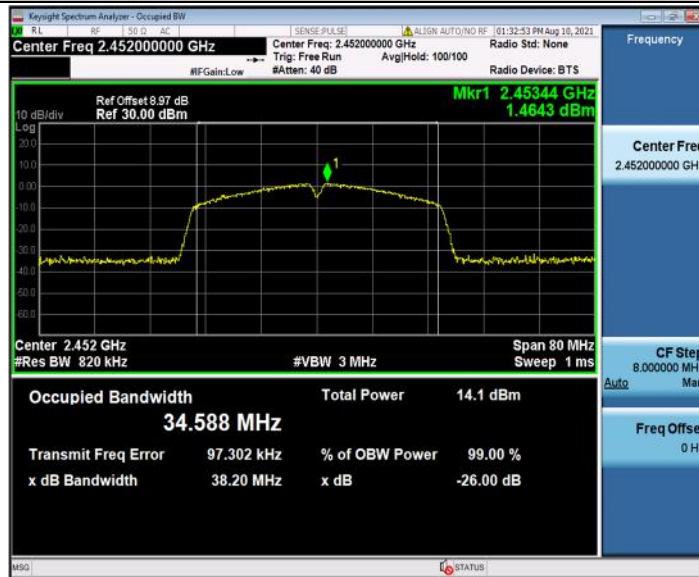
11N40SISO_Ant2_2422



11N40SISO_Ant1_2437



11N40SISO_Ant2_2437



11N40SISO_Ant1_2452



11N40SISO_Ant2_2452



11N20MIMO_Ant1_2412



11N20MIMO_Ant2_2412



11N20MIMO_Ant1_2437



11N20MIMO_Ant2_2437



11N20MIMO_Ant1_2462



11N20MIMO_Ant2_2462



11N40MIMO_Ant1_2422



11N40MIMO_Ant2_2422



11N40MIMO_Ant1_2437



11N40MIMO_Ant2_2437



11N40MIMO_Ant1_2452



11N40MIMO_Ant2_2452

Appendix C: Maximum conducted output power

Test Result

TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
11B	Ant1	2412	17.06	<=30	PASS
	Ant2	2412	16.54	<=30	PASS
	Ant1	2437	16.16	<=30	PASS
	Ant2	2437	16.74	<=30	PASS
	Ant1	2462	17.40	<=30	PASS
	Ant2	2462	17.06	<=30	PASS
11G	Ant1	2412	19.24	<=30	PASS
	Ant2	2412	19.04	<=30	PASS
	Ant1	2437	19.50	<=30	PASS
	Ant2	2437	19.16	<=30	PASS
	Ant1	2462	19.71	<=30	PASS
	Ant2	2462	19.57	<=30	PASS
11N20SISO	Ant1	2412	18.90	<=30	PASS
	Ant2	2412	18.87	<=30	PASS
	Ant1	2437	19.25	<=30	PASS
	Ant2	2437	19.09	<=30	PASS
	Ant1	2462	19.49	<=30	PASS
	Ant2	2462	19.33	<=30	PASS
11N40SISO	Ant1	2422	18.56	<=30	PASS
	Ant2	2422	18.42	<=30	PASS
	Ant1	2437	18.74	<=30	PASS
	Ant2	2437	18.50	<=30	PASS
	Ant1	2452	18.90	<=30	PASS
	Ant2	2452	18.67	<=30	PASS
11N20MIMO	Ant1	2412	18.51	<=30	PASS
	Ant2	2412	18.51	<=30	PASS
	total	2412	21.52	<=27.99	PASS
	Ant1	2437	18.70	<=30	PASS
	Ant2	2437	18.58	<=30	PASS
	total	2437	21.65	<=27.99	PASS
	Ant1	2462	18.83	<=30	PASS
	Ant2	2462	18.87	<=30	PASS
	total	2462	21.86	<=27.99	PASS
11N40MIMO	Ant1	2422	18.26	<=30	PASS
	Ant2	2422	17.60	<=30	PASS
	total	2422	20.95	<=27.99	PASS
	Ant1	2437	18.45	<=30	PASS
	Ant2	2437	17.85	<=30	PASS
	total	2437	21.17	<=27.99	PASS

	Ant1	2452	18.30	<=30	PASS
	Ant2	2452	18.04	<=30	PASS
	total	2452	21.18	<=27.99	PASS

Note: For MIMO mode the directional gain of the antenna is 8.01dbi. the limit reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

Appendix D: Maximum power spectral density

Test Result

TestMode	Antenna	Channel	Result[dBm/3-100kHz]	Limit[dBm/3kHz]	Verdict
11B	Ant1	2412	-20.87	<=8	PASS
	Ant2	2412	-21.33	<=8	PASS
	Ant1	2437	-20.68	<=8	PASS
	Ant2	2437	-21.16	<=8	PASS
	Ant1	2462	-20.45	<=8	PASS
	Ant2	2462	-20.79	<=8	PASS
11G	Ant1	2412	-19.05	<=8	PASS
	Ant2	2412	-19.28	<=8	PASS
	Ant1	2437	-18.65	<=8	PASS
	Ant2	2437	-18.97	<=8	PASS
	Ant1	2462	-18.49	<=8	PASS
	Ant2	2462	-18.67	<=8	PASS
11N20SISO	Ant1	2412	-19.05	<=8	PASS
	Ant2	2412	-19.07	<=8	PASS
	Ant1	2437	-18.96	<=8	PASS
	Ant2	2437	-18.95	<=8	PASS
	Ant1	2462	-18.35	<=8	PASS
	Ant2	2462	-18.66	<=8	PASS
11N40SISO	Ant1	2422	-19.15	<=8	PASS
	Ant2	2422	-19.52	<=8	PASS
	Ant1	2437	-18.92	<=8	PASS
	Ant2	2437	-22.2	<=8	PASS
	Ant1	2452	-18.86	<=8	PASS
	Ant2	2452	-19.26	<=8	PASS
11N20MIMO	Ant1	2412	-18.95	<=8	PASS
	Ant2	2412	-19.69	<=8	PASS
	total	2412	-16.29	<=5.99	PASS
	Ant1	2437	-18.99	<=8	PASS
	Ant2	2437	-19.56	<=8	PASS
	total	2437	-16.26	<=5.99	PASS
	Ant1	2462	-18.82	<=8	PASS
	Ant2	2462	-18.96	<=8	PASS
	total	2462	-15.88	<=5.99	PASS
11N40MIMO	Ant1	2422	-20.78	<=8	PASS
	Ant2	2422	-21.72	<=8	PASS
	total	2422	-18.21	<=5.99	PASS
	Ant1	2437	-21.58	<=8	PASS
	Ant2	2437	-21.89	<=8	PASS
	total	2437	-18.72	<=5.99	PASS