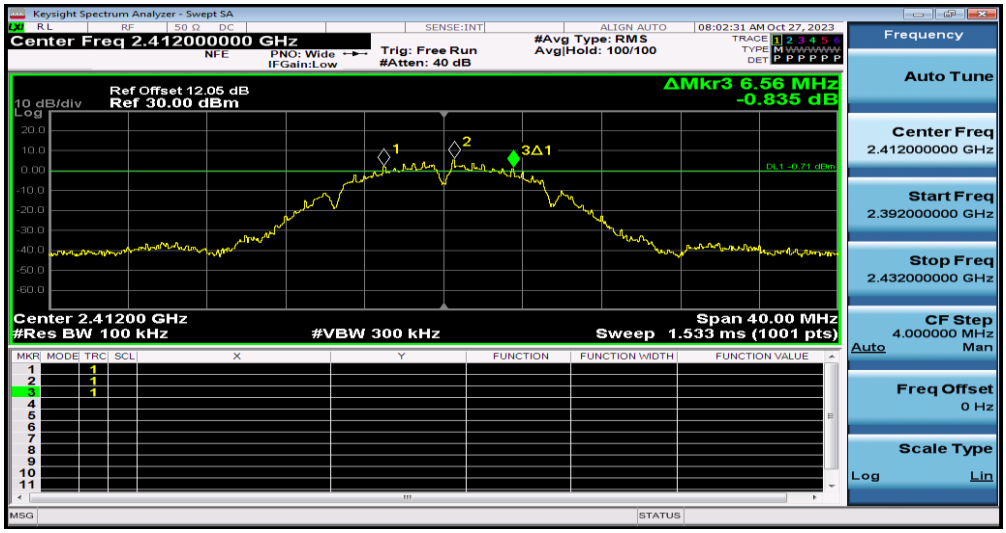
Appendix C: RESULTS FOR 2.4GHz WIFI

Appendix C: DTS Bandwidth

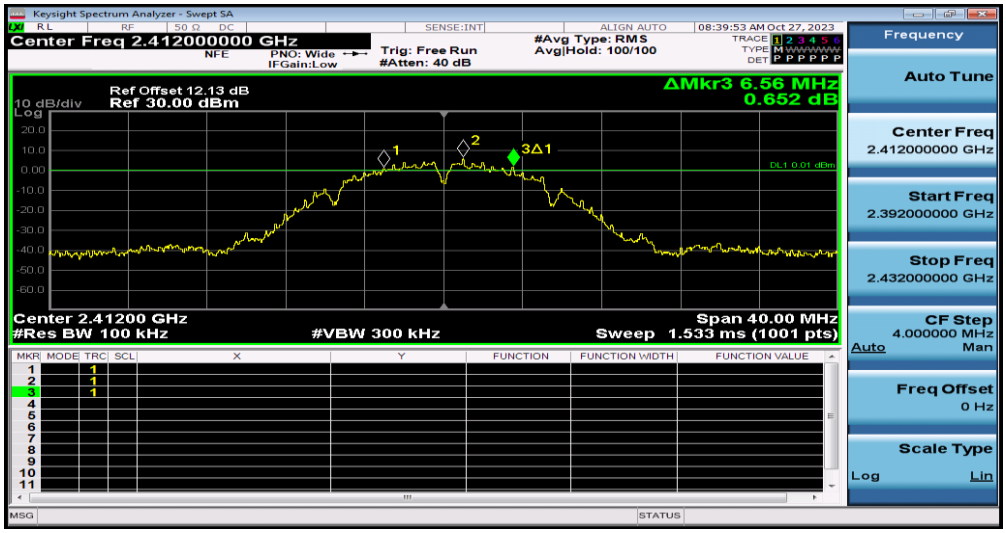
Test Result

TestMode	Antenna	Frequency[MHz]	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant0	2412	6.560	2408.960	2415.520	0.5	PASS
11B	Ant1	2412	6.560	2408.960	2415.520	0.5	PASS
11B	Ant0	2437	8.040	2433.000	2441.040	0.5	PASS
11B	Ant1	2437	7.040	2433.480	2440.520	0.5	PASS
11B	Ant0	2462	7.080	2458.440	2465.520	0.5	PASS
11B	Ant1	2462	7.560	2457.960	2465.520	0.5	PASS
11G	Ant0	2412	16.320	2403.840	2420.160	0.5	PASS
11G	Ant1	2412	16.320	2403.840	2420.160	0.5	PASS
11G	Ant0	2437	16.320	2428.840	2445.160	0.5	PASS
11G	Ant1	2437	16.360	2428.800	2445.160	0.5	PASS
11G	Ant0	2462	16.320	2453.840	2470.160	0.5	PASS
11G	Ant1	2462	16.320	2453.840	2470.160	0.5	PASS
11N20MIMO	Ant0	2412	17.520	2403.240	2420.760	0.5	PASS
11N20MIMO	Ant1	2412	17.600	2403.200	2420.800	0.5	PASS
11N20MIMO	Ant0	2437	17.560	2428.200	2445.760	0.5	PASS
11N20MIMO	Ant1	2437	17.560	2428.200	2445.760	0.5	PASS
11N20MIMO	Ant0	2462	17.600	2453.200	2470.800	0.5	PASS
11N20MIMO	Ant1	2462	17.600	2453.200	2470.800	0.5	PASS

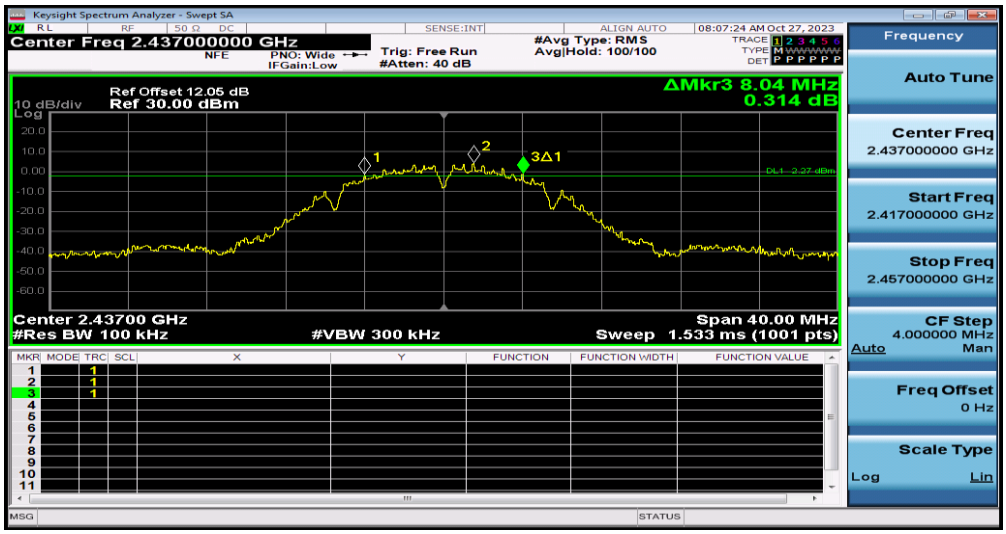
Test Graphs



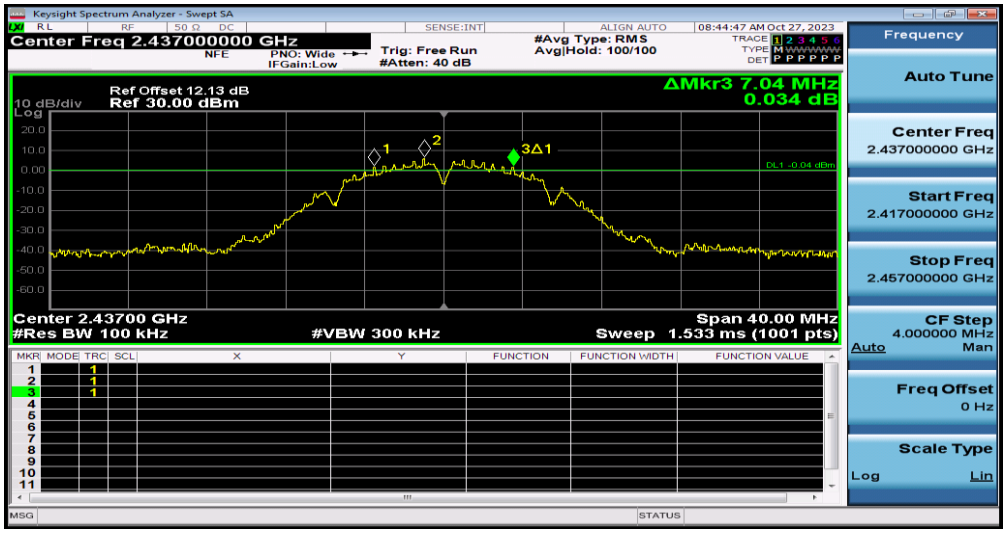
11B-Ant0-2412



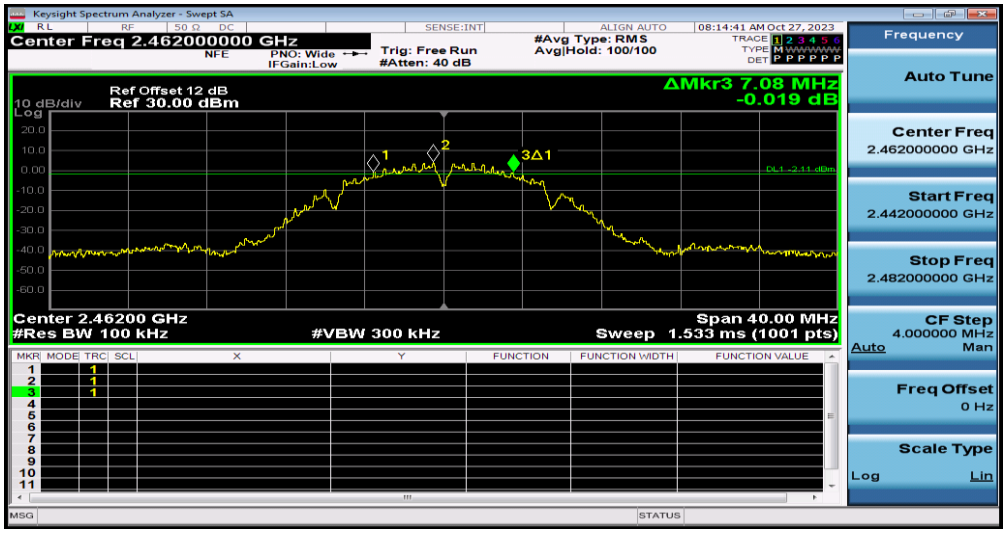
11B-Ant1-2412



11B-Ant0-2437



11B-Ant1-2437



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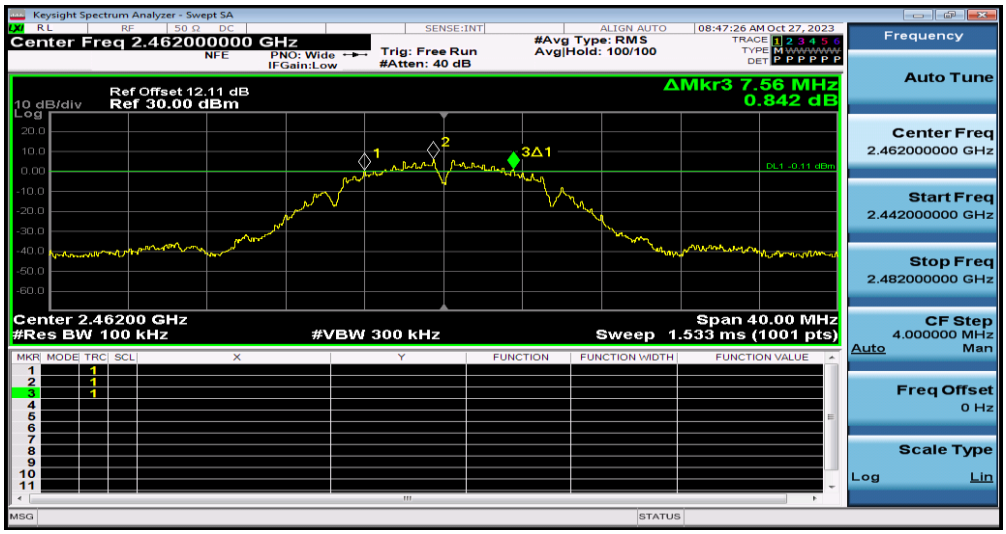

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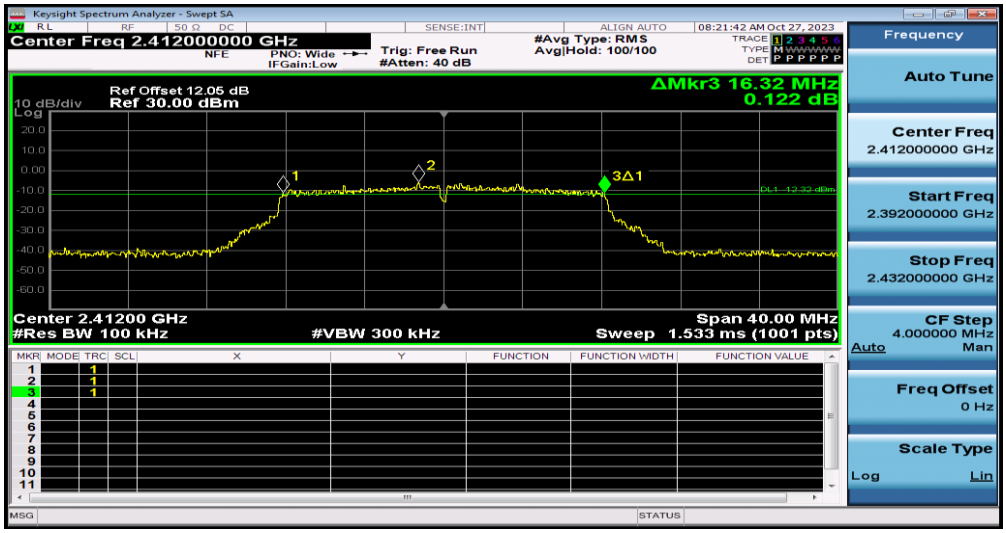
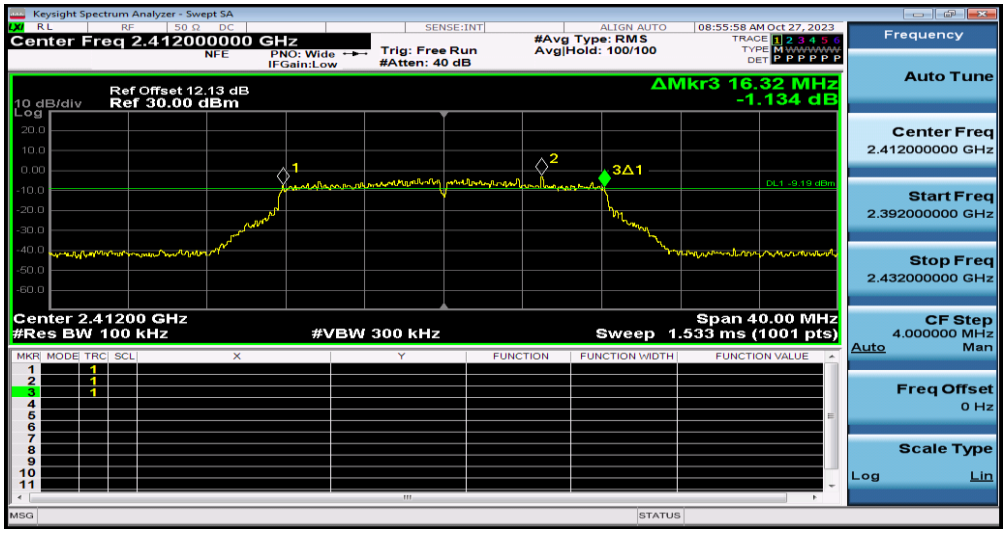
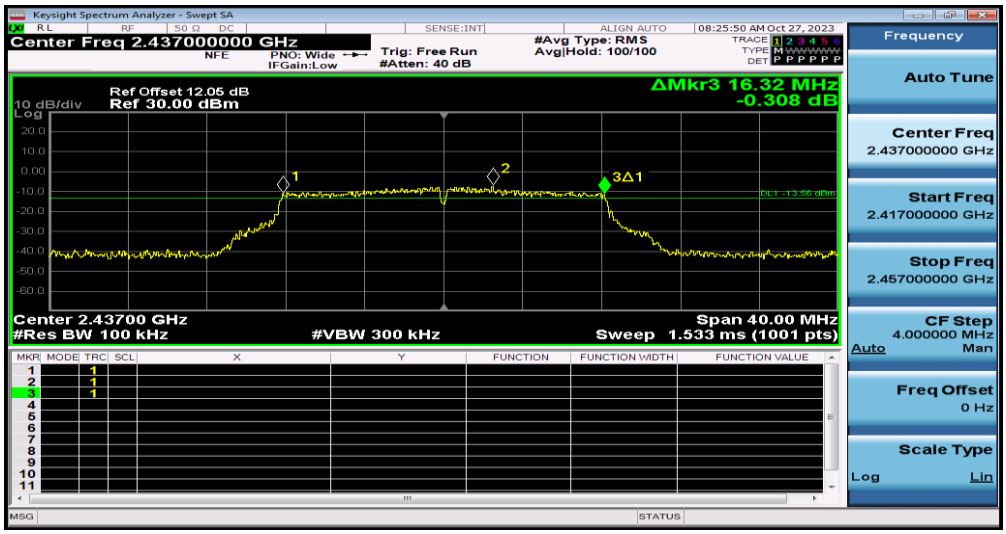


11G-Ant0-2412



11G-Ant1-2412



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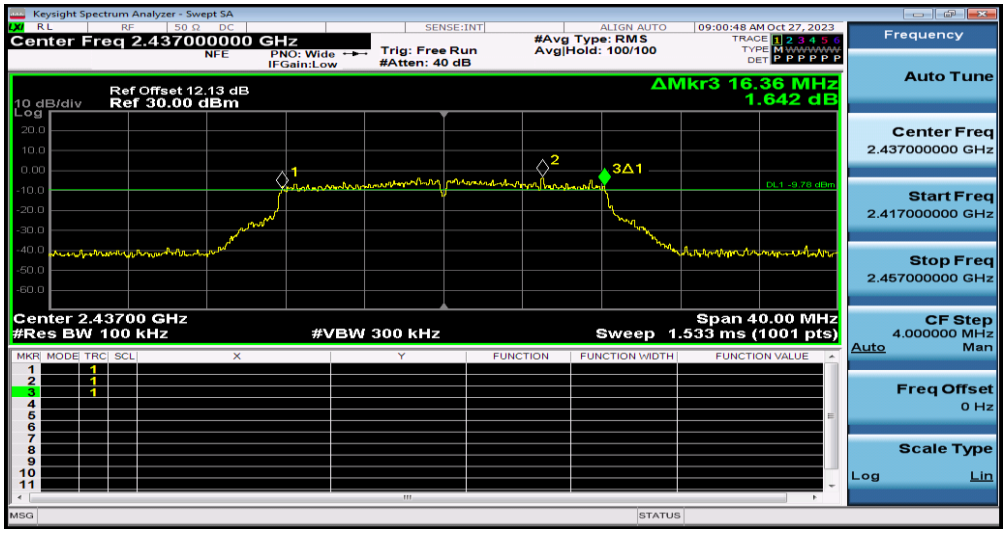
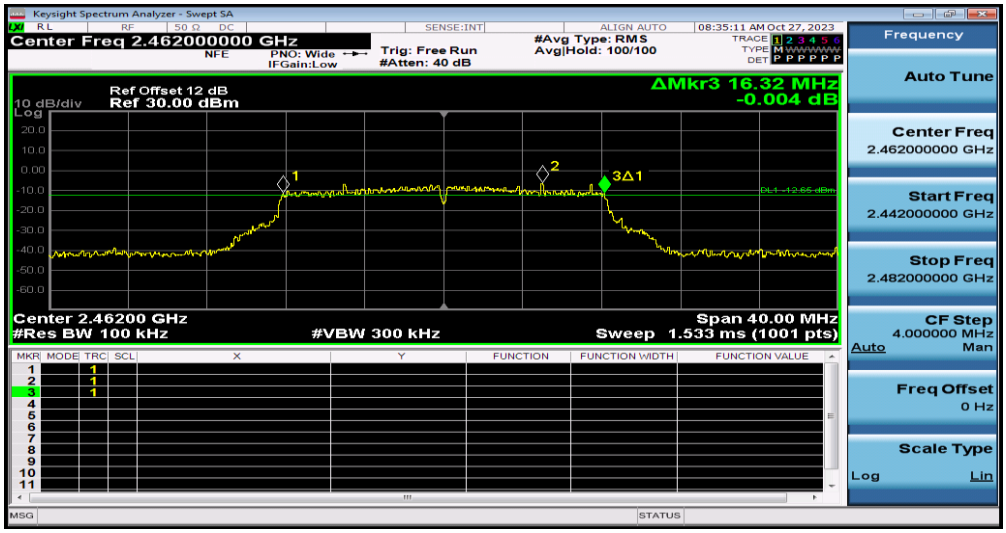


11G-Ant1-2437



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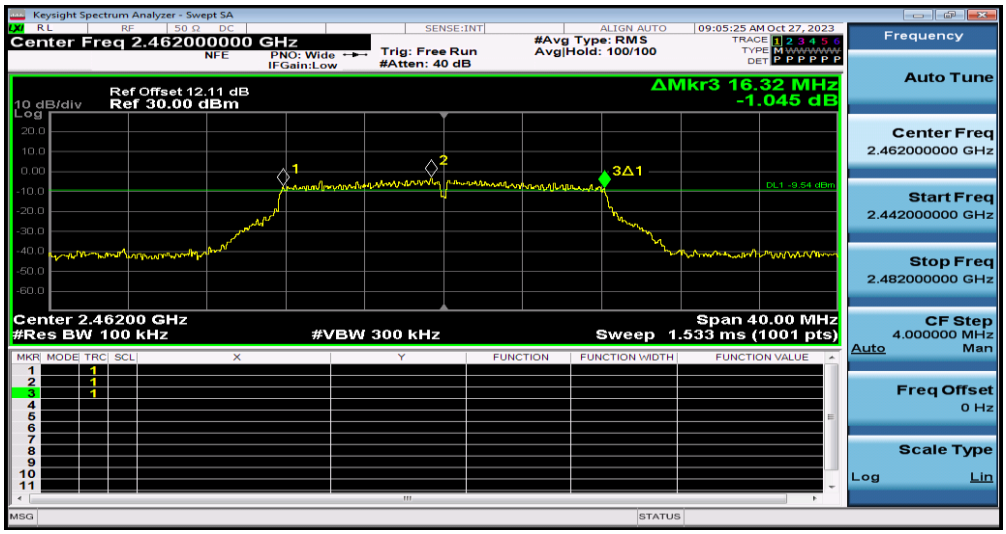

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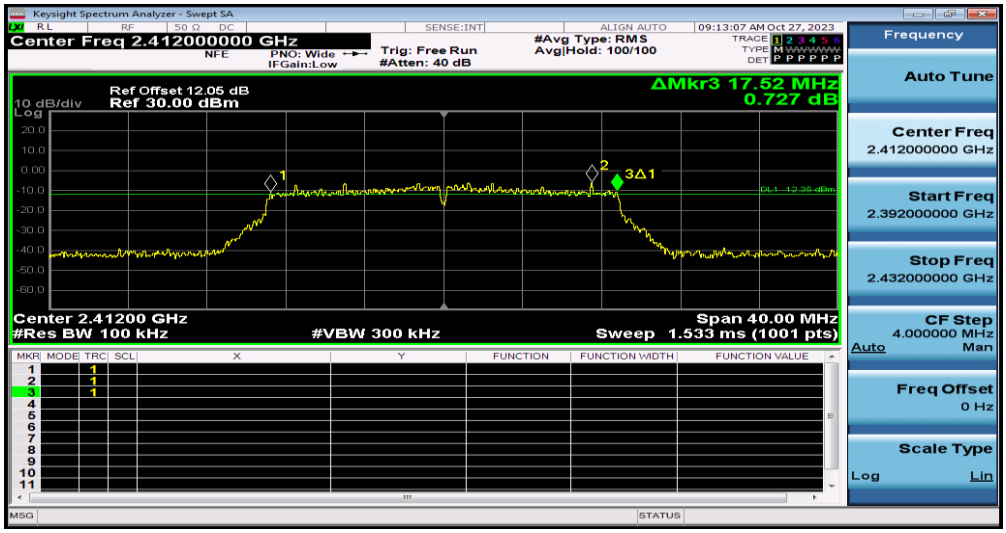
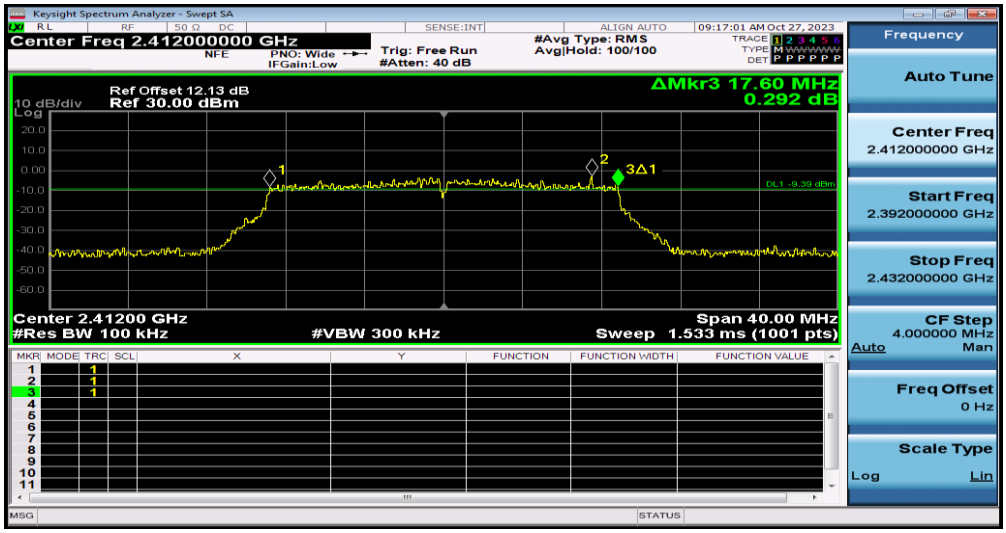


11N20MIMO-Ant0-2412



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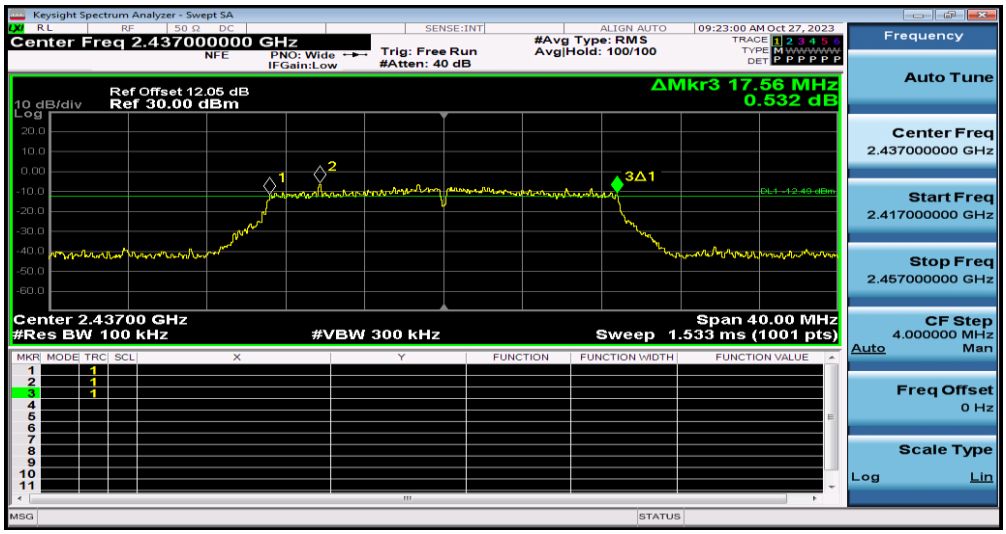

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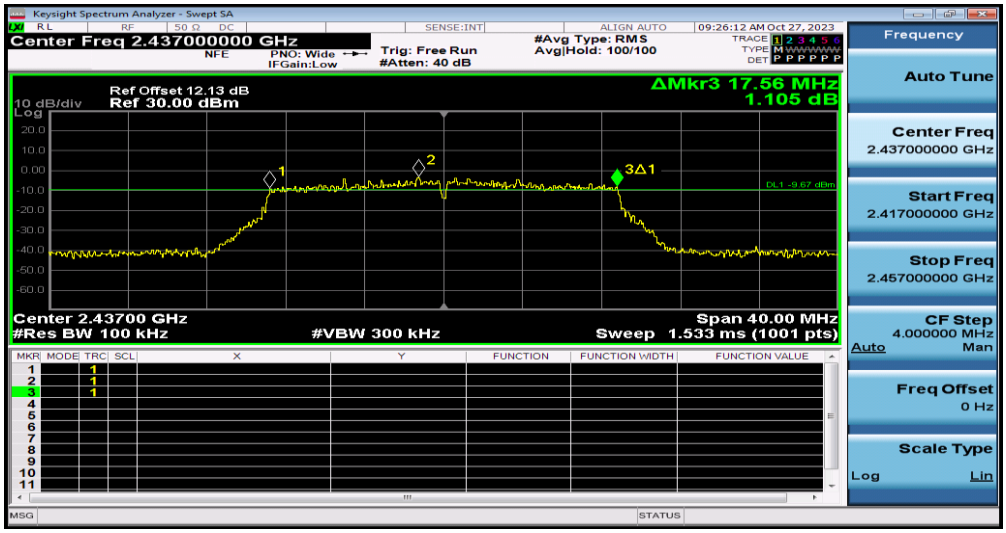

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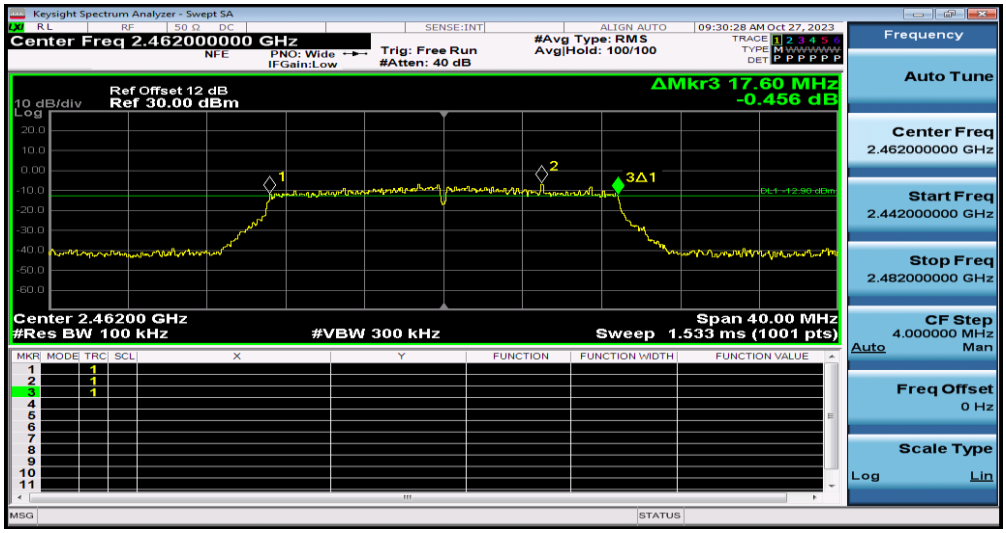
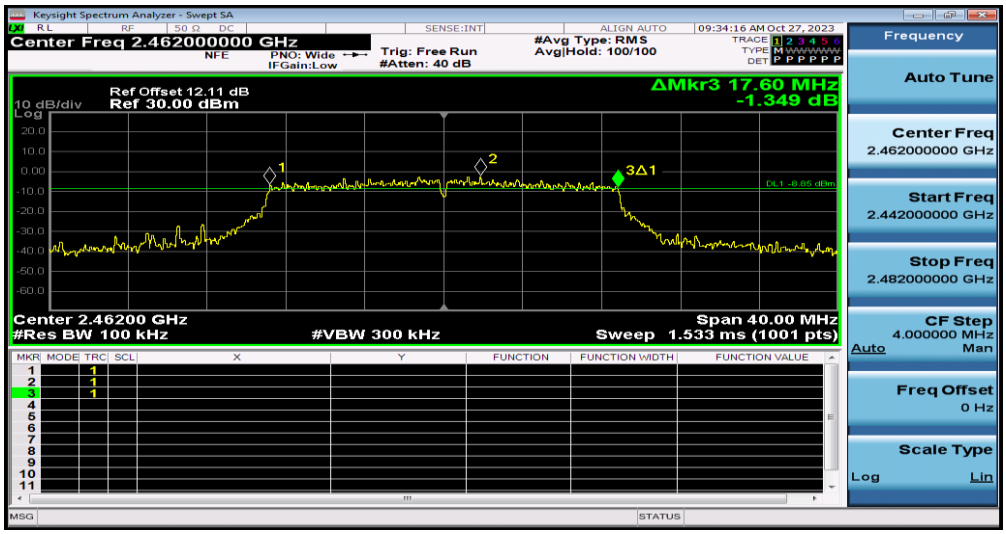


11N20MIMO-Ant0-2462



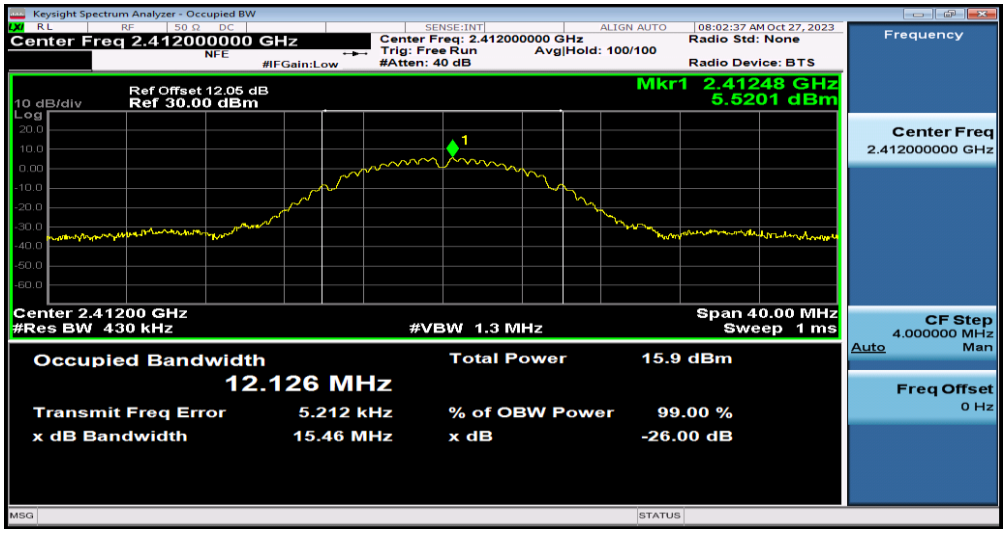
11N20MIMO-Ant1-2462

Appendix C: Occupied Channel Bandwidth

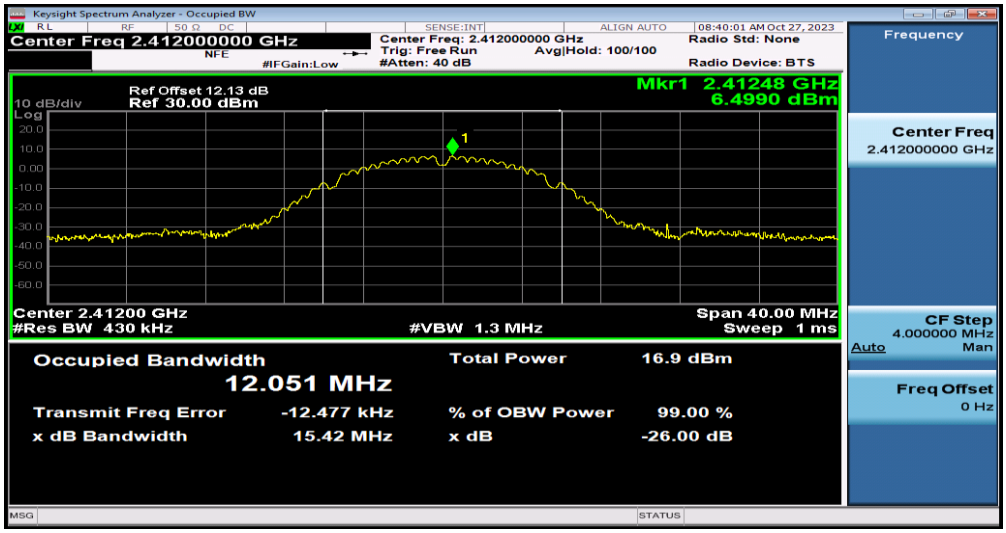
Test Result

TestMode	Antenna	Channel Frequency[MHz]	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant0	2412	12.126	2405.9422	2418.0682	---	---
11B	Ant1	2412	12.051	2405.9620	2418.0130	---	---
11B	Ant0	2437	12.193	2430.9033	2443.0963	---	---
11B	Ant1	2437	12.055	2430.9898	2443.0448	---	---
11B	Ant0	2462	12.111	2455.9568	2468.0678	---	---
11B	Ant1	2462	12.114	2455.9258	2468.0398	---	---
11G	Ant0	2412	17.203	2403.3939	2420.5969	---	---
11G	Ant1	2412	17.056	2403.4468	2420.5028	---	---
11G	Ant0	2437	17.261	2428.3482	2445.6092	---	---
11G	Ant1	2437	16.992	2428.5399	2445.5319	---	---
11G	Ant0	2462	17.235	2453.3975	2470.6325	---	---
11G	Ant1	2462	17.038	2453.4957	2470.5337	---	---
11N20MIMO	Ant0	2412	18.171	2402.8870	2421.0580	---	---
11N20MIMO	Ant1	2412	17.979	2403.0040	2420.9830	---	---
11N20MIMO	Ant0	2437	18.352	2427.8071	2446.1591	---	---
11N20MIMO	Ant1	2437	17.979	2428.0284	2446.0074	---	---
11N20MIMO	Ant0	2462	18.279	2452.8441	2471.1231	---	---
11N20MIMO	Ant1	2462	18.117	2452.9016	2471.0186	---	---

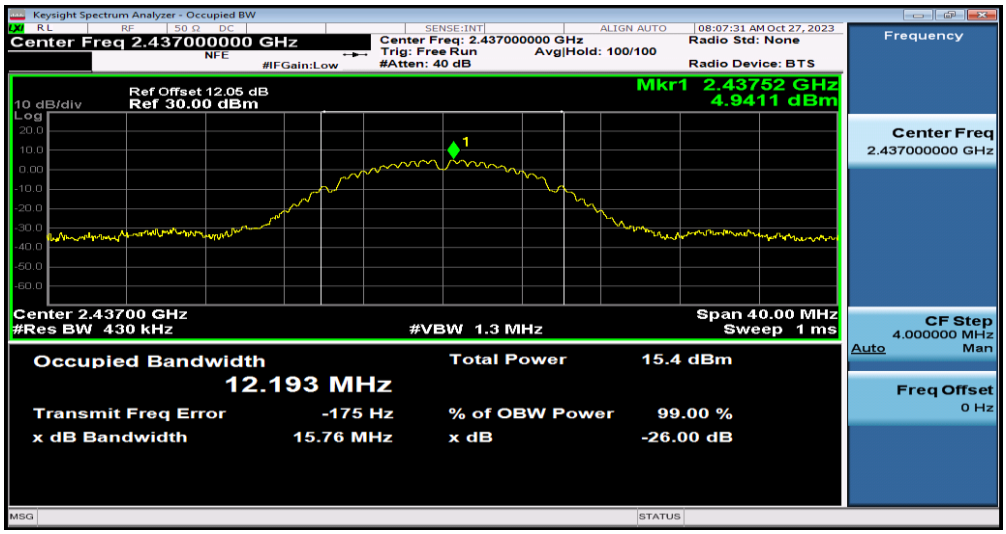
Test Graphs



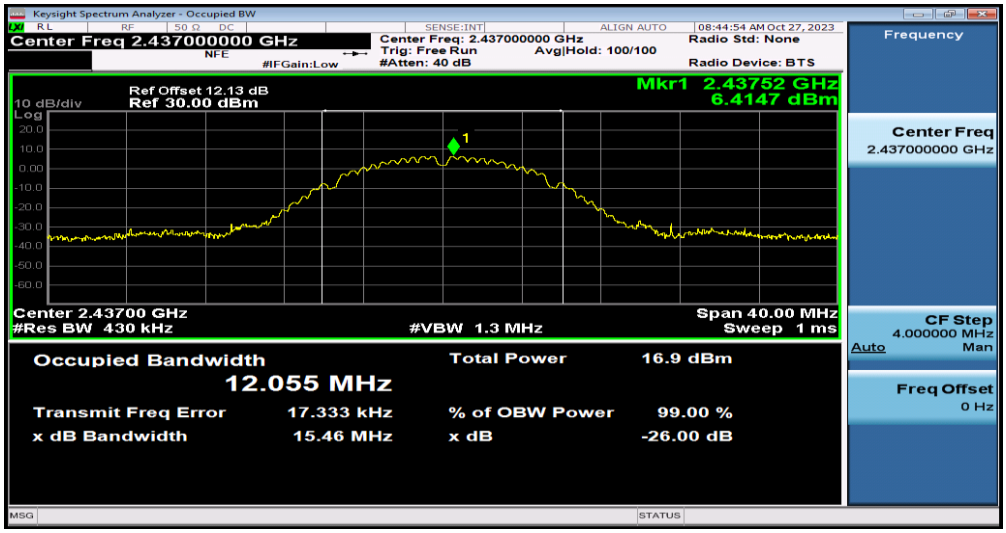
11B-Ant0-2412



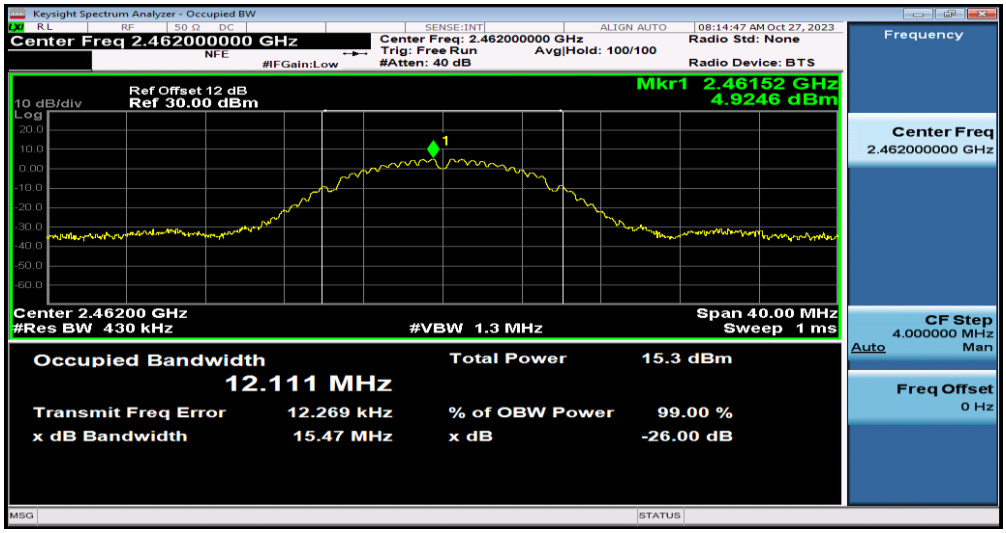
11B-Ant1-2412



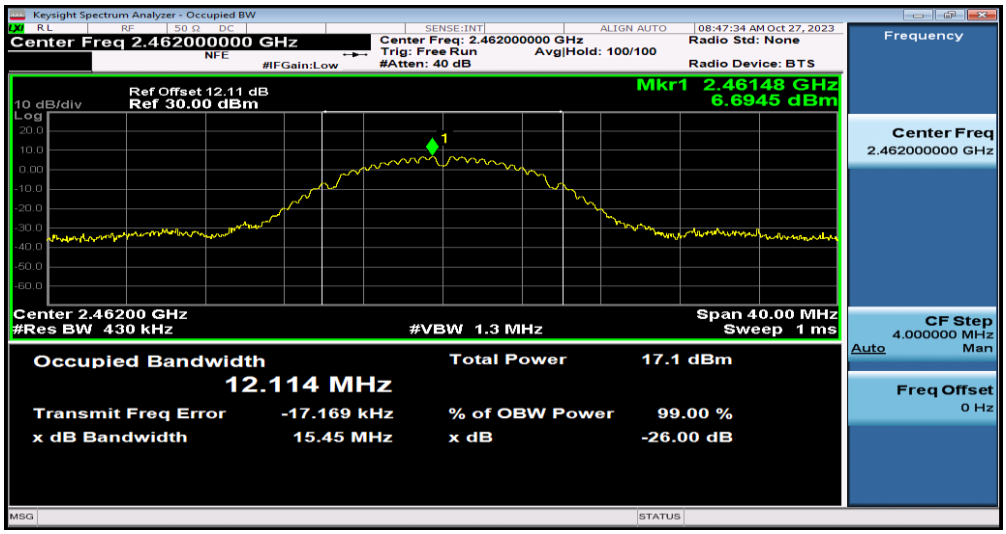
11B-Ant0-2437



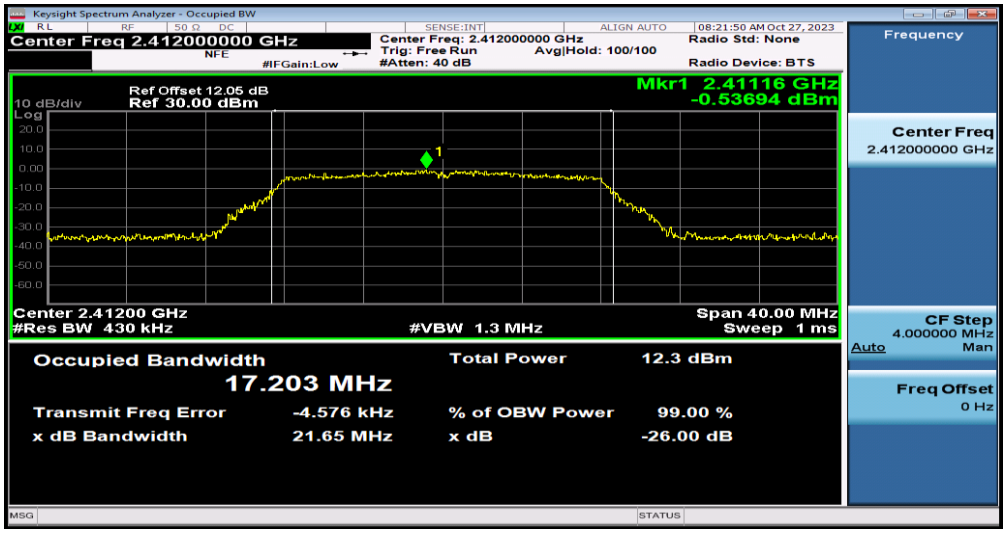
11B-Ant1-2437



11B-Ant0-2462



11B-Ant1-2462



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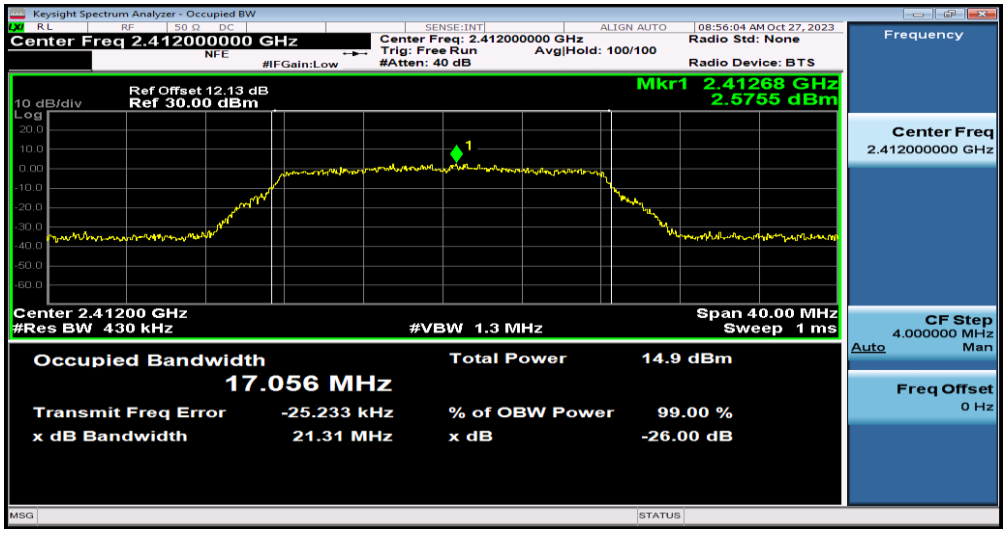
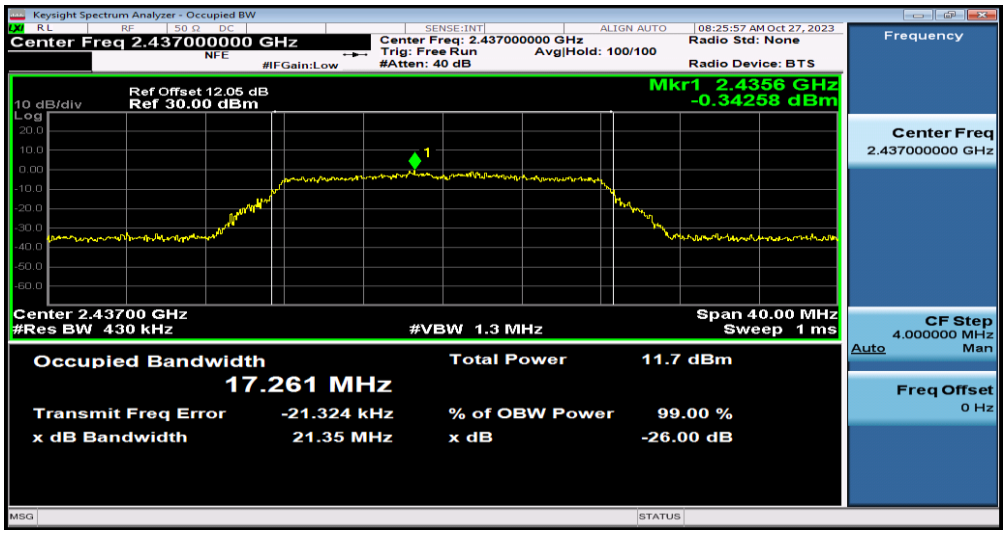
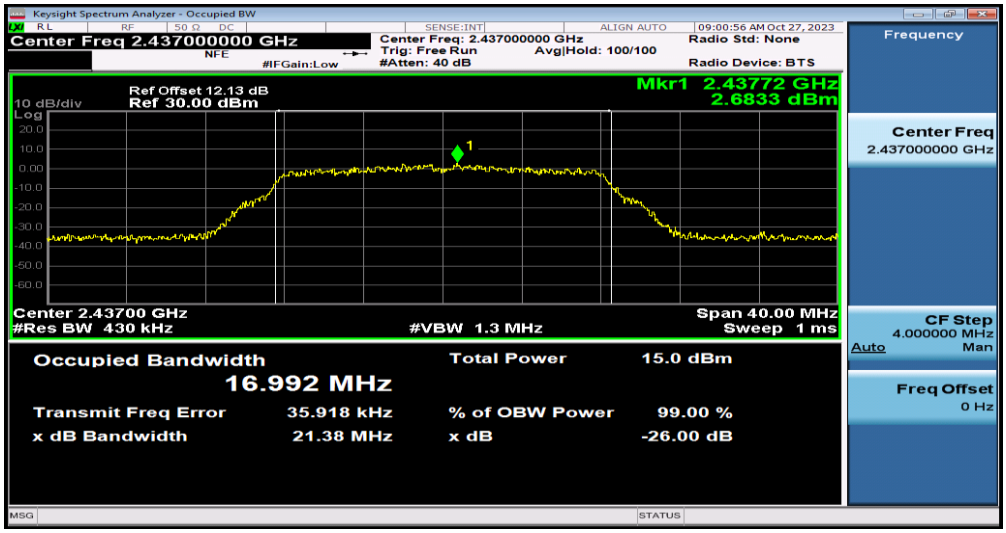


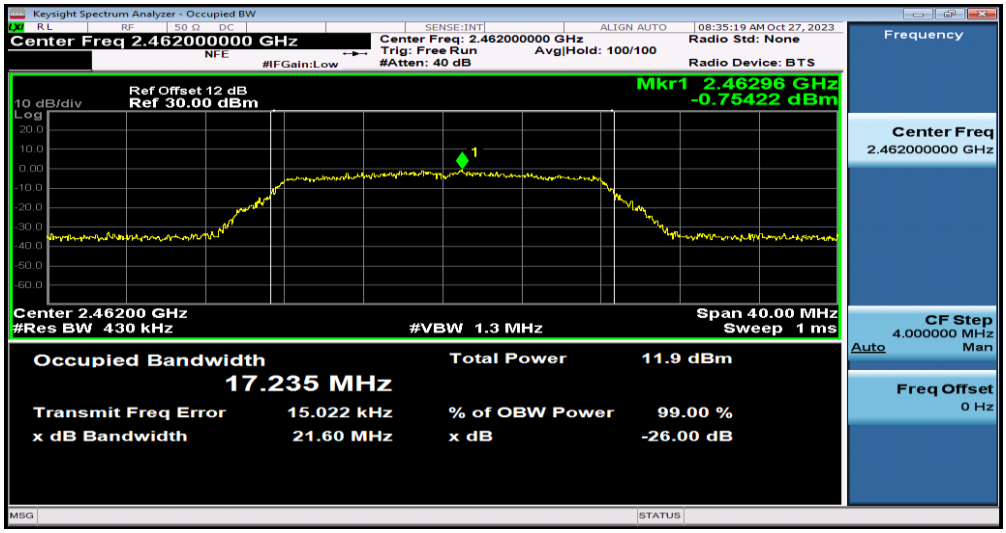
11G-Ant1-2412



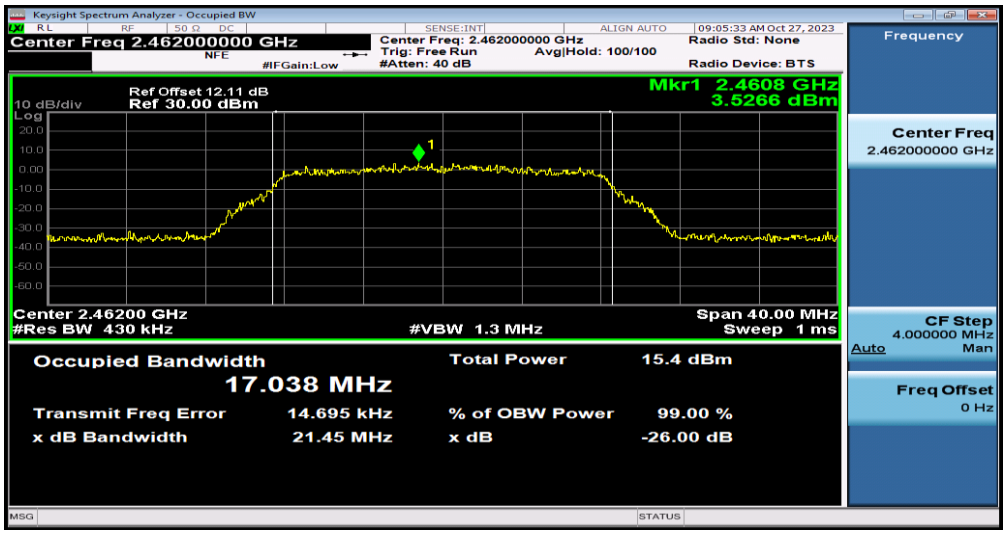
11G-Ant0-2437



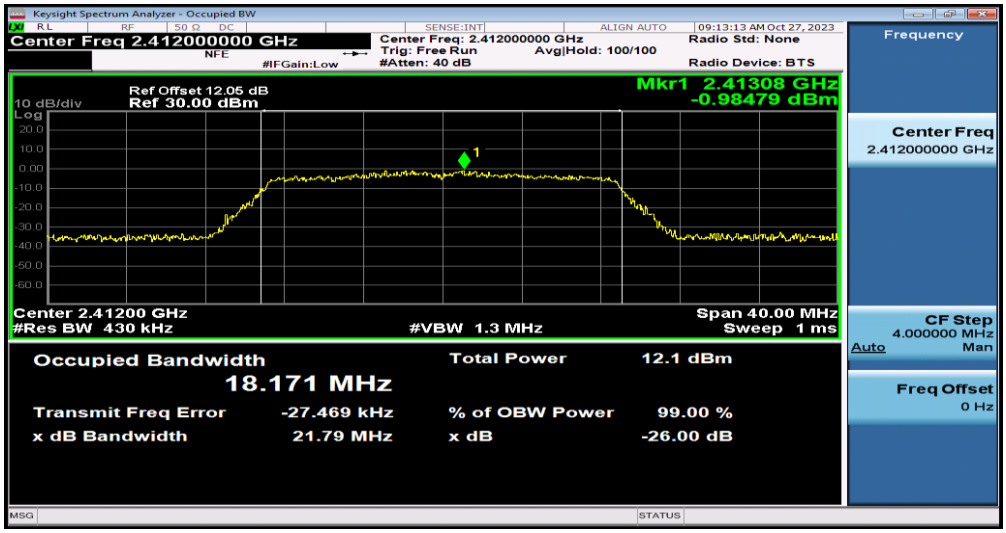
11G-Ant1-2437



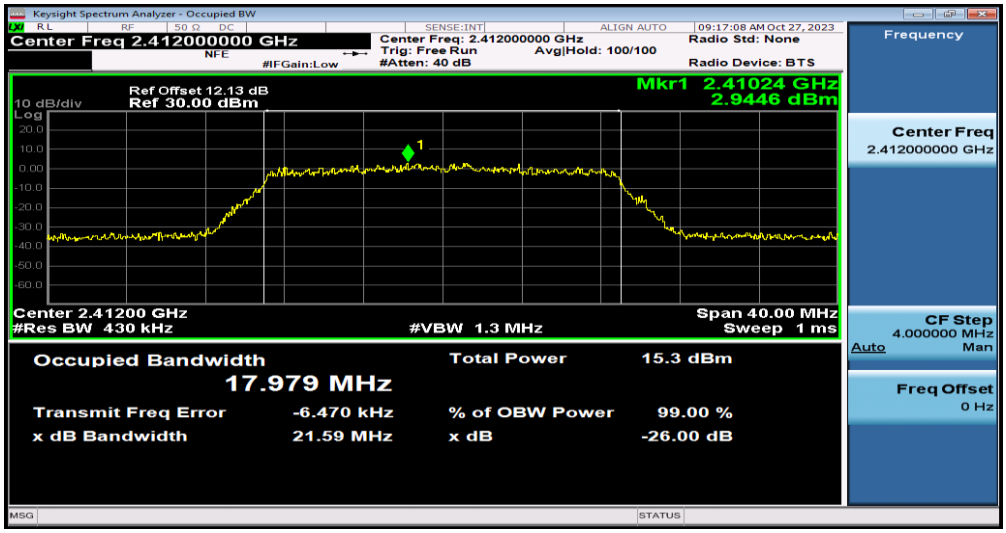
11G-Ant0-2462



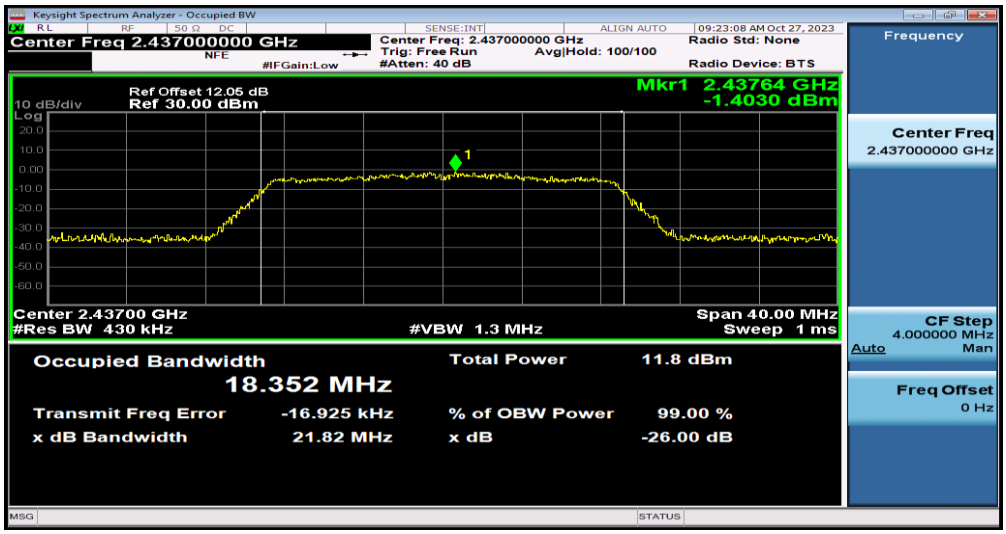
11G-Ant1-2462



11N20MIMO-Ant0-2412



11N20MIMO-Ant1-2412



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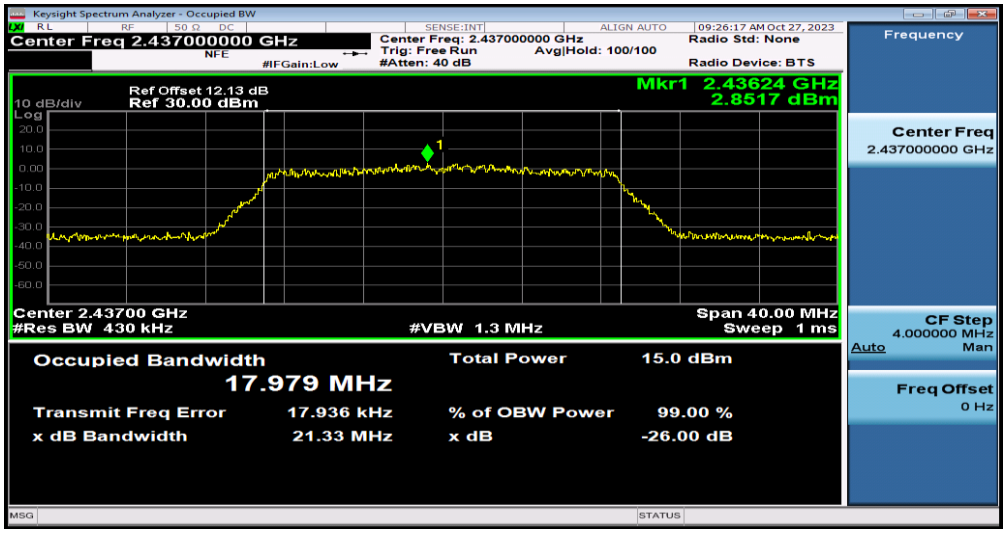
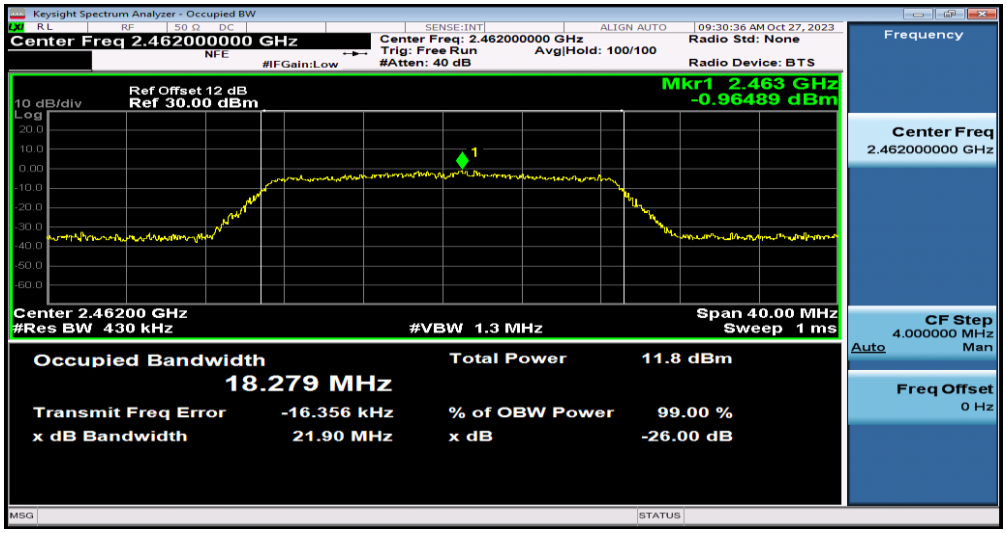
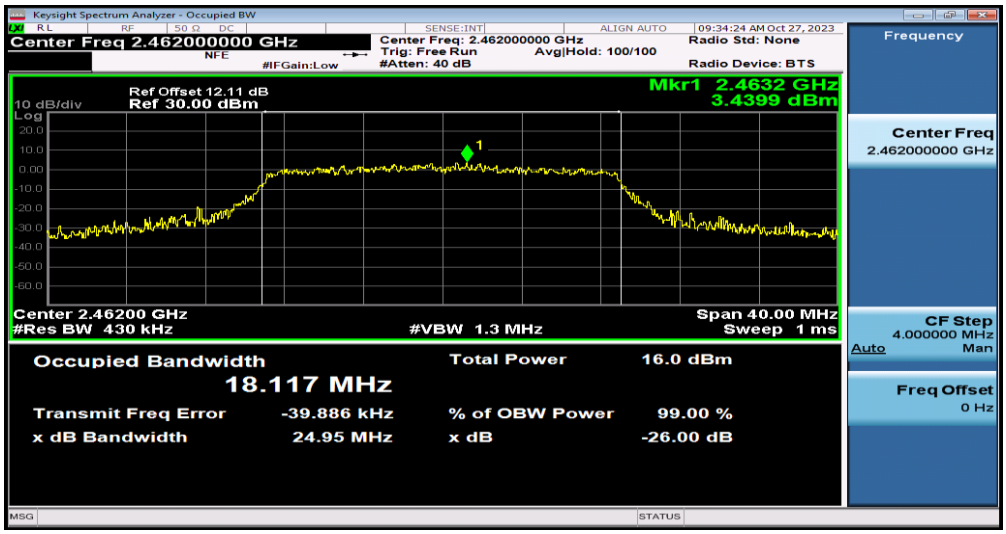


11N20MIMO-Ant1-2437



11N20MIMO-Ant0-2462



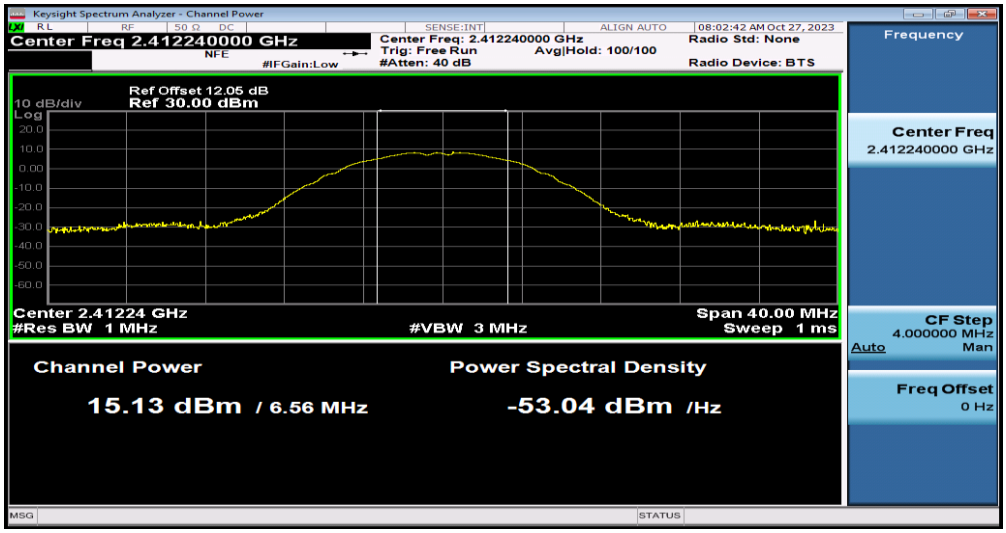
11N20MIMO-Ant1-2462

Appendix C: Maximum conducted output power

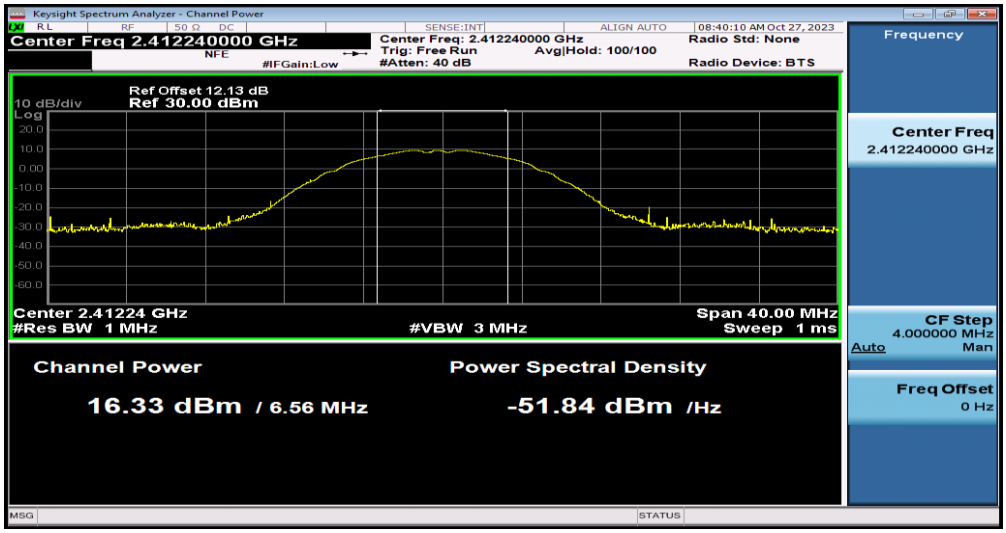
Test Result Average

Test Mode	Antenna	Frequency[MHz]	Average power [dBm]	Duty Cycle [%]	DC Factor [dBm]	Result [dBm]	Limit [dBm]	Gain [dBi]	EIRP [dBm]	EIRP Limit [dBm]	Verdict
11B	Ant0	2412	15.13	98.94	0.05	15.18	≤30.00	1.51	16.69	≤36.00	PASS
11B	Ant1	2412	16.33	98.94	0.05	16.38	≤30.00	1.53	17.91	≤36.00	PASS
11B	Ant0	2437	15.03	98.82	0.05	15.08	≤30.00	1.51	16.59	≤36.00	PASS
11B	Ant1	2437	16.16	98.94	0.05	16.21	≤30.00	1.53	17.74	≤36.00	PASS
11B	Ant0	2462	14.74	98.83	0.05	14.79	≤30.00	1.51	16.30	≤36.00	PASS
11B	Ant1	2462	16.63	98.82	0.05	16.68	≤30.00	1.53	18.21	≤36.00	PASS
11G	Ant0	2412	13.37	93.29	0.30	13.67	≤30.00	1.51	15.18	≤36.00	PASS
11G	Ant1	2412	16.19	93.29	0.30	16.49	≤30.00	1.53	18.02	≤36.00	PASS
11G	Ant0	2437	12.74	93.33	0.30	13.04	≤30.00	1.51	14.55	≤36.00	PASS
11G	Ant1	2437	16.11	93.33	0.30	16.41	≤30.00	1.53	17.94	≤36.00	PASS
11G	Ant0	2462	12.91	93.33	0.30	13.21	≤30.00	1.51	14.72	≤36.00	PASS
11G	Ant1	2462	16.43	93.33	0.30	16.73	≤30.00	1.53	18.26	≤36.00	PASS
11N20MIMO	Ant0	2412	13.15	92.91	0.32	13.47	≤30.00	1.51	14.98	≤36.00	PASS
11N20MIMO	Ant1	2412	16.25	92.91	0.32	16.57	≤30.00	1.53	18.10	≤36.00	PASS
11N20MIMO	total	2412	---	---	---	18.30	≤30.00	1.52	19.82	≤36.00	PASS
11N20MIMO	Ant0	2437	12.77	92.91	0.32	13.09	≤30.00	1.51	14.60	≤36.00	PASS
11N20MIMO	Ant1	2437	15.99	92.86	0.32	16.31	≤30.00	1.53	17.84	≤36.00	PASS
11N20MIMO	total	2437	---	---	---	18.00	≤30.00	1.52	19.52	≤36.00	PASS
11N20MIMO	Ant0	2462	12.94	93.57	0.29	13.23	≤30.00	1.51	14.74	≤36.00	PASS
11N20MIMO	Ant1	2462	17.03	92.91	0.32	17.35	≤30.00	1.53	18.88	≤36.00	PASS
11N20MIMO	total	2462	---	---	---	18.77	≤30.00	1.52	20.29	≤36.00	PASS

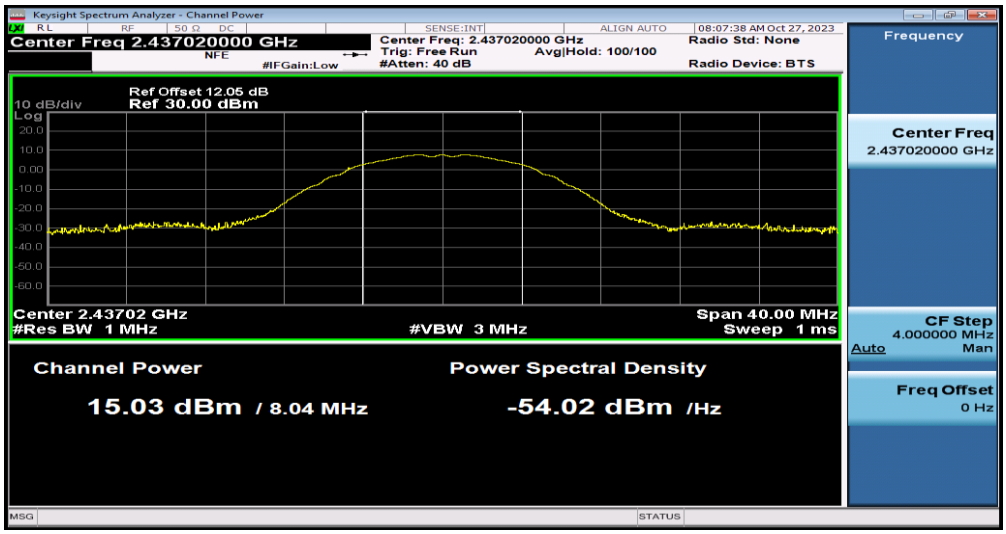
Test Graphs Average



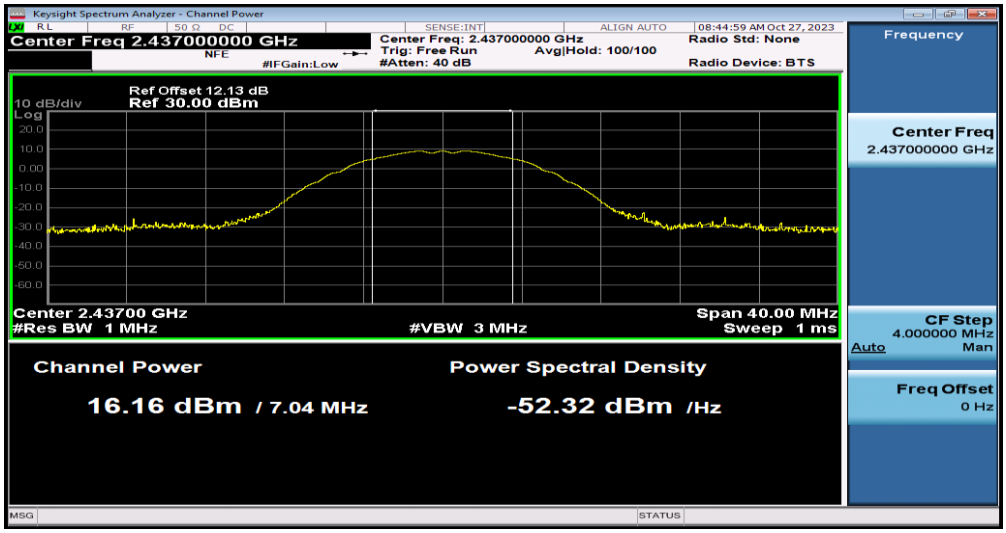
11B-Ant0-2412



11B-Ant1-2412



11B-Ant0-2437



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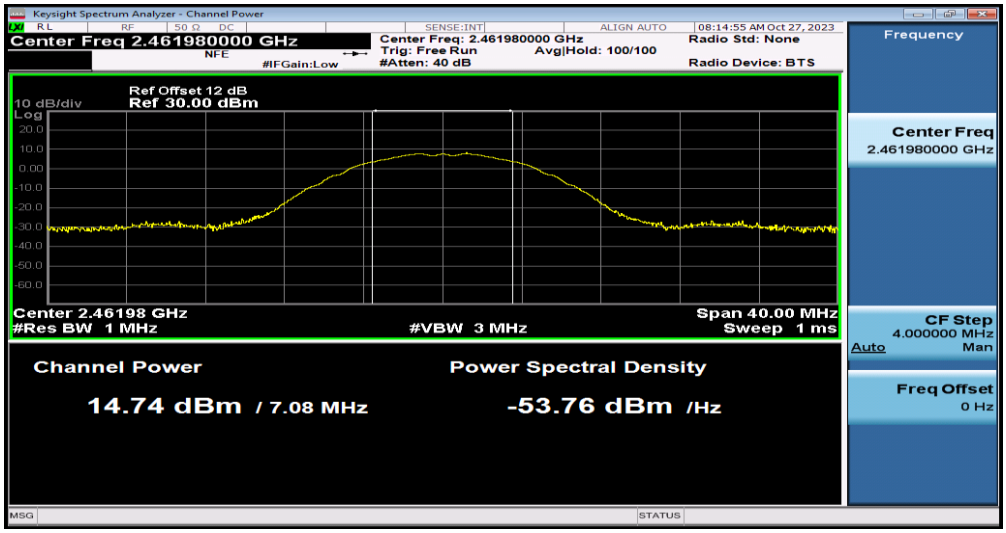

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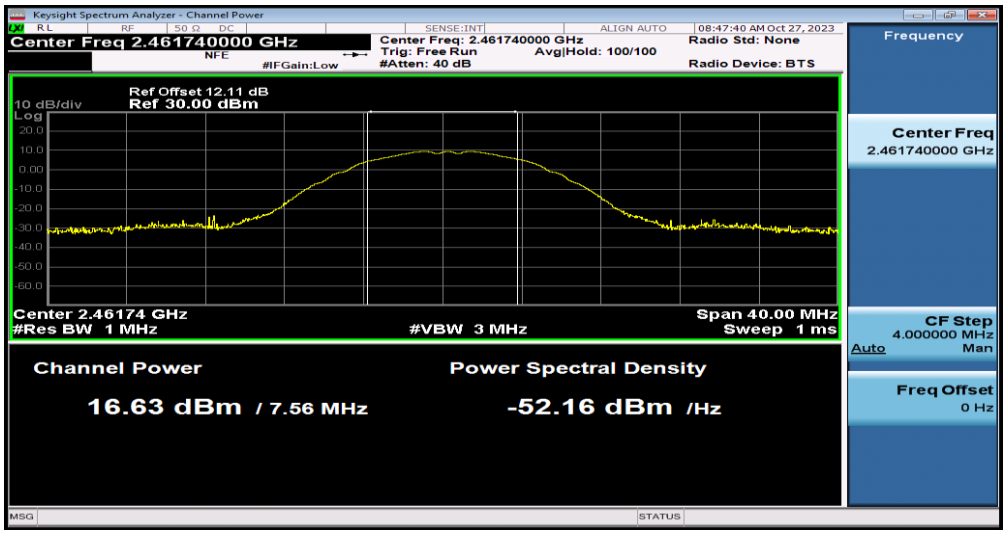
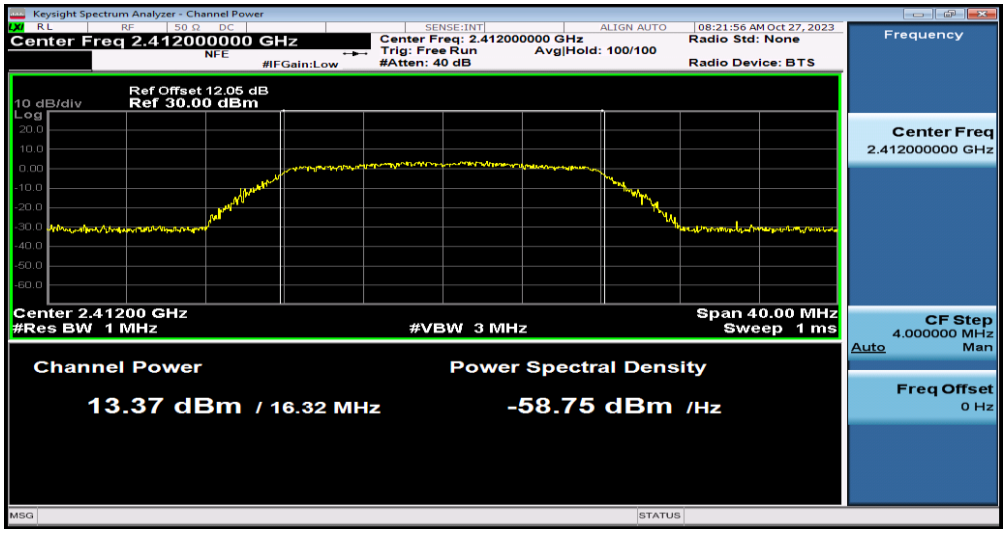


11B-Ant1-2462



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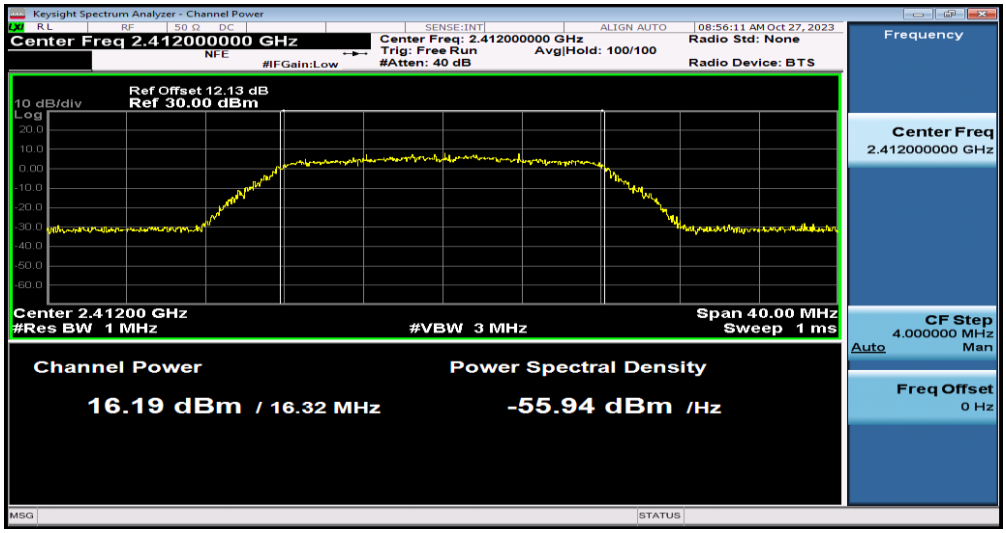

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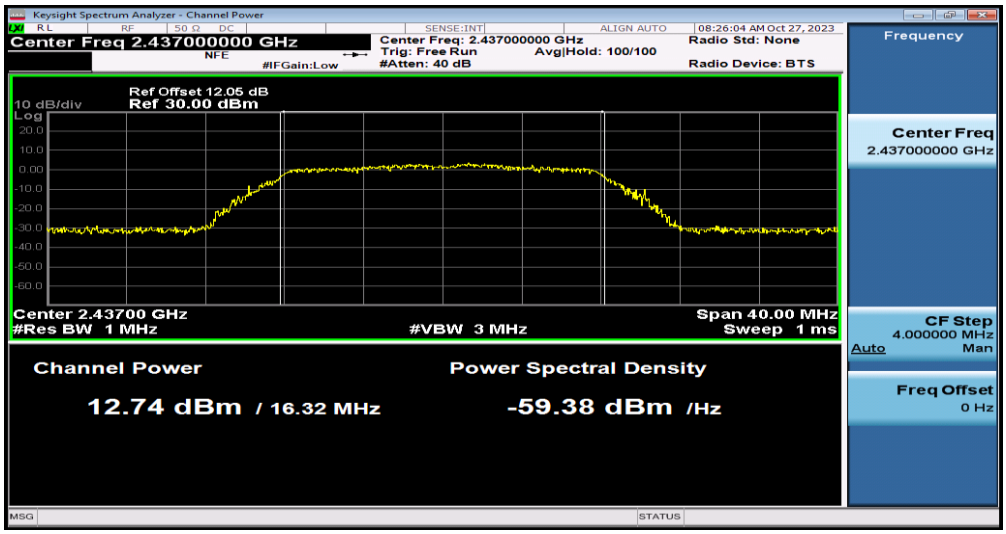

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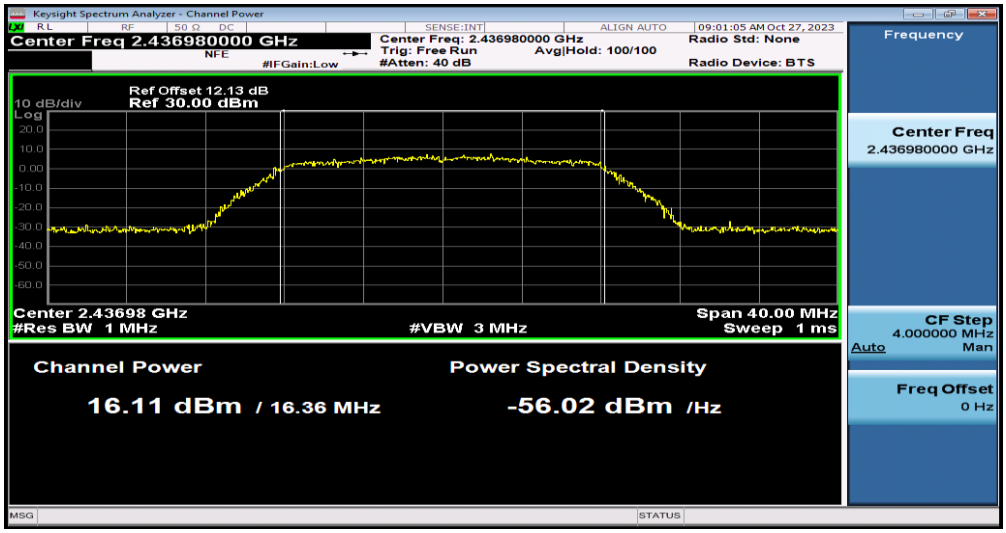

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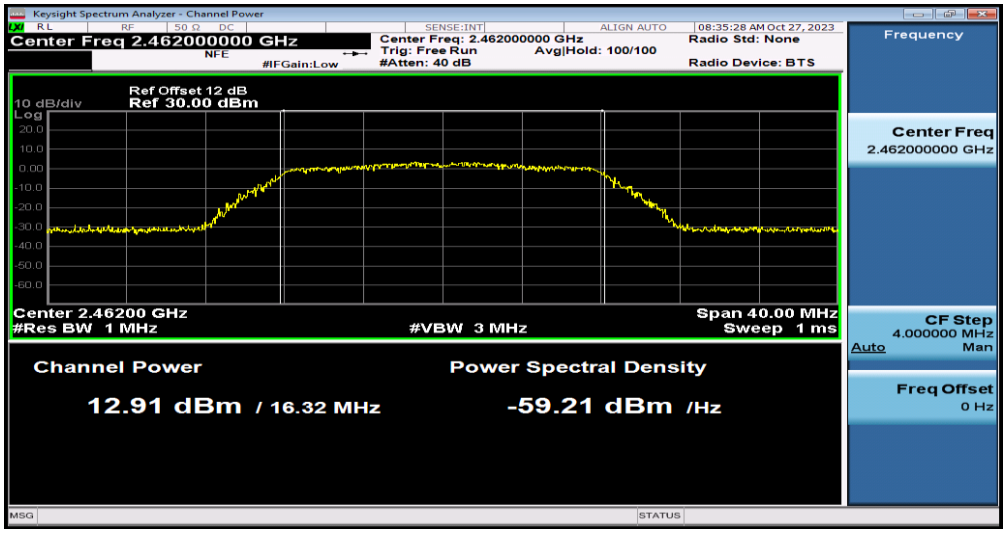

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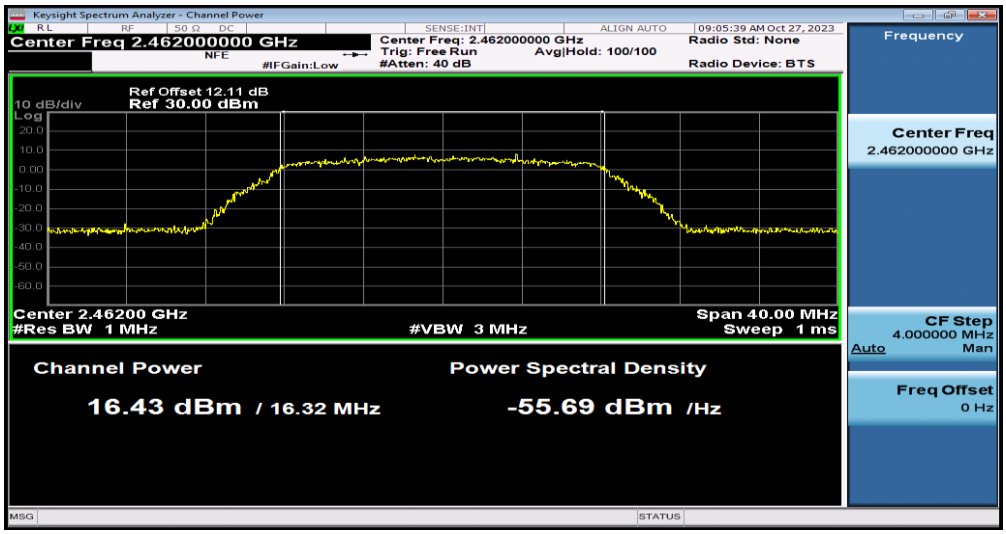

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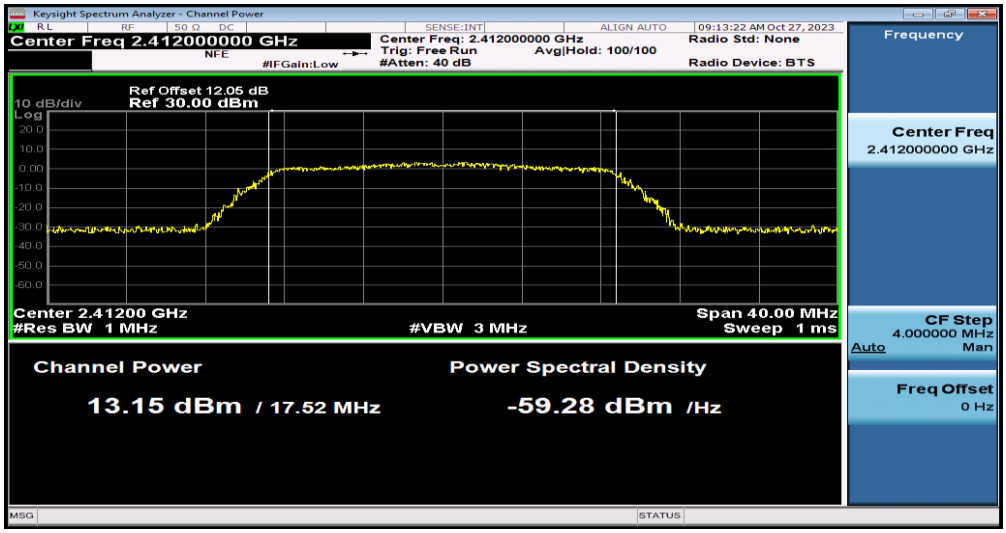
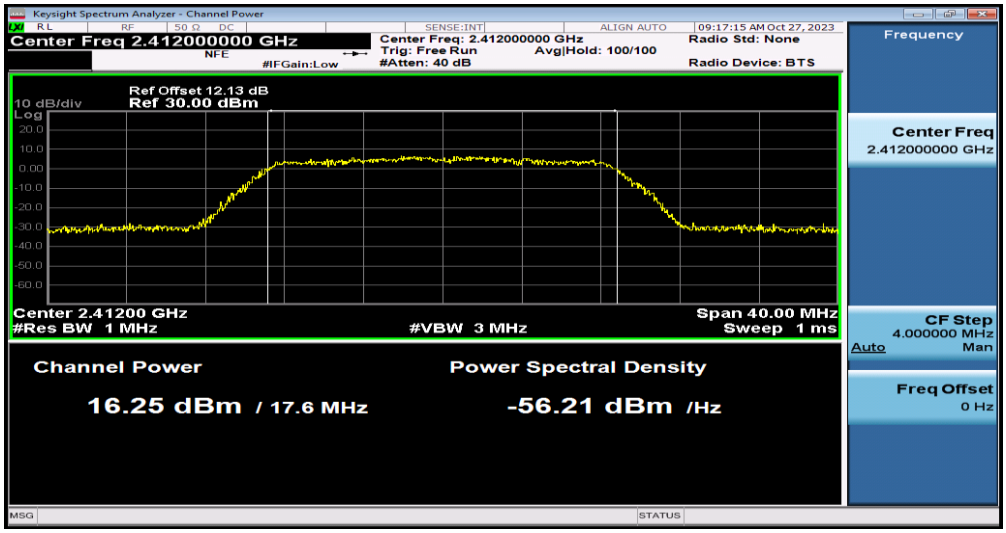


11N20MIMO-Ant0-2412



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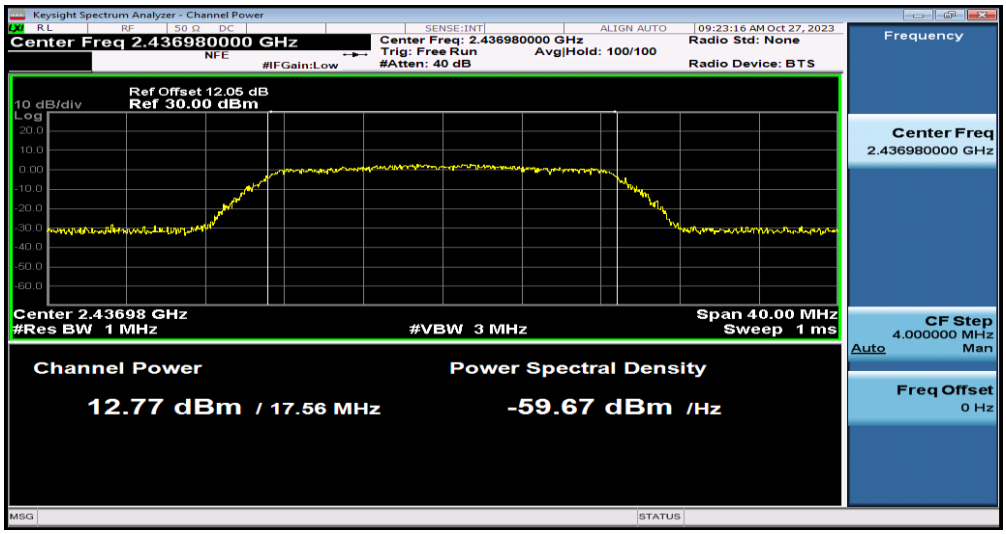
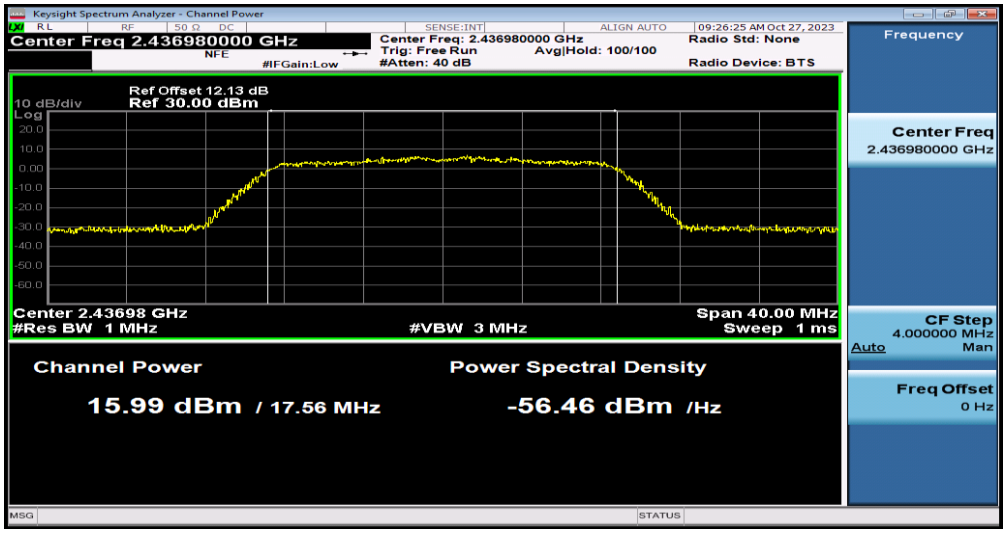


11N20MIMO-Ant0-2437



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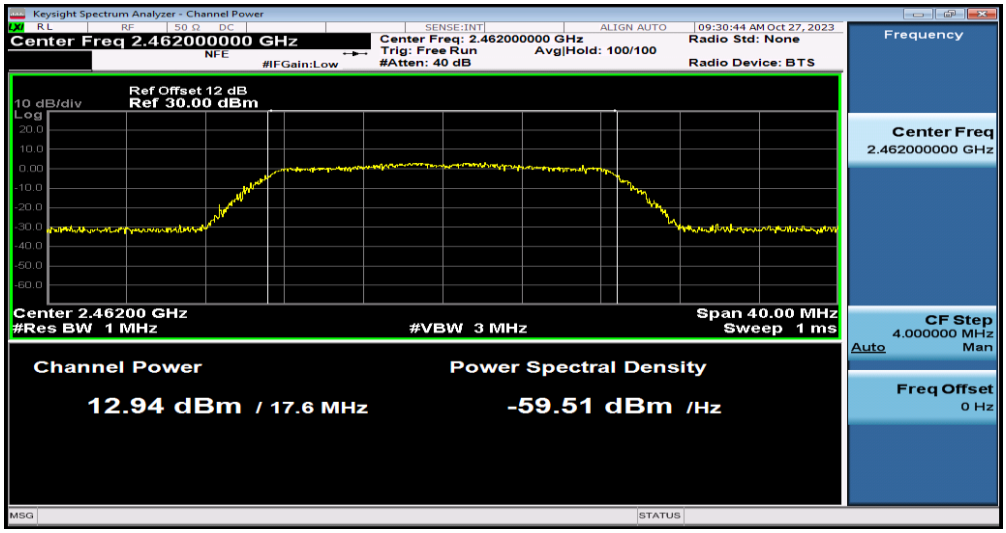
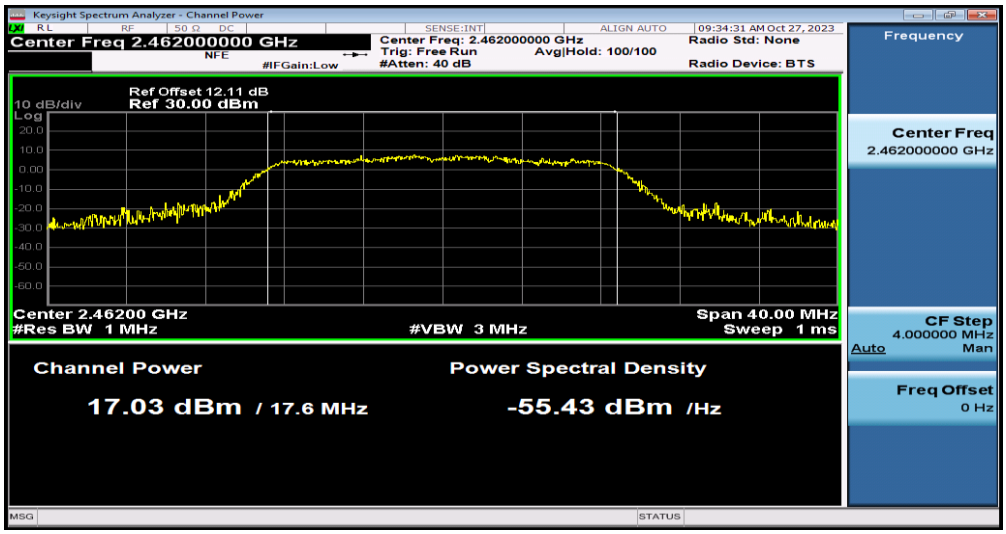


11N20MIMO-Ant0-2462



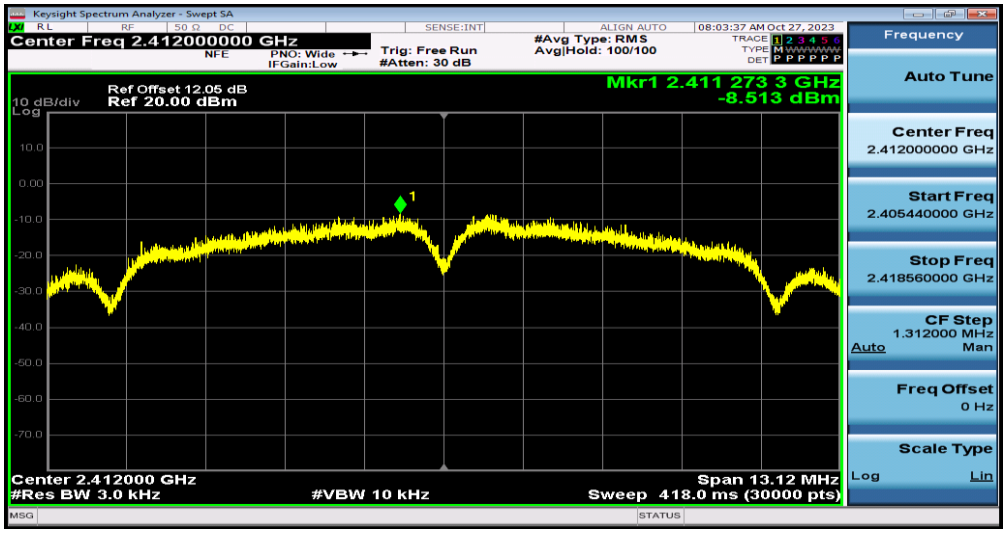
11N20MIMO-Ant1-2462

Appendix C: Maximum power spectral density

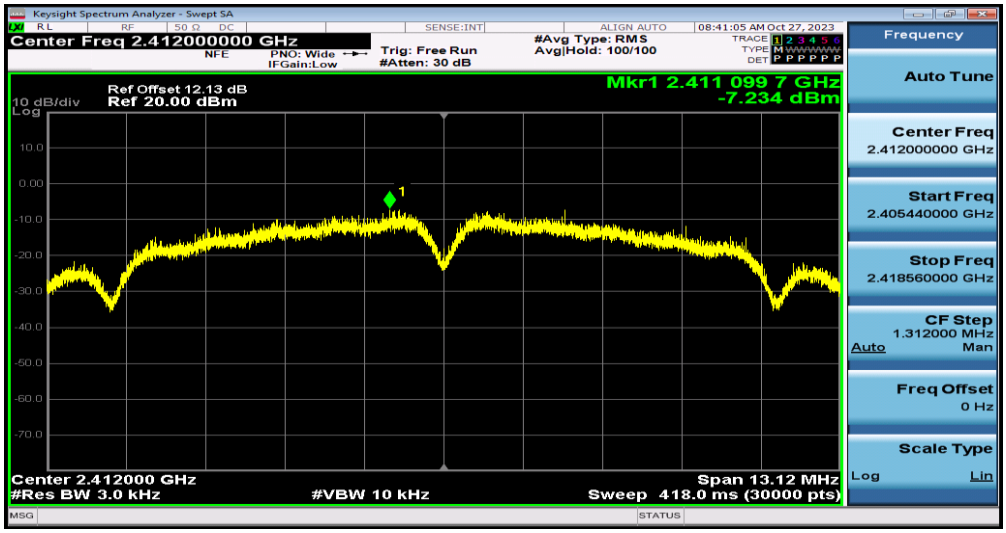
Test Result

TestMode	Antenna	Frequency[MHz]	Result[dBm/3-100kHz]	Limit[dBm/3kHz]	Verdict
11B	Ant0	2412	-8.51	≤8.00	PASS
11B	Ant1	2412	-7.23	≤8.00	PASS
11B	Ant0	2437	-9.24	≤8.00	PASS
11B	Ant1	2437	-7.02	≤8.00	PASS
11B	Ant0	2462	-9.07	≤8.00	PASS
11B	Ant1	2462	-7.23	≤8.00	PASS
11G	Ant0	2412	-17.62	≤8.00	PASS
11G	Ant1	2412	-15.26	≤8.00	PASS
11G	Ant0	2437	-18.52	≤8.00	PASS
11G	Ant1	2437	-15.54	≤8.00	PASS
11G	Ant0	2462	-17.63	≤8.00	PASS
11G	Ant1	2462	-14.99	≤8.00	PASS
11N20MIMO	Ant0	2412	-17.93	≤8.00	PASS
11N20MIMO	Ant1	2412	-14.92	≤8.00	PASS
11N20MIMO	total	2412	-13.16	≤8.00	PASS
11N20MIMO	Ant0	2437	-18.73	≤8.00	PASS
11N20MIMO	Ant1	2437	-14.84	≤8.00	PASS
11N20MIMO	total	2437	-13.35	≤8.00	PASS
11N20MIMO	Ant0	2462	-18.28	≤8.00	PASS
11N20MIMO	Ant1	2462	-14.28	≤8.00	PASS
11N20MIMO	total	2462	-12.82	≤8.00	PASS

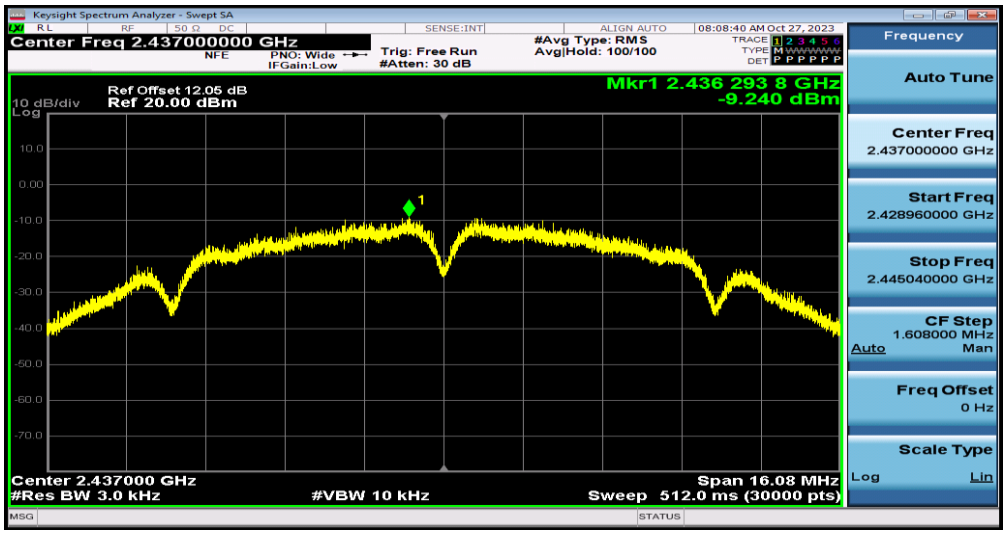
Test Graphs



11B-Ant0-2412



11B-Ant1-2412



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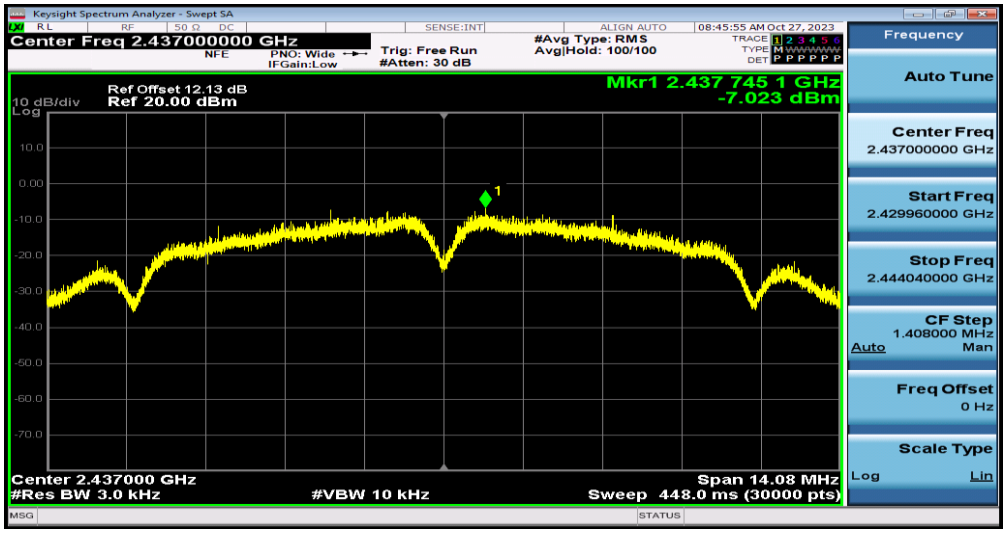
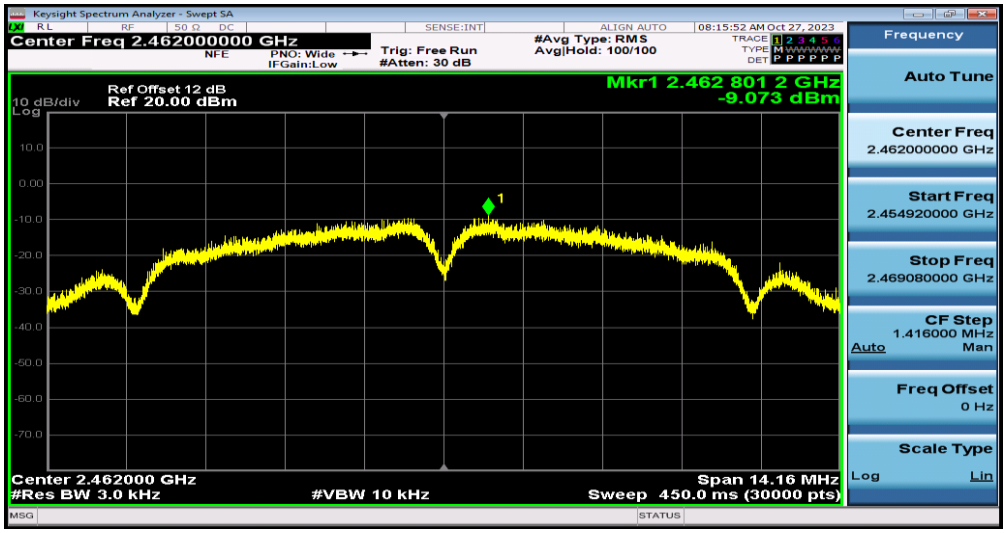
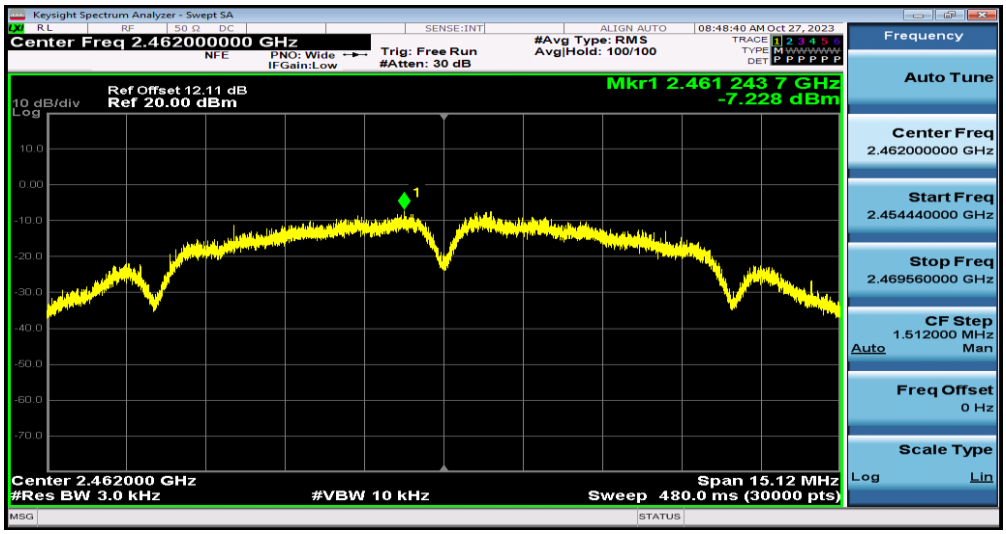


11B-Ant1-2437



11B-Ant0-2462



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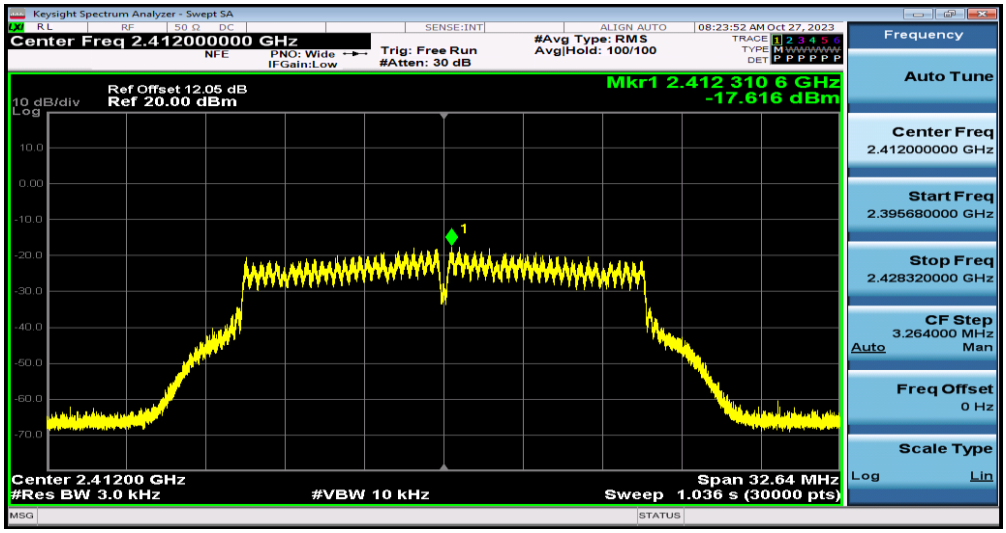

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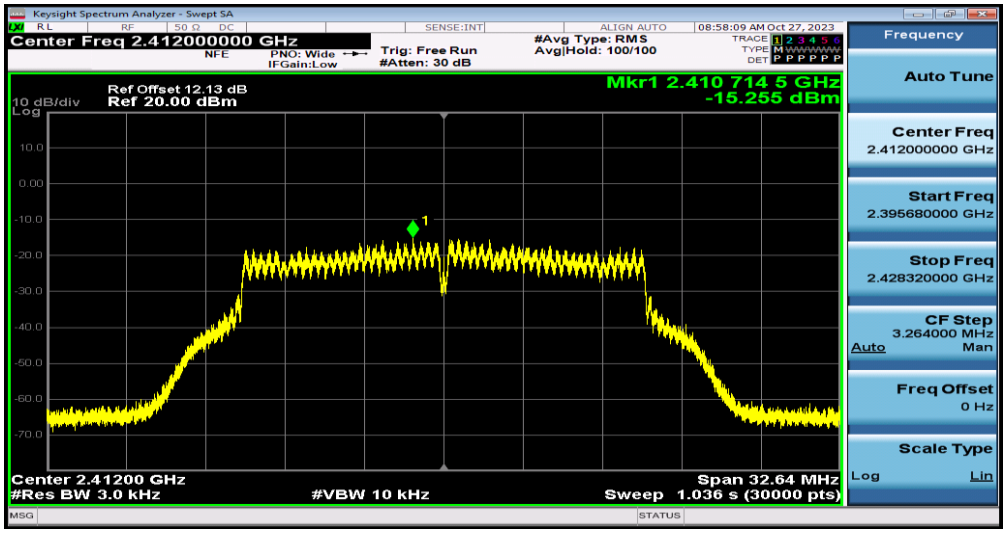

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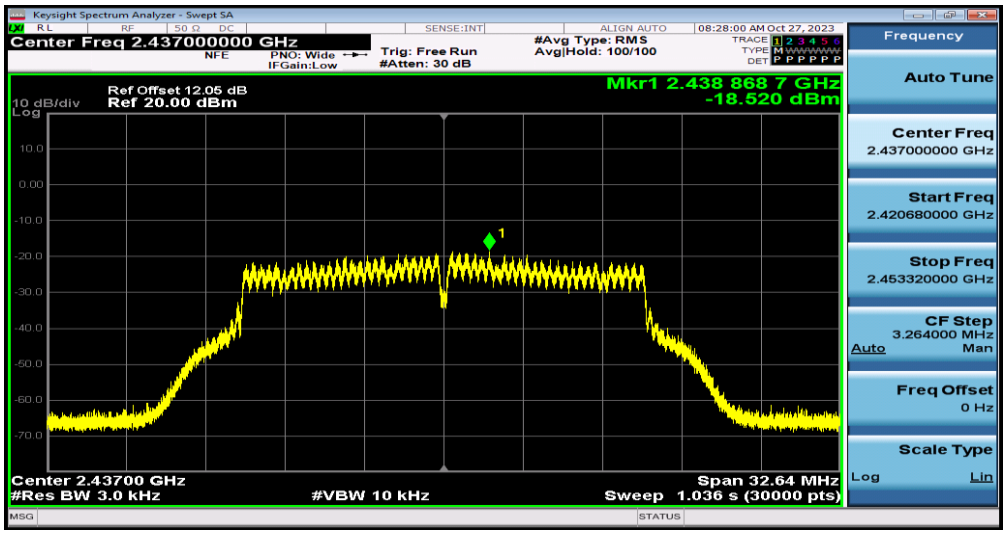

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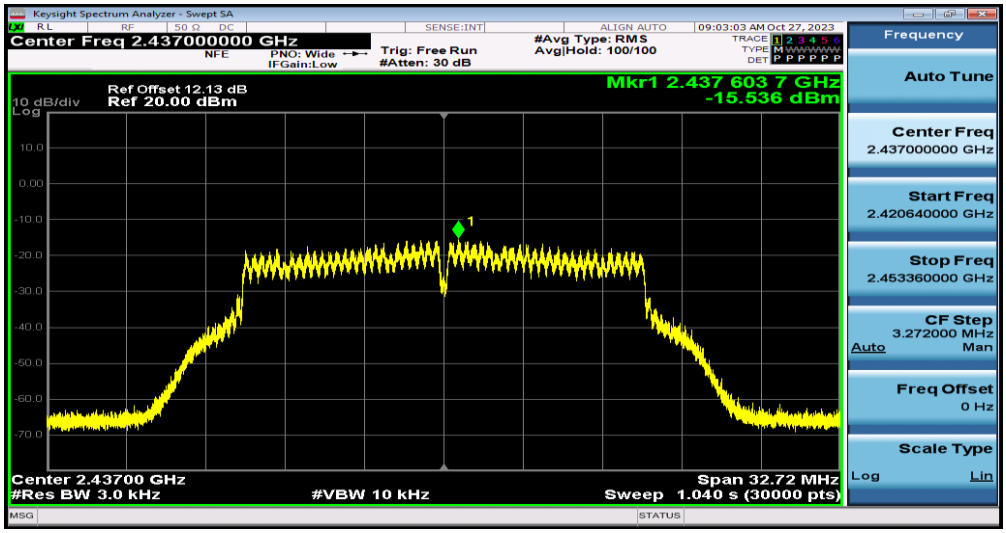

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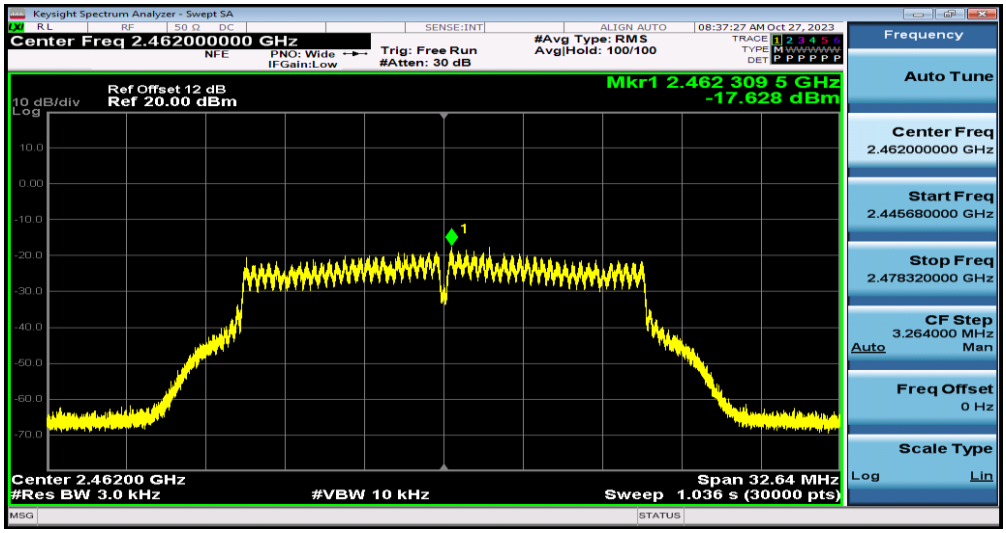
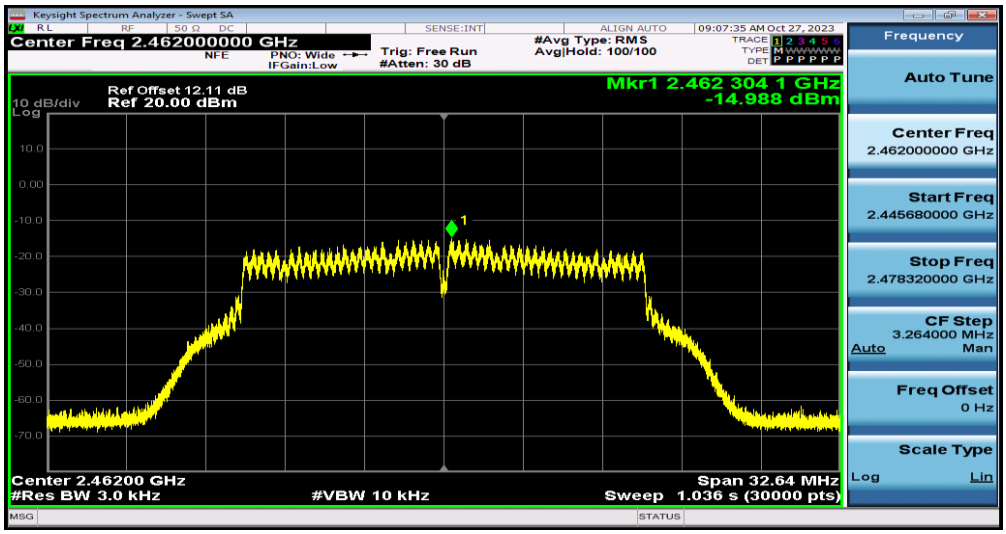
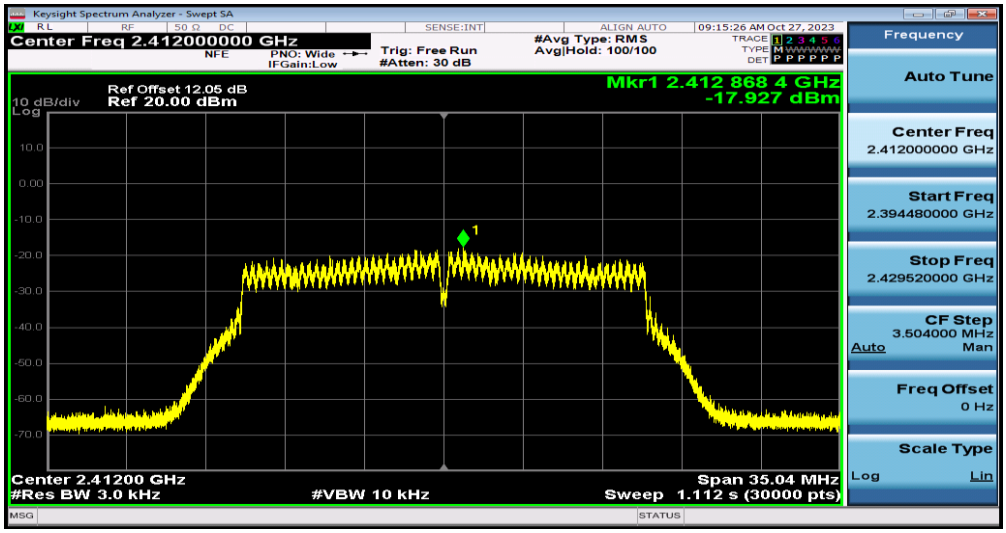


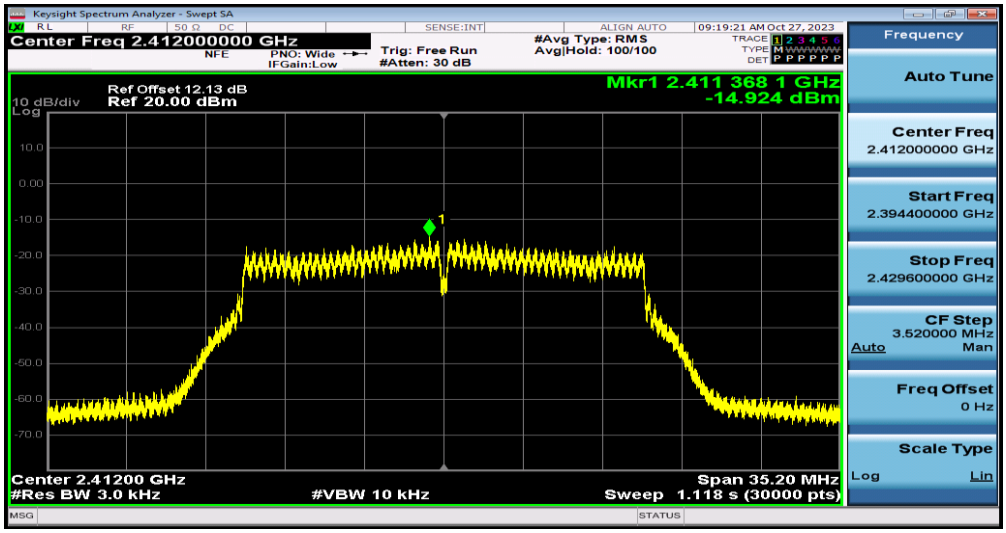
11G-Ant0-2462



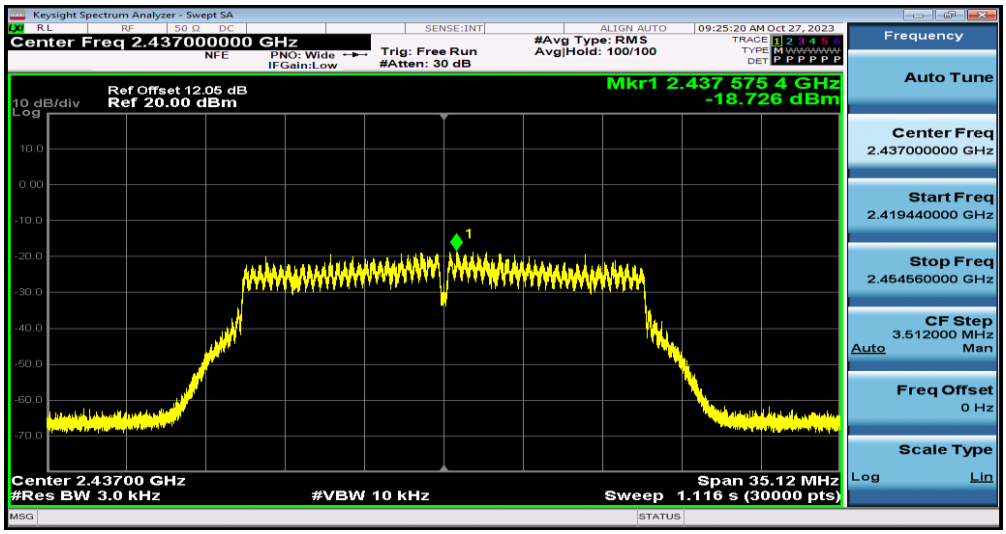
11G-Ant1-2462



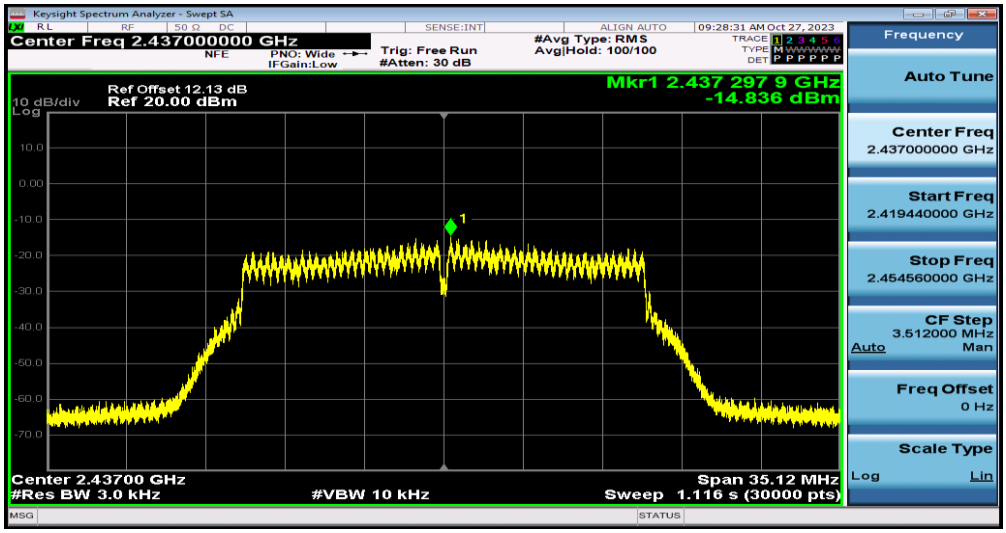
11N20MIMO-Ant0-2412



11N20MIMO-Ant1-2412



11N20MIMO-Ant0-2437



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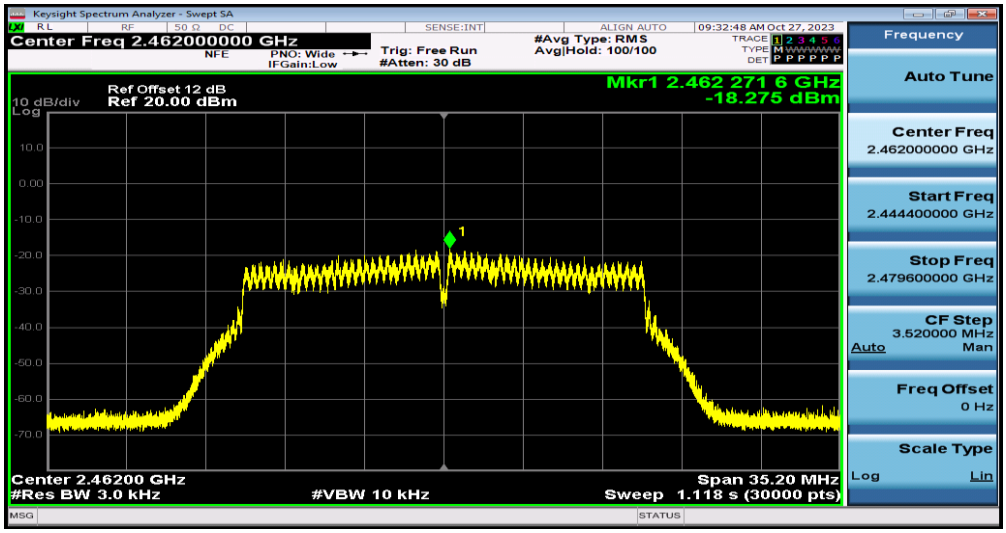
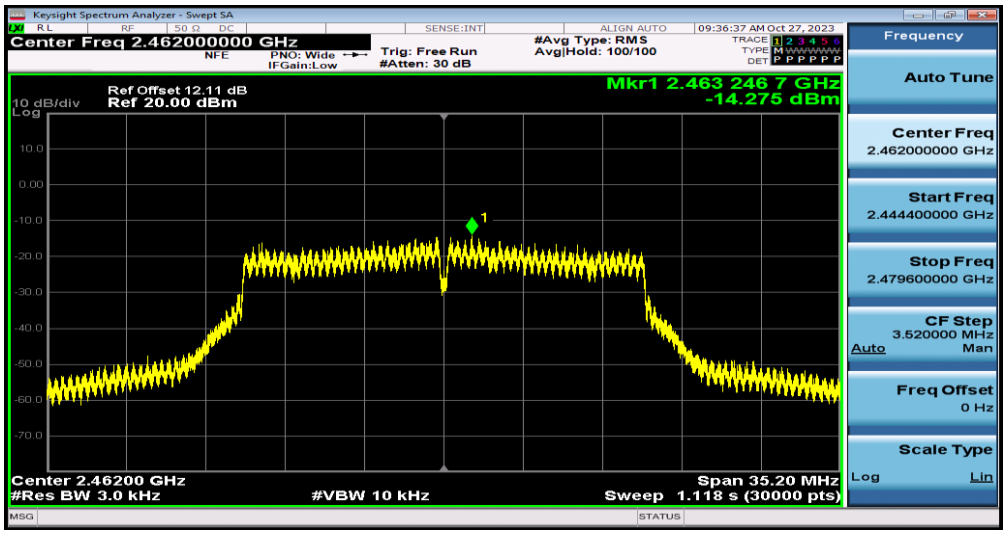


11N20MIMO-Ant0-2462



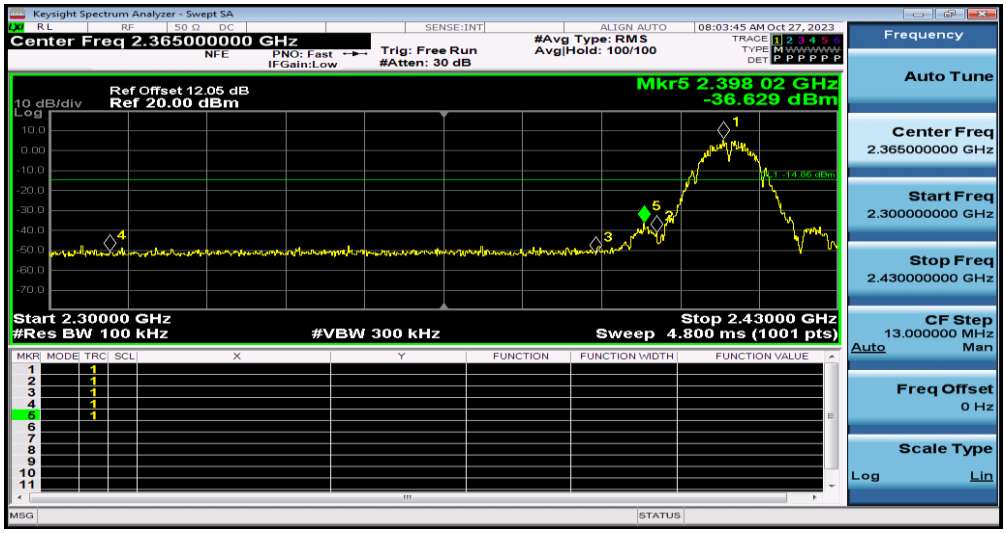
11N20MIMO-Ant1-2462

Appendix C: Band edge measurements

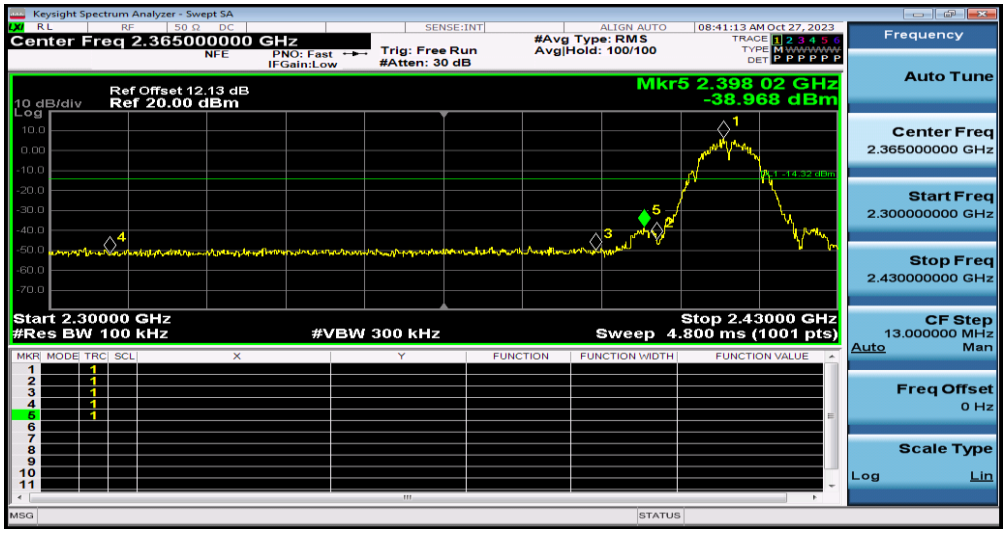
Test Result

TestMode	Antenna	ChName	Frequency[MHz]	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
11B	Ant0	Low	2412	5.14	-36.63	≤-14.86	PASS
11B	Ant1	Low	2412	5.68	-38.97	≤-14.32	PASS
11B	Ant0	High	2462	3.92	-45.4	≤-16.08	PASS
11B	Ant1	High	2462	5.61	-45.39	≤-14.39	PASS
11G	Ant0	Low	2412	-5.91	-46.57	≤-25.91	PASS
11G	Ant1	Low	2412	-3.08	-45.95	≤-23.08	PASS
11G	Ant0	High	2462	-6.87	-47.65	≤-26.87	PASS
11G	Ant1	High	2462	-4.03	-46.97	≤-24.03	PASS
11N20MIMO	Ant0	Low	2412	-6.29	-48.68	≤-26.29	PASS
11N20MIMO	Ant1	Low	2412	-3.21	-43.44	≤-23.21	PASS
11N20MIMO	Ant0	High	2462	-6.83	-48.06	≤-26.83	PASS
11N20MIMO	Ant1	High	2462	-2.74	-42.09	≤-22.74	PASS

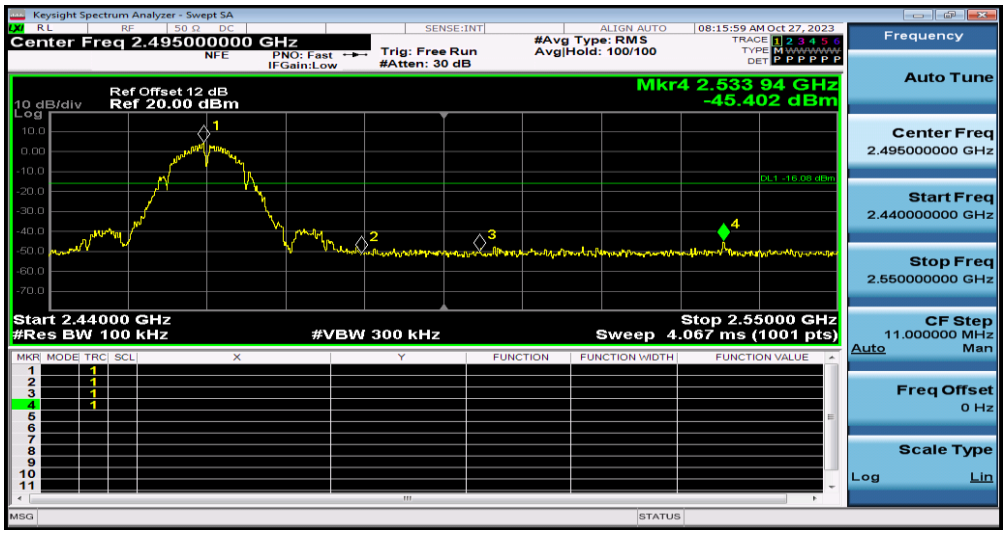
Test Graphs



11B-Ant0-2412



11B-Ant1-2412



11B-Ant0-2462