

Case No. : <u>GTS20220802009-1-11</u>
Ambient Condition: <u>25</u> °C, <u>45</u> %RH, Atmos100.1Kpa,
Test Date: <u>2022.10.11</u> Test Engineer: <u>Evan Ouyang</u>

Appendix A.1: DTS Bandwidth

Test Result

TestMode	Antenna	Frequency[MHz]	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	8.560	2407.480	2416.040	0.5	PASS
		2437	8.600	2432.440	2441.040	0.5	PASS
		2462	9.000	2457.480	2466.480	0.5	PASS
11G	Ant1	2412	16.360	2403.800	2420.160	0.5	PASS
		2437	16.320	2428.840	2445.160	0.5	PASS
		2462	16.400	2453.800	2470.200	0.5	PASS
11N20SISO	Ant1	2412	17.520	2403.280	2420.800	0.5	PASS
		2437	17.680	2428.160	2445.840	0.5	PASS
		2462	17.600	2453.200	2470.800	0.5	PASS
11N40SISO	Ant1	2422	35.760	2404.400	2440.160	0.5	PASS
		2437	36.000	2419.160	2455.160	0.5	PASS
		2452	36.320	2433.840	2470.160	0.5	PASS

Test Graphs

11B_Ant1_2412



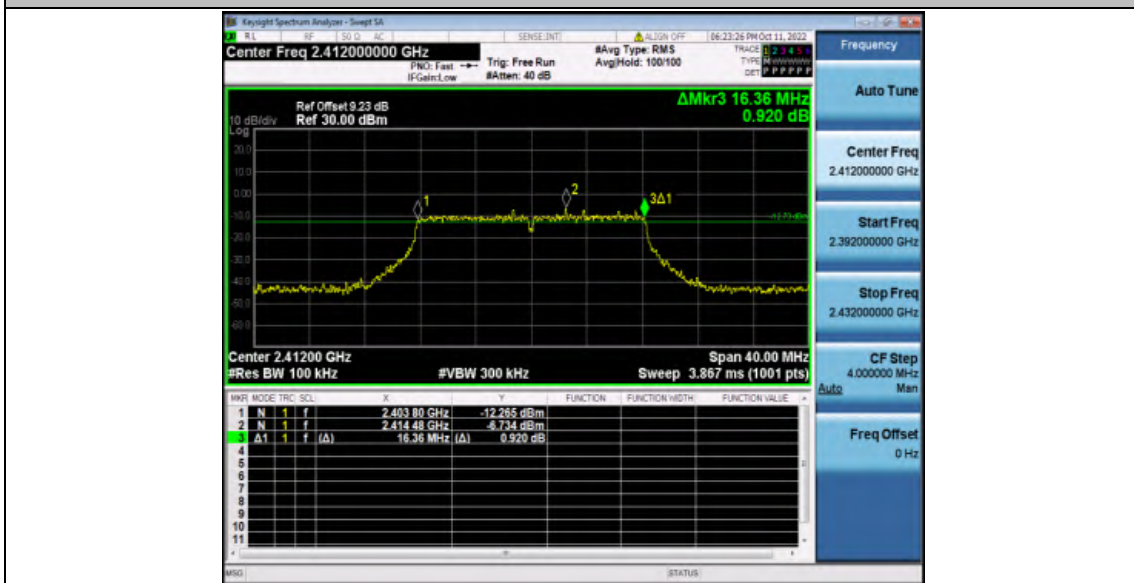
11B_Ant1_2437



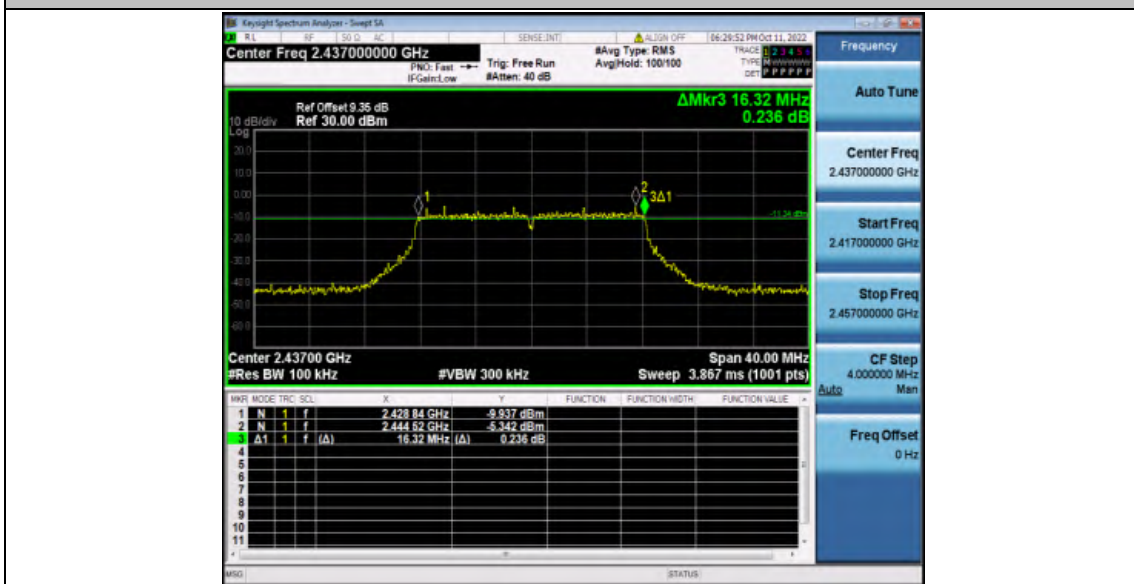
11B_Ant1_2462



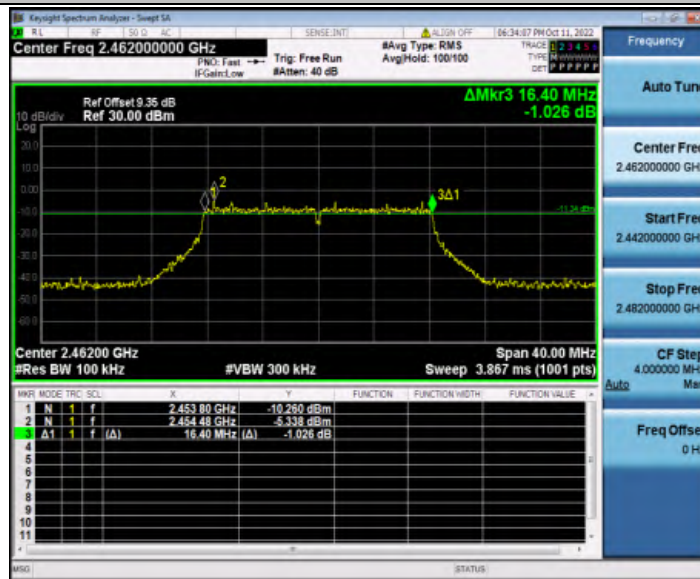
11G_Ant1_2412



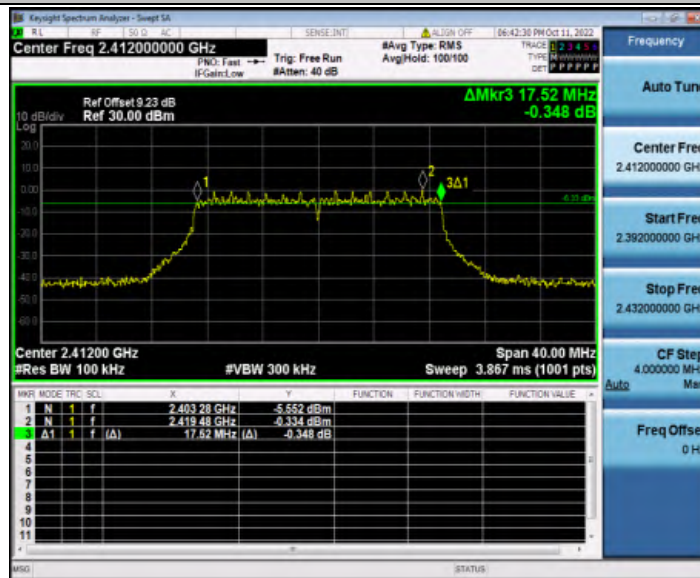
11G_Ant1_2437



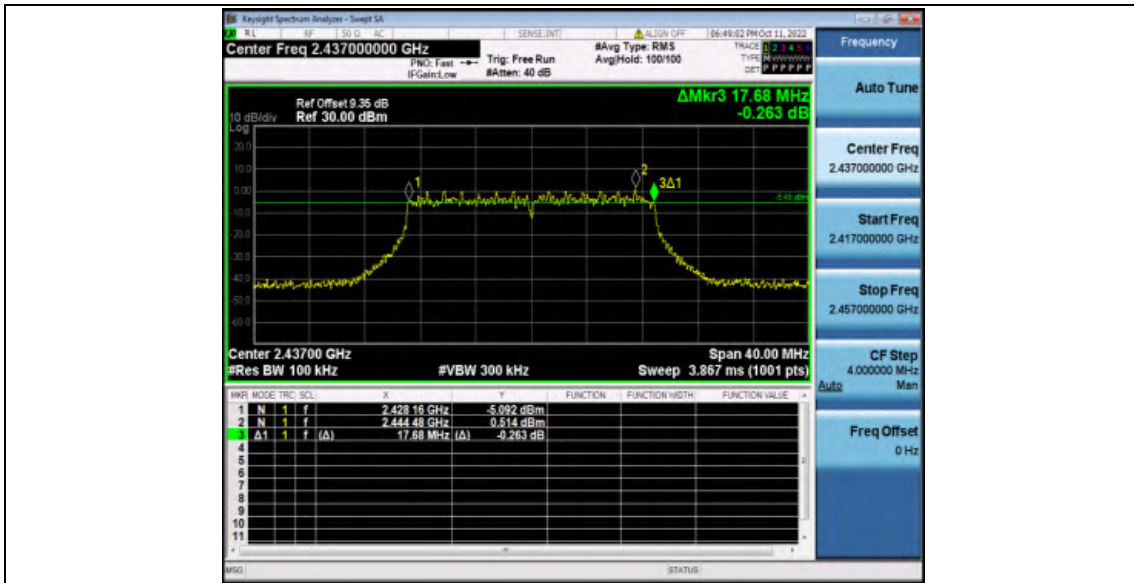
11G_Ant1_2462



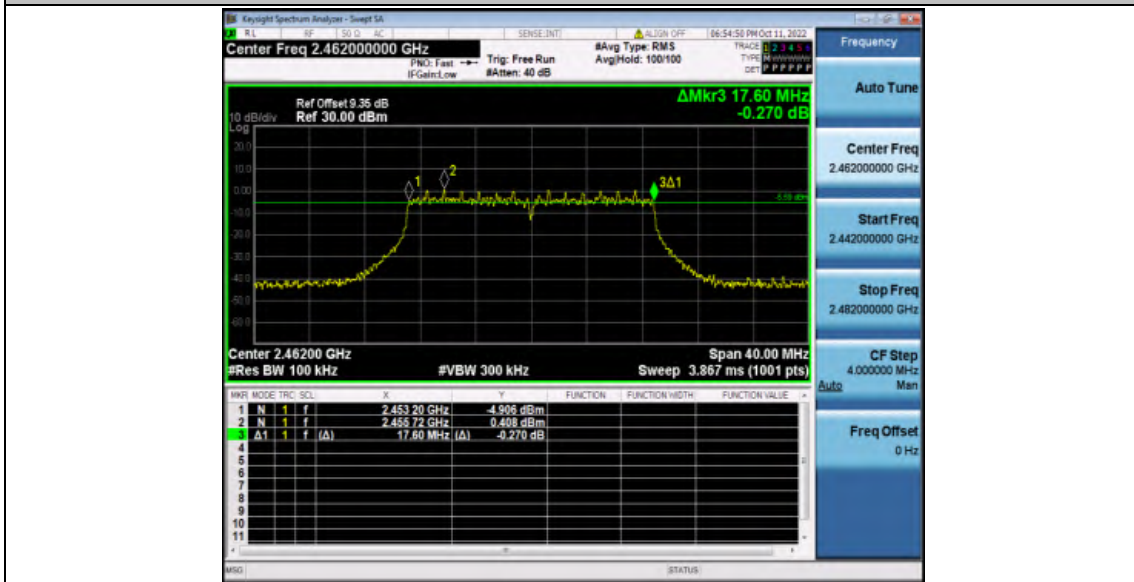
11N20SISO_Ant1_2412



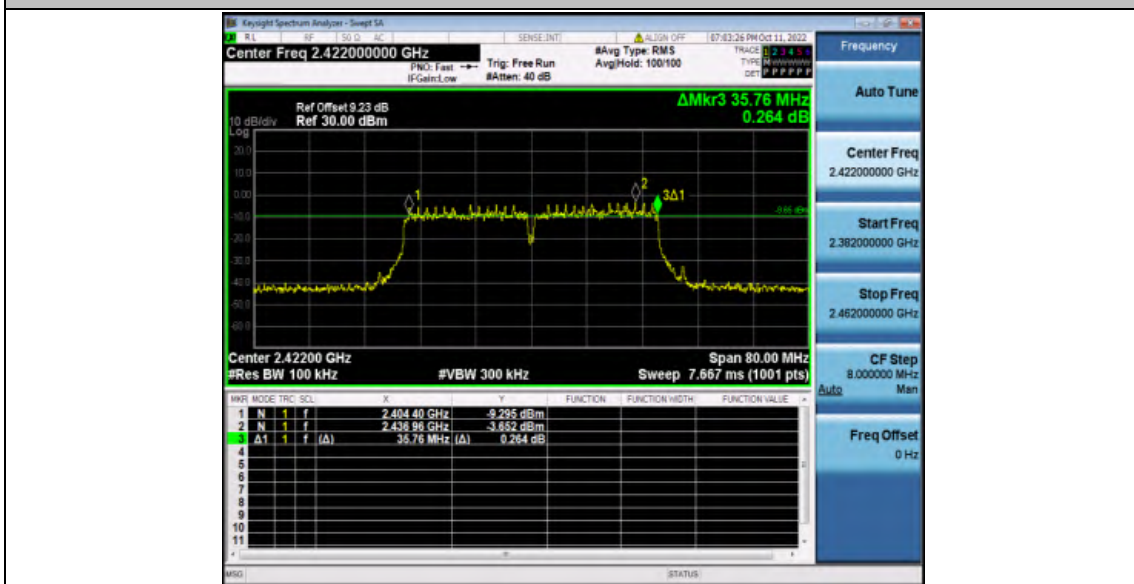
11N20SISO_Ant1_2437



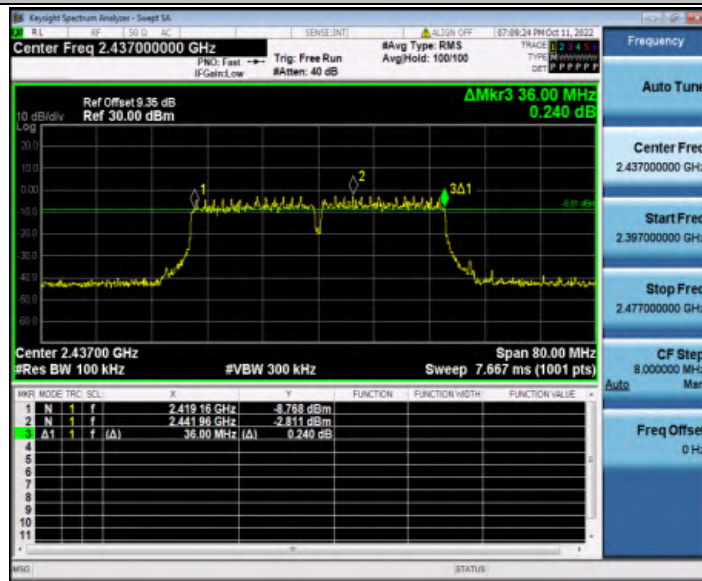
11N20SISO_Ant1_2462



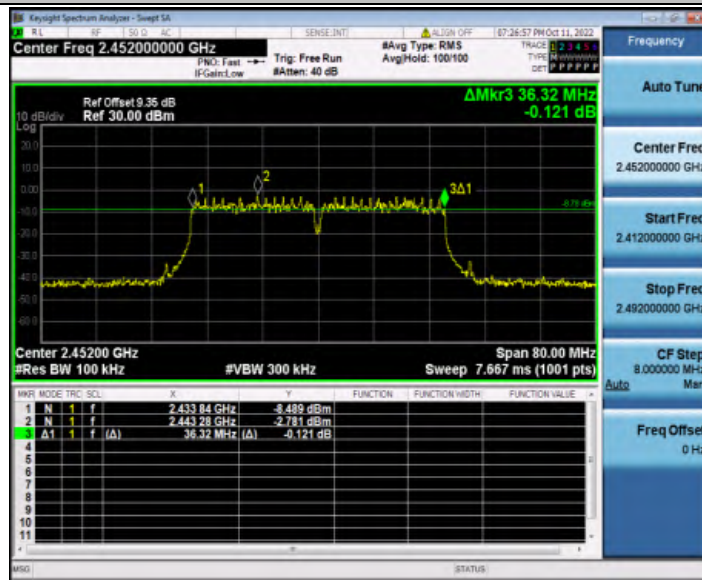
11N40SISO_Ant1_2422



11N40SISO_Ant1_2437



11N40SISO_Ant1_2452



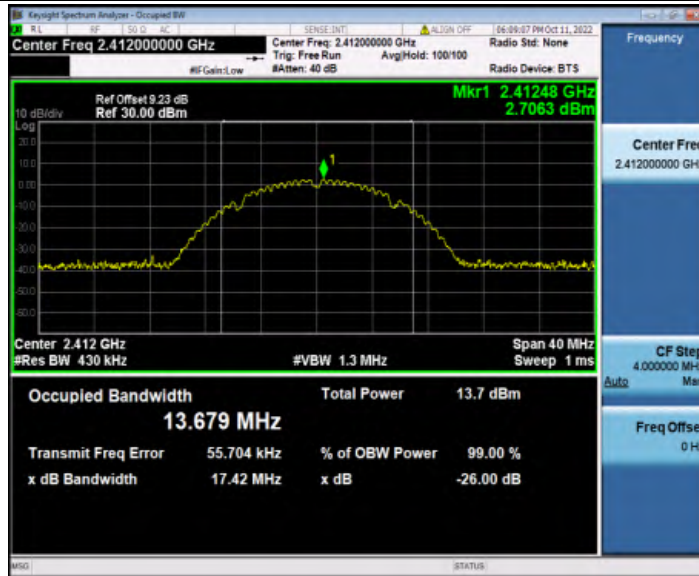
Appendix A.2: Occupied Channel Bandwidth

Test Result

TestMode	Antenna	Channel Frequency[MHz]	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	13.679	2405.216	2418.895	---	---
		2437	13.558	2430.304	2443.862	---	---
		2462	13.581	2455.168	2468.749	---	---
11G	Ant1	2412	17.164	2403.457	2420.621	---	---
		2437	17.232	2428.412	2445.644	---	---
		2462	17.209	2453.344	2470.553	---	---
11N20SISO	Ant1	2412	17.945	2403.005	2420.950	---	---
		2437	17.940	2428.031	2445.971	---	---
		2462	17.902	2453.042	2470.944	---	---
11N40SISO	Ant1	2422	36.394	2403.902	2440.296	---	---
		2437	36.275	2418.921	2455.196	---	---
		2452	36.416	2433.818	2470.234	---	---

Test Graphs

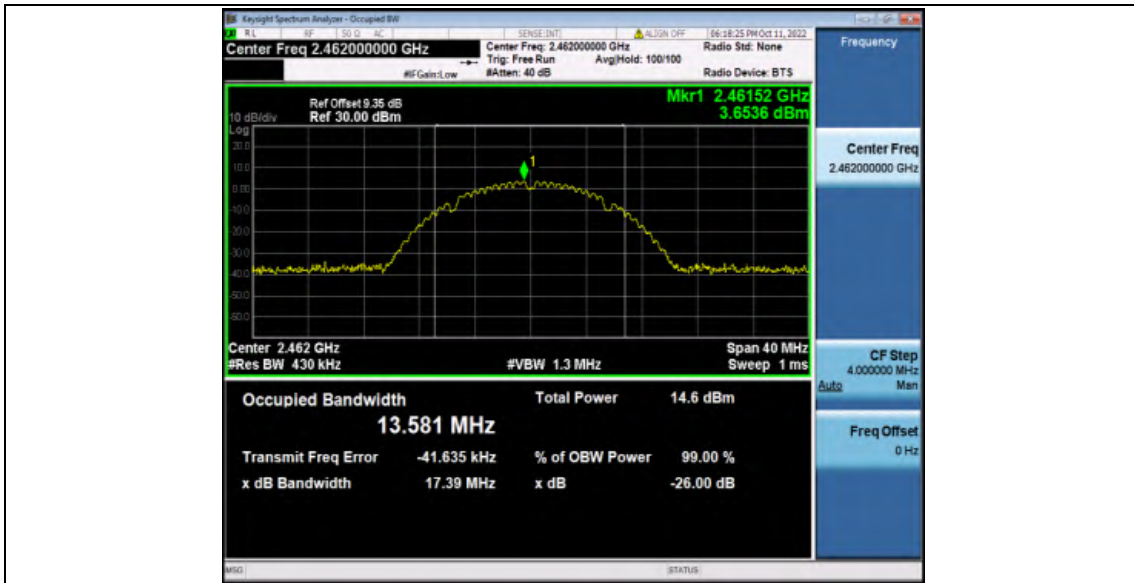
11B_Ant1_2412



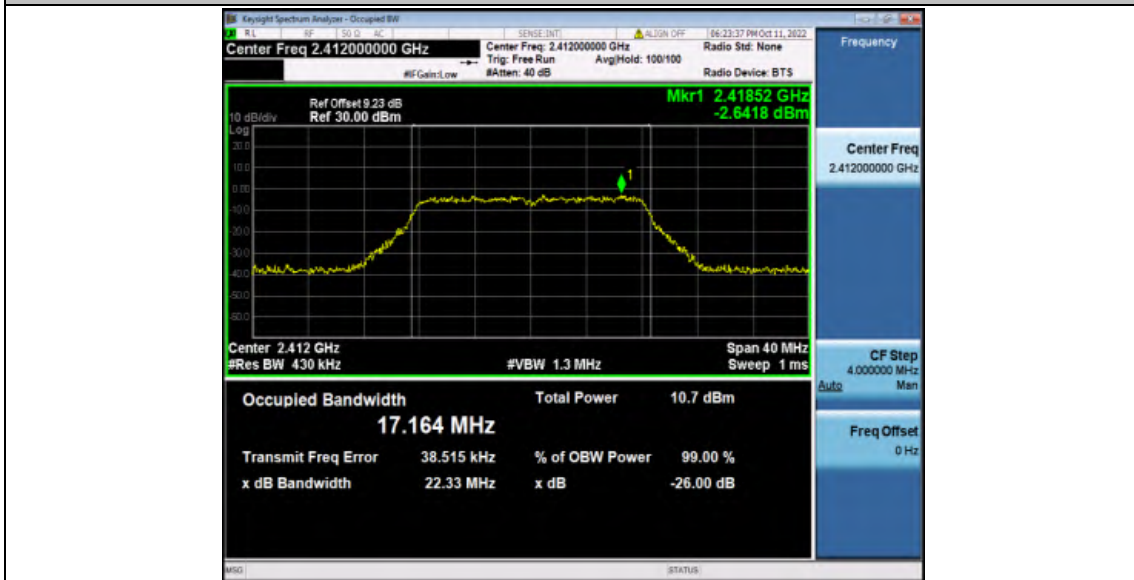
11B_Ant1_2437



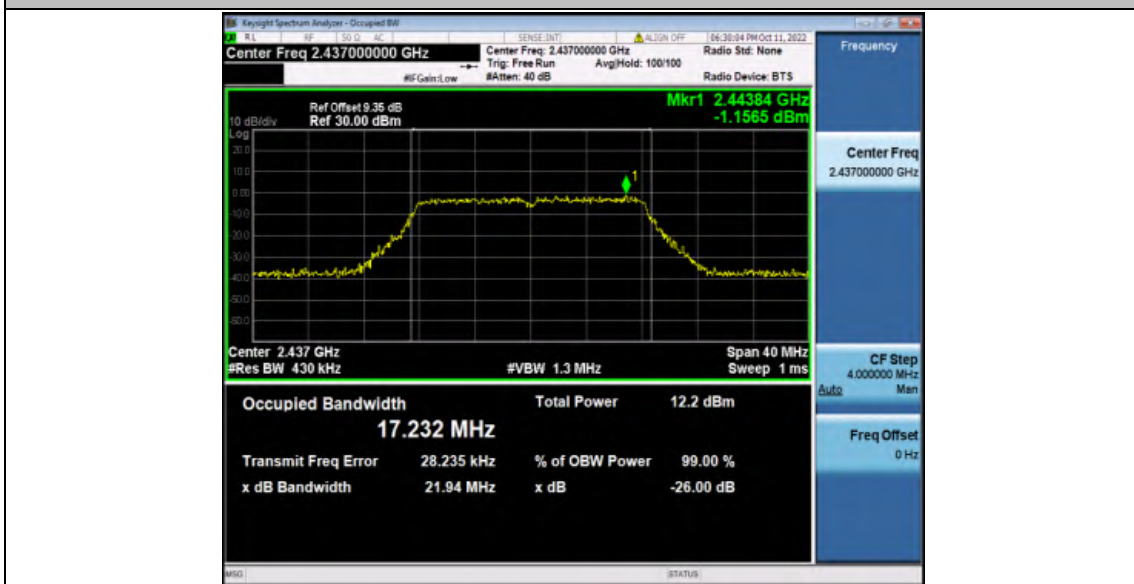
11B_Ant1_2462



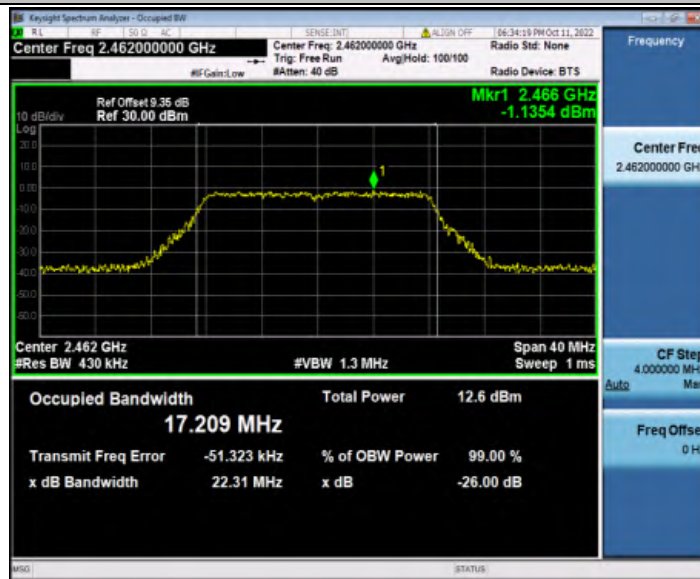
11G_Ant1_2412



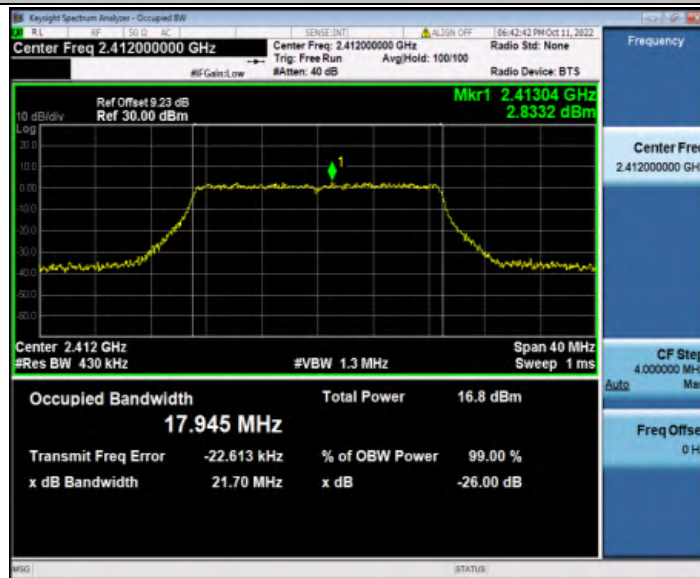
11G_Ant1_2437



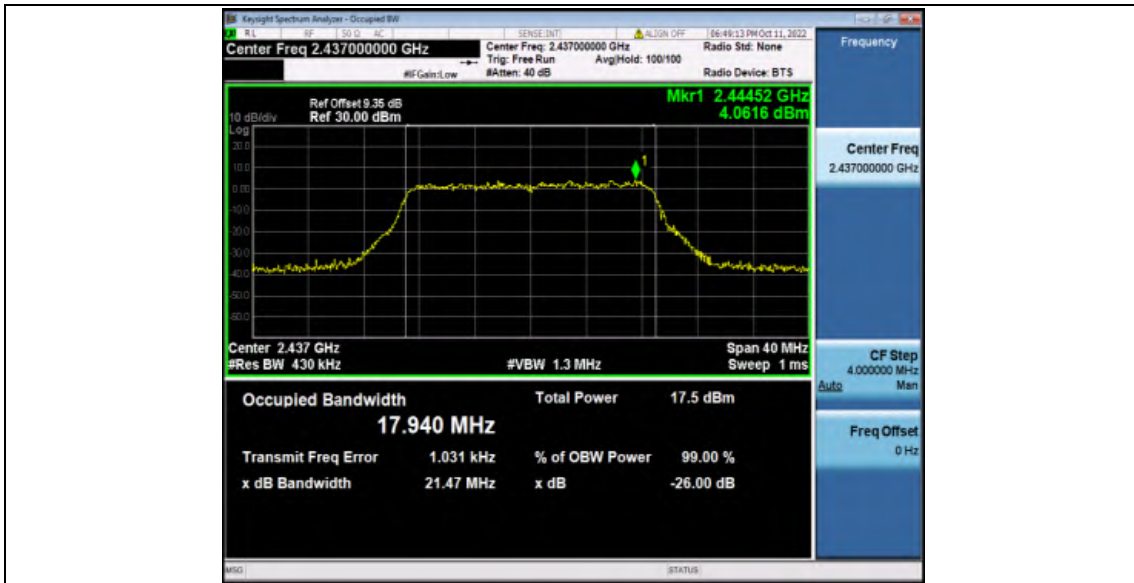
11G_Ant1_2462



11N20SISO_Ant1_2412



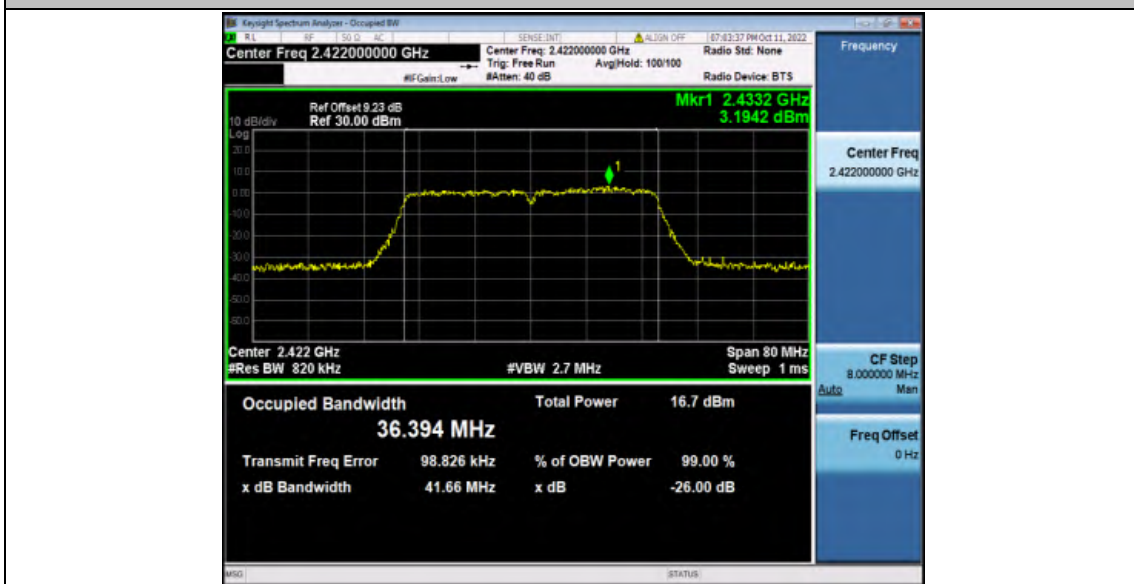
11N20SISO_Ant1_2437



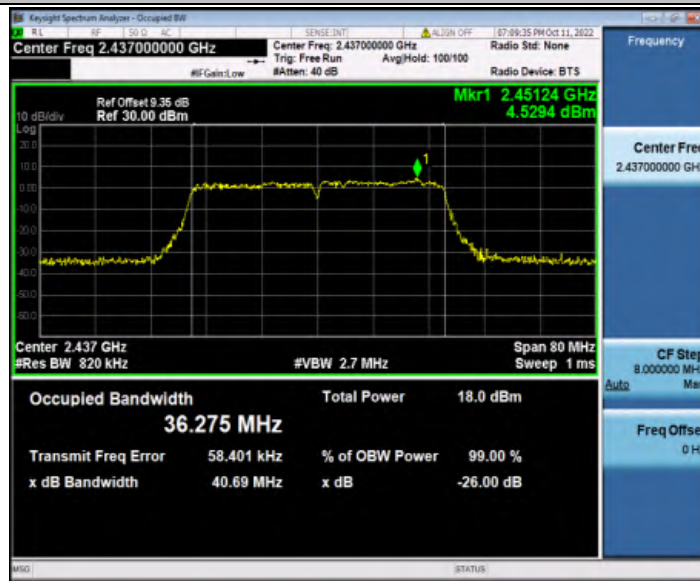
11N20SISO_Ant1_2462



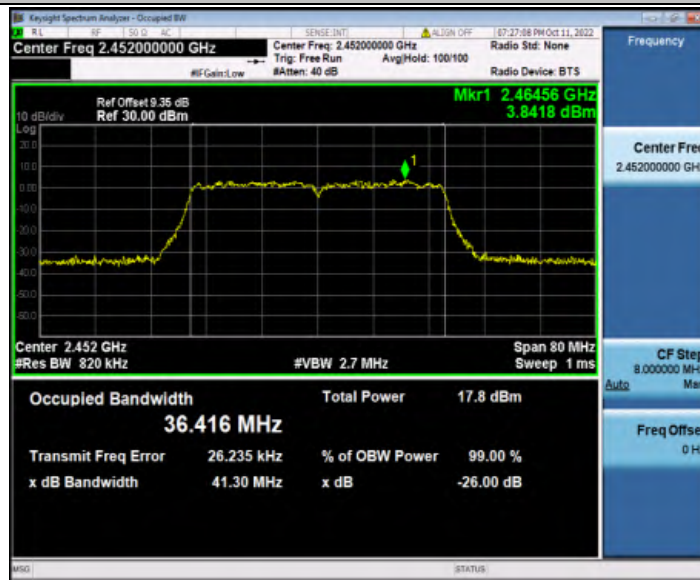
11N40SISO_Ant1_2422



11N40SISO_Ant1_2437



11N40SISO_Ant1_2452



Appendix A.3: Maximum conducted output power

Test Result Peak

TestMode	Antenna	Frequency[M Hz]	Peak Power[dBm]	Conducted Limit[dBm]	Verdict
11B	Ant1	2412	13.77	≤30.00	PASS
		2437	14.79	≤30.00	PASS
		2462	14.75	≤30.00	PASS
11G	Ant1	2412	12.00	≤30.00	PASS
		2437	13.51	≤30.00	PASS
		2462	13.77	≤30.00	PASS
11N20SISO	Ant1	2412	17.78	≤30.00	PASS
		2437	18.58	≤30.00	PASS
		2462	18.58	≤30.00	PASS
11N40SISO	Ant1	2422	17.03	≤30.00	PASS
		2437	18.15	≤30.00	PASS
		2452	18.03	≤30.00	PASS

Appendix A.4: Maximum power spectral density

Test Result

TestMode	Antenna	Frequency[MHz]	Result[dBm/3-100kHz]	Limit[dBm/3kHz]	Verdict
11B	Ant1	2412	-11.57	≤8.00	PASS
		2437	-10.29	≤8.00	PASS
		2462	-11.02	≤8.00	PASS
11G	Ant1	2412	-19.8	≤8.00	PASS
		2437	-18.39	≤8.00	PASS
		2462	-18.27	≤8.00	PASS
11N20SISO	Ant1	2412	-15.81	≤8.00	PASS
		2437	-14.22	≤8.00	PASS
		2462	-15.43	≤8.00	PASS
11N40SISO	Ant1	2422	-19.09	≤8.00	PASS
		2437	-18.03	≤8.00	PASS
		2452	-16.4	≤8.00	PASS

Test Graphs

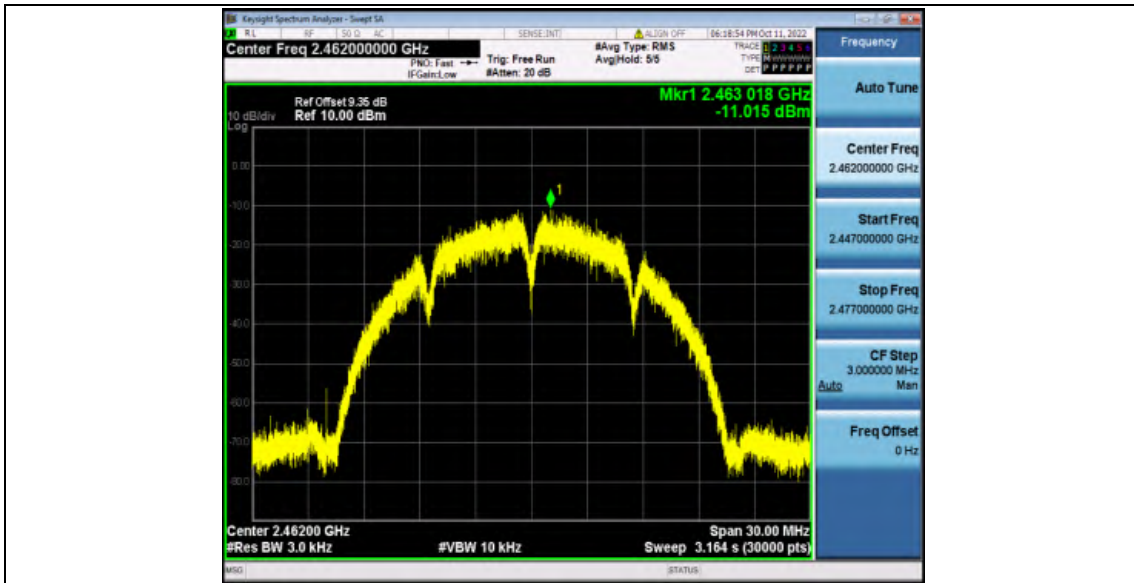
11B_Ant1_2412



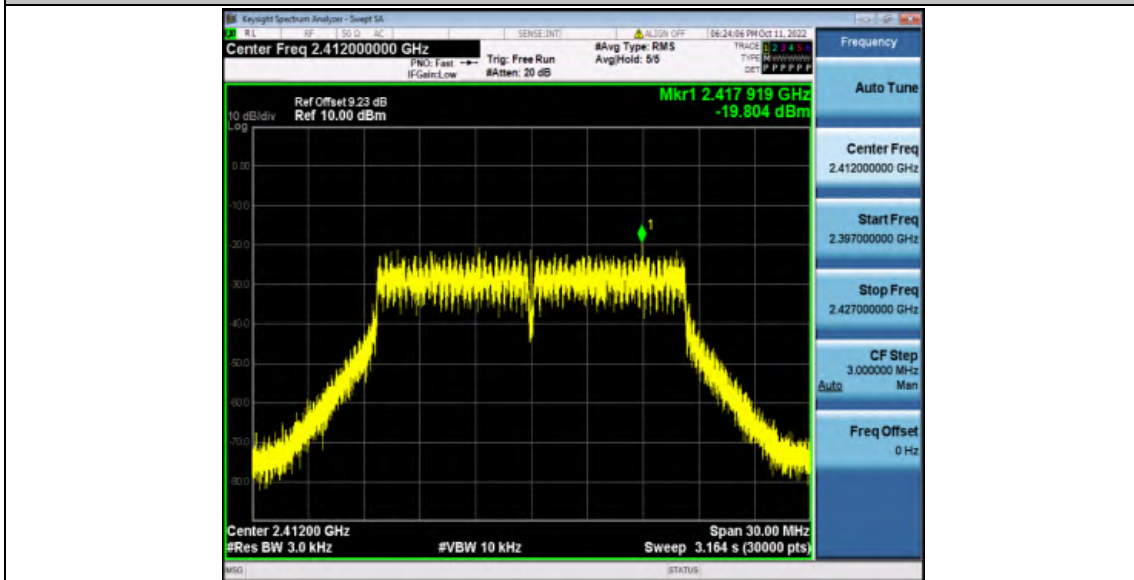
11B_Ant1_2437



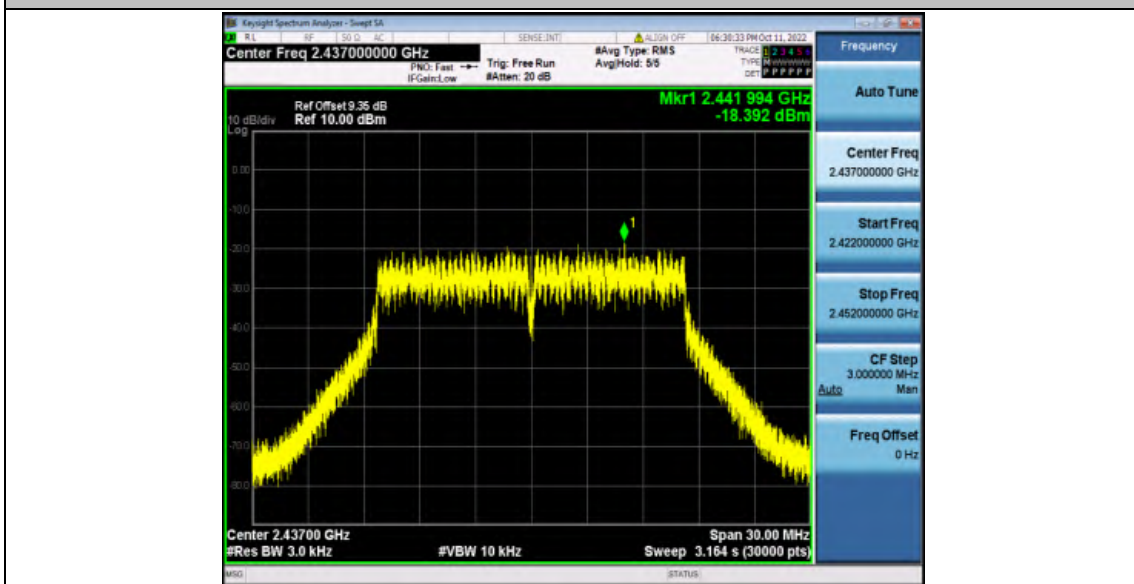
11B_Ant1_2462



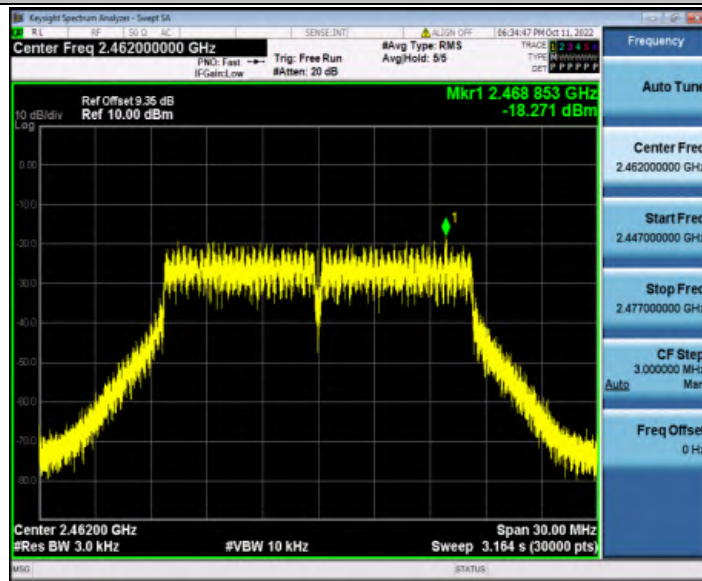
11G_Ant1_2412



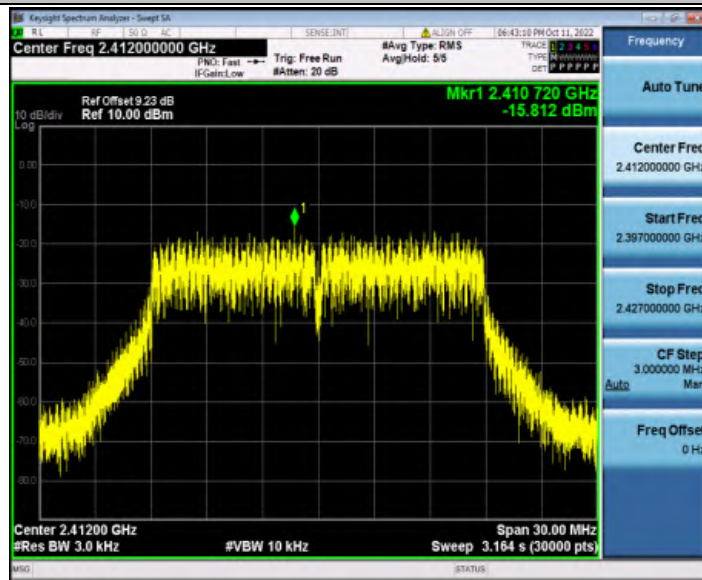
11G_Ant1_2437



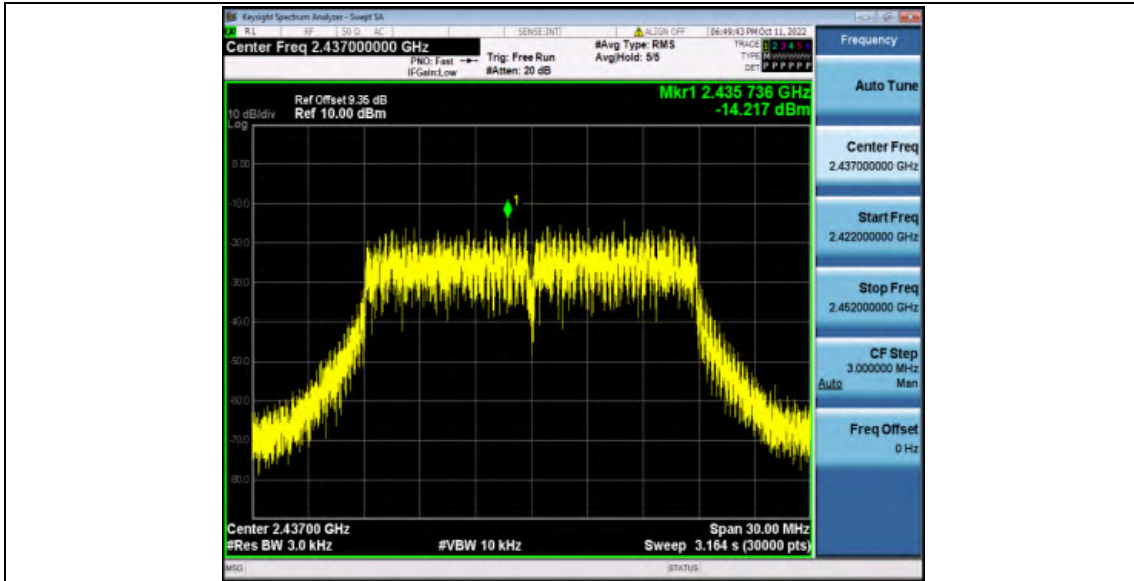
11G_Ant1_2462



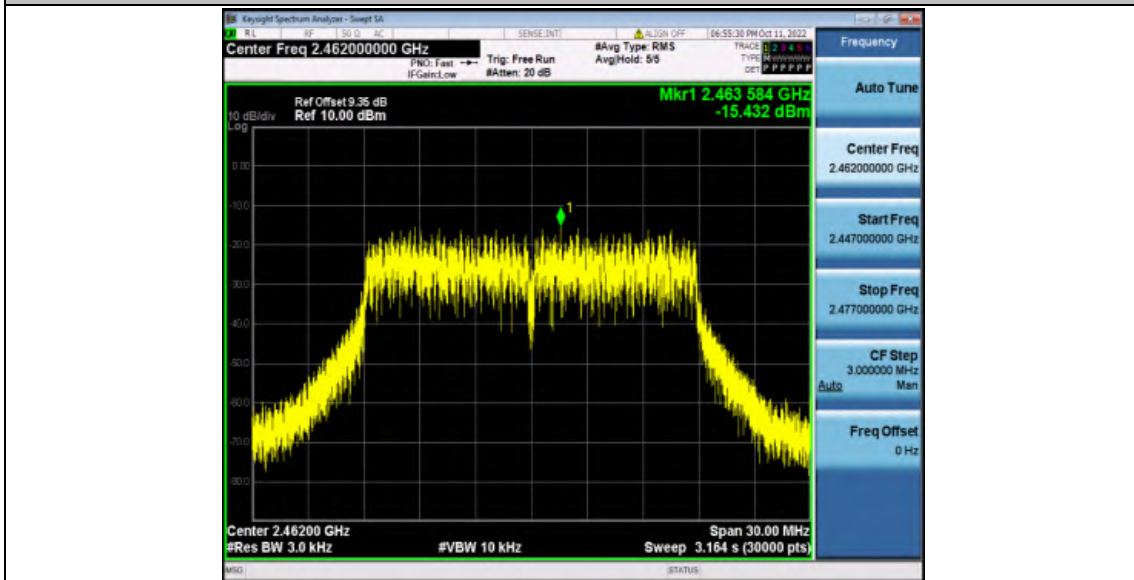
11N20SISO_Ant1_2412



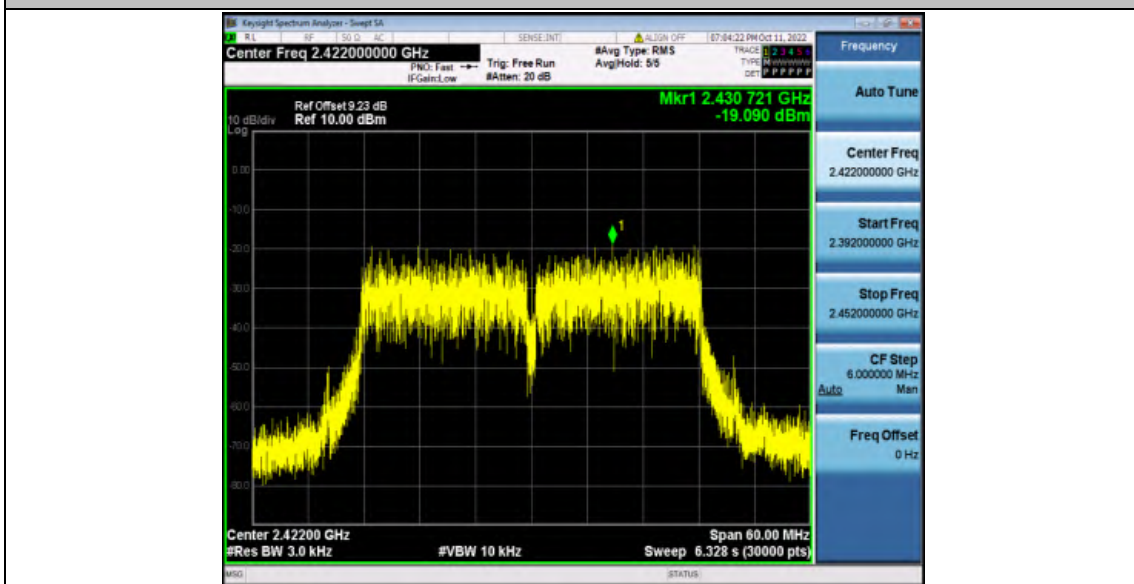
11N20SISO_Ant1_2437



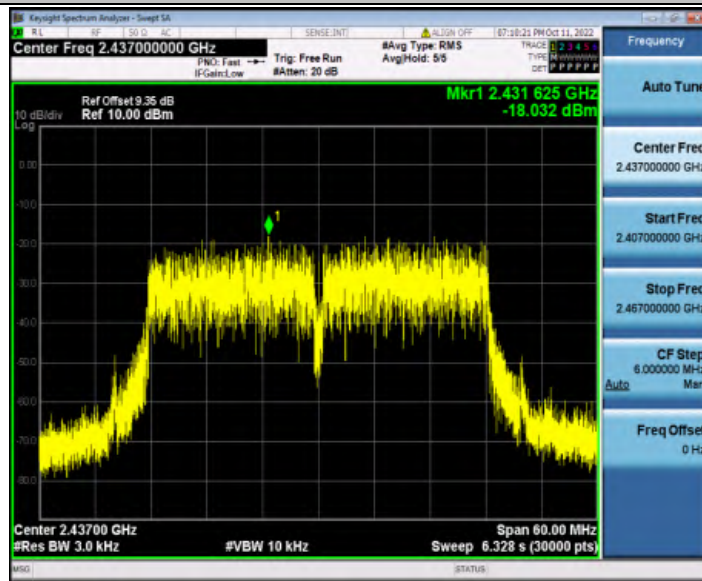
11N20SISO_Ant1_2462



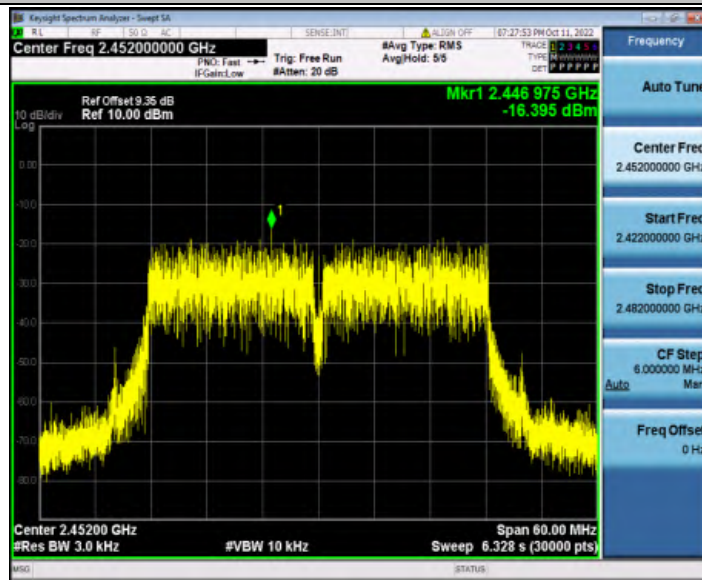
11N40SISO_Ant1_2422



11N40SISO_Ant1_2437



11N40SISO_Ant1_2452



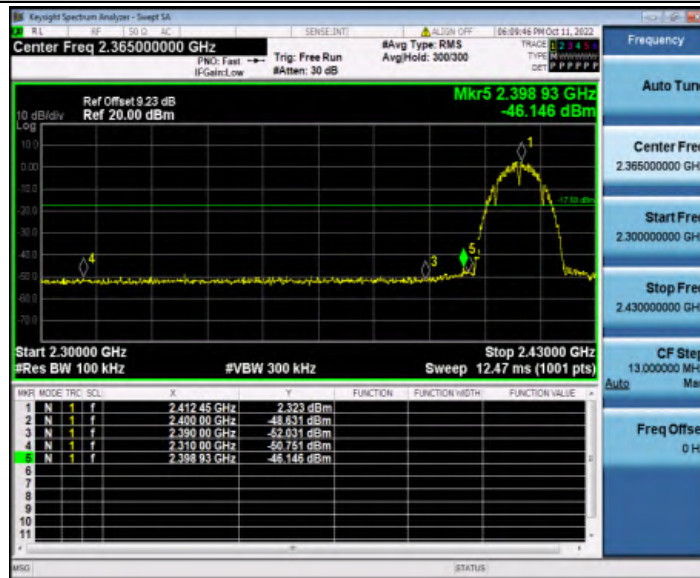
Appendix A.5: Band edge measurements

Test Result

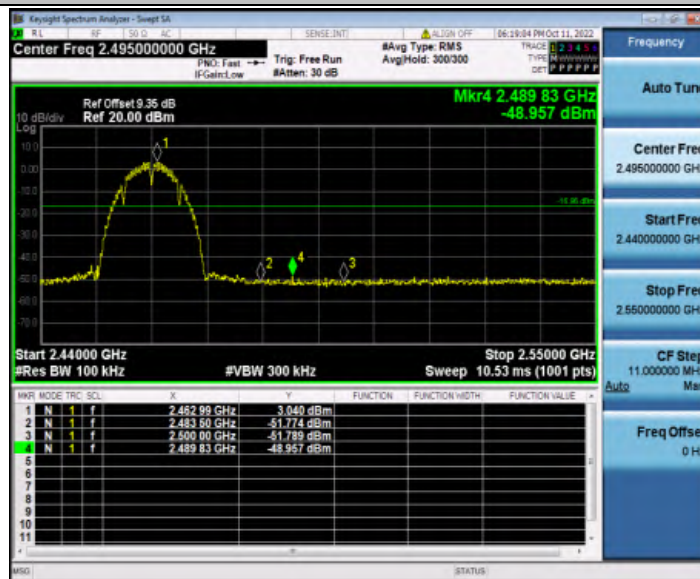
TestMode	Antenna	ChName	Frequency[MHz]	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
11B	Ant1	Low	2412	2.32	-46.15	≤-17.68	PASS
		High	2462	3.04	-48.96	≤-16.96	PASS
11G	Ant1	Low	2412	-6.61	-44.88	≤-26.61	PASS
		High	2462	-4.65	-49.16	≤-24.65	PASS
11N20SISO	Ant1	Low	2412	-0.55	-37.8	≤-20.55	PASS
		High	2462	0.42	-48.37	≤-19.58	PASS
11N40SISO	Ant1	Low	2422	-4.29	-38.41	≤-24.29	PASS
		High	2452	-2.80	-43.93	≤-22.8	PASS

Test Graphs

11B_Ant1_Low_2412



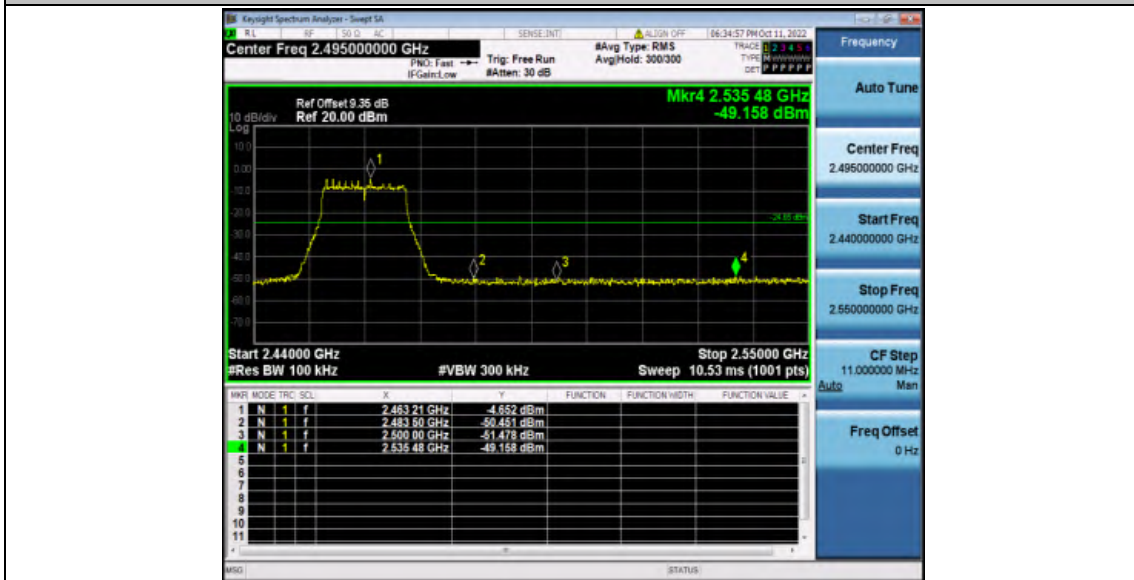
11B_Ant1_High_2462



11G_Ant1_Low_2412



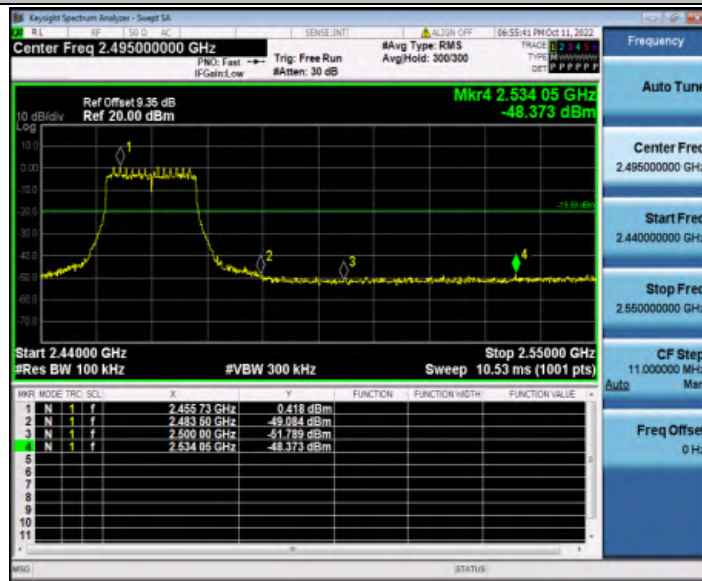
11G_Ant1_High_2462



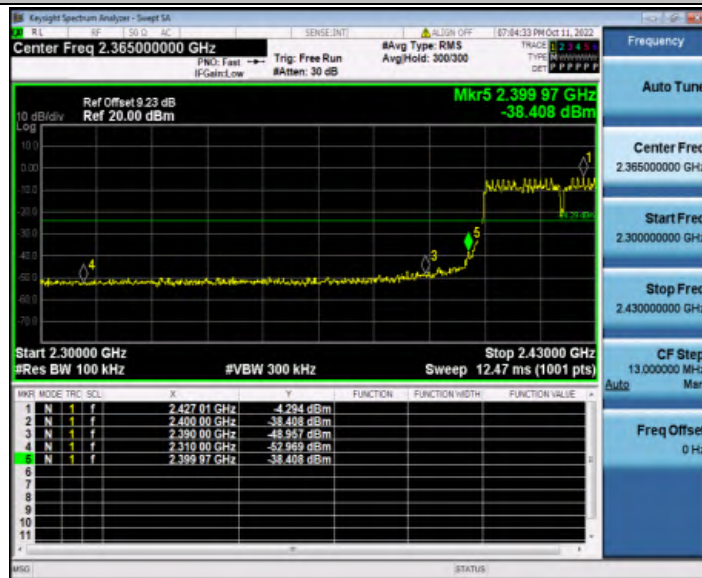
11N20SISO_Ant1_Low_2412



11N20SISO_Ant1_High_2462



11N40SISO_Ant1_Low_2422



11N40SISO_Ant1_High_2452



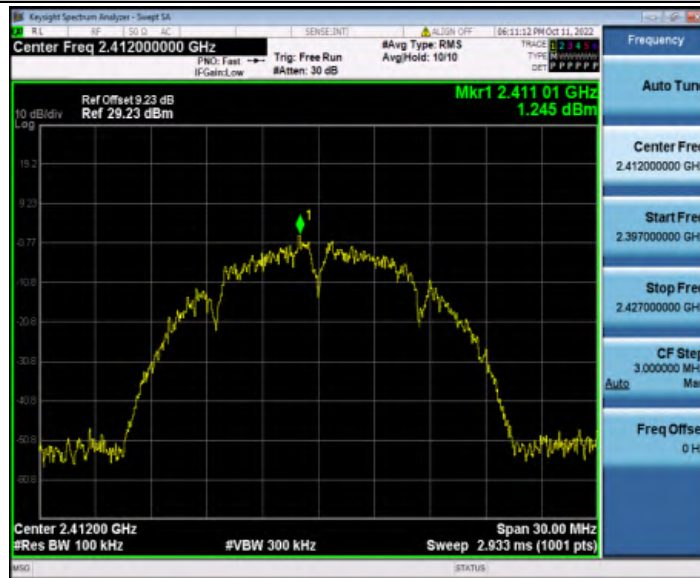
Appendix A.6: Conducted Spurious Emission

Test Result

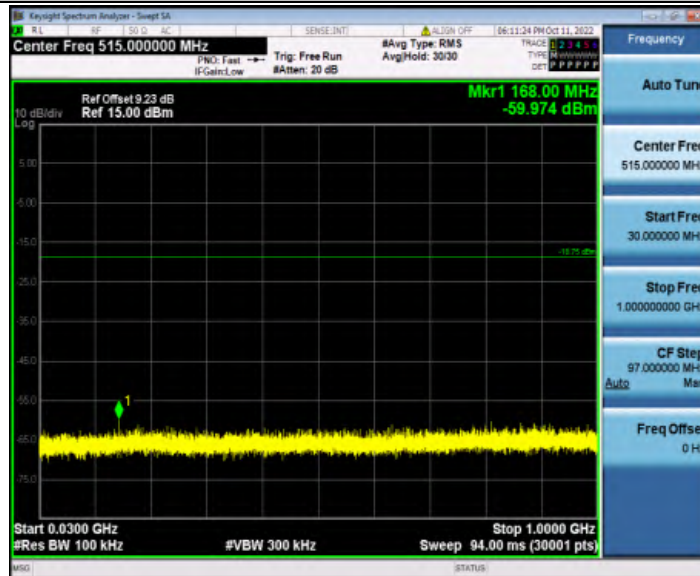
TestMode	Antenna	Frequency[MHz]	FreqRange [Mhz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
11B	Ant1	2412	Reference	1.25	1.25	---	PASS
			30~1000	1.25	-59.97	≤-18.75	PASS
			1000~26500	1.25	-47.37	≤-18.75	PASS
		2437	Reference	1.45	1.45	---	PASS
			30~1000	1.45	-59.15	≤-18.55	PASS
			1000~26500	1.45	-46.99	≤-18.55	PASS
		2462	Reference	0.90	0.90	---	PASS
			30~1000	0.90	-59.17	≤-19.1	PASS
			1000~26500	0.90	-47.49	≤-19.1	PASS
11G	Ant1	2412	Reference	-6.49	-6.49	---	PASS
			30~1000	-6.49	-58.71	≤-26.49	PASS
			1000~26500	-6.49	-47.4	≤-26.49	PASS
		2437	Reference	-5.73	-5.73	---	PASS
			30~1000	-5.73	-59.74	≤-25.73	PASS
			1000~26500	-5.73	-47.03	≤-25.73	PASS
		2462	Reference	-5.34	-5.34	---	PASS
			30~1000	-5.34	-59.93	≤-25.34	PASS
			1000~26500	-5.34	-47.87	≤-25.34	PASS
11N20SISO	Ant1	2412	Reference	-1.10	-1.10	---	PASS
			30~1000	-1.10	-59.26	≤-21.1	PASS
			1000~26500	-1.10	-47.14	≤-21.1	PASS
		2437	Reference	-0.03	-0.03	---	PASS
			30~1000	-0.03	-59.74	≤-20.03	PASS
			1000~26500	-0.03	-47.66	≤-20.03	PASS
		2462	Reference	-0.51	-0.51	---	PASS
			30~1000	-0.51	-58.88	≤-20.51	PASS
			1000~26500	-0.51	-47.82	≤-20.51	PASS
11N40SISO	Ant1	2422	Reference	-3.91	-3.91	---	PASS
			30~1000	-3.91	-59.94	≤-23.91	PASS
			1000~26500	-3.91	-47.38	≤-23.91	PASS
		2437	Reference	-2.85	-2.85	---	PASS
			30~1000	-2.85	-58.81	≤-22.85	PASS
			1000~26500	-2.85	-47.19	≤-22.85	PASS
		2452	Reference	-3.41	-3.41	---	PASS
			30~1000	-3.41	-60.26	≤-23.41	PASS
			1000~26500	-3.41	-47.49	≤-23.41	PASS

Test Graphs

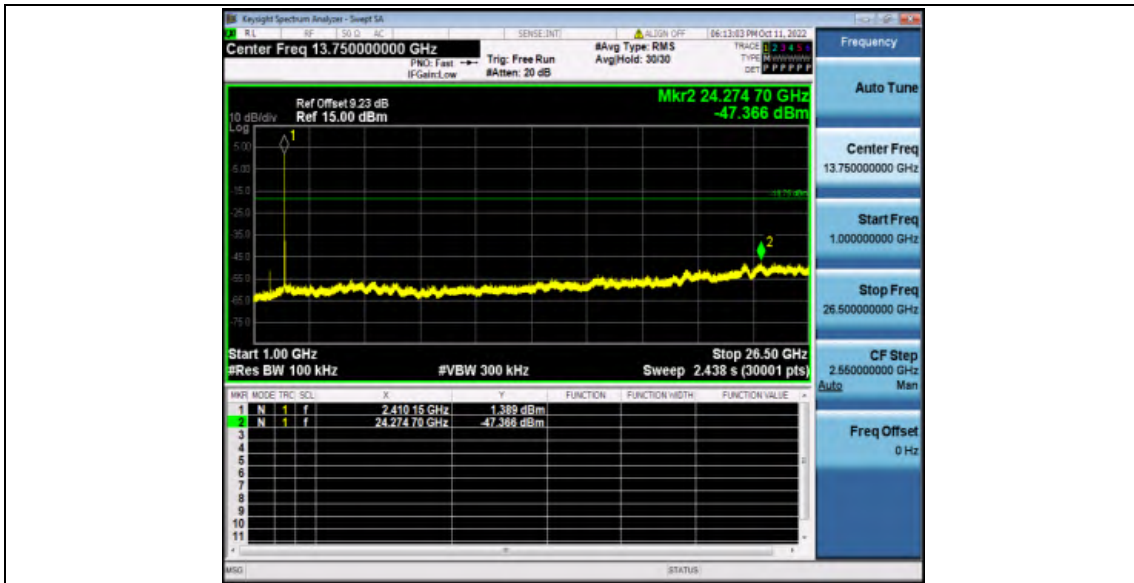
11B_Ant1_2412_0~Reference



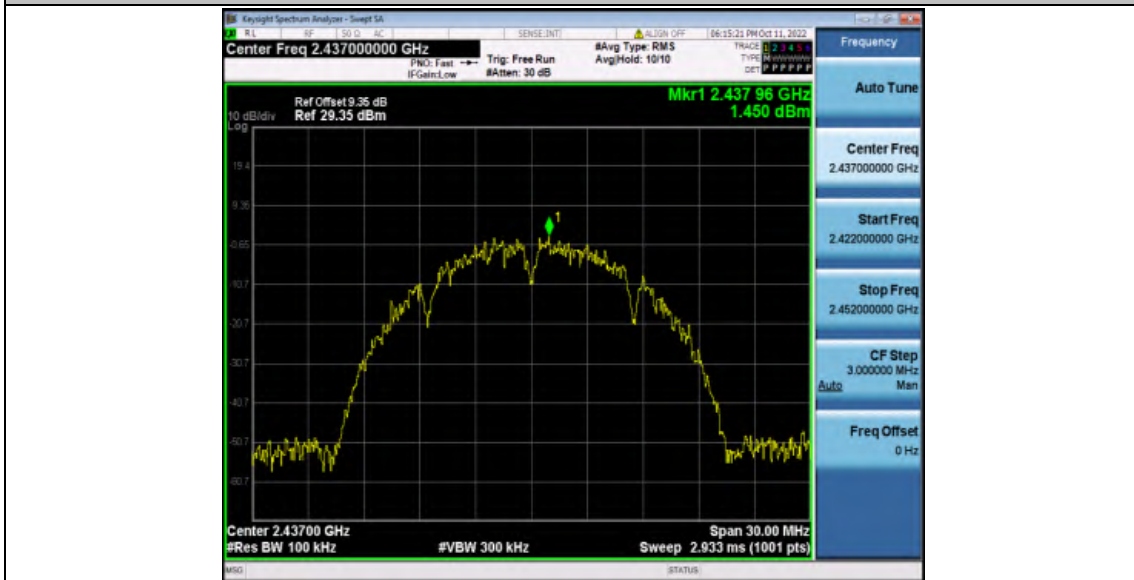
11B_Ant1_2412_30~1000



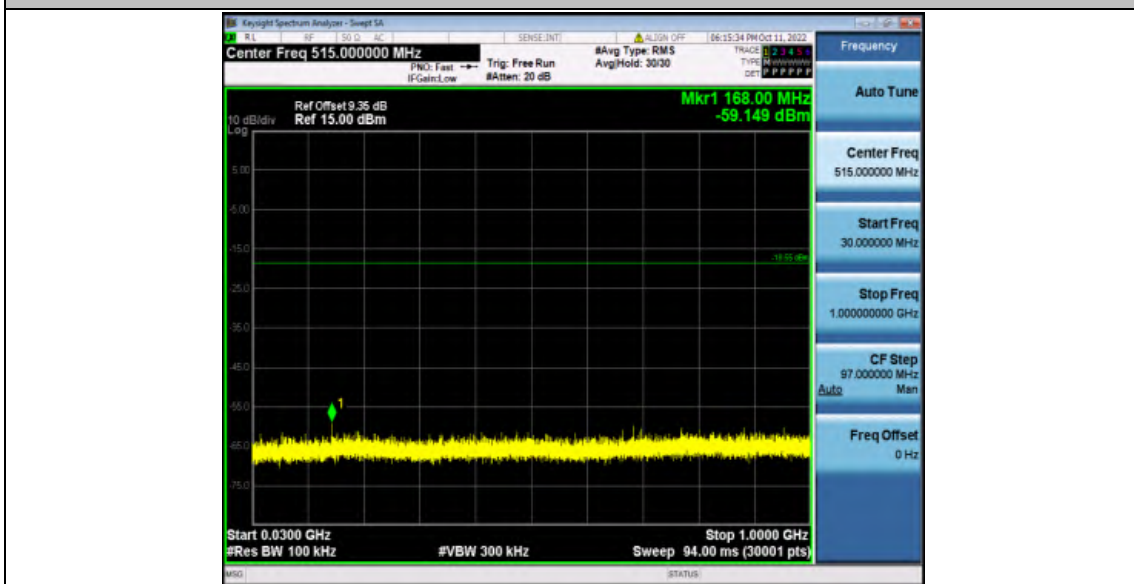
11B_Ant1_2412_1000~26500



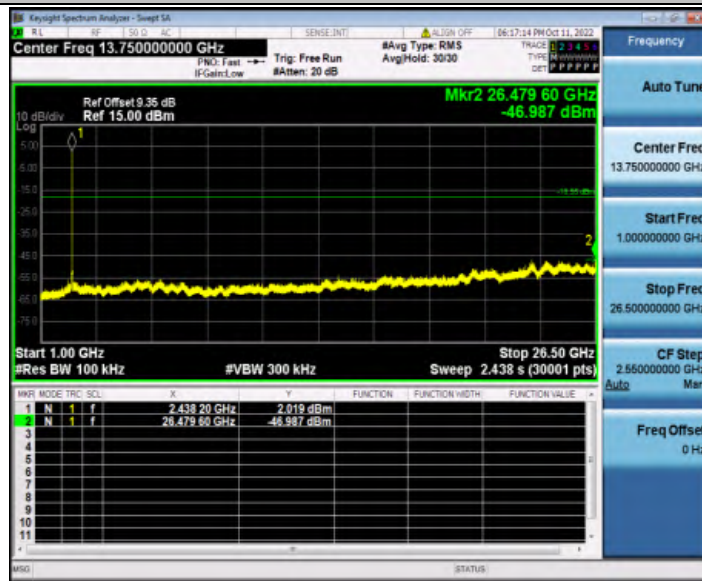
11B_Ant1_2437_0-Reference



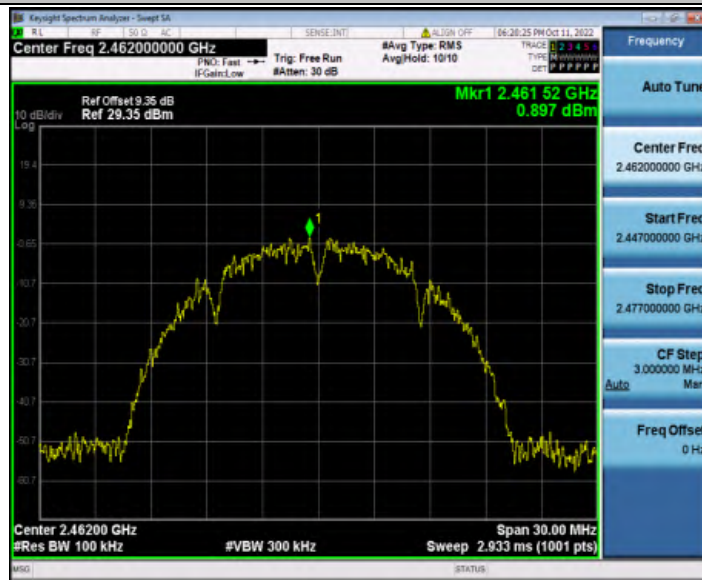
11B_Ant1_2437_30-1000



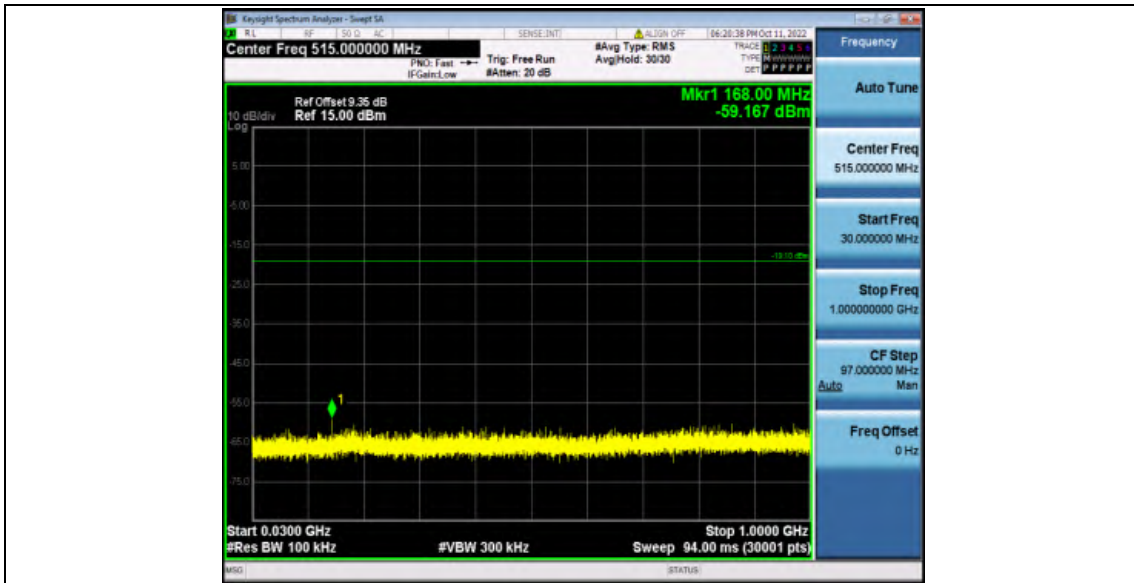
11B_Ant1_2437_1000~26500



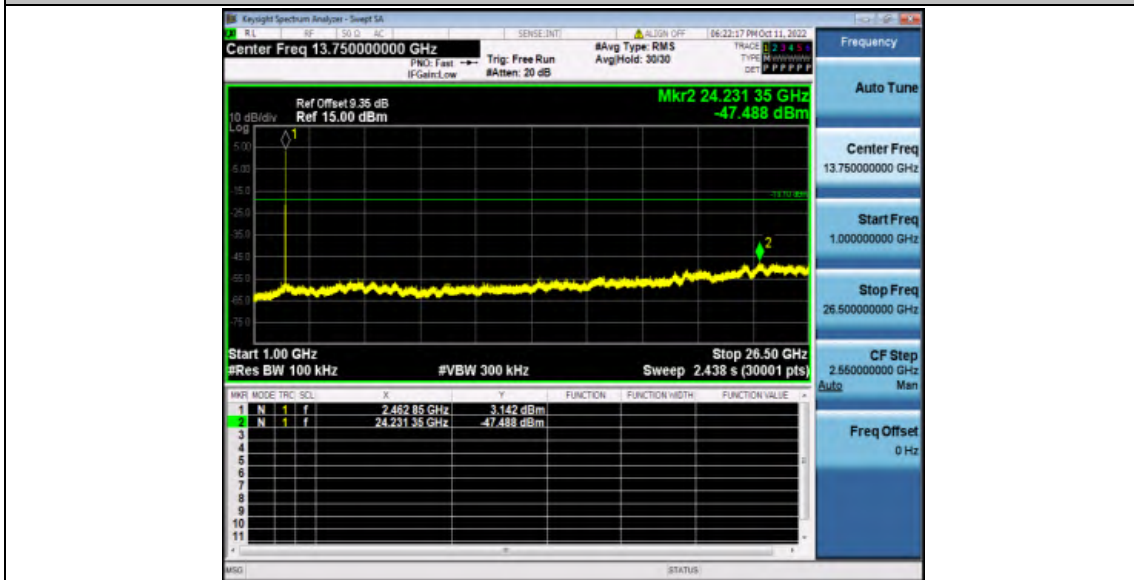
11B_Ant1_2462_0~Reference



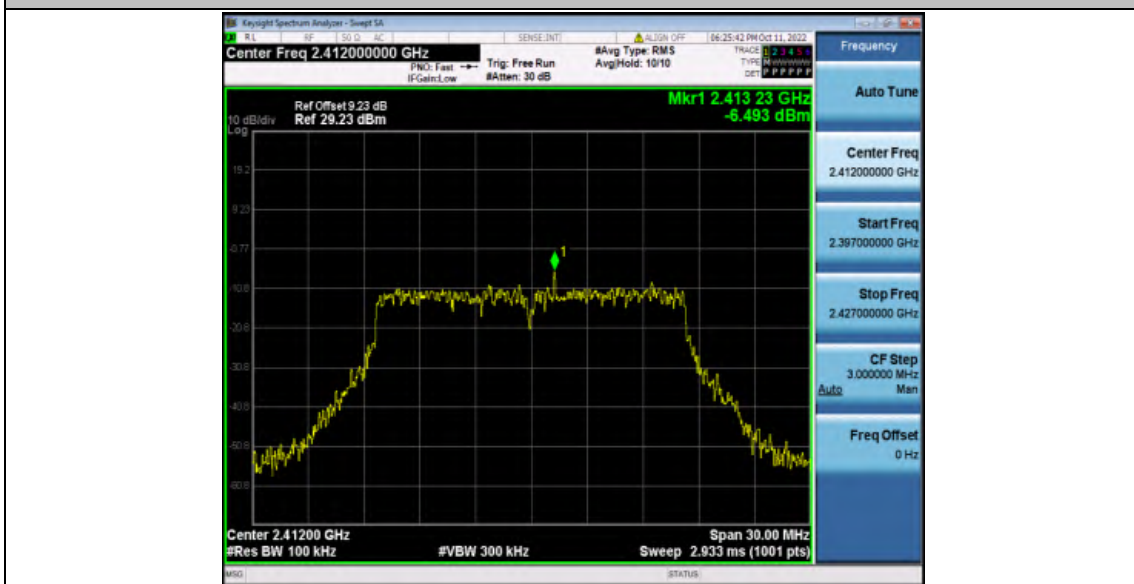
11B_Ant1_2462_30~1000



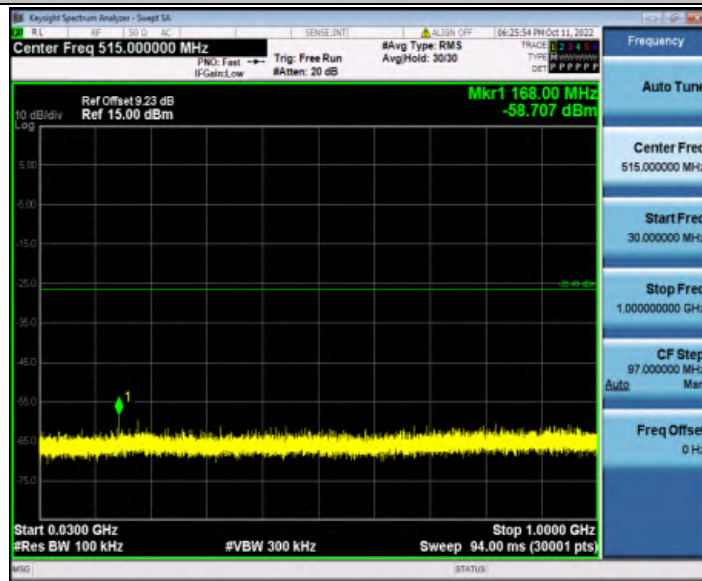
11B_Ant1_2462_1000~26500



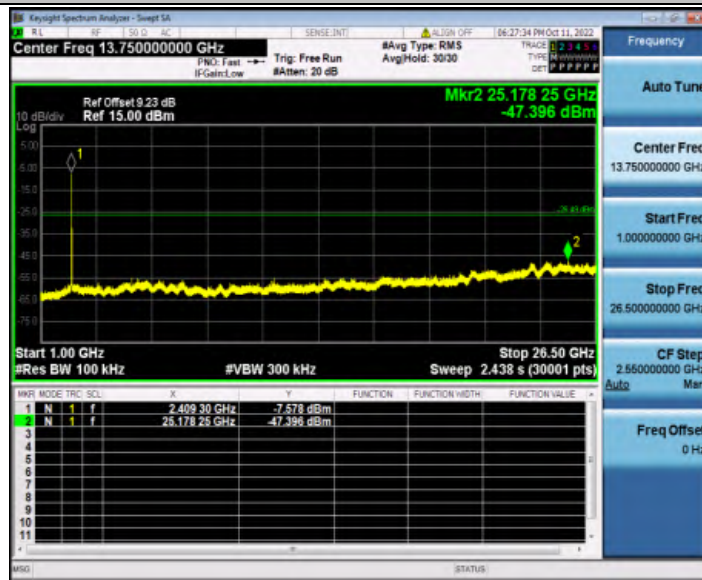
11G_Ant1_2412_0~Reference



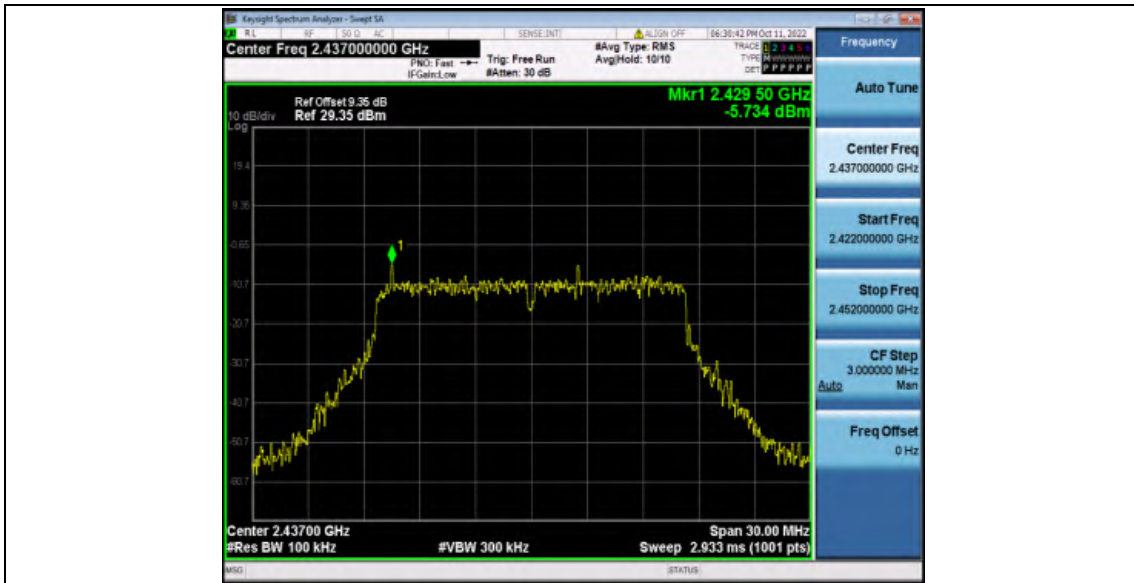
11G_Ant1_2412_30~1000



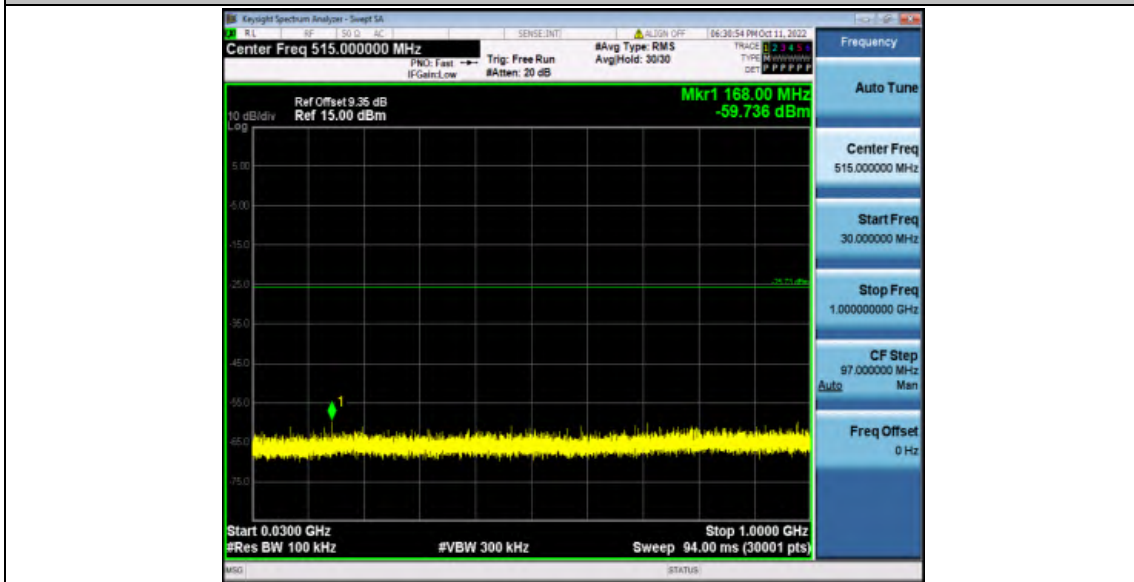
11G_Ant1_2412_1000~26500



11G_Ant1_2437_0~Reference



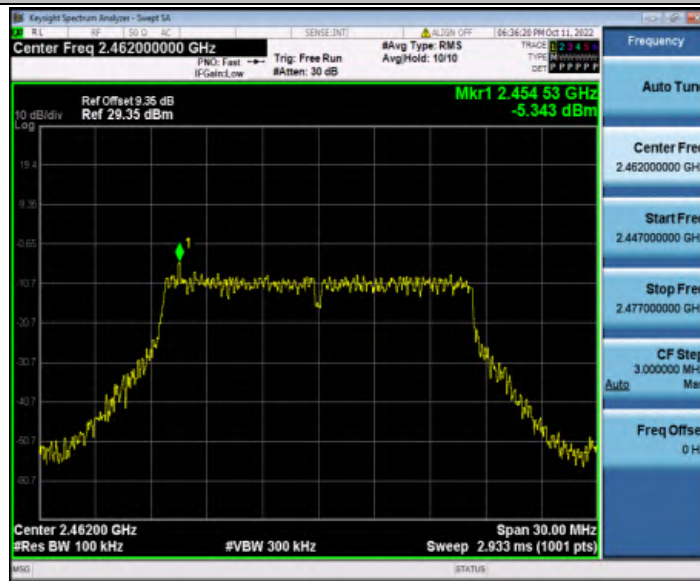
11G_Ant1_2437_30~1000



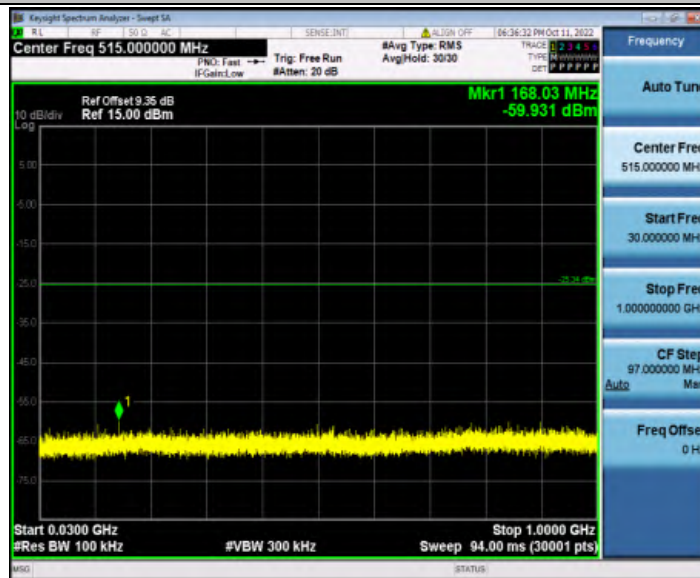
11G_Ant1_2437_1000~26500



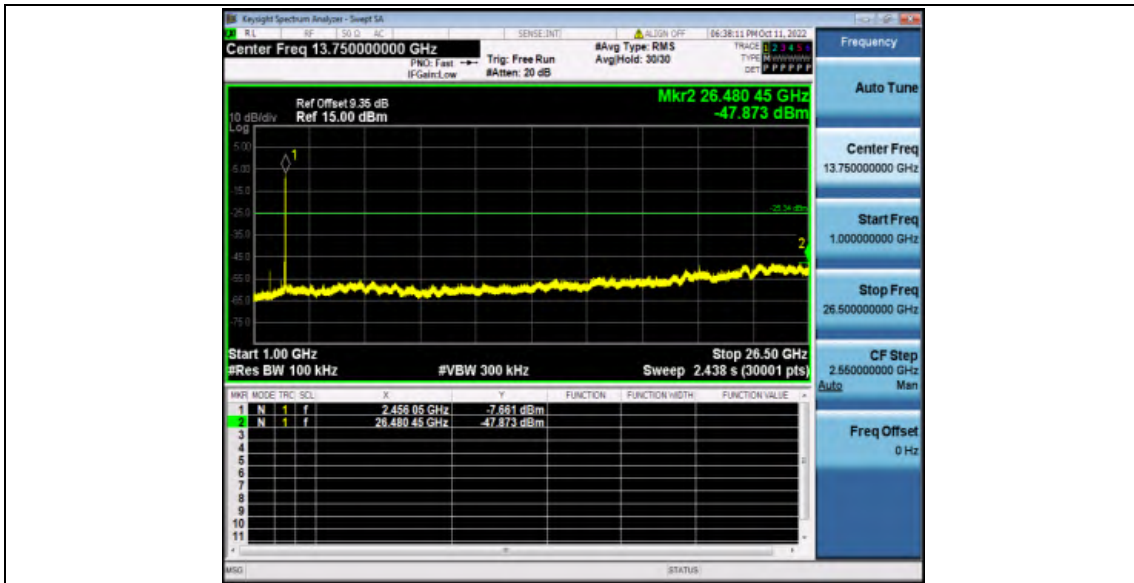
11G_Ant1_2462_0~Reference



11G_Ant1_2462_30~1000



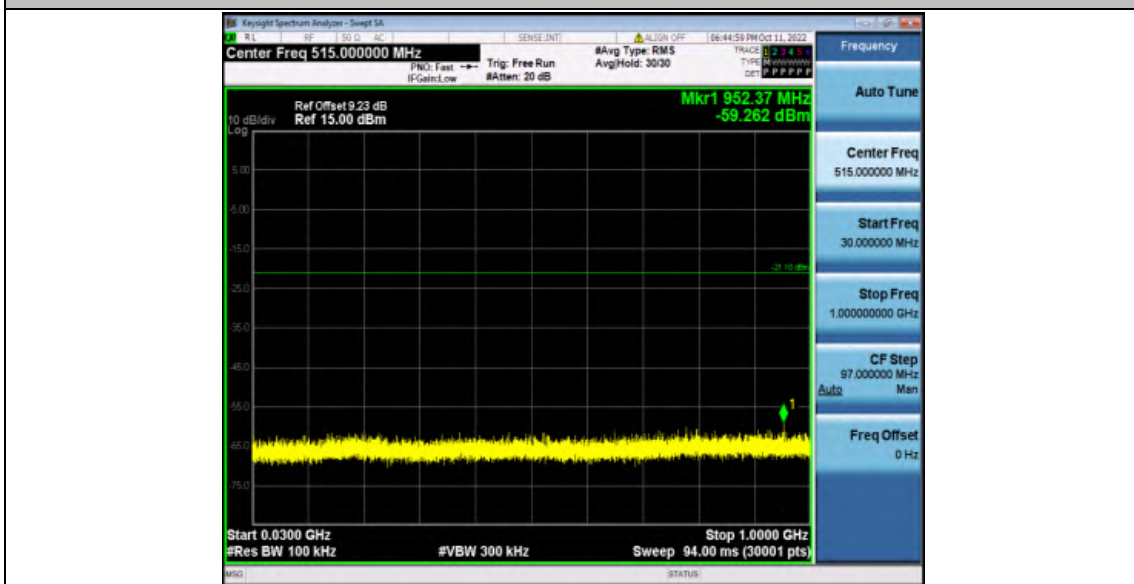
11G_Ant1_2462_1000~26500



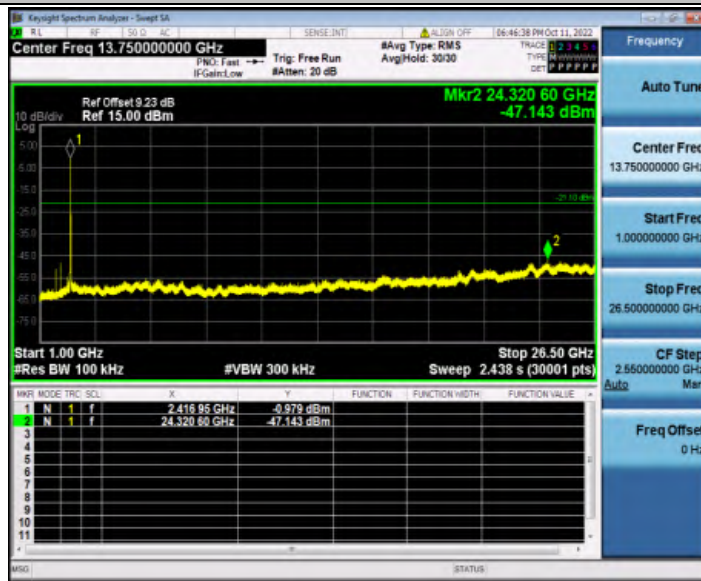
11N20SISO_Ant1_2412_0~Reference



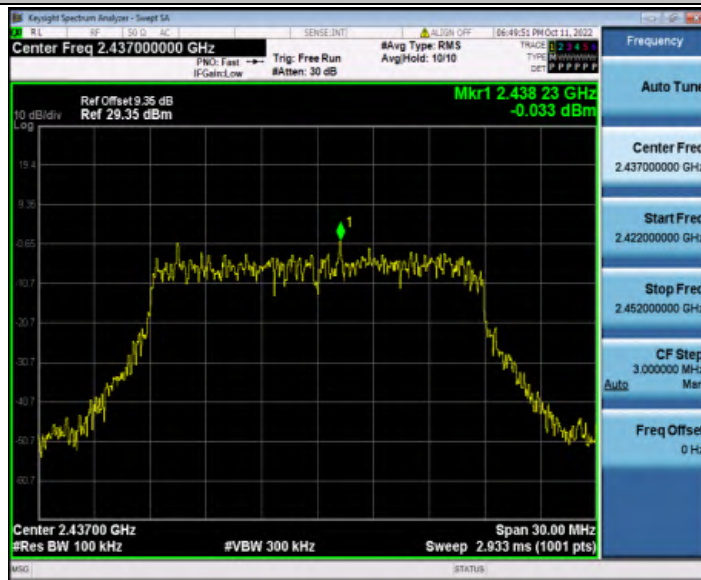
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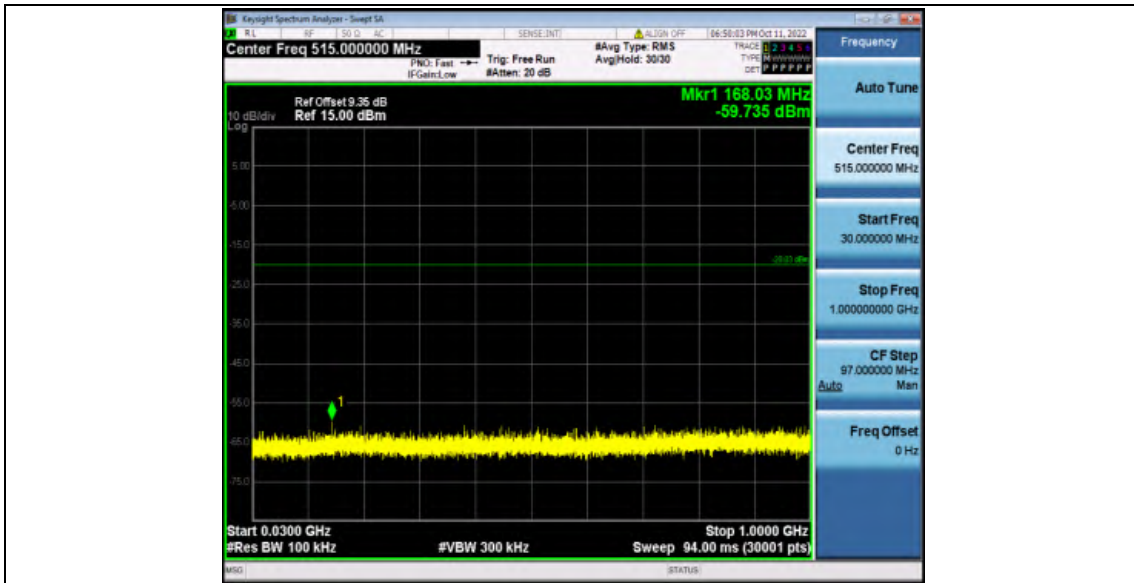
11N20SISO_Ant1_2412_1000~26500



11N20SISO_Ant1_2437_0~Reference



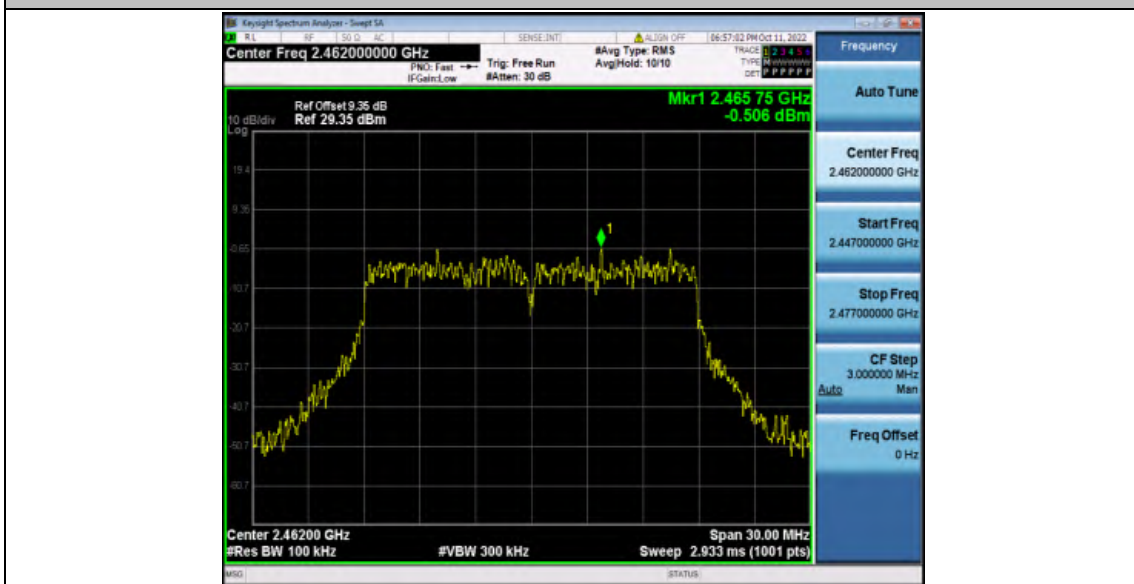
11N20SISO_Ant1_2437_30~1000



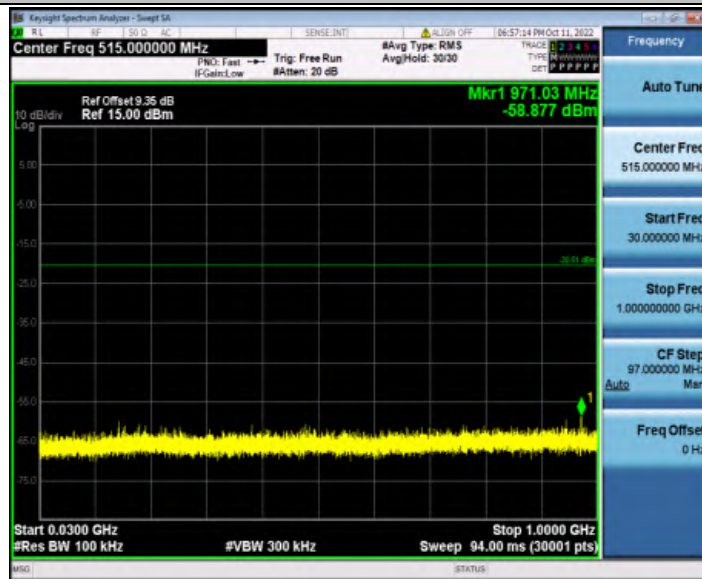
11N20SISO_Ant1_2437_1000~26500



11N20SISO_Ant1_2462_0~Reference



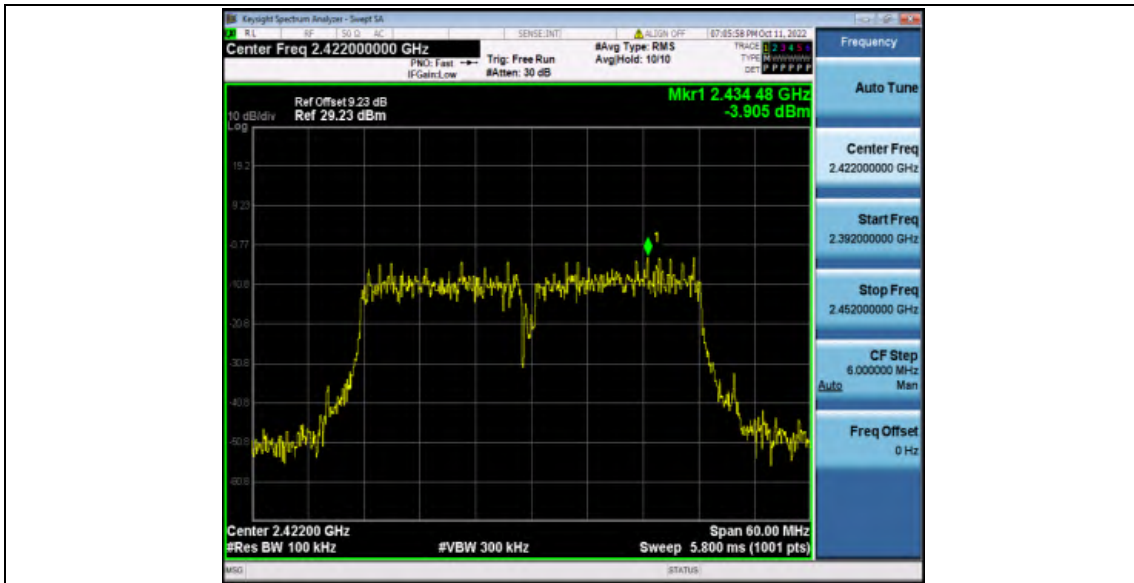
11N20SISO_Ant1_2462_30~1000



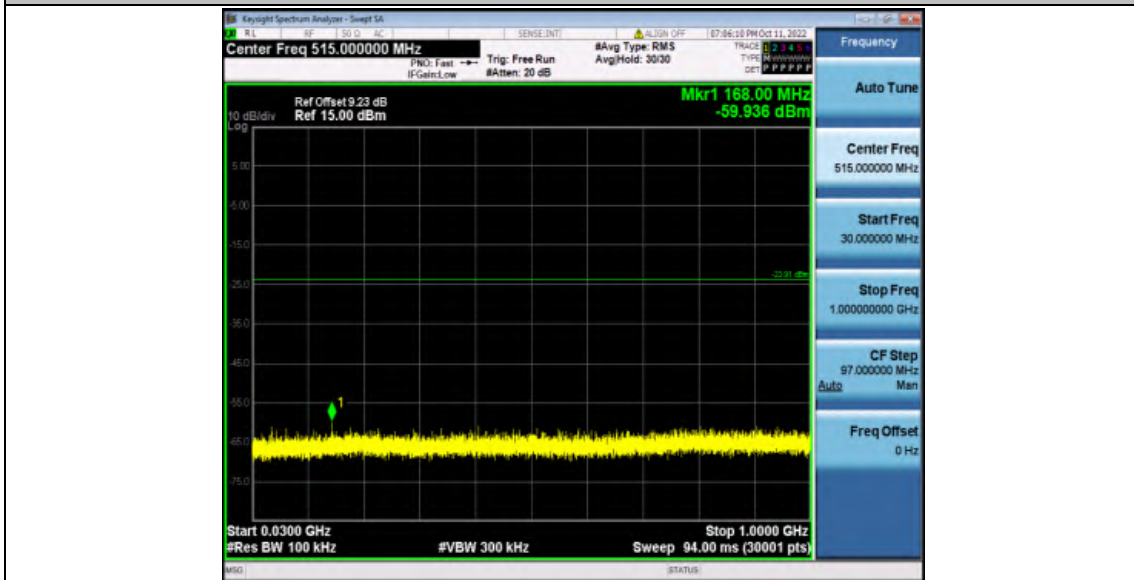
11N20SISO_Ant1_2462_1000~26500



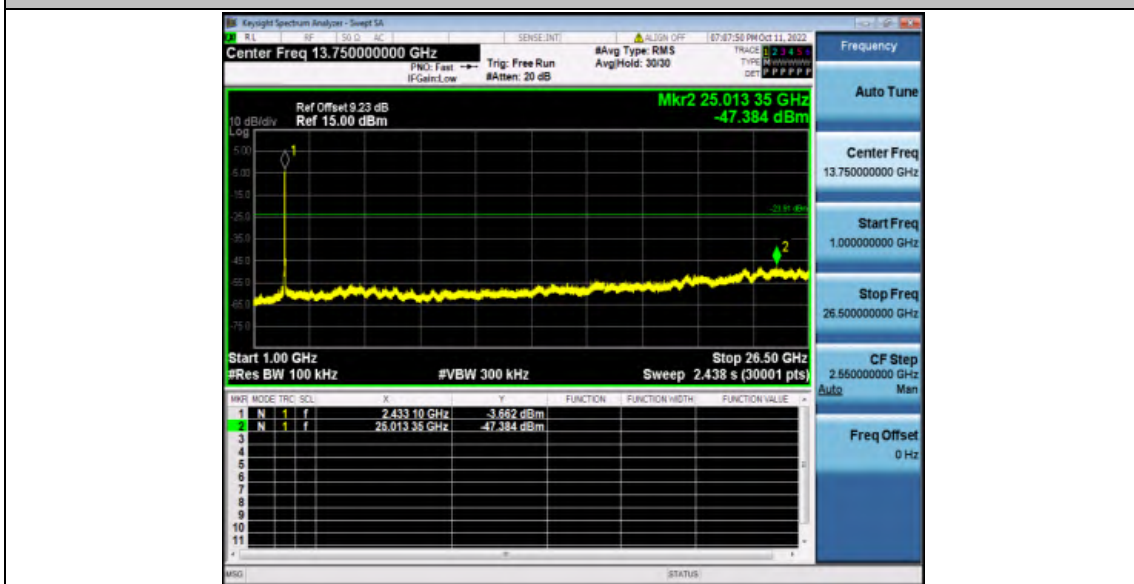
11N40SISO_Ant1_2422_0~Reference



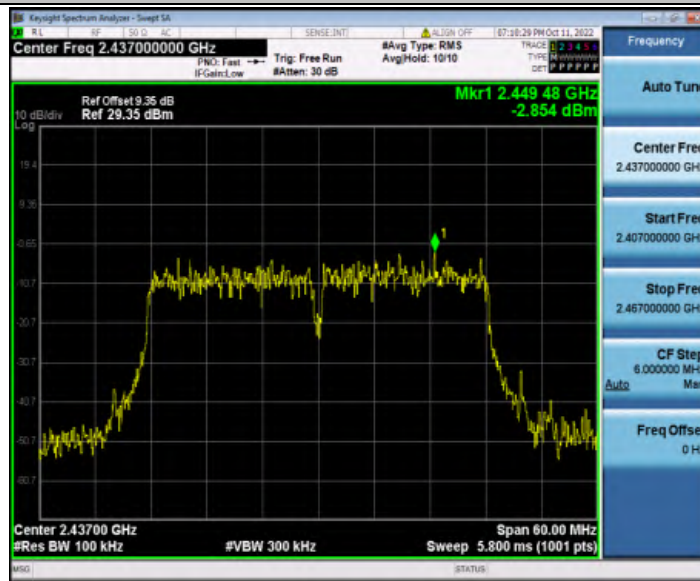
11N40SISO_Ant1_2422_30~1000



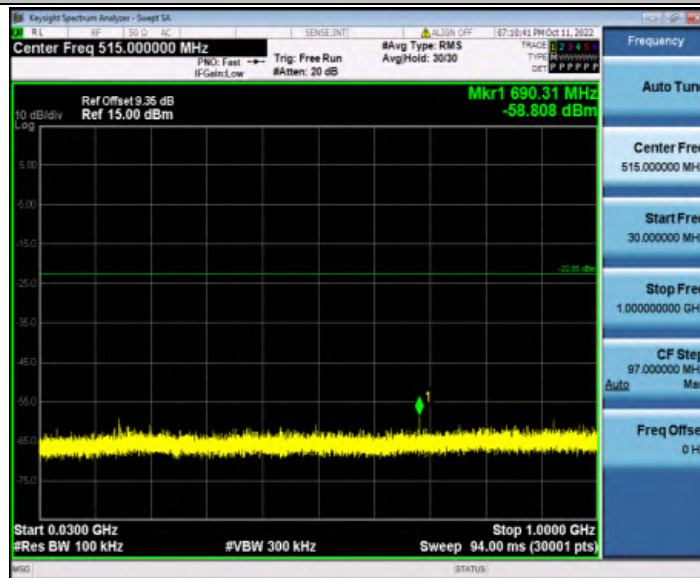
11N40SISO_Ant1_2422_1000~26500



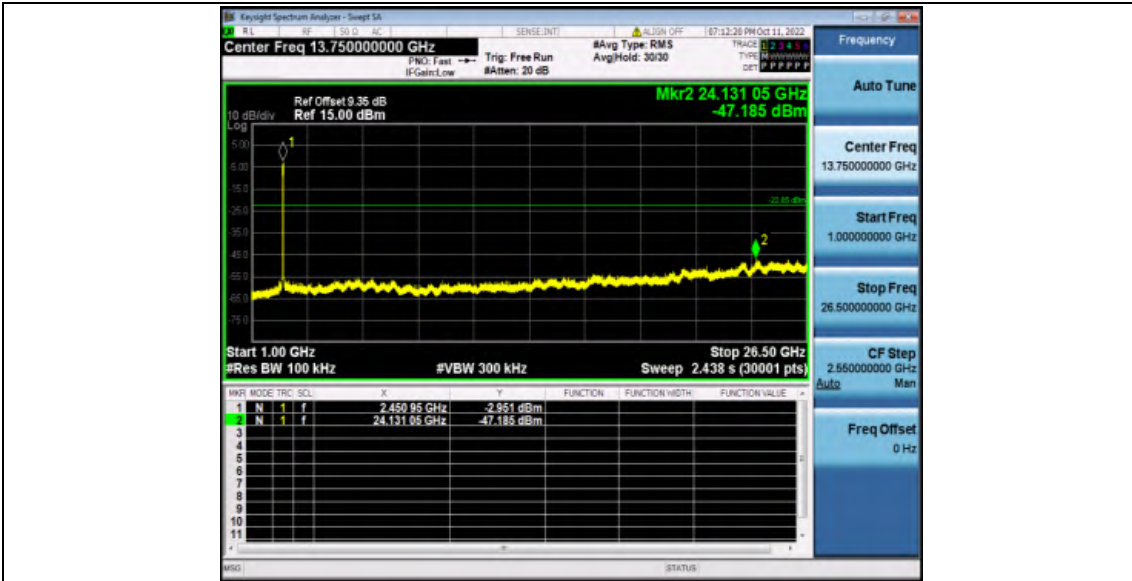
11N40SISO_Ant1_2437_0~Reference



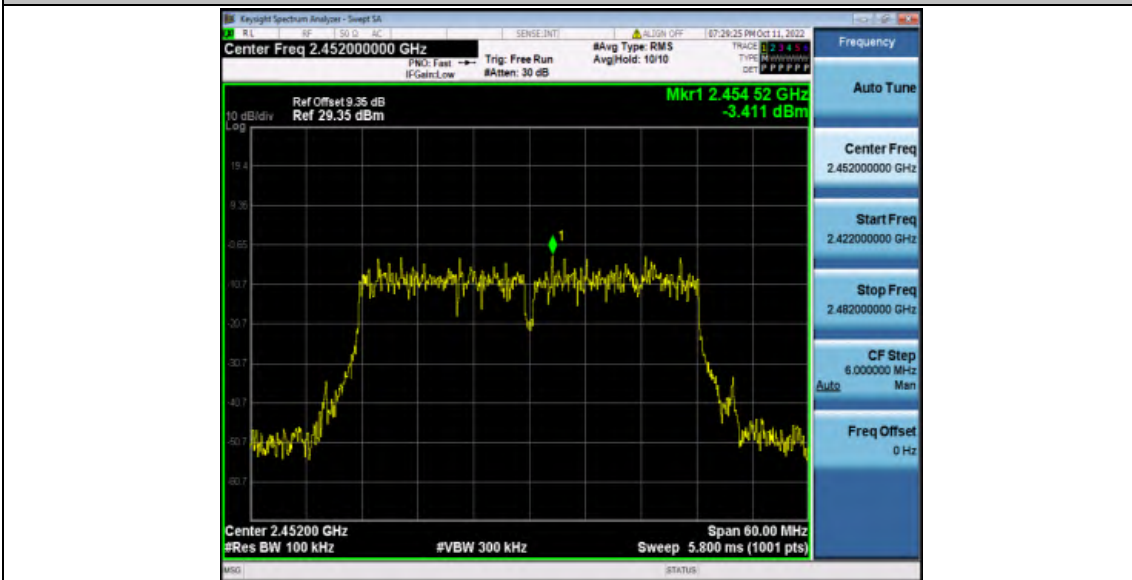
11N40SISO_Ant1_2437_30~1000



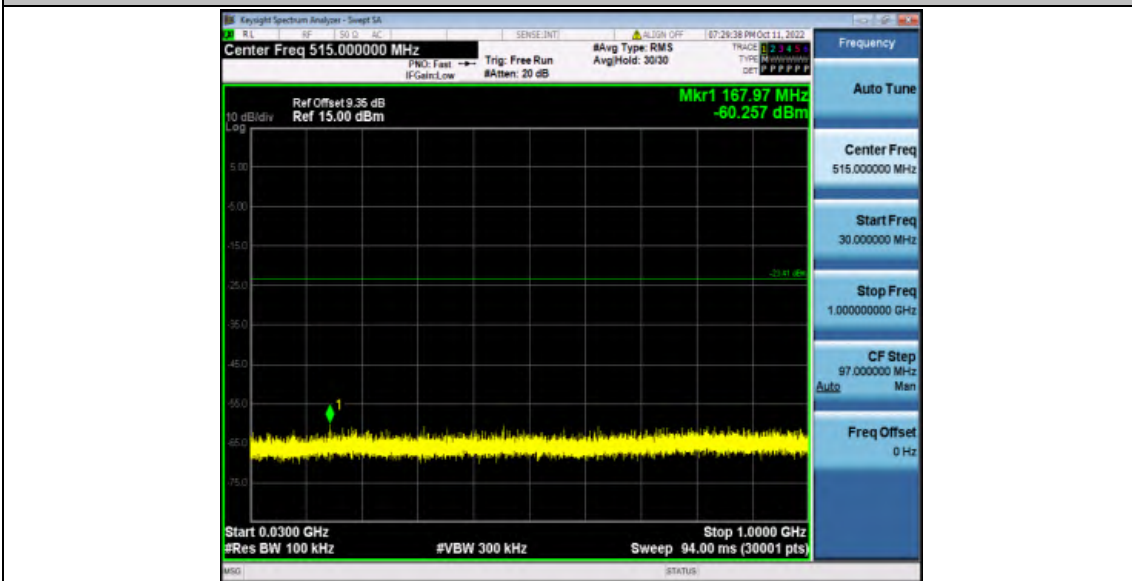
11N40SISO_Ant1_2437_1000~26500



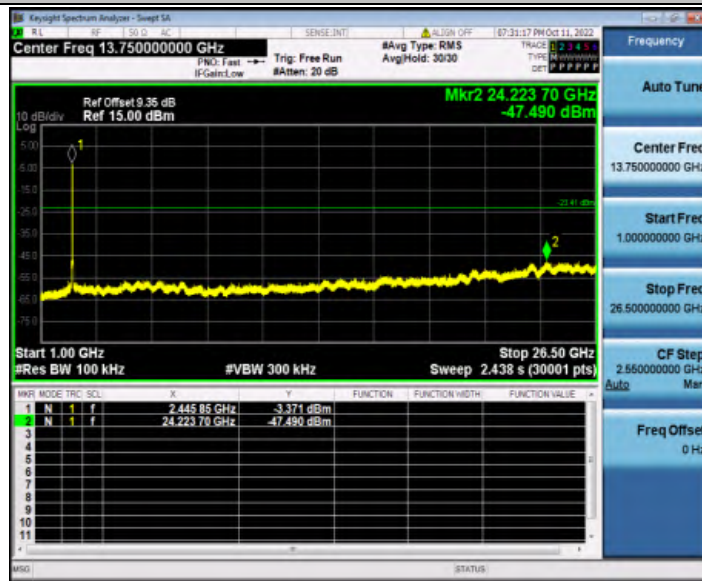
11N40SISO_Ant1_2452_0~Reference



11N40SISO_Ant1_2452_30~1000



11N40SISO_Ant1_2452_1000~26500



Appendix A.7: Emissions in Restricted Bands

Test Result

TestMode	Antenna	ChName	Frequenc y[MHz]	Detector	Freq [MHz]	Result [dBm]	Limit [dBm]	Result [dBuV/m]	Limit [dBuV/m]	Verdict
11B	Ant1	Low	2412	AV	2310.000	-49.17	≤-41.20	46.03	≤54	PASS
				AV	2389.960	-48.56	≤-41.20	46.64	≤54	PASS
				AV	2390.000	-48.56	≤-41.20	46.64	≤54	PASS
				Peak	2310.000	-48.52	≤-21.20	46.68	≤74	PASS
				Peak	2386.840	-40	≤-21.20	55.20	≤74	PASS
				Peak	2390.000	-41.8	≤-21.20	53.40	≤74	PASS
		High	2462	AV	2483.500	-48.54	≤-41.20	46.66	≤54	PASS
				AV	2499.510	-48.49	≤-41.20	46.71	≤54	PASS
				AV	2500.000	-48.52	≤-41.20	46.68	≤54	PASS
				Peak	2483.500	-45.13	≤-21.20	50.07	≤74	PASS
				Peak	2485.870	-40.68	≤-21.20	54.52	≤74	PASS
				Peak	2500.000	-45.7	≤-21.20	49.50	≤74	PASS
11G	Ant1	Low	2412	AV	2310.000	-49.27	≤-41.20	45.93	≤54	PASS
				AV	2389.830	-48.59	≤-41.20	46.61	≤54	PASS
				AV	2390.000	-48.6	≤-41.20	46.60	≤54	PASS
				Peak	2310.000	-52.45	≤-21.20	42.75	≤74	PASS
				Peak	2357.070	-40.59	≤-21.20	54.61	≤74	PASS
				Peak	2390.000	-43.56	≤-21.20	51.64	≤74	PASS
		High	2462	AV	2483.500	-48.4	≤-41.20	46.80	≤54	PASS
				AV	2483.560	-48.38	≤-41.20	46.82	≤54	PASS
				AV	2500.000	-48.58	≤-41.20	46.62	≤54	PASS
				Peak	2483.500	-44.78	≤-21.20	50.42	≤74	PASS
				Peak	2487.850	-40.88	≤-21.20	54.32	≤74	PASS
				Peak	2500.000	-48.89	≤-21.20	46.31	≤74	PASS
11N20SIS O	Ant1	Low	2412	AV	2310.000	-49.25	≤-41.20	45.95	≤54	PASS
				AV	2389.960	-47.39	≤-41.20	47.81	≤54	PASS
				AV	2390.000	-47.39	≤-41.20	47.81	≤54	PASS
				Peak	2310.000	-47.83	≤-21.20	47.37	≤74	PASS
				Peak	2310.400	-40.06	≤-21.20	55.14	≤74	PASS
				Peak	2390.000	-43.96	≤-21.20	51.24	≤74	PASS
		High	2462	AV	2483.500	-46.65	≤-41.20	48.55	≤54	PASS
				AV	2483.560	-46.72	≤-41.20	48.48	≤54	PASS
				AV	2500.000	-48.56	≤-41.20	46.64	≤54	PASS
				Peak	2483.500	-37.93	≤-21.20	57.27	≤74	PASS

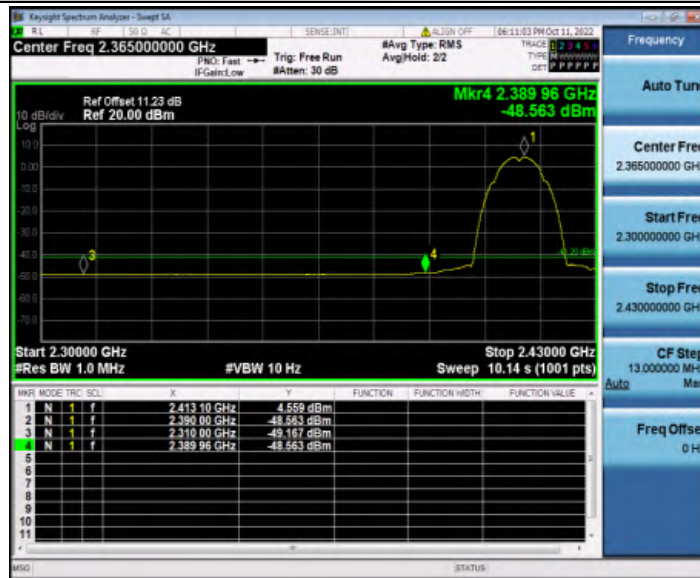
				Peak	2483.890	-39.65	≤-21.20	55.55	≤74	PASS
				Peak	2500.000	-45.59	≤-21.20	49.61	≤74	PASS
11N40SIS O	Ant1	Low	2422	AV	2310.000	-49.29	≤-41.20	45.91	≤54	PASS
				AV	2389.700	-46.84	≤-41.20	48.36	≤54	PASS
				AV	2390.000	-46.89	≤-41.20	48.31	≤54	PASS
				Peak	2310.000	-50.02	≤-21.20	45.18	≤74	PASS
				Peak	2377.870	-39.82	≤-21.20	55.38	≤74	PASS
				Peak	2390.000	-45.67	≤-21.20	49.53	≤74	PASS
				AV	2483.500	-45.55	≤-41.20	49.65	≤54	PASS
		High	2452	AV	2484.330	-45.51	≤-41.20	49.69	≤54	PASS
				AV	2500.000	-48.22	≤-41.20	46.98	≤54	PASS
				Peak	2483.500	-44.97	≤-21.20	50.23	≤74	PASS
				Peak	2494.340	-39.94	≤-21.20	55.26	≤74	PASS
				Peak	2500.000	-46.78	≤-21.20	48.42	≤74	PASS

Note:

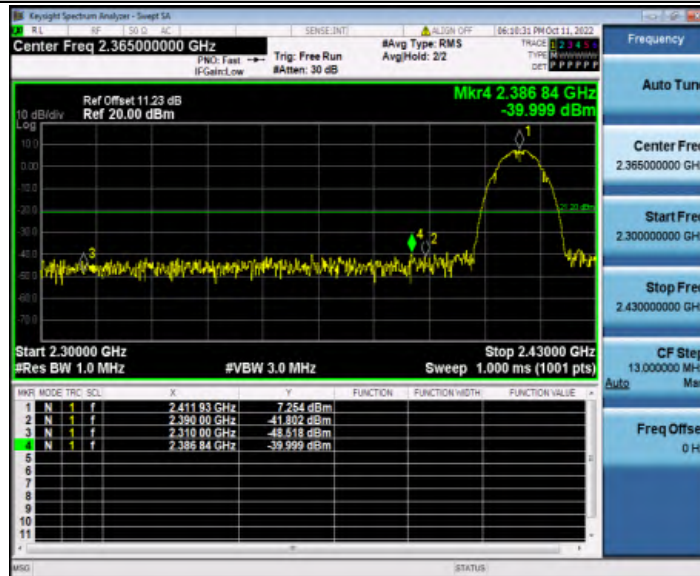
1. The Antenna Gain is compensated in the graph.
2. The limit in dBm for average detector is conversion from 54dBuV/m, according to 15.209(a). The limit in dBm for peak detector is 20dB above the limit of average detector in dBm.

Test Graphs

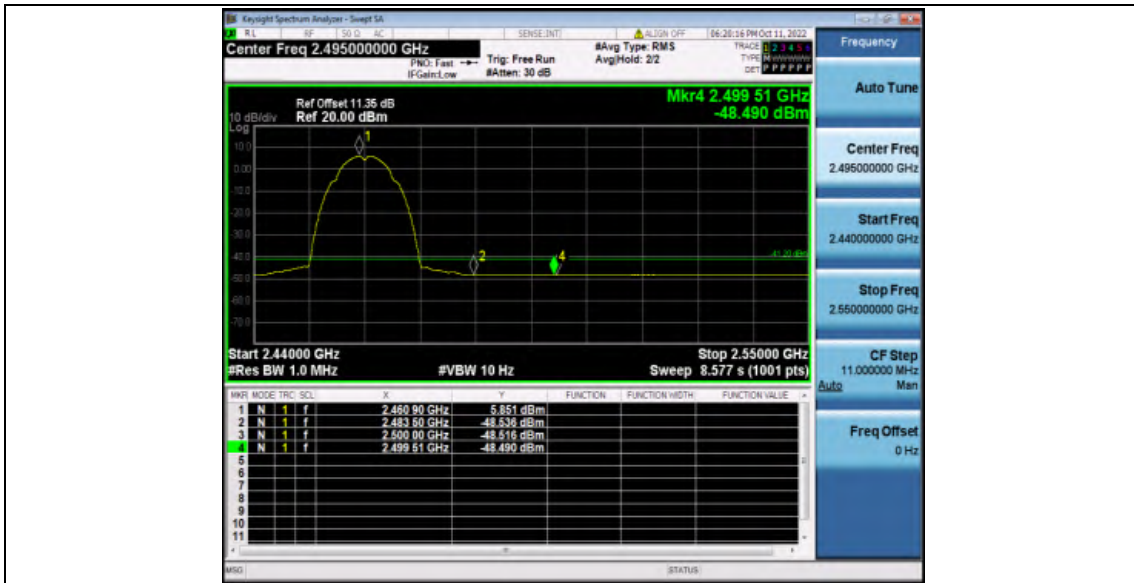
11B_Ant1_Low_2412_AV



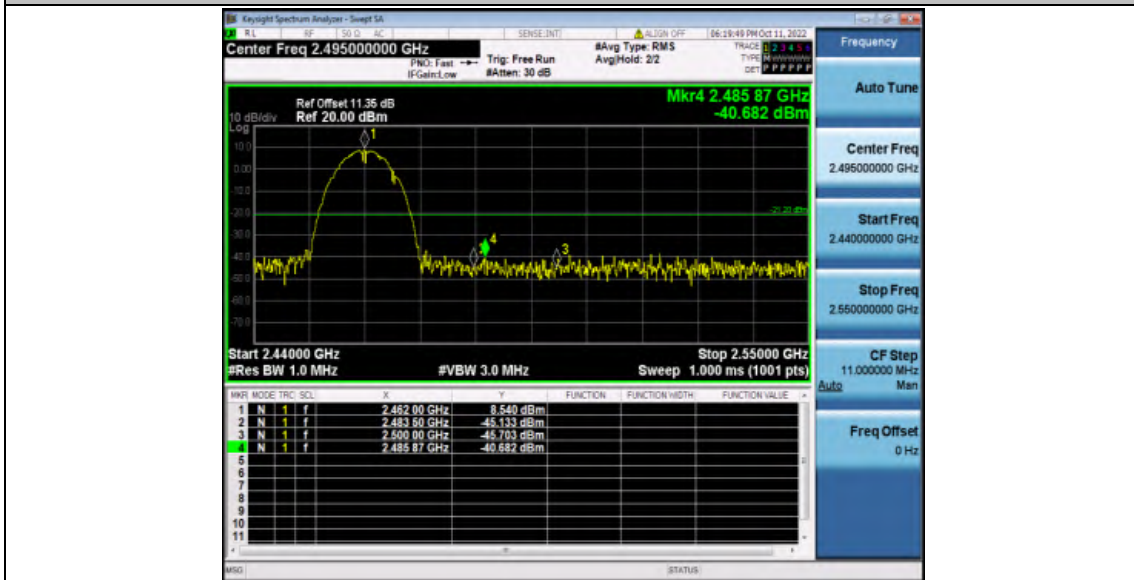
11B_Ant1_Low_2412_Peak



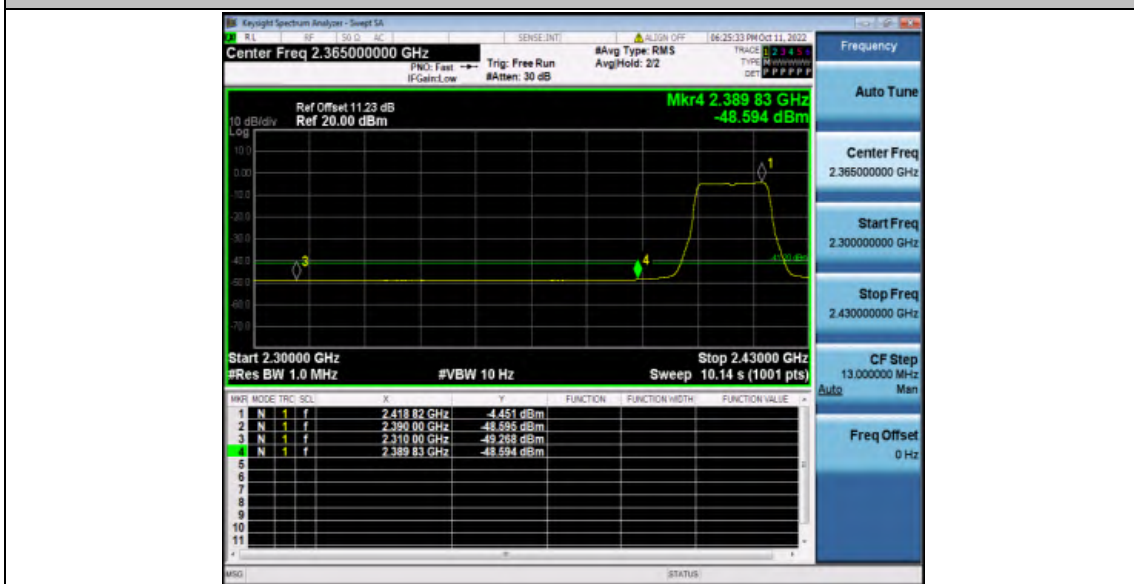
11B_Ant1_High_2462_AV



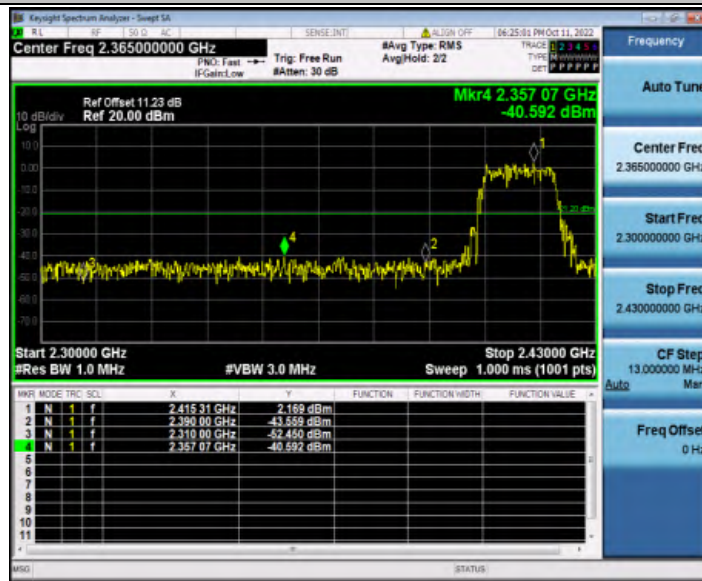
11B_Ant1_High_2462_Peak



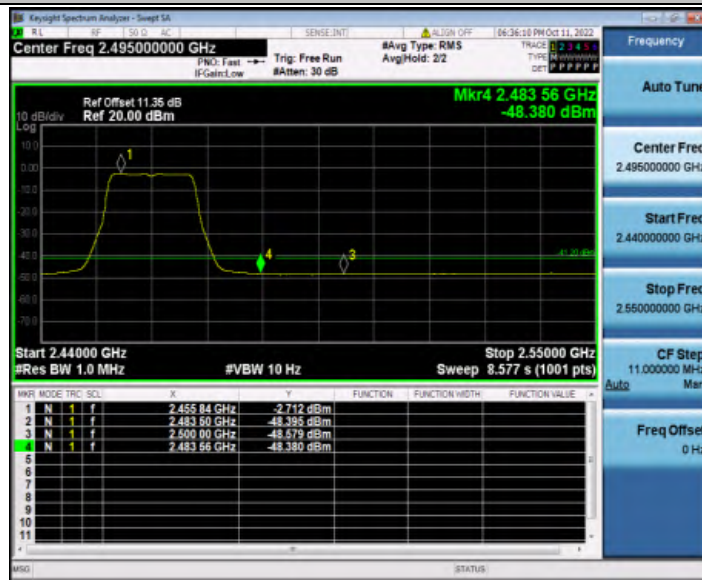
11G_Ant1_Low_2412_AV



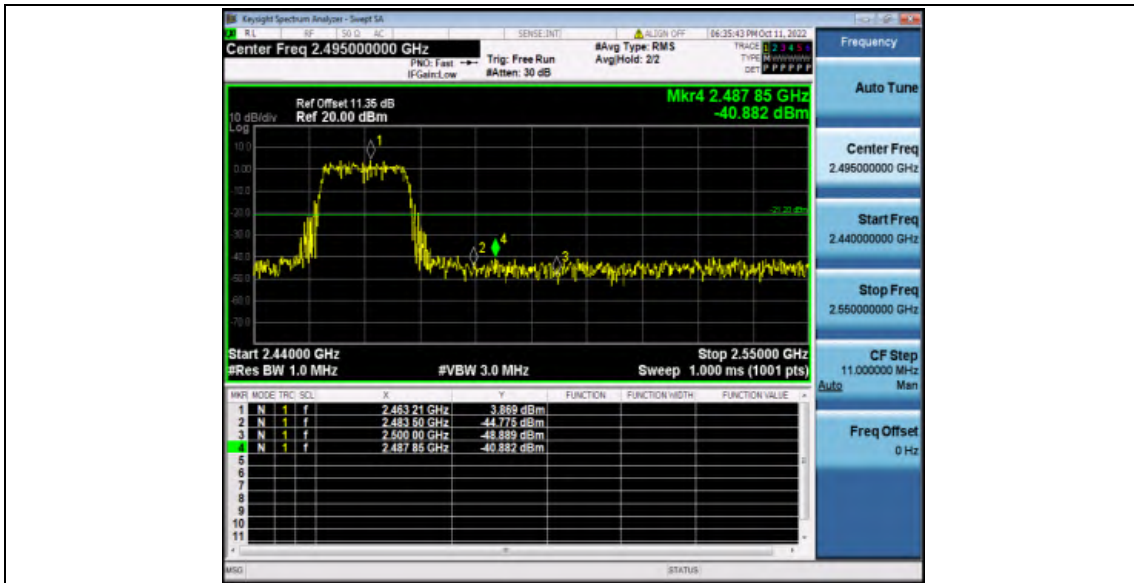
11G_Ant1_Low_2412_Peak



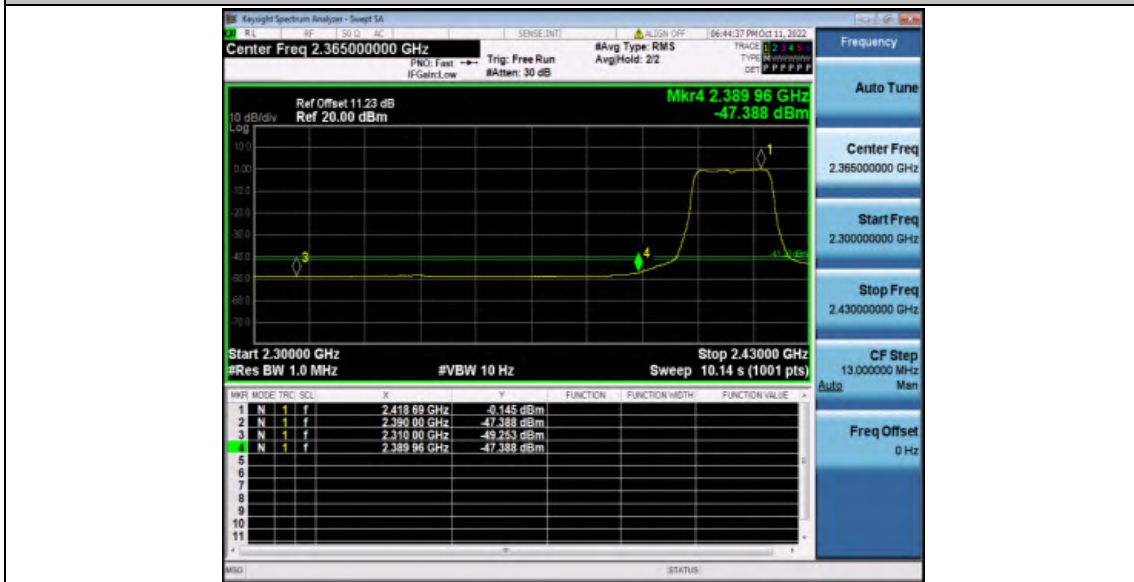
11G_Ant1_High_2462_AV



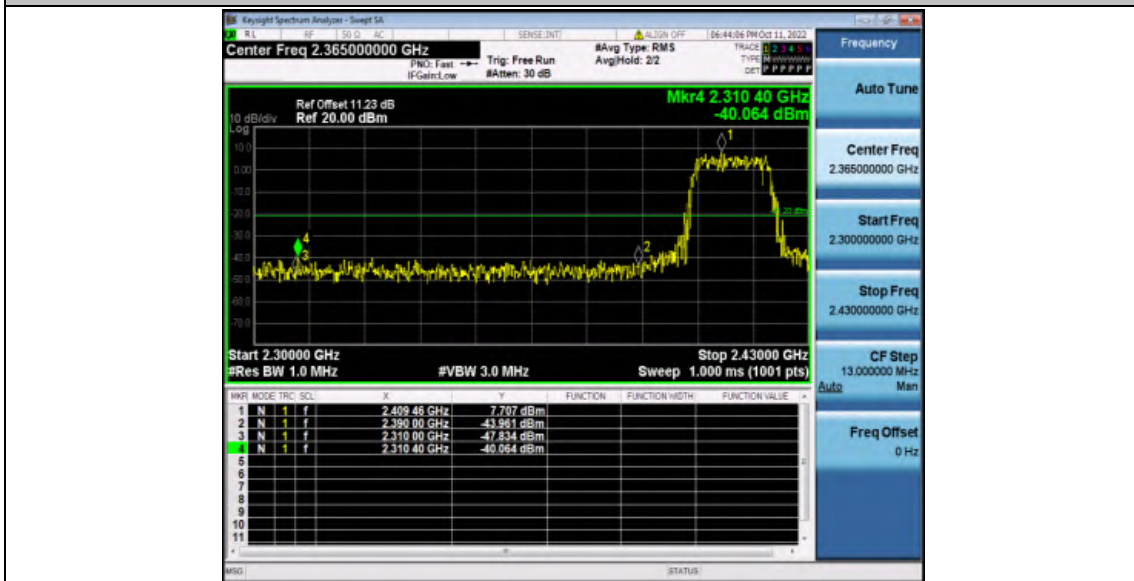
11G_Ant1_High_2462_Peak



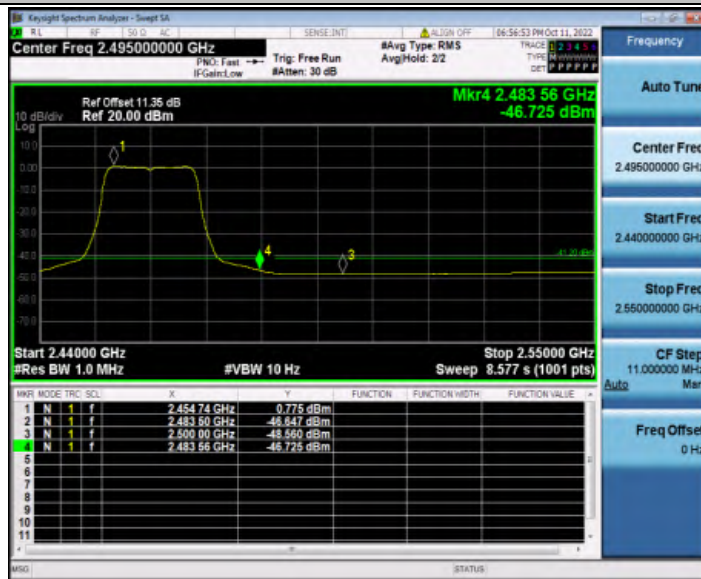
11N20SISO_Ant1_Low_2412_AV



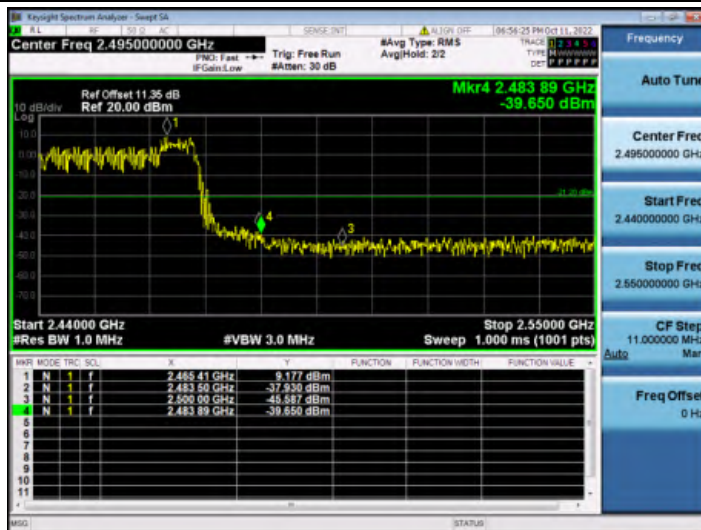
11N20SISO_Ant1_Low_2412_Peak



11N20SISO_Ant1_High_2462_AV



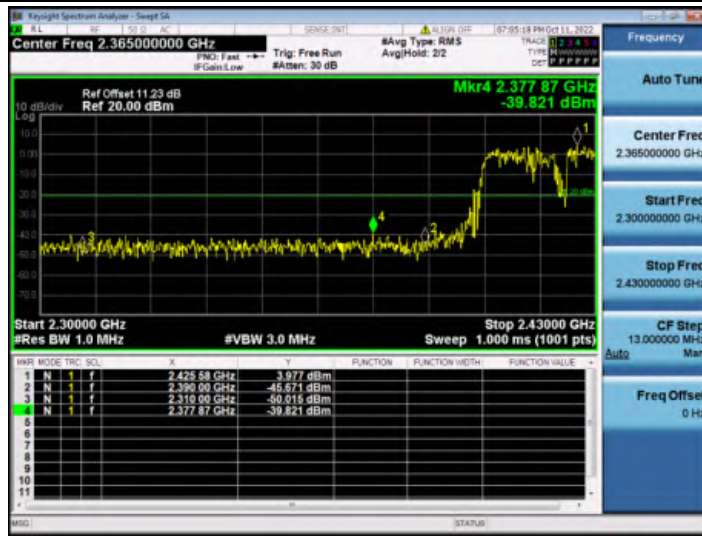
11N20SISO_Ant1_High_2462_Peak



11N40SISO_Ant1_Low_2422_AV



11N40SISO_Ant1_Low_2422_Peak



11N40SISO_Ant1_High_2452_AV



11N40SISO_Ant1_High_2452_Peak

