

Case No. : <u>CTA24052001003</u>	
Ambient Condition: <u>23</u> °C, <u>55</u> %RH,	
Test Date: <u>2024.4.27</u>	Test Engineer: <u>Evan ouyang</u>

Appendix C.1: DTS Bandwidth

Test Result

TestMode	Antenna	Frequency[MHz]	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	8.080	2408.440	2416.520	0.5	PASS
		2437	7.120	2433.440	2440.560	0.5	PASS
		2462	8.080	2457.960	2466.040	0.5	PASS
11G	Ant1	2412	16.280	2403.880	2420.160	0.5	PASS
		2437	15.240	2429.520	2444.760	0.5	PASS
		2462	14.880	2454.680	2469.560	0.5	PASS
11N20SISO	Ant1	2412	15.040	2404.480	2419.520	0.5	PASS
		2437	15.120	2429.440	2444.560	0.5	PASS
		2462	16.160	2454.240	2470.400	0.5	PASS
11N40SISO	Ant1	2422	35.120	2404.480	2439.600	0.5	PASS
		2437	31.360	2420.680	2452.040	0.5	PASS
		2452	33.760	2434.480	2468.240	0.5	PASS

Test Graphs



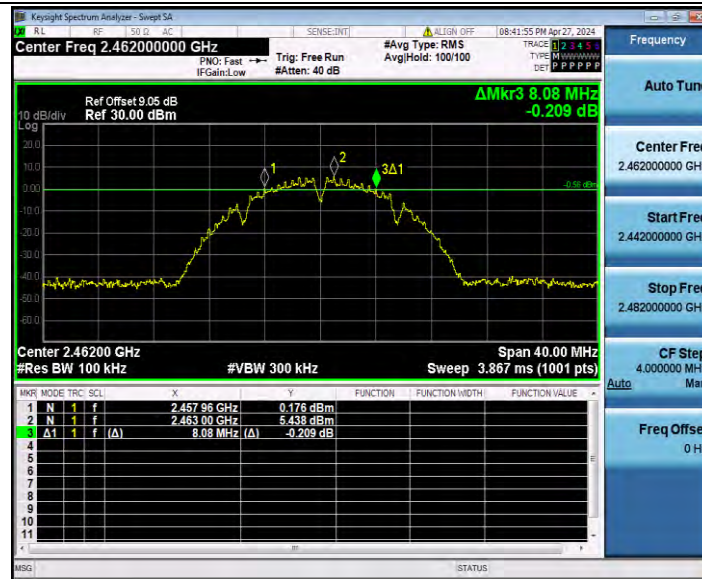
11B_Ant1_2437

Frequency

Auto Tune

Center Freq
2.43700000 GHzStart Freq
2.417000000 GHzStop Freq
2.457000000 GHzCF Step
4.000000 MHz
Auto ManFreq Offset
0 Hz

11B_Ant1_2462



11G_Ant1_2412



11G_Ant1_2437



11G_Ant1_2462



11N20SISO_Ant1_2412



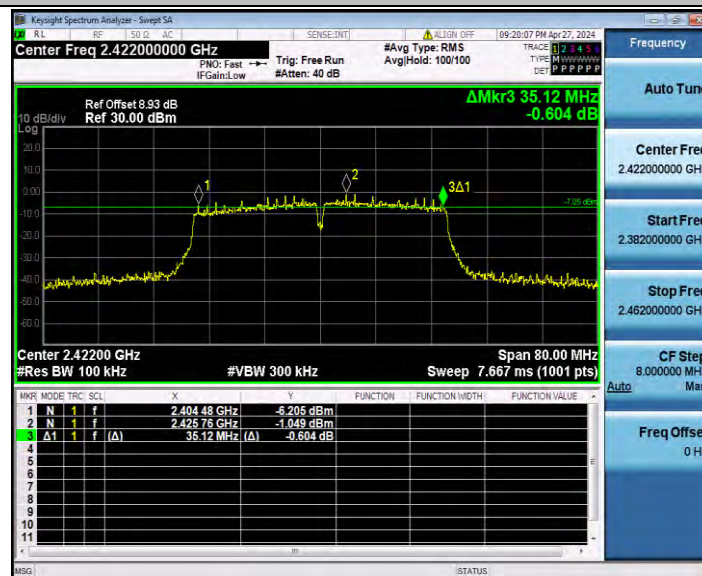
11N20SISO_Ant1_2437



11N20SISO_Ant1_2462



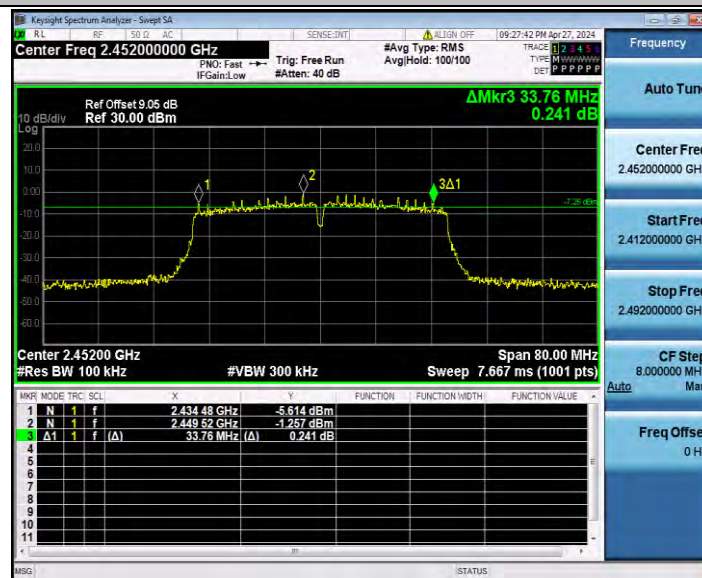
11N40SISO_Ant1_2422



11N40SISO_Ant1_2437



11N40SISO_Ant1_2452



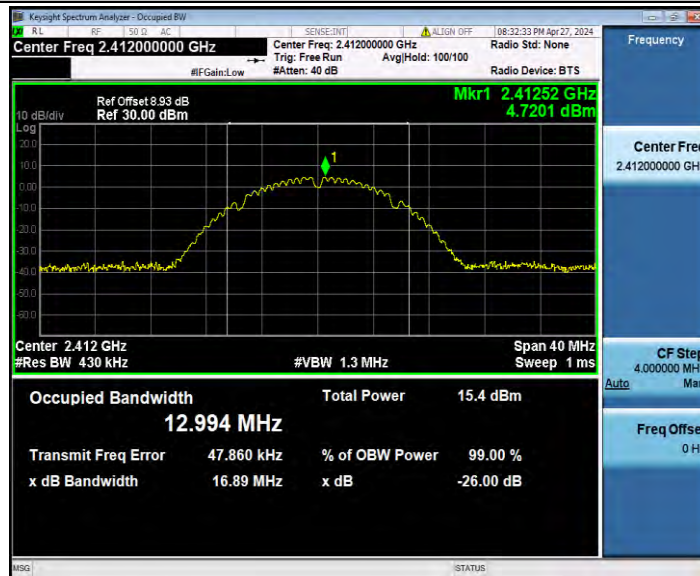
Appendix C.2: Occupied Channel Bandwidth

Test Result

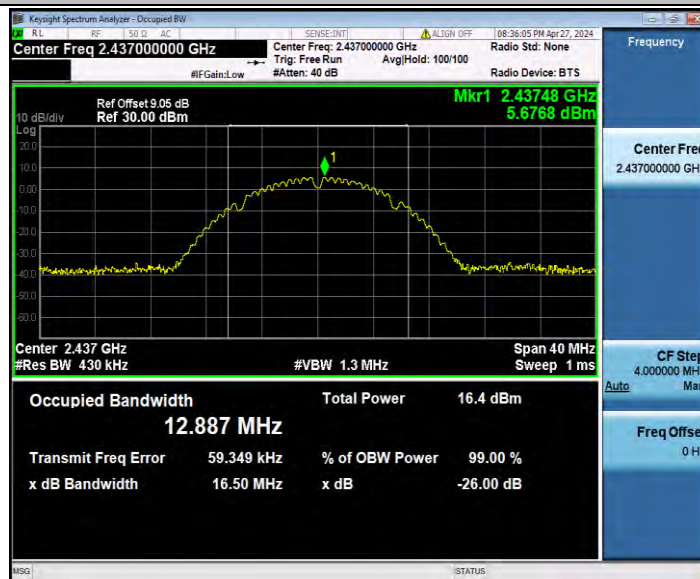
TestMode	Antenna	Channel Frequency[MHz]	OCB [MHz]	FL[MHz]	FH[MHz]
11B	Ant1	2412	12.994	2405.5509	2418.5449
		2437	12.887	2430.6159	2443.5029
		2462	12.884	2455.5941	2468.4781
11G	Ant1	2412	16.927	2403.5895	2420.5165
		2437	16.841	2428.6418	2445.4828
		2462	16.801	2453.6401	2470.4411
11N20SISO	Ant1	2412	17.965	2403.0518	2421.0168
		2437	17.767	2428.1422	2445.9092
		2462	17.856	2453.0952	2470.9512
11N40SISO	Ant1	2422	36.190	2404.0974	2440.2874
		2437	36.084	2419.0891	2455.1731
		2452	36.118	2433.9947	2470.1127

Test Graphs

11B_Ant1_2412



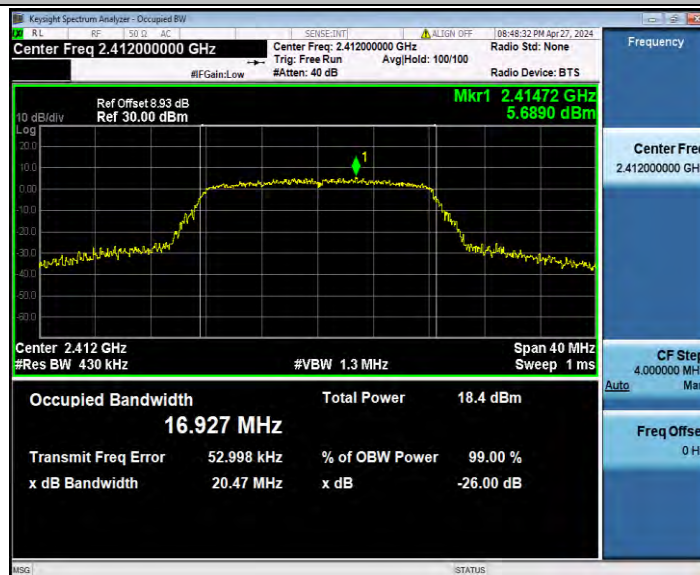
11B_Ant1_2437



11B_Ant1_2462



11G_Ant1_2412



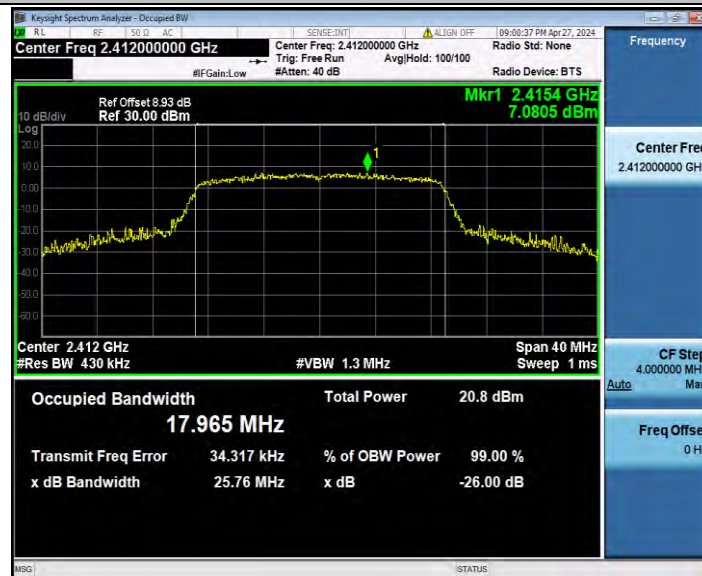
11G_Ant1_2437



11G_Ant1_2462



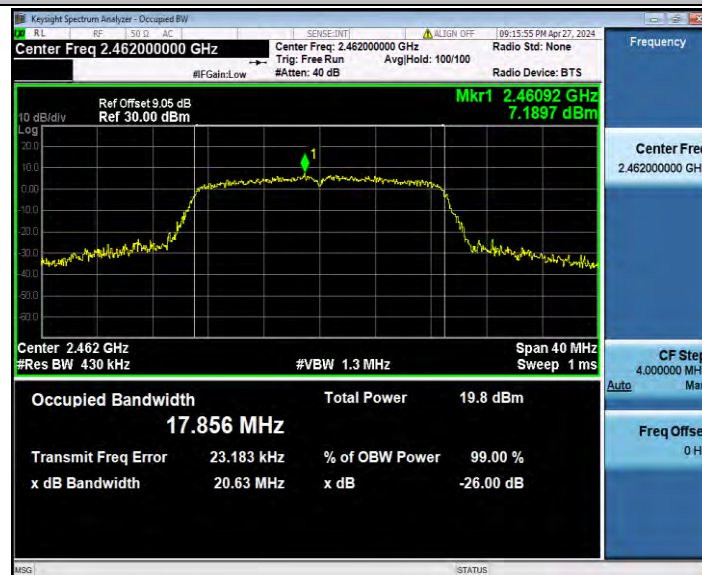
11N20SISO_Ant1_2412



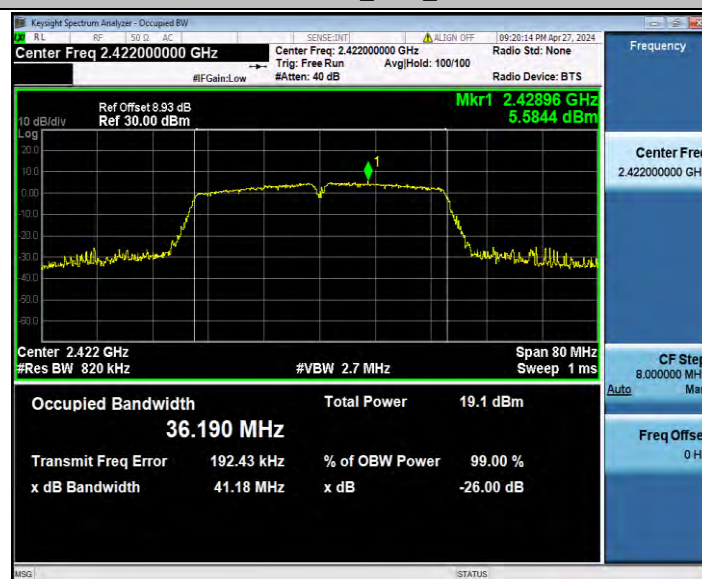
11N20SISO_Ant1_2437



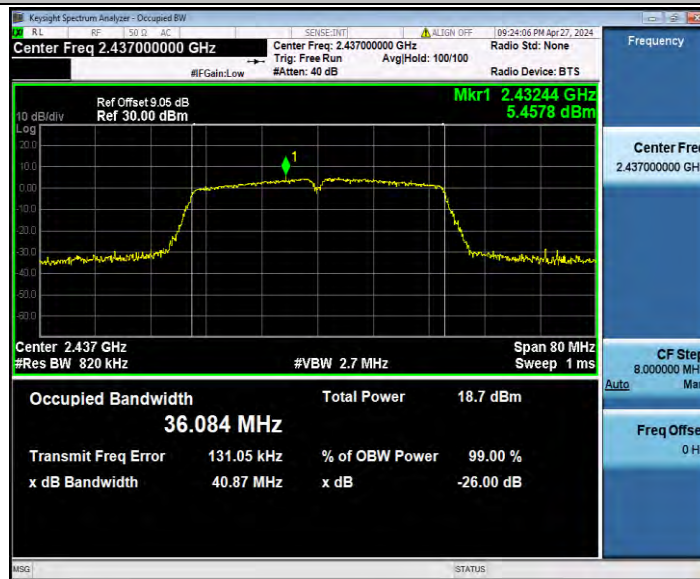
11N20SISO_Ant1_2462



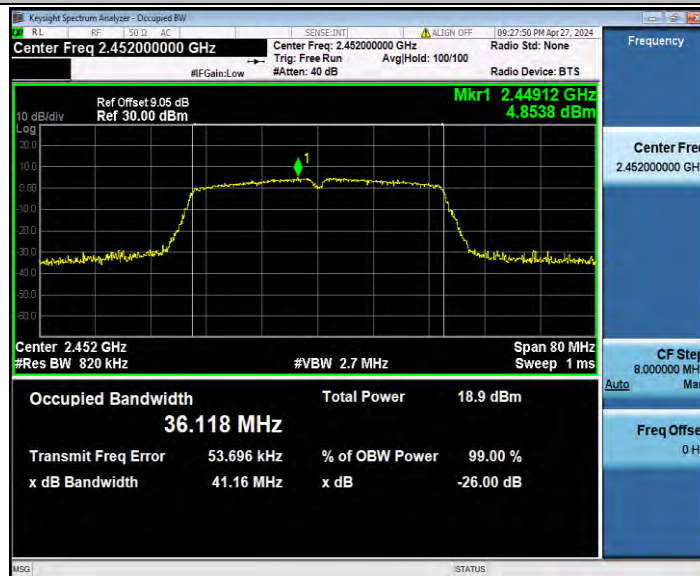
11N40SISO_Ant1_2422



11N40SISO_Ant1_2437



11N40SISO_Ant1_2452



Appendix C.3: Maximum conducted output power

Test Mode	Antenna	Frequency[MHz]	PK power [dBm]	Limit [dBm]	Verdict
11B	Ant1	2412	15.45	≤30.00	PASS
		2437	16.40	≤30.00	PASS
		2462	16.94	≤30.00	PASS
11G	Ant1	2412	19.66	≤30.00	PASS
		2437	20.70	≤30.00	PASS
		2462	21.02	≤30.00	PASS
11N20SISO	Ant1	2412	21.87	≤30.00	PASS
		2437	20.56	≤30.00	PASS
		2462	20.90	≤30.00	PASS
11N40SISO	Ant1	2422	19.34	≤30.00	PASS
		2437	19.04	≤30.00	PASS
		2452	19.20	≤30.00	PASS

Appendix C.4: Maximum power spectral density

Test Result

TestMode	Antenna	Frequency[MHz]	Result[dBm/3-100kHz]	Limit[dBm/3kHz]	Verdict
11B	Ant1	2412	-10.05	≤8.00	PASS
		2437	-8.53	≤8.00	PASS
		2462	-7.84	≤8.00	PASS
11G	Ant1	2412	-12.62	≤8.00	PASS
		2437	-11.49	≤8.00	PASS
		2462	-11.30	≤8.00	PASS
11N20SISO	Ant1	2412	-8.68	≤8.00	PASS
		2437	-11.40	≤8.00	PASS
		2462	-10.66	≤8.00	PASS
11N40SISO	Ant1	2422	-16.30	≤8.00	PASS
		2437	-15.37	≤8.00	PASS
		2452	-15.67	≤8.00	PASS

Test Graphs

11B_Ant1_2412



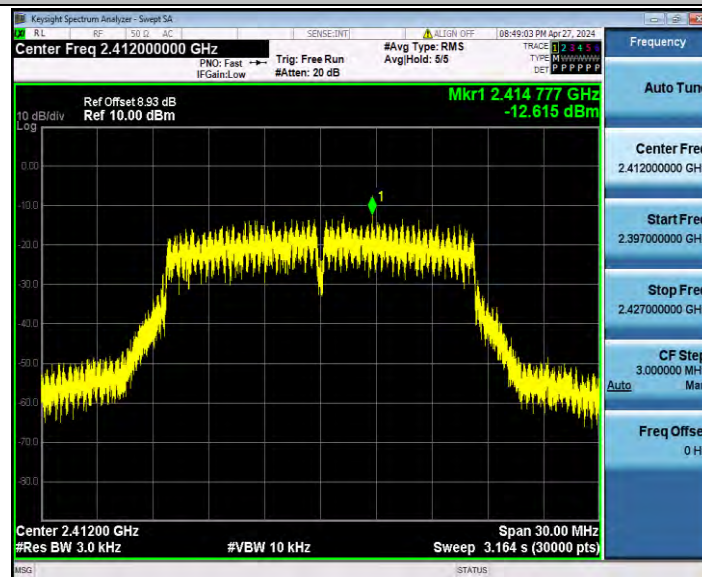
11B_Ant1_2437



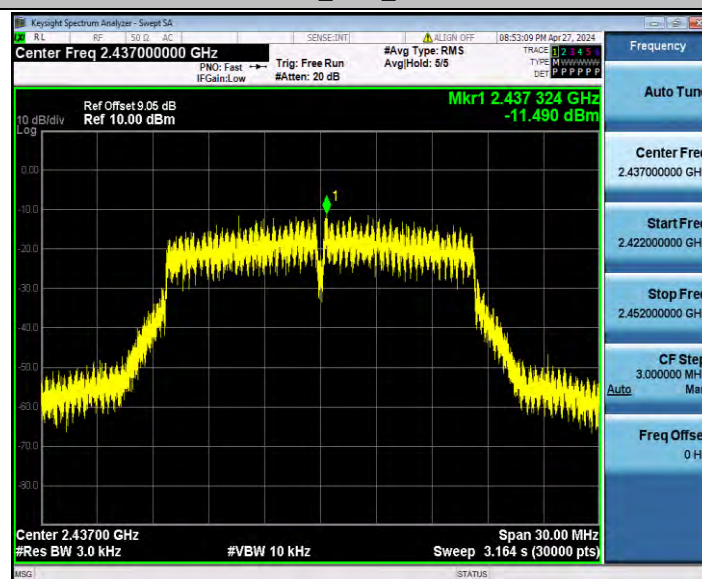
11B_Ant1_2462



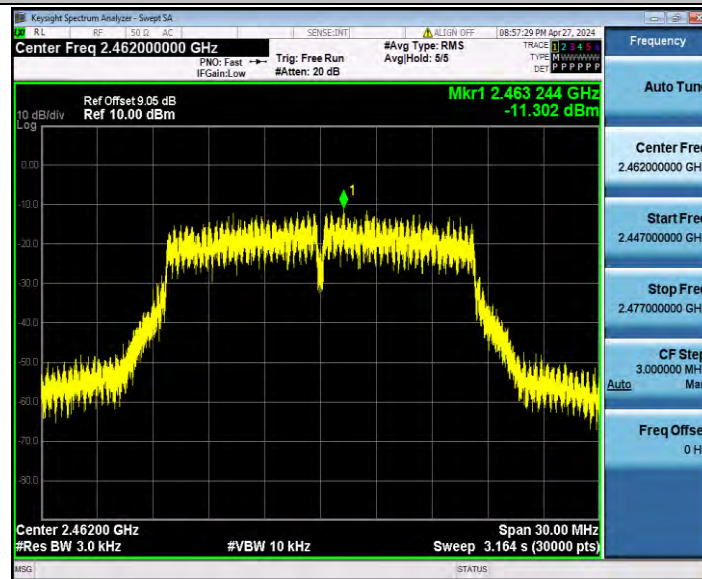
11G_Ant1_2412



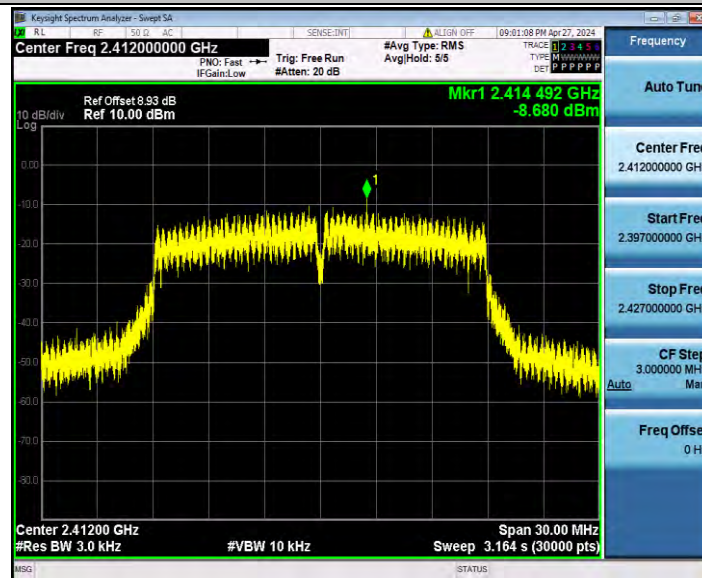
11G_Ant1_2437



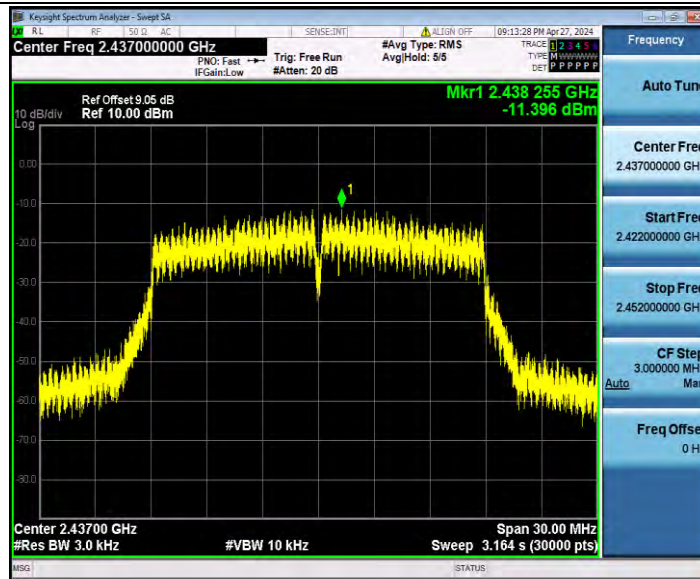
11G_Ant1_2462



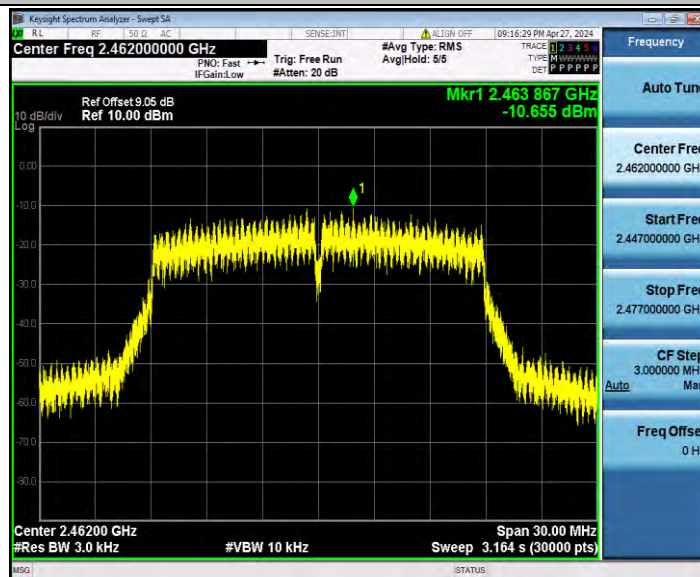
11N20SISO_Ant1_2412



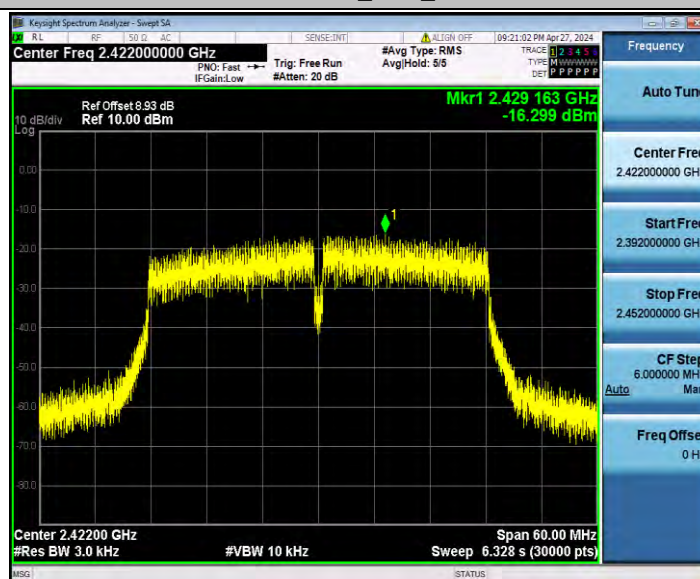
11N20SISO_Ant1_2437



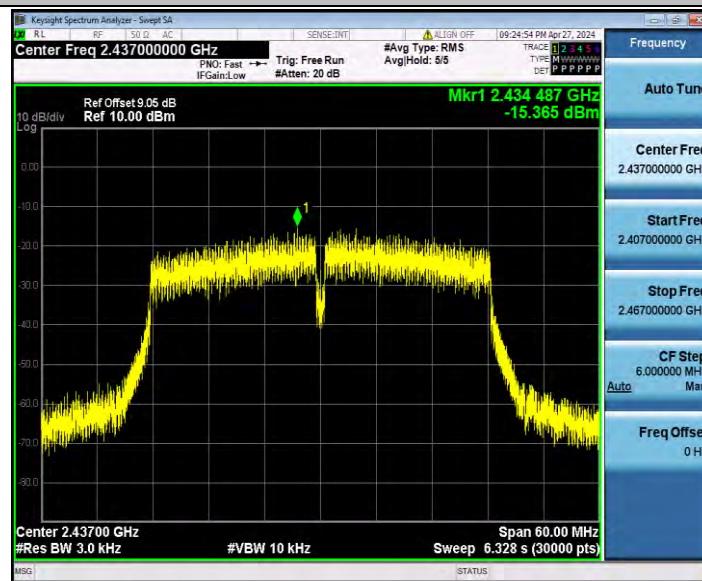
11N20SISO_Ant1_2462



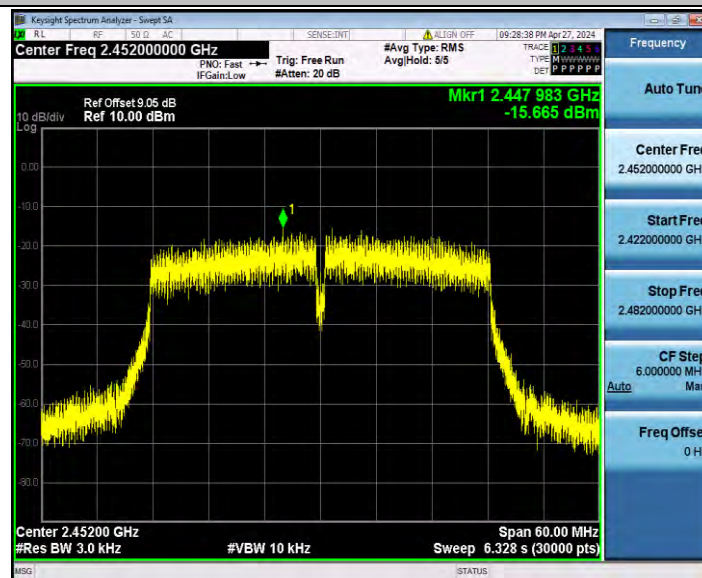
11N40SISO_Ant1_2422



11N40SISO_Ant1_2437



11N40SISO_Ant1_2452

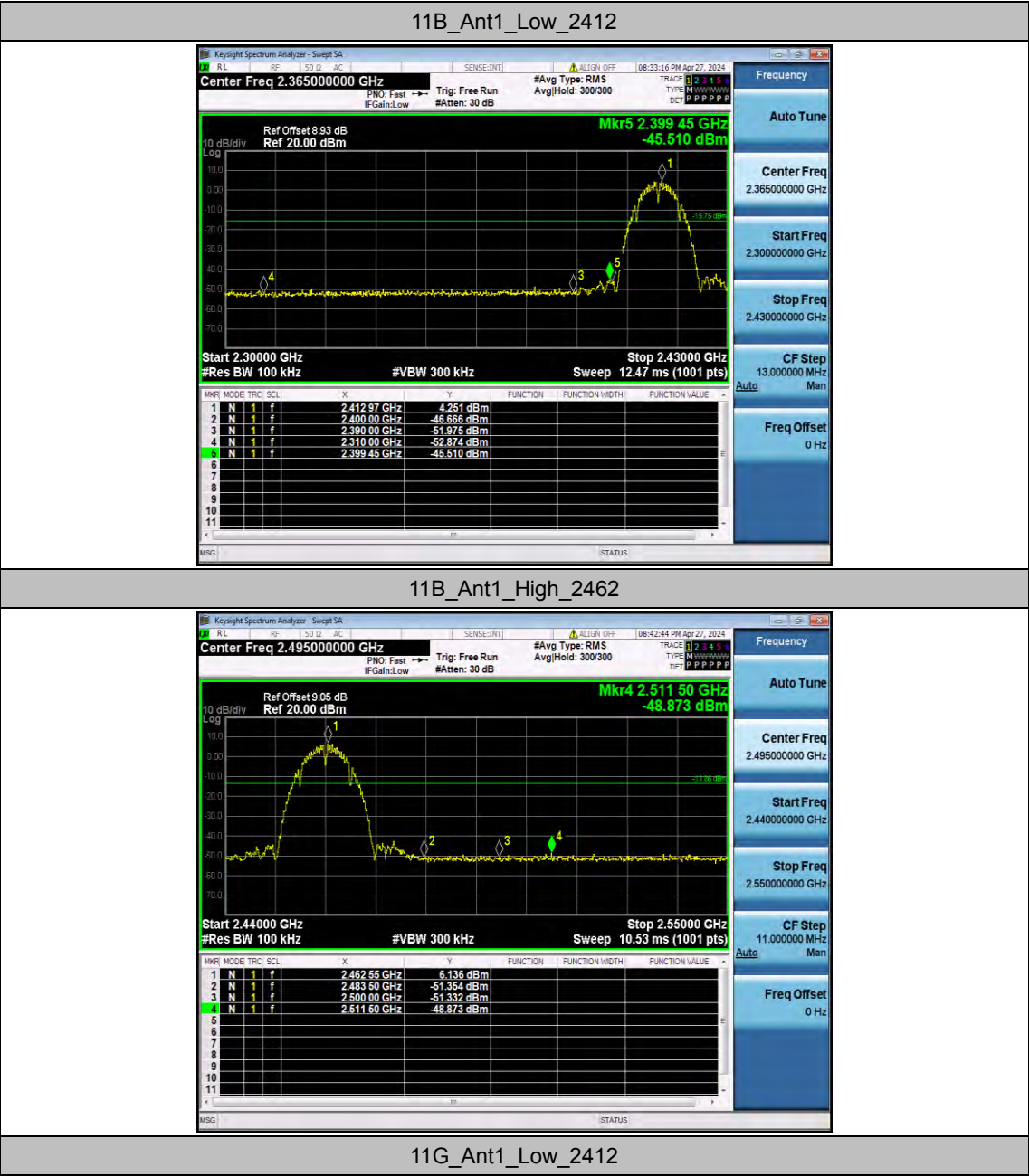


Appendix C.5: Band edge measurements

Test Result

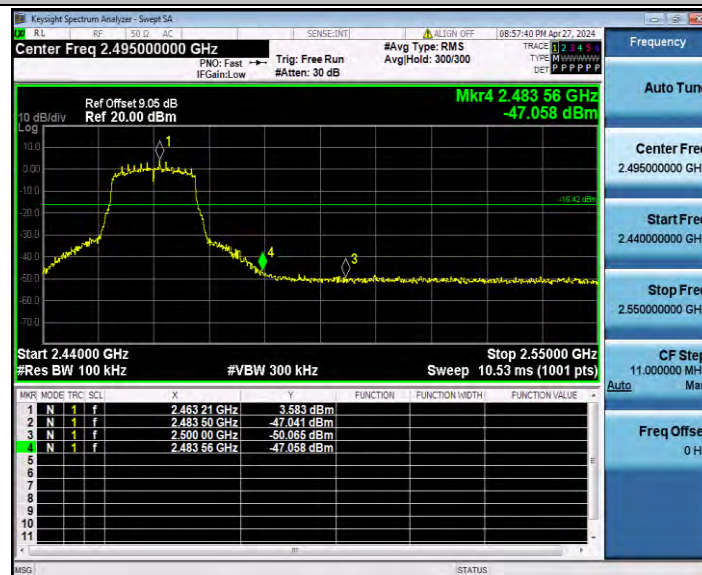
TestMode	Antenna	ChName	Frequency[MHz]	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
11B	Ant1	Low	2412	4.25	-45.51	≤ -15.75	PASS
		High	2462	6.14	-48.87	≤ -13.86	PASS
11G	Ant1	Low	2412	2.19	-31.65	≤ -17.81	PASS
		High	2462	3.58	-47.06	≤ -16.42	PASS
11N20SISO	Ant1	Low	2412	4.86	-26.57	≤ -15.14	PASS
		High	2462	3.89	-45.84	≤ -16.11	PASS
11N40SISO	Ant1	Low	2422	-0.89	-36.09	≤ -20.89	PASS
		High	2452	-1.10	-41.13	≤ -21.1	PASS

Test Graphs

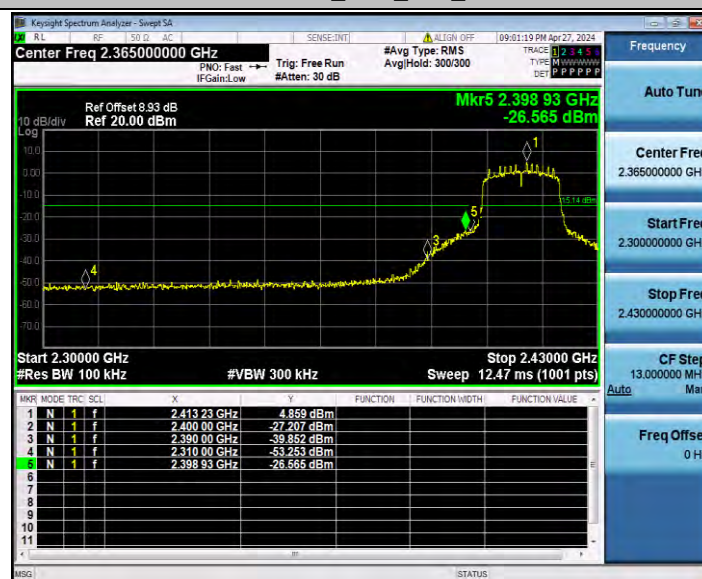




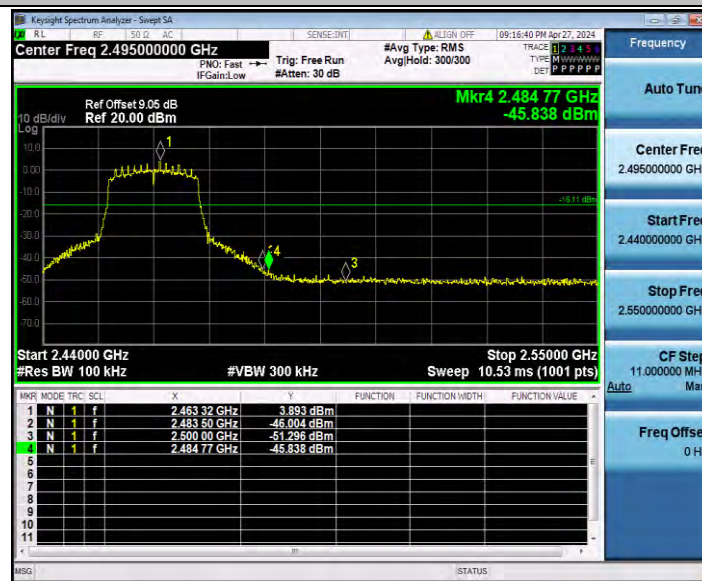
11G_Ant1_High_2462



11N20SISO_Ant1_Low_2412



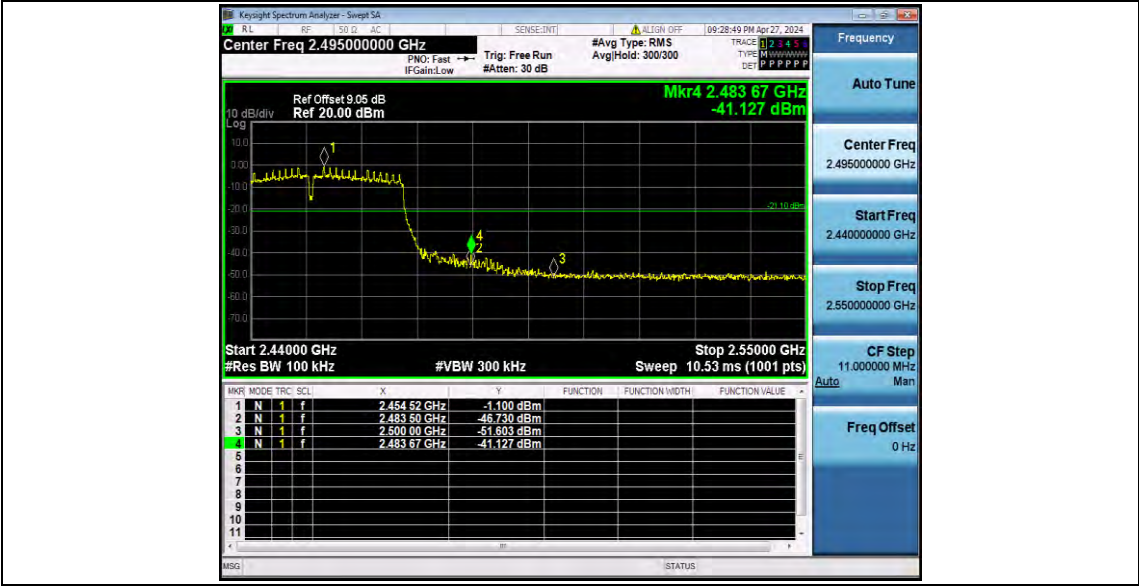
11N20SISO_Ant1_High_2462



11N40SISO_Ant1_Low_2422



11N40SISO_Ant1_High_2452

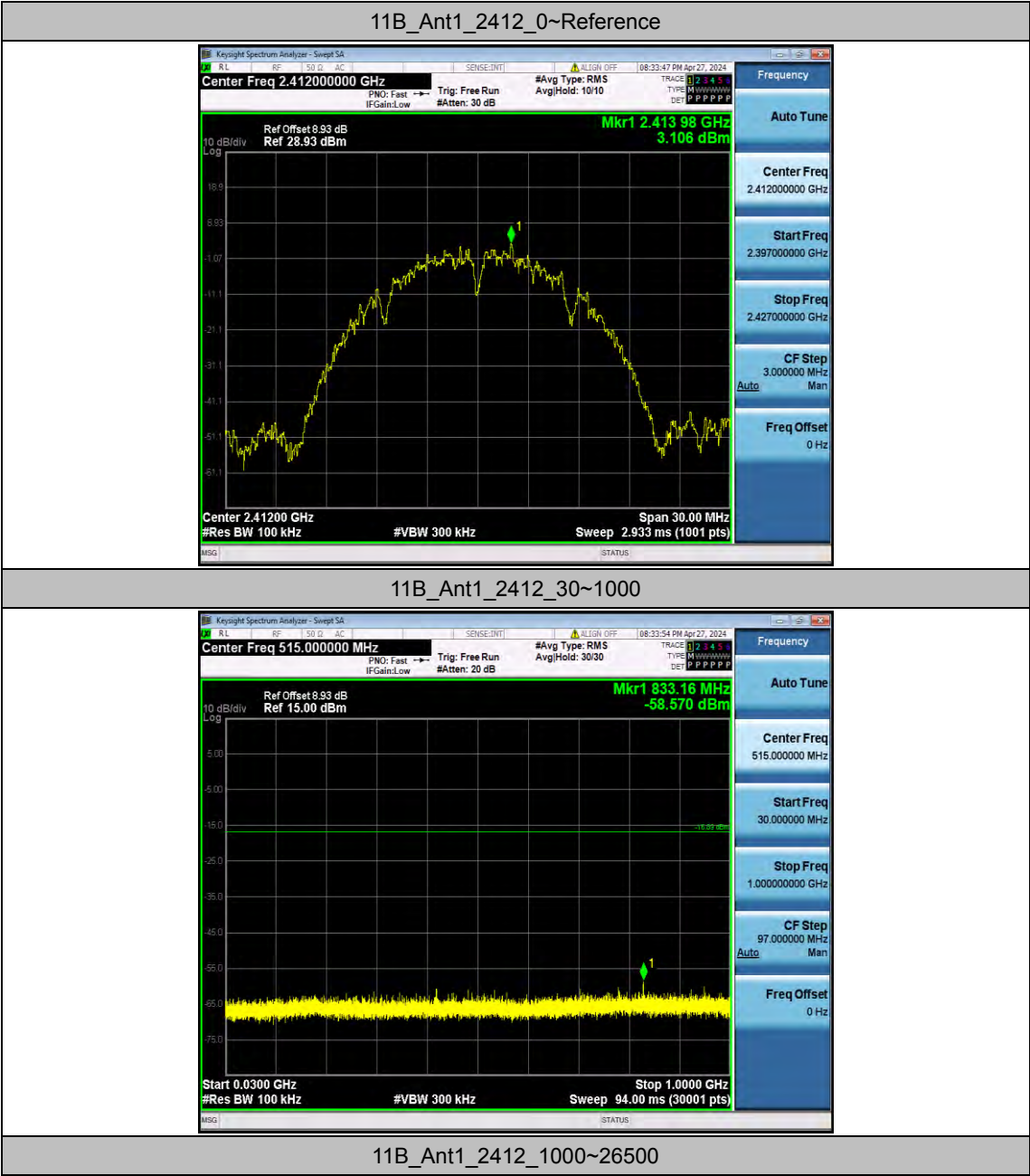


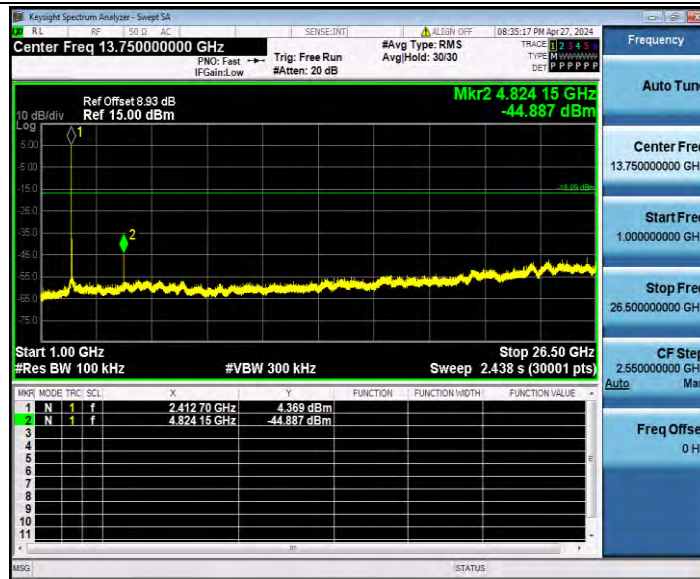
Appendix C.6: Conducted Spurious Emission

Test Result

TestMode	Antenna	Frequency[MHz]	FreqRange [Mhz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
11B	Ant1	2412	Reference	3.11	3.11	---	PASS
			30~1000	3.11	-58.57	≤-16.89	PASS
			1000~26500	3.11	-44.89	≤-16.89	PASS
		2437	Reference	5.09	5.09	---	PASS
			30~1000	5.09	-60.7	≤-14.91	PASS
			1000~26500	5.09	-45.57	≤-14.91	PASS
		2462	Reference	5.39	5.39	---	PASS
			30~1000	5.39	-60.36	≤-14.61	PASS
			1000~26500	5.39	-47.31	≤-14.61	PASS
11G	Ant1	2412	Reference	-1.55	-1.55	---	PASS
			30~1000	-1.55	-60.77	≤-21.55	PASS
			1000~26500	-1.55	-47.52	≤-21.55	PASS
		2437	Reference	1.42	1.42	---	PASS
			30~1000	1.42	-60.41	≤-18.58	PASS
			1000~26500	1.42	-47.5	≤-18.58	PASS
		2462	Reference	-0.20	-0.20	---	PASS
			30~1000	-0.20	-60.77	≤-20.2	PASS
			1000~26500	-0.20	-47.37	≤-20.2	PASS
11N20SISO	Ant1	2412	Reference	0.66	0.66	---	PASS
			30~1000	0.66	-57.67	≤-19.34	PASS
			1000~26500	0.66	-47.5	≤-19.34	PASS
		2437	Reference	-1.07	-1.07	---	PASS
			30~1000	-1.07	-60.35	≤-21.07	PASS
			1000~26500	-1.07	-48	≤-21.07	PASS
		2462	Reference	3.18	3.18	---	PASS
			30~1000	3.18	-60.5	≤-16.82	PASS
			1000~26500	3.18	-48.07	≤-16.82	PASS
11N40SISO	Ant1	2422	Reference	-1.89	-1.89	---	PASS
			30~1000	-1.89	-60.93	≤-21.89	PASS
			1000~26500	-1.89	-47.43	≤-21.89	PASS
		2437	Reference	-2.69	-2.69	---	PASS
			30~1000	-2.69	-59.95	≤-22.69	PASS
			1000~26500	-2.69	-47.87	≤-22.69	PASS
		2452	Reference	-1.82	-1.82	---	PASS
			30~1000	-1.82	-60.21	≤-21.82	PASS
			1000~26500	-1.82	-47	≤-21.82	PASS

Test Graphs

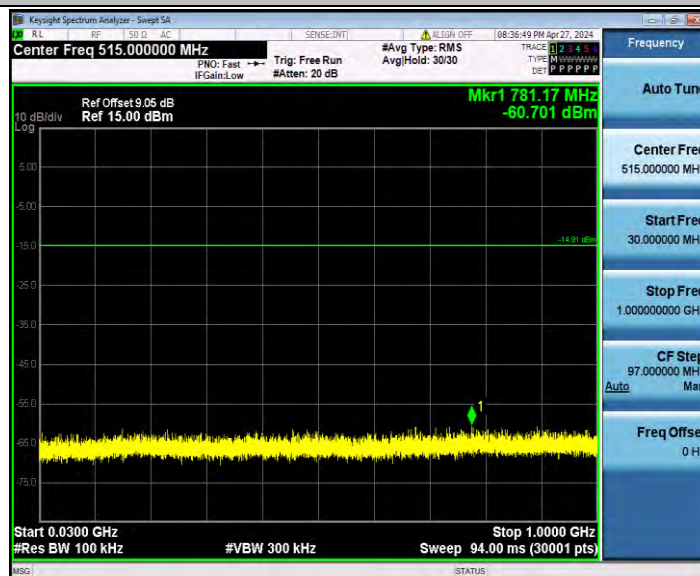




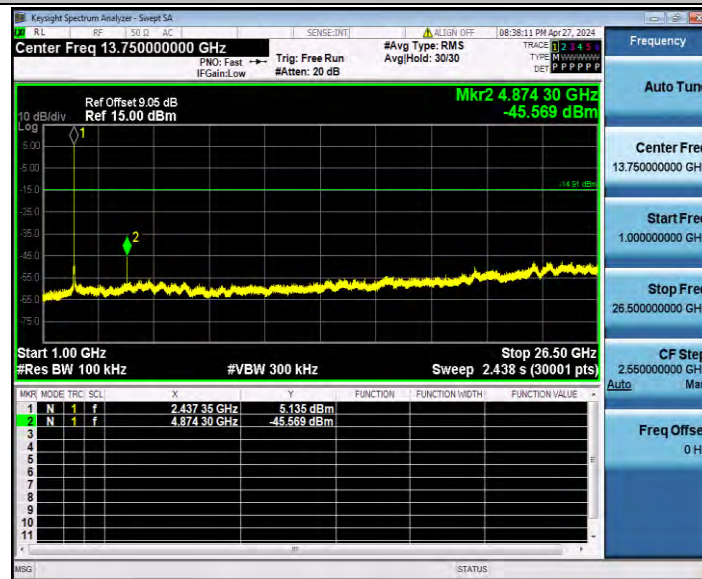
11B_Ant1_2437_0~Reference



11B_Ant1_2437_30~1000



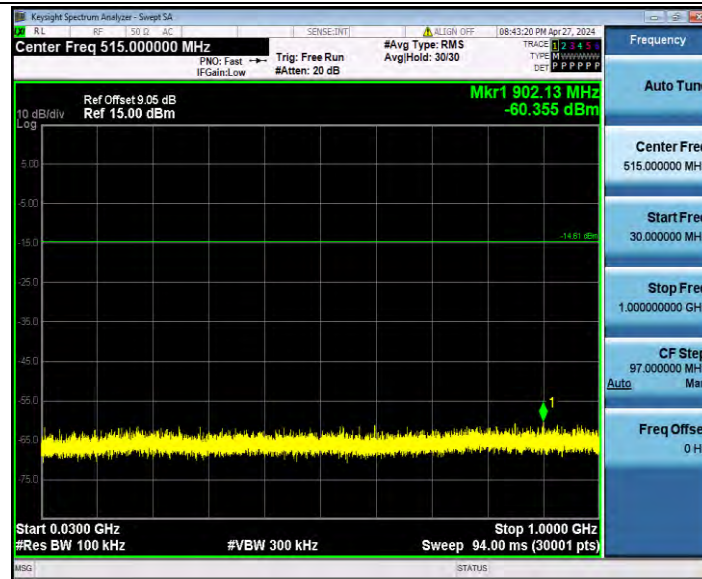
11B_Ant1_2437_1000~26500



11B_Ant1_2462_0~Reference



11B_Ant1_2462_30~1000

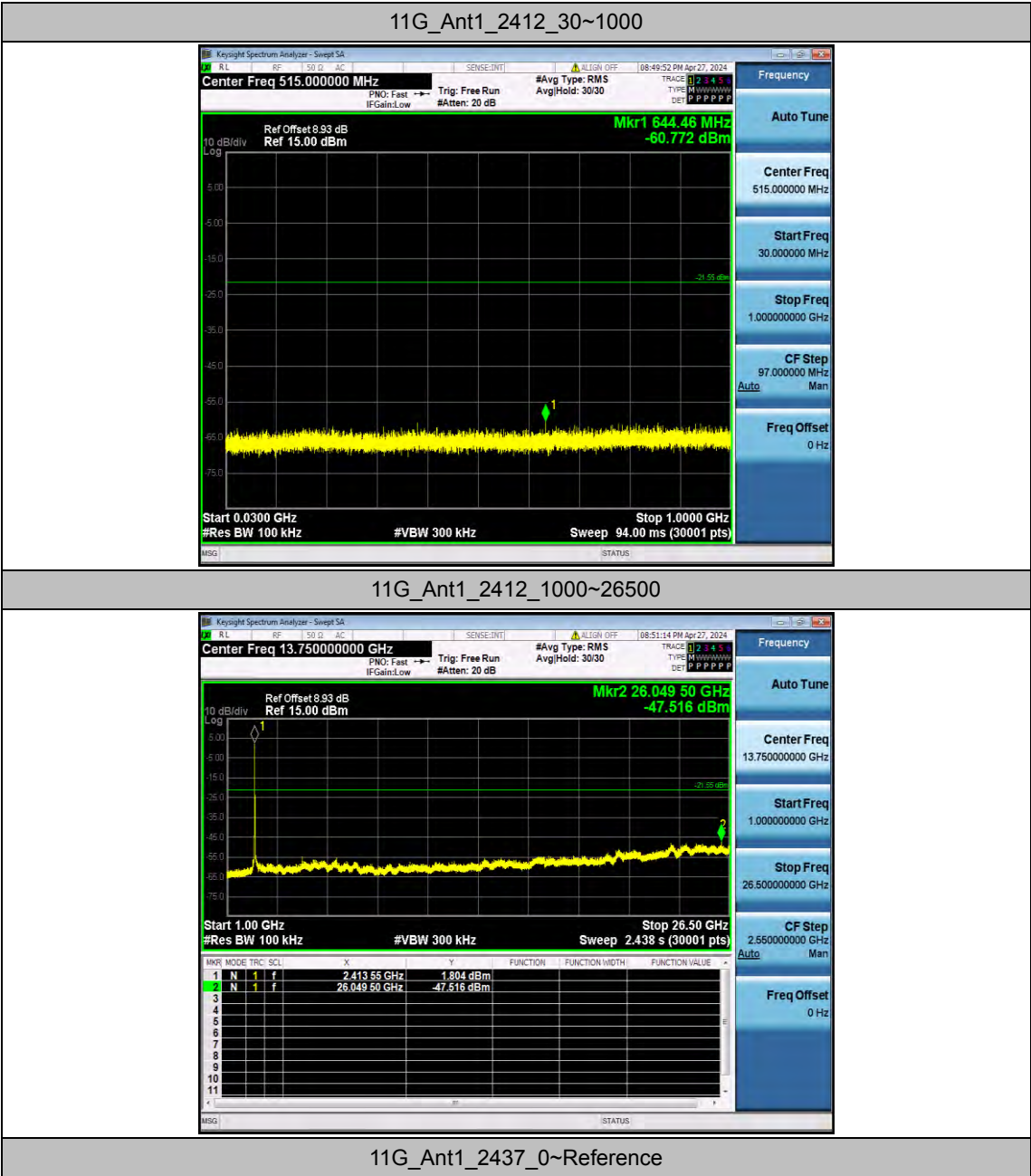


11B_Ant1_2462_1000~26500



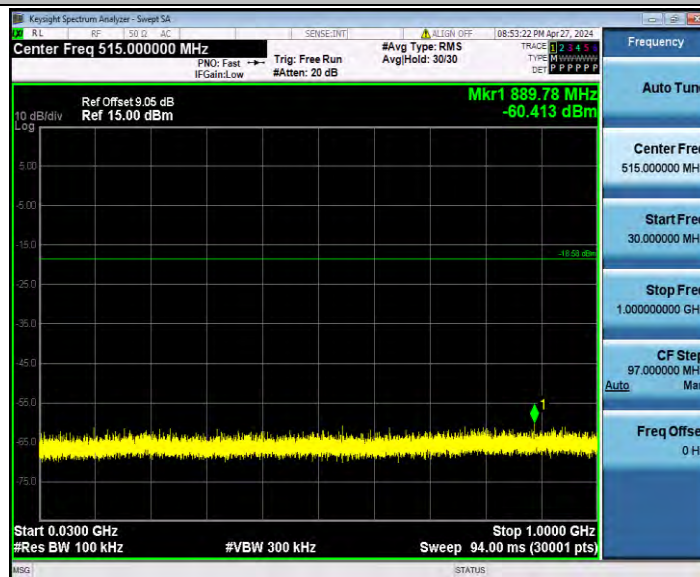
11G_Ant1_2412_0~Reference







11G_Ant1_2437_30~1000



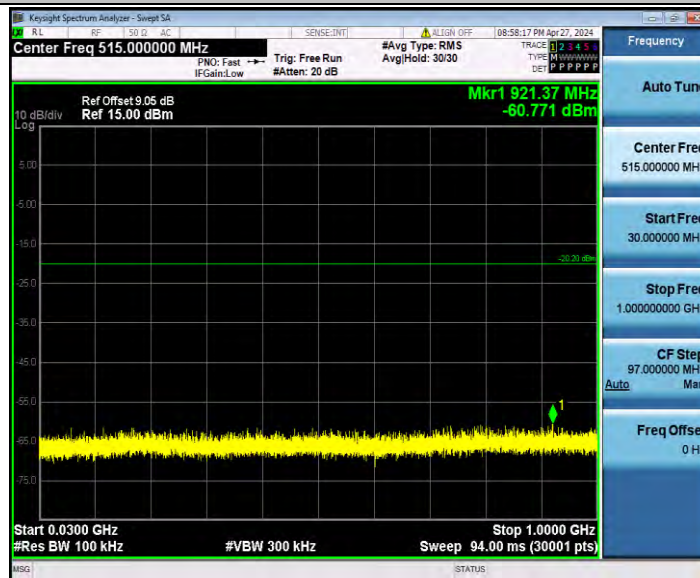
11G_Ant1_2437_1000~26500



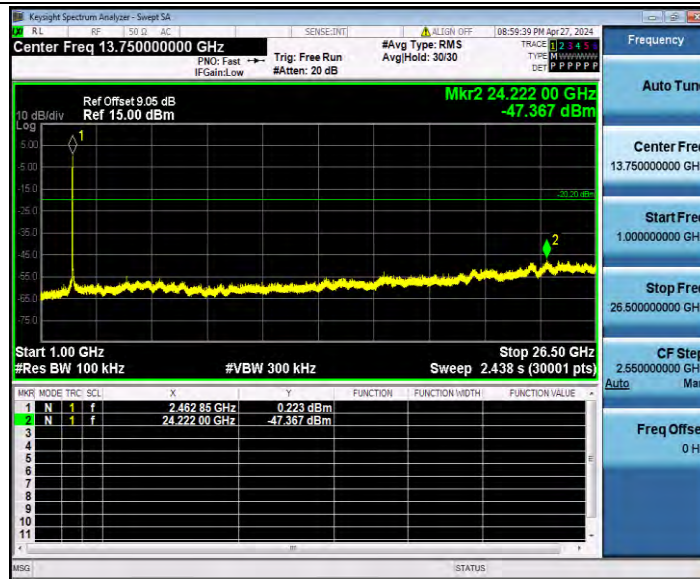
11G_Ant1_2462_0~Reference



11G_Ant1_2462_30~1000



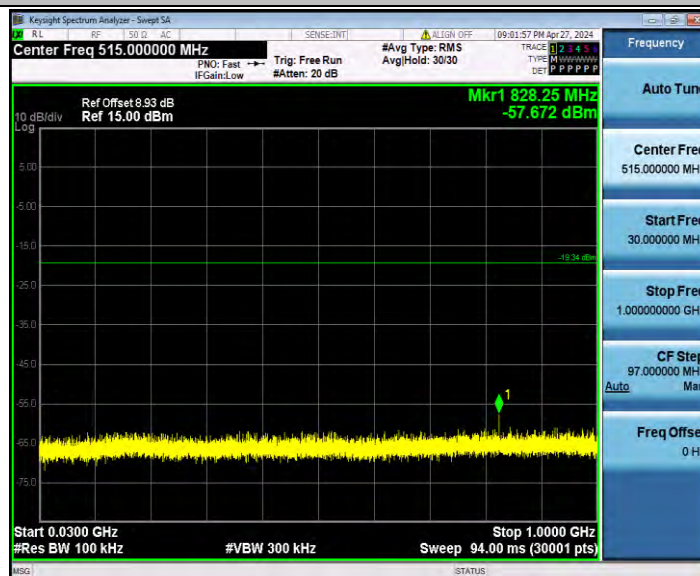
11G_Ant1_2462_1000~26500



11N20SISO_Ant1_2412_0~Reference



11N20SISO_Ant1_2412_30~1000



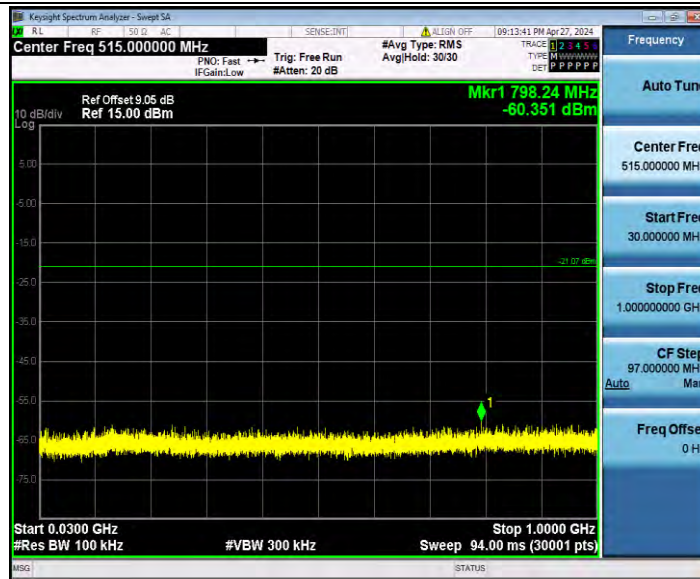
11N20SISO_Ant1_2412_1000~26500



11N20SISO_Ant1_2437_0~Reference



11N20SISO_Ant1_2437_30~1000



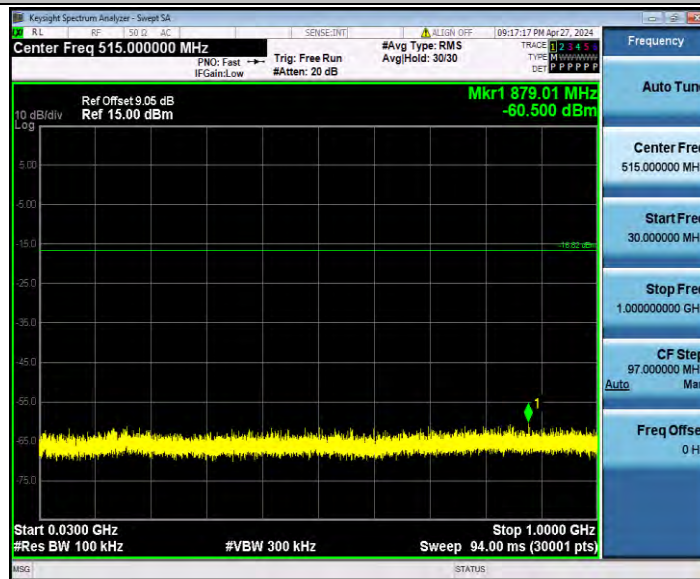
11N20SISO_Ant1_2437_1000~26500



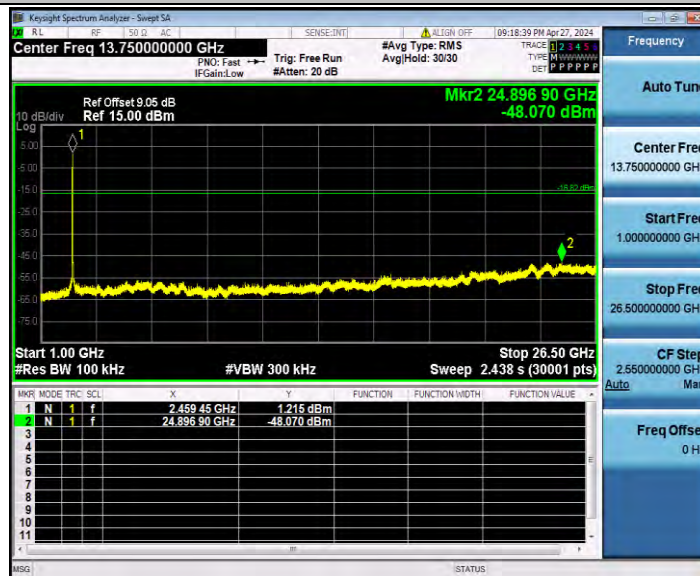
11N20SISO_Ant1_2462_0~Reference



11N20SISO_Ant1_2462_30~1000



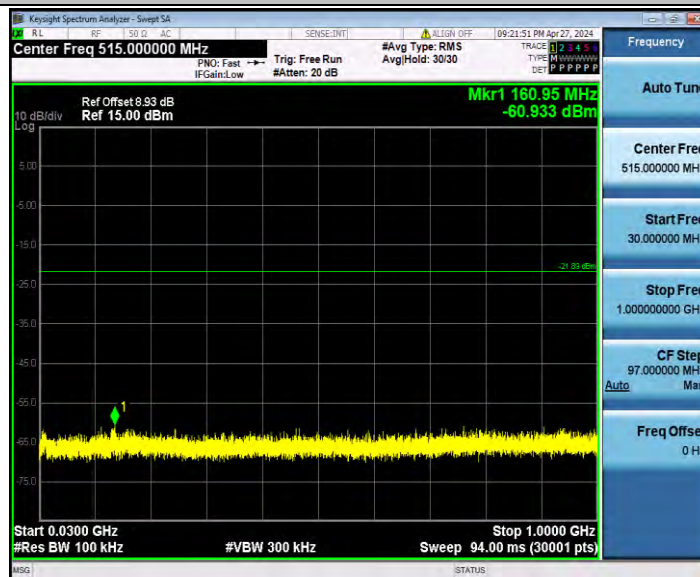
11N20SISO_Ant1_2462_1000~26500



11N40SISO_Ant1_2422_0~Reference



11N40SISO_Ant1_2422_30~1000



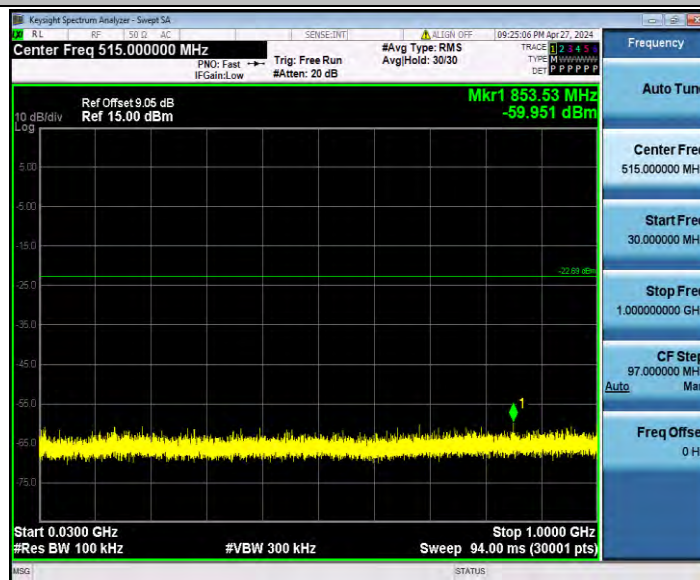
11N40SISO_Ant1_2422_1000~26500



11N40SISO_Ant1_2437_0~Reference



11N40SISO_Ant1_2437_30~1000



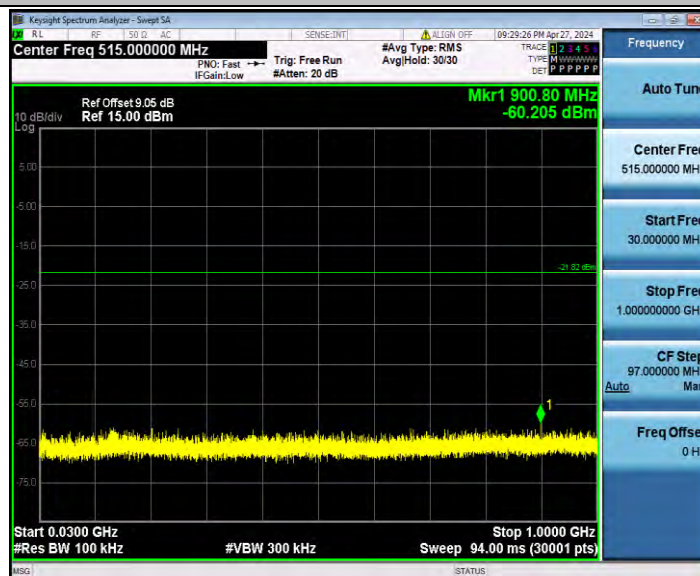
11N40SISO_Ant1_2437_1000~26500



11N40SISO_Ant1_2452_0~Reference



11N40SISO_Ant1_2452_30~1000





Appendix C.7: Emissions in Restricted Bands

Test Result

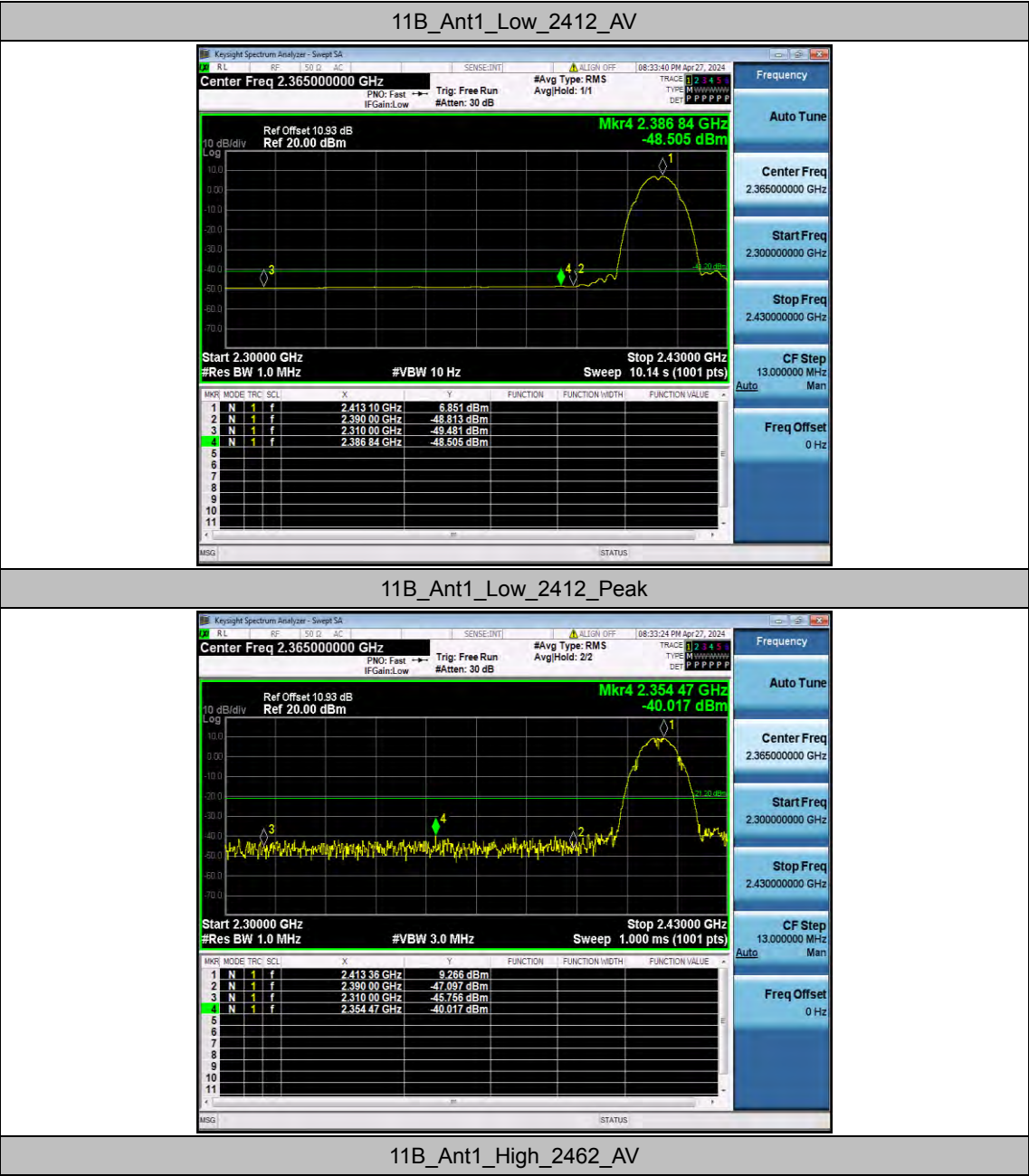
TestMode	Antenna	ChName	Frequenc y[MHz]	Detector	Freq [MHz]	Result [dBm]	Limit [dBm]	Result [dBuV/m]	Limit [dBuV/m]	Verdict
11B	Ant1	Low	2412	AV	2310.000	-49.48	≤-41.20	45.72	≤54	PASS
				AV	2386.840	-48.51	≤-41.20	46.69	≤54	PASS
				AV	2390.000	-48.81	≤-41.20	46.39	≤54	PASS
				Peak	2310.000	-45.76	≤-21.20	49.44	≤74	PASS
				Peak	2354.470	-40.02	≤-21.20	55.18	≤74	PASS
				Peak	2390.000	-47.1	≤-21.20	48.10	≤74	PASS
		High	2462	AV	2483.500	-48.49	≤-41.20	46.71	≤54	PASS
				AV	2487.850	-48.26	≤-41.20	46.94	≤54	PASS
				AV	2500.000	-48.28	≤-41.20	46.92	≤54	PASS
				Peak	2483.500	-44.34	≤-21.20	50.86	≤74	PASS
				Peak	2495.550	-40.33	≤-21.20	54.87	≤74	PASS
				Peak	2500.000	-45.95	≤-21.20	49.25	≤74	PASS
11G	Ant1	Low	2412	AV	2310.000	-49.28	≤-41.20	45.92	≤54	PASS
				AV	2389.960	-44.34	≤-41.20	50.86	≤54	PASS
				AV	2390.000	-44.34	≤-41.20	50.86	≤54	PASS
				Peak	2310.000	-51.03	≤-21.20	44.17	≤74	PASS
				Peak	2389.700	-36.9	≤-21.20	58.30	≤74	PASS
				Peak	2390.000	-37.35	≤-21.20	57.85	≤74	PASS
		High	2462	AV	2483.500	-44.28	≤-41.20	50.92	≤54	PASS
				AV	2483.560	-44.41	≤-41.20	50.79	≤54	PASS
				AV	2500.000	-47.4	≤-41.20	47.80	≤54	PASS
				Peak	2483.500	-40.62	≤-21.20	54.58	≤74	PASS
				Peak	2485.760	-38.41	≤-21.20	56.79	≤74	PASS
				Peak	2500.000	-44.77	≤-21.20	50.43	≤74	PASS
11N20SIS O	Ant1	Low	2412	AV	2310.000	-49.25	≤-41.20	45.95	≤54	PASS
				AV	2389.960	-42.95	≤-41.20	52.25	≤54	PASS
				AV	2390.000	-42.95	≤-41.20	52.25	≤54	PASS
				Peak	2310.000	-44.49	≤-21.20	50.71	≤74	PASS
				Peak	2388.140	-36.03	≤-21.20	59.17	≤74	PASS
				Peak	2390.000	-37.26	≤-21.20	57.94	≤74	PASS
		High	2462	AV	2483.500	-43.09	≤-41.20	52.11	≤54	PASS
				AV	2483.560	-43.2	≤-41.20	52.00	≤54	PASS
				AV	2500.000	-47.39	≤-41.20	47.81	≤54	PASS
				Peak	2483.500	-42.7	≤-21.20	52.50	≤74	PASS
				Peak	2483.670	-31.1	≤-21.20	64.10	≤74	PASS

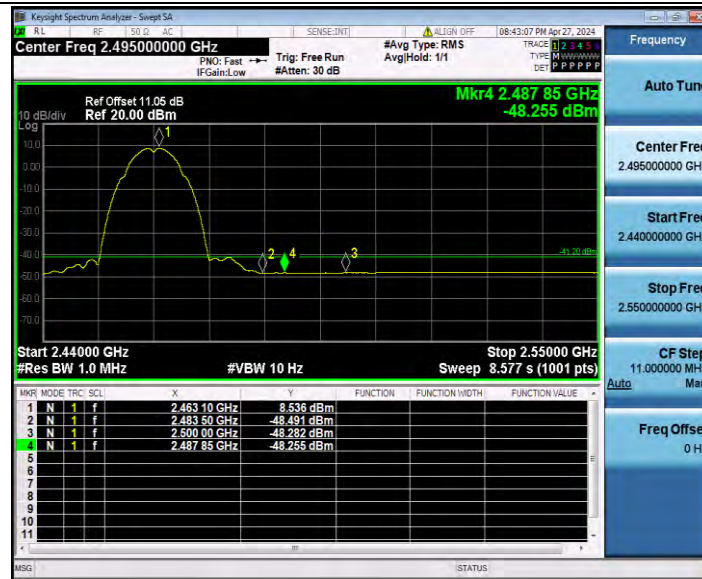
				Peak	2500.000	-42.47	≤ -21.20	52.73	≤ 74	PASS
11N40SIS O	Ant1	Low	2422	AV	2310.000	-49.26	≤ -41.20	45.94	≤ 54	PASS
				AV	2389.960	-42.3	≤ -41.20	52.90	≤ 54	PASS
				AV	2390.000	-42.3	≤ -41.20	52.90	≤ 54	PASS
				Peak	2310.000	-46.39	≤ -21.20	48.81	≤ 74	PASS
				Peak	2388.140	-35.17	≤ -21.20	60.03	≤ 74	PASS
				Peak	2390.000	-42.56	≤ -21.20	52.64	≤ 74	PASS
		High	2452	AV	2483.500	-43.51	≤ -41.20	51.69	≤ 54	PASS
				AV	2483.670	-43.48	≤ -41.20	51.72	≤ 54	PASS
				AV	2500.000	-47.15	≤ -41.20	48.05	≤ 54	PASS
				Peak	2483.500	-27.07	≤ -21.20	68.13	≤ 74	PASS
				Peak	2483.560	-26.77	≤ -21.20	68.43	≤ 74	PASS
				Peak	2500.000	-44.93	≤ -21.20	50.27	≤ 74	PASS

Note:

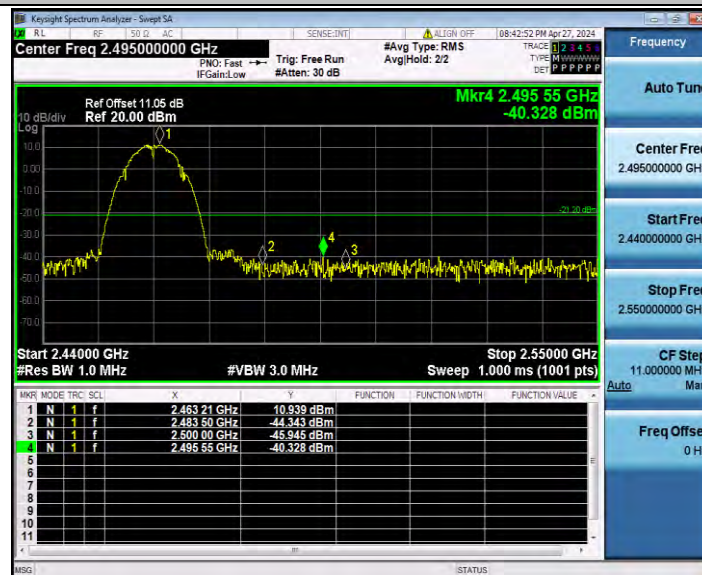
1. The Antenna Gain is compensated in the graph.
2. The Duty Cycle Factor and RBW Factor is compensated in the graph.
3. The limit in dBm for average detector is conversion from 54dBuV/m, according to 15.209(a). The limit in dBm for peak detector is 20dB above the limit of average detector in dBm.

Test Graphs

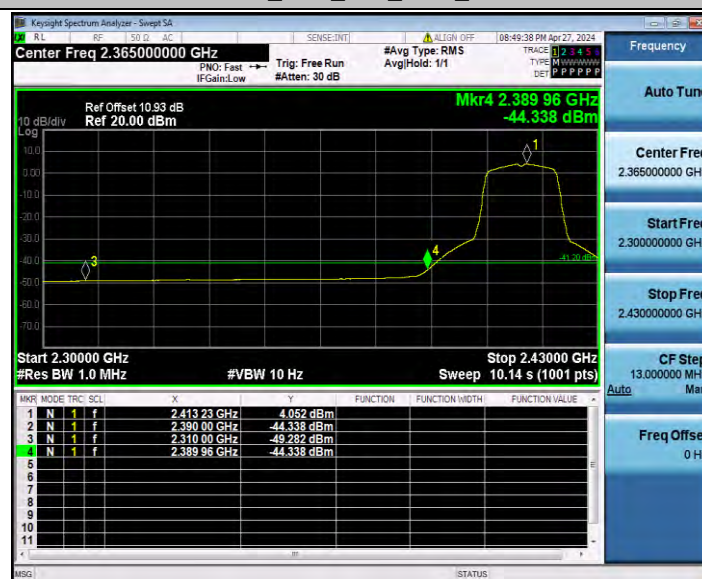




11B_Ant1_High_2462_Peak



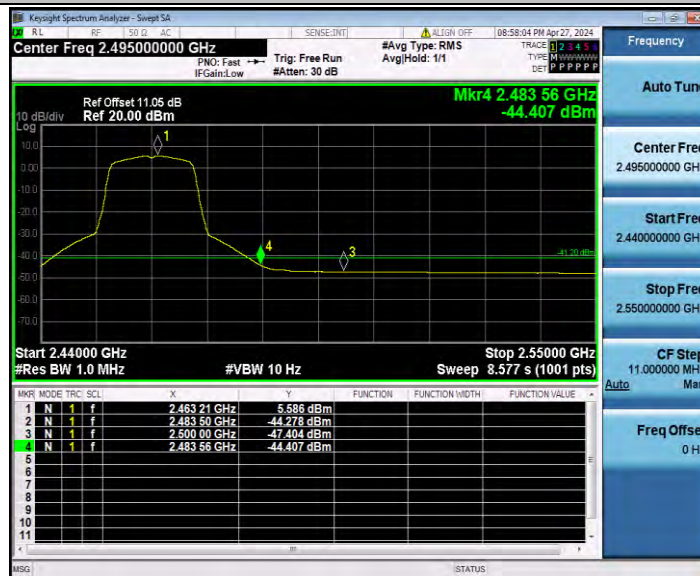
11G_Ant1_Low_2412_AV



11G_Ant1_Low_2412_Peak



11G_Ant1_High_2462_AV



11G_Ant1_High_2462_Peak



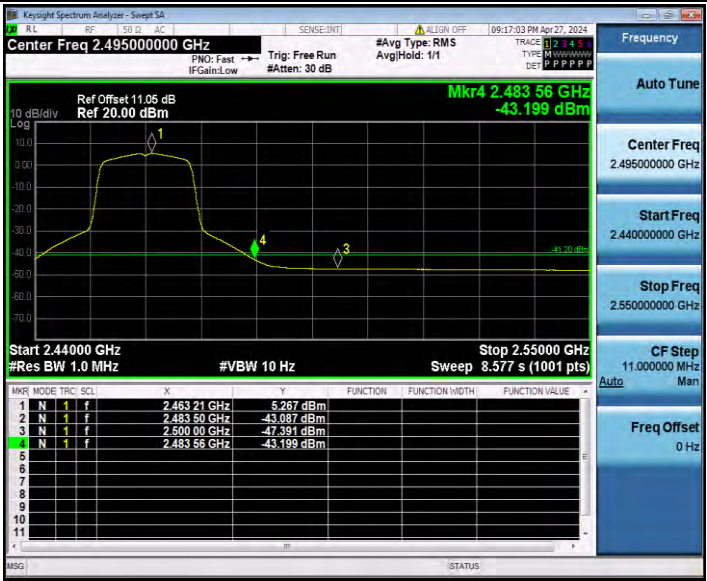
11N20SISO_Ant1_Low_2412_AV



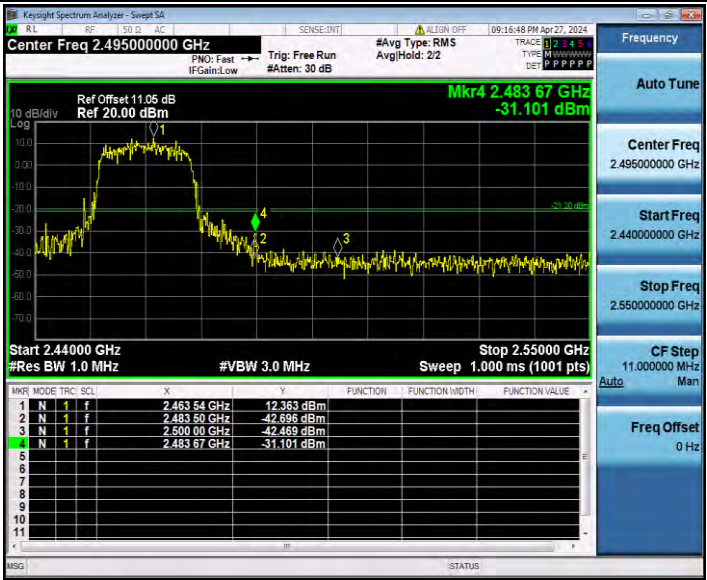
11N20SISO_Ant1_Low_2412_Peak



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



