

Case No. : <u>CTA24061300901</u>	
Ambient Condition: <u>23</u> °C, <u>49</u> %RH,	
Test Date: <u>2024.6.13</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	8.680	2407.640	2416.320	0.5	PASS
		2437	8.680	2432.640	2441.320	0.5	PASS
		2462	8.640	2457.640	2466.280	0.5	PASS
11G	Ant1	2412	16.480	2403.760	2420.240	0.5	PASS
		2437	16.480	2428.760	2445.240	0.5	PASS
		2462	16.480	2453.760	2470.240	0.5	PASS
11N20SISO	Ant1	2412	17.720	2403.120	2420.840	0.5	PASS
		2437	17.760	2428.120	2445.880	0.5	PASS
		2462	17.720	2453.120	2470.840	0.5	PASS
11N40SISO	Ant1	2422	36.400	2403.840	2440.240	0.5	PASS
		2437	36.400	2418.840	2455.240	0.5	PASS
		2452	36.320	2433.840	2470.160	0.5	PASS

Test Graphs

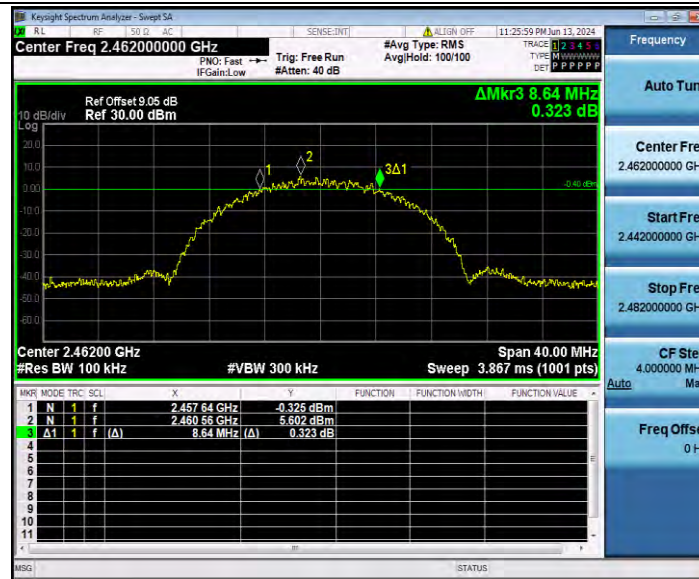
11B_Ant1_2412



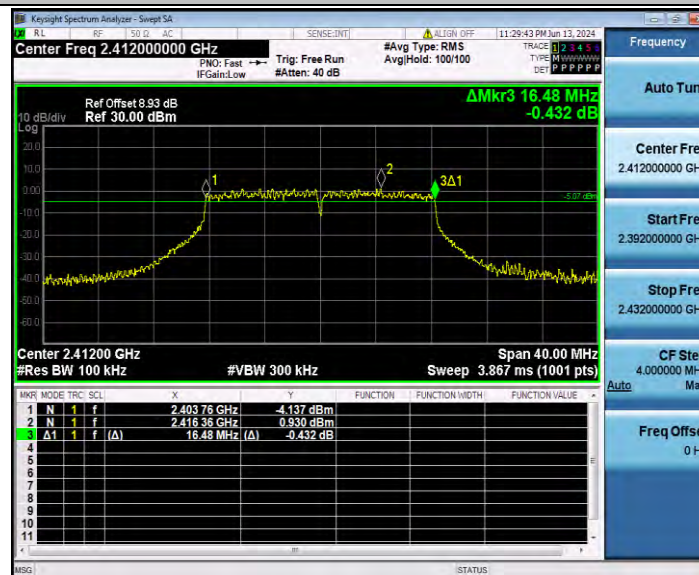
11B_Ant1_2437



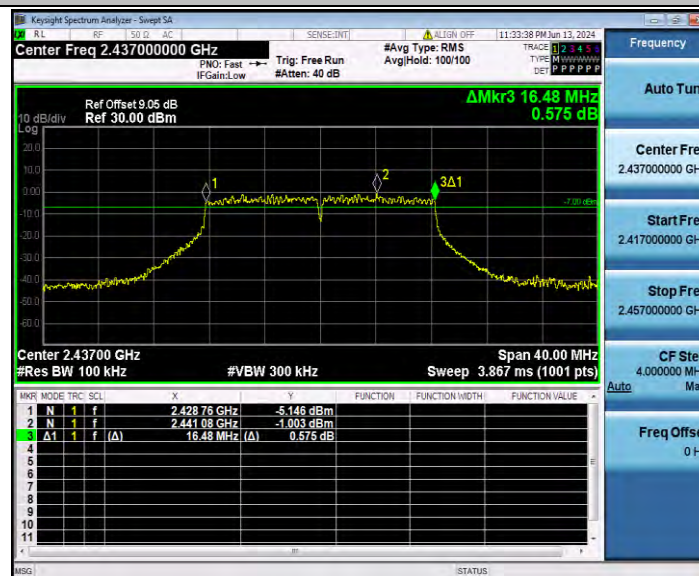
11B_Ant1_2462



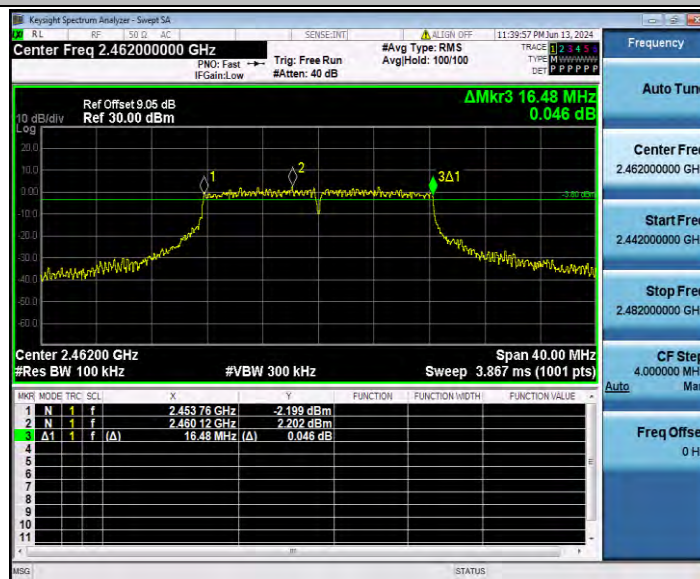
11G_Ant1_2412



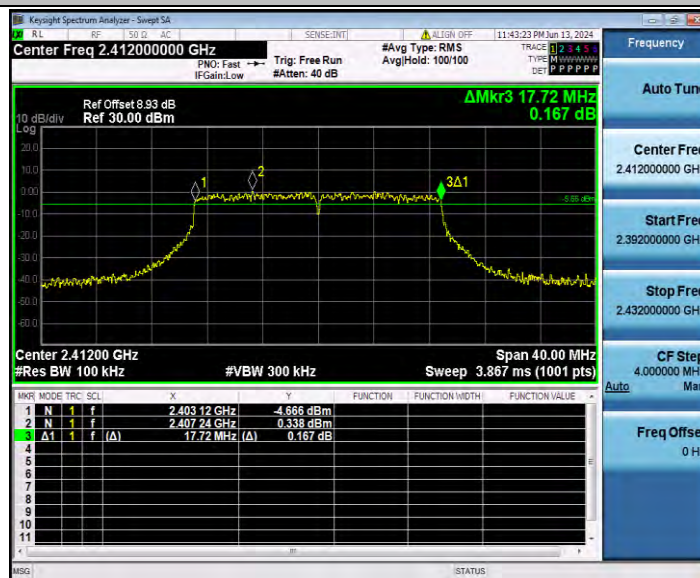
11G_Ant1_2437



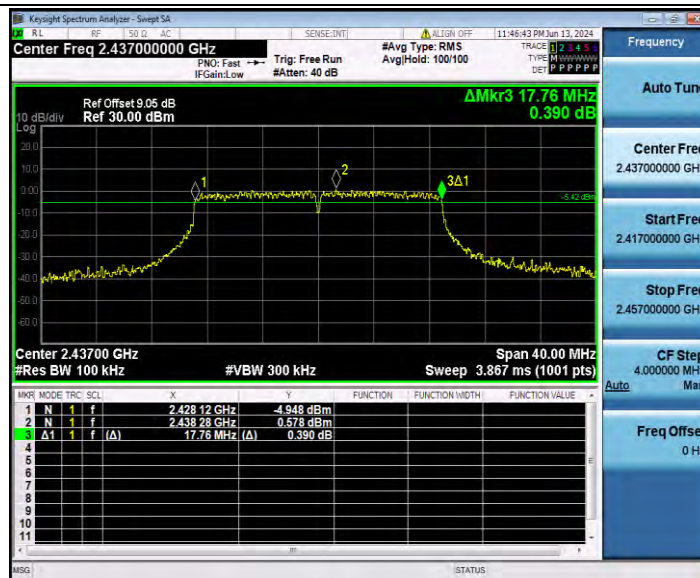
11G_Ant1_2462



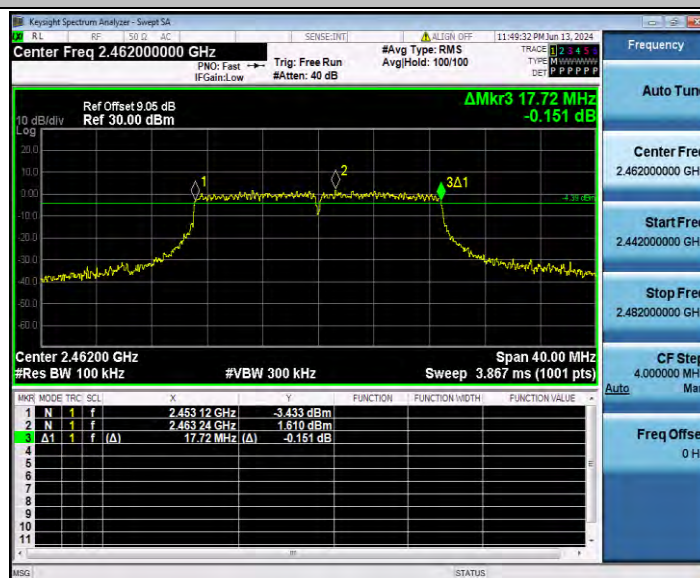
11N20SISO_Ant1_2412



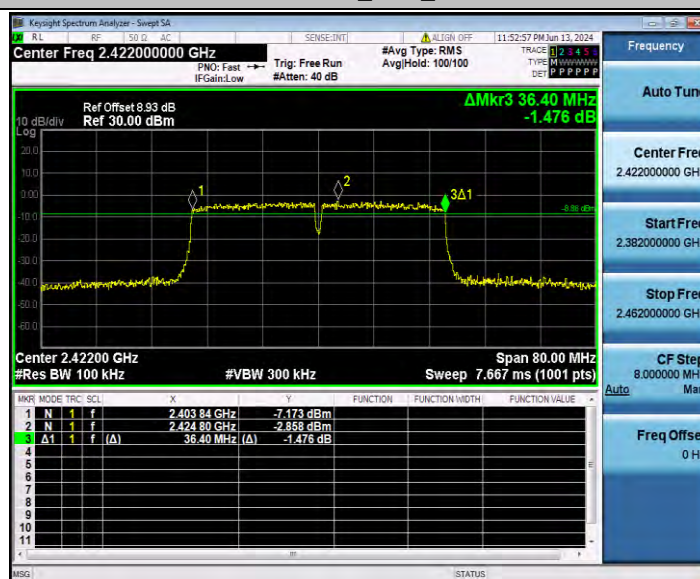
11N20SISO_Ant1_2437



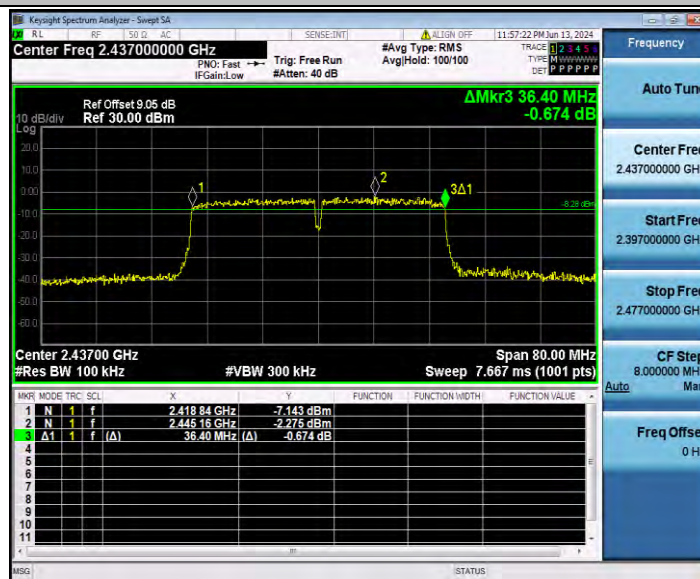
11N20SISO_Ant1_2462



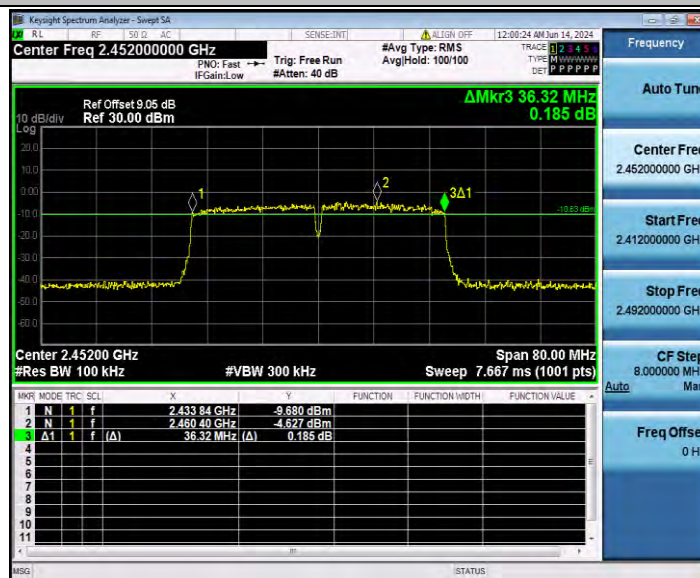
11N40SISO_Ant1_2422



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]
11B	Ant1	2412	14.550	2404.7395	2419.2895
		2437	14.636	2429.7448	2444.3808
		2462	14.524	2454.7635	2469.2875
11G	Ant1	2412	16.871	2403.5146	2420.3856
		2437	16.876	2428.5233	2445.3993
		2462	16.960	2453.4929	2470.4529
11N20SISO	Ant1	2412	17.893	2403.0449	2420.9379
		2437	17.996	2428.0109	2446.0069
		2462	17.927	2453.0462	2470.9732
11N40SISO	Ant1	2422	36.131	2403.9790	2440.1100
		2437	36.092	2419.0405	2455.1325
		2452	35.996	2434.0607	2470.0567

Test Graphs

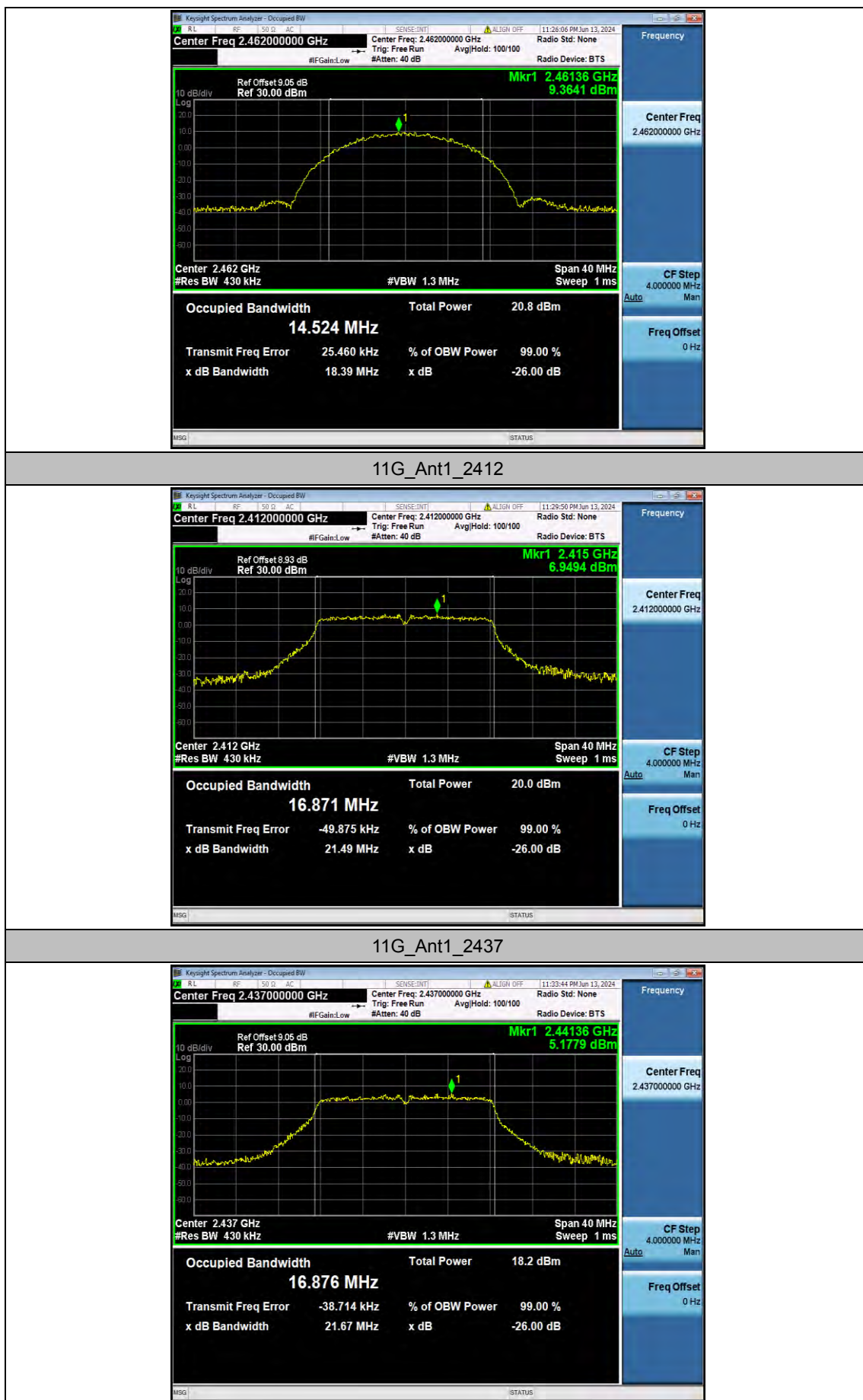
11B_Ant1_2412



11B_Ant1_2437



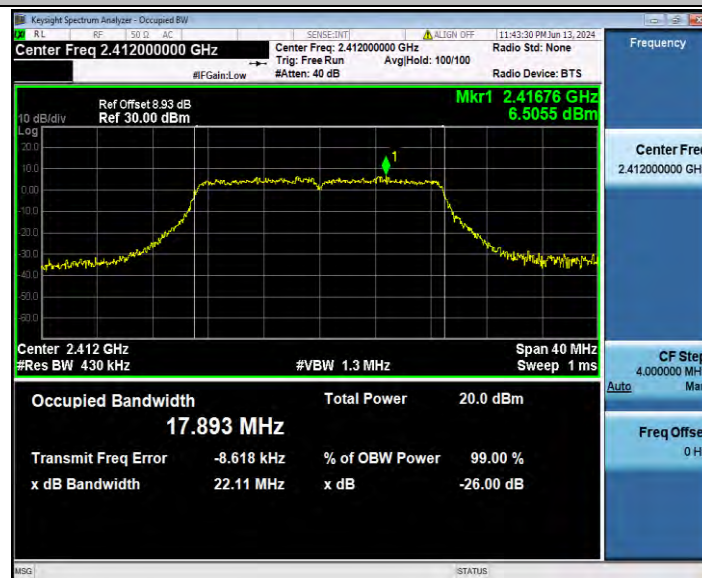
11B_Ant1_2462



11G_Ant1_2462



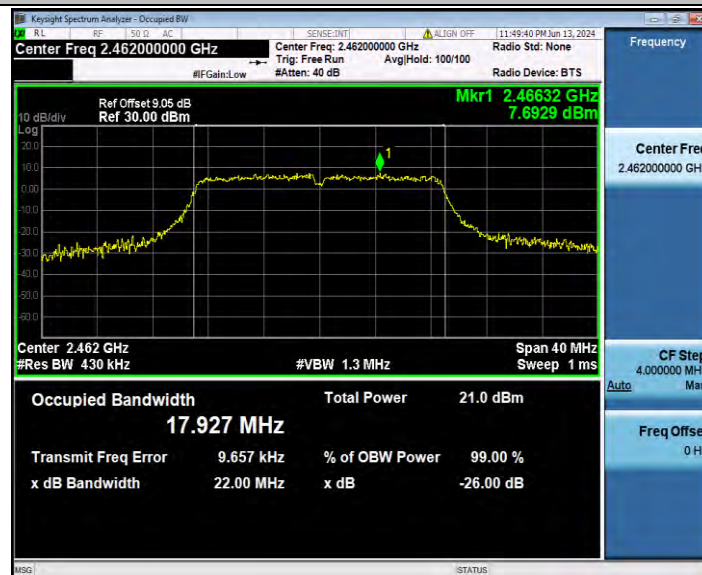
11N20SISO_Ant1_2412



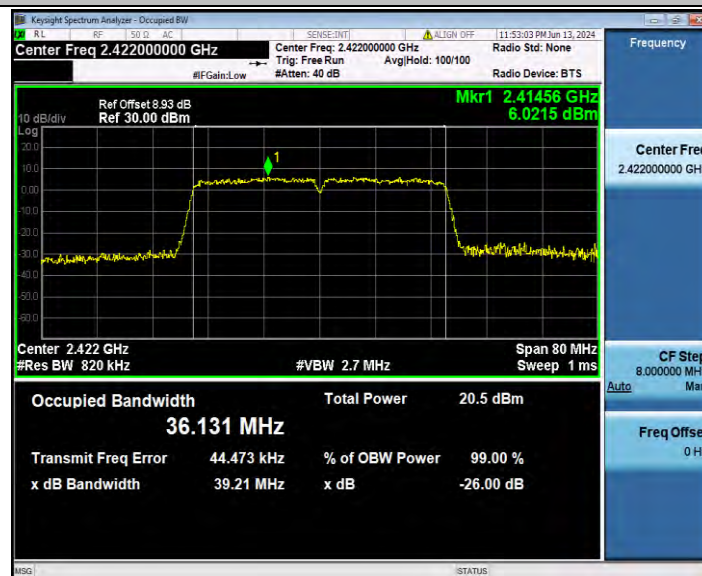
11N20SISO_Ant1_2437



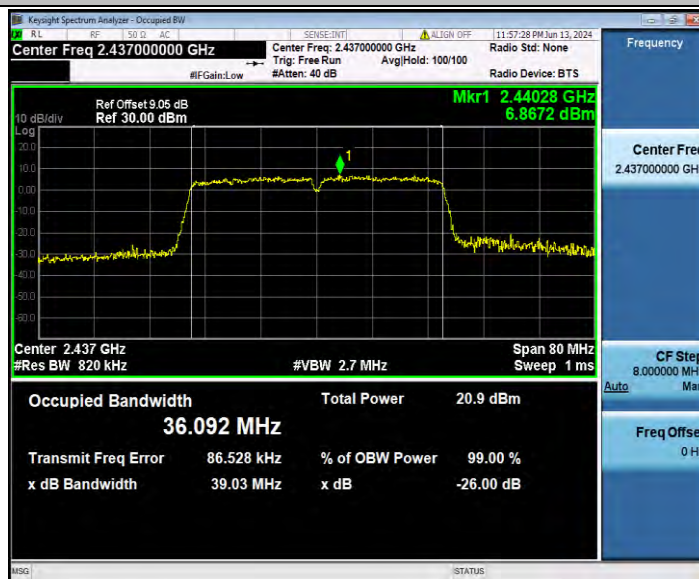
11N20SISO_Ant1_2462



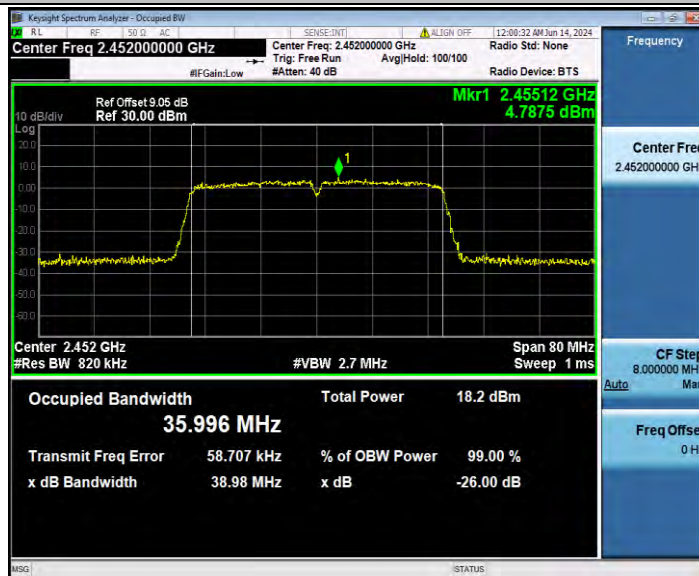
11N40SISO_Ant1_2422



11N40SISO_Ant1_2437



11N40SISO_Ant1_2452



Appendix A.3: Maximum conducted output power

Test Result -CHP

Test Mode	Antenna	Frequency[MHz]	Peak power [dBm]	Limit [dBm]	Verdict
11B	Ant1	2412	20.26	≤30.00	PASS
		2437	23.96	≤30.00	PASS
		2462	20.42	≤30.00	PASS
11G	Ant1	2412	21.12	≤30.00	PASS
		2437	19.25	≤30.00	PASS
		2462	22.27	≤30.00	PASS
11N20SISO	Ant1	2412	20.67	≤30.00	PASS
		2437	20.92	≤30.00	PASS
		2462	21.77	≤30.00	PASS
11N40SISO	Ant1	2422	20.74	≤30.00	PASS
		2437	21.11	≤30.00	PASS
		2452	18.42	≤30.00	PASS

Appendix A.4: Maximum power spectral density

Test Result

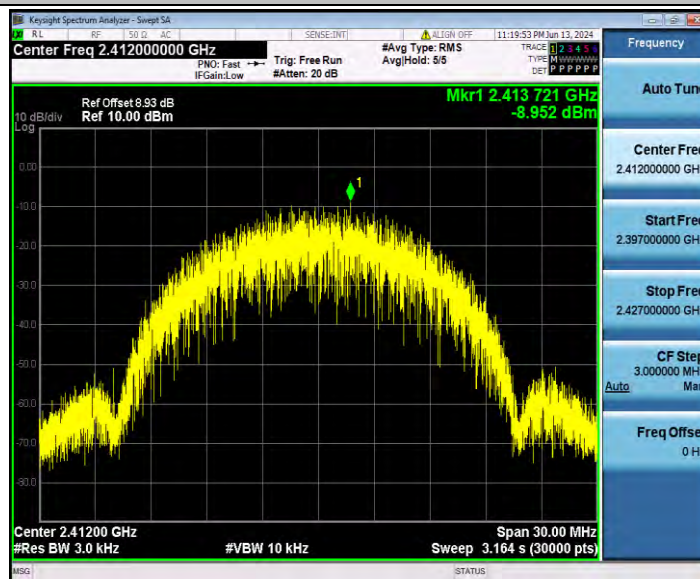
TestMode	Antenna	Frequency[MHz]	Result[dBm/3-100kHz]	Limit[dBm/3kHz]	Verdict
11B	Ant1	2412	-8.95	≤8.00	PASS
		2437	-4.99	≤8.00	PASS
		2462	-8.65	≤8.00	PASS
11G	Ant1	2412	-13.06	≤8.00	PASS
		2437	-14.83	≤8.00	PASS
		2462	-11.80	≤8.00	PASS
11N20SISO	Ant1	2412	-13.49	≤8.00	PASS
		2437	-13.28	≤8.00	PASS
		2462	-11.93	≤8.00	PASS
11N40SISO	Ant1	2422	-15.52	≤8.00	PASS
		2437	-15.06	≤8.00	PASS
		2452	-17.72	≤8.00	PASS

Note:

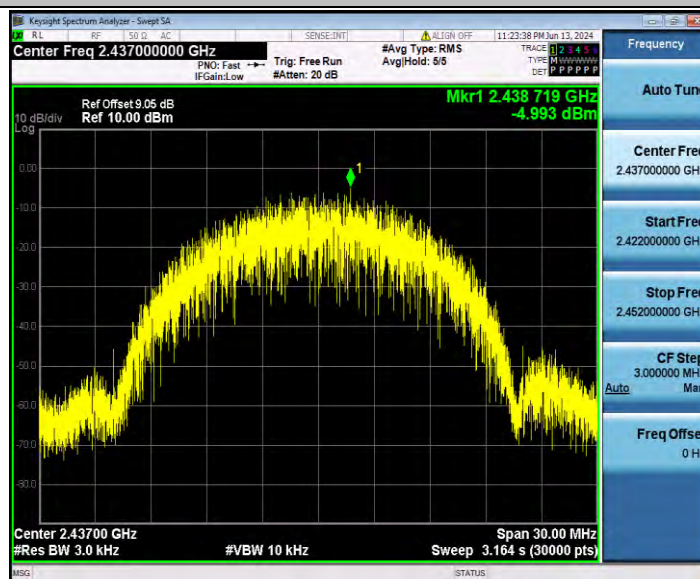
1. The Duty Cycle Factor and RBW Factor is compensated in the graph.

Test Graphs

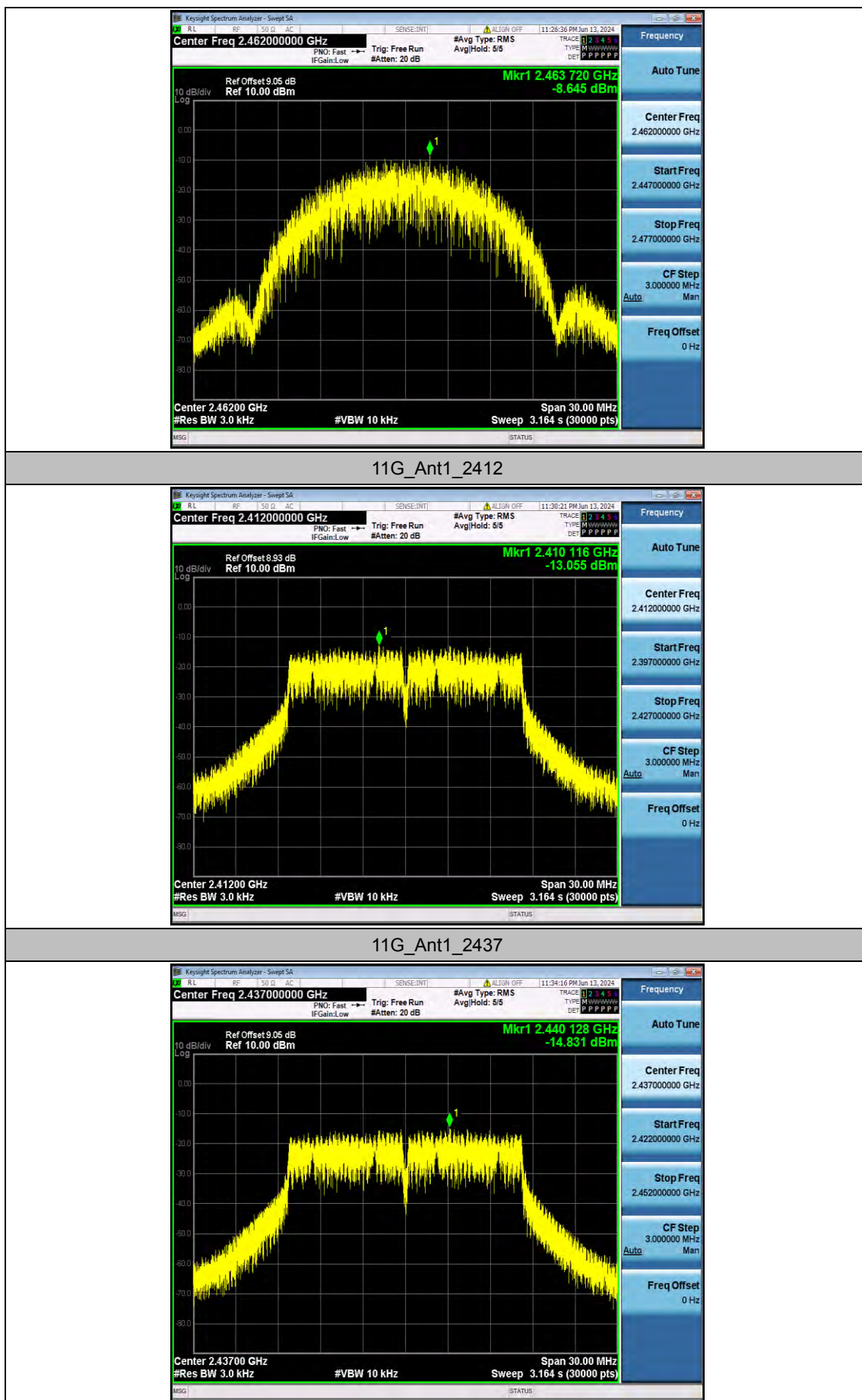
11B_Ant1_2412



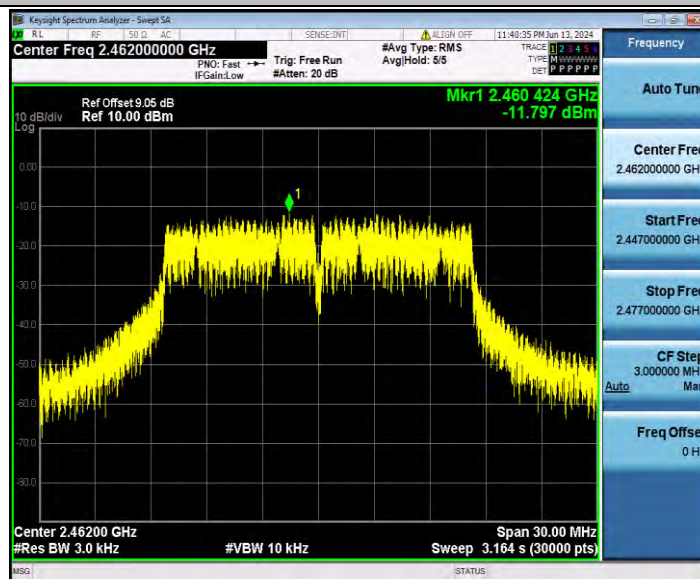
11B_Ant1_2437



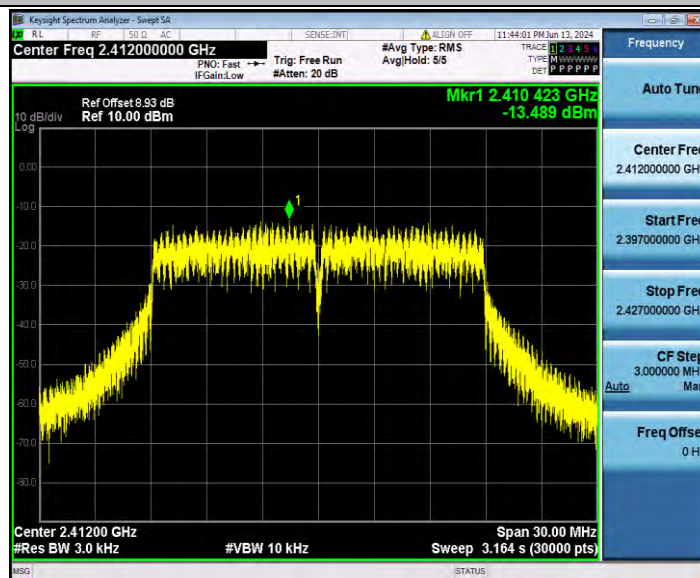
11B_Ant1_2462



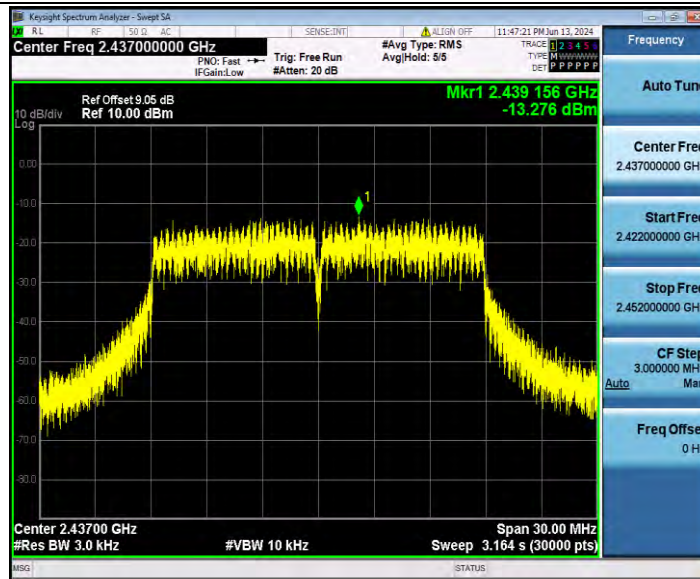
11G_Ant1_2462



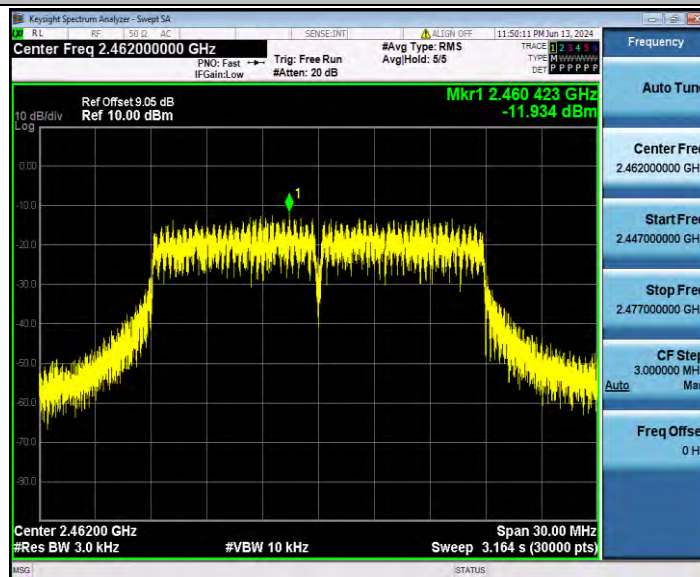
11N20SISO_Ant1_2412



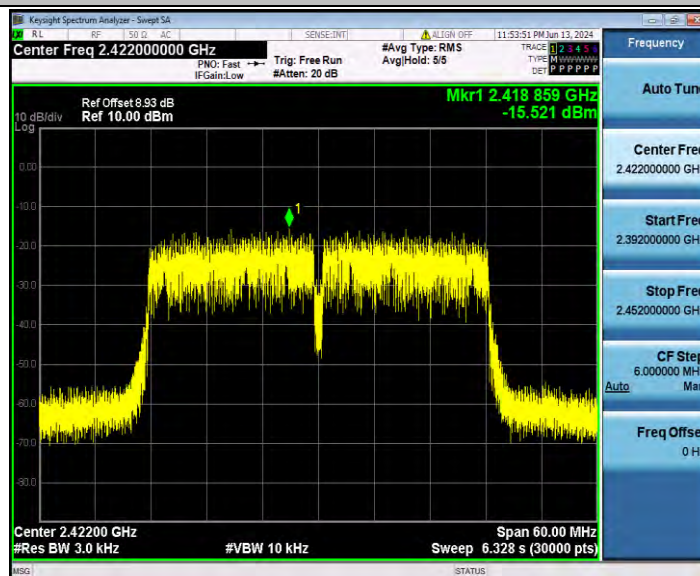
11N20SISO_Ant1_2437



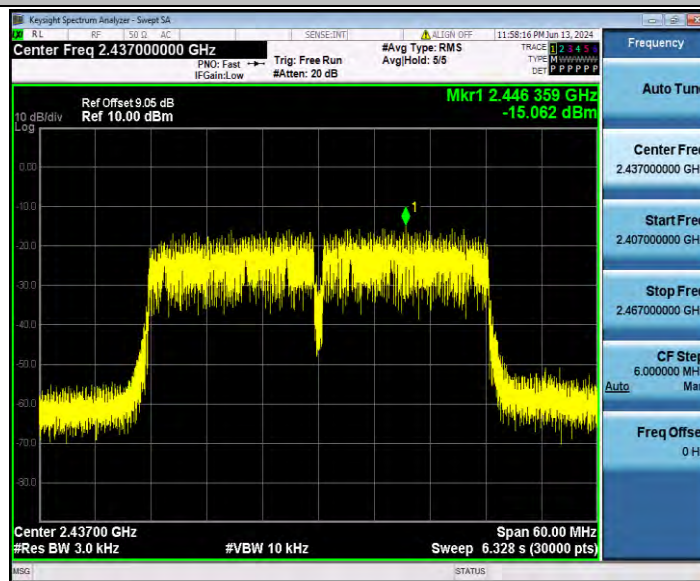
11N20SISO_Ant1_2462



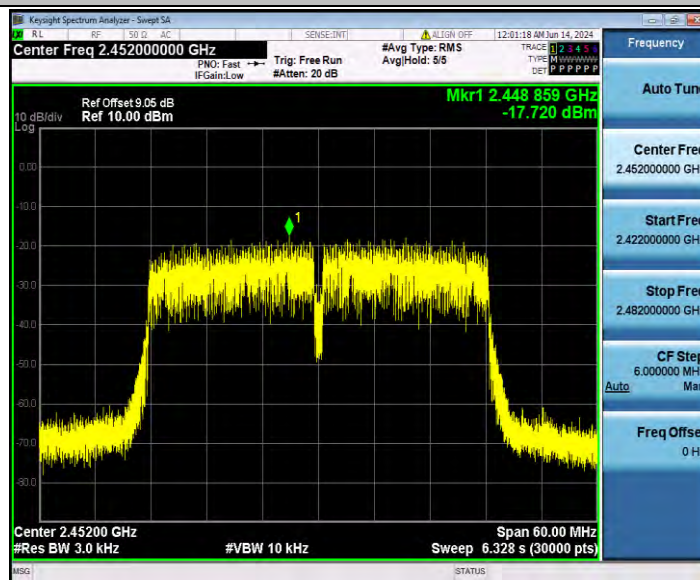
11N40SISO_Ant1_2422



11N40SISO_Ant1_2437



11N40SISO_Ant1_2452



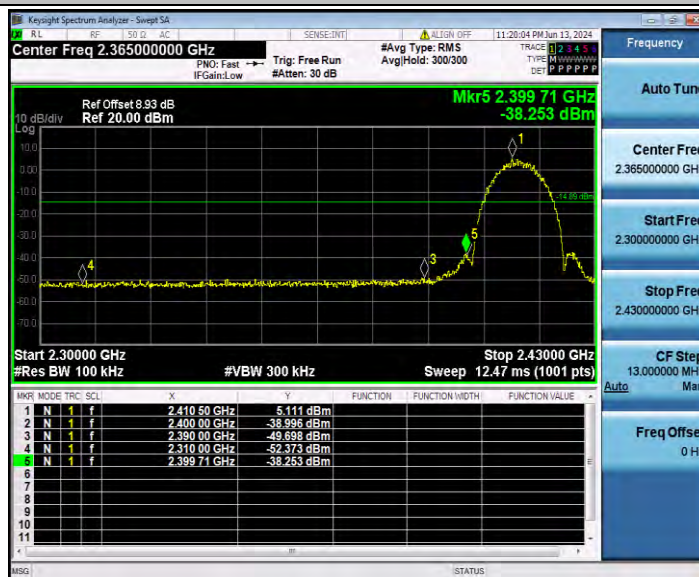
Appendix A.5: Band edge measurements

Test Result

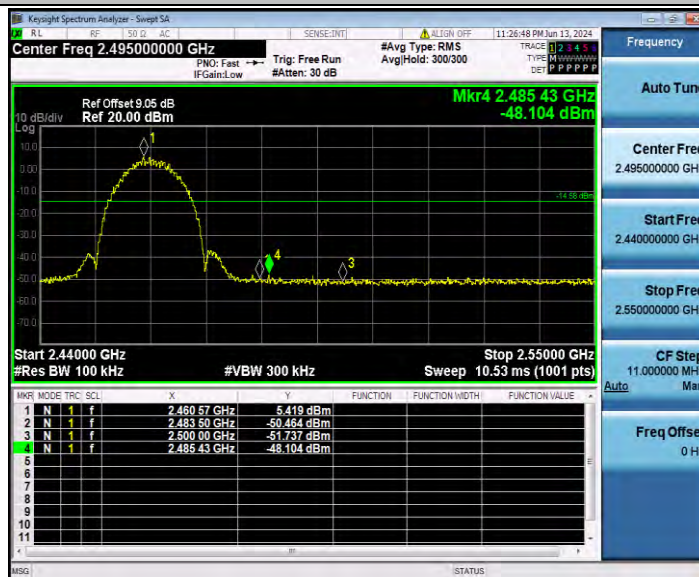
TestMode	Antenna	ChName	Frequency[MHz]	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
11B	Ant1	Low	2412	5.11	-38.25	≤ -14.89	PASS
		High	2462	5.42	-48.1	≤ -14.58	PASS
11G	Ant1	Low	2412	0.87	-33.52	≤ -19.13	PASS
		High	2462	2.20	-36.57	≤ -17.8	PASS
11N20SISO	Ant1	Low	2412	0.37	-34.24	≤ -19.63	PASS
		High	2462	1.63	-35.27	≤ -18.37	PASS
11N40SISO	Ant1	Low	2422	-2.88	-38.99	≤ -22.88	PASS
		High	2452	-4.35	-47.51	≤ -24.35	PASS

Test Graphs

11B_Ant1_Low_2412



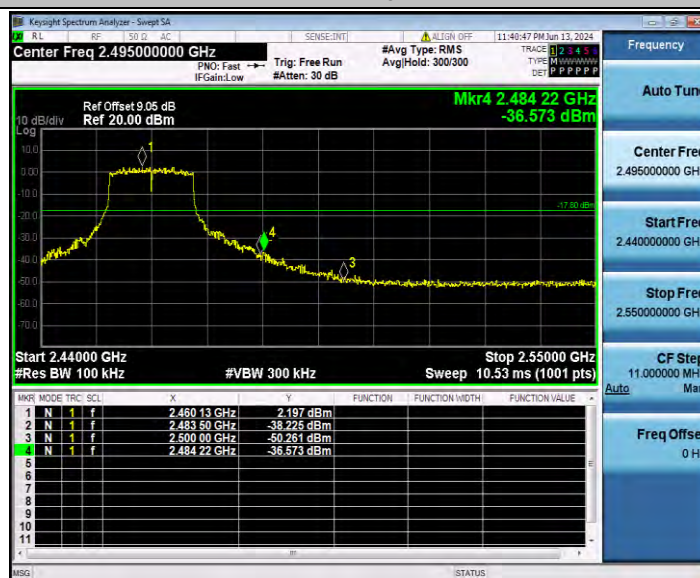
11B_Ant1_High_2462



11G_Ant1_Low_2412



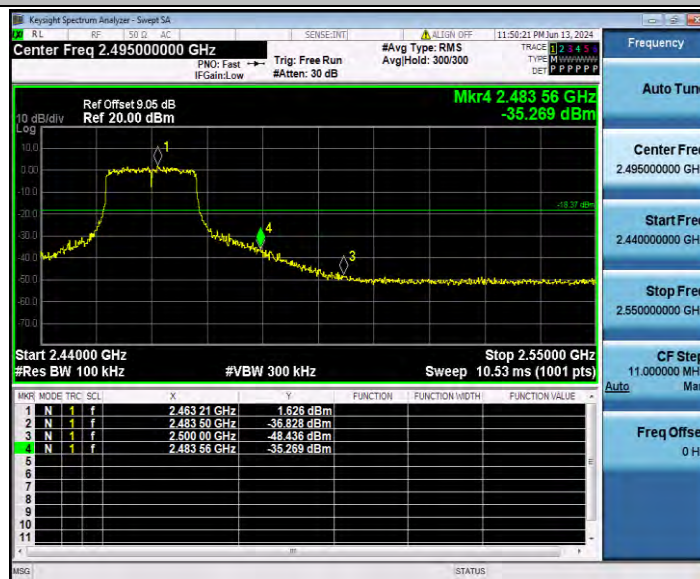
11G_Ant1_High_2462



11N20SISO_Ant1_Low_2412



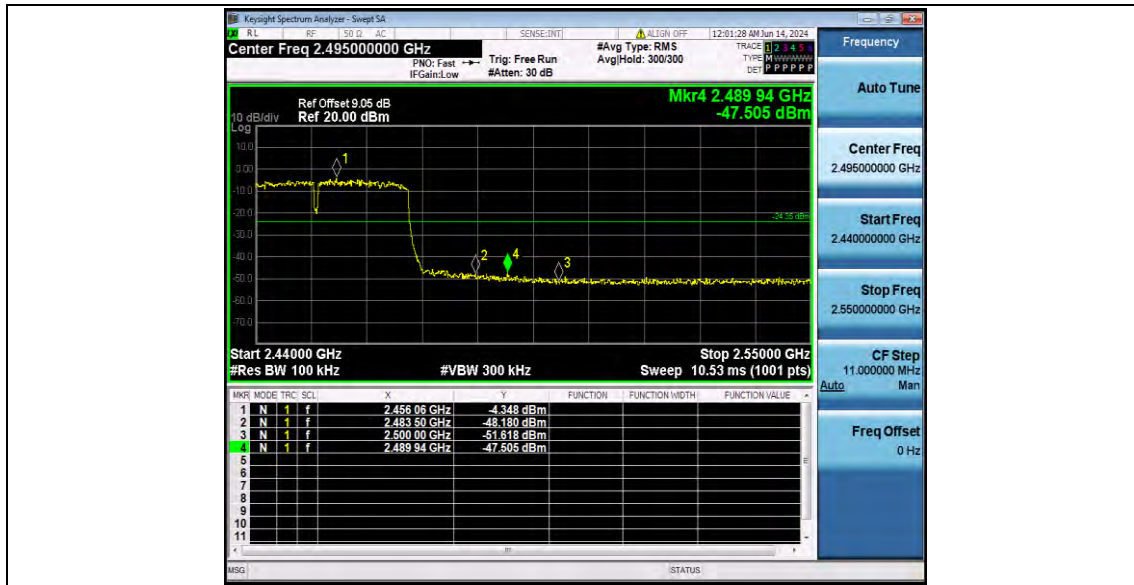
11N20SISO_Ant1_High_2462



11N40SISO_Ant1_Low_2422



11N40SISO_Ant1_High_2452

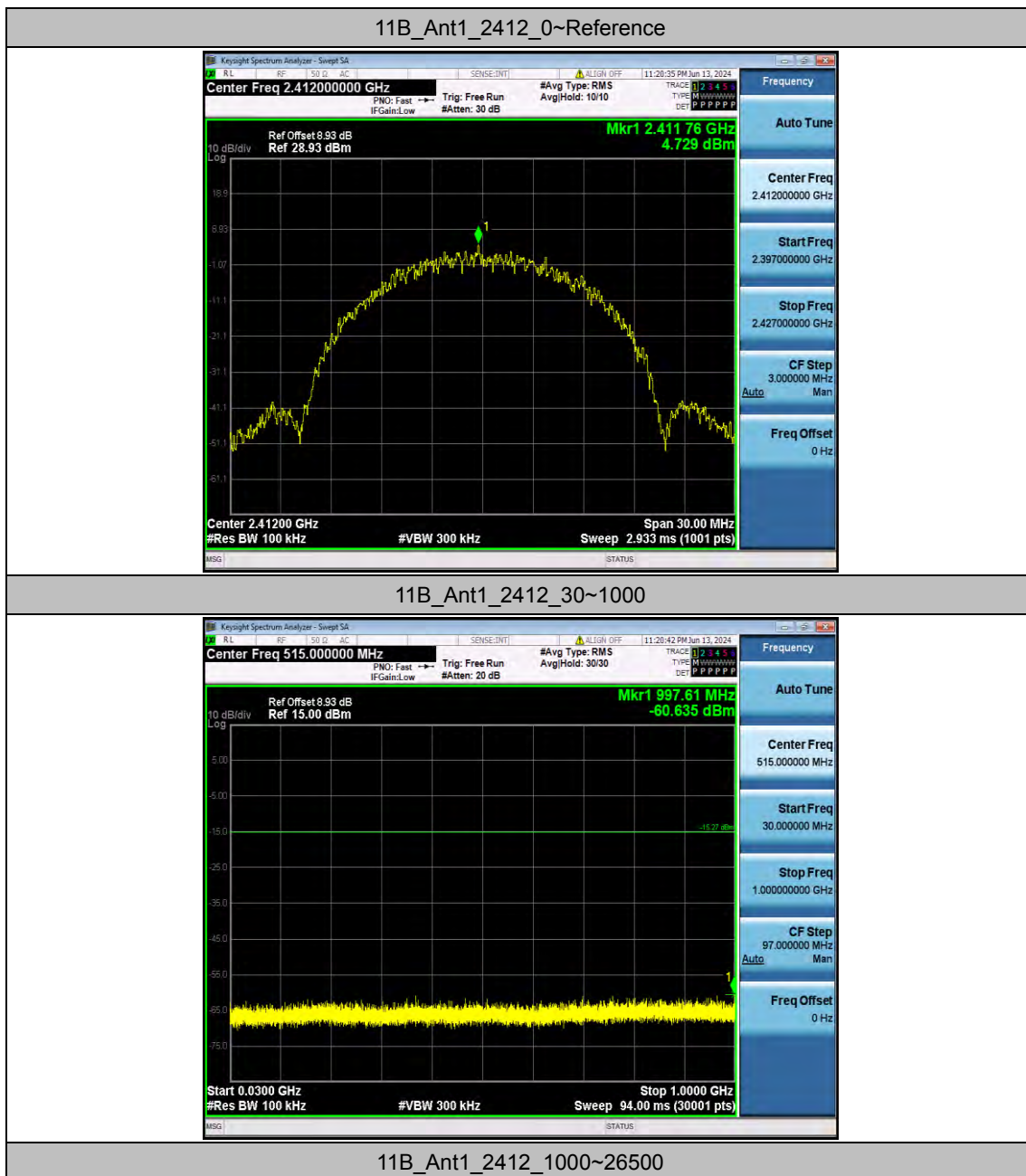


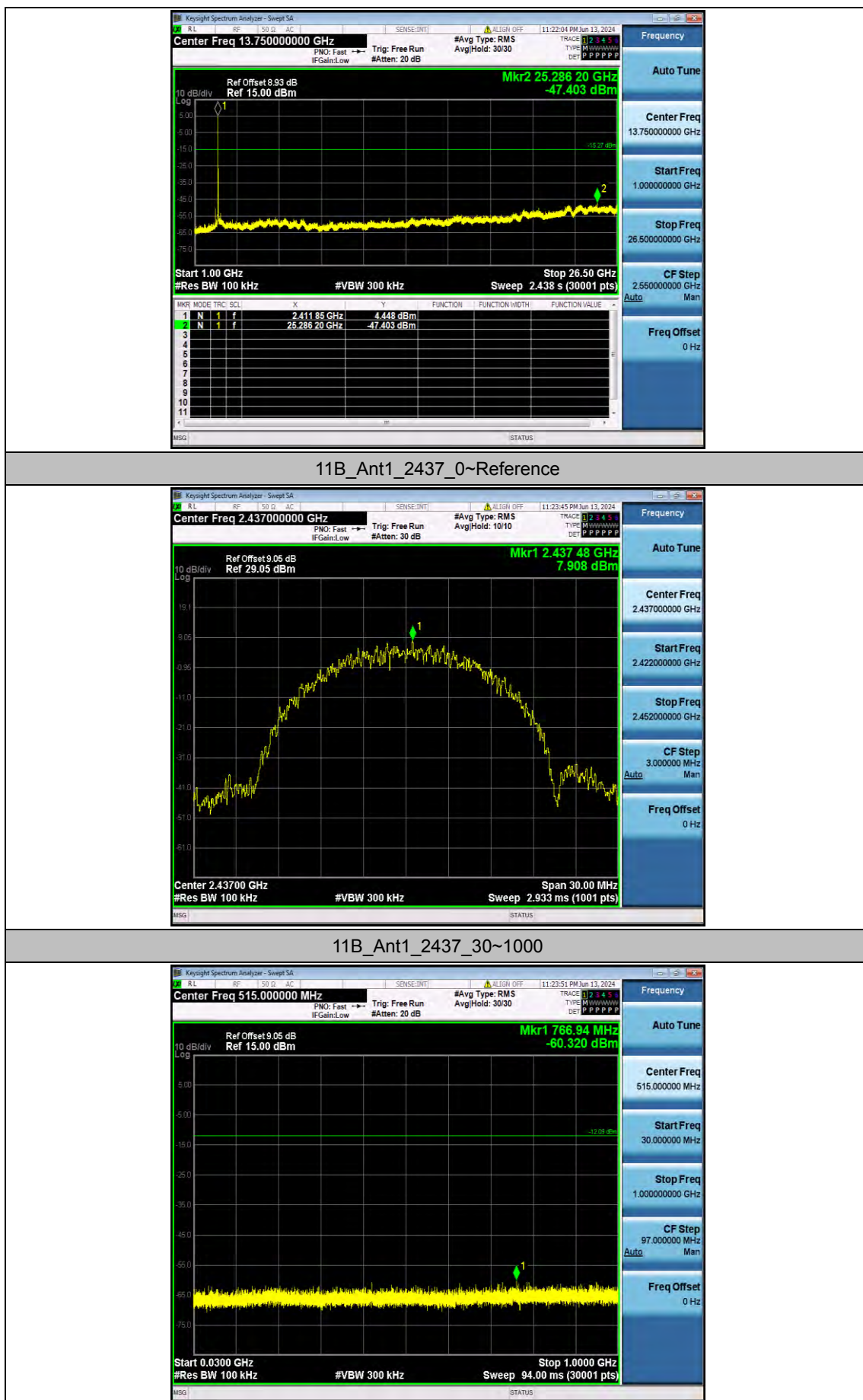
Appendix A.6: Conducted Spurious Emission

Test Result

TestMode	Antenna	Frequency[MHz]	FreqRange [Mhz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
11B	Ant1	2412	Reference	4.73	4.73	---	PASS
			30~1000	4.73	-60.64	≤ -15.27	PASS
			1000~26500	4.73	-47.4	≤ -15.27	PASS
		2437	Reference	7.91	7.91	---	PASS
			30~1000	7.91	-60.32	≤ -12.09	PASS
			1000~26500	7.91	-47.38	≤ -12.09	PASS
		2462	Reference	4.23	4.23	---	PASS
			30~1000	4.23	-59.66	≤ -15.77	PASS
			1000~26500	4.23	-47.89	≤ -15.77	PASS
11G	Ant1	2412	Reference	0.82	0.82	---	PASS
			30~1000	0.82	-57.89	≤ -19.18	PASS
			1000~26500	0.82	-48	≤ -19.18	PASS
		2437	Reference	-0.93	-0.93	---	PASS
			30~1000	-0.93	-58.69	≤ -20.93	PASS
			1000~26500	-0.93	-46.9	≤ -20.93	PASS
		2462	Reference	0.91	0.91	---	PASS
			30~1000	0.91	-57.4	≤ -19.09	PASS
			1000~26500	0.91	-46.96	≤ -19.09	PASS
11N20SISO	Ant1	2412	Reference	-0.11	-0.11	---	PASS
			30~1000	-0.11	-58.92	≤ -20.11	PASS
			1000~26500	-0.11	-48.1	≤ -20.11	PASS
		2437	Reference	-0.42	-0.42	---	PASS
			30~1000	-0.42	-60.46	≤ -20.42	PASS
			1000~26500	-0.42	-47.3	≤ -20.42	PASS
		2462	Reference	0.90	0.90	---	PASS
			30~1000	0.90	-60.12	≤ -19.1	PASS
			1000~26500	0.90	-48.09	≤ -19.1	PASS
11N40SISO	Ant1	2422	Reference	-2.83	-2.83	---	PASS
			30~1000	-2.83	-56.43	≤ -22.83	PASS
			1000~26500	-2.83	-46.2	≤ -22.83	PASS
		2437	Reference	-2.77	-2.77	---	PASS
			30~1000	-2.77	-55.36	≤ -22.77	PASS
			1000~26500	-2.77	-48.2	≤ -22.77	PASS
		2452	Reference	-5.28	-5.28	---	PASS
			30~1000	-5.28	-59.79	≤ -25.28	PASS
			1000~26500	-5.28	-47.51	≤ -25.28	PASS

Test Graphs





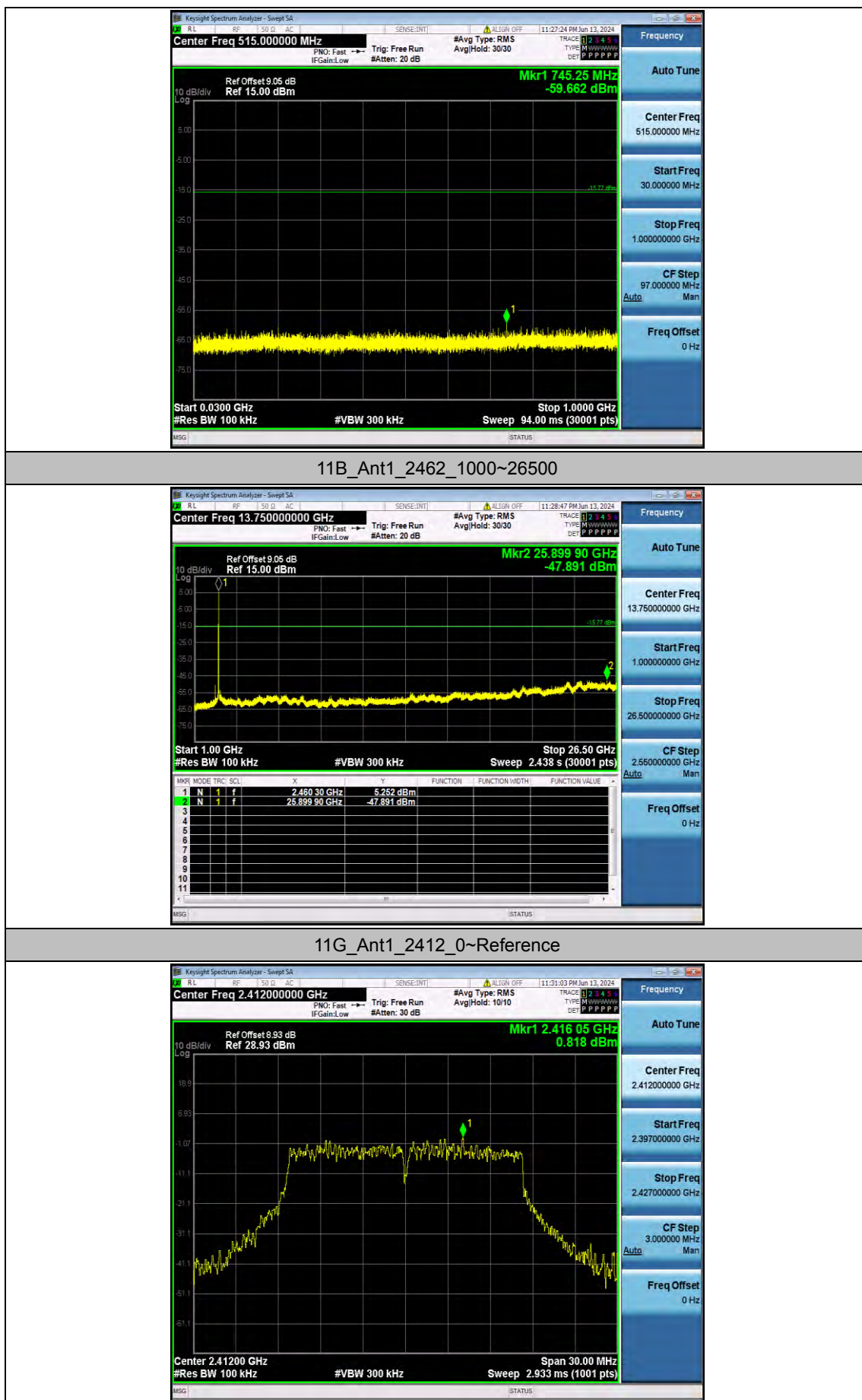
11B_Ant1_2437_1000~26500



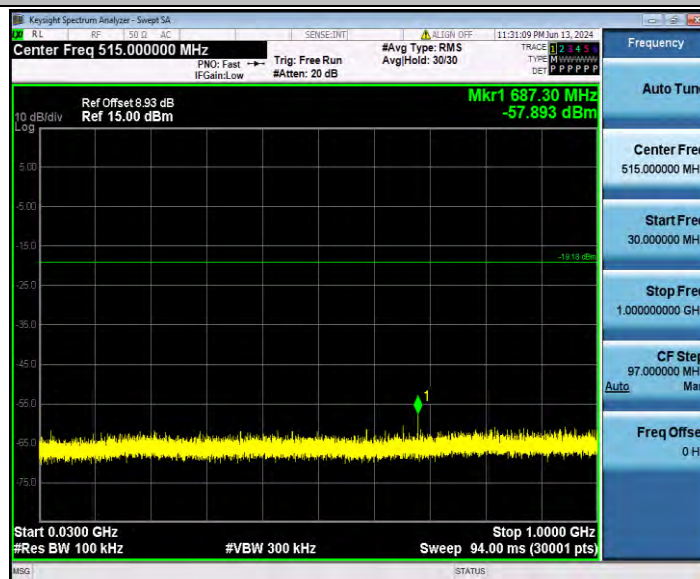
11B_Ant1_2462_0~Reference



11B_Ant1_2462_30~1000



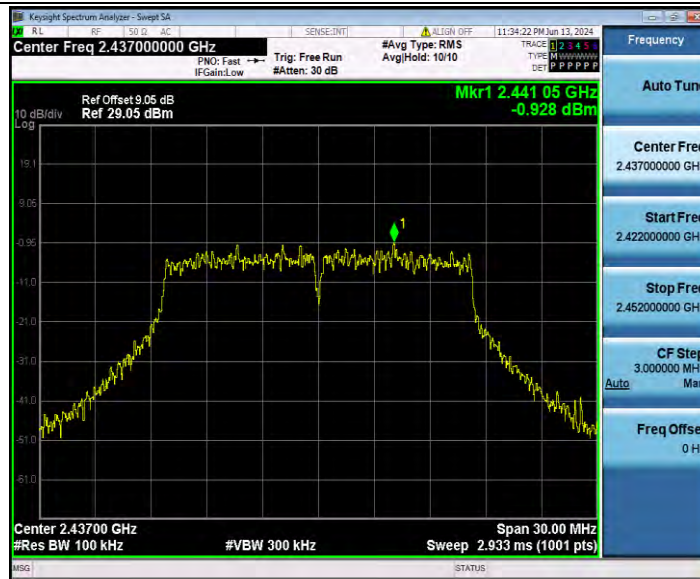
11G_Ant1_2412_30~1000



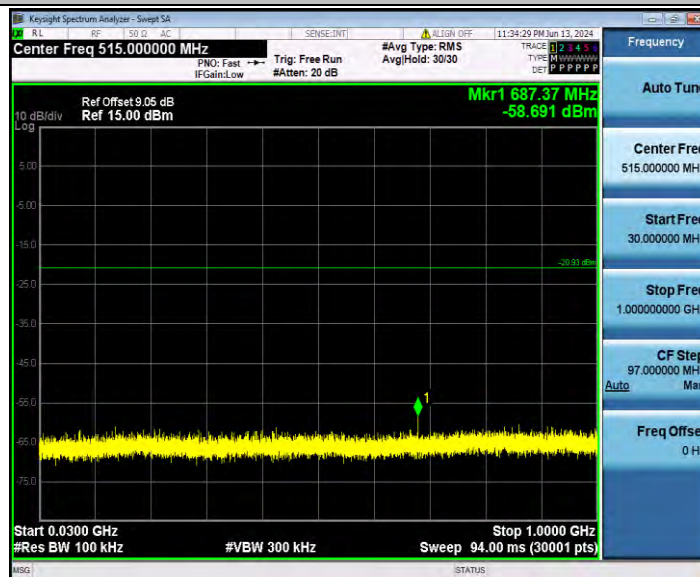
11G_Ant1_2412_1000~26500



11G_Ant1_2437_0~Reference



11G_Ant1_2437_30~1000



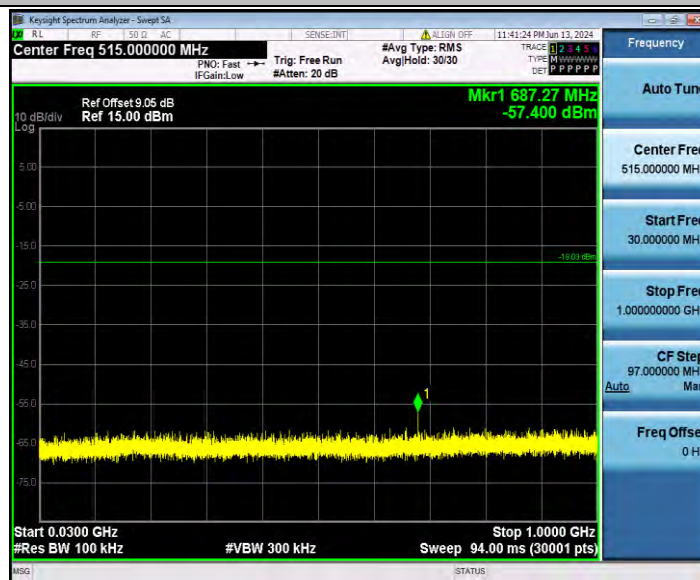
11G_Ant1_2437_1000~26500



11G_Ant1_2462_0~Reference



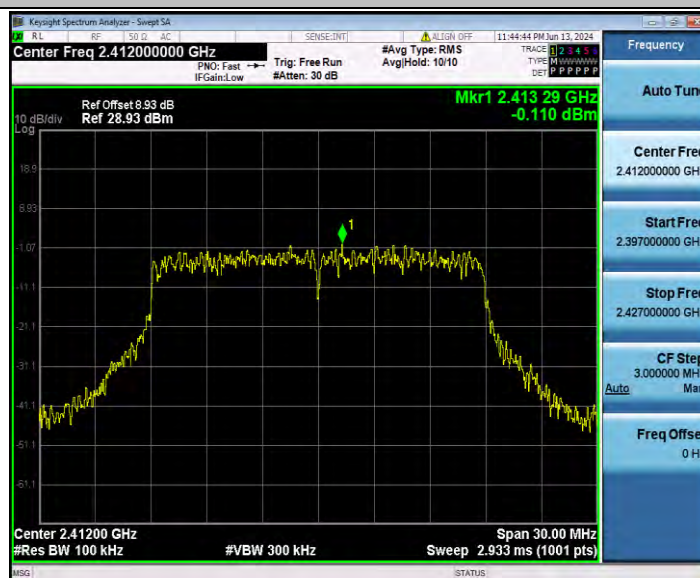
11G_Ant1_2462_30~1000



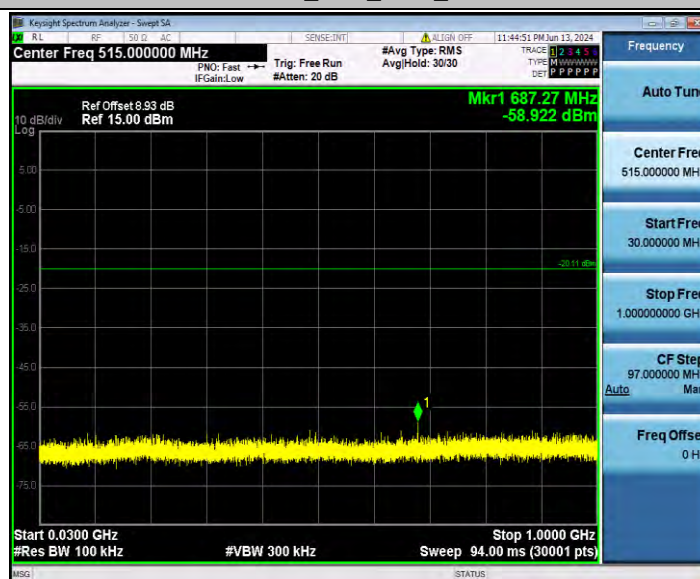
11G_Ant1_2462_1000~26500



11N20SISO_Ant1_2412_0~Reference



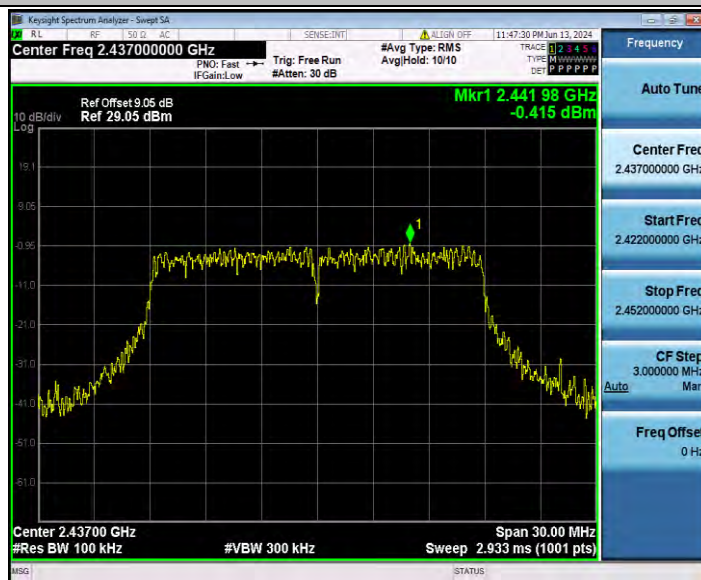
11N20SISO_Ant1_2412_30~1000



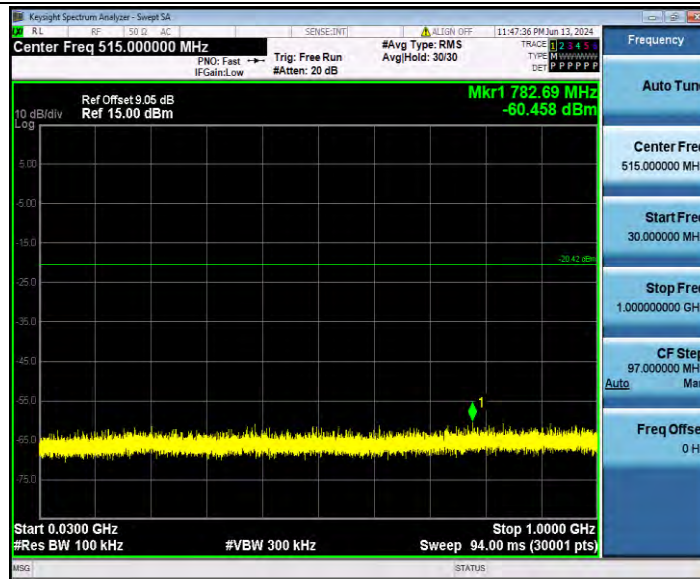
11N20SISO_Ant1_2412_1000~26500



11N20SISO_Ant1_2437_0~Reference



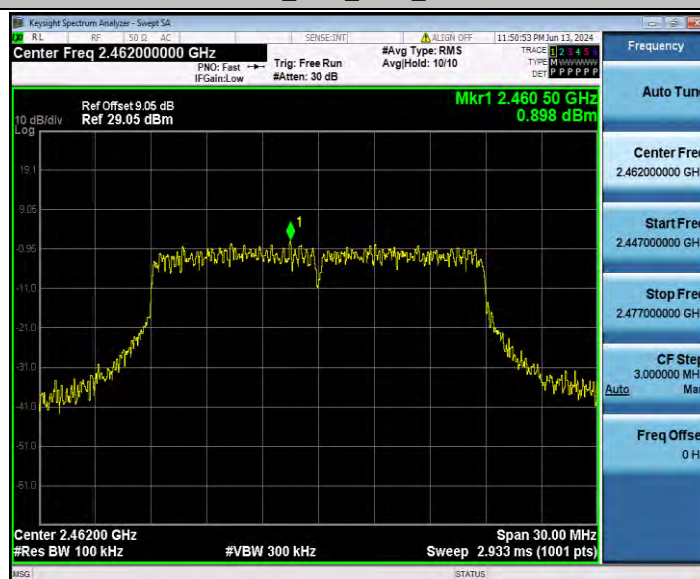
11N20SISO_Ant1_2437_30~1000



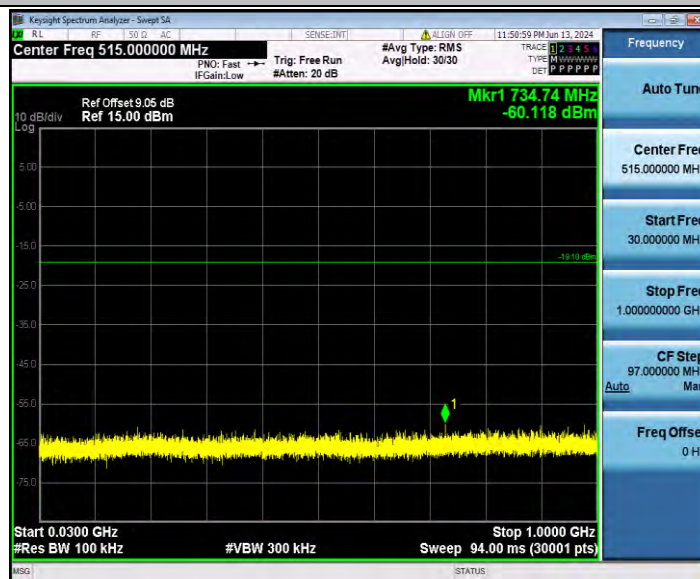
11N20SISO_Ant1_2437_1000~26500



11N20SISO_Ant1_2462_0~Reference



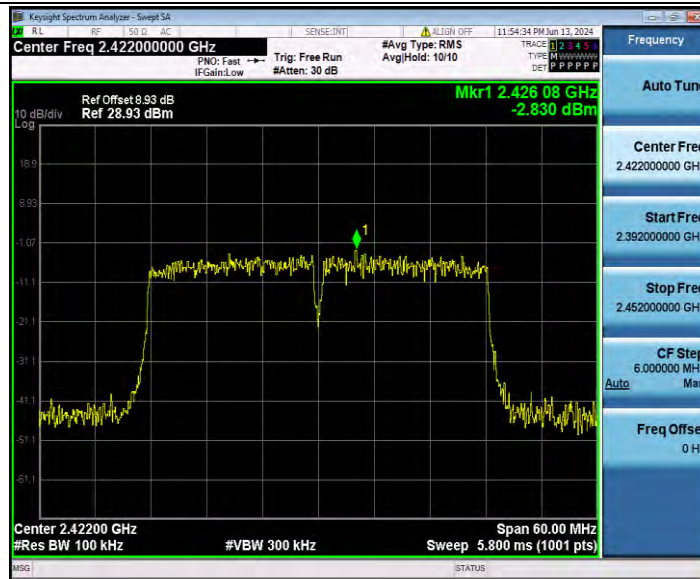
11N20SISO_Ant1_2462_30~1000



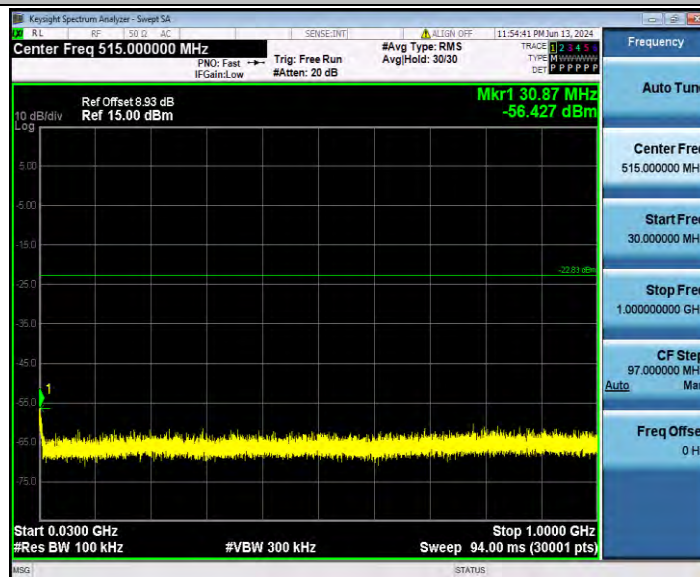
11N20SISO_Ant1_2462_1000~26500



11N40SISO_Ant1_2422_0~Reference



11N40SISO_Ant1_2422_30~1000



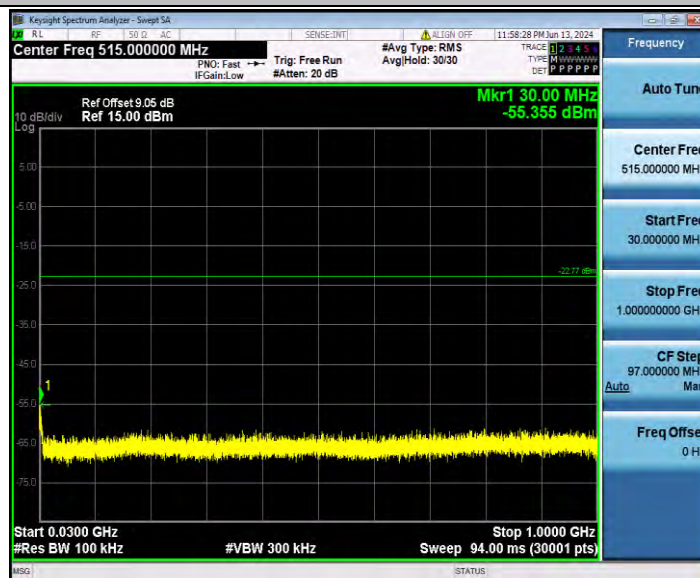
11N40SISO_Ant1_2422_1000~26500



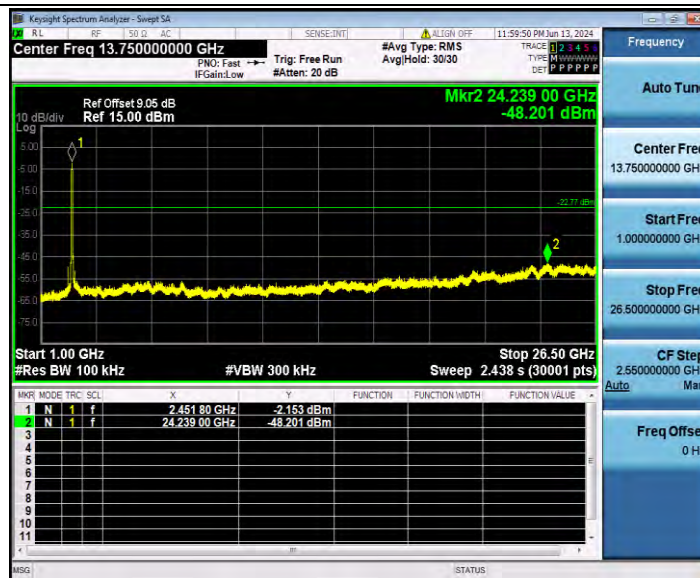
11N40SISO_Ant1_2437_0~Reference



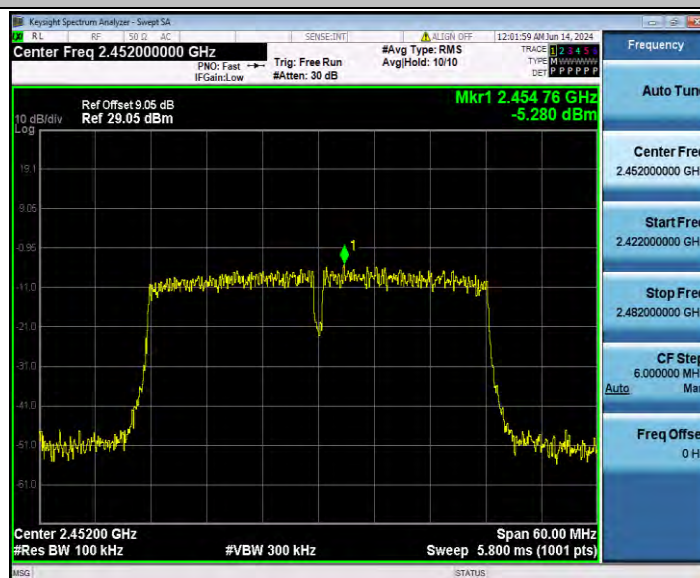
11N40SISO_Ant1_2437_30~1000



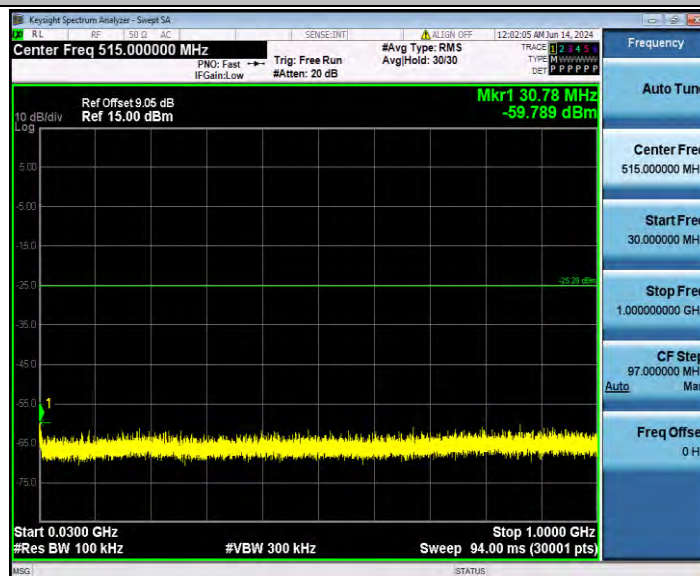
11N40SISO_Ant1_2437_1000~26500

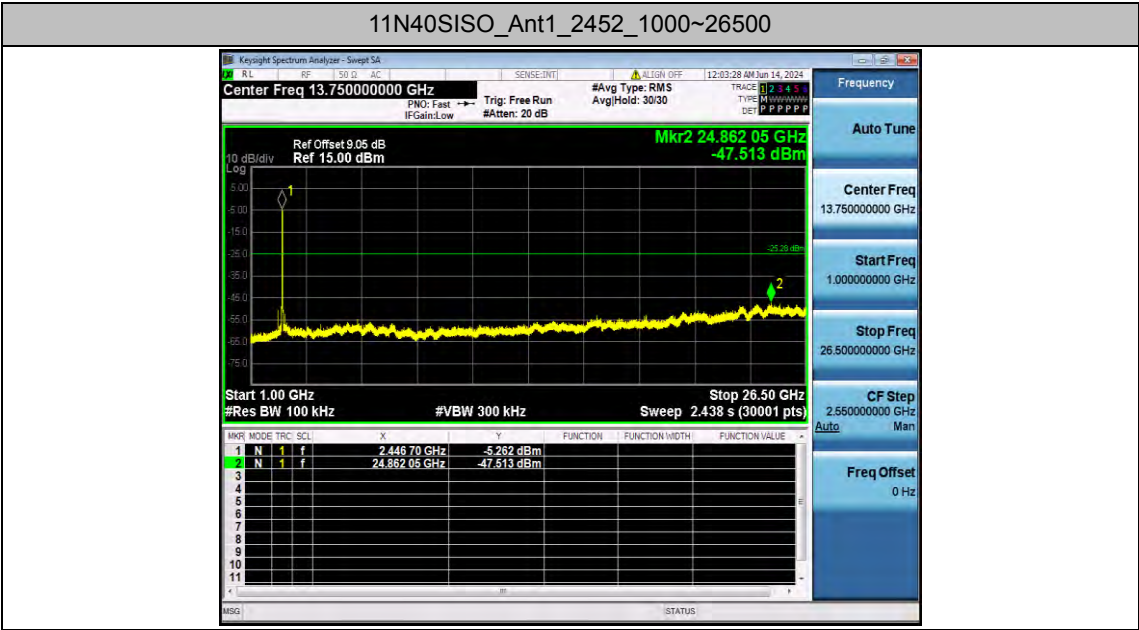


11N40SISO_Ant1_2452_0~Reference



11N40SISO_Ant1_2452_30~1000





Appendix A.7: Emissions in Restricted Bands

Test Result

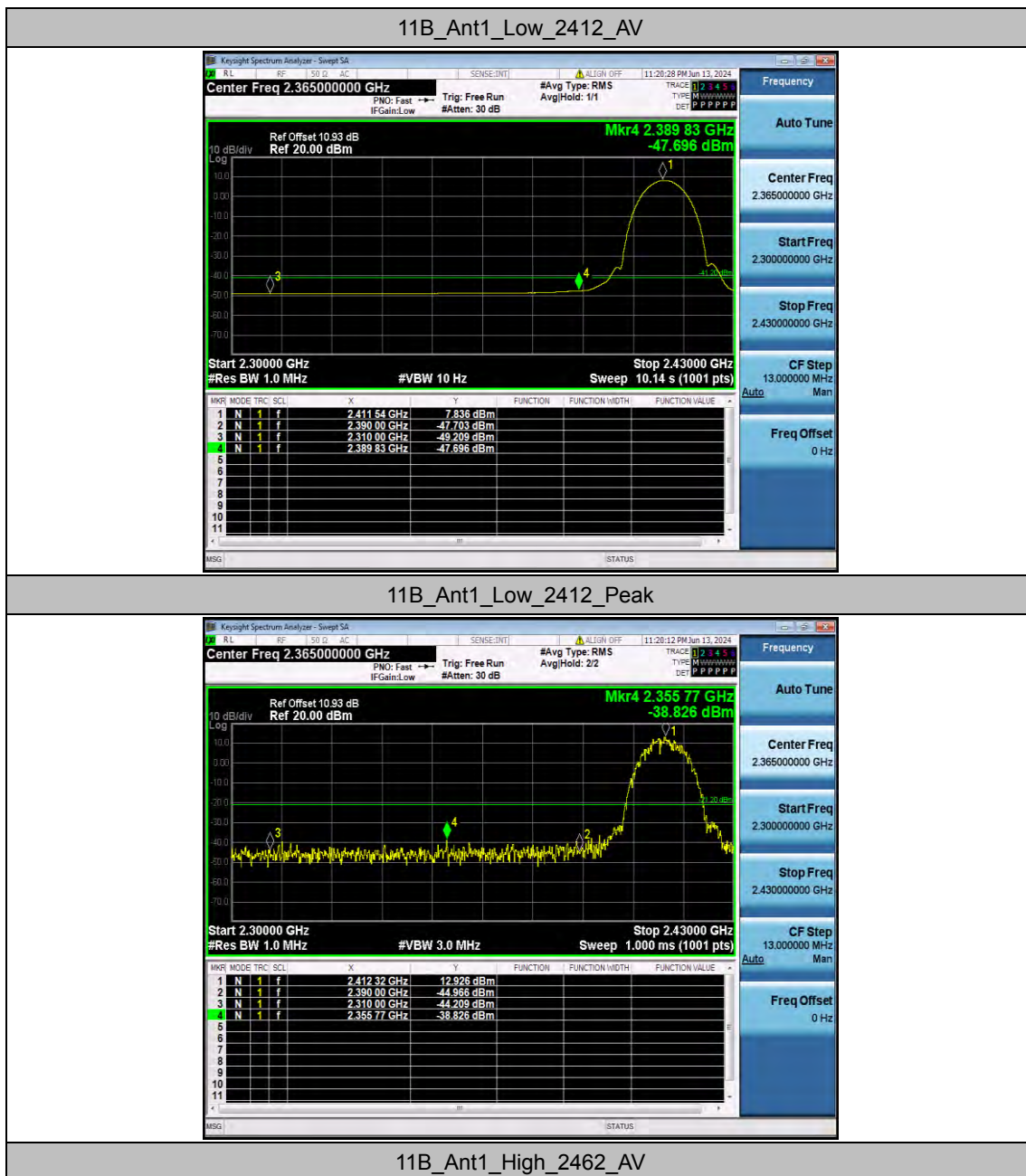
TestMode	Antenna	ChName	Frequency[MHz]	Detector	Freq [MHz]	Result [dBm]	Limit [dBm]	Result [dBuV/m]	Limit [dBuV/m]	Verdict
11B	Ant1	Low	2412	AV	2310.000	-49.21	≤-41.20	45.99	≤54	PASS
				AV	2389.830	-47.7	≤-41.20	47.50	≤54	PASS
				AV	2390.000	-47.7	≤-41.20	47.50	≤54	PASS
				Peak	2310.000	-44.21	≤-21.20	50.99	≤74	PASS
				Peak	2355.770	-38.83	≤-21.20	56.37	≤74	PASS
				Peak	2390.000	-44.97	≤-21.20	50.23	≤74	PASS
		High	2462	AV	2483.500	-47.42	≤-41.20	47.78	≤54	PASS
				AV	2483.560	-47.44	≤-41.20	47.76	≤54	PASS
				AV	2500.000	-48.08	≤-41.20	47.12	≤54	PASS
				Peak	2483.500	-44.54	≤-21.20	50.66	≤74	PASS
				Peak	2495.110	-39.98	≤-21.20	55.22	≤74	PASS
				Peak	2500.000	-43.7	≤-21.20	51.50	≤74	PASS
11G	Ant1	Low	2412	AV	2310.000	-49.17	≤-41.20	46.03	≤54	PASS
				AV	2389.960	-42.46	≤-41.20	52.74	≤54	PASS
				AV	2390.000	-42.46	≤-41.20	52.74	≤54	PASS
				Peak	2310.000	-49.87	≤-21.20	45.33	≤74	PASS
				Peak	2386.710	-35.28	≤-21.20	59.92	≤74	PASS
				Peak	2390.000	-39.32	≤-21.20	55.88	≤74	PASS
		High	2462	AV	2483.500	-48.78	≤-41.20	46.42	≤54	PASS
				AV	2483.560	-48.81	≤-41.20	46.39	≤54	PASS
				AV	2500.000	-49.1	≤-41.20	46.10	≤54	PASS
				Peak	2483.500	-44.8	≤-21.20	50.40	≤74	PASS
				Peak	2496.650	-40.17	≤-21.20	55.03	≤74	PASS
				Peak	2500.000	-47.76	≤-21.20	47.44	≤74	PASS
11N20SISO	Ant1	Low	2412	AV	2310.000	-49.18	≤-41.20	46.02	≤54	PASS
				AV	2389.960	-42.48	≤-41.20	52.72	≤54	PASS
				AV	2390.000	-42.48	≤-41.20	52.72	≤54	PASS
				Peak	2310.000	-46.07	≤-21.20	49.13	≤74	PASS
				Peak	2388.660	-34.86	≤-21.20	60.34	≤74	PASS
				Peak	2390.000	-43.02	≤-21.20	52.18	≤74	PASS
		High	2462	AV	2483.500	-44.9	≤-41.20	50.30	≤54	PASS
				AV	2483.560	-44.93	≤-41.20	50.27	≤54	PASS
				AV	2500.000	-48.48	≤-41.20	46.72	≤54	PASS
				Peak	2483.500	-41.98	≤-21.20	53.22	≤74	PASS
				Peak	2486.860	-27.19	≤-21.20	68.01	≤74	PASS

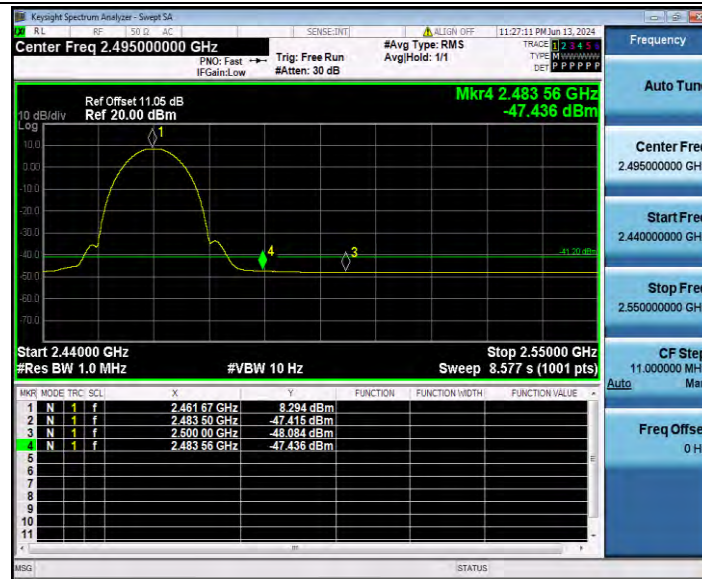
				Peak	2500.000	-44.74	≤-21.20	50.46	≤74	PASS
11N40SISO	Ant1	Low	2422	AV	2310.000	-49.98	≤-41.20	45.22	≤54	PASS
				AV	2389.960	-44.9	≤-41.20	50.30	≤54	PASS
				AV	2390.000	-44.9	≤-41.20	50.30	≤54	PASS
				Peak	2310.000	-45.81	≤-21.20	49.39	≤74	PASS
				Peak	2389.310	-38	≤-21.20	57.20	≤74	PASS
				Peak	2390.000	-40.81	≤-21.20	54.39	≤74	PASS
		High	2452	AV	2483.500	-45.95	≤-41.20	49.25	≤54	PASS
				AV	2483.560	-45.97	≤-41.20	49.23	≤54	PASS
				AV	2500.000	-48.04	≤-41.20	47.16	≤54	PASS
				Peak	2483.500	-45.59	≤-21.20	49.61	≤74	PASS
				Peak	2485.760	-37.44	≤-21.20	57.76	≤74	PASS
				Peak	2500.000	-43.91	≤-21.20	51.29	≤74	PASS

Note:

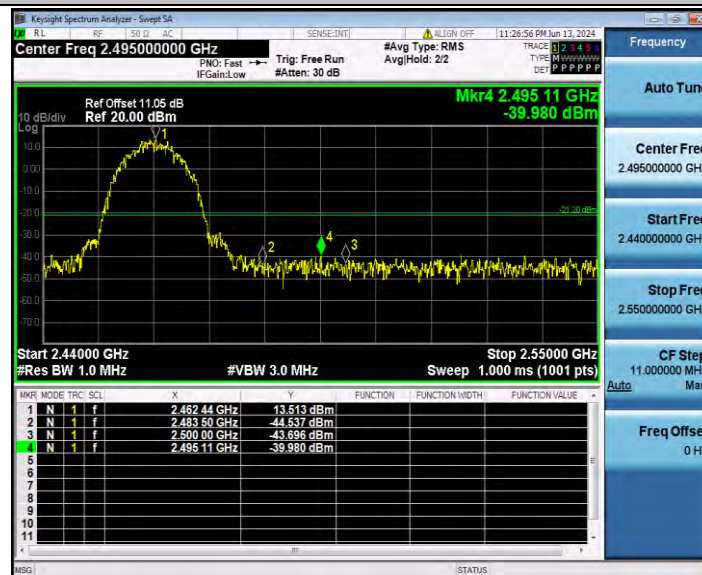
1. The Antenna Gain is compensated in the graph.
2. The Duty Cycle Factor and RBW Factor is compensated in the graph.
3. The limit in dBm for average detector is conversion from 54dBuV/m, according to 15.209(a). The limit in dBm for peak detector is 20dB above the limit of average detector in dBm.

Test Graphs





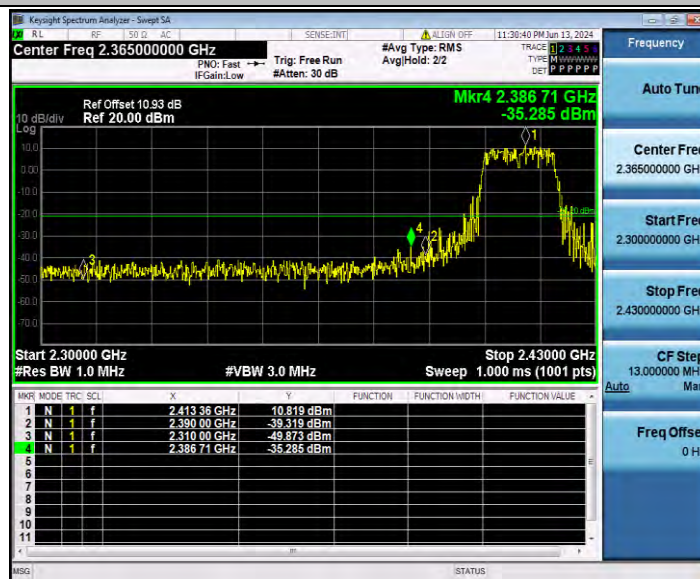
11B_Ant1_High_2462_Peak



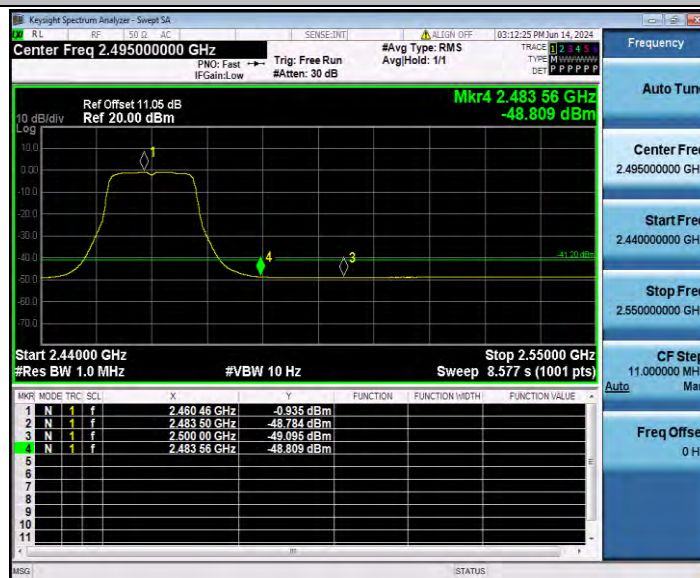
11G_Ant1_Low_2412_AV



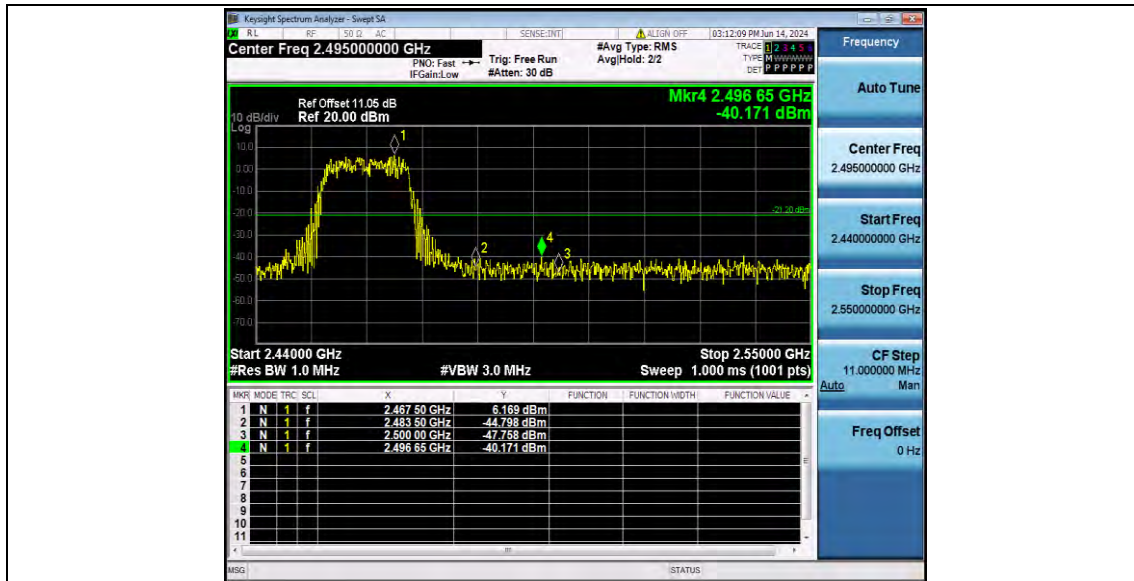
11G_Ant1_Low_2412_Peak



11G_Ant1_High_2462_AV



11G_Ant1_High_2462_Peak



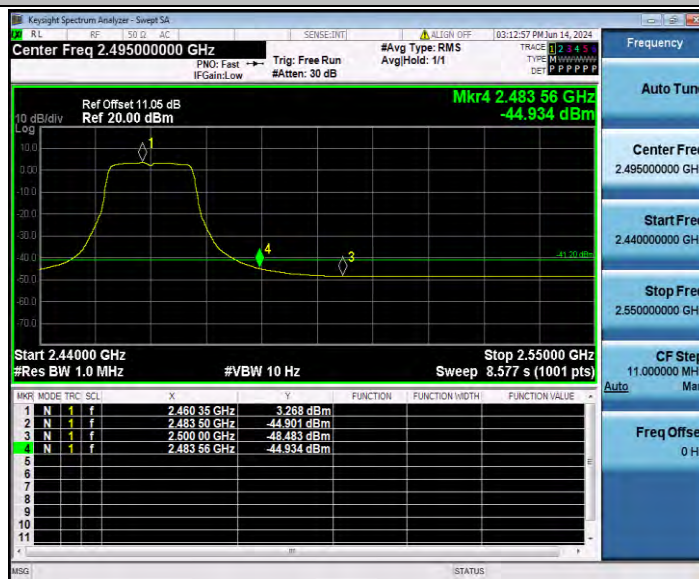
11N20SISO_Ant1_Low_2412_AV



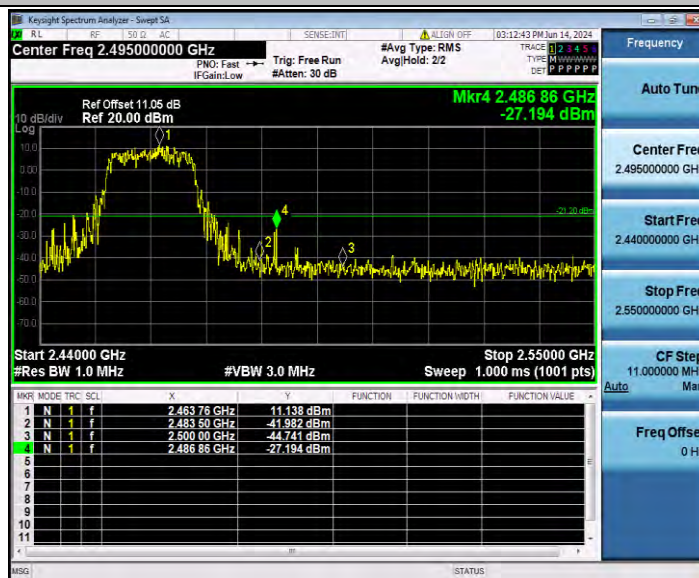
11N20SISO_Ant1_Low_2412_Peak



11N20SISO_Ant1_High_2462_AV



11N20SISO_Ant1_High_2462_Peak



11N40SISO_Ant1_Low_2422_AV

