

Case No. : <u>CTA24052000903</u>	
Ambient Condition: <u>23</u> °C, <u>49</u> %RH,	
Test Date: <u>2024.6.24</u>	Test Engineer: <u>Lushan Kong</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	9.560	2407.000	2416.560	0.5	PASS
		2437	9.520	2432.480	2442.000	0.5	PASS
		2462	9.560	2457.000	2466.560	0.5	PASS
11G	Ant1	2412	16.000	2404.160	2420.160	0.5	PASS
		2437	16.040	2429.120	2445.160	0.5	PASS
		2462	16.080	2453.840	2469.920	0.5	PASS
11N20SISO	Ant1	2412	17.040	2403.480	2420.520	0.5	PASS
		2437	16.880	2428.640	2445.520	0.5	PASS
		2462	15.080	2454.720	2469.800	0.5	PASS
11N40SISO	Ant1	2422	35.120	2404.480	2439.600	0.5	PASS
		2437	35.040	2419.480	2454.520	0.5	PASS
		2452	34.960	2434.560	2469.520	0.5	PASS

Test Graphs





11G_Ant1_2412



11G_Ant1_2437



11G_Ant1_2462



11N20SISO_Ant1_2412



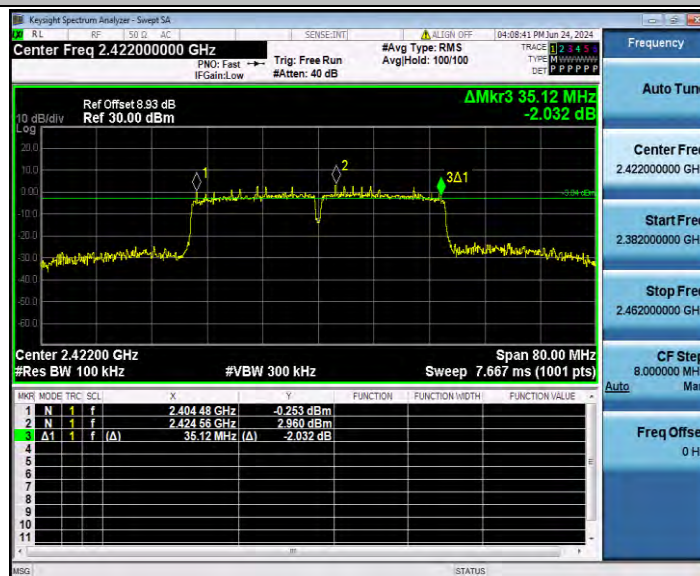
11N20SISO_Ant1_2437



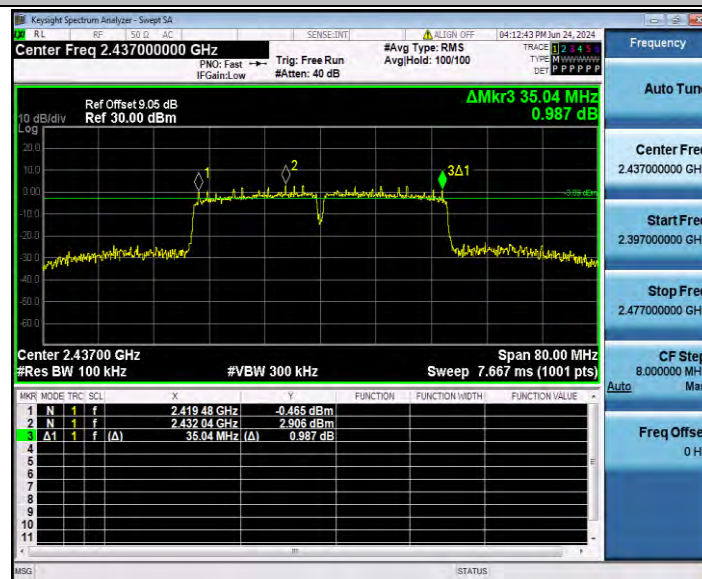
11N20SISO_Ant1_2462



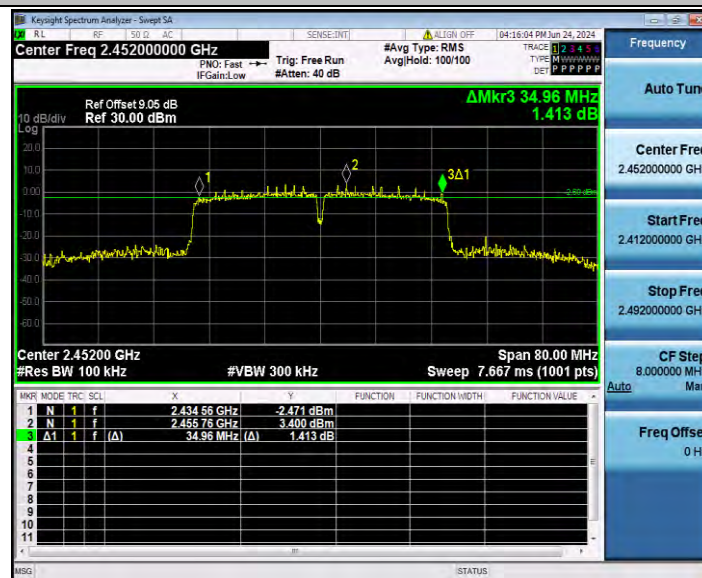
11N40SISO_Ant1_2422



11N40SISO_Ant1_2437



11N40SISO_Ant1_2452



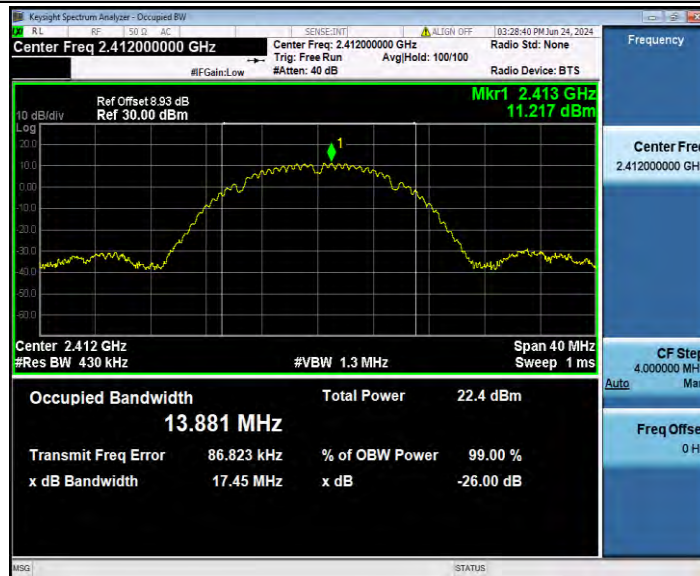
Appendix C.2: Occupied Channel Bandwidth

Test Result

TestMode	Antenna	Channel Frequency[MHz]	OCB [MHz]	FL[MHz]	FH[MHz]
11B	Ant1	2412	13.881	2405.1463	2419.0273
		2437	13.981	2430.0344	2444.0154
		2462	13.872	2455.0625	2468.9345
11G	Ant1	2412	17.254	2403.4277	2420.6817
		2437	17.145	2428.5330	2445.6780
		2462	17.143	2453.4143	2470.5573
11N20SISO	Ant1	2412	18.105	2402.9644	2421.0694
		2437	18.057	2428.0625	2446.1195
		2462	18.054	2453.0333	2471.0873
11N40SISO	Ant1	2422	36.201	2404.0305	2440.2315
		2437	36.116	2419.0483	2455.1643
		2452	36.084	2433.9984	2470.0824

Test Graphs

11B_Ant1_2412



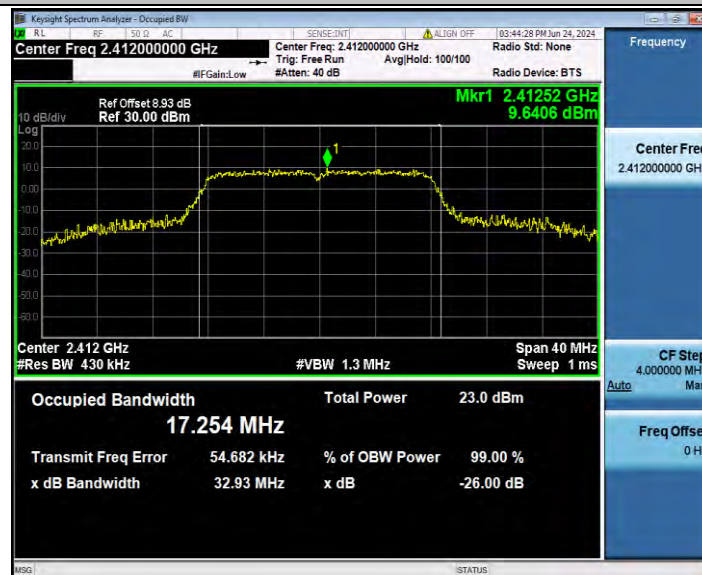
11B_Ant1_2437



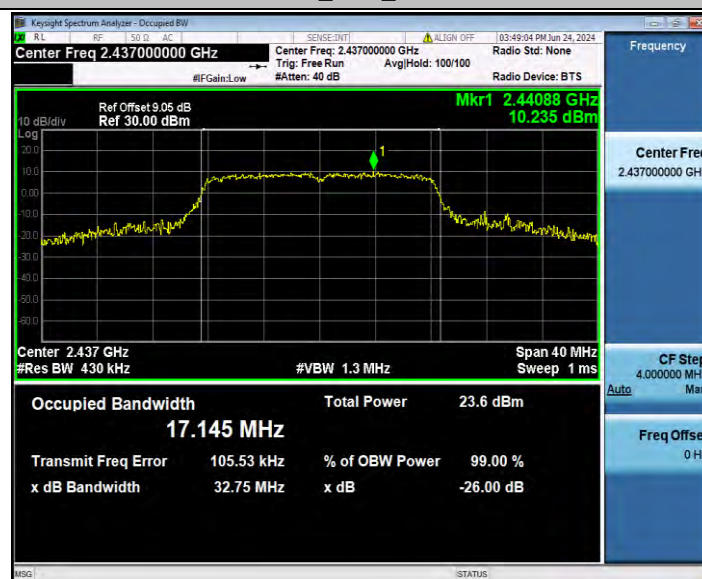
11B_Ant1_2462



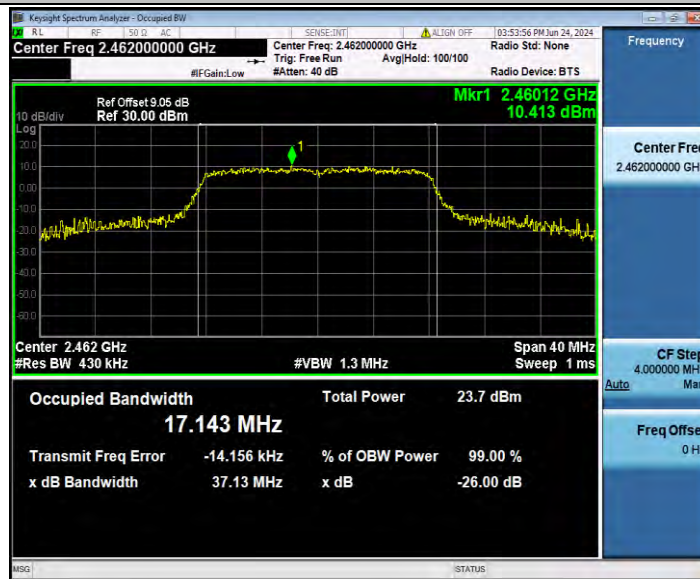
11G_Ant1_2412



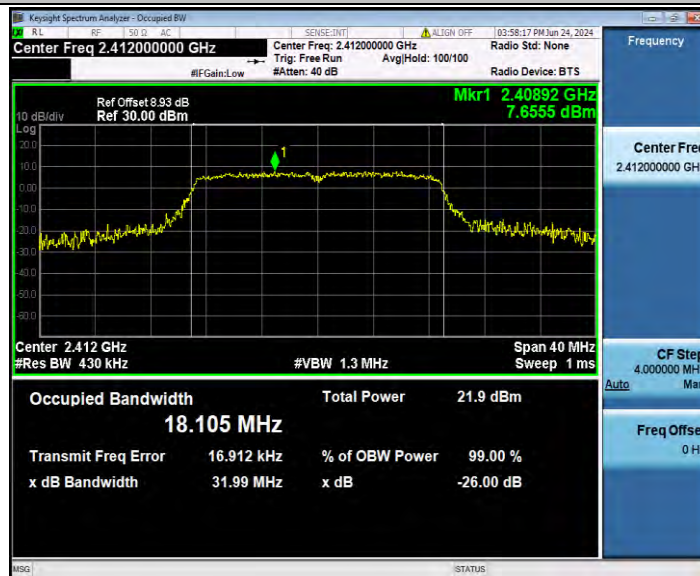
11G_Ant1_2437



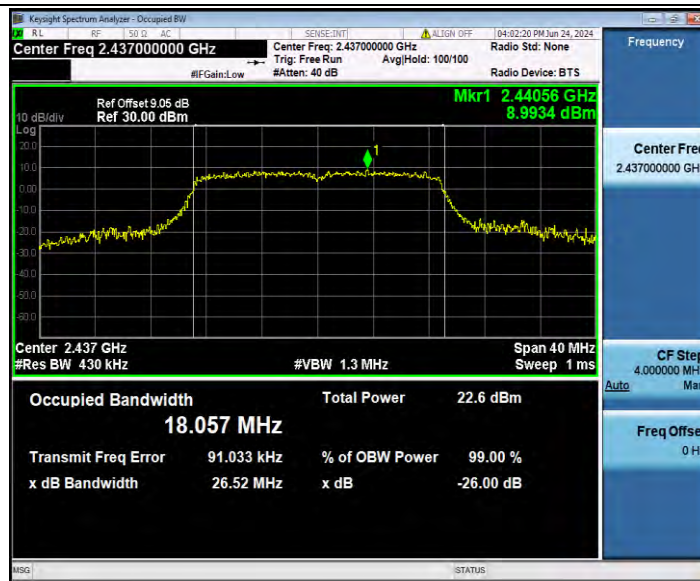
11G_Ant1_2462



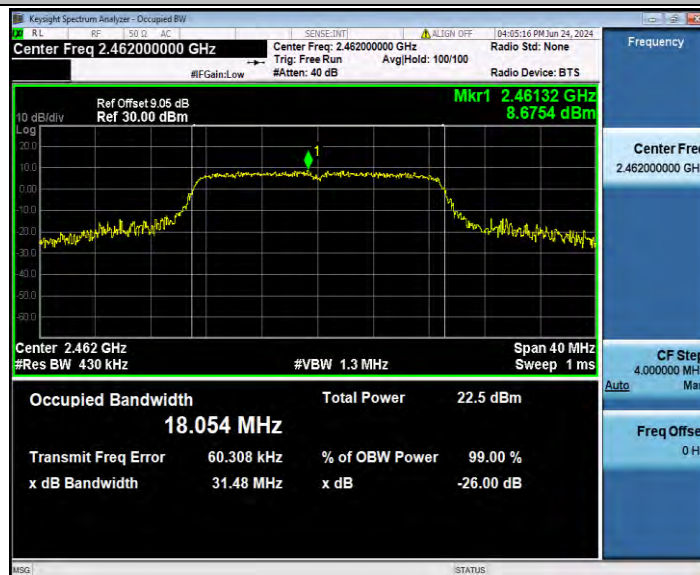
11N20SISO_Ant1_2412



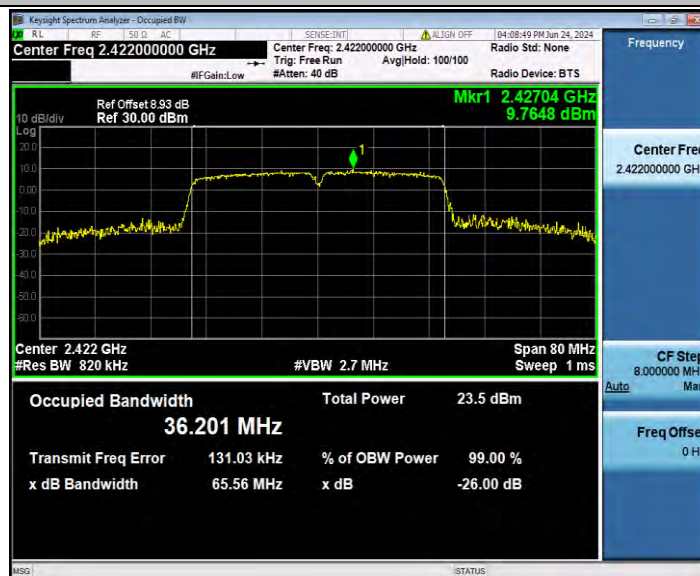
11N20SISO_Ant1_2437



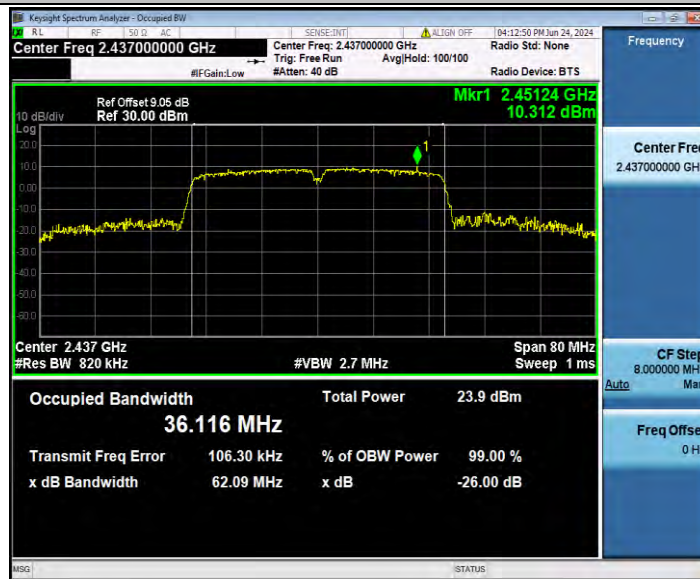
11N20SISO_Ant1_2462



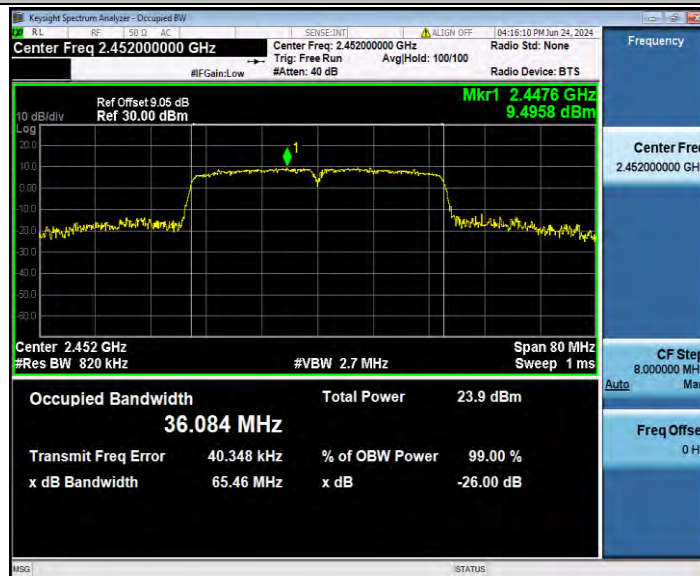
11N40SISO_Ant1_2422



11N40SISO_Ant1_2437



11N40SISO_Ant1_2452



Appendix C.3: Maximum conducted output power

Test Result -CHP

Test Mode	Antenna	Frequency[MHz]	Peak power [dBm]	Limit [dBm]	Verdict
11B	Ant1	2412	22.68	≤30.00	PASS
		2437	23.32	≤30.00	PASS
		2462	23.51	≤30.00	PASS
11G	Ant1	2412	24.19	≤30.00	PASS
		2437	24.79	≤30.00	PASS
		2462	24.95	≤30.00	PASS
11N20SISO	Ant1	2412	23.20	≤30.00	PASS
		2437	23.75	≤30.00	PASS
		2462	23.83	≤30.00	PASS
11N40SISO	Ant1	2422	23.84	≤30.00	PASS
		2437	24.18	≤30.00	PASS
		2452	24.16	≤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	-4.04	≤8.00	PASS
		2437	-2.85	≤8.00	PASS
		2462	-2.27	≤8.00	PASS
11G	Ant1	2412	-8.39	≤8.00	PASS
		2437	-7.85	≤8.00	PASS
		2462	-6.33	≤8.00	PASS
11N20SISO	Ant1	2412	-9.39	≤8.00	PASS
		2437	-8.76	≤8.00	PASS
		2462	-9.68	≤8.00	PASS
11N40SISO	Ant1	2422	-11.76	≤8.00	PASS
		2437	-12.14	≤8.00	PASS
		2452	-10.34	≤8.00	PASS

Note:

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

Test Graphs

11B_Ant1_2412



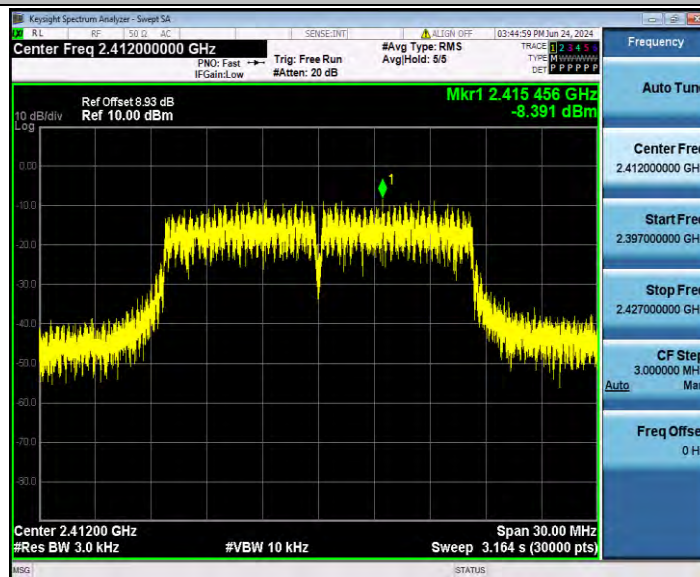
11B_Ant1_2437



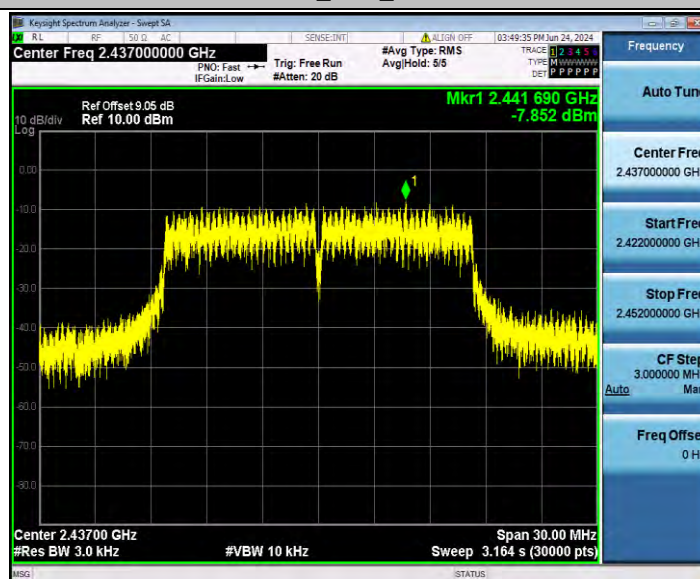
11B_Ant1_2462



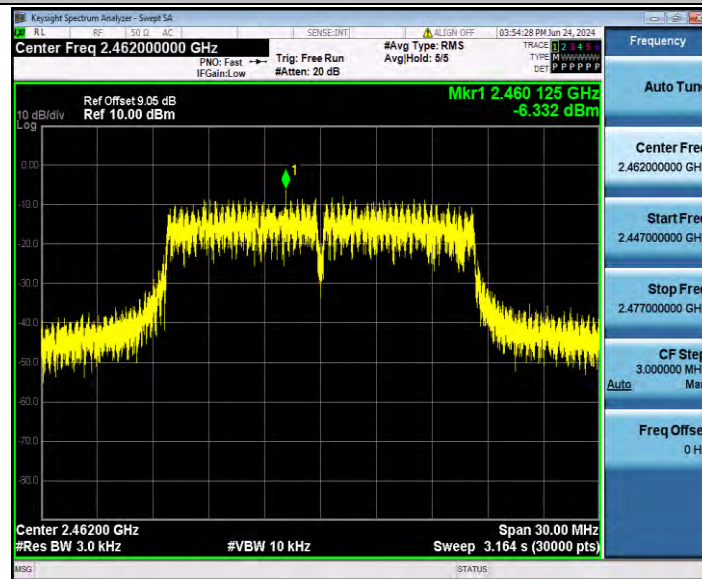
11G_Ant1_2412



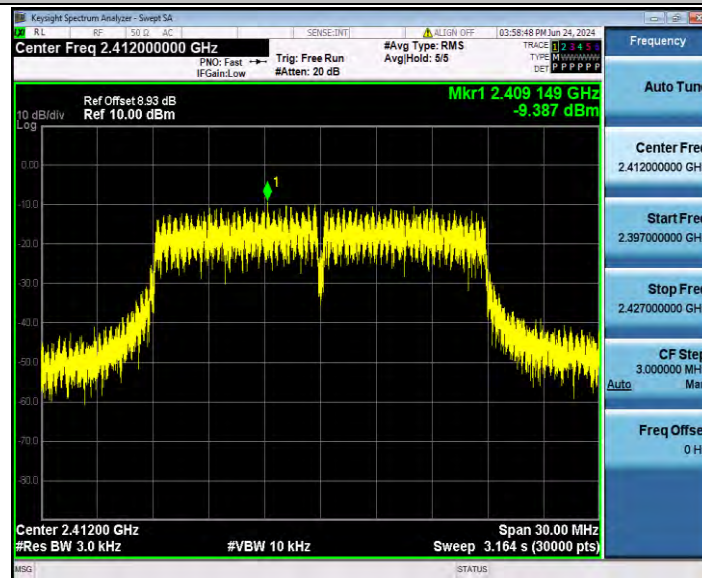
11G_Ant1_2437



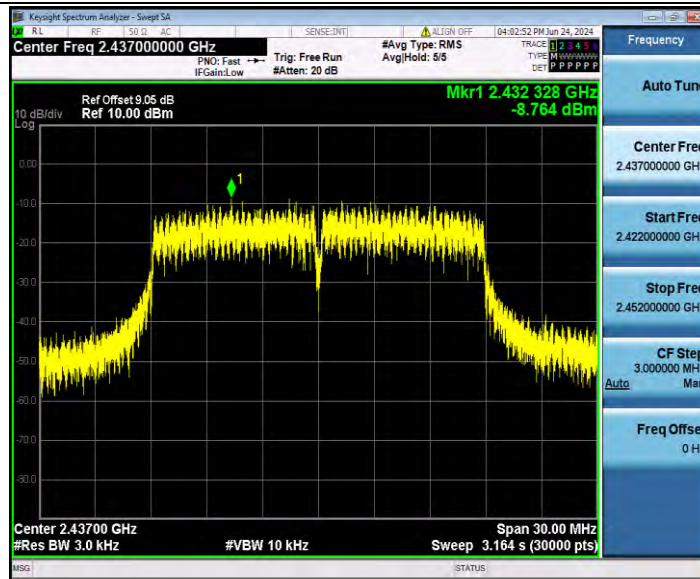
11G_Ant1_2462



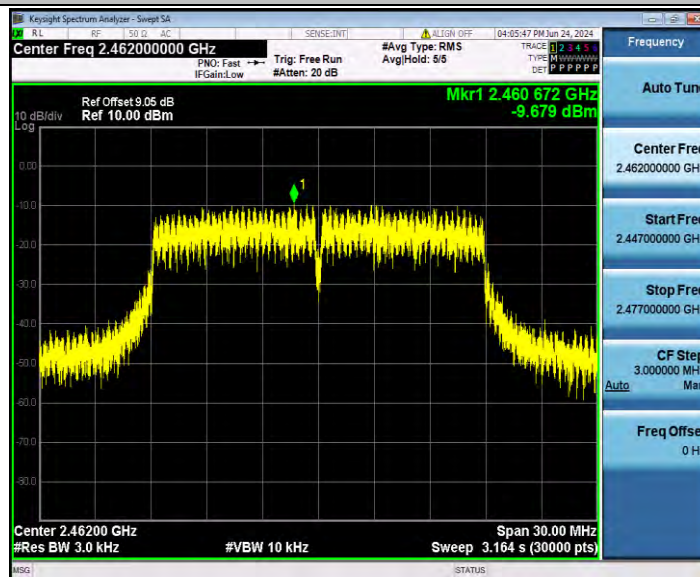
11N20SISO_Ant1_2412



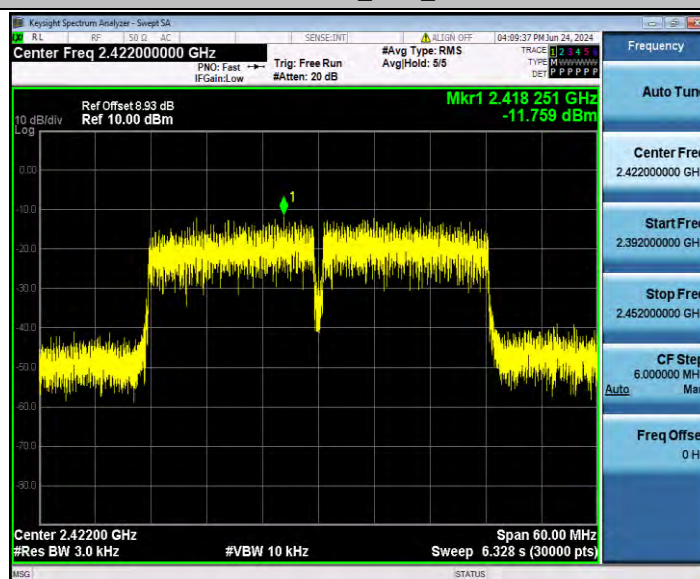
11N20SISO_Ant1_2437



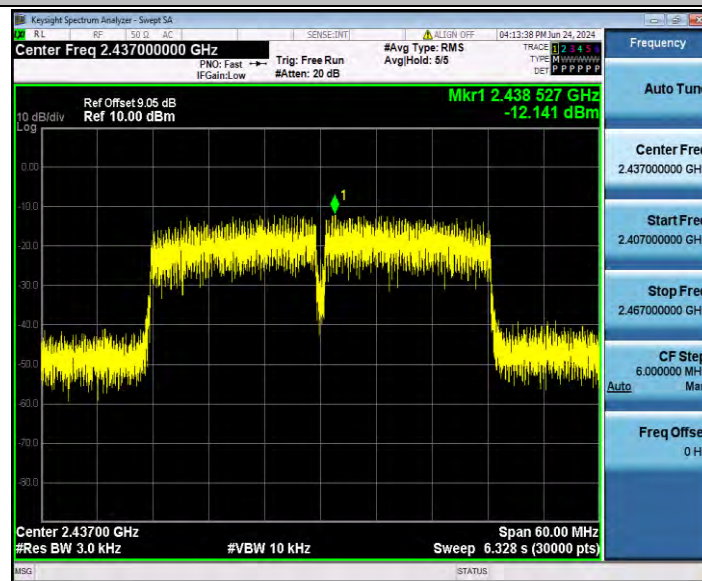
11N20SISO_Ant1_2462



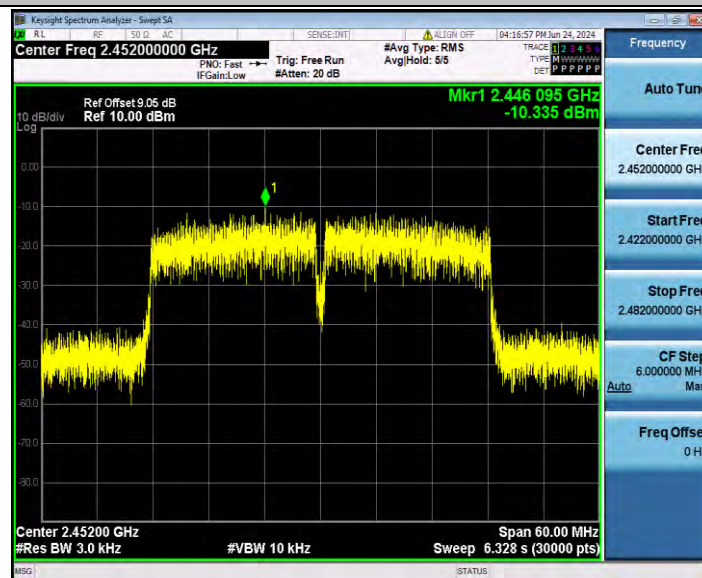
11N40SISO_Ant1_2422



11N40SISO_Ant1_2437



11N40SISO_Ant1_2452

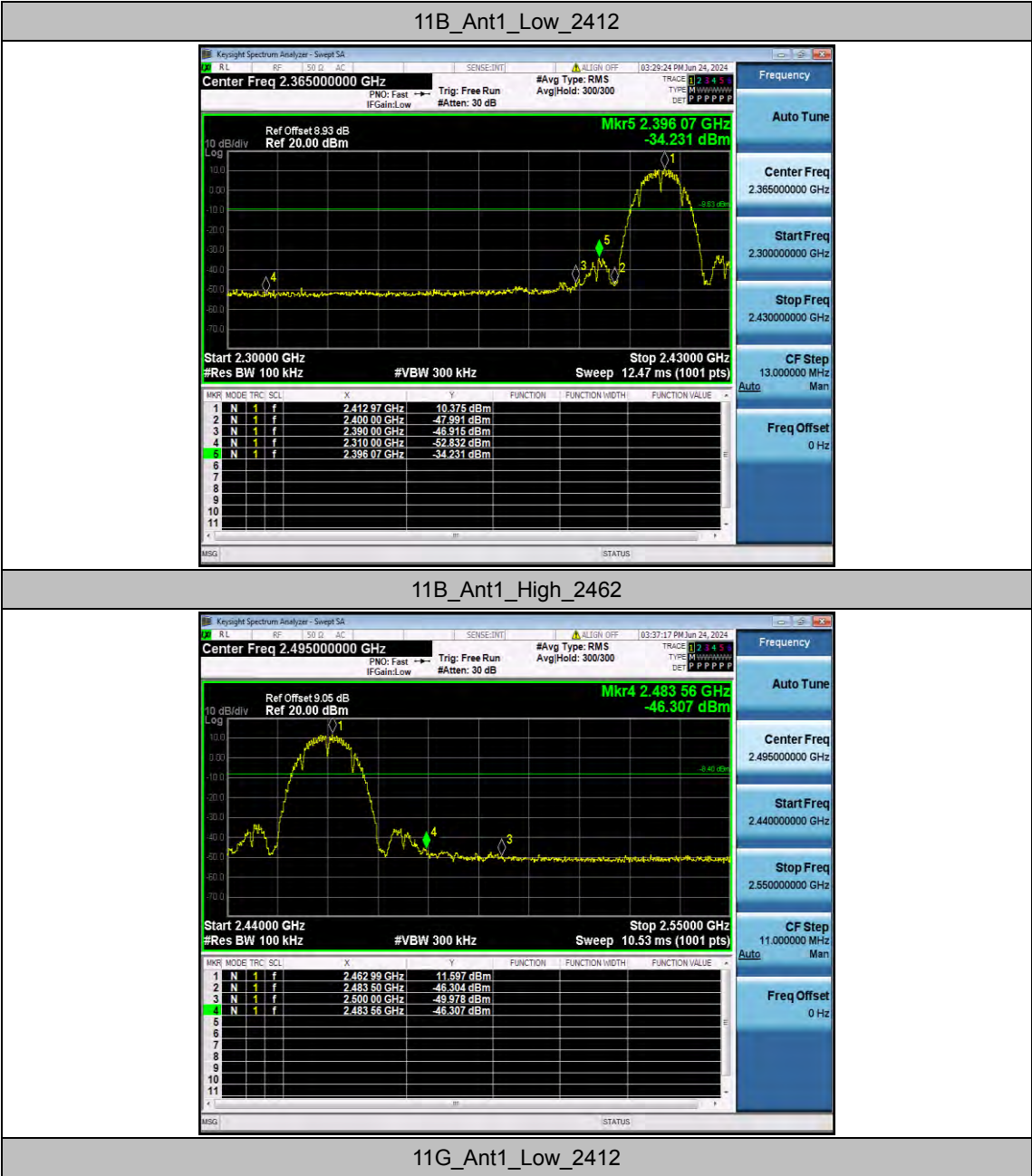


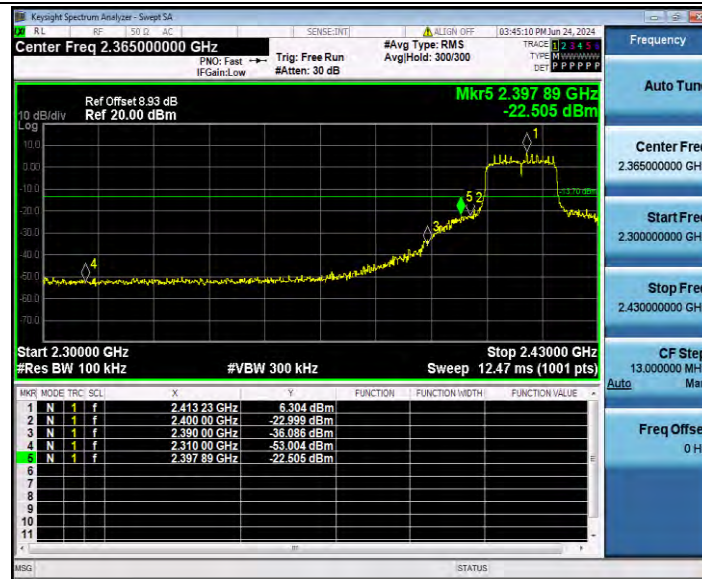
Appendix C.5: Band edge measurements

Test Result

TestMode	Antenna	ChName	Frequency[MHz]	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
11B	Ant1	Low	2412	10.38	-34.23	≤ -9.63	PASS
		High	2462	11.60	-46.31	≤ -8.4	PASS
11G	Ant1	Low	2412	6.30	-22.51	≤ -13.7	PASS
		High	2462	6.96	-31.91	≤ -13.04	PASS
11N20SISO	Ant1	Low	2412	4.67	-24.22	≤ -15.33	PASS
		High	2462	5.44	-32.2	≤ -14.56	PASS
11N40SISO	Ant1	Low	2422	2.93	-24.46	≤ -17.07	PASS
		High	2452	3.38	-24.89	≤ -16.62	PASS

Test Graphs

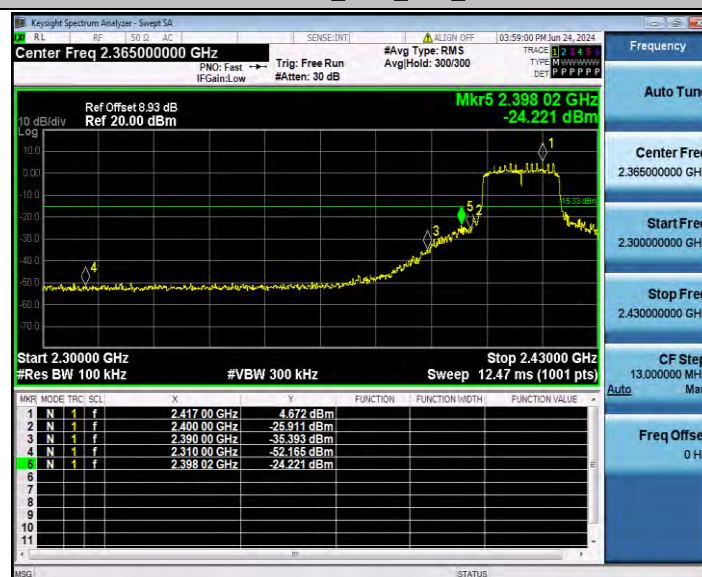




11G_Ant1_High_2462



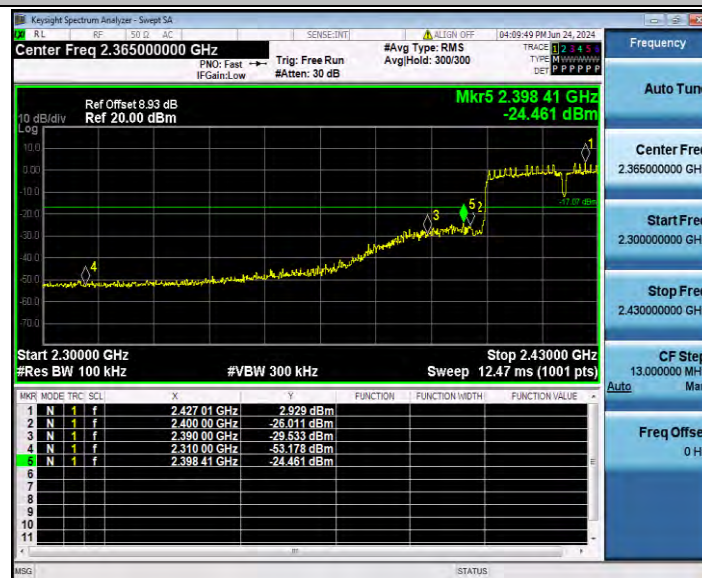
11N20SISO_Ant1_Low_2412



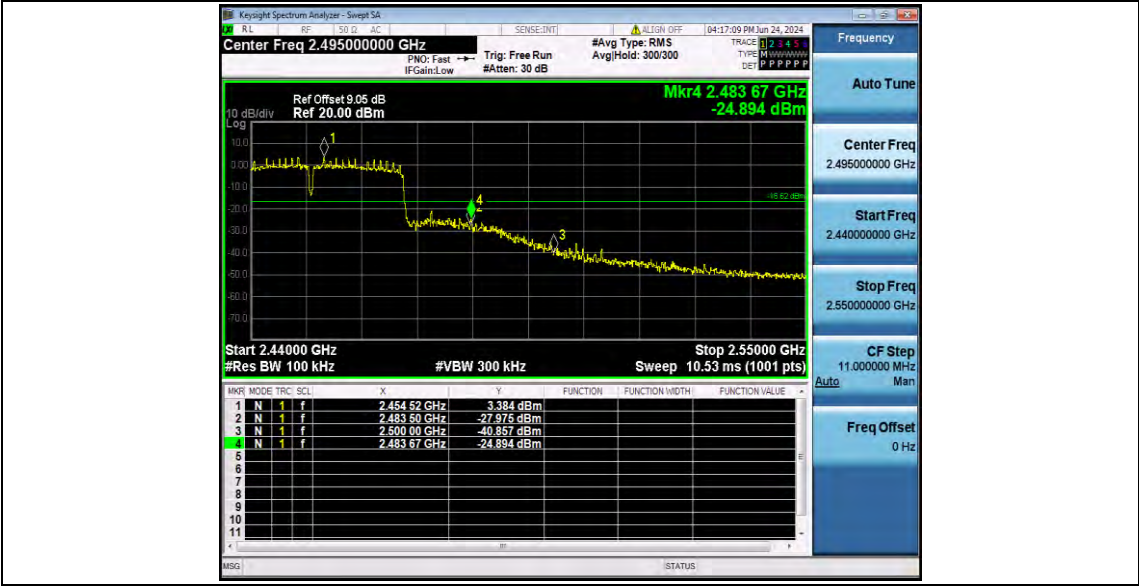
11N20SISO_Ant1_High_2462



11N40SISO_Ant1_Low_2422



11N40SISO_Ant1_High_2452

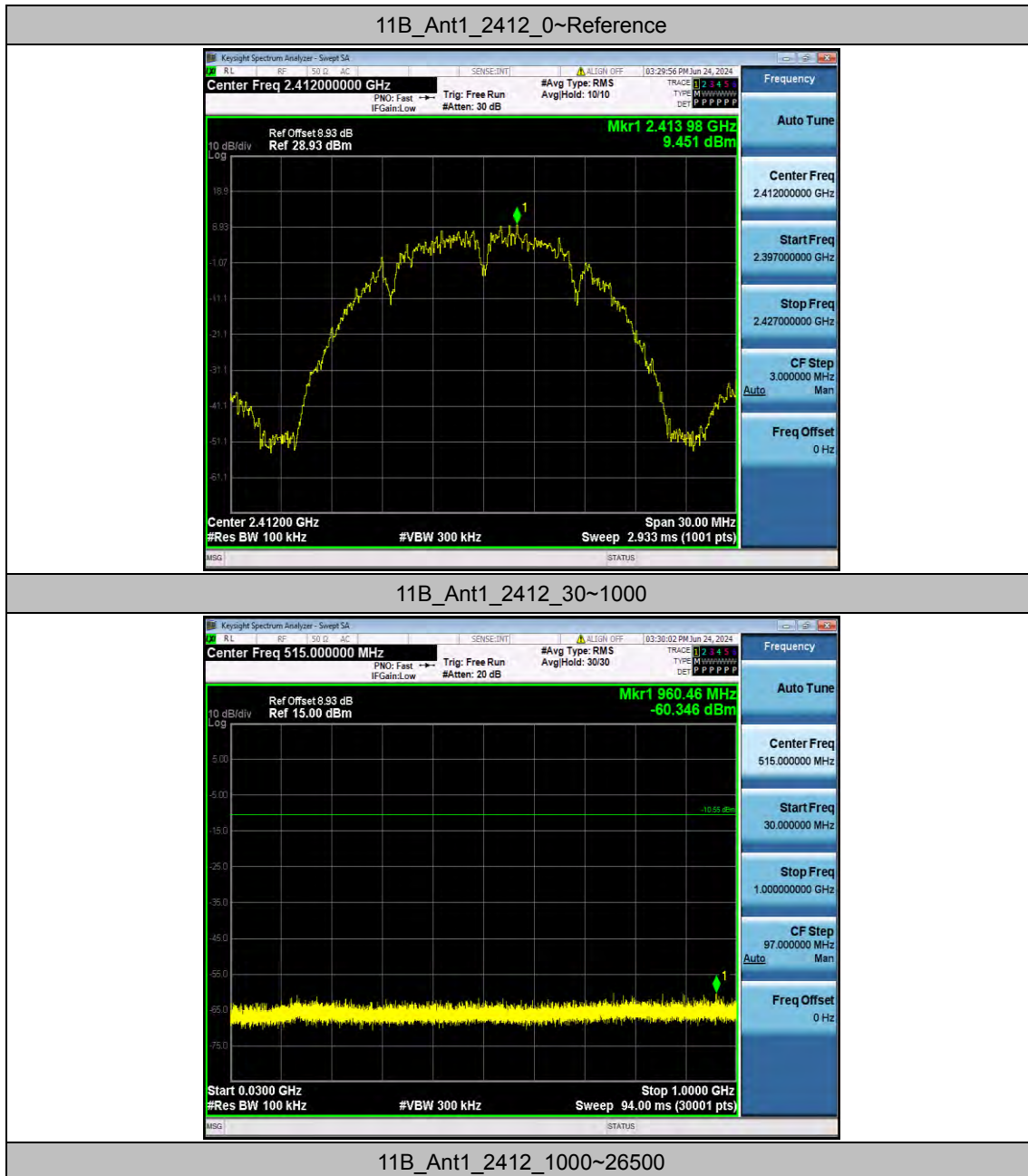


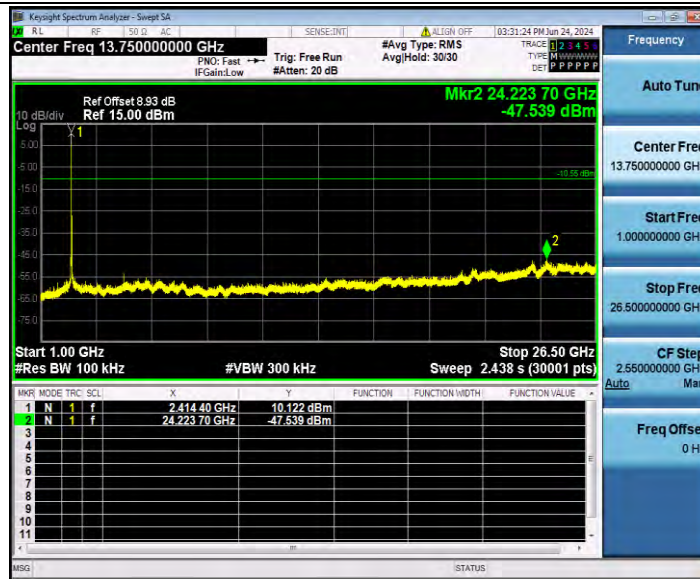
Appendix C.6: Conducted Spurious Emission

Test Result

TestMode	Antenna	Frequency[MHz]	FreqRange [Mhz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
11B	Ant1	2412	Reference	9.45	9.45	---	PASS
			30~1000	9.45	-60.35	≤ -10.55	PASS
			1000~26500	9.45	-47.54	≤ -10.55	PASS
		2437	Reference	10.15	10.15	---	PASS
			30~1000	10.15	-60.16	≤ -9.85	PASS
			1000~26500	10.15	-47.49	≤ -9.85	PASS
		2462	Reference	10.16	10.16	---	PASS
			30~1000	10.16	-59.77	≤ -9.84	PASS
			1000~26500	10.16	-47.8	≤ -9.84	PASS
11G	Ant1	2412	Reference	5.66	5.66	---	PASS
			30~1000	5.66	-61.11	≤ -14.34	PASS
			1000~26500	5.66	-48.16	≤ -14.34	PASS
		2437	Reference	6.08	6.08	---	PASS
			30~1000	6.08	-60.73	≤ -13.92	PASS
			1000~26500	6.08	-47.81	≤ -13.92	PASS
		2462	Reference	4.29	4.29	---	PASS
			30~1000	4.29	-59.32	≤ -15.71	PASS
			1000~26500	4.29	-47.3	≤ -15.71	PASS
11N20SISO	Ant1	2412	Reference	2.74	2.74	---	PASS
			30~1000	2.74	-60.95	≤ -17.26	PASS
			1000~26500	2.74	-47.57	≤ -17.26	PASS
		2437	Reference	1.88	1.88	---	PASS
			30~1000	1.88	-60.43	≤ -18.12	PASS
			1000~26500	1.88	-47.54	≤ -18.12	PASS
		2462	Reference	4.57	4.57	---	PASS
			30~1000	4.57	-60.84	≤ -15.43	PASS
			1000~26500	4.57	-47.39	≤ -15.43	PASS
11N40SISO	Ant1	2422	Reference	1.82	1.82	---	PASS
			30~1000	1.82	-59.98	≤ -18.18	PASS
			1000~26500	1.82	-47.69	≤ -18.18	PASS
		2437	Reference	2.54	2.54	---	PASS
			30~1000	2.54	-60.6	≤ -17.46	PASS
			1000~26500	2.54	-47.97	≤ -17.46	PASS
		2452	Reference	2.30	2.30	---	PASS
			30~1000	2.30	-60.08	≤ -17.7	PASS
			1000~26500	2.30	-48.02	≤ -17.7	PASS

Test Graphs

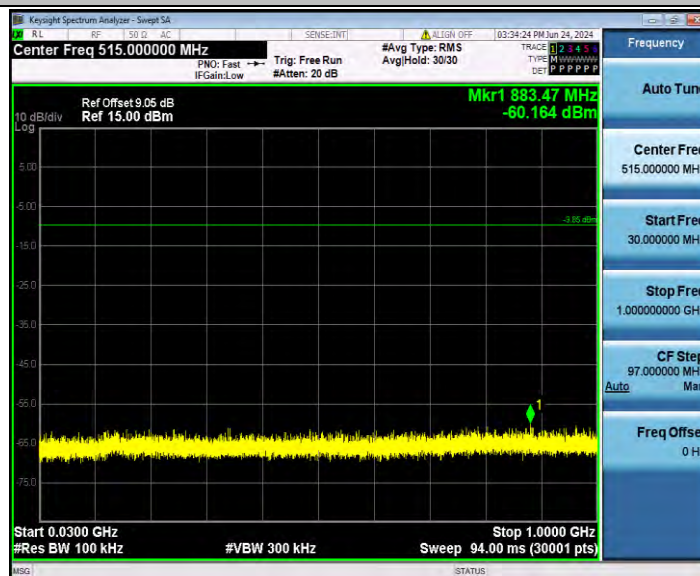




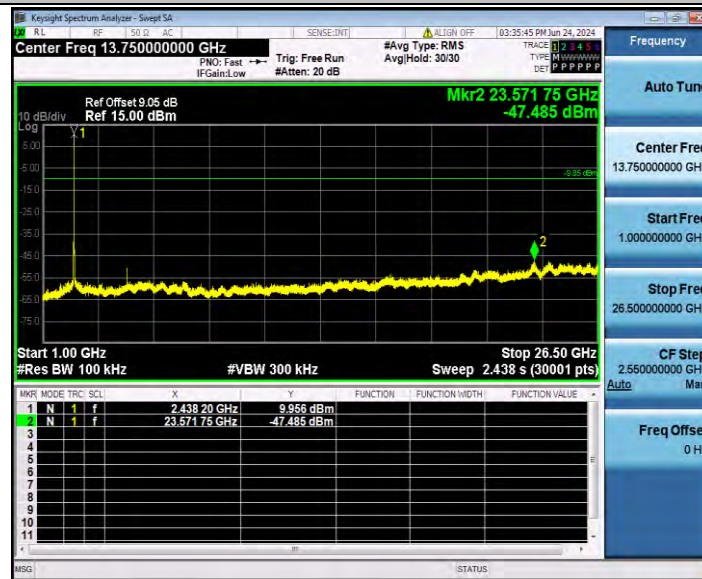
11B_Ant1_2437_0~Reference



11B_Ant1_2437_30~1000



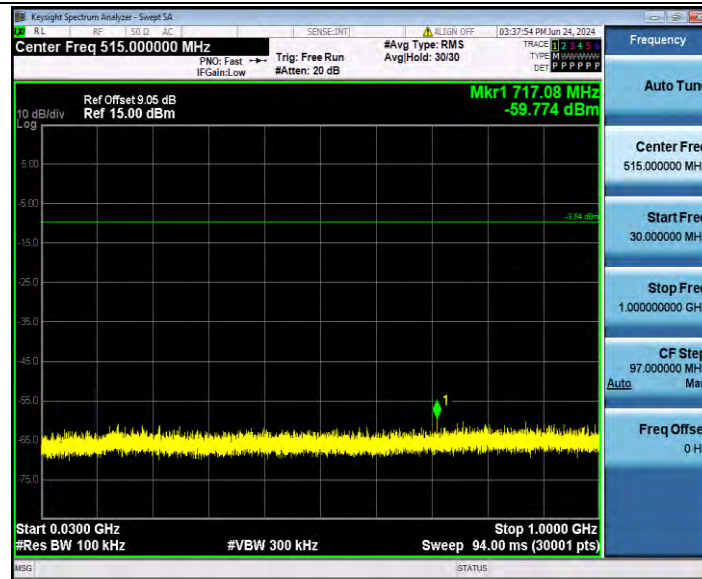
11B_Ant1_2437_1000~26500



11B_Ant1_2462_0~Reference



11B_Ant1_2462_30~1000



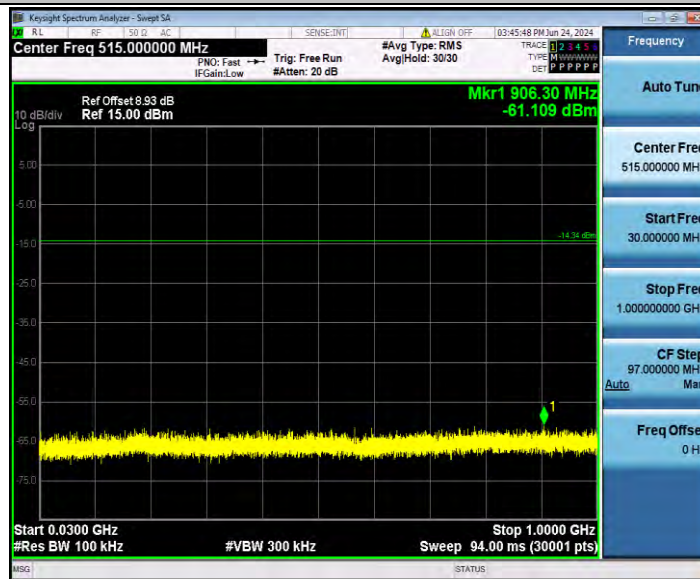
11B_Ant1_2462_1000~26500



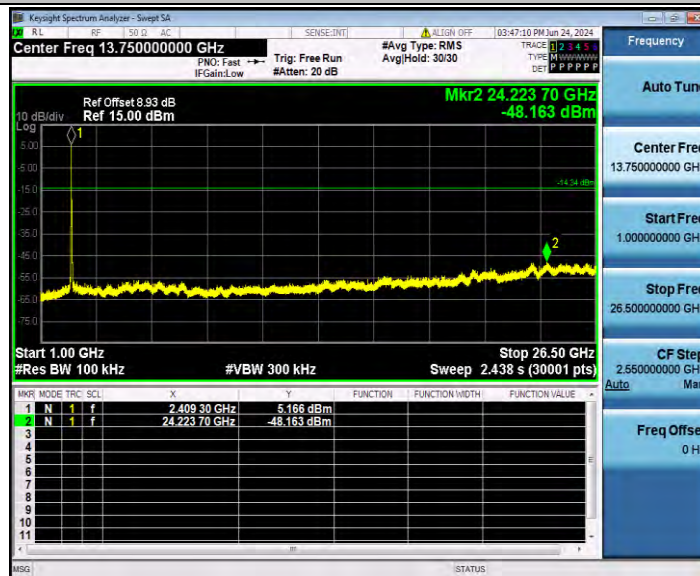
11G_Ant1_2412_0~Reference



11G_Ant1_2412_30~1000



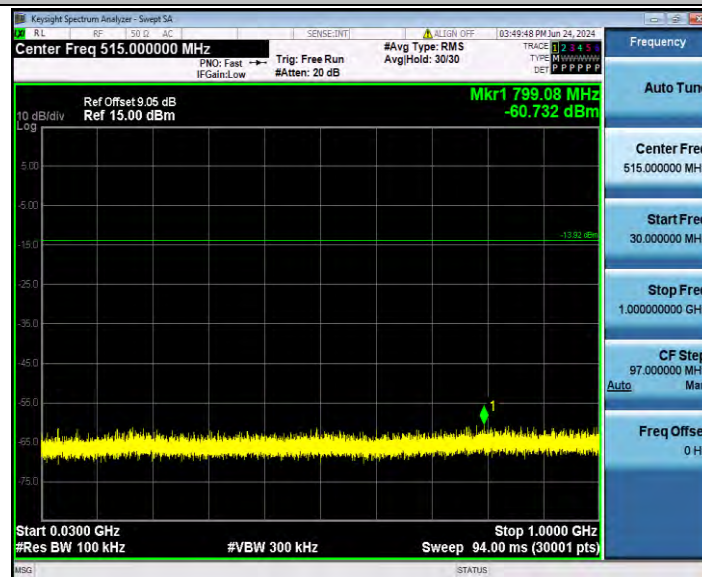
11G_Ant1_2412_1000~26500



11G_Ant1_2437_0~Reference



11G_Ant1_2437_30~1000



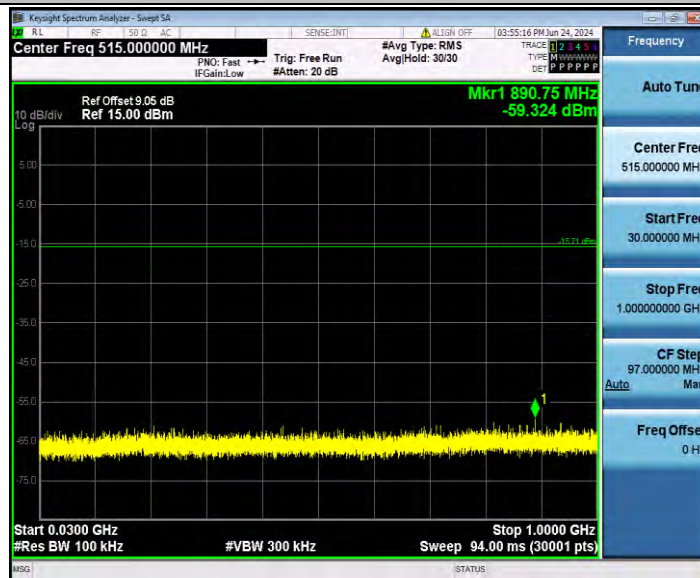
11G_Ant1_2437_1000~26500



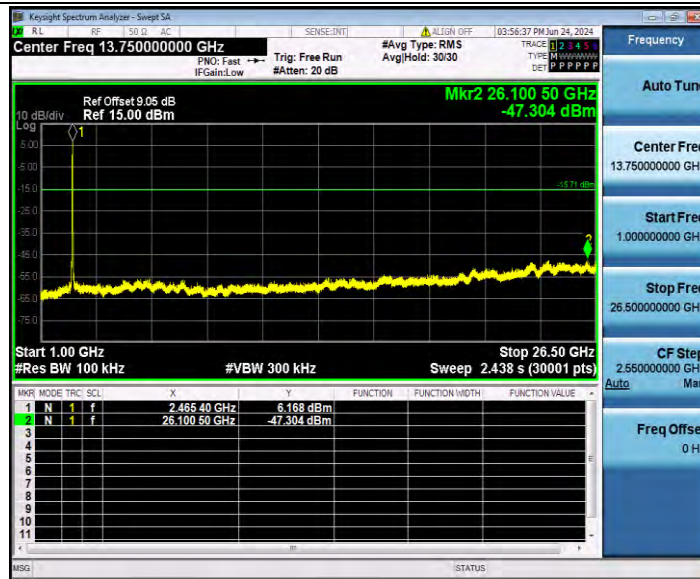
11G_Ant1_2462_0~Reference



11G_Ant1_2462_30~1000



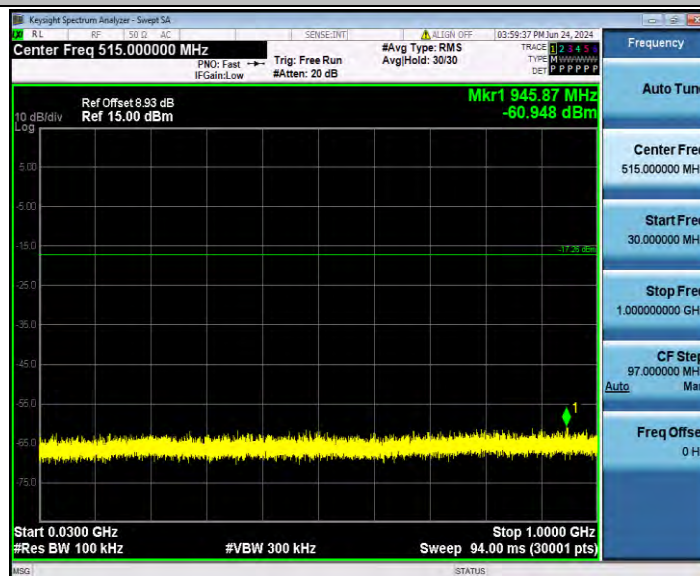
11G_Ant1_2462_1000~26500



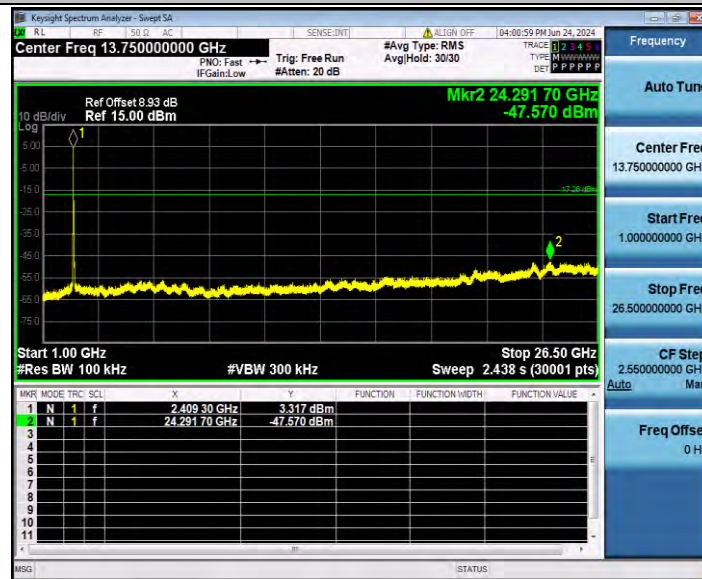
11N20SISO_Ant1_2412_0~Reference



11N20SISO_Ant1_2412_30~1000



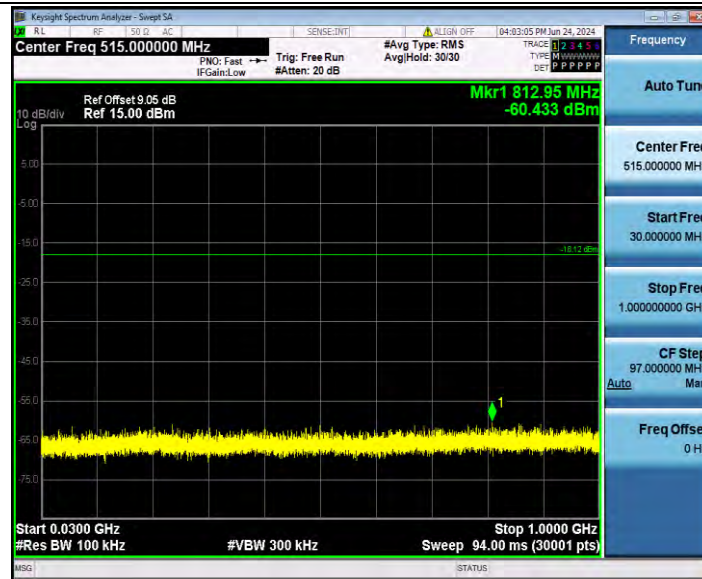
11N20SISO_Ant1_2412_1000~26500



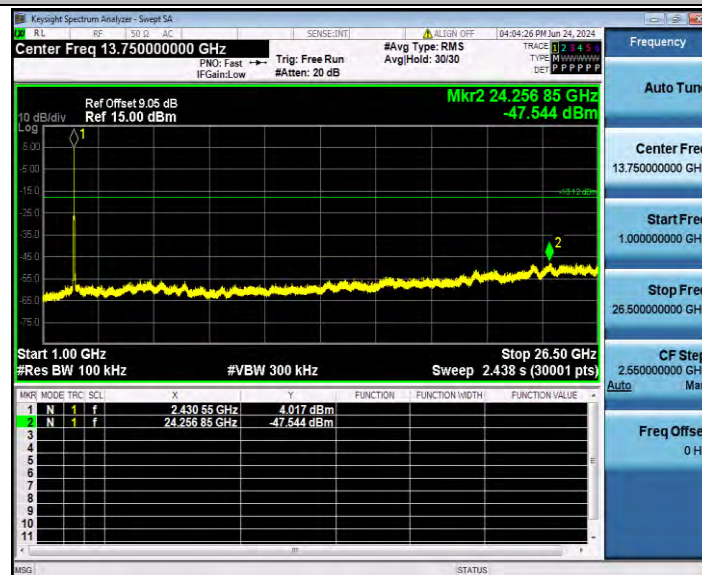
11N20SISO_Ant1_2437_0~Reference



11N20SISO_Ant1_2437_30~1000

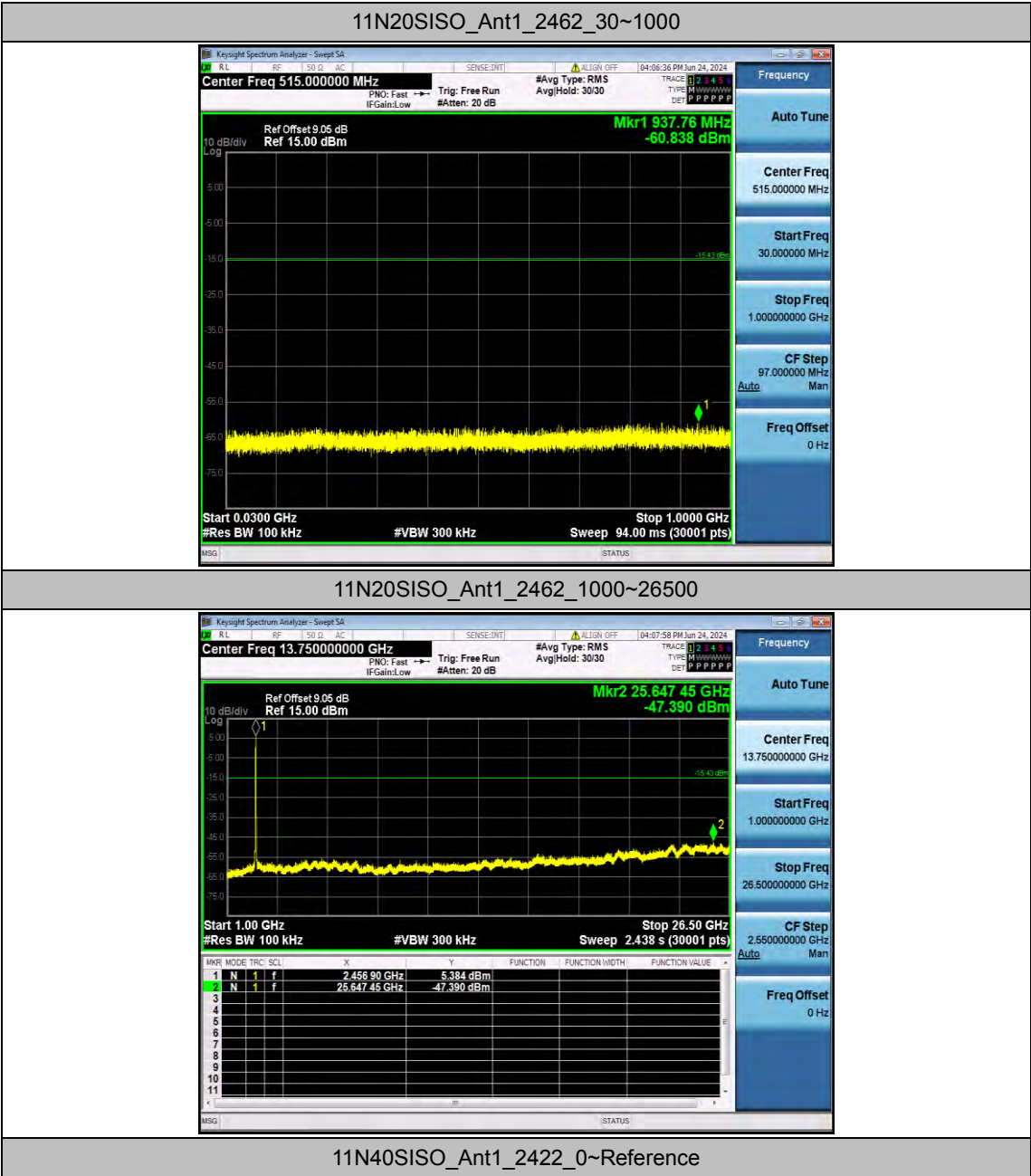


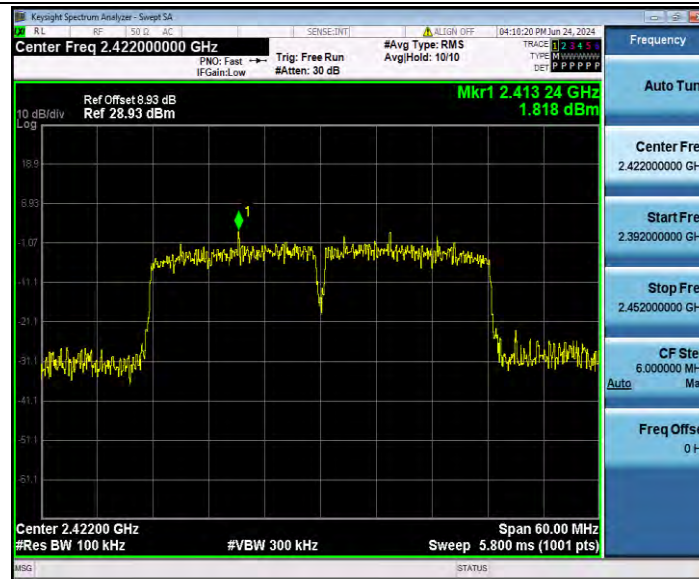
11N20SISO_Ant1_2437_1000~26500



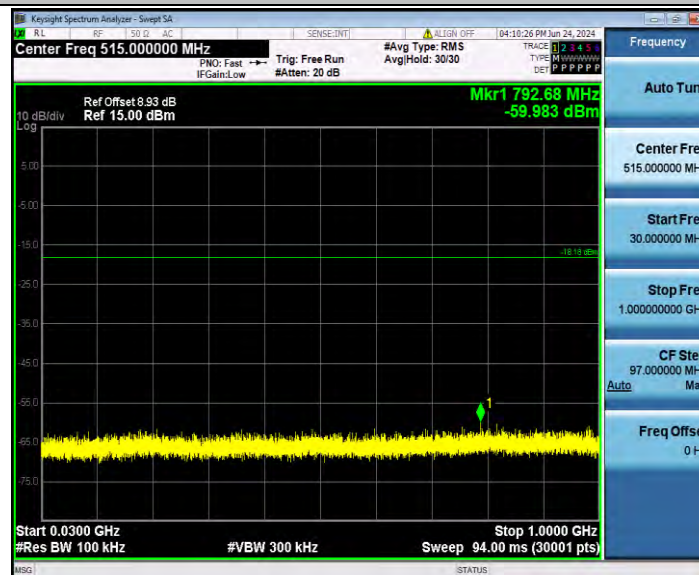
11N20SISO_Ant1_2462_0~Reference



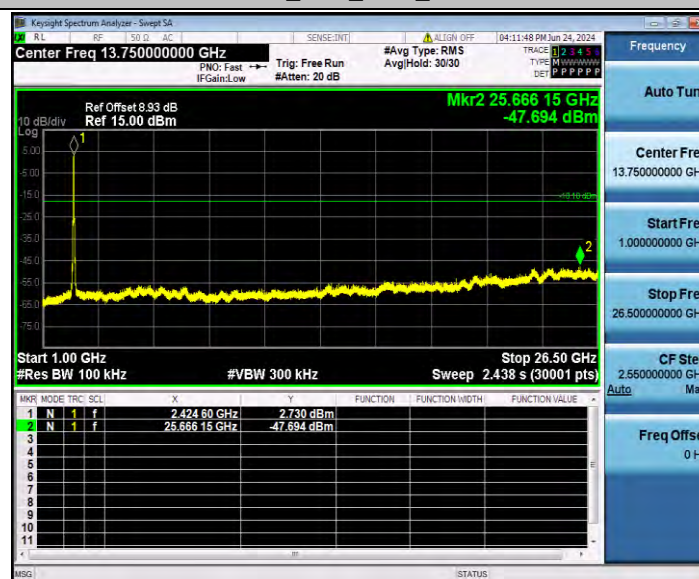




11N40SISO_Ant1_2422_30~1000



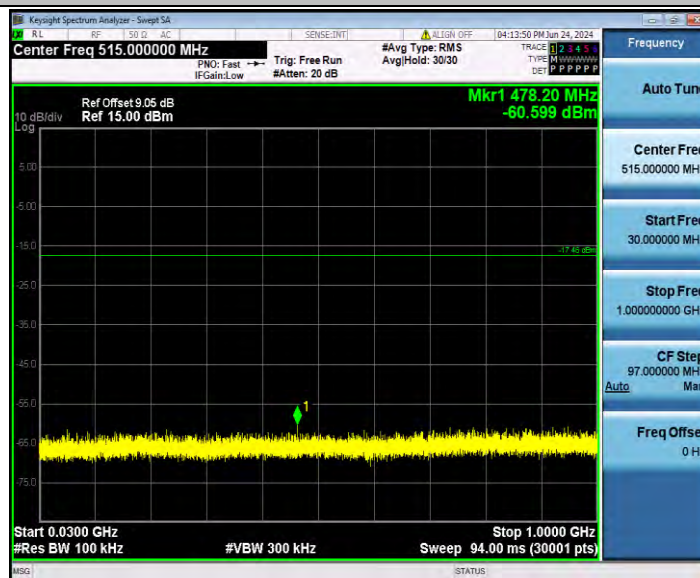
11N40SISO_Ant1_2422_1000~26500



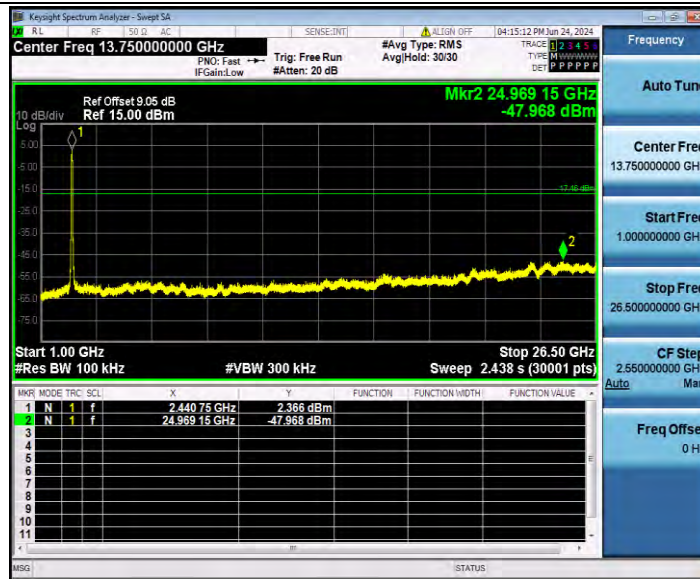
11N40SISO_Ant1_2437_0~Reference



11N40SISO_Ant1_2437_30~1000



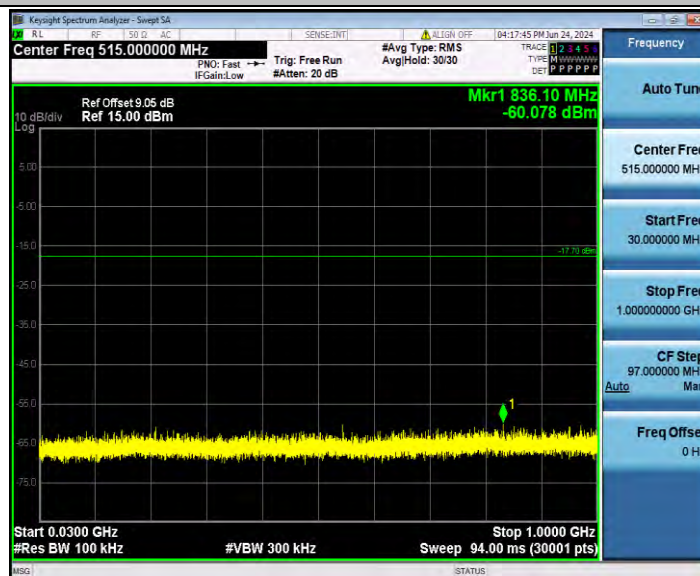
11N40SISO_Ant1_2437_1000~26500



11N40SISO_Ant1_2452_0~Reference



11N40SISO_Ant1_2452_30~1000





Appendix C.7: Emissions in Restricted Bands

Test Result

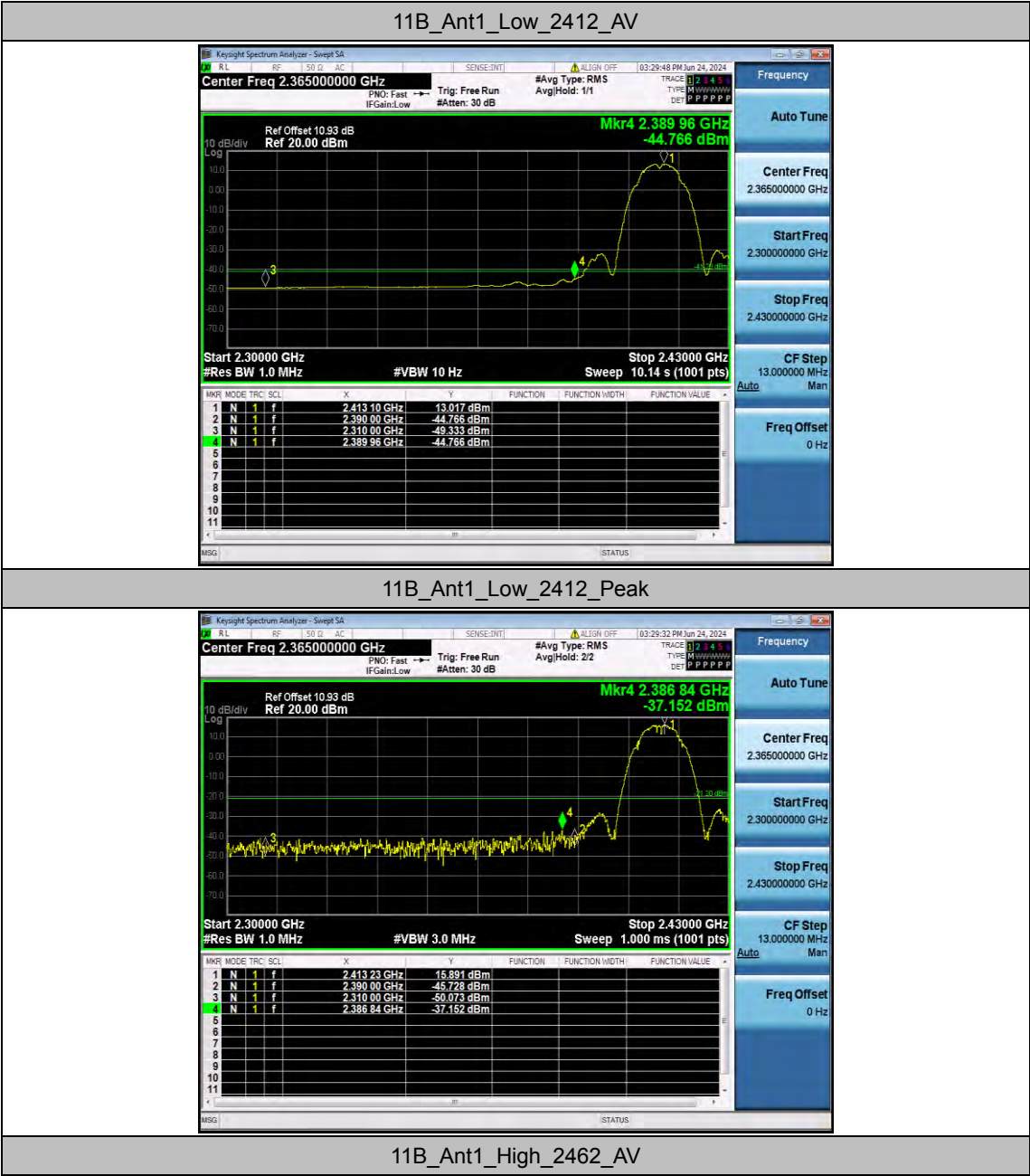
TestMode	Antenna	ChName	Frequency[MHz]	Detector	Freq [MHz]	Result [dBm]	Limit [dBm]	Result [dBuV/m]	Limit [dBuV/m]	Verdict
11B	Ant1	Low	2412	AV	2310.000	-49.33	≤-41.20	45.87	≤54	PASS
				AV	2389.960	-44.77	≤-41.20	50.43	≤54	PASS
				AV	2390.000	-44.77	≤-41.20	50.43	≤54	PASS
				Peak	2310.000	-50.07	≤-21.20	45.13	≤74	PASS
				Peak	2386.840	-37.15	≤-21.20	58.05	≤74	PASS
				Peak	2390.000	-45.73	≤-21.20	49.47	≤74	PASS
		High	2462	AV	2483.500	-43.25	≤-41.20	51.95	≤54	PASS
				AV	2483.560	-43.45	≤-41.20	51.75	≤54	PASS
				AV	2500.000	-46.69	≤-41.20	48.51	≤54	PASS
				Peak	2483.500	-42.7	≤-21.20	52.50	≤74	PASS
				Peak	2486.970	-38.65	≤-21.20	56.55	≤74	PASS
				Peak	2500.000	-46.01	≤-21.20	49.19	≤74	PASS
11G	Ant1	Low	2412	AV	2310.000	-49.64	≤-41.20	45.56	≤54	PASS
				AV	2389.960	-44.87	≤-41.20	50.33	≤54	PASS
				AV	2390.000	-44.87	≤-41.20	50.33	≤54	PASS
				Peak	2310.000	-45.6	≤-21.20	49.60	≤74	PASS
				Peak	2389.830	-35.5	≤-21.20	59.70	≤74	PASS
				Peak	2390.000	-44.71	≤-21.20	50.49	≤74	PASS
		High	2462	AV	2483.500	-42.31	≤-41.20	52.89	≤54	PASS
				AV	2483.560	-42.46	≤-41.20	52.74	≤54	PASS
				AV	2500.000	-48.61	≤-41.20	46.59	≤54	PASS
				Peak	2483.500	-45.59	≤-21.20	49.61	≤74	PASS
				Peak	2483.780	-33.19	≤-21.20	62.01	≤74	PASS
				Peak	2500.000	-44.52	≤-21.20	50.68	≤74	PASS
11N20SISO	Ant1	Low	2412	AV	2310.000	-49.64	≤-41.20	45.56	≤54	PASS
				AV	2389.570	-46.42	≤-41.20	48.78	≤54	PASS
				AV	2390.000	-46.44	≤-41.20	48.76	≤54	PASS
				Peak	2310.000	-44.62	≤-21.20	50.58	≤74	PASS
				Peak	2389.570	-39.54	≤-21.20	55.66	≤74	PASS
				Peak	2390.000	-44.31	≤-21.20	50.89	≤74	PASS
		High	2462	AV	2483.500	-43.08	≤-41.20	52.12	≤54	PASS
				AV	2483.560	-43.15	≤-41.20	52.05	≤54	PASS
				AV	2500.000	-48.7	≤-41.20	46.50	≤54	PASS
				Peak	2483.500	-42.88	≤-21.20	52.32	≤74	PASS

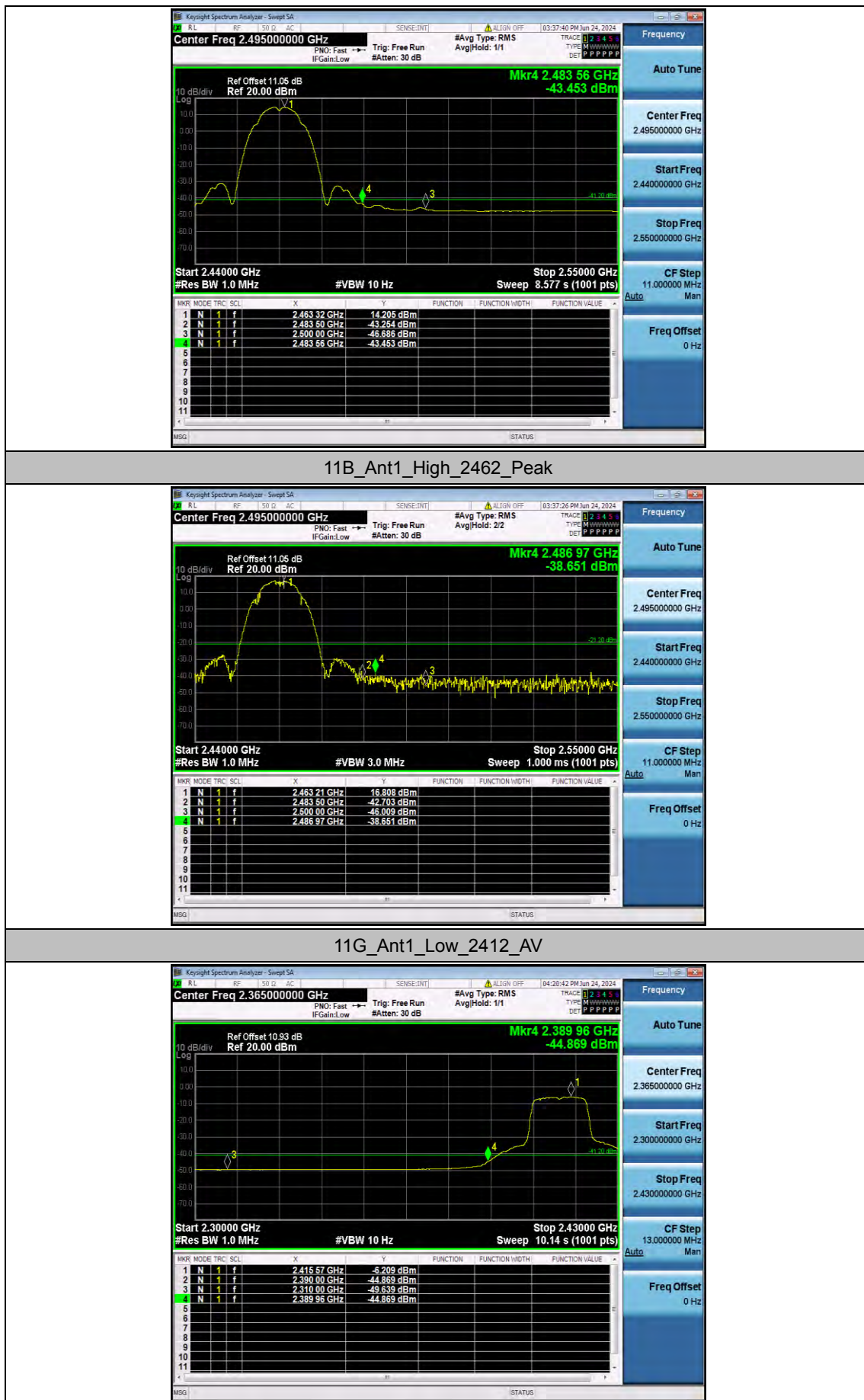
11N40SISO	Ant1			Peak	2483.560	-36.06	≤-21.20	59.14	≤74	PASS
				Peak	2500.000	-45.52	≤-21.20	49.68	≤74	PASS
		Low	2422	AV	2310.000	-49.63	≤-41.20	45.57	≤54	PASS
				AV	2389.440	-46.18	≤-41.20	49.02	≤54	PASS
				AV	2390.000	-46.22	≤-41.20	48.98	≤54	PASS
				Peak	2310.000	-46.51	≤-21.20	48.69	≤74	PASS
				Peak	2389.960	-36.68	≤-21.20	58.52	≤74	PASS
				Peak	2390.000	-36.68	≤-21.20	58.52	≤74	PASS
		High	2452	AV	2483.500	-43.94	≤-41.20	51.26	≤54	PASS
				AV	2483.560	-43.99	≤-41.20	51.21	≤54	PASS
				AV	2500.000	-48.2	≤-41.20	47.00	≤54	PASS
				Peak	2483.500	-39.01	≤-21.20	56.19	≤74	PASS
				Peak	2485.760	-31.51	≤-21.20	63.69	≤74	PASS
				Peak	2500.000	-46.53	≤-21.20	48.67	≤74	PASS

Note:

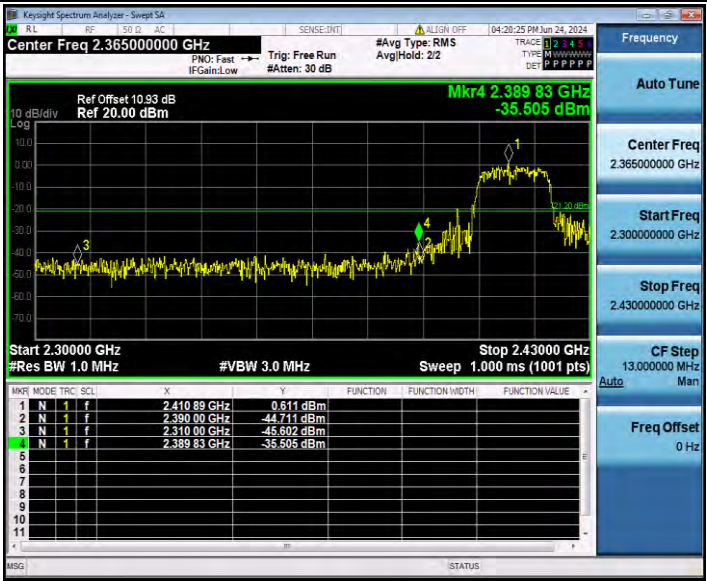
1. The Antenna Gain is compensated in the graph.
2. The Duty Cycle Factor and RBW Factor is compensated in the graph.
3. The limit in dBm for average detector is conversion from 54dBuV/m, according to 15.209(a). The limit in dBm for peak detector is 20dB above the limit of average detector in dBm.

Test Graphs

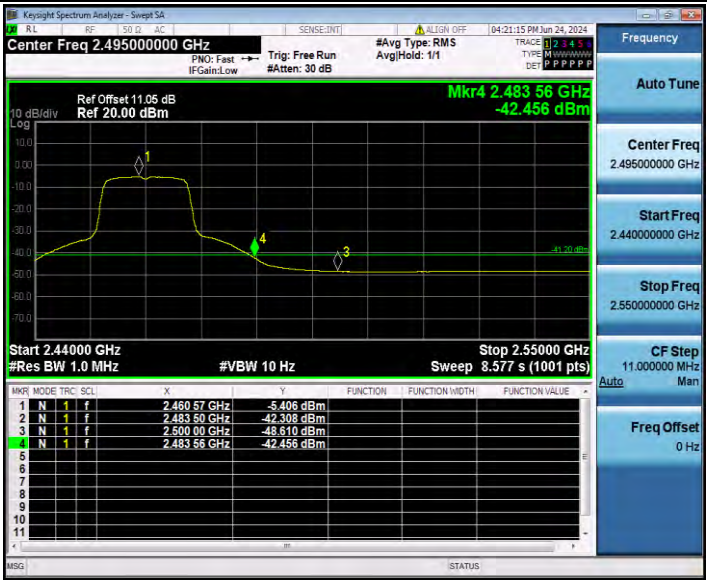




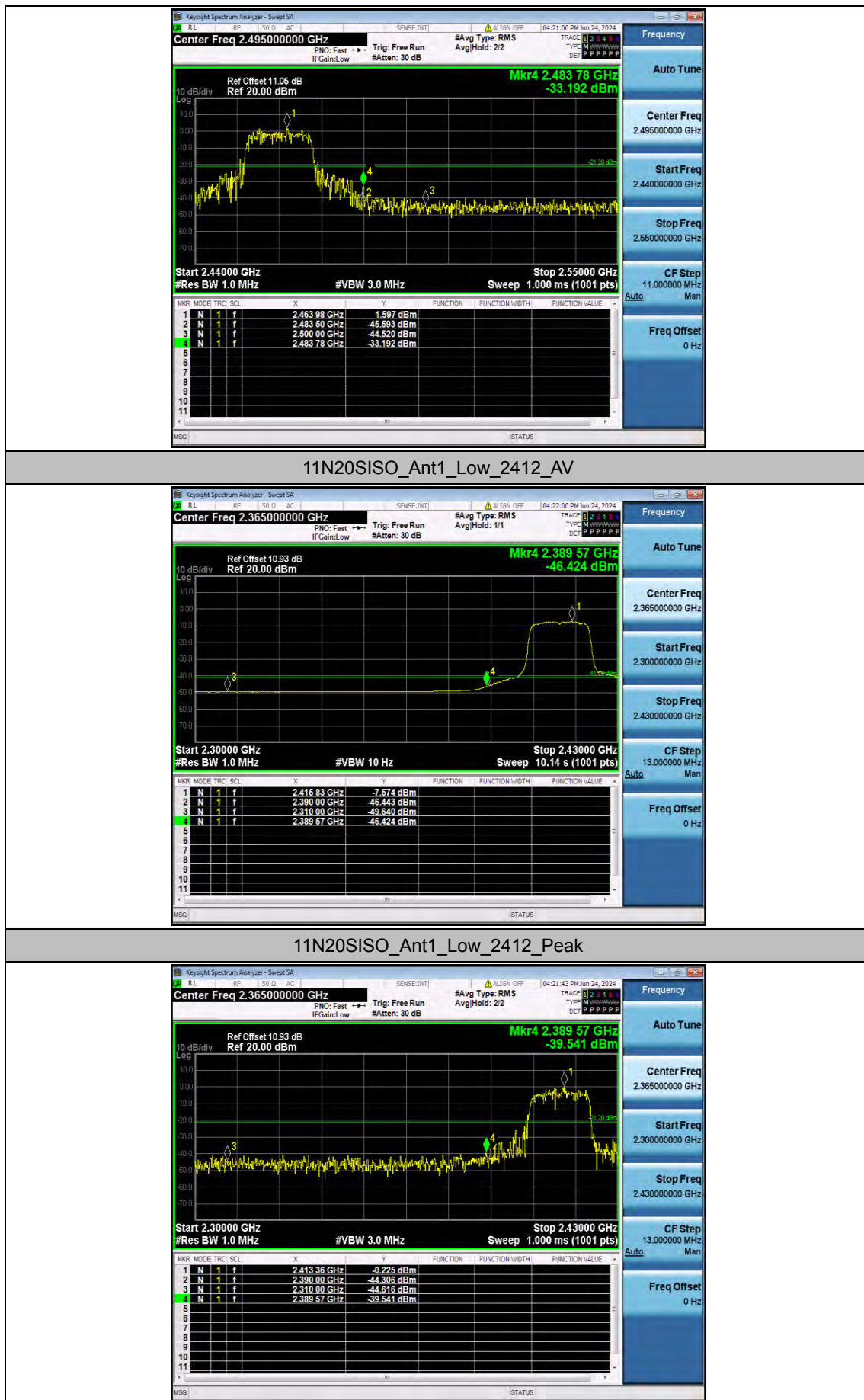
11G_Ant1_Low_2412_Peak



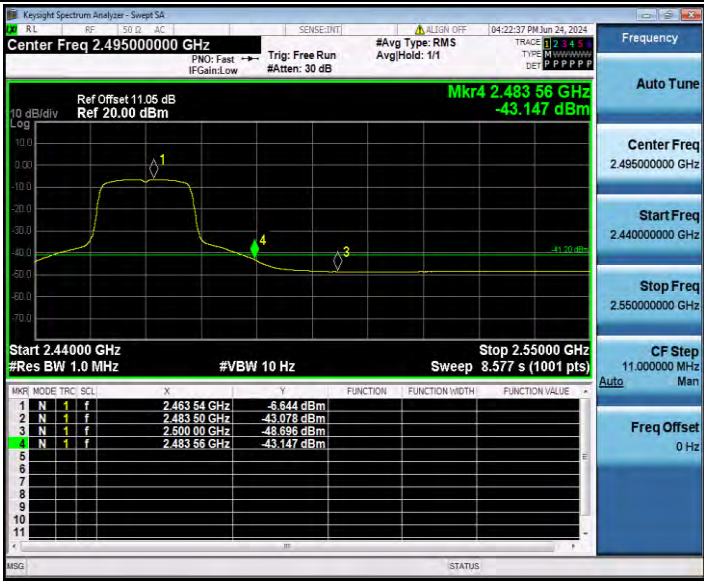
11G_Ant1_High_2462_AV



11G_Ant1_High_2462_Peak



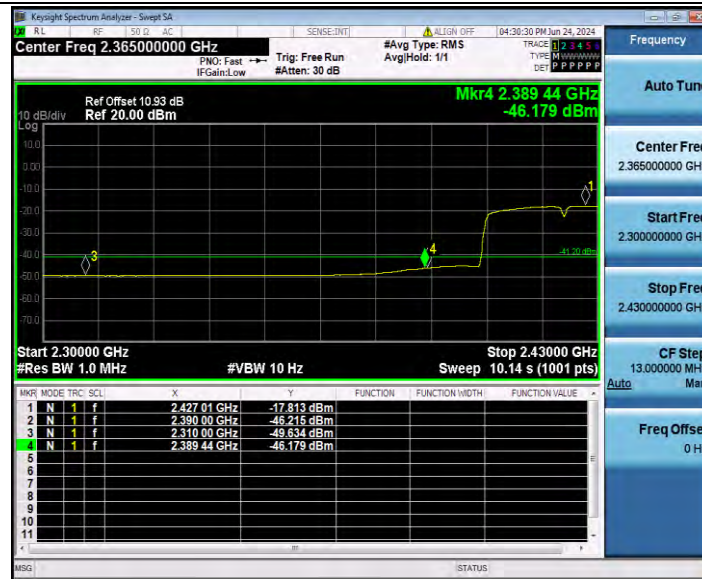
11N20SISO_Ant1_High_2462_AV



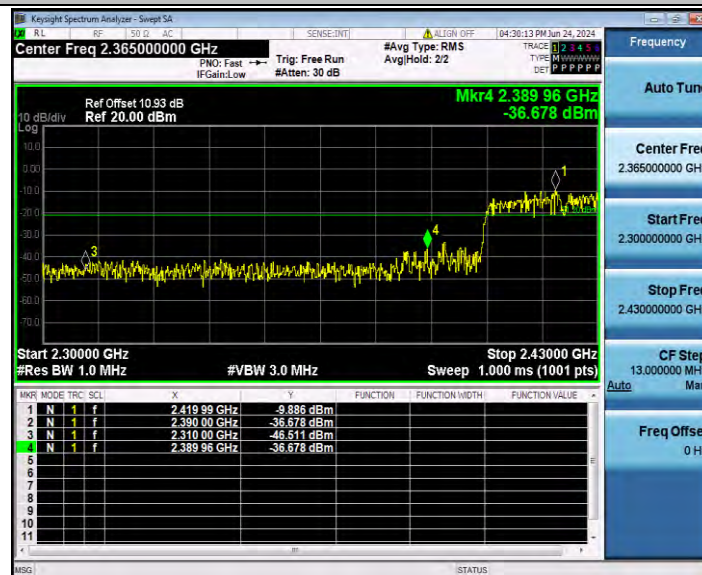
11N20SISO_Ant1_High_2462_Peak



11N40SISO_Ant1_Low_2422_AV



11N40SISO_Ant1_Low_2422_Peak



11N40SISO_Ant1_High_2452_AV

