

Case No. : <u>CTA24051700203</u>	
Ambient Condition: <u>23</u> °C, <u>49</u> %RH,	
Test Date: <u>2024.5.24</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	10.040	2407.000	2417.040	0.5	PASS
		2437	9.040	2432.440	2441.480	0.5	PASS
		2462	10.000	2457.040	2467.040	0.5	PASS
11G	Ant1	2412	13.160	2405.480	2418.640	0.5	PASS
		2437	12.880	2430.120	2443.000	0.5	PASS
		2462	14.520	2454.120	2468.640	0.5	PASS
11N20SISO	Ant1	2412	15.400	2404.080	2419.480	0.5	PASS
		2437	15.080	2429.440	2444.520	0.5	PASS
		2462	15.720	2453.840	2469.560	0.5	PASS
11N40SISO	Ant1	2422	35.040	2404.480	2439.520	0.5	PASS
		2437	33.840	2420.680	2454.520	0.5	PASS
		2452	35.040	2434.480	2469.520	0.5	PASS
11AX20SISO	Ant1	2412	16.520	2403.840	2420.360	0.5	PASS
		2437	15.200	2428.920	2444.120	0.5	PASS
		2462	17.760	2453.120	2470.880	0.5	PASS
11AX40SISO	Ant1	2422	33.840	2405.680	2439.520	0.5	PASS
		2437	35.040	2419.480	2454.520	0.5	PASS
		2452	33.840	2435.680	2469.520	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



11AX20SISO_Ant1_2412



11AX40SISO_Ant1_2422



11AX40SISO_Ant1_2437



11AX40SISO_Ant1_2452



Appendix C.2: Occupied Channel Bandwidth

Test Result

TestMode	Antenna	Channel Frequency[MHz]	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	15.163	2404.5001	2419.6631	---	---
		2437	15.089	2429.4900	2444.5790	---	---
		2462	15.167	2454.4291	2469.5961	---	---
11G	Ant1	2412	17.396	2403.2926	2420.6886	---	---
		2437	17.397	2428.2528	2445.6498	---	---
		2462	18.567	2452.5676	2471.1346	---	---
11N20SISO	Ant1	2412	18.466	2402.7351	2421.2011	---	---
		2437	18.366	2427.8204	2446.1864	---	---
		2462	19.678	2452.0036	2471.6816	---	---
11N40SISO	Ant1	2422	36.789	2403.5477	2440.3367	---	---
		2437	36.837	2418.6002	2455.4372	---	---
		2452	36.816	2433.5226	2470.3386	---	---
11AX20SISO	Ant1	2412	19.174	2402.4467	2421.6207	---	---
		2437	19.097	2427.4758	2446.5728	---	---
		2462	19.426	2452.2818	2471.7078	---	---
11AX40SISO	Ant1	2422	37.884	2403.0302	2440.9142	---	---
		2437	38.108	2417.9135	2456.0215	---	---
		2452	38.007	2432.9210	2470.9280	---	---

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



11AX20SISO_Ant1_2412



11AX20SISO_Ant1_2437



11AX20SISO_Ant1_2462



11AX40SISO_Ant1_2422



11AX40SISO_Ant1_2437



11AX40SISO_Ant1_2452

Appendix C.3: Maximum conducted output power

Test Mode	Antenna	Frequency [MHz]	Set Power	Peak power [dBm]	Limit [dBm]	Verdict
11B	Ant1	2412	---	16.49	≤ 30.0 0	PASS
		2437	---	16.00	≤ 30.0 0	PASS
		2462	---	18.04	≤ 30.0 0	PASS
11G	Ant1	2412	---	19.52	≤ 30.0 0	PASS
		2437	---	21.35	≤ 30.0 0	PASS
		2462	---	22.44	≤ 30.0 0	PASS
11N20SI SO	Ant1	2412	---	19.24	≤ 30.0 0	PASS
		2437	---	21.12	≤ 30.0 0	PASS
		2462	---	22.35	≤ 30.0 0	PASS
11N40SI SO	Ant1	2422	---	19.22	≤ 30.0 0	PASS
		2437	---	20.52	≤ 30.0 0	PASS
		2452	---	19.41	≤ 30.0 0	PASS
11AX20S ISO	Ant1	2412	---	17.86	≤ 30.0 0	PASS
		2437	---	19.76	≤ 30.0 0	PASS
		2462	---	21.12	≤ 30.0 0	PASS
11AX40S ISO	Ant1	2422	---	17.98	≤ 30.0 0	PASS
		2437	---	19.91	≤ 30.0 0	PASS
		2452	---	19.85	≤ 30.0 0	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	-10.12	≤8.00	PASS
		2437	-10.25	≤8.00	PASS
		2462	-7.11	≤8.00	PASS
11G	Ant1	2412	-12.85	≤8.00	PASS
		2437	-10.70	≤8.00	PASS
		2462	-10.28	≤8.00	PASS
11N20SISO	Ant1	2412	-11.96	≤8.00	PASS
		2437	-11.02	≤8.00	PASS
		2462	-9.99	≤8.00	PASS
11N40SISO	Ant1	2422	-16.80	≤8.00	PASS
		2437	-13.85	≤8.00	PASS
		2452	-15.85	≤8.00	PASS
11AX20SISO	Ant1	2412	-15.89	≤8.00	PASS
		2437	-12.98	≤8.00	PASS
		2462	-11.64	≤8.00	PASS
11AX40SISO	Ant1	2422	-18.75	≤8.00	PASS
		2437	-16.08	≤8.00	PASS
		2452	-16.38	≤8.00	PASS

Note:

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

Test Graphs

11B_Ant1_2412



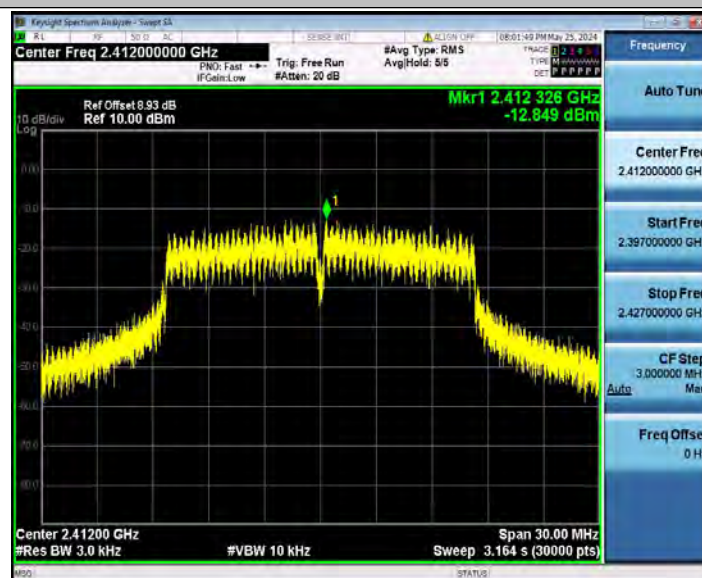
11B_Ant1_2437



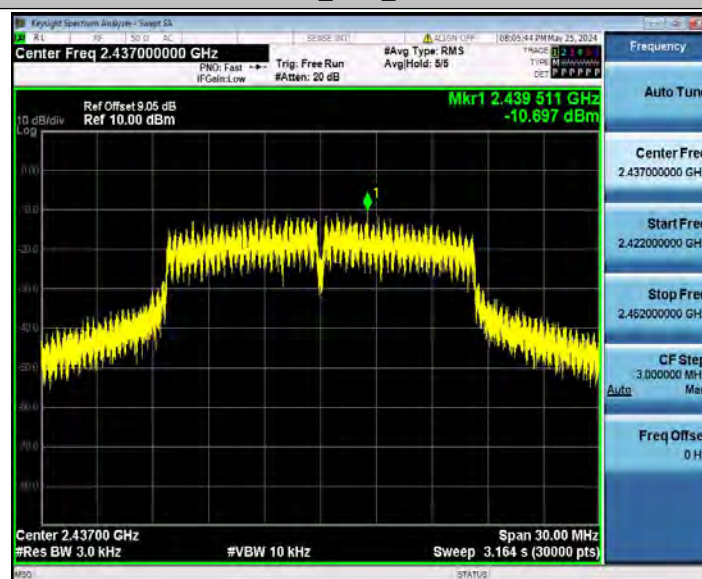
11B_Ant1_2462



11G_Ant1_2412



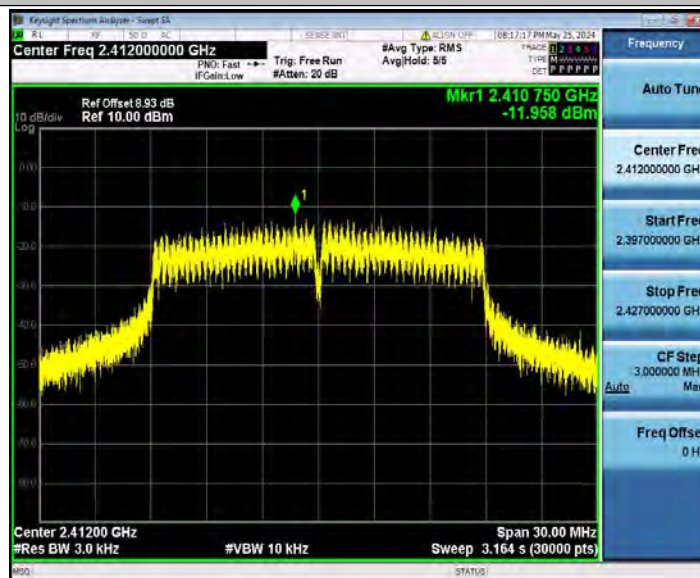
11G_Ant1_2437



11G_Ant1_2462



11N20SISO_Ant1_2412



11N20SISO_Ant1_2437



11N20SISO_Ant1_2462



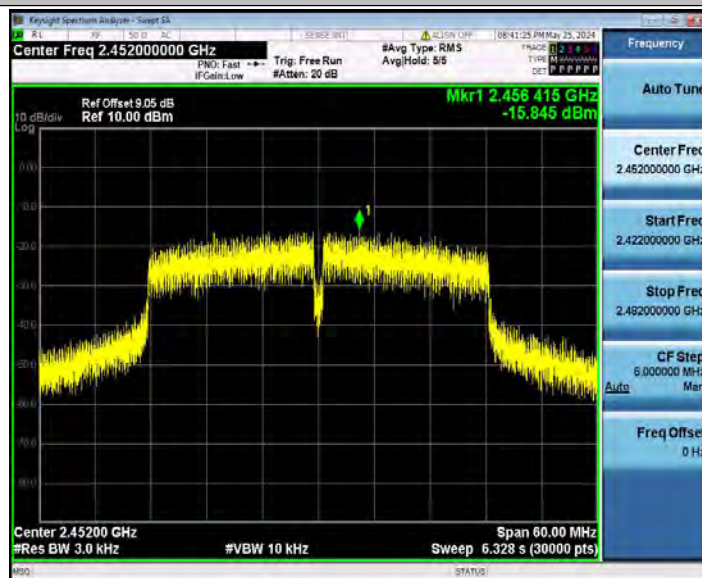
11N40SISO_Ant1_2422



11N40SISO_Ant1_2437



11N40SISO_Ant1_2452



11AX20SISO_Ant1_2412



11AX20SISO_Ant1_2437



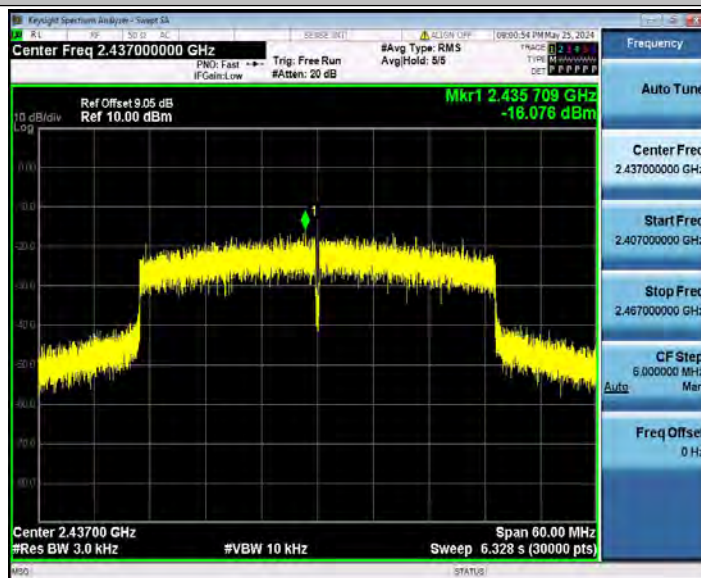
11AX20SISO_Ant1_2462



11AX40SISO_Ant1_2422



11AX40SISO_Ant1_2437



11AX40SISO_Ant1_2452



Appendix C.5: Band edge measurements

Test Result

TestMode	Antenna	Channel	Frequency[MHz]	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
11B	Ant1	Low	2412	4.46	-32.86	≤-15.54	PASS
		High	2462	6.27	-48.66	≤-13.73	PASS
11G	Ant1	Low	2412	2.29	-26.18	≤-17.71	PASS
		High	2462	5.04	-34.17	≤-14.96	PASS
11N20SISO	Ant1	Low	2412	1.35	-26.02	≤-18.65	PASS
		High	2462	5.01	-31.09	≤-14.99	PASS
11N40SISO	Ant1	Low	2422	-2.29	-30.78	≤-22.29	PASS
		High	2452	-0.92	-30.14	≤-20.92	PASS
11AX20SISO	Ant1	Low	2412	0.25	-27.28	≤-19.75	PASS
		High	2462	3.19	-30.23	≤-16.81	PASS
11AX40SISO	Ant1	Low	2422	-3.12	-32.36	≤-23.12	PASS
		High	2452	-0.73	-29.47	≤-20.73	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



11AX20SISO_Ant1_Low_2412



11AX20SISO_Ant1_High_2462



11AX40SISO_Ant1_Low_2422



11AX40SISO_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	4.61	4.61	---	PASS
			30~1000	4.61	-55.35	≤ -15.39	PASS
			1000~26500	4.61	-46.98	≤ -15.39	PASS
		2437	Reference	3.68	3.68	---	PASS
			30~1000	3.68	-55.68	≤ -16.32	PASS
			1000~26500	3.68	-46.79	≤ -16.32	PASS
		2462	Reference	5.53	5.53	---	PASS
			30~1000	5.53	-54.45	≤ -14.47	PASS
			1000~26500	5.53	-43.42	≤ -14.47	PASS
11G	Ant1	2412	Reference	-1.32	-1.32	---	PASS
			30~1000	-1.32	-60.59	≤ -21.32	PASS
			1000~26500	-1.32	-48.06	≤ -21.32	PASS
		2437	Reference	1.34	1.34	---	PASS
			30~1000	1.34	-60.66	≤ -18.66	PASS
			1000~26500	1.34	-48	≤ -18.66	PASS
		2462	Reference	1.77	1.77	---	PASS
			30~1000	1.77	-60.39	≤ -18.23	PASS
			1000~26500	1.77	-47.96	≤ -18.23	PASS
11N20SISO	Ant1	2412	Reference	0.56	0.56	---	PASS
			30~1000	0.56	-60.9	≤ -19.44	PASS
			1000~26500	0.56	-47.96	≤ -19.44	PASS
		2437	Reference	0.08	0.08	---	PASS
			30~1000	0.08	-60.53	≤ -19.92	PASS
			1000~26500	0.08	-48.08	≤ -19.92	PASS
		2462	Reference	3.38	3.38	---	PASS
			30~1000	3.38	-60.93	≤ -16.62	PASS
			1000~26500	3.38	-47.41	≤ -16.62	PASS
11N40SISO	Ant1	2422	Reference	-2.95	-2.95	---	PASS
			30~1000	-2.95	-60.74	≤ -22.95	PASS
			1000~26500	-2.95	-46.97	≤ -22.95	PASS
		2437	Reference	-2.93	-2.93	---	PASS
			30~1000	-2.93	-60.68	≤ -22.93	PASS
			1000~26500	-2.93	-47.2	≤ -22.93	PASS
		2452	Reference	-4.33	-4.33	---	PASS
			30~1000	-4.33	-60.18	≤ -24.33	PASS
			1000~26500	-4.33	-48.21	≤ -24.33	PASS
11AX20SISO	Ant1	2412	Reference	-2.70	-2.70	---	PASS

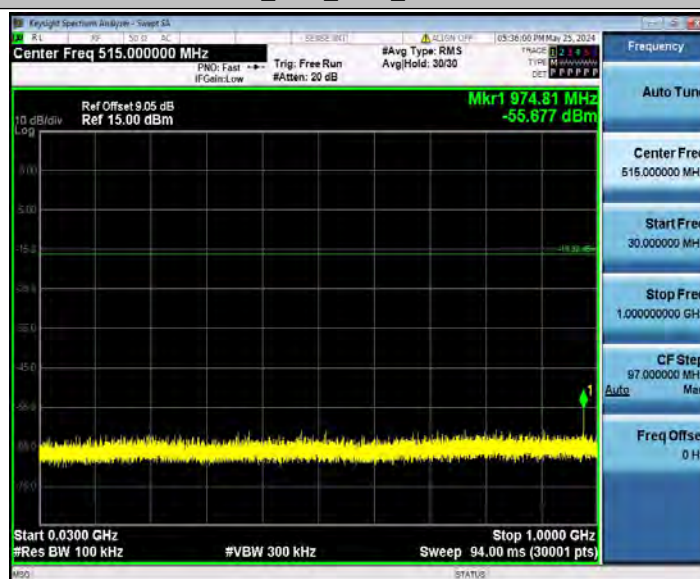
			30~1000	-2.70	-61.13	≤-22.7	PASS
			1000~26500	-2.70	-47.35	≤-22.7	PASS
		2437	Reference	-0.53	-0.53	---	PASS
			30~1000	-0.53	-60.38	≤-20.53	PASS
			1000~26500	-0.53	-46.44	≤-20.53	PASS
		2462	Reference	2.02	2.02	---	PASS
			30~1000	2.02	-60.43	≤-17.98	PASS
			1000~26500	2.02	-47.74	≤-17.98	PASS
11AX40SISO	Ant1	2422	Reference	-6.67	-6.67	---	PASS
			30~1000	-6.67	-60.62	≤-26.67	PASS
			1000~26500	-6.67	-47.75	≤-26.67	PASS
		2437	Reference	-1.90	-1.90	---	PASS
			30~1000	-1.90	-60.71	≤-21.9	PASS
			1000~26500	-1.90	-47.24	≤-21.9	PASS
		2452	Reference	-1.43	-1.43	---	PASS
			30~1000	-1.43	-60.34	≤-21.43	PASS
			1000~26500	-1.43	-47.74	≤-21.43	PASS



11B_Ant1_2437_0~Reference



11B_Ant1_2437_30~1000



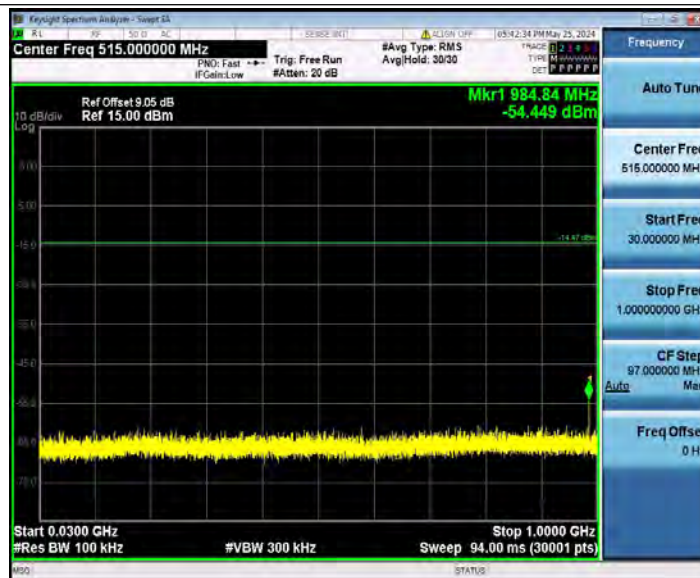
11B_Ant1_2437_1000~26500



11B_Ant1_2462_0~Reference



11B_Ant1_2462_30~1000



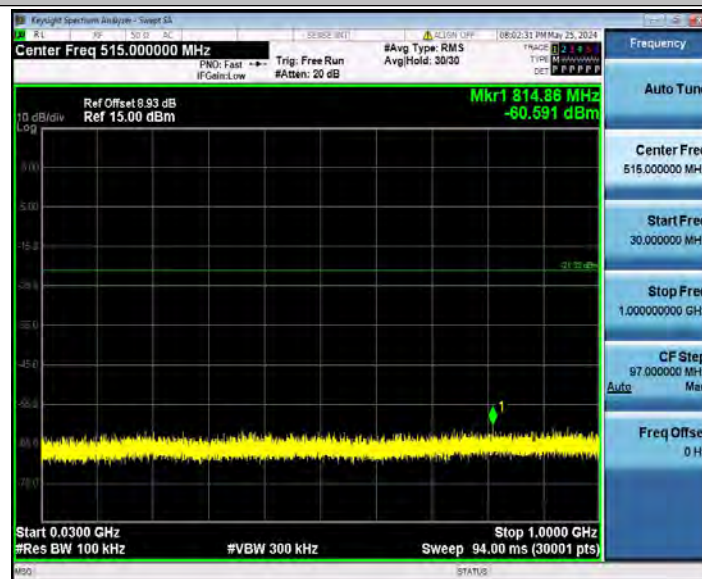
11B_Ant1_2462_1000~26500



11G_Ant1_2412_0~Reference



11G_Ant1_2412_30~1000



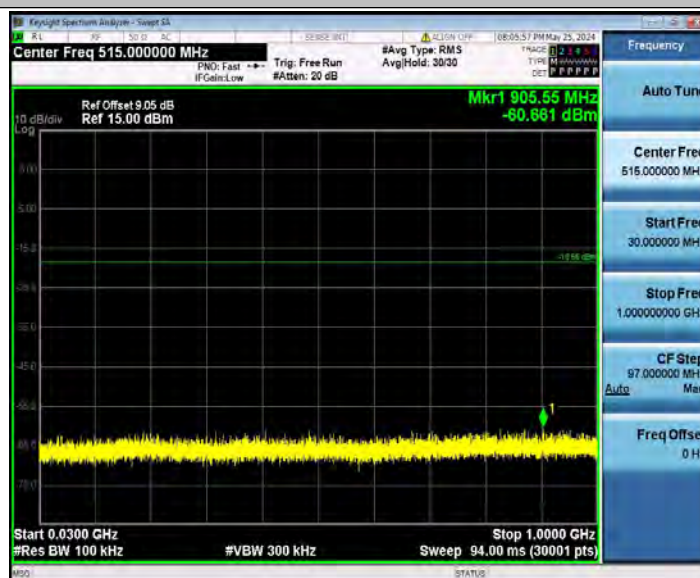
11G_Ant1_2412_1000~26500



11G_Ant1_2437_0~Reference



11G_Ant1_2437_30~1000



11G_Ant1_2437_1000~26500



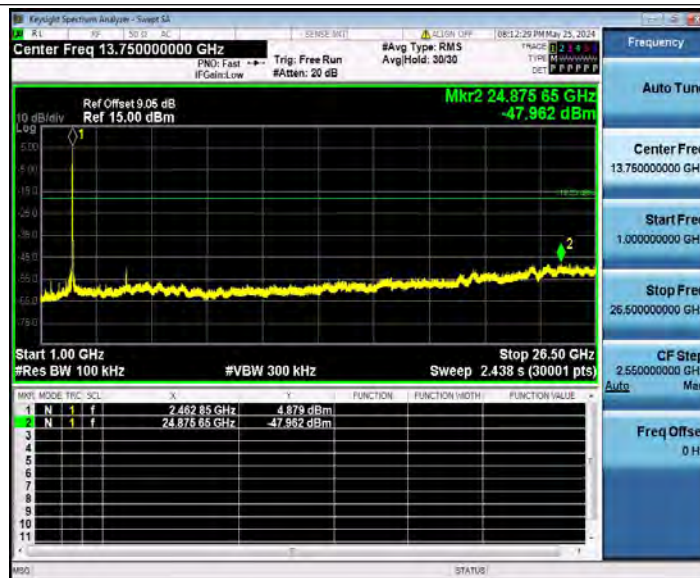
11G_Ant1_2462_0~Reference



11G_Ant1_2462_30~1000



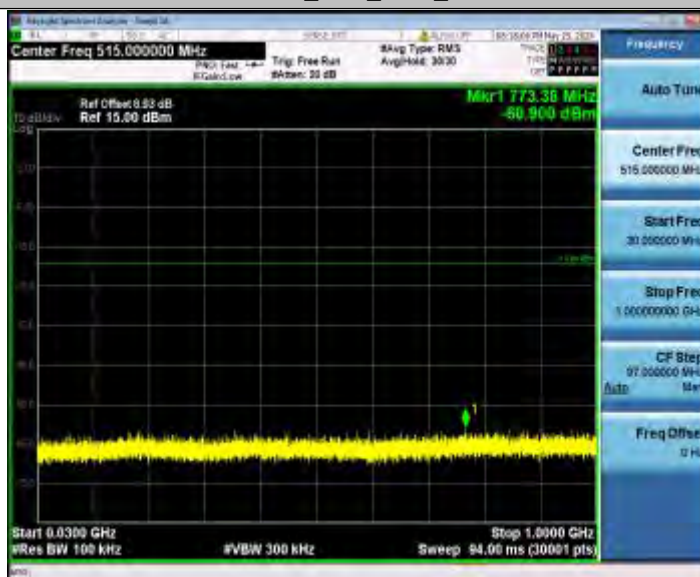
11G_Ant1_2462_1000~26500



11N20ISO_Ant1_2412_0~Reference



11N20ISO_Ant1_2412_30~1000



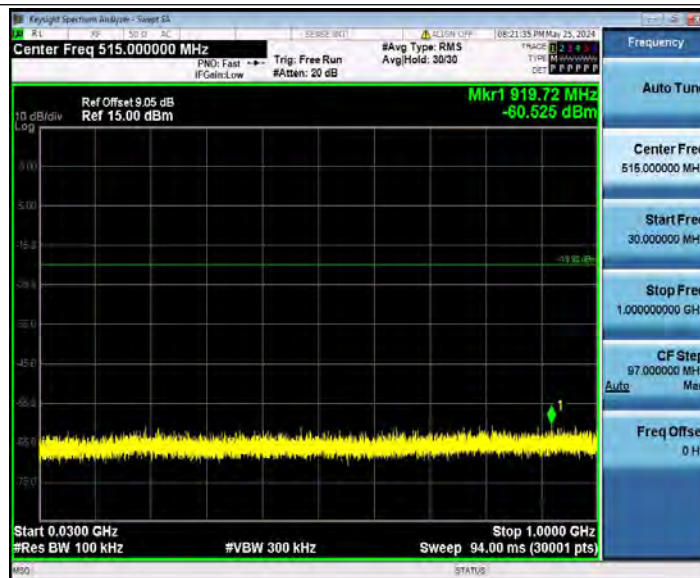
11N20SISO_Ant1_2412_1000~26500



11N20SISO_Ant1_2437_0~Reference



11N20SISO_Ant1_2437_30~1000



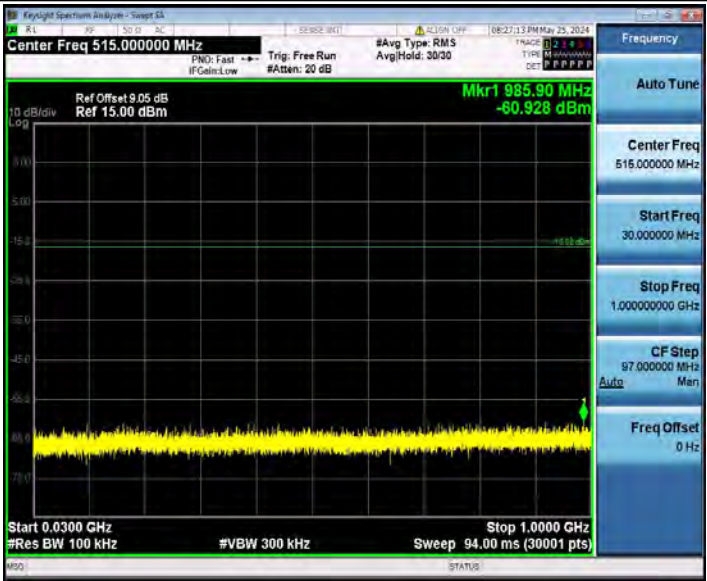
11N20SISO_Ant1_2437_1000~26500



11N20SISO_Ant1_2462_0~Reference



11N20SISO_Ant1_2462_30~1000



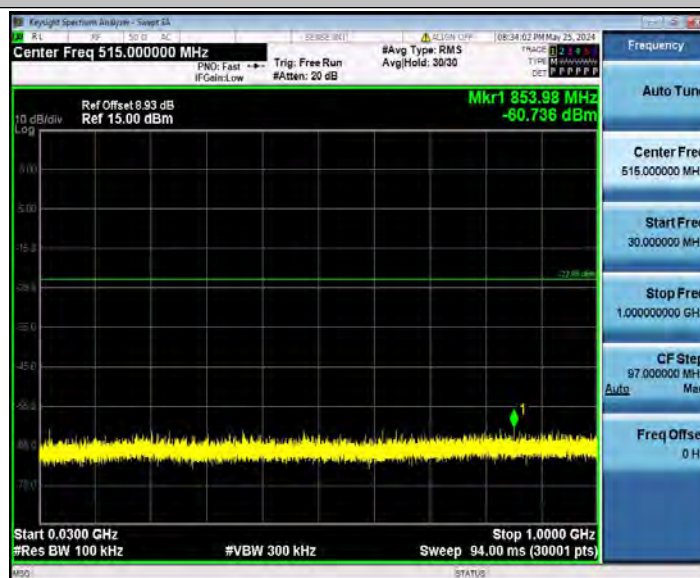
11N20SISO_Ant1_2462_1000~26500



11N40SISO_Ant1_2422_0~Reference



11N40SISO_Ant1_2422_30~1000



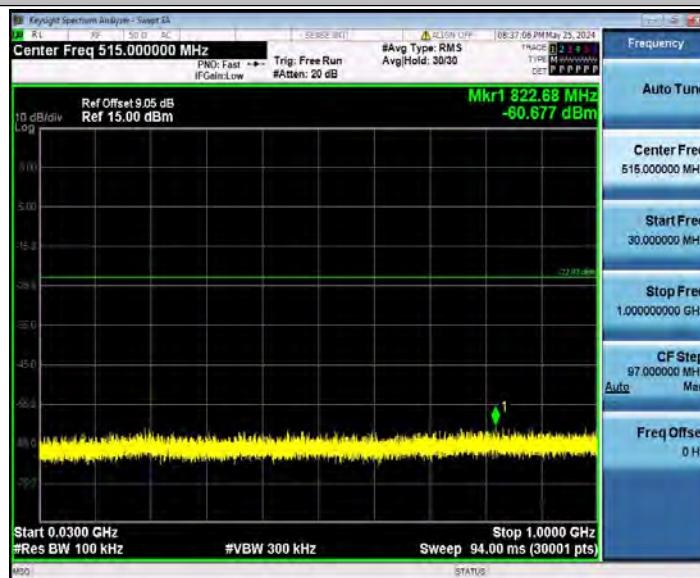
11N40SISO_Ant1_2422_1000~26500



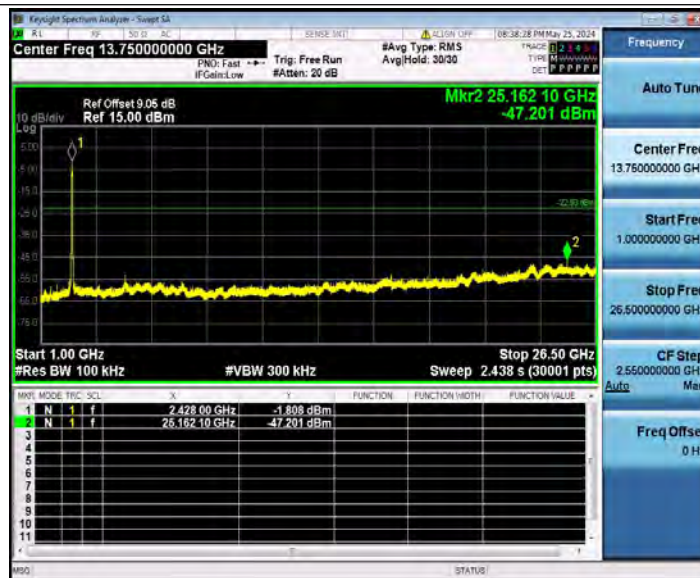
11N40SISO_Ant1_2437_0~Reference



11N40SISO_Ant1_2437_30~1000



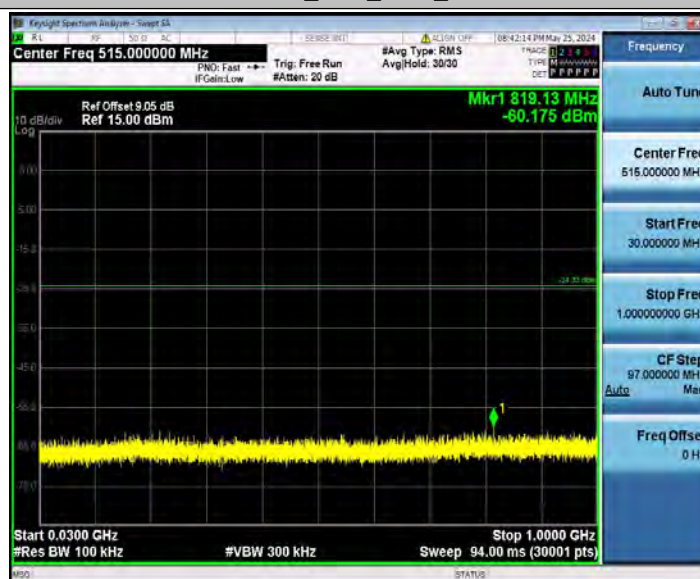
11N40SISO_Ant1_2437_1000~26500



11N40SISO_Ant1_2452_0~Reference



11N40SISO_Ant1_2452_30~1000



11N40SISO_Ant1_2452_1000~26500



11AX20SISO_Ant1_2412_0~Reference



11AX20SISO_Ant1_2412_30~1000



11AX20SISO_Ant1_2412_1000~26500



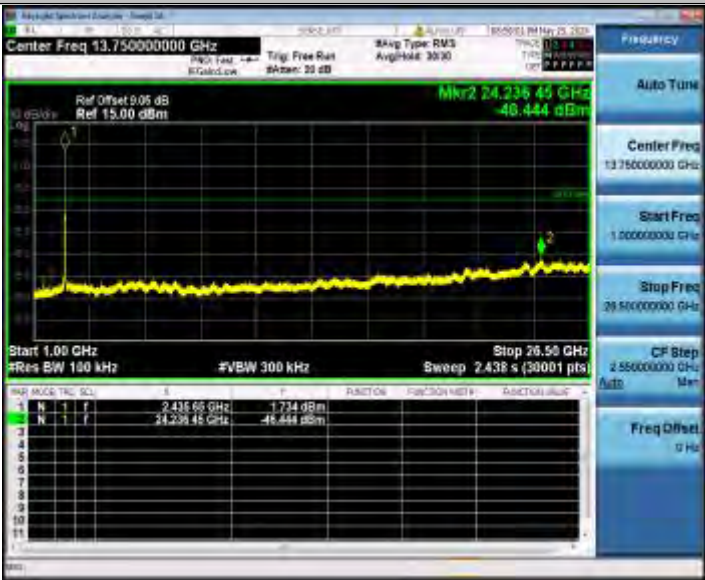
11AX20SISO_Ant1_2437_0~Reference



11AX20SISO_Ant1_2437_30~1000



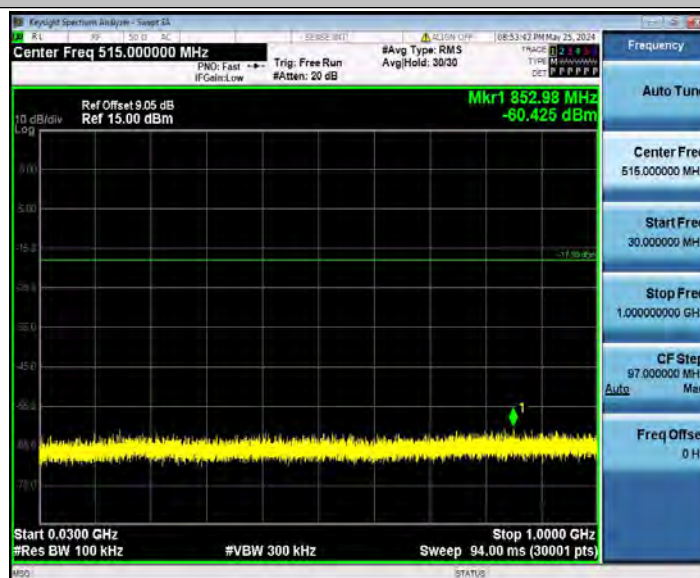
11AX20SISO_Ant1_2437_1000~26500



11AX20SISO_Ant1_2462_0~Reference



11AX20SISO_Ant1_2462_30~1000



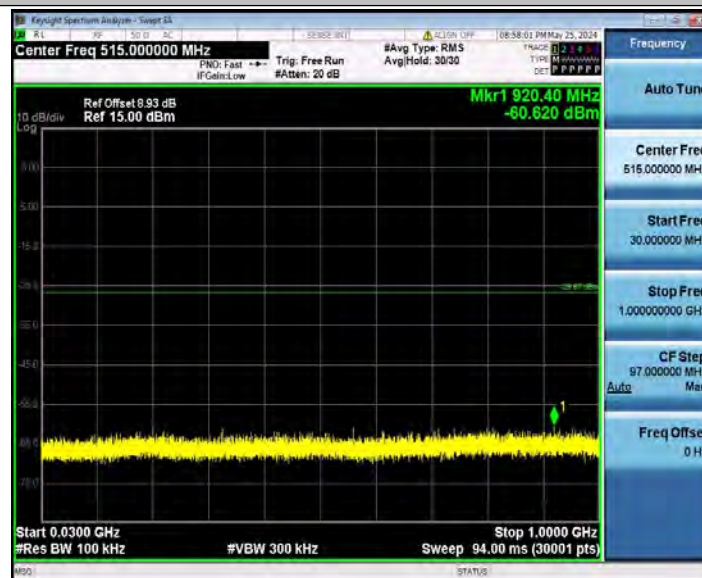
11AX20SISO_Ant1_2462_1000~26500



11AX40SISO_Ant1_2422_0~Reference



11AX40SISO_Ant1_2422_30~1000



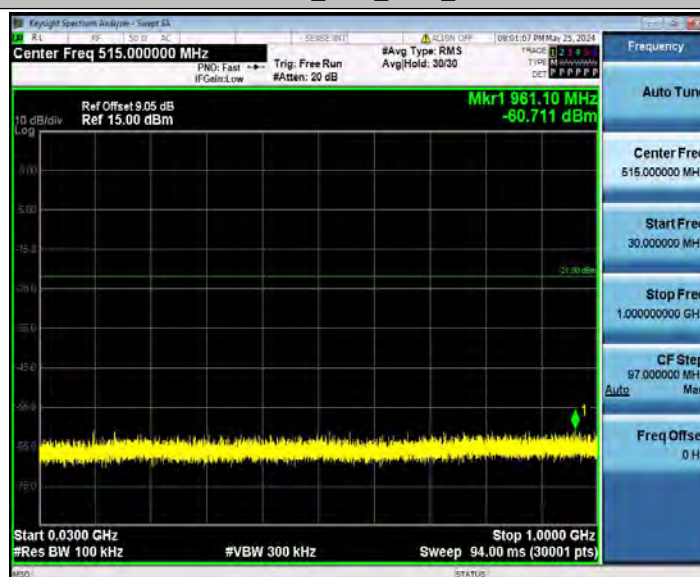
11AX40SISO_Ant1_2422_1000~26500



11AX40SISO_Ant1_2437_0~Reference



11AX40SISO_Ant1_2437_30~1000



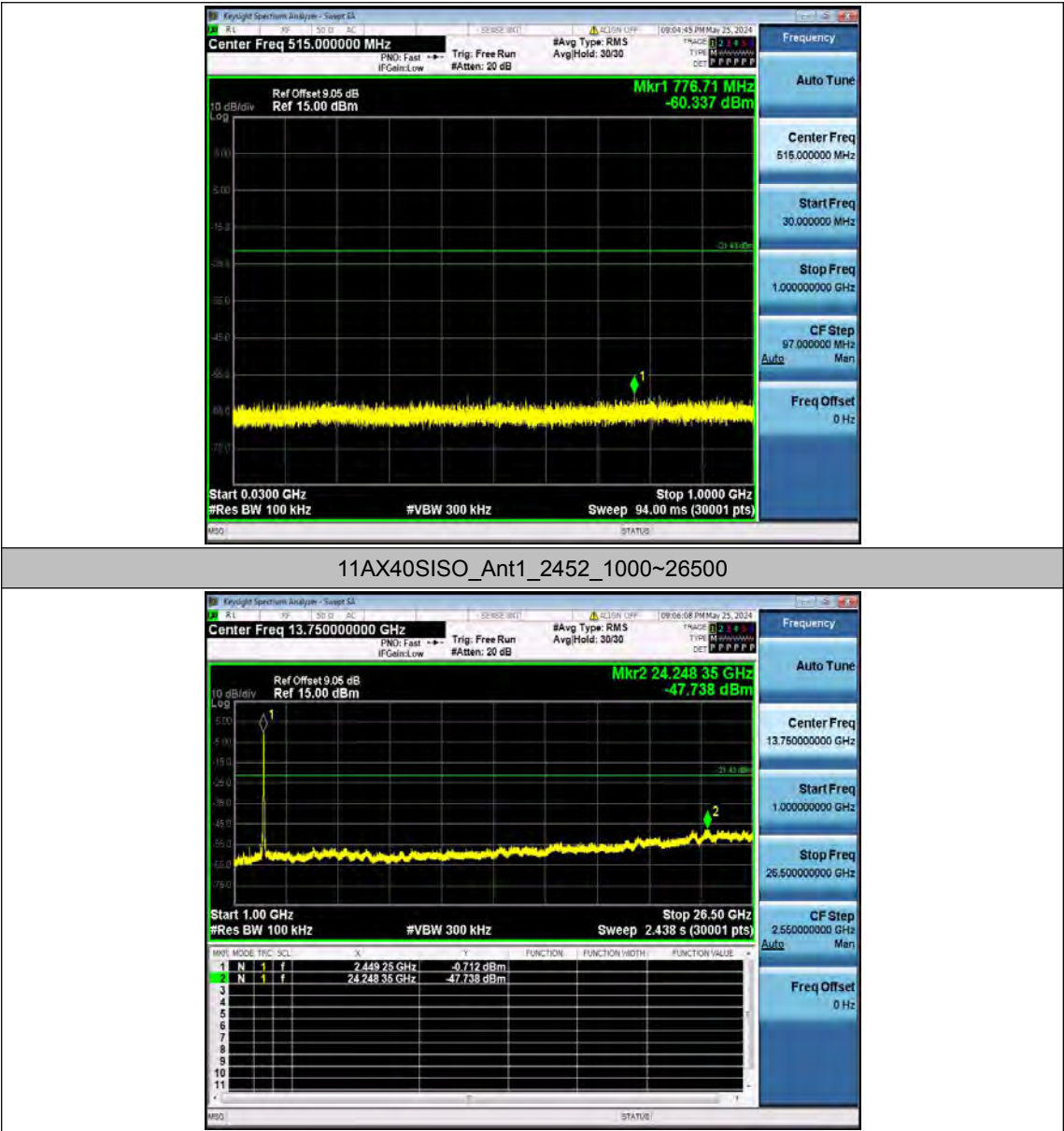
11AX40SISO_Ant1_2437_1000~26500



11AX40SISO_Ant1_2452_0~Reference



11AX40SISO_Ant1_2452_30~1000



Appendix C.7: Emissions in Restricted Bands

Test Result

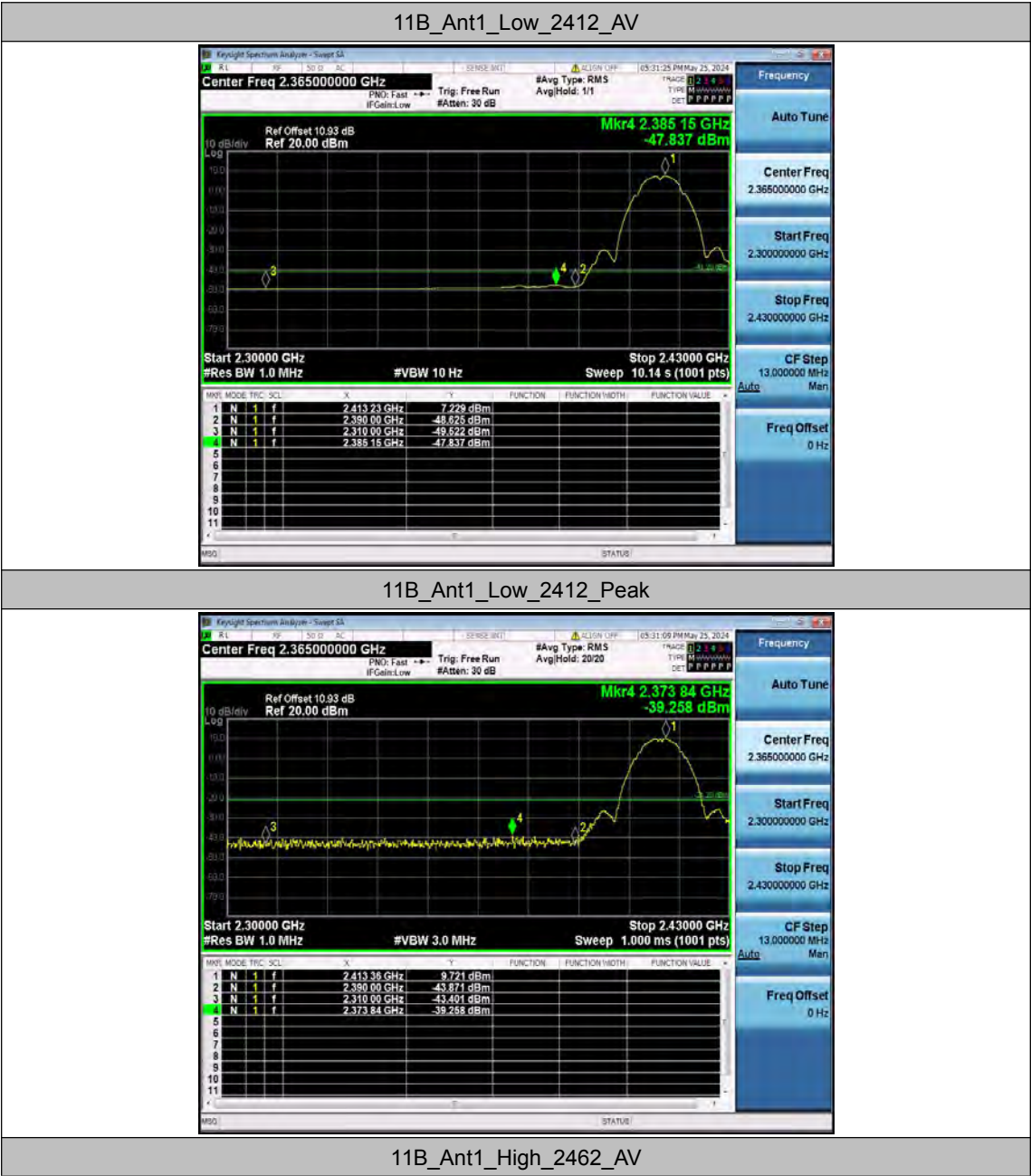
TestMode	Antenna	ChName	Frequenc y[MHz]	Detector	Freq [MHz]	Result [dBm]	Limit [dBm]	Result [dBuV/m]	Limit [dBuV/m]	Verdict
11B	Ant1	Low	2412	AV	2310.000	-49.52	≤-41.20	45.68	≤54	PASS
				AV	2385.150	-47.84	≤-41.20	47.36	≤54	PASS
				AV	2390.000	-48.63	≤-41.20	46.57	≤54	PASS
				Peak	2310.000	-43.4	≤-21.20	51.80	≤74	PASS
				Peak	2373.840	-39.26	≤-21.20	55.94	≤74	PASS
				Peak	2390.000	-43.87	≤-21.20	51.33	≤74	PASS
		High	2462	AV	2483.500	-47.48	≤-41.20	47.72	≤54	PASS
				AV	2498.410	-47.06	≤-41.20	48.14	≤54	PASS
				AV	2500.000	-47.94	≤-41.20	47.26	≤54	PASS
				Peak	2483.500	-40.81	≤-21.20	54.39	≤74	PASS
				Peak	2497.750	-38.88	≤-21.20	56.32	≤74	PASS
				Peak	2500.000	-42.85	≤-21.20	52.35	≤74	PASS
11G	Ant1	Low	2412	AV	2310.000	-1000	≤-41.20	-904.80	≤54	PASS
				AV	2310.010	-1000	≤-41.20	-904.80	≤54	PASS
				AV	2390.000	-1000	≤-41.20	-904.80	≤54	PASS
				Peak	2310.000	-42.17	≤-21.20	53.03	≤74	PASS
				Peak	2389.960	-31.03	≤-21.20	64.17	≤74	PASS
				Peak	2390.000	-31.03	≤-21.20	64.17	≤74	PASS
		High	2462	AV	2483.500	-42.18	≤-41.20	53.02	≤54	PASS
				AV	2483.560	-42.41	≤-41.20	52.79	≤54	PASS
				AV	2500.000	-48.78	≤-41.20	46.42	≤54	PASS
				Peak	2483.500	-33.87	≤-21.20	61.33	≤74	PASS
				Peak	2483.670	-32.28	≤-21.20	62.92	≤74	PASS
				Peak	2500.000	-39.98	≤-21.20	55.22	≤74	PASS
11N20SIS O	Ant1	Low	2412	AV	2310.000	-49.78	≤-41.20	45.42	≤54	PASS
				AV	2389.960	-46.93	≤-41.20	48.27	≤54	PASS
				AV	2390.000	-46.93	≤-41.20	48.27	≤54	PASS
				Peak	2310.000	-43.39	≤-21.20	51.81	≤74	PASS
				Peak	2389.700	-36.52	≤-21.20	58.68	≤74	PASS
				Peak	2390.000	-39.08	≤-21.20	56.12	≤74	PASS
		High	2462	AV	2483.500	-40.58	≤-41.20	54.62	≤54	FAIL
				AV	2483.560	-40.73	≤-41.20	54.47	≤54	FAIL
				AV	2500.000	-48.74	≤-41.20	46.46	≤54	PASS
				Peak	2483.500	-33.49	≤-21.20	61.71	≤74	PASS
				Peak	2484.110	-29.4	≤-21.20	65.80	≤74	PASS
				Peak	2500.000	-42.98	≤-21.20	52.22	≤74	PASS
11N40SIS	Ant1	Low	2422	AV	2310.000	-49.76	≤-41.20	45.44	≤54	PASS

O				AV	2389.960	-45.93	≤ -41.20	49.27	≤ 54	PASS
				AV	2390.000	-45.93	≤ -41.20	49.27	≤ 54	PASS
				Peak	2310.000	-43.24	≤ -21.20	51.96	≤ 74	PASS
				Peak	2389.180	-35.18	≤ -21.20	60.02	≤ 74	PASS
				Peak	2390.000	-36.2	≤ -21.20	59.00	≤ 74	PASS
		High	2452	AV	2483.500	-42.74	≤ -41.20	52.46	≤ 54	PASS
				AV	2483.560	-42.84	≤ -41.20	52.36	≤ 54	PASS
				AV	2500.000	-48.24	≤ -41.20	46.96	≤ 54	PASS
				Peak	2483.500	-34.28	≤ -21.20	60.92	≤ 74	PASS
				Peak	2484.550	-32.94	≤ -21.20	62.26	≤ 74	PASS
				Peak	2500.000	-43.02	≤ -21.20	52.18	≤ 74	PASS
11AX20SI SO	Ant1	Low	2412	AV	2310.000	-49.74	≤ -41.20	45.46	≤ 54	PASS
				AV	2389.960	-47.3	≤ -41.20	47.90	≤ 54	PASS
				AV	2390.000	-47.3	≤ -41.20	47.90	≤ 54	PASS
				Peak	2310.000	-43.58	≤ -21.20	51.62	≤ 74	PASS
				Peak	2388.400	-34.62	≤ -21.20	60.58	≤ 74	PASS
				Peak	2390.000	-36.88	≤ -21.20	58.32	≤ 74	PASS
		High	2462	AV	2483.500	-41.35	≤ -41.20	53.85	≤ 54	PASS
				AV	2483.560	-41.55	≤ -41.20	53.65	≤ 54	PASS
				AV	2500.000	-48.75	≤ -41.20	46.45	≤ 54	PASS
				Peak	2483.500	-32.55	≤ -21.20	62.65	≤ 74	PASS
				Peak	2484.440	-30.86	≤ -21.20	64.34	≤ 74	PASS
				Peak	2500.000	-42.47	≤ -21.20	52.73	≤ 74	PASS
11AX40SI SO	Ant1	Low	2422	AV	2310.000	-49.78	≤ -41.20	45.42	≤ 54	PASS
				AV	2389.700	-45.85	≤ -41.20	49.35	≤ 54	PASS
				AV	2390.000	-45.94	≤ -41.20	49.26	≤ 54	PASS
				Peak	2310.000	-42.34	≤ -21.20	52.86	≤ 74	PASS
				Peak	2389.570	-37.11	≤ -21.20	58.09	≤ 74	PASS
				Peak	2390.000	-38.55	≤ -21.20	56.65	≤ 74	PASS
		High	2452	AV	2483.500	-42.01	≤ -41.20	53.19	≤ 54	PASS
				AV	2483.560	-42.09	≤ -41.20	53.11	≤ 54	PASS
				AV	2500.000	-48.04	≤ -41.20	47.16	≤ 54	PASS
				Peak	2483.500	-32.8	≤ -21.20	62.40	≤ 74	PASS
				Peak	2484.880	-32.03	≤ -21.20	63.17	≤ 74	PASS
				Peak	2500.000	-39.05	≤ -21.20	56.15	≤ 74	PASS

Note:

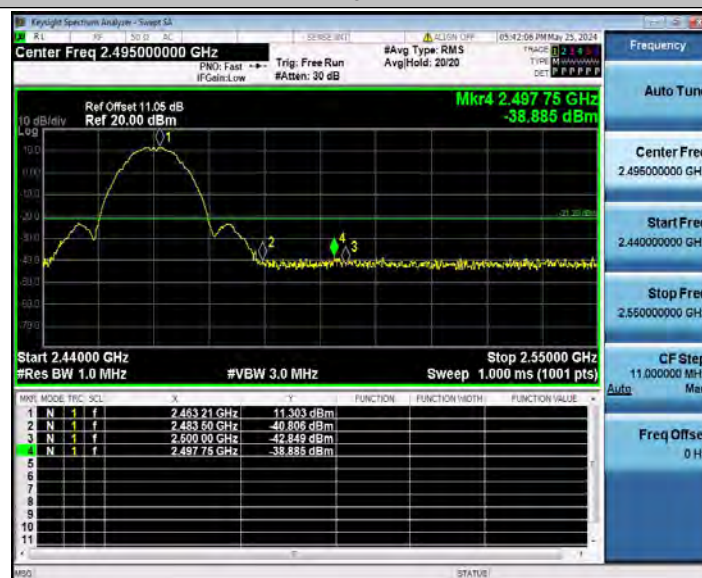
1. The Antenna Gain is compensated in the graph.
2. The Duty Cycle Factor and RBW Factor is compensated in the graph.
3. The limit in dBm for average detector is conversion from 54dBuV/m, according to 15.209(a). The limit in dBm for peak detector is 20dB above the limit of average detector in dBm.

Test Graphs

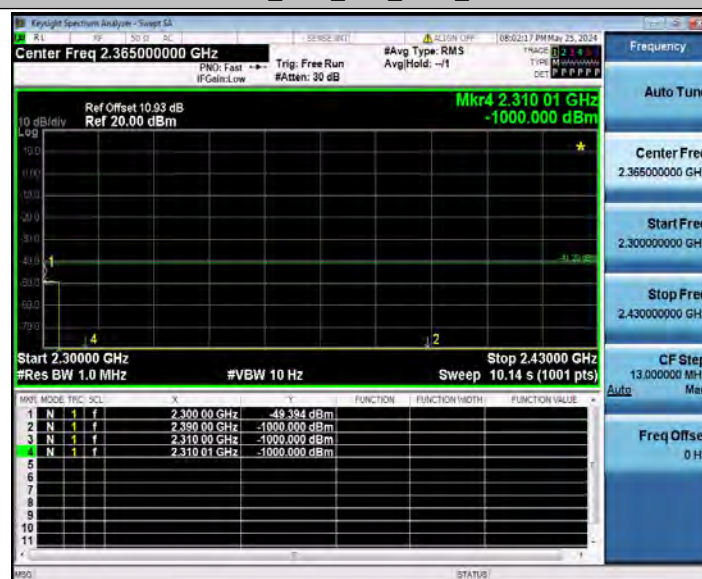




11B_Ant1_High_2462_Peak



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



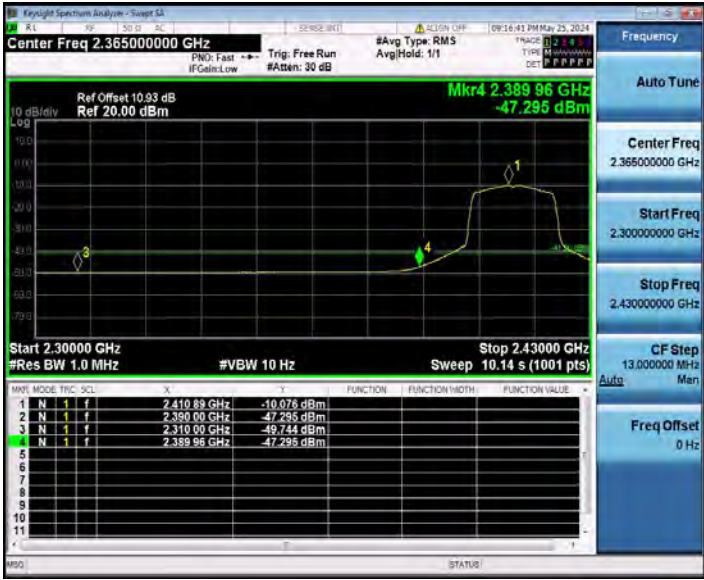
11N40SISO_Ant1_High_2452_AV



11N40SISO_Ant1_High_2452_Peak



11AX20SISO_Ant1_Low_2412_AV



11AX20SISO_Ant1_Low_2412_Peak



11AX20ISO_Ant1_High_2462_AV



11AX20ISO_Ant1_High_2462_Peak



11AX40SISO_Ant1_Low_2422_AV



11AX40SISO_Ant1_Low_2422_Peak



11AX40SISO_Ant1_High_2452_AV



11AX40SISO_Ant1_High_2452_Peak

