

Case No. : <u>CTA24081600701</u>	
Ambient Condition: <u>23</u> °C, <u>51</u> %RH,	
Test Date: <u>2024.8.26</u>	Test Engineer: <u>Lushan Kong</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	9.600	2407.400	2417.000	0.5	PASS
		2437	10.040	2432.000	2442.040	0.5	PASS
		2462	9.560	2457.480	2467.040	0.5	PASS
11G	Ant1	2412	15.040	2404.480	2419.520	0.5	PASS
		2437	15.680	2429.120	2444.800	0.5	PASS
		2462	15.720	2454.160	2469.880	0.5	PASS
11N20SISO	Ant1	2412	15.320	2405.160	2420.480	0.5	PASS
		2437	14.560	2430.040	2444.600	0.5	PASS
		2462	16.440	2453.440	2469.880	0.5	PASS
11N40SISO	Ant1	2422	35.120	2404.480	2439.600	0.5	PASS
		2437	34.960	2419.560	2454.520	0.5	PASS
		2452	34.400	2434.480	2468.880	0.5	PASS
11AX20SISO	Ant1	2412	16.800	2404.440	2421.240	0.5	PASS
		2437	15.480	2429.000	2444.480	0.5	PASS
		2462	15.080	2454.480	2469.560	0.5	PASS
11AX40SISO	Ant1	2422	35.120	2404.480	2439.600	0.5	PASS
		2437	36.320	2419.480	2455.800	0.5	PASS
		2452	36.400	2434.400	2470.800	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



11AX20SISO_Ant1_2437



11AX20SISO_Ant1_2462



11AX40SISO_Ant1_2422



11AX40SISO_Ant1_2437



11AX40SISO_Ant1_2452

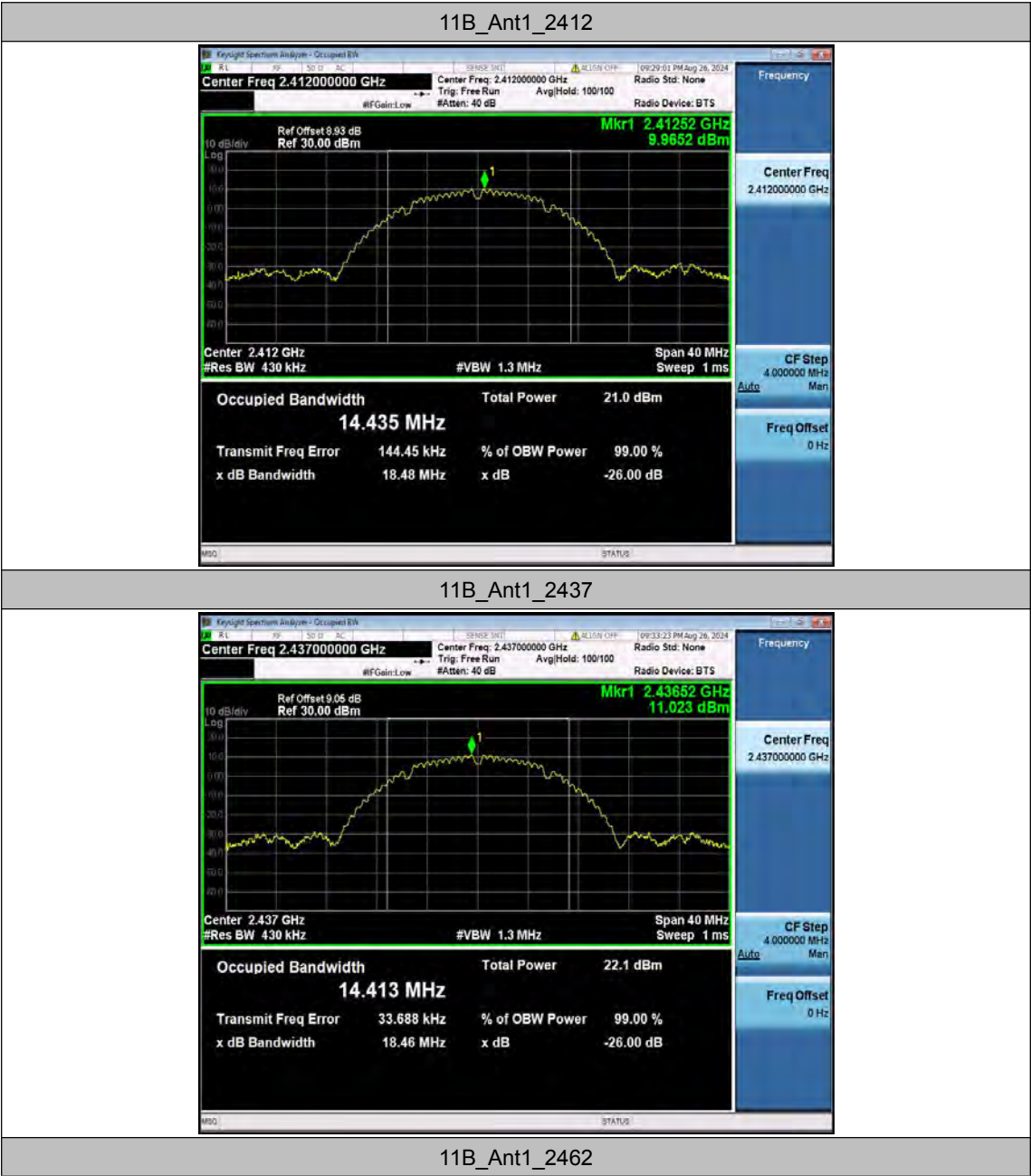


Appendix A.2: Occupied Channel Bandwidth

Test Result

TestMode	Antenna	Channel Frequency[MHz]	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	14.435	2404.9270	2419.3620	---	---
		2437	14.413	2429.8272	2444.2402	---	---
		2462	14.369	2454.8545	2469.2235	---	---
11G	Ant1	2412	17.648	2403.3422	2420.9902	---	---
		2437	17.510	2428.2770	2445.7870	---	---
		2462	17.463	2453.2503	2470.7133	---	---
11N20SISO	Ant1	2412	18.617	2402.8703	2421.4873	---	---
		2437	18.518	2427.7825	2446.3005	---	---
		2462	18.683	2452.6643	2471.3473	---	---
11N40SISO	Ant1	2422	37.143	2403.7084	2440.8514	---	---
		2437	37.092	2418.5596	2455.6516	---	---
		2452	37.286	2433.3763	2470.6623	---	---
11AX20SISO	Ant1	2412	19.387	2402.5119	2421.8989	---	---
		2437	19.258	2427.4325	2446.6905	---	---
		2462	19.234	2452.4462	2471.6802	---	---
11AX40SISO	Ant1	2422	38.236	2403.0250	2441.2610	---	---
		2437	38.255	2417.9141	2456.1691	---	---
		2452	38.255	2432.9400	2471.1950	---	---

Test Graphs





11G_Ant1_2412



11G_Ant1_2437



11G_Ant1_2462



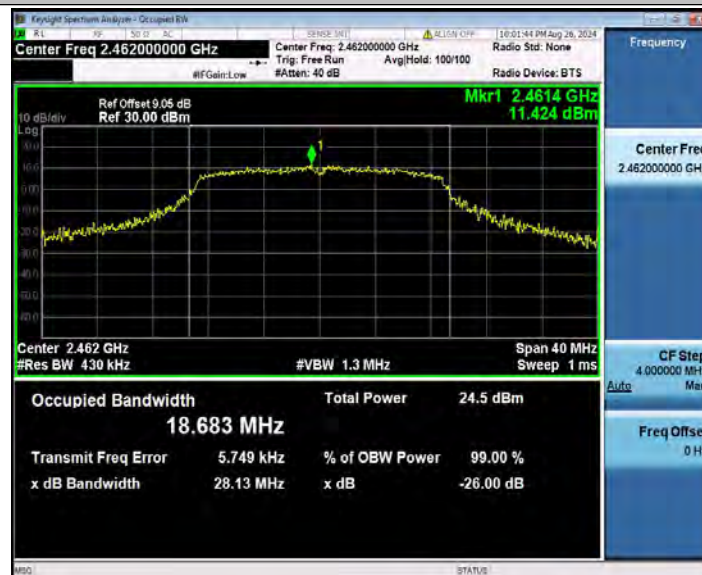
11N20SISO_Ant1_2412



11N20SISO_Ant1_2437



11N20SISO_Ant1_2462



11N40SISO_Ant1_2422



11N40SISO_Ant1_2437



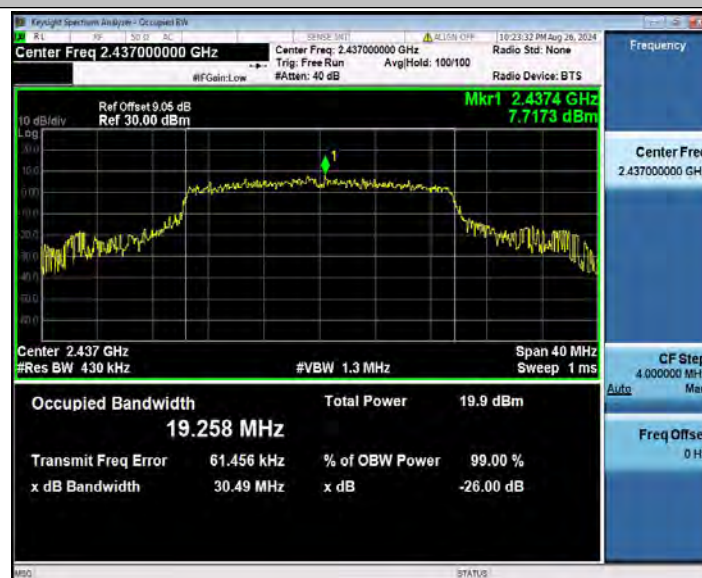
11N40SISO_Ant1_2452



11AX20SISO_Ant1_2412



11AX20SISO_Ant1_2437



11AX20SISO_Ant1_2462



11AX40SISO_Ant1_2422



11AX40SISO_Ant1_2437



11AX40SISO_Ant1_2452



Appendix A.3: Maximum conducted output power

Test Mode	Antenna	Frequency [MHz]	Set Power	Peak power [dBm]	Limit [dBm]	Verdict
11B	Ant1	2412	---	21.08	≤30.00	PASS
		2437	---	22.15	≤30.00	PASS
		2462	---	22.45	≤30.00	PASS
11G	Ant1	2412	---	24.66	≤30.00	PASS
		2437	---	25.73	≤30.00	PASS
		2462	---	25.94	≤30.00	PASS
11N20SI SO	Ant1	2412	---	24.50	≤30.00	PASS
		2437	---	25.61	≤30.00	PASS
		2462	---	25.75	≤30.00	PASS
11N40SI SO	Ant1	2422	---	24.87	≤30.00	PASS
		2437	---	25.45	≤30.00	PASS
		2452	---	25.56	≤30.00	PASS
11AX20S ISO	Ant1	2412	---	19.65	≤30.00	PASS
		2437	---	20.64	≤30.00	PASS
		2462	---	20.66	≤30.00	PASS
11AX40S ISO	Ant1	2422	---	20.03	≤30.00	PASS
		2437	---	20.45	≤30.00	PASS
		2452	---	20.42	≤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	-5.24	≤8.00	PASS
		2437	-4.26	≤8.00	PASS
		2462	-3.47	≤8.00	PASS
11G	Ant1	2412	-7.44	≤8.00	PASS
		2437	-6.03	≤8.00	PASS
		2462	-6.38	≤8.00	PASS
11N20SISO	Ant1	2412	-7.41	≤8.00	PASS
		2437	-7.29	≤8.00	PASS
		2462	-5.53	≤8.00	PASS
11N40SISO	Ant1	2422	-10.03	≤8.00	PASS
		2437	-9.84	≤8.00	PASS
		2452	-9.28	≤8.00	PASS
11AX20SISO	Ant1	2412	-15.63	≤8.00	PASS
		2437	-12.33	≤8.00	PASS
		2462	-12.83	≤8.00	PASS
11AX40SISO	Ant1	2422	-16.90	≤8.00	PASS
		2437	-17.18	≤8.00	PASS
		2452	-17.01	≤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



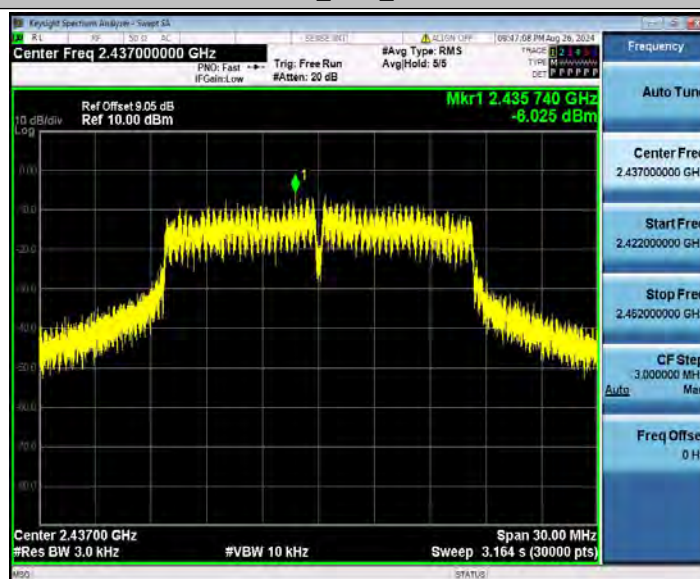
11B_Ant1_2462



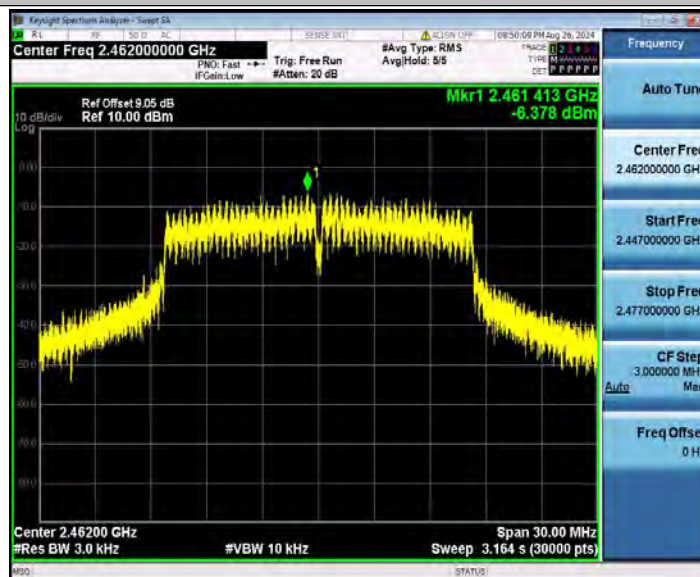
11G_Ant1_2412



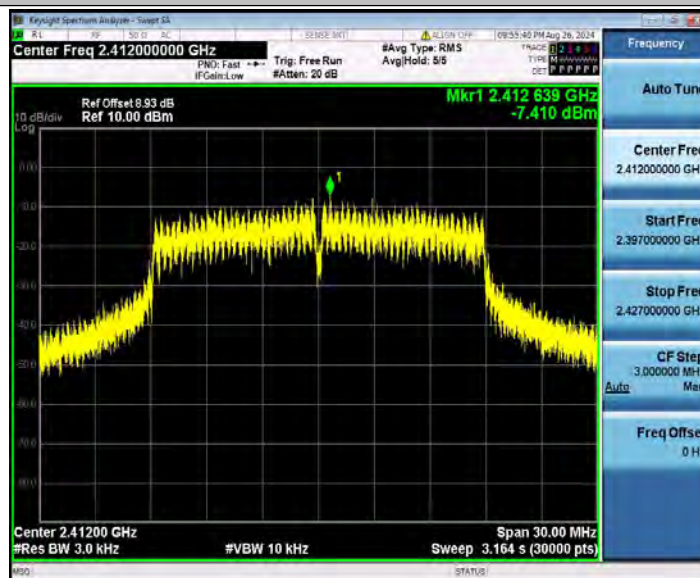
11G_Ant1_2437



11G_Ant1_2462



11N20SISO_Ant1_2412



11N20SISO_Ant1_2437



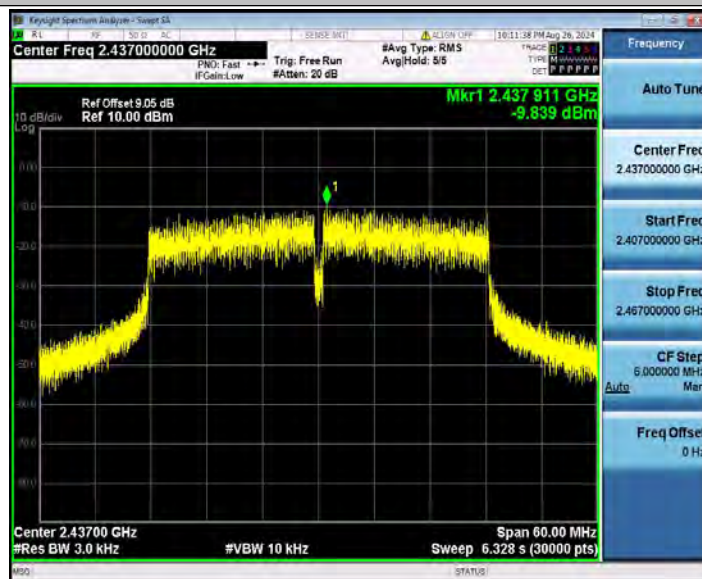
11N20SISO_Ant1_2462



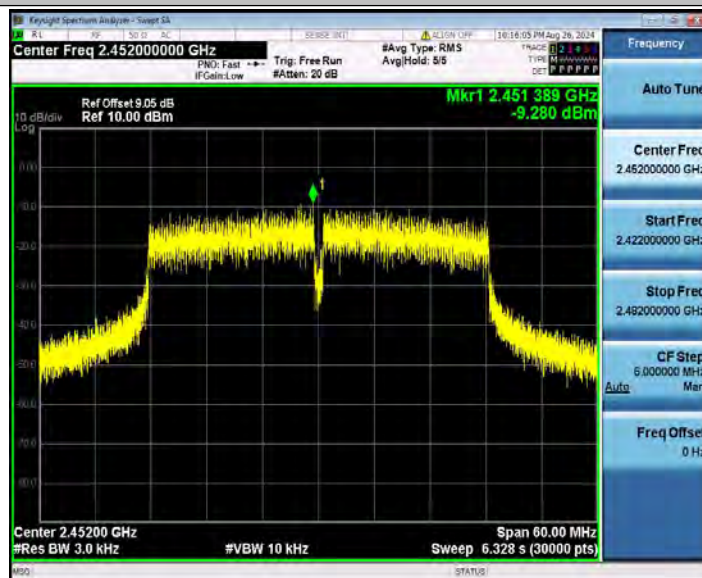
11N40SISO_Ant1_2422



11N40SISO_Ant1_2437



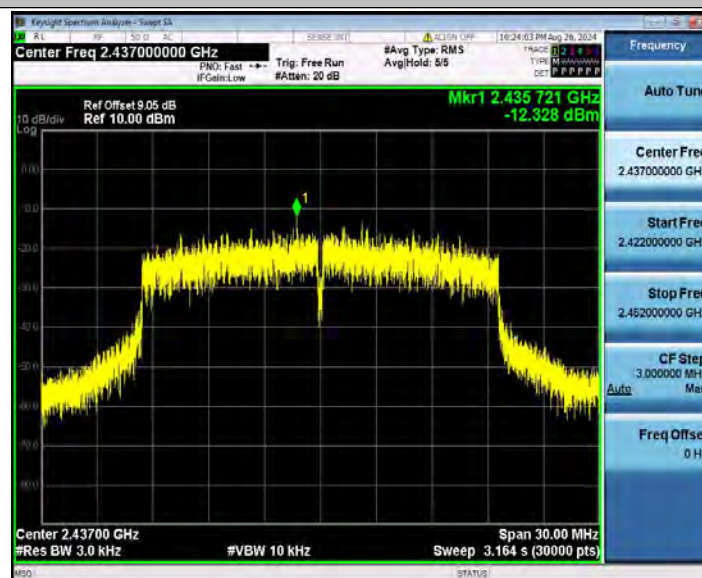
11N40SISO_Ant1_2452



11AX20SISO_Ant1_2412



11AX20SISO_Ant1_2437



11AX20SISO_Ant1_2462



11AX40SISO_Ant1_2422



11AX40SISO_Ant1_2437



11AX40SISO_Ant1_2452



Appendix A.5: Band edge measurements

Test Result

TestMode	Antenna	Channel Name	Frequency[MHz]	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
11B	Ant1	Low	2412	9.20	-34.3	≤-10.8	PASS
		High	2462	10.77	-46.01	≤-9.23	PASS
11G	Ant1	Low	2412	7.00	-21.88	≤-13	PASS
		High	2462	7.71	-28.49	≤-12.3	PASS
11N20SISO	Ant1	Low	2412	5.86	-21.59	≤-14.14	PASS
		High	2462	7.65	-28.51	≤-12.35	PASS
11N40SISO	Ant1	Low	2422	4.49	-25.52	≤-15.51	PASS
		High	2452	4.94	-28.55	≤-15.06	PASS
11AX20SISO	Ant1	Low	2412	2.43	-29.54	≤-17.57	PASS
		High	2462	3.38	-44.85	≤-16.62	PASS
11AX40SISO	Ant1	Low	2422	-0.31	-32.71	≤-20.31	PASS
		High	2452	0.07	-38.76	≤-19.93	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 A.6: Conducted Spurious Emission

Test Result

TestMode	Antenna	Frequency[MHz]	FreqRange [Mhz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
11B	Ant1	2412	Reference	9.04	9.04	---	PASS
			30~1000	9.04	-60.25	≤-10.96	PASS
			1000~26500	9.04	-42.93	≤-10.96	PASS
		2437	Reference	8.87	8.87	---	PASS
			30~1000	8.87	-60.84	≤-11.13	PASS
			1000~26500	8.87	-48.08	≤-11.13	PASS
		2462	Reference	11.02	11.02	---	PASS
			30~1000	11.02	-59.78	≤-8.98	PASS
			1000~26500	11.02	-47.17	≤-8.98	PASS
11G	Ant1	2412	Reference	5.45	5.45	---	PASS
			30~1000	5.45	-60.12	≤-14.55	PASS
			1000~26500	5.45	-47.73	≤-14.55	PASS
		2437	Reference	4.90	4.90	---	PASS
			30~1000	4.90	-60.53	≤-15.1	PASS
			1000~26500	4.90	-47.98	≤-15.1	PASS
		2462	Reference	6.47	6.47	---	PASS
			30~1000	6.47	-60.3	≤-13.53	PASS
			1000~26500	6.47	-47.19	≤-13.53	PASS
11N20SISO	Ant1	2412	Reference	2.65	2.65	---	PASS
			30~1000	2.65	-41.06	≤-17.35	PASS
			1000~26500	2.65	-47.75	≤-17.35	PASS
		2437	Reference	5.27	5.27	---	PASS
			30~1000	5.27	-42.24	≤-14.73	PASS
			1000~26500	5.27	-47.86	≤-14.73	PASS
		2462	Reference	5.39	5.39	---	PASS
			30~1000	5.39	-60.33	≤-14.61	PASS
			1000~26500	5.39	-33.59	≤-14.61	PASS
11N40SISO	Ant1	2422	Reference	2.89	2.89	---	PASS
			30~1000	2.89	-58.08	≤-17.11	PASS
			1000~26500	2.89	-39.38	≤-17.11	PASS
		2437	Reference	4.09	4.09	---	PASS
			30~1000	4.09	-58.25	≤-15.91	PASS
			1000~26500	4.09	-42	≤-15.91	PASS
		2452	Reference	4.11	4.11	---	PASS
			30~1000	4.11	-59.04	≤-15.89	PASS
			1000~26500	4.11	-47.66	≤-15.89	PASS
11AX20SISO	Ant1	2412	Reference	2.41	2.41	---	PASS

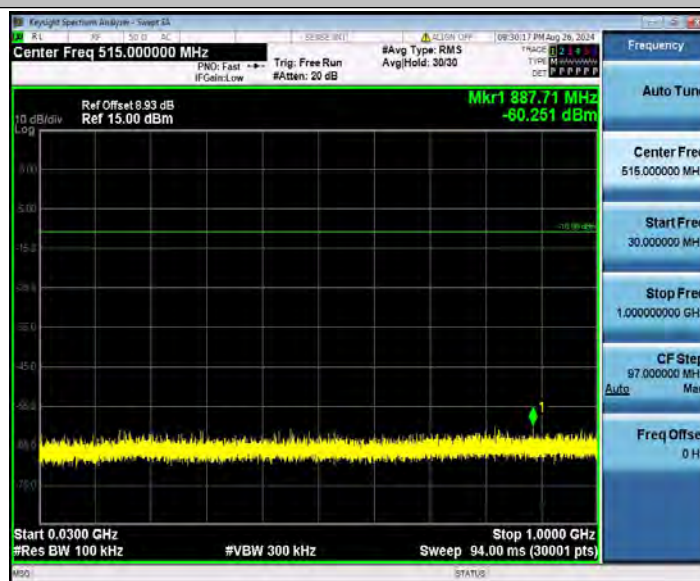
			30~1000	2.41	-60.55	≤-17.59	PASS
			1000~26500	2.41	-47.58	≤-17.59	PASS
		2437	Reference	1.66	1.66	---	PASS
			30~1000	1.66	-60.77	≤-18.34	PASS
			1000~26500	1.66	-47.3	≤-18.34	PASS
		2462	Reference	3.27	3.27	---	PASS
			30~1000	3.27	-60.21	≤-16.73	PASS
			1000~26500	3.27	-47.17	≤-16.73	PASS
11AX40SISO	Ant1	2422	Reference	-0.73	-0.73	---	PASS
			30~1000	-0.73	-61.09	≤-20.73	PASS
			1000~26500	-0.73	-47.66	≤-20.73	PASS
		2437	Reference	-0.19	-0.19	---	PASS
			30~1000	-0.19	-60.36	≤-20.19	PASS
			1000~26500	-0.19	-47.78	≤-20.19	PASS
		2452	Reference	-0.66	-0.66	---	PASS
			30~1000	-0.66	-60.4	≤-20.66	PASS
			1000~26500	-0.66	-46.98	≤-20.66	PASS

Test Graphs

11B_Ant1_2412_0~Reference



11B_Ant1_2412_30~1000



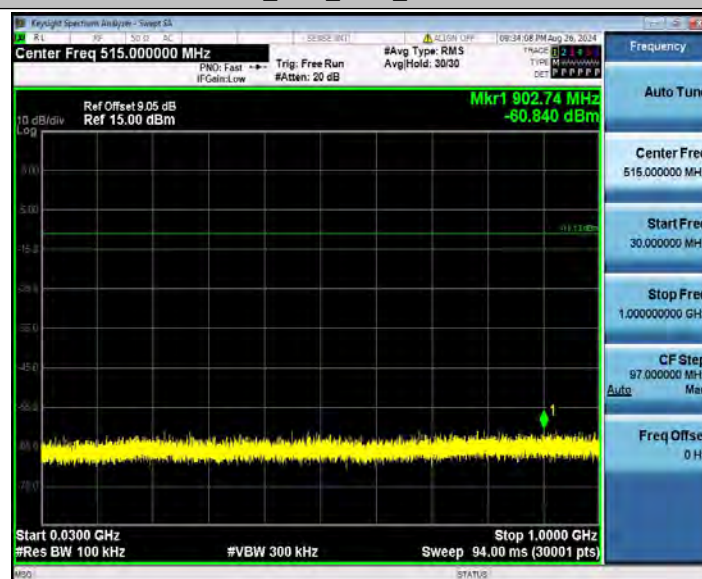
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11B_Ant1_2437_0~Reference



11B_Ant1_2437_30~1000



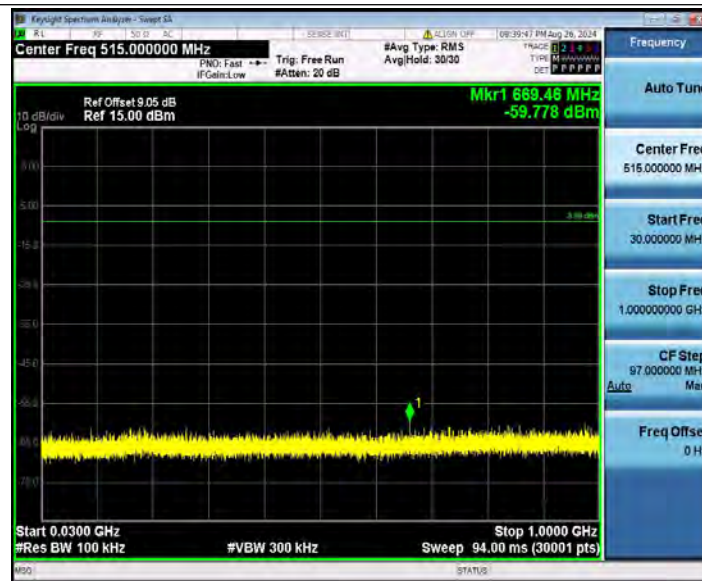
11B_Ant1_2437_1000~26500



11B_Ant1_2462_0~Reference



11B_Ant1_2462_30~1000



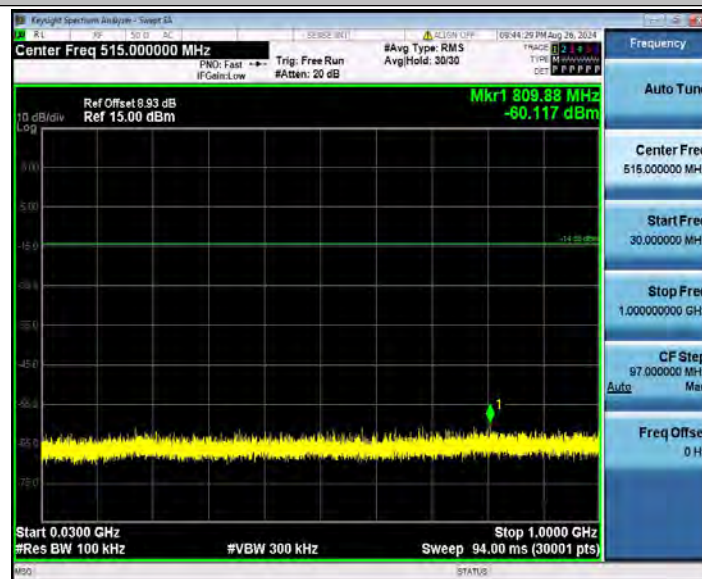
11B_Ant1_2462_1000~26500



11G_Ant1_2412_0~Reference



11G_Ant1_2412_30~1000



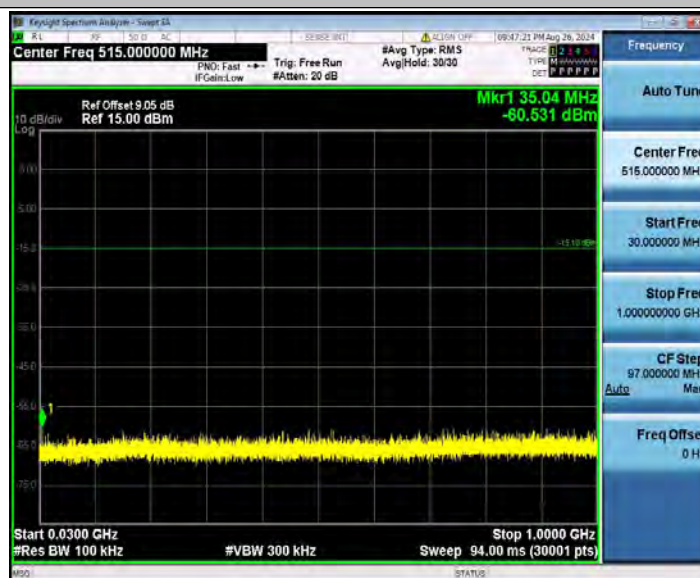
11G_Ant1_2412_1000~26500



11G_Ant1_2437_0~Reference



11G_Ant1_2437_30~1000



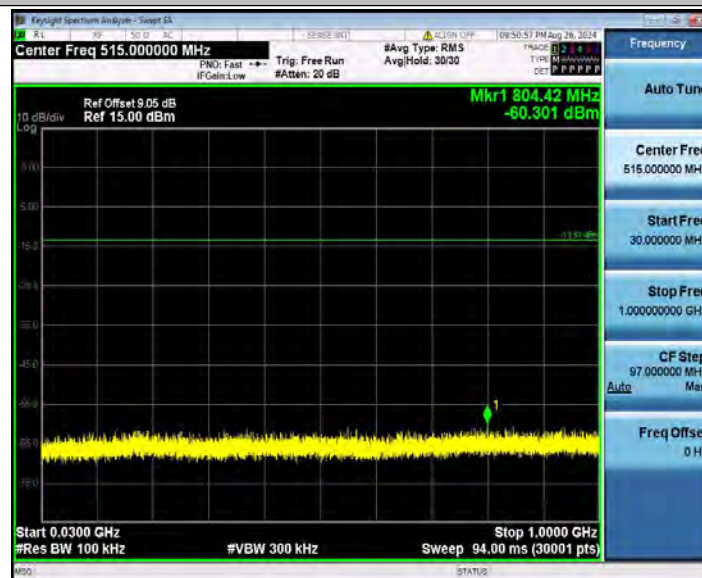
11G_Ant1_2437_1000~26500



11G_Ant1_2462_0~Reference



11G_Ant1_2462_30~1000



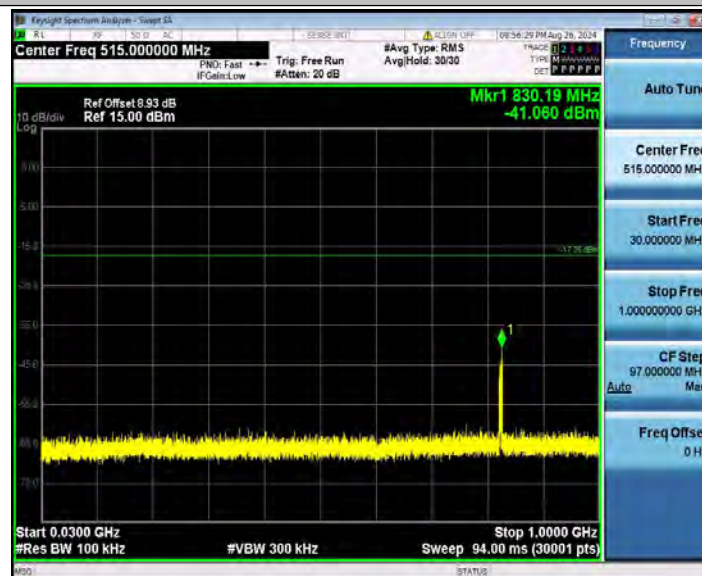
11G_Ant1_2462_1000~26500



11N20SISO_Ant1_2412_0~Reference



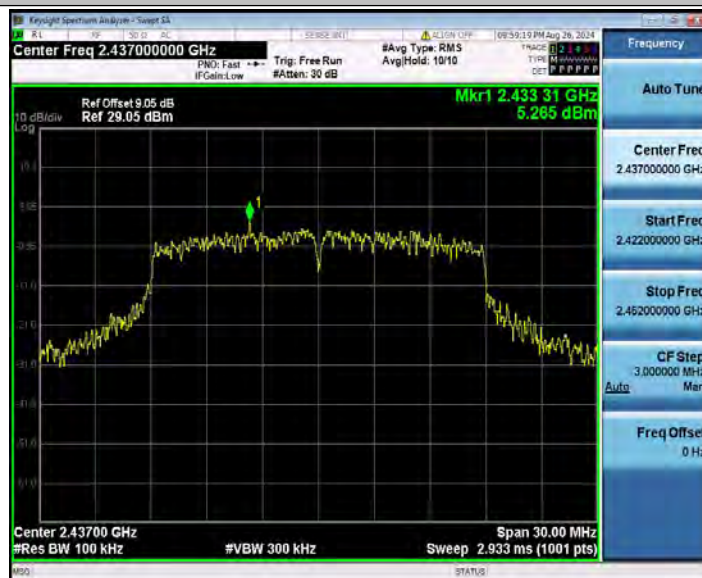
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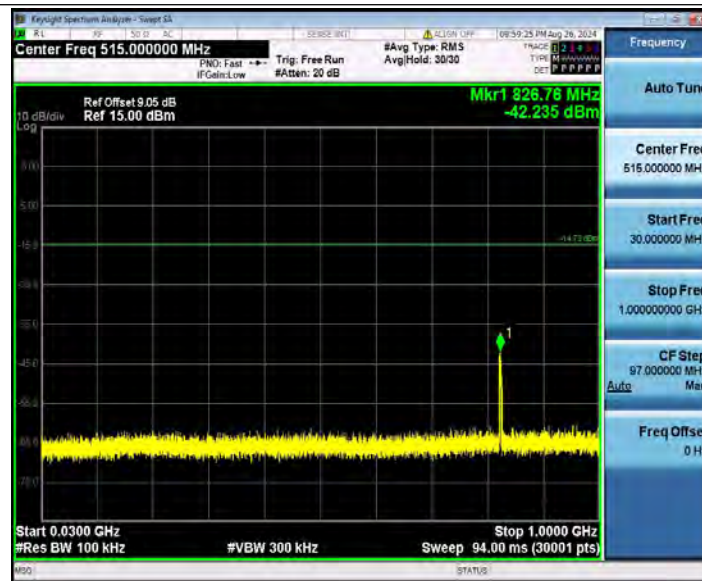
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11N20SISO_Ant1_2437_0~Reference



11N20SISO_Ant1_2437_30~1000



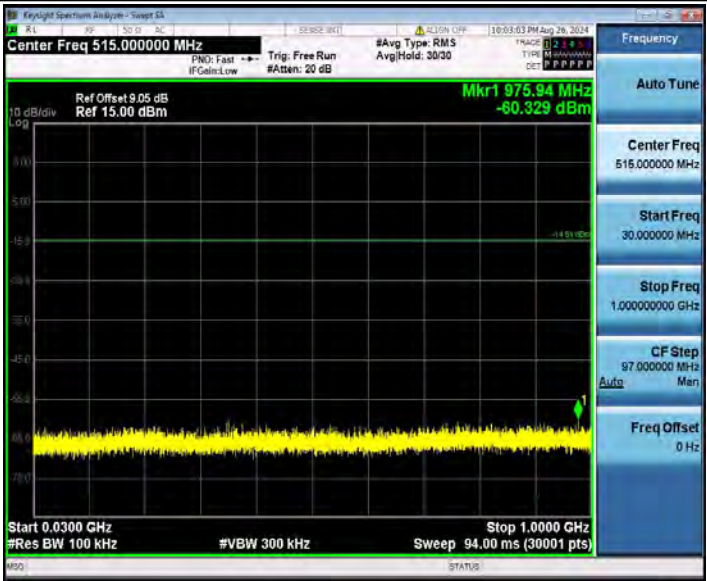
11N20SISO_Ant1_2437_1000~26500



11N20SISO_Ant1_2462_0~Reference



11N20SISO_Ant1_2462_30~1000



11N20SISO_Ant1_2462_1000~26500



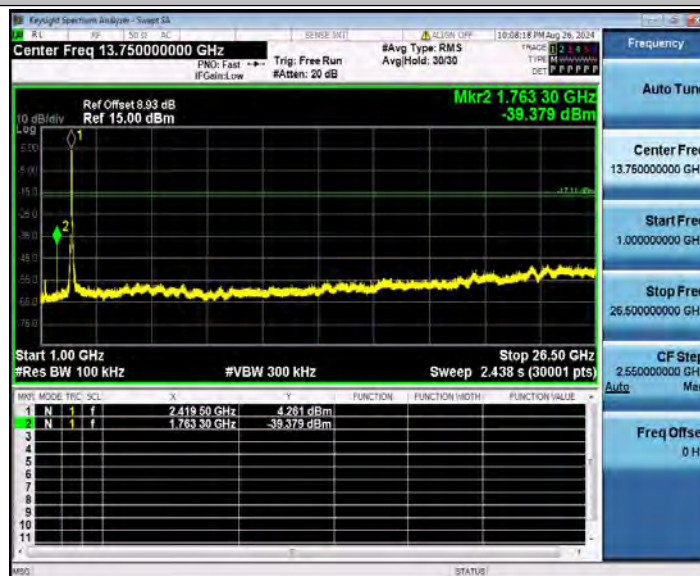
11N40SISO_Ant1_2422_0~Reference



11N40SISO_Ant1_2422_30~1000



11N40SISO_Ant1_2422_1000~26500



11N40SISO_Ant1_2437_0~Reference



11N40SISO_Ant1_2437_30~1000



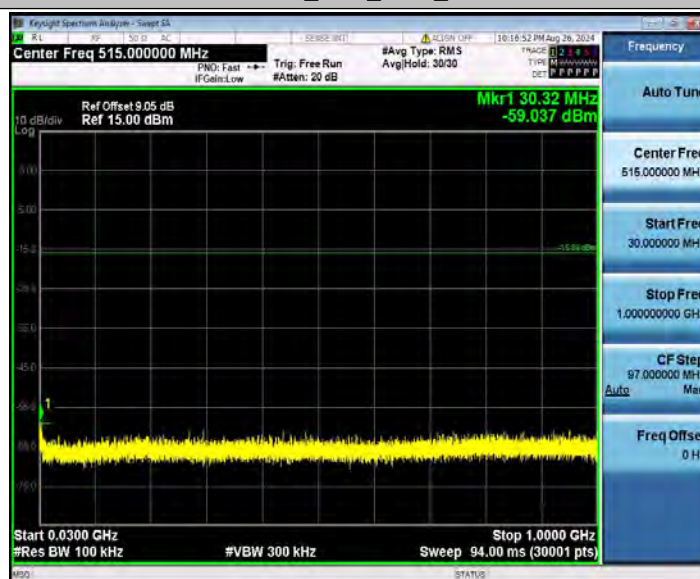
11N40SISO_Ant1_2437_1000~26500



11N40SISO_Ant1_2452_0~Reference



11N40SISO_Ant1_2452_30~1000



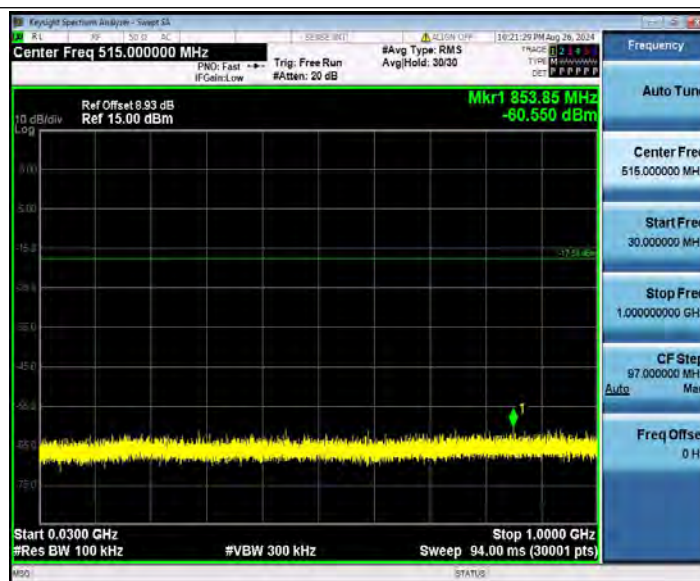
11N40SISO_Ant1_2452_1000~26500



11AX20SISO_Ant1_2412_0~Reference



11AX20SISO_Ant1_2412_30~1000

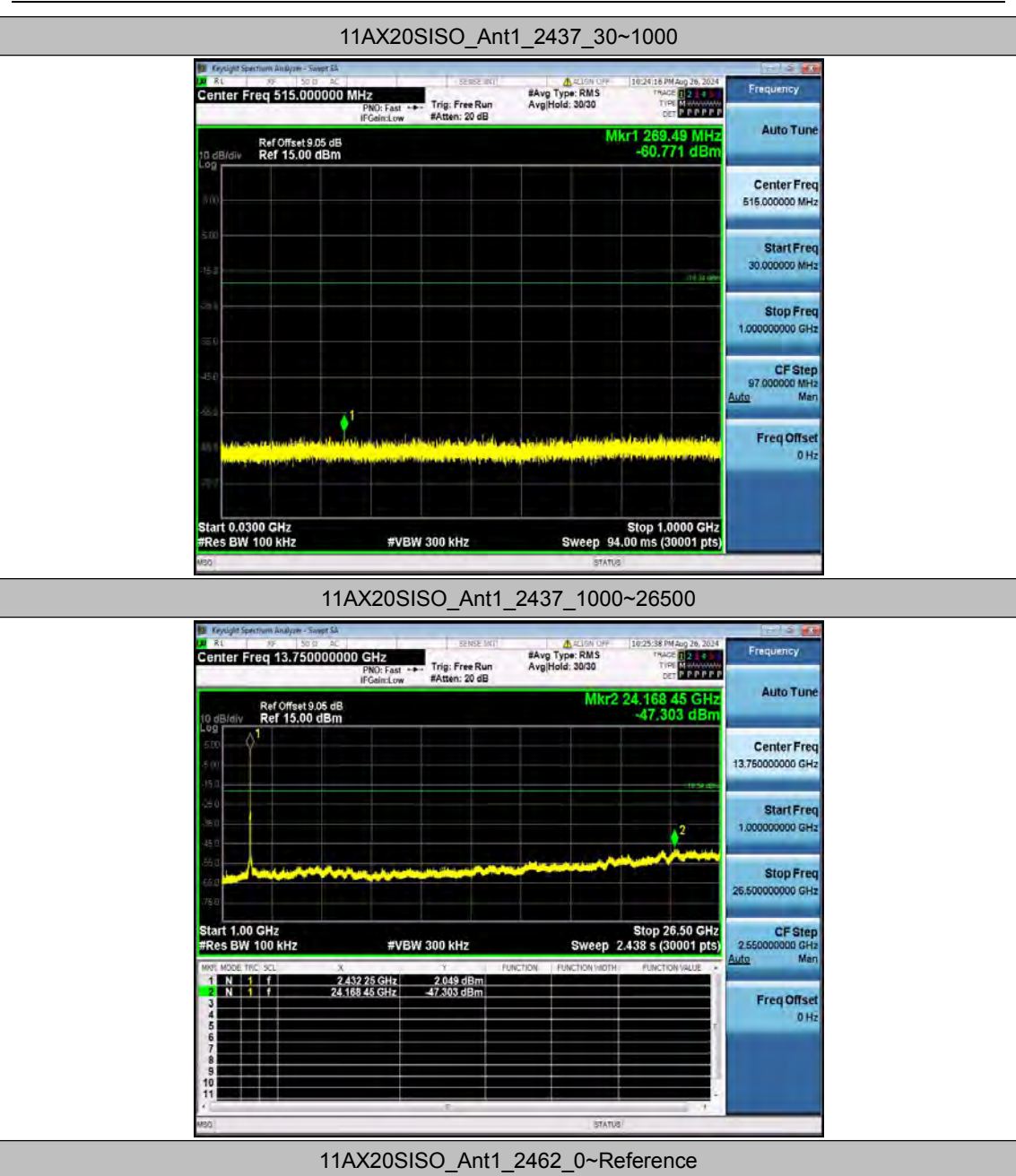


11AX20SISO_Ant1_2412_1000~26500



11AX20SISO_Ant1_2437_0~Reference







11AX20SISO_Ant1_2462_30~1000



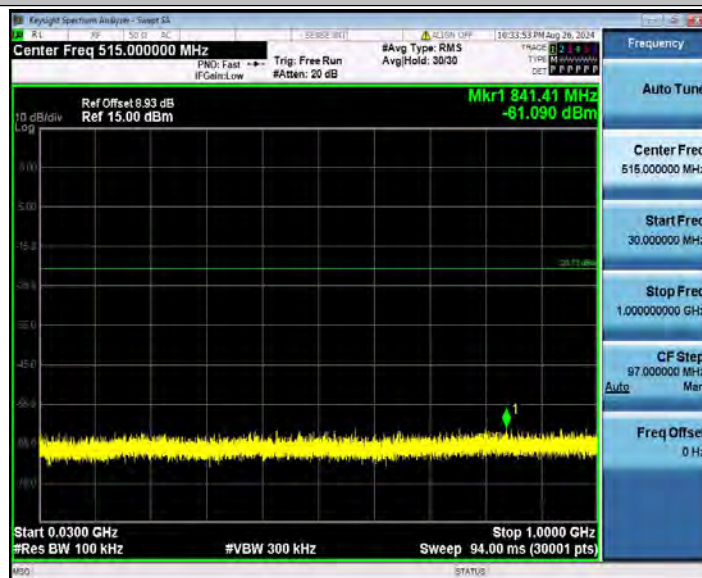
11AX20SISO_Ant1_2462_1000~26500



11AX40SISO_Ant1_2422_0~Reference



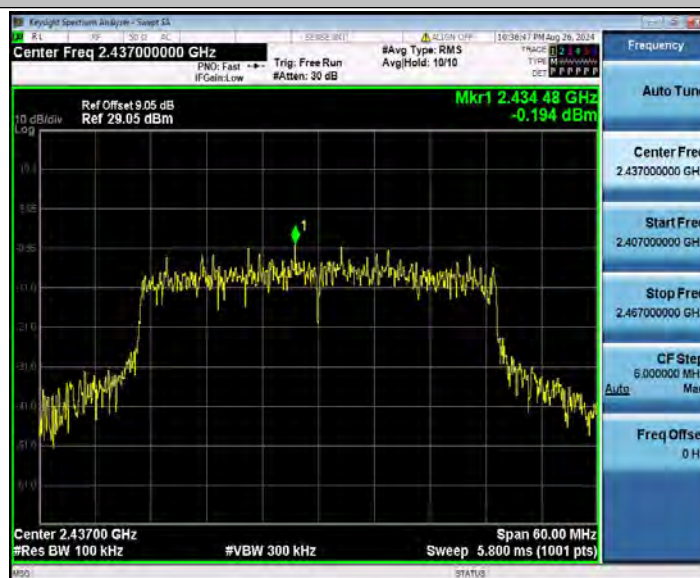
11AX40SISO_Ant1_2422_30~1000



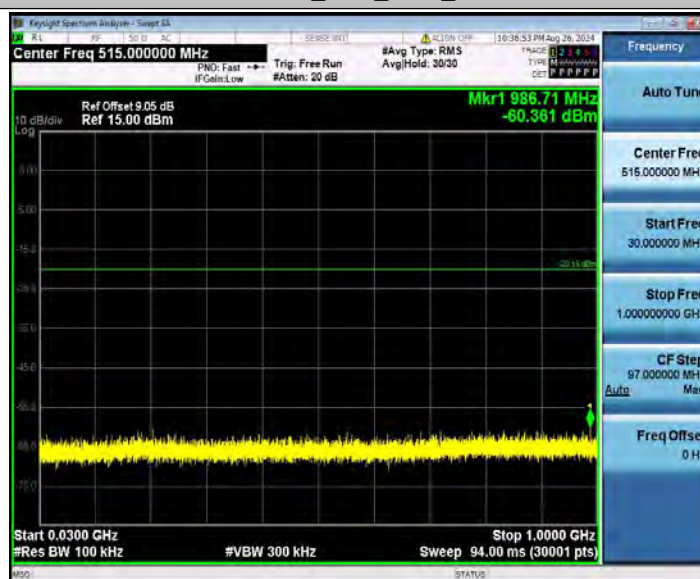
11AX40SISO_Ant1_2422_1000~26500



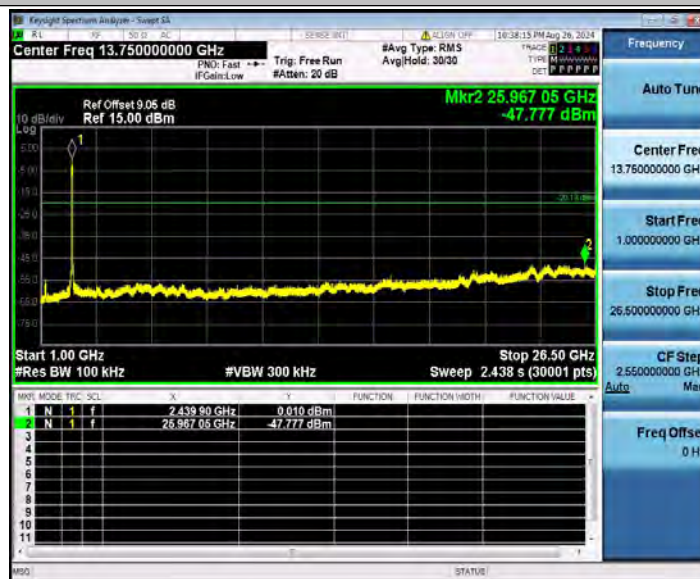
11AX40SISO_Ant1_2437_0~Reference



11AX40SISO_Ant1_2437_30~1000



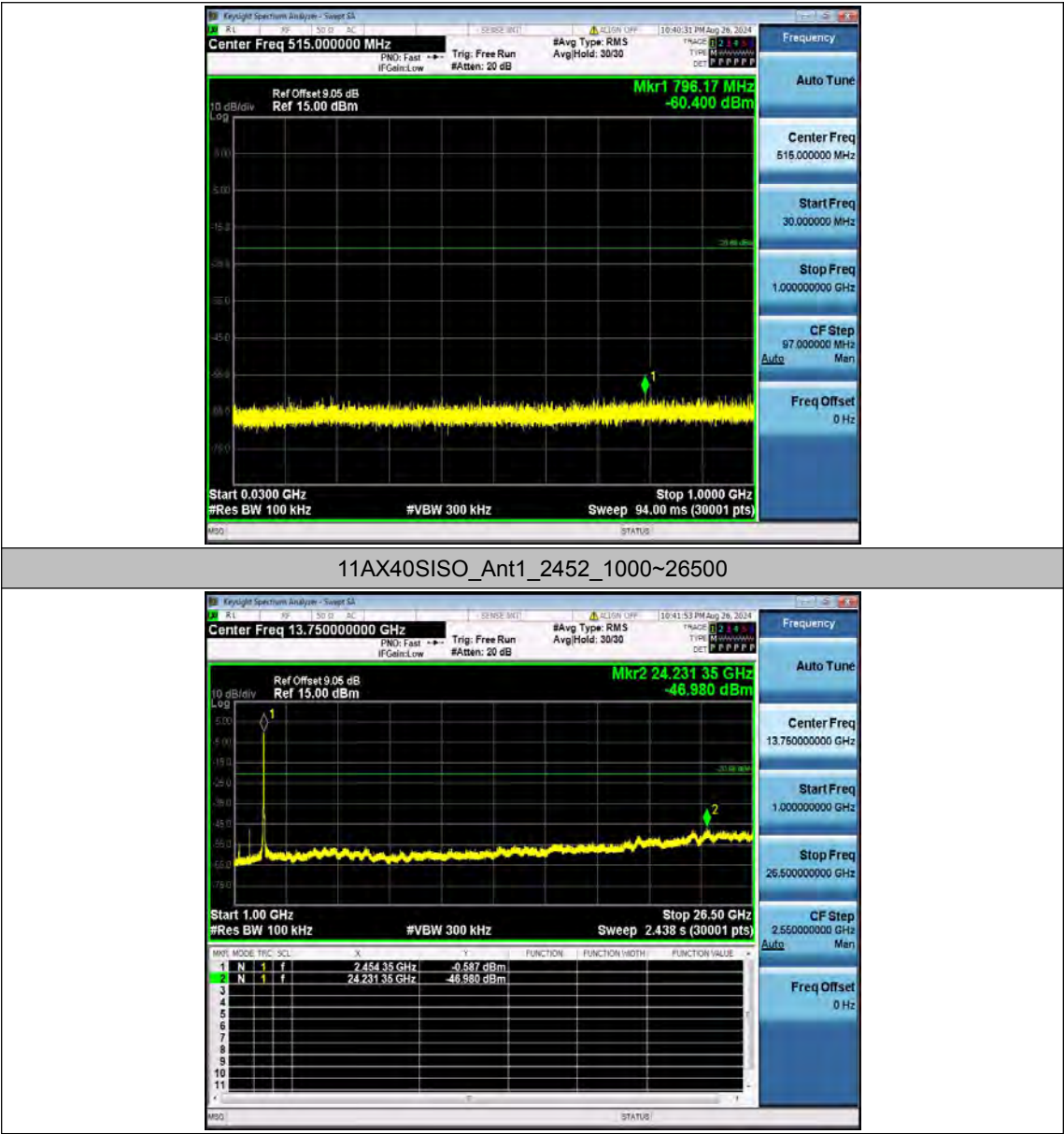
11AX40SISO_Ant1_2437_1000~26500



11AX40SISO_Ant1_2452_0~Reference



11AX40SISO_Ant1_2452_30~1000



Appendix A.7: Emissions in Restricted Bands

Test Result

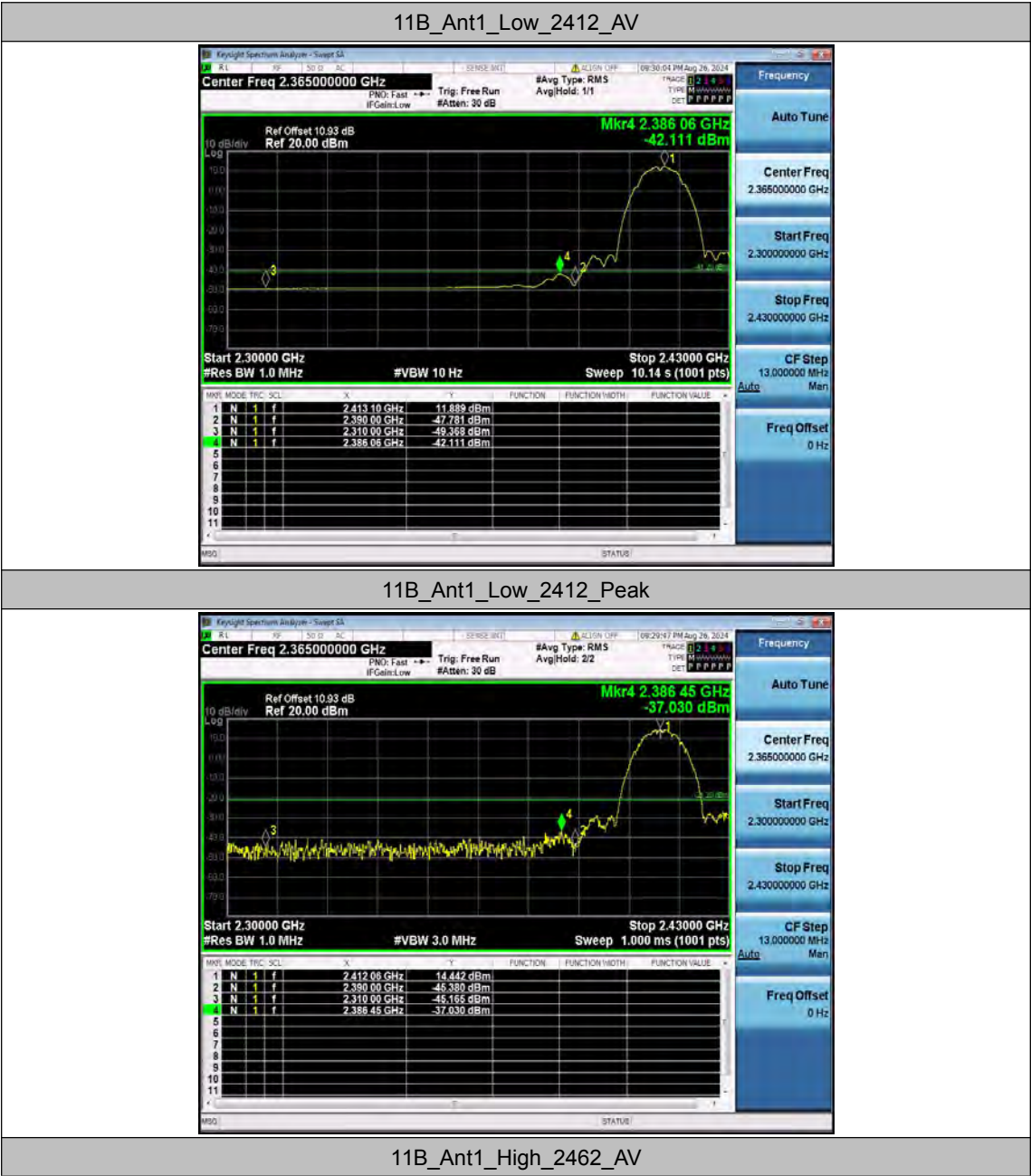
TestMode	Antenna	ChName	Frequency [MHz]	Detector	Freq [MHz]	Result [dBm]	Limit [dBm]	Result [dBuV/m]	Limit [dBuV/m]	Verdict
11B	Ant1	Low	2412	AV	2310.000	-49.37	≤-41.20	45.83	≤54	PASS
				AV	2386.060	-42.11	≤-41.20	53.09	≤54	PASS
				AV	2390.000	-47.78	≤-41.20	47.42	≤54	PASS
				Peak	2310.000	-45.17	≤-21.20	50.03	≤74	PASS
				Peak	2386.450	-37.03	≤-21.20	58.17	≤74	PASS
				Peak	2390.000	-45.38	≤-21.20	49.82	≤74	PASS
		High	2462	AV	2483.500	-46.99	≤-41.20	48.21	≤54	PASS
				AV	2488.510	-43.74	≤-41.20	51.46	≤54	PASS
				AV	2500.000	-47.08	≤-41.20	48.12	≤54	PASS
				Peak	2483.500	-45.63	≤-21.20	49.57	≤74	PASS
				Peak	2487.850	-37.78	≤-21.20	57.42	≤74	PASS
				Peak	2500.000	-43.32	≤-21.20	51.88	≤74	PASS
11G	Ant1	Low	2412	AV	2310.000	-49.59	≤-41.20	45.61	≤54	PASS
				AV	2389.960	-43.83	≤-41.20	51.37	≤54	PASS
				AV	2390.000	-43.83	≤-41.20	51.37	≤54	PASS
				Peak	2310.000	-44.7	≤-21.20	50.50	≤74	PASS
				Peak	2367.860	-39.81	≤-21.20	55.39	≤74	PASS
				Peak	2390.000	-41.67	≤-21.20	53.53	≤74	PASS
		High	2462	AV	2483.500	-43.41	≤-41.20	51.79	≤54	PASS
				AV	2483.560	-43.48	≤-41.20	51.72	≤54	PASS
				AV	2500.000	-48.05	≤-41.20	47.15	≤54	PASS
				Peak	2483.500	-39.29	≤-21.20	55.91	≤74	PASS
				Peak	2484.220	-30.35	≤-21.20	64.85	≤74	PASS
				Peak	2500.000	-47.41	≤-21.20	47.79	≤74	PASS
11N20SIS O	Ant1	Low	2412	AV	2310.000	-49.57	≤-41.20	45.63	≤54	PASS
				AV	2389.960	-43.5	≤-41.20	51.70	≤54	PASS
				AV	2390.000	-43.51	≤-41.20	51.69	≤54	PASS
				Peak	2310.000	-47.17	≤-21.20	48.03	≤74	PASS
				Peak	2385.800	-31.78	≤-21.20	63.42	≤74	PASS
				Peak	2390.000	-44.43	≤-21.20	50.77	≤74	PASS
		High	2462	AV	2483.500	-43.09	≤-41.20	52.11	≤54	PASS
				AV	2483.560	-43.21	≤-41.20	51.99	≤54	PASS
				AV	2500.000	-47.96	≤-41.20	47.24	≤54	PASS
				Peak	2483.500	-39.49	≤-21.20	55.71	≤74	PASS
				Peak	2485.870	-31.96	≤-21.20	63.24	≤74	PASS
				Peak	2500.000	-47.82	≤-21.20	47.38	≤74	PASS

11N40SISO	Ant1	Low	2422	AV	2310.000	-49.53	≤ -41.20	45.67	≤ 54	PASS
				AV	2389.960	-41.84	≤ -41.20	53.36	≤ 54	PASS
				AV	2390.000	-41.84	≤ -41.20	53.36	≤ 54	PASS
				Peak	2310.000	-46.81	≤ -21.20	48.39	≤ 74	PASS
				Peak	2380.990	-33.09	≤ -21.20	62.11	≤ 74	PASS
				Peak	2390.000	-34.32	≤ -21.20	60.88	≤ 74	PASS
		High	2452	AV	2483.500	-43.08	≤ -41.20	52.12	≤ 54	PASS
				AV	2483.560	-43.03	≤ -41.20	52.17	≤ 54	PASS
				AV	2500.000	-46.6	≤ -41.20	48.60	≤ 54	PASS
				Peak	2483.500	-39.09	≤ -21.20	56.11	≤ 74	PASS
				Peak	2490.710	-32.63	≤ -21.20	62.57	≤ 74	PASS
				Peak	2500.000	-42.58	≤ -21.20	52.62	≤ 74	PASS
11AX20SISO	Ant1	Low	2412	AV	2310.000	-49.28	≤ -41.20	45.92	≤ 54	PASS
				AV	2389.960	-43.04	≤ -41.20	52.16	≤ 54	PASS
				AV	2390.000	-43.04	≤ -41.20	52.16	≤ 54	PASS
				Peak	2310.000	-44.85	≤ -21.20	50.35	≤ 74	PASS
				Peak	2388.790	-38.55	≤ -21.20	56.65	≤ 74	PASS
				Peak	2390.000	-39.61	≤ -21.20	55.59	≤ 74	PASS
		High	2462	AV	2483.500	-46.21	≤ -41.20	48.99	≤ 54	PASS
				AV	2483.560	-46.3	≤ -41.20	48.90	≤ 54	PASS
				AV	2500.000	-48.33	≤ -41.20	46.87	≤ 54	PASS
				Peak	2483.500	-43.55	≤ -21.20	51.65	≤ 74	PASS
				Peak	2492.690	-32.83	≤ -21.20	62.37	≤ 74	PASS
				Peak	2500.000	-46.26	≤ -21.20	48.94	≤ 74	PASS
11AX40SISO	Ant1	Low	2422	AV	2310.000	-49.28	≤ -41.20	45.92	≤ 54	PASS
				AV	2389.960	-42.77	≤ -41.20	52.43	≤ 54	PASS
				AV	2390.000	-42.77	≤ -41.20	52.43	≤ 54	PASS
				Peak	2310.000	-44.49	≤ -21.20	50.71	≤ 74	PASS
				Peak	2389.570	-33.14	≤ -21.20	62.06	≤ 74	PASS
				Peak	2390.000	-43.08	≤ -21.20	52.12	≤ 74	PASS
		High	2452	AV	2483.500	-42.35	≤ -41.20	52.85	≤ 54	PASS
				AV	2483.560	-42.38	≤ -41.20	52.82	≤ 54	PASS
				AV	2500.000	-46.38	≤ -41.20	48.82	≤ 54	PASS
				Peak	2483.500	-36.03	≤ -21.20	59.17	≤ 74	PASS
				Peak	2495.880	-35.8	≤ -21.20	59.40	≤ 74	PASS
				Peak	2500.000	-44.73	≤ -21.20	50.47	≤ 74	PASS

Note:

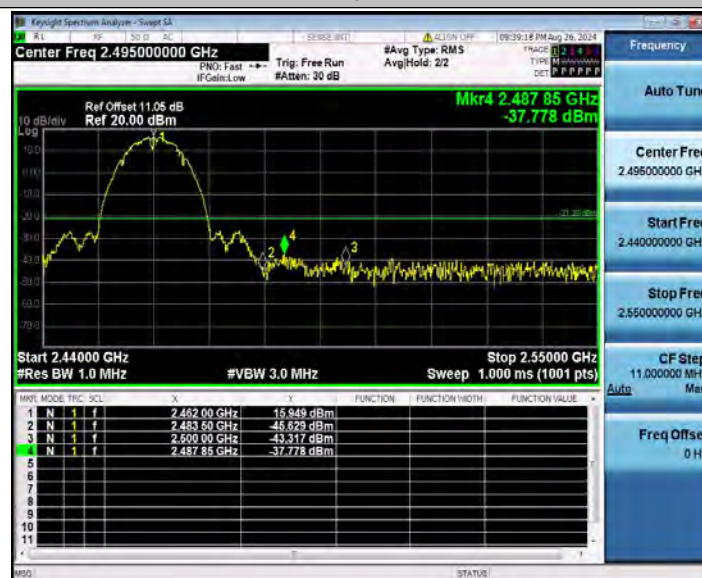
1. The Antenna Gain is compensated in the graph.
2. The Duty Cycle Factor and RBW Factor is compensated in the graph.
3. The limit in dBm for average detector is conversion from 54dBuV/m, according to 15.209(a). The limit in dBm for peak detector is 20dB above the limit of average detector in dBm.

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

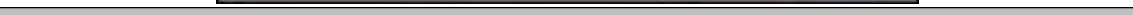


11N20SISO_Ant1_Low_2412_AV



11N20SISO_Ant1_Low_2412_Peak









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



11AX20SISO_Ant1_High_2462_AV



11AX20SISO_Ant1_High_2462_Peak



11AX40SISO_Ant1_Low_2422_AV



11AX40SISO_Ant1_Low_2422_Peak



11AX40SISO_Ant1_High_2452_AV



11AX40SISO_Ant1_High_2452_Peak

