

Appendix A

RF Test Data for 2.4GWIFI (Conducted Measurement)

Product Name: VEXnet SERVER

Test Model: 210-8909-000

Environmental Conditions

Temperature:	24.5°C
Relative Humidity:	53.1%
ATM Pressure:	100.0 kPa
Test Engineer:	Zhang hai
Supervised by:	FengLiu Tang

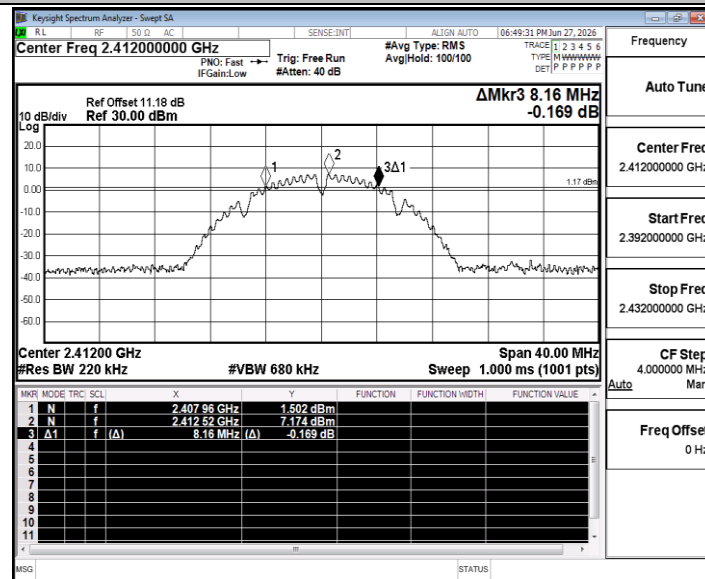
A.1 DTS Bandwidth

Test Result

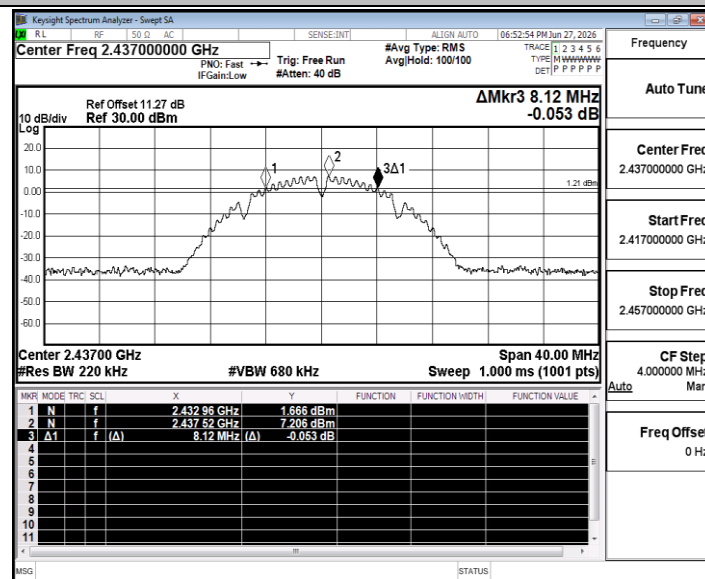
TestMode	Antenna	Frequency [MHz]	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit [MHz]	Verdict
11B	Ant1	2412	8.160	2407.960	2416.120	0.5	PASS
		2437	8.120	2432.960	2441.080	0.5	PASS
		2462	8.160	2457.960	2466.120	0.5	PASS
11G	Ant1	2412	16.280	2403.920	2420.200	0.5	PASS
		2437	16.320	2428.880	2445.200	0.5	PASS
		2462	15.880	2454.080	2469.960	0.5	PASS
11N20SISO	Ant1	2412	17.440	2403.320	2420.760	0.5	PASS
		2437	17.520	2428.240	2445.760	0.5	PASS
		2462	17.360	2453.320	2470.680	0.5	PASS
11N40SISO	Ant1	2422	35.840	2404.160	2440.000	0.5	PASS
		2437	36.240	2418.920	2455.160	0.5	PASS
		2452	36.080	2434.000	2470.080	0.5	PASS
11AX20SISO	Ant1	2412	18.960	2402.560	2421.520	0.5	PASS
		2437	18.760	2427.680	2446.440	0.5	PASS
		2462	18.800	2452.640	2471.440	0.5	PASS
11AX40SISO	Ant1	2422	37.600	2403.360	2440.960	0.5	PASS
		2437	36.880	2419.000	2455.880	0.5	PASS
		2452	35.120	2434.720	2469.840	0.5	PASS

Test Graphs

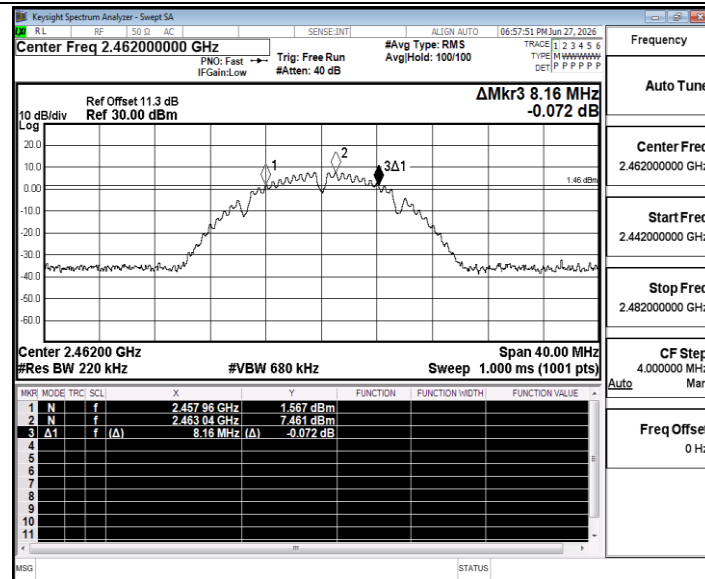
11B_Ant1_2412



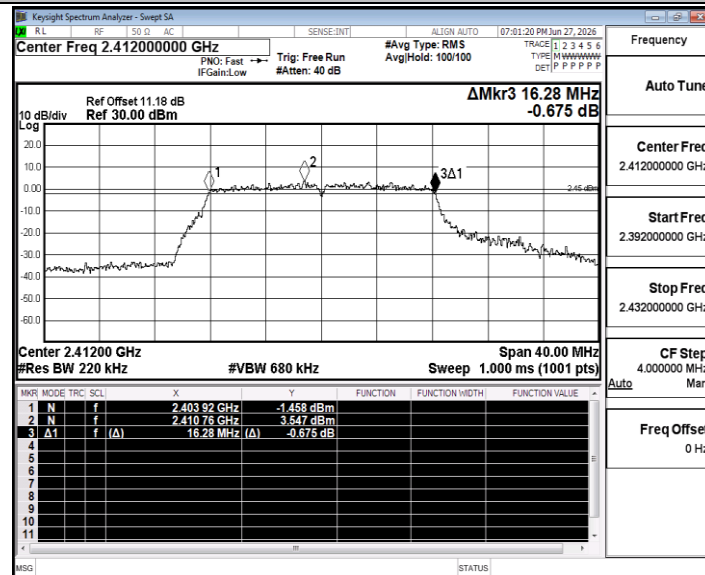
11B_Ant1_2437



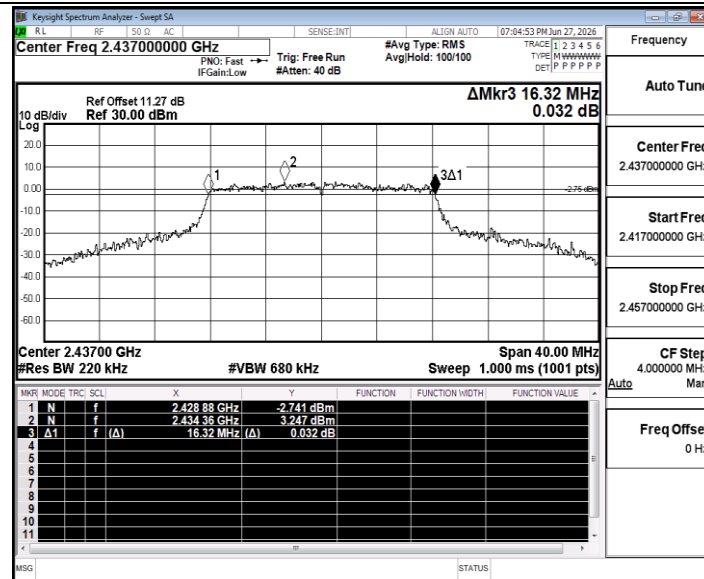
11B_Ant1_2462



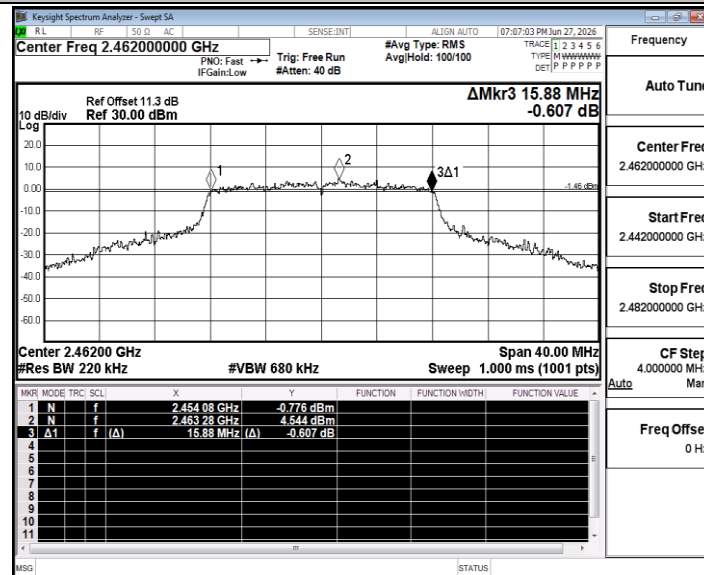
11G_Ant1_2412



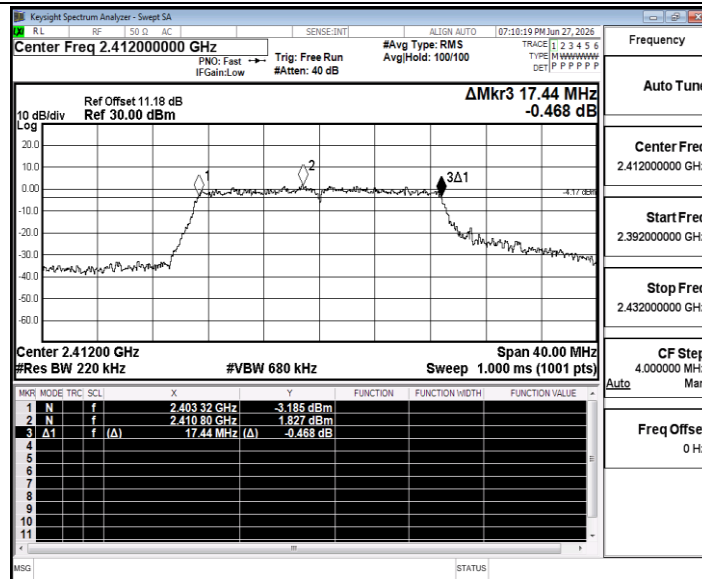
11G_Ant1_2437



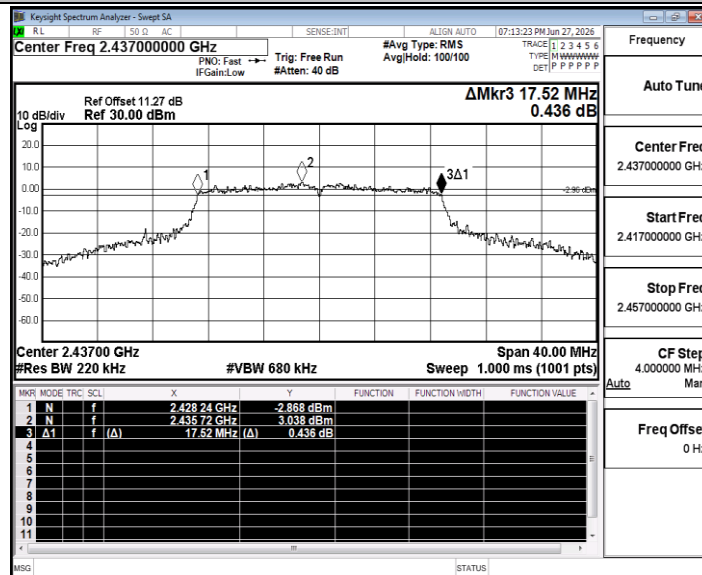
11G_Ant1_2462



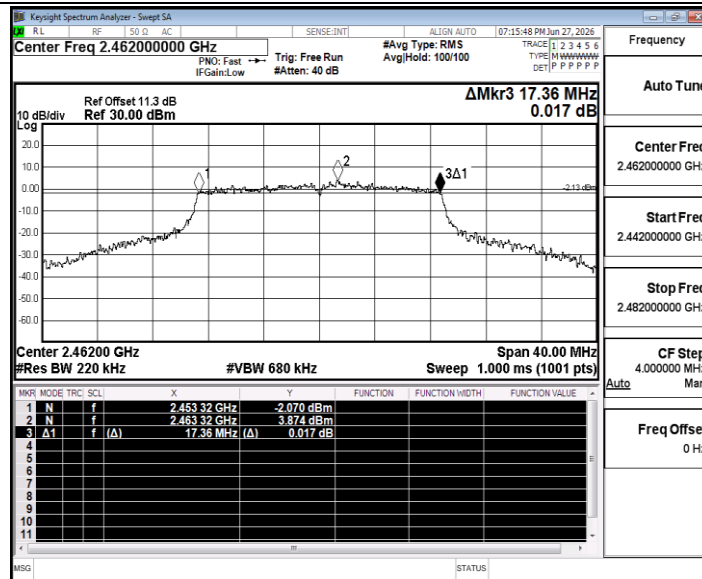
11N20SISO_Ant1_2412



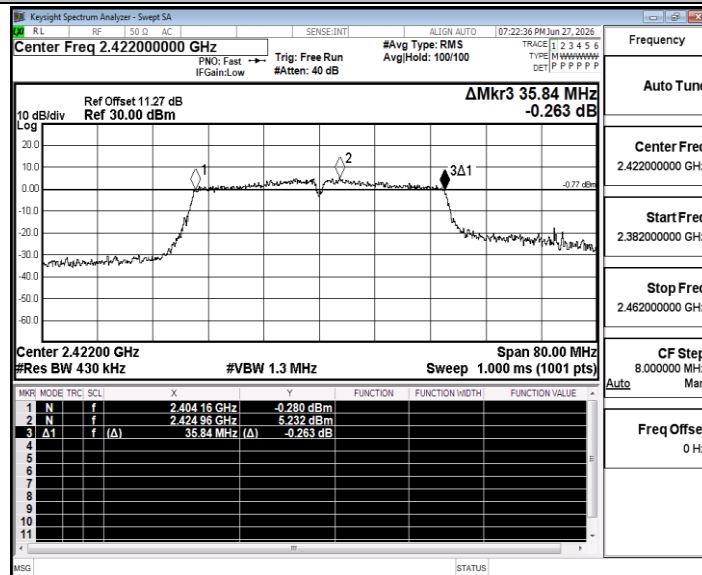
11N20SISO_Ant1_2437



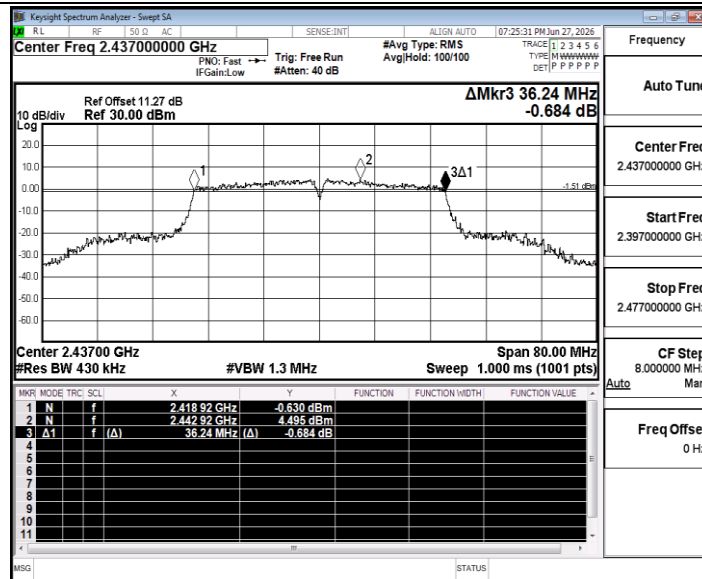
11N20SISO_Ant1_2462



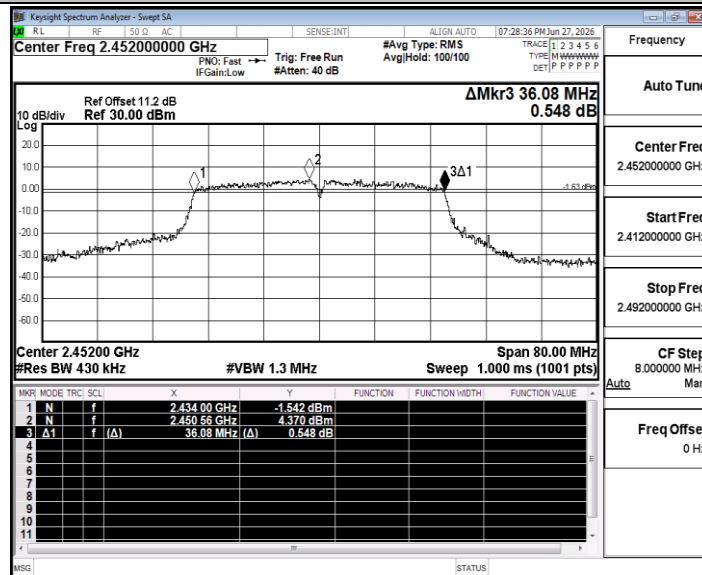
11N40SISO_Ant1_2422



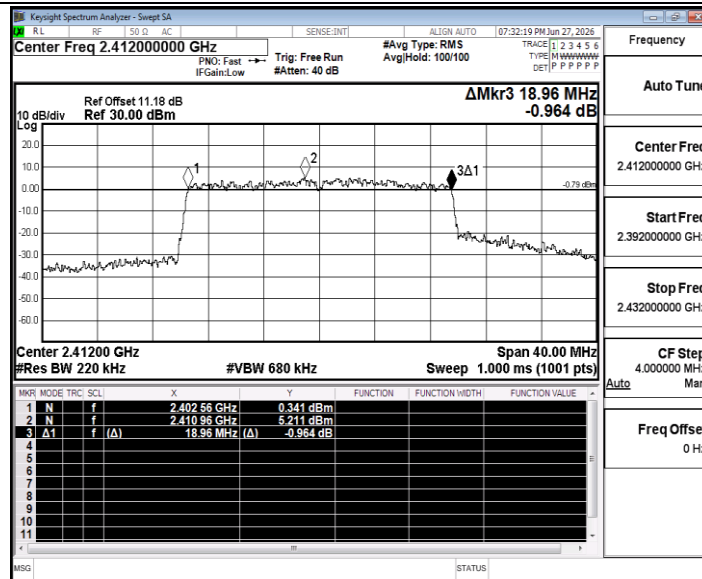
11N40SISO_Ant1_2437



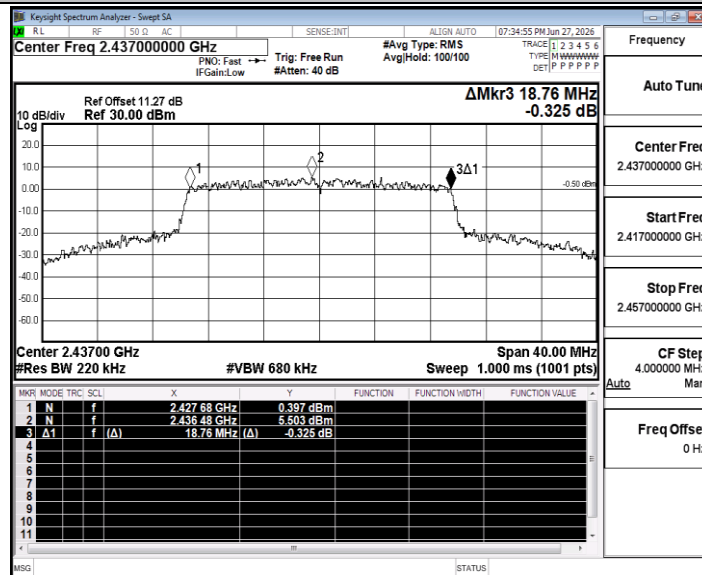
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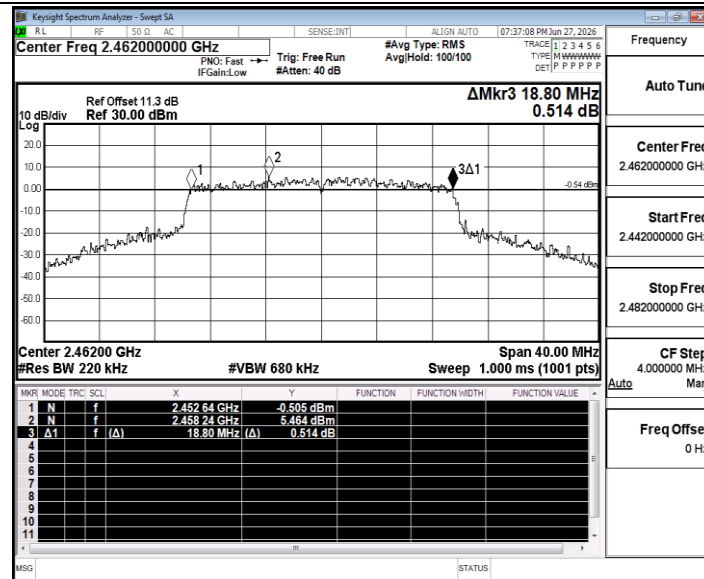
11AX20SISO_Ant1_2412



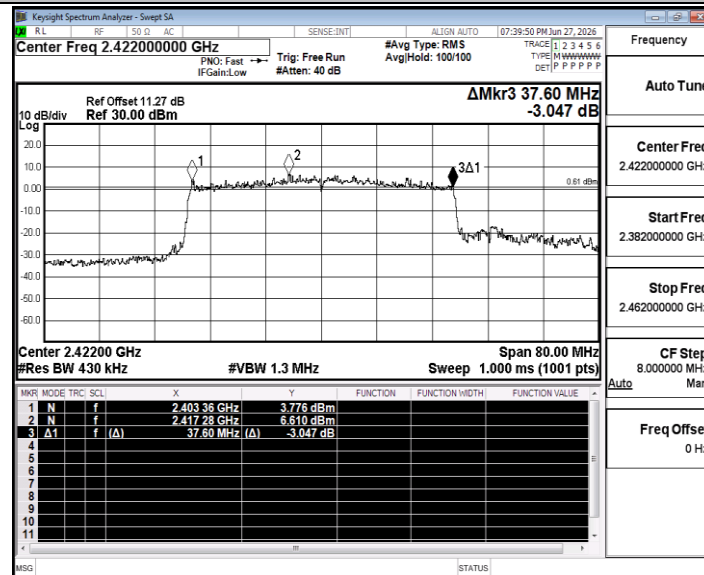
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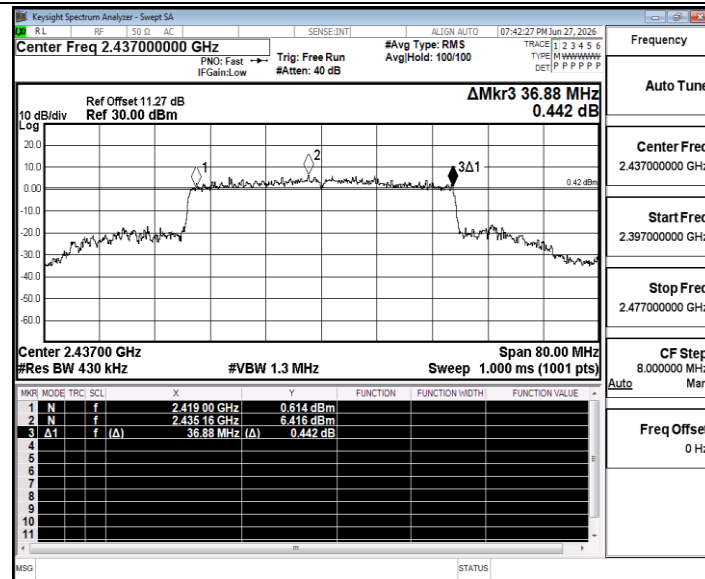
11AX20SISO_Ant1_2462



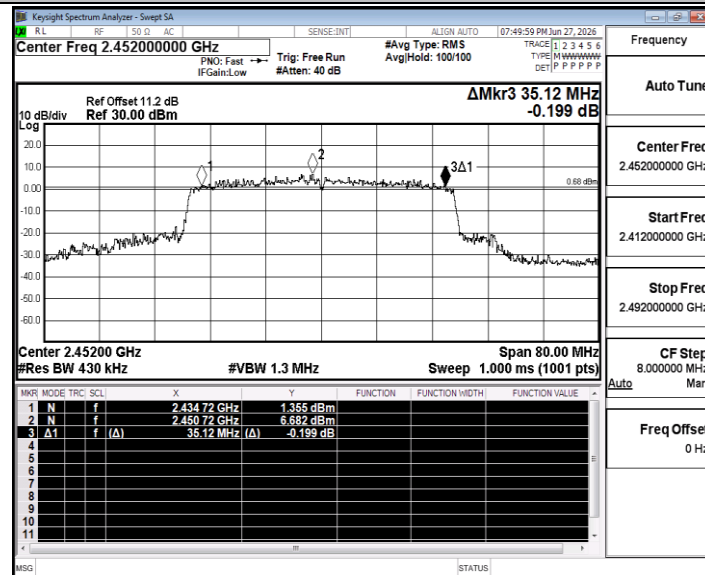
11AX40SISO_Ant1_2422



11AX40SISO_Ant1_2437



11AX40SISO_Ant1_2452

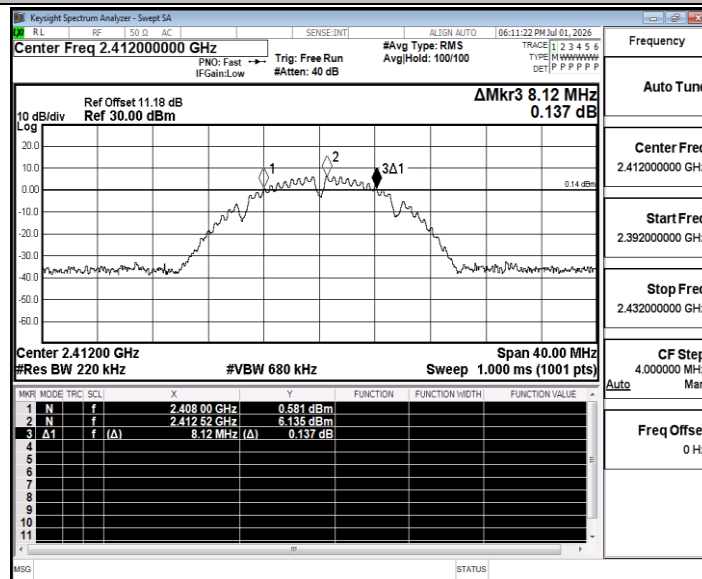


Test Result

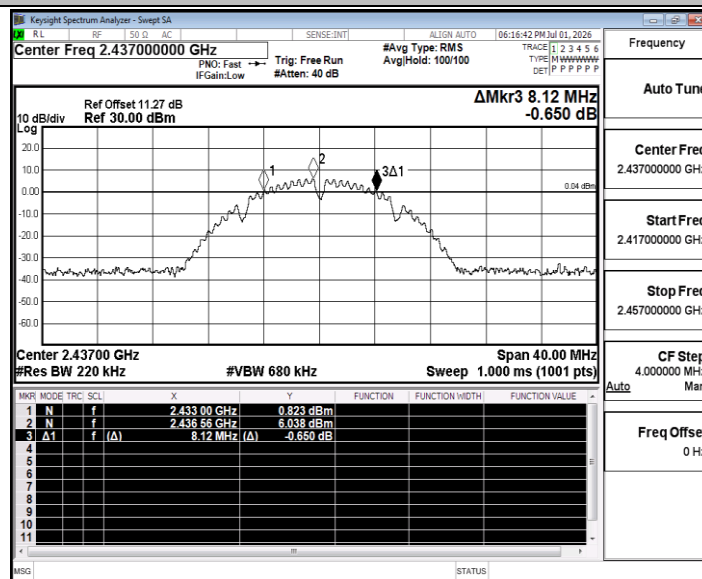
TestMode	Antenna	Frequency [MHz]	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit [MHz]	Verdict
11B	Ant2	2412	8.120	2408.000	2416.120	0.5	PASS
		2437	8.120	2433.000	2441.120	0.5	PASS
		2462	8.120	2457.960	2466.080	0.5	PASS
11G	Ant2	2412	16.320	2403.880	2420.200	0.5	PASS
		2437	16.360	2428.840	2445.200	0.5	PASS
		2462	16.320	2453.880	2470.200	0.5	PASS
11N20SISO	Ant2	2412	17.520	2403.280	2420.800	0.5	PASS
		2437	17.480	2428.320	2445.800	0.5	PASS
		2462	17.360	2453.280	2470.640	0.5	PASS
11N40SISO	Ant2	2422	35.280	2404.800	2440.080	0.5	PASS
		2437	36.000	2419.000	2455.000	0.5	PASS
		2452	35.760	2434.240	2470.000	0.5	PASS
11AX20SISO	Ant2	2412	18.800	2402.640	2421.440	0.5	PASS
		2437	18.800	2427.680	2446.480	0.5	PASS
		2462	18.880	2452.600	2471.480	0.5	PASS
11AX40SISO	Ant2	2422	36.960	2403.280	2440.240	0.5	PASS
		2437	37.040	2418.520	2455.560	0.5	PASS
		2452	36.480	2433.200	2469.680	0.5	PASS

Test Graphs

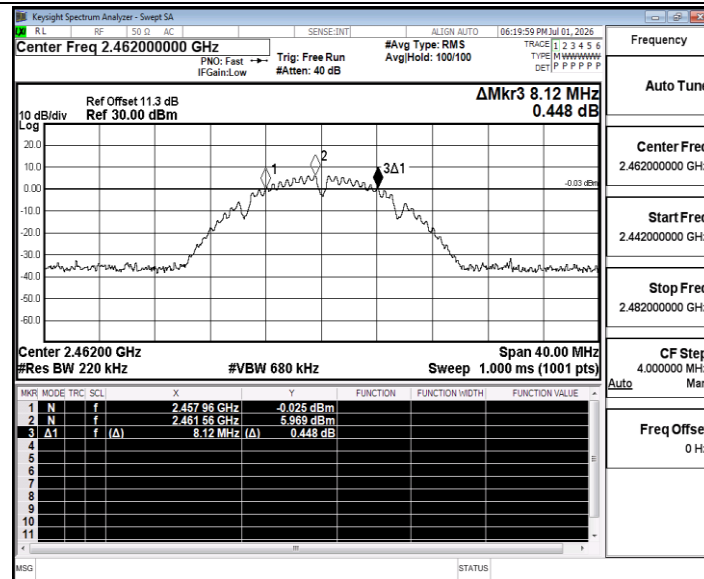
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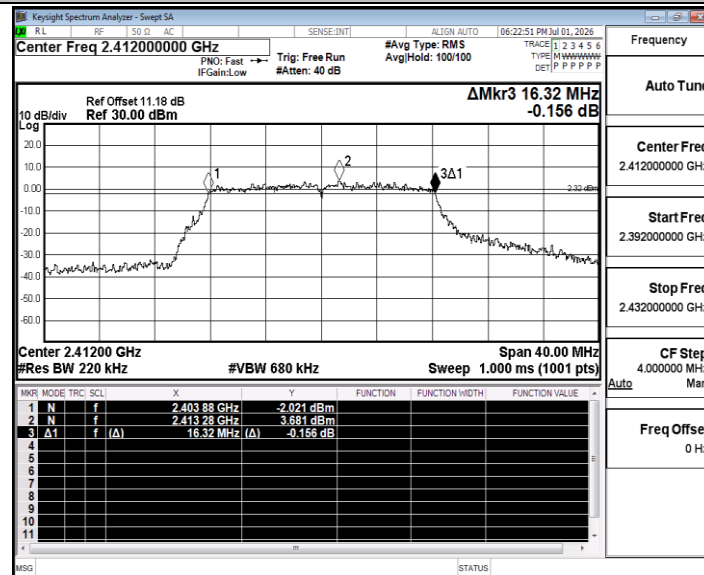
11B_Ant2_2437



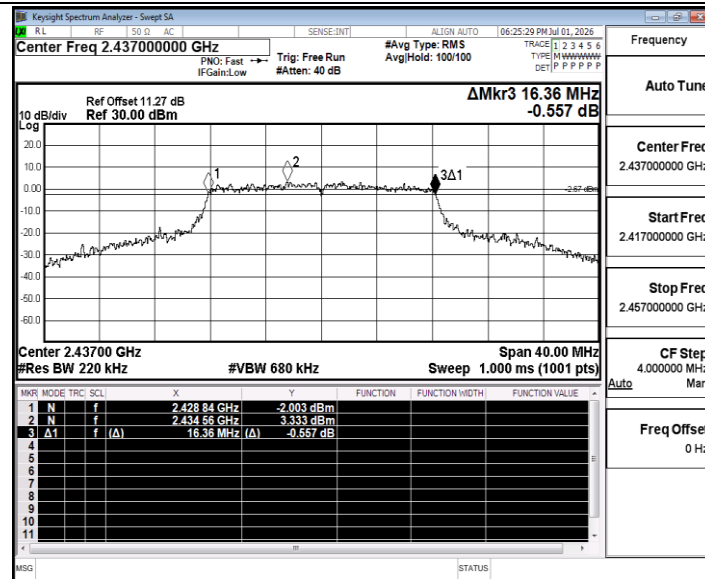
11B_Ant2_2462



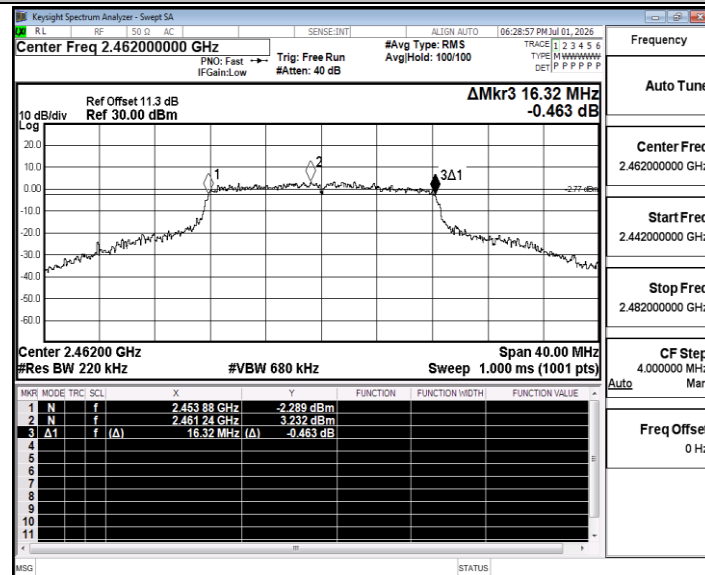
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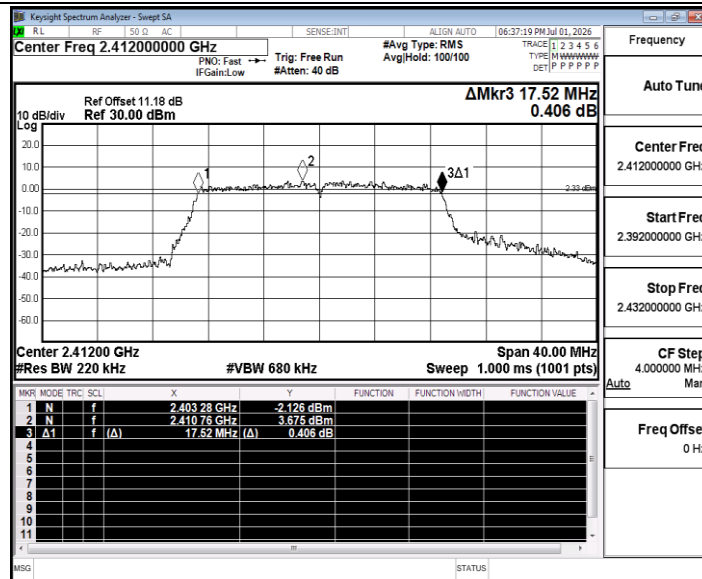
11G_Ant2_2437



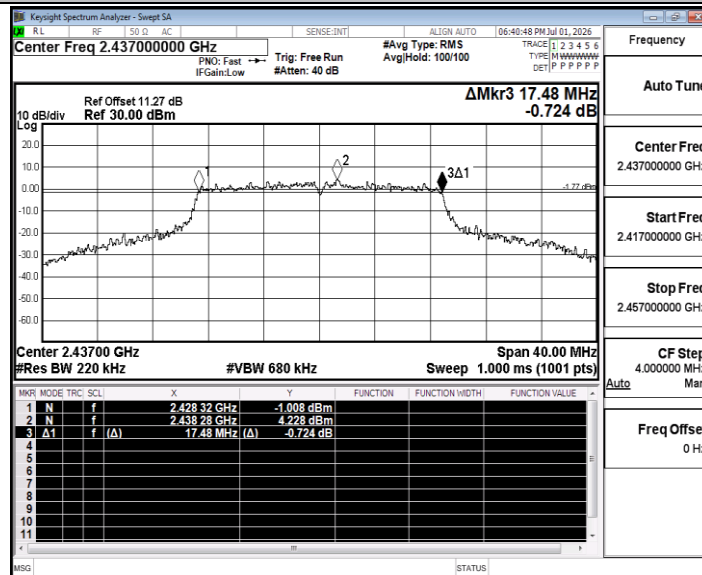
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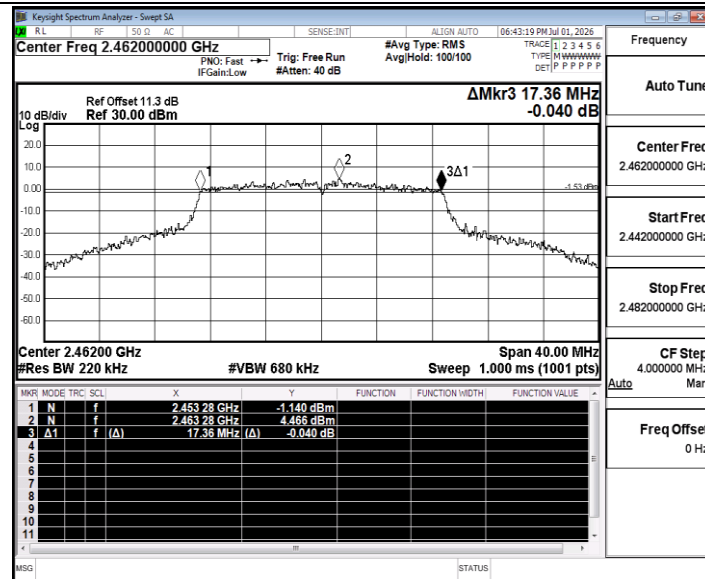
11N20SISO_Ant2_2412



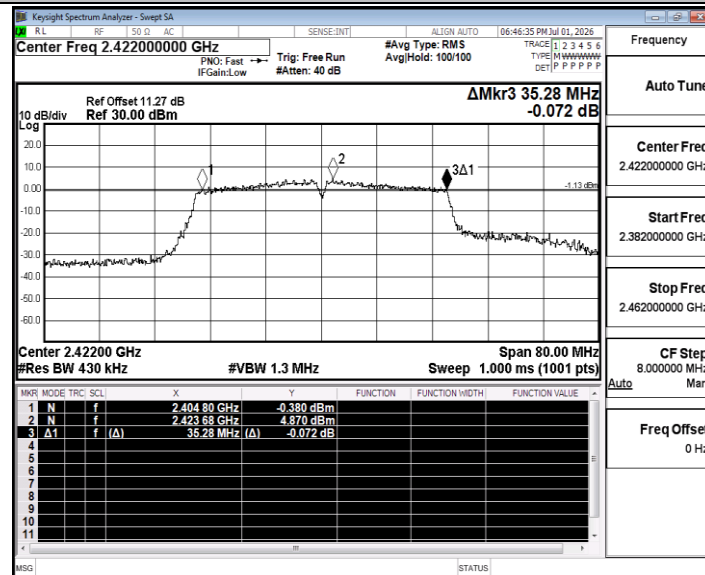
11N20SISO_Ant2_2437



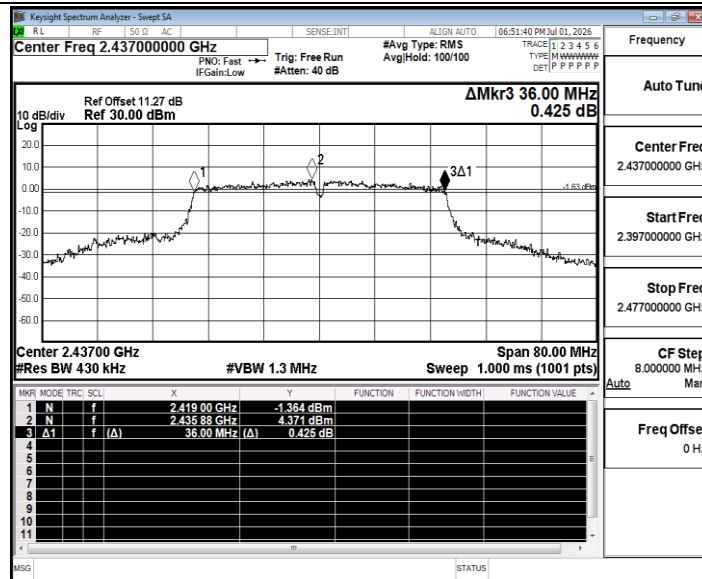
11N20SISO_Ant2_2462



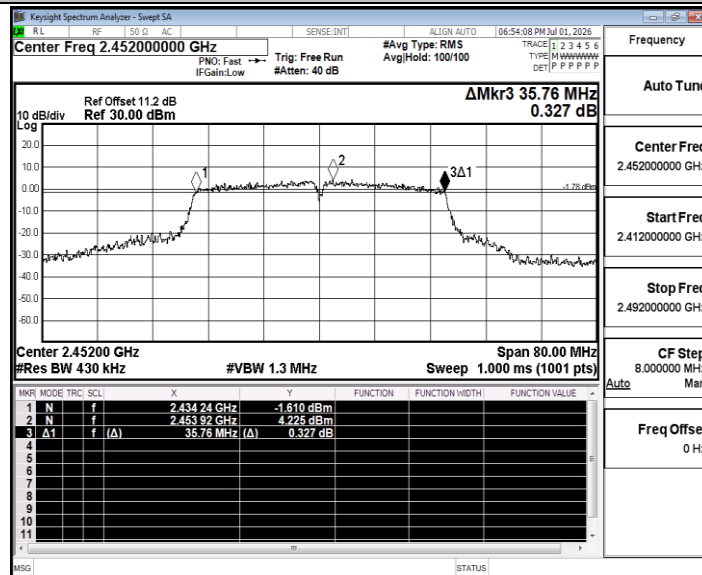
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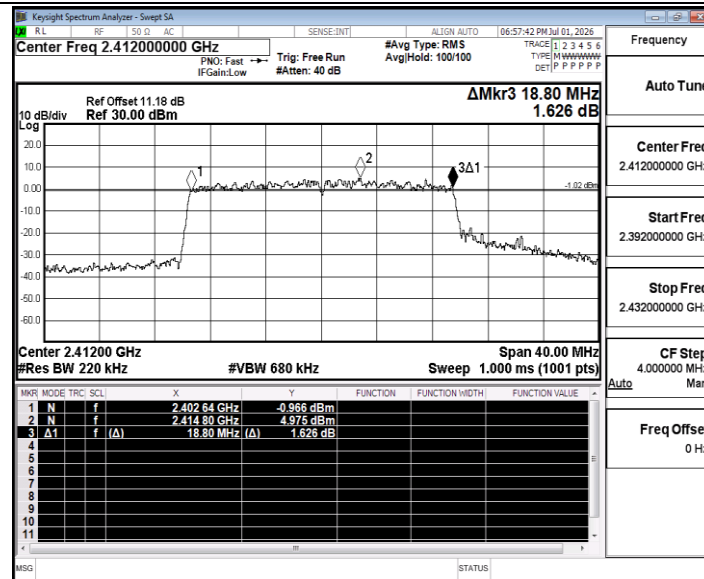
11N40SISO_Ant2_2437



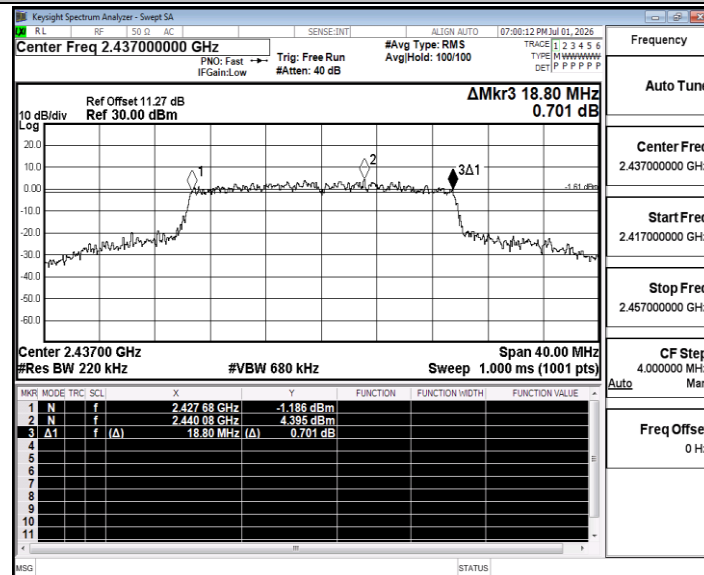
11N40SISO_Ant2_2452



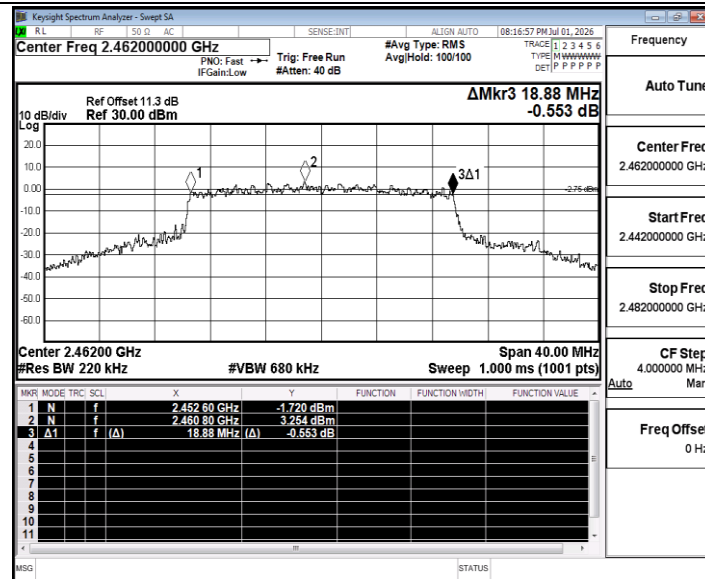
11AX20SISO_Ant2_2412



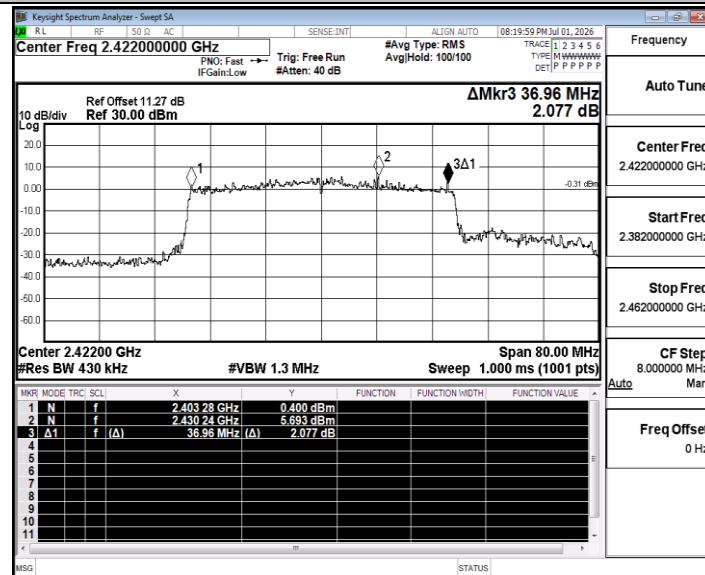
11AX20SISO_Ant2_2437



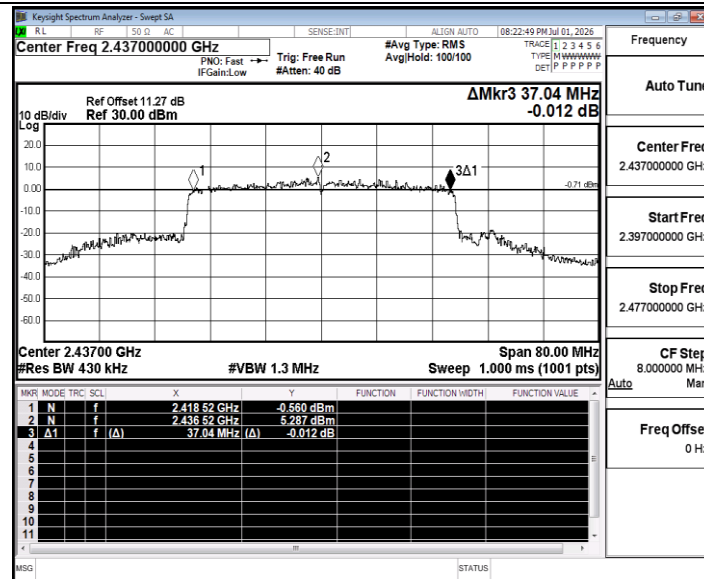
11AX20SISO_Ant2_2462



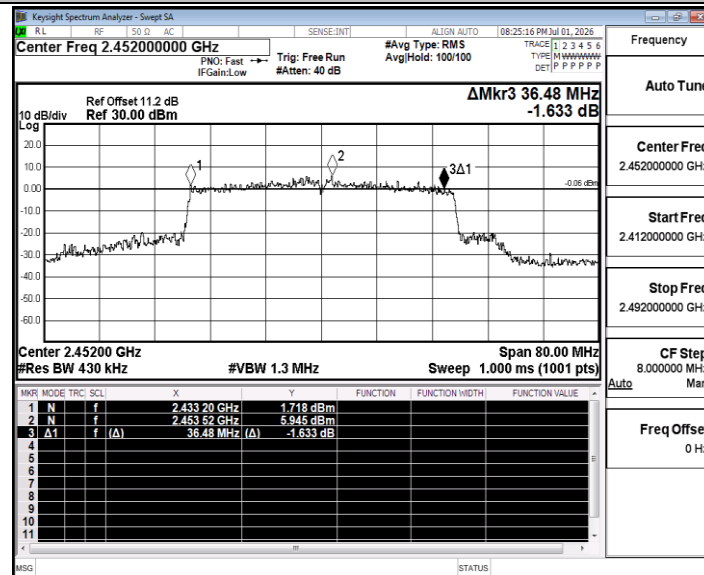
11AX40SISO_Ant2_2422



11AX40SISO_Ant2_2437



11AX40SISO_Ant2_2452



A.2 Maximum Average conducted output power

Test Result

TestMode	Antenna	Frequency [MHz]	Measured Power	DC Factor [dB]	AV Power [dBm]	Limit[dBm]	Verdict
11B	Ant1	2412	14.31	0.03	14.34	30.00	PASS
		2437	14.34	0.03	14.37	30.00	PASS
		2462	14.44	0.03	14.47	30.00	PASS
11G	Ant1	2412	13.05	0.18	13.23	30.00	PASS
		2437	13.15	0.18	13.33	30.00	PASS
		2462	13.15	0.18	13.33	30.00	PASS
11N20SISO	Ant1	2412	11.30	0.19	11.49	30.00	PASS
		2437	12.54	0.16	12.70	30.00	PASS
		2462	12.53	0.20	12.73	30.00	PASS
11N40SISO	Ant1	2422	14.34	0.39	14.73	30.00	PASS
		2437	14.45	0.39	14.84	30.00	PASS
		2452	14.40	0.32	14.72	30.00	PASS
11AX20SISO	Ant1	2412	13.43	1.14	14.57	30.00	PASS
		2437	13.50	0.93	14.43	30.00	PASS
		2462	13.49	1.14	14.63	30.00	PASS
11AX40SISO	Ant1	2422	13.84	1.14	14.98	30.00	PASS
		2437	13.90	1.14	15.04	30.00	PASS
		2452	13.83	0.93	14.76	30.00	PASS

TestMode	Antenna	Frequency [MHz]	Measured Power	DC Factor [dB]	AV Power [dBm]	Limit[dBm]	Verdict
11B	Ant2	2412	13.42	0.03	13.45	30.00	PASS
		2437	13.29	0.03	13.32	30.00	PASS
		2462	12.86	0.02	12.88	30.00	PASS
11G	Ant2	2412	13.00	0.15	13.15	30.00	PASS
		2437	12.97	0.15	13.12	30.00	PASS
		2462	12.71	0.15	12.86	30.00	PASS
11N20SISO	Ant2	2412	13.52	0.19	13.71	30.00	PASS
		2437	13.48	0.19	13.67	30.00	PASS
		2462	13.28	0.19	13.47	30.00	PASS
11N40SISO	Ant2	2422	13.78	0.39	14.17	30.00	PASS
		2437	13.90	0.32	14.22	30.00	PASS
		2452	13.66	0.38	14.04	30.00	PASS
11AX20SISO	Ant2	2412	13.18	1.14	14.32	30.00	PASS
		2437	12.03	0.93	12.96	30.00	PASS
		2462	10.80	1.14	11.94	30.00	PASS
11AX40SISO	Ant2	2422	12.43	0.93	13.36	30.00	PASS
		2437	12.49	1.14	13.63	30.00	PASS
		2452	12.26	1.14	13.40	30.00	PASS

MIMO

TestMode	Frequency (MHz)	Conducted Power (dBm)			Limit (dBm)	Verdict
		Ant1	Ant2	Ant1+Ant2		
11N20SISO	2412	11.49	13.71	15.75	36	Pass
11N20SISO	2437	12.70	13.67	16.22	36	Pass
11N20SISO	2462	12.73	13.47	16.13	36	Pass
11N40SISO	2422	14.73	14.17	17.47	36	Pass
11N40SISO	2437	14.84	14.22	17.55	36	Pass
11N40SISO	2452	14.72	14.04	17.40	36	Pass
11AX20SISO	2412	14.57	14.32	17.46	36	Pass
11AX20SISO	2437	14.43	12.96	16.77	36	Pass
11AX20SISO	2462	14.63	11.94	16.50	36	Pass
11AX40SISO	2422	14.98	13.36	17.26	36	Pass
11AX40SISO	2437	15.04	13.63	17.40	36	Pass
11AX40SISO	2452	14.76	13.40	17.14	36	Pass

A.3 Maximum power spectral density

Test Result

TestMode	Antenna	Frequency [MHz]	Measured PSD [dBm/30kHz]	DC Factor [dB]	Result [dBm/30kHz]	Result [dBm/3kHz]	Limit [dBm/3kHz]	Verdict
11B	Ant1	2412	-6.69	0.03	-6.66	-16.66	≤8.00	PASS
		2437	-6.54	0.03	-6.51	-16.51	≤8.00	PASS
		2462	-6.28	0.03	-6.25	-16.25	≤8.00	PASS
11G	Ant1	2412	-10.74	0.18	-10.56	-20.56	≤8.00	PASS
		2437	-10.78	0.18	-10.60	-20.6	≤8.00	PASS
		2462	-10.12	0.18	-9.94	-19.94	≤8.00	PASS
11N20SISO	Ant1	2412	-12.79	0.19	-12.60	-22.6	≤8.00	PASS
		2437	-11.07	0.16	-10.91	-20.91	≤8.00	PASS
		2462	-11.21	0.20	-11.01	-21.01	≤8.00	PASS
11N40SISO	Ant1	2422	-11.62	0.39	-11.23	-21.23	≤8.00	PASS
		2437	-12.41	0.39	-12.02	-22.02	≤8.00	PASS
		2452	-12.74	0.32	-12.42	-22.42	≤8.00	PASS
11AX20SISO	Ant1	2412	-9.57	1.14	-8.43	-18.43	≤8.00	PASS
		2437	-9.4	0.93	-8.47	-18.47	≤8.00	PASS
		2462	-8.97	1.14	-7.83	-17.83	≤8.00	PASS
11AX40SISO	Ant1	2422	-11.21	1.14	-10.07	-20.07	≤8.00	PASS
		2437	-10.93	1.14	-9.79	-19.79	≤8.00	PASS
		2452	-11.28	0.93	-10.35	-20.35	≤8.00	PASS

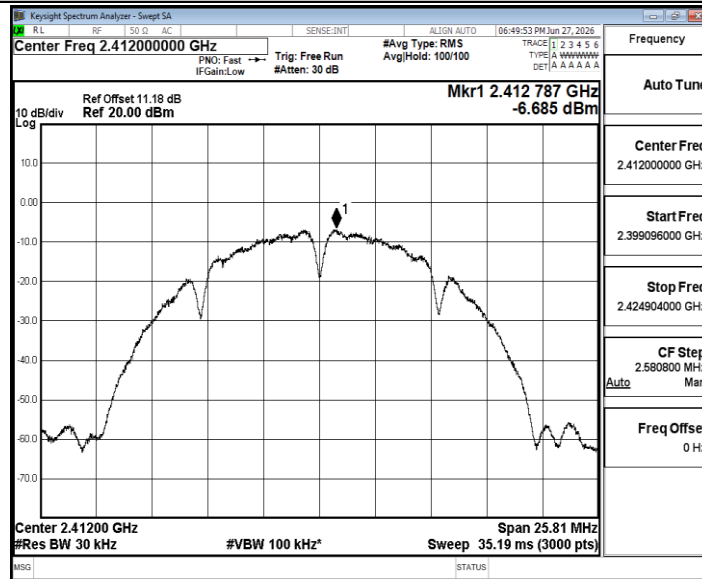
TestMode	Antenna	Frequency [MHz]	Measured PSD [dBm/30kHz]	DC Factor [dB]	Result [dBm/30kHz]	Result [dBm/3kHz]	Limit [dBm/3kHz]	Verdict
11B	Ant2	2412	-7.09	0.03	-7.06	-17.06	≤8.00	PASS
		2437	-7.71	0.03	-7.68	-17.68	≤8.00	PASS
		2462	-7.36	0.02	-7.34	-17.34	≤8.00	PASS
11G	Ant2	2412	-11.25	0.15	-11.10	-21.1	≤8.00	PASS
		2437	-10.92	0.15	-10.77	-20.77	≤8.00	PASS
		2462	-10.03	0.15	-9.88	-19.88	≤8.00	PASS
11N20SISO	Ant2	2412	-10.34	0.19	-10.15	-20.15	≤8.00	PASS
		2437	-10.45	0.19	-10.26	-20.26	≤8.00	PASS
		2462	-10.2	0.19	-10.01	-20.01	≤8.00	PASS
11N40SISO	Ant2	2422	-12.26	0.39	-11.87	-21.87	≤8.00	PASS
		2437	-12.74	0.32	-12.42	-22.42	≤8.00	PASS
		2452	-12.81	0.38	-12.43	-22.43	≤8.00	PASS
11AX20SISO	Ant2	2412	-10.63	1.14	-9.49	-19.49	≤8.00	PASS
		2437	-11.12	0.93	-10.19	-20.19	≤8.00	PASS
		2462	-11.96	1.14	-10.82	-20.82	≤8.00	PASS
11AX40SISO	Ant2	2422	-13.21	0.93	-12.28	-22.28	≤8.00	PASS
		2437	-12.48	1.14	-11.34	-21.34	≤8.00	PASS
		2452	-12.67	1.14	-11.53	-21.53	≤8.00	PASS

MIMO

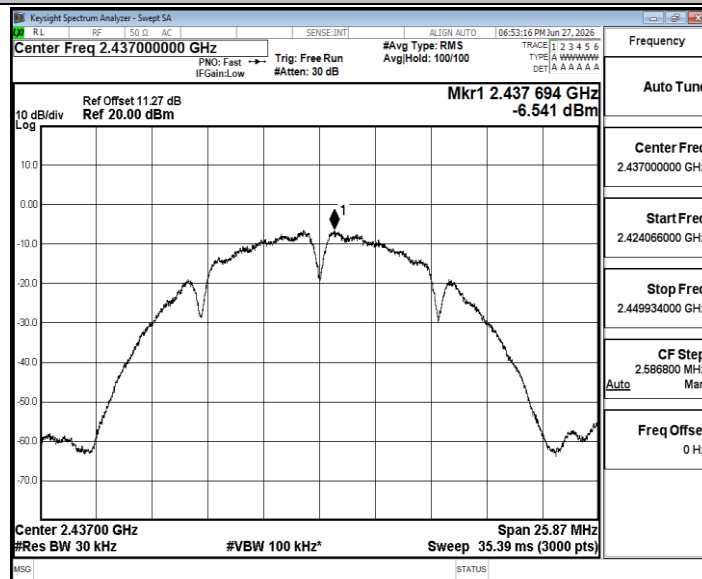
Mode	Frequency (MHz)	Conducted PSD (dBm/3kHz)			Limit (dBm)	Verdict
		Ant1	Ant2	Ant1+Ant2		
11N20SISO	2412	-22.6	-20.15	-18.19	8	Pass
11N20SISO	2437	-20.91	-20.26	-17.56	8	Pass
11N20SISO	2462	-21.01	-20.01	-17.47	8	Pass
11N40SISO	2422	-21.23	-21.87	-18.53	8	Pass
11N40SISO	2437	-22.02	-22.42	-19.21	8	Pass
11N40SISO	2452	-22.42	-22.43	-19.41	8	Pass
11AX20SISO	2412	-18.43	-19.49	-15.92	8	Pass
11AX20SISO	2437	-18.47	-20.19	-16.24	8	Pass
11AX20SISO	2462	-17.83	-20.82	-16.06	8	Pass
11AX40SISO	2422	-20.07	-22.28	-18.03	8	Pass
11AX40SISO	2437	-19.79	-21.34	-17.49	8	Pass
11AX40SISO	2452	-20.35	-21.53	-17.89	8	Pass

Test Graphs

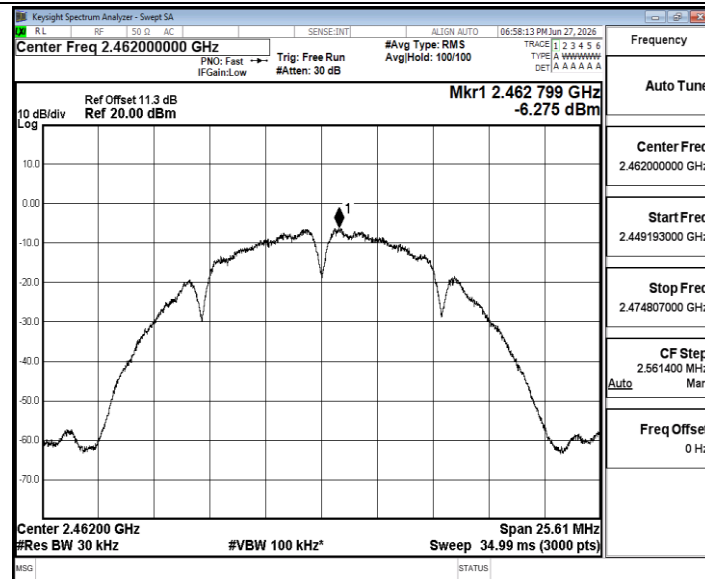
11B_Ant1_2412



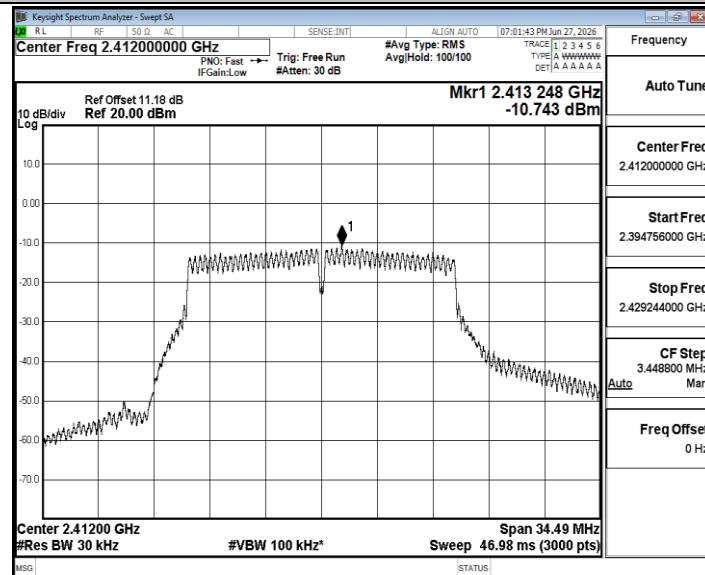
11B_Ant1_2437



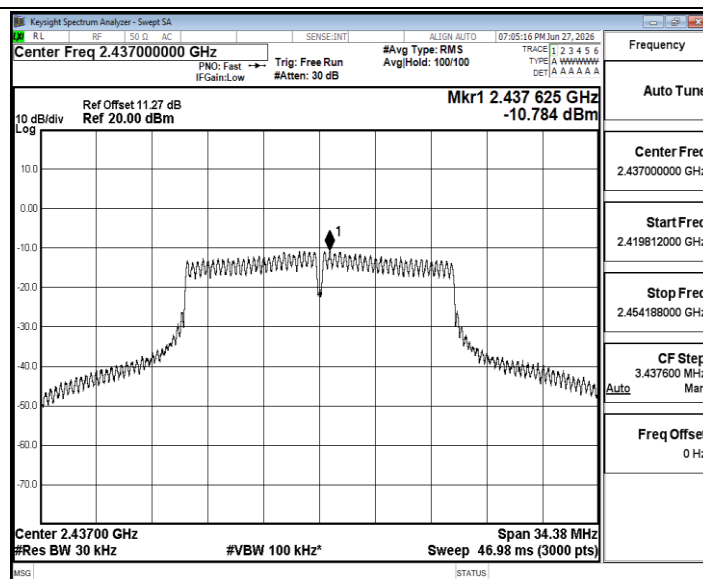
11B_Ant1_2462



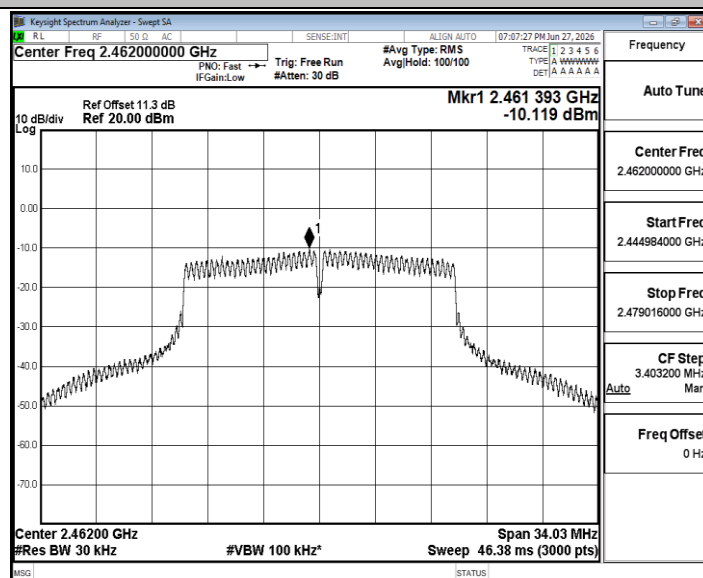
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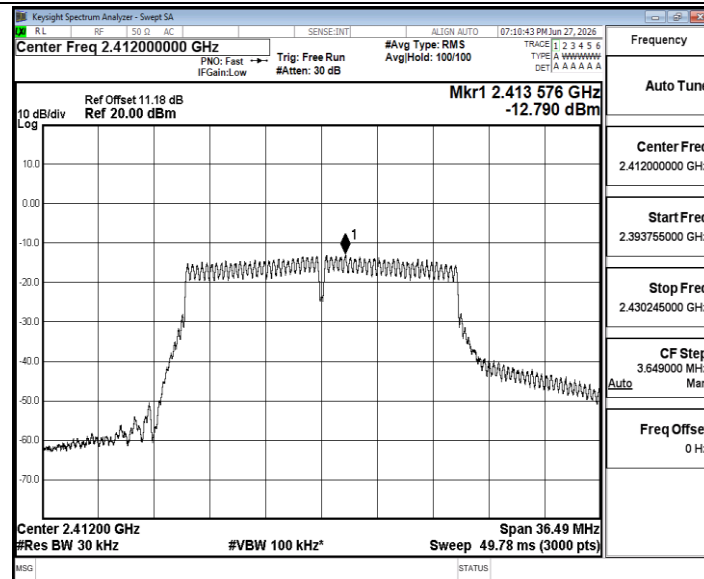
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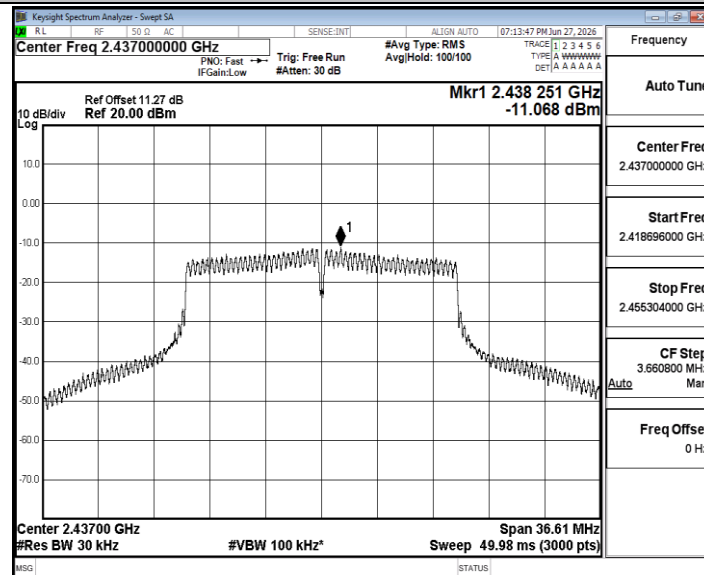
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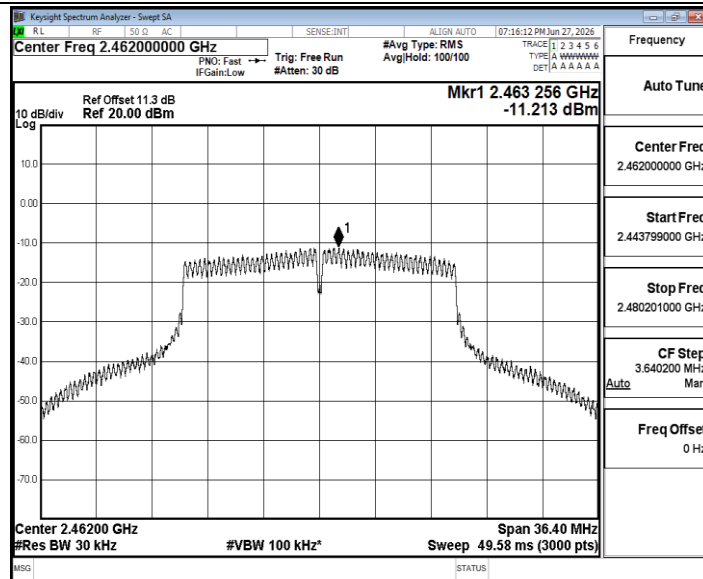
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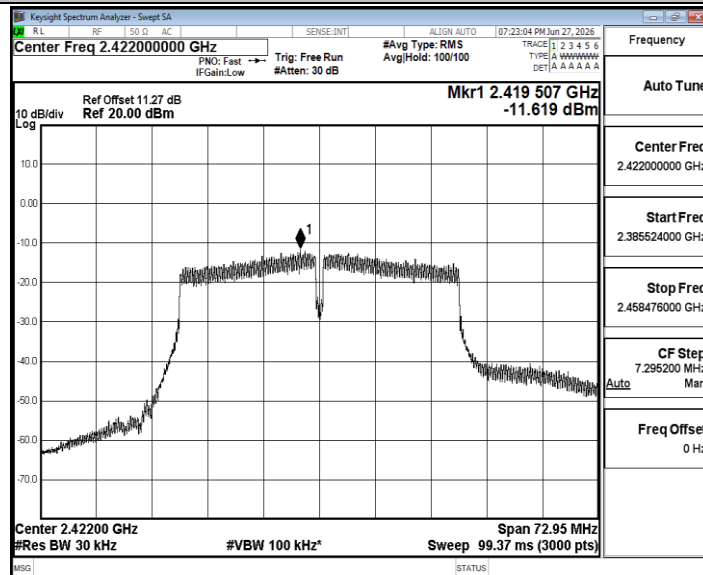
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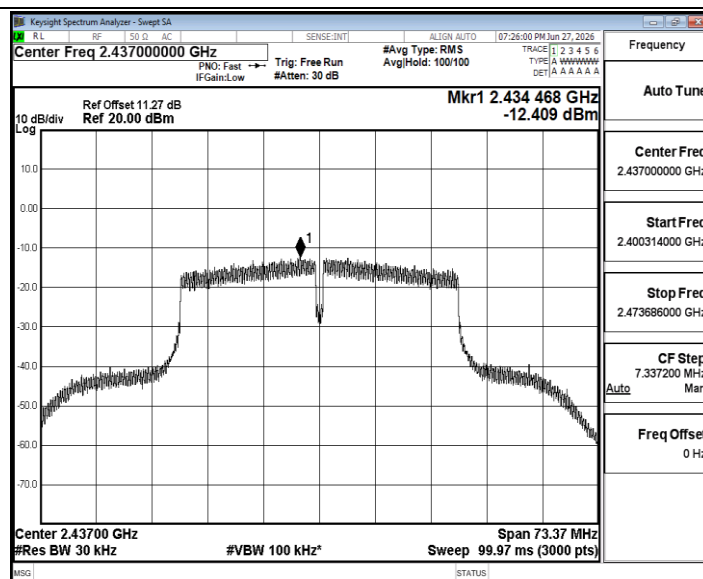
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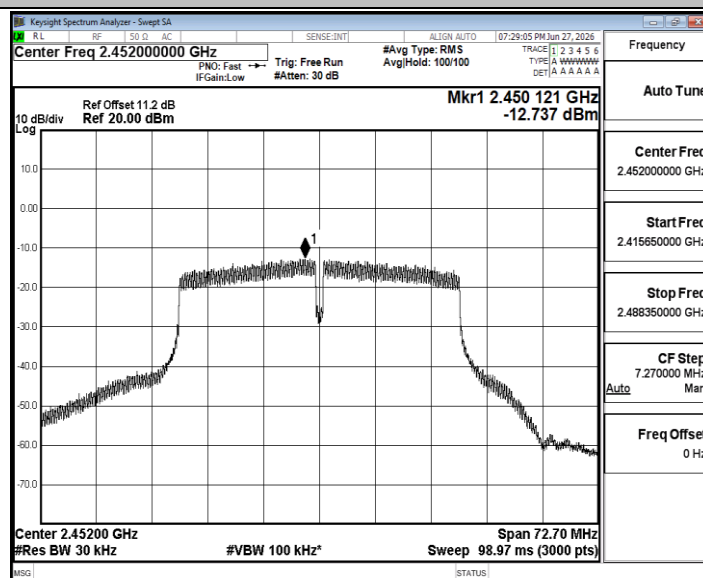
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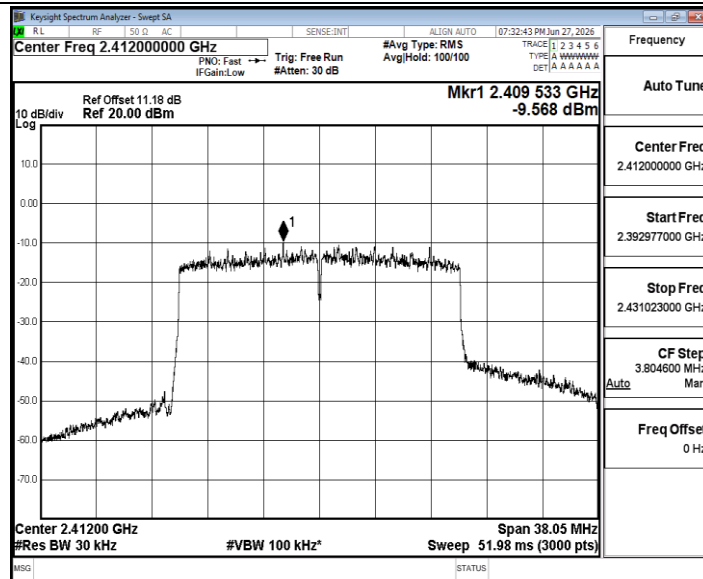
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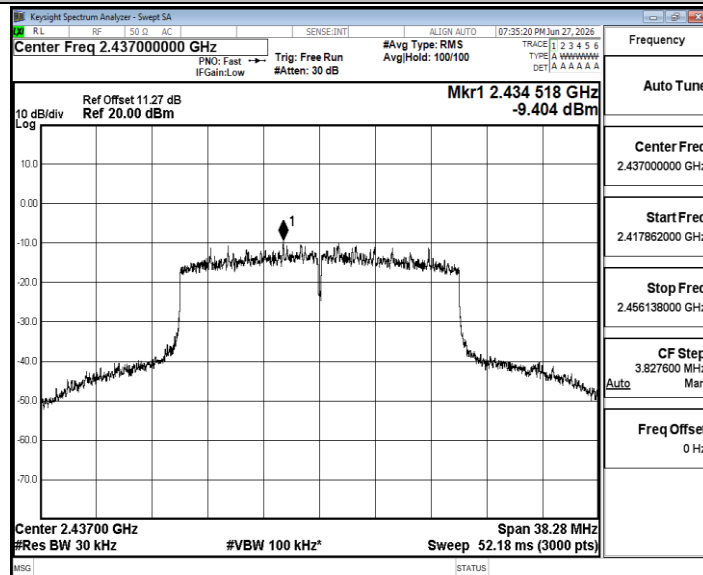
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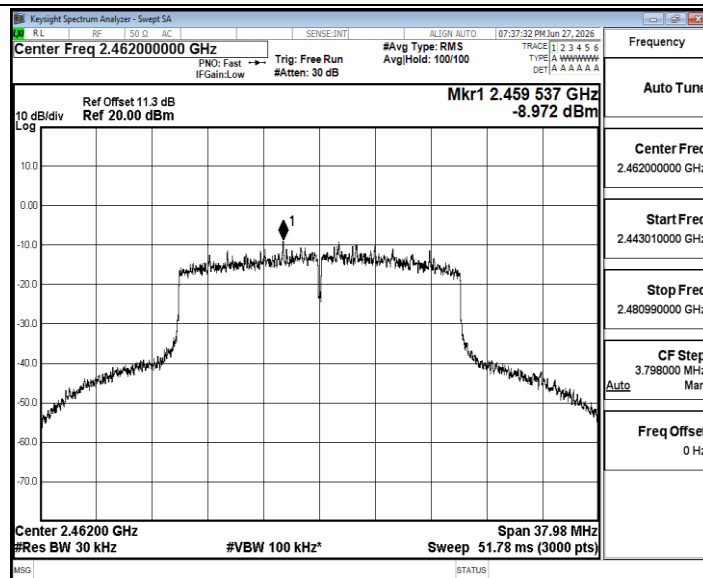
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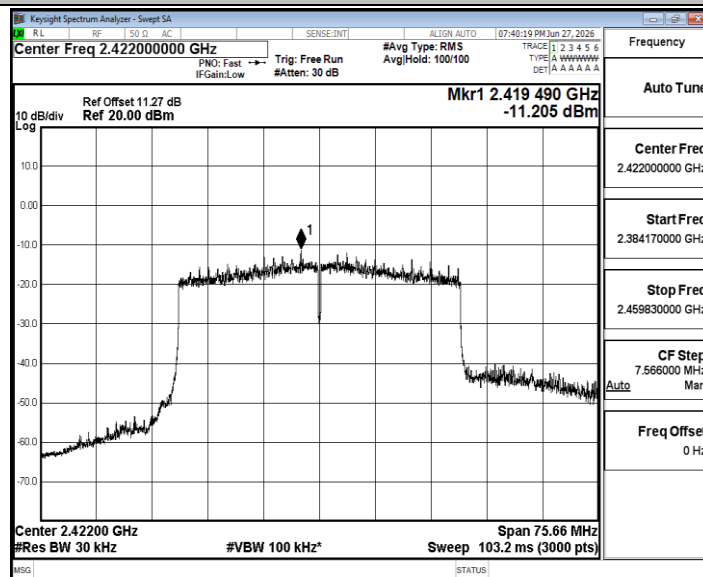
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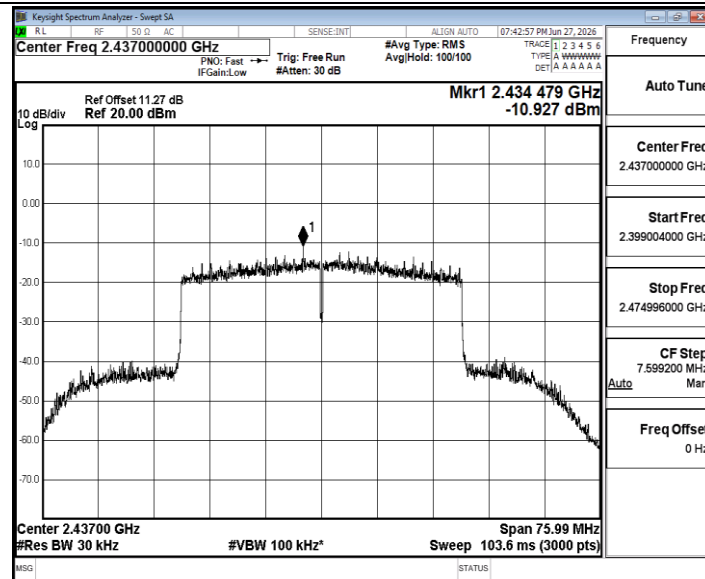
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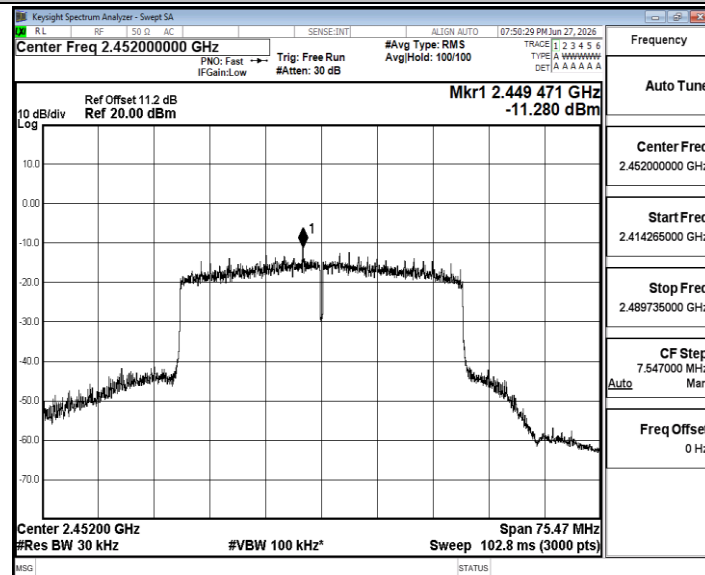
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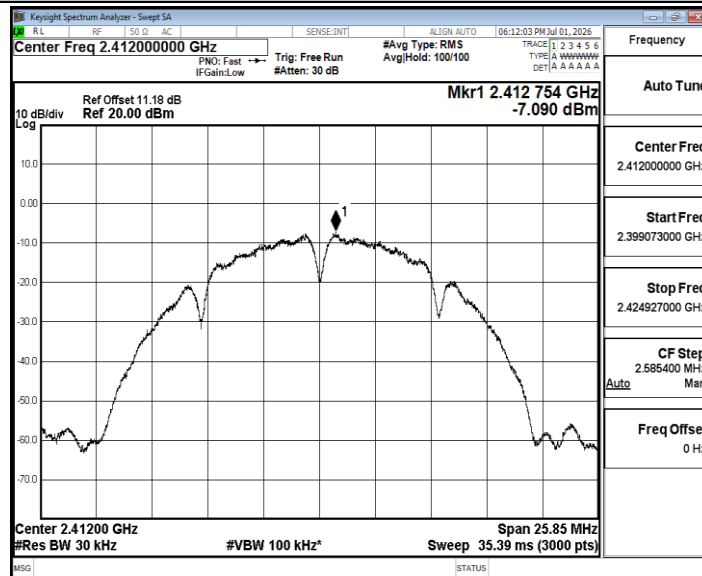


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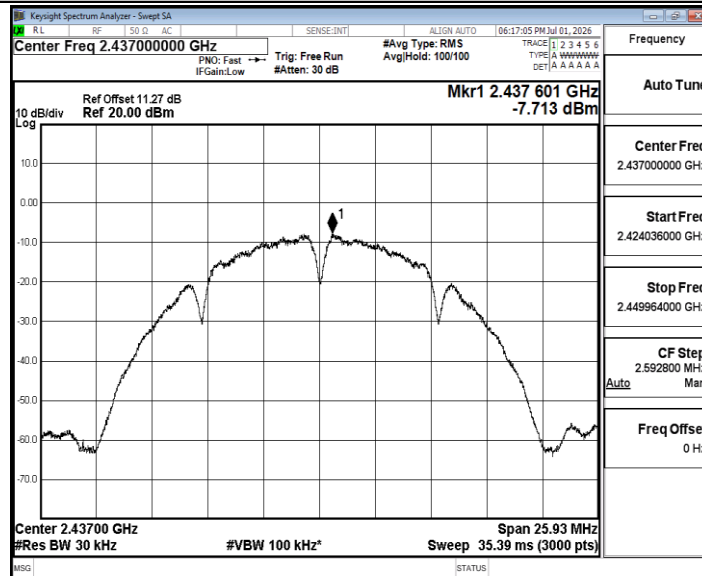


Test Graphs

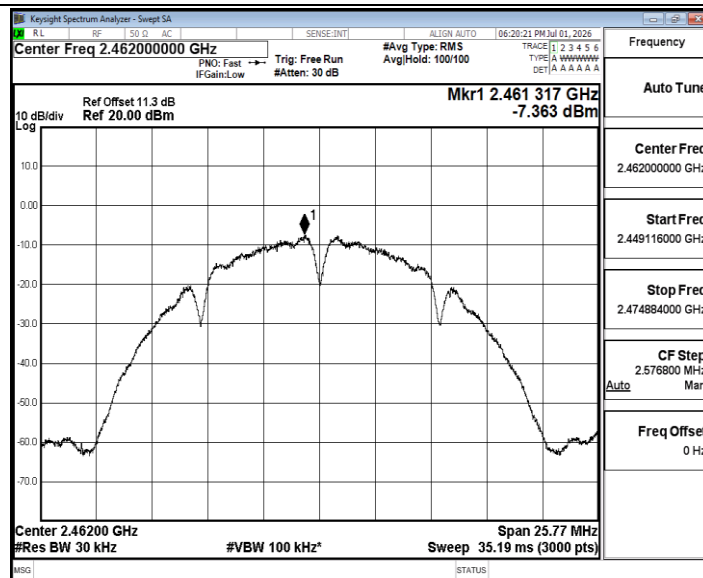
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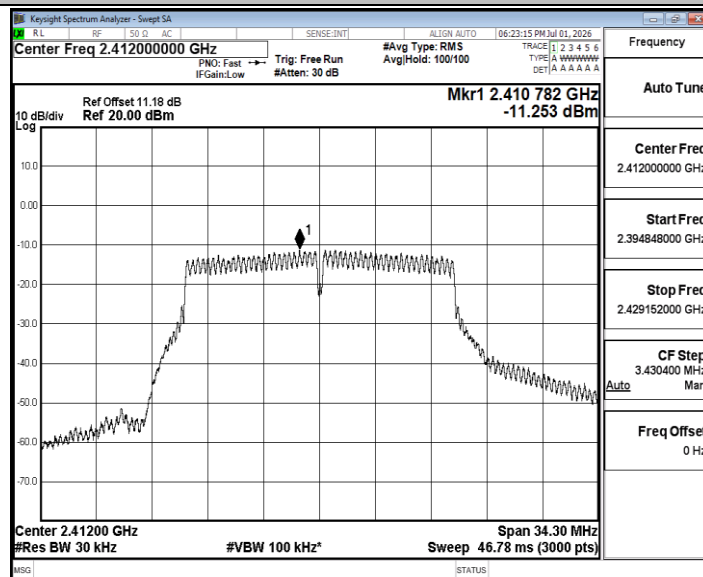
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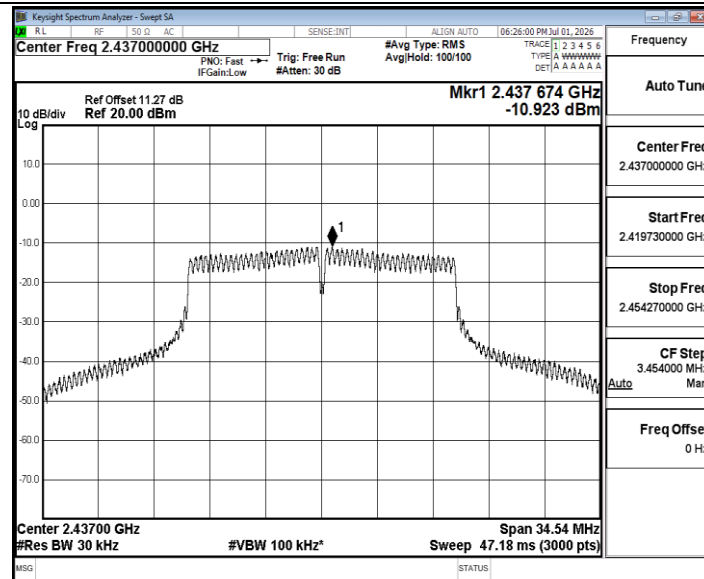
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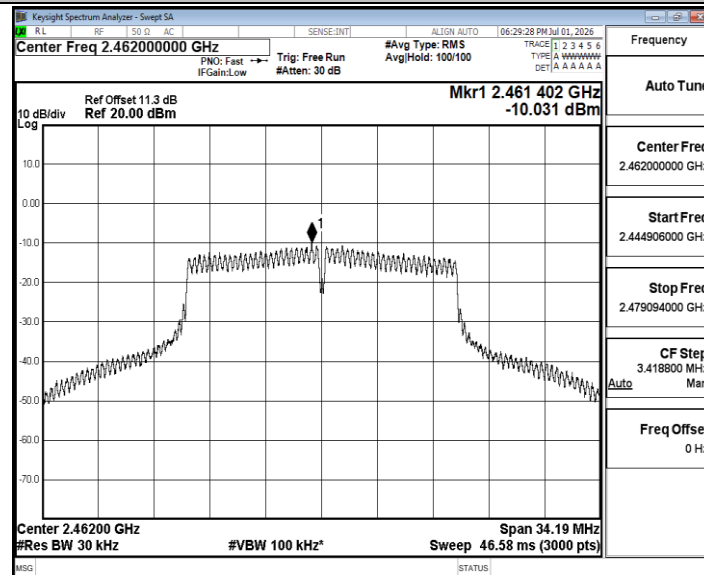
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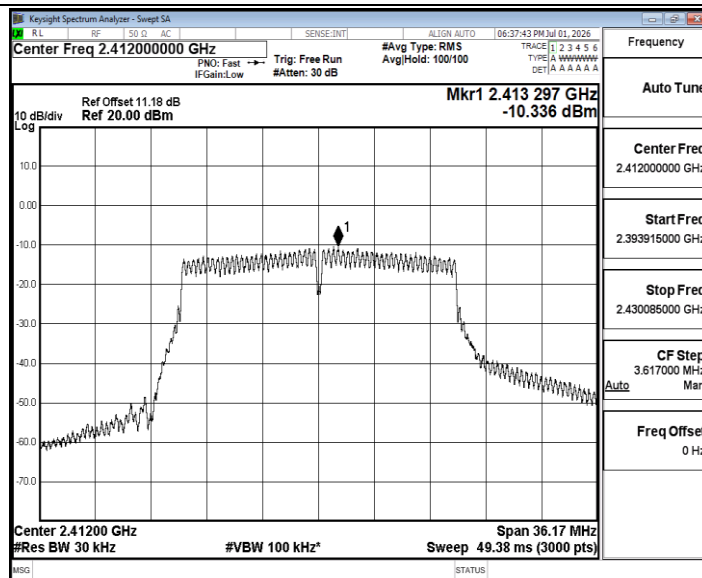
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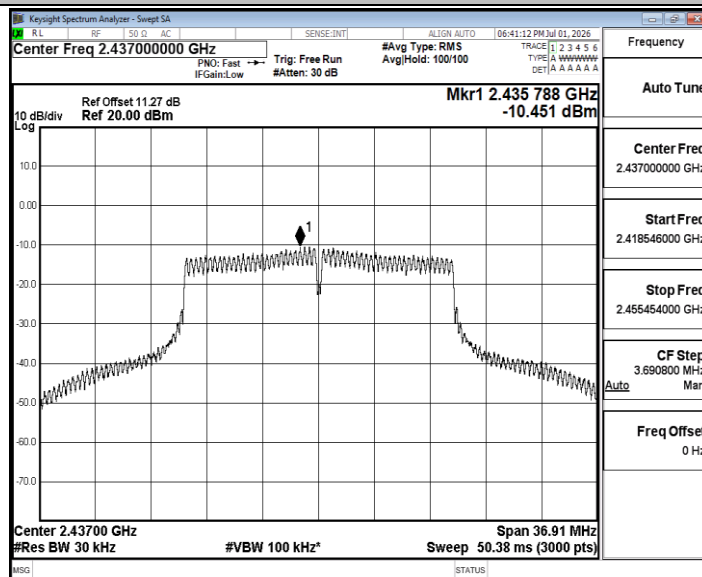
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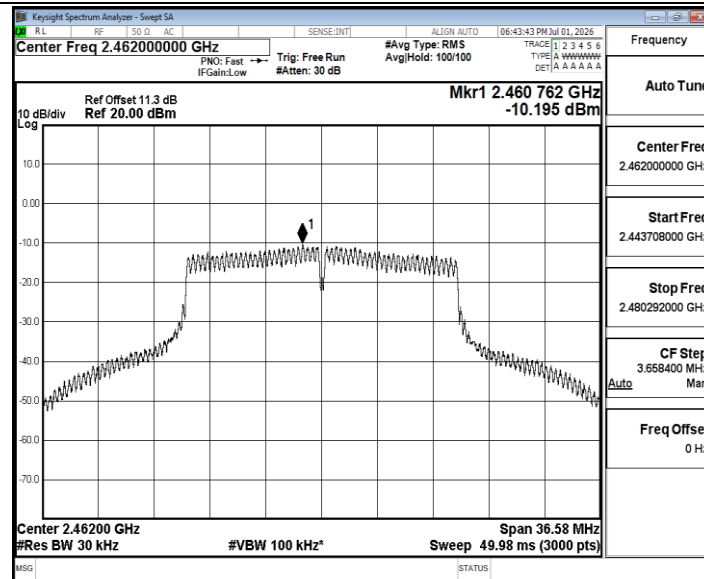
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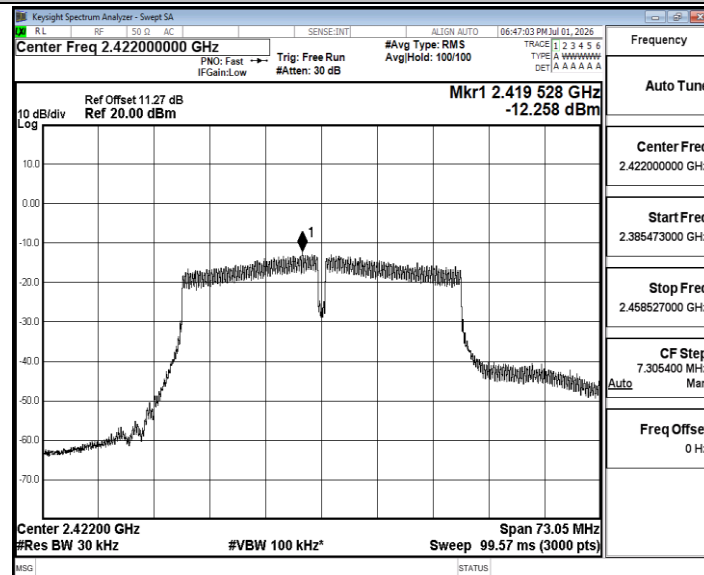
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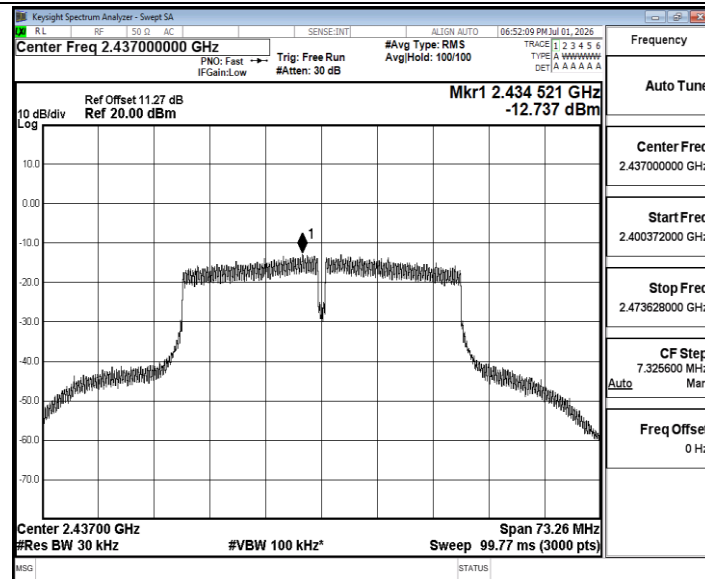
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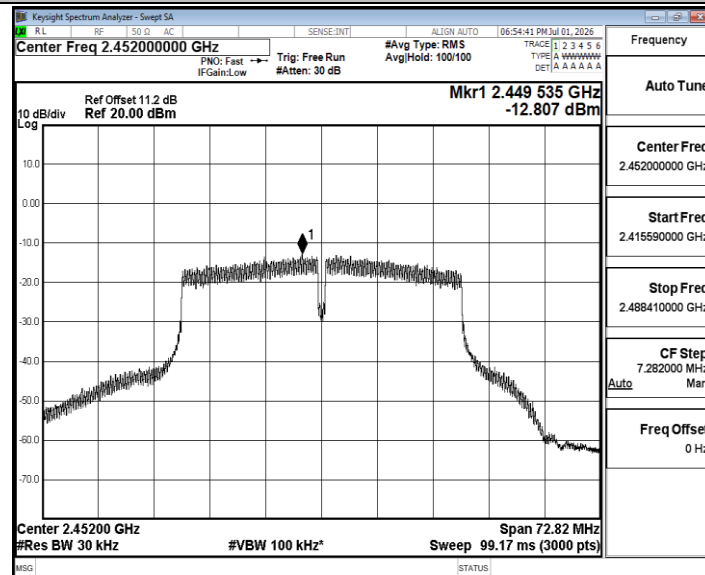
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11N40SISO_Ant2_2437



11N40SISO_Ant2_2452



11AX20SISO_Ant2_2412