

Appendix C

RF Test Data for 2.4GWIFI (Conducted Measurement)

Product Name: All-In-One laptop

Test Model: A7_N6

Environmental Conditions

Temperature:	23.6°C
Relative Humidity:	54.3%
ATM Pressure:	100.0 kPa
Test Engineer:	Zhang hai
Supervised by:	Fengliu Tang

C.1 DTS Bandwidth

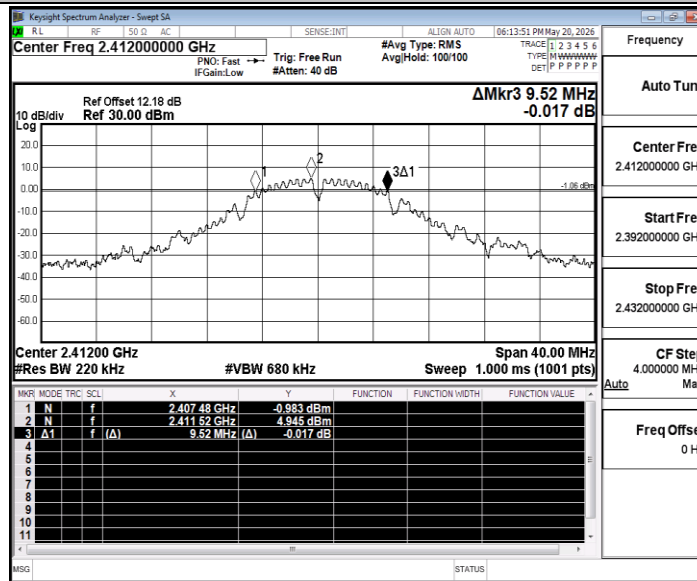
Test Result

TestMode	Antenna	Frequency[MHz]	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	9.520	2407.480	2417.000	0.5	PASS
		2437	8.720	2432.400	2441.120	0.5	PASS
		2462	9.560	2457.480	2467.040	0.5	PASS
11G	Ant1	2412	15.960	2404.200	2420.160	0.5	PASS
		2437	16.200	2428.800	2445.000	0.5	PASS
		2462	16.200	2454.000	2470.200	0.5	PASS
11N20SISO	Ant1	2412	16.640	2403.920	2420.560	0.5	PASS
		2437	17.000	2428.360	2445.360	0.5	PASS
		2462	16.600	2454.000	2470.600	0.5	PASS
11N40SISO	Ant1	2422	34.560	2404.240	2438.800	0.5	PASS
		2437	35.680	2418.840	2454.520	0.5	PASS
		2452	36.320	2433.920	2470.240	0.5	PASS

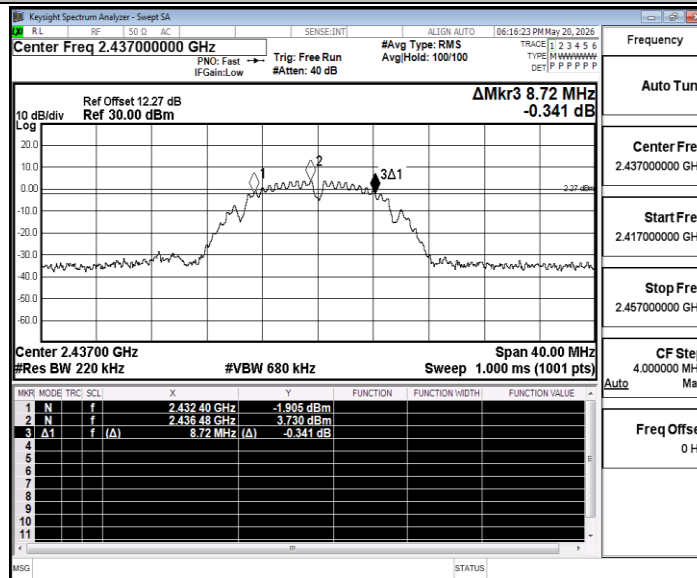
Note: offset=System attenuation +cabal loss

Test Graphs

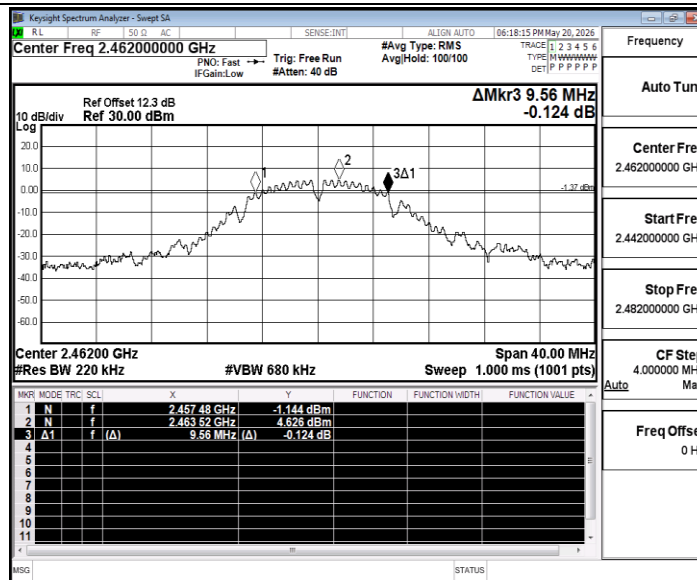
11B_Ant1_2412



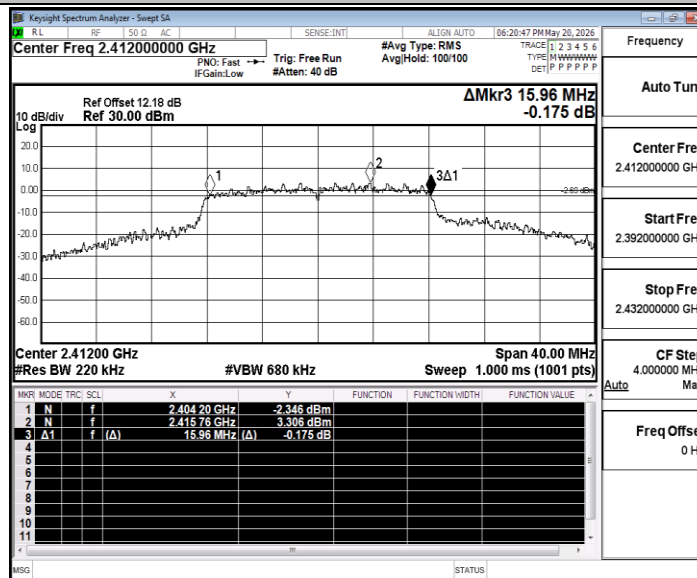
11B_Ant1_2437



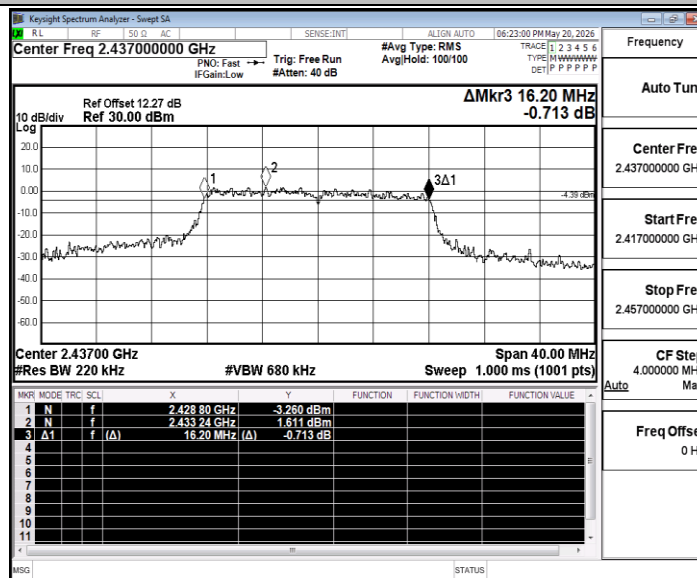
11B_Ant1_2462



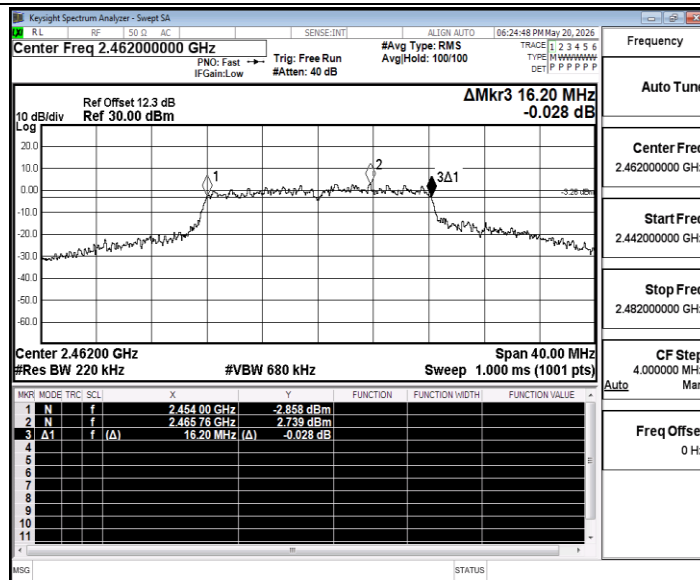
11G_Ant1_2412



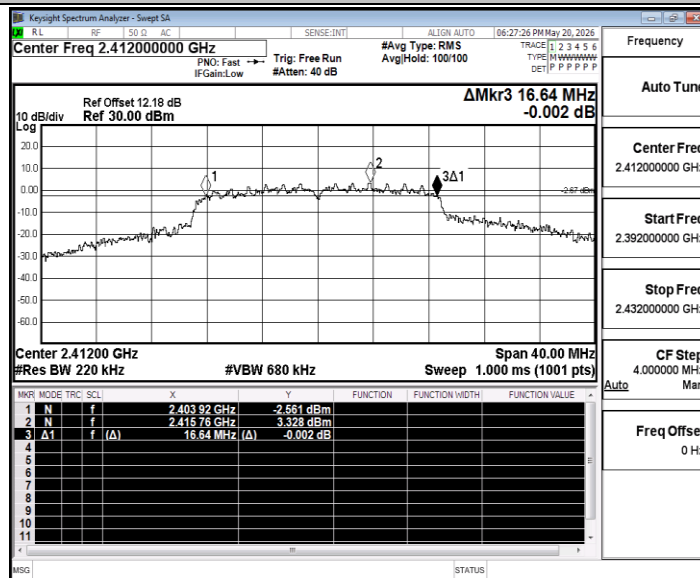
11G_Ant1_2437



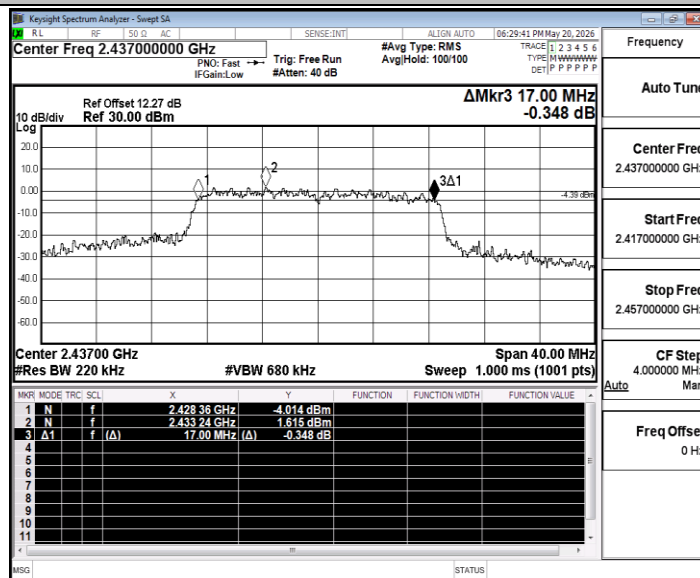
11G_Ant1_2462



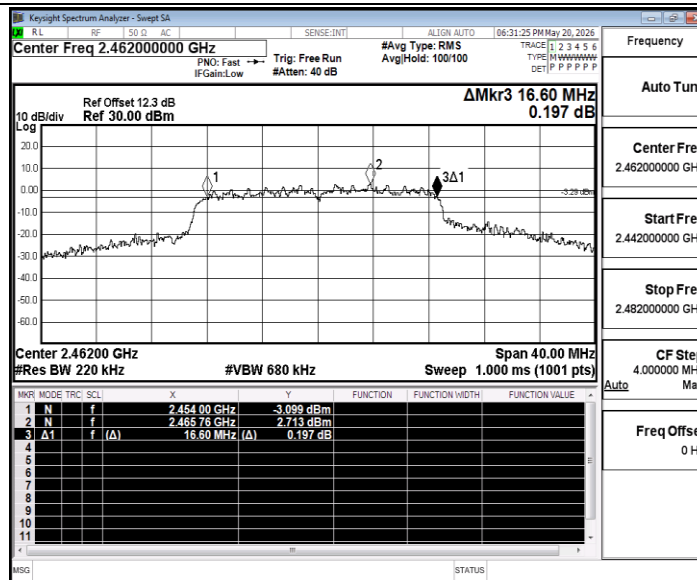
11N20SISO_Ant1_2412



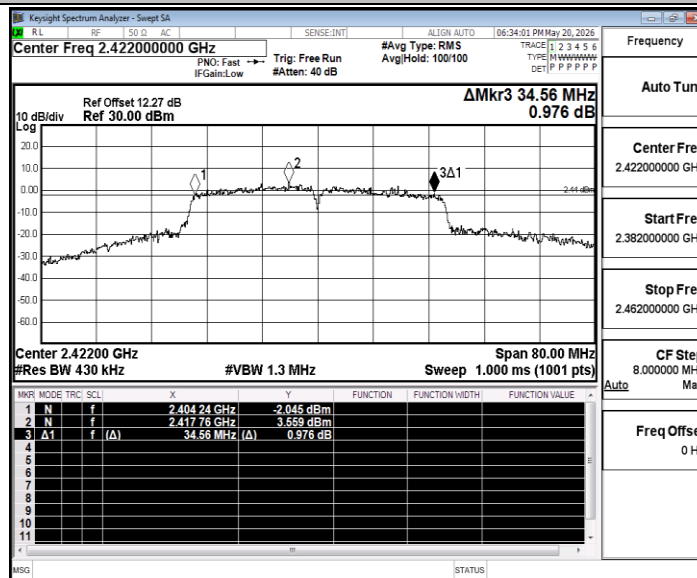
11N20SISO_Ant1_2437



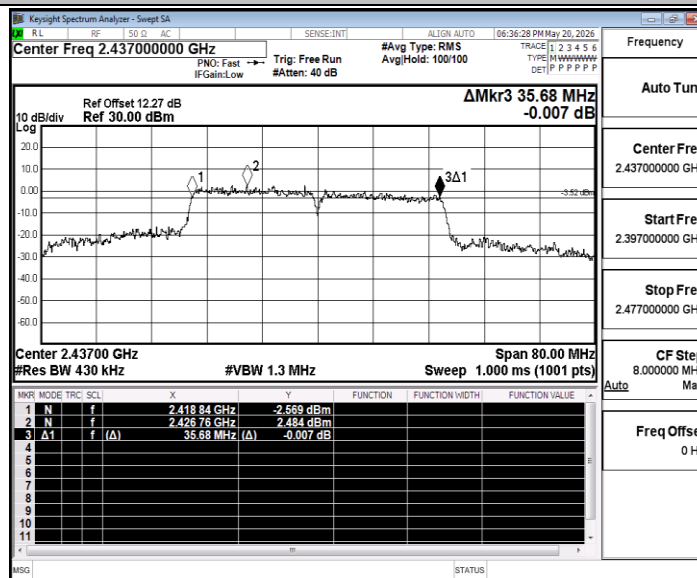
11N20SISO_Ant1_2462



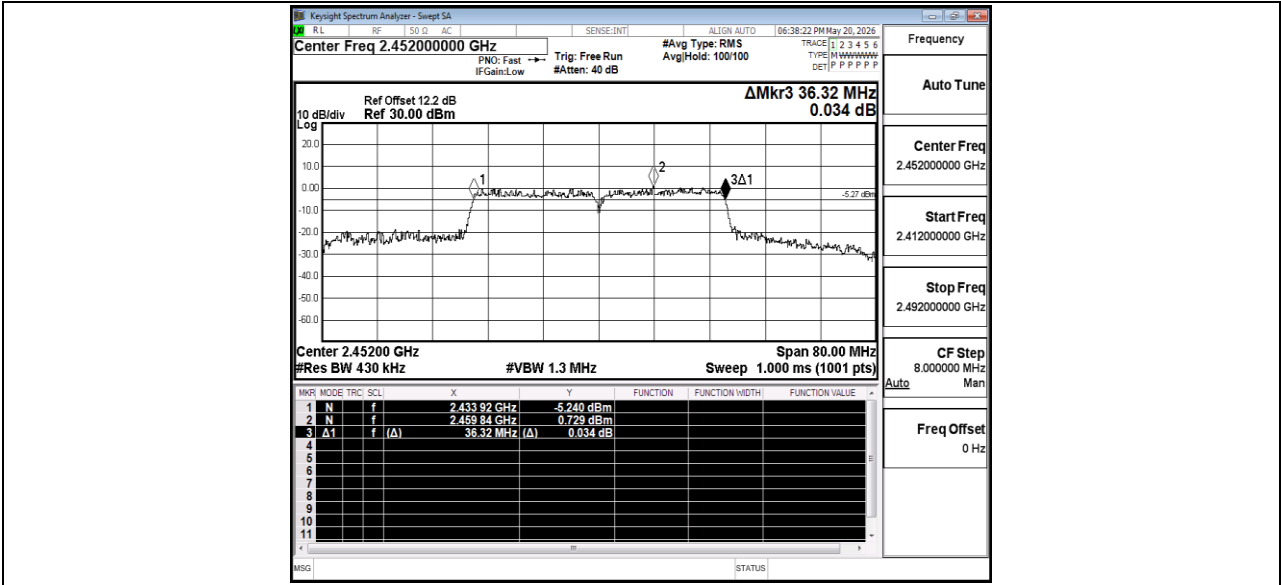
11N40SISO_Ant1_2422



11N40SISO_Ant1_2437



11N40SISO_Ant1_2452



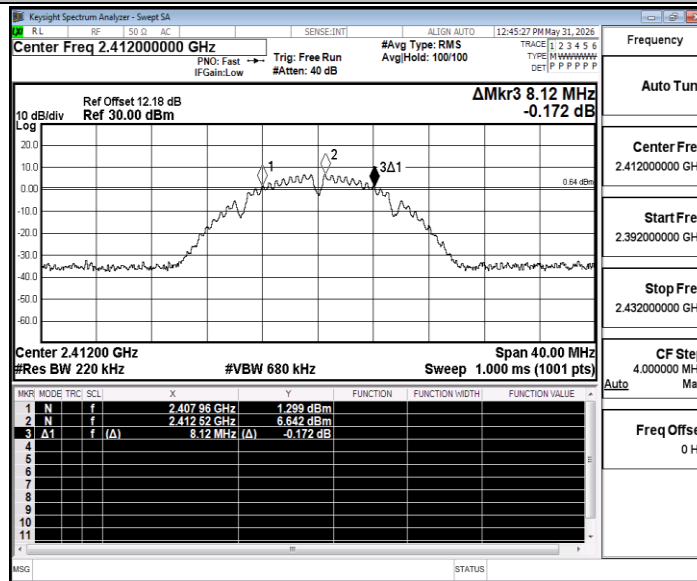
Test Result

TestMode	Antenna	Frequency[MHz]	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant2	2412	8.120	2407.960	2416.080	0.5	PASS
		2437	8.120	2432.960	2441.080	0.5	PASS
		2462	8.120	2457.960	2466.080	0.5	PASS
11G	Ant2	2412	15.880	2404.080	2419.960	0.5	PASS
		2437	16.000	2429.040	2445.040	0.5	PASS
		2462	16.040	2453.920	2469.960	0.5	PASS
11N20SISO	Ant2	2412	16.760	2403.680	2420.440	0.5	PASS
		2437	17.000	2428.440	2445.440	0.5	PASS
		2462	16.840	2453.680	2470.520	0.5	PASS
11N40SISO	Ant2	2422	35.760	2404.160	2439.920	0.5	PASS
		2437	35.920	2419.080	2455.000	0.5	PASS
		2452	35.520	2434.320	2469.840	0.5	PASS

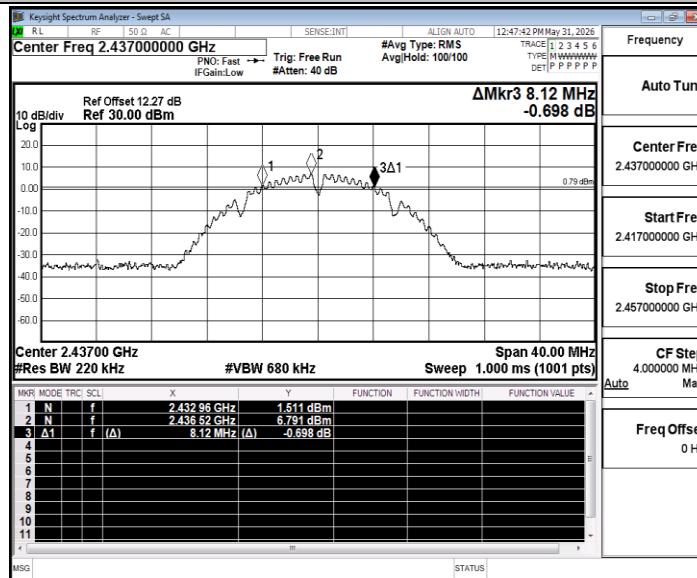
Note: offset=System attenuation +cabal loss

Test Graphs

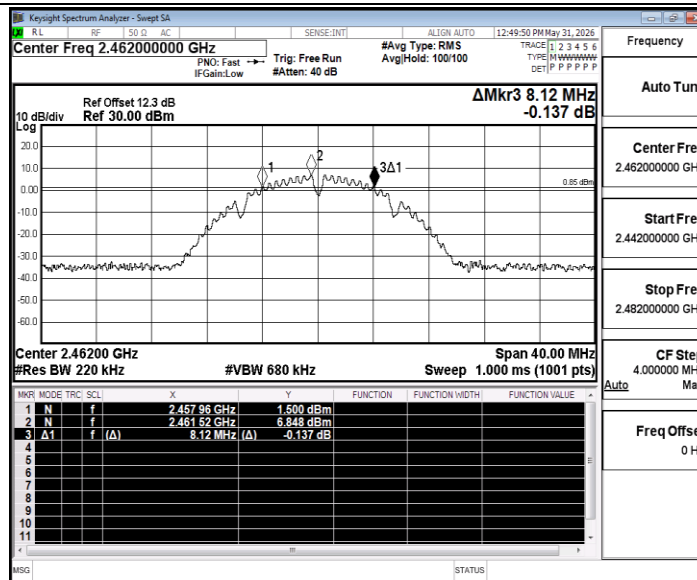
11B_Ant2_2412



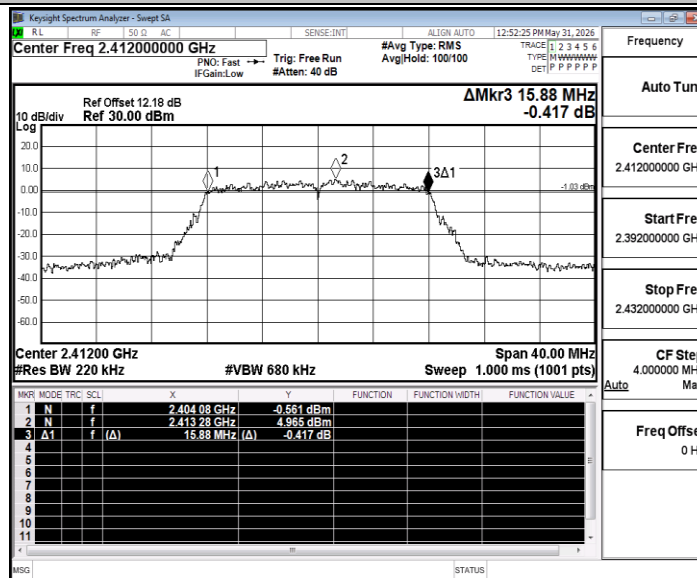
11B_Ant2_2437



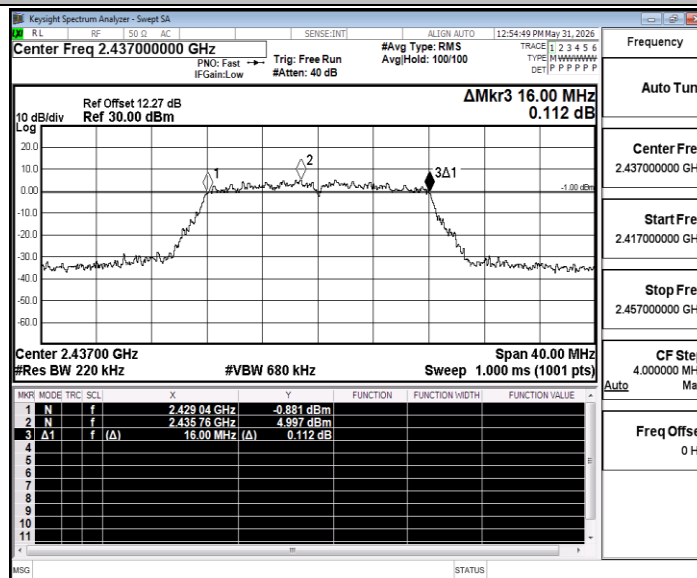
11B_Ant2_2462



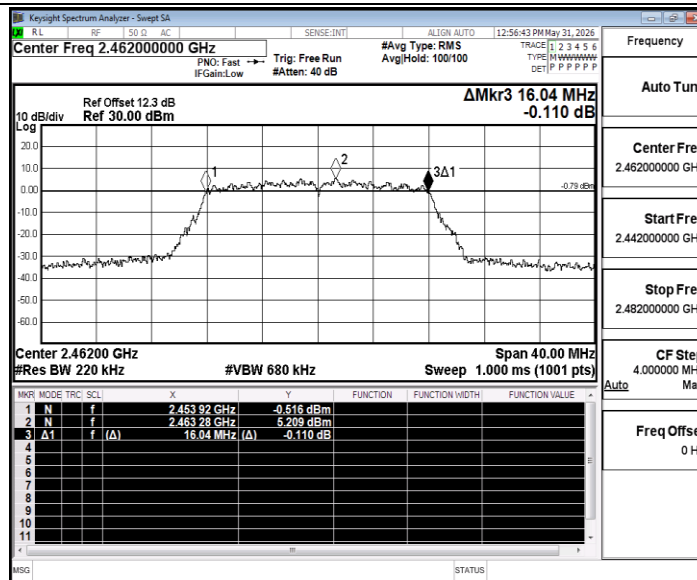
11G_Ant2_2412



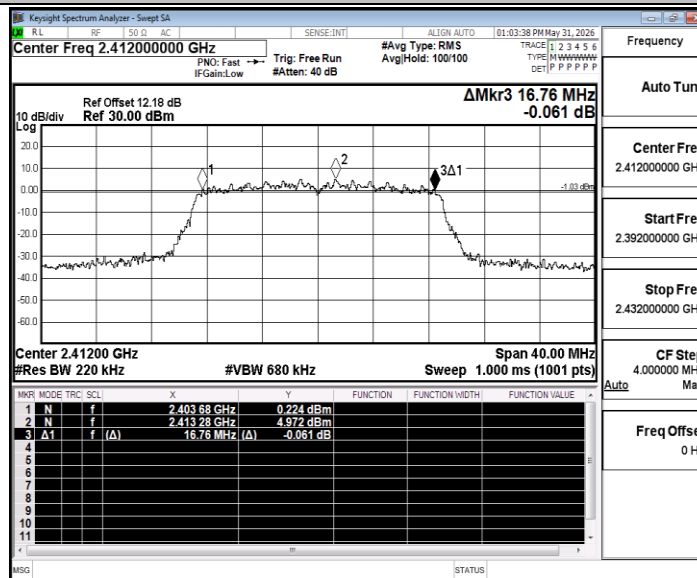
11G_Ant2_2437



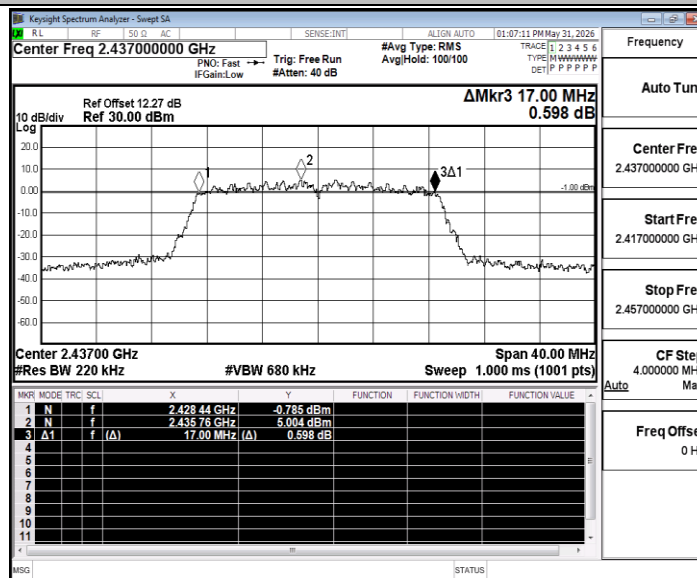
11G_Ant2_2462



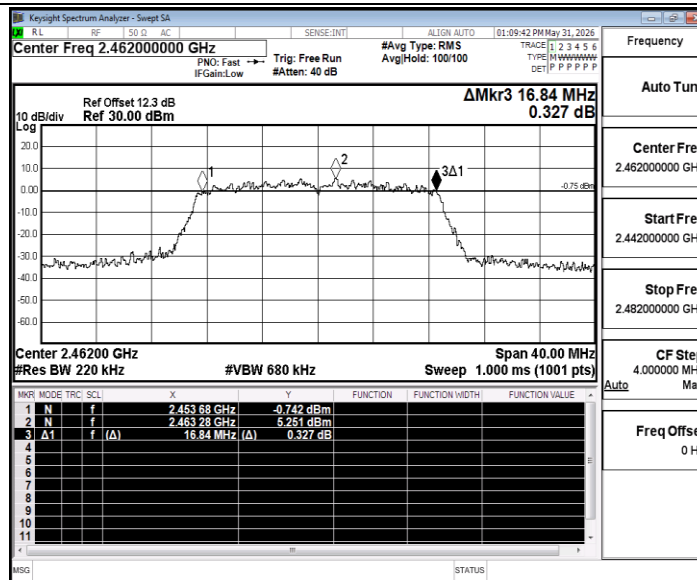
11N20SISO_Ant2_2412



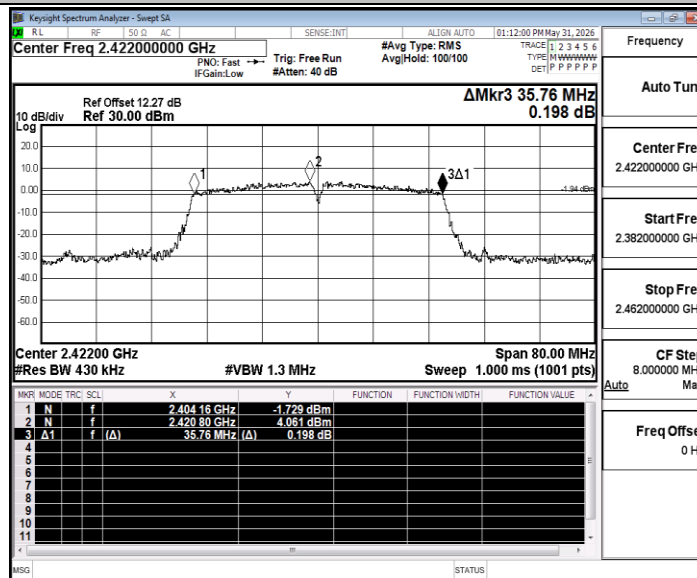
11N20SISO_Ant2_2437



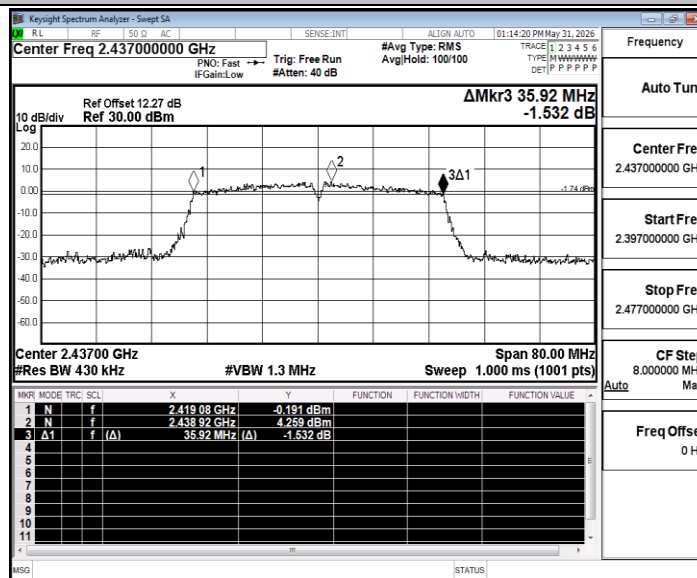
11N20SISO_Ant2_2462



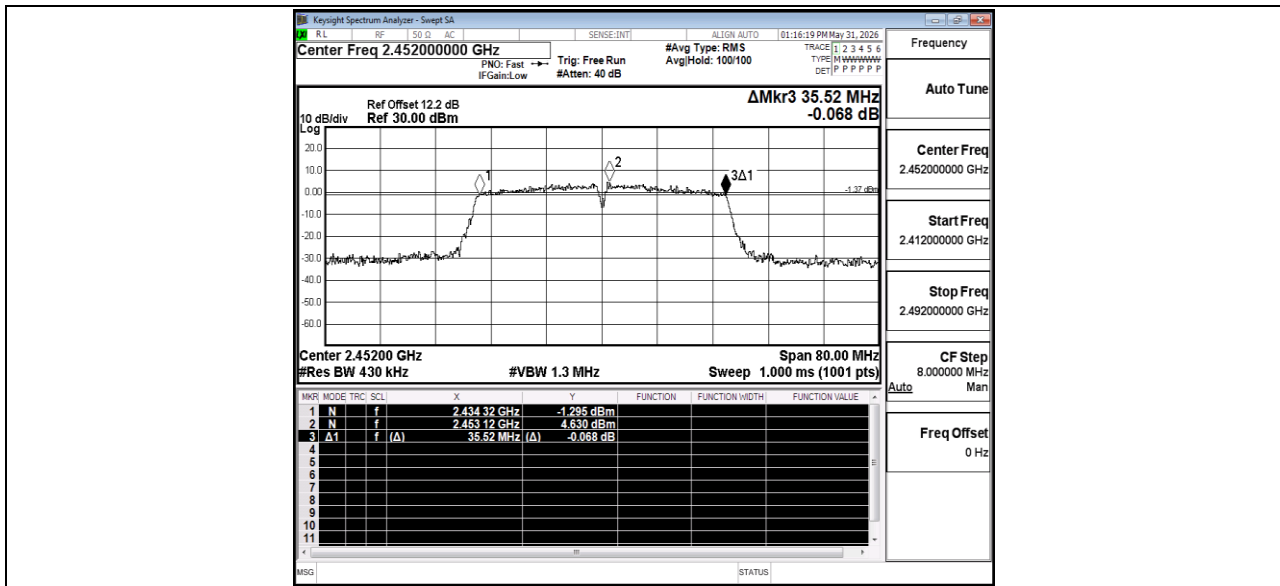
11N40SISO_Ant2_2422



11N40SISO_Ant2_2437



11N40SISO_Ant2_2452



C.2 Maximum Average Conducted Output Power

Test Result Average

TestMode	Antenna	Frequency [MHz]	Measured Power	DC Factor [dB]	AV Power [dBm]	Conducted Limit[dBm]	Verdict
11B	Ant1	2412	13.42	0.34	13.76	≤30.00	PASS
		2437	11.96	0.34	12.3	≤30.00	PASS
		2462	12.99	0.34	13.33	≤30.00	PASS
11G	Ant1	2412	11.21	1.76	12.97	≤30.00	PASS
		2437	9.77	1.76	11.53	≤30.00	PASS
		2462	10.51	1.76	12.27	≤30.00	PASS
11N20SISO	Ant1	2412	11.33	1.76	13.09	≤30.00	PASS
		2437	9.89	2.14	12.03	≤30.00	PASS
		2462	10.62	1.76	12.38	≤30.00	PASS
11N40SISO	Ant1	2422	10.61	2.43	13.04	≤30.00	PASS
		2437	9.62	2.43	12.05	≤30.00	PASS
		2452	8.75	2.43	11.18	≤30.00	PASS

TestMode	Antenna	Frequency [MHz]	Measured Power	DC Factor [dB]	AV Power [dBm]	Conducted Limit[dBm]	Verdict
11B	Ant2	2412	14.63	0.24	14.87	≤30.00	PASS
		2437	14.59	0.24	14.83	≤30.00	PASS
		2462	14.6	0.18	14.78	≤30.00	PASS
11G	Ant2	2412	13.24	1.25	14.49	≤30.00	PASS
		2437	13.35	1.63	14.98	≤30.00	PASS
		2462	13.09	1.63	14.72	≤30.00	PASS
11N20SISO	Ant2	2412	13.22	1.25	14.47	≤30.00	PASS
		2437	13.34	1.25	14.59	≤30.00	PASS
		2462	13.07	1.51	14.58	≤30.00	PASS
11N40SISO	Ant2	2422	12.62	1.76	14.38	≤30.00	PASS
		2437	12.71	4.77	17.48	≤30.00	PASS
		2452	12.68	1.76	14.44	≤30.00	PASS

Note: offset=System attenuation +cable loss

MIMO

Condition	Mode	Frequency (MHz)	Conducted Power (dBm)			Limit (dBm)	Verdict
			Ant1	Ant2	Ant1+Ant2		
NVNT	n20	2412	13.09	14.47	16.84	30	Pass
NVNT	n20	2437	12.03	14.59	16.51	30	Pass
NVNT	n20	2462	12.38	14.58	16.63	30	Pass
NVNT	n40	2422	13.04	14.38	16.77	30	Pass
NVNT	n40	2437	12.05	17.48	18.57	30	Pass
NVNT	n40	2452	11.18	14.44	16.12	30	Pass

C.3 Maximum power spectral density

Test Result

TestMode	Antenna	Frequency[MHz]	Measured PSD [dBm/30kHz]	DC Factor [dB]	Result[dBm/30 kHz]	Limit[dBm/3kHz]	Verdict
11B	Ant1	2412	-8.62	0.34	-8.28	≤8.00	PASS
		2437	-9.43	0.34	-9.09	≤8.00	PASS
		2462	-8.92	0.34	-8.58	≤8.00	PASS
11G	Ant1	2412	-10.8	1.76	-9.04	≤8.00	PASS
		2437	-12.22	1.76	-10.46	≤8.00	PASS
		2462	-10.96	1.76	-9.2	≤8.00	PASS
11N20SISO	Ant1	2412	-11.33	1.76	-9.57	≤8.00	PASS
		2437	-12.45	2.14	-10.31	≤8.00	PASS
		2462	-11.09	1.76	-9.33	≤8.00	PASS
11N40SISO	Ant1	2422	-13.18	2.43	-10.75	≤8.00	PASS
		2437	-14.11	2.43	-11.68	≤8.00	PASS
		2452	-15.96	2.43	-13.53	≤8.00	PASS

Test Result

TestMode	Antenna	Frequency[MHz]	Measured PSD [dBm/30kHz]	DC Factor [dB]	Result[dBm/30 kHz]	Limit[dBm/3kHz]	Verdict
11B	Ant2	2412	-6.85	0.24	-6.61	≤8.00	PASS
		2437	-6.55	0.24	-6.31	≤8.00	PASS
		2462	-6.78	0.18	-6.6	≤8.00	PASS
11G	Ant2	2412	-9.01	1.25	-7.76	≤8.00	PASS
		2437	-8.45	1.63	-6.82	≤8.00	PASS
		2462	-8.42	1.63	-6.79	≤8.00	PASS
11N20SISO	Ant2	2412	-8.64	1.25	-7.39	≤8.00	PASS
		2437	-8.19	1.25	-6.94	≤8.00	PASS
		2462	-8.07	1.51	-6.56	≤8.00	PASS
11N40SISO	Ant2	2422	-10.06	1.76	-8.3	≤8.00	PASS
		2437	-9.81	4.77	-5.04	≤8.00	PASS
		2452	-10.31	1.76	-8.55	≤8.00	PASS

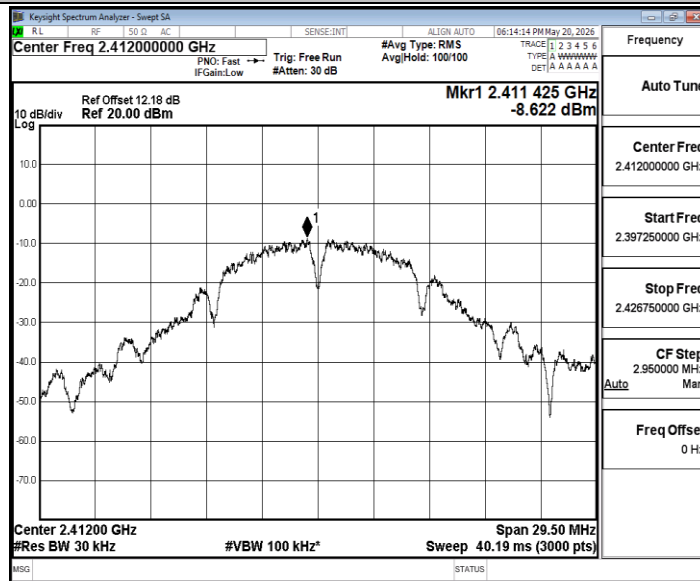
Note: offset=System attenuation +cable loss

MIMO

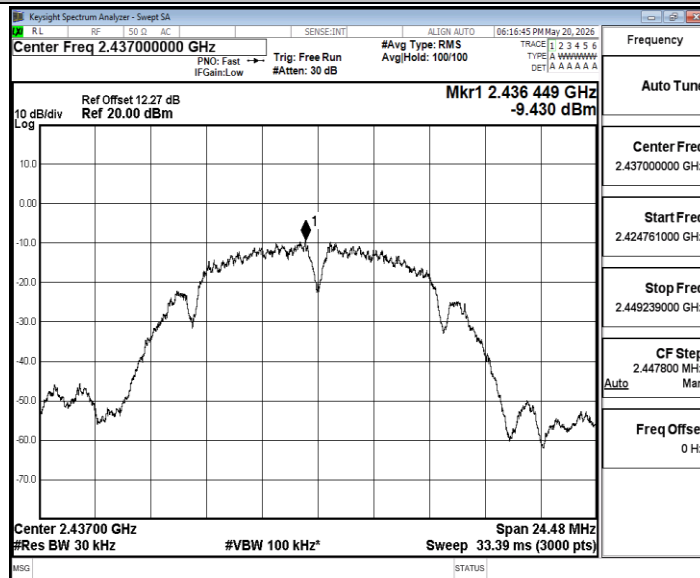
Condition	Mode	Frequency (MHz)	Conducted PSD (dBm/30kHz)			Limit (dBm)	Verdict
			Ant1	Ant2	Ant1+Ant2		
NVNT	n20	2412	-9.57	-7.39	-5.33	6.68	Pass
NVNT	n20	2437	-10.31	-6.94	-5.30	6.68	Pass
NVNT	n20	2462	-9.33	-6.56	-4.72	6.68	Pass
NVNT	n40	2422	-10.75	-8.3	-6.34	6.68	Pass
NVNT	n40	2437	-11.68	-5.04	-4.19	6.68	Pass
NVNT	n40	2452	-13.53	-8.55	-7.35	6.68	Pass

Test Graphs

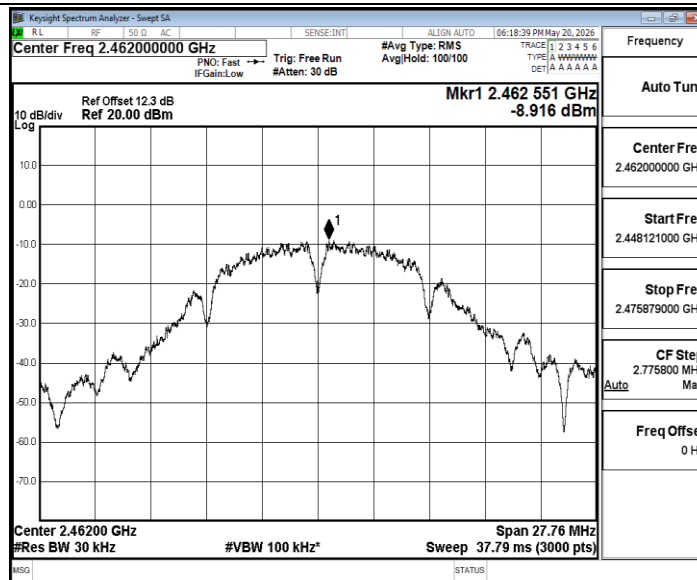
11B_Ant1_2412



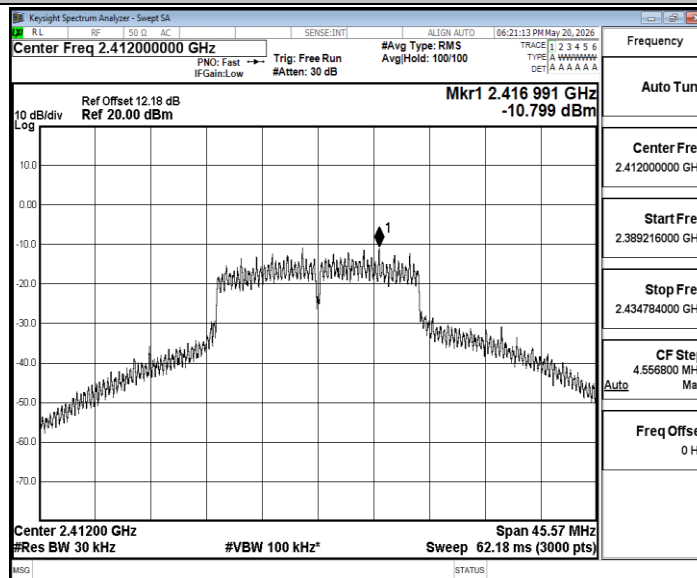
11B_Ant1_2437



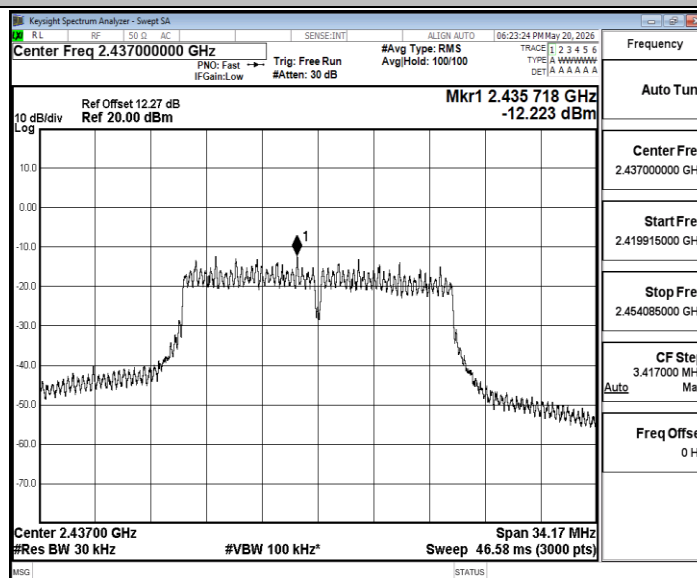
11B_Ant1_2462



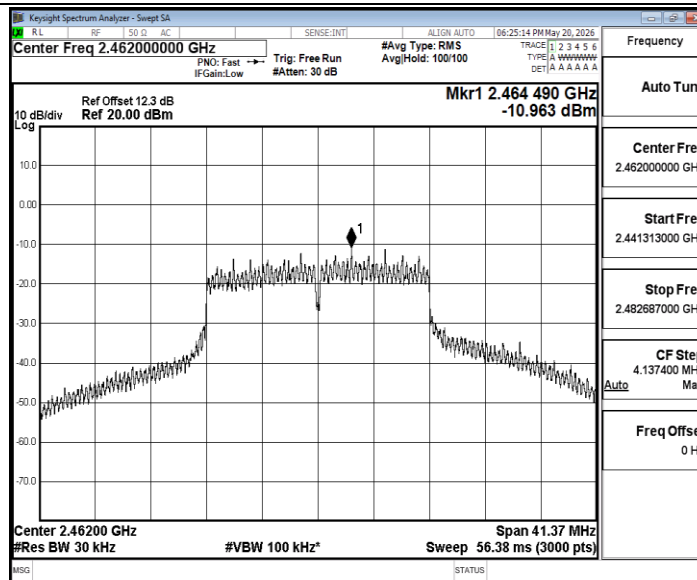
11G_Ant1_2412



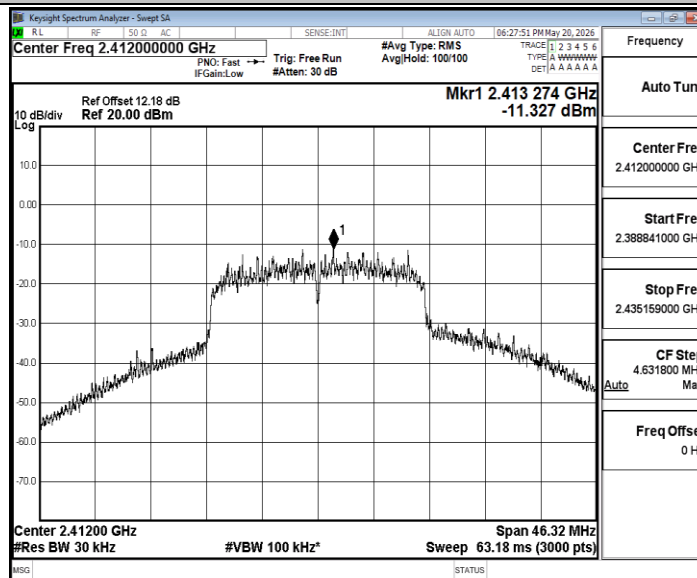
11G_Ant1_2437



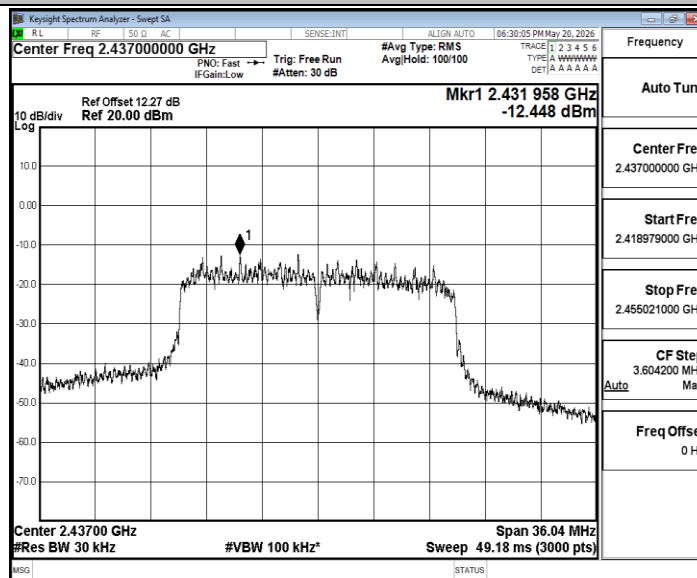
11G_Ant1_2462



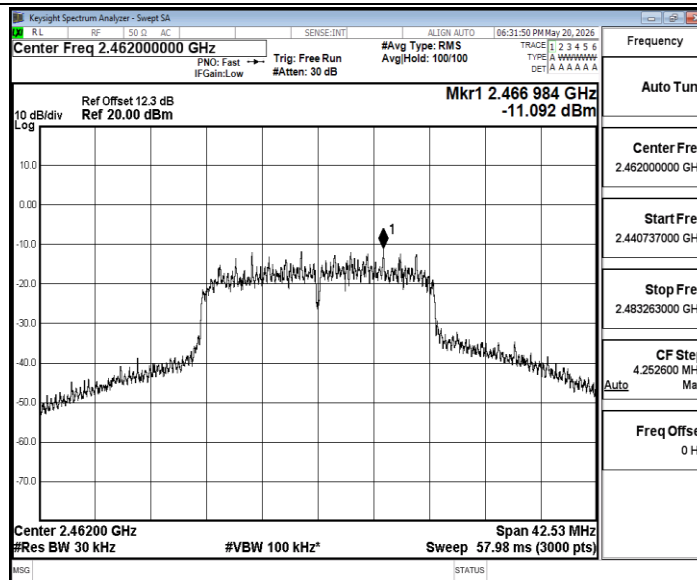
11N20SISO_Ant1_2412



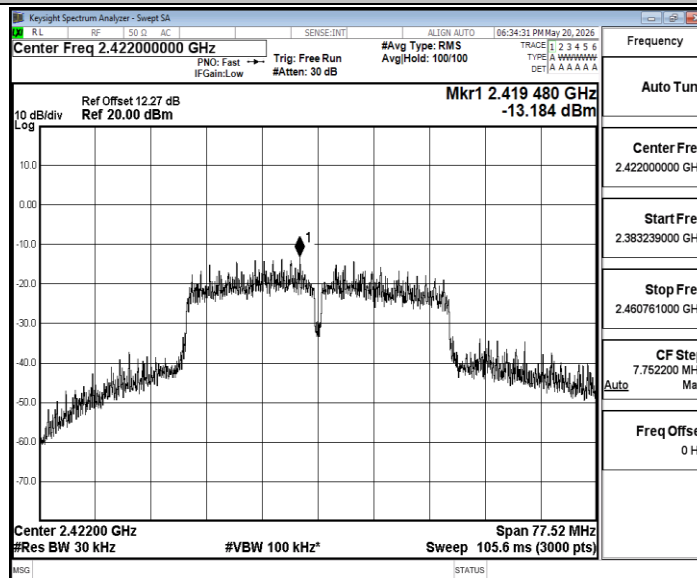
11N20SISO_Ant1_2437



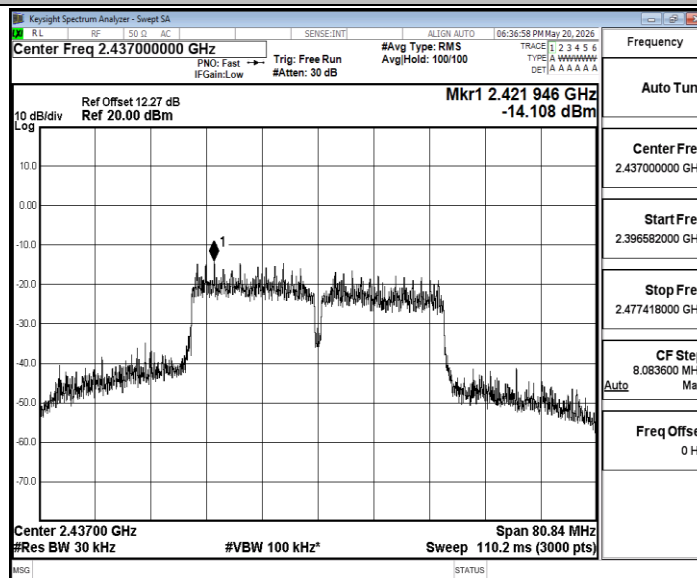
11N20SISO_Ant1_2462



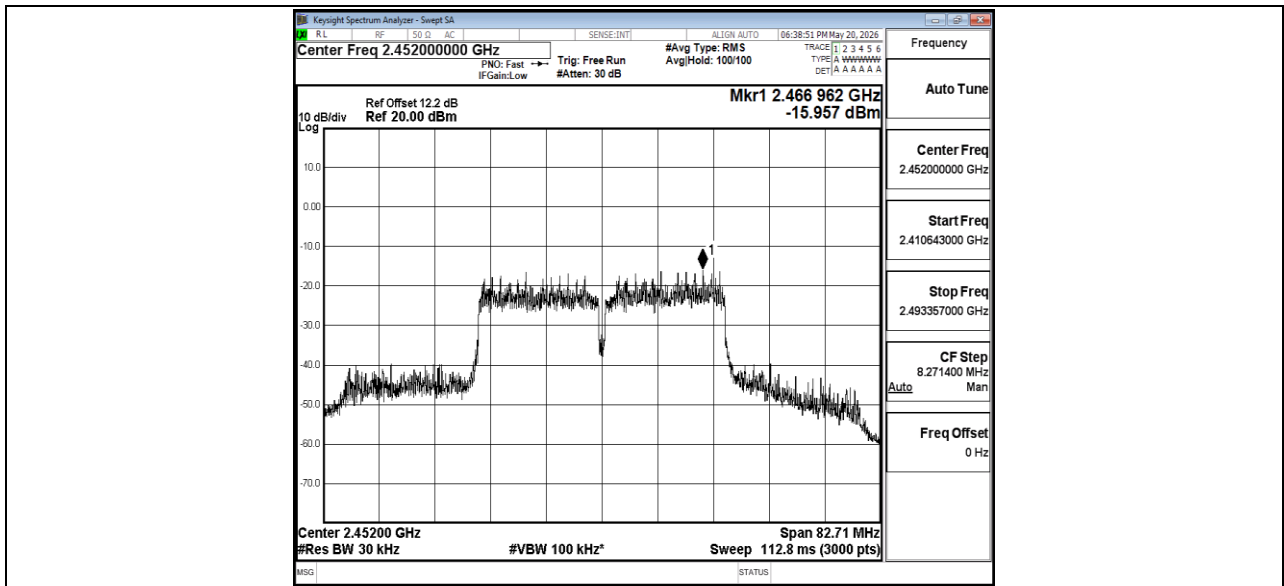
11N40SISO_Ant1_2422



11N40SISO_Ant1_2437

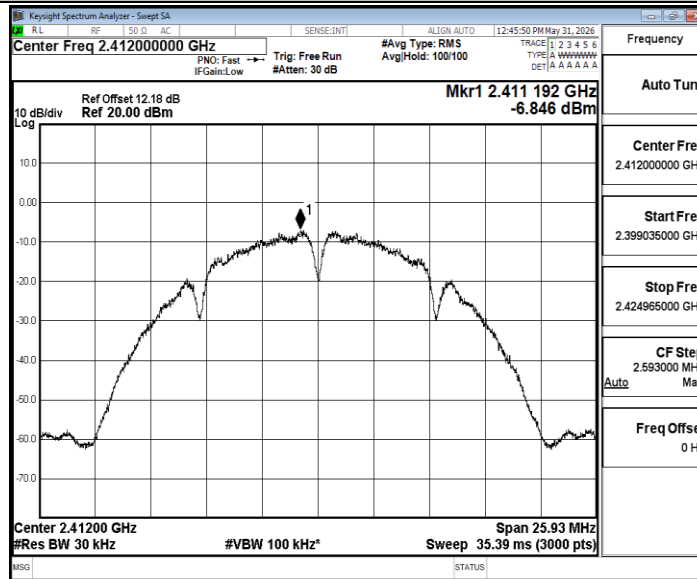


11N40SISO_Ant1_2452

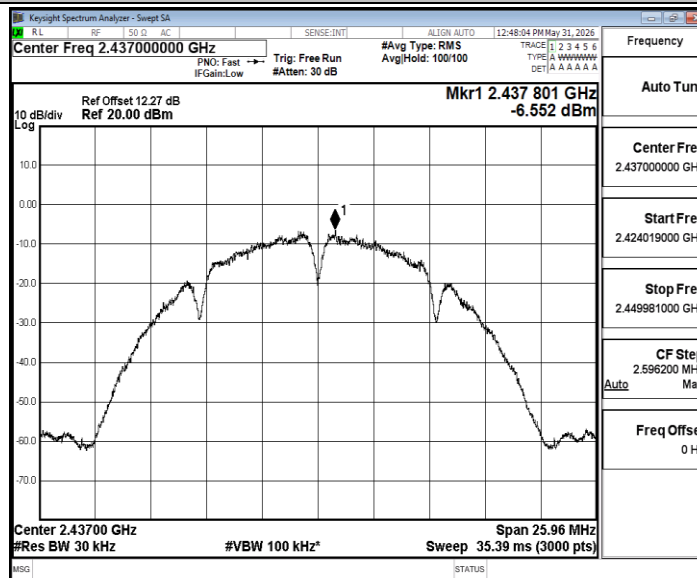


Test Graphs

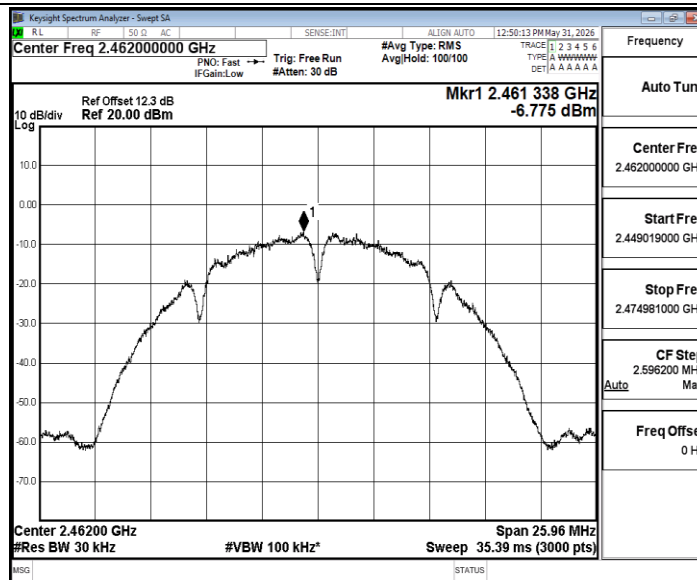
11B_Ant2_2412



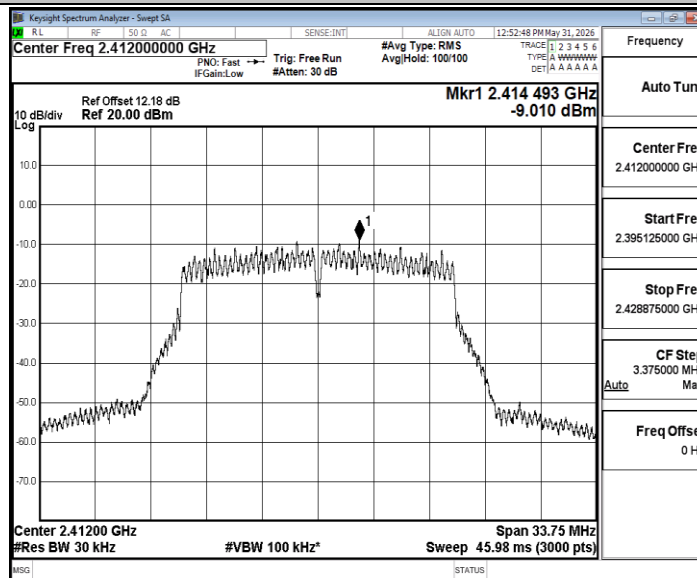
11B_Ant2_2437



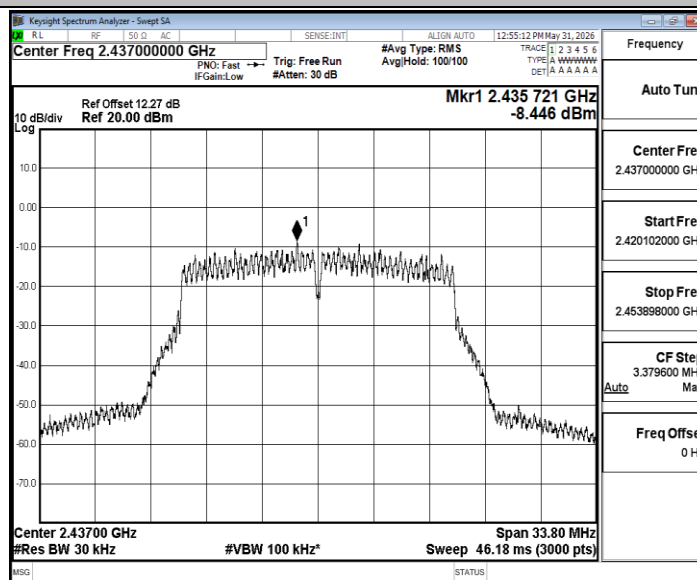
11B_Ant2_2462



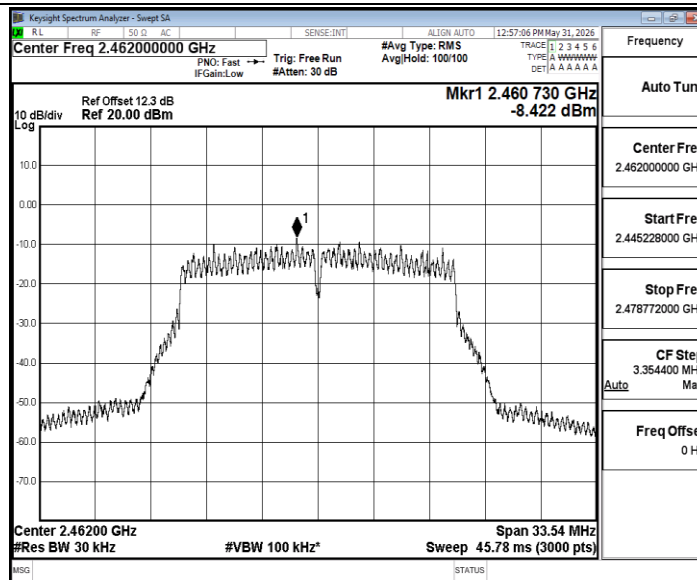
11G_Ant2_2412



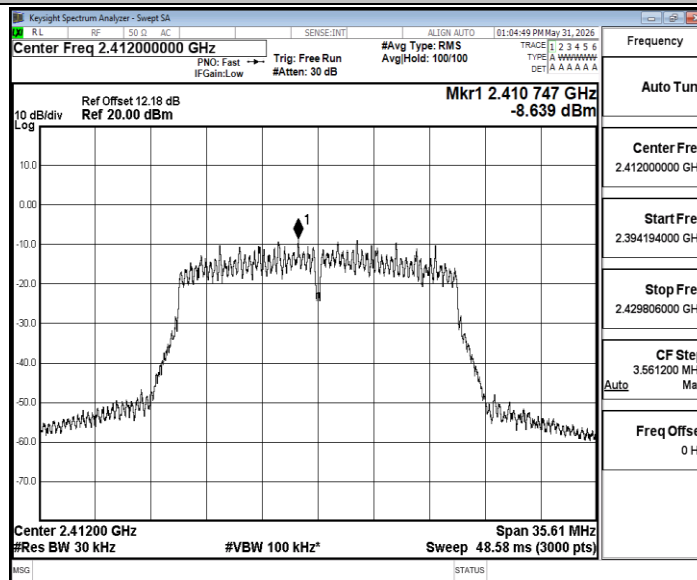
11G_Ant2_2437



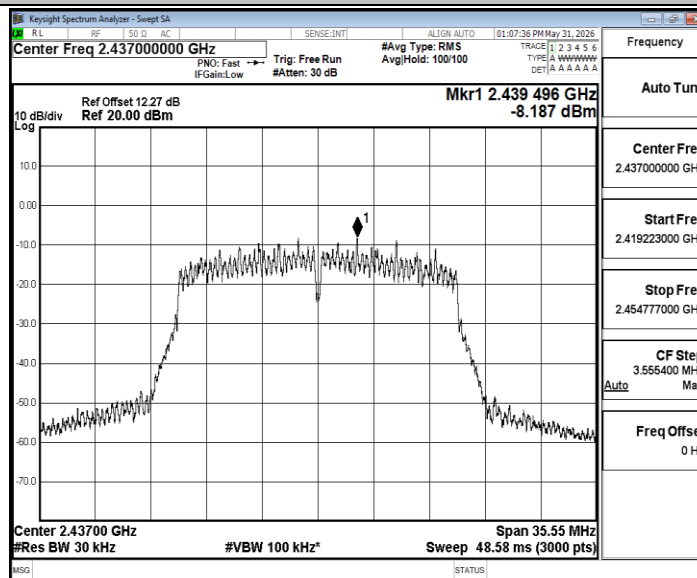
11G_Ant2_2462



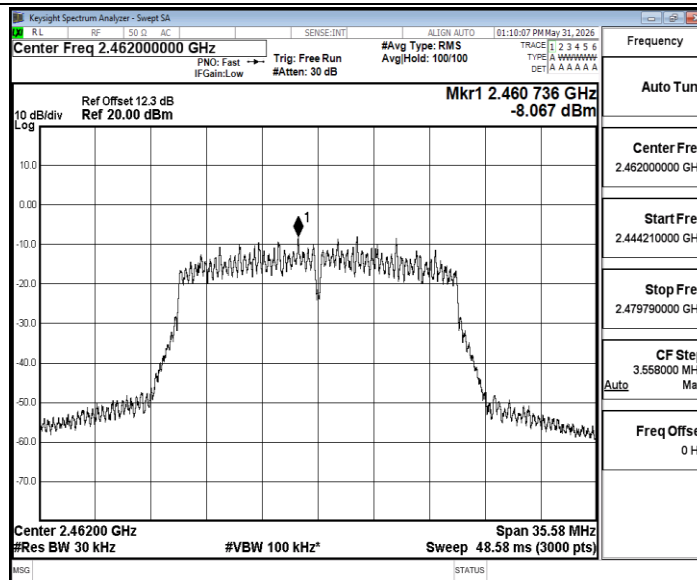
11N20SISO_Ant2_2412



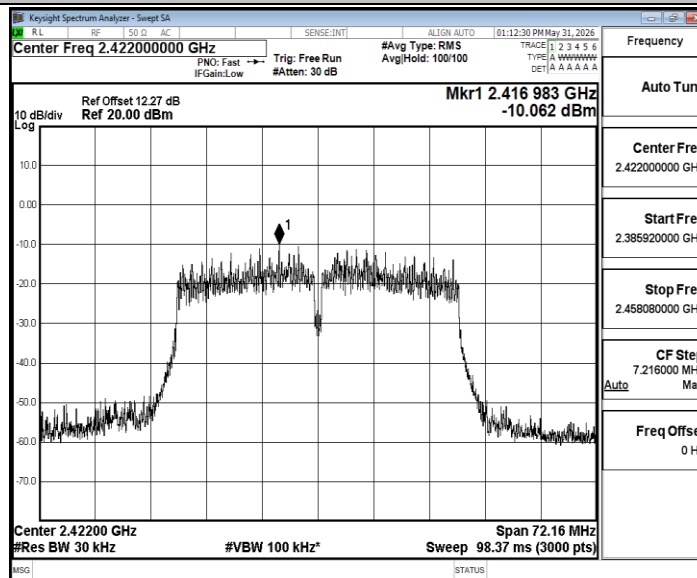
11N20SISO_Ant2_2437



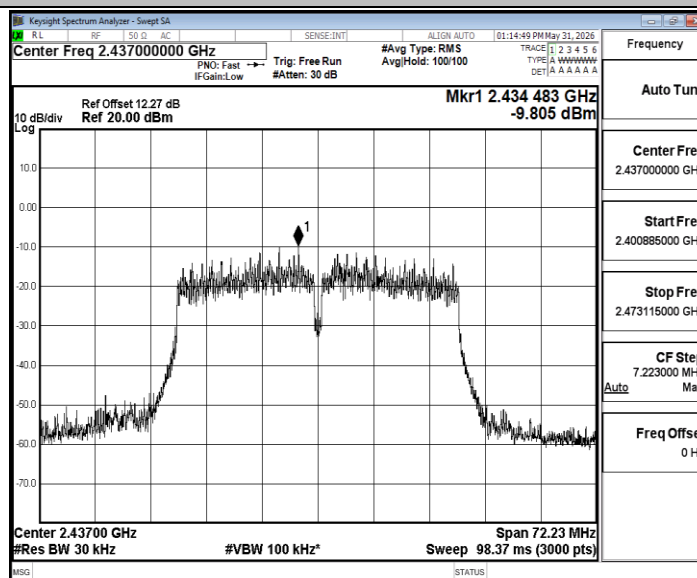
11N20SISO_Ant2_2462



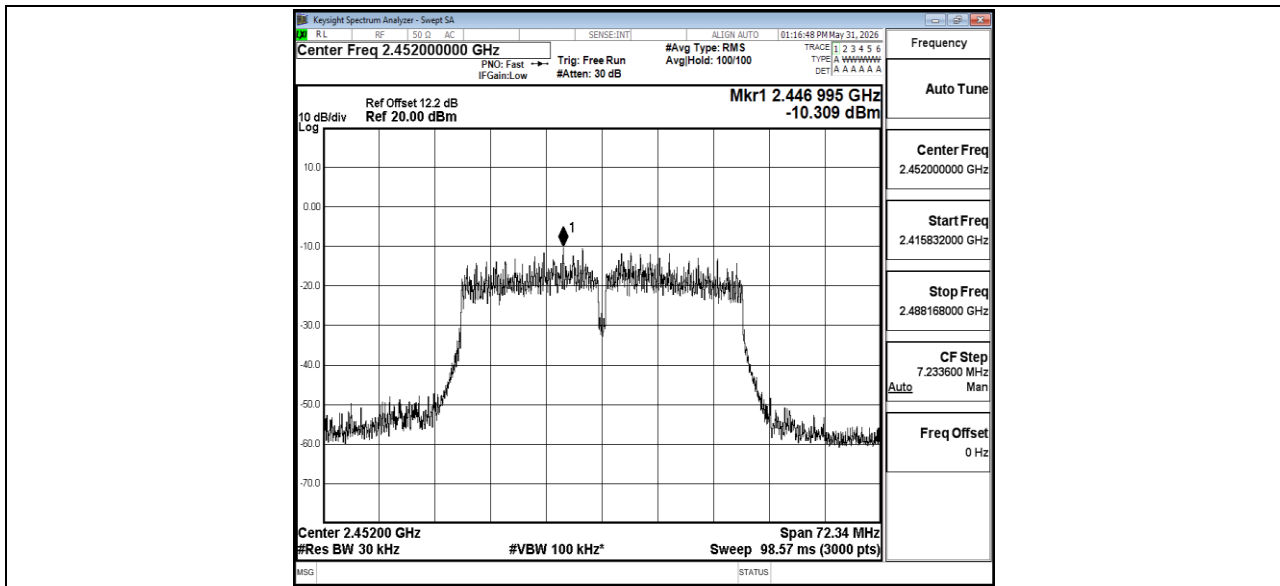
11N40SISO_Ant2_2422



11N40SISO_Ant2_2437



11N40SISO_Ant2_2452



C.4 Band edge measurements

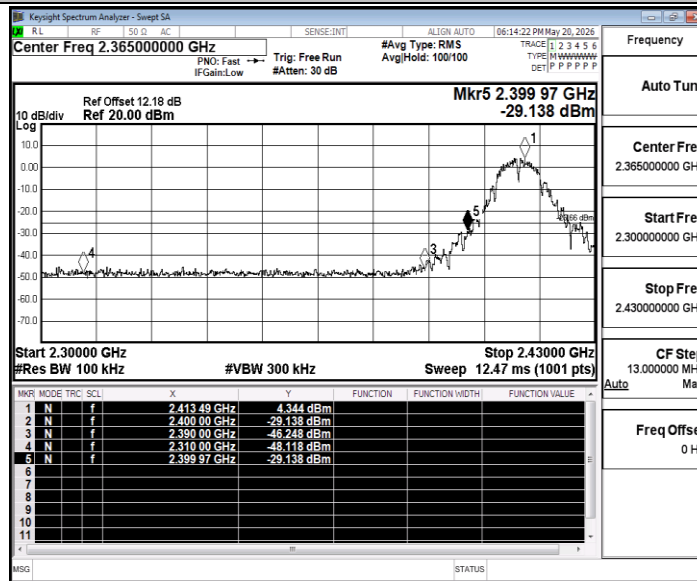
Test Result

TestMode	Antenna	ChName	Frequency[MHz]	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
11B	Ant1	Low	2412	4.34	-29.14	≤-25.66	PASS
		High	2462	4.07	-41.42	≤-25.94	PASS
11G	Ant1	Low	2412	-3.64	-36.72	≤-33.64	PASS
		High	2462	2.00	-31.99	≤-28	PASS
11N20SISO	Ant1	Low	2412	-2.73	-38.87	≤-32.73	PASS
		High	2462	1.65	-31.06	≤-28.35	PASS
11N40SISO	Ant1	Low	2422	-5.37	-40.93	≤-35.37	PASS
		High	2452	-7.42	-48.58	≤-37.42	PASS

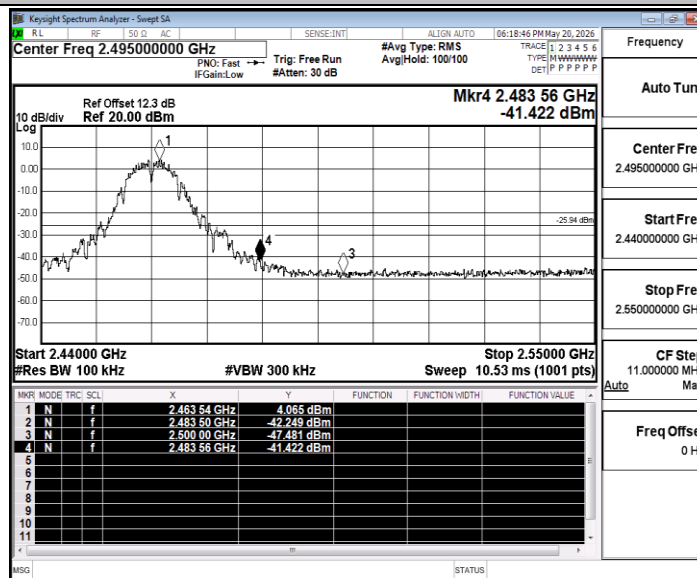
Note: offset=System attenuation +cabel loss

Test Graphs

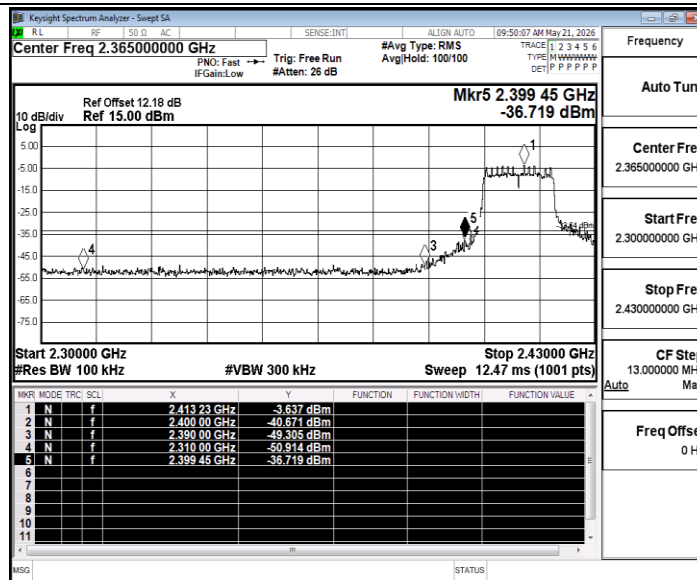
11B_Ant1_Low_2412



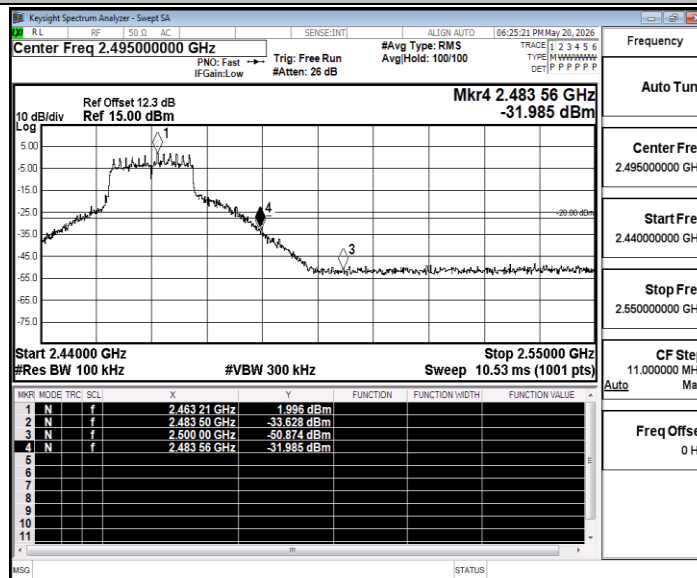
11B_Ant1_High_2462



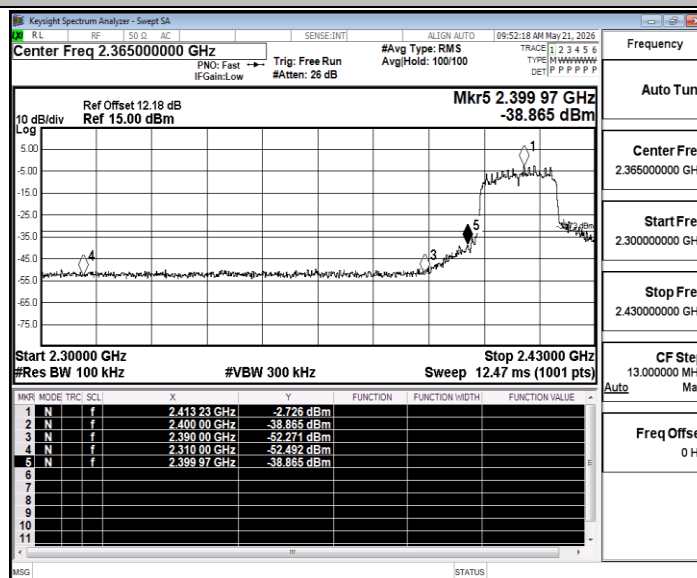
11G_Ant1_Low_2412



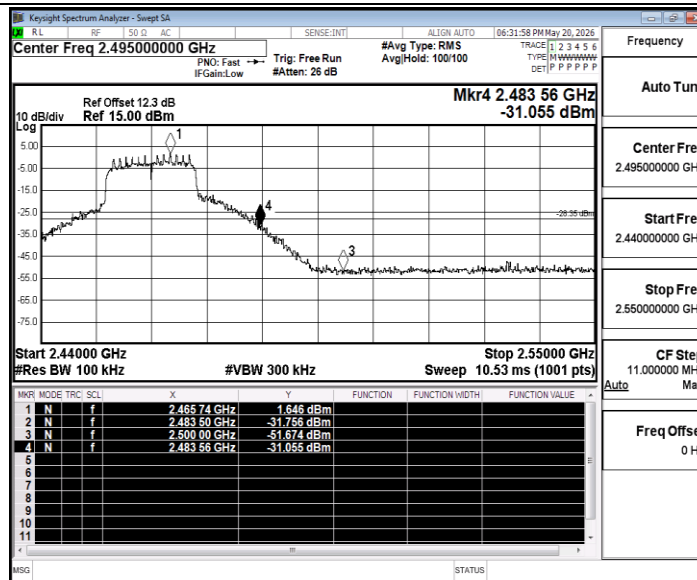
11G_Ant1_High_2462



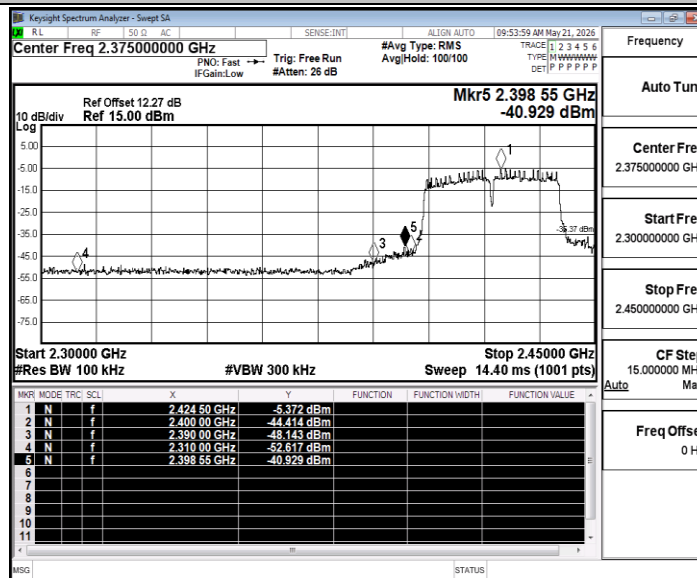
11N20SISO_Ant1_Low_2412



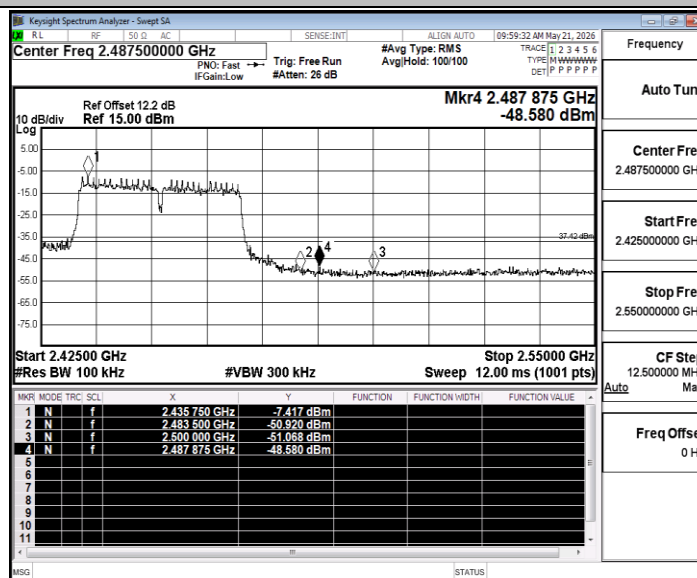
11N20SISO_Ant1_High_2462



11N40SISO_Ant1_Low_2422



11N40SISO_Ant1_High_2452



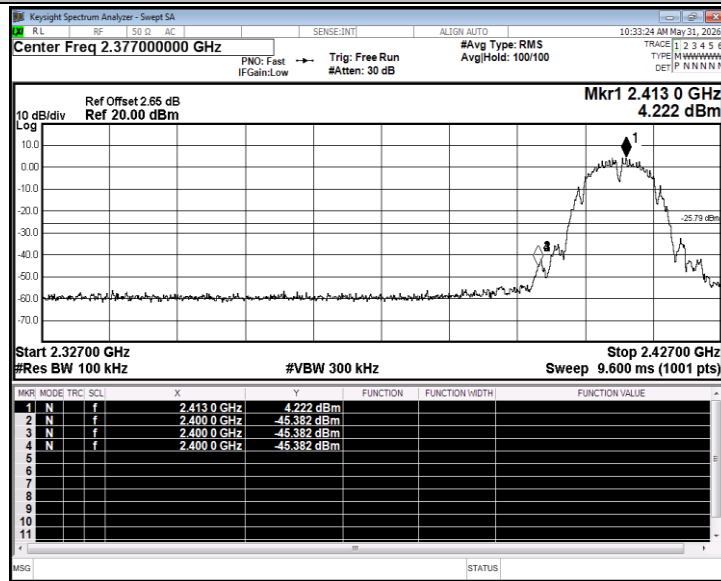
Test Result

TestMode	Antenna	ChName	Frequency[MHz]	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
11B	Ant2	Low	2412	4.22	-45.38	≤-25.78	PASS
	Ant2	High	2462	6.07	-44.29	≤-23.93	PASS
11G	Ant2	Low	2412	4.23	-32.83	≤-25.77	PASS
		High	2462	4.49	-44.53	≤-25.51	PASS
11N20SISO	Ant2	Low	2412	4.30	-33.88	≤-25.7	PASS
		High	2462	4.45	-47.86	≤-25.55	PASS
11N40SISO	Ant2	Low	2422	1.51	-34.48	≤-28.49	PASS
		High	2452	1.60	-41.04	≤-28.4	PASS

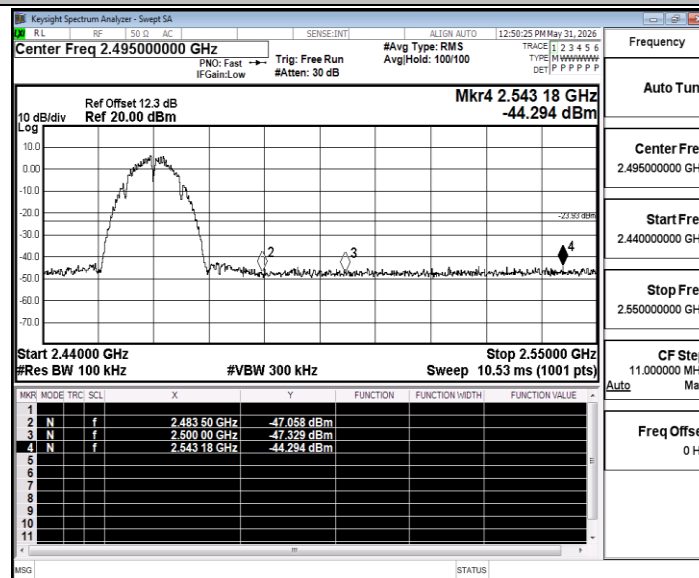
Note: offset=System attenuation +cabal loss

Test Graphs

11B_Ant2_Low_2412



11B_Ant2_High_2462



11G_Ant2_Low_2412