



Appendix C

RF Test Data for 2.4G WIFI (Conducted Measurement)

Product Name: HYBOOK_PLUS

Test Model: 14CB7S01

Environmental Conditions

Temperature:	22.5° C
Relative Humidity:	53.5%
ATM Pressure:	100.0 kPa
Test Engineer:	Ling Zhu
Supervised by:	Li Huan



C.1 6dB Bandwidth

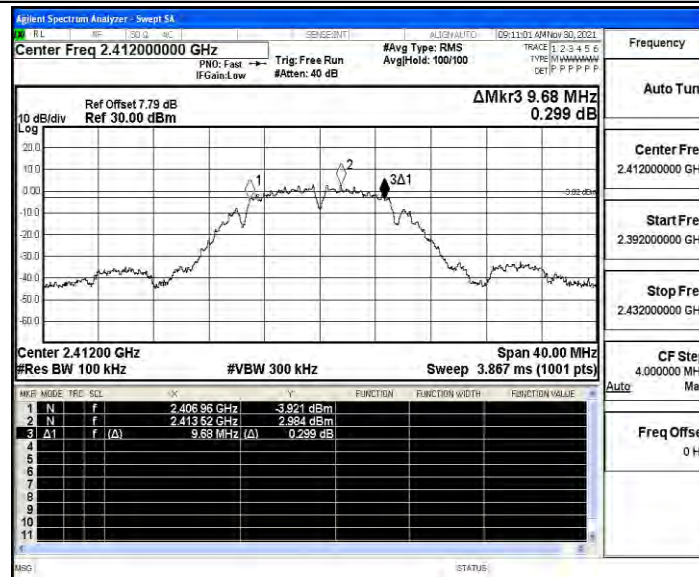
Test Result

TestMode	Antenna	Channel	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant0	2412	9.680	2406.960	2416.640	0.5	PASS
		2437	9.400	2432.200	2441.600	0.5	PASS
		2462	9.640	2456.960	2466.600	0.5	PASS
11G	Ant0	2412	13.880	2405.640	2419.520	0.5	PASS
		2437	15.160	2429.440	2444.600	0.5	PASS
		2462	14.440	2455.080	2469.520	0.5	PASS
11N20SISO	Ant0	2412	14.320	2405.440	2419.760	0.5	PASS
		2437	13.280	2431.320	2444.600	0.5	PASS
		2462	13.920	2455.640	2469.560	0.5	PASS
11N40SISO	Ant0	2422	35.200	2404.400	2439.600	0.5	PASS
		2437	35.280	2404.360	2439.640	0.5	PASS
		2452	34.000	2435.600	2469.600	0.5	PASS

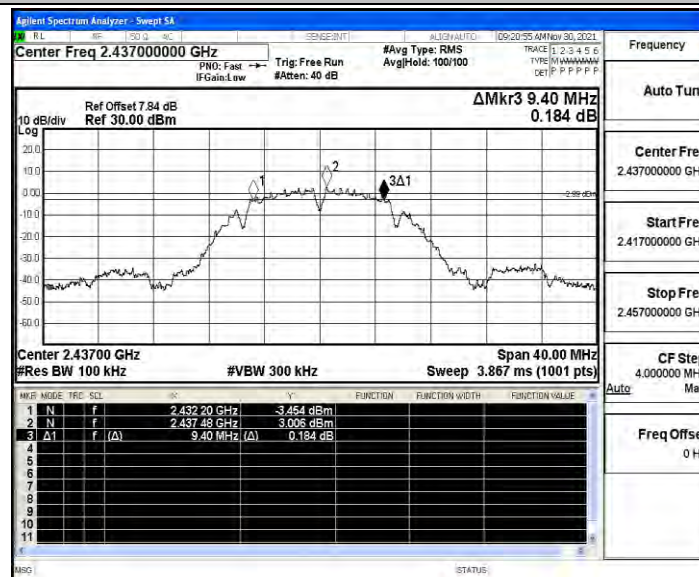


Test Graphs

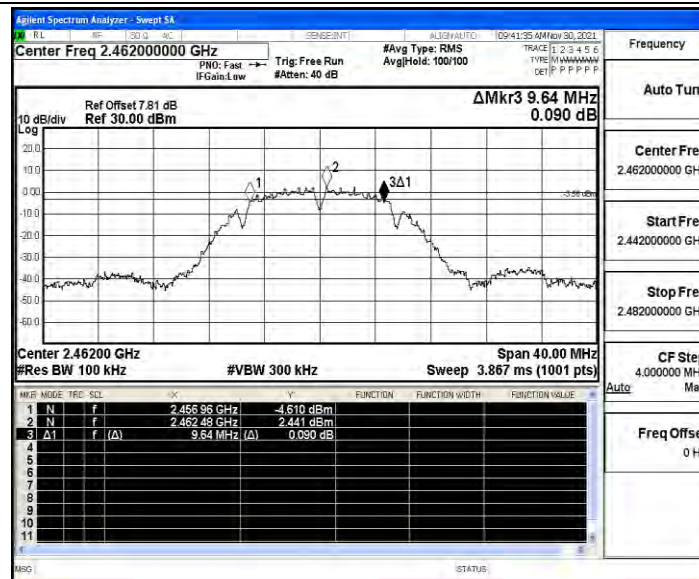
11B_Ant0_2412



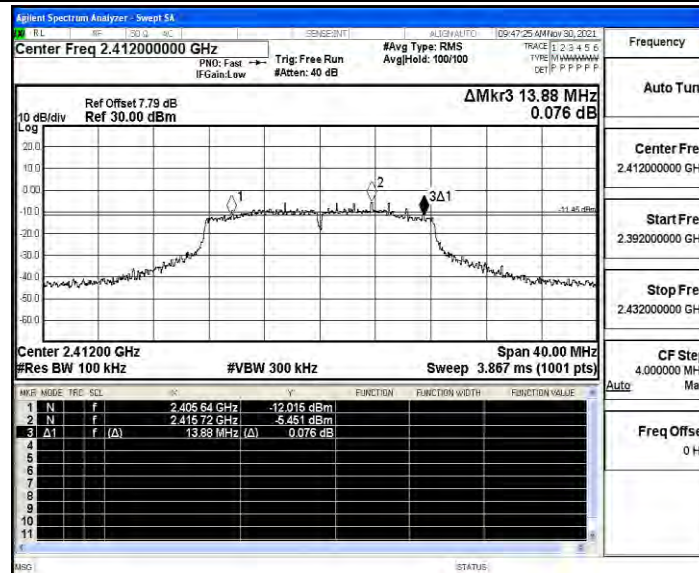
11B_Ant0_2437



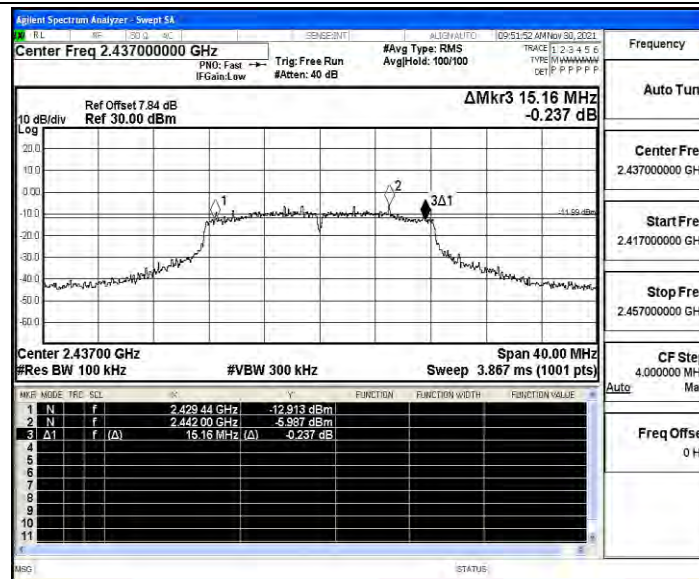
11B_Ant0_2462



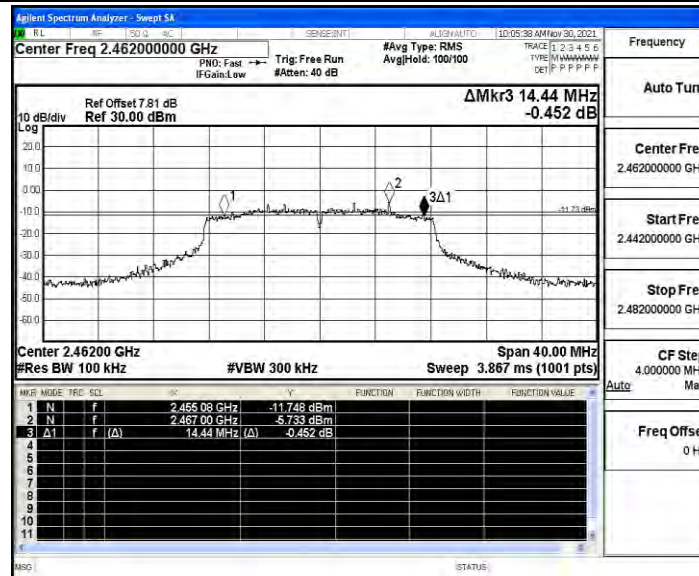
11G_Ant0_2412



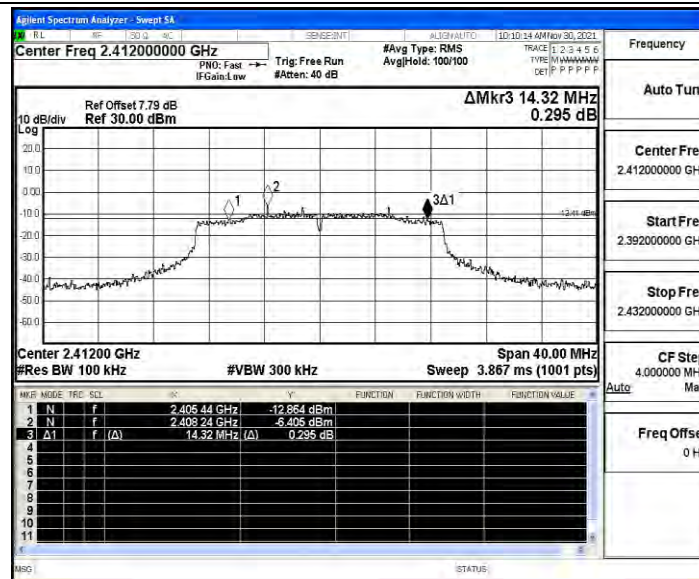
11G_Ant0_2437



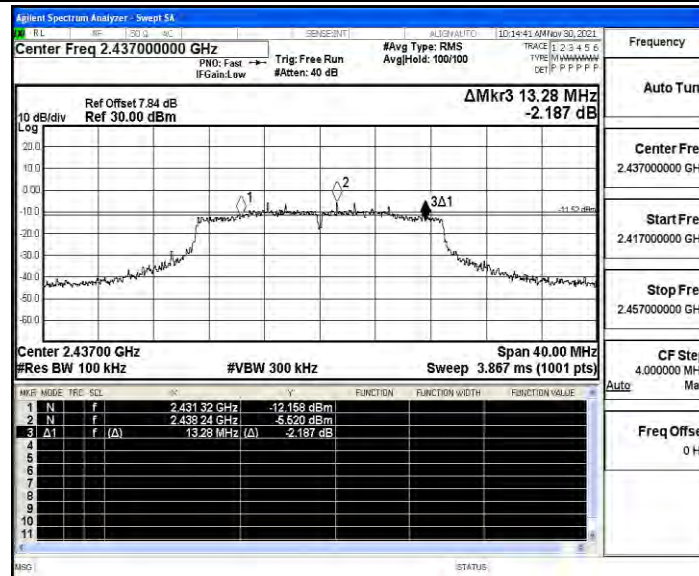
11G_Ant0_2462



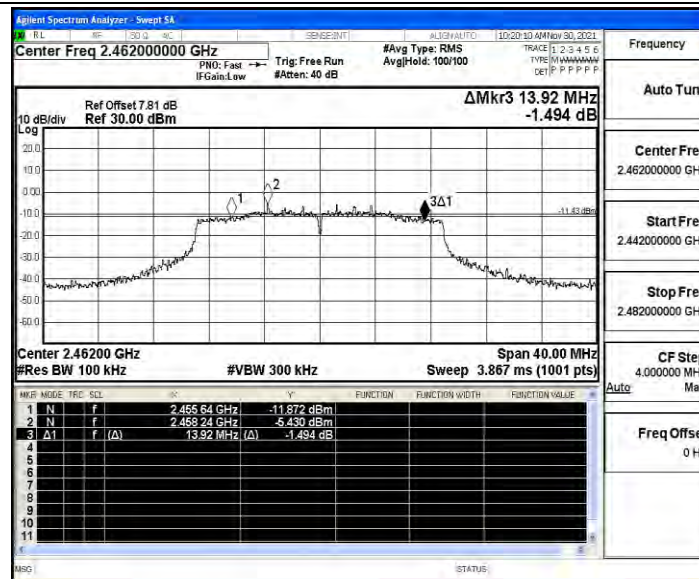
11N20SISO_Ant0_2412



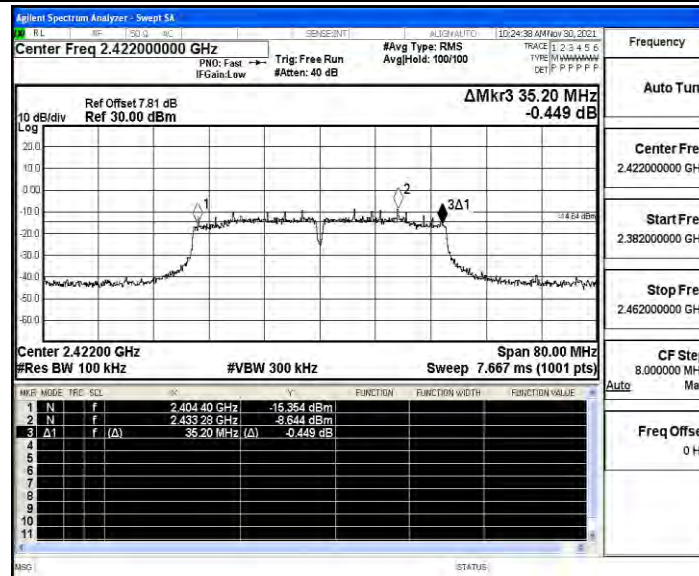
11N20SISO_Ant0_2437



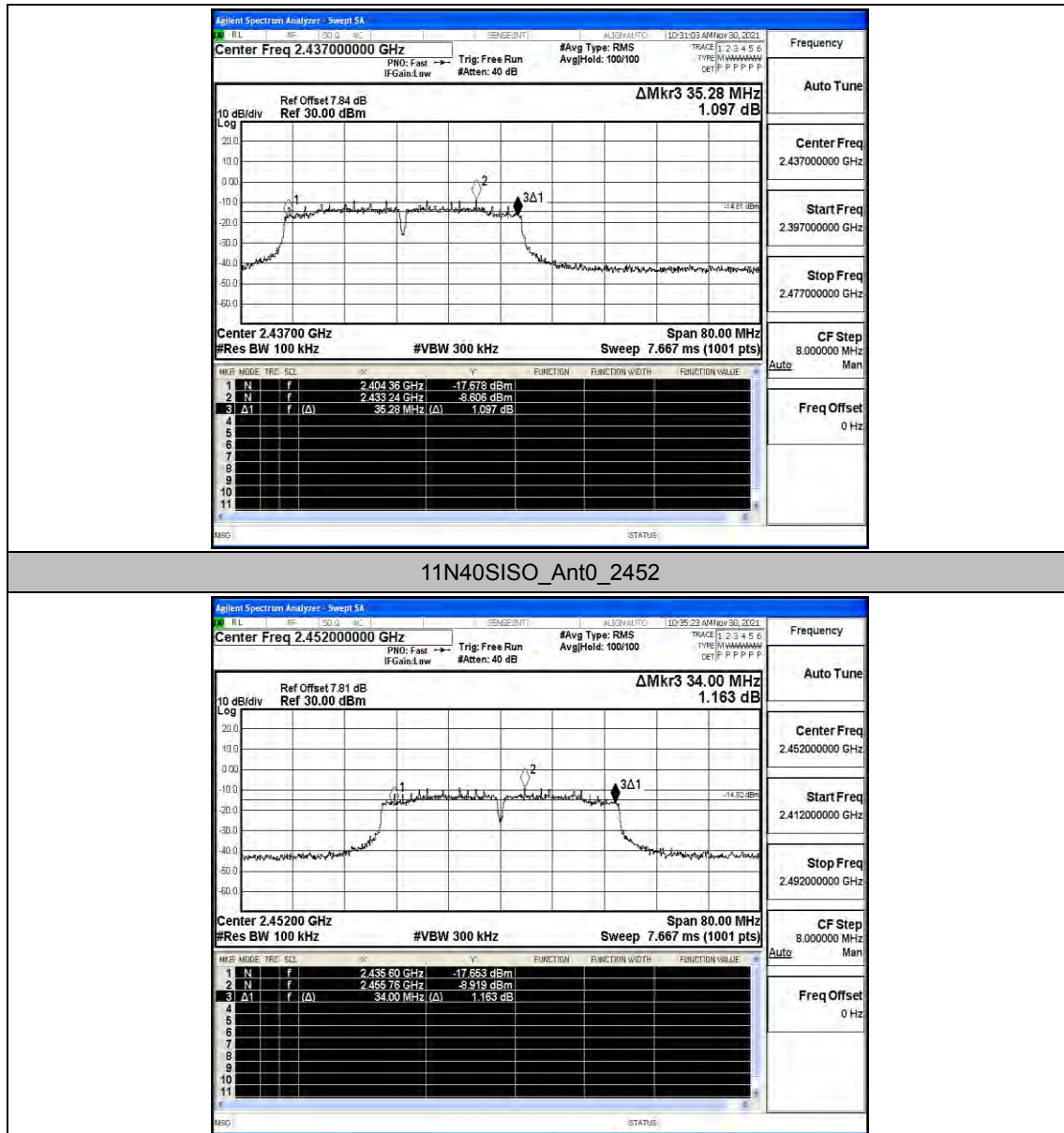
11N20SISO_Ant0_2462



11N40SISO_Ant0_2422



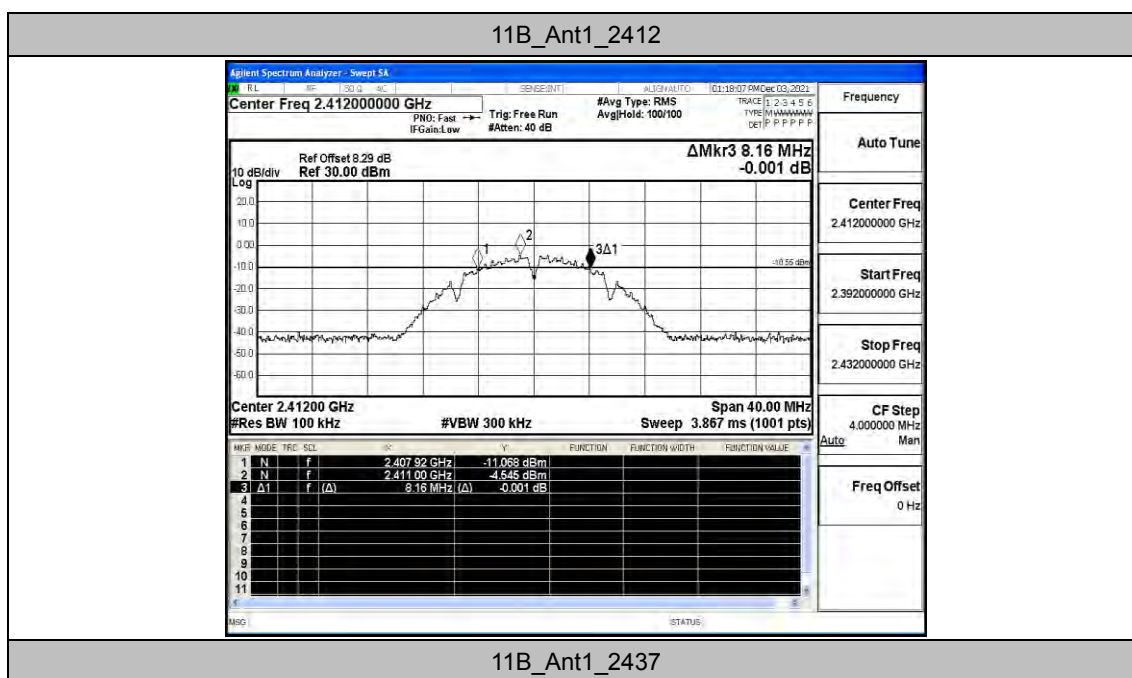
11N40SISO_Ant0_2437

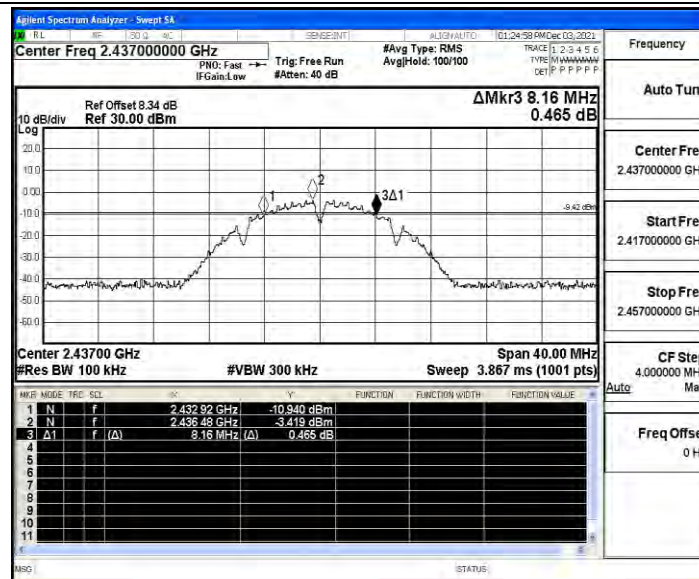




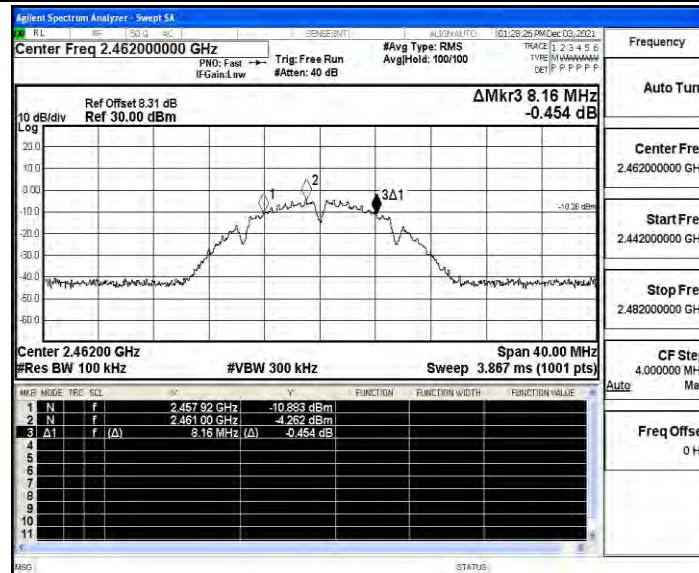
TestMode	Antenna	Channel	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	8.160	2407.920	2416.080	0.5	PASS
		2437	8.160	2432.920	2441.080	0.5	PASS
		2462	8.160	2457.920	2466.080	0.5	PASS
11G	Ant1	2412	15.840	2404.000	2419.840	0.5	PASS
		2437	16.400	2428.800	2445.200	0.5	PASS
		2462	16.440	2453.760	2470.200	0.5	PASS
11N20SISO	Ant1	2412	17.640	2403.160	2420.800	0.5	PASS
		2437	17.680	2428.160	2445.840	0.5	PASS
		2462	17.680	2453.160	2470.840	0.5	PASS
11N40SISO	Ant1	2422	36.080	2403.760	2439.840	0.5	PASS
		2437	35.840	2418.760	2454.600	0.5	PASS
		2452	35.840	2433.760	2469.600	0.5	PASS

Test Graphs

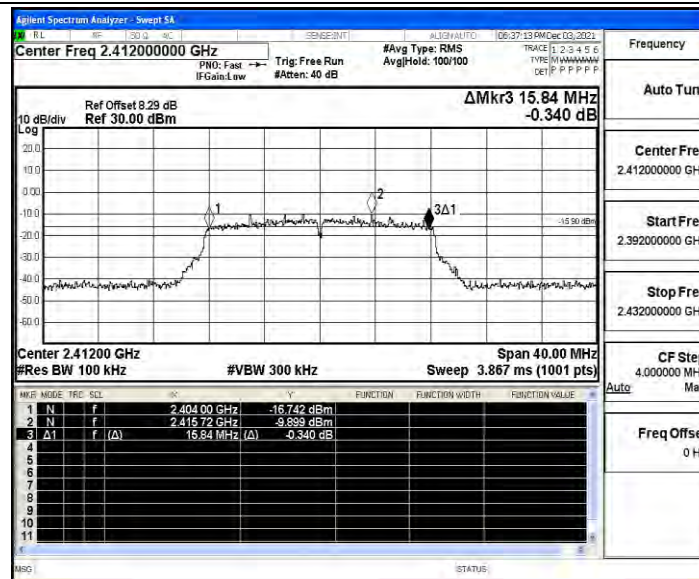




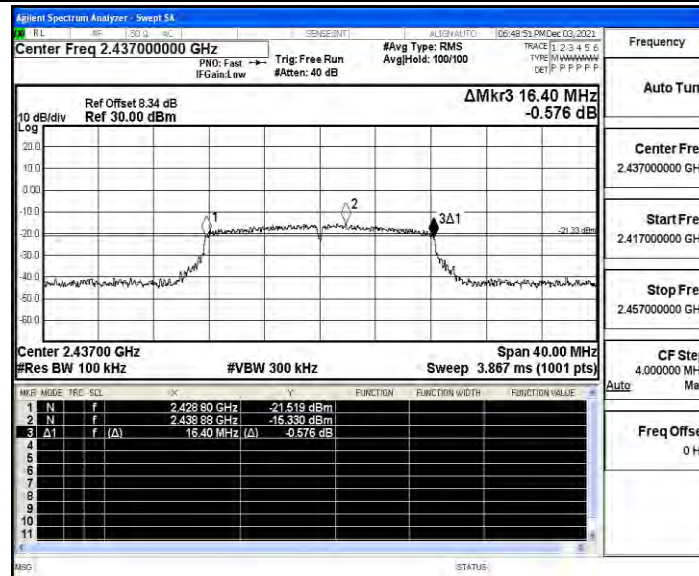
11B_Ant1_2462



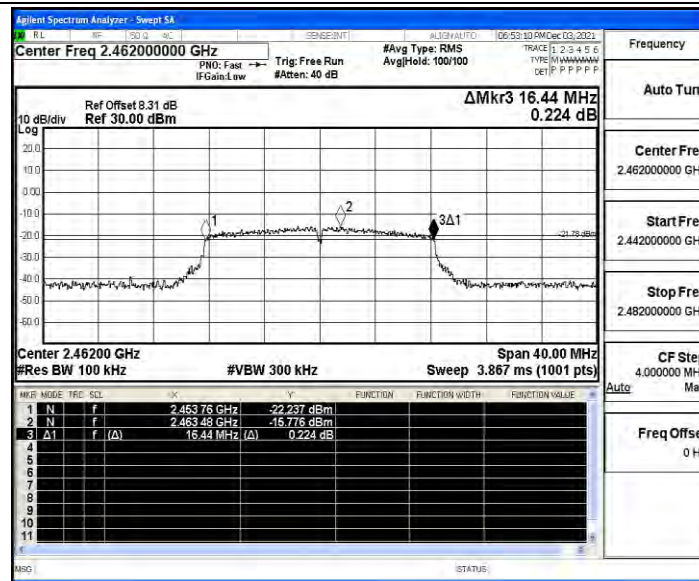
11G_Ant1_2412



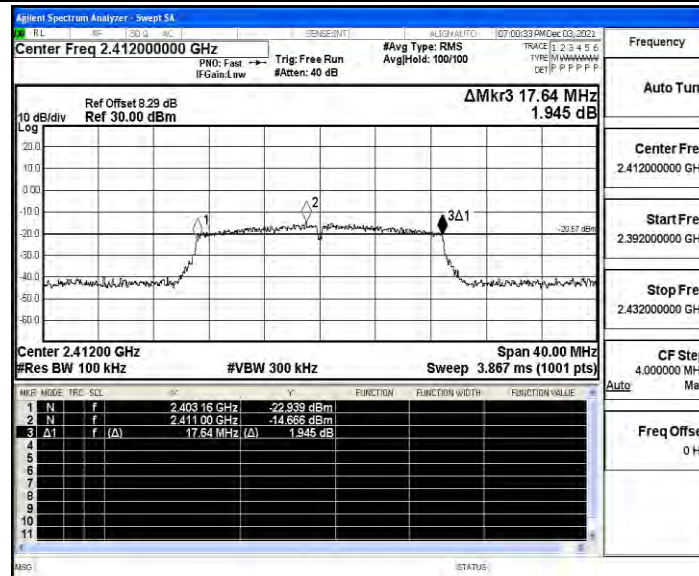
11G_Ant1_2437



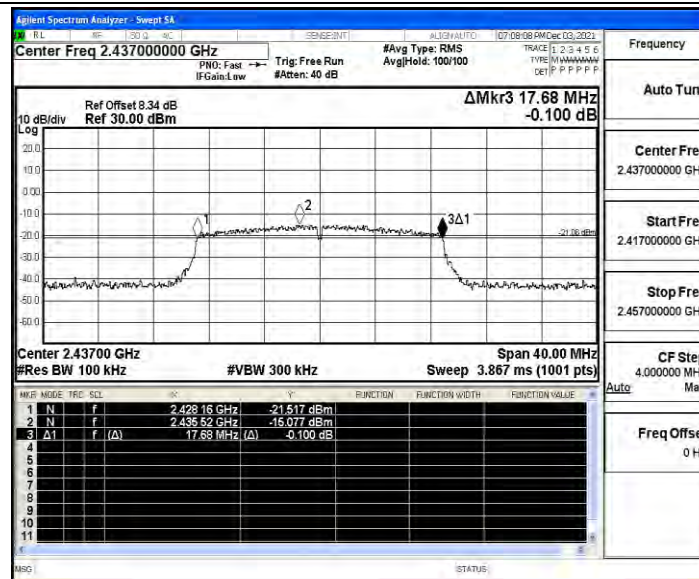
11G_Ant1_2462



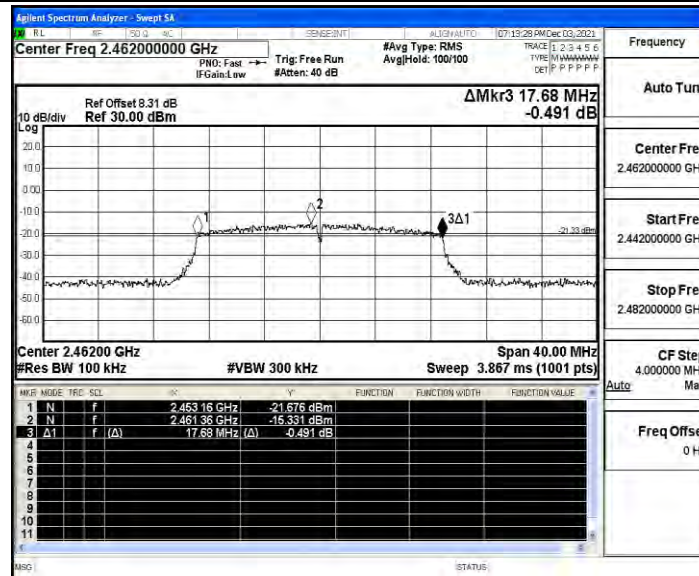
11N20SISO_Ant1_2412



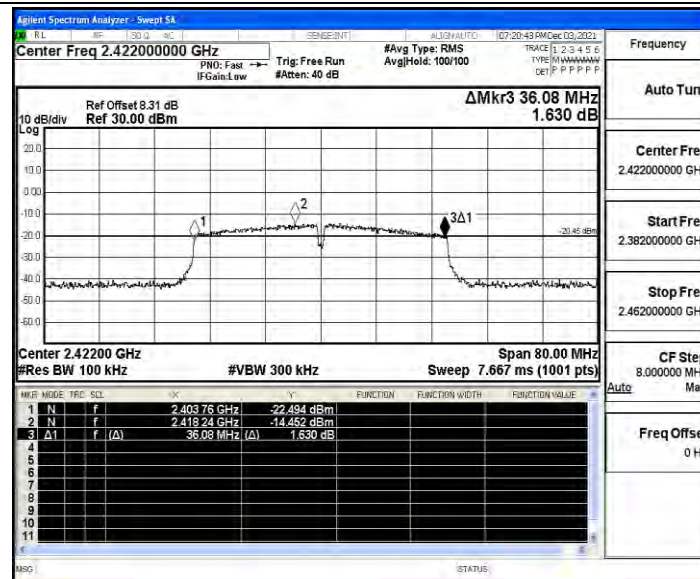
11N20SISO_Ant1_2437



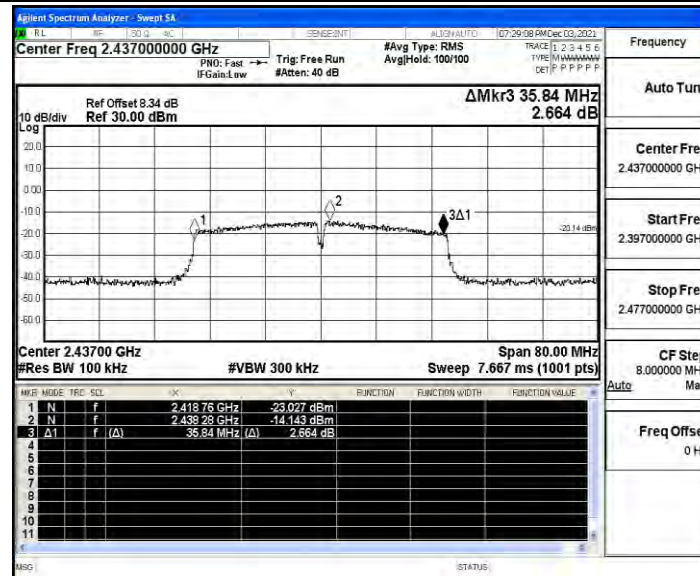
11N20SISO_Ant1_2462



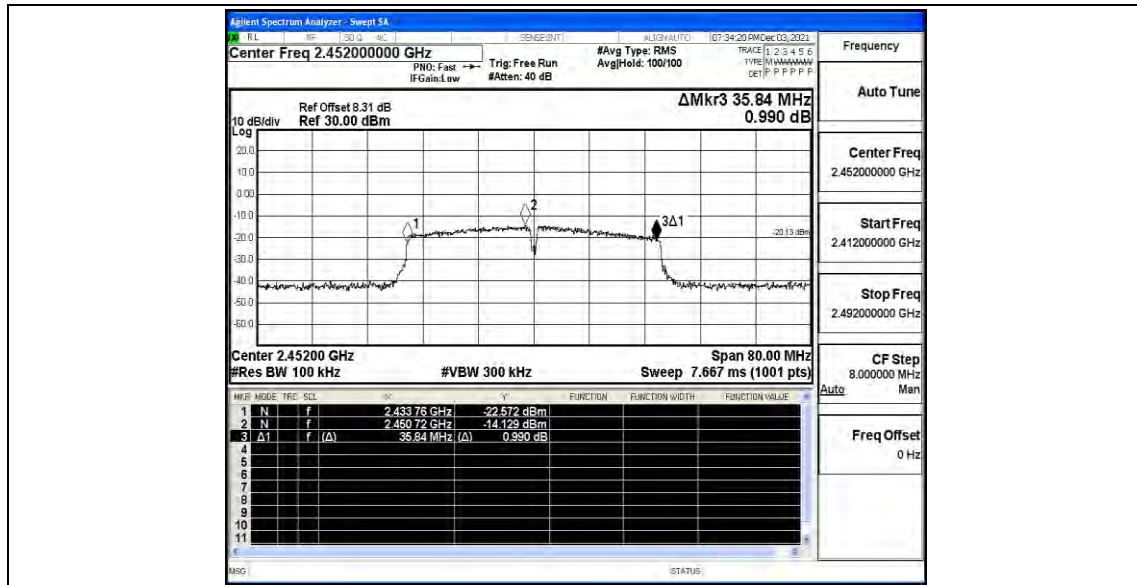
11N40SISO_Ant1_2422



11N40SISO_Ant1_2437



11N40SISO_Ant1_2452





C.2 Maximum conducted output power

Test Result

Mode	Channel	Peak Power [dBm]			Limit [dBm]	Verdict
		Ant 0	Ant 1	Sum		
11B	2412	6.07	7.06	/	≤30	PASS
	2437	6.47	7.91	/	≤30	PASS
	2462	6.31	7.27	/	≤30	PASS
11G	2412	5.49	7.46	/	≤30	PASS
	2437	5.95	7.93	/	≤30	PASS
	2462	5.79	7.80	/	≤30	PASS
11N20	2412	4.86	6.02	8.49	≤30	PASS
	2437	5.49	6.17	8.85	≤30	PASS
	2462	5.76	5.86	8.82	≤30	PASS
11N40SISO	2422	5.28	6.00	8.67	≤30	PASS
	2437	5.49	6.20	8.87	≤30	PASS
	2452	4.60	6.29	8.54	≤30	PASS



C.3 Maximum power spectral density

TestMode	Antenna	Channel	Result[dBm/3kHz]	Limit[dBm/3kHz]	Verdict
11B	Ant0	2412	-21.28	≤8	PASS
		2437	-20.82	≤8	PASS
		2462	-21.24	≤8	PASS
11G	Ant0	2412	-26.63	≤8	PASS
		2437	-26.24	≤8	PASS
		2462	-25.98	≤8	PASS
11N20SISO	Ant0	2412	-27.04	≤8	PASS
		2437	-25.43	≤8	PASS
		2462	-25.91	≤8	PASS
11N40SISO	Ant0	2422	-28.84	≤8	PASS
		2437	-28.96	≤8	PASS
		2452	-28.87	≤8	PASS

TestMode	Antenna	Channel	Result[dBm/3kHz]	Limit[dBm/3kHz]	Verdict
11B	Ant1	2412	-17.93	≤8	PASS
		2437	-18.55	≤8	PASS
		2462	-19.51	≤8	PASS
11G	Ant1	2412	-24.03	≤8	PASS
		2437	-24.13	≤8	PASS
		2462	-23.39	≤8	PASS
11N20SISO	Ant1	2412	-24.82	≤8	PASS
		2437	-23.75	≤8	PASS
		2462	-25.94	≤8	PASS
11N40SISO	Ant1	2422	-25.88	≤8	PASS
		2437	-23.26	≤8	PASS
		2452	-25.48	≤8	PASS

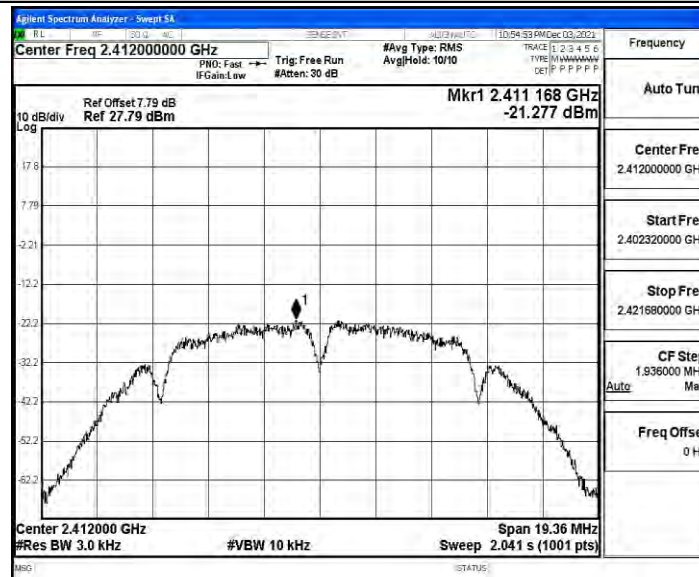
MIMO

Mode	Channel	MIMO PSD [dBm/3KHz]			Limit [dBm/3KHz]	Verdict
		Ant 0	Ant 1	Sum		
11N20SISO	2412	-27.04	-24.82	-22.78	8	PASS
	2437	-25.43	-23.75	-21.50	8	PASS
	2462	-25.91	-25.94	-22.91	8	PASS
11N40SISO	2422	-28.84	-25.88	-24.10	8	PASS
	2437	-28.96	-23.26	-22.22	8	PASS
	2452	-28.87	-25.48	-23.84	8	PASS

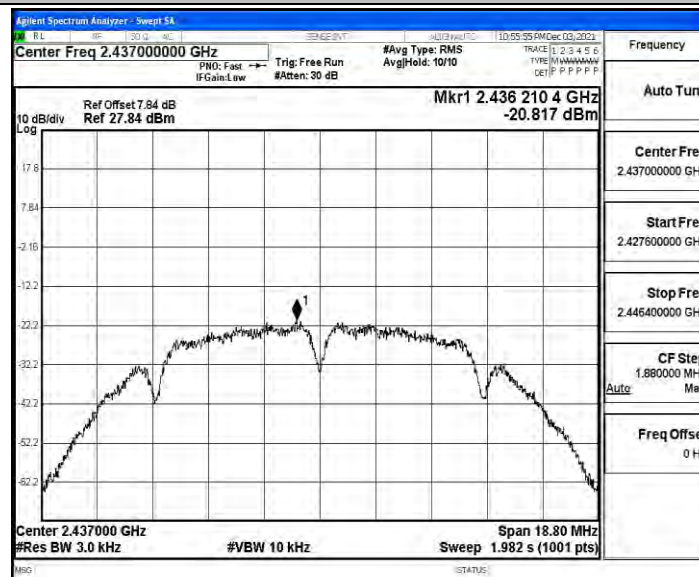


Test Graphs

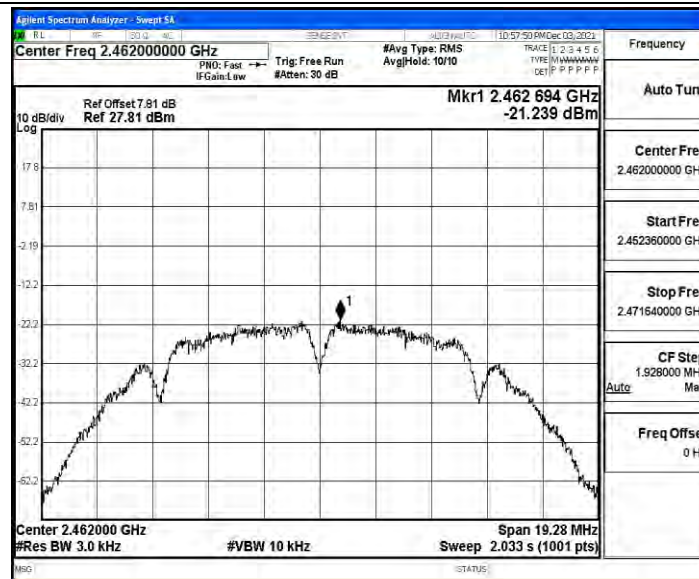
11B_Ant0_2412



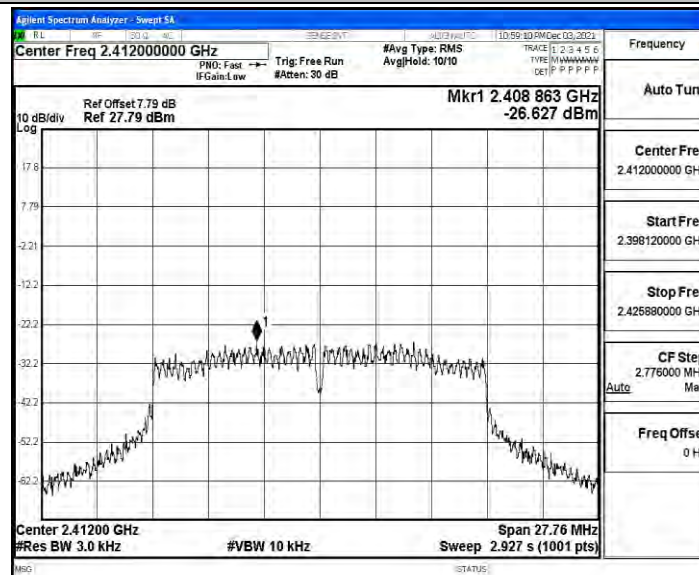
11B_Ant0_2437



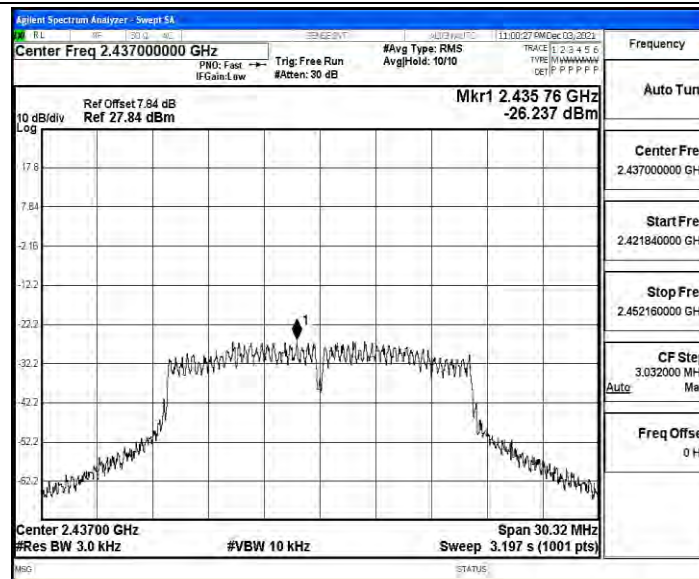
11B_Ant0_2462



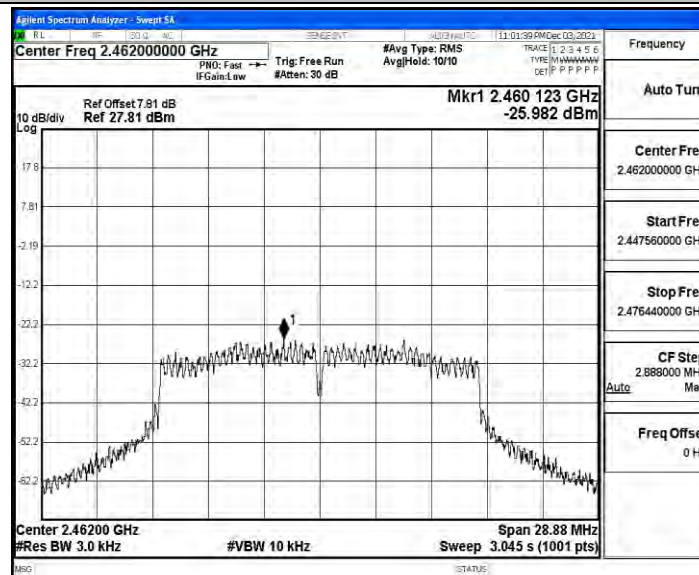
11G_Ant0_2412



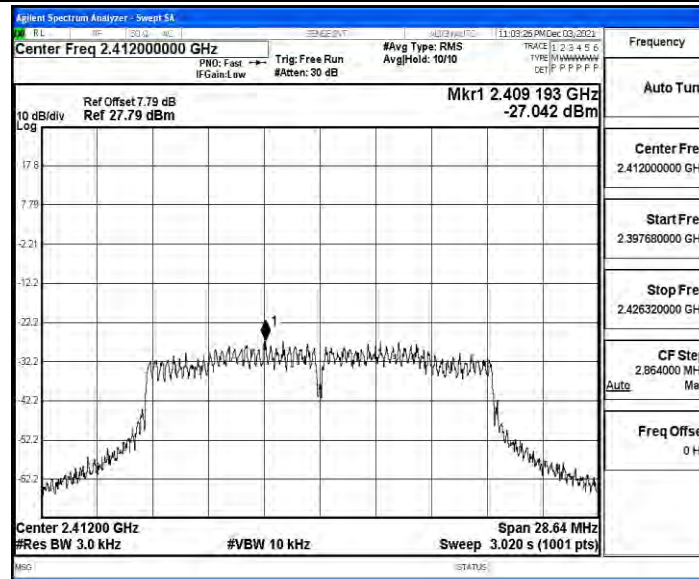
11G_Ant0_2437



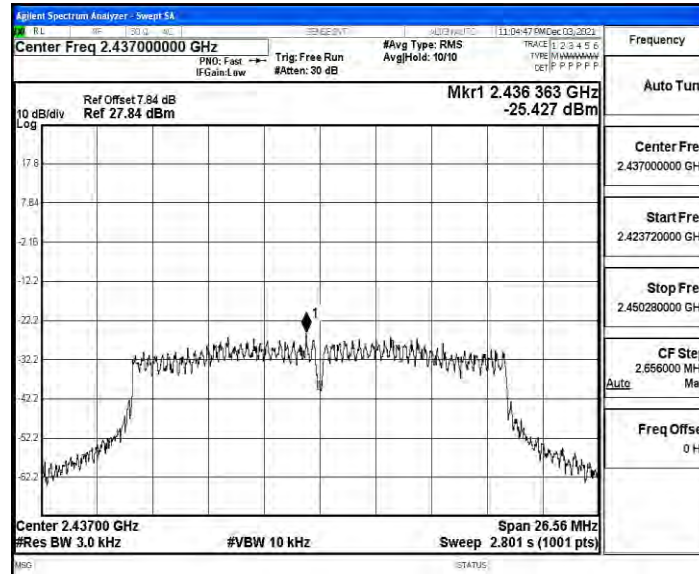
11G_Ant0_2462



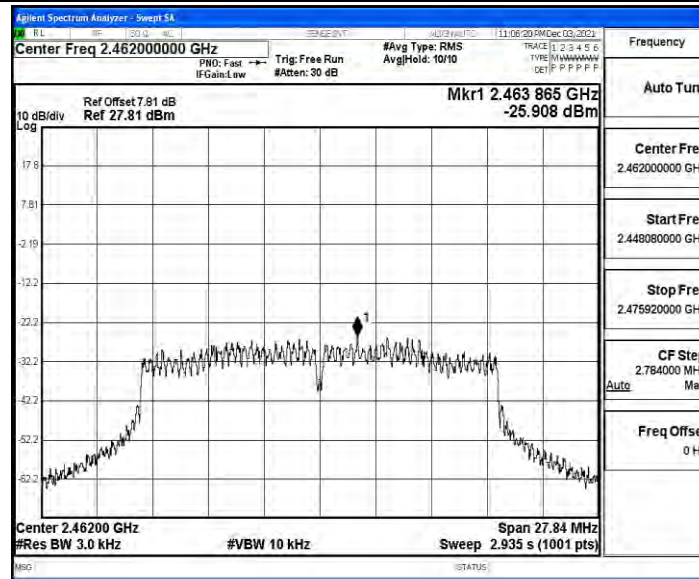
11N20SISO_Ant0_2412



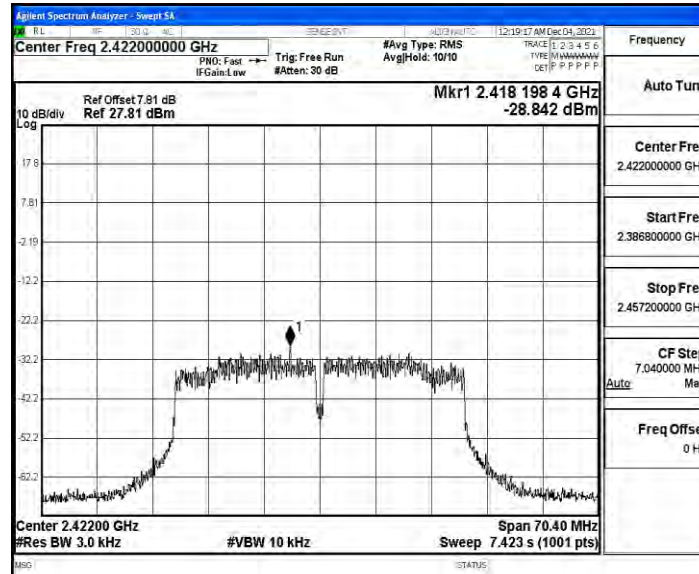
11N20SISO_Ant0_2437



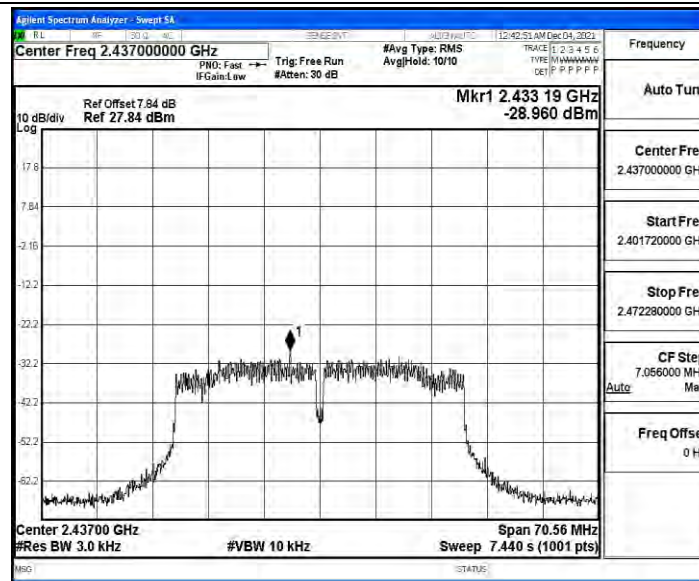
11N20SISO_Ant0_2462



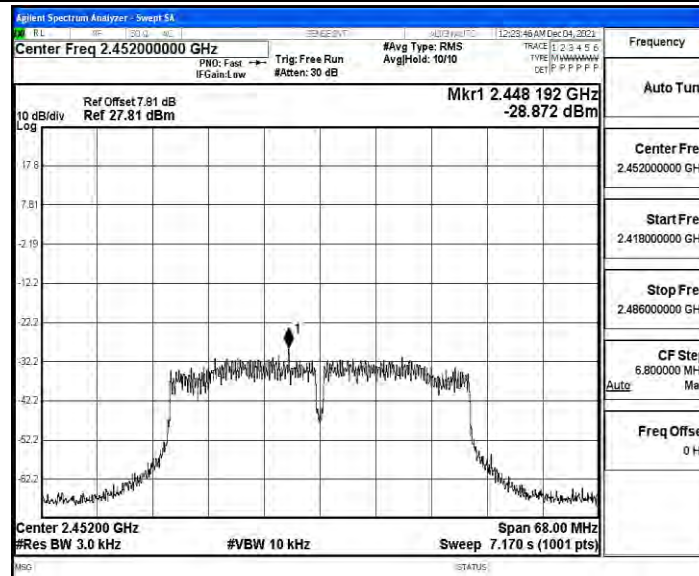
11N40SISO_Ant0_2422



11N40SISO_Ant0_2437



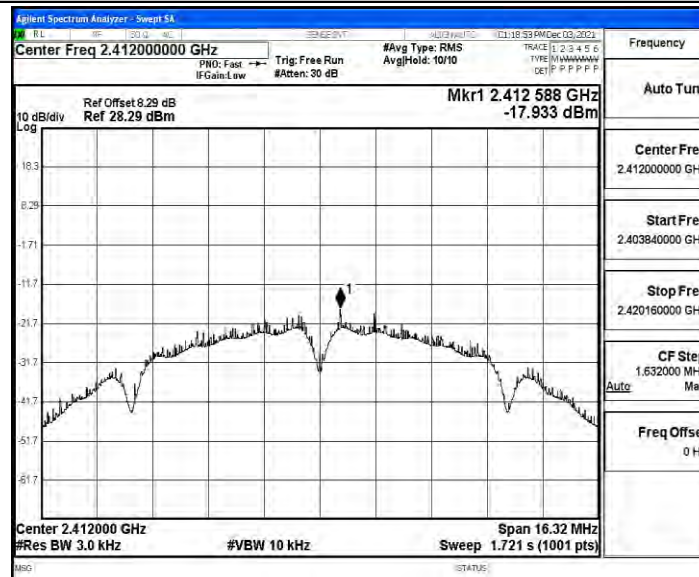
11N40SISO_Ant0_2452



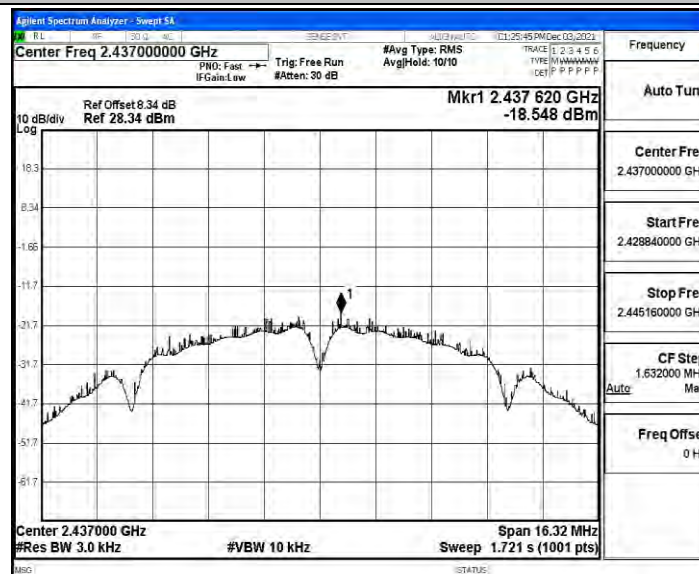


Test Graphs

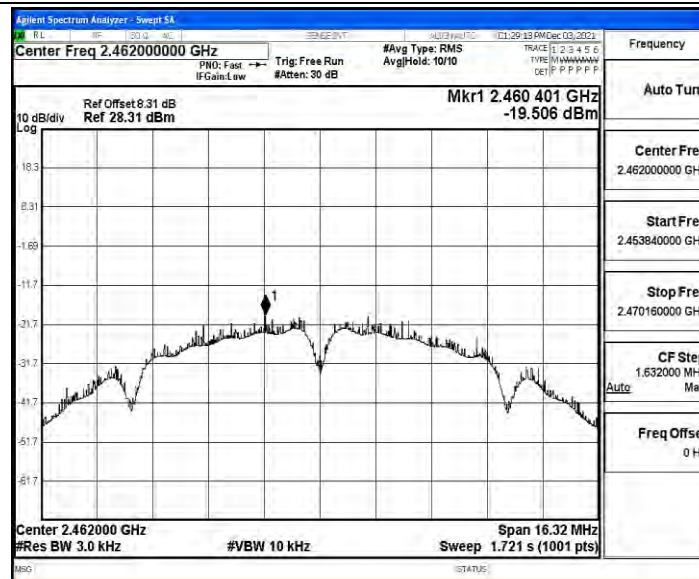
11B_Ant1_2412



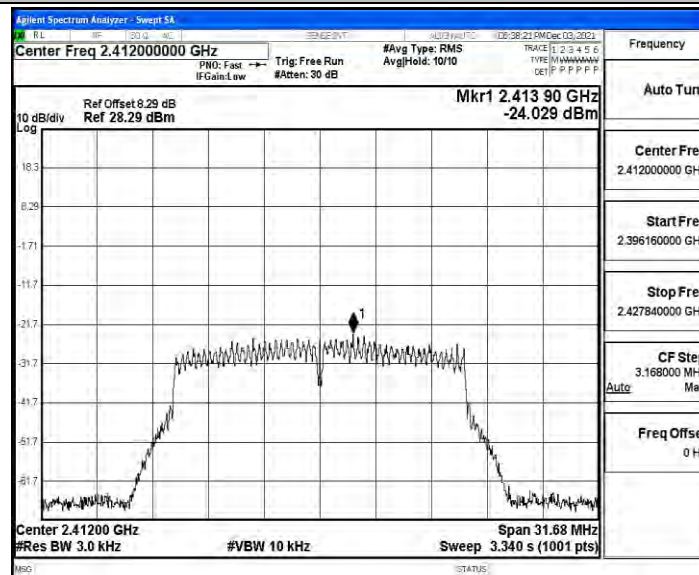
11B_Ant1_2437



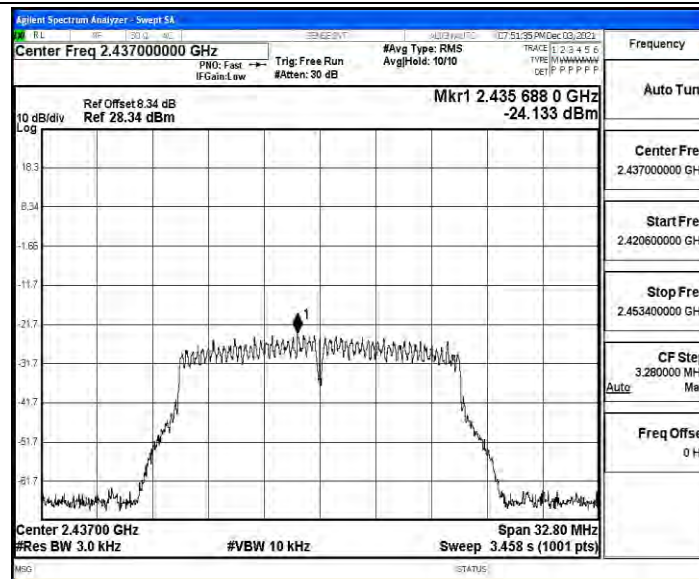
11B_Ant1_2462



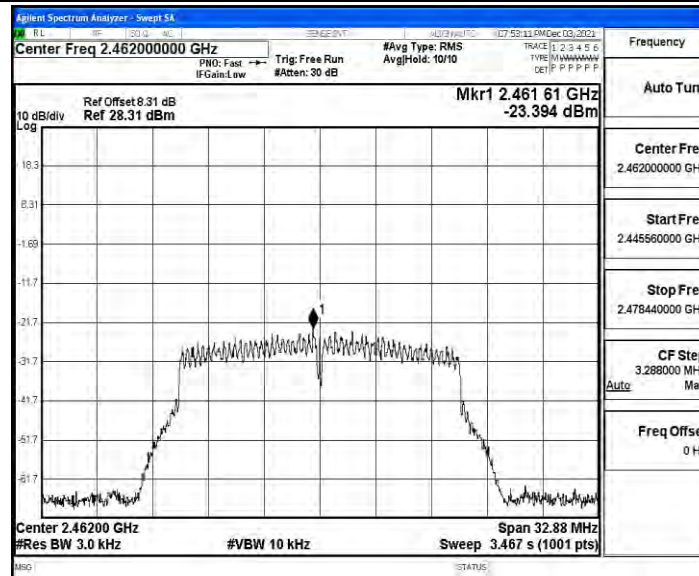
11G_Ant1_2412



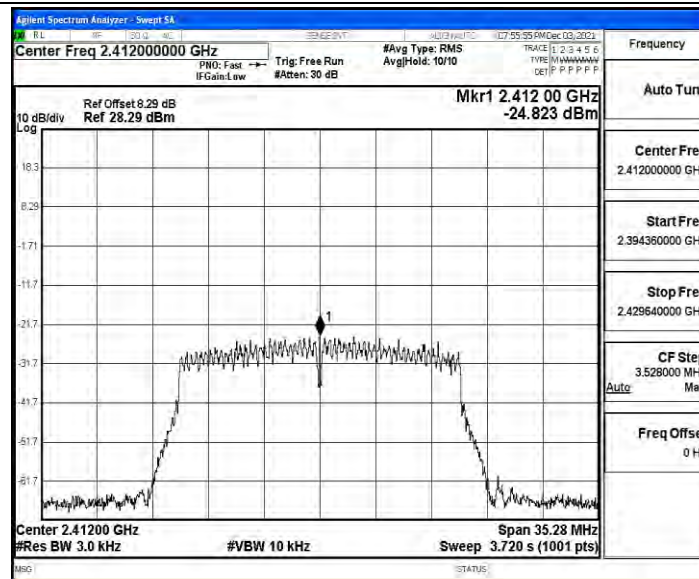
11G_Ant1_2437



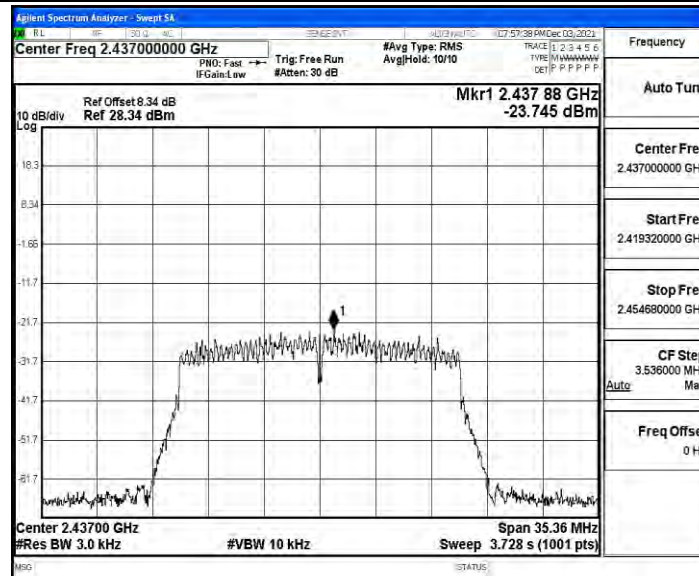
11G_Ant1_2462



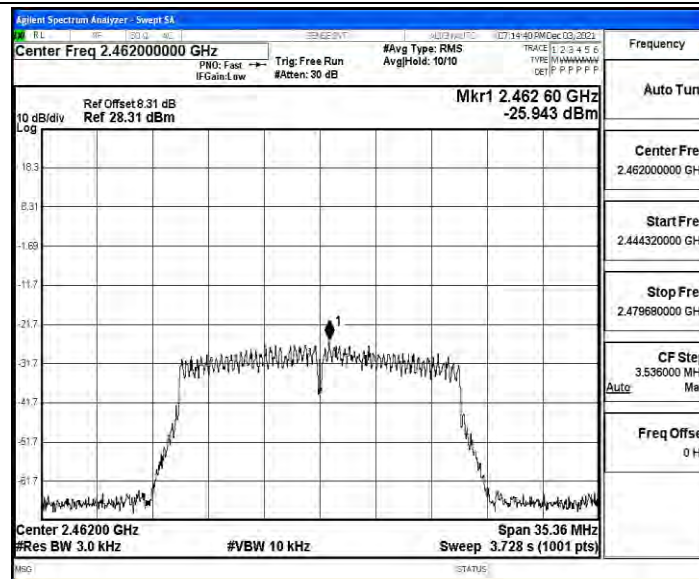
11N20SISO_Ant1_2412



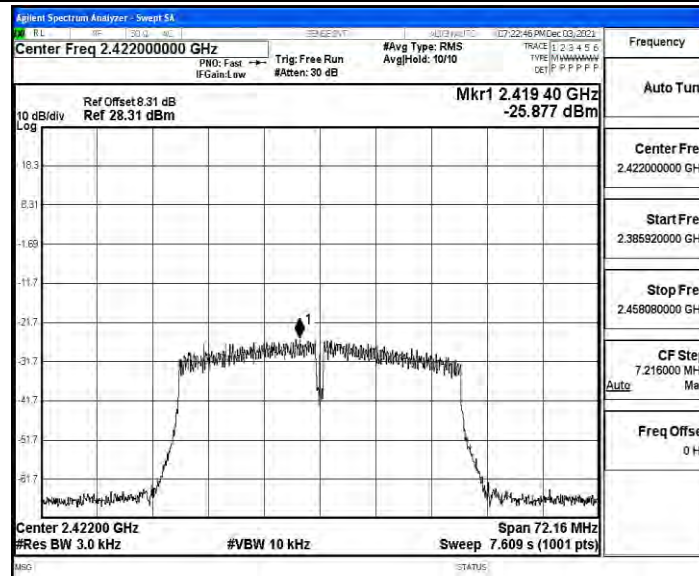
11N20SISO_Ant1_2437



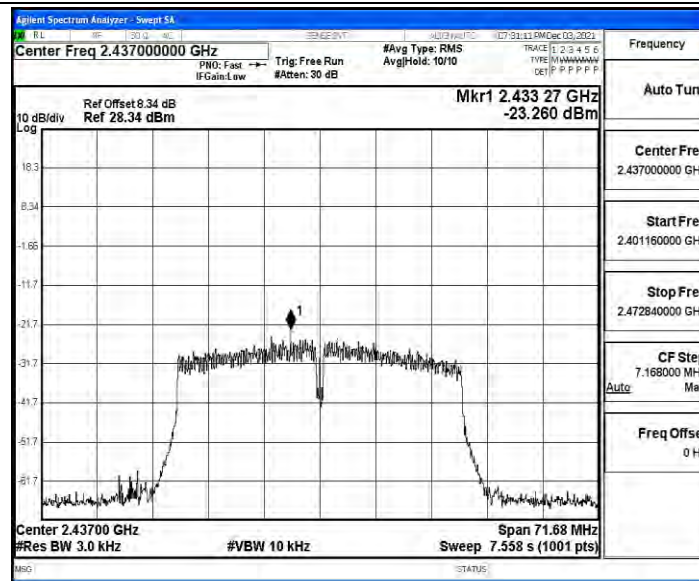
11N20SISO_Ant1_2462



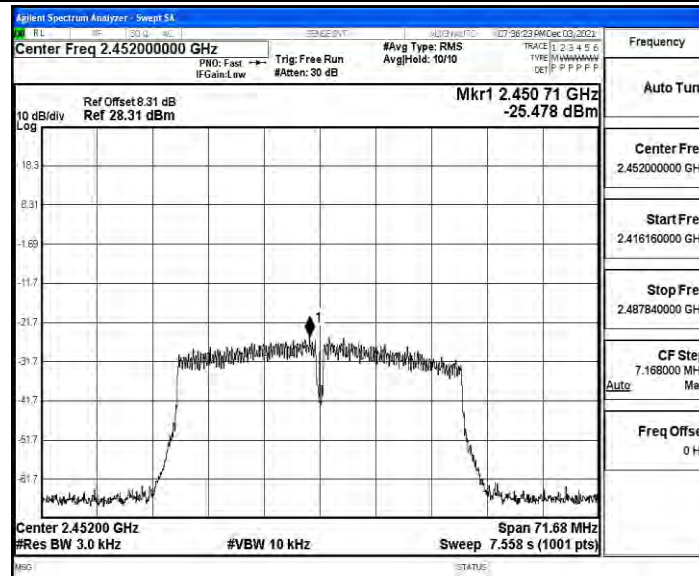
11N40SISO_Ant1_2422



11N40SISO_Ant1_2437



11N40SISO_Ant1_2452



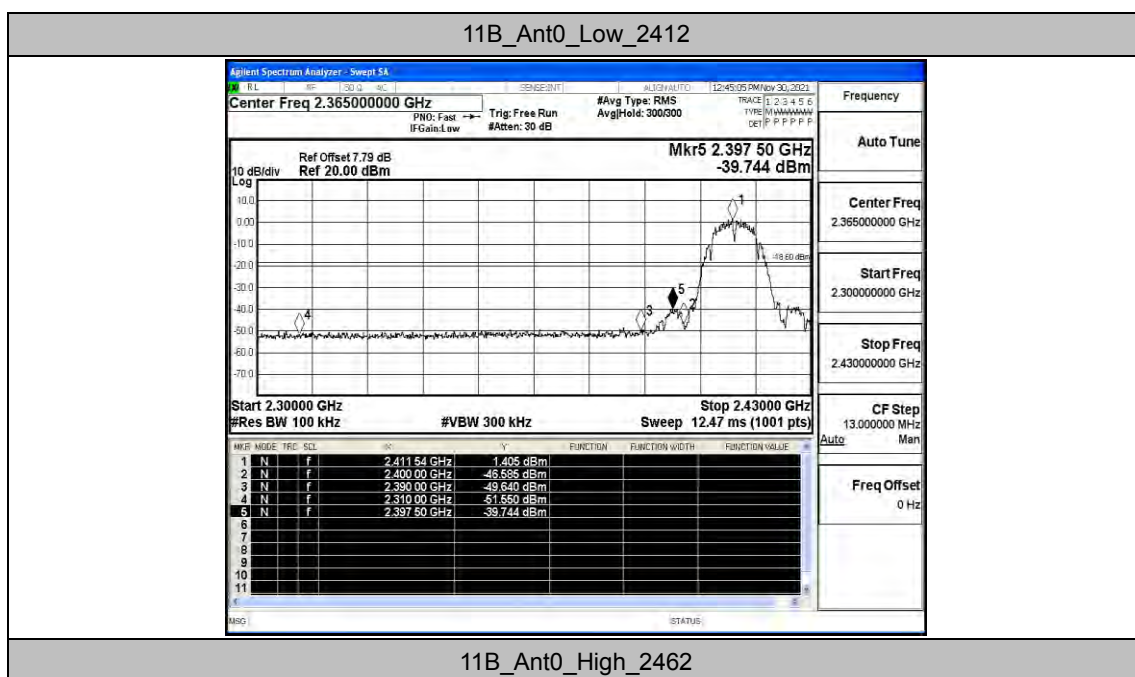


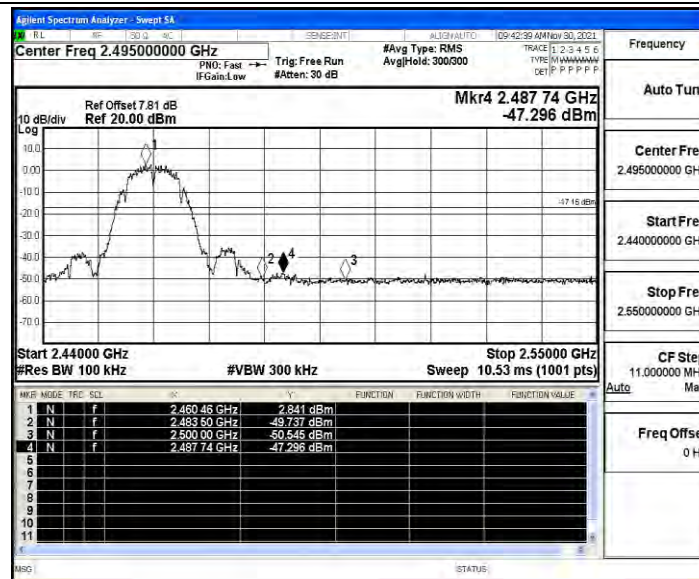
C.4 Band edge measurements

Test Result

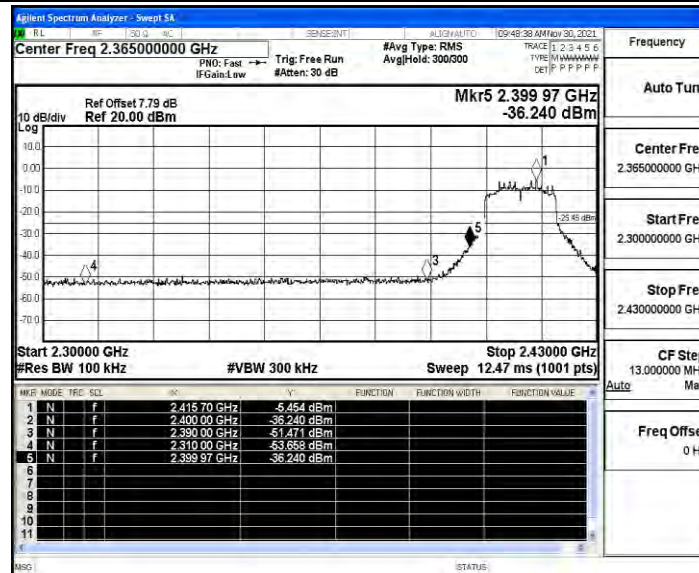
TestMode	Antenna	ChName	Channel	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
11B	Ant0	Low	2412	1.41	-39.74	≤-18.6	PASS
		High	2462	2.84	-47.3	≤-17.16	PASS
11G	Ant0	Low	2412	-5.45	-36.24	≤-25.45	PASS
		High	2462	-5.79	-49.07	≤-25.79	PASS
11N20SISO	Ant0	Low	2412	-6.41	-35.31	≤-26.41	PASS
		High	2462	-5.24	-48.41	≤-25.24	PASS
11N40SISO	Ant0	Low	2422	-8.88	-39.27	≤-28.88	PASS
		High	2452	-8.18	-43.02	≤-28.18	PASS

Test Graphs

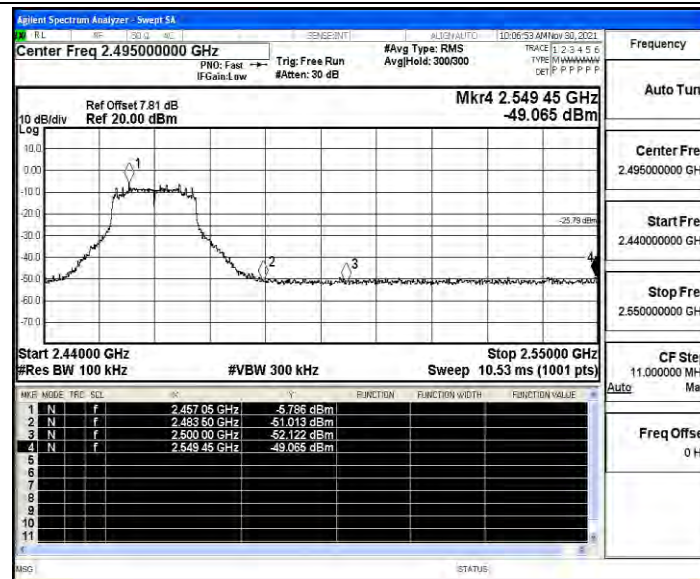




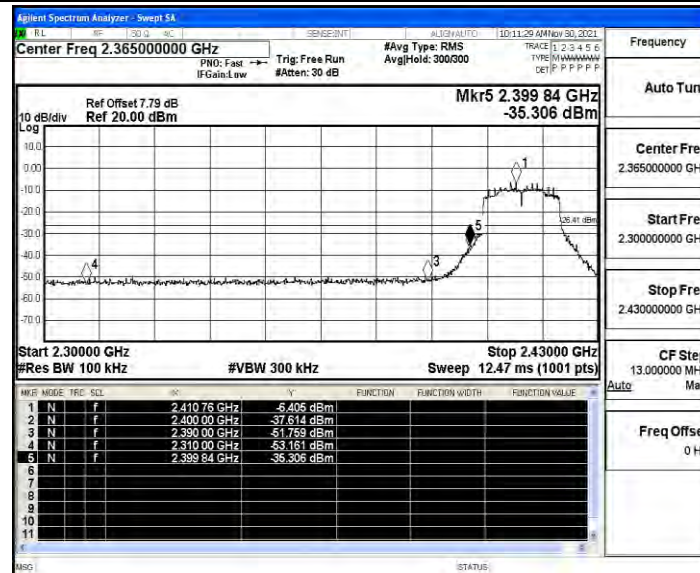
11G_Ant0_Low_2412



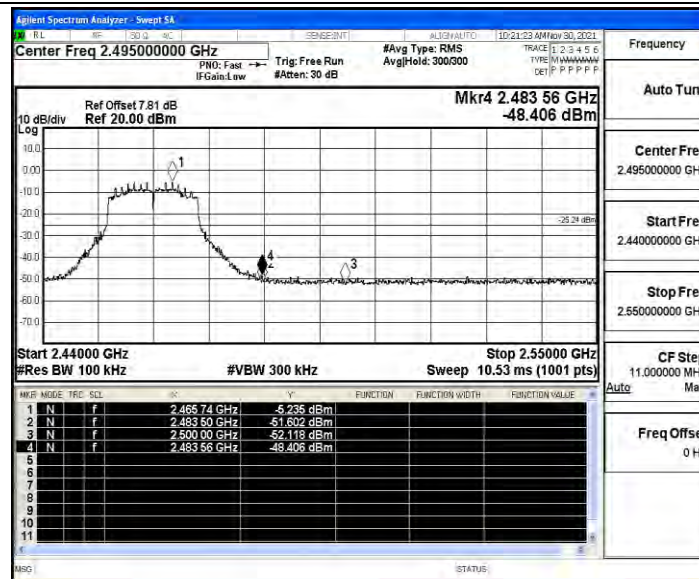
11G_Ant0_High_2462



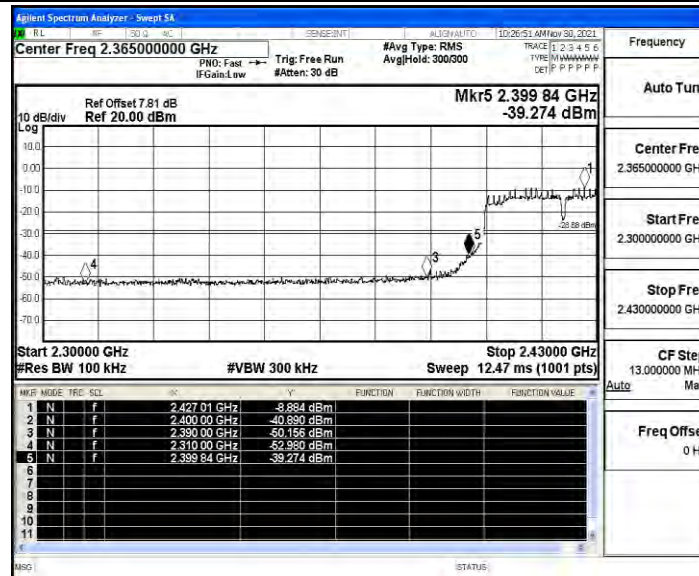
11N20SISO_Ant0_Low_2412



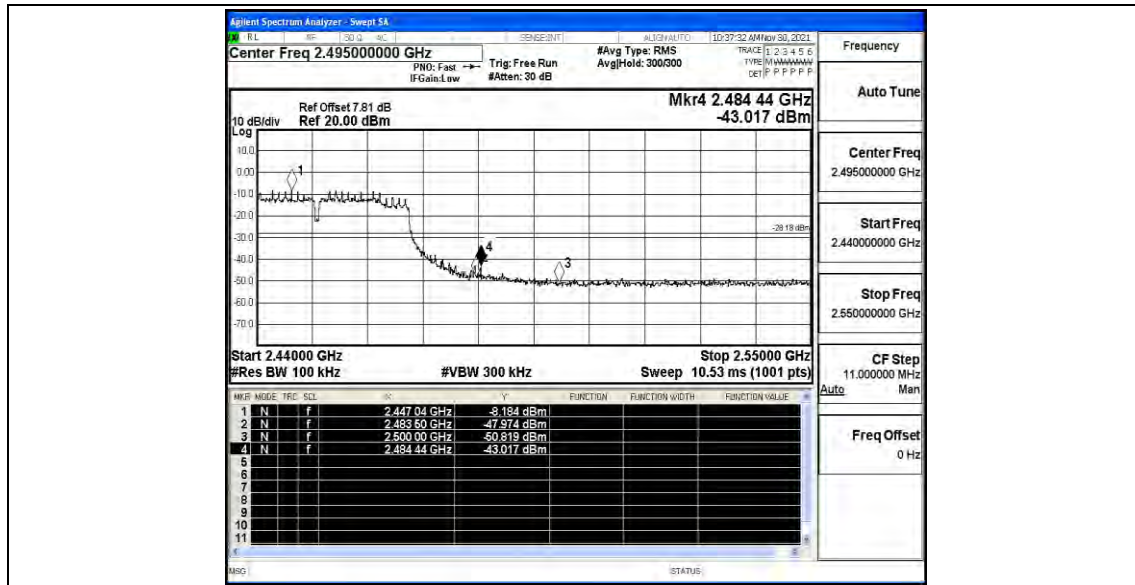
11N20SISO_Ant0_High_2462



11N40SISO_Ant0_Low_2422

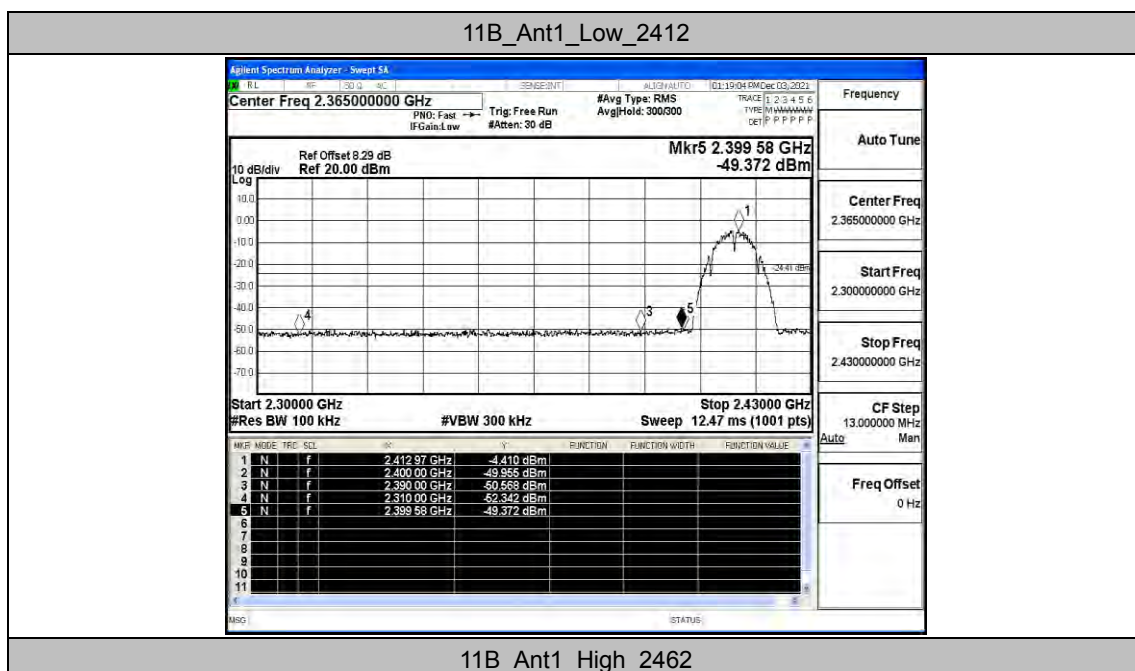


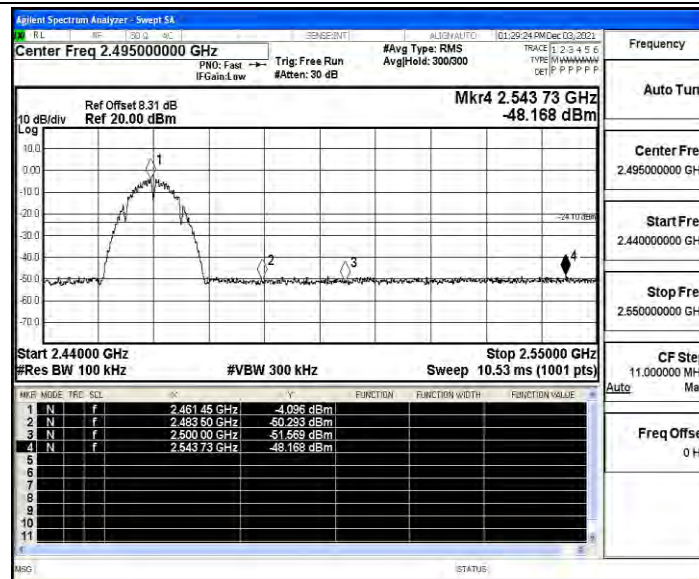
11N40SISO_Ant0_High_2452



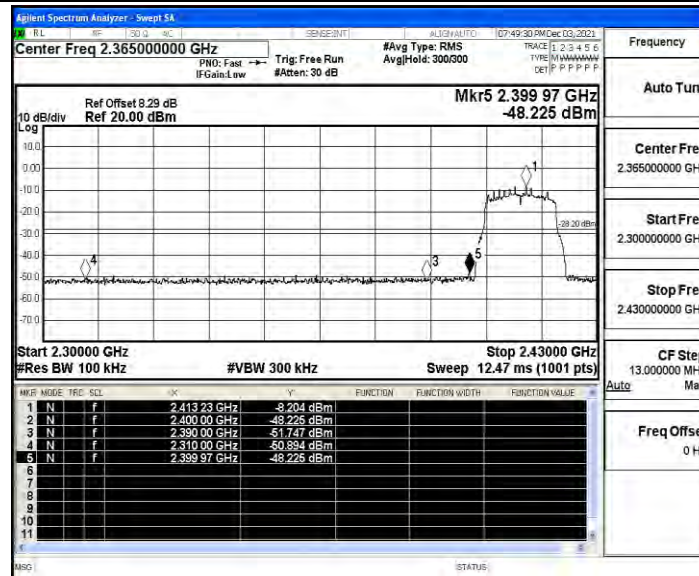
TestMode	Antenna	ChName	Channel	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
11B	Ant1	Low	2412	-4.41	-49.37	≤-24.41	PASS
		High	2462	-4.10	-48.17	≤-24.1	PASS
11G	Ant1	Low	2412	-8.20	-48.23	≤-28.2	PASS
		High	2462	-15.48	-47.53	≤-35.48	PASS
11N20SISO	Ant1	Low	2412	-15.60	-49.72	≤-35.6	PASS
		High	2462	-14.94	-48.67	≤-34.94	PASS
11N40SISO	Ant1	Low	2422	-14.14	-48.06	≤-34.14	PASS
		High	2452	-13.87	-48.56	≤-33.87	PASS

Test Graphs

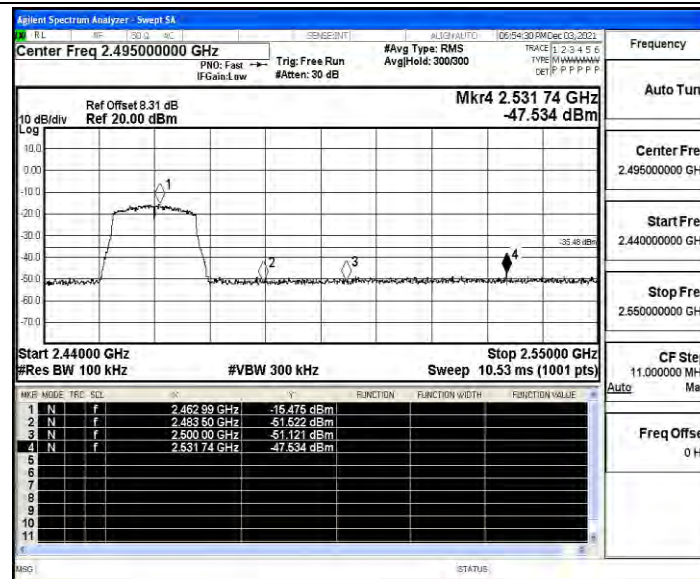




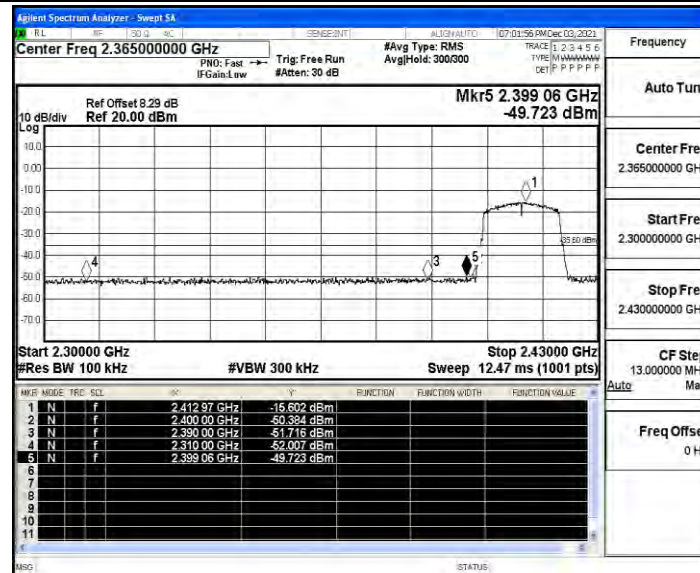
11G_Ant1_Low_2412



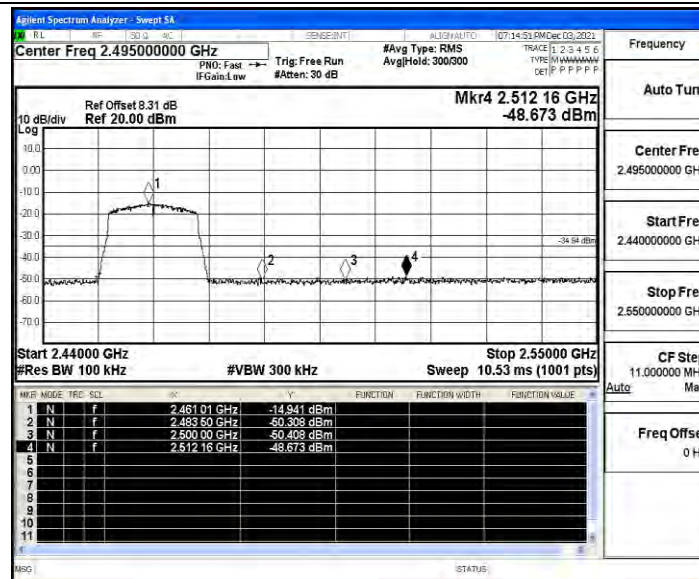
11G_Ant1_High_2462



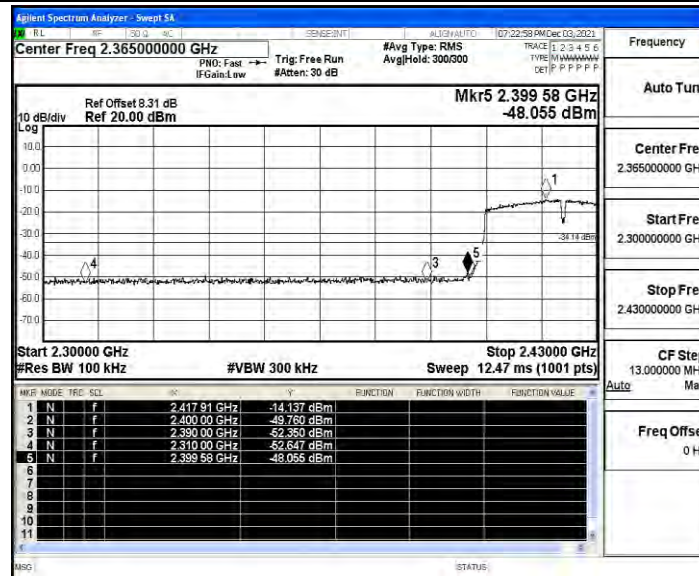
11N20SISO_Ant1_Low_2412



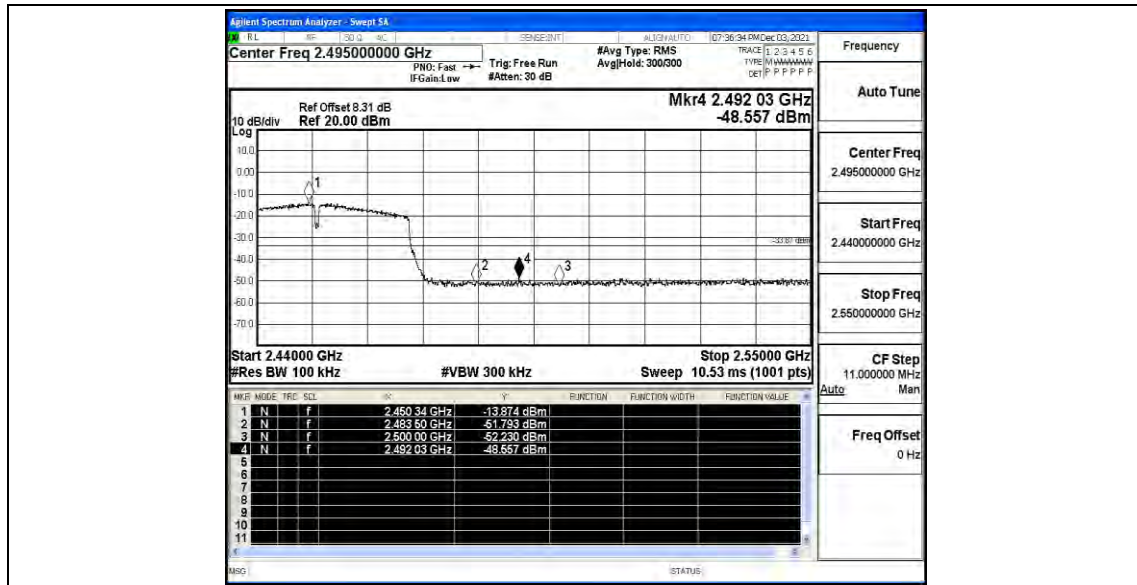
11N20SISO_Ant1_High_2462



11N40SISO_Ant1_Low_2422



11N40SISO_Ant1_High_2452





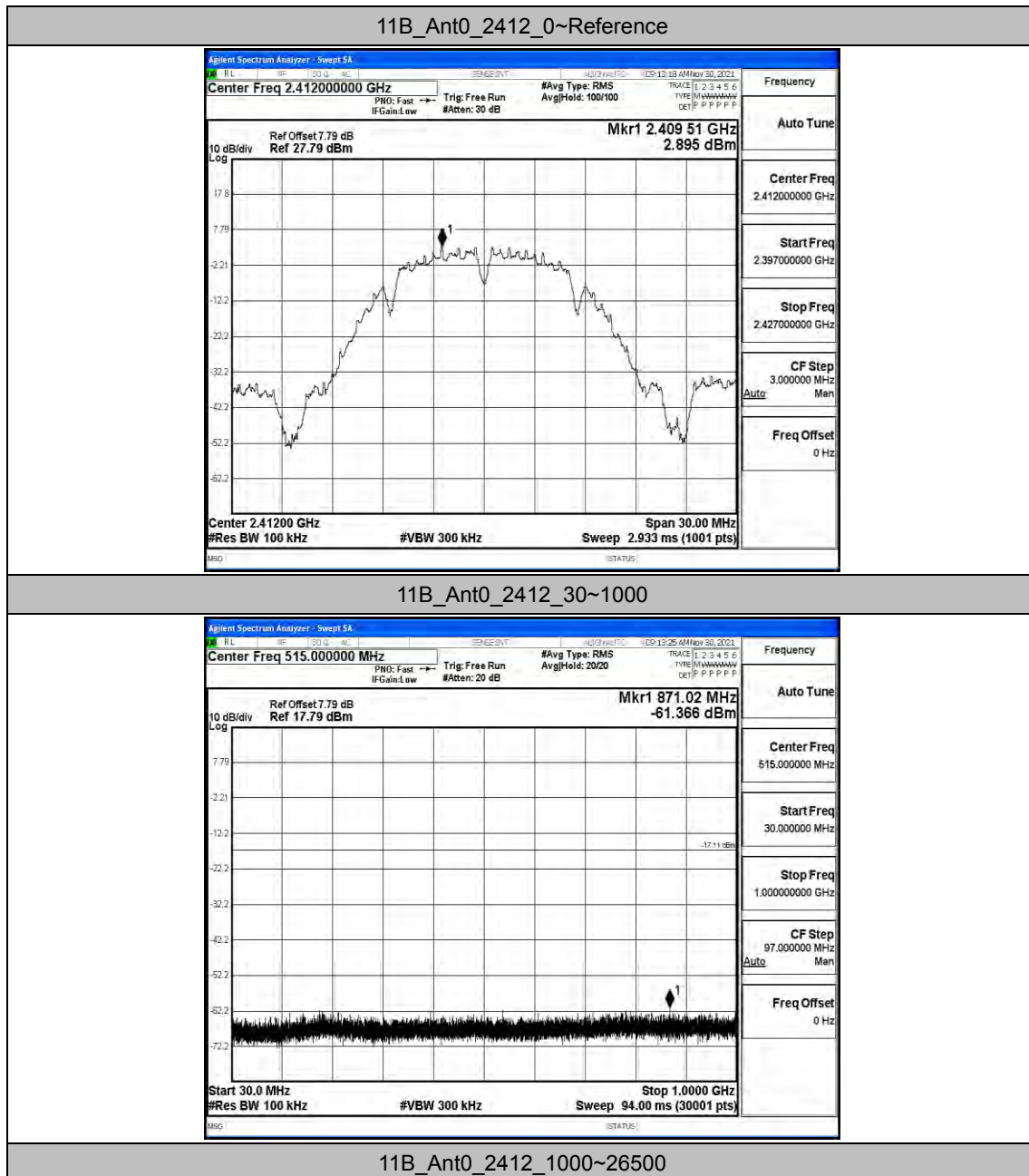
C.5 Conducted Spurious Emission

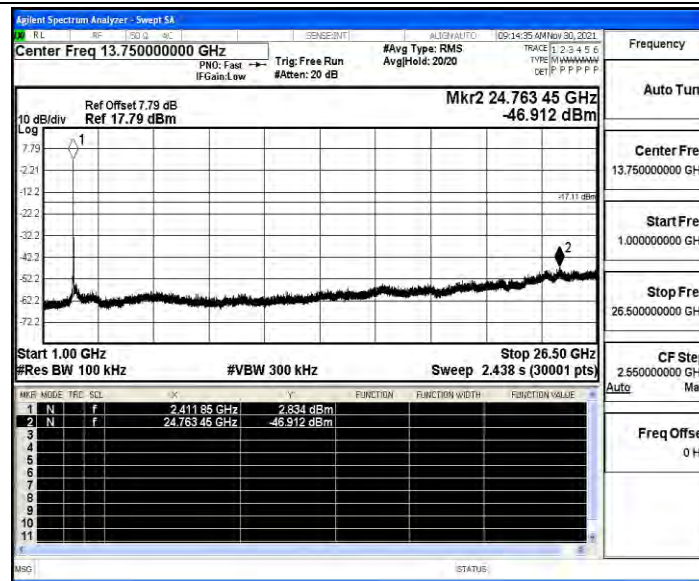
Test Result

TestMode	Antenna	Channel	FreqRange [Mhz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
11B	Ant0	2412	Reference	2.90	2.90	---	PASS
			30~1000	2.90	-61.37	≤ -17.11	PASS
			1000~26500	2.90	-46.91	≤ -17.11	PASS
		2437	Reference	3.38	3.38	---	PASS
			30~1000	3.38	-61.38	≤ -16.62	PASS
			1000~26500	3.38	-46.54	≤ -16.62	PASS
		2462	Reference	3.27	3.27	---	PASS
			30~1000	3.27	-61.26	≤ -16.73	PASS
			1000~26500	3.27	-47.58	≤ -16.73	PASS
11G	Ant0	2412	Reference	-6.23	-6.23	---	PASS
			30~1000	-6.23	-61.86	≤ -26.23	PASS
			1000~26500	-6.23	-47.21	≤ -26.23	PASS
		2437	Reference	-6.25	-6.25	---	PASS
			30~1000	-6.25	-61.92	≤ -26.25	PASS
			1000~26500	-6.25	-47.48	≤ -26.25	PASS
		2462	Reference	-5.33	-5.33	---	PASS
			30~1000	-5.33	-61.66	≤ -25.33	PASS
			1000~26500	-5.33	-47.07	≤ -25.33	PASS
11N20SISO	Ant0	2412	Reference	-5.94	-5.94	---	PASS
			30~1000	-5.94	-61.41	≤ -25.94	PASS
			1000~26500	-5.94	-47.53	≤ -25.94	PASS
		2437	Reference	-5.71	-5.71	---	PASS
			30~1000	-5.71	-61.8	≤ -25.71	PASS
			1000~26500	-5.71	-46.93	≤ -25.71	PASS
		2462	Reference	-5.50	-5.50	---	PASS
			30~1000	-5.50	-60.34	≤ -25.5	PASS
			1000~26500	-5.50	-47.15	≤ -25.5	PASS
11N40SISO	Ant0	2422	Reference	-9.01	-9.01	---	PASS
			30~1000	-9.01	-60.7	≤ -29.01	PASS
			1000~26500	-9.01	-47.06	≤ -29.01	PASS
		2437	Reference	-8.74	-8.74	---	PASS
			30~1000	-8.74	-61.52	≤ -28.74	PASS
			1000~26500	-8.74	-46.03	≤ -28.74	PASS
		2452	Reference	-8.35	-8.35	---	PASS
			30~1000	-8.35	-61.89	≤ -28.35	PASS
			1000~26500	-8.35	-47.09	≤ -28.35	PASS

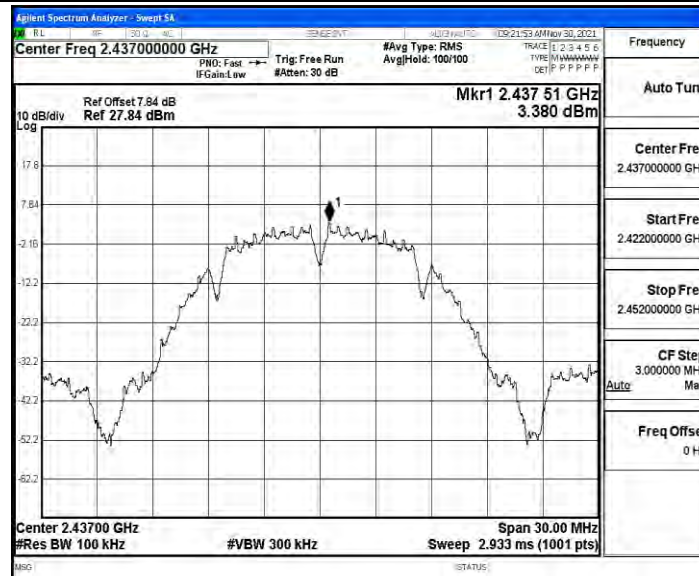


Test Graphs

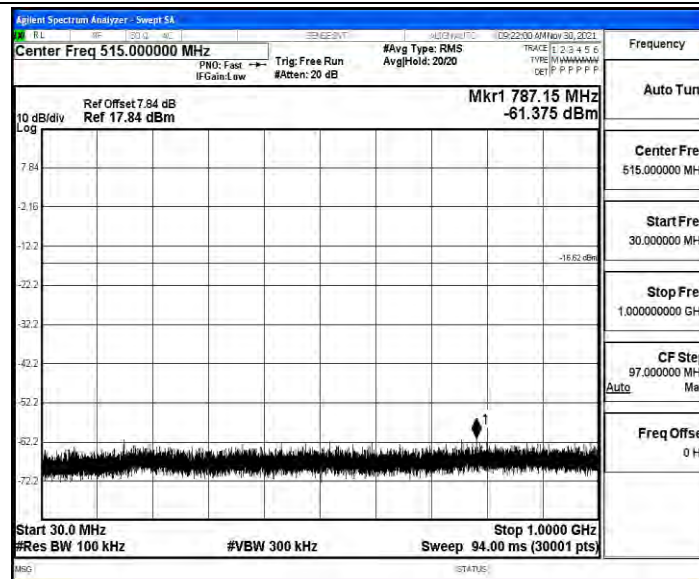




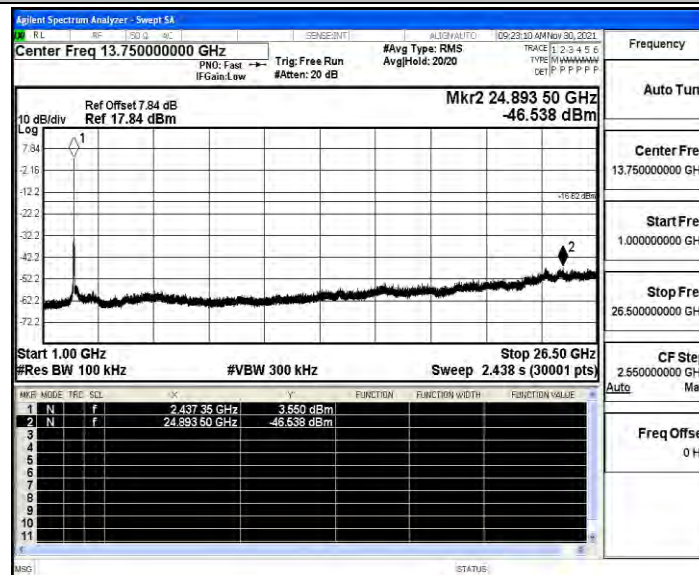
11B_Ant0_2437_0~Reference



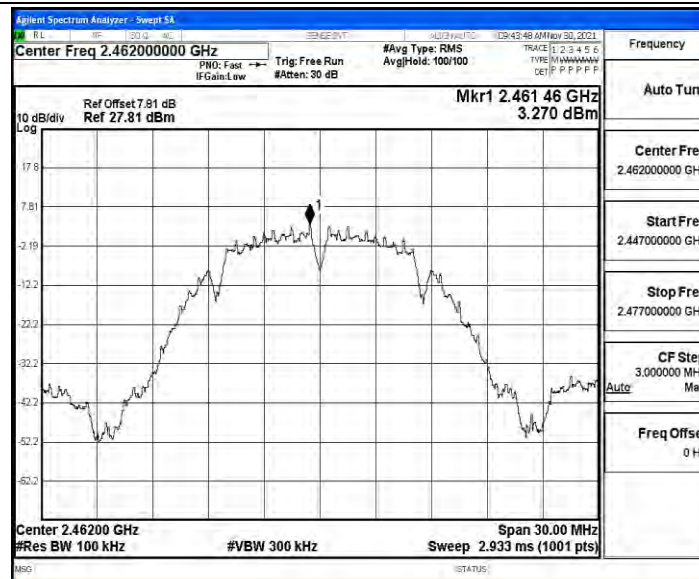
11B_Ant0_2437_30~1000



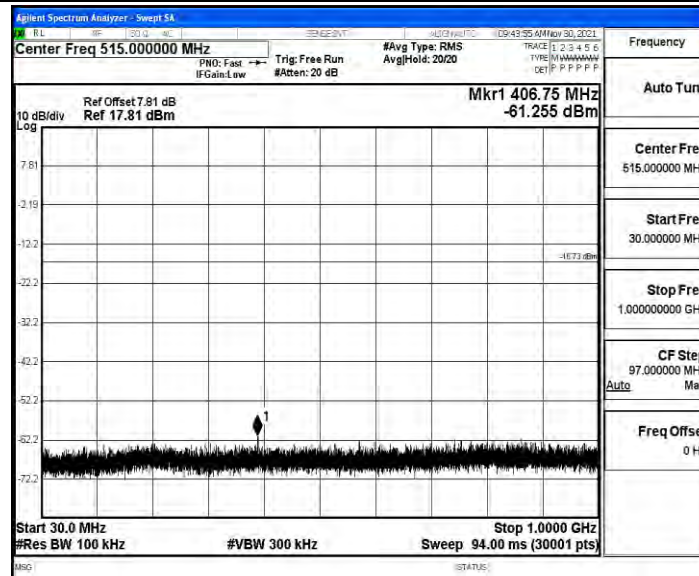
11B_Ant0_2437_1000~26500



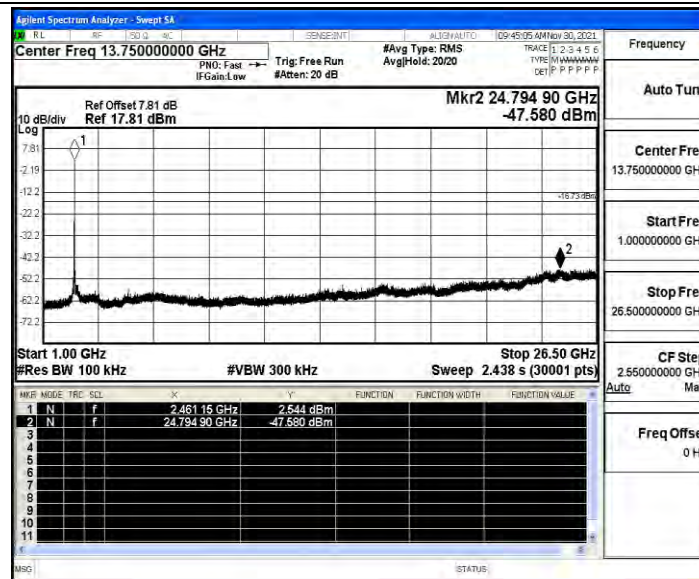
11B_Ant0_2462_0~Reference



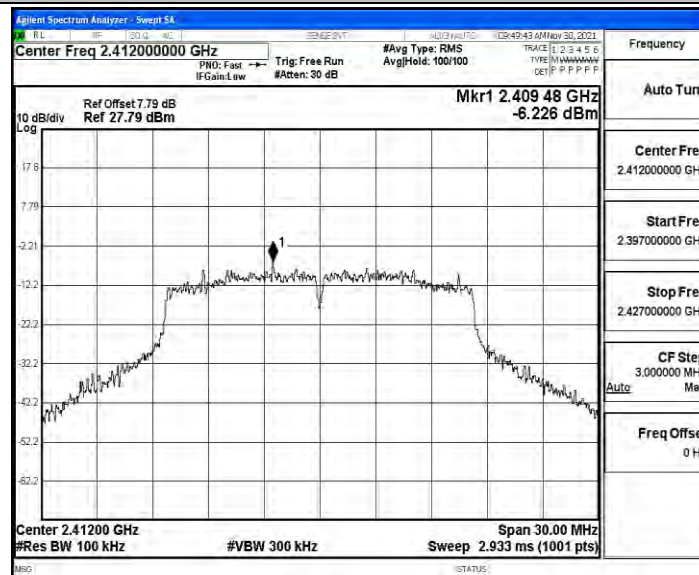
11B_Ant0_2462_30~1000



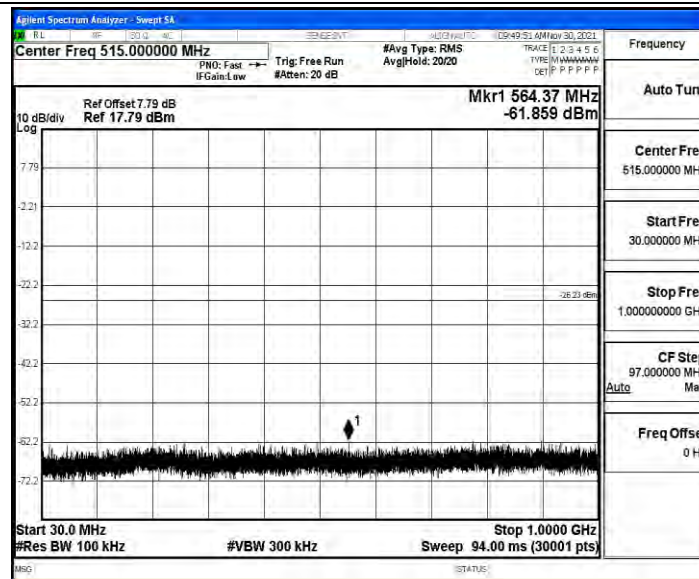
11B_Ant0_2462_1000~26500



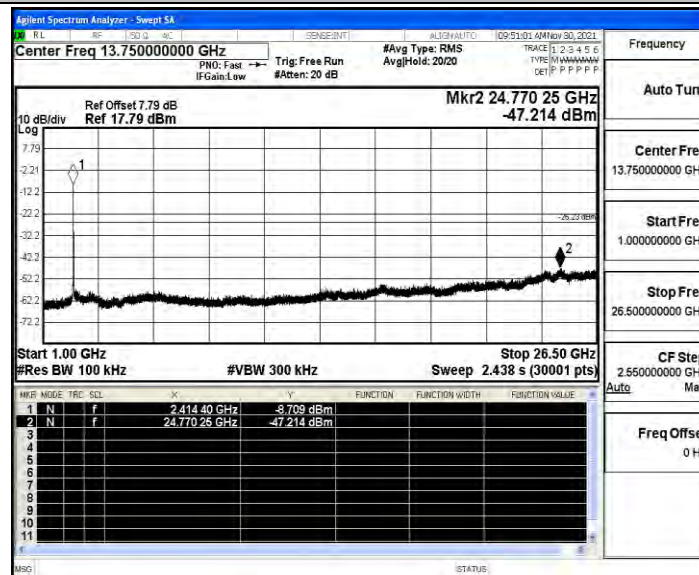
11G_Ant0_2412_0~Reference



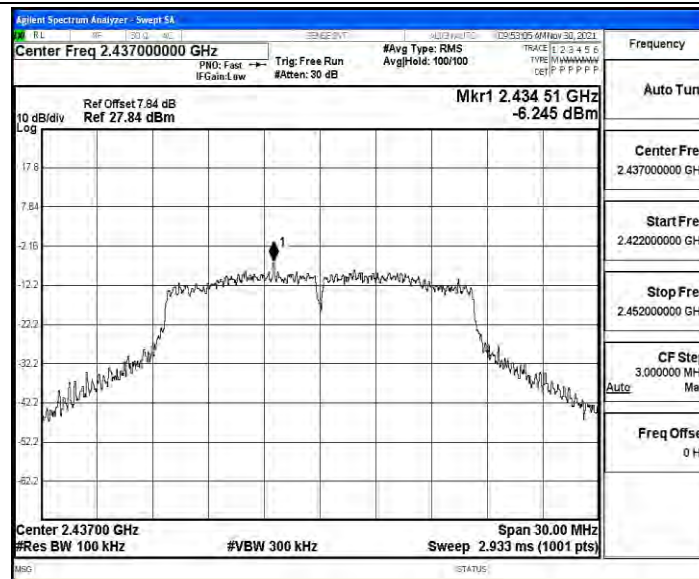
11G_Ant0_2412_30~1000



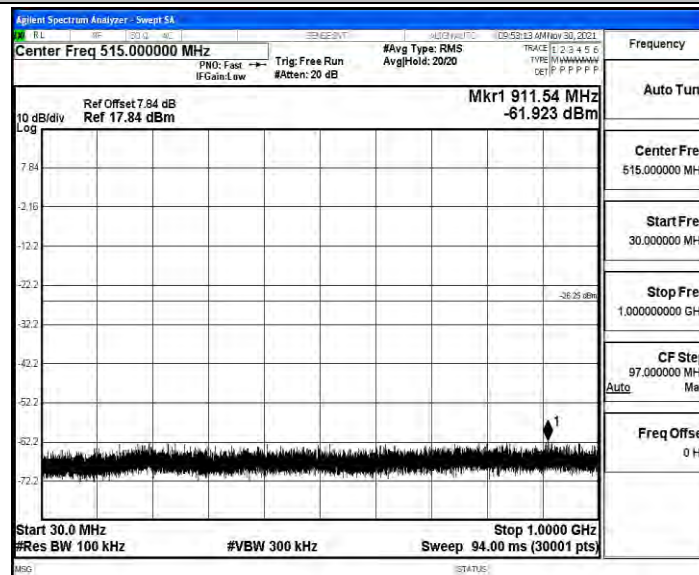
11G_Ant0_2412_1000~26500



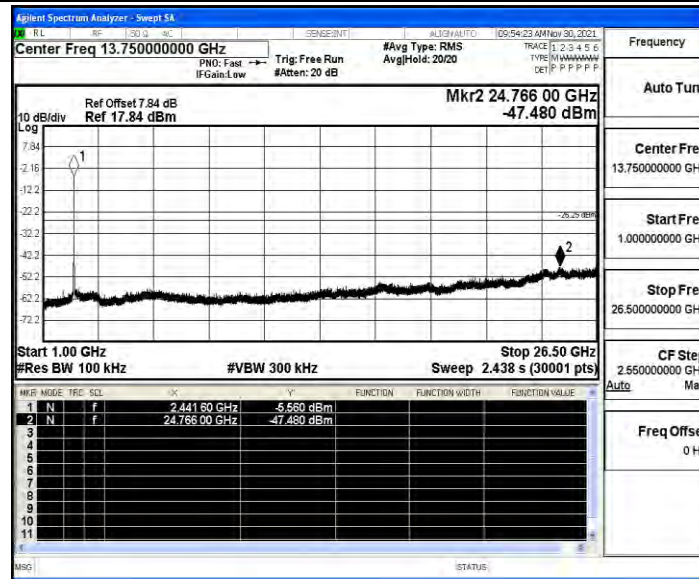
11G_Ant0_2437_0~Reference



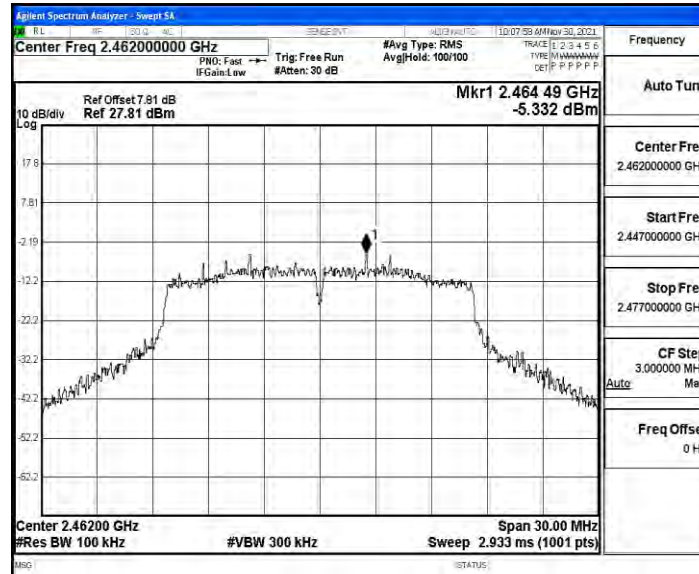
11G_Ant0_2437_30~1000



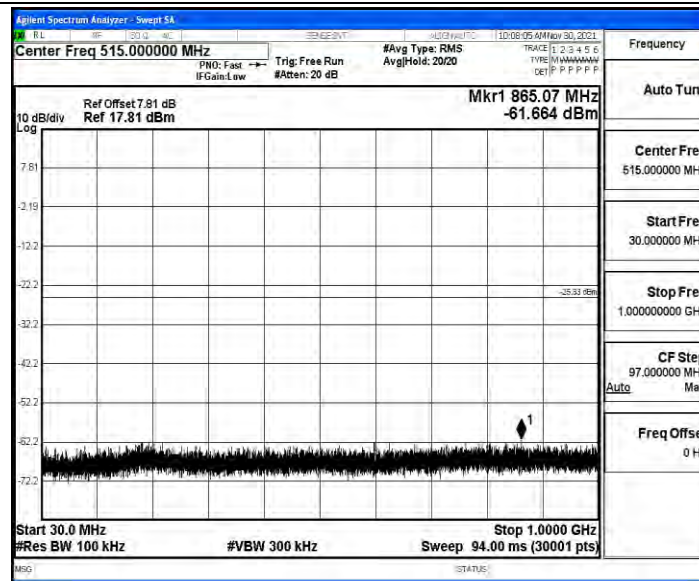
11G_Ant0_2437_1000~26500



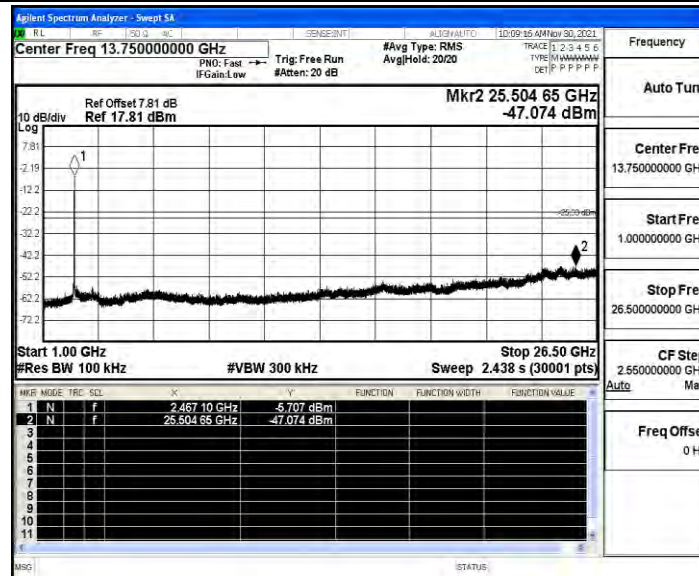
11G_Ant0_2462_0~Reference



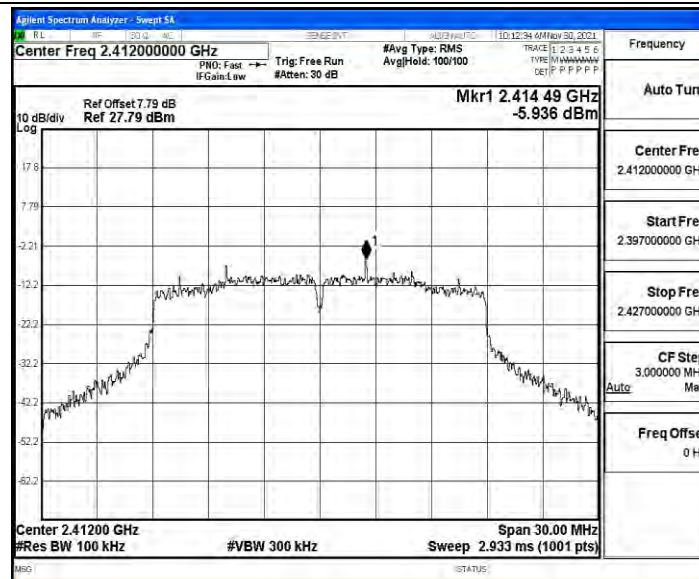
11G_Ant0_2462_30~1000



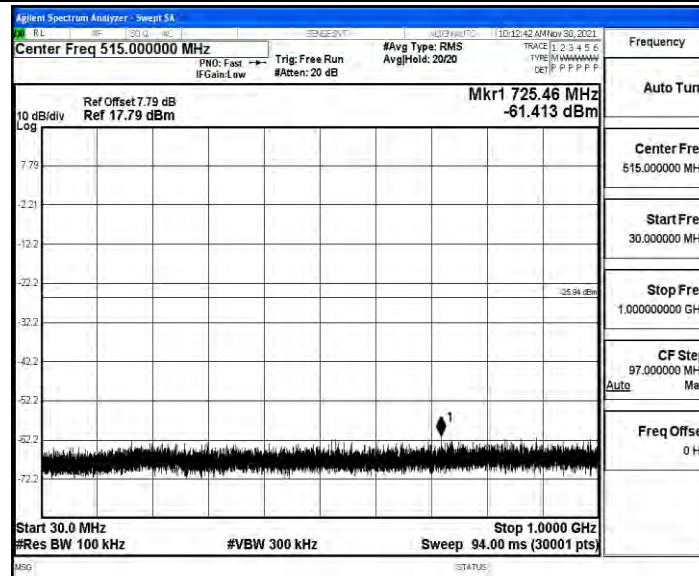
11G_Ant0_2462_1000~26500



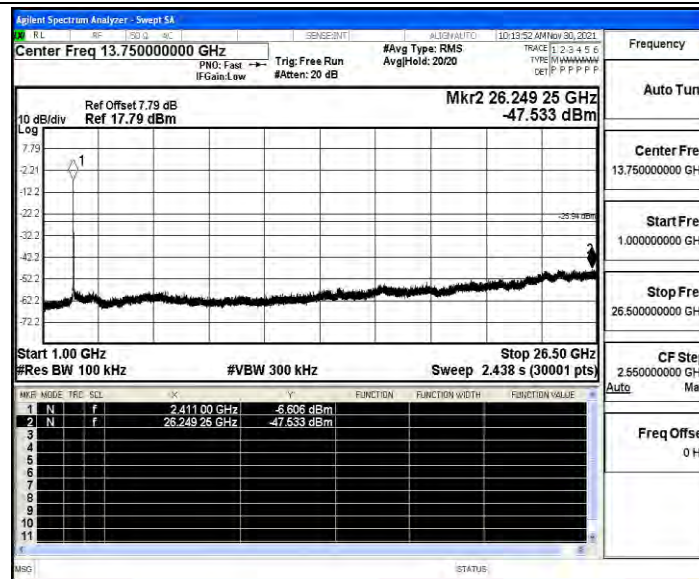
11N20SISO_Ant0_2412_0~Reference



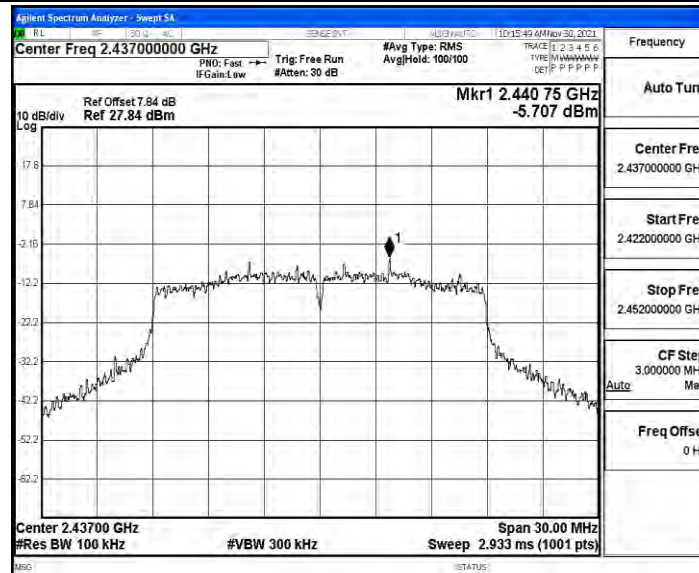
11N20SISO_Ant0_2412_30~1000



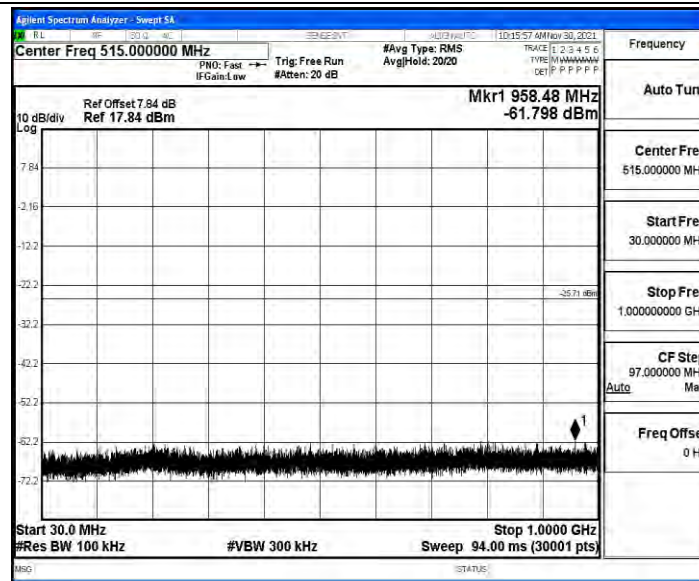
11N20SISO_Ant0_2412_1000~26500



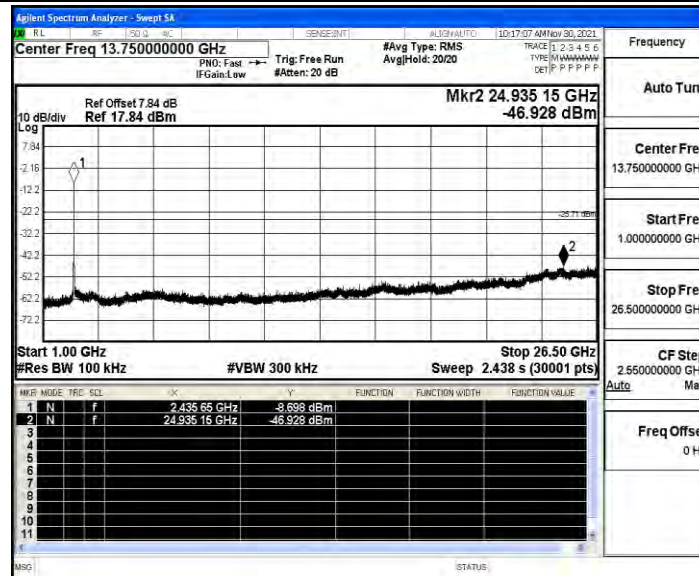
11N20SISO_Ant0_2437_0~Reference



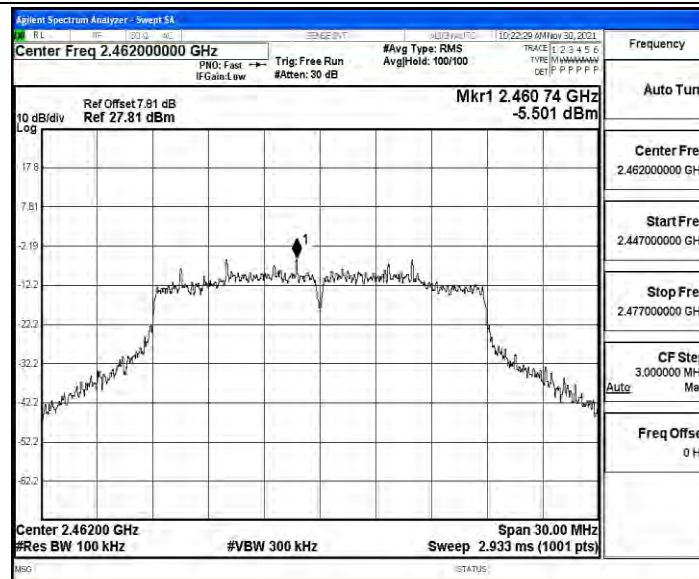
11N20SISO_Ant0_2437_30~1000



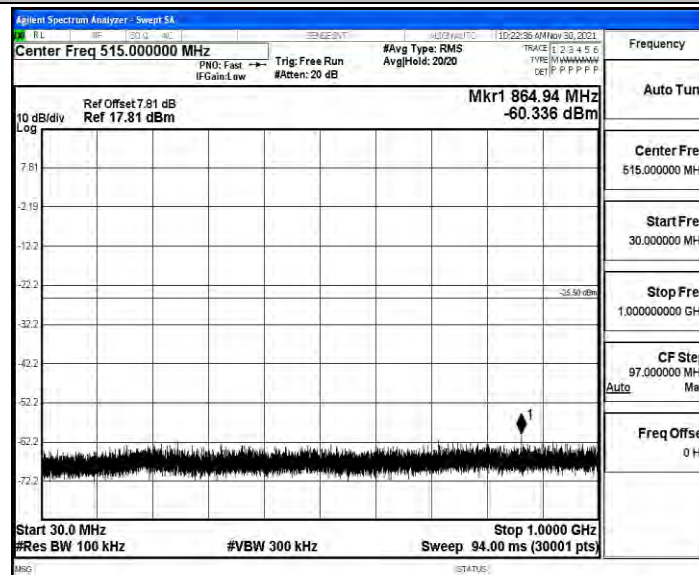
11N20SISO_Ant0_2437_1000~26500



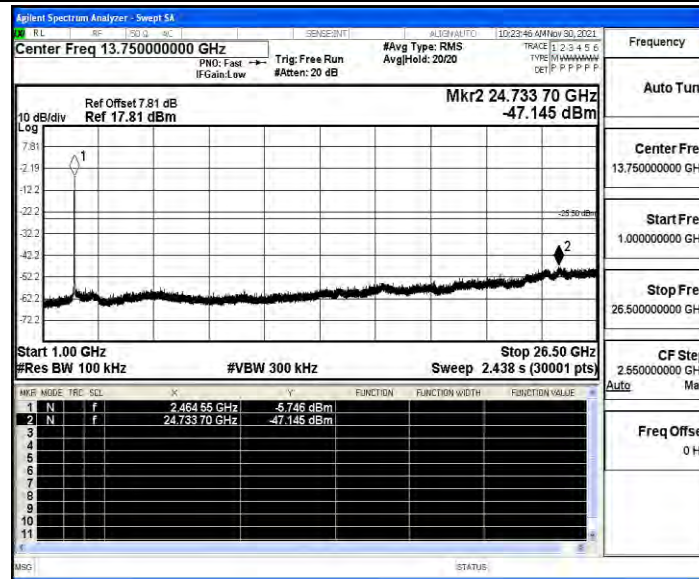
11N20SISO_Ant0_2462_0~Reference



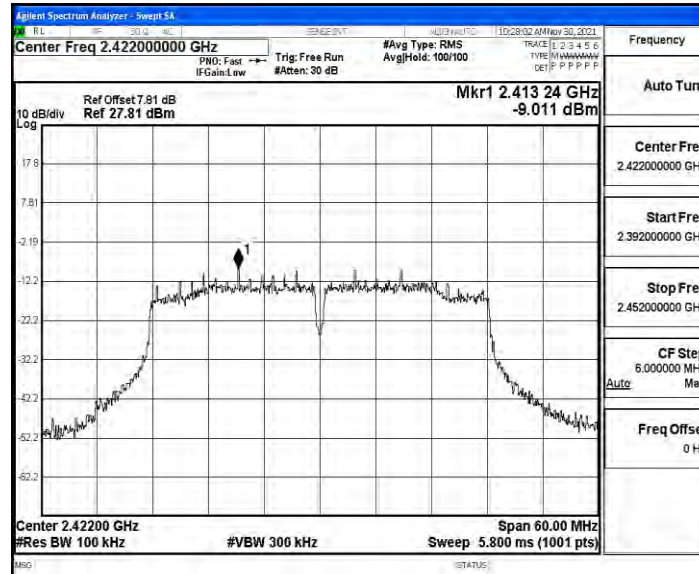
11N20SISO_Ant0_2462_30~1000



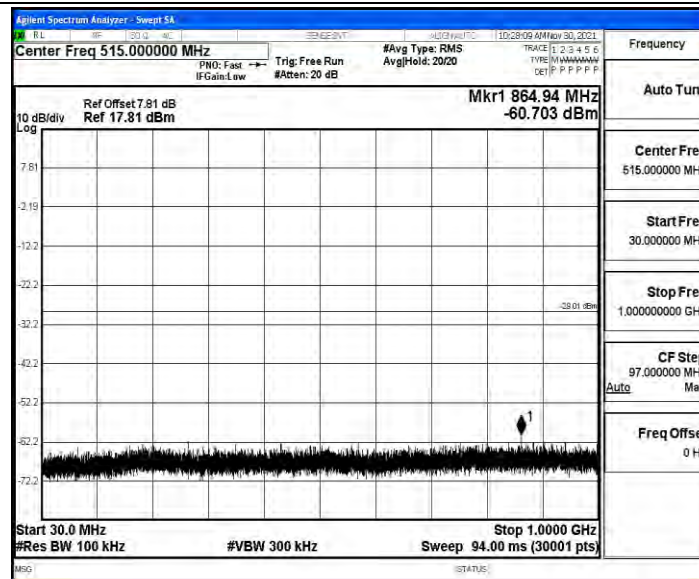
11N20SISO_Ant0_2462_1000~26500



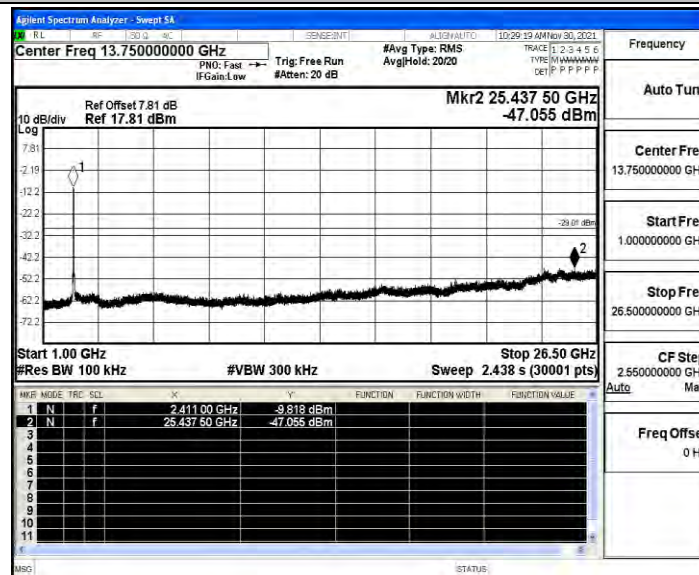
11N40SISO_Ant0_2422_0~Reference



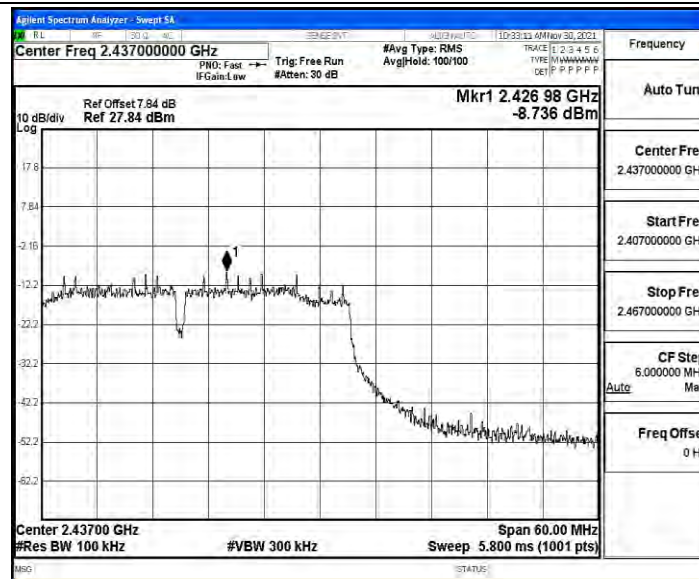
11N40SISO_Ant0_2422_30~1000



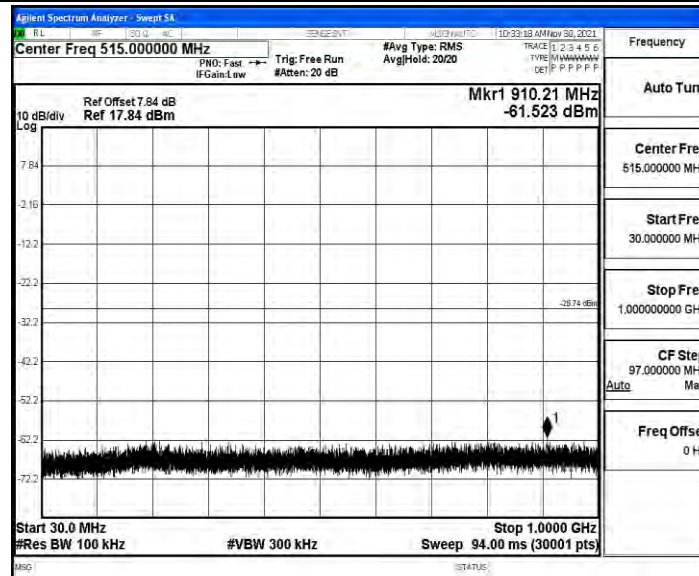
11N40SISO_Ant0_2422_1000~26500



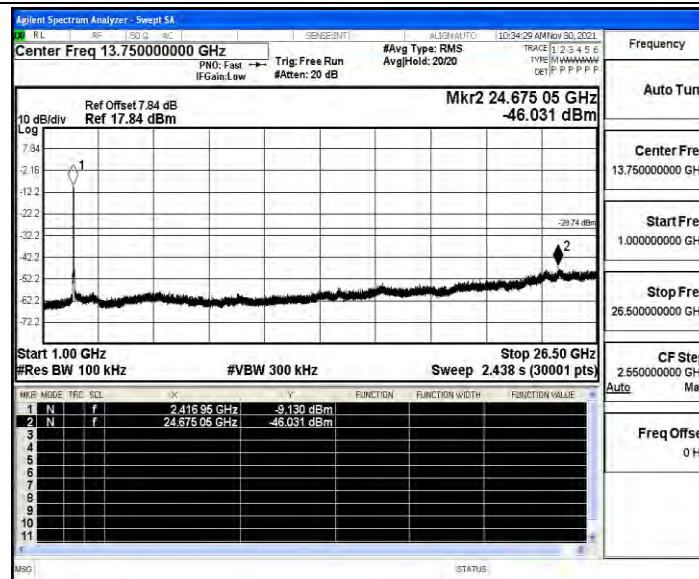
11N40SISO_Ant0_2437_0~Reference



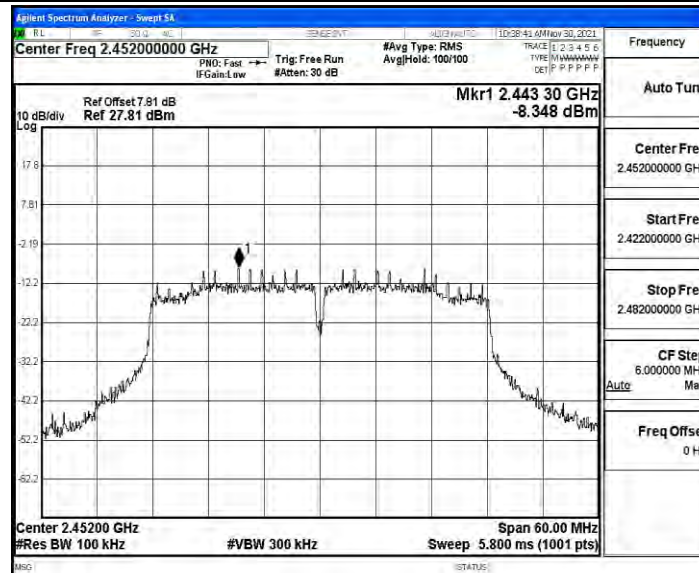
11N40SISO_Ant0_2437_30~1000



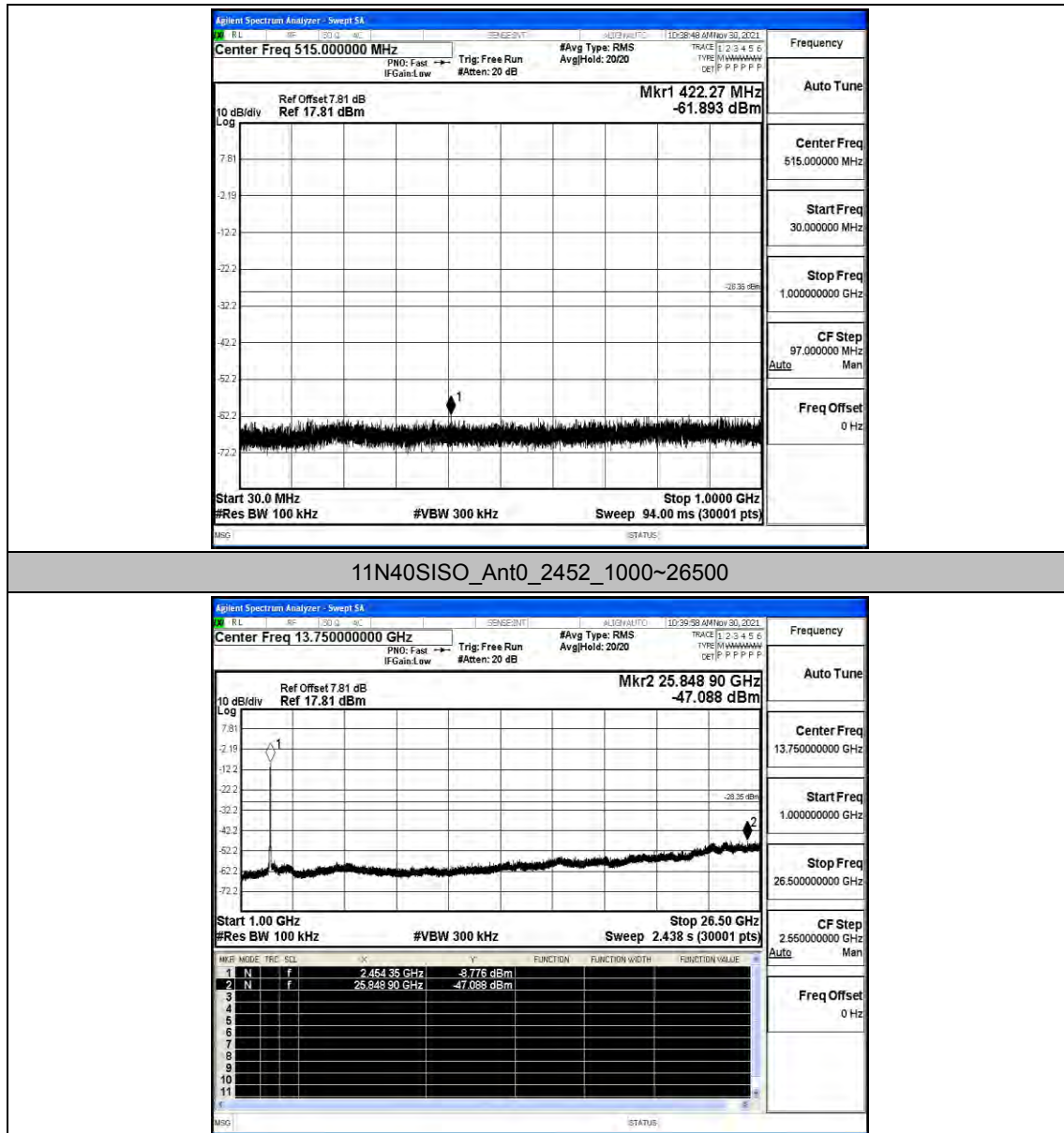
11N40SISO_Ant0_2437_1000~26500



11N40SISO_Ant0_2452_0~Reference



11N40SISO_Ant0_2452_30~1000



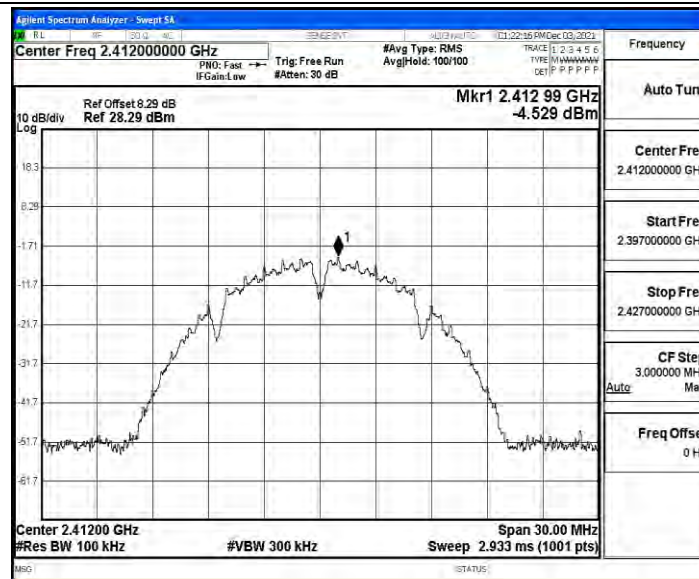
TestMode	Antenna	Channel	FreqRange [Mhz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
11B	Ant1	2412	Reference	-4.53	-4.53	---	PASS
			30~1000	-4.53	-61.27	≤-24.53	PASS
			1000~26500	-4.53	-46.03	≤-24.53	PASS
		2437	Reference	-3.66	-3.66	---	PASS
			30~1000	-3.66	-61.5	≤-23.66	PASS
			1000~26500	-3.66	-46.63	≤-23.66	PASS
		2462	Reference	-4.07	-4.07	---	PASS
			30~1000	-4.07	-60.81	≤-24.07	PASS
			1000~26500	-4.07	-46.21	≤-24.07	PASS
11G	Ant1	2412	Reference	-9.74	-9.74	---	PASS
			30~1000	-9.74	-61.37	≤-29.74	PASS



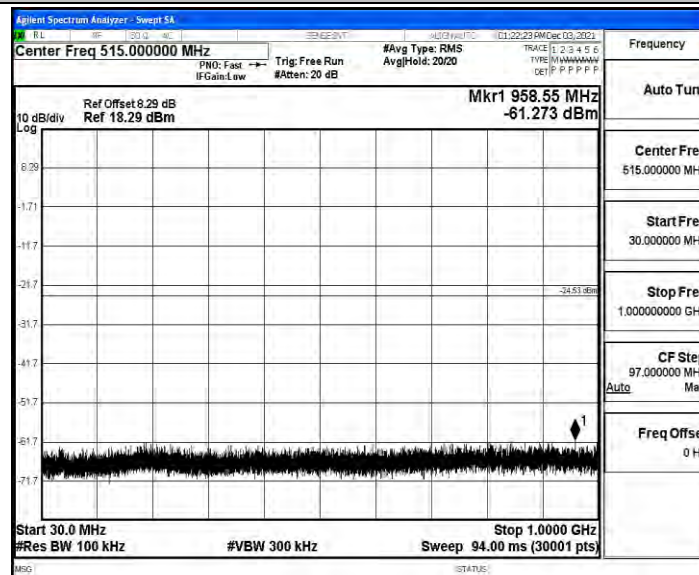
			1000~26500	-9.74	-46.12	≤-29.74	PASS		
		2437	Reference	-15.82	-15.82	---	PASS		
			30~1000	-15.82	-61.3	≤-35.82	PASS		
			1000~26500	-15.82	-46.04	≤-35.82	PASS		
		2462	Reference	-15.93	-15.93	---	PASS		
			30~1000	-15.93	-60.8	≤-35.93	PASS		
			1000~26500	-15.93	-46.83	≤-35.93	PASS		
		11N20SISO	Ant1	2412	Reference	-15.45	-15.45	---	PASS
					30~1000	-15.45	-61.11	≤-35.45	PASS
1000~26500	-15.45				-46.76	≤-35.45	PASS		
2437	Reference			-15.07	-15.07	---	PASS		
	30~1000			-15.07	-61.24	≤-35.07	PASS		
	1000~26500			-15.07	-46.1	≤-35.07	PASS		
2462	Reference			-15.05	-15.05	---	PASS		
	30~1000			-15.05	-61.48	≤-35.05	PASS		
	1000~26500			-15.05	-46.45	≤-35.05	PASS		
11N40SISO	Ant1	2422	Reference	-14.62	-14.62	---	PASS		
			30~1000	-14.62	-60.09	≤-34.62	PASS		
			1000~26500	-14.62	-46.53	≤-34.62	PASS		
		2437	Reference	-14.61	-14.61	---	PASS		
			30~1000	-14.61	-61.44	≤-34.61	PASS		
			1000~26500	-14.61	-45.42	≤-34.61	PASS		
		2452	Reference	-13.98	-13.98	---	PASS		
			30~1000	-13.98	-61.31	≤-33.98	PASS		
			1000~26500	-13.98	-45.99	≤-33.98	PASS		

Test Graphs

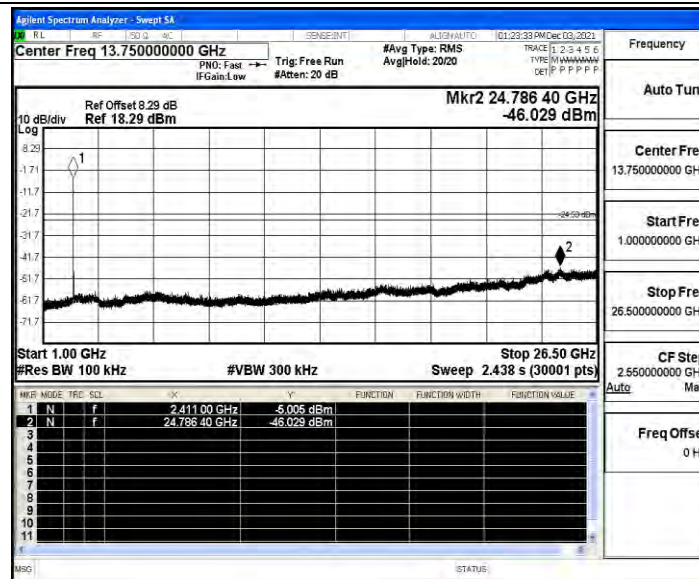
11B_Ant1_2412_0~Reference



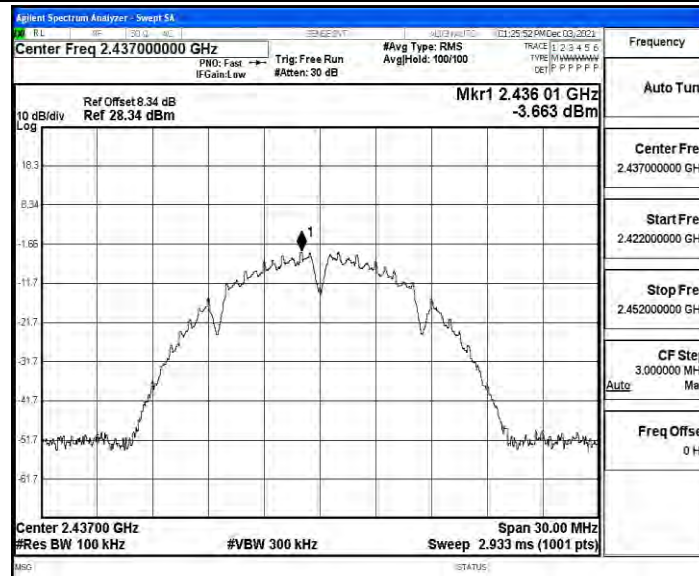
11B_Ant1_2412_30~1000



11B_Ant1_2412_1000~26500



11B_Ant1_2437_0~Reference



11B_Ant1_2437_30~1000