



Appendix A

RF Test Data for 2.4G WIFI (Conducted Measurement)

Product Name: Drive Camera Recorder

Test Model: PB32

Environmental Conditions

Temperature:	23.5° C
Relative Humidity:	52.2%
ATM Pressure:	100.0 kPa
Test Engineer:	Monkey Li
Supervised by:	Li Huan

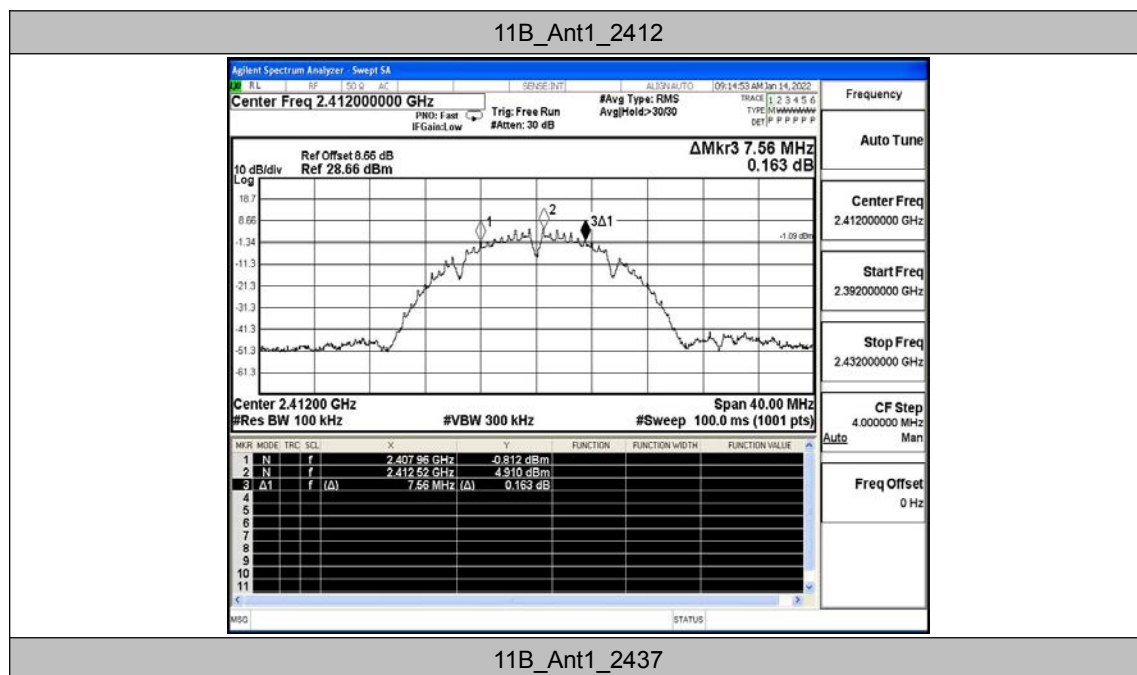


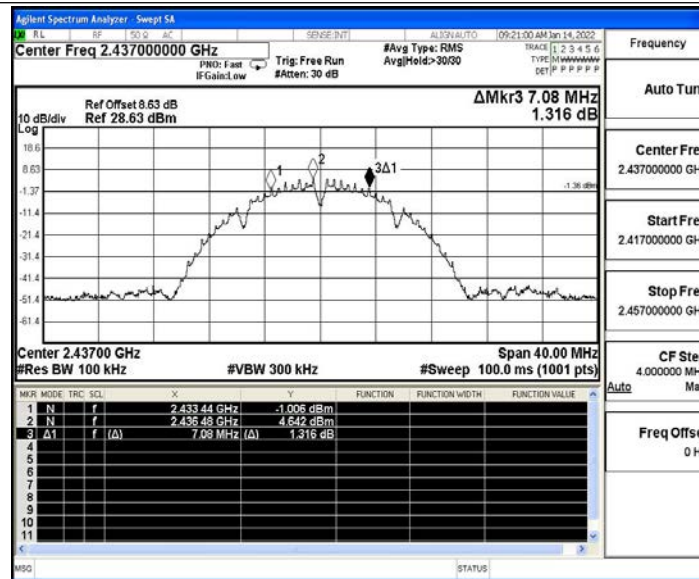
A.1 6dB Bandwidth

Test Result

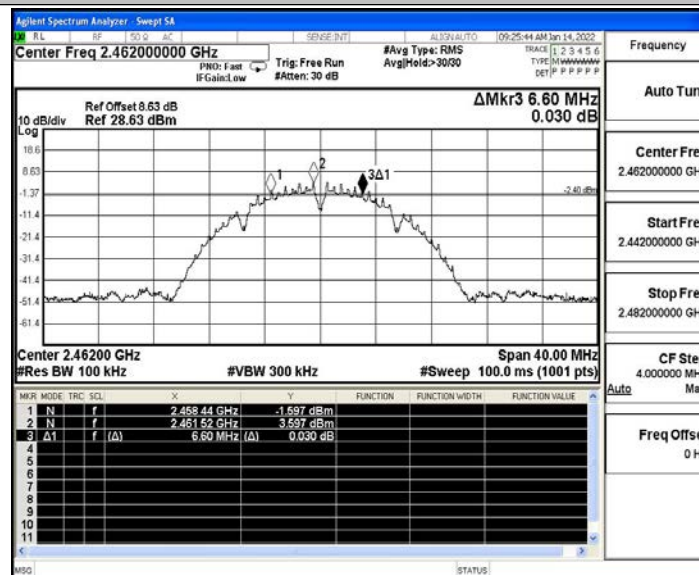
TestMode	Antenna	Channel	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	7.560	2407.960	2415.520	0.5	PASS
		2437	7.080	2433.440	2440.520	0.5	PASS
		2462	6.600	2458.440	2465.040	0.5	PASS
11G	Ant1	2412	15.320	2404.440	2419.760	0.5	PASS
		2437	15.120	2429.440	2444.560	0.5	PASS
		2462	15.320	2454.240	2469.560	0.5	PASS
11N20SISO	Ant1	2412	15.960	2404.440	2420.400	0.5	PASS
		2437	15.120	2429.440	2444.560	0.5	PASS
		2462	15.120	2454.440	2469.560	0.5	PASS
11N40SISO	Ant1	2422	35.040	2404.480	2439.520	0.5	PASS
		2437	35.040	2419.480	2454.520	0.5	PASS
		2452	35.040	2434.480	2469.520	0.5	PASS

Test Graphs

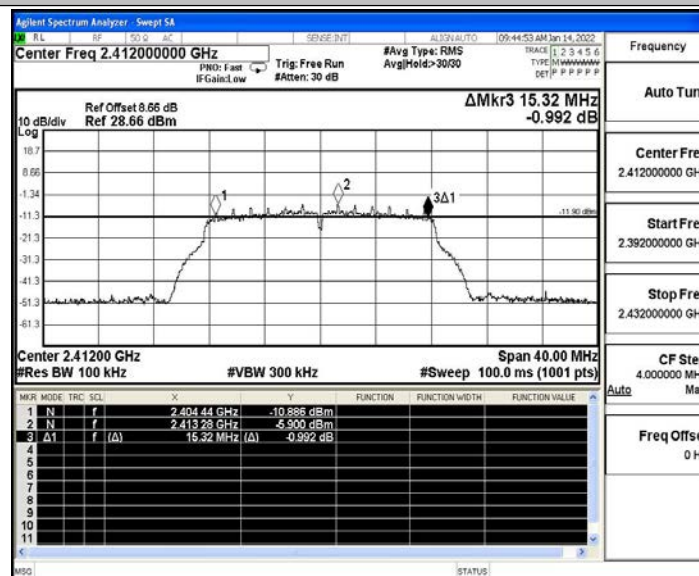




11B_Ant1_2462

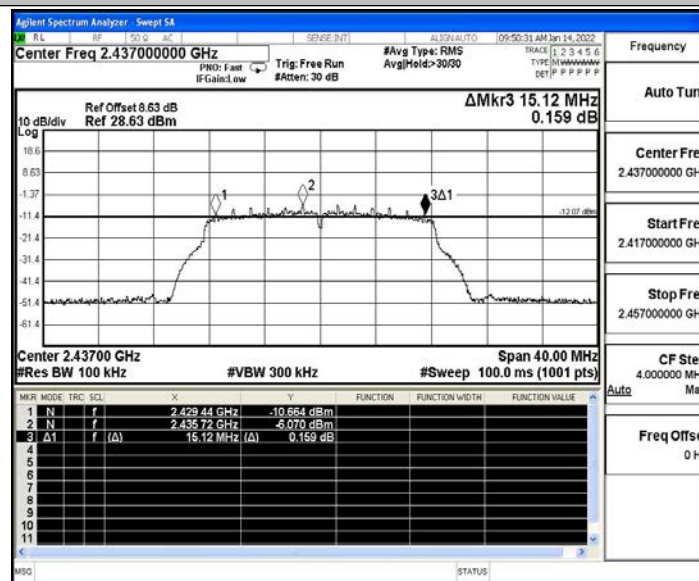


11G_Ant1_2412

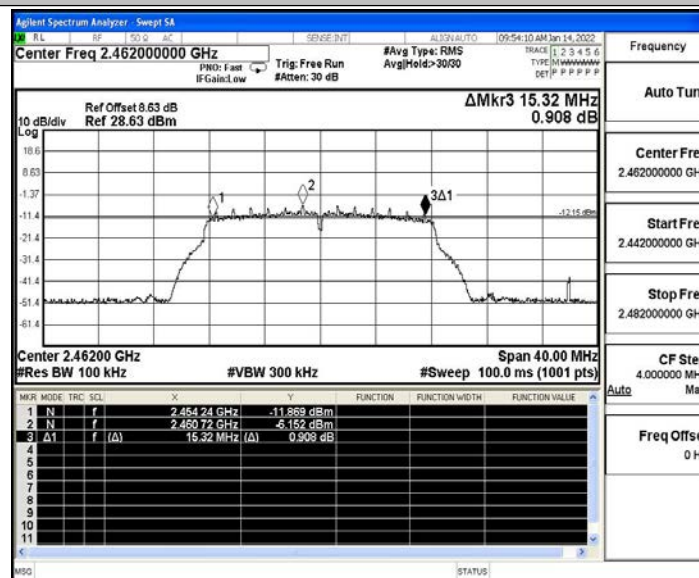




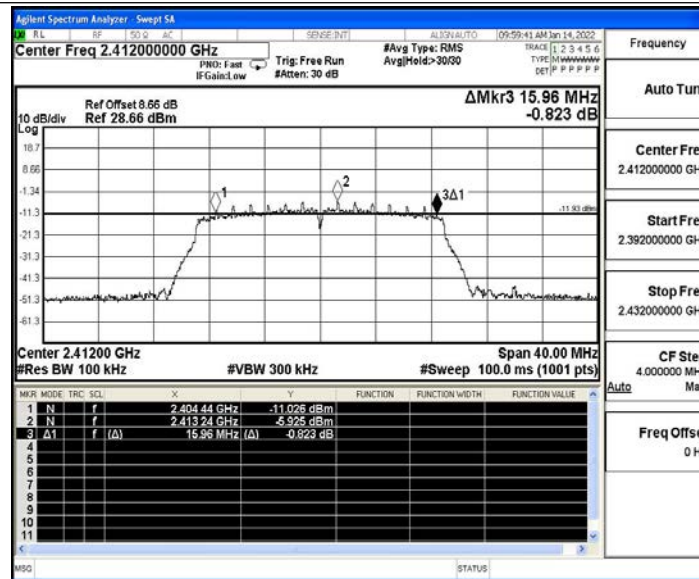
11G_Ant1_2437



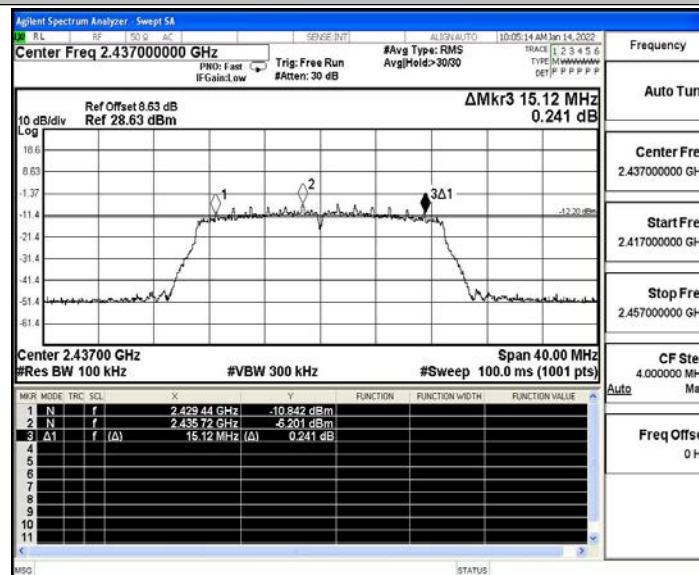
11G_Ant1_2462



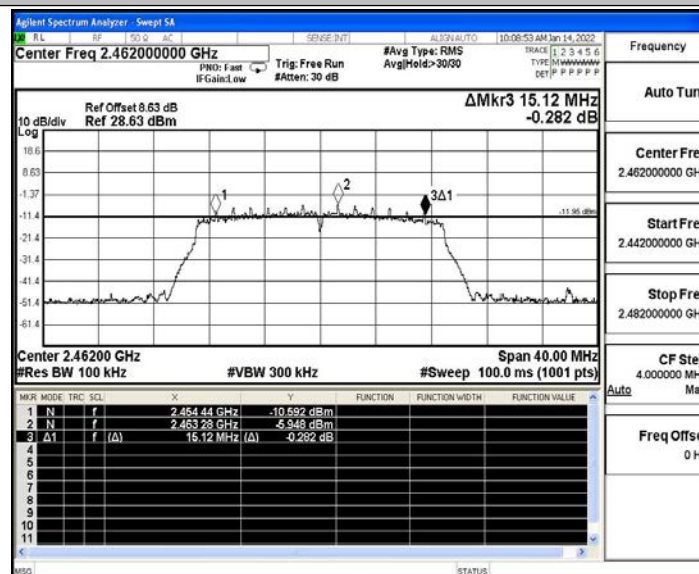
11N20SISO_Ant1_2412



11N20SISO_Ant1_2437

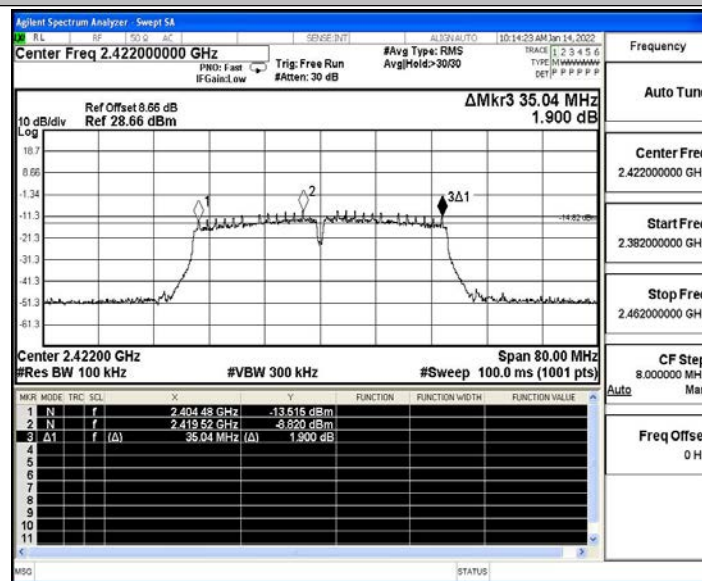


11N20SISO_Ant1_2462

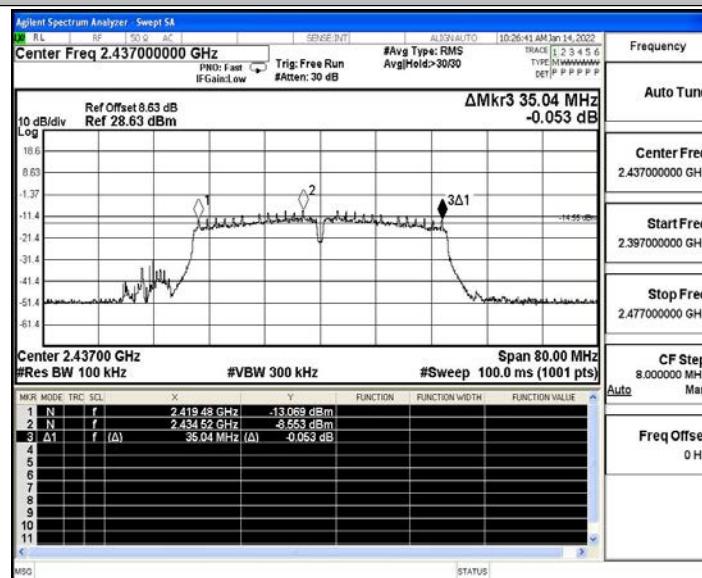




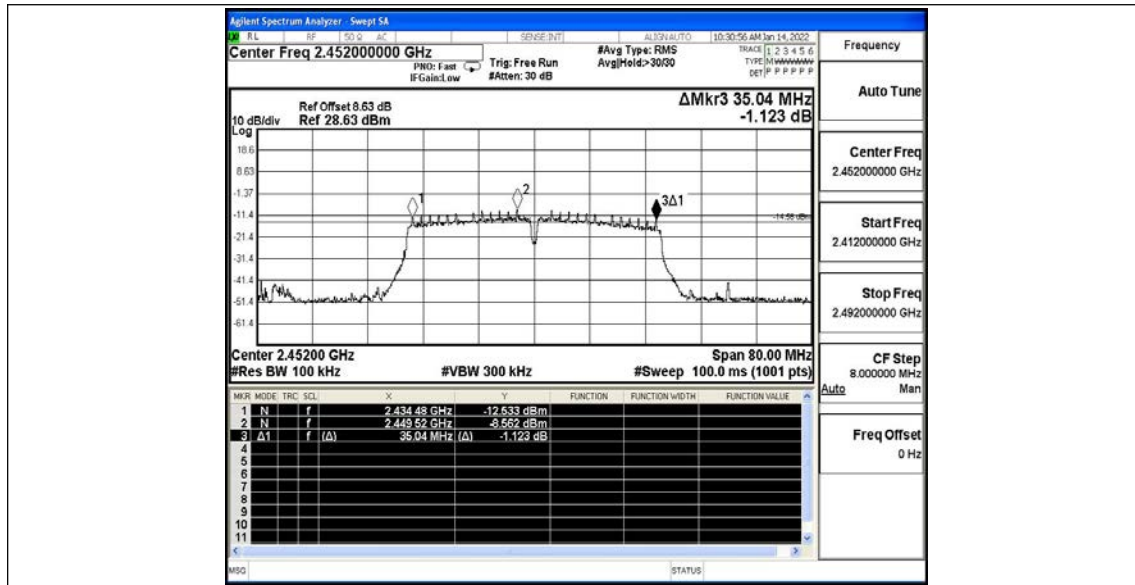
11N40SISO_Ant1_2422



11N40SISO_Ant1_2437



11N40SISO_Ant1_2452





A.2 Maximum conducted output power

Test Result

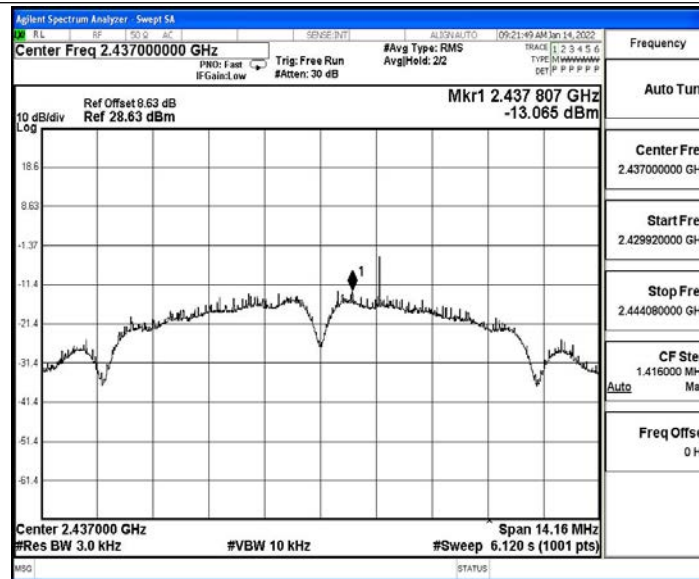
TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
11B	Ant1	2412	15.68	≤30.00	PASS
		2437	15.40	≤30.00	PASS
		2462	14.37	≤30.00	PASS
11G	Ant1	2412	12.75	≤30.00	PASS
		2437	12.49	≤30.00	PASS
		2462	12.35	≤30.00	PASS
11N20SISO	Ant1	2412	12.63	≤30.00	PASS
		2437	12.35	≤30.00	PASS
		2462	12.38	≤30.00	PASS
11N40SISO	Ant1	2422	12.59	≤30.00	PASS
		2437	12.40	≤30.00	PASS
		2452	12.30	≤30.00	PASS



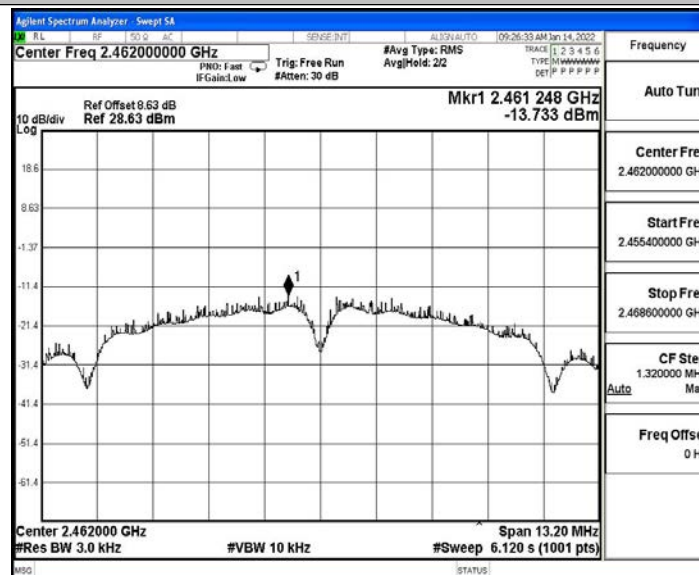
Test Result

Test Graphs

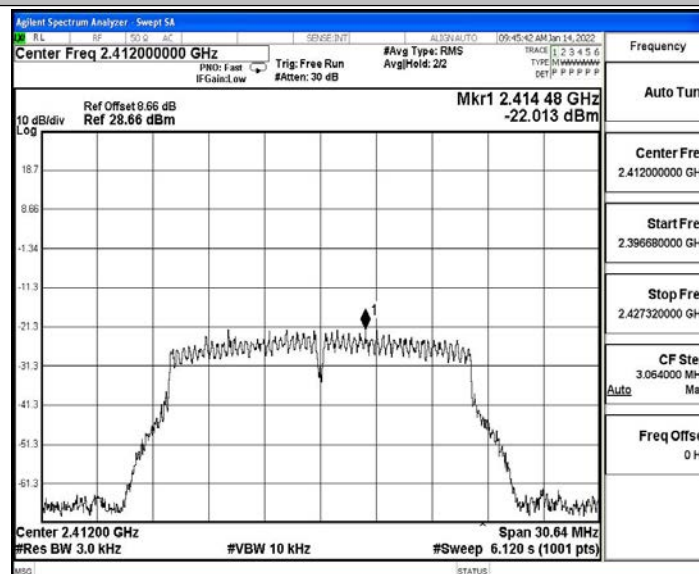




11B_Ant1_2462

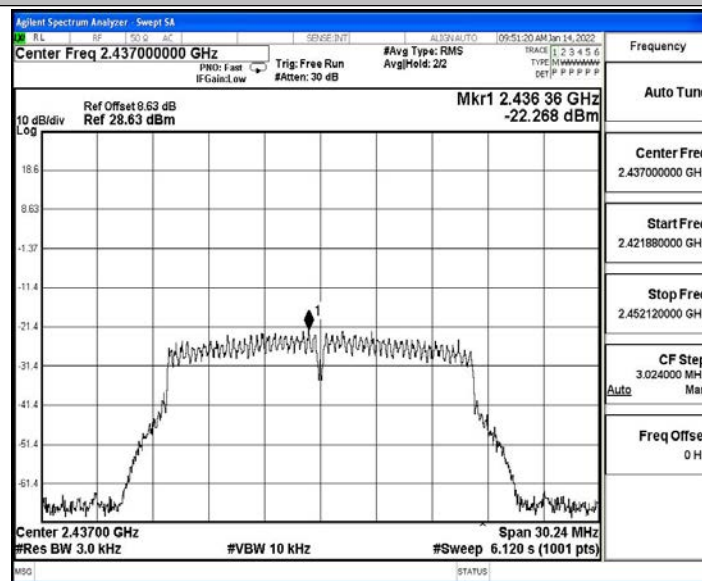


11G_Ant1_2412

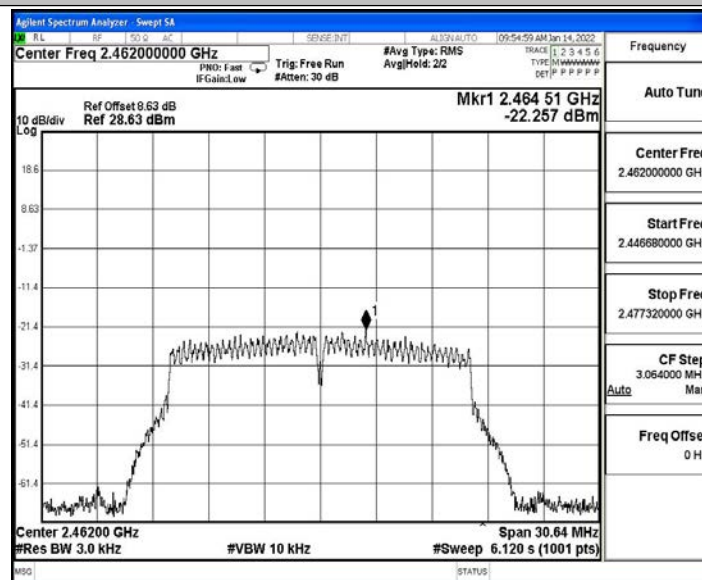




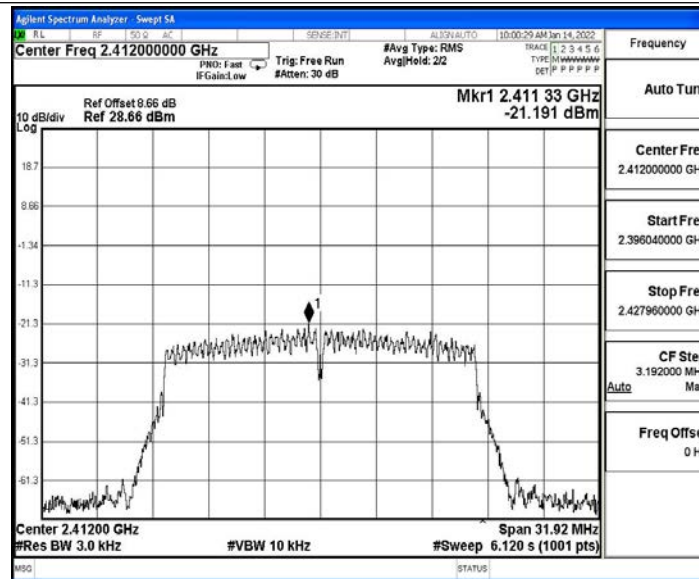
11G_Ant1_2437



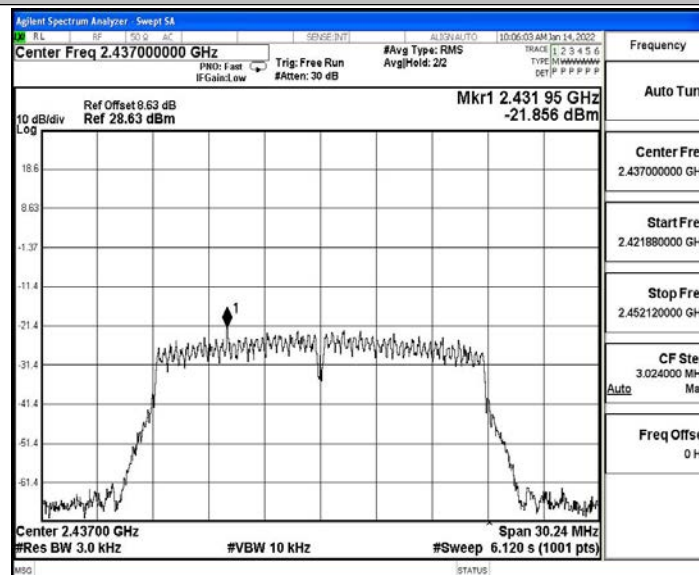
11G_Ant1_2462



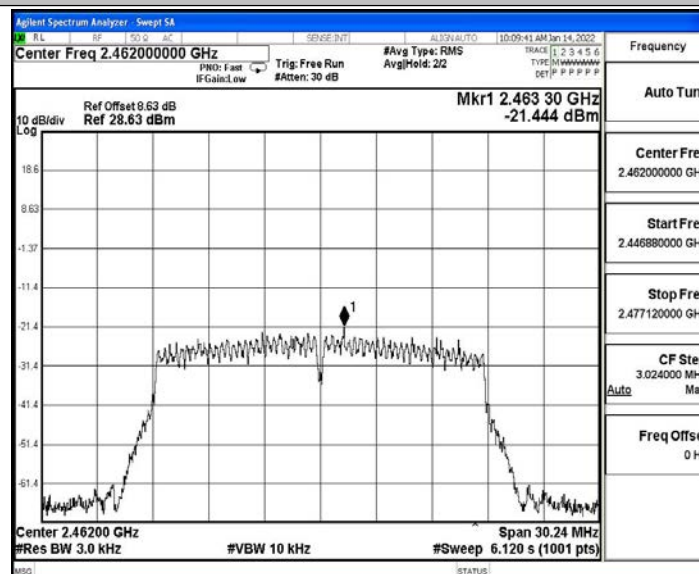
11N20SISO_Ant1_2412



11N20SISO_Ant1_2437

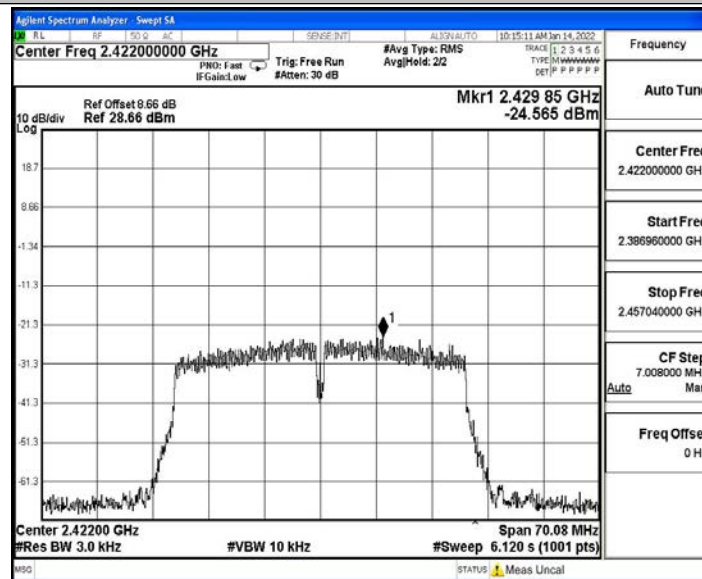


11N20SISO_Ant1_2462

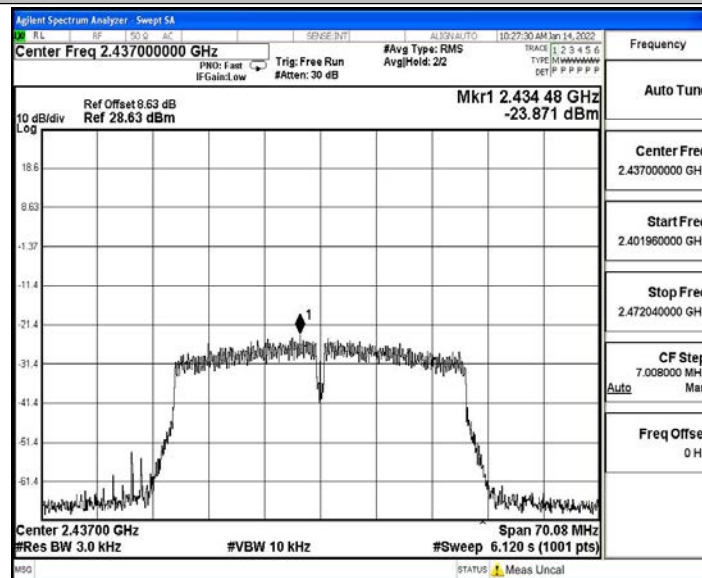




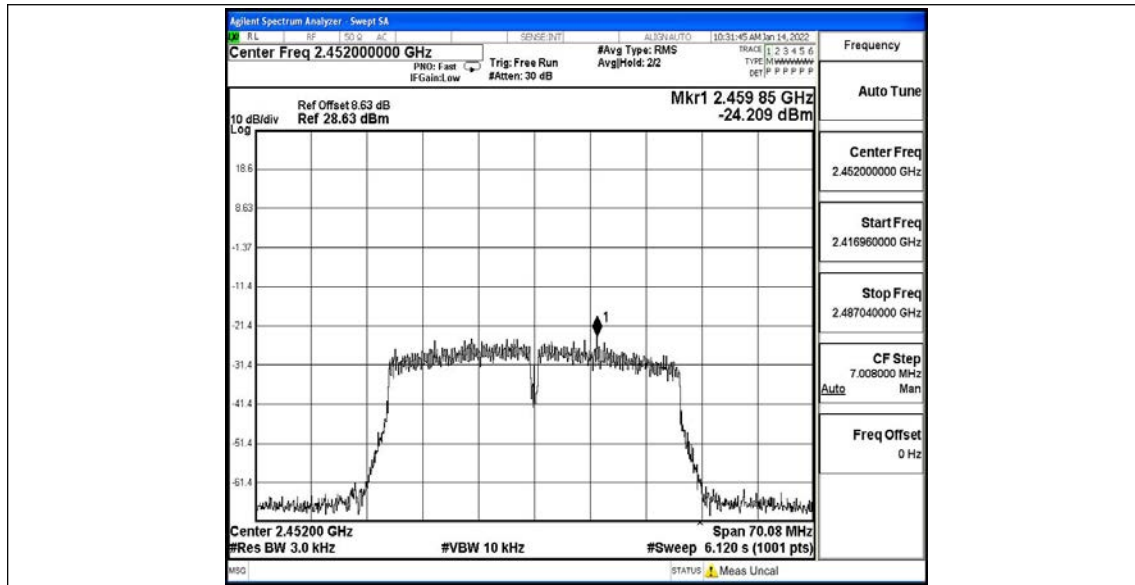
11N40SISO_Ant1_2422



11N40SISO_Ant1_2437



11N40SISO_Ant1_2452



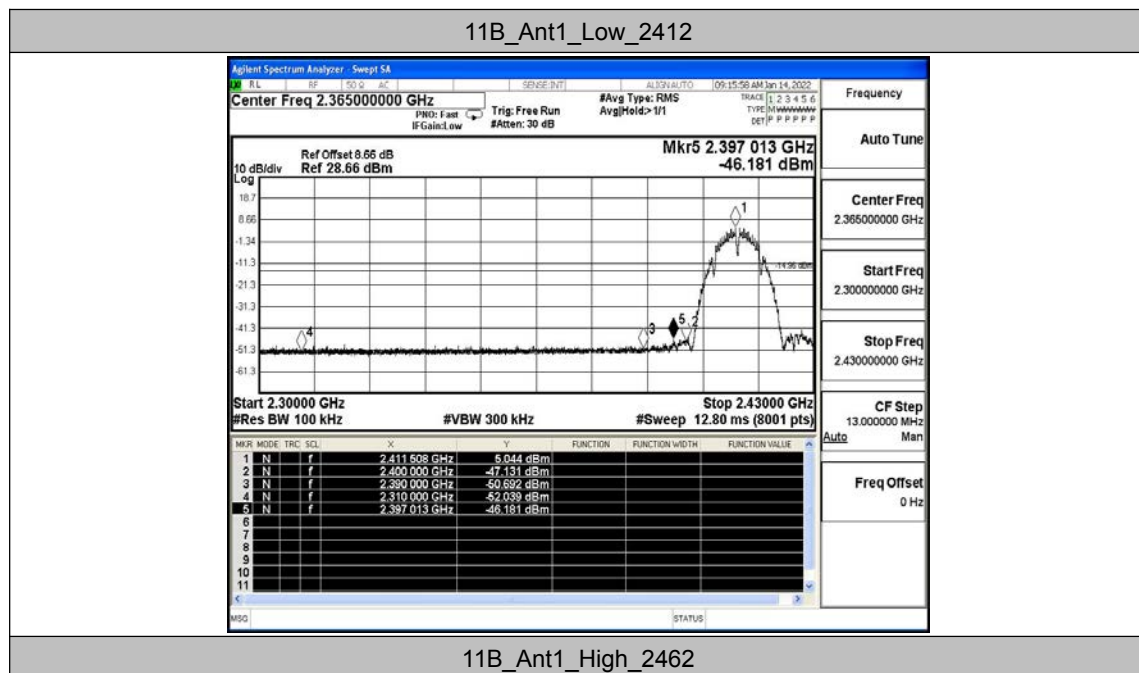


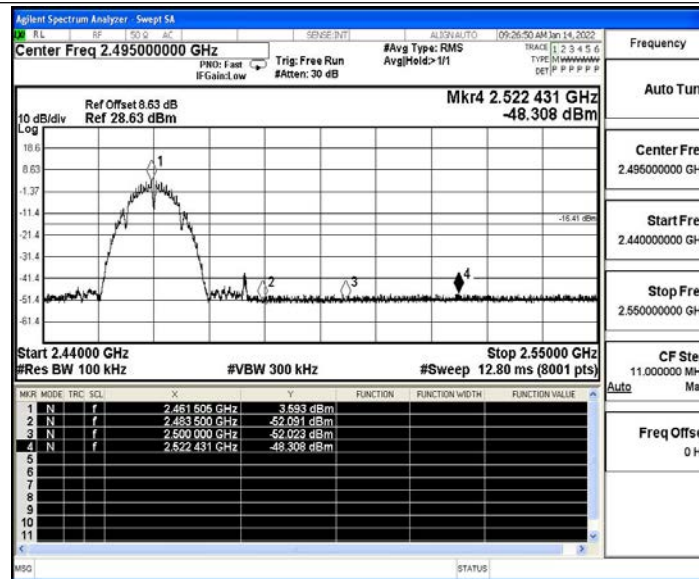
A.4 Band edge measurements

Test Result

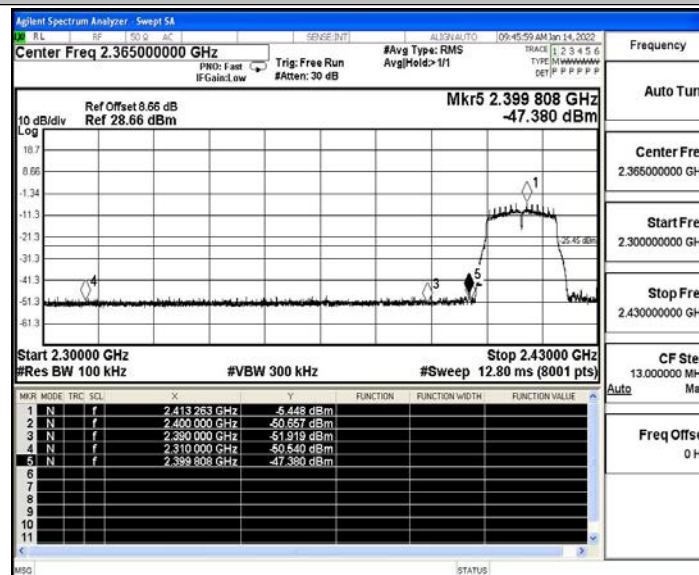
TestMode	Antenna	ChName	Channel	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
11B	Ant1	Low	2412	5.04	-46.18	≤-14.96	PASS
		High	2462	3.59	-48.31	≤-16.41	PASS
11G	Ant1	Low	2412	-5.45	-47.38	≤-25.45	PASS
		High	2462	-5.89	-47.74	≤-25.89	PASS
11N20SISO	Ant1	Low	2412	-5.31	-47.34	≤-25.31	PASS
		High	2462	-5.87	-47.38	≤-25.87	PASS
11N40SISO	Ant1	Low	2422	-8.61	-46.19	≤-28.61	PASS
		High	2452	-8.80	-48.11	≤-28.8	PASS

Test Graphs

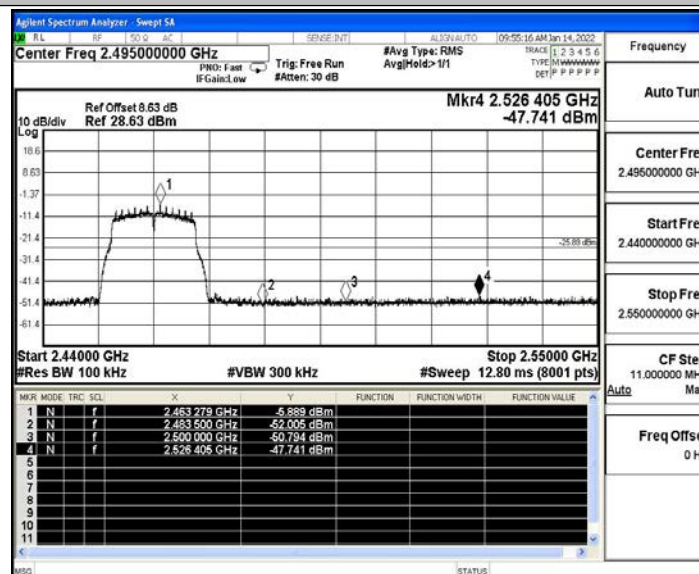




11G_Ant1_Low_2412

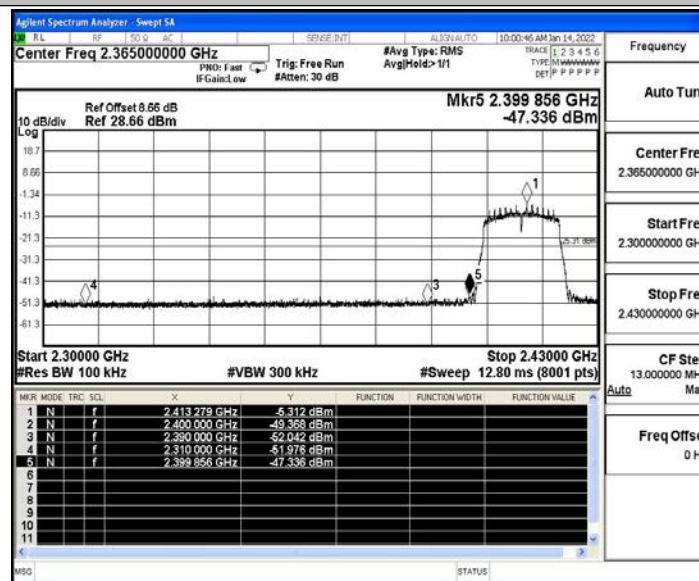


11G_Ant1_High_2462

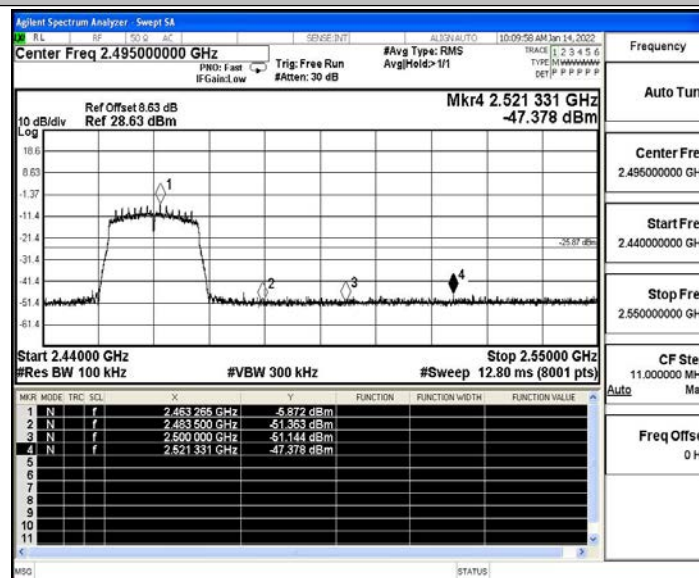




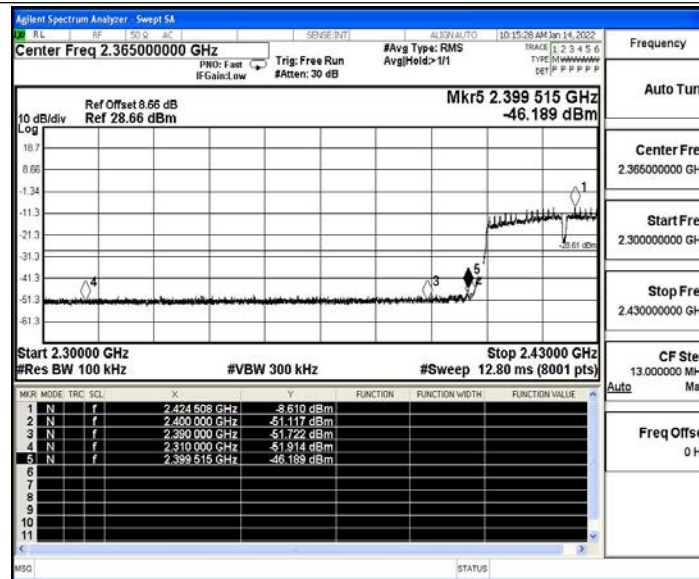
11N20SISO_Ant1_Low_2412



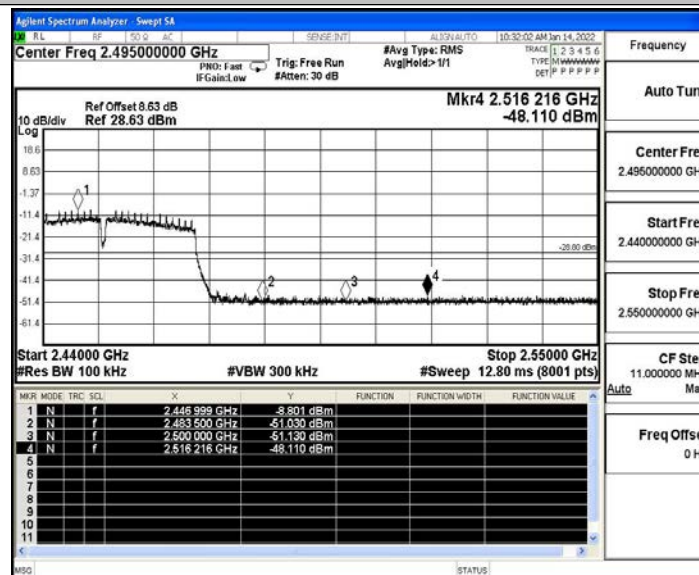
11N20SISO_Ant1_High_2462



11N40SISO_Ant1_Low_2422



11N40SISO_Ant1_High_2452





A.5 Conducted Spurious Emission

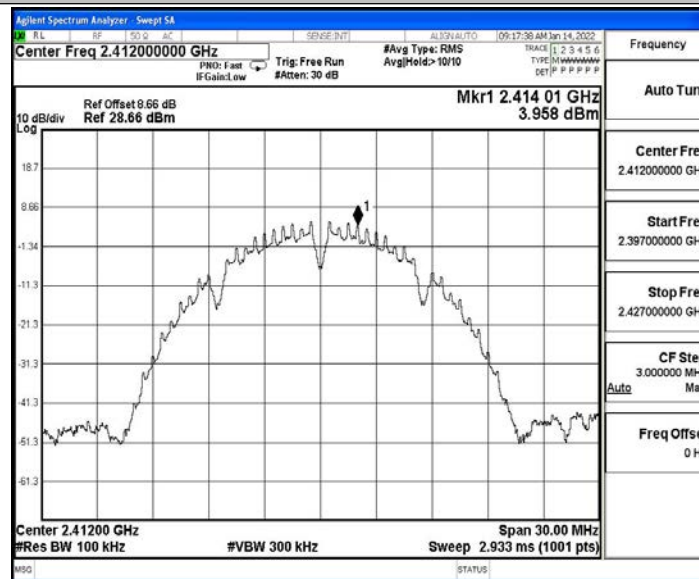
Test Result

TestMode	Antenna	Channel	FreqRange [Mhz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
11B	Ant1	2412	Reference	3.96	3.96	---	PASS
			30~1000	3.96	-56.26	≤-16.04	PASS
			1000~26500	3.96	-40.77	≤-16.04	PASS
		2437	Reference	4.63	4.63	---	PASS
			30~1000	4.63	-55.15	≤-15.37	PASS
			1000~26500	4.63	-43	≤-15.37	PASS
		2462	Reference	3.84	3.84	---	PASS
			30~1000	3.84	-56.36	≤-16.16	PASS
			1000~26500	3.84	-42.23	≤-16.16	PASS
11G	Ant1	2412	Reference	-5.25	-5.25	---	PASS
			30~1000	-5.25	-58.02	≤-25.25	PASS
			1000~26500	-5.25	-46.44	≤-25.25	PASS
		2437	Reference	-5.78	-5.78	---	PASS
			30~1000	-5.78	-58.34	≤-25.78	PASS
			1000~26500	-5.78	-46.23	≤-25.78	PASS
		2462	Reference	-5.79	-5.79	---	PASS
			30~1000	-5.79	-57.55	≤-25.79	PASS
			1000~26500	-5.79	-46.19	≤-25.79	PASS
11N20SISO	Ant1	2412	Reference	-5.28	-5.28	---	PASS
			30~1000	-5.28	-57.33	≤-25.28	PASS
			1000~26500	-5.28	-46.37	≤-25.28	PASS
		2437	Reference	-6.20	-6.20	---	PASS
			30~1000	-6.20	-57.9	≤-26.2	PASS
			1000~26500	-6.20	-46.38	≤-26.2	PASS
		2462	Reference	-6.62	-6.62	---	PASS
			30~1000	-6.62	-57.93	≤-26.62	PASS
			1000~26500	-6.62	-46.51	≤-26.62	PASS
11N40SISO	Ant1	2422	Reference	-8.34	-8.34	---	PASS
			30~1000	-8.34	-58.35	≤-28.34	PASS
			1000~26500	-8.34	-45.73	≤-28.34	PASS
		2437	Reference	-8.44	-8.44	---	PASS
			30~1000	-8.44	-57.97	≤-28.44	PASS
			1000~26500	-8.44	-45.67	≤-28.44	PASS
		2452	Reference	-8.82	-8.82	---	PASS
			30~1000	-8.82	-57.83	≤-28.82	PASS
			1000~26500	-8.82	-40.23	≤-28.82	PASS

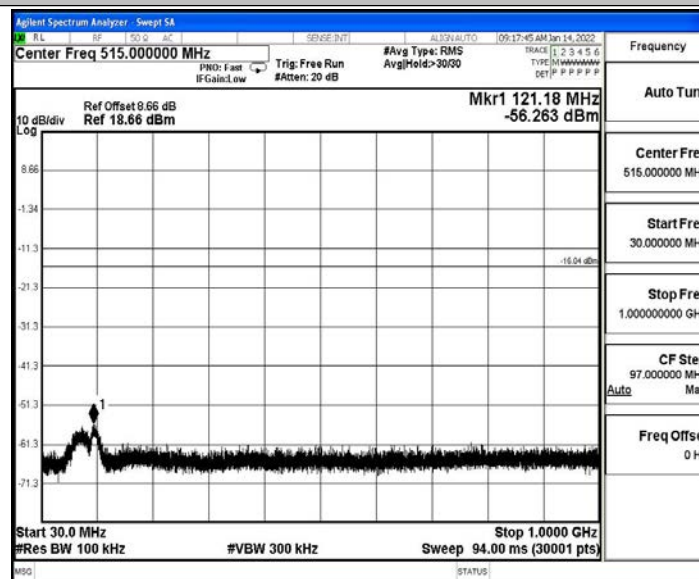


Test Graphs

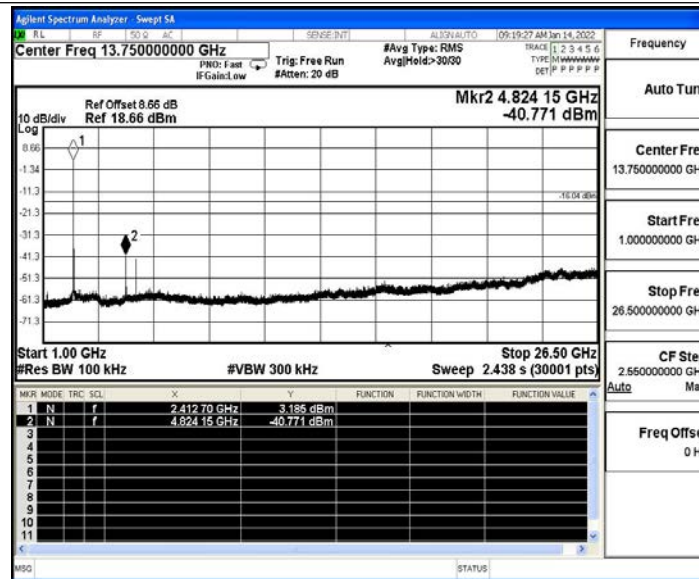
11B_Ant1_2412_0~Reference



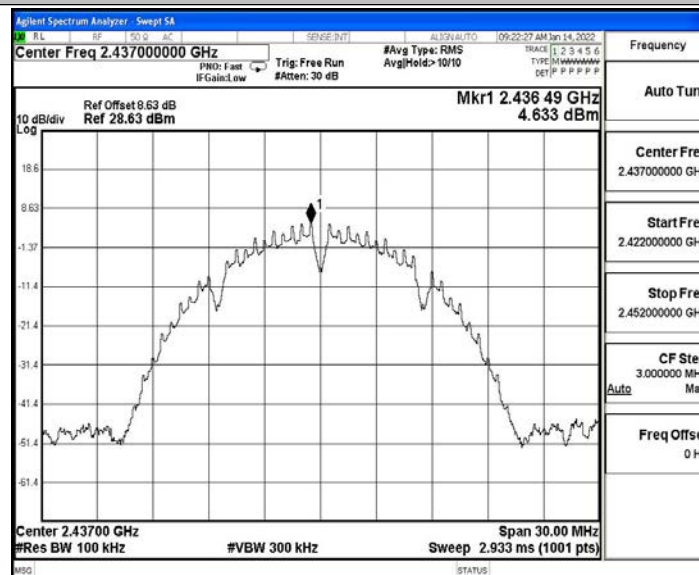
11B_Ant1_2412_30~1000



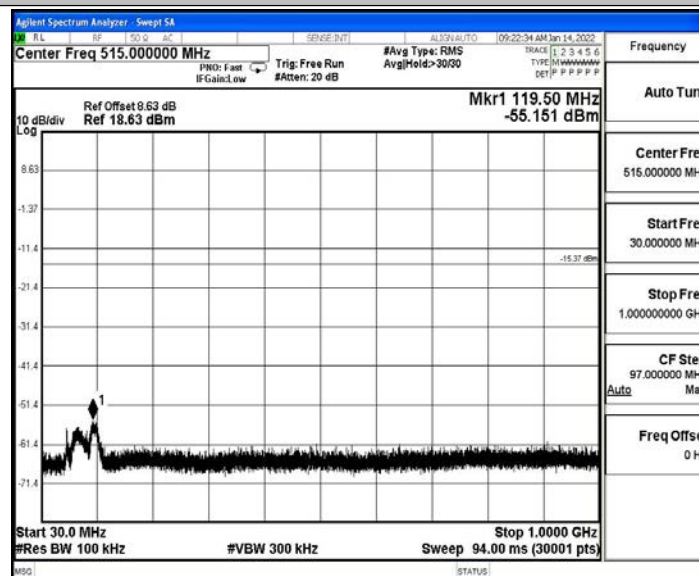
11B_Ant1_2412_1000~26500



11B_Ant1_2437_0~Reference

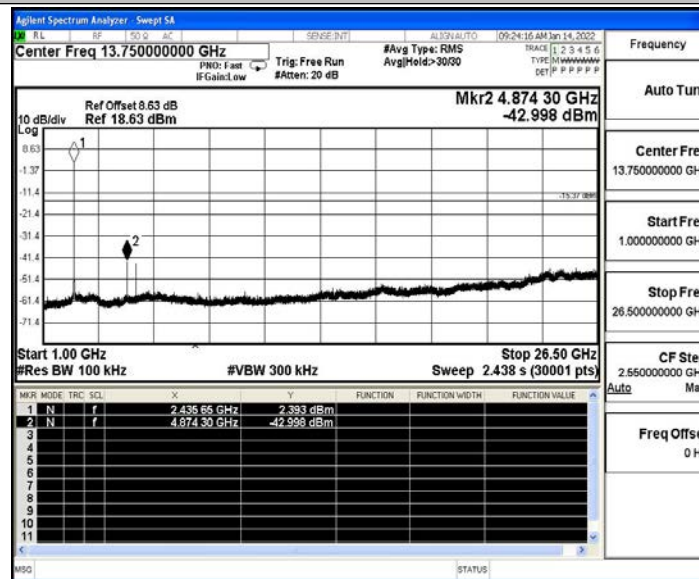


11B_Ant1_2437_30~1000

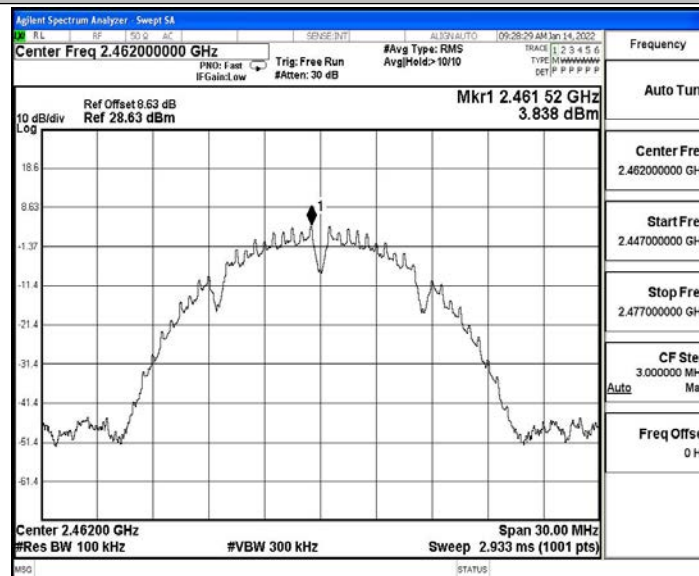




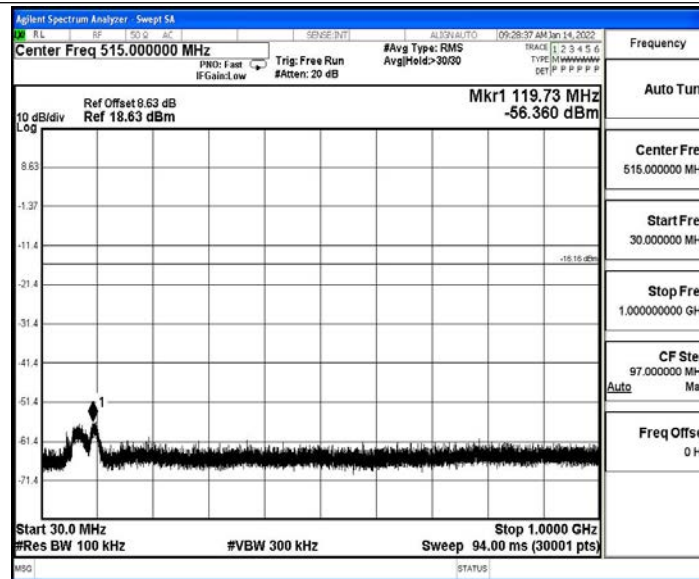
11B_Ant1_2437_1000~26500



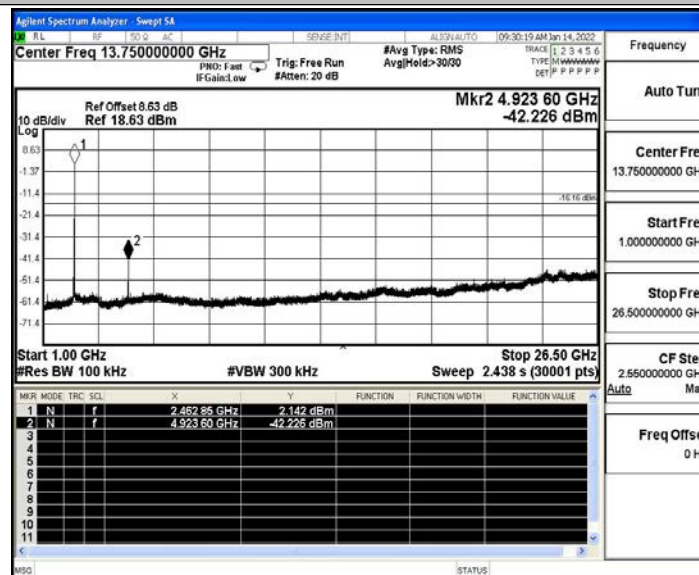
11B_Ant1_2462_0~Reference



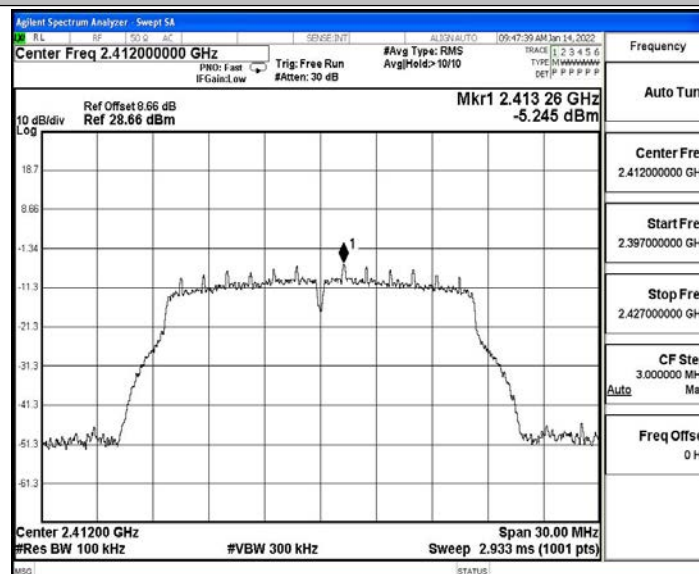
11B_Ant1_2462_30~1000



11B_Ant1_2462_1000~26500

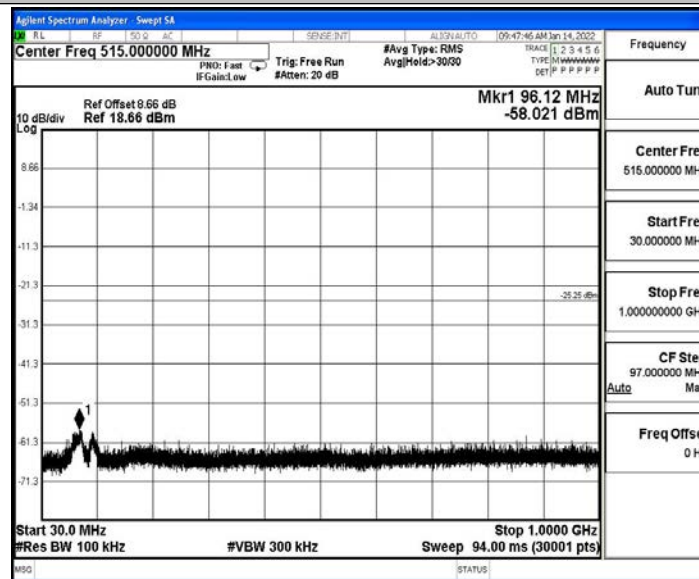


11G_Ant1_2412_0~Reference

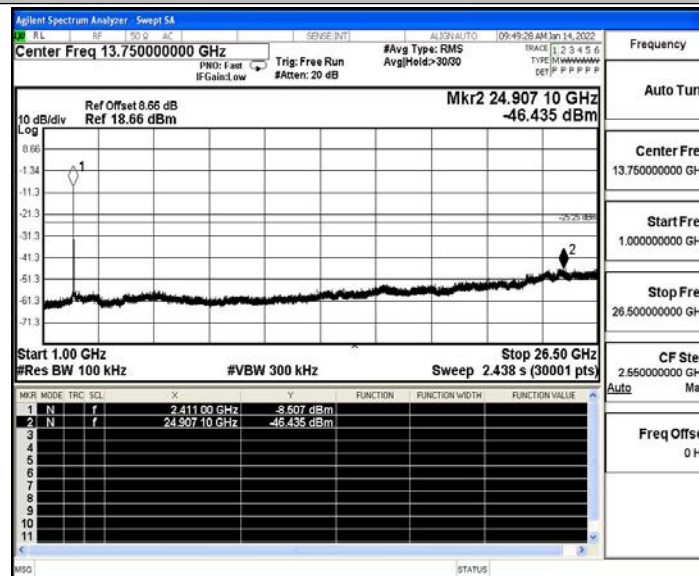




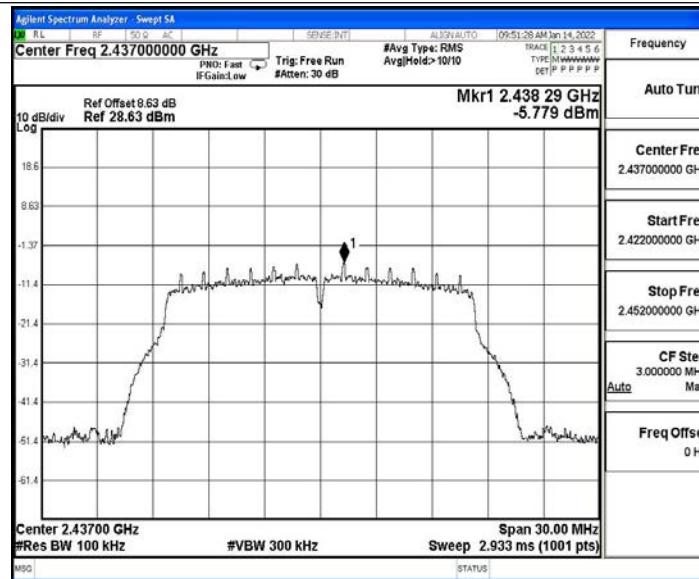
11G_Ant1_2412_30~1000



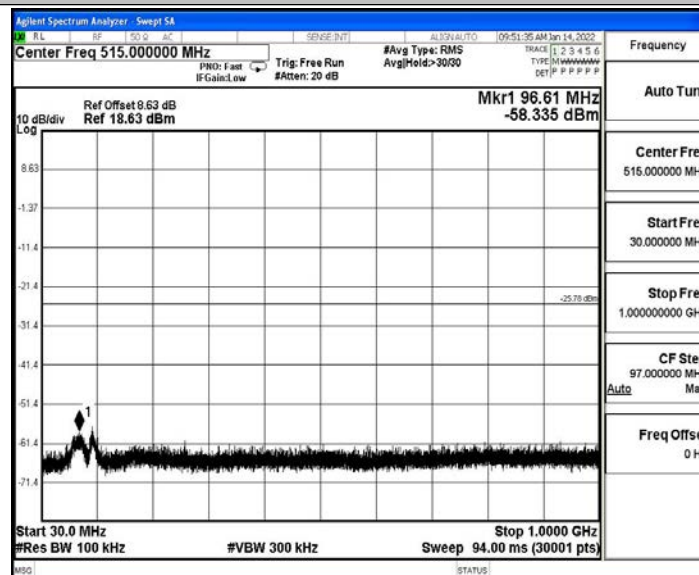
11G_Ant1_2412_1000~26500



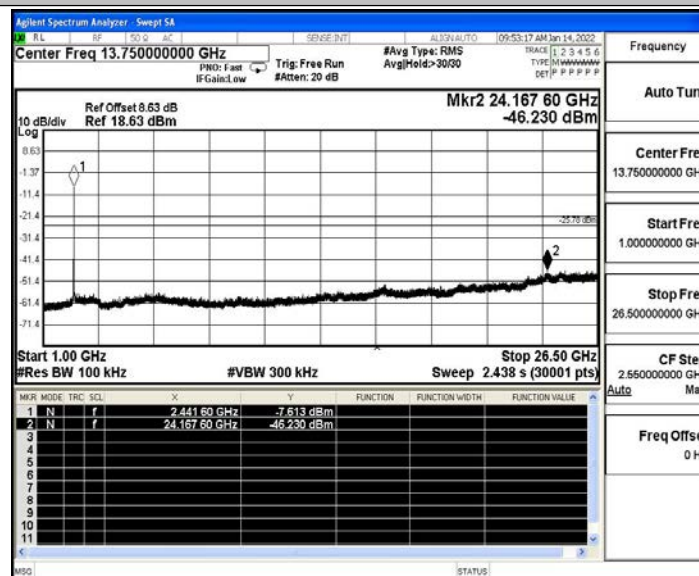
11G_Ant1_2437_0~Reference



11G_Ant1_2437_30~1000

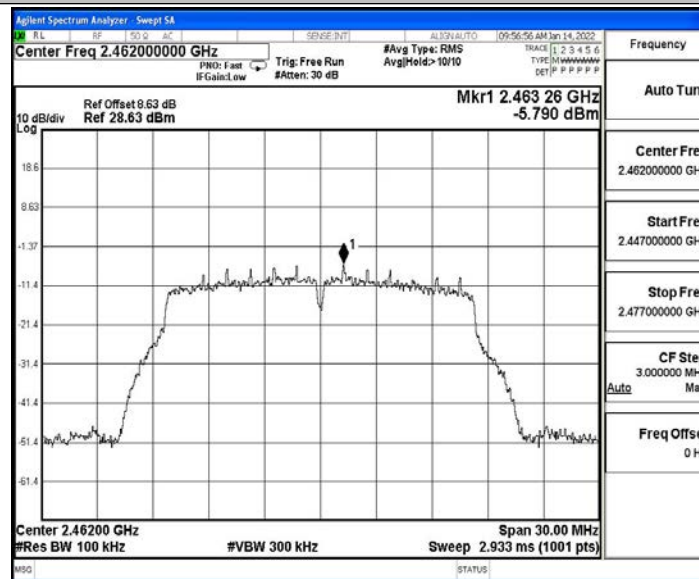


11G_Ant1_2437_1000~26500

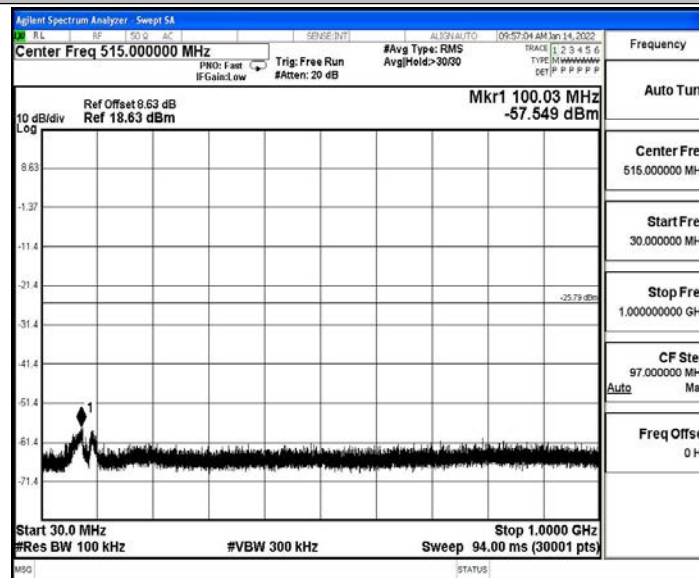




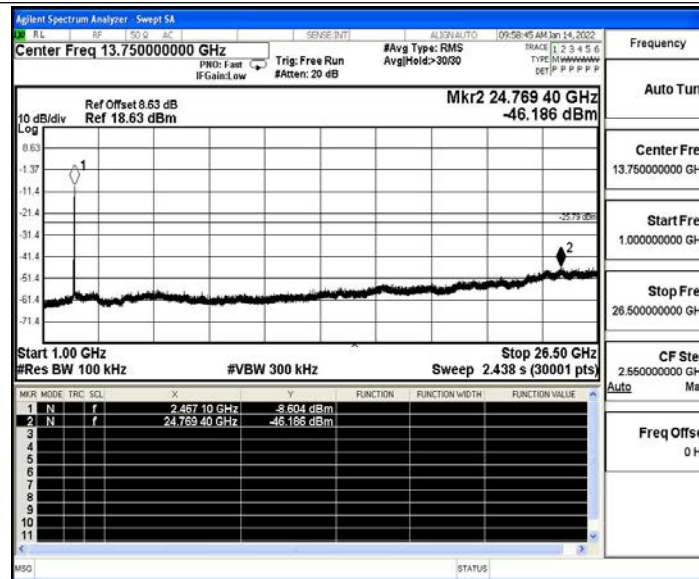
11G_Ant1_2462_0~Reference



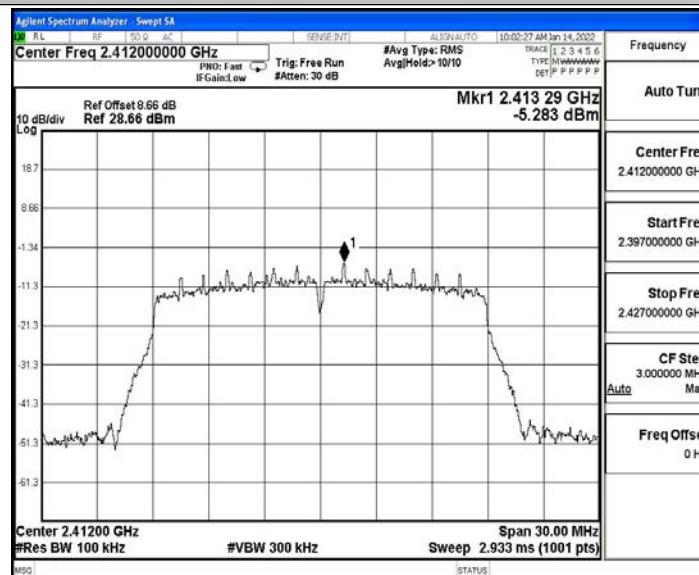
11G_Ant1_2462_30~1000



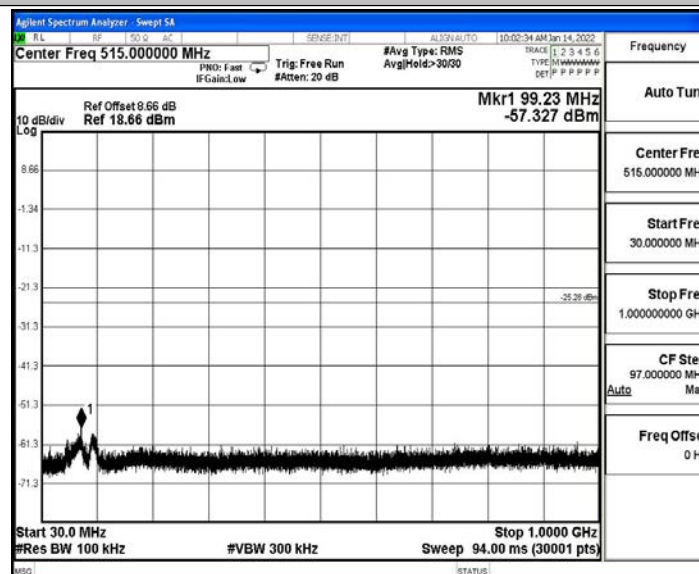
11G_Ant1_2462_1000~26500



11N20SISO_Ant1_2412_0~Reference

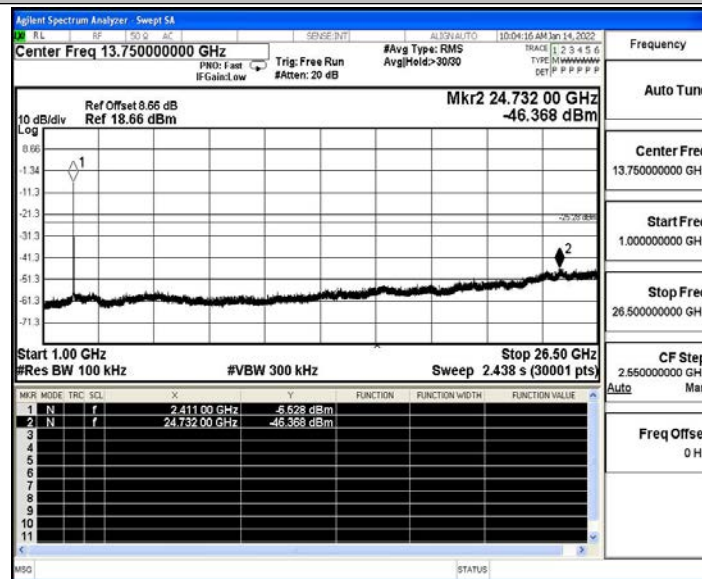


11N20SISO_Ant1_2412_30~1000

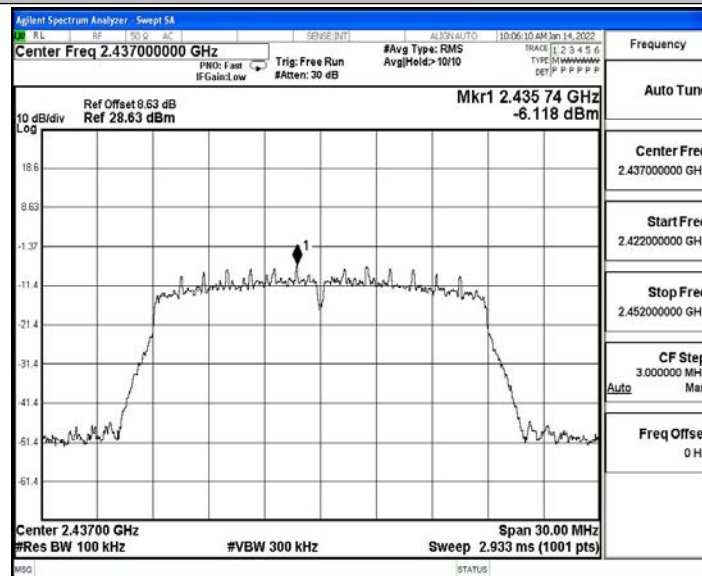




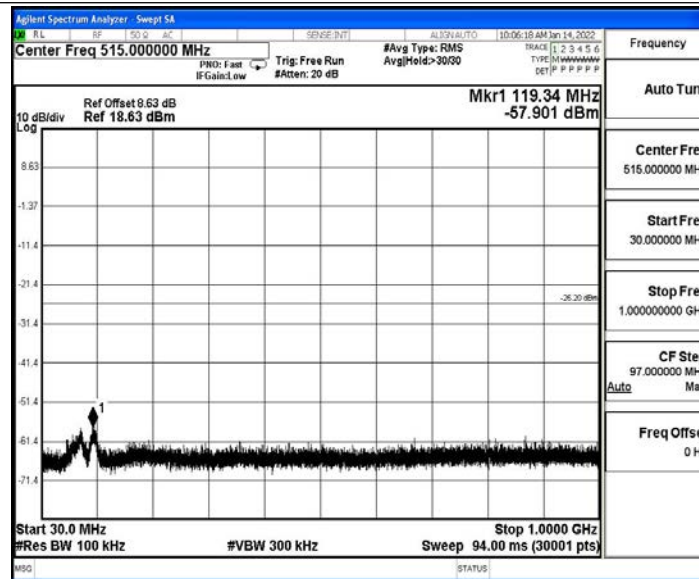
11N20SISO_Ant1_2412_1000~26500



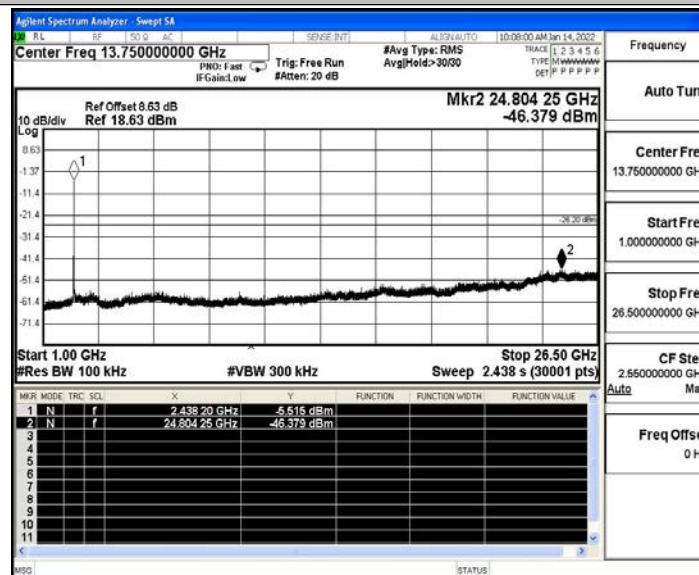
11N20SISO_Ant1_2437_0~Reference



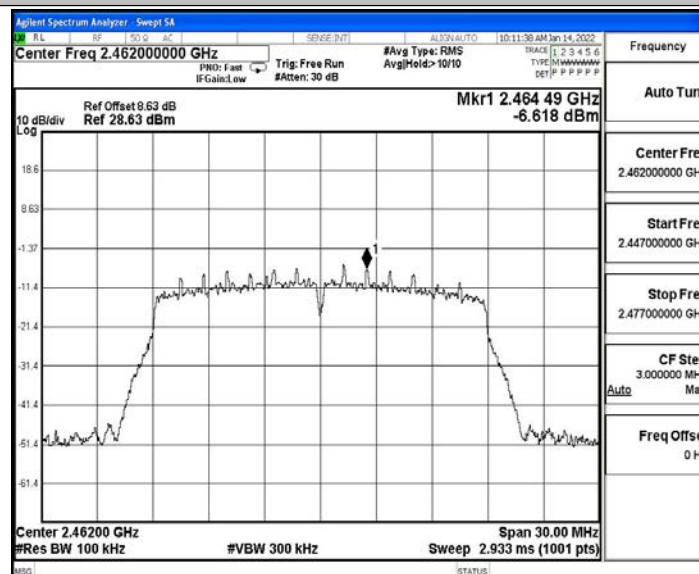
11N20SISO_Ant1_2437_30~1000



11N20SISO_Ant1_2437_1000~26500

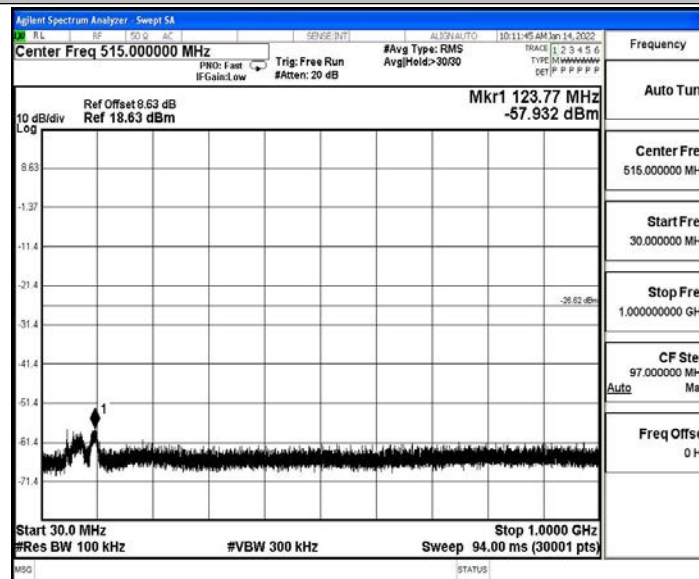


11N20SISO_Ant1_2462_0~Reference

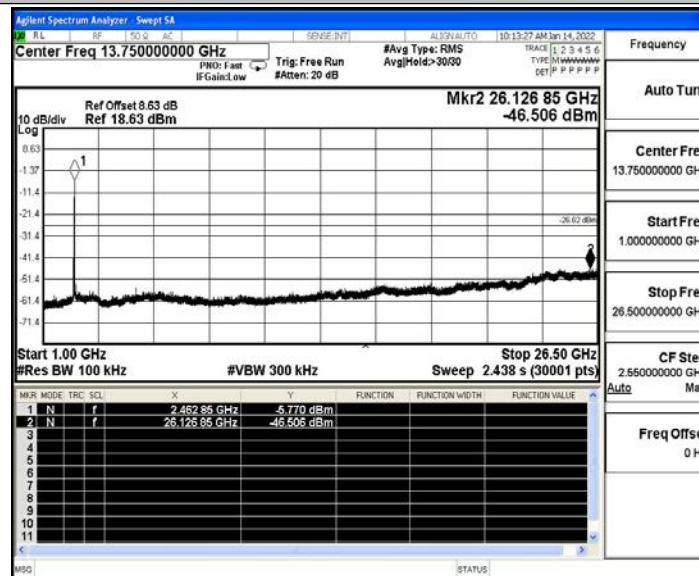




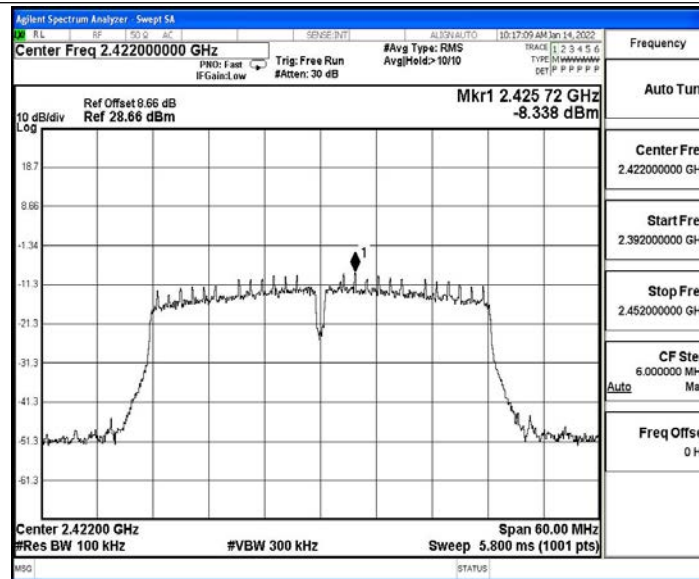
11N20SISO_Ant1_2462_30~1000



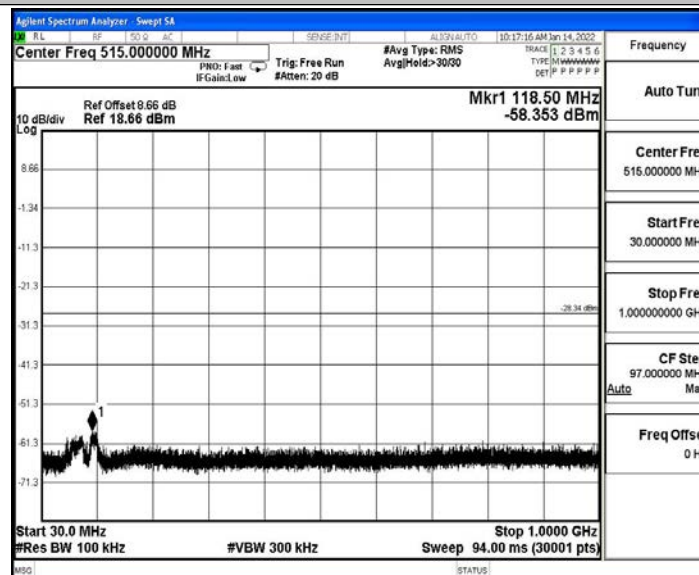
11N20SISO_Ant1_2462_1000~26500



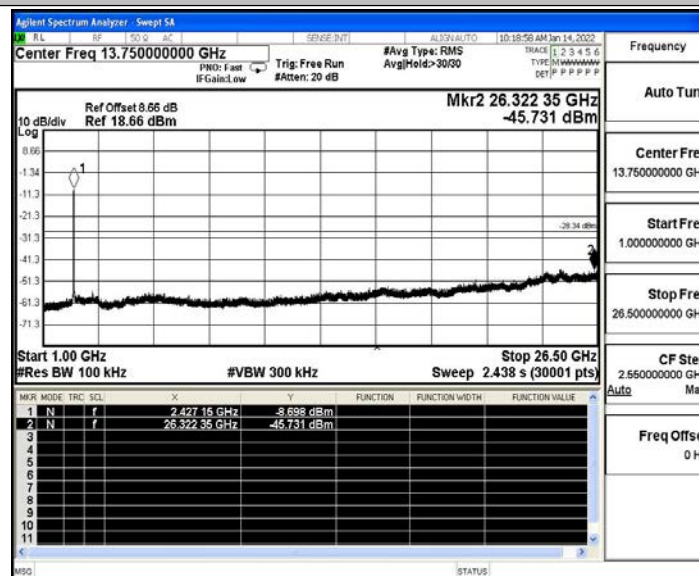
11N40SISO_Ant1_2422_0~Reference



11N40SISO_Ant1_2422_30~1000

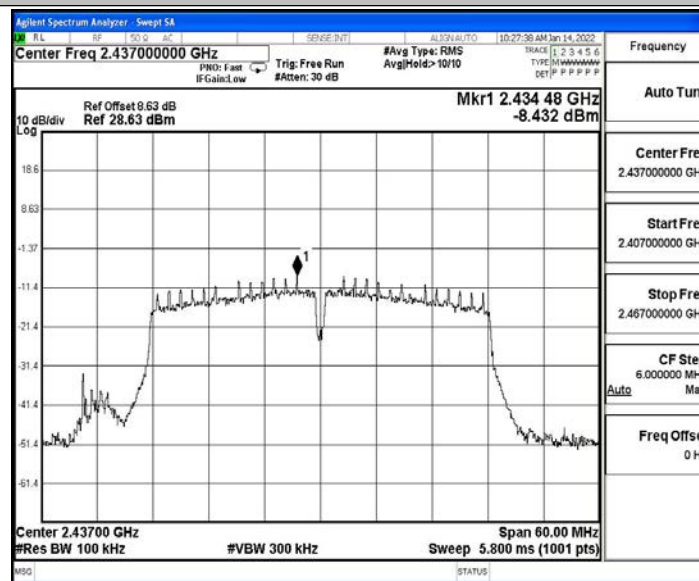


11N40SISO_Ant1_2422_1000~26500

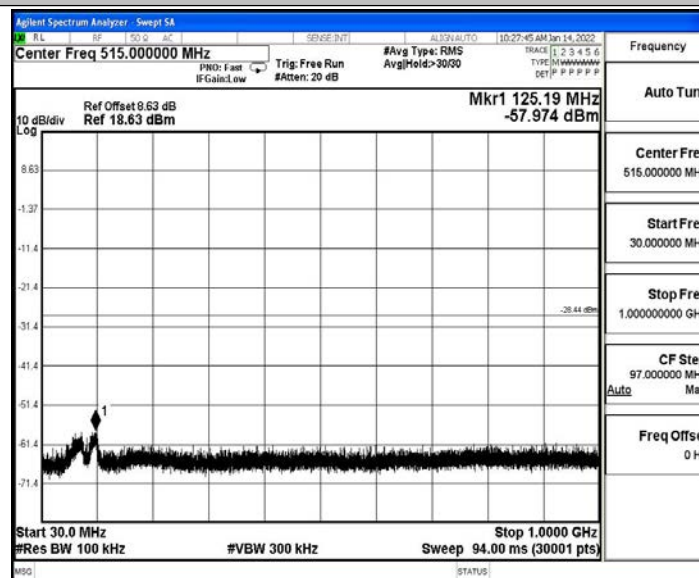




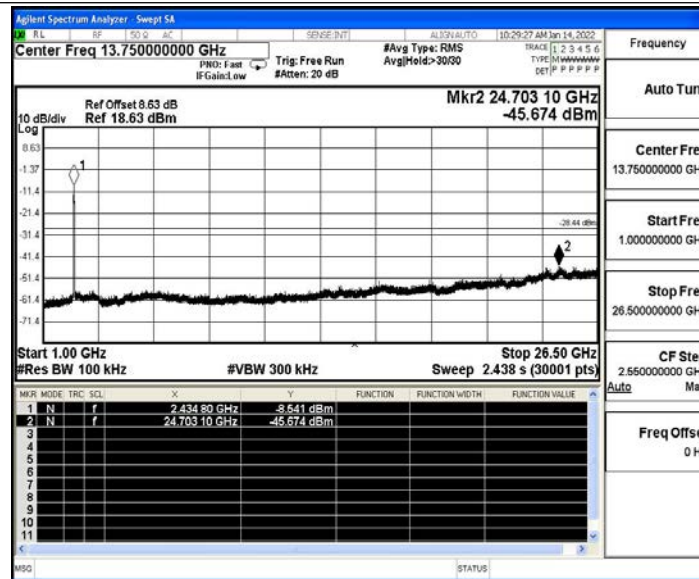
11N40SISO_Ant1_2437_0~Reference



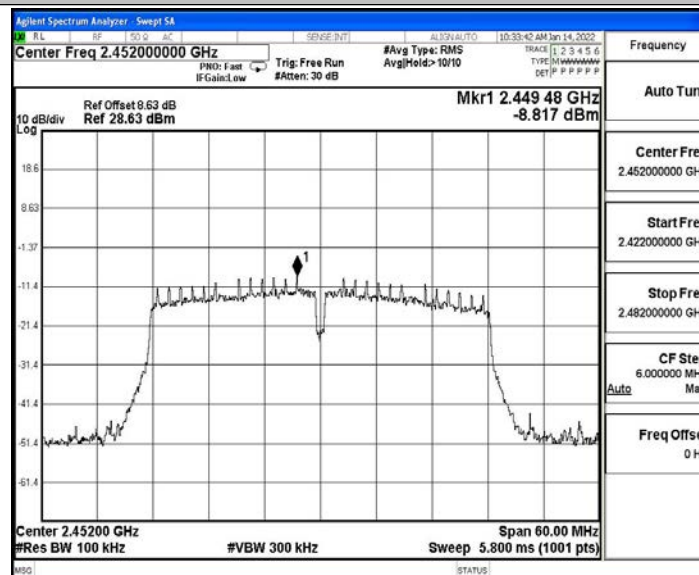
11N40SISO_Ant1_2437_30~1000



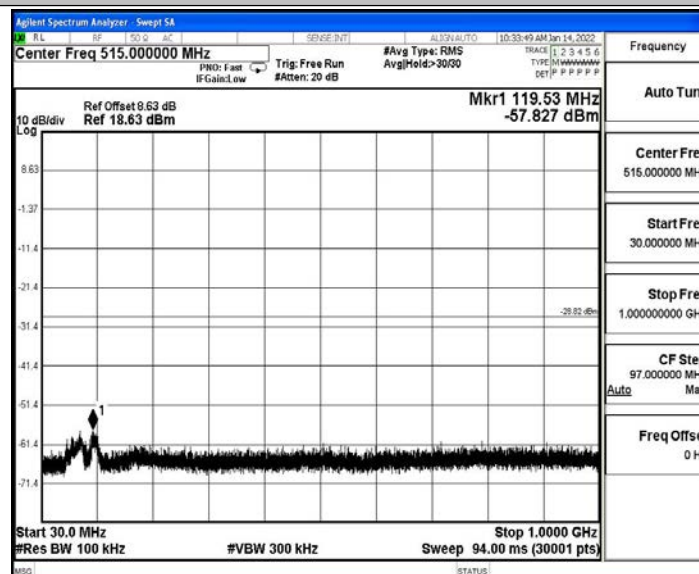
11N40SISO_Ant1_2437_1000~26500



11N40SISO_Ant1_2452_0~Reference

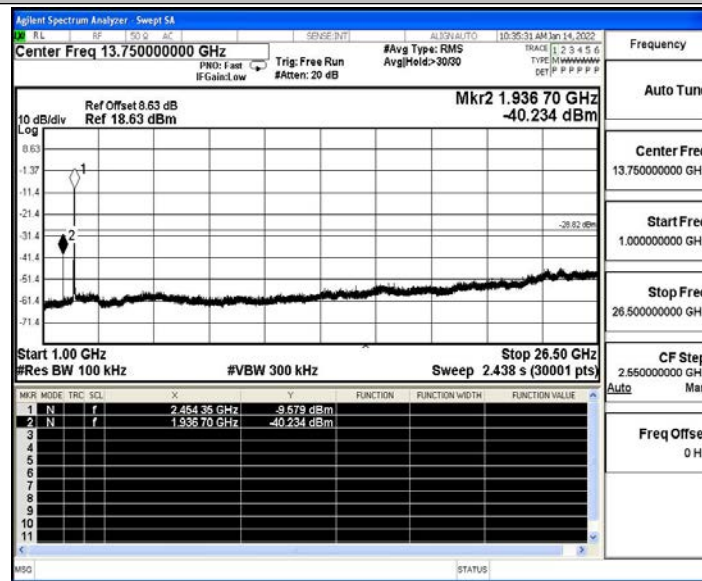


11N40SISO_Ant1_2452_30~1000





11N40SISO_Ant1_2452_1000~26500



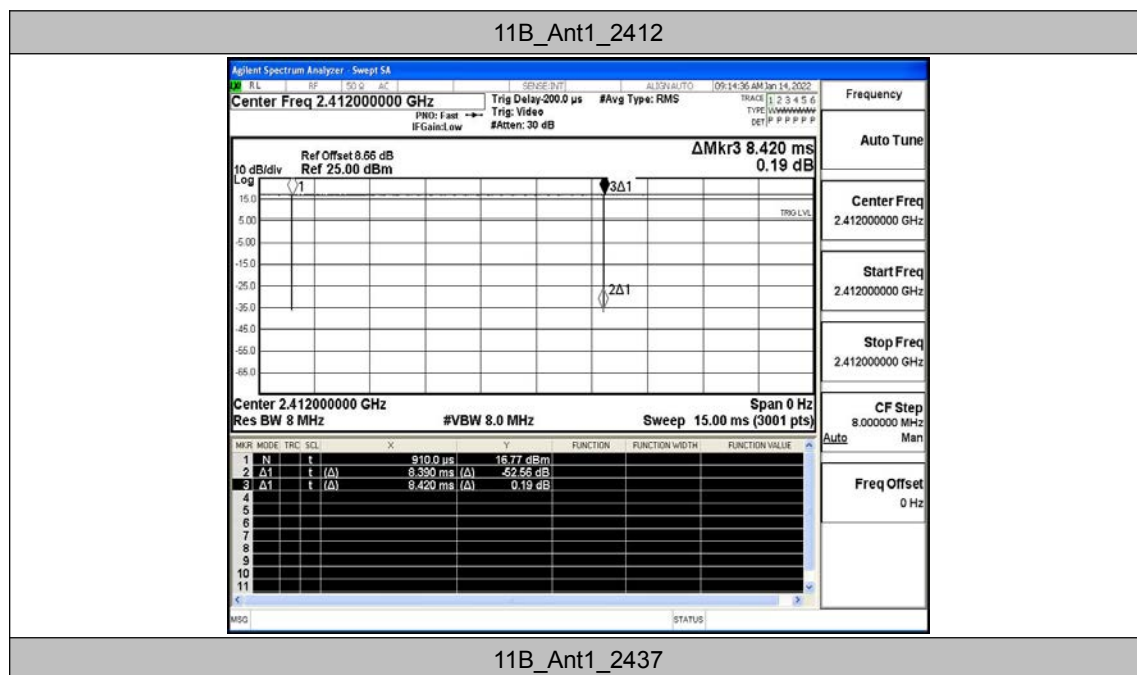


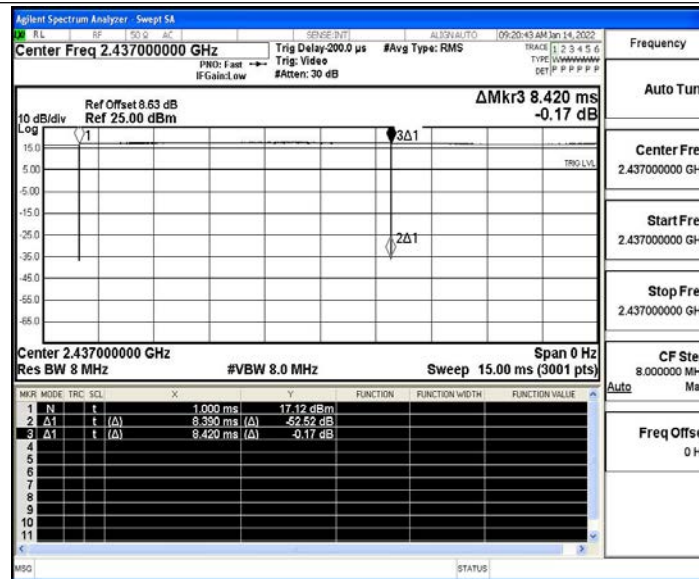
A.6 Duty Cycle

Test Result

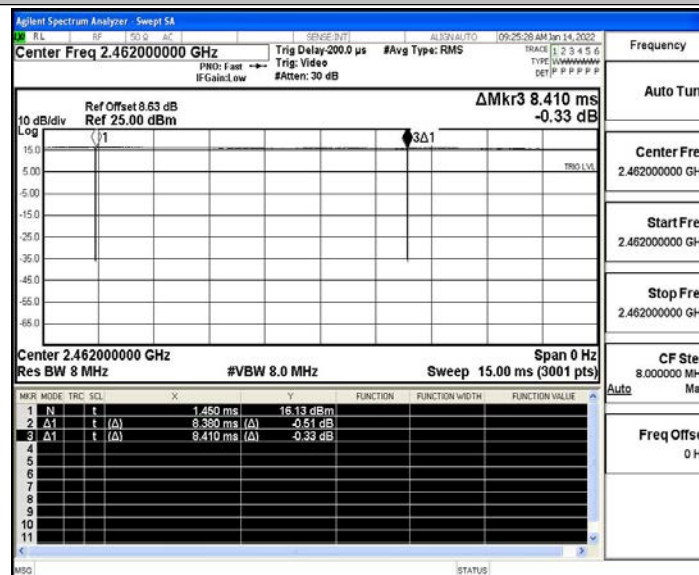
TestMode	Antenna	Channel	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]	1/T[KHz]
11B	Ant1	2412	8.39	8.42	99.64	---
		2437	8.39	8.42	99.64	---
		2462	8.38	8.41	99.64	---
11G	Ant1	2412	1.39	1.42	97.89	0.72
		2437	1.39	1.43	97.20	0.72
		2462	1.39	1.43	97.20	0.72
11N20SISO	Ant1	2412	1.30	1.33	97.74	0.77
		2437	1.30	1.34	97.01	0.77
		2462	1.30	1.33	97.74	0.77
11N40SISO	Ant1	2422	0.65	0.68	95.59	1.54
		2437	0.65	0.69	94.20	1.54
		2452	0.65	0.69	94.20	1.54

Test Graphs

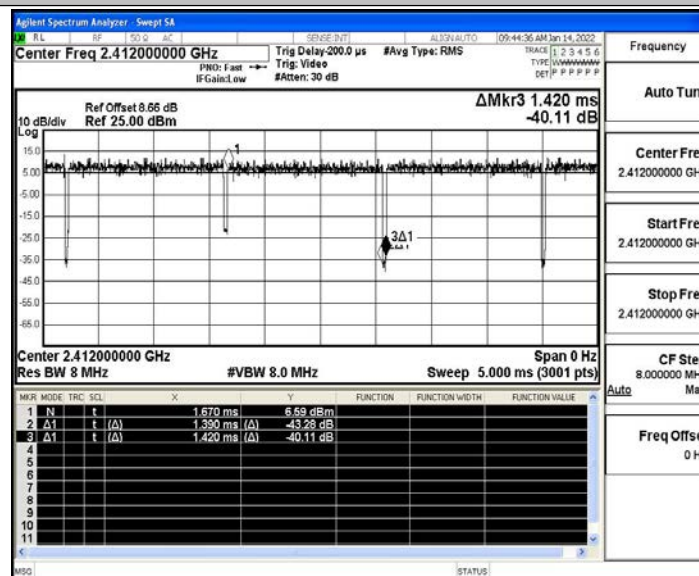




11B_Ant1_2462

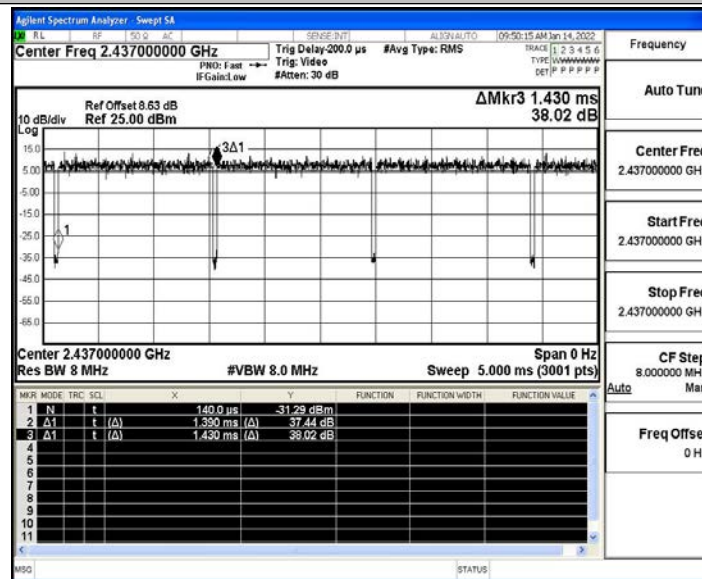


11G_Ant1_2412

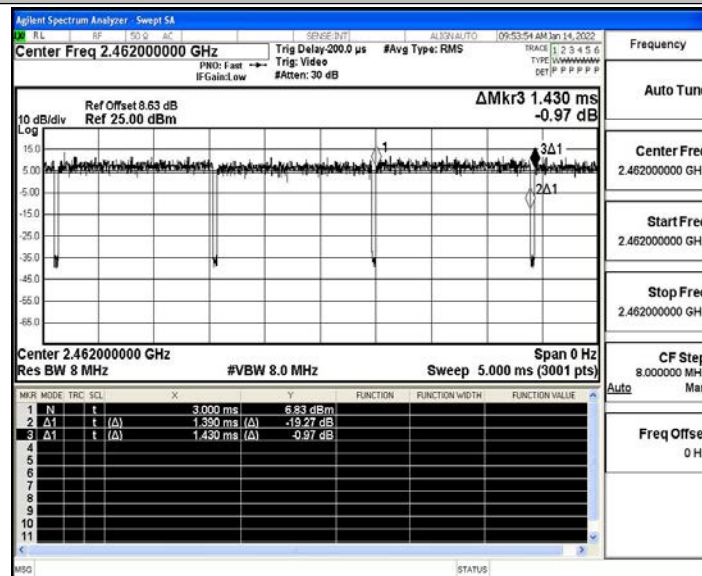




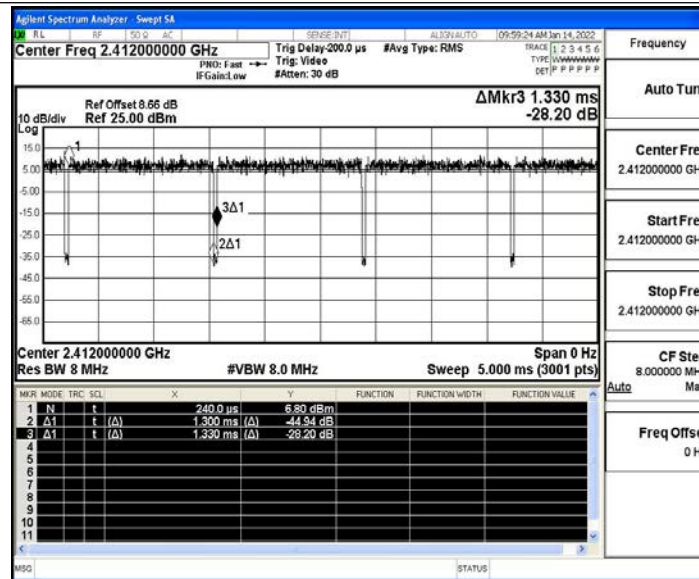
11G_Ant1_2437



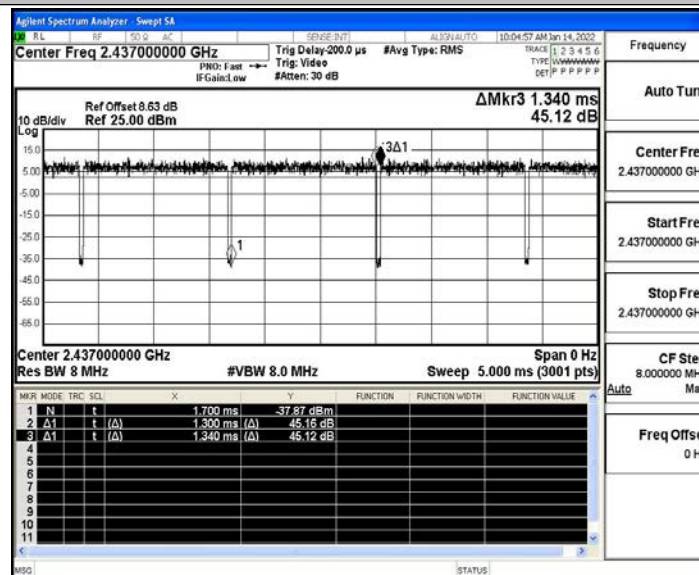
11G_Ant1_2462



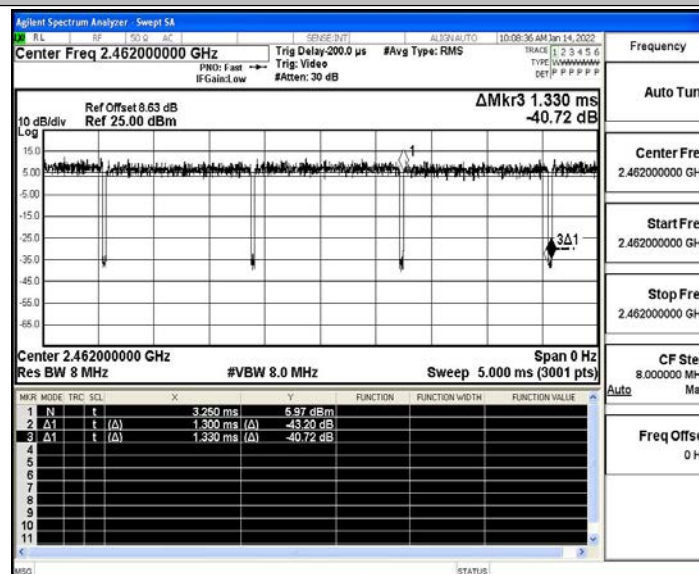
11N20SISO_Ant1_2412

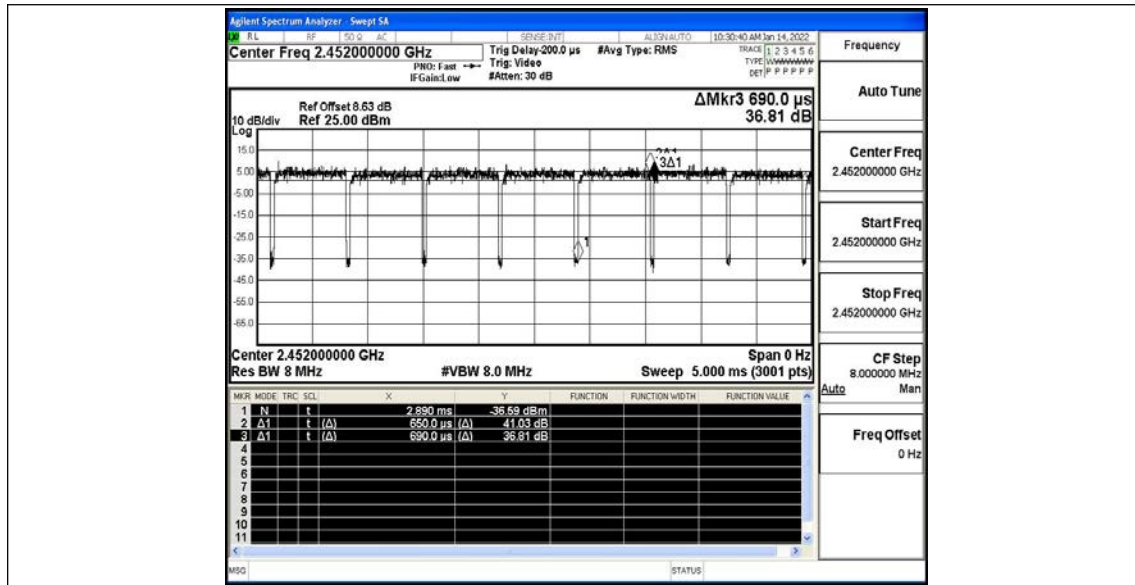


11N20SISO_Ant1_2437



11N20SISO_Ant1_2462







A.7 Emissions in Restricted Bands

Test Result

TestMode	Antenna	ChName	Channel	Detector	Freq. [MHz]	Result [dBm]	Limit [dBm]	Result [dBuV/m]	Limit [dBuV/m]	Verdict
11B	Ant1	Low	2412	AV	2310.000	-49.02	≤-41.20	46.18	≤54	PASS
				AV	2386.320	-48.11	≤-41.20	47.09	≤54	PASS
				AV	2390.000	-48.41	≤-41.20	46.79	≤54	PASS
				Peak	2310.000	-38.06	≤-21.20	57.14	≤74	PASS
				Peak	2365.650	-36.5	≤-21.20	58.70	≤74	PASS
				Peak	2390.000	-37.67	≤-21.20	57.53	≤74	PASS
		High	2462	AV	2483.500	-48.07	≤-41.20	47.13	≤54	PASS
				AV	2498.740	-47.89	≤-41.20	47.31	≤54	PASS
				AV	2500.000	-47.96	≤-41.20	47.24	≤54	PASS
				Peak	2483.500	-37.15	≤-21.20	58.05	≤74	PASS
				Peak	2495.990	-35.9	≤-21.20	59.30	≤74	PASS
				Peak	2500.000	-37.12	≤-21.20	58.08	≤74	PASS
11G	Ant1	Low	2412	AV	2310.000	-48.62	≤-41.20	46.58	≤54	PASS
				AV	2385.540	-47.78	≤-41.20	47.42	≤54	PASS
				AV	2390.000	-47.84	≤-41.20	47.36	≤54	PASS
				Peak	2310.000	-38.49	≤-21.20	56.71	≤74	PASS
				Peak	2389.180	-36.26	≤-21.20	58.94	≤74	PASS
				Peak	2390.000	-37.7	≤-21.20	57.50	≤74	PASS
		High	2462	AV	2483.500	-47.67	≤-41.20	47.53	≤54	PASS
				AV	2498.080	-47.39	≤-41.20	47.81	≤54	PASS
				AV	2500.000	-47.5	≤-41.20	47.70	≤54	PASS
				Peak	2483.500	-36.58	≤-21.20	58.62	≤74	PASS
				Peak	2483.670	-35.86	≤-21.20	59.34	≤74	PASS
				Peak	2500.000	-36.79	≤-21.20	58.41	≤74	PASS
11N20SIS O	Ant1	Low	2412	AV	2310.000	-48.56	≤-41.20	46.64	≤54	PASS
				AV	2385.670	-47.67	≤-41.20	47.53	≤54	PASS
				AV	2390.000	-47.87	≤-41.20	47.33	≤54	PASS
				Peak	2310.000	-37.84	≤-21.20	57.36	≤74	PASS
				Peak	2372.020	-36.69	≤-21.20	58.51	≤74	PASS
				Peak	2390.000	-37.38	≤-21.20	57.82	≤74	PASS
		High	2462	AV	2483.500	-47.58	≤-41.20	47.62	≤54	PASS
				AV	2484.550	-47.32	≤-41.20	47.88	≤54	PASS
				AV	2500.000	-47.49	≤-41.20	47.71	≤54	PASS
				Peak	2483.500	-37.65	≤-21.20	57.55	≤74	PASS
				Peak	2487.300	-35.97	≤-21.20	59.23	≤74	PASS
				Peak	2500.000	-36.59	≤-21.20	58.61	≤74	PASS
11N40SIS	Ant1	Low	2422	AV	2310.000	-48.27	≤-41.20	46.93	≤54	PASS



O				AV	2386.190	-47.14	≤ -41.20	48.06	≤ 54	PASS
				AV	2390.000	-47.49	≤ -41.20	47.71	≤ 54	PASS
				Peak	2310.000	-38.72	≤ -21.20	56.48	≤ 74	PASS
				Peak	2384.630	-36.21	≤ -21.20	58.99	≤ 74	PASS
				Peak	2390.000	-37.15	≤ -21.20	58.05	≤ 74	PASS
		High	2452	AV	2483.500	-46.93	≤ -41.20	48.27	≤ 54	PASS
				AV	2483.890	-46.74	≤ -41.20	48.46	≤ 54	PASS
				AV	2500.000	-47.36	≤ -41.20	47.84	≤ 54	PASS
				Peak	2483.500	-37.43	≤ -21.20	57.77	≤ 74	PASS
				Peak	2498.080	-35.83	≤ -21.20	59.37	≤ 74	PASS
				Peak	2500.000	-36.27	≤ -21.20	58.93	≤ 74	PASS

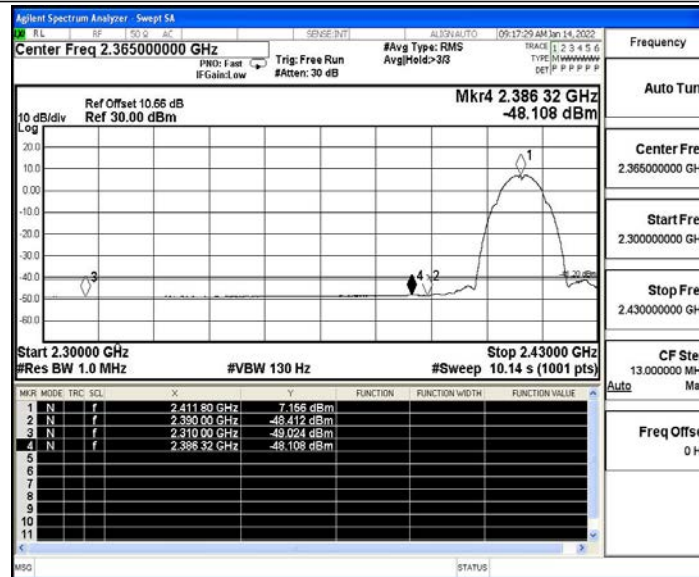
Note:

1. The Antenna Gain is compensated in the graph.
2. 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.

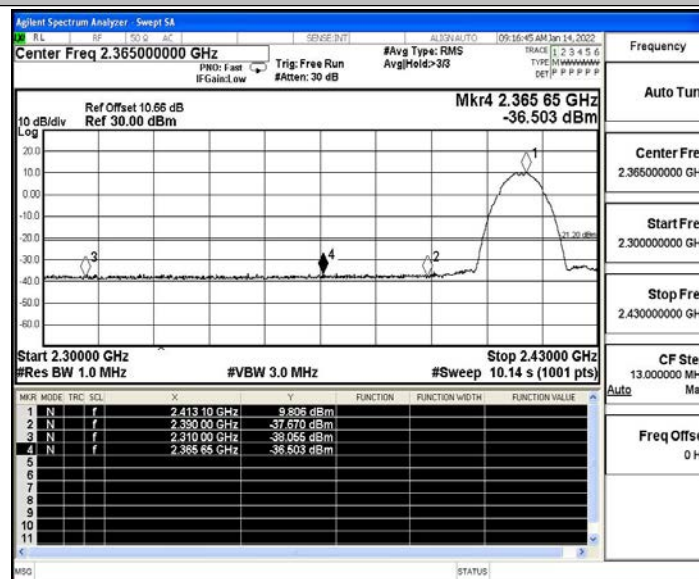


Test Graphs

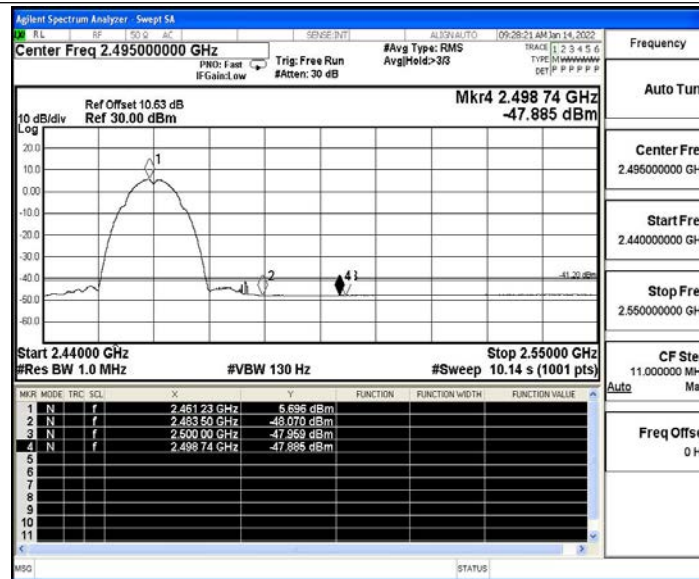
11B_Ant1_Low_2412_AV



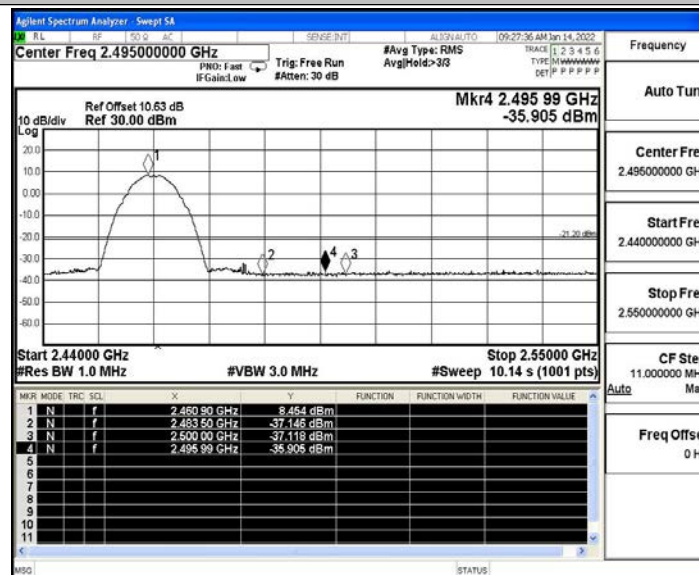
11B_Ant1_Low_2412_Peak



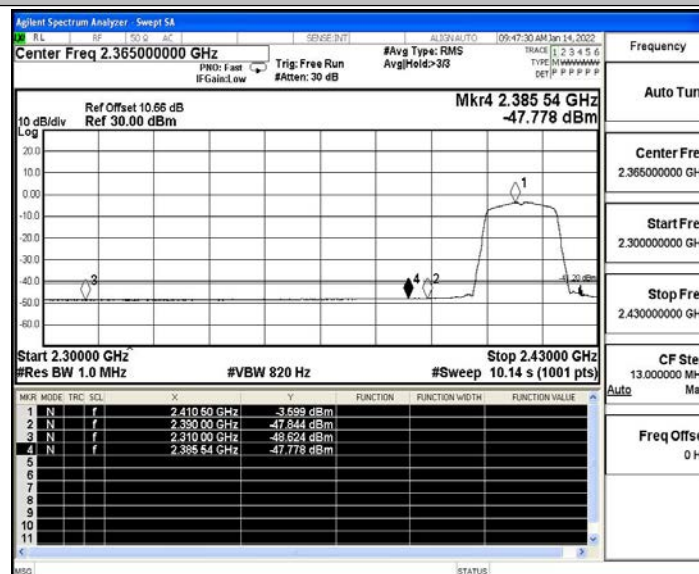
11B_Ant1_High_2462_AV



11B_Ant1_High_2462_Peak

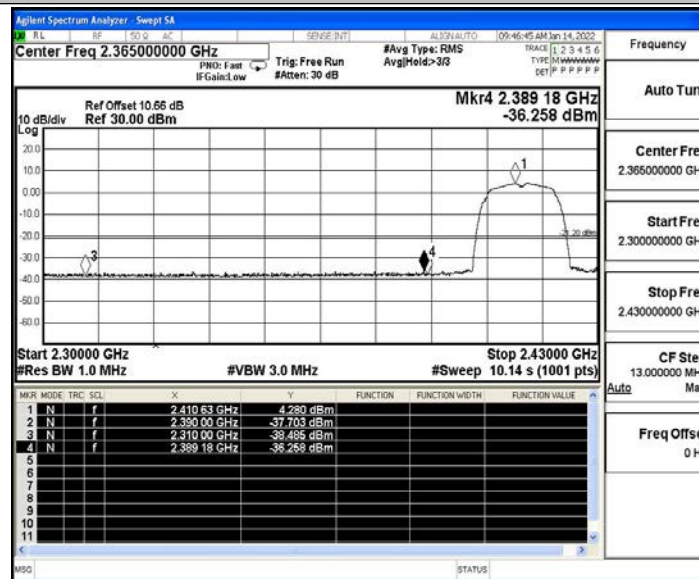


11G_Ant1_Low_2412_AV

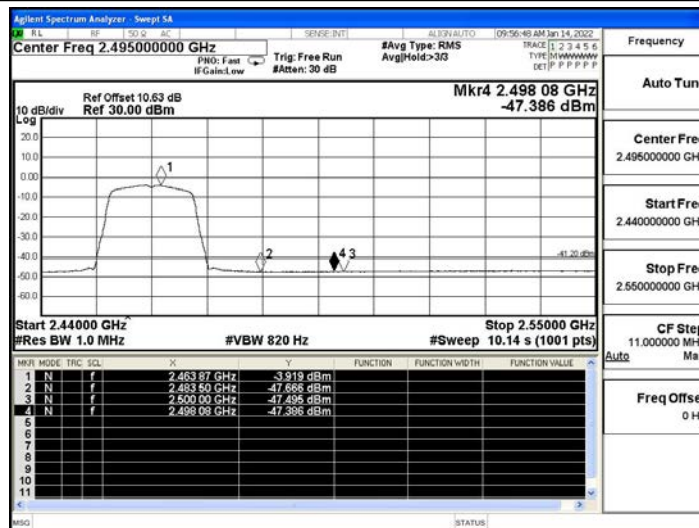




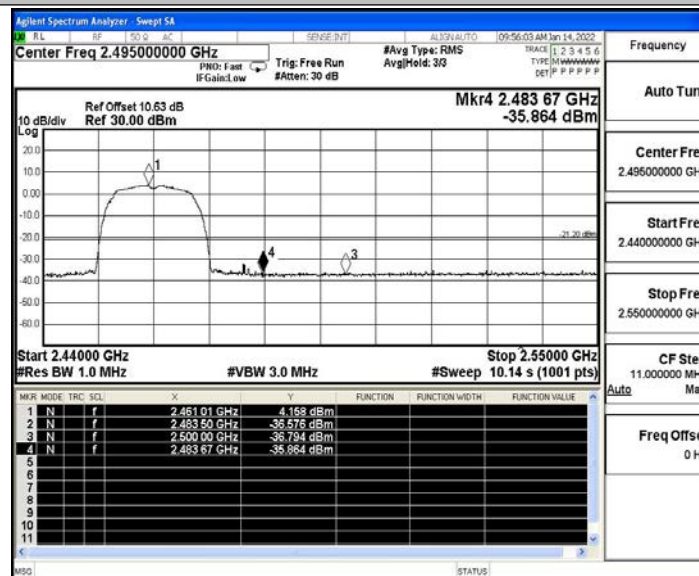
11G_Ant1_Low_2412_Peak



11G_Ant1_High_2462_AV

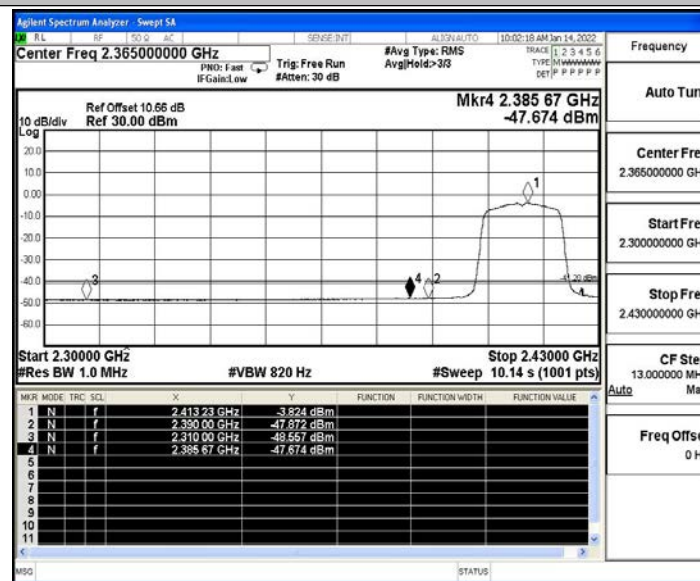


11G_Ant1_High_2462_Peak

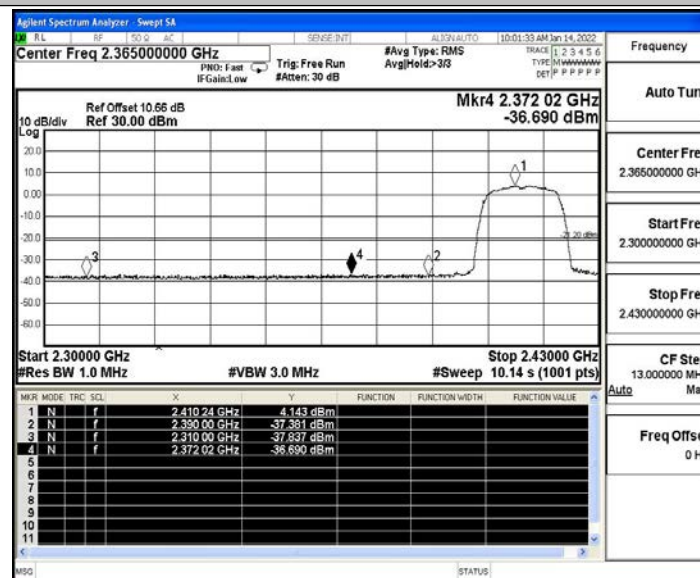




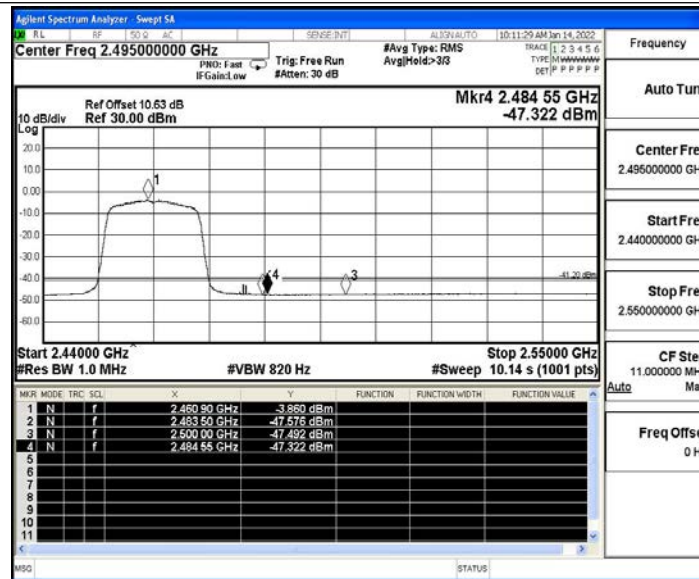
11N20SISO_Ant1_Low_2412_AV



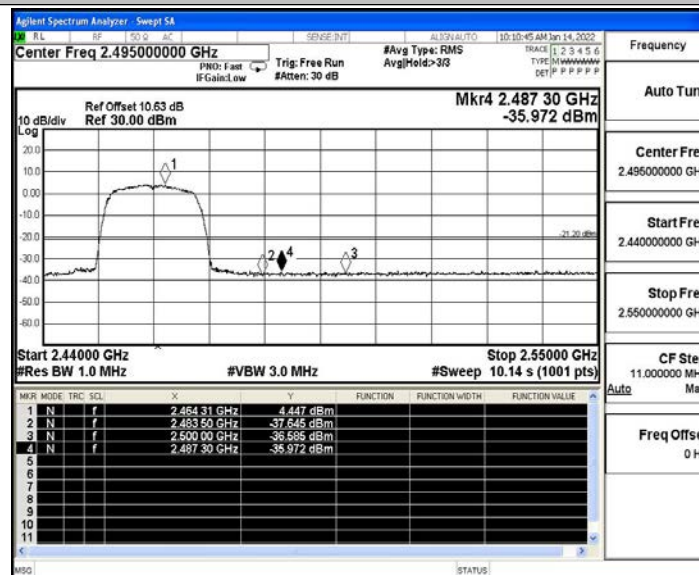
11N20SISO_Ant1_Low_2412_Peak



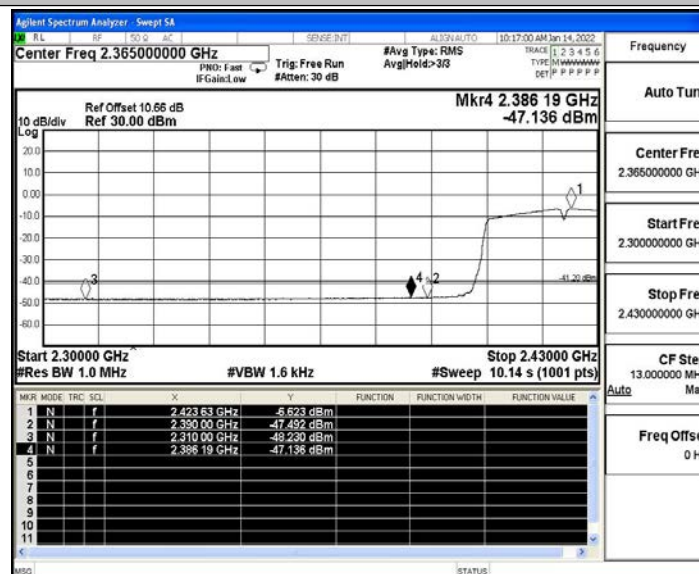
11N20SISO_Ant1_High_2462_AV



11N20SISO_Ant1_High_2462_Peak

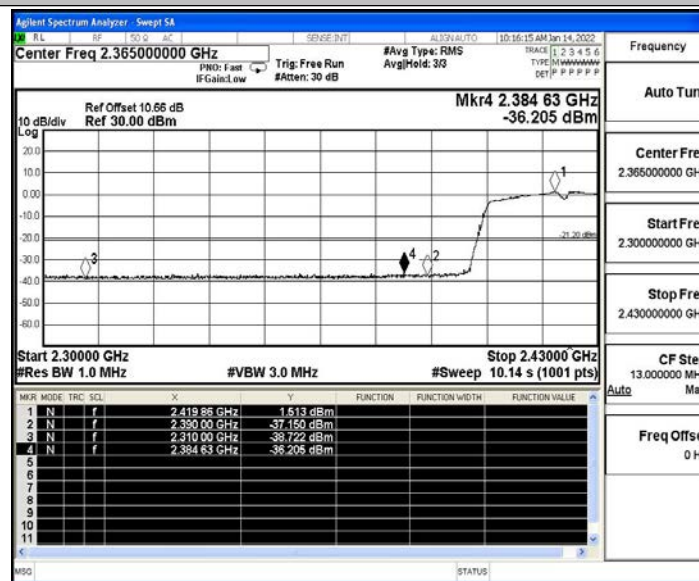


11N40SISO_Ant1_Low_2422_AV

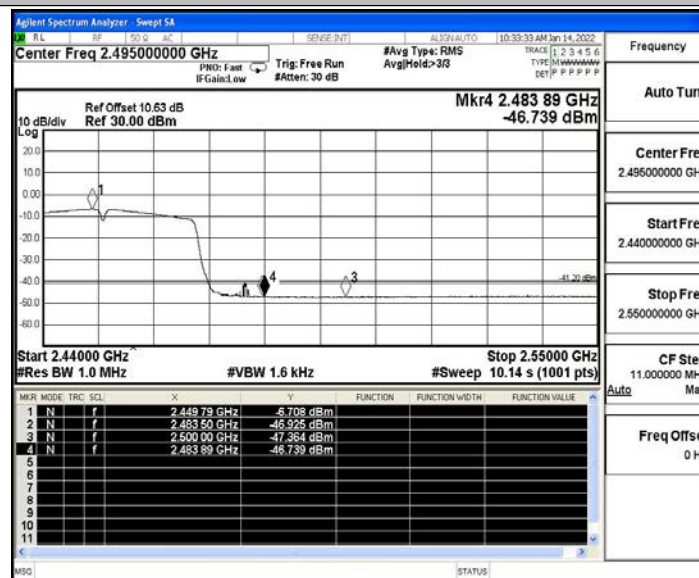




11N40SISO_Ant1_Low_2422_Peak



11N40SISO_Ant1_High_2452_AV



11N40SISO_Ant1_High_2452_Peak

