



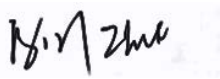
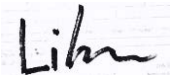
Appendix A

RF Test Data for 2.4G WIFI (Conducted Measurement)

Product Name: Petcube Cam

Test Model: CC10US

Environmental Conditions

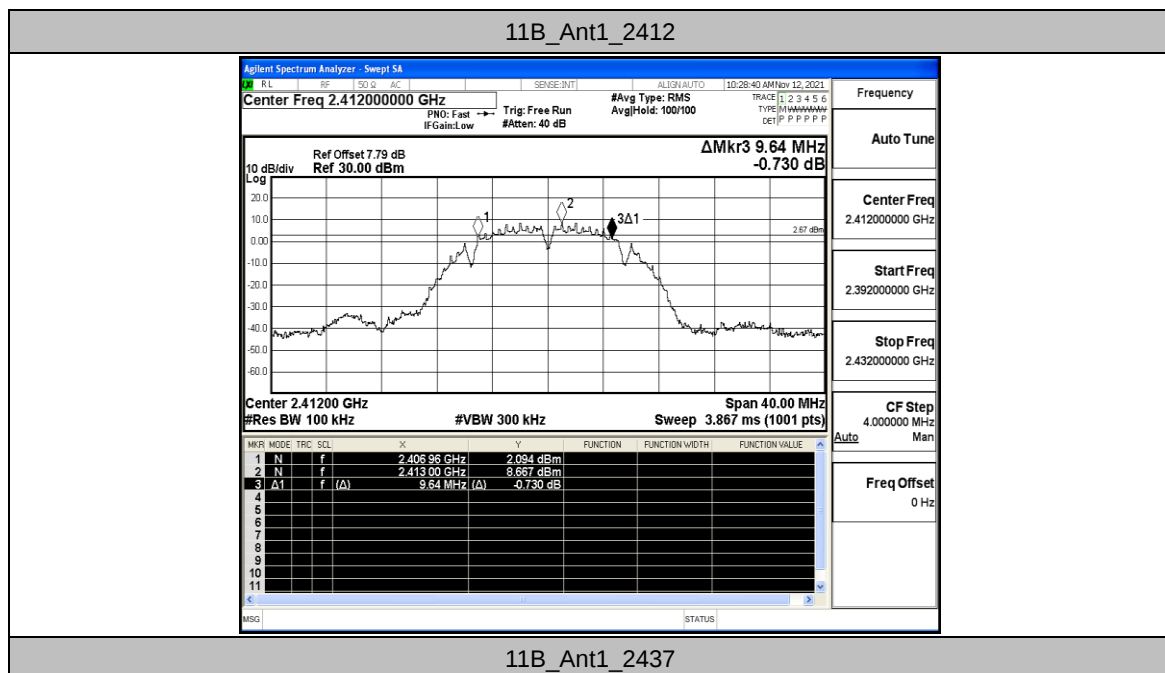
Temperature:	21.1° C
Relative Humidity:	52.2%
ATM Pressure:	100.0 kPa
Test Engineer:	
Supervised by:	

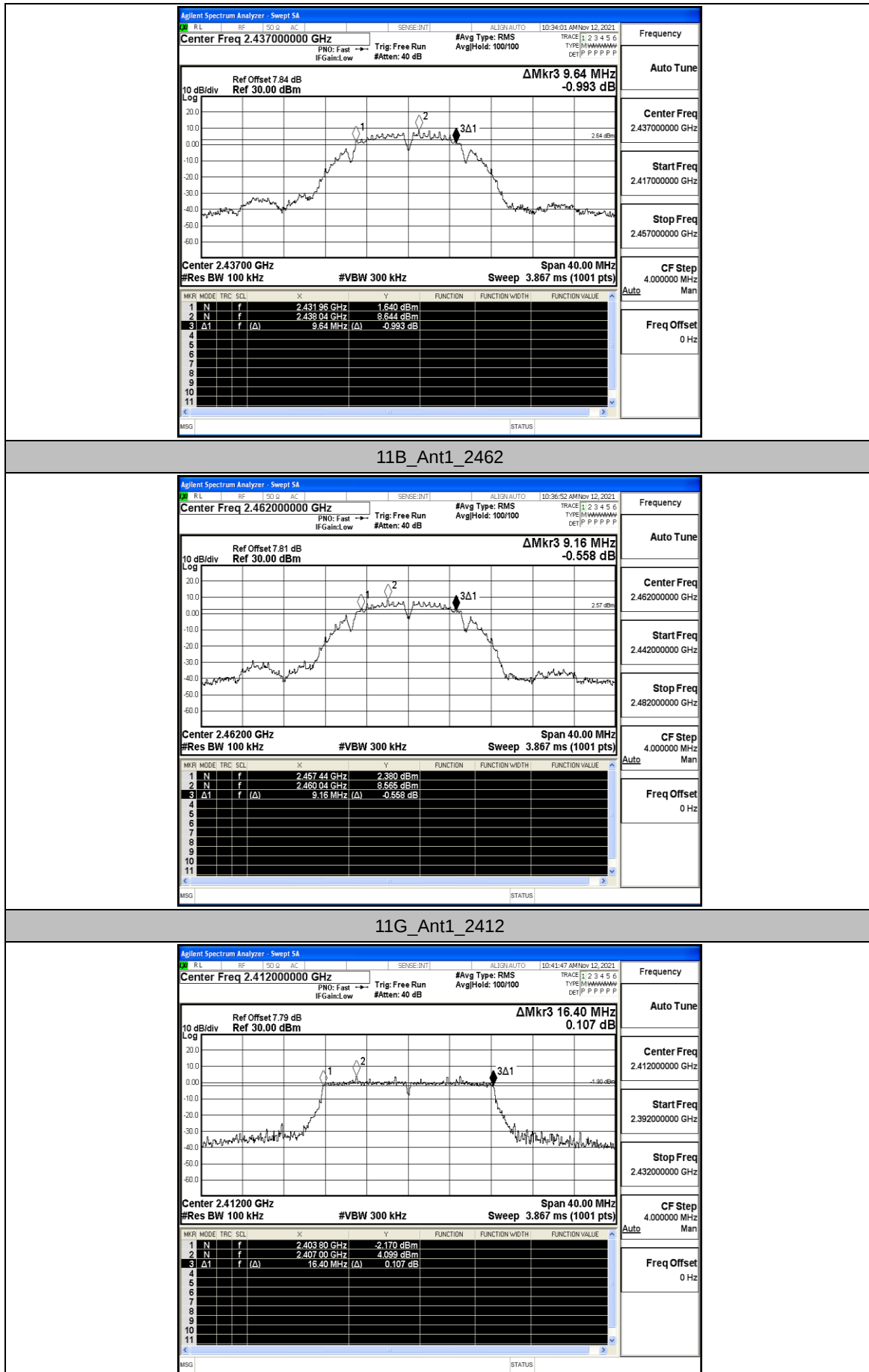
A.1 6dB Bandwidth

Test Result

TestMode	Antenna	Channel	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	9.640	2406.960	2416.600	0.5	PASS
		2437	9.640	2431.960	2441.600	0.5	PASS
		2462	9.160	2457.440	2466.600	0.5	PASS
11G	Ant1	2412	16.400	2403.800	2420.200	0.5	PASS
		2437	16.440	2428.800	2445.240	0.5	PASS
		2462	16.400	2453.800	2470.200	0.5	PASS
11N20SISO	Ant1	2412	17.400	2403.200	2420.600	0.5	PASS
		2437	17.680	2428.160	2445.840	0.5	PASS
		2462	17.600	2453.200	2470.800	0.5	PASS

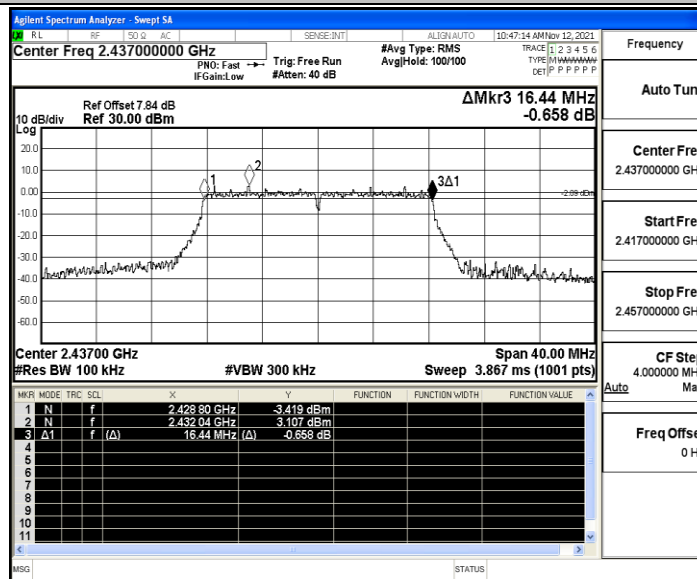
Test Graphs



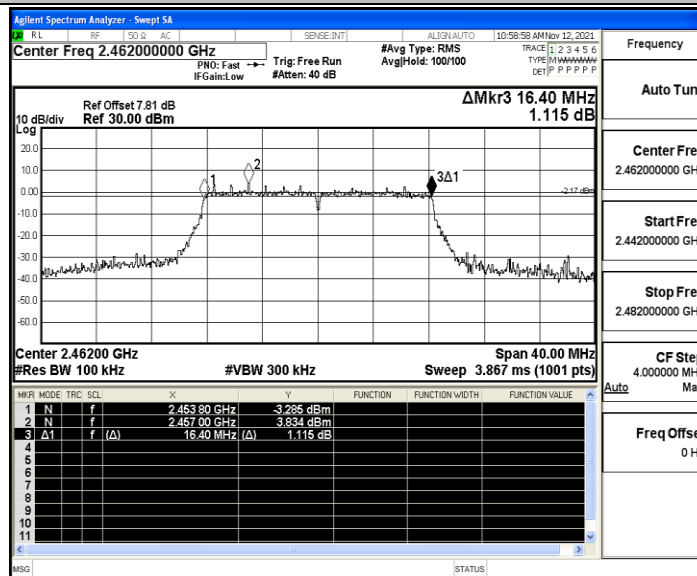




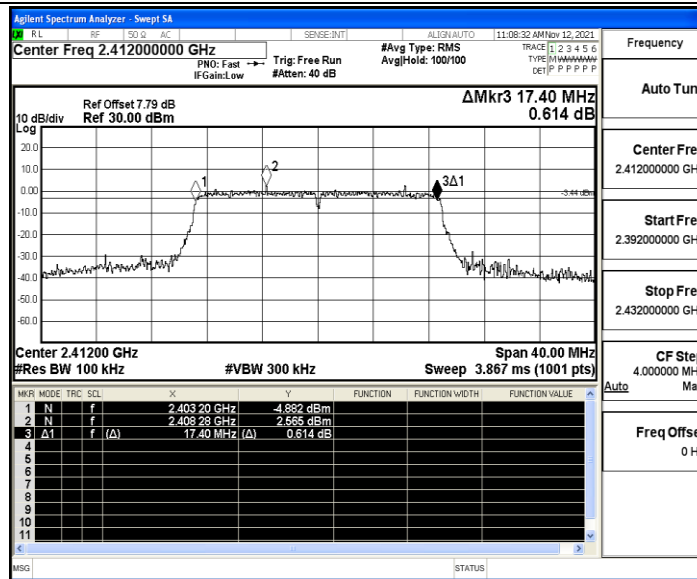
11G_Ant1_2437



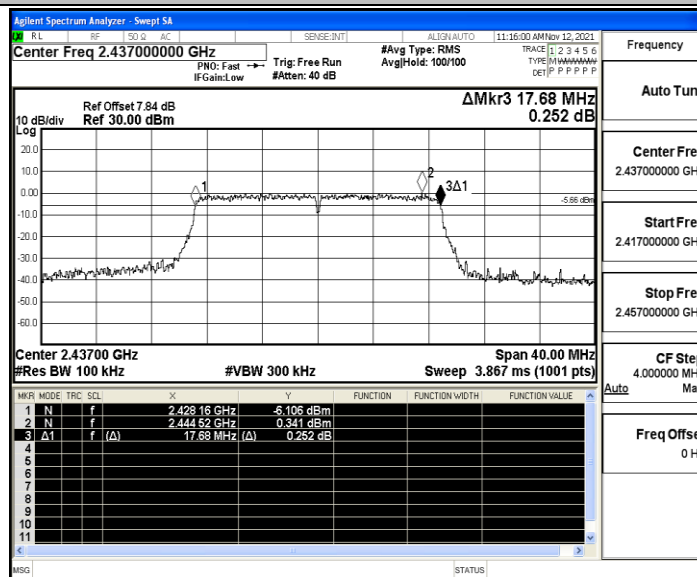
11G_Ant1_2462



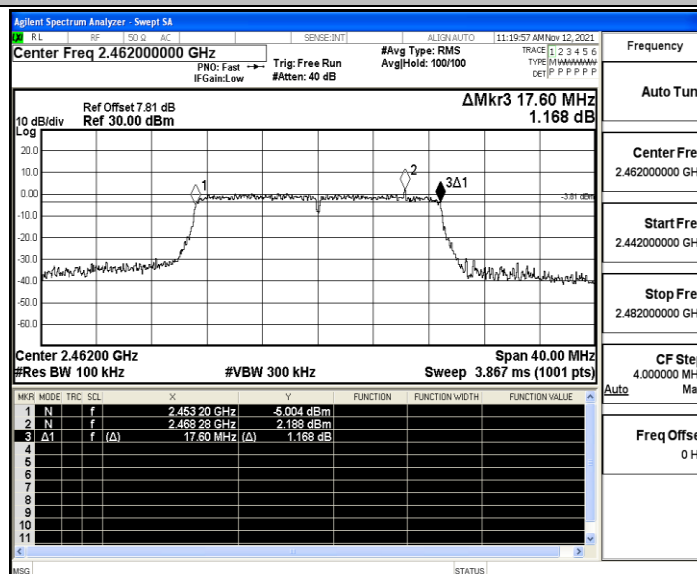
11N20SISO_Ant1_2412



11N20SISO_Ant1_2437



11N20SISO_Ant1_2462



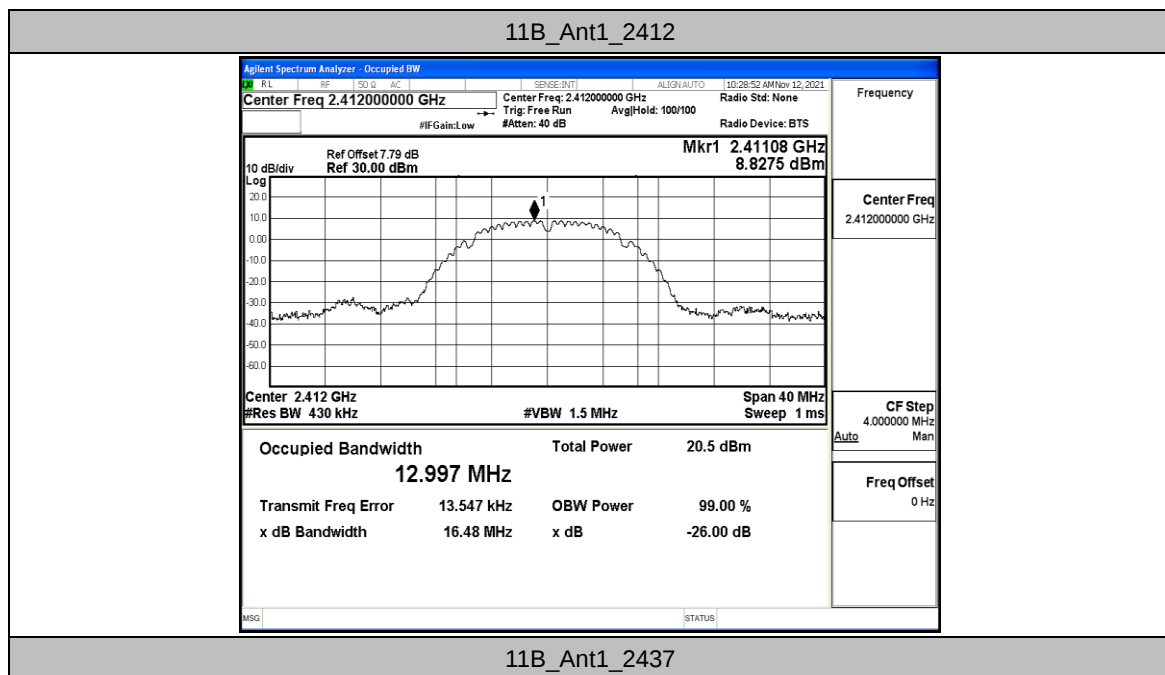


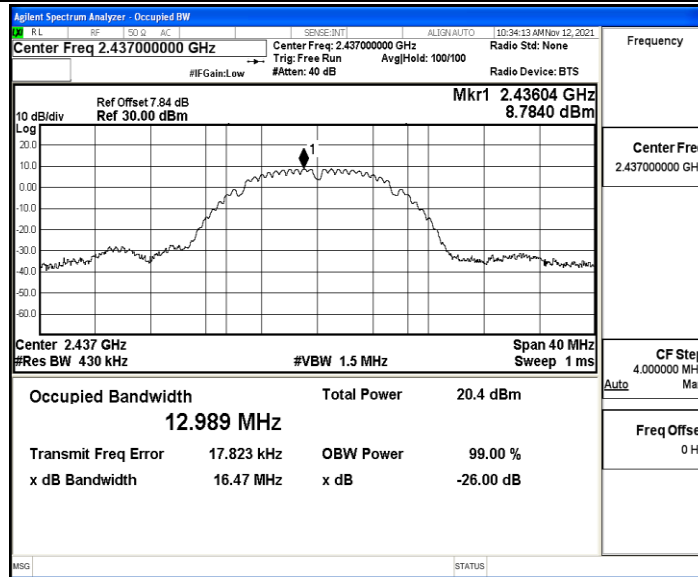
A.2 Occupied Channel Bandwidth

Test Result

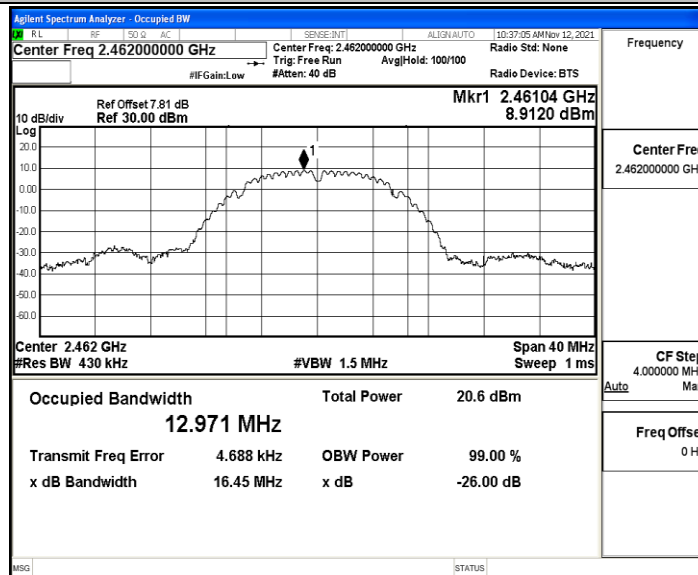
TestMode	Antenna	Channel	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	12.997	2405.515	2418.512	---	PASS
		2437	12.989	2430.523	2443.512	---	PASS
		2462	12.971	2455.519	2468.490	---	PASS
11G	Ant1	2412	16.874	2403.545	2420.419	---	PASS
		2437	16.864	2428.558	2445.422	---	PASS
		2462	16.911	2453.544	2470.455	---	PASS
11N20SISO	Ant1	2412	17.730	2403.162	2420.892	---	PASS
		2437	17.662	2428.177	2445.839	---	PASS
		2462	17.668	2453.184	2470.852	---	PASS

Test Graphs

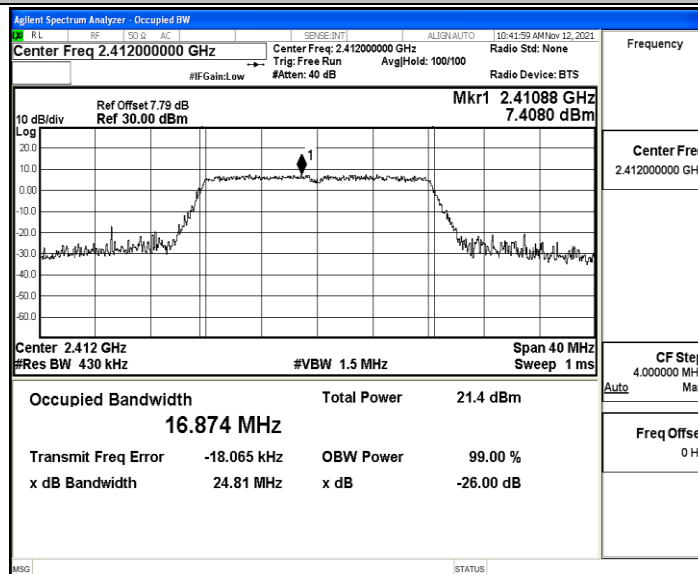




11B_Ant1_2462

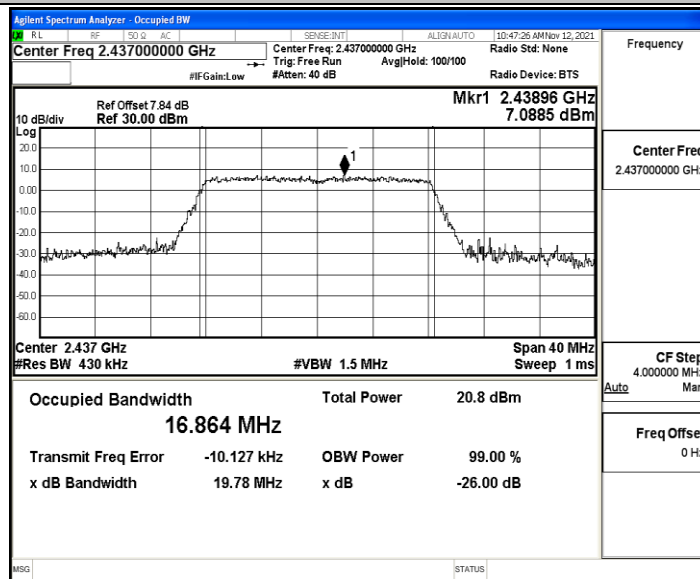


11G_Ant1_2412

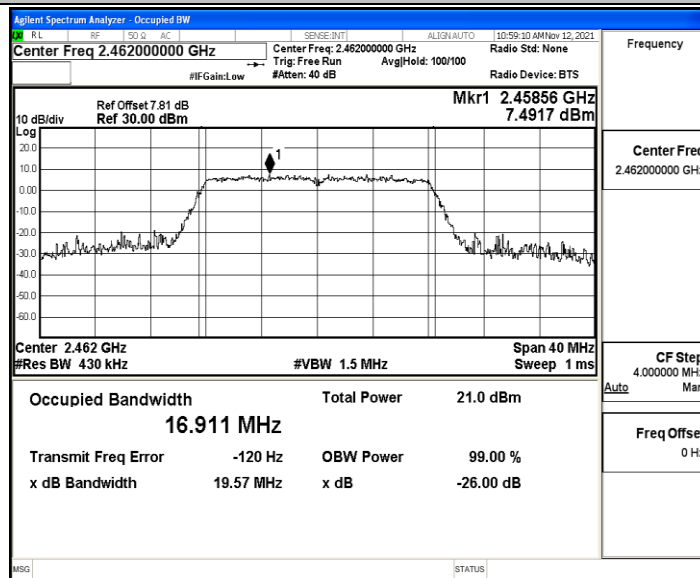




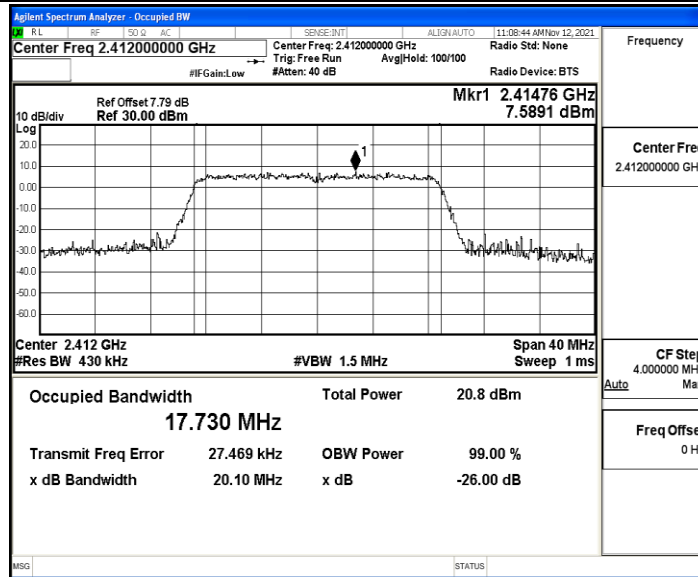
11G_Ant1_2437



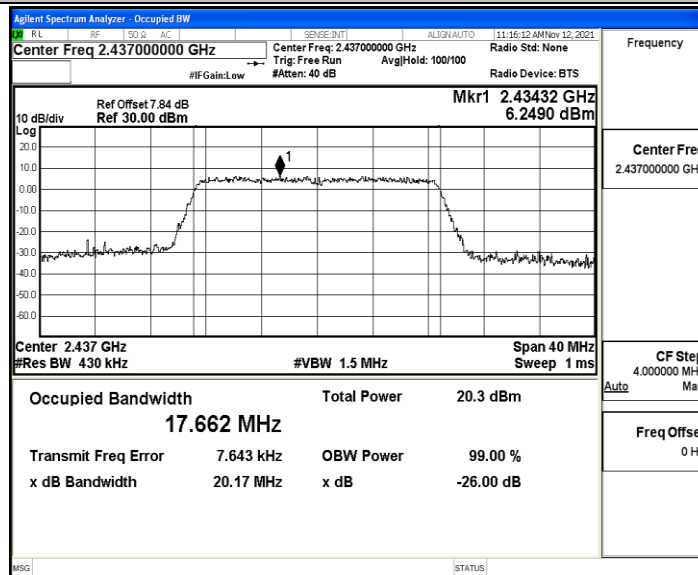
11G_Ant1_2462



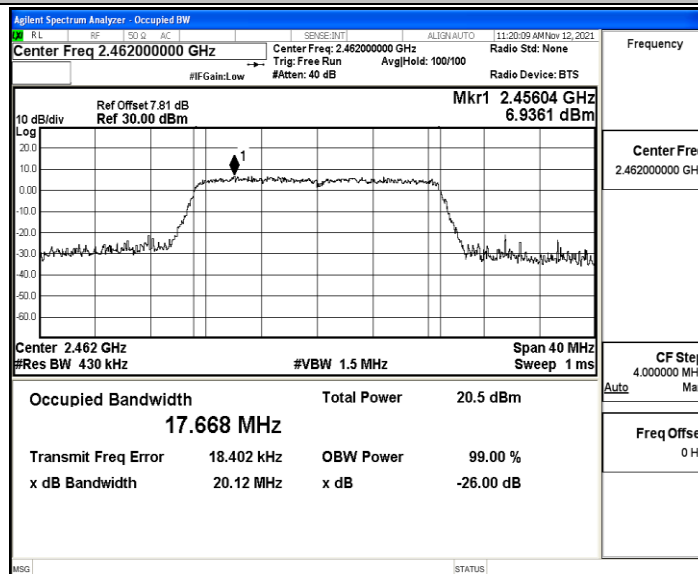
11N20SISO_Ant1_2412



11N20SISO_Ant1_2437



11N20SISO_Ant1_2462





A.3 Maximum conducted output power

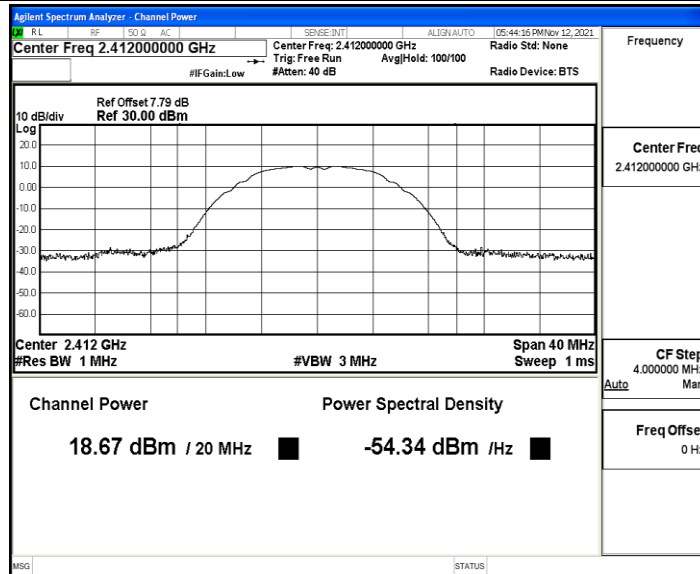
Test Result

TestMode	Antenna	Channel	Result[dBm]	Duty Cycle Factor(dB)	Report Conducted Power(dBm)	Limit[dBm]	Verdict
11B	Ant1	2412	18.67	0	18.67	≤30	PASS
		2437	18.64	0	18.64	≤30	PASS
		2462	18.29	0	18.29	≤30	PASS
11G	Ant1	2412	18.21	0.13	18.34	≤30	PASS
		2437	17.68	0.16	17.84	≤30	PASS
		2462	17.96	0.13	18.09	≤30	PASS
11N20SISO	Ant1	2412	17.48	0	17.48	≤30	PASS
		2437	17.14	0	17.14	≤30	PASS
		2462	17.32	0	17.32	≤30	PASS

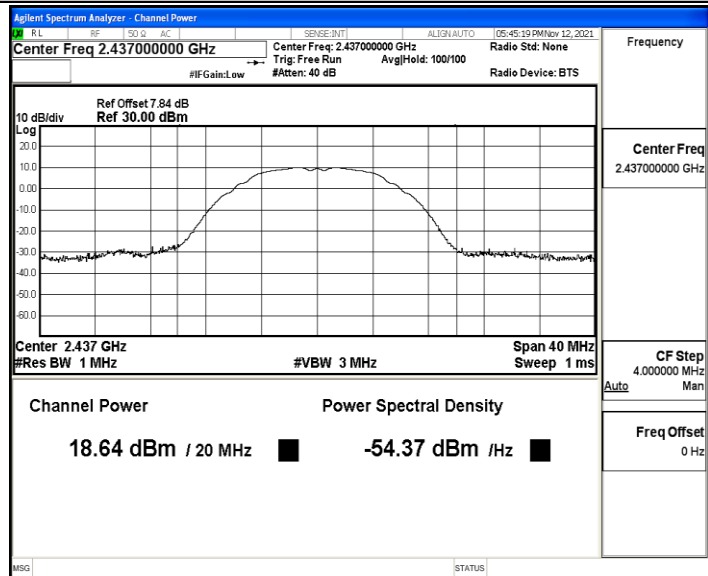


Test Graphs

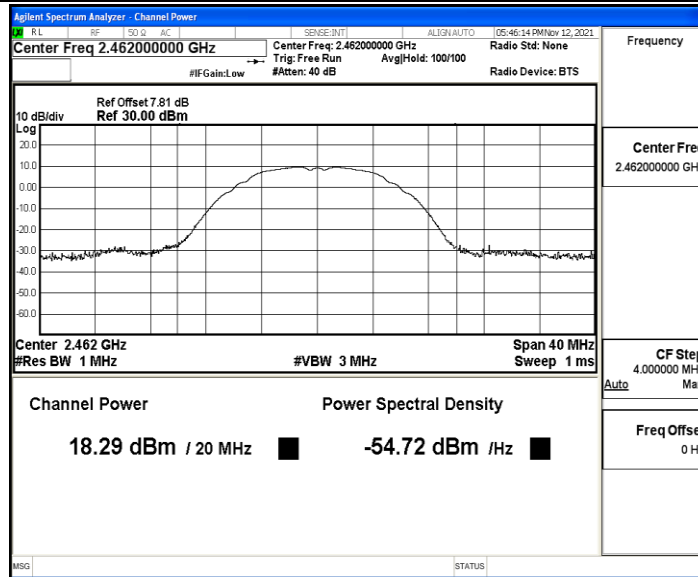
11B_Ant1_2412



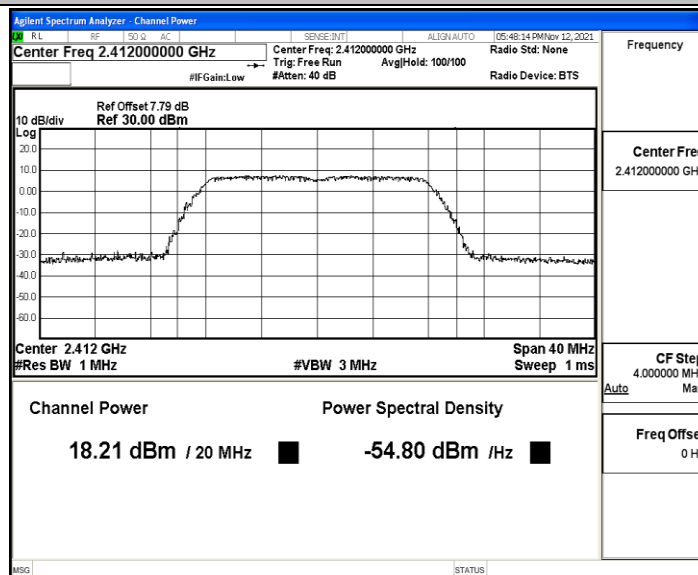
11B_Ant1_2437



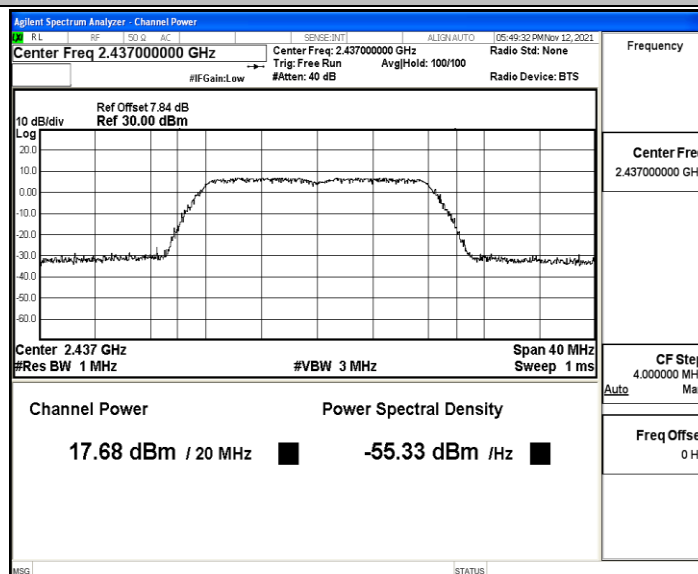
11B_Ant1_2462



11G_Ant1_2412

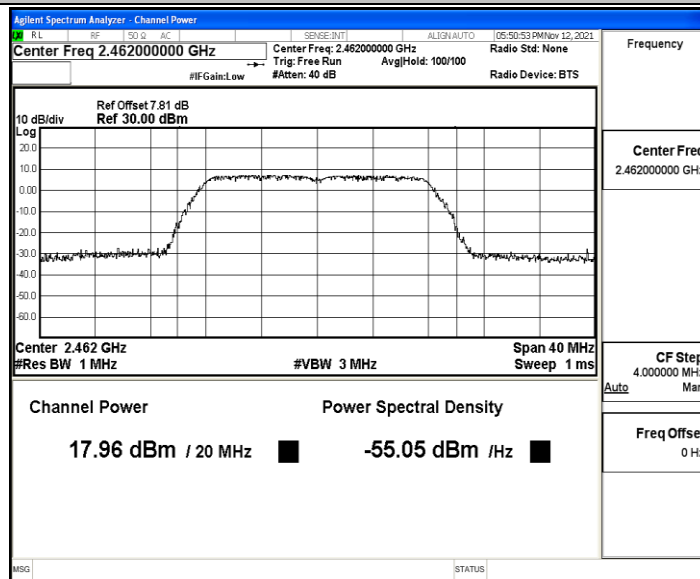


11G_Ant1_2437

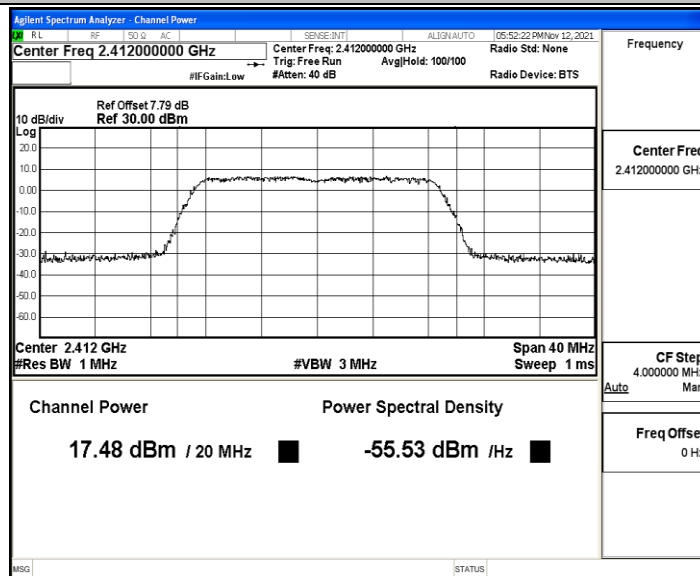




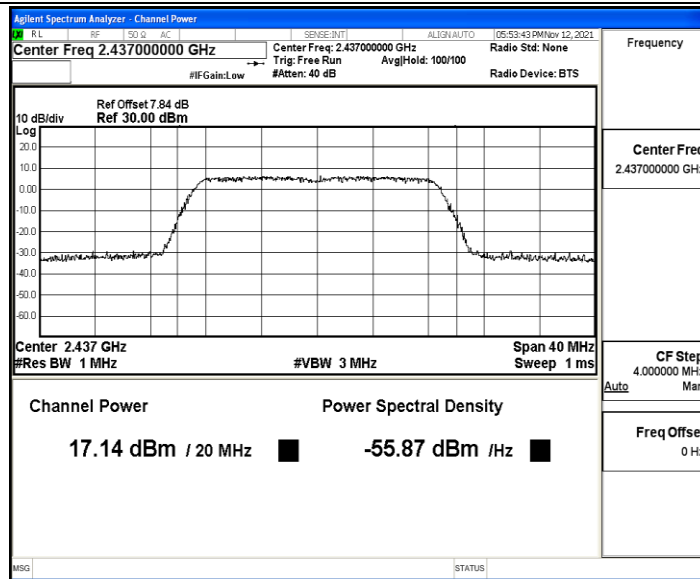
11G_Ant1_2462



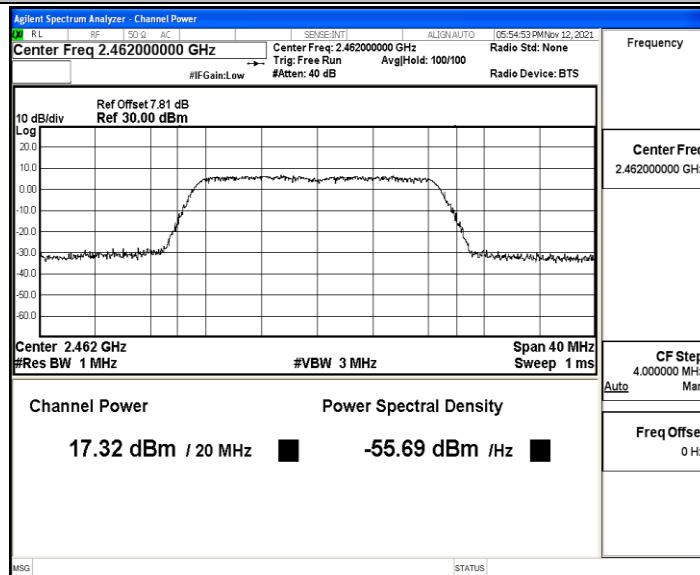
11N20SISO_Ant1_2412



11N20SISO_Ant1_2437



11N20SISO_Ant1_2462





A.4 Maximum power spectral density

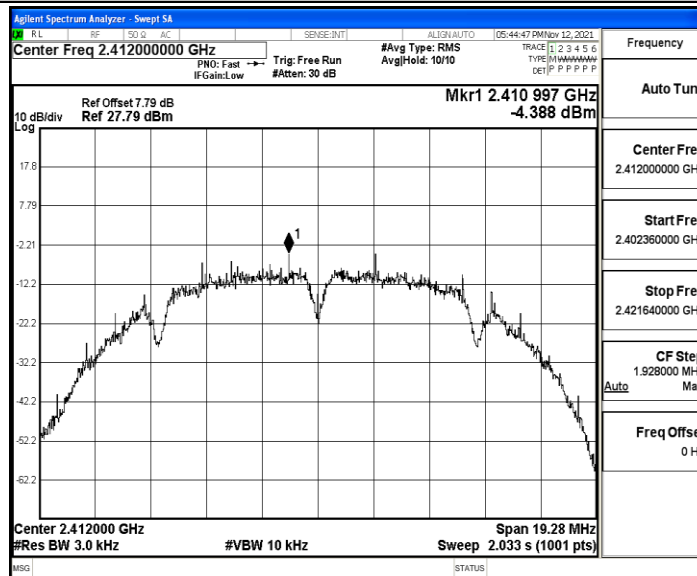
Test Result

TestMode	Antenna	Channel	Result[dBm/ 3kHz]	Duty Cycle Factor(dB)	Report Result[dBm/3kHz]	Limit[dBm/ 3kHz]	Verdict
11B	Ant1	2412	-4.39	0	-4.39	≤8	PASS
		2437	-5.75	0	-5.75	≤8	PASS
		2462	-5.14	0	-5.14	≤8	PASS
11G	Ant1	2412	-12.95	0.13	-12.82	≤8	PASS
		2437	-14.31	0.16	-14.15	≤8	PASS
		2462	-13.38	0.13	-13.25	≤8	PASS
11N20SISO	Ant1	2412	-15.54	0	-15.54	≤8	PASS
		2437	-15.51	0	-15.51	≤8	PASS
		2462	-14.53	0	-14.53	≤8	PASS

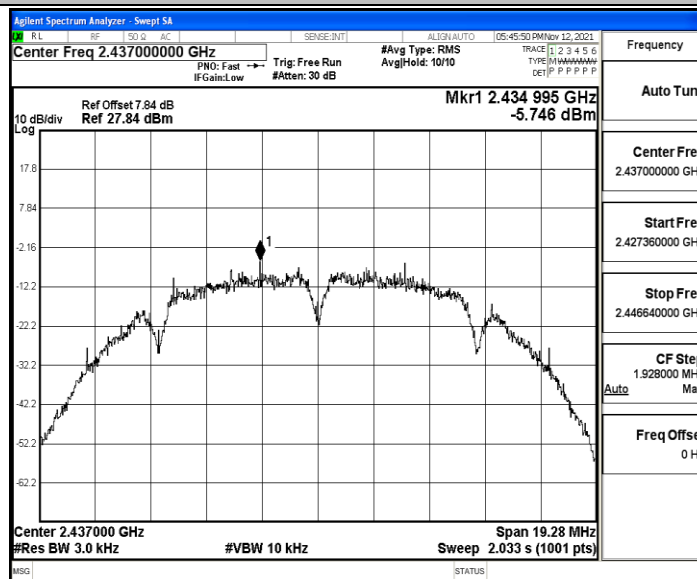


Test Graphs

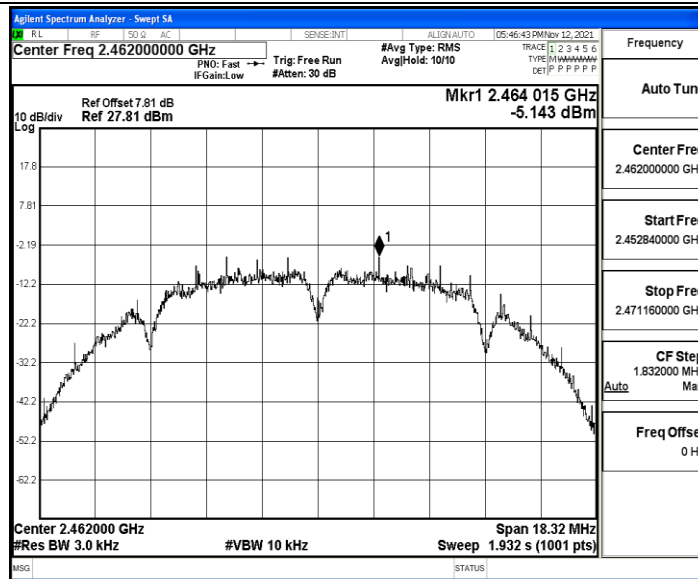
11B_Ant1_2412



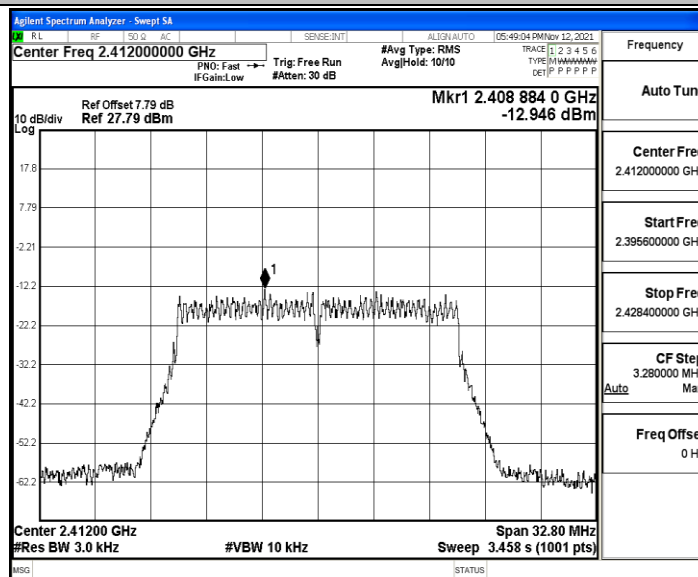
11B_Ant1_2437



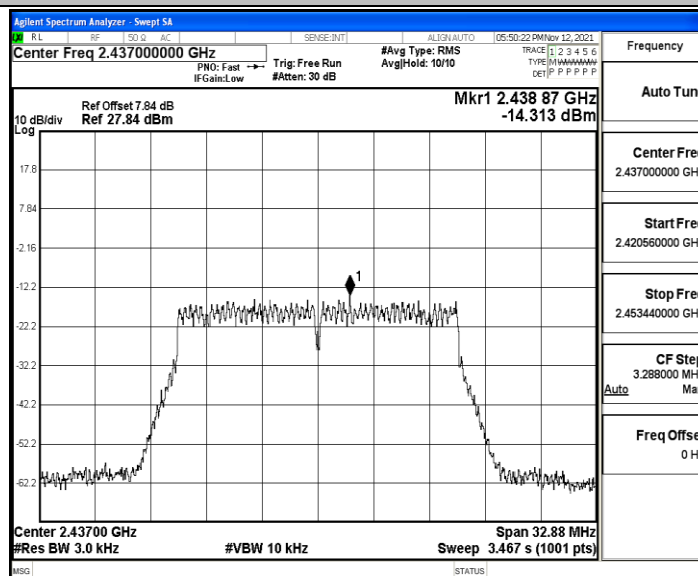
11B_Ant1_2462



11G_Ant1_2412

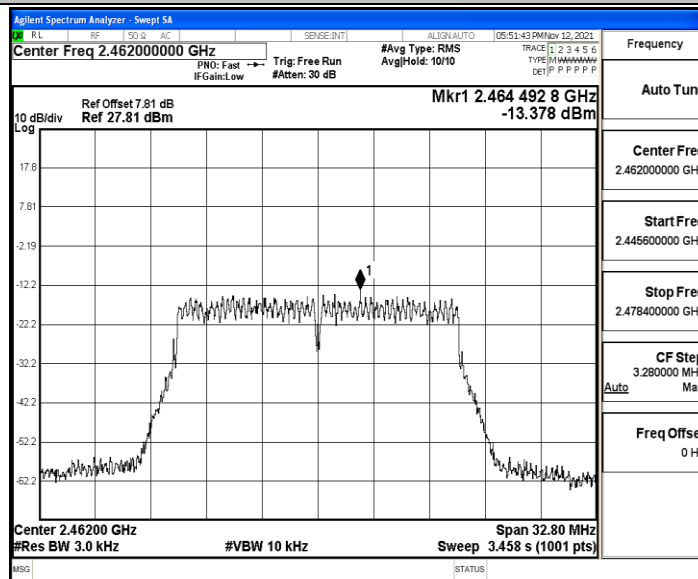


11G_Ant1_2437

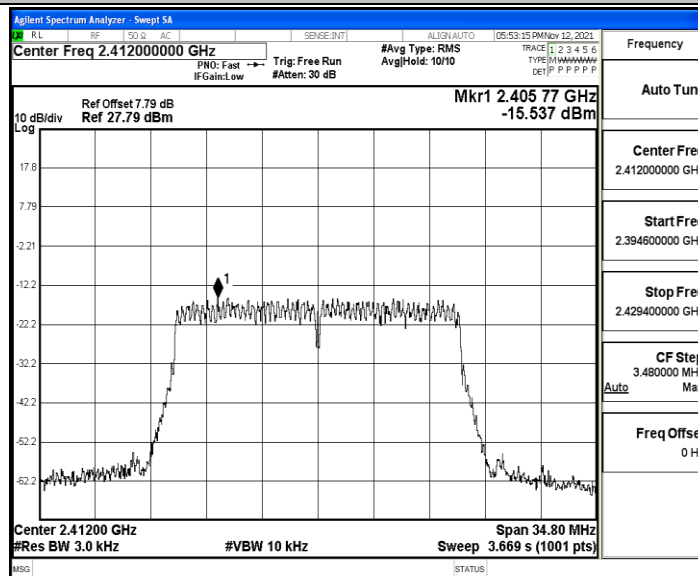




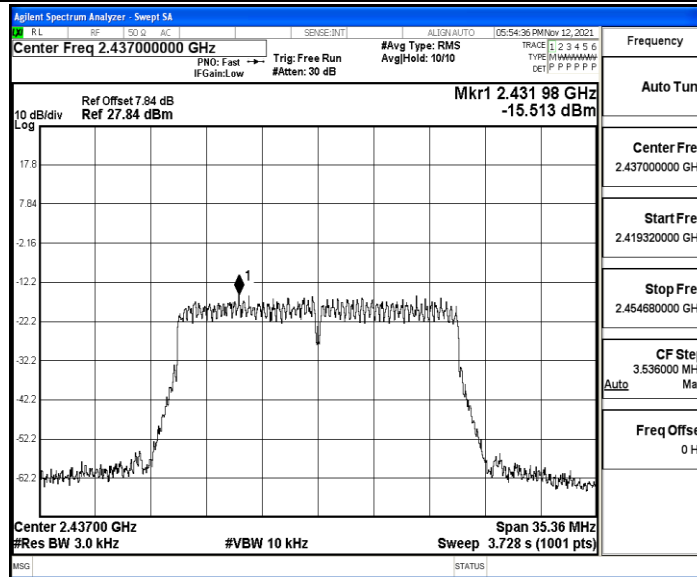
11G_Ant1_2462



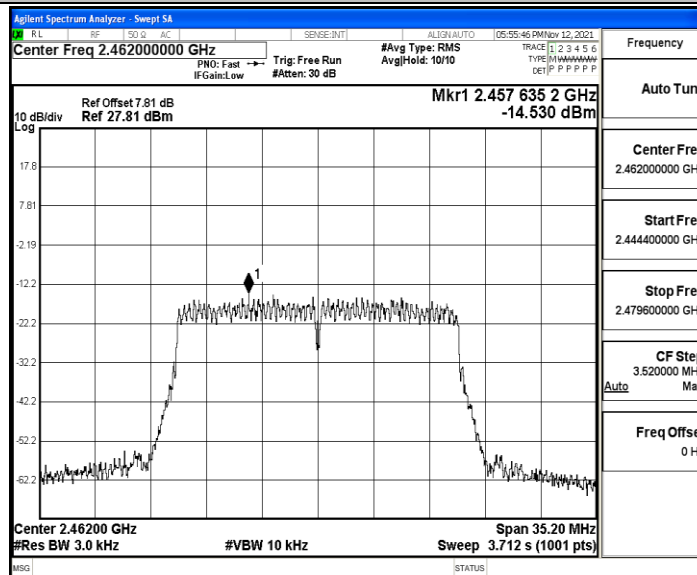
11N20SISO_Ant1_2412



11N20SISO_Ant1_2437



11N20SISO_Ant1_2462



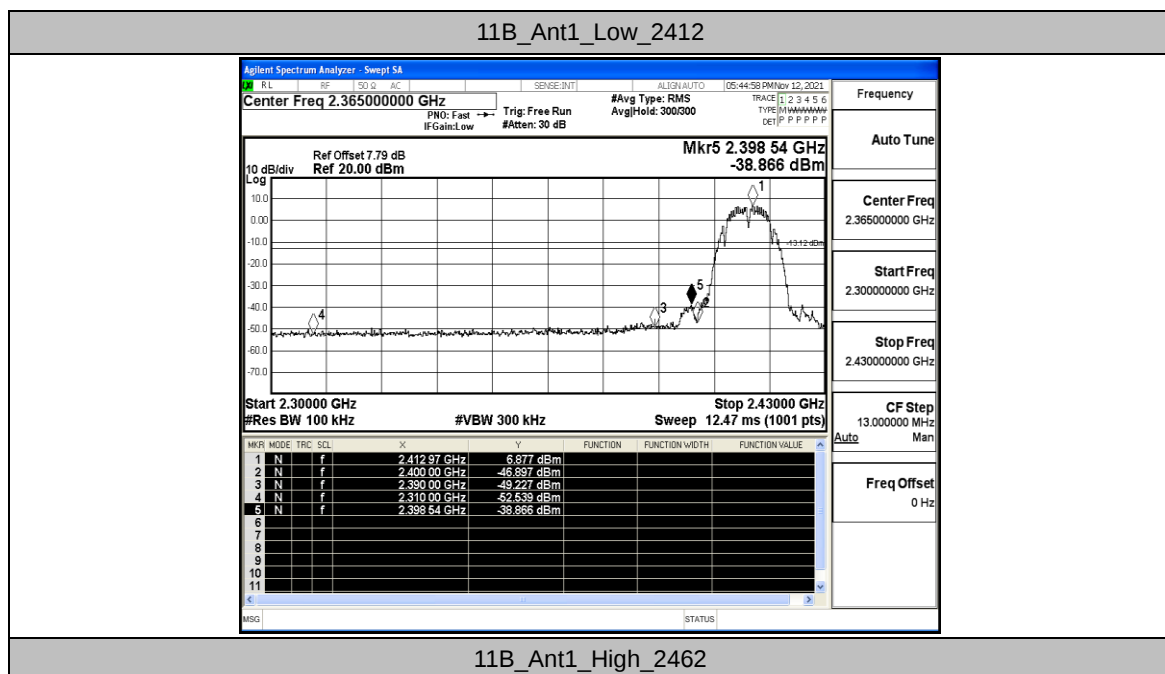


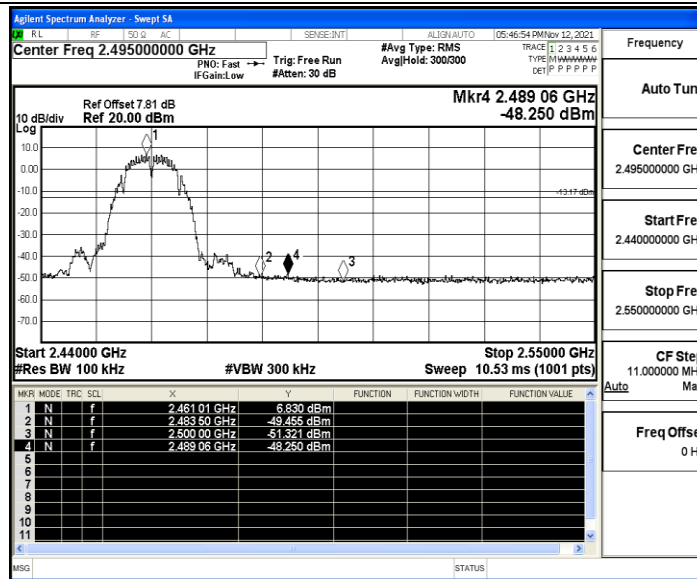
A.5 Band edge measurements

Test Result

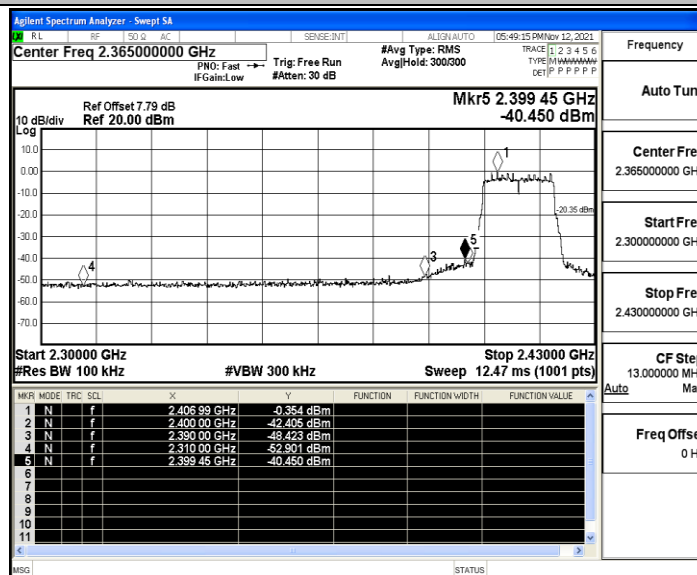
TestMode	Antenna	ChName	Channel	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
11B	Ant1	Low	2412	6.88	-38.87	≤ -13.12	PASS
		High	2462	6.83	-48.25	≤ -13.17	PASS
11G	Ant1	Low	2412	-0.35	-40.45	≤ -20.35	PASS
		High	2462	-0.48	-48.62	≤ -20.48	PASS
11N20SISO	Ant1	Low	2412	-1.38	-42.42	≤ -21.38	PASS
		High	2462	-1.66	-48.27	≤ -21.66	PASS

Test Graphs

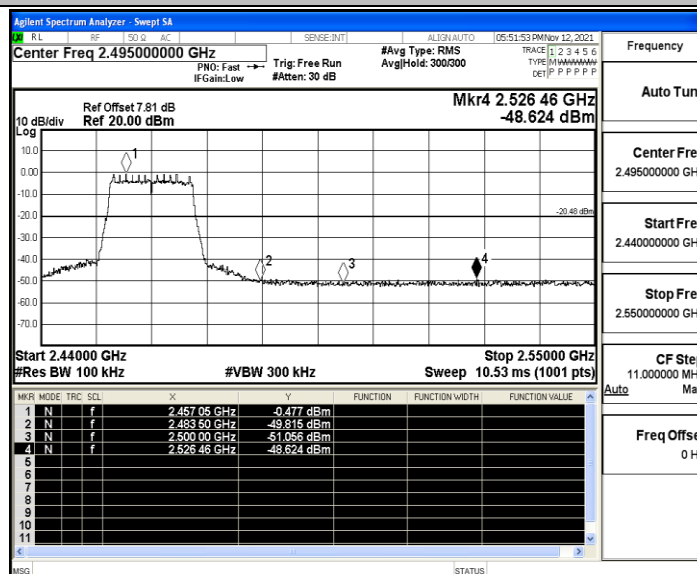




11G_Ant1_Low_2412

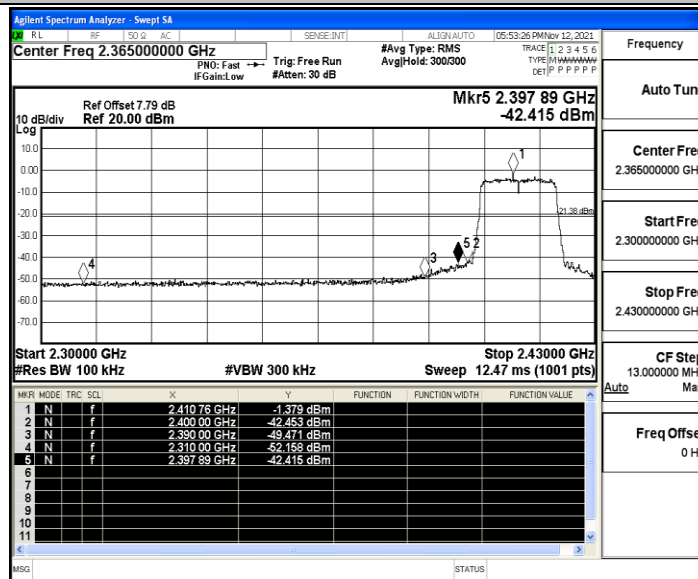


11G_Ant1_High_2462

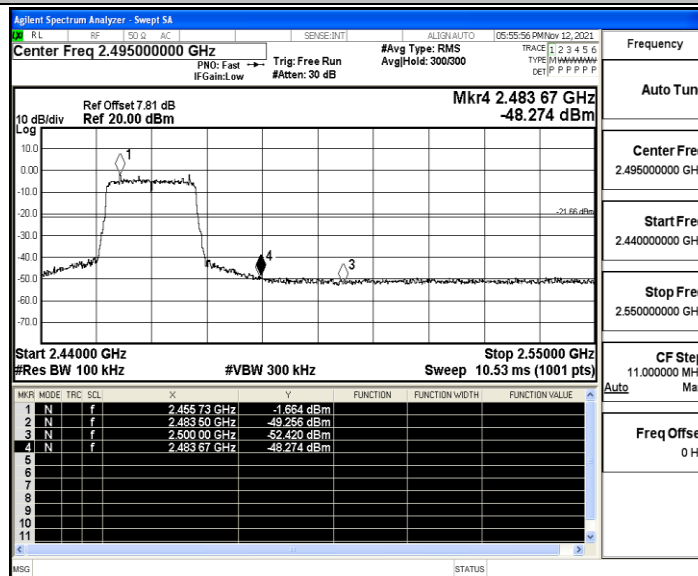




11N20SISO_Ant1_Low_2412



11N20SISO_Ant1_High_2462





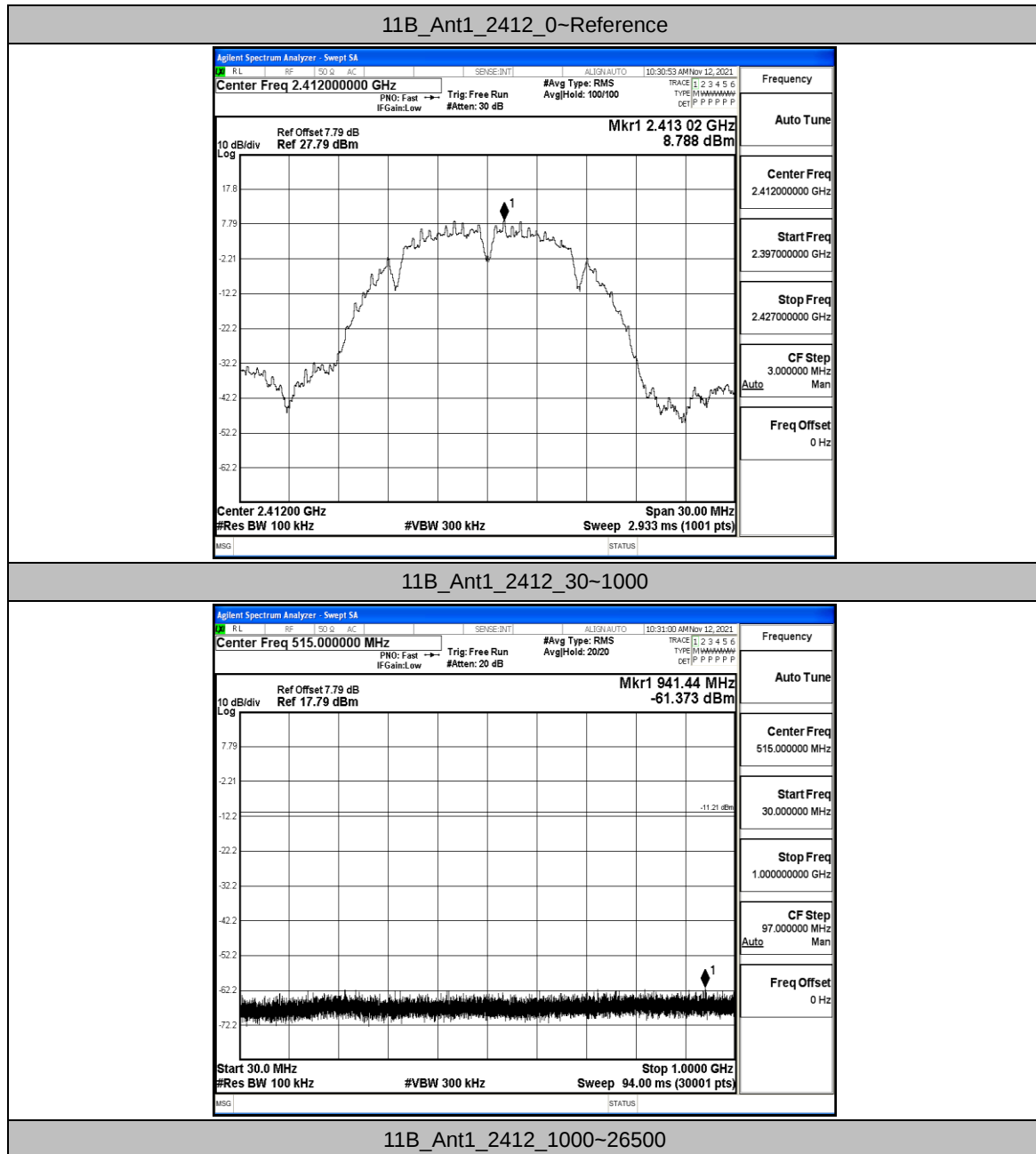
A.6 Conducted Spurious Emission

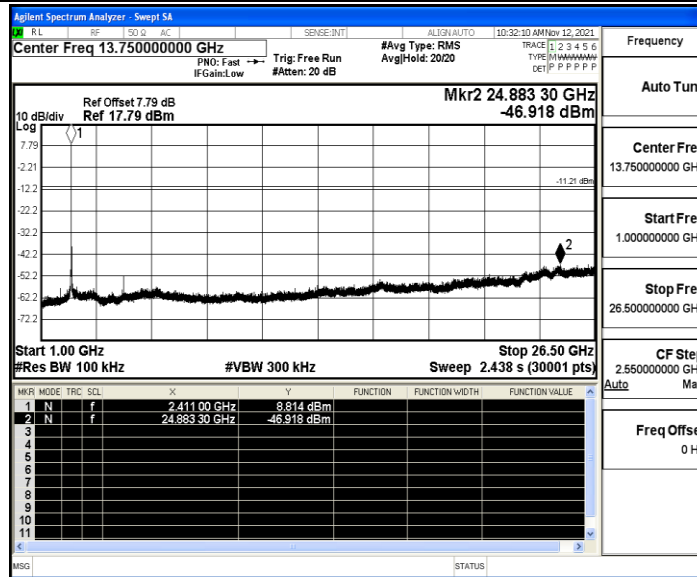
Test Result

TestMode	Antenna	Channel	FreqRange [Mhz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
11B	Ant1	2412	Reference	8.79	8.79	---	PASS
			30~1000	8.79	-61.37	≤ -11.21	PASS
			1000~26500	8.79	-46.92	≤ -11.21	PASS
		2437	Reference	8.59	8.59	---	PASS
			30~1000	8.59	-61.45	≤ -11.41	PASS
			1000~26500	8.59	-46.89	≤ -11.41	PASS
		2462	Reference	8.85	8.85	---	PASS
			30~1000	8.85	-60.37	≤ -11.16	PASS
			1000~26500	8.85	-47.08	≤ -11.16	PASS
11G	Ant1	2412	Reference	3.88	3.88	---	PASS
			30~1000	3.88	-61.05	≤ -16.12	PASS
			1000~26500	3.88	-46.37	≤ -16.12	PASS
		2437	Reference	3.14	3.14	---	PASS
			30~1000	3.14	-61.61	≤ -16.86	PASS
			1000~26500	3.14	-46.73	≤ -16.86	PASS
		2462	Reference	3.39	3.39	---	PASS
			30~1000	3.39	-61.64	≤ -16.61	PASS
			1000~26500	3.39	-46.72	≤ -16.61	PASS
11N20SISO	Ant1	2412	Reference	3.10	3.10	---	PASS
			30~1000	3.10	-60.32	≤ -16.91	PASS
			1000~26500	3.10	-47.16	≤ -16.91	PASS
		2437	Reference	2.11	2.11	---	PASS
			30~1000	2.11	-61.06	≤ -17.89	PASS
			1000~26500	2.11	-46.77	≤ -17.89	PASS
		2462	Reference	1.97	1.97	---	PASS
			30~1000	1.97	-60.8	≤ -18.03	PASS
			1000~26500	1.97	-47.19	≤ -18.03	PASS

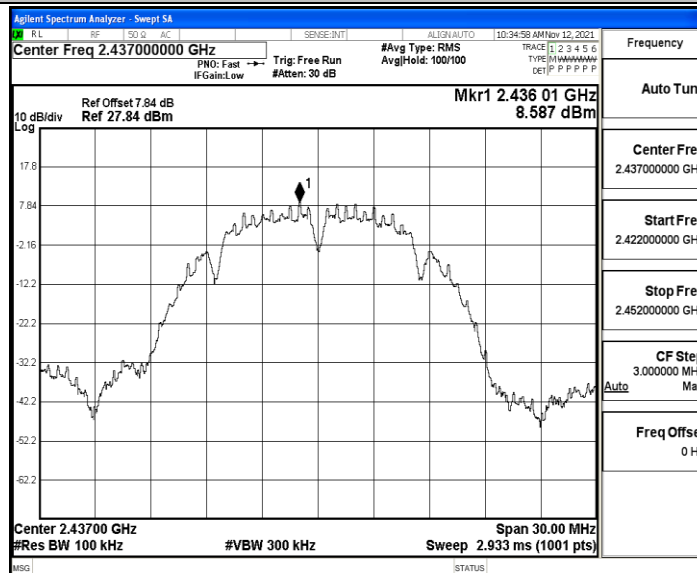


Test Graphs

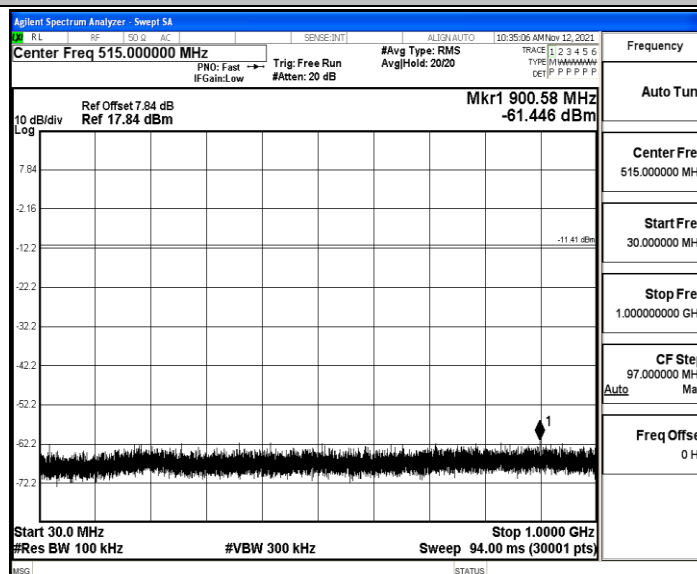




11B_Ant1_2437_0~Reference

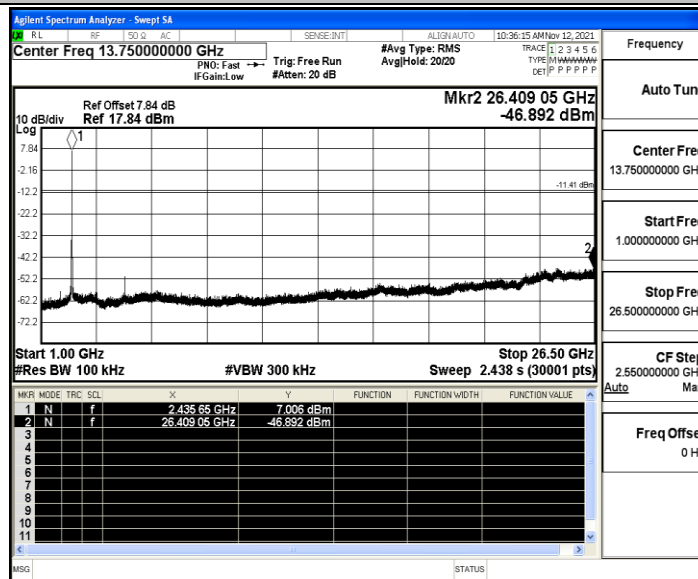


11B_Ant1_2437_30~1000

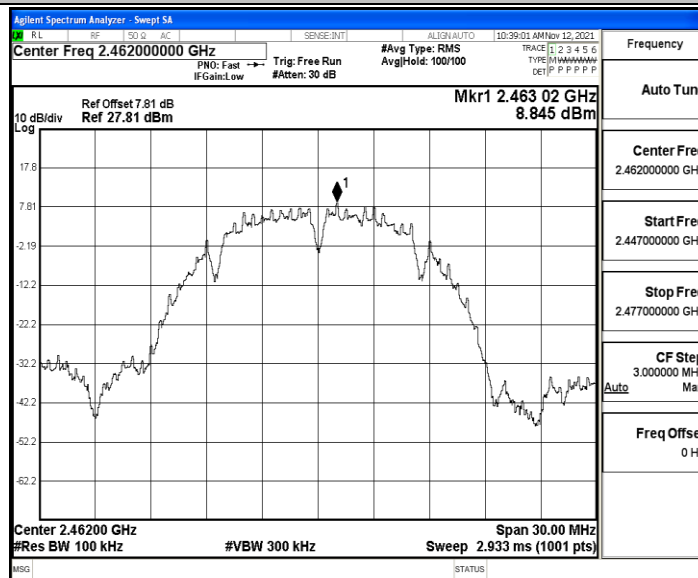




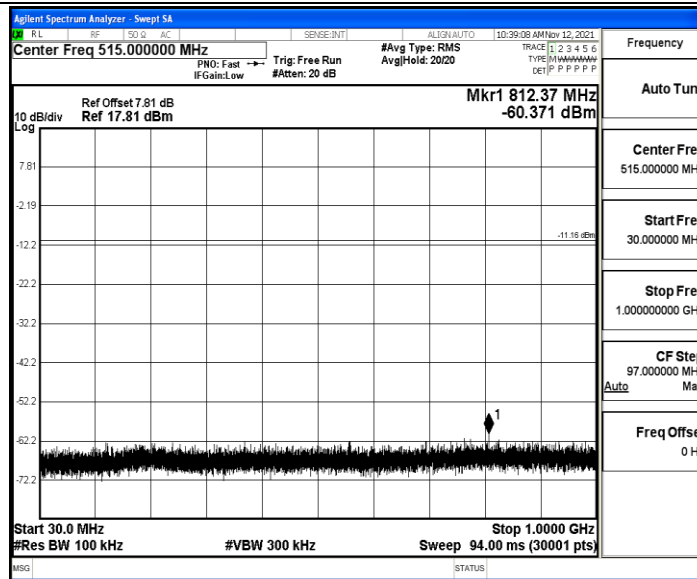
11B_Ant1_2437_1000~26500



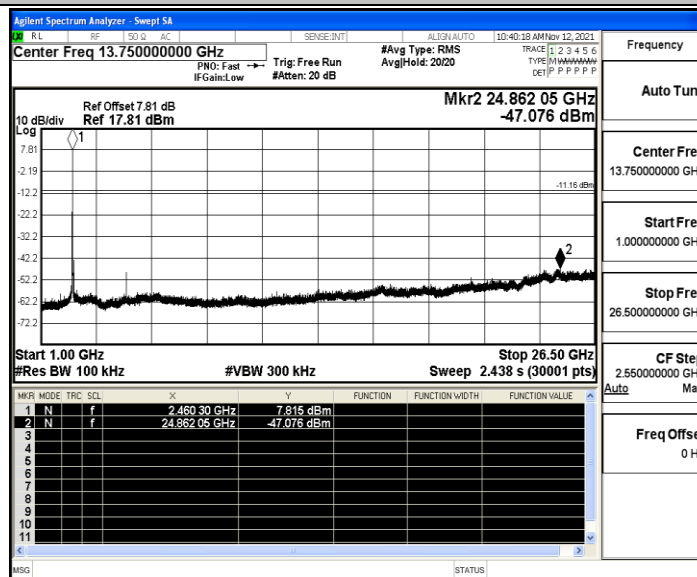
11B_Ant1_2462_0~Reference



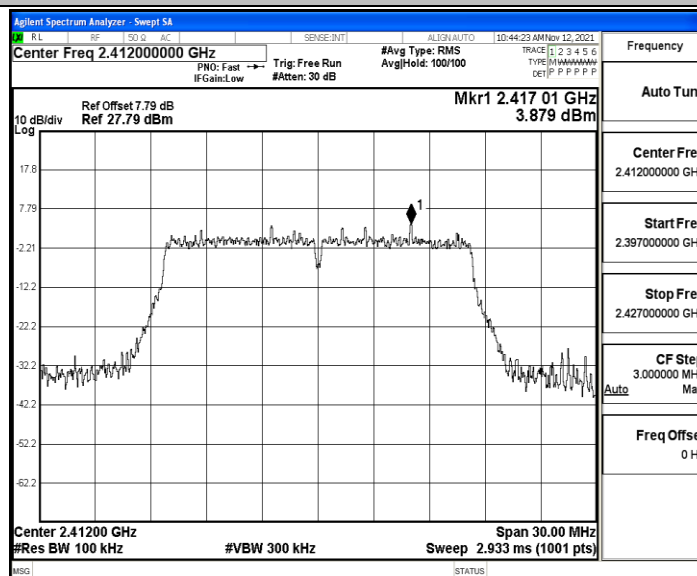
11B_Ant1_2462_30~1000



11B_Ant1_2462_1000~26500

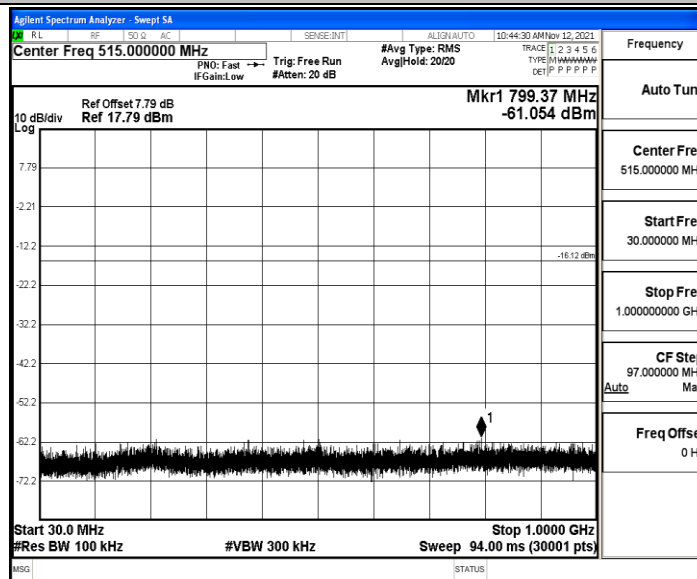


11G_Ant1_2412_0~Reference

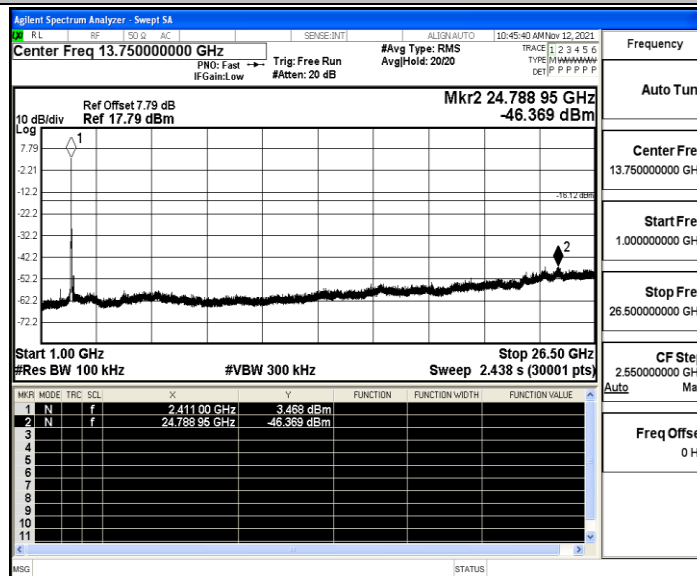




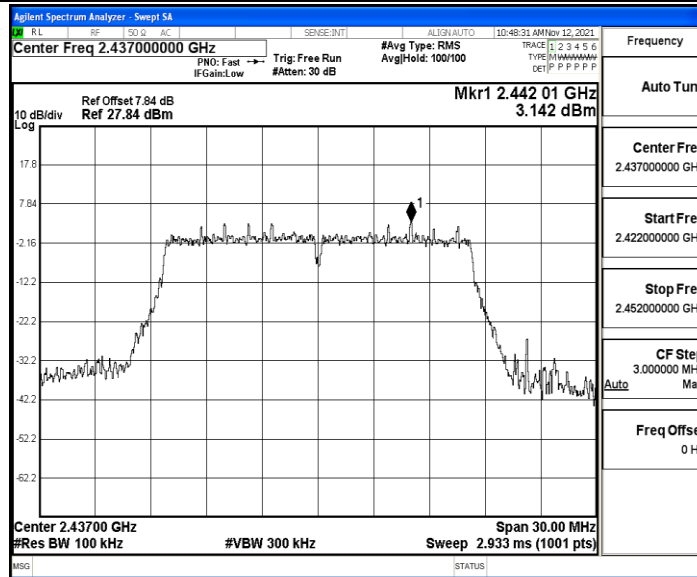
11G_Ant1_2412_30~1000



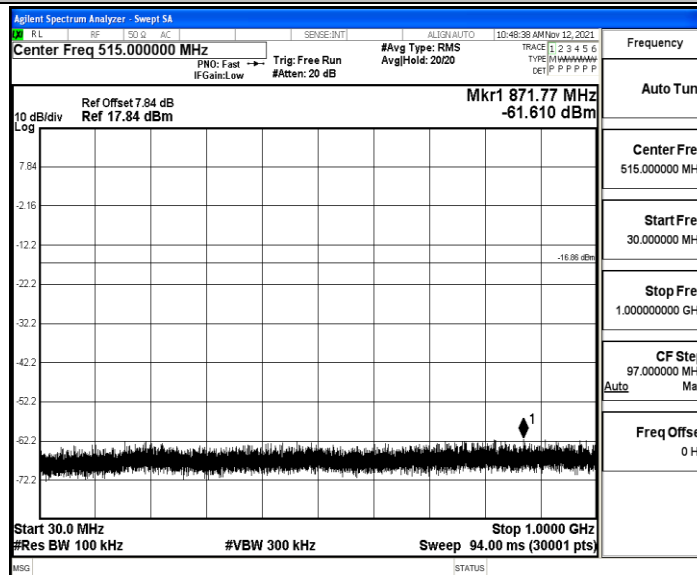
11G_Ant1_2412_1000~26500



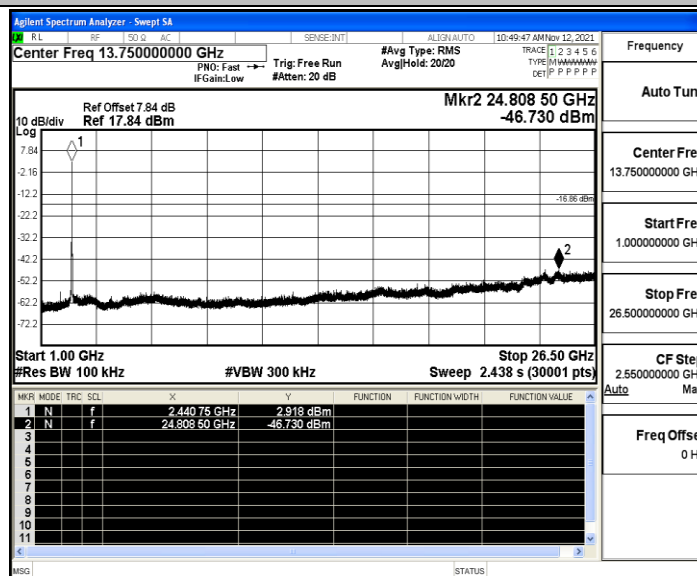
11G_Ant1_2437_0~Reference



11G_Ant1_2437_30~1000

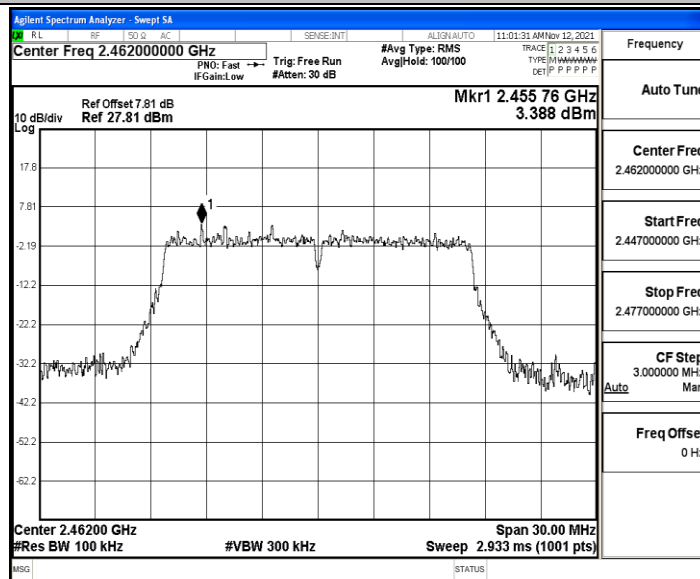


11G_Ant1_2437_1000~26500

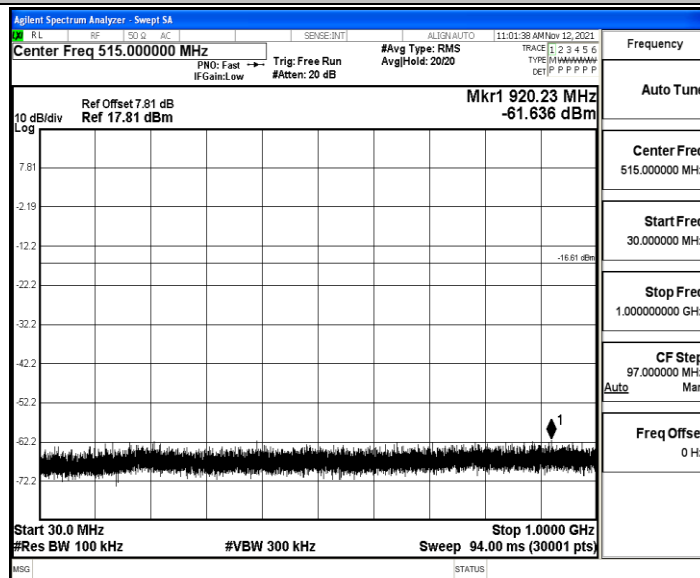




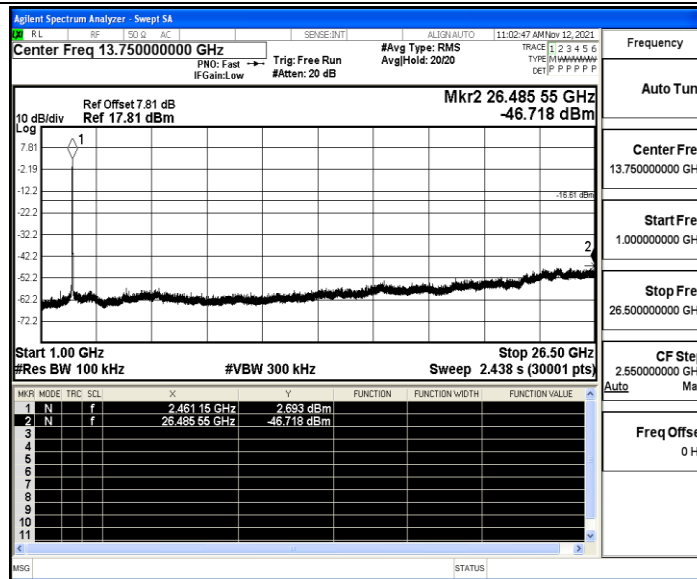
11G_Ant1_2462_0~Reference



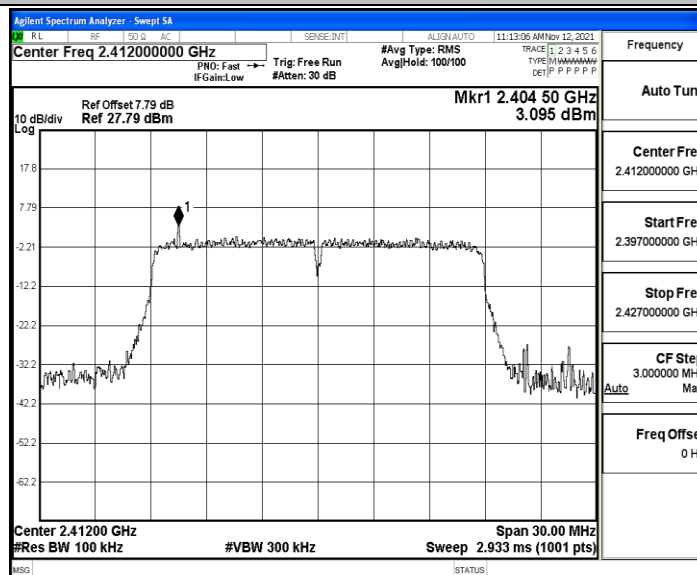
11G_Ant1_2462_30~1000



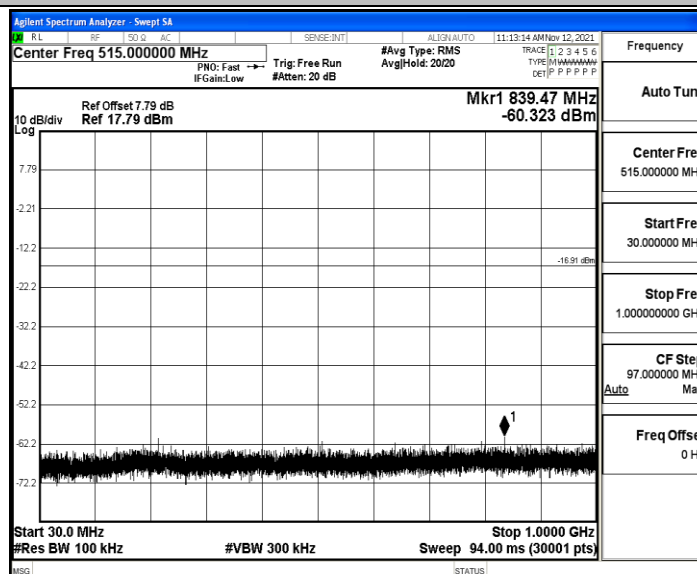
11G_Ant1_2462_1000~26500



11N20SISO_Ant1_2412_0~Reference

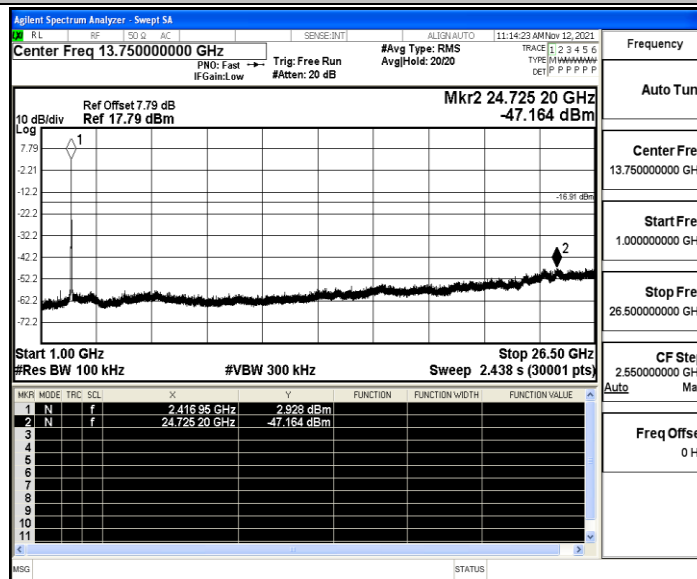


11N20SISO_Ant1_2412_30~1000

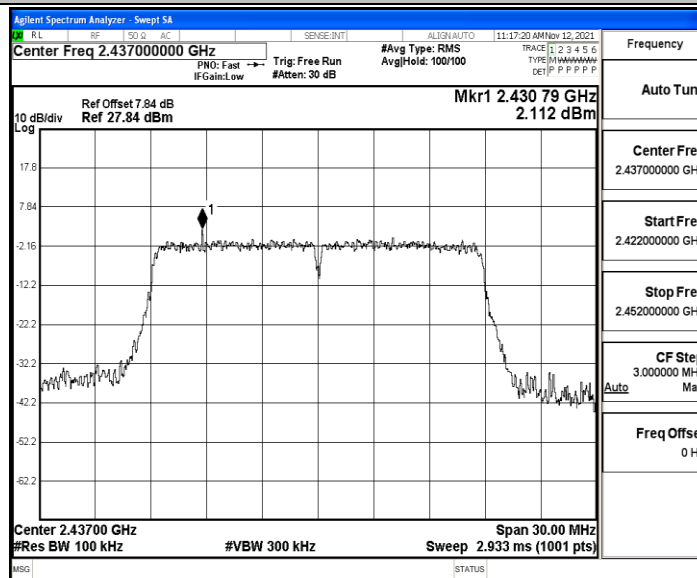




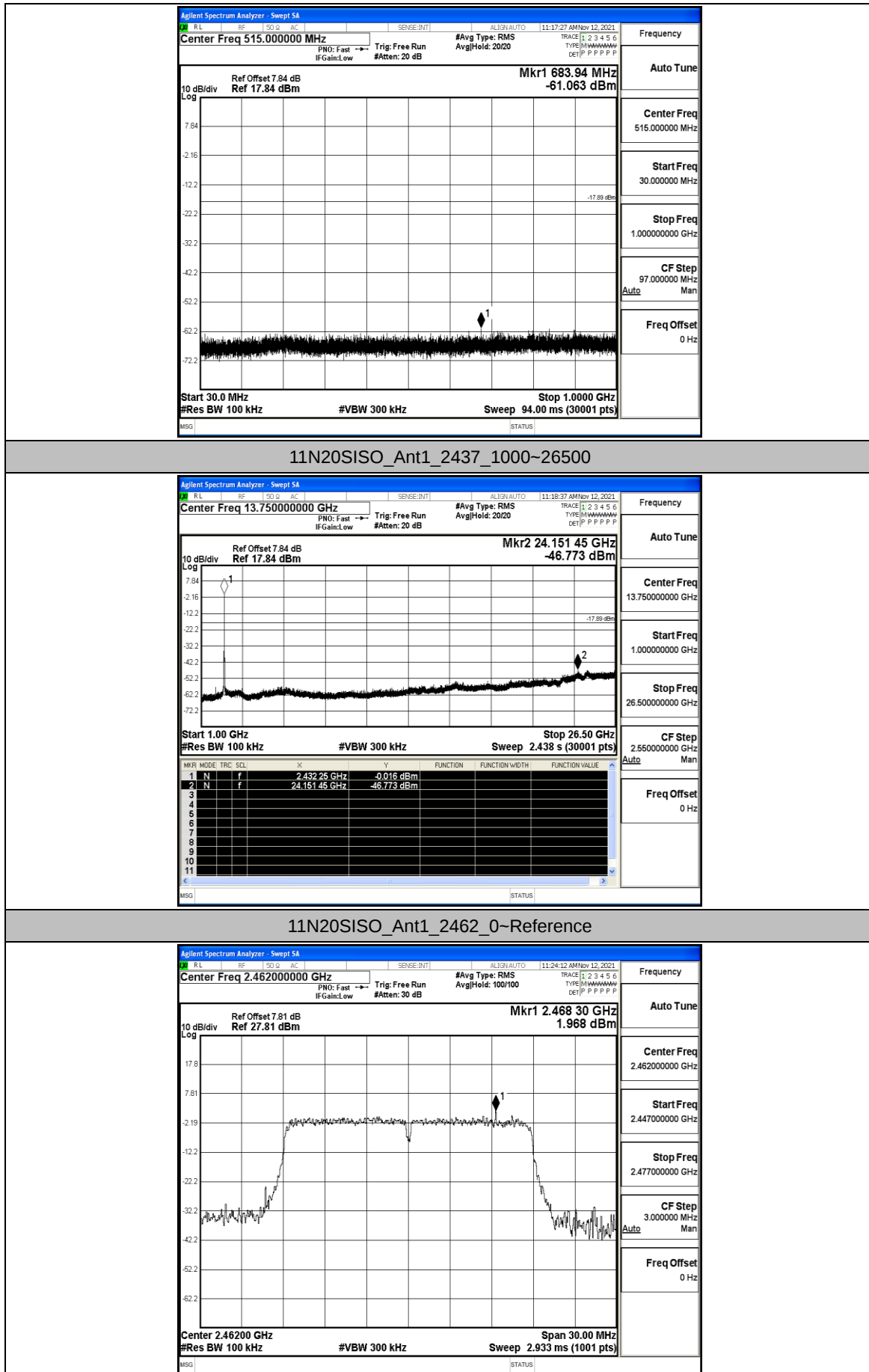
11N20SISO_Ant1_2412_1000~26500



11N20SISO_Ant1_2437_0~Reference

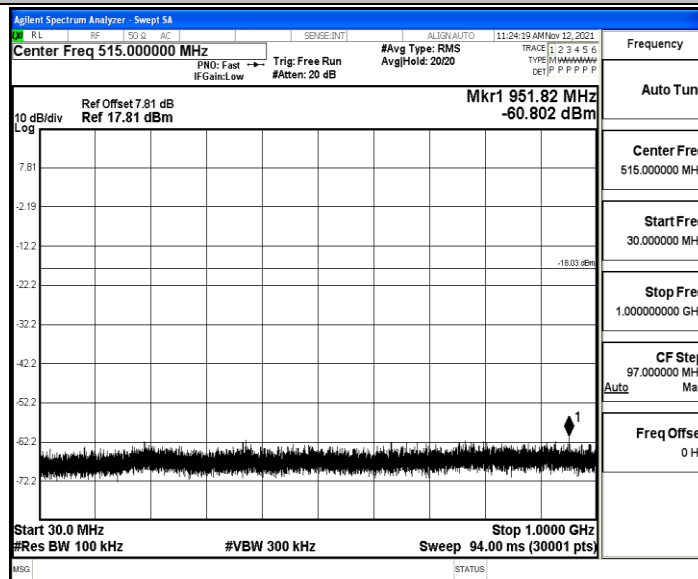


11N20SISO_Ant1_2437_30~1000

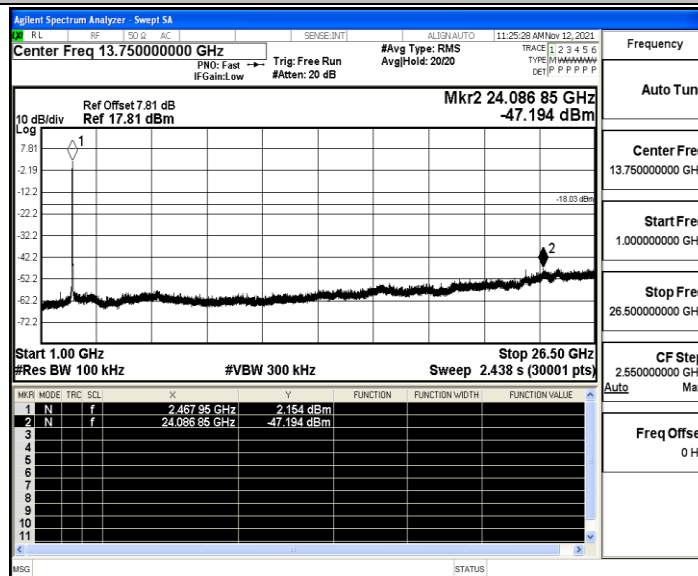




11N20SISO_Ant1_2462_30~1000



11N20SISO_Ant1_2462_1000~26500





A.7 Duty Cycle

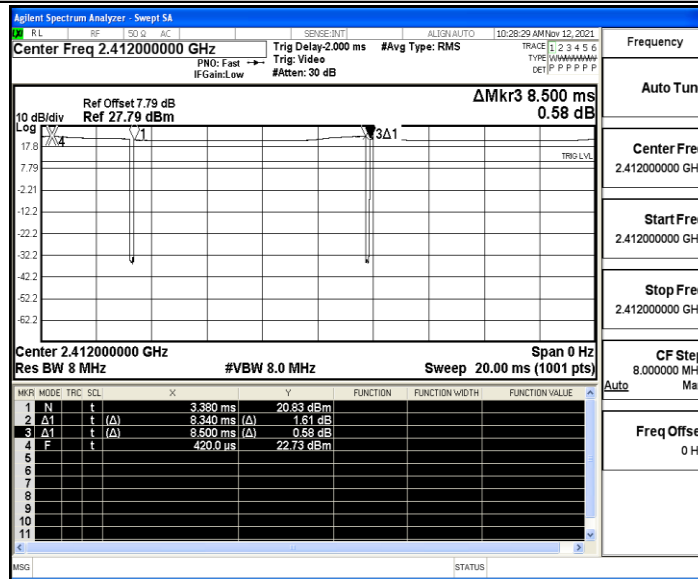
Test Result

TestMode	Antenna	Channel	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]	Limit	Verdict
11B	Ant1	2412	8.34	8.50	98.12	---	PASS
		2437	8.32	8.48	98.11	---	PASS
		2462	8.32	8.48	98.11	---	PASS
11G	Ant1	2412	1.37	1.41	97.16	---	PASS
		2437	1.37	1.42	96.48	---	PASS
		2462	1.37	1.41	97.16	---	PASS
11N20SISO	Ant1	2412	30.00	30.00	100.00	---	PASS
		2437	30.00	30.00	100.00	---	PASS
		2462	30.00	30.00	100.00	---	PASS

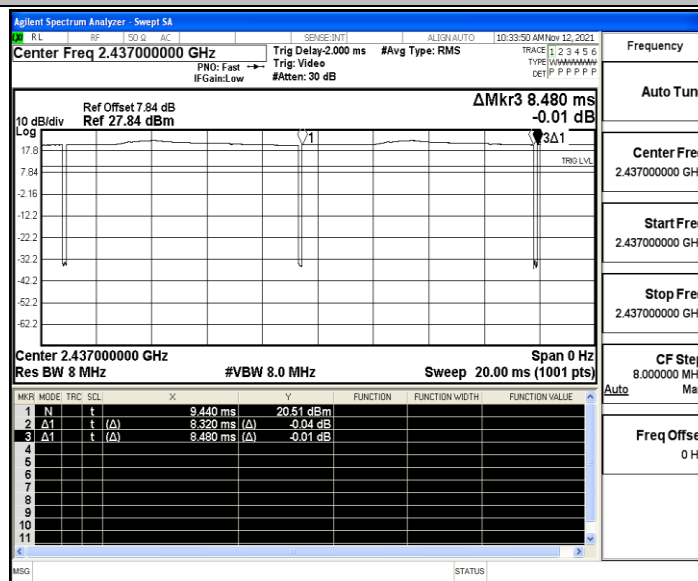


Test Graphs

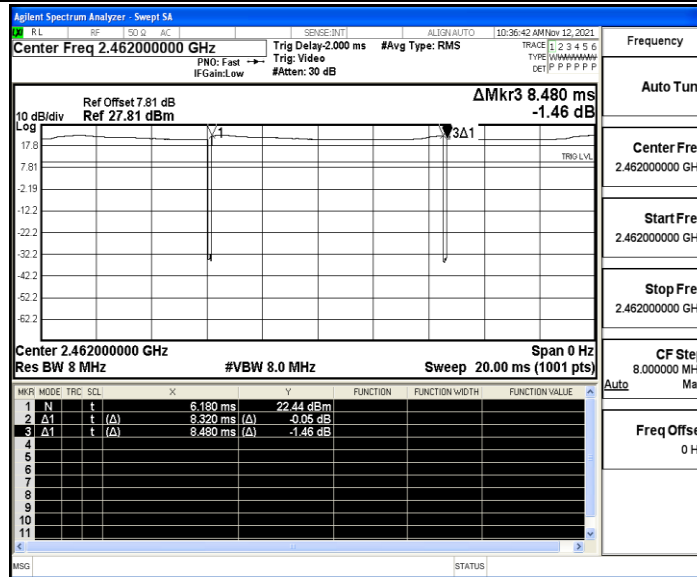
11B_Ant1_2412



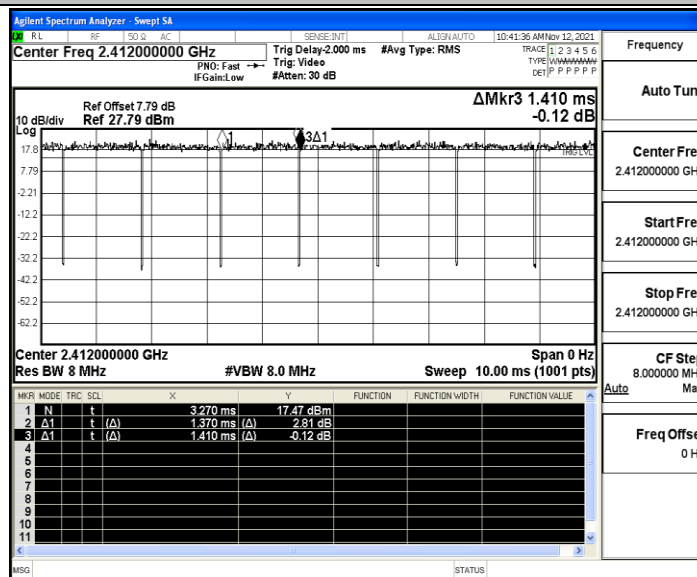
11B_Ant1_2437



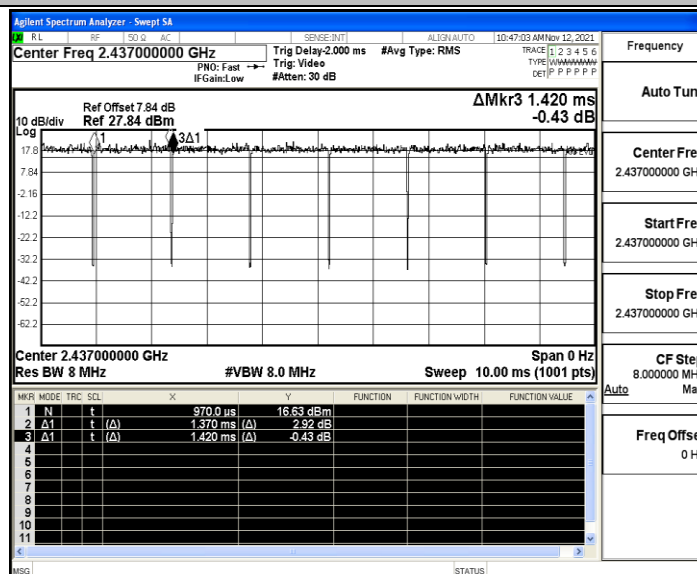
11B_Ant1_2462



11G_Ant1_2412

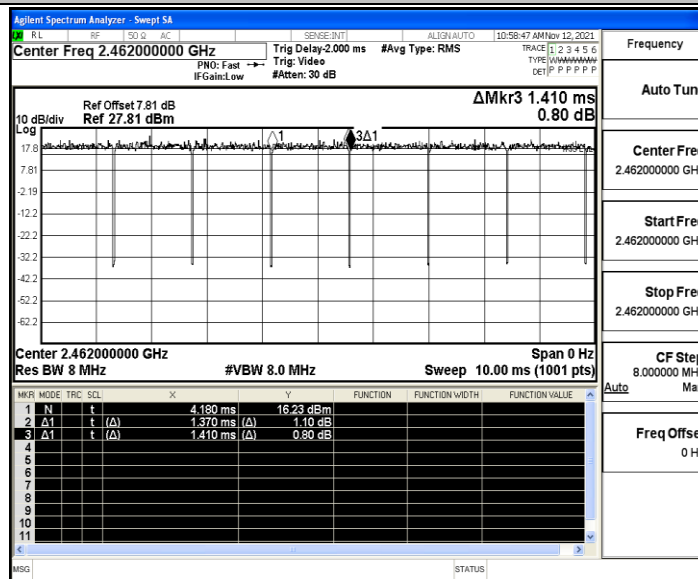


11G_Ant1_2437

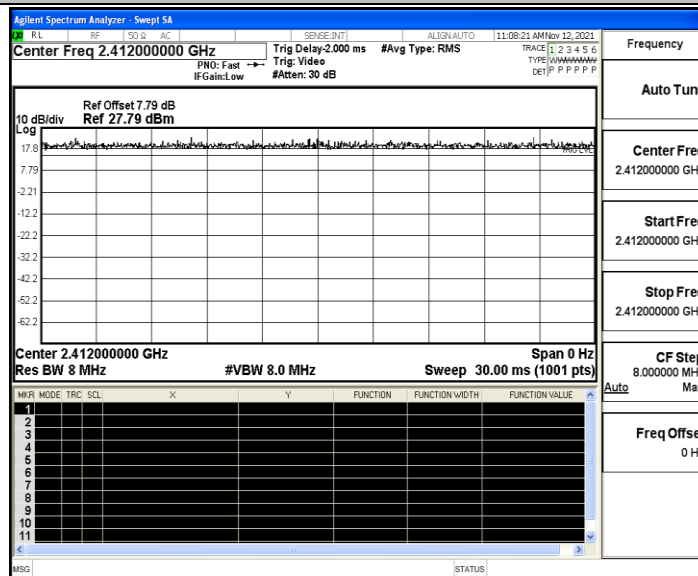




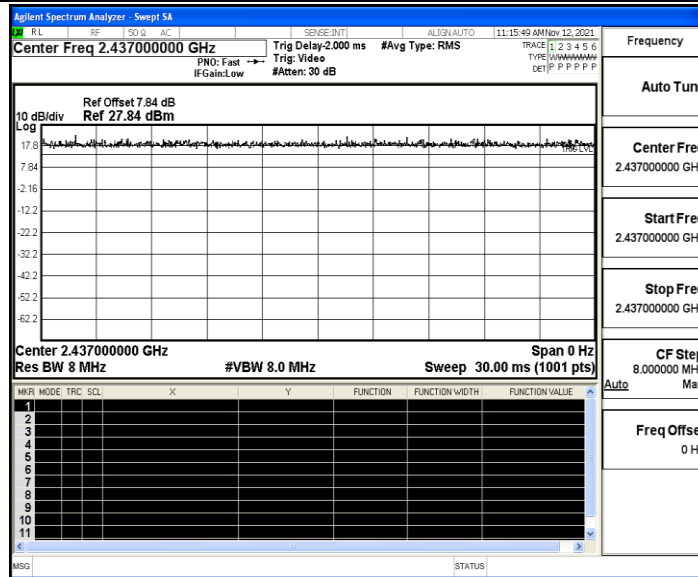
11G_Ant1_2462



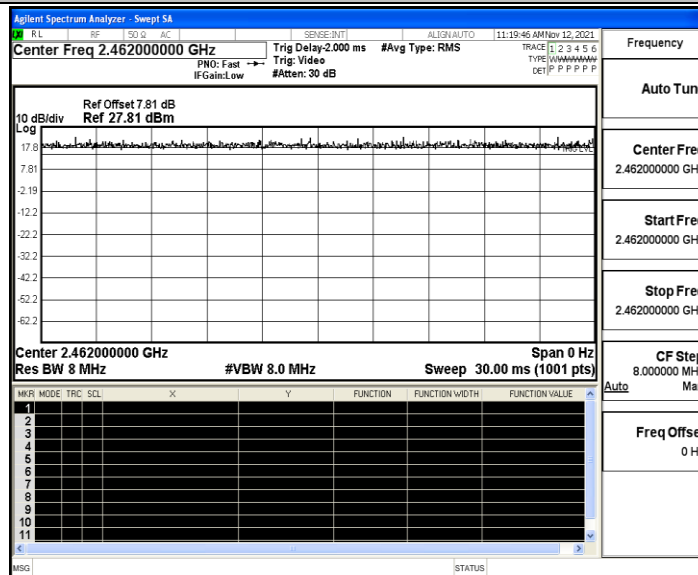
11N20SISO_Ant1_2412



11N20SISO_Ant1_2437



11N20SISO_Ant1_2462





A.8 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	≤-41.20	46.20	≤54	PASS
				AV	2387.100	-44.13	≤-41.20	51.07	≤54	PASS
				AV	2390.000	-44.67	≤-41.20	50.53	≤54	PASS
				Peak	2310.000	-43.87	≤-21.20	51.33	≤74	PASS
				Peak	2386.710	-36.22	≤-21.20	58.98	≤74	PASS
				Peak	2390.000	-40.32	≤-21.20	54.88	≤74	PASS
		High	2462	AV	2483.500	-43.57	≤-41.20	51.63	≤54	PASS
				AV	2484.330	-43.39	≤-41.20	51.81	≤54	PASS
				AV	2500.000	-47.49	≤-41.20	47.71	≤54	PASS
				Peak	2483.500	-42.05	≤-21.20	53.15	≤74	PASS
				Peak	2483.890	-38.12	≤-21.20	57.08	≤74	PASS
				Peak	2500.000	-42.57	≤-21.20	52.63	≤74	PASS
11G	Ant1	Low	2412	AV	2310.000	-48.56	≤-41.20	46.64	≤54	PASS
				AV	2389.960	-43.92	≤-41.20	51.28	≤54	PASS
				AV	2390.000	-43.92	≤-41.20	51.28	≤54	PASS
				Peak	2310.000	-42.62	≤-21.20	52.58	≤74	PASS
				Peak	2389.310	-33.75	≤-21.20	61.45	≤74	PASS
				Peak	2390.000	-36.7	≤-21.20	58.50	≤74	PASS
		High	2462	AV	2483.500	-45.01	≤-41.20	50.19	≤54	PASS
				AV	2483.560	-45.19	≤-41.20	50.01	≤54	PASS
				AV	2500.000	-47.57	≤-41.20	47.63	≤54	PASS
				Peak	2483.500	-37.69	≤-21.20	57.51	≤74	PASS
				Peak	2484.770	-31.93	≤-21.20	63.27	≤74	PASS
				Peak	2500.000	-40.75	≤-21.20	54.45	≤74	PASS
11N20SISO	Ant1	Low	2412	AV	2310.000	-49.16	≤-41.20	46.04	≤54	PASS
				AV	2389.960	-44.12	≤-41.20	51.08	≤54	PASS
				AV	2390.000	-44.12	≤-41.20	51.08	≤54	PASS
				Peak	2310.000	-43.48	≤-21.20	51.72	≤74	PASS
				Peak	2389.960	-35.83	≤-21.20	59.37	≤74	PASS
				Peak	2390.000	-35.83	≤-21.20	59.37	≤74	PASS
		High	2462	AV	2483.500	-45.96	≤-41.20	49.24	≤54	PASS
				AV	2483.560	-45.98	≤-41.20	49.22	≤54	PASS
				AV	2500.000	-47.99	≤-41.20	47.21	≤54	PASS
				Peak	2483.500	-42.68	≤-21.20	52.52	≤74	PASS
				Peak	2483.670	-38.83	≤-21.20	56.37	≤74	PASS
				Peak	2500.000	-44.7	≤-21.20	50.50	≤74	PASS



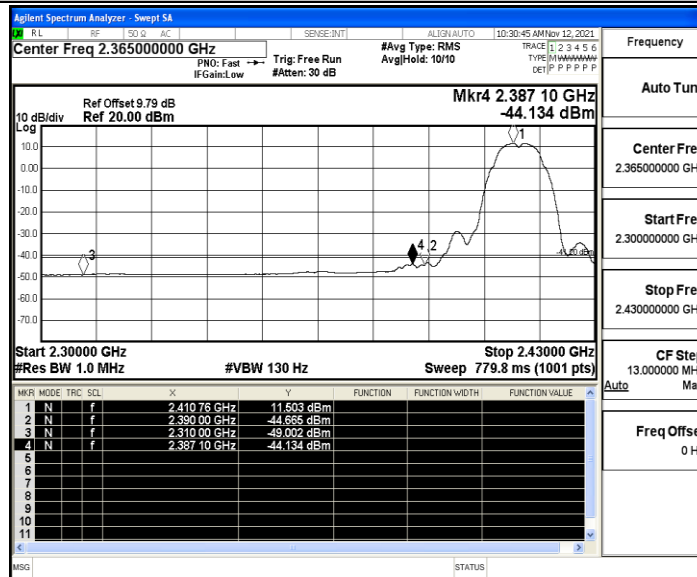
Note:

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.

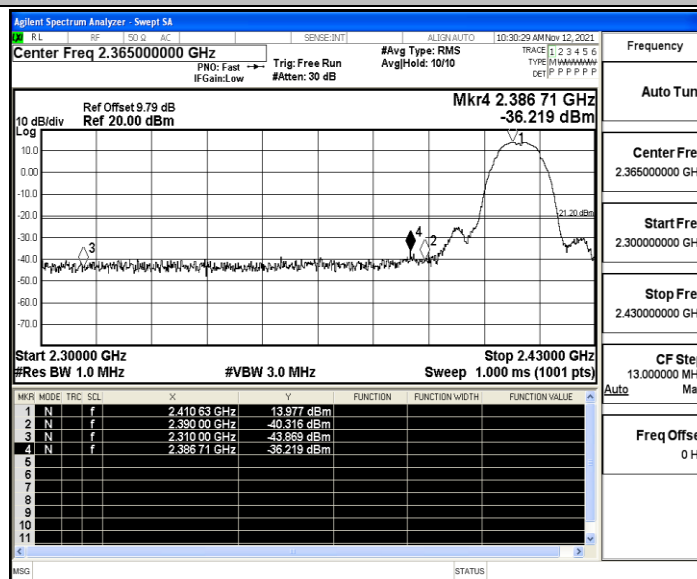


Test Graphs

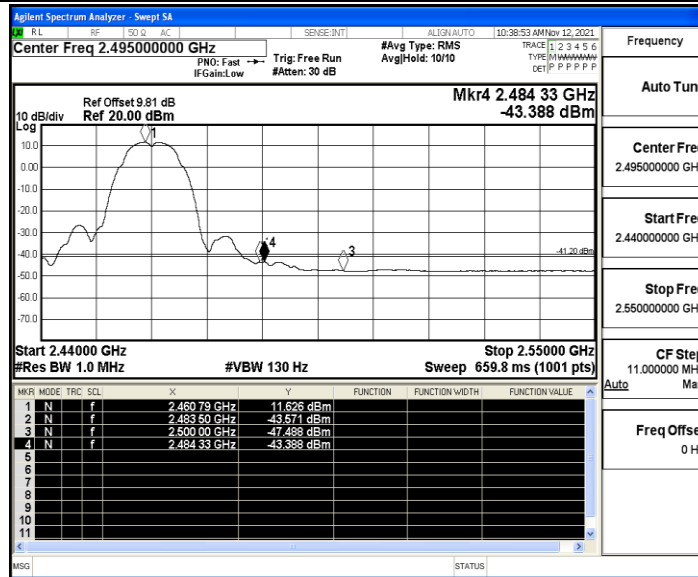
11B_Ant1_Low_2412_AV



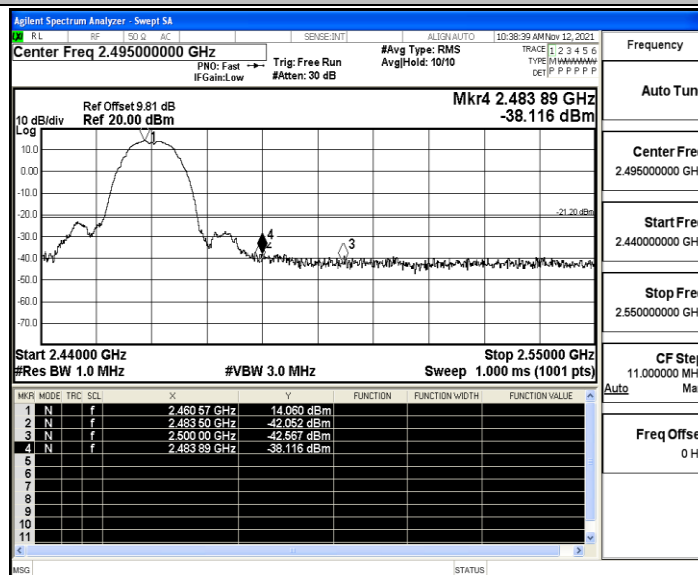
11B_Ant1_Low_2412_Peak



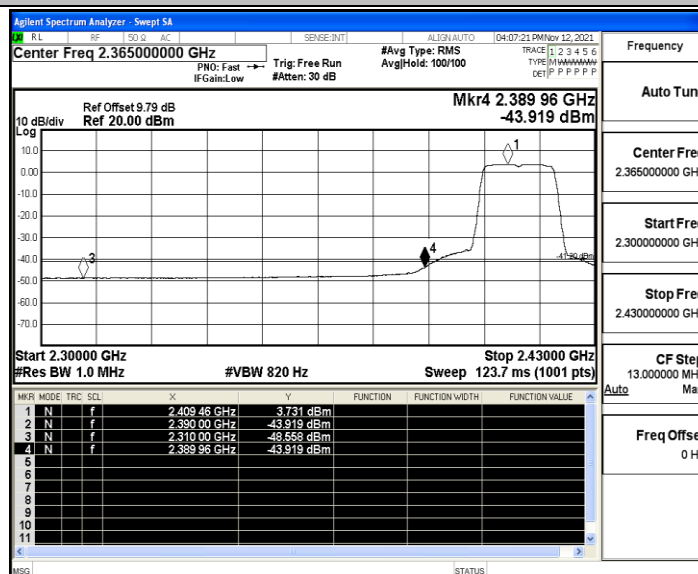
11B_Ant1_High_2462_AV



11B_Ant1_High_2462_Peak

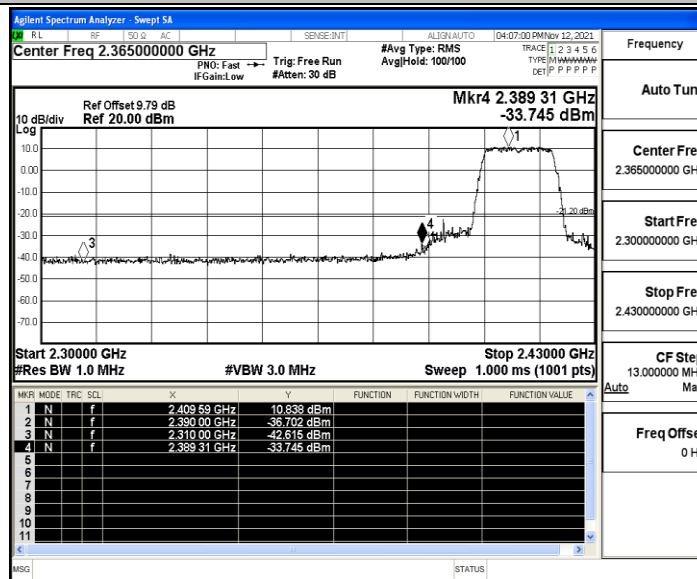


11G_Ant1_Low_2412_AV

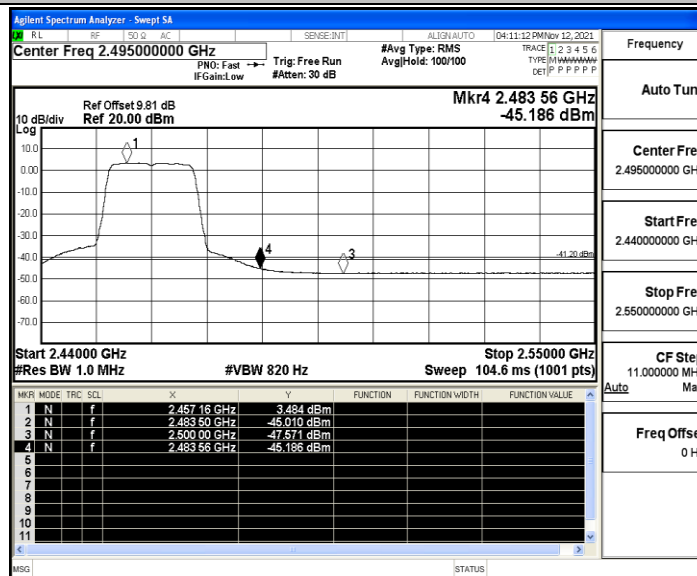




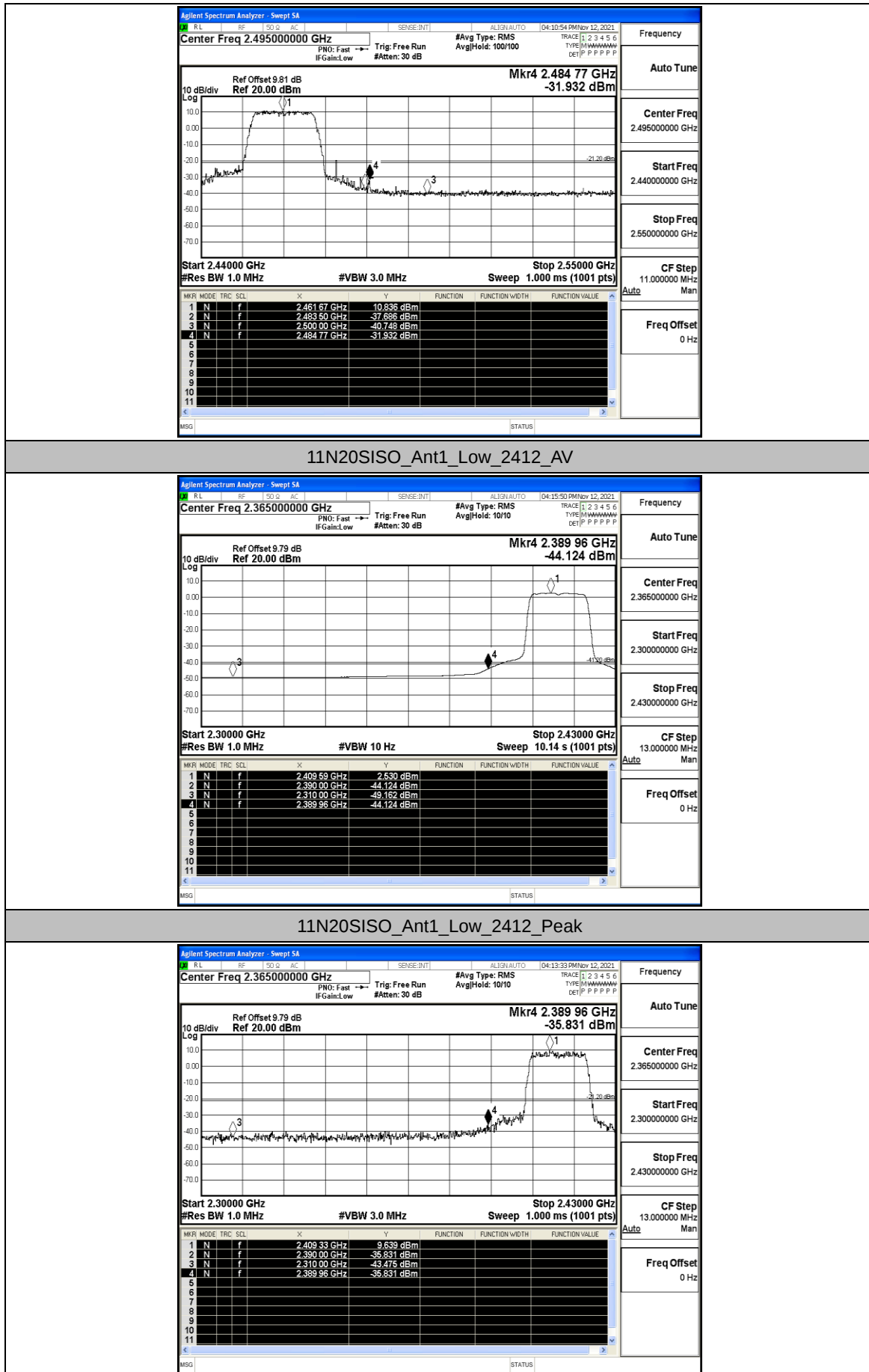
11G_Ant1_Low_2412_Peak



11G_Ant1_High_2462_AV

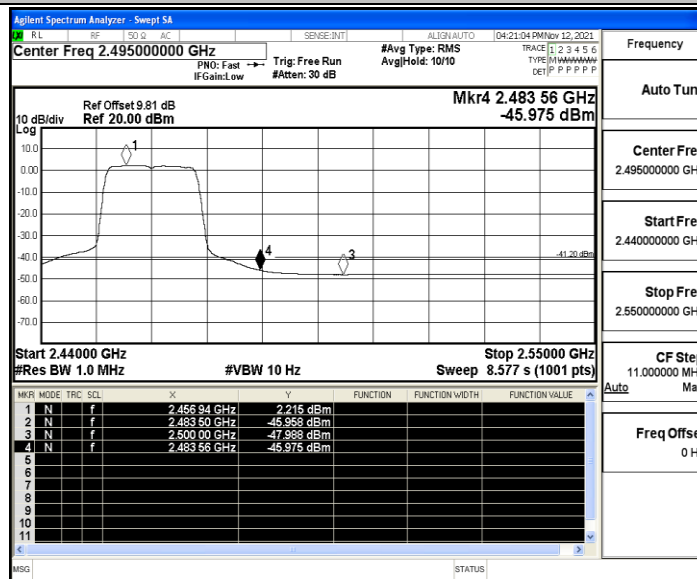


11G_Ant1_High_2462_Peak





11N20SISO_Ant1_High_2462_AV



11N20SISO_Ant1_High_2462_Peak

