

RF Test Data for WLAN(2.4G) (Conducted Measurement)

Product Name: Granary Automatic Pet Feeder-WiFi Control 5L

Trade Mark: PETLIBRO

Test Model: PLAF103

FCC ID: 2A3DE-PLAF103

Environmental Conditions

Temperature:	25.5°C
Relative Humidity:	55%
ATM Pressure:	100.0 kPa
Test Engineer:	Anna Hu
Supervised by:	Hugo Chen
NOTE	N/A

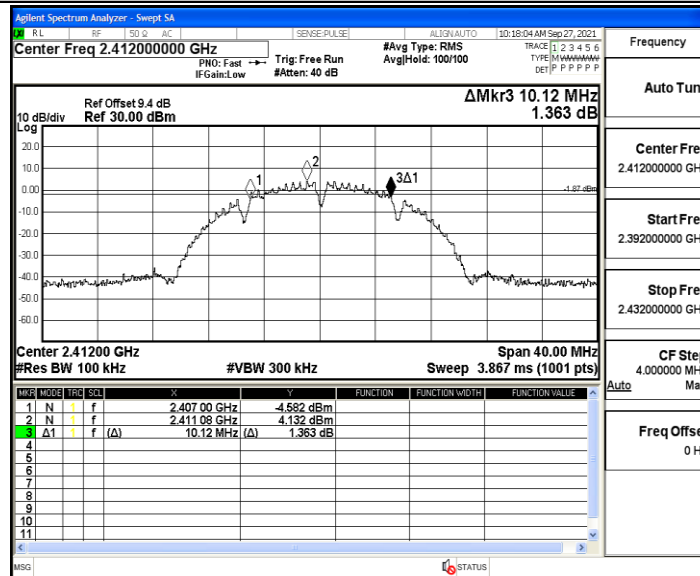
Appendix A: DTS Bandwidth

Test Result

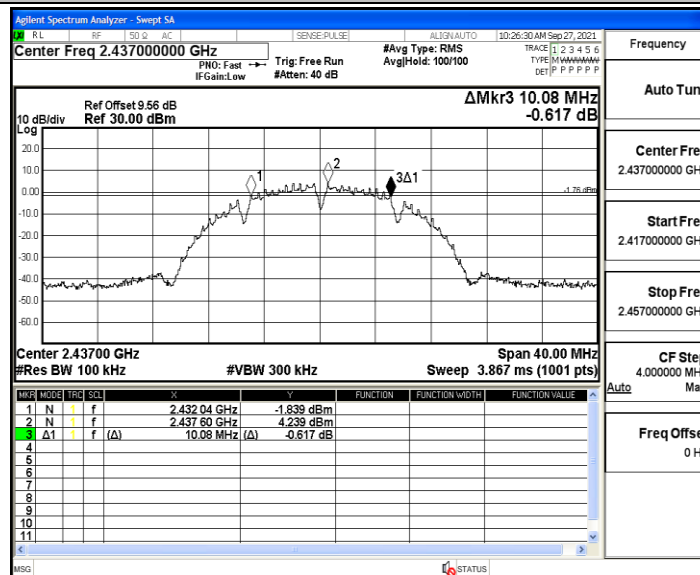
TestMode	Antenna	Channel	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	10.120	2407.000	2417.120	0.5	PASS
		2437	10.080	2432.040	2442.120	0.5	PASS
		2462	9.600	2457.040	2466.640	0.5	PASS
11G	Ant1	2412	16.160	2404.120	2420.280	0.5	PASS
		2437	16.440	2428.880	2445.320	0.5	PASS
		2462	16.360	2453.920	2470.280	0.5	PASS
11N20SISO	Ant1	2412	17.400	2403.520	2420.920	0.5	PASS
		2437	17.200	2428.720	2445.920	0.5	PASS
		2462	17.120	2453.520	2470.640	0.5	PASS
11N40SISO	Ant1	2422	35.120	2404.560	2439.680	0.5	PASS
		2437	35.280	2419.480	2454.760	0.5	PASS
		2452	35.280	2434.480	2469.760	0.5	PASS

Test Graphs

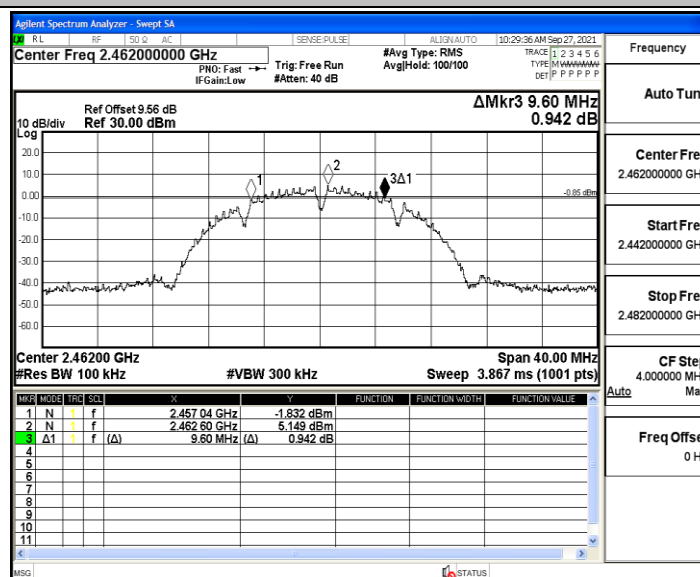
11B_Ant1_2412



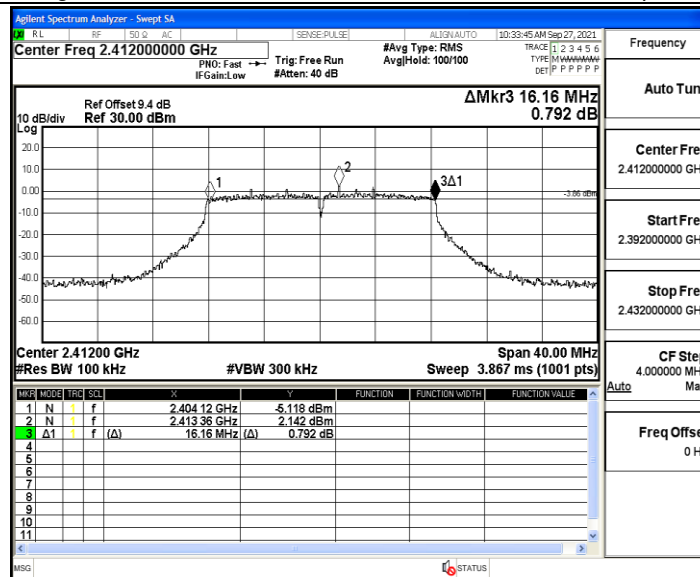
11B_Ant1_2437



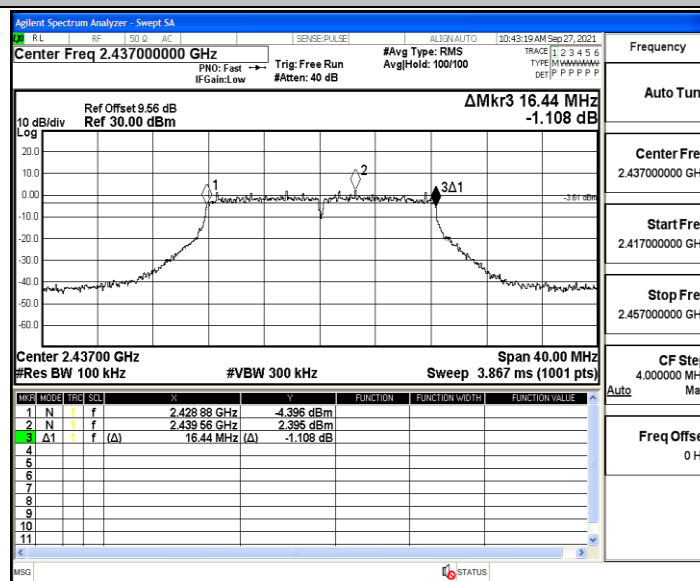
11B_Ant1_2462



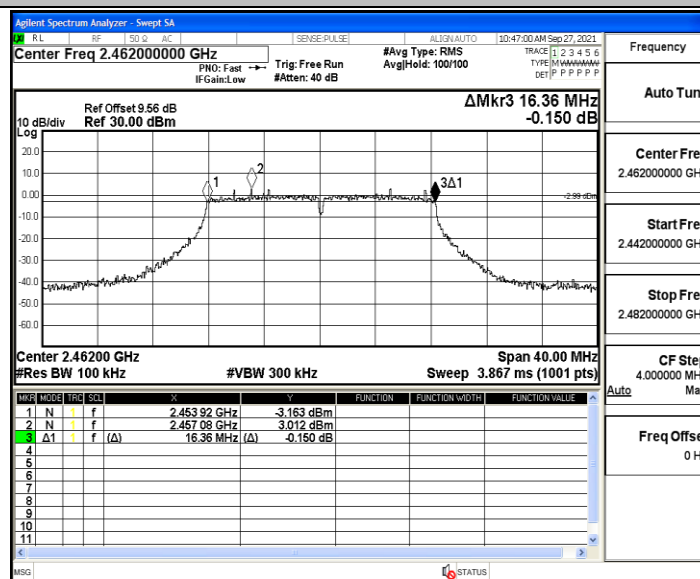
11G_Ant1_2412



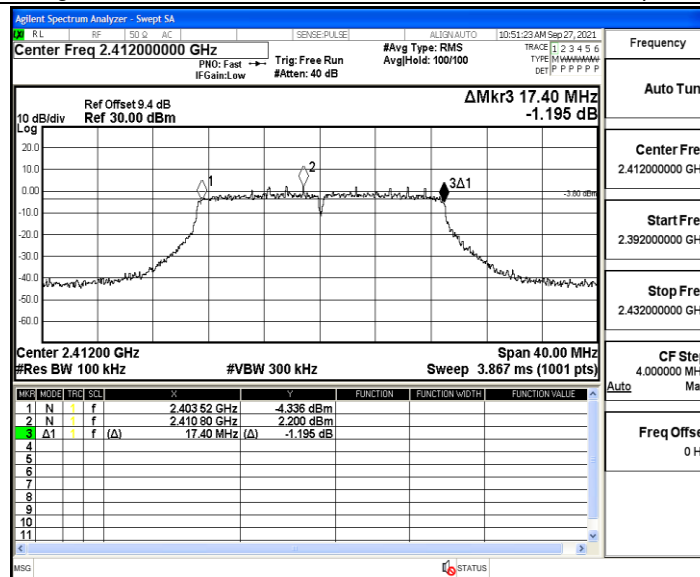
11G_Ant1_2437



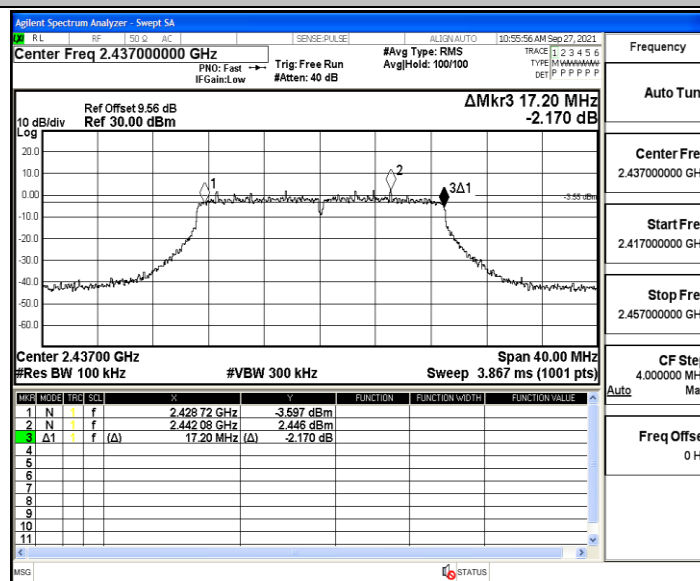
11G_Ant1_2462



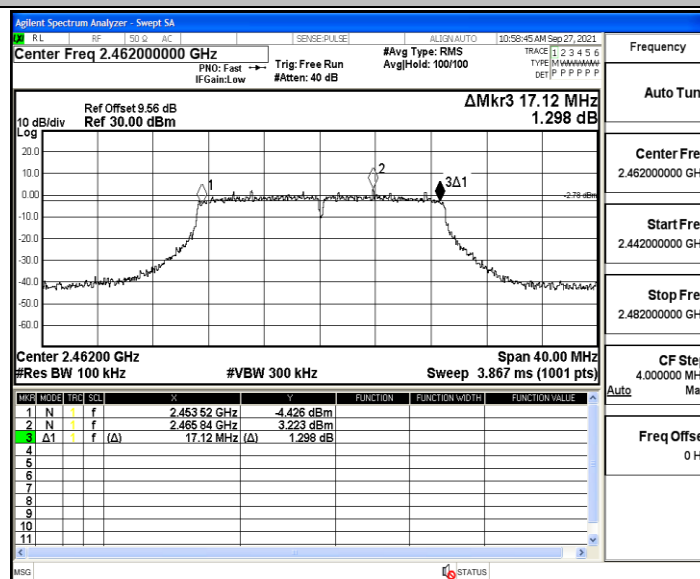
11N20SISO_Ant1_2412



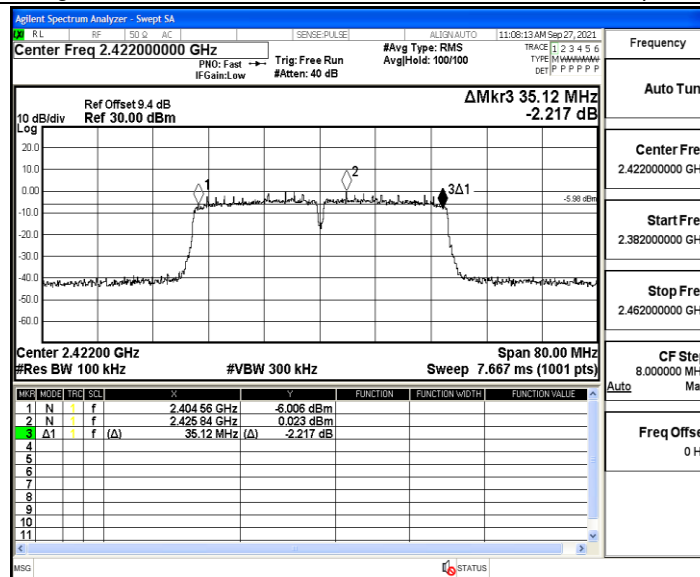
11N20SISO_Ant1_2437



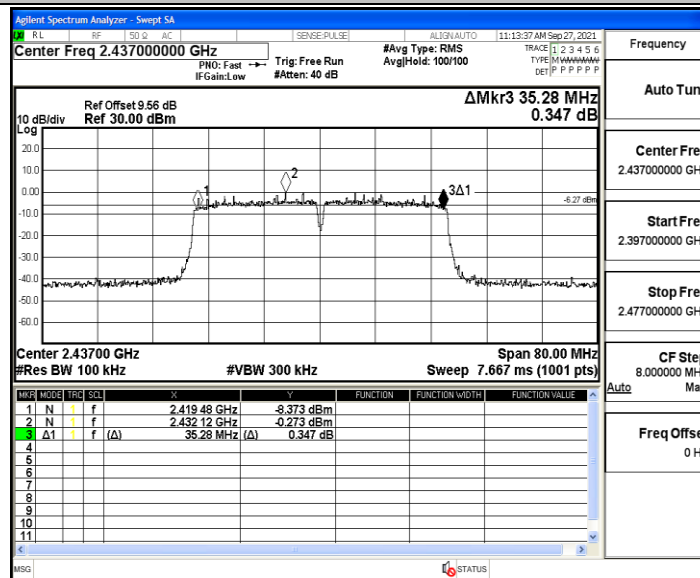
11N20SISO_Ant1_2462



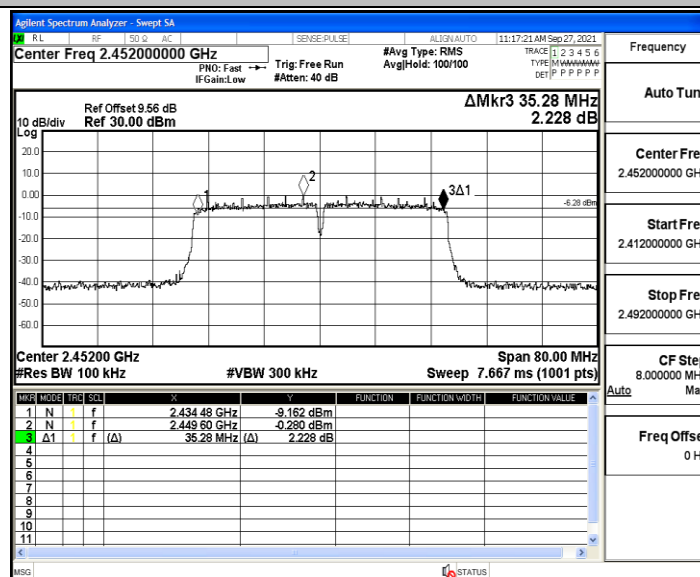
11N40SISO_Ant1_2422



11N40SISO_Ant1_2437



11N40SISO_Ant1_2452



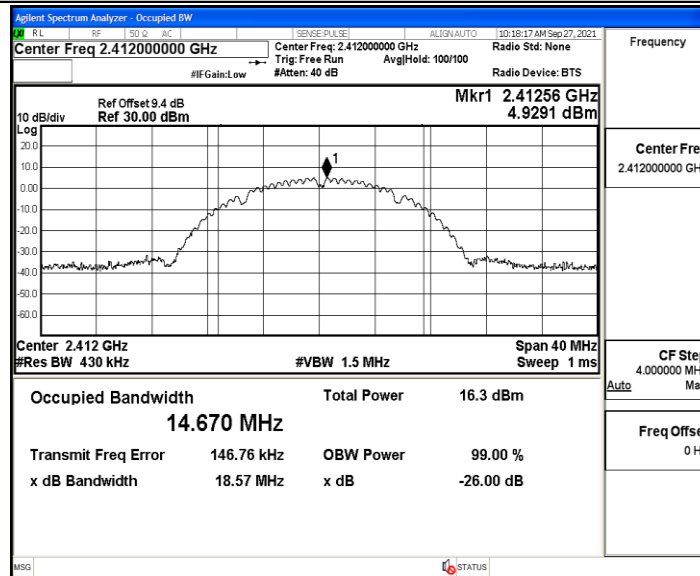
Appendix B: Occupied Channel Bandwidth

Test Result

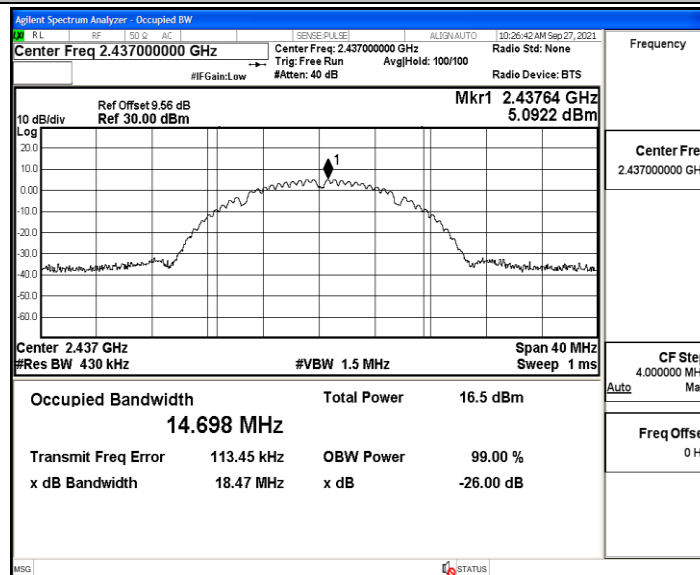
TestMode	Antenna	Channel	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	14.670	2404.812	2419.482	---	PASS
		2437	14.698	2429.764	2444.462	---	PASS
		2462	14.656	2454.808	2469.464	---	PASS
11G	Ant1	2412	17.055	2403.625	2420.680	---	PASS
		2437	17.002	2428.611	2445.613	---	PASS
		2462	17.019	2453.568	2470.587	---	PASS
11N20SISO	Ant1	2412	17.914	2403.205	2421.119	---	PASS
		2437	17.931	2428.155	2446.086	---	PASS
		2462	17.916	2453.193	2471.109	---	PASS
11N40SISO	Ant1	2422	35.805	2404.295	2440.100	---	PASS
		2437	35.844	2419.269	2455.113	---	PASS
		2452	35.855	2434.278	2470.133	---	PASS

Test Graphs

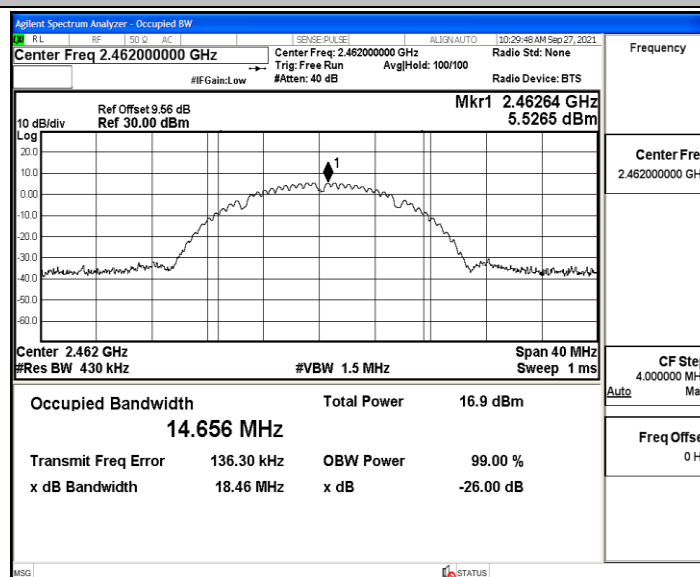
11B_Ant1_2412



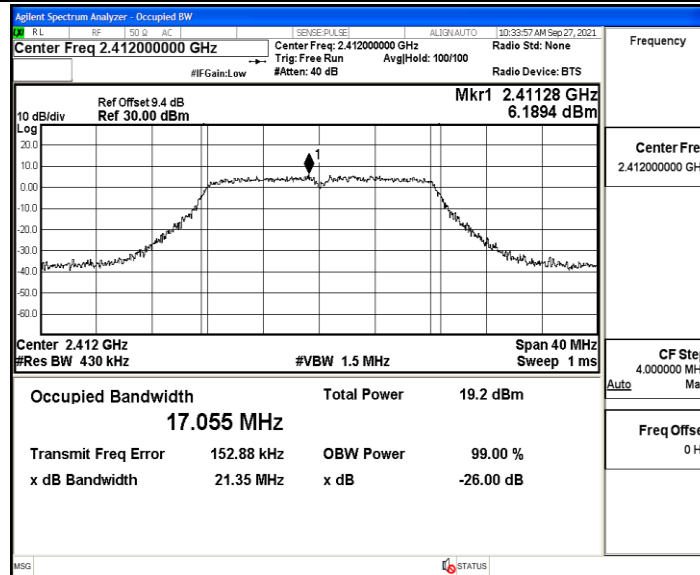
11B_Ant1_2437



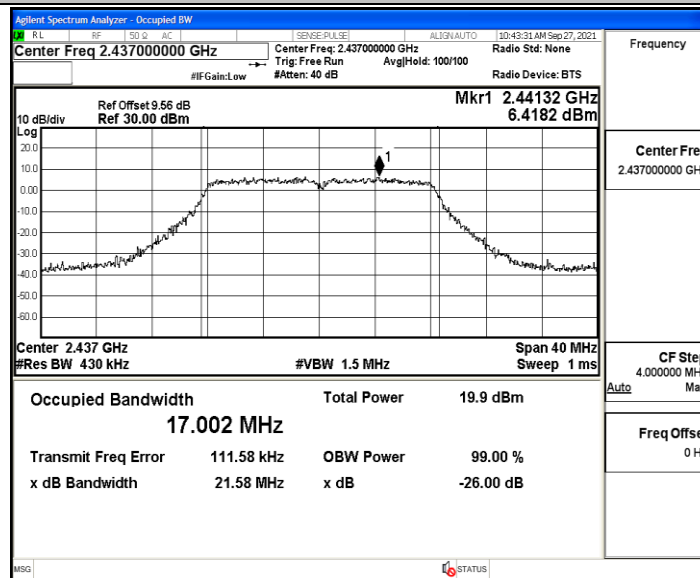
11B_Ant1_2462



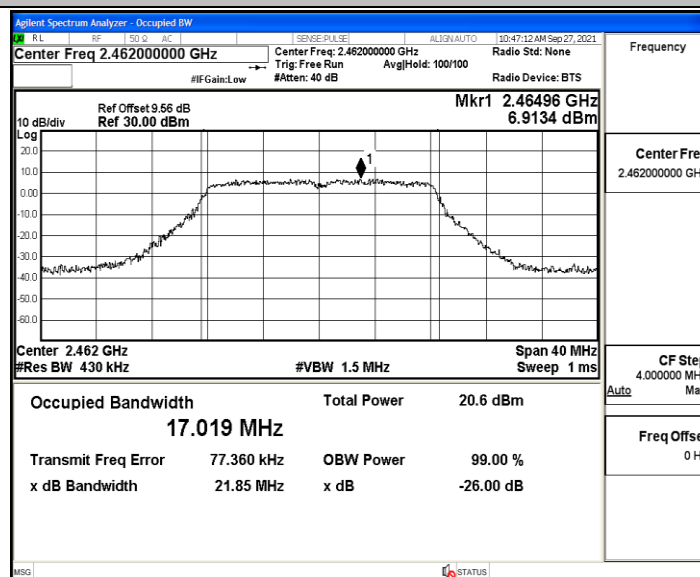
11G_Ant1_2412



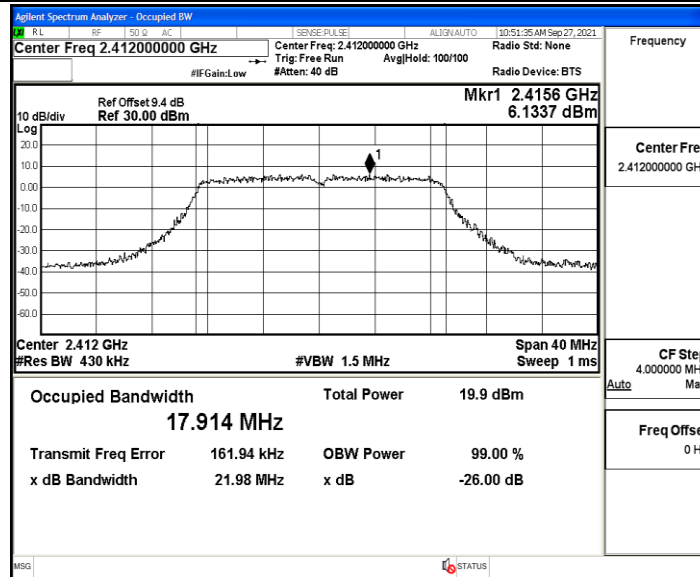
11G_Ant1_2437



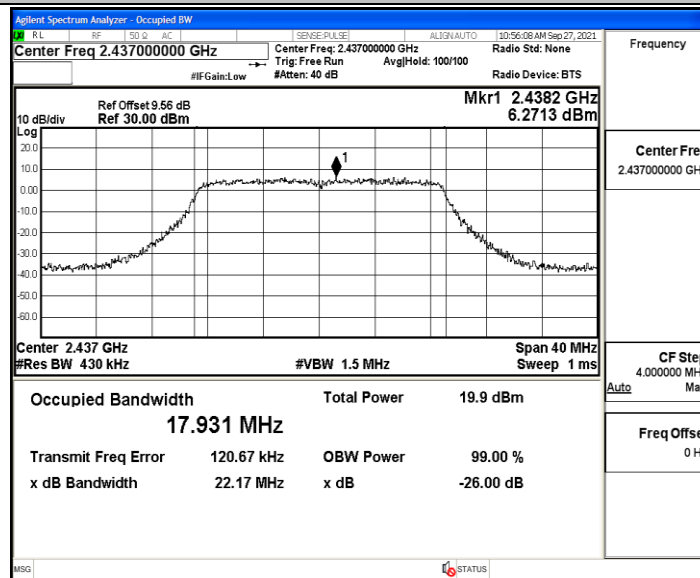
11G_Ant1_2462



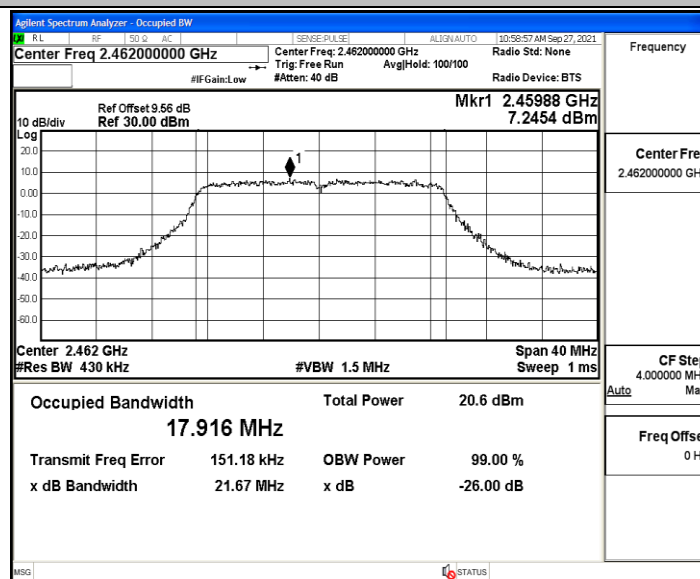
11N20SISO_Ant1_2412



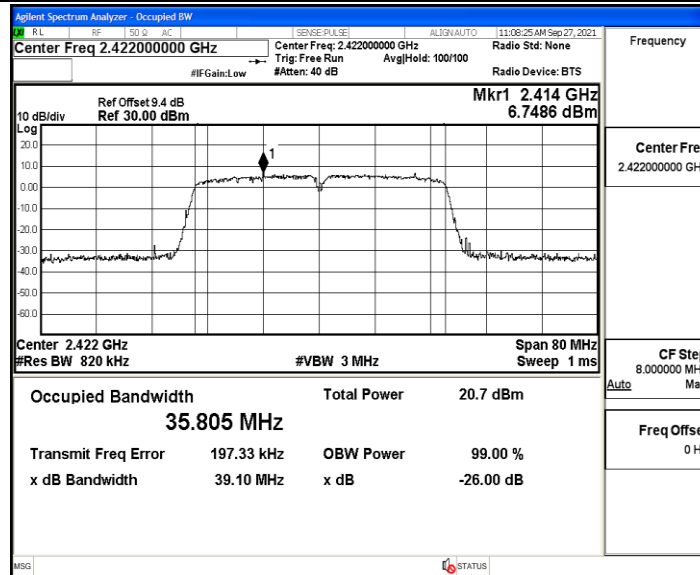
11N20SISO_Ant1_2437



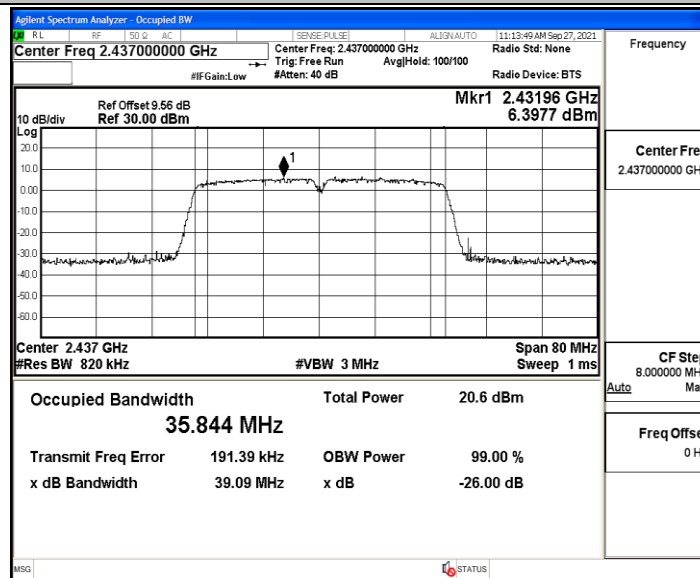
11N20SISO_Ant1_2462



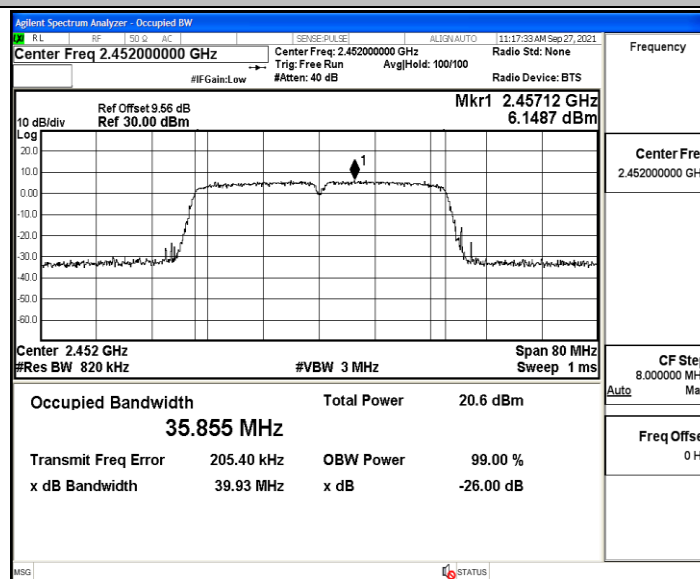
11N40SISO_Ant1_2422



11N40SISO_Ant1_2437



11N40SISO_Ant1_2452



Appendix C: Maximum conducted output power

Test Result

TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
11B	Ant1	2412	13.25	≤30	PASS
		2437	13.53	≤30	PASS
		2462	13.97	≤30	PASS
11G	Ant1	2412	13.21	≤30	PASS
		2437	13.89	≤30	PASS
		2462	14.47	≤30	PASS
11N20SISO	Ant1	2412	13.71	≤30	PASS
		2437	13.82	≤30	PASS
		2462	14.47	≤30	PASS
11N40SISO	Ant1	2422	13.68	≤30	PASS
		2437	13.82	≤30	PASS
		2452	13.73	≤30	PASS

Note: The Duty Cycle Factor is compensated in the test result.

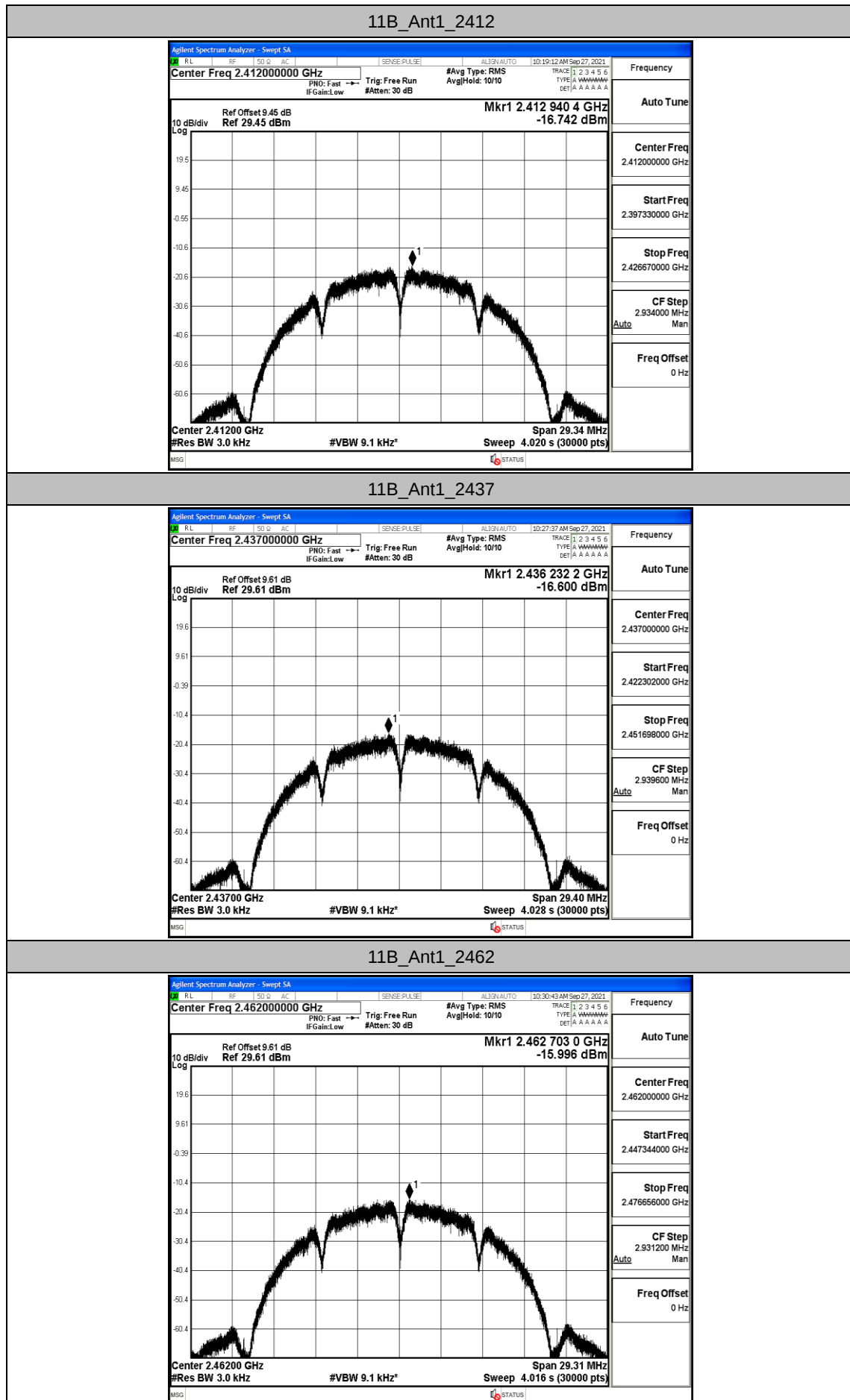
Appendix D: Maximum power spectral density

Test Result

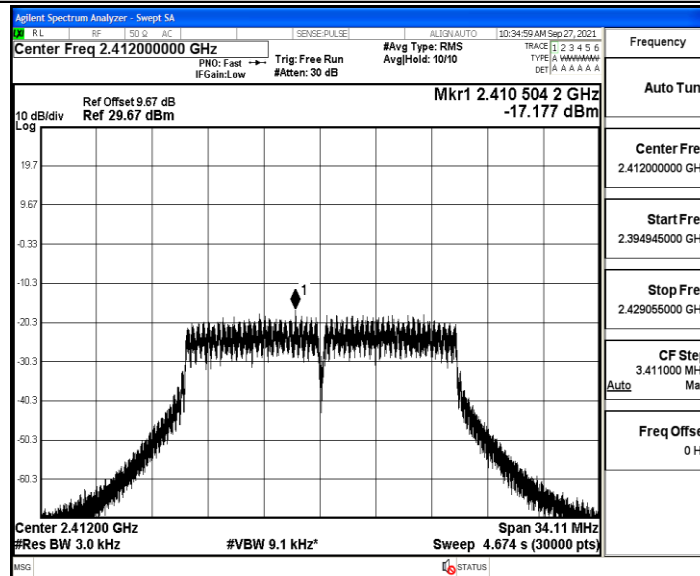
TestMode	Antenna	Channel	Result[dBm/3-100kHz]	Limit[dBm/3kHz]	Verdict
11B	Ant1	2412	-16.74	≤8	PASS
		2437	-16.6	≤8	PASS
		2462	-16	≤8	PASS
11G	Ant1	2412	-17.18	≤8	PASS
		2437	-16.55	≤8	PASS
		2462	-16.18	≤8	PASS
11N20SISO	Ant1	2412	-17.34	≤8	PASS
		2437	-16.11	≤8	PASS
		2462	-15.98	≤8	PASS
11N40SISO	Ant1	2422	-19	≤8	PASS
		2437	-18.97	≤8	PASS
		2452	-19.47	≤8	PASS

Note: The Duty Cycle Factor is compensated in the test result.

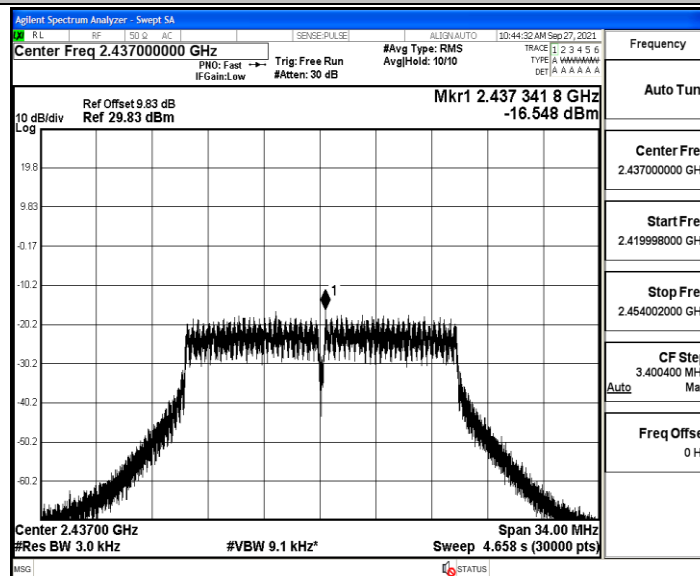
Test Graphs



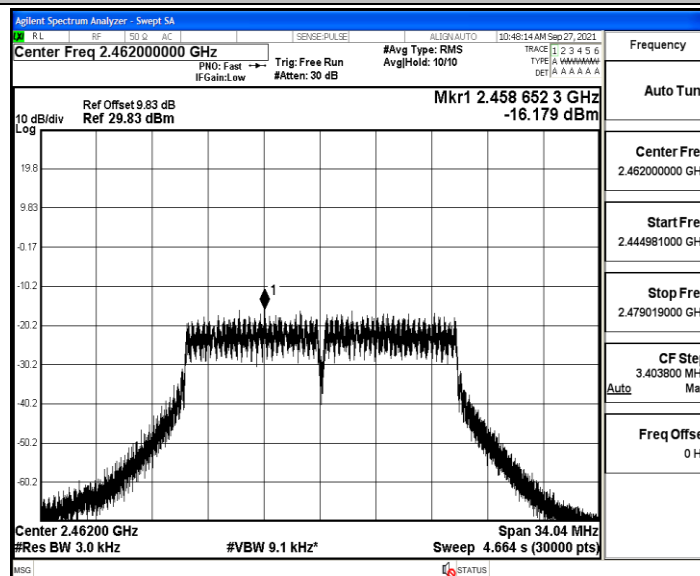
11G_Ant1_2412



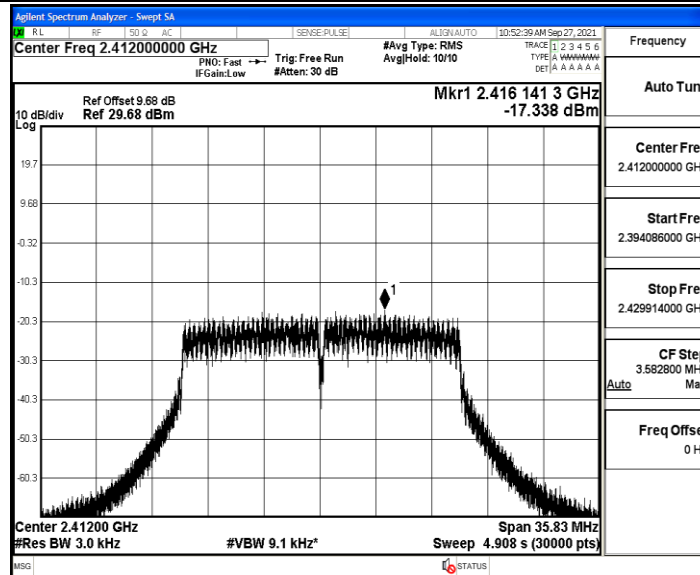
11G_Ant1_2437



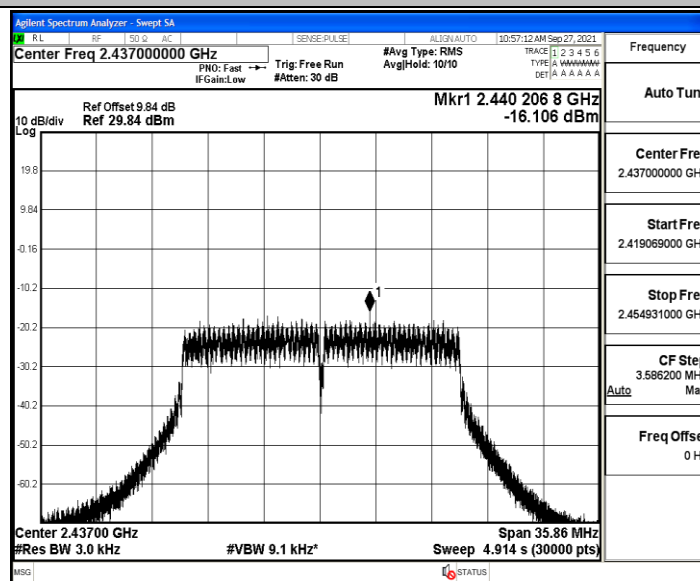
11G_Ant1_2462



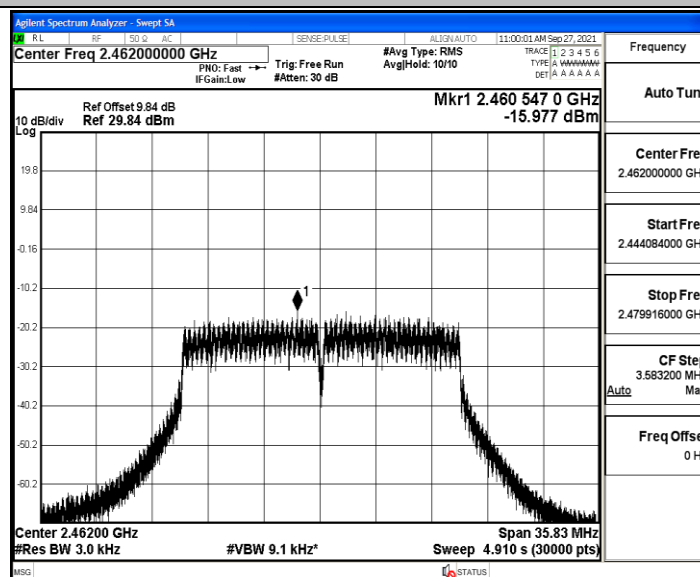
11N20SISO_Ant1_2412



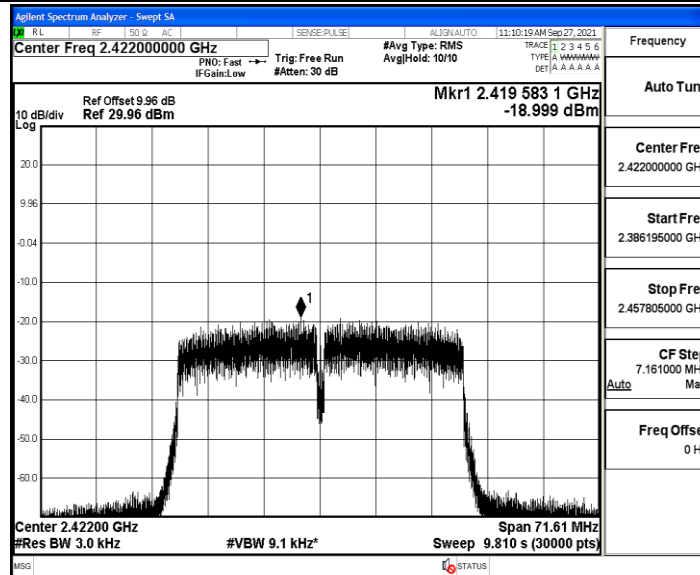
11N20SISO_Ant1_2437



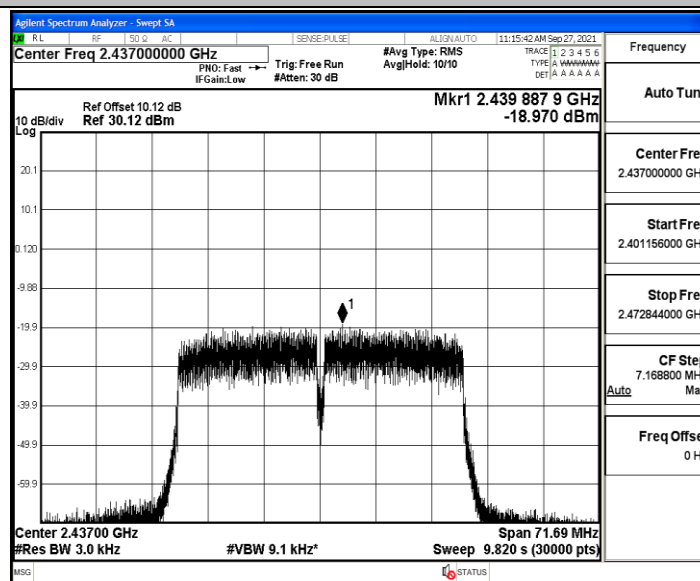
11N20SISO_Ant1_2462



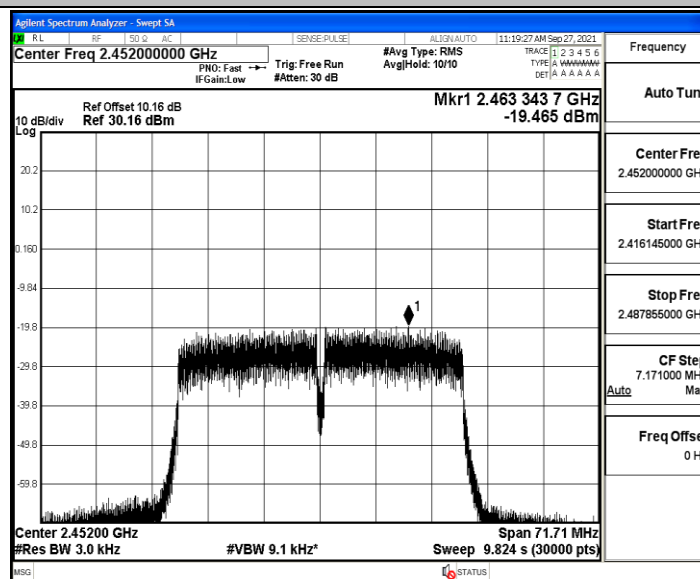
11N40SISO_Ant1_2422



11N40SISO_Ant1_2437



11N40SISO_Ant1_2452



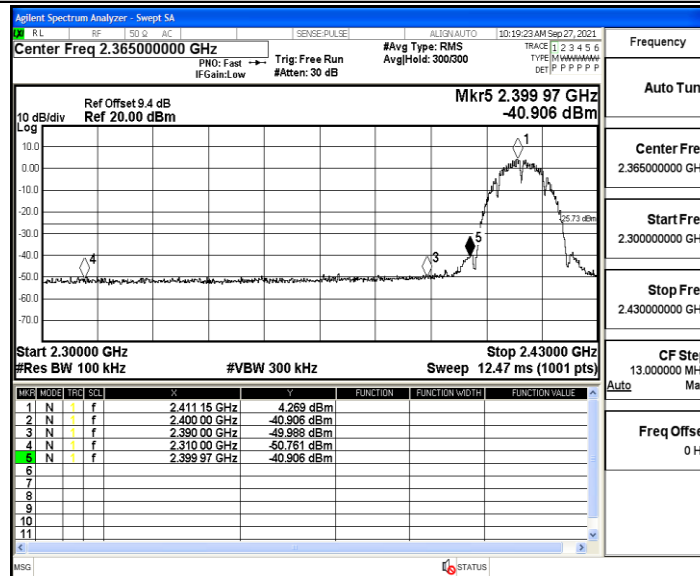
Appendix E: Band edge measurements

Test Result

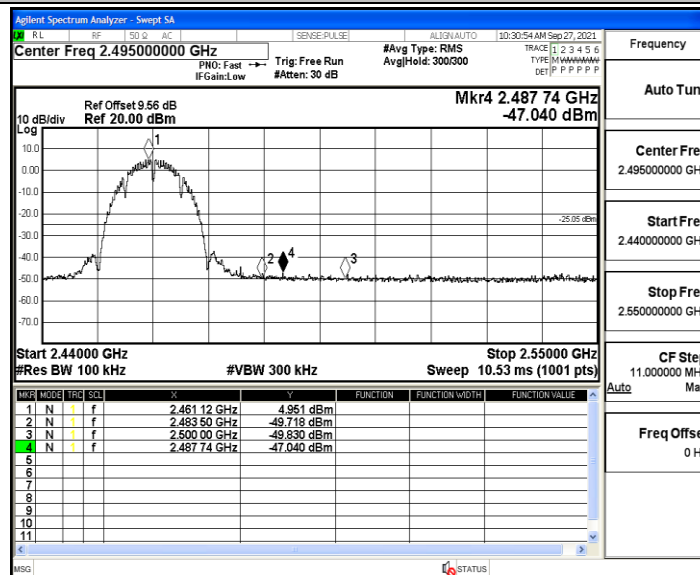
TestMode	Antenna	ChName	Channel	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
11B	Ant1	Low	2412	4.27	-40.91	≤-25.73	PASS
		High	2462	4.95	-47.04	≤-25.05	PASS
11G	Ant1	Low	2412	1.93	-36.13	≤-28.08	PASS
		High	2462	3.10	-47.15	≤-26.9	PASS
11N20SISO	Ant1	Low	2412	2.87	-36.33	≤-27.13	PASS
		High	2462	3.17	-46.19	≤-26.83	PASS
11N40SISO	Ant1	Low	2422	-0.16	-41.69	≤-30.16	PASS
		High	2452	-0.02	-45.66	≤-30.02	PASS

Test Graphs

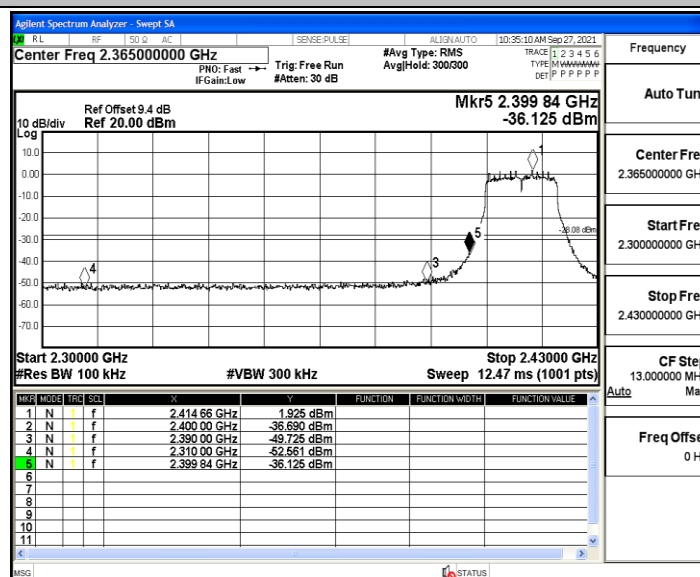
11B_Ant1_Low_2412



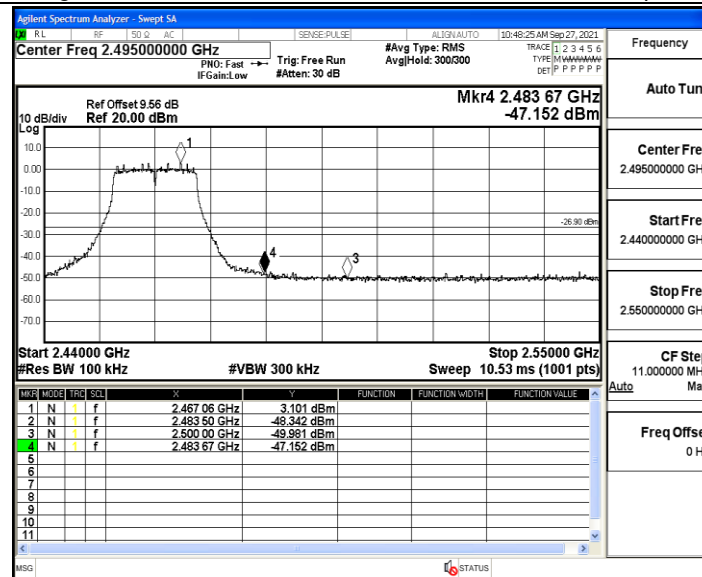
11B_Ant1_High_2462



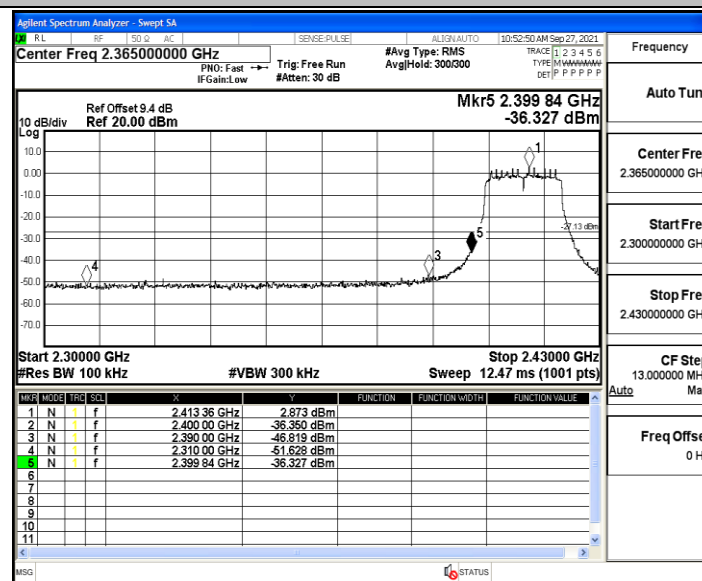
11G_Ant1_Low_2412



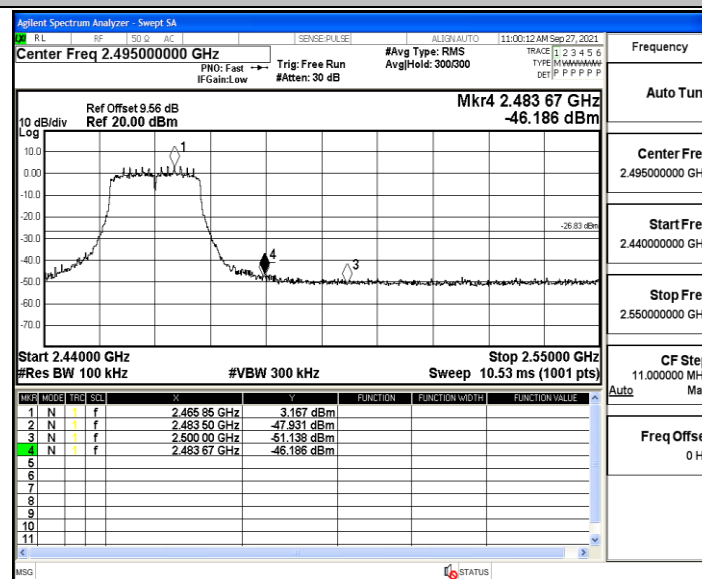
11G_Ant1_High_2462



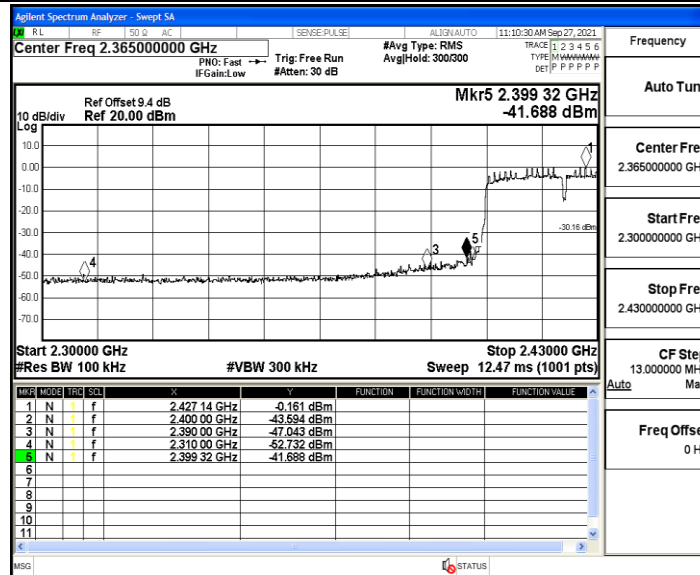
11N20SISO_Ant1_Low_2412



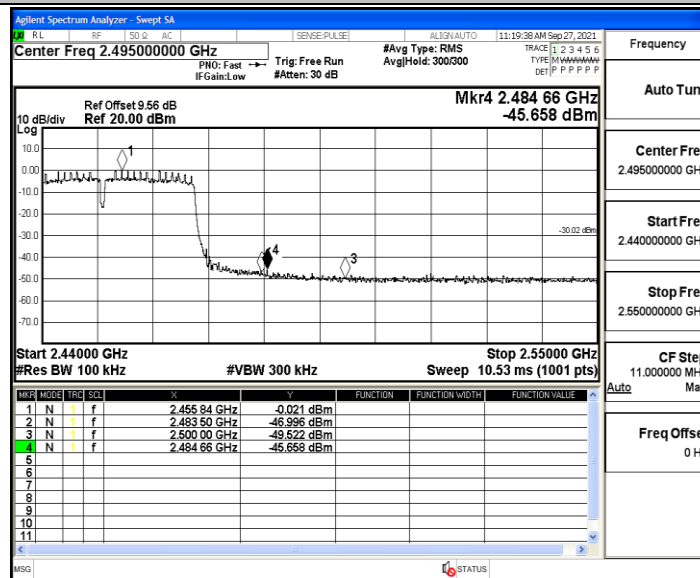
11N20SISO_Ant1_High_2462



11N40SISO_Ant1_Low_2422



11N40SISO_Ant1_High_2452

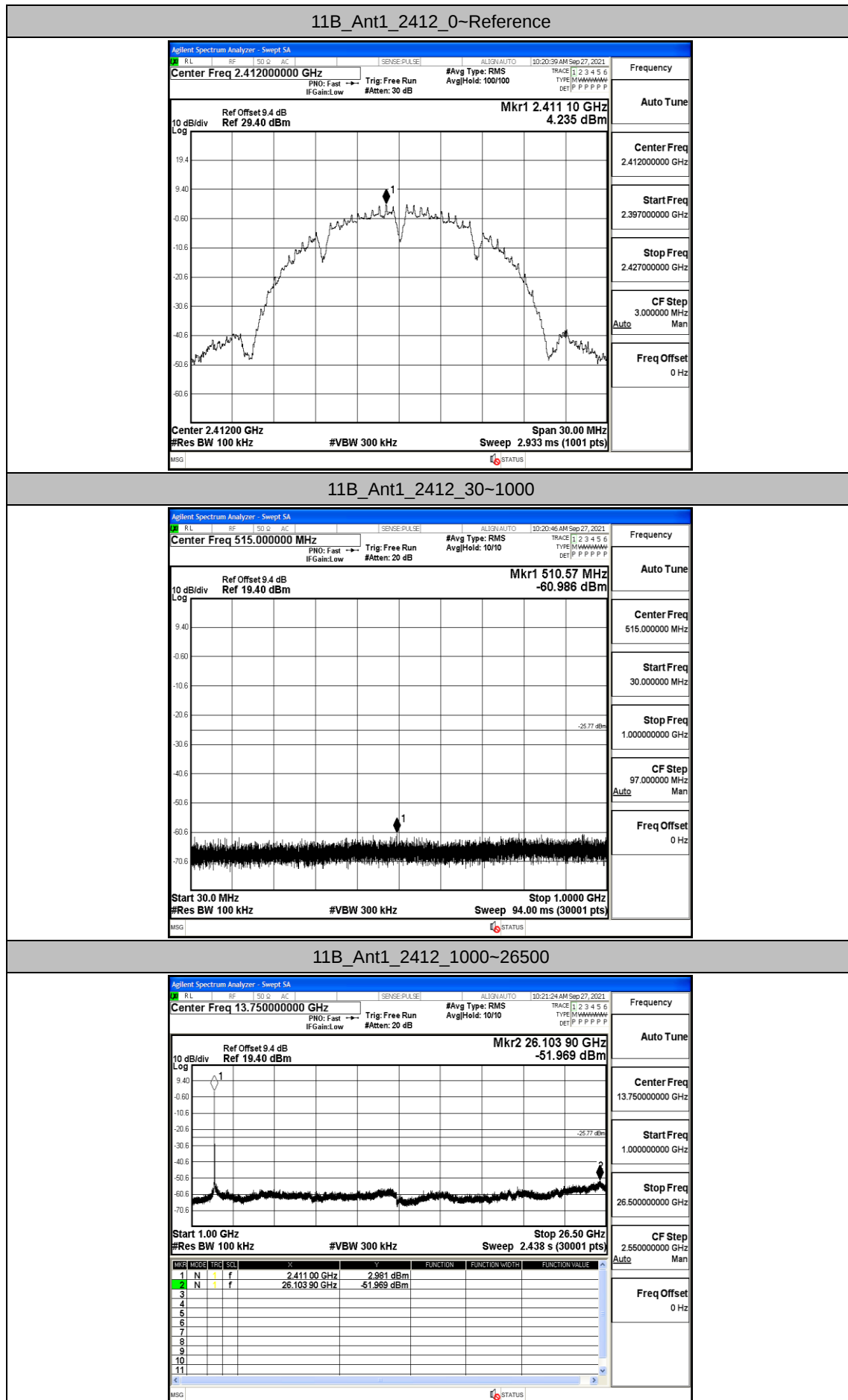


Appendix F: Conducted Spurious Emission

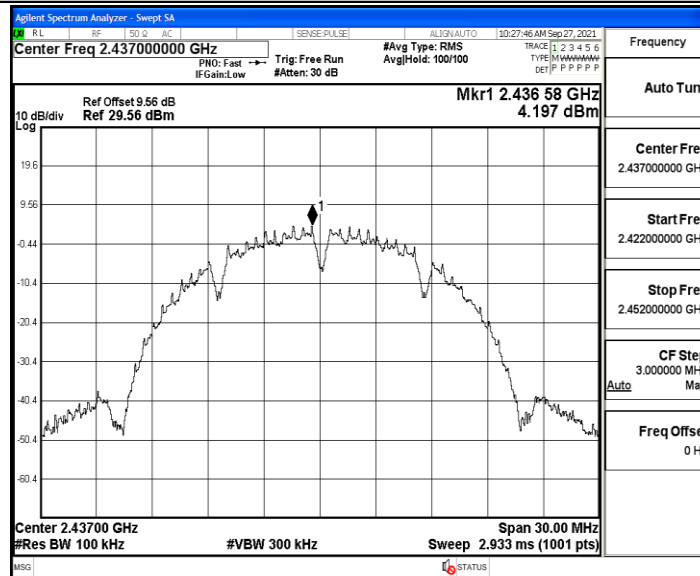
Test Result

TestMode	Antenna	Channel	FreqRange [Mhz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
11B	Ant1	2412	Reference	4.24	4.24	---	PASS
			30~1000	4.24	-60.99	≤-25.77	PASS
			1000~26500	4.24	-51.97	≤-25.77	PASS
		2437	Reference	4.20	4.20	---	PASS
			30~1000	4.20	-60.88	≤-25.8	PASS
			1000~26500	4.20	-51.9	≤-25.8	PASS
		2462	Reference	4.92	4.92	---	PASS
			30~1000	4.92	-61	≤-25.08	PASS
			1000~26500	4.92	-52.22	≤-25.08	PASS
11G	Ant1	2412	Reference	1.27	1.27	---	PASS
			30~1000	1.27	-61.65	≤-28.73	PASS
			1000~26500	1.27	-51.35	≤-28.73	PASS
		2437	Reference	2.65	2.65	---	PASS
			30~1000	2.65	-61.11	≤-27.35	PASS
			1000~26500	2.65	-51.77	≤-27.35	PASS
		2462	Reference	3.60	3.60	---	PASS
			30~1000	3.60	-60.62	≤-26.4	PASS
			1000~26500	3.60	-51.66	≤-26.4	PASS
11N20SISO	Ant1	2412	Reference	2.76	2.76	---	PASS
			30~1000	2.76	-61.06	≤-27.24	PASS
			1000~26500	2.76	-51.66	≤-27.24	PASS
		2437	Reference	2.09	2.09	---	PASS
			30~1000	2.09	-60.25	≤-27.91	PASS
			1000~26500	2.09	-51.79	≤-27.91	PASS
		2462	Reference	2.99	2.99	---	PASS
			30~1000	2.99	-60.56	≤-27.01	PASS
			1000~26500	2.99	-52.15	≤-27.01	PASS
11N40SISO	Ant1	2422	Reference	-0.35	-0.35	---	PASS
			30~1000	-0.35	-60.76	≤-30.35	PASS
			1000~26500	-0.35	-51.61	≤-30.35	PASS
		2437	Reference	0.07	0.07	---	PASS
			30~1000	0.07	-61.27	≤-29.93	PASS
			1000~26500	0.07	-51.01	≤-29.93	PASS
		2452	Reference	-0.27	-0.27	---	PASS
			30~1000	-0.27	-60.89	≤-30.27	PASS
			1000~26500	-0.27	-52.22	≤-30.27	PASS

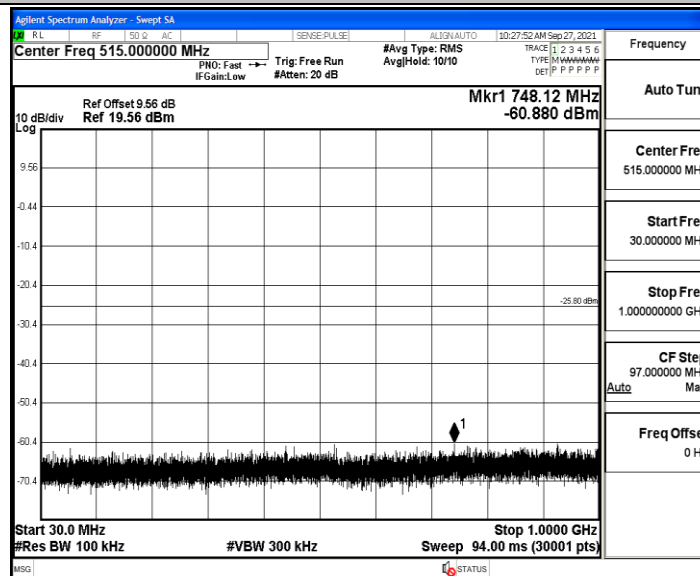
Test Graphs



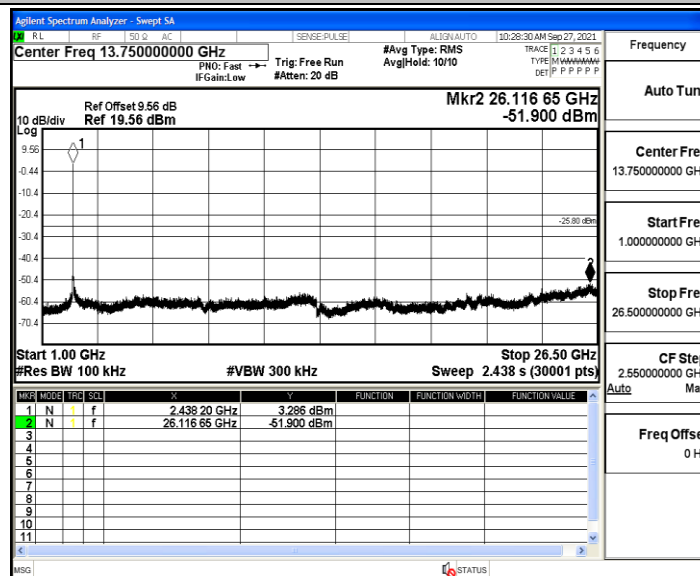
11B_Ant1_2437_0-Reference



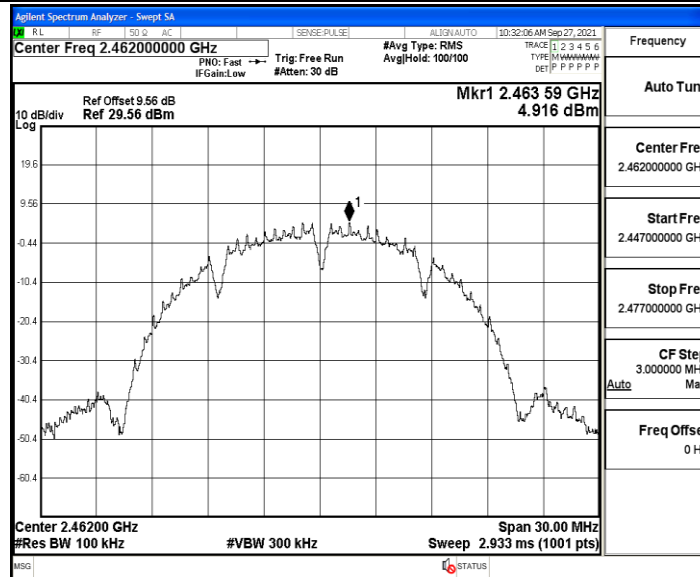
11B_Ant1_2437_30-1000



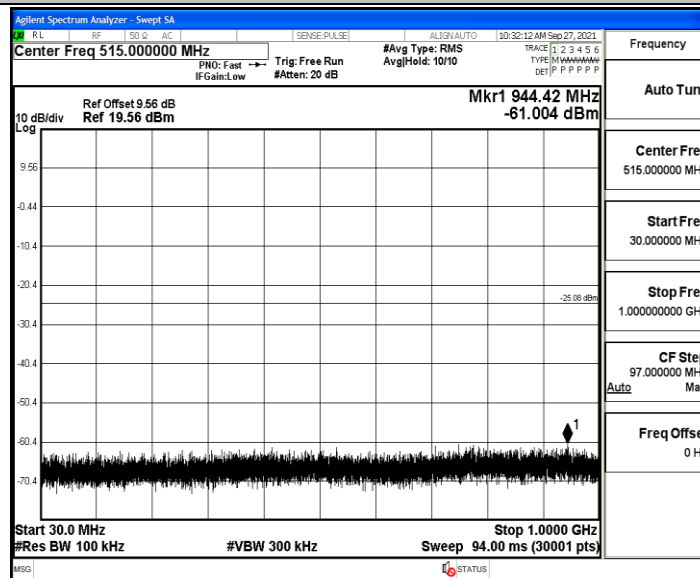
11B_Ant1_2437_1000-26500



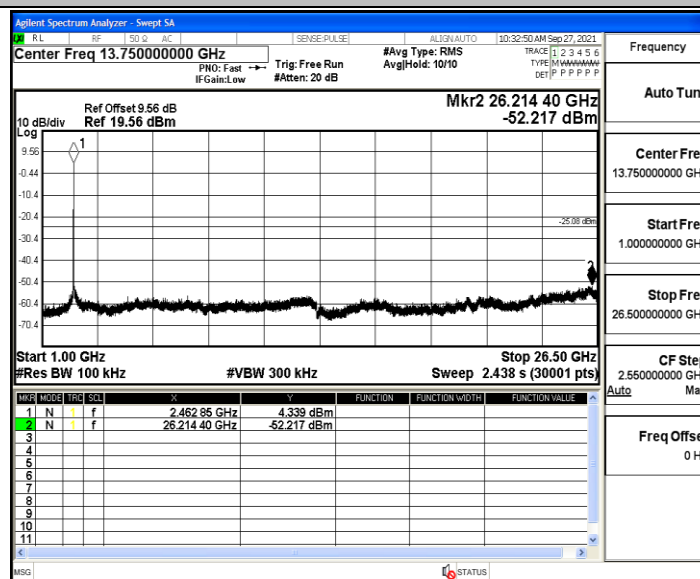
11B_Ant1_2462_0-Reference



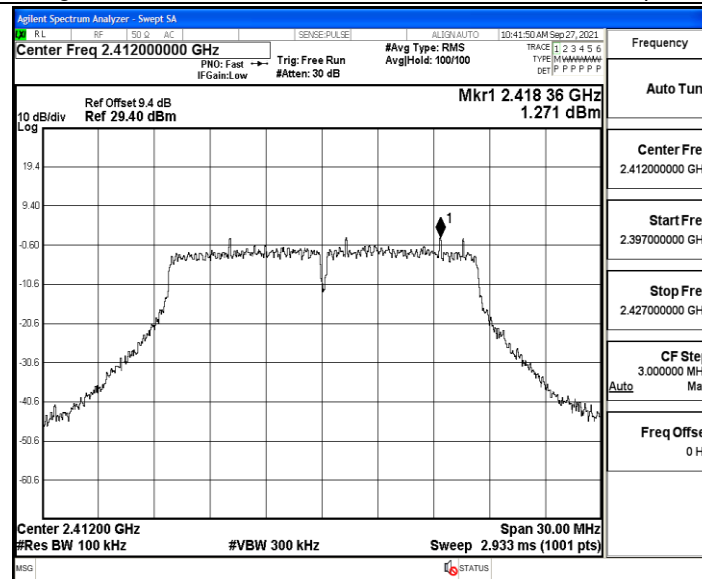
11B_Ant1_2462_30~1000



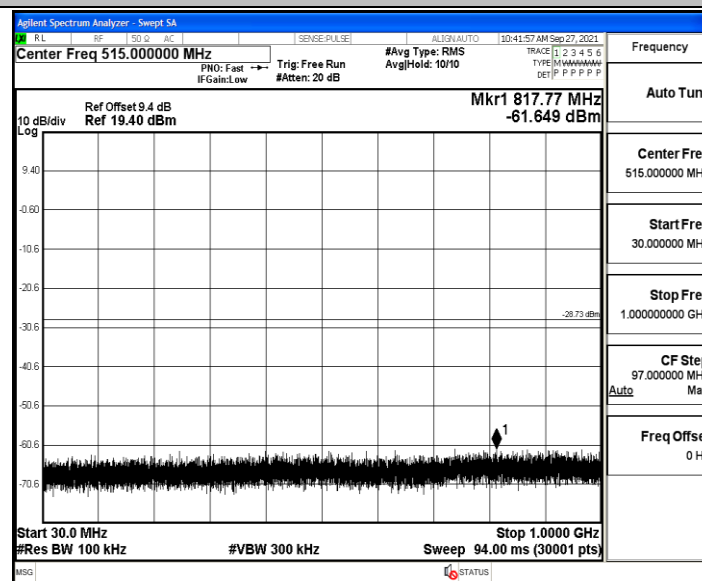
11B_Ant1_2462_1000~26500



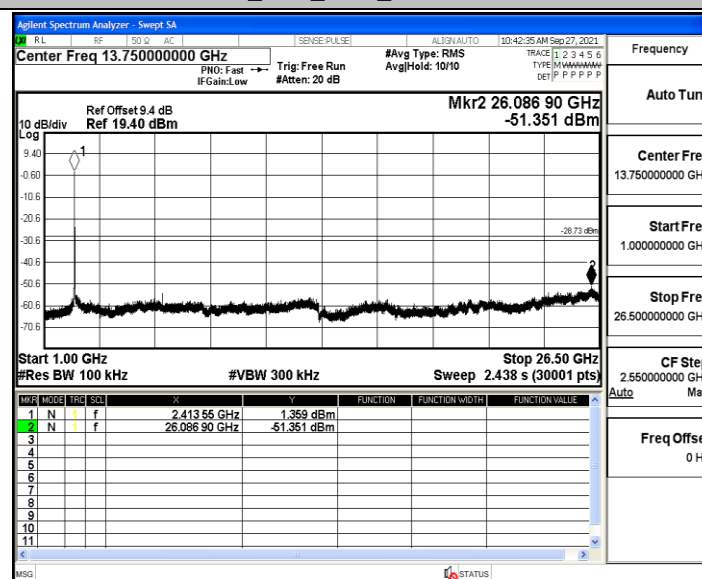
11G_Ant1_2412_0~Reference



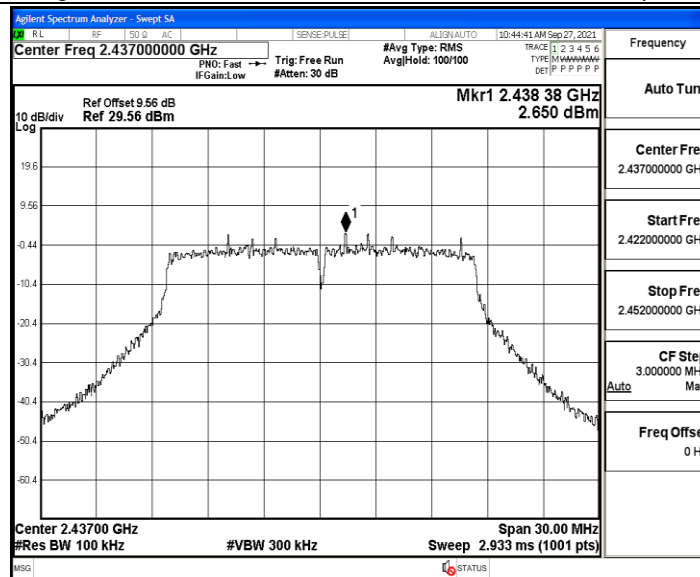
11G_Ant1_2412_30~1000



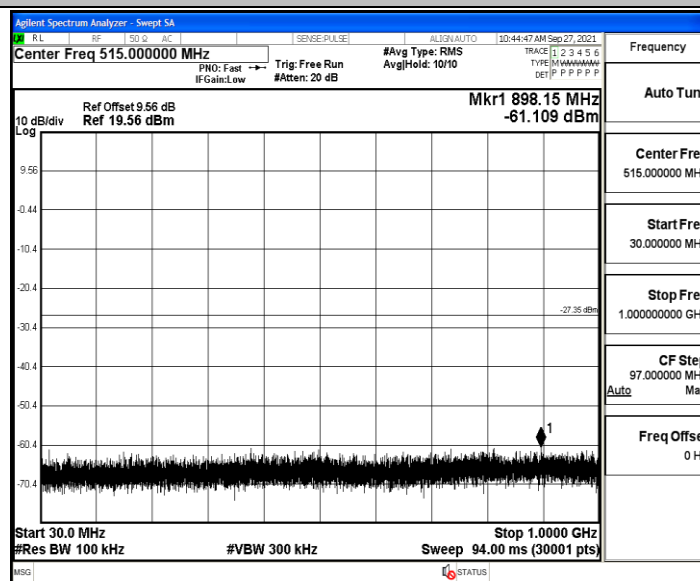
11G_Ant1_2412_1000~26500



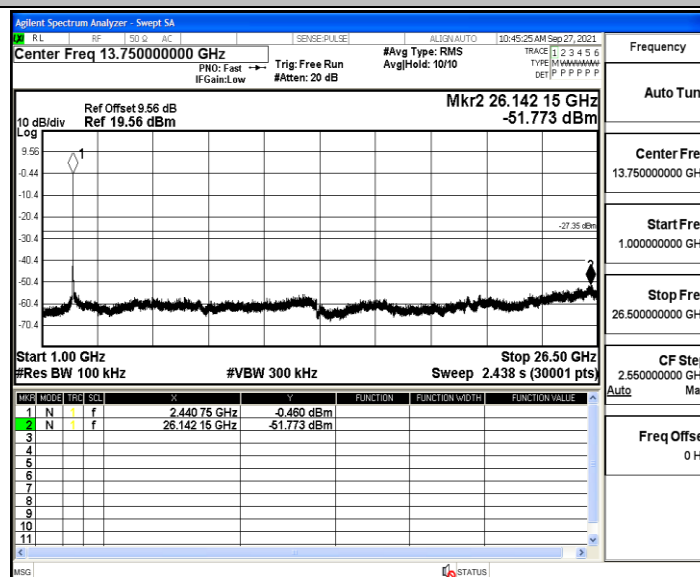
11G_Ant1_2437_0~Reference



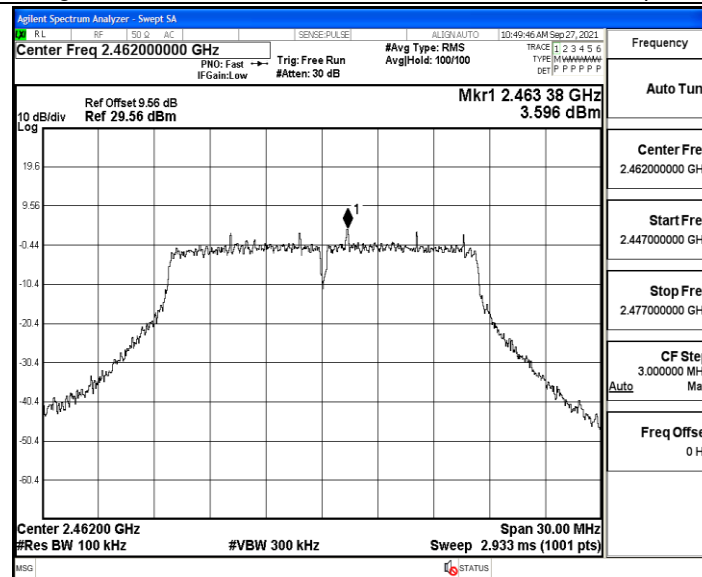
11G_Ant1_2437_30~1000



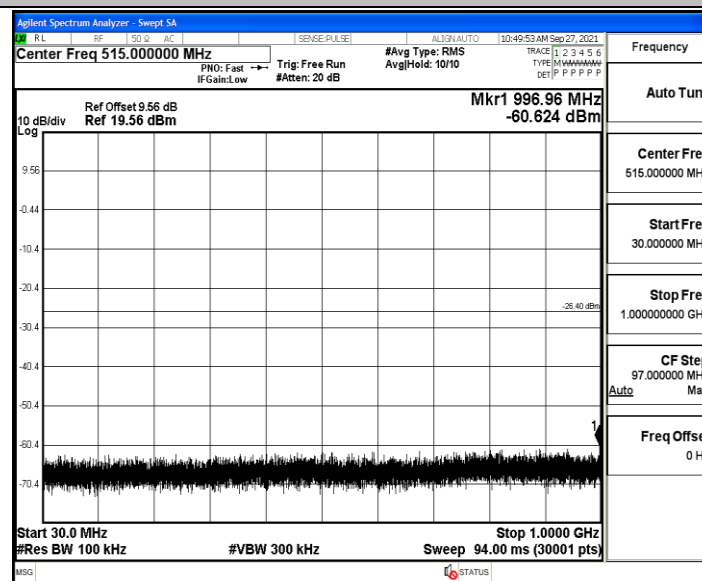
11G_Ant1_2437_1000~26500



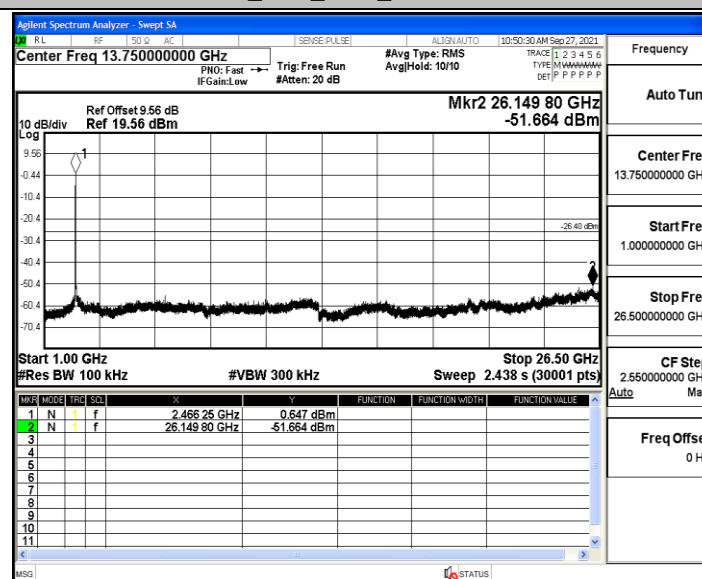
11G_Ant1_2462_0~Reference



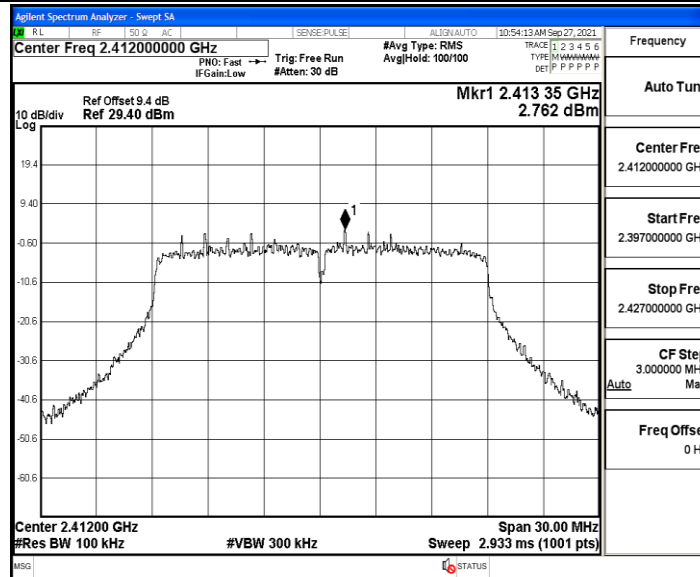
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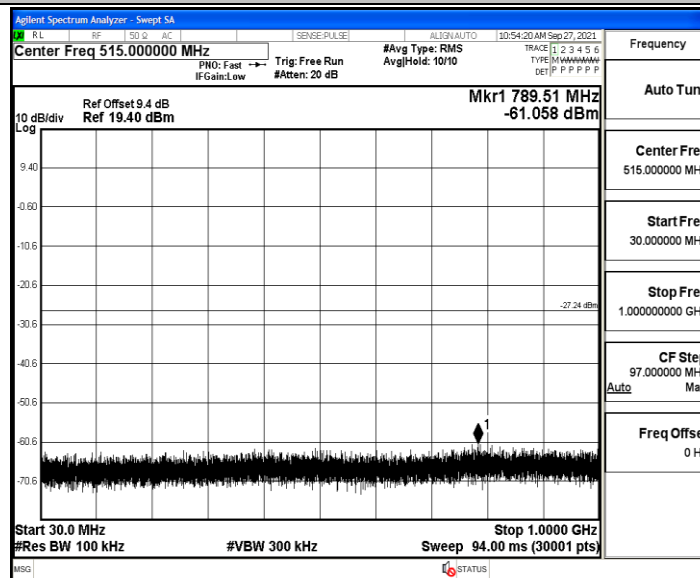
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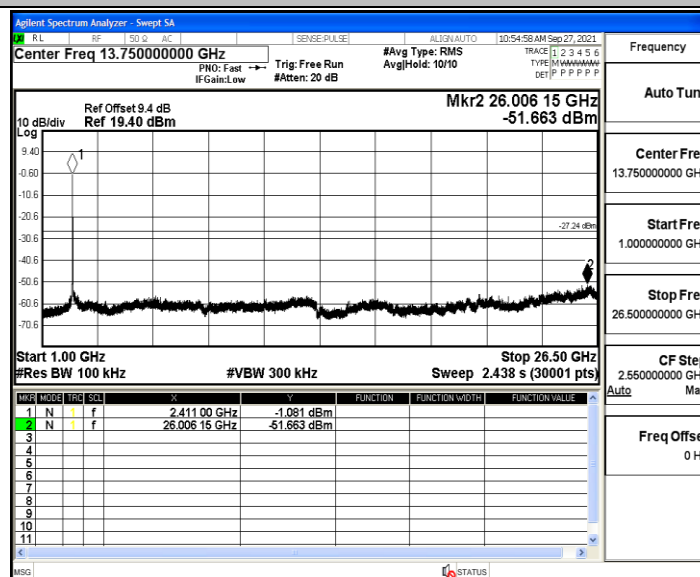
11N20SISO_Ant1_2412_0~Reference



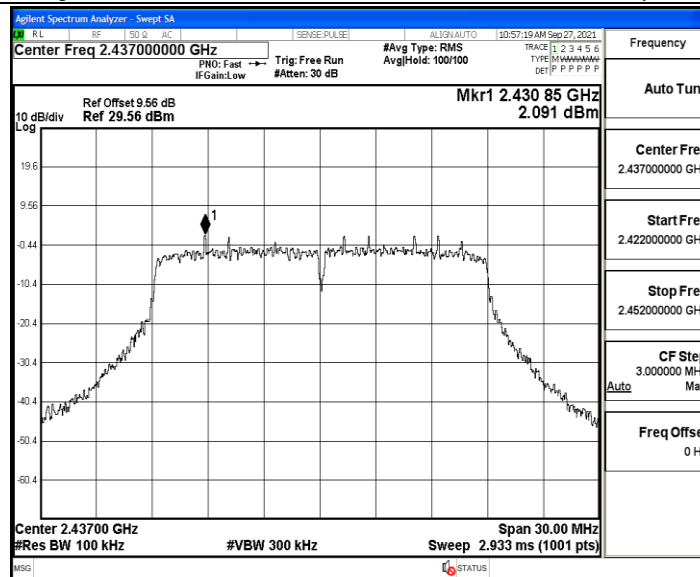
11N20SISO_Ant1_2412_30~1000



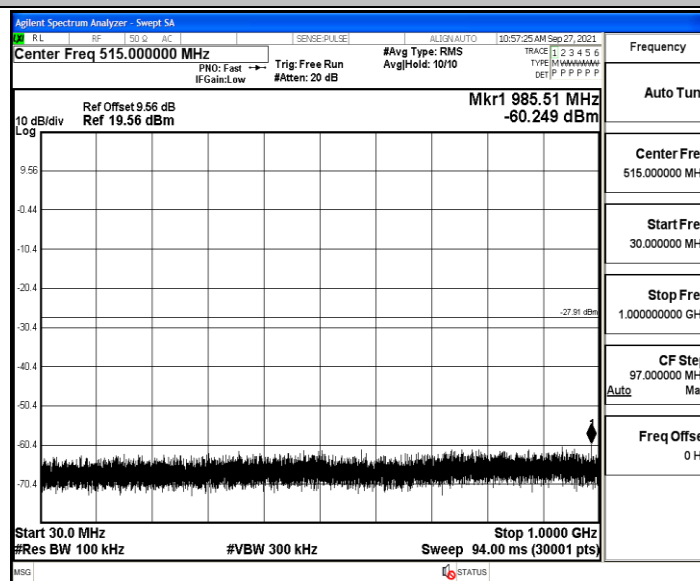
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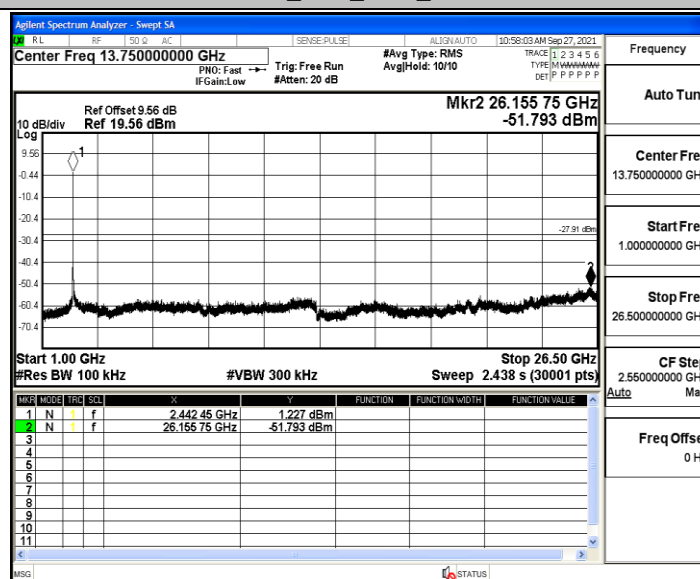
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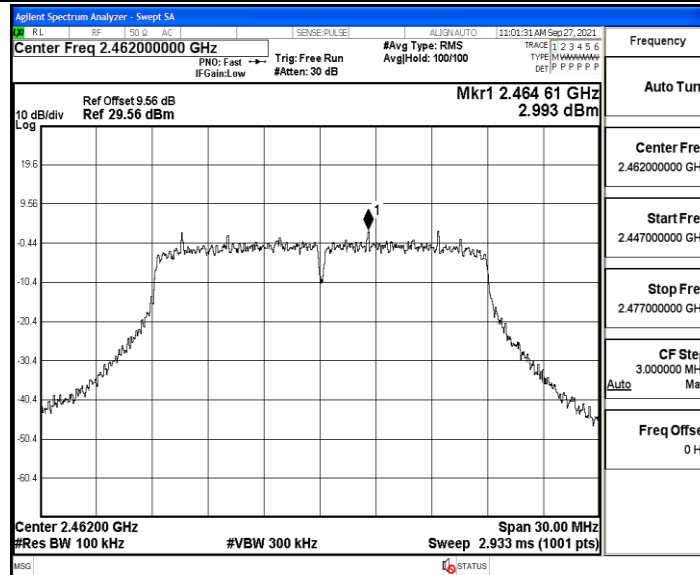
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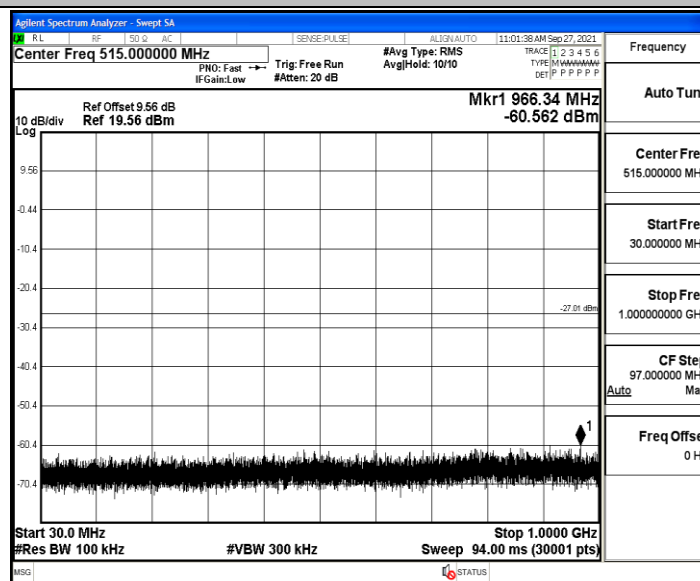
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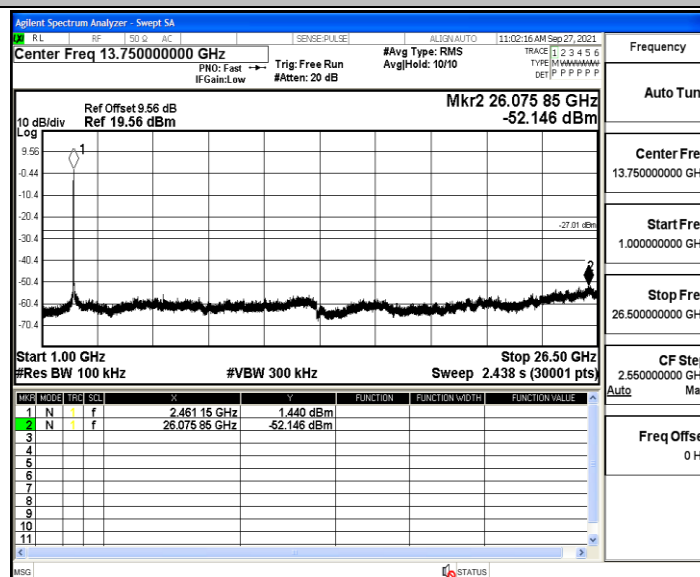
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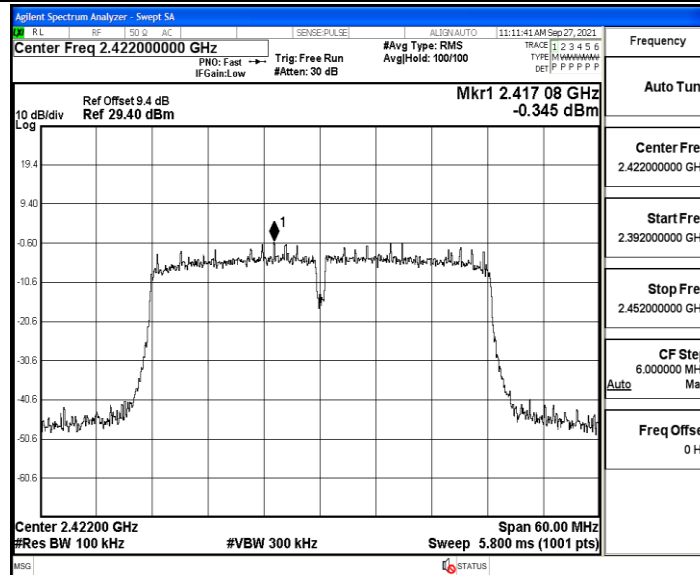
11N20SISO_Ant1_2462_30~1000



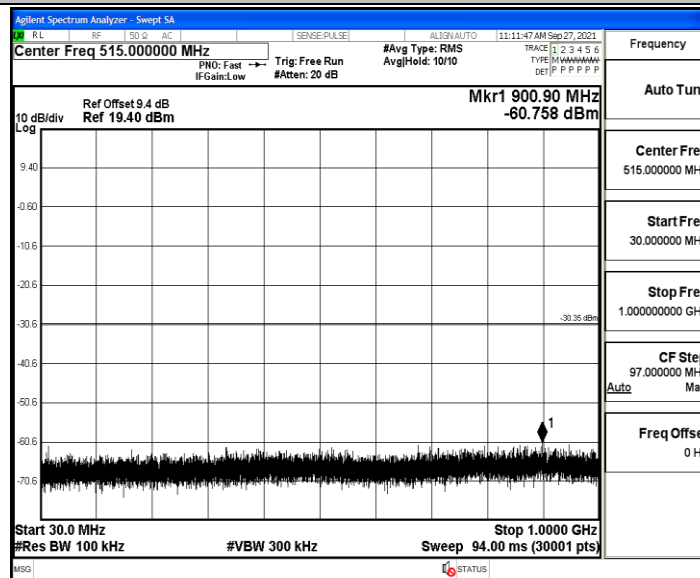
11N20SISO_Ant1_2462_1000~26500



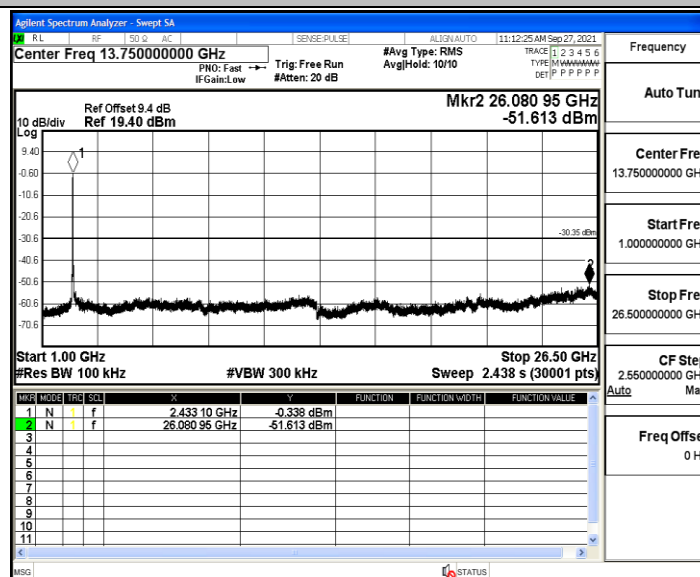
11N40SISO_Ant1_2422_0~Reference



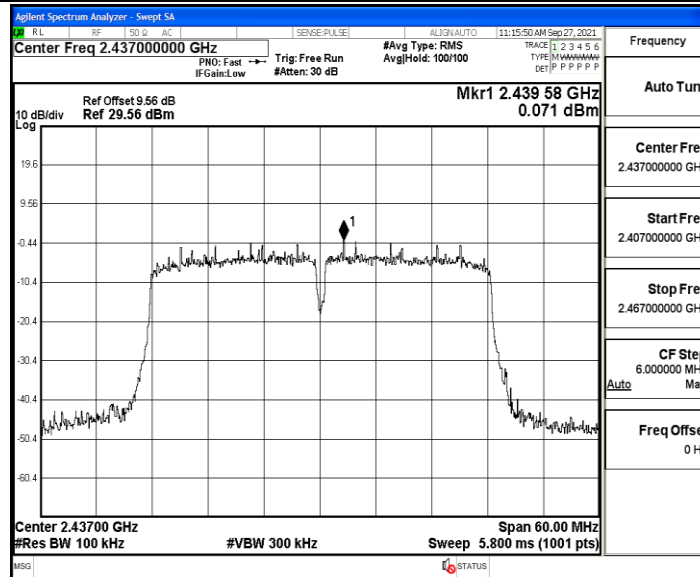
11N40SISO_Ant1_2422_30~1000



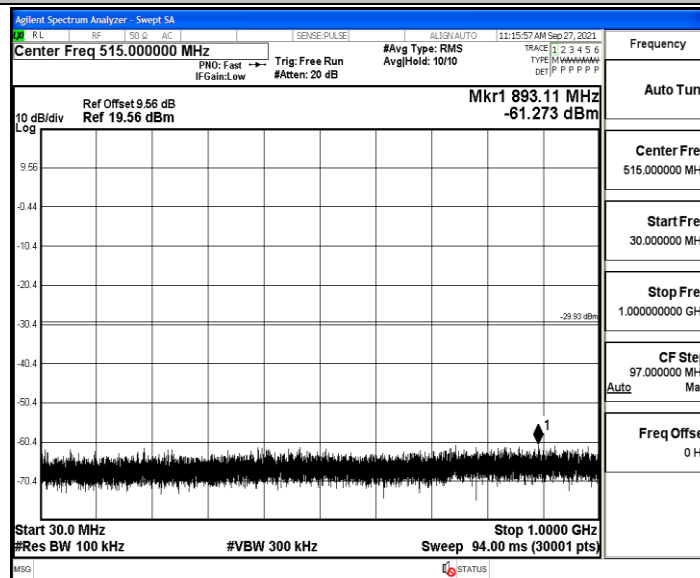
11N40SISO_Ant1_2422_1000~26500



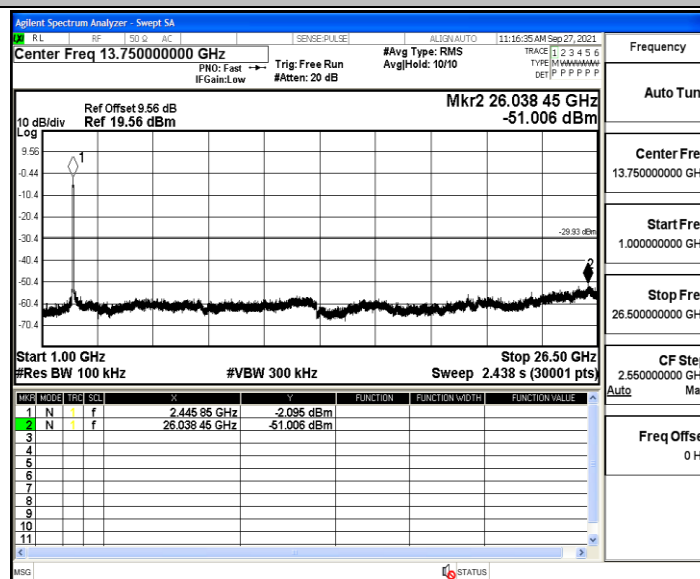
11N40SISO_Ant1_2437_0~Reference



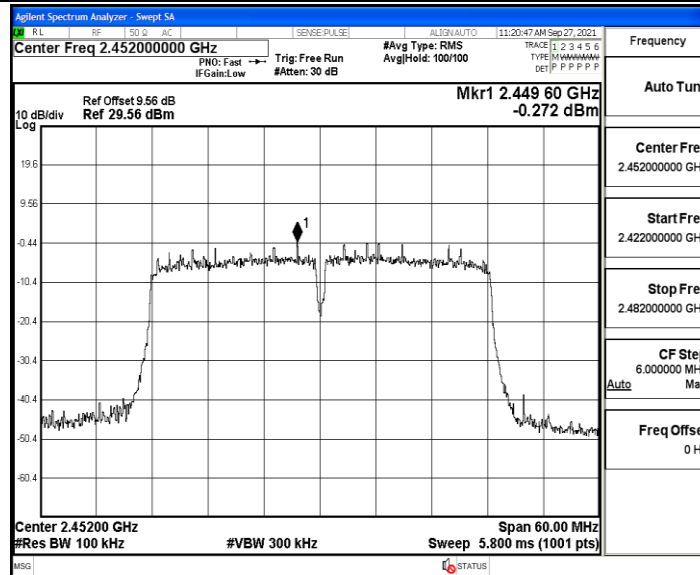
11N40SISO_Ant1_2437_30~1000



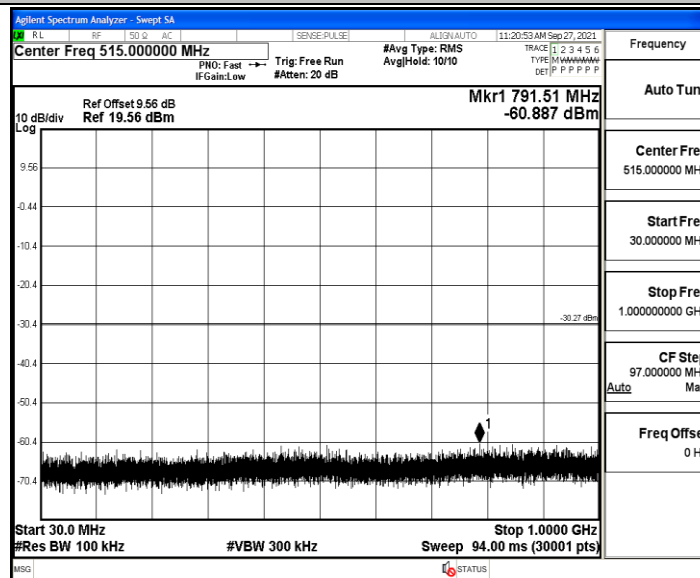
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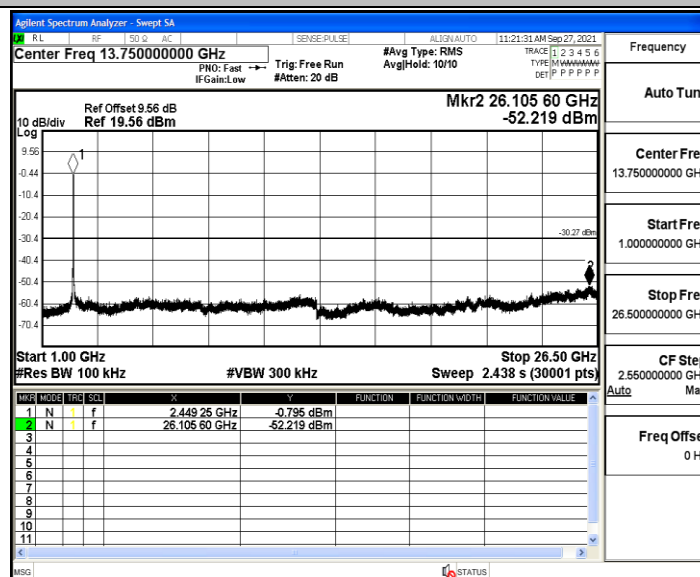
11N40SISO_Ant1_2452_0~Reference



11N40SISO_Ant1_2452_30~1000



11N40SISO_Ant1_2452_1000~26500



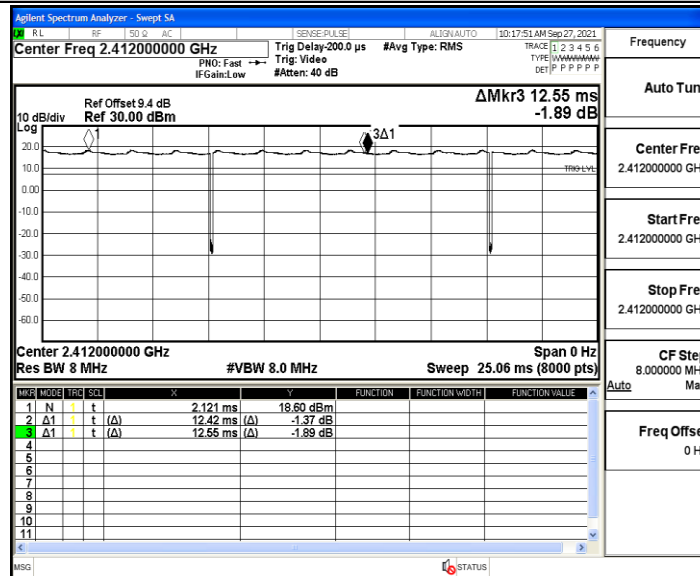
Appendix G: Duty Cycle

Test Result

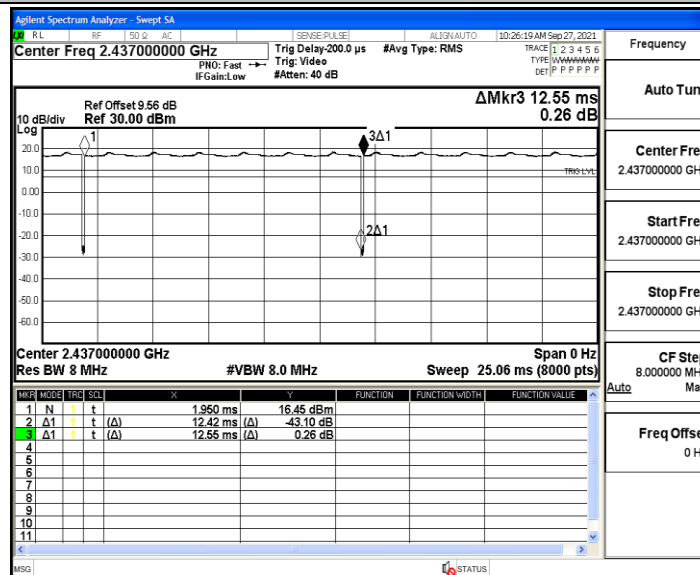
TestMode	Antenna	Channel	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]	1/B [kHz]
11B	Ant1	2412	12.42	12.55	98.96	0.1
		2437	12.42	12.55	98.96	0.1
		2462	12.41	12.55	98.88	0.1
11G	Ant1	2412	2.06	2.19	94.06	0.5
		2437	2.06	2.19	94.06	0.5
		2462	2.06	2.19	94.06	0.5
11N20SISO	Ant1	2412	1.92	2.05	93.66	0.5
		2437	1.92	2.05	93.66	0.5
		2462	1.92	2.05	93.66	0.5
11N40SISO	Ant1	2422	0.95	1.08	87.96	1.1
		2437	0.94	1.07	87.85	1.1
		2452	0.94	1.08	87.04	1.1

Test Graphs

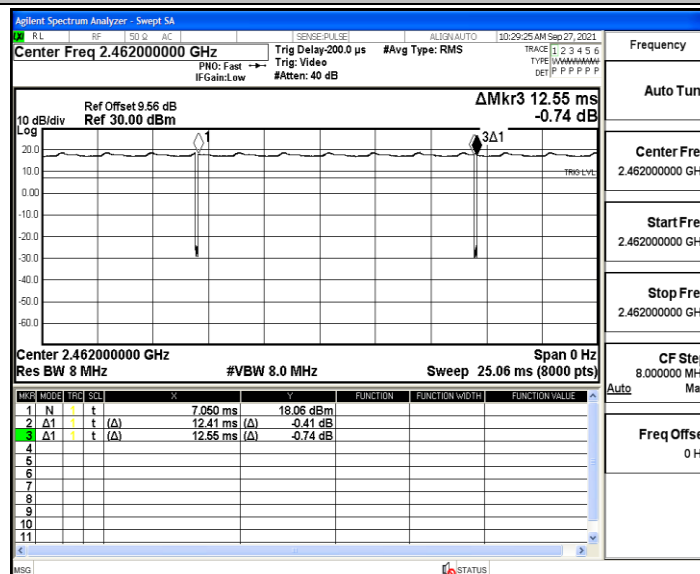
11B_Ant1_2412



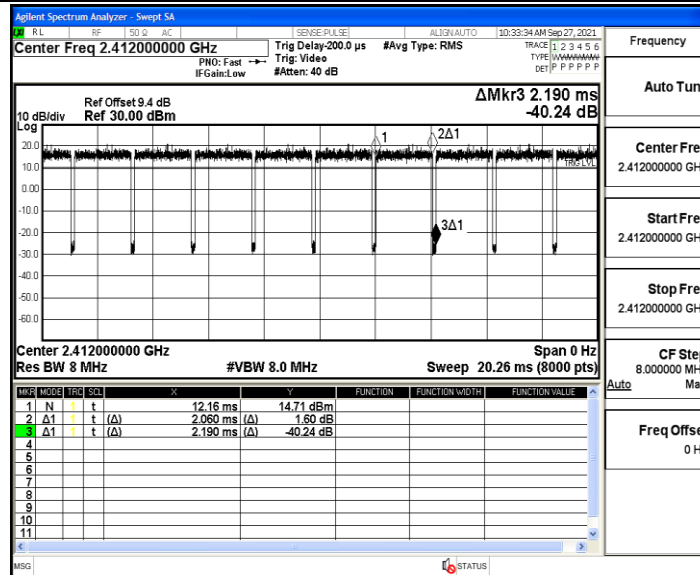
11B_Ant1_2437



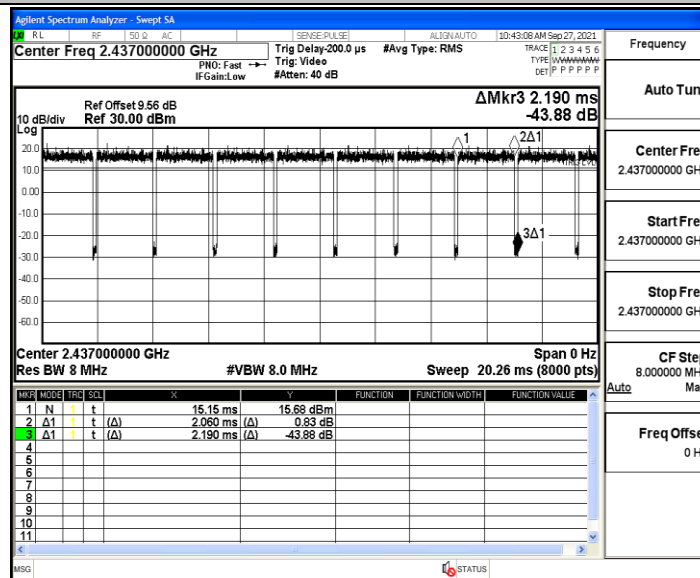
11B_Ant1_2462



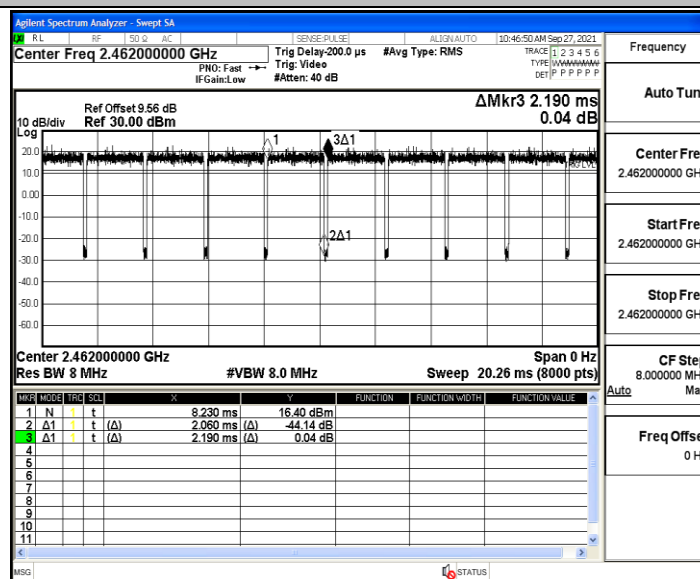
11G_Ant1_2412



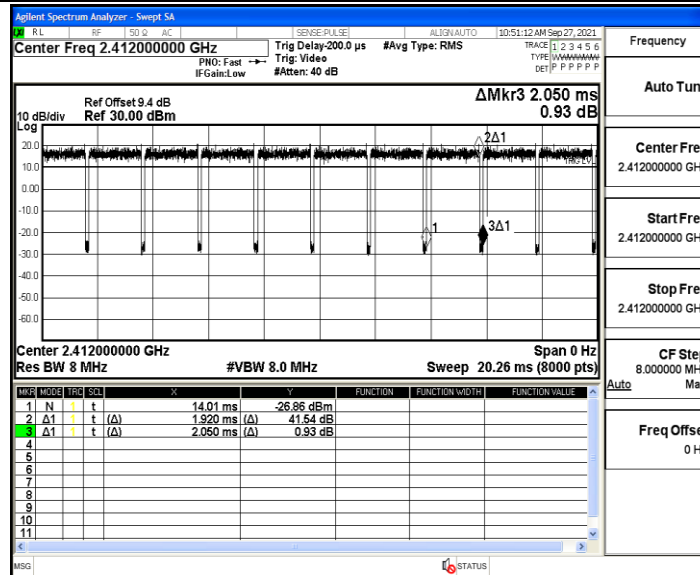
11G_Ant1_2437



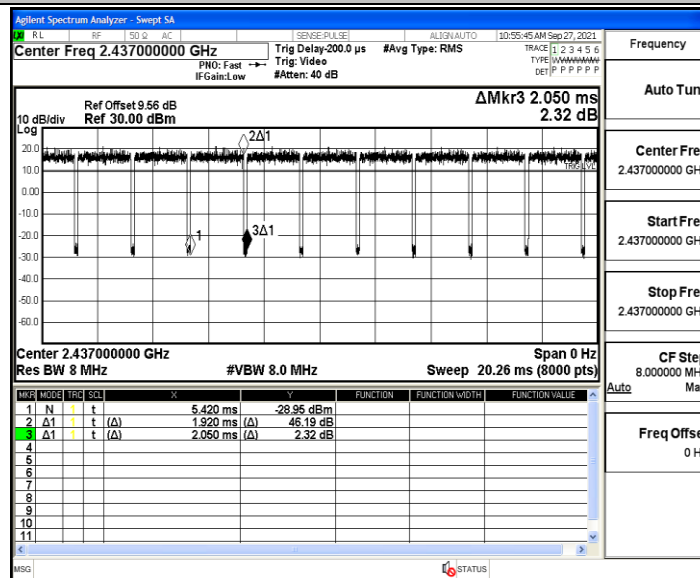
11G_Ant1_2462



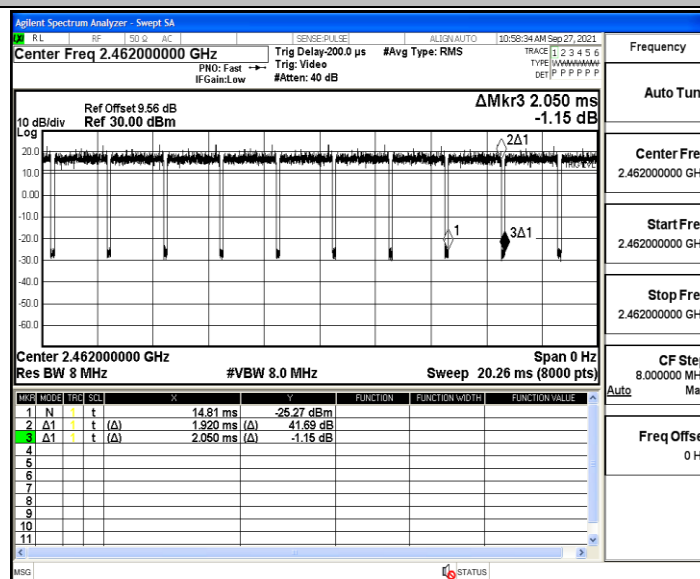
11N20SISO_Ant1_2412



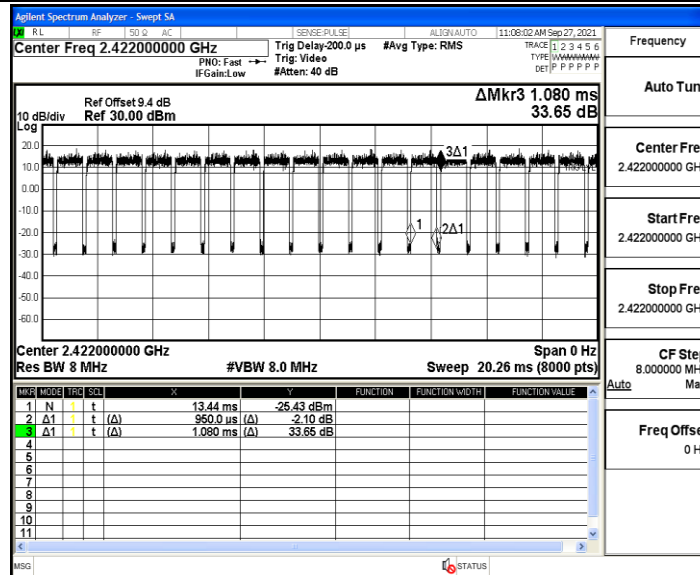
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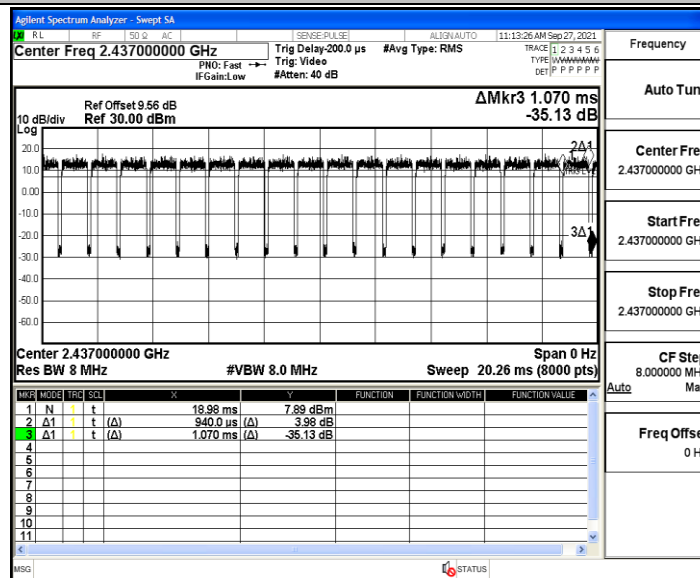
11N20SISO_Ant1_2462



11N40SISO_Ant1_2422



11N40SISO_Ant1_2437



11N40SISO_Ant1_2452

