

## Appendix Test Data for WLAN(2.4G) (Conducted Measurement)

Product Name: 4K Set Top Box

Trade Mark: Homatics

Test Model: SN6BKHA

FCC ID: 2AOVU-SN6BKHA

### Environmental Conditions

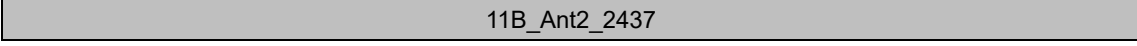
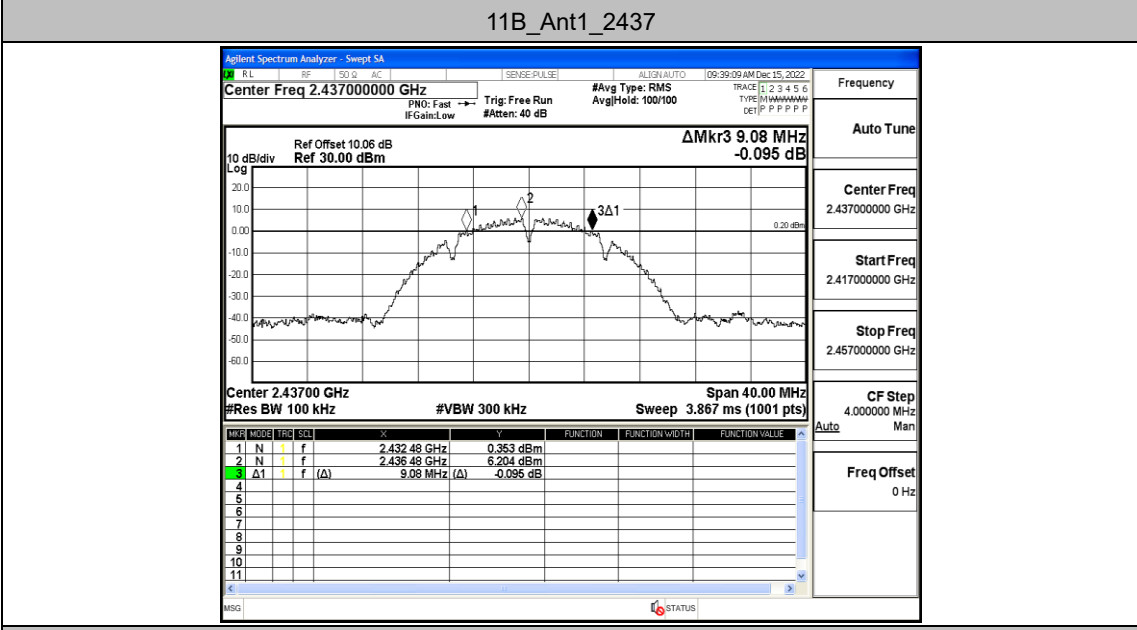
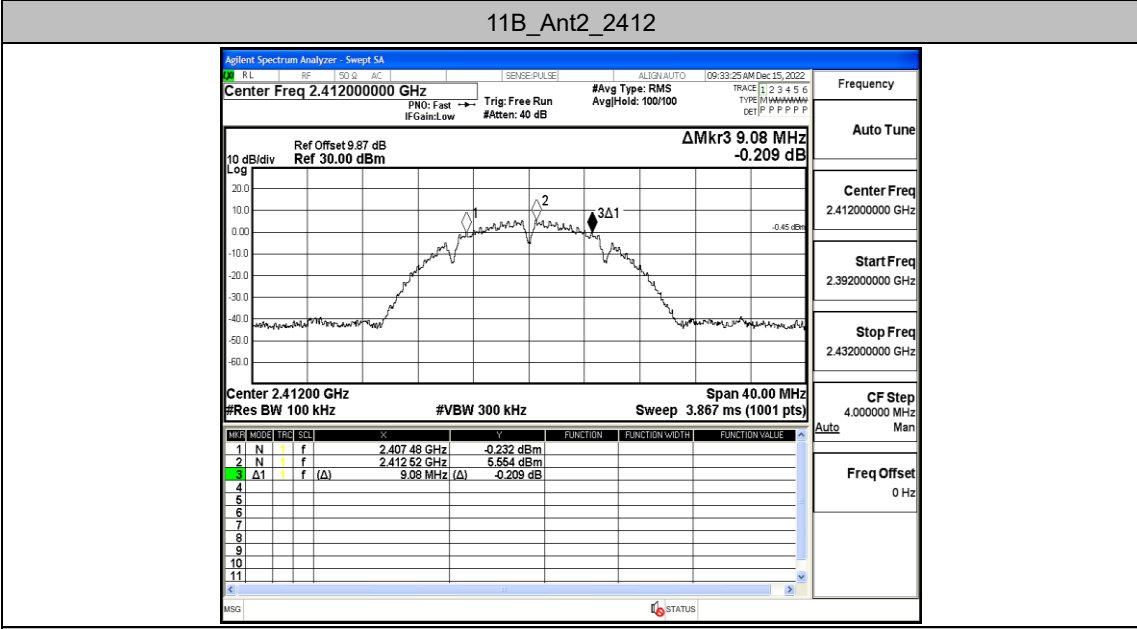
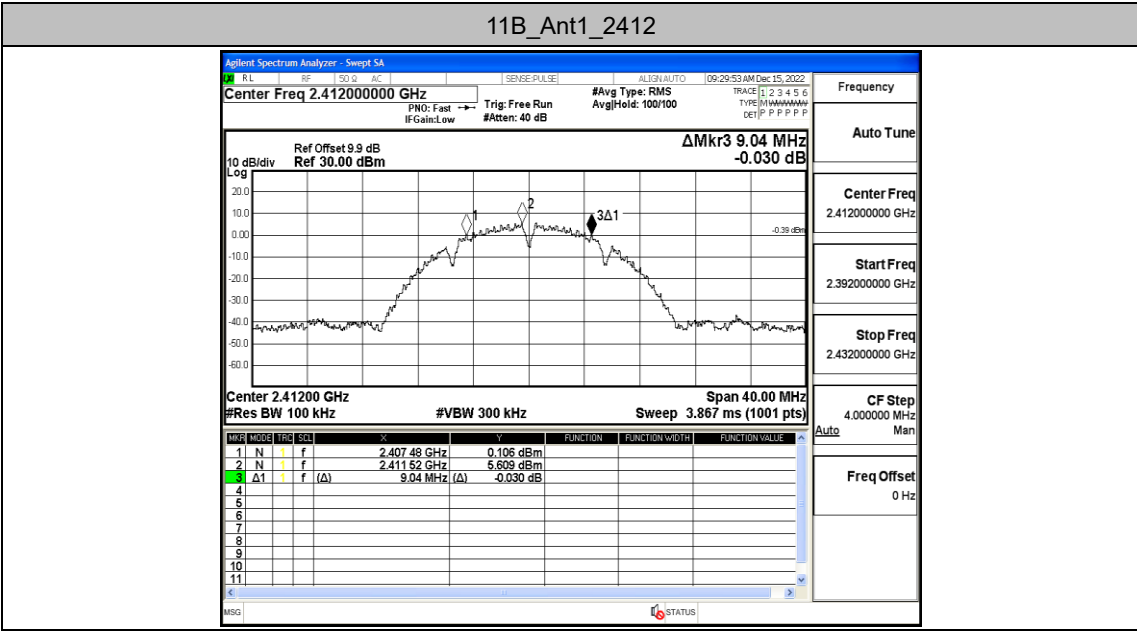
Temperature:	25.5°C
Relative Humidity:	55%
ATM Pressure:	100.0 kPa
Test Engineer:	Anna Hu
Supervised by:	Hugo Chen
NOTE	N/A

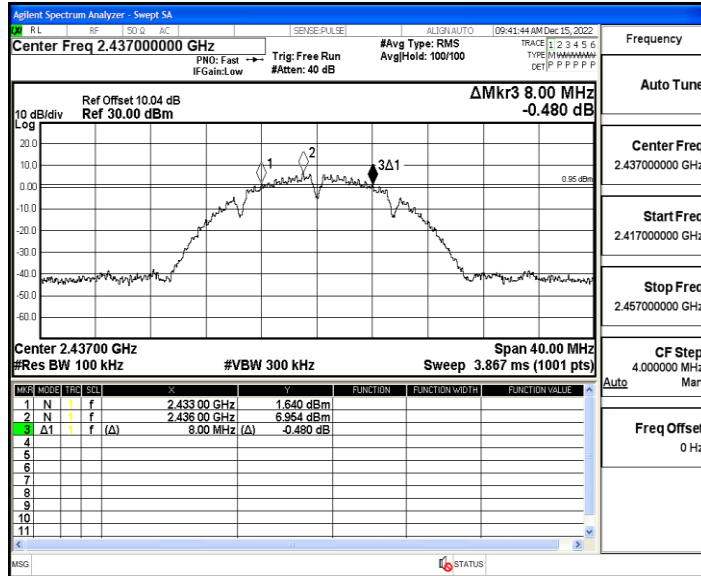
## Appendix A: DTS Bandwidth

### Test Result

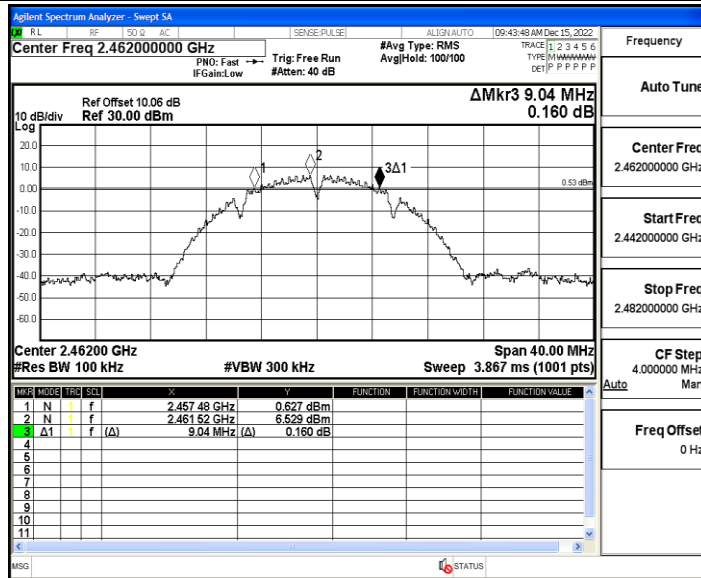
TestMode	Antenna	Channel	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	9.040	2407.480	2416.520	0.5	PASS
	Ant2	2412	9.080	2407.480	2416.560	0.5	PASS
	Ant1	2437	9.080	2432.480	2441.560	0.5	PASS
	Ant2	2437	8.000	2433.000	2441.000	0.5	PASS
	Ant1	2462	9.040	2457.480	2466.520	0.5	PASS
	Ant2	2462	9.040	2457.480	2466.520	0.5	PASS
11G	Ant1	2412	15.080	2404.440	2419.520	0.5	PASS
	Ant2	2412	15.280	2404.480	2419.760	0.5	PASS
	Ant1	2437	16.200	2428.840	2445.040	0.5	PASS
	Ant2	2437	15.040	2429.520	2444.560	0.5	PASS
	Ant1	2462	15.040	2454.480	2469.520	0.5	PASS
	Ant2	2462	15.120	2454.440	2469.560	0.5	PASS
11N20MIMO	Ant1	2412	15.080	2404.480	2419.560	0.5	PASS
	Ant2	2412	14.280	2404.880	2419.160	0.5	PASS
	Ant1	2437	15.920	2429.480	2445.400	0.5	PASS
	Ant2	2437	14.200	2430.360	2444.560	0.5	PASS
	Ant1	2462	12.920	2456.640	2469.560	0.5	PASS
	Ant2	2462	15.000	2454.520	2469.520	0.5	PASS
11N40MIMO	Ant1	2422	33.920	2405.680	2439.600	0.5	PASS
	Ant2	2422	35.040	2404.480	2439.520	0.5	PASS
	Ant1	2437	35.040	2419.560	2454.600	0.5	PASS
	Ant2	2437	35.120	2419.480	2454.600	0.5	PASS
	Ant1	2452	35.040	2434.480	2469.520	0.5	PASS
	Ant2	2452	35.120	2434.480	2469.600	0.5	PASS

Test Graphs

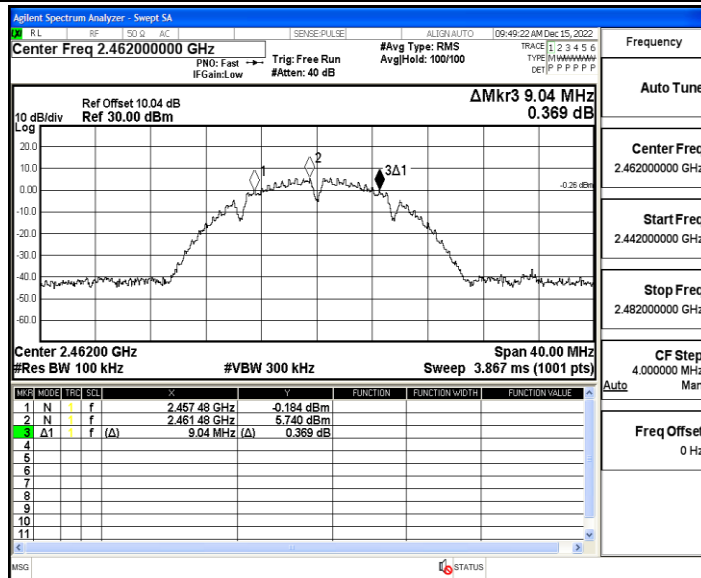




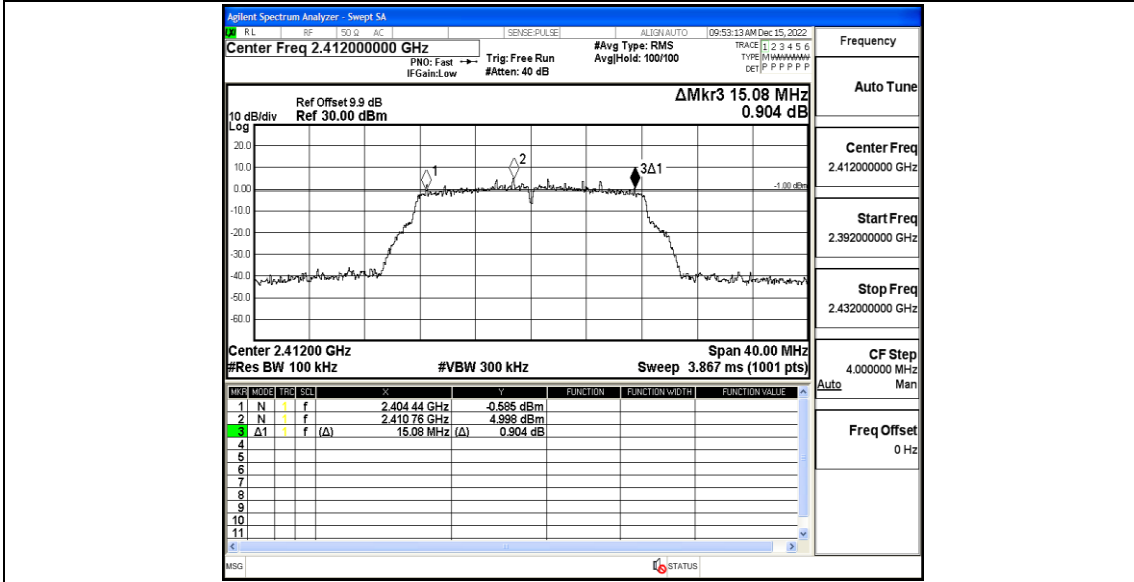
11B\_Ant1\_2462



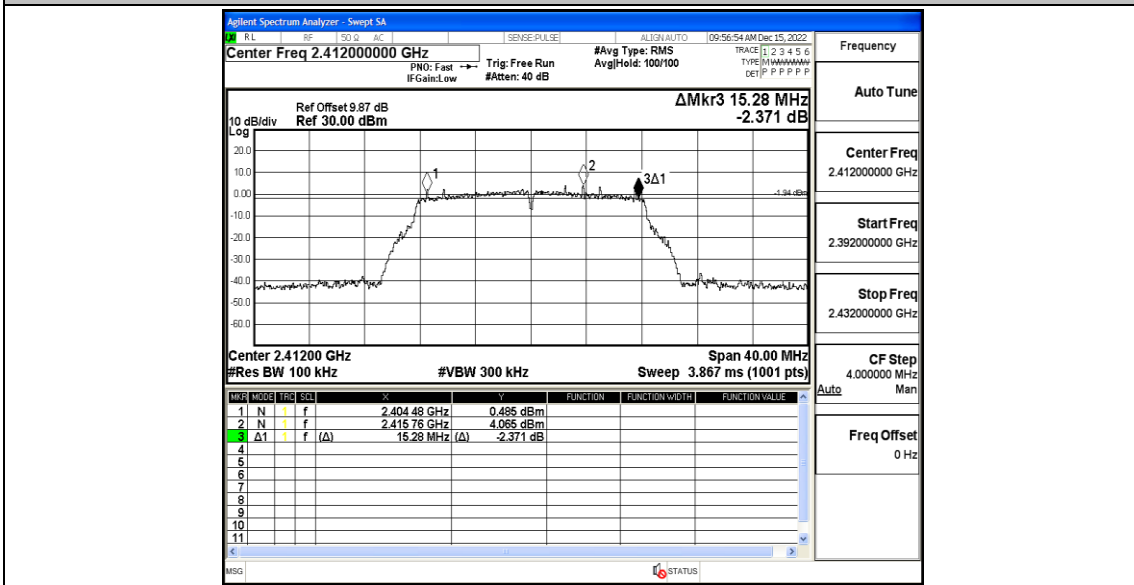
11B\_Ant2\_2462



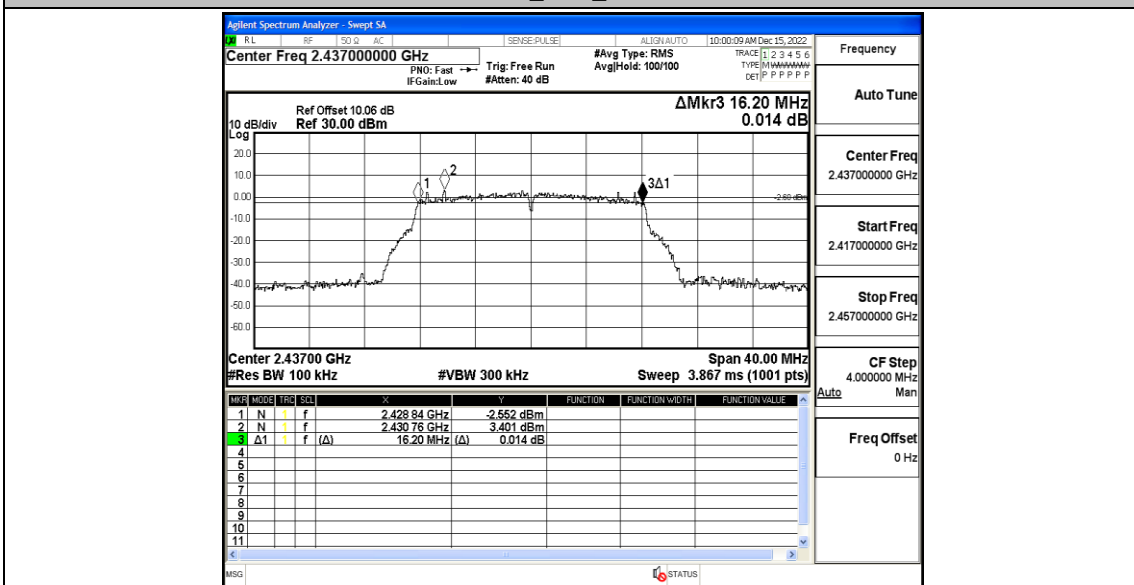
11G\_Ant1\_2412



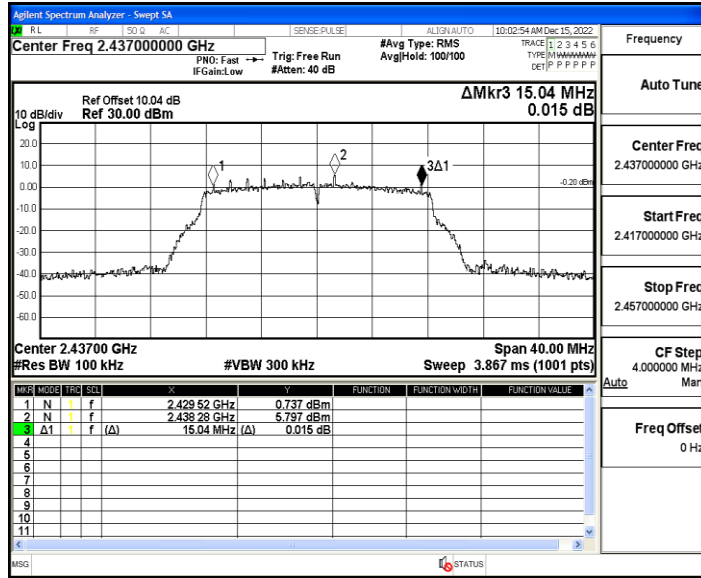
11G\_Ant2\_2412



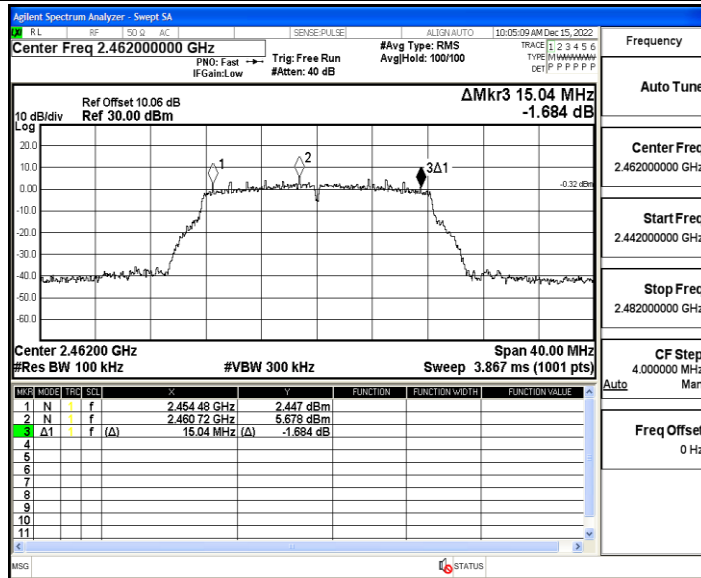
11G\_Ant1\_2437



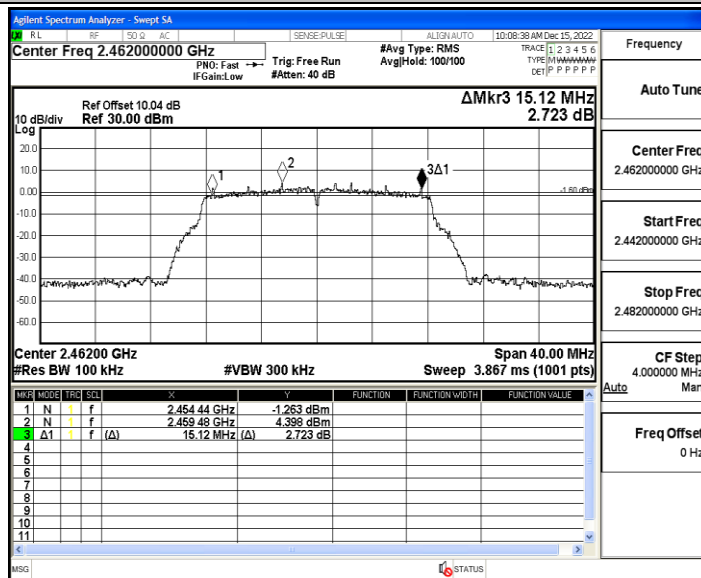
11G\_Ant2\_2437



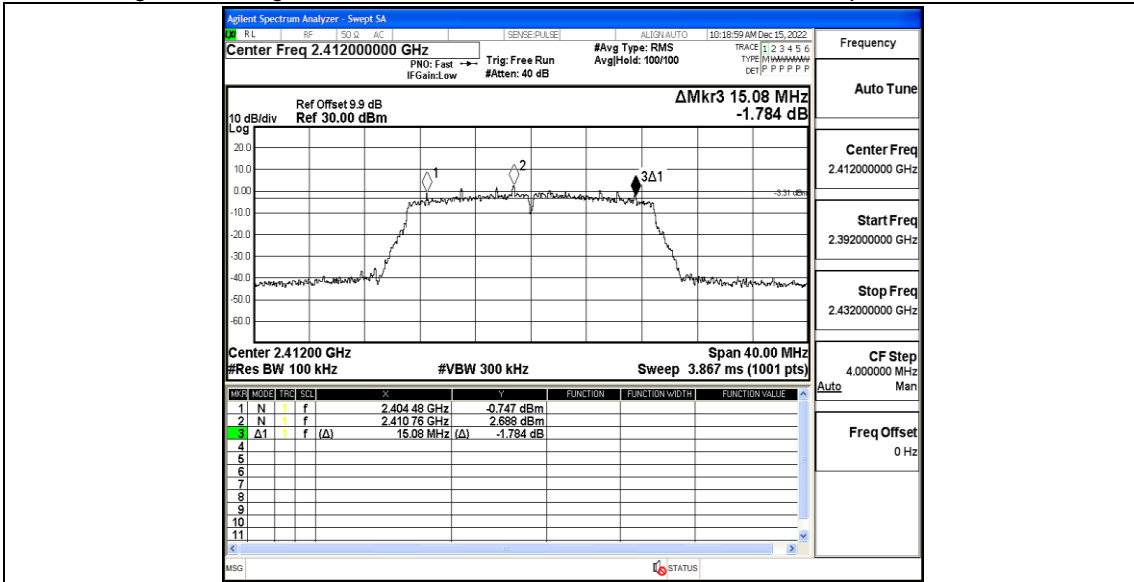
11G\_Ant1\_2462



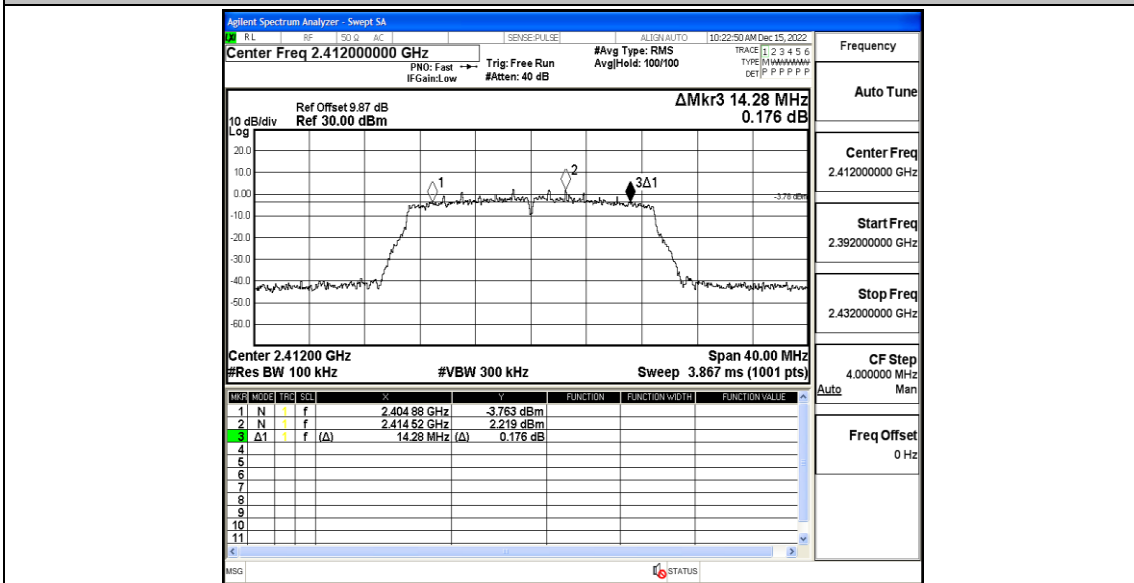
11G\_Ant2\_2462



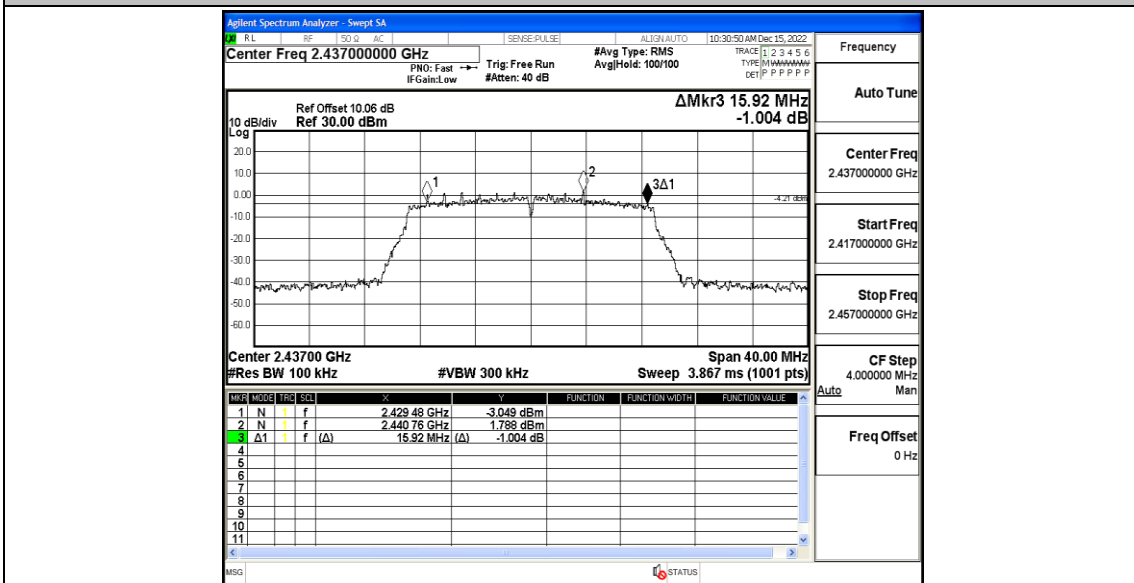
11N20MIMO\_Ant1\_2412



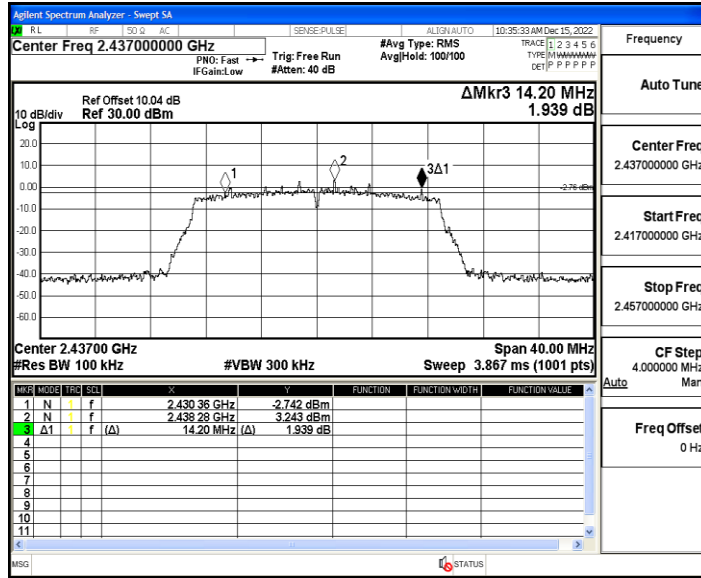
11N20MIMO\_Ant2\_2412



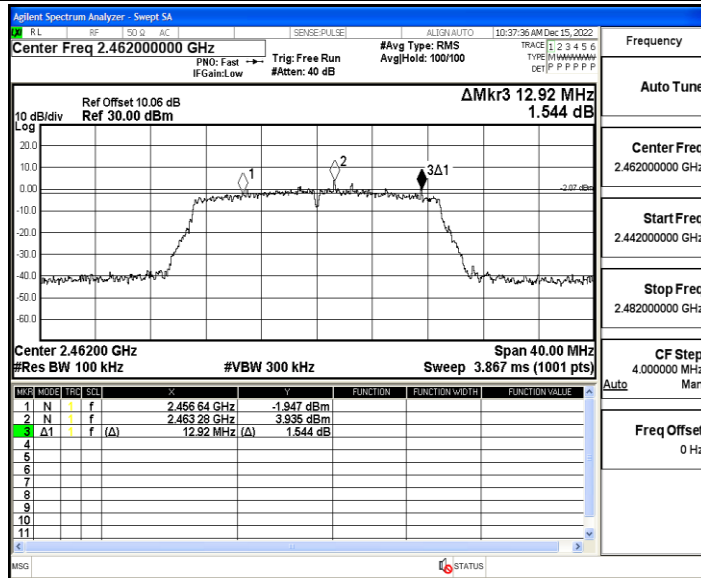
11N20MIMO\_Ant1\_2437



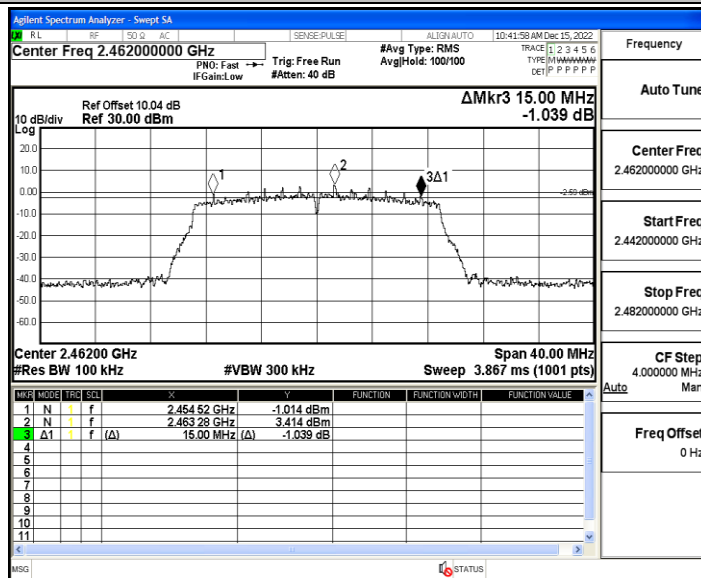
11N20MIMO\_Ant2\_2437



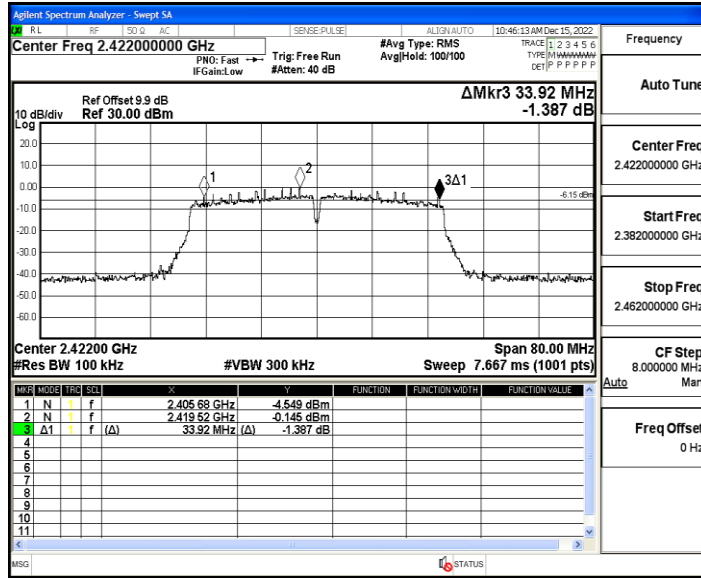
11N20MIMO\_Ant1\_2462



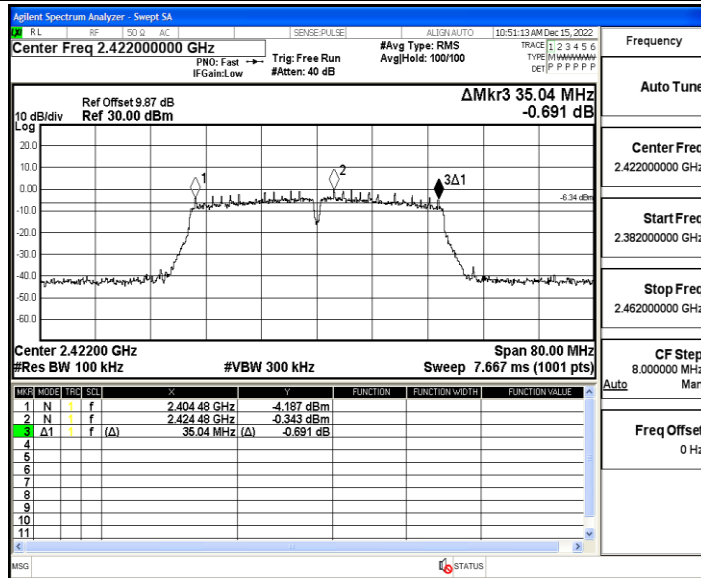
11N20MIMO\_Ant2\_2462



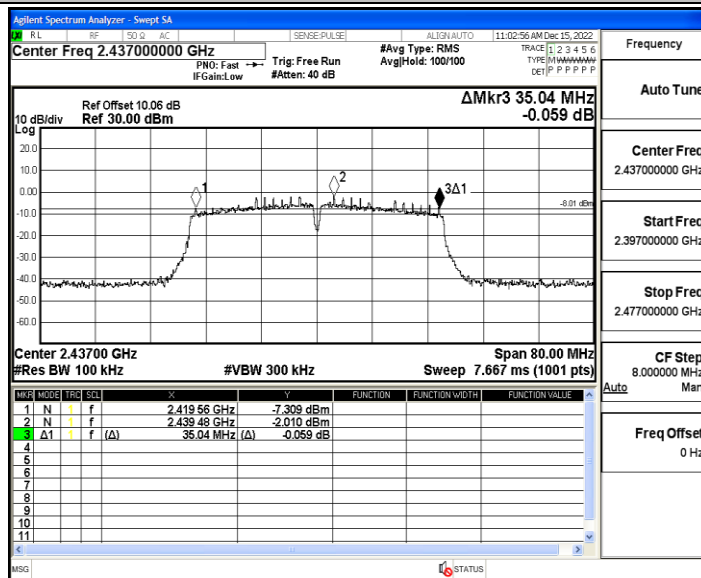
11N40MIMO\_Ant1\_2422



11N40MIMO\_Ant2\_2422

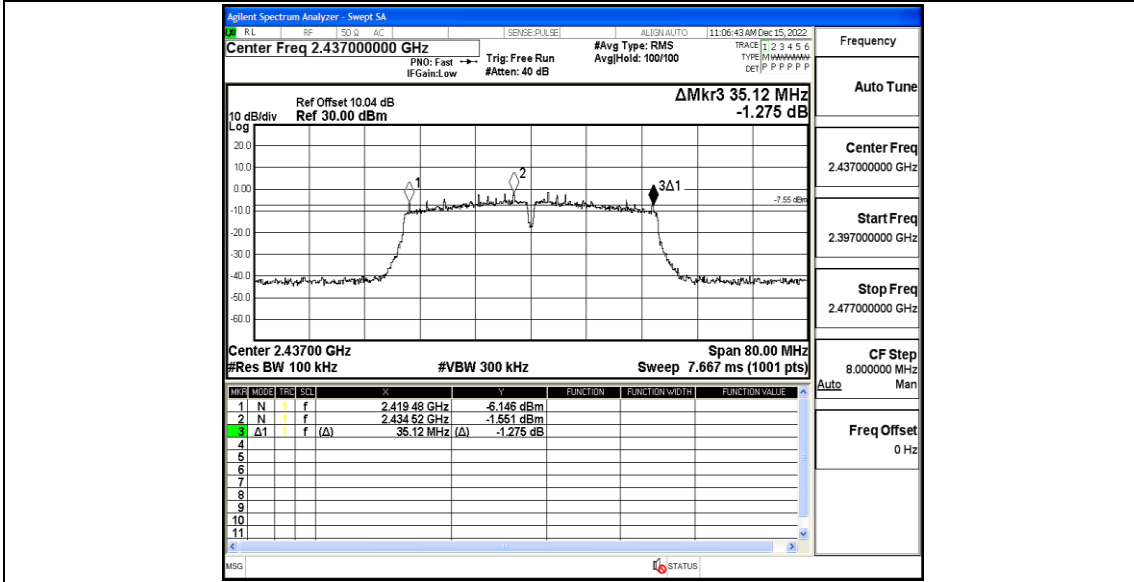


11N40MIMO\_Ant1\_2437

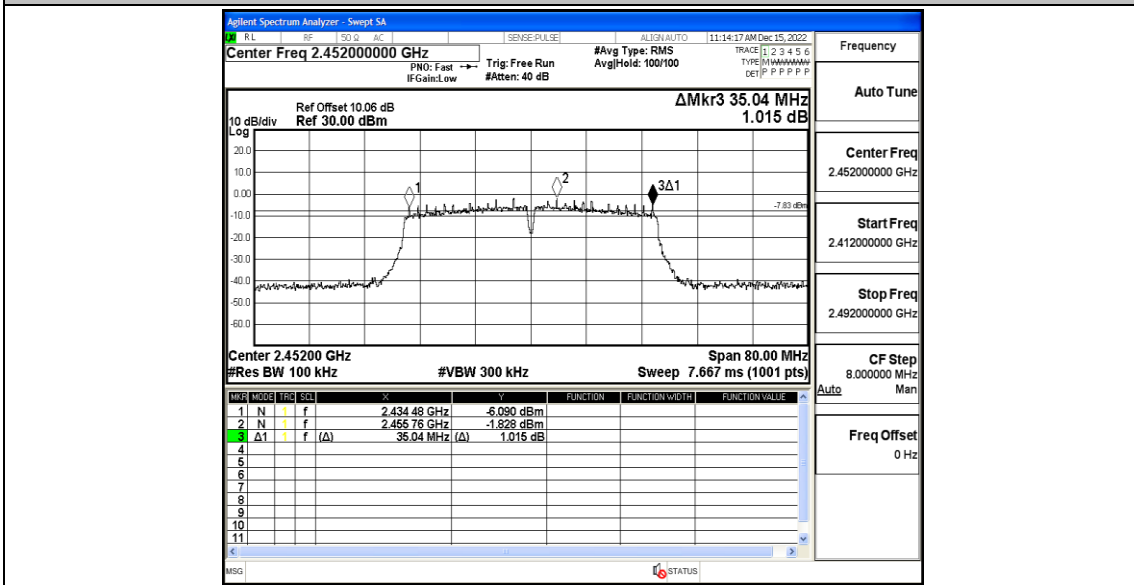


11N40MIMO\_Ant2\_2437

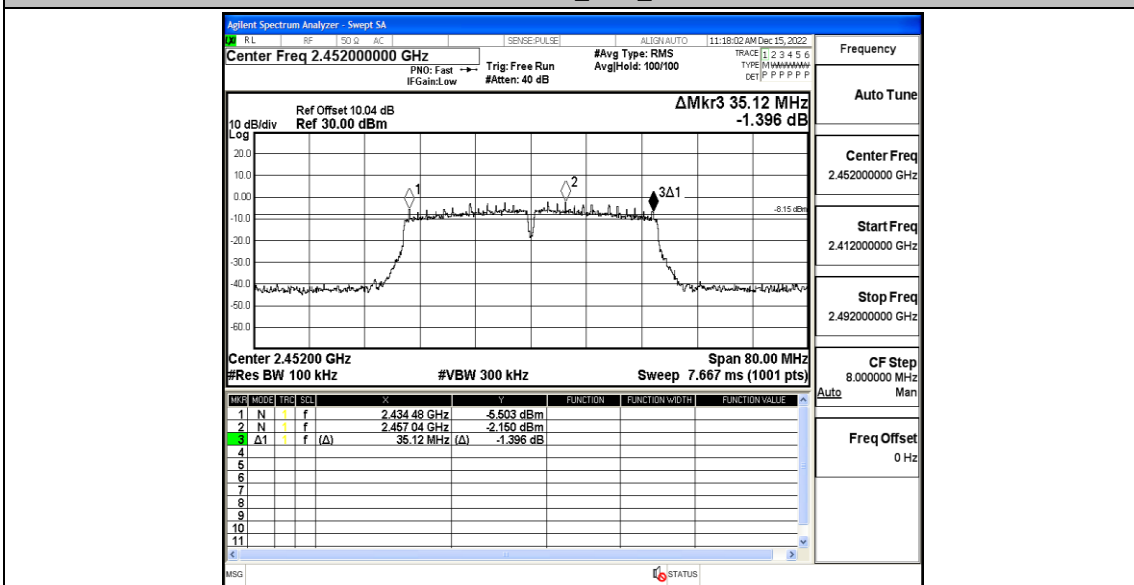




11N40MIMO\_Ant1\_2452



11N40MIMO\_Ant2\_2452

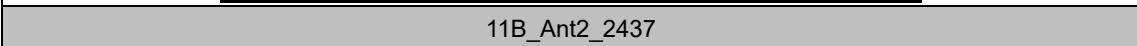
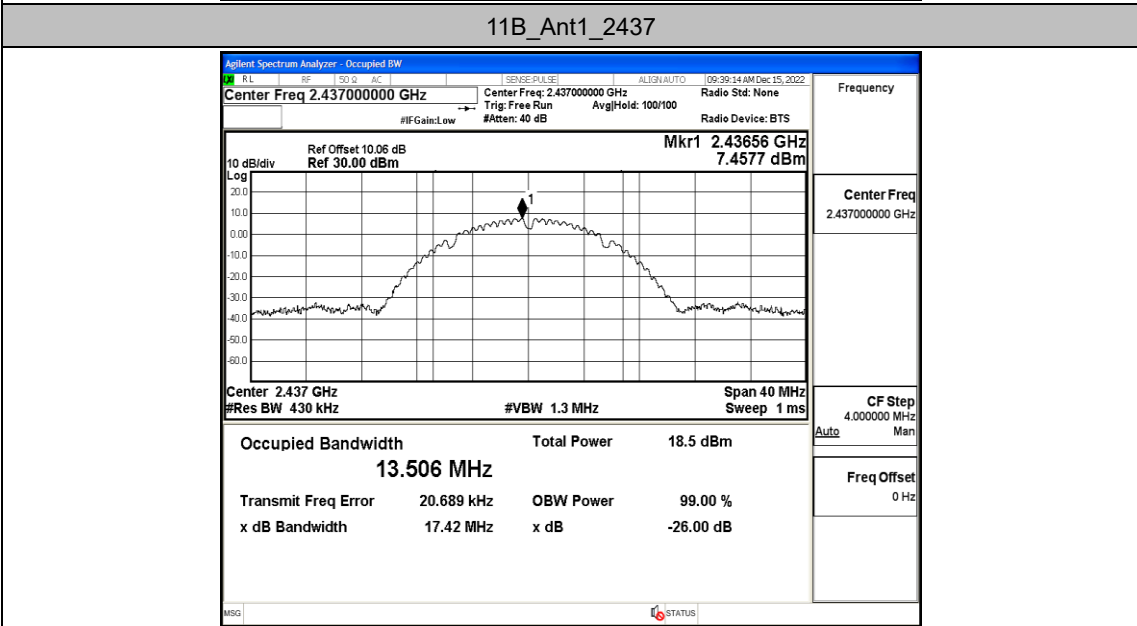
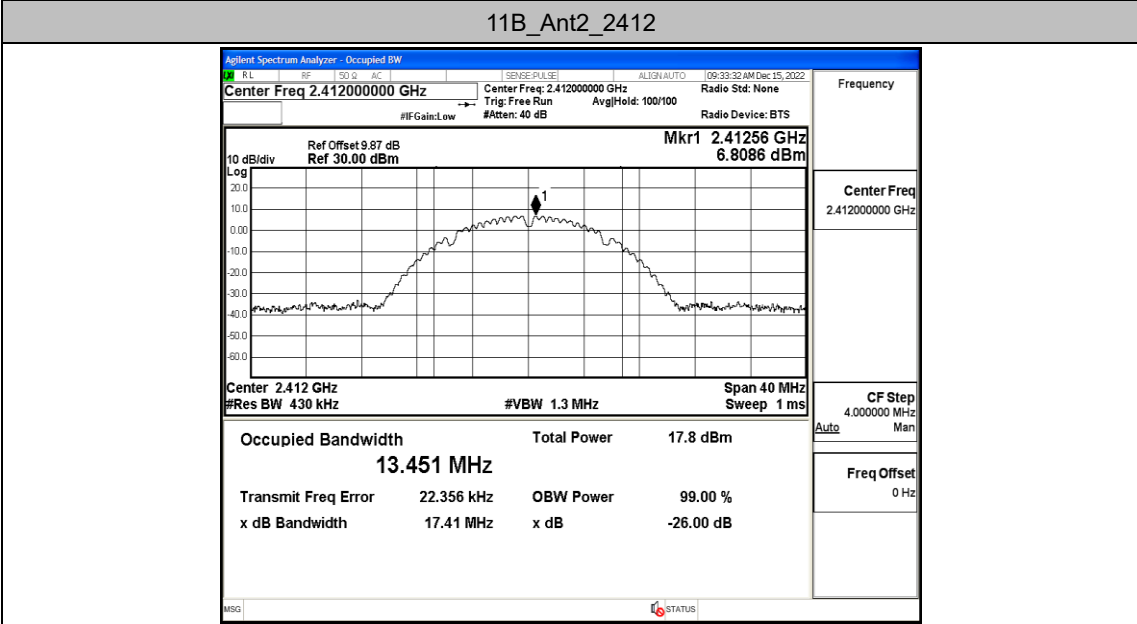
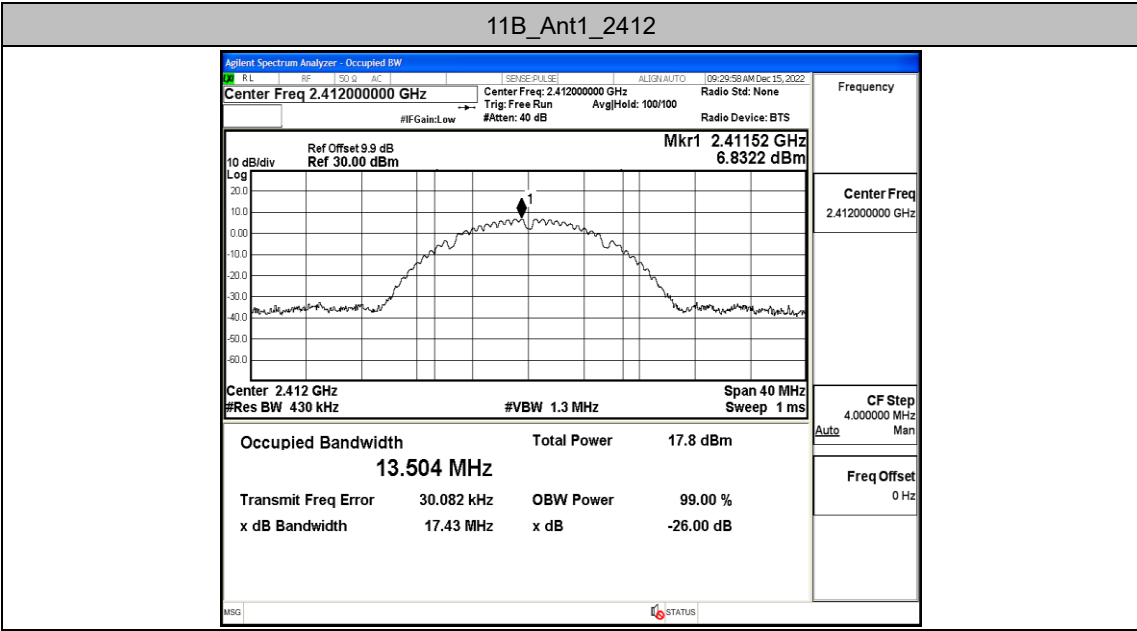


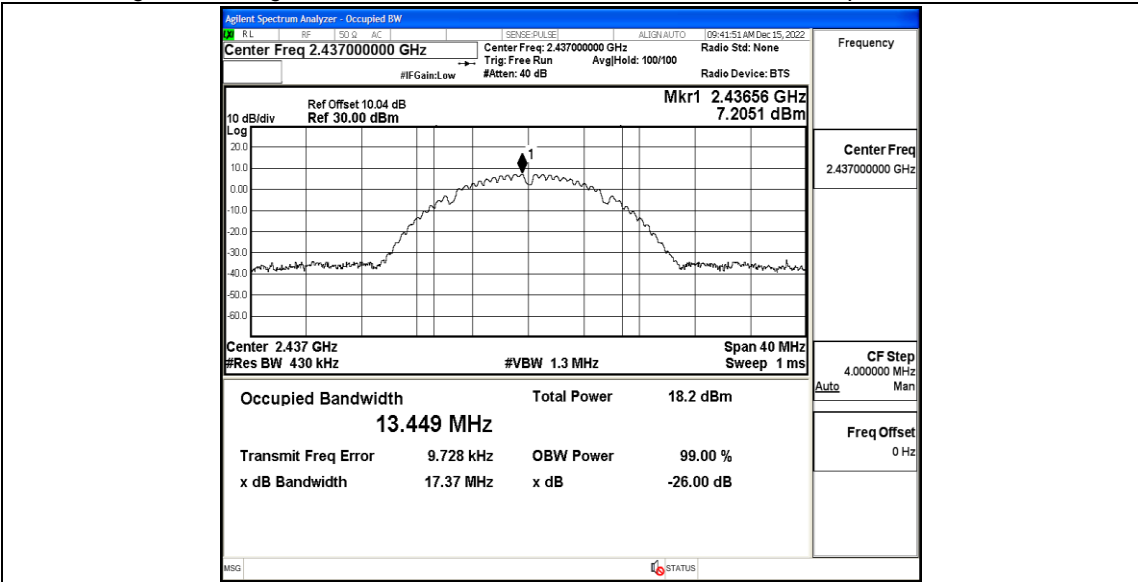
## Appendix B: Occupied Channel Bandwidth

### Test Result

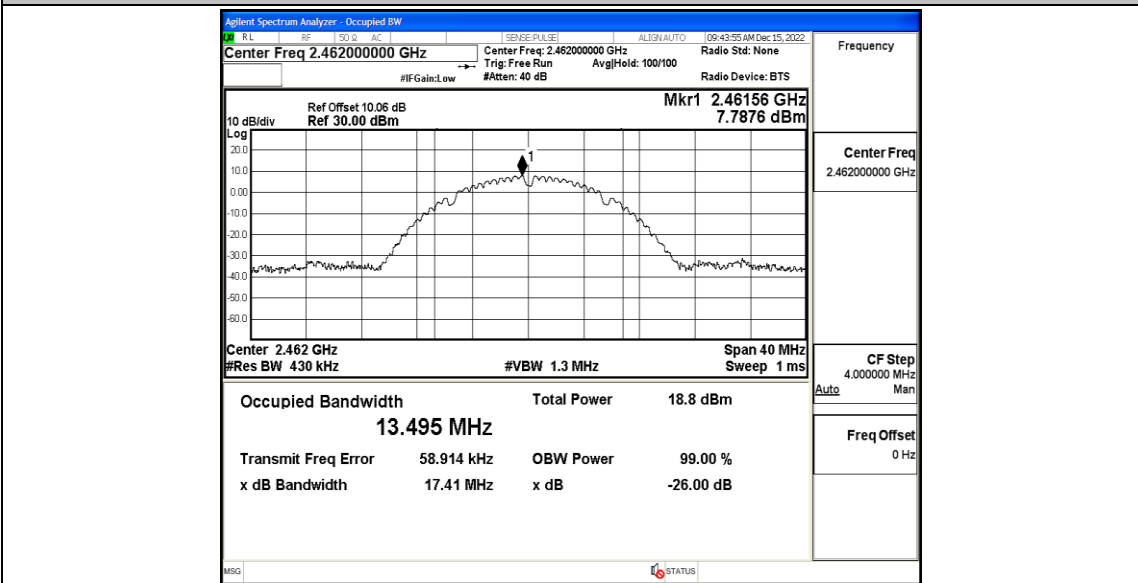
TestMode	Antenna	Channel	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	13.504	2405.2781	2418.7821	---	---
	Ant2	2412	13.451	2405.2969	2418.7479	---	---
	Ant1	2437	13.506	2430.2677	2443.7737	---	---
	Ant2	2437	13.449	2430.2852	2443.7342	---	---
	Ant1	2462	13.495	2455.3114	2468.8064	---	---
	Ant2	2462	13.433	2455.3265	2468.7595	---	---
11G	Ant1	2412	16.803	2403.5853	2420.3883	---	---
	Ant2	2412	16.831	2403.5646	2420.3956	---	---
	Ant1	2437	16.813	2428.5609	2445.3739	---	---
	Ant2	2437	16.809	2428.5824	2445.3914	---	---
	Ant1	2462	16.879	2453.5355	2470.4145	---	---
	Ant2	2462	16.864	2453.5350	2470.3990	---	---
11N20MIMO	Ant1	2412	17.793	2403.1421	2420.9351	---	---
	Ant2	2412	17.777	2403.1725	2420.9495	---	---
	Ant1	2437	17.811	2428.1281	2445.9391	---	---
	Ant2	2437	17.799	2428.1487	2445.9477	---	---
	Ant1	2462	17.780	2453.1363	2470.9163	---	---
	Ant2	2462	17.811	2453.1341	2470.9451	---	---
11N40MIMO	Ant1	2422	36.083	2404.0305	2440.1135	---	---
	Ant2	2422	36.073	2404.0176	2440.0906	---	---
	Ant1	2437	35.958	2419.0911	2455.0491	---	---
	Ant2	2437	35.958	2419.0885	2455.0465	---	---
	Ant1	2452	36.080	2434.0481	2470.1281	---	---
	Ant2	2452	36.092	2434.0260	2470.1180	---	---

### Test Graphs

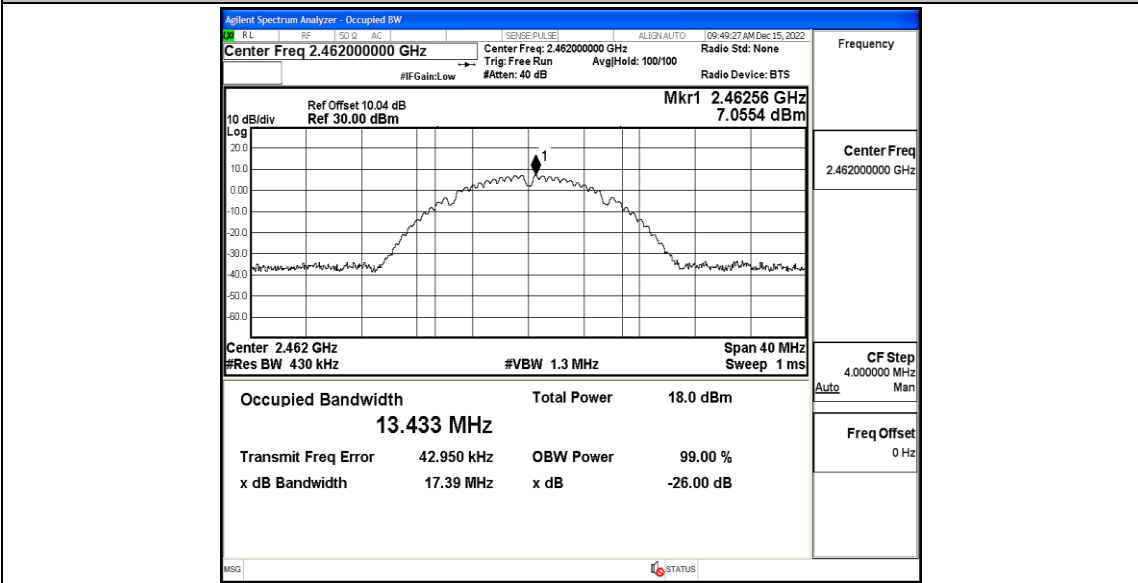




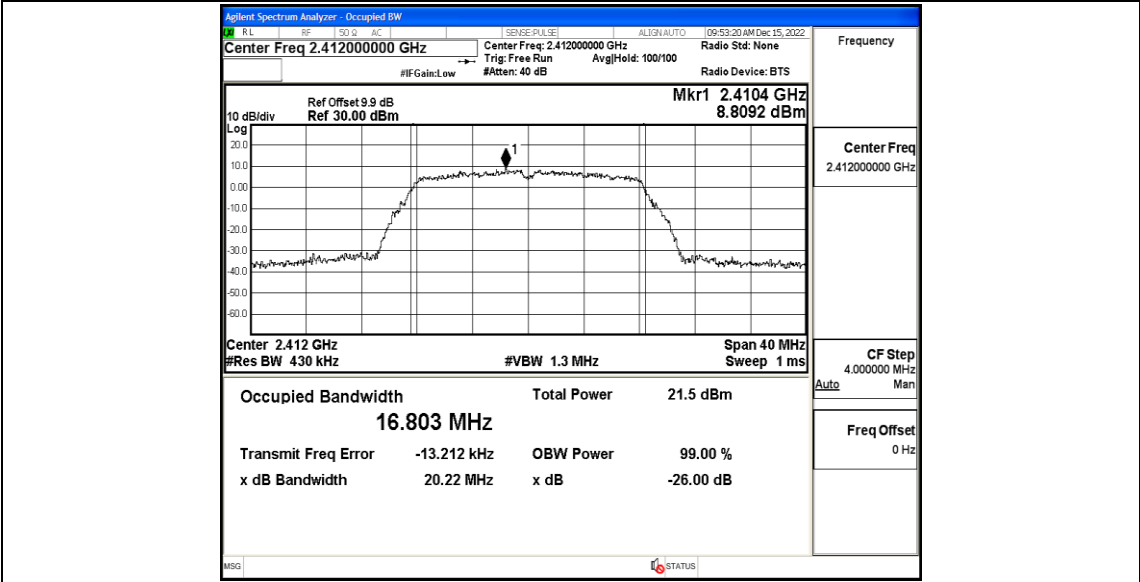
11B\_Ant1\_2462



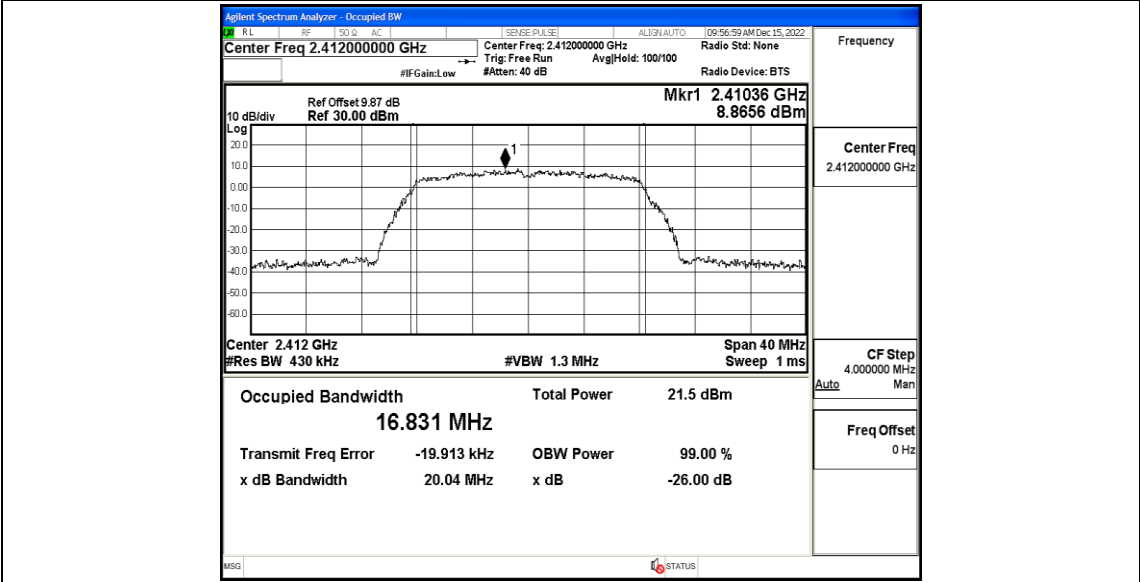
11B\_Ant2\_2462



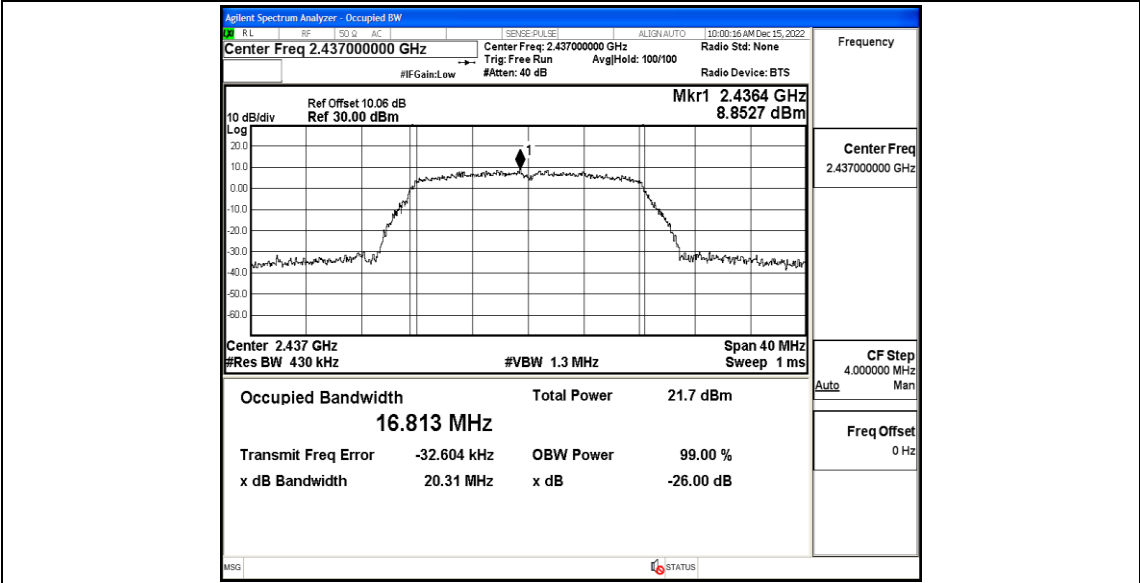
11G\_Ant1\_2412



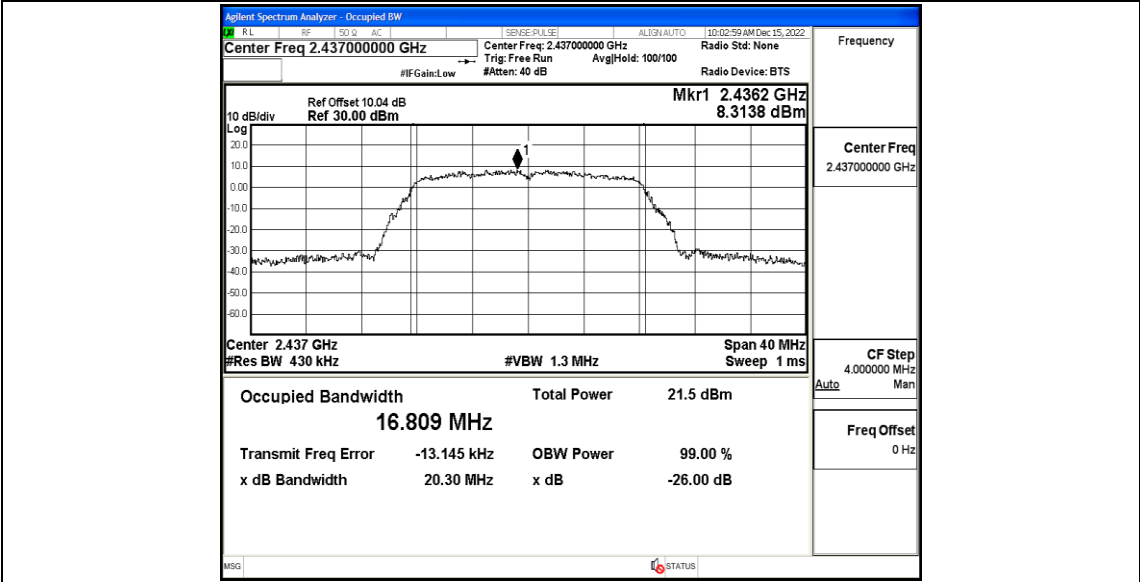
11G\_Ant2\_2412



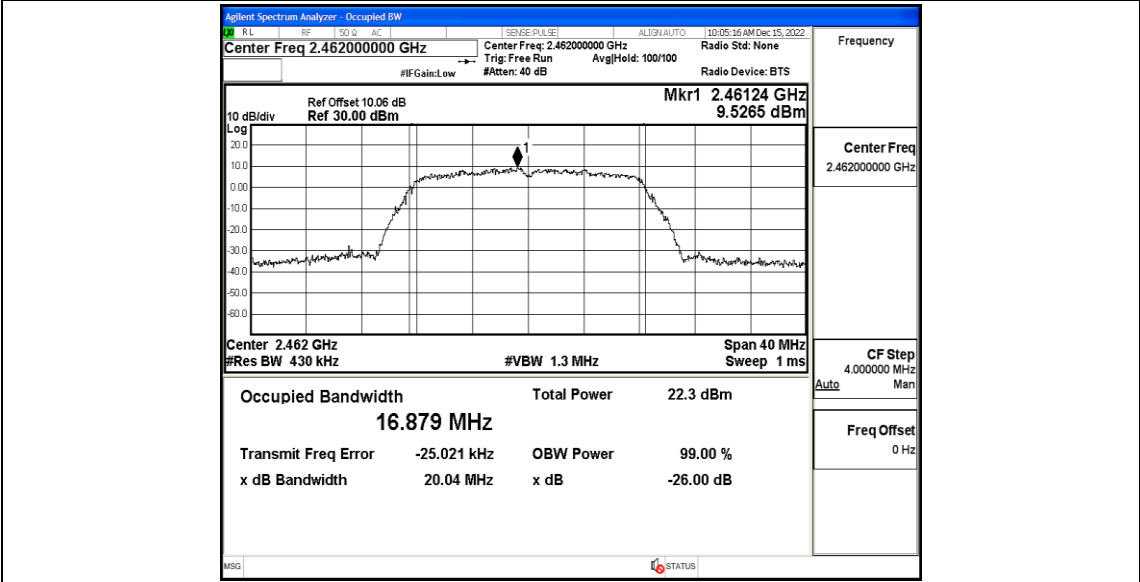
11G\_Ant1\_2437



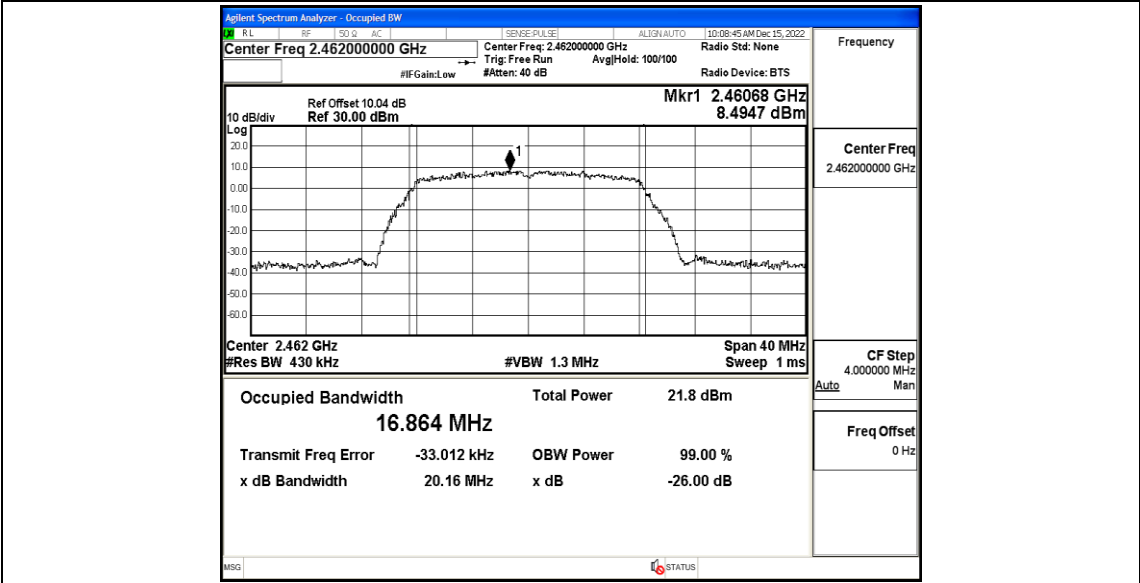
11G\_Ant2\_2437



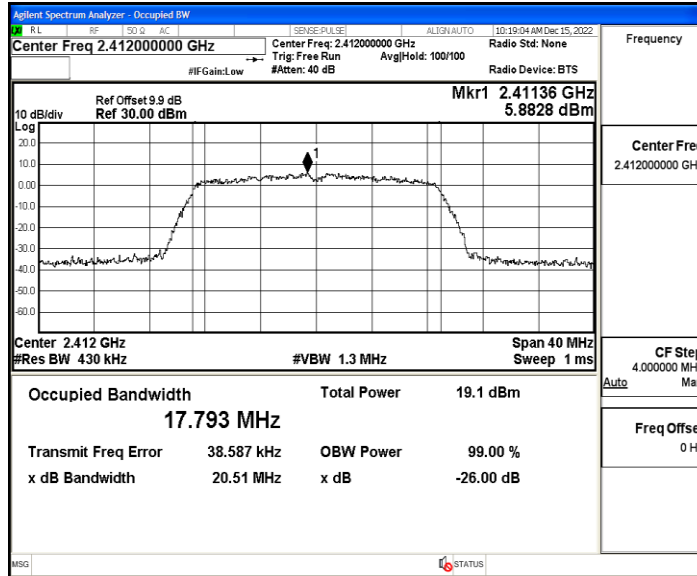
11G\_Ant1\_2462



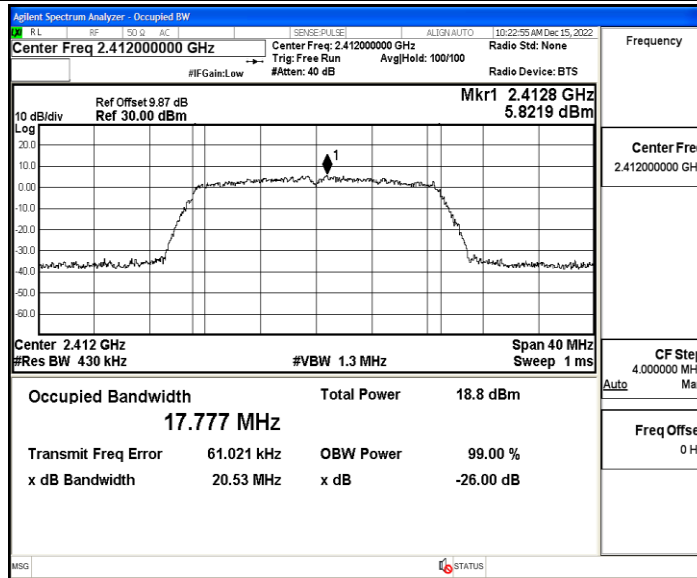
11G\_Ant2\_2462



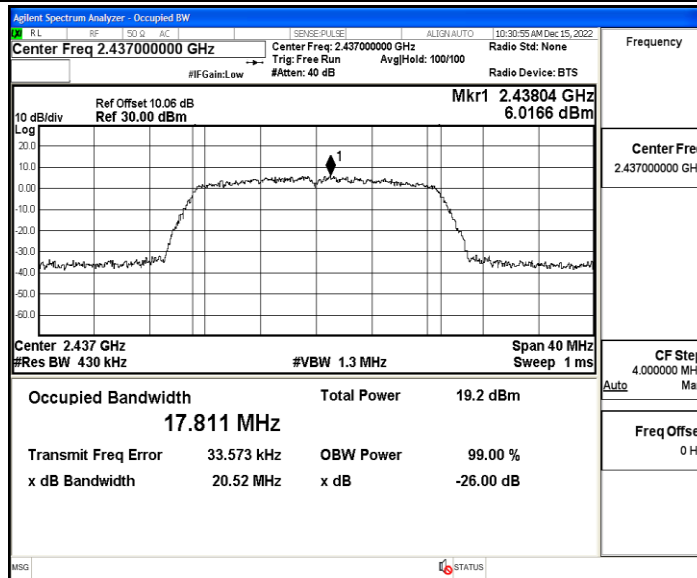
11N20MIMO\_Ant1\_2412



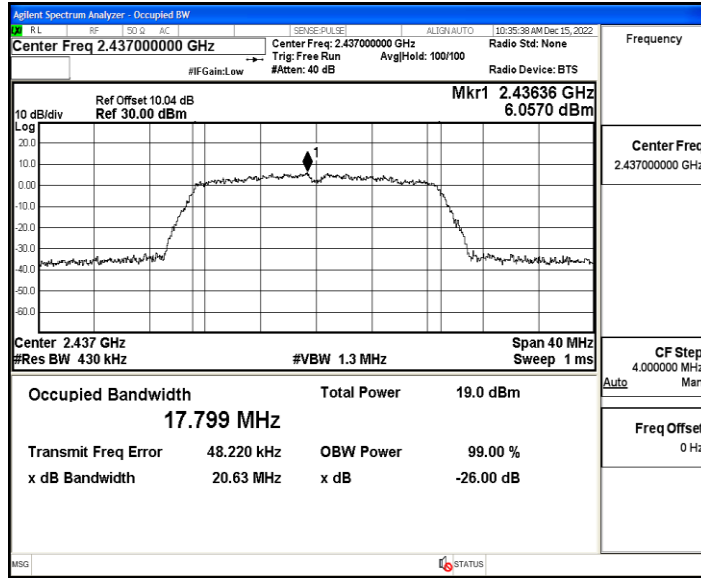
11N20MIMO\_Ant2\_2412



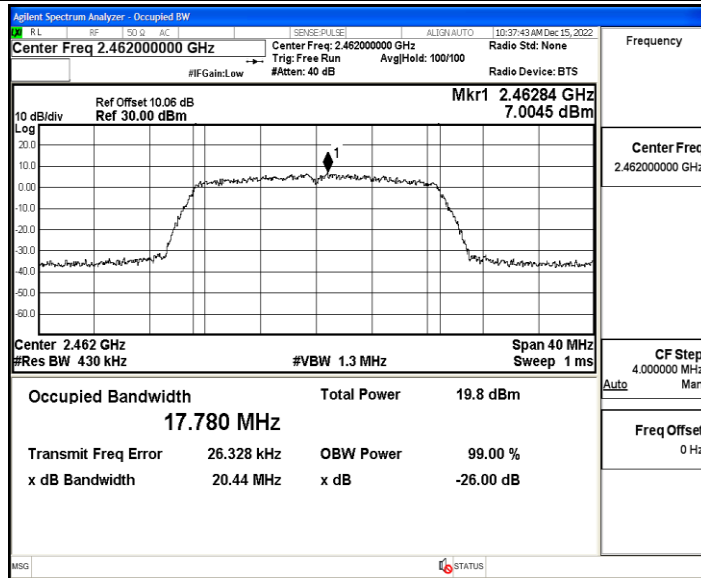
11N20MIMO\_Ant1\_2437



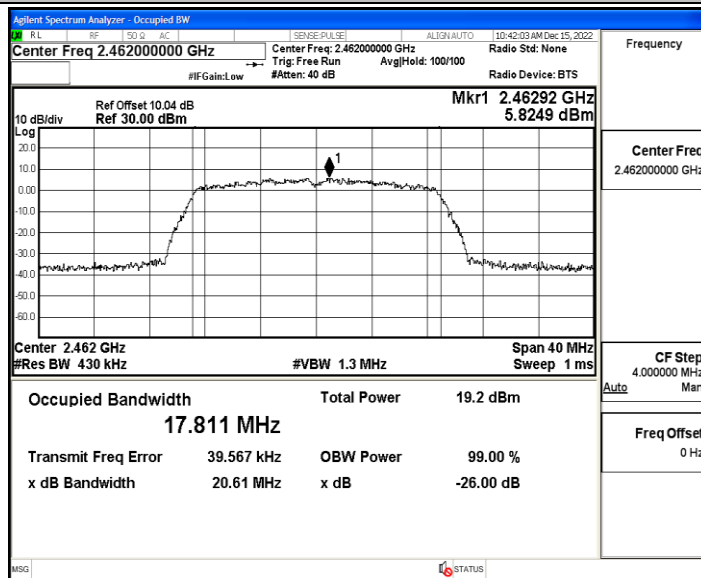
11N20MIMO\_Ant2\_2437



11N20MIMO\_Ant1\_2462

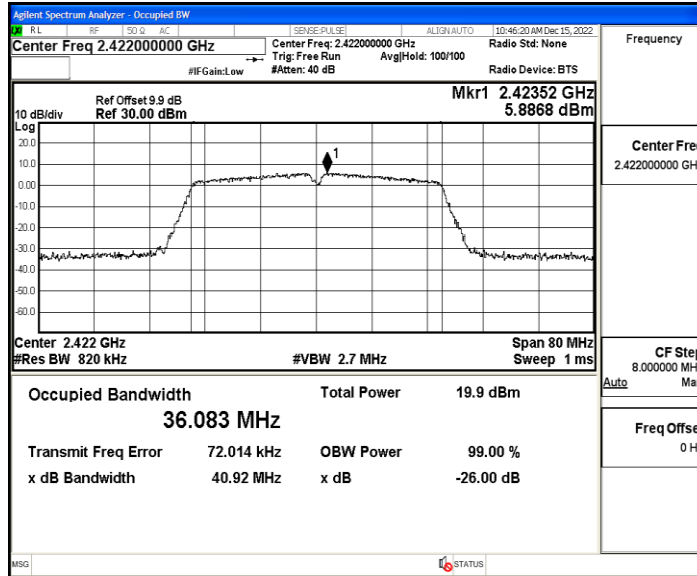


11N20MIMO\_Ant2\_2462

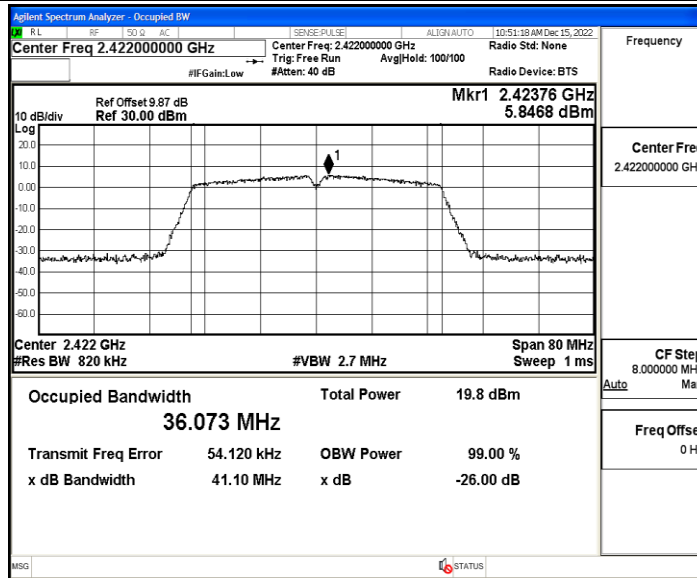


11N40MIMO\_Ant1\_2422

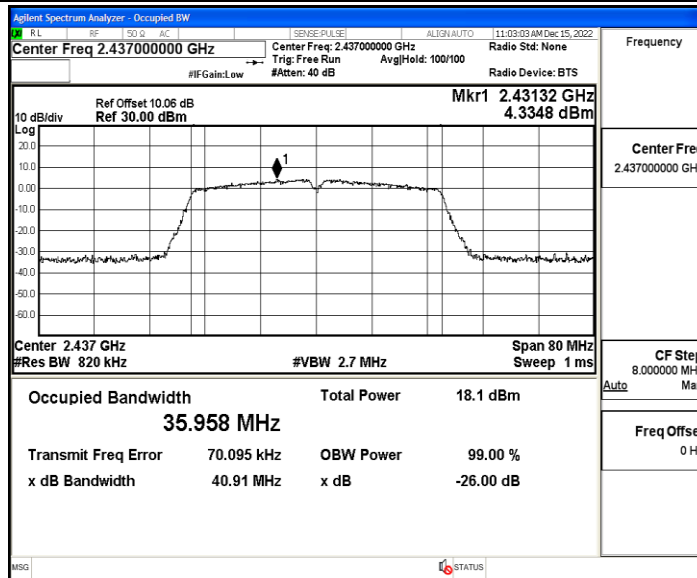




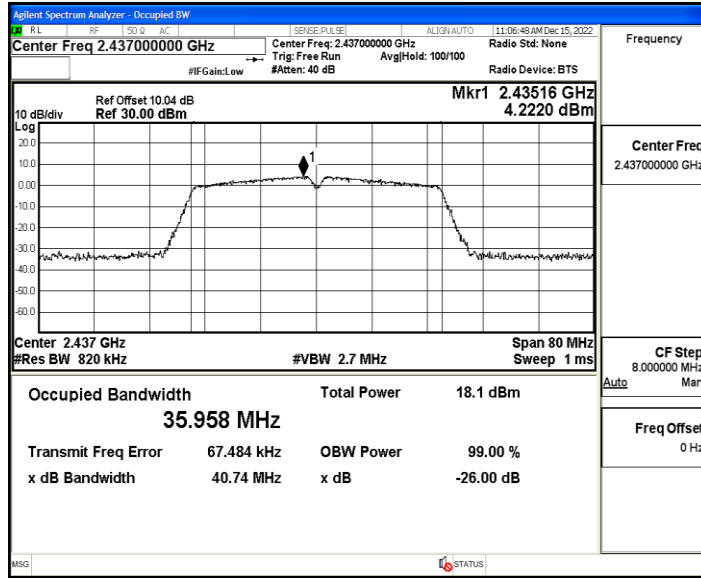
11N40MIMO\_Ant2\_2422



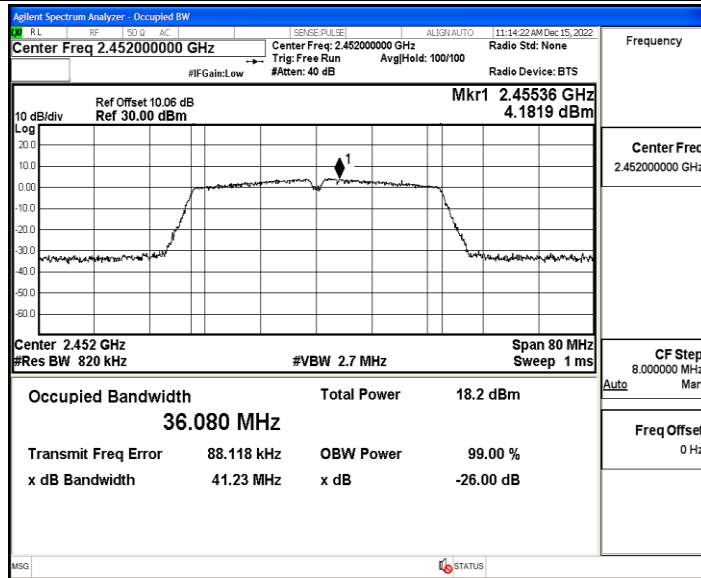
11N40MIMO\_Ant1\_2437



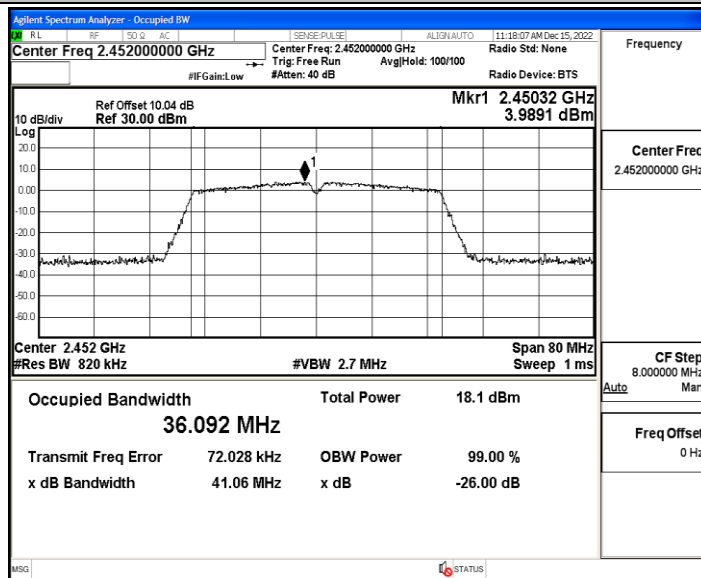
11N40MIMO\_Ant2\_2437



11N40MIMO\_Ant1\_2452



11N40MIMO\_Ant2\_2452



## Appendix C: Maximum conducted output power

### Test Result

TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
11B	Ant1	2412	14.90	≤30.00	PASS
	Ant2	2412	14.85	≤30.00	PASS
	Ant1	2437	15.49	≤30.00	PASS
	Ant2	2437	15.18	≤30.00	PASS
	Ant1	2462	15.85	≤30.00	PASS
	Ant2	2462	15.11	≤30.00	PASS
11G	Ant1	2412	15.52	≤30.00	PASS
	Ant2	2412	15.45	≤30.00	PASS
	Ant1	2437	15.71	≤30.00	PASS
	Ant2	2437	15.49	≤30.00	PASS
	Ant1	2462	16.24	≤30.00	PASS
	Ant2	2462	15.74	≤30.00	PASS
11N20MIMO	Ant1	2412	12.89	≤30.00	PASS
	Ant2	2412	12.74	≤30.00	PASS
	total	2412	15.83	≤30.00	PASS
	Ant1	2437	13.11	≤30.00	PASS
	Ant2	2437	12.88	≤30.00	PASS
	total	2437	16.01	≤30.00	PASS
	Ant1	2462	13.69	≤30.00	PASS
	Ant2	2462	13.02	≤30.00	PASS
total	2462	16.38	≤30.00	PASS	
11N40MIMO	Ant1	2422	11.22	≤30.00	PASS
	Ant2	2422	10.94	≤30.00	PASS
	total	2422	14.09	≤30.00	PASS
	Ant1	2437	11.28	≤30.00	PASS
	Ant2	2437	11.37	≤30.00	PASS
	total	2437	14.34	≤30.00	PASS
	Ant1	2452	11.26	≤30.00	PASS
	Ant2	2452	11.36	≤30.00	PASS
	total	2452	14.32	≤30.00	PASS

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

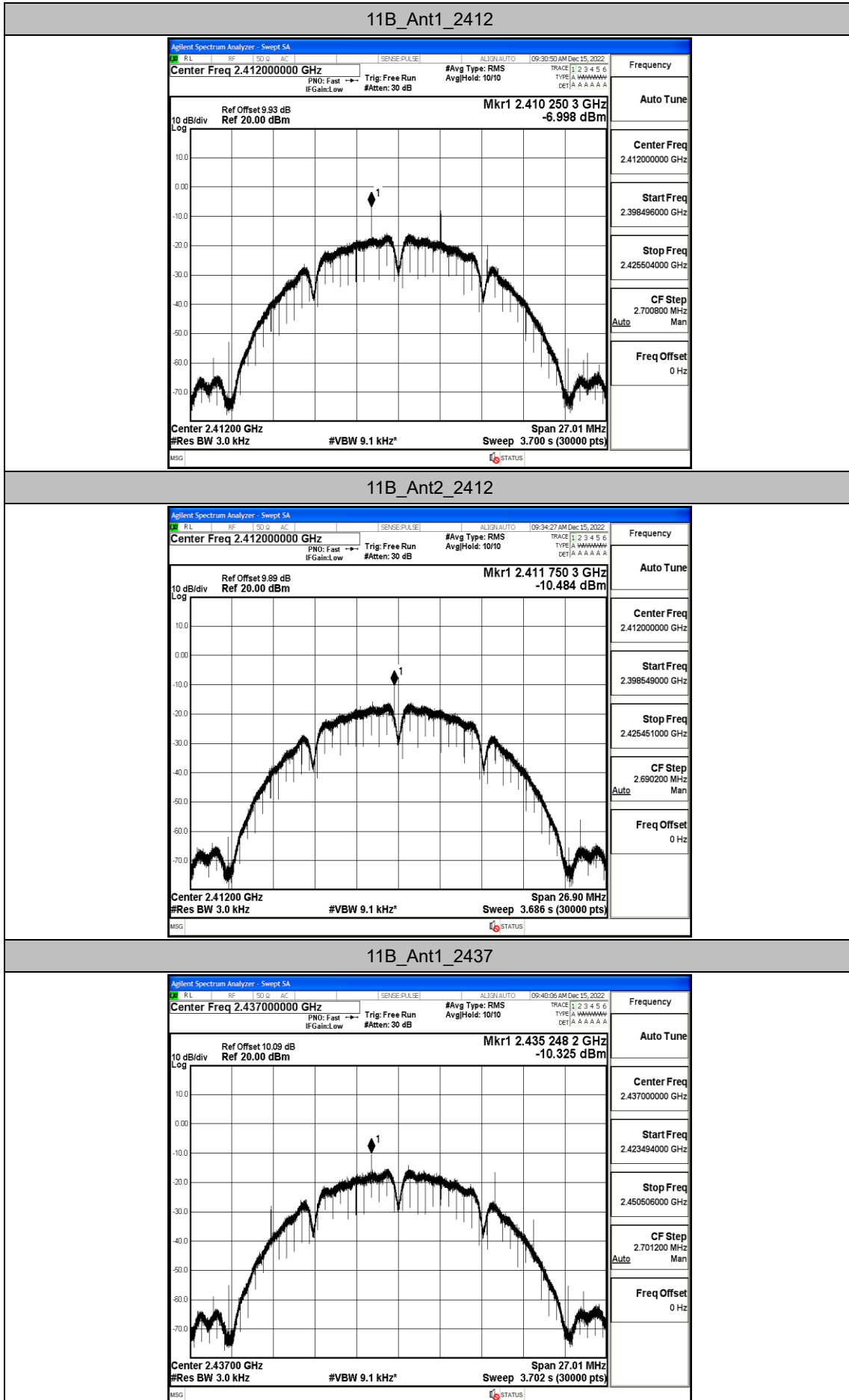
## Appendix D: Maximum power spectral density

### Test Result

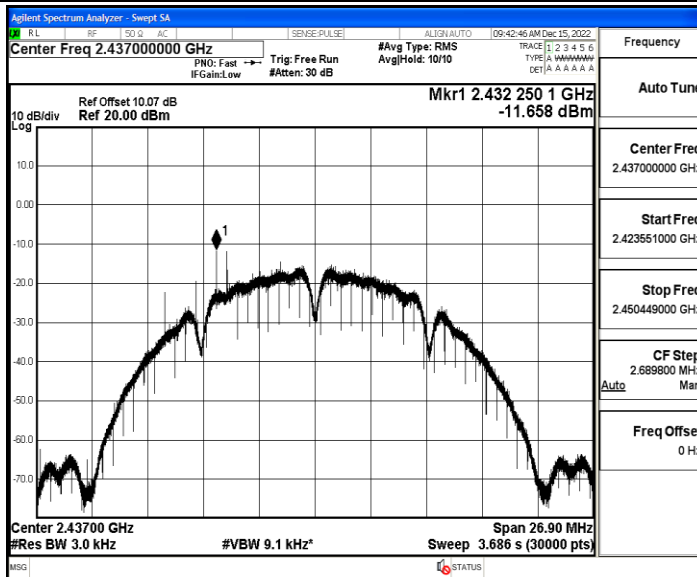
TestMode	Antenna	Channel	Result[dBm/3-100kHz]	Limit[dBm/3kHz]	Verdict
11B	Ant1	2412	-7	≤8.00	PASS
	Ant2	2412	-10.48	≤8.00	PASS
	Ant1	2437	-10.33	≤8.00	PASS
	Ant2	2437	-11.66	≤8.00	PASS
	Ant1	2462	-4.9	≤8.00	PASS
	Ant2	2462	-5.6	≤8.00	PASS
11G	Ant1	2412	-15.36	≤8.00	PASS
	Ant2	2412	-15.65	≤8.00	PASS
	Ant1	2437	-15.08	≤8.00	PASS
	Ant2	2437	-15.77	≤8.00	PASS
	Ant1	2462	-14.9	≤8.00	PASS
	Ant2	2462	-14.81	≤8.00	PASS
11N20MIMO	Ant1	2412	-18.81	≤8.00	PASS
	Ant2	2412	-18.43	≤8.00	PASS
	total	2412	-15.61	≤8.00	PASS
	Ant1	2437	-18.13	≤8.00	PASS
	Ant2	2437	-18.32	≤8.00	PASS
	total	2437	-15.21	≤8.00	PASS
	Ant1	2462	-16.24	≤8.00	PASS
	Ant2	2462	-17.76	≤8.00	PASS
	total	2462	-13.92	≤8.00	PASS
11N40MIMO	Ant1	2422	-22.12	≤8.00	PASS
	Ant2	2422	-22.88	≤8.00	PASS
	total	2422	-19.47	≤8.00	PASS
	Ant1	2437	-22.51	≤8.00	PASS
	Ant2	2437	-22.24	≤8.00	PASS
	total	2437	-19.36	≤8.00	PASS
	Ant1	2452	-22.23	≤8.00	PASS
	Ant2	2452	-22.38	≤8.00	PASS
	total	2452	-19.29	≤8.00	PASS

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

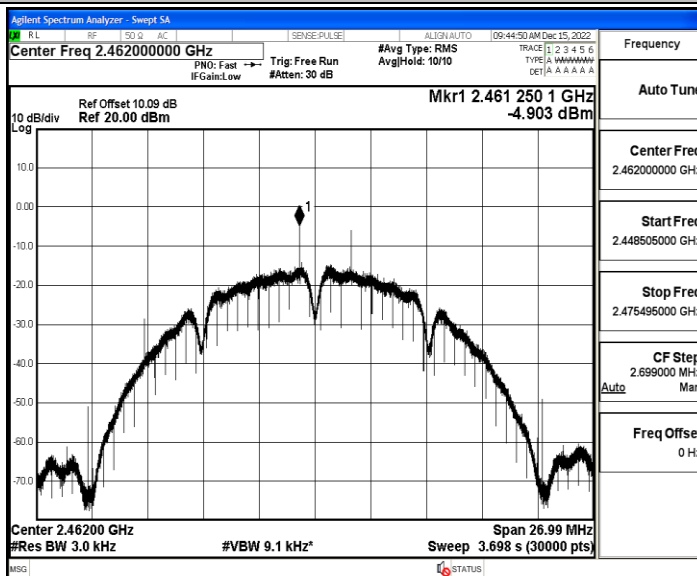
### Test Graphs



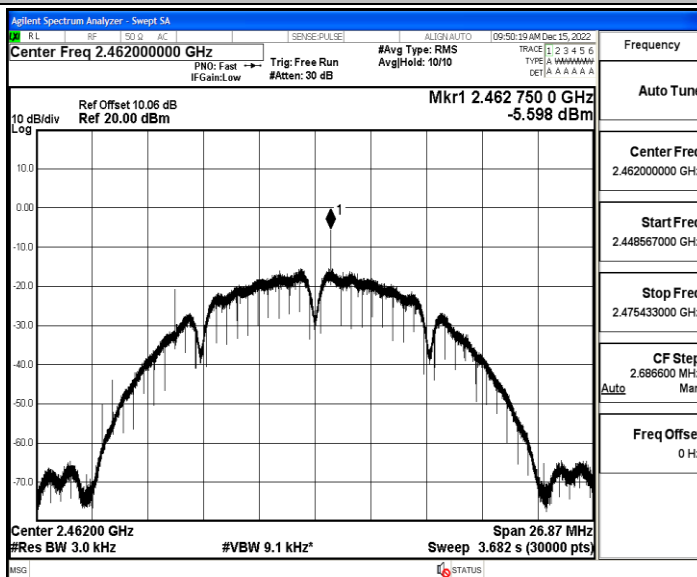
11B\_Ant2\_2437



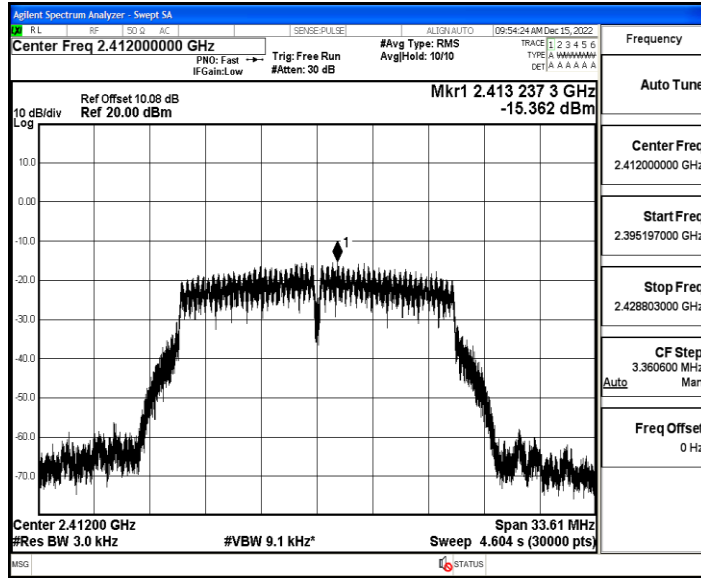
11B\_Ant1\_2462



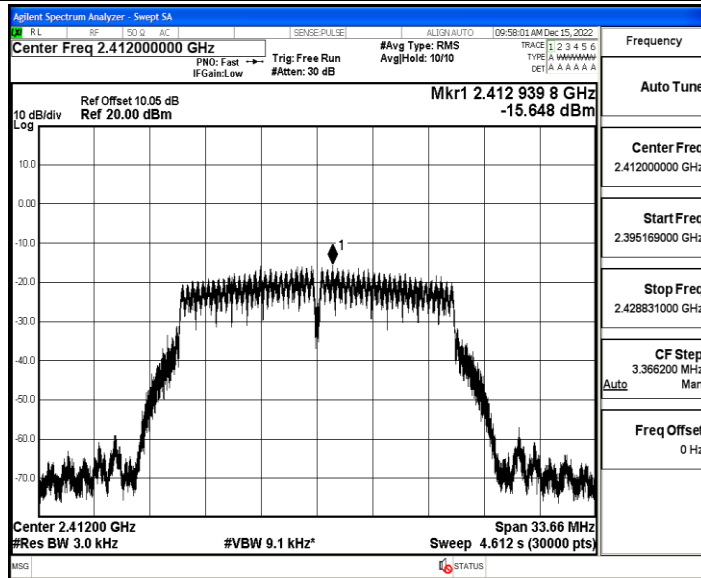
11B\_Ant2\_2462



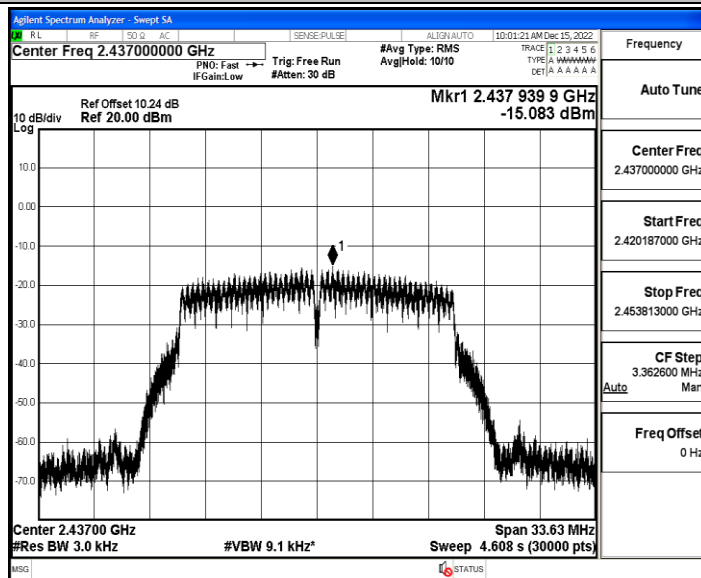
11G\_Ant1\_2412



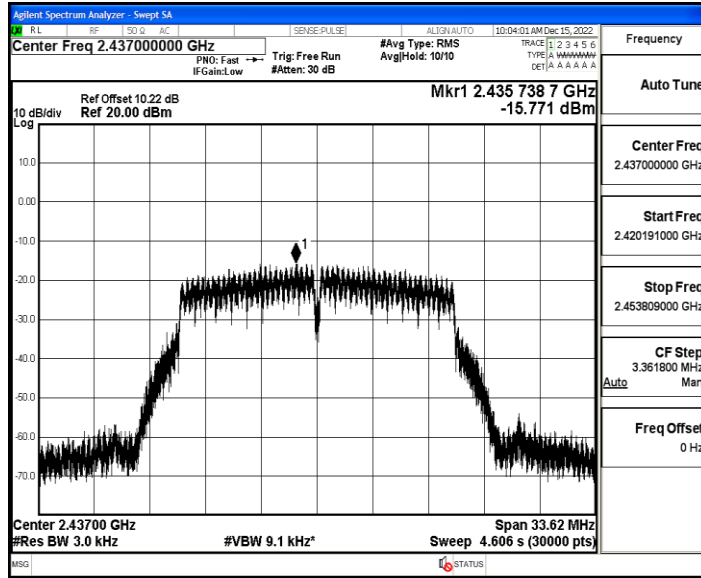
11G\_Ant2\_2412



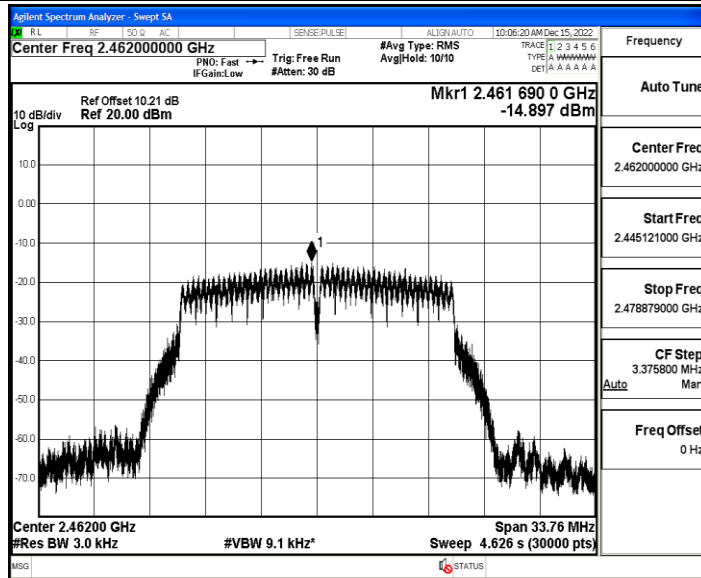
11G\_Ant1\_2437



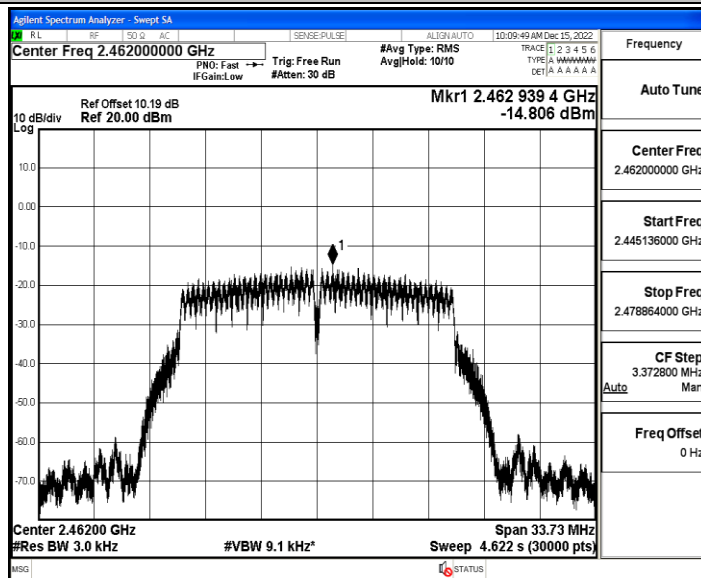
11G\_Ant2\_2437



11G\_Ant1\_2462

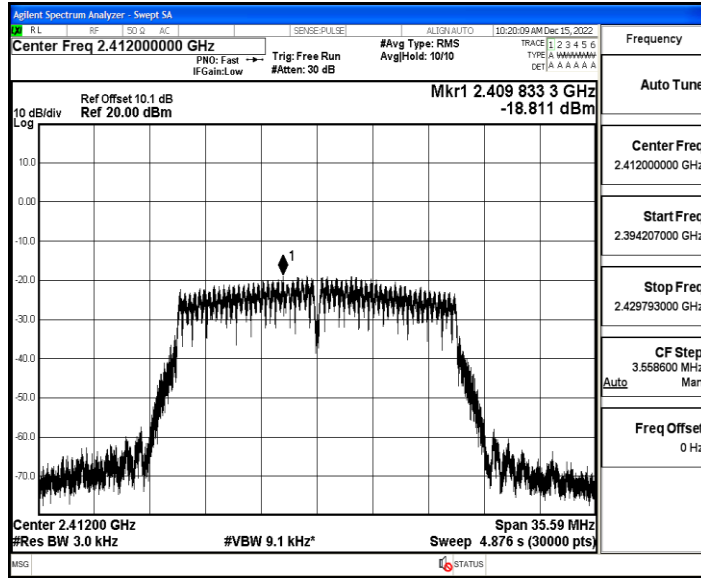


11G\_Ant2\_2462

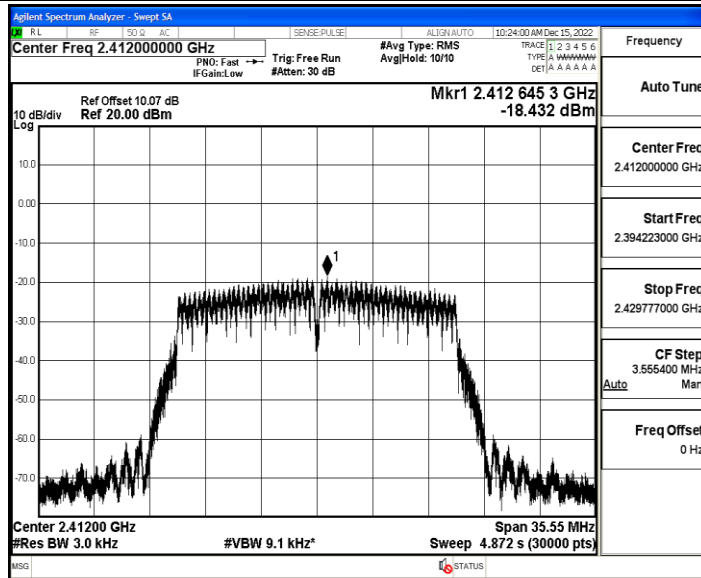


11N20MIMO\_Ant1\_2412

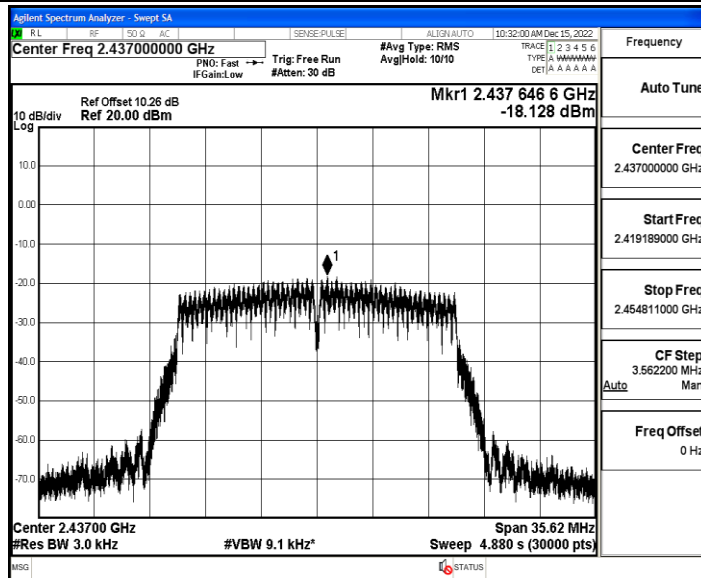




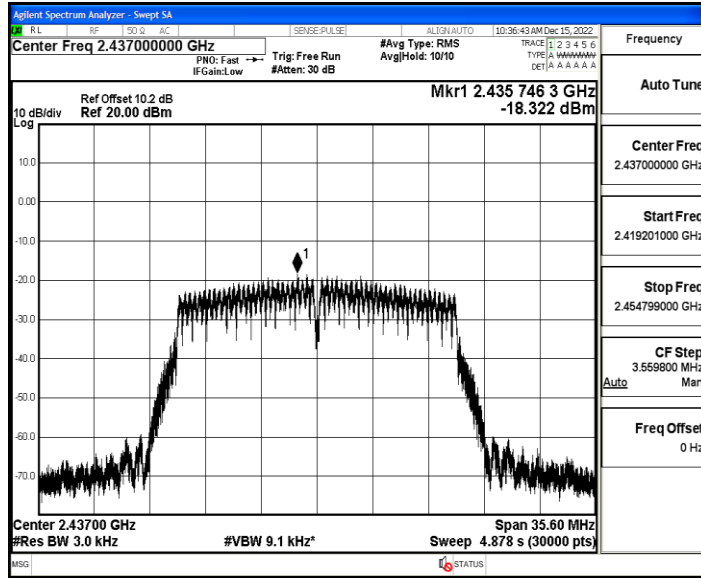
11N20MIMO\_Ant2\_2412



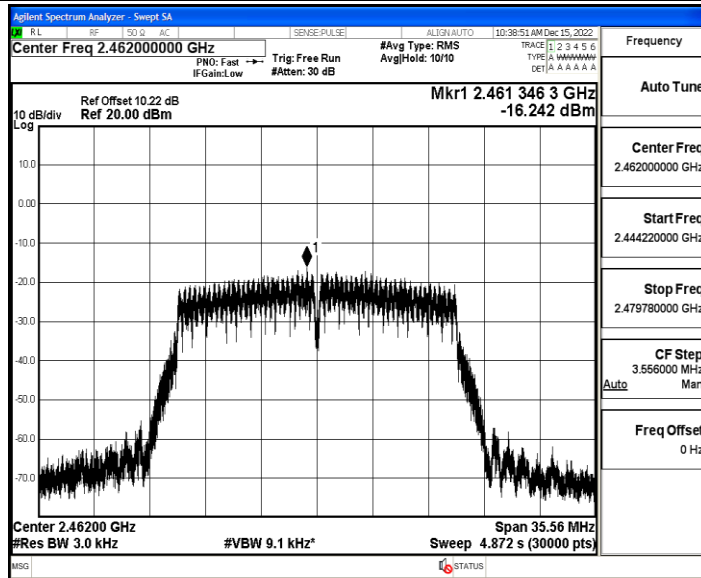
11N20MIMO\_Ant1\_2437



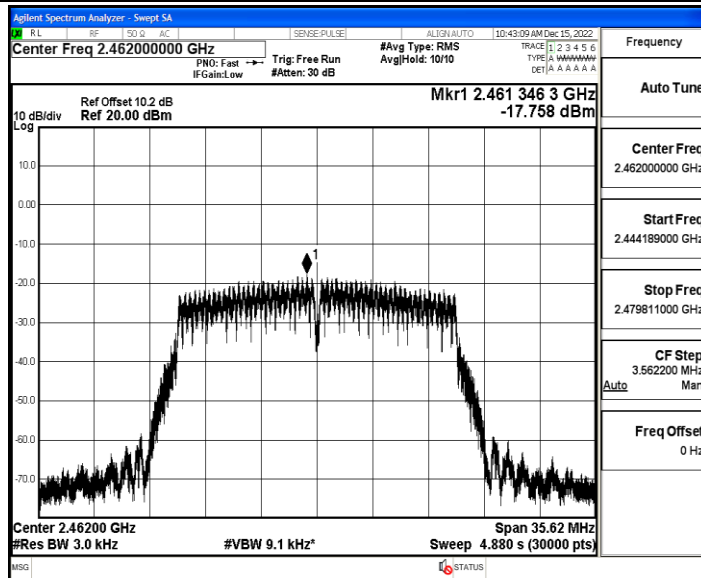
11N20MIMO\_Ant2\_2437



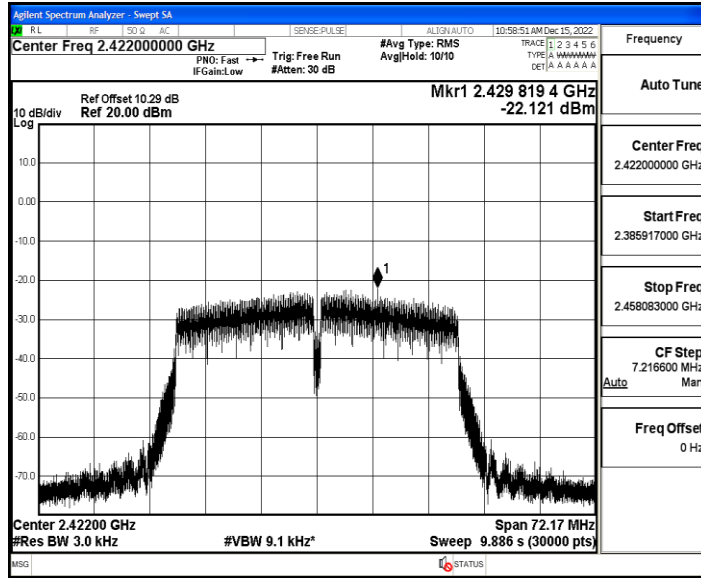
11N20MIMO\_Ant1\_2462



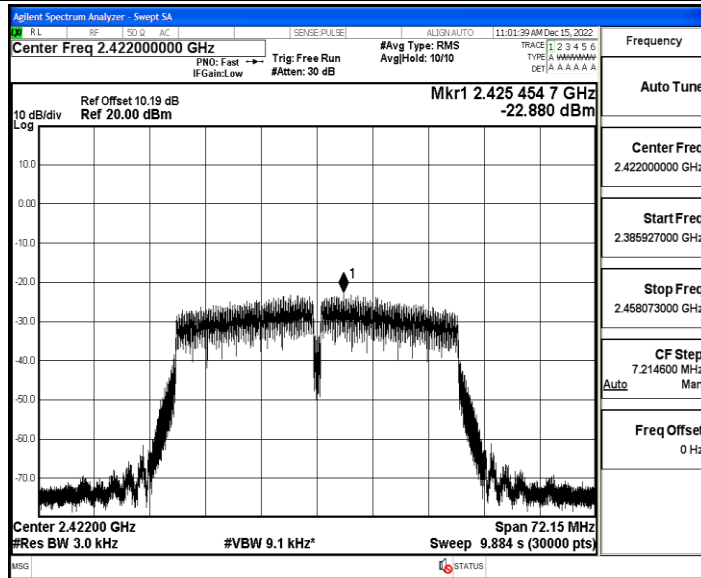
11N20MIMO\_Ant2\_2462



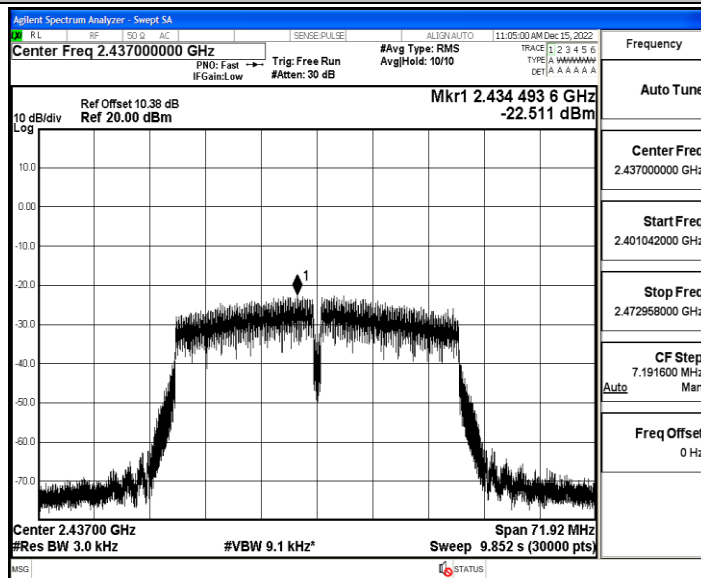
11N40MIMO\_Ant1\_2422



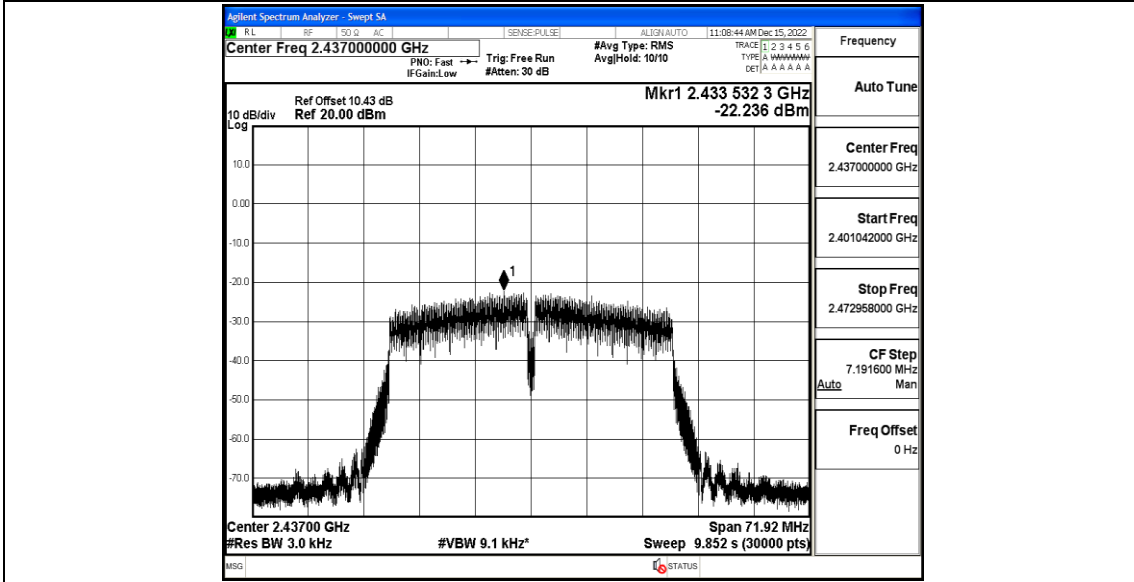
11N40MIMO\_Ant2\_2422



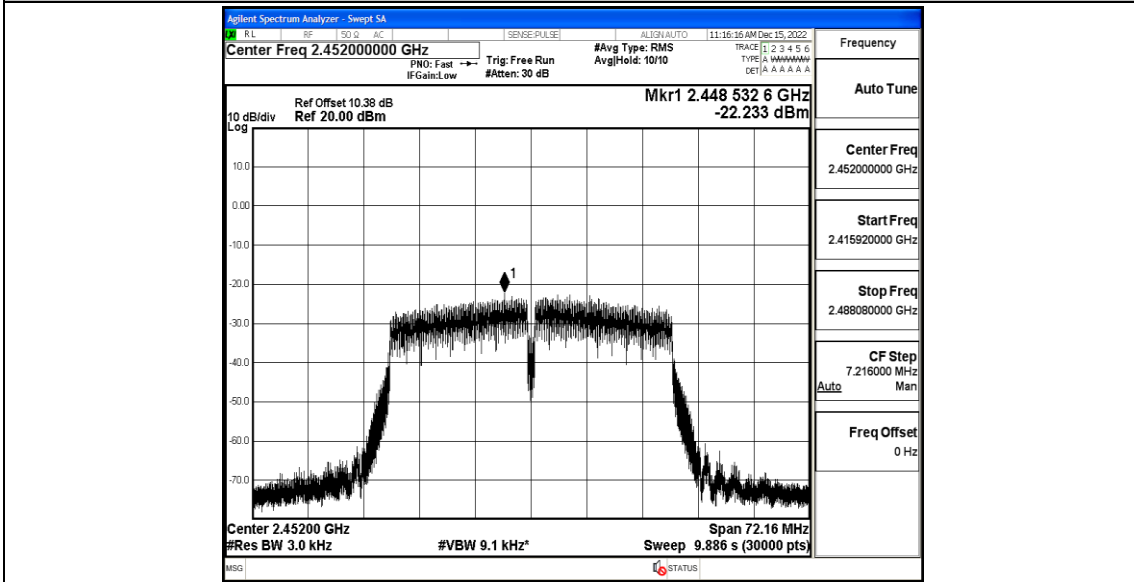
11N40MIMO\_Ant1\_2437



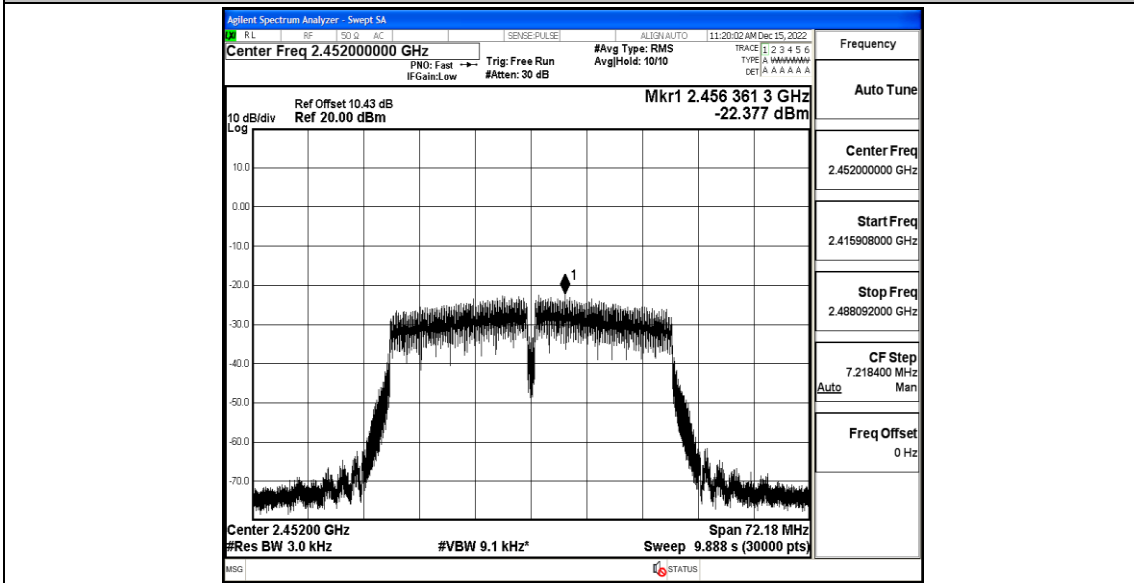
11N40MIMO\_Ant2\_2437



11N40MIMO\_Ant1\_2452



11N40MIMO\_Ant2\_2452

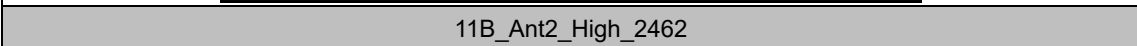
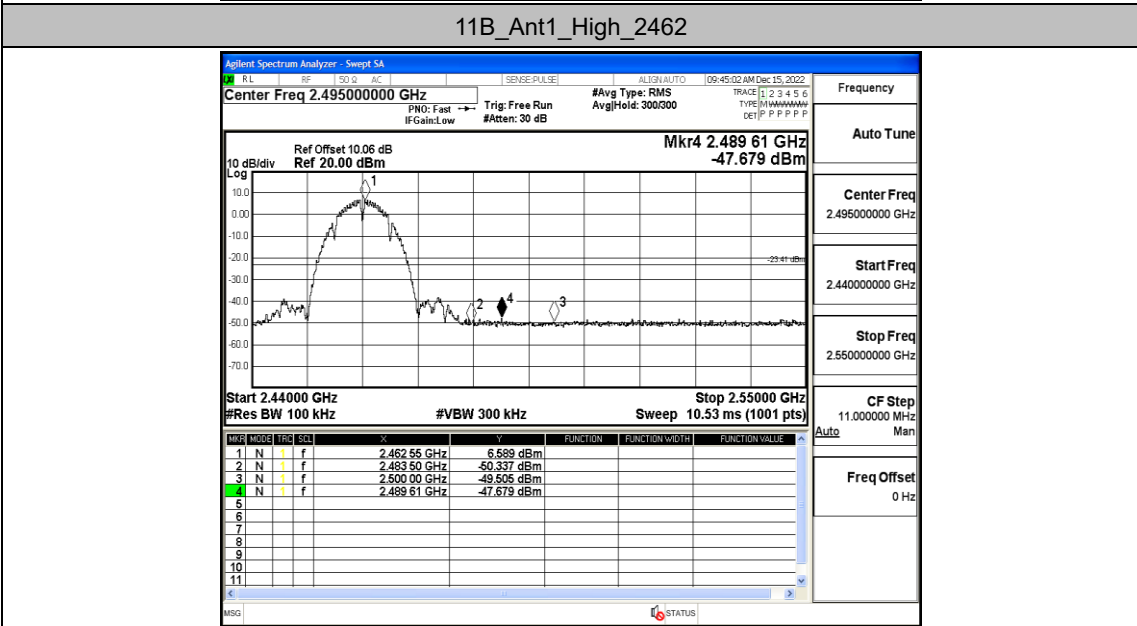
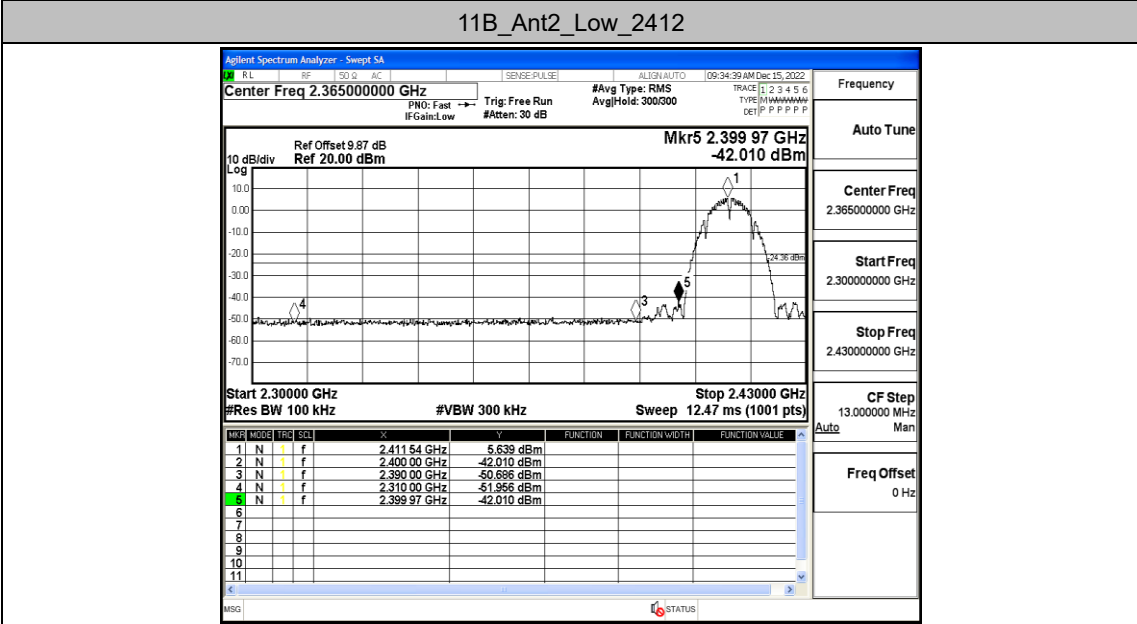
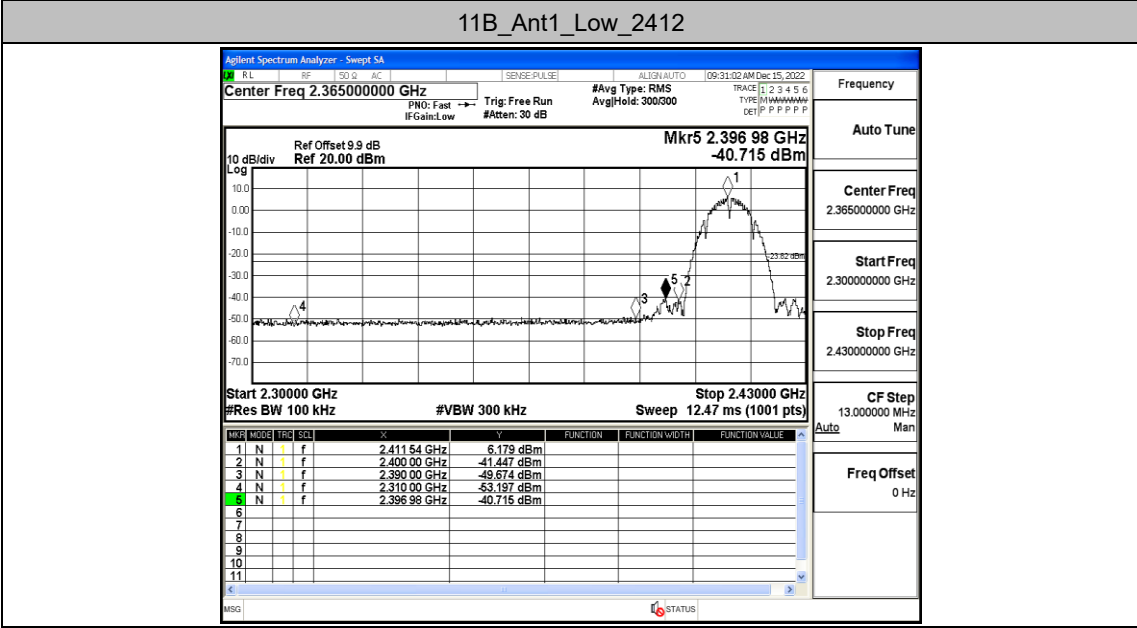


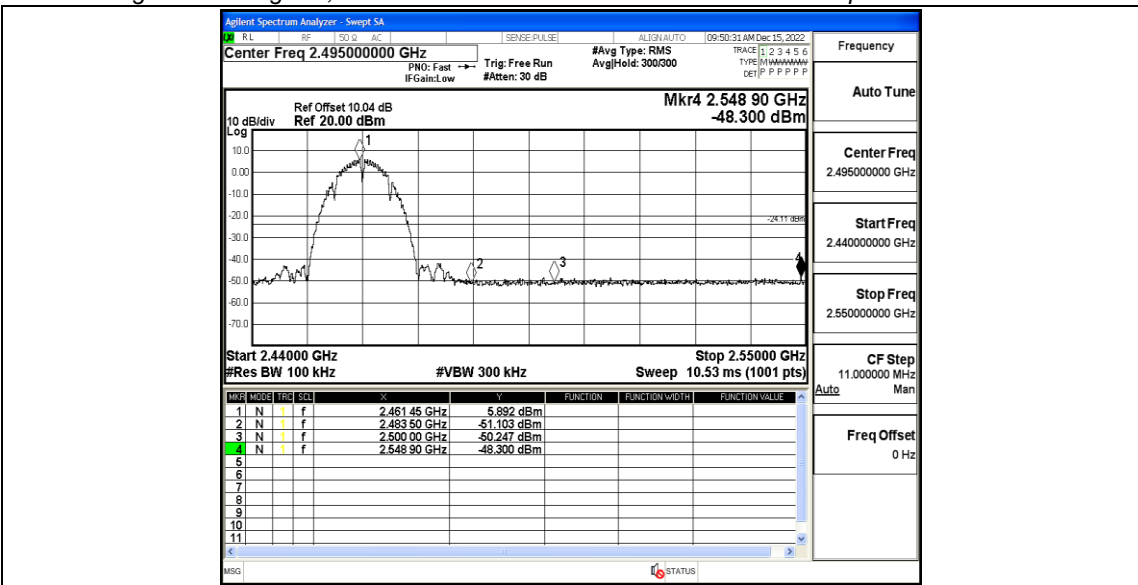
## Appendix E: Band edge measurements

### Test Result

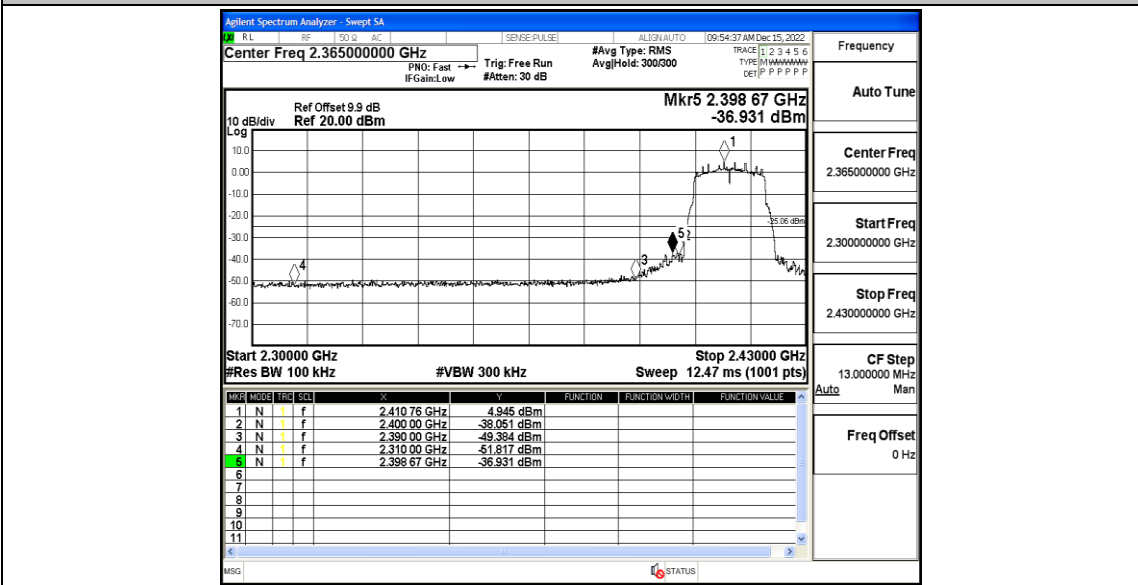
TestMode	Antenna	ChName	Channel	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
11B	Ant1	Low	2412	6.18	-40.72	≤-23.82	PASS
	Ant2	Low	2412	5.64	-42.01	≤-24.36	PASS
	Ant1	High	2462	6.59	-47.68	≤-23.41	PASS
	Ant2	High	2462	5.89	-48.3	≤-24.11	PASS
11G	Ant1	Low	2412	4.95	-36.93	≤-25.06	PASS
	Ant2	Low	2412	5.47	-39.52	≤-24.53	PASS
	Ant1	High	2462	5.80	-46.71	≤-24.2	PASS
	Ant2	High	2462	5.94	-47.8	≤-24.06	PASS
11N20MIMO	Ant1	Low	2412	2.69	-39.46	≤-27.32	PASS
	Ant2	Low	2412	2.75	-42.32	≤-27.26	PASS
	Ant1	High	2462	4.20	-46.87	≤-25.81	PASS
	Ant2	High	2462	3.25	-47.82	≤-26.75	PASS
11N40MIMO	Ant1	Low	2422	-1.71	-39.35	≤-31.71	PASS
	Ant2	Low	2422	-1.86	-39.63	≤-31.86	PASS
	Ant1	High	2452	-1.73	-47.8	≤-31.73	PASS
	Ant2	High	2452	-1.72	-47.65	≤-31.72	PASS

Test Graphs

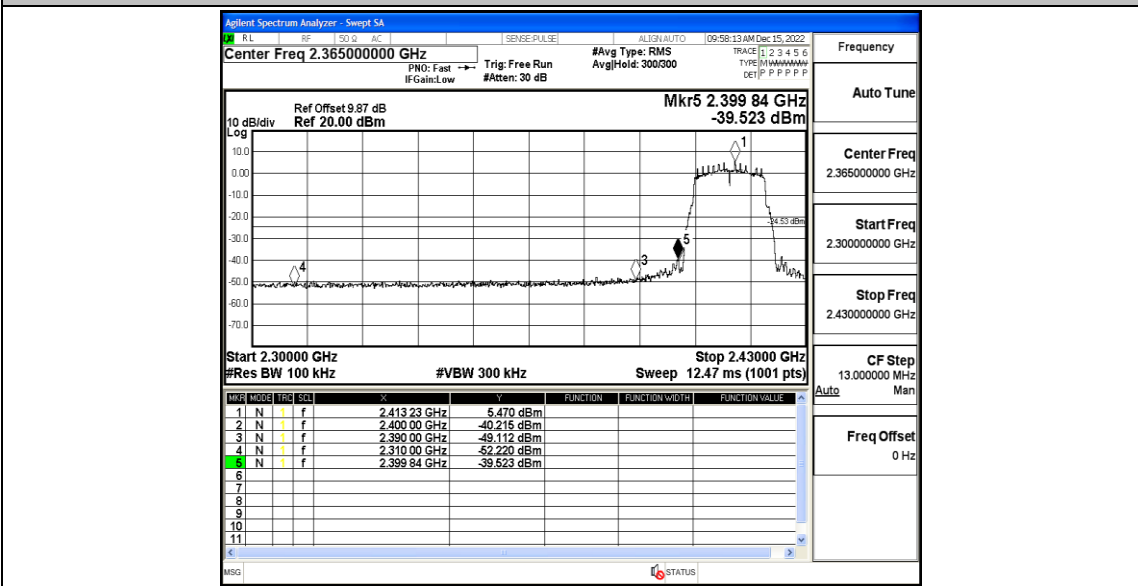




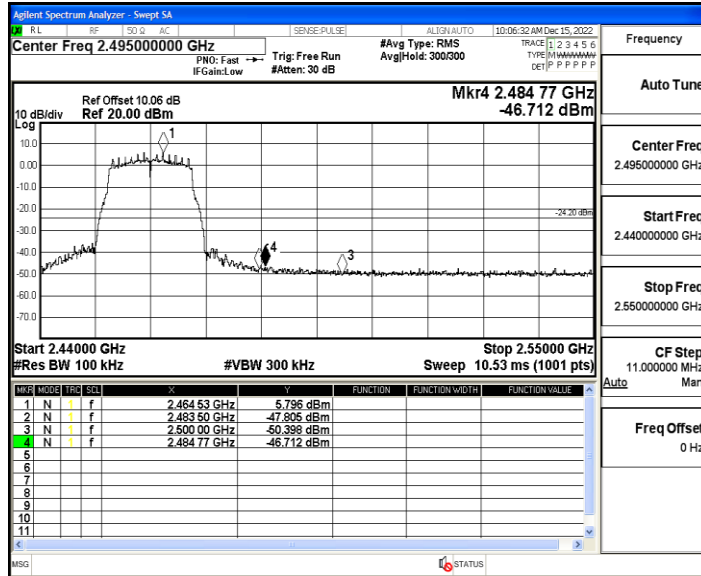
11G\_Ant1\_Low\_2412



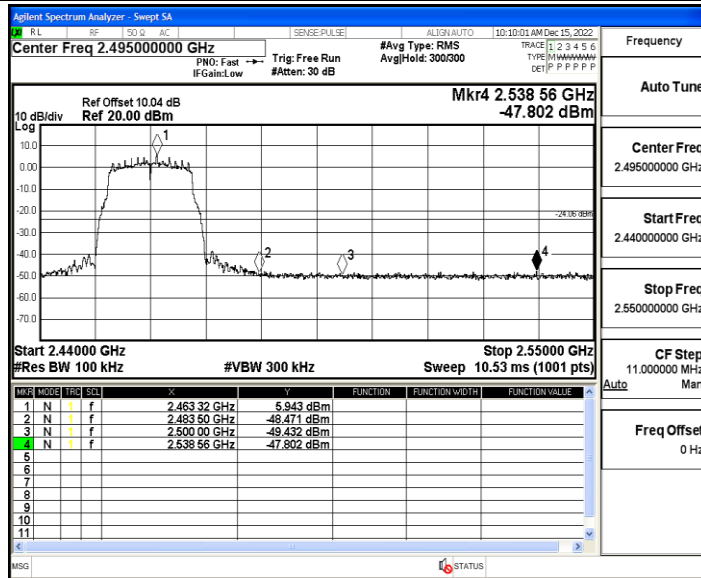
11G\_Ant2\_Low\_2412



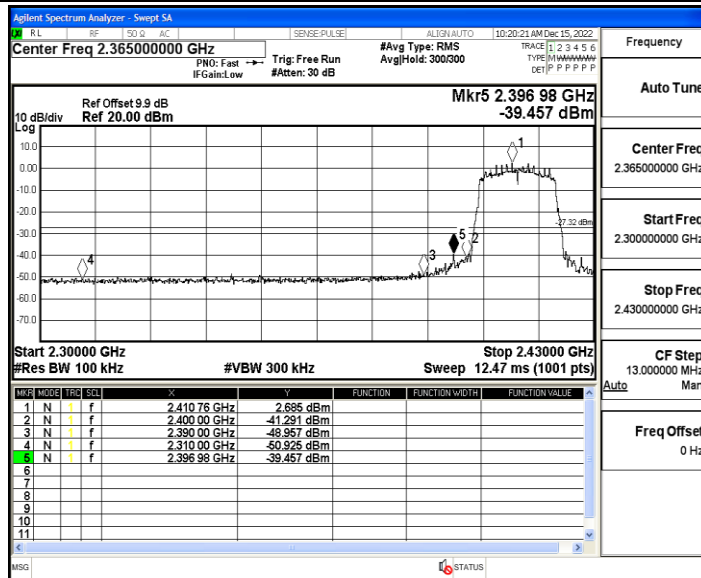
11G\_Ant1\_High\_2462



11G\_Ant2\_High\_2462

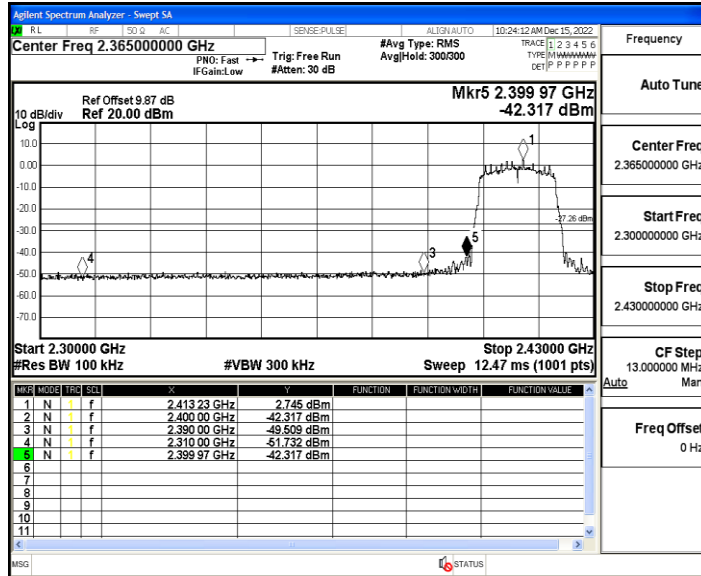


11N20MIMO\_Ant1\_Low\_2412

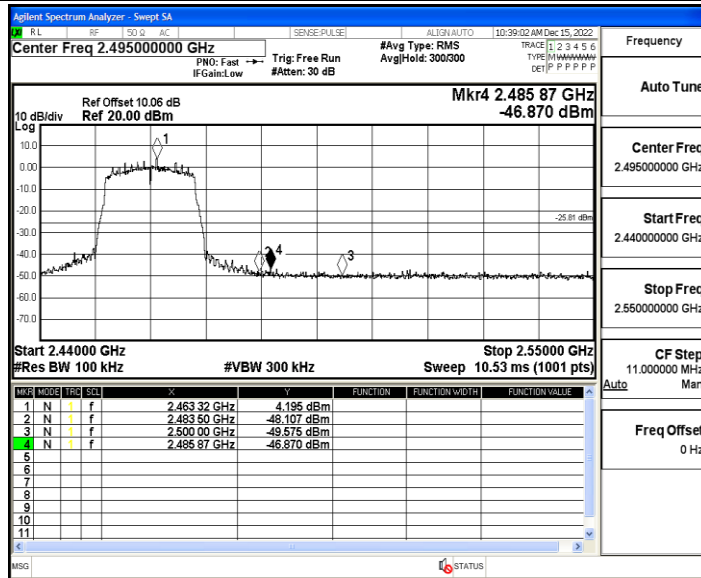


11N20MIMO\_Ant2\_Low\_2412

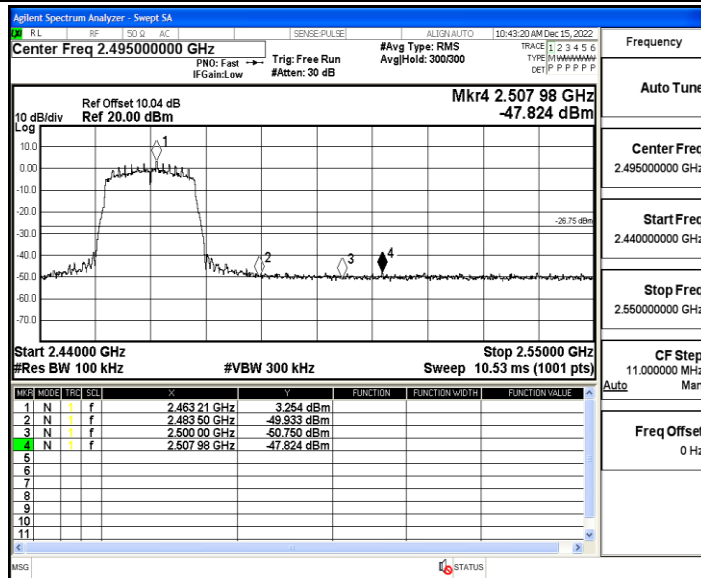




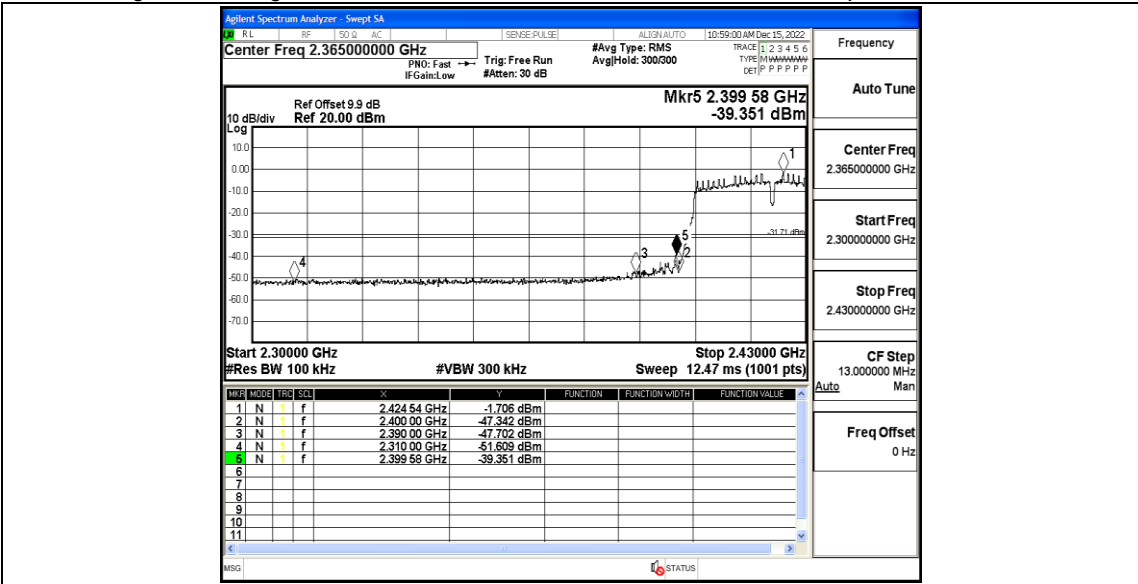
11N20MIMO\_Ant1\_High\_2462



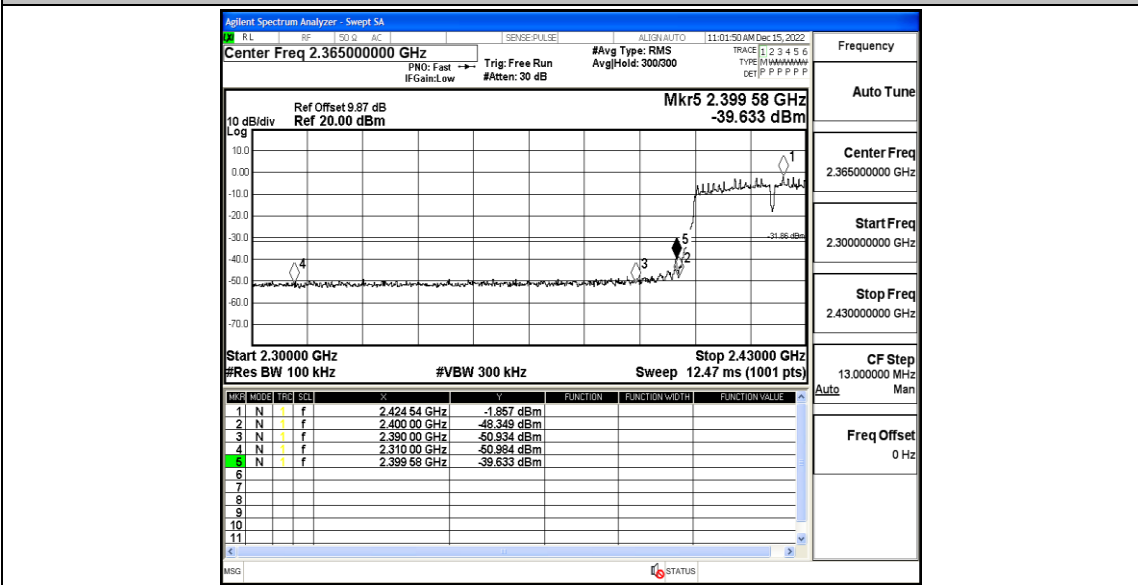
11N20MIMO\_Ant2\_High\_2462



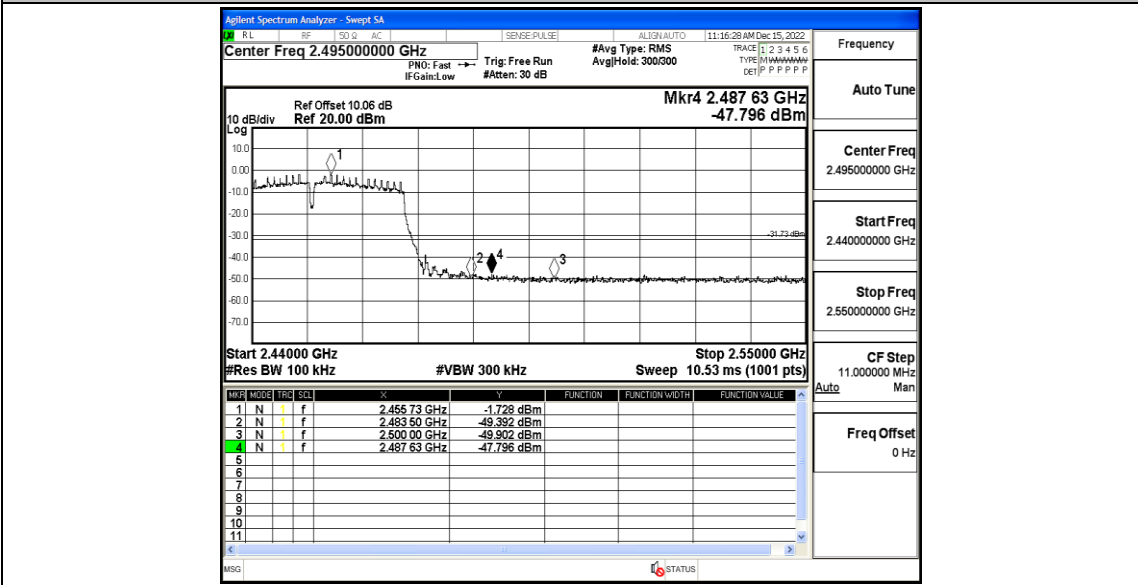
11N40MIMO\_Ant1\_Low\_2422



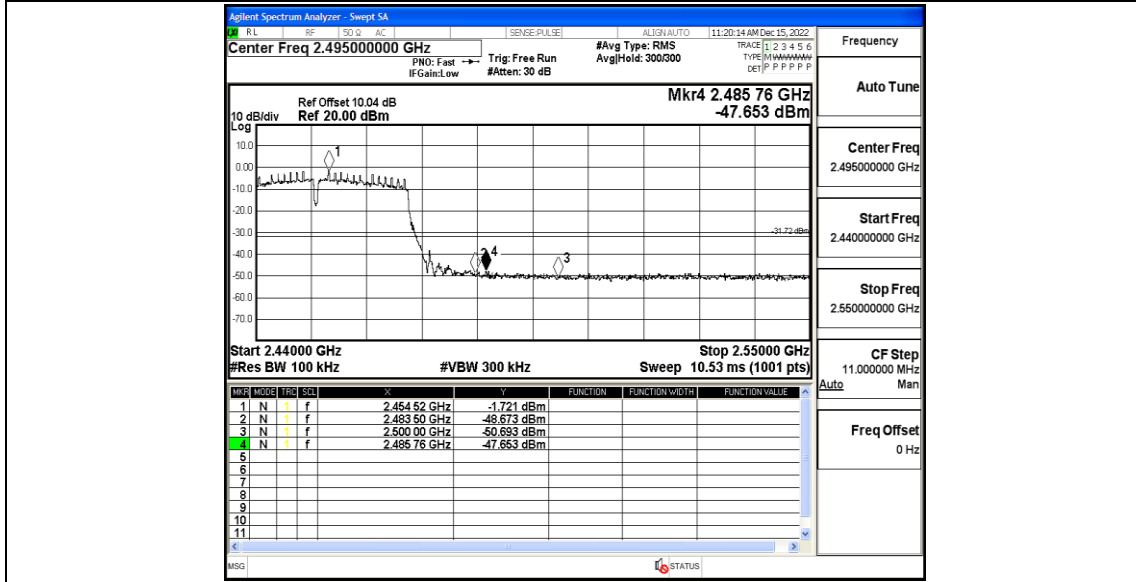
11N40MIMO\_Ant2\_Low\_2422



11N40MIMO\_Ant1\_High\_2452



11N40MIMO\_Ant2\_High\_2452



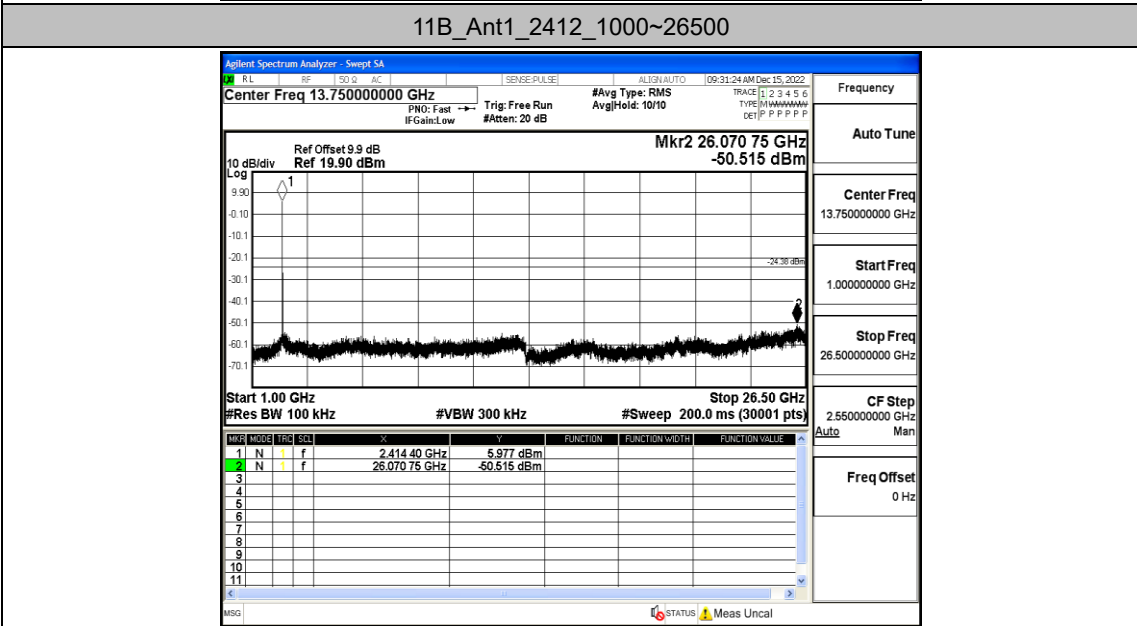
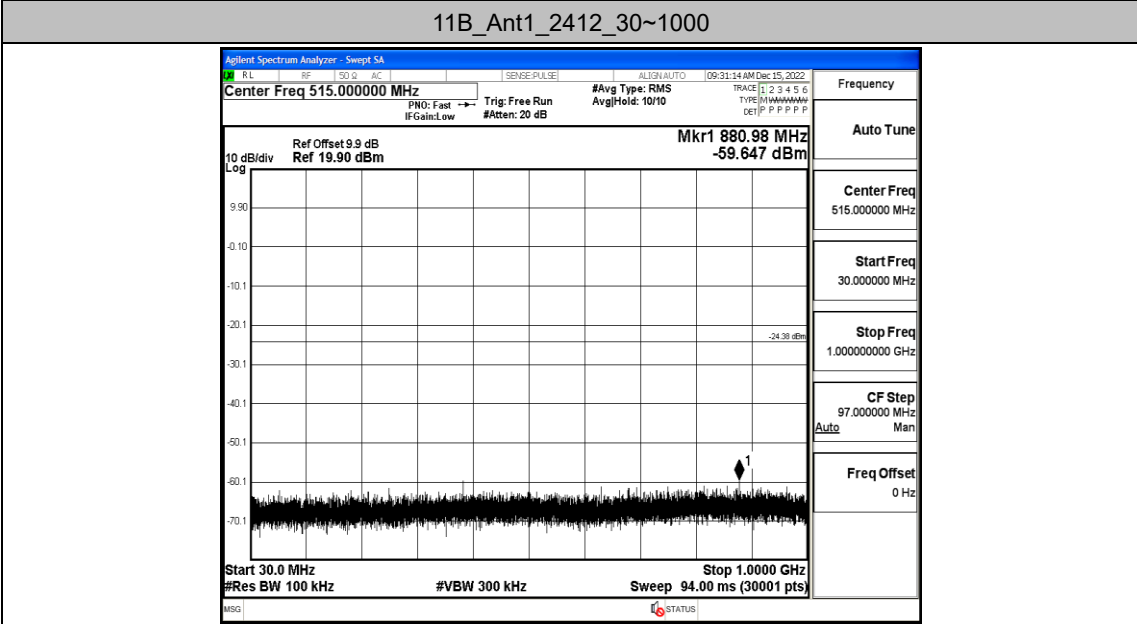
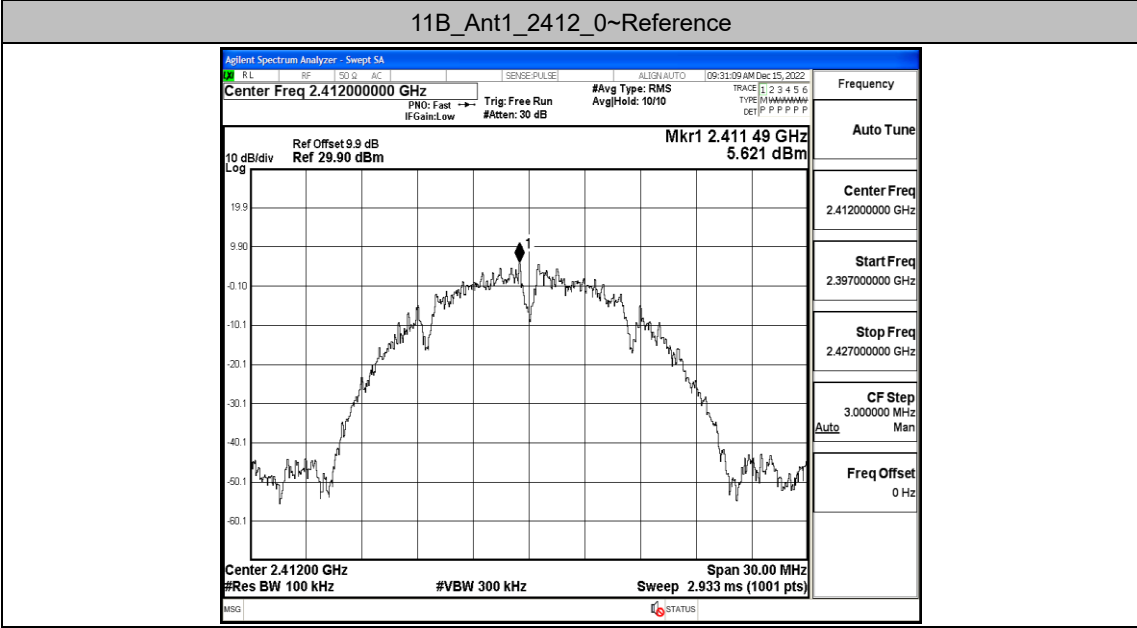
## Appendix F: Conducted Spurious Emission

### Test Result

TestMode	Antenna	Channel	FreqRange [Mhz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict	
11B	Ant1	2412	Reference	5.62	5.62	---	PASS	
			30~1000	5.62	-59.65	≤-24.38	PASS	
			1000~26500	5.62	-50.52	≤-24.38	PASS	
	Ant2	2412	Reference	5.40	5.40	---	PASS	
			30~1000	5.40	-61.27	≤-24.6	PASS	
			1000~26500	5.40	-51.05	≤-24.6	PASS	
	Ant1	2437	Reference	6.15	6.15	---	PASS	
			30~1000	6.15	-59.78	≤-23.85	PASS	
			1000~26500	6.15	-51.2	≤-23.85	PASS	
	Ant2	2437	Reference	5.68	5.68	---	PASS	
			30~1000	5.68	-61.19	≤-24.32	PASS	
			1000~26500	5.68	-49.7	≤-24.32	PASS	
	Ant1	2462	Reference	6.29	6.29	---	PASS	
			30~1000	6.29	-59.06	≤-23.71	PASS	
			1000~26500	6.29	-51.14	≤-23.71	PASS	
	Ant2	2462	Reference	5.77	5.77	---	PASS	
			30~1000	5.77	-61.26	≤-24.23	PASS	
			1000~26500	5.77	-51.38	≤-24.23	PASS	
	11G	Ant1	2412	Reference	2.40	2.40	---	PASS
				30~1000	2.40	-59.1	≤-27.6	PASS
				1000~26500	2.40	-50.07	≤-27.6	PASS
		Ant2	2412	Reference	4.68	4.68	---	PASS
				30~1000	4.68	-60.5	≤-25.32	PASS
				1000~26500	4.68	-50.93	≤-25.32	PASS
Ant1		2437	Reference	3.95	3.95	---	PASS	
			30~1000	3.95	-59.51	≤-26.05	PASS	
			1000~26500	3.95	-51.5	≤-26.05	PASS	
Ant2		2437	Reference	2.65	2.65	---	PASS	
			30~1000	2.65	-60.57	≤-27.35	PASS	
			1000~26500	2.65	-51.59	≤-27.35	PASS	
Ant1		2462	Reference	2.88	2.88	---	PASS	
			30~1000	2.88	-59.84	≤-27.12	PASS	
			1000~26500	2.88	-51.07	≤-27.12	PASS	
Ant2		2462	Reference	2.34	2.34	---	PASS	
			30~1000	2.34	-61.09	≤-27.66	PASS	
			1000~26500	2.34	-50.52	≤-27.66	PASS	
11N20MIMO		Ant1	2412	Reference	3.27	3.27	---	PASS
				30~1000	3.27	-60.02	≤-26.73	PASS
				1000~26500	3.27	-51.48	≤-26.73	PASS
		Ant2	2412	Reference	0.46	0.46	---	PASS
				30~1000	0.46	-60.54	≤-29.54	PASS

	Ant1	2437	1000~26500	0.46	-50.69	≤-29.54	PASS
			Reference	0.28	0.28	---	PASS
			30~1000	0.28	-58.56	≤-29.72	PASS
	Ant2	2437	1000~26500	0.28	-51.34	≤-29.72	PASS
			Reference	-0.57	-0.57	---	PASS
			30~1000	-0.57	-60.82	≤-30.57	PASS
	Ant1	2462	1000~26500	-0.57	-49.76	≤-30.57	PASS
			Reference	2.83	2.83	---	PASS
			30~1000	2.83	-59.64	≤-27.17	PASS
	Ant2	2462	1000~26500	2.83	-50.56	≤-27.17	PASS
			Reference	0.91	0.91	---	PASS
			30~1000	0.91	-60.43	≤-29.09	PASS
11N40MIMO	Ant1	2422	1000~26500	0.91	-51.24	≤-29.09	PASS
			Reference	-2.97	-2.97	---	PASS
			30~1000	-2.97	-60.38	≤-32.97	PASS
	Ant2	2422	1000~26500	-2.97	-51.54	≤-32.97	PASS
			Reference	-4.37	-4.37	---	PASS
			30~1000	-4.37	-60.5	≤-34.37	PASS
	Ant1	2437	1000~26500	-4.37	-50.61	≤-34.37	PASS
			Reference	-2.98	-2.98	---	PASS
			30~1000	-2.98	-59.28	≤-32.98	PASS
	Ant2	2437	1000~26500	-2.98	-51.11	≤-32.98	PASS
			Reference	-3.47	-3.47	---	PASS
			30~1000	-3.47	-60.5	≤-33.47	PASS
Ant1	2452	1000~26500	-3.47	-50.2	≤-33.47	PASS	
		Reference	-2.68	-2.68	---	PASS	
		30~1000	-2.68	-58.67	≤-32.68	PASS	
Ant2	2452	1000~26500	-2.68	-50.23	≤-32.68	PASS	
		Reference	-3.56	-3.56	---	PASS	
		30~1000	-3.56	-61	≤-33.56	PASS	
			1000~26500	-3.56	-51.43	≤-33.56	PASS

Test Graphs



**11B\_Ant2\_2412\_0~Reference**