

## Appendix A

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

Product Name: SKYBOXE 4G

Trade Mark: SKYBOXE

Test Model: SB4GTVLM940

FCC ID: 2AWJS-SB4GTVLM940

### Environmental Conditions

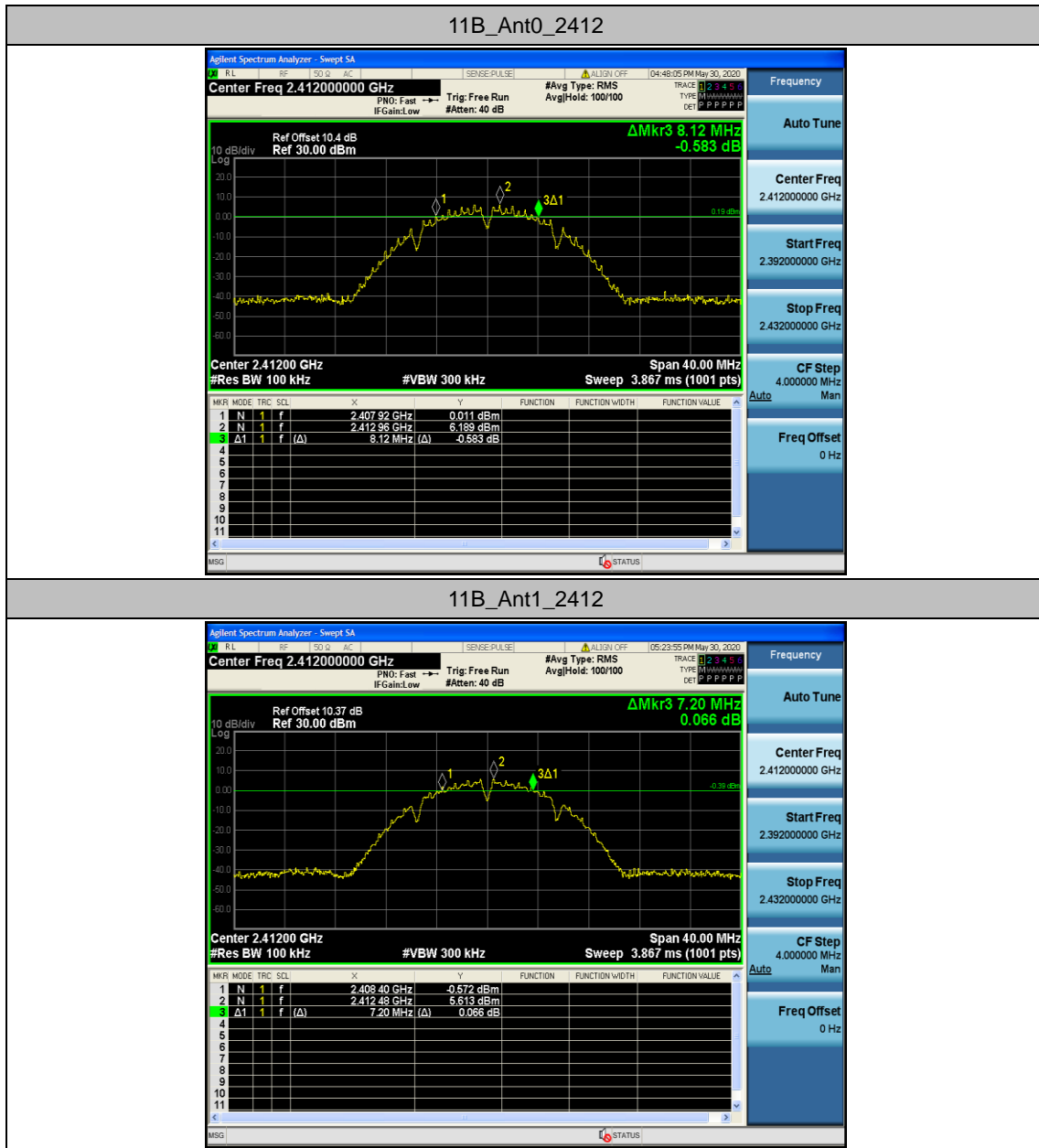
Temperature:	25.5°C
Relative Humidity:	55.2%
ATM Pressure:	100.0 kPa
Test Engineer:	Anna Hu
Supervised by:	Hugo Chen
NOTE	N/A

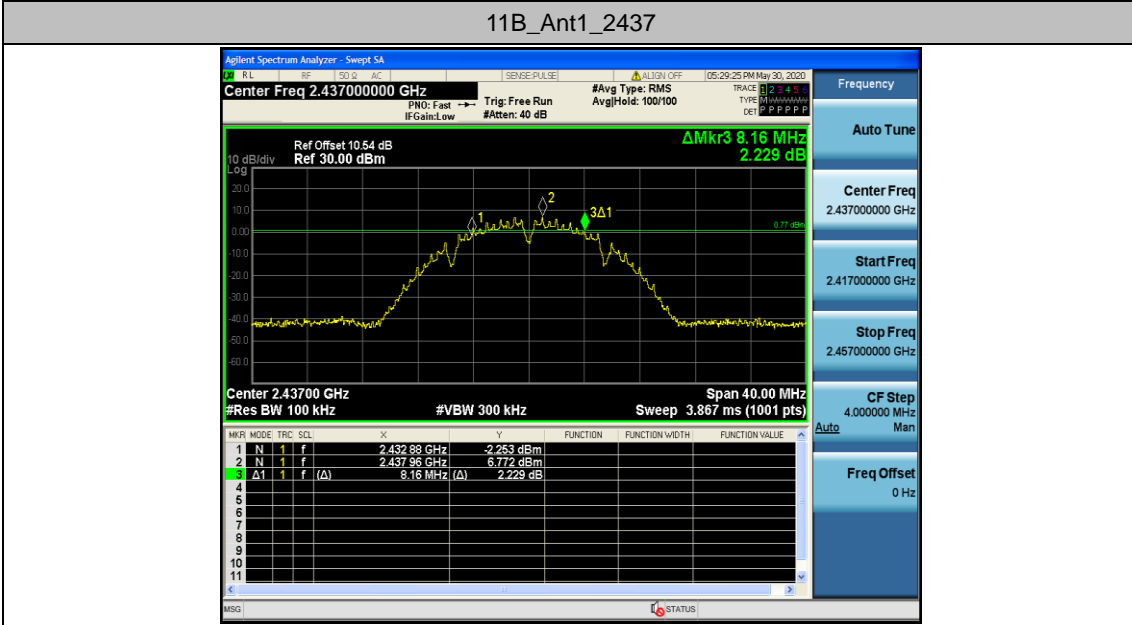
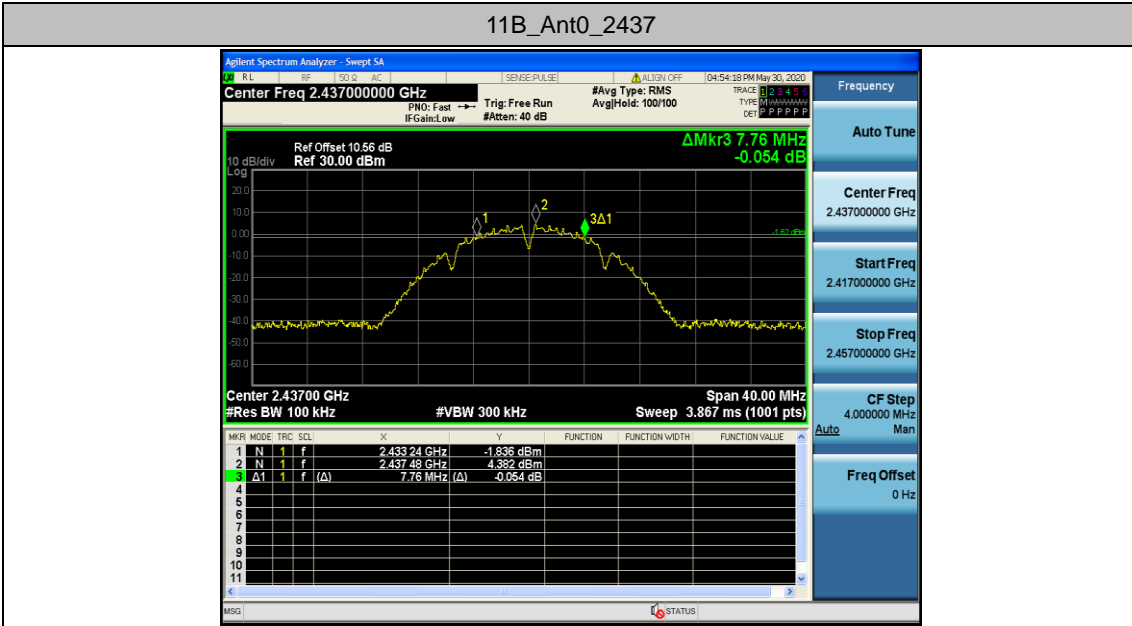
## Appendix A: DTS Bandwidth

### Test Result

TestMode	Antenna	Channel	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant0	2412	8.120	2407.920	2416.040	0.5	PASS
	Ant1	2412	7.200	2408.400	2415.600	0.5	PASS
	Ant0	2437	7.760	2433.240	2441.000	0.5	PASS
	Ant1	2437	8.160	2432.880	2441.040	0.5	PASS
	Ant0	2462	7.600	2458.000	2465.600	0.5	PASS
	Ant1	2462	7.280	2458.320	2465.600	0.5	PASS
11G	Ant0	2412	16.360	2403.800	2420.160	0.5	PASS
	Ant1	2412	16.360	2403.800	2420.160	0.5	PASS
	Ant0	2437	16.400	2428.760	2445.160	0.5	PASS
	Ant1	2437	16.400	2428.760	2445.160	0.5	PASS
	Ant0	2462	16.400	2453.760	2470.160	0.5	PASS
	Ant1	2462	16.080	2453.800	2469.880	0.5	PASS
11N20MIMO	Ant0	2412	17.640	2403.160	2420.800	0.5	PASS
	Ant1	2412	17.640	2403.160	2420.800	0.5	PASS
	Ant0	2437	16.360	2429.040	2445.400	0.5	PASS
	Ant1	2437	17.600	2428.160	2445.760	0.5	PASS
	Ant0	2462	17.280	2453.520	2470.800	0.5	PASS
	Ant1	2462	17.640	2453.160	2470.800	0.5	PASS

### Test Graphs


**11B\_Ant1\_2412**

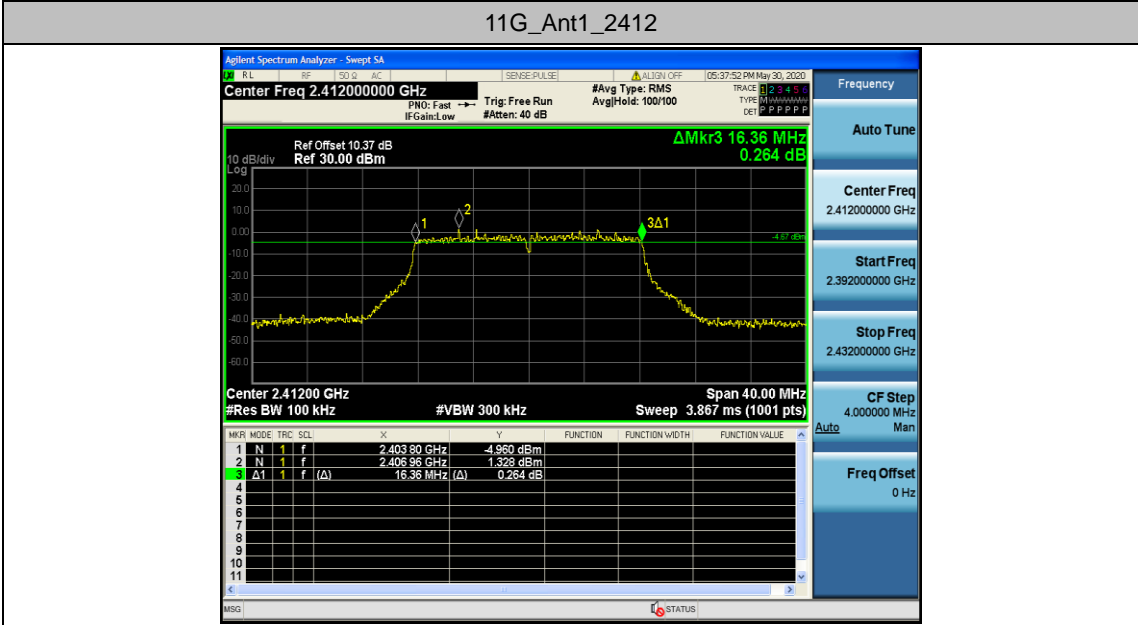
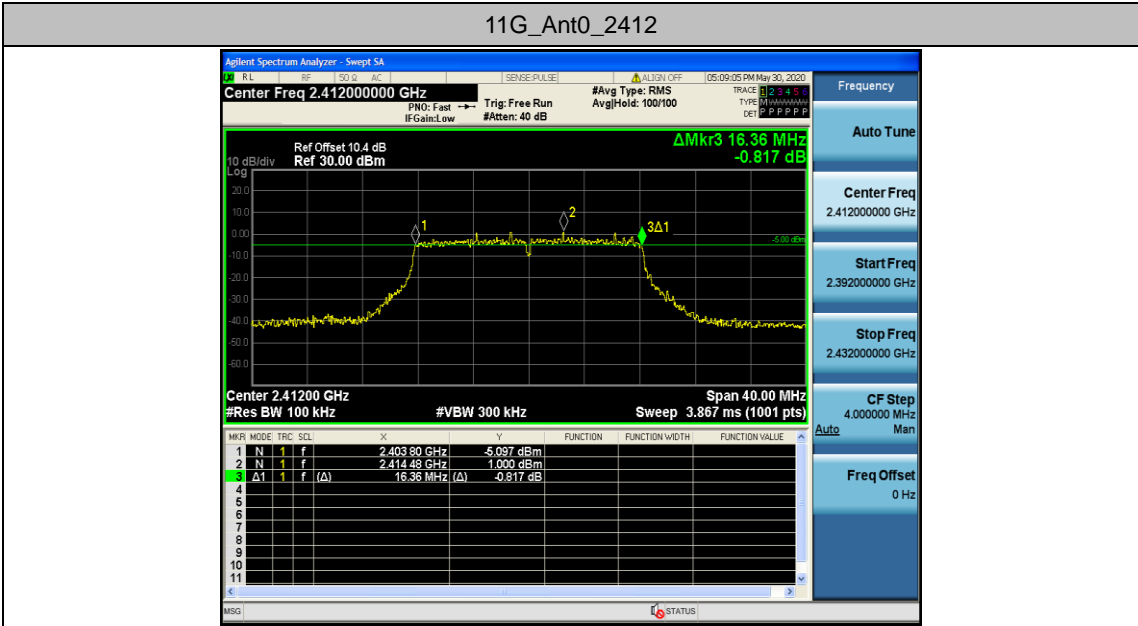


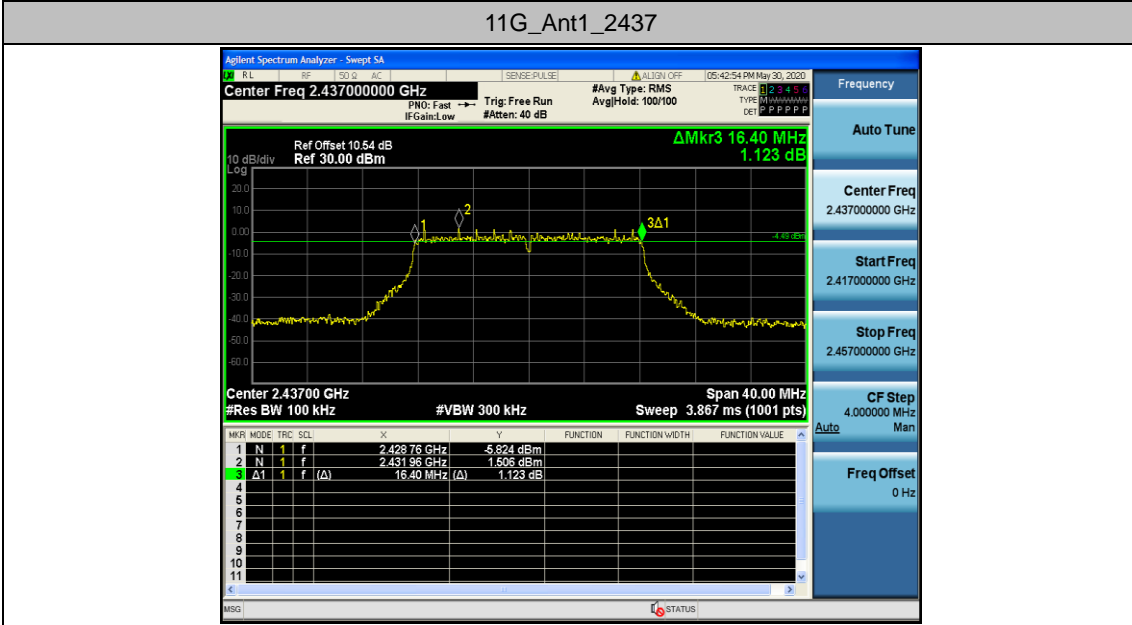
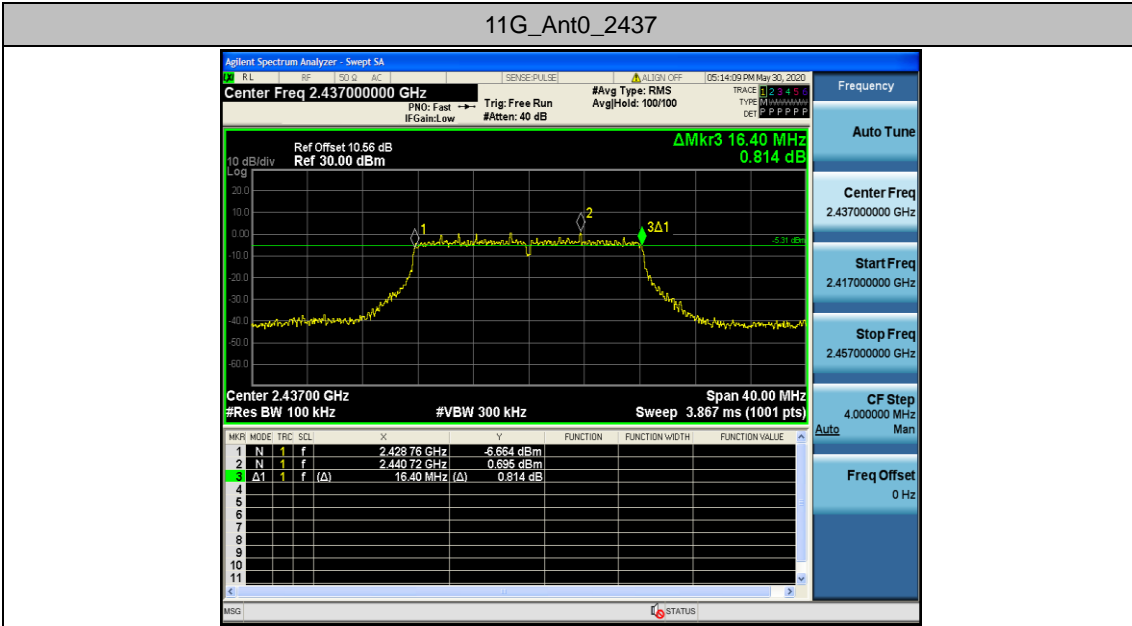
11B\_Ant0\_2462

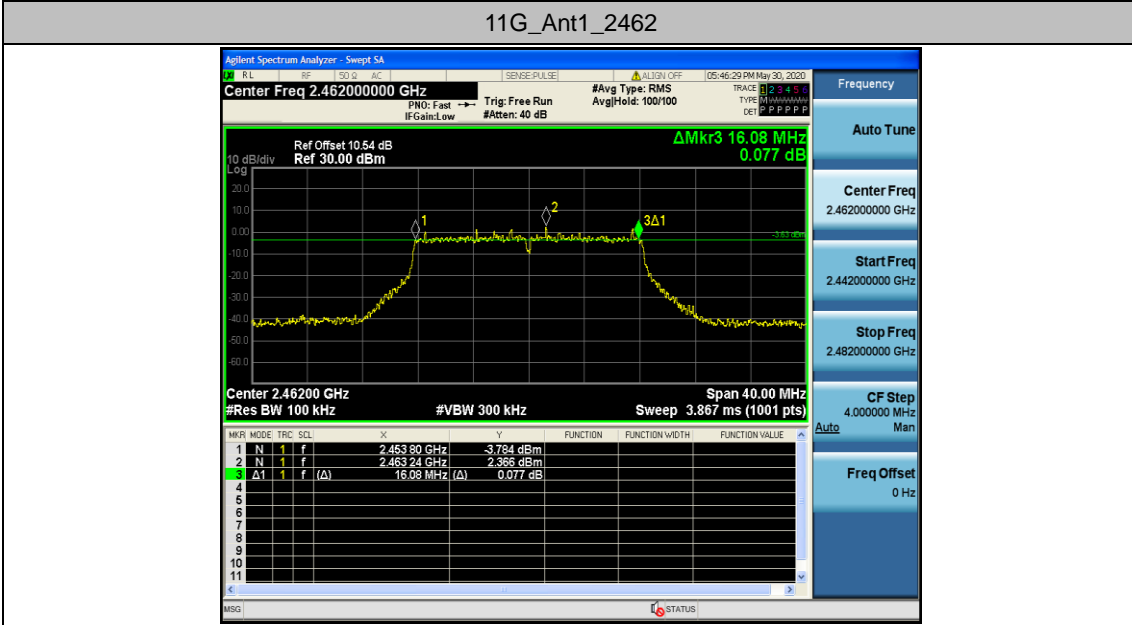
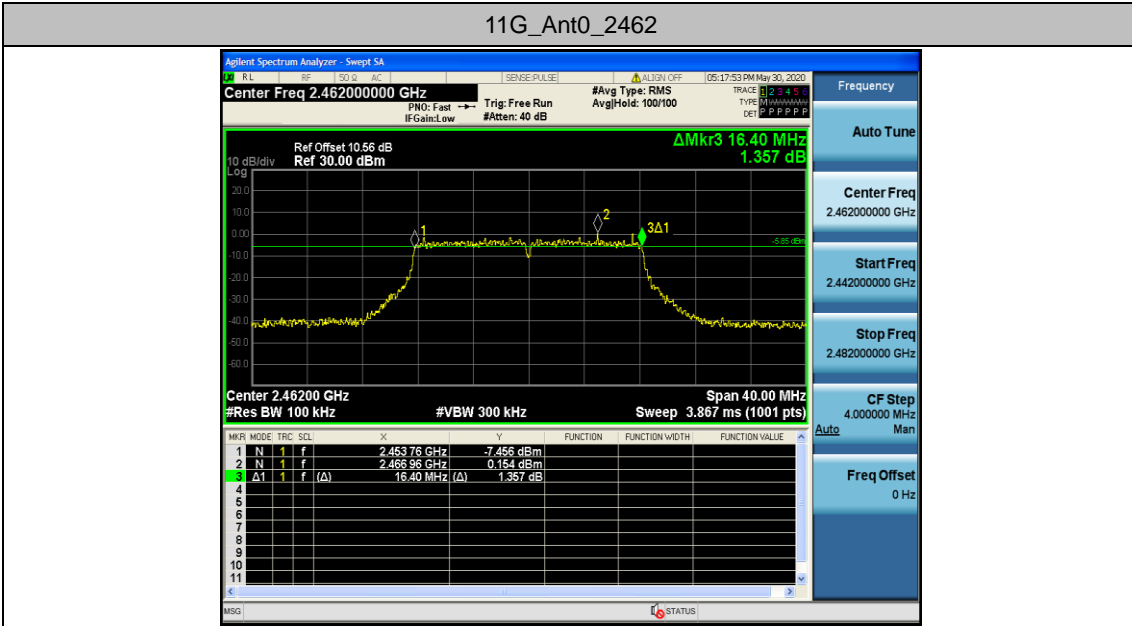


11B\_Ant1\_2462

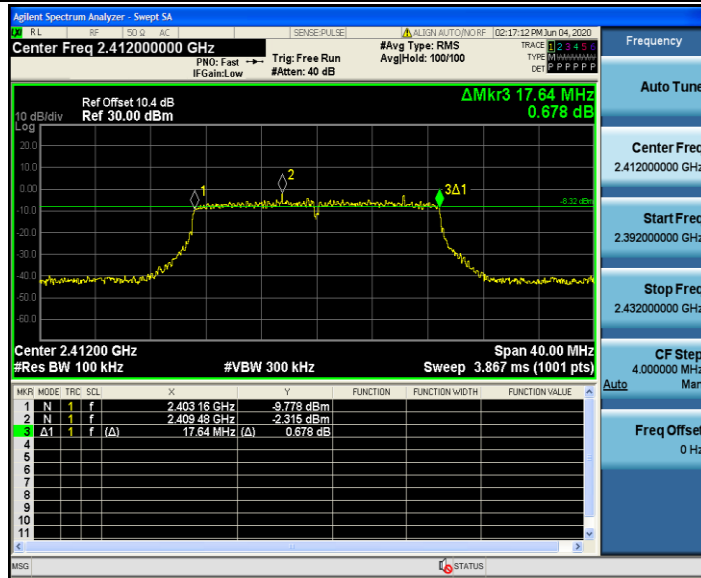




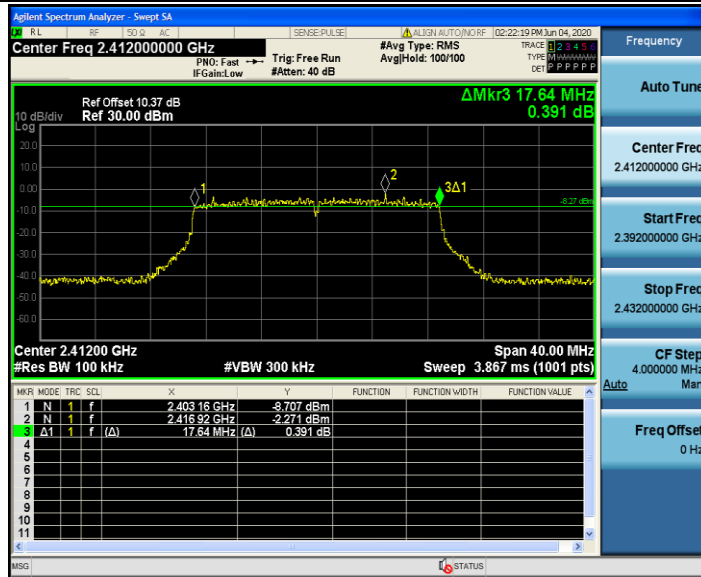




11N20MIMO\_Ant0\_2412

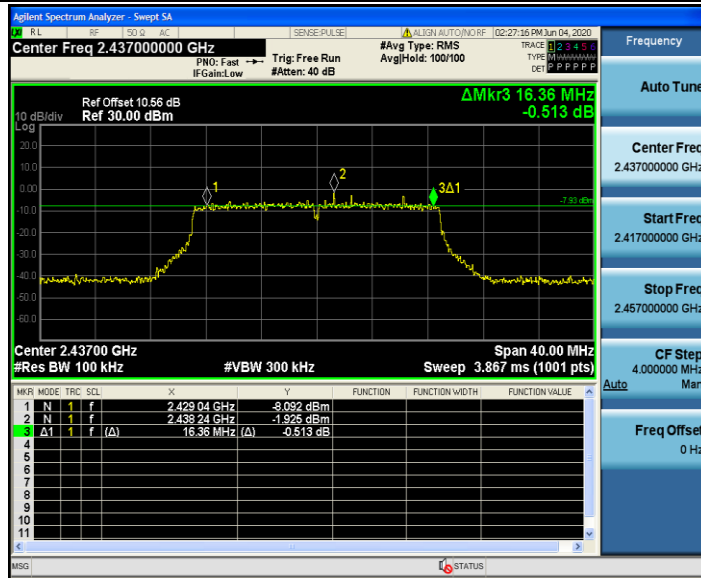


11N20MIMO\_Ant1\_2412

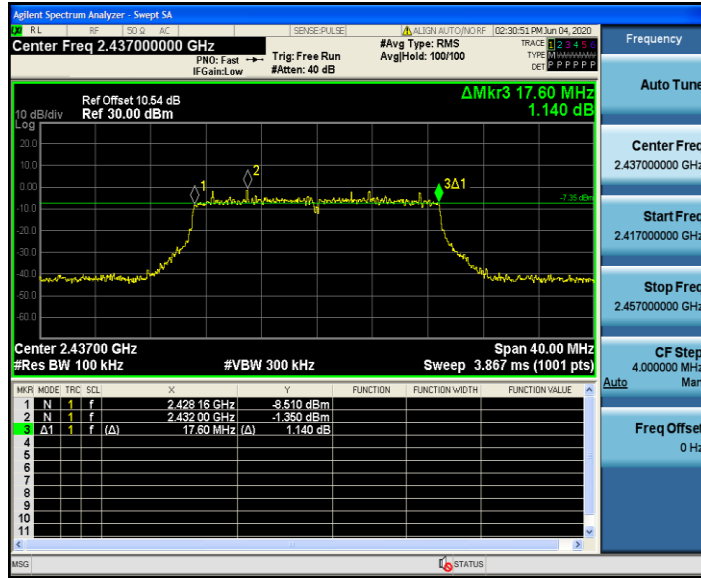


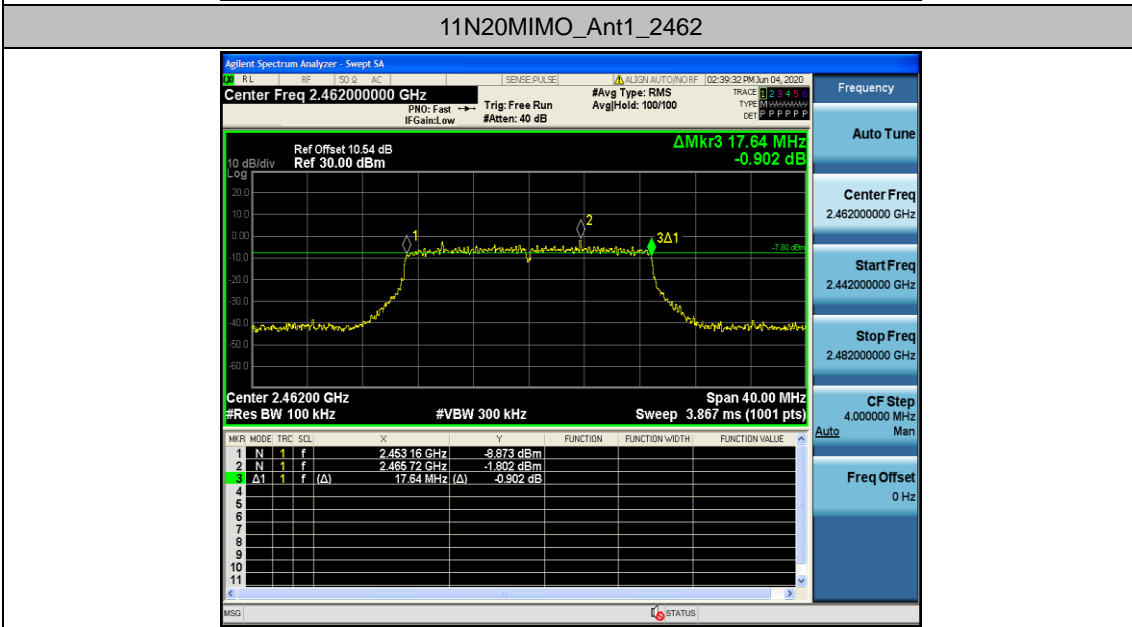
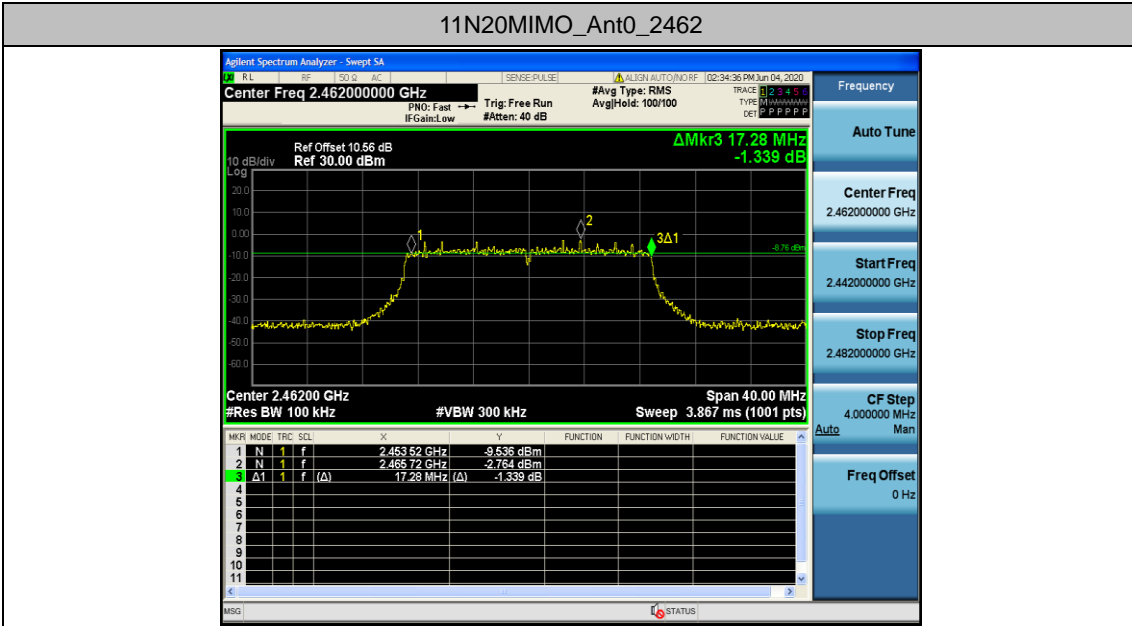


11N20MIMO\_Ant0\_2437



11N20MIMO\_Ant1\_2437



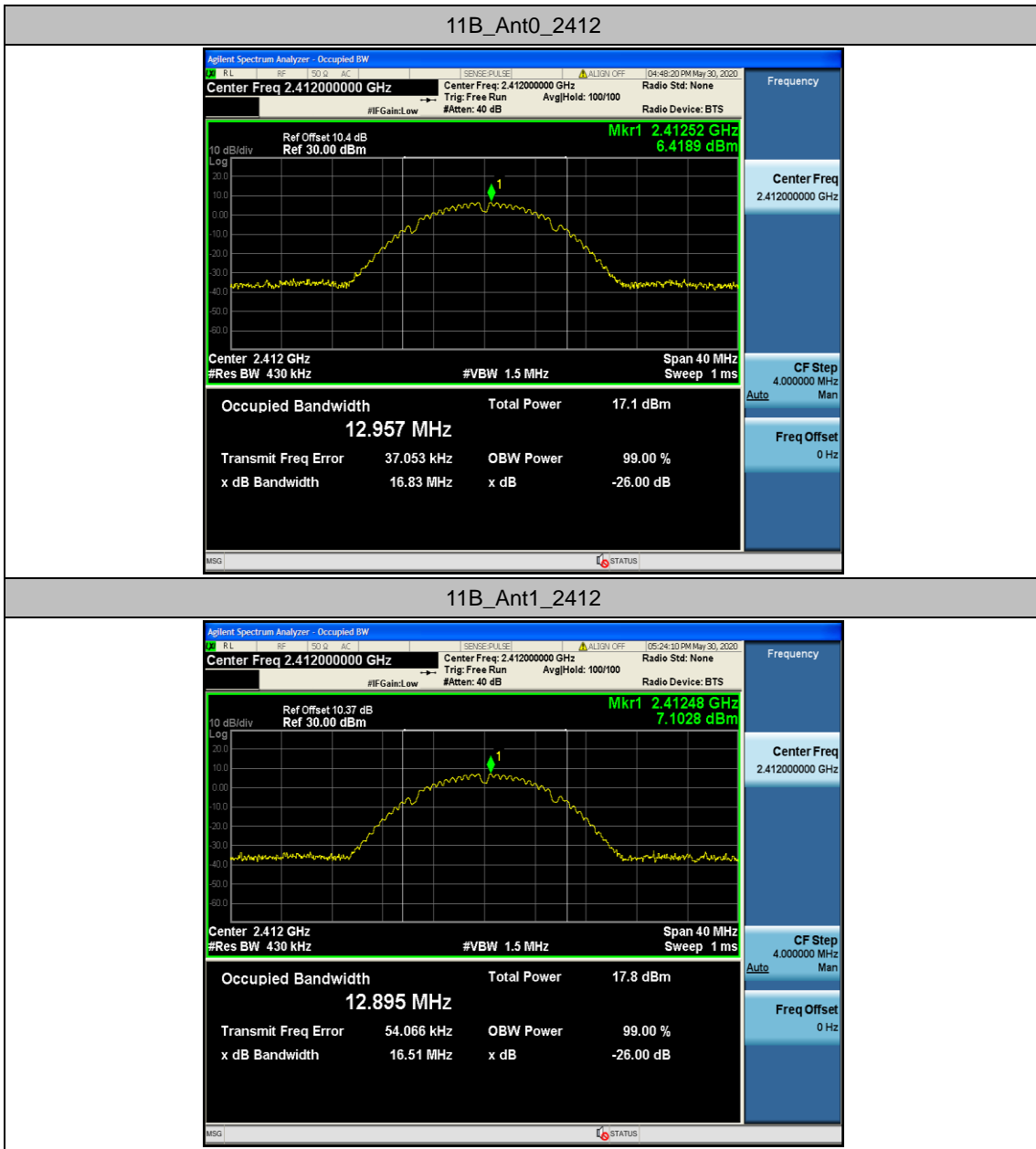


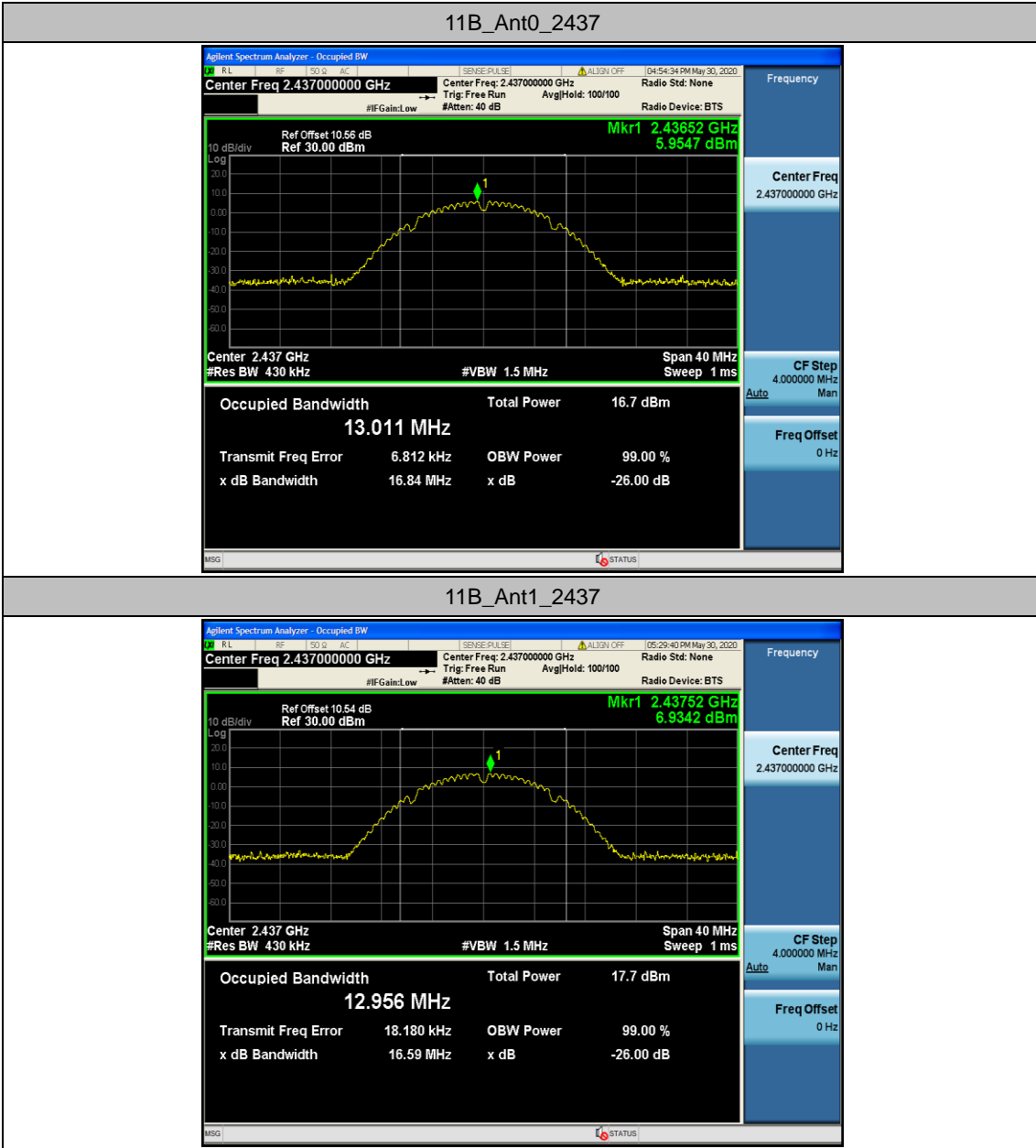
## Appendix B: Occupied Channel Bandwidth

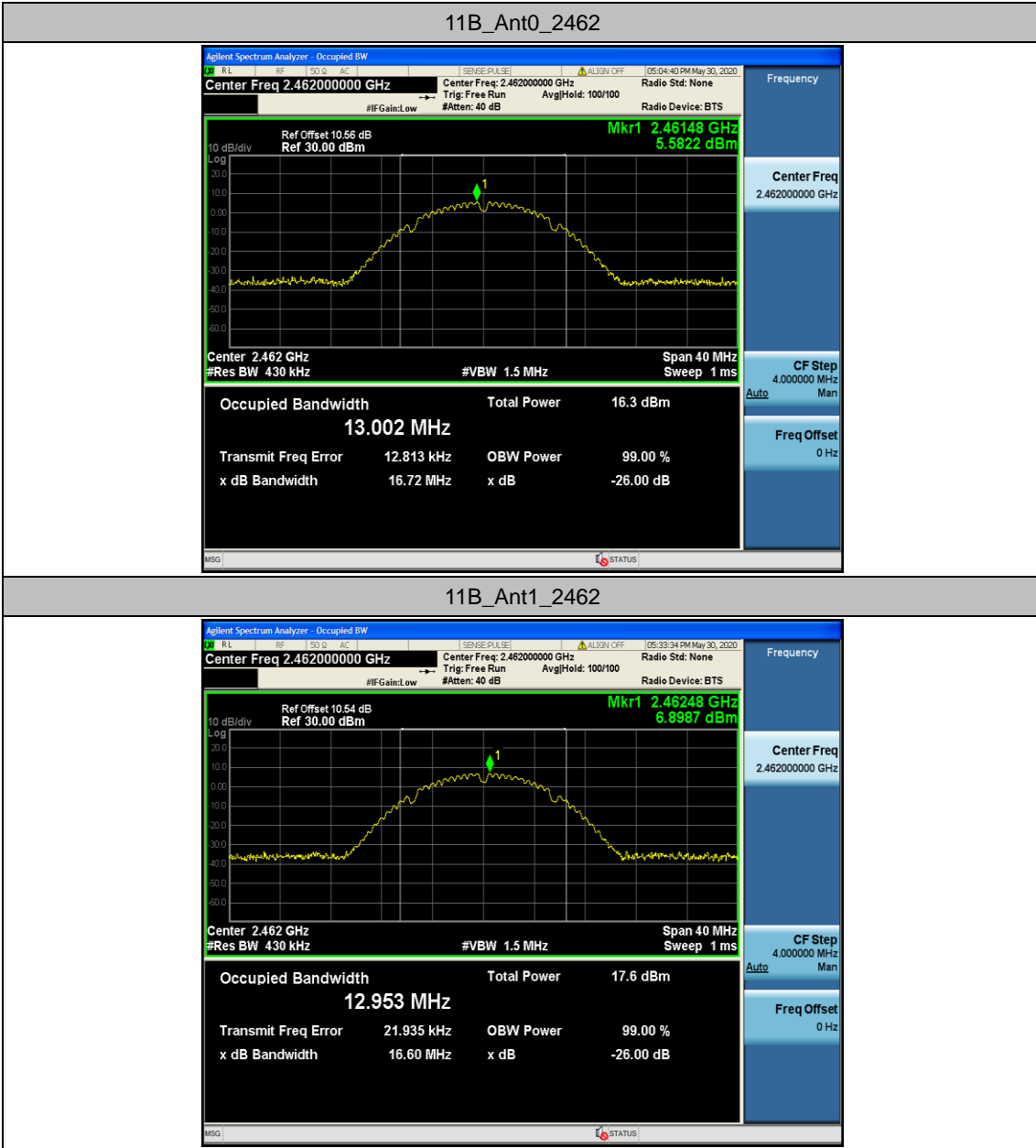
### Test Result

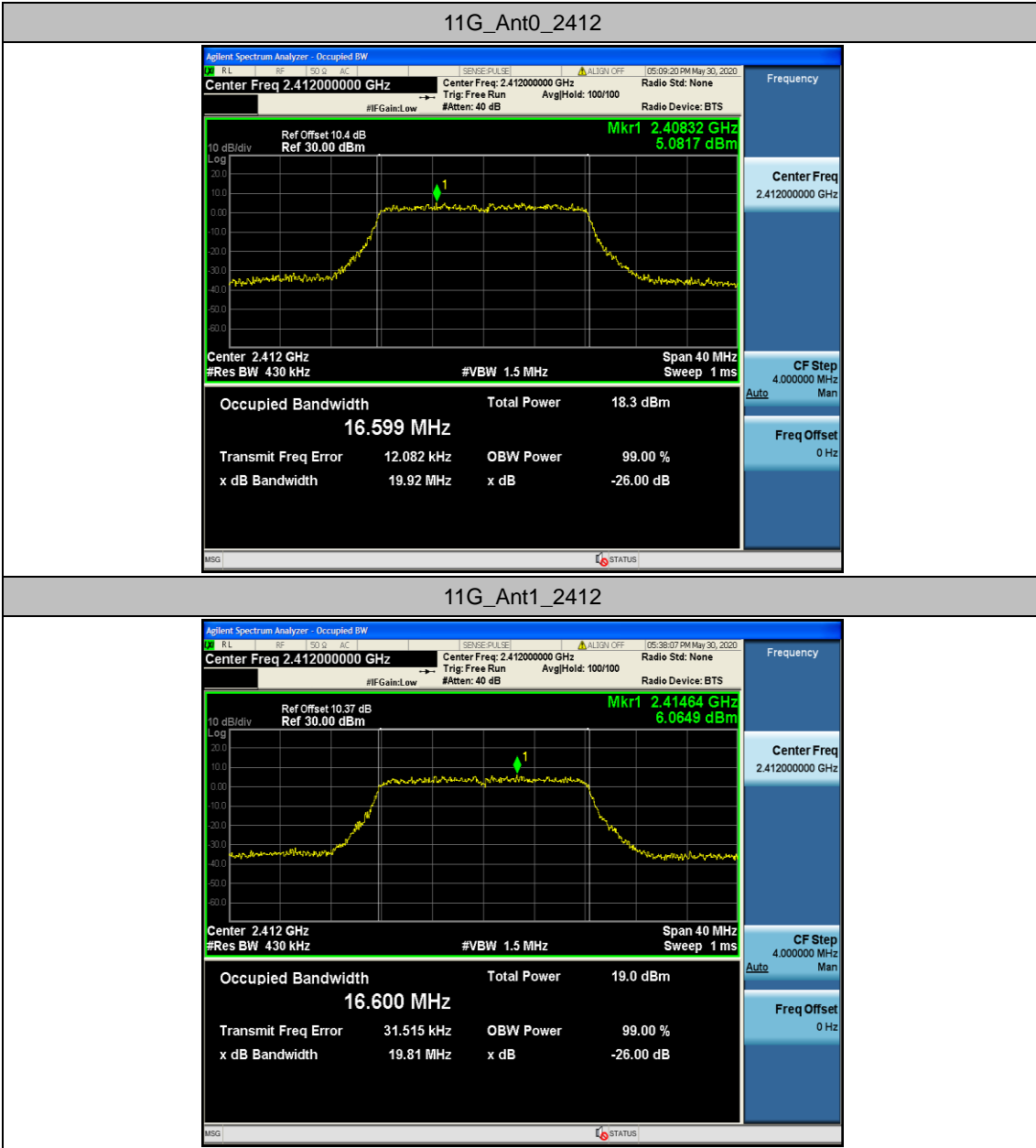
TestMode	Antenna	Channel	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant0	2412	12.957	2405.559	2418.516	---	PASS
	Ant1	2412	12.895	2405.607	2418.502	---	PASS
	Ant0	2437	13.011	2430.501	2443.512	---	PASS
	Ant1	2437	12.956	2430.540	2443.496	---	PASS
	Ant0	2462	13.002	2455.512	2468.514	---	PASS
	Ant1	2462	12.953	2455.545	2468.498	---	PASS
11G	Ant0	2412	16.599	2403.713	2420.312	---	PASS
	Ant1	2412	16.600	2403.732	2420.332	---	PASS
	Ant0	2437	16.623	2428.702	2445.325	---	PASS
	Ant1	2437	16.594	2428.723	2445.317	---	PASS
	Ant0	2462	16.611	2453.704	2470.315	---	PASS
	Ant1	2462	16.609	2453.716	2470.325	---	PASS
11N20MIMO	Ant0	2412	17.700	2403.167	2420.867	---	PASS
	Ant1	2412	17.721	2403.158	2420.879	---	PASS
	Ant0	2437	17.744	2428.131	2445.875	---	PASS
	Ant1	2437	17.706	2428.167	2445.873	---	PASS
	Ant0	2462	17.723	2453.151	2470.874	---	PASS
	Ant1	2462	17.702	2453.168	2470.870	---	PASS

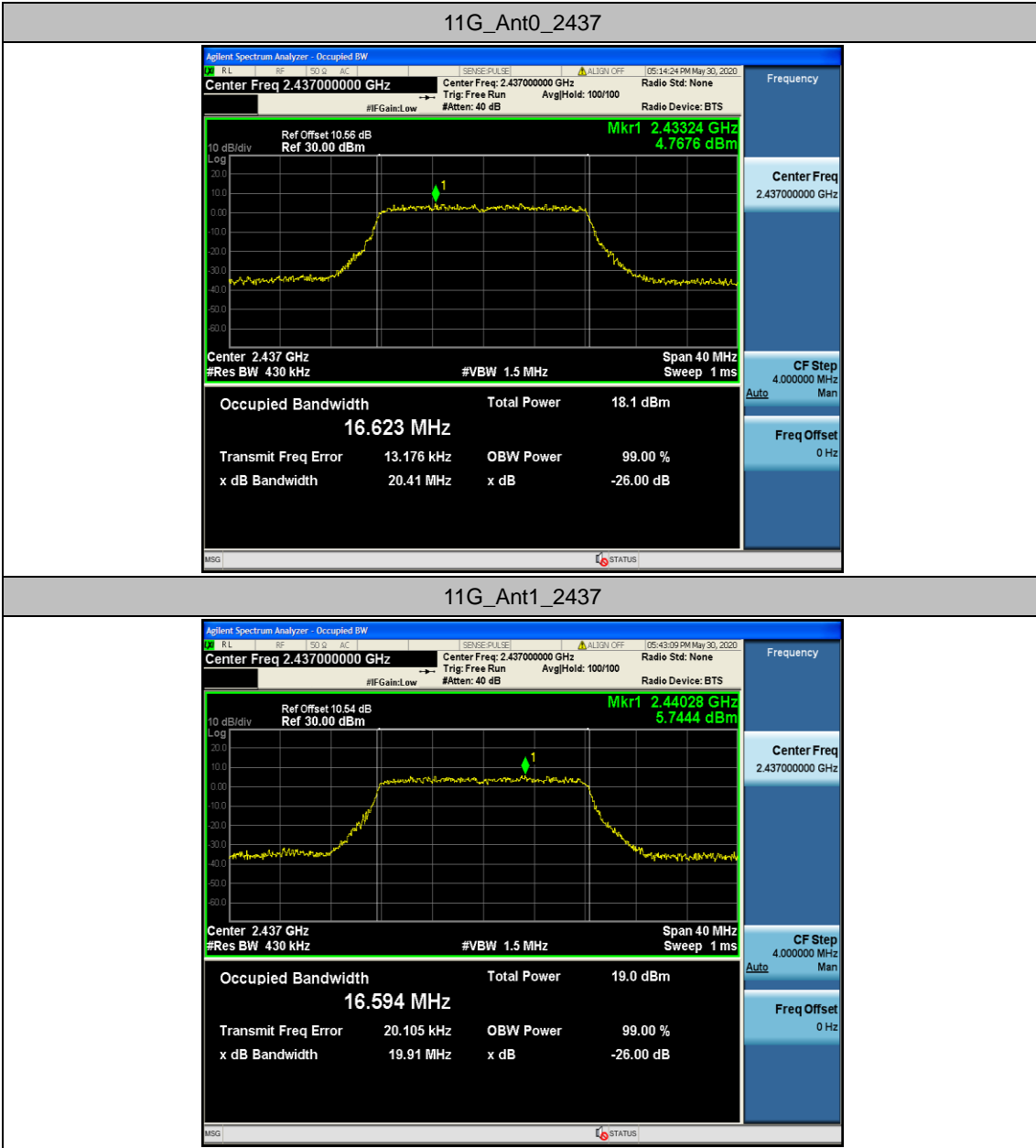
Test Graphs



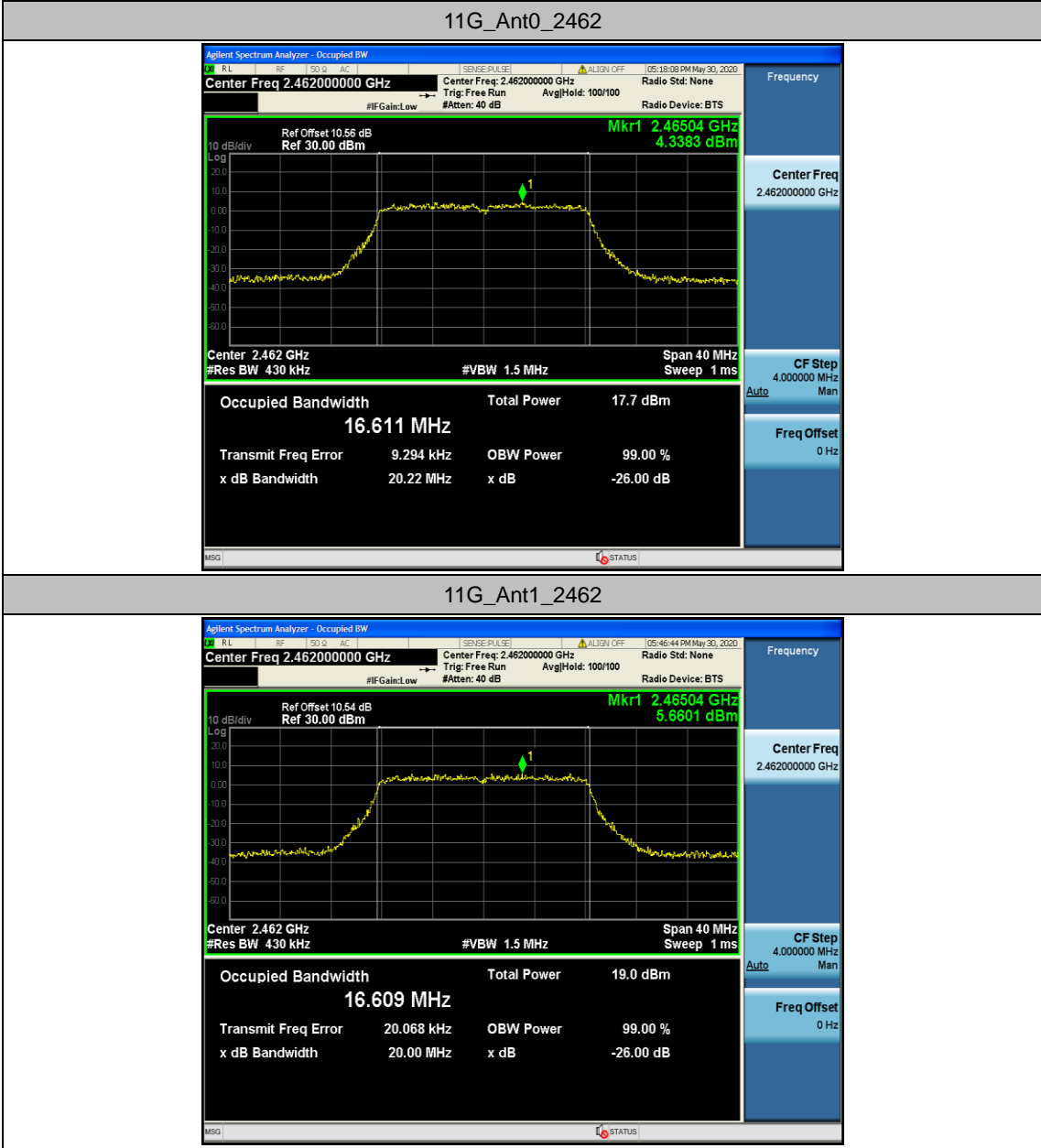


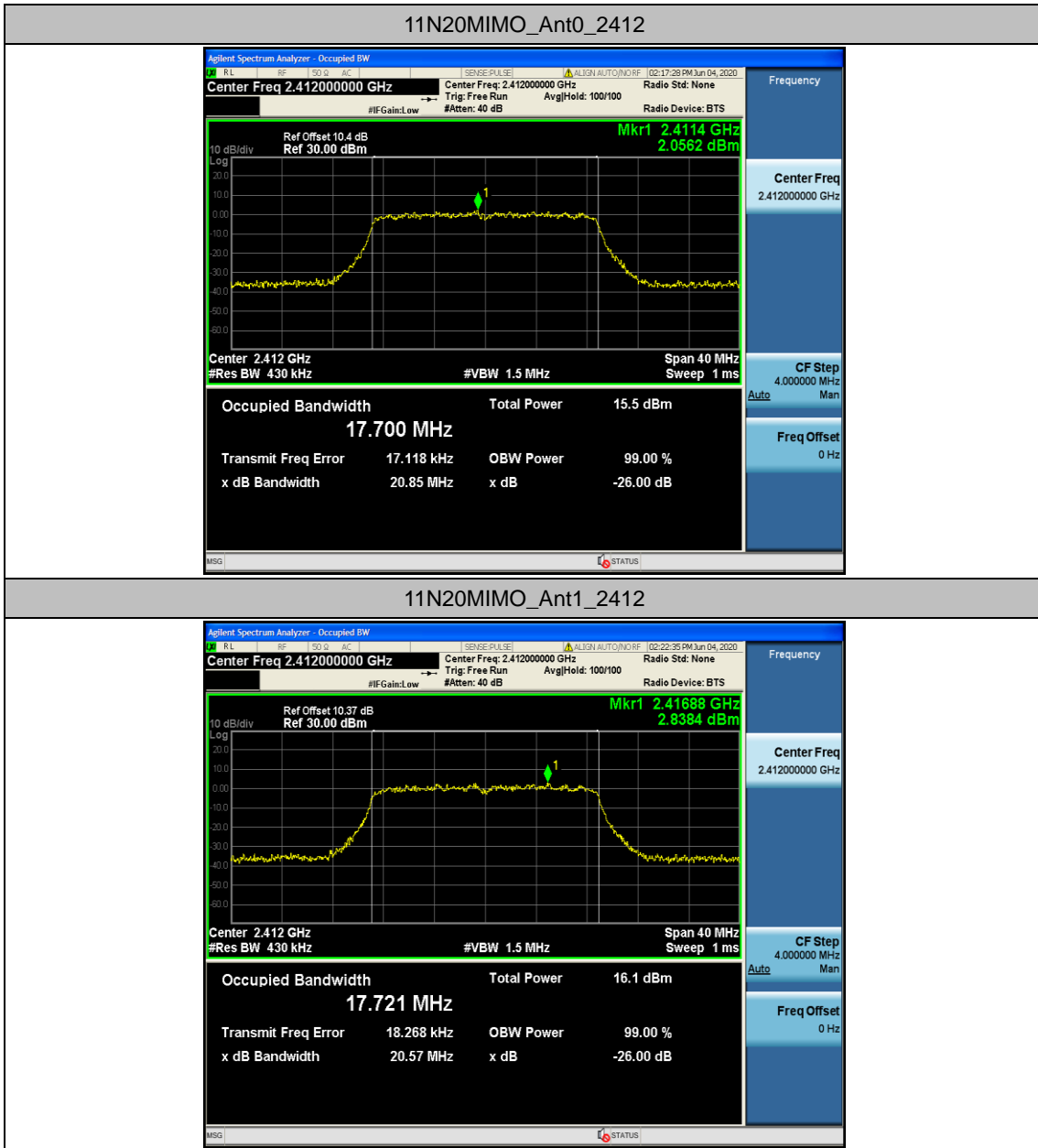


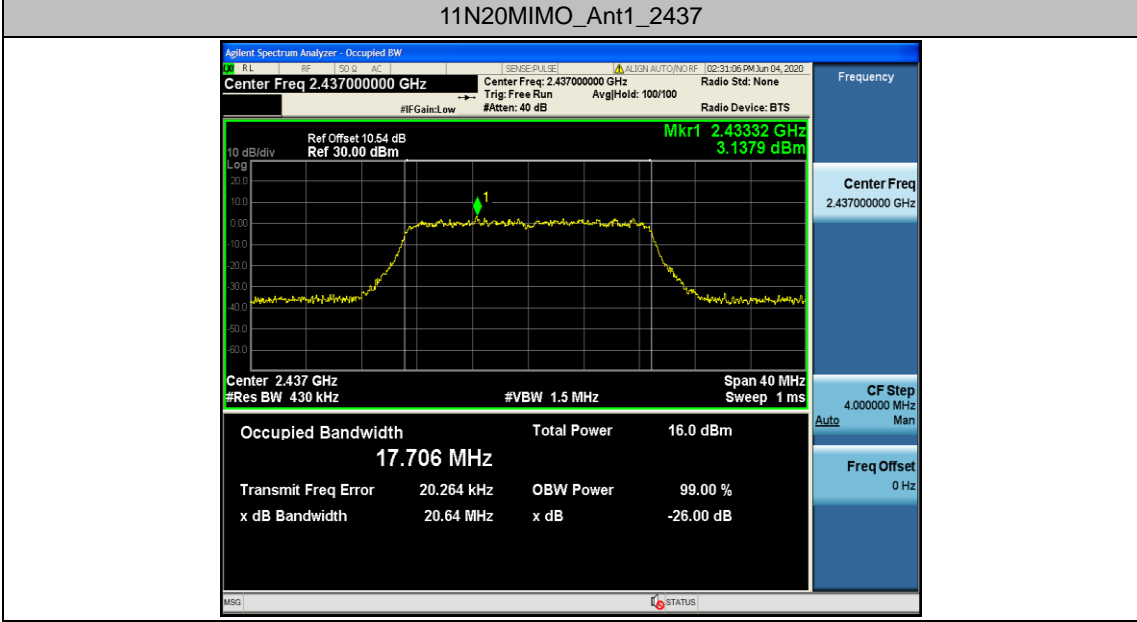
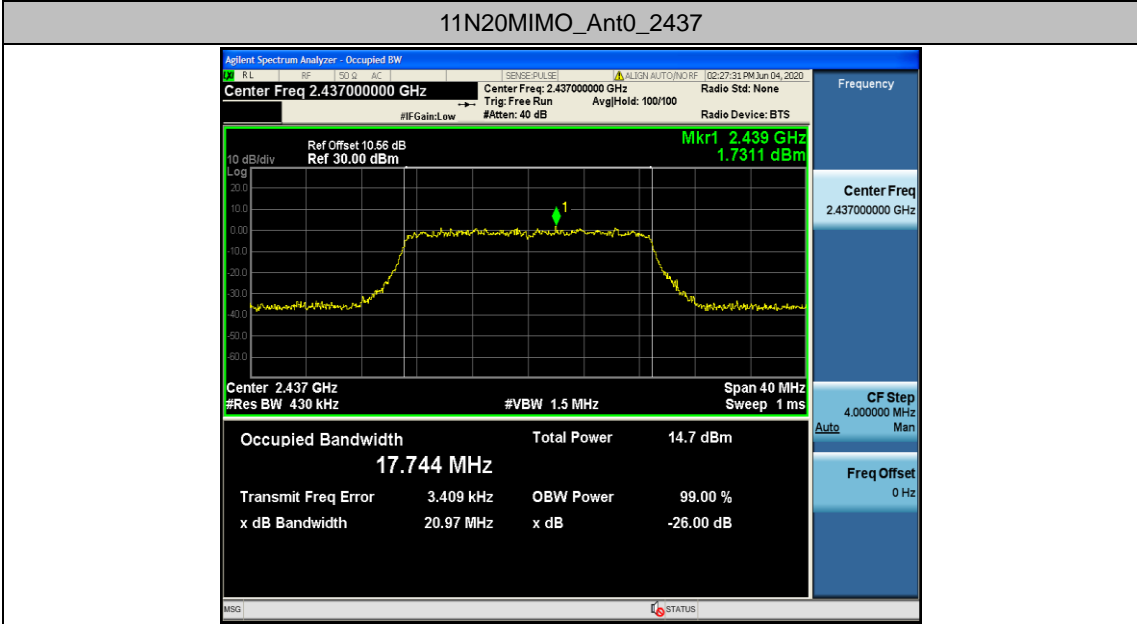


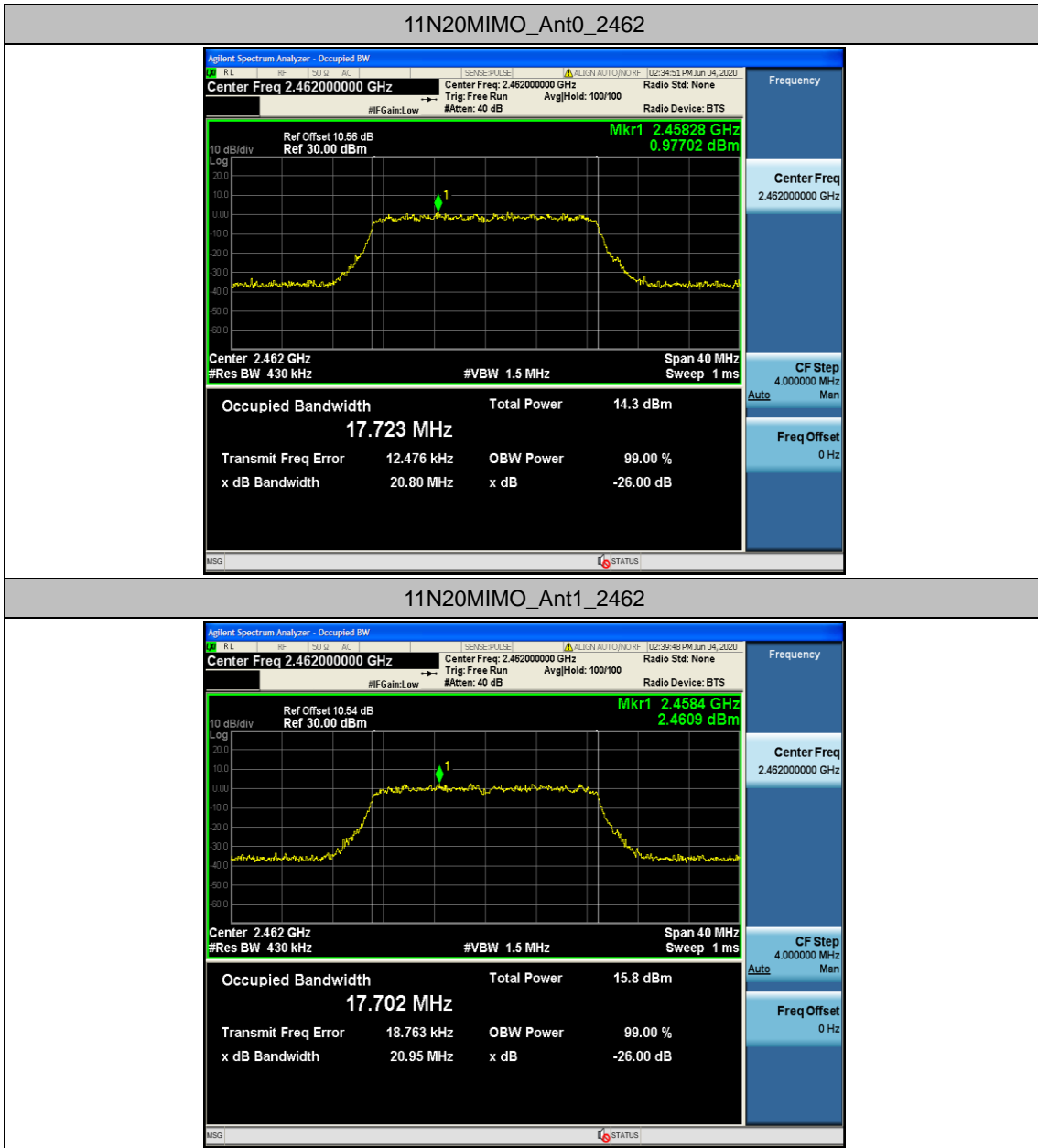












## Appendix C: Maximum conducted output power

### Test Result

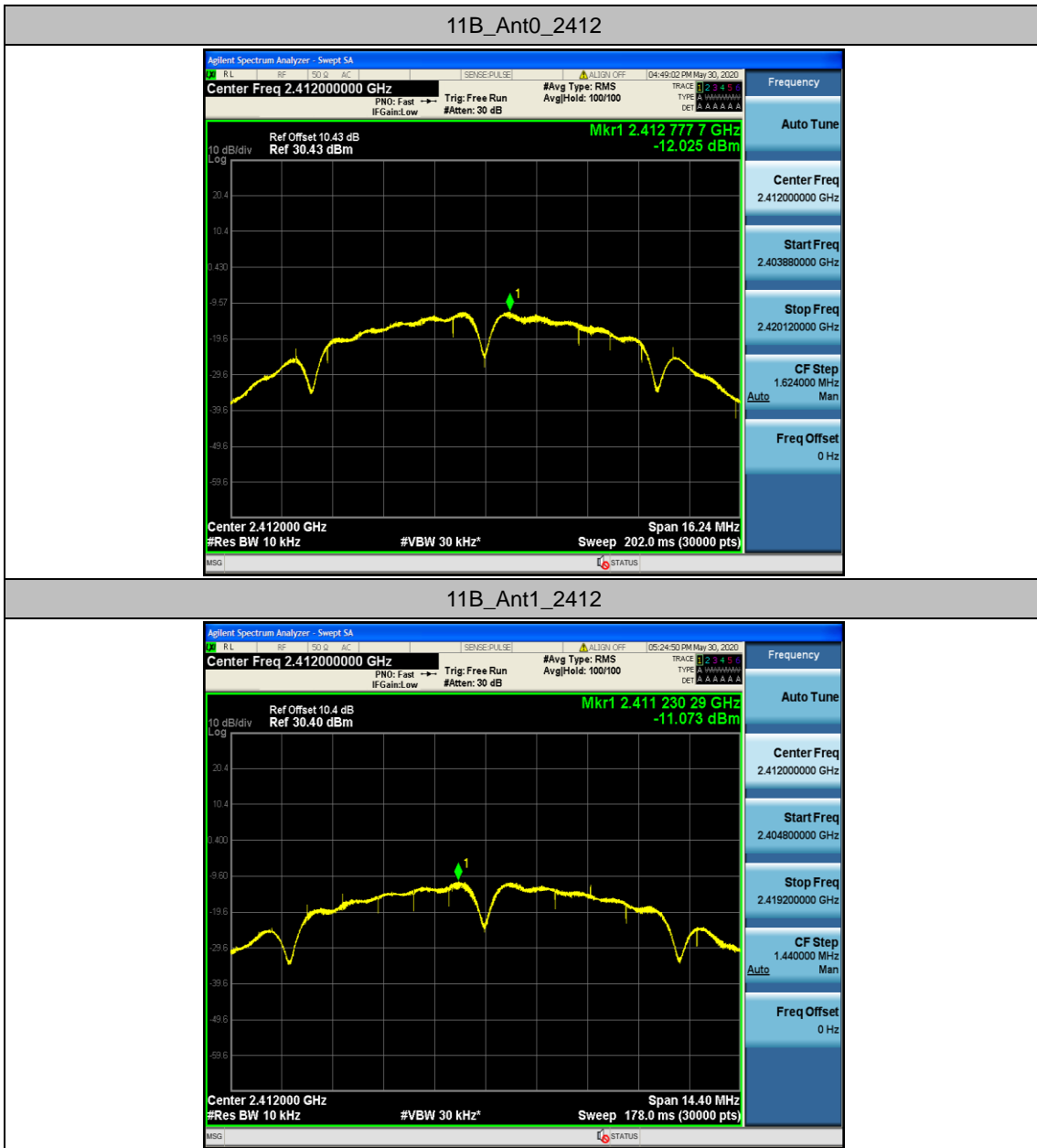
TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
11B	Ant0	2412	14.23	<=30	PASS
	Ant1	2412	14.77	<=30	PASS
	Ant0	2437	13.70	<=30	PASS
	Ant1	2437	14.72	<=30	PASS
	Ant0	2462	13.31	<=30	PASS
	Ant1	2462	14.66	<=30	PASS
11G	Ant0	2412	11.94	<=30	PASS
	Ant1	2412	12.50	<=30	PASS
	Ant0	2437	12.02	<=30	PASS
	Ant1	2437	13.47	<=30	PASS
	Ant0	2462	11.22	<=30	PASS
	Ant1	2462	12.52	<=30	PASS
11N20MIMO	Ant0	2412	8.95	<=30	PASS
	Ant1	2412	9.45	<=30	PASS
	total	2412	12.2	<=30	PASS
	Ant0	2437	8.20	<=30	PASS
	Ant1	2437	9.39	<=30	PASS
	total	2437	11.8	<=30	PASS
	Ant0	2462	7.89	<=30	PASS
	Ant1	2462	9.30	<=30	PASS
	total	2462	11.7	<=30	PASS

## Appendix D: Maximum power spectral density

### Test Result

TestMode	Antenna	Channel	Result[dBm/3-100kHz]	Conveter factor(dB)	Result 3kHz (dBm)	Limit[dB m/3kHz]	Verdict
11B	Ant0	2412	-12.03	5.23	-17.26	<=8	PASS
	Ant1	2412	-11.07	5.23	-16.3	<=8	PASS
	Ant0	2437	-12.54	5.23	-17.77	<=8	PASS
	Ant1	2437	-9.74	5.23	-14.97	<=8	PASS
	Ant0	2462	-12.64	5.23	-17.87	<=8	PASS
	Ant1	2462	-8.25	5.23	-13.48	<=8	PASS
11G	Ant0	2412	-16.59	5.23	-21.82	<=8	PASS
	Ant1	2412	-15.67	5.23	-20.9	<=8	PASS
	Ant0	2437	-16.24	5.23	-21.47	<=8	PASS
	Ant1	2437	-14.9	5.23	-20.13	<=8	PASS
	Ant0	2462	-16.95	5.23	-22.18	<=8	PASS
	Ant1	2462	-16.08	5.23	-21.31	<=8	PASS
11N20MIMO	Ant0	2412	-19.33	5.23	-24.56	<=8	PASS
	Ant1	2412	-18.95	5.23	-24.18	<=8	PASS
	total	2412	-16.13	5.23	-21.36	<=8	PASS
	Ant0	2437	-20.23	5.23	-25.46	<=8	PASS
	Ant1	2437	-18.71	5.23	-23.94	<=8	PASS
	total	2437	-16.39	5.23	-21.62	<=8	PASS
	Ant0	2462	-20.76	5.23	-25.99	<=8	PASS
	Ant1	2462	-19.09	5.23	-24.32	<=8	PASS
	total	2462	-16.83	5.23	-22.06	<=8	PASS

### Test Graphs



11B\_Ant0\_2437



11B\_Ant1\_2437





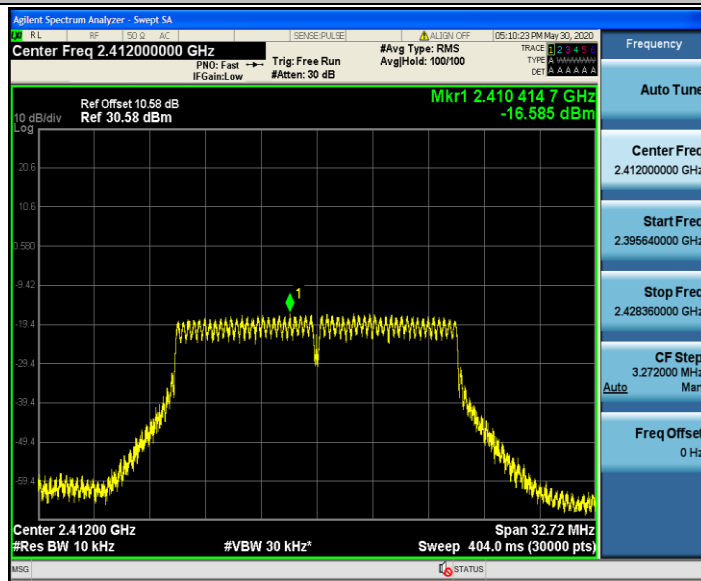
11B\_Ant0\_2462



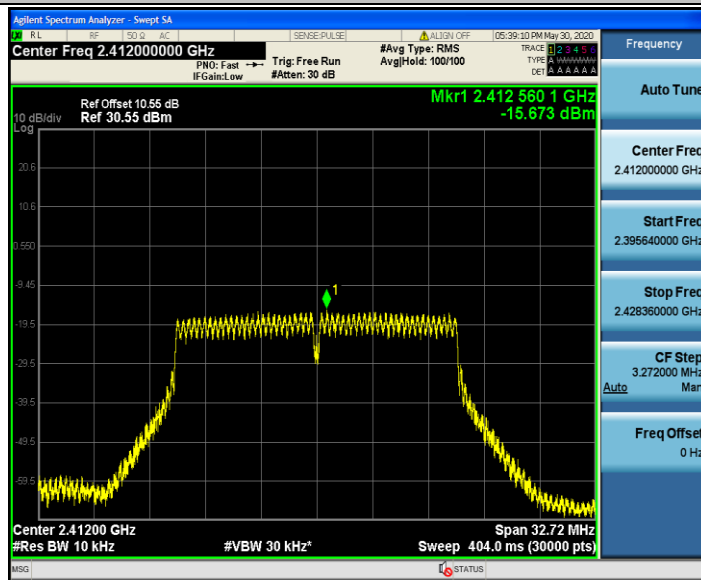
11B\_Ant1\_2462

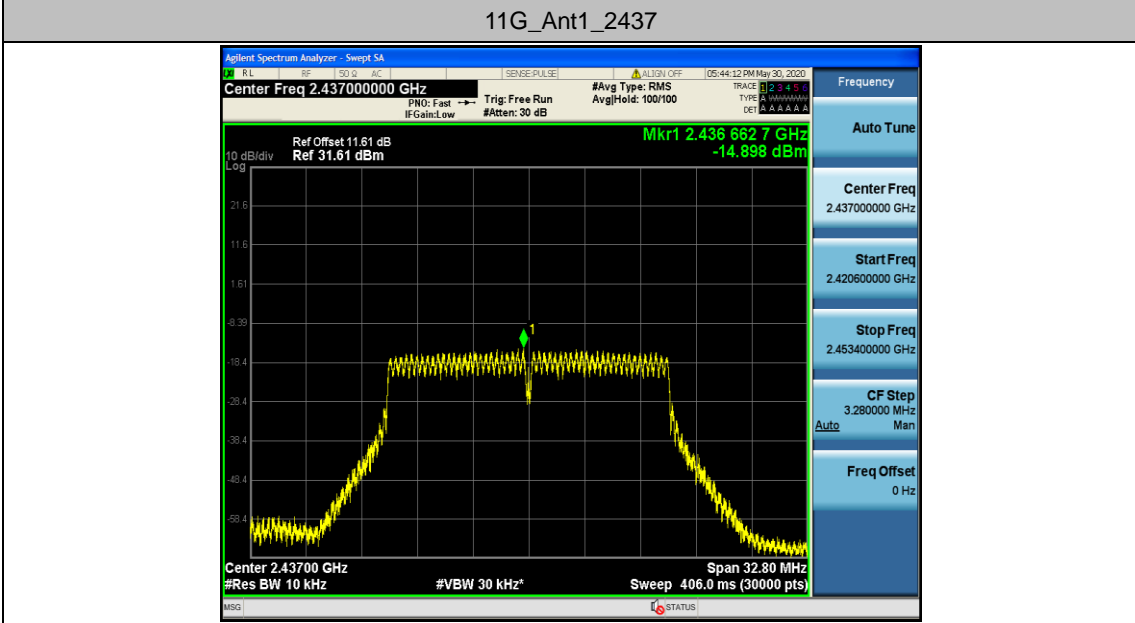
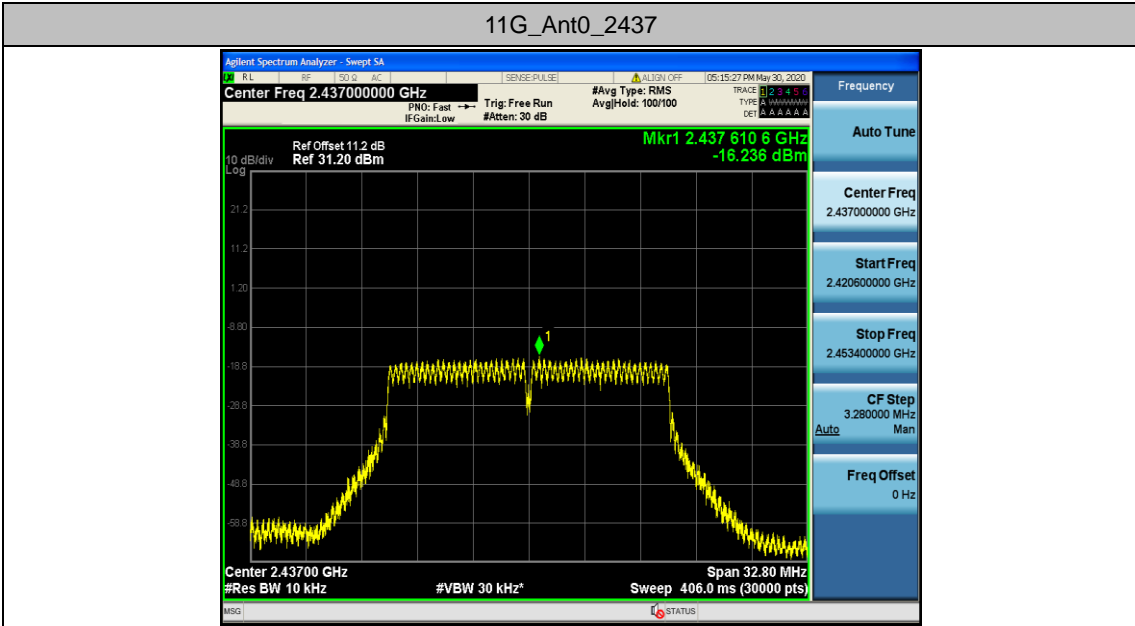


11G\_Ant0\_2412

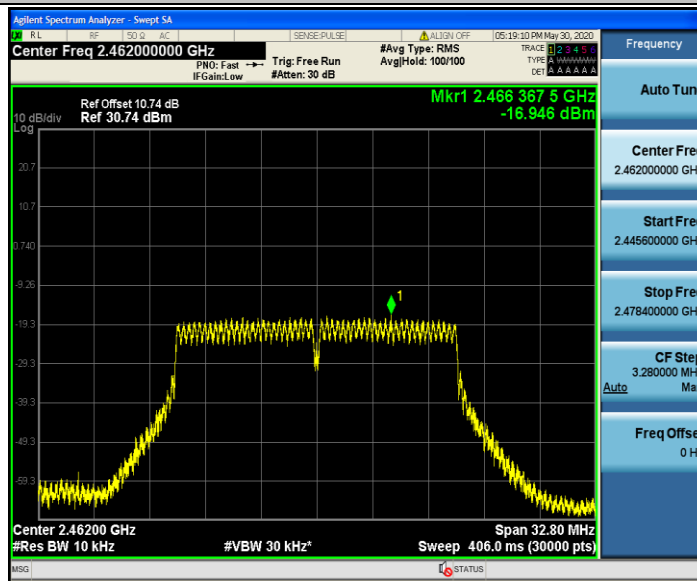


11G\_Ant1\_2412

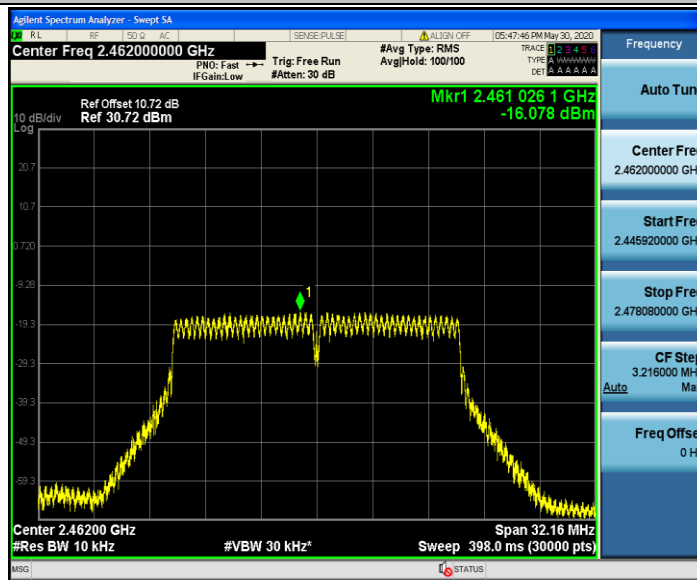




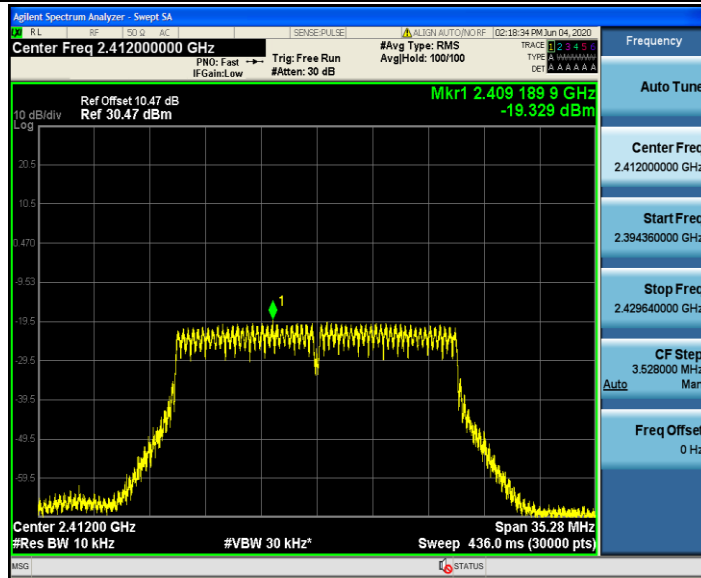
11G\_Ant0\_2462



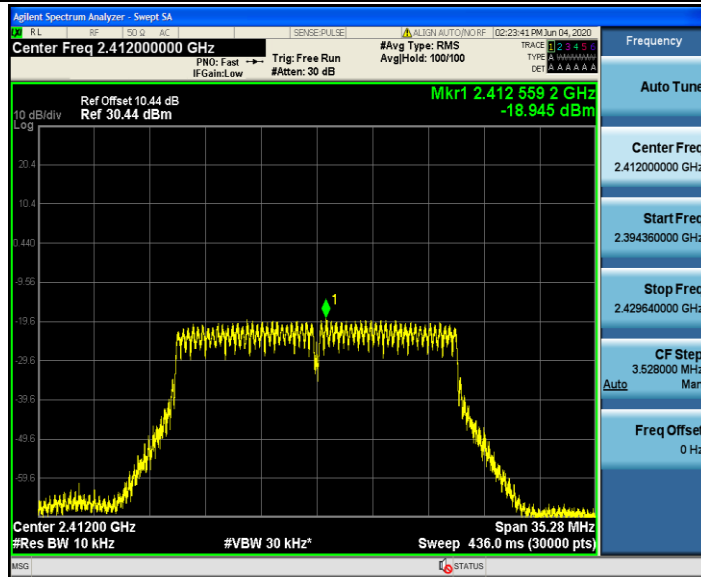
11G\_Ant1\_2462



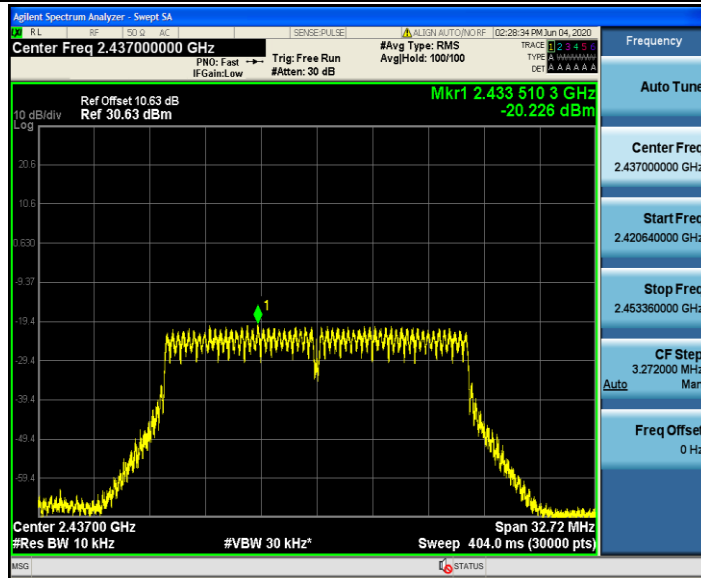
11N20MIMO\_Ant0\_2412



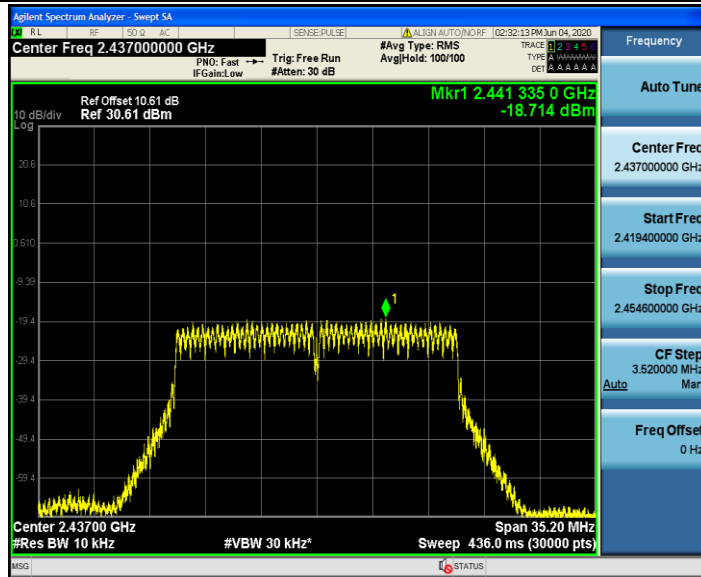
11N20MIMO\_Ant1\_2412

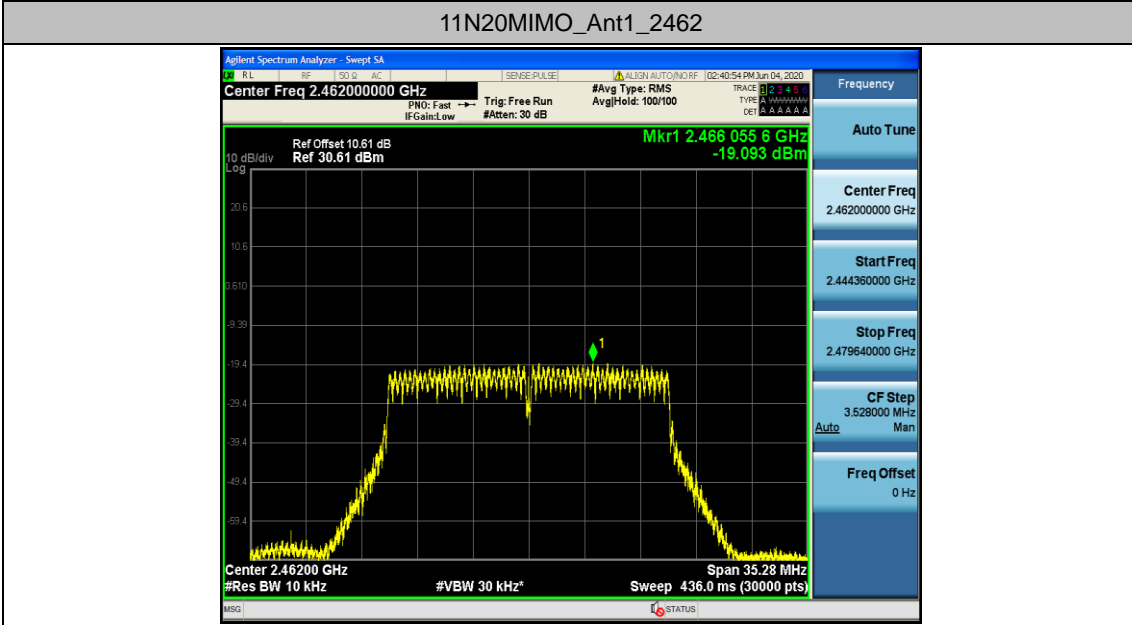
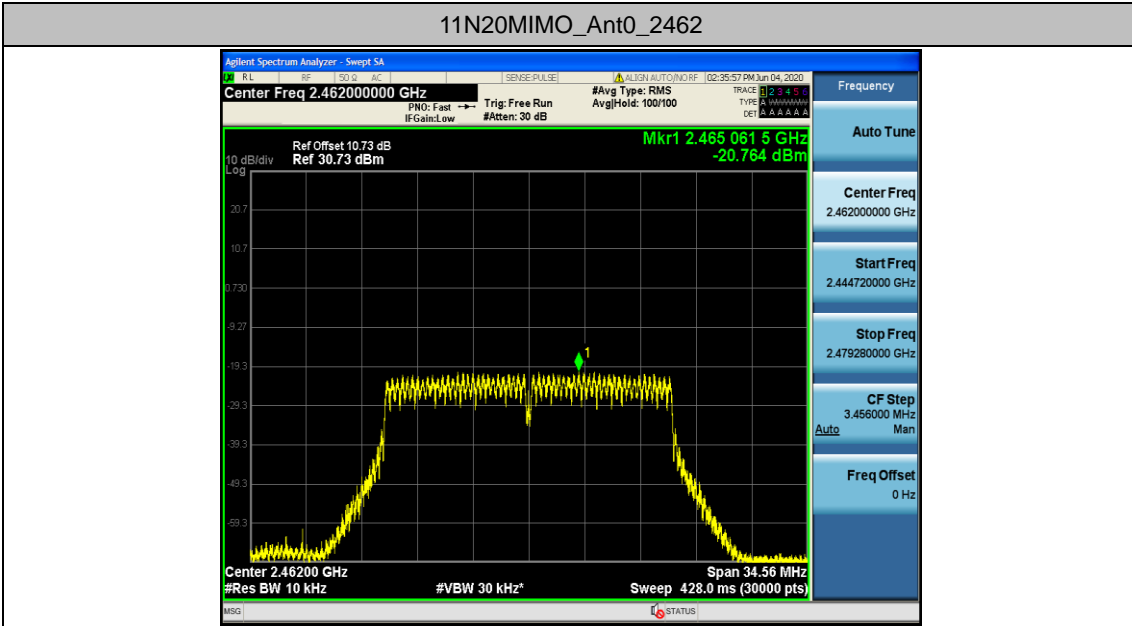


11N20MIMO\_Ant0\_2437



11N20MIMO\_Ant1\_2437





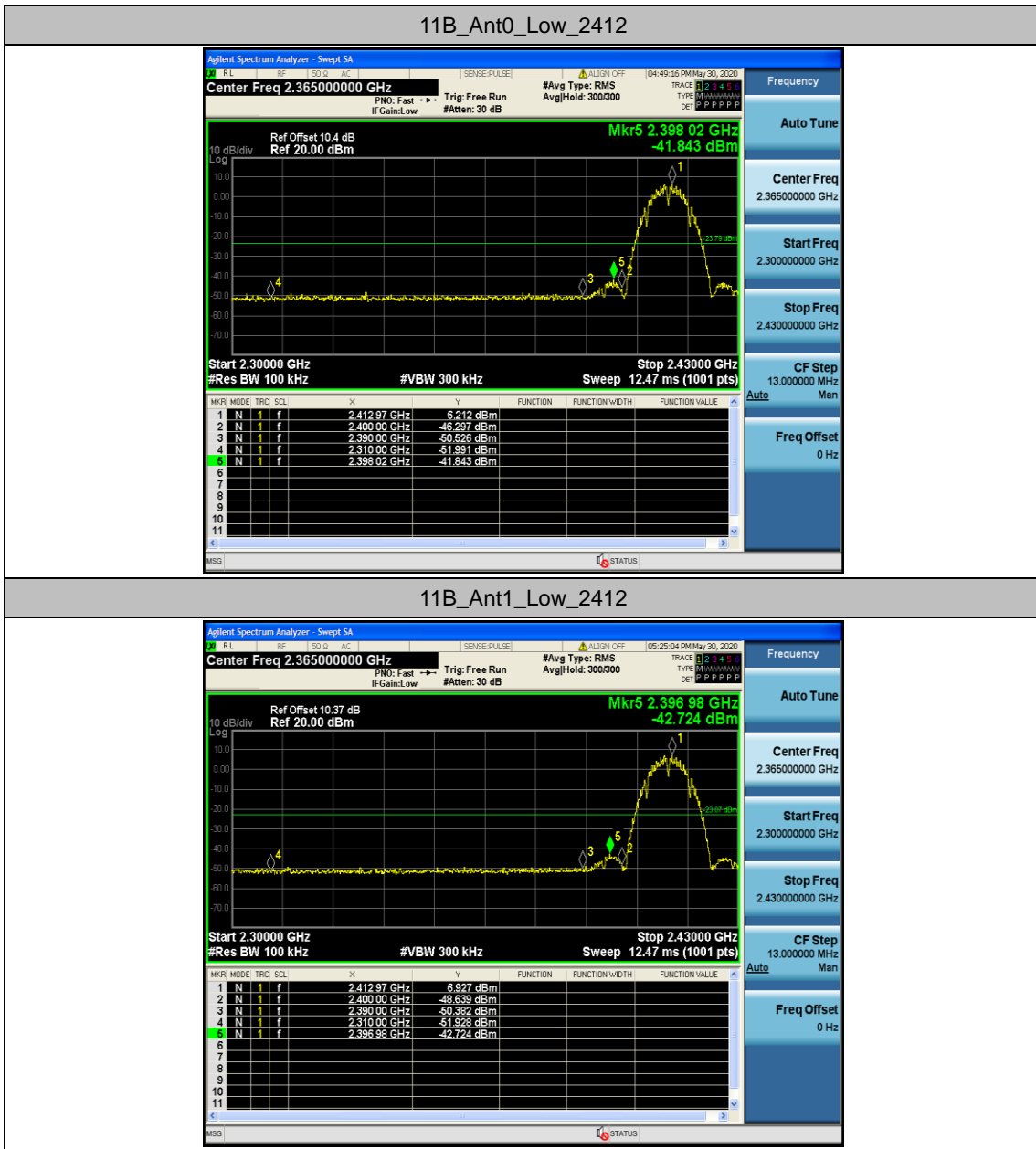
## Appendix E: Band edge measurements

### Test Result

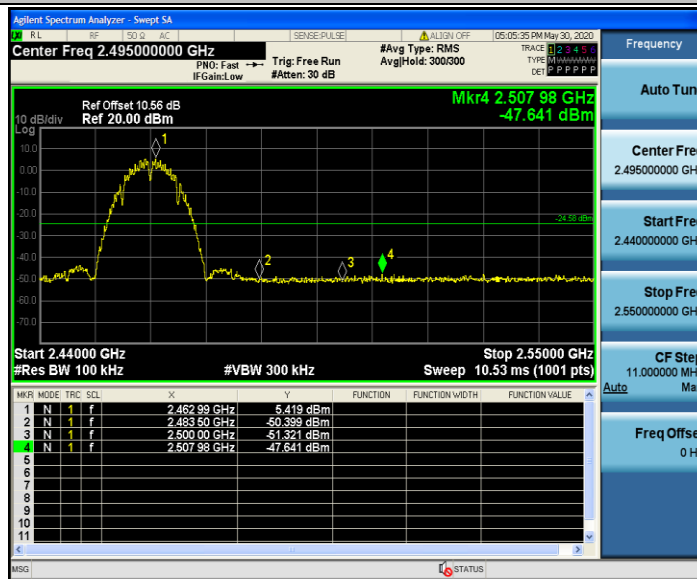
TestMode	Antenna	ChName	Channel	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
11B	Ant0	Low	2412	6.21	-41.84	<=-23.79	PASS
	Ant1	Low	2412	6.93	-42.72	<=-23.07	PASS
	Ant0	High	2462	5.42	-47.64	<=-24.58	PASS
	Ant1	High	2462	6.78	-47.75	<=-23.22	PASS
11G	Ant0	Low	2412	1.69	-38.89	<=-28.31	PASS
	Ant1	Low	2412	1.80	-39.74	<=-28.2	PASS
	Ant0	High	2462	0.97	-47.7	<=-29.03	PASS
	Ant1	High	2462	2.32	-47.73	<=-27.68	PASS
11N20MIMO	Ant0	Low	2412	-3.39	-44.86	<=-33.39	PASS
	Ant1	Low	2412	-0.77	-42.51	<=-30.77	PASS
	Ant0	High	2462	-2.82	-47.31	<=-32.82	PASS
	Ant1	High	2462	-0.86	-47	<=-30.86	PASS



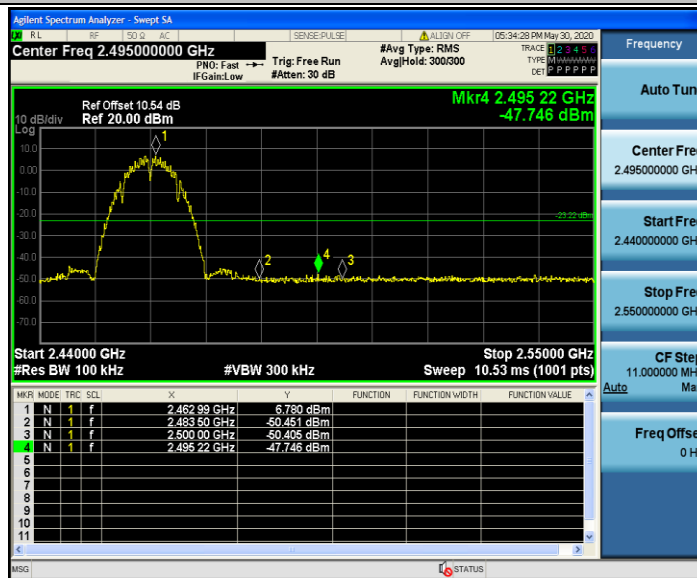
Test Graphs



11B\_Ant0\_High\_2462



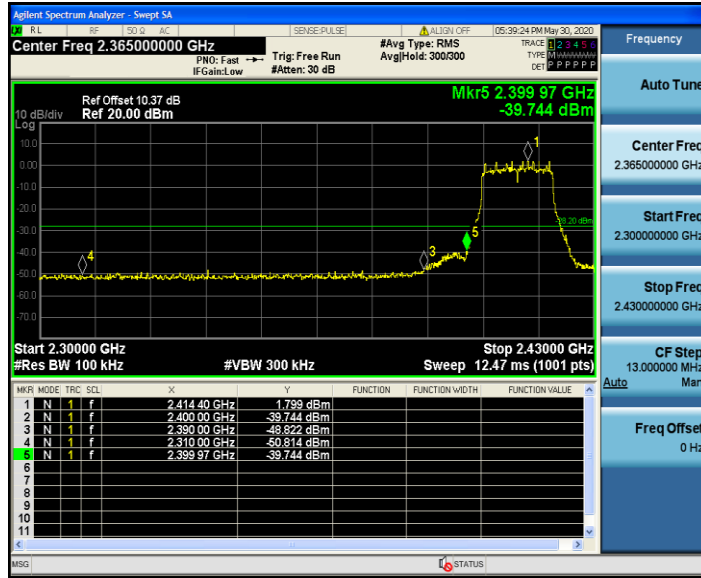
11B\_Ant1\_High\_2462



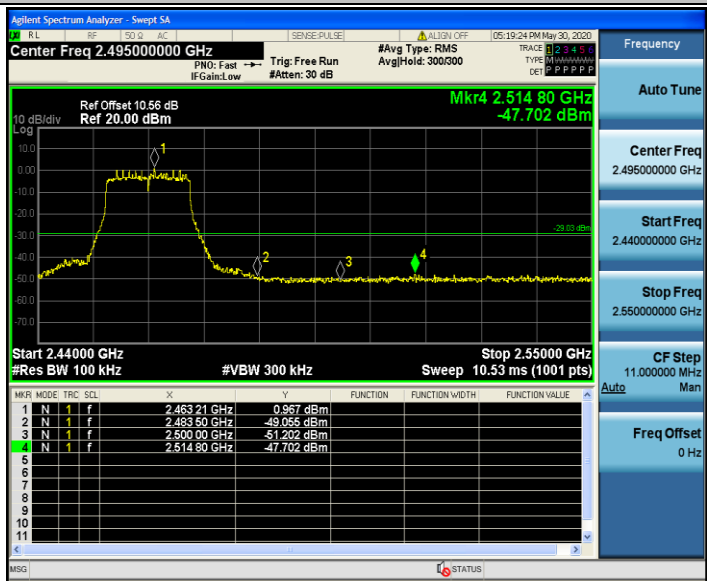
11G\_Ant0\_Low\_2412



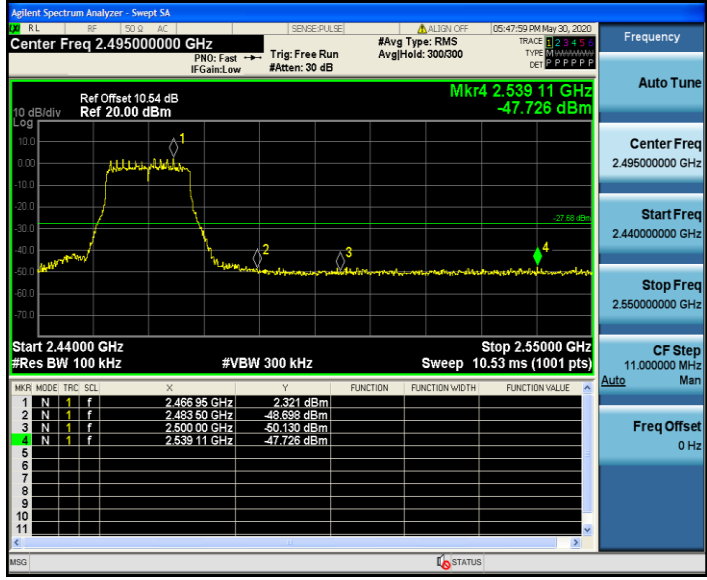
11G\_Ant1\_Low\_2412



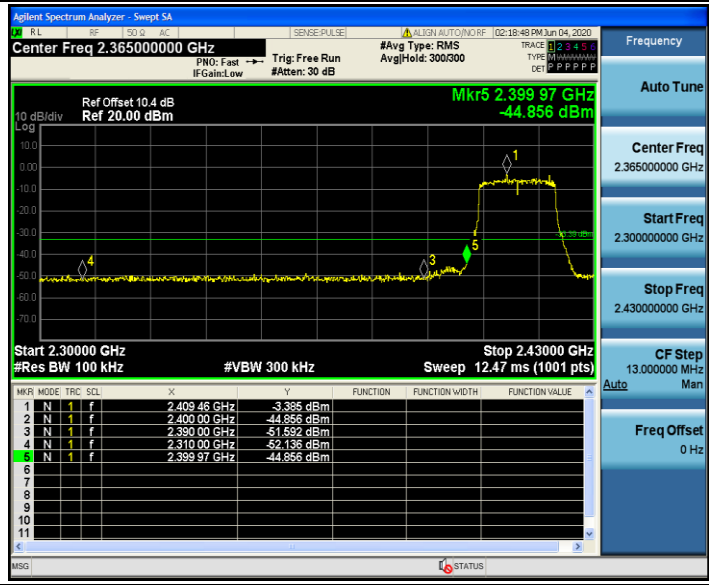
11G\_Ant0\_High\_2462



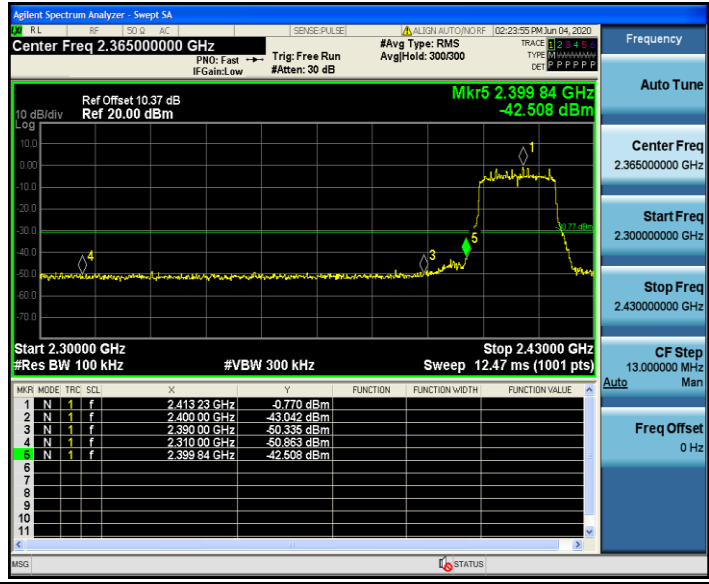
11G\_Ant1\_High\_2462

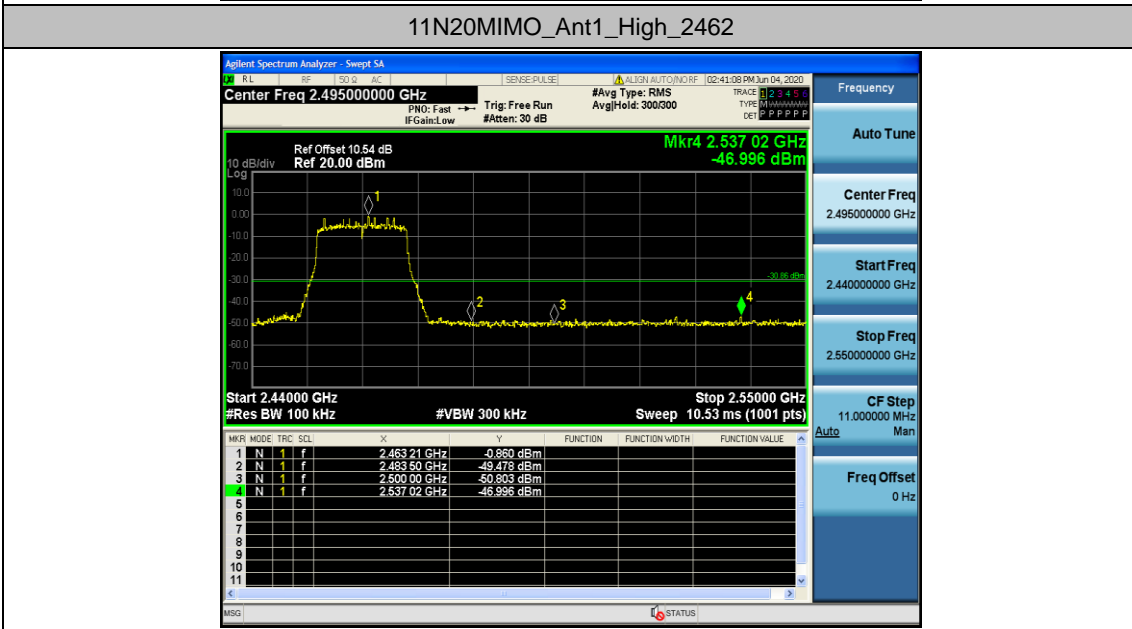
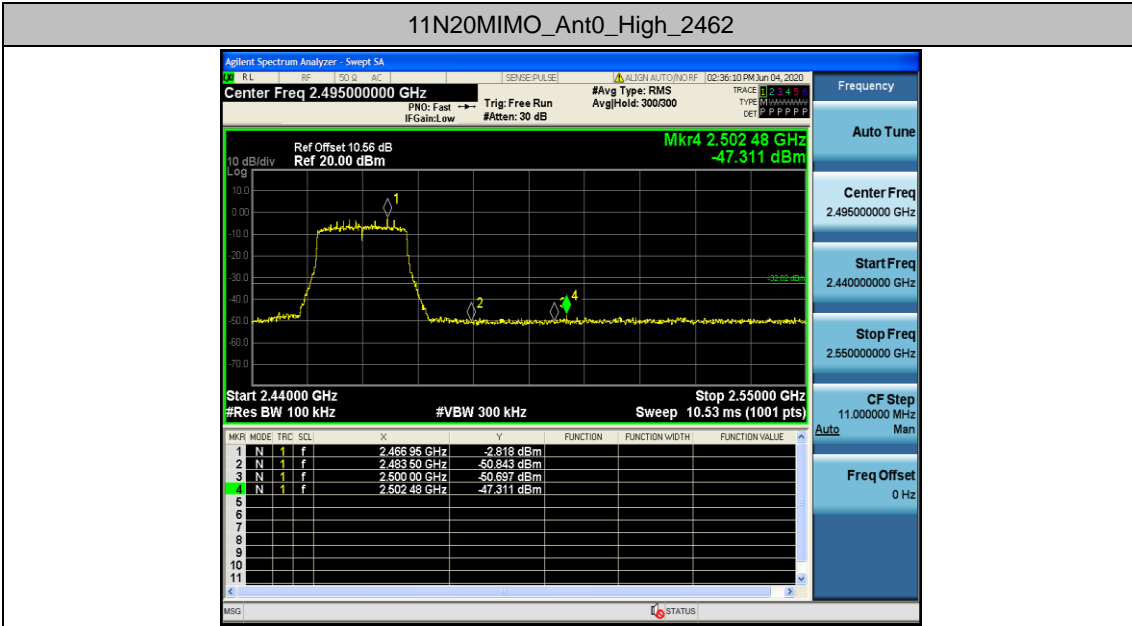


11N20MIMO\_Ant0\_Low\_2412



11N20MIMO\_Ant1\_Low\_2412





## Appendix F: Conducted Spurious Emission

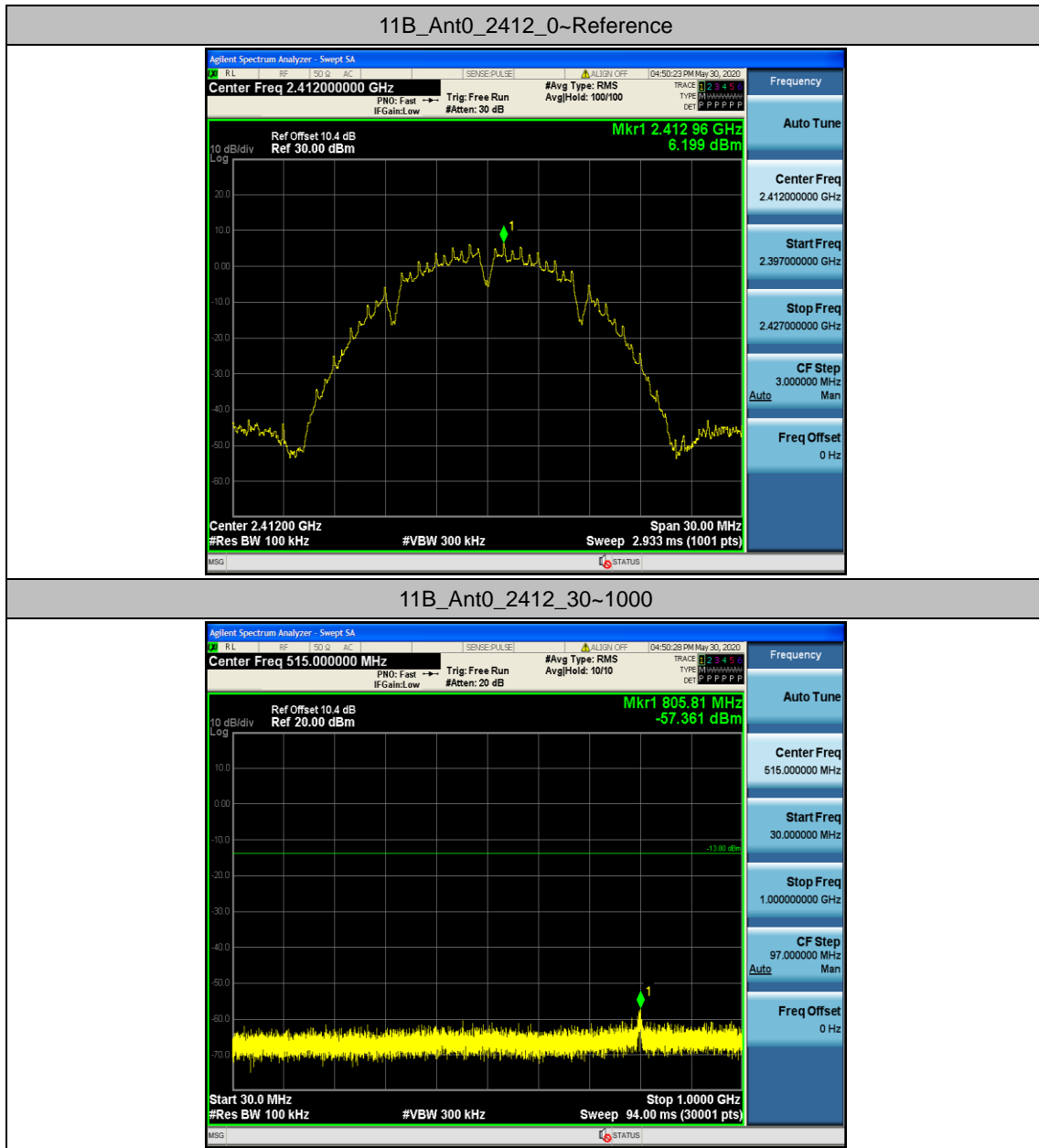
### Test Result

TestMode	Antenna	Channel	FreqRange [Mhz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict	
11B	Ant0	2412	Reference	6.20	6.20	---	PASS	
			30~1000	30~1000	-57.361	<=-13.801	PASS	
			1000~26500	1000~26500	-27.271	<=-13.801	PASS	
	Ant1	2412	Reference	5.58	5.58	---	PASS	
			30~1000	30~1000	-60.219	<=-14.42	PASS	
			1000~26500	1000~26500	-37.255	<=-14.42	PASS	
	Ant0	2437	Reference	5.74	5.74	---	PASS	
			30~1000	30~1000	-55.944	<=-14.265	PASS	
			1000~26500	1000~26500	-26.566	<=-14.265	PASS	
	Ant1	2437	Reference	6.79	6.79	---	PASS	
			30~1000	30~1000	-59.693	<=-13.209	PASS	
			1000~26500	1000~26500	-35.64	<=-13.209	PASS	
	Ant0	2462	Reference	4.10	4.10	---	PASS	
			30~1000	30~1000	-55.336	<=-15.899	PASS	
			1000~26500	1000~26500	-27.21	<=-15.899	PASS	
	Ant1	2462	Reference	6.78	6.78	---	PASS	
			30~1000	30~1000	-60.195	<=-13.222	PASS	
			1000~26500	1000~26500	-34.68	<=-13.222	PASS	
	11G	Ant0	2412	Reference	0.90	0.90	---	PASS
				30~1000	30~1000	-59.002	<=-19.104	PASS
				1000~26500	1000~26500	-26.831	<=-19.104	PASS
		Ant1	2412	Reference	1.61	1.61	---	PASS
				30~1000	30~1000	-59.833	<=-18.389	PASS
				1000~26500	1000~26500	-37.021	<=-18.389	PASS
Ant0		2437	Reference	0.84	0.84	---	PASS	
			30~1000	30~1000	-58.12	<=-19.161	PASS	
			1000~26500	1000~26500	-26.262	<=-19.161	PASS	
Ant1		2437	Reference	2.27	2.27	---	PASS	
			30~1000	30~1000	-59.656	<=-17.731	PASS	
			1000~26500	1000~26500	-35.359	<=-17.731	PASS	
Ant0		2462	Reference	0.50	0.50	---	PASS	
			30~1000	30~1000	-58.794	<=-19.503	PASS	
			1000~26500	1000~26500	-26.921	<=-19.503	PASS	
Ant1		2462	Reference	2.36	2.36	---	PASS	
			30~1000	30~1000	-59.511	<=-17.637	PASS	
			1000~26500	1000~26500	-34.421	<=-17.637	PASS	

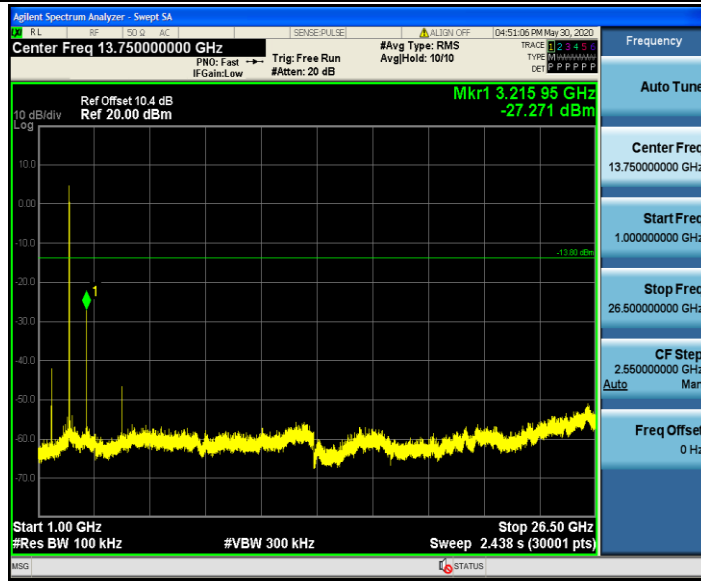
TestMode	Antenna	Channel	FreqRange [Mhz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
11N20MIMO	Ant0	2412	Reference	-0.72	-0.72	---	PASS
			30~1000	30~1000	-59.807	<=-20.72	PASS
			1000~26500	1000~26500	-38.512	<=-20.72	PASS
	Ant1	2412	Reference	-0.73	-0.73	---	PASS
			30~1000	30~1000	-60.538	<=-20.73	PASS
			1000~26500	1000~26500	-38.505	<=-20.73	PASS
	Ant0	2437	Reference	-3.25	-3.25	---	PASS
			30~1000	30~1000	-59.618	<=-23.25	PASS
			1000~26500	1000~26500	-27.043	<=-23.25	PASS
	Ant1	2437	Reference	-1.55	-1.55	---	PASS
			30~1000	30~1000	-60.449	<=-21.55	PASS
			1000~26500	1000~26500	-37.659	<=-21.55	PASS
	Ant0	2462	Reference	-2.47	-2.47	---	PASS
			30~1000	30~1000	-59.984	<=-22.47	PASS
			1000~26500	1000~26500	-27.888	<=-22.47	PASS
	Ant1	2462	Reference	-2.89	-2.89	---	PASS
			30~1000	30~1000	-59.977	<=-22.89	PASS
			1000~26500	1000~26500	-36.476	<=-22.89	PASS



### Test Graphs



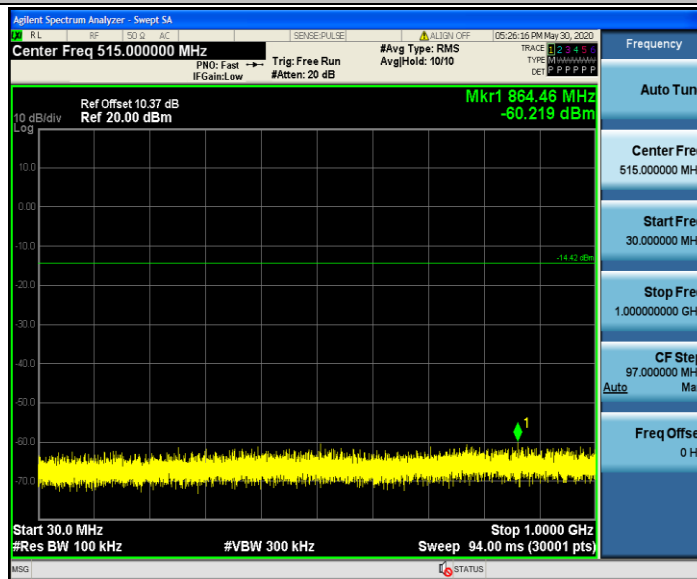
11B\_Ant0\_2412\_1000~26500



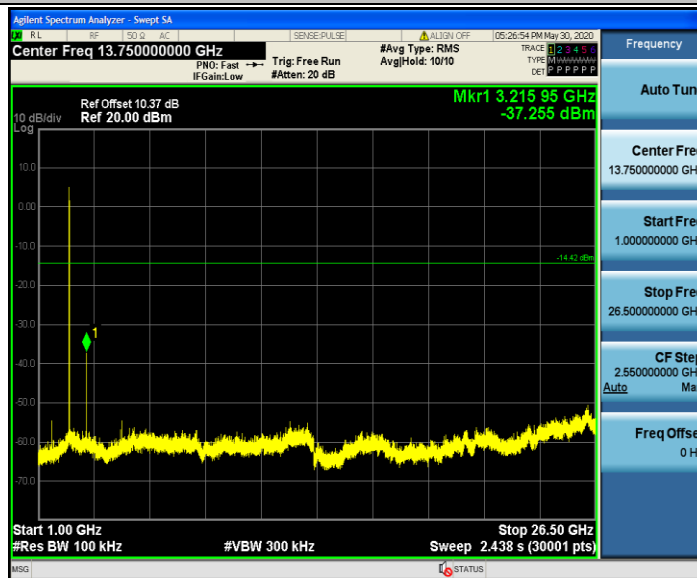
11B\_Ant1\_2412\_0~Reference



11B\_Ant1\_2412\_30~1000



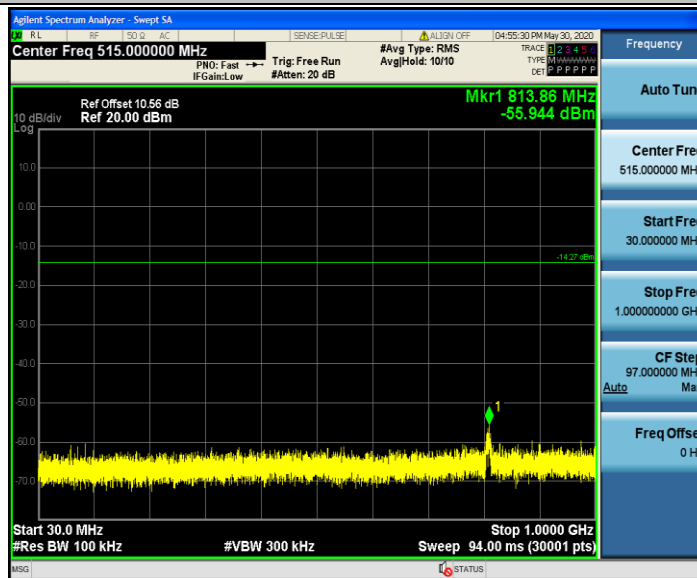
11B\_Ant1\_2412\_1000~26500



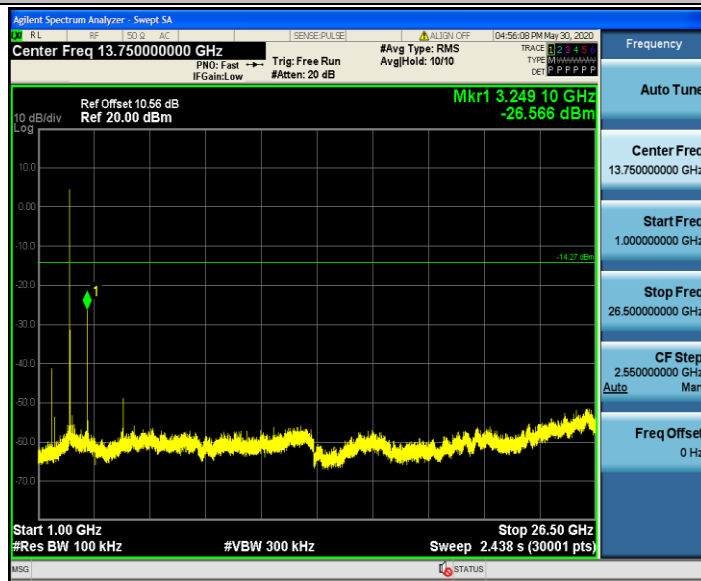
11B\_Ant0\_2437\_0~Reference



11B\_Ant0\_2437\_30~1000



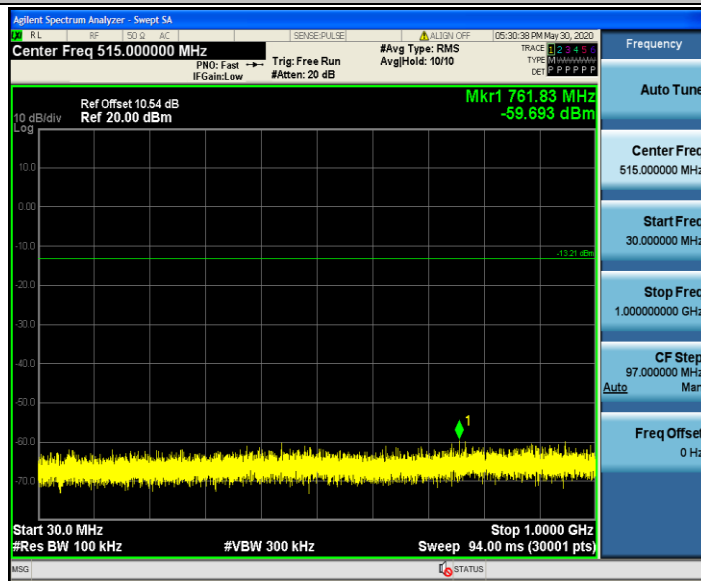
11B\_Ant0\_2437\_1000~26500



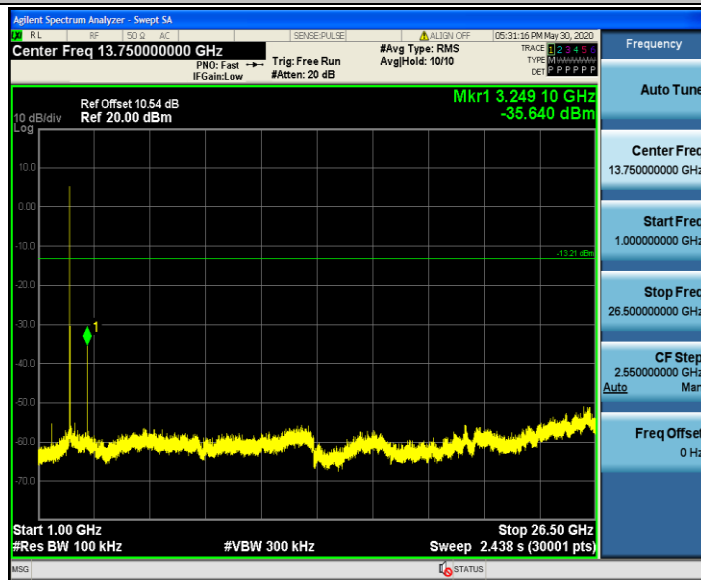
11B\_Ant1\_2437\_0~Reference

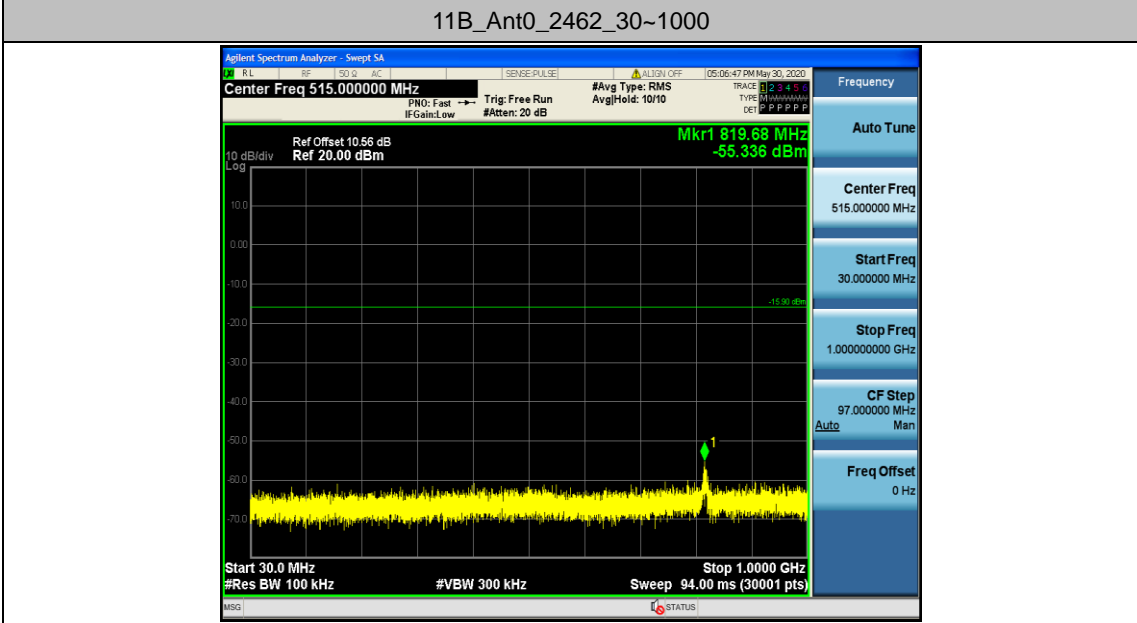
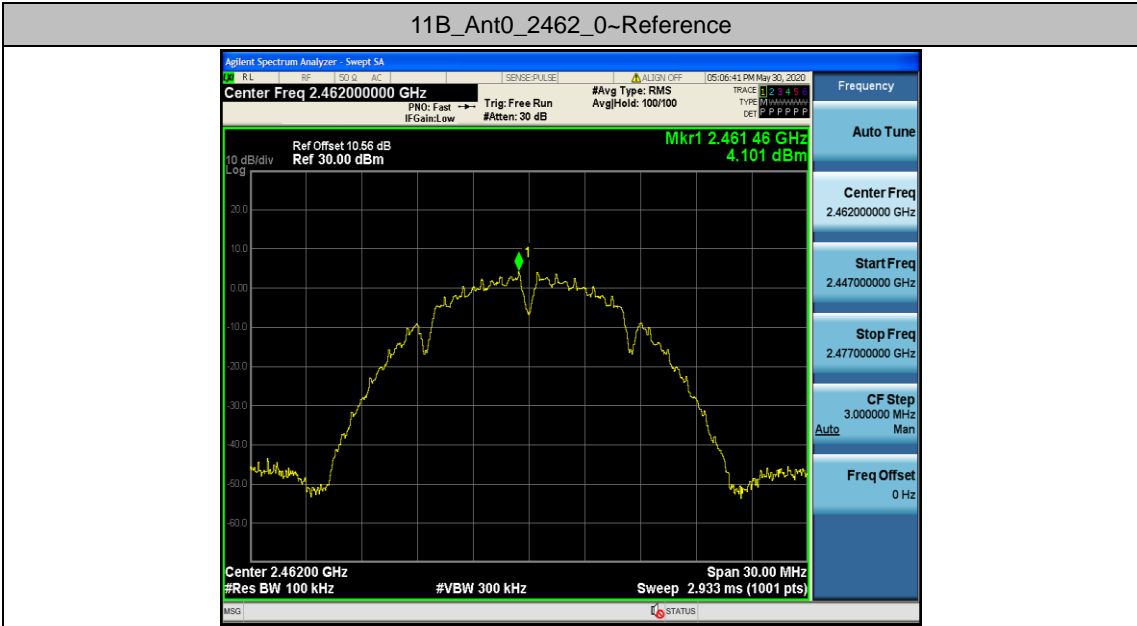


11B\_Ant1\_2437\_30~1000

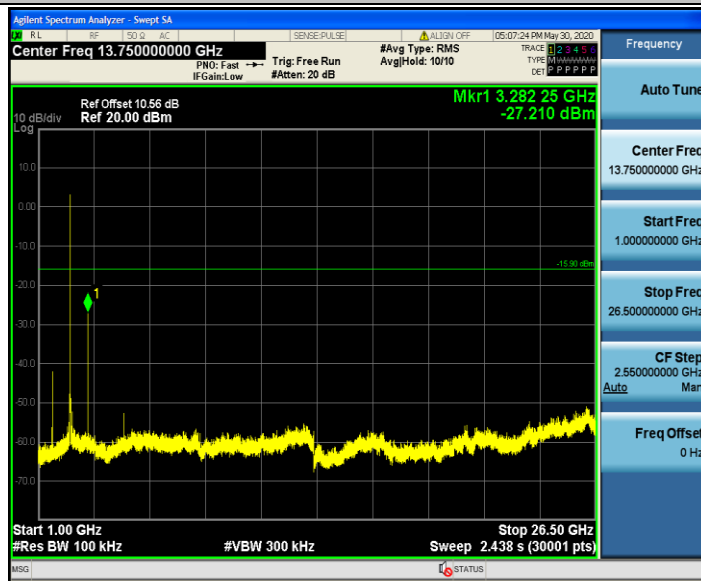


11B\_Ant1\_2437\_1000~26500





11B\_Ant0\_2462\_1000~26500

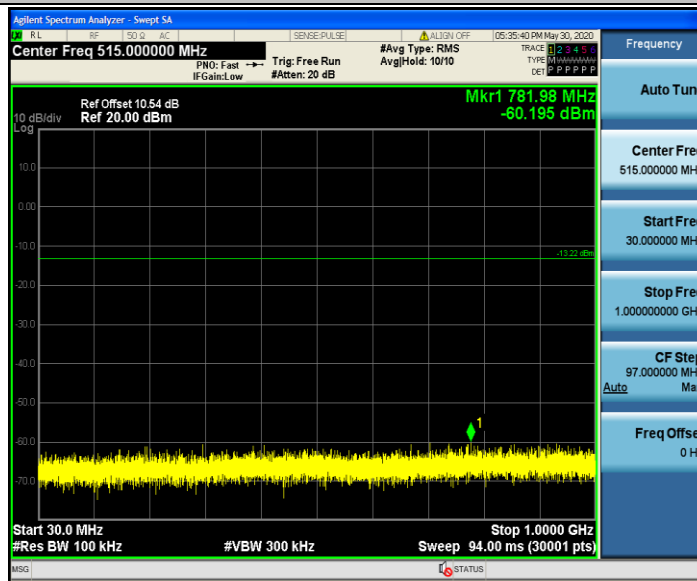


11B\_Ant1\_2462\_0~Reference

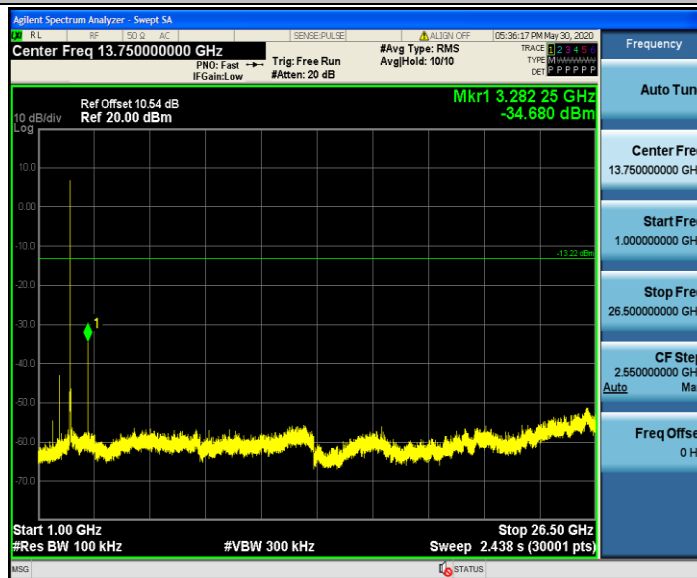




11B\_Ant1\_2462\_30~1000



11B\_Ant1\_2462\_1000~26500



11G\_Ant0\_2412\_0~Reference



11G\_Ant0\_2412\_30~1000

