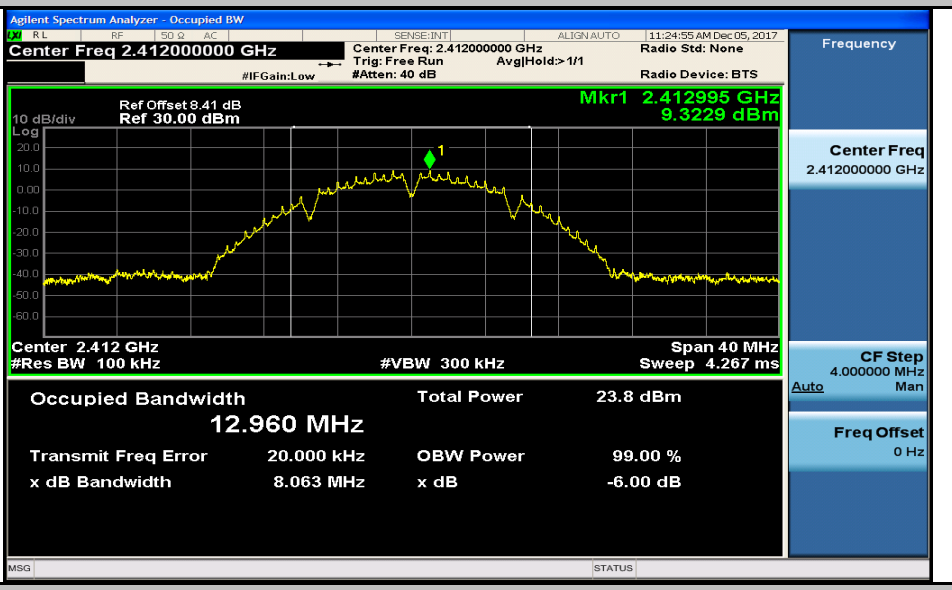
Appendix SZEM171201302803 WiFi-2.4G

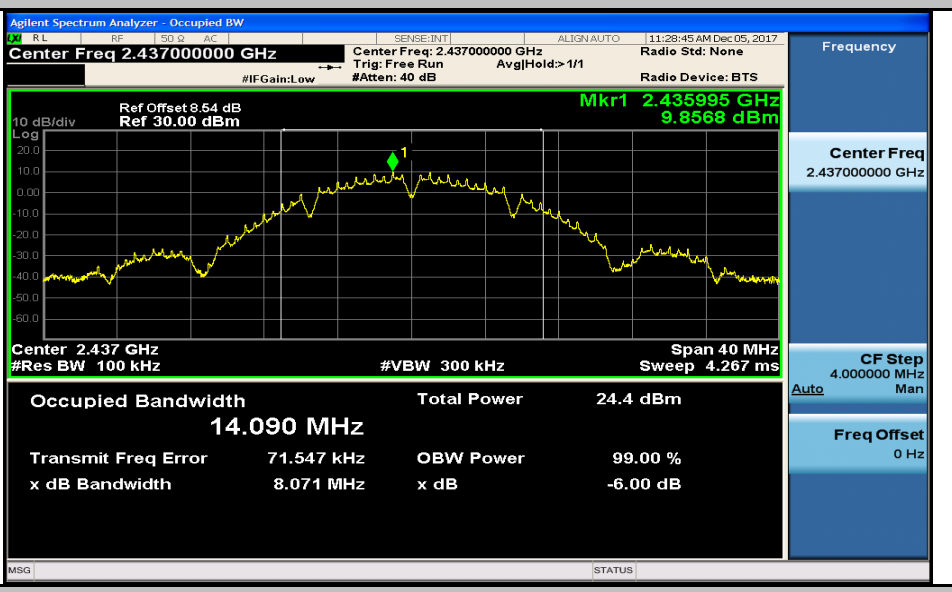
1.6dB Bandwidth

Test Mode	Test Channel	EBW[MHz] ANT0	EBW[MHz] ANT1	Limit	Verdict
11B	2412	8.063	8.066	0.5	PASS
11B	2437	8.071	8.064	0.5	PASS
11B	2462	8.062	8.057	0.5	PASS
11G	2412	16.31	16.31	0.5	PASS
11G	2437	15.65	15.70	0.5	PASS
11G	2462	16.03	15.94	0.5	PASS
11N20SISO	2412	17.12	17.00	0.5	PASS
11N20SISO	2437	16.28	16.28	0.5	PASS
11N20SISO	2462	17.00	16.16	0.5	PASS
11N40SISO	2422	35.13	35.51	0.5	PASS
11N40SISO	2437	35.10	35.12	0.5	PASS
11N40SISO	2452	35.29	35.04	0.5	PASS

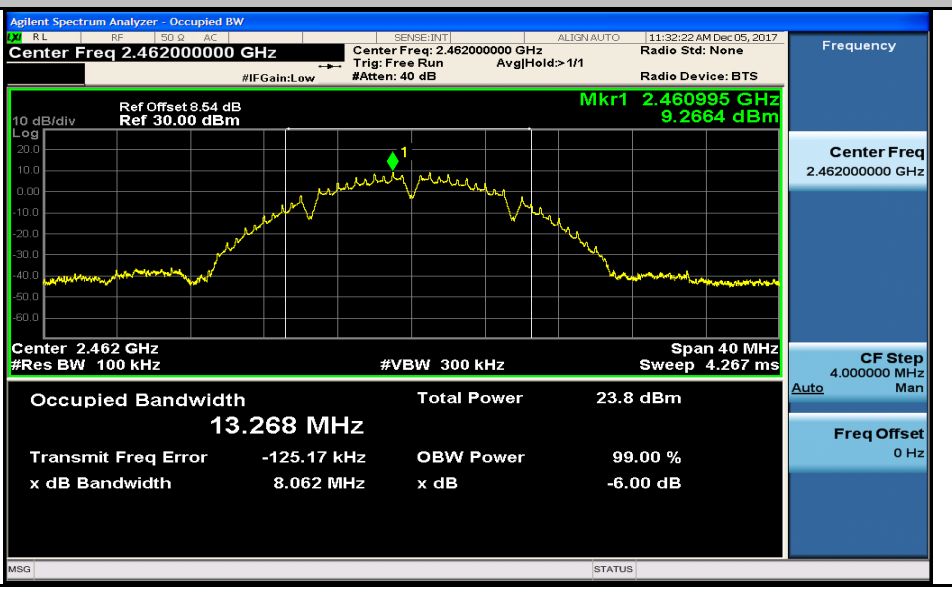
6dB Bandwidth_11B_2412_Ant0



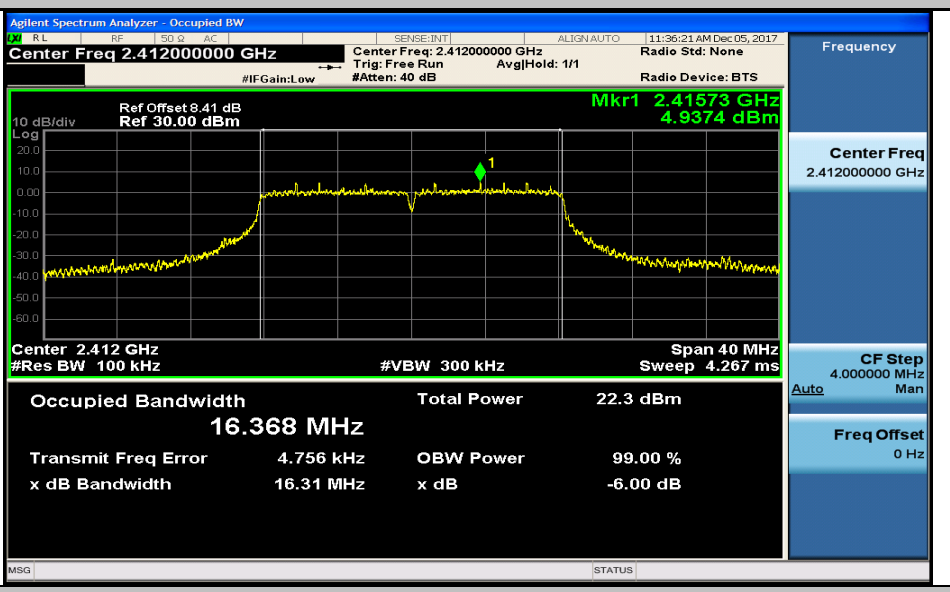
6dB Bandwidth_11B_2437_Ant0



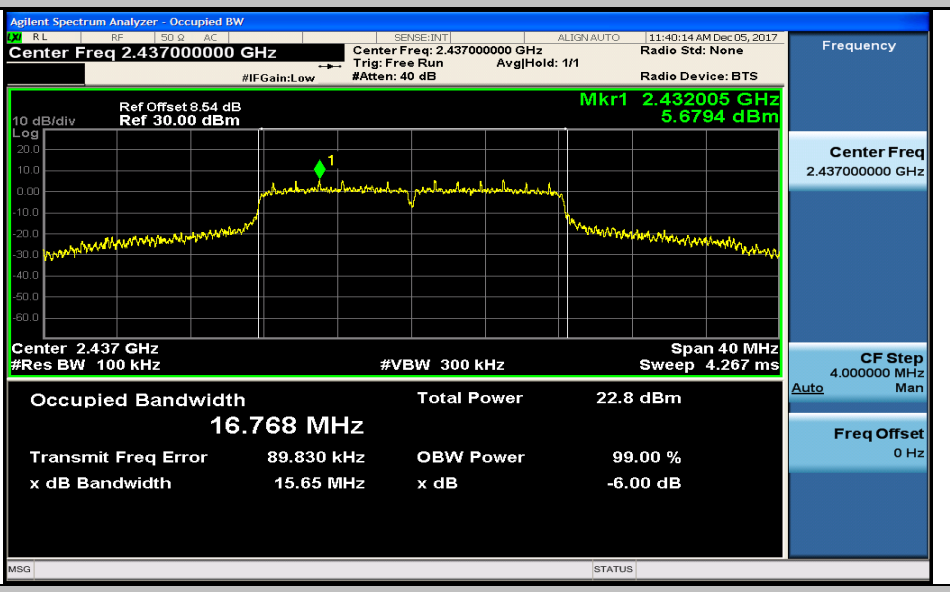
6dB Bandwidth_11B_2462_Ant0



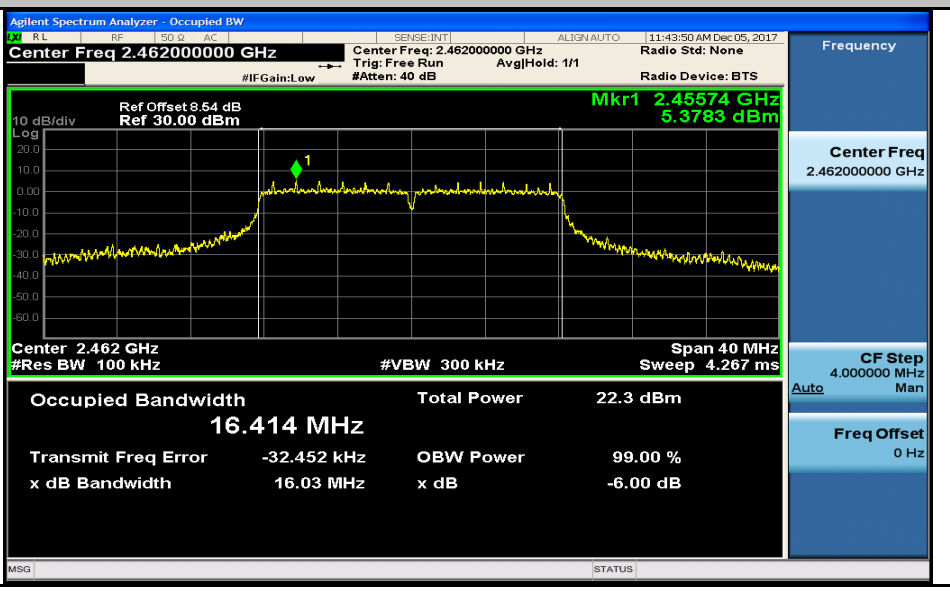
6dB Bandwidth_11G_2412_Ant0



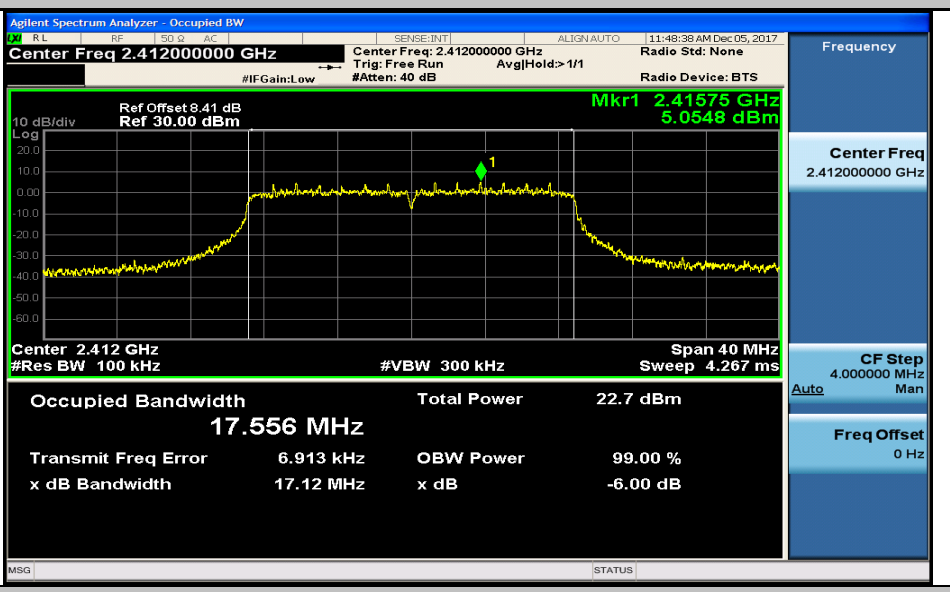
6dB Bandwidth_11G_2437_Ant0



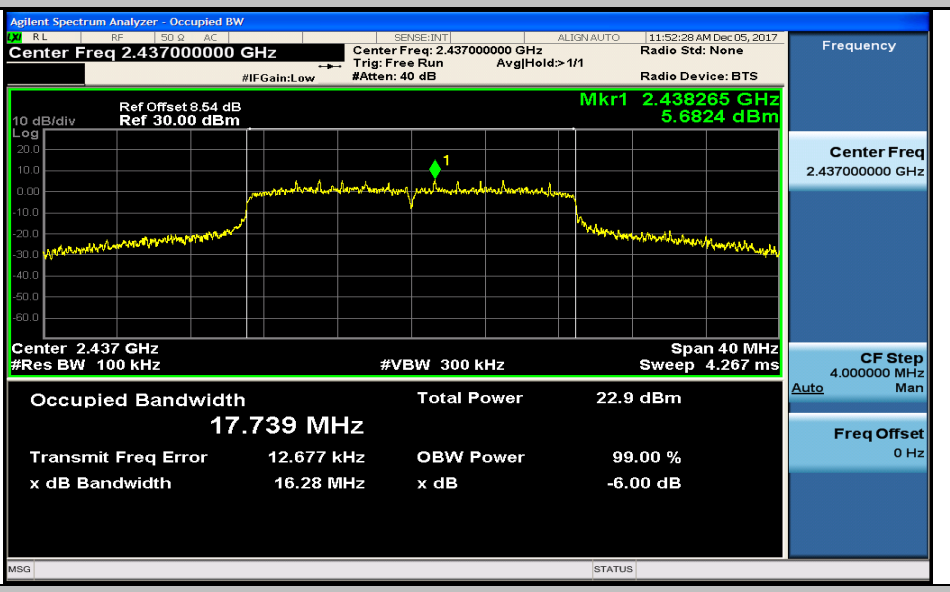
6dB Bandwidth_11G_2462_Ant0



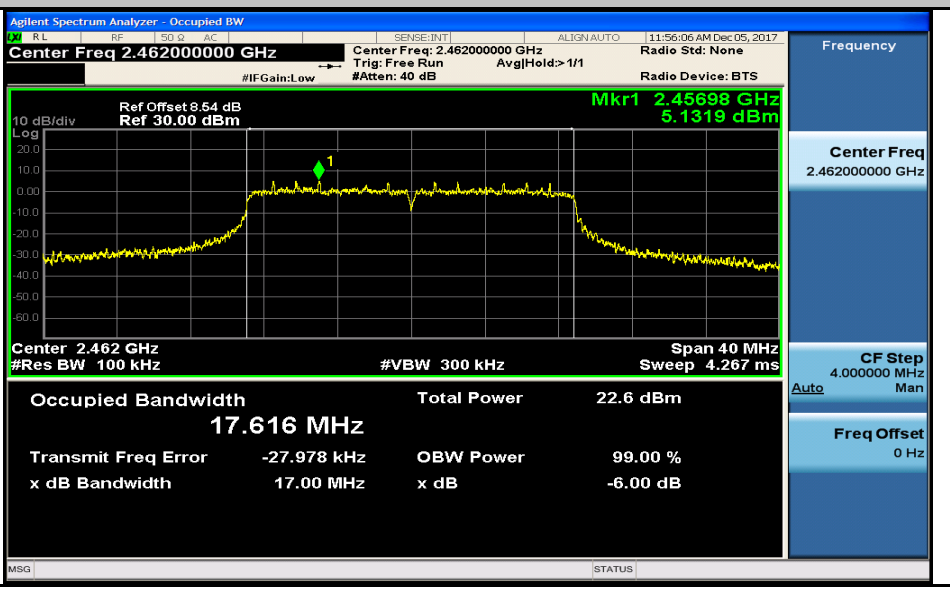
6dB Bandwidth_11N20SISO_2412_Ant0



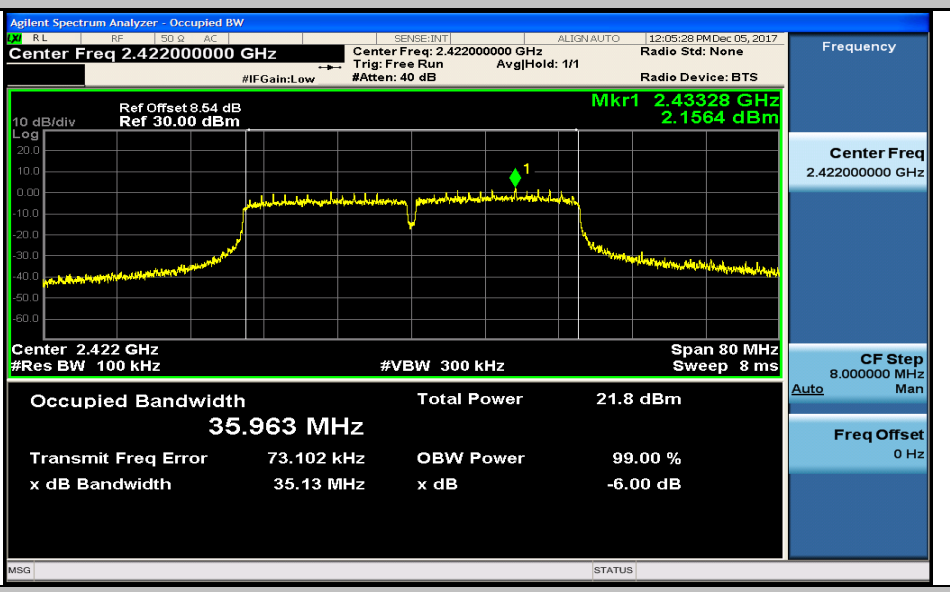
6dB Bandwidth_11N20SISO_2437_Ant0



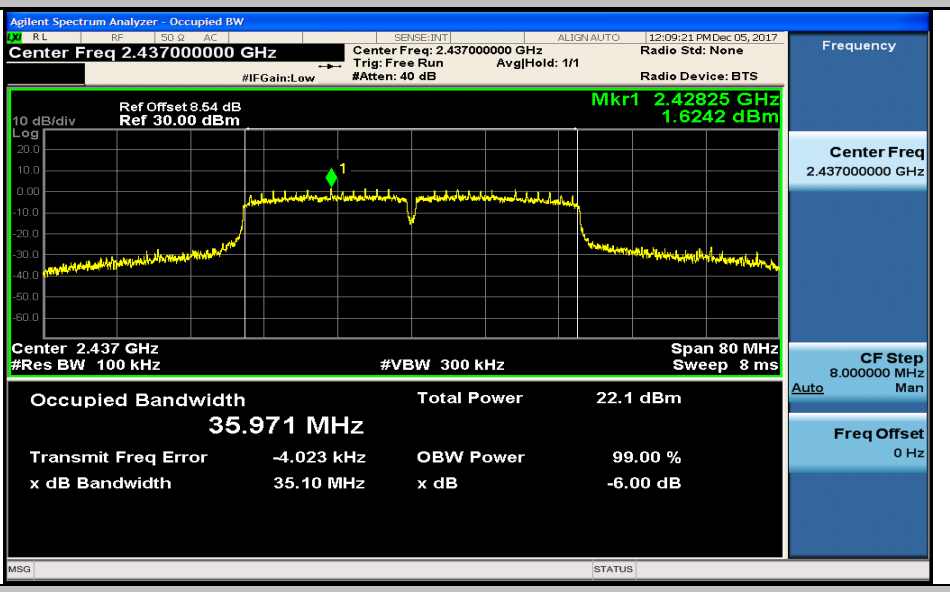
6dB Bandwidth_11N20SISO_2462_Ant0



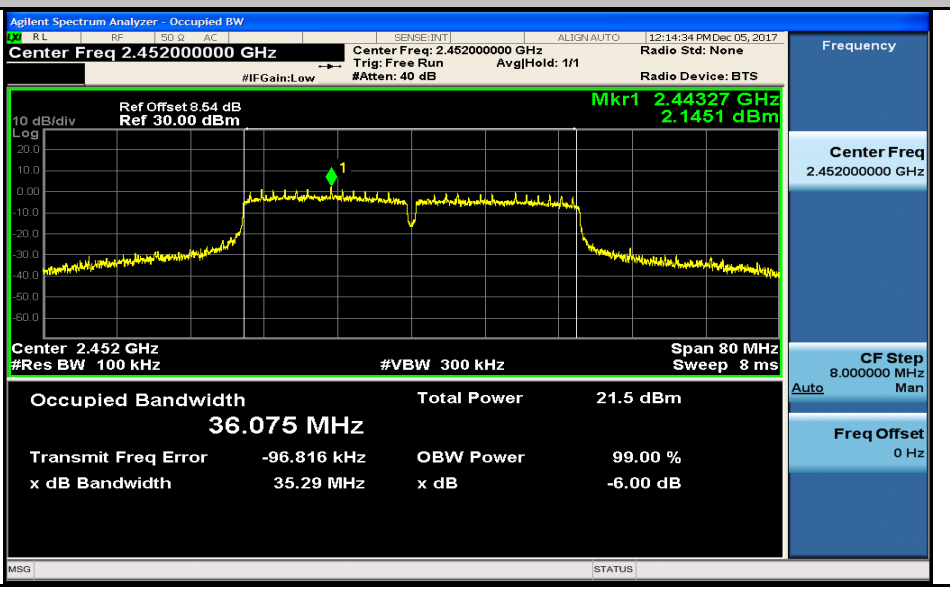
6dB Bandwidth_11N40SISO_2422_Ant0



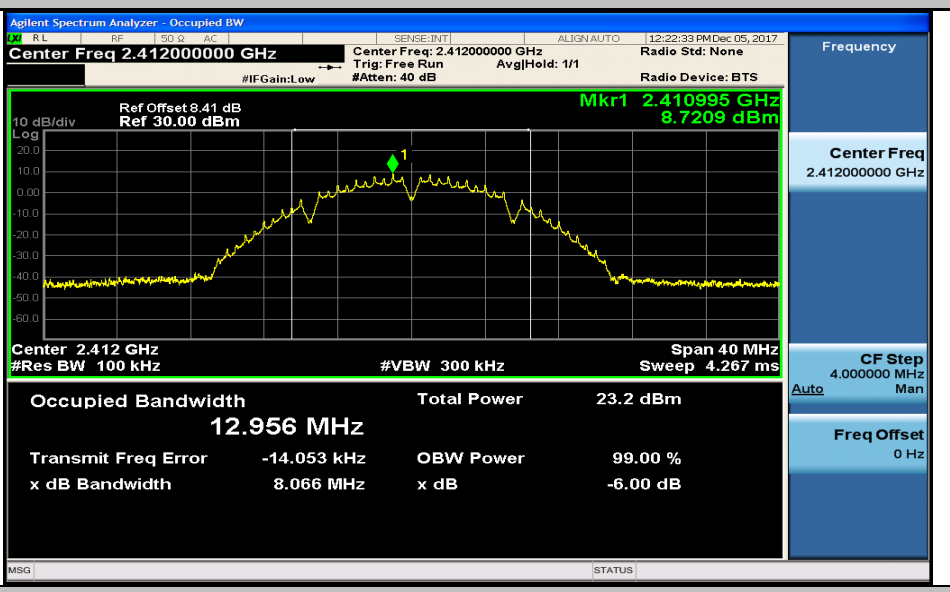
6dB Bandwidth_11N40SISO_2437_Ant0



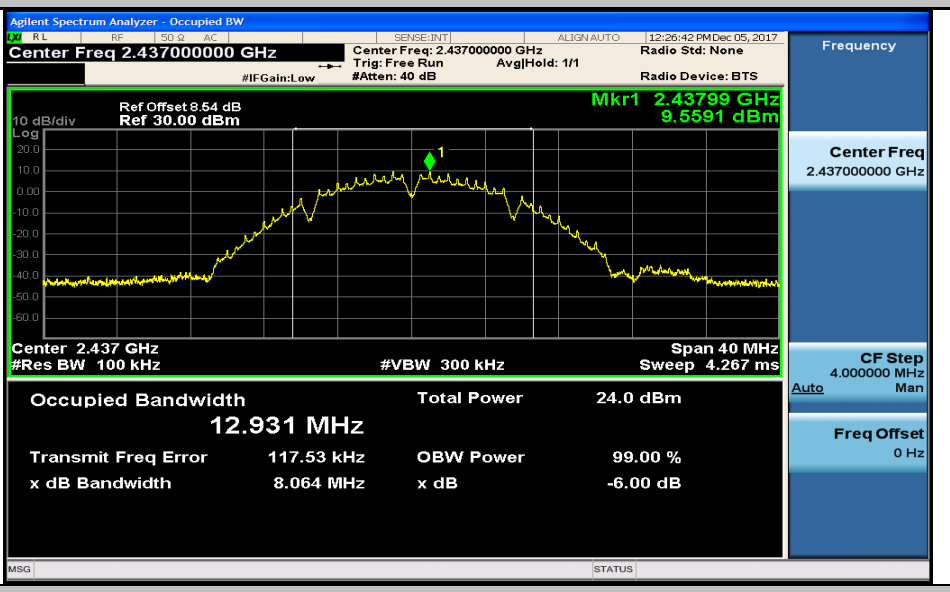
6dB Bandwidth_11N40SISO_2452_Ant0



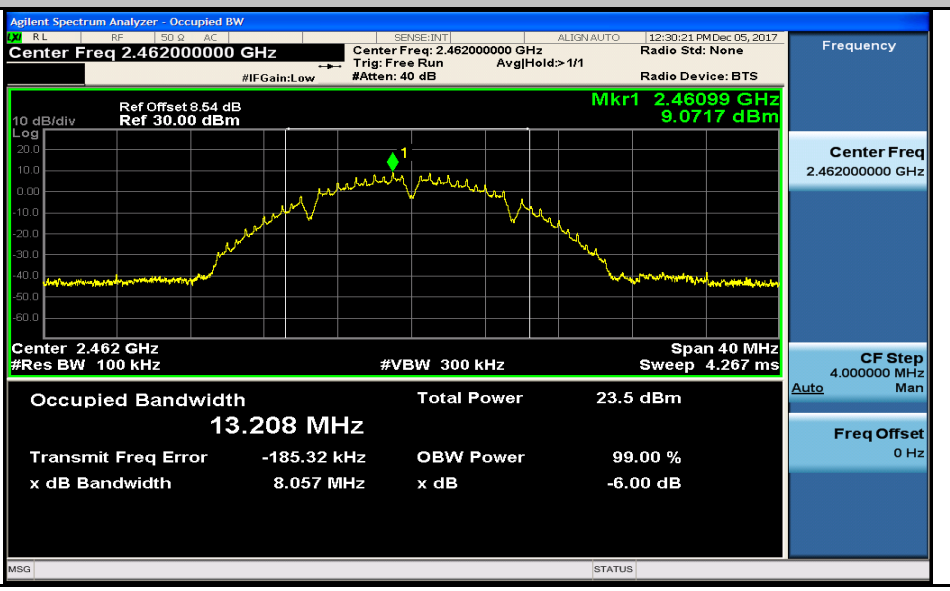
6dB Bandwidth_11B_2412_Ant1



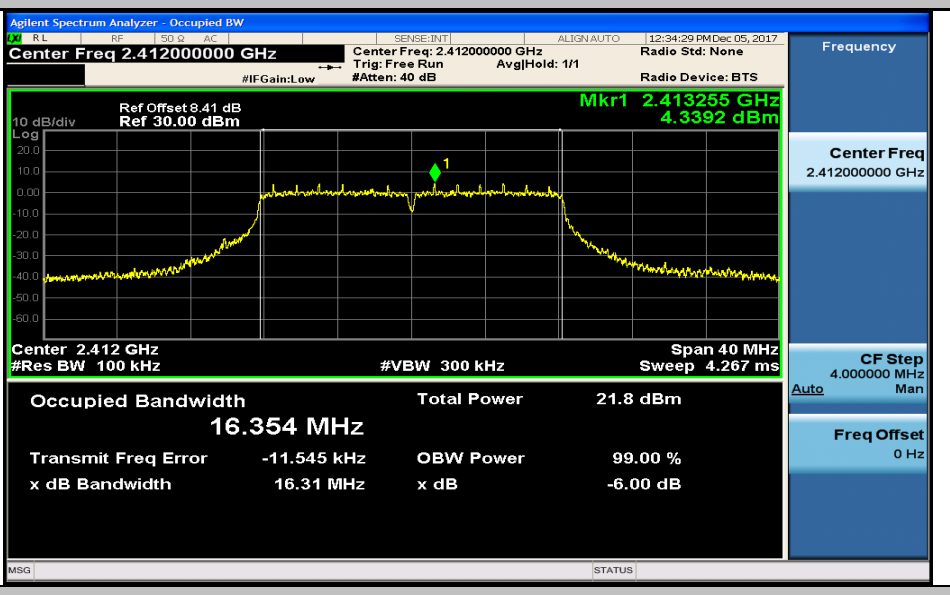
6dB Bandwidth_11B_2437_Ant1



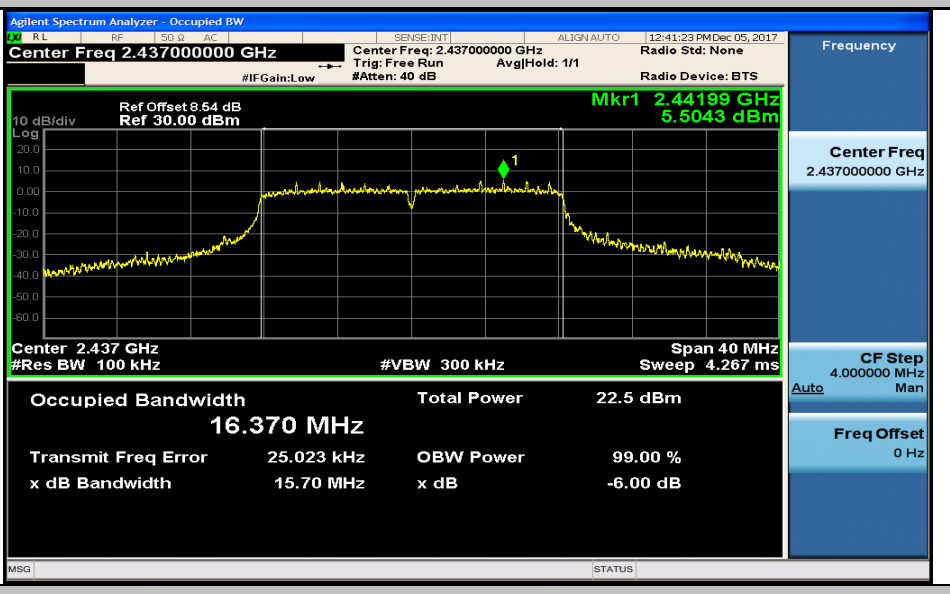
6dB Bandwidth_11B_2462_Ant1



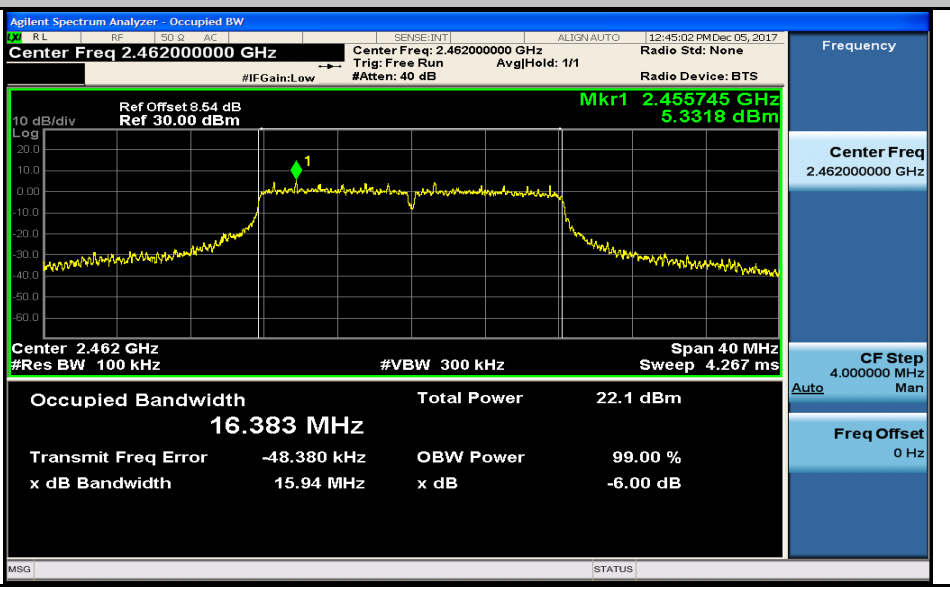
6dB Bandwidth_11G_2412_Ant1



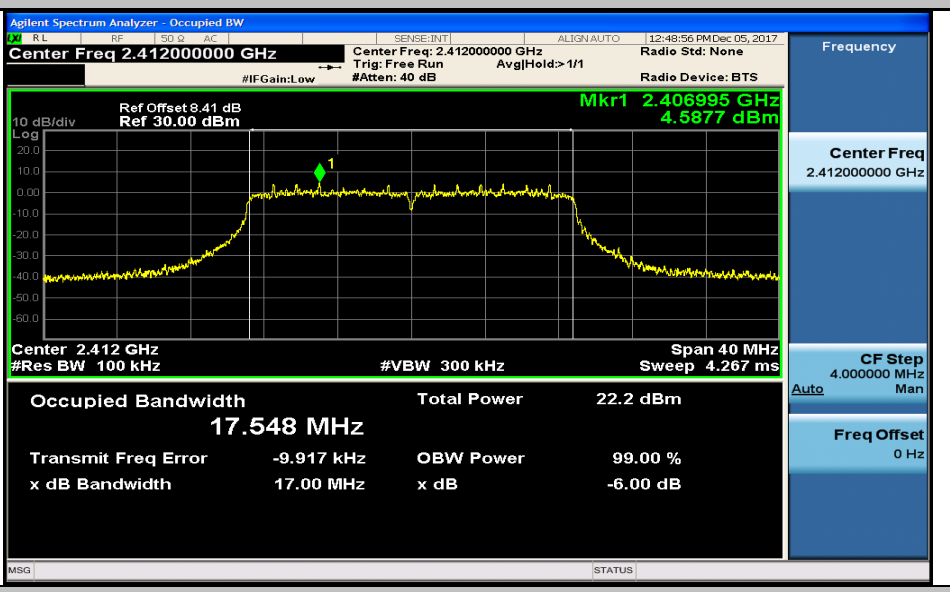
6dB Bandwidth_11G_2437_Ant1



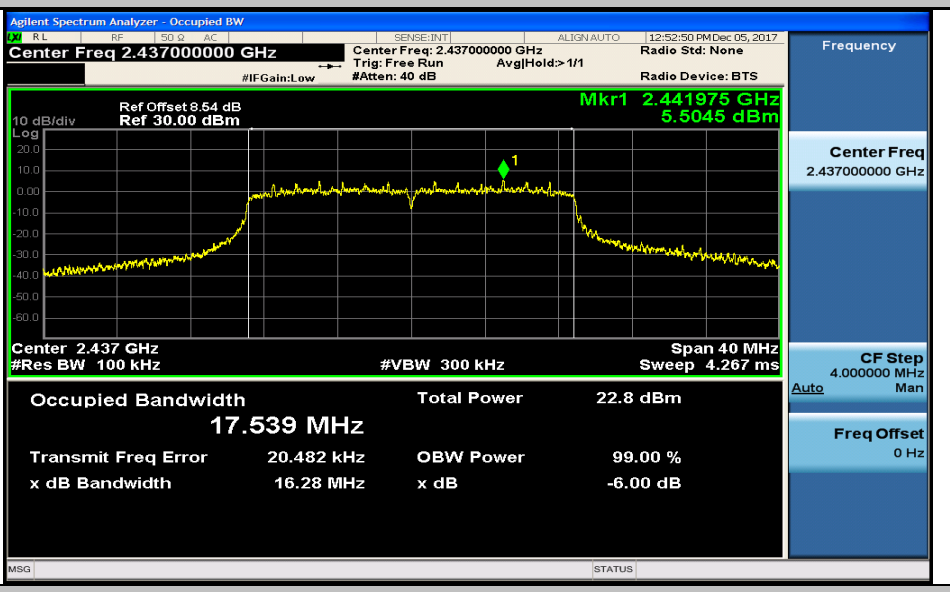
6dB Bandwidth_11G_2462_Ant1



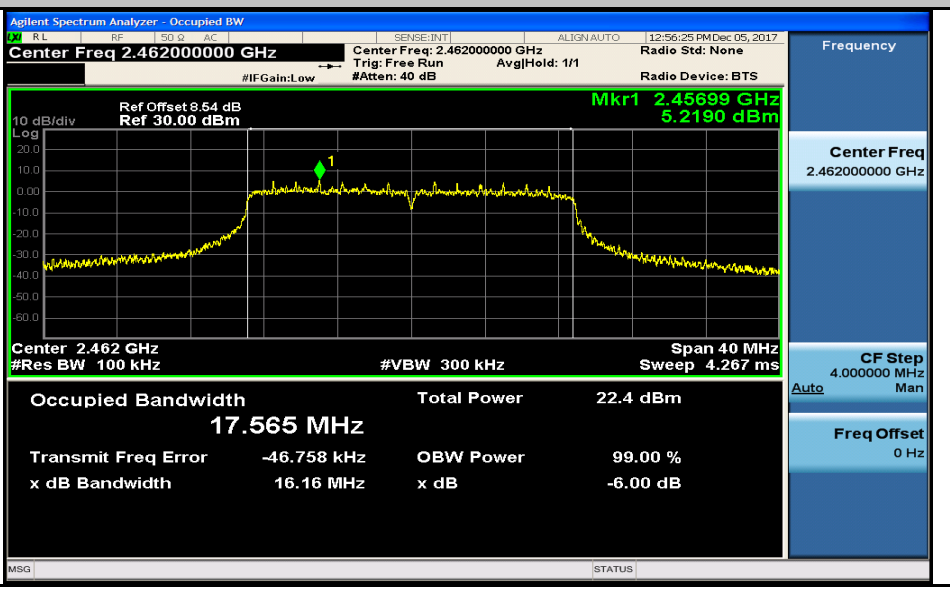
6dB Bandwidth_11N20SISO_2412_Ant1



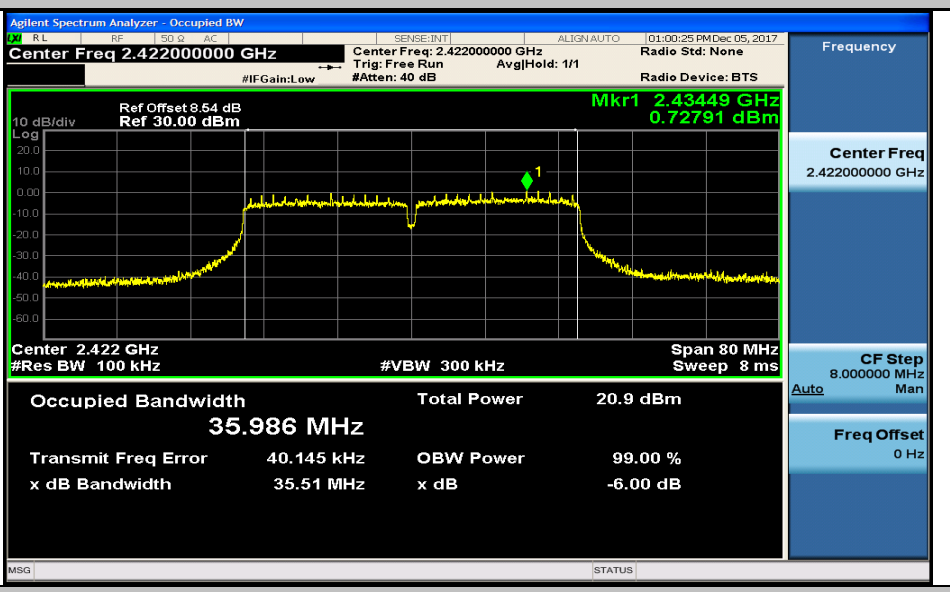
6dB Bandwidth_11N20SISO_2437_Ant1



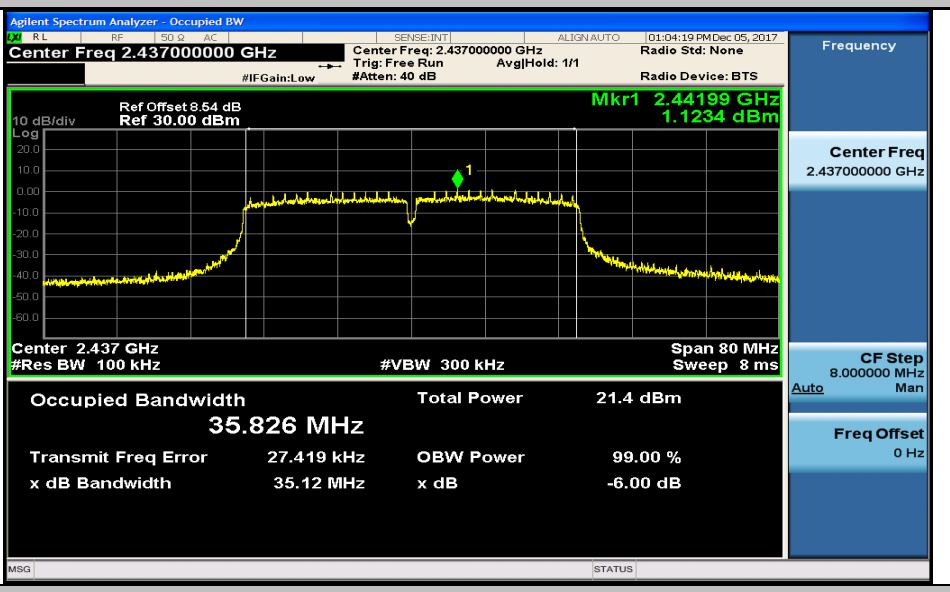
6dB Bandwidth_11N20SISO_2462_Ant1



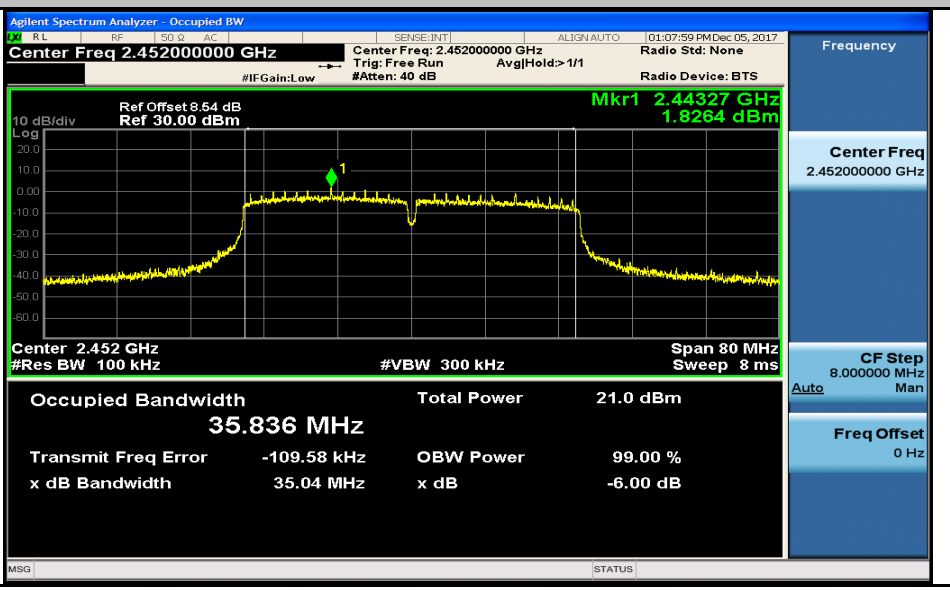
6dB Bandwidth_11N40SISO_2422_Ant1



6dB Bandwidth_11N40SISO_2437_Ant1



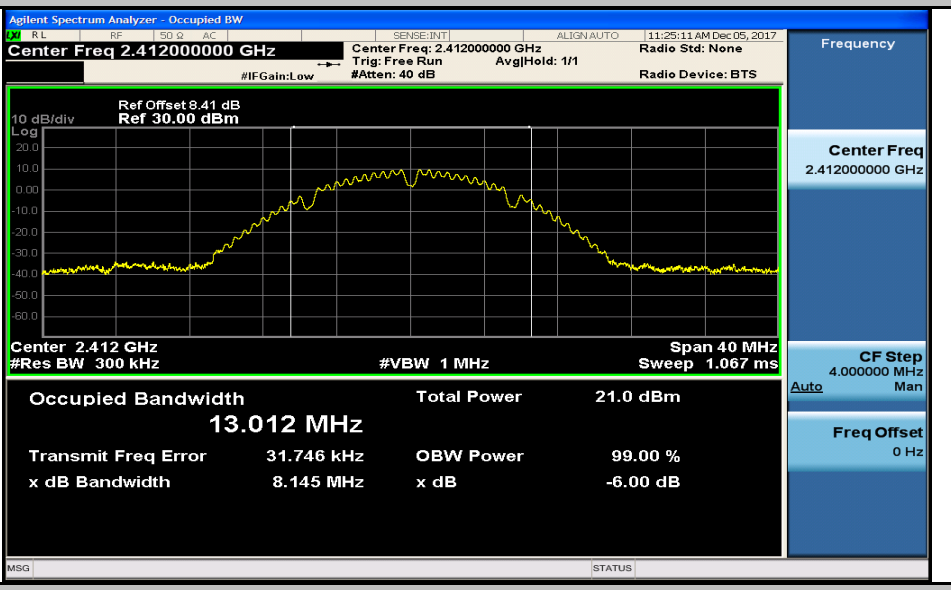
6dB Bandwidth_11N40SISO_2452_Ant1



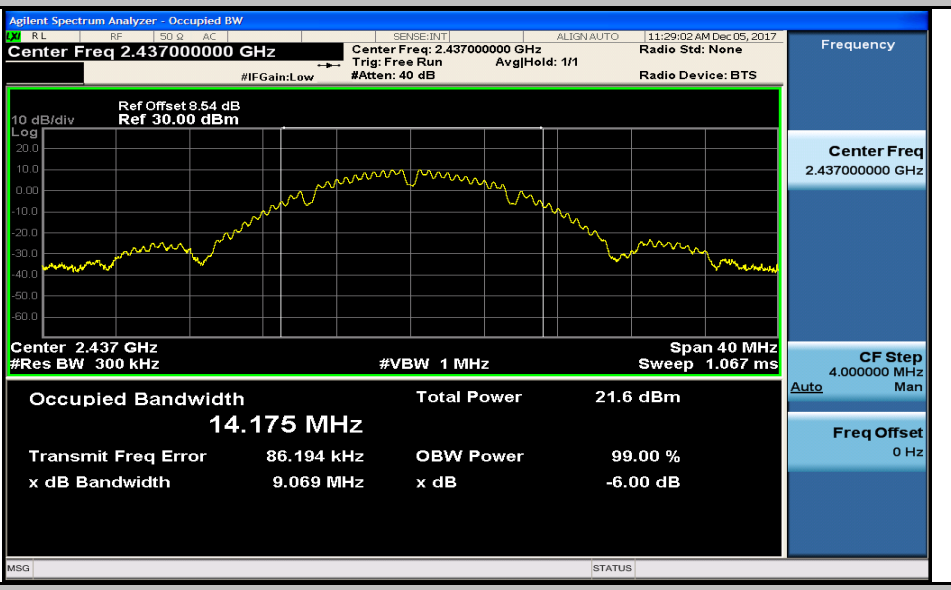
2.Occupied Bandwidth

Test Mode	Test Channel	OBW[MHz] ANT0	OBW[MHz] ANT1	Limit[MHz]	Verdict
11B	2412	13.012	13.006	---	PASS
11B	2437	14.175	13.003	---	PASS
11B	2462	13.309	13.233	---	PASS
11G	2412	16.514	16.514	---	PASS
11G	2437	17.211	16.525	---	PASS
11G	2462	16.618	16.562	---	PASS
11N20SISO	2412	17.684	17.677	---	PASS
11N20SISO	2437	18.057	17.614	---	PASS
11N20SISO	2462	17.750	17.696	---	PASS
11N40SISO	2422	36.410	36.464	---	PASS
11N40SISO	2437	36.326	36.124	---	PASS
11N40SISO	2452	36.578	36.202	---	PASS

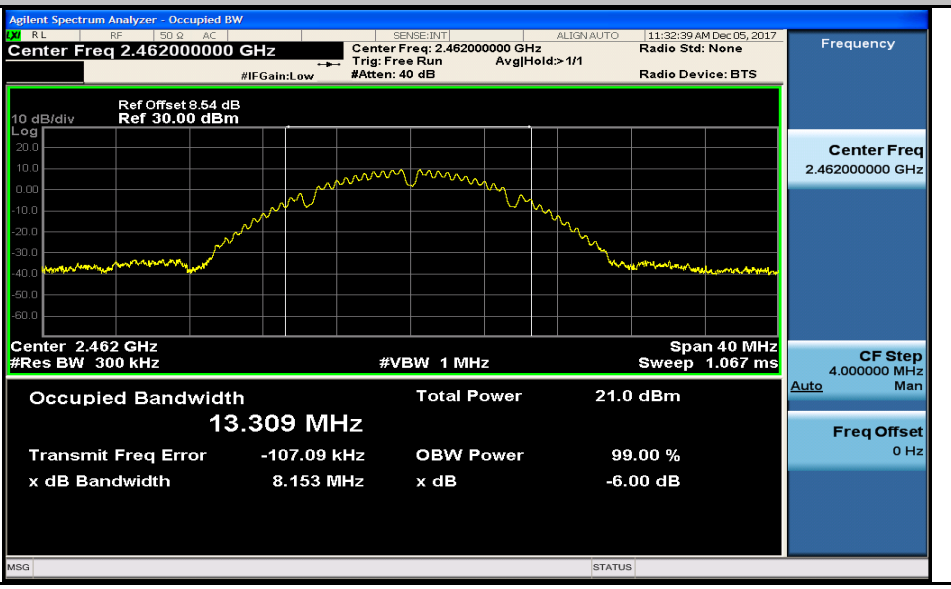
Occupied Bandwidth_11B_2412_Ant0



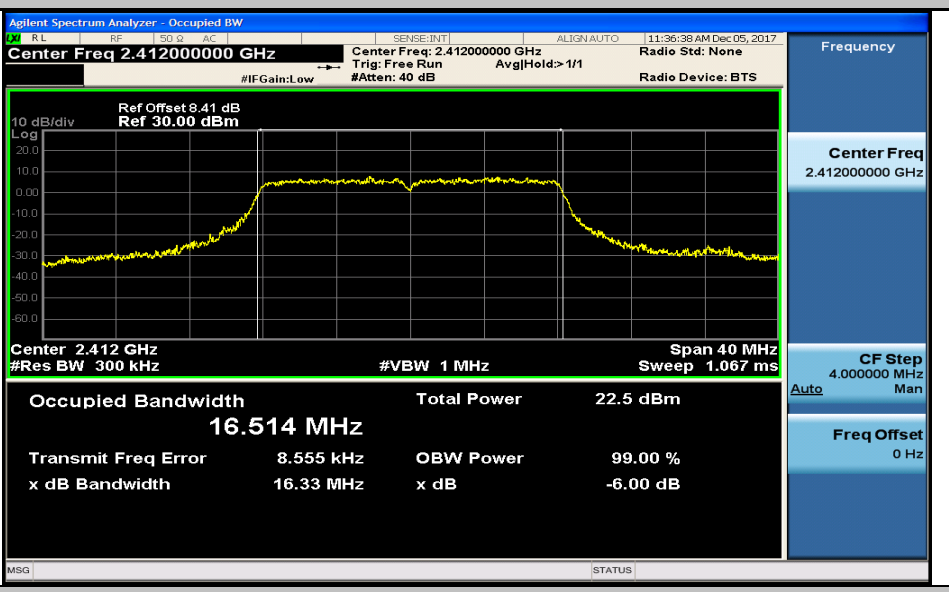
Occupied Bandwidth_11B_2437_Ant0



Occupied Bandwidth_11B_2462_Ant0



Occupied Bandwidth_11G_2412_Ant0



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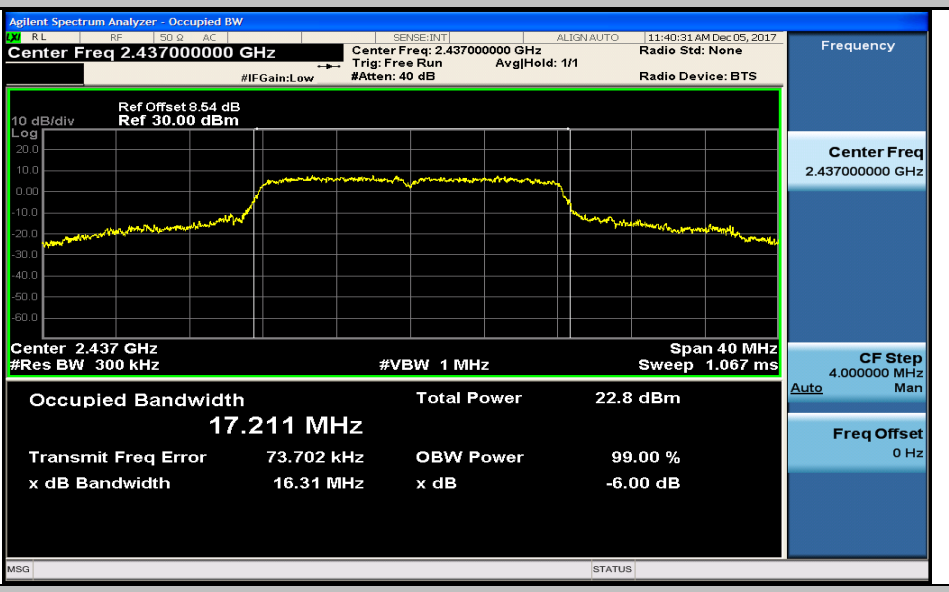

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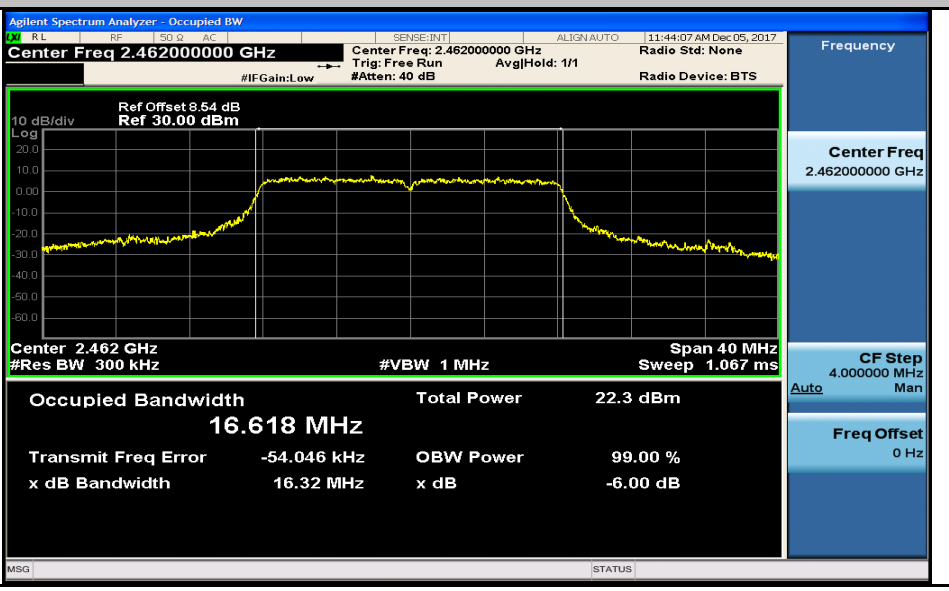
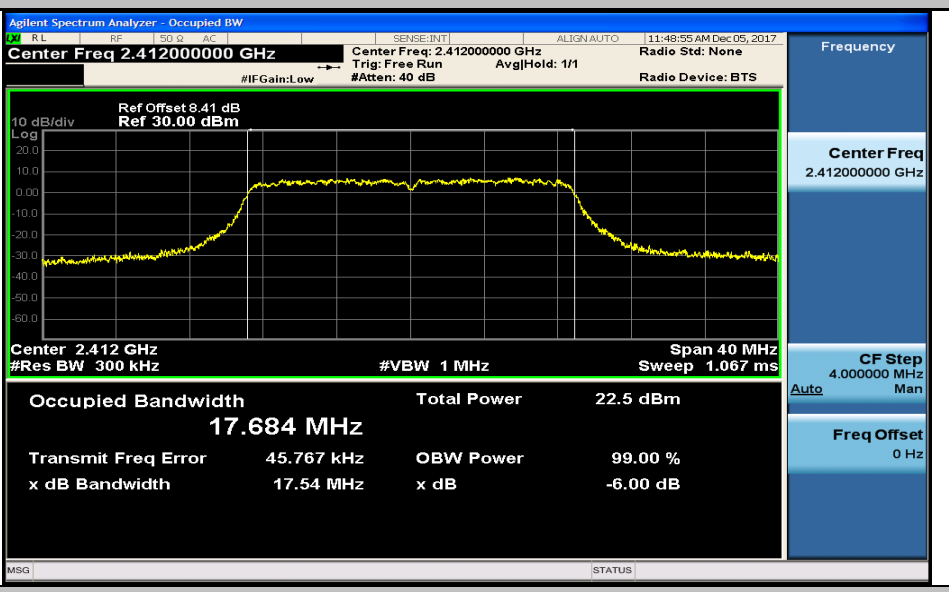


Occupied Bandwidth_11N20SISO_2412_Ant0



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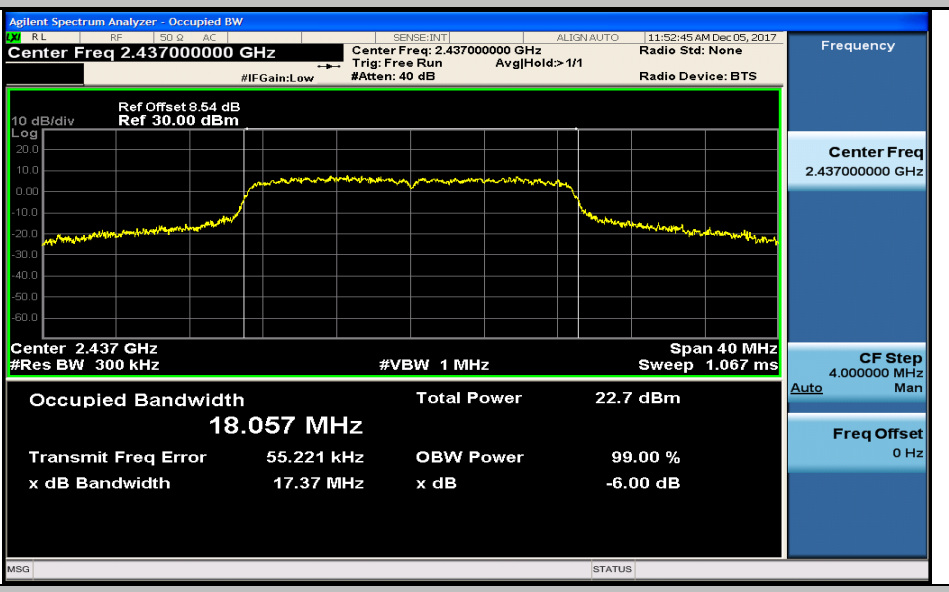

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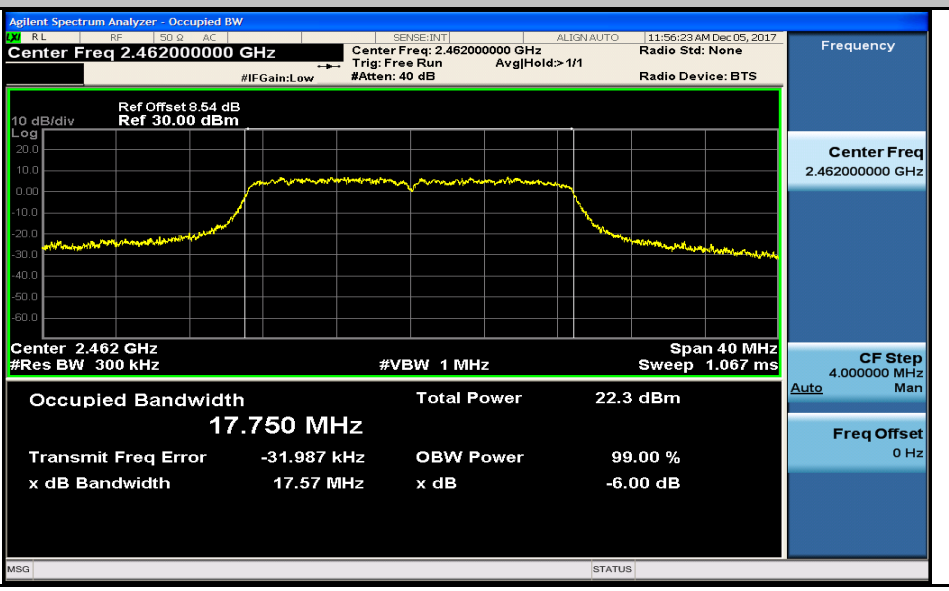
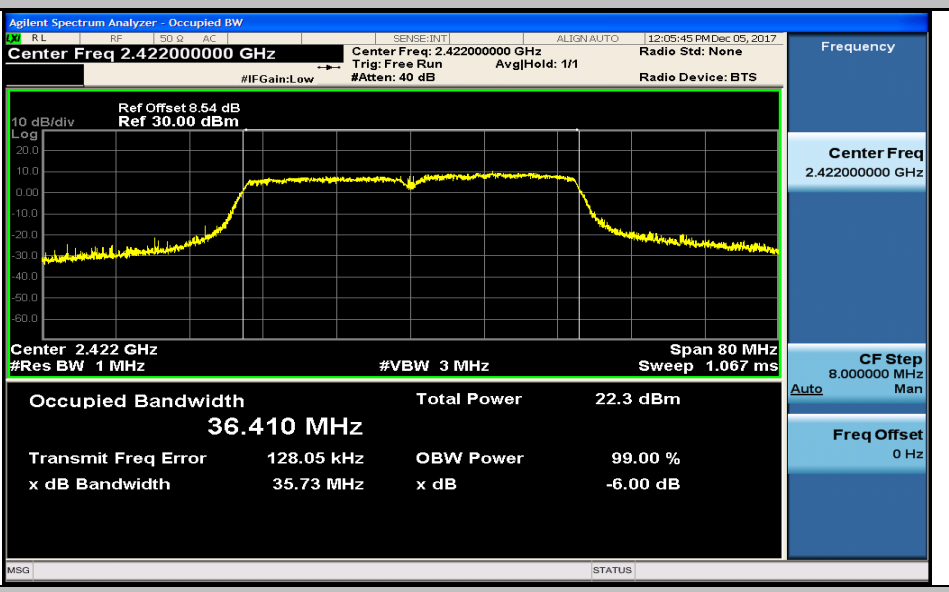
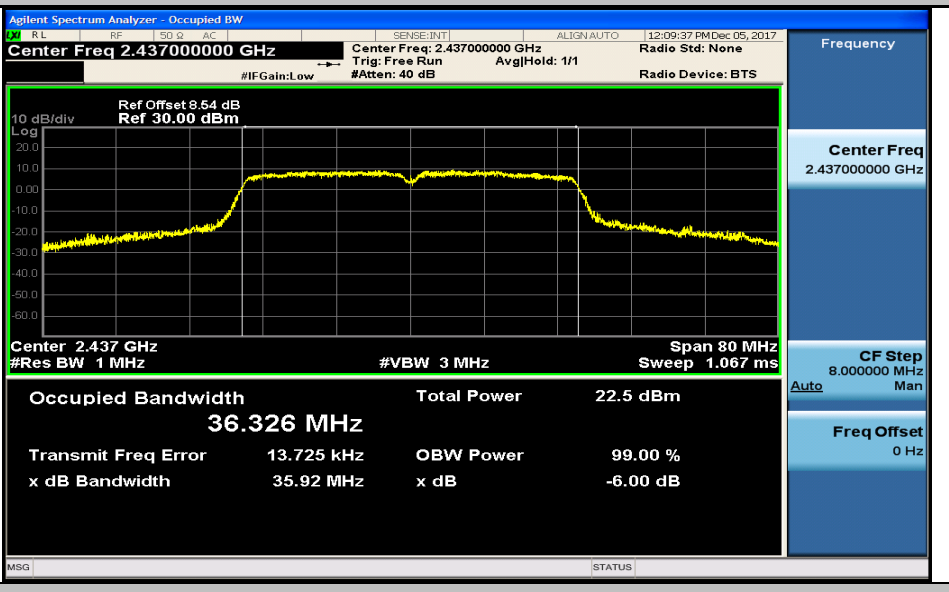


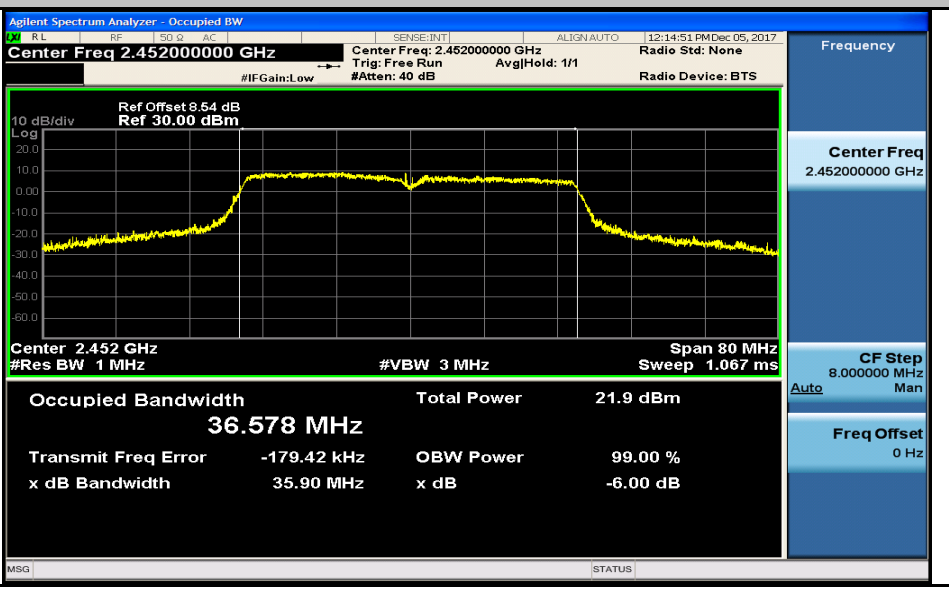
Occupied Bandwidth_11N40SISO_2422_Ant0



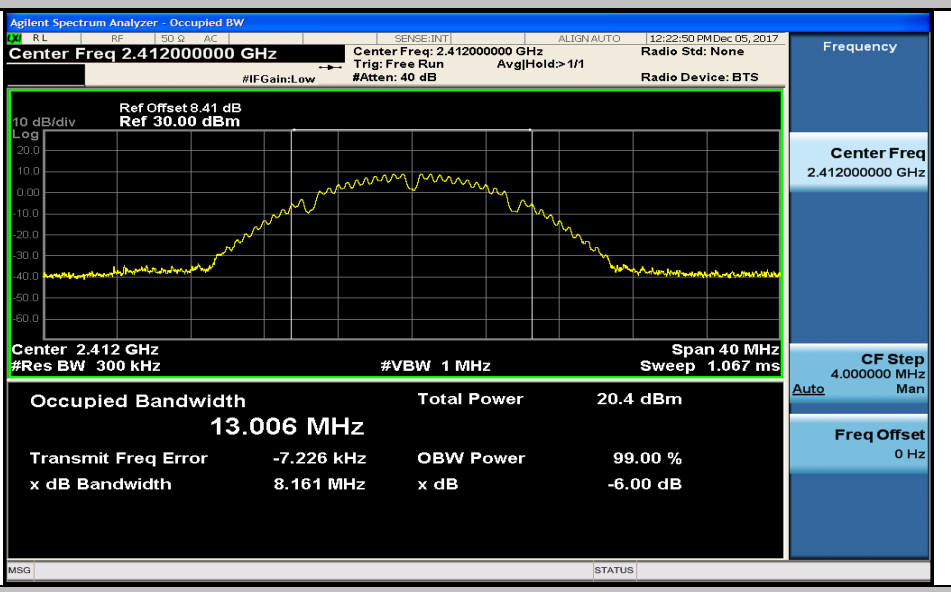
Occupied Bandwidth_11N40SISO_2437_Ant0



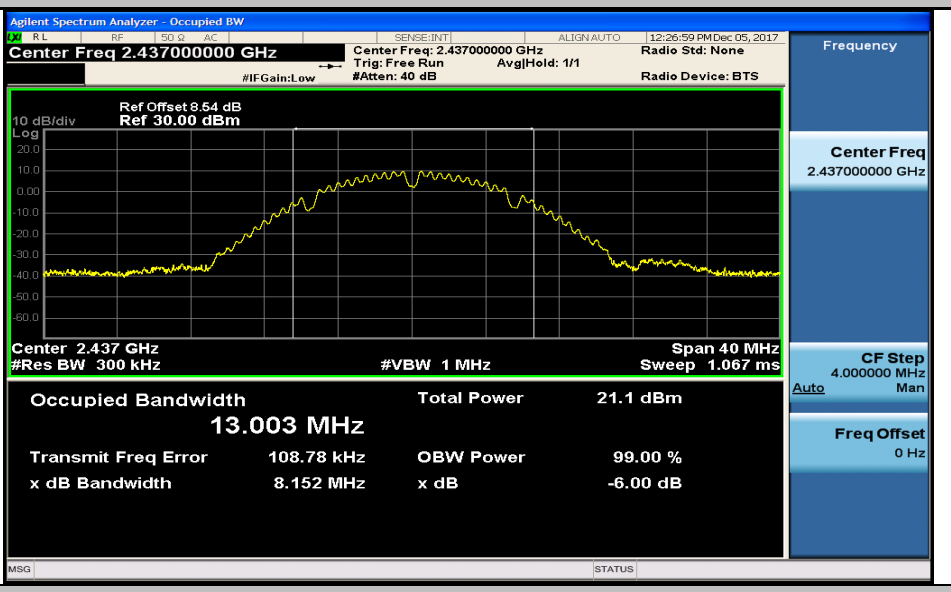
Occupied Bandwidth_11N40SISO_2452_Ant0



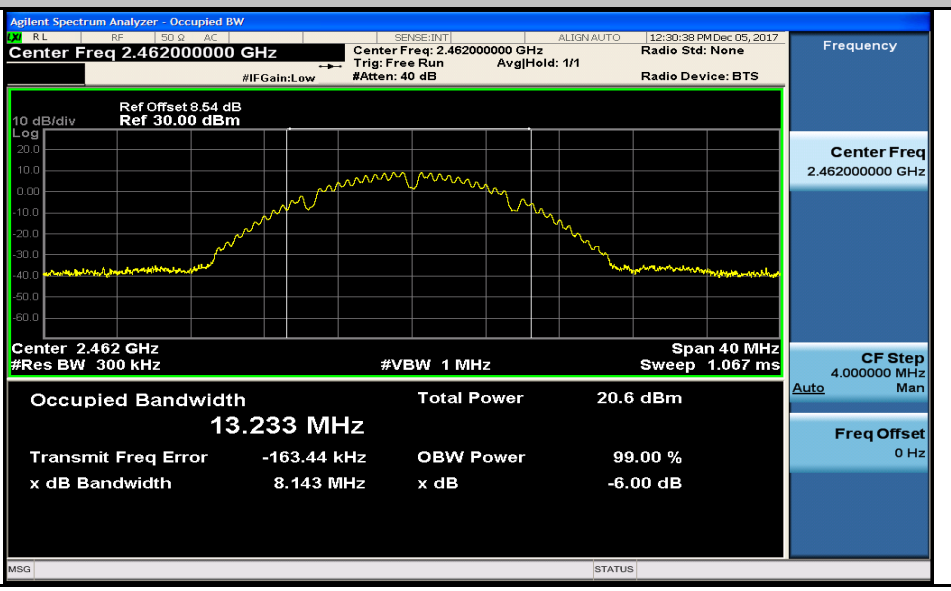
Occupied Bandwidth_11B_2412_ANT1



Occupied Bandwidth_11B_2437_ANT1



Occupied Bandwidth_11B_2462_ANT1



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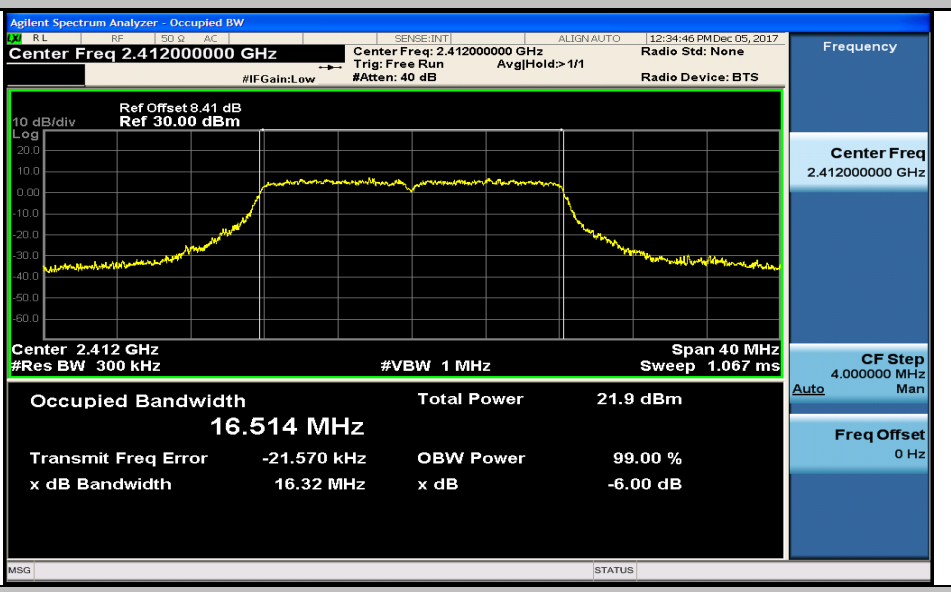

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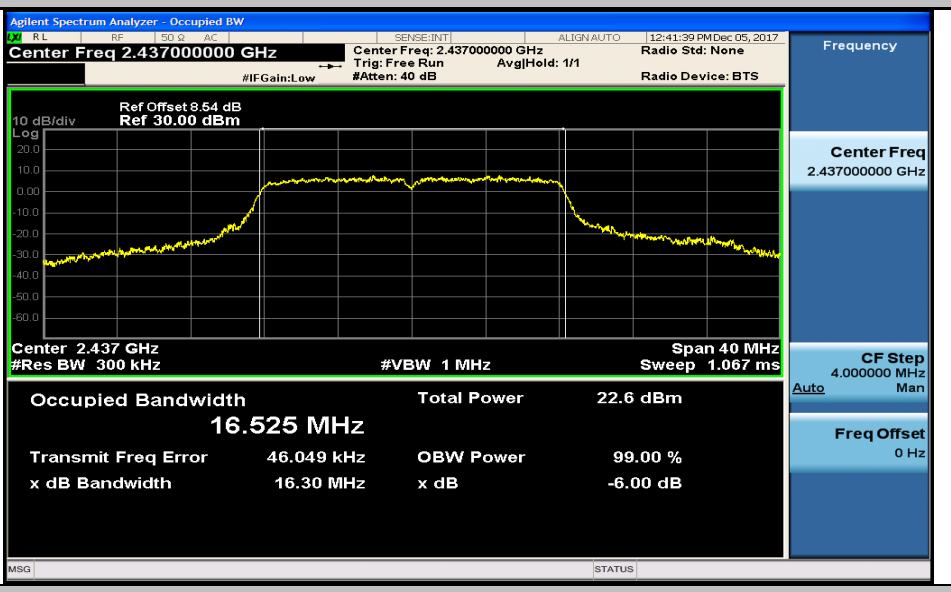
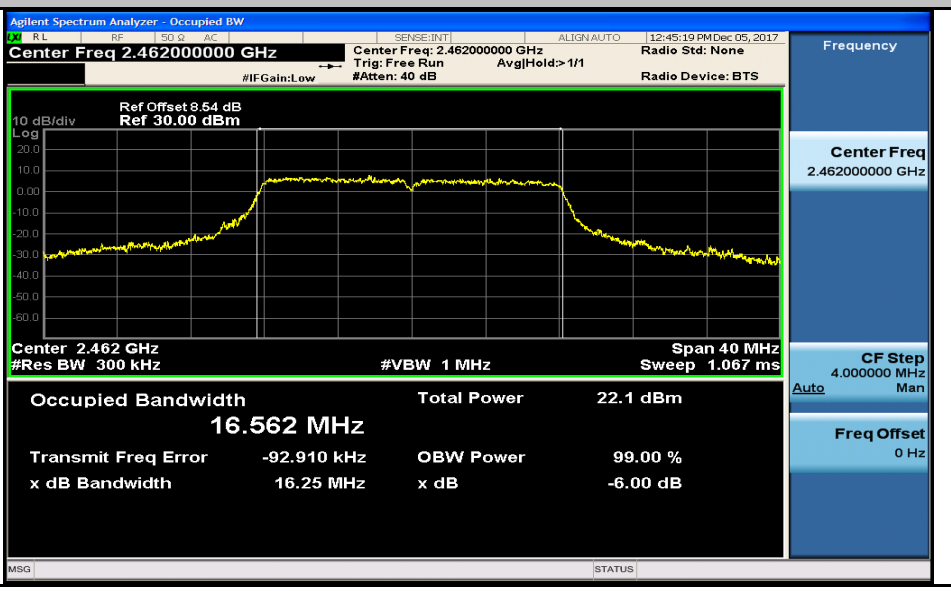


Occupied Bandwidth_11G_2462_ANT1



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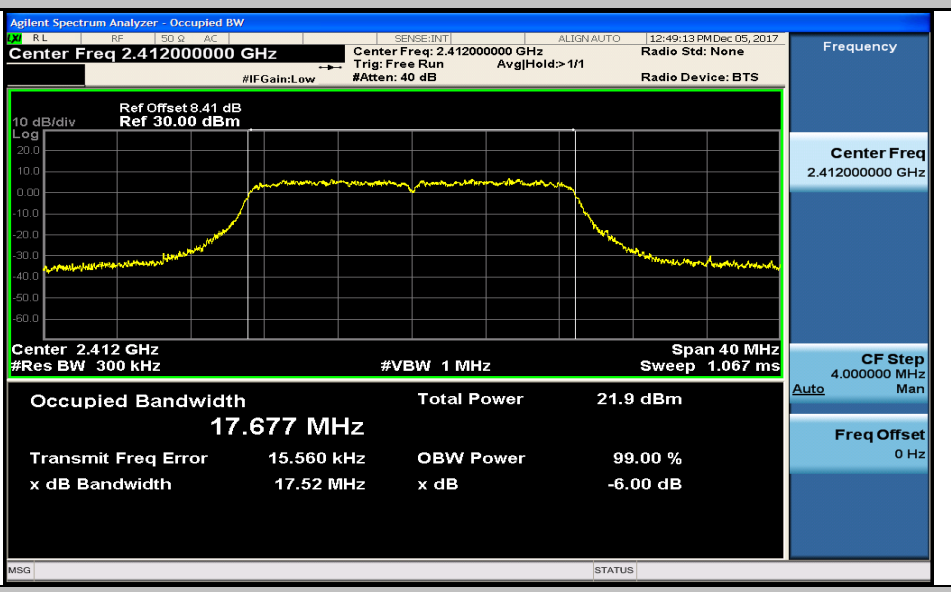

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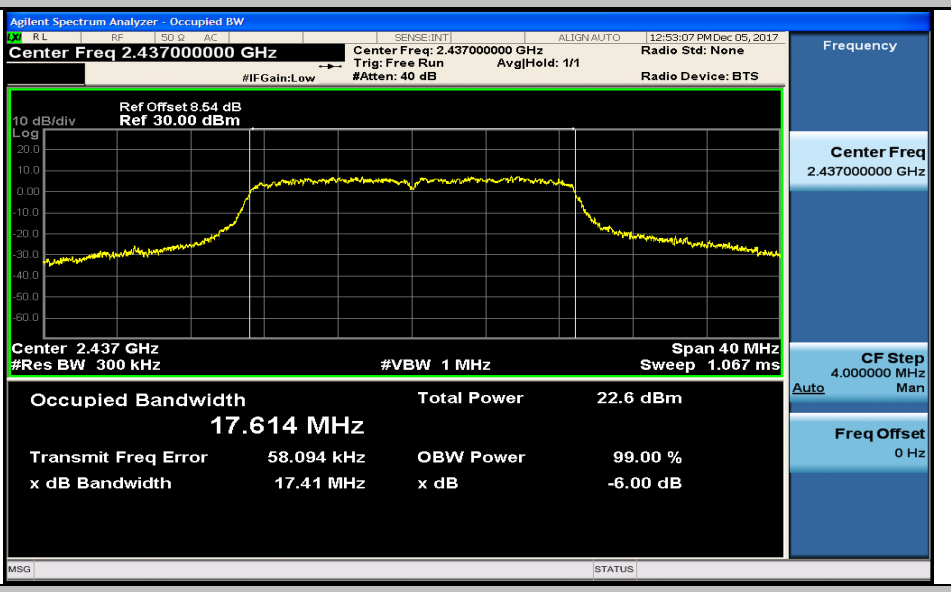
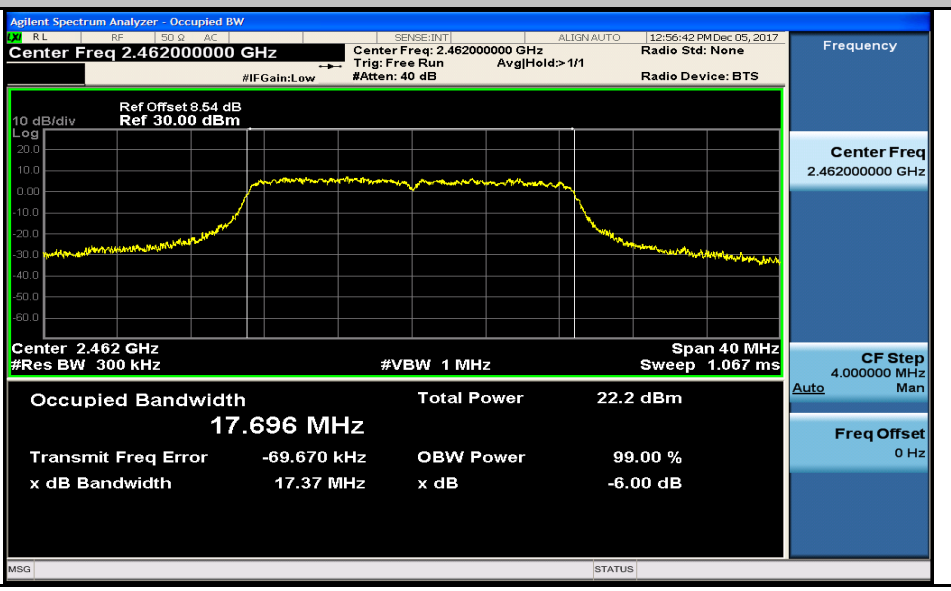
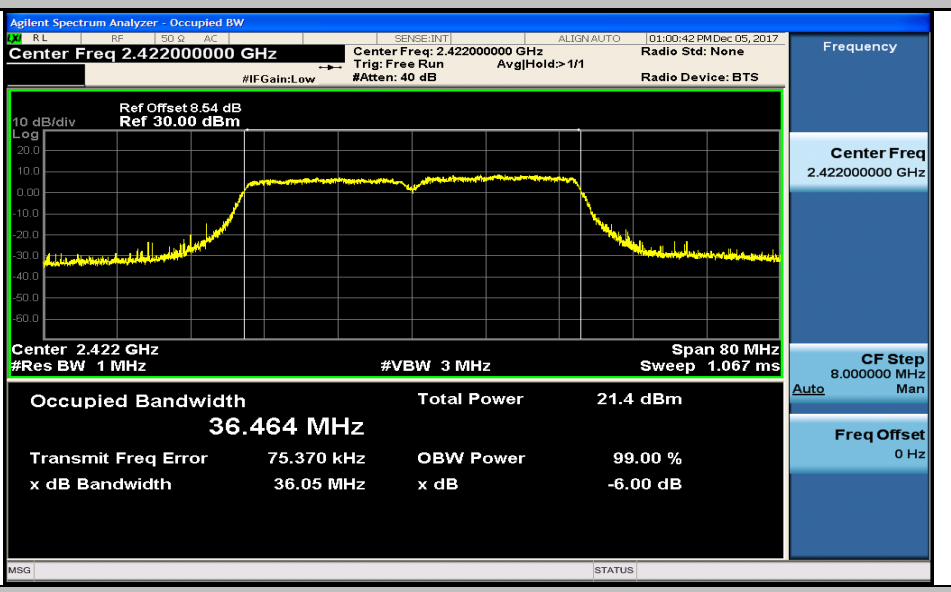


Occupied Bandwidth_11N20SISO_2462_ANT1



Occupied Bandwidth_11N40SISO_2422_ANT1



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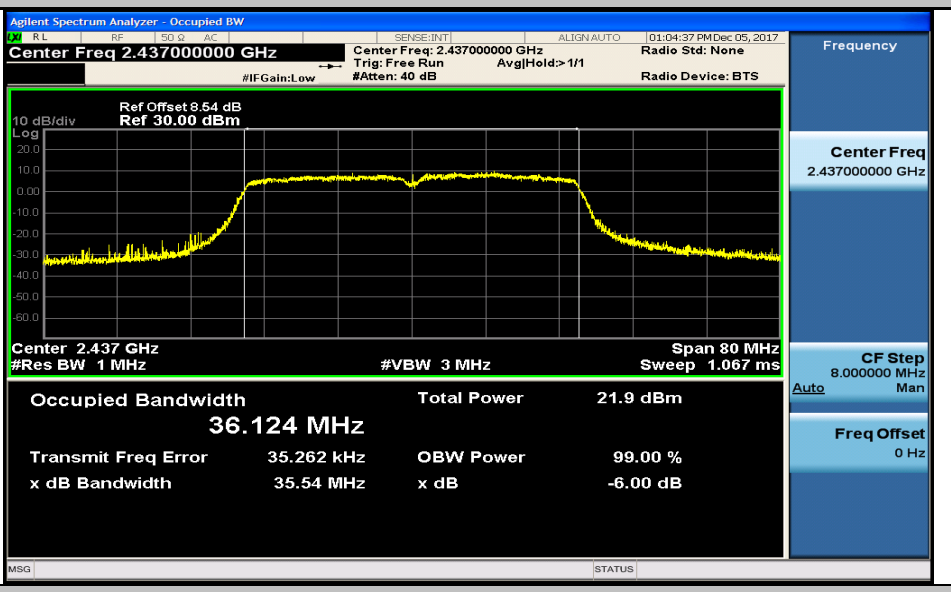
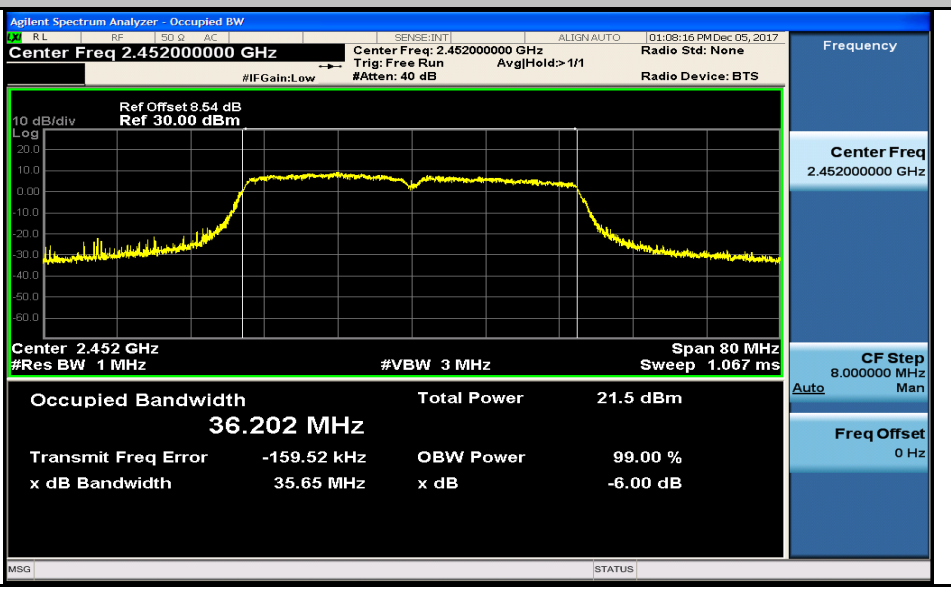


Occupied Bandwidth_11N40SISO_2452_ANT1



3.Maximum conducted (average) output power

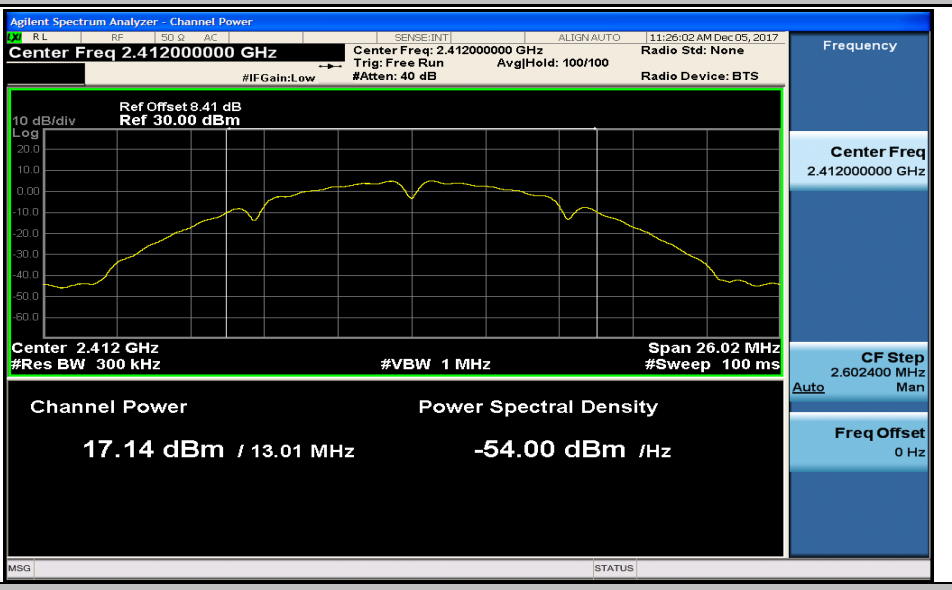
Test Mode	Test Channel	Level [dBm] ANT0	Level [dBm] ANT1	10log(1/x) Factor[dB] ANT0	10log(1/x) Factor[dB] ANT1	Power [dBm] ANT0	Power [dBm] ANT1	Power [dBm] MIMO	Limit [dBm]	Verdict
11B	2412	17.14	16.6	0	0.0590291041178994	17.14	16.66	N/A	30	PASS
11B	2437	17.79	17.34	0	0.0432093948837782	17.79	17.38	N/A	30	PASS
11B	2462	17.14	16.81	0.0493546584385847	0.0467199092259036	17.19	16.86	N/A	30	PASS
11G	2412	15.72	15.15	0.339521789235462	0.244303421063379	16.06	15.39	N/A	30	PASS
11G	2437	15.96	15.76	0.244303421063379	0.244303421063379	16.2	16	N/A	30	PASS
11G	2462	15.62	15.36	0.373465951067887	0.249360039047639	15.99	15.61	N/A	30	PASS
11N20	2412	15.59	15.06	0.288633705231938	0.288169591438386	15.88	15.35	18.63	30	PASS
11N20	2437	15.86	15.72	0.288169591438386	0.294671702316757	16.15	16.01	19.09	30	PASS
11N20	2462	15.53	15.28	0.288169591438386	0.288633705231938	15.82	15.57	18.71	30	PASS
11N40	2422	14.29	13.39	0.647447182159527	0.567033854333452	14.94	13.96	17.49	30	PASS
11N40	2437	14.59	13.94	0.567033854333452	0.579919469776867	15.16	14.52	17.86	30	PASS
11N40	2452	13.99	13.56	0.568518706414371	0.658551882075229	14.56	14.22	17.40	30	PASS

Remark:

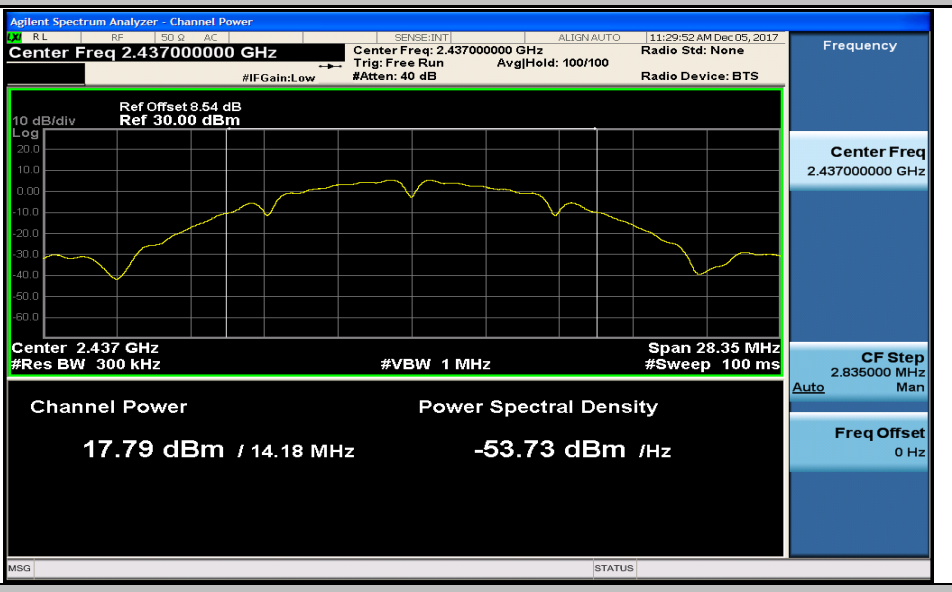
1) Output Average Power = Reading Power + Duty Cycle Correction Factor

2) Per KDB 662911, the conducted powers at Antenna A and Antenna B were first measured separately during MIMO transmission as shown in section above. The measured values were then summed in linear power units then converted back to dBm.

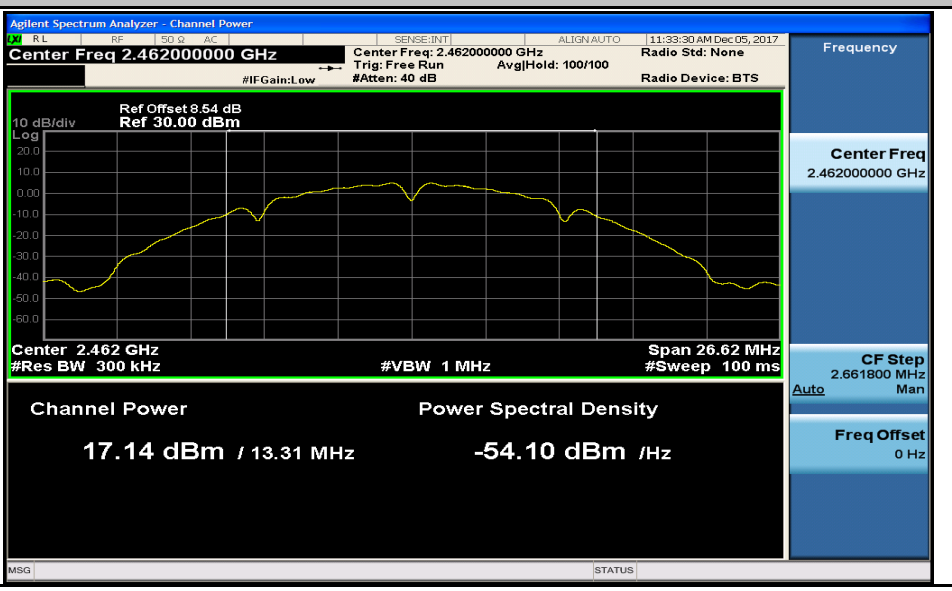
Maximum conducted (average) output power_11B_2412_ANT0



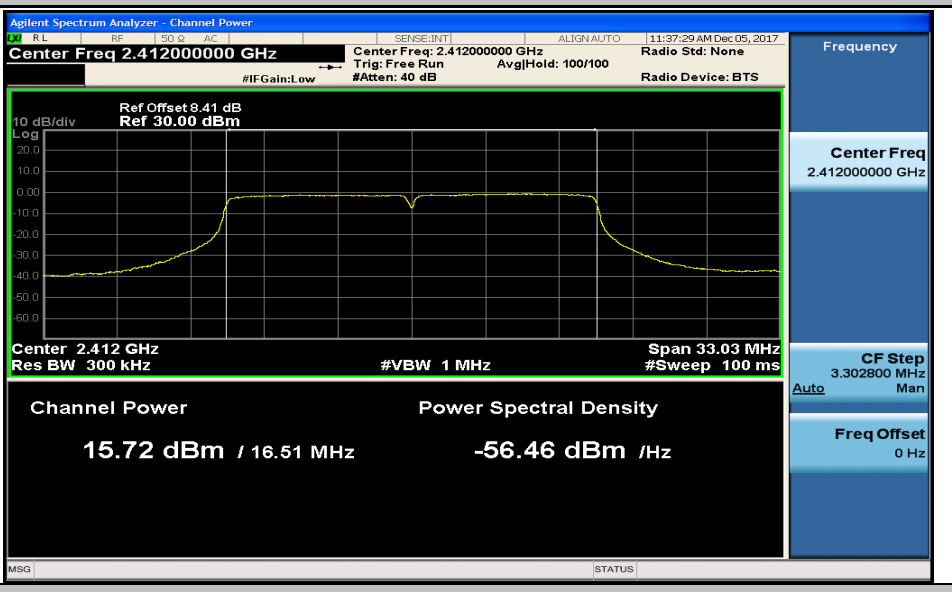
Maximum conducted (average) output power_11B_2437_ANT0



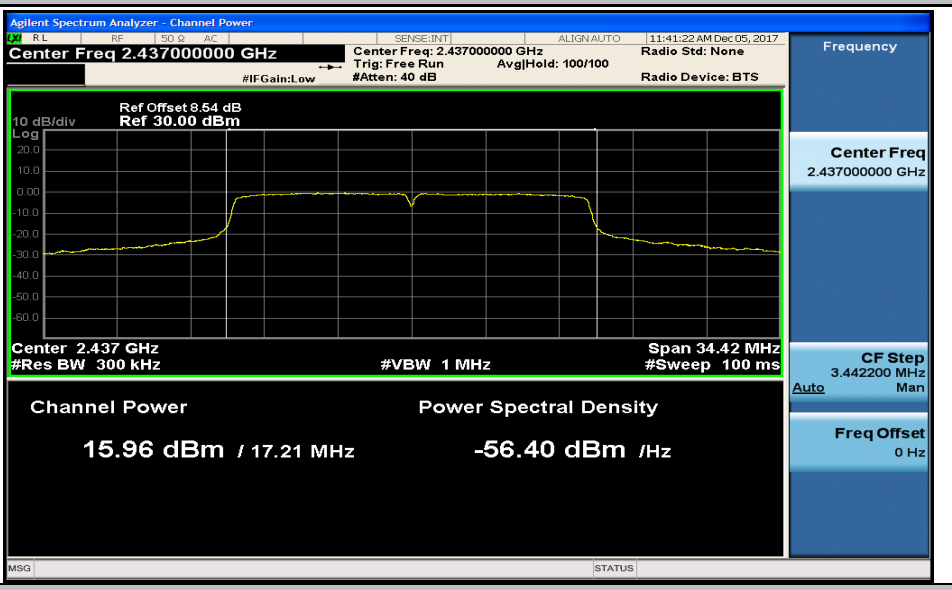
Maximum conducted (average) output power_11B_2462_ANT0



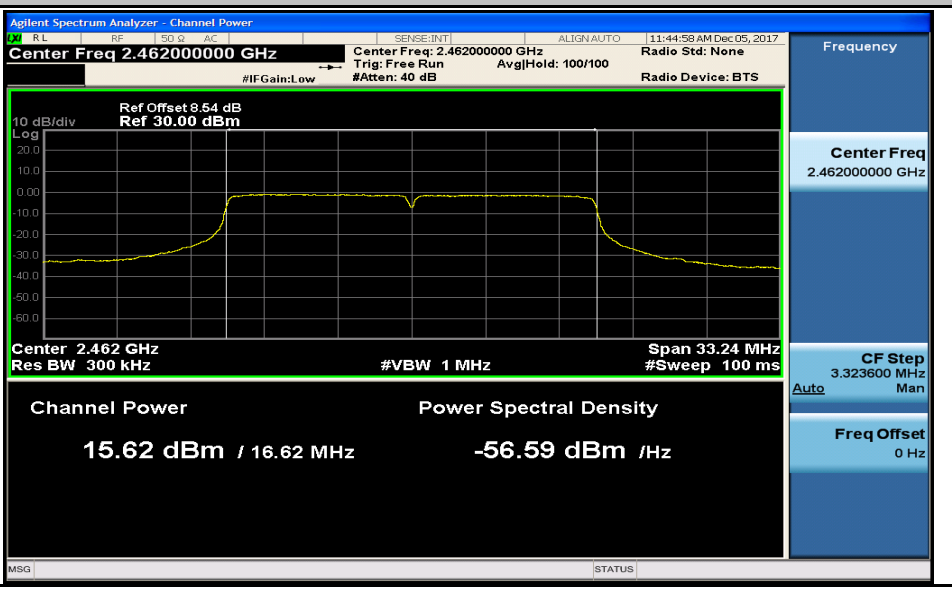
Maximum conducted (average) output power_11G_2412_ANT0



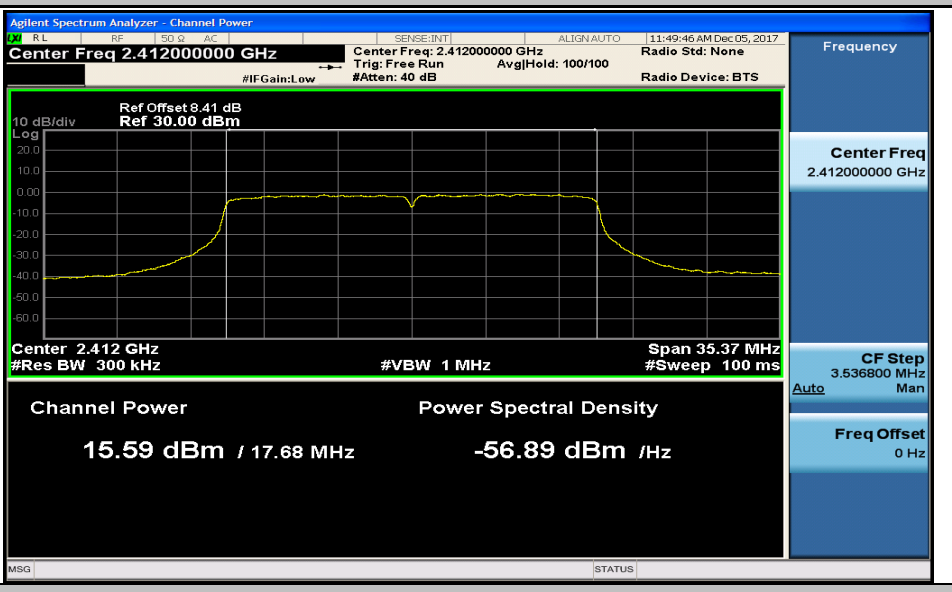
Maximum conducted (average) output power_11G_2437_ANT0



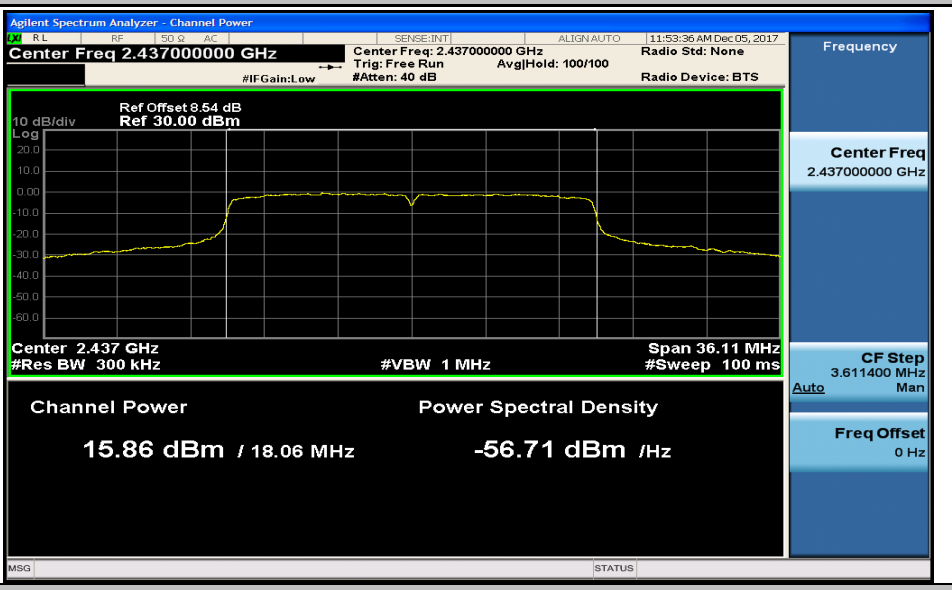
Maximum conducted (average) output power_11G_2462_ANT0



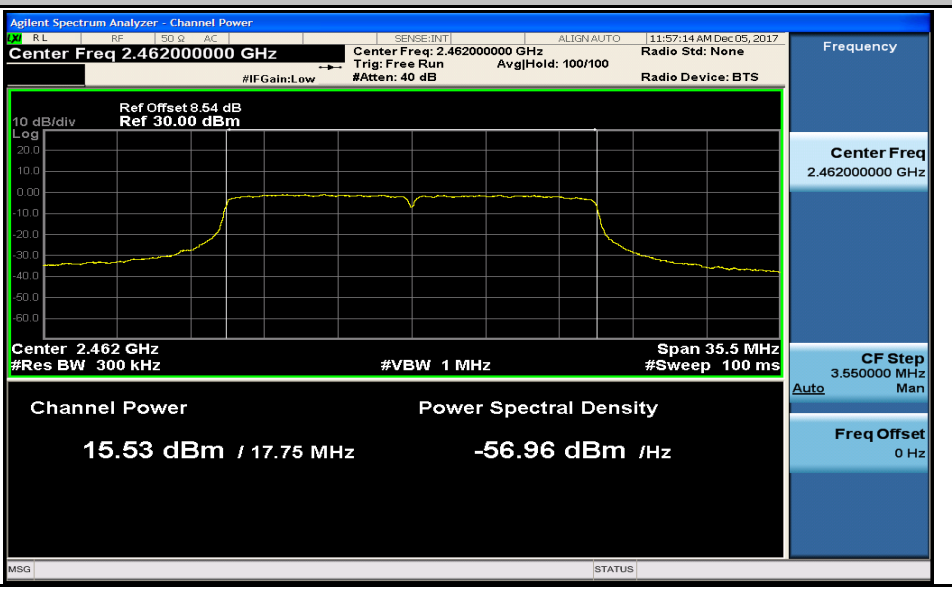
Maximum conducted (average) output power_11N20SISO_2412_ANT0



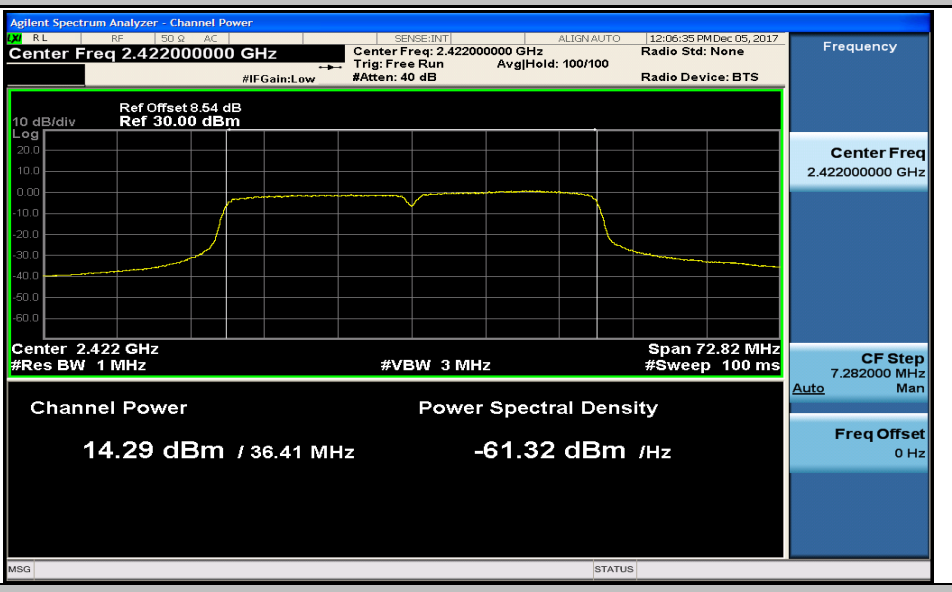
Maximum conducted (average) output power_11N20SISO_2437_ANT0



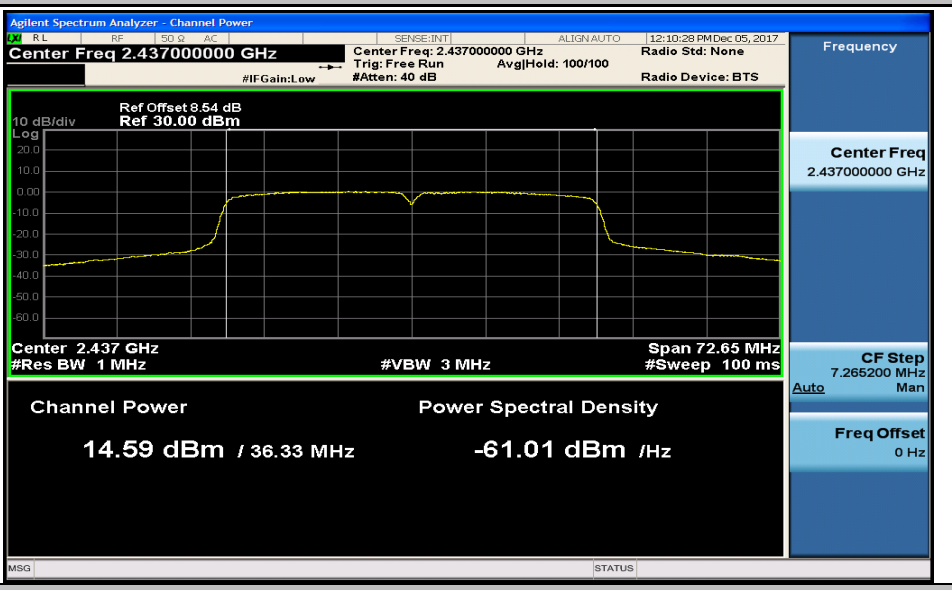
Maximum conducted (average) output power_11N20SISO_2462_ANT0



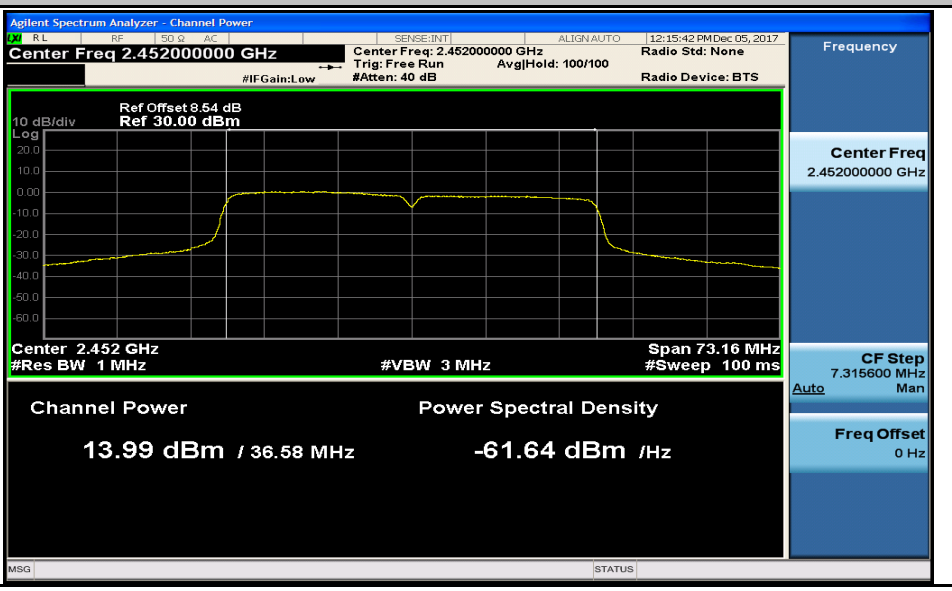
Maximum conducted (average) output power_11N40SISO_2422_ANT0



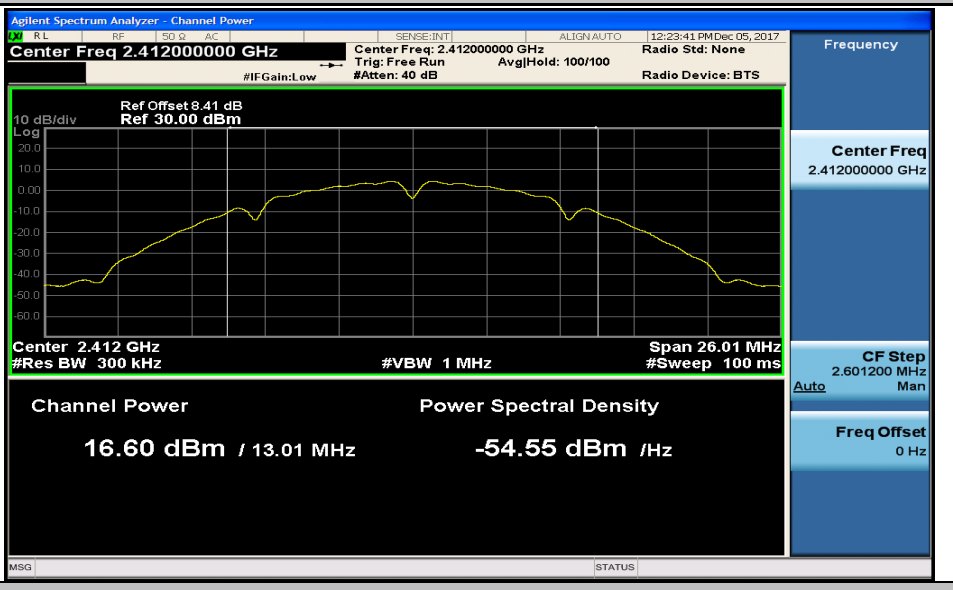
Maximum conducted (average) output power_11N40SISO_2437_ANT0



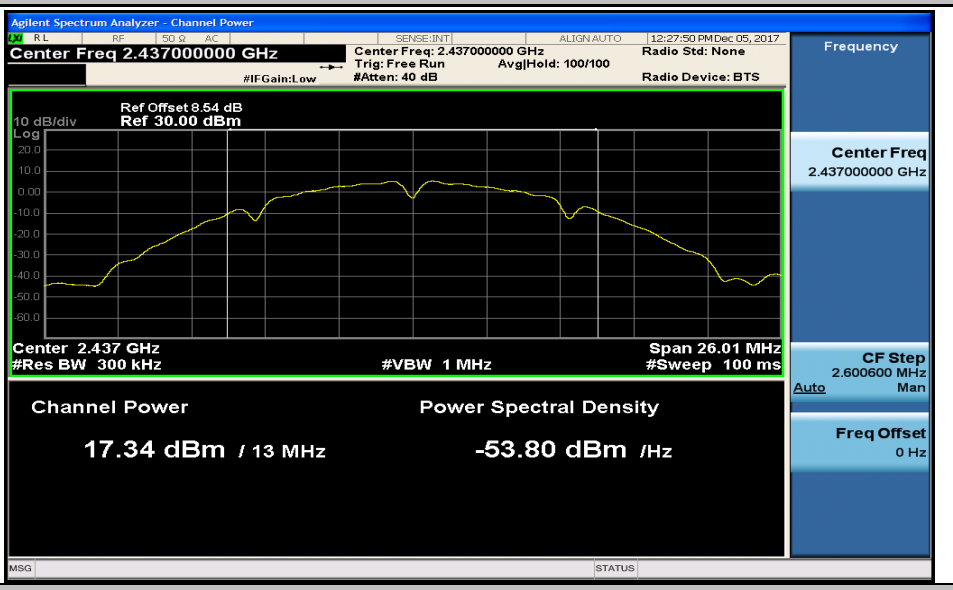
Maximum conducted (average) output power_11N40SISO_2452_ANT0



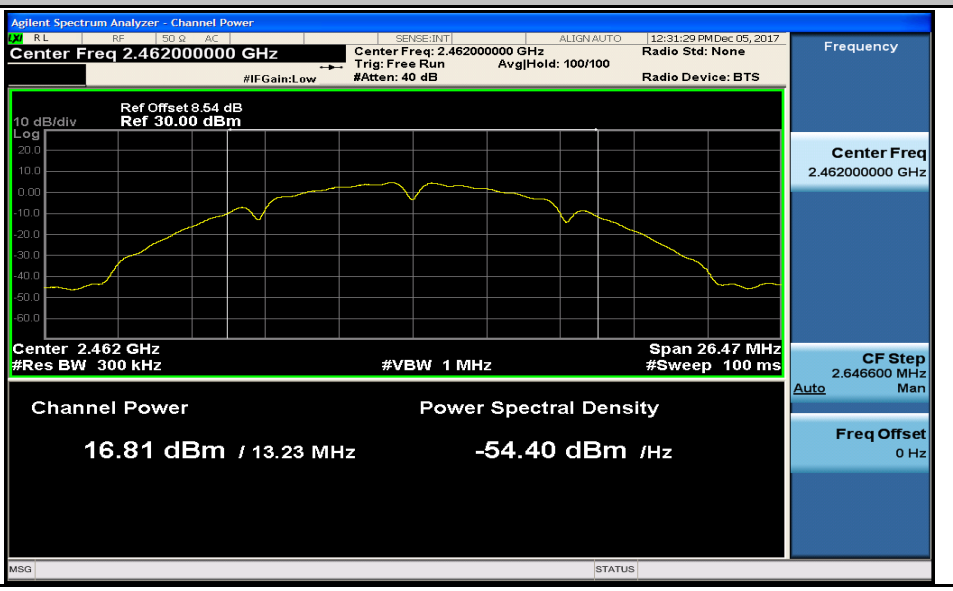
Maximum conducted (average) output power_11B_2412_ANT1



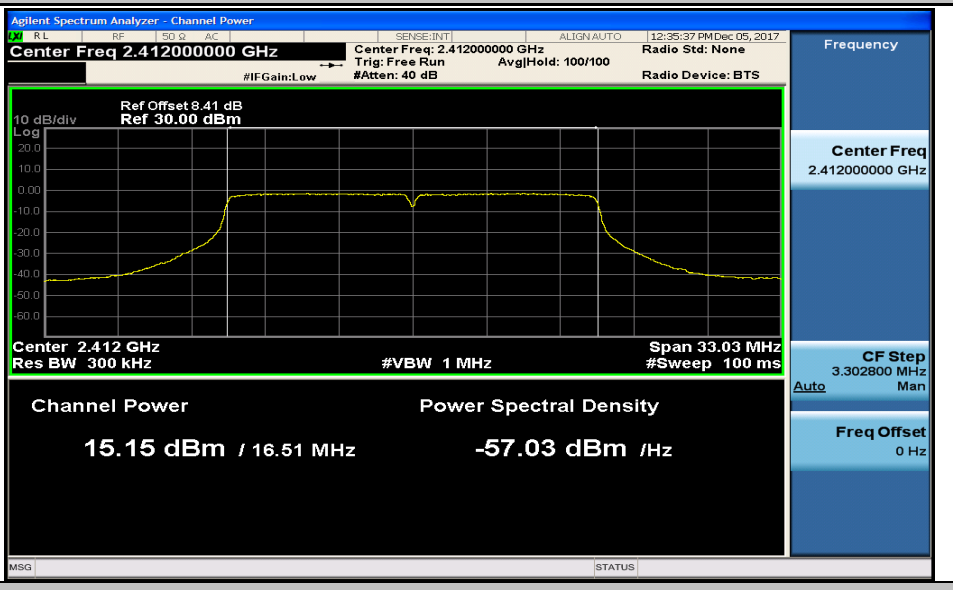
Maximum conducted (average) output power_11B_2437_ANT1



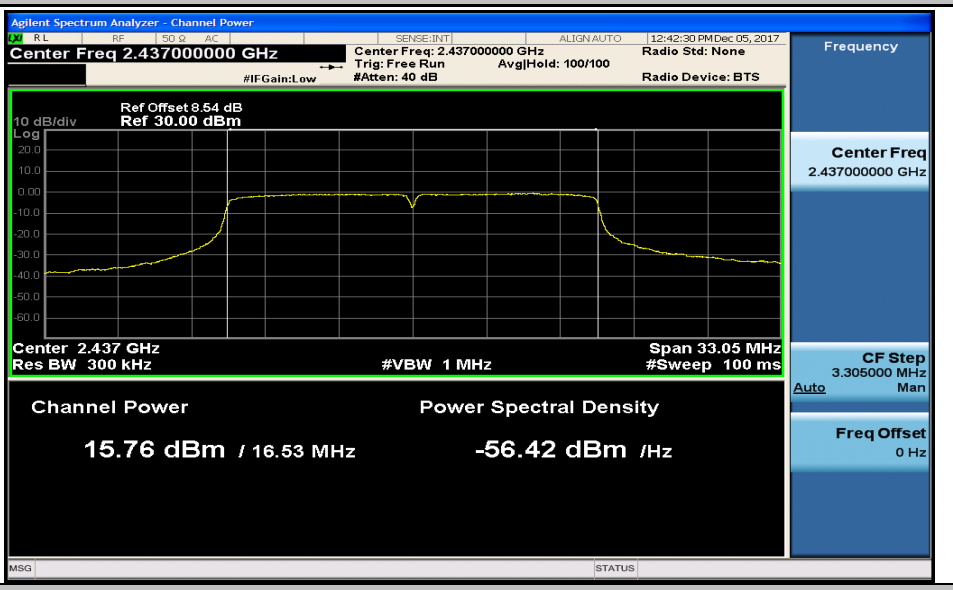
Maximum conducted (average) output power_11B_2462_ANT1



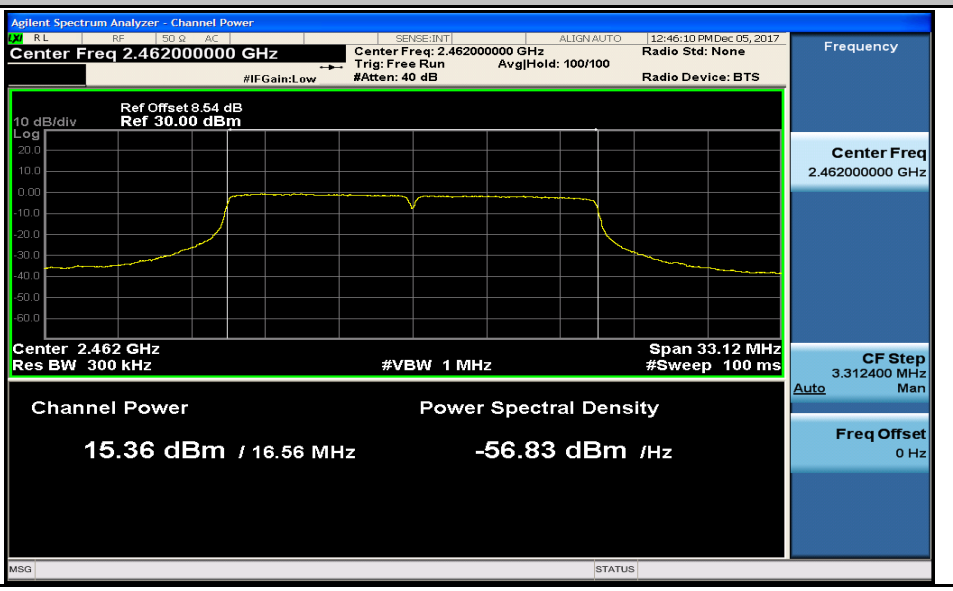
Maximum conducted (average) output power_11G_2412_ANT1



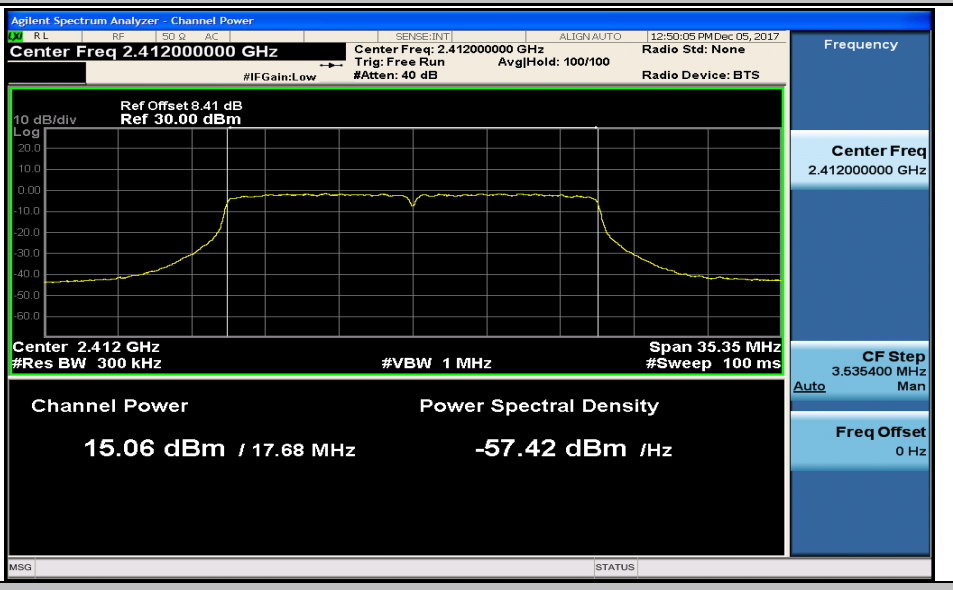
Maximum conducted (average) output power_11G_2437_ANT1



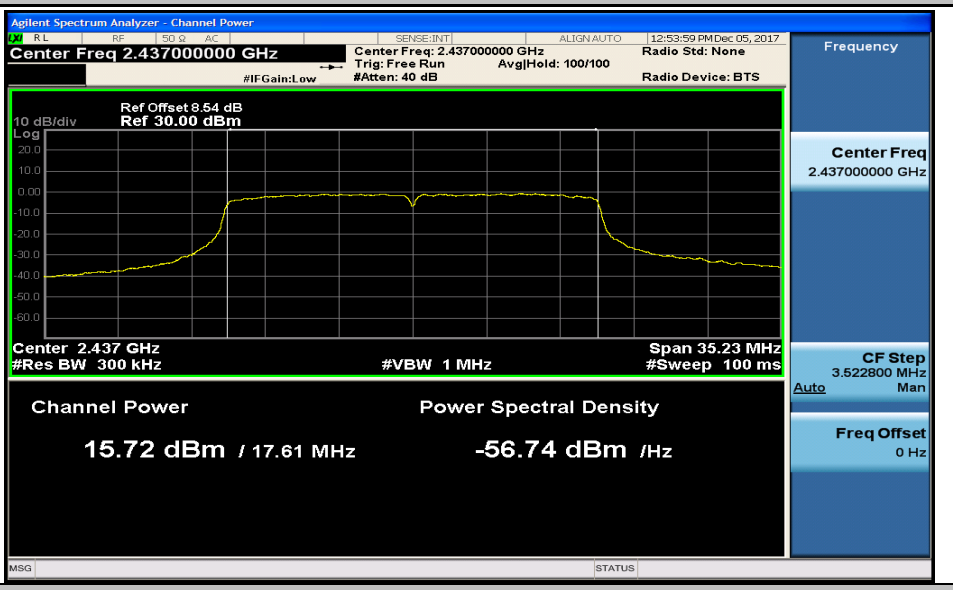
Maximum conducted (average) output power_11G_2462_ANT1



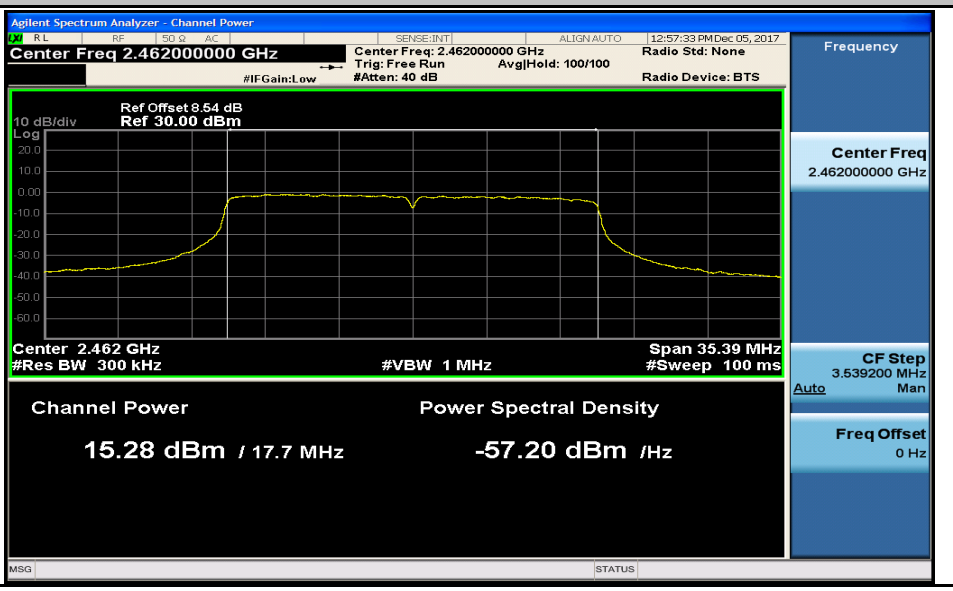
Maximum conducted (average) output power_11N20SISO_2412_ANT1



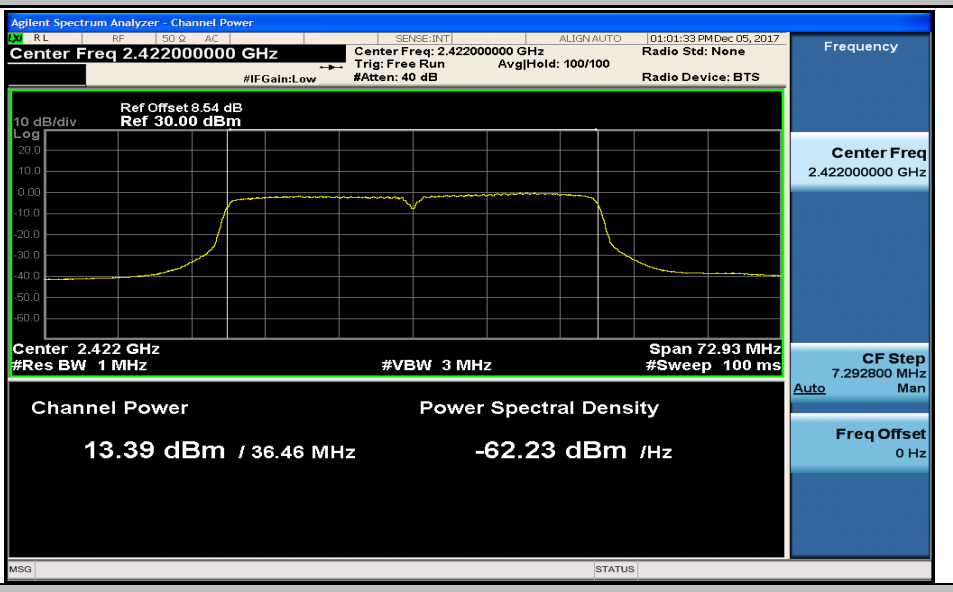
Maximum conducted (average) output power_11N20SISO_2437_ANT1



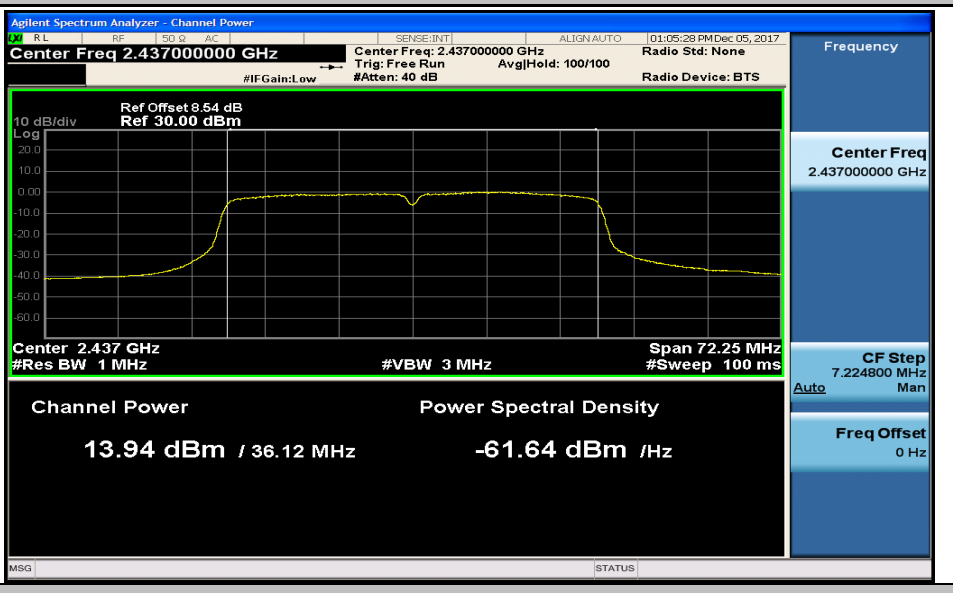
Maximum conducted (average) output power_11N20SISO_2462_ANT1



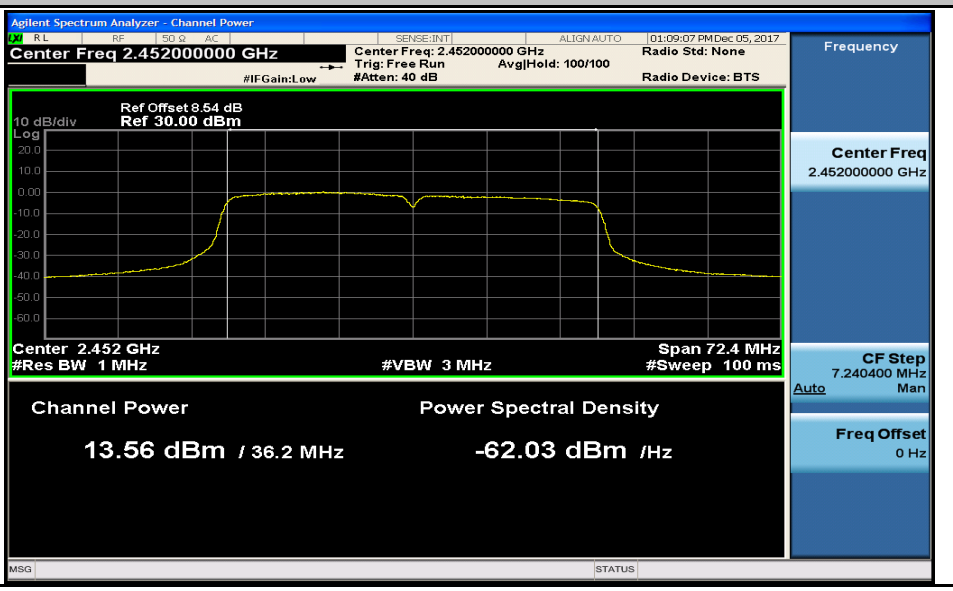
Maximum conducted (average) output power_11N40SISO_2422_ANT1



Maximum conducted (average) output power_11N40SISO_2437_ANT1



Maximum conducted (average) output power_11N40SISO_2452_ANT1



4.Maximum(average) power spectral density

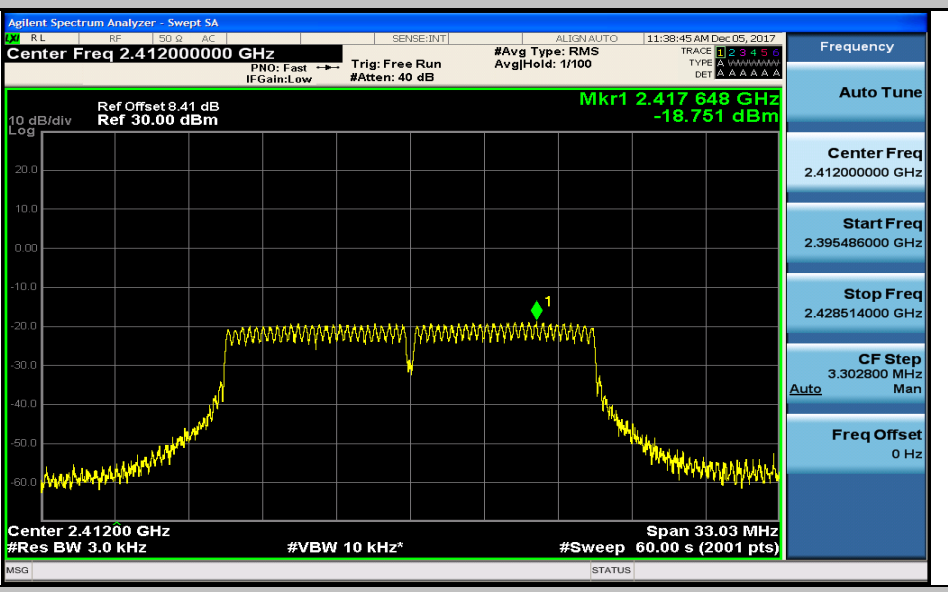
Test Mode	Test Channel	Level [dBm/3kHz]		10log(1/x) Factor[dB]		PSD [dBm/3kHz]			Limit [dBm/3k Hz]	Verdict
		ANT0	ANT1	ANT0	ANT1	ANT0	ANT1	MIMO		
11B	2412	-14.01	-14.579	0	0.06	-14.01	-14.519	N/A	8.00	PASS
11B	2437	-13.668	-13.698	0	0.04	-13.668	-13.658	N/A	8.00	PASS
11B	2462	-14.058	-14.382	0.05	0.05	-14.008	-14.332	N/A	8.00	PASS
11G	2412	-18.751	-19.672	0.34	0.24	-18.411	-19.432	N/A	8.00	PASS
11G	2437	-18.692	-18.714	0.24	0.24	-18.452	-18.474	N/A	8.00	PASS
11G	2462	-19.005	-18.758	0.37	0.25	-18.635	-18.508	N/A	8.00	PASS
11N20SISO	2412	-19.215	-19.718	0.29	0.29	-18.925	-19.428	-16.29	8.00	PASS
11N20SISO	2437	-18.704	-18.73	0.29	0.29	-18.414	-18.44	-15.56	8.00	PASS
11N20SISO	2462	-19.193	-19.108	0.29	0.29	-18.903	-18.818	-15.99	8.00	PASS
11N40SISO	2422	-23.18	-24.284	0.65	0.57	-22.53	-23.714	-20.31	8.00	PASS
11N40SISO	2437	-23.611	-23.653	0.57	0.58	-23.041	-23.073	-20.33	8.00	PASS
11N40SISO	2452	-23.179	-23.74	0.57	0.66	-22.609	-23.08	-20.13	8.00	PASS

Maximum(average) power spectral density_11B_2412_ANT0

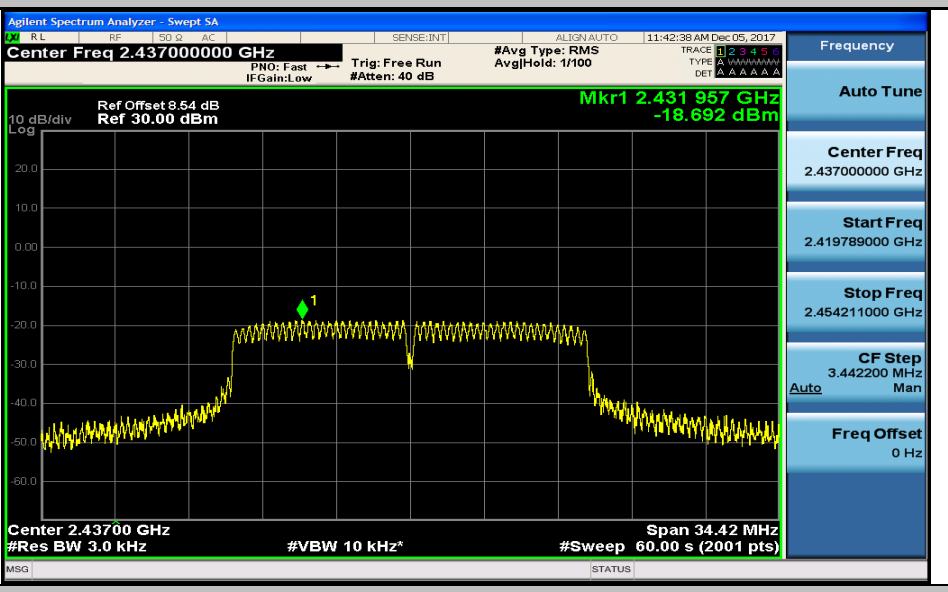
Maximum(average) power spectral density_11B_2437_ANT0

Maximum(average) power spectral density_11B_2462_ANT0

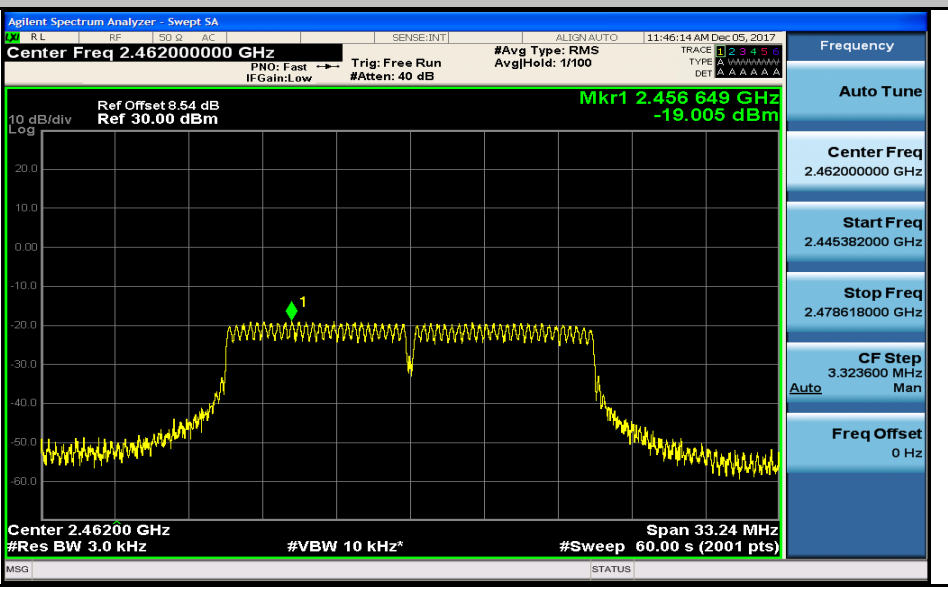
Maximum(average) power spectral density_11G_2412



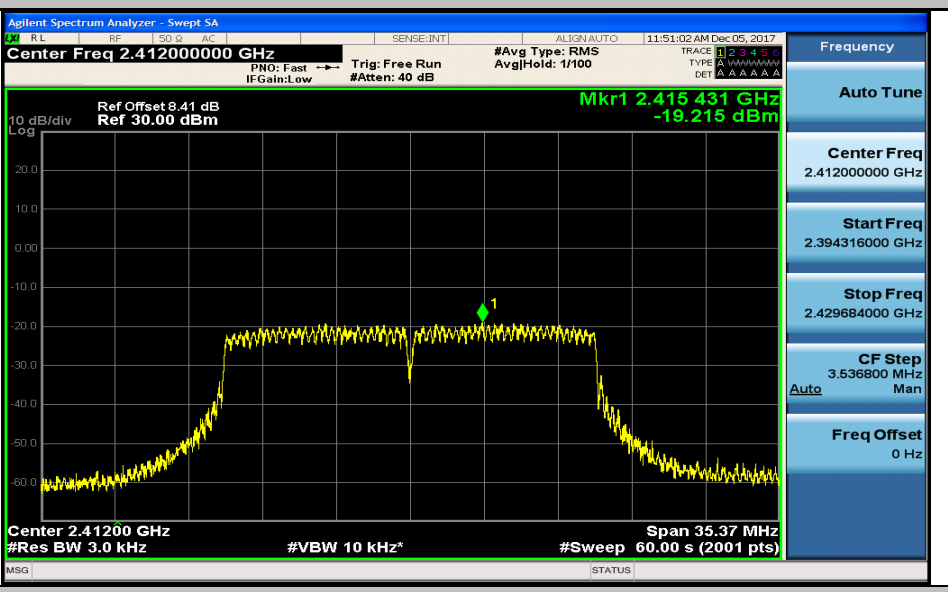
Maximum(average) power spectral density_11G_2437_ANT0



Maximum(average) power spectral density_11G_2462_ANT0



Maximum(average) power spectral density_11N20SISO_2412_ANT0



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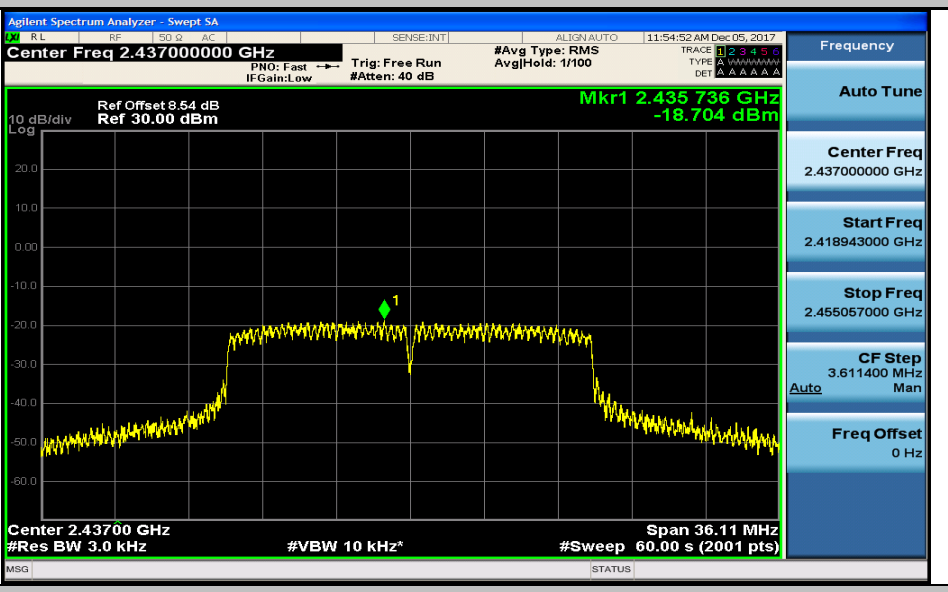
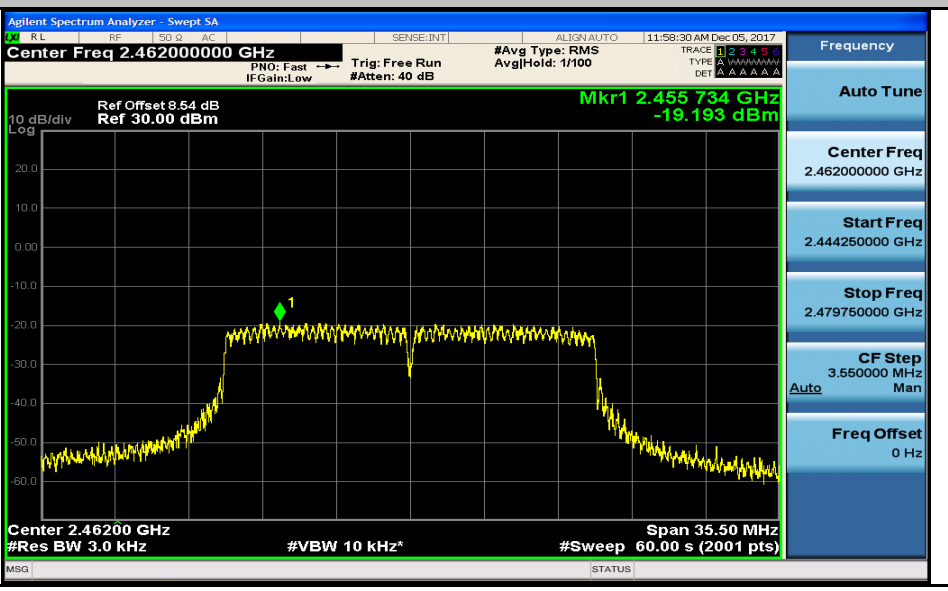
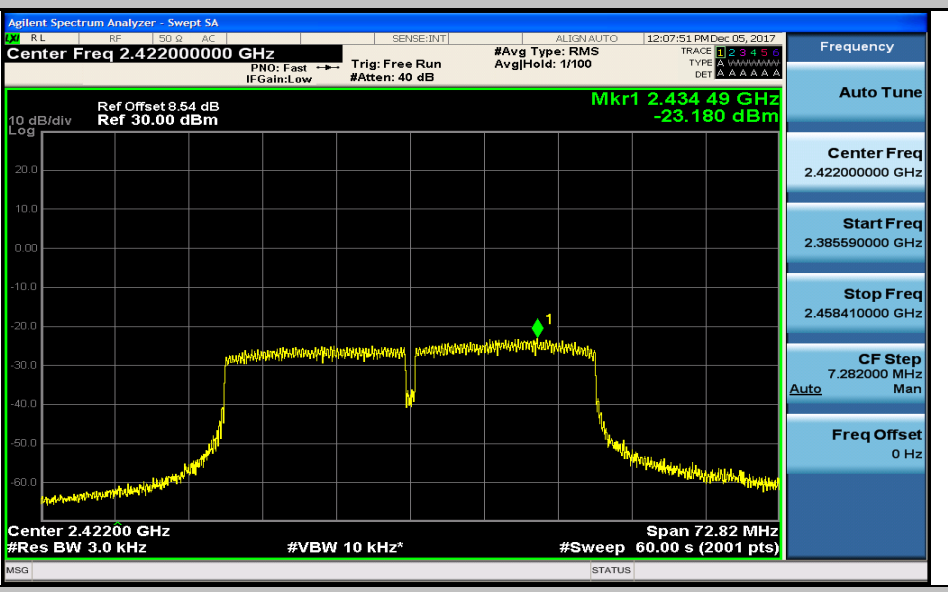


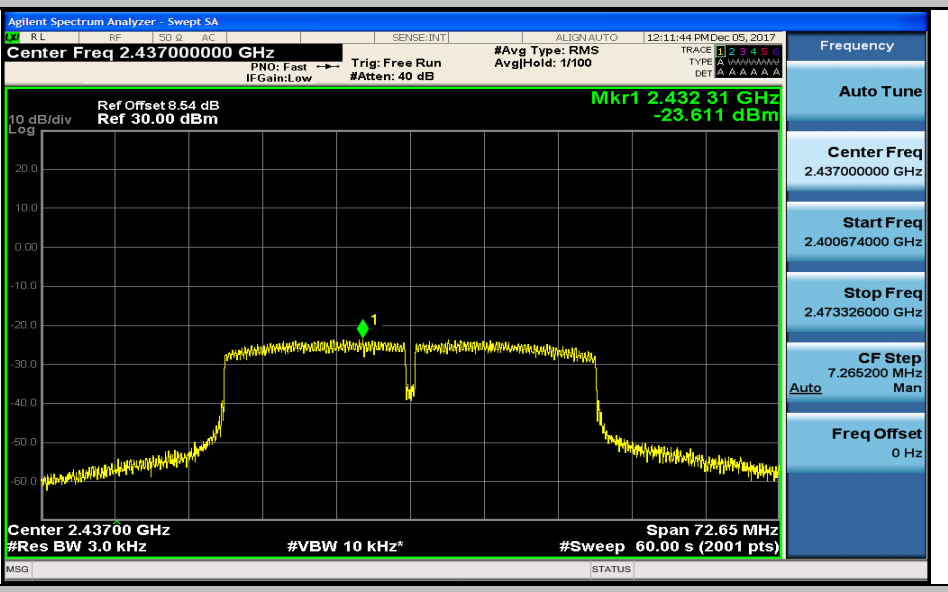
Maximum(average) power spectral density_11N20SISO_2462_ANT0



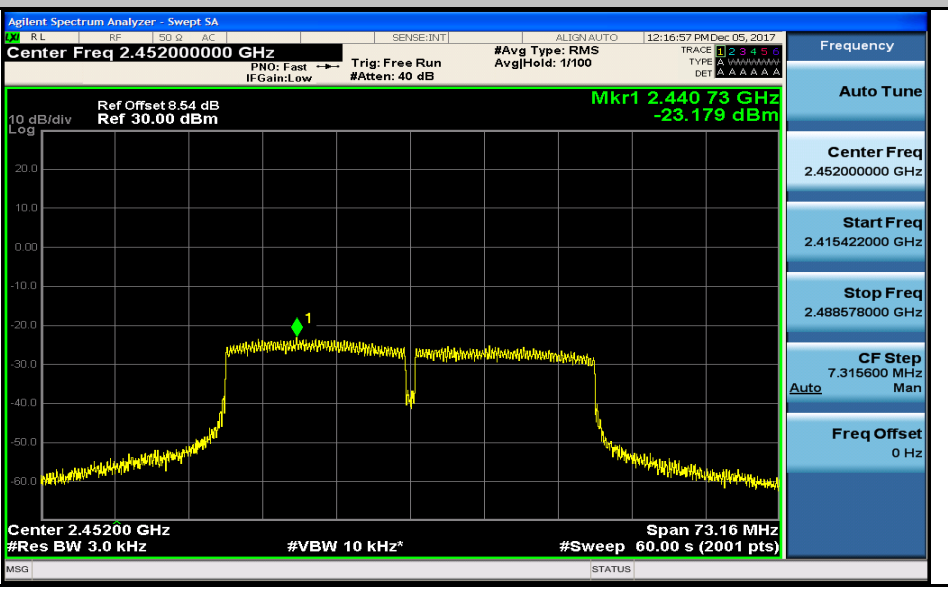
Maximum(average) power spectral density_11N40SISO_2422_ANT0



Maximum(average) power spectral density_11N40SISO_2437_ANT0



Maximum(average) power spectral density_11N40SISO_2452_ANT0

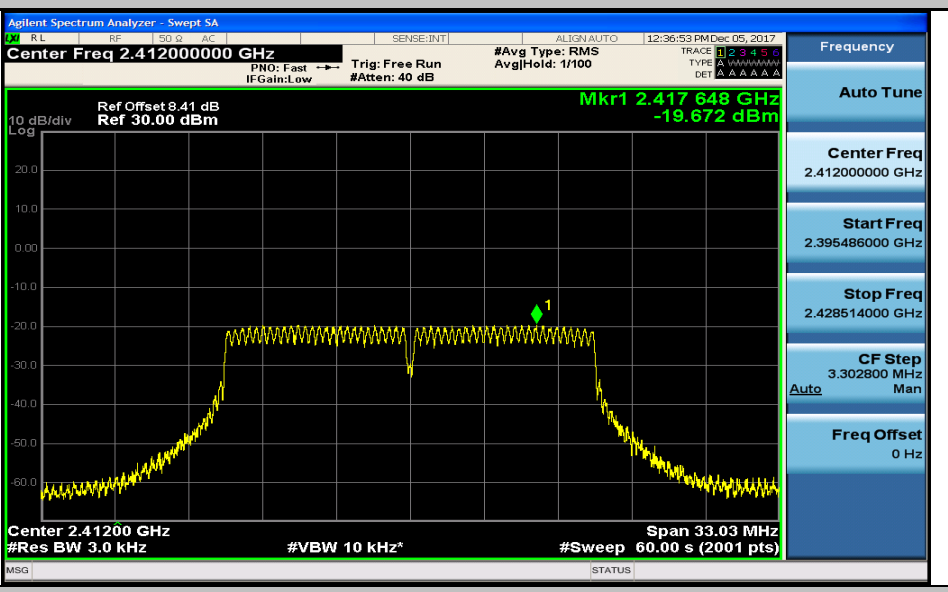


Maximum(average) power spectral density_11B_2412_ANT1

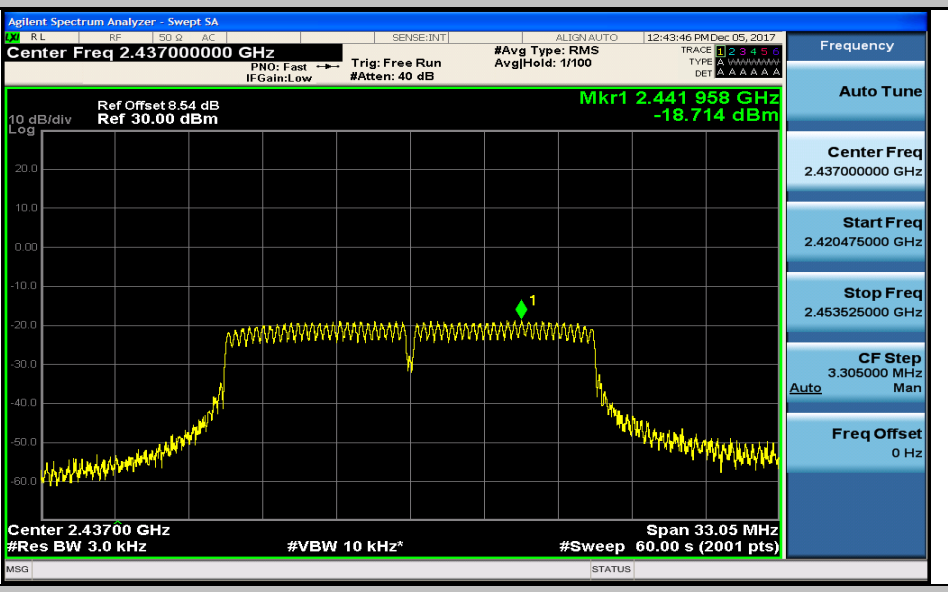
Maximum(average) power spectral density_11B_2437_ANT1

Maximum(average) power spectral density_11B_2462_ANT1

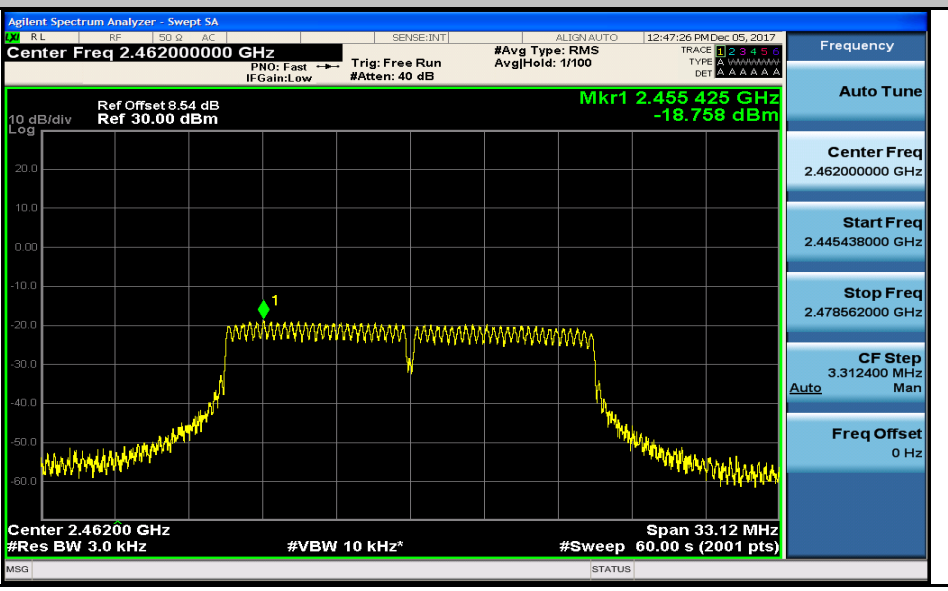
Maximum(average) power spectral density_11G_2412_ANT1



Maximum(average) power spectral density_11G_2437_ANT1



Maximum(average) power spectral density_11G_2462_ANT1



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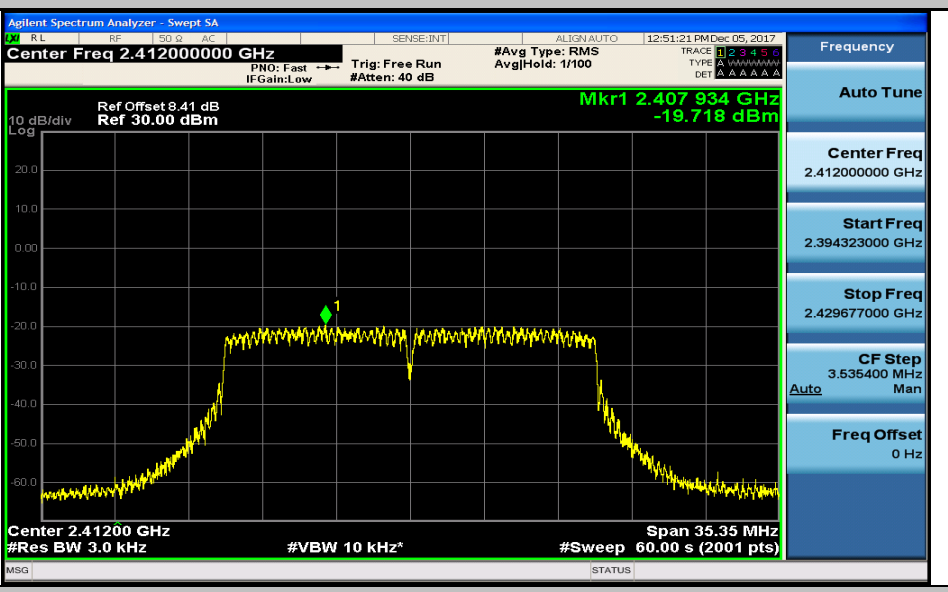
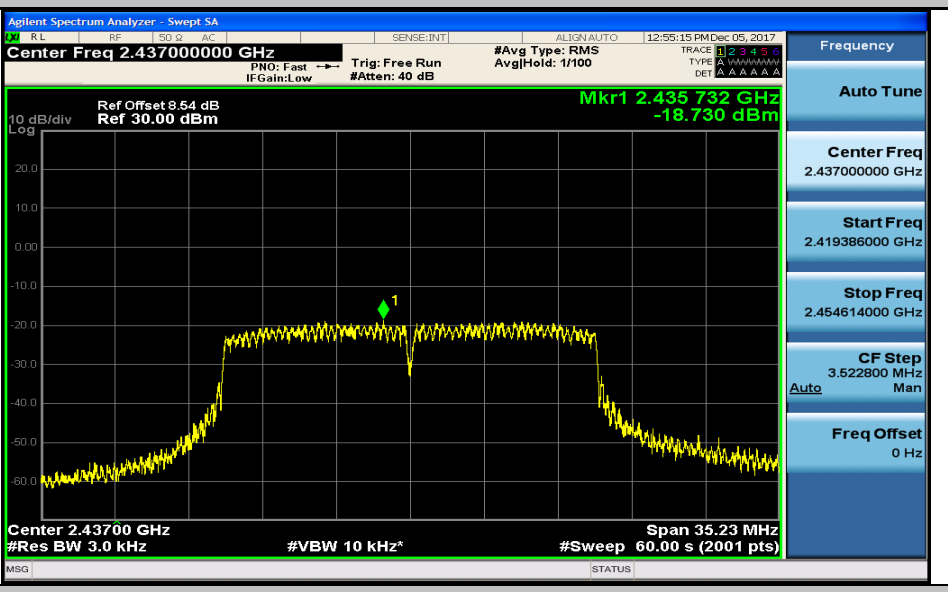
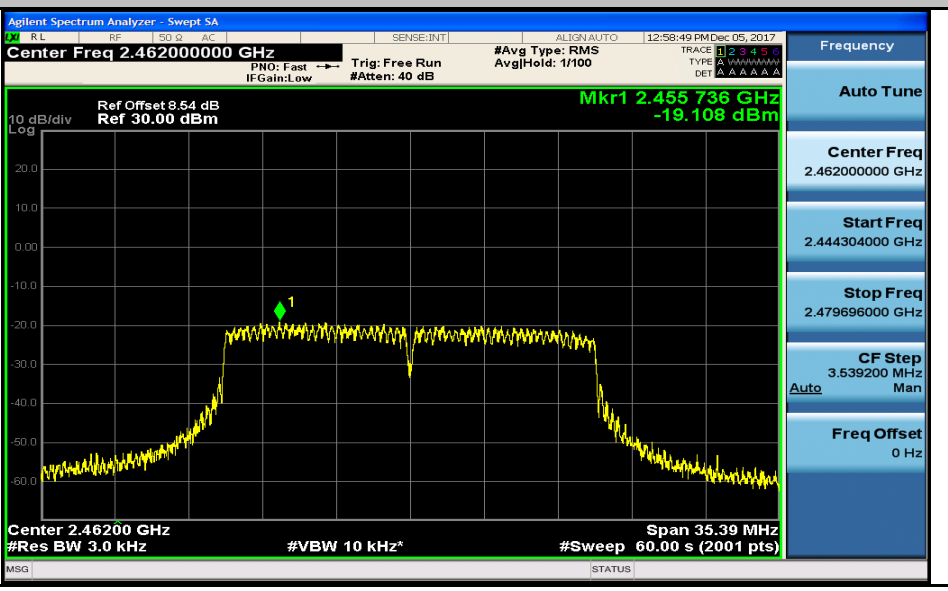


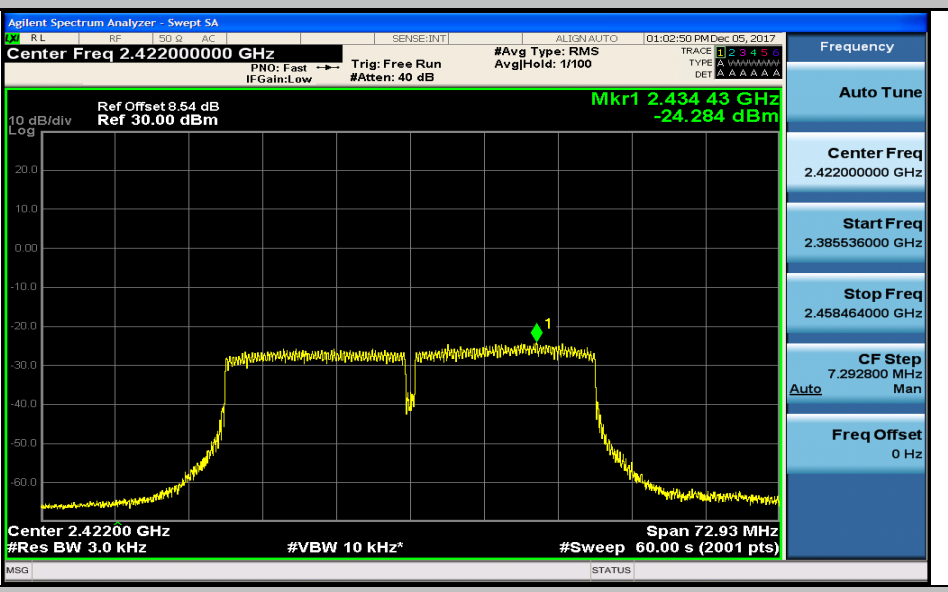
Maximum(average) power spectral density_11N20SISO_2437_ANT1



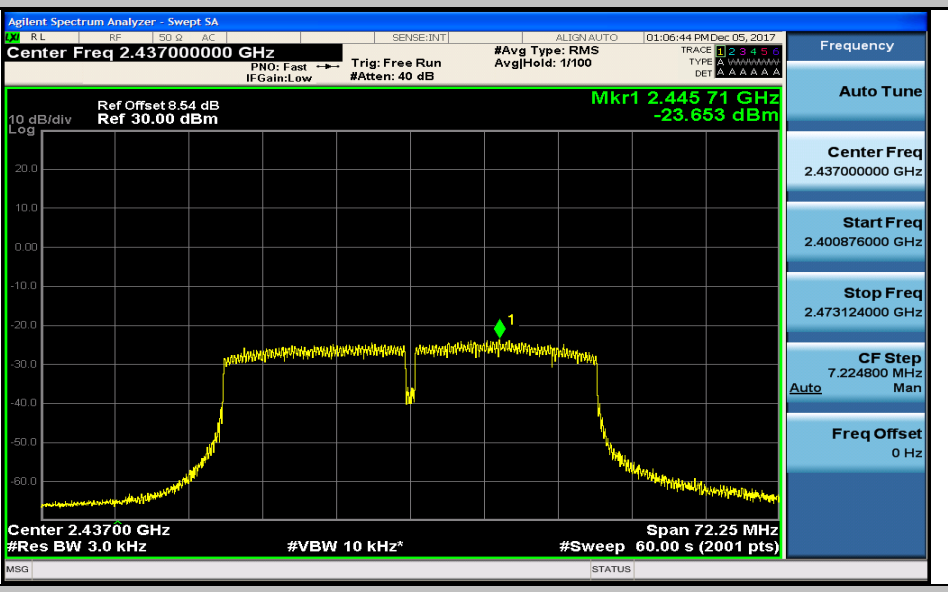
Maximum(average) power spectral density_11N20SISO_2462_ANT1



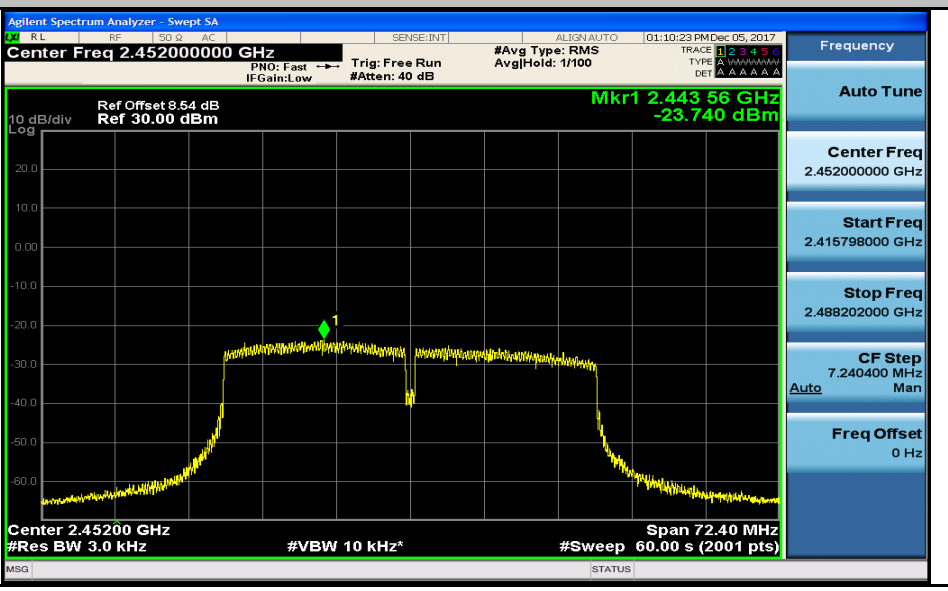
Maximum(average) power spectral density_11N40SISO_2422_ANT1



Maximum(average) power spectral density_11N40SISO_2437_ANT1



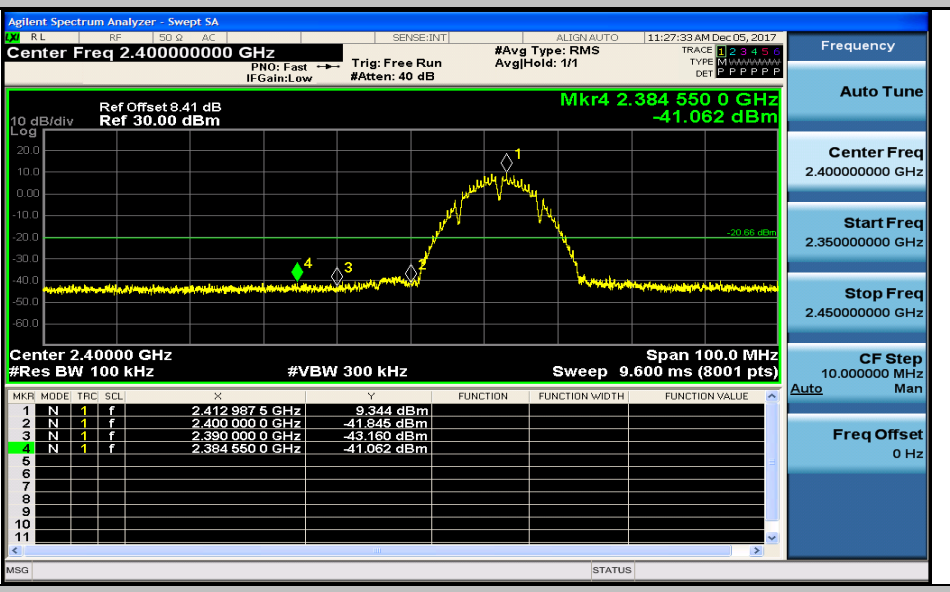
Maximum(average) power spectral density_11N40SISO_2452_ANT1



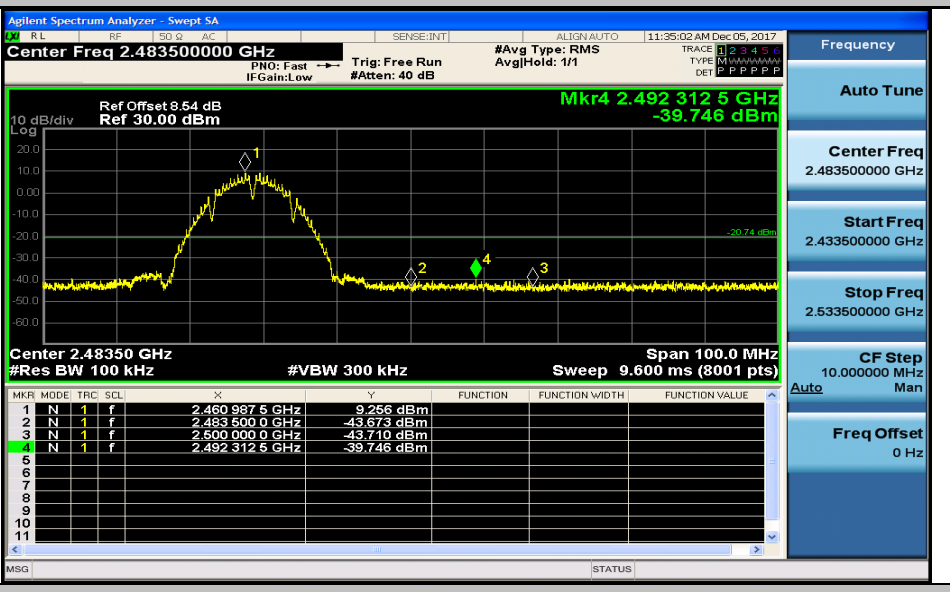
5.Band-edge for RF Conducted Emissions

Test Mode	Test Channel	Carrier Power[dBm]		Max. Spurious Level [dBm]		Limit[dBm]		Verdict
		ANT0	ANT1	ANT0	ANT1	ANT0	ANT1	
11B	2412	9.344	8.668	-41.062	-40.706	-20.66	-21.33	PASS
11B	2462	9.256	9.000	-39.746	-40.971	-20.74	-21	PASS
11G	2412	4.808	4.473	-37.948	-39.212	-25.19	-25.53	PASS
11G	2462	4.971	5.335	-36.578	-39.033	-25.03	-24.67	PASS
11N20SISO	2412	4.907	4.497	-38.520	-40.304	-25.09	-25.5	PASS
11N20SISO	2462	5.236	4.679	-34.887	-37.639	-24.76	-25.32	PASS
11N40SISO	2422	2.364	1.259	-38.192	-39.122	-27.64	-28.74	PASS
11N40SISO	2452	1.128	1.886	-31.368	-37.312	-28.87	-28.11	PASS

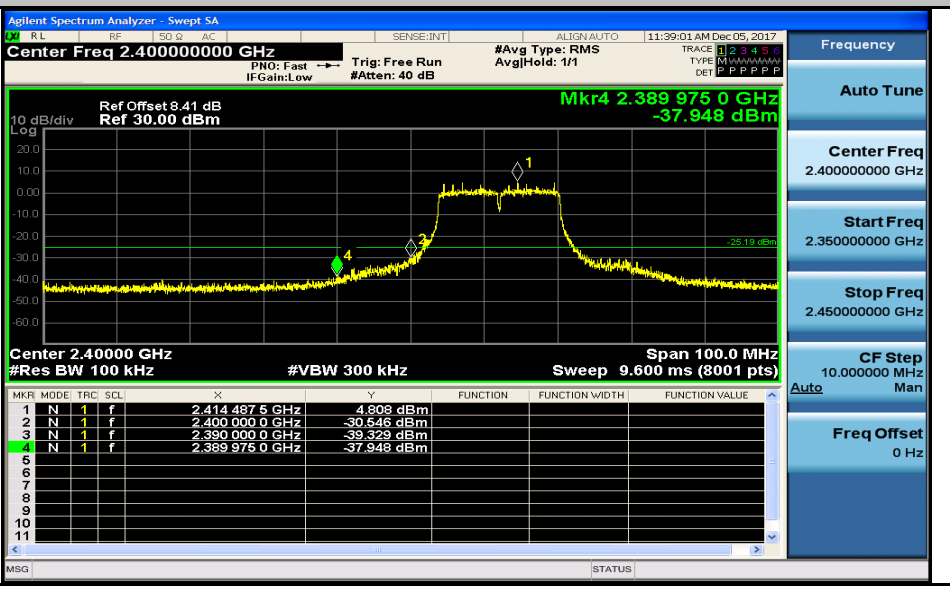
Band-edge for RF Conducted Emissions_11B_2412_Ant0



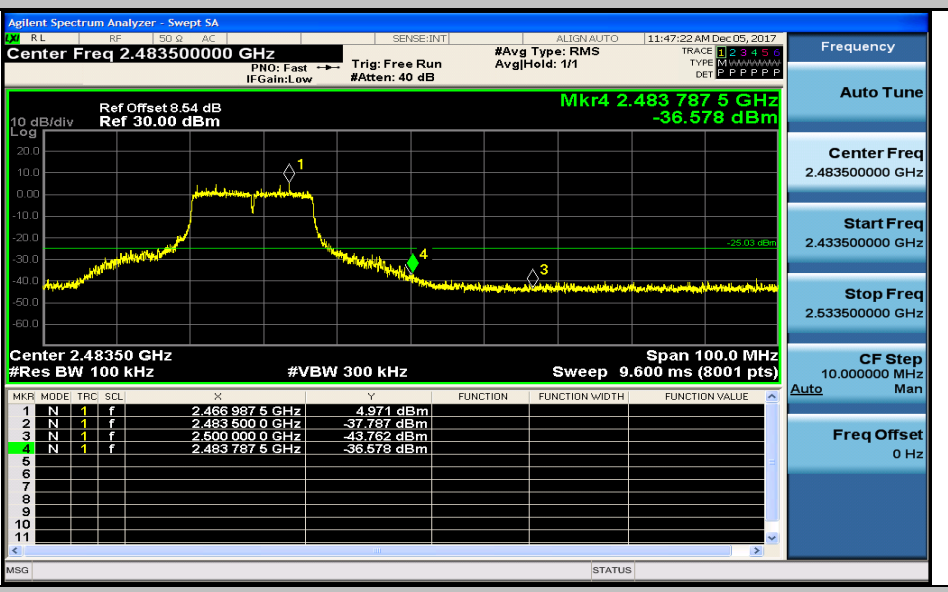
Band-edge for RF Conducted Emissions_11B_2462_Ant0



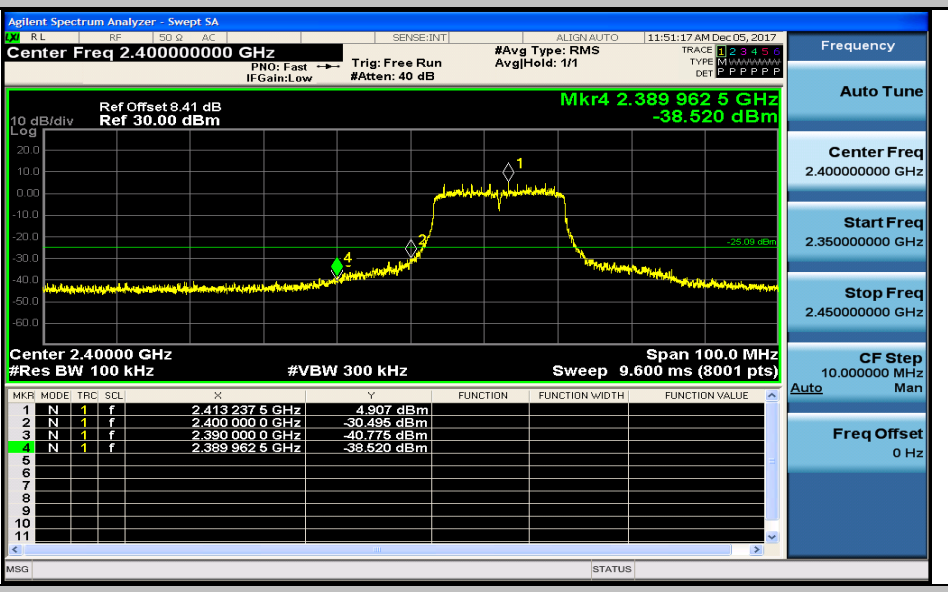
Band-edge for RF Conducted Emissions_11G_2412_Ant0



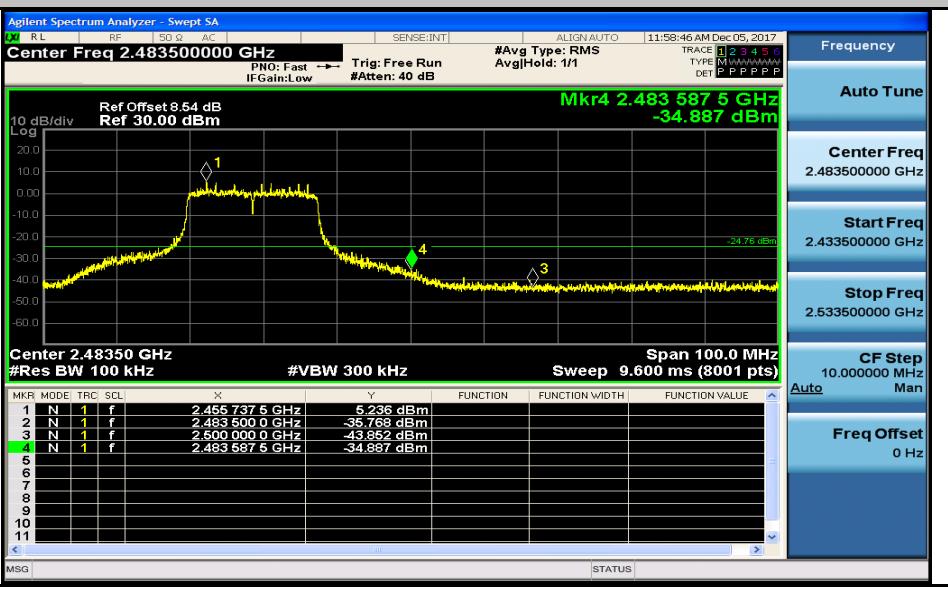
Band-edge for RF Conducted Emissions_11G_2462_Ant0



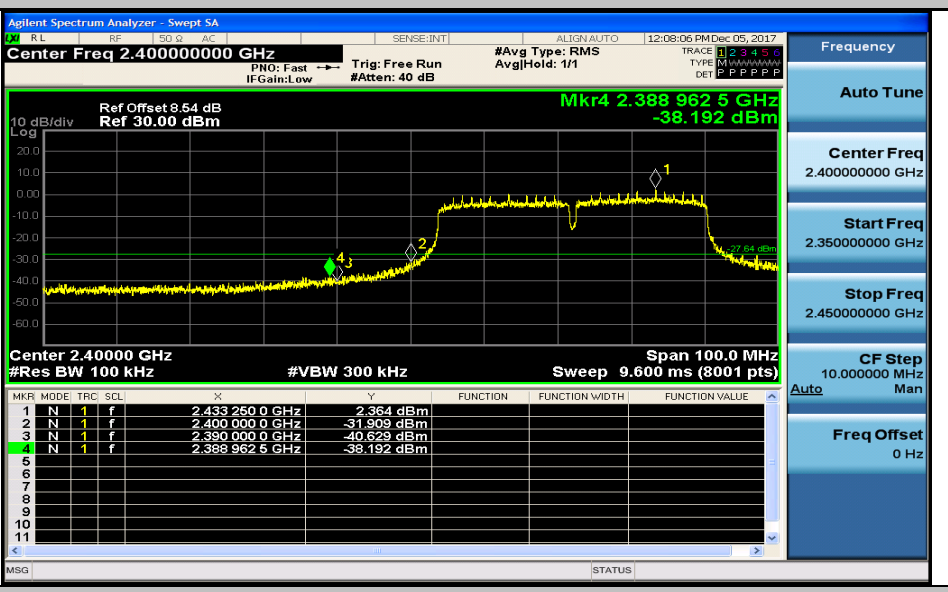
Band-edge for RF Conducted Emissions_11N20SISO_2412_Ant0



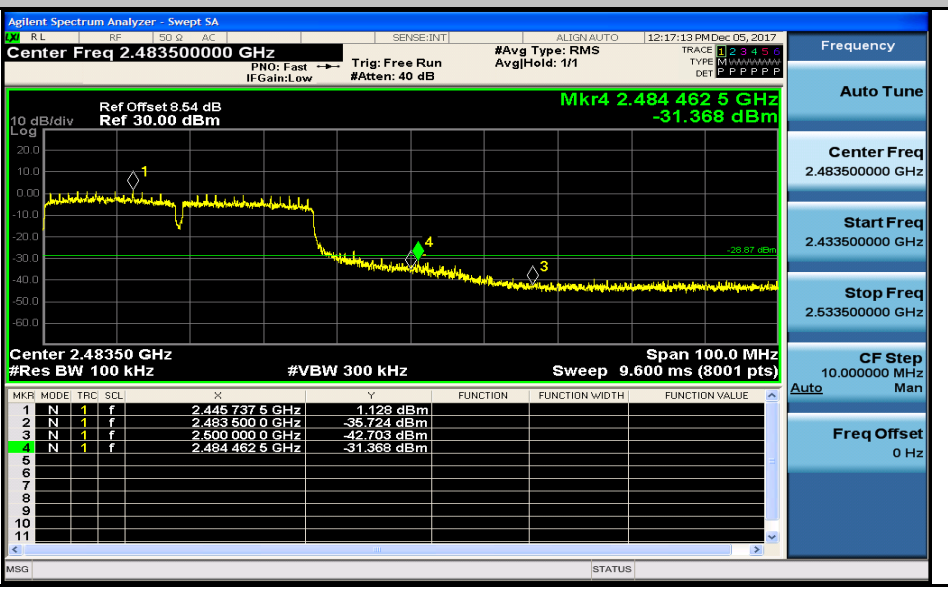
Band-edge for RF Conducted Emissions_11N20SISO_2462_Ant0



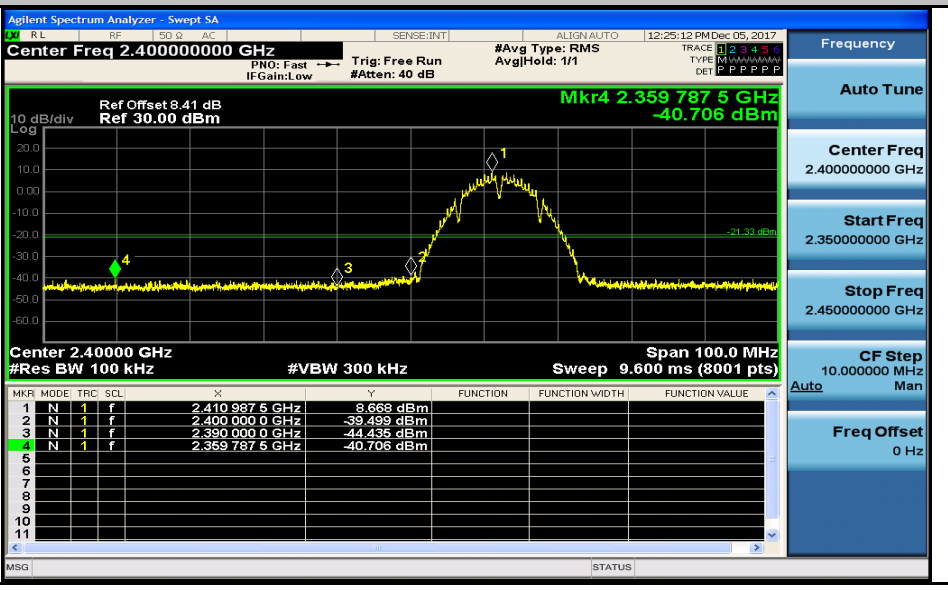
Band-edge for RF Conducted Emissions_11N40SISO_2422_Ant0



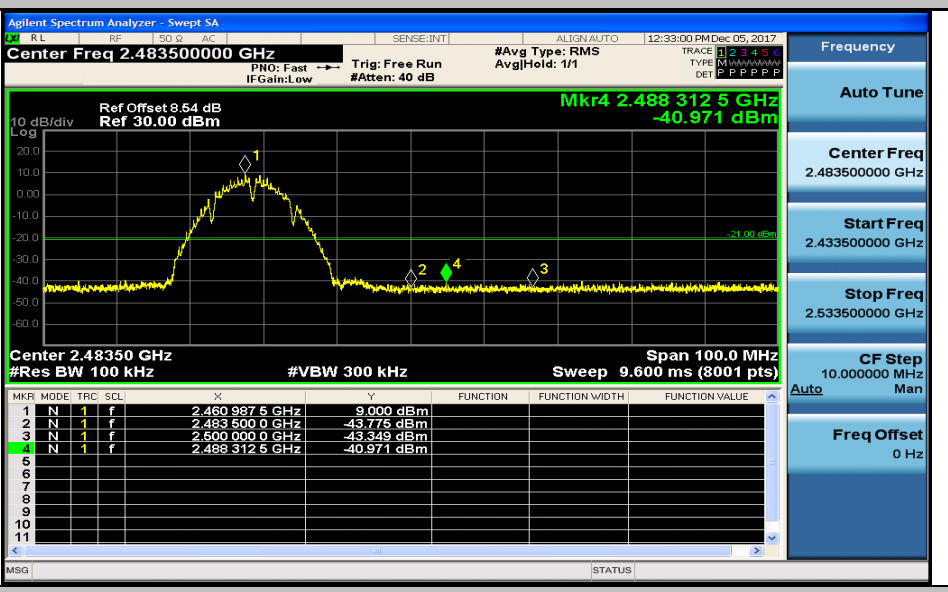
Band-edge for RF Conducted Emissions_11N40SISO_2452_Ant0



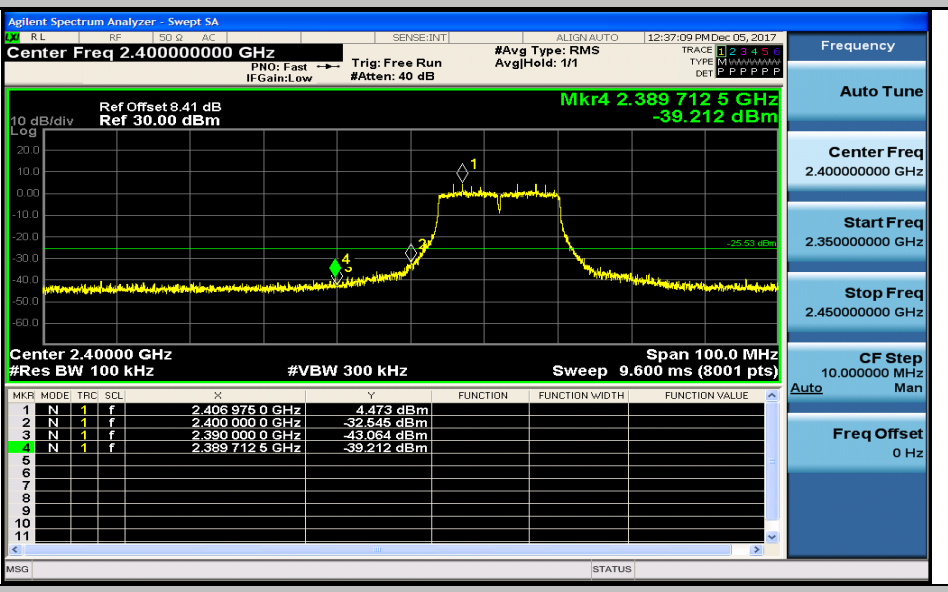
Band-edge for RF Conducted Emissions_11B_2412_Ant1



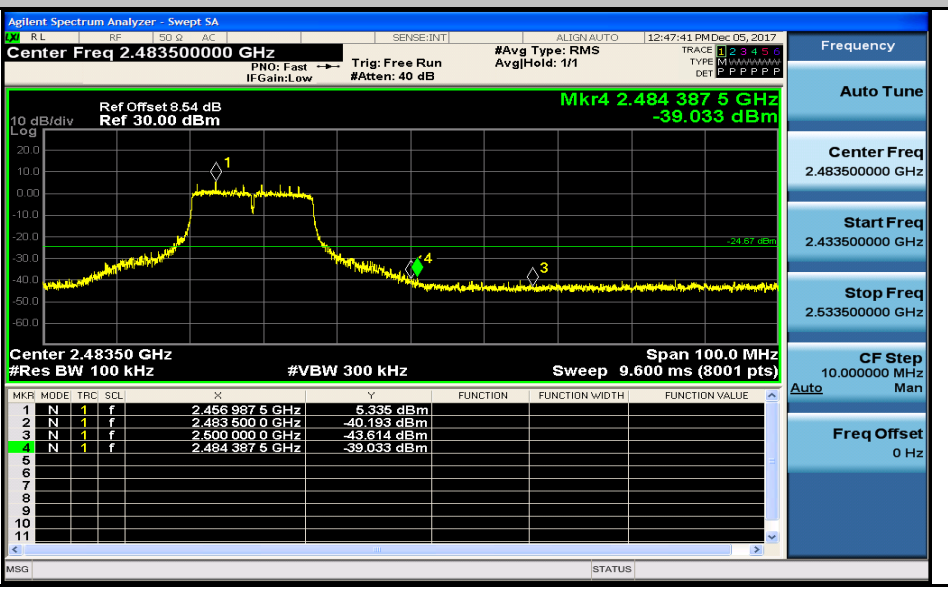
Band-edge for RF Conducted Emissions_11B_2462_Ant1



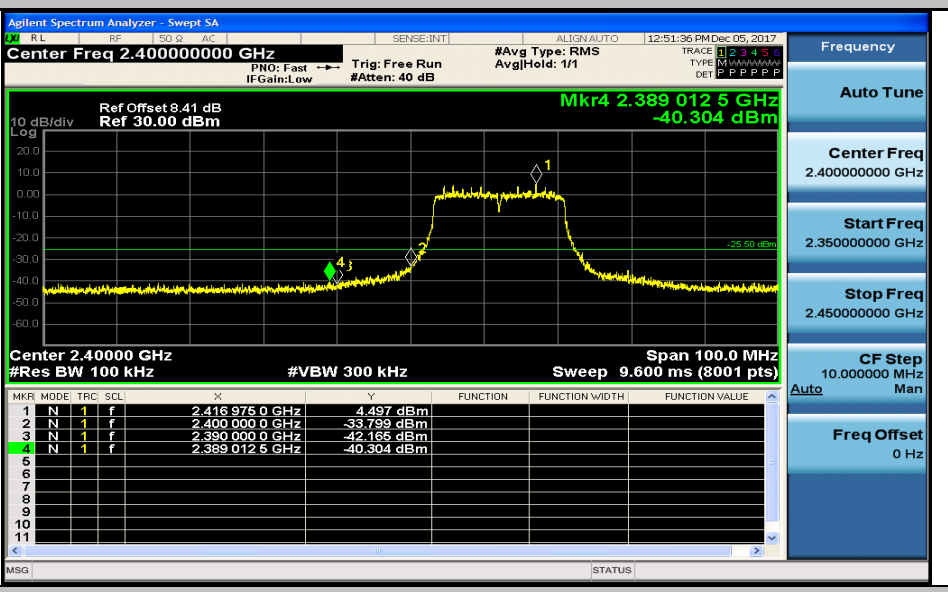
Band-edge for RF Conducted Emissions_11G_2412_Ant1



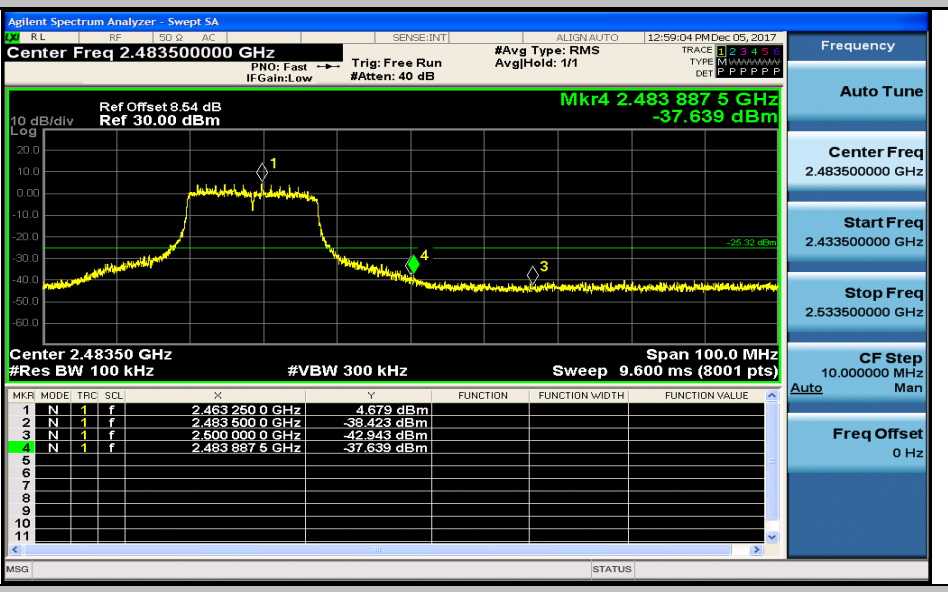
Band-edge for RF Conducted Emissions_11G_2462_Ant1



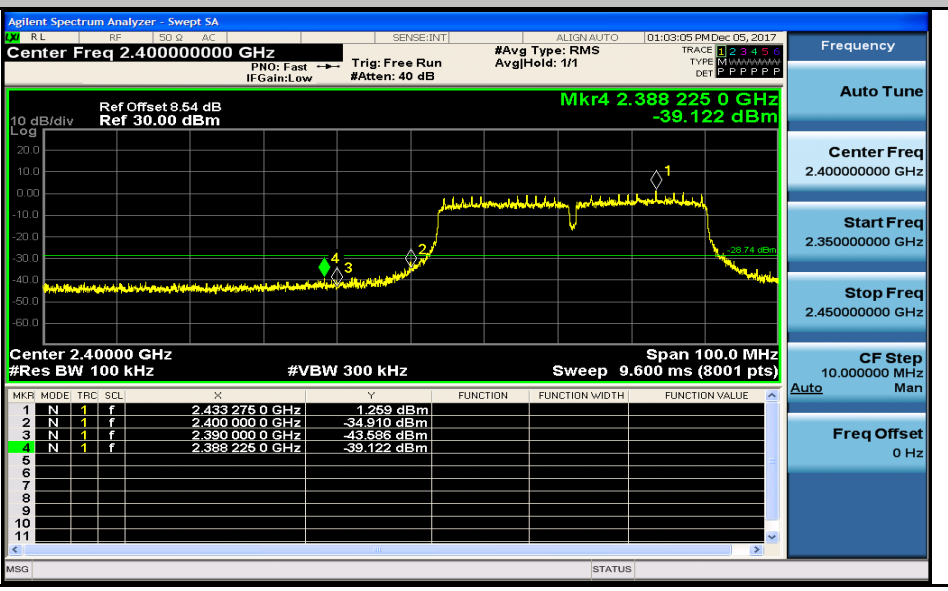
Band-edge for RF Conducted Emissions_11N20SISO_2412_Ant1



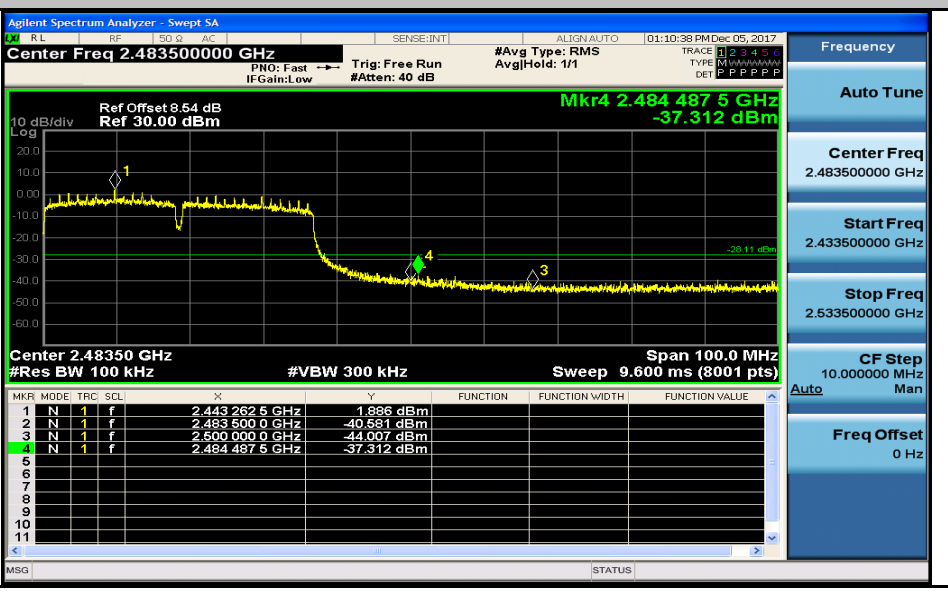
Band-edge for RF Conducted Emissions_11N20SISO_2462_Ant1



Band-edge for RF Conducted Emissions_11N40SISO_2422_Ant1



Band-edge for RF Conducted Emissions_11N40SISO_2452_Ant1

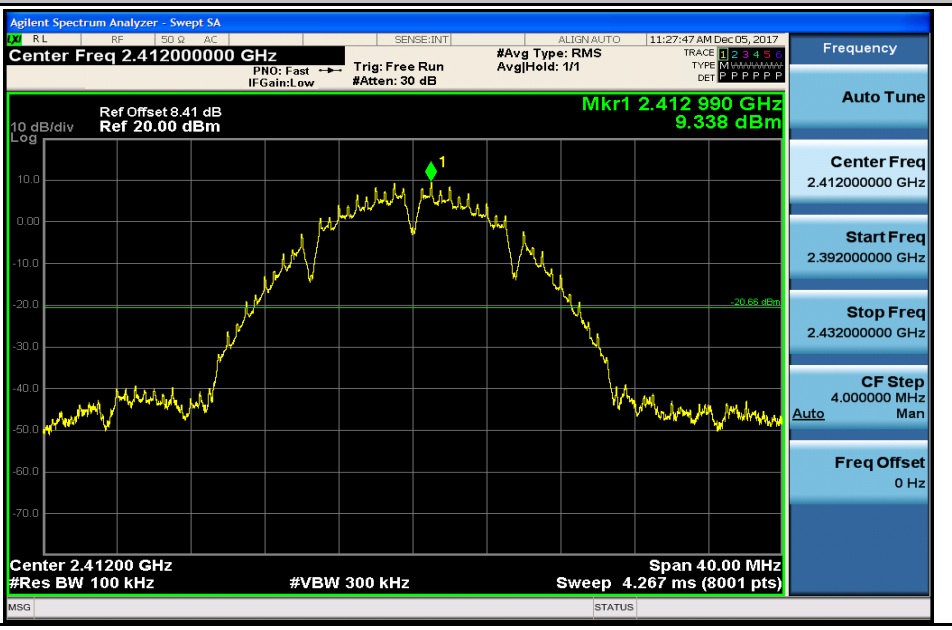


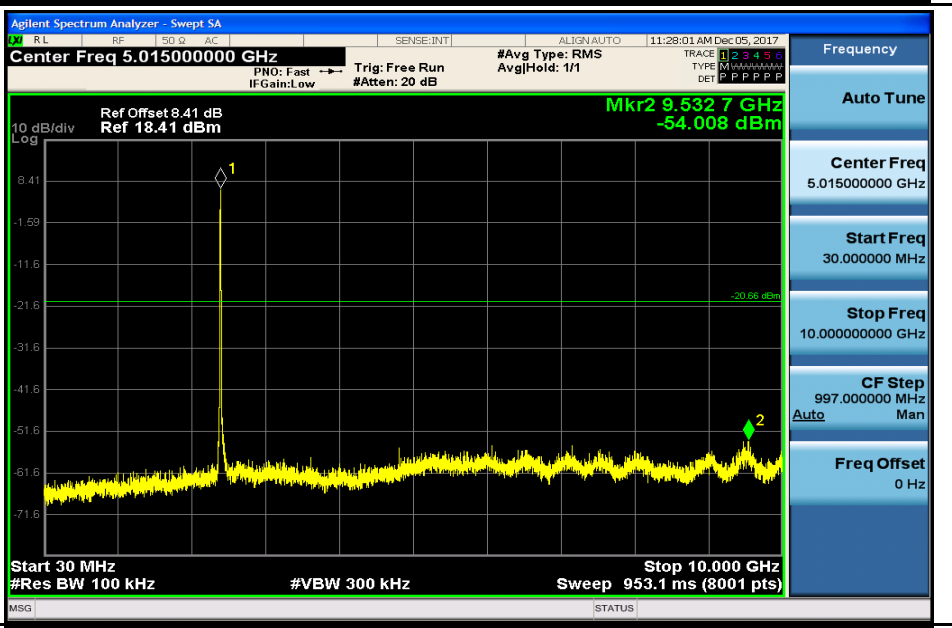
6.RF Conducted Spurious Emissions

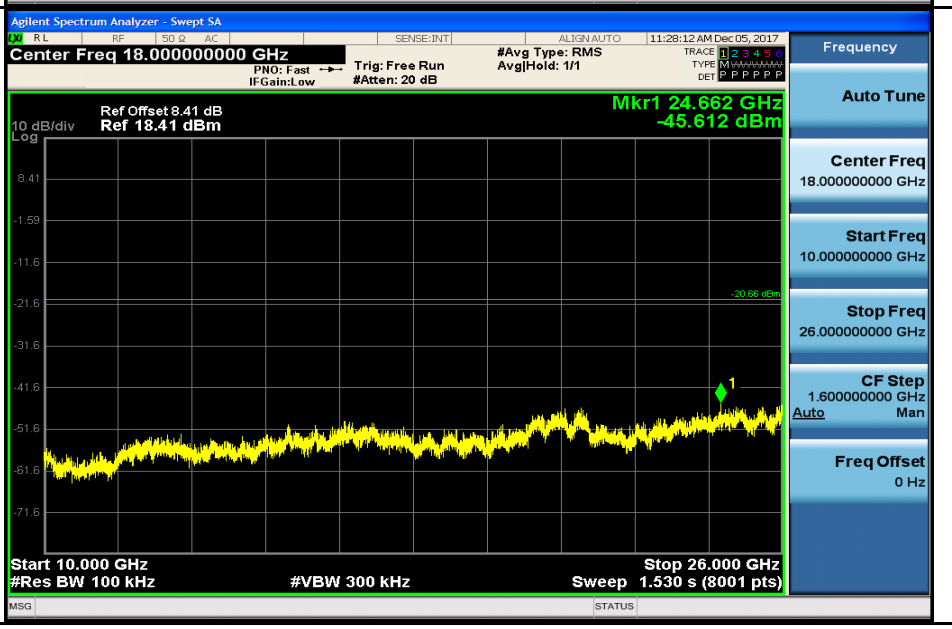
Test Mode	Test Channel	StartFre [MHz]	StopFre [MHz]	Pref[dBm] ANT0	Max. Level [dBm] ANT0	Limit [dBm] ANT0	Pref[dBm] ANT1	Max. Level [dBm] ANT1	Limit [dBm] ANT1	Verdict
11B	2412	30	10000	9.338	-54.008	<-20.662	7.713	-54.293	<-22.287	PASS
11B	2412	10000	26000	9.338	-45.612	<-20.662	7.713	-45.917	<-22.287	PASS
11B	2437	30	10000	9.878	-55.020	<-20.122	9.496	-53.225	<-20.504	PASS
11B	2437	10000	26000	9.878	-44.264	<-20.122	9.496	-45.905	<-20.504	PASS
11B	2462	30	10000	9.292	-54.726	<-20.708	9.137	-52.438	<-20.863	PASS
11B	2462	10000	26000	9.292	-44.571	<-20.708	9.137	-44.346	<-20.863	PASS
11G	2412	30	10000	5.229	-54.981	<-24.771	4.313	-54.549	<-25.687	PASS
11G	2412	10000	26000	5.229	-45.175	<-24.771	4.313	-45.321	<-25.687	PASS
11G	2437	30	10000	5.549	-55.193	<-24.451	5.505	-54.442	<-24.495	PASS
11G	2437	10000	26000	5.549	-44.845	<-24.451	5.505	-45.908	<-24.495	PASS
11G	2462	30	10000	5.073	-53.963	<-24.927	5.191	-55.255	<-24.809	PASS
11G	2462	10000	26000	5.073	-45.730	<-24.927	5.191	-44.696	<-24.809	PASS
11N20SISO	2412	30	10000	4.926	-55.224	<-25.074	4.185	-55.004	<-25.815	PASS
11N20SISO	2412	10000	26000	4.926	-44.425	<-25.074	4.185	-44.961	<-25.815	PASS
11N20SISO	2437	30	10000	5.598	-54.282	<-24.402	5.396	-54.214	<-24.604	PASS
11N20SISO	2437	10000	26000	5.598	-44.279	<-24.402	5.396	-45.272	<-24.604	PASS
11N20SISO	2462	30	10000	5.023	-54.789	<-24.977	5.034	-53.988	<-24.966	PASS
11N20SISO	2462	10000	26000	5.023	-44.767	<-24.977	5.034	-44.052	<-24.966	PASS
11N40SISO	2422	30	10000	1.612	-54.769	<-28.388	1.06	-53.715	<-28.94	PASS
11N40SISO	2422	10000	26000	1.612	-44.528	<-28.388	1.06	-44.452	<-28.94	PASS
11N40SISO	2437	30	10000	1.657	-54.717	<-28.343	0.62	-54.661	<-29.38	PASS
11N40SISO	2437	10000	26000	1.657	-45.634	<-28.343	0.62	-44.901	<-29.38	PASS
11N40SISO	2452	30	10000	1.937	-54.940	<-28.063	1.836	-54.850	<-28.164	PASS

11N40SISO	2452	10000	26000	1.937	-44.281	<-28.063	1.836	-45.186	<-28.164	PASS

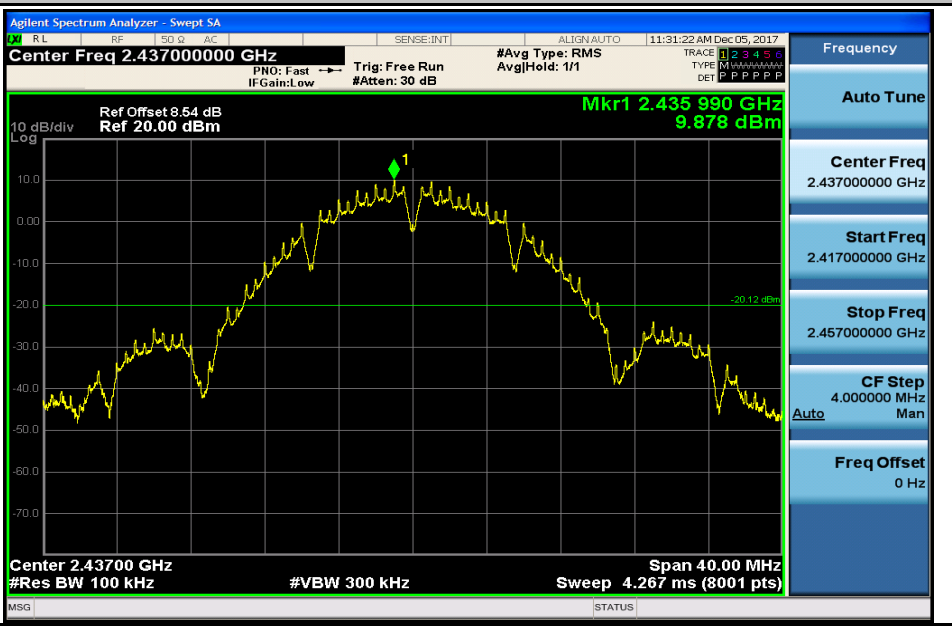
RF Conducted Spurious Emissions_11B_2412_ANT0

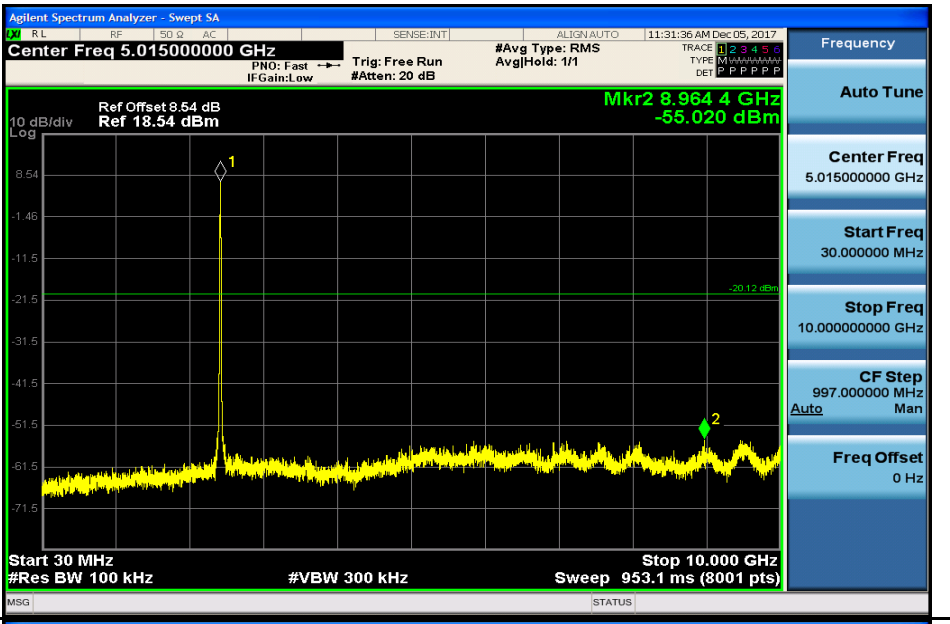


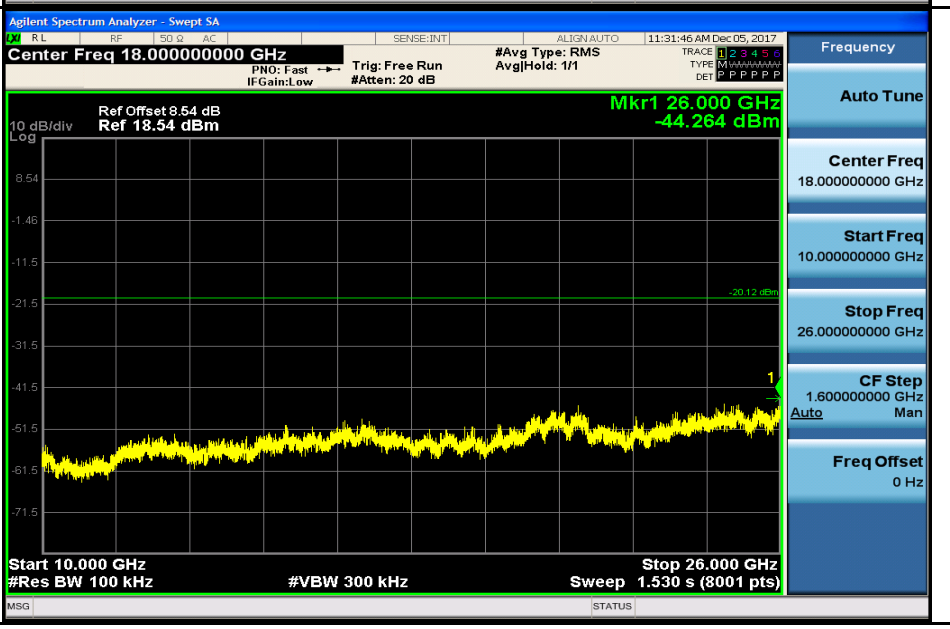




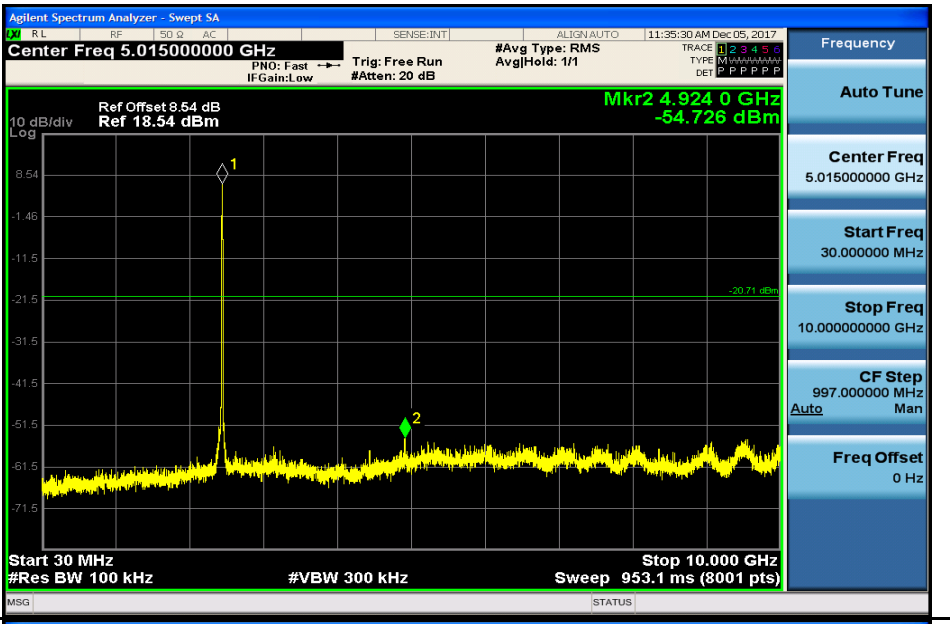
RF Conducted Spurious Emissions_11B_2437_ANT0

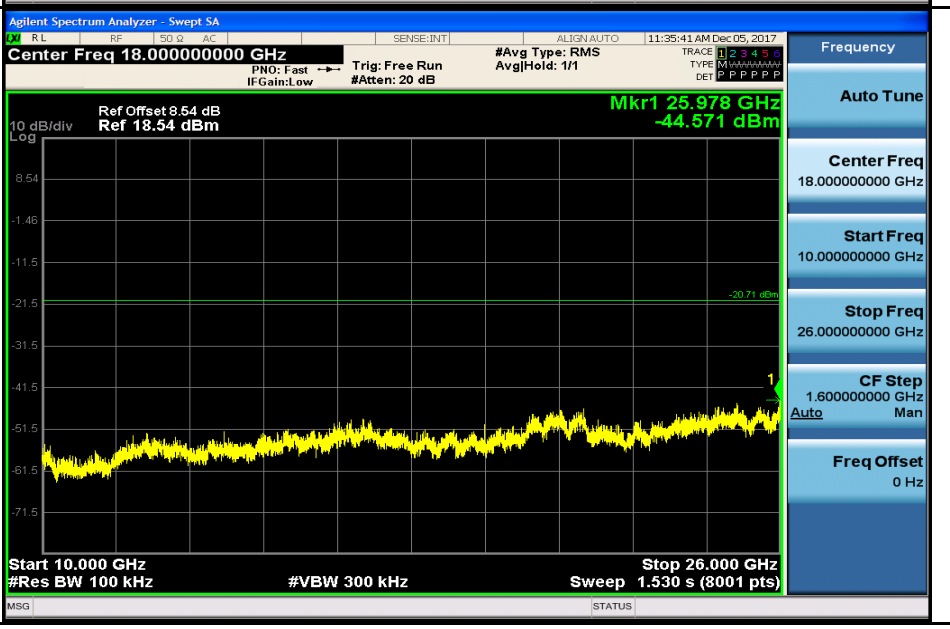




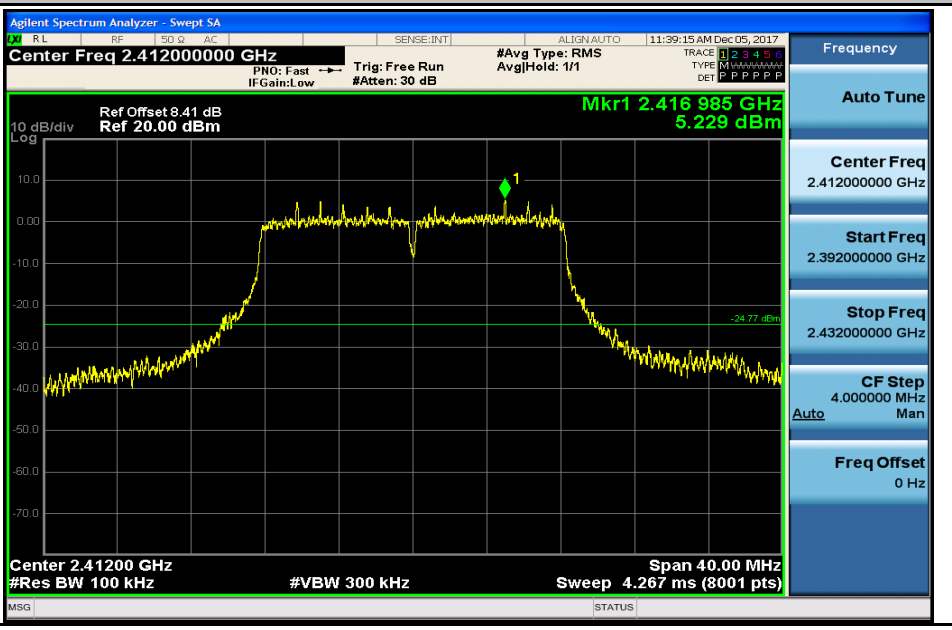


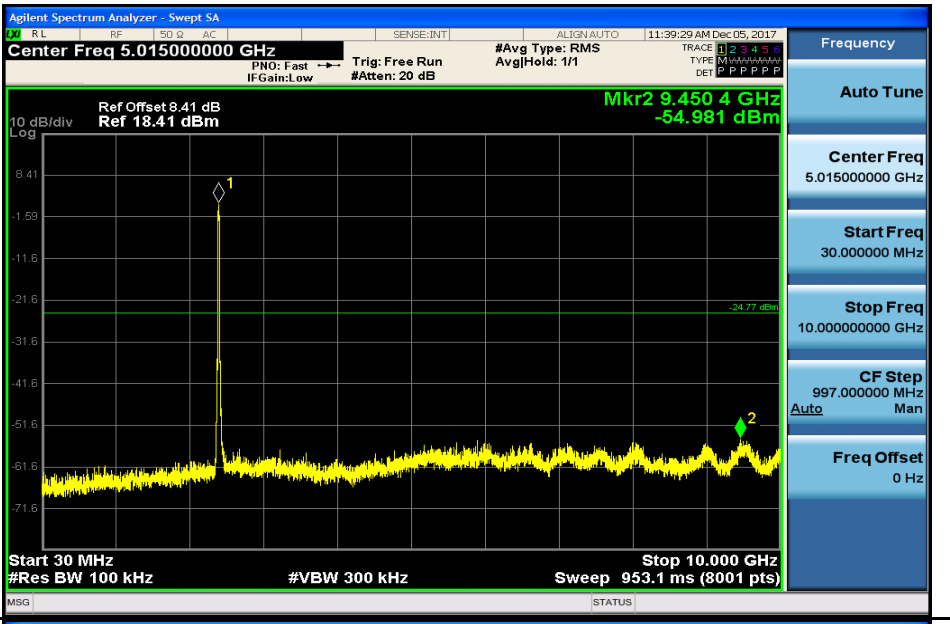
RF Conducted Spurious Emissions_11B_2462_ANT0

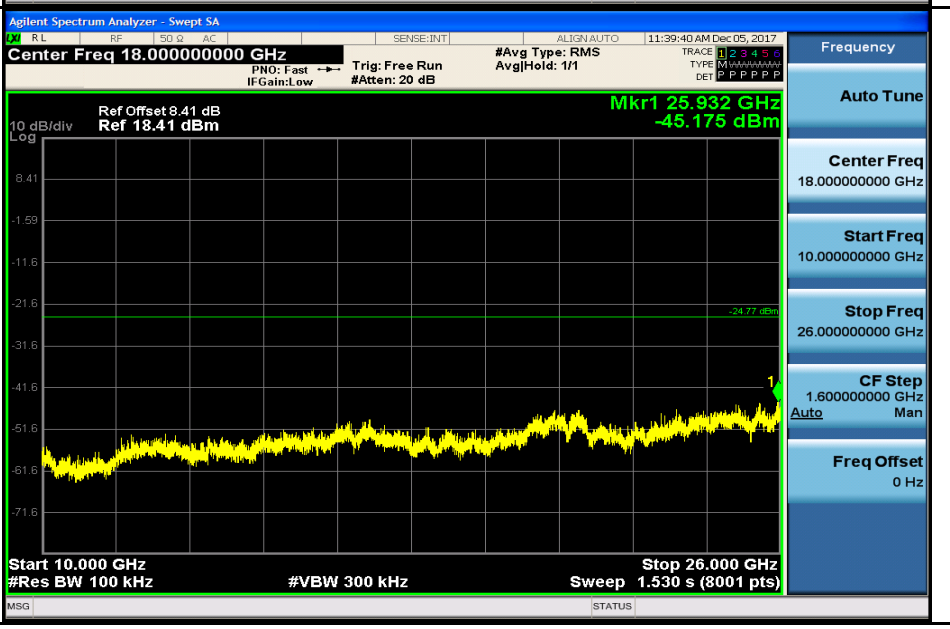
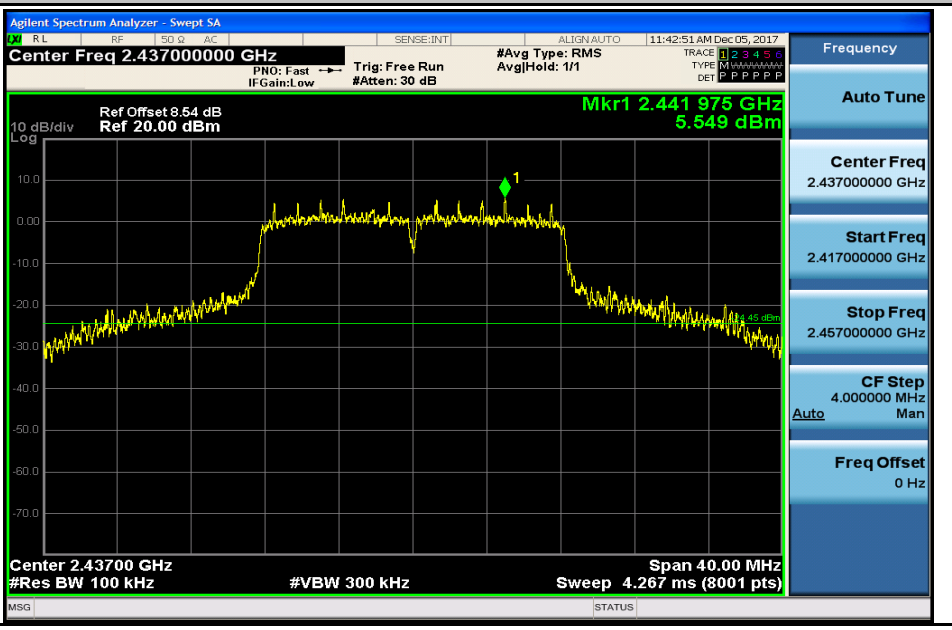
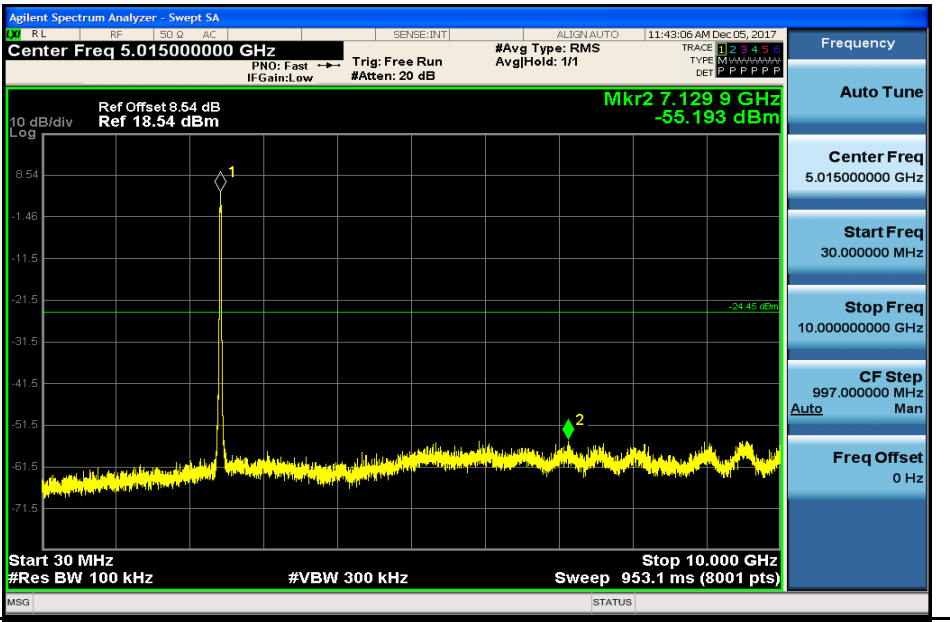
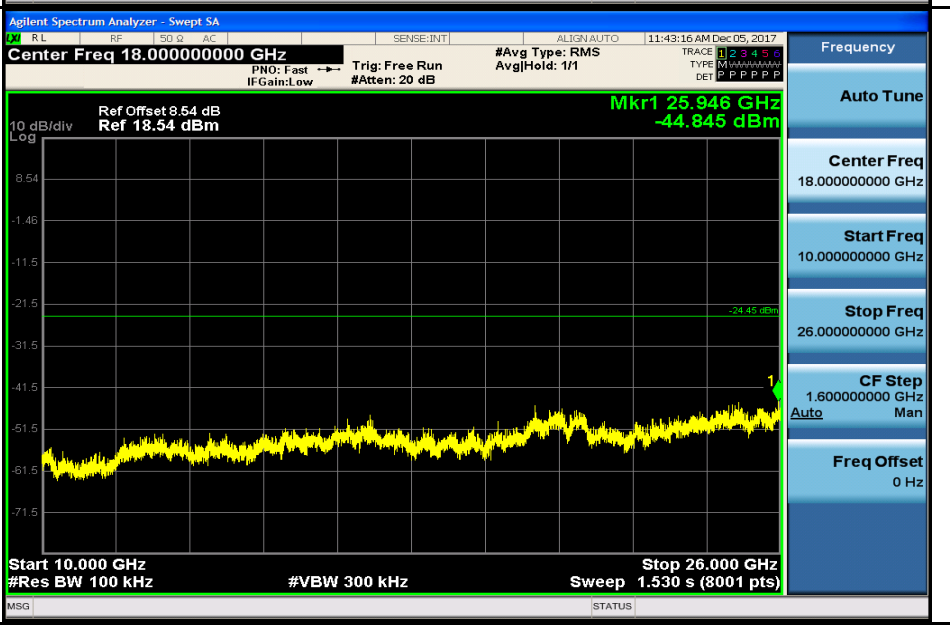




RF Conducted Spurious Emissions_11G_2412_ANT0







RF Conducted Spurious Emissions_11G_2437_ANT0