

ANTENNA REQUIREMENT

Test Standard	47 CFR Part 15, Subpart C 15.247
Test Method	N/A

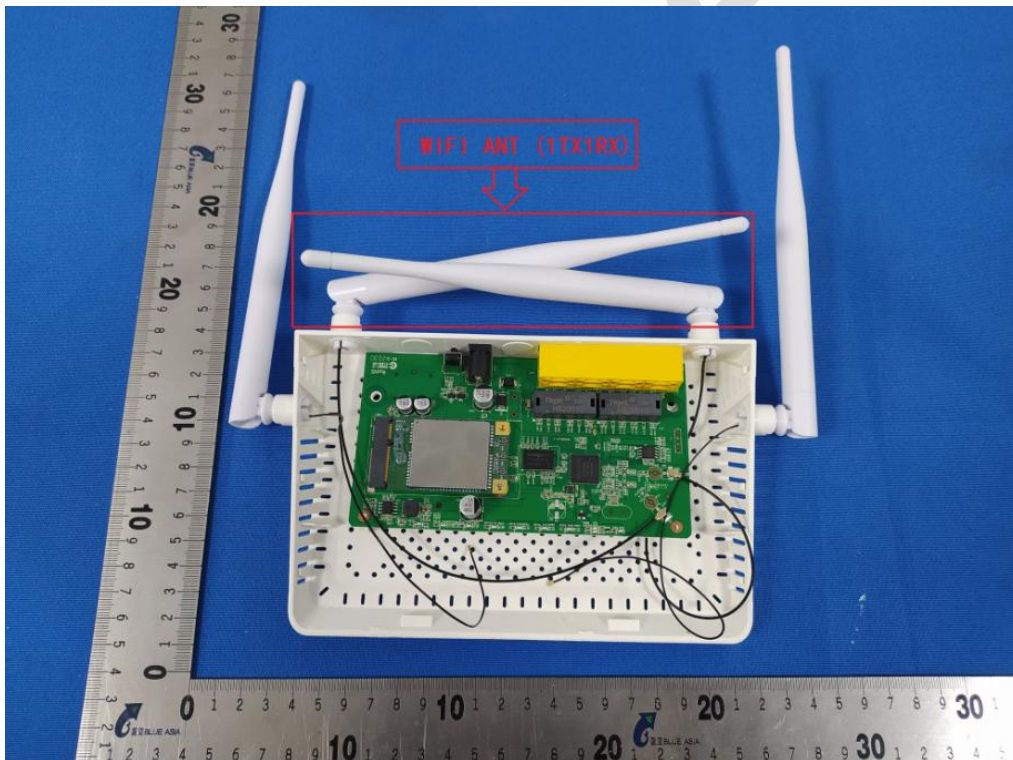
CONCLUSION

Standard Requirement:

An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of an antenna that uses a unique coupling to the intentional radiator, the manufacturer may design the unit permanently attached antenna or of an so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.

EUT Antenna:

The antenna is integrated on the main PCB and no consideration of replacement. The best case gain of the antenna is 4.0dBi.



10 APPENDIX

Appendix1

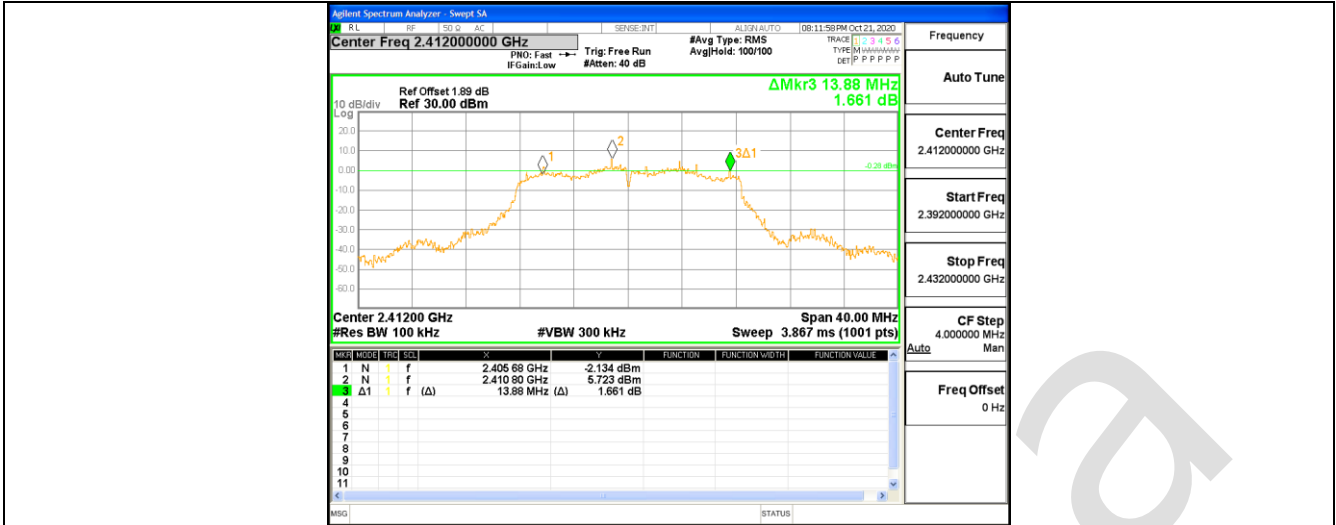
10.1 APPENDIXA: DTS BANDWIDTH

Test Result

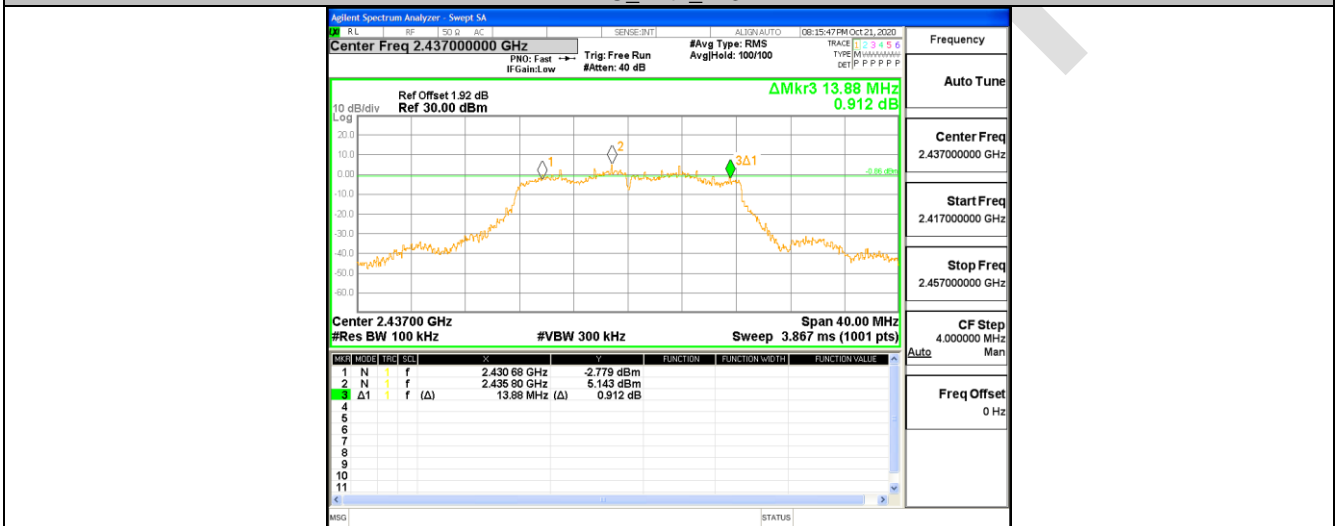
TestMode	Antenna	Channel	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	9.640	2407.480	2417.120	>=0.5	PASS
		2437	9.400	2432.440	2441.840	>=0.5	PASS
		2462	9.640	2457.480	2467.120	>=0.5	PASS
11G	Ant1	2412	13.880	2405.680	2419.560	>=0.5	PASS
		2437	13.880	2430.680	2444.560	>=0.5	PASS
		2462	10.120	2456.960	2467.080	>=0.5	PASS
11N20SISO	Ant1	2412	15.160	2404.520	2419.680	>=0.5	PASS
		2437	10.920	2430.720	2441.640	>=0.5	PASS
		2462	12.960	2456.640	2469.600	>=0.5	PASS
11N40SISO	Ant1	2422	30.160	2406.960	2437.120	>=0.5	PASS
		2437	34.000	2420.680	2454.680	>=0.5	PASS
		2452	30.320	2435.680	2466.000	>=0.5	PASS

Test Graphs

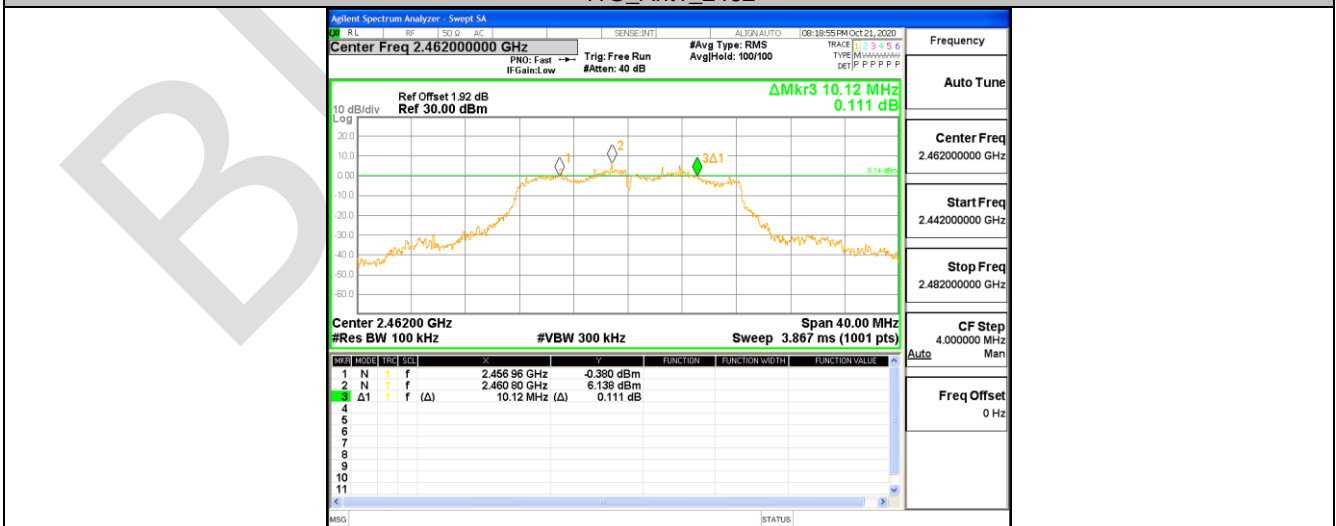




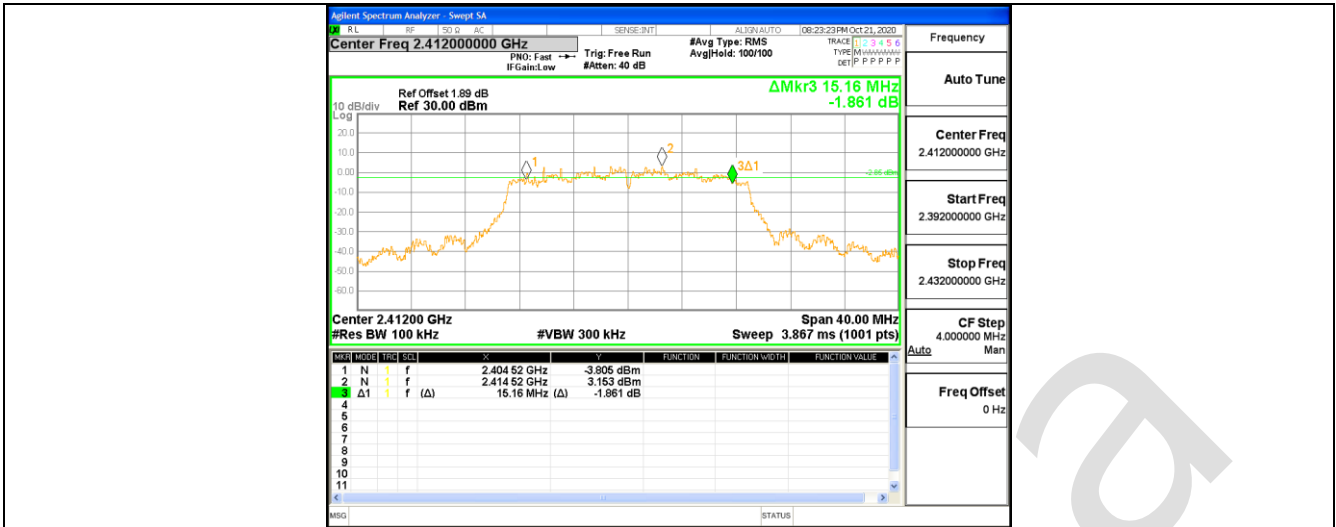
11G_Ant1_2437



11G_Ant1_2462



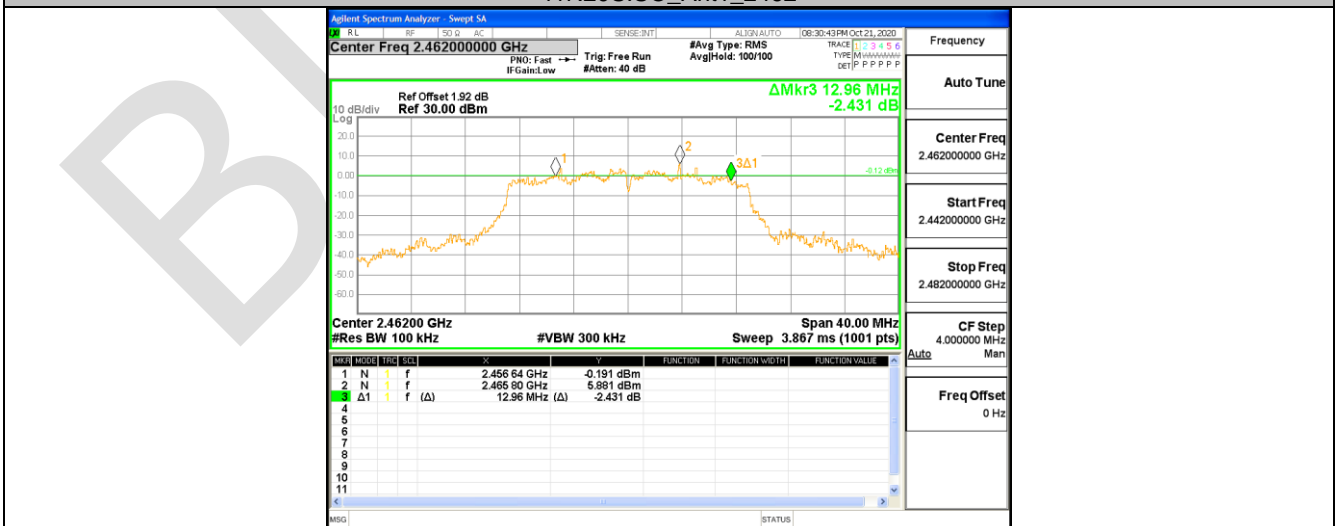
11N20SISO_Ant1_2412



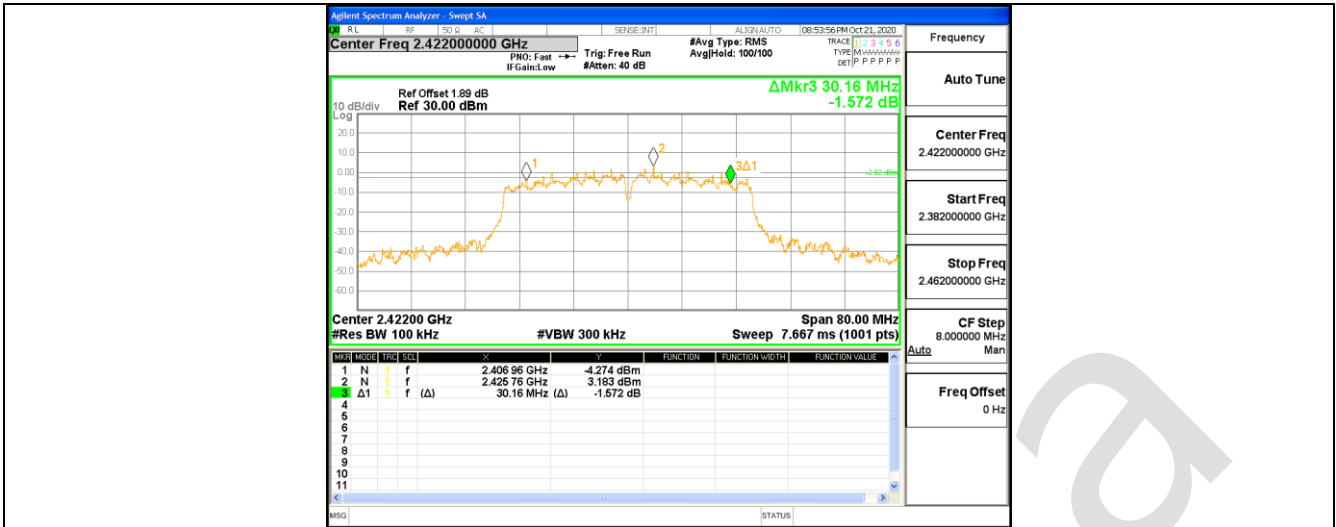
11N20SISO_Ant1_2437



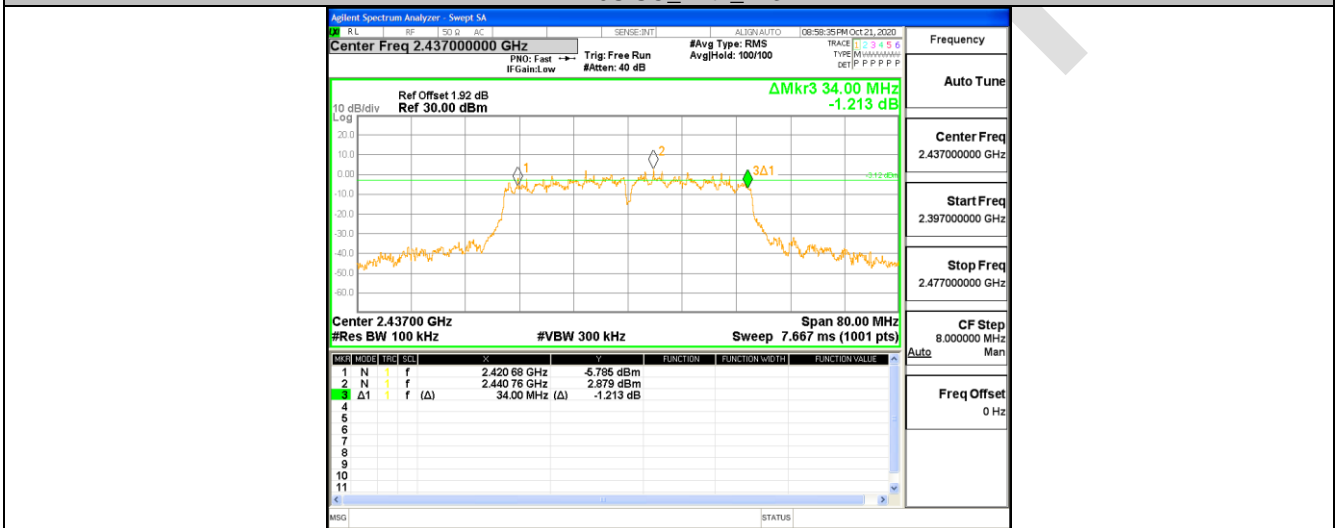
11N20SISO_Ant1_2462



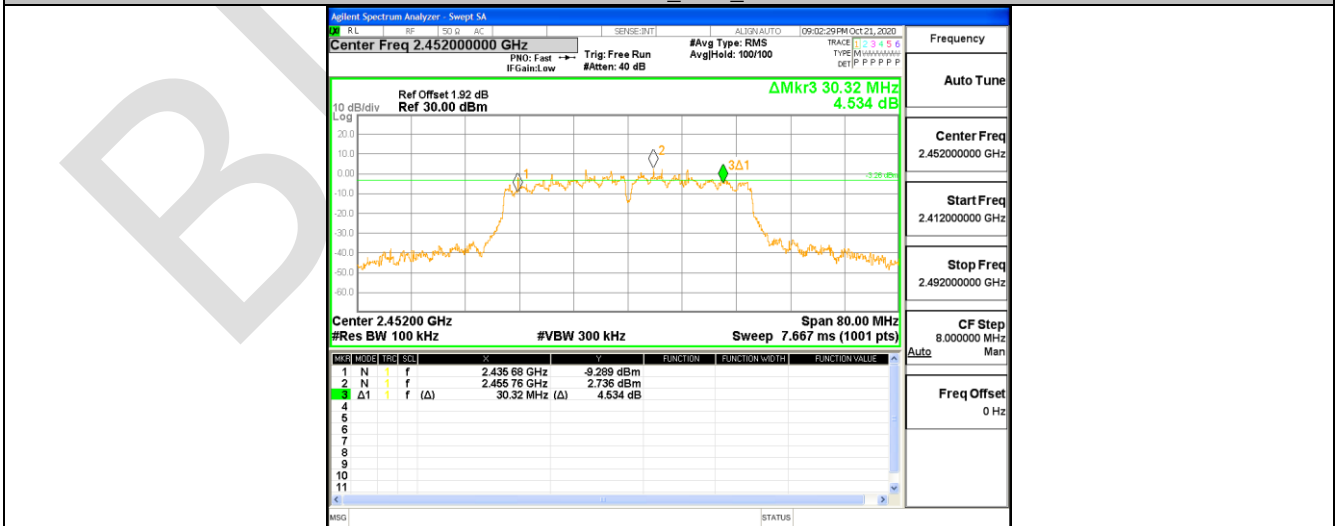
11N40SISO_Ant1_2422



11N40SISO_Ant1_2437



11N40SISO_Ant1_2452



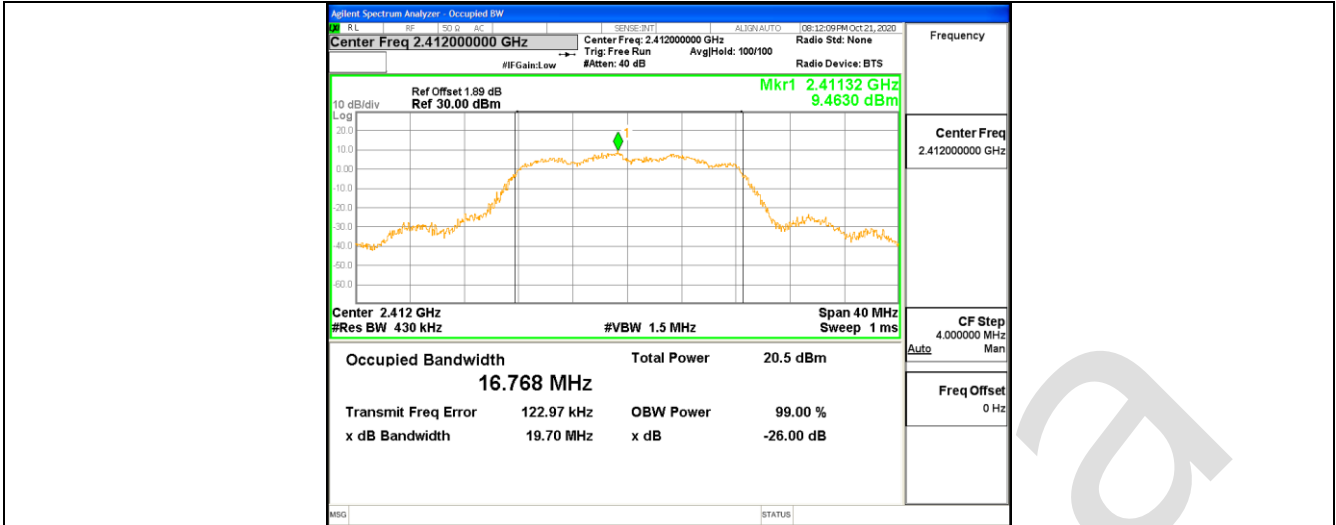
10.2 APPENDIX B: OCCUPIED CHANNEL BANDWIDTH

Test Result

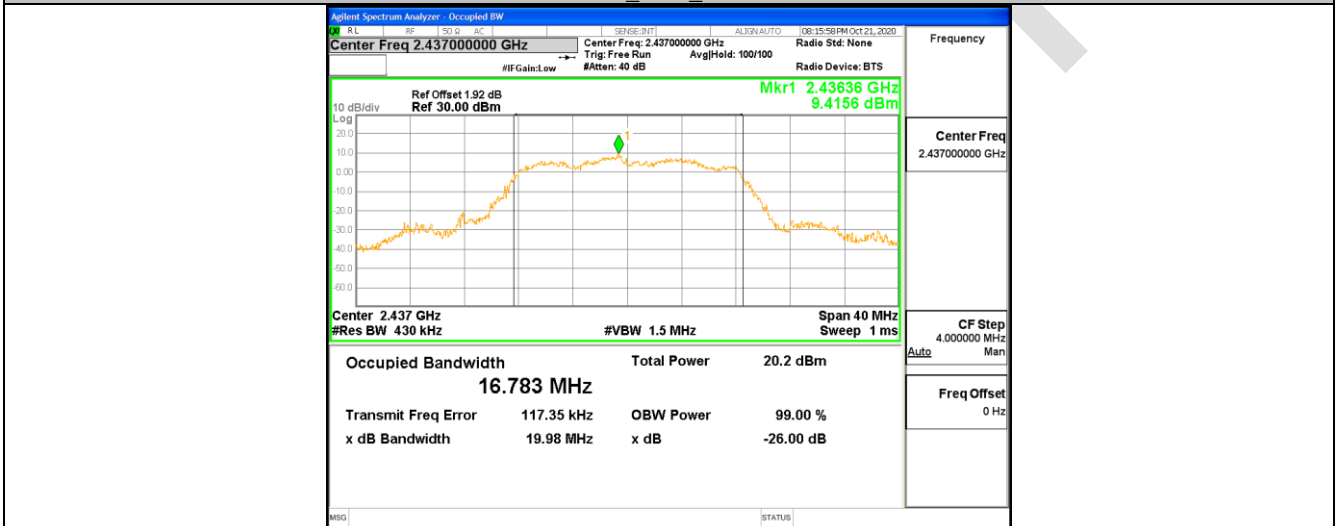
TestMode	Antenna	Channel	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	14.346	2404.971	2419.317	---	PASS
		2437	14.453	2429.922	2444.375	---	PASS
		2462	14.352	2454.927	2469.279	---	PASS
11G	Ant1	2412	16.768	2403.739	2420.507	---	PASS
		2437	16.783	2428.726	2445.509	---	PASS
		2462	16.748	2453.688	2470.436	---	PASS
11N20SISO	Ant1	2412	17.703	2403.204	2420.907	---	PASS
		2437	17.699	2428.207	2445.906	---	PASS
		2462	17.717	2453.204	2470.921	---	PASS
11N40SISO	Ant1	2422	35.886	2404.127	2440.013	---	PASS
		2437	36.082	2419.029	2455.111	---	PASS
		2452	35.919	2434.142	2470.061	---	PASS

Test Graphs

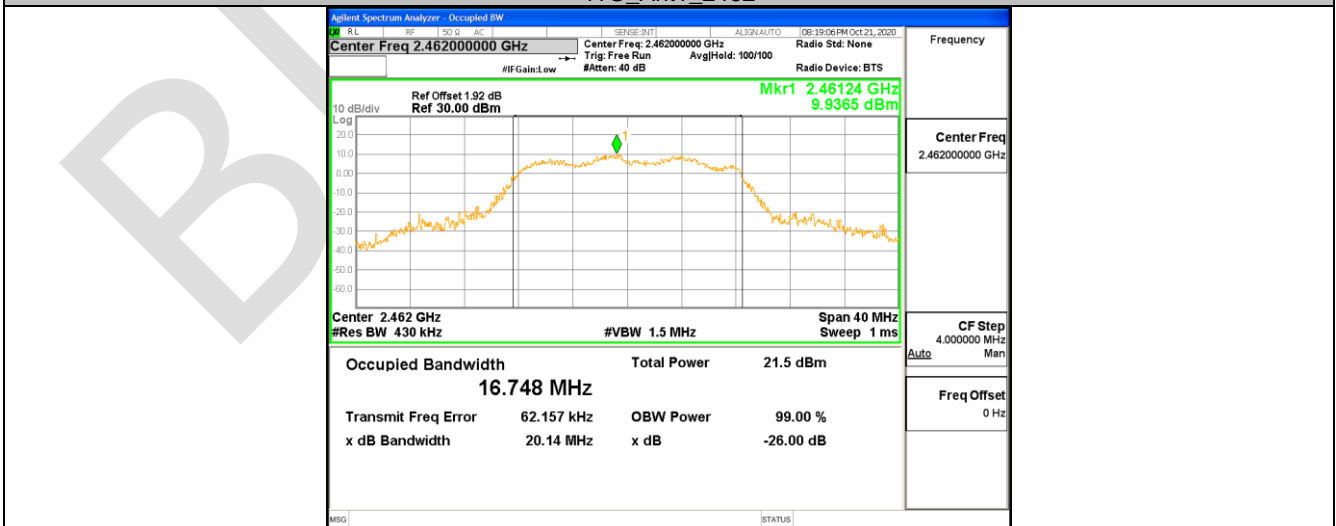




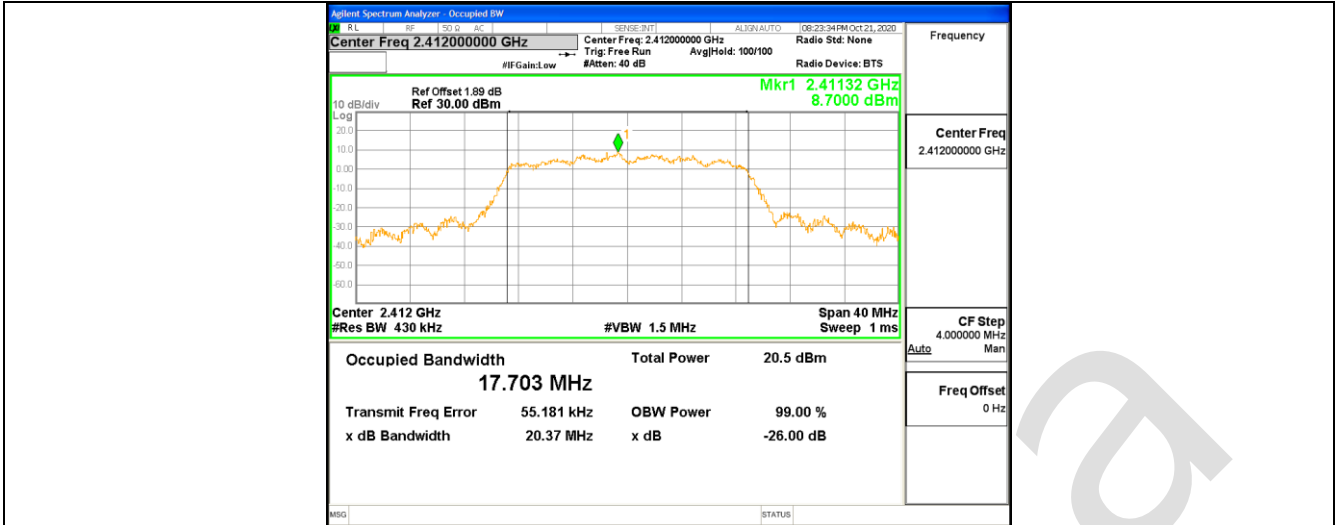
11G_Ant1_2437



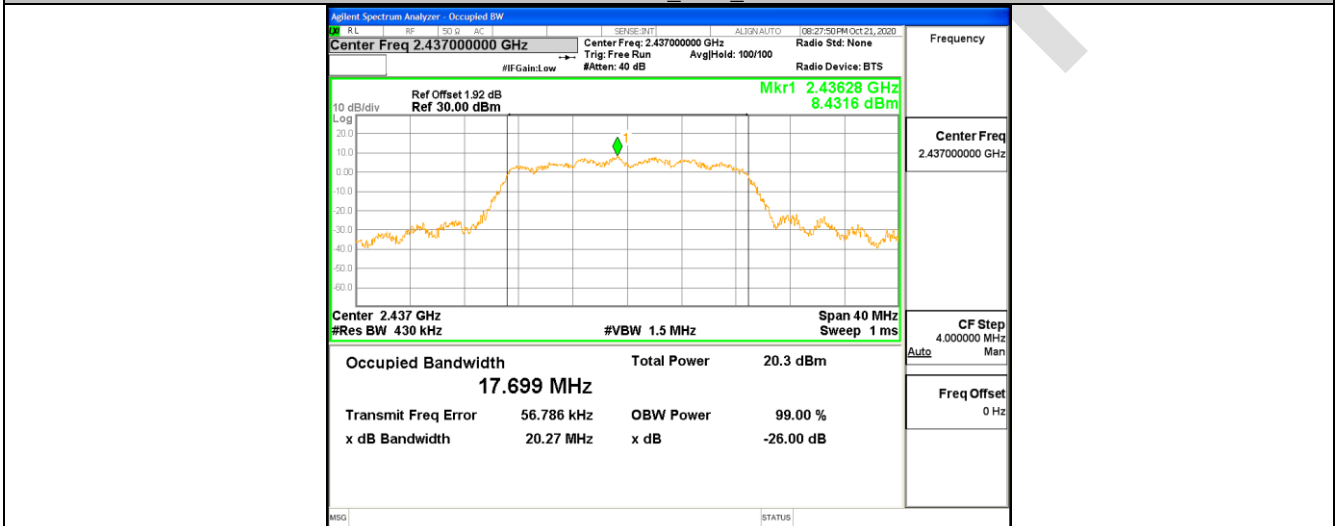
11G_Ant1_2462



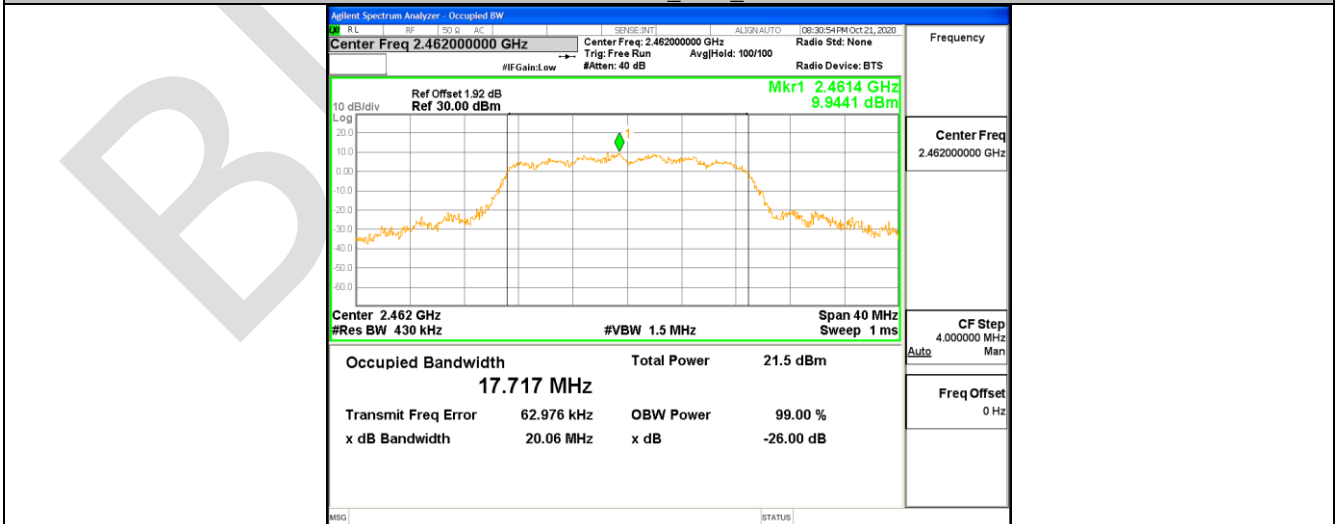
11N20SISO_Ant1_2412



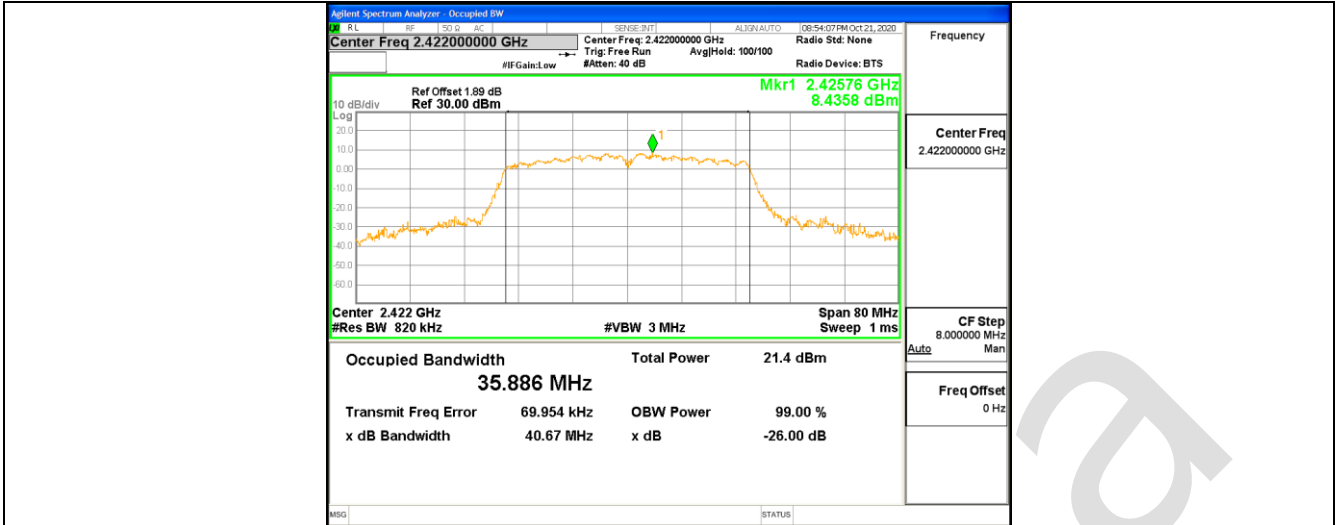
11N20SISO_Ant1_2437



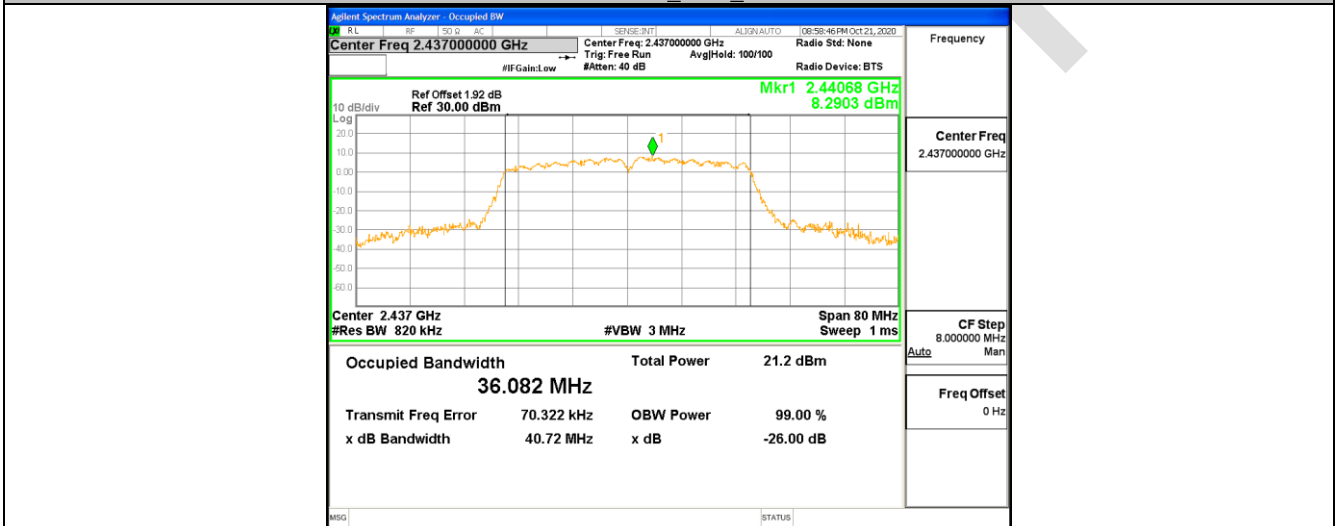
11N20SISO_Ant1_2462



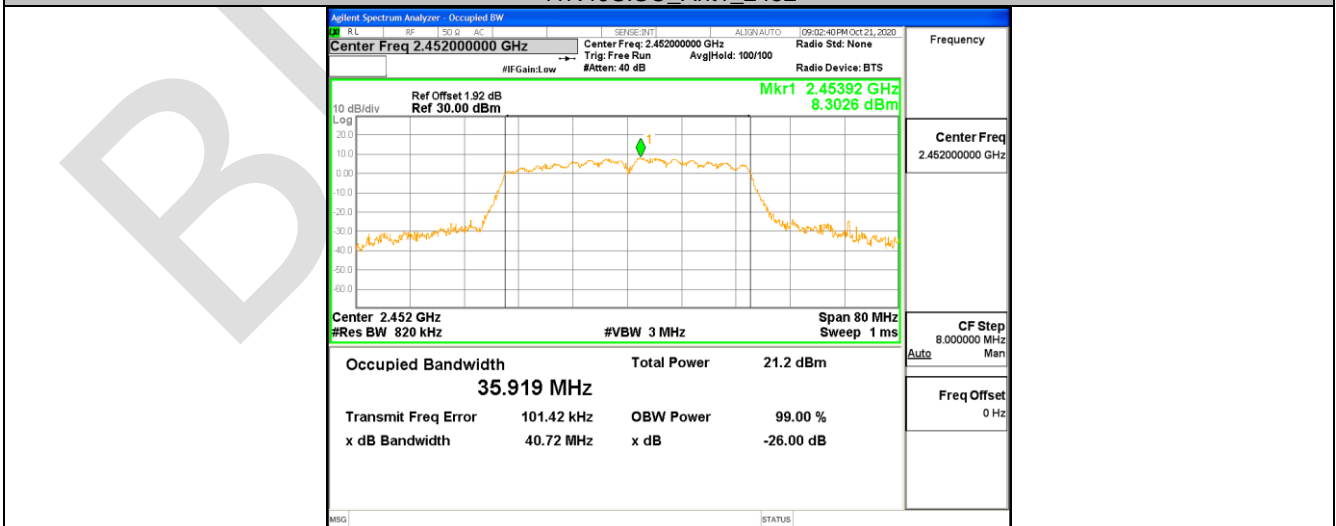
11N40SISO_Ant1_2422



11N40SISO_Ant1_2437



11N40SISO_Ant1_2452

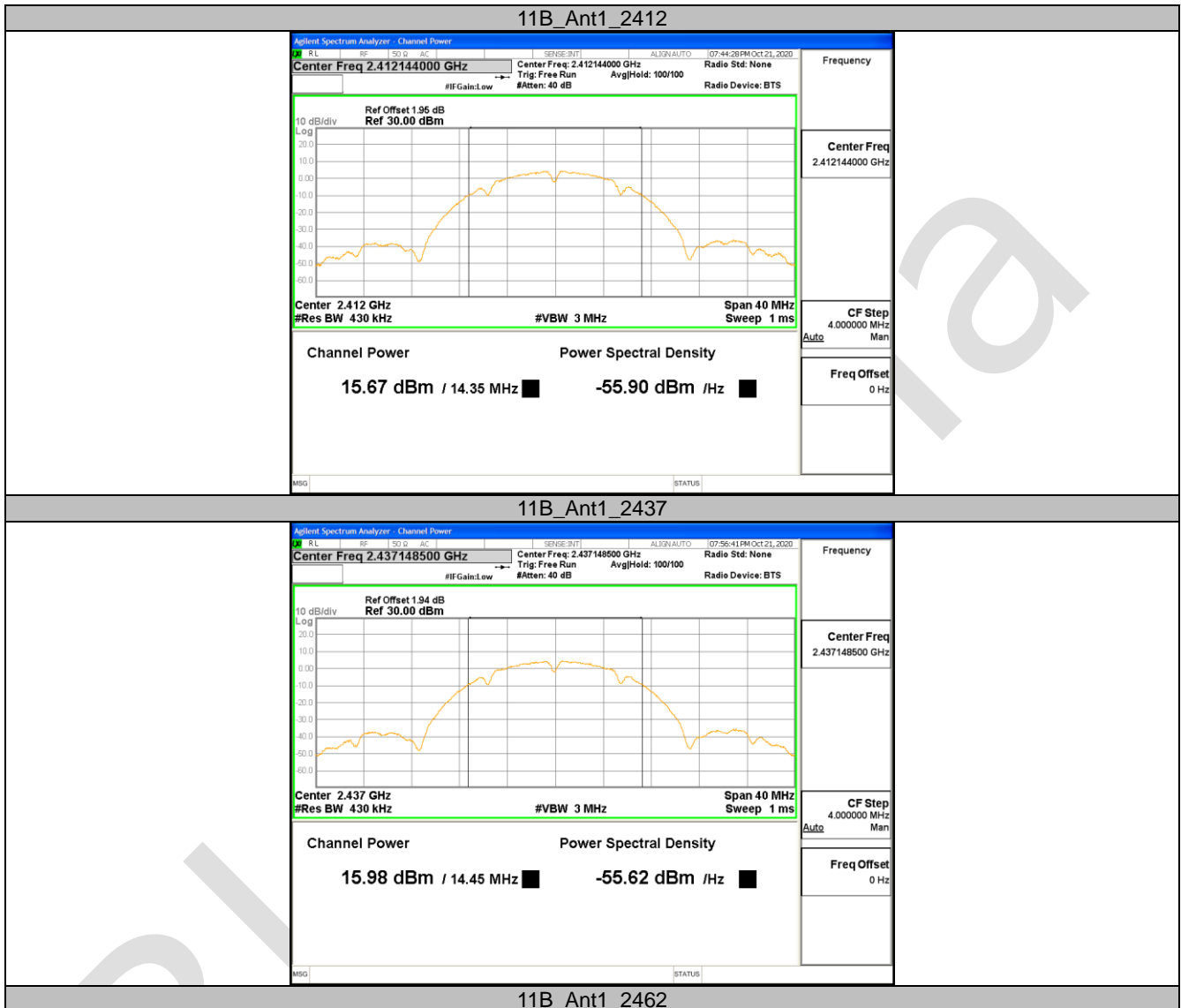


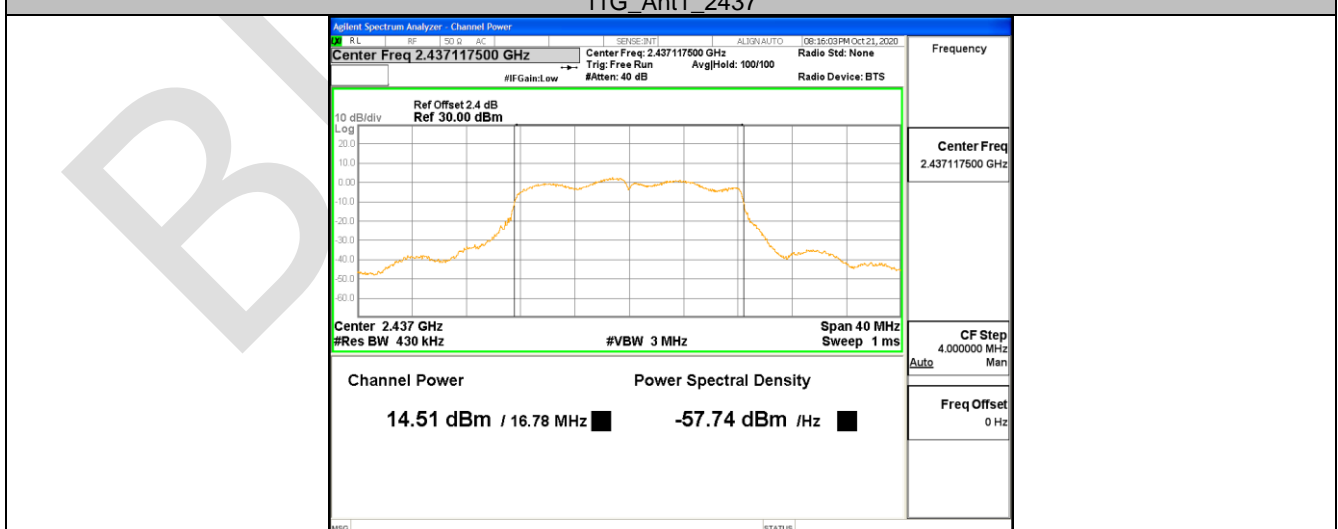
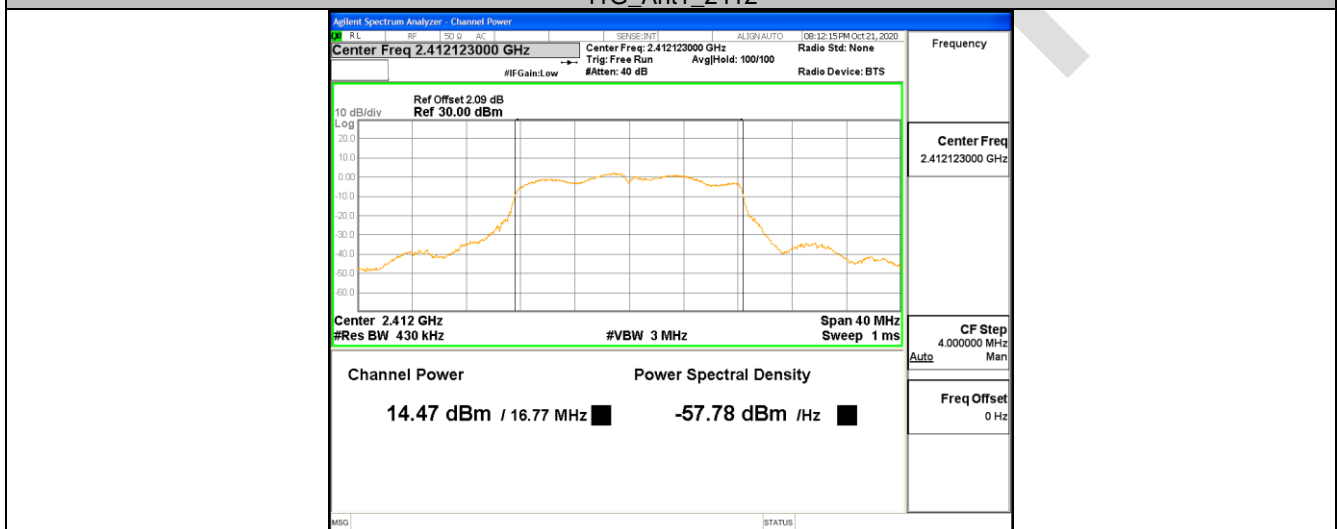
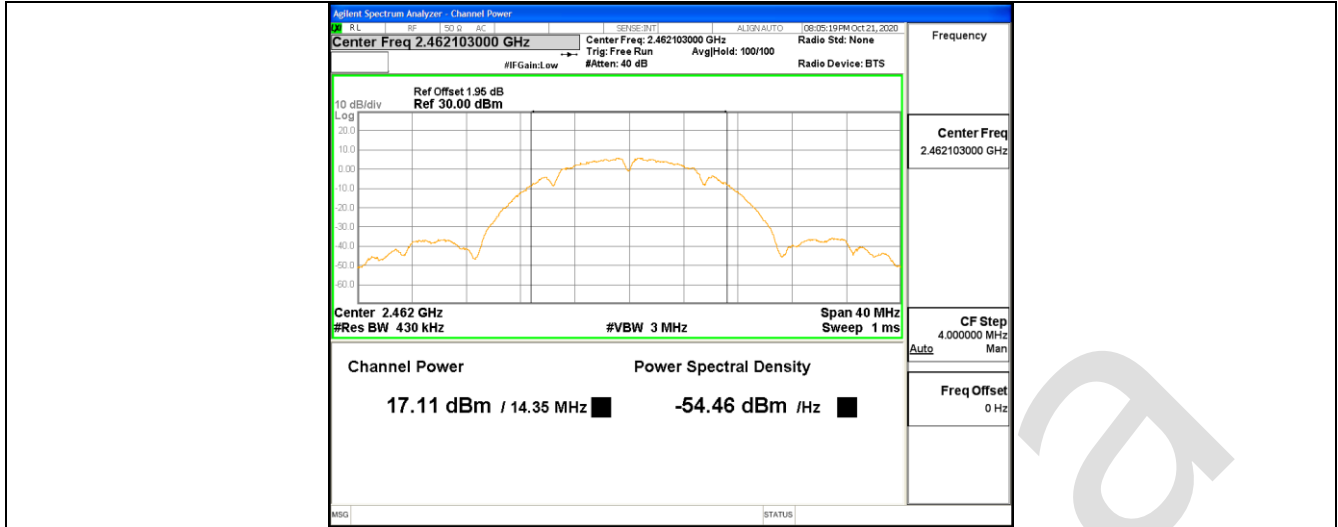
10.3 APPENDIXC: MAXIMUM CONDUCTED OUTPUT POWER

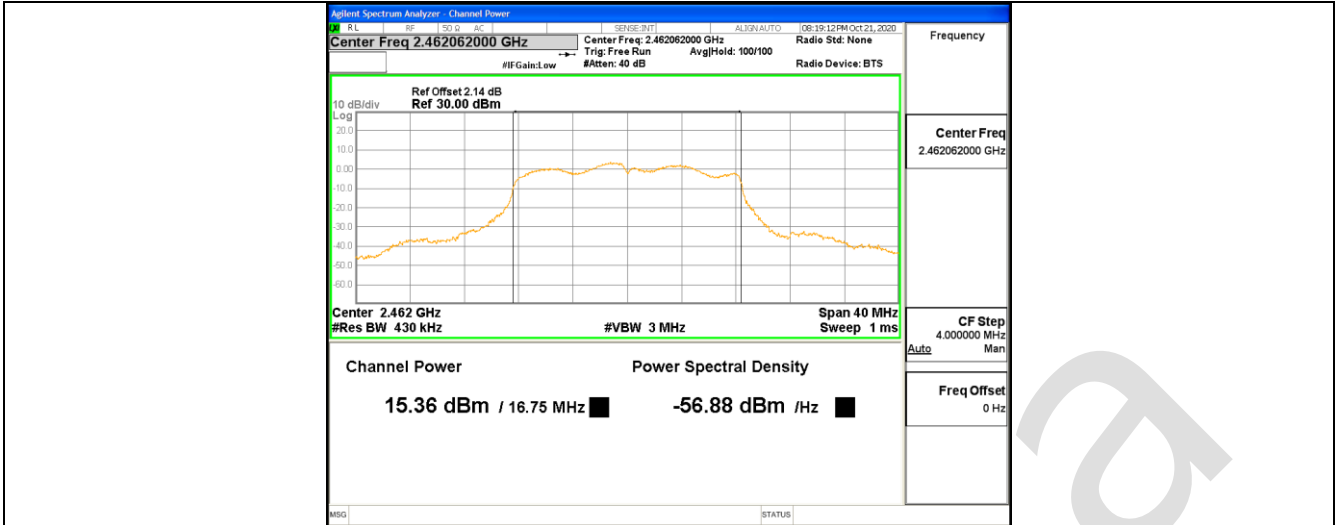
Test Result

TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
11B	Ant1	2412	15.67	<=30	PASS
		2437	15.98	<=30	PASS
		2462	17.11	<=30	PASS
11G	Ant1	2412	14.47	<=30	PASS
		2437	14.51	<=30	PASS
		2462	15.36	<=30	PASS
11N20SISO	Ant1	2412	14.11	<=30	PASS
		2437	13.85	<=30	PASS
		2462	15.35	<=30	PASS
11N40SISO	Ant1	2422	14.65	<=30	PASS
		2437	14.05	<=30	PASS
		2452	14.04	<=30	PASS

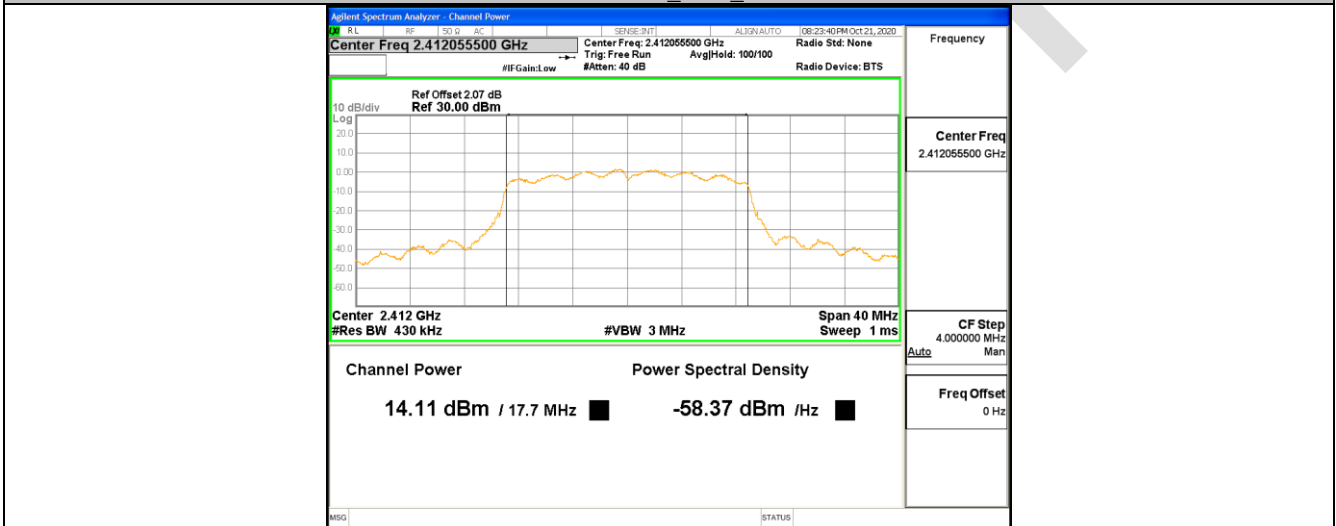
Test Graphs



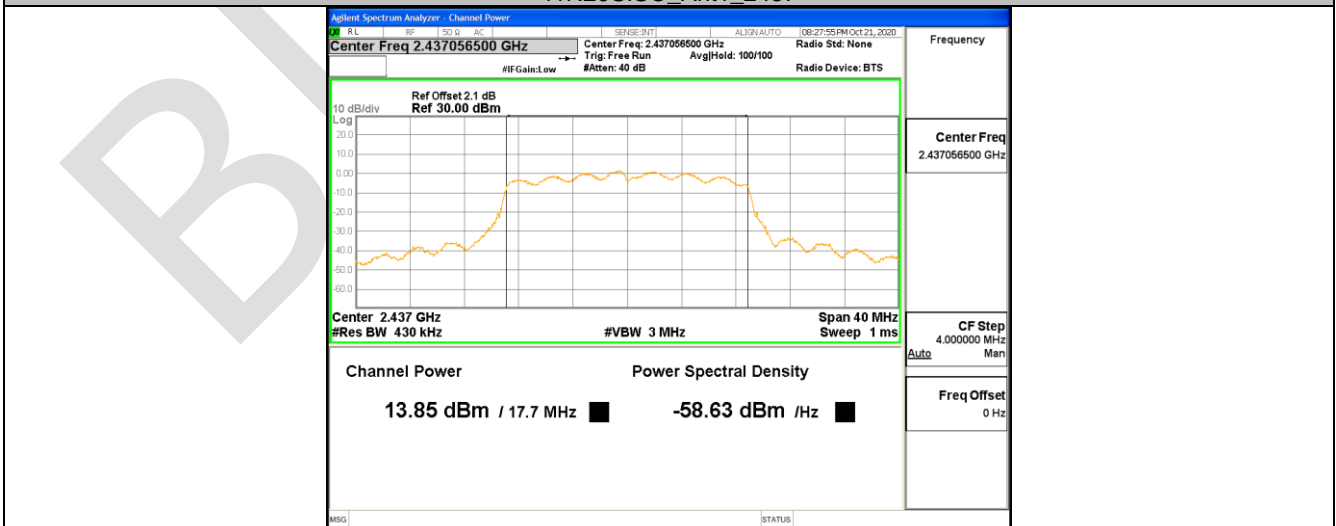




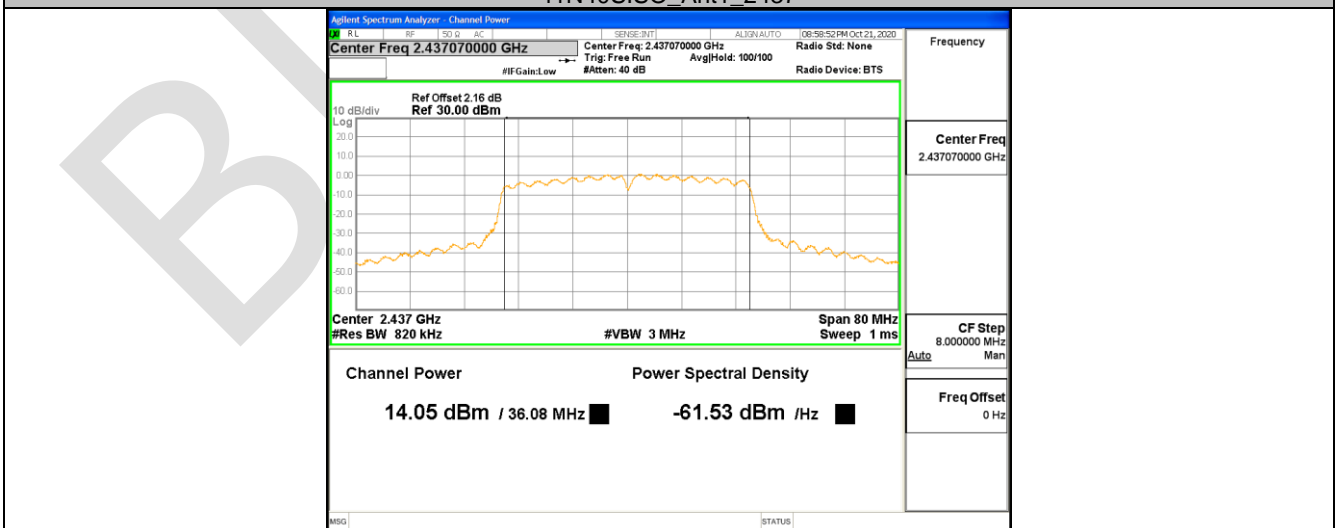
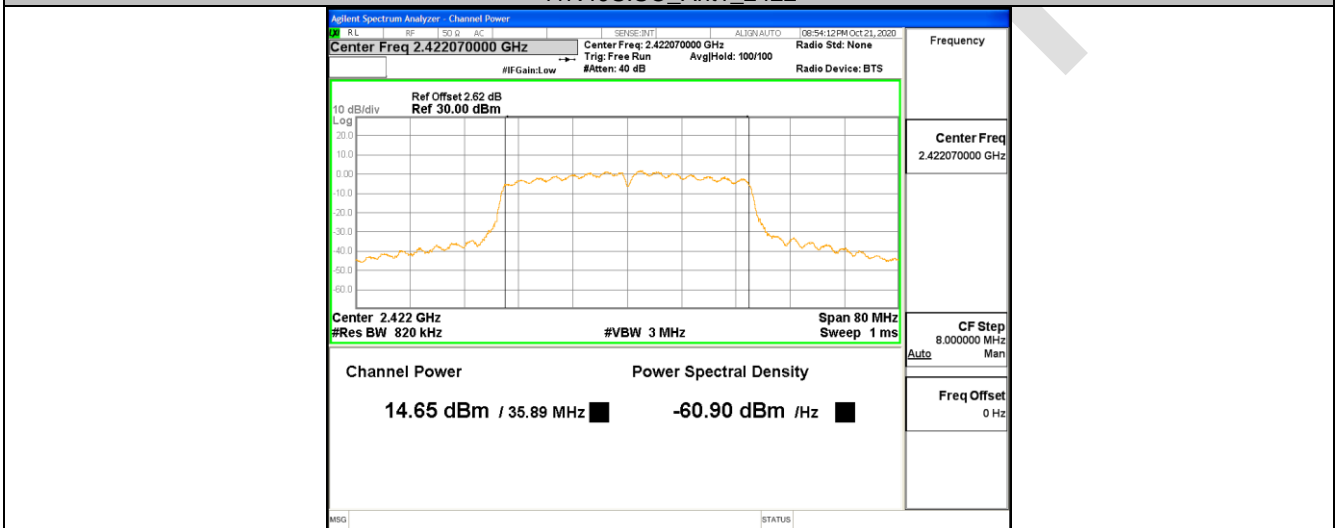
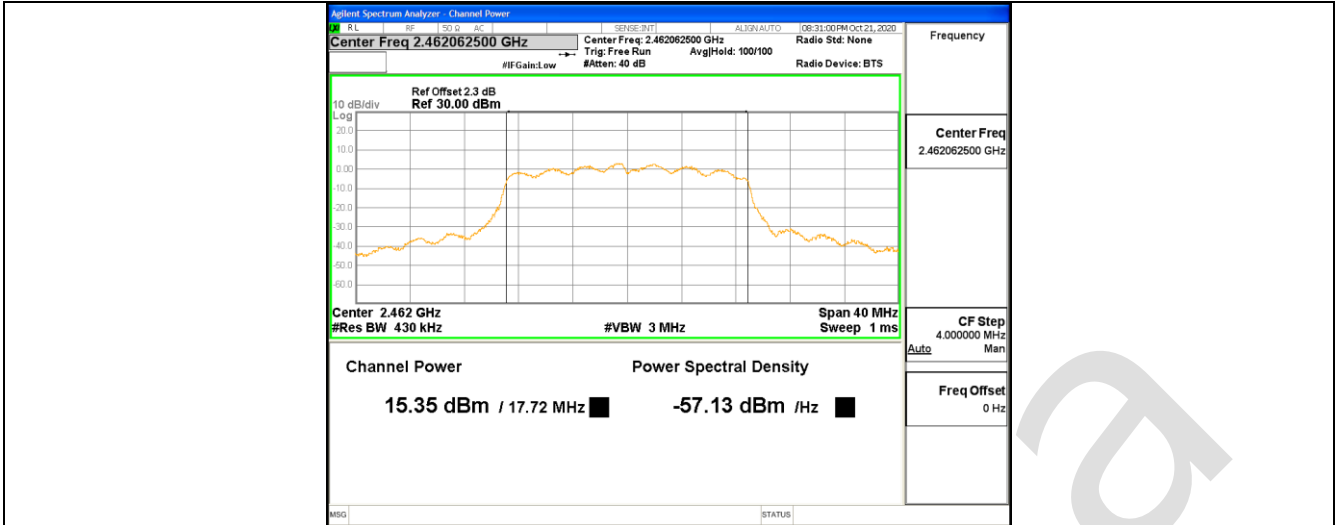
11N20SISO_Ant1_2412

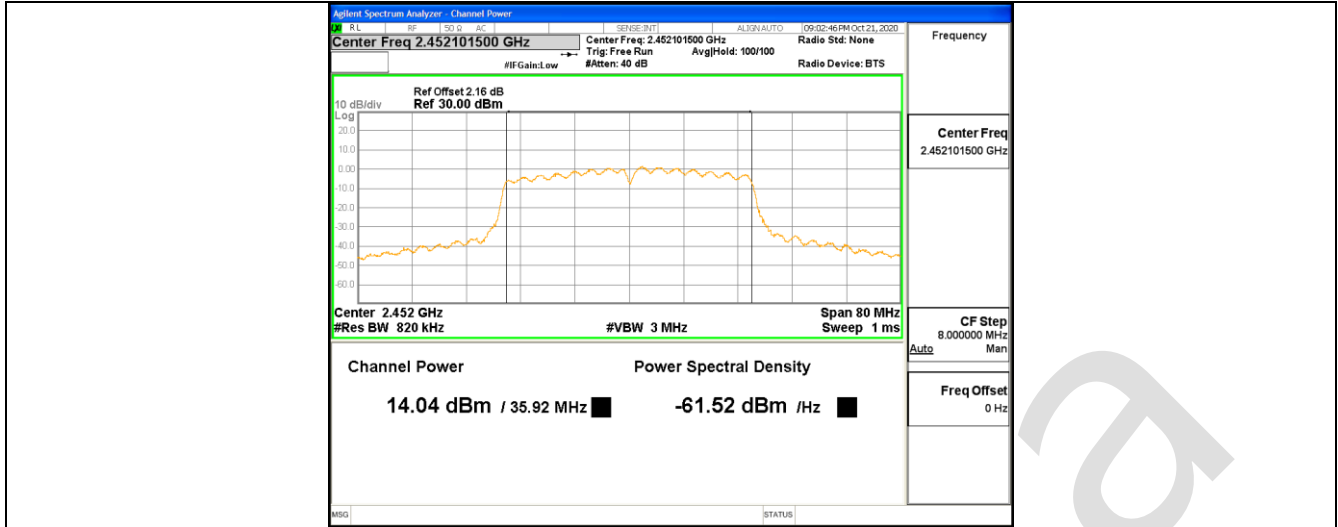


11N20SISO_Ant1_2437



11N20SISO_Ant1_2462

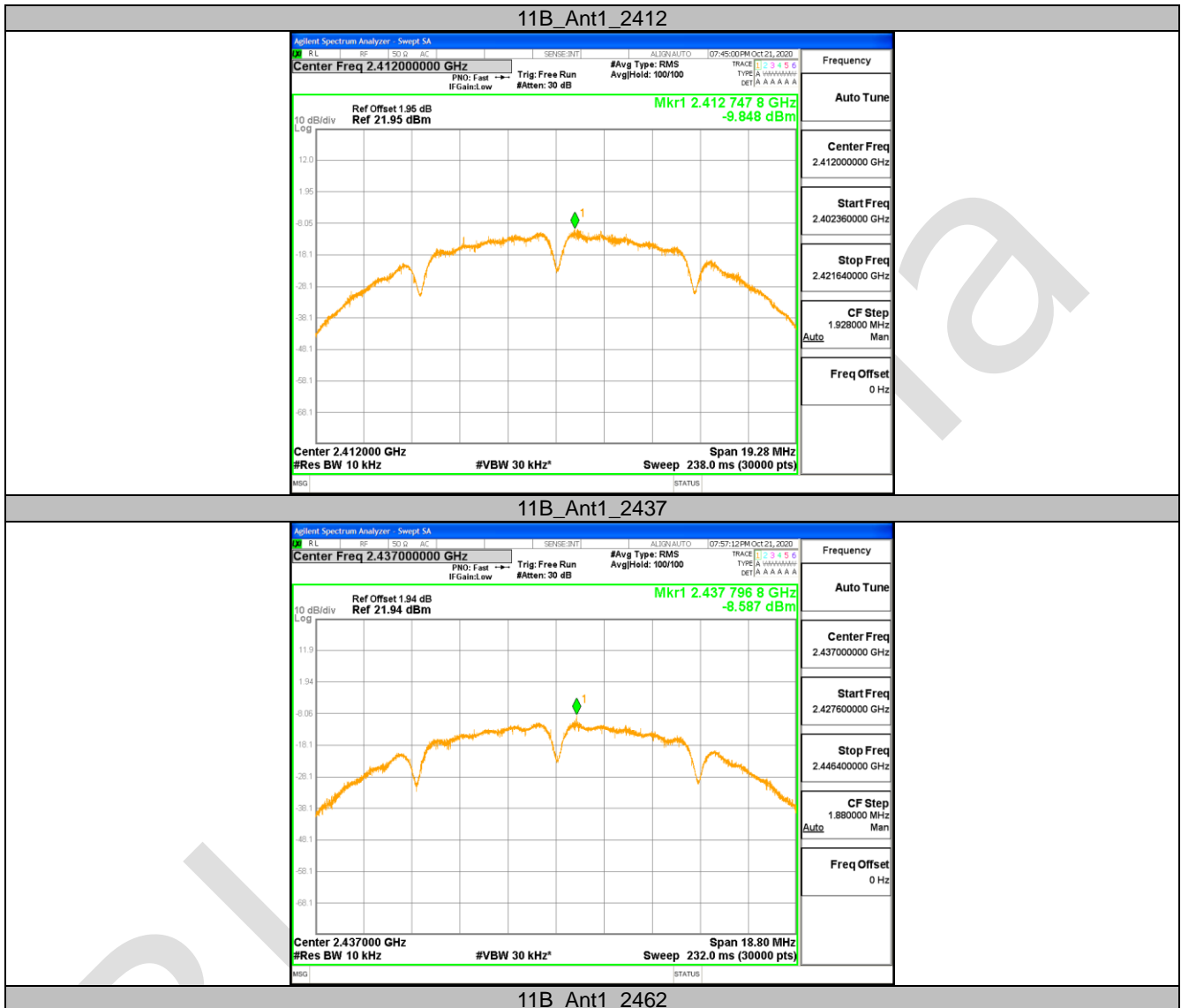


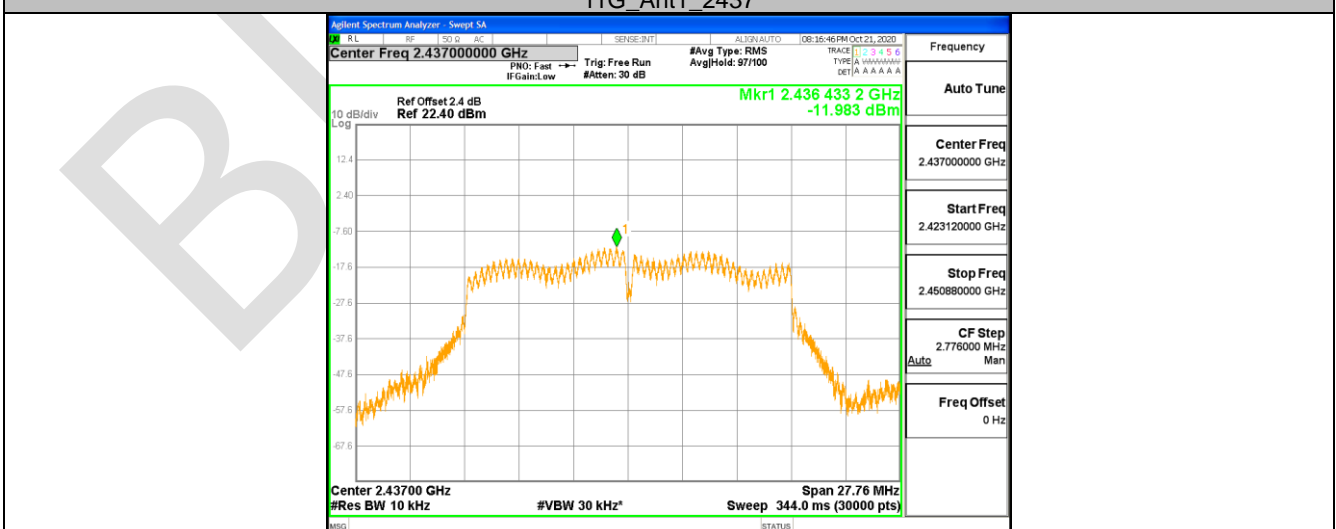
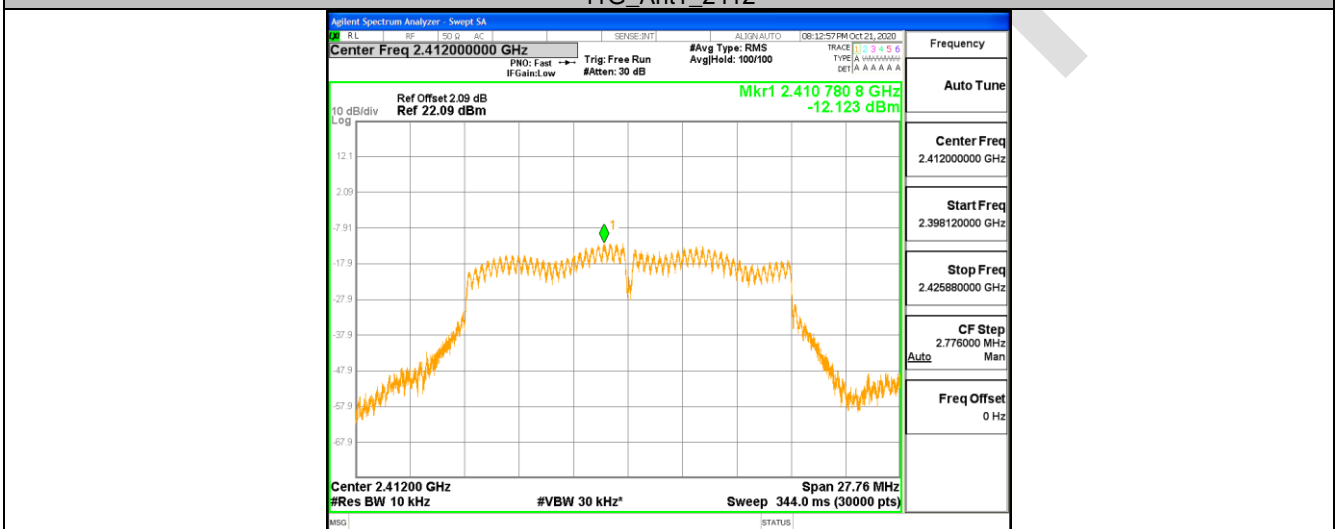
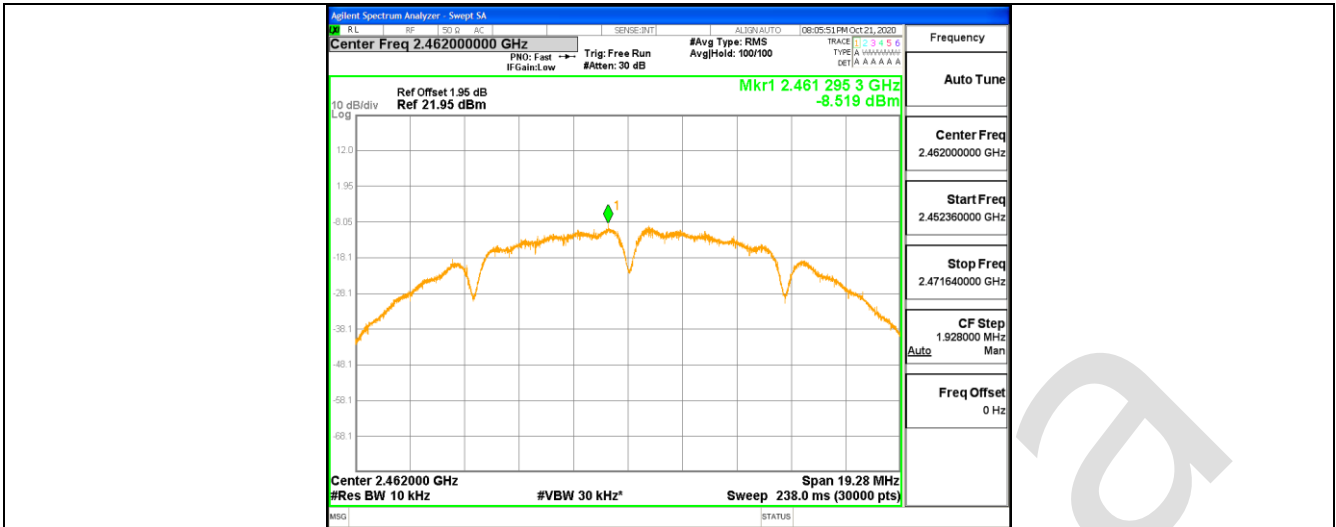


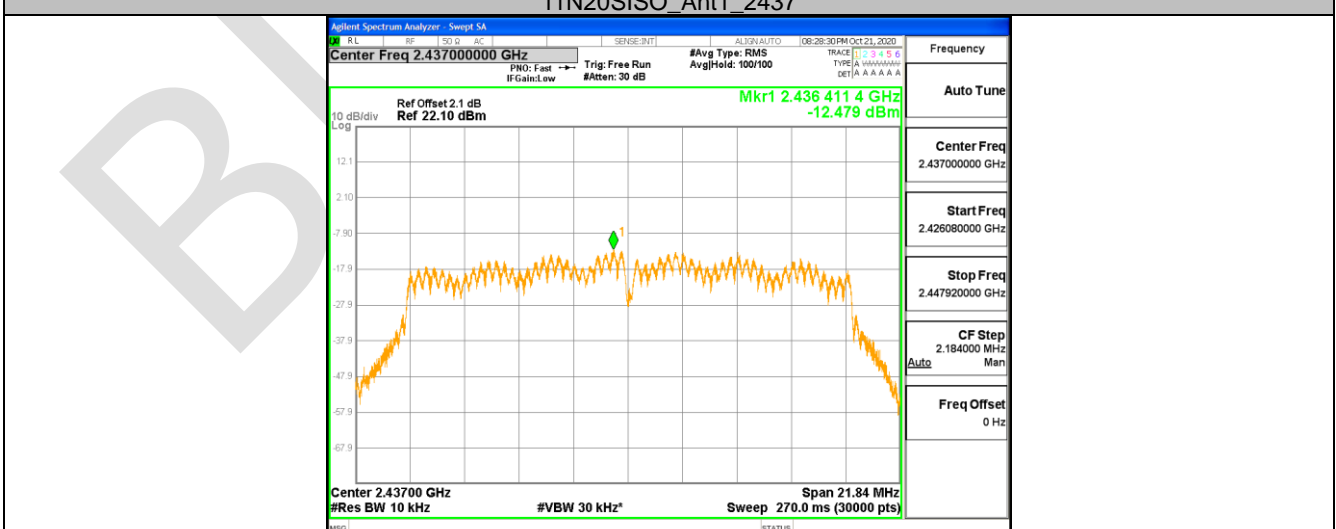
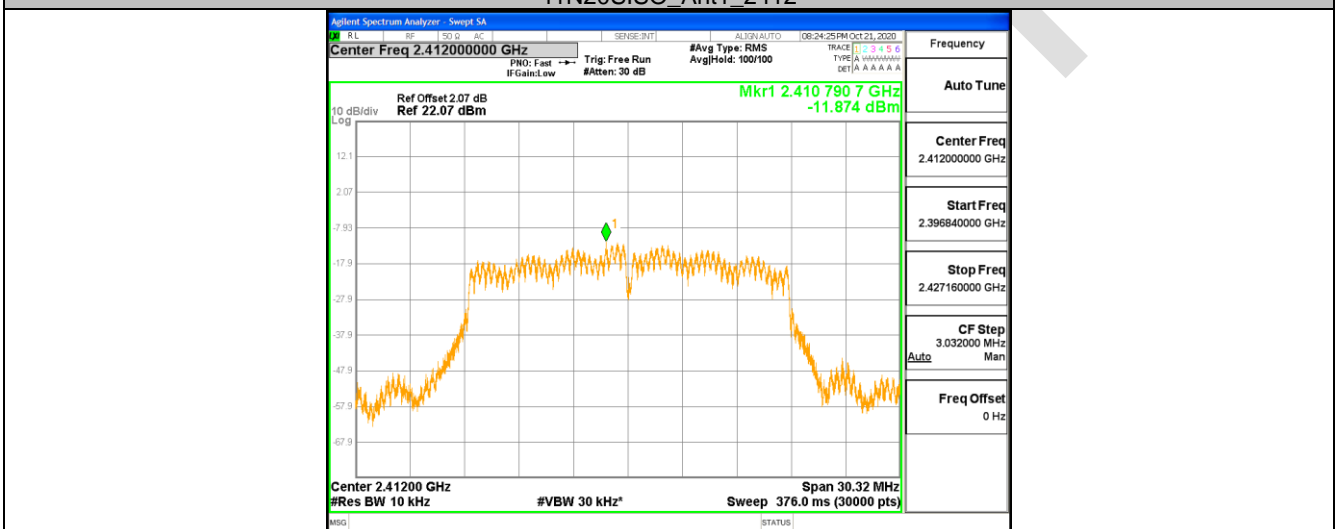
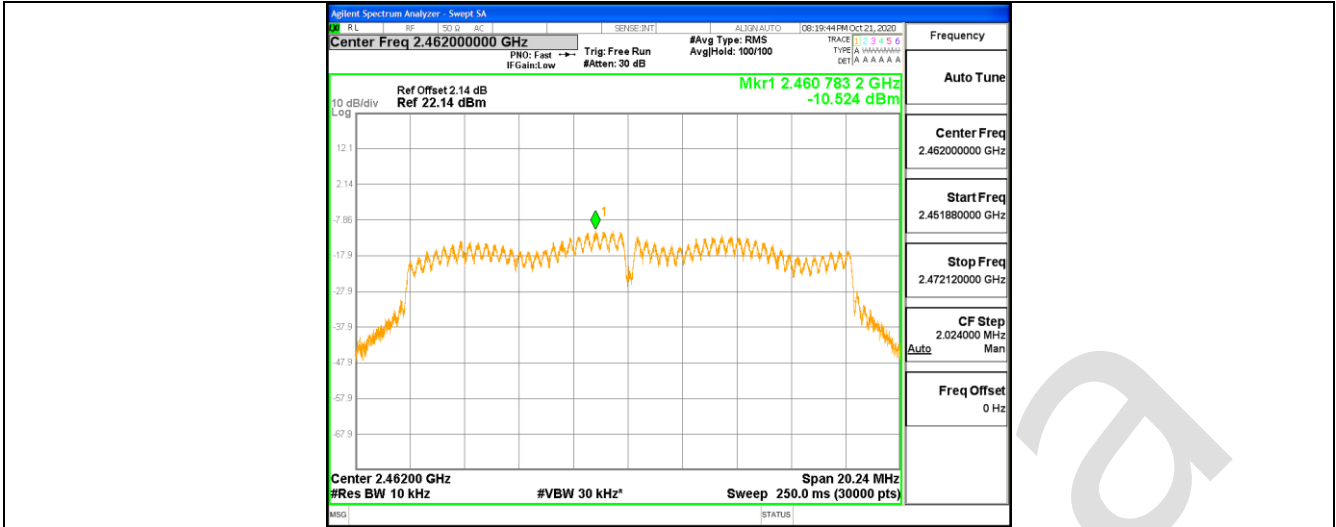
10.4 APPENDIXD: MAXIMUM POWER SPECTRAL DENSITY
Test Result

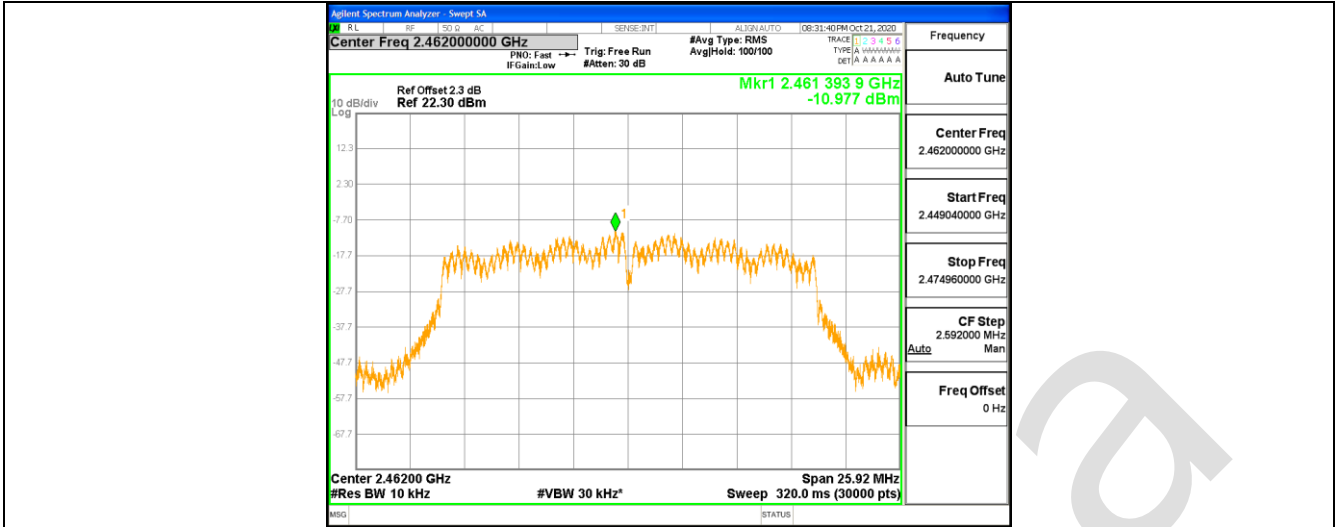
TestMode	Antenna	Channel	Result[dBm/3-100kHz]	Limit[dBm/3kHz]	Verdict
11B	Ant1	2412	-9.85	<=8	PASS
		2437	-8.59	<=8	PASS
		2462	-8.52	<=8	PASS
11G	Ant1	2412	-12.12	<=8	PASS
		2437	-11.92	<=8	PASS
		2462	-10.52	<=8	PASS
11N20SISO	Ant1	2412	-11.87	<=8	PASS
		2437	-12.48	<=8	PASS
		2462	-10.98	<=8	PASS
11N40SISO	Ant1	2422	-14.64	<=8	PASS
		2437	-15.23	<=8	PASS
		2452	-15.23	<=8	PASS

Test Graphs

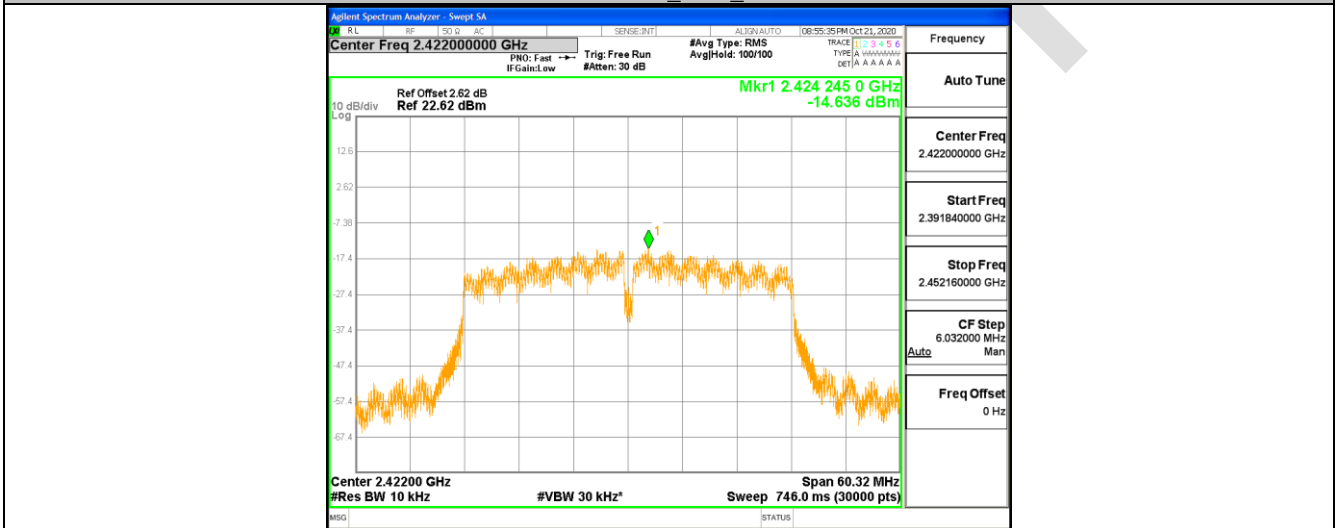




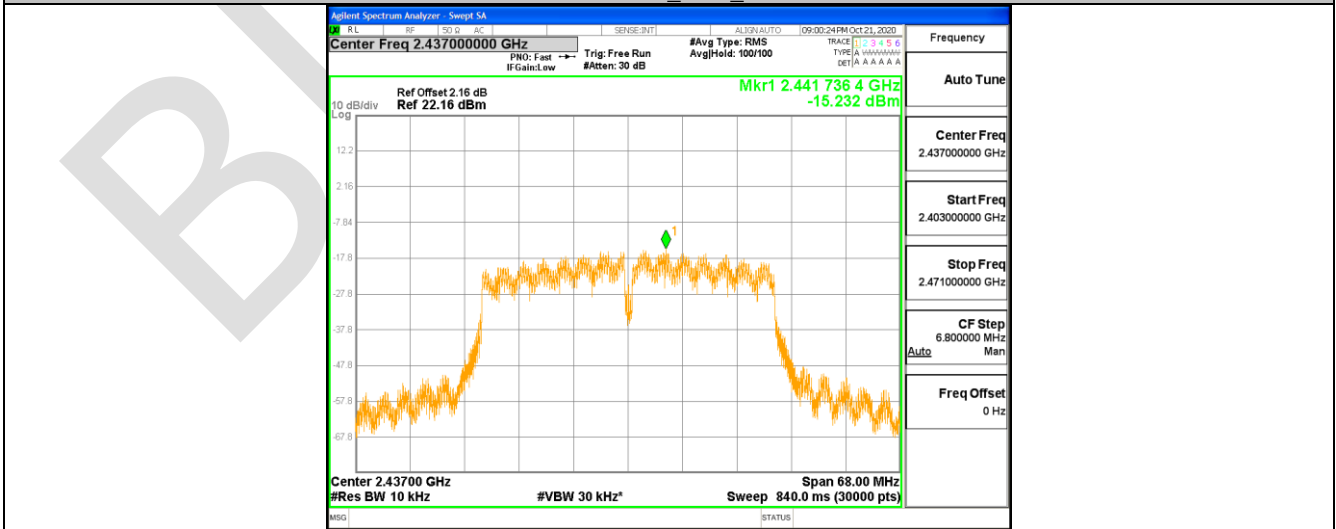




11N40SISO_Ant1_2422



11N40SISO_Ant1_2437



11N40SISO_Ant1_2452