



Appendix B

RF Test Data for 2.4G WIFI (Conducted Measurement)

Product Name: Fivestars-Pegasus

Test Model: SBC2.0a

HVIN: SBC2.0a

Environmental Conditions

Temperature:	21.1° C
Relative Humidity:	52.2%
ATM Pressure:	100.0 kPa
Test Engineer:	Carl Fu
Supervised by:	Li Huan



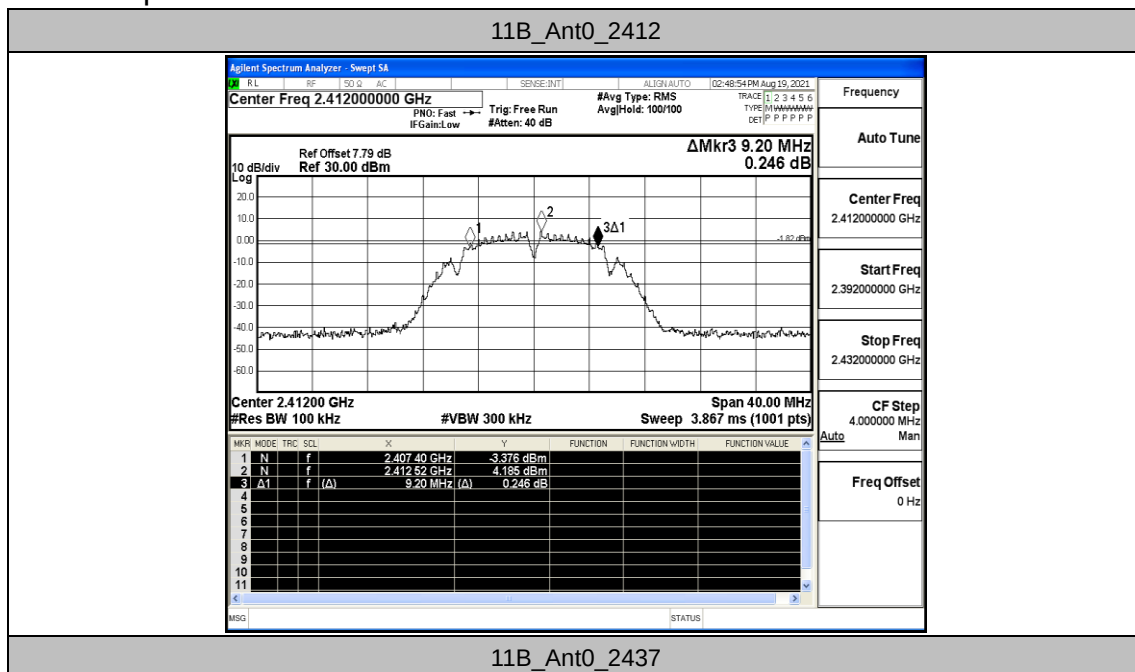
B.1 6dB Bandwidth

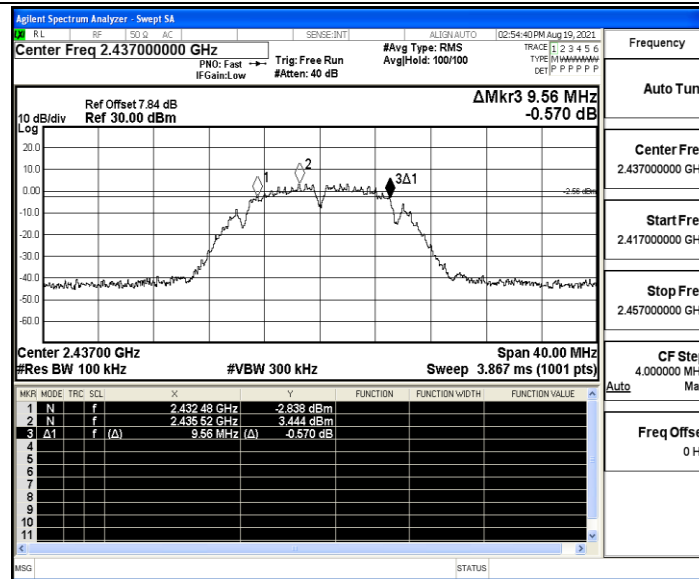
Test Result

ANT0

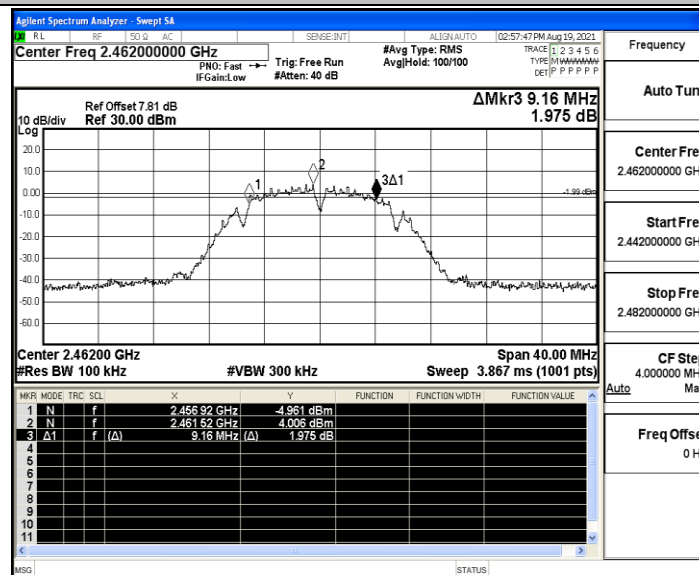
TestMode	Antenna	Channel	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant0	2412	9.200	2407.400	2416.600	0.5	PASS
		2437	9.560	2432.480	2442.040	0.5	PASS
		2462	9.160	2456.920	2466.080	0.5	PASS
11G	Ant0	2412	16.440	2403.800	2420.240	0.5	PASS
		2437	16.440	2428.840	2445.280	0.5	PASS
		2462	16.480	2453.720	2470.200	0.5	PASS
11N20SISO	Ant0	2412	17.680	2403.160	2420.840	0.5	PASS
		2437	17.360	2428.480	2445.840	0.5	PASS
		2462	16.400	2453.120	2469.520	0.5	PASS

Test Graphs

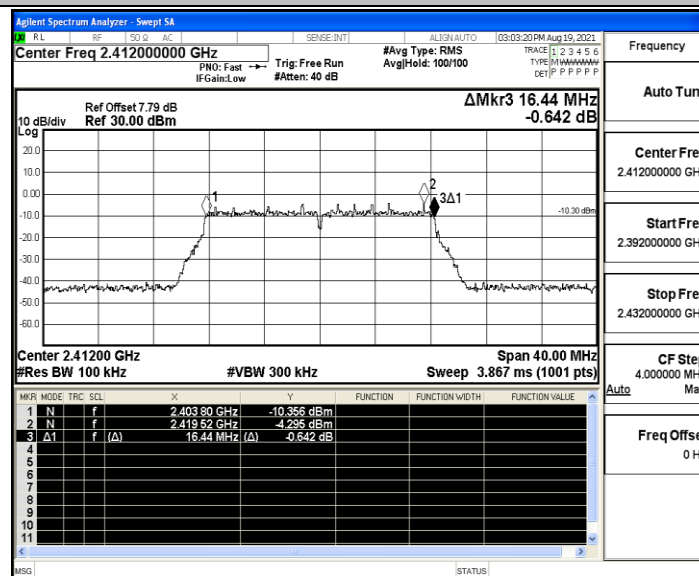




11B_Ant0_2462

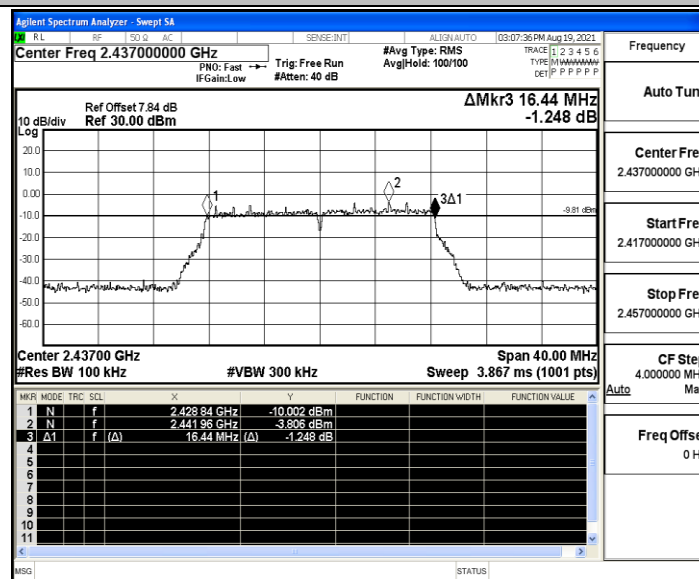


11G_Ant0_2412

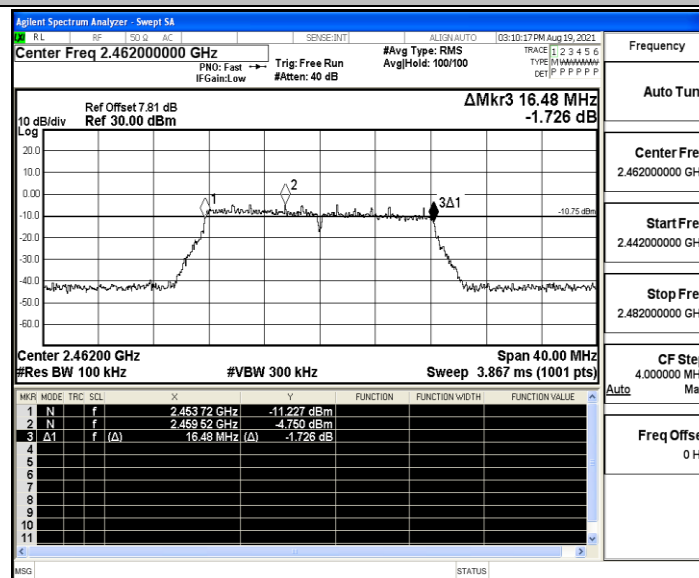




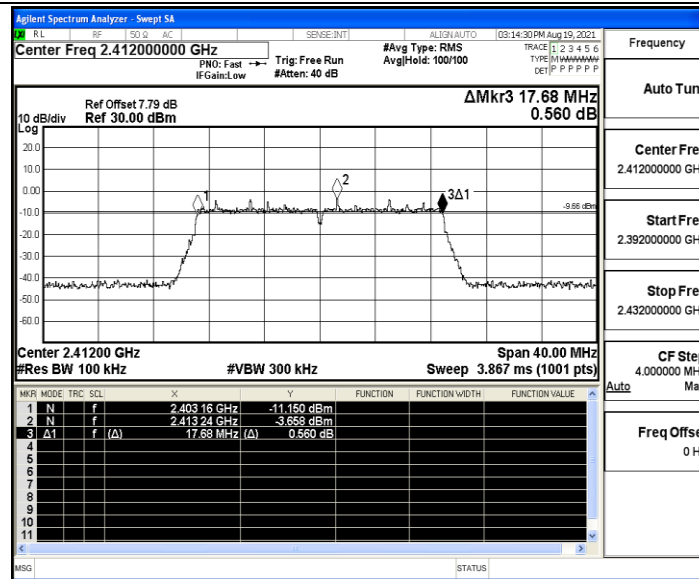
11G_Ant0_2437



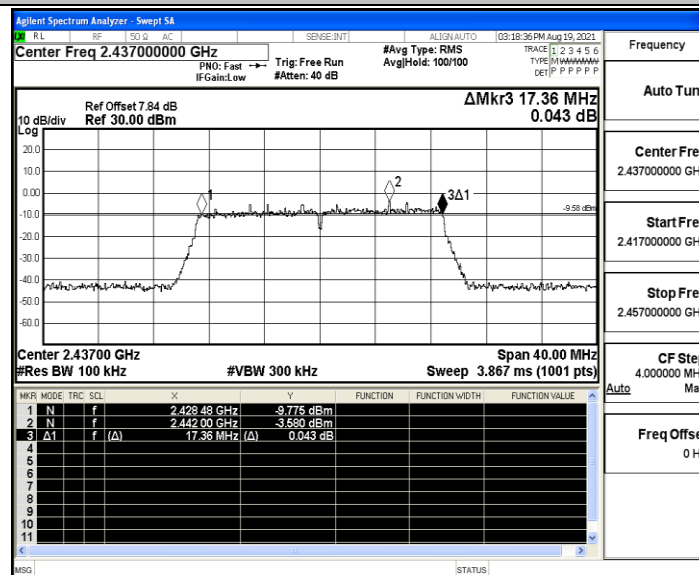
11G_Ant0_2462



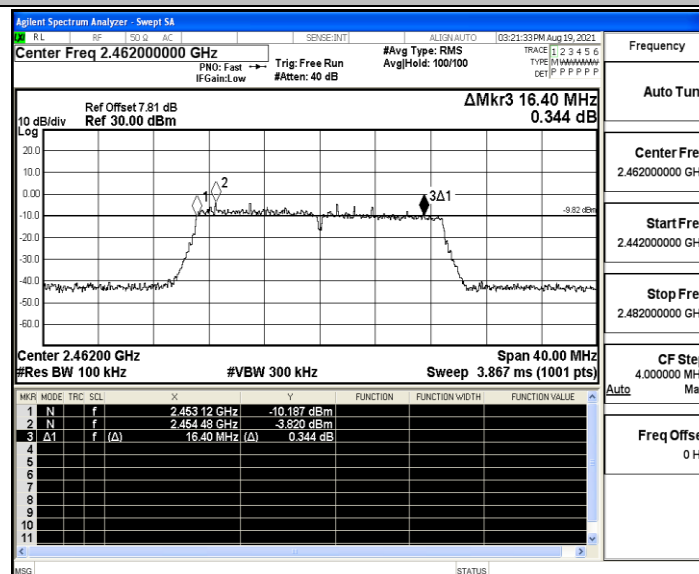
11N20SISO_Ant0_2412



11N20SISO_Ant0_2437



11N20SISO_Ant0_2462





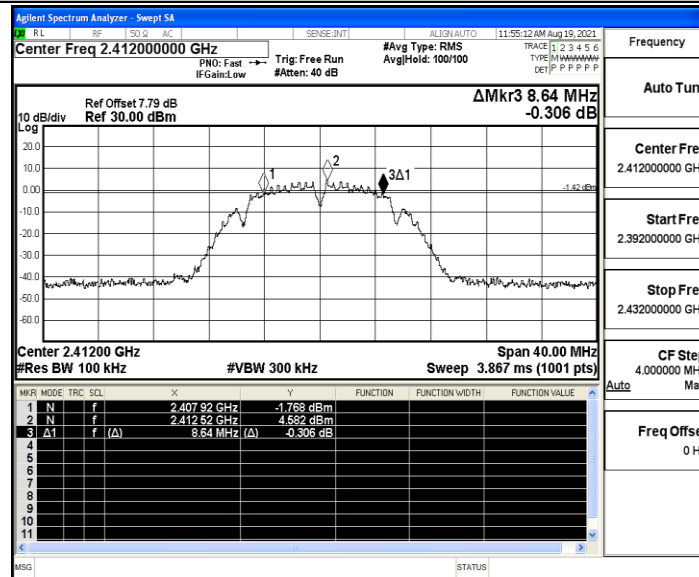
ANT1

TestMode	Antenna	Channel	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	8.640	2407.920	2416.560	0.5	PASS
		2437	9.600	2432.440	2442.040	0.5	PASS
		2462	9.600	2456.920	2466.520	0.5	PASS
11G	Ant1	2412	16.520	2403.720	2420.240	0.5	PASS
		2437	16.200	2429.040	2445.240	0.5	PASS
		2462	15.800	2453.760	2469.560	0.5	PASS
11N20SISO	Ant1	2412	17.680	2403.160	2420.840	0.5	PASS
		2437	17.400	2428.440	2445.840	0.5	PASS
		2462	16.400	2453.160	2469.560	0.5	PASS

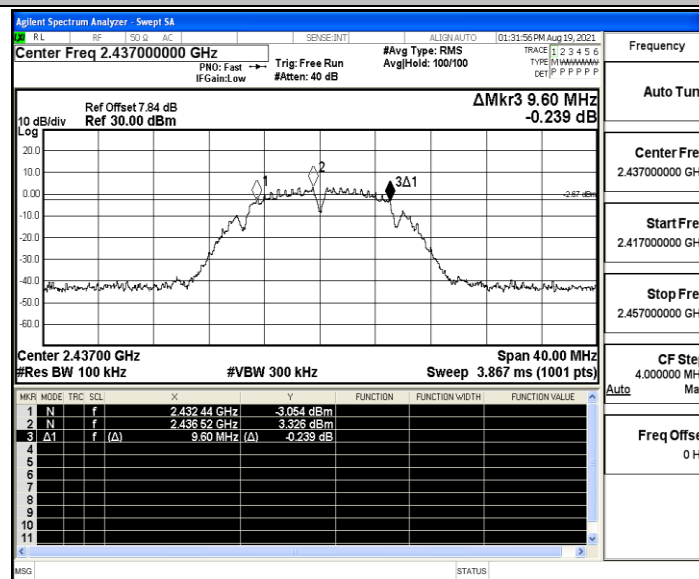


Test Graphs

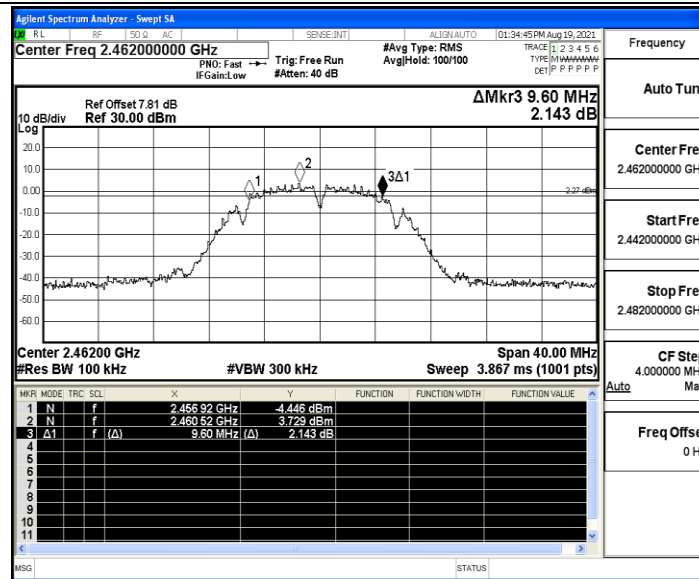
11B_Ant1_2412



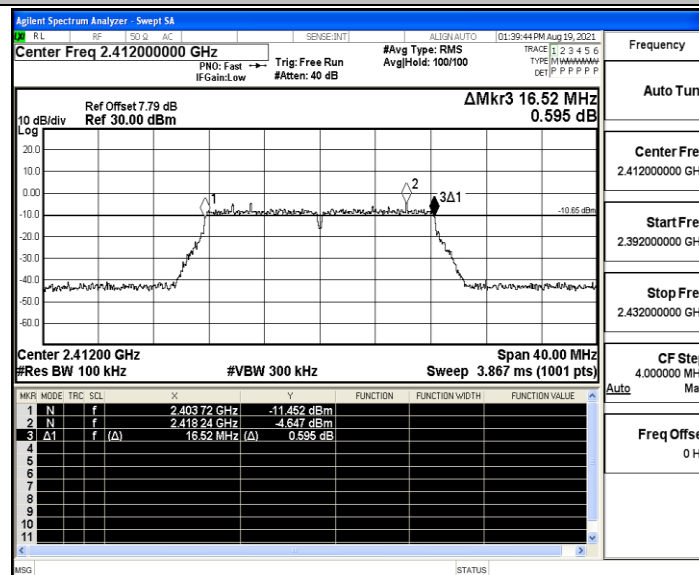
11B_Ant1_2437



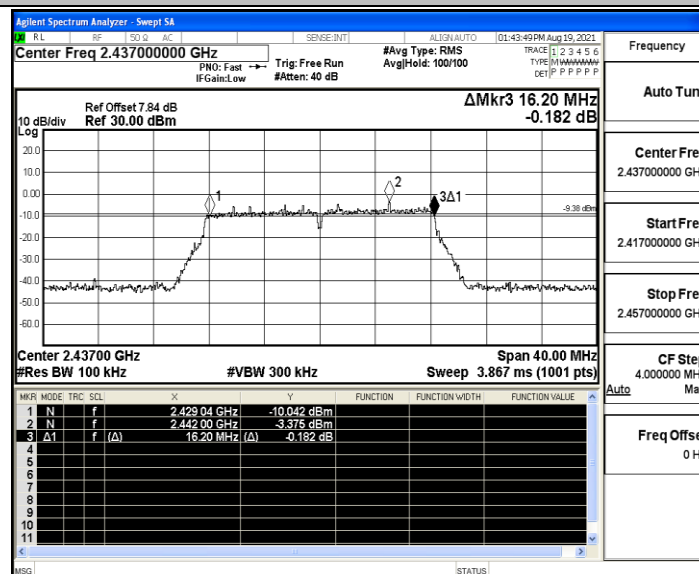
11B_Ant1_2462



11G_Ant1_2412

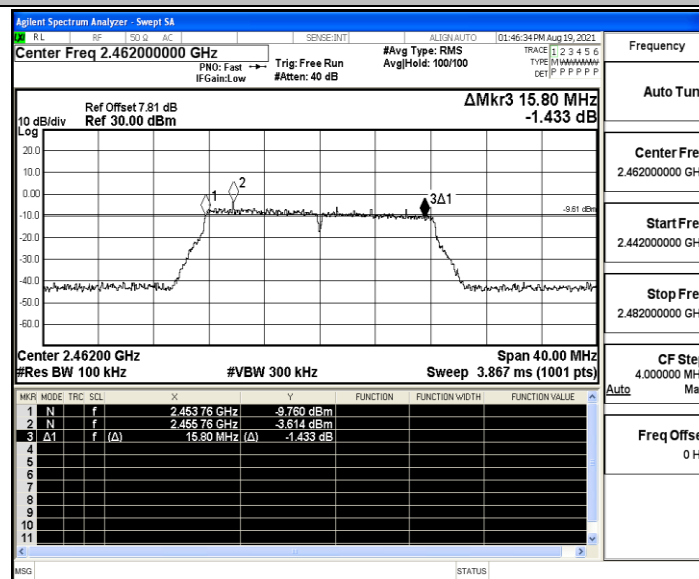


11G_Ant1_2437

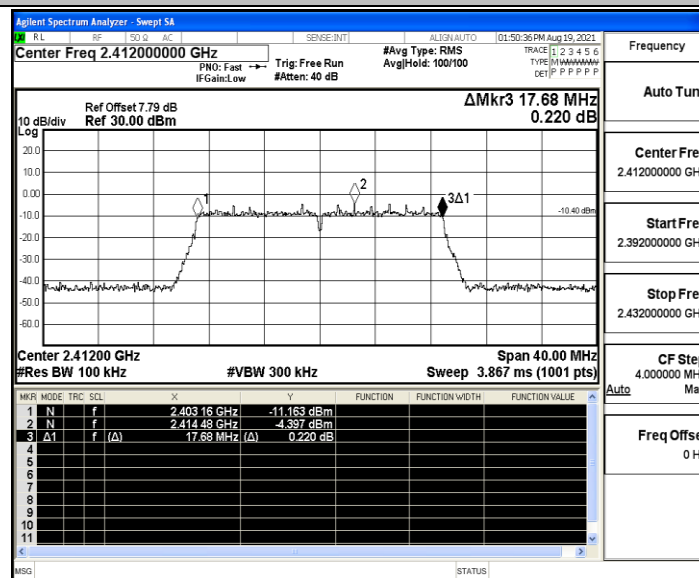




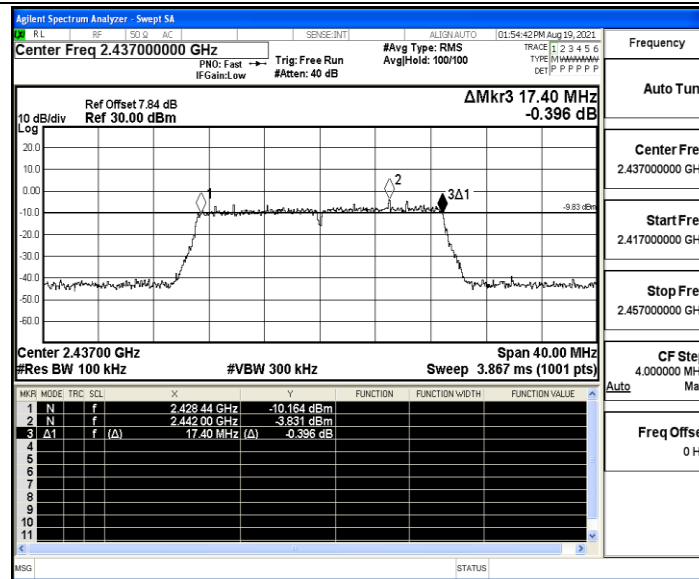
11G_Ant1_2462



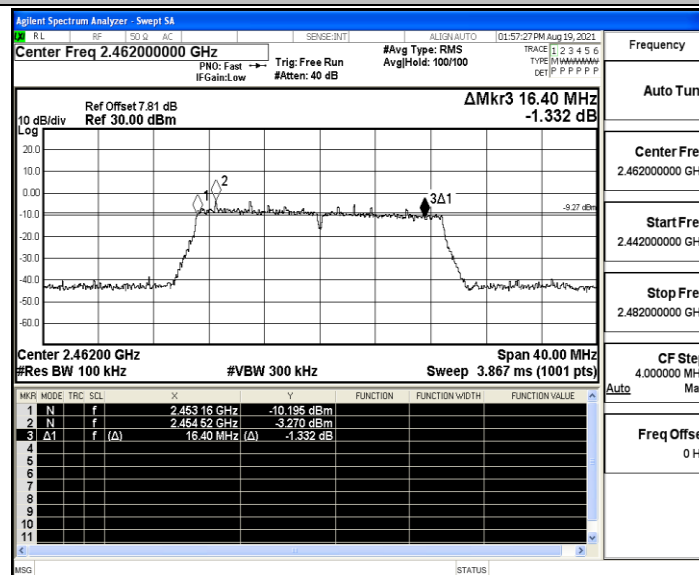
11N20SISO_Ant1_2412



11N20SISO_Ant1_2437



11N20SISO_Ant1_2462





B.2 Occupied Channel Bandwidth

Test Result

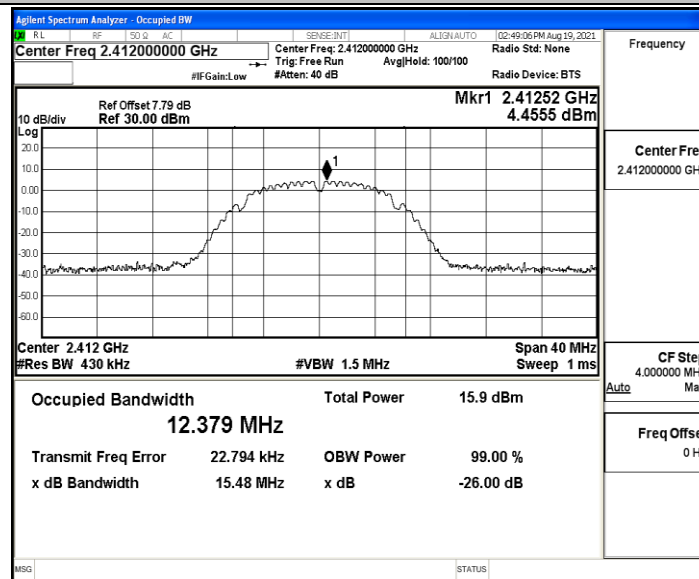
ANT0

TestMode	Antenna	Channel	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant0	2412	12.379	2405.833	2418.212	---	PASS
		2437	12.377	2430.942	2443.319	---	PASS
		2462	12.506	2455.577	2468.083	---	PASS
11G	Ant0	2412	17.147	2403.464	2420.611	---	PASS
		2437	17.083	2428.541	2445.624	---	PASS
		2462	17.138	2453.285	2470.423	---	PASS
11N20SISO	Ant0	2412	18.003	2403.005	2421.008	---	PASS
		2437	17.981	2428.090	2446.071	---	PASS
		2462	17.992	2452.893	2470.885	---	PASS

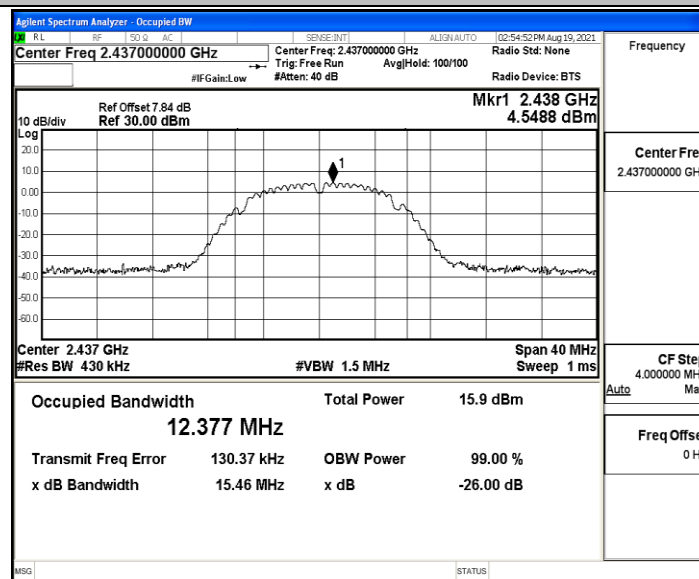


Test Graphs

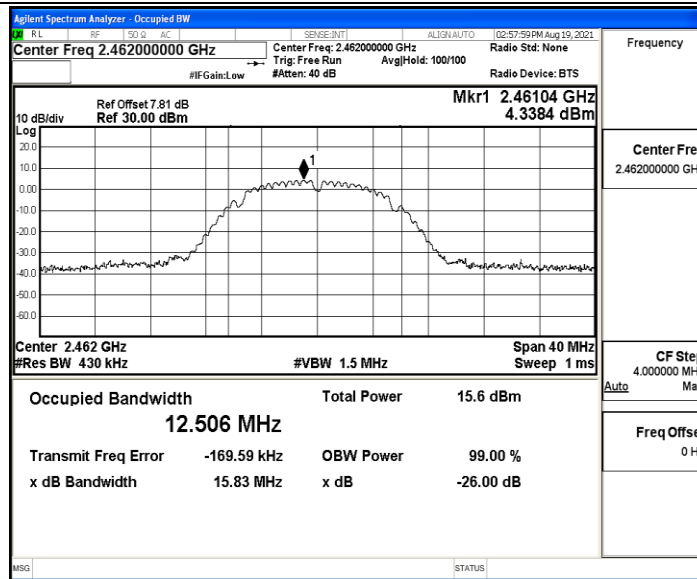
11B_Ant0_2412



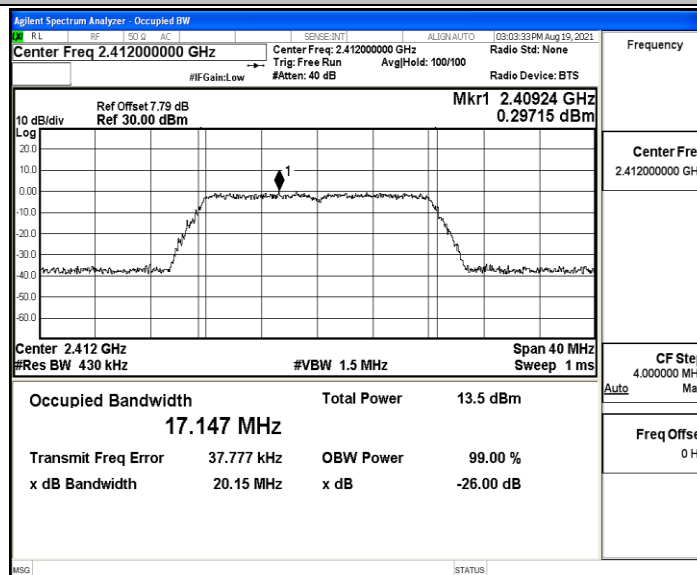
11B_Ant0_2437



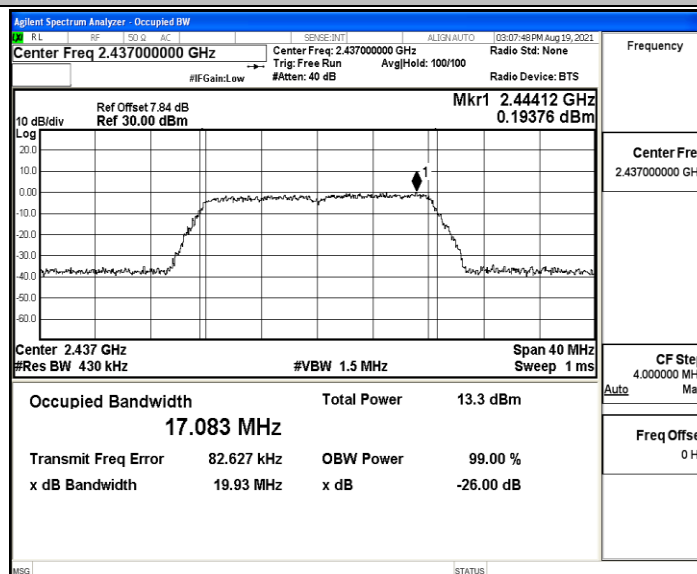
11B_Ant0_2462



11G_Ant0_2412

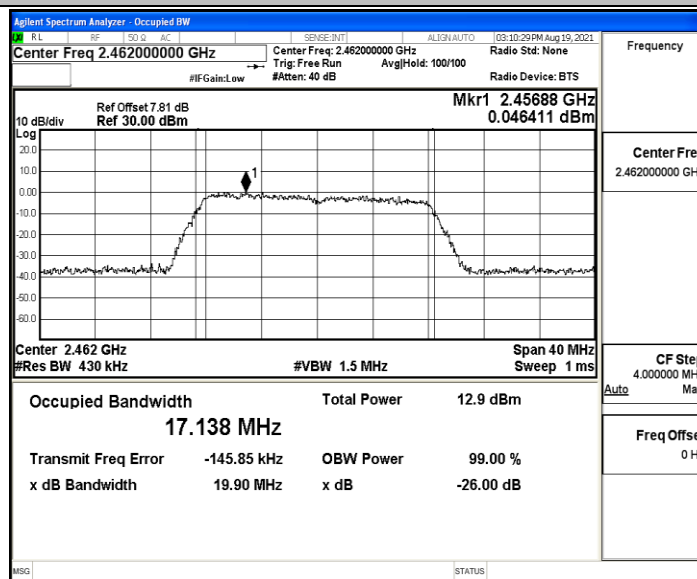


11G_Ant0_2437

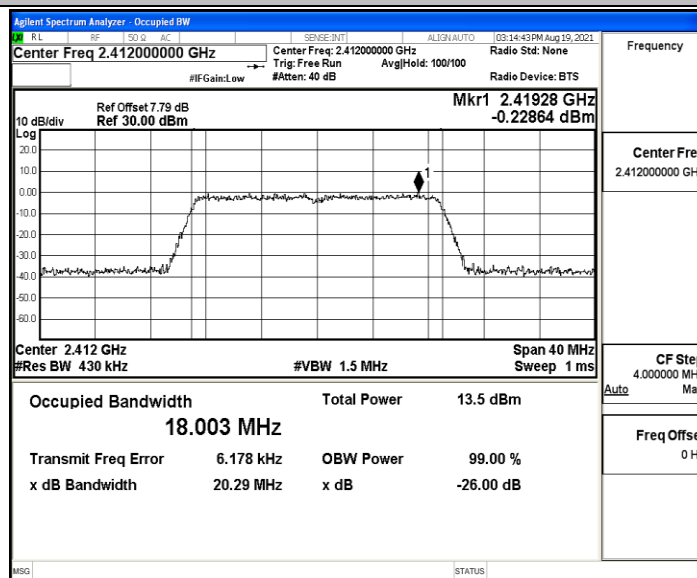




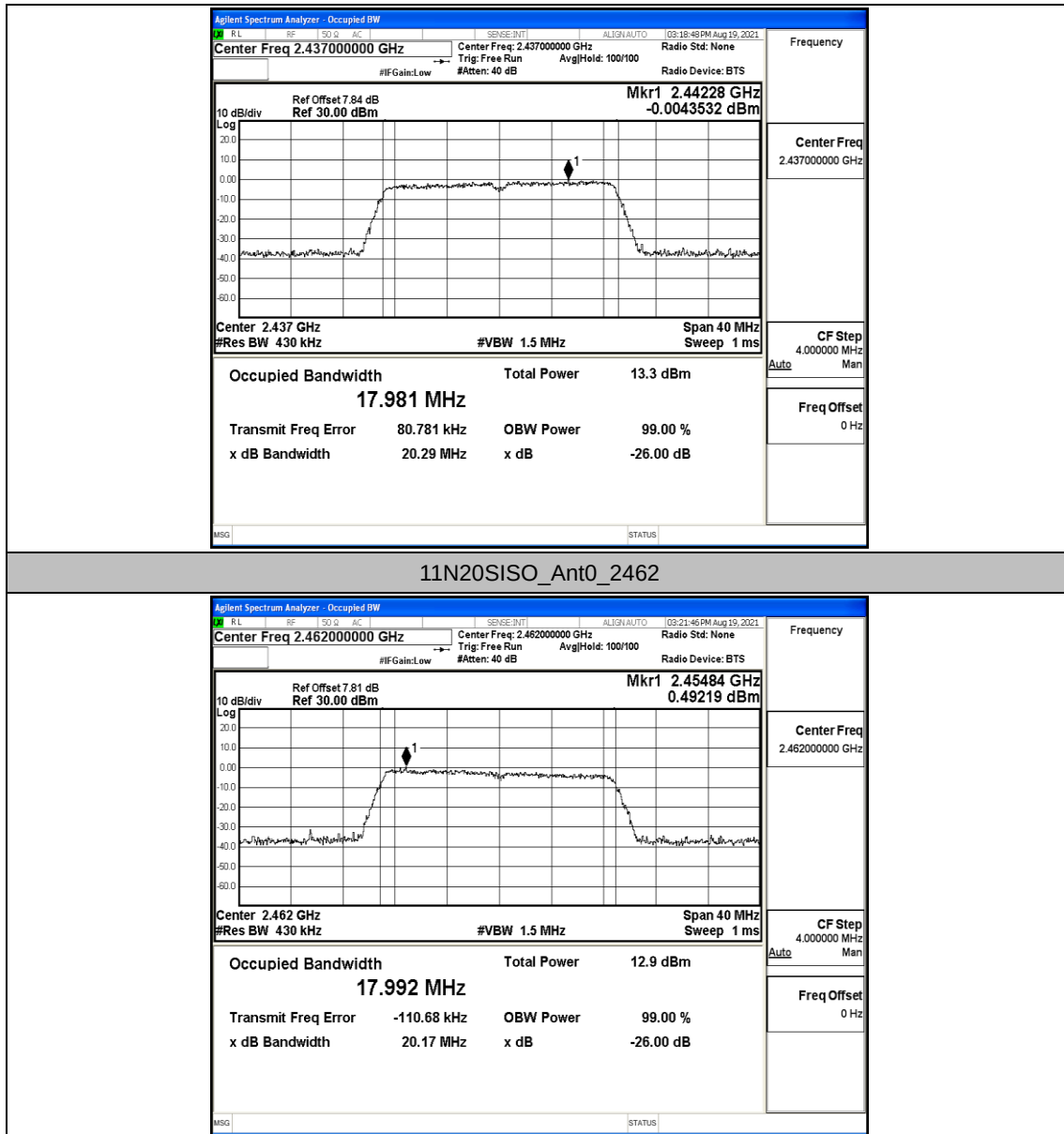
11G_Ant0_2462



11N20SISO_Ant0_2412



11N20SISO_Ant0_2437



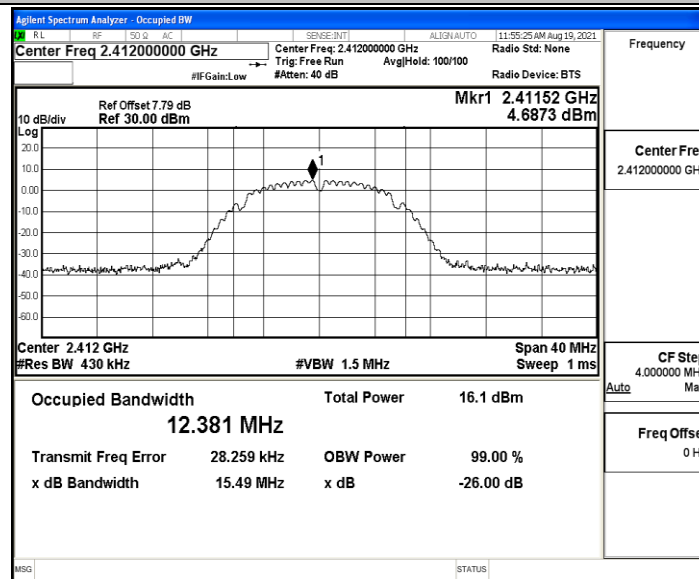
ANT1

TestMode	Antenna	Channel	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	12.381	2405.838	2418.219	---	PASS
		2437	12.369	2430.938	2443.307	---	PASS
		2462	12.485	2455.593	2468.078	---	PASS
11G	Ant1	2412	17.168	2403.443	2420.611	---	PASS
		2437	17.089	2428.559	2445.648	---	PASS
		2462	17.118	2453.322	2470.440	---	PASS
11N20SISO	Ant1	2412	18.006	2403.006	2421.012	---	PASS
		2437	18.015	2428.096	2446.111	---	PASS
		2462	17.975	2452.915	2470.890	---	PASS

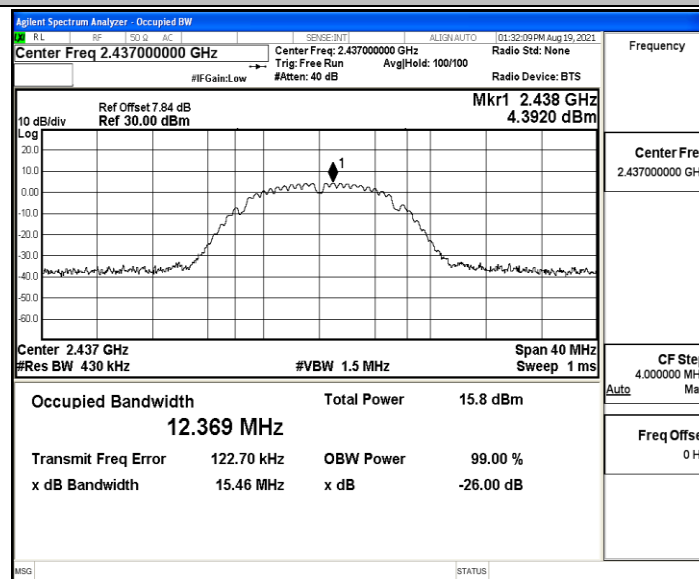


Test Graphs

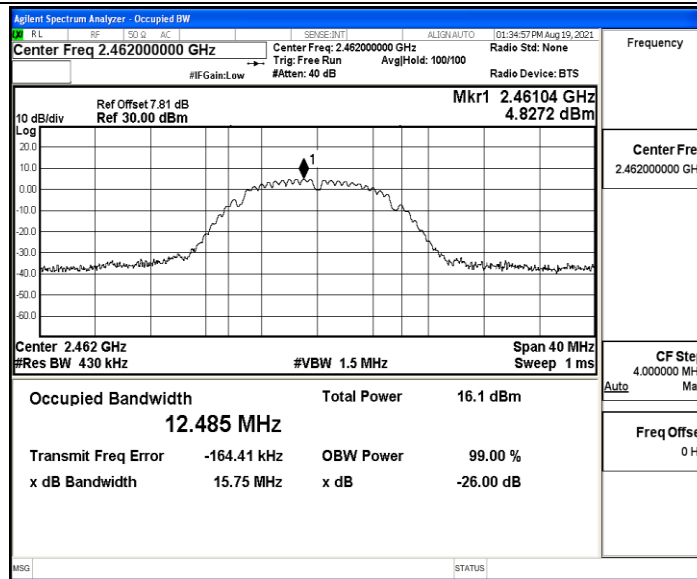
11B_Ant1_2412



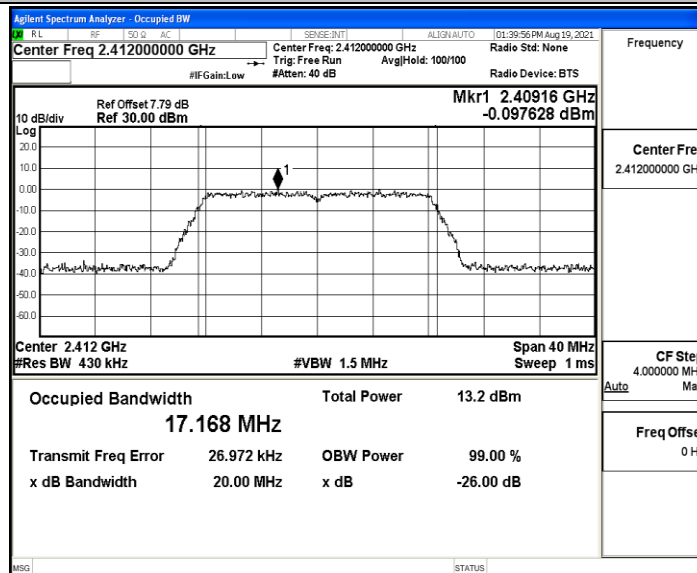
11B_Ant1_2437



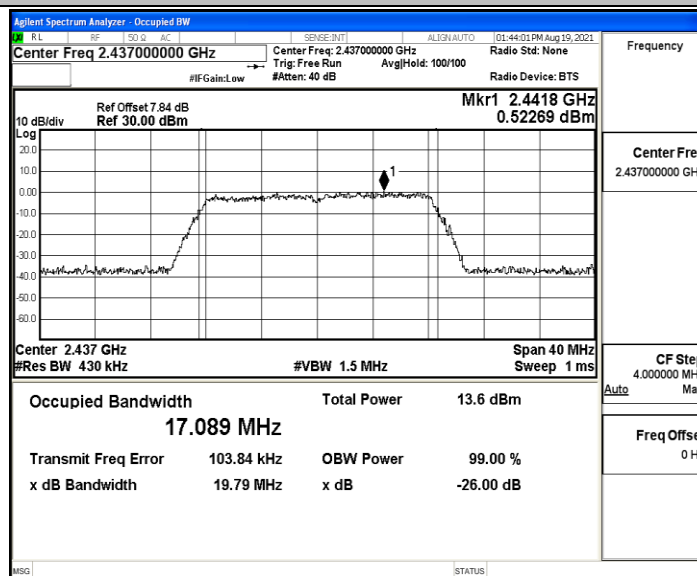
11B_Ant1_2462



11G_Ant1_2412

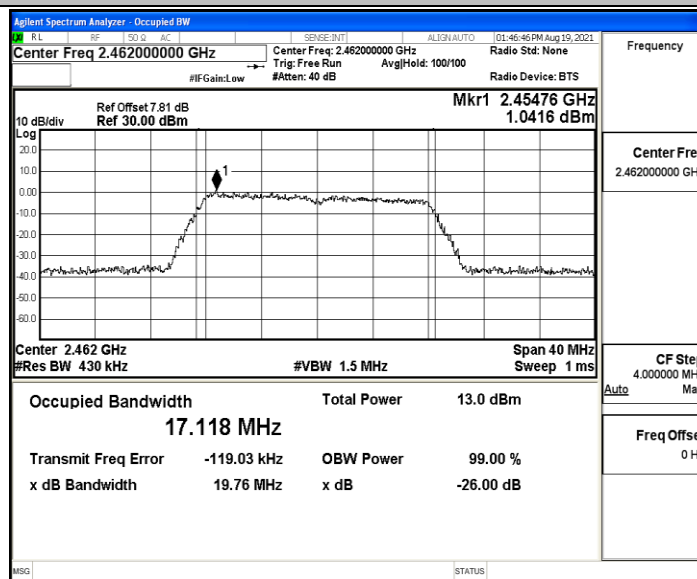


11G_Ant1_2437

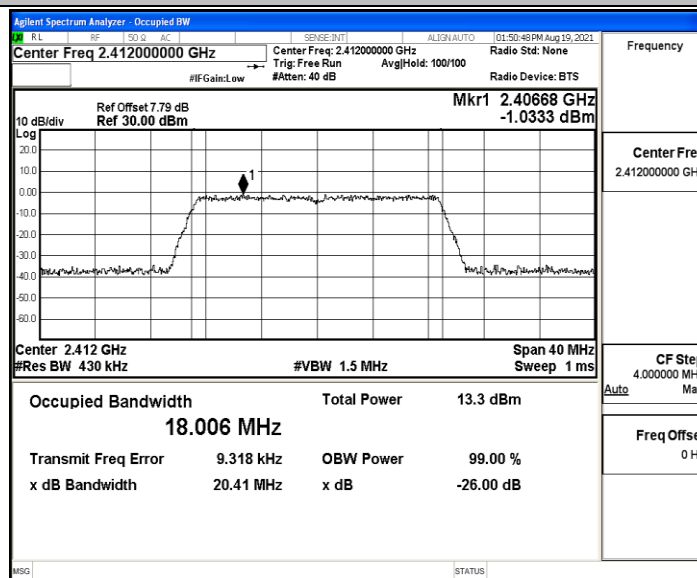




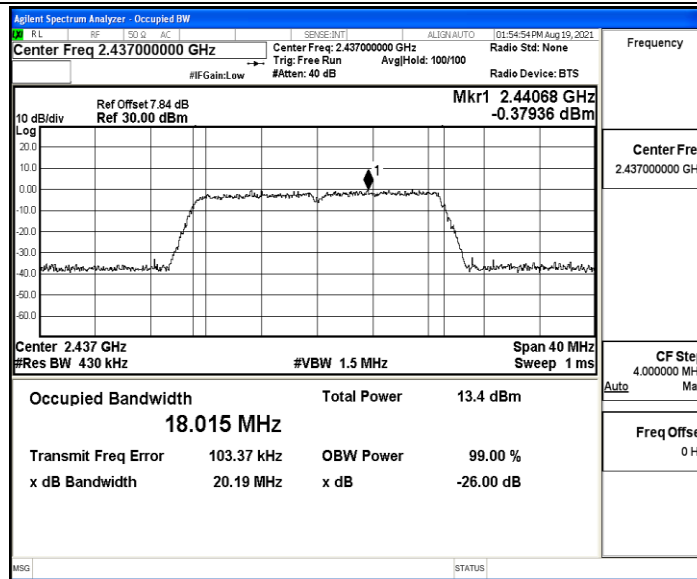
11G_Ant1_2462



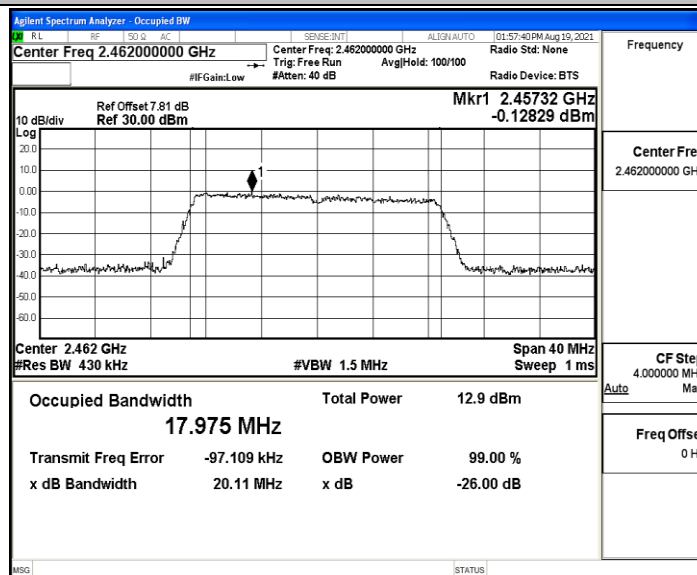
11N20SISO_Ant1_2412



11N20SISO_Ant1_2437



11N20SISO_Ant1_2462





B.3 Maximum conducted output power

Test Result

Mode	Channel	Peak Power [dBm]			Limit [dBm]	Verdict
		Ant 0	Ant 1	Sum		
11B	LCH	15.92	16.18	/	≤30	PASS
	MCH	15.96	16.01	/	≤30	PASS
	HCH	15.62	16.14	/	≤30	PASS
11G	LCH	14.60	14.40	/	≤30	PASS
	MCH	14.42	14.70	/	≤30	PASS
	HCH	14.12	14.06	/	≤30	PASS
11N20	LCH	14.67	14.45	17.57	≤30	PASS
	MCH	14.47	14.63	17.56	≤30	PASS
	HCH	14.31	14.06	17.20	≤30	PASS



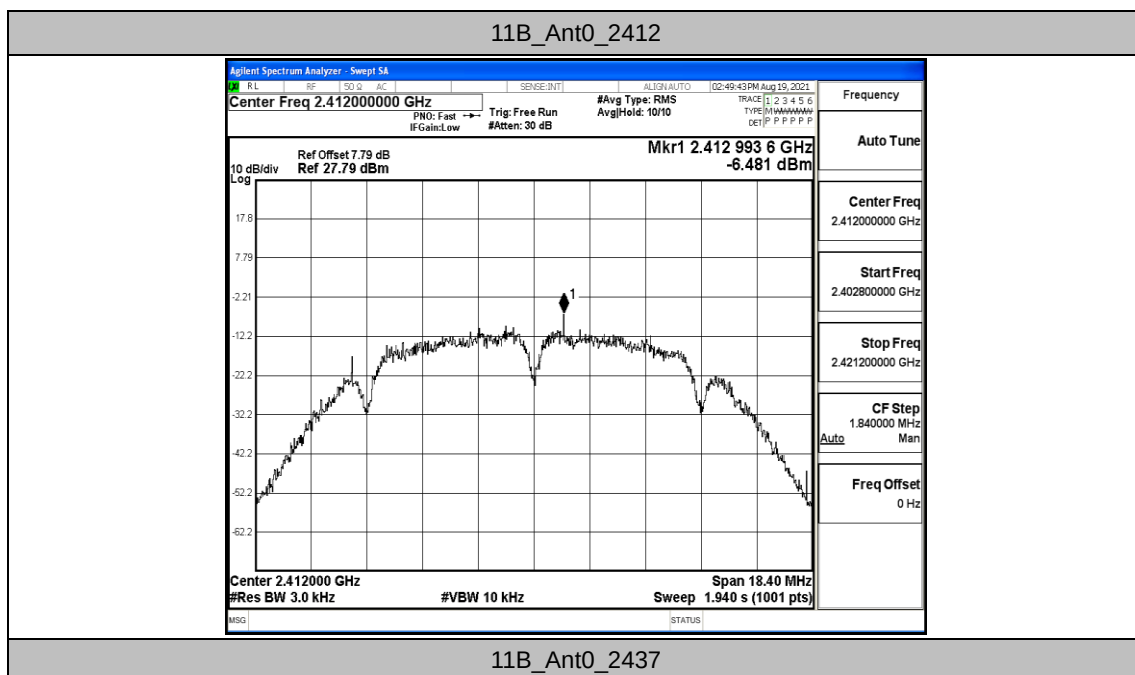
B.4 Maximum power spectral density

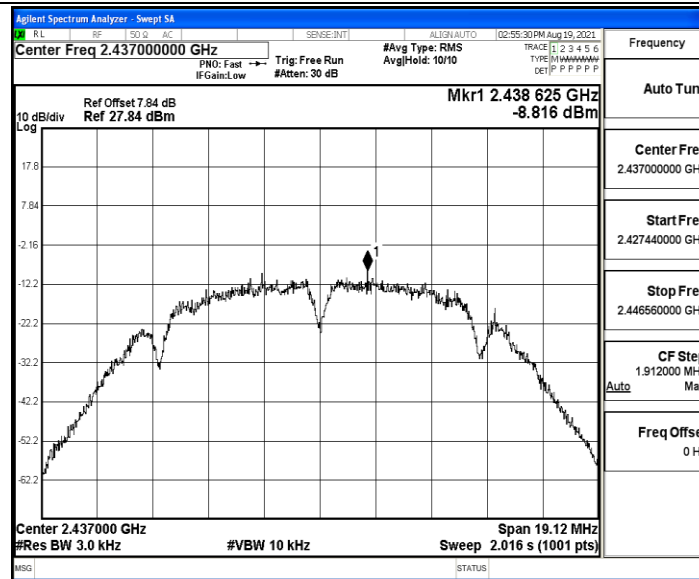
Test Result

ANT0

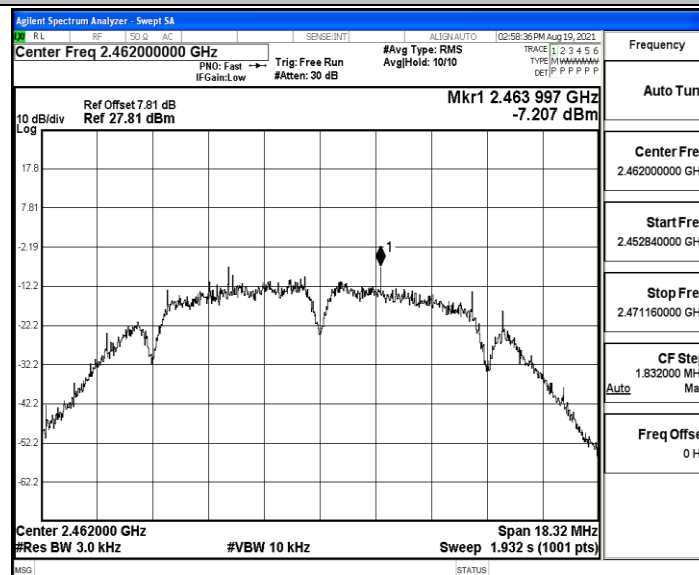
TestMode	Antenna	Channel	Result[dBm/3kHz]	Limit[dBm/3kHz]	Verdict
11B	Ant0	2412	-6.48	≤8	PASS
		2437	-8.82	≤8	PASS
		2462	-7.21	≤8	PASS
11G	Ant0	2412	-17.47	≤8	PASS
		2437	-16.7	≤8	PASS
		2462	-17.51	≤8	PASS
11N20SISO	Ant0	2412	-17.92	≤8	PASS
		2437	-18.01	≤8	PASS
		2462	-17.35	≤8	PASS

Test Graphs

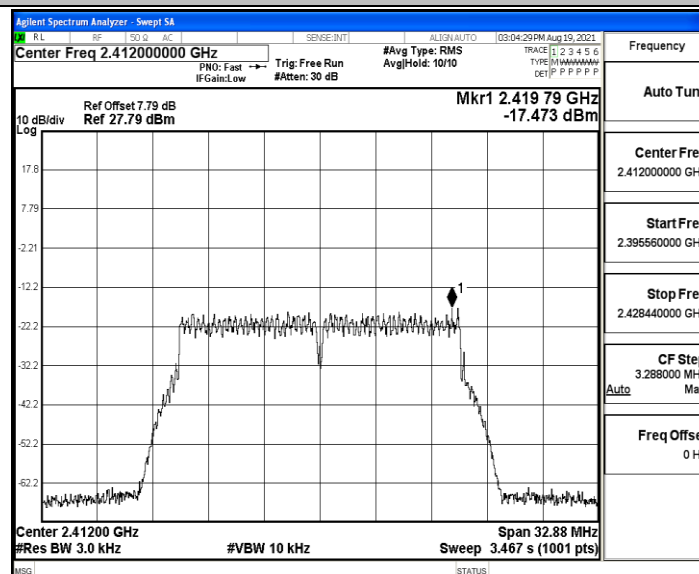




11B_Ant0_2462

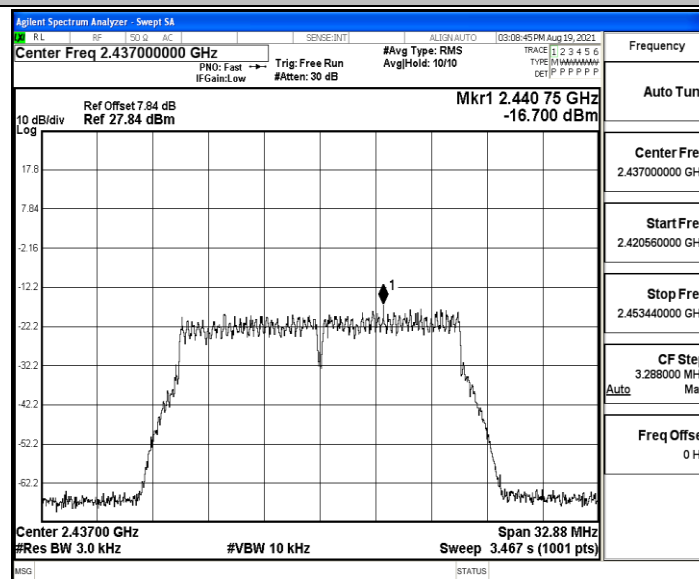


11G_Ant0_2412

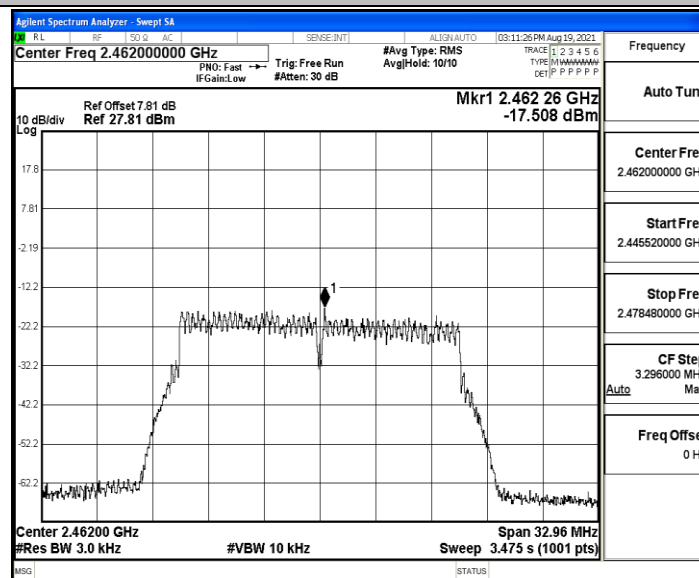




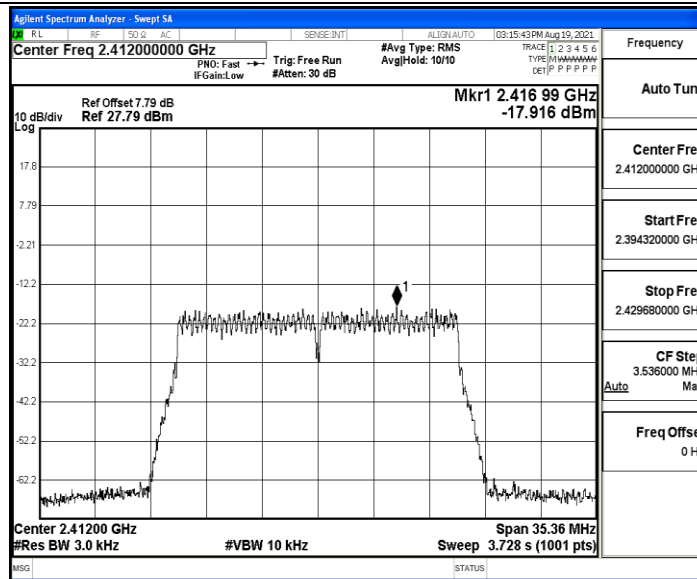
11G_Ant0_2437



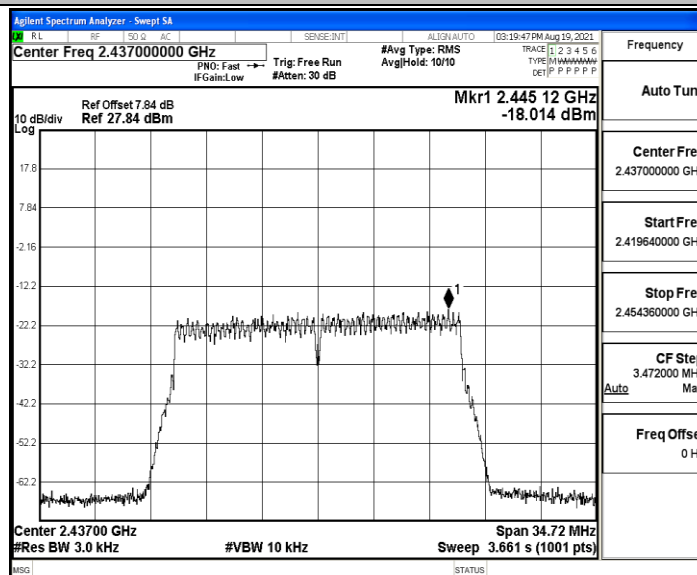
11G_Ant0_2462



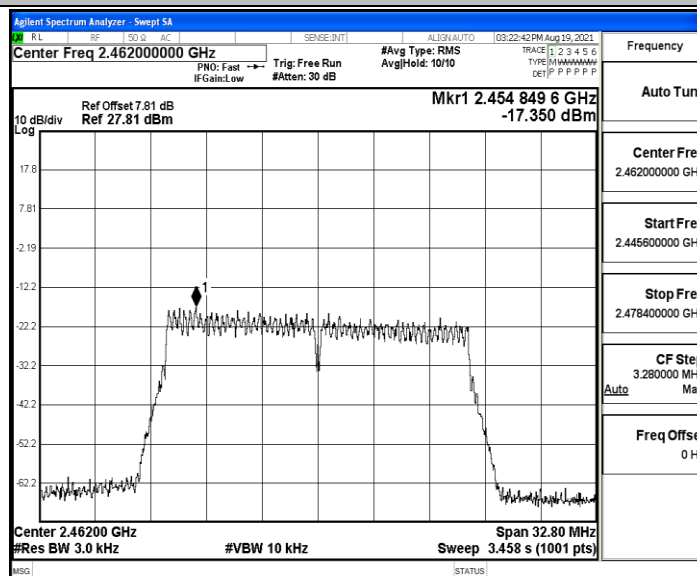
11N20SISO_Ant0_2412



11N20SISO_Ant0_2437



11N20SISO_Ant0_2462



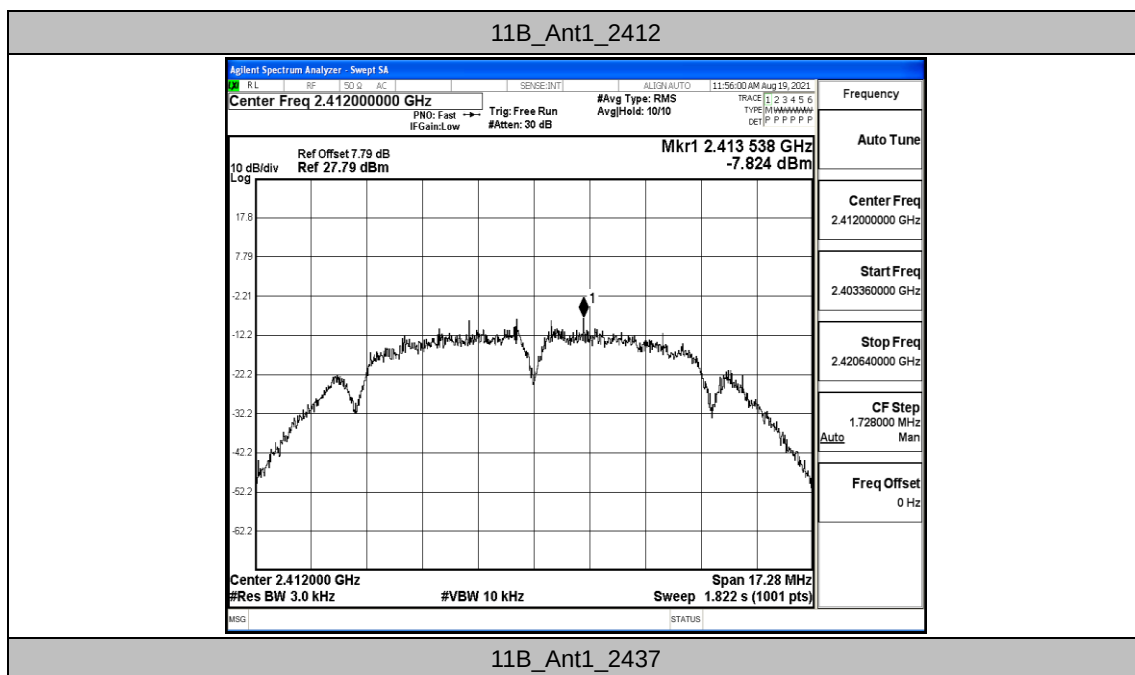


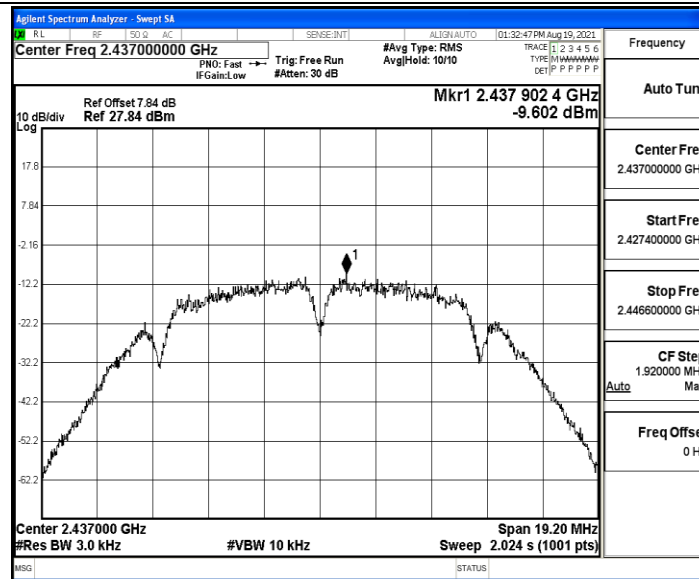
ANT1

TestMode	Antenna	Channel	Result[dBm/3-100kHz]	Limit[dBm/3kHz]	Verdict
11B	Ant1	2412	-7.82	≤8	PASS
		2437	-9.6	≤8	PASS
		2462	-8.56	≤8	PASS
11G	Ant1	2412	-16.57	≤8	PASS
		2437	-17.01	≤8	PASS
		2462	-18.29	≤8	PASS
11N20SISO	Ant1	2412	-16.83	≤8	PASS
		2437	-17.46	≤8	PASS
		2462	-17.86	≤8	PASS

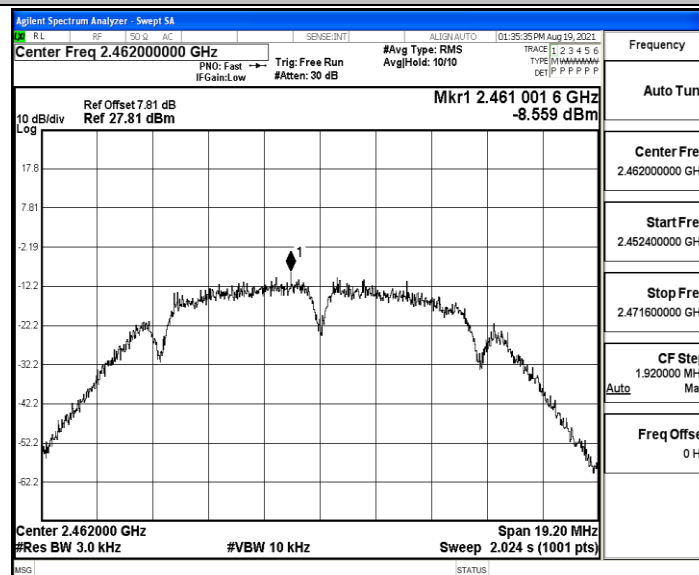
Mode	Channel	MIMO PSD [dBm/3KHz]			Limit [dBm/3KHz]	Verdict
		Ant 0	Ant 1	Sum		
11N20	LCH	-17.92	-16.83	-14.33	8	PASS
	MCH	-18.01	-17.46	-14.72	8	PASS
	HCH	-17.35	-17.86	-14.59	8	PASS

Test Graphs

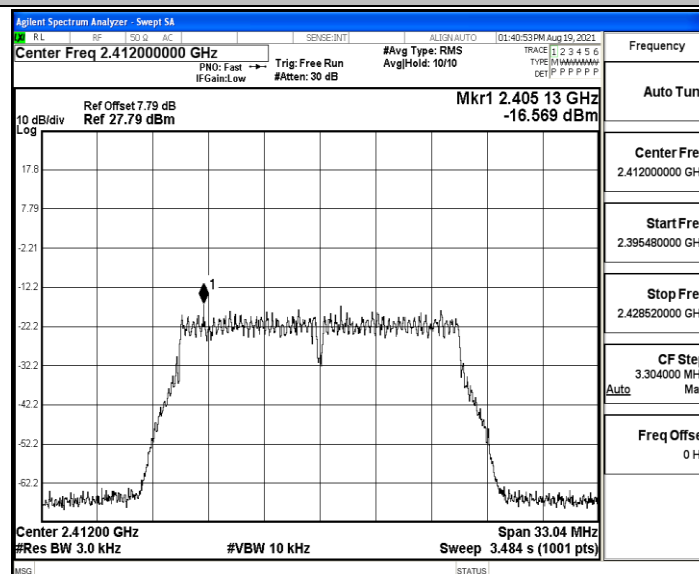




11B_Ant1_2462

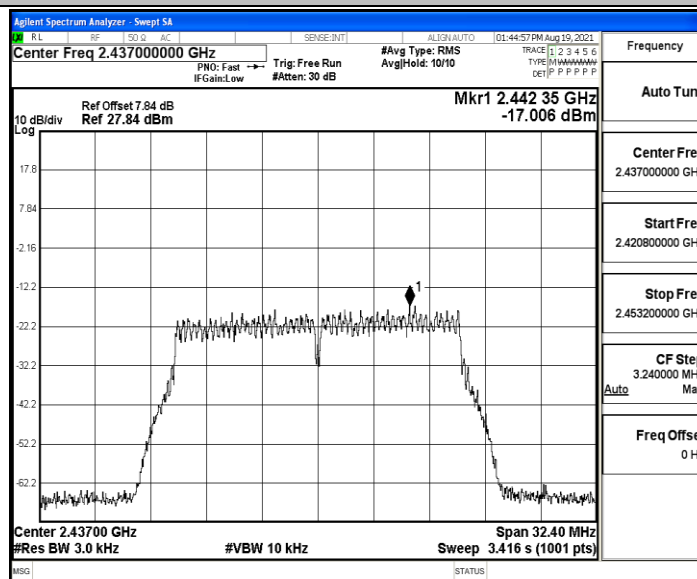


11G_Ant1_2412

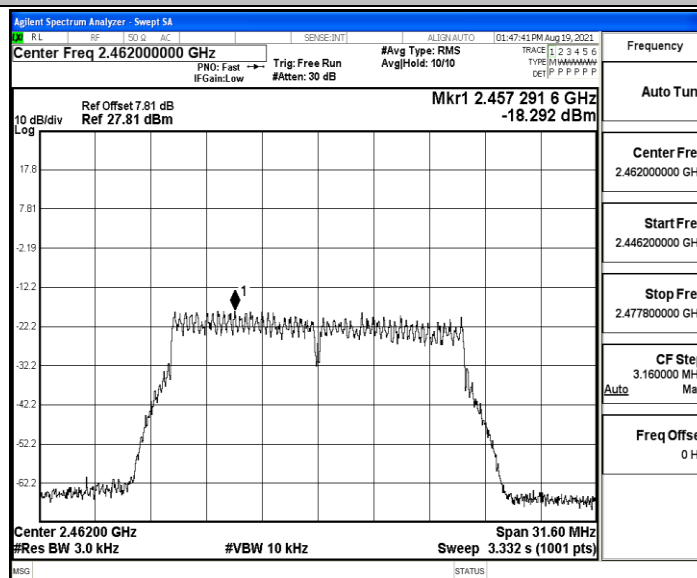




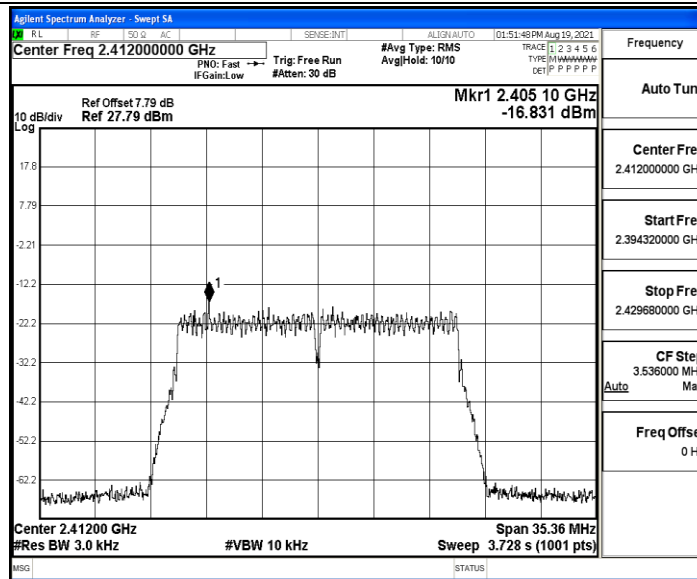
11G_Ant1_2437



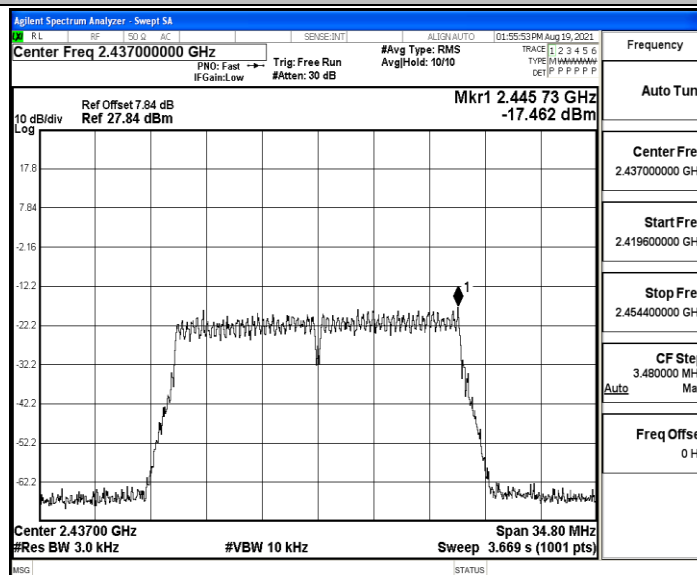
11G_Ant1_2462



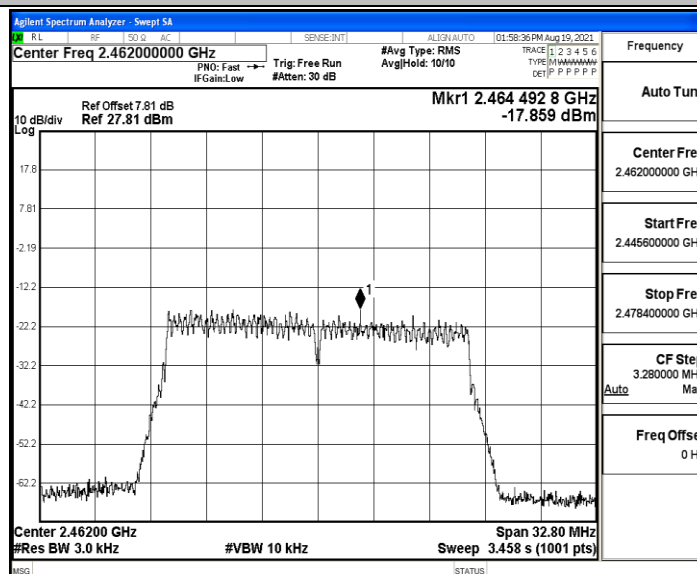
11N20SISO_Ant1_2412



11N20SISO_Ant1_2437



11N20SISO_Ant1_2462





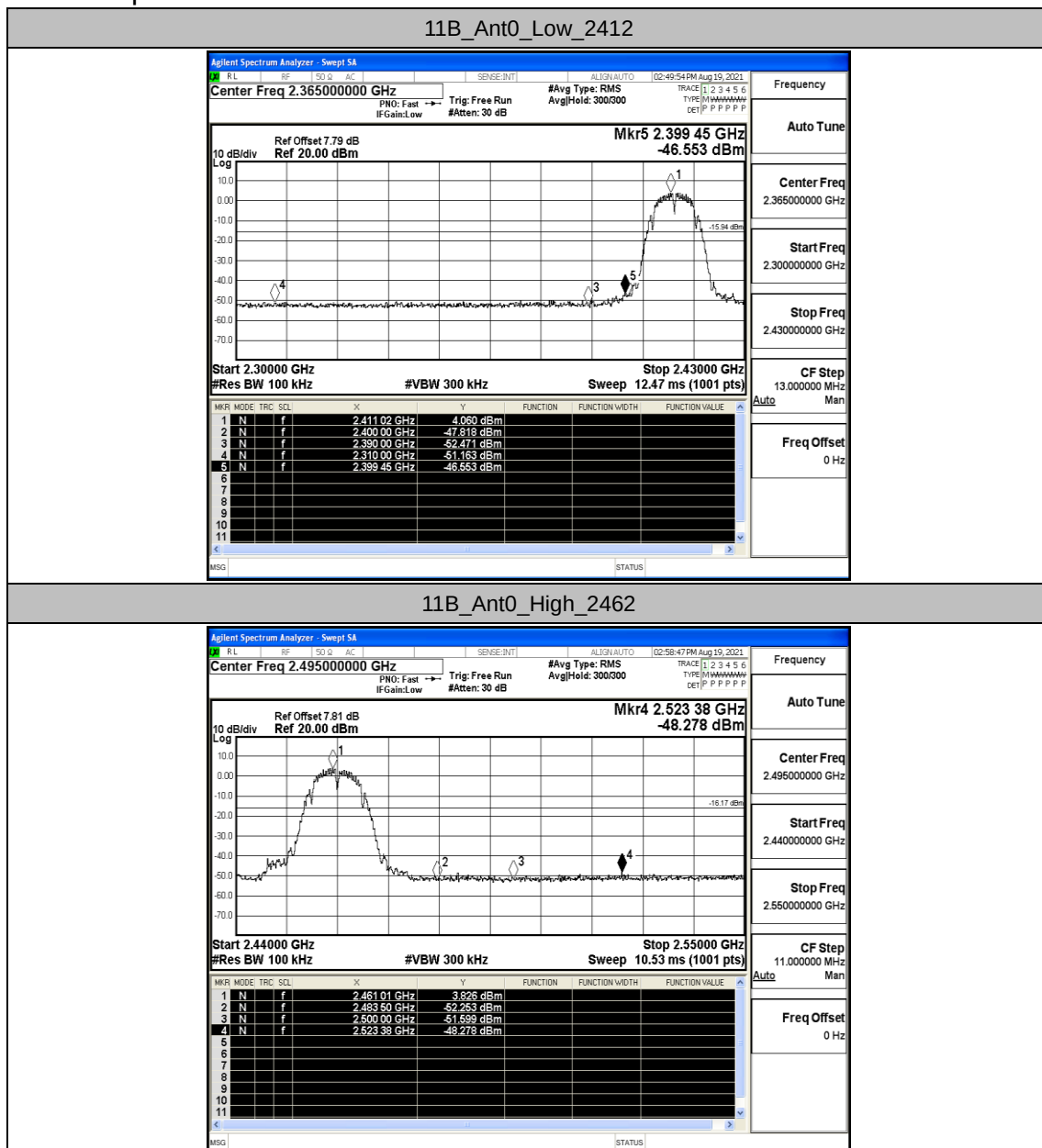
B.5 Band edge measurements

Test Result

ANT0

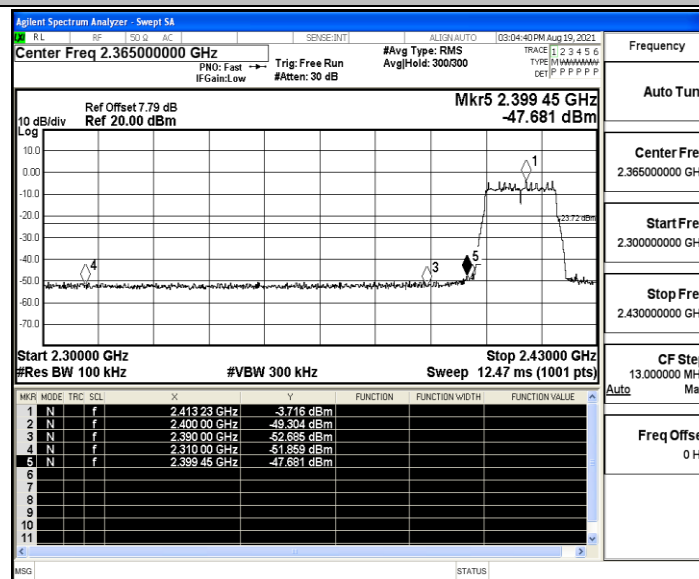
TestMode	Antenna	ChName	Channel	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
11B	Ant0	Low	2412	4.06	-46.55	≤-15.94	PASS
		High	2462	3.83	-48.28	≤-16.17	PASS
11G	Ant0	Low	2412	-3.72	-47.68	≤-23.72	PASS
		High	2462	-3.35	-47.53	≤-23.35	PASS
11N20SISO	Ant0	Low	2412	-4.06	-46.67	≤-24.06	PASS
		High	2462	-3.05	-47.17	≤-23.05	PASS

Test Graphs

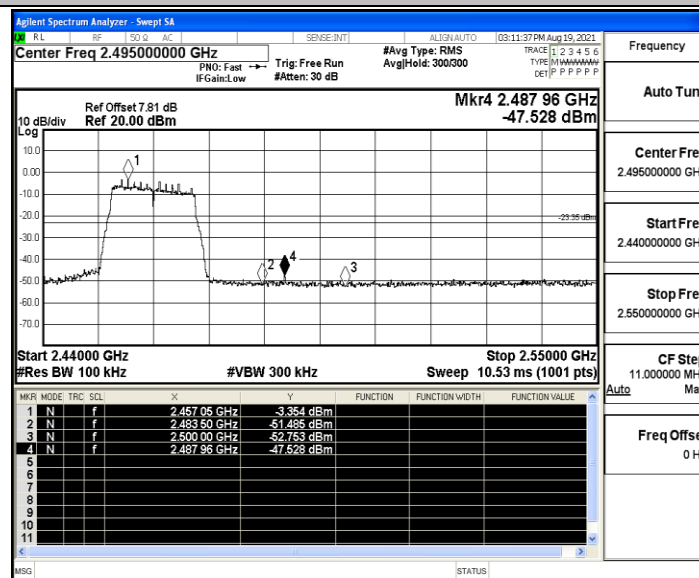




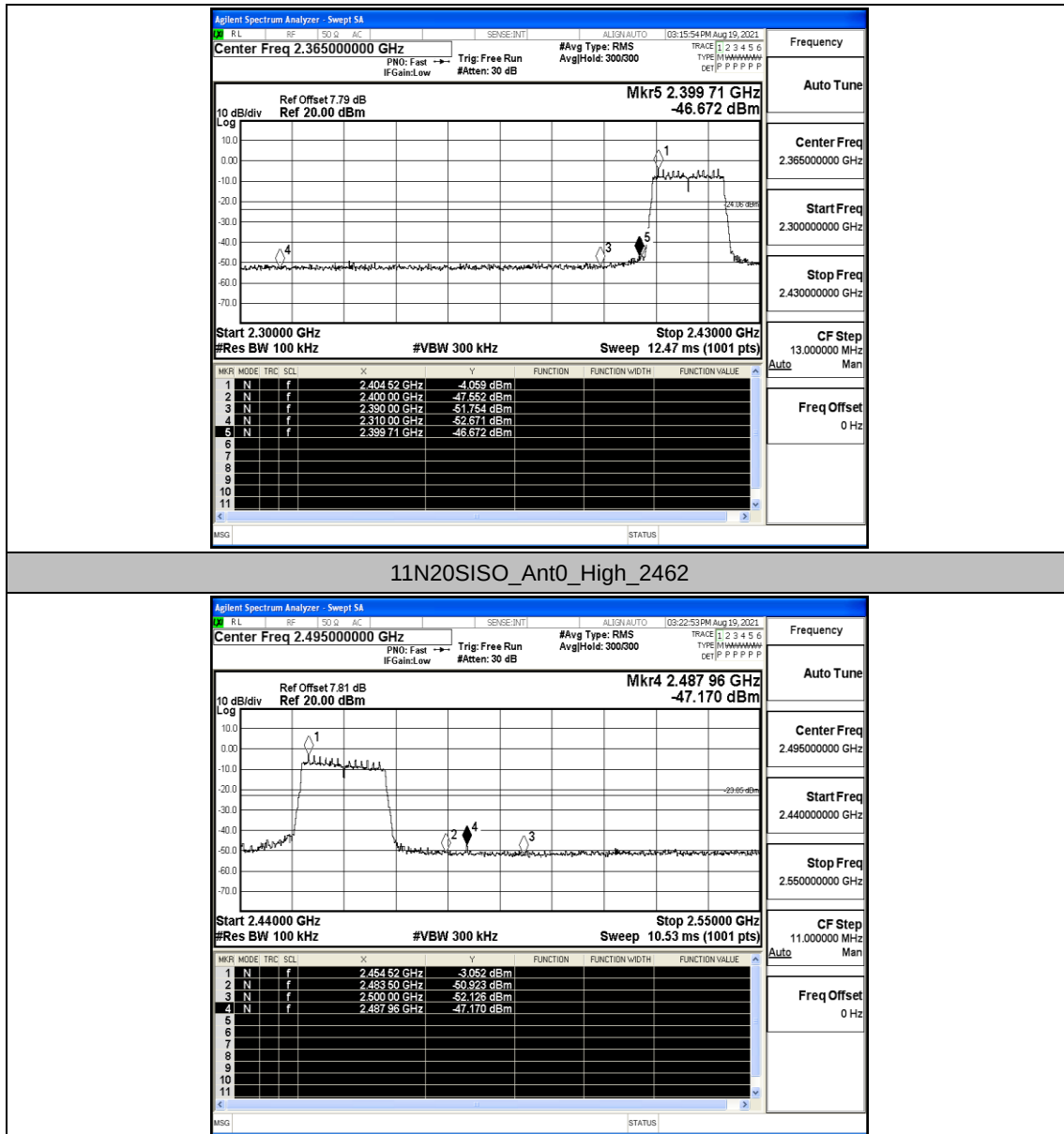
11G_Ant0_Low_2412



11G_Ant0_High_2462



11N20SISO_Ant0_Low_2412



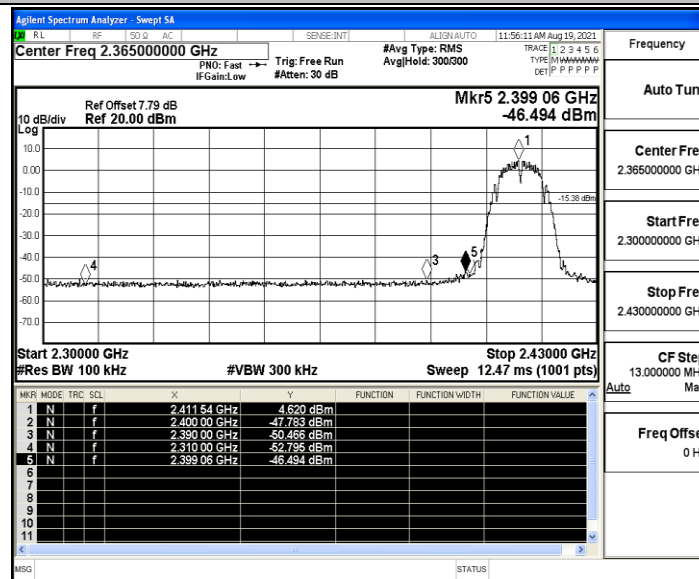
ANT1

TestMode	Antenna	ChName	Channel	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
11B	Ant1	Low	2412	4.62	-46.49	≤-15.38	PASS
		High	2462	4.28	-47.35	≤-15.72	PASS
11G	Ant1	Low	2412	-4.32	-48.38	≤-24.32	PASS
		High	2462	-3.45	-46.88	≤-23.45	PASS
11N20SISO	Ant1	Low	2412	-3.86	-46.9	≤-23.86	PASS
		High	2462	-3.71	-46.02	≤-23.71	PASS

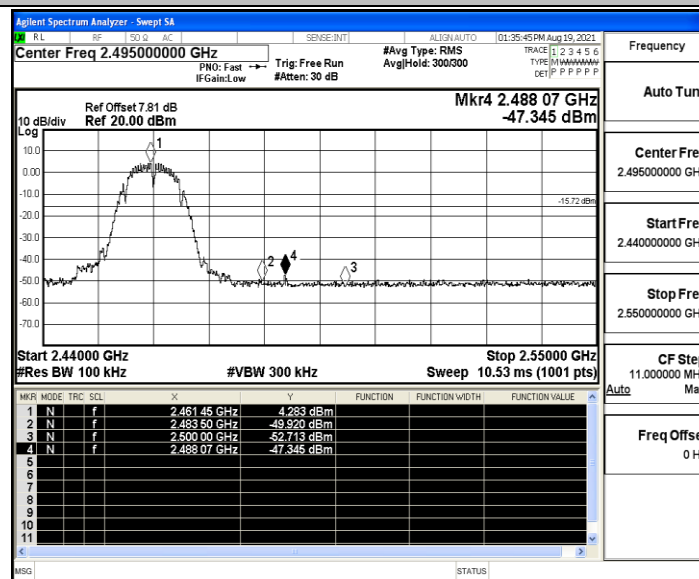


Test Graphs

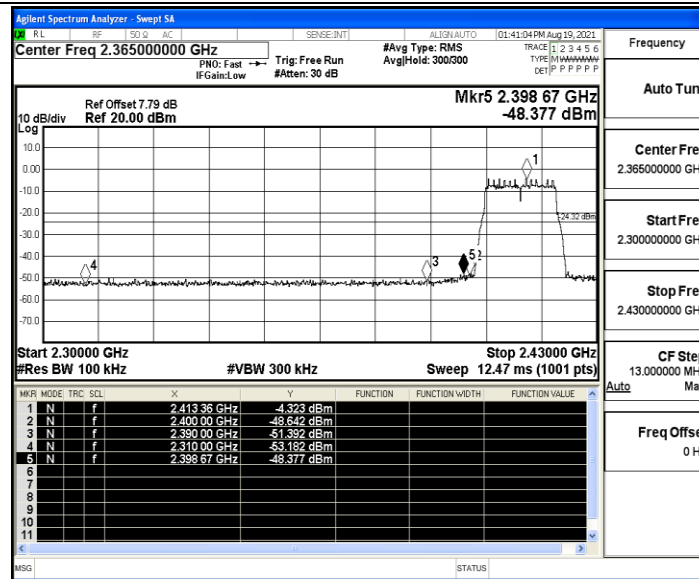
11B_Ant1_Low_2412



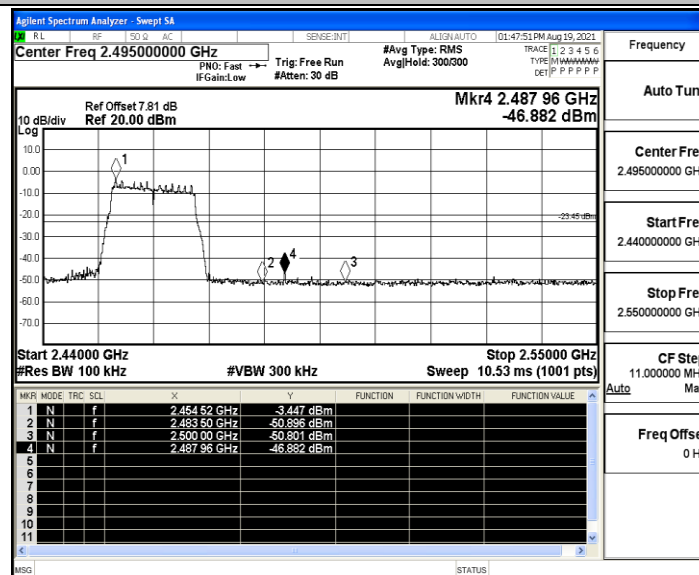
11B_Ant1_High_2462



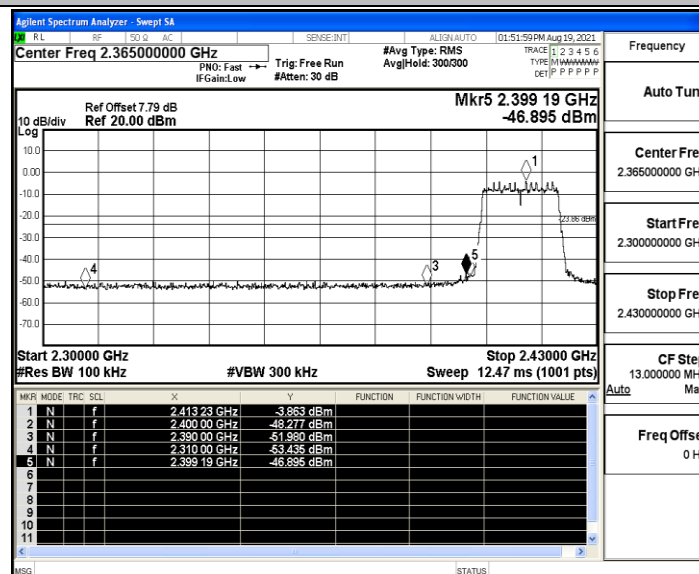
11G_Ant1_Low_2412



11G_Ant1_High_2462

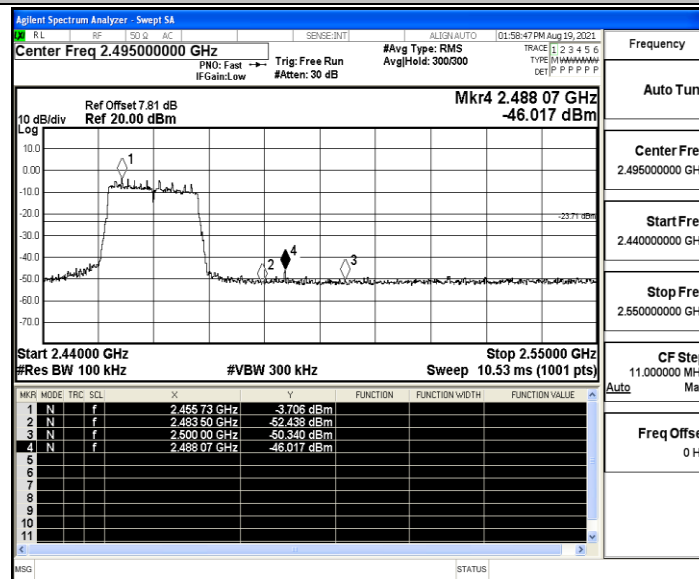


11N20SISO_Ant1_Low_2412





11N20SISO_Ant1_High_2462





B.6 Conducted Spurious Emission

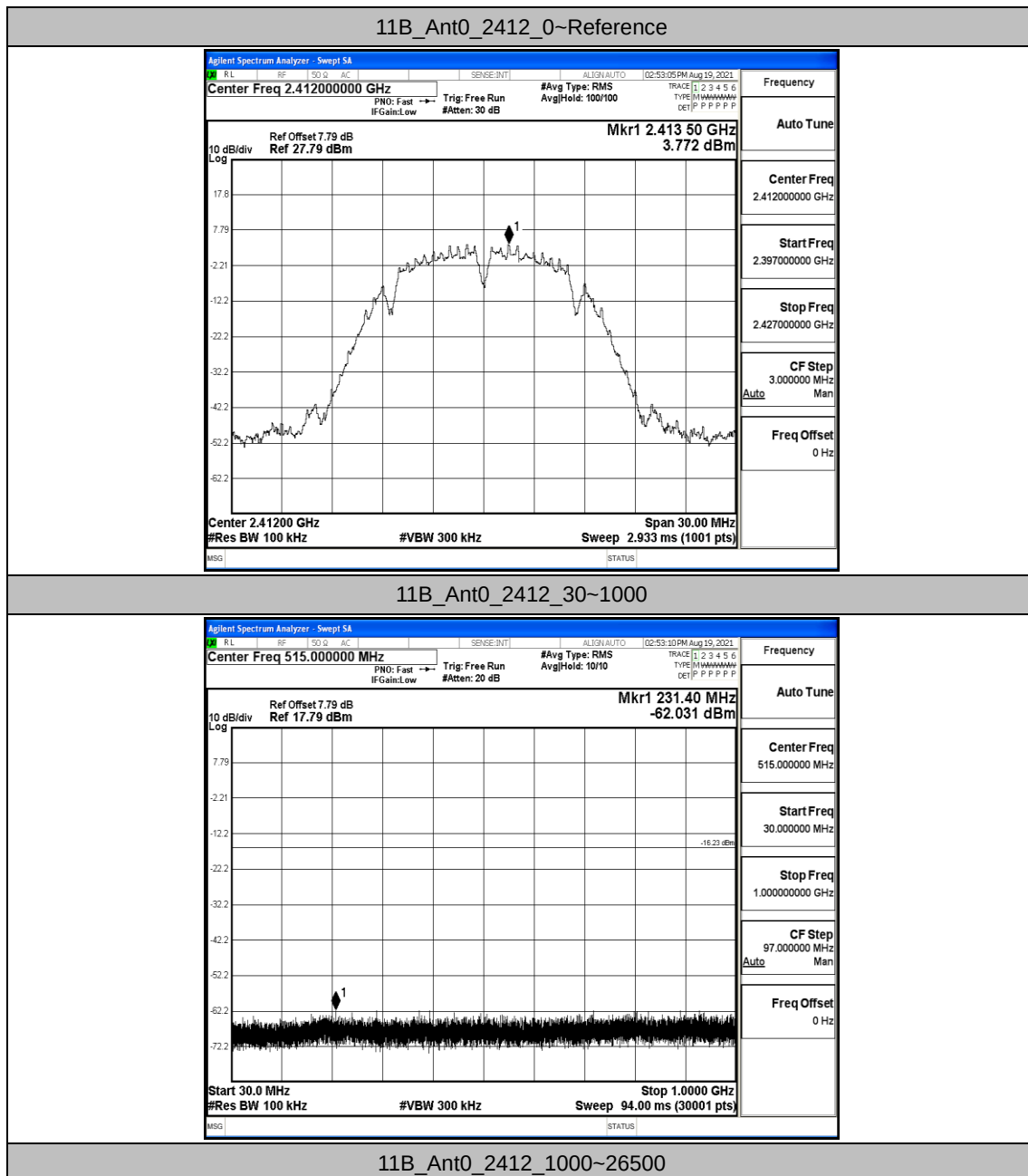
Test Result

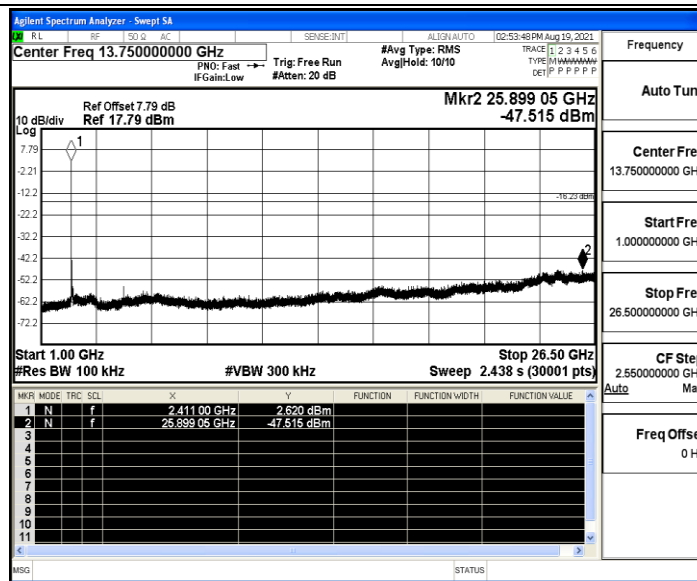
ANT0

TestMode	Antenna	Channel	FreqRange [Mhz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
11B	Ant0	2412	Reference	3.77	3.77	---	PASS
			30~1000	3.77	-62.03	≤-16.23	PASS
			1000~26500	3.77	-47.52	≤-16.23	PASS
		2437	Reference	4.39	4.39	---	PASS
			30~1000	4.39	-61.68	≤-15.62	PASS
			1000~26500	4.39	-47.45	≤-15.62	PASS
		2462	Reference	3.72	3.72	---	PASS
			30~1000	3.72	-61.7	≤-16.28	PASS
			1000~26500	3.72	-47.36	≤-16.28	PASS
11G	Ant0	2412	Reference	-3.70	-3.70	---	PASS
			30~1000	-3.70	-62.17	≤-23.7	PASS
			1000~26500	-3.70	-46.31	≤-23.7	PASS
		2437	Reference	-4.11	-4.11	---	PASS
			30~1000	-4.11	-61	≤-24.11	PASS
			1000~26500	-4.11	-47.25	≤-24.11	PASS
		2462	Reference	-4.63	-4.63	---	PASS
			30~1000	-4.63	-61.27	≤-24.63	PASS
			1000~26500	-4.63	-46.72	≤-24.63	PASS
11N20SISO	Ant0	2412	Reference	-4.23	-4.23	---	PASS
			30~1000	-4.23	-60.86	≤-24.23	PASS
			1000~26500	-4.23	-47.33	≤-24.23	PASS
		2437	Reference	-3.81	-3.81	---	PASS
			30~1000	-3.81	-61.42	≤-23.81	PASS
			1000~26500	-3.81	-47.4	≤-23.81	PASS
		2462	Reference	-3.39	-3.39	---	PASS
			30~1000	-3.39	-62.18	≤-23.39	PASS
			1000~26500	-3.39	-47.25	≤-23.39	PASS

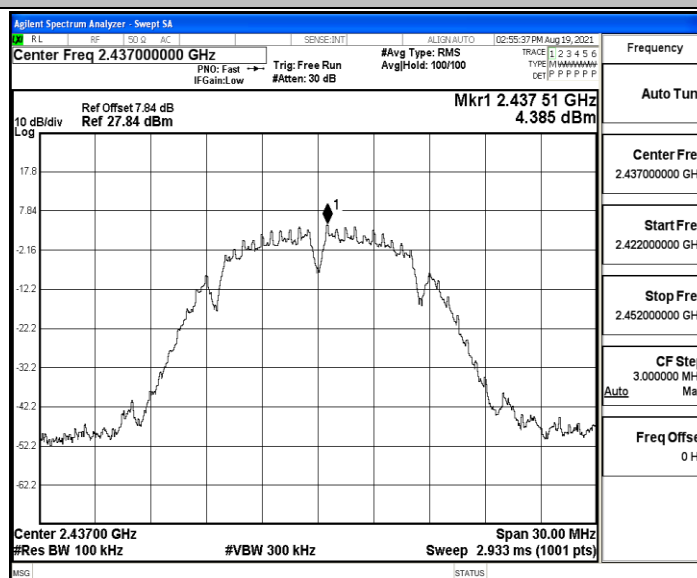


Test Graphs

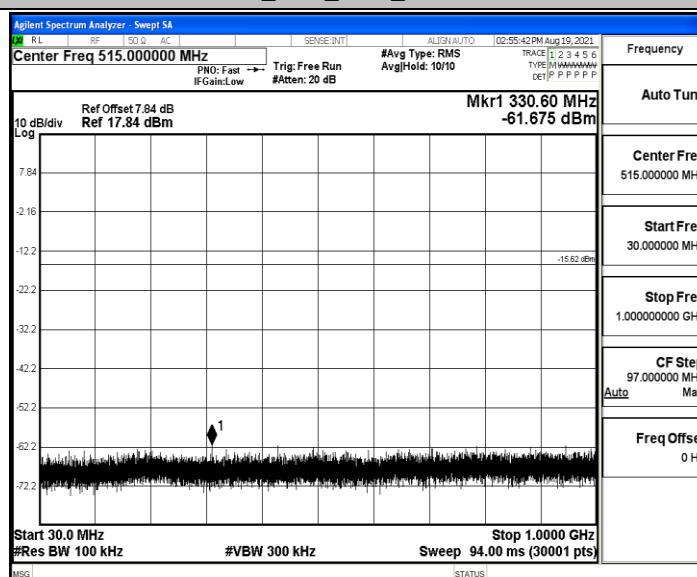


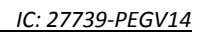


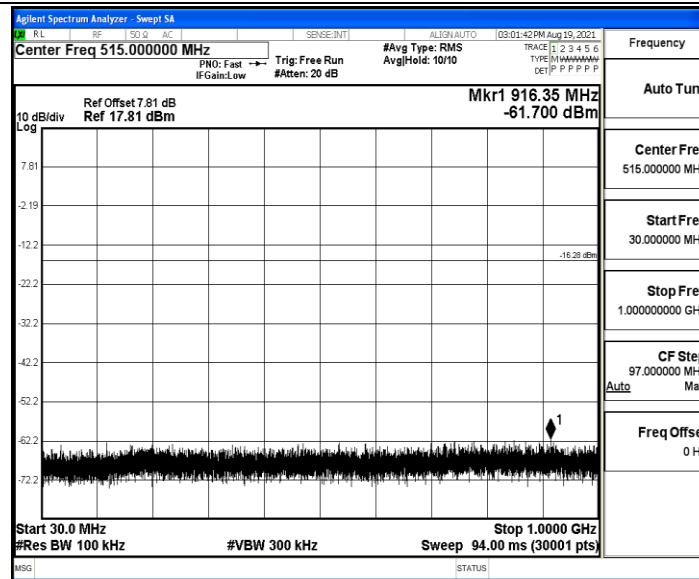
11B_Ant0_2437_0~Reference



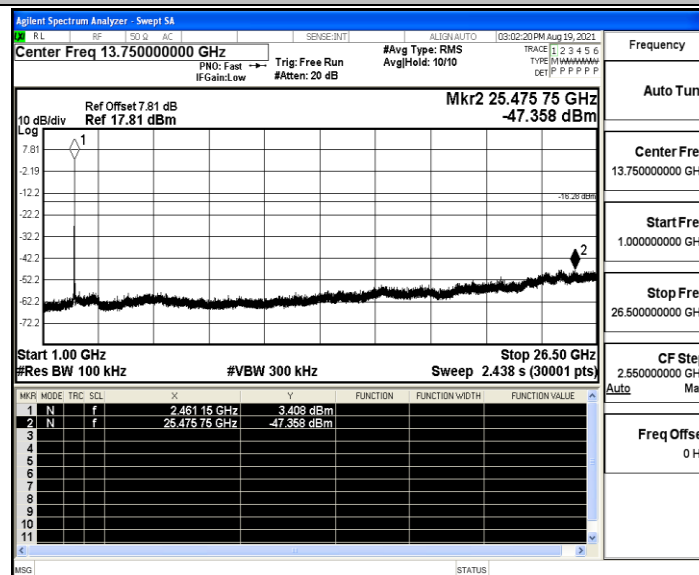
11B_Ant0_2437_30~1000



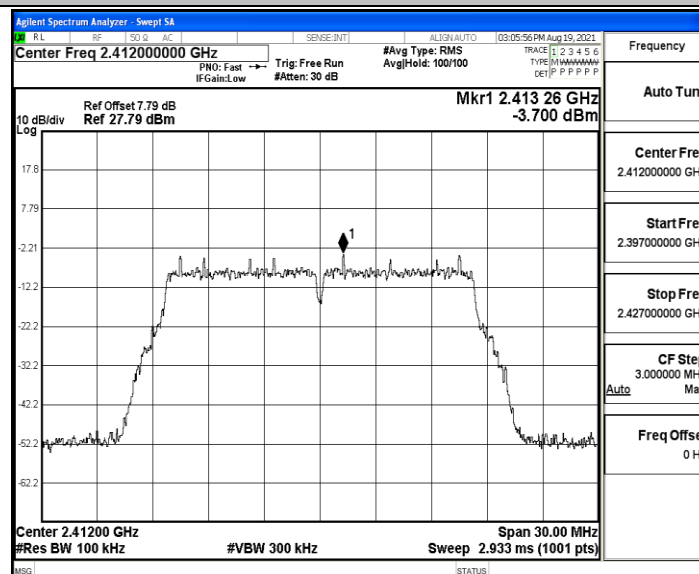




11B_Ant0_2462_1000~26500

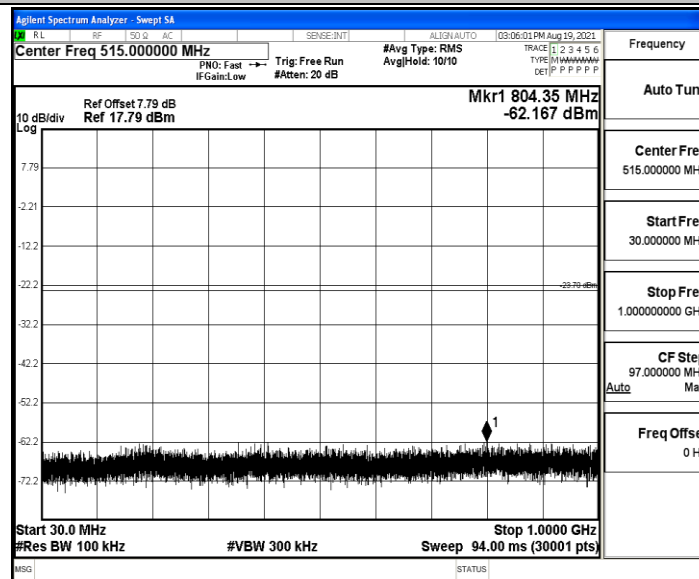


11G_Ant0_2412_0~Reference

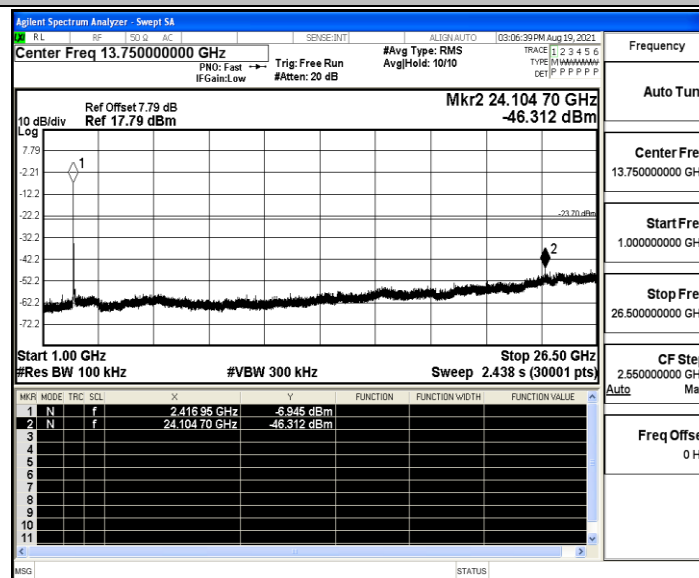




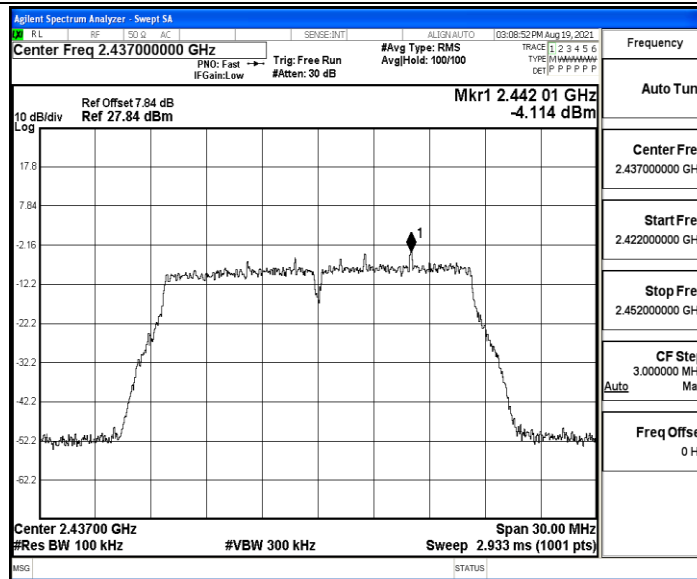
11G_Ant0_2412_30~1000



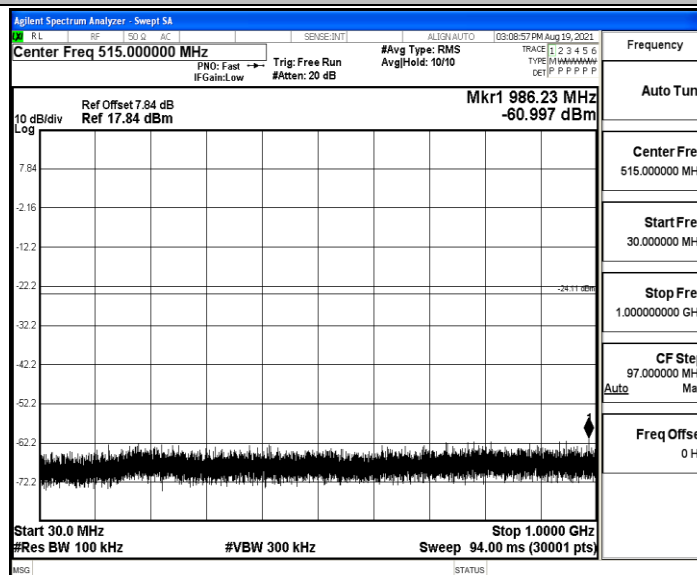
11G_Ant0_2412_1000~26500



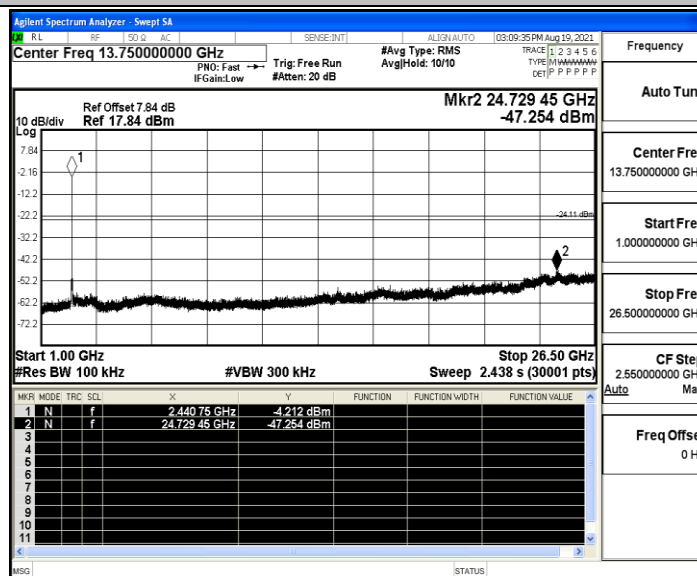
11G_Ant0_2437_0~Reference



11G_Ant0_2437_30~1000

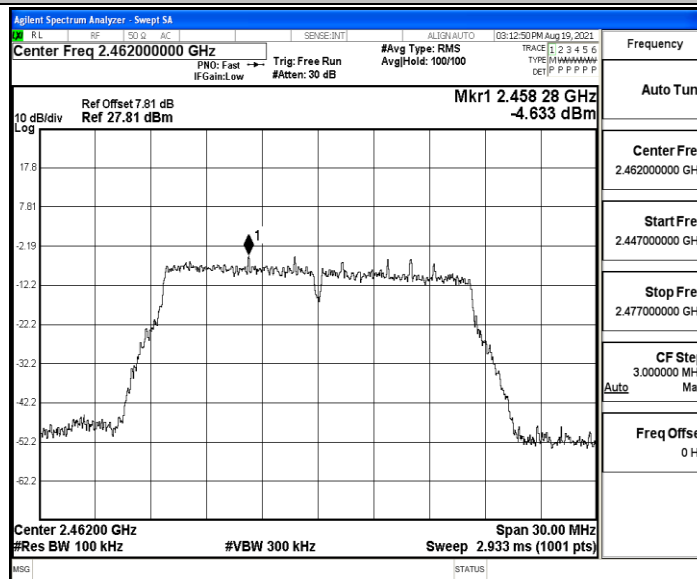


11G_Ant0_2437_1000~26500

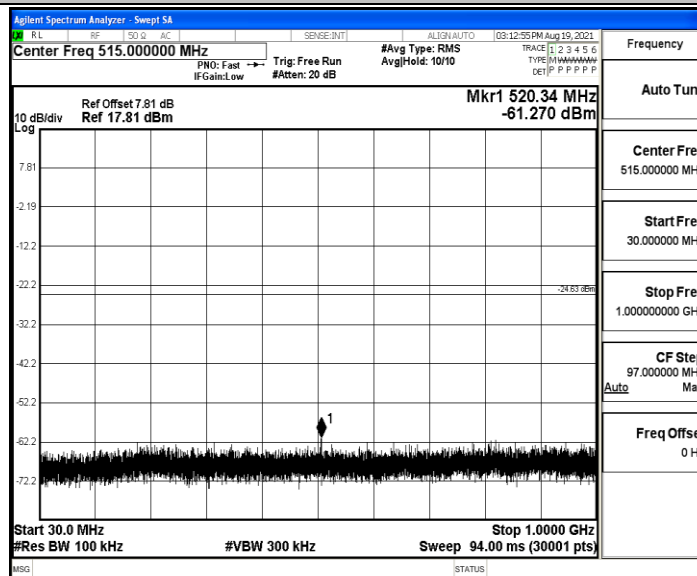




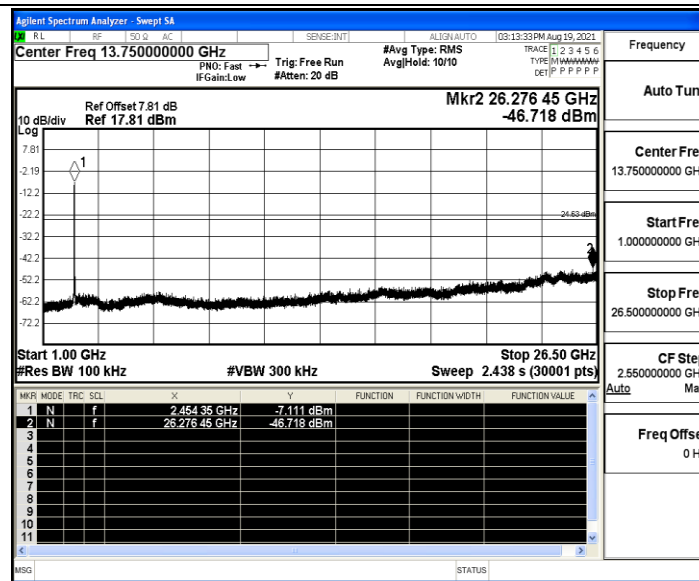
11G_Ant0_2462_0~Reference



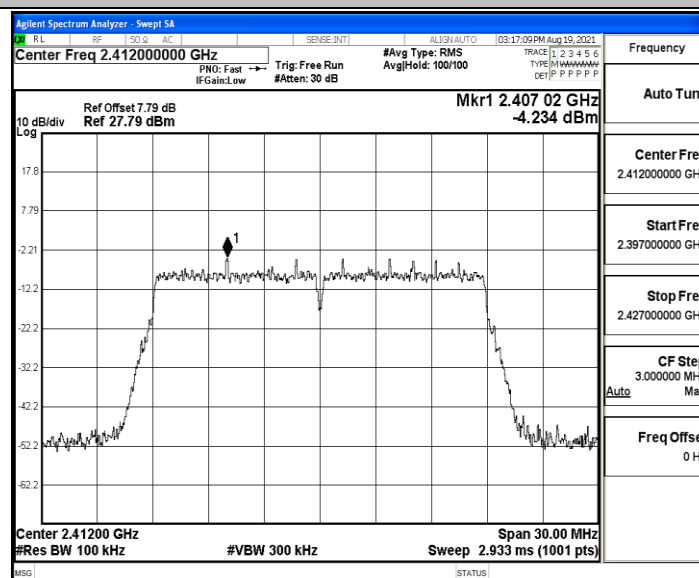
11G_Ant0_2462_30~1000



11G_Ant0_2462_1000~26500



11N20SISO_Ant0_2412_0~Reference



11N20SISO_Ant0_2412_30~1000

