



Appendix B

RF Test Data for 2.4G WIFI (Conducted Measurement)

Product Name: LED Bulb
Test Model: XQP009Y4C4001A

Environmental Conditions

Temperature:	24.3° C
Relative Humidity:	51.2%
ATM Pressure:	100.0 kPa
Test Engineer:	Kay Hu
Supervised by:	Li Huan



B.1 6dB Bandwidth

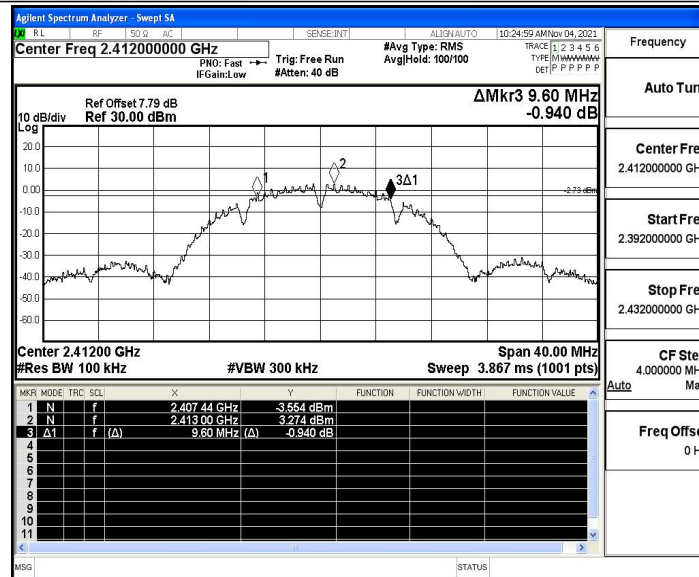
Test Result

TestMode	Antenna	Channel	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	9.600	2407.440	2417.040	0.5	PASS
		2437	9.160	2432.440	2441.600	0.5	PASS
		2462	9.200	2457.400	2466.600	0.5	PASS
11G	Ant1	2412	13.920	2405.680	2419.600	0.5	PASS
		2437	12.680	2431.880	2444.560	0.5	PASS
		2462	12.400	2457.200	2469.600	0.5	PASS
11N20SISO	Ant1	2412	12.680	2406.880	2419.560	0.5	PASS
		2437	15.160	2429.440	2444.600	0.5	PASS
		2462	12.640	2455.680	2468.320	0.5	PASS
11N40SISO	Ant1	2422	31.440	2405.680	2437.120	0.5	PASS
		2437	33.920	2420.680	2454.600	0.5	PASS
		2452	31.520	2436.880	2468.400	0.5	PASS

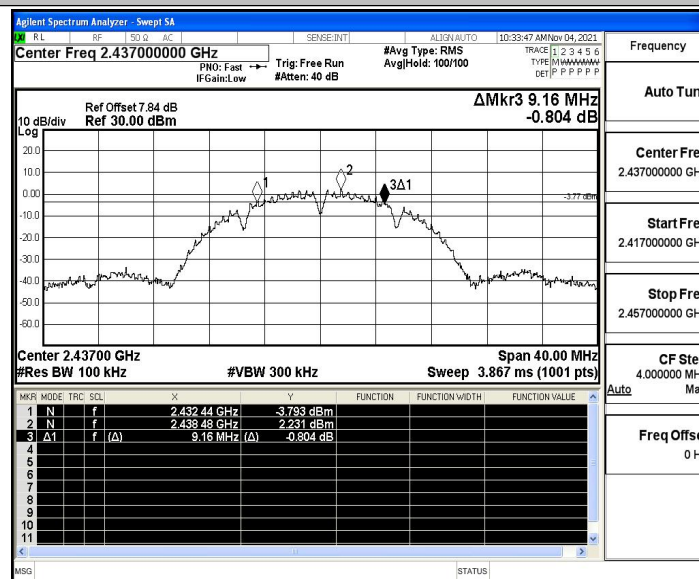


Test Graphs

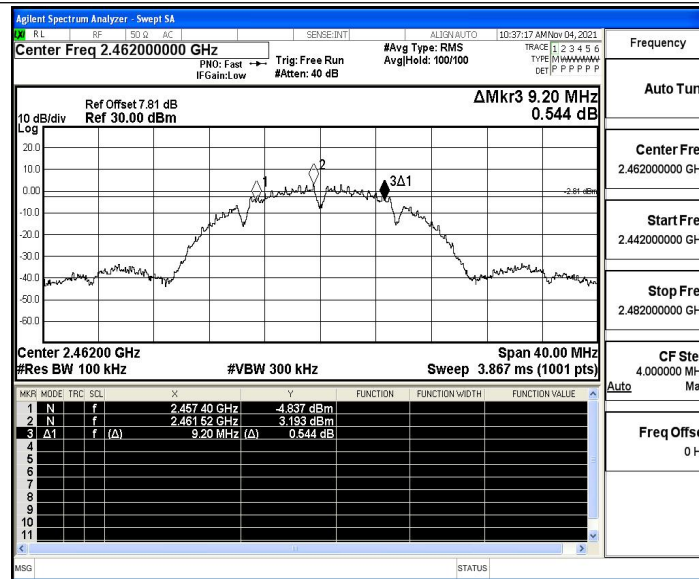
11B_Ant1_2412



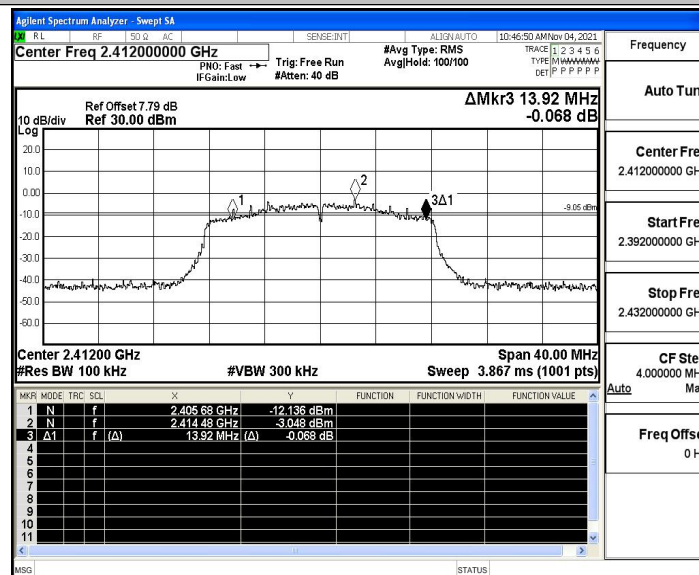
11B_Ant1_2437



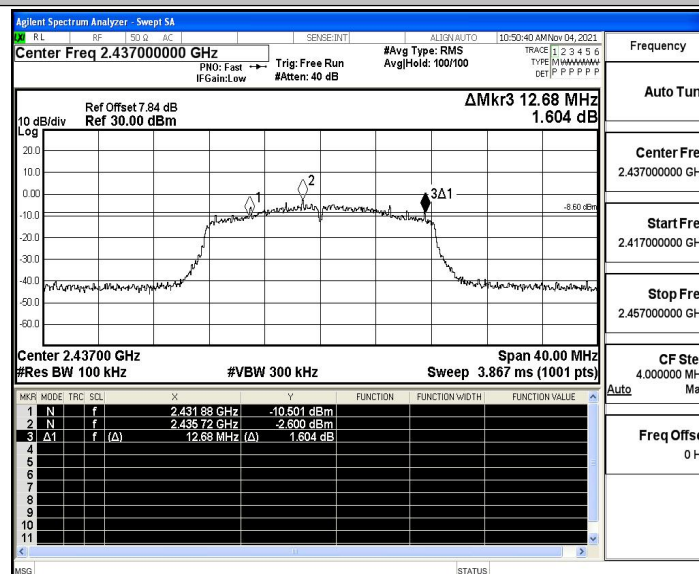
11B_Ant1_2462



11G_Ant1_2412

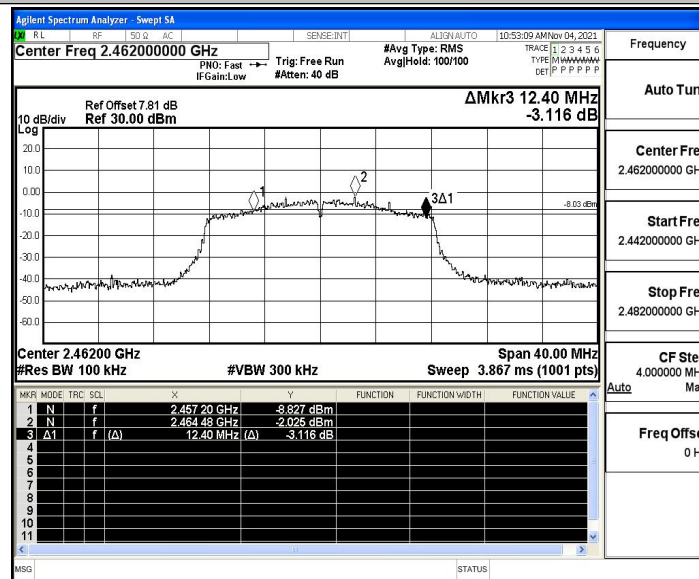


11G_Ant1_2437

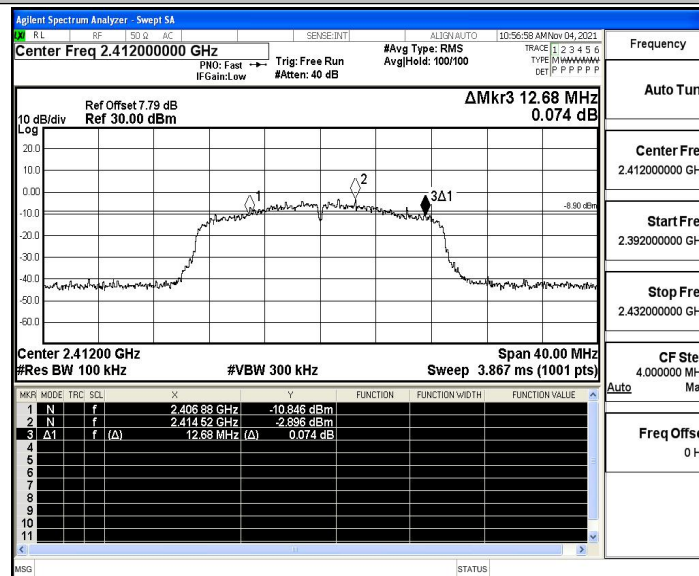




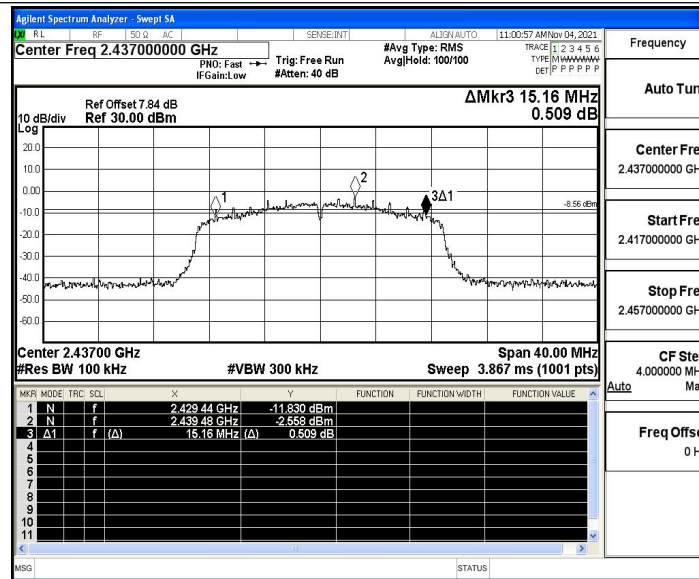
11G_Ant1_2462



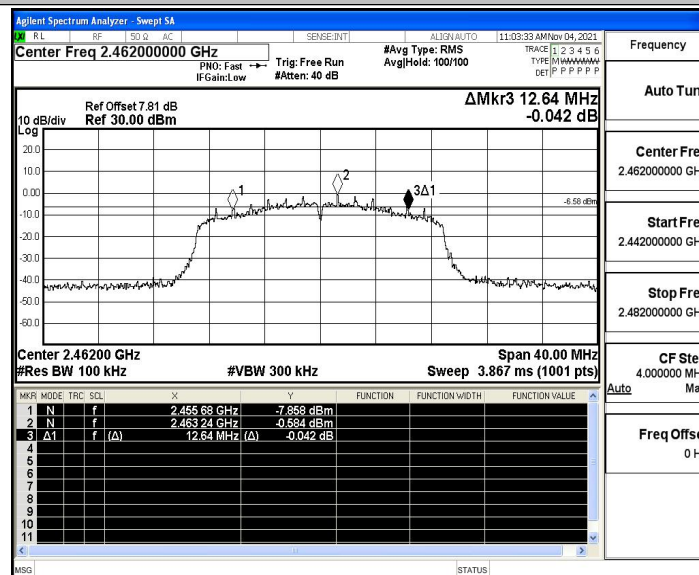
11N20SISO_Ant1_2412



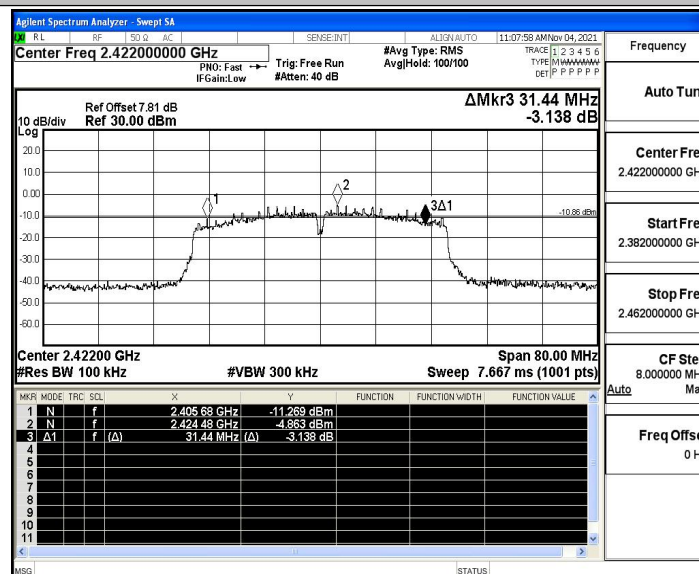
11N20SISO_Ant1_2437



11N20SISO_Ant1_2462

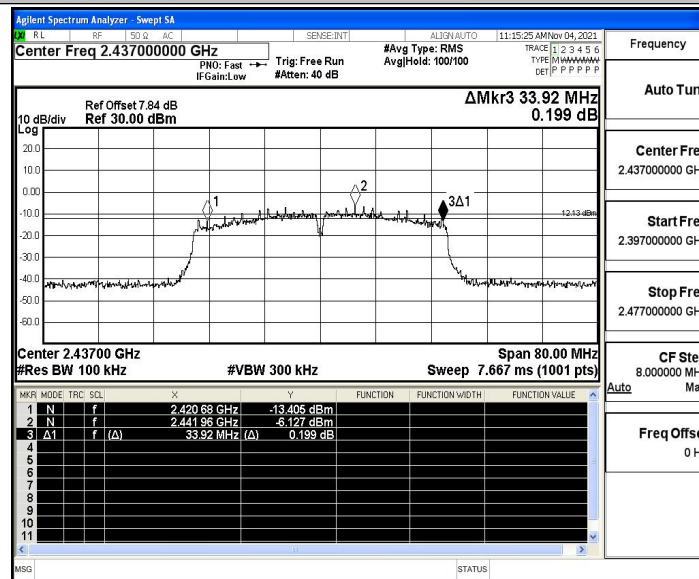


11N40SISO_Ant1_2422

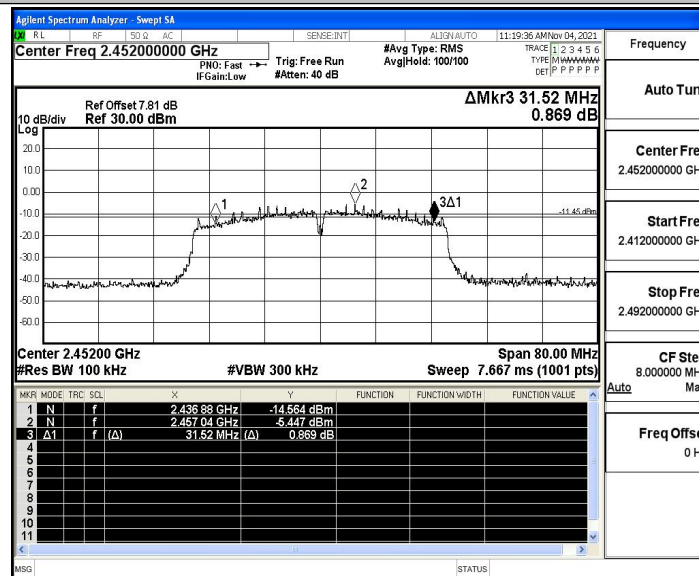




11N40SISO_Ant1_2437



11N40SISO_Ant1_2452





B.2 Maximum conducted output power

Test Result

TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
11B	Ant1	2412	15.32	≤30	PASS
		2437	14.49	≤30	PASS
		2462	15.14	≤30	PASS
11G	Ant1	2412	14.91	≤30	PASS
		2437	14.78	≤30	PASS
		2462	15.95	≤30	PASS
11N20SISO	Ant1	2412	14.57	≤30	PASS
		2437	14.44	≤30	PASS
		2462	15.62	≤30	PASS
11N40SISO	Ant1	2422	15.12	≤30	PASS
		2437	13.90	≤30	PASS
		2452	14.54	≤30	PASS



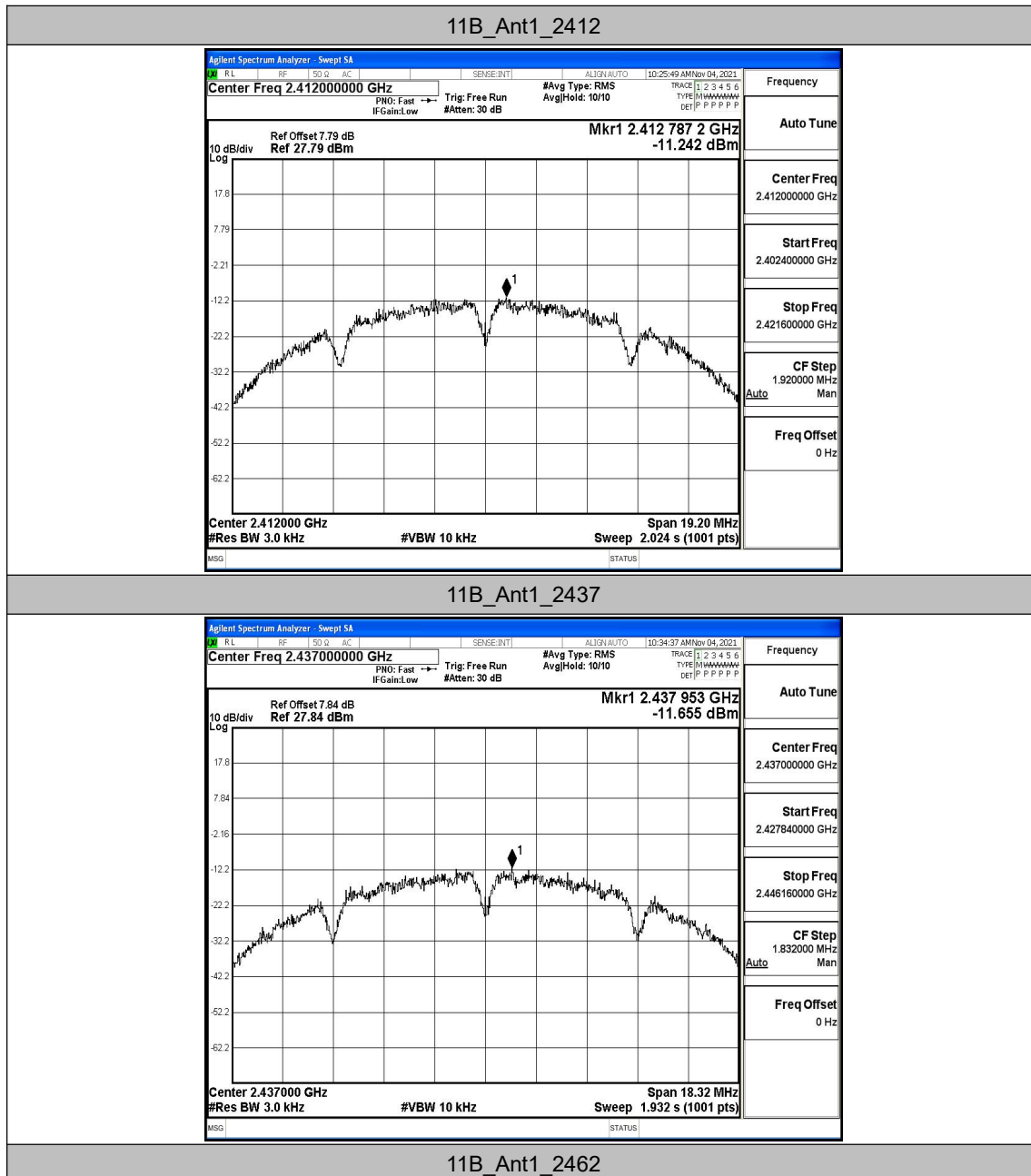
B.3 Maximum power spectral density

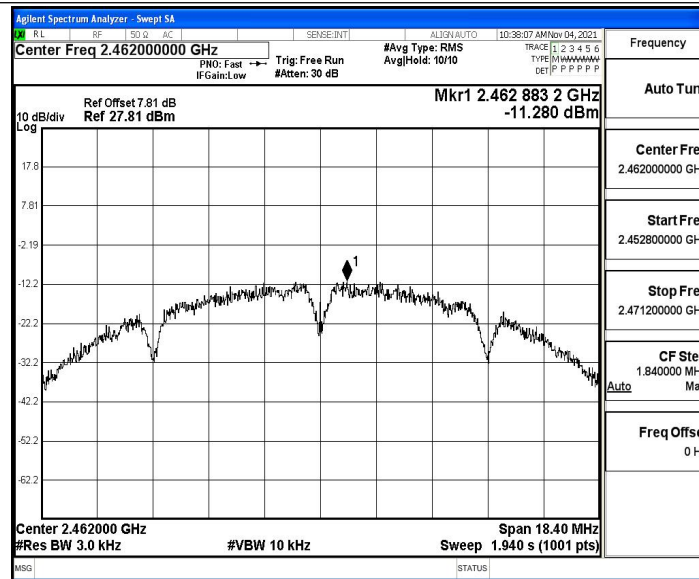
Test Result

TestMode	Antenna	Channel	Result[dBm/3-100kHz]	Limit[dBm/3kHz]	Verdict
11B	Ant1	2412	-11.24	≤8	PASS
		2437	-11.66	≤8	PASS
		2462	-11.28	≤8	PASS
11G	Ant1	2412	-17.13	≤8	PASS
		2437	-17.39	≤8	PASS
		2462	-16	≤8	PASS
11N20SISO	Ant1	2412	-16.21	≤8	PASS
		2437	-16.36	≤8	PASS
		2462	-15.66	≤8	PASS
11N40SISO	Ant1	2422	-17.85	≤8	PASS
		2437	-19.15	≤8	PASS
		2452	-18.36	≤8	PASS

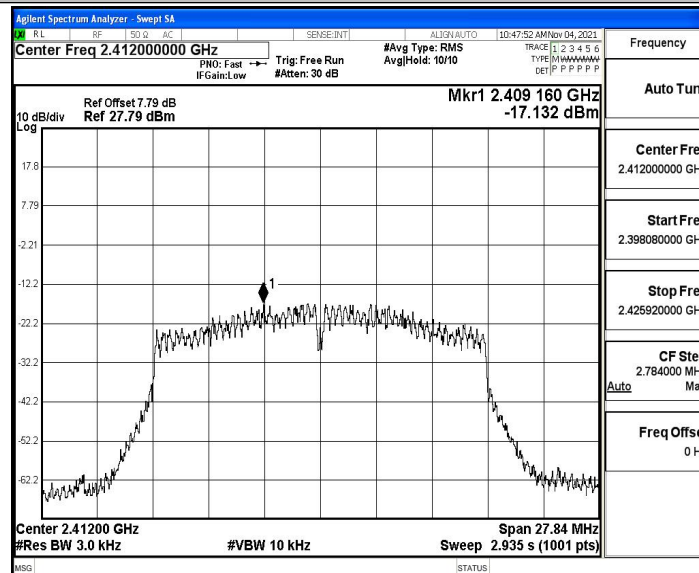


Test Graphs

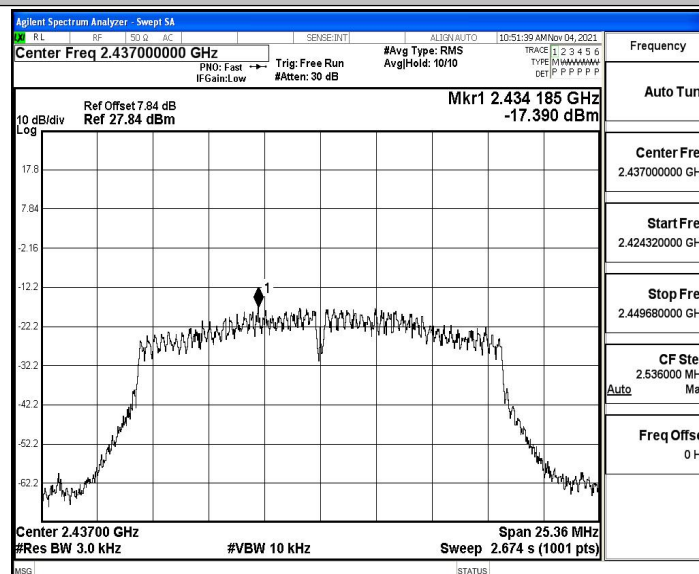




11G_Ant1_2412

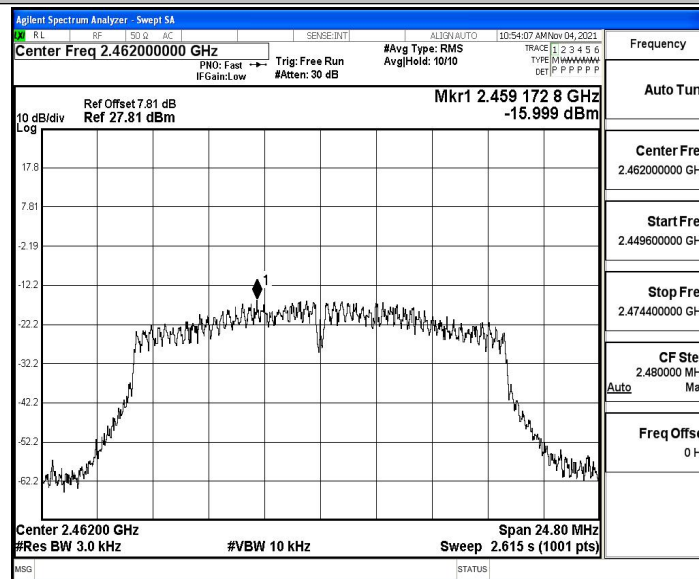


11G_Ant1_2437

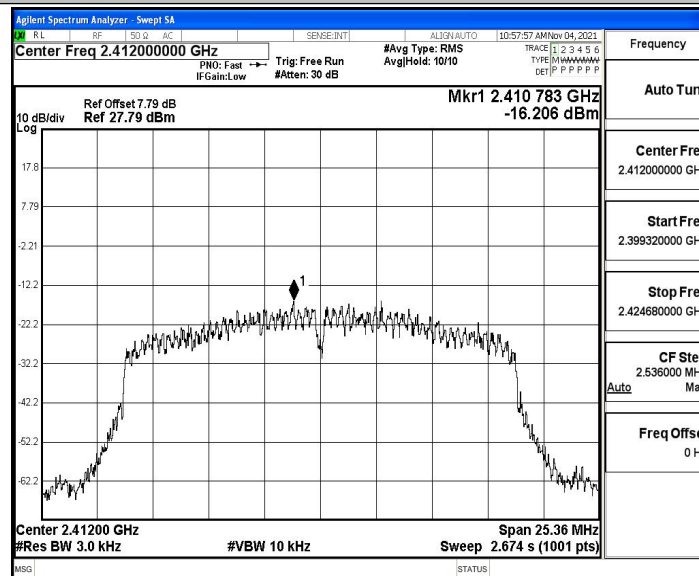




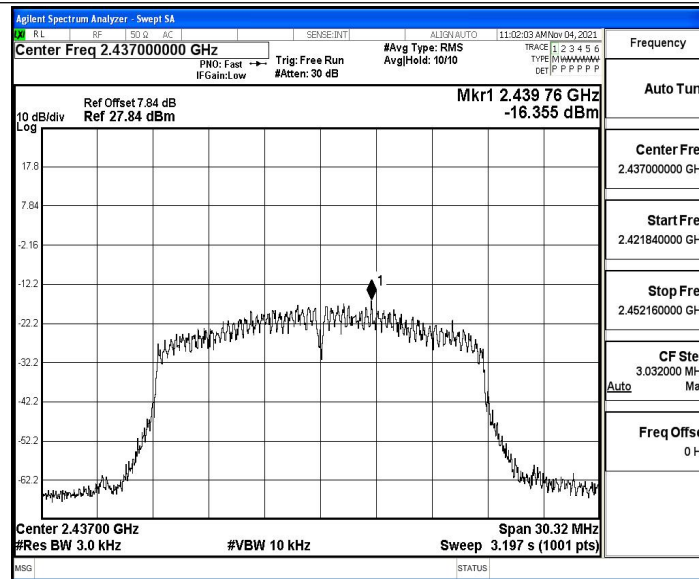
11G_Ant1_2462



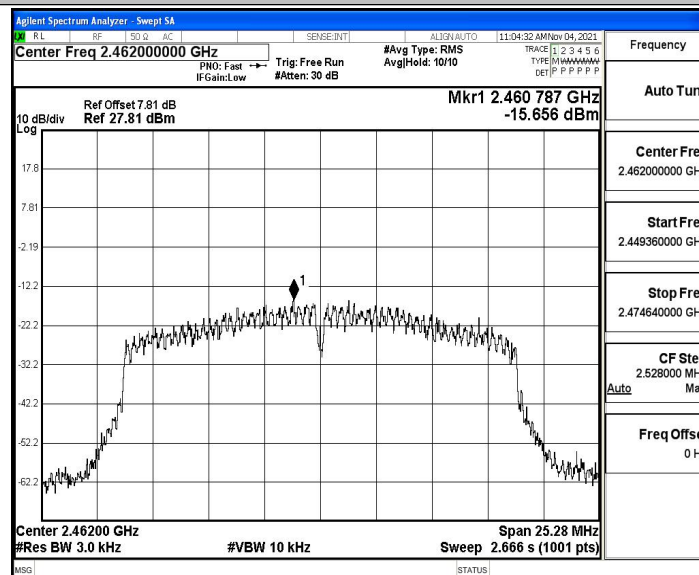
11N20SISO_Ant1_2412



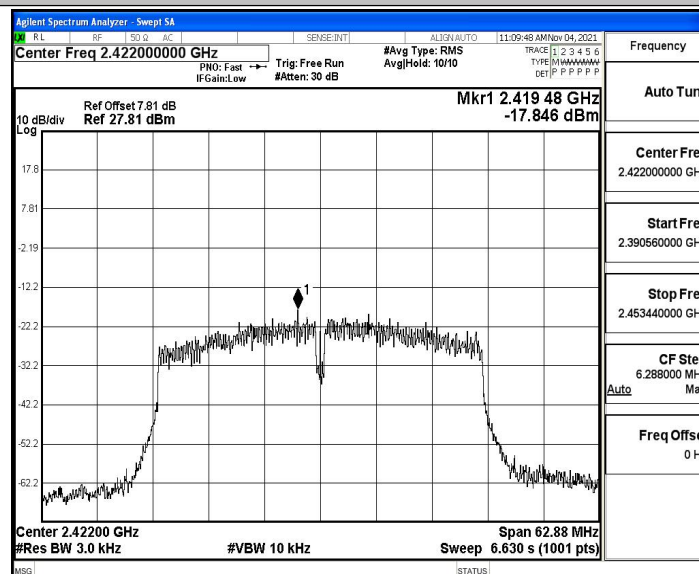
11N20SISO_Ant1_2437



11N20SISO_Ant1_2462

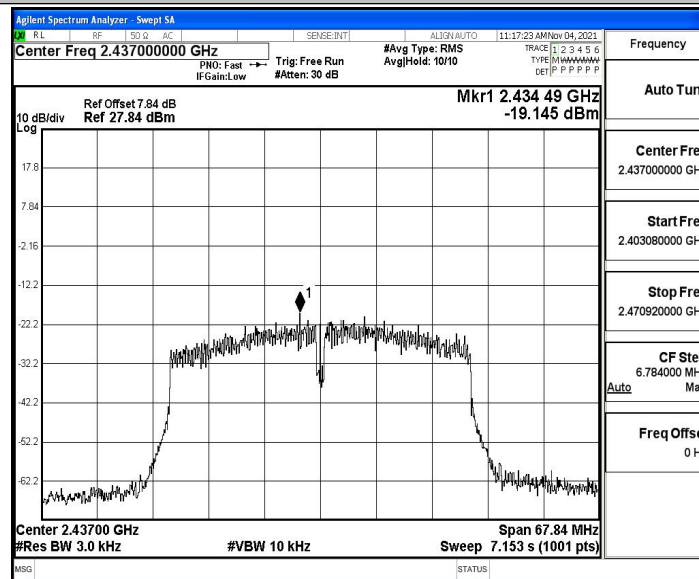


11N40SISO_Ant1_2422

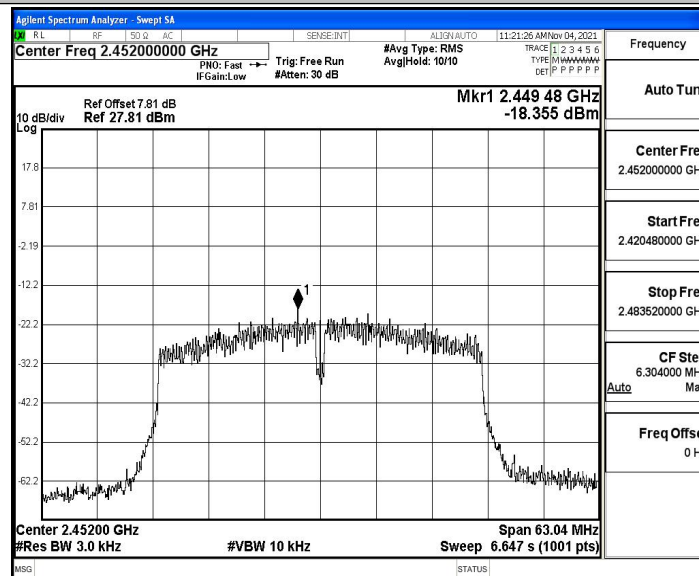




11N40SISO_Ant1_2437



11N40SISO_Ant1_2452



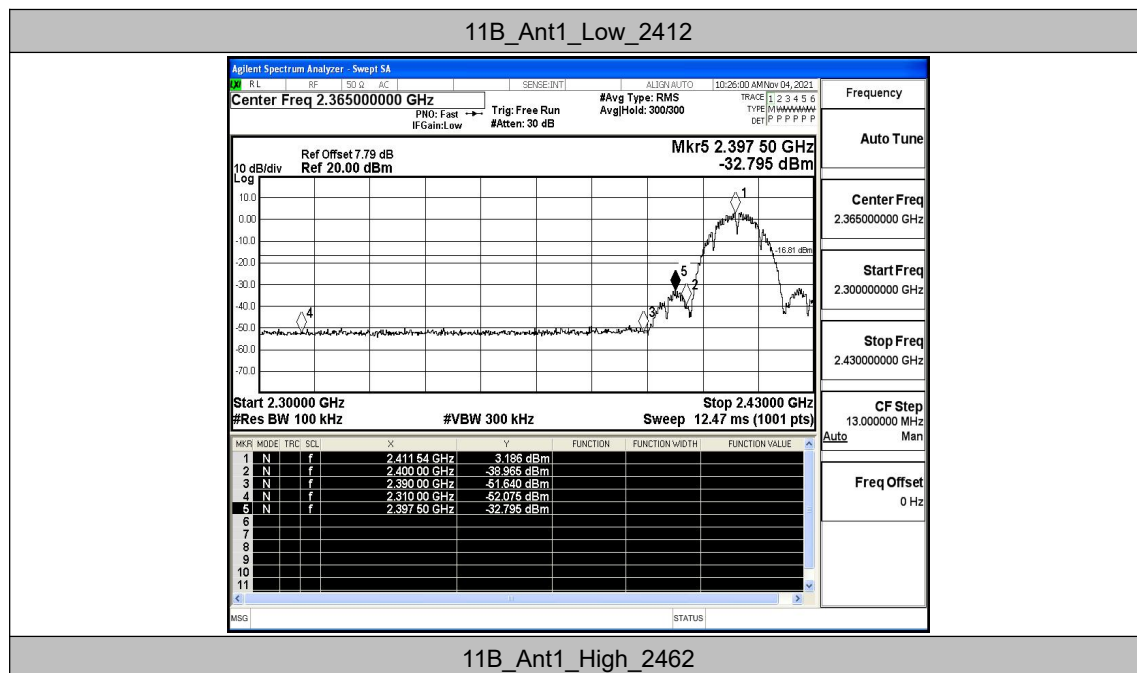


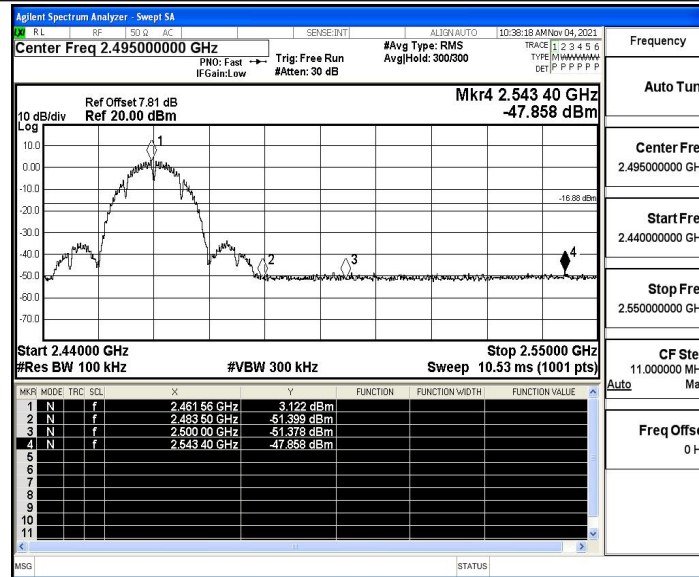
B.4 Band edge measurements

Test Result

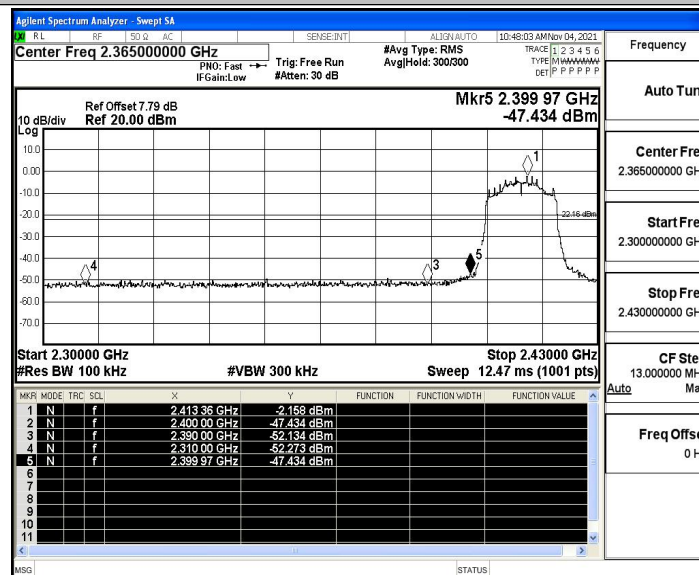
TestMode	Antenna	ChName	Channel	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
11B	Ant1	Low	2412	3.19	-32.8	≤-16.81	PASS
		High	2462	3.12	-47.86	≤-16.88	PASS
11G	Ant1	Low	2412	-2.16	-47.43	≤-22.16	PASS
		High	2462	-0.61	-47.81	≤-20.61	PASS
11N20SISO	Ant1	Low	2412	-1.73	-47.56	≤-21.73	PASS
		High	2462	-0.58	-48.4	≤-20.58	PASS
11N40SISO	Ant1	Low	2422	-4.78	-45.11	≤-24.78	PASS
		High	2452	-5.26	-42.01	≤-25.26	PASS

Test Graphs

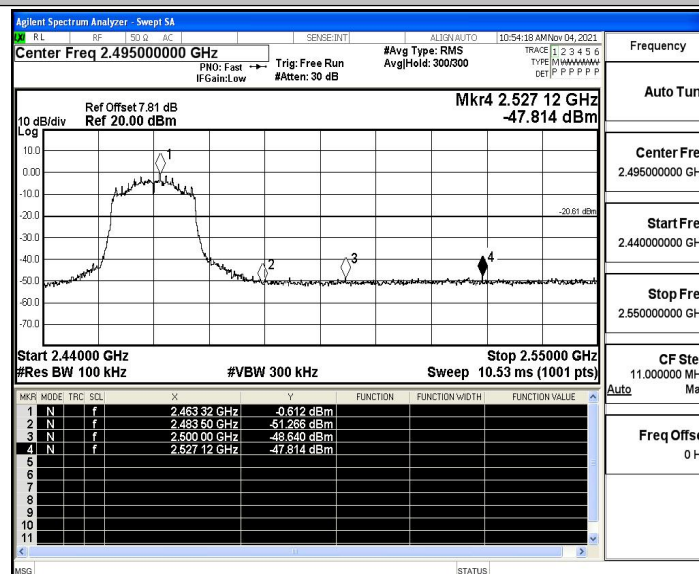




11G_Ant1_Low_2412

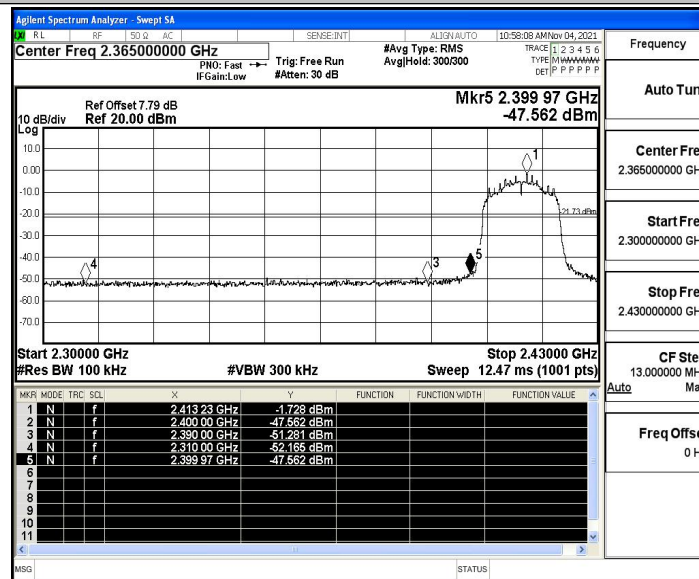


11G_Ant1_High_2462

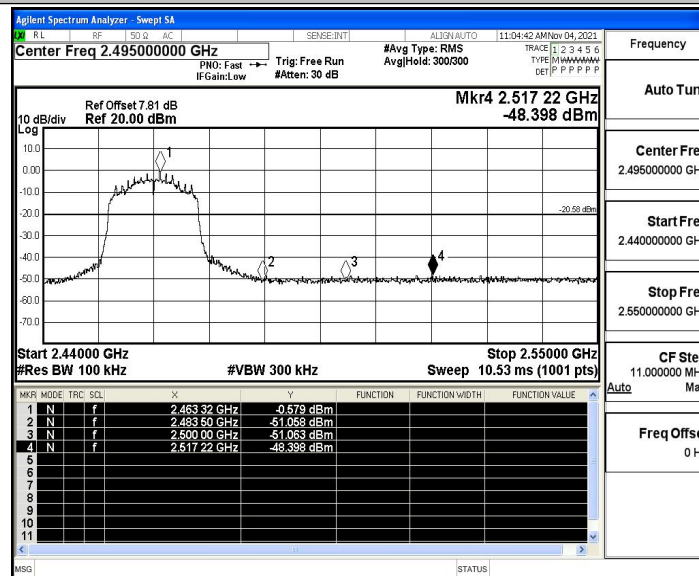




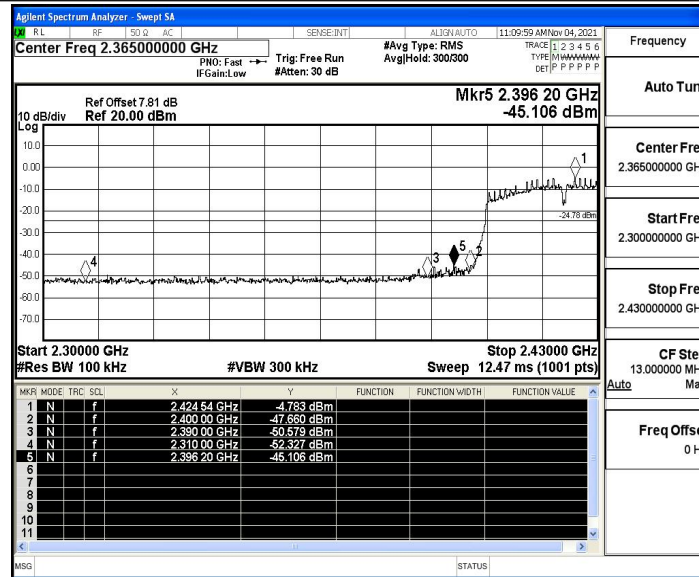
11N20SISO_Ant1_Low_2412



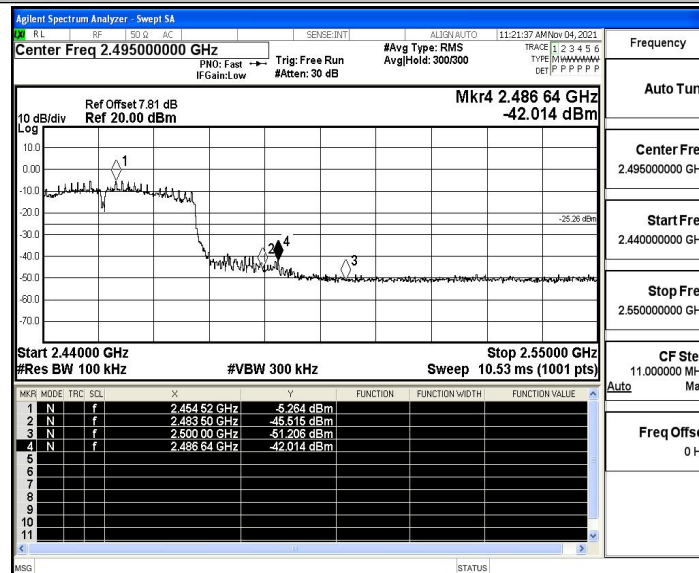
11N20SISO_Ant1_High_2462



11N40SISO_Ant1_Low_2422



11N40SISO_Ant1_High_2452





B.5 Conducted Spurious Emission

Test Result

TestMode	Antenna	Channel	FreqRange [Mhz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
11B	Ant1	2412	Reference	3.25	3.25	---	PASS
			30~1000	3.25	-61.49	≤-16.75	PASS
			1000~26500	3.25	-47.32	≤-16.75	PASS
		2437	Reference	2.14	2.14	---	PASS
			30~1000	2.14	-61.81	≤-17.86	PASS
			1000~26500	2.14	-47.19	≤-17.86	PASS
		2462	Reference	3.12	3.12	---	PASS
			30~1000	3.12	-62.01	≤-16.88	PASS
			1000~26500	3.12	-47.1	≤-16.88	PASS
11G	Ant1	2412	Reference	-1.56	-1.56	---	PASS
			30~1000	-1.56	-62.11	≤-21.56	PASS
			1000~26500	-1.56	-47.76	≤-21.56	PASS
		2437	Reference	-3.35	-3.35	---	PASS
			30~1000	-3.35	-61.21	≤-23.35	PASS
			1000~26500	-3.35	-47.52	≤-23.35	PASS
		2462	Reference	-0.53	-0.53	---	PASS
			30~1000	-0.53	-60.49	≤-20.53	PASS
			1000~26500	-0.53	-47.3	≤-20.53	PASS
11N20SISO	Ant1	2412	Reference	-2.99	-2.99	---	PASS
			30~1000	-2.99	-61.23	≤-22.99	PASS
			1000~26500	-2.99	-47.05	≤-22.99	PASS
		2437	Reference	-3.49	-3.49	---	PASS
			30~1000	-3.49	-61.54	≤-23.49	PASS
			1000~26500	-3.49	-46.52	≤-23.49	PASS
		2462	Reference	-1.90	-1.90	---	PASS
			30~1000	-1.90	-60.6	≤-21.9	PASS
			1000~26500	-1.90	-47.38	≤-21.9	PASS
11N40SISO	Ant1	2422	Reference	-4.88	-4.88	---	PASS
			30~1000	-4.88	-60.35	≤-24.88	PASS
			1000~26500	-4.88	-47.06	≤-24.88	PASS
		2437	Reference	-6.49	-6.49	---	PASS
			30~1000	-6.49	-61.44	≤-26.49	PASS
			1000~26500	-6.49	-46.74	≤-26.49	PASS
		2452	Reference	-5.36	-5.36	---	PASS
			30~1000	-5.36	-59.25	≤-25.36	PASS
			1000~26500	-5.36	-47.3	≤-25.36	PASS



Test Graphs

