



Appendix B

RF Test Data for 2.4G WIFI (Conducted Measurement)

Product Name: Smart lamp module

Test Model: SM-030

Environmental Conditions

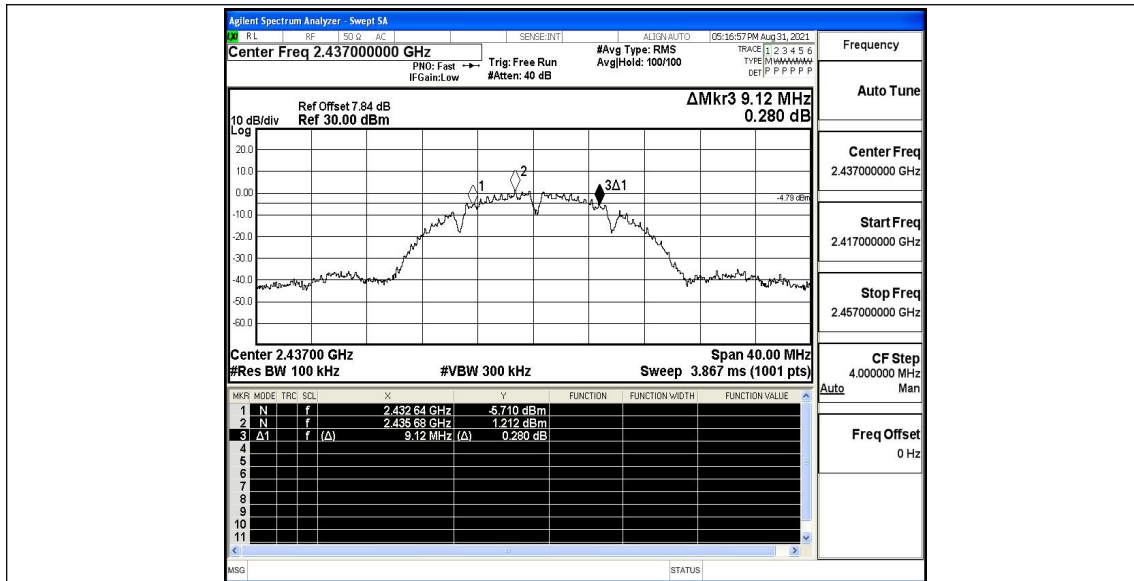
Temperature:	21.1° C
Relative Humidity:	52.2%
ATM Pressure:	100.0 kPa
Test Engineer:	Jay Li
Supervised by:	Li Huan



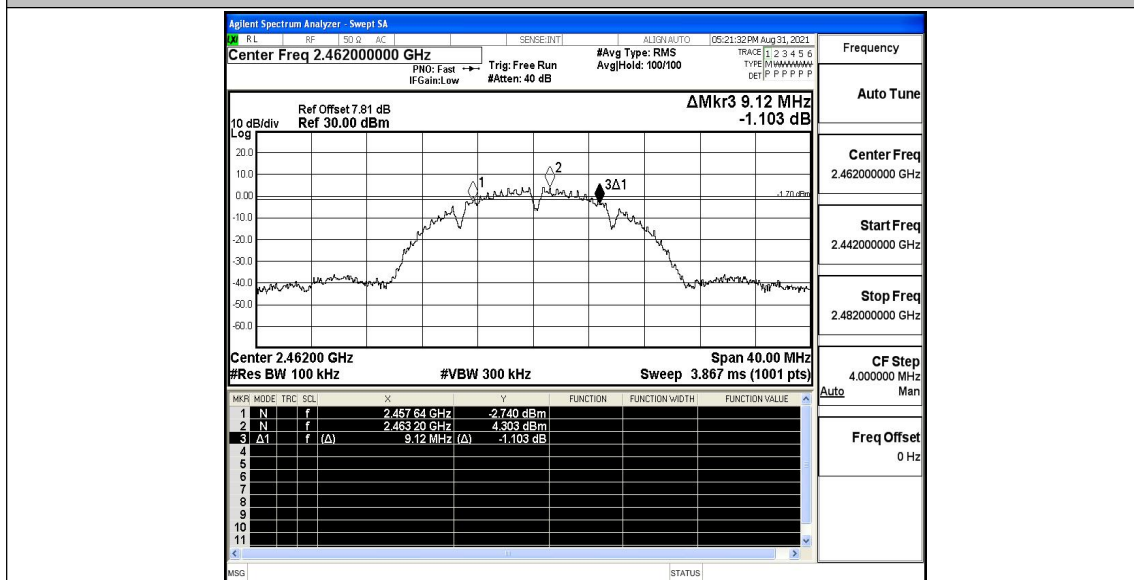
Test Result

Test Graphs

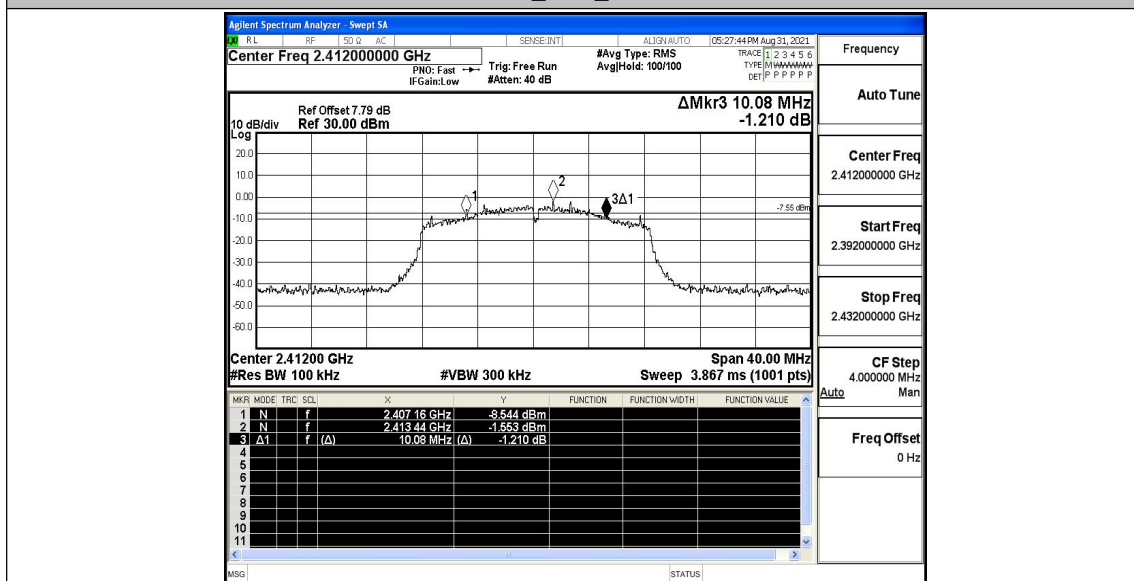




11B_Ant1_2462

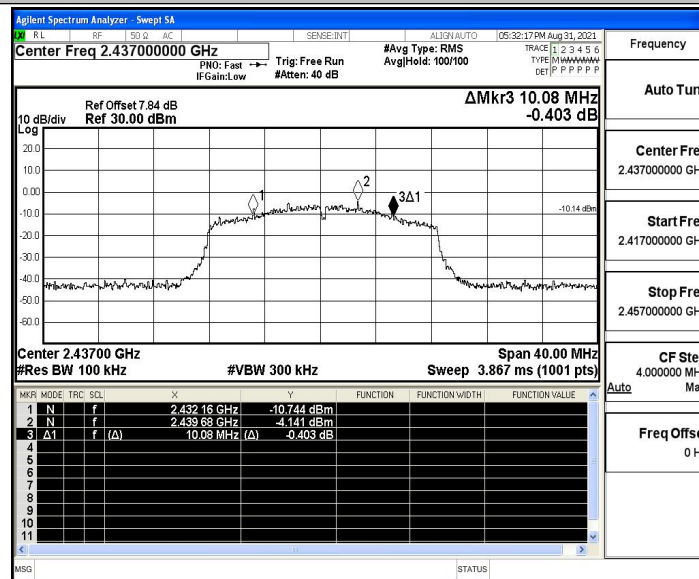


11G_Ant1_2412

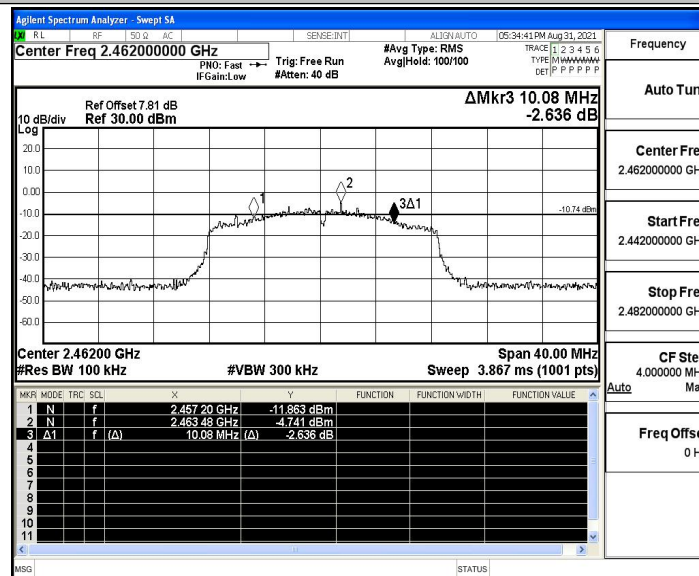




11G_Ant1_2437



11G_Ant1_2462

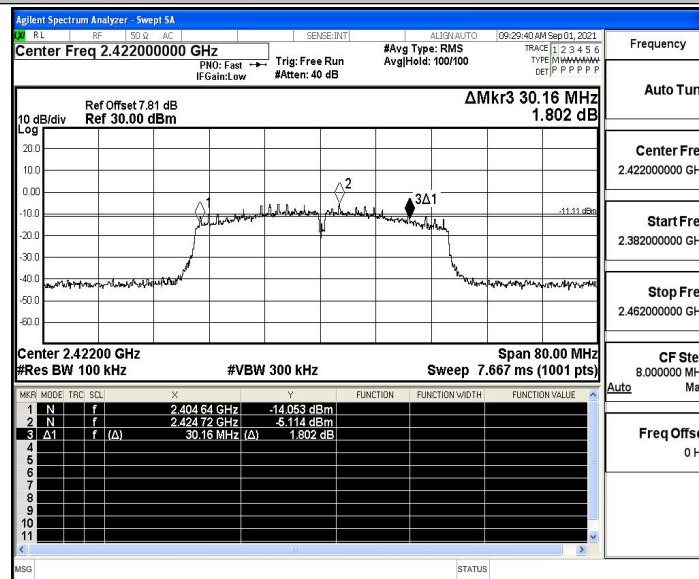


11N20SISO_Ant1_2412

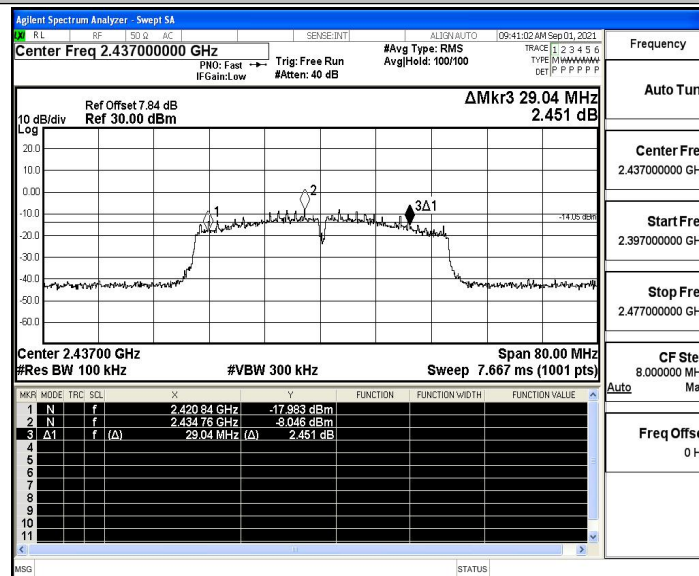




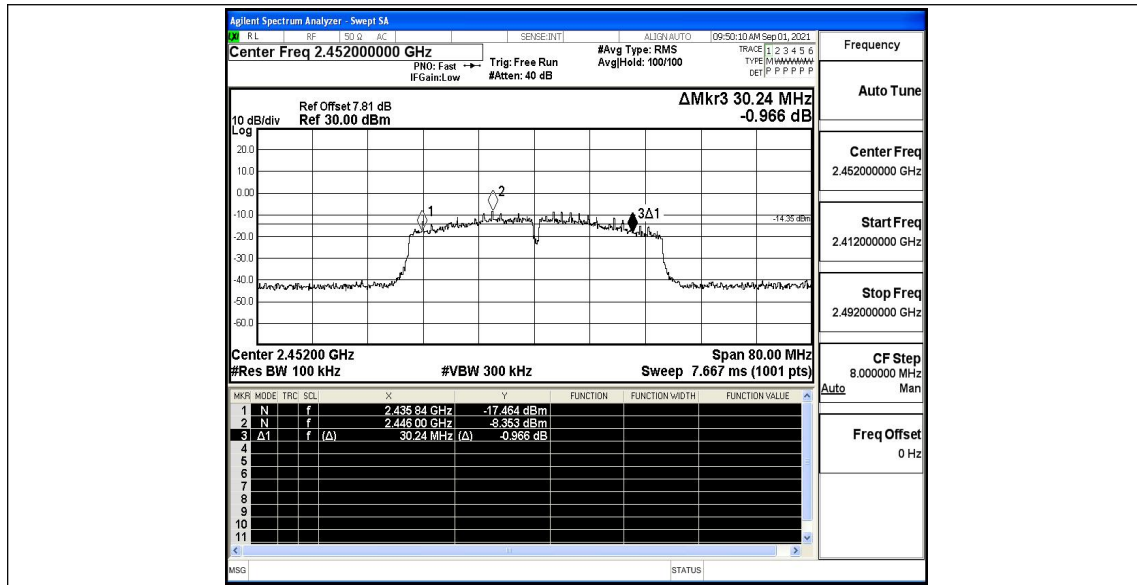
11N40SISO_Ant1_2422



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	14.62	≤30	PASS
		2437	14.92	≤30	PASS
		2462	14.85	≤30	PASS
11G	Ant1	2412	14.30	≤30	PASS
		2437	13.26	≤30	PASS
		2462	13.07	≤30	PASS
11N20SISO	Ant1	2412	13.87	≤30	PASS
		2437	13.48	≤30	PASS
		2462	13.99	≤30	PASS
11N40SISO	Ant1	2422	12.57	≤30	PASS
		2437	12.61	≤30	PASS
		2452	12.44	≤30	PASS



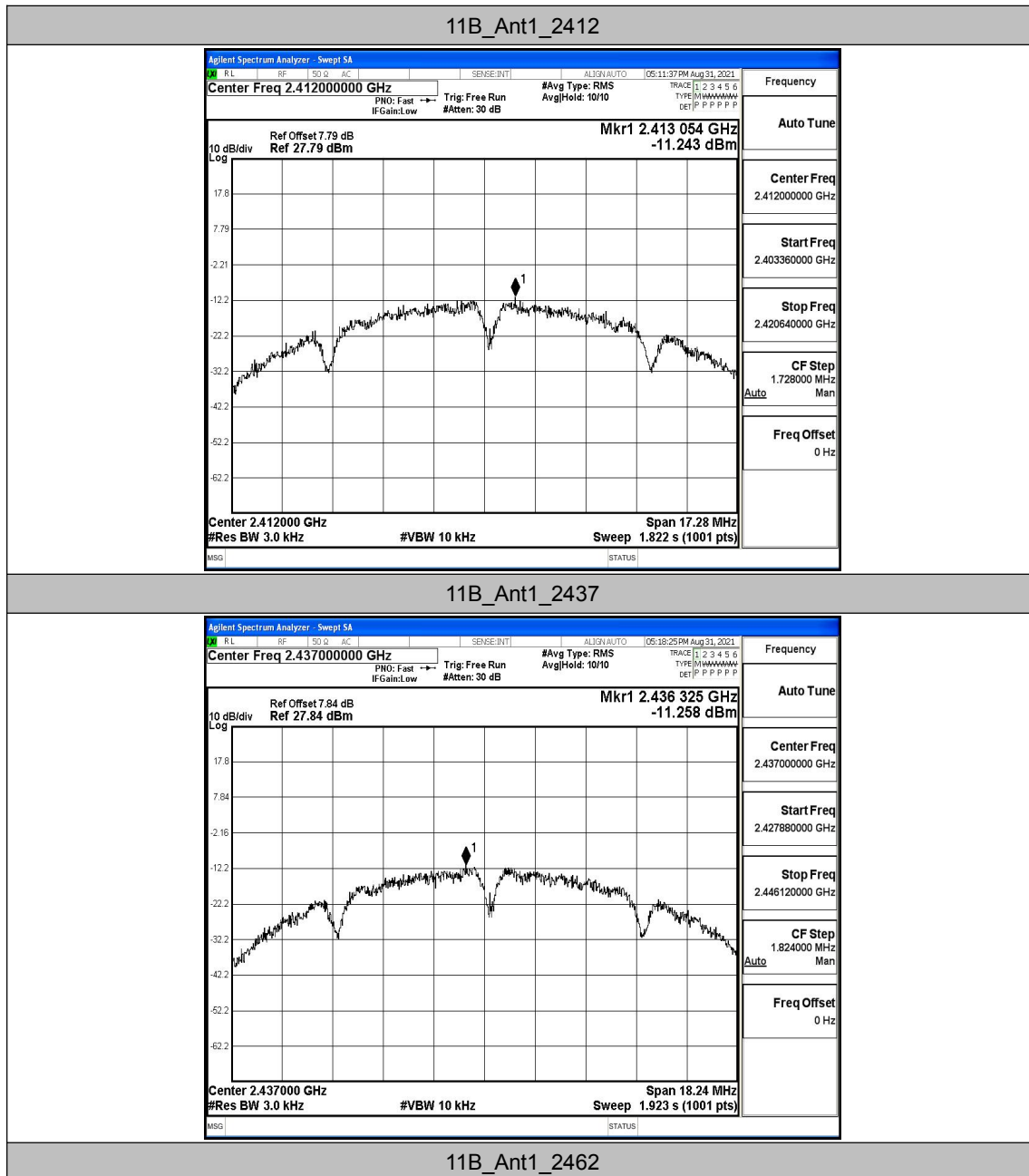
B.3 Maximum power spectral density

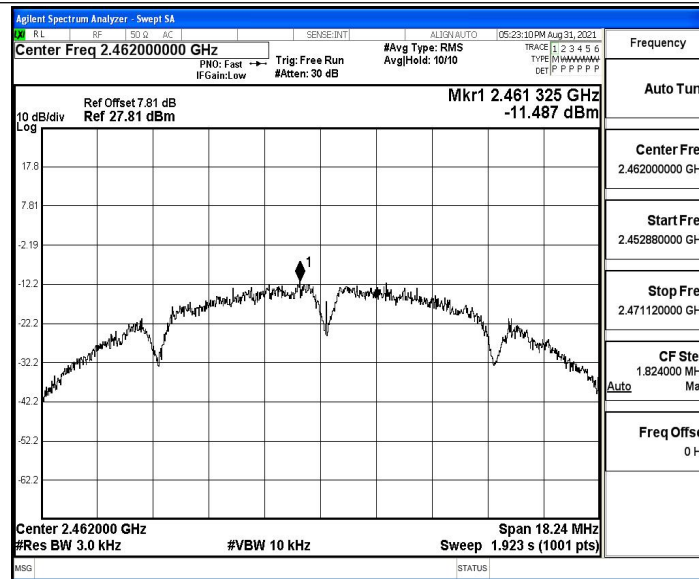
Test Result

TestMode	Antenna	Channel	Result[dBm/3-100kHz]	Limit[dBm/3kHz]	Verdict
11B	Ant1	2412	-11.24	≤8	PASS
		2437	-11.26	≤8	PASS
		2462	-11.49	≤8	PASS
11G	Ant1	2412	-17.43	≤8	PASS
		2437	-17.41	≤8	PASS
		2462	-18.83	≤8	PASS
11N20SISO	Ant1	2412	-16.72	≤8	PASS
		2437	-18.06	≤8	PASS
		2462	-19.71	≤8	PASS
11N40SISO	Ant1	2422	-20.45	≤8	PASS
		2437	-20.33	≤8	PASS
		2452	-19.97	≤8	PASS

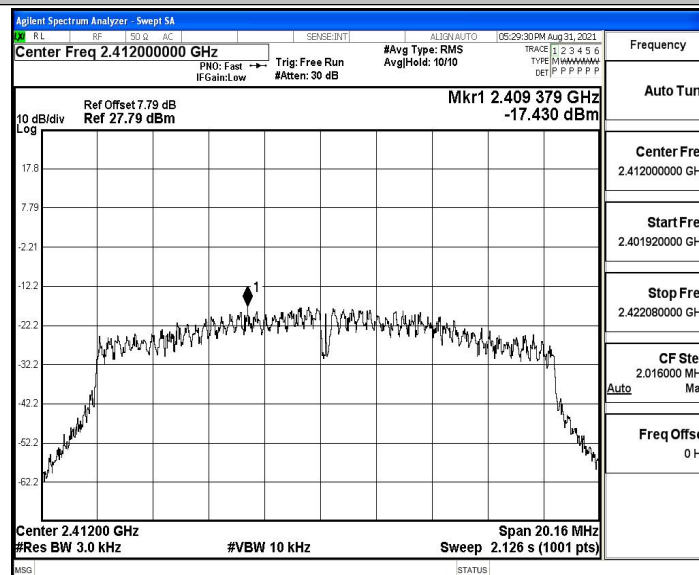


Test Graphs

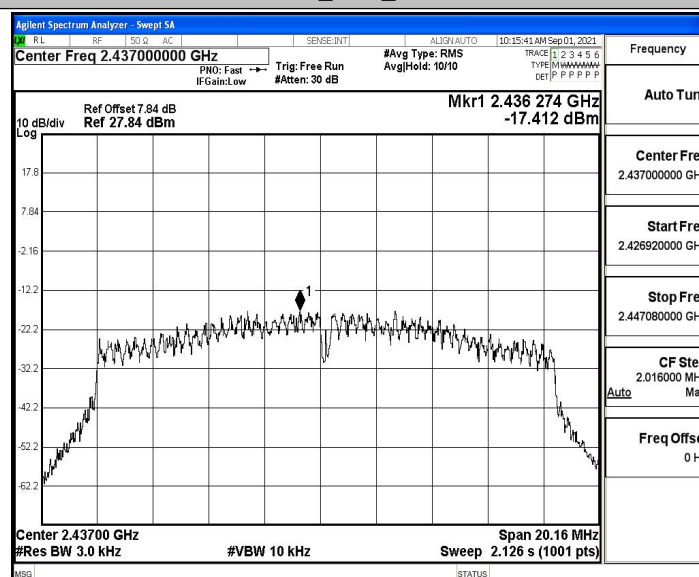




11G_Ant1_2412

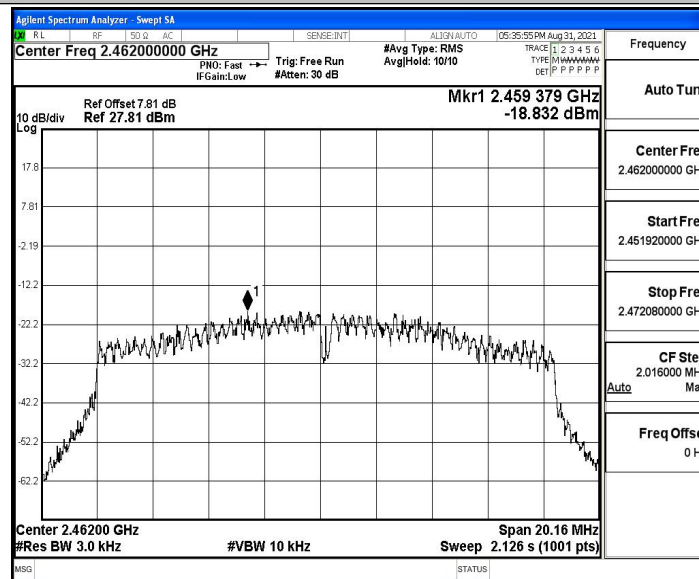


11G_Ant1_2437

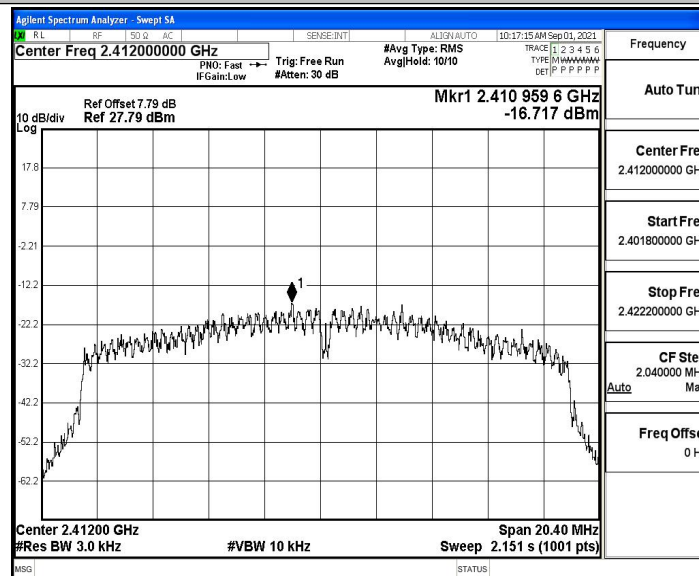




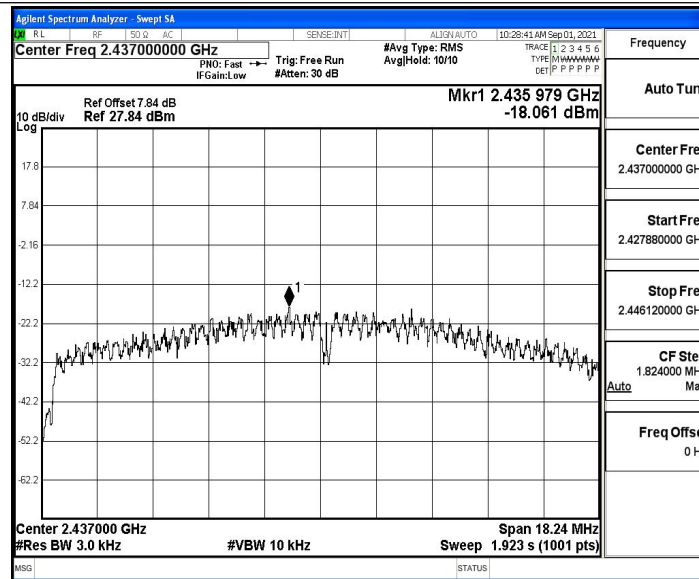
11G_Ant1_2462



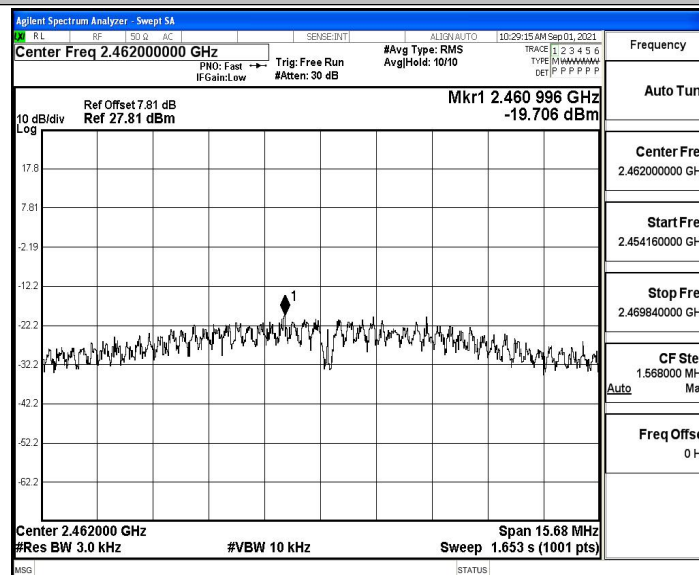
11N20SISO_Ant1_2412



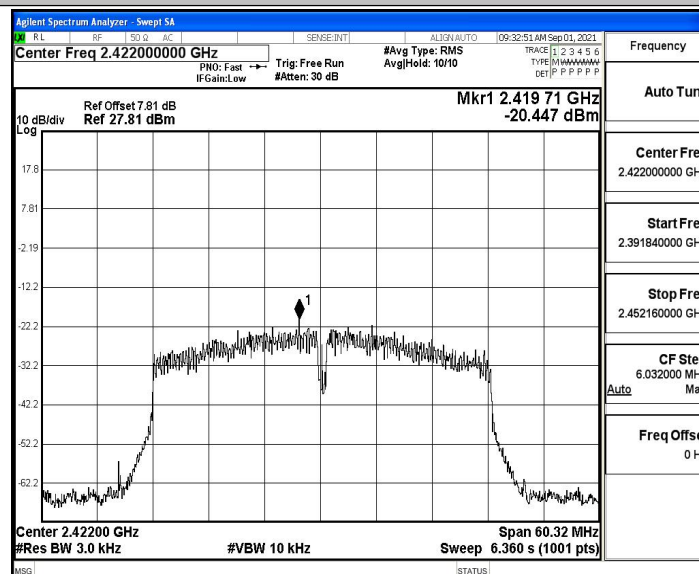
11N20SISO_Ant1_2437



11N20SISO_Ant1_2462

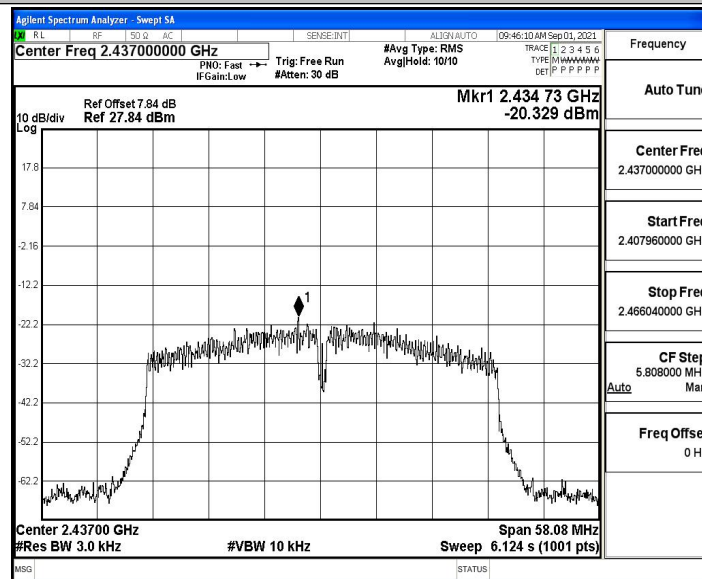


11N40SISO_Ant1_2422

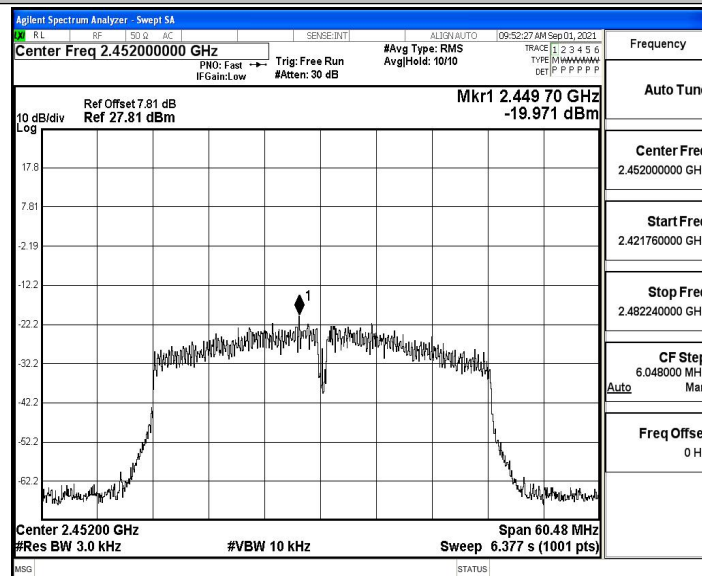




11N40SISO_Ant1_2437



11N40SISO_Ant1_2452





B.4 Band edge measurements

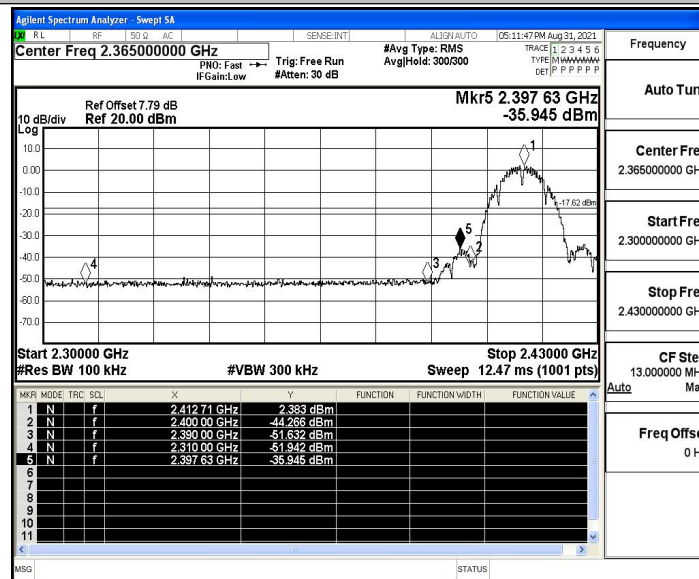
Test Result

TestMode	Antenna	ChName	Channel	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
11B	Ant1	Low	2412	2.38	-35.95	≤ -17.62	PASS
		High	2462	2.57	-48.86	≤ -17.43	PASS
11G	Ant1	Low	2412	-2.05	-48.31	≤ -22.05	PASS
		High	2462	-3.47	-48.78	≤ -23.47	PASS
11N20SISO	Ant1	Low	2412	-2.19	-47.84	≤ -22.19	PASS
		High	2462	-2.52	-44.53	≤ -22.52	PASS
11N40SISO	Ant1	Low	2422	-7.39	-48.37	≤ -27.39	PASS
		High	2452	-7.21	-48.11	≤ -27.21	PASS

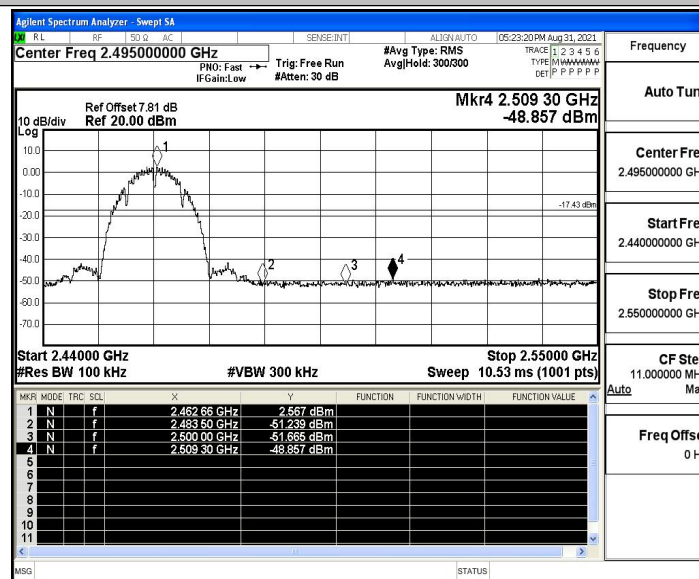


Test Graphs

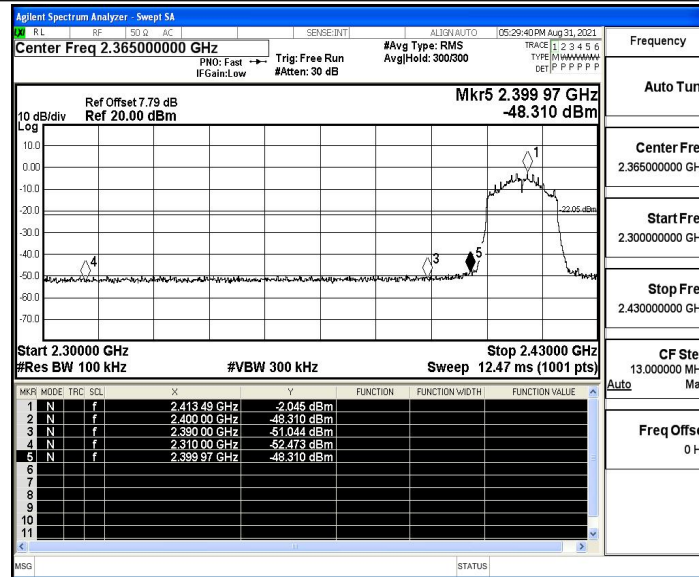
11B_Ant1_Low_2412



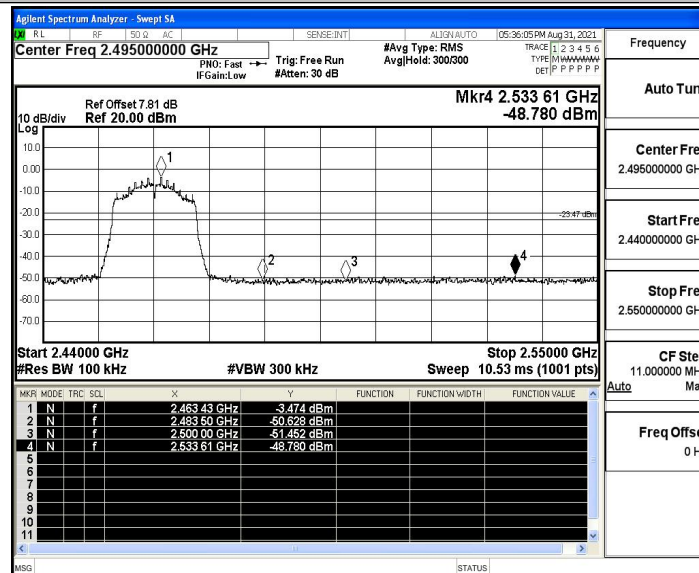
11B_Ant1_High_2462



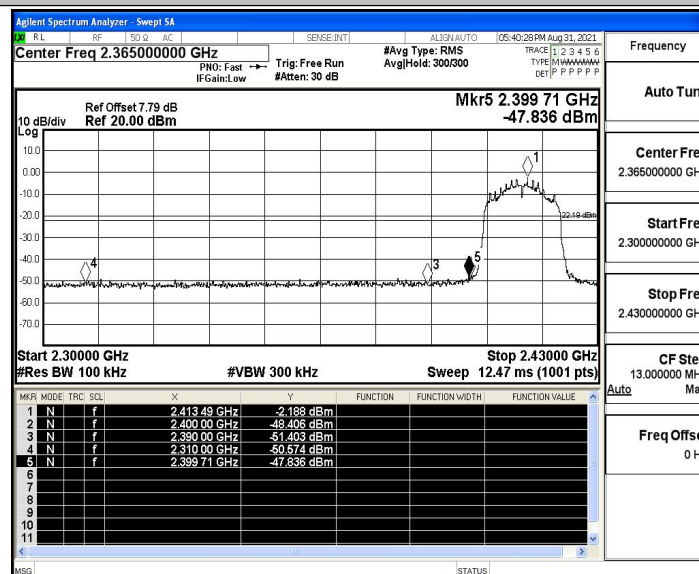
11G_Ant1_Low_2412



11G_Ant1_High_2462

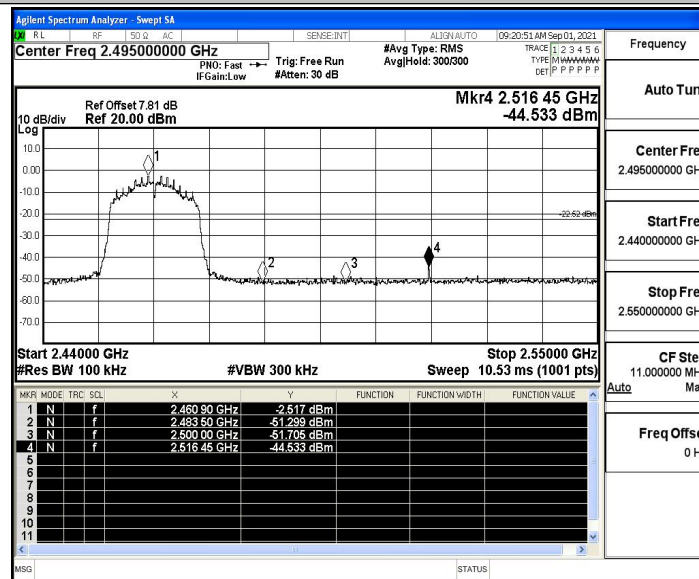


11N20SISO_Ant1_Low_2412

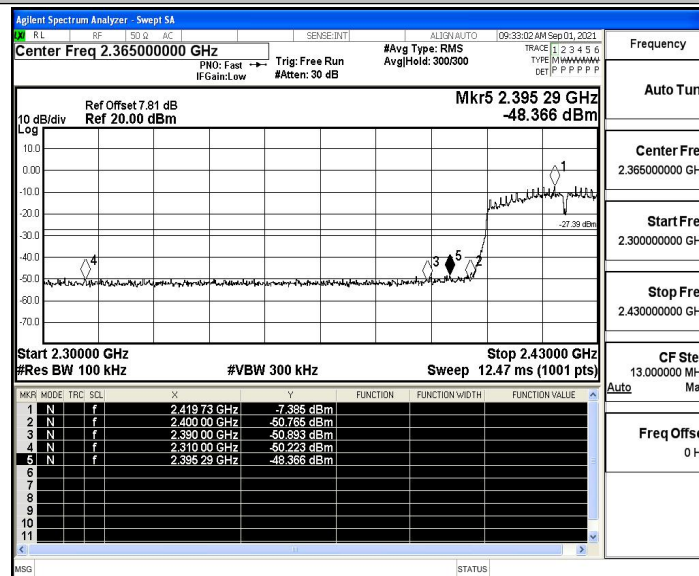




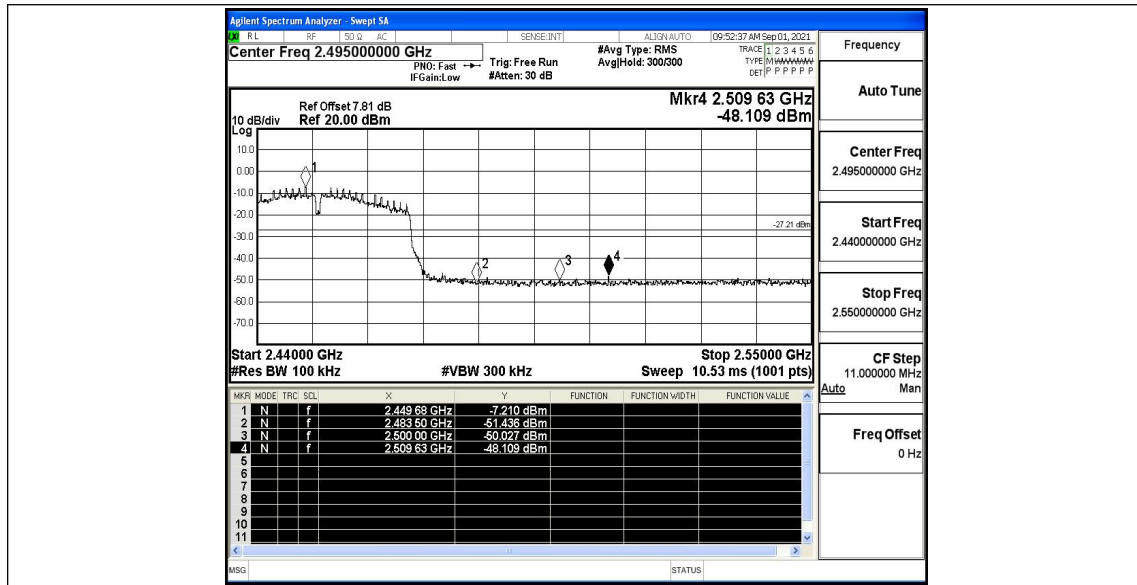
11N20SISO_Ant1_High_2462



11N40SISO_Ant1_Low_2422



11N40SISO_Ant1_High_2452





B.5 Conducted Spurious Emission

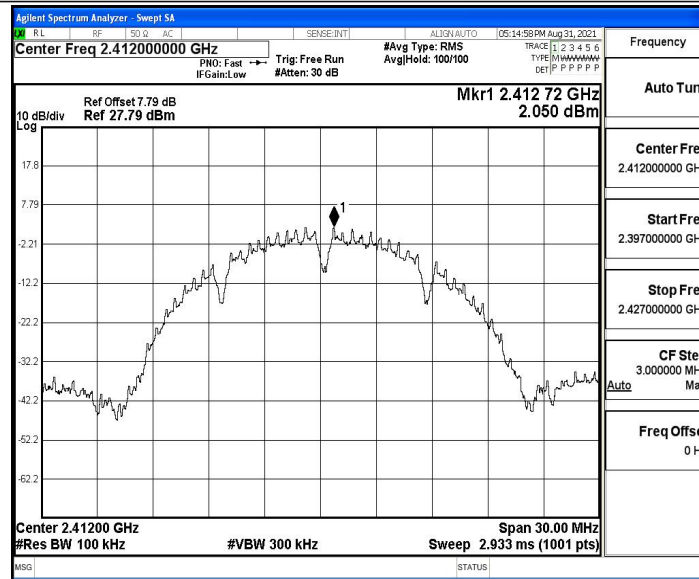
Test Result

TestMode	Antenna	Channel	FreqRange [Mhz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
11B	Ant1	2412	Reference	2.05	2.05	---	PASS
			30~1000	2.05	-61.6	≤-17.95	PASS
			1000~26500	2.05	-47.52	≤-17.95	PASS
		2437	Reference	2.46	2.46	---	PASS
			30~1000	2.46	-62.26	≤-17.54	PASS
			1000~26500	2.46	-47.02	≤-17.54	PASS
		2462	Reference	2.59	2.59	---	PASS
			30~1000	2.59	-61.73	≤-17.41	PASS
			1000~26500	2.59	-47.22	≤-17.41	PASS
11G	Ant1	2412	Reference	-3.29	-3.29	---	PASS
			30~1000	-3.29	-61.67	≤-23.29	PASS
			1000~26500	-3.29	-46.22	≤-23.29	PASS
		2437	Reference	-3.23	-3.23	---	PASS
			30~1000	-3.23	-61.74	≤-23.23	PASS
			1000~26500	-3.23	-47.89	≤-23.23	PASS
		2462	Reference	-4.60	-4.60	---	PASS
			30~1000	-4.60	-61.49	≤-24.6	PASS
			1000~26500	-4.60	-47.46	≤-24.6	PASS
11N20SISO	Ant1	2412	Reference	-3.37	-3.37	---	PASS
			30~1000	-3.37	-61.23	≤-23.37	PASS
			1000~26500	-3.37	-46.97	≤-23.37	PASS
		2437	Reference	-3.27	-3.27	---	PASS
			30~1000	-3.27	-61.61	≤-23.27	PASS
			1000~26500	-3.27	-47.15	≤-23.27	PASS
		2462	Reference	-2.56	-2.56	---	PASS
			30~1000	-2.56	-61.21	≤-22.56	PASS
			1000~26500	-2.56	-47.03	≤-22.56	PASS
11N40SISO	Ant1	2422	Reference	-7.62	-7.62	---	PASS
			30~1000	-7.62	-61.79	≤-27.62	PASS
			1000~26500	-7.62	-46.62	≤-27.62	PASS
		2437	Reference	-7.70	-7.70	---	PASS
			30~1000	-7.70	-61.69	≤-27.7	PASS
			1000~26500	-7.70	-46.64	≤-27.7	PASS
		2452	Reference	-7.68	-7.68	---	PASS
			30~1000	-7.68	-61.4	≤-27.68	PASS
			1000~26500	-7.68	-47.44	≤-27.68	PASS

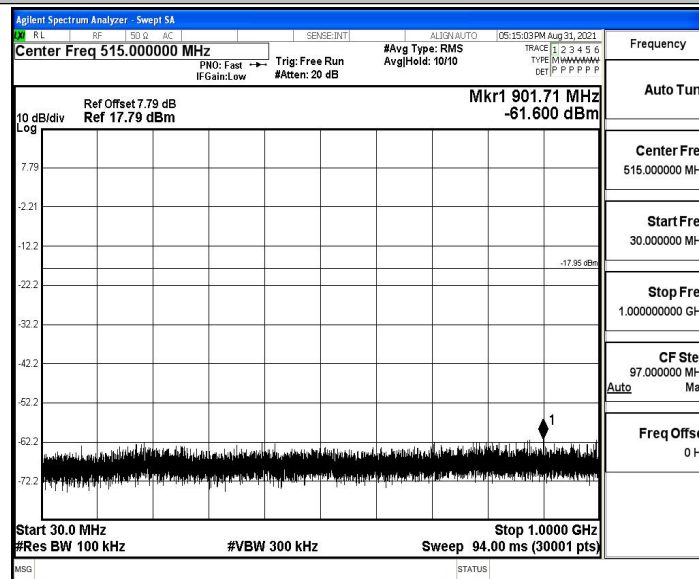


Test Graphs

11B_Ant1_2412_0~Reference



11B_Ant1_2412_30~1000



11B_Ant1_2412_1000~26500