

Appendix B

RF Test Data for 2.4GWIFI (Conducted Measurement)

Product Name: Kids Magic Drawing Machine

Test Model: S1

Environmental Conditions

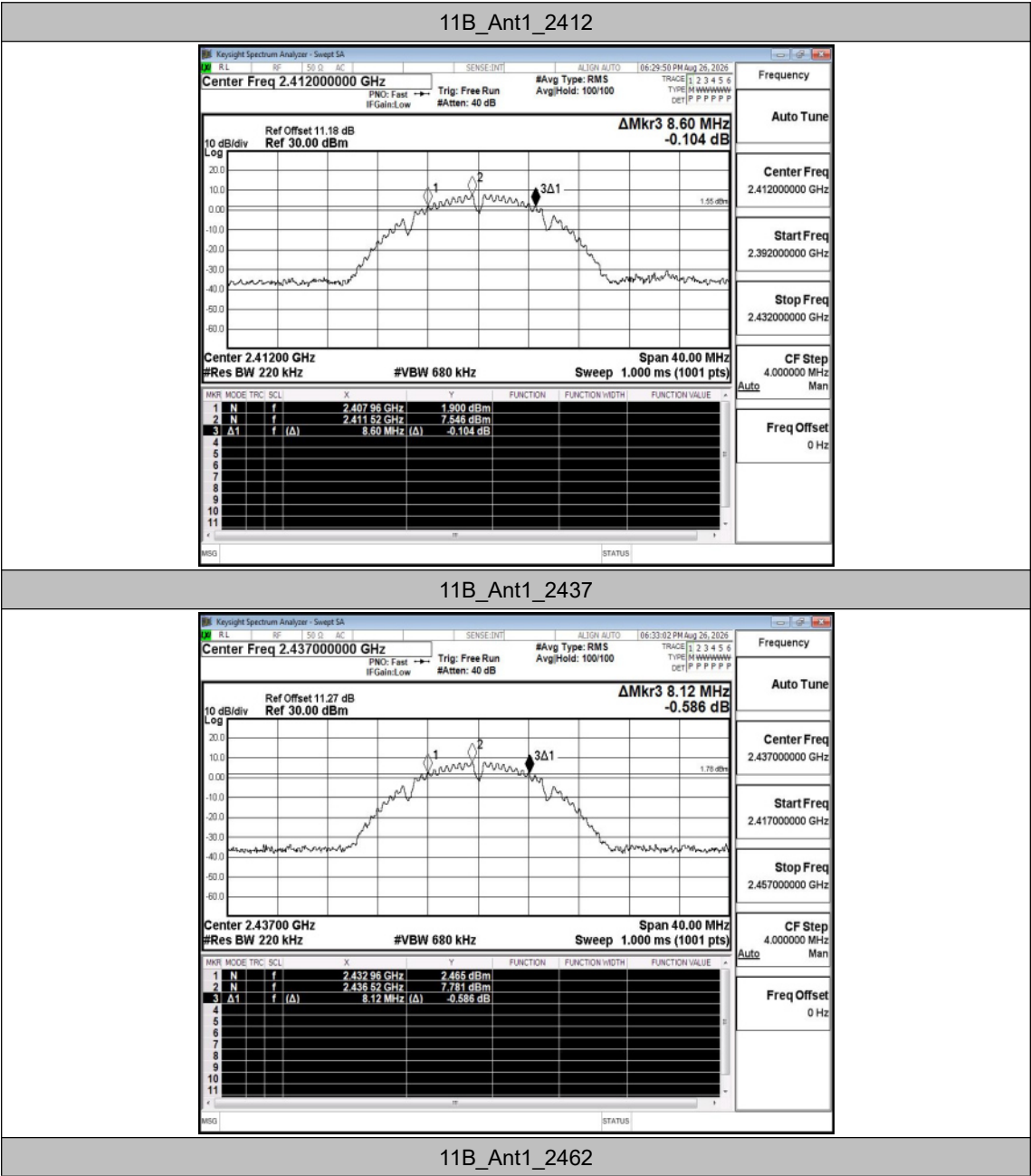
Temperature:	23.2°C
Relative Humidity:	54.1%
ATM Pressure:	100.0 kPa
Test Engineer:	Zhang hai
Supervised by:	Fengliu Tang

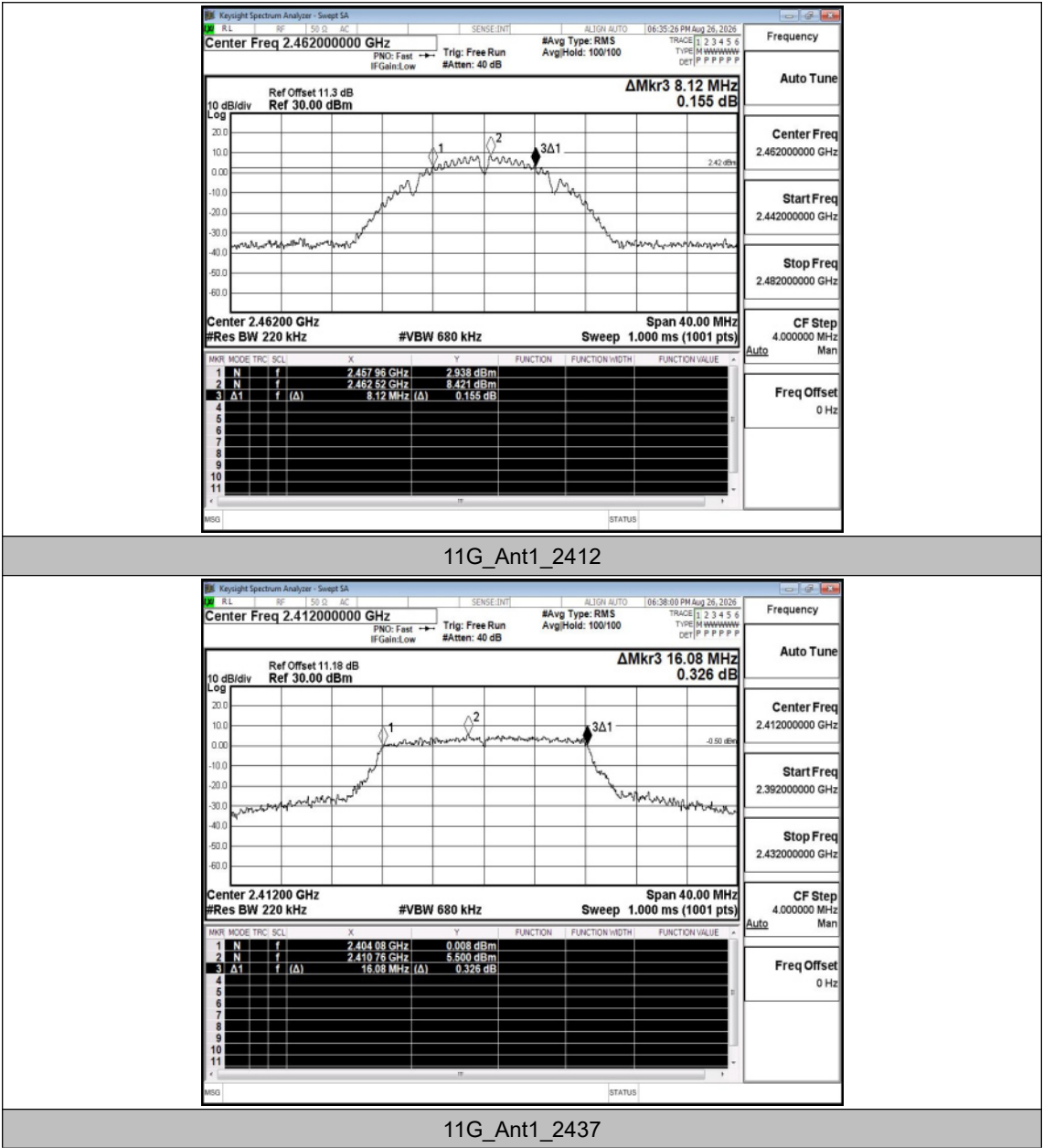
B.1 6dB Bandwidth

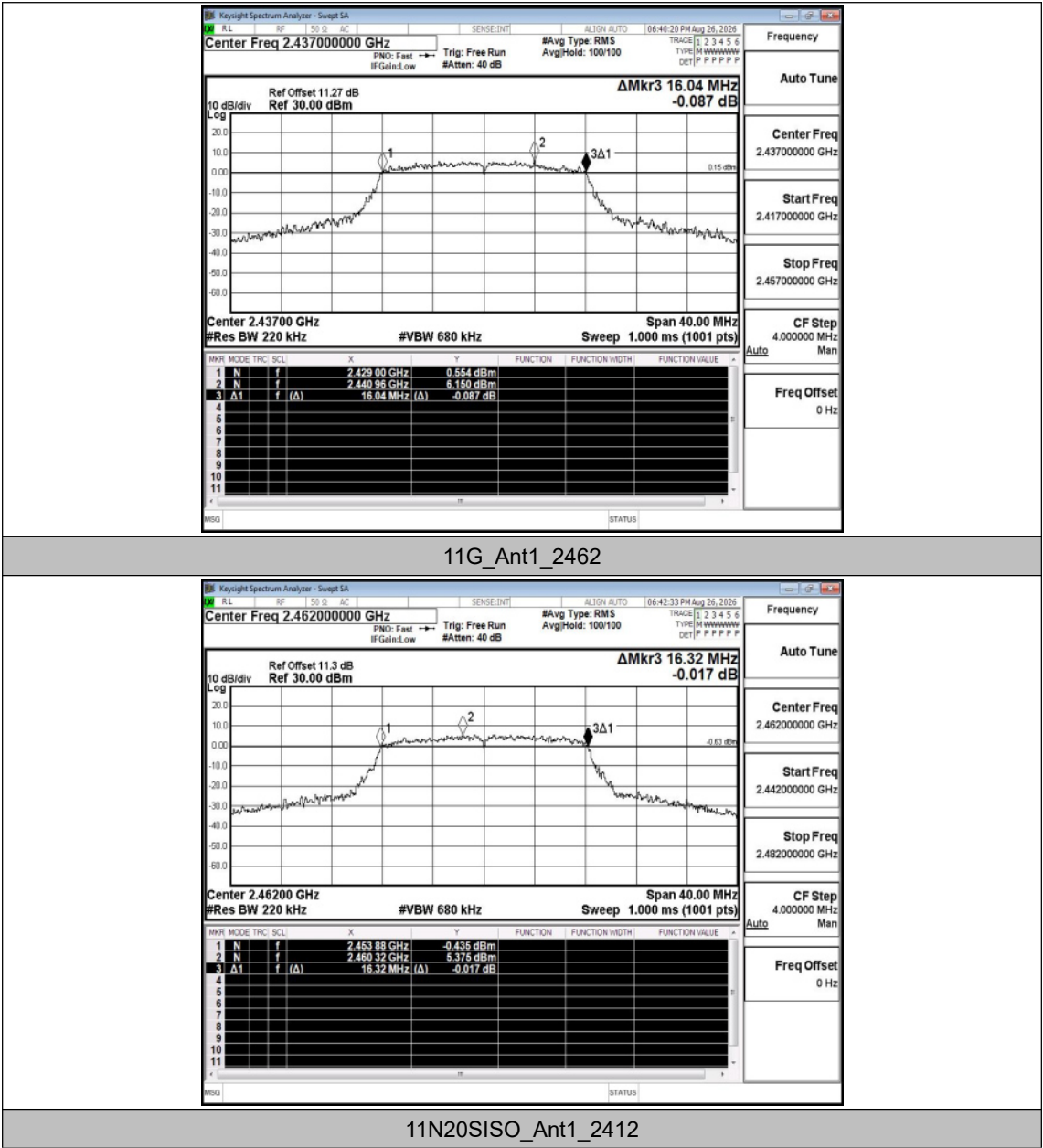
Test Result

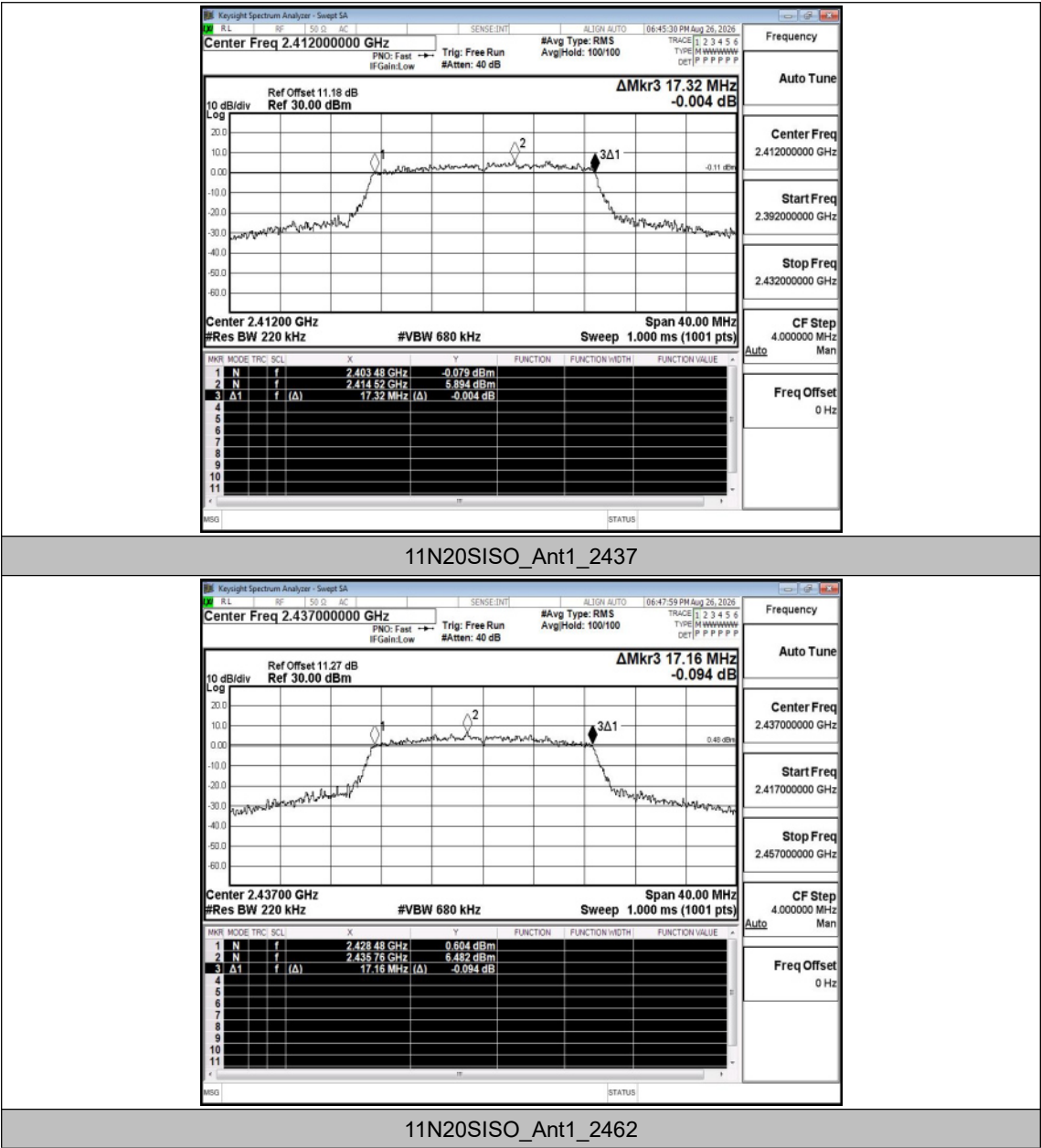
TestMode	Antenna	Frequency[MHz]	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	8.600	2407.960	2416.560	0.5	PASS
		2437	8.120	2432.960	2441.080	0.5	PASS
		2462	8.120	2457.960	2466.080	0.5	PASS
11G	Ant1	2412	16.080	2404.080	2420.160	0.5	PASS
		2437	16.040	2429.000	2445.040	0.5	PASS
		2462	16.320	2453.880	2470.200	0.5	PASS
11N20SISO	Ant1	2412	17.320	2403.480	2420.800	0.5	PASS
		2437	17.160	2428.480	2445.640	0.5	PASS
		2462	17.240	2453.440	2470.680	0.5	PASS

Test Graphs









B.2 Maximum Average conducted output power

Test Result

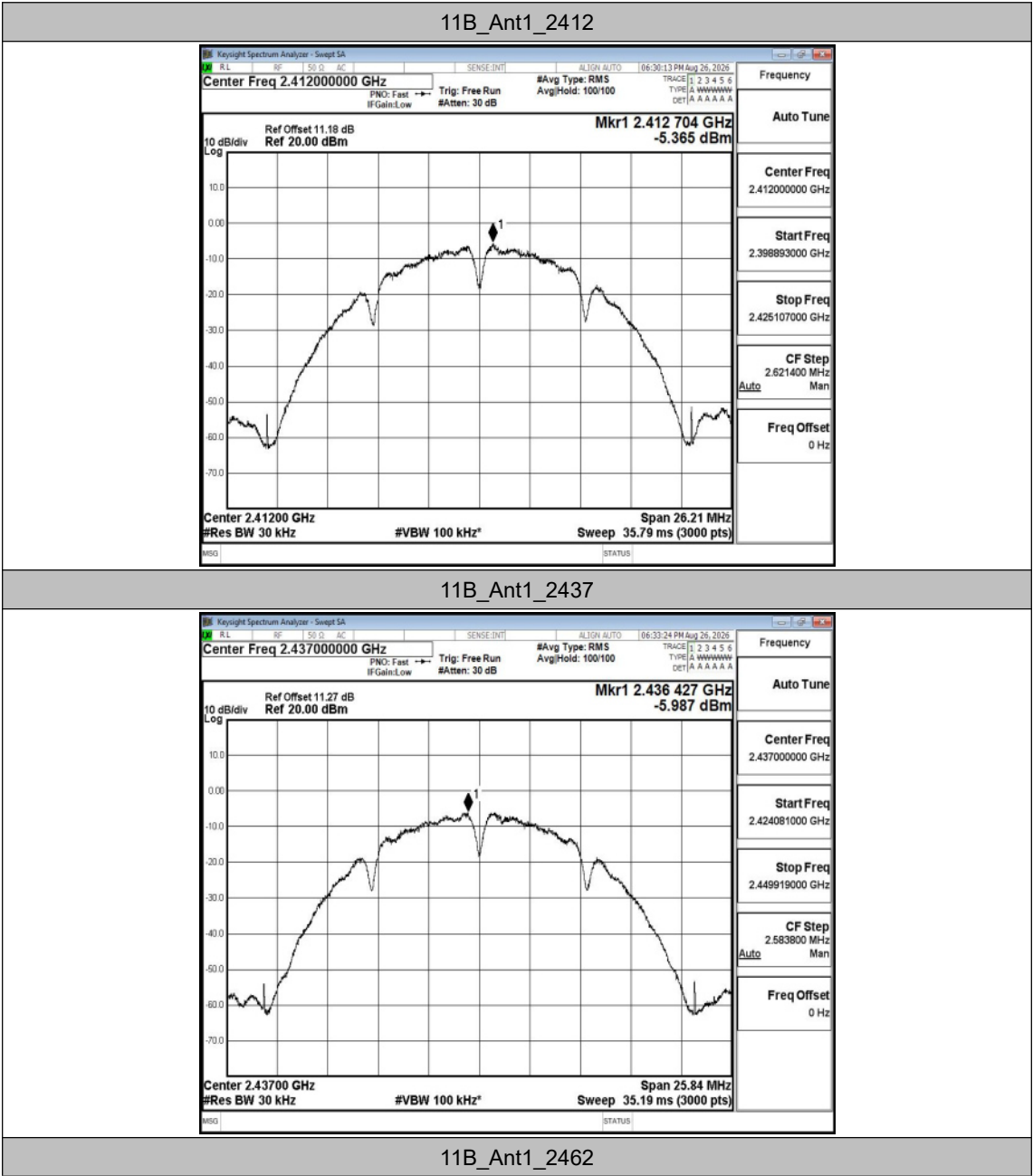
TestMode	Antenna	Frequency [MHz]	Measured Power	DC Factor [dB]	AV Power [dBm]	Conducted Limit[dBm]	Verdict
11B	Ant1	2412	14.84	0.02	14.86	≤30.00	PASS
		2437	15.03	0.02	15.05	≤30.00	PASS
		2462	14.98	0.02	15.00	≤30.00	PASS
11G	Ant1	2412	15.27	0.15	15.42	≤30.00	PASS
		2437	15.31	0.12	15.43	≤30.00	PASS
		2462	15.19	0.12	15.31	≤30.00	PASS
11N20SISO	Ant1	2412	15.14	0.16	15.30	≤30.00	PASS
		2437	15.25	0.13	15.38	≤30.00	PASS
		2462	15.15	0.17	15.32	≤30.00	PASS

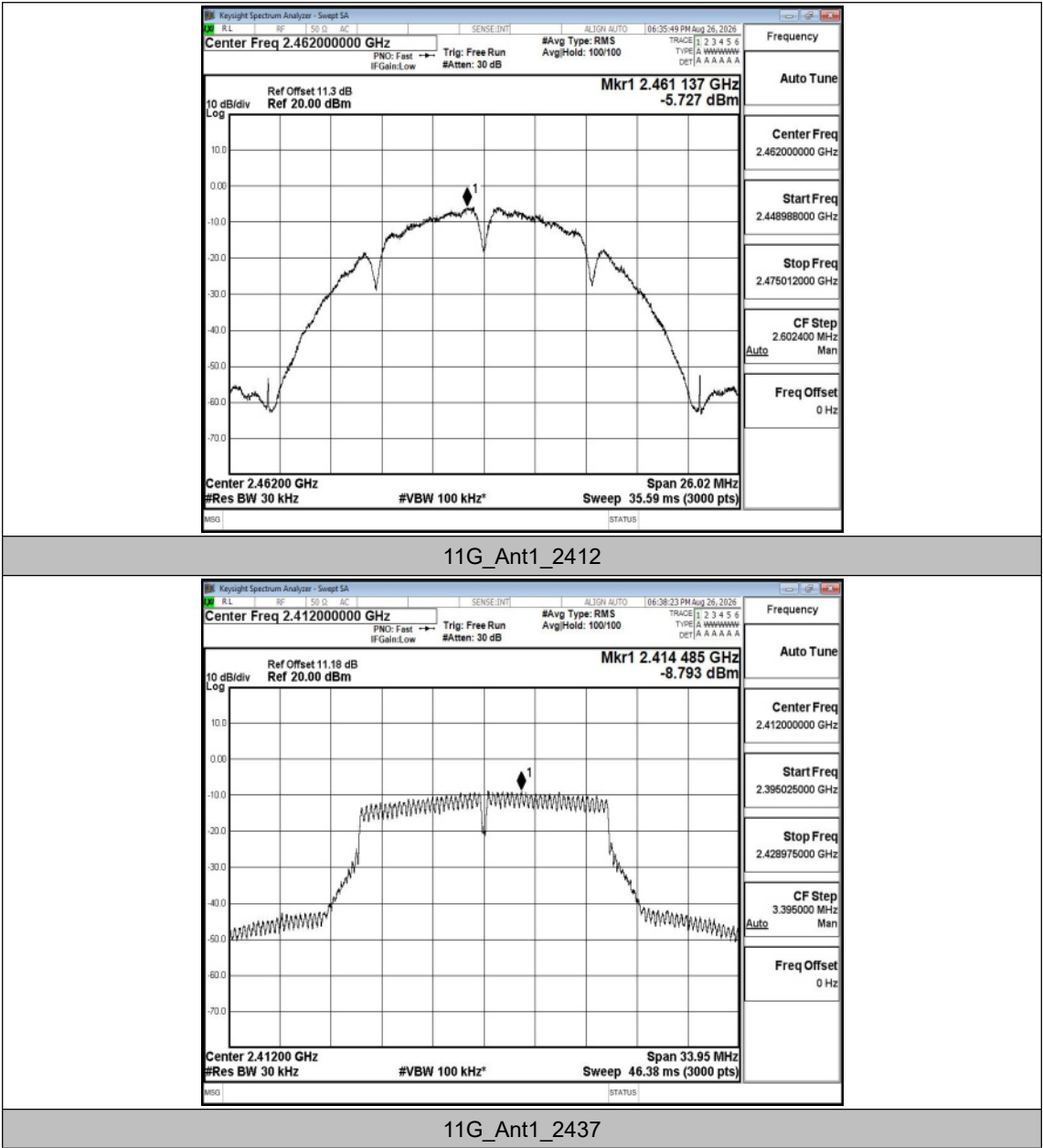
B.3 Maximum power spectral density

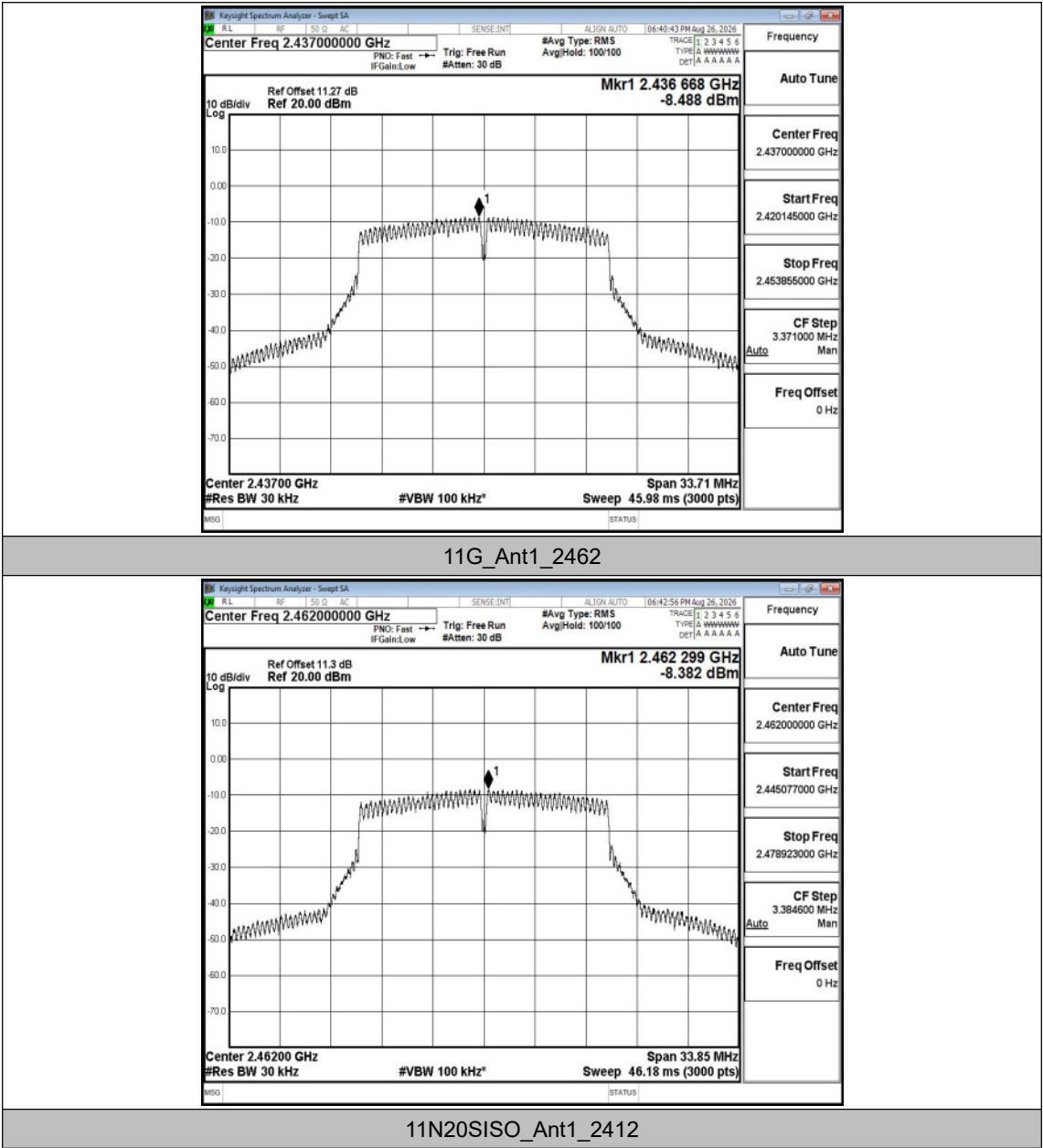
Test Result

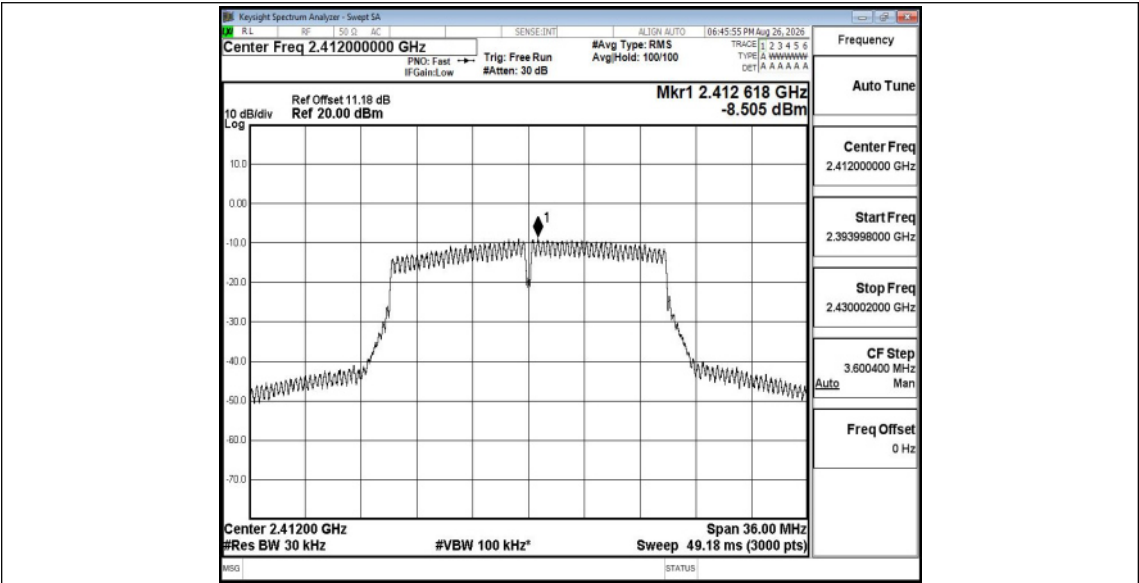
TestMode	Antenna	Frequency[MHz]	Measured PSD [dBm/30kHz]	DC Factor [dB]	Result [dBm/30kHz]	Result [dBm/3kHz]	Limit [dBm/3kHz]	Verdict
11B	Ant1	2412	-5.37	0.02	-5.35	-15.35	≤8.00	PASS
		2437	-5.99	0.02	-5.97	-15.97	≤8.00	PASS
		2462	-5.73	0.02	-5.71	-15.71	≤8.00	PASS
11G	Ant1	2412	-8.79	0.15	-8.64	-18.64	≤8.00	PASS
		2437	-8.49	0.12	-8.37	-18.37	≤8.00	PASS
		2462	-8.38	0.12	-8.26	-18.26	≤8.00	PASS
11N20SISO	Ant1	2412	-8.51	0.16	-8.35	-18.35	≤8.00	PASS
		2437	-8.31	0.13	-8.18	-18.18	≤8.00	PASS
		2462	-8.15	0.17	-7.98	-17.98	≤8.00	PASS

Test Graphs

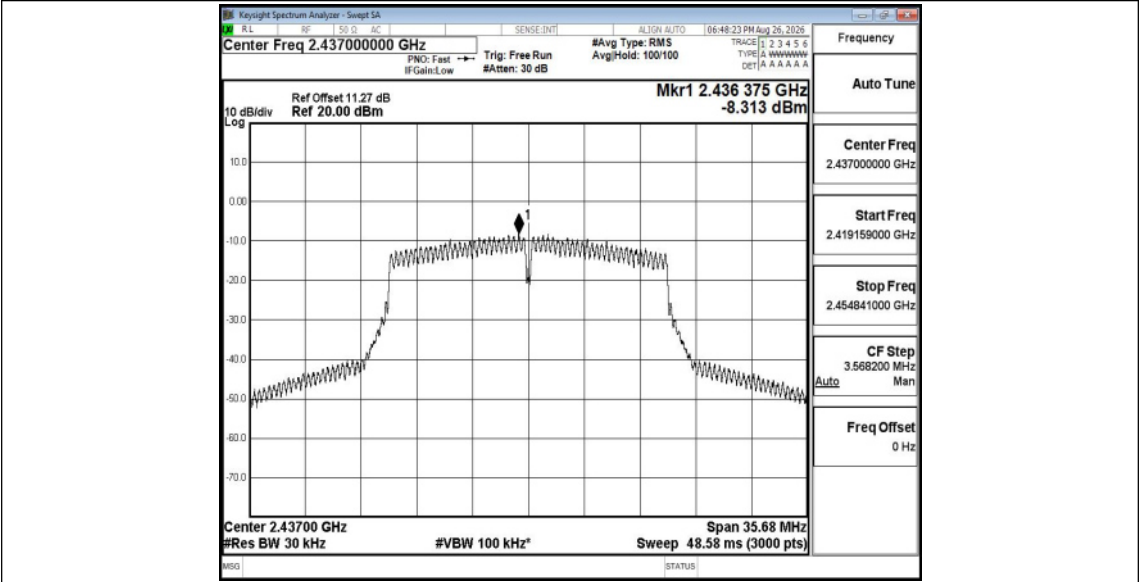




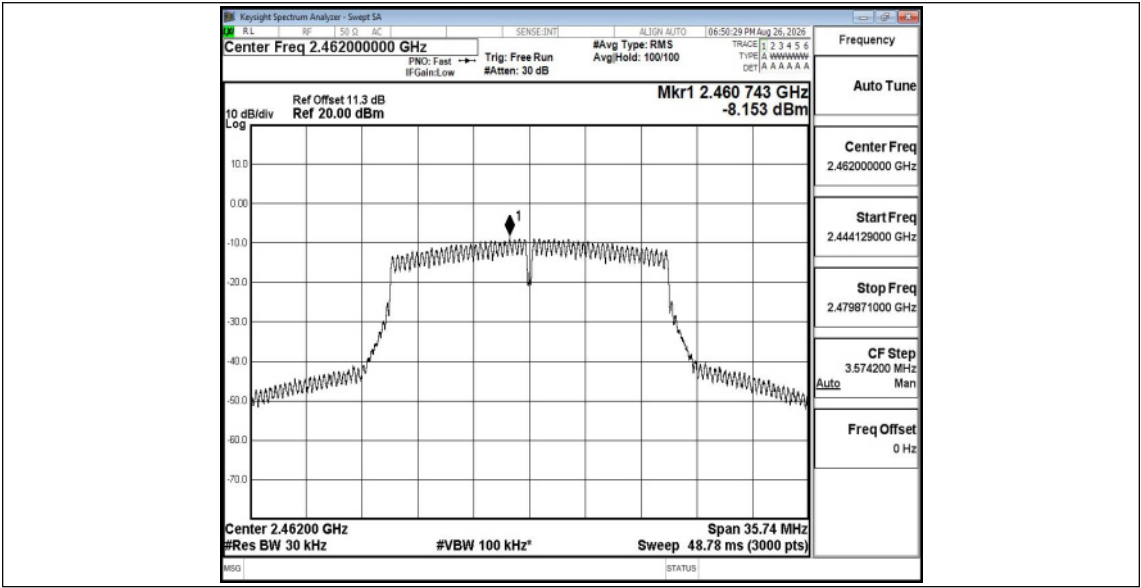




11N20SISO_Ant1_2437



11N20SISO_Ant1_2462

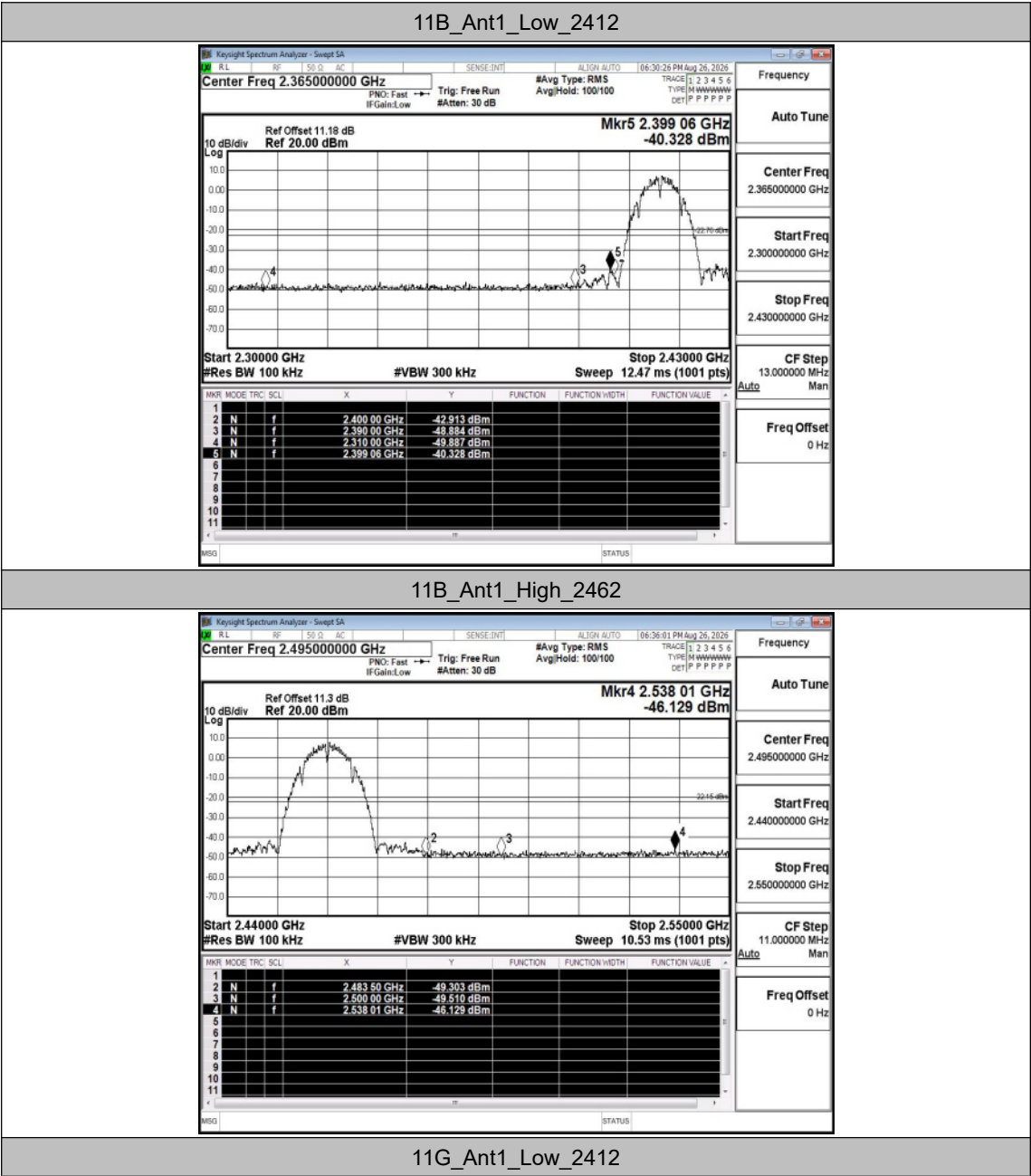


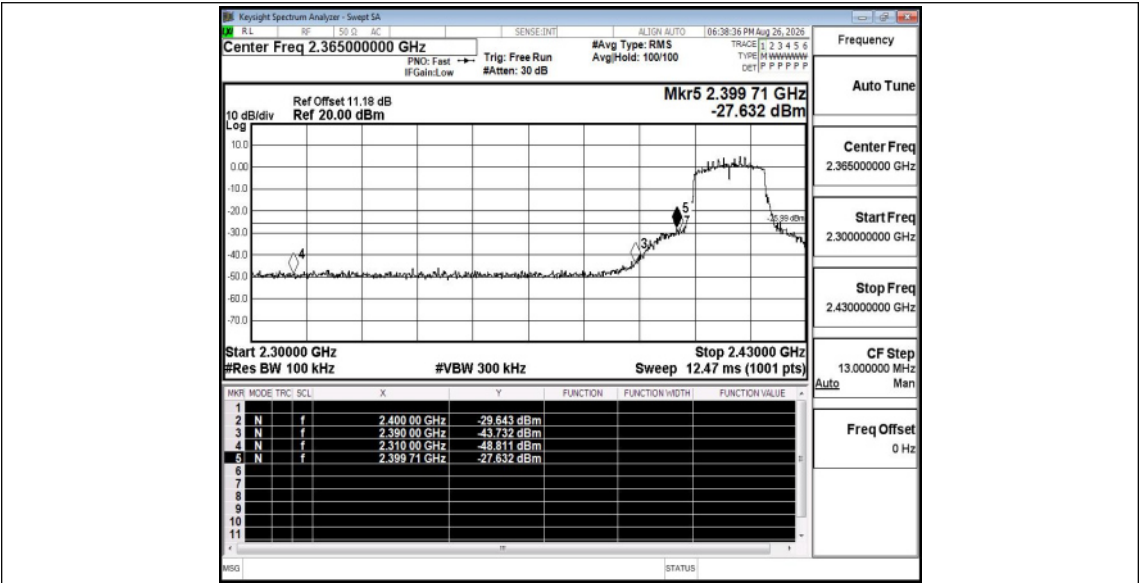
B.4 Band edge measurements

Test Result

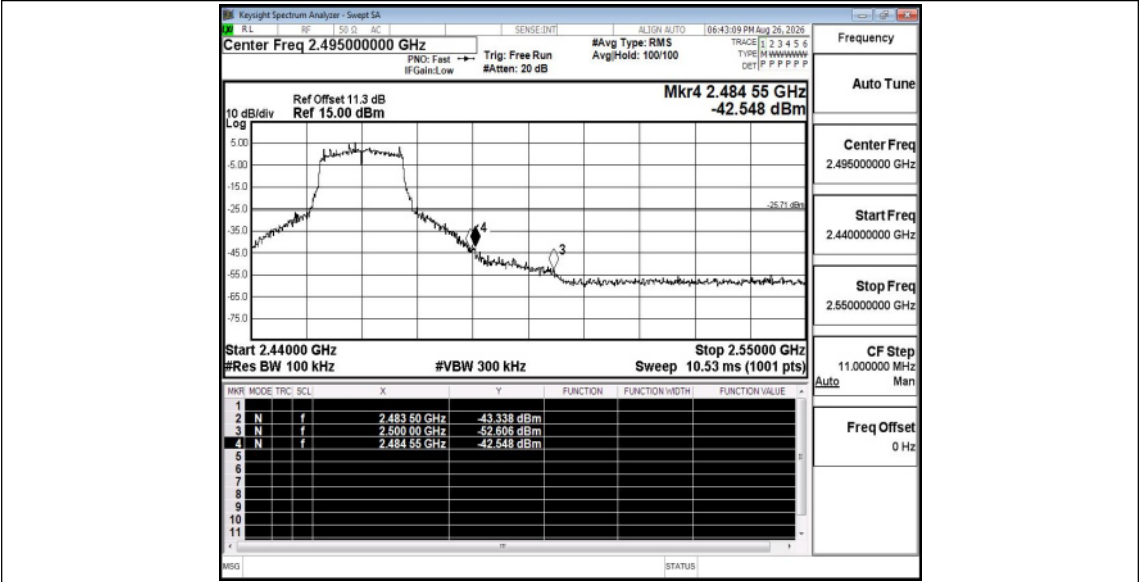
TestMode	Antenna	Channel Name	Frequency[MHz]	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
11B	Ant1	Low	2412	7.24	-40.33	≤-22.76	PASS
		High	2462	7.85	-46.13	≤-22.15	PASS
11G	Ant1	Low	2412	4.01	-27.63	≤-25.99	PASS
		High	2462	4.29	-42.55	≤-25.71	PASS
11N20SISO	Ant1	Low	2412	4.94	-27.61	≤-25.06	PASS
		High	2462	4.57	-39.44	≤-25.43	PASS

Test Graphs

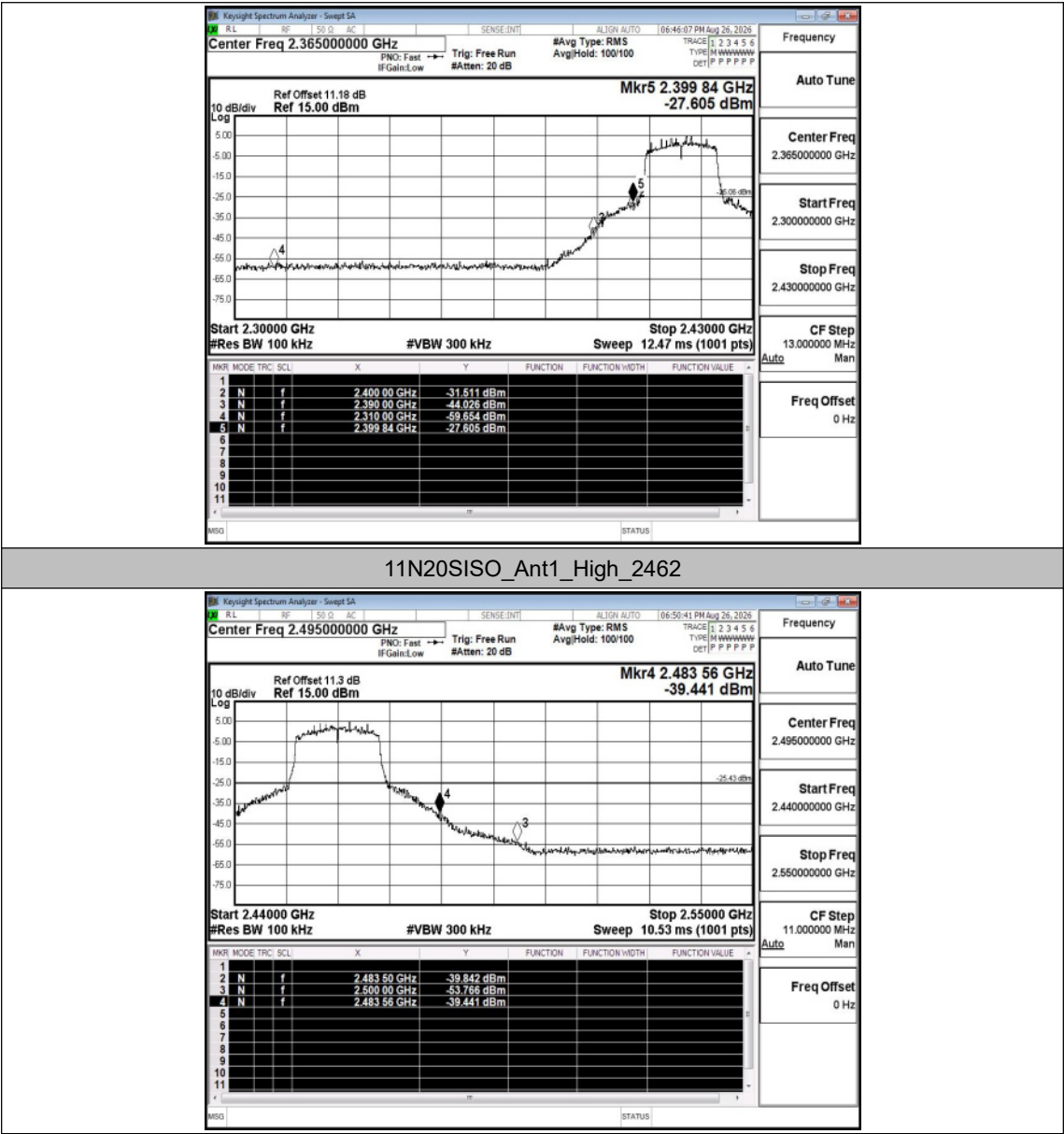




11G_Ant1_High_2462



11N20SISO_Ant1_Low_2412



B.5 Conducted Spurious Emission

Test Result

TestMode	Antenna	Frequency[MHz]	FreqRange [Mhz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
11B	Ant1	2412	Reference	7.20	7.20	---	PASS
			30~1000	7.20	-69.7	≤-22.8	PASS
			1000~26500	7.20	-35.93	≤-22.8	PASS
		2437	Reference	5.65	5.65	---	PASS
			30~1000	5.65	-70.18	≤-24.35	PASS
			1000~26500	5.65	-40.71	≤-24.35	PASS
		2462	Reference	6.52	6.52	---	PASS
			30~1000	6.52	-69.57	≤-23.48	PASS
			1000~26500	6.52	-39.85	≤-23.48	PASS
11G	Ant1	2412	Reference	3.26	3.26	---	PASS
			30~1000	3.26	-69.01	≤-26.74	PASS
			1000~26500	3.26	-44.07	≤-26.74	PASS
		2437	Reference	4.73	4.73	---	PASS
			30~1000	4.73	-69.73	≤-25.27	PASS
			1000~26500	4.73	-43.74	≤-25.27	PASS
		2462	Reference	3.51	3.51	---	PASS
			30~1000	3.51	-69.71	≤-26.49	PASS
			1000~26500	3.51	-44.83	≤-26.49	PASS
11N20SISO	Ant1	2412	Reference	1.65	1.65	---	PASS
			30~1000	1.65	-69.4	≤-28.35	PASS
			1000~26500	1.65	-44.17	≤-28.35	PASS
		2437	Reference	1.59	1.59	---	PASS
			30~1000	1.59	-69.47	≤-28.41	PASS
			1000~26500	1.59	-44.61	≤-28.41	PASS
		2462	Reference	4.84	4.84	---	PASS
			30~1000	4.84	-69.79	≤-25.16	PASS
			1000~26500	4.84	-45.03	≤-25.16	PASS

Test Graphs

