

Appendix A

RF Test Data for 2.4GWIFI (Conducted Measurement)

Product Name: RF MODULE

Test Model: 888-700-105

Environmental Conditions

Temperature:	24.1℃
Relative Humidity:	53.5%
ATM Pressure:	100.0 kPa
Test Engineer:	Zhang hai
Supervised by:	Fengliu Tang

A.1 DTS Bandwidth

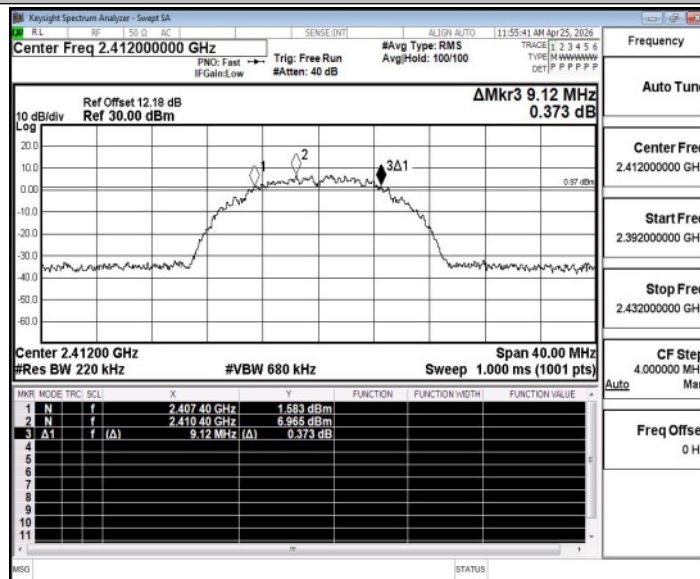
Test Result

TestMode	Antenna	Frequency[MHz]	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	9.120	2407.400	2416.520	0.5	PASS
		2437	8.760	2432.440	2441.200	0.5	PASS
		2462	9.200	2457.400	2466.600	0.5	PASS
11G	Ant1	2412	16.120	2403.960	2420.080	0.5	PASS
		2437	15.960	2429.000	2444.960	0.5	PASS
		2462	16.000	2454.040	2470.040	0.5	PASS
11N20SISO	Ant1	2412	17.000	2403.520	2420.520	0.5	PASS
		2437	17.160	2428.400	2445.560	0.5	PASS
		2462	16.440	2453.960	2470.400	0.5	PASS

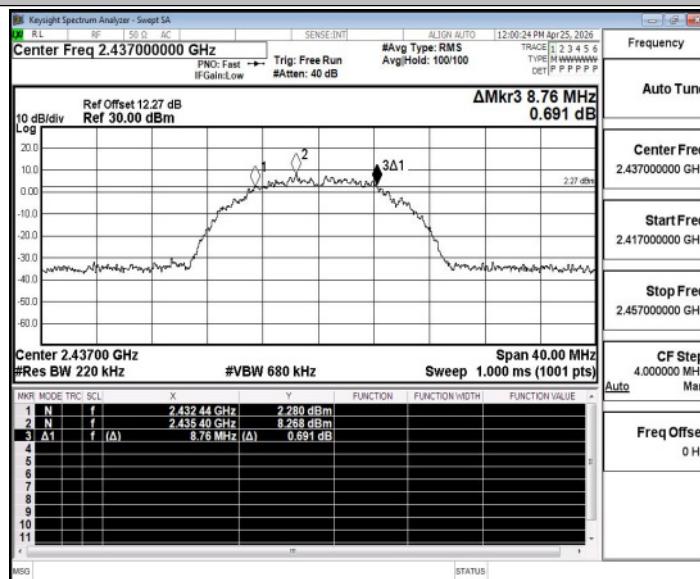
Note :offset=System attenuation +cabel loss

Test Graphs

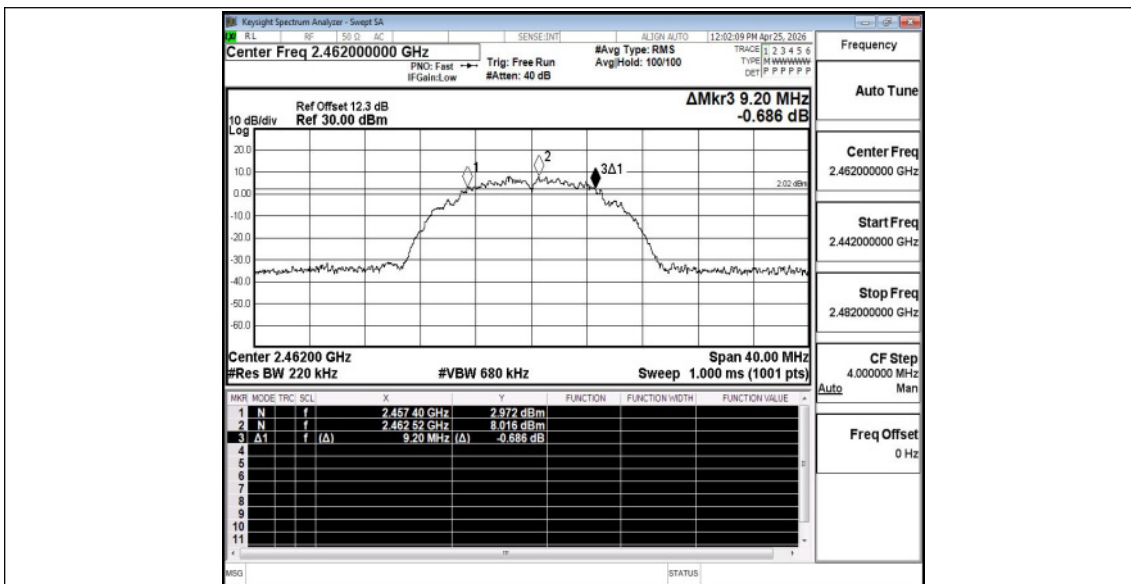
11B_Ant1_2412



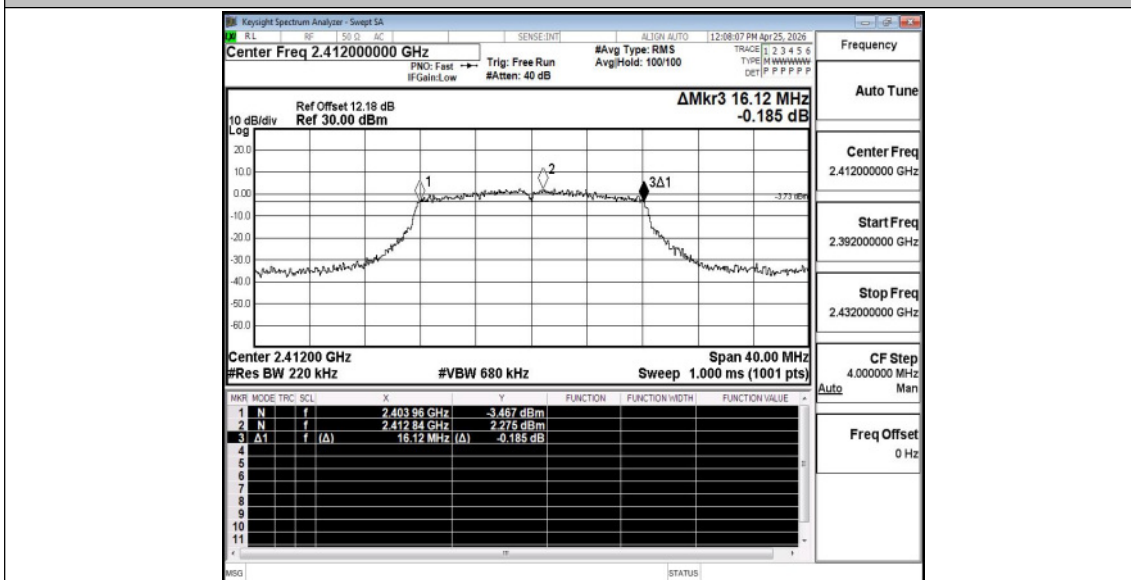
11B_Ant1_2437



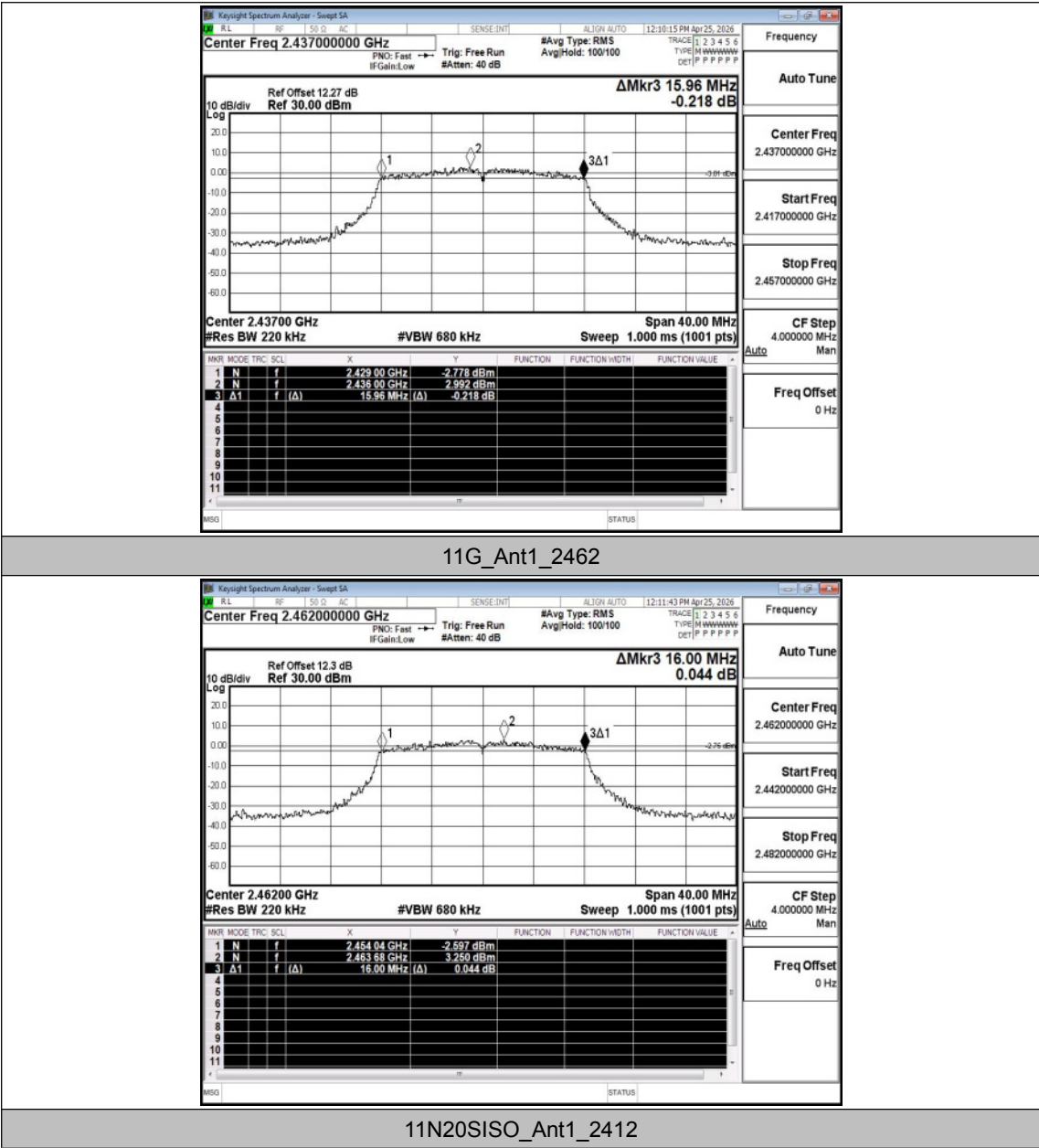
11B_Ant1_2462

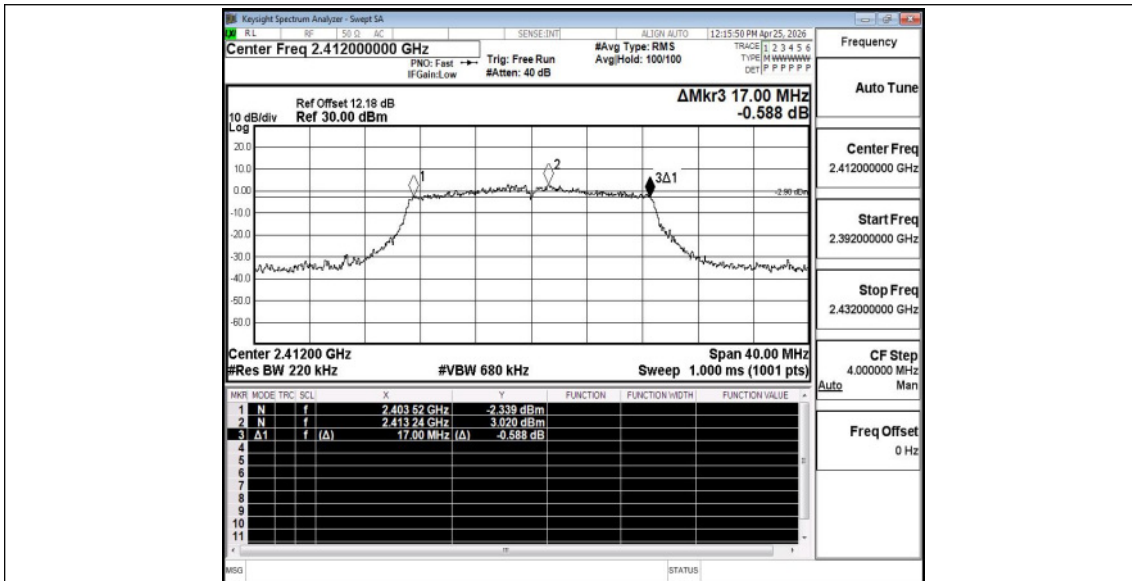


11G_Ant1_2412

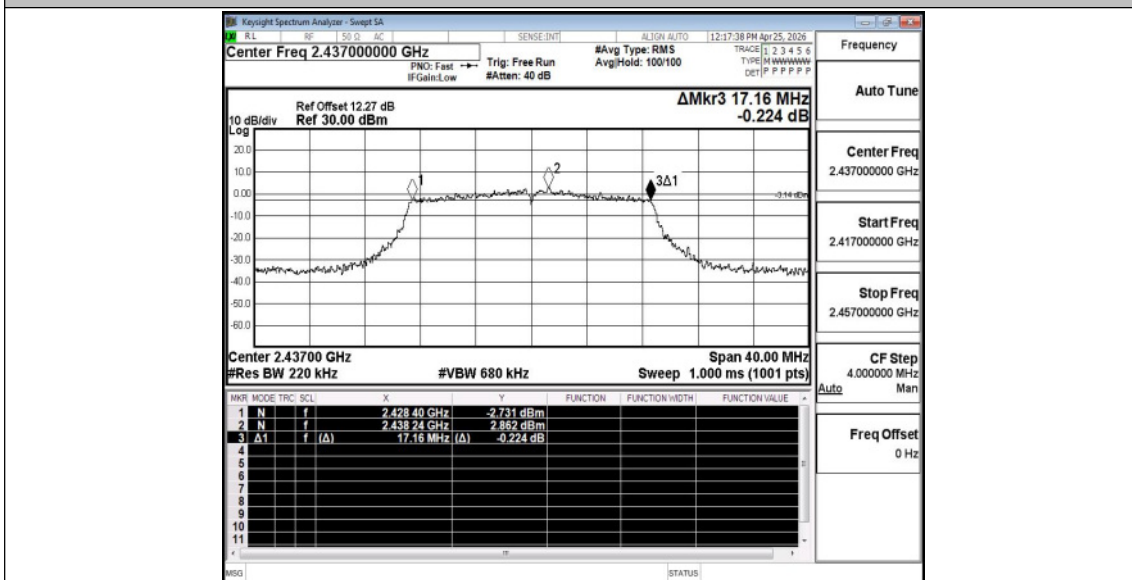


11G_Ant1_2437

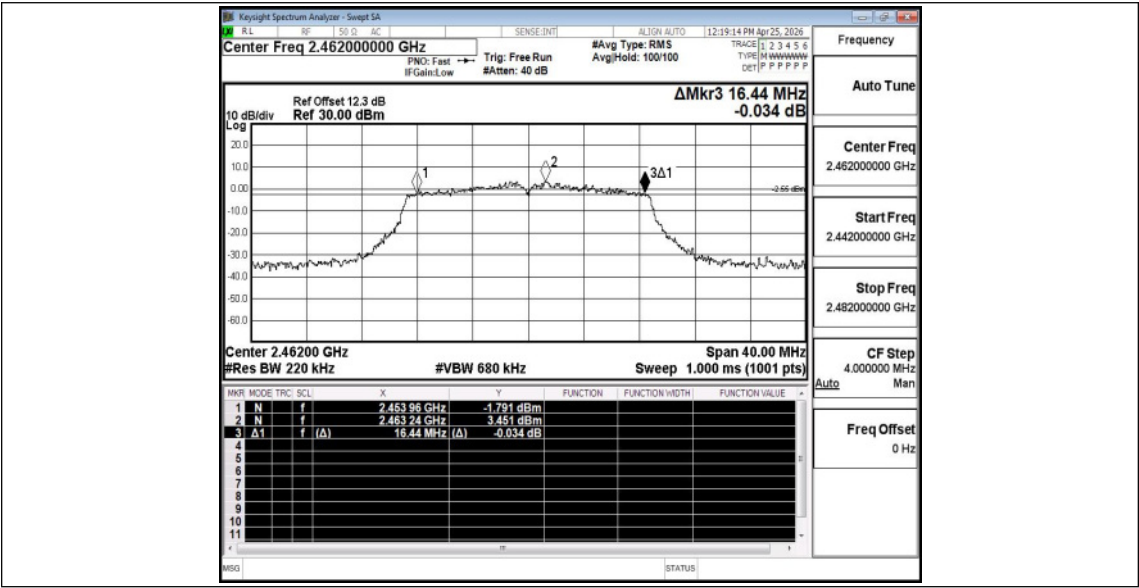




11N20SISO_Ant1_2437



11N20SISO_Ant1_2462



A.2 Maximum Average conducted output power

Test Result Average

TestMode	Antenna	Frequency [MHz]	Measured Power	DC Factor [dB]	AV Power [dBm]	Conducted Limit[dBm]	Verdict
11B	Ant1	2412	13.60	0.34	13.94	≤30.00	PASS
		2437	13.96	0.34	14.30	≤30.00	PASS
		2462	14.22	0.34	14.56	≤30.00	PASS
11G	Ant1	2412	12.01	1.76	13.77	≤30.00	PASS
		2437	11.77	2.14	13.91	≤30.00	PASS
		2462	12.19	1.76	13.95	≤30.00	PASS
11N20SISO	Ant1	2412	11.67	2.14	13.81	≤30.00	PASS
		2437	11.82	1.76	13.58	≤30.00	PASS
		2462	11.84	2.14	13.98	≤30.00	PASS

Note :offset=System attenuation +cabal loss

A.3 Maximum power spectral density

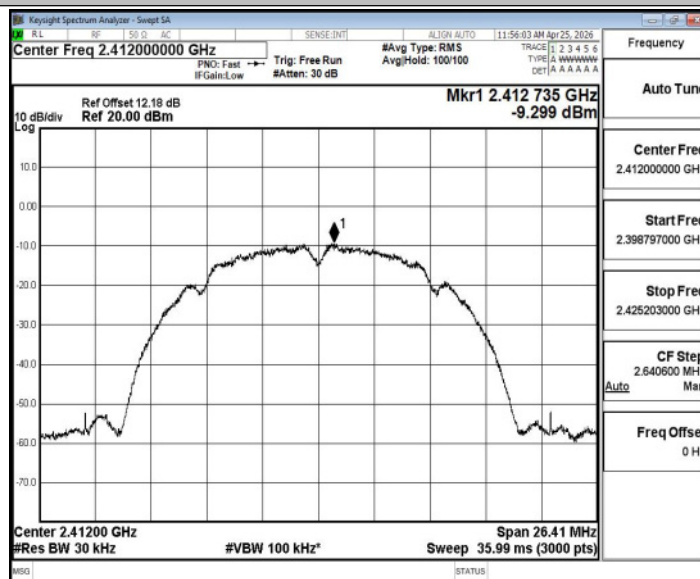
Test Result

TestMode	Antenna	Frequency[MHz]	Measured PSD [dBm/30kHz]	DC Factor [dB]	Result[dBm/30kHz]	Limit[dBm/3kHz]	Verdict
11B	Ant1	2412	-9.3	0.34	-8.96	≤8.00	PASS
		2437	-8.4	0.34	-8.06	≤8.00	PASS
		2462	-7.82	0.34	-7.48	≤8.00	PASS
11G	Ant1	2412	-11.37	1.76	-9.61	≤8.00	PASS
		2437	-11.49	2.14	-9.35	≤8.00	PASS
		2462	-11.04	1.76	-9.28	≤8.00	PASS
11N20SISO	Ant1	2412	-11.35	2.14	-9.21	≤8.00	PASS
		2437	-11.69	1.76	-9.93	≤8.00	PASS
		2462	-10.86	2.14	-8.72	≤8.00	PASS

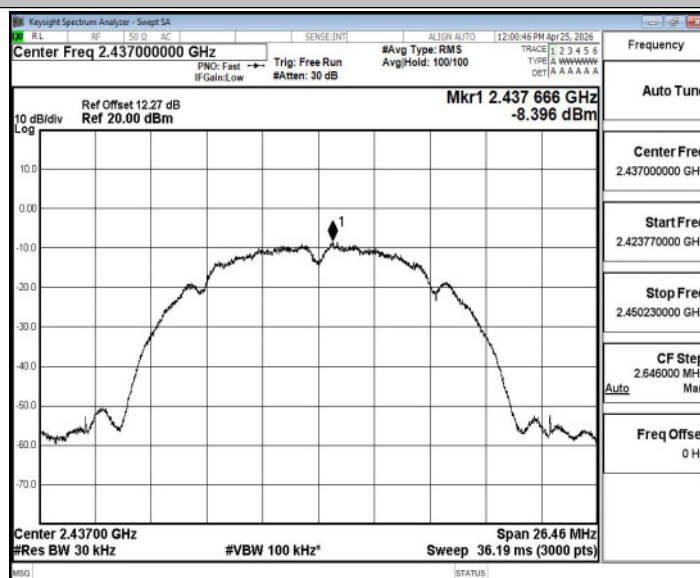
Note :offset=System attenuation +cable loss

Test Graphs

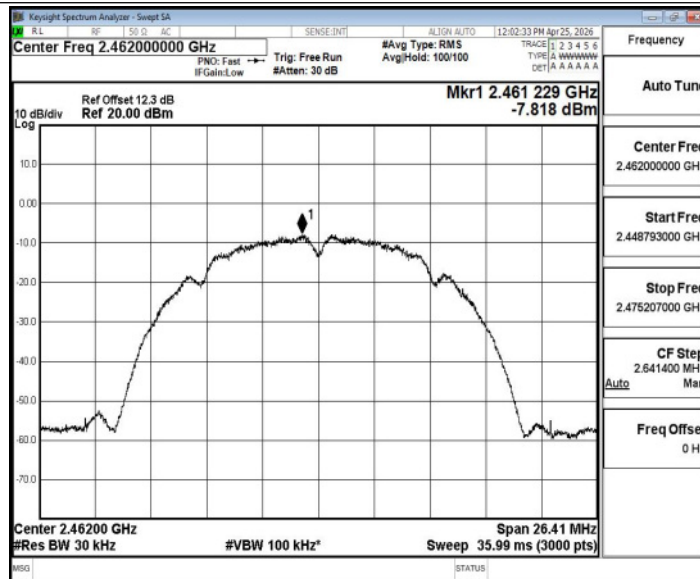
11B_Ant1_2412



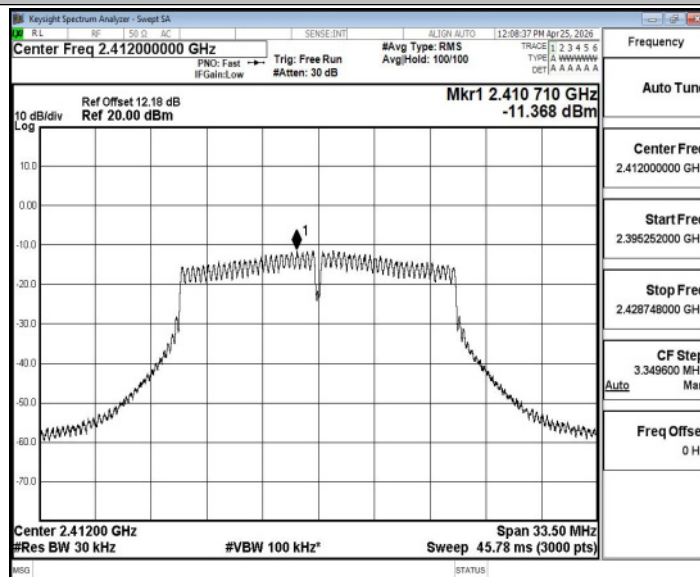
11B_Ant1_2437



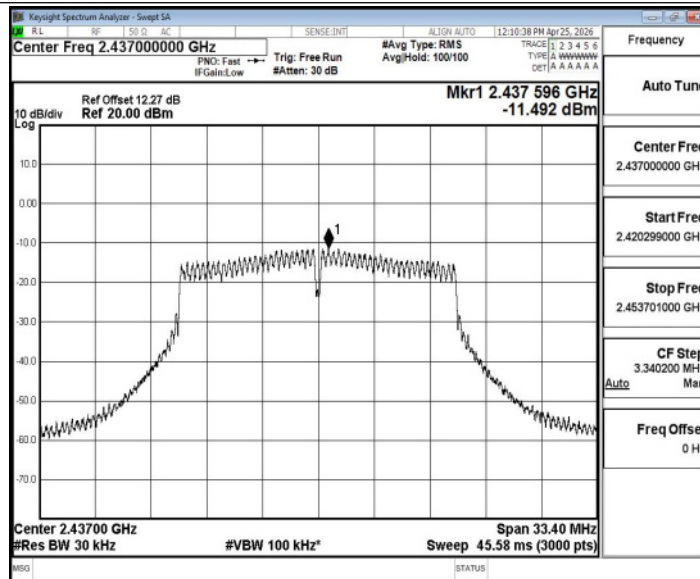
11B_Ant1_2462



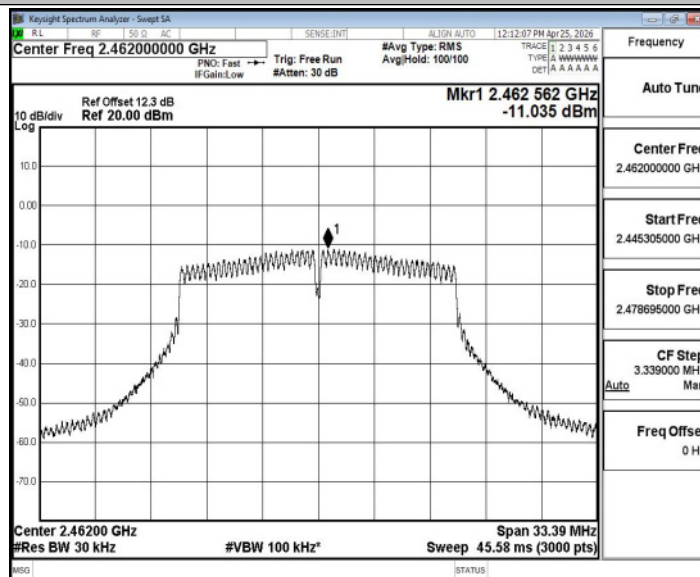
11G_Ant1_2412



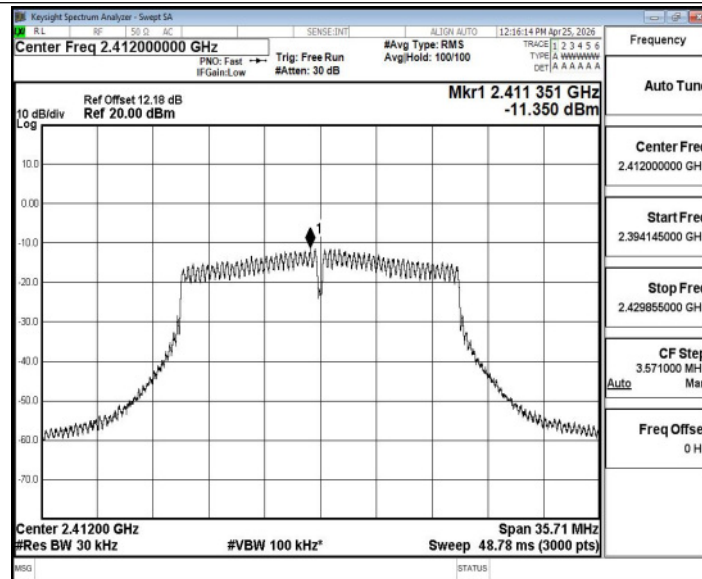
11G_Ant1_2437



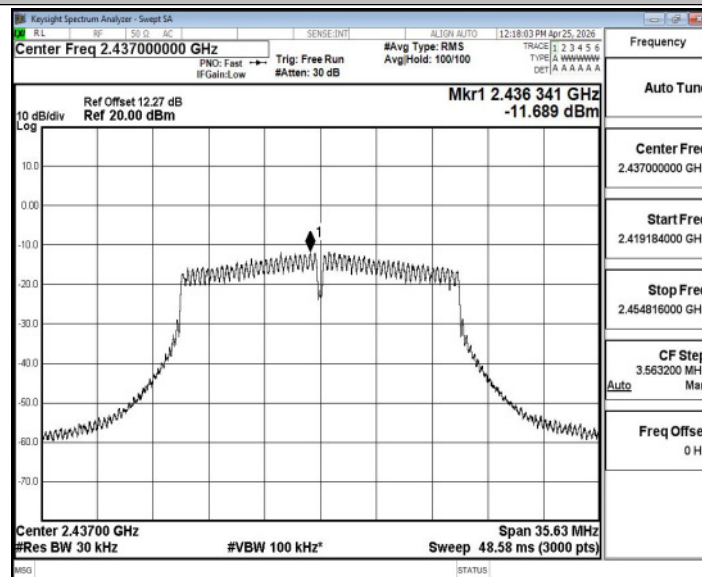
11G_Ant1_2462



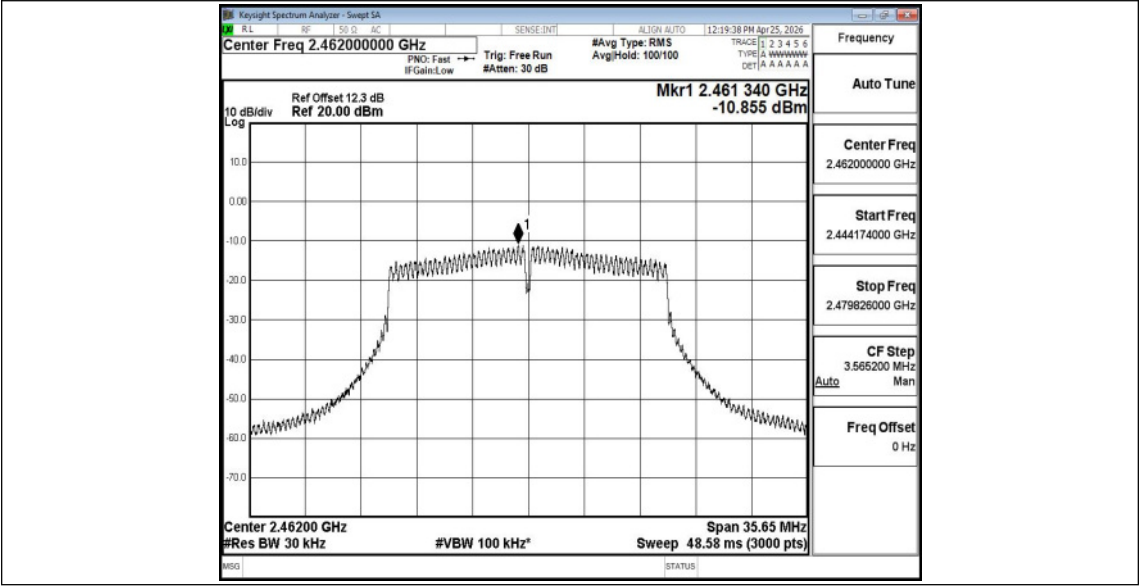
11N20SISO_Ant1_2412



11N20SISO_Ant1_2437



11N20SISO_Ant1_2462



A.4 Band edge measurements

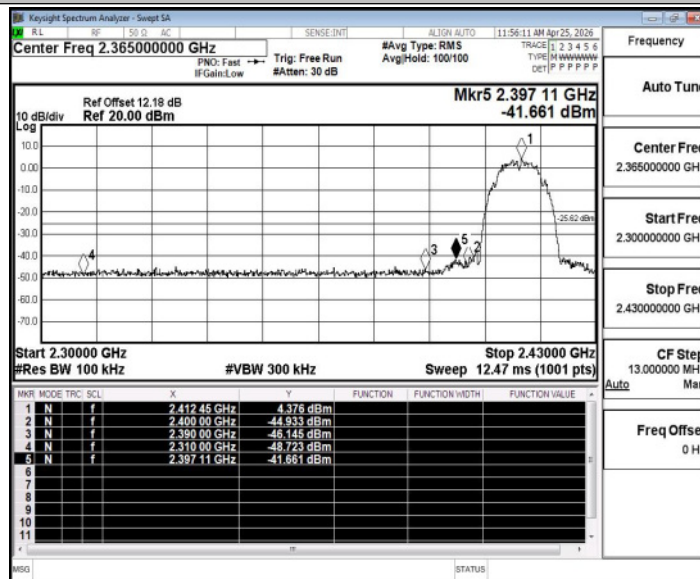
Test Result

TestMode	Antenna	ChName	Frequency[MHz]	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
11B	Ant1	Low	2412	4.38	-41.66	≤-25.62	PASS
		High	2462	5.11	-43.99	≤-24.89	PASS
11G	Ant1	Low	2412	1.89	-36.76	≤-28.11	PASS
		High	2462	0.05	-42.42	≤-29.95	PASS
11N20SISO	Ant1	Low	2412	1.50	-31.22	≤-28.5	PASS
		High	2462	2.54	-43.71	≤-27.47	PASS

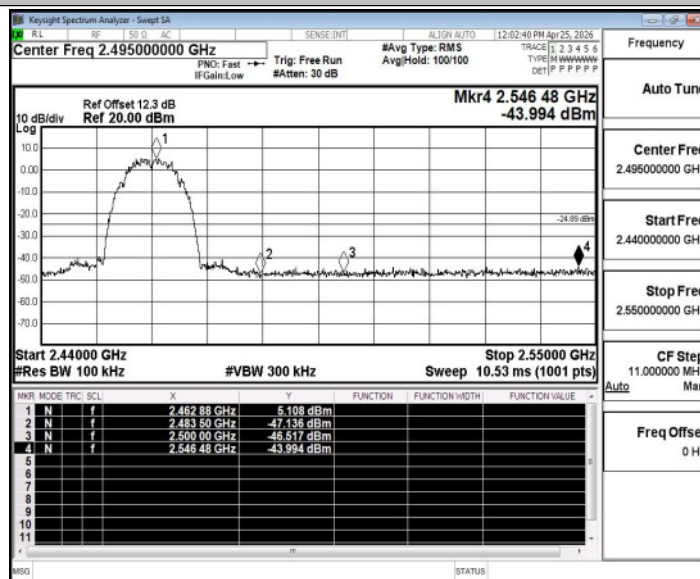
Note :offset=System attenuation +cabal loss

Test Graphs

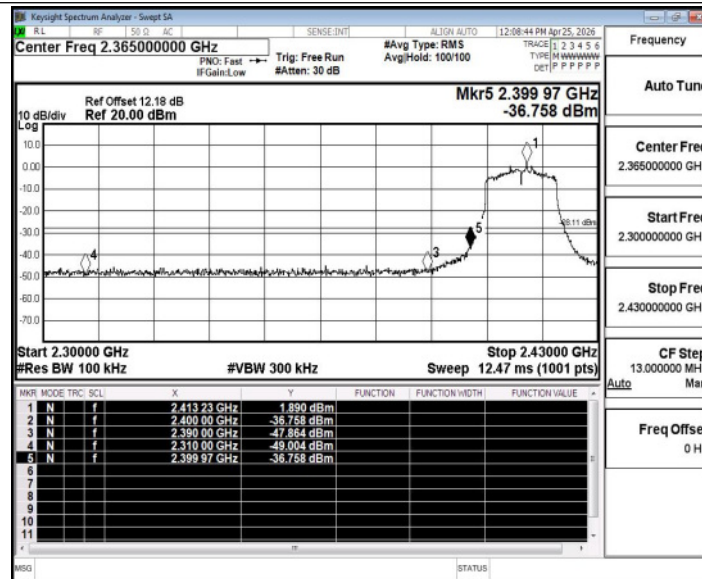
11B_Ant1_Low_2412



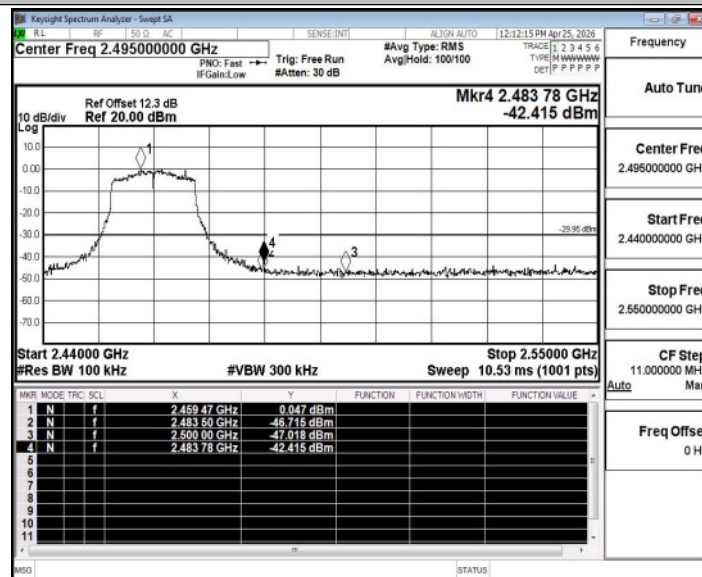
11B_Ant1_High_2462



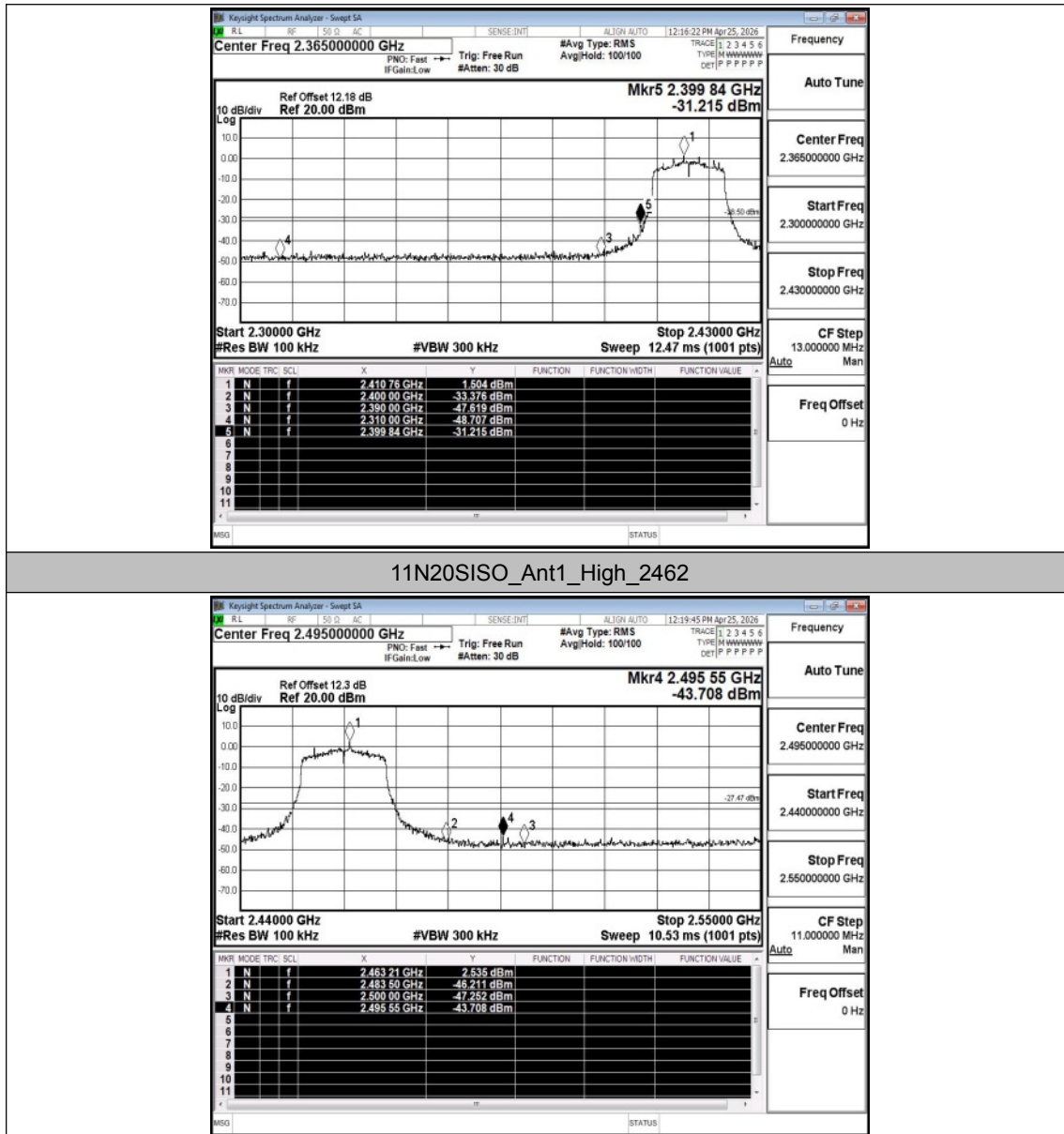
11G_Ant1_Low_2412



11G_Ant1_High_2462



11N20SISO_Ant1_Low_2412



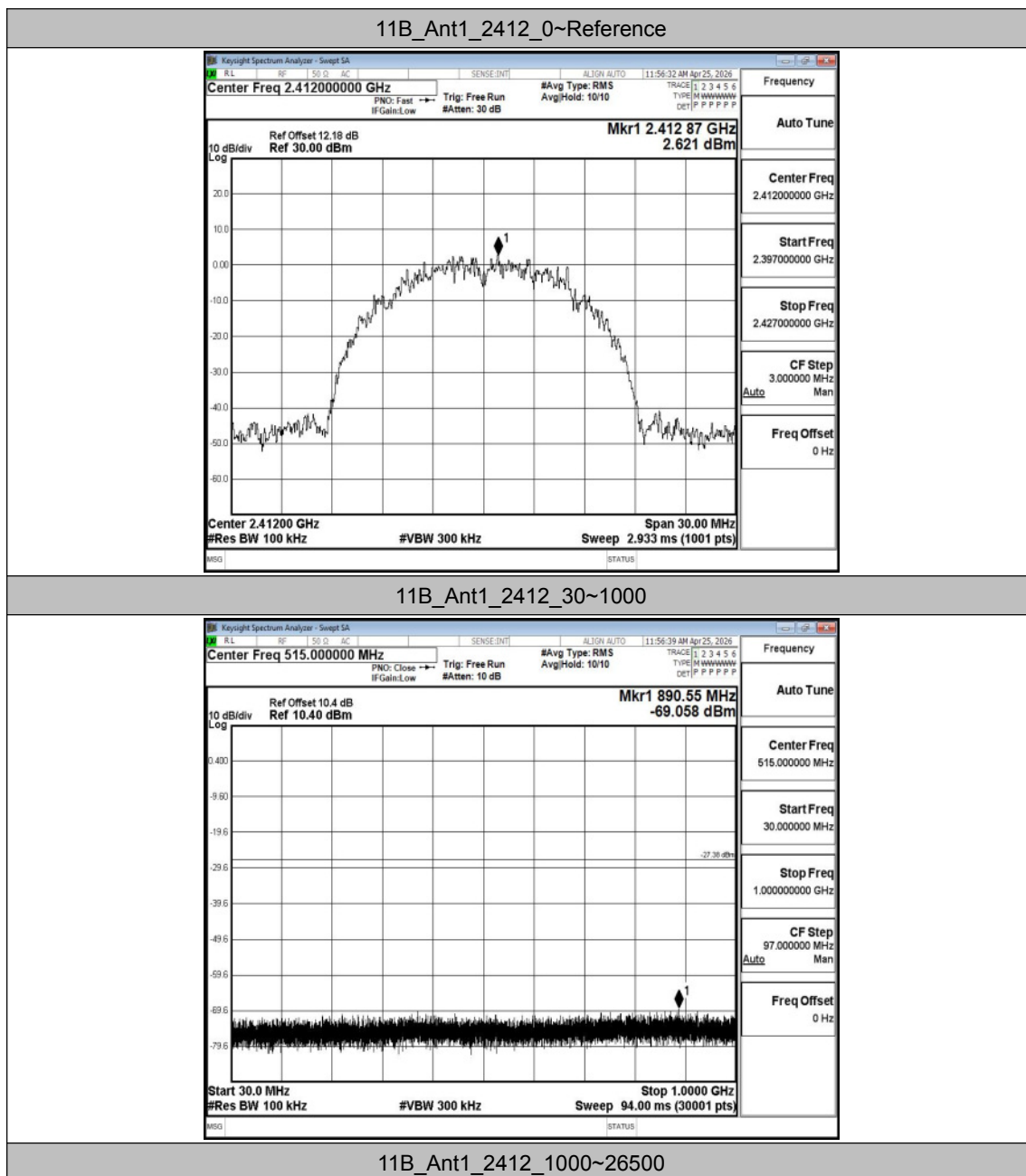
A.5 Conducted Spurious Emission

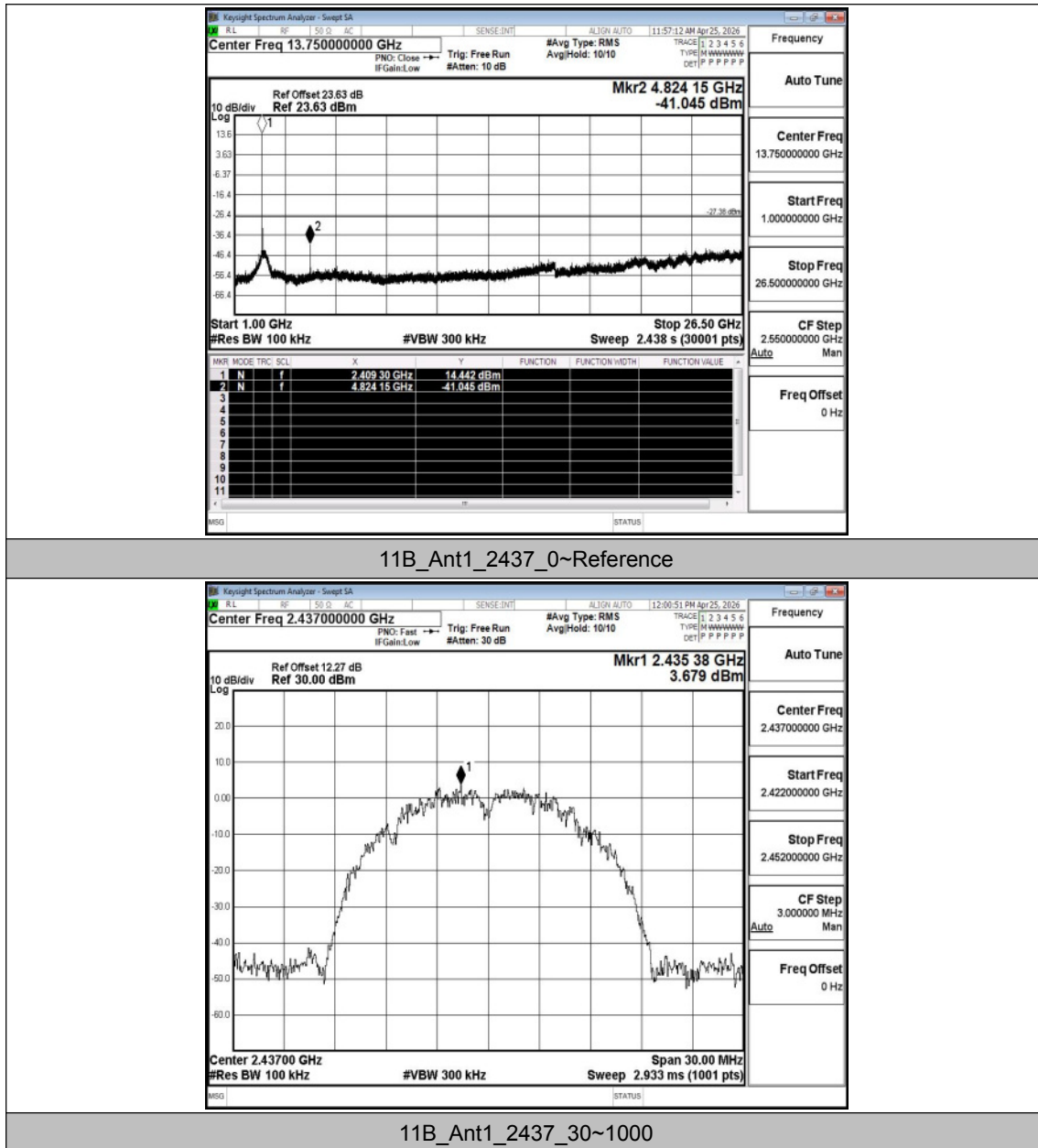
Test Result

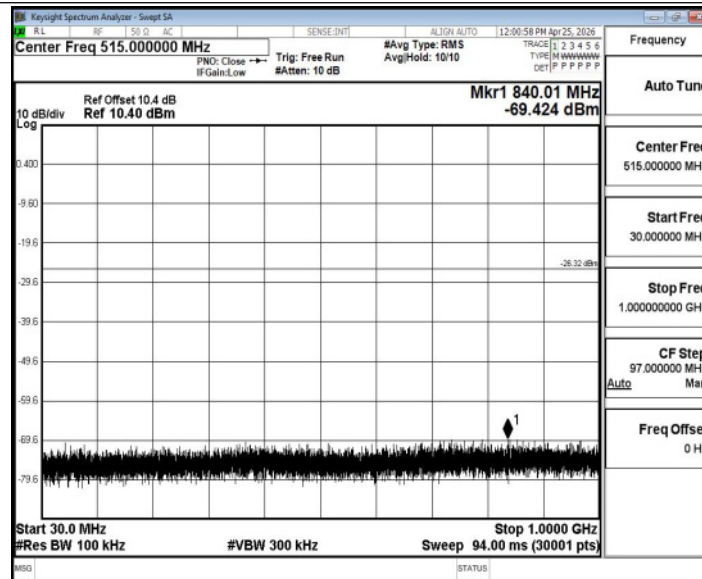
TestMode	Antenna	Frequency[MHz]	FreqRange [Mhz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
11B	Ant1	2412	Reference	2.62	2.62	---	PASS
			30~1000	2.62	-69.06	≤-27.38	PASS
			1000~26500	2.62	-41.05	≤-27.38	PASS
		2437	Reference	3.68	3.68	---	PASS
			30~1000	3.68	-69.42	≤-26.32	PASS
			1000~26500	3.68	-41.94	≤-26.32	PASS
		2462	Reference	5.21	5.21	---	PASS
			30~1000	5.21	-69.33	≤-24.79	PASS
			1000~26500	5.21	-42.6	≤-24.79	PASS
11G	Ant1	2412	Reference	-1.89	-1.89	---	PASS
			30~1000	-1.89	-69.29	≤-31.89	PASS
			1000~26500	-1.89	-43.13	≤-31.89	PASS
		2437	Reference	-0.50	-0.50	---	PASS
			30~1000	-0.50	-68.87	≤-30.5	PASS
			1000~26500	-0.50	-42.55	≤-30.5	PASS
		2462	Reference	-1.37	-1.37	---	PASS
			30~1000	-1.37	-68.58	≤-31.37	PASS
			1000~26500	-1.37	-43.5	≤-31.37	PASS
11N20SISO	Ant1	2412	Reference	-1.20	-1.20	---	PASS
			30~1000	-1.20	-69.17	≤-31.2	PASS
			1000~26500	-1.20	-42.59	≤-31.2	PASS
		2437	Reference	-0.59	-0.59	---	PASS
			30~1000	-0.59	-69.21	≤-30.59	PASS
			1000~26500	-0.59	-43.16	≤-30.59	PASS
		2462	Reference	-1.07	-1.07	---	PASS
			30~1000	-1.07	-68.79	≤-31.07	PASS
			1000~26500	-1.07	-42.66	≤-31.07	PASS

Note :Regarding the spurious emissions from 30MHz to 26.5GHz, the cable lose have been set in the CORREC' of the Spectrum Analyzer during the test.

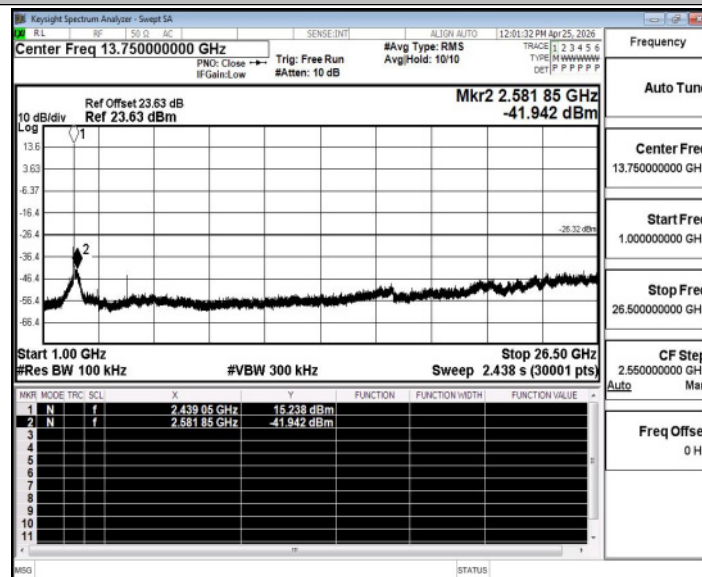
Test Graphs



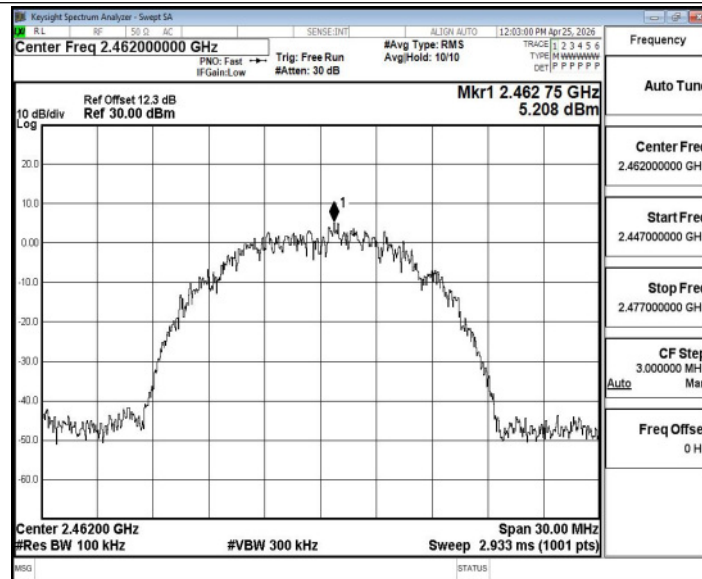




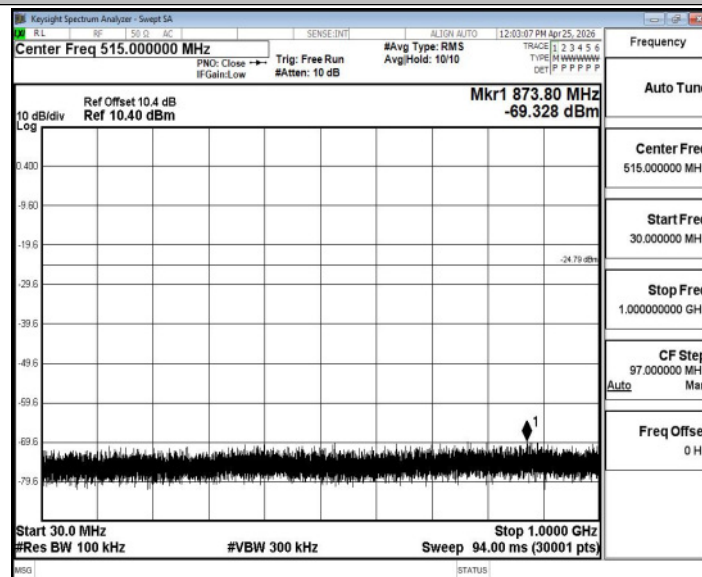
11B_Ant1_2437_1000~26500



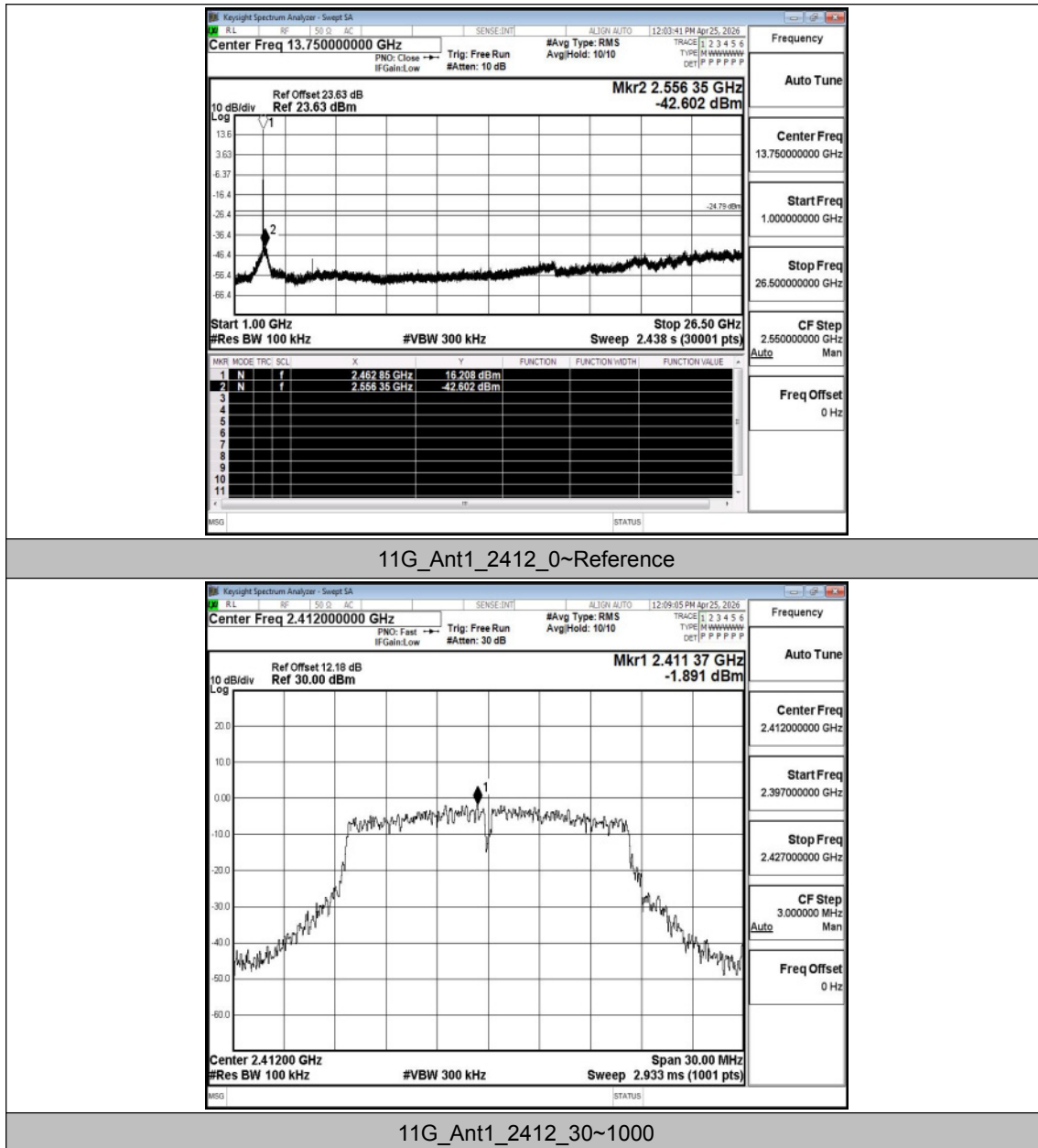
11B_Ant1_2462_0~Reference

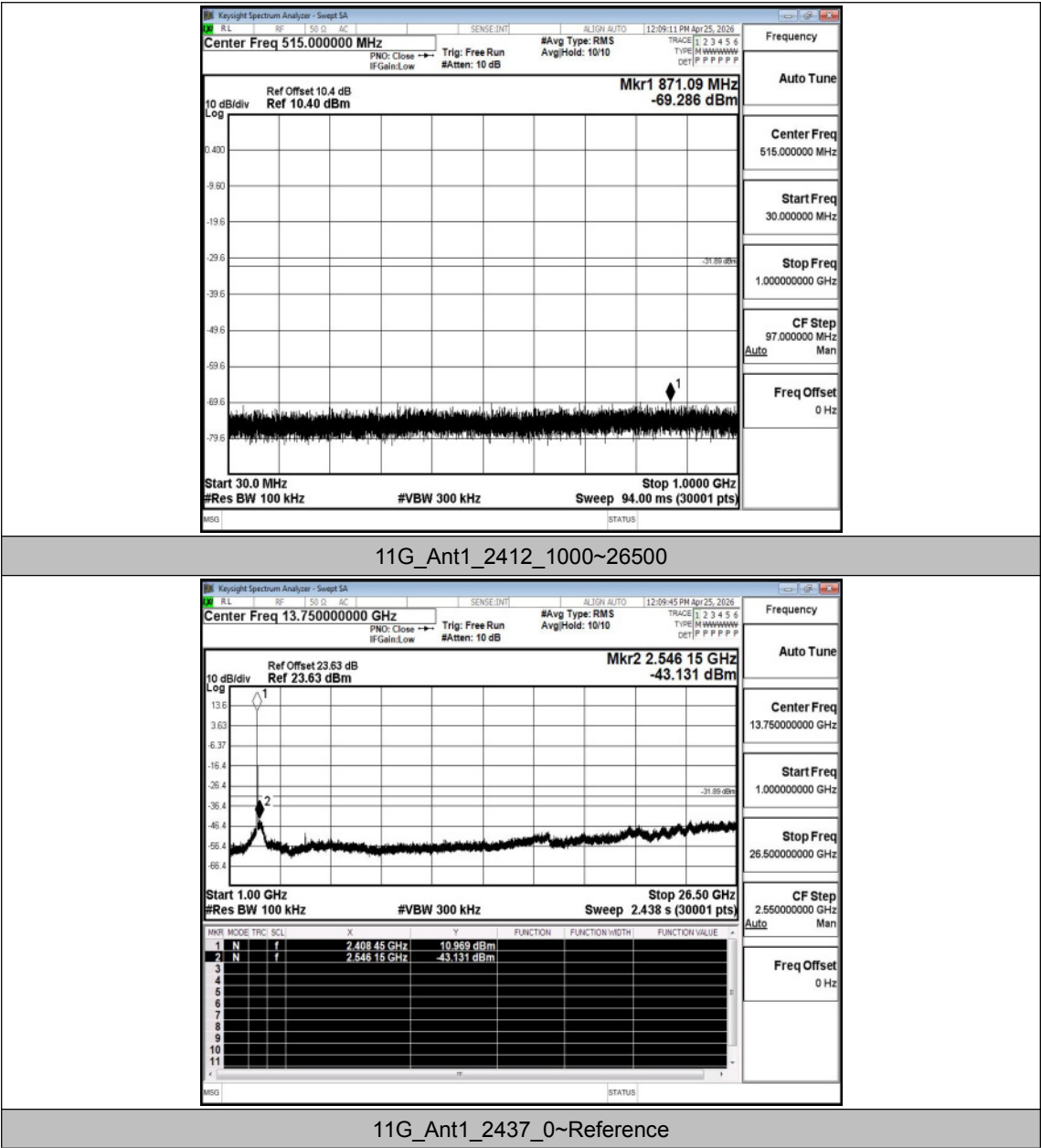


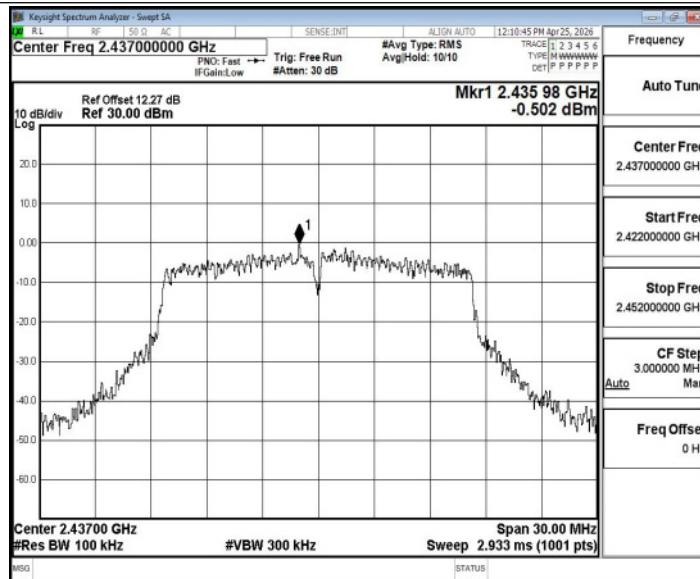
11B_Ant1_2462_30~1000



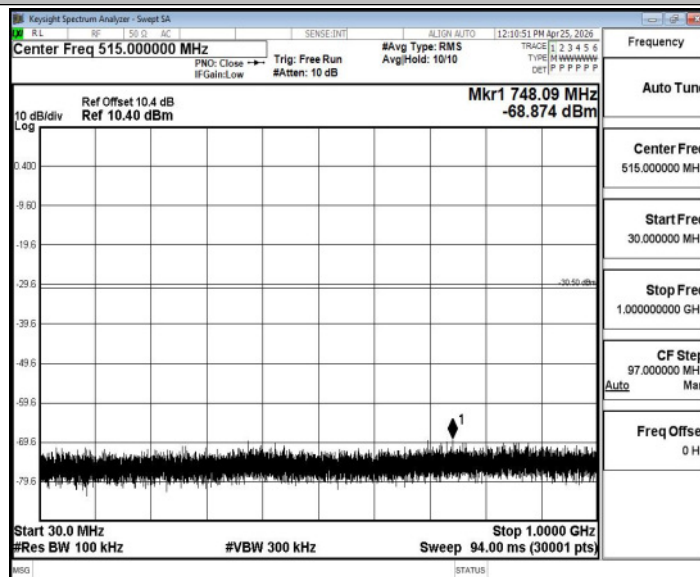
11B_Ant1_2462_1000~26500



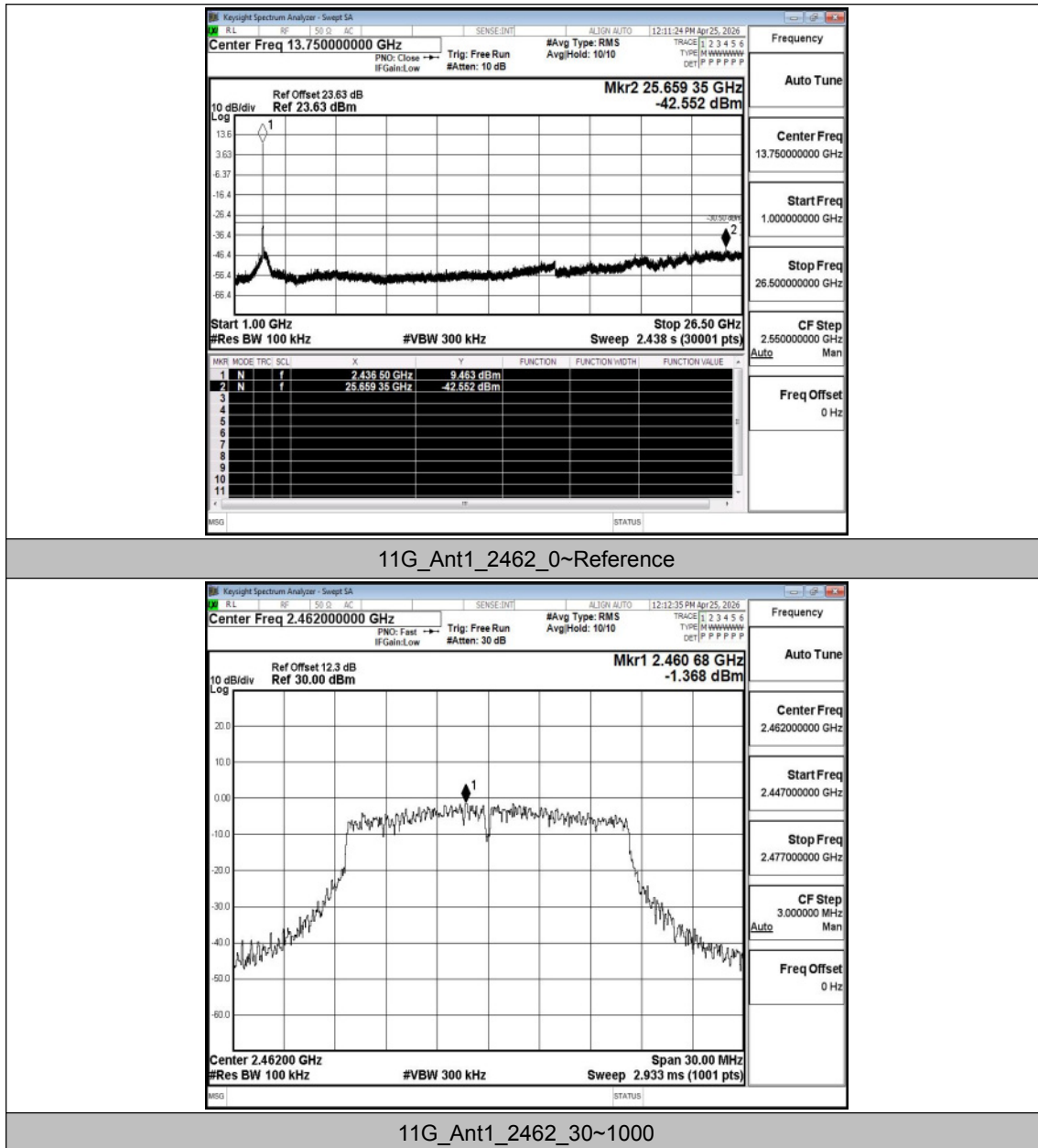


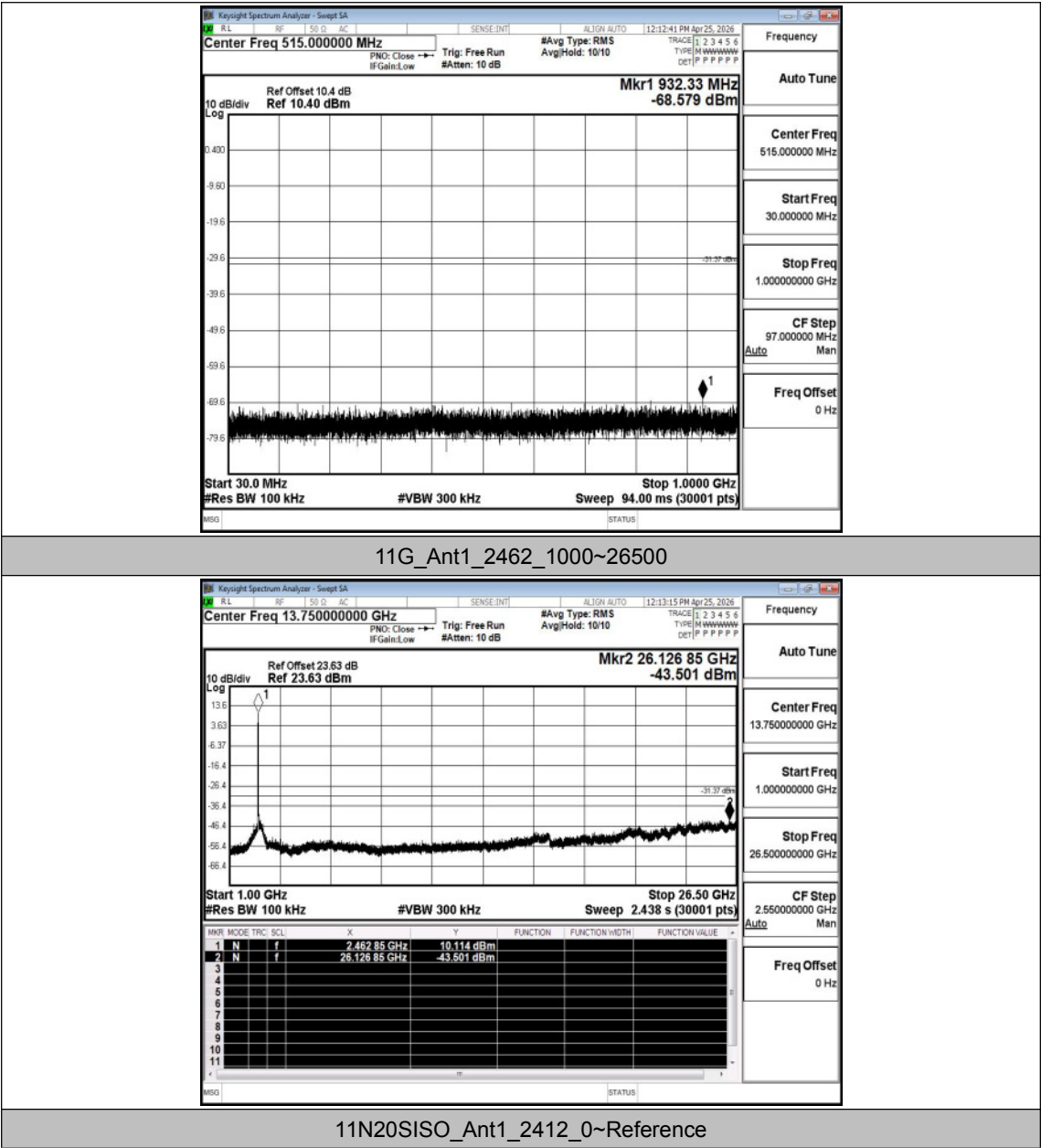


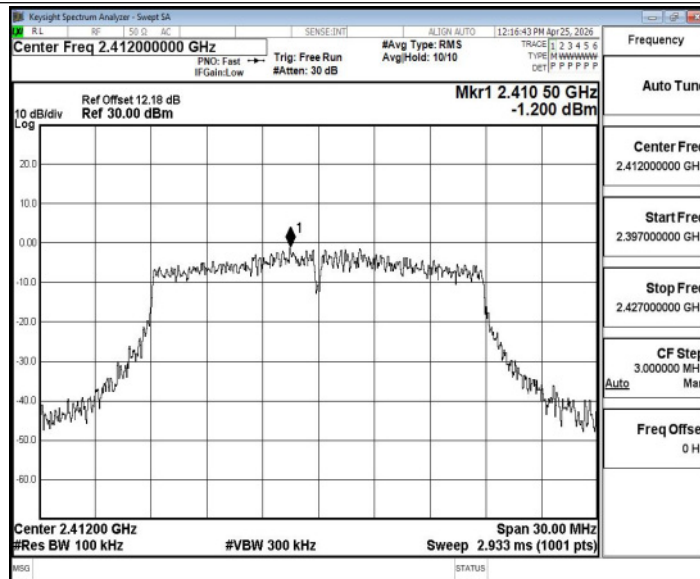
11G_Ant1_2437_30~1000



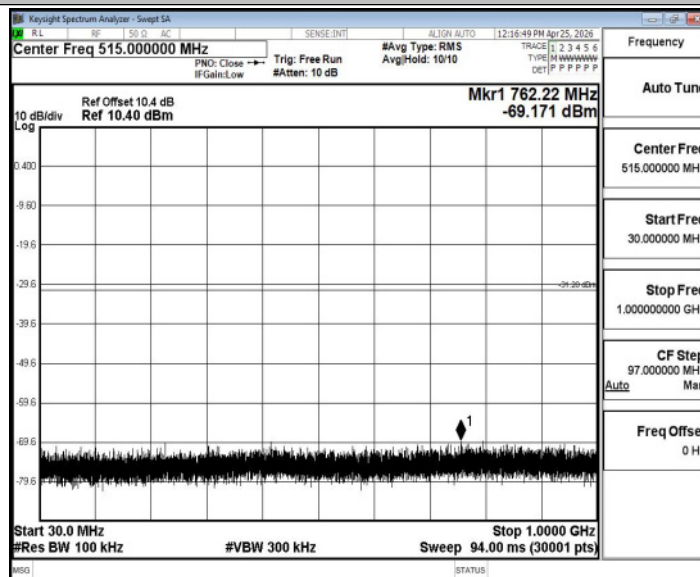
11G_Ant1_2437_1000~26500



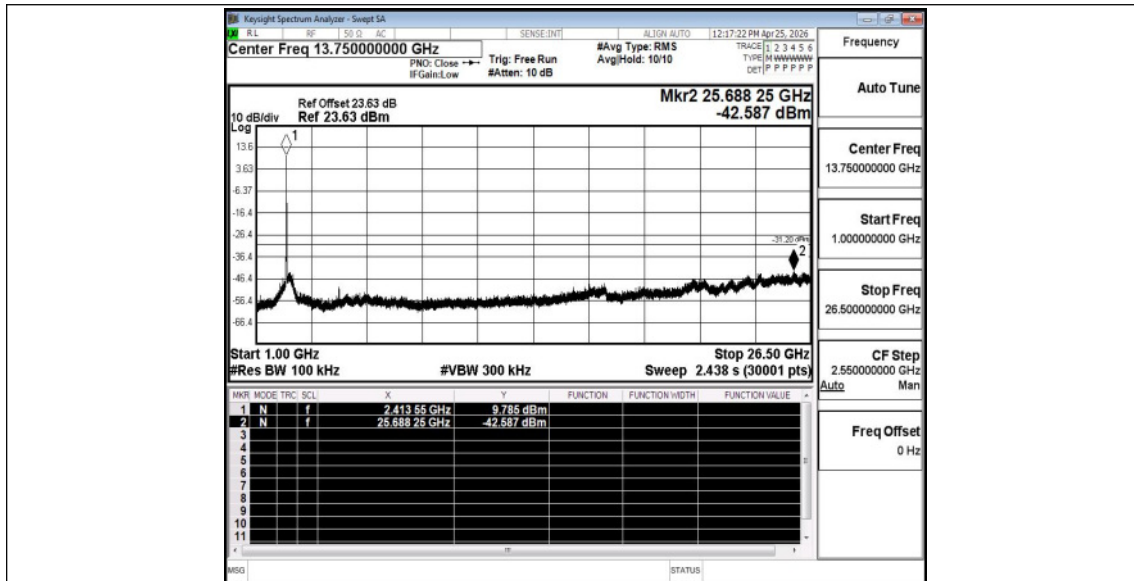




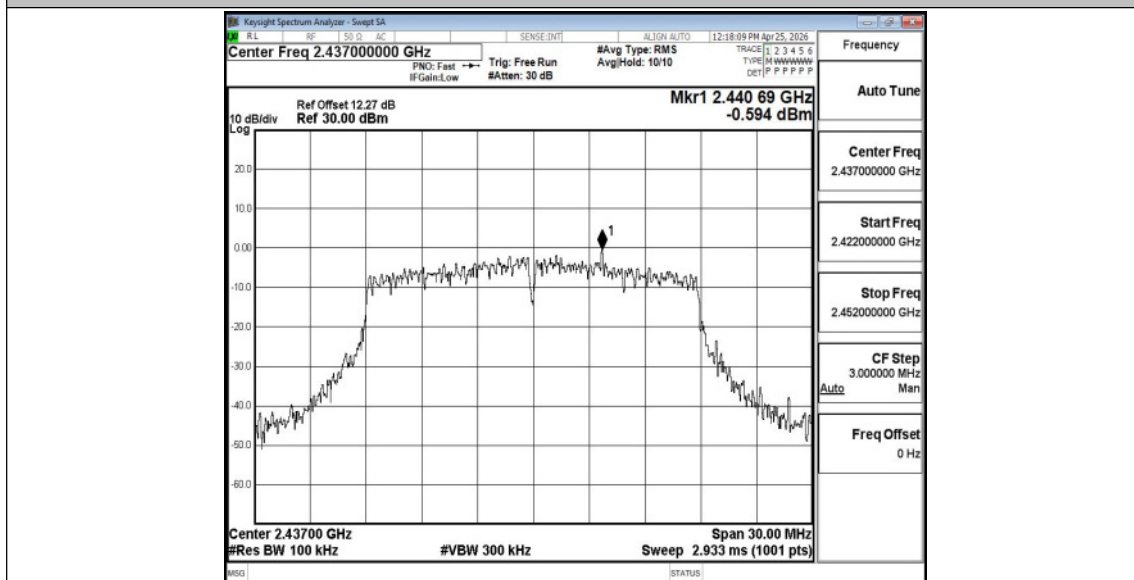
11N20SISO_Ant1_2412_30~1000



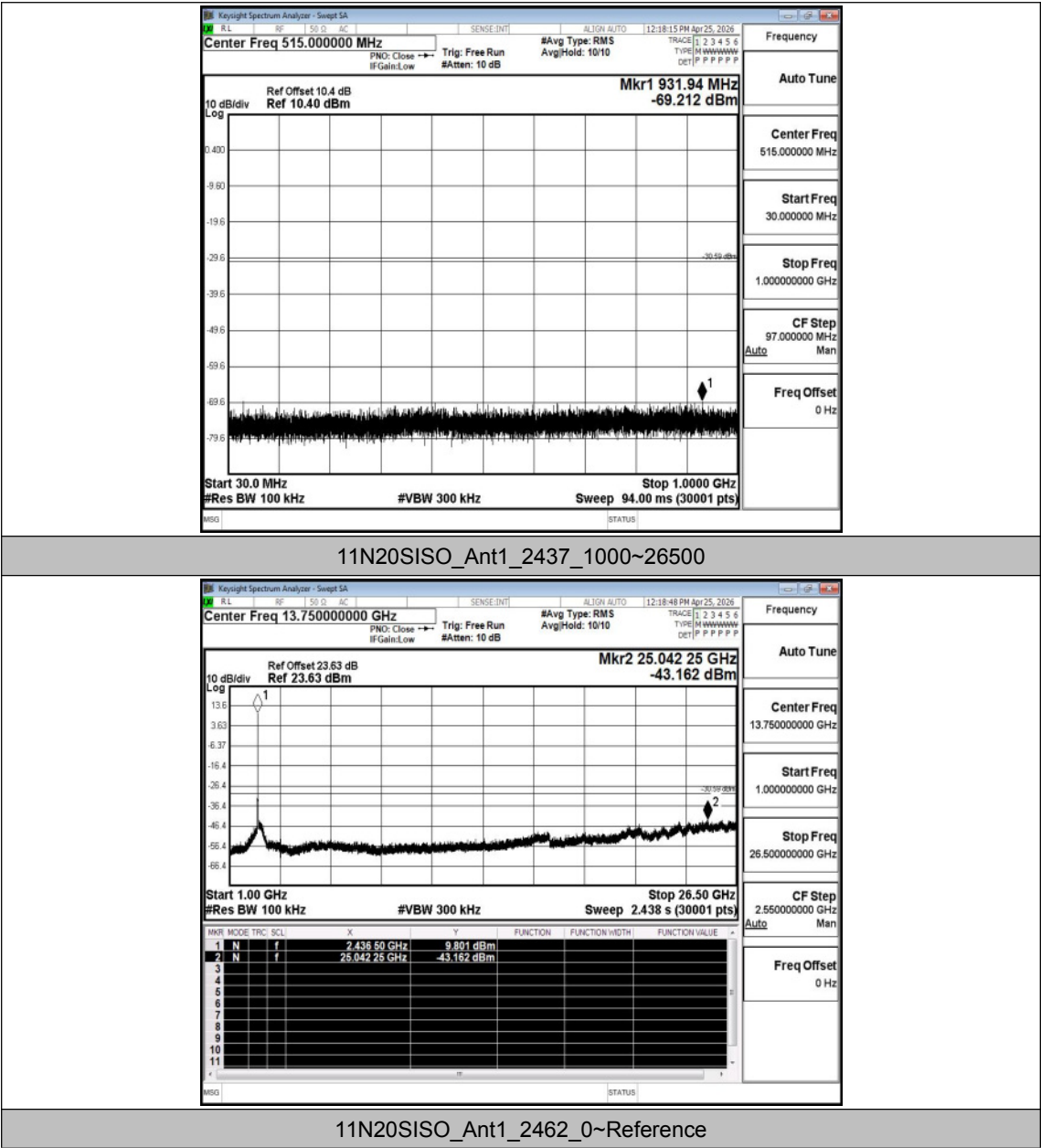
11N20SISO_Ant1_2412_1000~26500

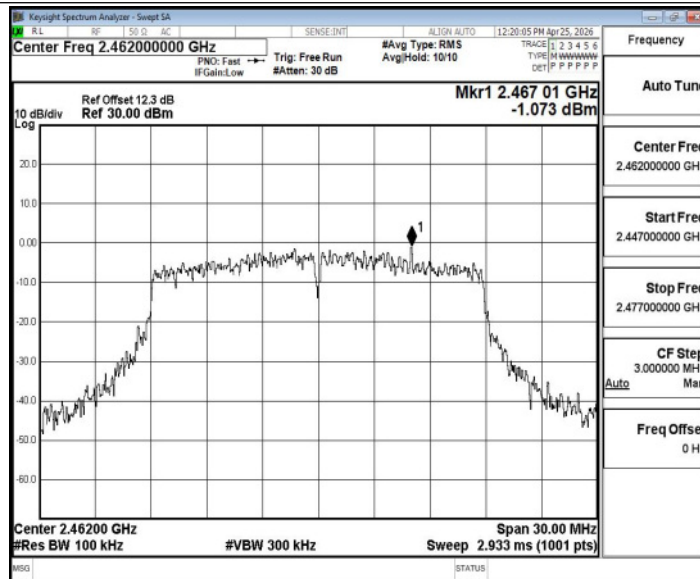


11N20SISO_Ant1_2437_0~Reference

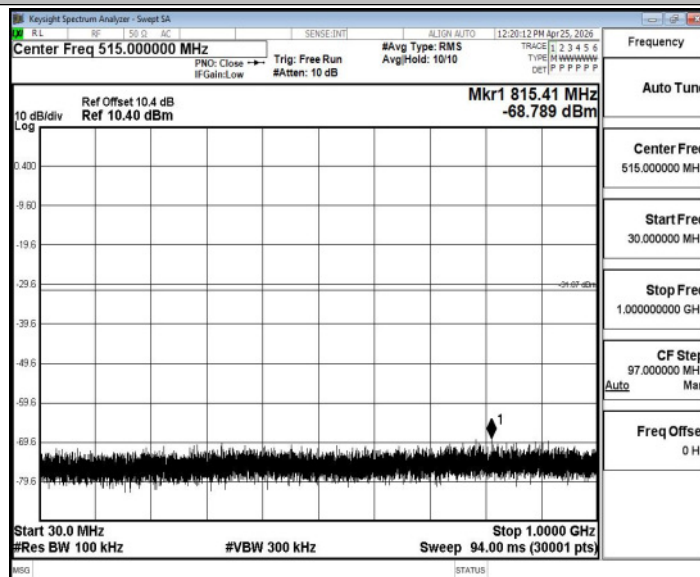


11N20SISO_Ant1_2437_30~1000





11N20SISO_Ant1_2462_30~1000



11N20SISO_Ant1_2462_1000~26500