

Appendix B

RF Test Data for 2.4GWIFI (Conducted Measurement)

Product Name: LED Bulb String Lights

Test Model: NR01

Environmental Conditions

Temperature:	23.7°C
Relative Humidity:	54.4%
ATM Pressure:	100.0 kPa
Test Engineer:	Zhang hai
Supervised by:	Fengliu Tang

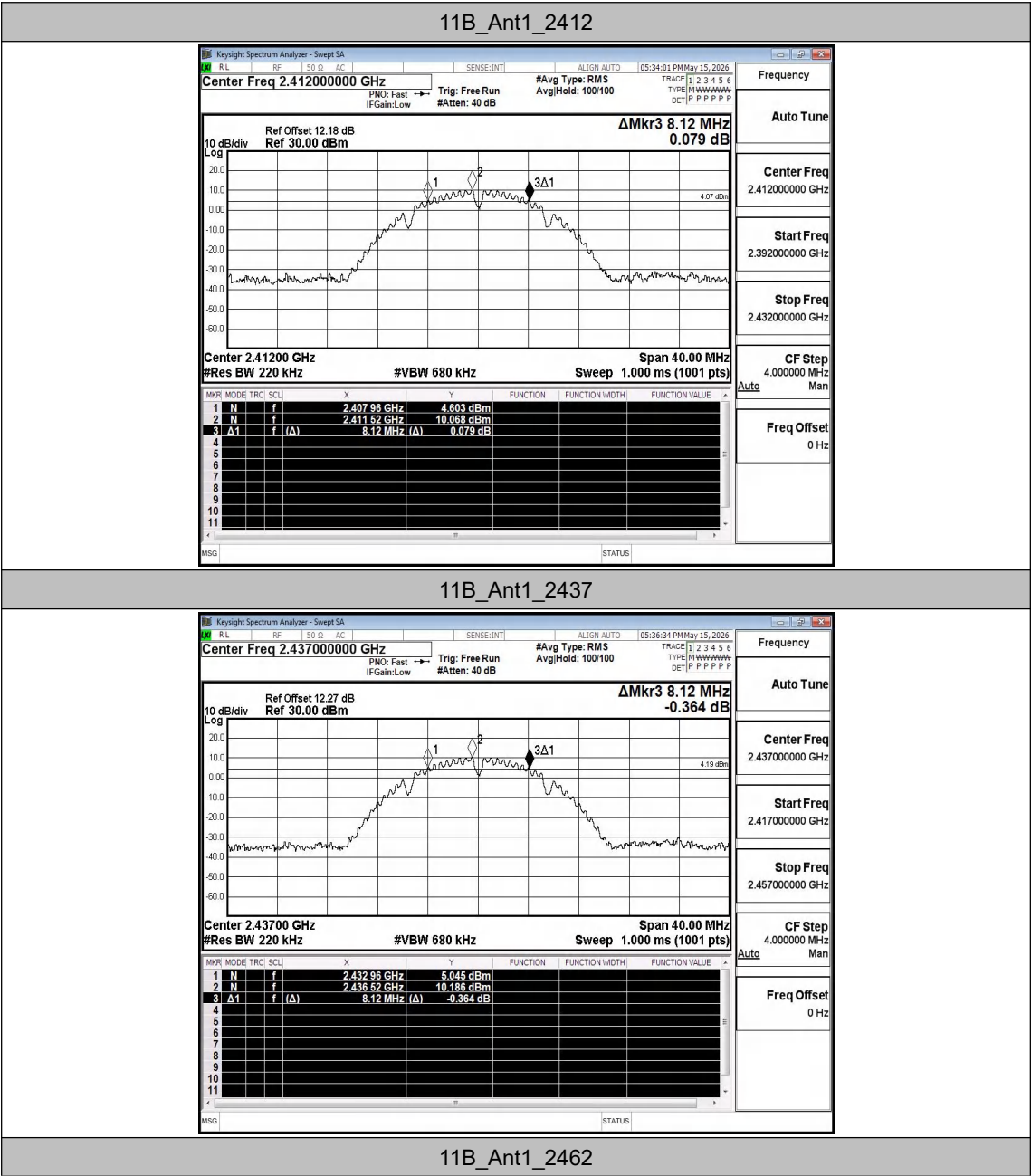
B.1 DTS Bandwidth

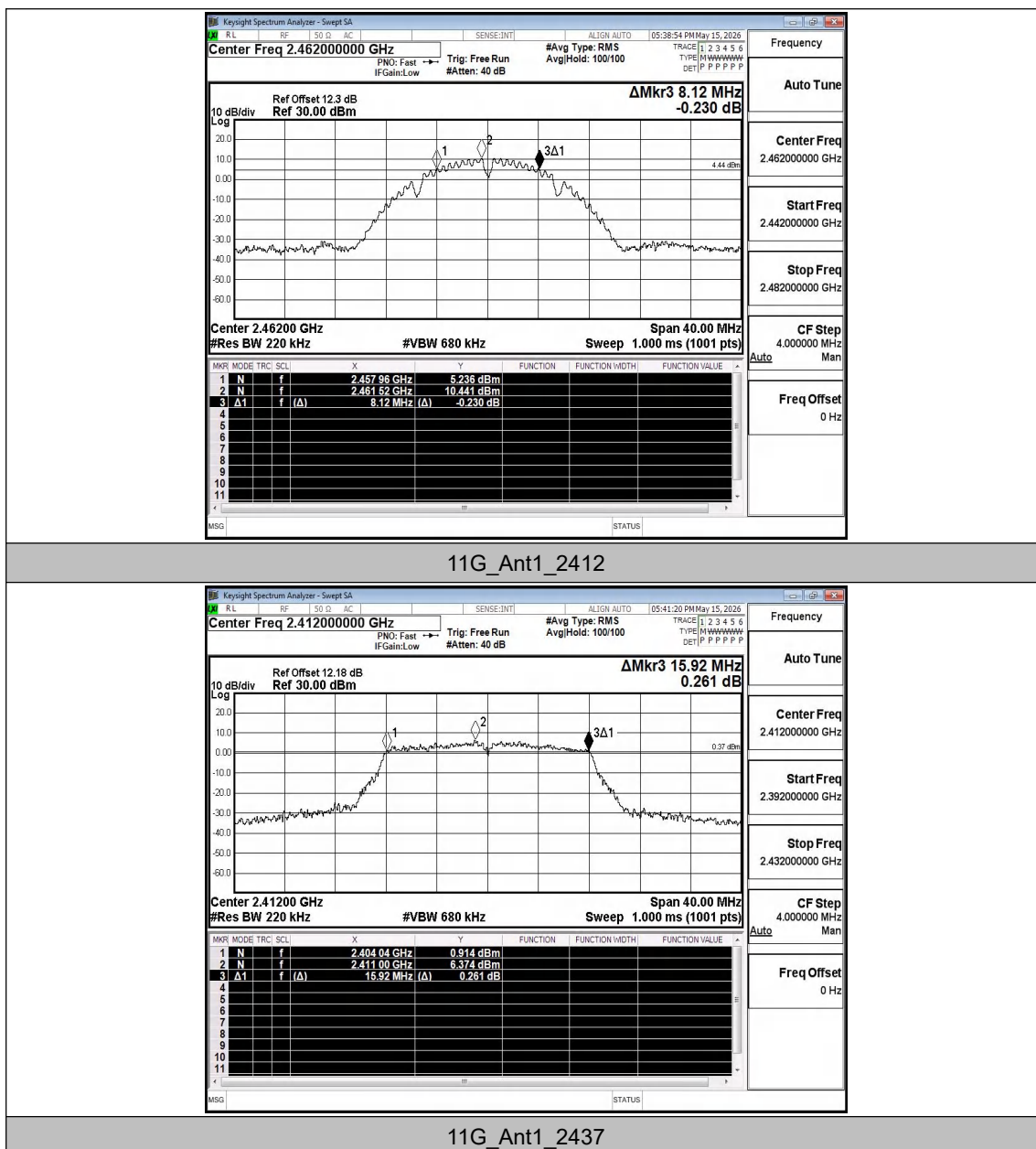
Test Result

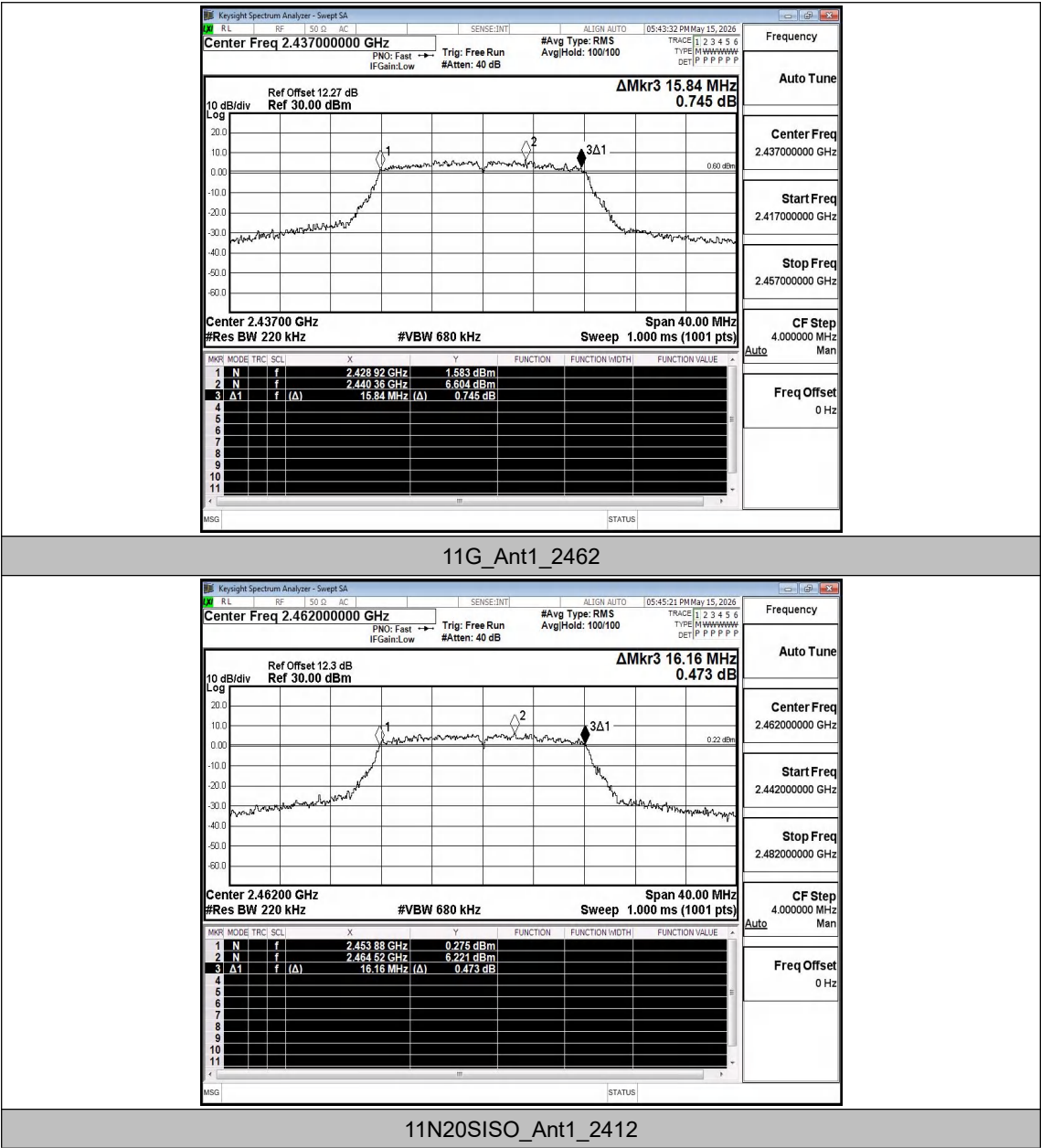
TestMode	Antenna	Frequency[MHz]	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	8.120	2407.960	2416.080	0.5	PASS
		2437	8.120	2432.960	2441.080	0.5	PASS
		2462	8.120	2457.960	2466.080	0.5	PASS
11G	Ant1	2412	15.920	2404.040	2419.960	0.5	PASS
		2437	15.840	2428.920	2444.760	0.5	PASS
		2462	16.160	2453.880	2470.040	0.5	PASS
11N20SISO	Ant1	2412	17.080	2403.520	2420.600	0.5	PASS
		2437	17.120	2428.320	2445.440	0.5	PASS
		2462	17.200	2453.440	2470.640	0.5	PASS

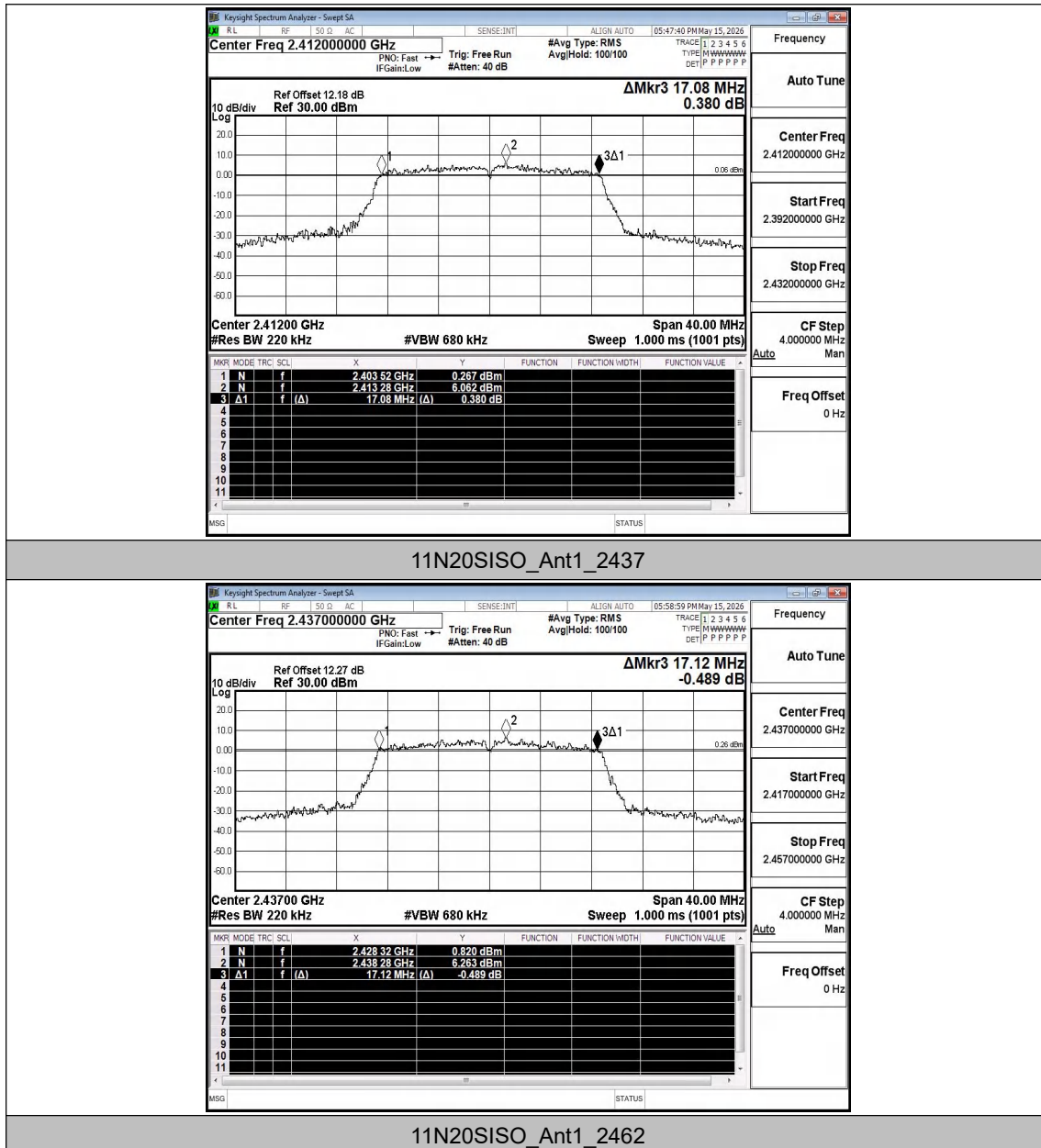
Note :offset=System attenuation +cabal loss

Test Graphs









B.2 Maximum Average conducted output power

Test Result Average

TestMode	Antenna	Frequency [MHz]	Measured Power	DC Factor [dB]	AV Power [dBm]	Conducted Limit[dBm]	Gain [dBi]	EIRP [dBm]	EIRP Limit[dBm]	Verdict
11B	Ant1	2412	17.47	0.02	17.49	≤30.00	0.00	17.49	≤36.00	PASS
		2437	17.53	0.02	17.55	≤30.00	0.00	17.55	≤36.00	PASS
		2462	17.52	0.02	17.54	≤30.00	0.00	17.54	≤36.00	PASS
11G	Ant1	2412	15.43	0.12	15.55	≤30.00	0.00	15.55	≤36.00	PASS
		2437	16.10	0.12	16.22	≤30.00	0.00	16.22	≤36.00	PASS
		2462	16.09	0.15	16.24	≤30.00	0.00	16.24	≤36.00	PASS
11N20SISO	Ant1	2412	15.30	0.16	15.46	≤30.00	0.00	15.46	≤36.00	PASS
		2437	15.44	0.16	15.60	≤30.00	0.00	15.60	≤36.00	PASS
		2462	15.44	0.13	15.57	≤30.00	0.00	15.57	≤36.00	PASS

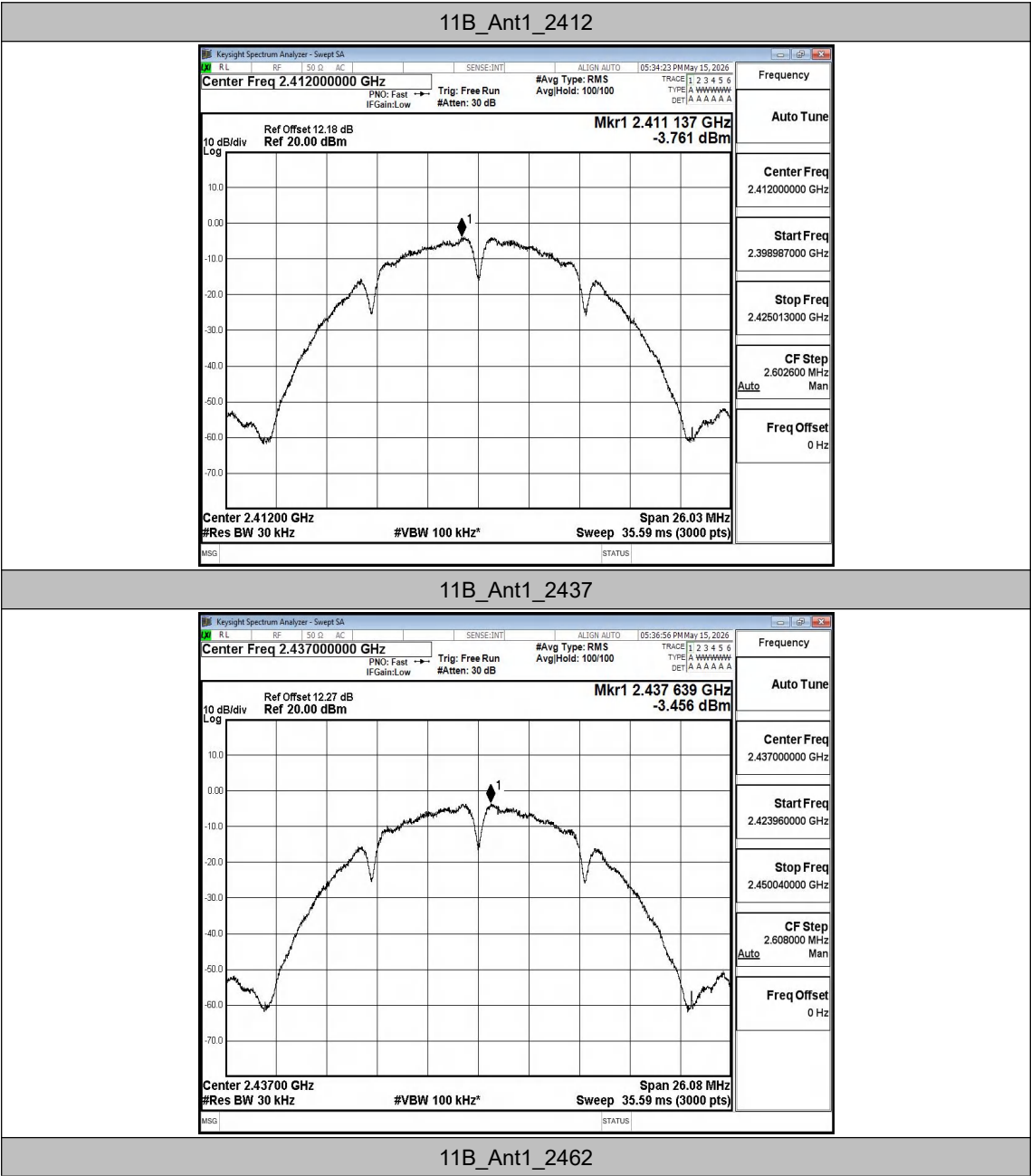
Note :offset=System attenuation +cable loss

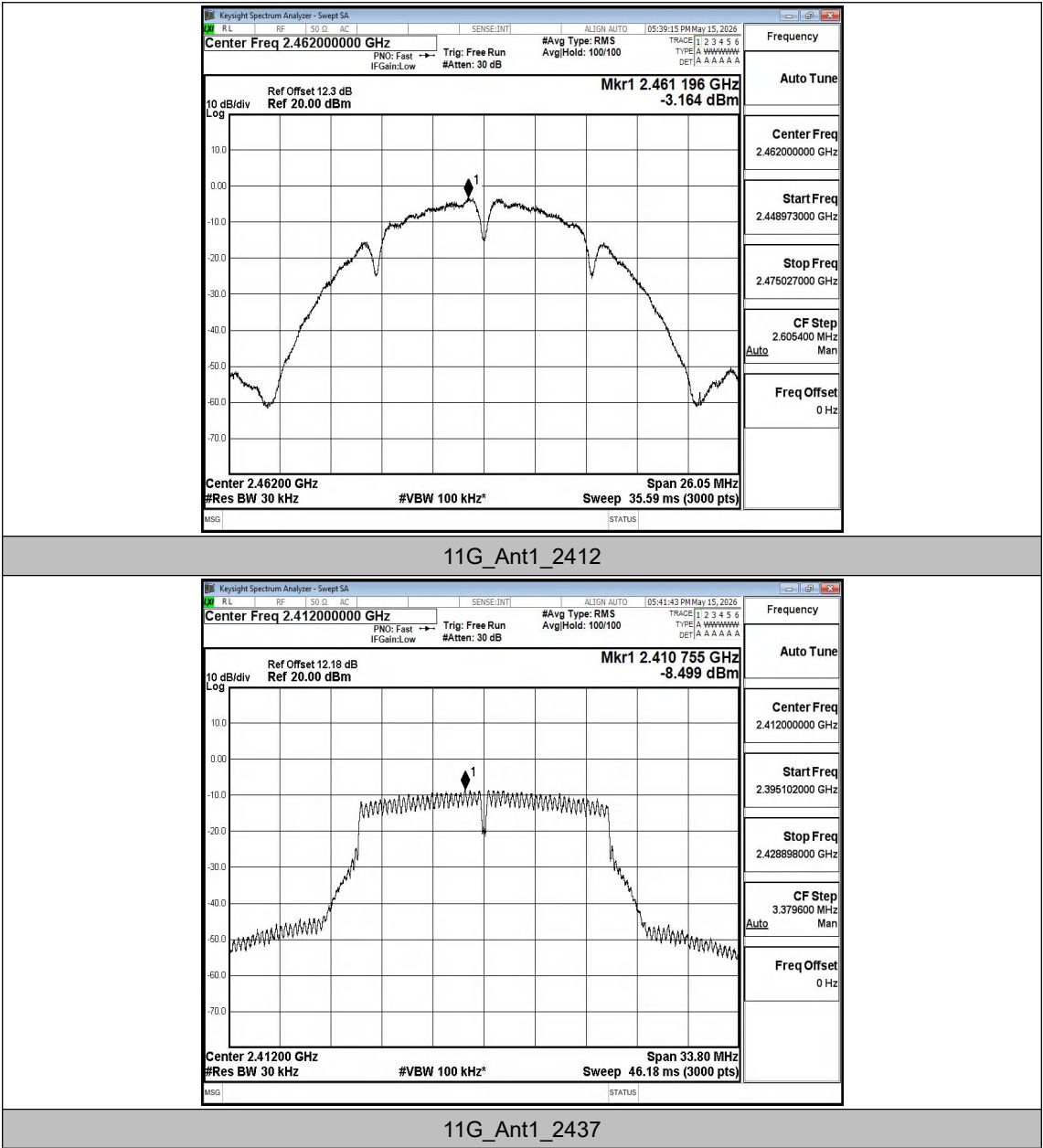
B.3 Maximum power spectral density

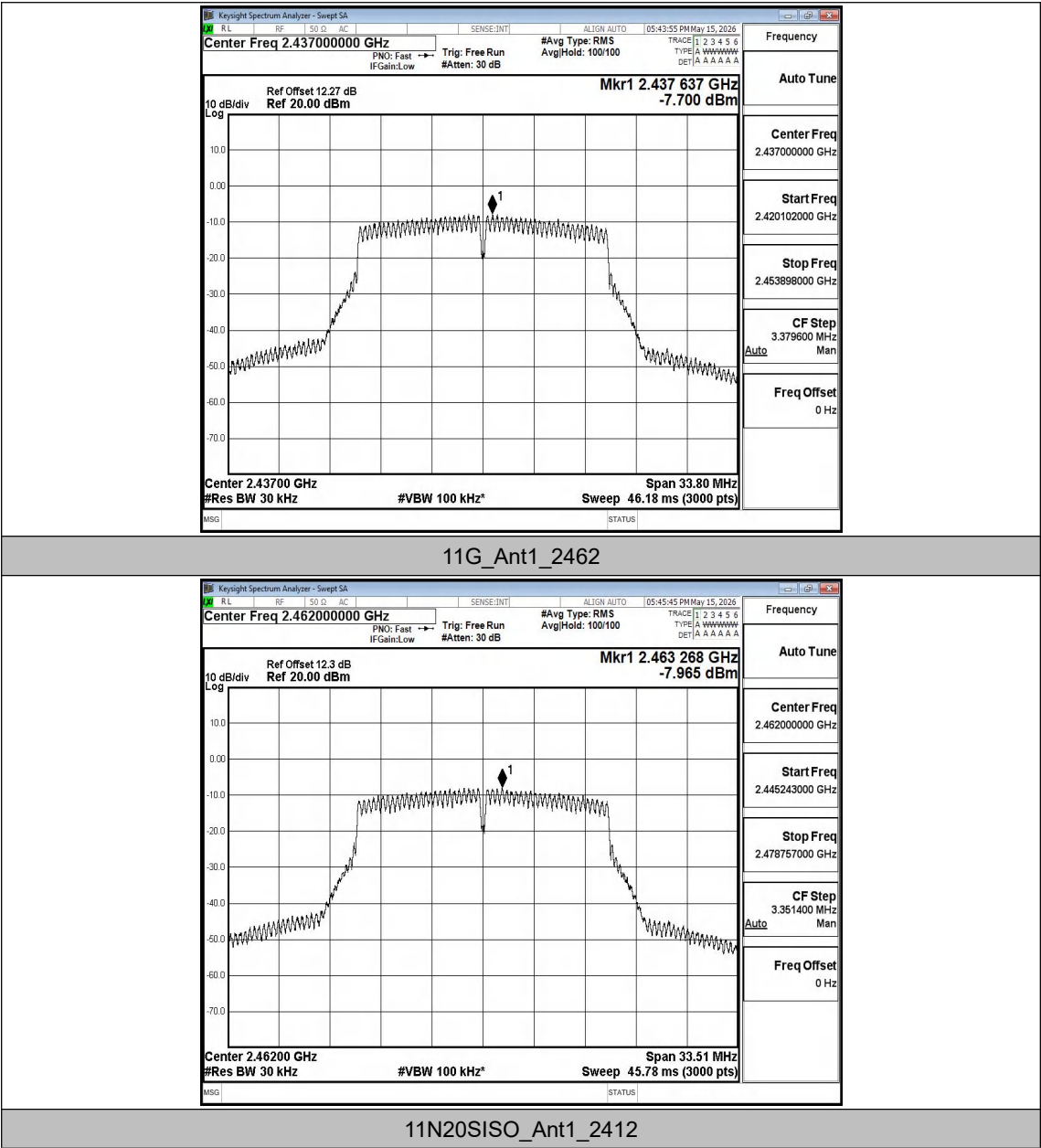
Test Result

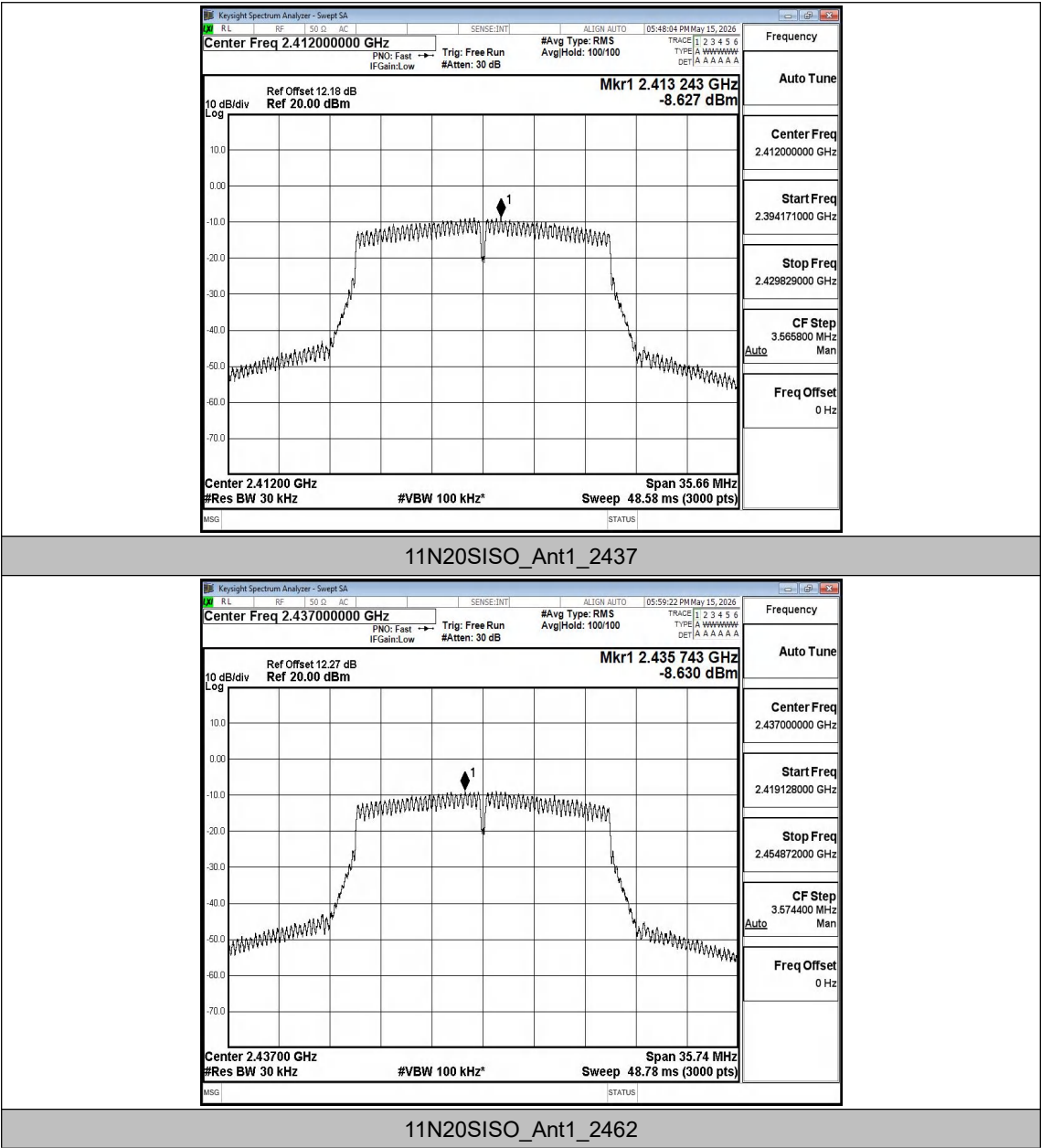
TestMode	Antenna	Frequency[MHz]	Measured PSD [dBm/30kHz]	DC Factor [dB]	Result[dBm/30kHz]	Limit[dBm/3kHz]	Verdict
11B	Ant1	2412	-3.76	0.02	-3.74	≤8.00	PASS
		2437	-3.46	0.02	-3.44	≤8.00	PASS
		2462	-3.16	0.02	-3.14	≤8.00	PASS
11G	Ant1	2412	-8.5	0.12	-8.38	≤8.00	PASS
		2437	-7.7	0.12	-7.58	≤8.00	PASS
		2462	-7.97	0.15	-7.82	≤8.00	PASS
11N20SISO	Ant1	2412	-8.63	0.16	-8.47	≤8.00	PASS
		2437	-8.63	0.16	-8.47	≤8.00	PASS
		2462	-8.91	0.13	-8.78	≤8.00	PASS

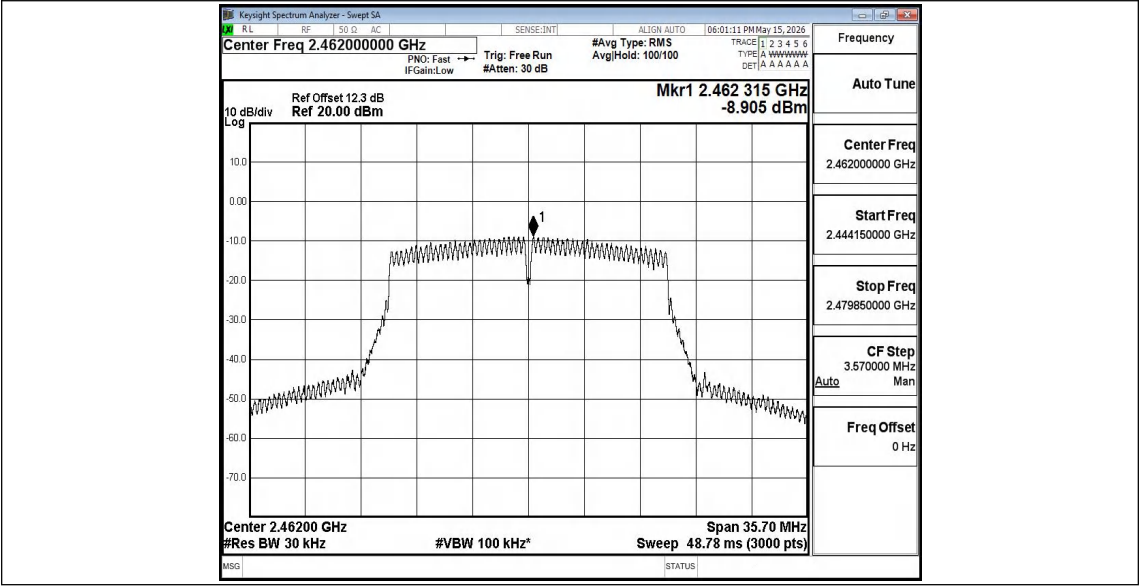
Test Graphs









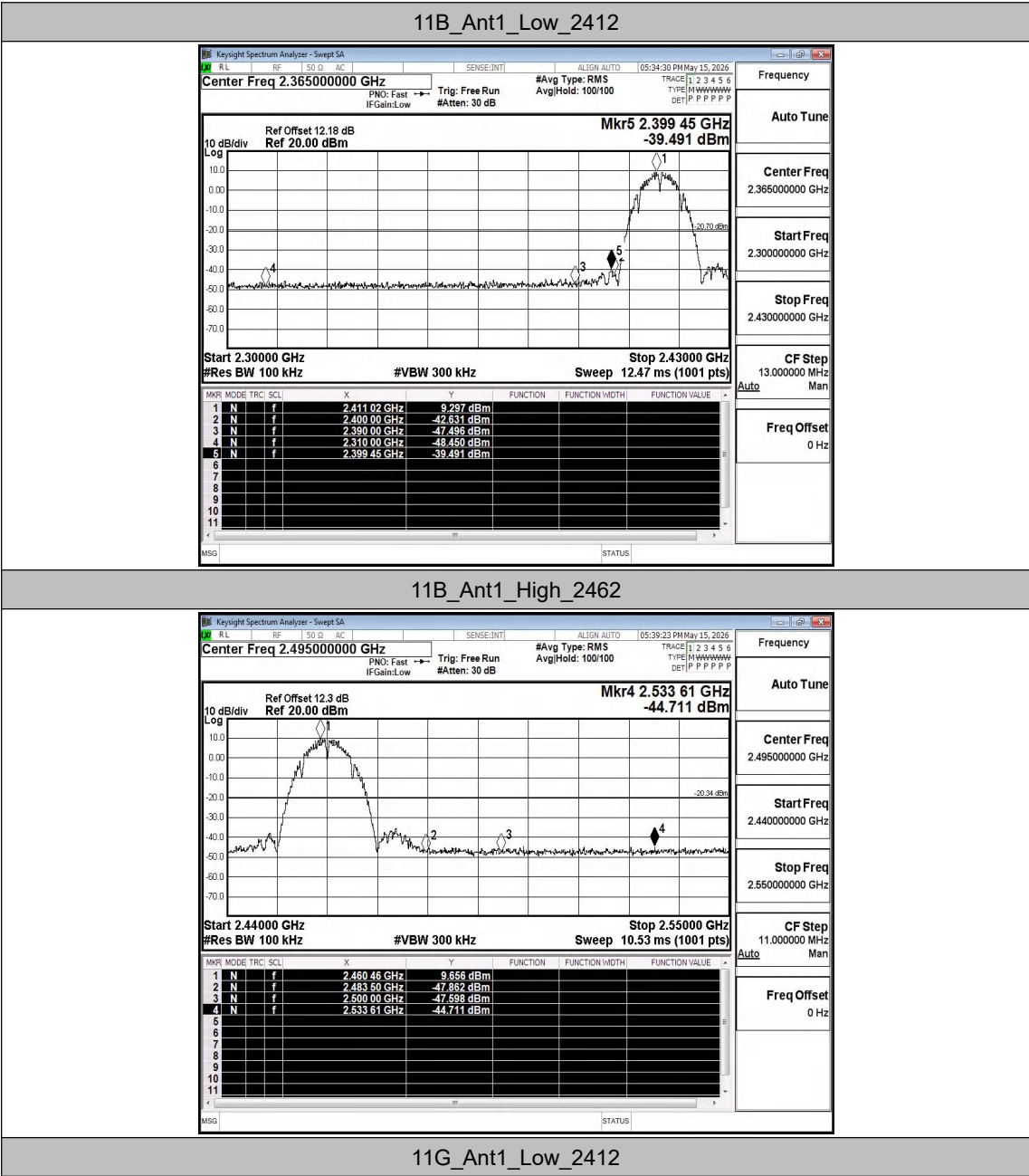


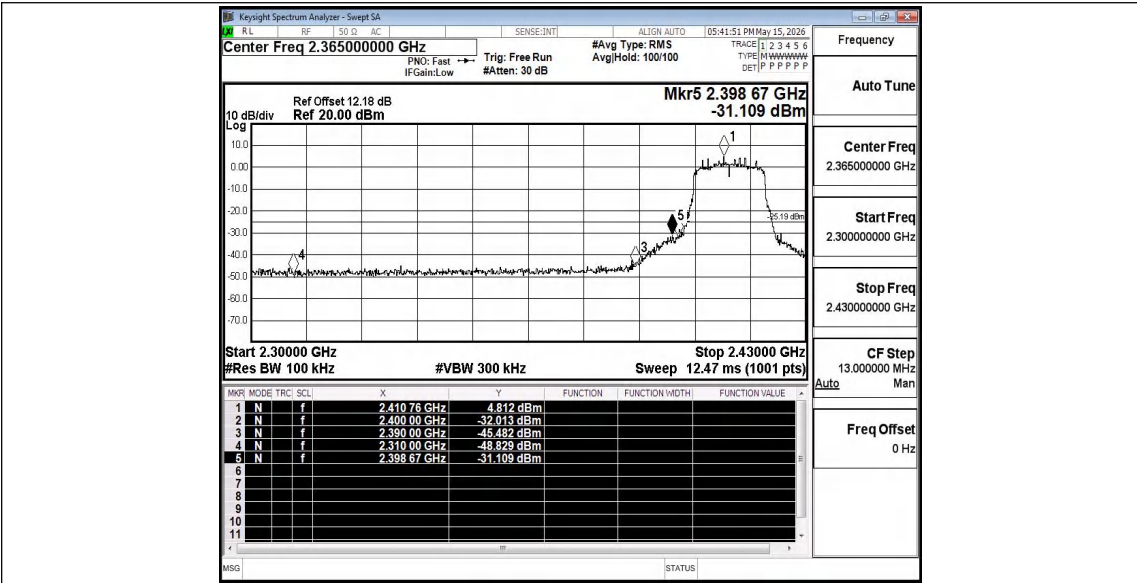
B.4 Band edge measurements

Test Result

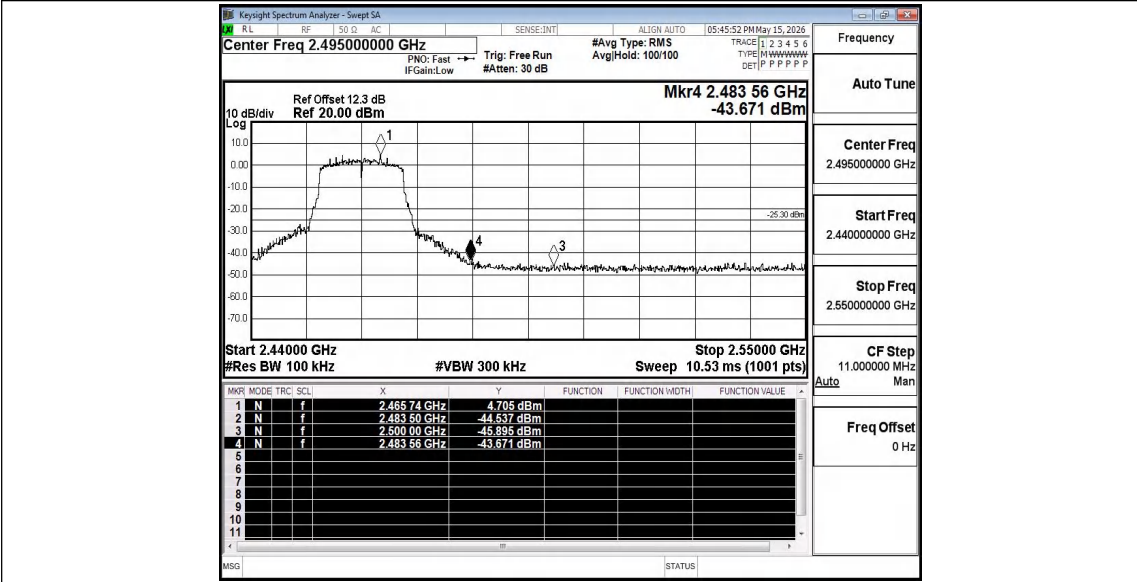
TestMode	Antenna	ChName	Frequency[MHz]	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
11B	Ant1	Low	2412	9.30	-39.49	≤-20.7	PASS
		High	2462	9.66	-44.71	≤-20.34	PASS
11G	Ant1	Low	2412	4.81	-31.11	≤-25.19	PASS
		High	2462	4.71	-43.67	≤-25.3	PASS
11N20SISO	Ant1	Low	2412	4.35	-30.08	≤-25.65	PASS
		High	2462	4.22	-42.84	≤-25.78	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	8.52	8.52	---	PASS
			30~1000	8.52	-68.39	≤-21.48	PASS
			1000~26500	8.52	-30.87	≤-21.48	PASS
		2437	Reference	7.77	7.77	---	PASS
			30~1000	7.77	-67.84	≤-22.23	PASS
			1000~26500	7.77	-30.3	≤-22.23	PASS
		2462	Reference	8.66	8.66	---	PASS
			30~1000	8.66	-68.71	≤-21.34	PASS
			1000~26500	8.66	-30.71	≤-21.34	PASS
11G	Ant1	2412	Reference	2.57	2.57	---	PASS
			30~1000	2.57	-68.85	≤-27.43	PASS
			1000~26500	2.57	-43.23	≤-27.43	PASS
		2437	Reference	2.28	2.28	---	PASS
			30~1000	2.28	-69.07	≤-27.72	PASS
			1000~26500	2.28	-43.47	≤-27.72	PASS
		2462	Reference	3.67	3.67	---	PASS
			30~1000	3.67	-68.84	≤-26.33	PASS
			1000~26500	3.67	-43.33	≤-26.33	PASS
11N20SISO	Ant1	2412	Reference	3.70	3.70	---	PASS
			30~1000	3.70	-68.2	≤-26.3	PASS
			1000~26500	3.70	-42.68	≤-26.3	PASS
		2437	Reference	1.46	1.46	---	PASS
			30~1000	1.46	-68.46	≤-28.54	PASS
			1000~26500	1.46	-43.97	≤-28.54	PASS
		2462	Reference	5.33	5.33	---	PASS
			30~1000	5.33	-68.1	≤-24.67	PASS
			1000~26500	5.33	-43.61	≤-24.67	PASS

Test Graphs

