

Appendix B

RF Test Data for 2.4G (Conducted Measurement)

Product Name: Wireless neckband speaker

Test Model: A21

Environmental Conditions

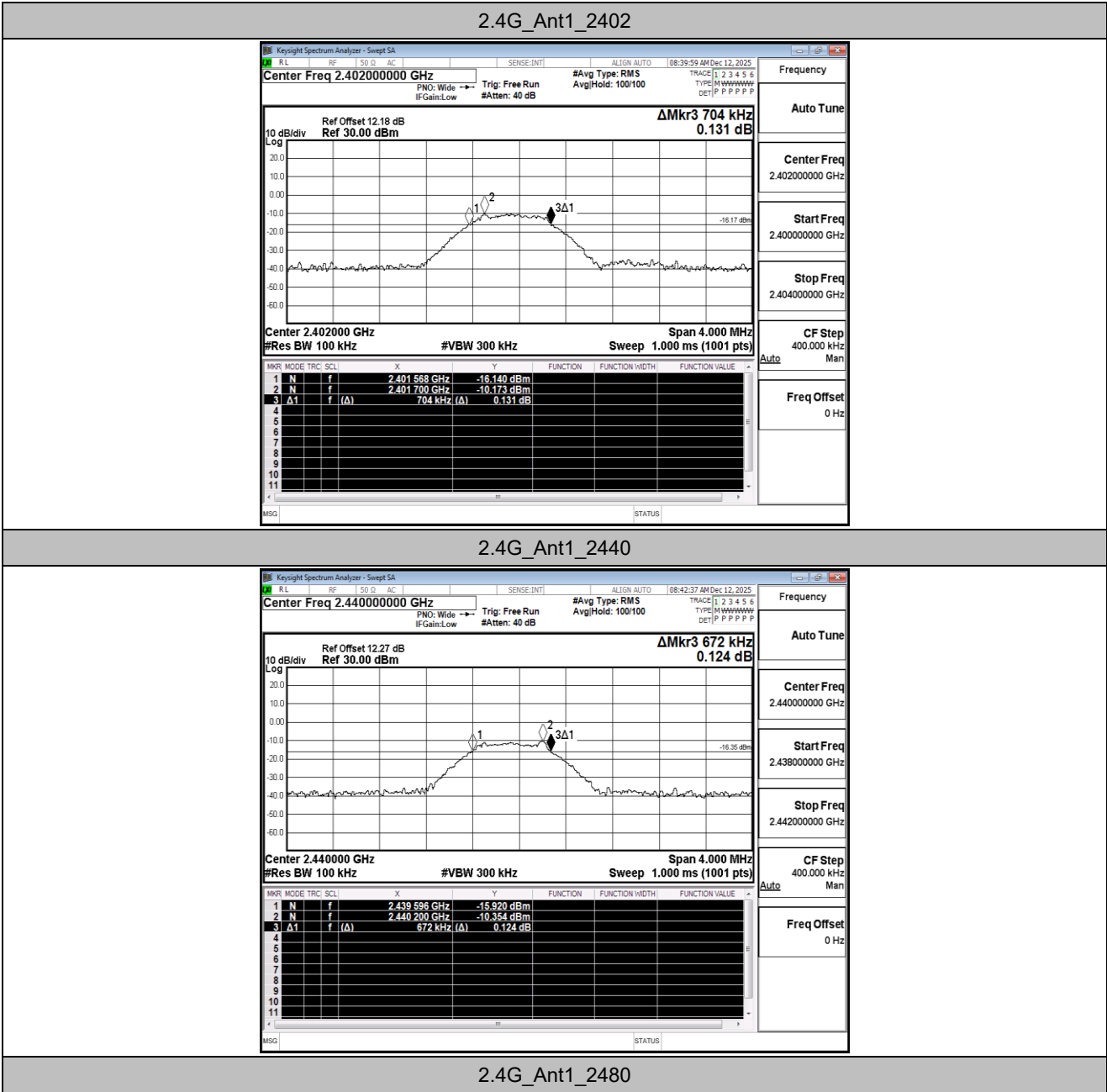
Temperature:	23.8°C
Relative Humidity:	52.3%
ATM Pressure:	100.0 kPa
Test Engineer:	Zhang Hai
Supervised by:	Yan Chen

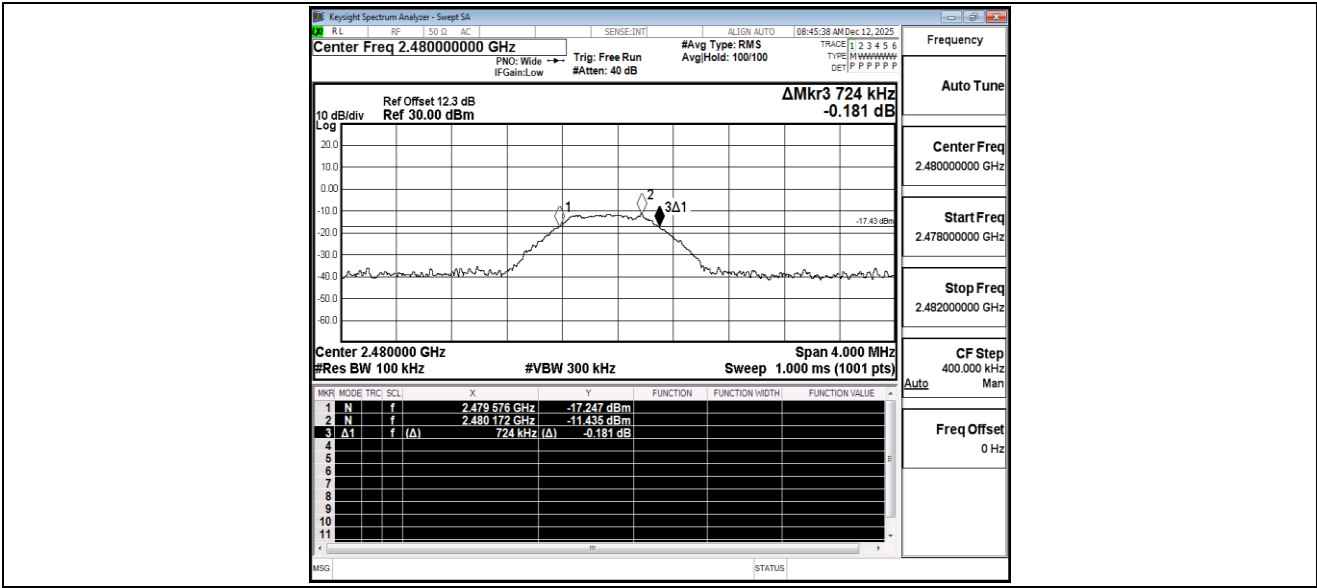
B.1 DTS Bandwidth

Test Result

TestMode	Antenna	Freq(MHz)	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
2.4G	Ant1	2402	0.704	2401.568	2402.272	0.5	PASS
		2440	0.672	2439.596	2440.268	0.5	PASS
		2480	0.724	2479.576	2480.300	0.5	PASS

Test Graphs



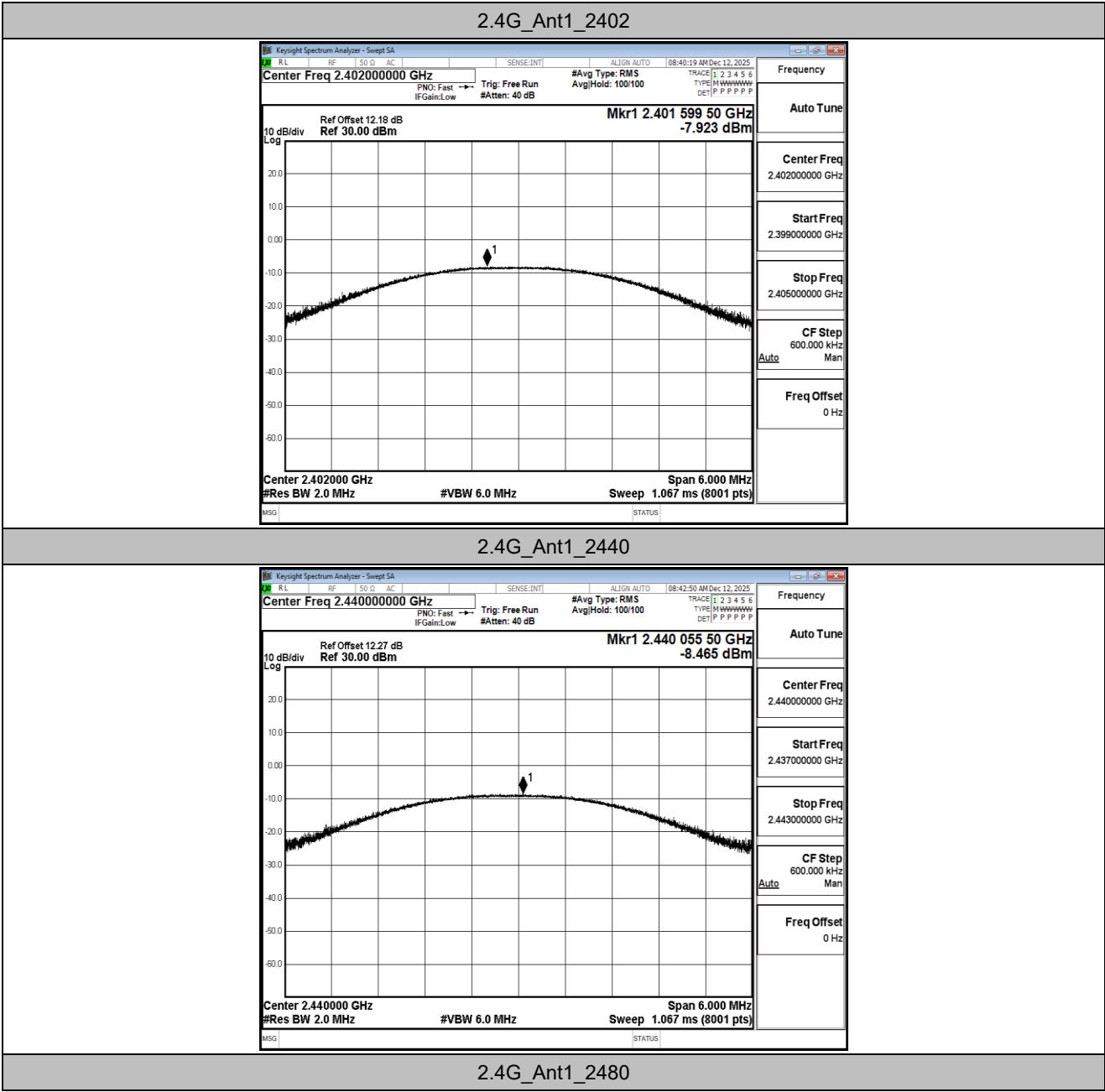


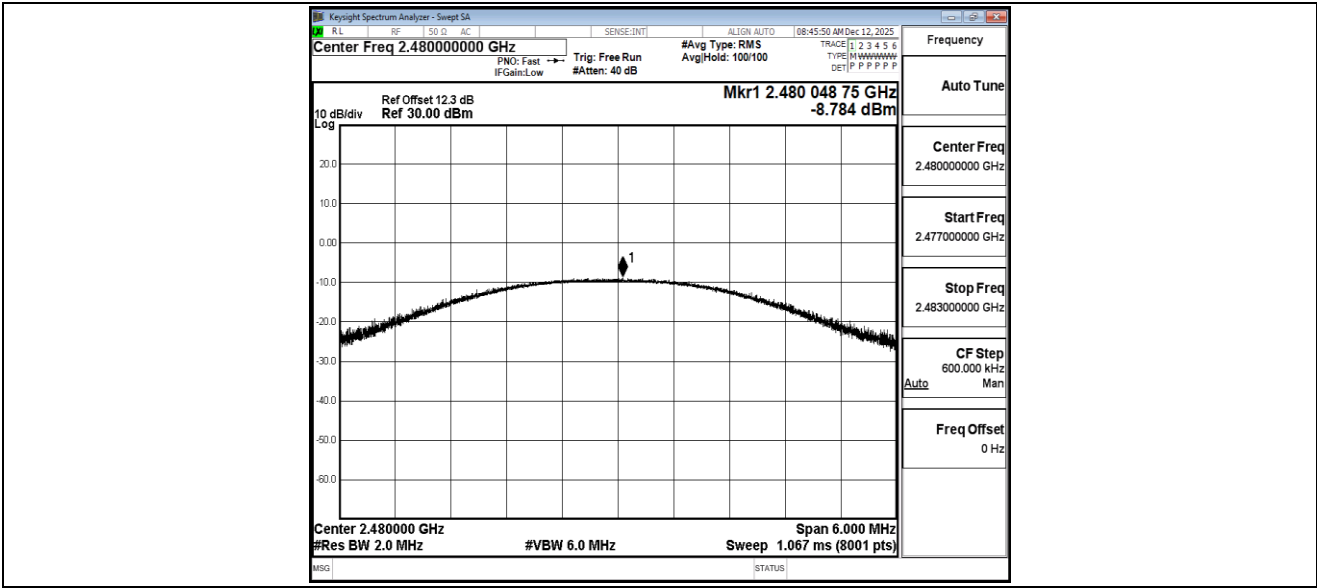
B.2 Maximum peak conducted output power

Test Result Peak

TestMode	Antenna	Freq(MHz)	Conducted Peak Power[dBm]	Conducted Limit[dBm]	Verdict
2.4G	Ant1	2402	-7.92	≤30	PASS
		2440	-8.47	≤30	PASS
		2480	-8.78	≤30	PASS

Test Graphs Peak



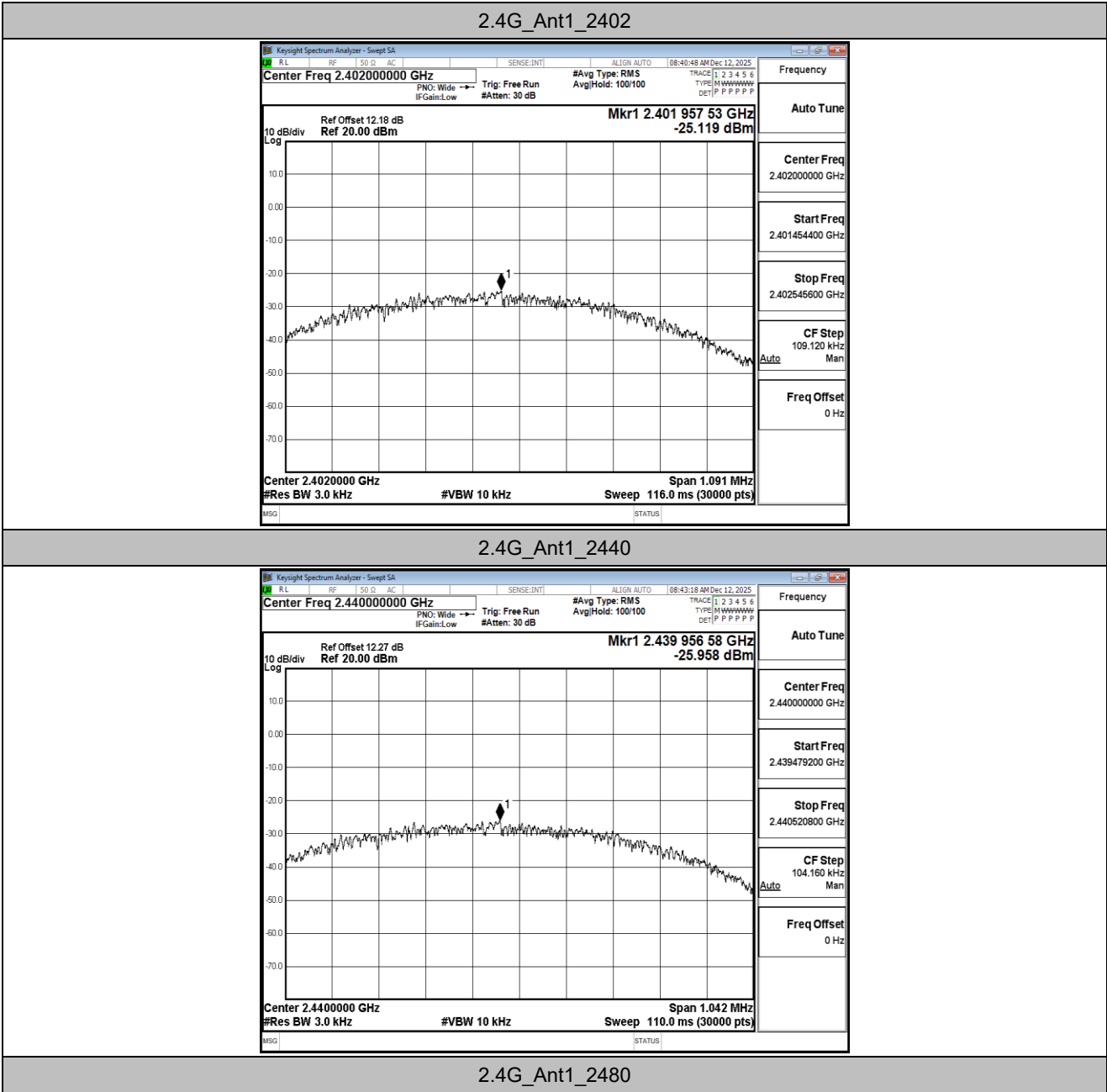


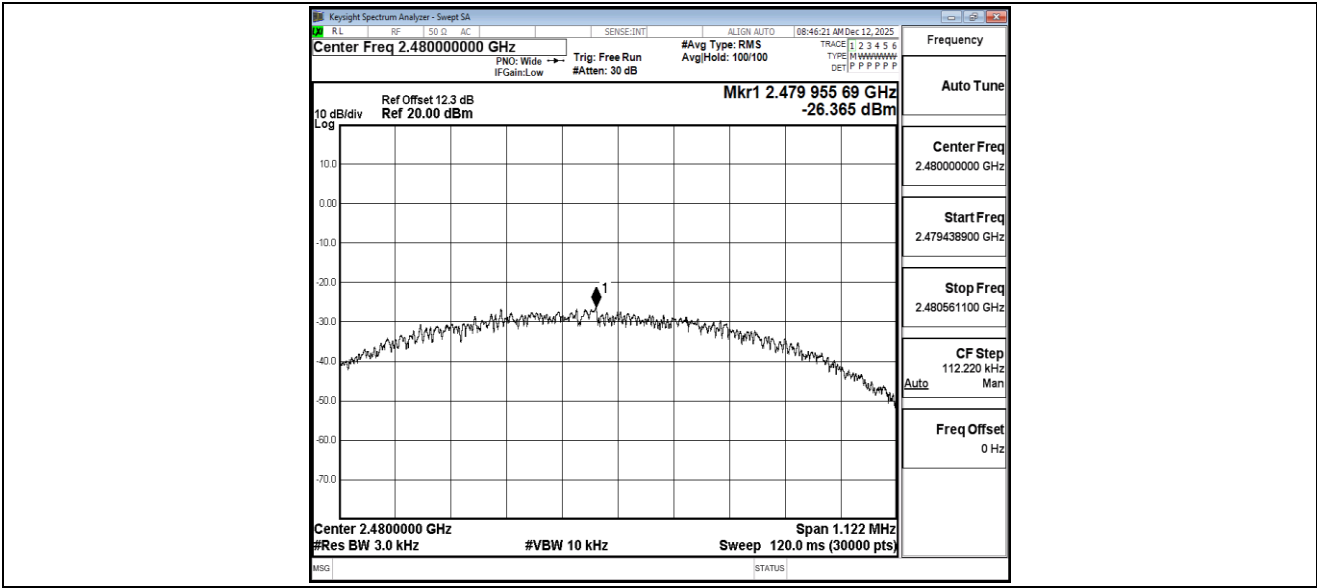
B.3 Maximum power spectral density

Test Result

TestMode	Antenna	Freq(MHz)	Result[dBm/3kHz]	Limit[dBm/3kHz]	Verdict
2.4G	Ant1	2402	-25.12	≤8.00	PASS
		2440	-25.96	≤8.00	PASS
		2480	-26.37	≤8.00	PASS

Test Graphs



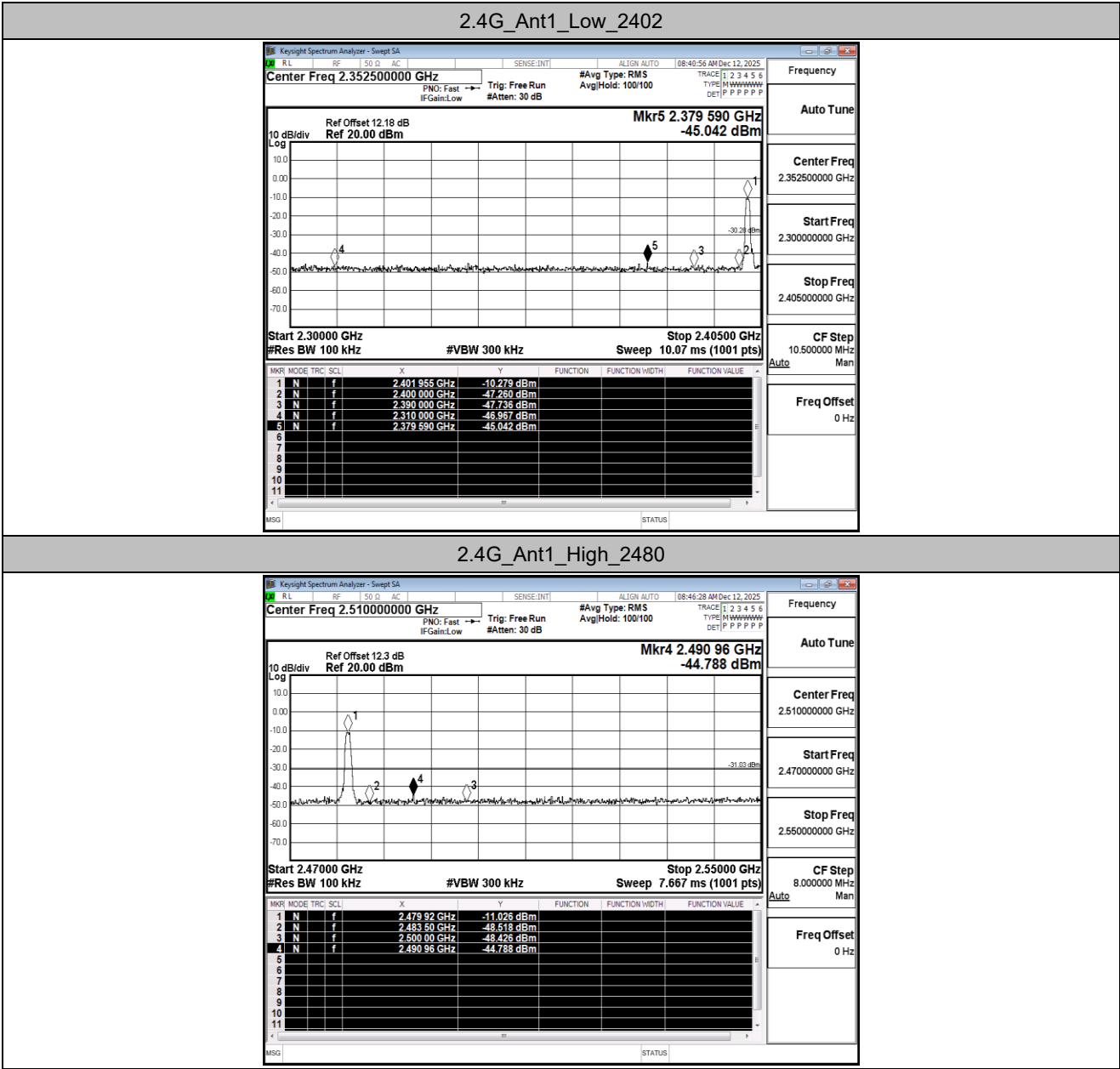


B.4 Band edge measurements

Test Result

TestMode	Antenna	ChName	Freq(MHz)	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
2.4G	Ant1	Low	2402	-10.28	-45.04	≤-30.28	PASS
		High	2480	-11.03	-44.79	≤-31.03	PASS

Test Graphs

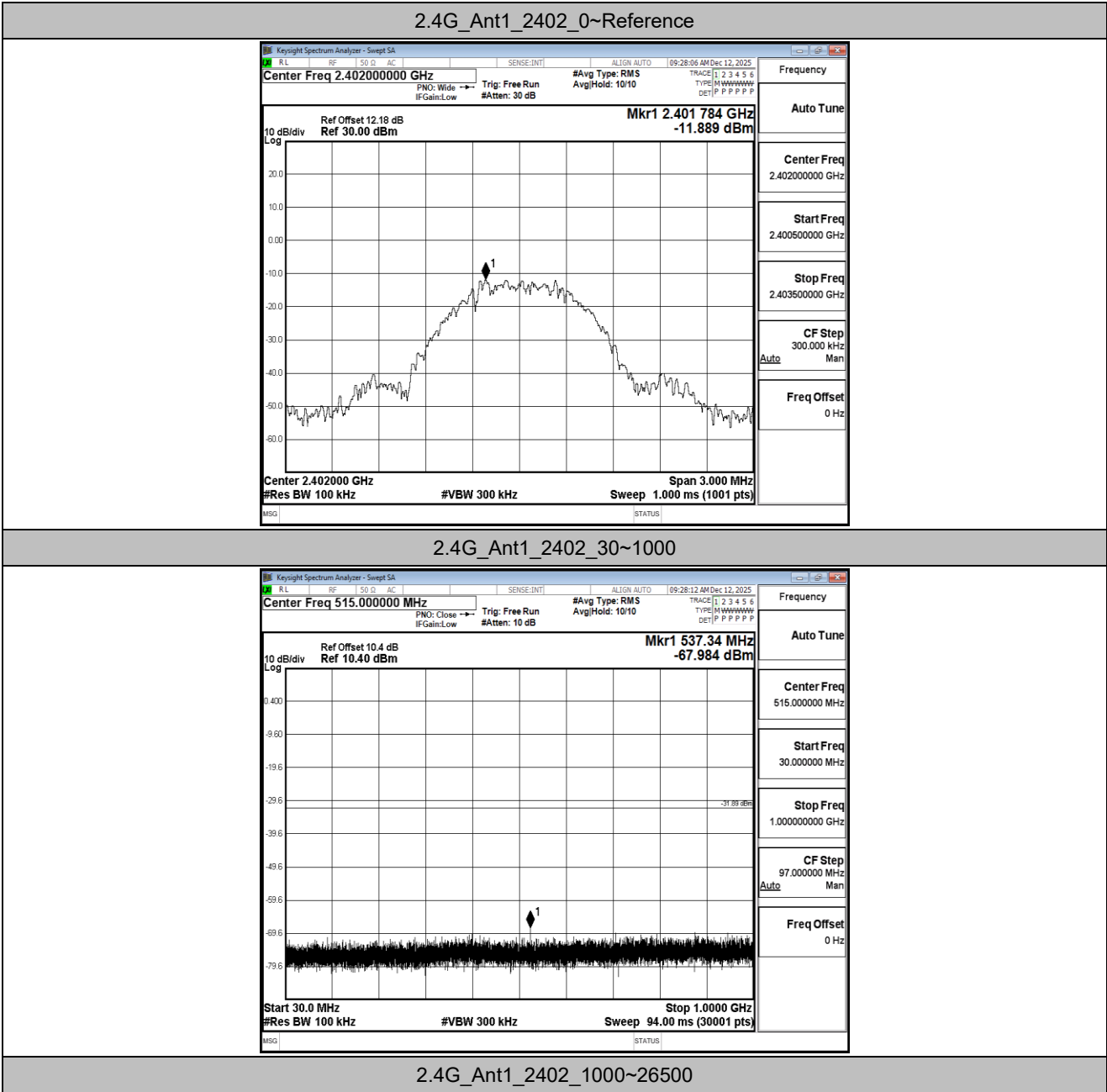


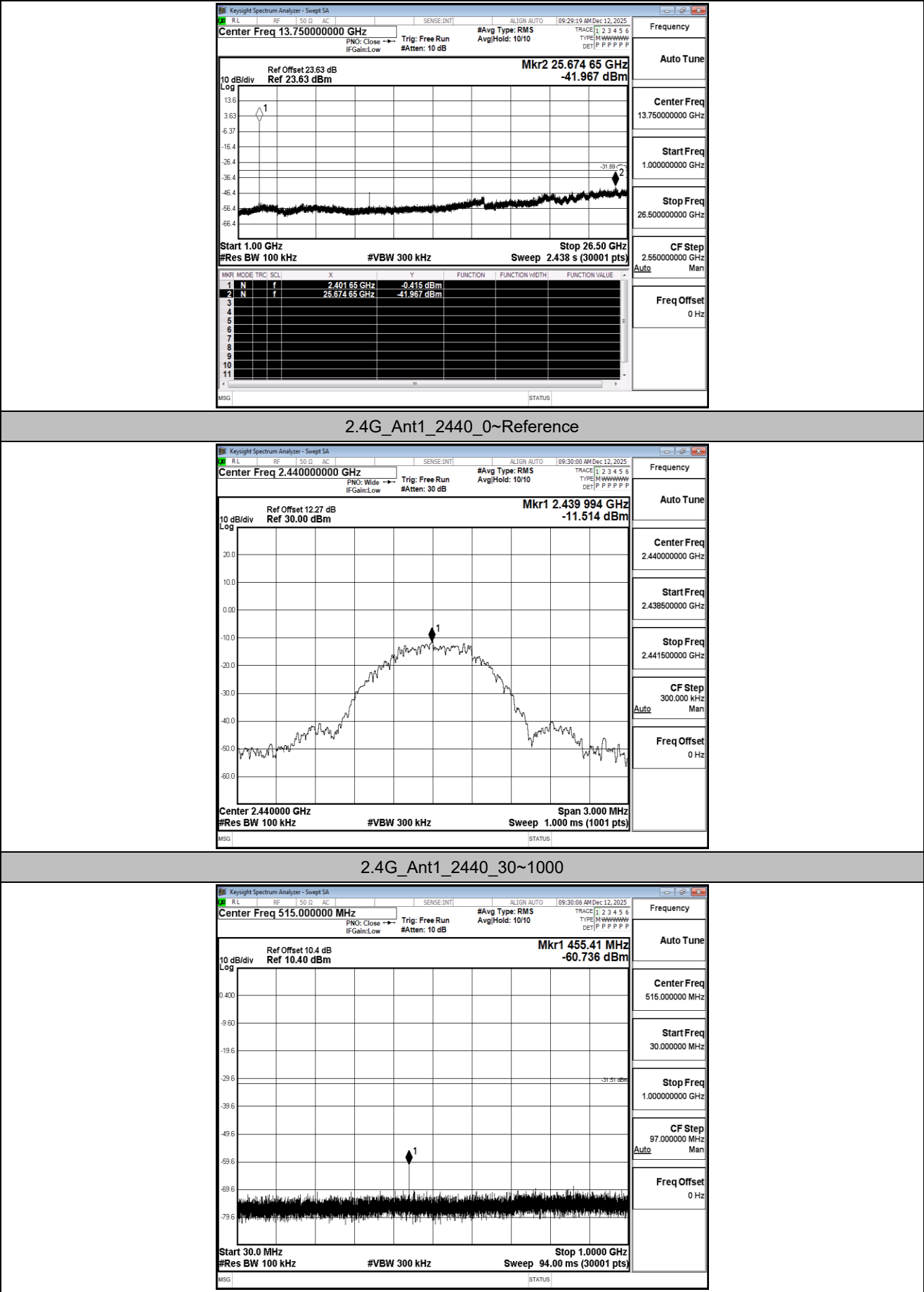
B.5 Conducted Spurious Emission

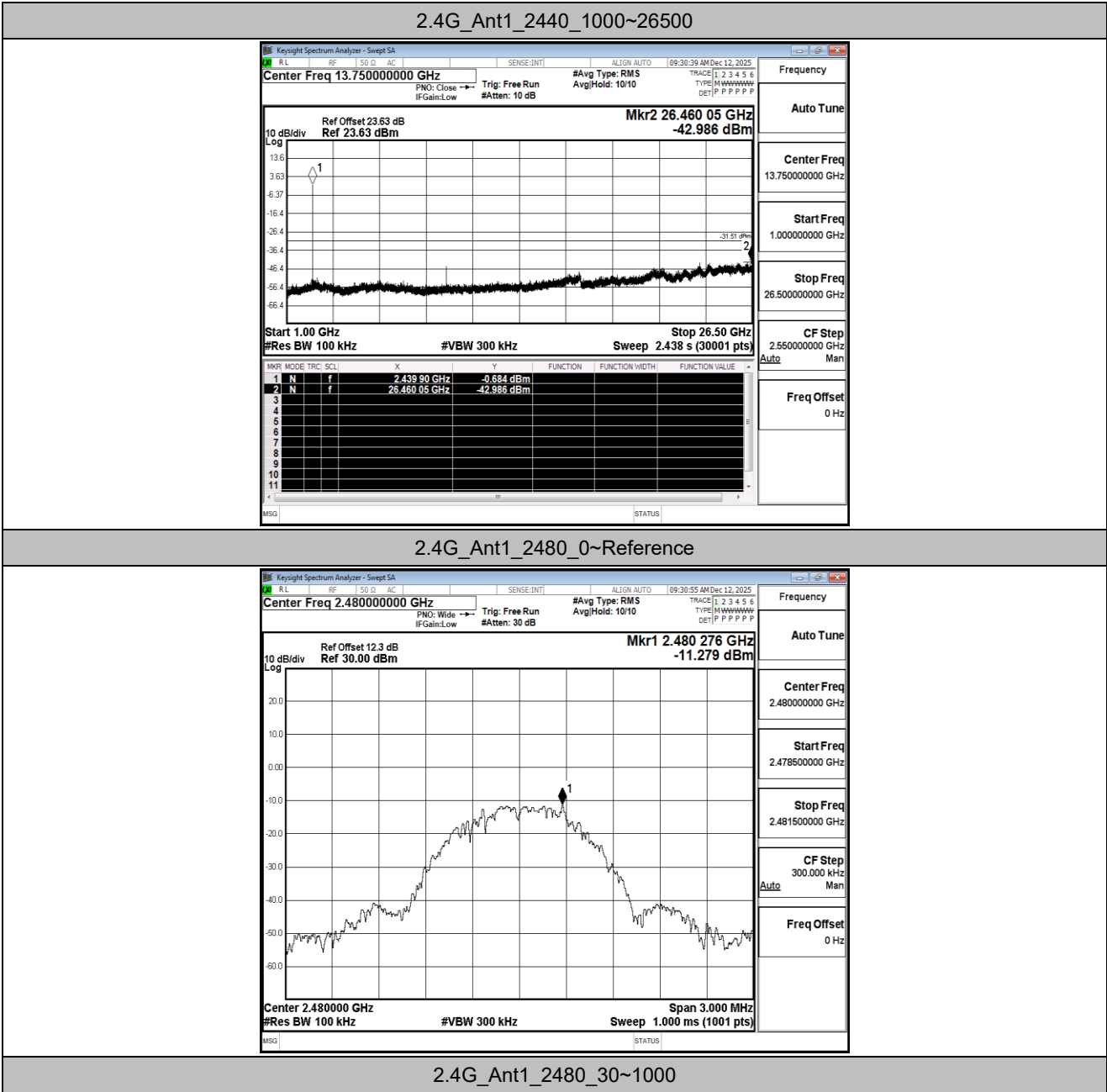
Test Result

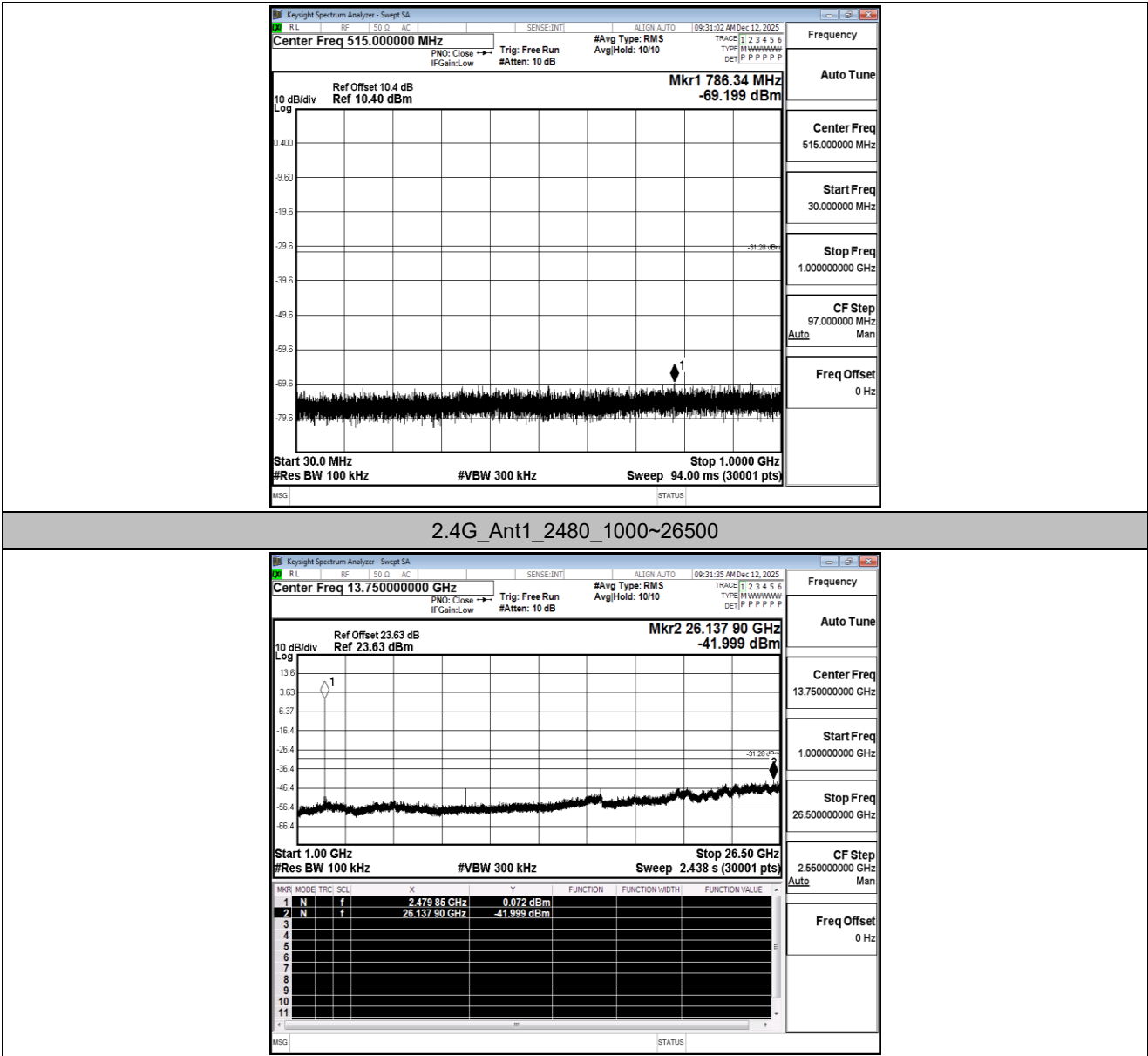
TestMode	Antenna	Freq(MHz)	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
2.4G	Ant1	2402	Reference	-11.89	-11.89	---	PASS
			30~1000	-11.89	-67.98	≤-31.89	PASS
			1000~26500	-11.89	-41.97	≤-31.89	PASS
		2440	Reference	-11.51	-11.51	---	PASS
			30~1000	-11.51	-60.74	≤-31.51	PASS
			1000~26500	-11.51	-42.99	≤-31.51	PASS
		2480	Reference	-11.28	-11.28	---	PASS
			30~1000	-11.28	-69.2	≤-31.28	PASS
			1000~26500	-11.28	-42	≤-31.28	PASS

Test Graphs









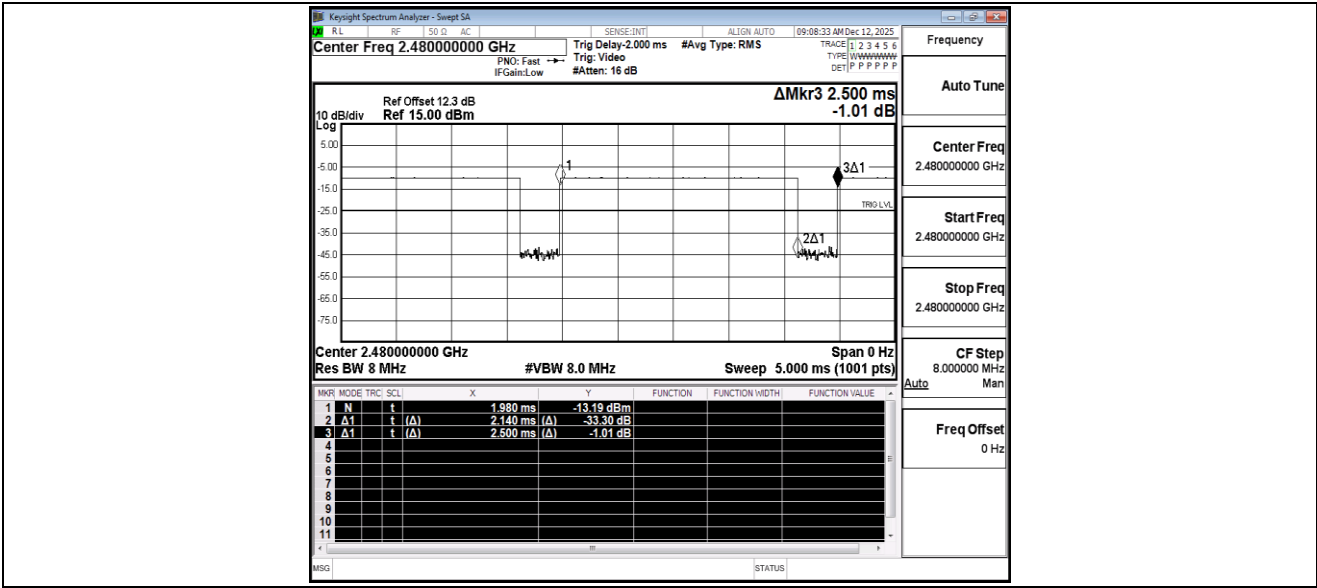
B.6 Duty Cycle

Test Result

TestMode	Antenna	Freq(MHz)	ON Time [ms]	Period [ms]	X	DC [%]	xFactor	Limit	Verdict
2.4G	Ant1	2402	2.13	2.50	0.8520	85.20	0.70	---	---
		2440	2.13	2.50	0.8520	85.20	0.70	---	---
		2480	2.14	2.50	0.8560	85.60	0.68	---	---

Test Graphs





B.7 Emissions in Restricted Bands

Test Result

Test Mode	Antenna	Channel Name	Freq (MHz)	Detector	Freq [MHz]	Result [dBm]	Limit [dBm]	Gain [dBi]	DC Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Verdict
2.4G	Ant1	Low	2402	AV	2310.000	-56.91	≤-45.46	3.56	0.70	42.55	≤54	PASS
				AV	2335.805	-56.07	≤-45.46	3.56	0.70	43.39	≤54	PASS
				AV	2390.000	-56.5	≤-45.46	3.56	0.70	42.96	≤54	PASS
				Peak	2310.000	-48.84	≤-24.76	3.56	0.00	49.92	≤74	PASS
				Peak	2315.120	-46.19	≤-24.76	3.56	0.00	52.57	≤74	PASS
				Peak	2390.000	-48.48	≤-24.76	3.56	0.00	50.28	≤74	PASS
		High	2480	AV	2483.500	-56.29	≤-45.44	3.56	0.68	43.15	≤54	PASS
				AV	2498.880	-55.82	≤-45.44	3.56	0.68	43.62	≤54	PASS
				AV	2500.000	-56.76	≤-45.44	3.56	0.68	42.68	≤54	PASS
				Peak	2483.500	-48.76	≤-24.76	3.56	0.00	50.00	≤74	PASS
				Peak	2483.680	-46.44	≤-24.76	3.56	0.00	52.32	≤74	PASS
				Peak	2500.000	-47.94	≤-24.76	3.56	0.00	50.82	≤74	PASS

Note:

1. The Antenna Gain is compensated in the graph.
2. The limit in dBm for average detector is conversion from 54dBuV/m, according to 15.209(a). The limit in dBm for peak detector is 20dB above the limit of average detector in dBm.

Test Graphs

