



Appendix Test Data for SRD (Conducted Measurement)

Product Name: Wireless Mechanical Keyboard

Trade Mark: Keychron, Lemokey

Test Model: B31

FCC ID: 2BGKB-B31

Environmental Conditions

Temperature:	23.5°C
Relative Humidity:	58%
ATM Pressure:	100.0 kPa
Test Engineer:	Allen Lai
Supervised by:	Max Zhang
NOTE	N/A

Appendix A: DTS Bandwidth

Test Result

Test Mode	Antenna	Frequency [MHz]	DTS BW [MHz]	FL [MHz]	FH [MHz]	Limit [MHz]	Verdict
SRD	Ant1	2402	1.256	2401.388	2402.644	0.5	PASS
SRD	Ant1	2440	1.400	2439.304	2440.704	0.5	PASS
SRD	Ant1	2480	1.304	2479.372	2480.676	0.5	PASS

Note: offset(dB) = cable loss(dB) + attenuator factor(dB)





Test Graphs





SRD-Ant1-2480-PASS





Appendix B: Occupied Channel Bandwidth

Test Result

Test Mode	Antenna	Frequency [MHz]	OCB [MHz]	FL [MHz]	FH [MHz]	Limit [MHz]	Verdict
SRD	Ant1	2402	2.0398	2400.9722	2403.0120	---	---
SRD	Ant1	2440	2.0236	2438.9752	2440.9988	---	---
SRD	Ant1	2480	2.0393	2478.9709	2481.0102	---	---

Note: offset(dB) = cable loss(dB) + attenuator factor(dB)





Test Graphs







Appendix C: Maximum peak conducted output power

Test Result Peak

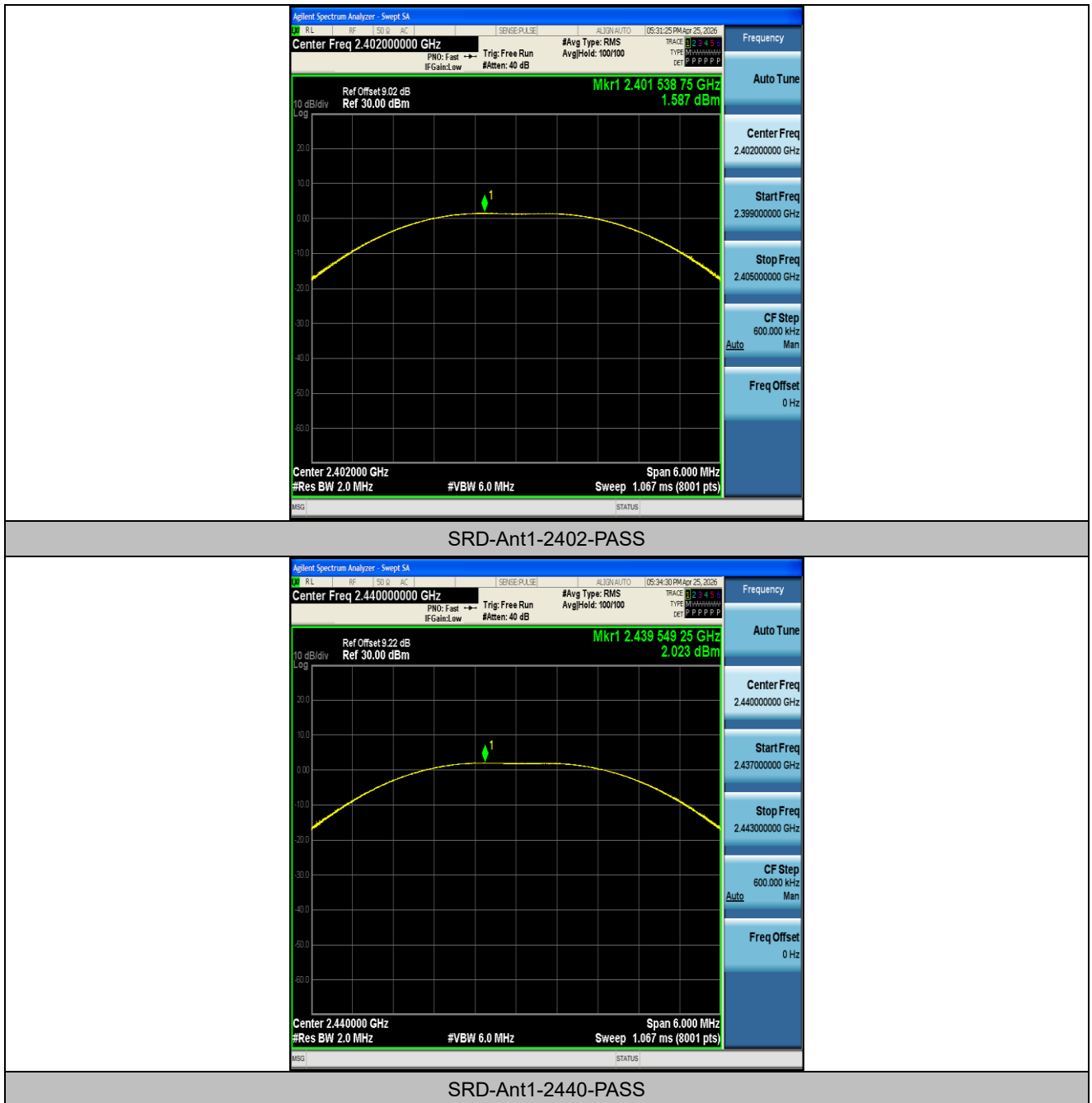
Test Mode	Antenna	Frequency [MHz]	Conducted Peak Power [dBm]	Conducted Limit [dBm]	Verdict
SRD	Ant1	2402	1.59	≤30	PASS
SRD	Ant1	2440	2.02	≤30	PASS
SRD	Ant1	2480	1.87	≤30	PASS

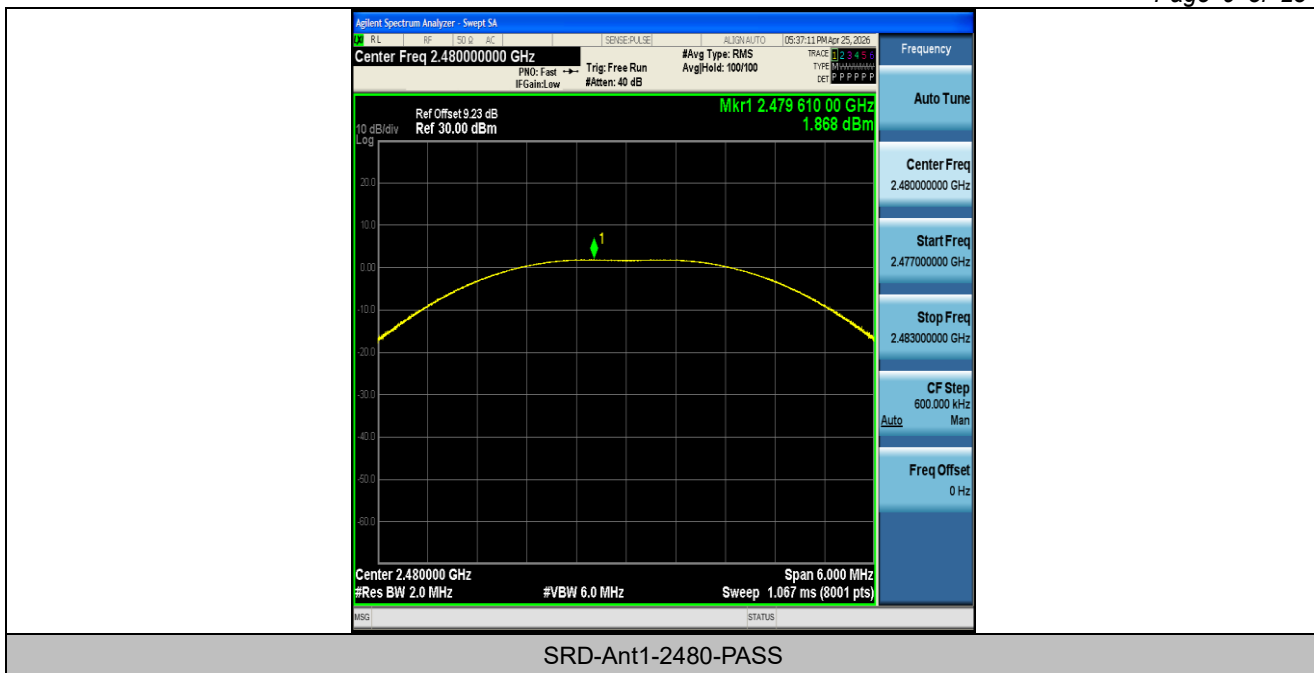
Note: offset(dB) = cable loss(dB) + attenuator factor(dB)





Test Graphs Peak







Appendix D: Maximum peak power spectral density

Test Result

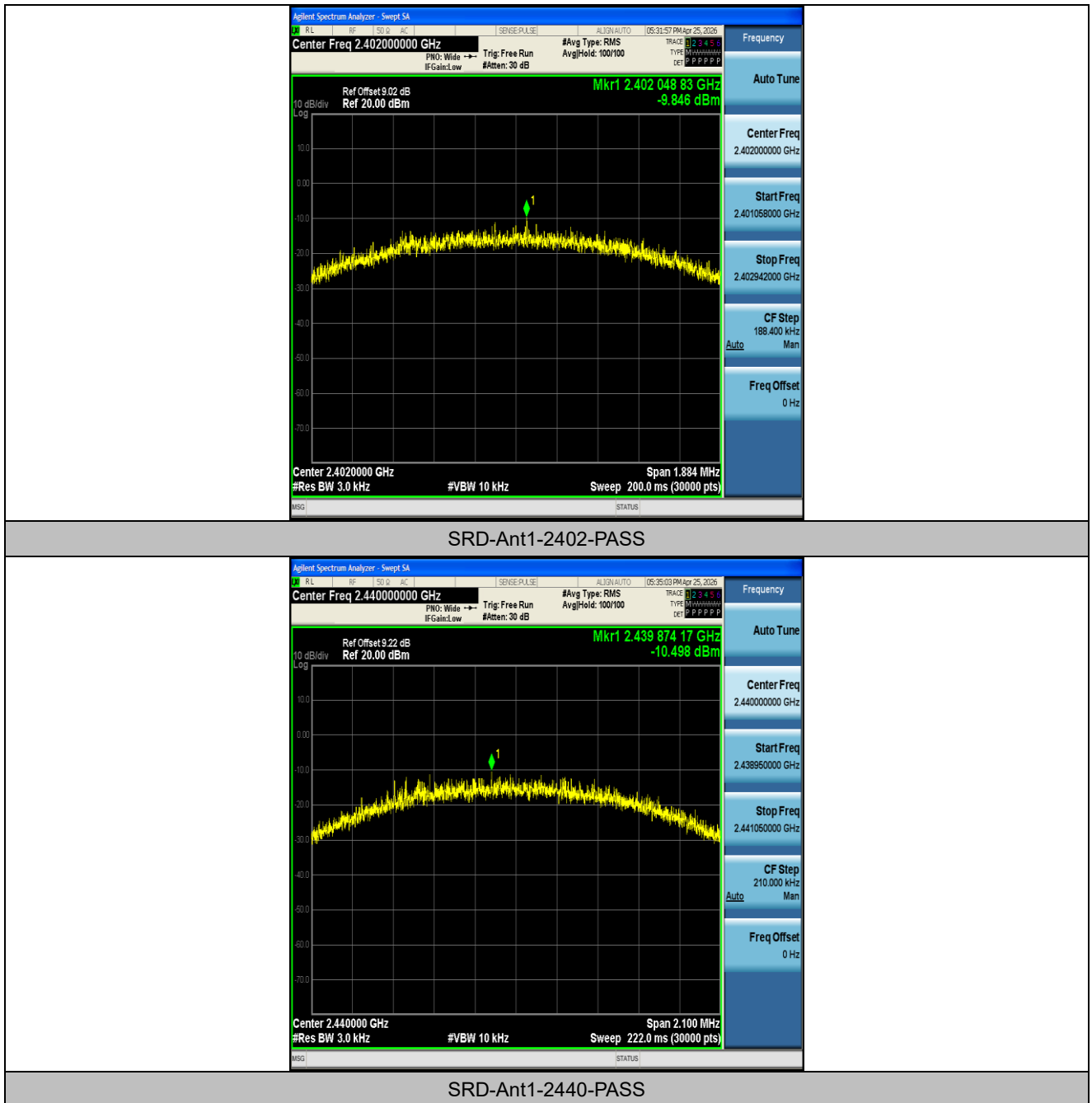
Test Mode	Antenna	Frequency [MHz]	Result [dBm/3kHz]	Limit [dBm/3kHz]	Verdict
SRD	Ant1	2402	-9.85	≤8.00	PASS
SRD	Ant1	2440	-10.50	≤8.00	PASS
SRD	Ant1	2480	-10.81	≤8.00	PASS

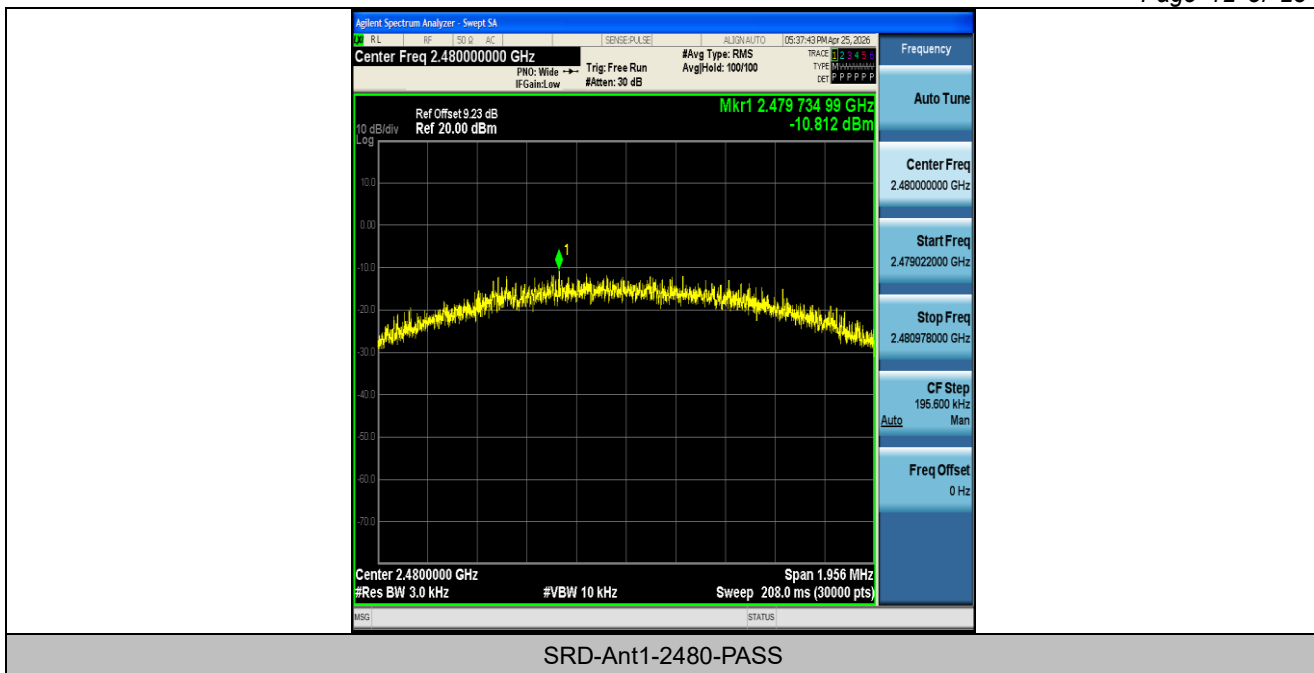
Note: offset(dB) = cable loss(dB) + attenuator factor(dB)





Test Graphs







Appendix E: Band edge measurements

Test Result

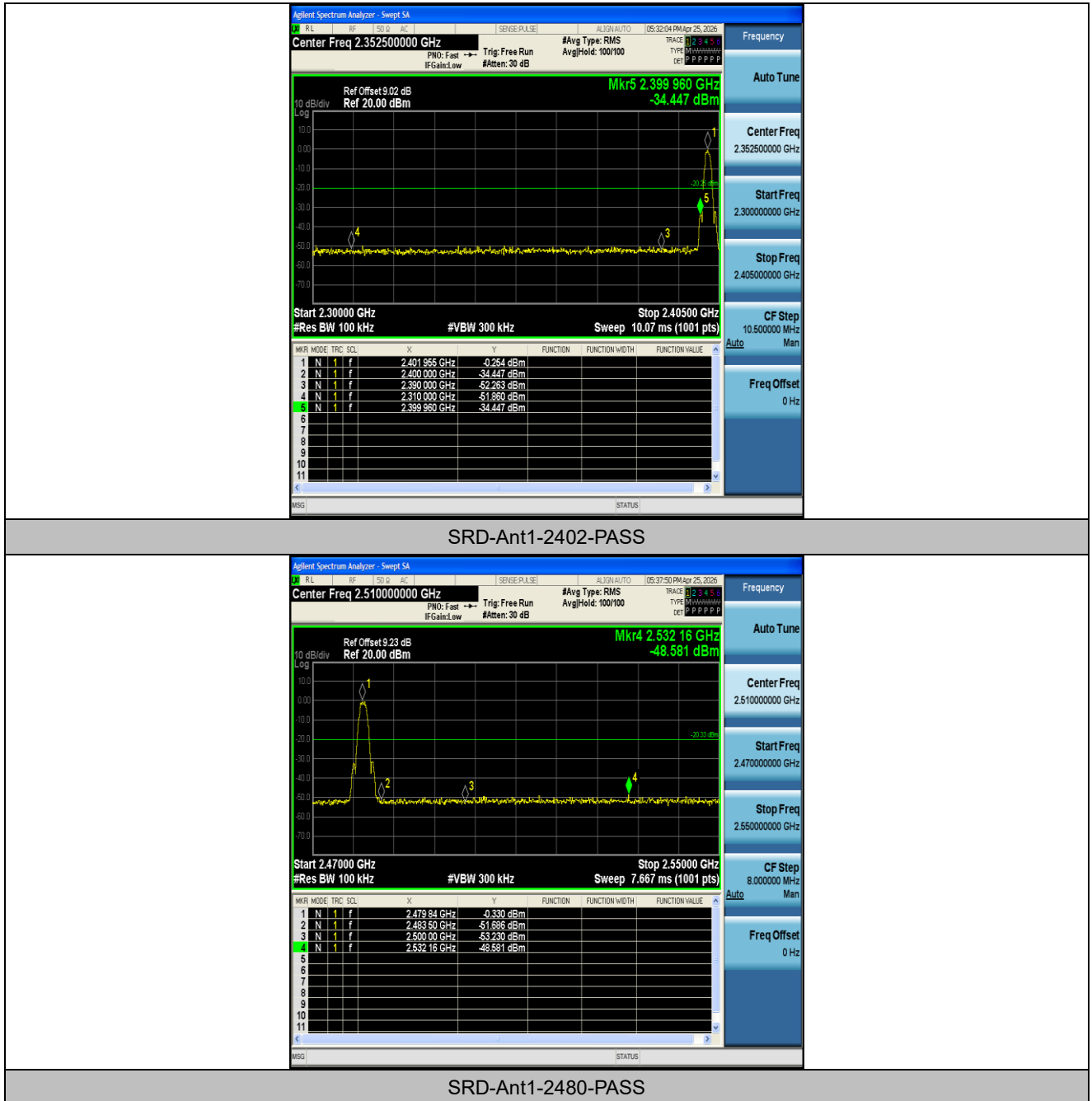
Test Mode	Antenna	Ch. Name	Frequency [MHz]	Ref. Level [dBm]	Result [dBm]	Limit [dBm]	Verdict
SRD	Ant1	Low	2402	-0.25	-34.45	≤ -20.25	PASS
SRD	Ant1	High	2480	-0.33	-48.58	≤ -20.33	PASS

Note: offset(dB) = cable loss(dB) + attenuator factor(dB)





Test Graphs





Appendix F: Conducted Spurious Emission

Test Result

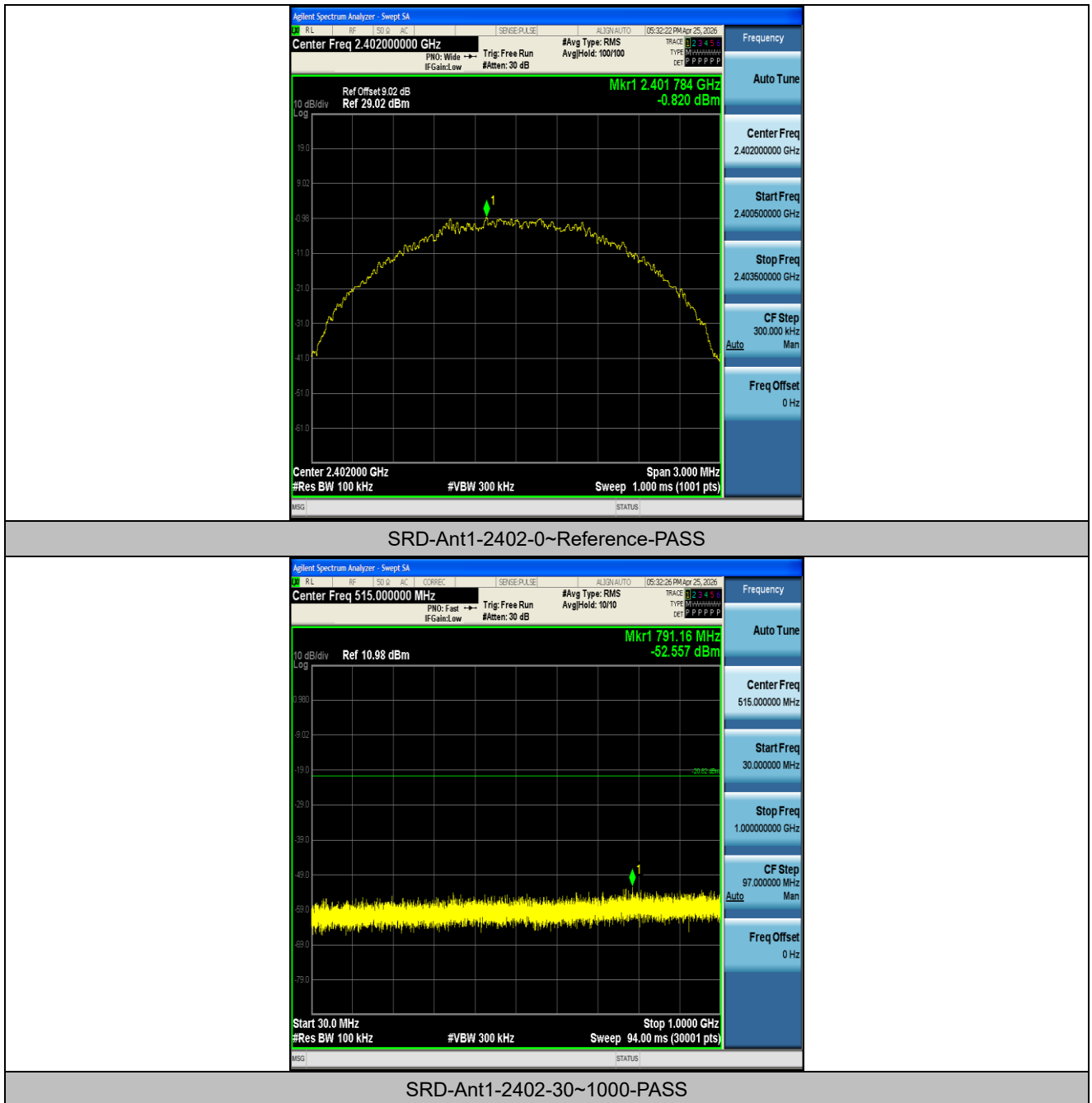
Test Mode	Antenna	Frequency [MHz]	Freq. Range [MHz]	Ref. Level [dBm]	Result [dBm]	Limit [dBm]	Verdict
SRD	Ant1	2402	0~Reference	-0.82	-0.82	---	PASS
SRD	Ant1	2402	30~1000	-0.82	-52.56	≤-20.82	PASS
SRD	Ant1	2402	1000~26500	-0.82	-27.34	≤-20.82	PASS
SRD	Ant1	2440	0~Reference	-0.99	-0.99	---	PASS
SRD	Ant1	2440	30~1000	-0.99	-53.31	≤-20.99	PASS
SRD	Ant1	2440	1000~26500	-0.99	-27.52	≤-20.99	PASS
SRD	Ant1	2480	0~Reference	-0.42	-0.42	---	PASS
SRD	Ant1	2480	30~1000	-0.42	-52.19	≤-20.42	PASS
SRD	Ant1	2480	1000~26500	-0.42	-27.39	≤-20.42	PASS

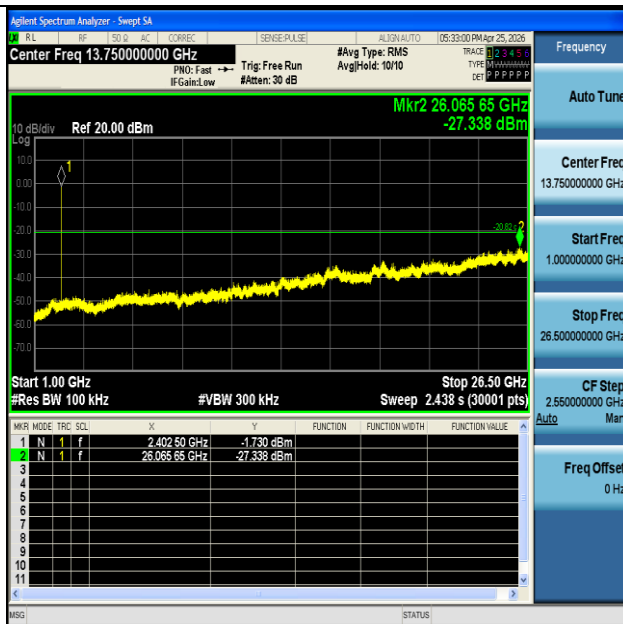
Note: offset(dB) in Reference test plots = cable loss(dB) + attenuator factor(dB); For spurious emissions plots from 30MHz to 26.5GHz, the cable loss and attenuator factors have been set in the 'Input Correction' of the Spectrum Analyzer during the test.



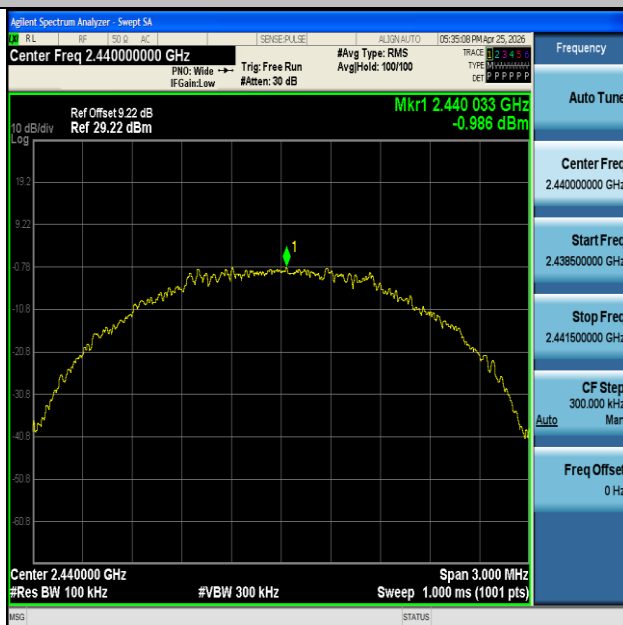


Test Graphs



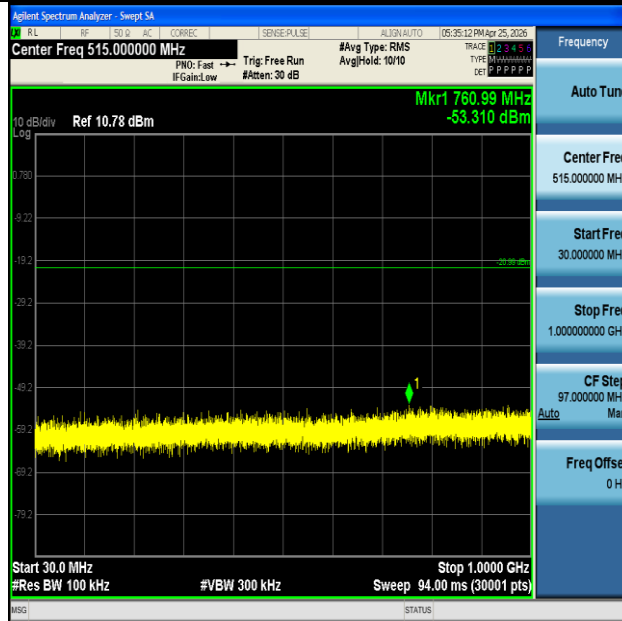


SRD-Ant1-2402-1000~26500-PASS

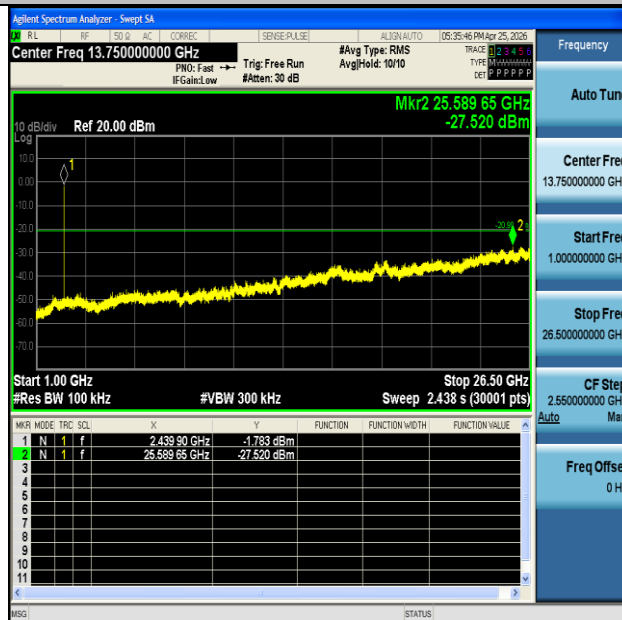


SRD-Ant1-2440-0~Reference-PASS





SRD-Ant1-2440-30~1000-PASS

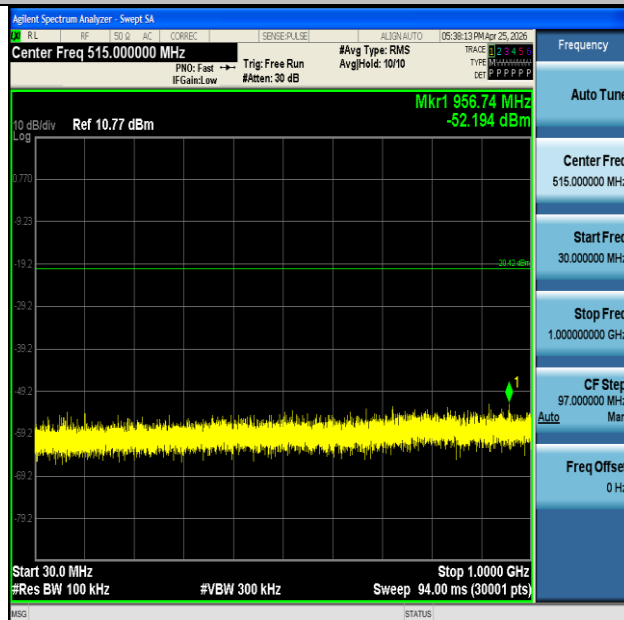


SRD-Ant1-2440-1000~26500-PASS



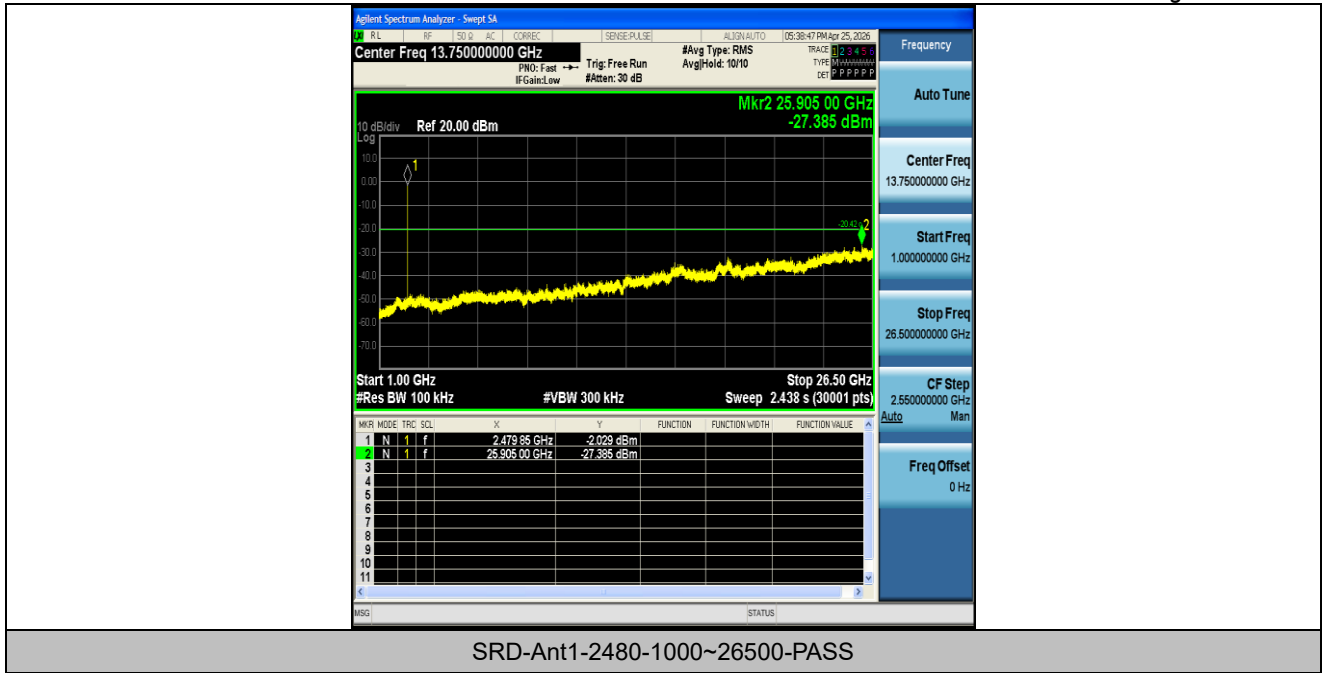


SRD-Ant1-2480-0~Reference-PASS



SRD-Ant1-2480-30~1000-PASS







Appendix G: Duty Cycle

Test Result

Test Mode	Antenna	Frequency [MHz]	ON Time [ms]	Period [ms]	Duty Cycle [%]	Duty Cycle Factor [dB]
SRD	Ant1	2402	19.00	19.00	100.00	0.00
SRD	Ant1	2440	19.00	19.00	100.00	0.00
SRD	Ant1	2480	19.00	19.00	100.00	0.00

Note: offset(dB) = cable loss(dB) + attenuator factor(dB)





Test Graphs



