



Appendix Test Data for SRD (Conducted Measurement)

Product Name: GravaStar Mercury X Air Wireless Gaming Mouse

Trade Mark: GravaStar

Test Model: GS X AIR

FCC ID: 2ASXF-GSXAIR

Environmental Conditions

Temperature:	23.5℃
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	2403	1.112	2402.452	2403.564	0.5	PASS
SRD	Ant1	2442	1.108	2441.452	2442.560	0.5	PASS
SRD	Ant1	2480	1.108	2479.452	2480.560	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

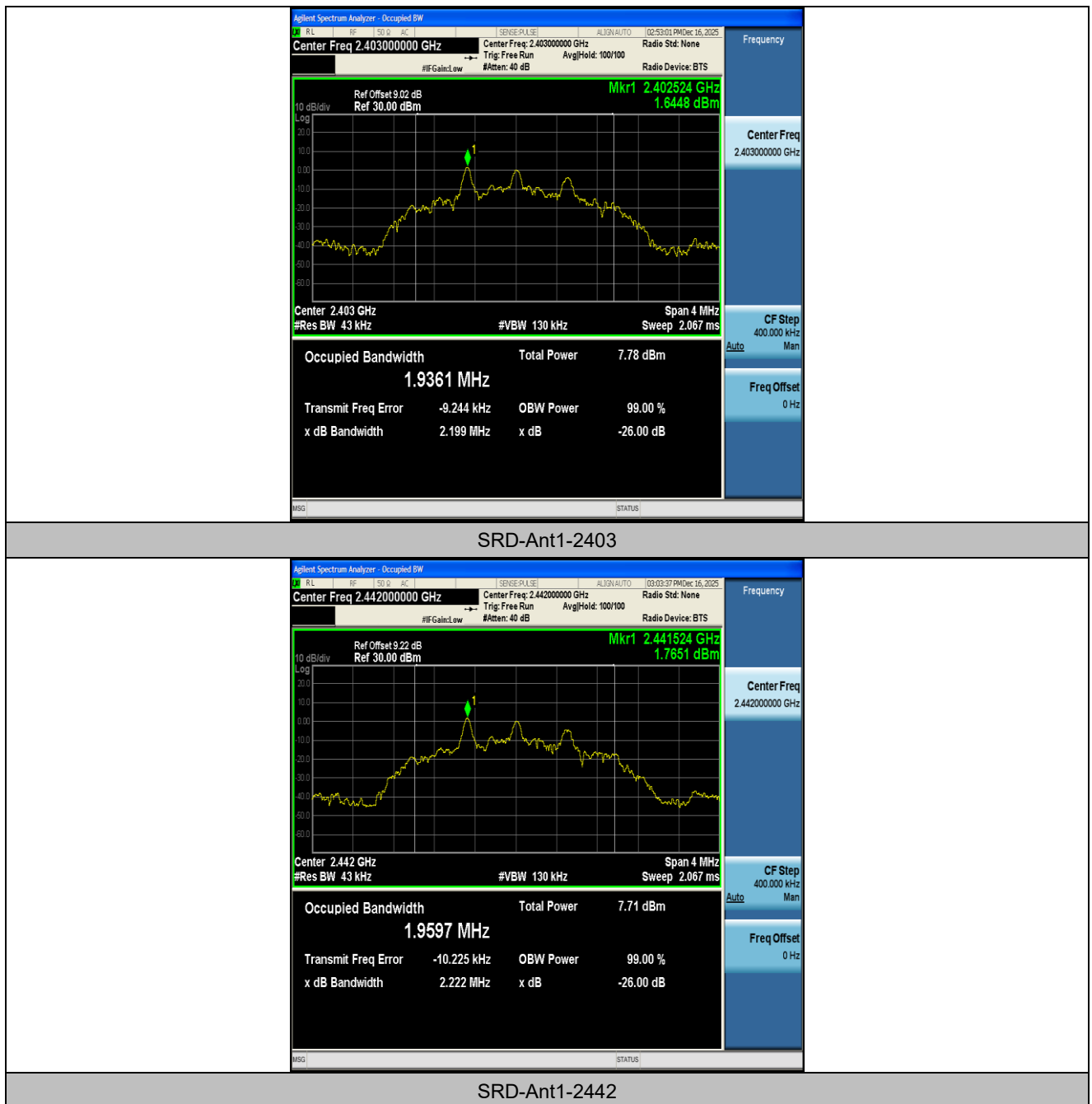
Test Mode	Antenna	Frequency [MHz]	OCB [MHz]	FL [MHz]	FH [MHz]	Limit [MHz]	Verdict
SRD	Ant1	2403	1.9361	2402.0227	2403.9588	---	---
SRD	Ant1	2442	1.9597	2441.0099	2442.9696	---	---
SRD	Ant1	2480	1.9238	2479.0417	2480.9655	---	---

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	2403	2.06	≤30	PASS
SRD	Ant1	2442	2.07	≤30	PASS
SRD	Ant1	2480	1.93	≤30	PASS

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





Test Graphs Peak

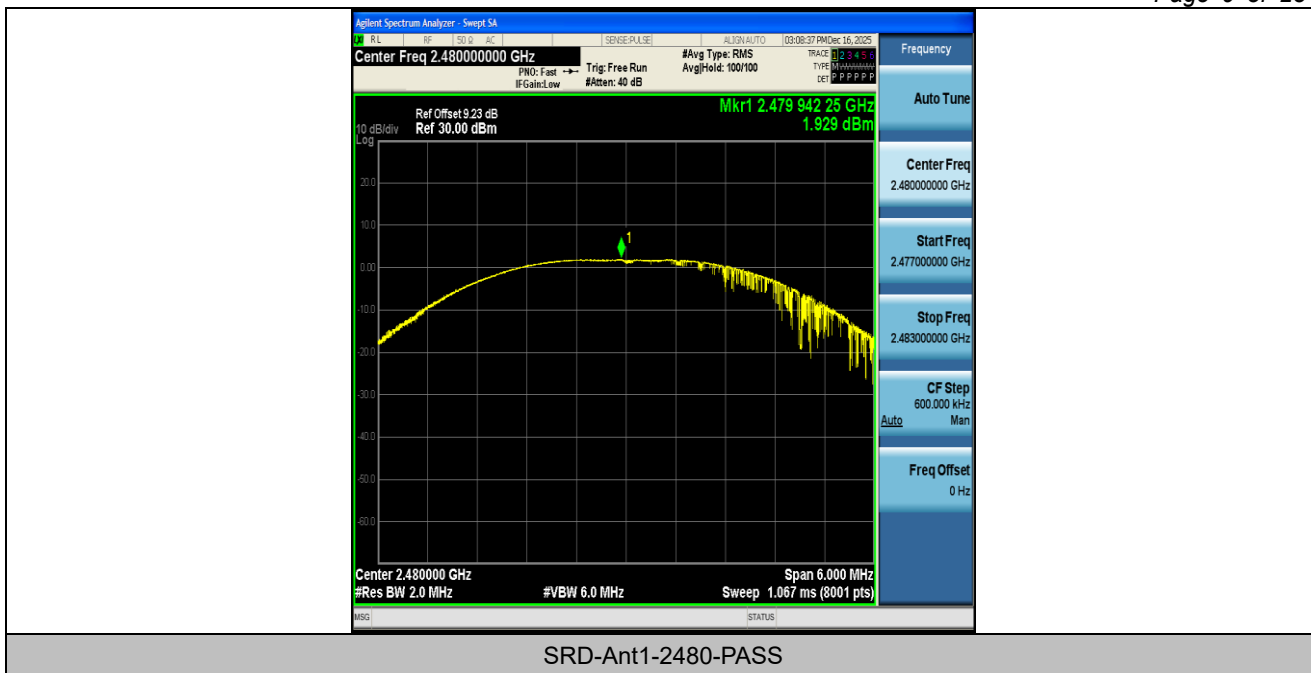


SRD-Ant1-2403-PASS



SRD-Ant1-2442-PASS







Appendix D: Maximum peak power spectral density

Test Result

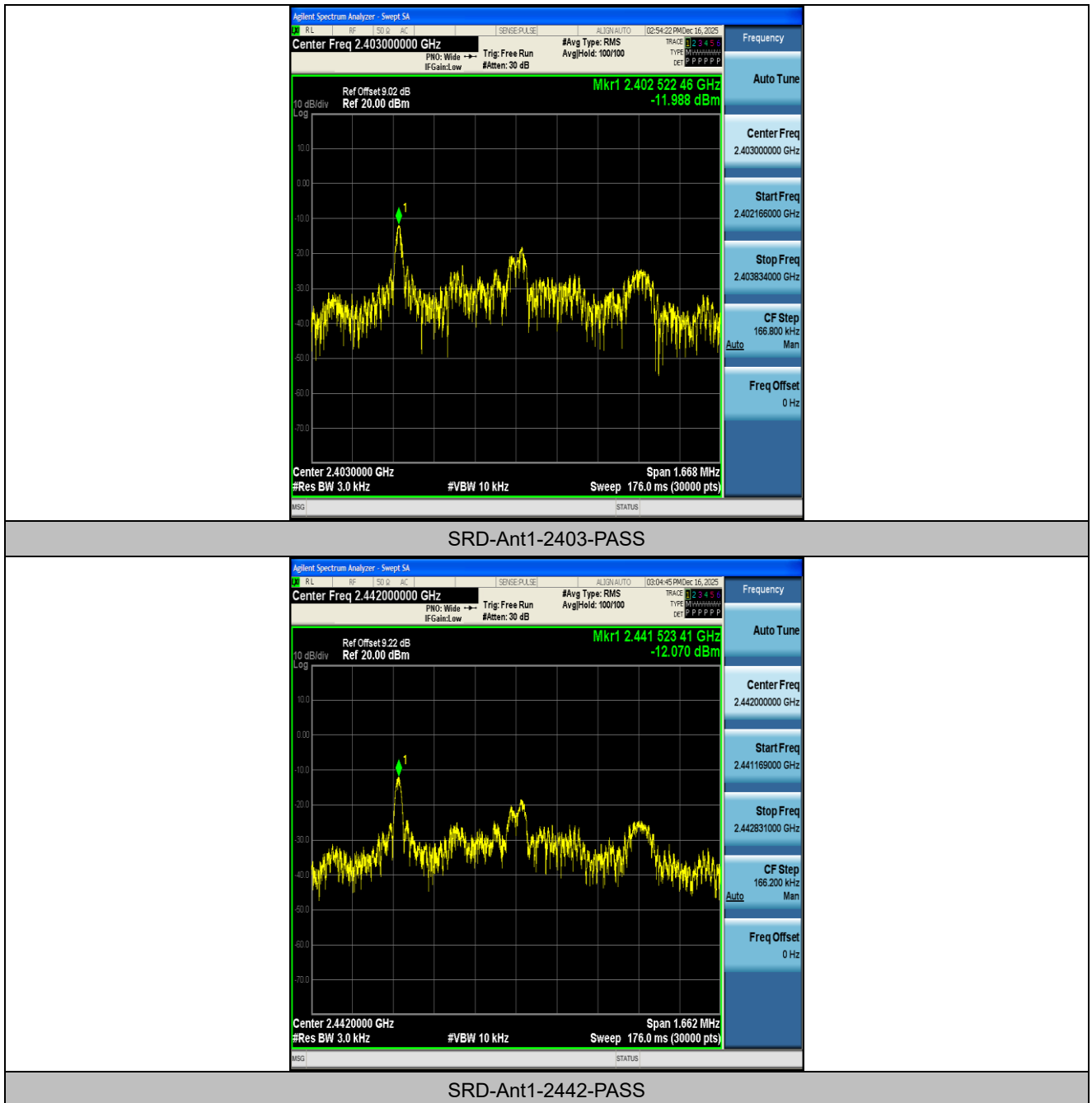
Test Mode	Antenna	Frequency [MHz]	Result [dBm/3kHz]	Limit [dBm/3kHz]	Verdict
SRD	Ant1	2403	-11.99	≤8.00	PASS
SRD	Ant1	2442	-12.07	≤8.00	PASS
SRD	Ant1	2480	-12.01	≤8.00	PASS

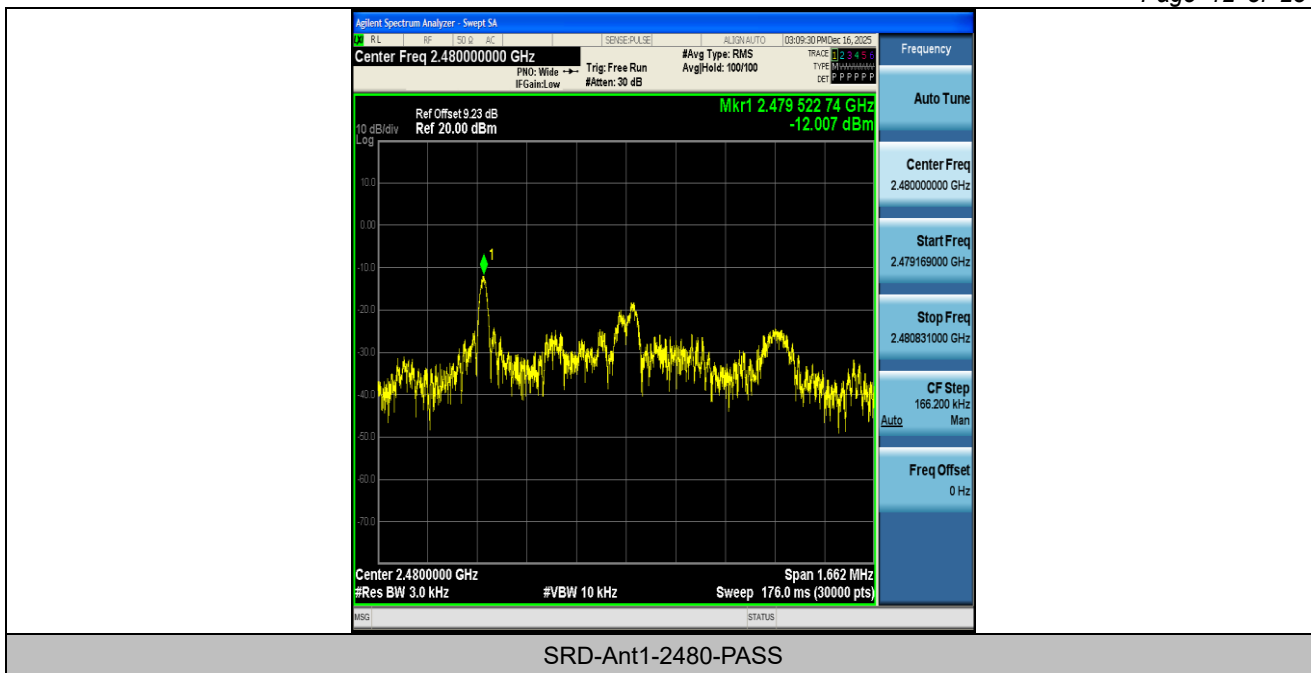
Note: offset(dB) = cable loss(dB) + attenuator factor(dB)





Test Graphs







Appendix E: Band edge measurements

Test Result

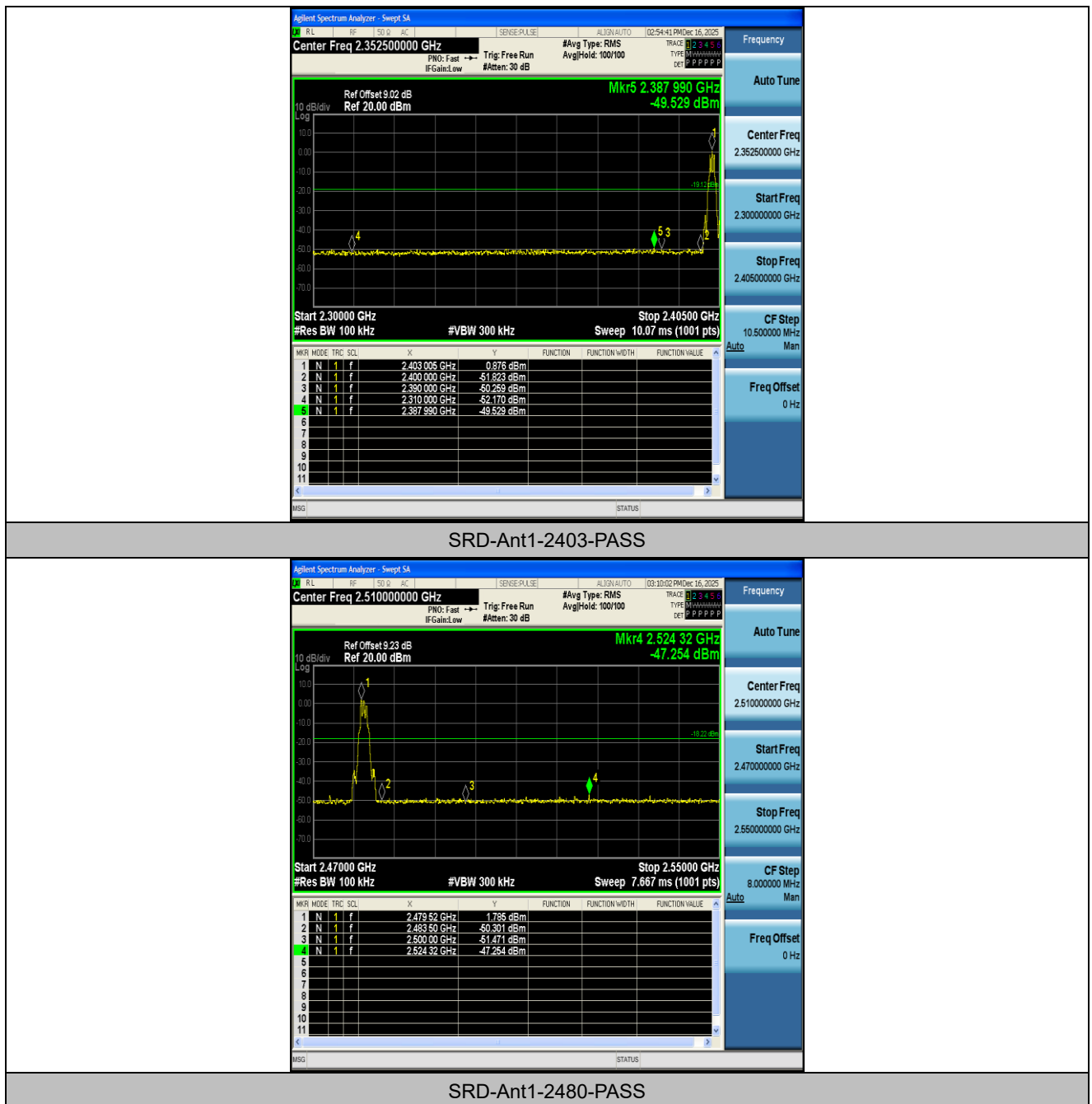
Test Mode	Antenna	Ch. Name	Frequency [MHz]	Ref. Level [dBm]	Result [dBm]	Limit [dBm]	Verdict
SRD	Ant1	Low	2403	0.88	-49.53	≤-19.12	PASS
SRD	Ant1	High	2480	1.79	-47.25	≤-18.22	PASS

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	2403	0~Reference	1.79	1.79	---	PASS
SRD	Ant1	2403	30~1000	1.79	-63.24	≤-18.21	PASS
SRD	Ant1	2403	1000~26500	1.79	-38.02	≤-18.21	PASS
SRD	Ant1	2442	0~Reference	1.73	1.73	---	PASS
SRD	Ant1	2442	30~1000	1.73	-63.24	≤-18.27	PASS
SRD	Ant1	2442	1000~26500	1.73	-37.57	≤-18.27	PASS
SRD	Ant1	2480	0~Reference	1.69	1.69	---	PASS
SRD	Ant1	2480	30~1000	1.69	-61.93	≤-18.31	PASS
SRD	Ant1	2480	1000~26500	1.69	-37.64	≤-18.31	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.

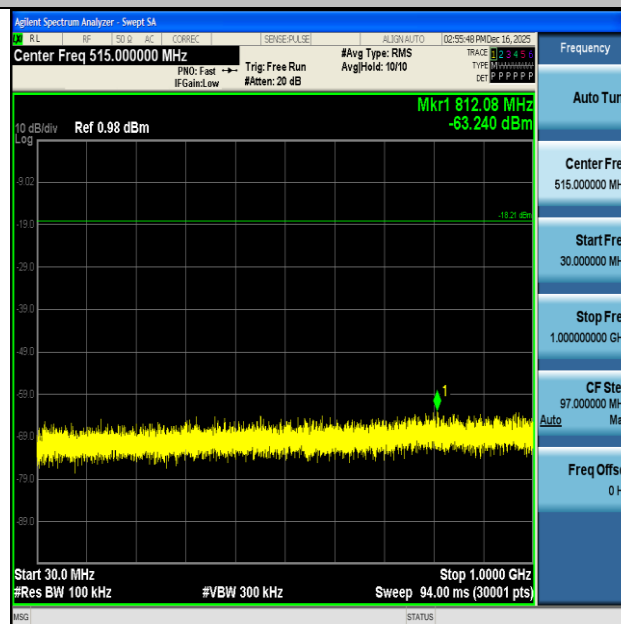




Test Graphs

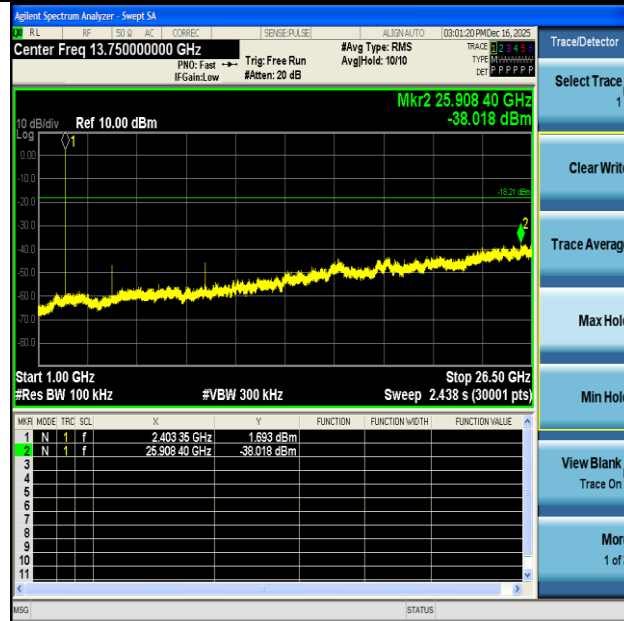


SRD-Ant1-2403-0~Reference-PASS



SRD-Ant1-2403-30~1000-PASS





SRD-Ant1-2403-1000~26500-PASS



SRD-Ant1-2442-0~Reference-PASS





SRD-Ant1-2442-30~1000-PASS

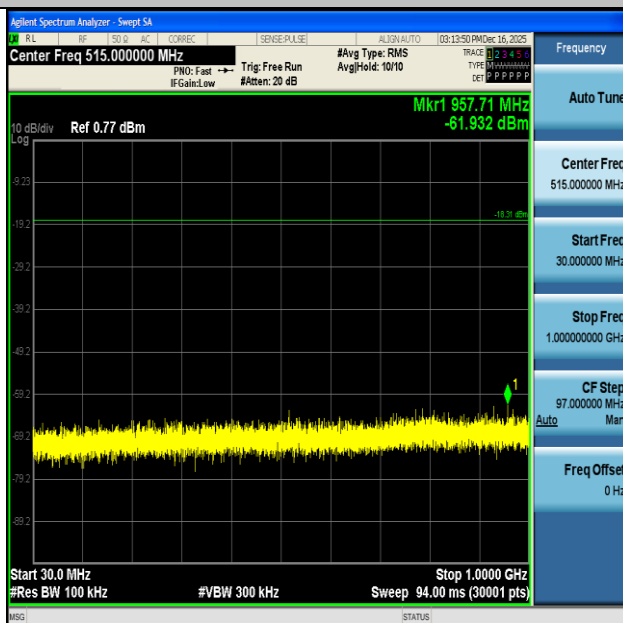


SRD-Ant1-2442-1000~26500-PASS



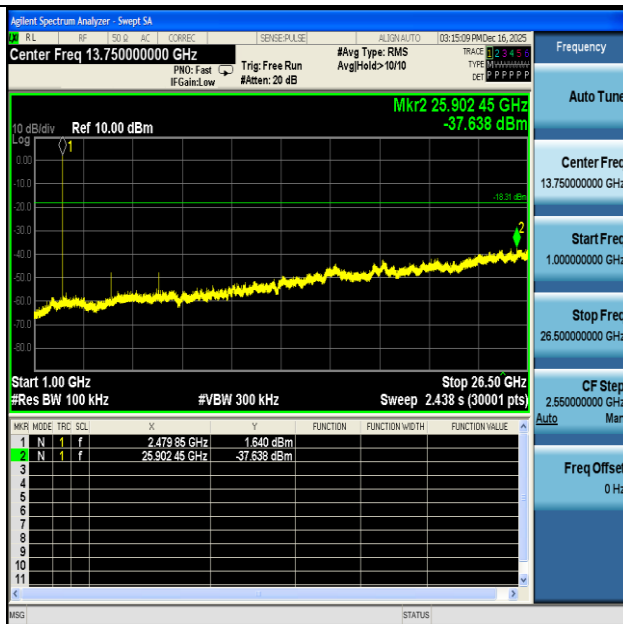


SRD-Ant1-2480-0~Reference-PASS



SRD-Ant1-2480-30~1000-PASS





SRD-Ant1-2480-1000~26500-PASS





Appendix G: Duty Cycle

Test Result

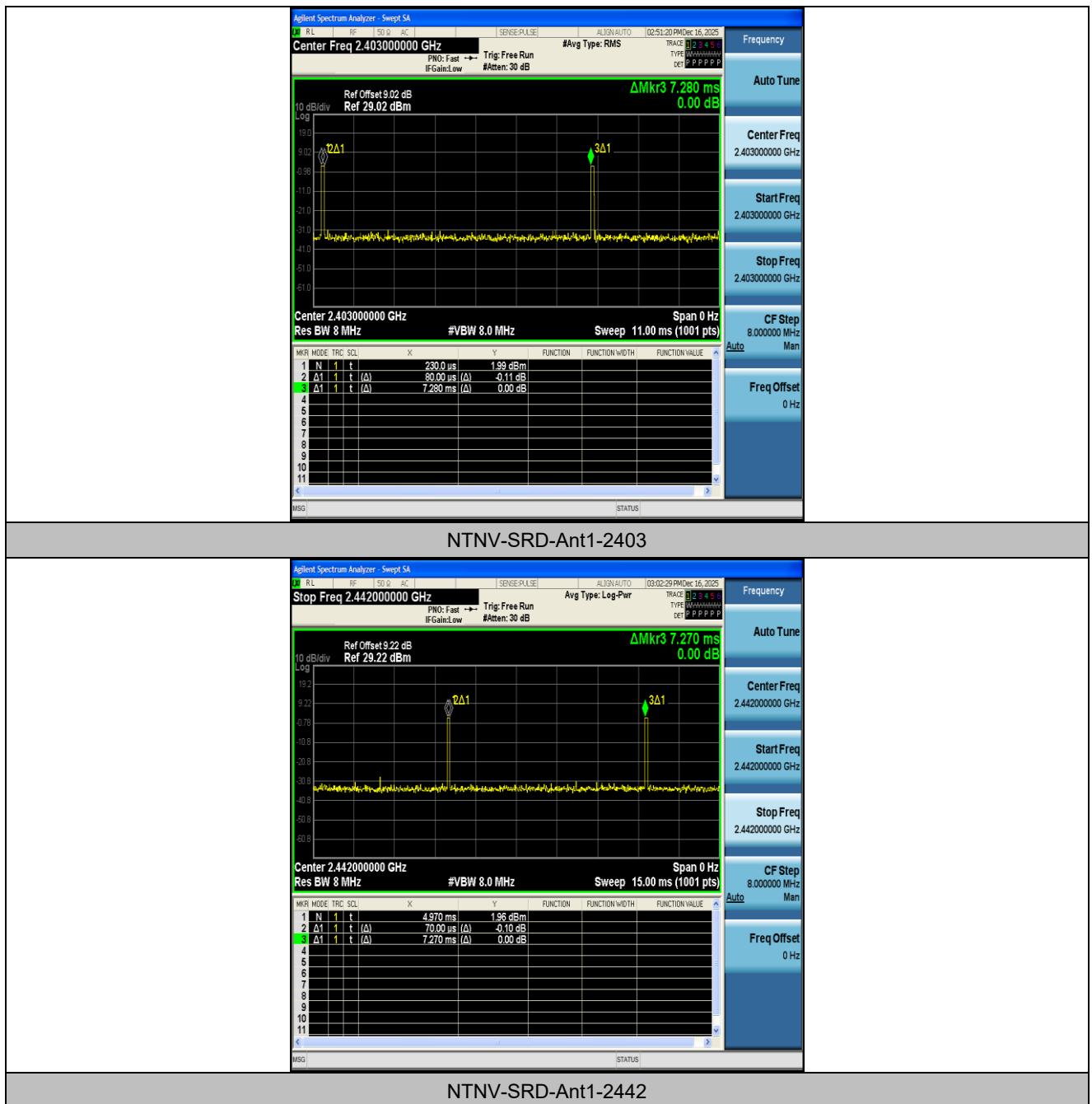
Test Mode	Antenna	Frequency [MHz]	ON Time [ms]	Period [ms]	Duty Cycle [%]	Duty Cycle Factor [dB]
SRD	Ant1	2403	0.08	7.28	1.10	19.59
SRD	Ant1	2442	0.07	7.27	0.96	20.18
SRD	Ant1	2480	0.09	7.28	1.24	19.07

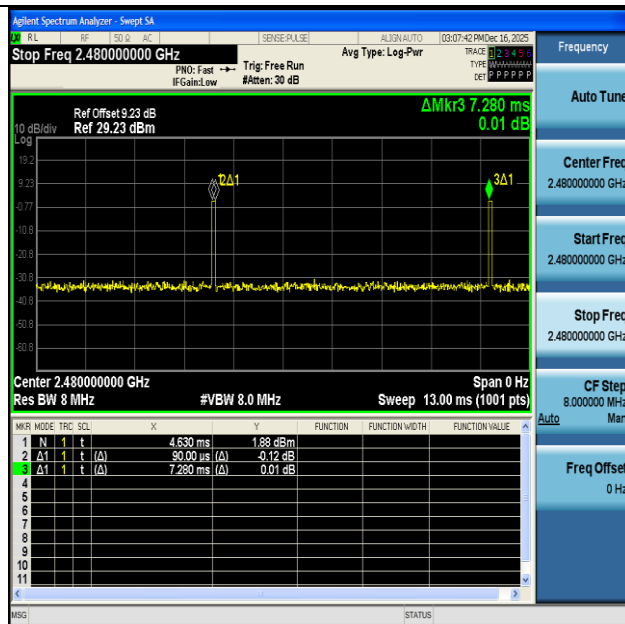
Note: offset(dB) = cable loss(dB) + attenuator factor(dB)





Test Graphs





NTNV-SRD-Ant1-2480

