Appendix Test Data for SRD (Conducted Measurement)

Product Name: Wireless Mechanical Keyboard

Trade Mark: Keychron, Lemokey

Test Model: R3

FCC ID: 2BGKB-R3

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	2402	1.264	2401.388	2402.652	0.5	PASS
SRD	Ant1	2440	1.244	2439.340	2440.584	0.5	PASS
SRD	Ant1	2480	1.348	2479.372	2480.720	0.5	PASS

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

Test Graphs

SRD-Ant1-2402-PASS

SRD-Ant1-2440-PASS

SRD-Ant1-2480-PASS

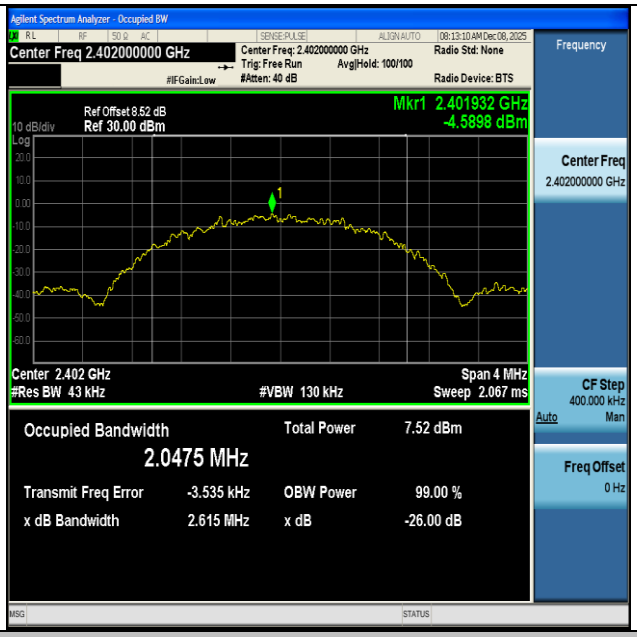
Appendix B: Occupied Channel Bandwidth

Test Result

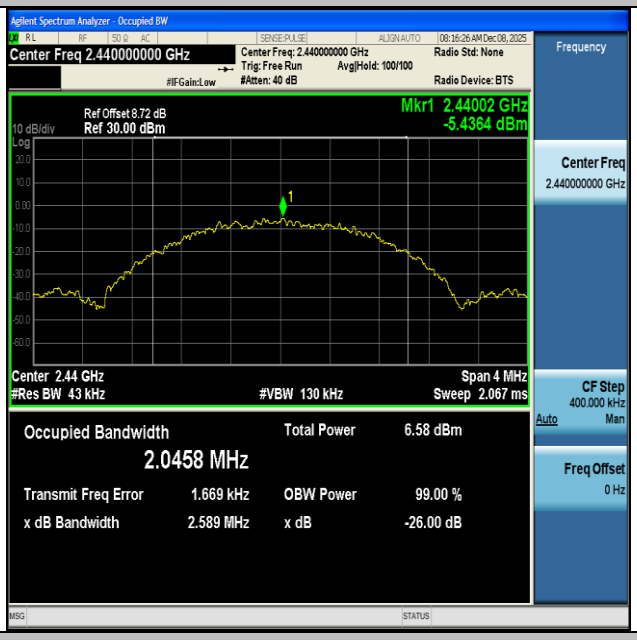
Test Mode	Antenna	Frequency [MHz]	OCB [MHz]	FL [MHz]	FH [MHz]	Limit [MHz]	Verdict
SRD	Ant1	2402	2.0475	2400.9727	2403.0202	---	---
SRD	Ant1	2440	2.0458	2438.9788	2441.0246	---	---
SRD	Ant1	2480	2.0331	2478.9874	2481.0205	---	---

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

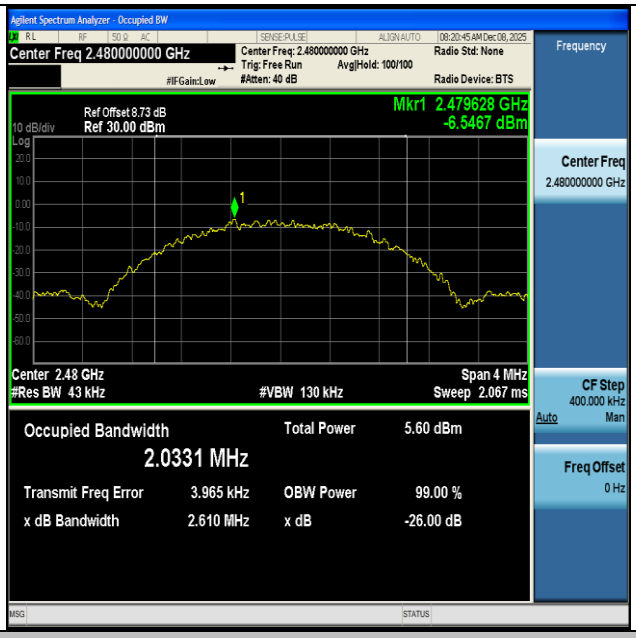
Test Graphs



SRD-Ant1-2402



SRD-Ant1-2440



SRD-Ant1-2480

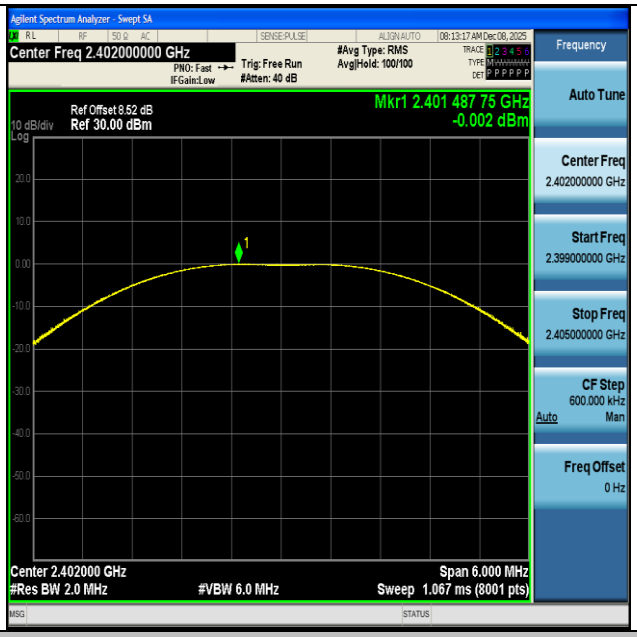
Appendix C: Maximum peak conducted output power

Test Result Peak

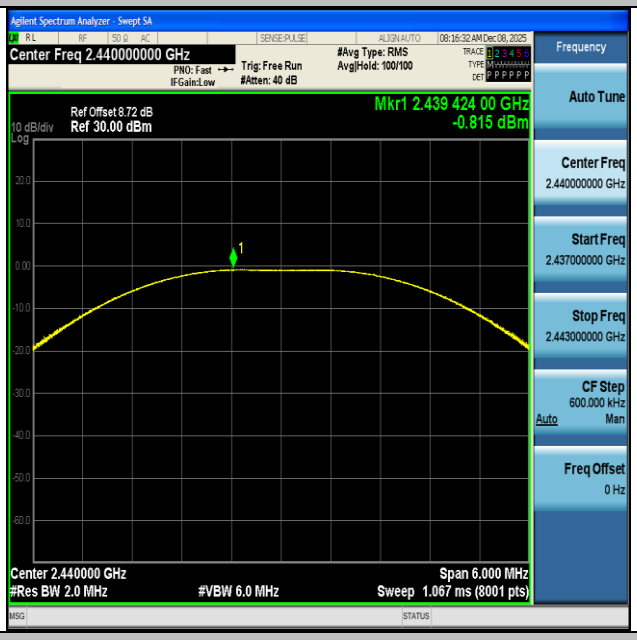
Test Mode	Antenna	Frequency [MHz]	Conducted Peak Power [dBm]	Conducted Limit [dBm]	Verdict
SRD	Ant1	2402	0.00	≤30	PASS
SRD	Ant1	2440	-0.82	≤30	PASS
SRD	Ant1	2480	-1.87	≤30	PASS

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

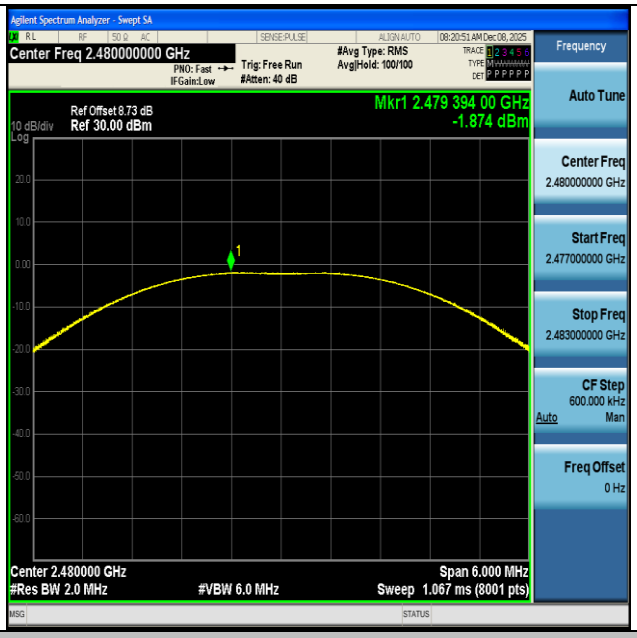
Test Graphs Peak



SRD-Ant1-2402-PASS



SRD-Ant1-2440-PASS



SRD-Ant1-2480-PASS

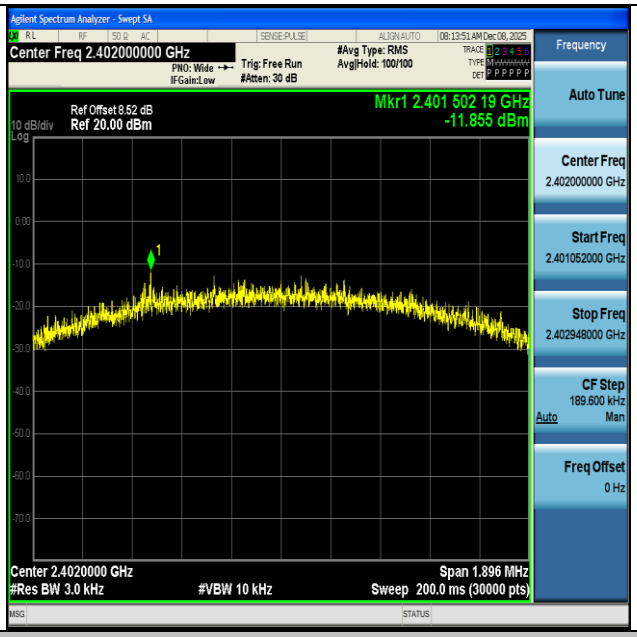
Appendix D: Maximum peak power spectral density

Test Result

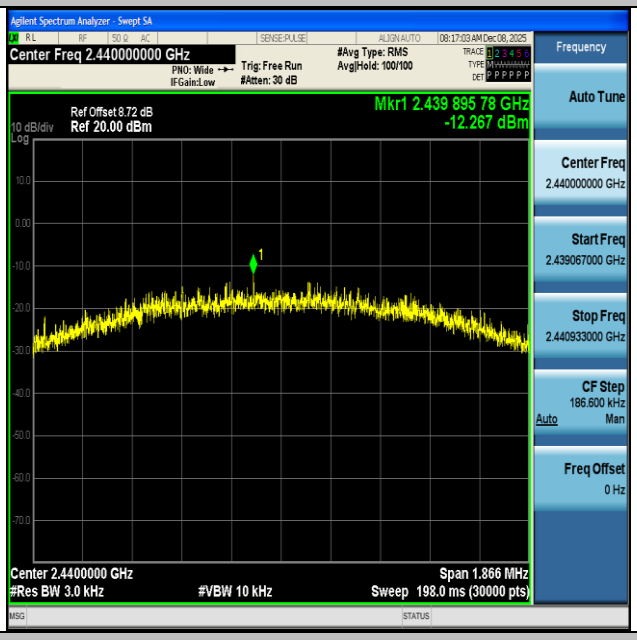
Test Mode	Antenna	Frequency [MHz]	Result [dBm/3kHz]	Limit [dBm/3kHz]	Verdict
SRD	Ant1	2402	-11.86	≤8.00	PASS
SRD	Ant1	2440	-12.27	≤8.00	PASS
SRD	Ant1	2480	-14.57	≤8.00	PASS

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

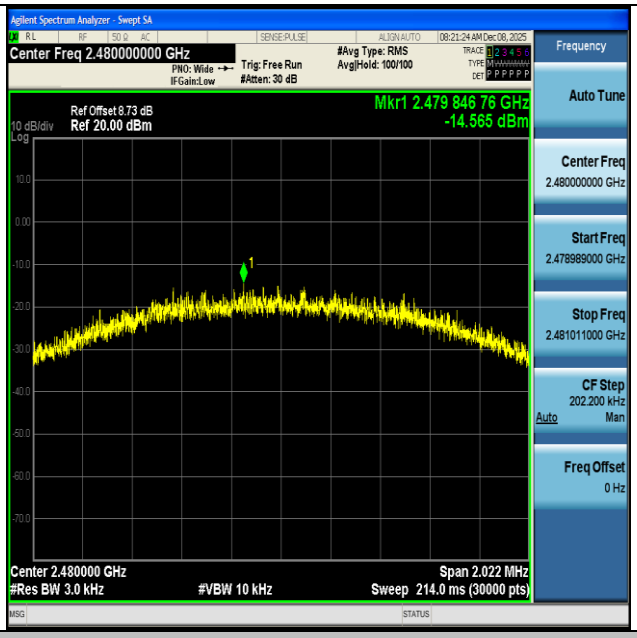
Test Graphs



SRD-Ant1-2402-PASS



SRD-Ant1-2440-PASS



SRD-Ant1-2480-PASS

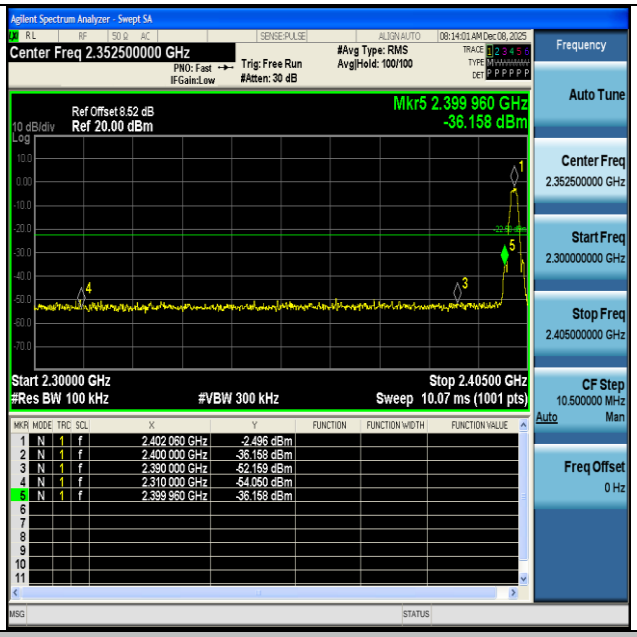
Appendix E: Band edge measurements

Test Result

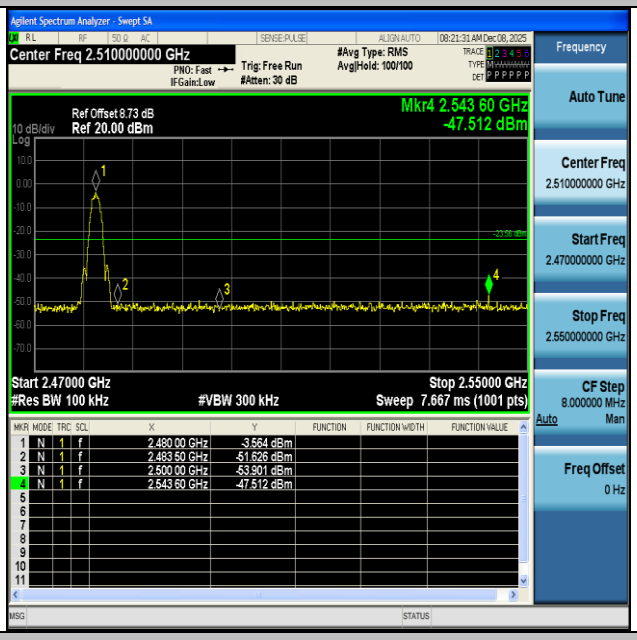
Test Mode	Antenna	Ch. Name	Frequency [MHz]	Ref. Level [dBm]	Result [dBm]	Limit [dBm]	Verdict
SRD	Ant1	Low	2402	-2.50	-36.16	≤-22.5	PASS
SRD	Ant1	High	2480	-3.56	-47.51	≤-23.56	PASS

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

Test Graphs



SRD-Ant1-2402-PASS



SRD-Ant1-2480-PASS

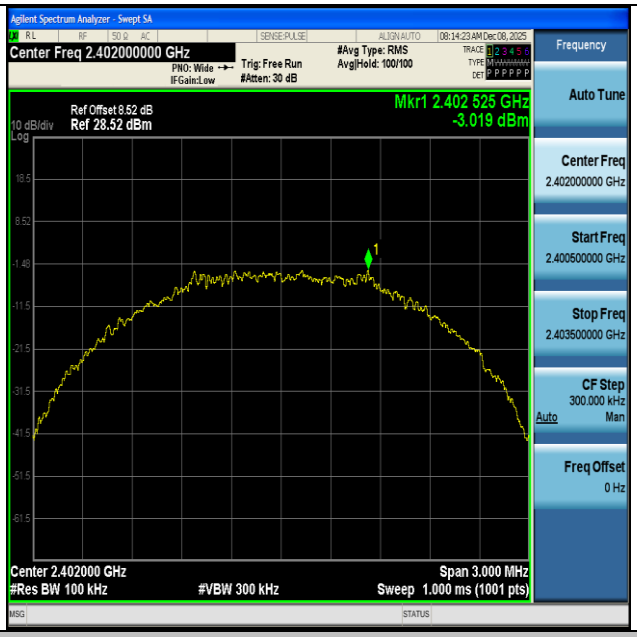
Appendix F: Conducted Spurious Emission

Test Result

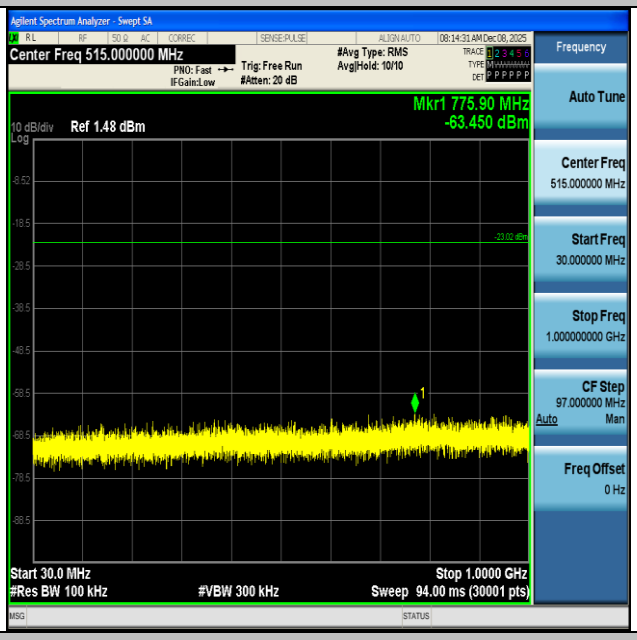
Test Mode	Antenna	Frequency [MHz]	Freq. Range [MHz]	Ref. Level [dBm]	Result [dBm]	Limit [dBm]	Verdict
SRD	Ant1	2402	0~Reference	-3.02	-3.02	---	PASS
SRD	Ant1	2402	30~1000	-3.02	-63.45	≤-23.02	PASS
SRD	Ant1	2402	1000~26500	-3.02	-38.34	≤-23.02	PASS
SRD	Ant1	2440	0~Reference	-2.79	-2.79	---	PASS
SRD	Ant1	2440	30~1000	-2.79	-63.07	≤-22.79	PASS
SRD	Ant1	2440	1000~26500	-2.79	-37.57	≤-22.79	PASS
SRD	Ant1	2480	0~Reference	-4.48	-4.48	---	PASS
SRD	Ant1	2480	30~1000	-4.48	-62.84	≤-24.48	PASS
SRD	Ant1	2480	1000~26500	-4.48	-37.86	≤-24.48	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.

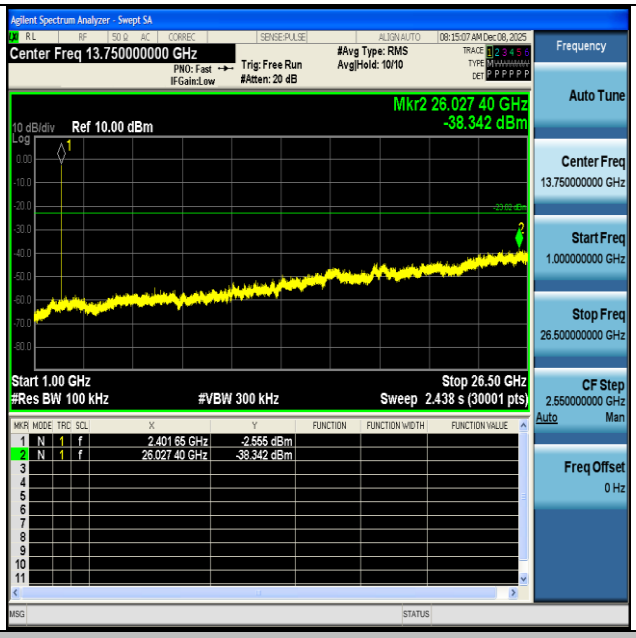
Test Graphs



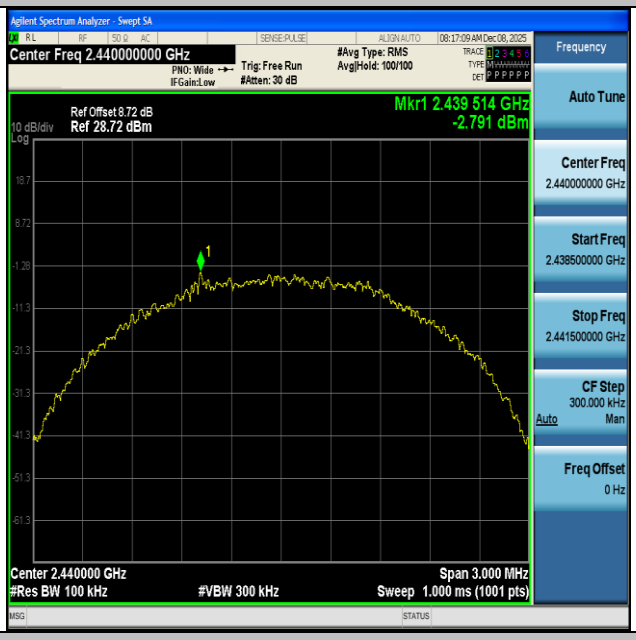
SRD-Ant1-2402-0~Reference-PASS



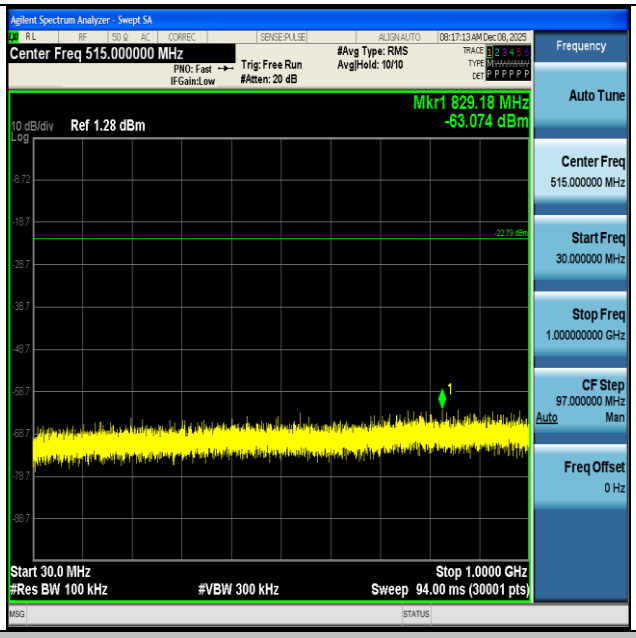
SRD-Ant1-2402-30~1000-PASS



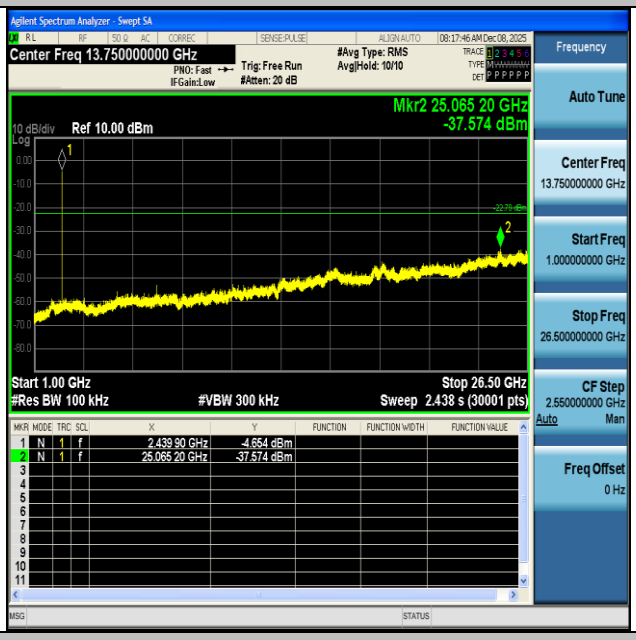
SRD-Ant1-2402-1000~26500-PASS



SRD-Ant1-2440-0~Reference-PASS

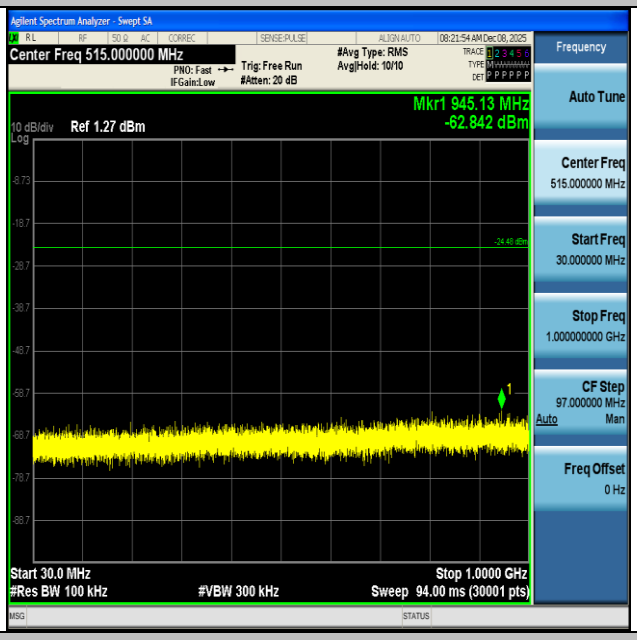


SRD-Ant1-2440-30~1000-PASS

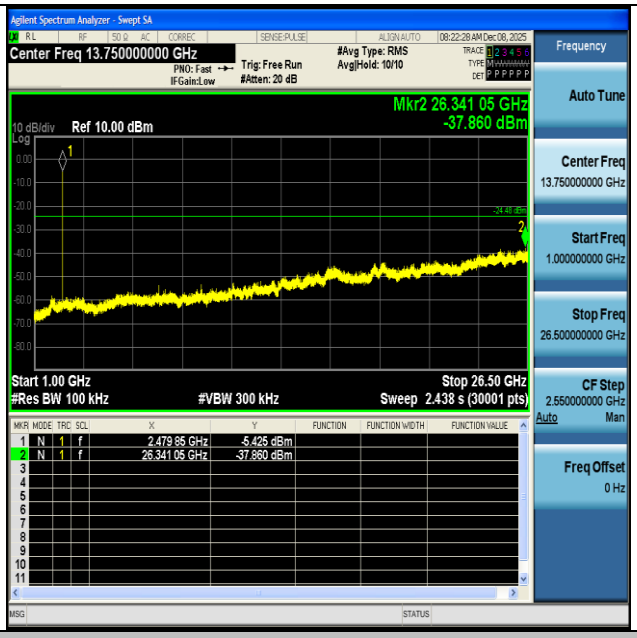


SRD-Ant1-2440-1000~26500-PASS

SRD-Ant1-2480-0~Reference-PASS



SRD-Ant1-2480-30~1000-PASS



SRD-Ant1-2480-1000~26500-PASS

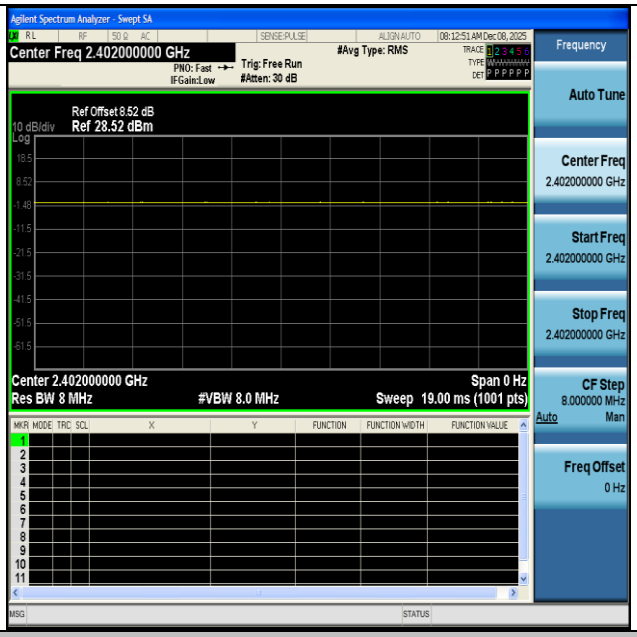
Appendix G: Duty Cycle

Test Result

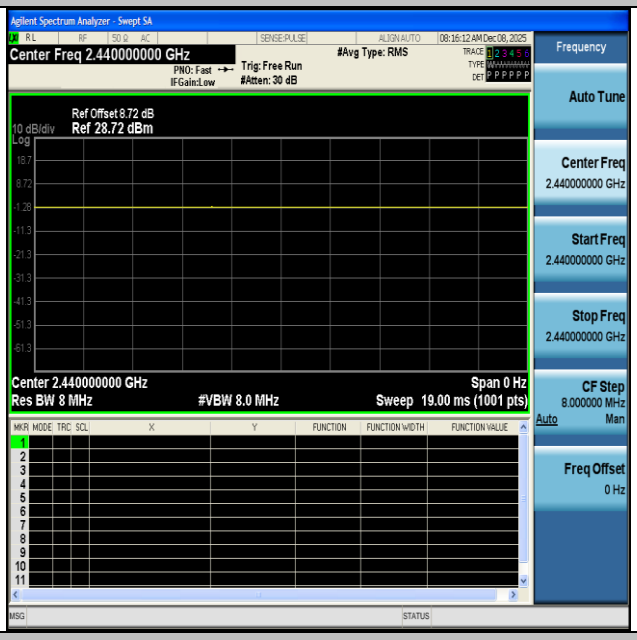
Test Mode	Antenna	Frequency [MHz]	ON Time [ms]	Period [ms]	Duty Cycle [%]	Duty Cycle Factor [dB]
SRD	Ant1	2402	19.00	19.00	100.00	0.00
SRD	Ant1	2440	19.00	19.00	100.00	0.00
SRD	Ant1	2480	19.00	19.00	100.00	0.00

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

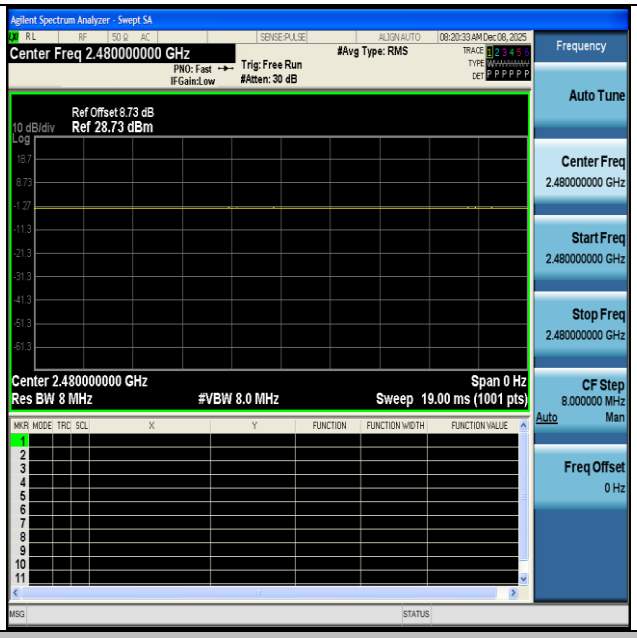
Test Graphs



NTNV-SRD-Ant1-2402



NTNV-SRD-Ant1-2440



NTNV-SRD-Ant1-2480