Appendix Test Data for BLE (Conducted Measurement)

Product Name: Autom8

Trade Mark: /

Test Model: Autom8-100

FCC ID: 2BLC3-AUTOM8100

Environmental Conditions

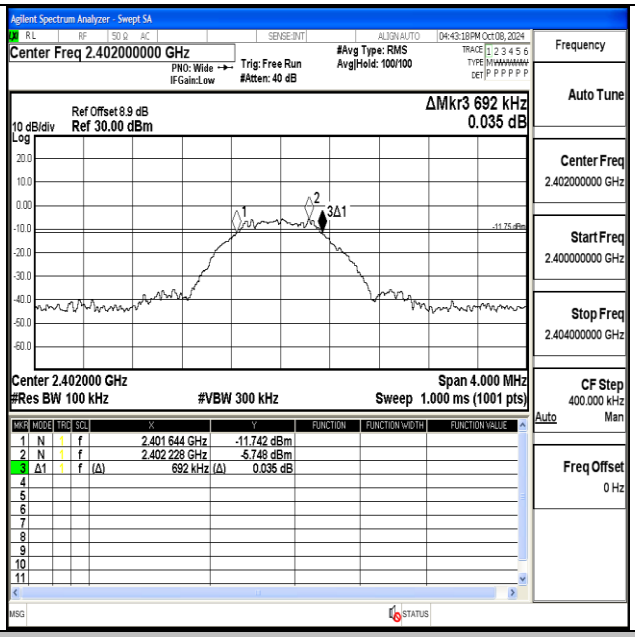
Temperature:	23.8℃
Relative Humidity:	58%
ATM Pressure:	100.0 kPa
Test Engineer:	Allen Lai
Supervised by:	Hugo Chen
NOTE	N/A

Appendix A: DTS Bandwidth

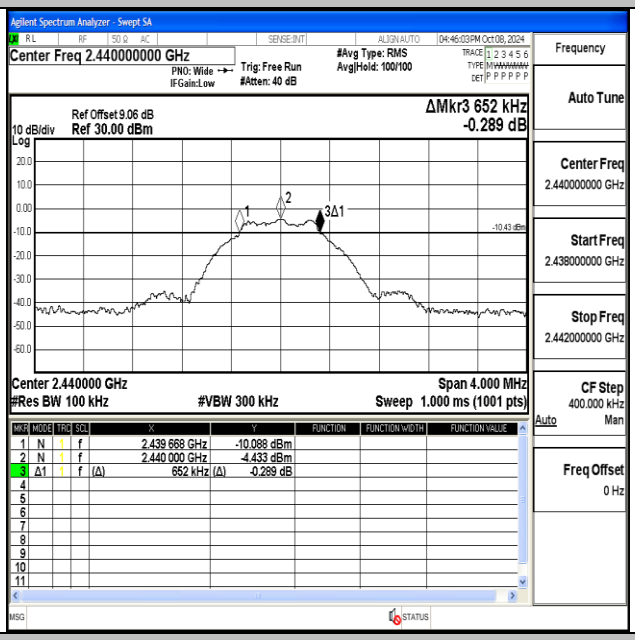
Test Result

Test Mode	Antenna	Frequency [MHz]	DTS BW [MHz]	FL [MHz]	FH [MHz]	Limit [MHz]	Verdict
BLE_1M	Ant1	2402	0.692	2401.644	2402.336	0.5	PASS
BLE_1M	Ant1	2440	0.652	2439.668	2440.320	0.5	PASS
BLE_1M	Ant1	2480	0.648	2479.672	2480.320	0.5	PASS

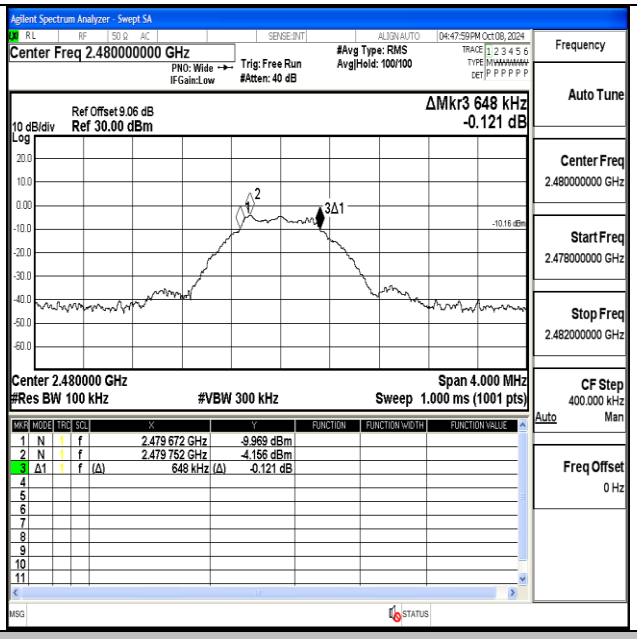
Test Graphs



BLE_1M-Ant1-2402-PASS



BLE_1M-Ant1-2440-PASS



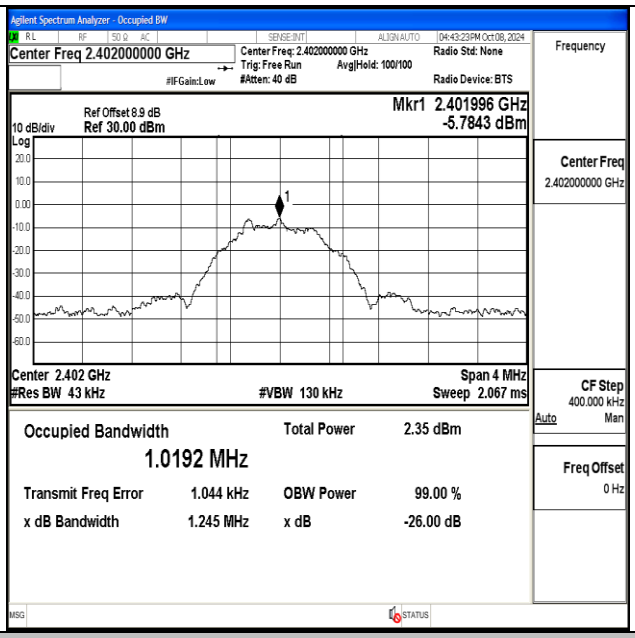
BLE_1M-Ant1-2480-PASS

Appendix B: Occupied Channel Bandwidth

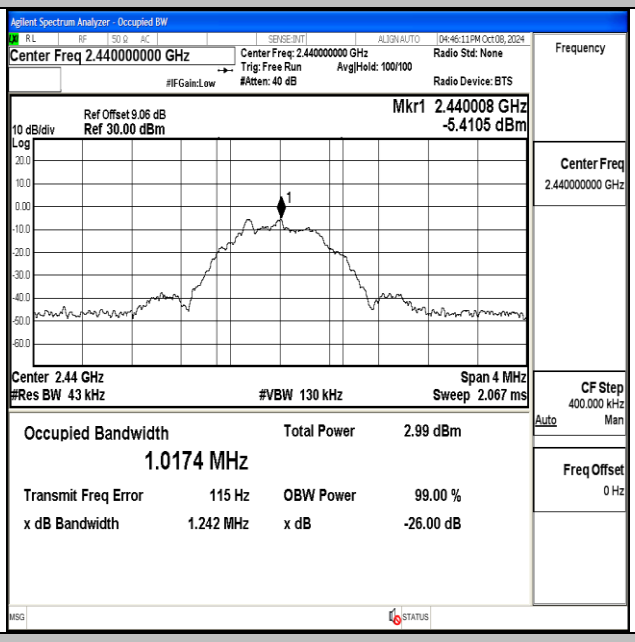
Test Result

Test Mode	Antenna	Frequency [MHz]	OCB [MHz]	FL [MHz]	FH [MHz]	Limit [MHz]	Verdict
BLE_1M	Ant1	2402	1.0192	2401.4914	2402.5106	---	---
BLE_1M	Ant1	2440	1.0174	2439.4914	2440.5088	---	---
BLE_1M	Ant1	2480	1.0023	2479.4978	2480.5001	---	---

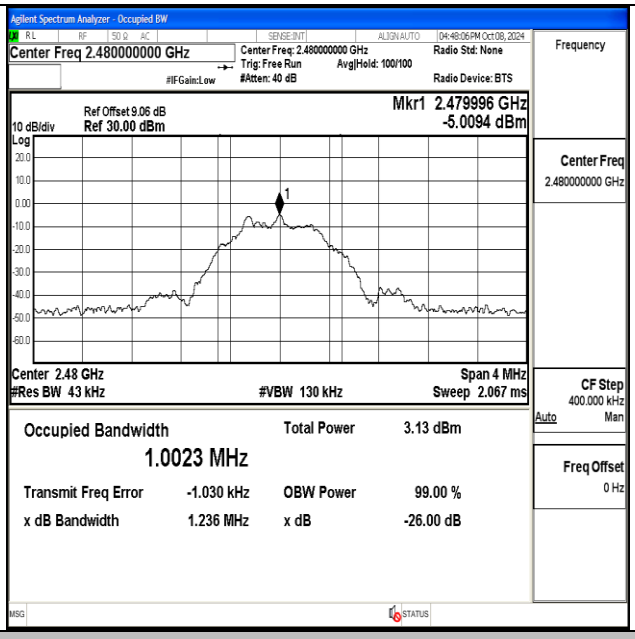
Test Graphs



BLE_1M-Ant1-2402



BLE_1M-Ant1-2440



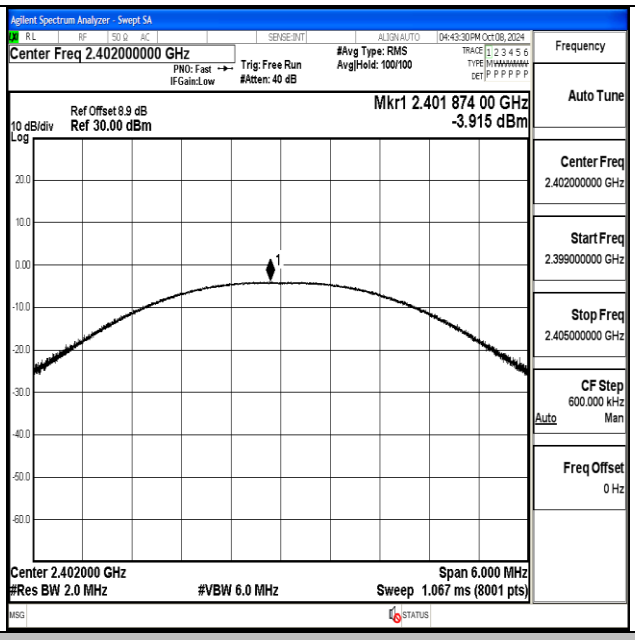
BLE_1M-Ant1-2480

Appendix C: Maximum peak conducted output power

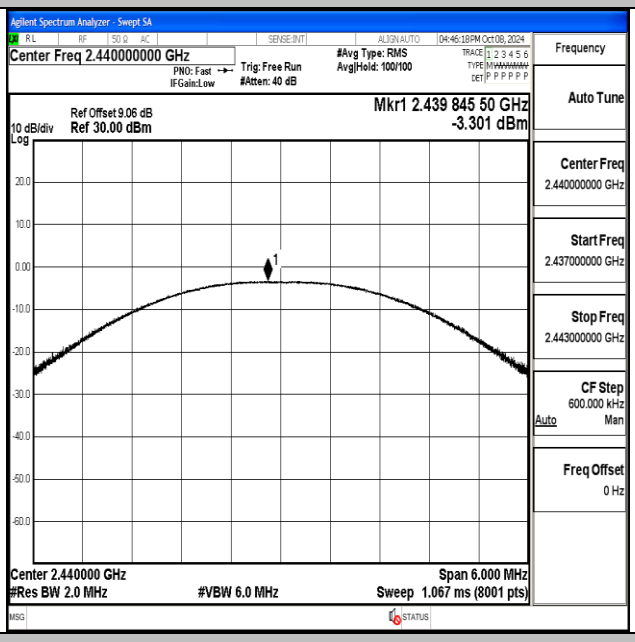
Test Result Peak

Test Mode	Antenna	Frequency [MHz]	Conducted Peak Power [dBm]	Conducted Limit [dBm]	Verdict
BLE_1M	Ant1	2402	-3.92	≤30	PASS
BLE_1M	Ant1	2440	-3.30	≤30	PASS
BLE_1M	Ant1	2480	-3.25	≤30	PASS

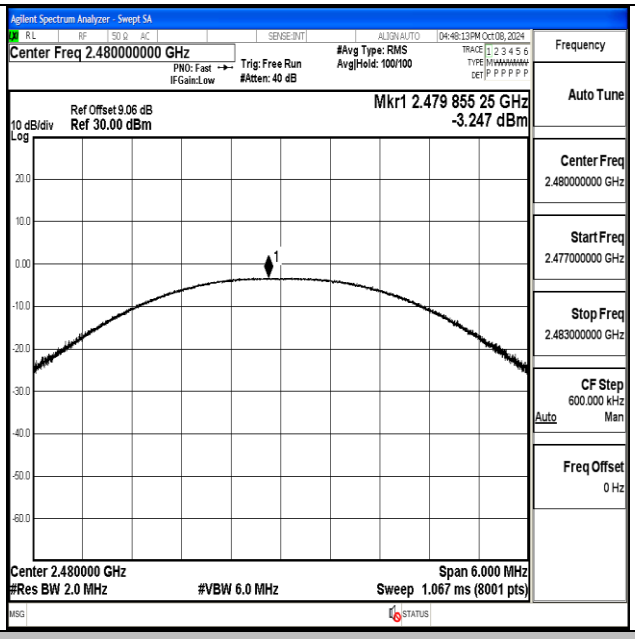
Test Graphs Peak



BLE_1M-Ant1-2402-PASS



BLE_1M-Ant1-2440-PASS



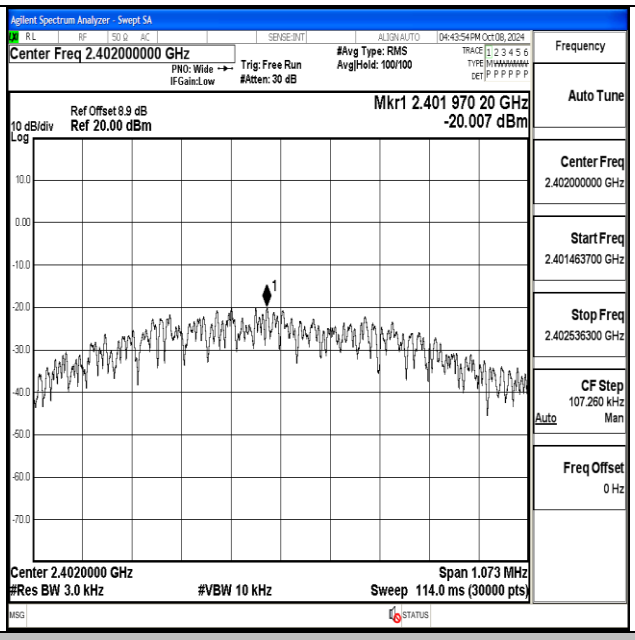
BLE_1M-Ant1-2480-PASS

Appendix D: Maximum peak power spectral density

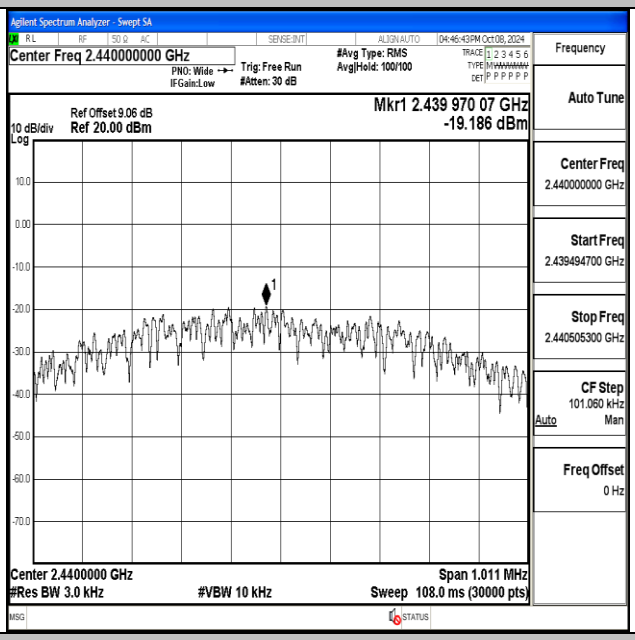
Test Result

Test Mode	Antenna	Frequency [MHz]	Result [dBm/3kHz]	Limit [dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-20.01	≤8.00	PASS
BLE_1M	Ant1	2440	-19.19	≤8.00	PASS
BLE_1M	Ant1	2480	-19.01	≤8.00	PASS

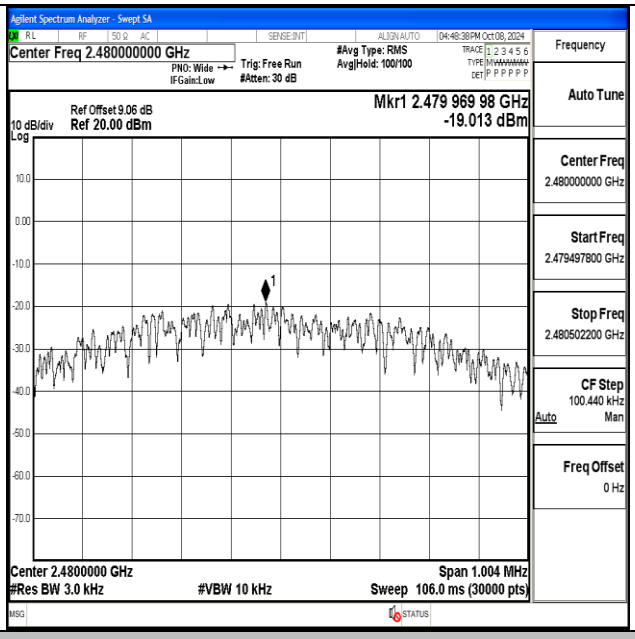
Test Graphs



BLE_1M-Ant1-2402-PASS



BLE_1M-Ant1-2440-PASS



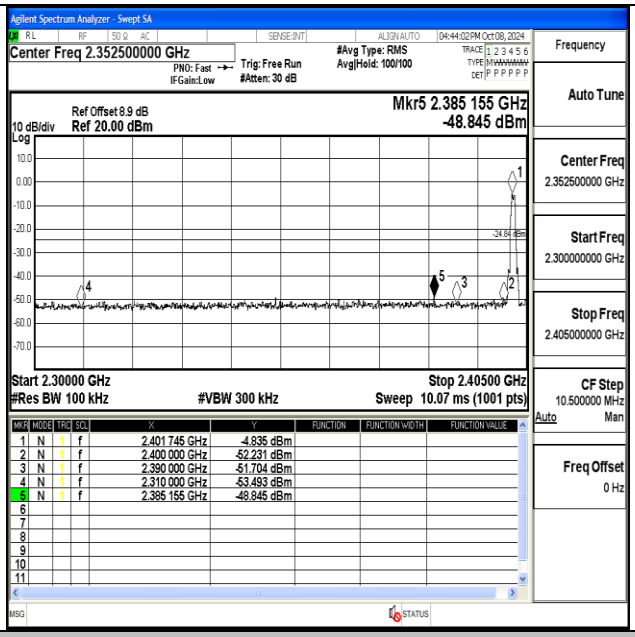
BLE_1M-Ant1-2480-PASS

Appendix E: Band edge measurements

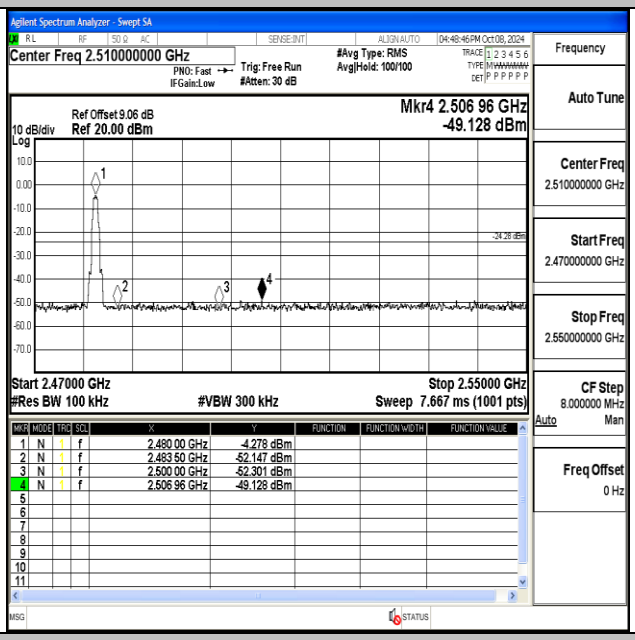
Test Result

Test Mode	Antenna	Ch. Name	Frequency [MHz]	Ref. Level [dBm]	Result [dBm]	Limit [dBm]	Verdict
BLE_1M	Ant1	Low	2402	-4.84	-48.85	≤-24.84	PASS
BLE_1M	Ant1	High	2480	-4.28	-49.13	≤-24.28	PASS

Test Graphs



BLE_1M-Ant1-2402-PASS



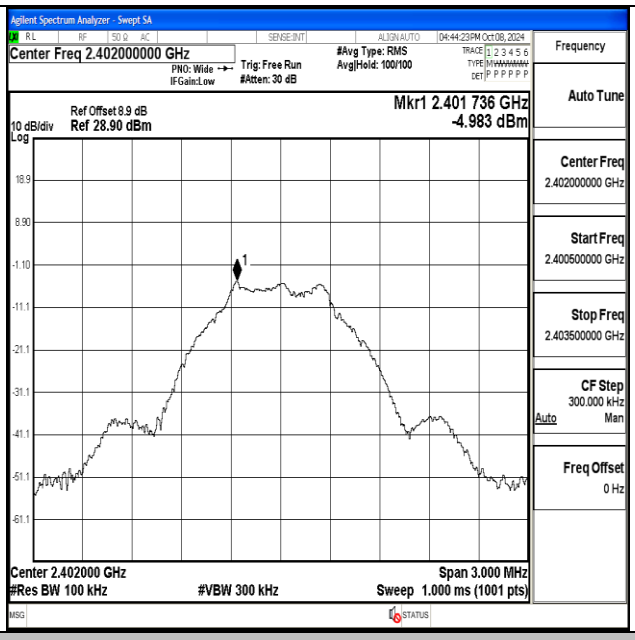
BLE_1M-Ant1-2480-PASS

Appendix F: Conducted Spurious Emission

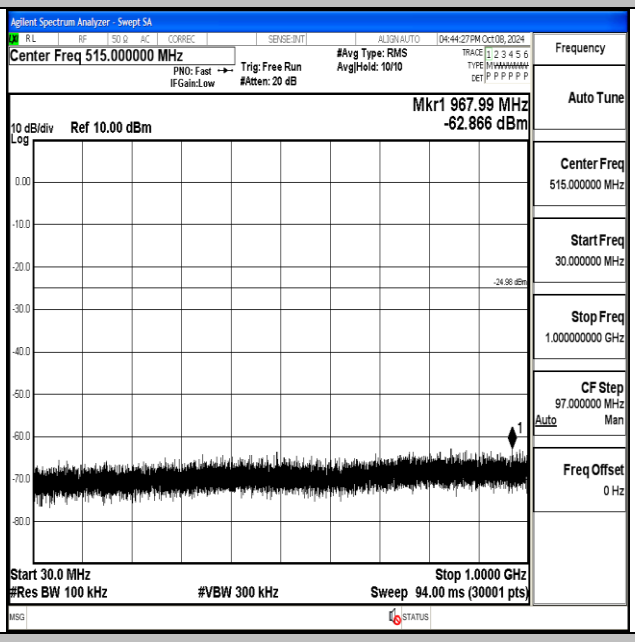
Test Result

Test Mode	Antenna	Frequency [MHz]	Freq. Range [MHz]	Ref. Level [dBm]	Result [dBm]	Limit [dBm]	Verdict
BLE_1M	Ant1	2402	0~Reference	-4.98	-4.98	---	PASS
BLE_1M	Ant1	2402	30~1000	-4.98	-62.87	≤-24.98	PASS
BLE_1M	Ant1	2402	1000~26500	-4.98	-45.82	≤-24.98	PASS
BLE_1M	Ant1	2440	0~Reference	-4.23	-4.23	---	PASS
BLE_1M	Ant1	2440	30~1000	-4.23	-62.31	≤-24.23	PASS
BLE_1M	Ant1	2440	1000~26500	-4.23	-44.02	≤-24.23	PASS
BLE_1M	Ant1	2480	0~Reference	-4.51	-4.51	---	PASS
BLE_1M	Ant1	2480	30~1000	-4.51	-62.45	≤-24.51	PASS
BLE_1M	Ant1	2480	1000~26500	-4.51	-44.08	≤-24.51	PASS

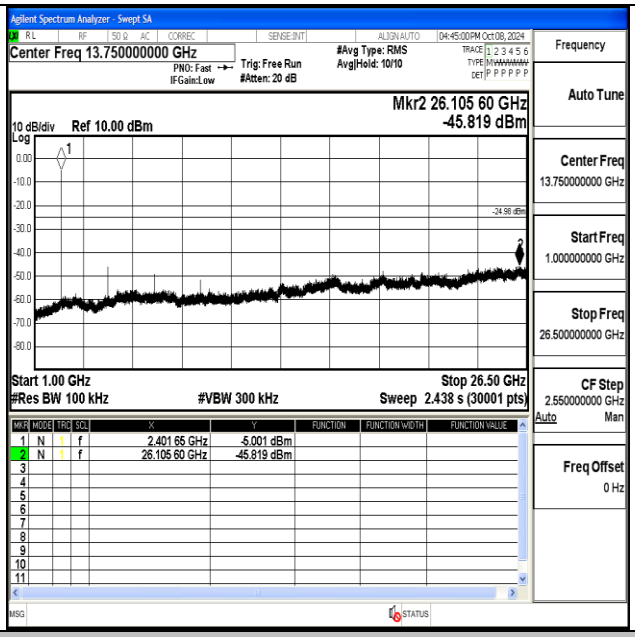
Test Graphs



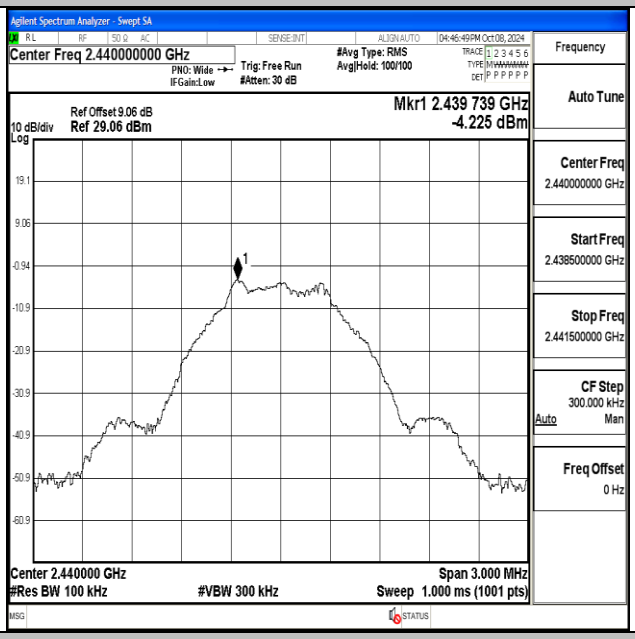
BLE_1M-Ant1-2402-0~Reference-PASS



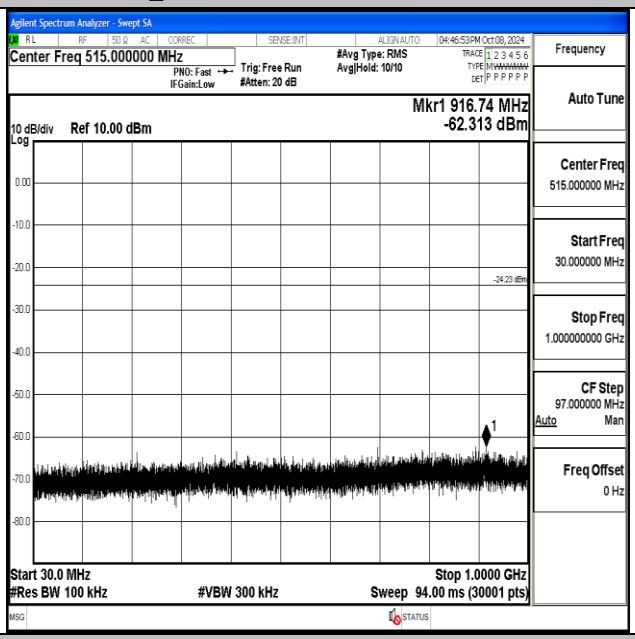
BLE_1M-Ant1-2402-30~1000-PASS



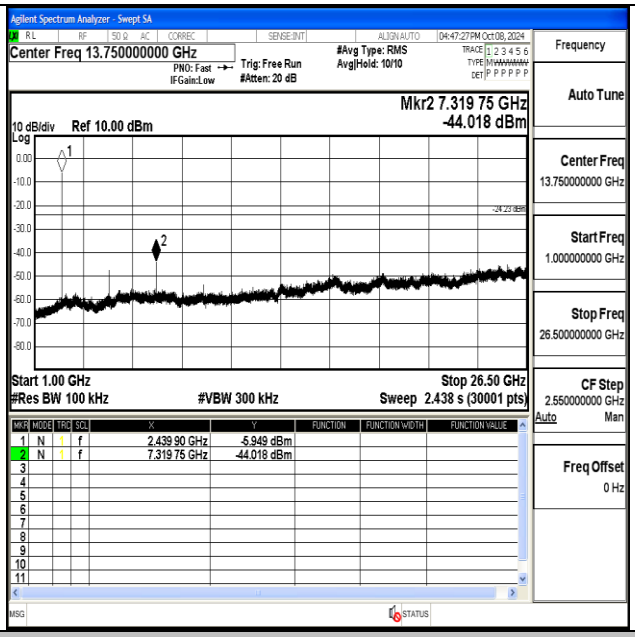
BLE_1M-Ant1-2402-1000~26500-PASS



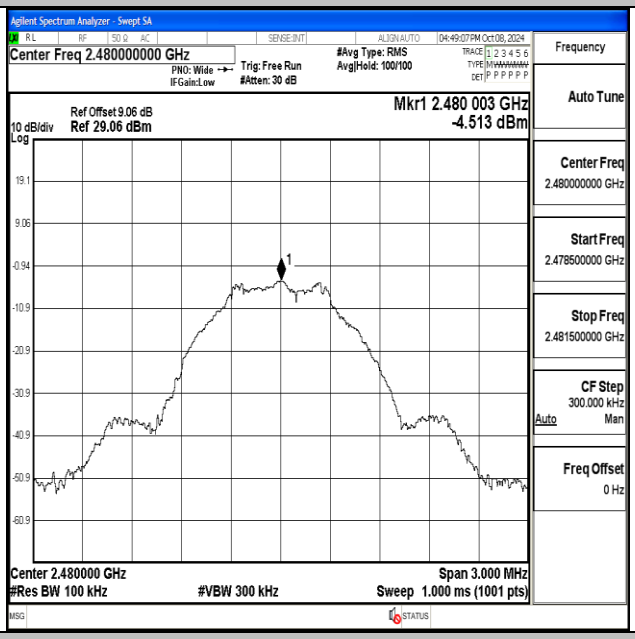
BLE_1M-Ant1-2440-0~Reference-PASS



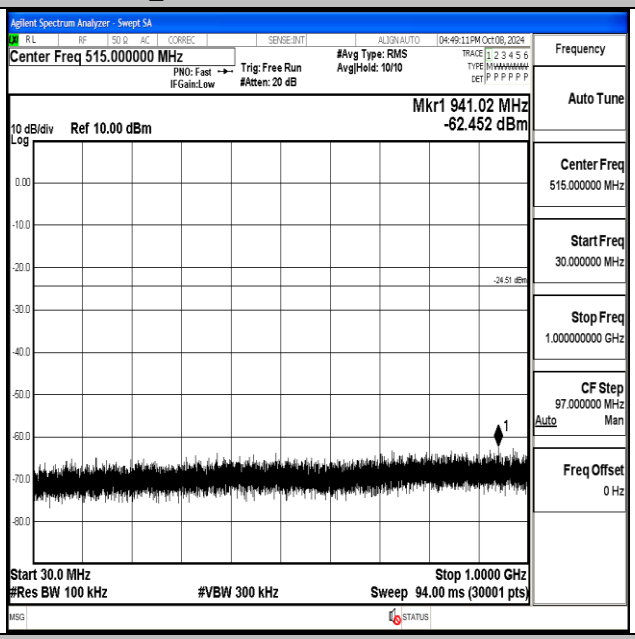
BLE_1M-Ant1-2440-30~1000-PASS



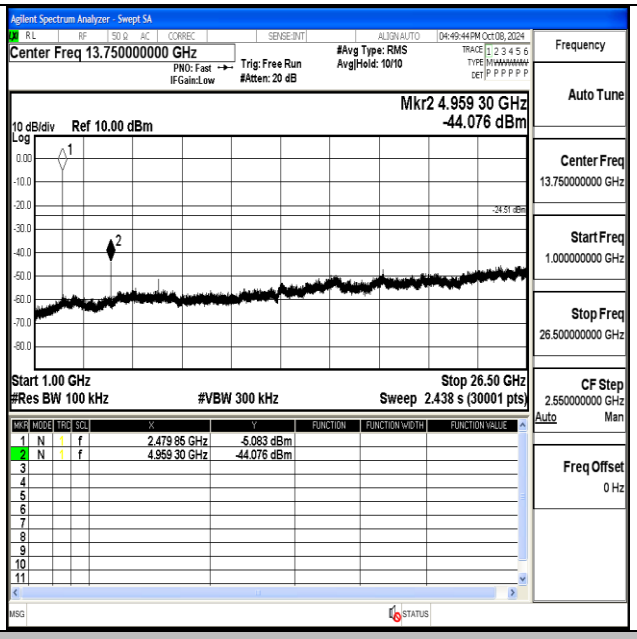
BLE_1M-Ant1-2440-1000~26500-PASS



BLE_1M-Ant1-2480-0~Reference-PASS



BLE_1M-Ant1-2480-30~1000-PASS



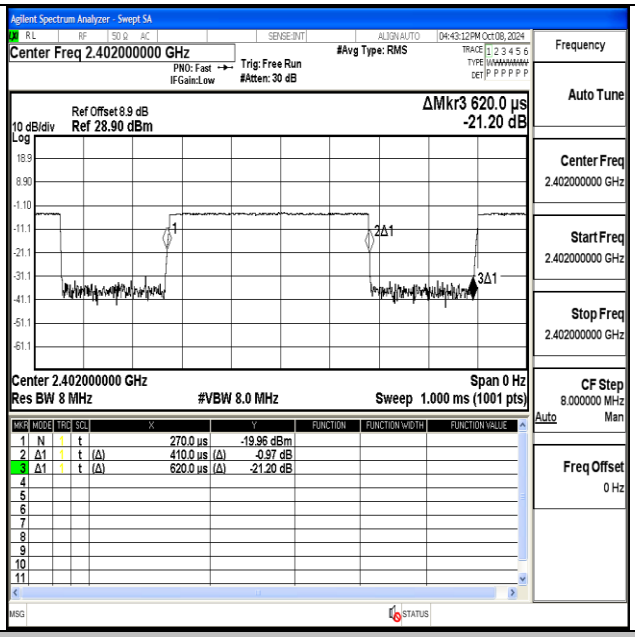
BLE_1M-Ant1-2480-1000~26500-PASS

Appendix G: Duty Cycle

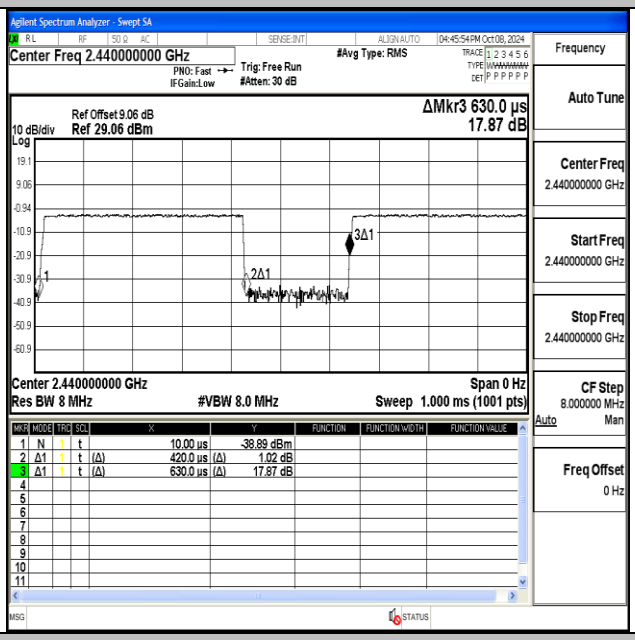
Test Result

Test Mode	Antenna	Frequency [MHz]	ON Time [ms]	Period [ms]	Duty Cycle [%]	Duty Cycle Factor [dB]
BLE_1M	Ant1	2402	0.41	0.62	66.13	1.80
BLE_1M	Ant1	2440	0.42	0.63	66.67	1.76
BLE_1M	Ant1	2480	0.42	0.63	66.67	1.76

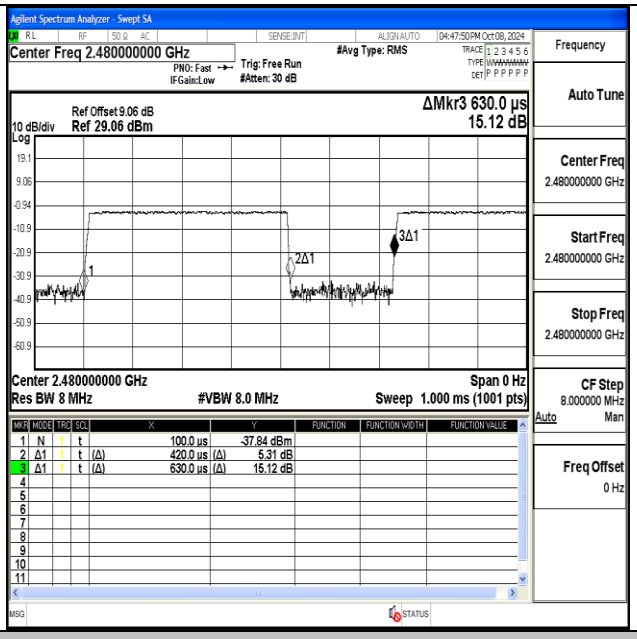
Test Graphs



NTNV-BLE_1M-Ant1-2402



NTNV-BLE_1M-Ant1-2440



NTNV-BLE_1M-Ant1-2480