Appendix Test Data

Report No.:	18360WC40004301	Test Sample No.:	1-2-2
Start Test Date:	2024.04.09	Finish Test Date:	2024.05.24
Test Engineer:	Joker Huang	Auditor:	Justin Feng
Temperature:	25.5℃	Relative Humidity:	47%
Pressure:	101kPa		

Appendix A: 6dB Bandwidth

Test Result

TestMode	Antenna	Frequency[MHz]	6dB BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	0.512	2401.680	2402.192	0.5	PASS
BLE_1M	Ant1	2440	0.512	2439.688	2440.200	0.5	PASS
BLE_1M	Ant1	2480	0.520	2479.680	2480.200	0.5	PASS
BLE_2M	Ant1	2402	0.844	2401.432	2402.276	0.5	PASS
BLE_2M	Ant1	2440	0.856	2439.440	2440.296	0.5	PASS
BLE_2M	Ant1	2480	0.856	2479.428	2480.284	0.5	PASS

Test Graphs

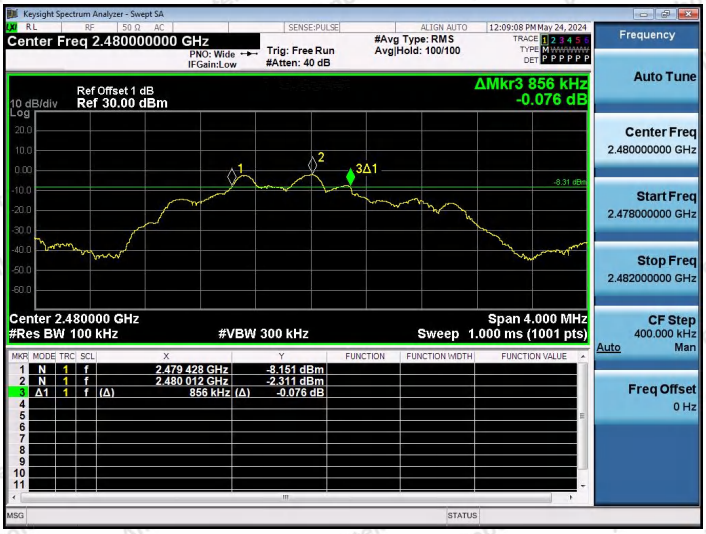
BLE_1M-Ant1-2402-PASS

BLE_1M-Ant1-2440-PASS

BLE_1M-Ant1-2480-PASS

BLE_2M-Ant1-2402-PASS

BLE_2M-Ant1-2440-PASS



BLE_2M-Ant1-2480-PASS

Appendix B: 99% Occupied Bandwidth

Test Result

TestMode	Antenna	Frequency[MHz]	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	1.0374	2401.5030	2402.5404	---	---
BLE_1M	Ant1	2440	1.0394	2439.4989	2440.5383	---	---
BLE_1M	Ant1	2480	1.0453	2479.4979	2480.5432	---	---
BLE_2M	Ant1	2402	2.0350	2401.0074	2403.0424	---	---
BLE_2M	Ant1	2440	2.0492	2439.0009	2441.0501	---	---
BLE_2M	Ant1	2480	2.0439	2479.0009	2481.0448	---	---

Test Graphs

BLE_1M-Ant1-2402

BLE_1M-Ant1-2440

BLE_1M-Ant1-2480

BLE_2M-Ant1-2402

BLE_2M-Ant1-2440

BLE_2M-Ant1-2480

Appendix C: Maximum conducted output power

Test Result Peak

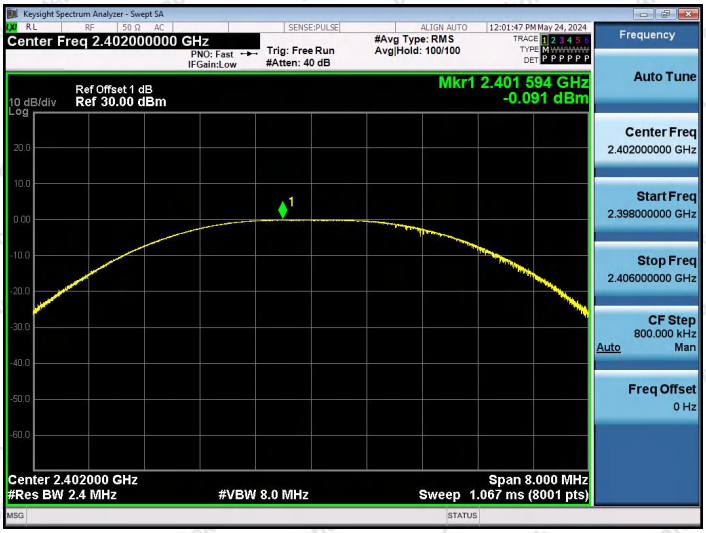
TestMode	Antenna	Frequency[MHz]	Conducted Peak Power[dBm]	Conducted Limit[dBm]	Verdict
BLE_1M	Ant1	2402	-0.06	≤30	PASS
BLE_1M	Ant1	2440	-0.23	≤30	PASS
BLE_1M	Ant1	2480	-0.53	≤30	PASS
BLE_2M	Ant1	2402	-0.09	≤30	PASS
BLE_2M	Ant1	2440	-0.22	≤30	PASS
BLE_2M	Ant1	2480	-1.51	≤30	PASS

Test Graphs Peak

BLE_1M-Ant1-2402-PASS

BLE_1M-Ant1-2440-PASS

BLE_1M-Ant1-2480-PASS



BLE_2M-Ant1-2402-PASS

BLE_2M-Ant1-2440-PASS

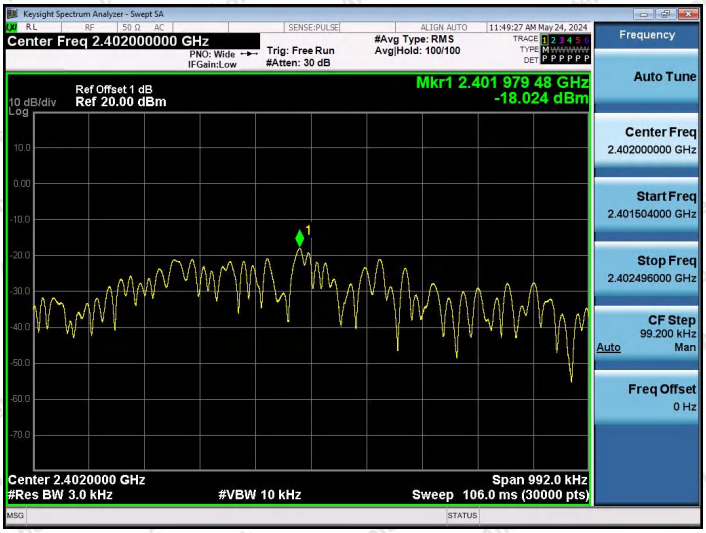
BLE_2M-Ant1-2480-PASS

Appendix D: Maximum power spectral density

Test Result

TestMode	Antenna	Frequency[MHz]	Result[dBm/3kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-18.02	≤8.00	PASS
BLE_1M	Ant1	2440	-17.74	≤8.00	PASS
BLE_1M	Ant1	2480	-18.26	≤8.00	PASS
BLE_2M	Ant1	2402	-20.67	≤8.00	PASS
BLE_2M	Ant1	2440	-20.70	≤8.00	PASS
BLE_2M	Ant1	2480	-22.19	≤8.00	PASS

Test Graphs



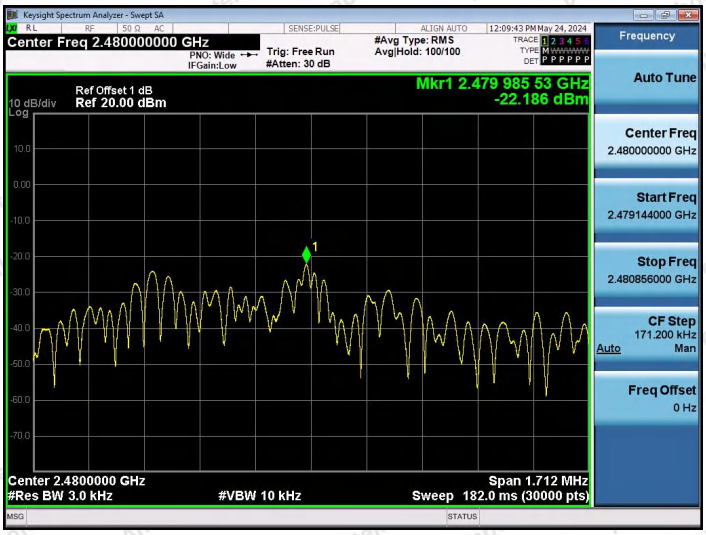
BLE_1M-Ant1-2402-PASS

BLE_1M-Ant1-2440-PASS

BLE_1M-Ant1-2480-PASS

BLE_2M-Ant1-2402-PASS

BLE_2M-Ant1-2440-PASS



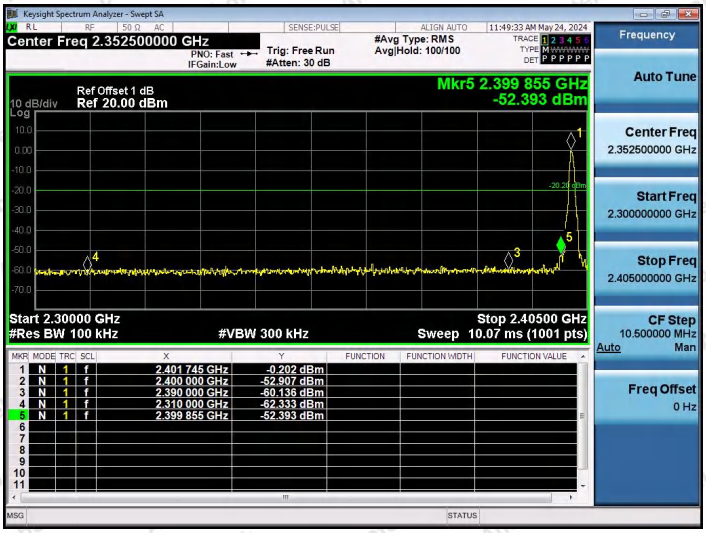
BLE_2M-Ant1-2480-PASS

Appendix E: Band edge measurements

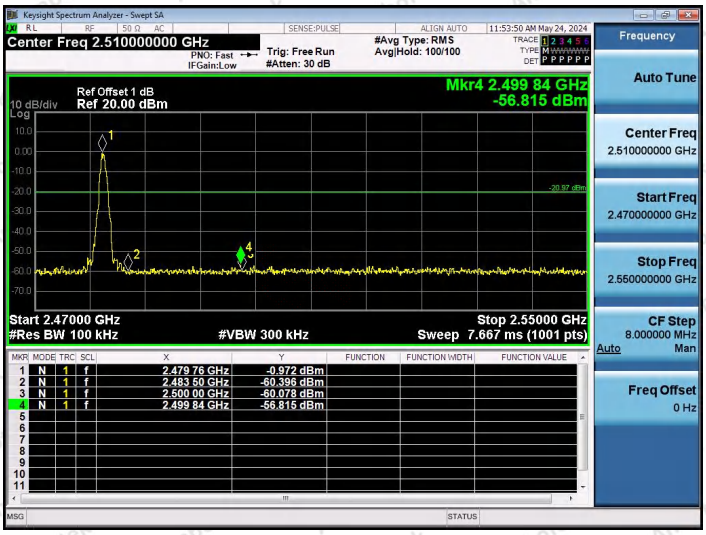
Test Result

TestMode	Antenna	ChName	Frequency[MHz]	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	Low	2402	-0.20	-52.39	≤-20.2	PASS
BLE_1M	Ant1	High	2480	-0.97	-56.82	≤-20.97	PASS
BLE_2M	Ant1	Low	2402	-0.10	-34.42	≤-20.1	PASS
BLE_2M	Ant1	High	2480	-3.09	-56.49	≤-23.09	PASS

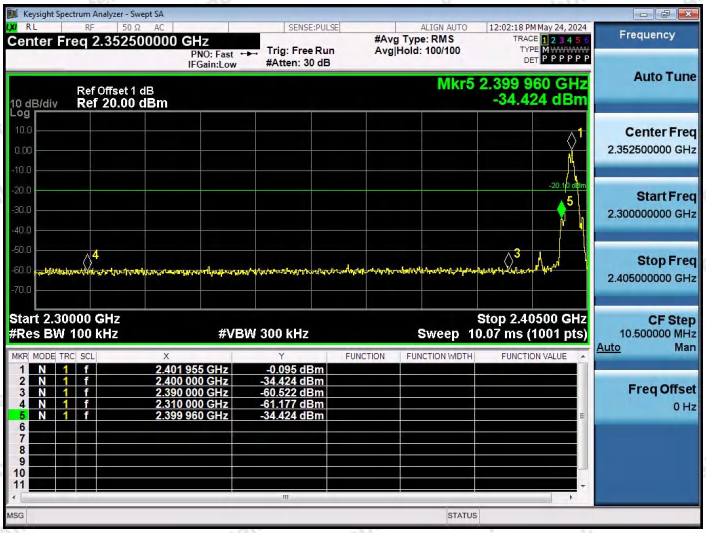
Test Graphs



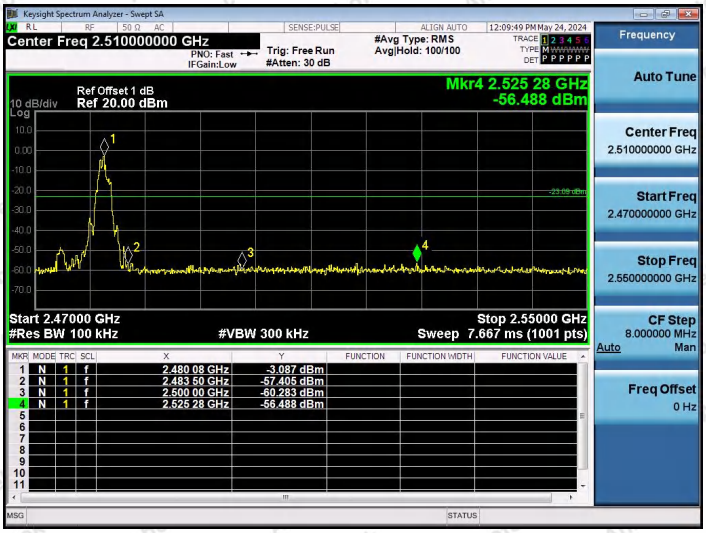
BLE_1M-Ant1-2402-PASS



BLE_1M-Ant1-2480-PASS



BLE_2M-Ant1-2402-PASS



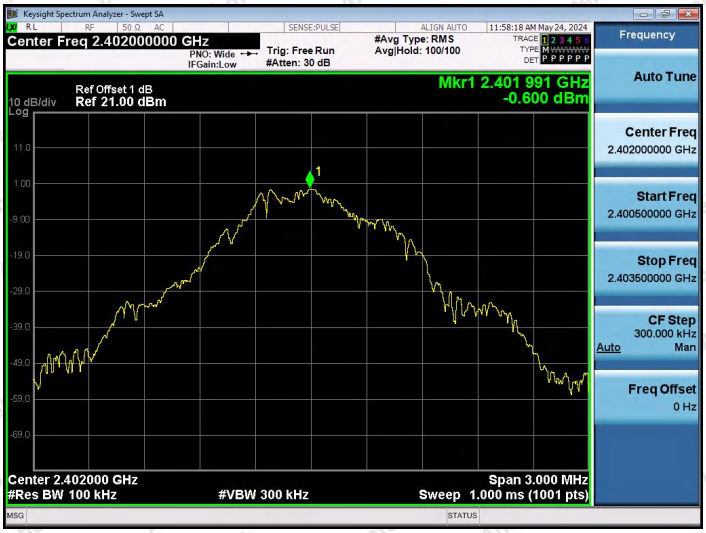
BLE_2M-Ant1-2480-PASS

Appendix F: Conducted Spurious Emission

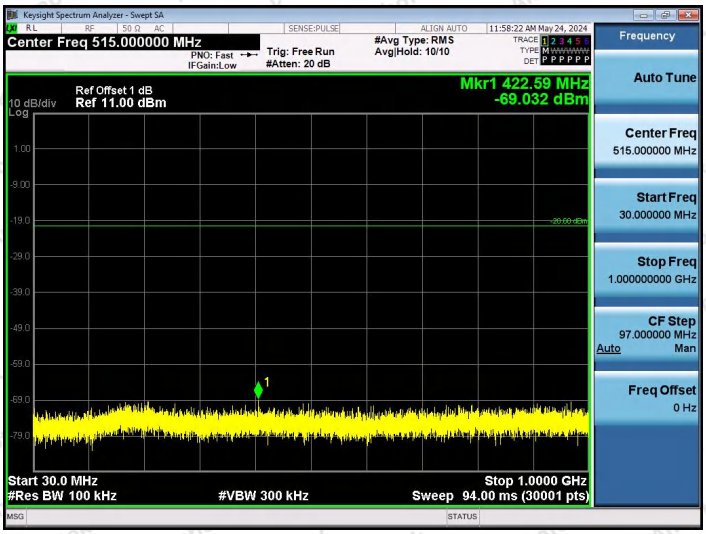
Test Result

TestMode	Antenna	Frequency[MHz]	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	0~Reference	-0.60	-0.60	---	PASS
BLE_1M	Ant1	2402	30~1000	-0.60	-69.03	≤-20.6	PASS
BLE_1M	Ant1	2402	1000~26500	-0.60	-35.31	≤-20.6	PASS
BLE_1M	Ant1	2440	0~Reference	-0.69	-0.69	---	PASS
BLE_1M	Ant1	2440	30~1000	-0.69	-69.12	≤-20.69	PASS
BLE_1M	Ant1	2440	1000~26500	-0.69	-34.51	≤-20.69	PASS
BLE_1M	Ant1	2480	0~Reference	-0.74	-0.74	---	PASS
BLE_1M	Ant1	2480	30~1000	-0.74	-69.02	≤-20.74	PASS
BLE_1M	Ant1	2480	1000~26500	-0.74	-34.46	≤-20.74	PASS
BLE_2M	Ant1	2402	0~Reference	-0.91	-0.91	---	PASS
BLE_2M	Ant1	2402	30~1000	-0.91	-57.2	≤-20.91	PASS
BLE_2M	Ant1	2402	1000~26500	-0.91	-34.77	≤-20.91	PASS
BLE_2M	Ant1	2440	0~Reference	-0.89	-0.89	---	PASS
BLE_2M	Ant1	2440	30~1000	-0.89	-68.62	≤-20.89	PASS
BLE_2M	Ant1	2440	1000~26500	-0.89	-32.9	≤-20.89	PASS
BLE_2M	Ant1	2480	0~Reference	-2.33	-2.33	---	PASS
BLE_2M	Ant1	2480	30~1000	-2.33	-68.98	≤-22.33	PASS
BLE_2M	Ant1	2480	1000~26500	-2.33	-33.99	≤-22.33	PASS

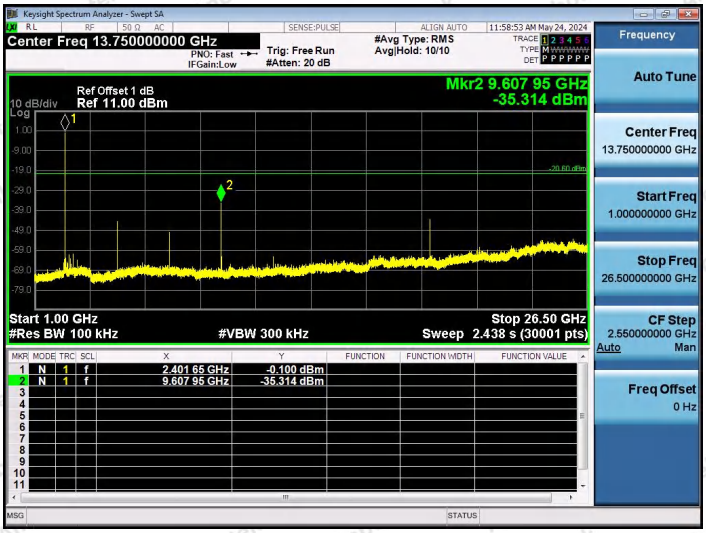
Test Graphs



BLE_1M-Ant1-2402-0~Reference-PASS

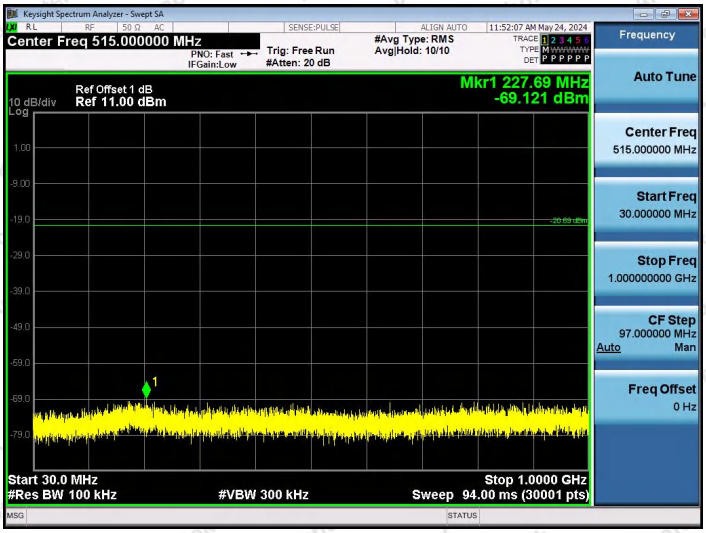


BLE_1M-Ant1-2402-30~1000-PASS

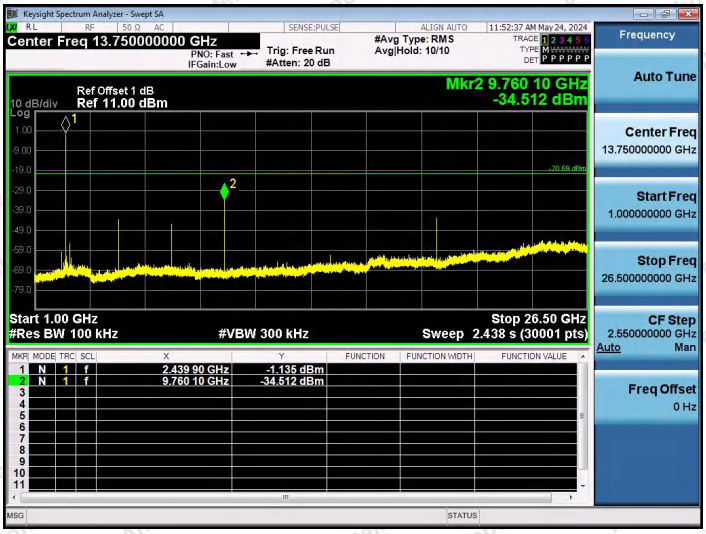


BLE_1M-Ant1-2402-1000~26500-PASS

BLE_1M-Ant1-2440-0~Reference-PASS

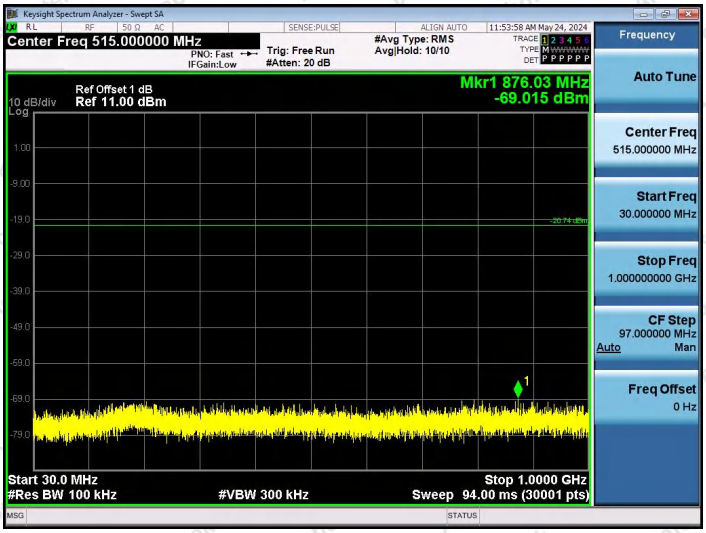


BLE_1M-Ant1-2440-30~1000-PASS

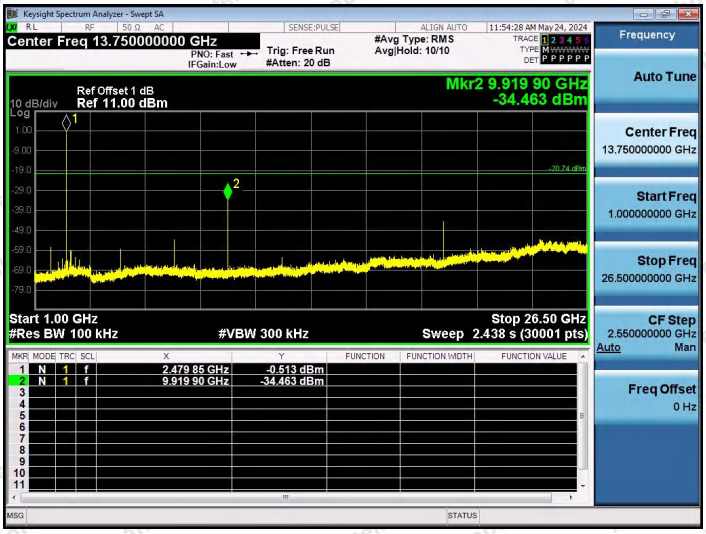


BLE_1M-Ant1-2440-1000~26500-PASS

BLE_1M-Ant1-2480-0~Reference-PASS

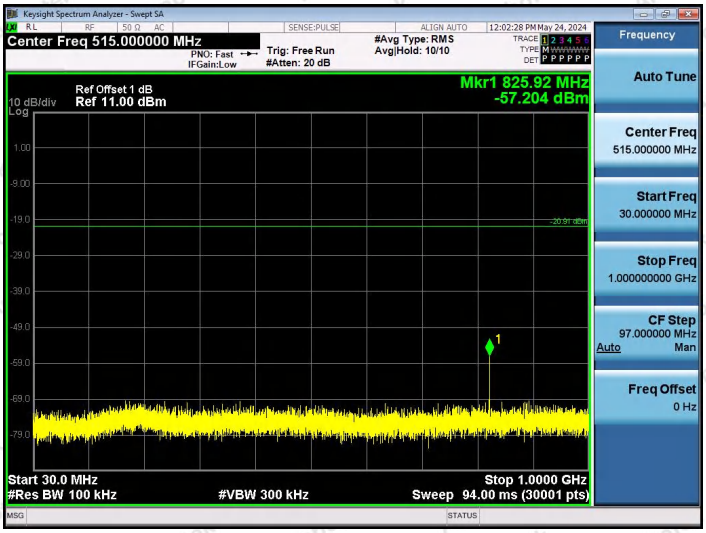


BLE_1M-Ant1-2480-30~1000-PASS

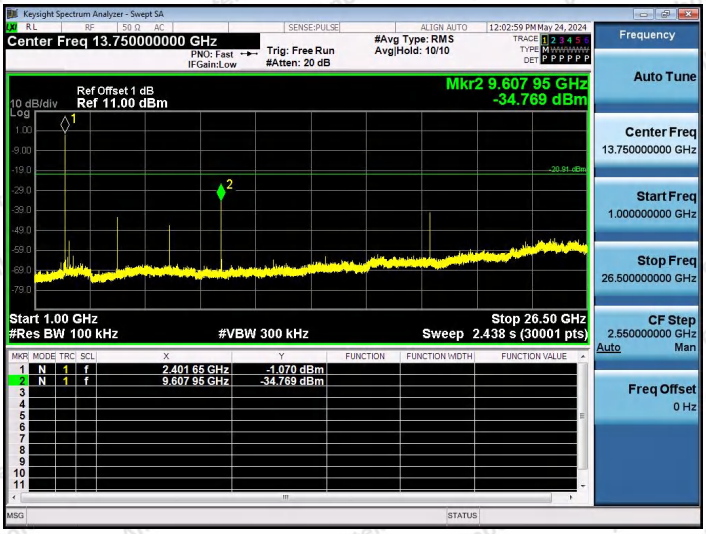


BLE_1M-Ant1-2480-1000~26500-PASS

BLE_2M-Ant1-2402-0~Reference-PASS

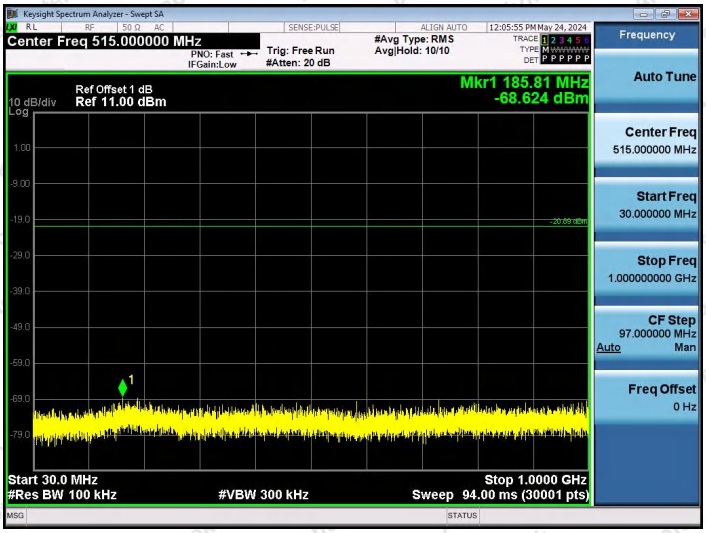


BLE_2M-Ant1-2402-30~1000-PASS

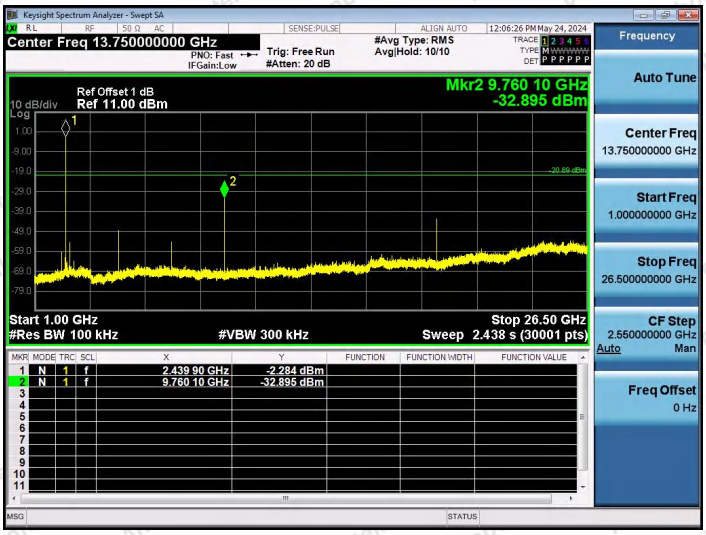


BLE_2M-Ant1-2402-1000~26500-PASS

BLE_2M-Ant1-2440-0~Reference-PASS

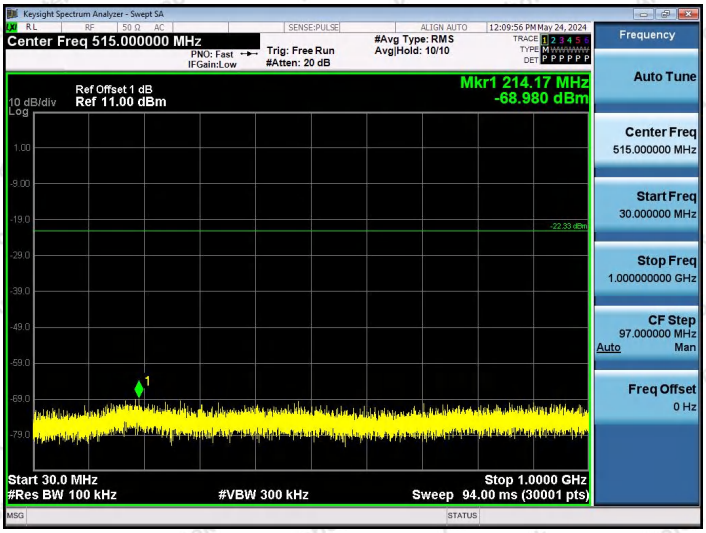


BLE_2M-Ant1-2440-30~1000-PASS

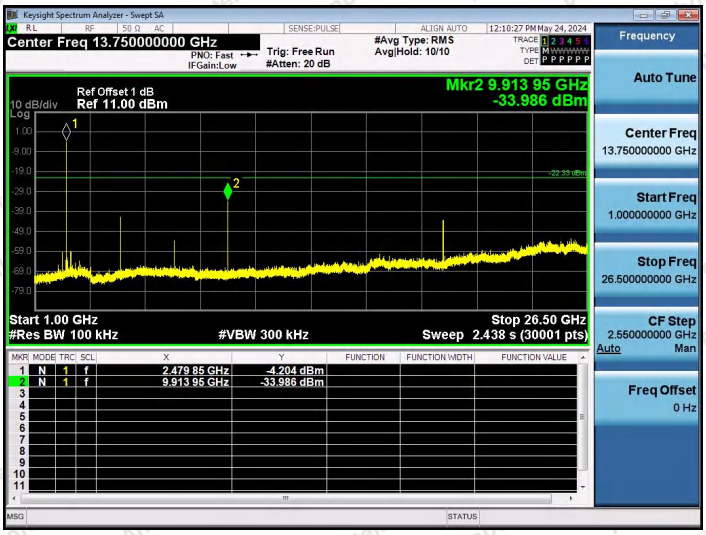


BLE_2M-Ant1-2440-1000~26500-PASS

BLE_2M-Ant1-2480-0~Reference-PASS



BLE_2M-Ant1-2480-30~1000-PASS



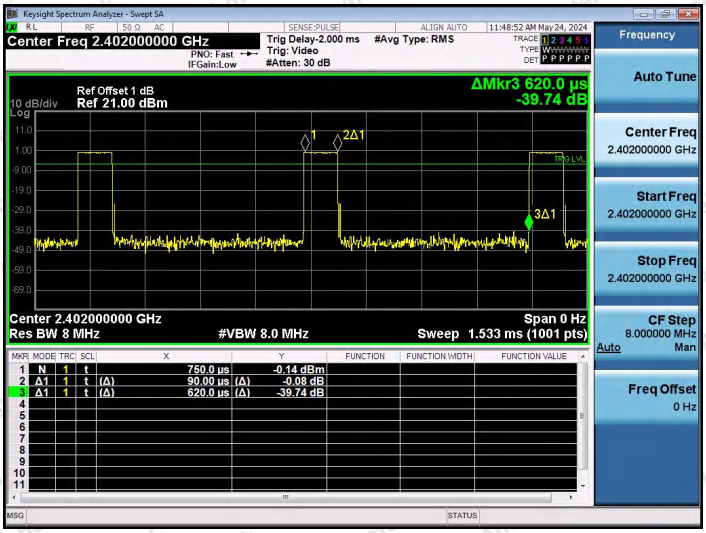
BLE_2M-Ant1-2480-1000~26500-PASS

Appendix G: Duty Cycle

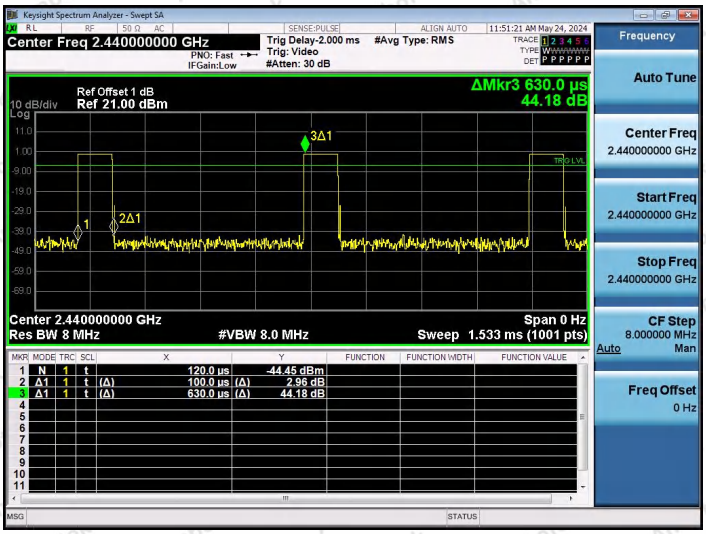
Test Result

TestMode	Antenna	Frequency[MHz]	ON Time [ms]	Period [ms]	Duty Cycle [%]	Duty Cycle Factor[dB]
BLE_1M	Ant1	2402	0.09	0.62	14.52	8.38
BLE_1M	Ant1	2440	0.10	0.63	15.87	7.99
BLE_1M	Ant1	2480	0.10	0.63	15.87	7.99
BLE_2M	Ant1	2402	0.06	0.63	9.52	10.21
BLE_2M	Ant1	2440	0.06	0.63	9.52	10.21
BLE_2M	Ant1	2480	0.06	0.62	9.68	10.14

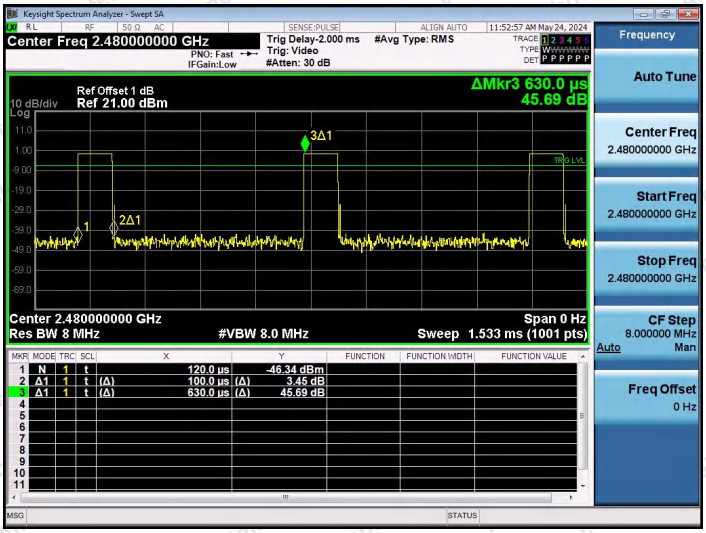
Test Graphs



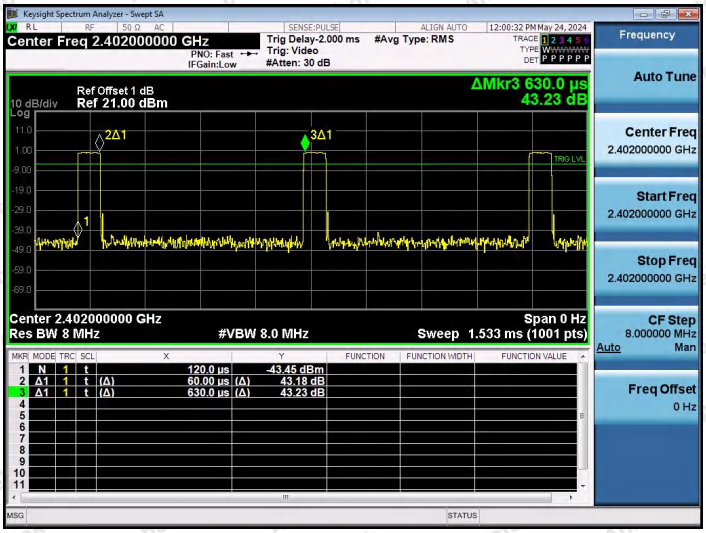
NTNV-BLE_1M-Ant1-2402



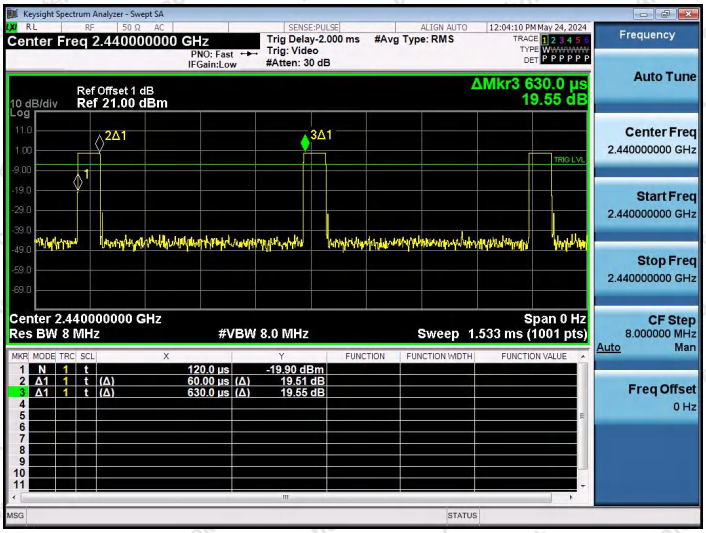
NTNV-BLE_1M-Ant1-2440



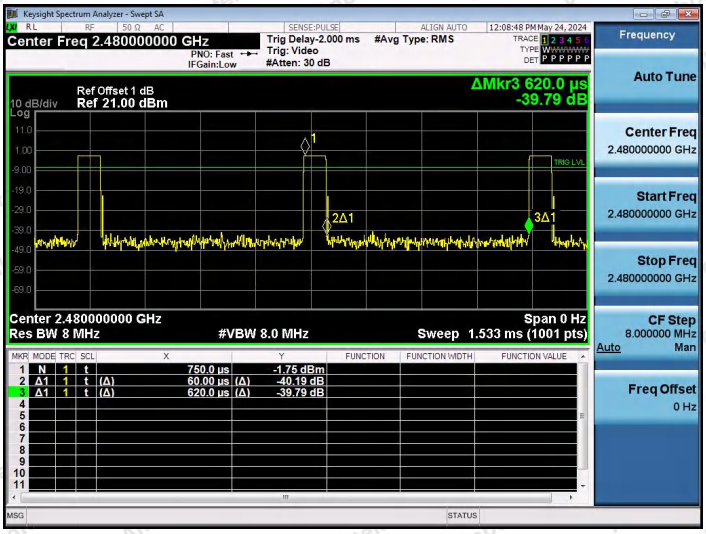
NTNV-BLE_1M-Ant1-2480



NTNV-BLE_2M-Ant1-2402



NTNV-BLE_2M-Ant1-2440



NTNV-BLE_2M-Ant1-2480

---End---