Appendix Test Data

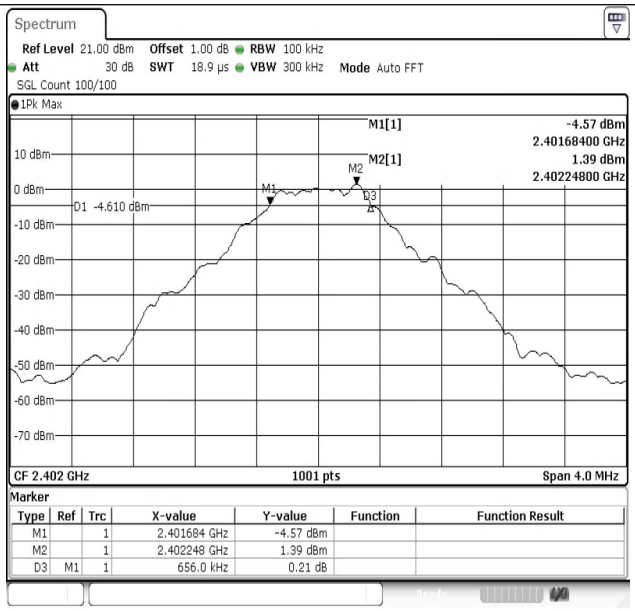
Report No.:	1821C50010612502	Test Sample No.:	1-2-2
Start Test Date:	2025-5-19	Finish Test Date:	2025-5-26
Test Engineer:	Huisen Guan	Auditor:	Justin Feng
Temperature:	25.1℃	Relative Humidity:	56%
Pressure:	101kPa		

Appendix A: 6dB Bandwidth

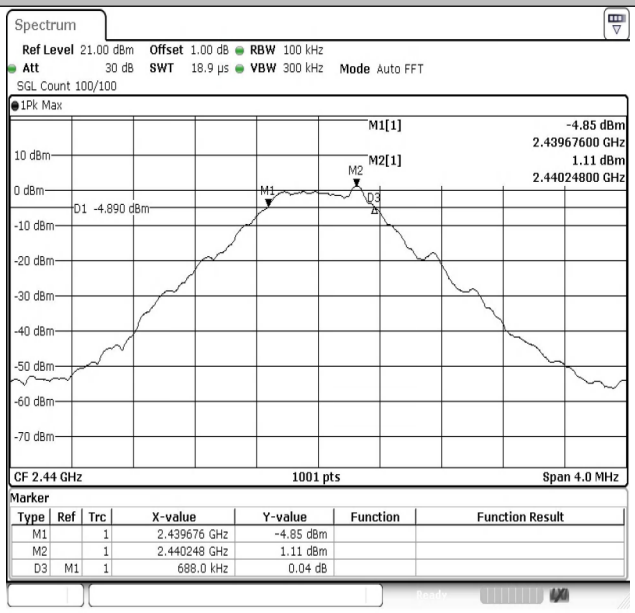
Test Result

Test Mode	Antenna	Frequency[MHz]	6dB BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	0.66	2401.68	2402.34	0.5	PASS
BLE_1M	Ant1	2440	0.69	2439.68	2440.36	0.5	PASS
BLE_1M	Ant1	2480	0.66	2479.66	2480.32	0.5	PASS
BLE_2M	Ant1	2402	1.38	2401.32	2402.70	0.5	PASS
BLE_2M	Ant1	2440	1.32	2439.32	2440.64	0.5	PASS
BLE_2M	Ant1	2480	1.42	2479.30	2480.72	0.5	PASS

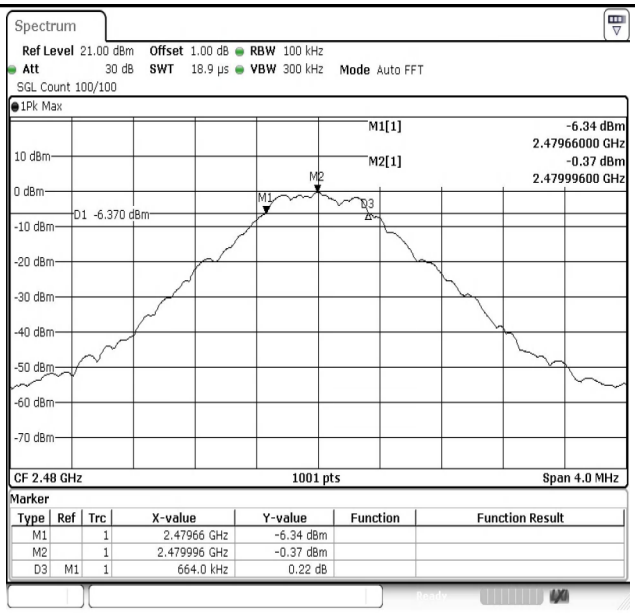
Test Graphs



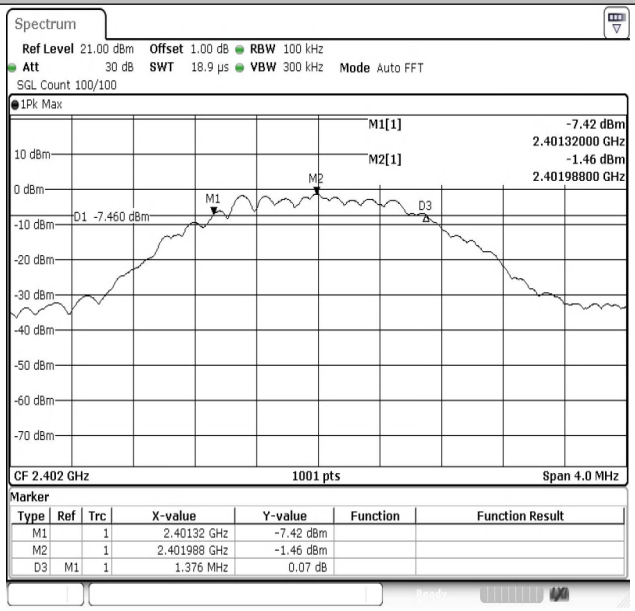
BLE_1M-Ant1-2402-PASS



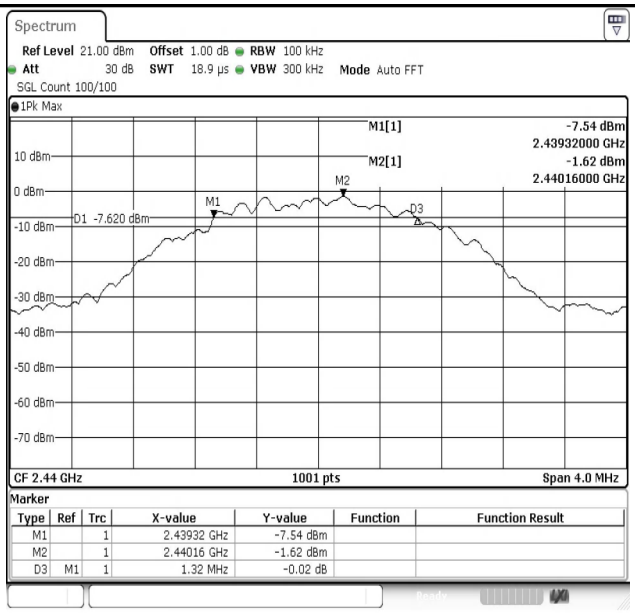
BLE_1M-Ant1-2440-PASS



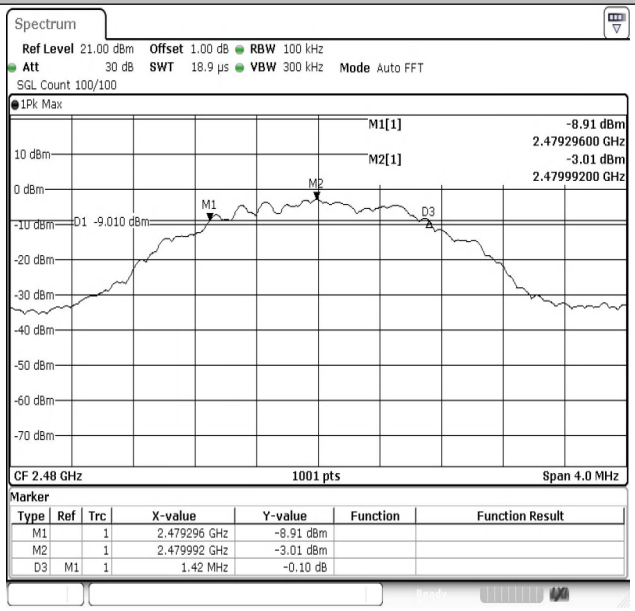
BLE_1M-Ant1-2480-PASS



BLE_2M-Ant1-2402-PASS



BLE_2M-Ant1-2440-PASS



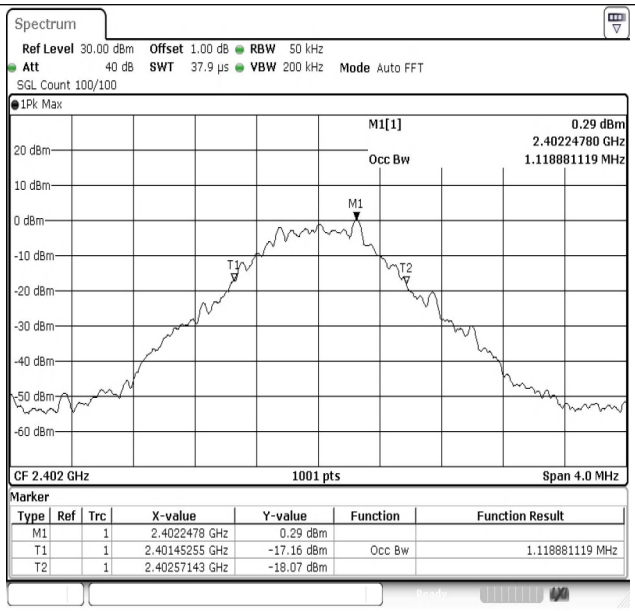
BLE_2M-Ant1-2480-PASS

Appendix B: 99% Occupied Bandwidth

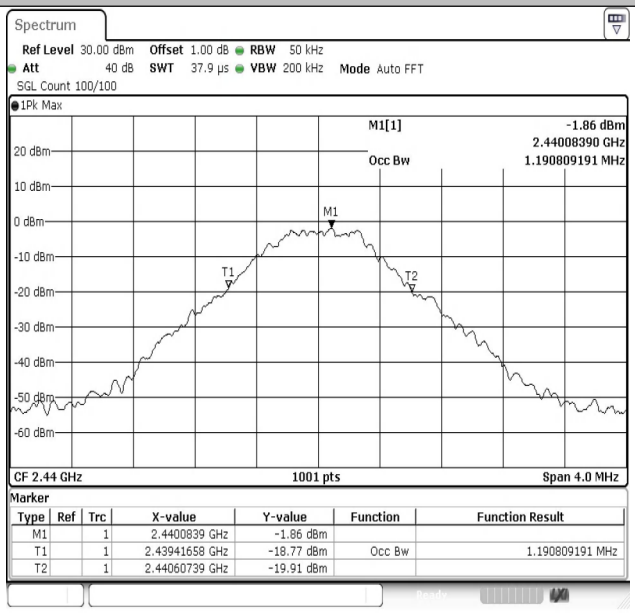
Test Result

Test Mode	Antenna	Frequency[MHz]	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	1.1189	2401.4525	2402.5714	---	---
BLE_1M	Ant1	2440	1.1908	2439.4166	2440.6074	---	---
BLE_1M	Ant1	2480	1.2188	2479.3966	2480.6154	---	---
BLE_2M	Ant1	2402	2.1099	2400.9570	2403.0669	---	---
BLE_2M	Ant1	2440	2.0819	2438.9690	2441.0509	---	---
BLE_2M	Ant1	2480	2.1059	2478.9530	2481.0589	---	---

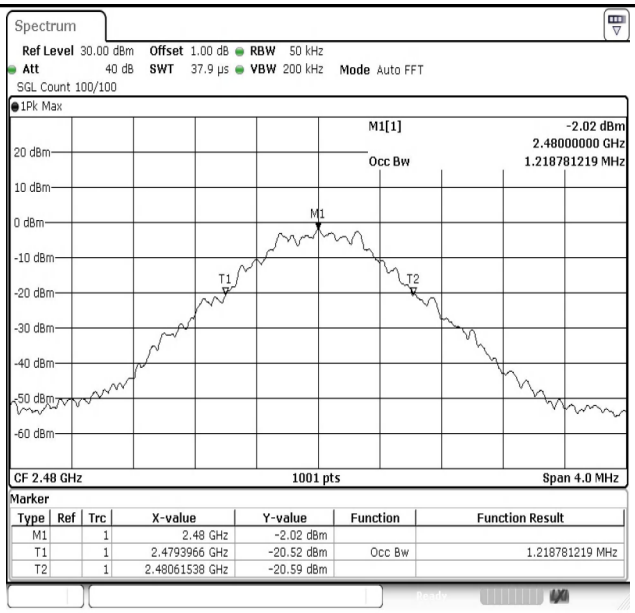
Test Graphs



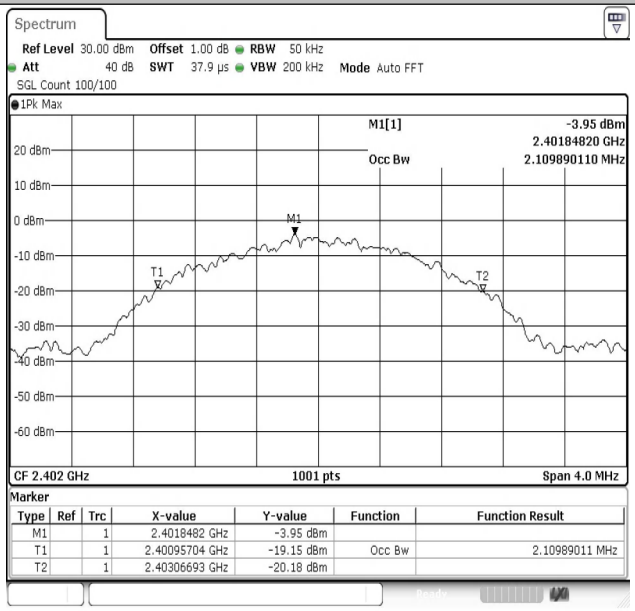
BLE_1M-Ant1-2402



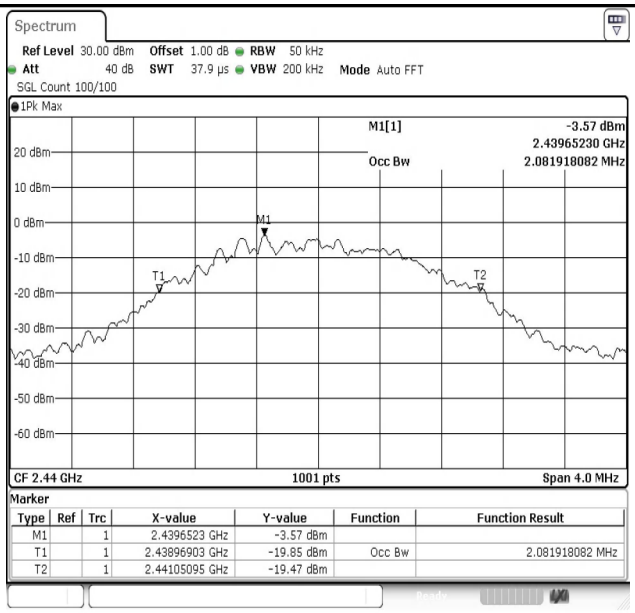
BLE_1M-Ant1-2440



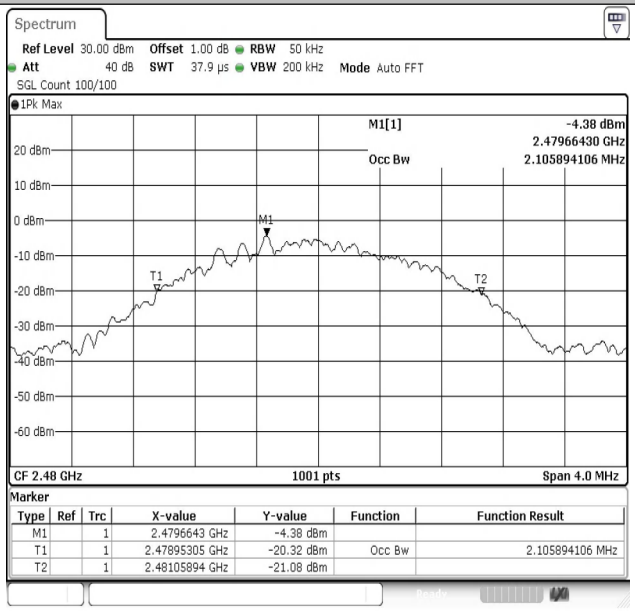
BLE_1M-Ant1-2480



BLE_2M-Ant1-2402



BLE_2M-Ant1-2440



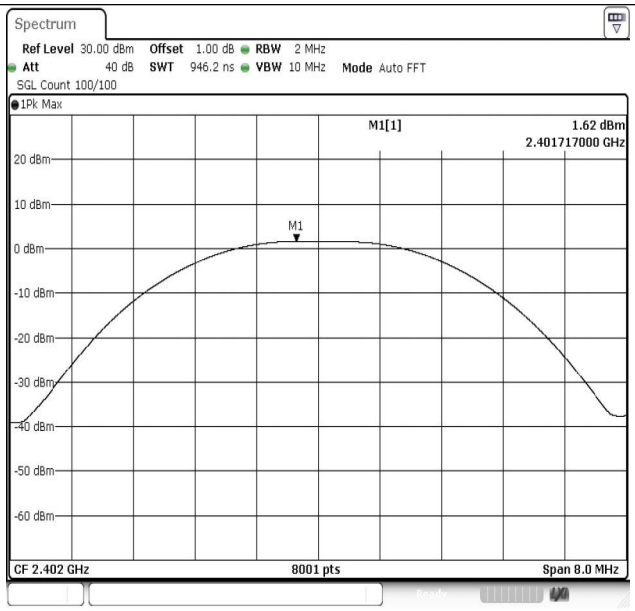
BLE_2M-Ant1-2480

Appendix C: Maximum conducted output power

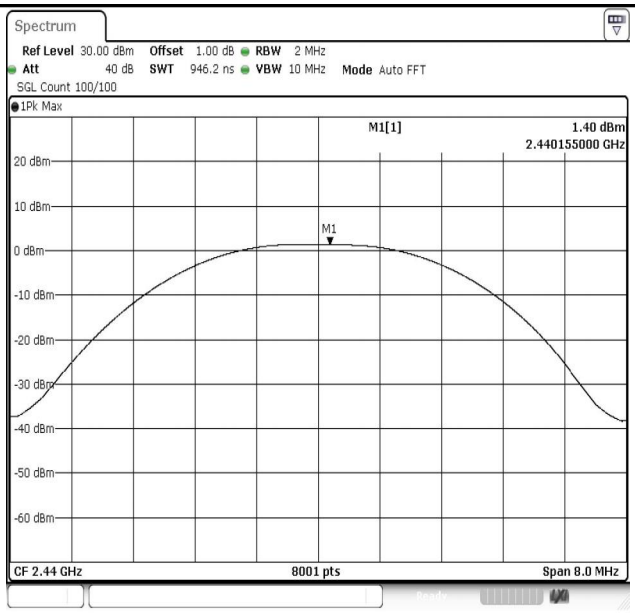
Test Result Peak

Test Mode	Antenna	Frequency [MHz]	Conducted Peak Power[dBm]	Conducted Limit[dBm]	Verdict
BLE_1M	Ant1	2402	1.62	≤30	PASS
BLE_1M	Ant1	2440	1.40	≤30	PASS
BLE_1M	Ant1	2480	0.57	≤30	PASS
BLE_2M	Ant1	2402	**1.67**	≤30	PASS
BLE_2M	Ant1	2440	1.44	≤30	PASS
BLE_2M	Ant1	2480	0.64	≤30	PASS

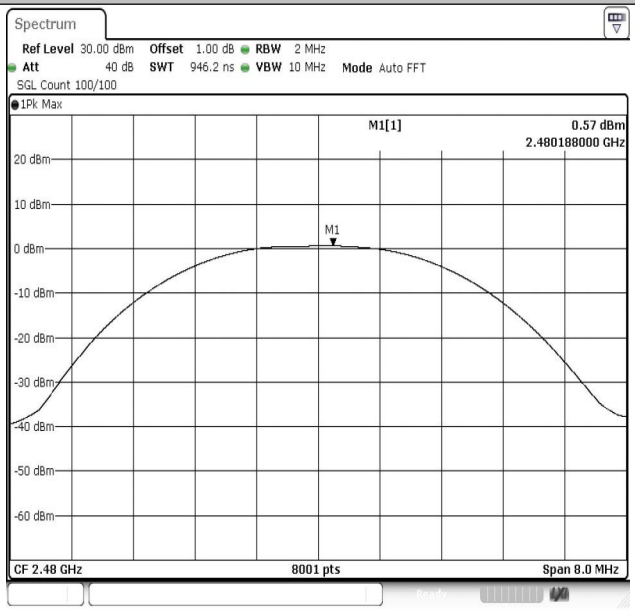
Test Graphs Peak



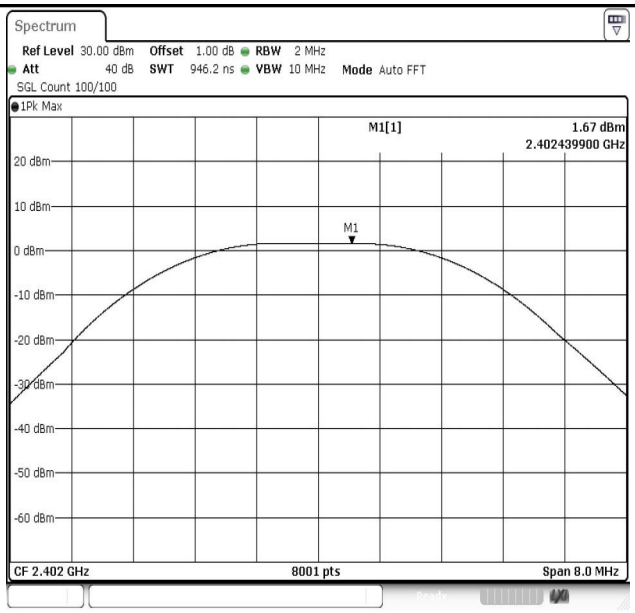
BLE_1M-Ant1-2402-PASS



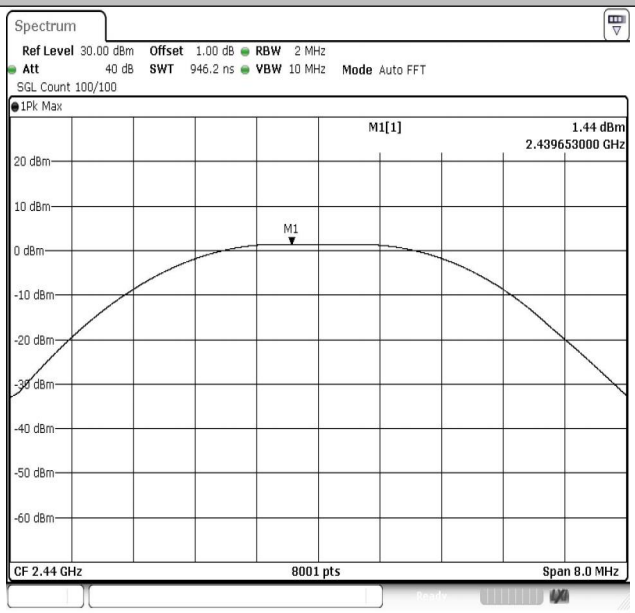
BLE_1M-Ant1-2440-PASS



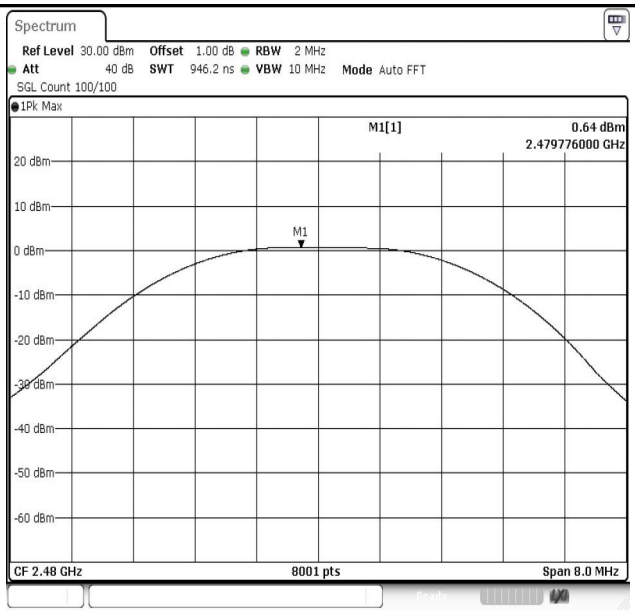
BLE_1M-Ant1-2480-PASS



BLE_2M-Ant1-2402-PASS



BLE_2M-Ant1-2440-PASS



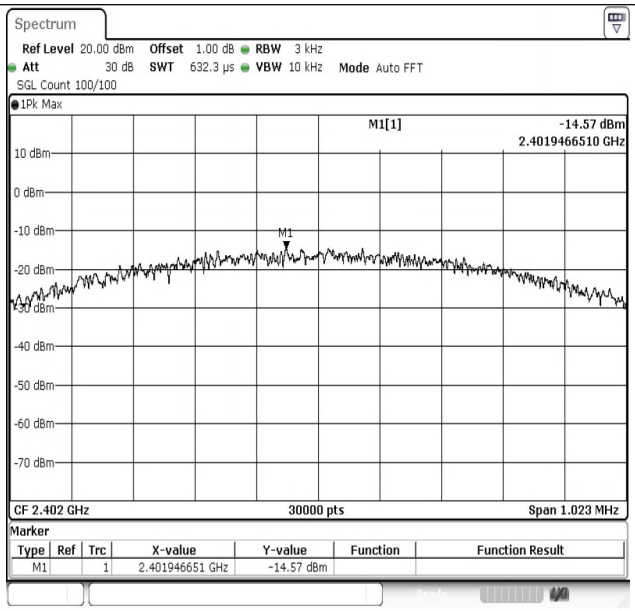
BLE_2M-Ant1-2480-PASS

Appendix D: Maximum power spectral density

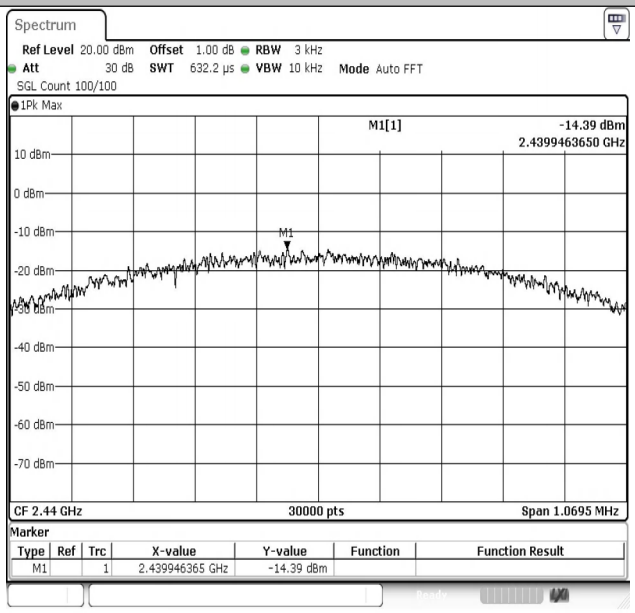
Test Result

TestMode	Antenna	Frequency[MHz]	Result[dBm/3kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-14.57	≤8.00	PASS
BLE_1M	Ant1	2440	-14.39	≤8.00	PASS
BLE_1M	Ant1	2480	-15.69	≤8.00	PASS
BLE_2M	Ant1	2402	-17.95	≤8.00	PASS
BLE_2M	Ant1	2440	-17.56	≤8.00	PASS
BLE_2M	Ant1	2480	-19.82	≤8.00	PASS

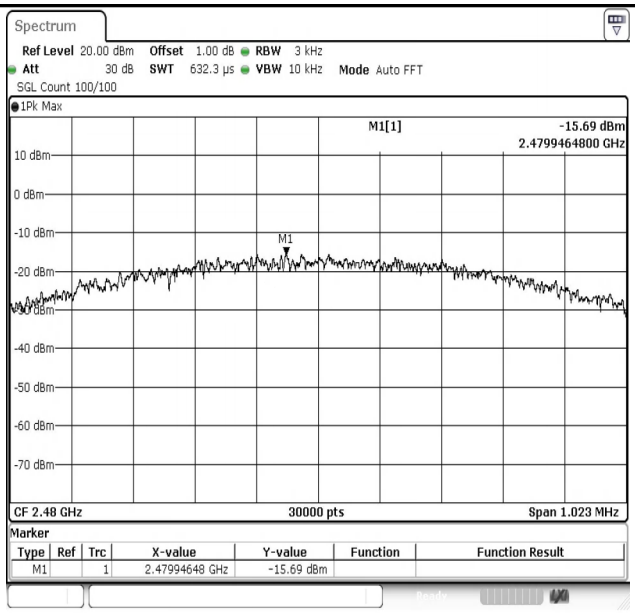
Test Graphs



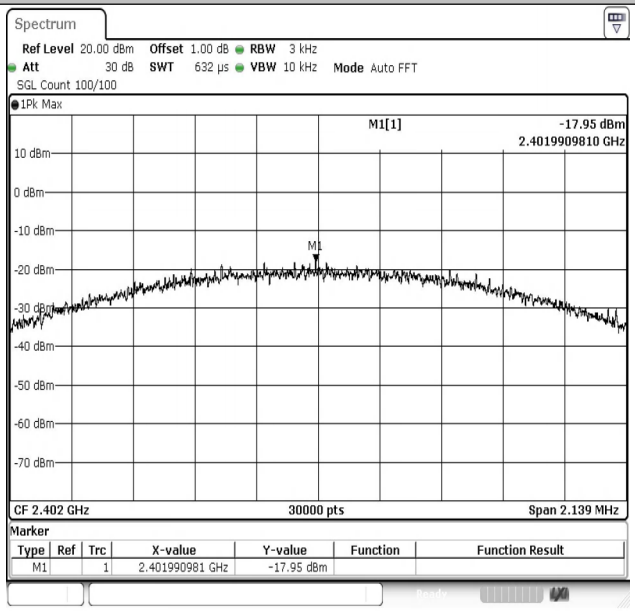
BLE_1M-Ant1-2402-PASS



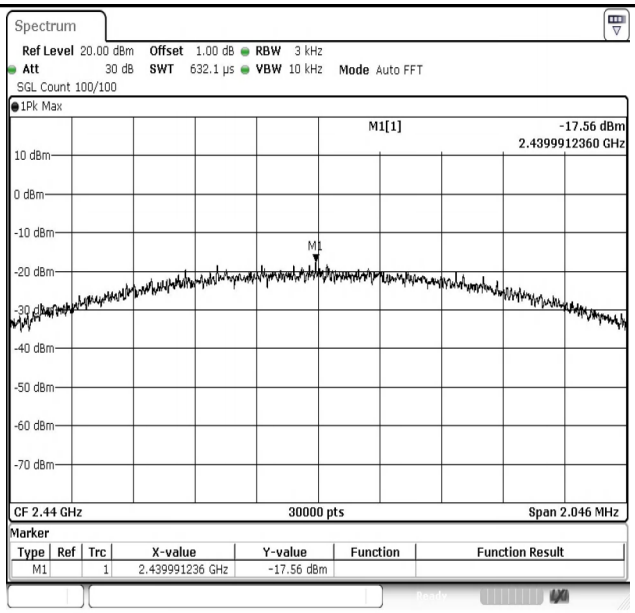
BLE_1M-Ant1-2440-PASS



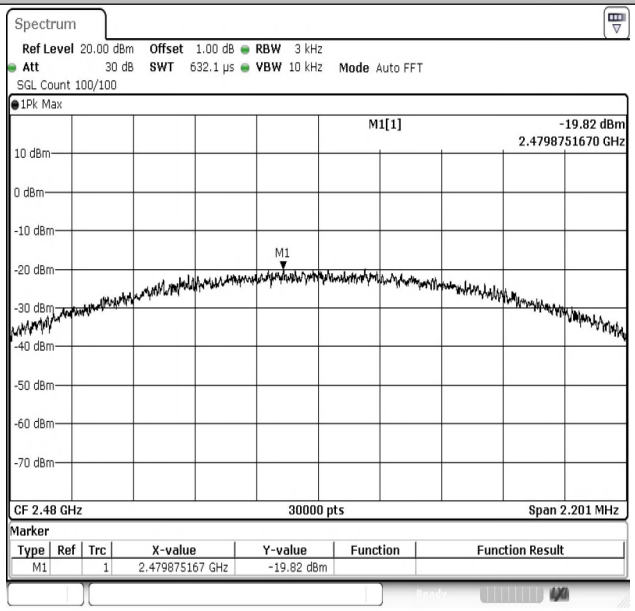
BLE_1M-Ant1-2480-PASS



BLE_2M-Ant1-2402-PASS



BLE_2M-Ant1-2440-PASS



BLE_2M-Ant1-2480-PASS

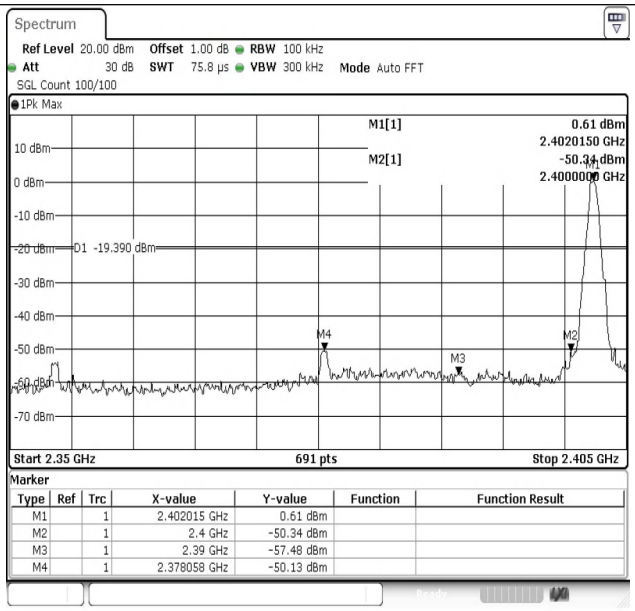
Appendix E: Band edge measurements

Test Result

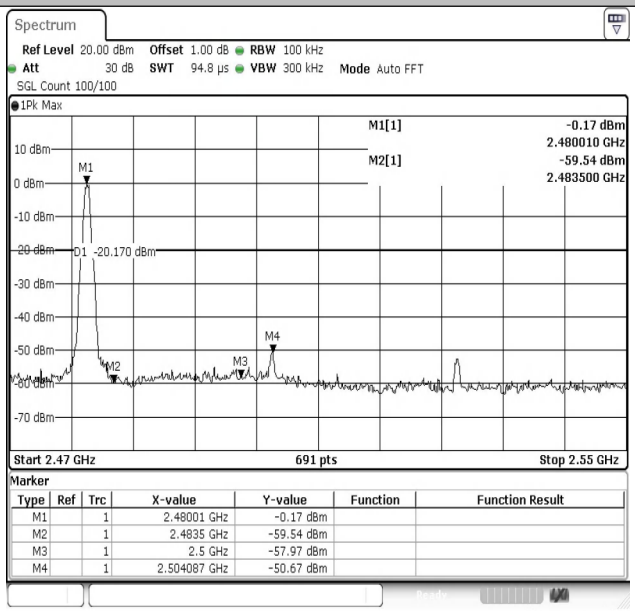
Test Mode	Antenna	ChName	Frequency [MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
BLE_1M	Ant1	Low	2402	0.61	-50.13	≤-19.39	PASS
BLE_1M	Ant1	High	2480	-0.17	-50.67	≤-20.17	PASS
BLE_2M	Ant1	Low	2402	-1.91	-35.79	≤-21.91	PASS
BLE_2M	Ant1	High	2480	-0.72	-51.11	≤-20.72	PASS

Remark:1. Regarding the spurious emissions from 30MHz to 26.5GHz, the cable lose have been set in the 'offset' of the Spectrum Analyzer during the test.

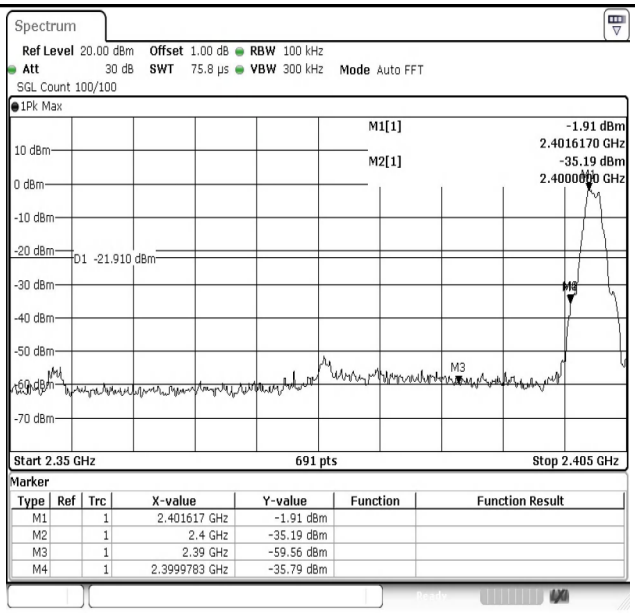
Test Graphs



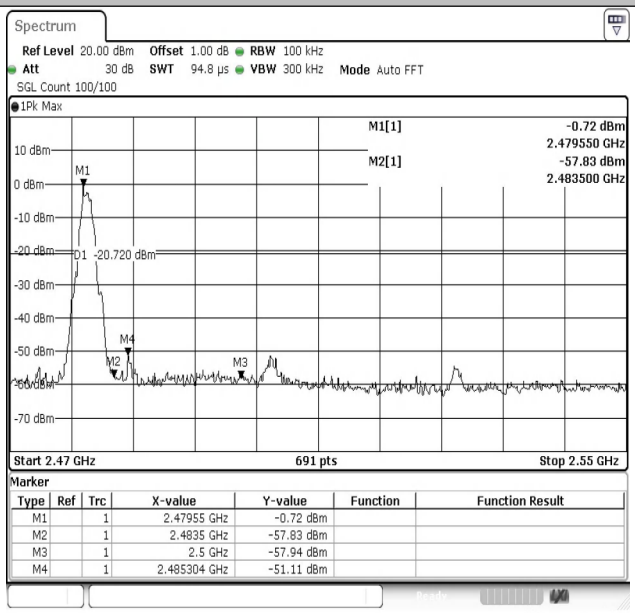
BLE_1M-Ant1-2402-PASS



BLE_1M-Ant1-2480-PASS



BLE_2M-Ant1-2402-PASS



BLE_2M-Ant1-2480-PASS

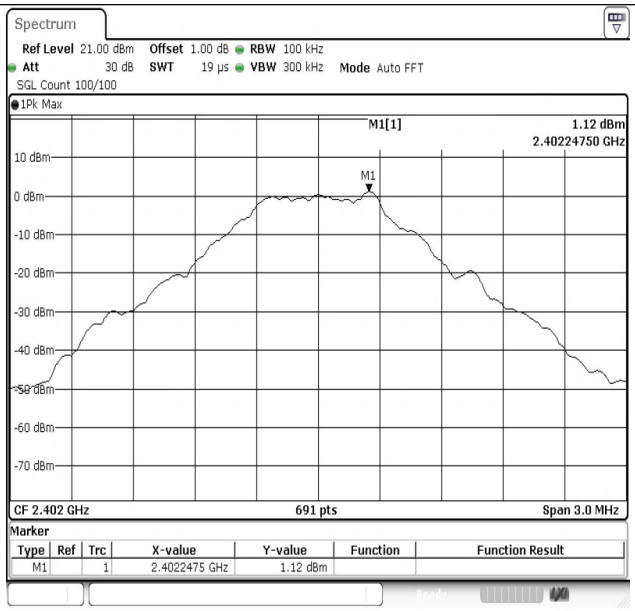
Appendix F: Conducted Spurious Emission

Test Result

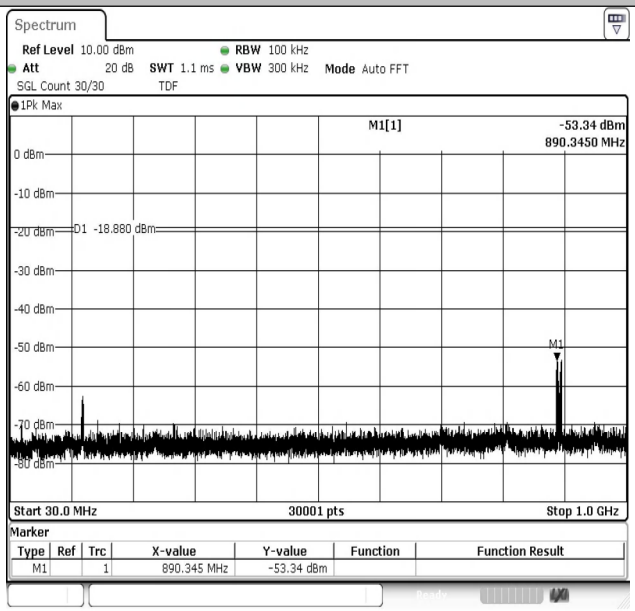
Test Mode	Antenna	Frequency [MHz]	Freq. Range [MHz]	Ref. Level [dBm]	Result [dBm]	Limit [dBm]	Verdict
BLE_1M	Ant1	2402	0~Reference	1.12	1.12	---	PASS
BLE_1M	Ant1	2402	30~1000	1.12	-53.34	≤-18.88	PASS
BLE_1M	Ant1	2402	1000~26500	1.12	-39.18	≤-18.88	PASS
BLE_1M	Ant1	2440	0~Reference	1.16	1.16	---	PASS
BLE_1M	Ant1	2440	30~1000	1.16	-53.28	≤-18.84	PASS
BLE_1M	Ant1	2440	1000~26500	1.16	-40.07	≤-18.84	PASS
BLE_1M	Ant1	2480	0~Reference	-0.38	-0.38	---	PASS
BLE_1M	Ant1	2480	30~1000	-0.38	-66.25	≤-20.38	PASS
BLE_1M	Ant1	2480	1000~26500	-0.38	-39.45	≤-20.38	PASS
BLE_2M	Ant1	2402	0~Reference	-0.51	-0.51	---	PASS
BLE_2M	Ant1	2402	30~1000	-0.51	-55.58	≤-20.51	PASS
BLE_2M	Ant1	2402	1000~26500	-0.51	-42.93	≤-20.51	PASS
BLE_2M	Ant1	2440	0~Reference	-2.20	-2.20	---	PASS
BLE_2M	Ant1	2440	30~1000	-2.20	-64.84	≤-22.2	PASS
BLE_2M	Ant1	2440	1000~26500	-2.20	-40.43	≤-22.2	PASS
BLE_2M	Ant1	2480	0~Reference	-3.43	-3.43	---	PASS
BLE_2M	Ant1	2480	30~1000	-3.43	-57.8	≤-23.43	PASS
BLE_2M	Ant1	2480	1000~26500	-3.43	-39.78	≤-23.43	PASS

Remark:Regarding the spurious emissions from 30MHz to 26.5GHz, the cable lose and attenuator factor s have been set in the 'TDF' of the Spectrum Analyzer during the test.

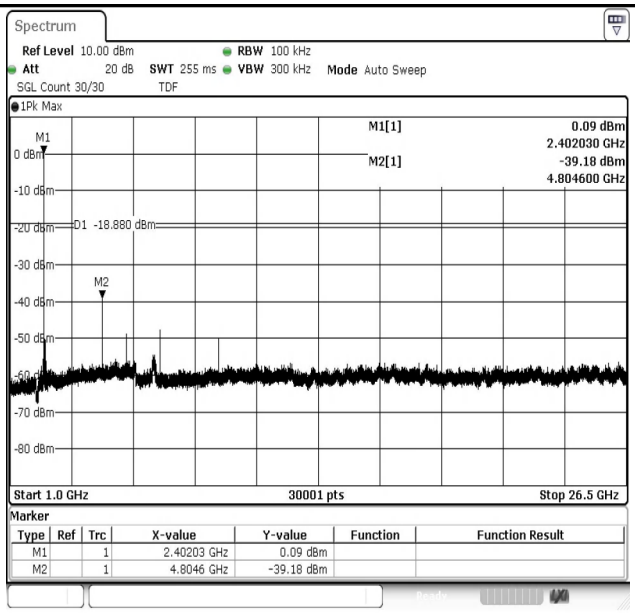
Test Graphs



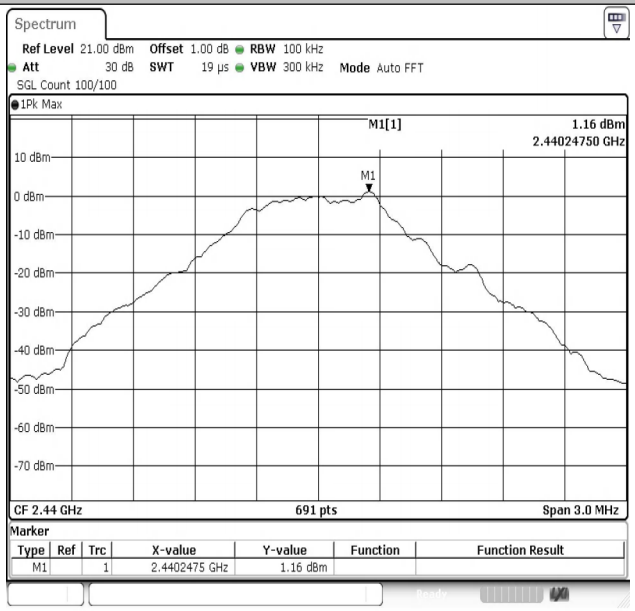
BLE_1M-Ant1-2402-0~Reference-PASS



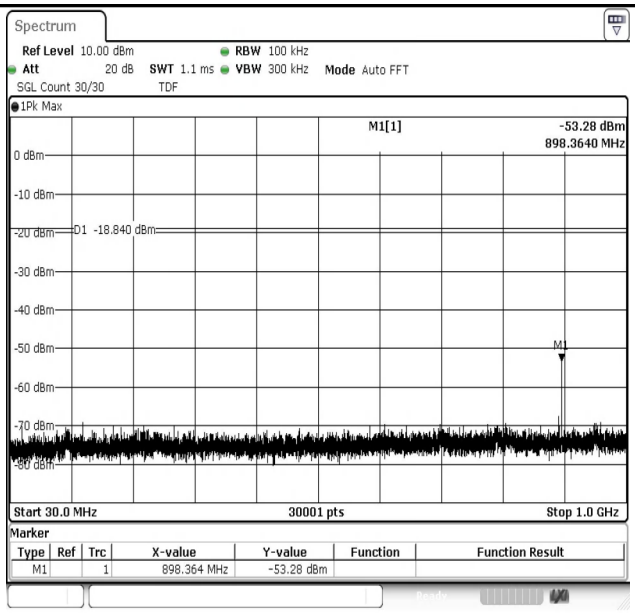
BLE_1M-Ant1-2402-30~1000-PASS



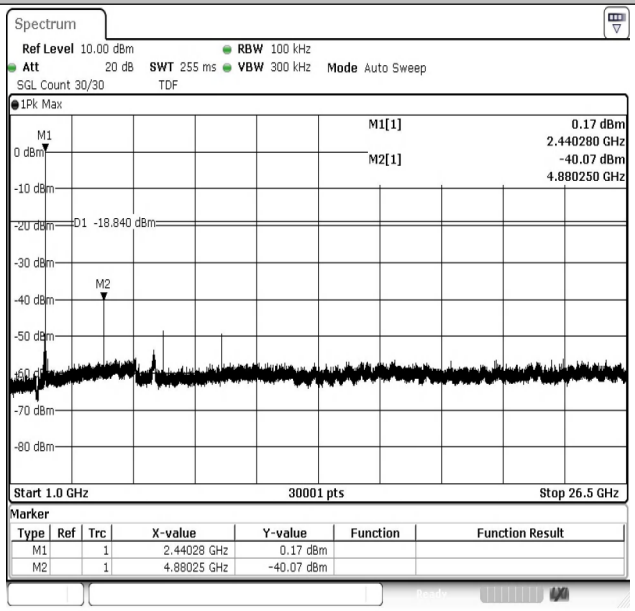
BLE_1M-Ant1-2402-1000~26500-PASS



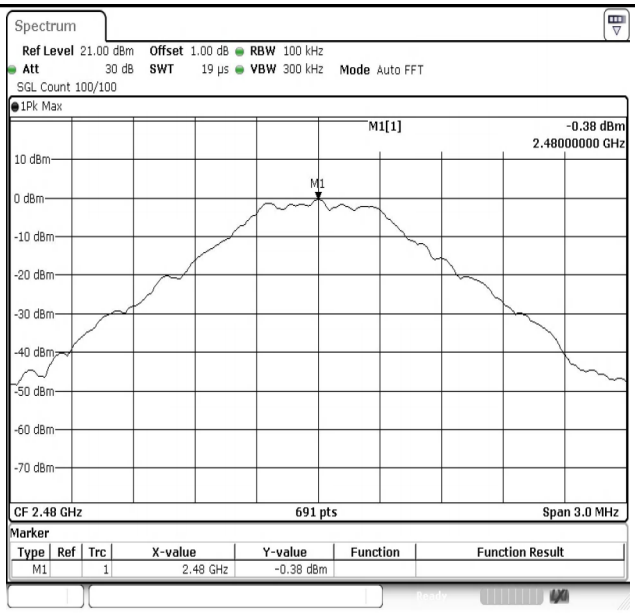
BLE_1M-Ant1-2440-0~Reference-PASS



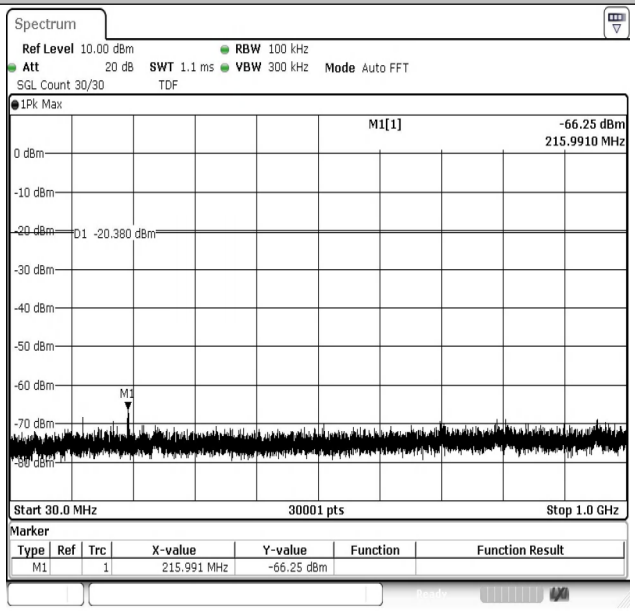
BLE_1M-Ant1-2440-30~1000-PASS



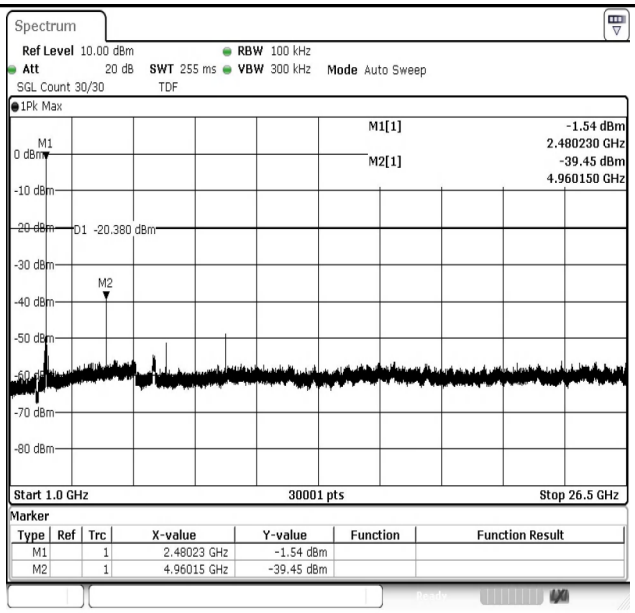
BLE_1M-Ant1-2440-1000~26500-PASS



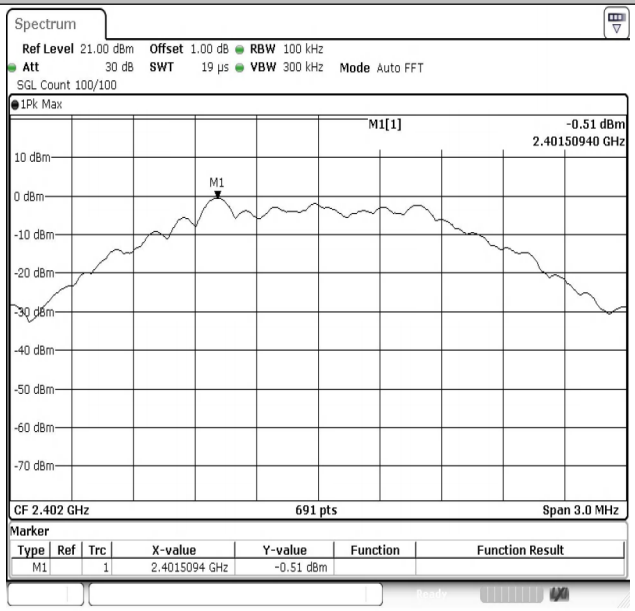
BLE_1M-Ant1-2480-0~Reference-PASS



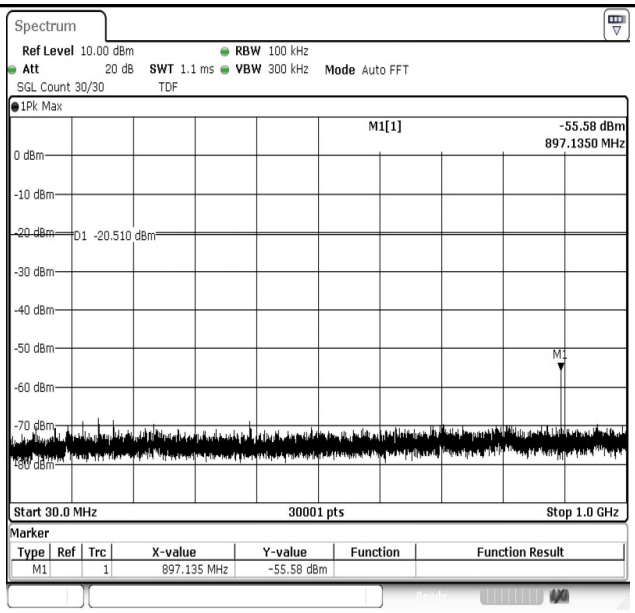
BLE_1M-Ant1-2480-30~1000-PASS



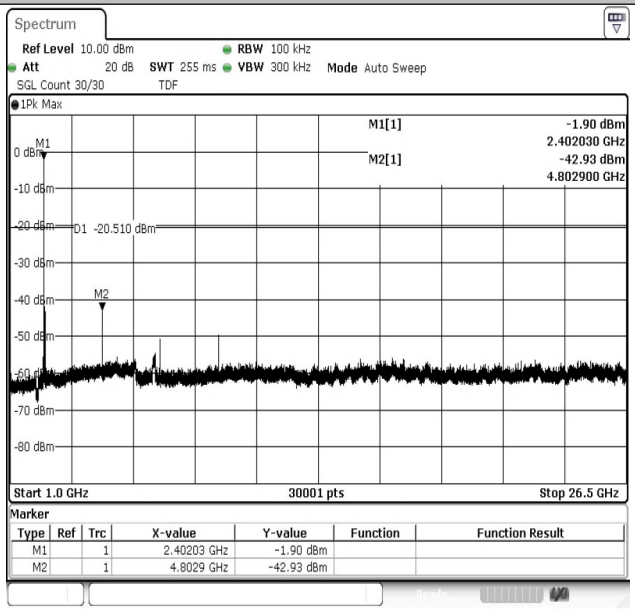
BLE_1M-Ant1-2480-1000~26500-PASS



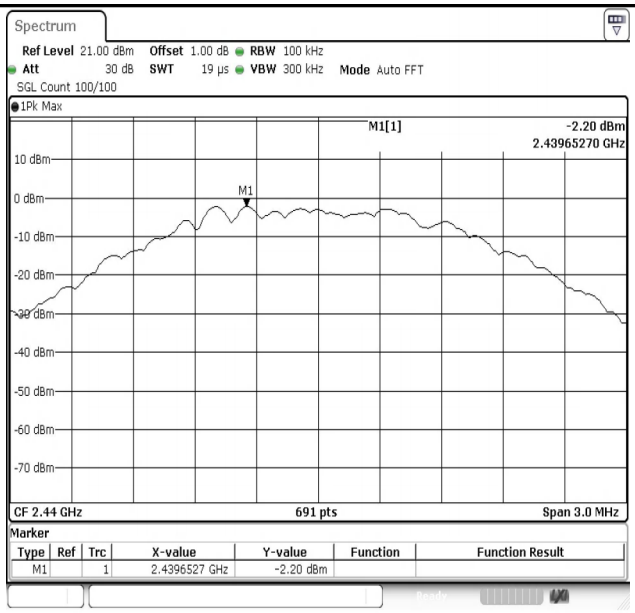
BLE_2M-Ant1-2402-0~Reference-PASS



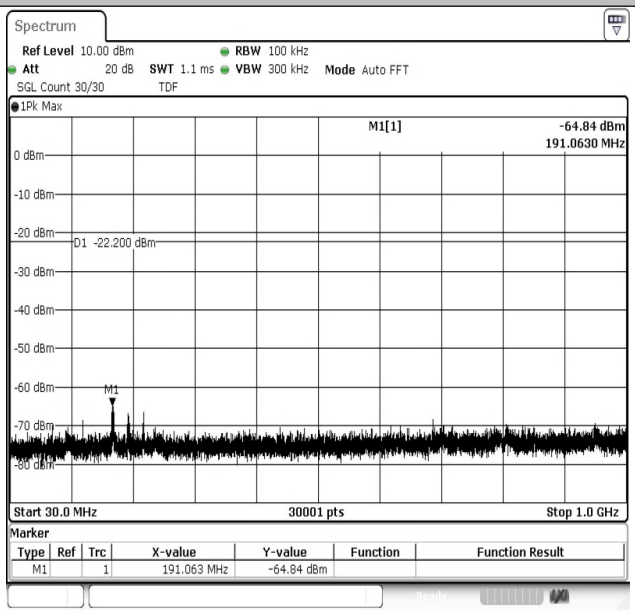
BLE_2M-Ant1-2402-30~1000-PASS



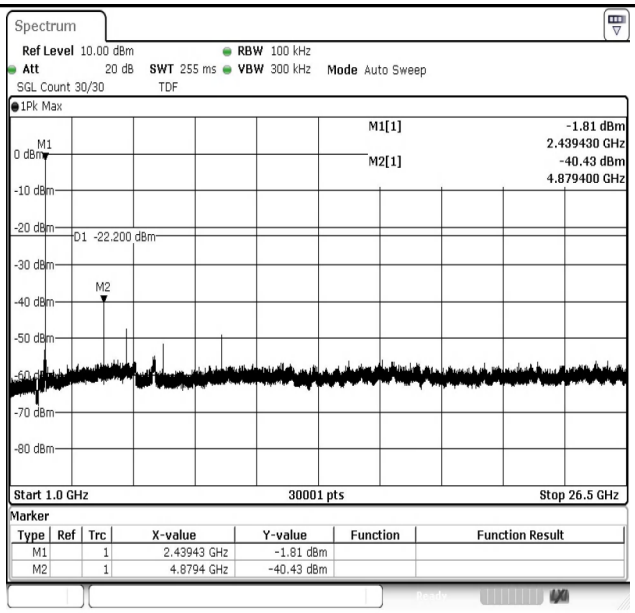
BLE_2M-Ant1-2402-1000~26500-PASS



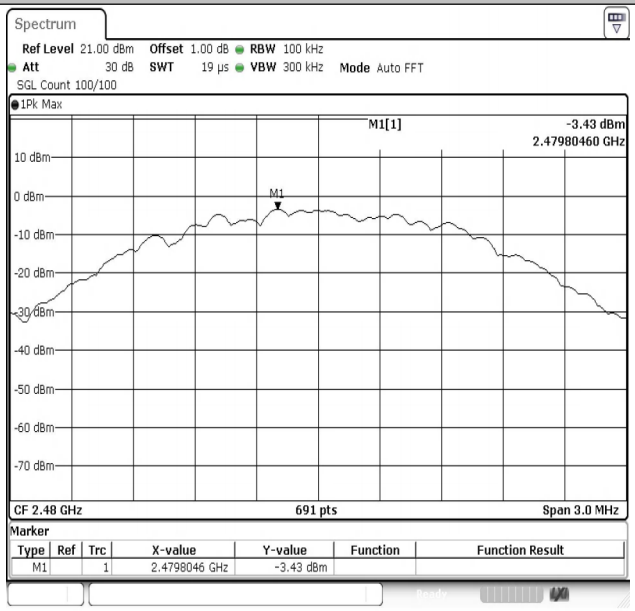
BLE_2M-Ant1-2440-0~Reference-PASS



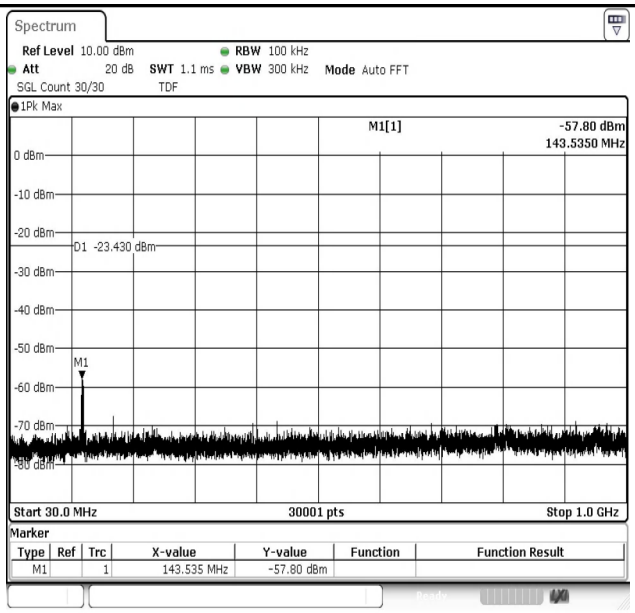
BLE_2M-Ant1-2440-30~1000-PASS



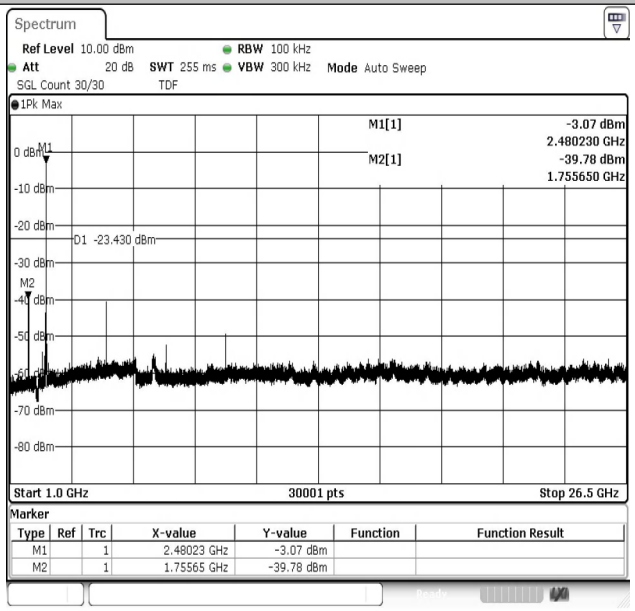
BLE_2M-Ant1-2440-1000~26500-PASS



BLE_2M-Ant1-2480-0~Reference-PASS



BLE_2M-Ant1-2480-30~1000-PASS



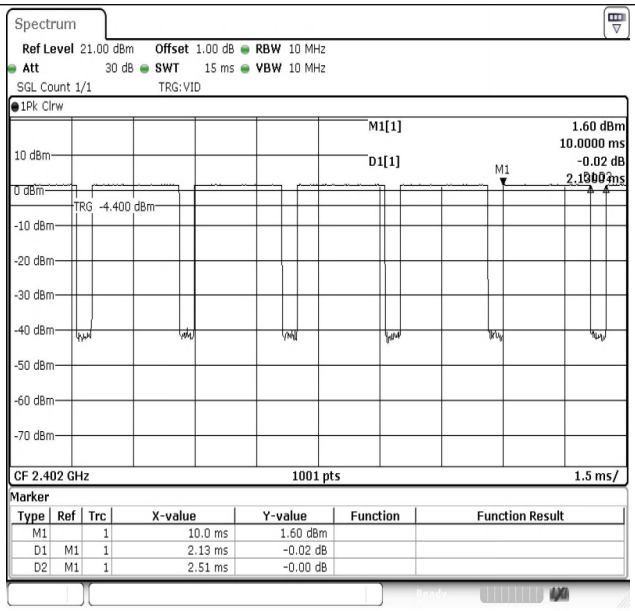
BLE_2M-Ant1-2480-1000~26500-PASS

Appendix G: Duty Cycle

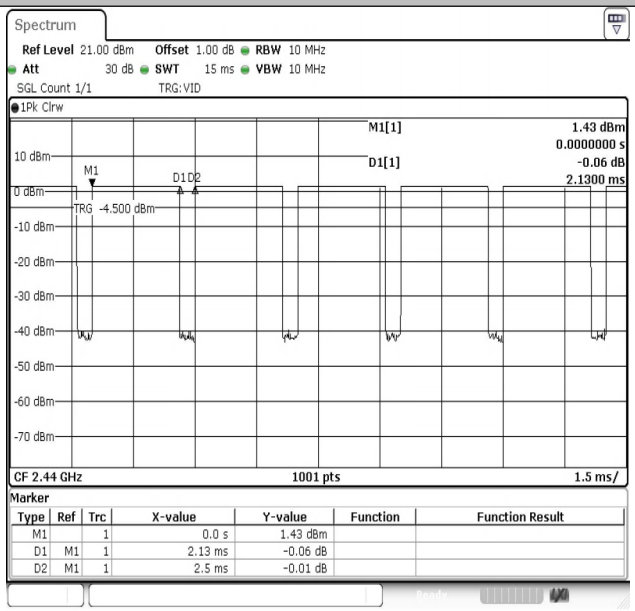
Test Result

Test Mode	Antenna	Frequency [MHz]	ON Time [ms]	Period [ms]	Duty Cycle [%]	Duty Cycle Factor[dB]
BLE_1M	Ant1	2402	2.13	2.51	84.86	0.71
BLE_1M	Ant1	2440	2.13	2.50	85.20	0.70
BLE_1M	Ant1	2480	2.13	2.51	84.86	0.71
BLE_2M	Ant1	2402	1.08	2.50	43.20	3.65
BLE_2M	Ant1	2440	1.08	2.50	43.20	3.65
BLE_2M	Ant1	2480	1.08	2.50	43.20	3.65

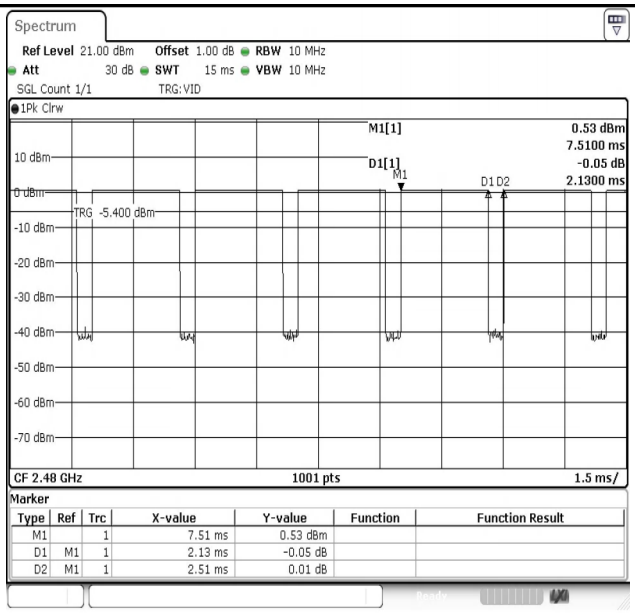
Test Graphs



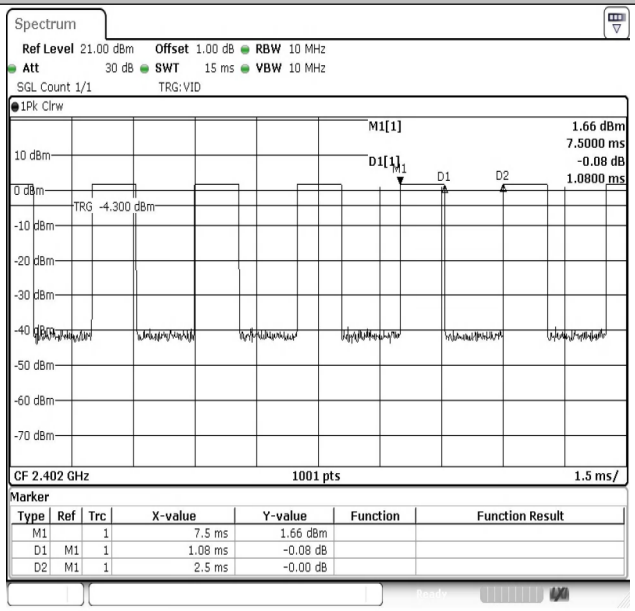
NTNV-BLE_1M-Ant1-2402



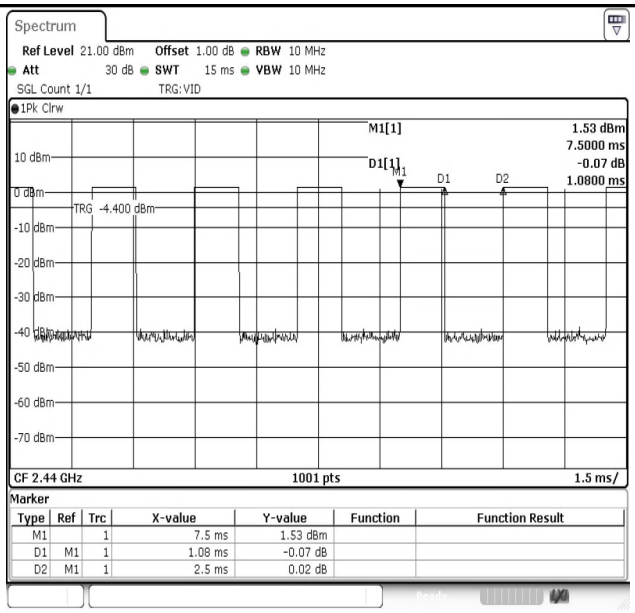
NTNV-BLE_1M-Ant1-2440



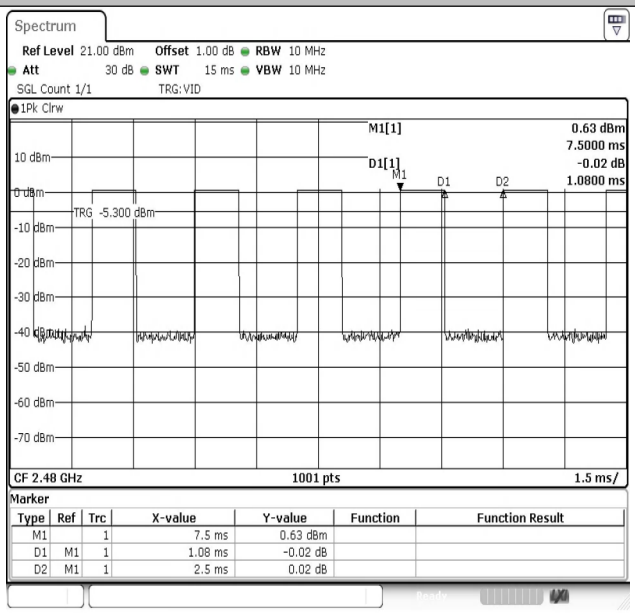
NTNV-BLE_1M-Ant1-2480



NTNV-BLE_2M-Ant1-2402



NTNV-BLE_2M-Ant1-2440



NTNV-BLE_2M-Ant1-2480

---End---