

Appendix for 15.247

1. Bandwidth

Test Result

TestMode	Antenna	Frequency[MHz]	DTS BW [MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	0.6691	0.5	PASS
BLE_1M	Ant1	2440	0.6964	0.5	PASS
BLE_1M	Ant1	2480	0.6963	0.5	PASS
BLE_2M	Ant1	2402	1.134	0.5	PASS
BLE_2M	Ant1	2440	1.099	0.5	PASS
BLE_2M	Ant1	2480	1.143	0.5	PASS

Test Graphs



2.Occupied Channel Bandwidth

Test Result

TestMode	Antenna	Frequency[MHz]	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	1.0421	2401.4741	2402.5162	---	---
BLE_1M	Ant1	2440	1.0403	2439.4720	2440.5123	---	---
BLE_1M	Ant1	2480	1.0397	2479.4759	2480.5156	---	---
BLE_2M	Ant1	2402	2.0759	2400.9674	2403.0433	---	---
BLE_2M	Ant1	2440	2.0556	2438.9796	2441.0352	---	---
BLE_2M	Ant1	2480	2.0633	2478.9753	2481.0386	---	---

Test Graphs



BLE_1M-Ant1-2402



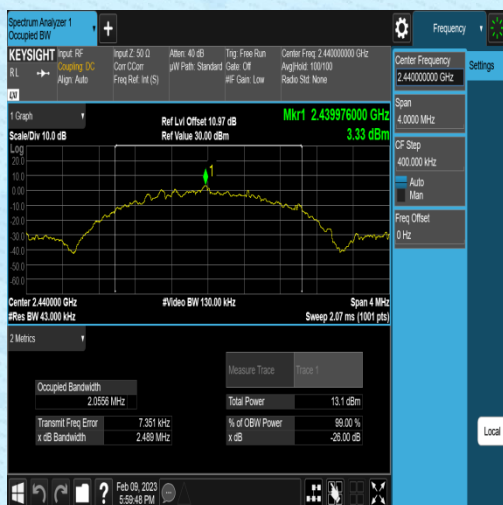
BLE_1M-Ant1-2440



BLE_1M-Ant1-2480



BLE_2M-Ant1-2402



BLE_2M-Ant1-2440



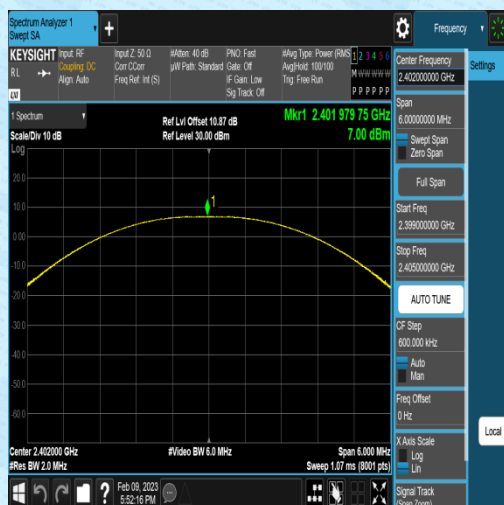
BLE_2M-Ant1-2480

3.Maximum conducted output power

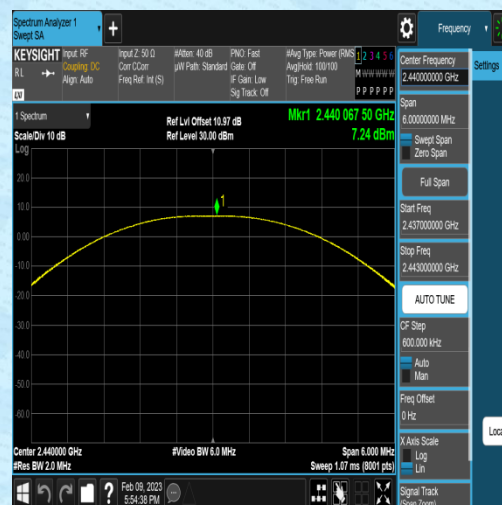
Test Result Peak

TestMode	Antenna	Frequency[MHz]	Conducted Peak Power[dBm]	Conducted Limit[dBm]	EIRP[dBm]	EIRP Limit[dBm]	Verdict
BLE_1M	Ant1	2402	7	≤30	11.1	≤36	PASS
BLE_1M	Ant1	2440	7.24	≤30	11.34	≤36	PASS
BLE_1M	Ant1	2480	7.3	≤30	11.4	≤36	PASS
BLE_2M	Ant1	2402	6.9	≤30	11	≤36	PASS
BLE_2M	Ant1	2440	7.25	≤30	11.35	≤36	PASS
BLE_2M	Ant1	2480	7.29	≤30	11.39	≤36	PASS

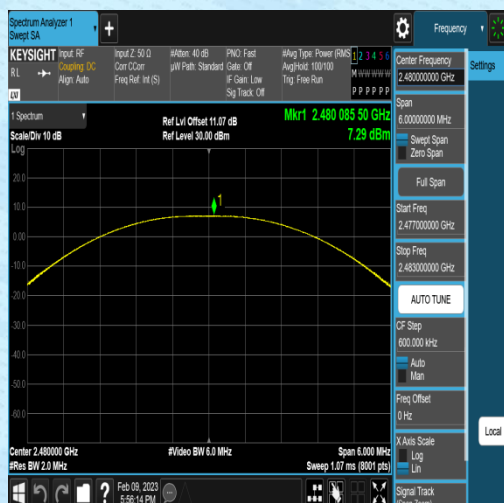
Test Graphs



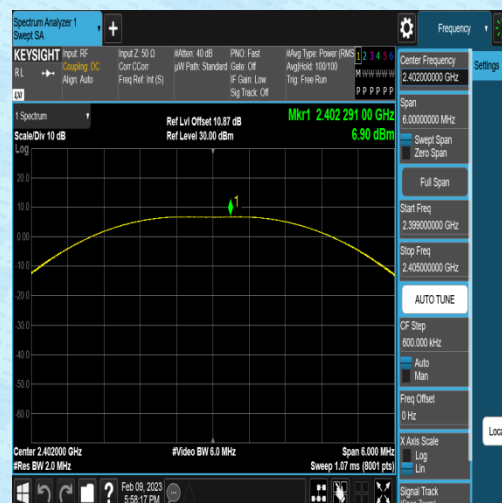
BLE_1M-Ant1-2402



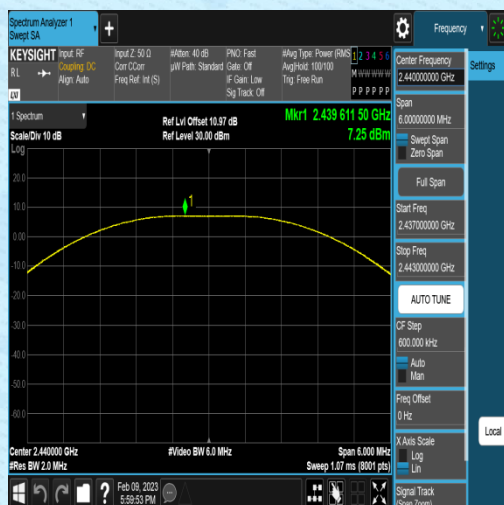
BLE_1M-Ant1-2440



BLE_1M-Ant1-2480



BLE_2M-Ant1-2402



BLE_2M-Ant1-2440



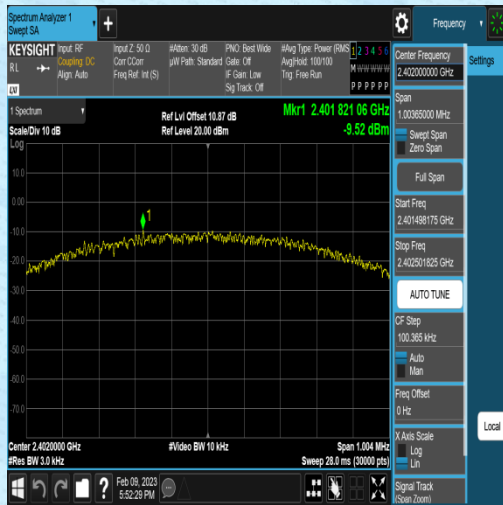
BLE_2M-Ant1-2480

4.Maximum power spectral density

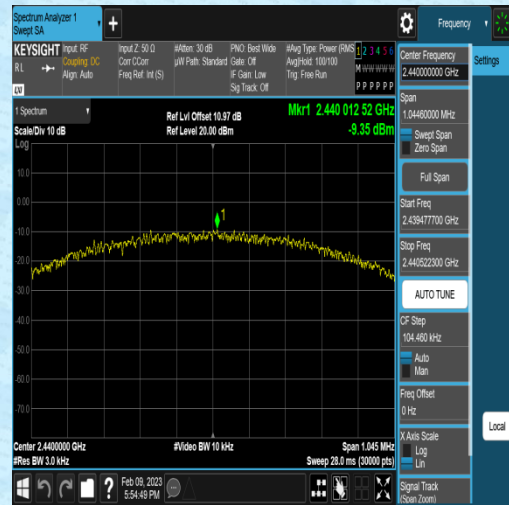
Test Result

TestMode	Antenna	Frequency[MHz]	Result[dBm/3kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-9.52	≤8.00	PASS
BLE_1M	Ant1	2440	-9.35	≤8.00	PASS
BLE_1M	Ant1	2480	-9.27	≤8.00	PASS
BLE_2M	Ant1	2402	-11.7	≤8.00	PASS
BLE_2M	Ant1	2440	-11.46	≤8.00	PASS
BLE_2M	Ant1	2480	-11.26	≤8.00	PASS

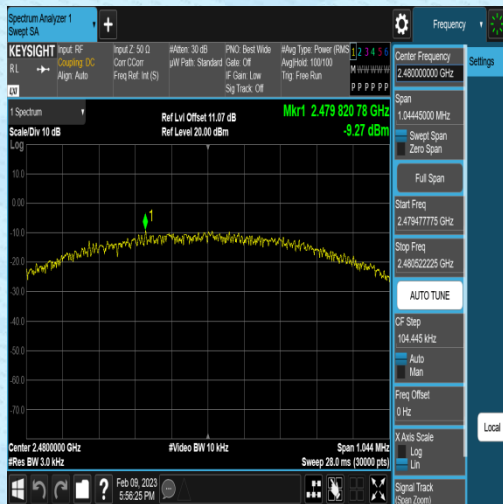
Test Graphs



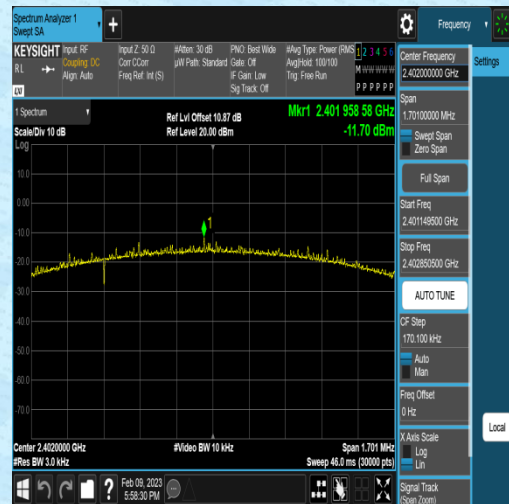
BLE_1M-Ant1-2402



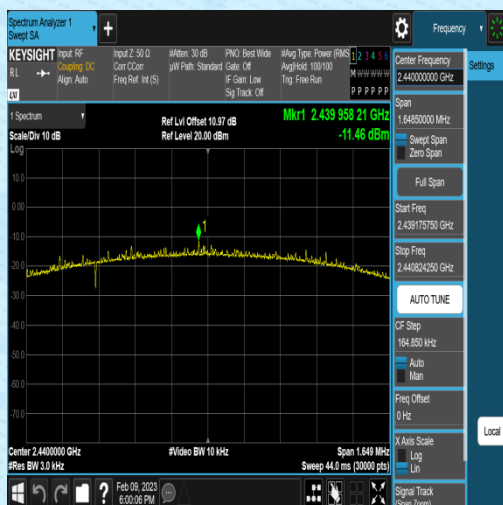
BLE_1M-Ant1-2440



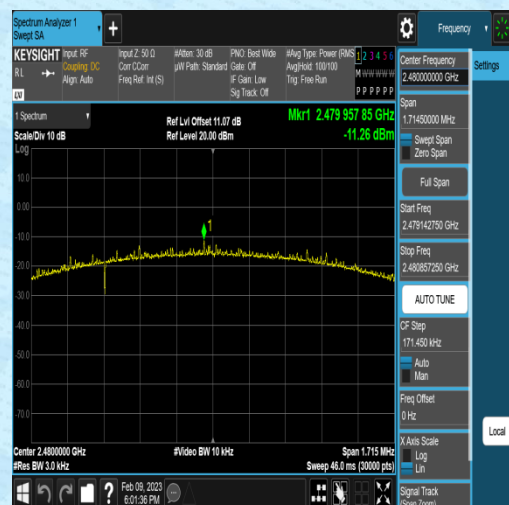
BLE_1M-Ant1-2480



BLE_2M-Ant1-2402



BLE_2M-Ant1-2440



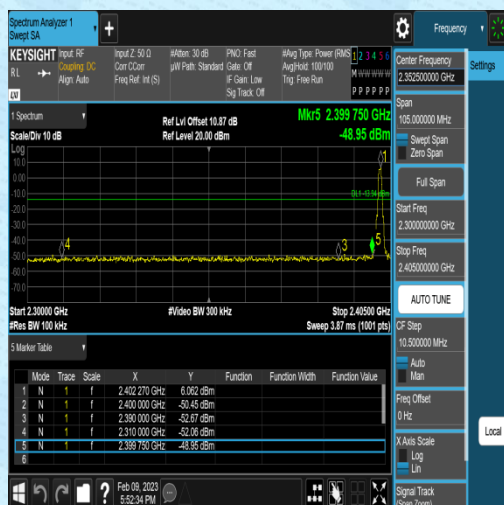
BLE_2M-Ant1-2480

5.Band edge measurements

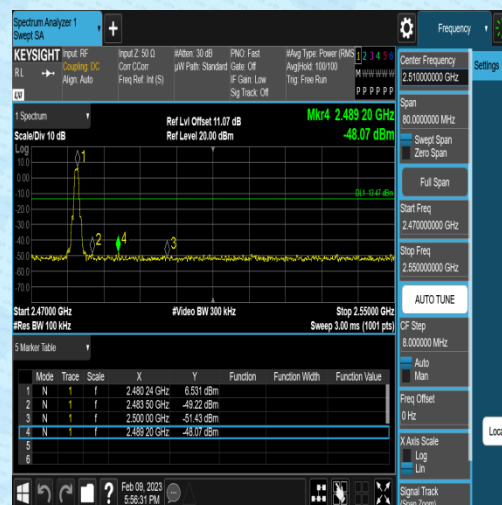
Test Result

TestMode	Antenna	Channel	Frequency[MHz]	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	Low	2402	6.06	-48.95	≤-13.94	PASS
BLE_1M	Ant1	High	2480	6.53	-48.07	≤-13.47	PASS
BLE_2M	Ant1	Low	2402	3.75	-28.35	≤-16.25	PASS
BLE_2M	Ant1	High	2480	5.57	-48.57	≤-14.43	PASS

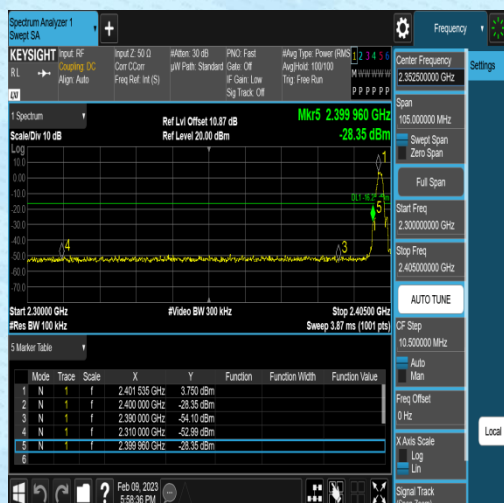
Test Graphs



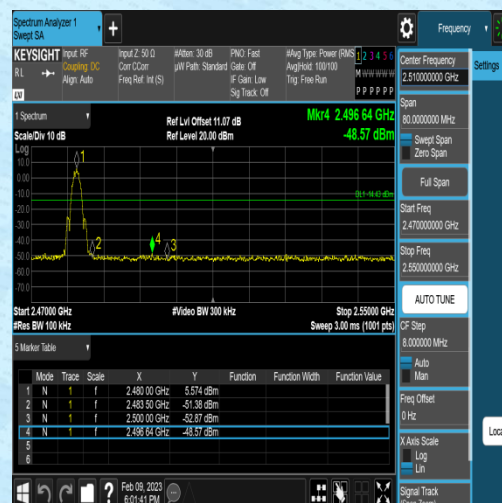
BLE_1M-Ant1-Low-2402-6.06



BLE_1M-Ant1-High-2480-6.53



BLE_2M-Ant1-Low-2402-3.75



BLE_2M-Ant1-High-2480-5.57

6. Conducted Spurious Emission

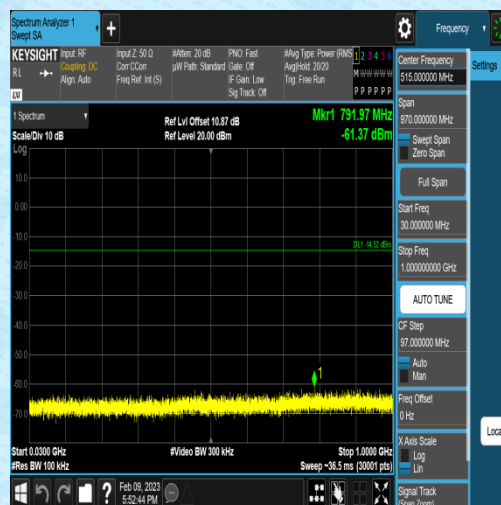
Test Result

TestMode	Antenna	Frequency[MHz]	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	Reference	5.48	5.48	---	PASS
BLE_1M	Ant1	2402	30~1000	5.48	-61.37	≤ -14.52	PASS
BLE_1M	Ant1	2402	1000~26500	5.48	-49.2	≤ -14.52	PASS
BLE_1M	Ant1	2440	Reference	6.04	6.04	---	PASS
BLE_1M	Ant1	2440	30~1000	6.04	-60.89	≤ -13.96	PASS
BLE_1M	Ant1	2440	1000~26500	6.04	-49.89	≤ -13.96	PASS
BLE_1M	Ant1	2480	Reference	6.45	6.45	---	PASS
BLE_1M	Ant1	2480	30~1000	6.45	-60.18	≤ -13.55	PASS
BLE_1M	Ant1	2480	1000~26500	6.45	-49.67	≤ -13.55	PASS
BLE_2M	Ant1	2402	Reference	6.37	6.37	---	PASS
BLE_2M	Ant1	2402	30~1000	6.37	-61.83	≤ -13.63	PASS
BLE_2M	Ant1	2402	1000~26500	6.37	-50.23	≤ -13.63	PASS
BLE_2M	Ant1	2440	Reference	3.32	3.32	---	PASS
BLE_2M	Ant1	2440	30~1000	3.32	-60.71	≤ -16.68	PASS
BLE_2M	Ant1	2440	1000~26500	3.32	-49.92	≤ -16.68	PASS
BLE_2M	Ant1	2480	Reference	6.20	6.20	---	PASS
BLE_2M	Ant1	2480	30~1000	6.20	-61.58	≤ -13.8	PASS
BLE_2M	Ant1	2480	1000~26500	6.20	-48.7	≤ -13.8	PASS

Test Graphs



BLE_1M-Ant1-2402-Reference-5.48



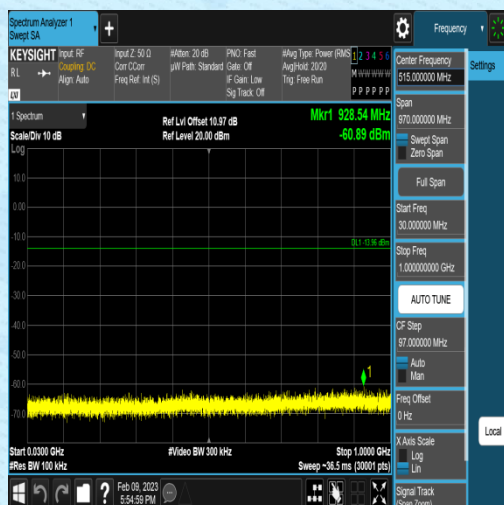
BLE_1M-Ant1-2402-30~1000-5.48



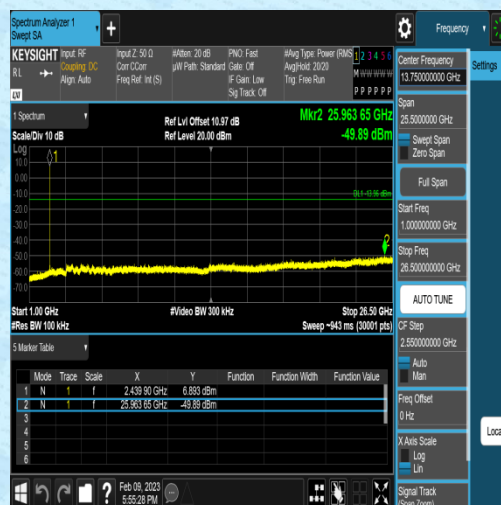
BLE_1M-Ant1-2402-1000~26500-5.48



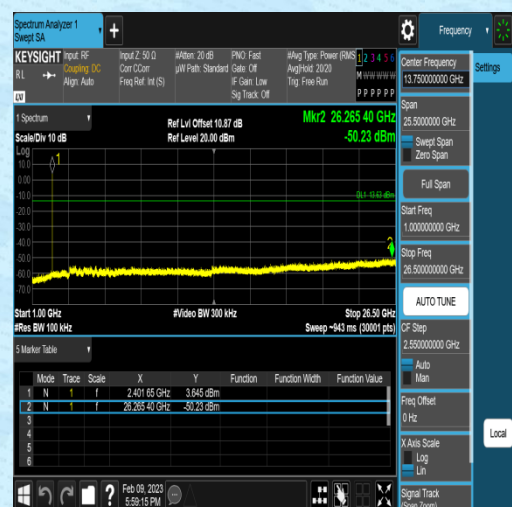
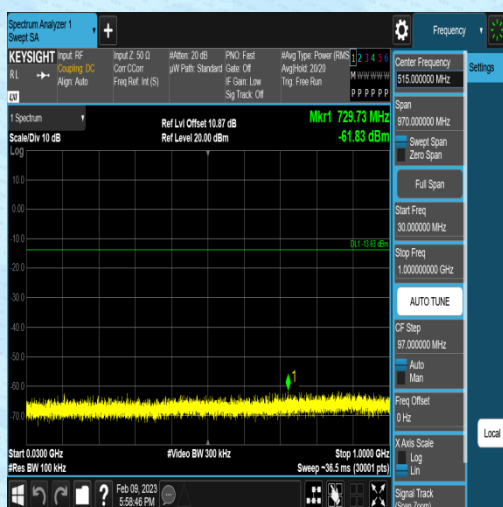
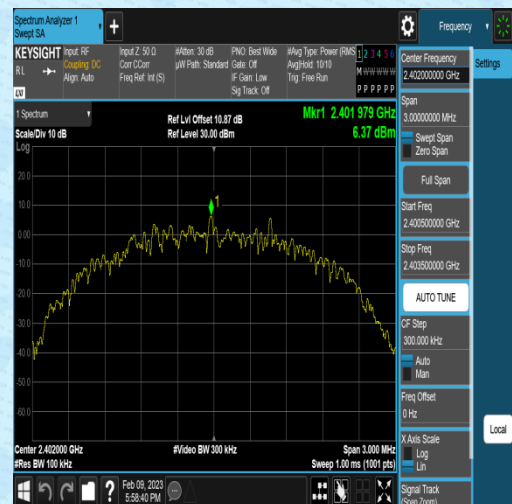
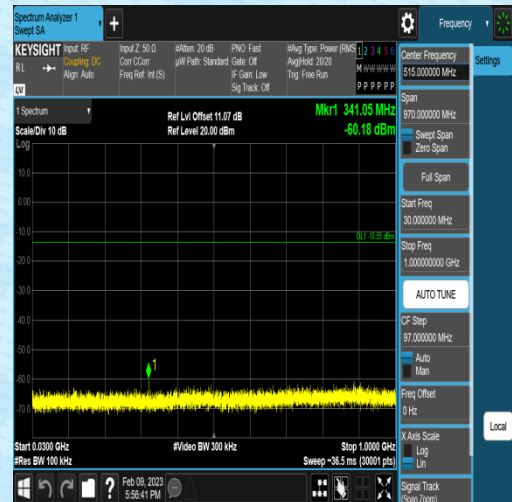
BLE_1M-Ant1-2440-Reference-6.04

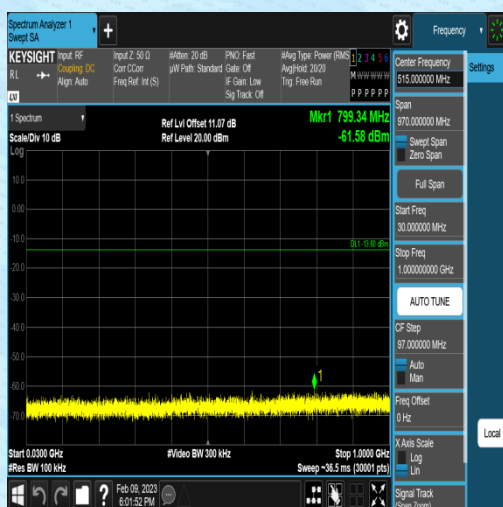
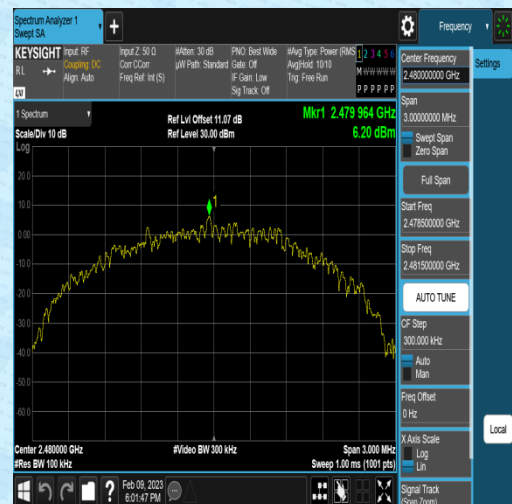
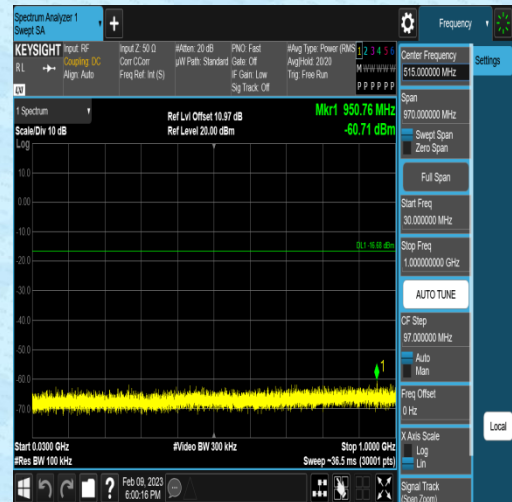
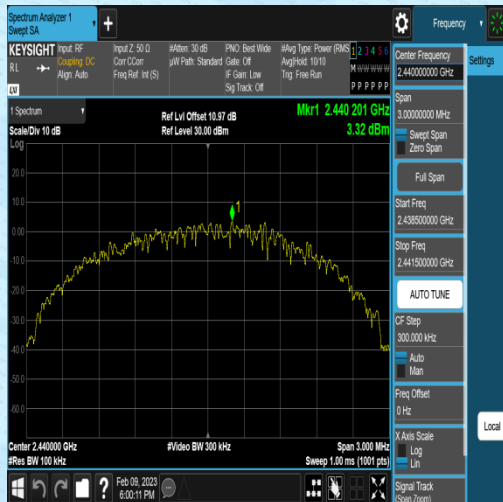


BLE_1M-Ant1-2440-30~1000-6.04



BLE_1M-Ant1-2440-1000~26500-6.04



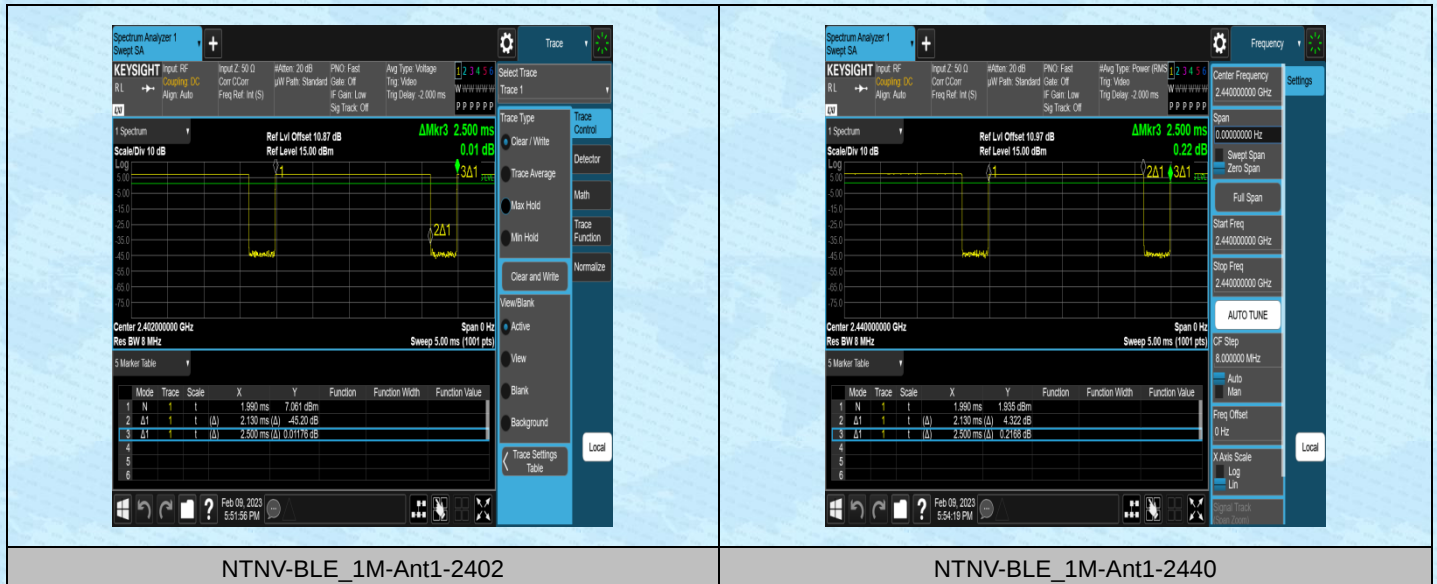


7.Duty Cycle

Test Result

TestMode	Antenna	Frequency[MHz]	ON Time [ms]	Period [ms]	Duty Cycle [%]	Duty Cycle Factor[dB]
BLE_1M	Ant1	2402	2.13	2.50	85.20	0.70
BLE_1M	Ant1	2440	2.13	2.50	85.20	0.70
BLE_1M	Ant1	2480	2.13	2.50	85.20	0.70
BLE_2M	Ant1	2402	1.07	1.88	56.91	2.45
BLE_2M	Ant1	2440	1.07	1.87	57.22	2.42
BLE_2M	Ant1	2480	1.07	1.88	56.91	2.45

Test Graphs





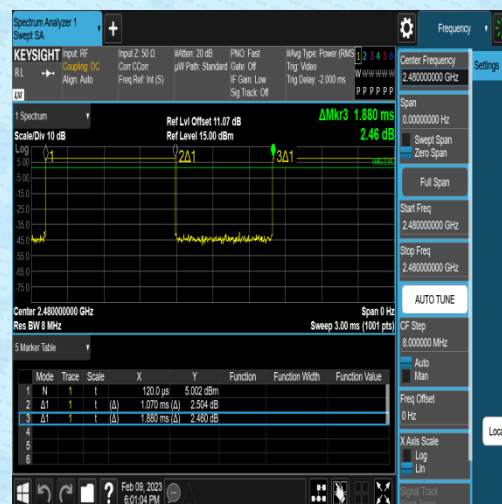
NTNV-BLE_1M-Ant1-2480



NTNV-BLE_2M-Ant1-2402



NTNV-BLE_2M-Ant1-2440



NTNV-BLE_2M-Ant1-2480

-----End-----