

Appendix Test Data

Report No:	1813C40076012502	Test Sample NO:	1-2-2
Start Test Date:	2024.9.23	Finish Test Date:	2024.9.23
Test Engineer:	<i>Joker Wang</i>	Auditor:	<i>Justin Feng</i>
Temperature:	22.9°C	Relative Humidity:	55%
Pressure:	101 kPa		

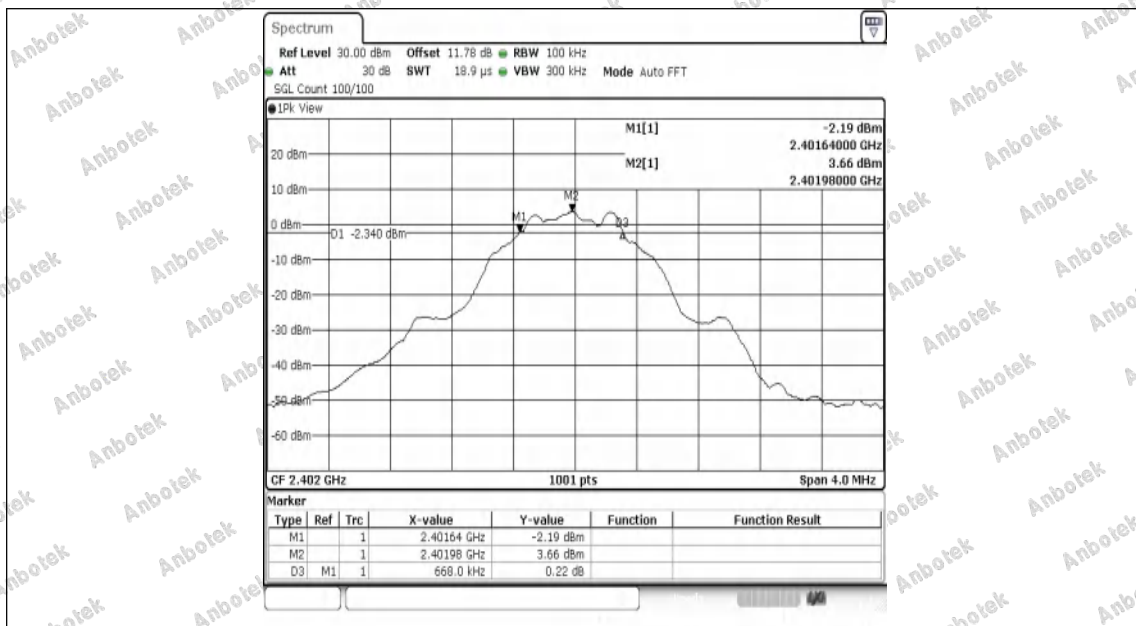
Appendix A: DTS Bandwidth

Test Result

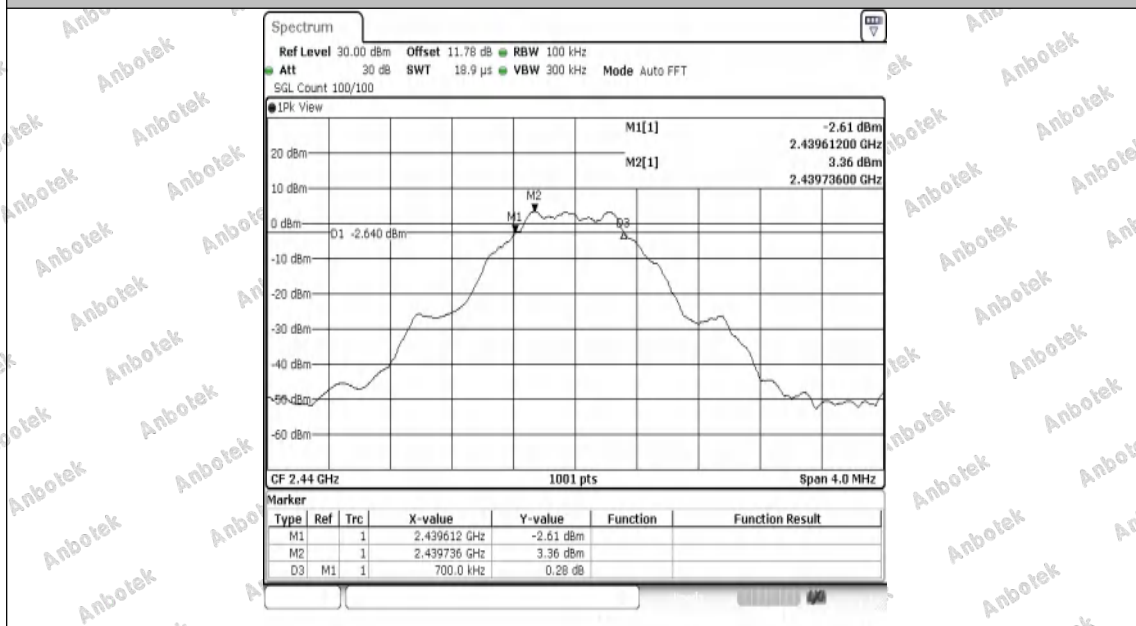
TestMode	Antenna	Frequency[MHz]	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	0.67	2401.64	2402.31	0.5	PASS
BLE_1M	Ant1	2440	0.70	2439.61	2440.31	0.5	PASS
BLE_1M	Ant1	2480	0.66	2479.63	2480.30	0.5	PASS
BLE_2M	Ant1	2402	1.34	2401.29	2402.63	0.5	PASS
BLE_2M	Ant1	2440	1.24	2439.31	2440.55	0.5	PASS
BLE_2M	Ant1	2480	1.29	2479.29	2480.58	0.5	PASS



Test Graphs

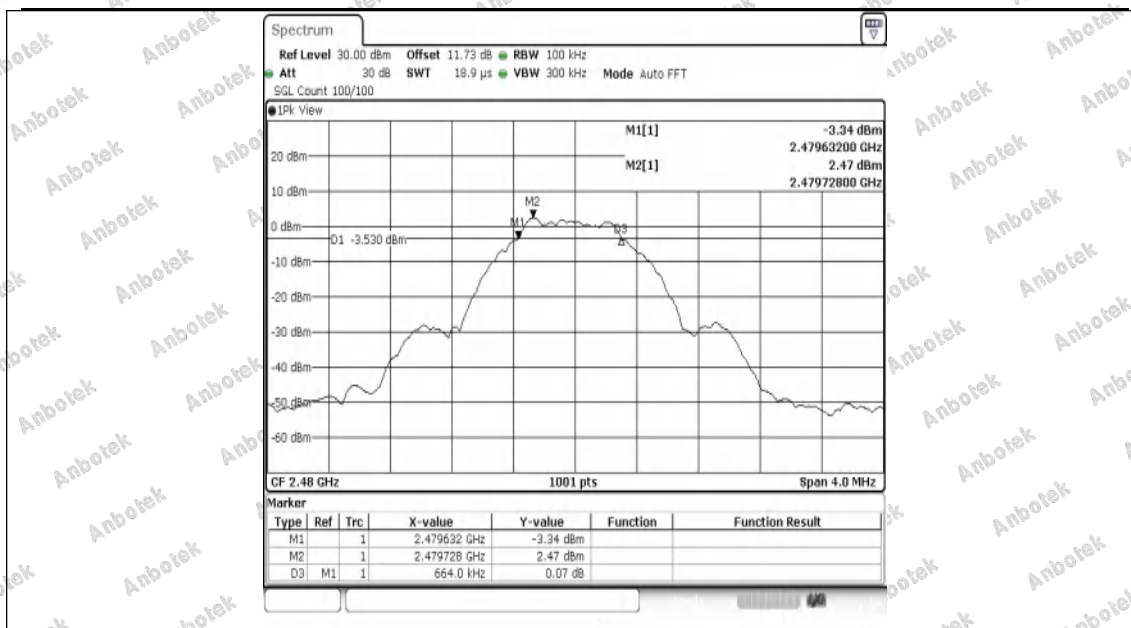


BLE_1M-Ant1-2402-PASS

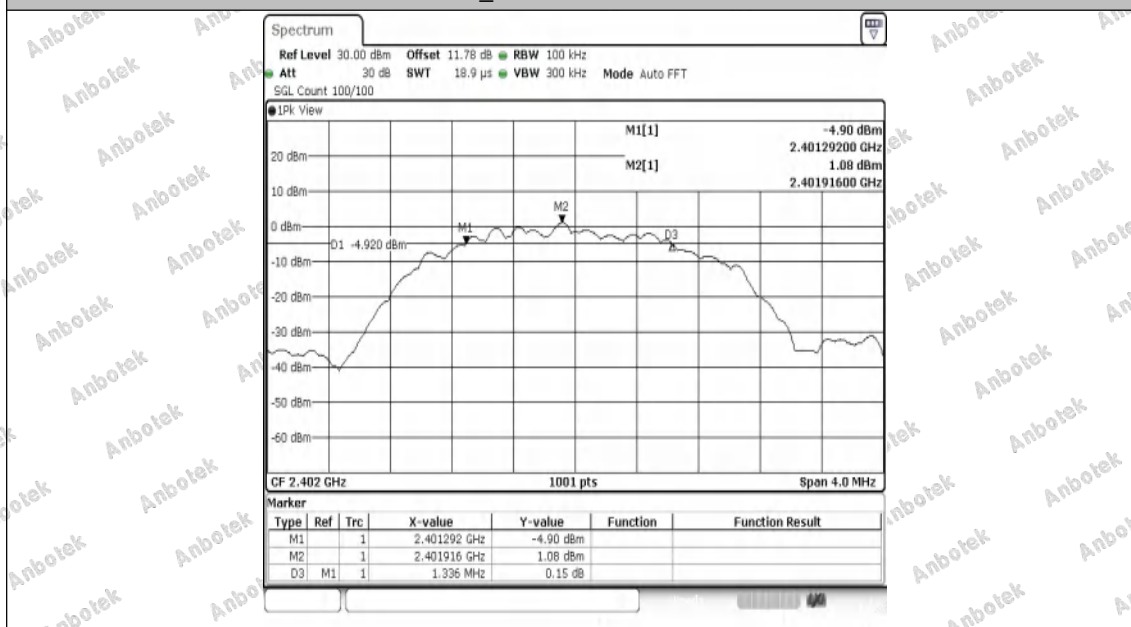


BLE_1M-Ant1-2440-PASS



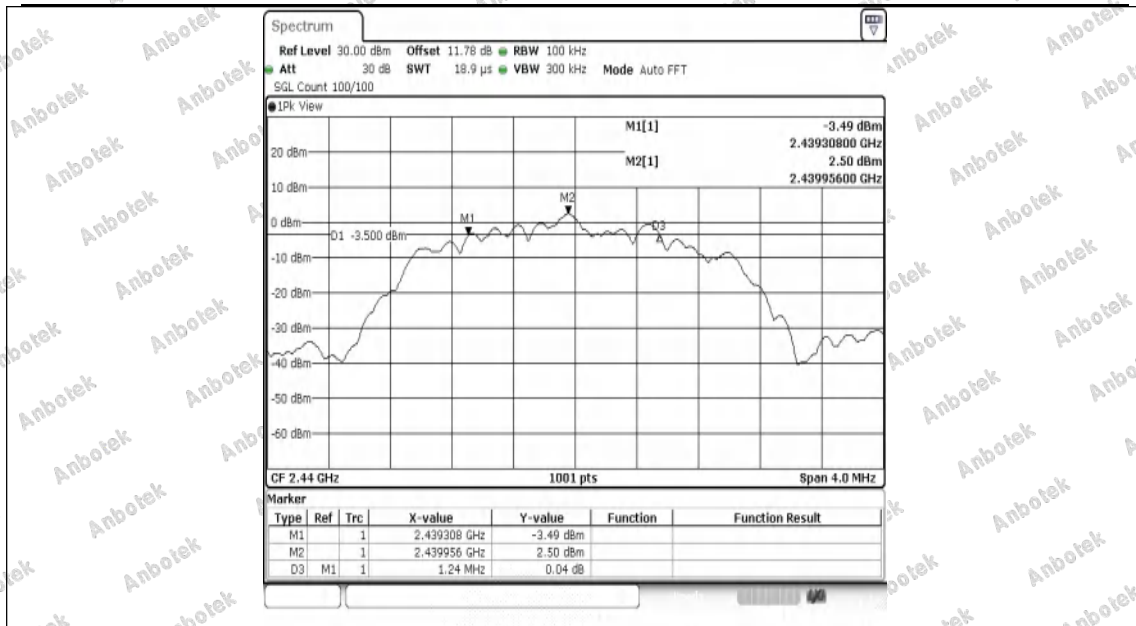


BLE_1M-Ant1-2480-PASS

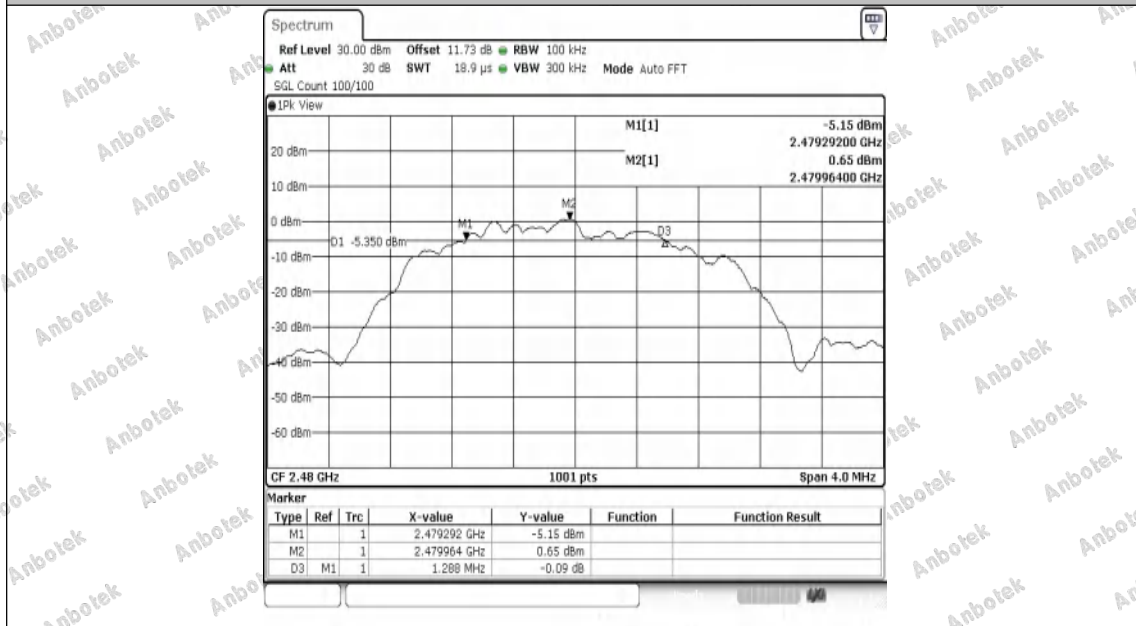


BLE_2M-Ant1-2402-PASS





BLE_2M-Ant1-2440-PASS



BLE_2M-Ant1-2480-PASS



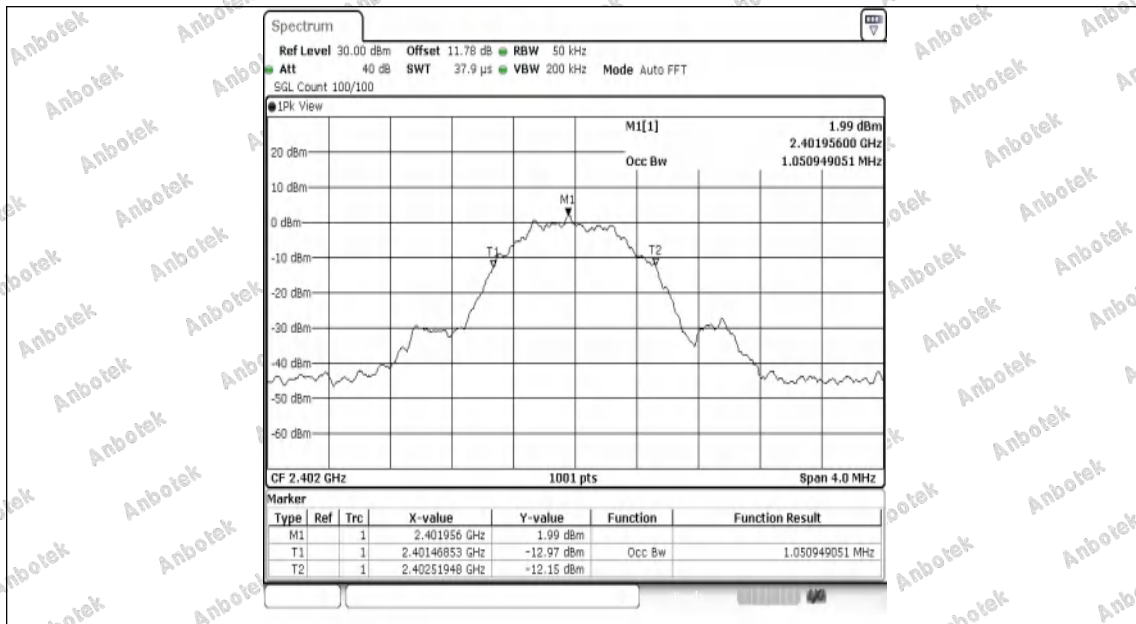
Appendix B: Occupied Channel Bandwidth

Test Result

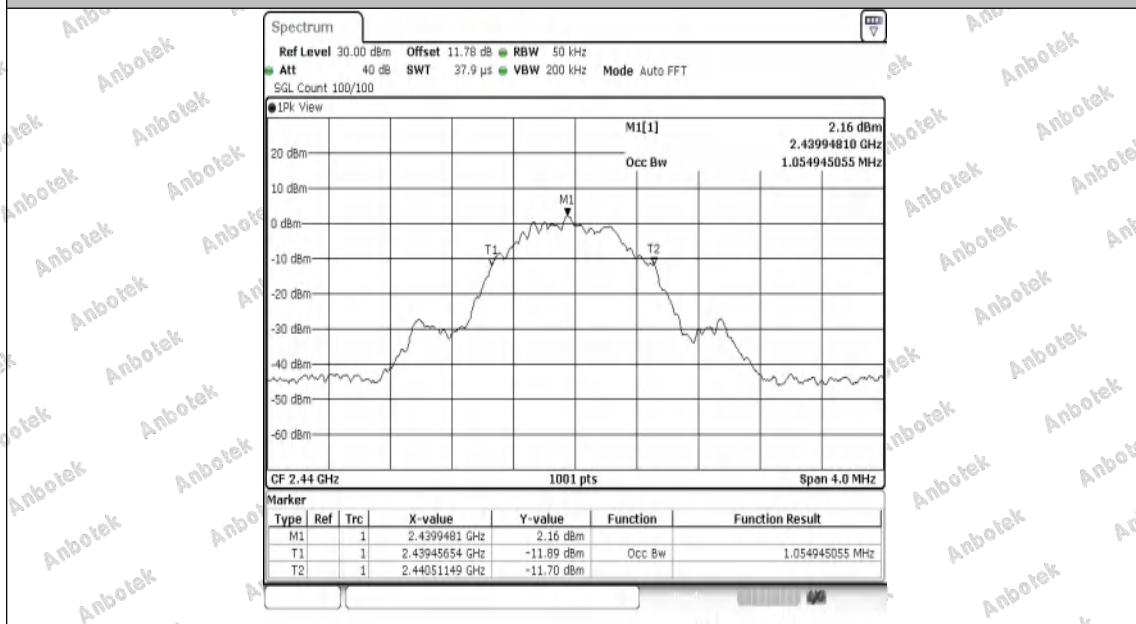
TestMode	Antenna	Frequency[MHz]	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	1.051	2401.4685	2402.5195	---	---
BLE_1M	Ant1	2440	1.055	2439.4565	2440.5115	---	---
BLE_1M	Ant1	2480	1.043	2479.4605	2480.5035	---	---
BLE_2M	Ant1	2402	2.114	2400.9411	2403.0549	---	---
BLE_2M	Ant1	2440	2.094	2438.9491	2441.0430	---	---
BLE_2M	Ant1	2480	2.102	2478.9291	2481.0310	---	---



Test Graphs

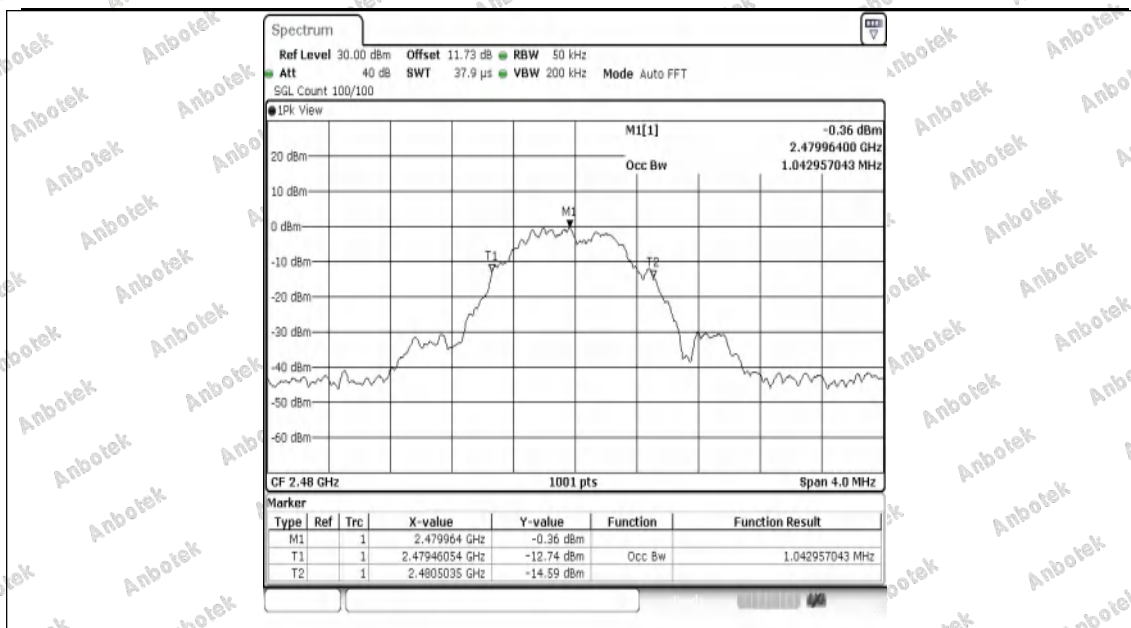


BLE_1M-Ant1-2402

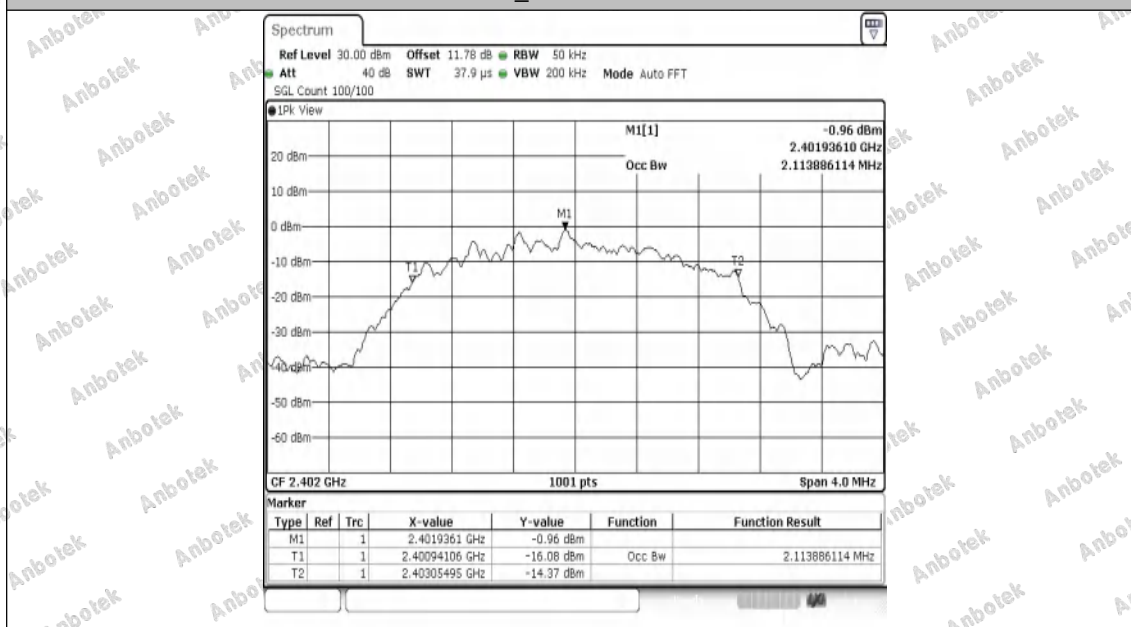


BLE_1M-Ant1-2440



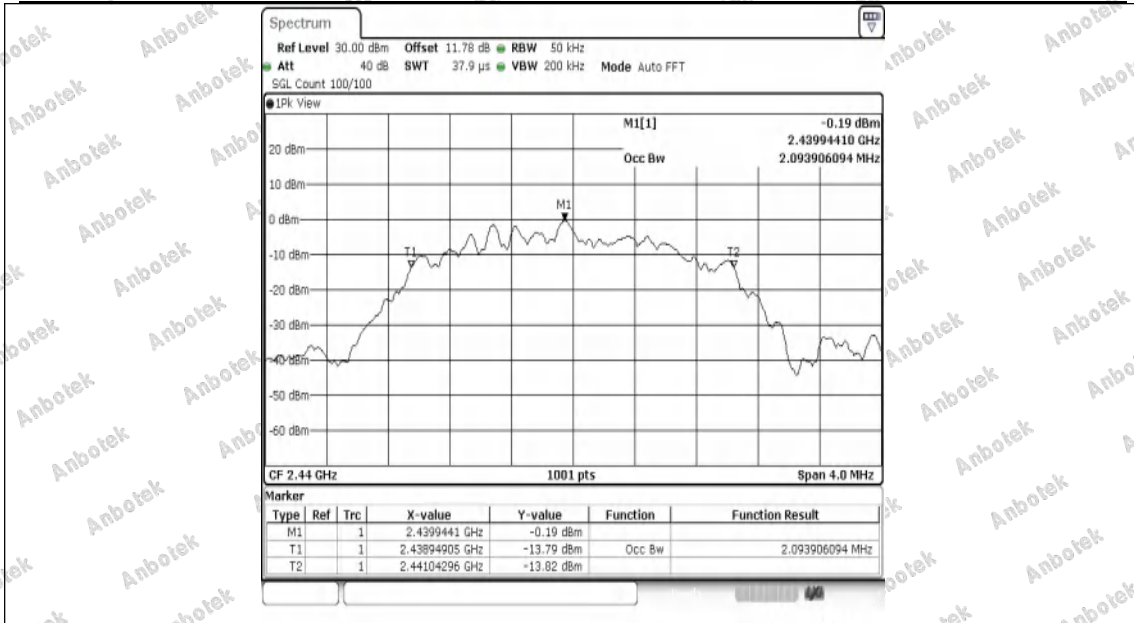


BLE_1M-Ant1-2480

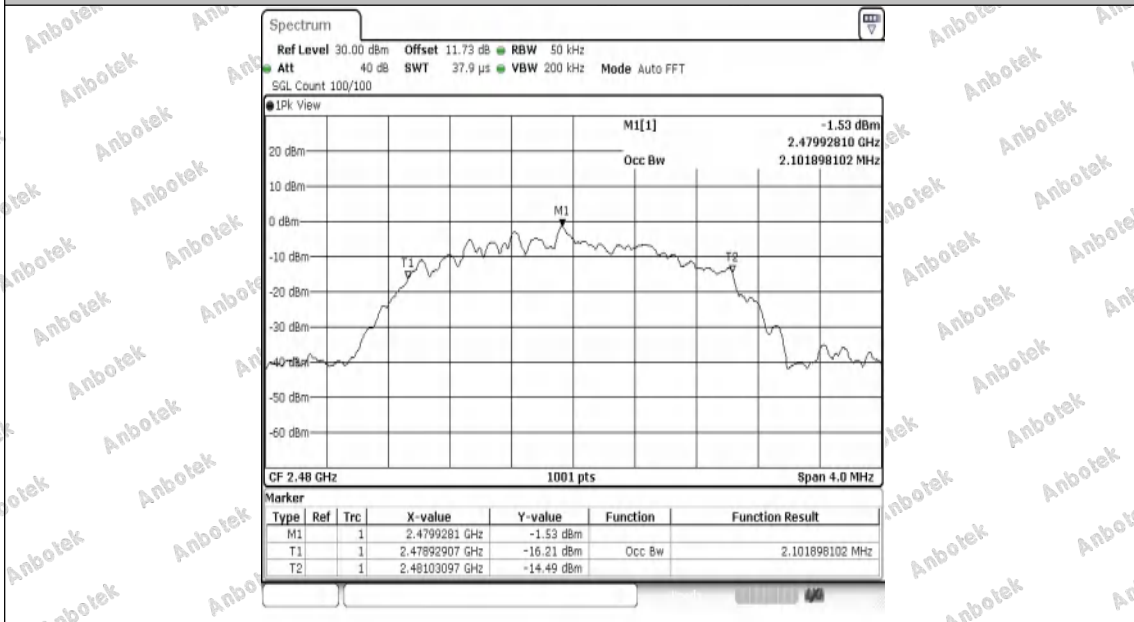


BLE_2M-Ant1-2402





BLE_2M-Ant1-2440



BLE_2M-Ant1-2480

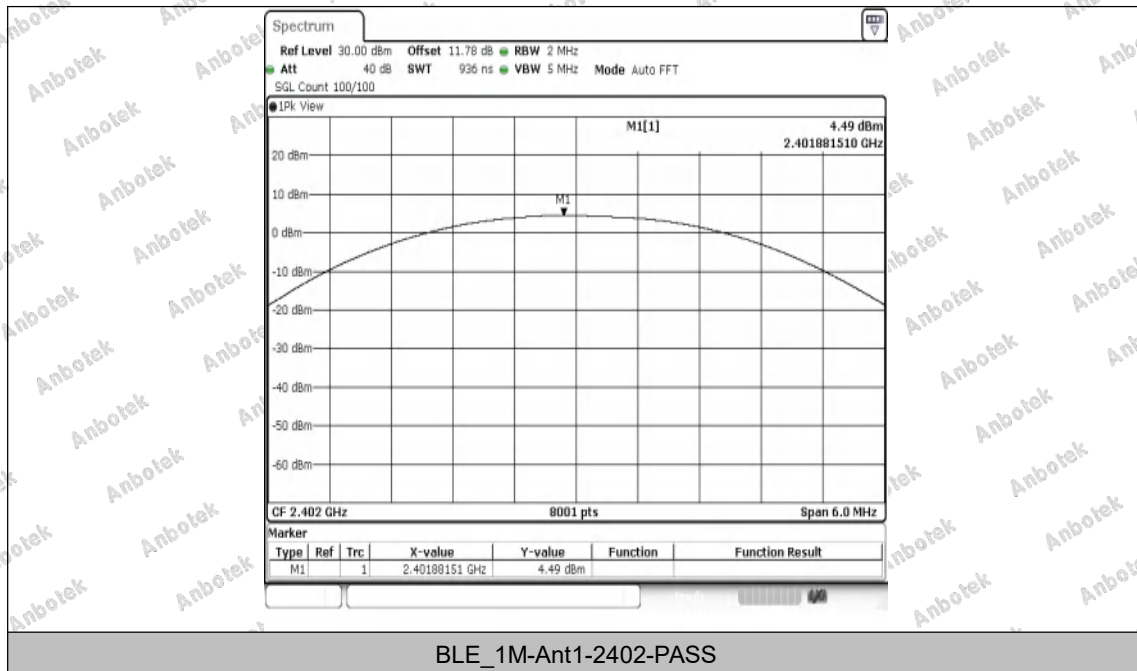


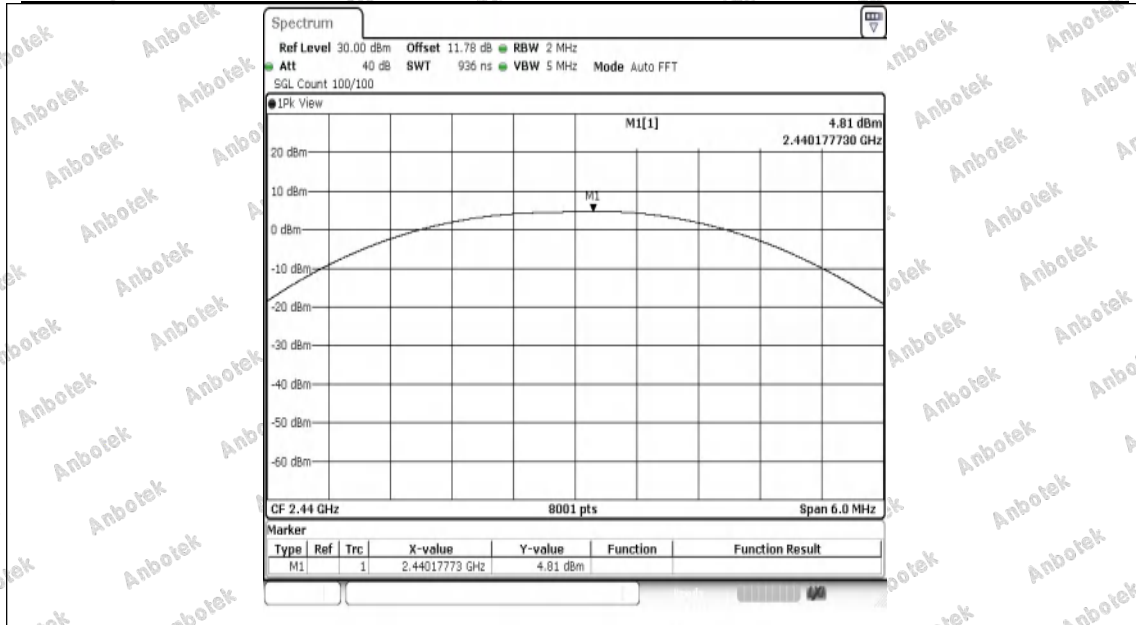
Appendix C: Maximum conducted output power

Test Result Peak

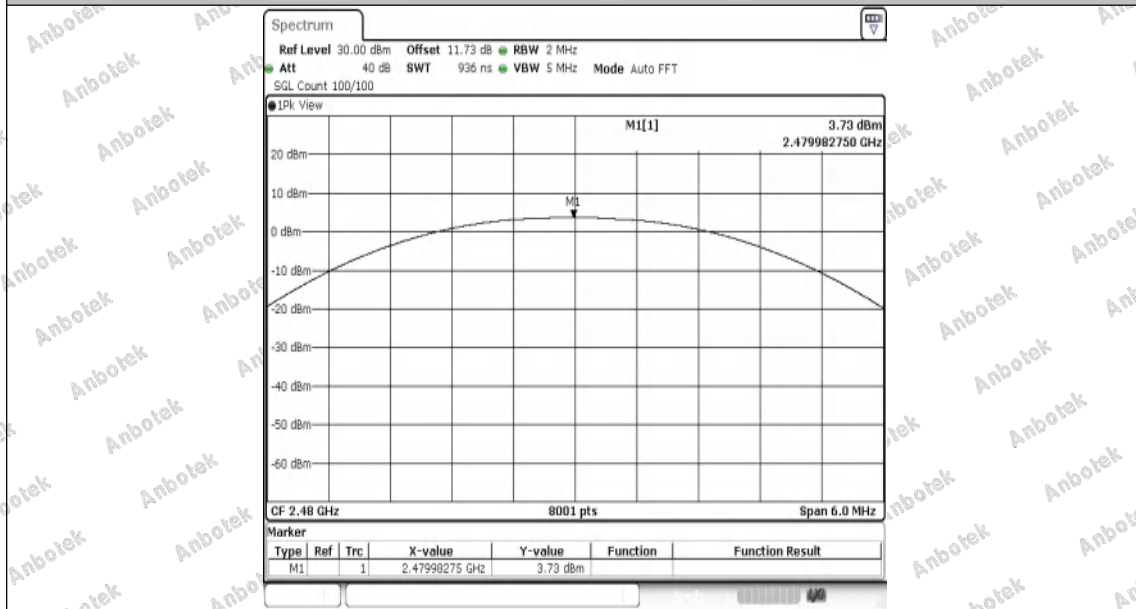
TestMode	Antenna	Frequency[MHz]	Conducted Peak Power[dBm]	Conducted Limit[dBm]	Verdict
BLE_1M	Ant1	2402	4.49	≤30	PASS
BLE_1M	Ant1	2440	4.81	≤30	PASS
BLE_1M	Ant1	2480	3.73	≤30	PASS
BLE_2M	Ant1	2402	4.46	≤30	PASS
BLE_2M	Ant1	2440	4.53	≤30	PASS
BLE_2M	Ant1	2480	3.59	≤30	PASS

Test Graphs Peak



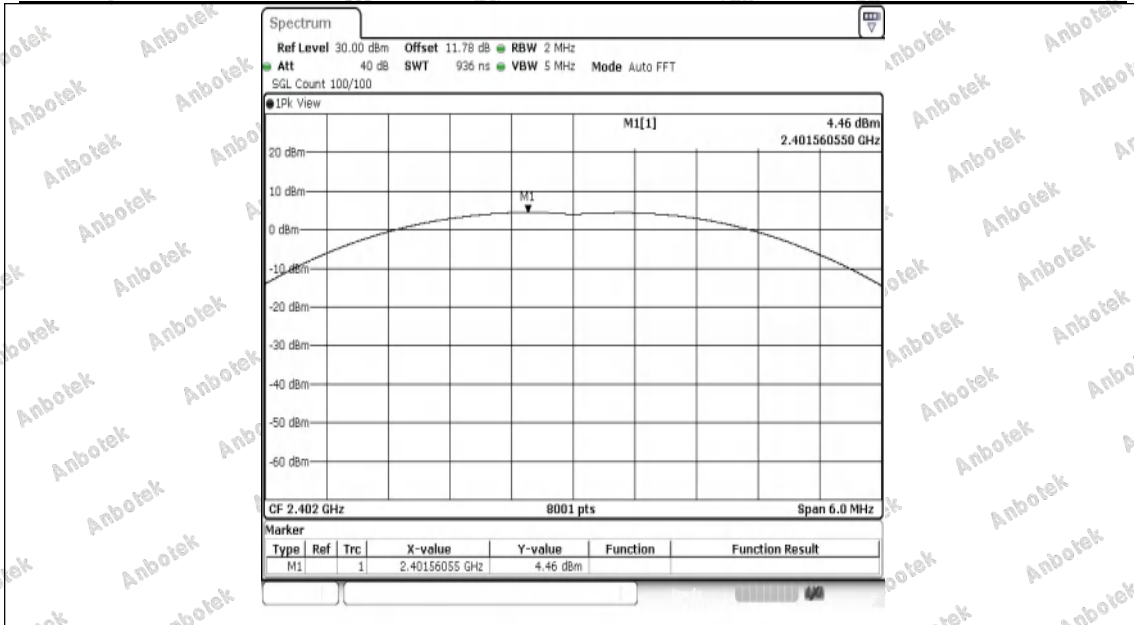


BLE_1M-Ant1-2440-PASS

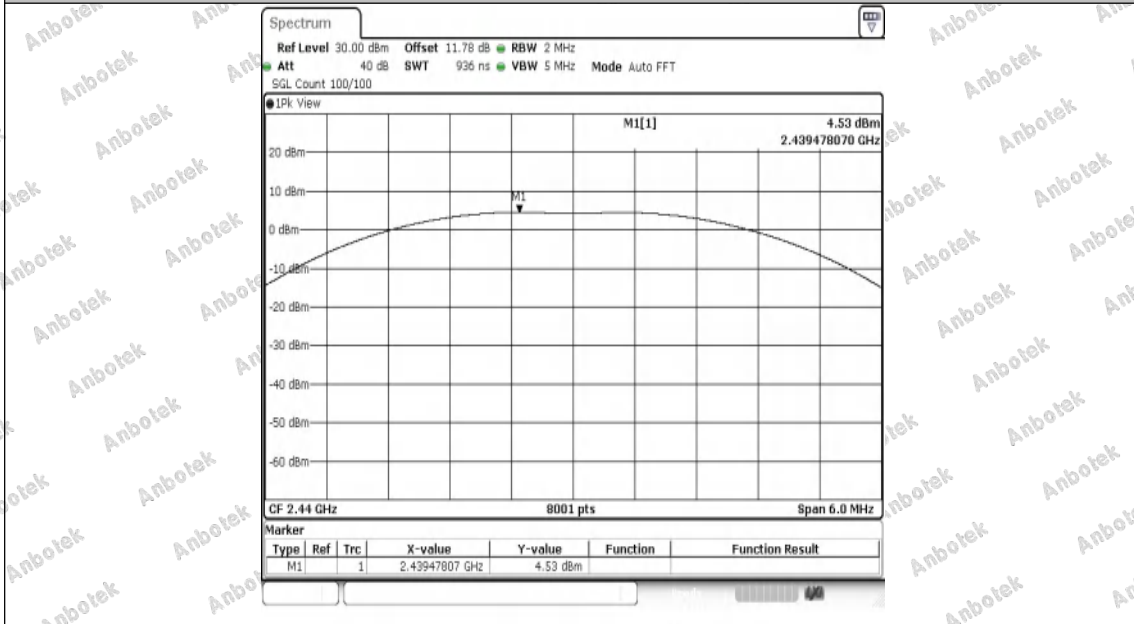


BLE_1M-Ant1-2480-PASS



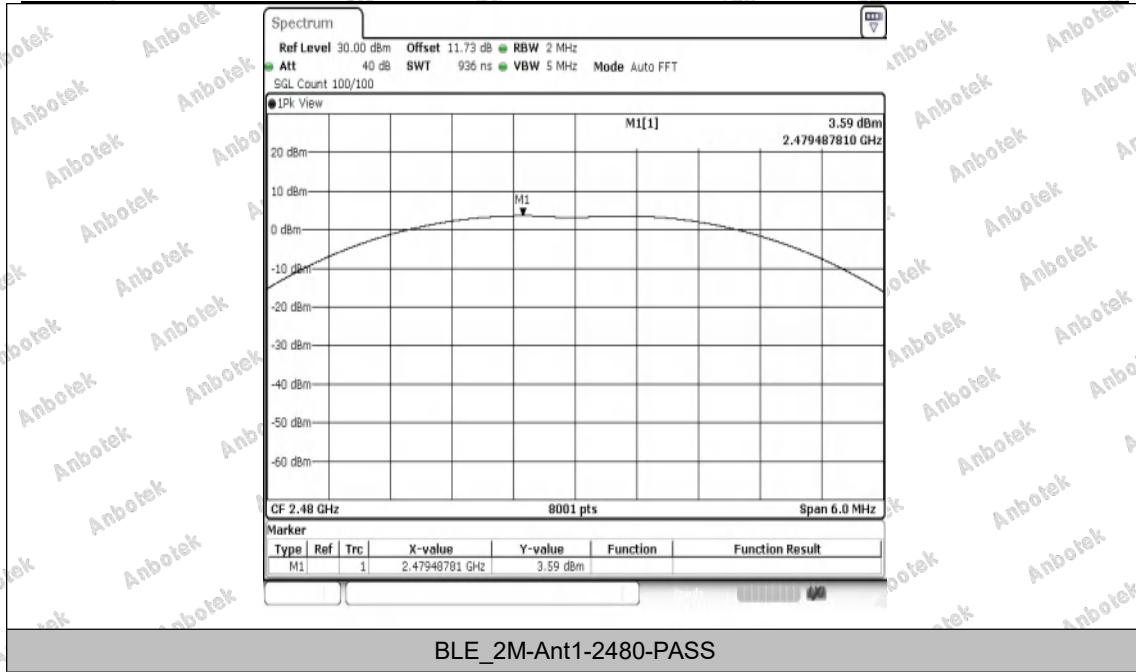


BLE_2M-Ant1-2402-PASS



BLE_2M-Ant1-2440-PASS





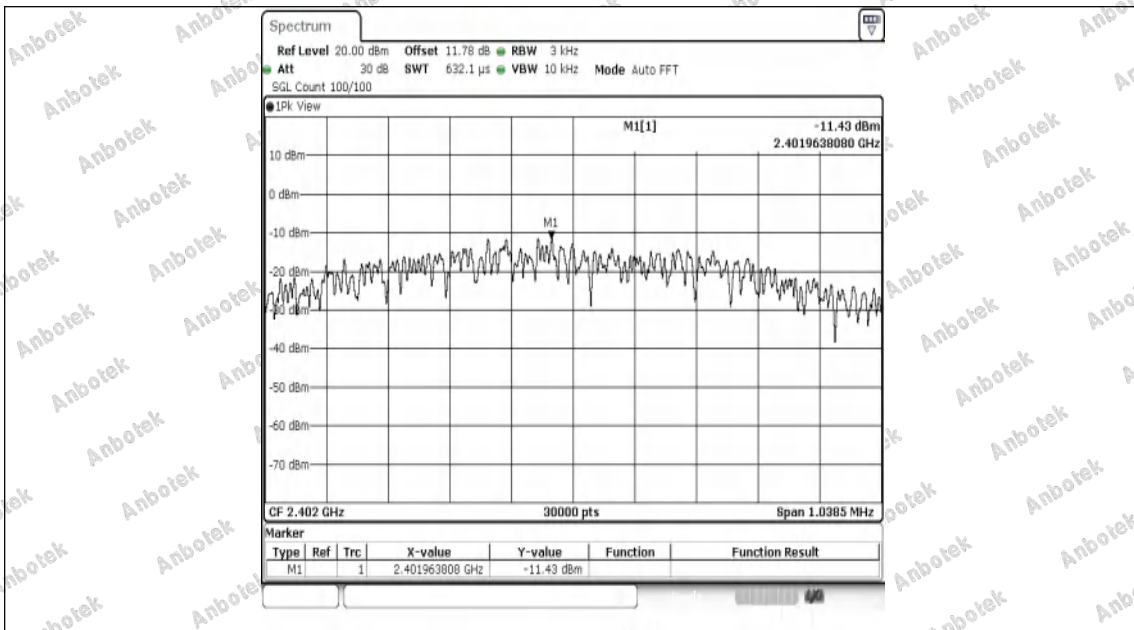
Appendix D: Maximum power spectral density

Test Result

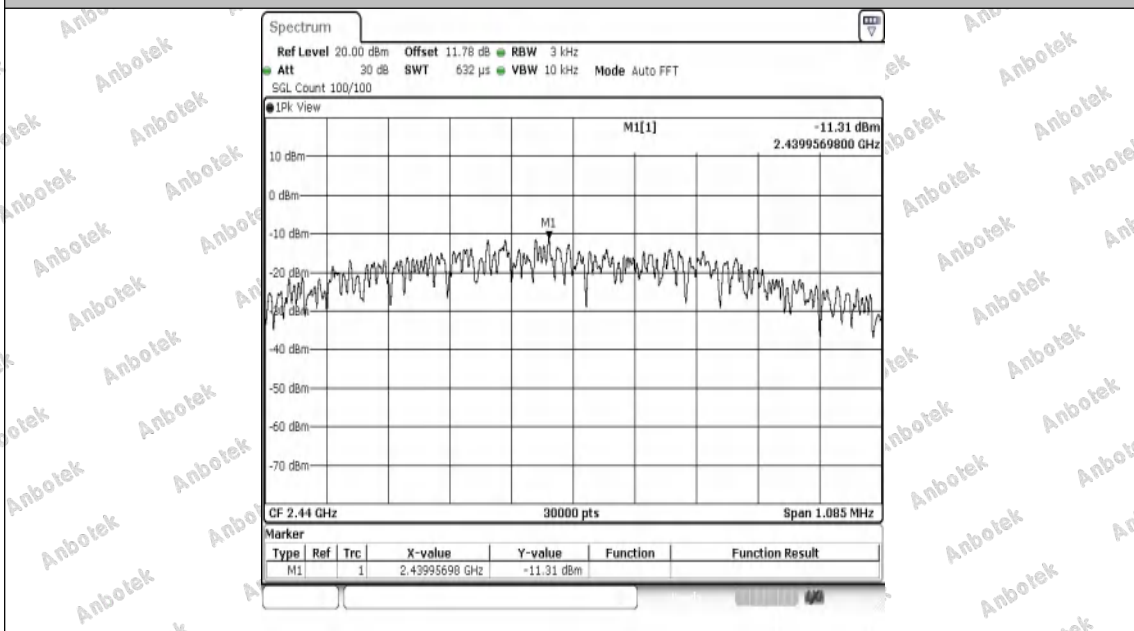
TestMode	Antenna	Frequency[MHz]	Result[dBm/3kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-11.43	≤8.00	PASS
BLE_1M	Ant1	2440	-11.31	≤8.00	PASS
BLE_1M	Ant1	2480	-12.28	≤8.00	PASS
BLE_2M	Ant1	2402	-14.26	≤8.00	PASS
BLE_2M	Ant1	2440	-14.17	≤8.00	PASS
BLE_2M	Ant1	2480	-15.31	≤8.00	PASS



Test Graphs

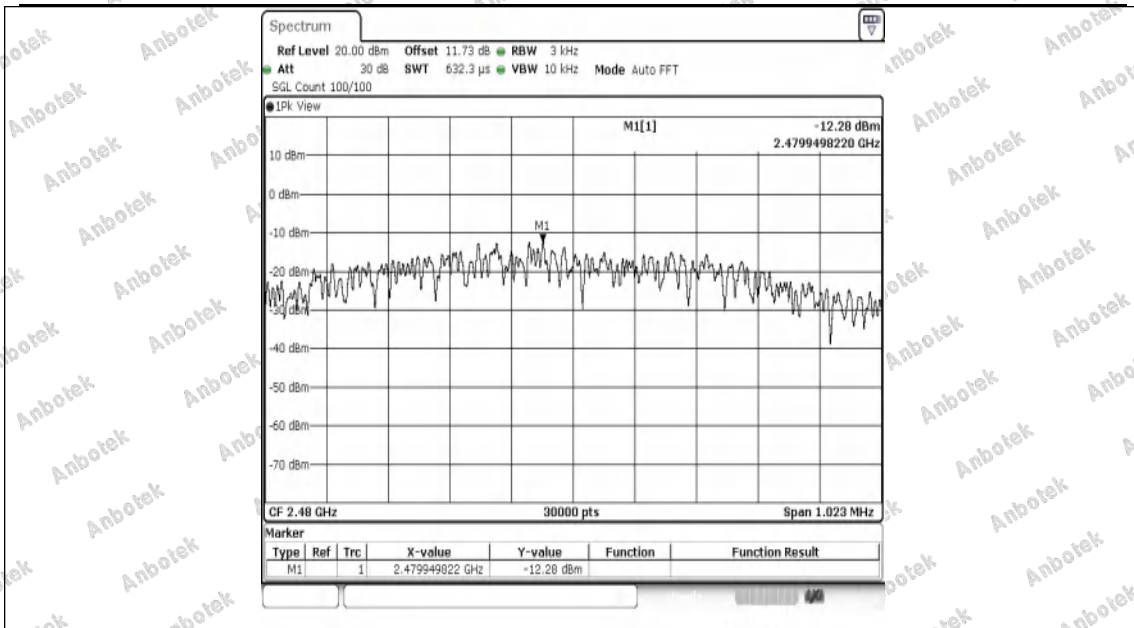


BLE_1M-Ant1-2402-PASS

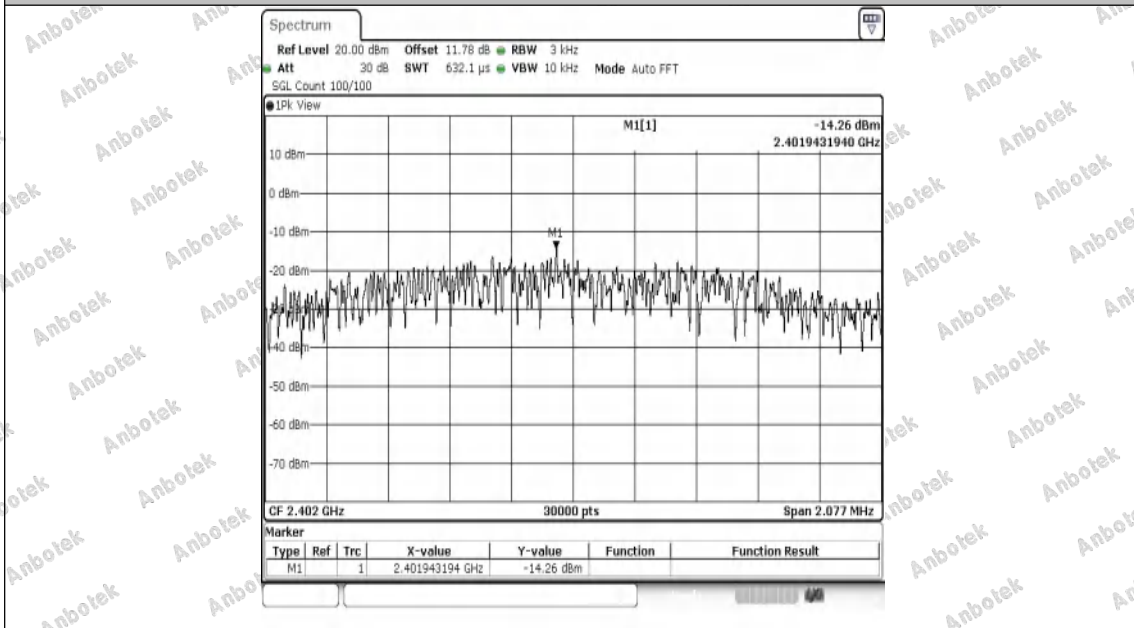


BLE_1M-Ant1-2440-PASS



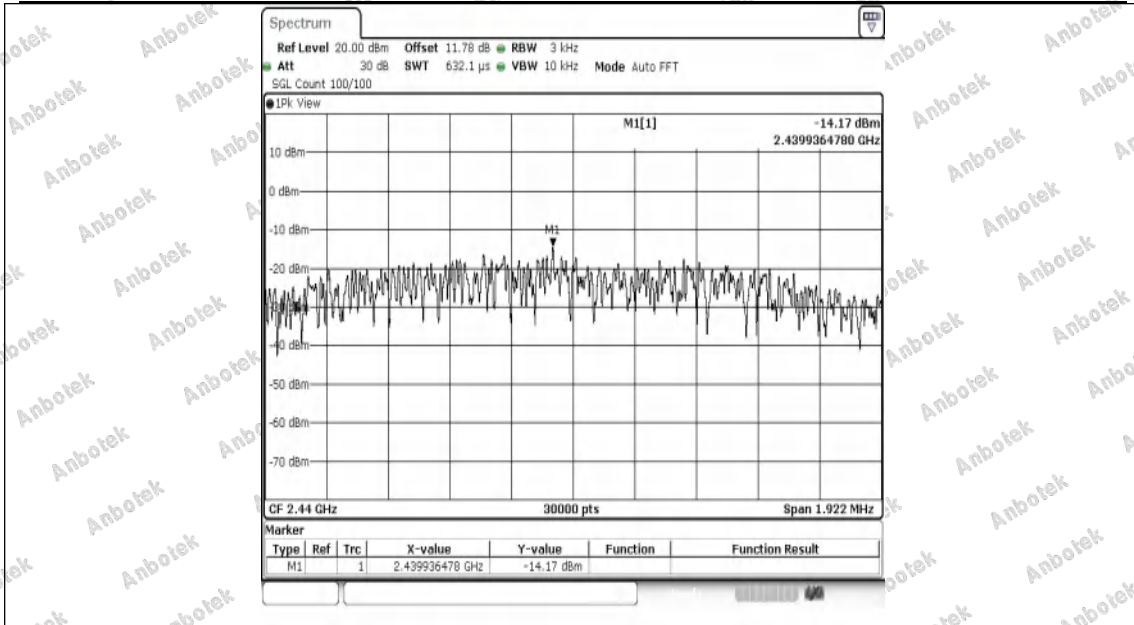


BLE_1M-Ant1-2480-PASS

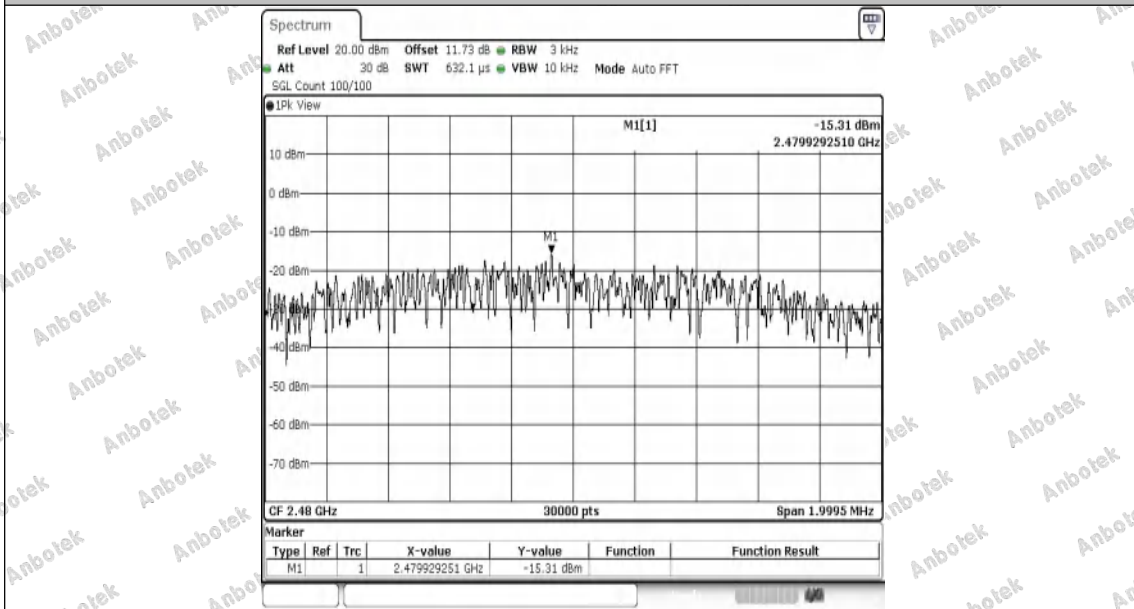


BLE_2M-Ant1-2402-PASS





BLE_2M-Ant1-2440-PASS



BLE_2M-Ant1-2480-PASS



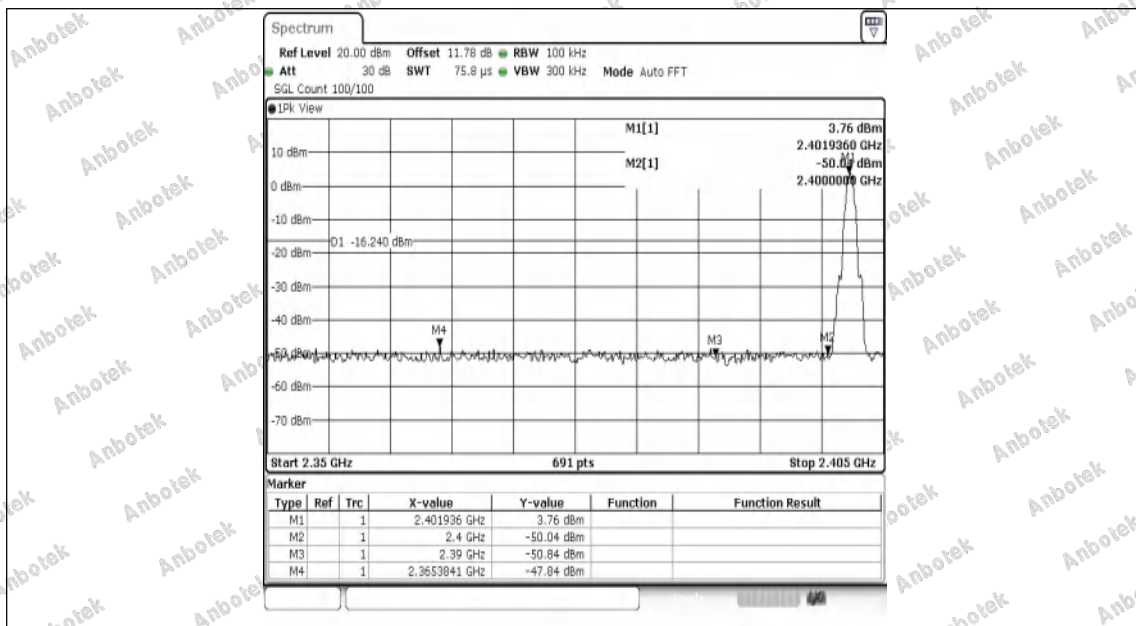
Appendix E: Band edge measurements

Test Result

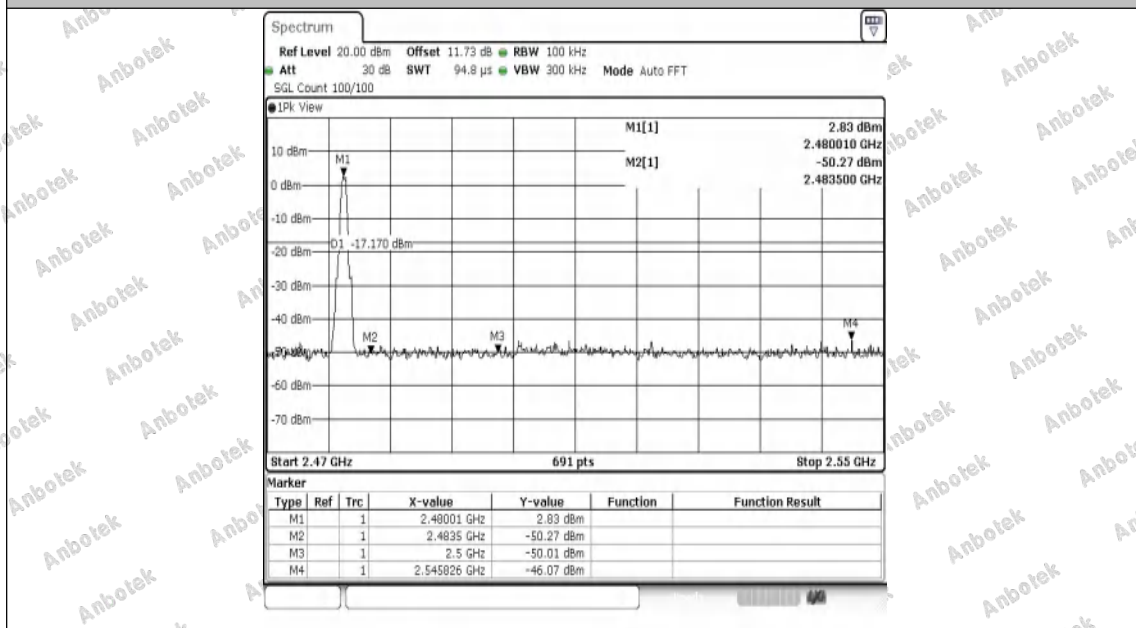
TestMode	Antenna	ChName	Frequency [MHz]	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	Low	2402	3.76	-47.84	≤-16.24	PASS
BLE_1M	Ant1	High	2480	2.83	-46.07	≤-17.17	PASS
BLE_2M	Ant1	Low	2402	-0.56	-35.98	≤-20.56	PASS
BLE_2M	Ant1	High	2480	1.61	-45.91	≤-18.39	PASS



Test Graphs

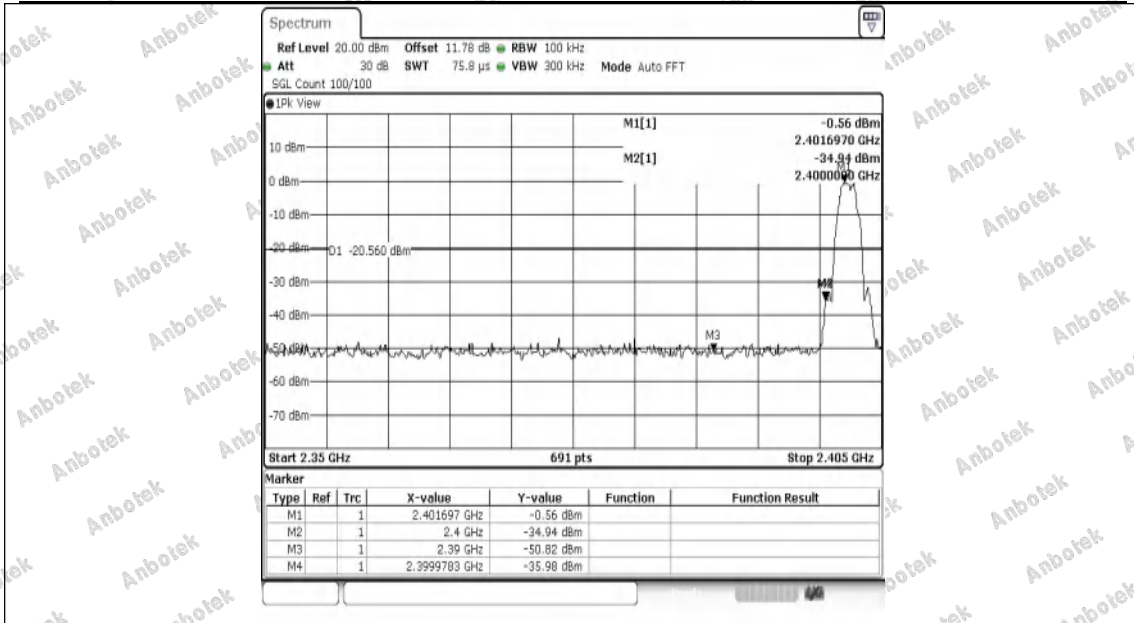


BLE_1M-Ant1-2402-PASS

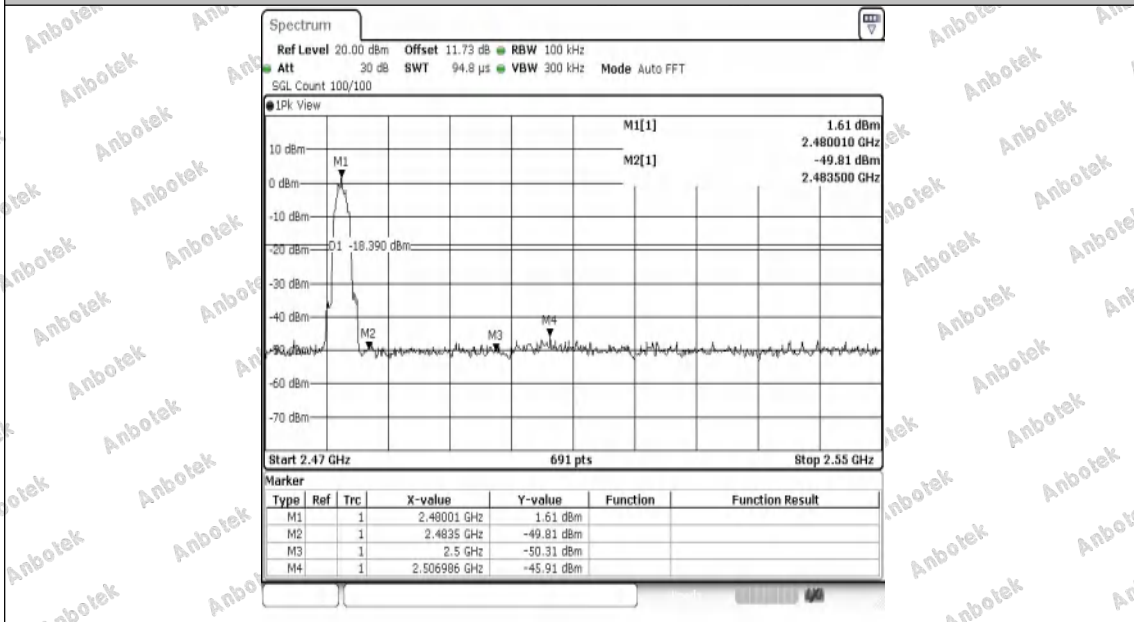


BLE_1M-Ant1-2480-PASS





BLE_2M-Ant1-2402-PASS



BLE_2M-Ant1-2480-PASS



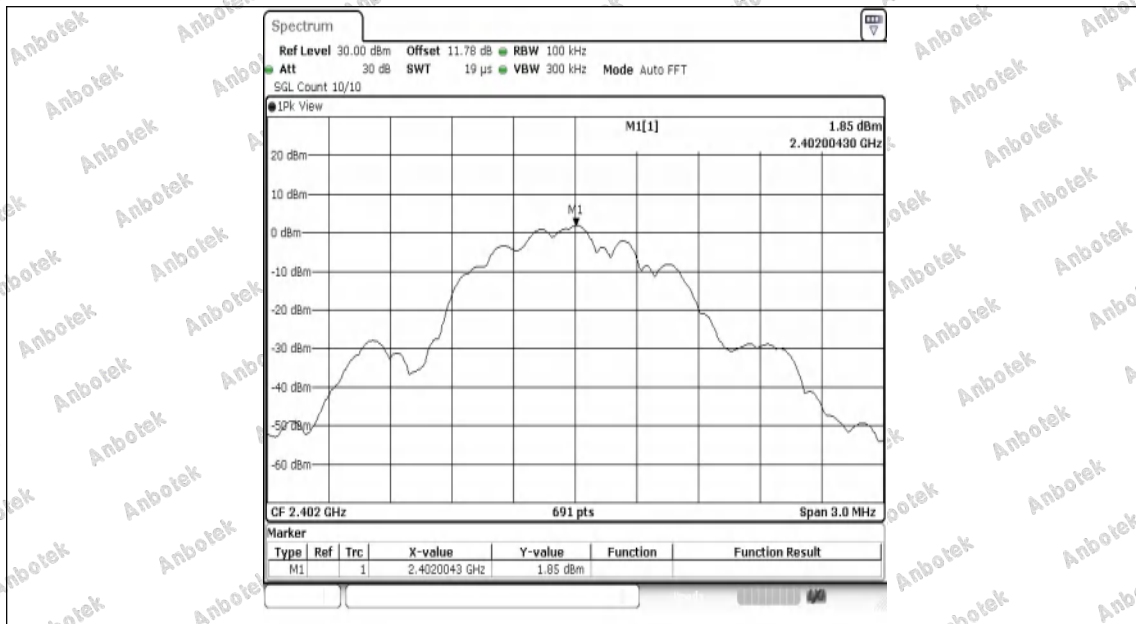
Appendix F: Conducted Spurious Emission

Test Result

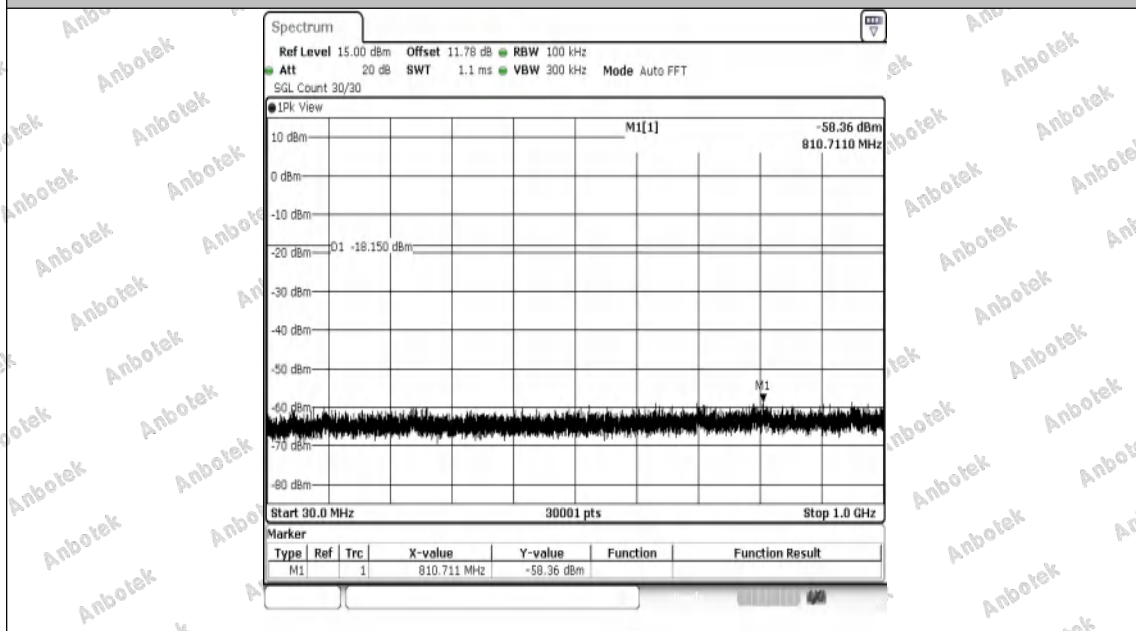
TestMode	Antenna	Frequency[MHz]	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	0~Reference	1.85	1.85	---	PASS
BLE_1M	Ant1	2402	30~1000	1.85	-58.36	≤-18.15	PASS
BLE_1M	Ant1	2402	1000~26500	1.85	-44.08	≤-18.15	PASS
BLE_1M	Ant1	2440	0~Reference	2.44	2.44	---	PASS
BLE_1M	Ant1	2440	30~1000	2.44	-57.89	≤-17.56	PASS
BLE_1M	Ant1	2440	1000~26500	2.44	-43.83	≤-17.56	PASS
BLE_1M	Ant1	2480	0~Reference	0.76	0.76	---	PASS
BLE_1M	Ant1	2480	30~1000	0.76	-57.28	≤-19.24	PASS
BLE_1M	Ant1	2480	1000~26500	0.76	-43.75	≤-19.24	PASS
BLE_2M	Ant1	2402	0~Reference	-0.96	-0.96	---	PASS
BLE_2M	Ant1	2402	30~1000	-0.96	-58	≤-20.96	PASS
BLE_2M	Ant1	2402	1000~26500	-0.96	-44.26	≤-20.96	PASS
BLE_2M	Ant1	2440	0~Reference	-0.52	-0.52	---	PASS
BLE_2M	Ant1	2440	30~1000	-0.52	-58.88	≤-20.52	PASS
BLE_2M	Ant1	2440	1000~26500	-0.52	-43.38	≤-20.52	PASS
BLE_2M	Ant1	2480	0~Reference	-1.67	-1.67	---	PASS
BLE_2M	Ant1	2480	30~1000	-1.67	-58.29	≤-21.67	PASS
BLE_2M	Ant1	2480	1000~26500	-1.67	-43.21	≤-21.67	PASS



Test Graphs

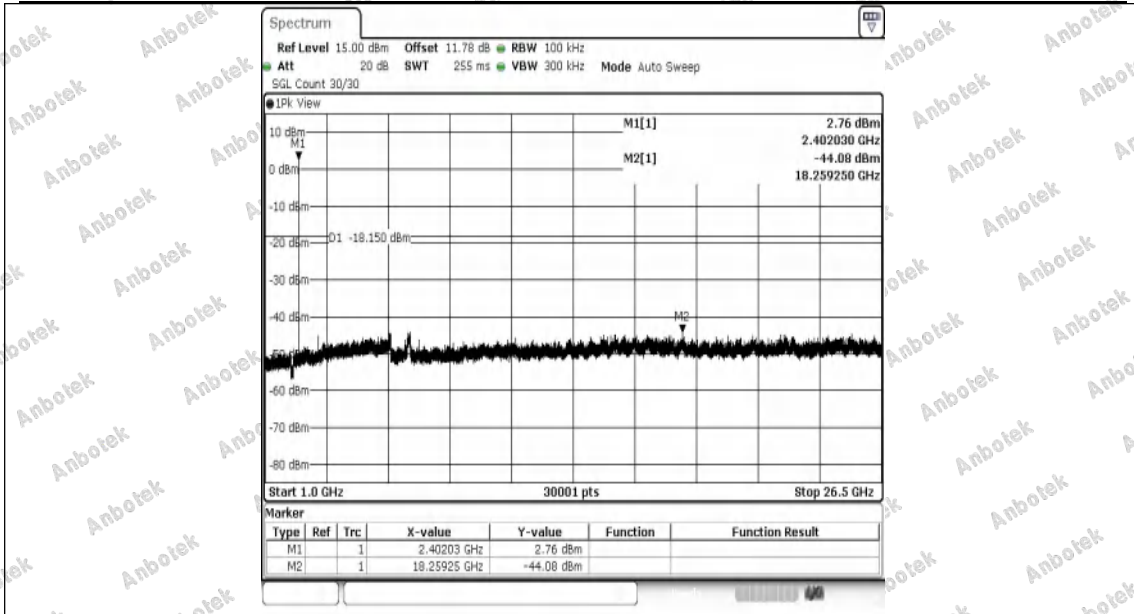


BLE_1M-Ant1-2402-0~Reference-PASS

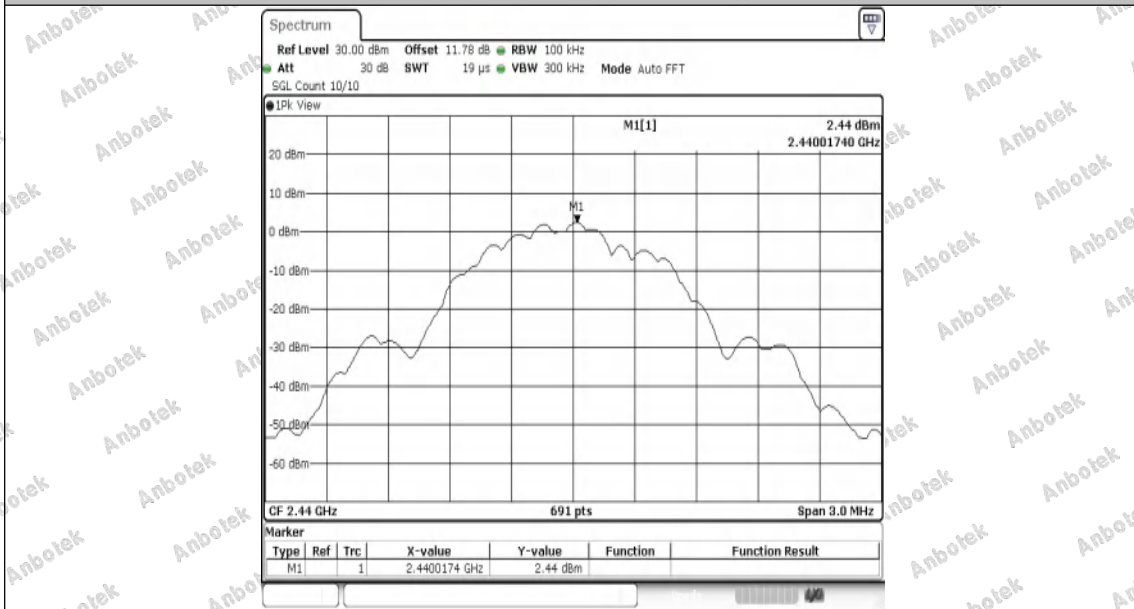


BLE_1M-Ant1-2402-30~1000-PASS



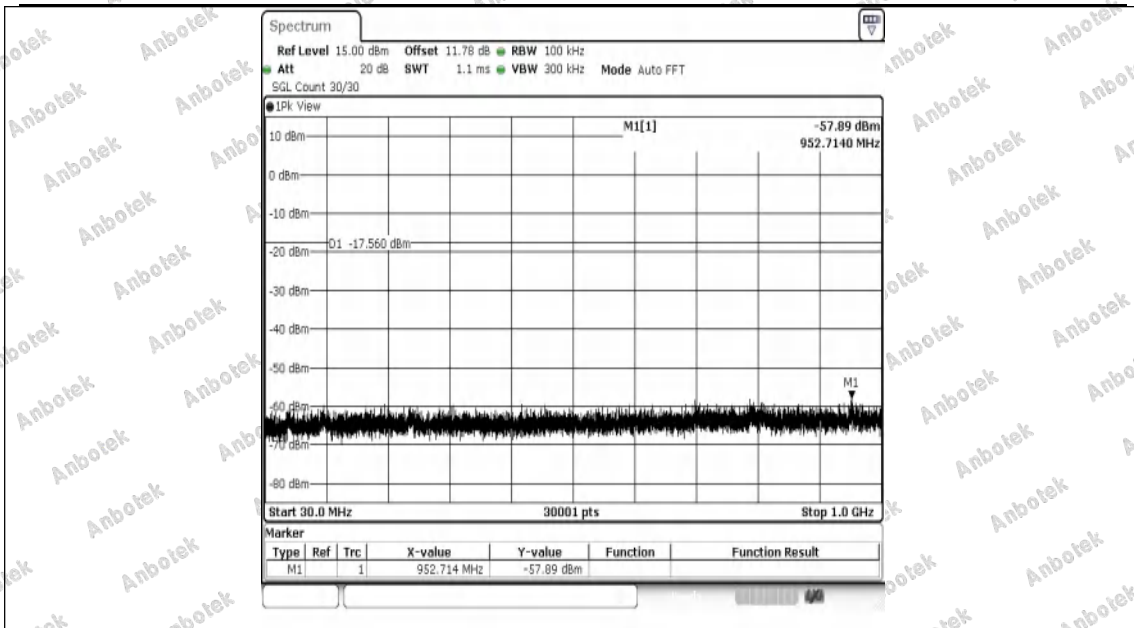


BLE_1M-Ant1-2402-1000~26500-PASS

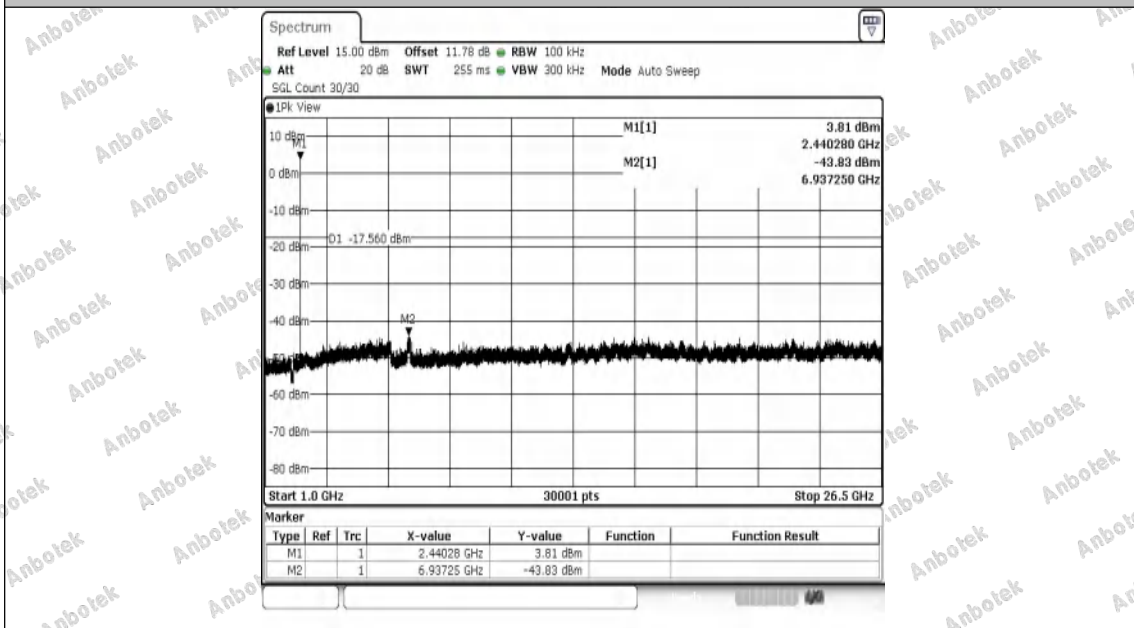


BLE_1M-Ant1-2440-0~Reference-PASS



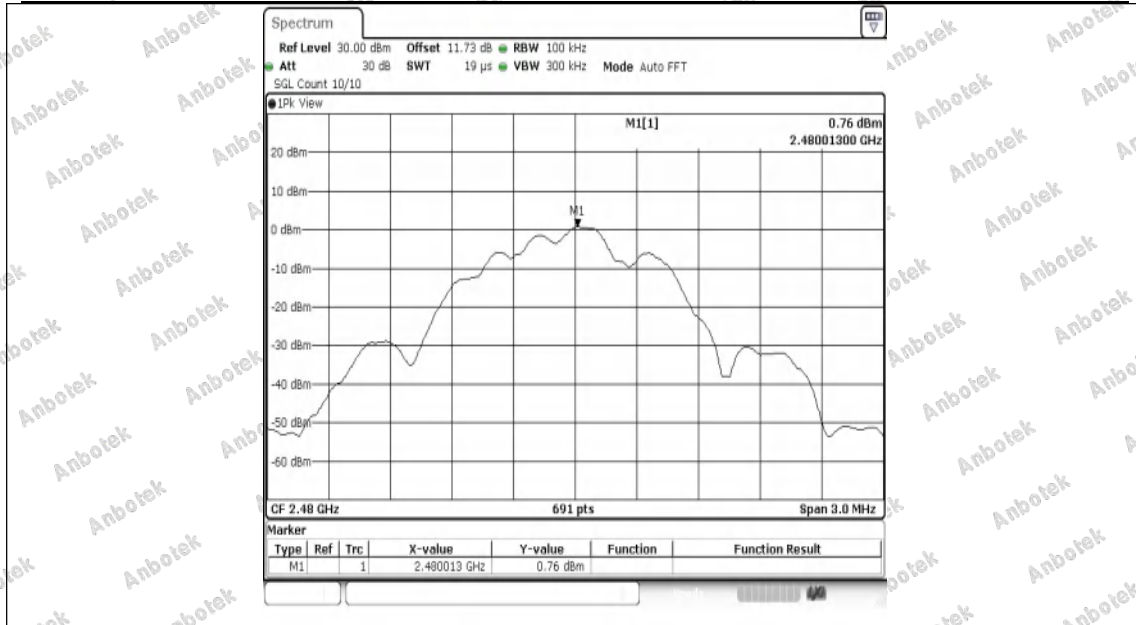


BLE_1M-Ant1-2440-30~1000-PASS

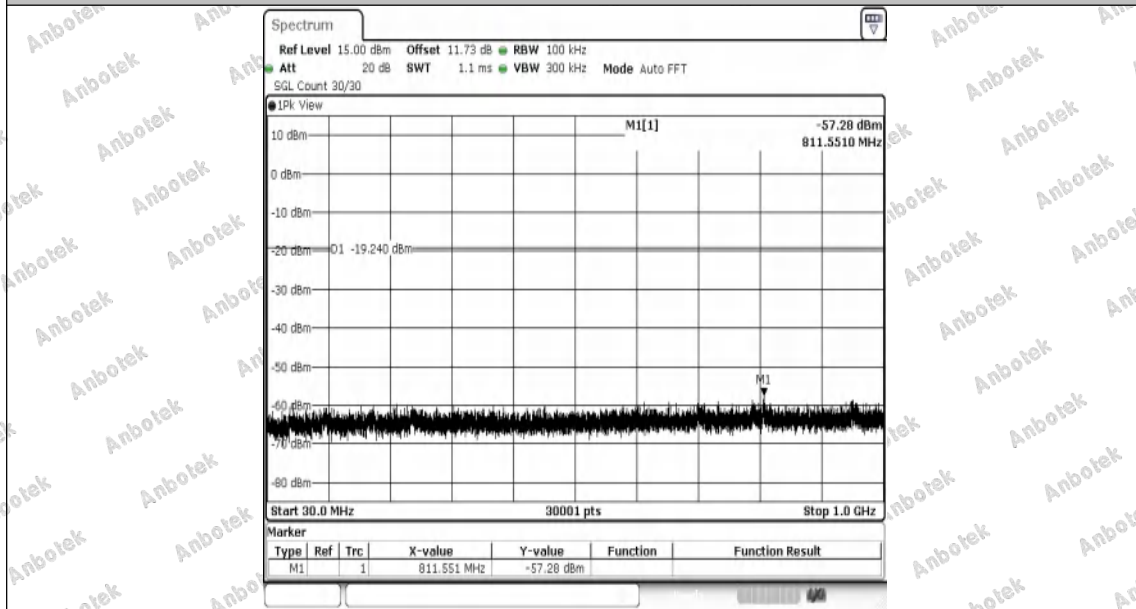


BLE_1M-Ant1-2440-1000~26500-PASS



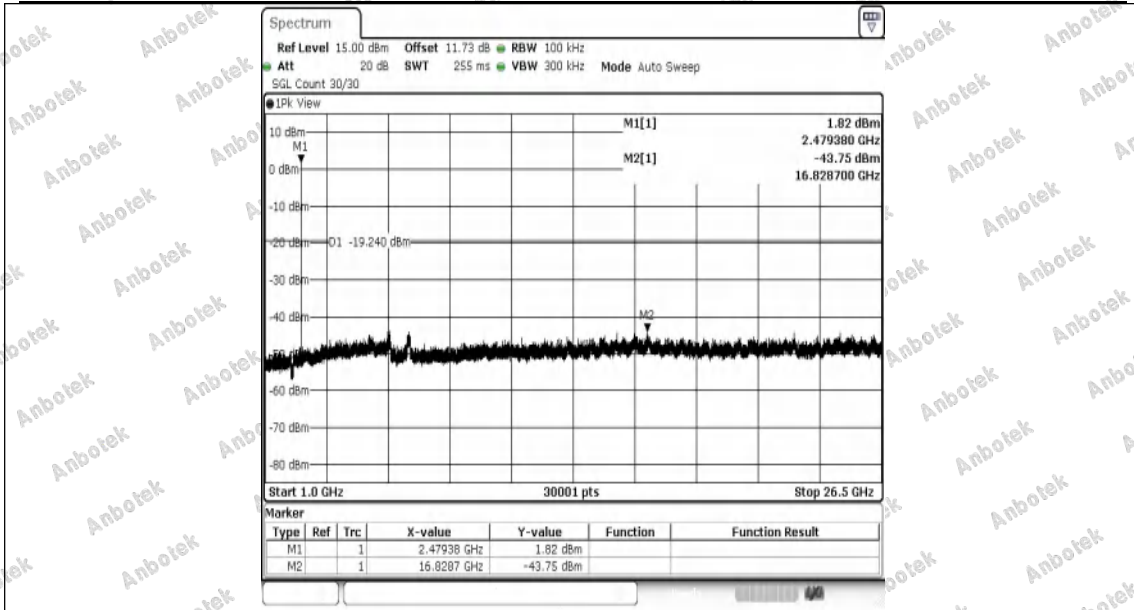


BLE_1M-Ant1-2480~Reference-PASS

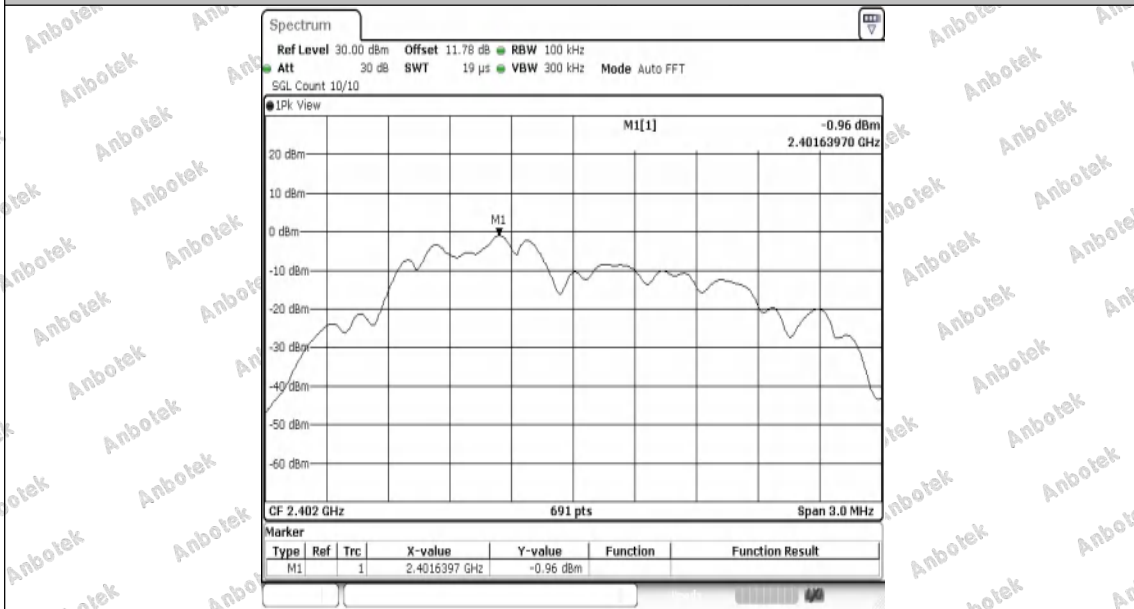


BLE_1M-Ant1-2480-30~1000-PASS



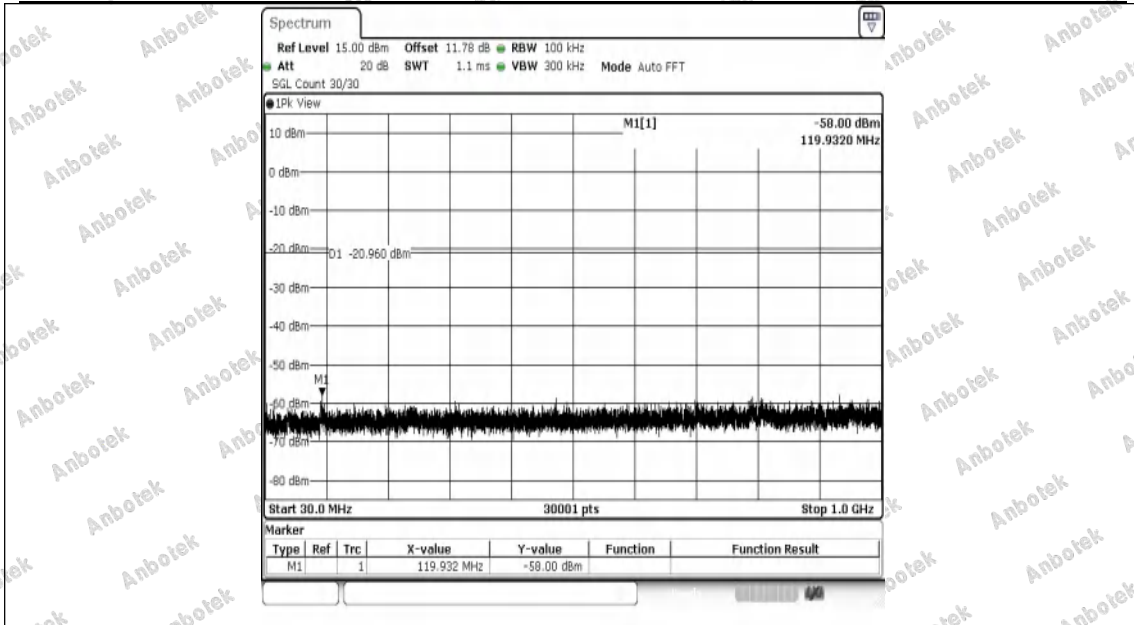


BLE_1M-Ant1-2480-1000~26500-PASS

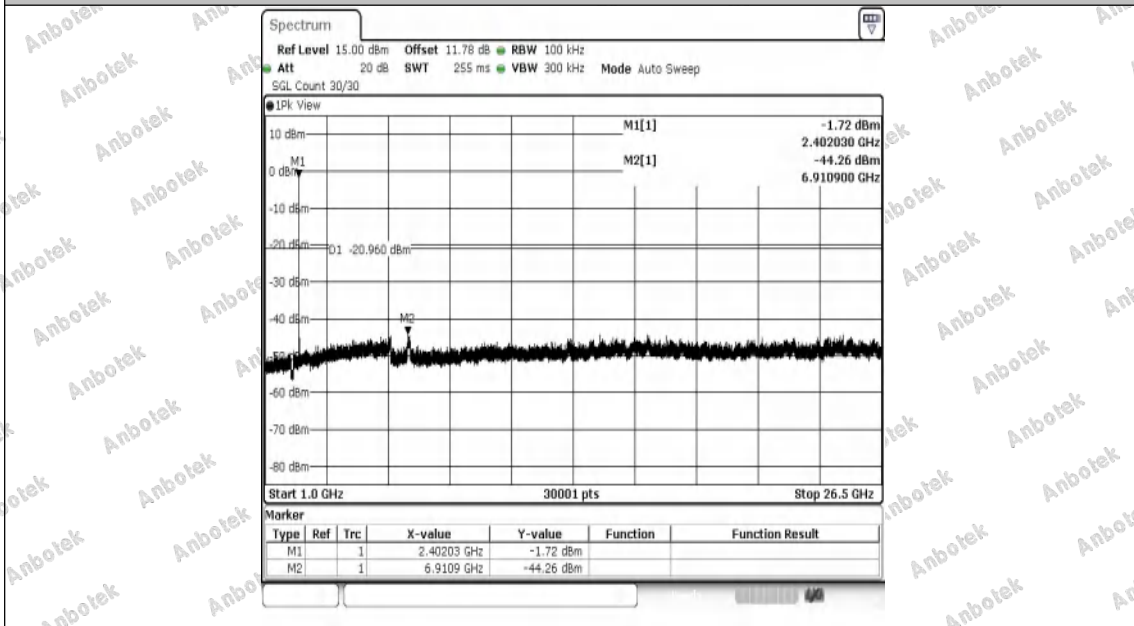


BLE_2M-Ant1-2402-0~Reference-PASS



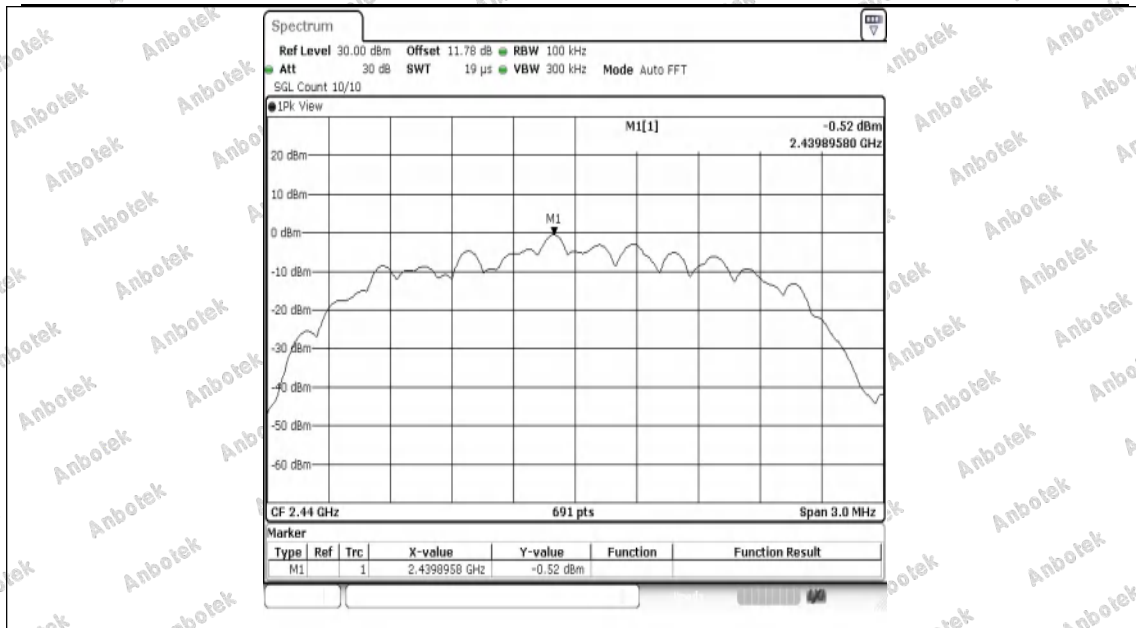


BLE_2M-Ant1-2402-30~1000-PASS

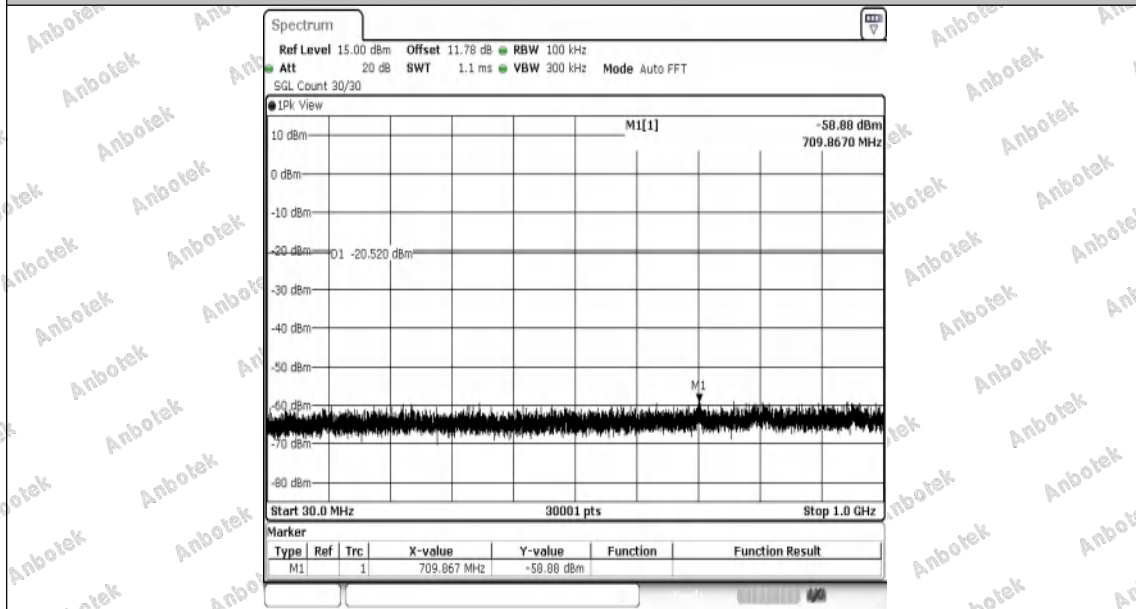


BLE_2M-Ant1-2402-1000~26500-PASS



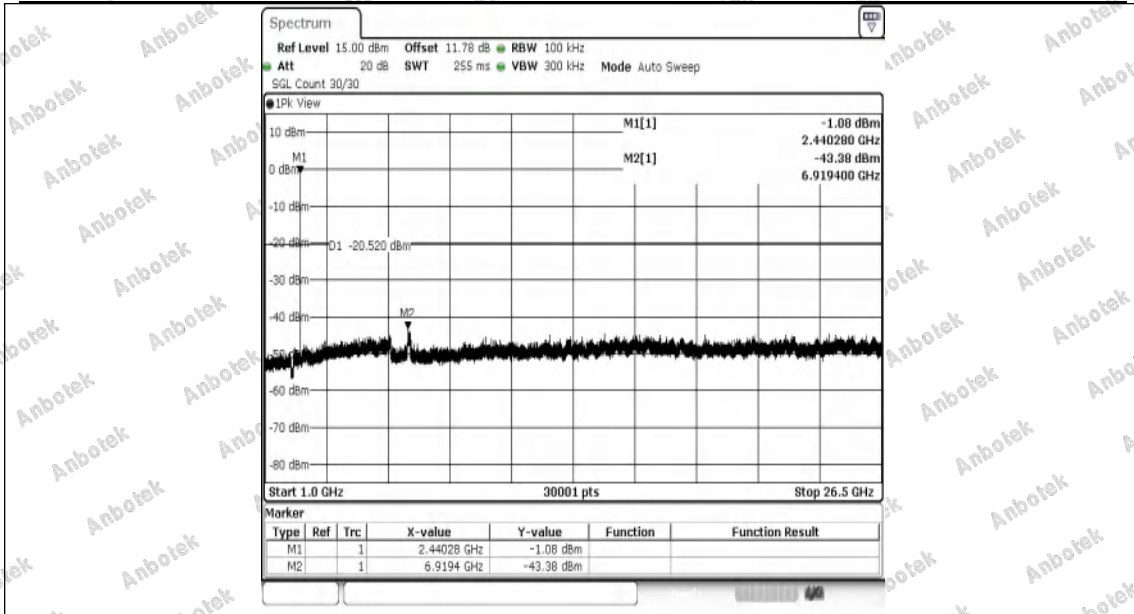


BLE_2M-Ant1-2440-0~Reference-PASS

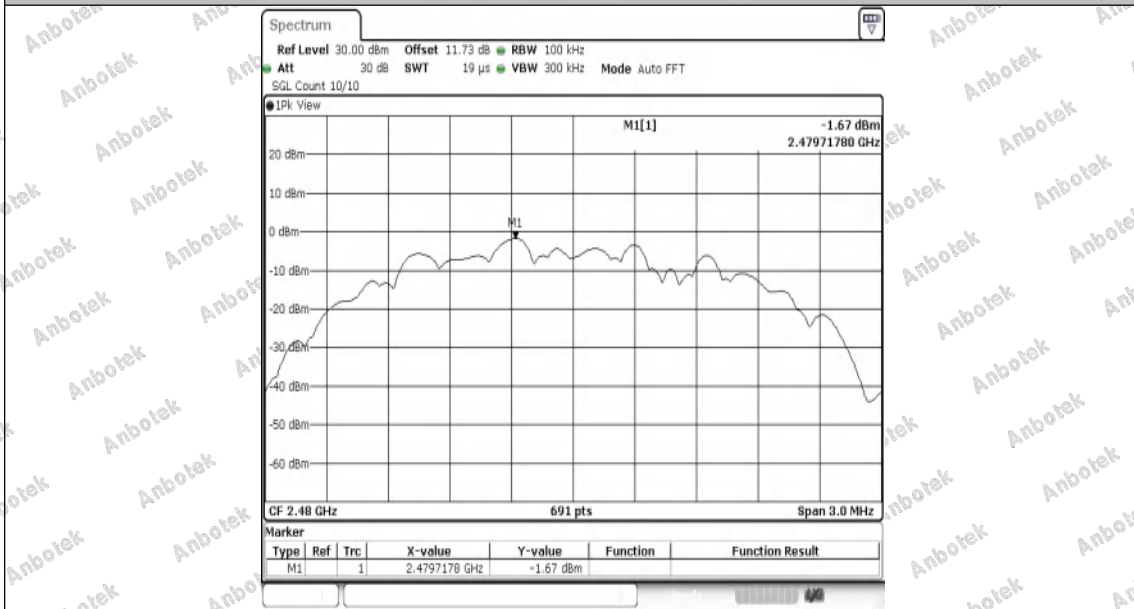


BLE_2M-Ant1-2440-30~1000-PASS



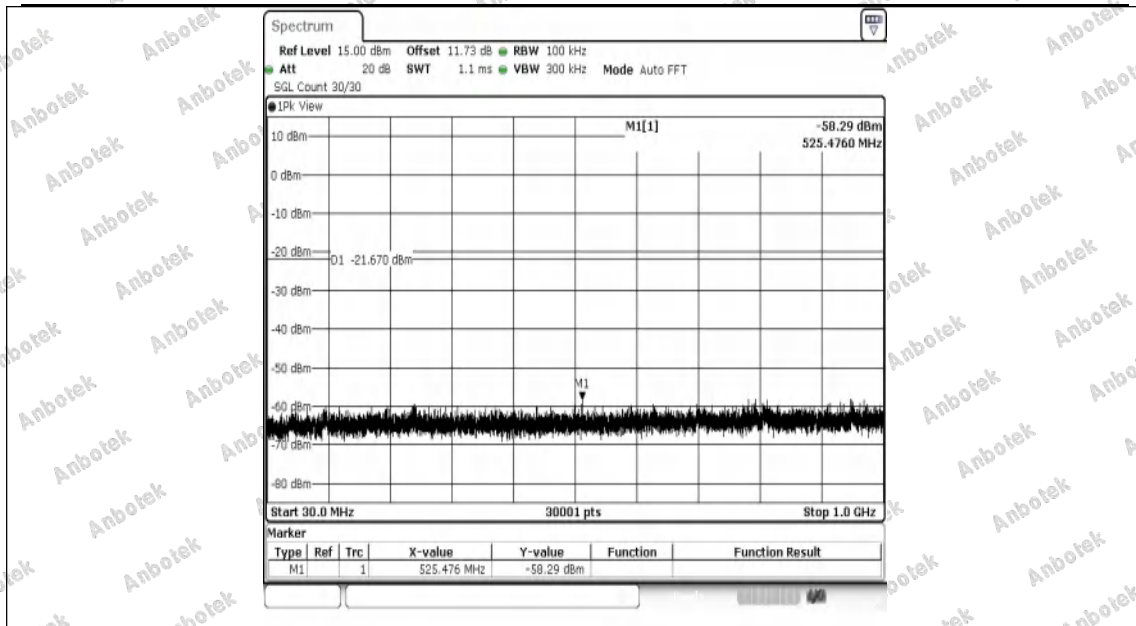


BLE_2M-Ant1-2440-1000~26500-PASS

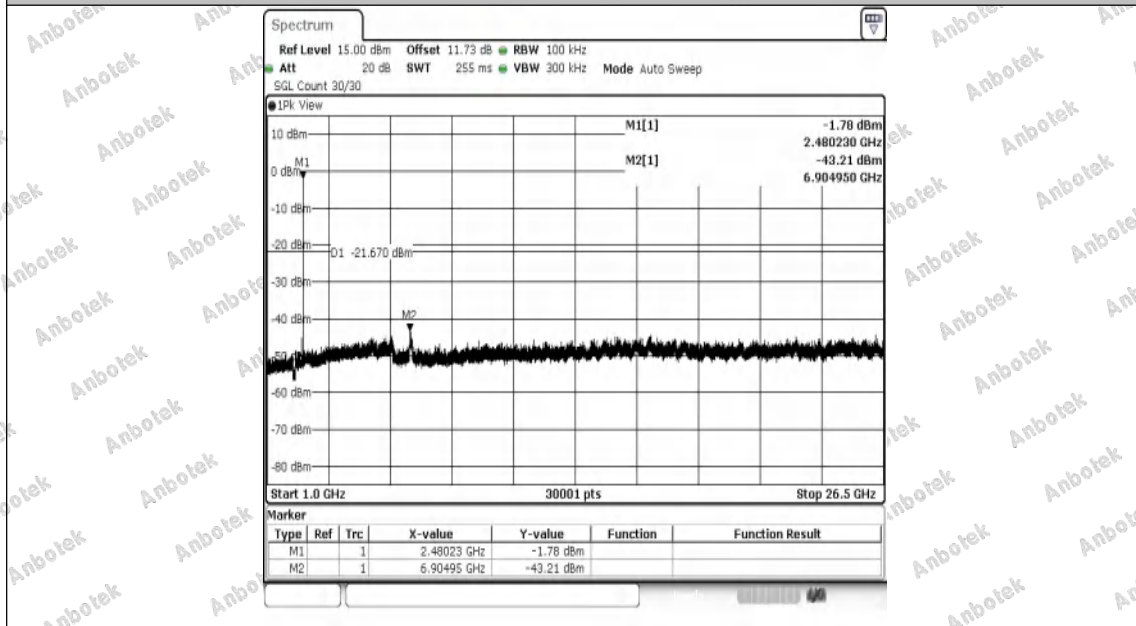


BLE_2M-Ant1-2480-0~Reference-PASS





BLE_2M-Ant1-2480-30~1000-PASS



BLE_2M-Ant1-2480-1000~26500-PASS



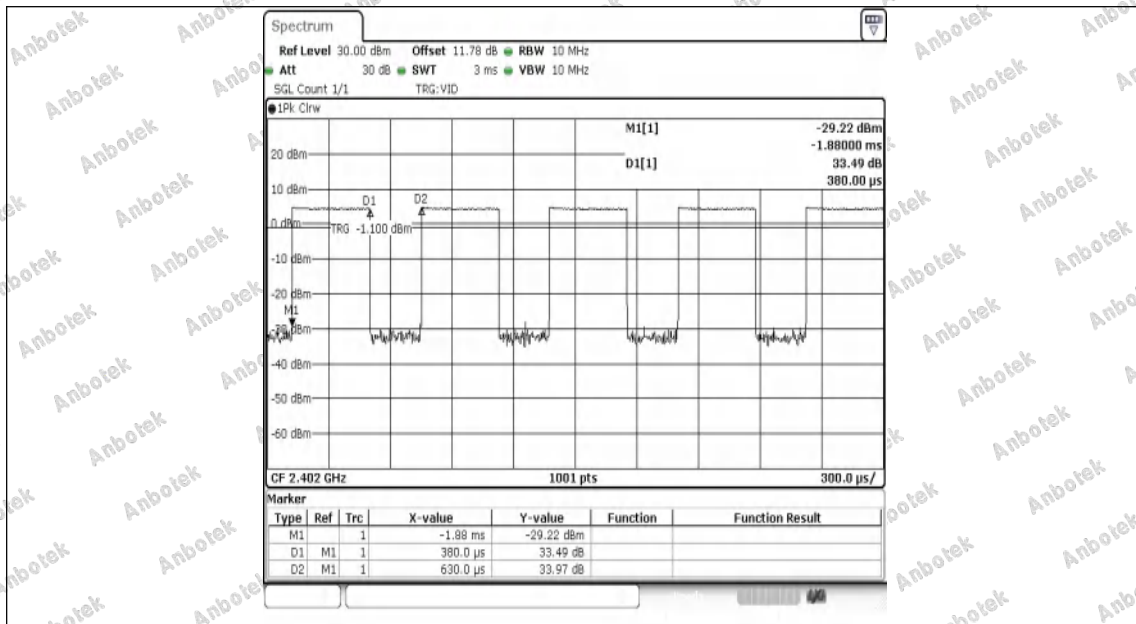
Appendix G: Duty Cycle

Test Result

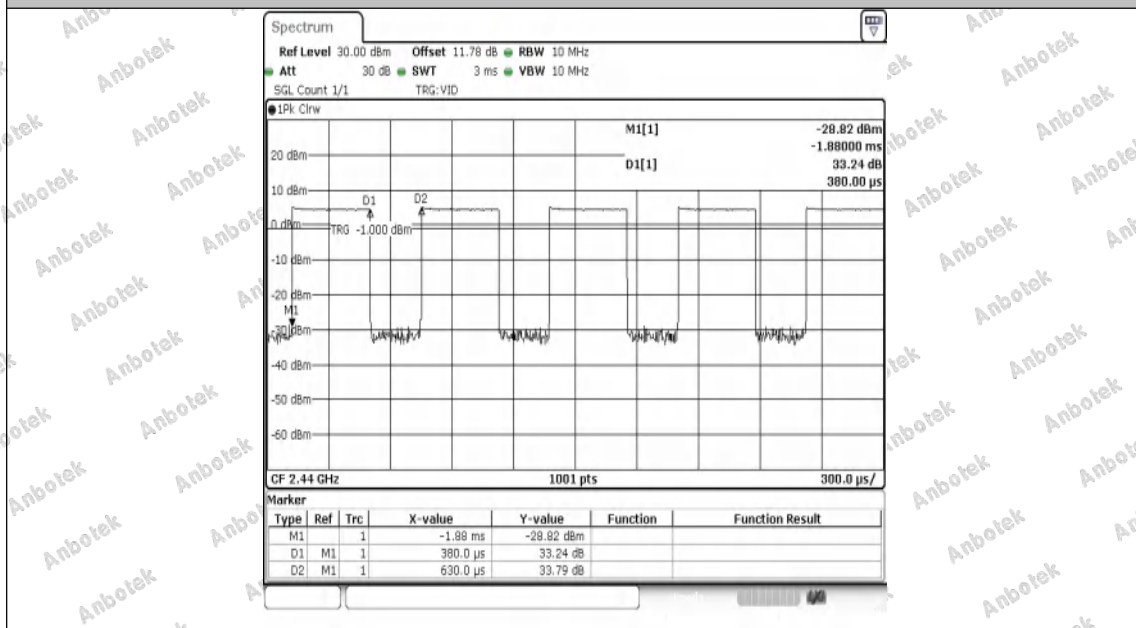
TestMode	Antenna	Frequency[MHz]	ON Time [ms]	Period [ms]	Duty Cycle [%]	Duty Cycle Factor[dB]
BLE_1M	Ant1	2402	0.38	0.63	60.32	2.20
BLE_1M	Ant1	2440	0.38	0.63	60.32	2.20
BLE_1M	Ant1	2480	0.38	0.63	60.32	2.20
BLE_2M	Ant1	2402	0.20	0.63	31.75	4.98
BLE_2M	Ant1	2440	0.20	0.63	31.75	4.98
BLE_2M	Ant1	2480	0.20	0.63	31.75	4.98



Test Graphs

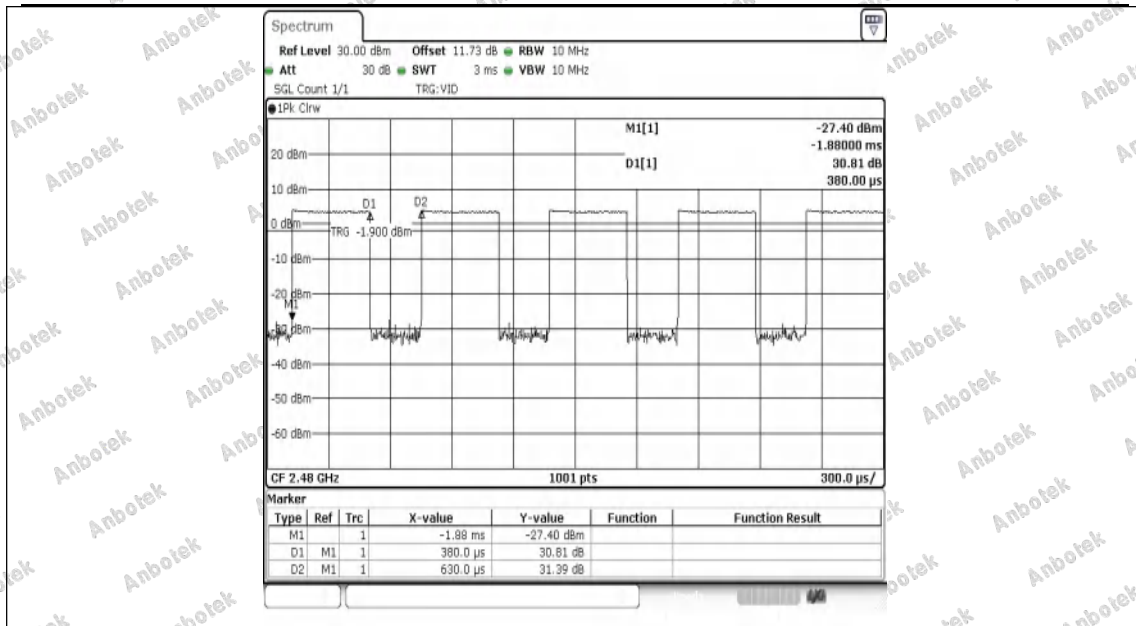


NTNV-BLE_1M-Ant1-2402

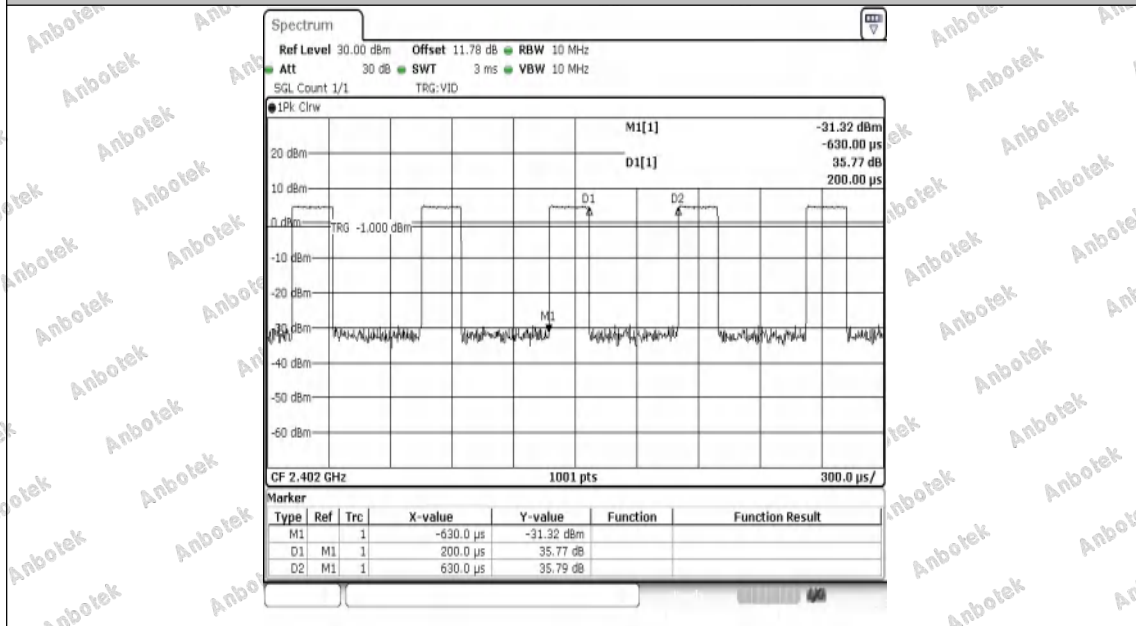


NTNV-BLE_1M-Ant1-2440



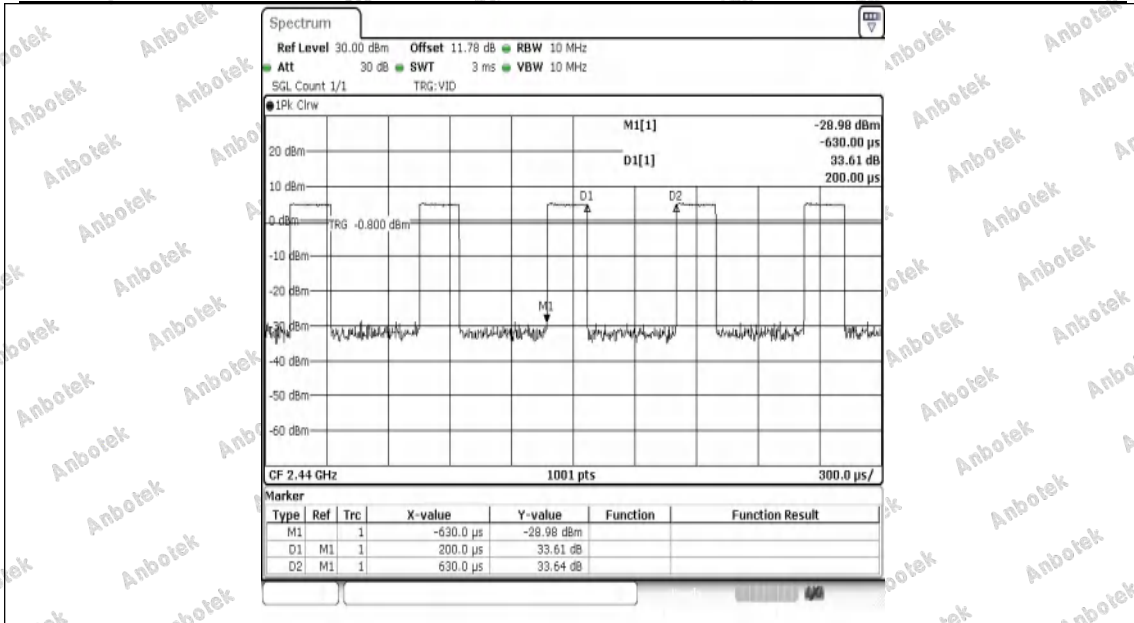


NTNV-BLE_1M-Ant1-2480

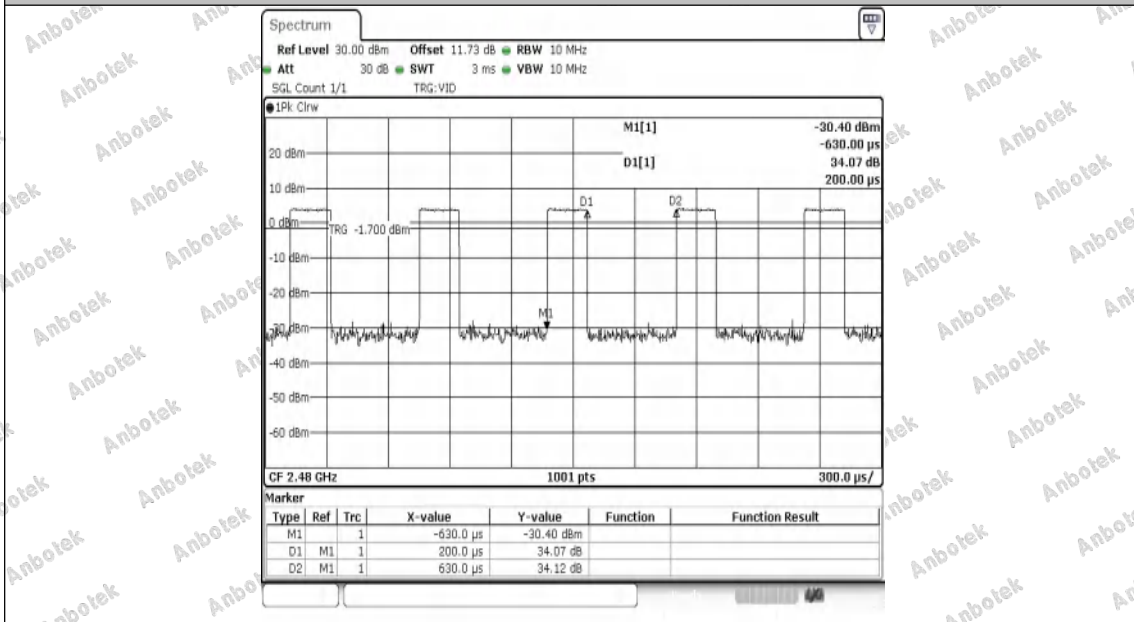


NTNV-BLE_2M-Ant1-2402





NTNV-BLE_2M-Ant1-2440



NTNV-BLE_2M-Ant1-2480

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