Appendix Test Data

Report No.:	18220WC30221701	Test Sample No.:	1-2-2
Start Test Date:	2023.10.16	Finish Test Date:	2023.10.19
Test Engineer:	Hayman Chen	Auditor:	Rick Luo
Temperature:	24.4℃	Relative Humidity:	48.7%
Pressure:	101kPa		

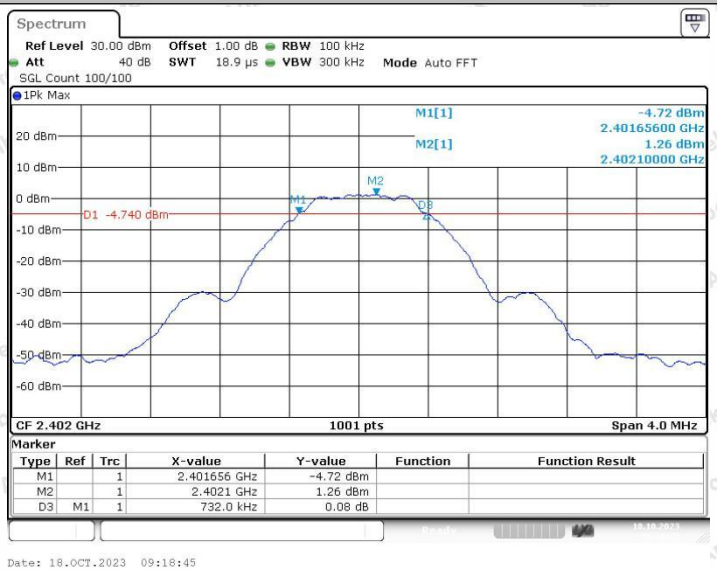
Appendix A: DTS Bandwidth

Test Result

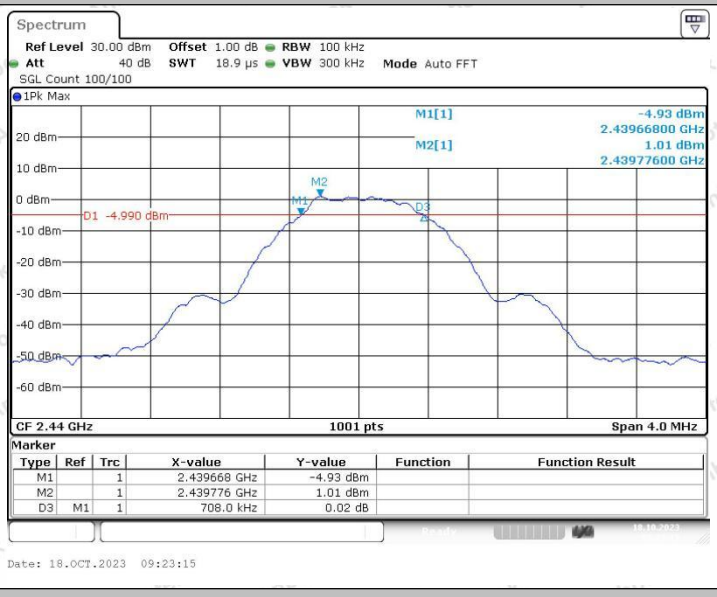
TestMode	Antenna	Frequency[MHz]	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	0.73	2401.66	2402.39	0.5	PASS
		2440	0.71	2439.67	2440.38	0.5	PASS
		2480	0.66	2479.70	2480.36	0.5	PASS

Test Graphs

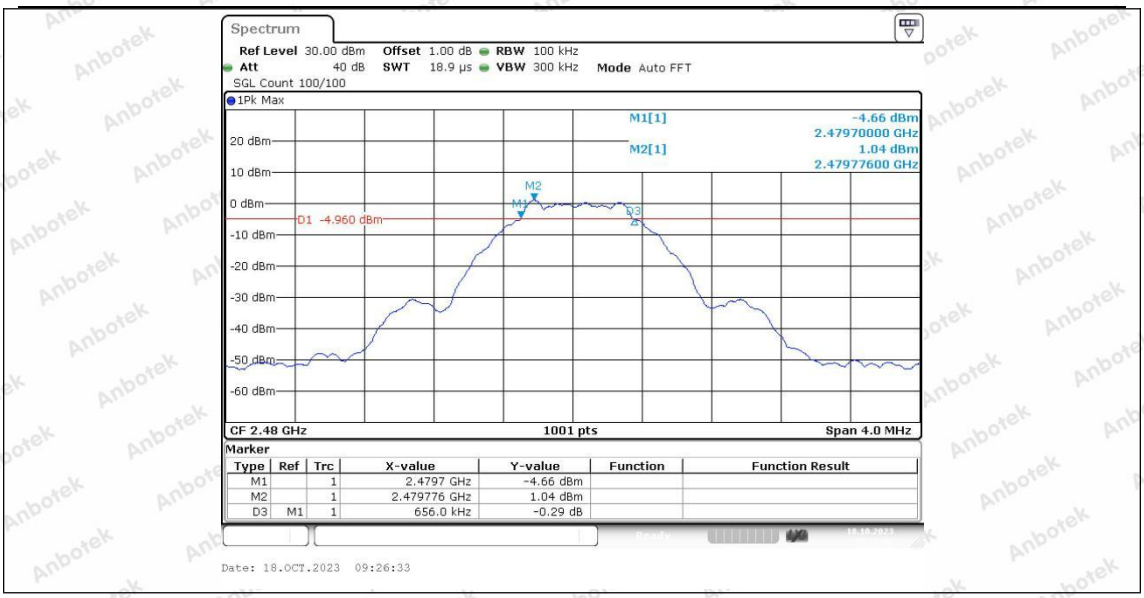
BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



BLE_1M_Ant1_2480


Spectrum
Ref Level 30.00 dBm Offset 1.00 dB RBW 100 kHz
Att 40 dB SWT 18.9 µs VBW 300 kHz Mode Auto FFT
SGL Count 100/100
1Pk Max
M1[1] -4.66 dBm
2.47970000 GHz
M2[1] 1.04 dBm
2.47977600 GHz
D1 -4.960 dBm
CF 2.48 GHz
1001 pts
Span 4.0 MHz
Marker
Type Ref Trc X-value Y-value Function Function Result
M1 1 2.4797 GHz -4.66 dBm
M2 1 2.479776 GHz 1.04 dBm
D3 M1 1 656.0 kHz -0.29 dB
Date: 18.OCT.2023 09:26:33

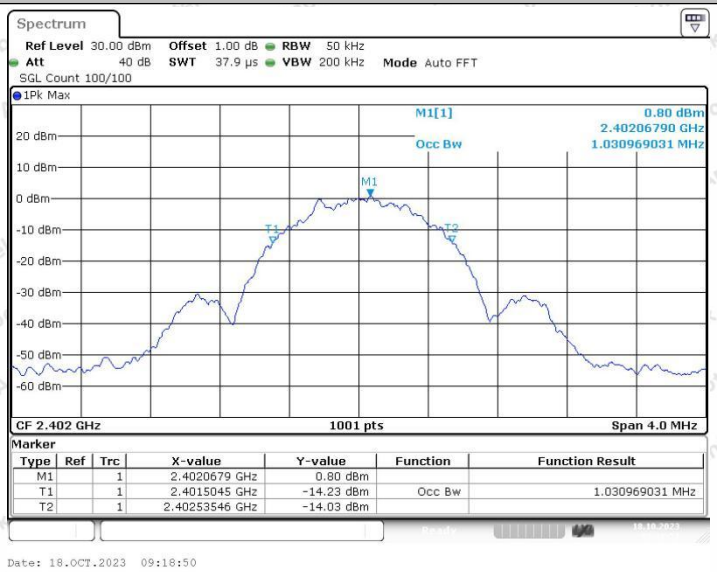
Appendix B: Occupied Channel Bandwidth

Test Result

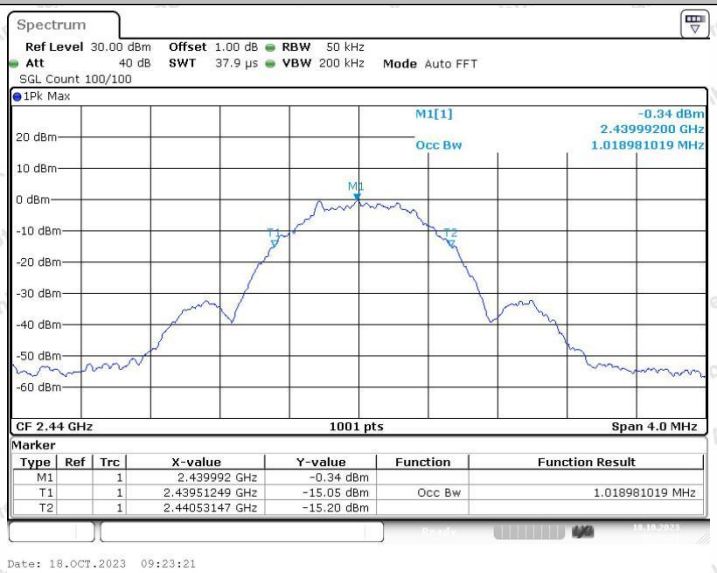
TestMode	Antenna	Frequency[MHz]	OCB [MHz]	FL[MHz]	FH[MHz]
BLE_1M	Ant1	2402	1.031	2401.5045	2402.5355
		2440	1.019	2439.5125	2440.5315
		2480	1.031	2479.5085	2480.5395

Test Graphs

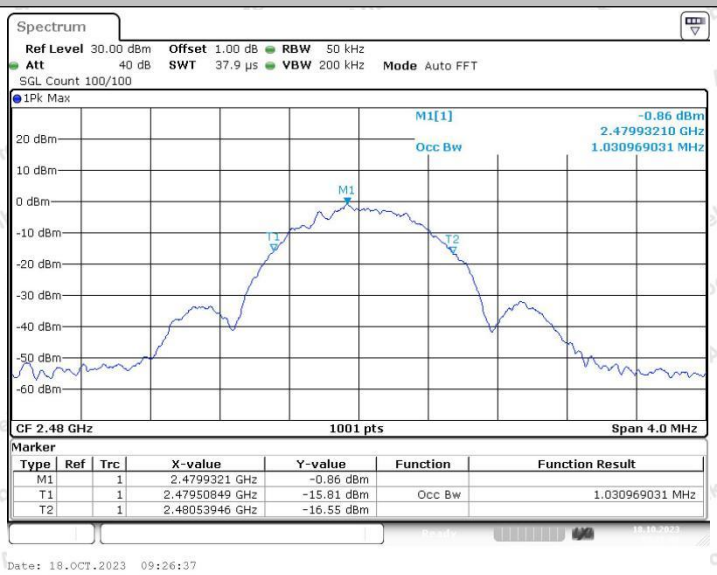
BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



BLE_1M_Ant1_2480



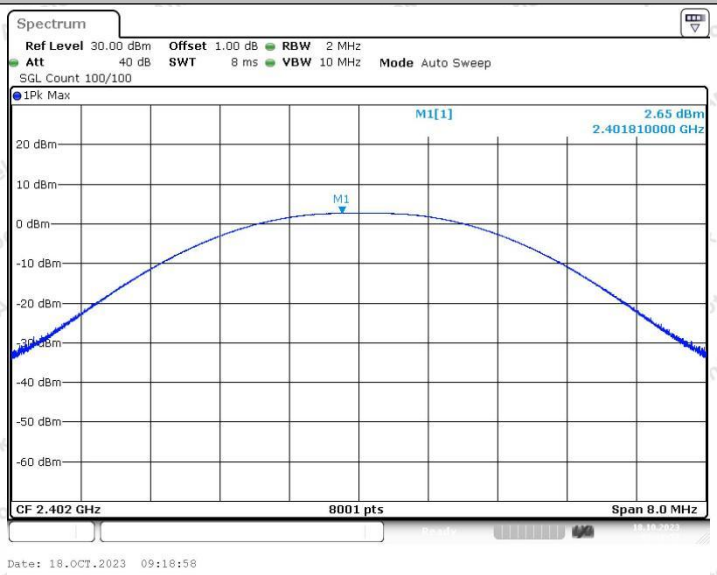
Appendix C: Maximum Conducted output power

Test Result Peak

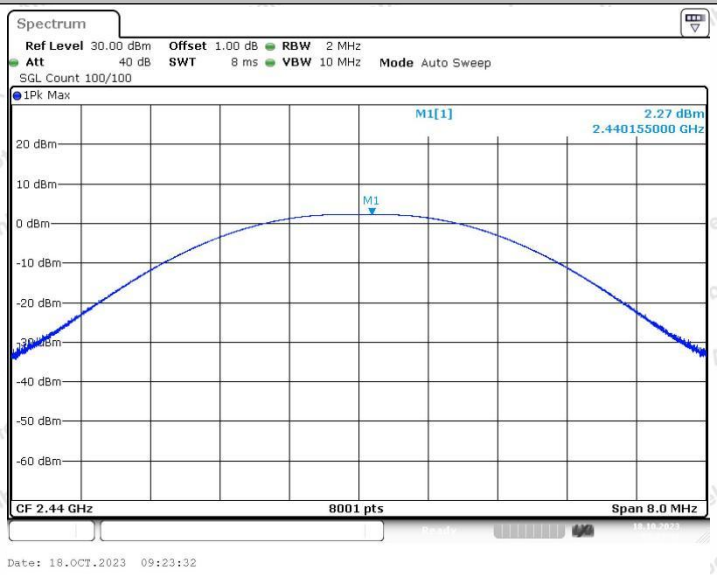
Test Mode	Antenna	Frequency[MHz]	Conducted Peak Power[dBm]	Limit [dBm]	EIRP [dBm]	Limit [dBm]	Verdict
BLE_1M	Ant1	2402	2.65	≤30	2.65	≤36	PASS
		2440	2.27	≤30	2.27	≤36	PASS
		2480	1.67	≤30	1.67	≤36	PASS

Test Graphs Peak

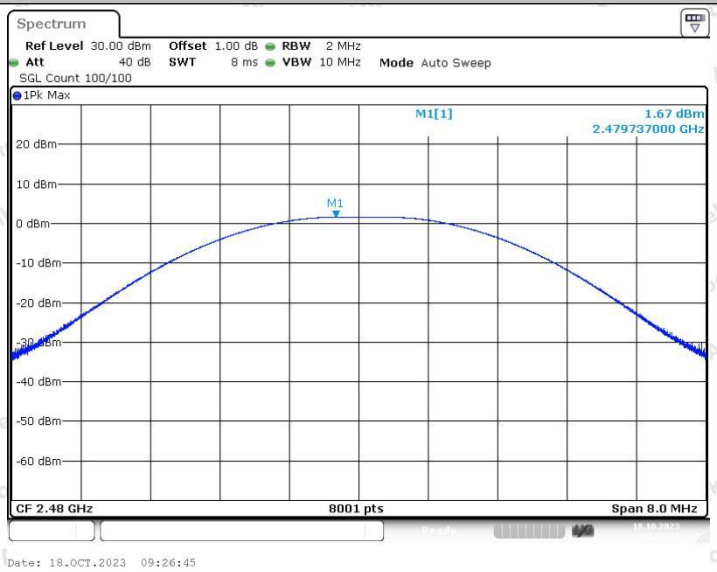
BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



BLE_1M_Ant1_2480



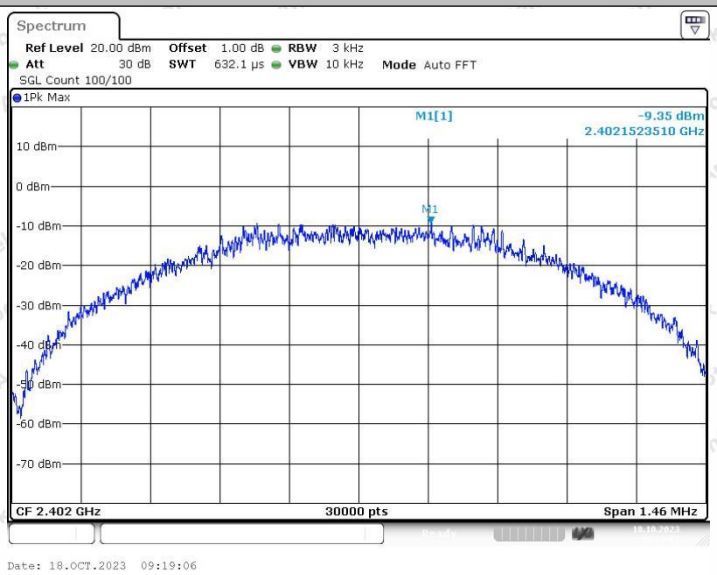
Appendix D: Maximum power spectral density

Test Result

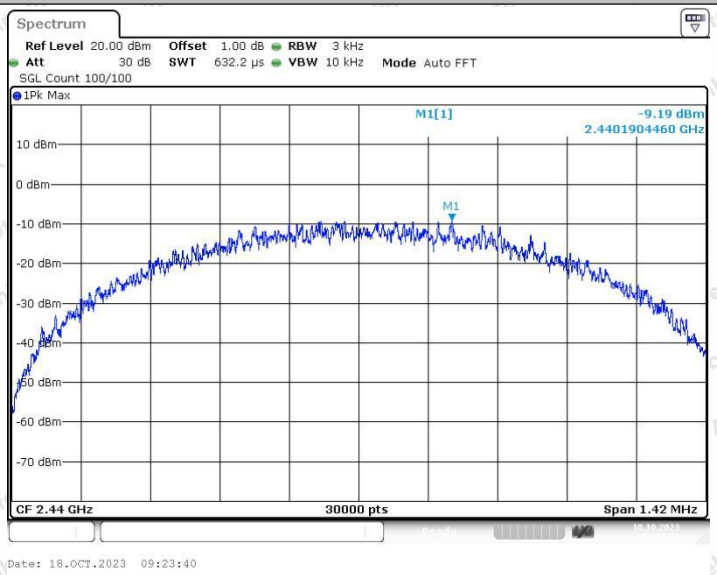
TestMode	Antenna	Frequency[MHz]	Result[dBm/3kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-9.35	≤8.00	PASS
		2440	-9.19	≤8.00	PASS
		2480	-6.52	≤8.00	PASS

Test Graphs

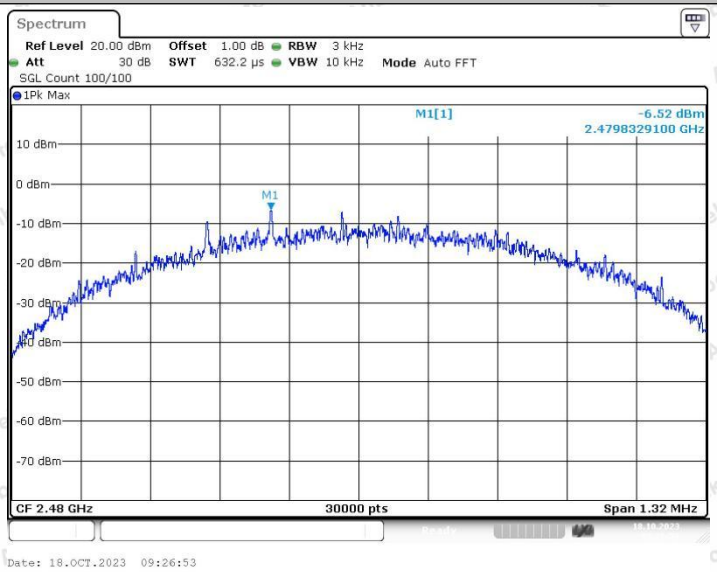
BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



BLE_1M_Ant1_2480



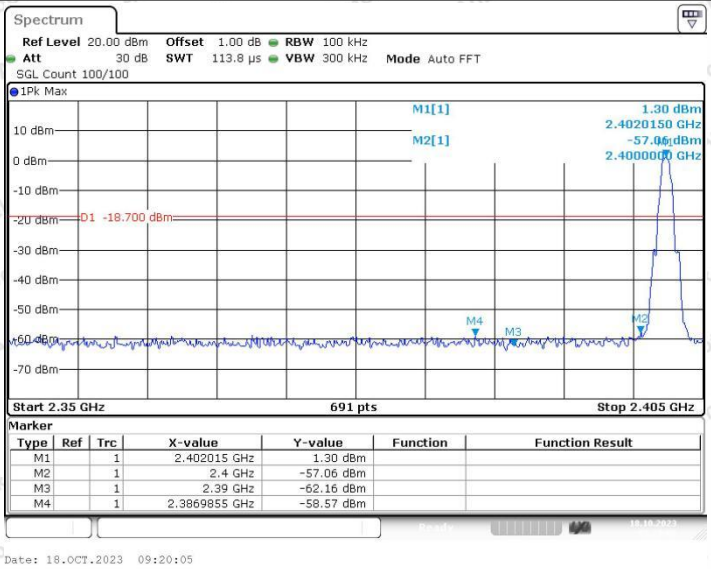
Appendix E: Band edge measurements

Test Result

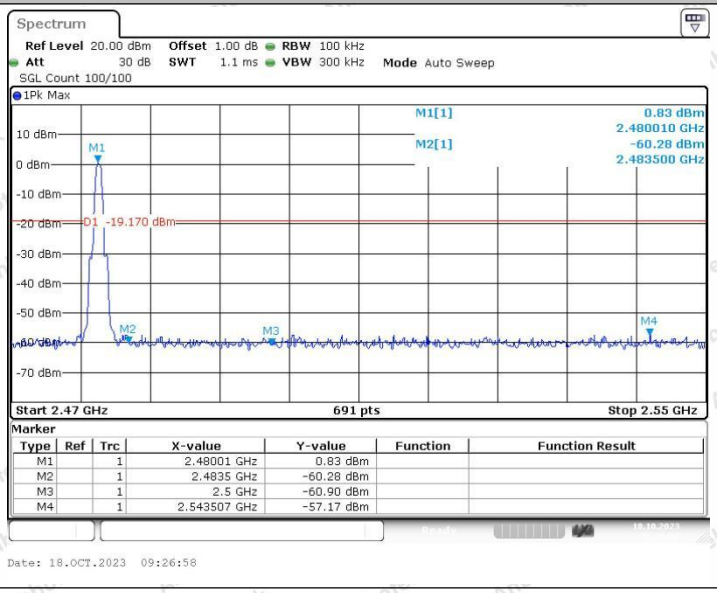
TestMode	Antenna	ChName	Frequency[MHz]	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	Low	2402	1.30	-58.57	≤-18.7	PASS
		High	2480	0.83	-57.17	≤-19.17	PASS

Test Graphs

BLE_1M_Ant1_Low_2402



BLE_1M_Ant1_High_2480



Appendix F: Conducted Spurious Emission

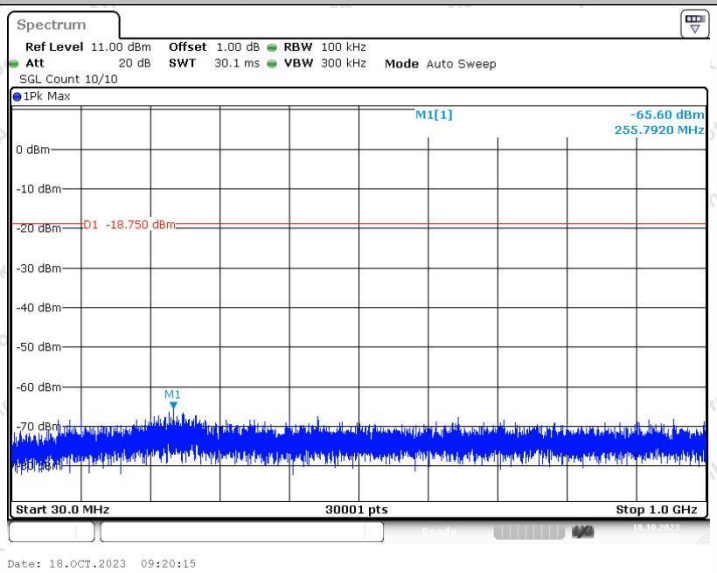
Test Result

TestMode	Antenna	Frequency[MHz]	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	Reference	1.25	1.25	---	PASS
			30~1000	1.25	-65.6	≤-18.75	PASS
			1000~26500	1.25	-48.2	≤-18.75	PASS
		2440	Reference	0.98	0.98	---	PASS
			30~1000	0.98	-66.09	≤-19.02	PASS
			1000~26500	0.98	-48.36	≤-19.02	PASS
		2480	Reference	-0.30	-0.30	---	PASS
			30~1000	-0.30	-66.08	≤-20.3	PASS
			1000~26500	-0.30	-47.87	≤-20.3	PASS

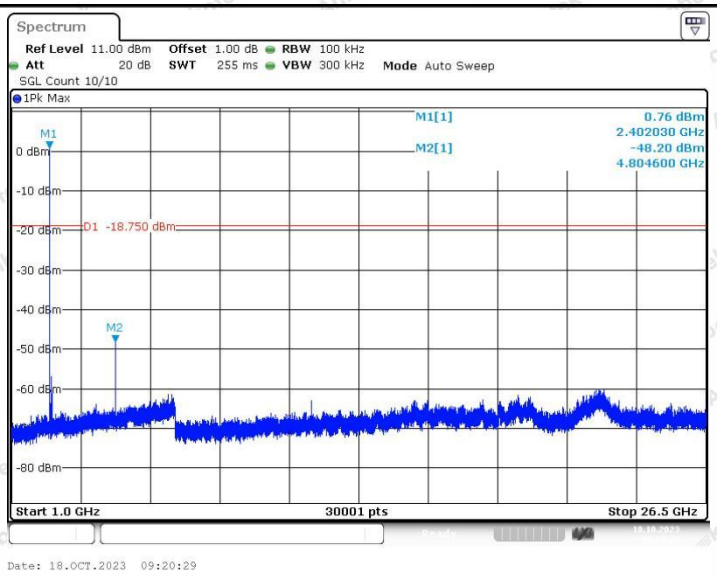
Test Graphs

BLE_1M_Ant1_2402_0~Reference

BLE_1M_Ant1_2402_30~1000

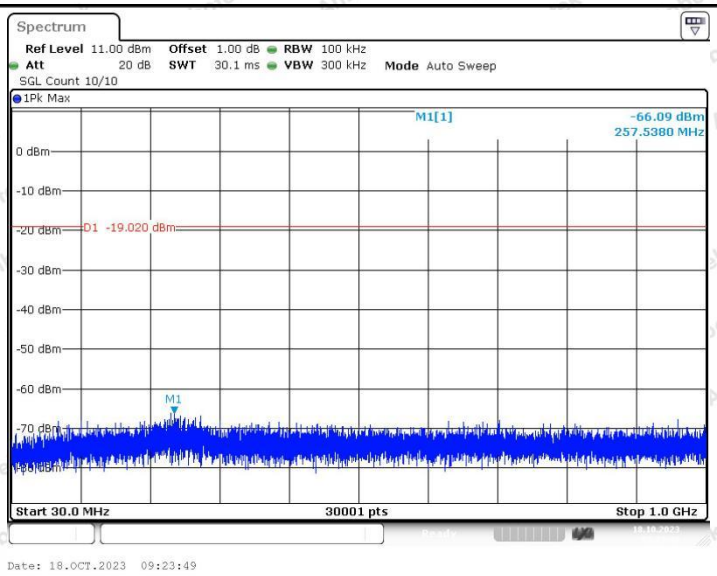


BLE_1M_Ant1_2402_1000~26500

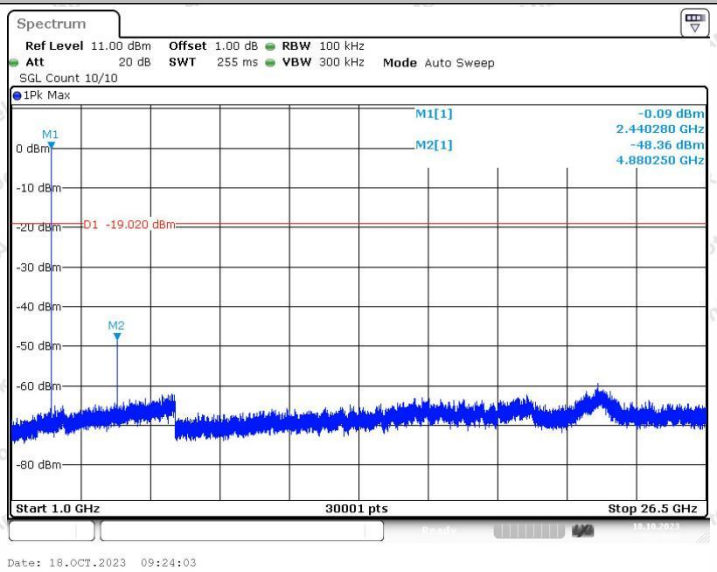


BLE_1M_Ant1_2440_0~Reference

BLE_1M_Ant1_2440_30~1000

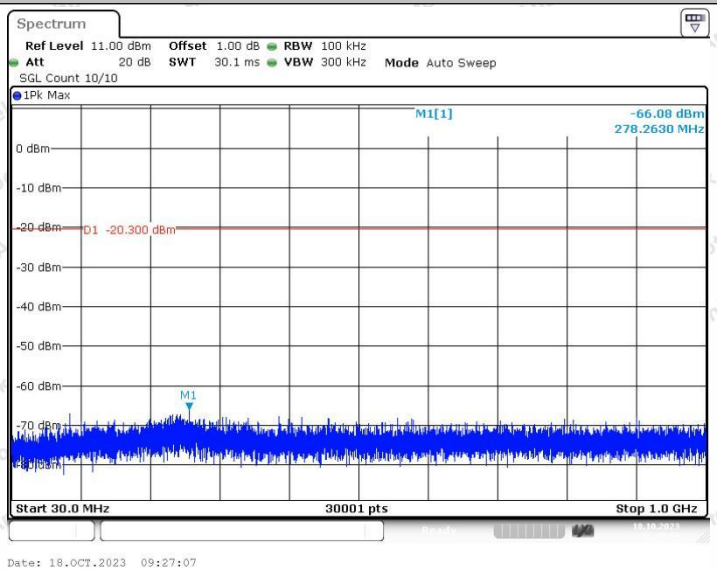


BLE_1M_Ant1_2440_1000~26500

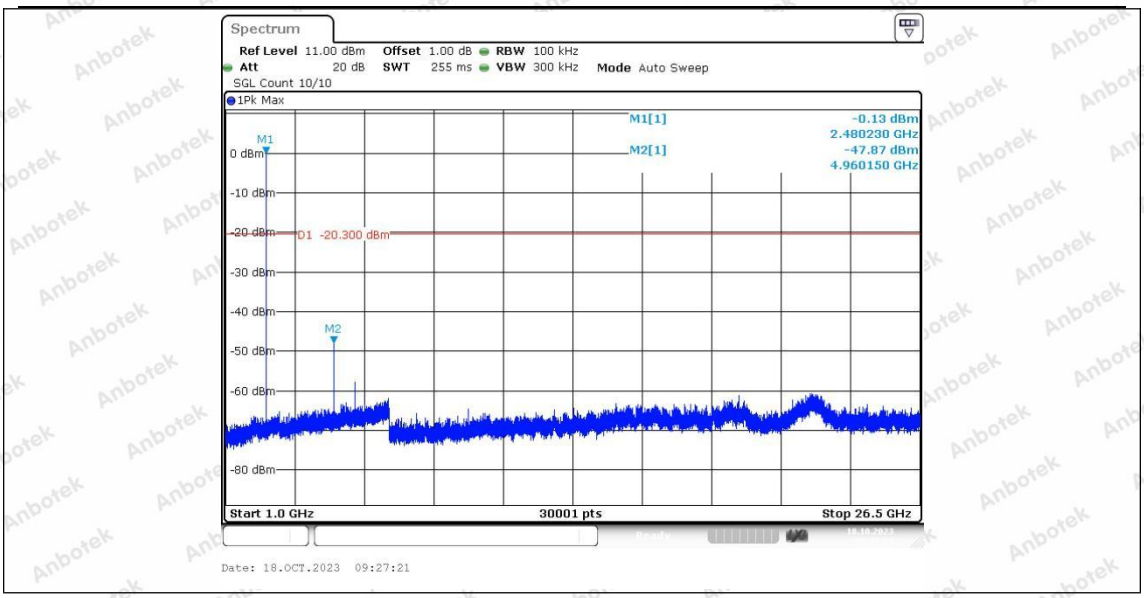


BLE_1M_Ant1_2480_0~Reference

BLE_1M_Ant1_2480_30~1000



BLE_1M_Ant1_2480_1000~26500


Spectrum
Ref Level 11.00 dBm Offset 1.00 dB RBW 100 kHz
Att 20 dB SWT 255 ms VBW 300 kHz Mode Auto Sweep
SGL Count 10/10
1Pk Max
M1[1] -0.13 dBm
2.480230 GHz
M2[1] -47.87 dBm
4.960150 GHz
M1
M2
D1 -20.300 dBm
0 dBm
-10 dBm
-20 dBm
-30 dBm
-40 dBm
-50 dBm
-60 dBm
-80 dBm
Start 1.0 GHz
30001 pts
Stop 26.5 GHz
Date: 18.OCT.2023 09:27:21

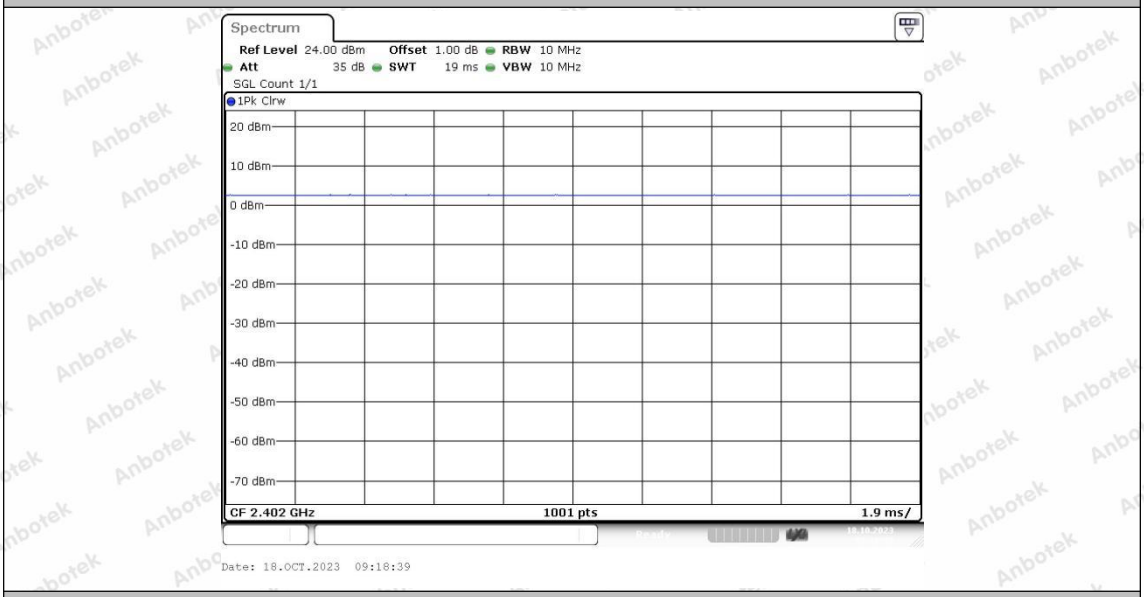
Appendix G: Duty Cycle

Test Result

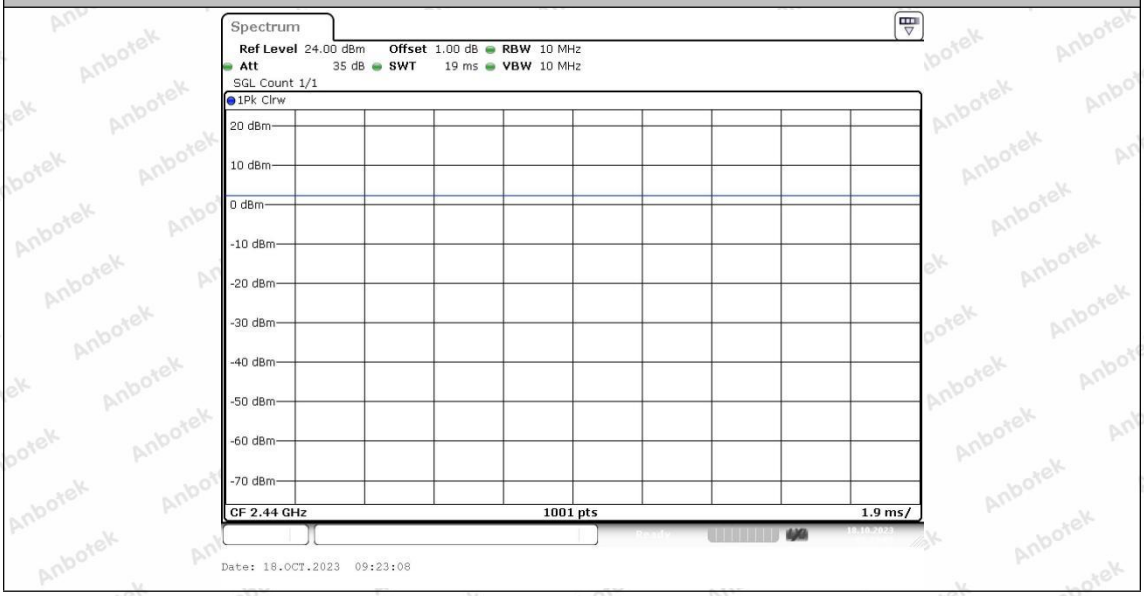
TestMode	Antenna	Frequency[MHz]	ON Time [ms]	Period [ms]	Duty Cycle [%]	Duty Cycle Factor[dB]
BLE_1M	Ant1	2402	19.00	19.00	100	0.00
		2440	19.00	19.00	100	0.00
		2480	19.00	19.00	100	0.00

Test Graphs

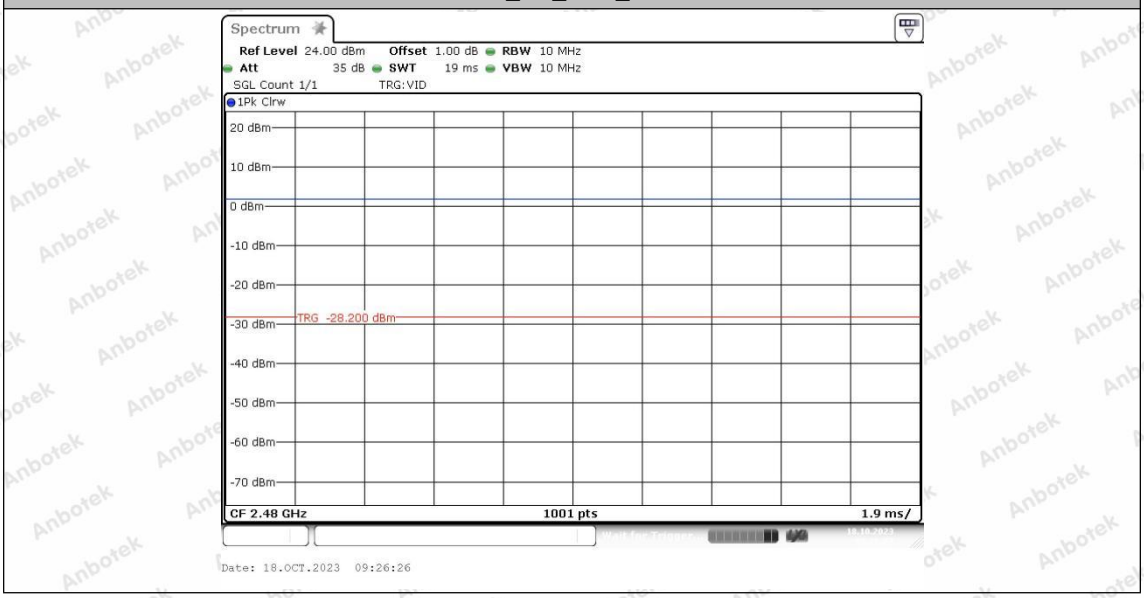
BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



BLE_1M_Ant1_2480



---End---