

Appendix: Bluetooth LE

Contents

Appendix A: DTS Bandwidth 3

 Test Result 3

 Test Graphs 4

Appendix B: Occupied Channel Bandwidth 6

 Test Result 6

 Test Graphs 7

Appendix C: Maximum conducted output power 9

 Test Result Peak 9

 Test Graphs Peak 10

Appendix D: Maximum power spectral density 12

 Test Result 12

 Test Graphs 13

Appendix E: Band edge measurements 15

 Test Result 15

 Test Graphs 16

Appendix F: Conducted Spurious Emission 17

 Test Result 17

 Test Graphs 18

Appendix G: Duty Cycle 23

 Test Result 23

 Test Graphs 24

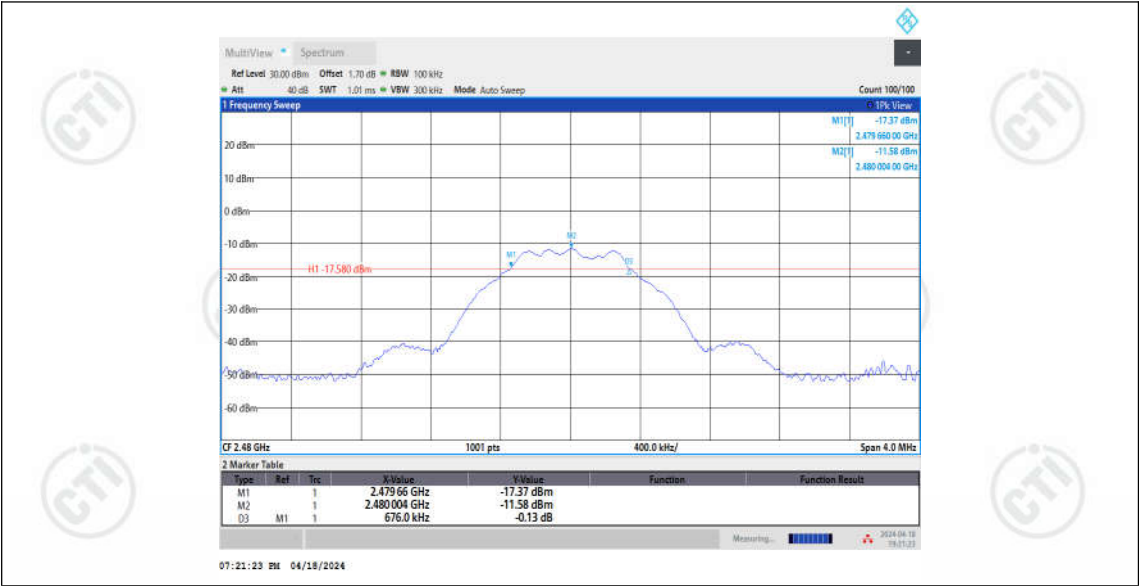
Appendix A: DTS Bandwidth

Test Result

Test Mode	Antenna	Frequency [MHz]	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	0.68	2401.66	2402.34	0.5	PASS
		2440	0.68	2439.66	2440.34	0.5	PASS
		2480	0.68	2479.66	2480.34	0.5	PASS

Test Graphs



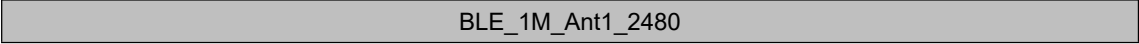
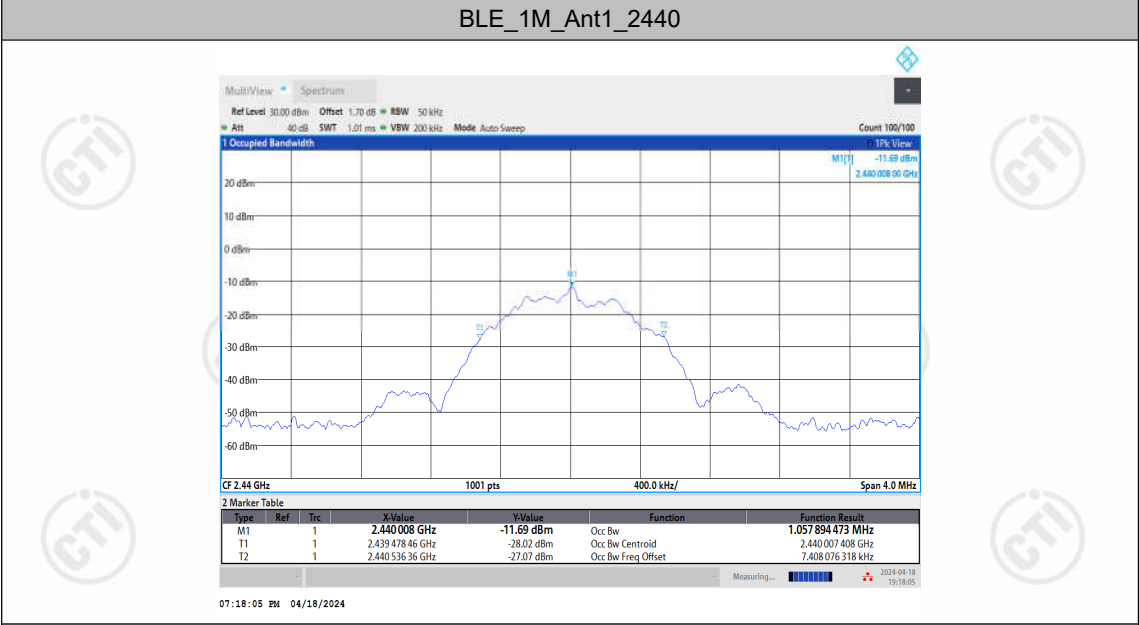


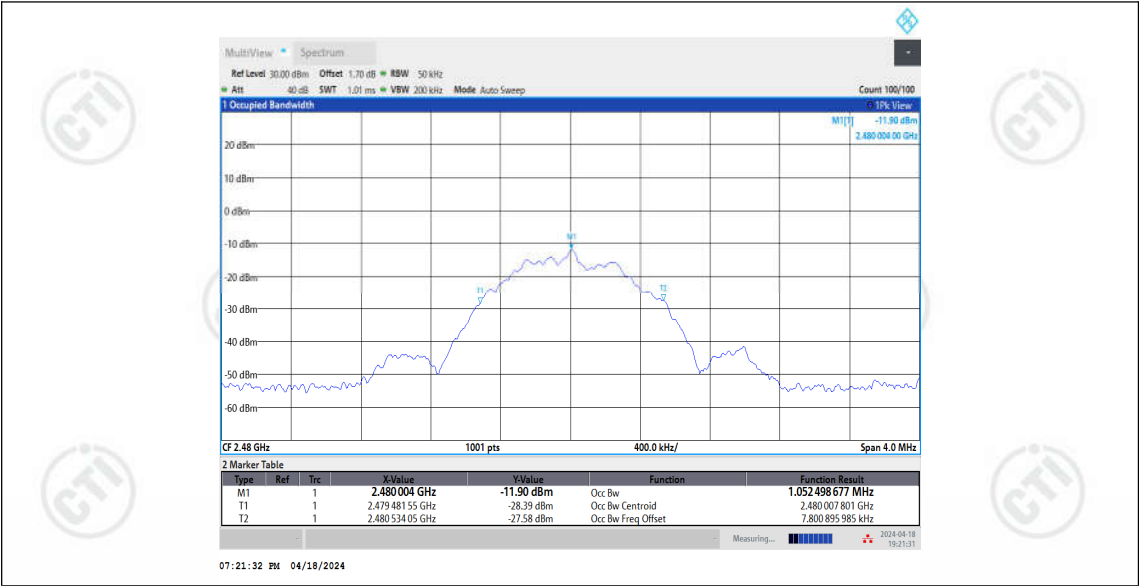
Appendix B: Occupied Channel Bandwidth

Test Result

Test Mode	Antenna	Frequency [MHz]	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	1.065	2401.4750	2402.5396	---	---
		2440	1.058	2439.478	2440.536	---	---
		2480	1.052	2479.482	2480.534	---	---

Test Graphs





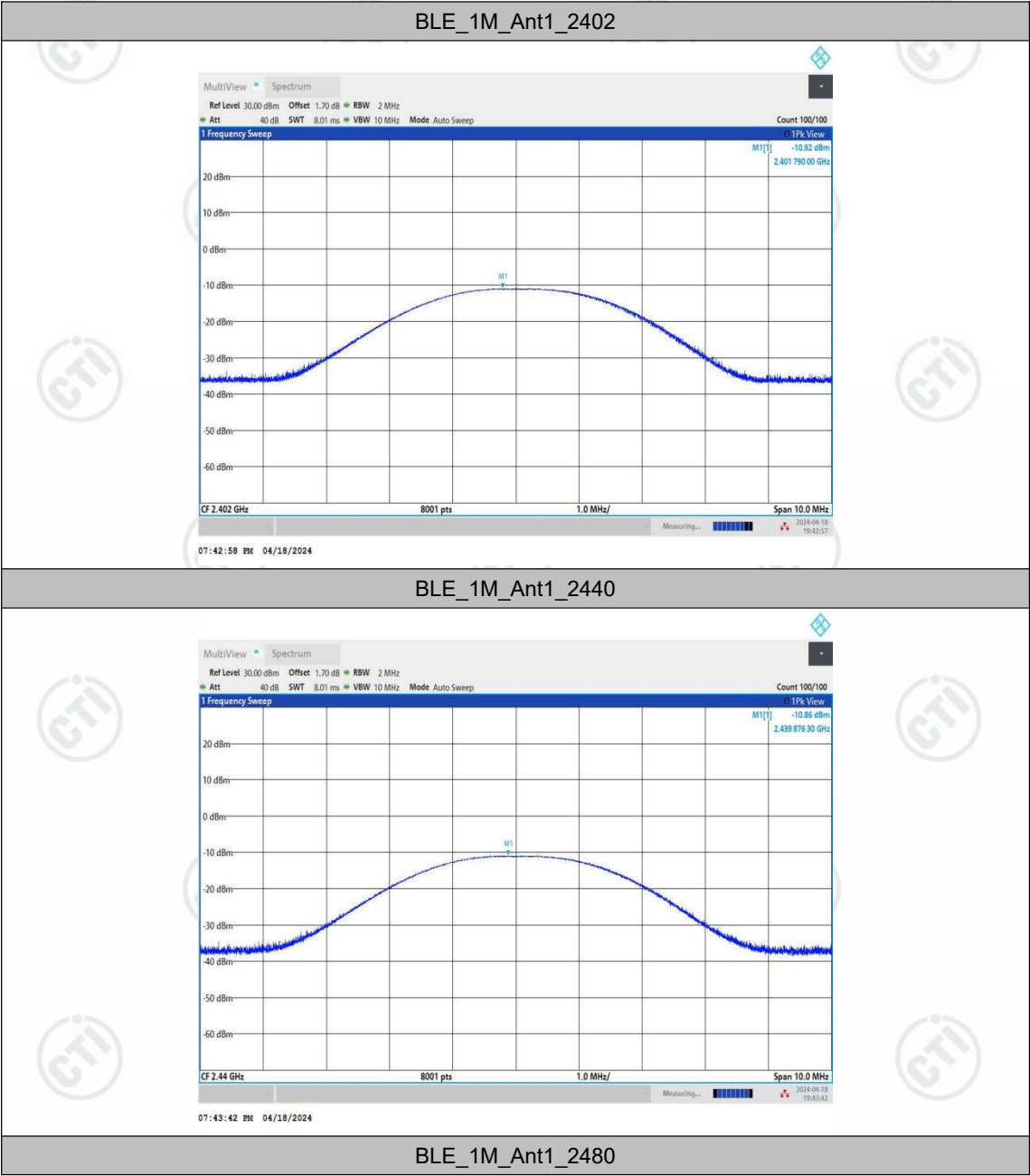
Appendix C: Maximum conducted output power

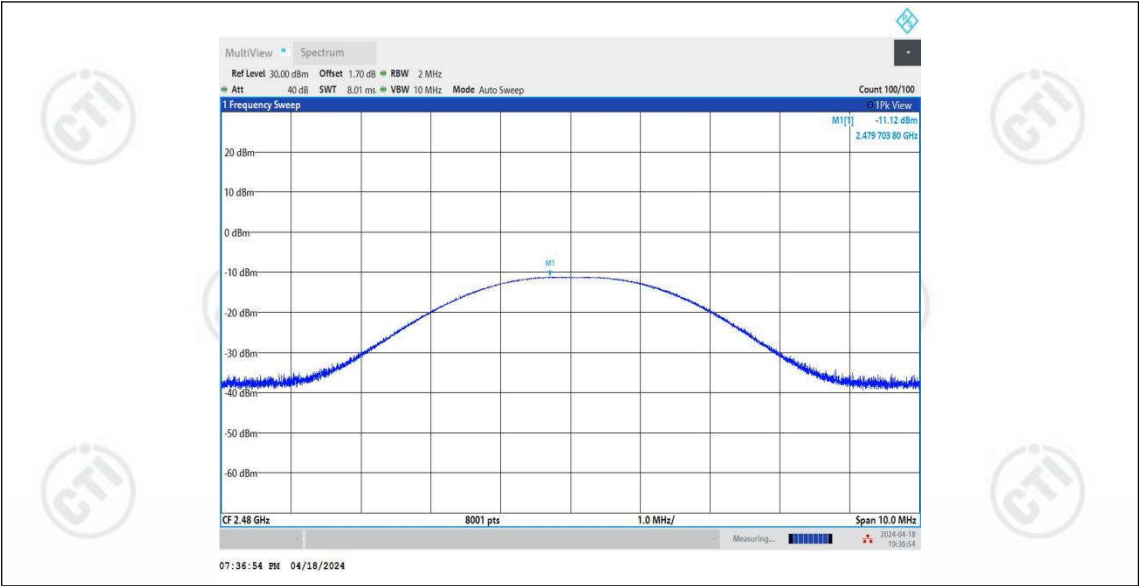
Test Result Peak

Test Mode	Antenna	Frequency [MHz]	Conducted Peak Power [dBm]	Conducted Limit [dBm]	EIRP [dBm]	EIRP Limit [dBm]	Verdict
BLE_1M	Ant1	2402	-10.92	≤30	-13.72	≤36	PASS
		2440	-10.86	≤30	-13.66	≤36	PASS
		2480	-11.12	≤30	-13.92	≤36	PASS

Note:EIRP=conducted peak power+antenna gain;

Test Graphs Peak



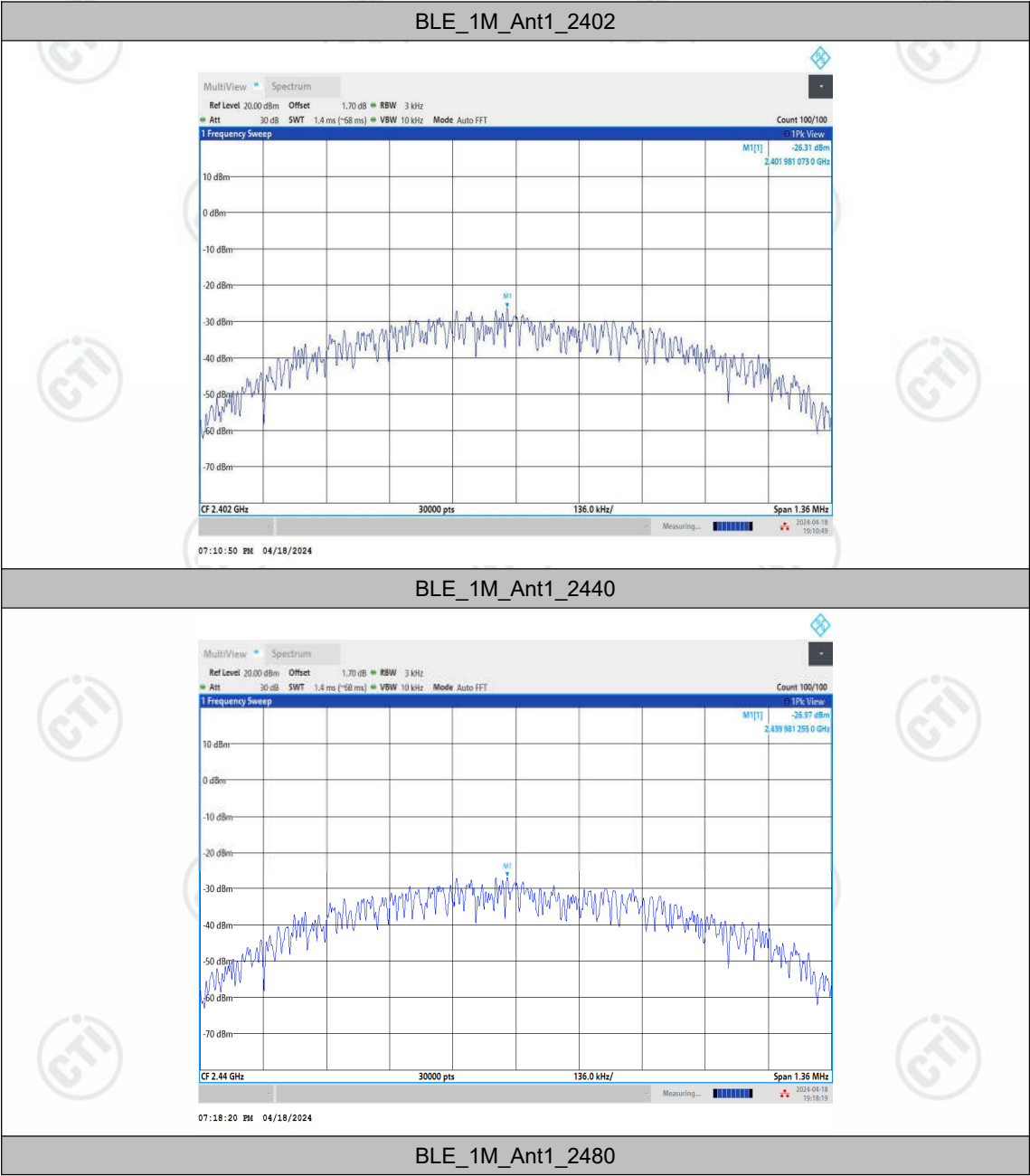


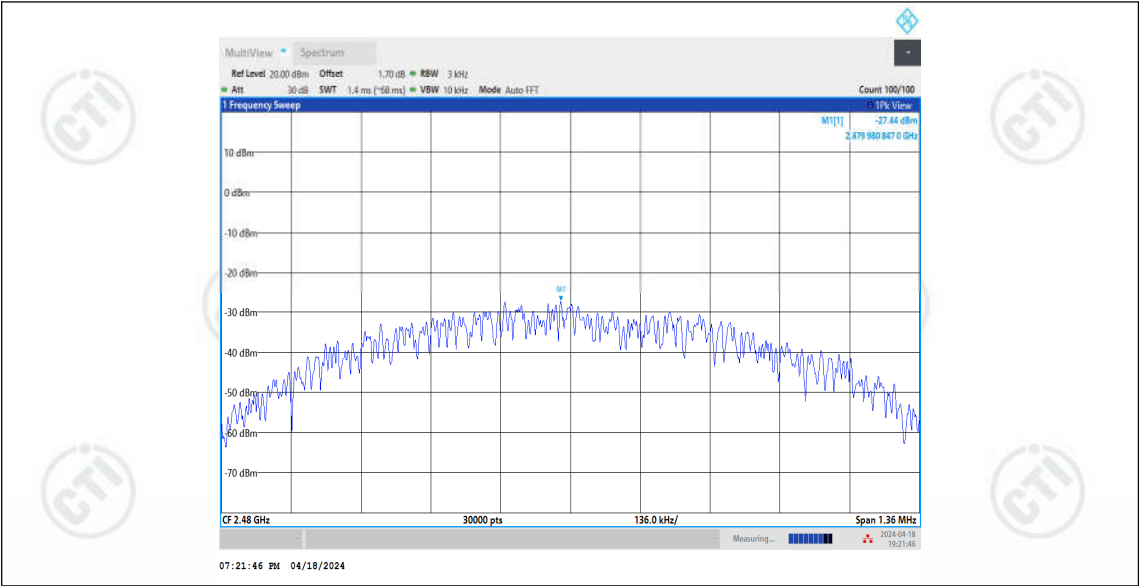
Appendix D: Maximum power spectral density

Test Result

Test Mode	Antenna	Frequency [MHz]	Result [dBm/3kHz]	Limit [dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-26.31	≤8.00	PASS
		2440	-26.97	≤8.00	PASS
		2480	-27.44	≤8.00	PASS

Test Graphs





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	-11.23	-49.83	≤-31.23	PASS
		High	2480	-11.80	-56.13	≤-31.8	PASS

Test Graphs

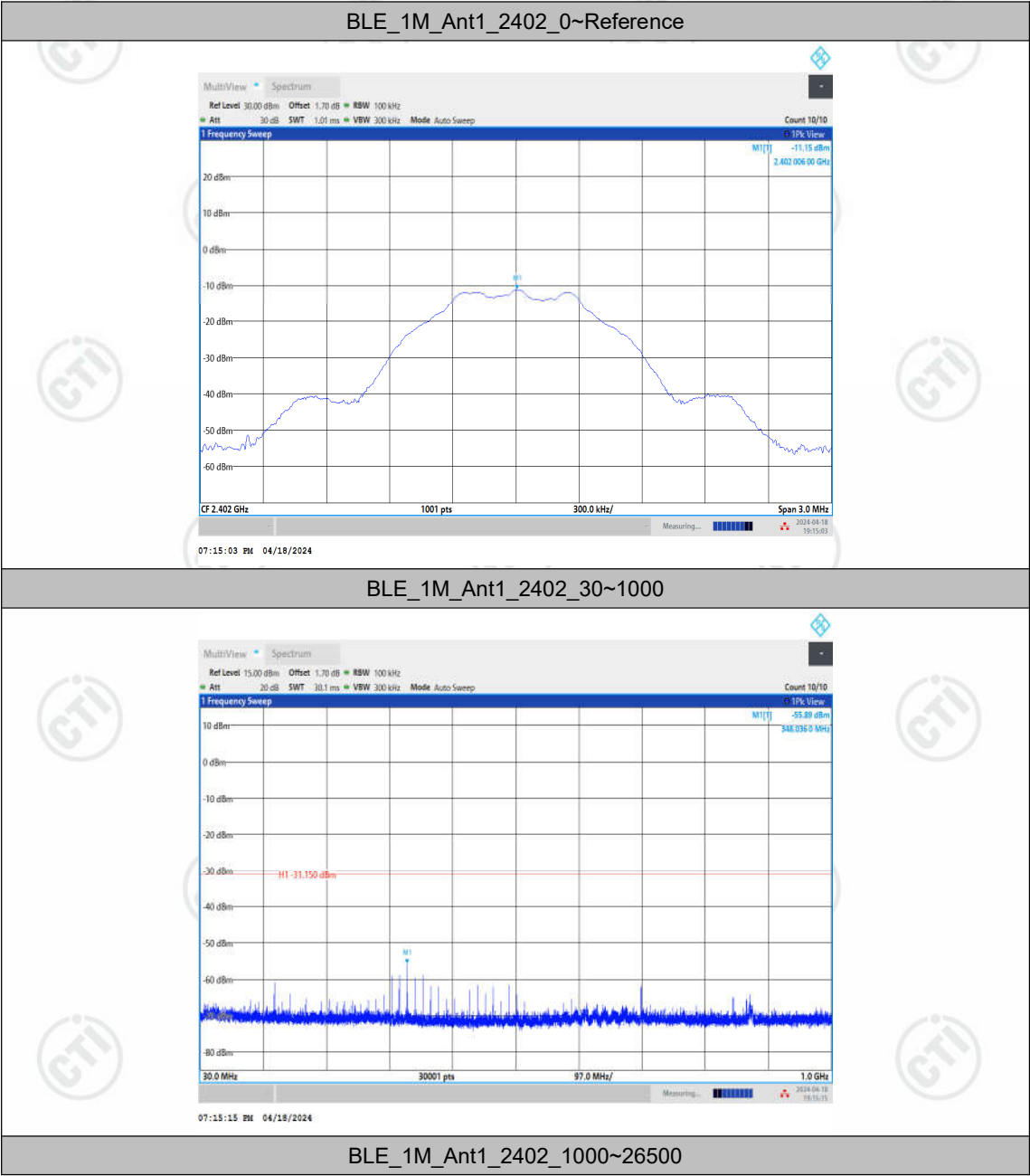


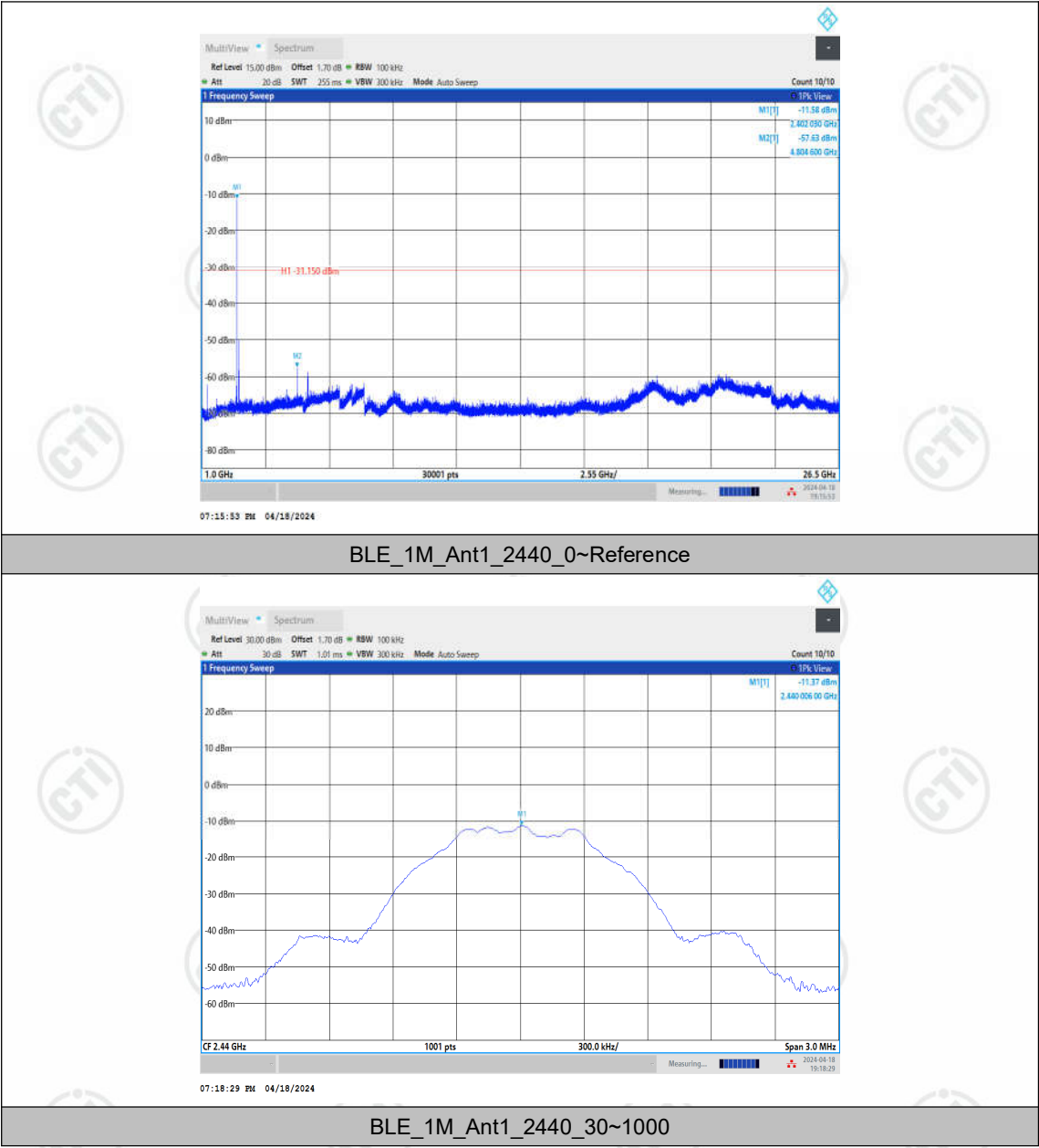
Appendix F: Conducted Spurious Emission

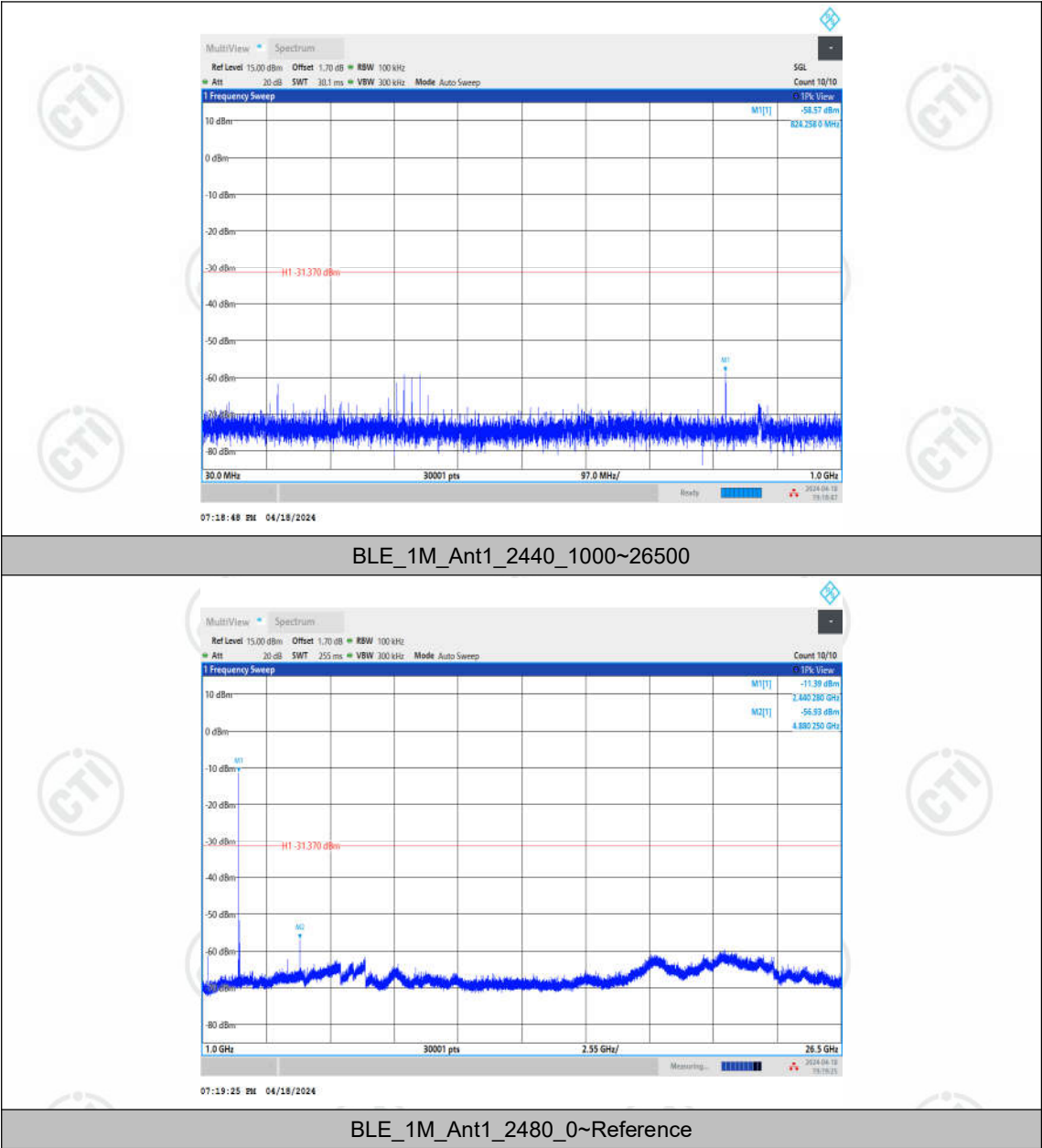
Test Result

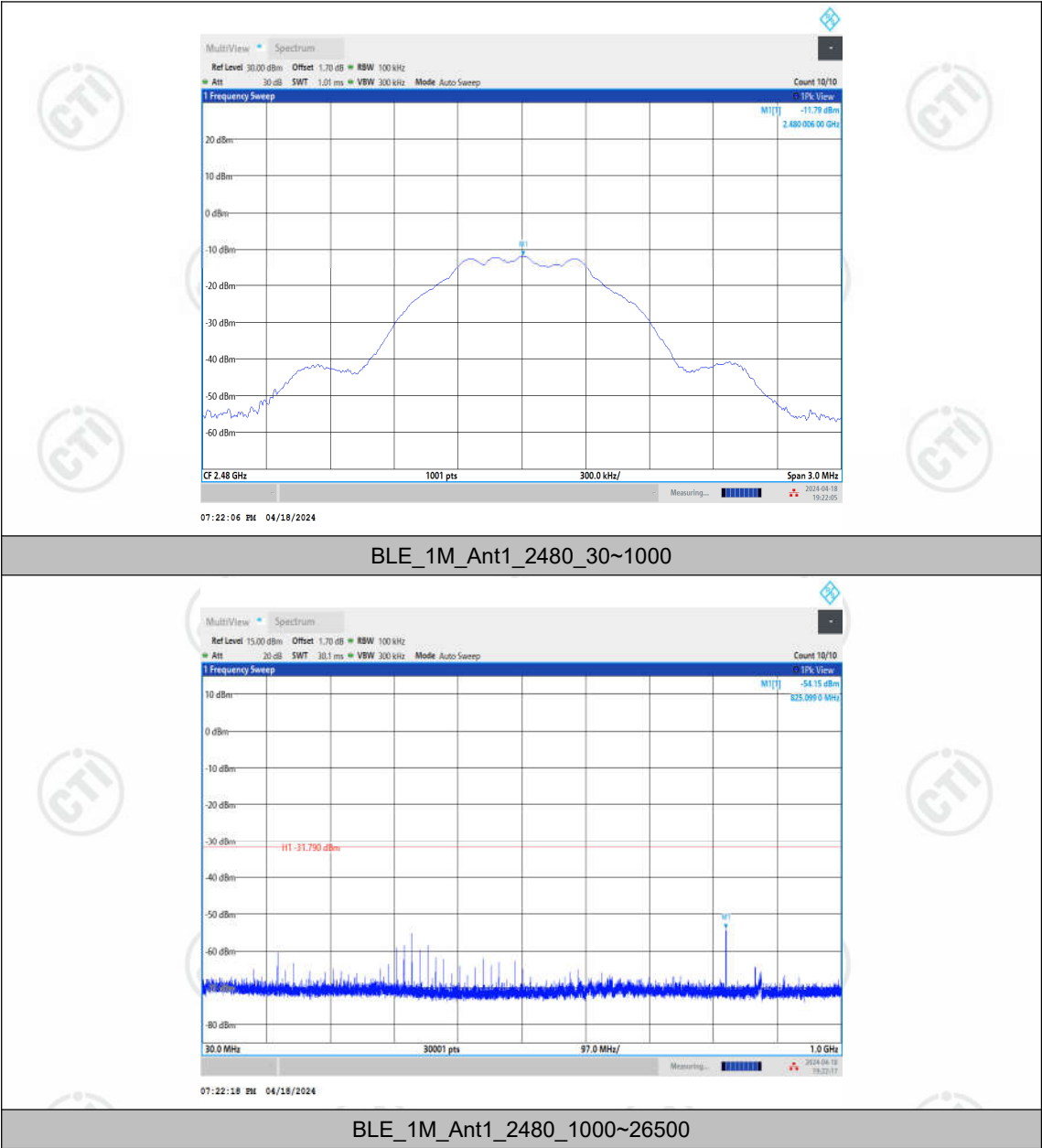
Test Mode	Antenna	Frequency [MHz]	FreqRange [MHz]	RefLevel [dBm]	Result [dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	Reference	-11.15	-11.15	---	PASS
			30~1000	-11.15	-55.89	≤-31.15	PASS
			1000~26500	-11.15	-57.63	≤-31.15	PASS
		2440	Reference	-11.37	-11.37	---	PASS
			30~1000	-11.37	-58.57	≤-31.37	PASS
			1000~26500	-11.37	-56.93	≤-31.37	PASS
		2480	Reference	-11.79	-11.79	---	PASS
			30~1000	-11.79	-54.15	≤-31.79	PASS
			1000~26500	-11.79	-58.49	≤-31.79	PASS

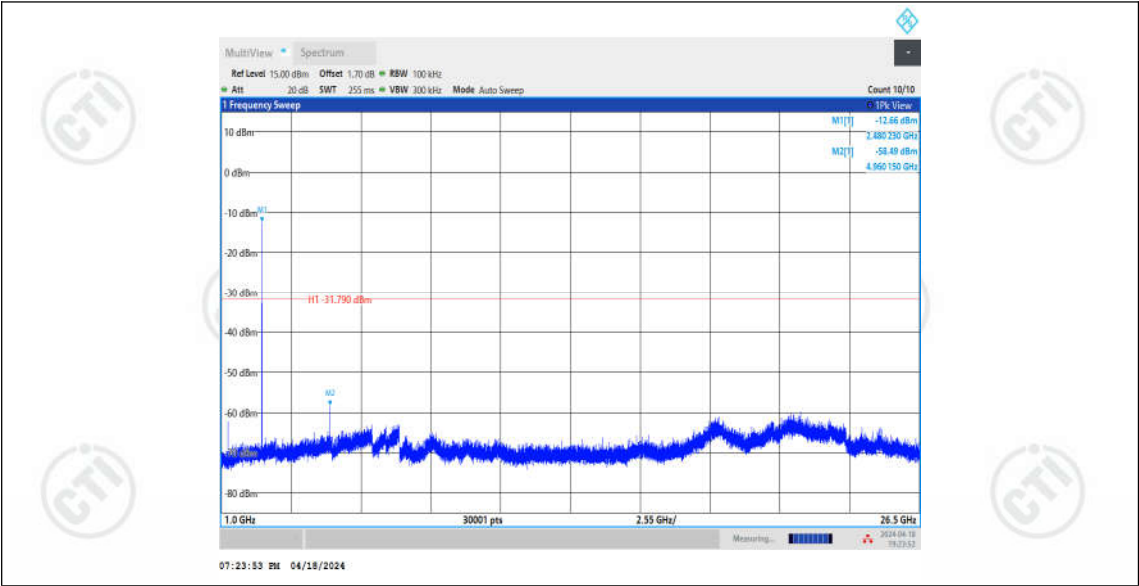
Test Graphs











Appendix G: Duty Cycle

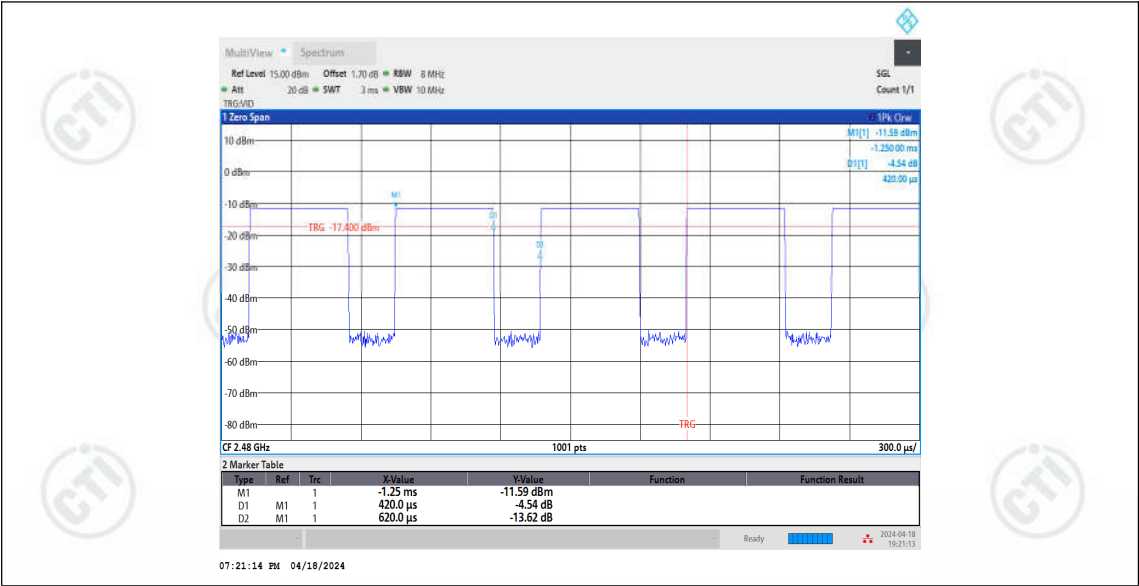
Test Result

Test Mode	Antenna	Frequency[MHz]	ON Time [ms]	Period [ms]	Duty Cycle [%]	Duty Cycle Factor[dB]
BLE_1M	Ant1	2402	0.43	0.63	68.25	1.66
		2440	0.42	0.62	67.74	1.69
		2480	0.42	0.62	67.74	1.69

Note:Duty Cycle Factor=-10*Ig(Duty Cycle);

Test Graphs





END OF REPORT