

Appendix: Bluetooth LE

Contents

Appendix A: DTS Bandwidth 3

 Test Result 3

 Test Graphs 4

Appendix B: Occupied Channel Bandwidth 5

 Test Result 5

 Test Graphs 6

Appendix C: Maximum conducted output power 7

 Test Result Peak 7

 Test Graphs Peak 8

Appendix D: Maximum power spectral density 9

 Test Result 9

 Test Graphs 10

Appendix E: Band edge measurements 11

 Test Result 11

 Test Graphs 12

Appendix F: Conducted Spurious Emission 13

 Test Result 13

 Test Graphs 14

Appendix G: Duty Cycle 17

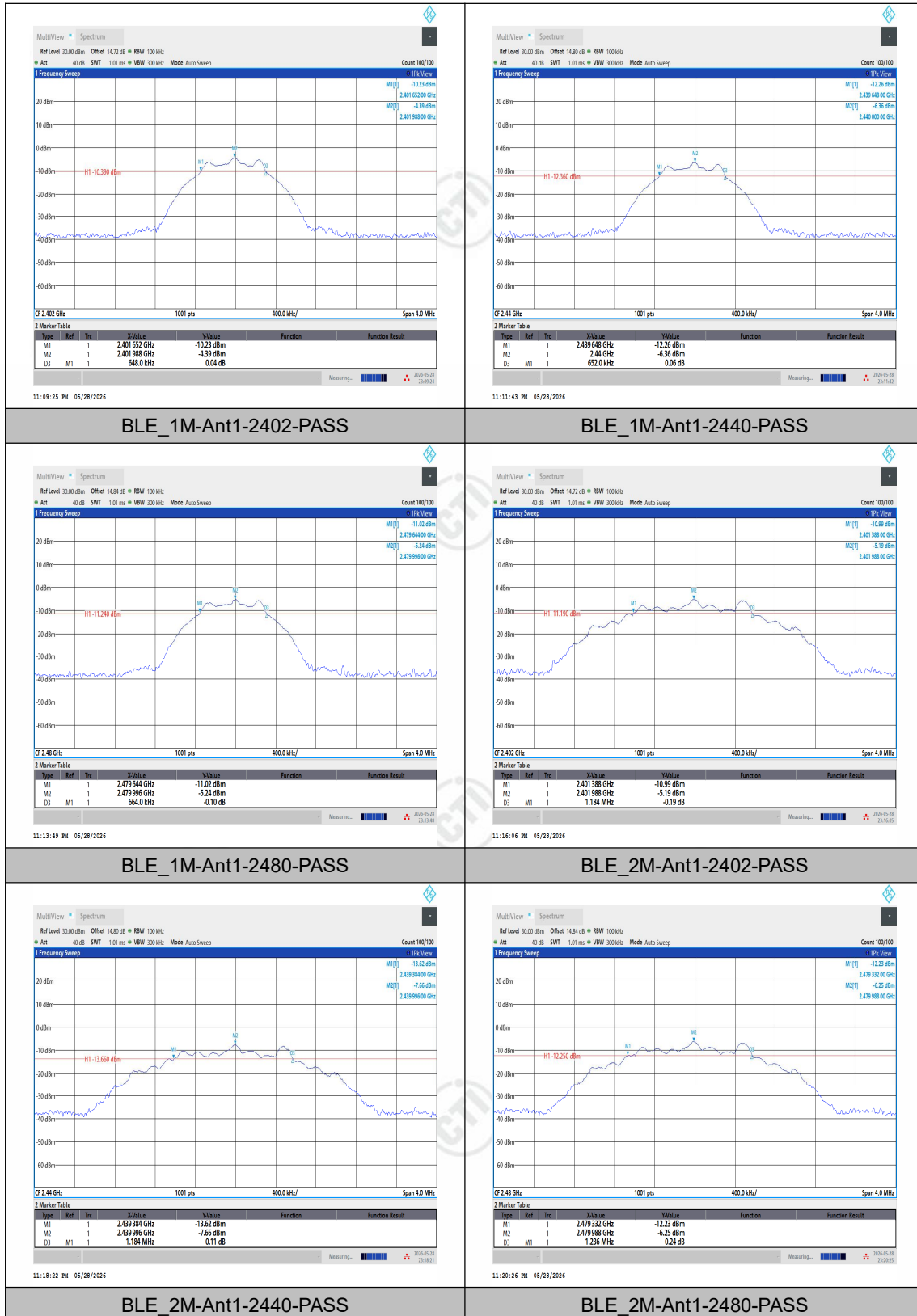
 Test Result 17

 Test Graphs 18

Appendix A: DTS Bandwidth**Test Result**

TestMode	Antenna	Frequency[MHz]	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	0.65	2401.65	2402.30	0.5	PASS
BLE_1M	Ant1	2440	0.65	2439.65	2440.30	0.5	PASS
BLE_1M	Ant1	2480	0.66	2479.64	2480.31	0.5	PASS
BLE_2M	Ant1	2402	1.18	2401.39	2402.57	0.5	PASS
BLE_2M	Ant1	2440	1.18	2439.38	2440.57	0.5	PASS
BLE_2M	Ant1	2480	1.24	2479.33	2480.57	0.5	PASS

Test Graphs

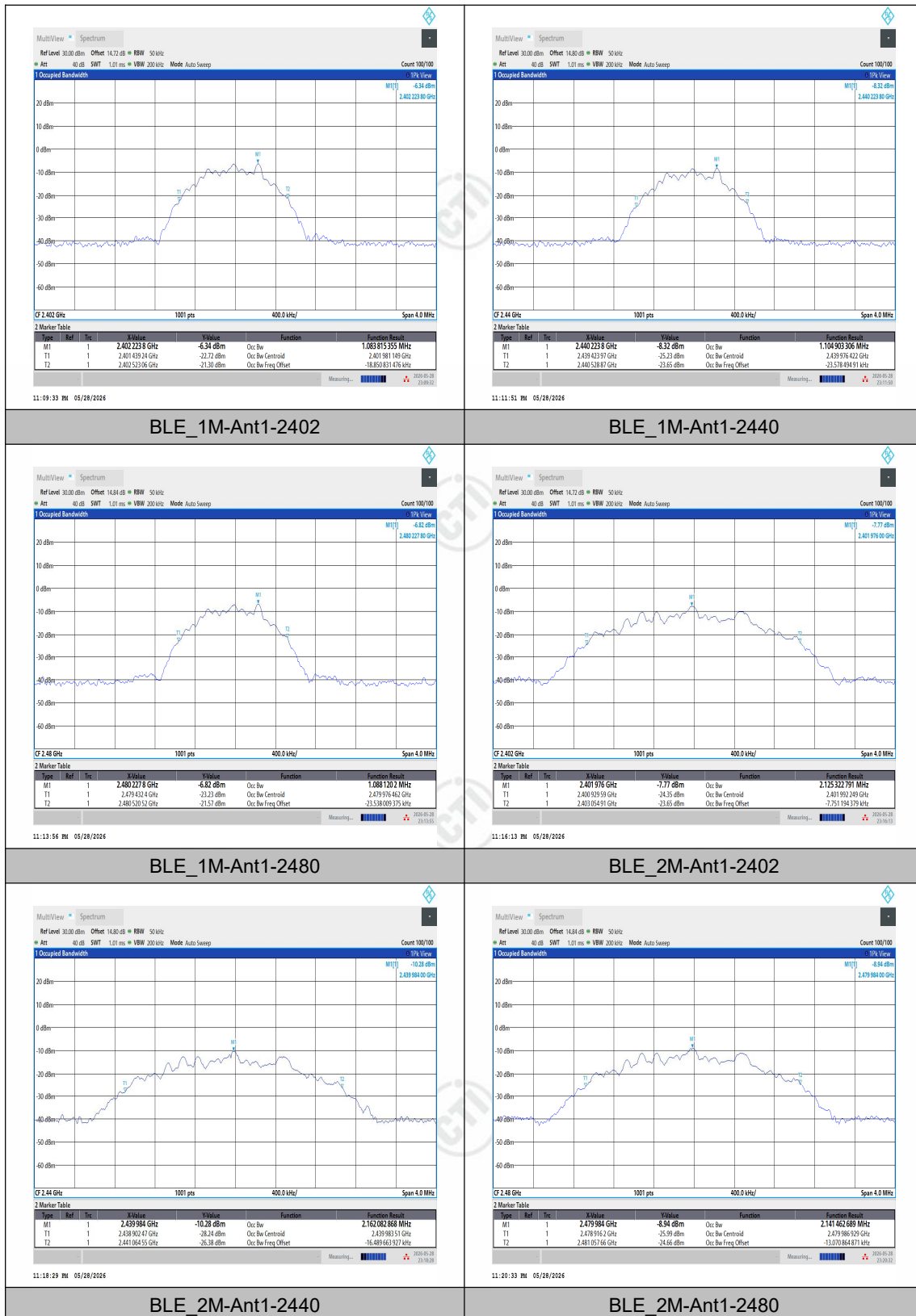


Appendix B: Occupied Channel Bandwidth

Test Result

TestMode	Antenna	Frequency[MHz]	OCB [MHz]	FL[MHz]	FH[MHz]	Limit [MHz]	Verdict
BLE_1M	Ant1	2402	1.0838	2401.4392	2402.5231	---	---
BLE_1M	Ant1	2440	1.1049	2439.4240	2440.5289	---	---
BLE_1M	Ant1	2480	1.0881	2479.4324	2480.5205	---	---
BLE_2M	Ant1	2402	2.1253	2400.9296	2403.0549	---	---
BLE_2M	Ant1	2440	2.1621	2438.9025	2441.0646	---	---
BLE_2M	Ant1	2480	2.1415	2478.9162	2481.0577	---	---

Test Graphs

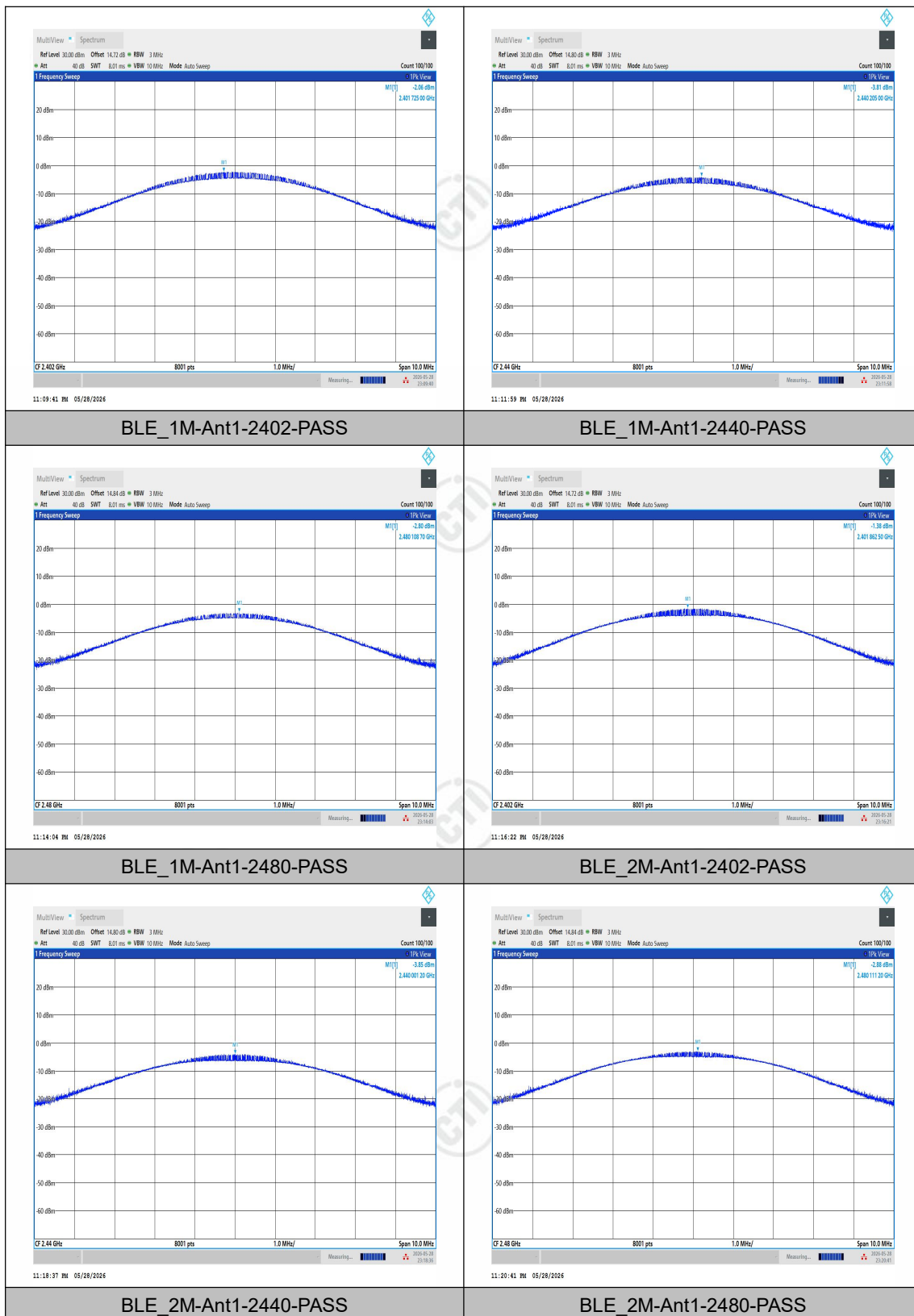


Appendix C: Maximum conducted output power

Test Result Peak

TestMode	Antenna	Frequency[MHz]	Conducted Peak Power[dBm]	Conducted Limit[dBm]	EIRP[dBm]	EIRP Limit[dBm]	Verdict
BLE_1M	Ant1	2402	-2.06	≤30	-1.76	≤36	PASS
BLE_1M	Ant1	2440	-3.81	≤30	-3.51	≤36	PASS
BLE_1M	Ant1	2480	-2.80	≤30	-2.50	≤36	PASS
BLE_2M	Ant1	2402	-1.38	≤30	-1.08	≤36	PASS
BLE_2M	Ant1	2440	-3.85	≤30	-3.55	≤36	PASS
BLE_2M	Ant1	2480	-2.88	≤30	-2.58	≤36	PASS

Test Graphs Peak

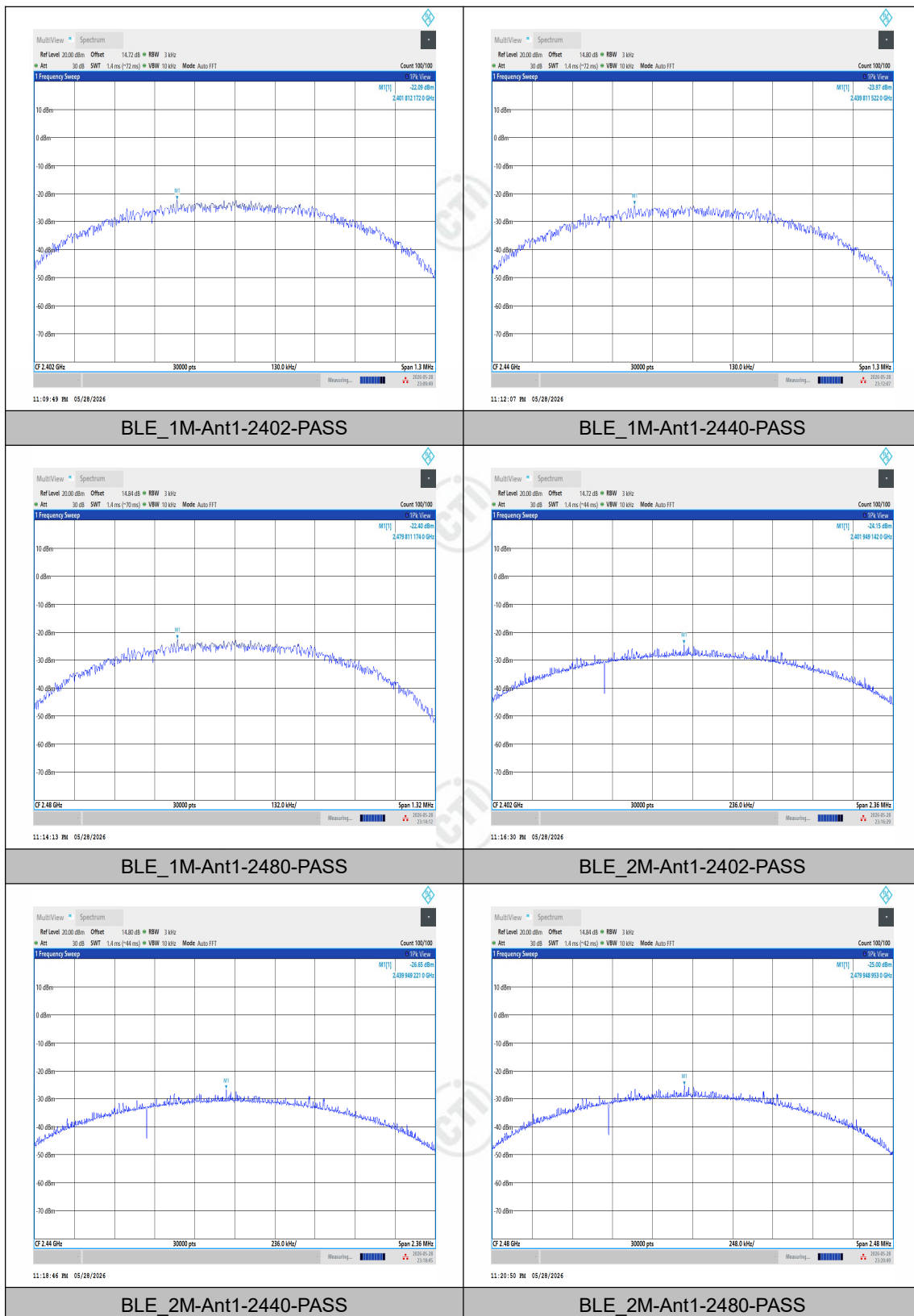


Appendix D: Maximum power spectral density

Test Result

TestMode	Antenna	Frequency[MHz]	Result[dBm/3kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-22.09	≤8.00	PASS
BLE_1M	Ant1	2440	-23.97	≤8.00	PASS
BLE_1M	Ant1	2480	-22.40	≤8.00	PASS
BLE_2M	Ant1	2402	-24.15	≤8.00	PASS
BLE_2M	Ant1	2440	-26.65	≤8.00	PASS
BLE_2M	Ant1	2480	-25.00	≤8.00	PASS

Test Graphs

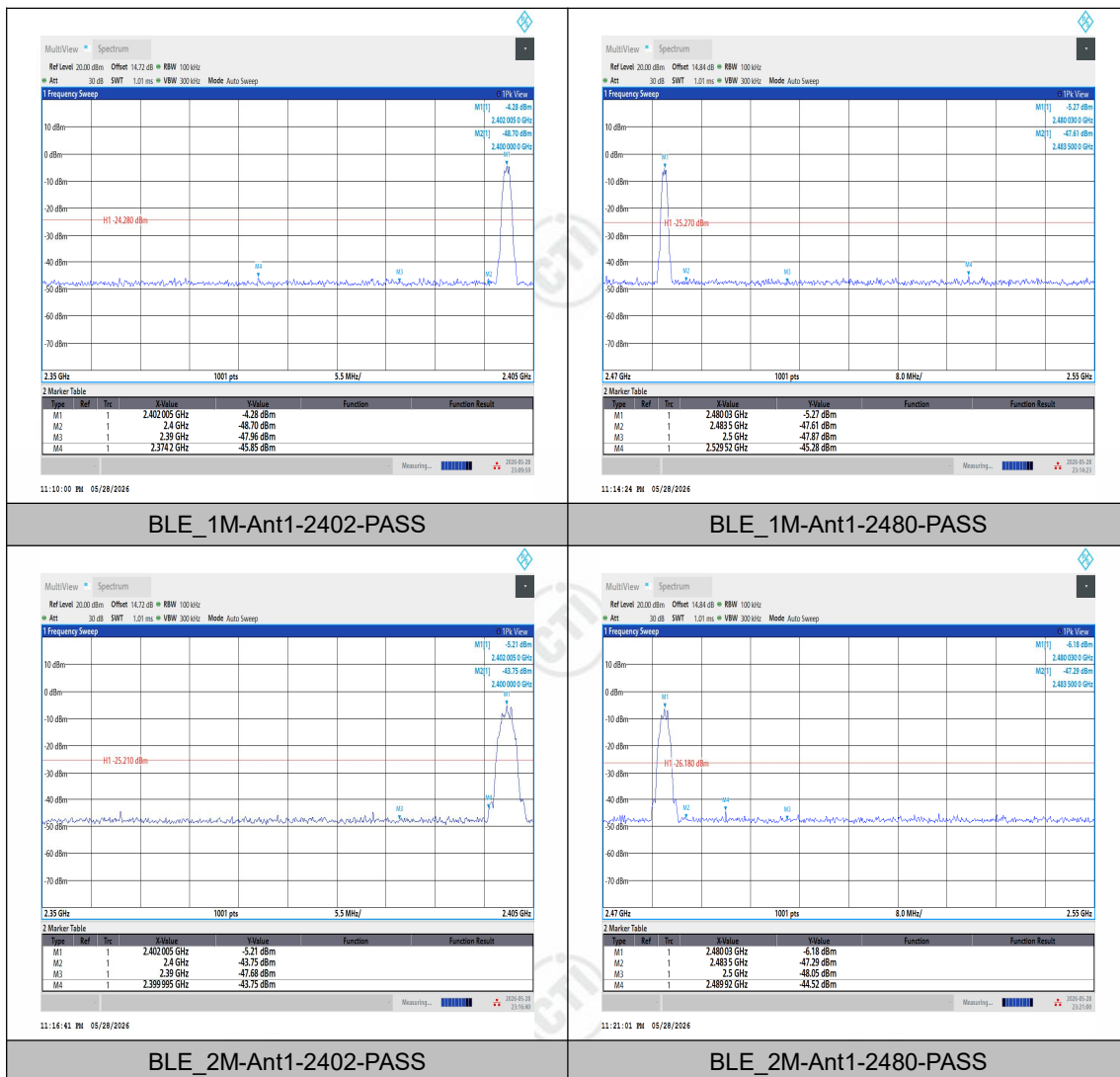


Appendix E: Band edge measurements

Test Result

TestMode	Antenna	ChName	Frequency[MHz]	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	Low	2402	-4.28	-45.85	≤-24.28	PASS
BLE_1M	Ant1	High	2480	-5.27	-45.28	≤-25.27	PASS
BLE_2M	Ant1	Low	2402	-5.21	-43.75	≤-25.21	PASS
BLE_2M	Ant1	High	2480	-6.18	-44.52	≤-26.18	PASS

Test Graphs

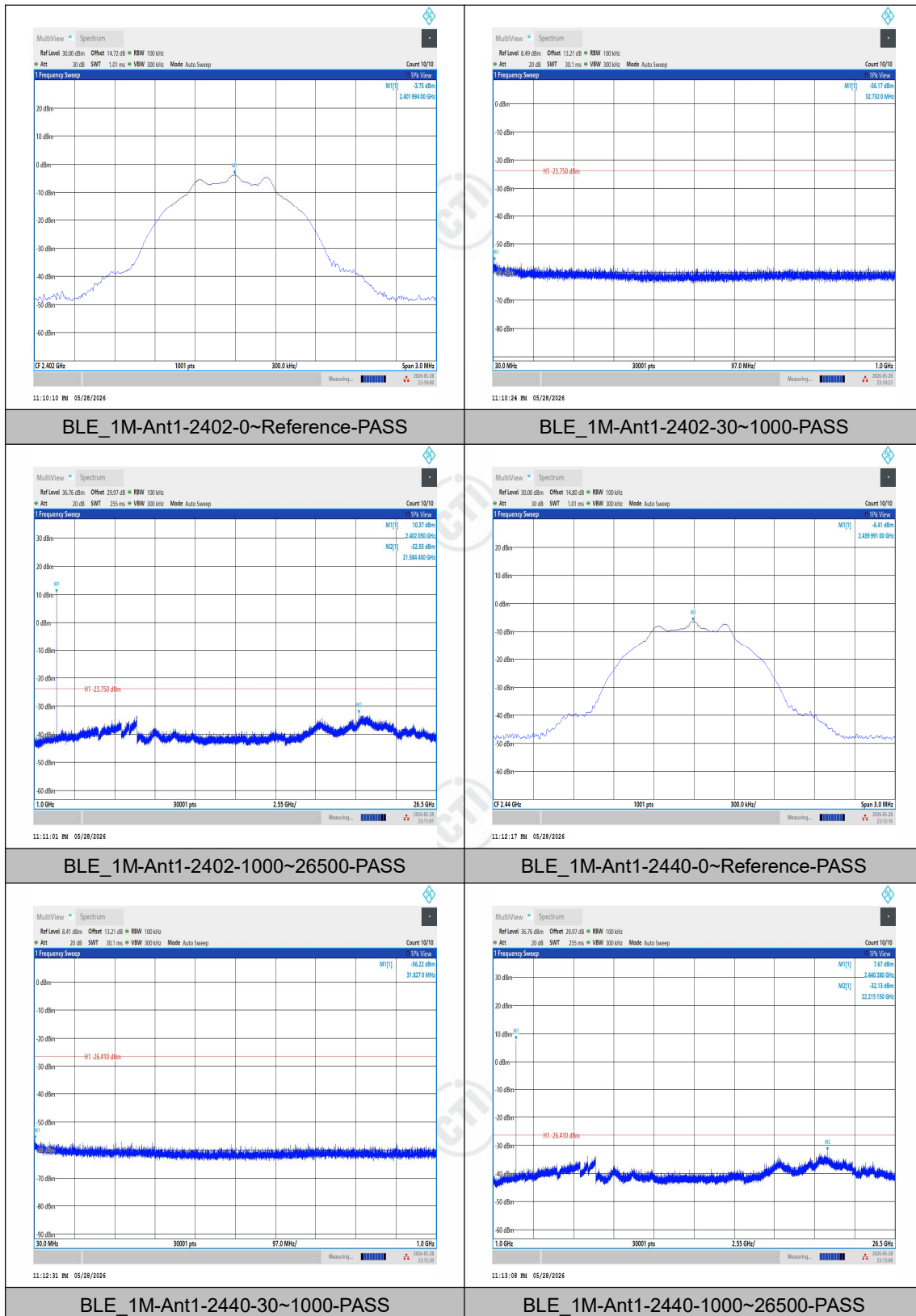


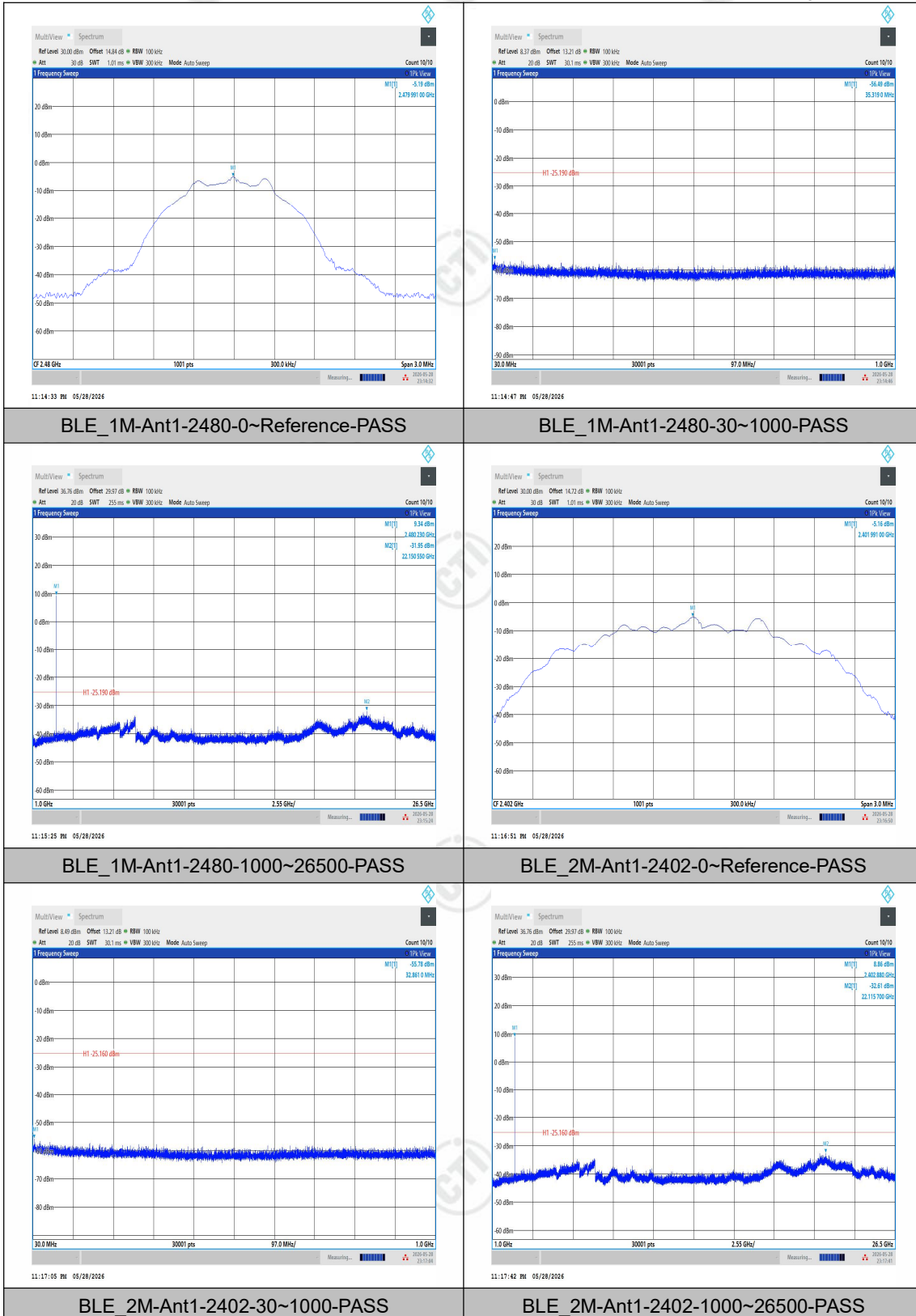
Appendix F: Conducted Spurious Emission

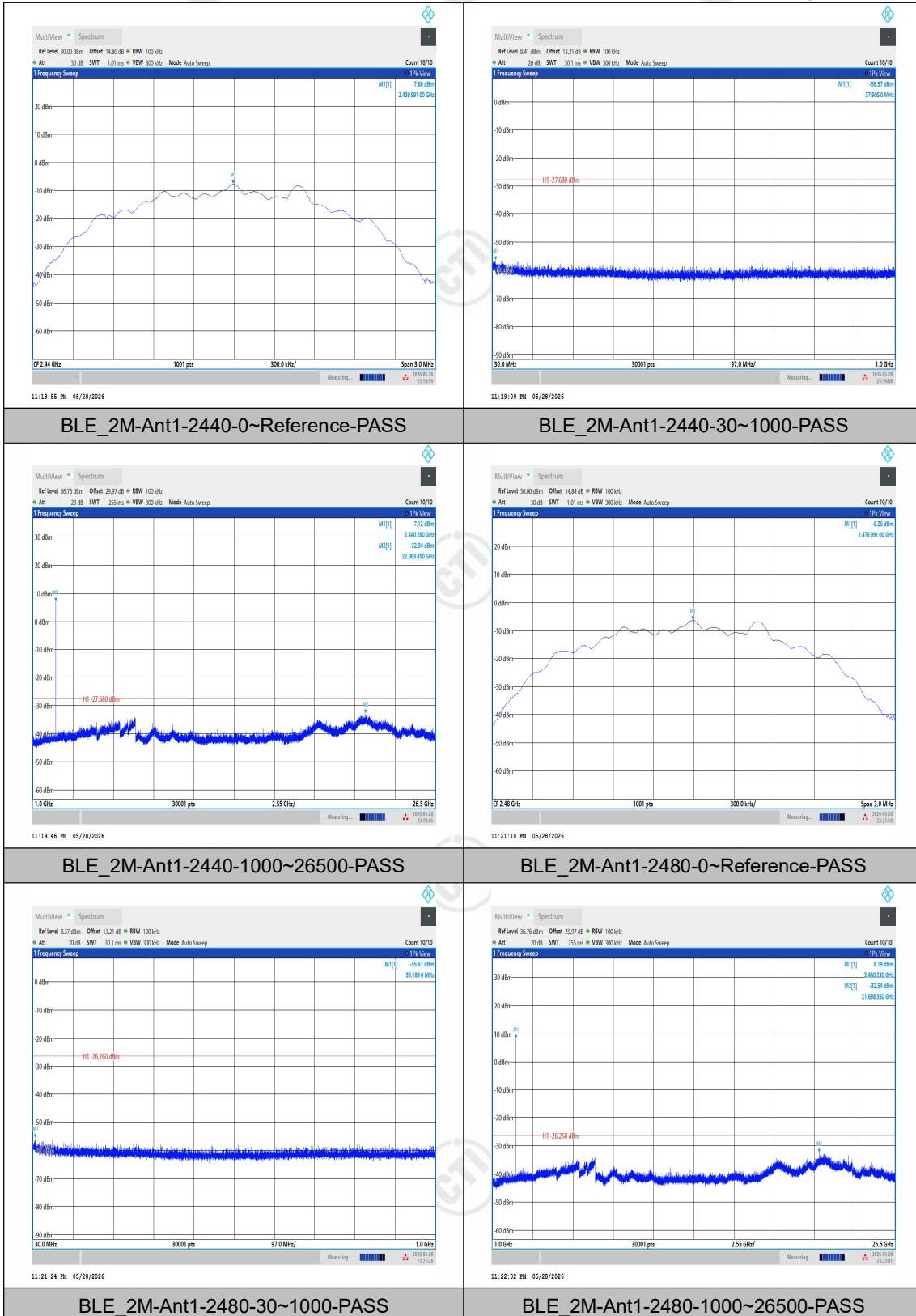
Test Result

TestMode	Antenna	Frequency [MHz]	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	0~Reference	-3.75	-3.75	---	PASS
BLE_1M	Ant1	2402	30~1000	-3.75	-56.17	≤-23.75	PASS
BLE_1M	Ant1	2402	1000~26500	-3.75	-32.93	≤-23.75	PASS
BLE_1M	Ant1	2440	0~Reference	-6.41	-6.41	---	PASS
BLE_1M	Ant1	2440	30~1000	-6.41	-56.22	≤-26.41	PASS
BLE_1M	Ant1	2440	1000~26500	-6.41	-32.13	≤-26.41	PASS
BLE_1M	Ant1	2480	0~Reference	-5.19	-5.19	---	PASS
BLE_1M	Ant1	2480	30~1000	-5.19	-56.49	≤-25.19	PASS
BLE_1M	Ant1	2480	1000~26500	-5.19	-31.95	≤-25.19	PASS
BLE_2M	Ant1	2402	0~Reference	-5.16	-5.16	---	PASS
BLE_2M	Ant1	2402	30~1000	-5.16	-55.78	≤-25.16	PASS
BLE_2M	Ant1	2402	1000~26500	-5.16	-32.61	≤-25.16	PASS
BLE_2M	Ant1	2440	0~Reference	-7.68	-7.68	---	PASS
BLE_2M	Ant1	2440	30~1000	-7.68	-56.57	≤-27.68	PASS
BLE_2M	Ant1	2440	1000~26500	-7.68	-32.94	≤-27.68	PASS
BLE_2M	Ant1	2480	0~Reference	-6.26	-6.26	---	PASS
BLE_2M	Ant1	2480	30~1000	-6.26	-55.61	≤-26.26	PASS
BLE_2M	Ant1	2480	1000~26500	-6.26	-32.54	≤-26.26	PASS

Test Graphs





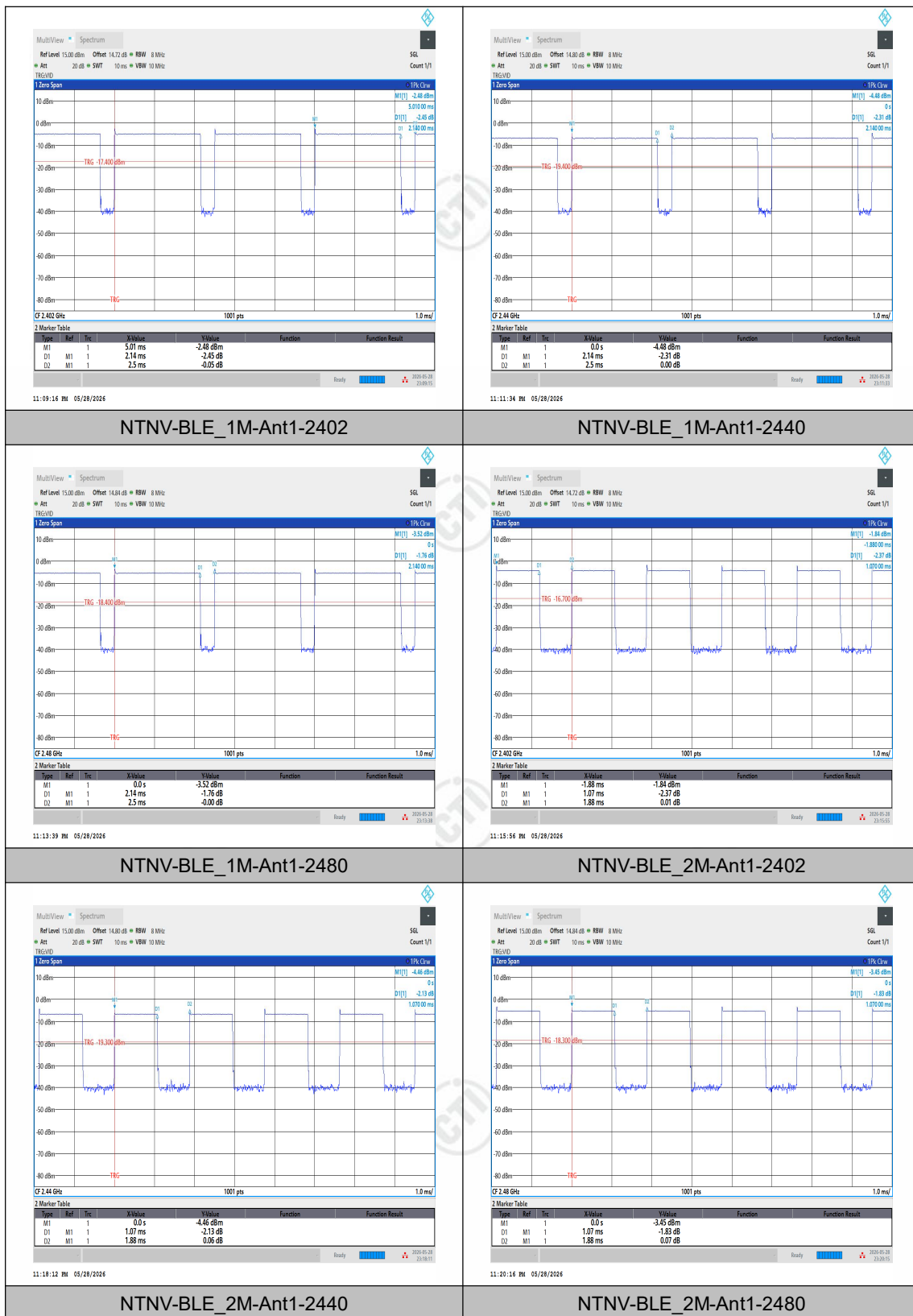


Appendix G: Duty Cycle

Test Result

TestMode	Antenna	Frequency[MHz]	ON Time [ms]	Period [ms]	Duty Cycle [%]	Duty Cycle Factor[dB]
BLE_1M	Ant1	2402	2.14	2.50	85.60	0.68
BLE_1M	Ant1	2440	2.14	2.50	85.60	0.68
BLE_1M	Ant1	2480	2.14	2.50	85.60	0.68
BLE_2M	Ant1	2402	1.07	1.88	56.91	2.45
BLE_2M	Ant1	2440	1.07	1.88	56.91	2.45
BLE_2M	Ant1	2480	1.07	1.88	56.91	2.45

Test Graphs



*** End of Report ***