

Appendix for Bluetooth BLE

Model: LGE-NX9

BTL-FCCP-9-2203G019

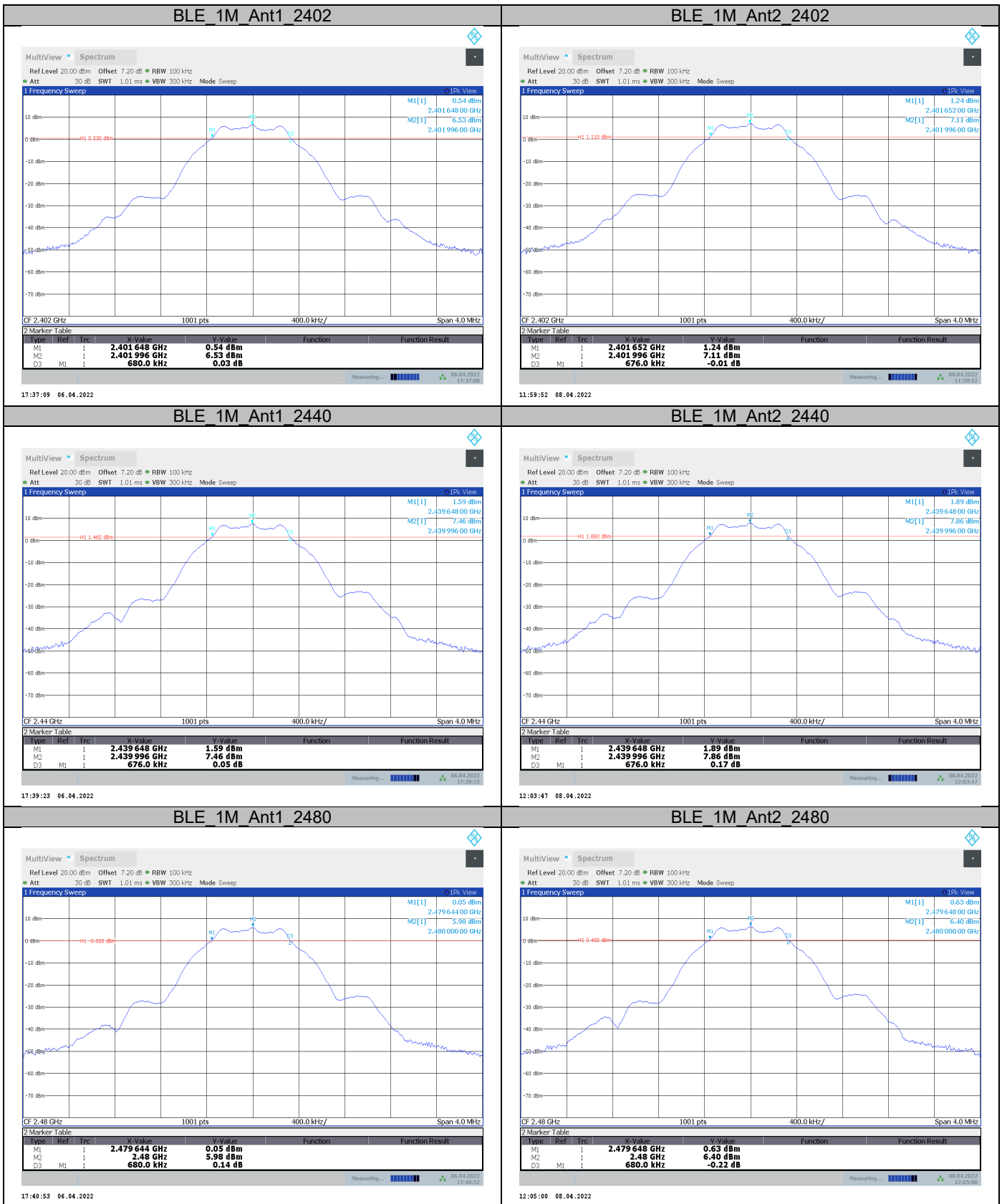
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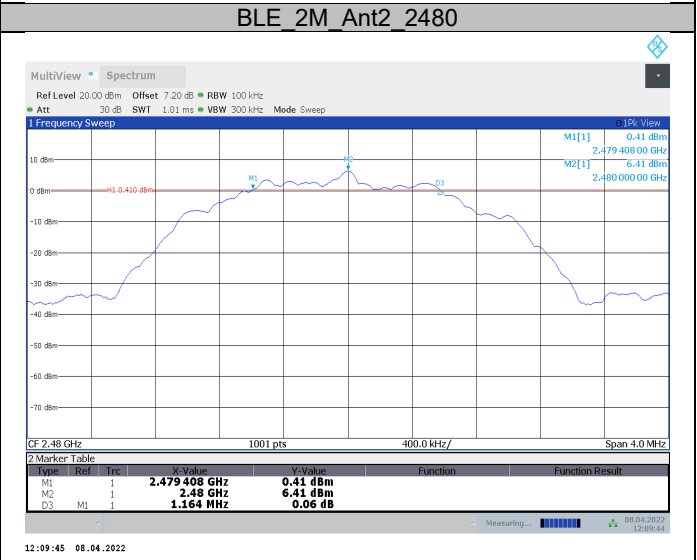
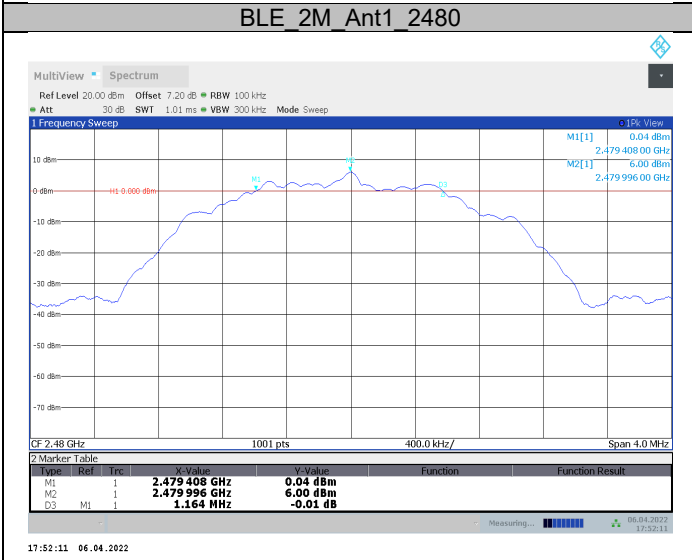
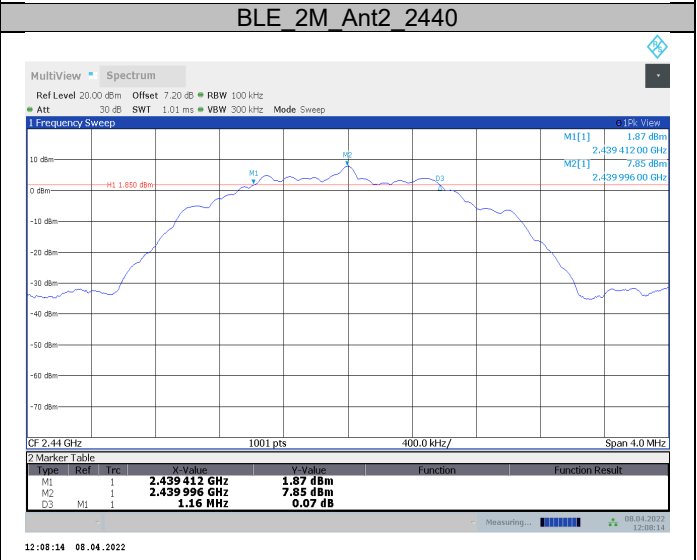
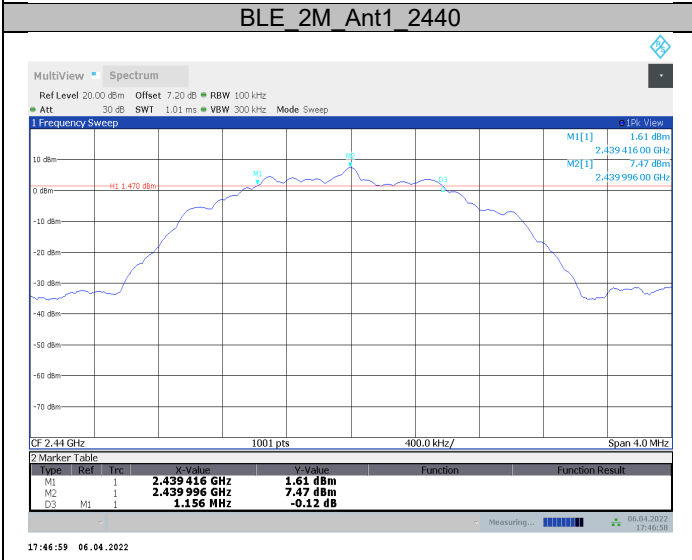
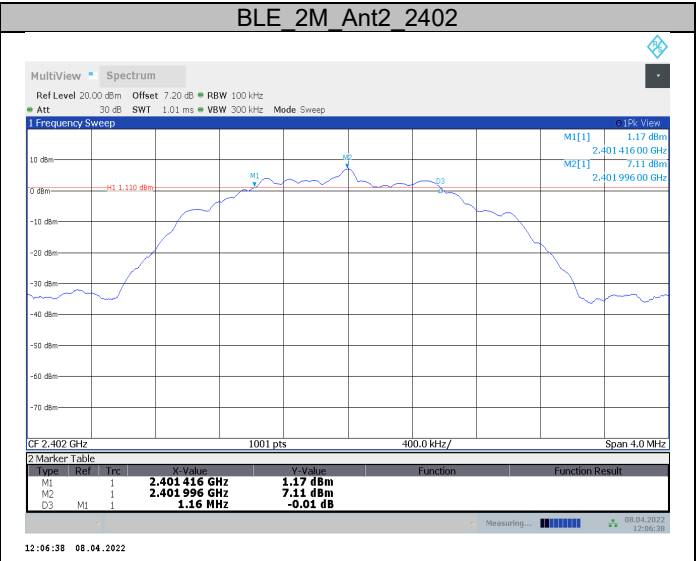
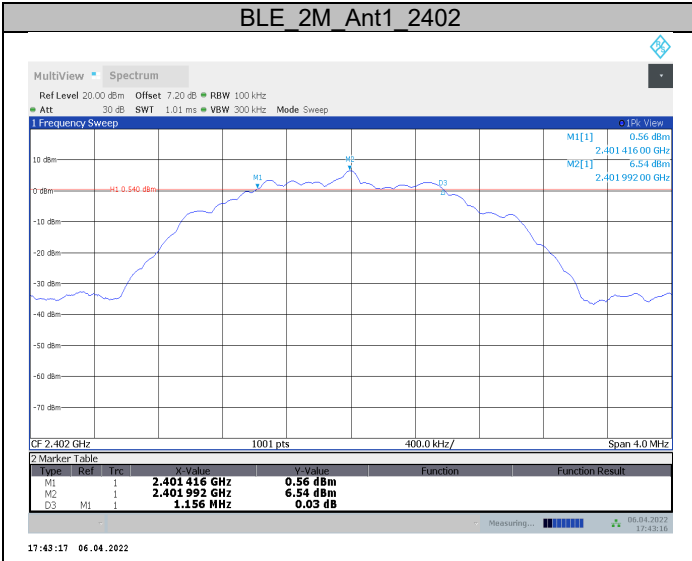
1. APPENDIX A: DTS BANDWIDTH

1.1 TEST RESULT

Test Mode	Antenna	Frequency [MHz]	DTS BW [MHz]	Limit [MHz]	Verdict
BLE_1M	Ant1	2402	0.68	0.5	PASS
	Ant2	2402	0.68	0.5	PASS
	Ant1	2440	0.68	0.5	PASS
	Ant2	2440	0.68	0.5	PASS
	Ant1	2480	0.68	0.5	PASS
	Ant2	2480	0.68	0.5	PASS
BLE_2M	Ant1	2402	1.16	0.5	PASS
	Ant2	2402	1.16	0.5	PASS
	Ant1	2440	1.16	0.5	PASS
	Ant2	2440	1.16	0.5	PASS
	Ant1	2480	1.16	0.5	PASS
	Ant2	2480	1.16	0.5	PASS

1.2 TEST GRAPHS



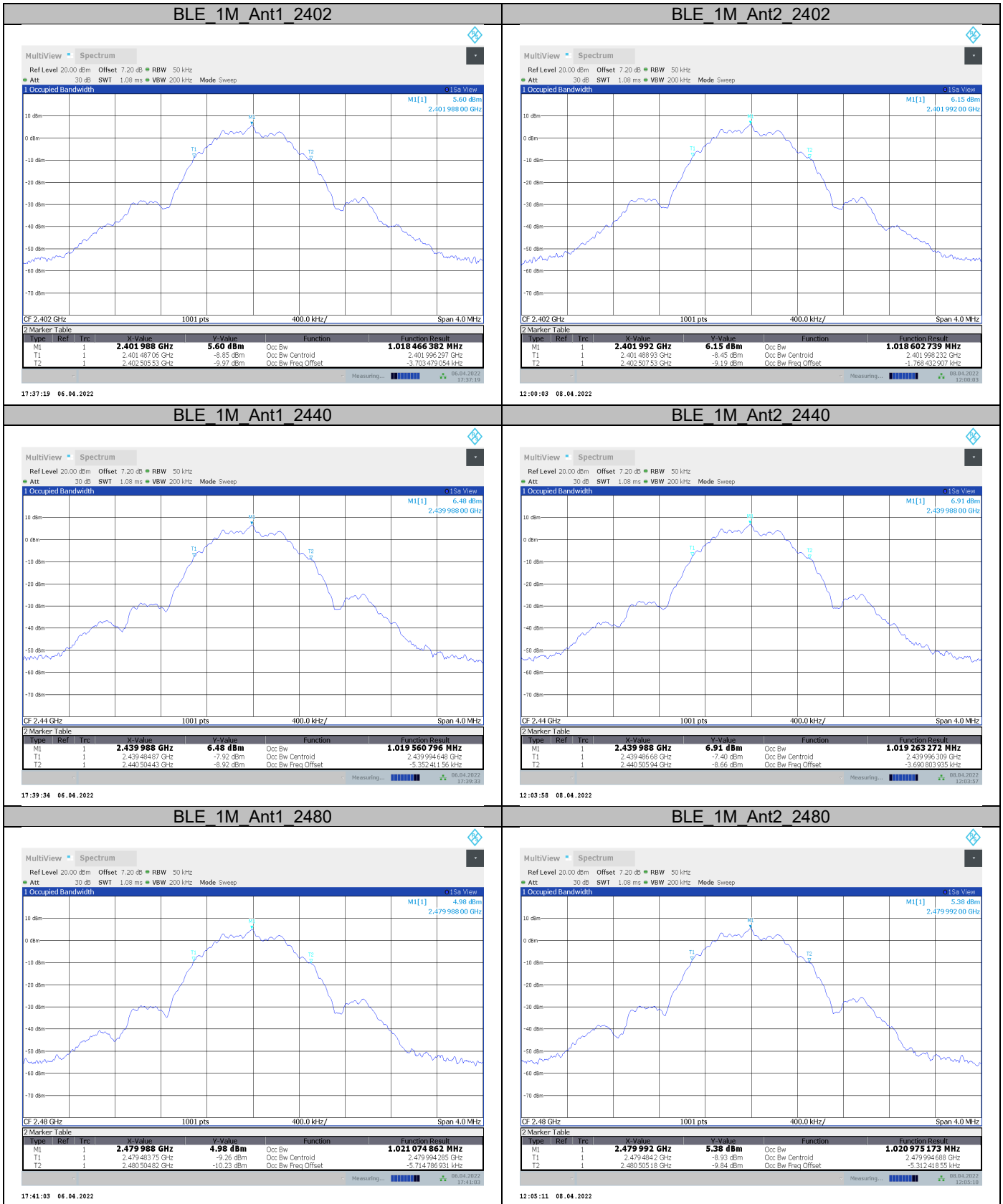


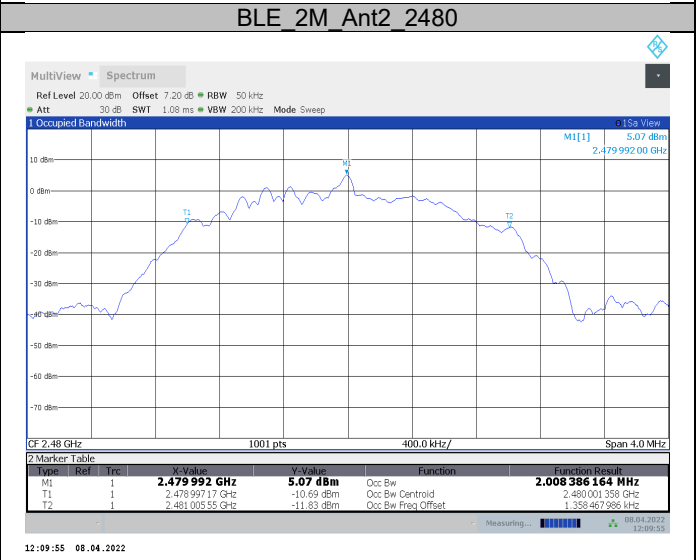
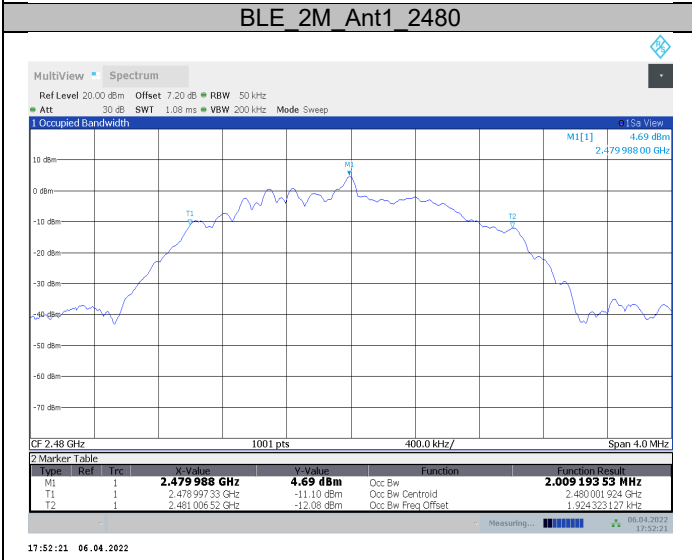
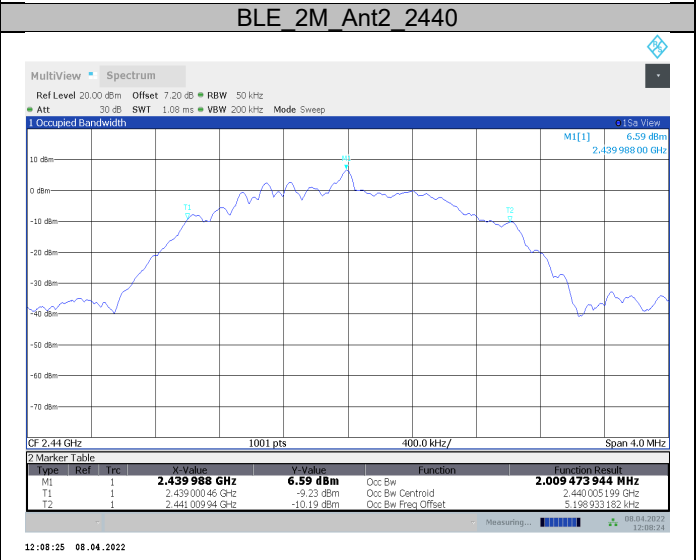
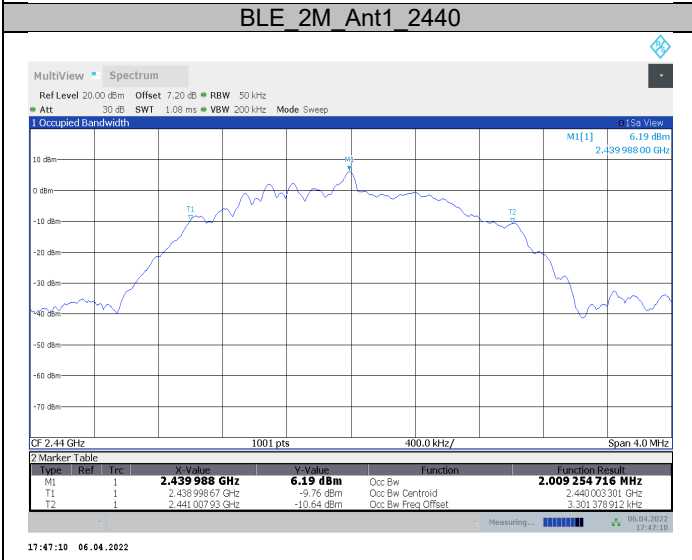
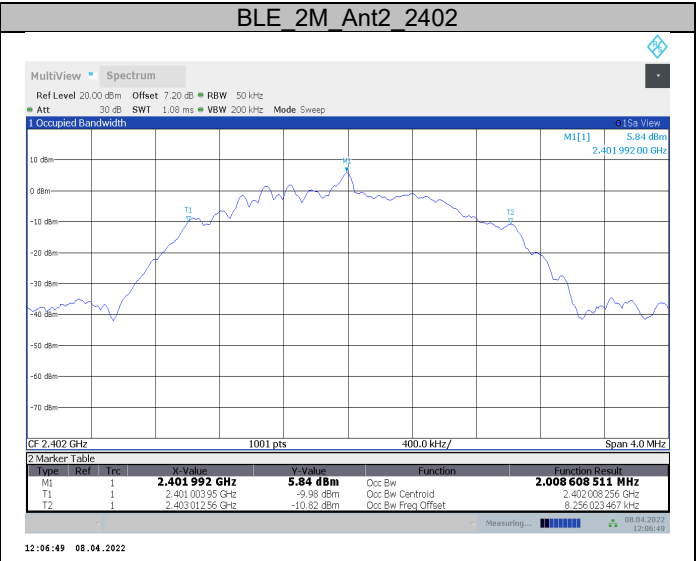
2. APPENDIX B: OCCUPIED CHANNEL BANDWIDTH

2.1 TEST RESULT

Test Mode	Antenna	Frequency [MHz]	OCB [MHz]	Limit [MHz]	Verdict
BLE_1M	Ant1	2402	1.018	---	PASS
	Ant2	2402	1.019	---	PASS
	Ant1	2440	1.020	---	PASS
	Ant2	2440	1.019	---	PASS
	Ant1	2480	1.021	---	PASS
	Ant2	2480	1.021	---	PASS
BLE_2M	Ant1	2402	2.009	---	PASS
	Ant2	2402	2.009	---	PASS
	Ant1	2440	2.009	---	PASS
	Ant2	2440	2.009	---	PASS
	Ant1	2480	2.009	---	PASS
	Ant2	2480	2.008	---	PASS

2.2 TEST GRAPHS



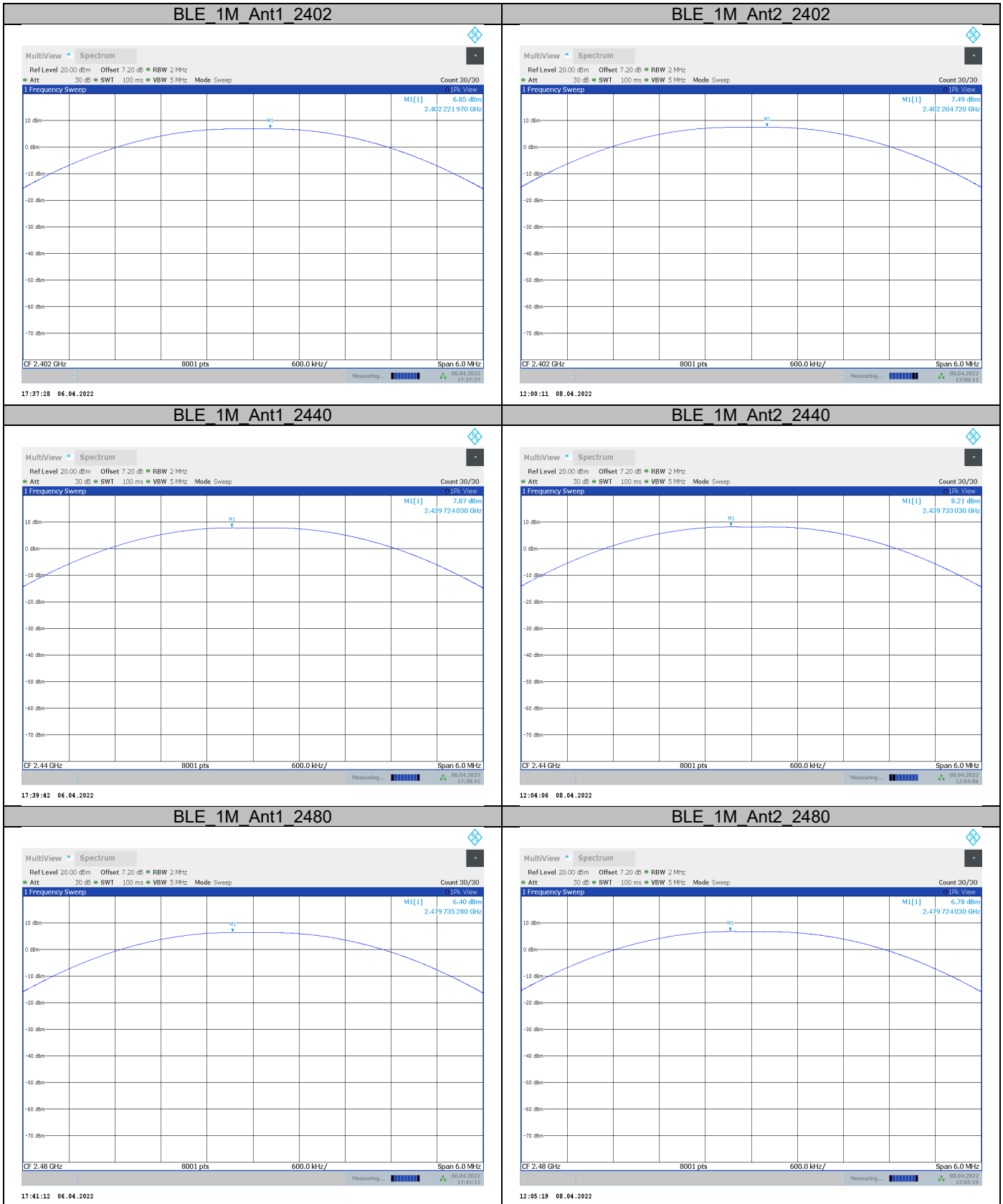


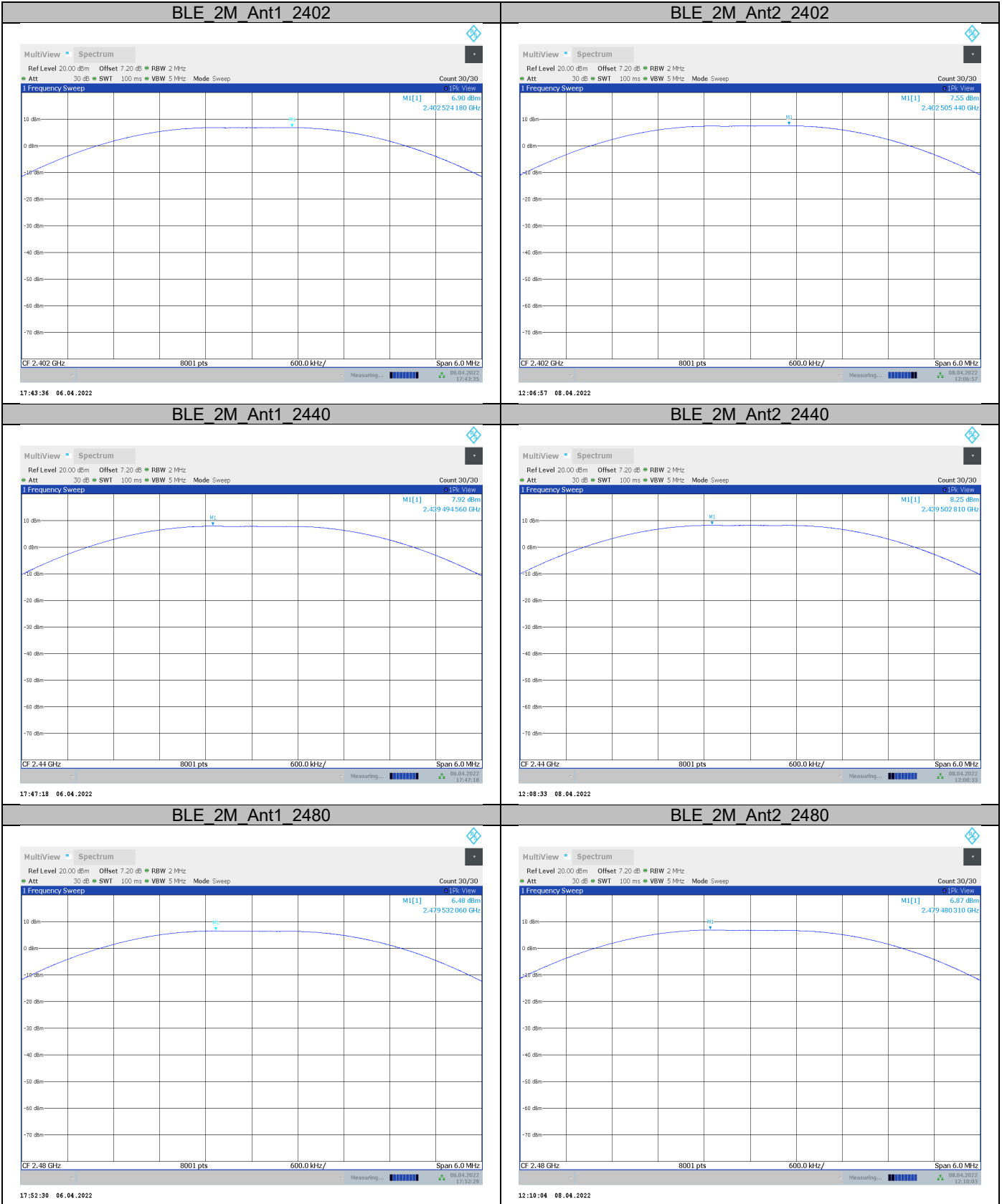
3. APPENDIX C: MAXIMUM CONDUCTED OUTPUT POWER

3.1 TEST RESULT

Test Mode	Antenna	Frequency [MHz]	Conducted Peak Power [dBm]	Conducted Limit [dBm]	Verdict
BLE_1M	Ant1	2402	6.85	≤30	PASS
	Ant2	2402	7.49	≤30	PASS
	Ant1	2440	7.87	≤30	PASS
	Ant2	2440	8.21	≤30	PASS
	Ant1	2480	6.40	≤30	PASS
	Ant2	2480	6.78	≤30	PASS
BLE_2M	Ant1	2402	6.90	≤30	PASS
	Ant2	2402	7.55	≤30	PASS
	Ant1	2440	7.92	≤30	PASS
	Ant2	2440	8.25	≤30	PASS
	Ant1	2480	6.48	≤30	PASS
	Ant2	2480	6.87	≤30	PASS

3.2 TEST GRAPHS



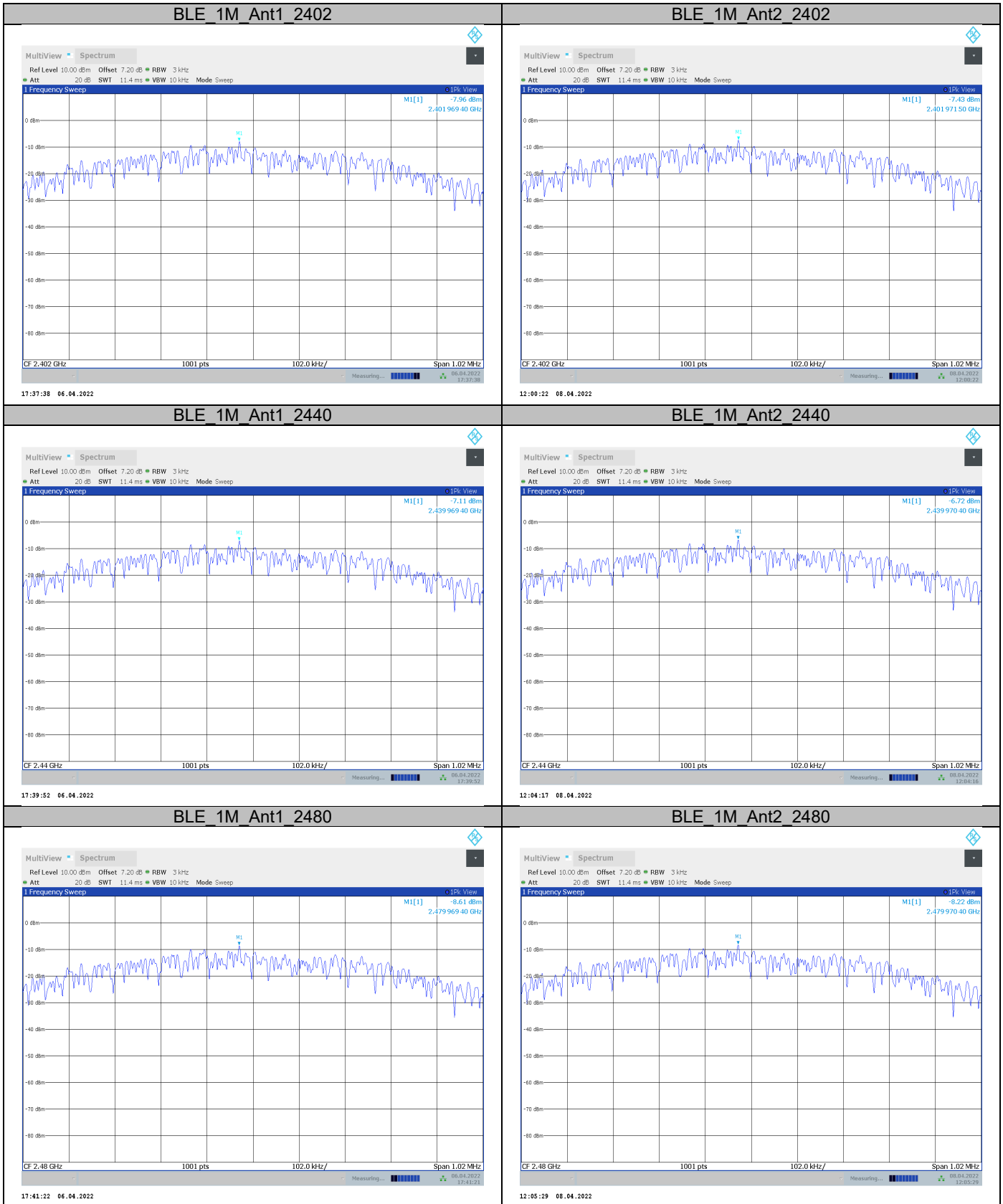


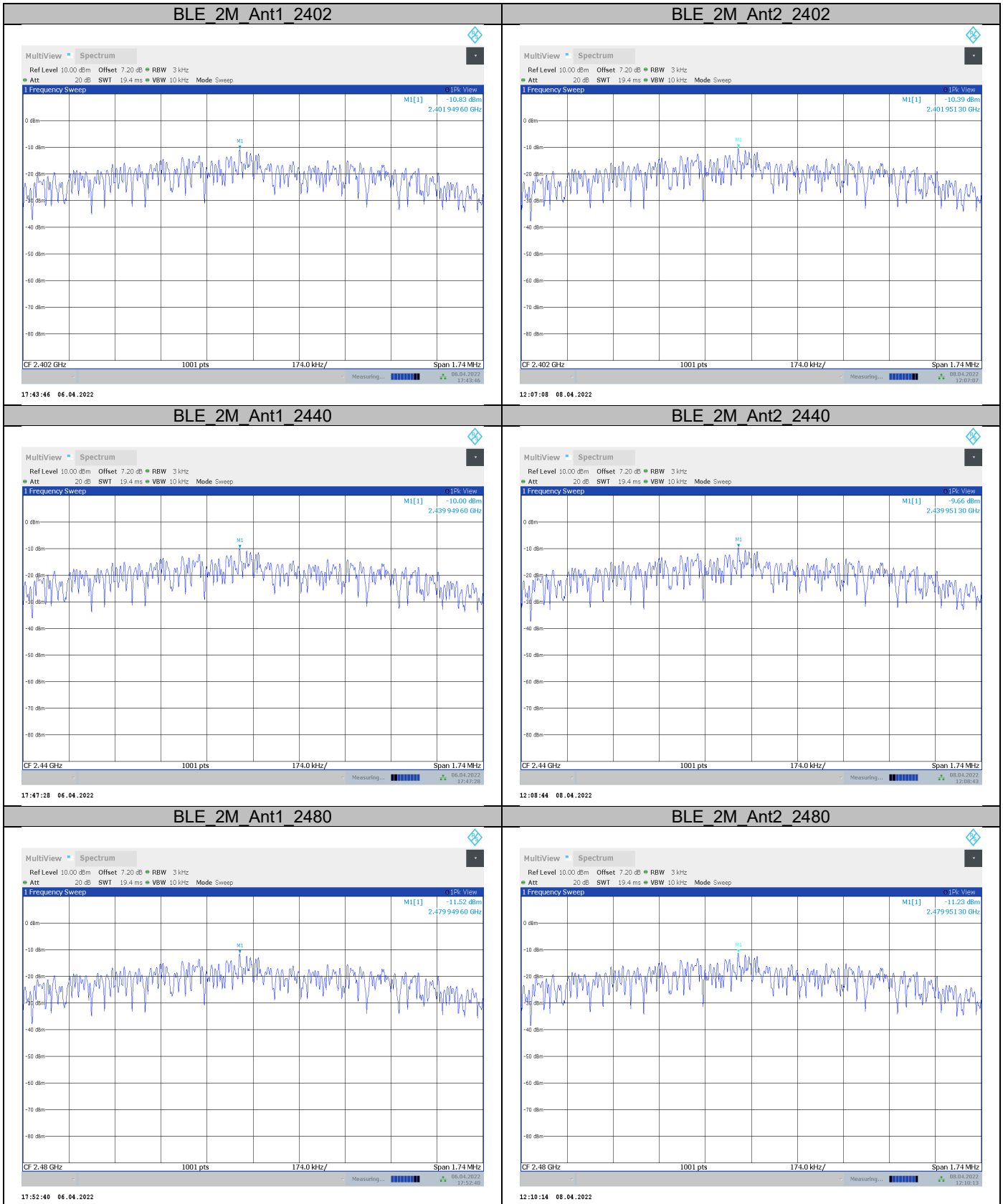
4. APPENDIX D: MAXIMUM POWER SPECTRAL DENSITY

4.1 TEST RESULT

Test Mode	Antenna	Frequency [MHz]	Result[dBm/3kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-7.96	≤8.00	PASS
	Ant2	2402	-7.43	≤8.00	PASS
	Ant1	2440	-7.11	≤8.00	PASS
	Ant2	2440	-6.72	≤8.00	PASS
	Ant1	2480	-8.61	≤8.00	PASS
	Ant2	2480	-8.22	≤8.00	PASS
BLE_2M	Ant1	2402	-10.83	≤8.00	PASS
	Ant2	2402	-10.39	≤8.00	PASS
	Ant1	2440	-10.00	≤8.00	PASS
	Ant2	2440	-9.66	≤8.00	PASS
	Ant1	2480	-11.52	≤8.00	PASS
	Ant2	2480	-11.23	≤8.00	PASS

4.2 TEST GRAPHS



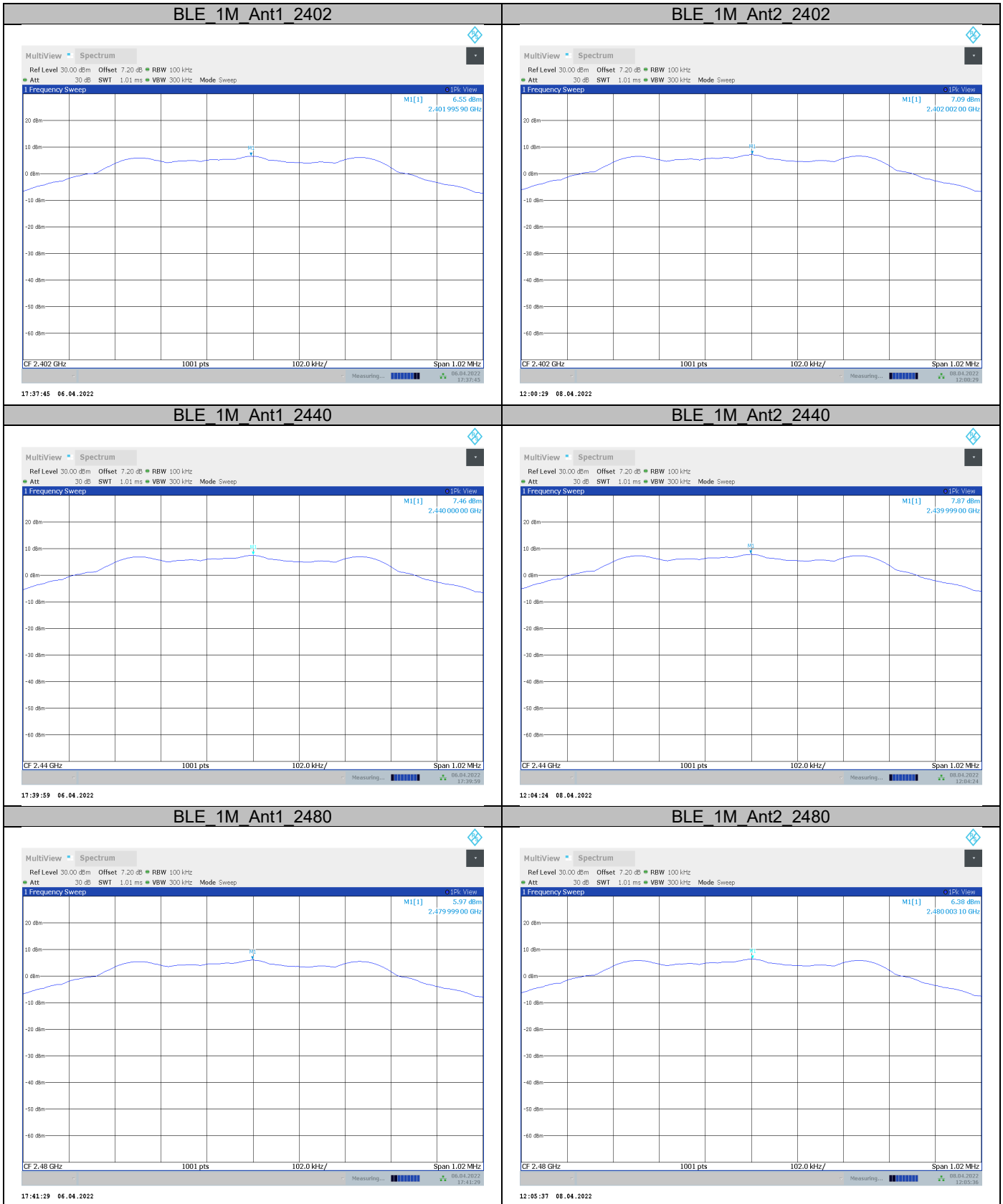


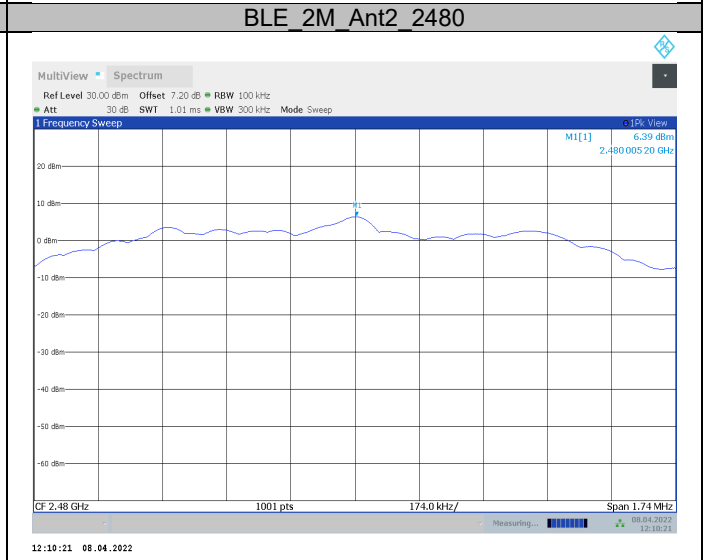
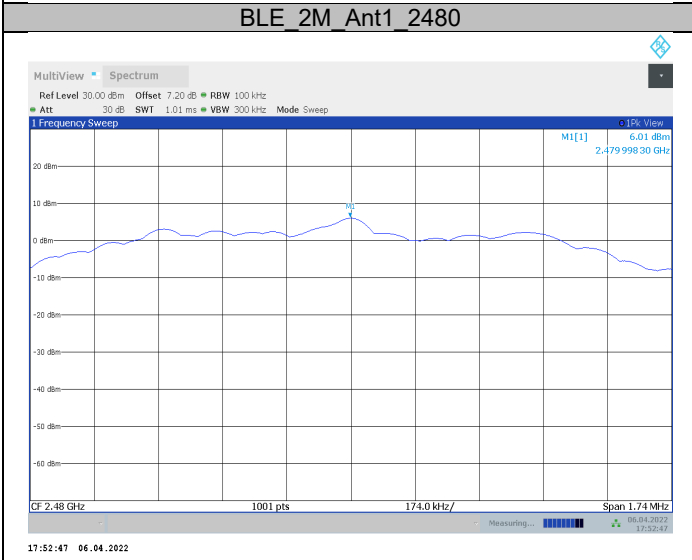
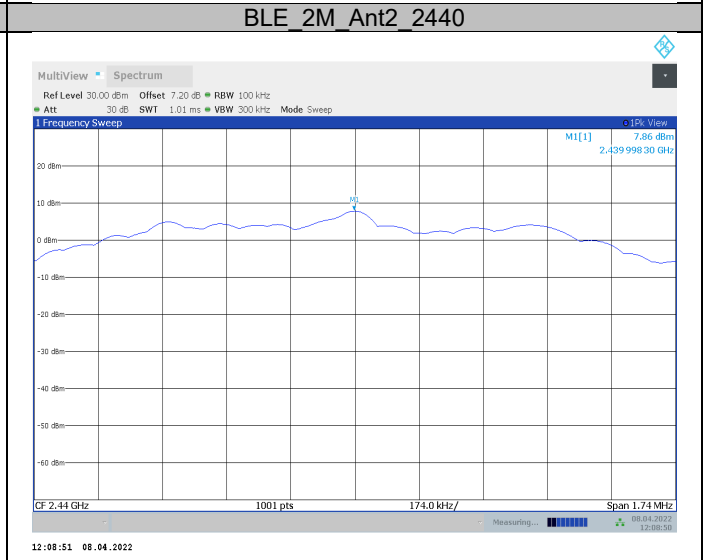
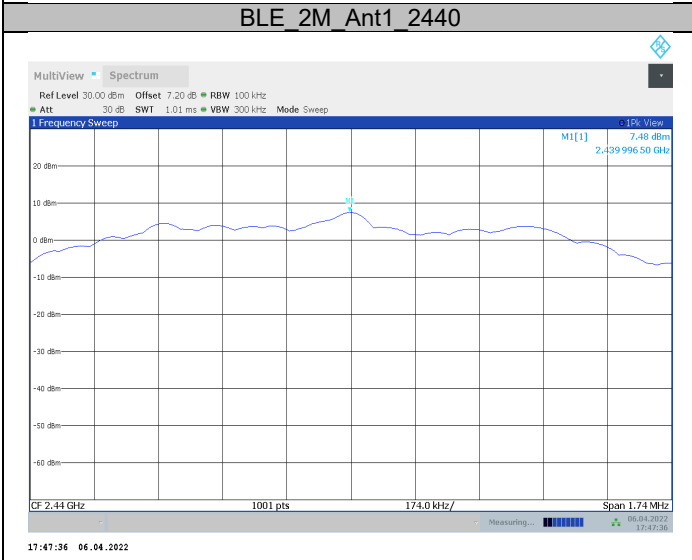
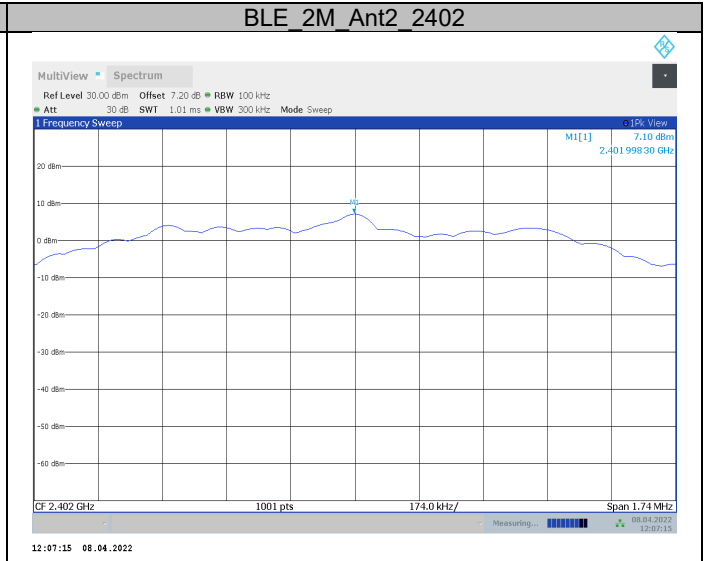
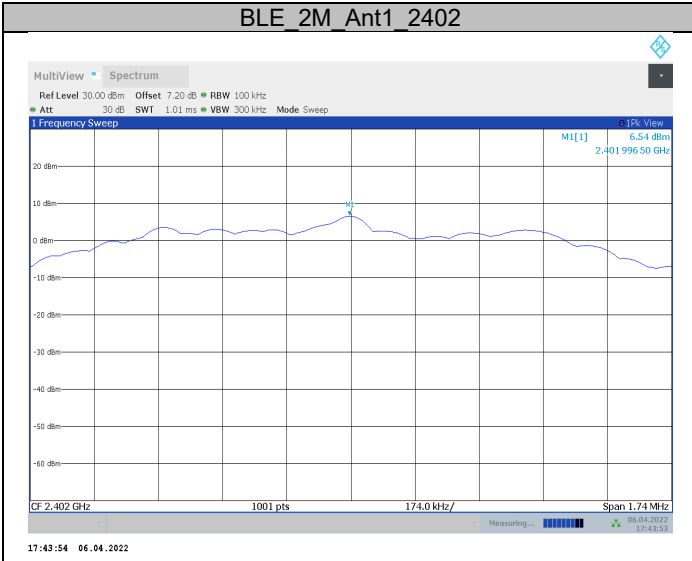
5. APPENDIX E: REFERENCE LEVEL MEASUREMENT

5.1 TEST RESULT

TestMode	Antenna	Frequency [MHz]	Max.Point [MHz]	Result [dBm]
BLE_1M	Ant1	2402	2402.00	6.55
	Ant2	2402	2402.00	7.09
	Ant1	2440	2440.00	7.46
	Ant2	2440	2440.00	7.87
	Ant1	2480	2480.00	5.97
	Ant2	2480	2480.00	6.38
BLE_2M	Ant1	2402	2402.00	6.54
	Ant2	2402	2402.00	7.10
	Ant1	2440	2440.00	7.48
	Ant2	2440	2440.00	7.86
	Ant1	2480	2480.00	6.01
	Ant2	2480	2480.01	6.39

5.2 TEST GRAPHS

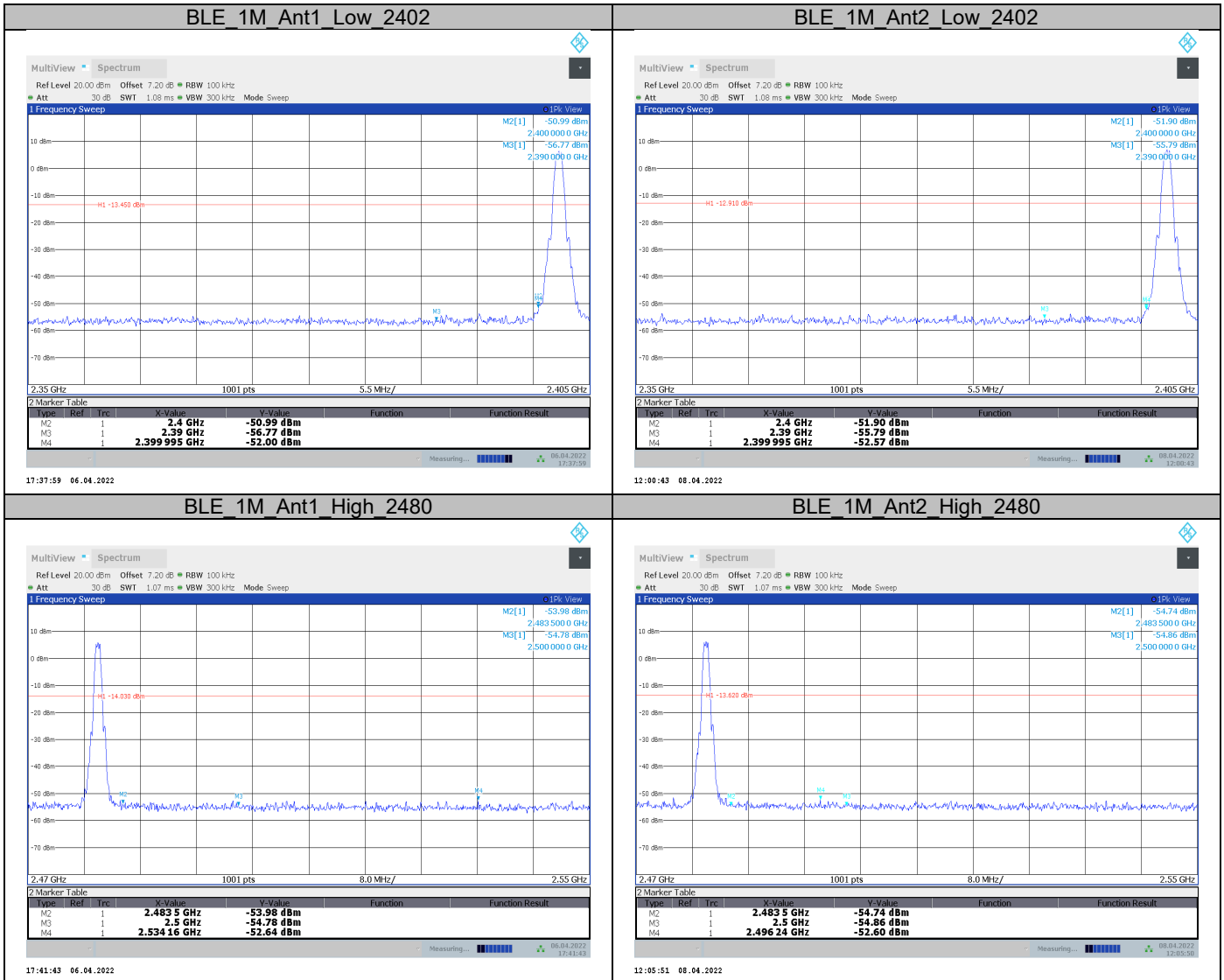


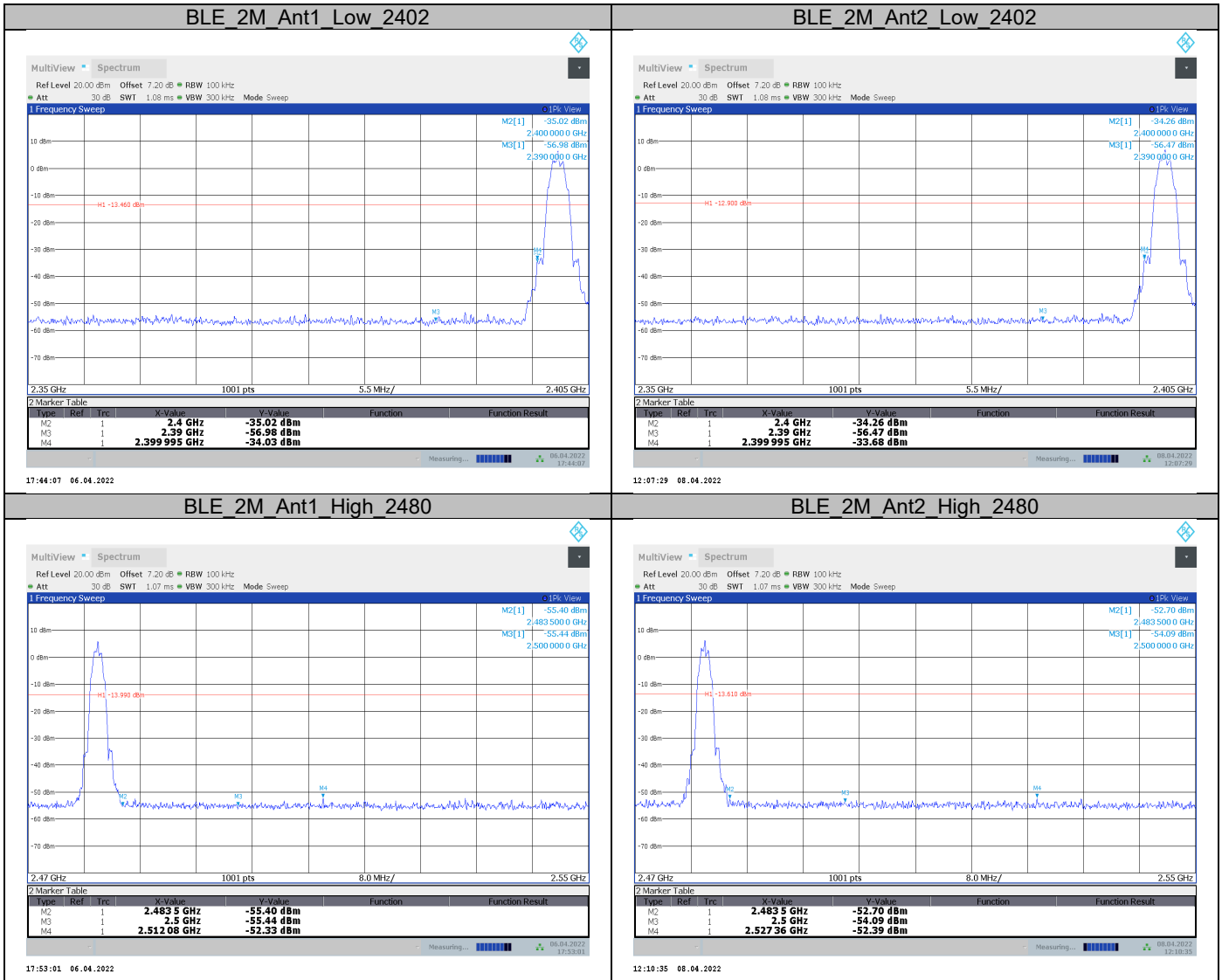


6. APPENDIX F: BAND EDGE MEASUREMENTS**6.1 TEST RESULT**

TestMode	Antenna	ChName	Frequency [MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
BLE_1M	Ant1	Low	2402	6.55	-52	≤-13.45	PASS
	Ant2	Low	2402	7.09	-52.57	≤-12.91	PASS
	Ant1	High	2480	5.97	-52.64	≤-14.03	PASS
	Ant2	High	2480	6.38	-52.6	≤-13.62	PASS
BLE_2M	Ant1	Low	2402	6.54	-34.03	≤-13.46	PASS
	Ant2	Low	2402	7.10	-33.68	≤-12.9	PASS
	Ant1	High	2480	6.01	-52.33	≤-13.99	PASS
	Ant2	High	2480	6.39	-52.39	≤-13.61	PASS

6.2 TEST GRAPHS



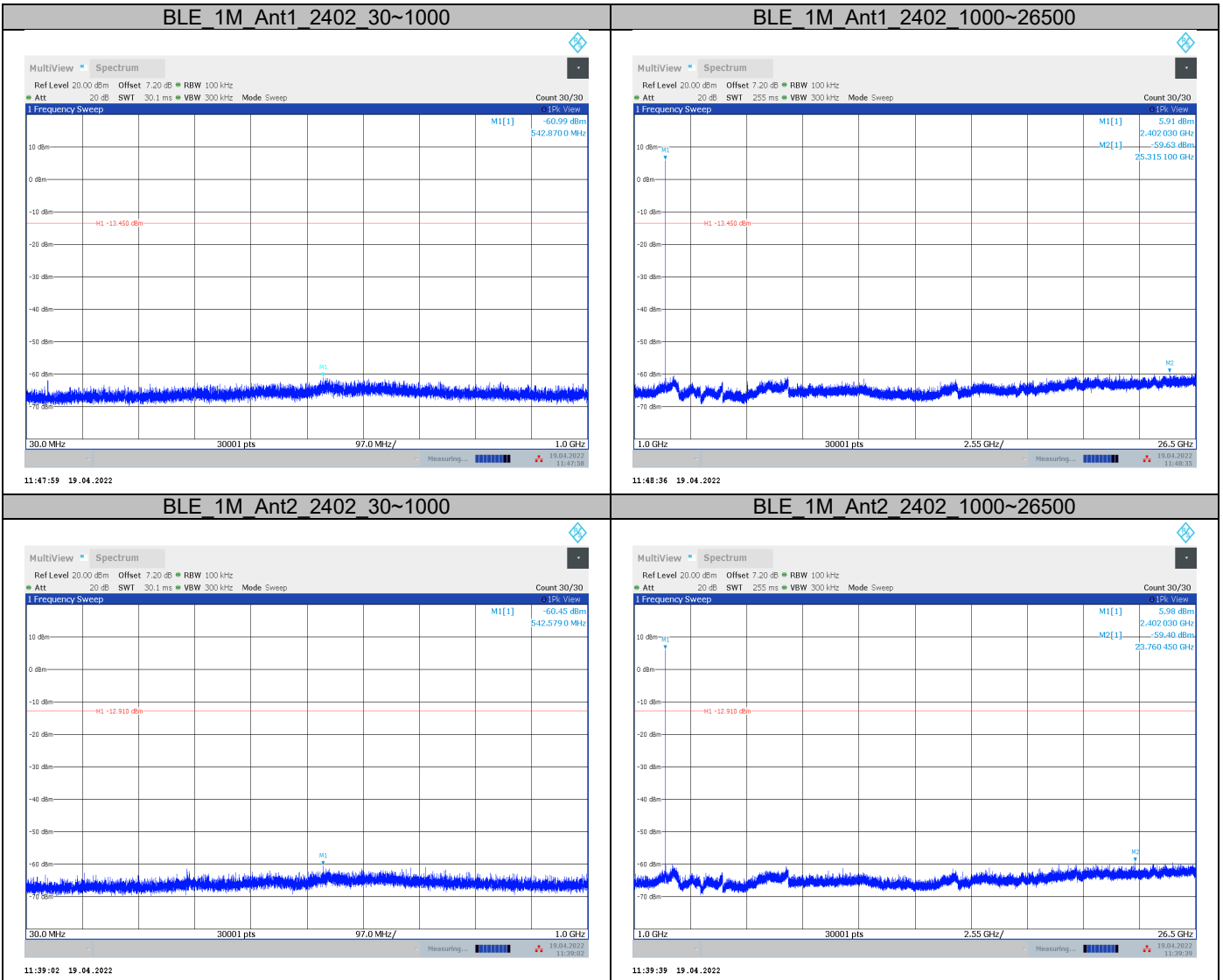


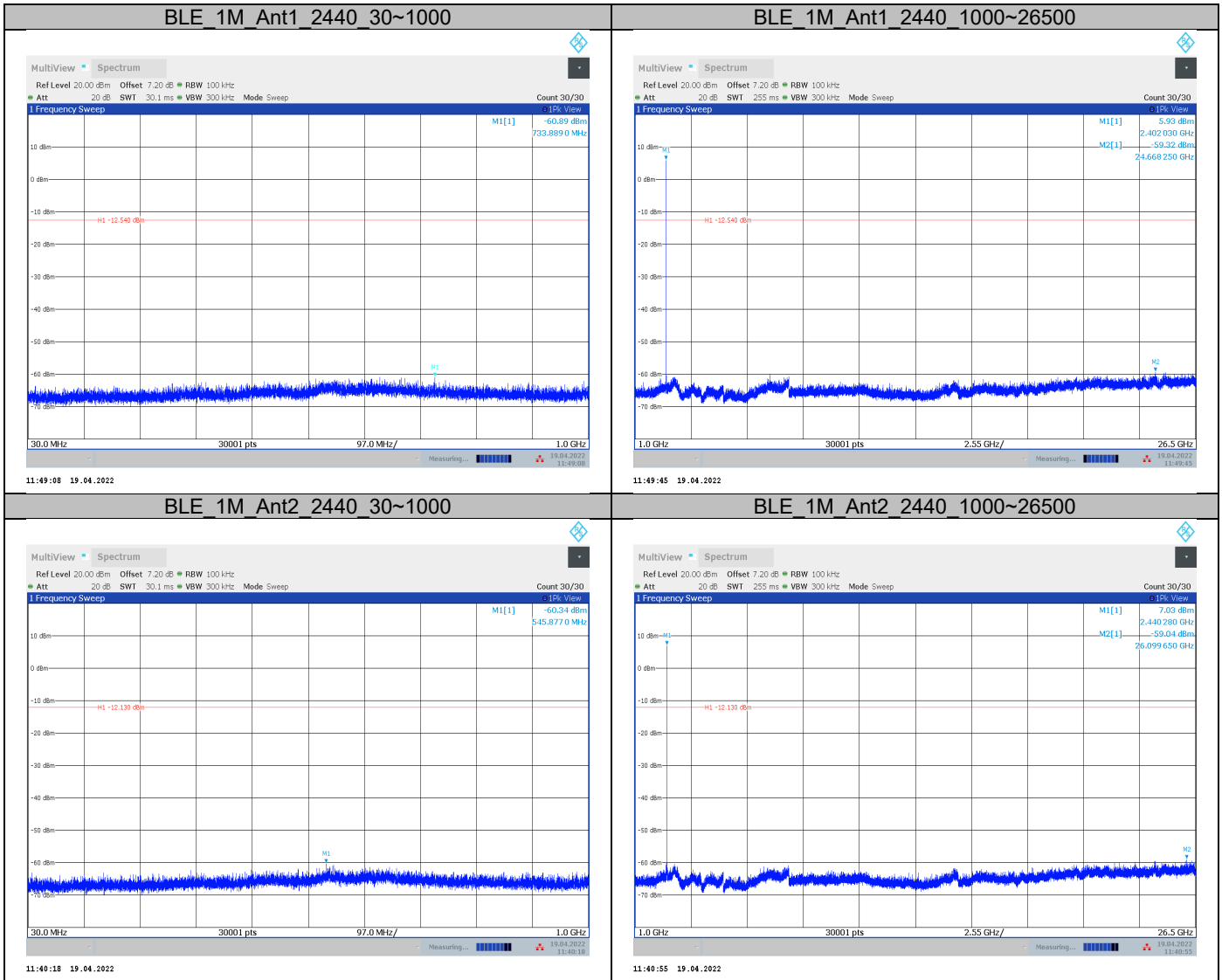
7. APPENDIX G: CONDUCTED SPURIOUS EMISSION

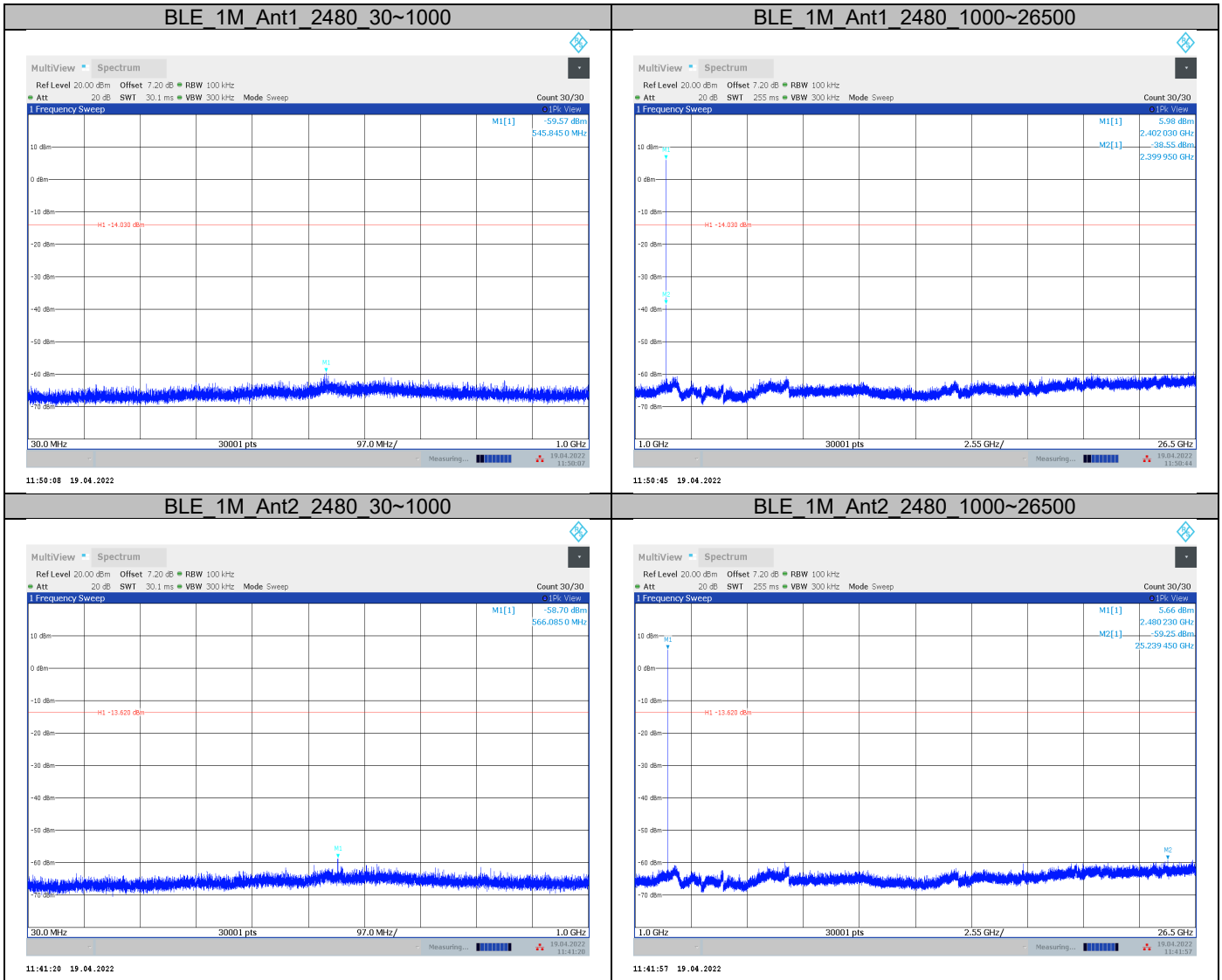
7.1 TEST RESULT

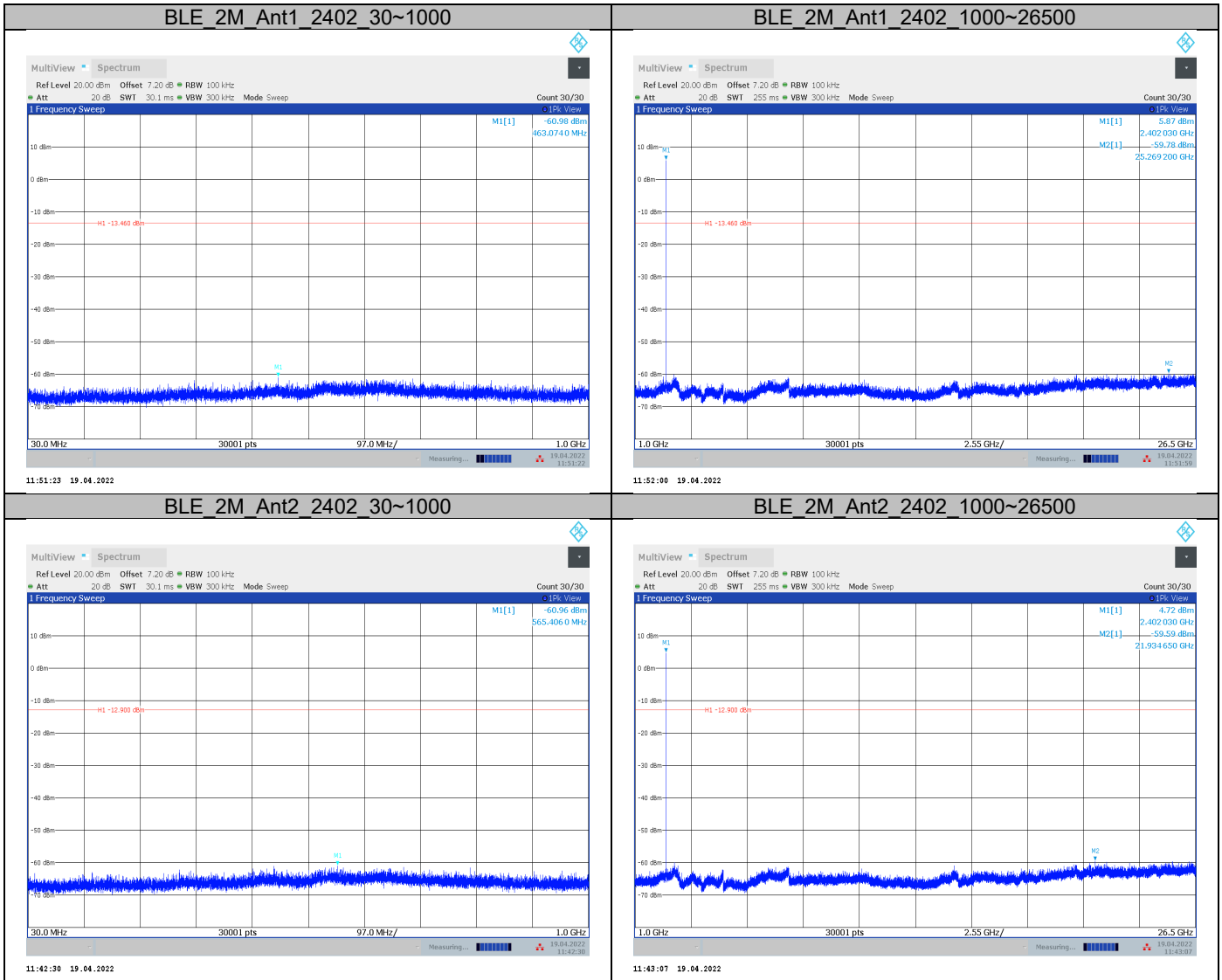
Test Mode	Antenna	Frequency [MHz]	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	30~1000	6.55	-60.99	≤-13.45	PASS
			1000~26500	6.55	-59.63	≤-13.45	PASS
	Ant2	2402	30~1000	7.09	-60.45	≤-12.91	PASS
			1000~26500	7.09	-59.4	≤-12.91	PASS
	Ant1	2440	30~1000	7.46	-60.89	≤-12.54	PASS
			1000~26500	7.46	-59.32	≤-12.54	PASS
	Ant2	2440	30~1000	7.87	-60.34	≤-12.13	PASS
			1000~26500	7.87	-59.04	≤-12.13	PASS
	Ant1	2480	30~1000	5.97	-59.57	≤-14.03	PASS
			1000~26500	5.97	-38.55	≤-14.03	PASS
	Ant2	2480	30~1000	6.38	-58.7	≤-13.62	PASS
			1000~26500	6.38	-59.25	≤-13.62	PASS
BLE_2M	Ant1	2402	30~1000	6.54	-60.98	≤-13.46	PASS
			1000~26500	6.54	-59.78	≤-13.46	PASS
	Ant2	2402	30~1000	7.10	-60.96	≤-12.9	PASS
			1000~26500	7.10	-59.59	≤-12.9	PASS
	Ant1	2440	30~1000	7.48	-61.25	≤-12.52	PASS
			1000~26500	7.48	-58.93	≤-12.52	PASS
	Ant2	2440	30~1000	7.86	-60.75	≤-12.14	PASS
			1000~26500	7.86	-59.67	≤-12.14	PASS
	Ant1	2480	30~1000	6.01	-61.38	≤-13.99	PASS
			1000~26500	6.01	-58.82	≤-13.99	PASS
	Ant2	2480	30~1000	6.39	-60.52	≤-13.61	PASS
			1000~26500	6.39	-59.79	≤-13.61	PASS

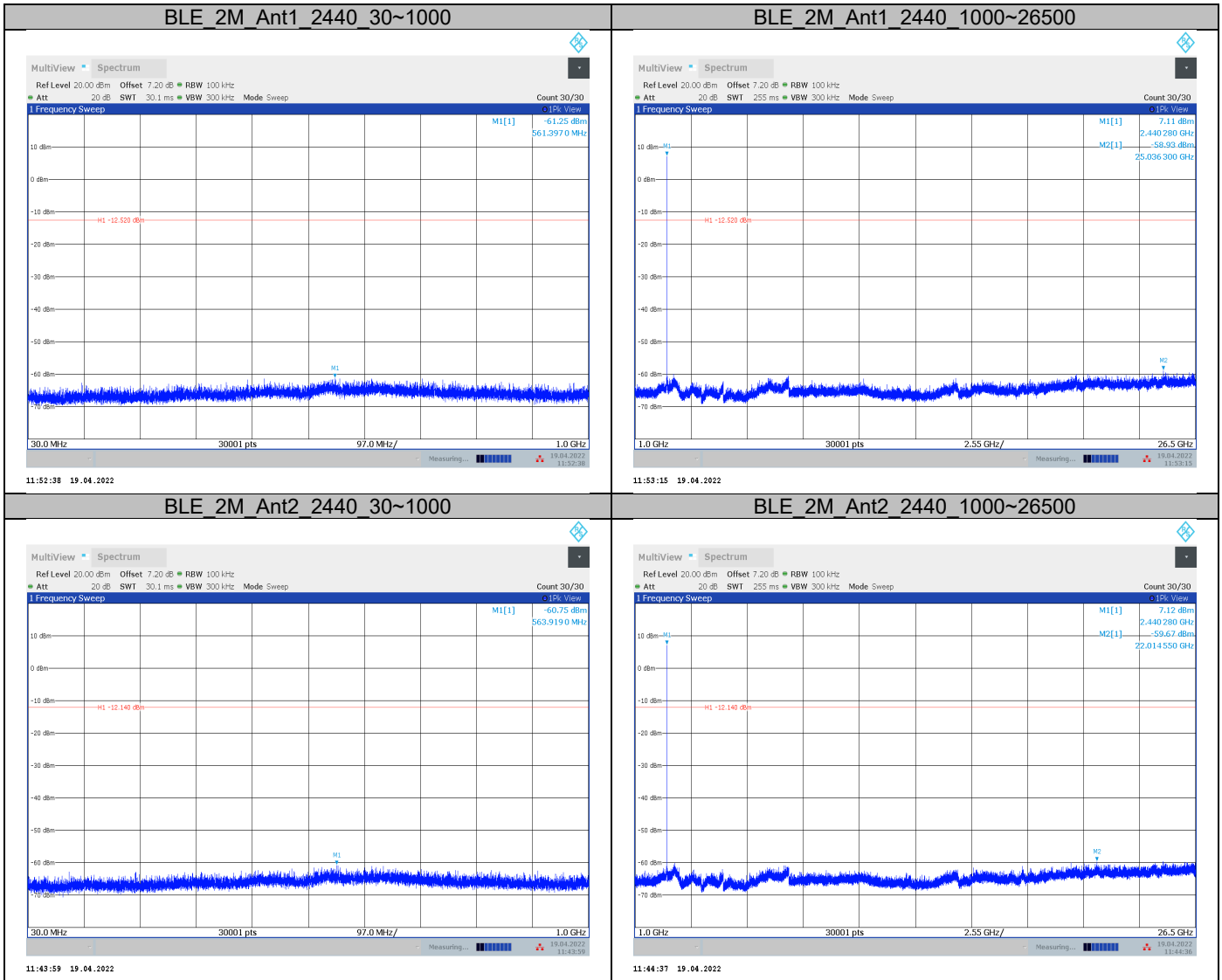
7.2 TEST GRAPHS

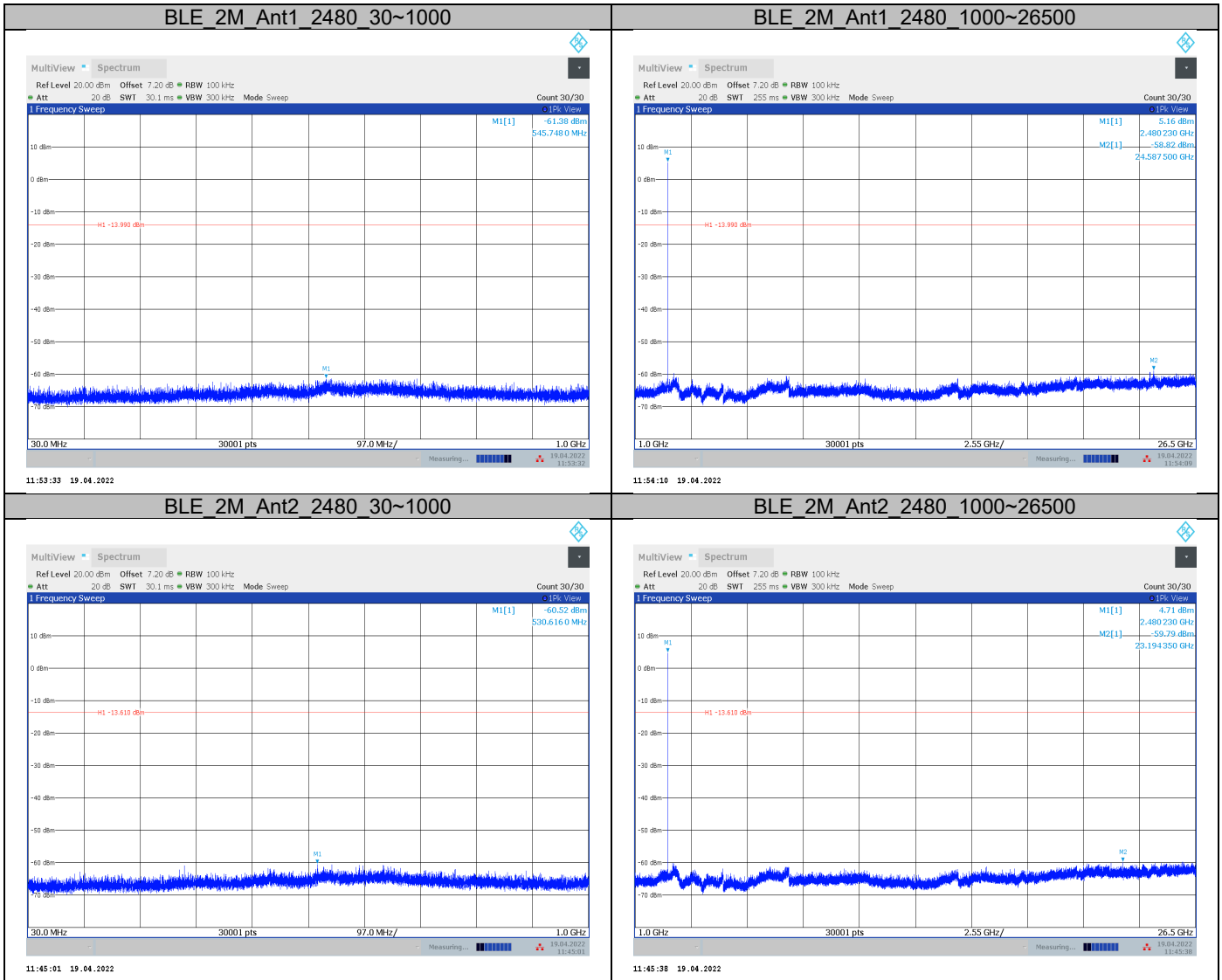










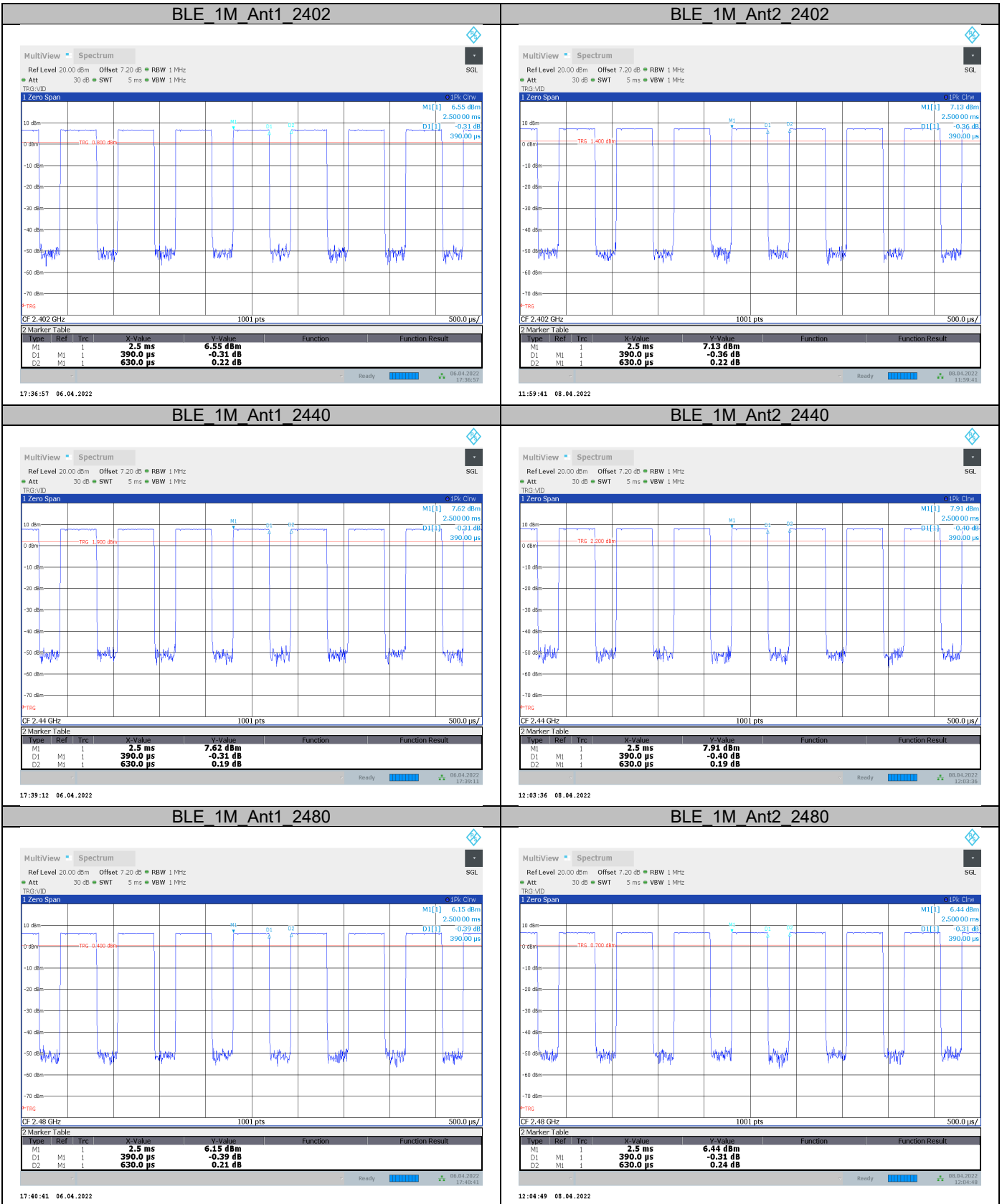


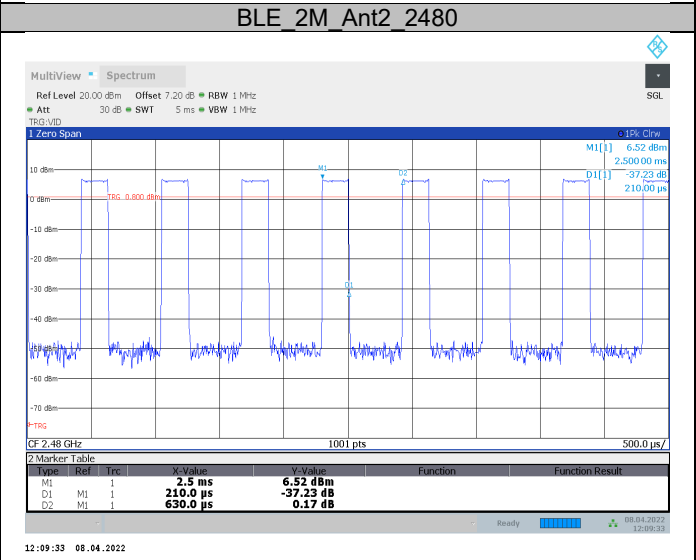
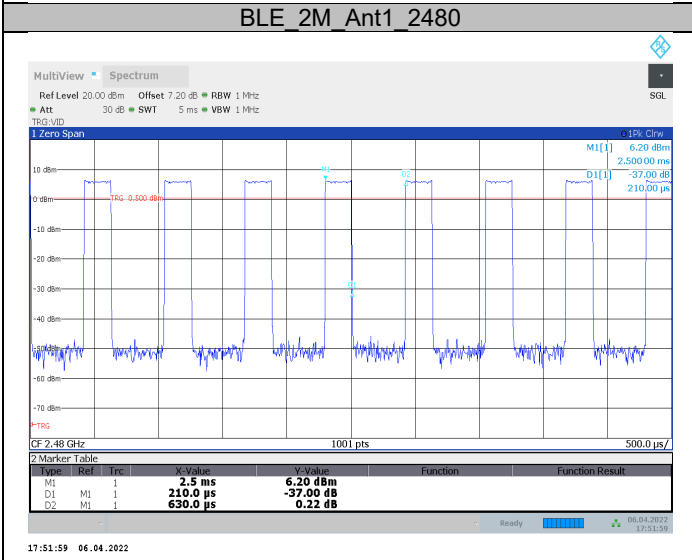
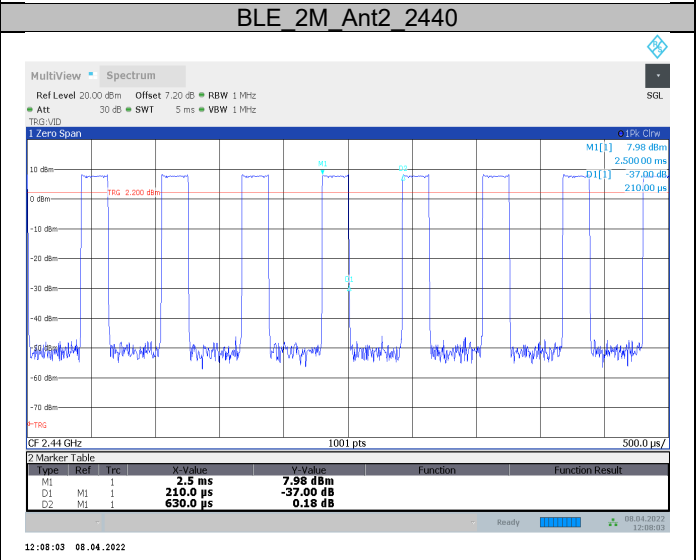
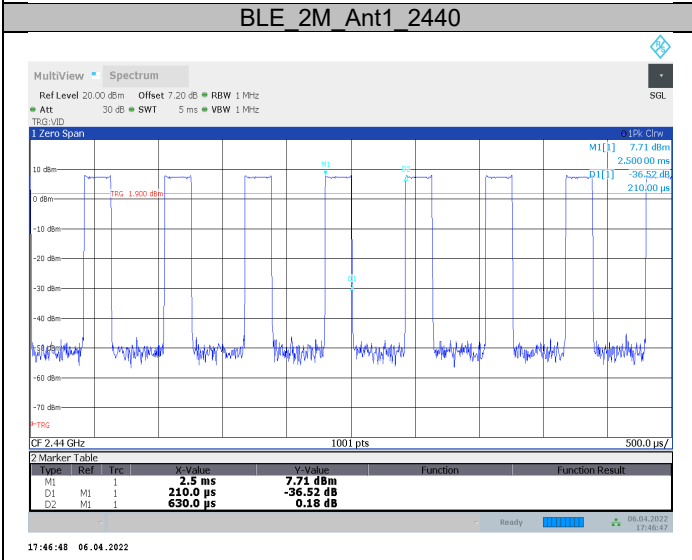
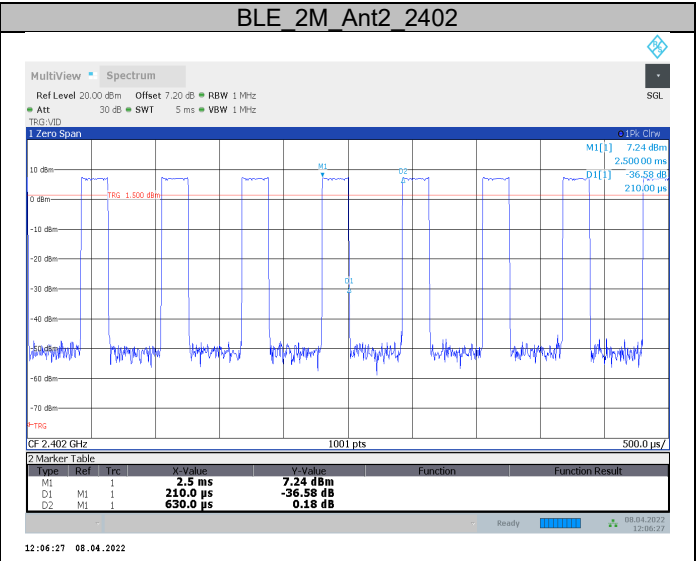
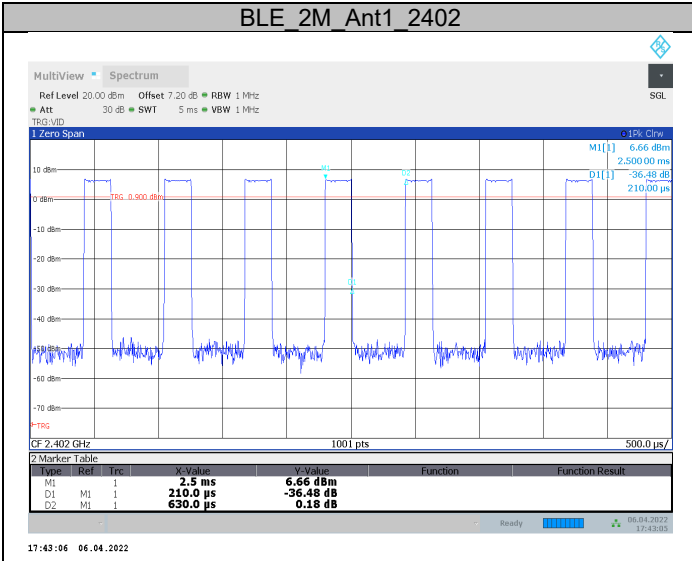
8. APPENDIX H: DUTY CYCLE

8.1 TEST RESULT

TestMode	Antenna	Frequency [MHz]	ON Time [ms]	Period [ms]	Duty Cycle [%]	Duty Cycle Factor[dB]
BLE_1M	Ant1	2402	0.39	0.63	61.90	2.08
	Ant2	2402	0.39	0.63	61.90	2.08
	Ant1	2440	0.39	0.63	61.90	2.08
	Ant2	2440	0.39	0.63	61.90	2.08
	Ant1	2480	0.39	0.63	61.90	2.08
	Ant2	2480	0.39	0.63	61.90	2.08
BLE_2M	Ant1	2402	0.21	0.63	33.33	4.77
	Ant2	2402	0.21	0.63	33.33	4.77
	Ant1	2440	0.21	0.63	33.33	4.77
	Ant2	2440	0.21	0.63	33.33	4.77
	Ant1	2480	0.21	0.63	33.33	4.77
	Ant2	2480	0.21	0.63	33.33	4.77

8.2 TEST GRAPHS





End of Test Report