

FCC Appendix RF Test Data for BLE

FCC ID : 2BWUS-F1-CONTROLLER

Company : Foshan Xinchuangdi Amusement Equipment Co., Ltd.

EUT : Alarm control box

Model Number : F1-Controller

Report No. : CTA26060201901

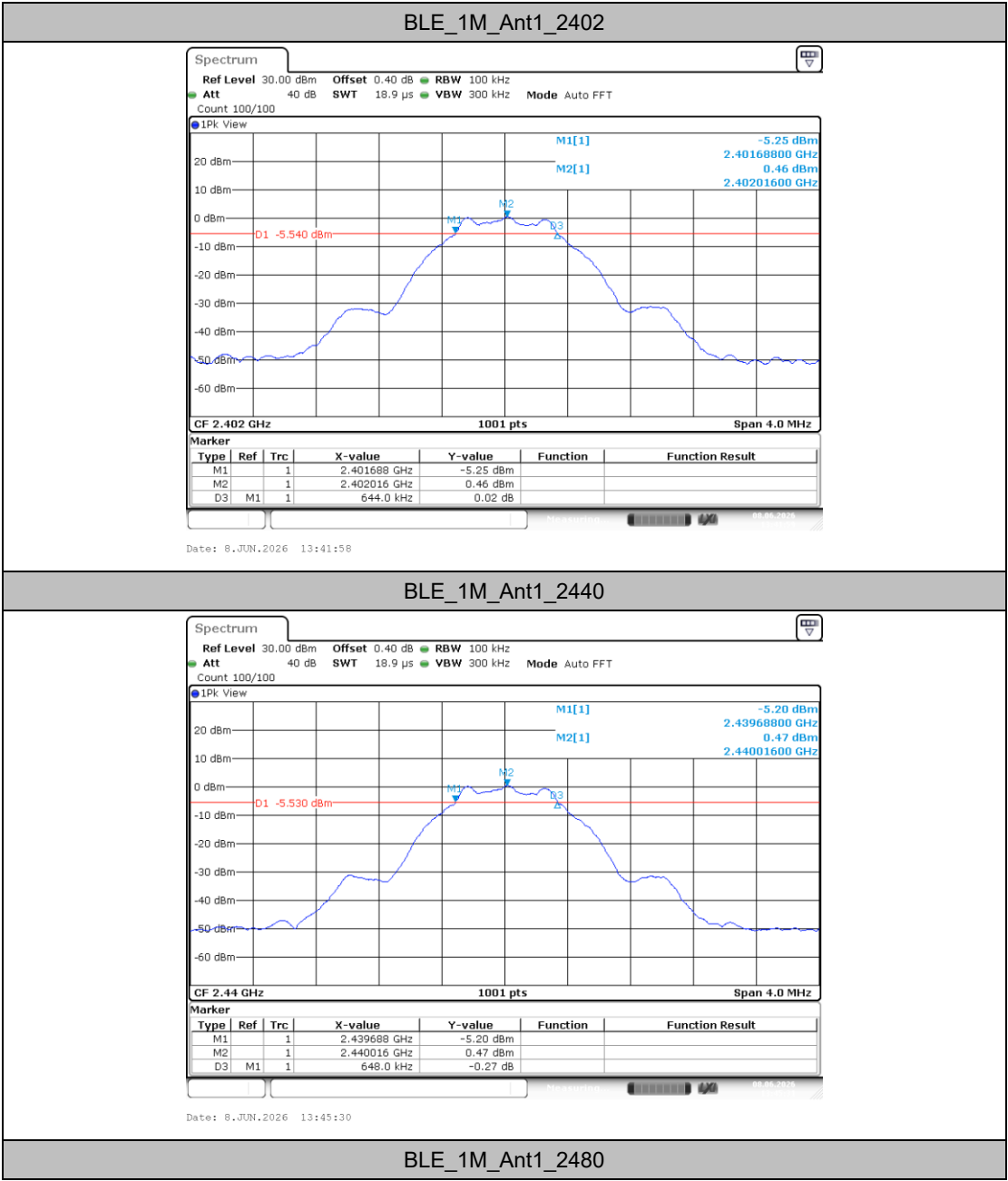
Reviewed By : Eric Wang

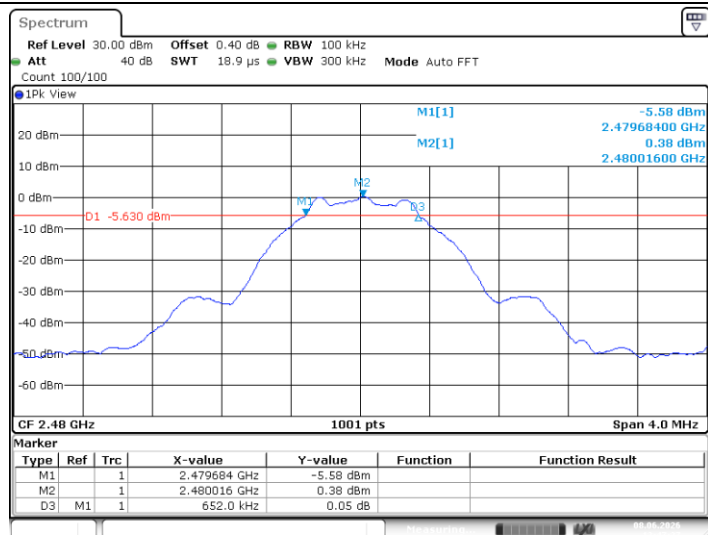
Appendix A: DTS Bandwidth

Test Result

TestMode	Antenna	Freq(MHz)	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	0.64	2401.69	2402.33	0.5	PASS
		2440	0.65	2439.69	2440.34	0.5	PASS
		2480	0.65	2479.68	2480.34	0.5	PASS

Test Graphs





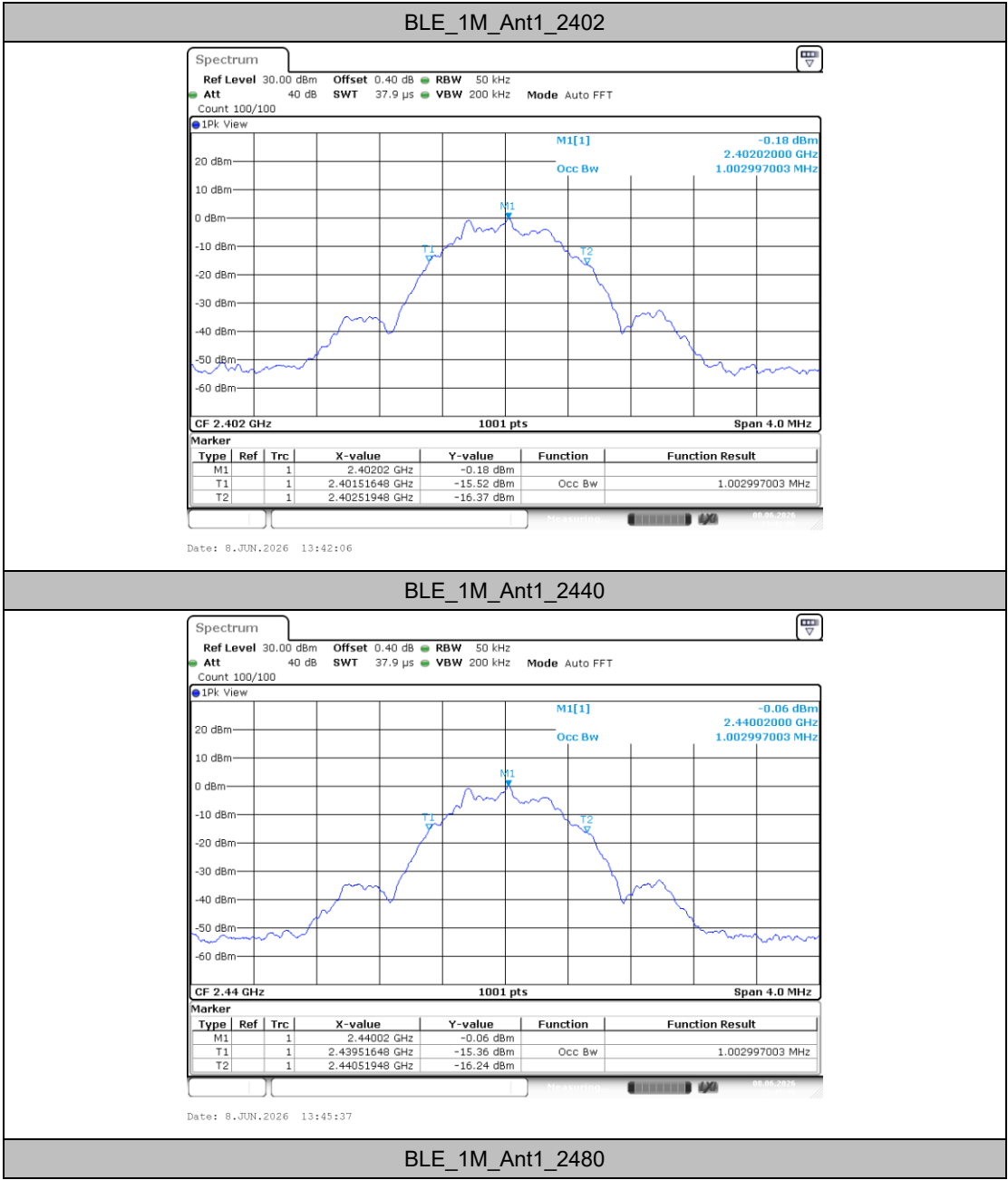
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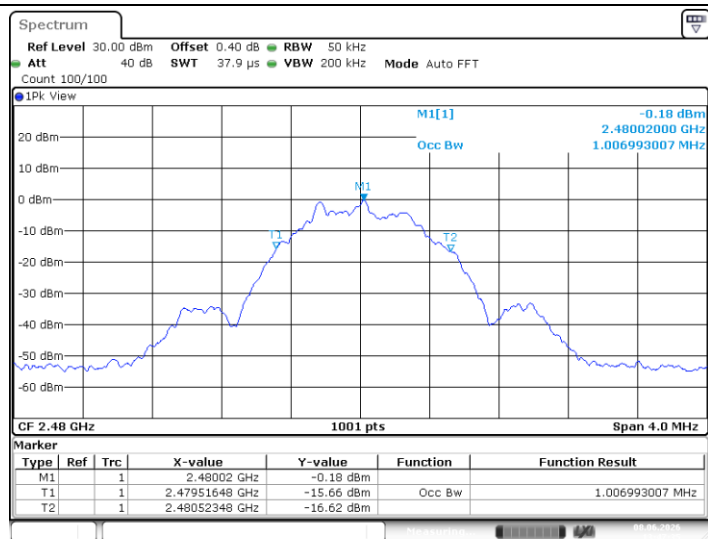
Appendix B: Occupied Channel Bandwidth

Test Result

TestMode	Antenna	Freq(MHz)	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	1.0030	2401.5165	2402.5195	---	---
		2440	1.0030	2439.5165	2440.5195	---	---
		2480	1.0070	2479.5165	2480.5235	---	---

Test Graphs





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Appendix C: Maximum conducted output power

Test Result Peak

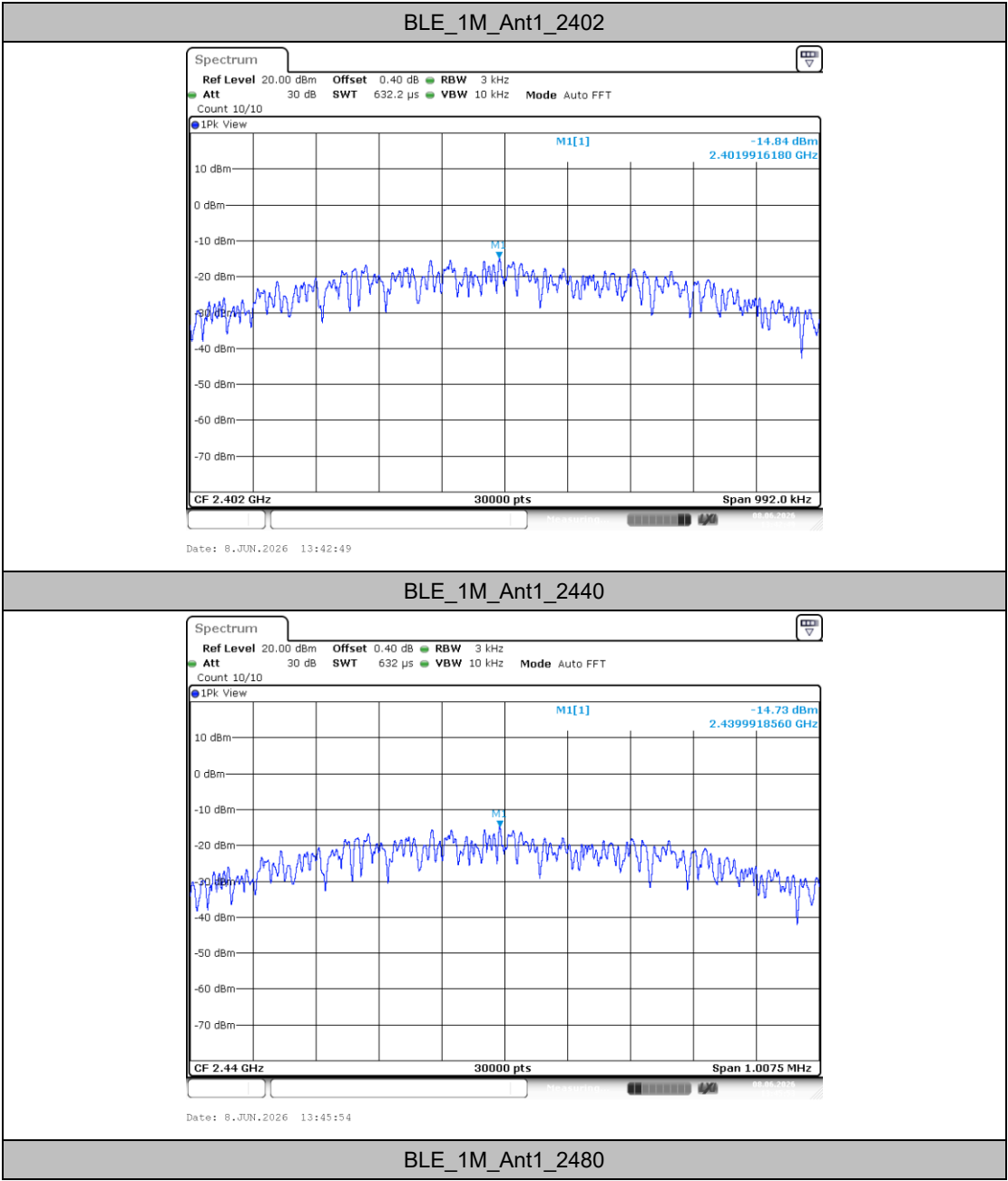
TestMode	Antenna	Freq(MHz)	Conducted Peak Power[dBm]	Conducted Limit[dBm]	Verdict
BLE_1M	Ant1	2402	0.65	≤30	PASS
		2440	0.64	≤30	PASS
		2480	0.54	≤30	PASS

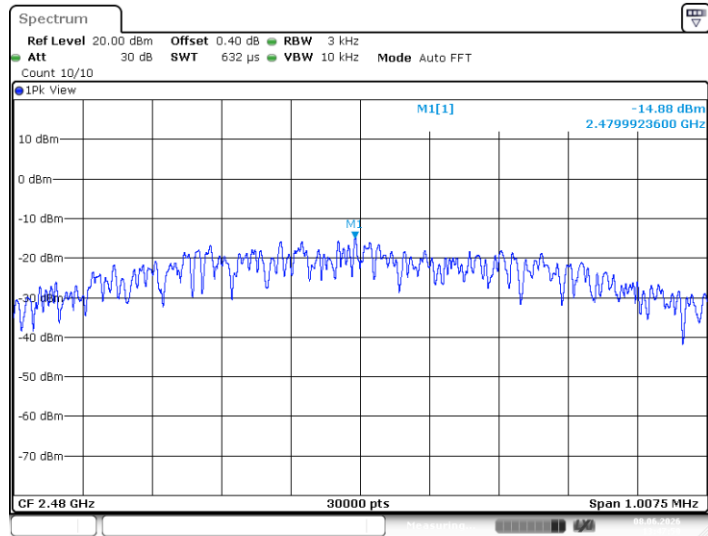
Appendix D: Maximum power spectral density

Test Result

TestMode	Antenna	Freq(MHz)	Result[dBm/3kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-14.84	≤8.00	PASS
		2440	-14.73	≤8.00	PASS
		2480	-14.88	≤8.00	PASS

Test Graphs





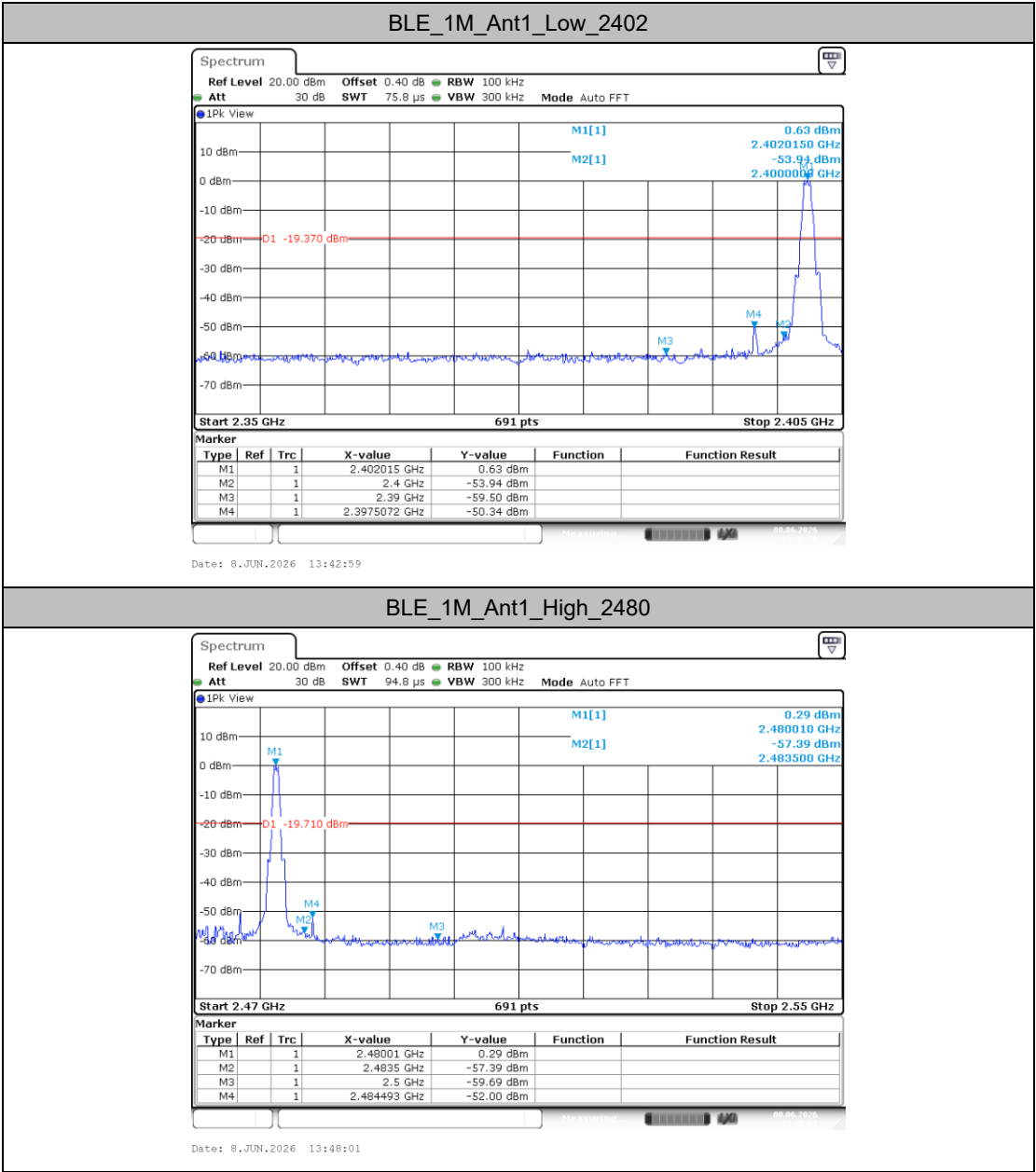
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Appendix E: Band edge measurements

Test Result

TestMode	Antenna	Channel	Freq(MHz)	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	Low	2402	0.63	-50.34	≤-19.37	PASS
		High	2480	0.29	-52	≤-19.71	PASS

Test Graphs

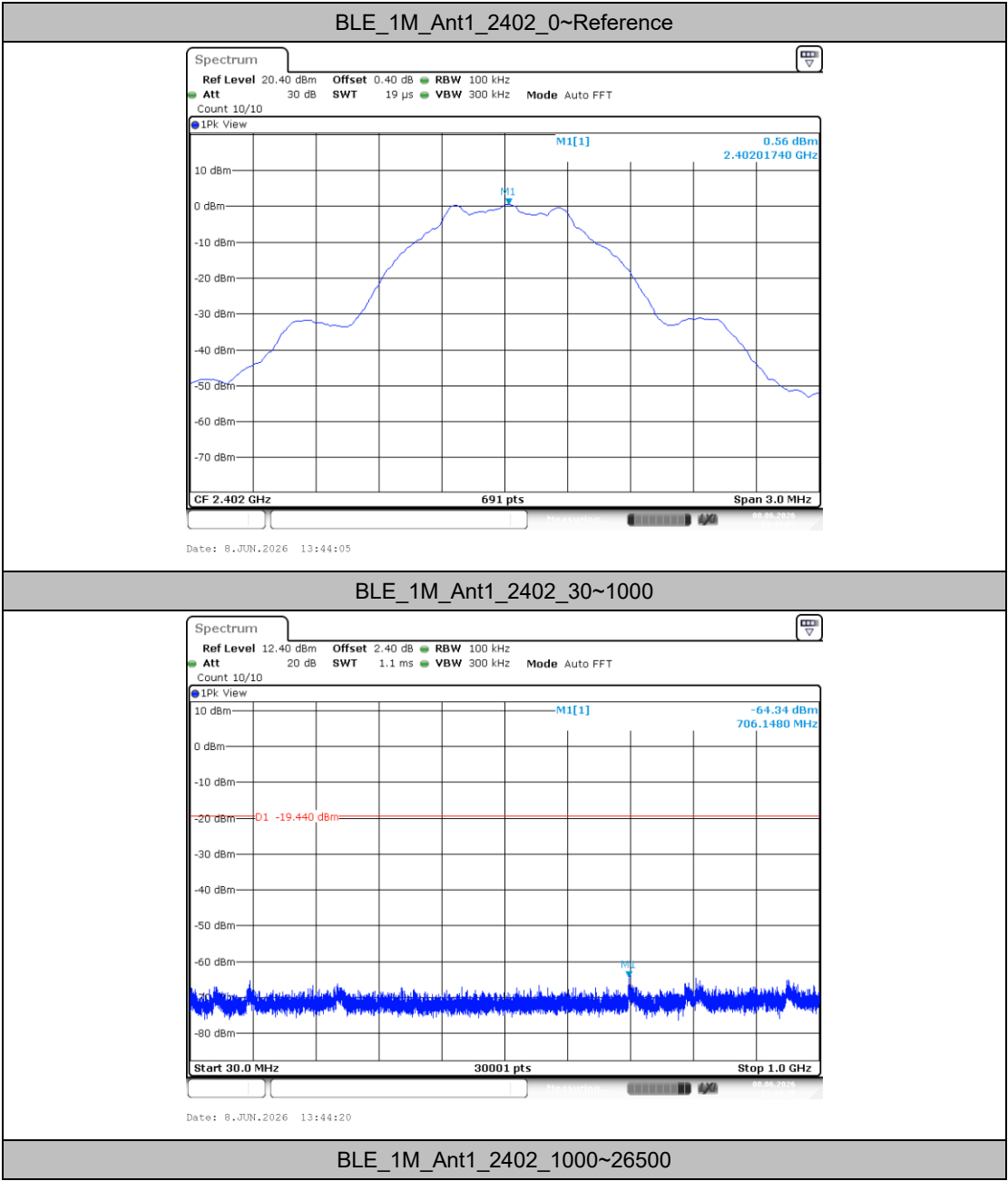


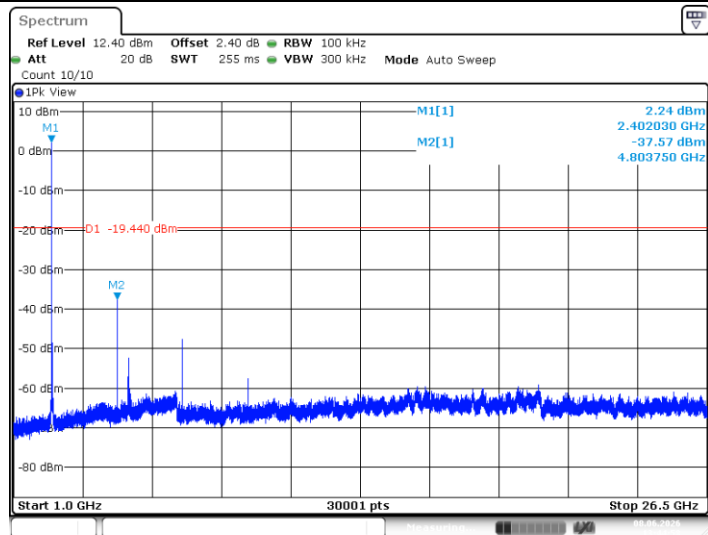
Appendix F: Conducted Spurious Emission

Test Result

TestMode	Antenna	Freq(MHz)	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	Reference	0.56	0.56	---	PASS
			30~1000	0.56	-64.34	≤-19.44	PASS
			1000~26500	0.56	-37.57	≤-19.44	PASS
		2440	Reference	0.46	0.46	---	PASS
			30~1000	0.46	-65.19	≤-19.54	PASS
			1000~26500	0.46	-38.37	≤-19.54	PASS
		2480	Reference	0.29	0.29	---	PASS
			30~1000	0.29	-64.79	≤-19.71	PASS
			1000~26500	0.29	-39.31	≤-19.71	PASS

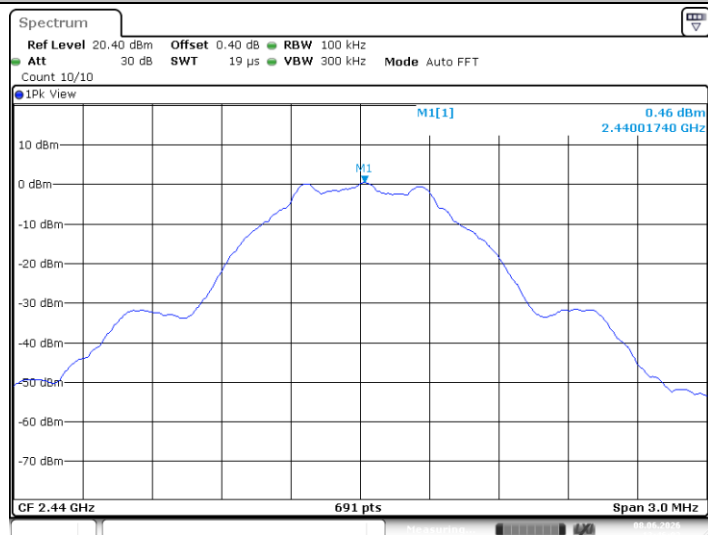
Test Graphs





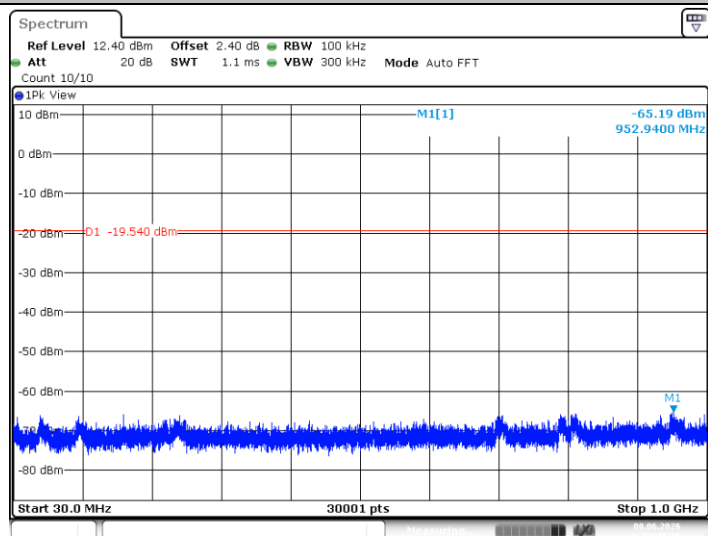
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BLE_1M_Ant1_2440_0~Reference



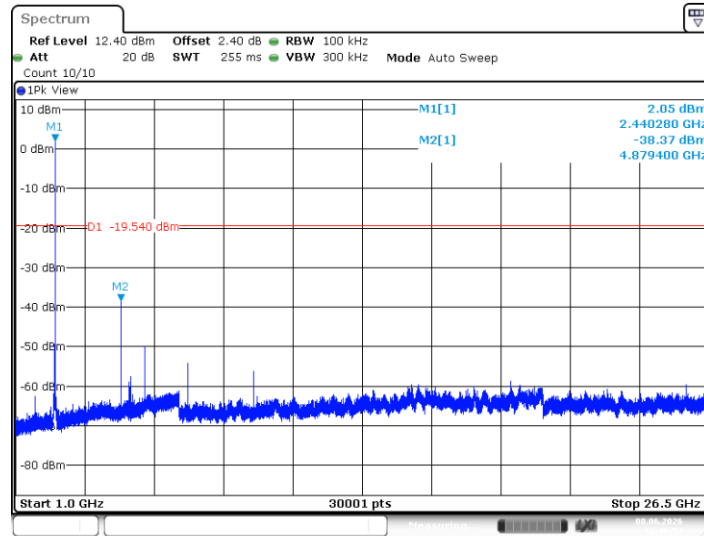
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BLE_1M_Ant1_2440_30~1000



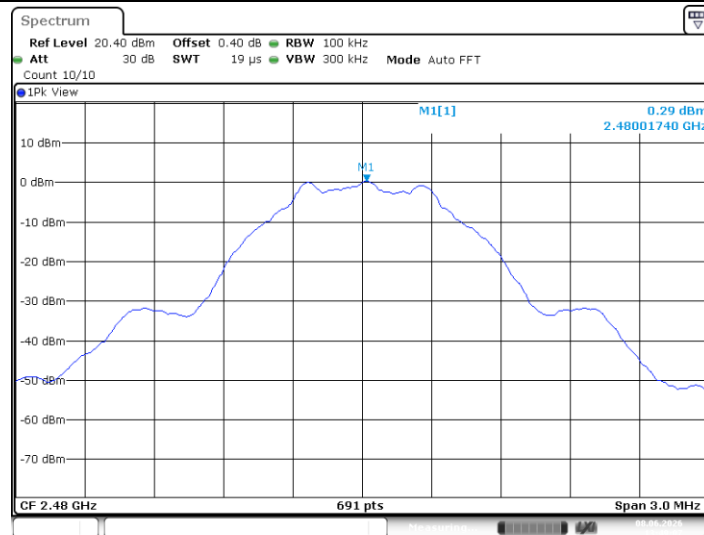
Date: 8.JUN.2026 13:46:17

BLE_1M_Ant1_2440_1000~26500



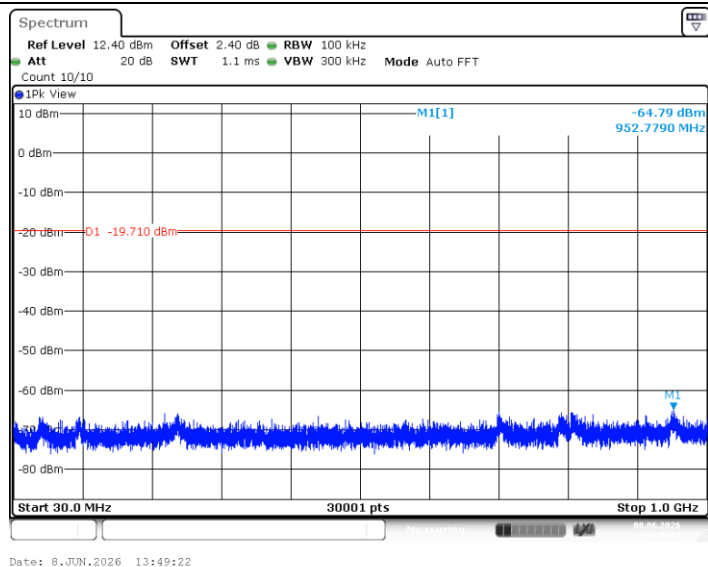
Date: 8.JUN.2026 13:46:54

BLE_1M_Ant1_2480_0~Reference

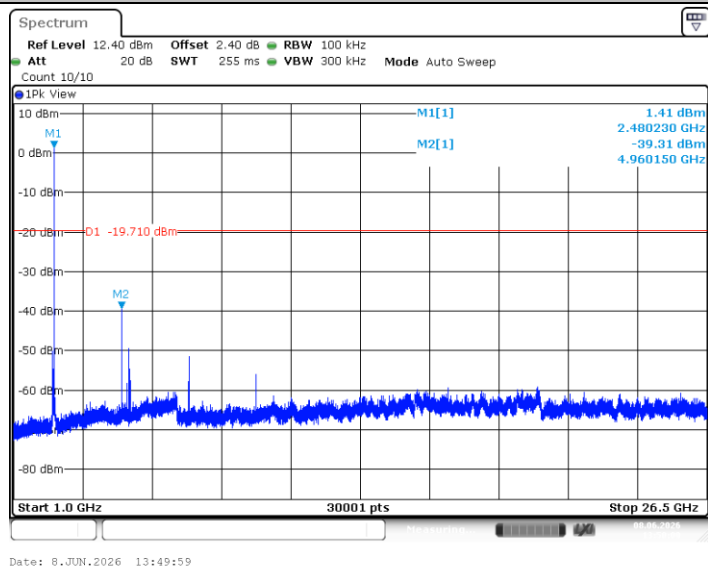


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BLE_1M_Ant1_2480_30~1000



BLE_1M_Ant1_2480_1000~26500

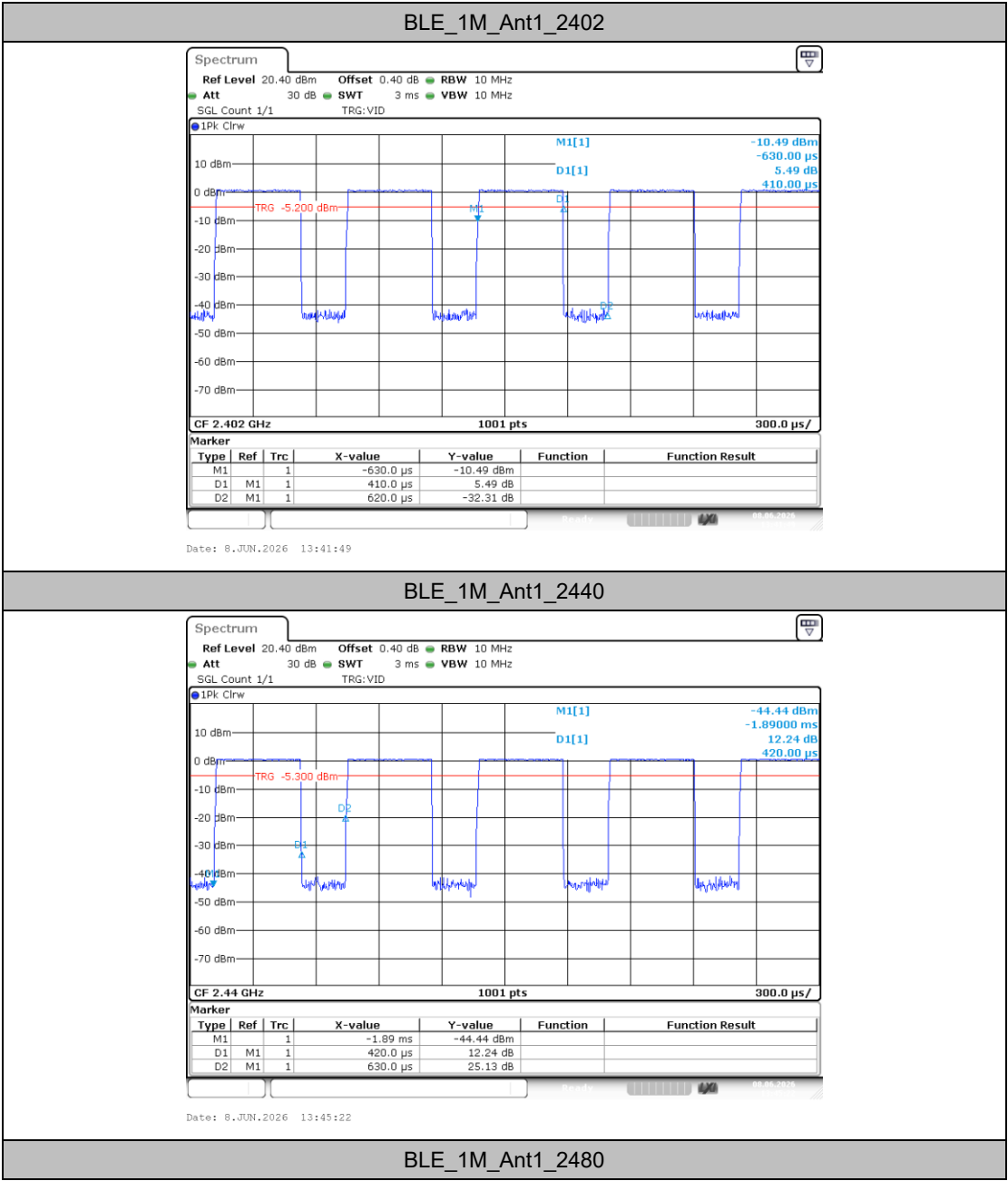


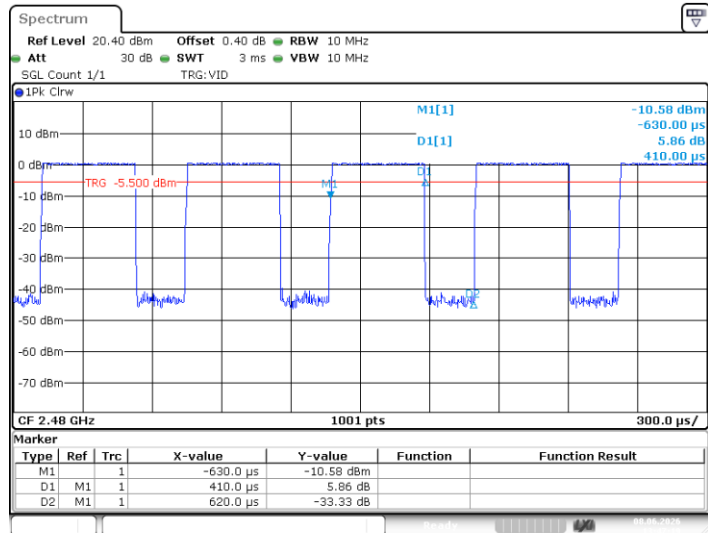
Appendix G: Duty Cycle

Test Result

TestMode	Antenna	Freq(MHz)	ON Time [ms]	Period [ms]	X	DC [%]	xFactor	Limit	Verdict
BLE_1M	Ant1	2402	0.41	0.62	0.6613	66.13	1.80	---	---
		2440	0.42	0.63	0.6667	66.67	1.76	---	---
		2480	0.41	0.62	0.6613	66.13	1.80	---	---

Test Graphs





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Appendix H: Emissions in Restricted Bands

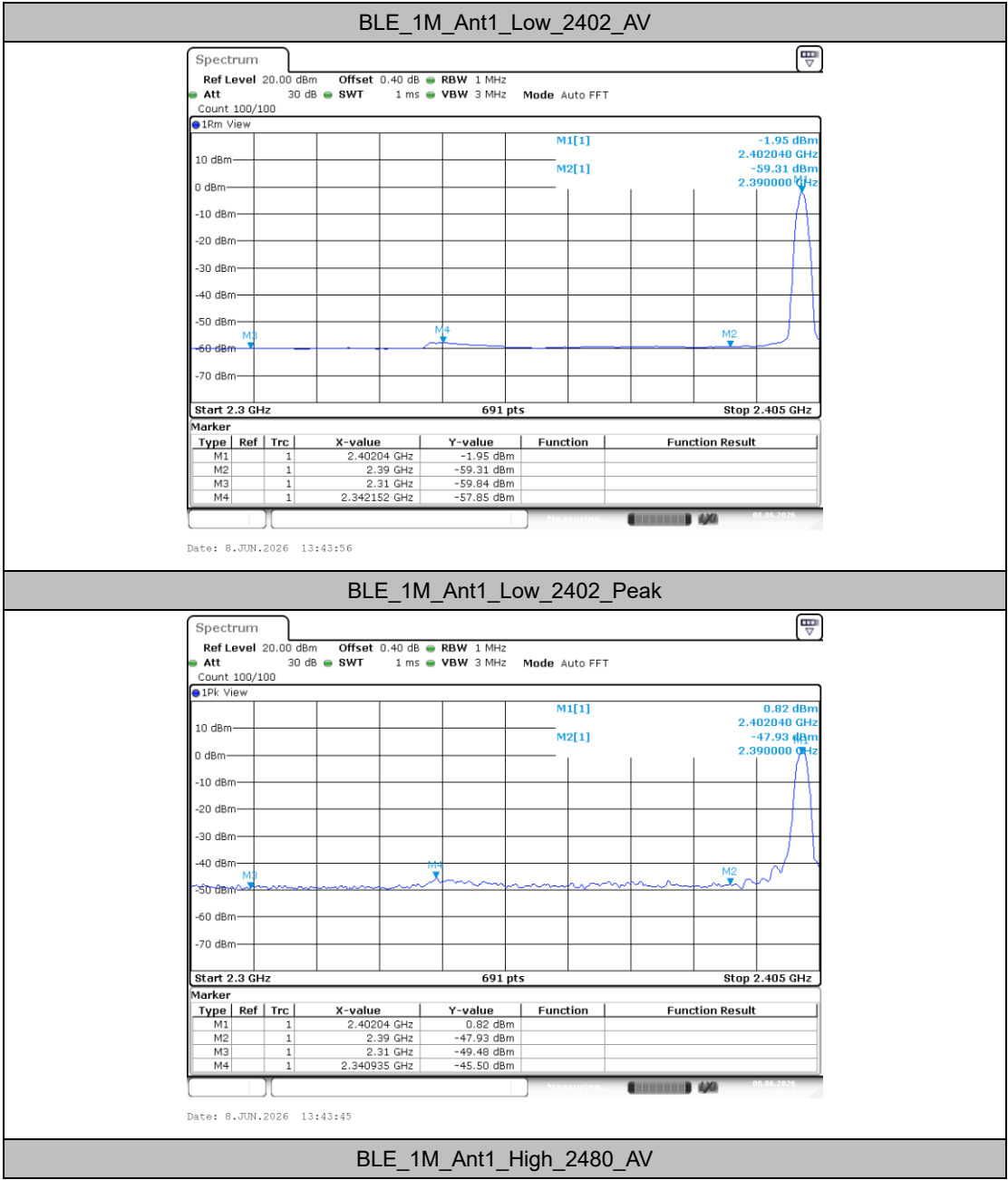
Test Result

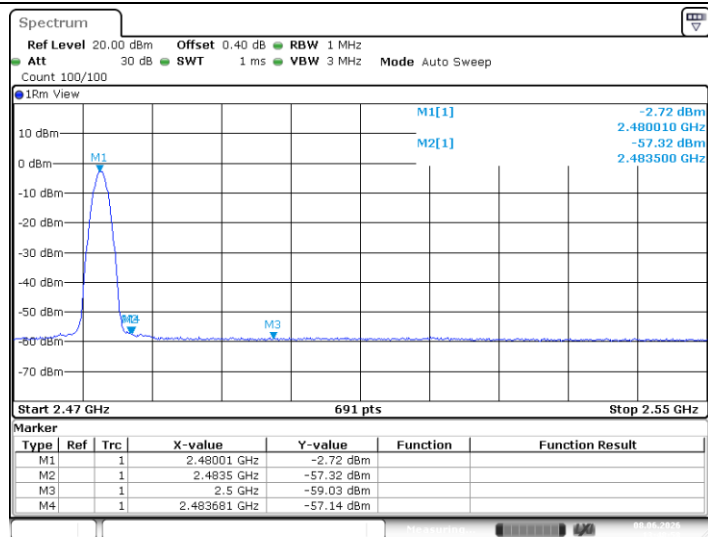
TestMode	Antenna	Channel Name	Freq(MHz)	Detector	Freq [MHz]	Result [dBm]	Gain [dB]	DC Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Verdict
BLE_1M	Ant1	Low	2402	AV	2310.000	-59.84	2.00	1.80	39.16	≤54	PASS
				AV	2342.152	-57.85	2.00	1.80	41.15	≤54	PASS
				AV	2390.000	-59.31	2.00	1.80	39.69	≤54	PASS
				Peak	2310.000	-49.48	2.00	0.00	47.72	≤74	PASS
				Peak	2340.935	-45.5	2.00	0.00	51.70	≤74	PASS
				Peak	2390.000	-47.93	2.00	0.00	49.27	≤74	PASS
		High	2480	AV	2483.500	-57.32	2.00	1.80	41.68	≤54	PASS
				AV	2483.681	-57.14	2.00	1.80	41.86	≤54	PASS
				AV	2500.000	-59.03	2.00	1.80	39.97	≤54	PASS
				Peak	2483.500	-45.52	2.00	0.00	51.68	≤74	PASS
				Peak	2484.377	-41.34	2.00	0.00	55.86	≤74	PASS
				Peak	2500.000	-48.62	2.00	0.00	48.58	≤74	PASS

Note:

- The limit in dBm for average detector is conversion from 54dBuV/m, according to 15.209(a). The limit in dBm for peak detector is 20dB above the limit of average detector in dBm.

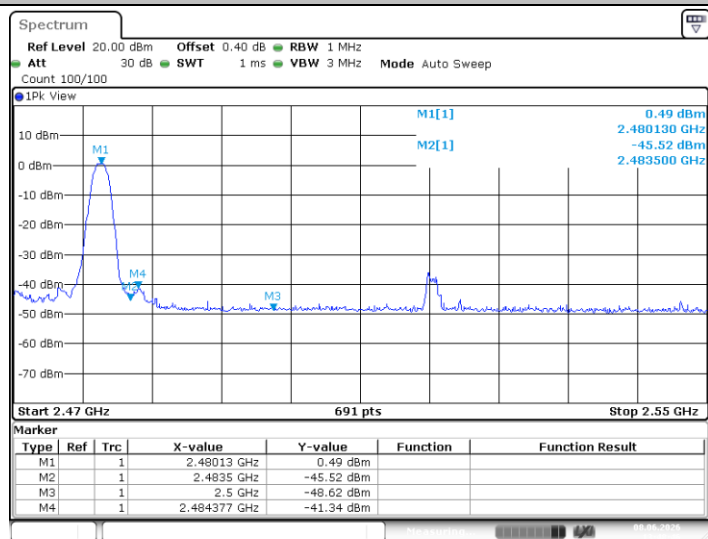
Test Graphs





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BLE_1M_Ant1_High_2480_Peak



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