

FCC Appendix RF Test Data for BLE

FCC ID : 2BXBH-VP-LINK

Company : Shenzhen VAPON Technology Co., Ltd.

EUT : Vehicle Communication Interface

Model Number : VP-LINK

Report No. : CTA26062402201

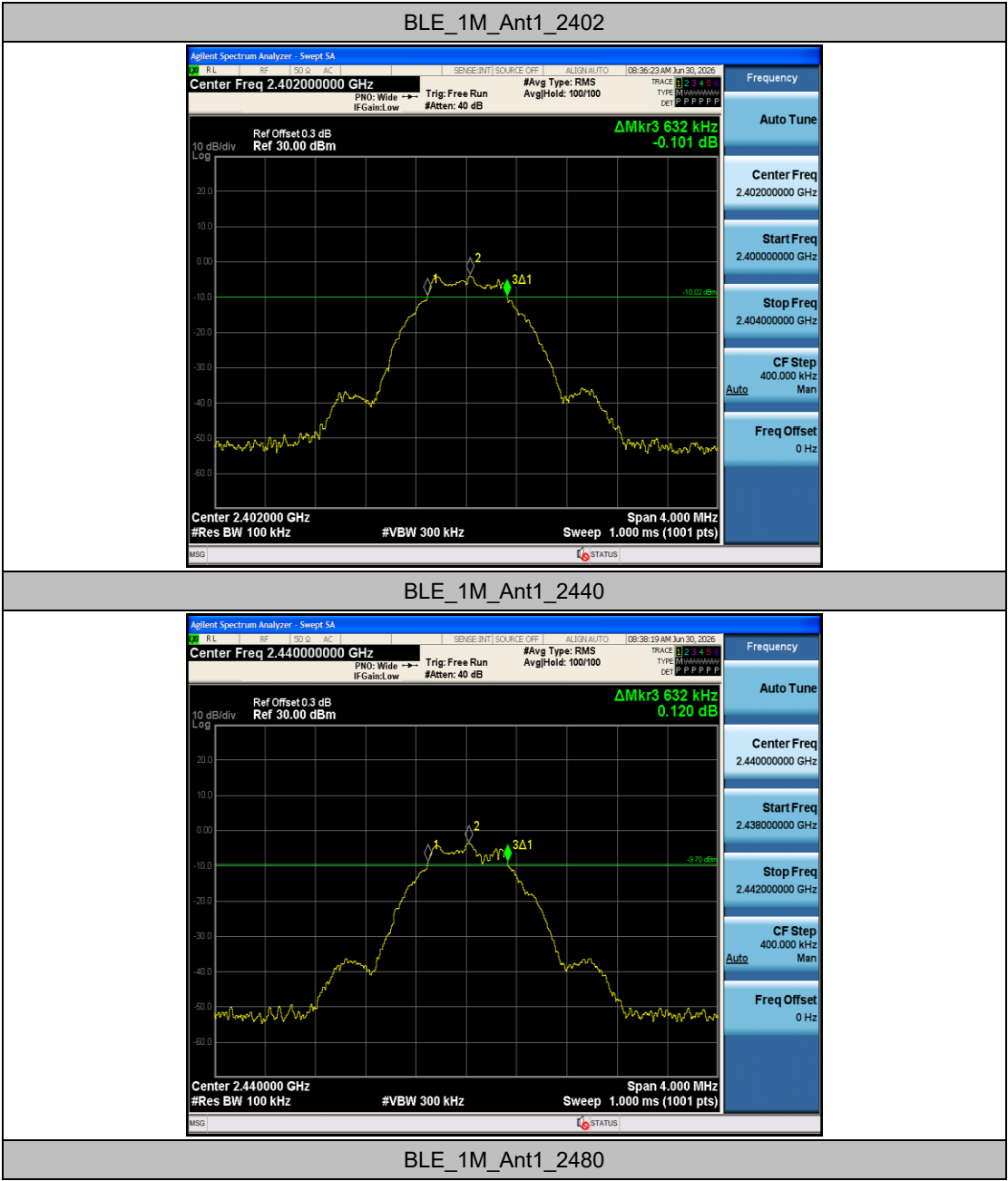
Reviewed By : Eric Wang

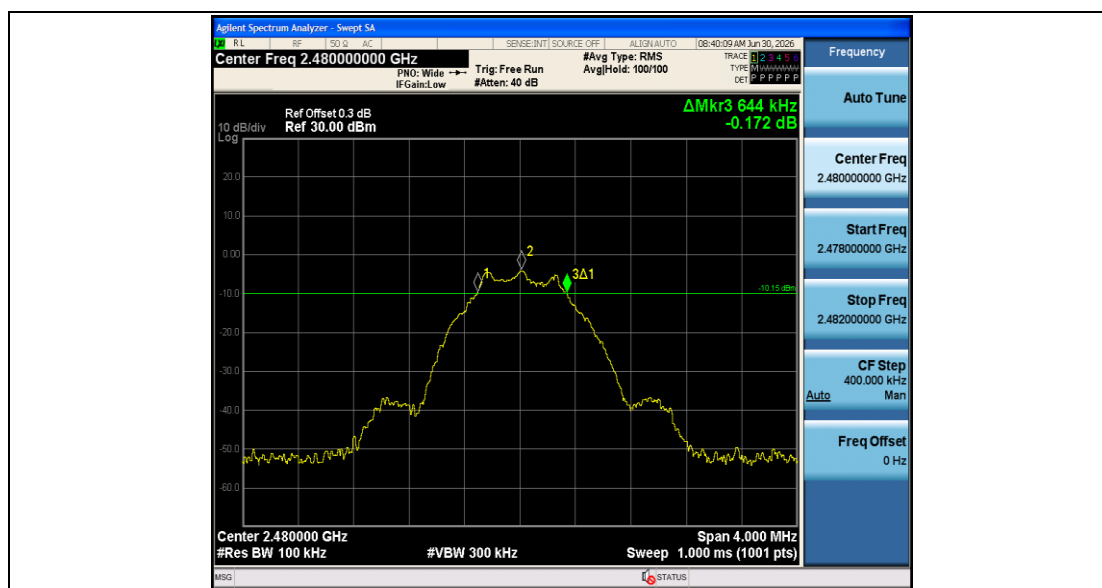
Appendix A: DTS Bandwidth

Test Result

TestMode	Antenna	Freq(MHz)	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	0.632	2401.692	2402.324	0.5	PASS
		2440	0.632	2439.696	2440.328	0.5	PASS
		2480	0.644	2479.696	2480.340	0.5	PASS

Test Graphs





Appendix B: Occupied Channel Bandwidth

Test Result

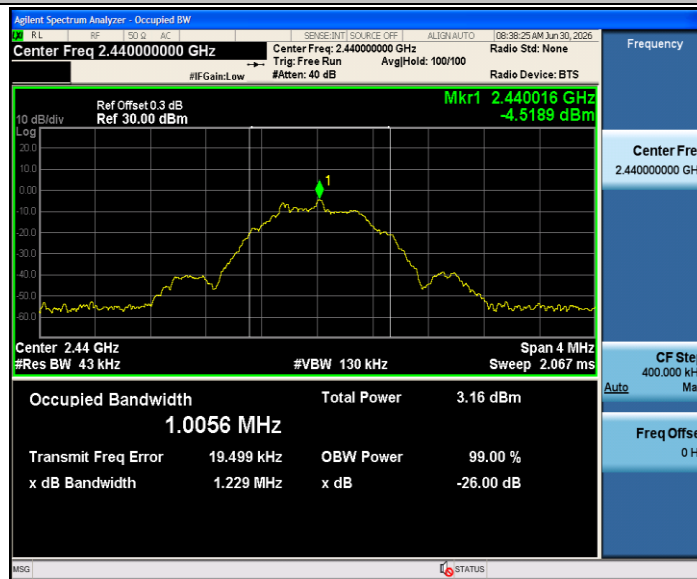
TestMode	Antenna	Freq(MHz)	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	1.0032	2401.5152	2402.5184	---	---
		2440	1.0056	2439.5167	2440.5223	---	---
		2480	1.0119	2479.5162	2480.5281	---	---

Test Graphs

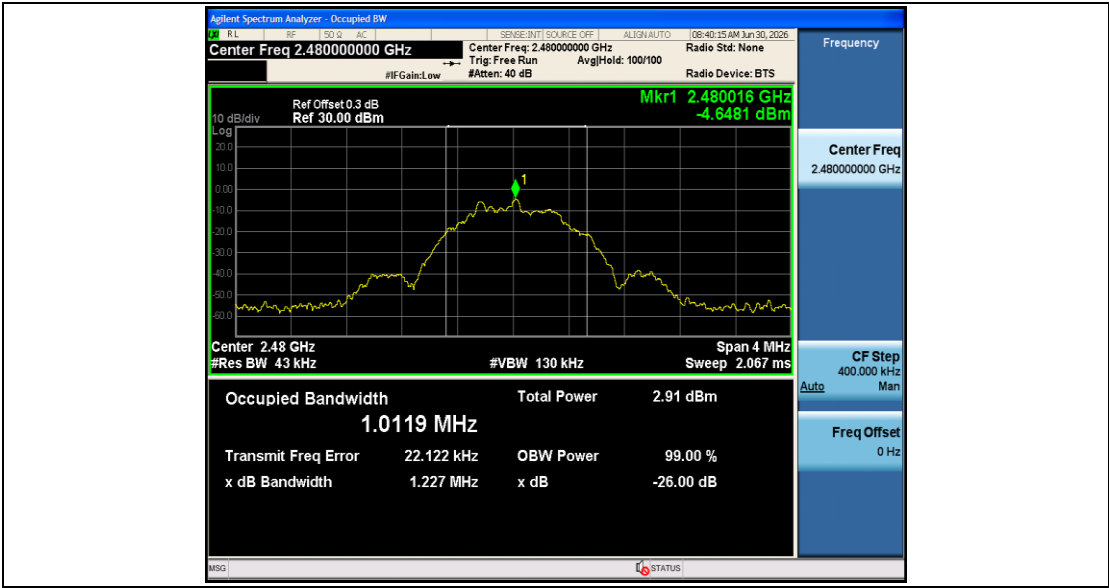
BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



BLE_1M_Ant1_2480



Appendix C: Maximum conducted output power

Test Result Peak

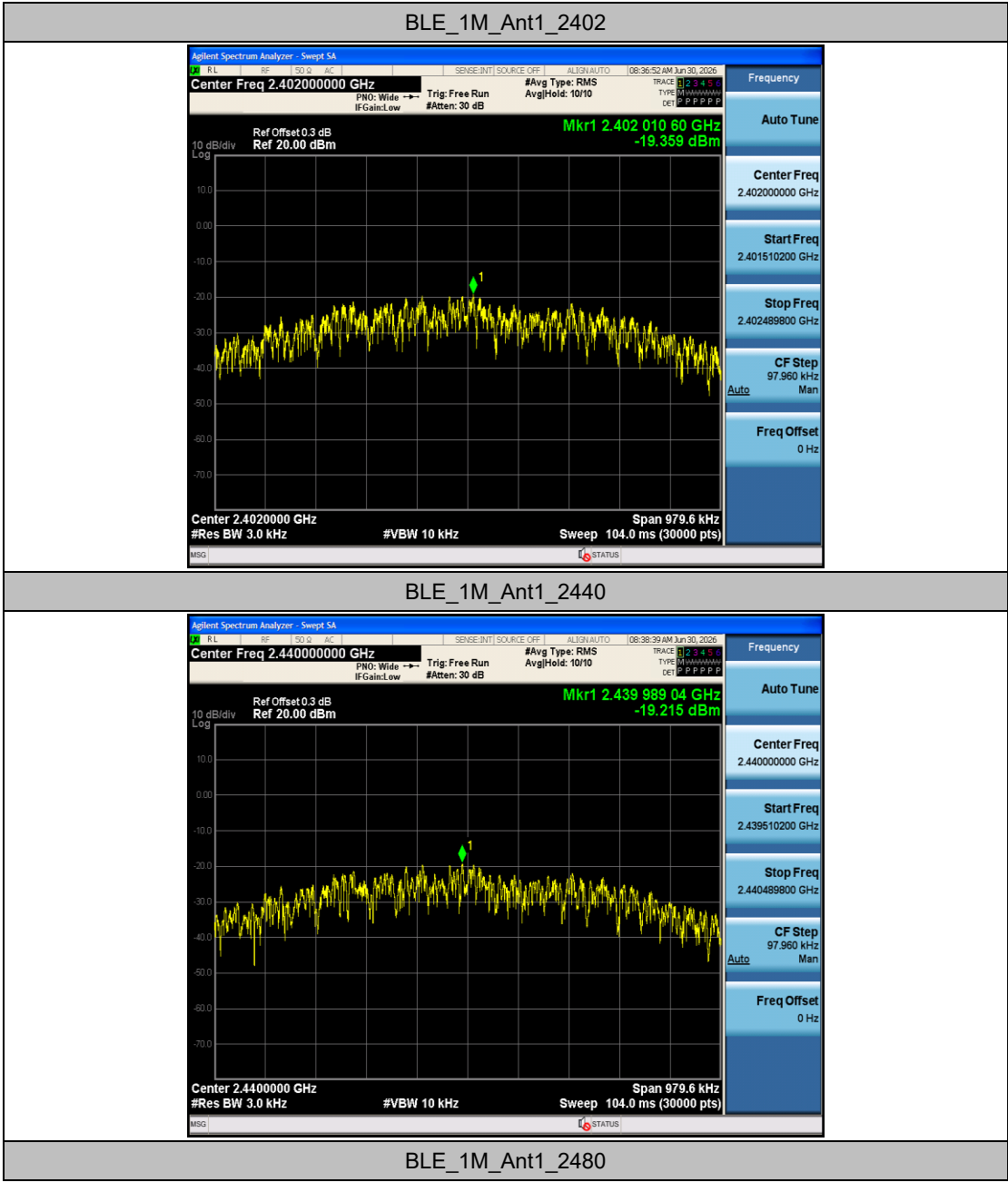
TestMode	Antenna	Freq(MHz)	Conducted Peak Power[dBm]	Conducted Limit[dBm]	Verdict
BLE_1M	Ant1	2402	-3.55	≤30	PASS
		2440	-3.54	≤30	PASS
		2480	-3.82	≤30	PASS

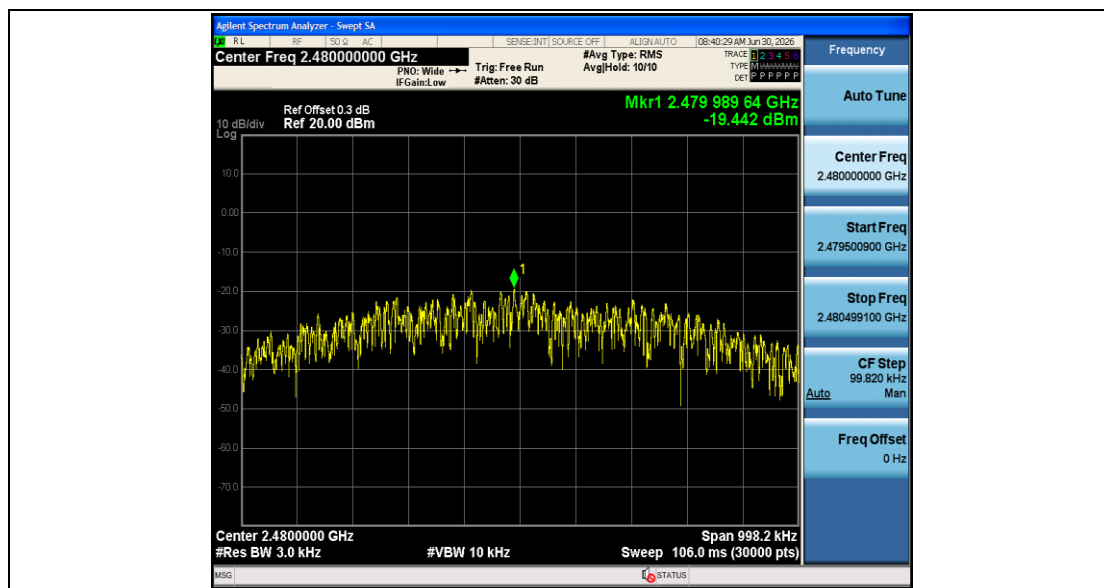
Appendix D: Maximum power spectral density

Test Result

TestMode	Antenna	Freq(MHz)	Result[dBm/3kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-19.36	≤8.00	PASS
		2440	-19.22	≤8.00	PASS
		2480	-19.44	≤8.00	PASS

Test Graphs



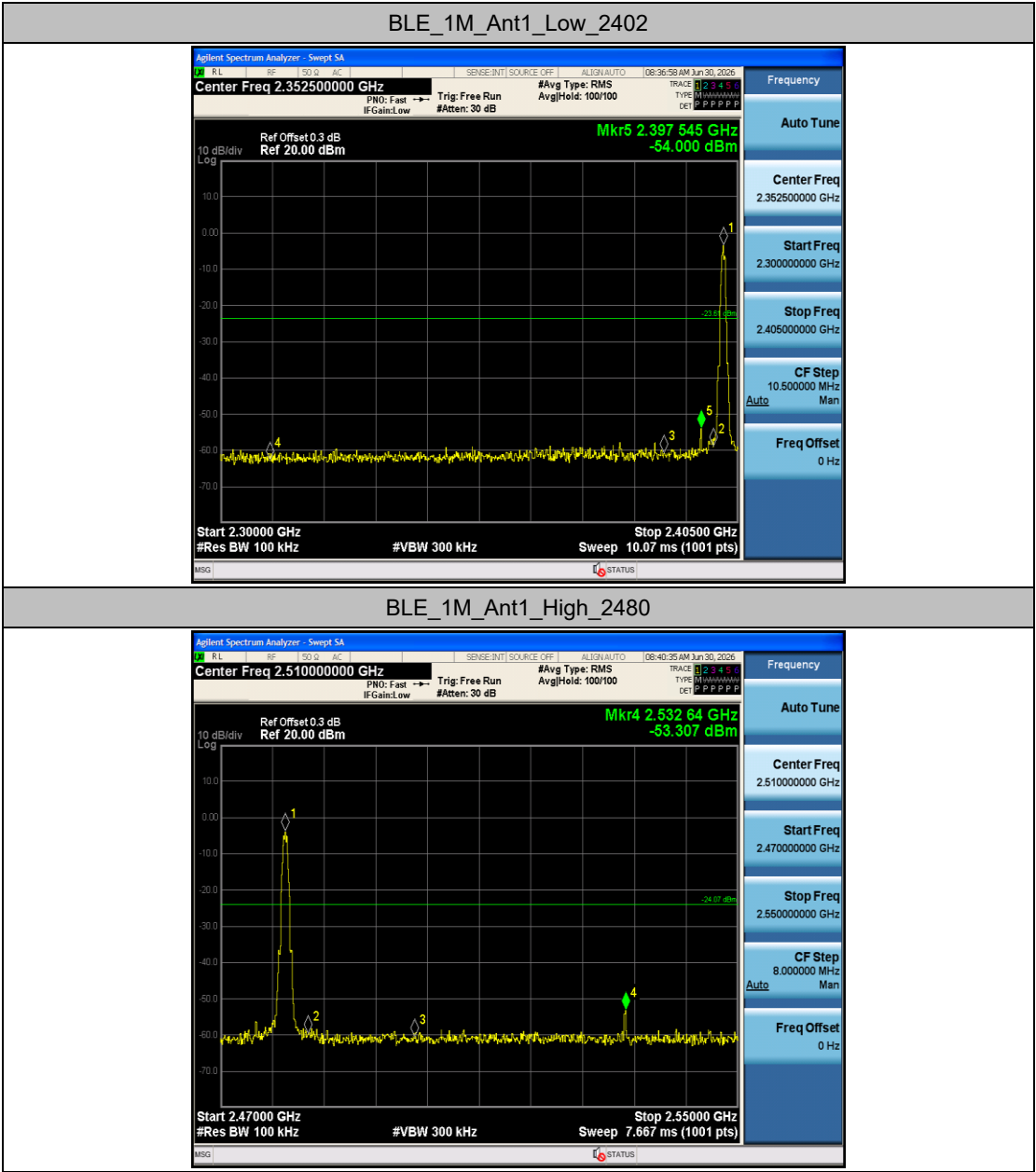


Appendix E: Band edge measurements

Test Result

TestMode	Antenna	Channel	Freq(MHz)	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	Low	2402	-3.61	-54	≤-23.61	PASS
		High	2480	-4.07	-53.31	≤-24.07	PASS

Test Graphs

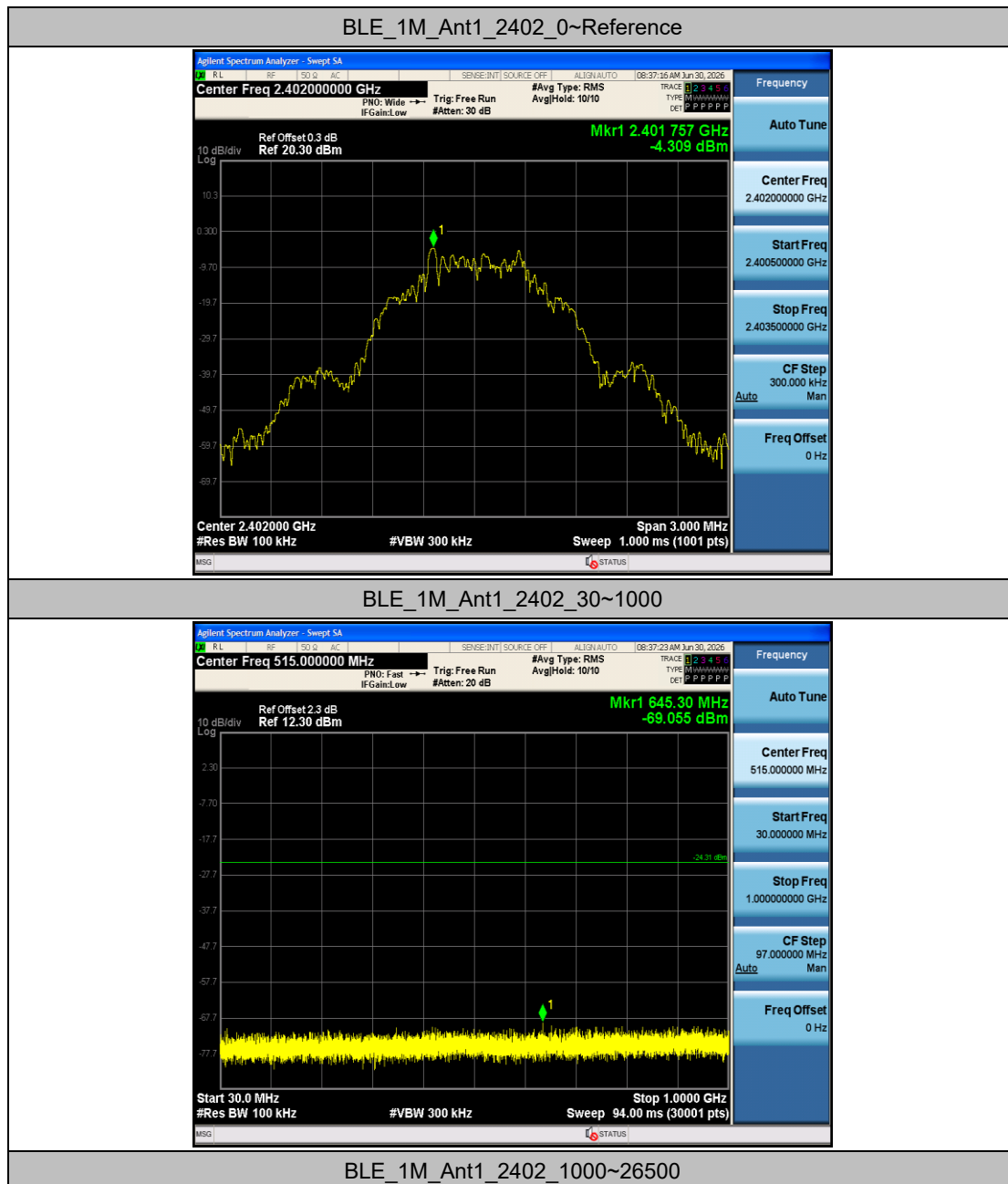


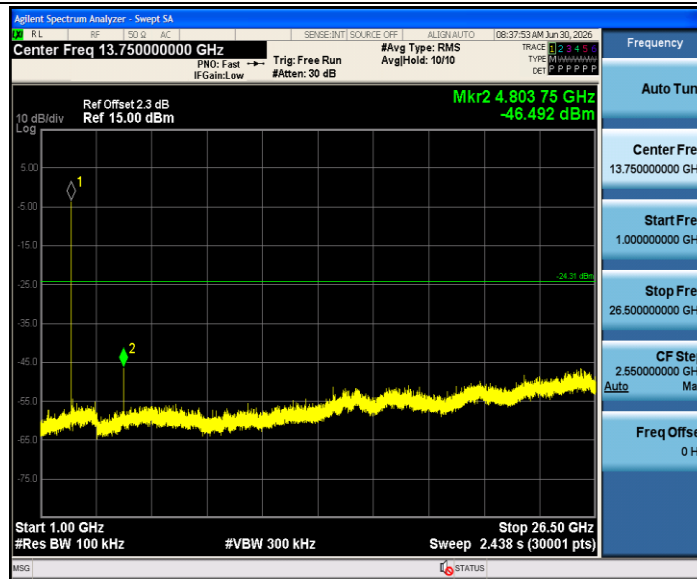
Appendix F: Conducted Spurious Emission

Test Result

TestMode	Antenna	Freq(MHz)	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	Reference	-4.31	-4.31	---	PASS
			30~1000	-4.31	-69.06	≤-24.31	PASS
			1000~26500	-4.31	-46.49	≤-24.31	PASS
		2440	Reference	-5.02	-5.02	---	PASS
			30~1000	-5.02	-68.7	≤-25.02	PASS
			1000~26500	-5.02	-46.77	≤-25.02	PASS
		2480	Reference	-4.69	-4.69	---	PASS
			30~1000	-4.69	-69.26	≤-24.69	PASS
			1000~26500	-4.69	-45.67	≤-24.69	PASS

Test Graphs

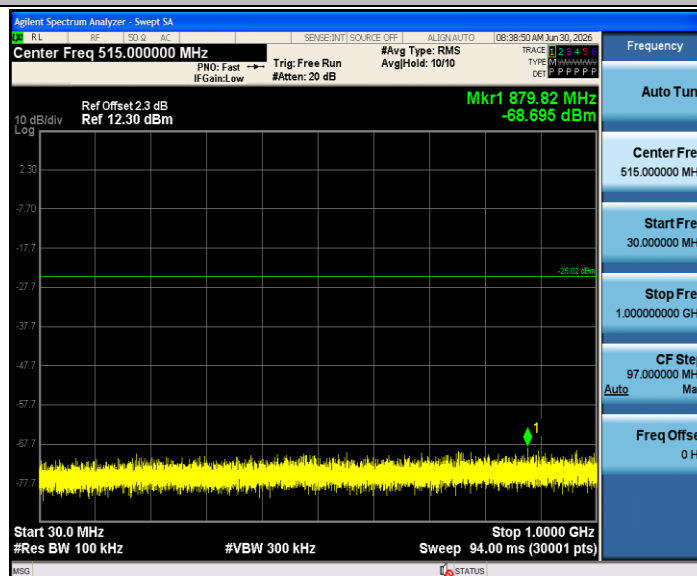




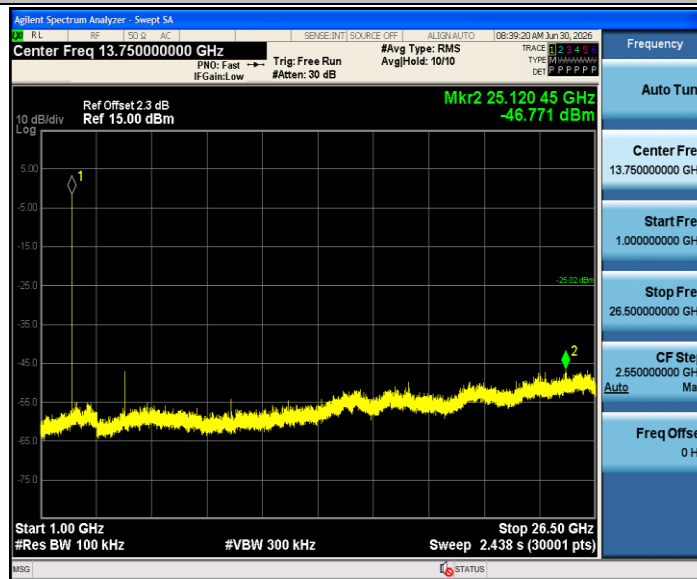
BLE_1M_Ant1_2440_0~Reference



BLE_1M_Ant1_2440_30~1000



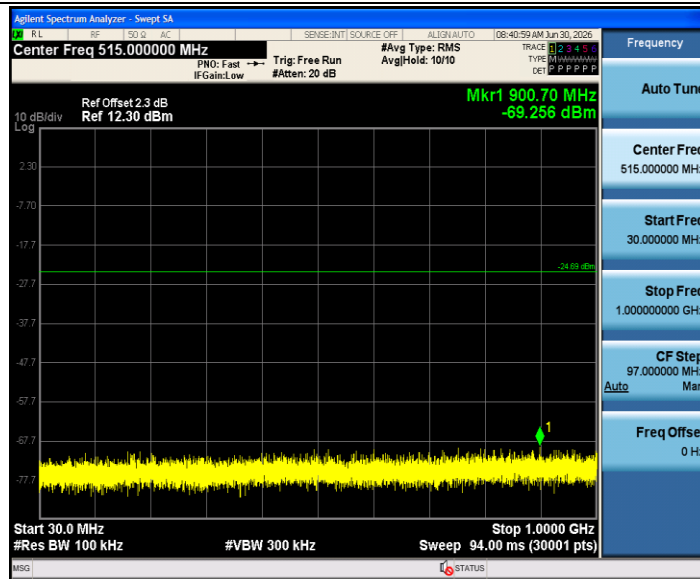
BLE_1M_Ant1_2440_1000~26500



BLE_1M_Ant1_2480_0~Reference



BLE_1M_Ant1_2480_30~1000



BLE_1M_Ant1_2480_1000~26500

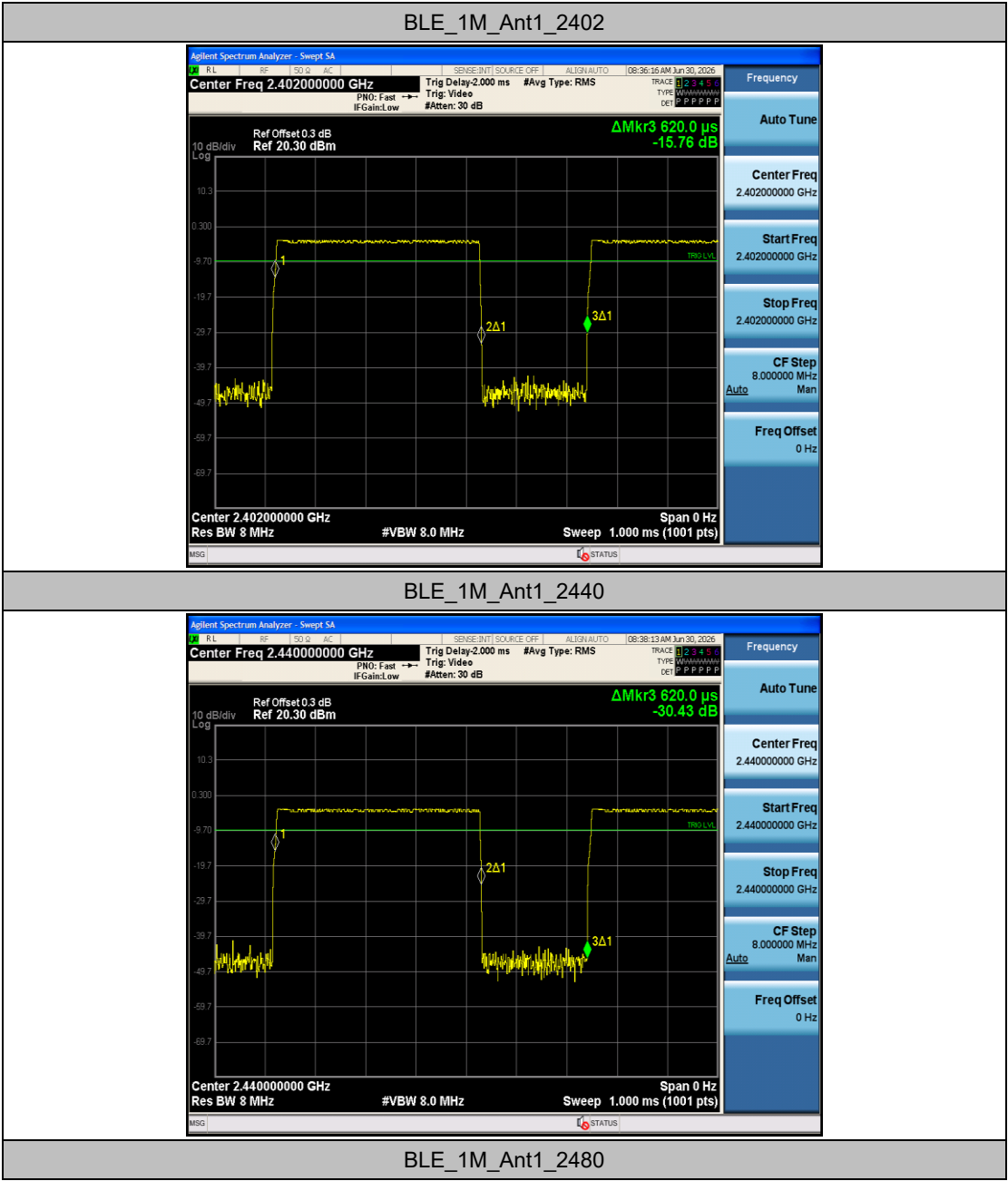


Appendix G: Duty Cycle

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	0.41	0.62	0.6613	66.13	1.80	---	---
		2480	0.41	0.62	0.6613	66.13	1.80	---	---

Test Graphs



Appendix H: Emissions in Restricted Bands

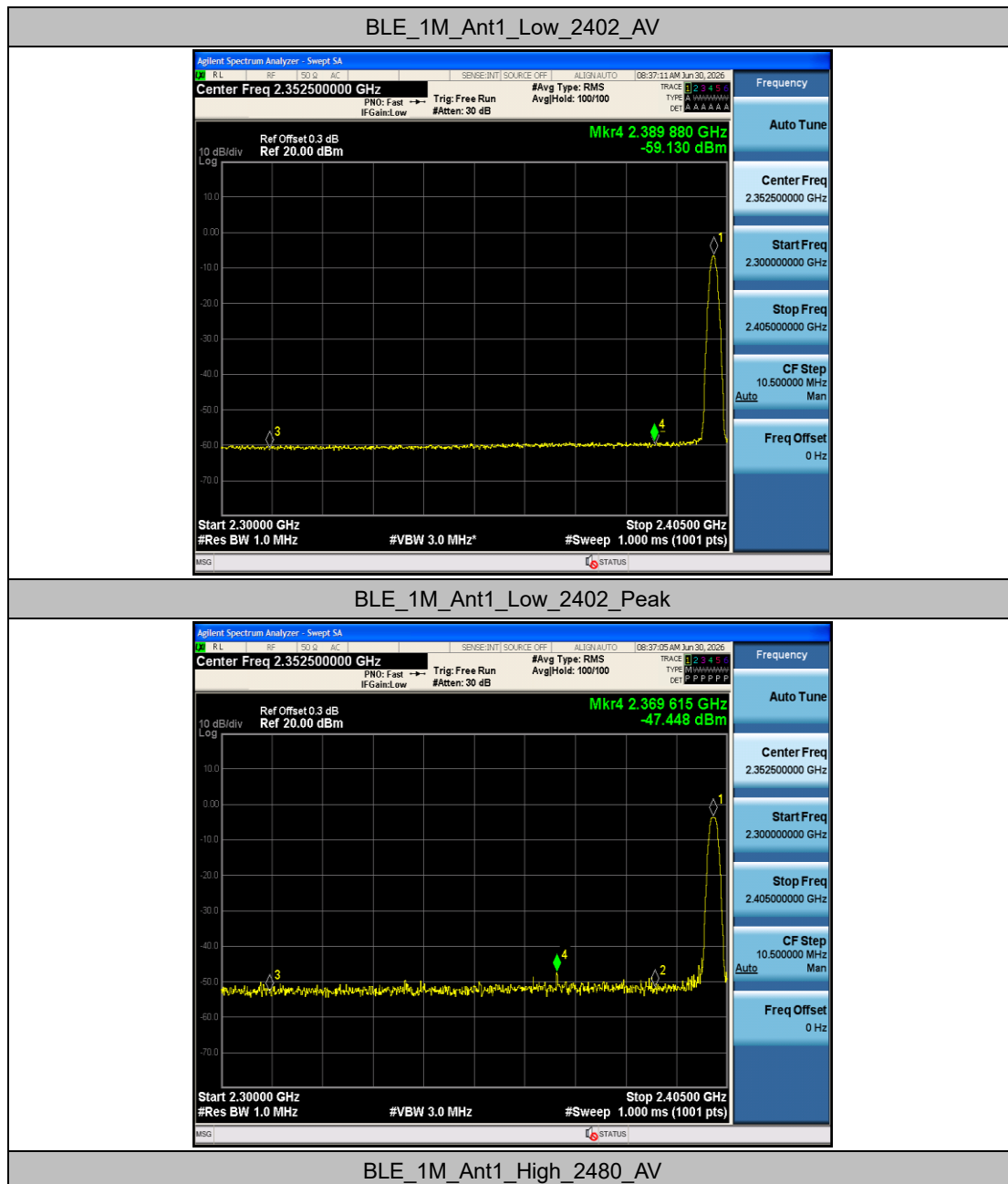
Test Result

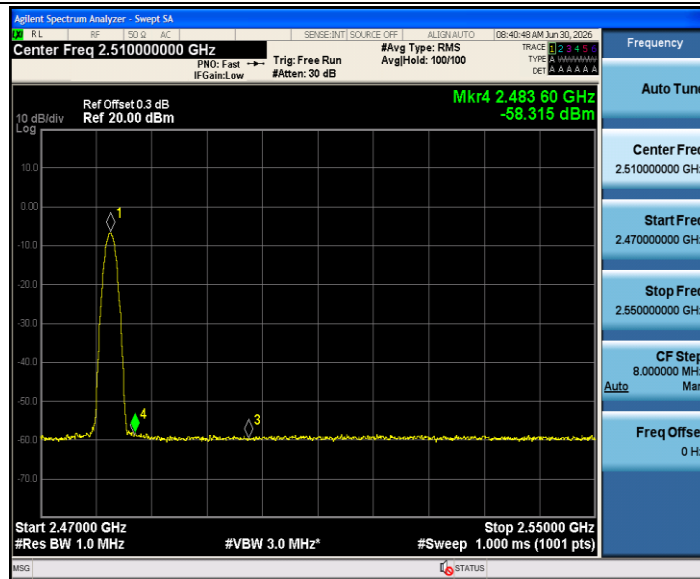
TestMode	Antenna	Channel	Freq(MHz)	Detector	Freq [MHz]	Result [dBm]	Gain [dB]	DC Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Verdict
BLE_1M	Ant1	Low	2402	AV	2310.000	-61.17	2.00	1.80	37.83	≤54	PASS
				AV	2389.880	-59.13	2.00	1.80	39.87	≤54	PASS
				AV	2390.000	-60.04	2.00	1.80	38.96	≤54	PASS
				Peak	2310.000	-53.23	2.00	0.00	43.97	≤74	PASS
				Peak	2369.615	-47.45	2.00	0.00	49.75	≤74	PASS
				Peak	2390.000	-51.83	2.00	0.00	45.37	≤74	PASS
		High	2480	AV	2483.500	-58.9	2.00	1.80	40.10	≤54	PASS
				AV	2483.600	-58.32	2.00	1.80	40.68	≤54	PASS
				AV	2500.000	-59.82	2.00	1.80	39.18	≤54	PASS
				Peak	2483.500	-48.47	2.00	0.00	48.73	≤74	PASS
				Peak	2485.040	-47.6	2.00	0.00	49.60	≤74	PASS
				Peak	2500.000	-52.52	2.00	0.00	44.68	≤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





BLE_1M_Ant1_High_2480_Peak

