

FCC Appendix RF Test Data for BLE

FCC ID : 2BPLT-1938013

Company : YAGLOW CO., LTD.

EUT : Security light

Model Number : 1938013

Report No. : CTA26012101601

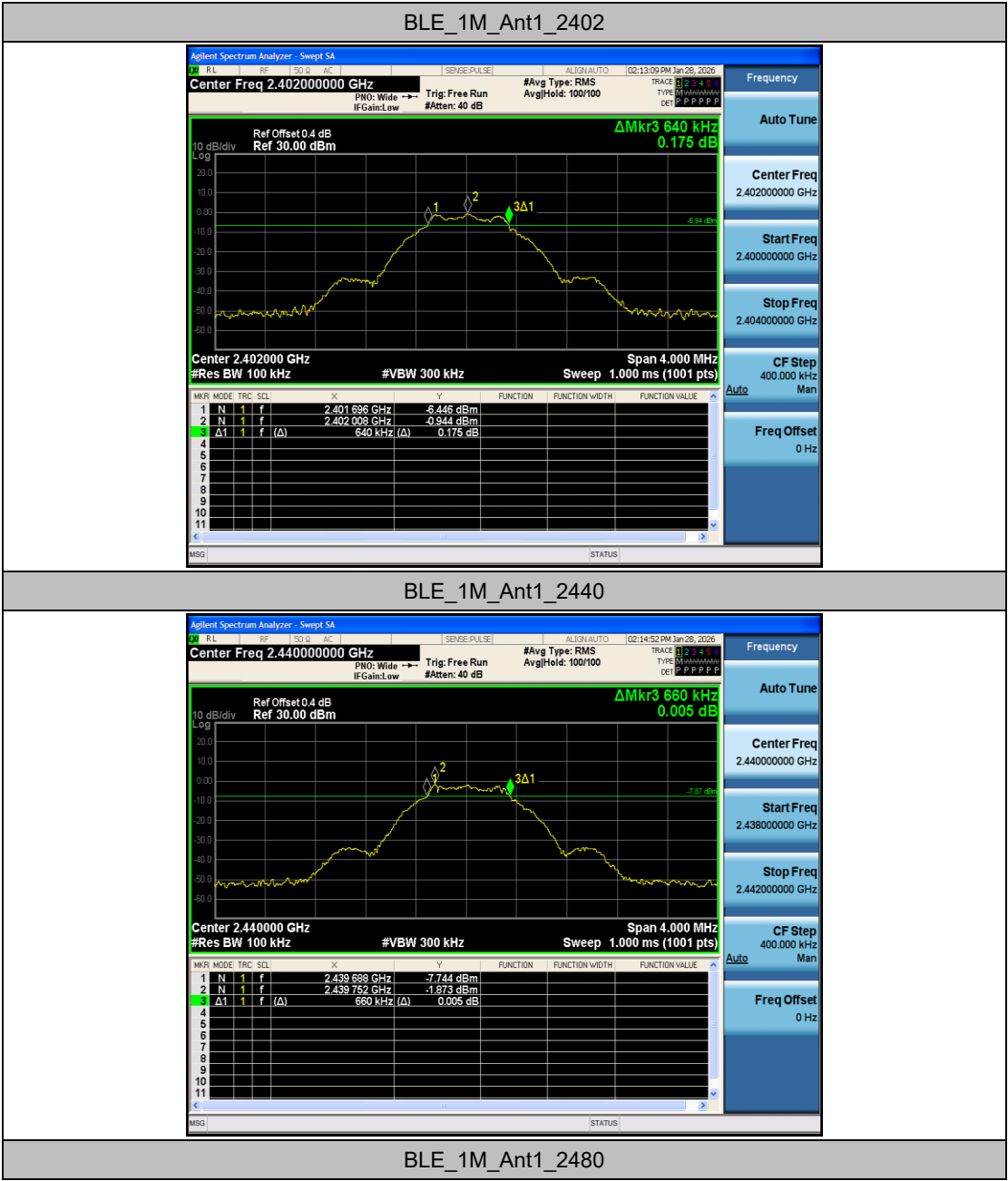
Reviewed By : Eric Wang

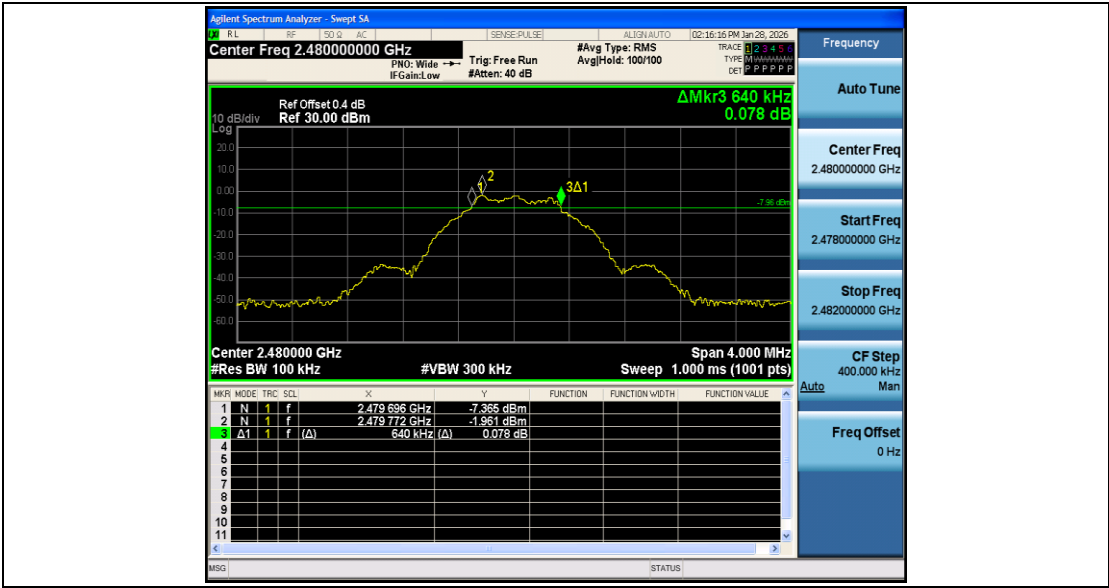
Appendix A: DTS Bandwidth

Test Result

TestMode	Antenna	Freq(MHz)	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	0.640	2401.696	2402.336	0.5	PASS
		2440	0.660	2439.688	2440.348	0.5	PASS
		2480	0.640	2479.696	2480.336	0.5	PASS

Test Graphs





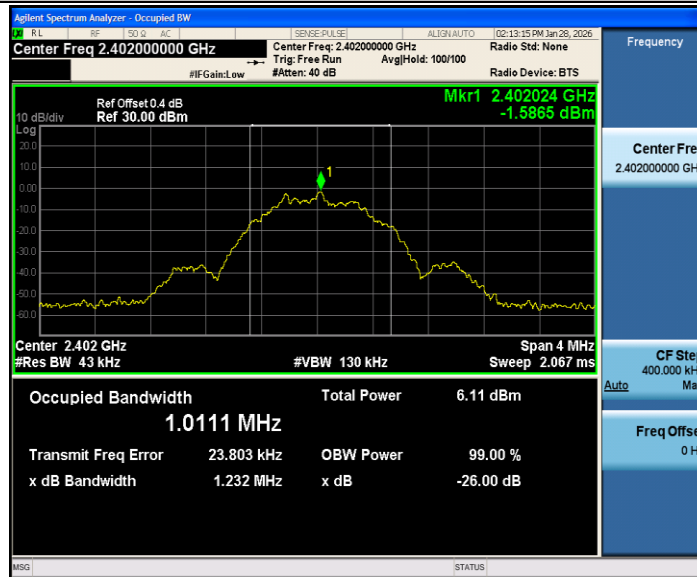
Appendix B: Occupied Channel Bandwidth

Test Result

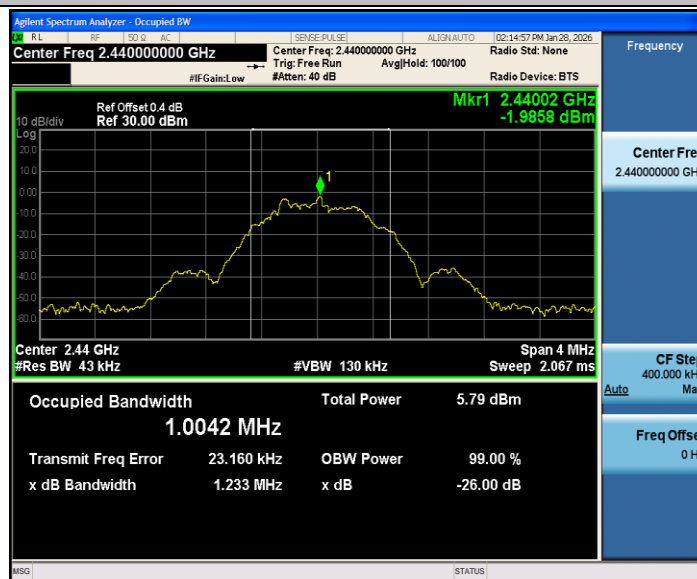
TestMode	Antenna	Freq(MHz)	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	1.0111	2401.5183	2402.5294	---	---
		2440	1.0042	2439.5211	2440.5253	---	---
		2480	1.0089	2479.5184	2480.5273	---	---

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	-0.54	≤30	PASS
		2440	-0.98	≤30	PASS
		2480	-1.44	≤30	PASS

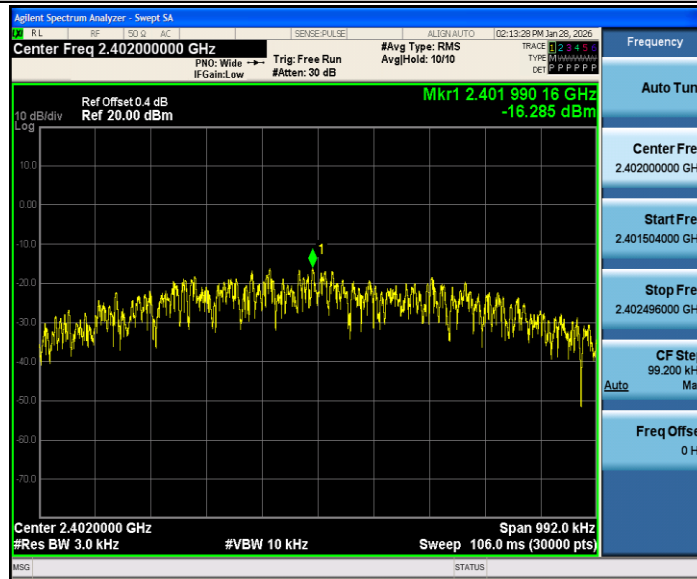
Appendix D: Maximum power spectral density

Test Result

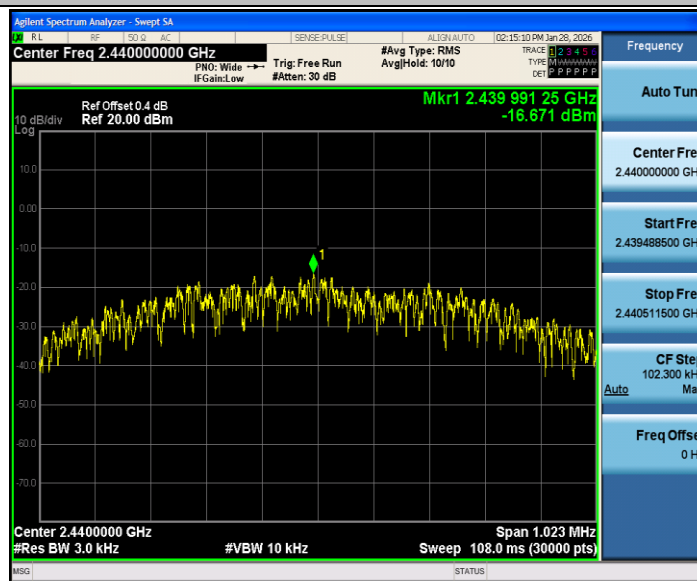
TestMode	Antenna	Freq(MHz)	Result[dBm/3kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-16.29	≤8.00	PASS
		2440	-16.67	≤8.00	PASS
		2480	-16.92	≤8.00	PASS

Test Graphs

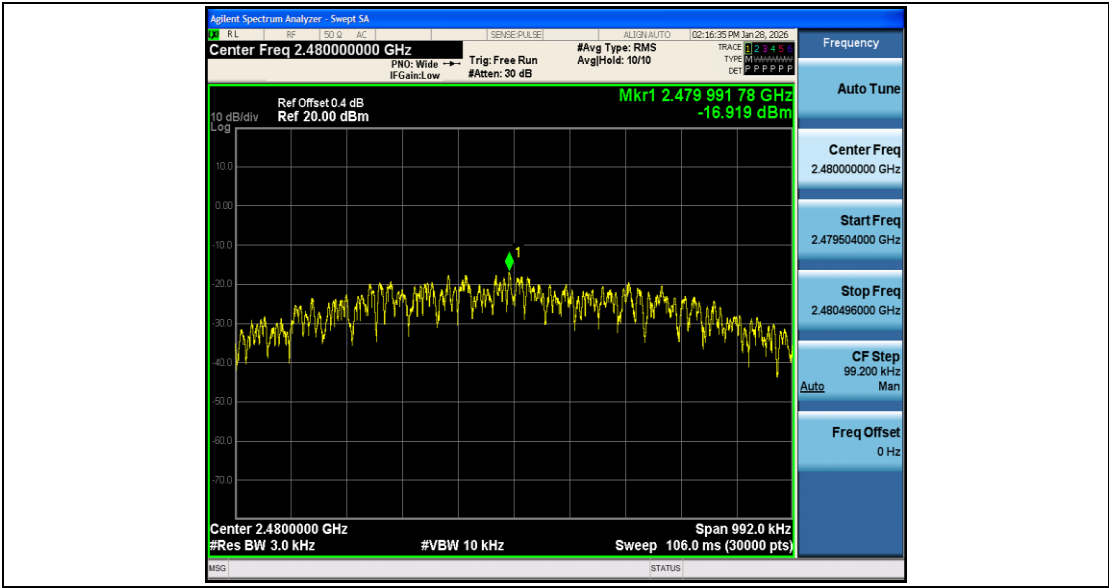
BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



BLE_1M_Ant1_2480



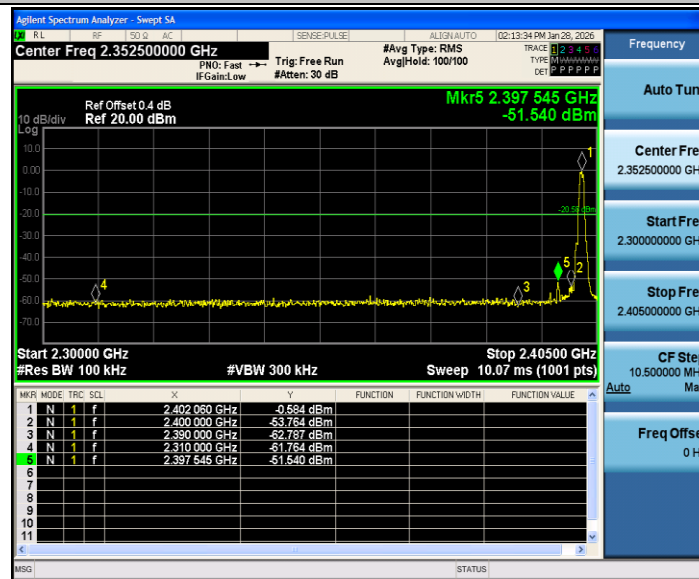
Appendix E: Band edge measurements

Test Result

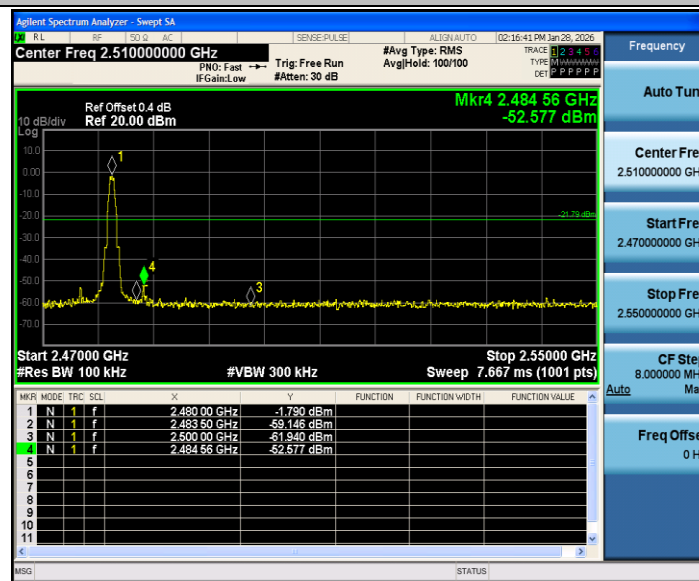
TestMod e	Antenn a	ChNam e	Freq(MHz)	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdic t
BLE_1M	Ant1	Low	2402	-0.58	-51.54	≤-20.58	PASS
		High	2480	-1.79	-52.58	≤-21.79	PASS

Test Graphs

BLE_1M_Ant1_Low_2402



BLE_1M_Ant1_High_2480

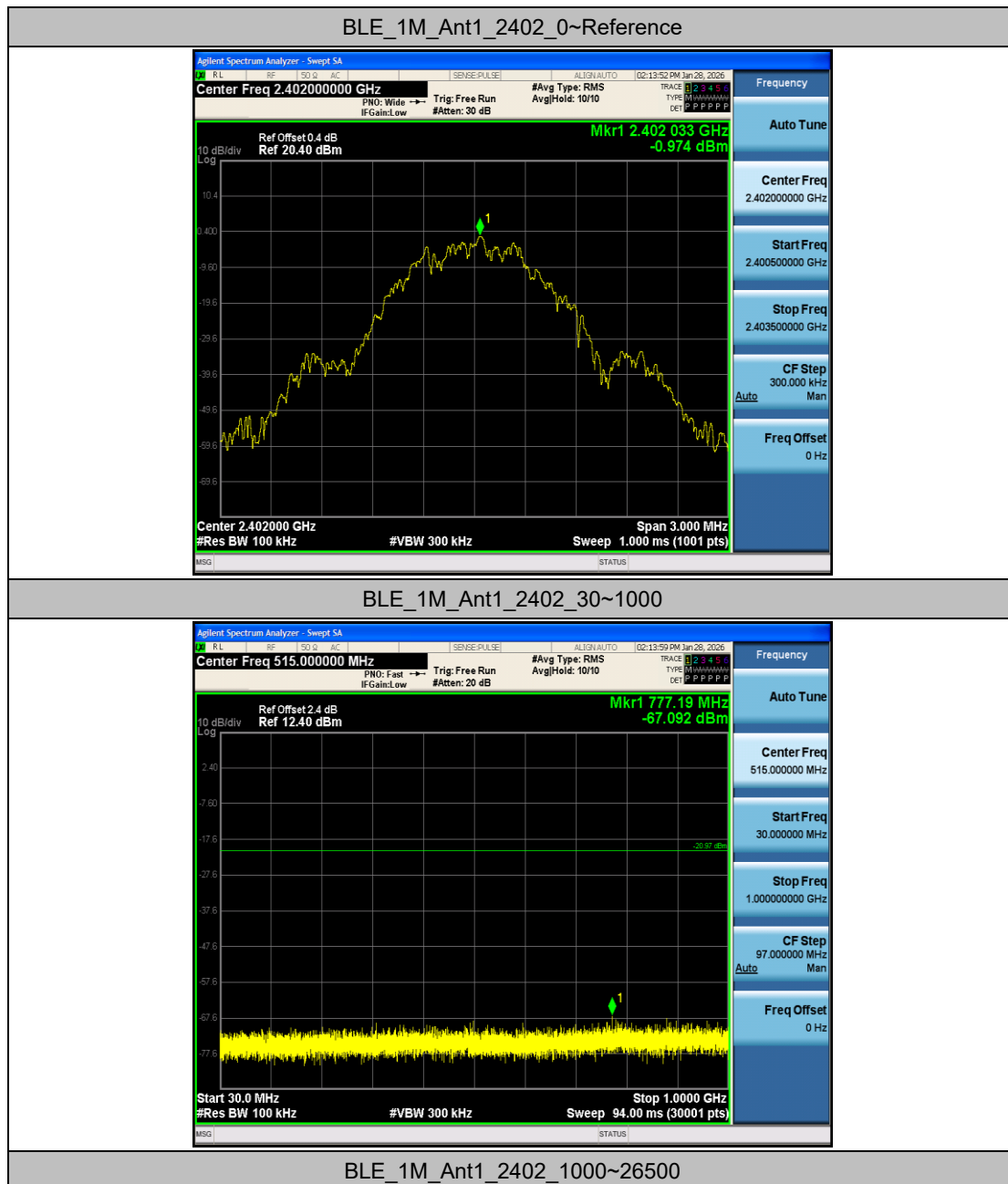


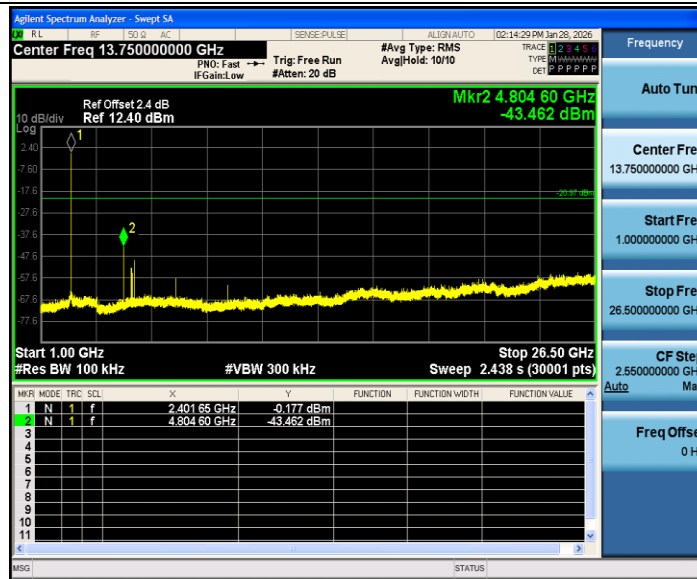
Appendix F: Conducted Spurious Emission

Test Result

TestMode	Antenna	Freq(MHz)	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	Reference	-0.97	-0.97	---	PASS
			30~1000	-0.97	-67.09	≤-20.97	PASS
			1000~26500	-0.97	-43.46	≤-20.97	PASS
		2440	Reference	-2.33	-2.33	---	PASS
			30~1000	-2.33	-67.74	≤-22.33	PASS
			1000~26500	-2.33	-41.43	≤-22.33	PASS
		2480	Reference	-2.36	-2.36	---	PASS
			30~1000	-2.36	-62.36	≤-22.36	PASS
			1000~26500	-2.36	-43.02	≤-22.36	PASS

Test Graphs

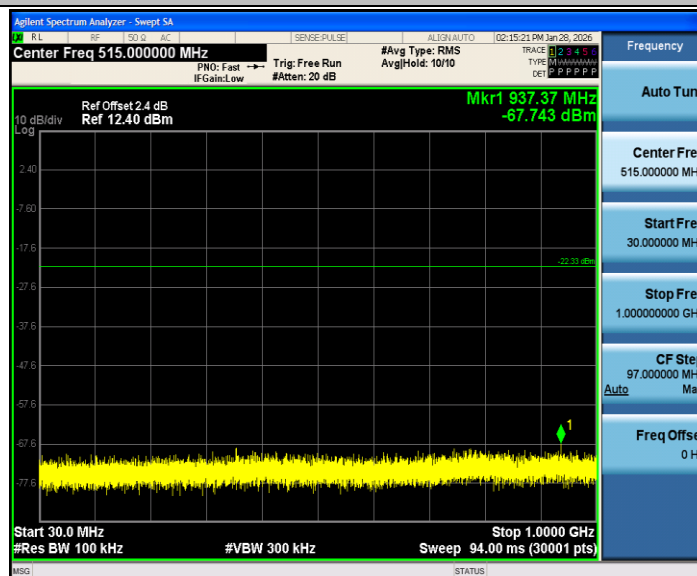




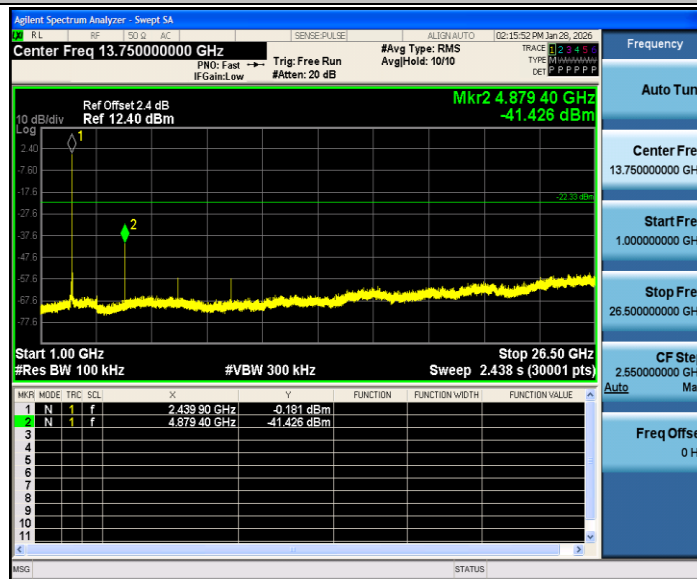
BLE_1M_Ant1_2440_0~Reference



BLE_1M_Ant1_2440_30~1000



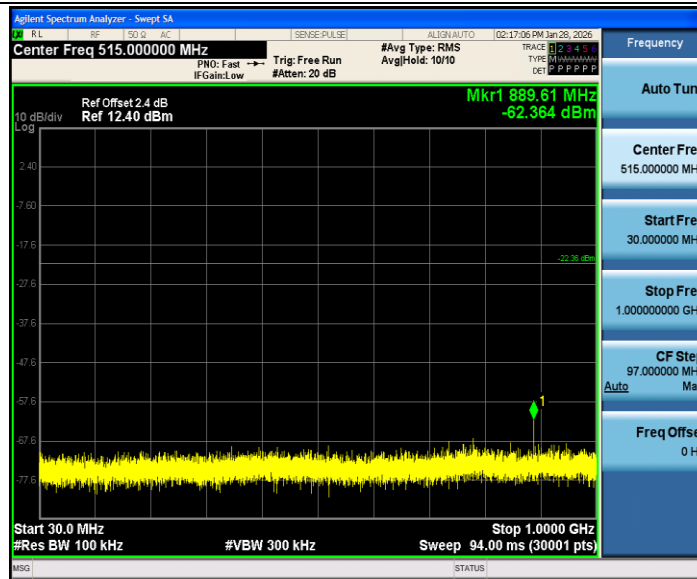
BLE_1M_Ant1_2440_1000~26500



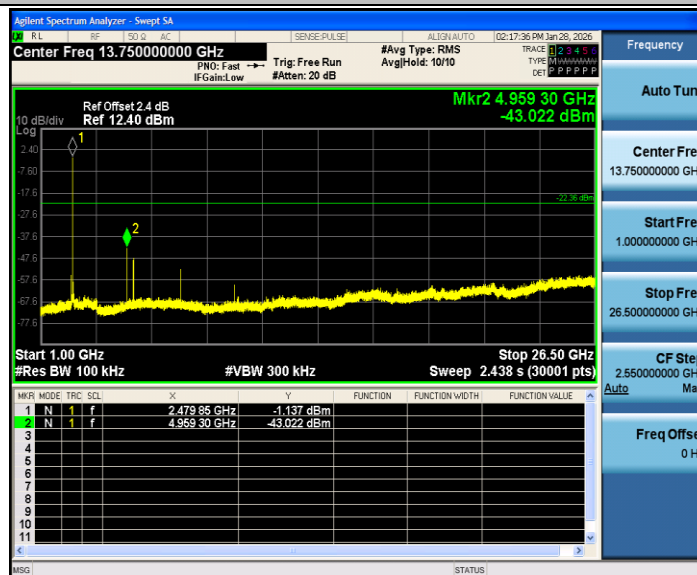
BLE_1M_Ant1_2480_0~Reference



BLE_1M_Ant1_2480_30~1000



BLE_1M_Ant1_2480_1000~26500

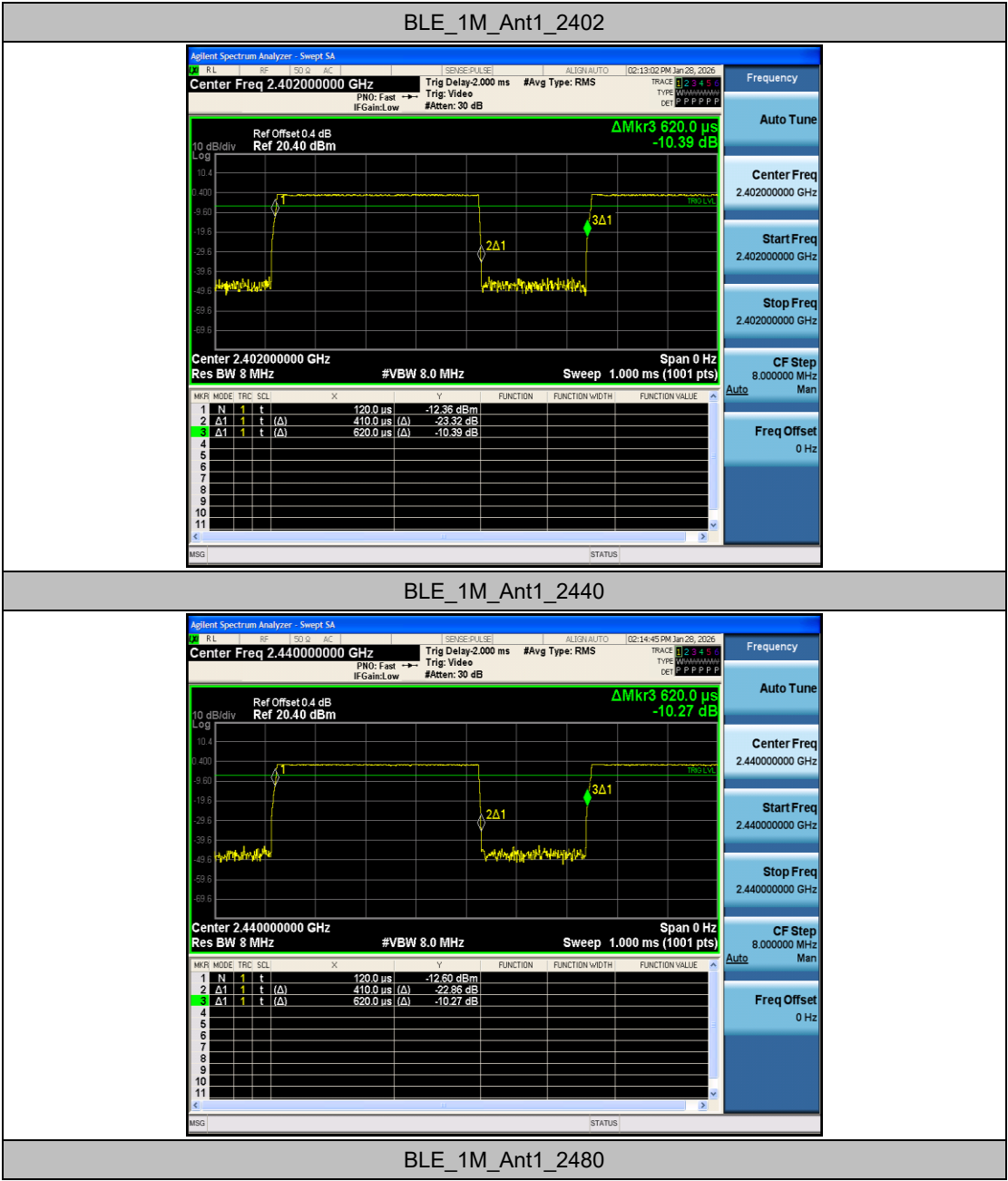


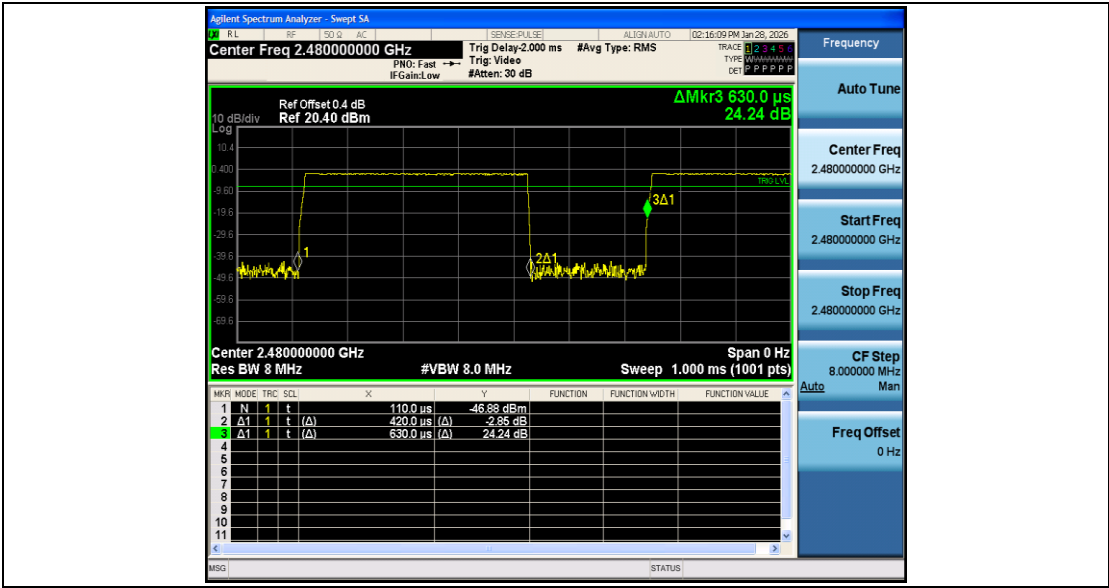
Appendix G: Duty Cycle

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	0.42	0.63	0.6667	66.67	1.76	---	---

Test Graphs





Appendix H: Emissions in Restricted Bands

Test Result

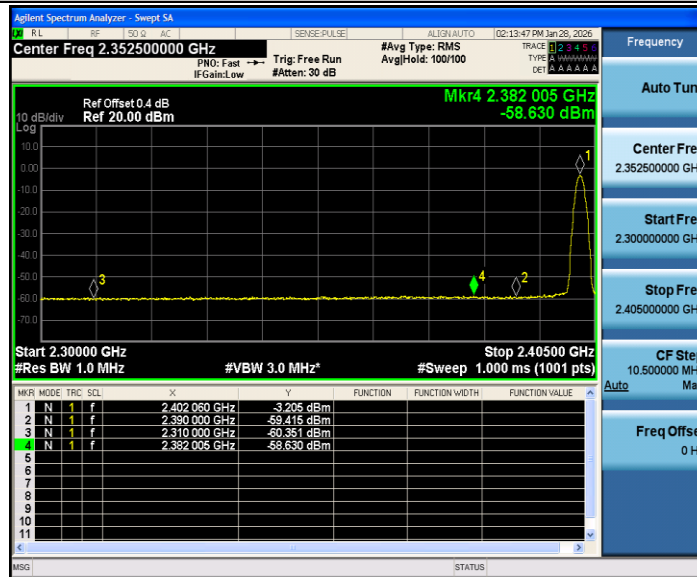
TestMode	Antenna	Channel Name	Freq(MHz)	Detector	Freq [MHz]	Result [dBm]	Gain [dB]	DC Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Verdict
BLE_1M	Ant1	Low	2402	AV	2310.000	-60.35	2.00	1.80	38.65	≤54	PASS
				AV	2382.005	-58.63	2.00	1.80	40.37	≤54	PASS
				AV	2390.000	-59.42	2.00	1.80	39.58	≤54	PASS
				Peak	2310.000	-52.01	2.00	0.00	45.19	≤74	PASS
				Peak	2370.560	-48.86	2.00	0.00	48.34	≤74	PASS
				Peak	2390.000	-51.03	2.00	0.00	46.17	≤74	PASS
		High	2480	AV	2483.500	-57.94	2.00	1.76	41.02	≤54	PASS
				AV	2484.080	-57.53	2.00	1.76	41.43	≤54	PASS
				AV	2500.000	-59.41	2.00	1.76	39.55	≤54	PASS
				Peak	2483.500	-47.92	2.00	0.00	49.28	≤74	PASS
				Peak	2484.960	-46.6	2.00	0.00	50.60	≤74	PASS
				Peak	2500.000	-50.64	2.00	0.00	46.56	≤74	PASS

Note:

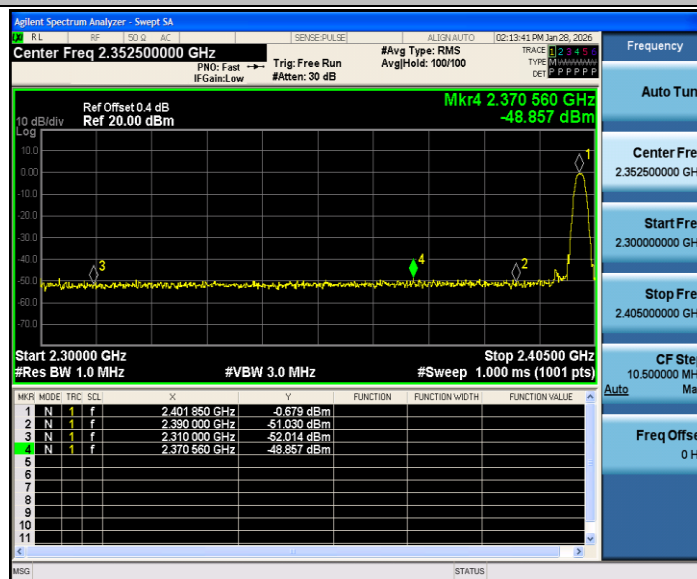
- The limit in dBm for average detector is conversion from 54dBuV/m, according to 15.209(a). The limit in dBm for peak detector is 20dB above the limit of average detector in dBm.

Test Graphs

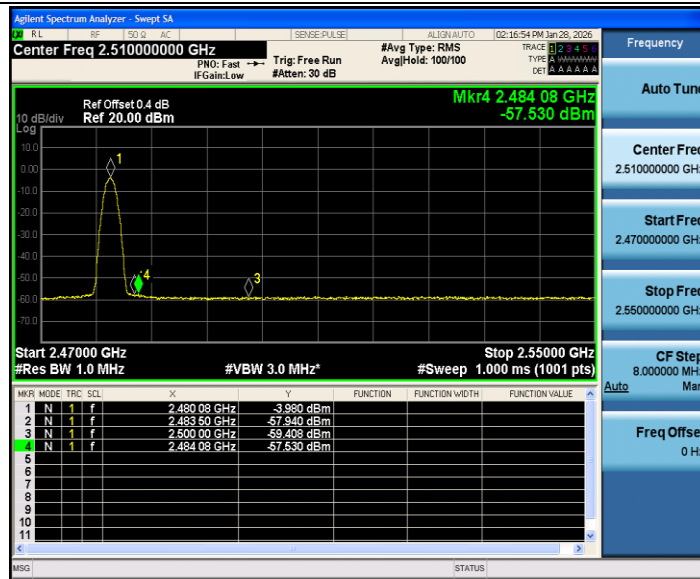
BLE_1M_Ant1_Low_2402_AV



BLE_1M_Ant1_Low_2402_Peak



BLE_1M_Ant1_High_2480_AV



BLE_1M_Ant1_High_2480_Peak

