

FCC Appendix RF Test Data for BLE

FCC ID : 2BF3Z-E09

Company : Shenzhen Taiyang Technology Co., Ltd

EUT : AI Smart Glasses

Model Number : E09

Report No. : CTA26052501201

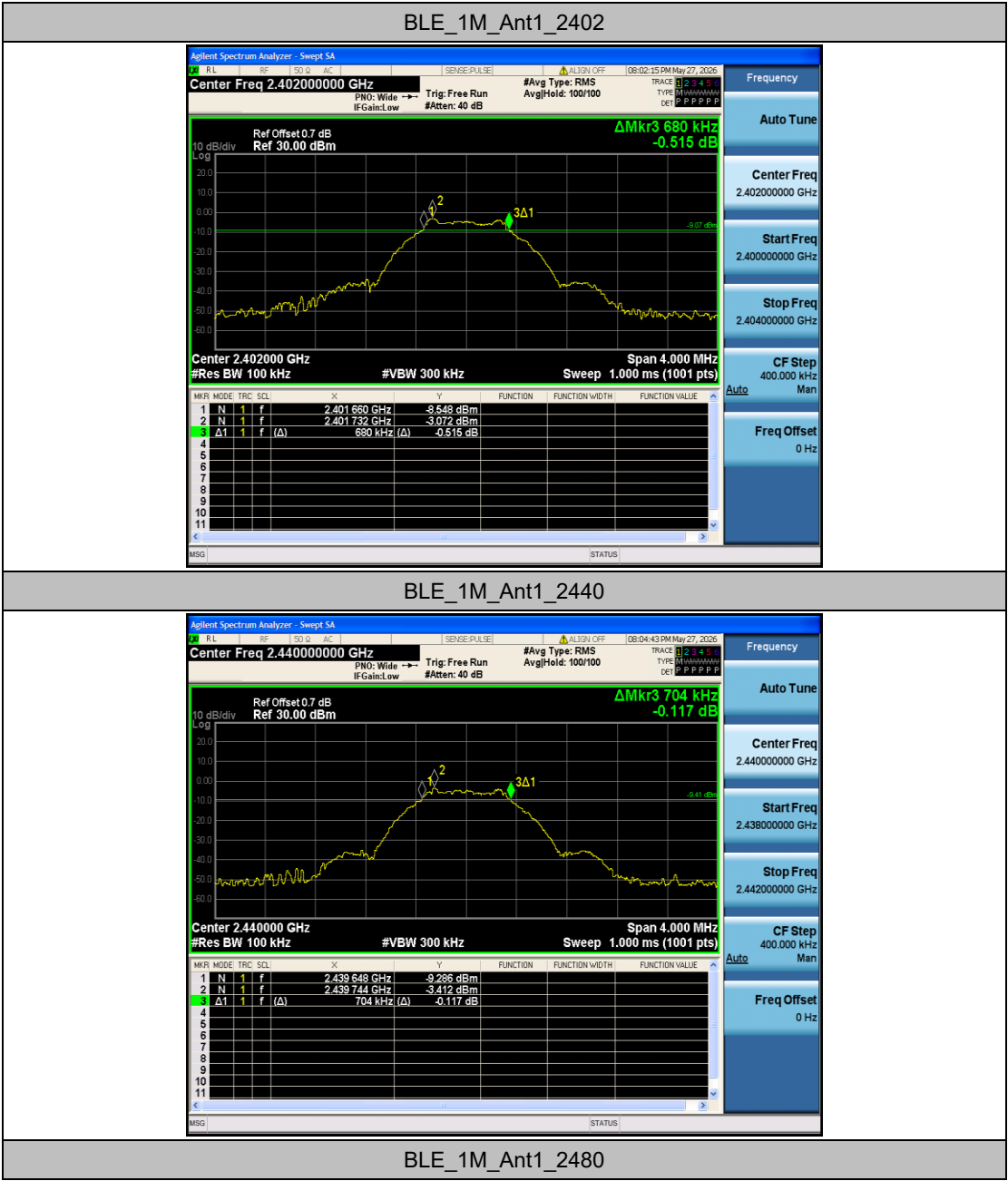
Reviewed By : Eric Wang

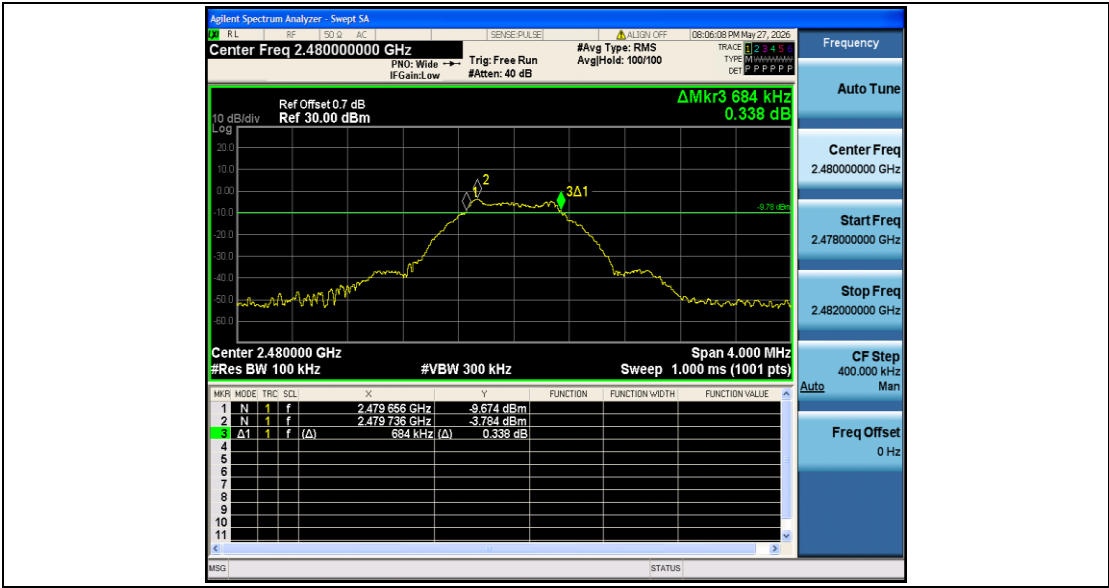
Appendix A: DTS Bandwidth

Test Result

TestMode	Antenna	Freq(MHz)	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	0.680	2401.660	2402.340	0.5	PASS
		2440	0.704	2439.648	2440.352	0.5	PASS
		2480	0.684	2479.656	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	1.0246	2401.4900	2402.5146	---	---
		2440	1.0222	2439.4905	2440.5127	---	---
		2480	1.0175	2479.4924	2480.5099	---	---

Test Graphs

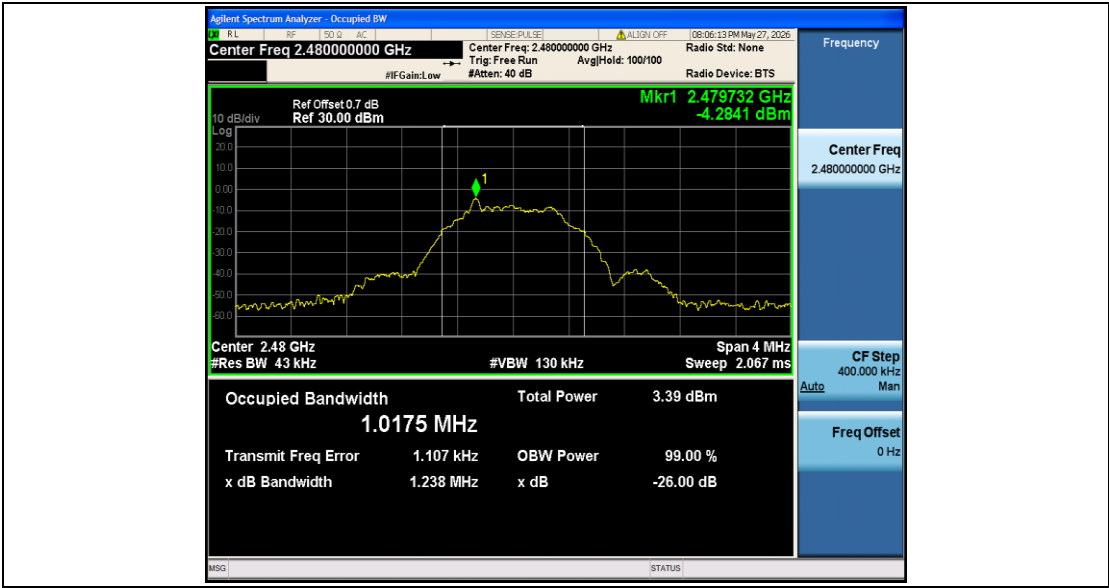
BLE_1M_Ant1_2402



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	-2.76	≤30	PASS
		2440	-2.85	≤30	PASS
		2480	-3.44	≤30	PASS

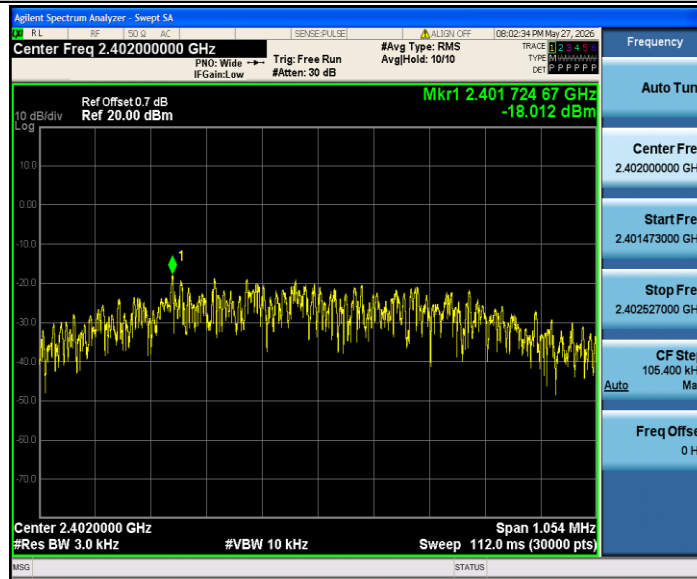
Appendix D: Maximum power spectral density

Test Result

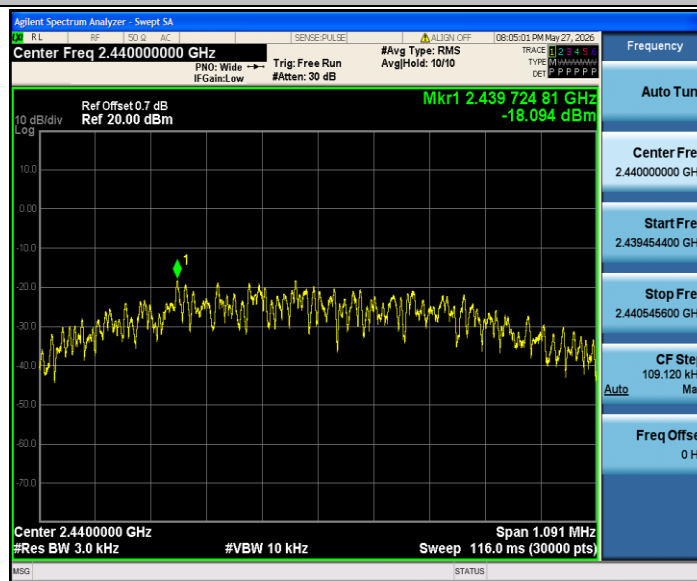
TestMode	Antenna	Freq(MHz)	Result[dBm/3kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-18.01	≤8.00	PASS
		2440	-18.09	≤8.00	PASS
		2480	-18.72	≤8.00	PASS

Test Graphs

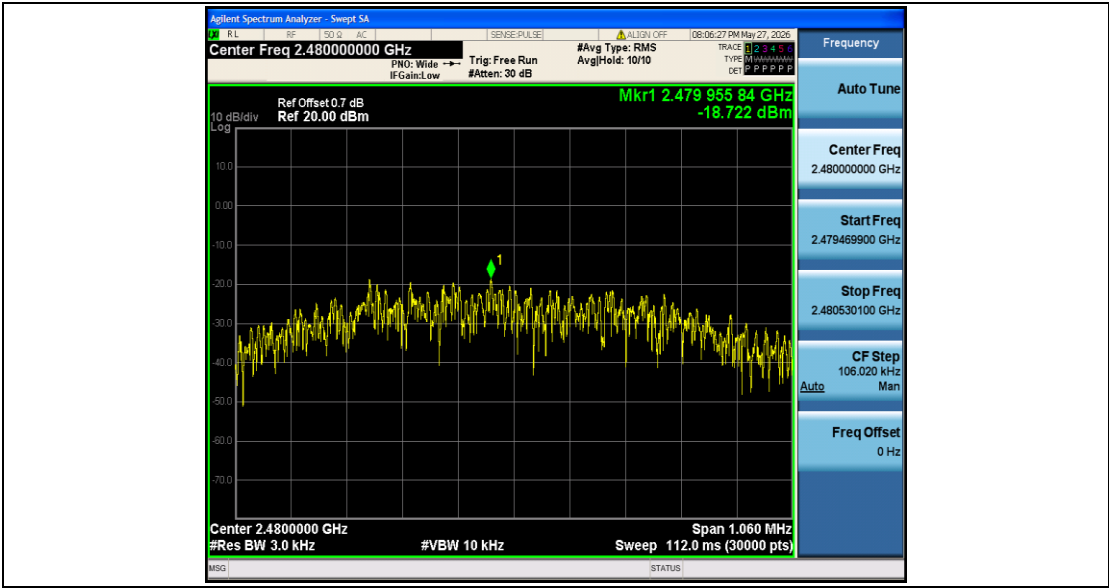
BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



BLE_1M_Ant1_2480

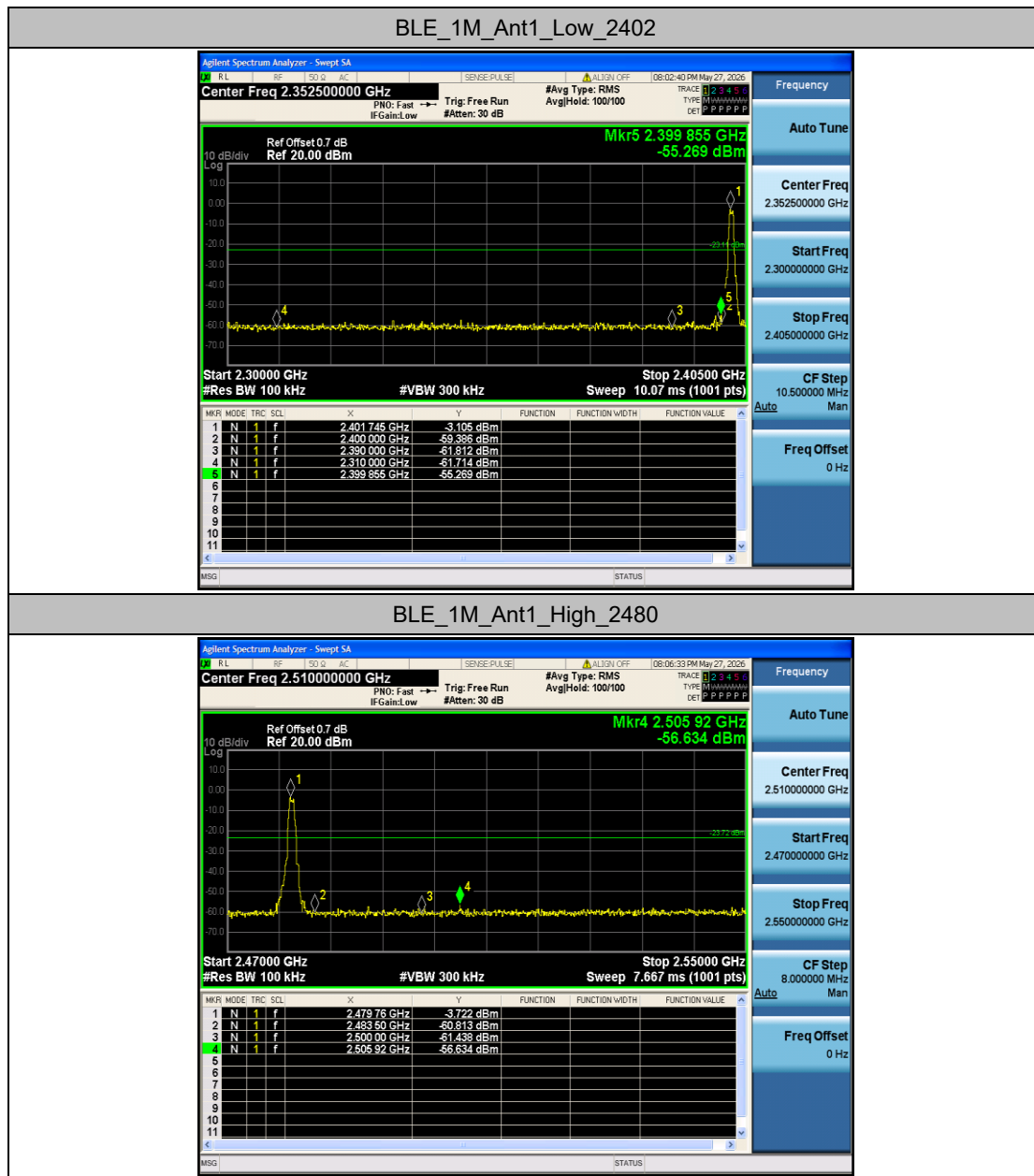


Appendix E: Band edge measurements

Test Result

TestMode	Antenna	Channel	Freq(MHz)	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	Low	2402	-3.11	-55.27	≤-23.11	PASS
		High	2480	-3.72	-56.63	≤-23.72	PASS

Test Graphs

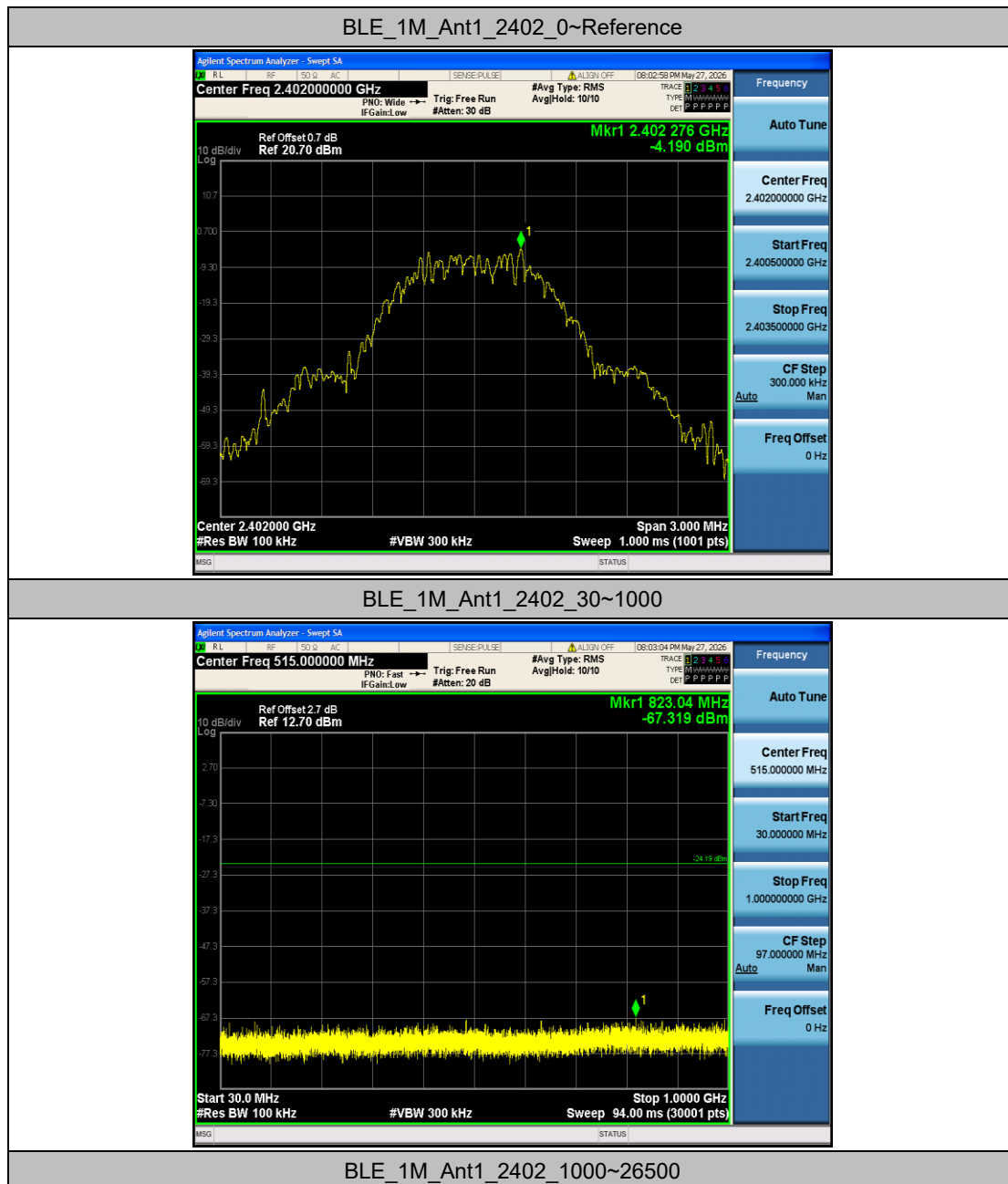


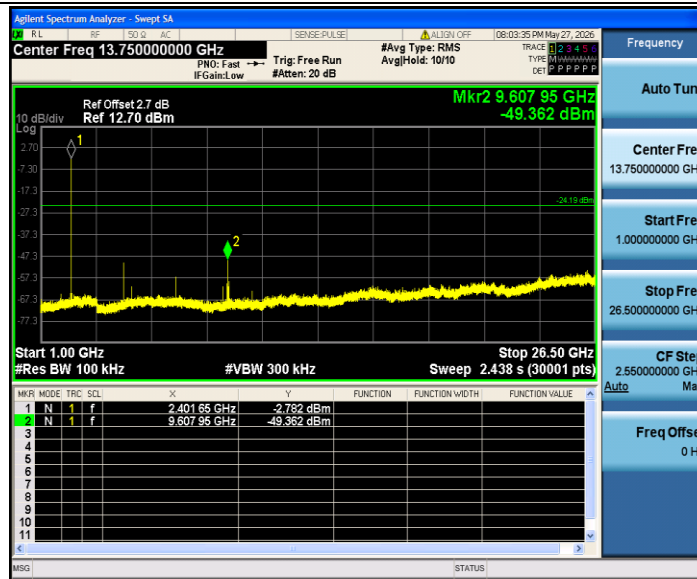
Appendix F: Conducted Spurious Emission

Test Result

TestMode	Antenna	Freq(MHz)	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	Reference	-4.19	-4.19	---	PASS
			30~1000	-4.19	-67.32	≤-24.19	PASS
			1000~26500	-4.19	-49.36	≤-24.19	PASS
		2440	Reference	-3.23	-3.23	---	PASS
			30~1000	-3.23	-58.86	≤-23.23	PASS
			1000~26500	-3.23	-51.73	≤-23.23	PASS
		2480	Reference	-3.94	-3.94	---	PASS
			30~1000	-3.94	-66.86	≤-23.94	PASS
			1000~26500	-3.94	-51.81	≤-23.94	PASS

Test Graphs

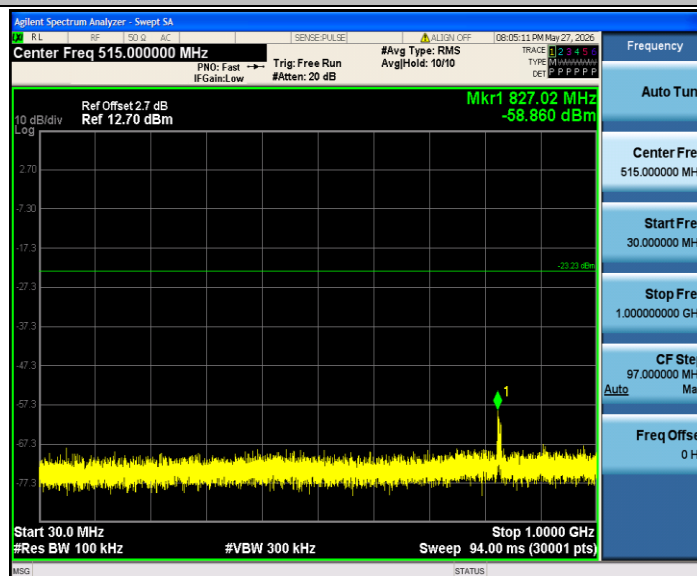




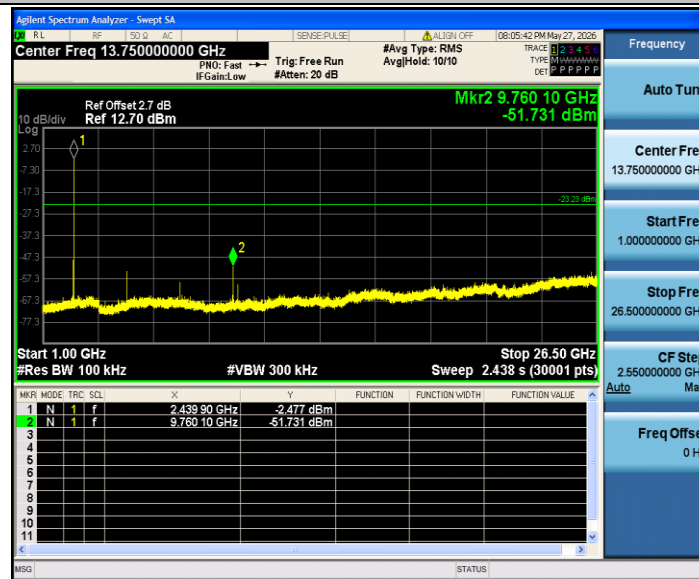
BLE_1M_Ant1_2440_0~Reference



BLE_1M_Ant1_2440_30~1000



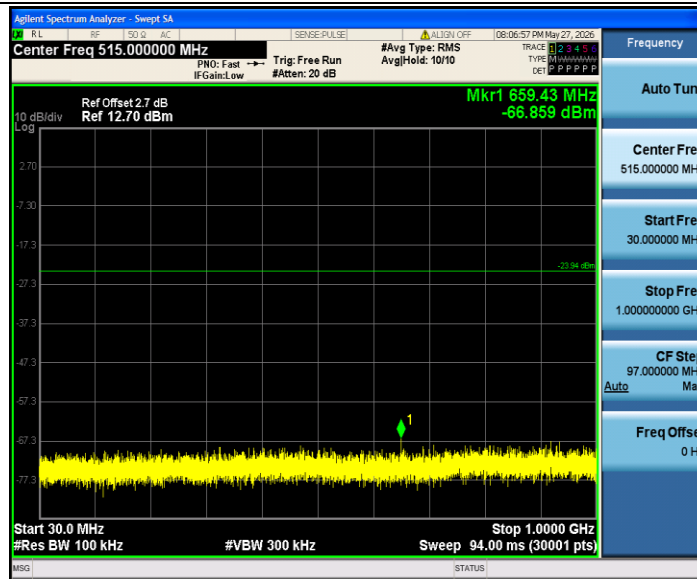
BLE_1M_Ant1_2440_1000~26500



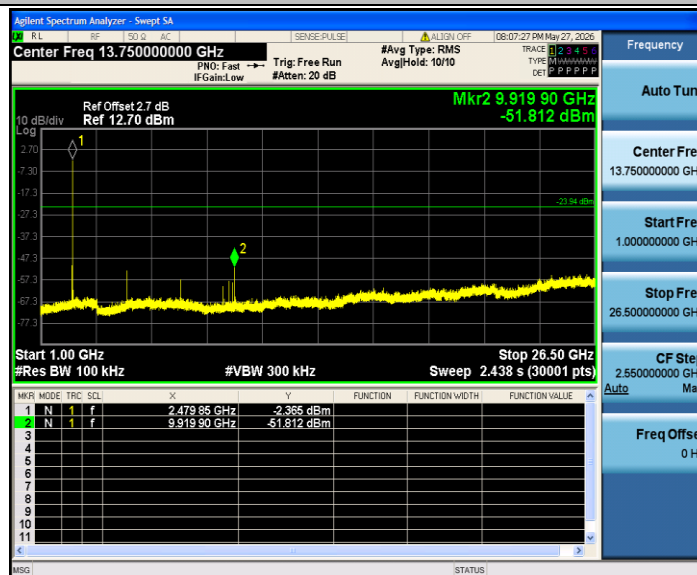
BLE_1M_Ant1_2480_0~Reference



BLE_1M_Ant1_2480_30~1000



BLE_1M_Ant1_2480_1000~26500

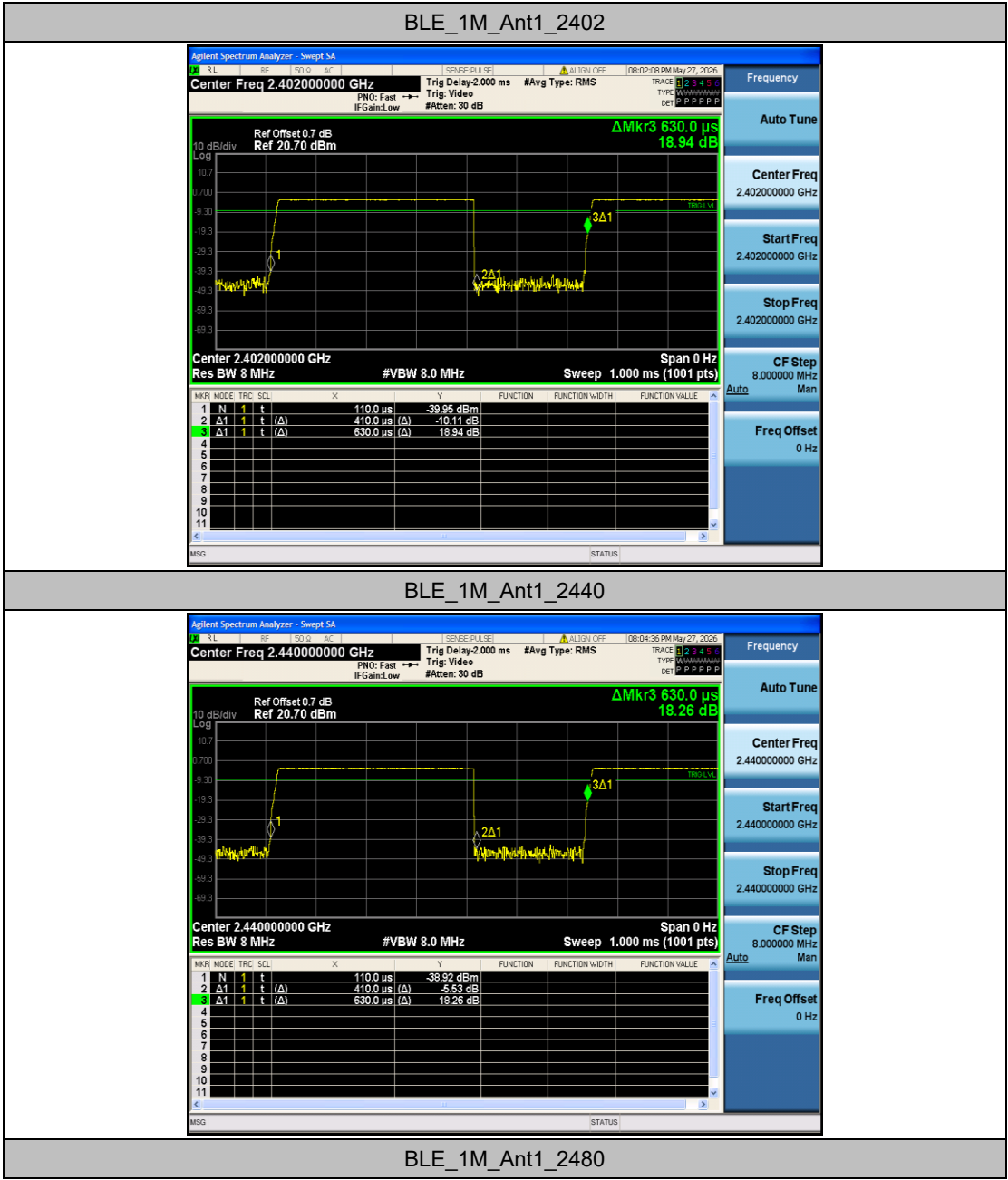


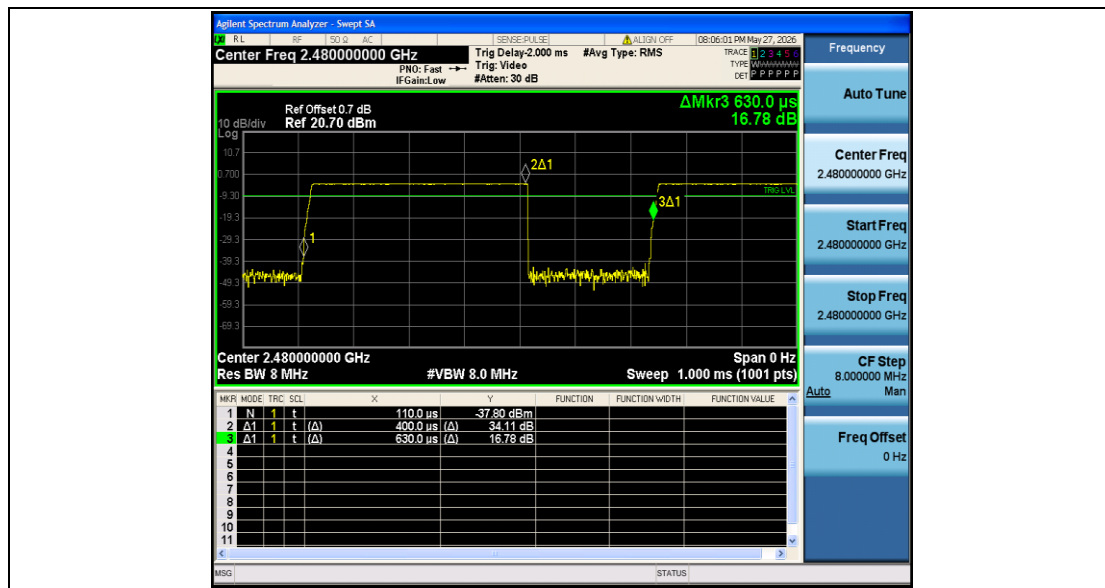
Appendix G: Duty Cycle

Test Result

TestMode	Antenna	Freq(MHz)	ON Time [ms]	Period [ms]	X	DC [%]	xFactor	Limit	Verdict
BLE_1M	Ant1	2402	0.41	0.63	0.6508	65.08	1.87	---	---
		2440	0.41	0.63	0.6508	65.08	1.87	---	---
		2480	0.40	0.63	0.6349	63.49	1.97	---	---

Test Graphs





Appendix H: Emissions in Restricted Bands

Test Result

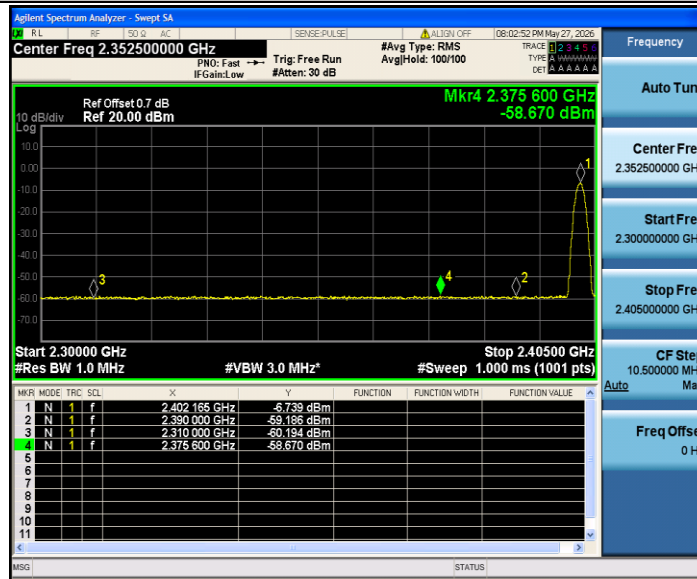
TestMode	Antenna	Channel Name	Freq(MHz)	Detector	Freq [MHz]	Result [dBm]	Gain [dB]	DC Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Verdict
BLE_1M	Ant1	Low	2402	AV	2310.000	-60.19	2.00	1.87	38.88	≤54	PASS
				AV	2375.600	-58.67	2.00	1.87	40.40	≤54	PASS
				AV	2390.000	-59.19	2.00	1.87	39.88	≤54	PASS
				Peak	2310.000	-52.49	2.00	0.00	44.71	≤74	PASS
				Peak	2342.420	-48.06	2.00	0.00	49.14	≤74	PASS
				Peak	2390.000	-51.32	2.00	0.00	45.88	≤74	PASS
		High	2480	AV	2483.500	-59.03	2.00	1.97	40.14	≤54	PASS
				AV	2496.480	-58.38	2.00	1.97	40.79	≤54	PASS
				AV	2500.000	-58.99	2.00	1.97	40.18	≤54	PASS
				Peak	2483.500	-51.3	2.00	0.00	45.90	≤74	PASS
				Peak	2488.720	-48.46	2.00	0.00	48.74	≤74	PASS
				Peak	2500.000	-48.63	2.00	0.00	48.57	≤74	PASS

Note:

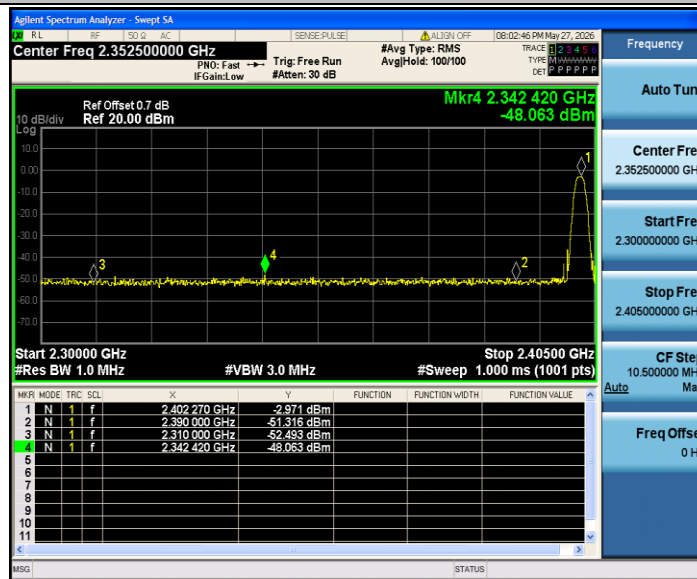
- The limit in dBm for average detector is conversion from 54dBuV/m, according to 15.209(a). The limit in dBm for peak detector is 20dB above the limit of average detector in dBm.

Test Graphs

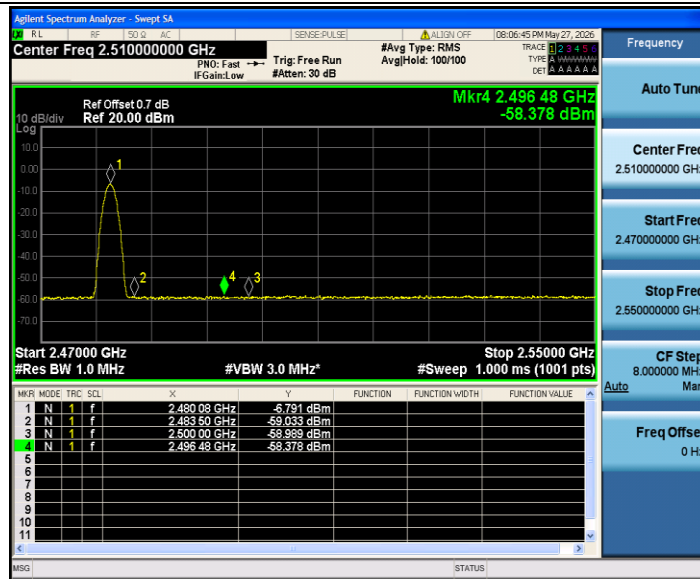
BLE_1M_Ant1_Low_2402_AV



BLE_1M_Ant1_Low_2402_Peak



BLE_1M_Ant1_High_2480_AV



BLE_1M_Ant1_High_2480_Peak

