

FCC Appendix RF Test Data for BLE

FCC ID : 2BGCX-F7A5S8

Company : Shenzhen Yufengzhixing Electronics Tech Co Ltd

EUT : Car Navigation Multimedia Receiver

Model Number : S8G2A74MS

Report No. : CTA26061500601

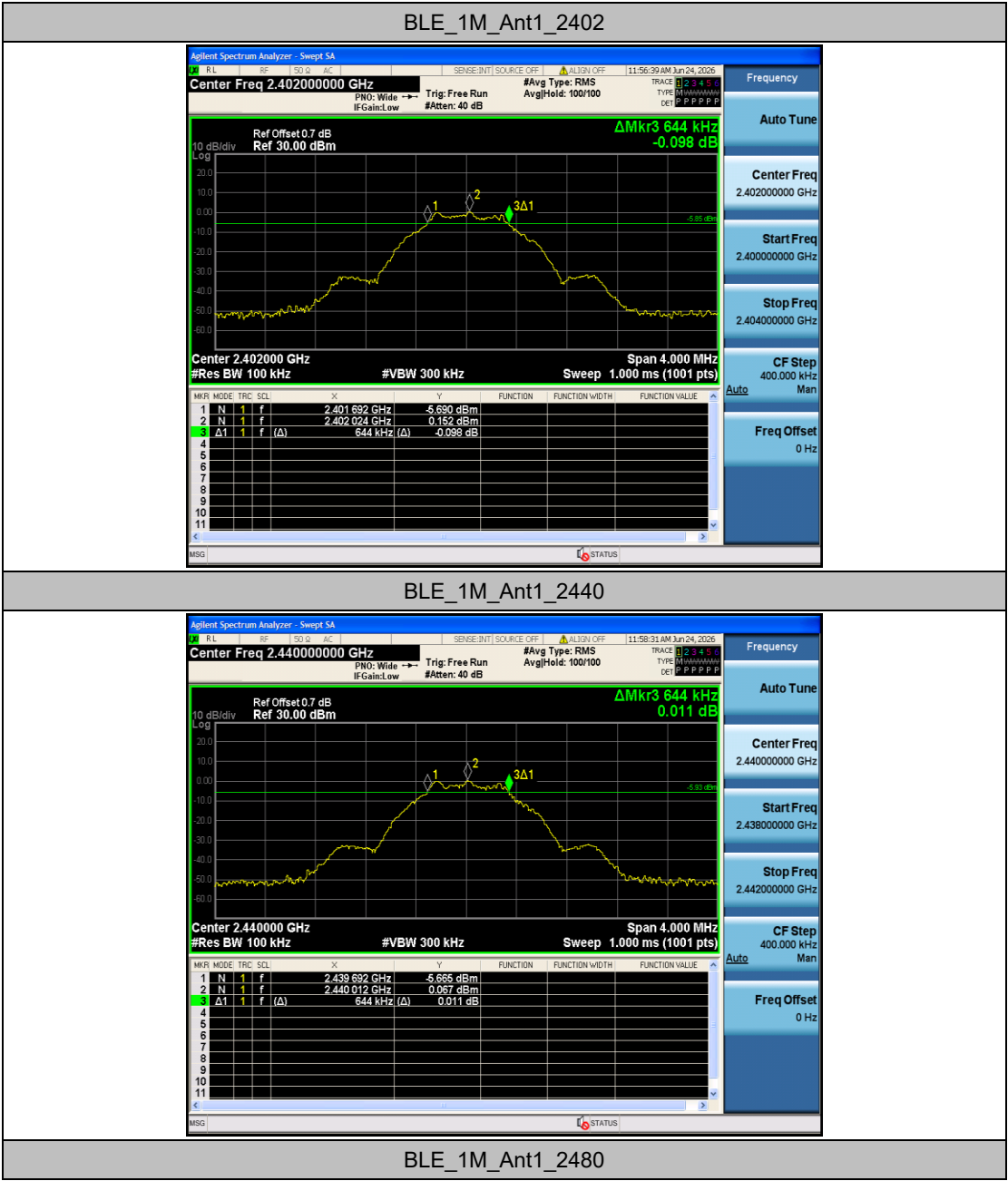
Reviewed By : Eric Wang

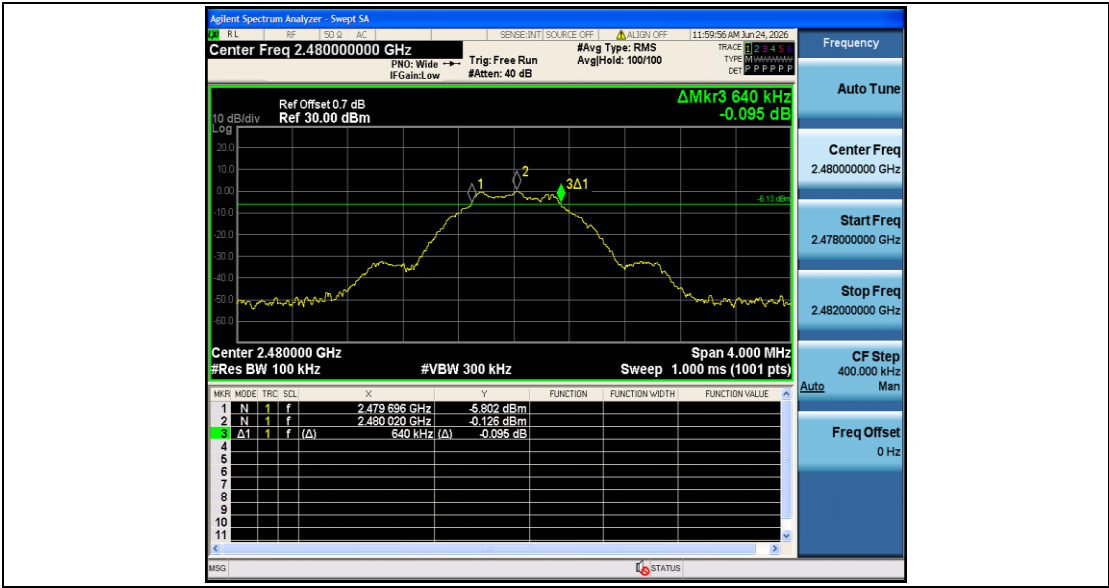
Appendix A: DTS Bandwidth

Test Result

TestMode	Antenna	Freq(MHz)	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	0.644	2401.692	2402.336	0.5	PASS
		2440	0.644	2439.692	2440.336	0.5	PASS
		2480	0.640	2479.696	2480.336	0.5	PASS

Test Graphs



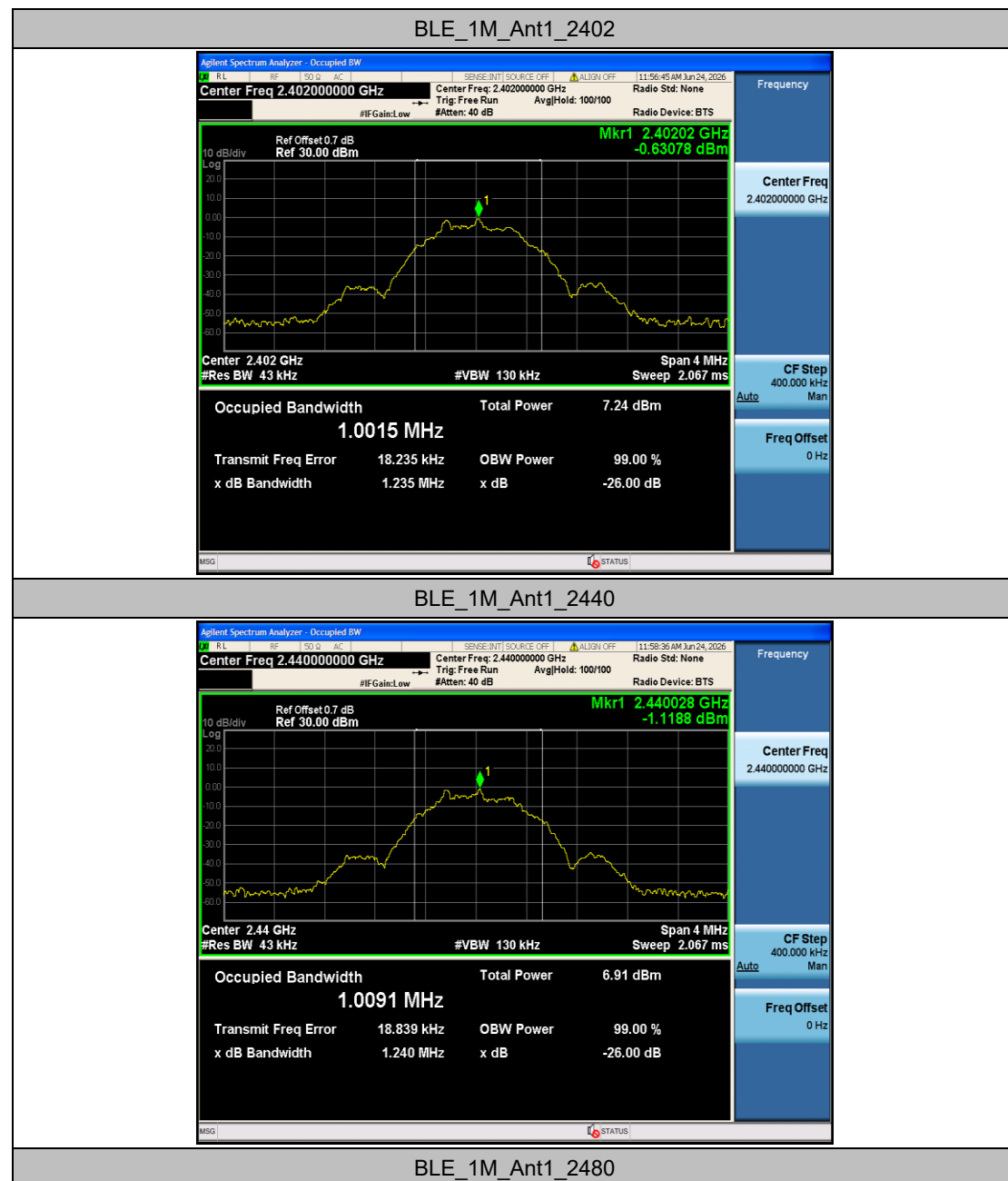


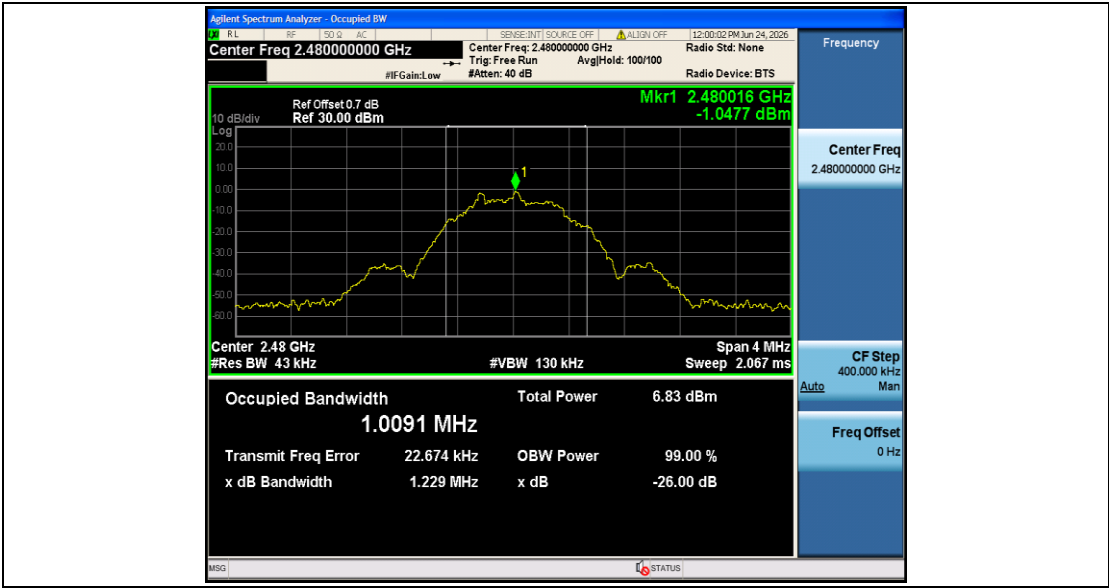
Appendix B: Occupied Channel Bandwidth

Test Result

TestMode	Antenna	Freq(MHz)	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	1.0015	2401.5175	2402.5190	---	---
		2440	1.0091	2439.5143	2440.5234	---	---
		2480	1.0091	2479.5181	2480.5272	---	---

Test Graphs





Appendix C: Maximum conducted output power

Test Result Peak

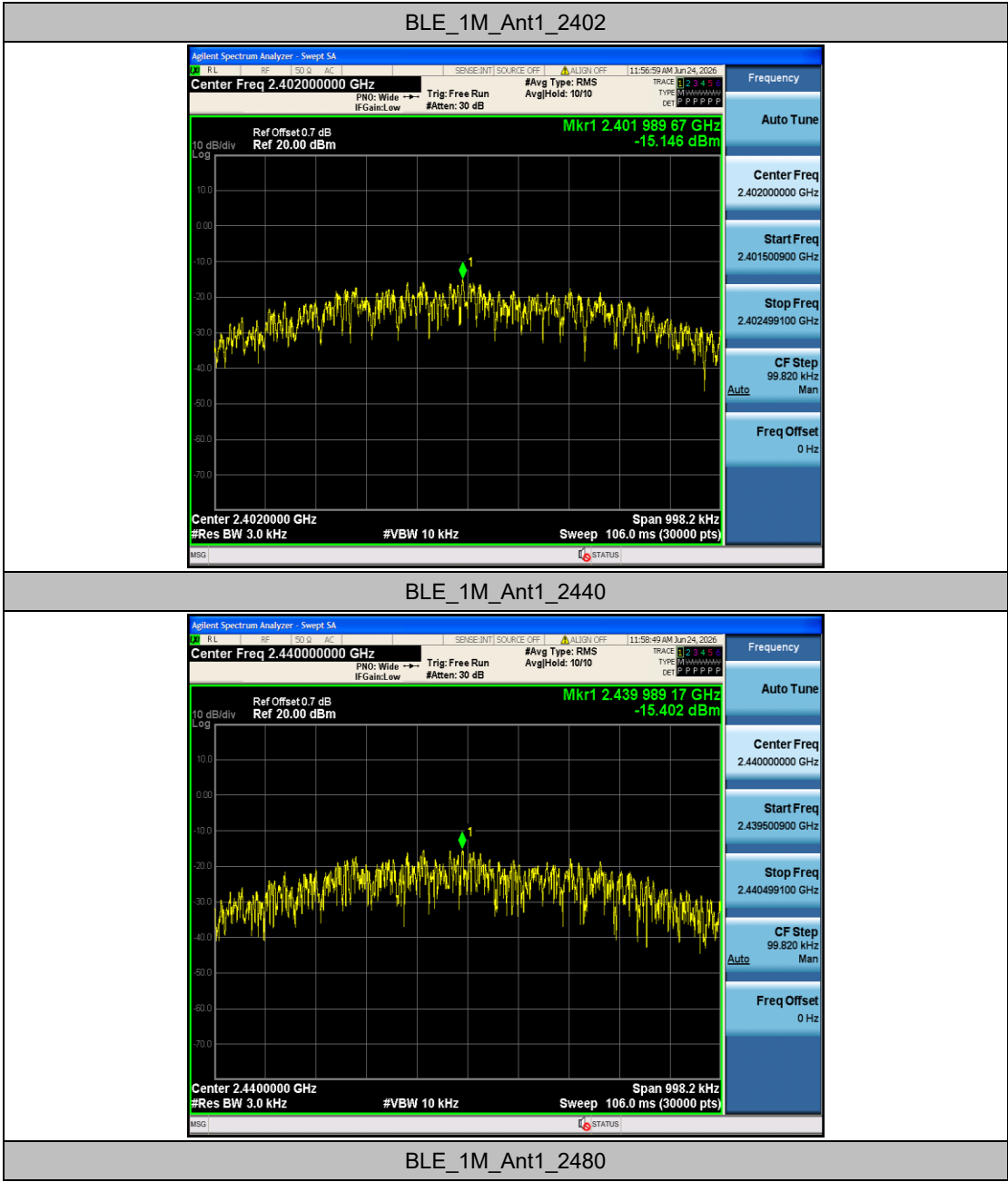
TestMode	Antenna	Freq(MHz)	Conducted Peak Power[dBm]	Conducted Limit[dBm]	Verdict
BLE_1M	Ant1	2402	0.42	≤30	PASS
		2440	0.33	≤30	PASS
		2480	0.07	≤30	PASS

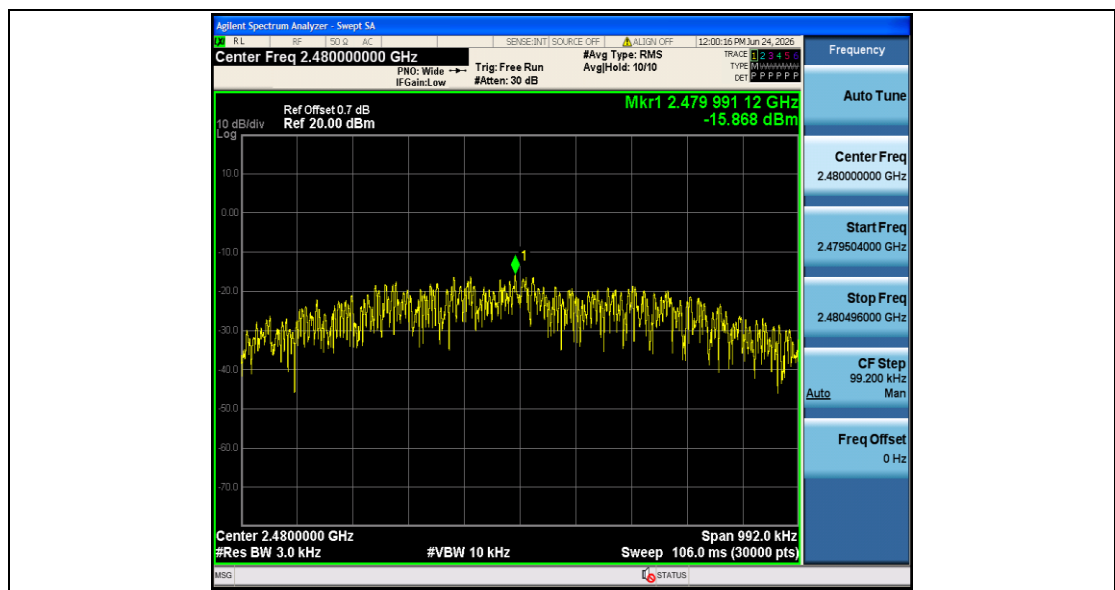
Appendix D: Maximum power spectral density

Test Result

TestMode	Antenna	Freq(MHz)	Result[dBm/3kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-15.15	≤8.00	PASS
		2440	-15.40	≤8.00	PASS
		2480	-15.87	≤8.00	PASS

Test Graphs





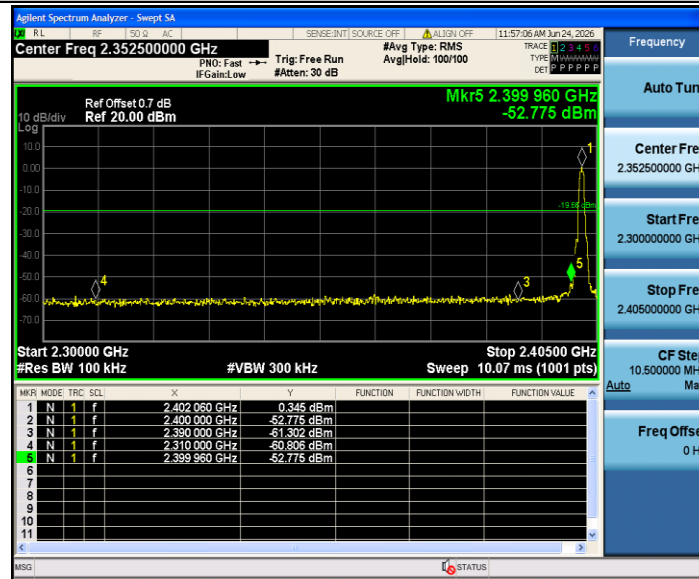
Appendix E: Band edge measurements

Test Result

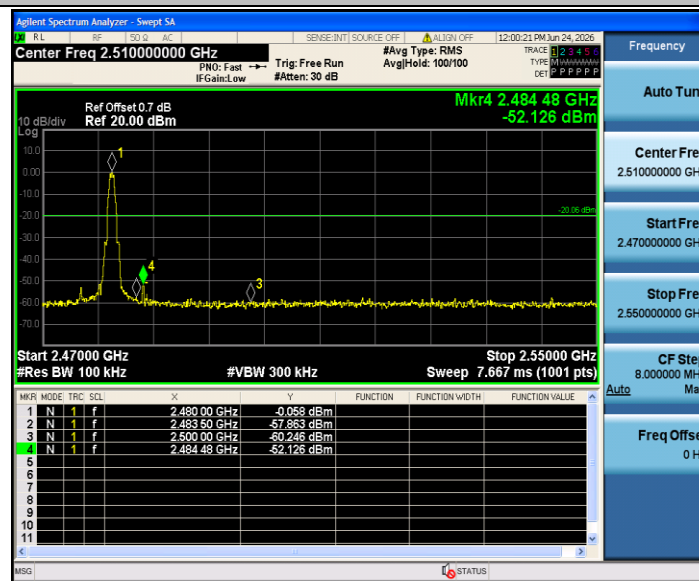
TestMode	Antenna	Channel	Freq(MHz)	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	Low	2402	0.35	-52.78	≤-19.66	PASS
		High	2480	-0.06	-52.13	≤-20.06	PASS

Test Graphs

BLE_1M_Ant1_Low_2402



BLE_1M_Ant1_High_2480

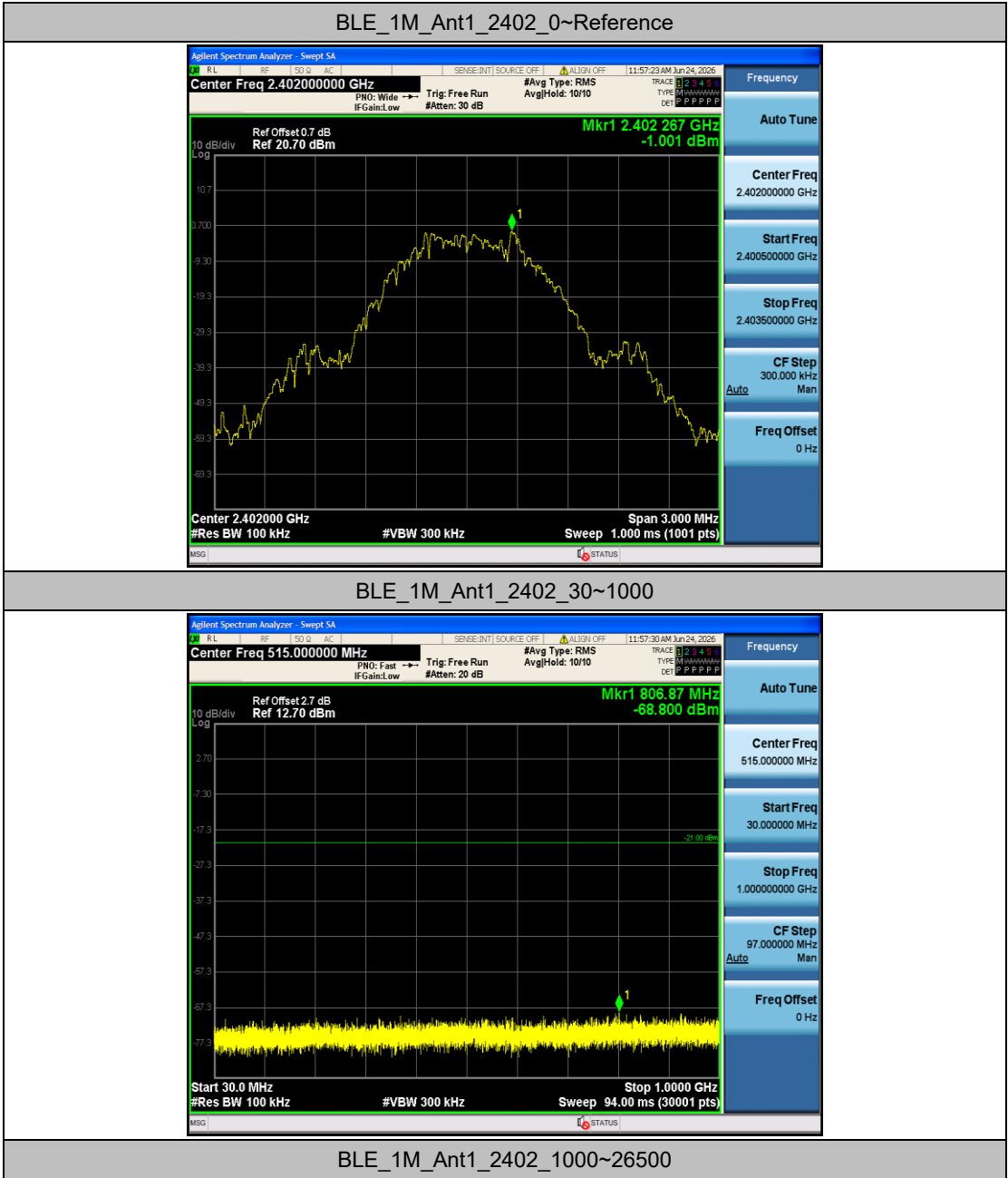


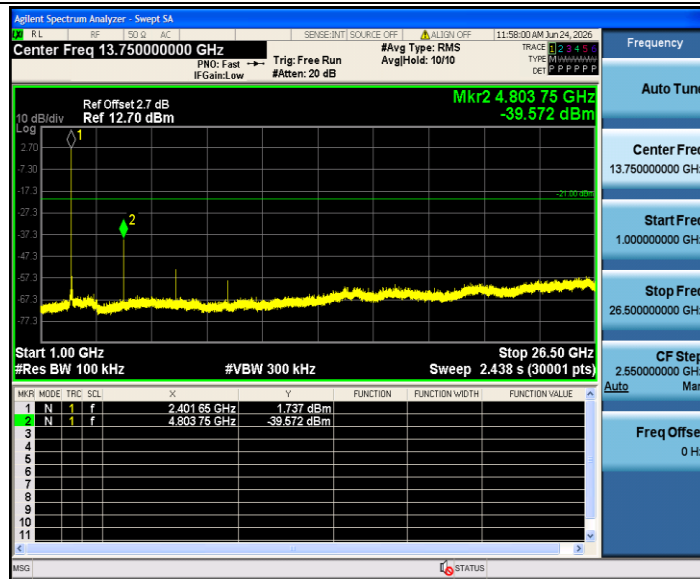
Appendix F: Conducted Spurious Emission

Test Result

TestMode	Antenna	Freq(MHz)	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	Reference	-1.00	-1.00	---	PASS
			30~1000	-1.00	-68.8	≤-21	PASS
			1000~26500	-1.00	-39.57	≤-21	PASS
		2440	Reference	-0.36	-0.36	---	PASS
			30~1000	-0.36	-68.63	≤-20.36	PASS
			1000~26500	-0.36	-42.85	≤-20.36	PASS
		2480	Reference	-0.48	-0.48	---	PASS
			30~1000	-0.48	-68.41	≤-20.48	PASS
			1000~26500	-0.48	-40.36	≤-20.48	PASS

Test Graphs

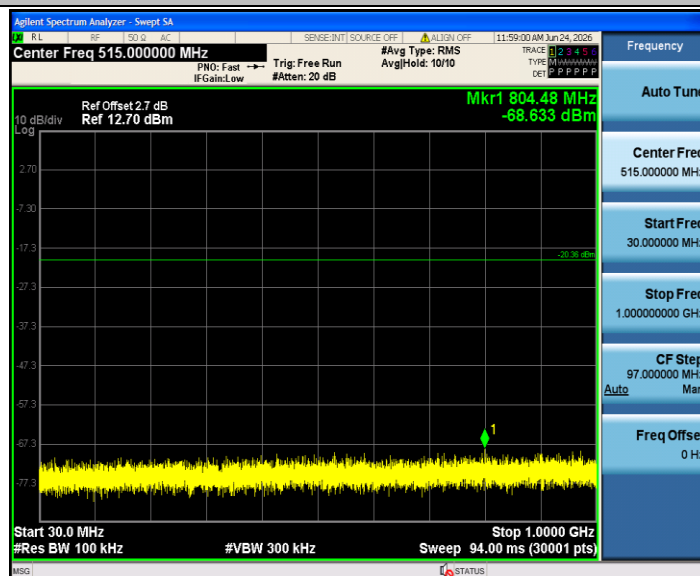




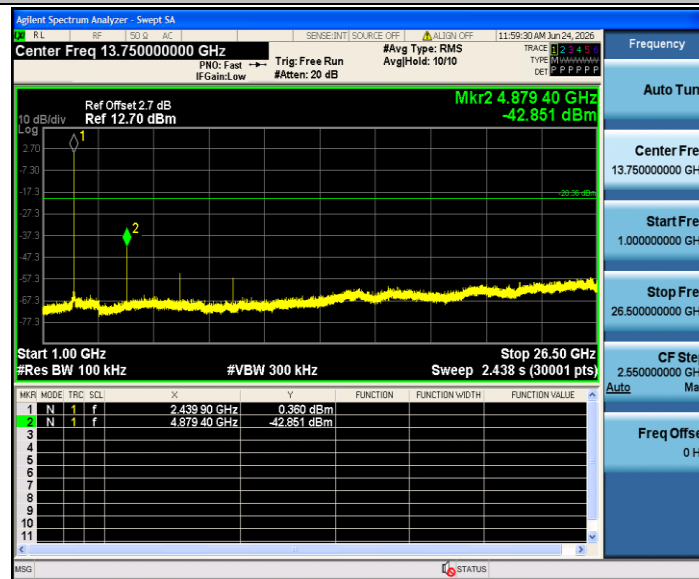
BLE_1M_Ant1_2440_0~Reference



BLE_1M_Ant1_2440_30~1000



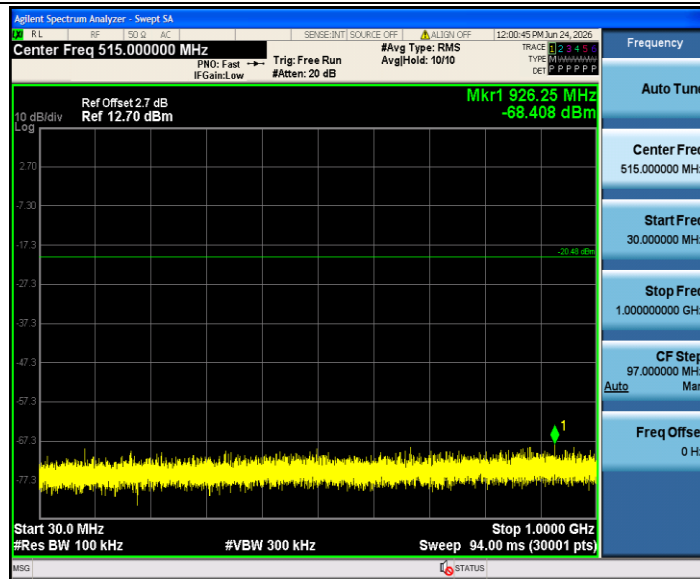
BLE_1M_Ant1_2440_1000~26500



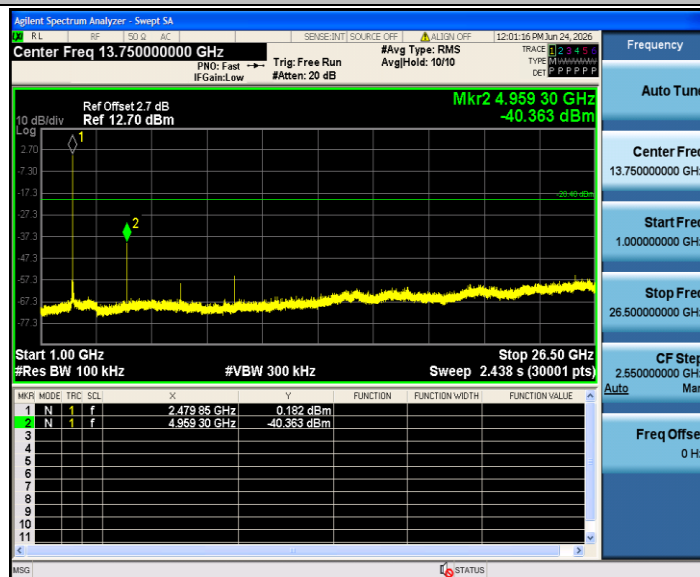
BLE_1M_Ant1_2480_0~Reference



BLE_1M_Ant1_2480_30~1000



BLE_1M_Ant1_2480_1000~26500

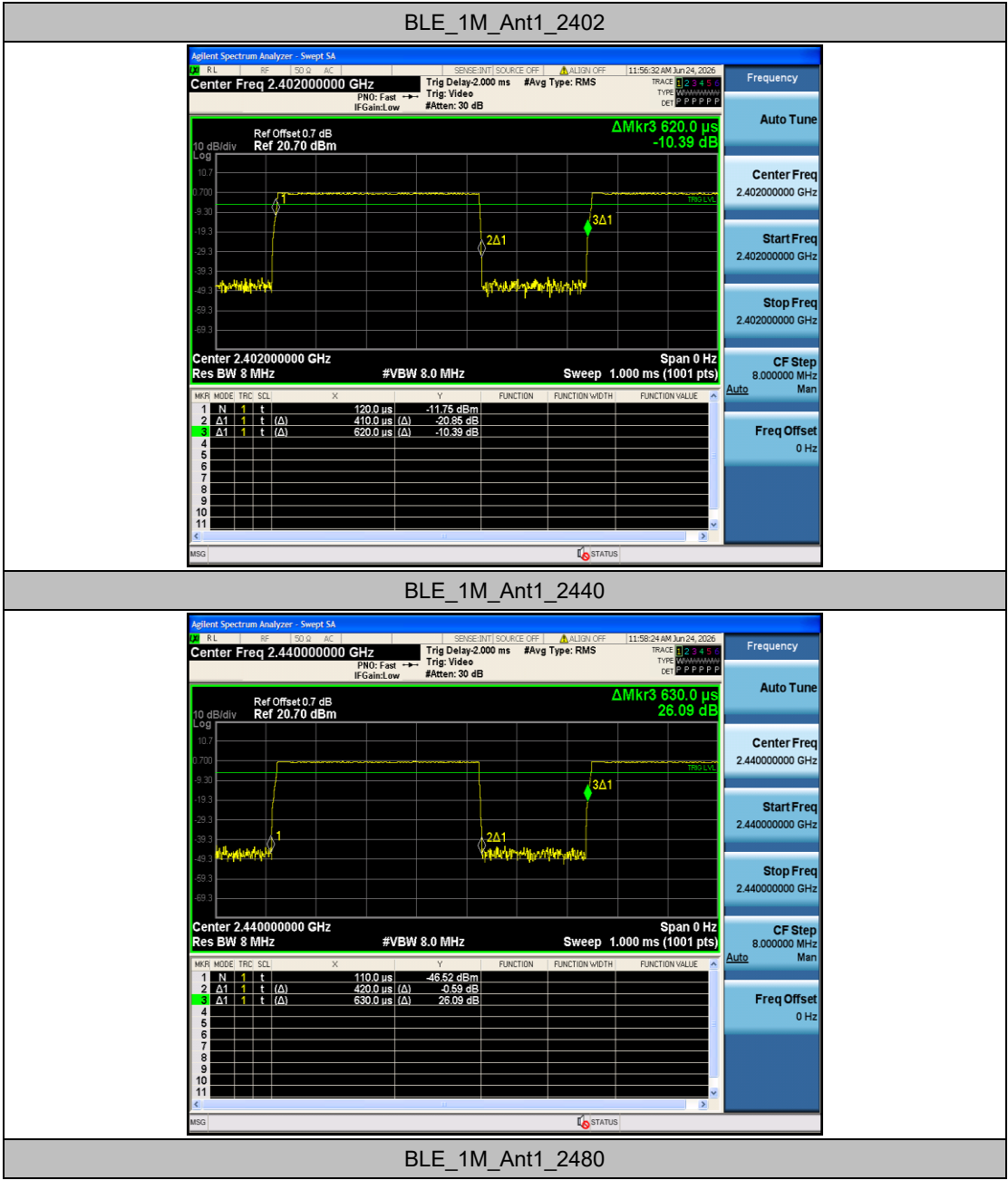


Appendix G: Duty Cycle

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	0.42	0.63	0.6667	66.67	1.76	---	---
		2480	0.41	0.62	0.6613	66.13	1.80	---	---

Test Graphs



Appendix H: Emissions in Restricted Bands

Test Result

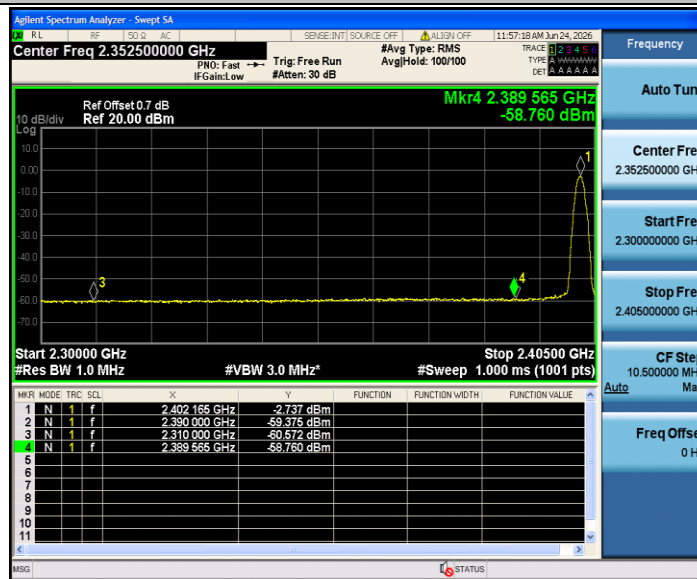
TestMod e	Antenn a	ChNam e	Freq(M Hz)	Detecto r	Freq [MHz]	Result [dBm]	Gain [dB]	DC Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Verdic t
BLE_1M	Ant1	Low	2402	AV	2310.000	-60.57	2.00	1.80	38.43	≤54	PASS
				AV	2389.565	-58.76	2.00	1.80	40.24	≤54	PASS
				AV	2390.000	-59.38	2.00	1.80	39.62	≤54	PASS
				Peak	2310.000	-52.56	2.00	0.00	44.64	≤74	PASS
				Peak	2382.740	-47.85	2.00	0.00	49.35	≤74	PASS
				Peak	2390.000	-51.54	2.00	0.00	45.66	≤74	PASS
		High	2480	AV	2483.500	-57.14	2.00	1.80	41.86	≤54	PASS
				AV	2483.520	-57.14	2.00	1.80	41.86	≤54	PASS
				AV	2500.000	-59.59	2.00	1.80	39.41	≤54	PASS
				Peak	2483.500	-48.19	2.00	0.00	49.01	≤74	PASS
				Peak	2484.640	-44.22	2.00	0.00	52.98	≤74	PASS
				Peak	2500.000	-51.15	2.00	0.00	46.05	≤74	PASS

Note:

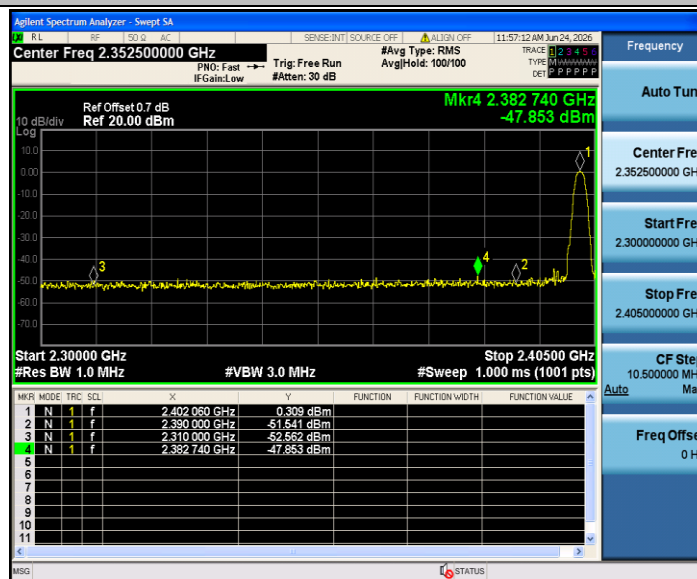
1. The limit in dBm for average detector is conversion from 54dBuV/m, according to 15.209(a). The limit in dBm for peak detector is 20dB above the limit of average detector in dBm.

Test Graphs

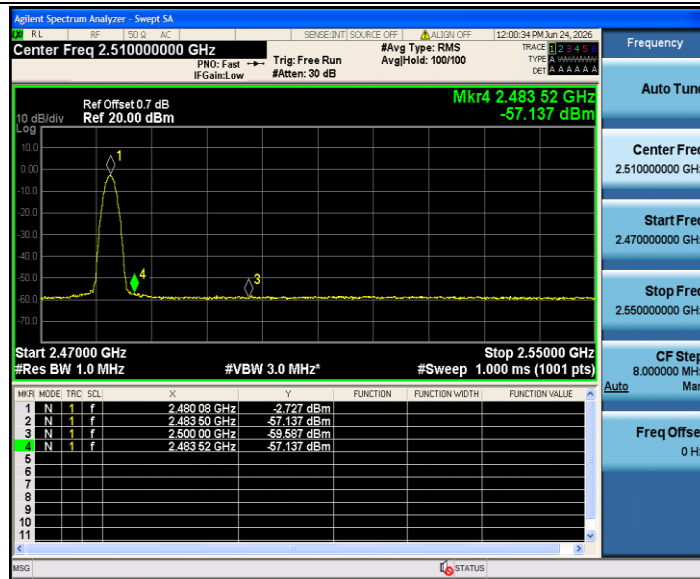
BLE_1M_Ant1_Low_2402_AV



BLE_1M_Ant1_Low_2402_Peak



BLE_1M_Ant1_High_2480_AV



BLE_1M_Ant1_High_2480_Peak

