

FCC Appendix RF Test Data for BLE

FCC ID : 2BPRF-BP4SL3VU

Company : Shenzhen WestMicro Digital Technology Co., Ltd.

EUT : LinkPower Ultra

Model Number : BP4SL3VU

Report No. : CTA26092002701

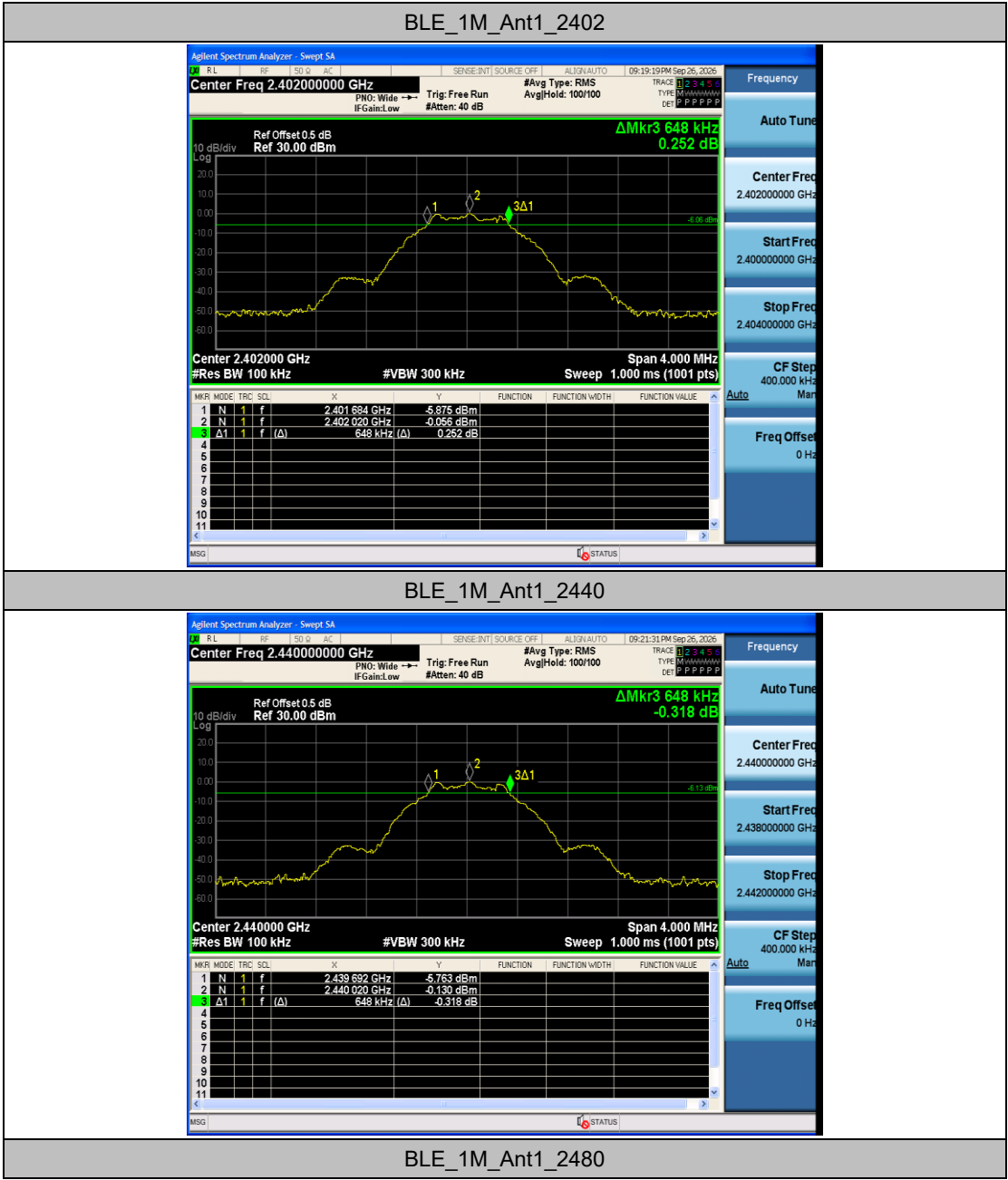
Reviewed By : Eric Wang

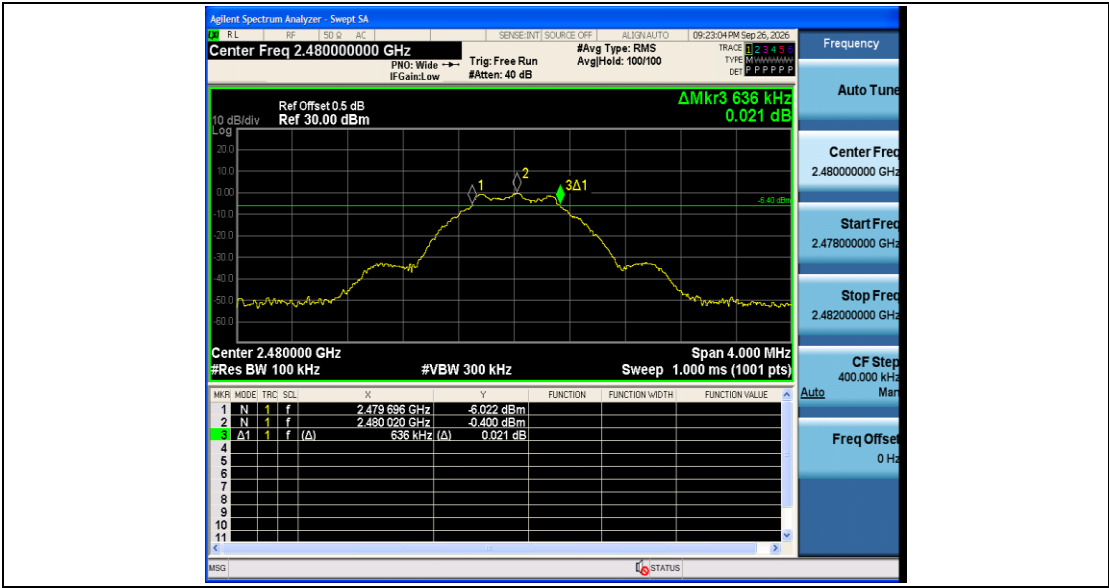
Appendix A: DTS Bandwidth

Test Result

TestMode	Antenna	Freq(MHz)	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	0.648	2401.684	2402.332	0.5	PASS
		2440	0.648	2439.692	2440.340	0.5	PASS
		2480	0.636	2479.696	2480.332	0.5	PASS

Test Graphs



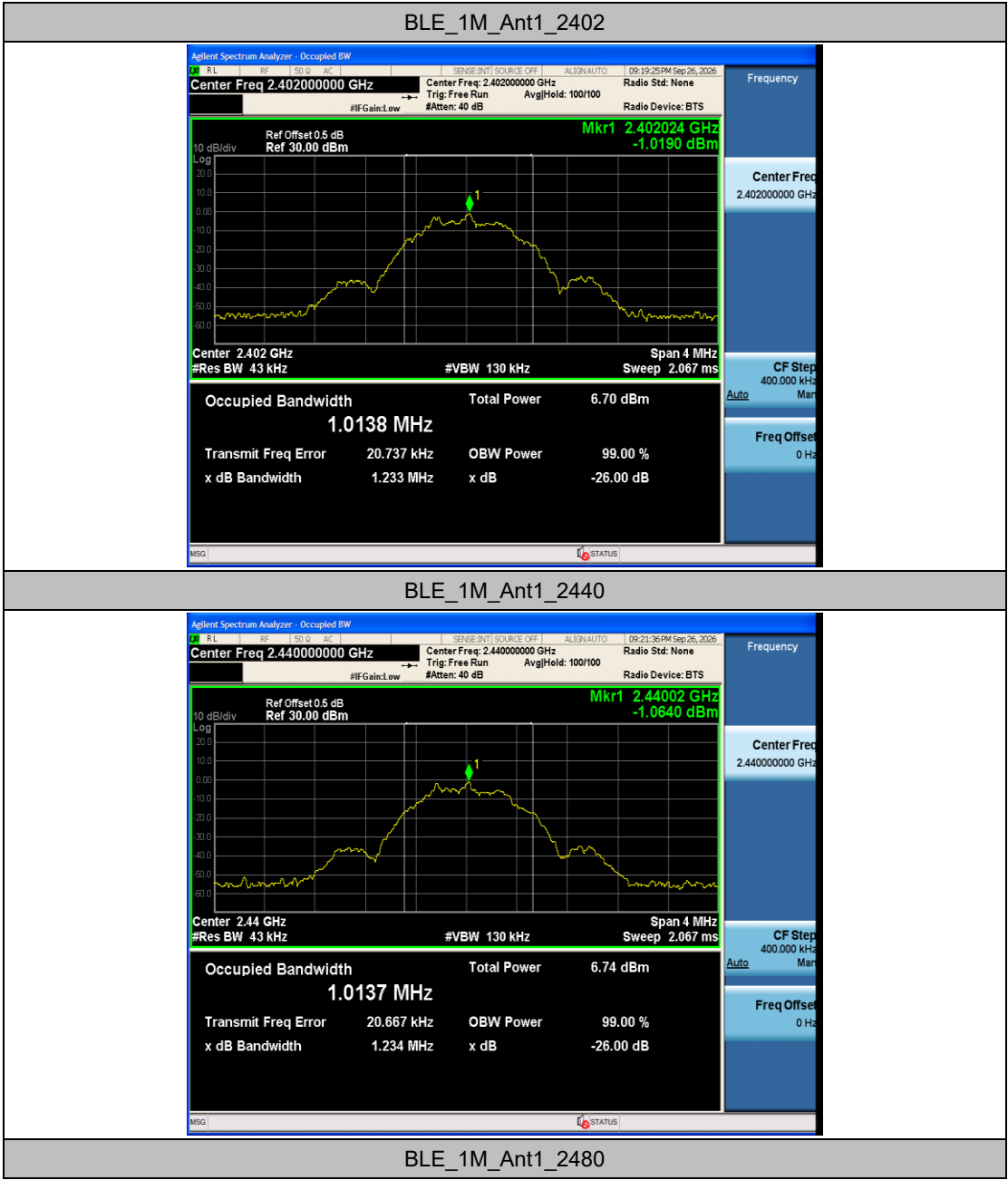


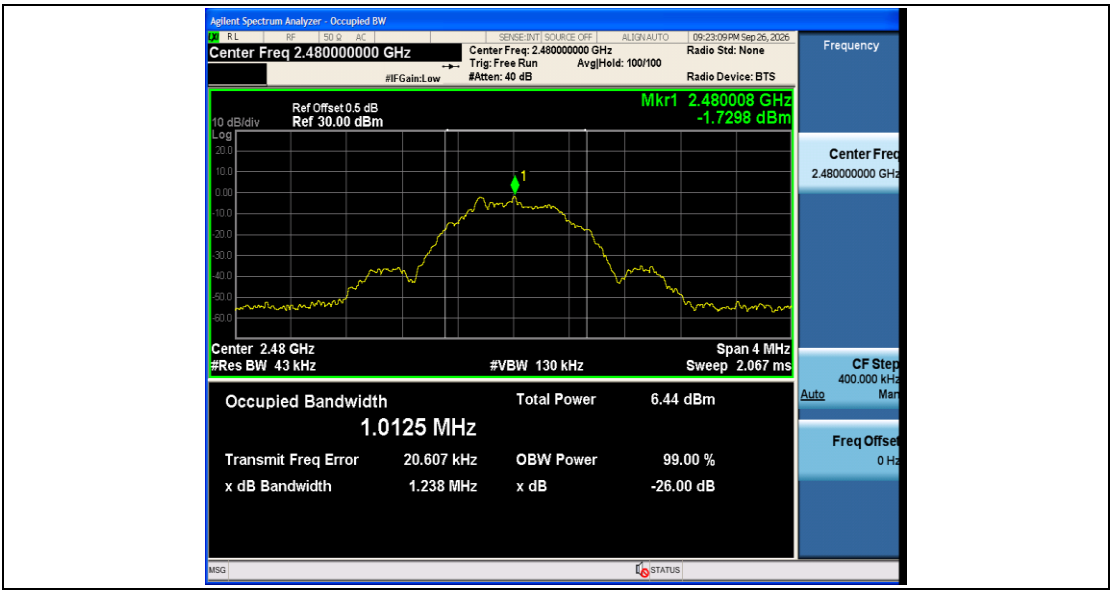
Appendix B: Occupied Channel Bandwidth

Test Result

TestMode	Antenna	Freq(MHz)	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	1.0138	2401.5138	2402.5276	---	---
		2440	1.0137	2439.5138	2440.5275	---	---
		2480	1.0125	2479.5144	2480.5269	---	---

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	0.07	≤30	PASS
		2440	0.01	≤30	PASS
		2480	-0.27	≤30	PASS

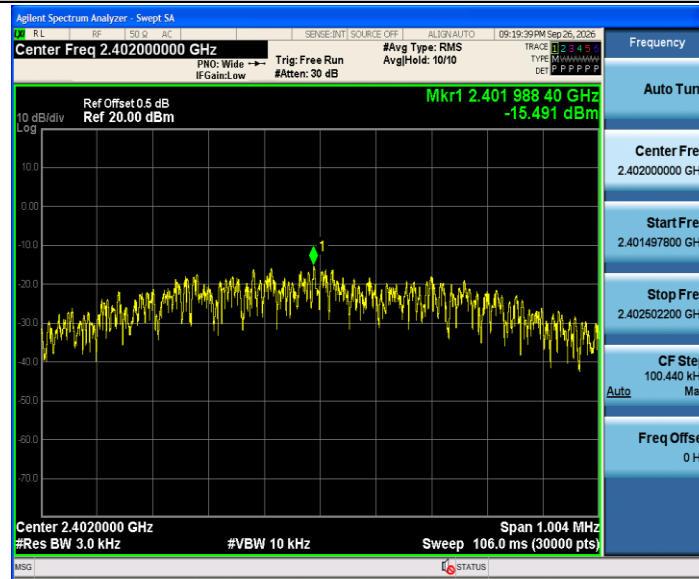
Appendix D: Maximum power spectral density

Test Result

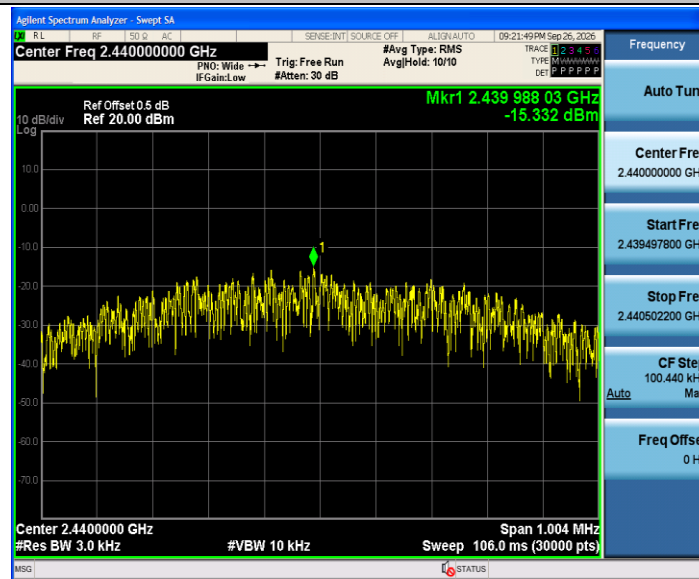
TestMode	Antenna	Freq(MHz)	Result[dBm/3kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-15.49	≤8.00	PASS
		2440	-15.33	≤8.00	PASS
		2480	-15.91	≤8.00	PASS

Test Graphs

BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



BLE_1M_Ant1_2480

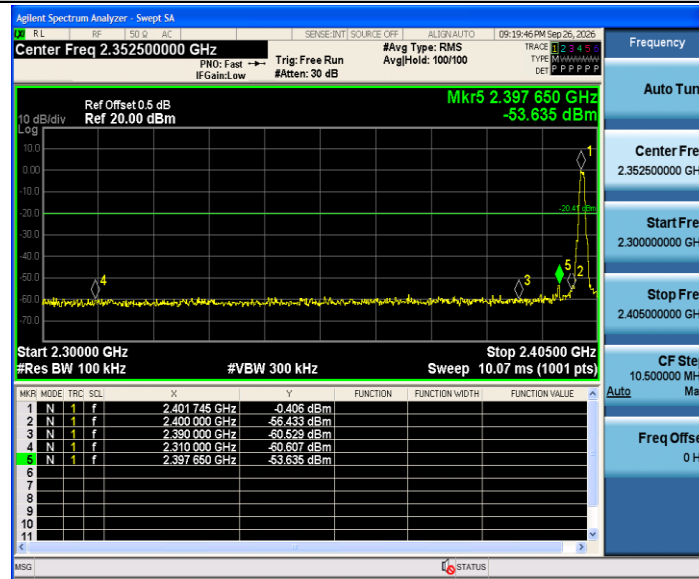
Appendix E: Band edge measurements

Test Result

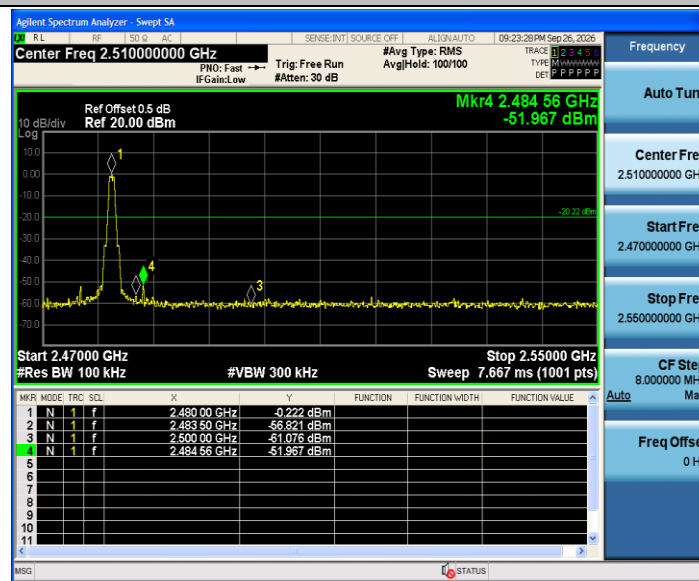
TestMode	Antenna	Channel	Freq(MHz)	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	Low	2402	-0.41	-53.64	≤-20.41	PASS
		High	2480	-0.22	-51.97	≤-20.22	PASS

Test Graphs

BLE_1M_Ant1_Low_2402



BLE_1M_Ant1_High_2480

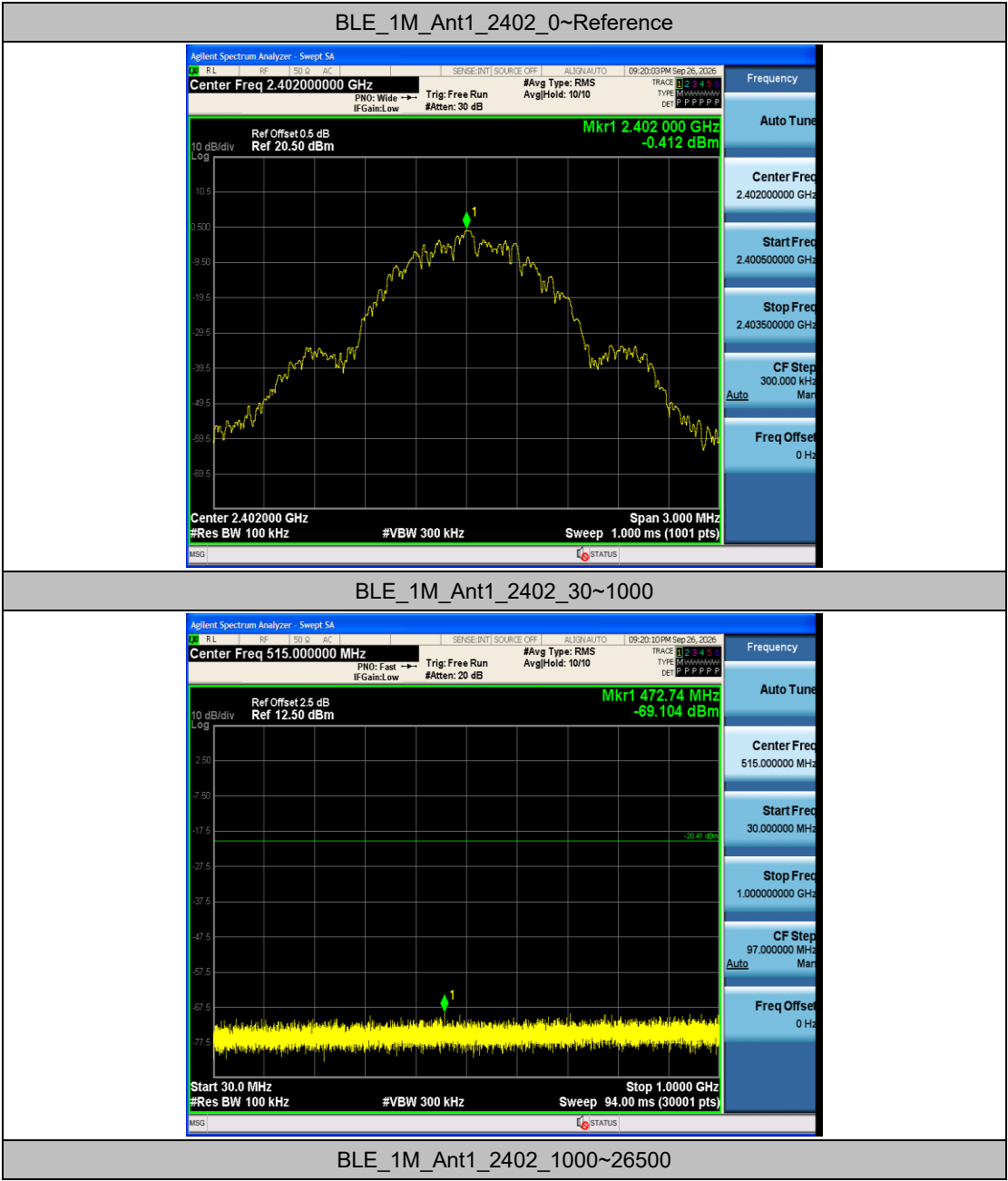


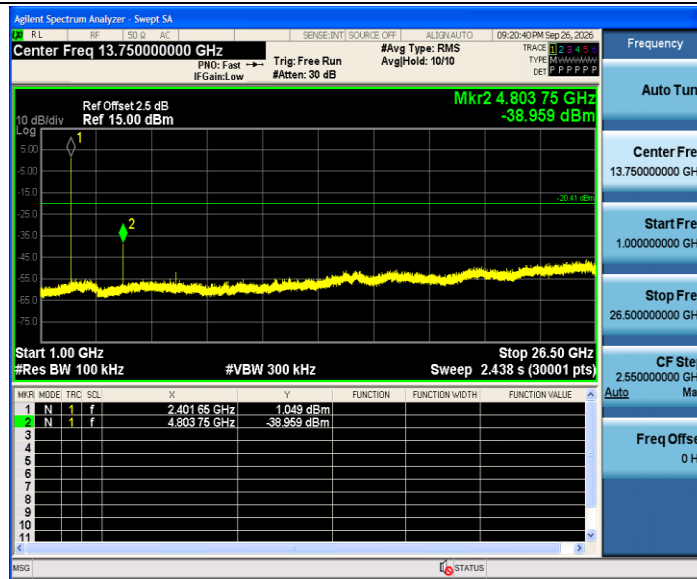
Appendix F: Conducted Spurious Emission

Test Result

TestMode	Antenna	Freq(MHz)	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	Reference	-0.41	-0.41	---	PASS
			30~1000	-0.41	-69.1	≤-20.41	PASS
			1000~26500	-0.41	-38.96	≤-20.41	PASS
		2440	Reference	-0.31	-0.31	---	PASS
			30~1000	-0.31	-68.32	≤-20.31	PASS
			1000~26500	-0.31	-42.09	≤-20.31	PASS
		2480	Reference	-0.41	-0.41	---	PASS
			30~1000	-0.41	-68.7	≤-20.41	PASS
			1000~26500	-0.41	-41.02	≤-20.41	PASS

Test Graphs

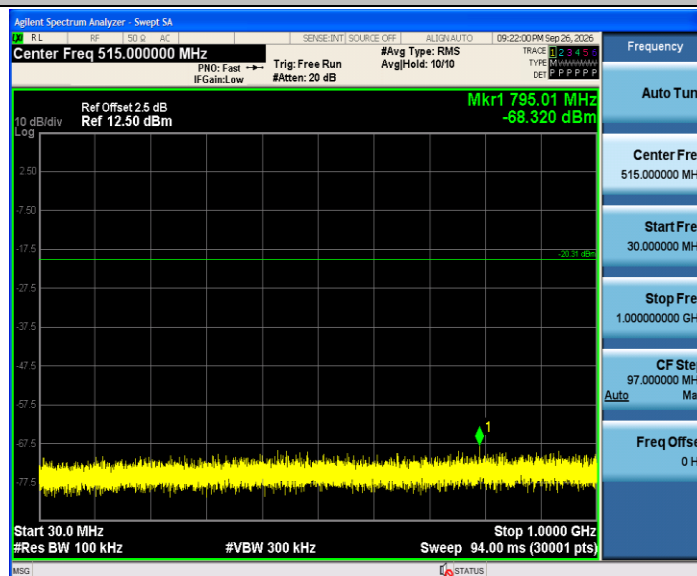




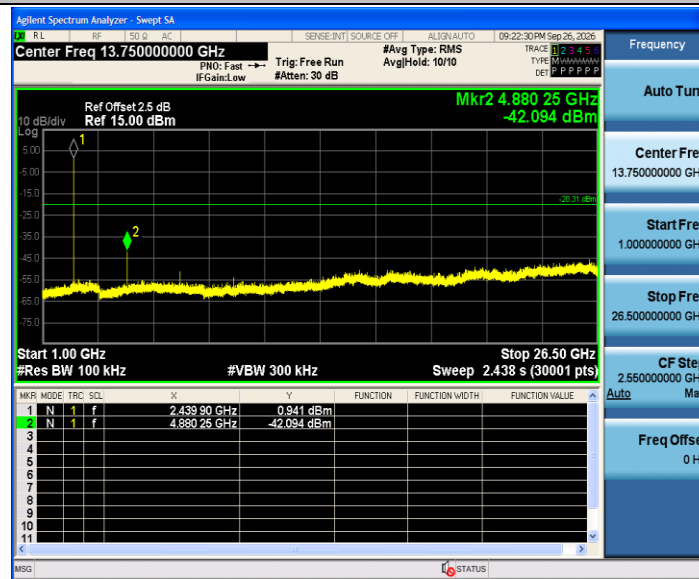
BLE_1M_Ant1_2440_0~Reference



BLE_1M_Ant1_2440_30~1000



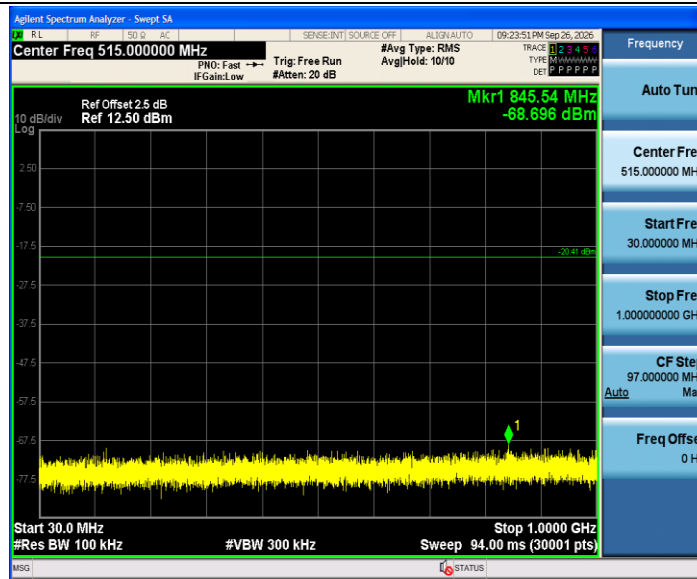
BLE_1M_Ant1_2440_1000~26500



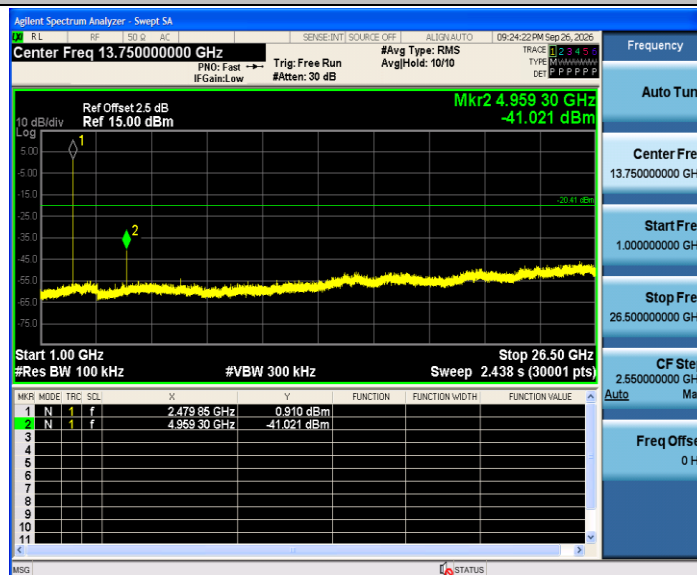
BLE_1M_Ant1_2480_0~Reference



BLE_1M_Ant1_2480_30~1000



BLE_1M_Ant1_2480_1000~26500

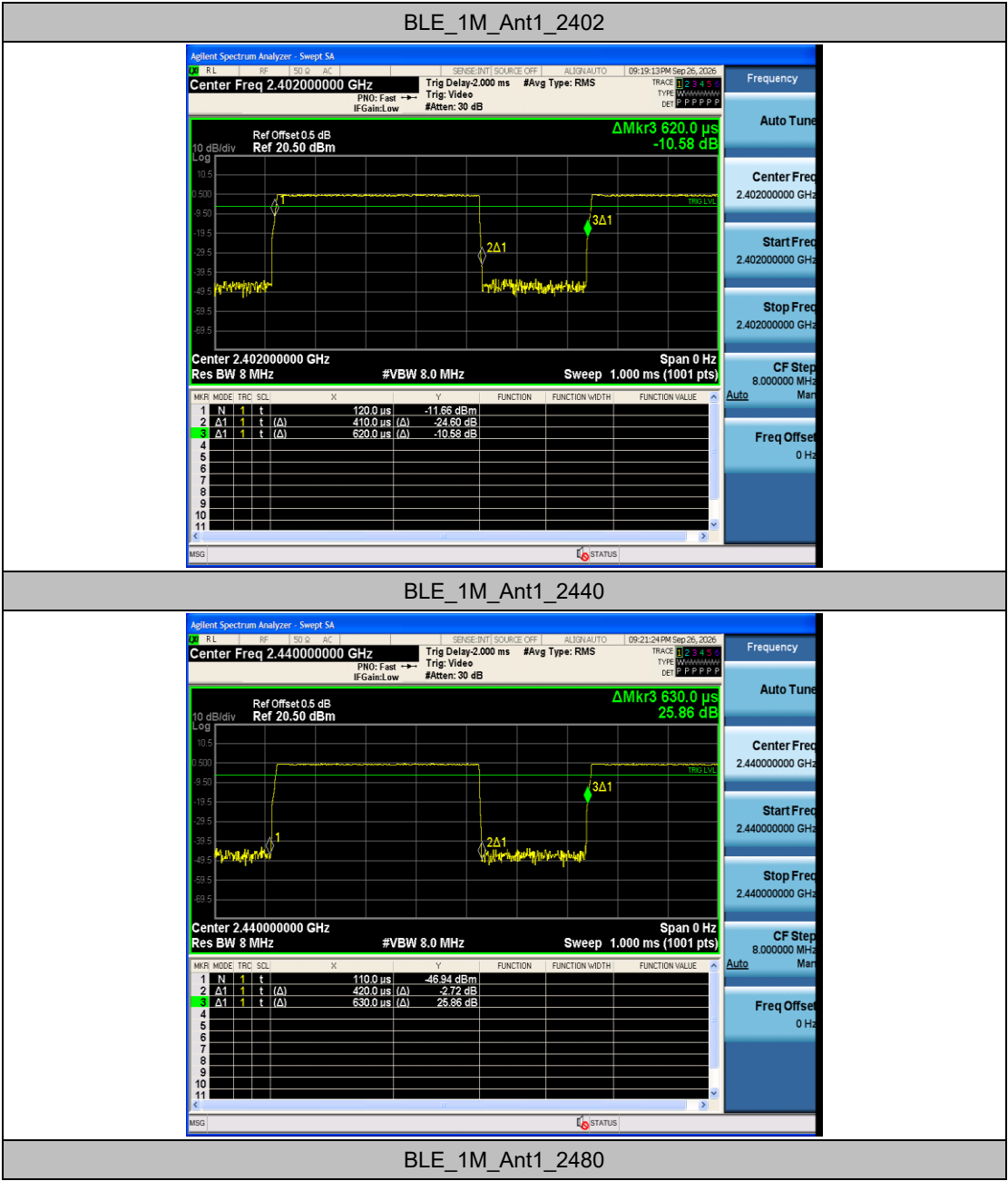


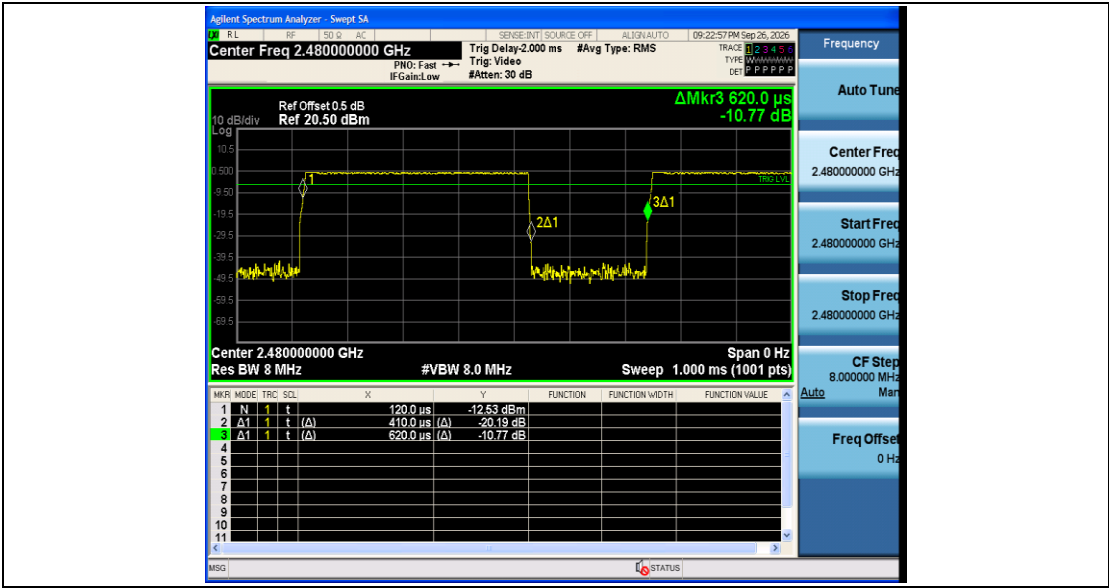
Appendix G: Duty Cycle

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

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	-60.1	2.00	1.80	38.90	≤54	PASS
				AV	2388.200	-59.01	2.00	1.80	39.99	≤54	PASS
				AV	2390.000	-59.93	2.00	1.80	39.07	≤54	PASS
				Peak	2310.000	-51.83	2.00	0.00	45.37	≤74	PASS
				Peak	2328.455	-49.12	2.00	0.00	48.08	≤74	PASS
				Peak	2390.000	-50.54	2.00	0.00	46.66	≤74	PASS
		High	2480	AV	2483.500	-57.89	2.00	1.80	41.11	≤54	PASS
				AV	2484.480	-57.42	2.00	1.80	41.58	≤54	PASS
				AV	2500.000	-59.35	2.00	1.80	39.65	≤54	PASS
				Peak	2483.500	-50.26	2.00	0.00	46.94	≤74	PASS
				Peak	2484.400	-43.13	2.00	0.00	54.07	≤74	PASS
				Peak	2500.000	-50.72	2.00	0.00	46.48	≤74	PASS

Note:

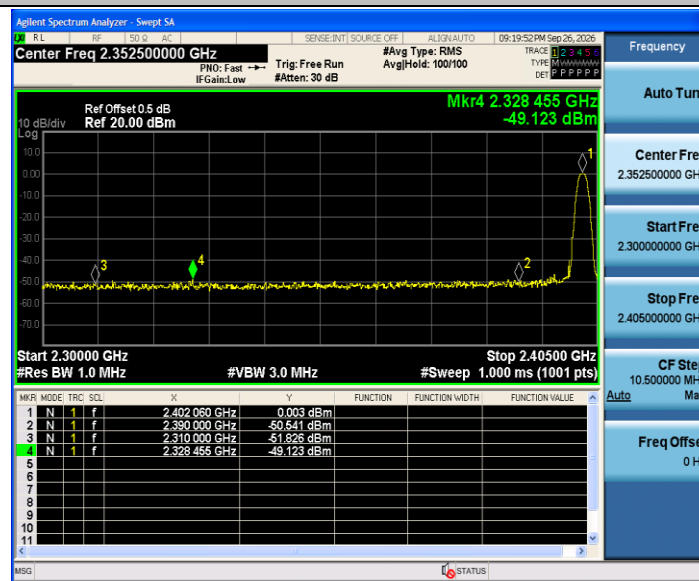
The limit in dBm for average detector is conversion from 54dBUV/m, according to 15.209(a). The limit in dBm for peak detector is 20dB above the limit of average detector in dBm.

Test Graphs

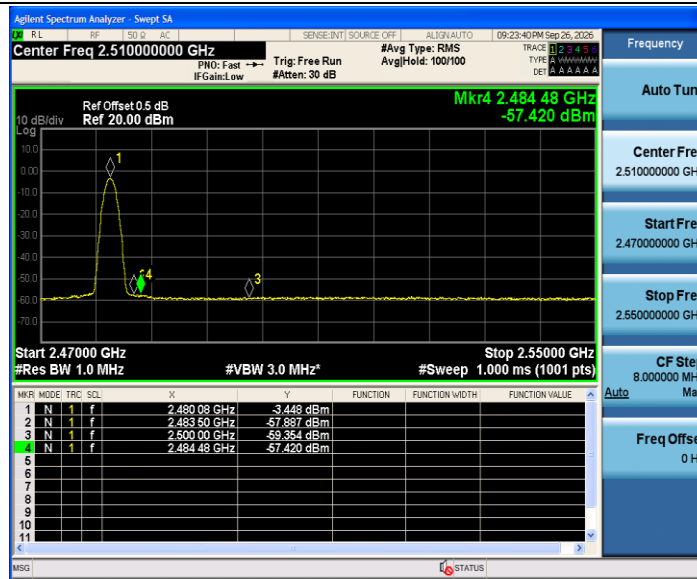
BLE_1M_Ant1_Low_2402_AV



BLE_1M_Ant1_Low_2402_Peak



BLE_1M_Ant1_High_2480_AV



BLE_1M_Ant1_High_2480_Peak

