

Appendix B: Test Results of Bluetooth Low Energy

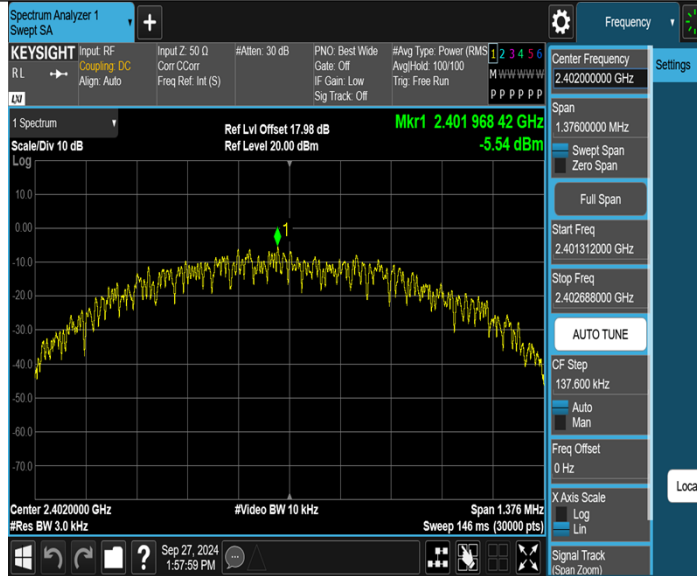
APPENDIX B: TEST RESULTS OF BLUETOOTH LOW ENERGY	1
APPENDIX B.1: TEST RESULTS OF CONDUCTED POWER SPECTRAL DENSITY	2
<i>Left earbud</i> ,	2
<i>Right earbud</i>	5
APPENDIX B.2: TEST RESULTS OF 6DB BANDWIDTH	8
APPENDIX B.3: TEST RESULTS OF 99% BANDWIDTH	11
APPENDIX B.4: TEST RESULTS OF CONDUCTED SPURIOUS EMISSIONS MEASURED IN 100 kHz BANDWIDTH	14
<i>Band Edge</i>	14
<i>Conducted Spurious Emission</i>	16
APPENDIX B.5: TEST RESULTS OF RADIATED SPURIOUS EMISSIONS	23
30 MHz - 1GHz (<i>Left earbud</i>)	23
1GHz - 18GHz (<i>Left earbud</i>)	25
30 MHz - 1GHz (<i>Right earbud</i>)	37
1GHz - 18GHz (<i>Right earbud</i>)	39
APPENDIX B.6: TEST RESULTS OF RADIATED EMISSIONS IN RESTRICTED BANDS	51
<i>Left earbud</i>	51
<i>Right earbud</i>	59

Appendix B.1: Test Results of Conducted Power Spectral Density

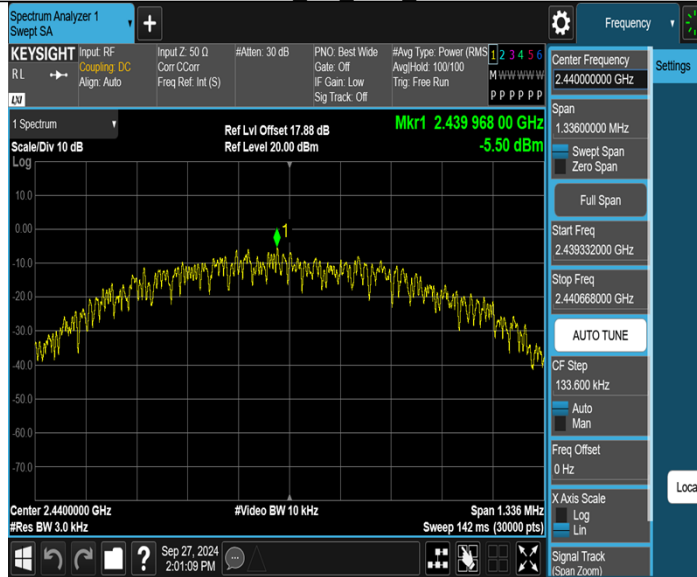
Left earbud,

TestMode	Antenna	Channel	Result[dBm/3-100kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-5.54	≤8.00	PASS
		2440	-5.50	≤8.00	PASS
		2480	-5.93	≤8.00	PASS
BLE_2M	Ant1	2404	-8.78	≤8.00	PASS
		2440	-8.63	≤8.00	PASS
		2478	-9.16	≤8.00	PASS

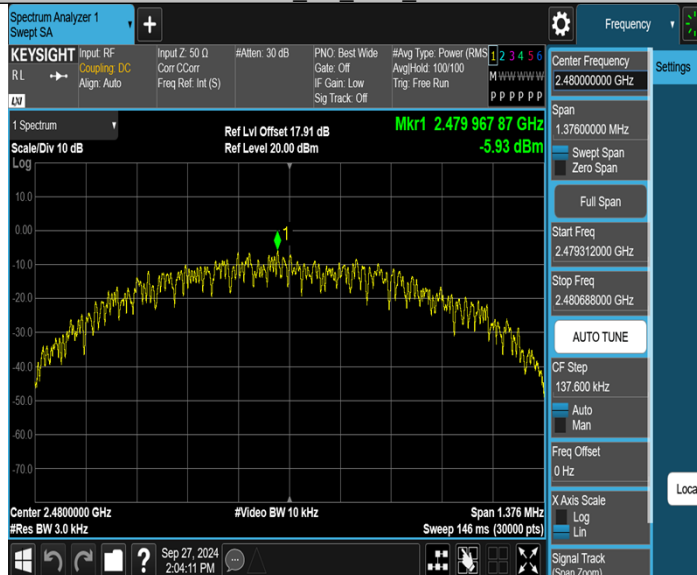
BLE 1M Ant1 2402



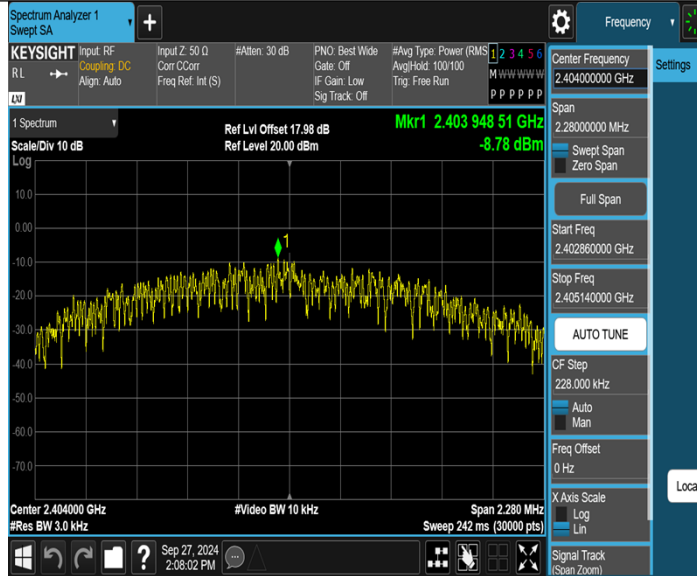
BLE 1M Ant1 2440



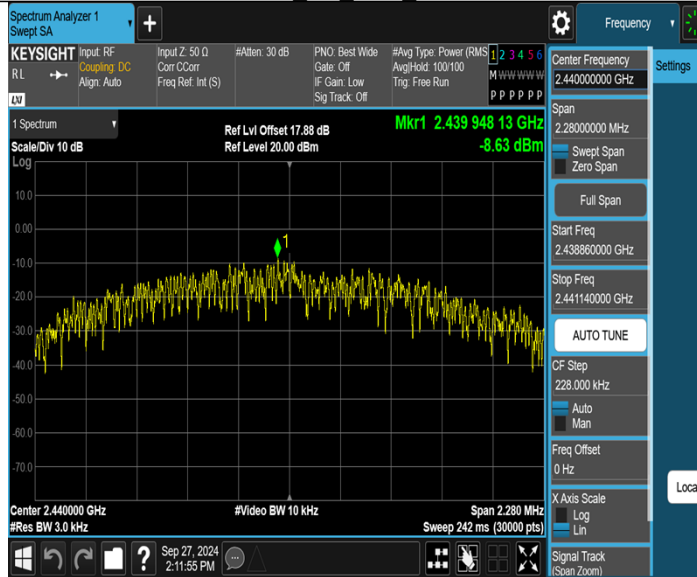
BLE 1M Ant1 2480



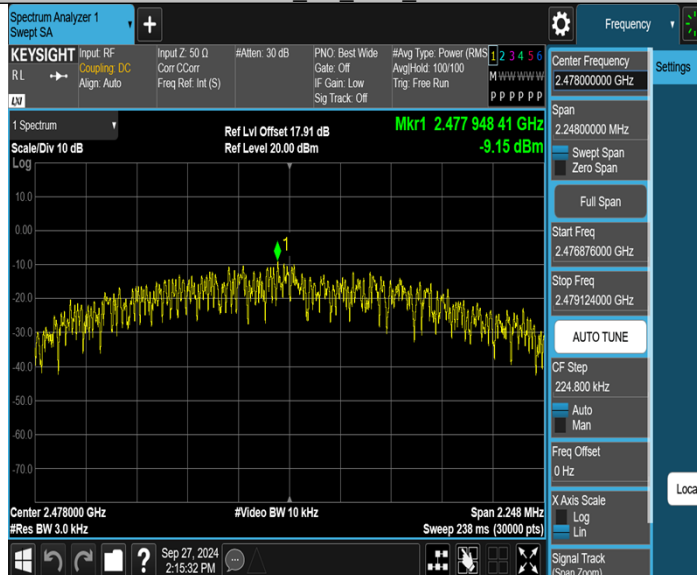
BLE_2M_Ant1_2404



BLE_2M_Ant1_2440



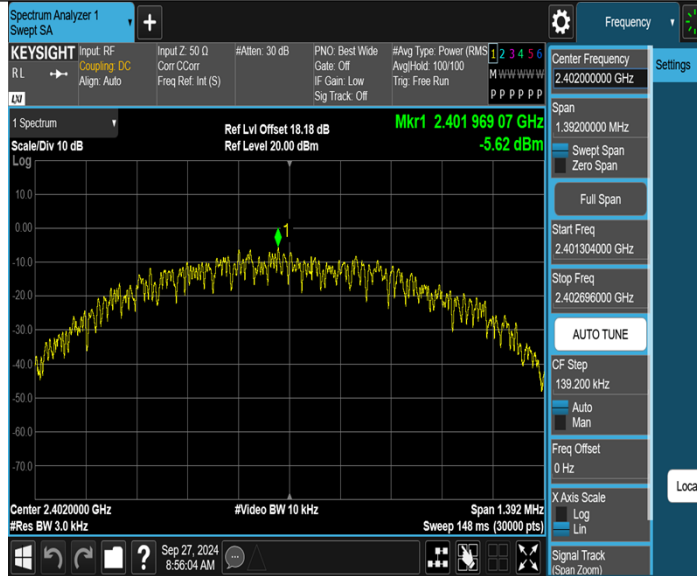
BLE_2M_Ant1_2478



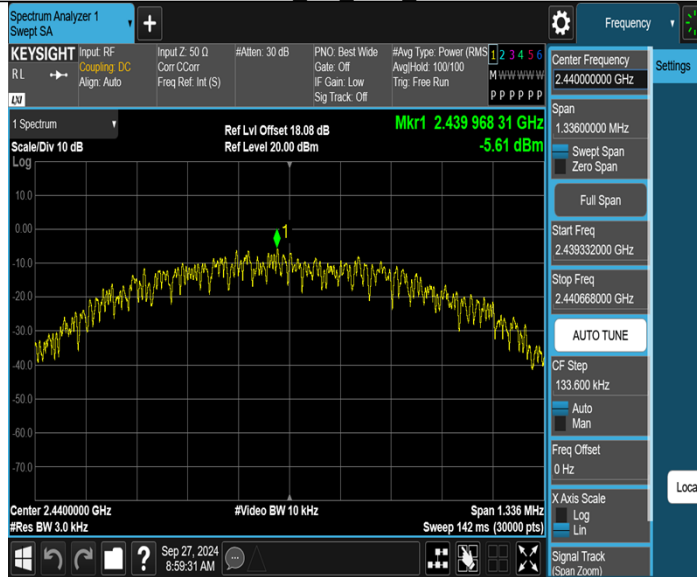
Right earbud

TestMode	Antenna	Channel	Result[dBm/3-100kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-5.62	≤8.00	PASS
		2440	-5.62	≤8.00	PASS
		2480	-6.03	≤8.00	PASS
BLE_2M	Ant1	2404	-8.97	≤8.00	PASS
		2440	-8.77	≤8.00	PASS
		2478	-7.63	≤8.00	PASS

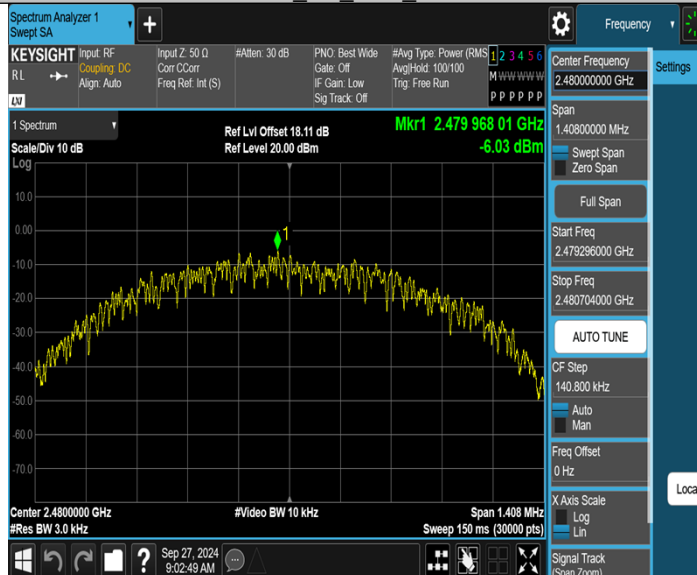
BLE 1M Ant1 2402



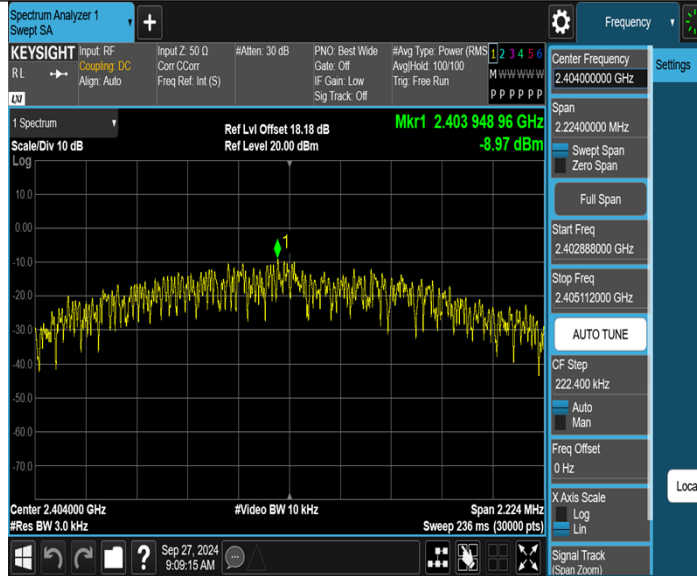
BLE 1M Ant1 2440



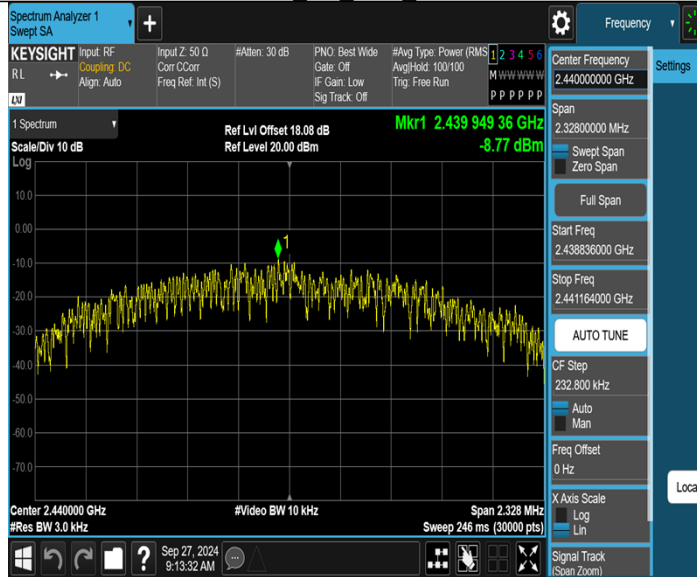
BLE 1M Ant1 2480



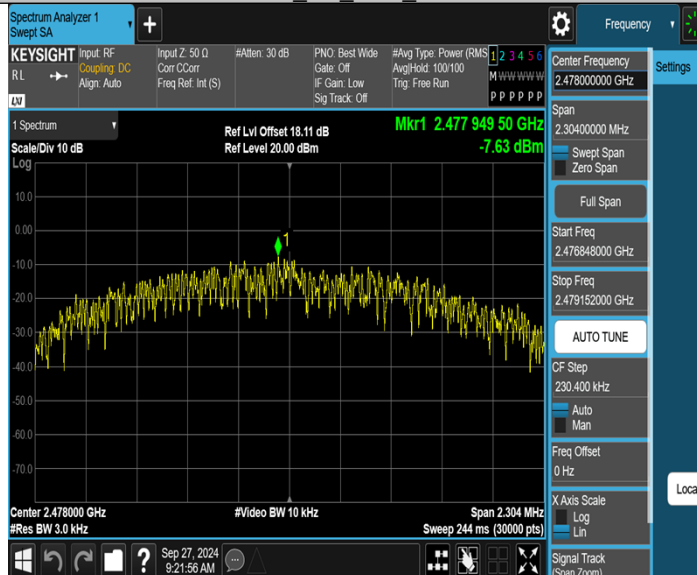
BLE 2M Ant1 2404



BLE 2M Ant1 2440



BLE 2M Ant1 2478



Appendix B.2: Test Results of 6dB Bandwidth

Both Left and right earbuds tested, only the worst-case reported.

TestMode	Antenna	Channel	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	0.688	2401.640	2402.328	0.5	PASS
		2440	0.668	2439.656	2440.324	0.5	PASS
		2480	0.688	2479.640	2480.328	0.5	PASS
BLE_2M	Ant1	2404	1.140	2403.416	2404.556	0.5	PASS
		2440	1.140	2439.416	2440.556	0.5	PASS
		2478	1.124	2477.424	2478.548	0.5	PASS

BLE 1M Ant1 2402



BLE 1M Ant1 2440



BLE 1M Ant1 2480



BLE_2M_Ant1_2404



BLE_2M_Ant1_2440



BLE_2M_Ant1_2478

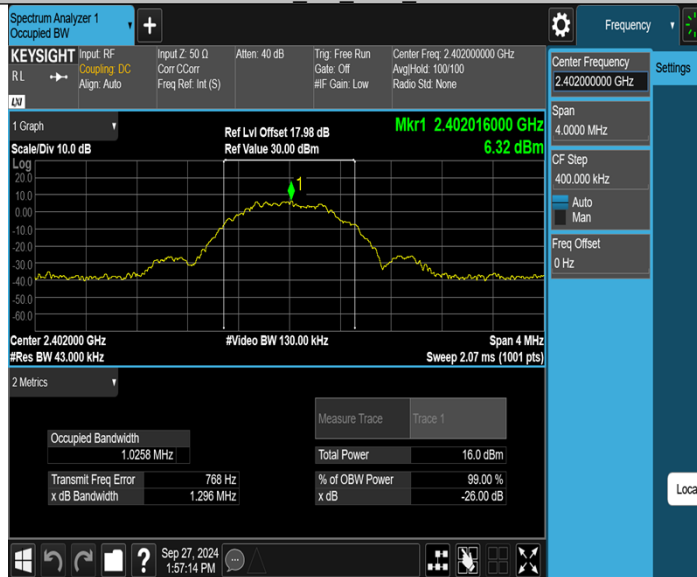


Appendix B.3: Test Results of 99% Bandwidth

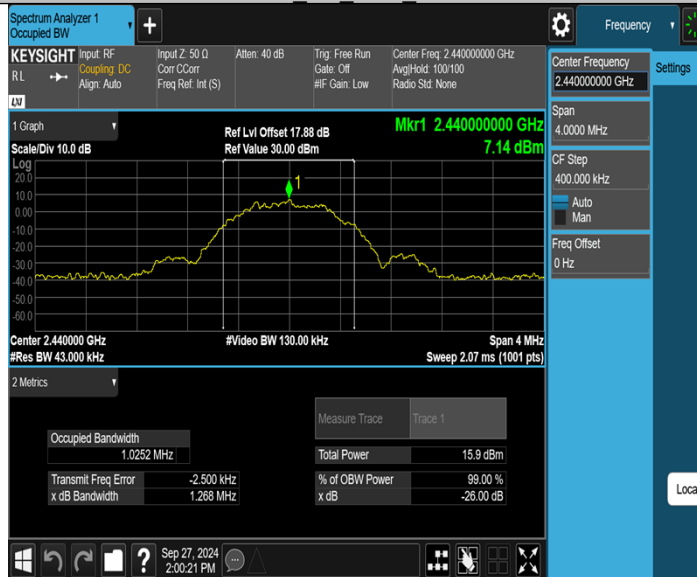
Both Left and right earbuds tested, only the worst-case reported.

TestMode	Antenna	Channel	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	1.0258	2401.4879	2402.5137	---	---
		2440	1.0252	2439.4849	2440.5101	---	---
		2480	1.0231	2479.4852	2480.5083	---	---
BLE_2M	Ant1	2404	2.0410	2402.9901	2405.0311	---	---
		2440	2.0351	2438.9956	2441.0307	---	---
		2478	2.0246	2476.9993	2479.0239	---	---

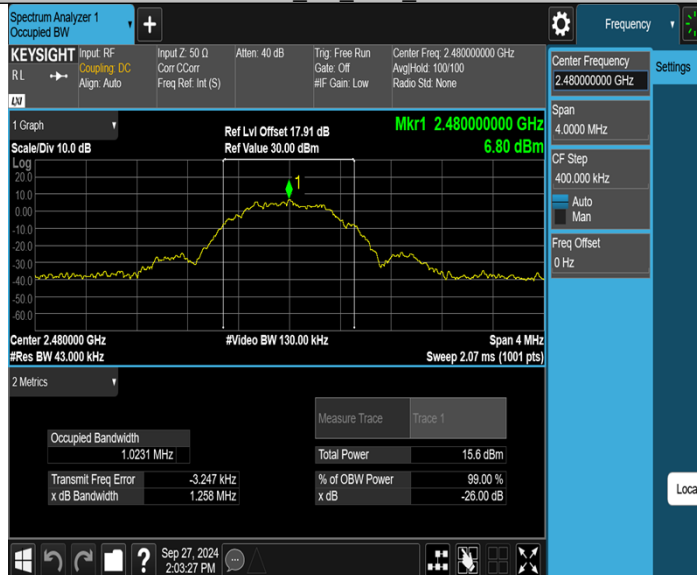
BLE 1M Ant1 2402



BLE 1M Ant1 2440



BLE 1M Ant1 2480



BLE 2M Ant1 2404



BLE 2M Ant1 2440



BLE 2M Ant1 2478



Appendix B.4: Test Results of Conducted Spurious Emissions Measured in 100 kHz Bandwidth

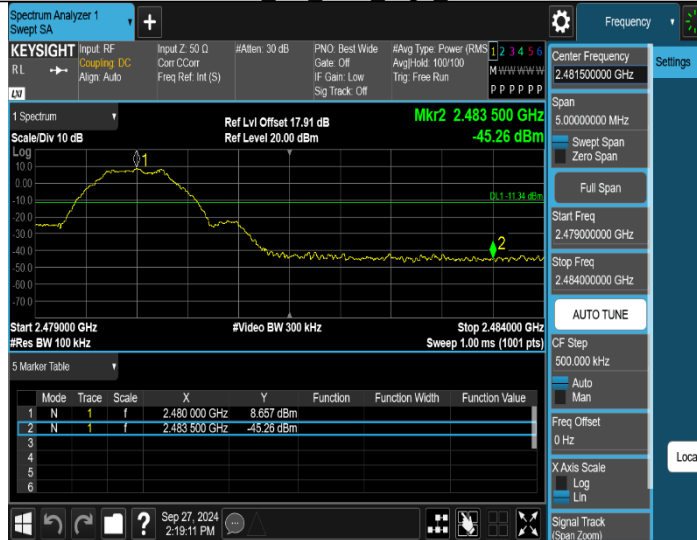
Band Edge

TestMode	Antenna	ChName	Channel	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	Low	2402	9.20	-40.78	≤-10.80	PASS
		High	2480	8.66	-45.26	≤-11.34	PASS
BLE_2M	Ant1	Low	2404	8.79	-44.71	≤-11.21	PASS
		High	2478	8.78	-43.56	≤-11.22	PASS

BLE_1M Ant1 Low 2402



BLE_1M Ant1 High 2480



BLE 2M Ant1 Low 2404



BLE 2M Ant1 High 2478



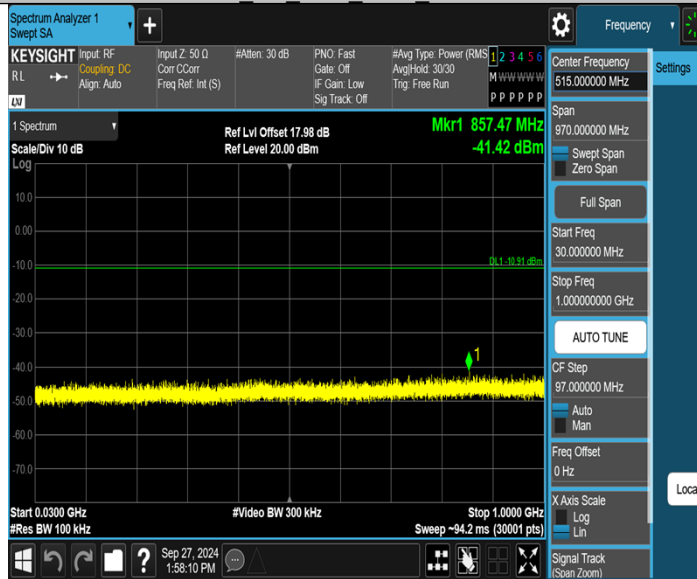
Conducted Spurious Emission

TestMode	Antenna	Channel	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	Reference	9.09	9.09	---	PASS
			30~1000	9.09	-41.42	≤-10.91	PASS
			1000~26500	9.09	-32.8	≤-10.91	PASS
		2440	Reference	9.07	9.07	---	PASS
			30~1000	9.07	-41.95	≤-10.93	PASS
			1000~26500	9.07	-32.73	≤-10.93	PASS
		2480	Reference	8.42	8.42	---	PASS
			30~1000	8.42	-41.32	≤-11.58	PASS
			1000~26500	8.42	-32.95	≤-11.58	PASS
BLE_2M	Ant1	2404	Reference	8.97	8.97	---	PASS
			30~1000	8.97	-41.77	≤-11.03	PASS
			1000~26500	8.97	-33	≤-11.03	PASS
		2440	Reference	9.09	9.09	---	PASS
			30~1000	9.09	-41.97	≤-10.91	PASS
			1000~26500	9.09	-32.87	≤-10.91	PASS
		2478	Reference	7.85	7.85	---	PASS
			30~1000	7.85	-41.91	≤-12.15	PASS
			1000~26500	7.85	-32.83	≤-12.15	PASS

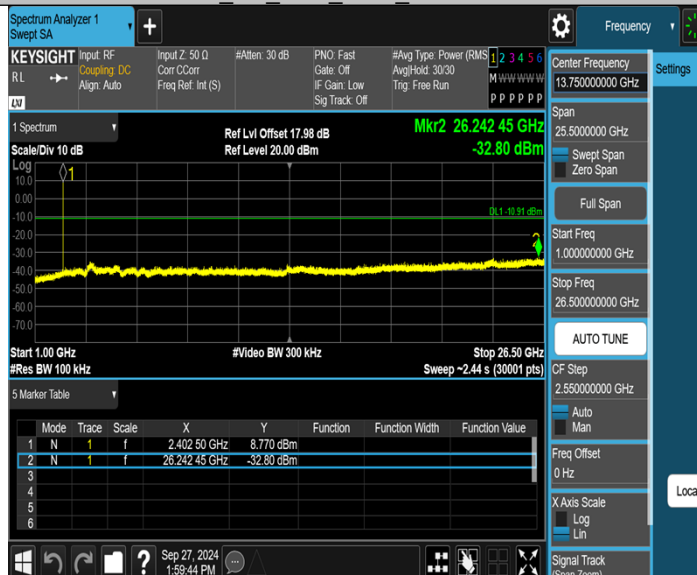
BLE 1M Ant1 2402 0~Reference



BLE 1M Ant1 2402 30~1000



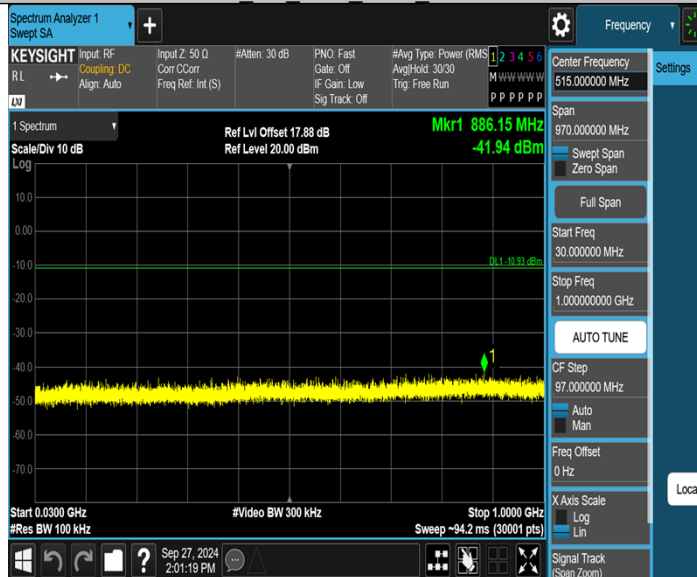
BLE 1M Ant1 2402 1000~26500



BLE 1M Ant1 2440 0~Reference



BLE 1M Ant1 2440 30~1000



BLE 1M Ant1 2440 1000~26500

