

Case No. : <u>GTS20231018019-1-5</u>
Ambient Condition: <u>23 °C, 49 %RH, Atmos100.1Kpa,</u>
Test Date: <u>2023-11-07</u> Test Engineer: <u>Evan ouyang</u>

Appendix A.1: DTS Bandwidth

Test Result

Test Mode	Antenna	Frequency[MHz]	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE	Ant1	2402	0.508	2401.788	2402.296	0.5	PASS
		2440	0.520	2439.788	2440.308	0.5	PASS
		2480	0.512	2479.796	2480.308	0.5	PASS

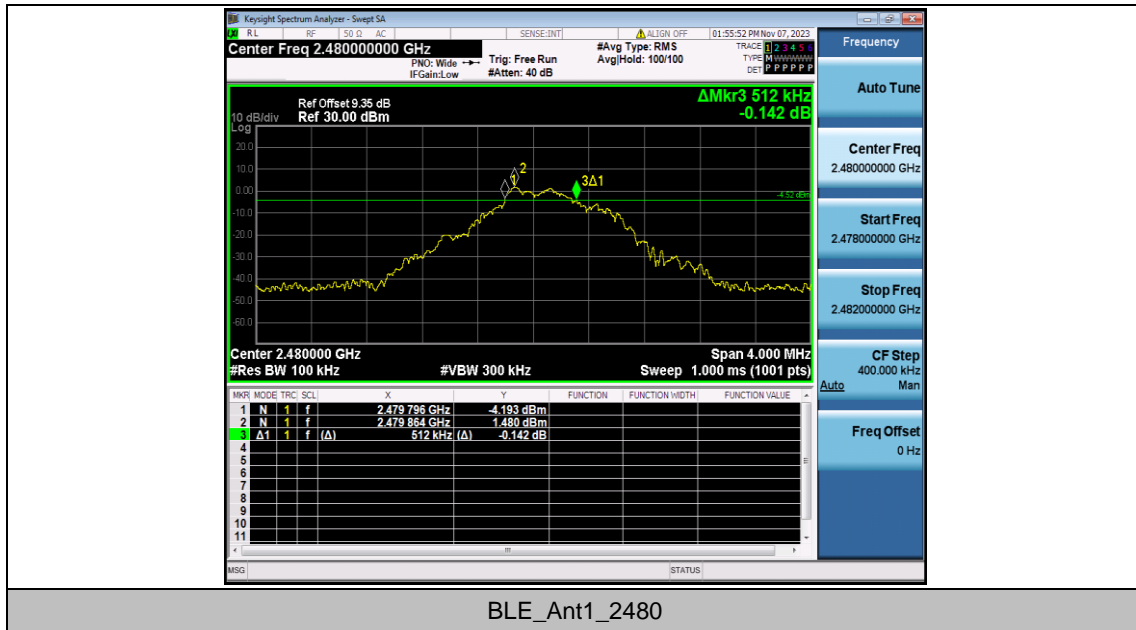
Test Graphs



BLE_Ant1_2402



BLE_Ant1_2440



Appendix A.2: Occupied Channel Bandwidth

Test Result

Test Mode	Antenna	Frequency[MHz]	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE	Ant1	2402	1.0574	2401.593	2402.650	---	---
		2440	1.0701	2439.583	2440.653	---	---
		2480	1.0932	2479.562	2480.655	---	---

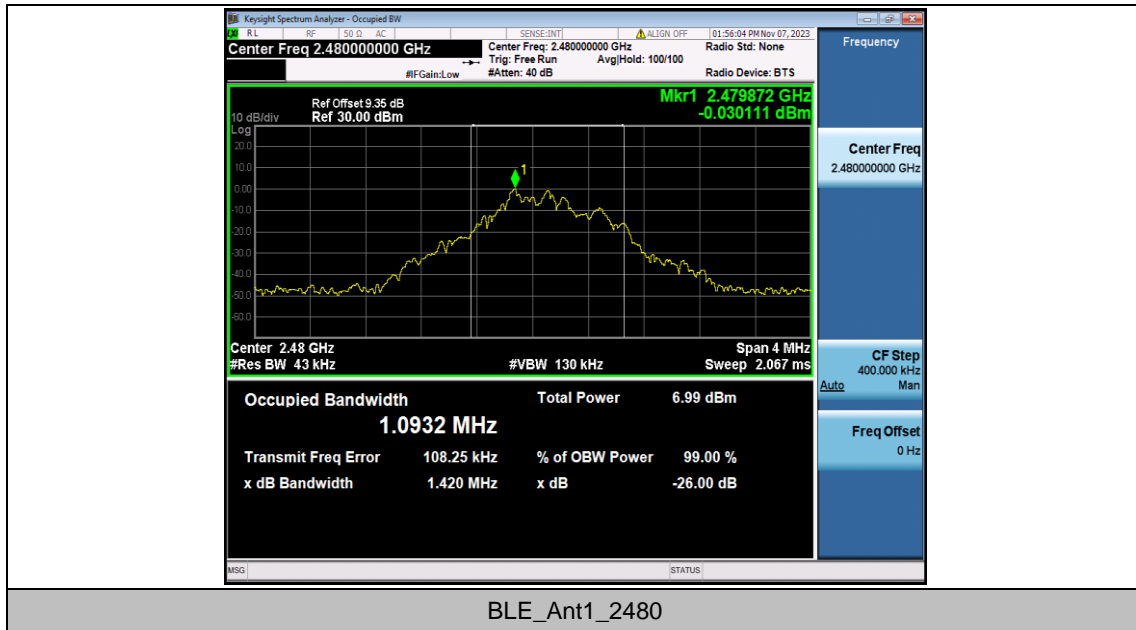
Test Graphs



BLE_Ant1_2402



BLE_Ant1_2440



BLE_Ant1_2480

Appendix A.3: Maximum conducted output power

Test Result Peak

Test Mode	Antenna	Frequency[MHz]	Conducted Peak Power[dBm]	Conducted Limit[dBm]	Verdict
BLE	Ant1	2402	1.38	≤30	PASS
		2440	2.58	≤30	PASS
		2480	1.84	≤30	PASS

Appendix A.4: Maximum power spectral density

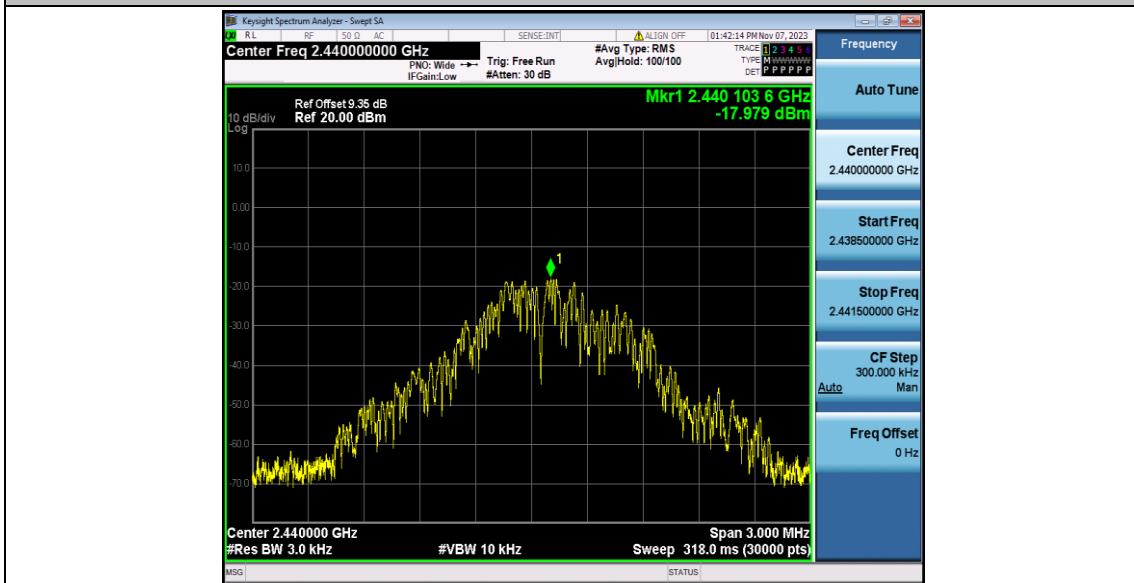
Test Result

Test Mode	Antenna	Frequency[MHz]	Result[dBm/3kHz]	Limit[dBm/3kHz]	Verdict
BLE	Ant1	2402	-18.84	≤8.00	PASS
		2440	-17.98	≤8.00	PASS
		2480	-18.92	≤8.00	PASS

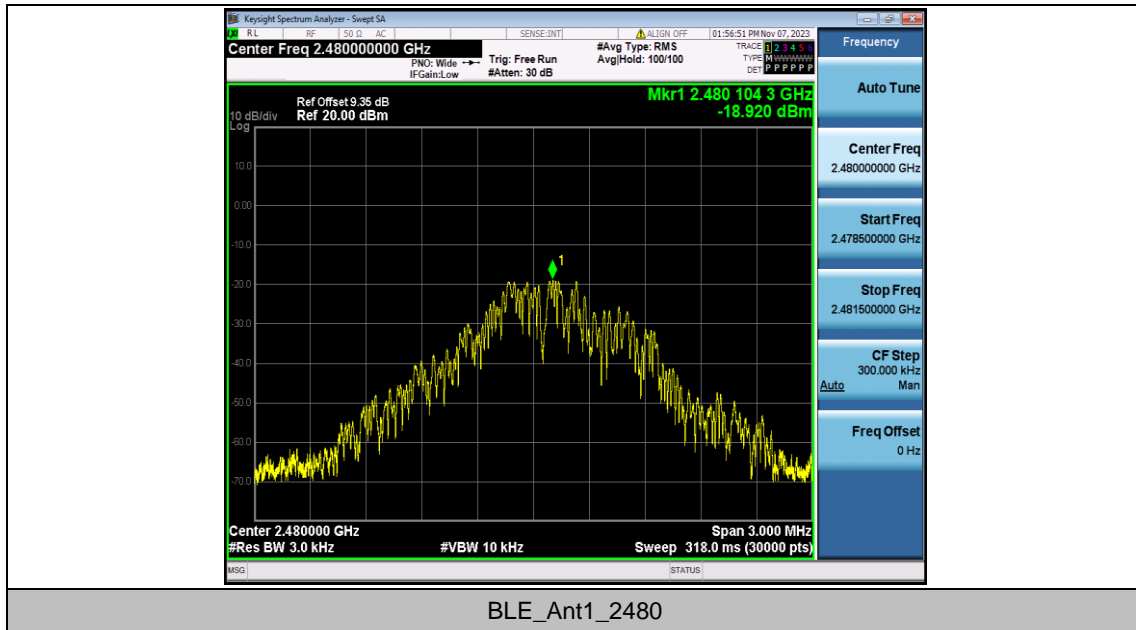
Test Graphs



BLE_Ant1_2402



BLE_Ant1_2440

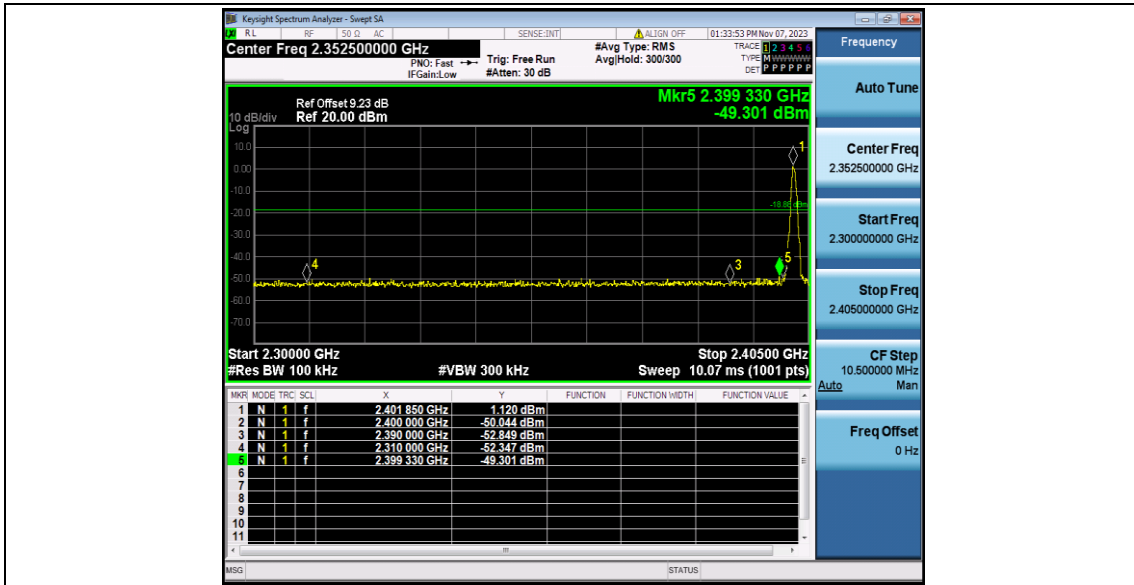


Appendix A.5: Band edge measurements

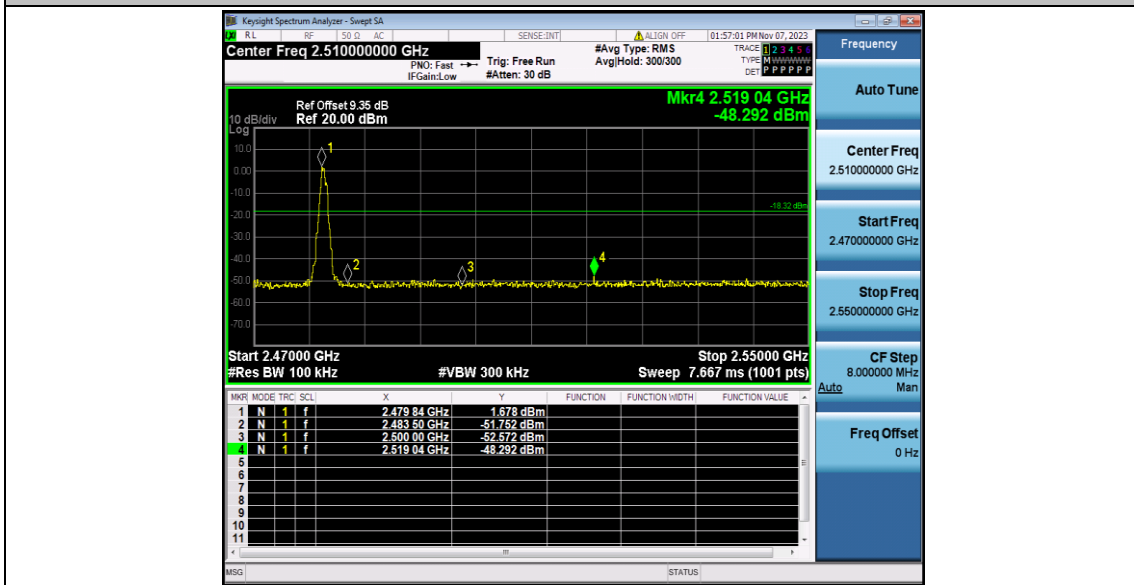
Test Result

Test Mode	Antenna	ChName	Frequency[MHz]	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE	Ant1	Low	2402	1.12	-49.3	≤-18.88	PASS
		High	2480	1.68	-48.29	≤-18.32	PASS

Test Graphs



BLE_Ant1_Low_2402



BLE_Ant1_High_2480

Appendix A.6: Conducted Spurious Emission

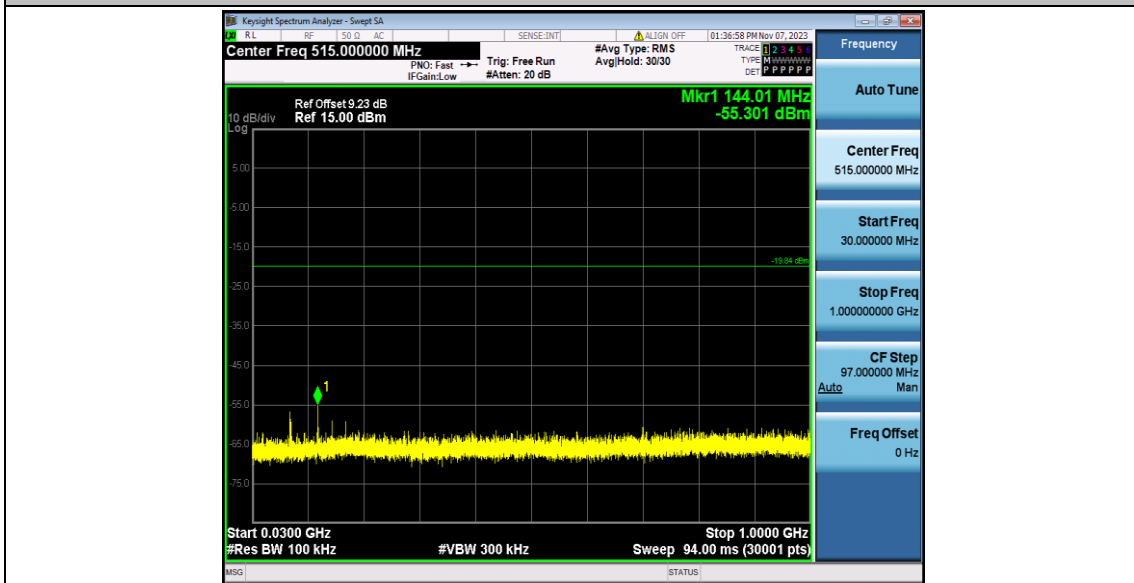
Test Result

Test Mode	Antenna	Frequency[MHz]	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE	Ant1	2402	Reference	0.16	0.16	---	PASS
			30~1000	0.16	-55.3	≤ -19.84	PASS
			1000~26500	0.16	-45.48	≤ -19.84	PASS
		2440	Reference	2.17	2.17	---	PASS
			30~1000	2.17	-56.72	≤ -17.83	PASS
			1000~26500	2.17	-44.5	≤ -17.83	PASS
		2480	Reference	0.60	0.60	---	PASS
			30~1000	0.60	-55.49	≤ -19.4	PASS
			1000~26500	0.60	-41.89	≤ -19.4	PASS

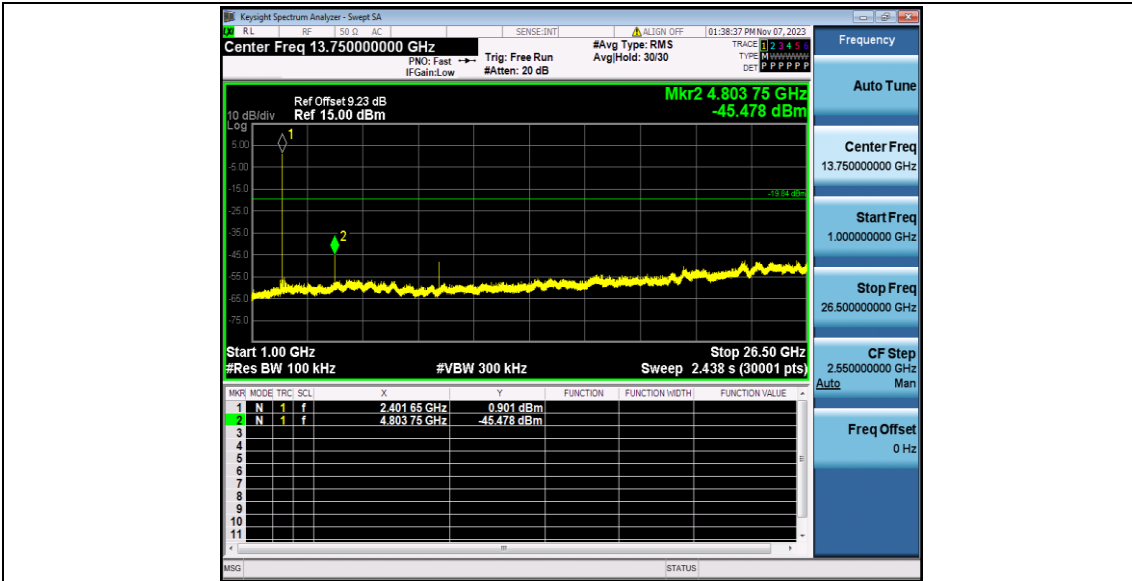
Test Graphs



BLE_Ant1_2402_0~Reference



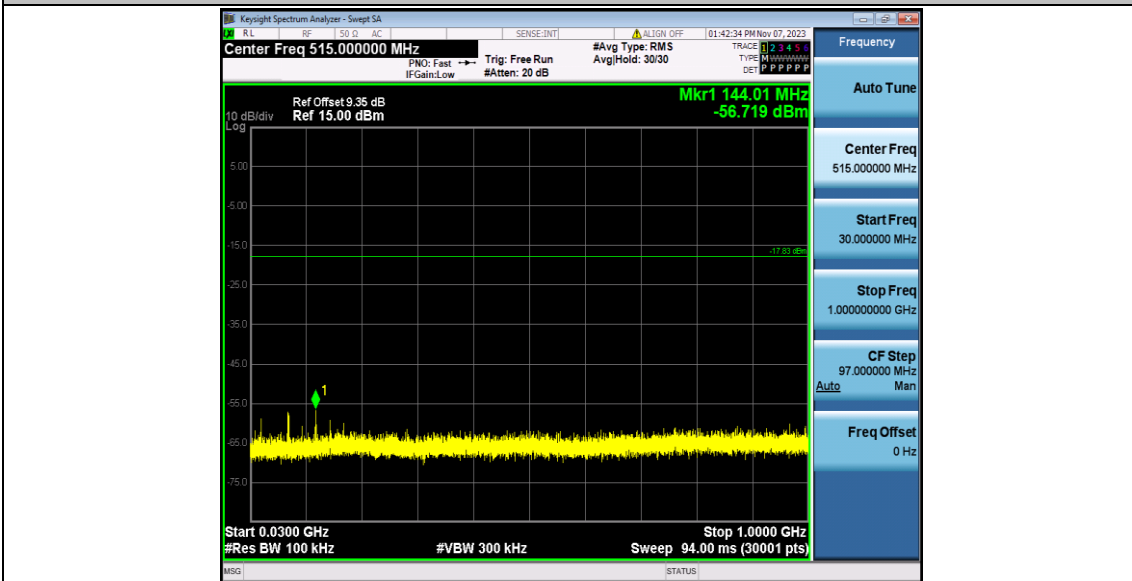
BLE_Ant1_2402_30~1000



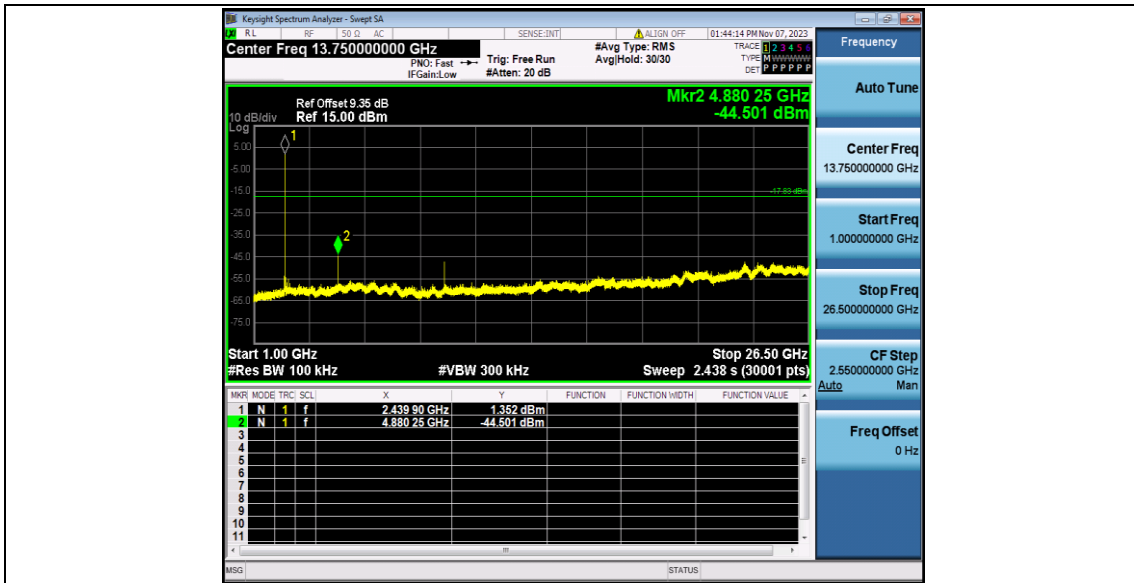
BLE_Ant1_2402_1000~26500



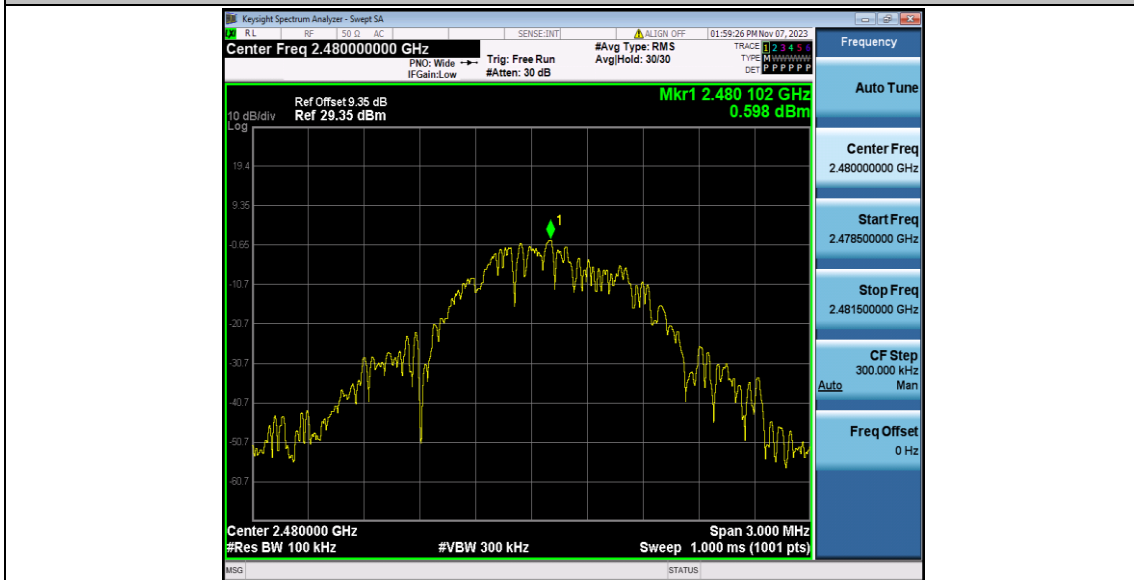
BLE_Ant1_2440_0~Reference



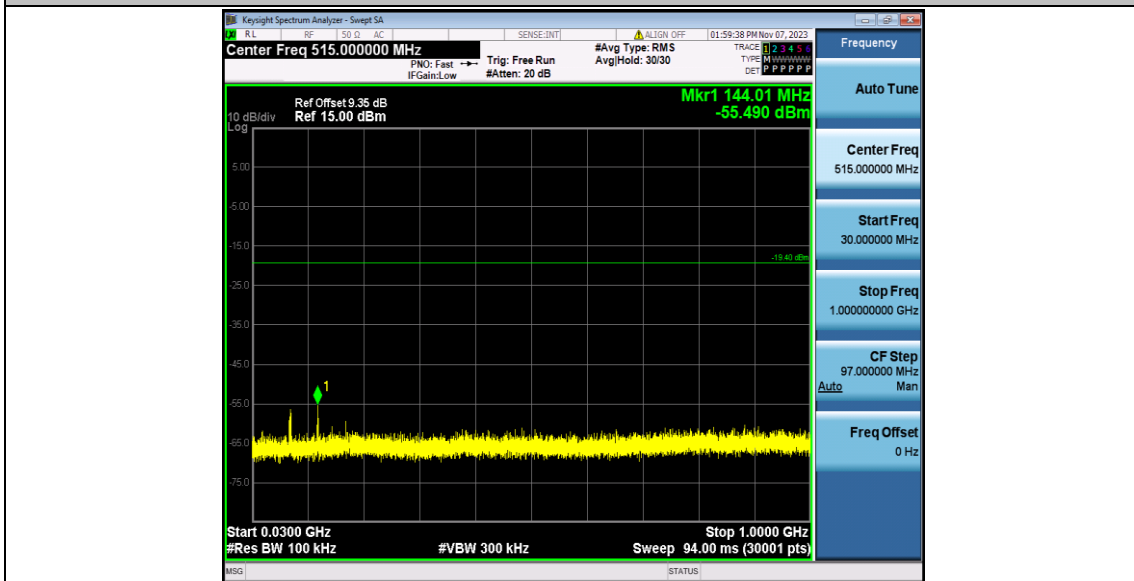
BLE_Ant1_2440_30~1000

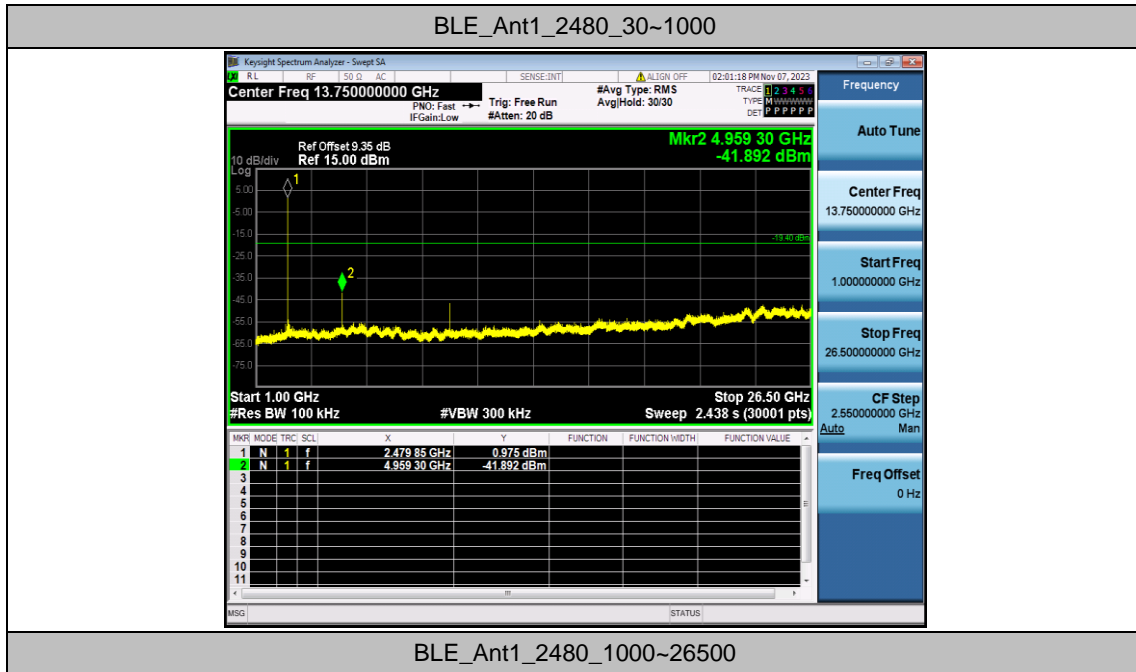


BLE_Ant1_2440_1000~26500



BLE_Ant1_2480_0~Reference





Appendix A.7: Emissions in Restricted Bands

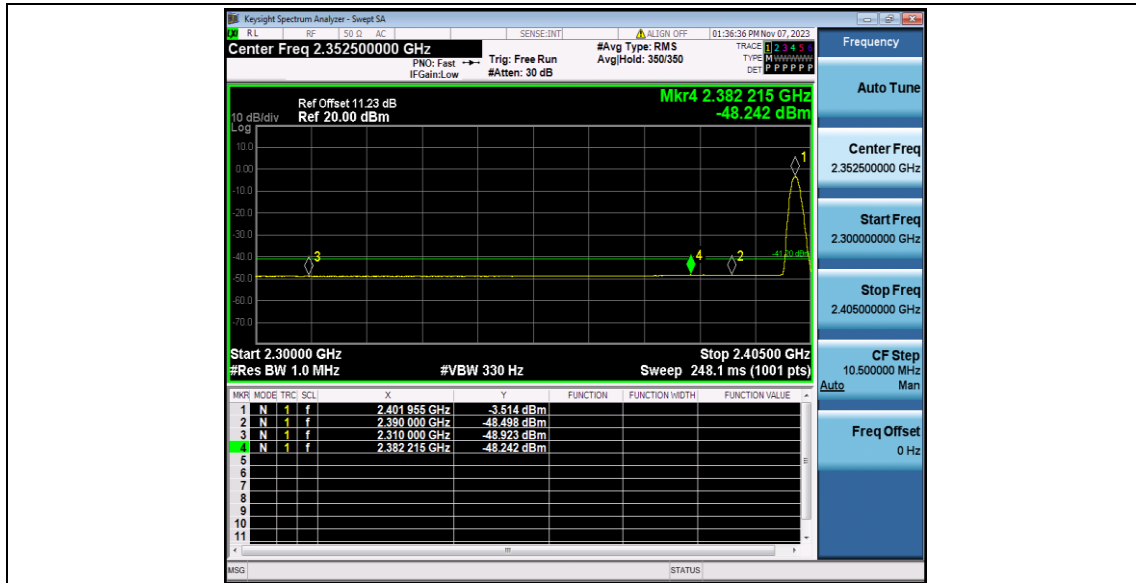
Test Result

Test Mode	Antenna	ChName	Frequency [MHz]	Detector	Freq [MHz]	Result [dBm]	Limit [dBm]	Result [dBuV/m]	Limit [dBuV/m]	Verdict
BLE	Ant1	Low	2402	AV	2310.000	-48.92	≤-41.20	46.28	≤54	PASS
				AV	2382.215	-48.24	≤-41.20	46.96	≤54	PASS
				AV	2390.000	-48.5	≤-41.20	46.70	≤54	PASS
				Peak	2310.000	-41.41	≤-21.20	53.79	≤74	PASS
				Peak	2325.515	-38.24	≤-21.20	56.96	≤74	PASS
				Peak	2390.000	-41.03	≤-21.20	54.17	≤74	PASS
		High	2480	AV	2483.500	-48.25	≤-41.20	46.95	≤54	PASS
				AV	2498.560	-47.99	≤-41.20	47.21	≤54	PASS
				AV	2500.000	-48.12	≤-41.20	47.08	≤54	PASS
				Peak	2483.500	-37.12	≤-21.20	58.08	≤74	PASS
				Peak	2483.520	-37.12	≤-21.20	58.08	≤74	PASS
				Peak	2500.000	-39.55	≤-21.20	55.65	≤74	PASS

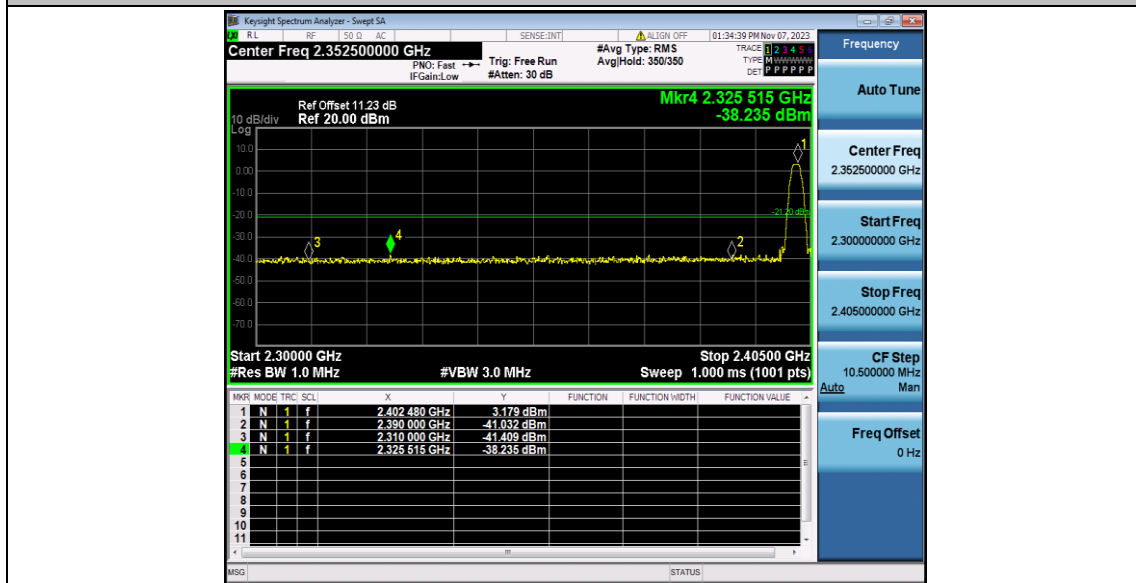
Note:

1. The Antenna Gain is compensated in the graph.
2. 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.

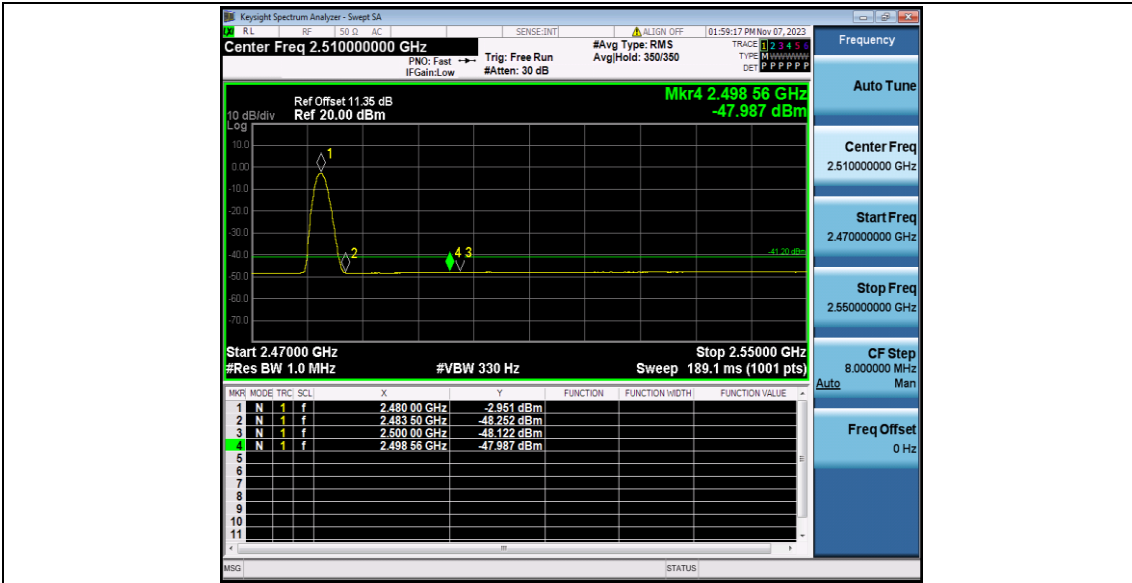
Test Graphs



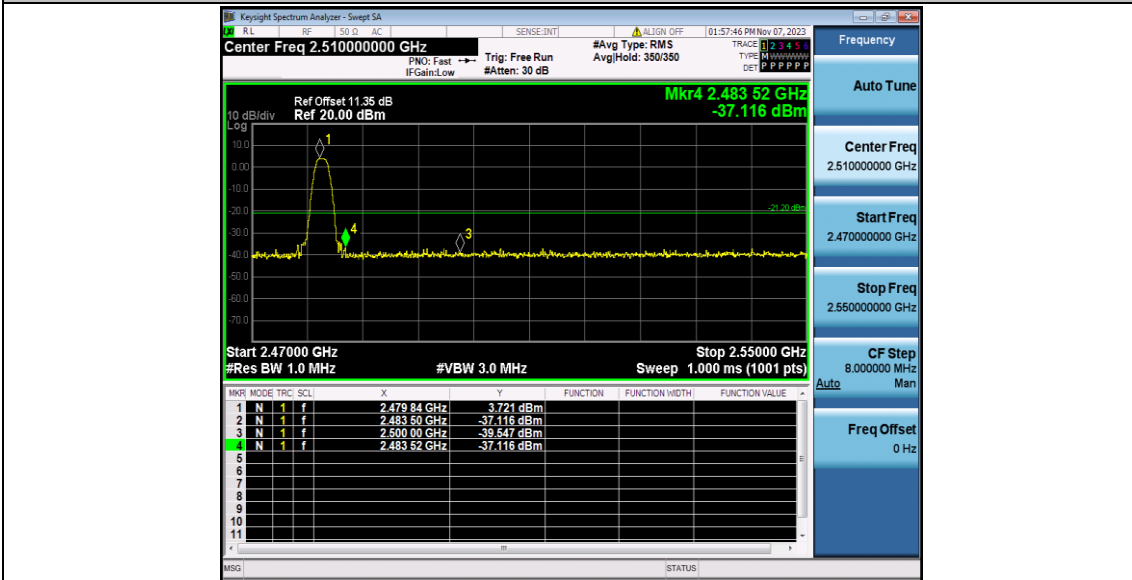
BLE_Ant1_Low_2402_AV



BLE_Ant1_Low_2402_Peak



BLE_Ant1_High_2480_AV



BLE_Ant1_High_2480_Peak