

Case No. : <u>CTA24053000102</u>
Ambient Condition: <u>23 °C, 48 %RH</u>
According Standard: <u>■Part15C</u>
Test Date: <u>2024.6.5</u> Test Engineer: <u>Evan ouyang</u>

Appendix B.1: DTS Bandwidth

Test Result

TestMode	Antenna	Freq(MHz)	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE	Ant1	2402	0.704	2401.628	2402.332	0.5	PASS
		2440	0.528	2439.644	2440.172	0.5	PASS
		2480	0.712	2479.620	2480.332	0.5	PASS

Test Graphs



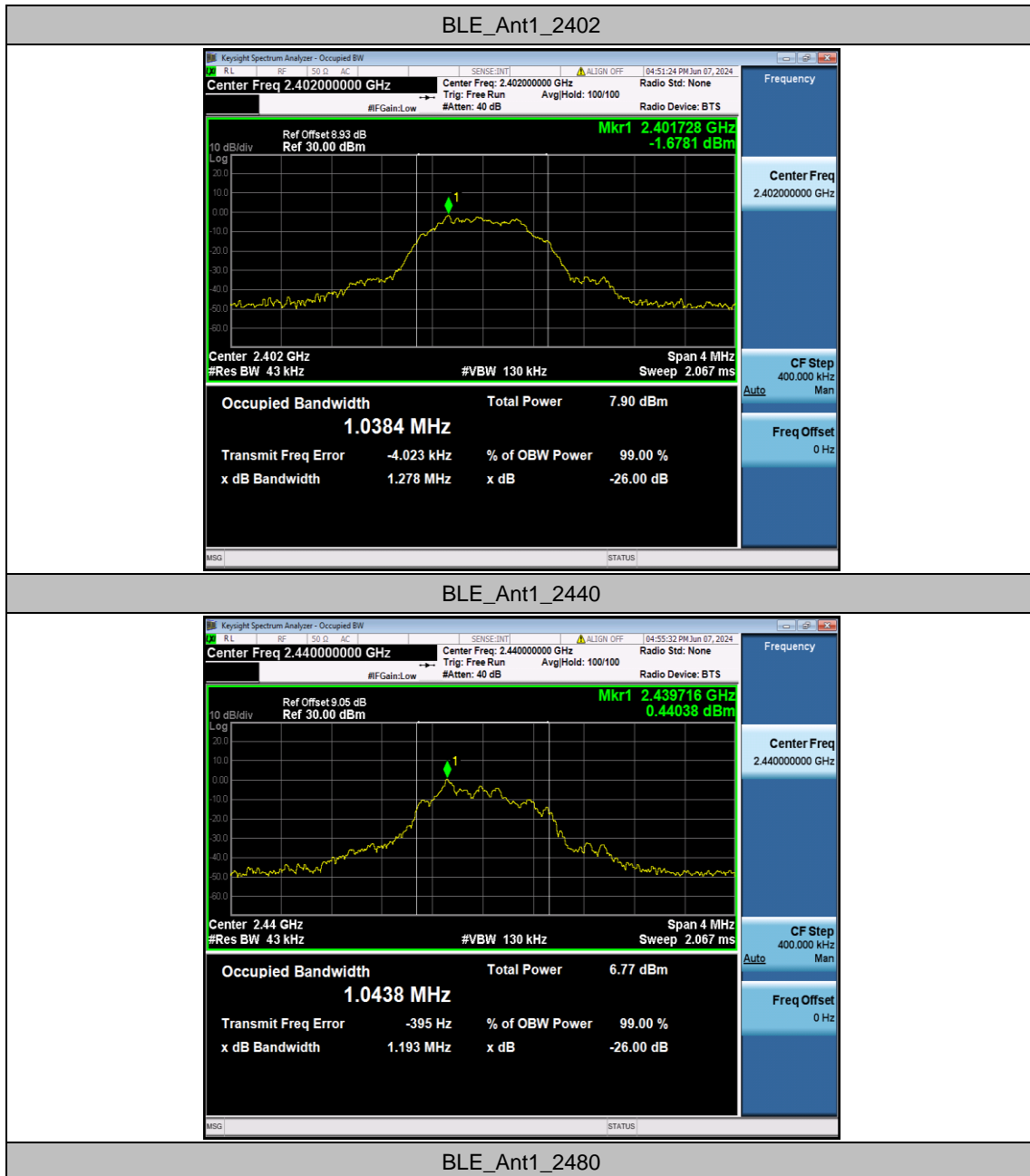


Appendix B.2: Occupied Channel Bandwidth

Test Result

TestMode	Antenna	Freq(MHz)	OCB [MHz]	FL[MHz]	FH[MHz]
BLE	Ant1	2402	1.0384	2401.4768	2402.5152
		2440	1.0438	2439.4777	2440.5215
		2480	1.0417	2479.4721	2480.5138

Test Graphs





Appendix B.3: Maximum conducted output power

Test Result Peak

TestMode	Antenna	Freq(MHz)	Conducted Peak Power[dBm]	Conducted Limit[dBm]	Verdict
BLE	Ant1	2402	1.59	≤30	PASS
		2440	2.48	≤30	PASS
		2480	1.69	≤30	PASS

Appendix B.4: Maximum power spectral density

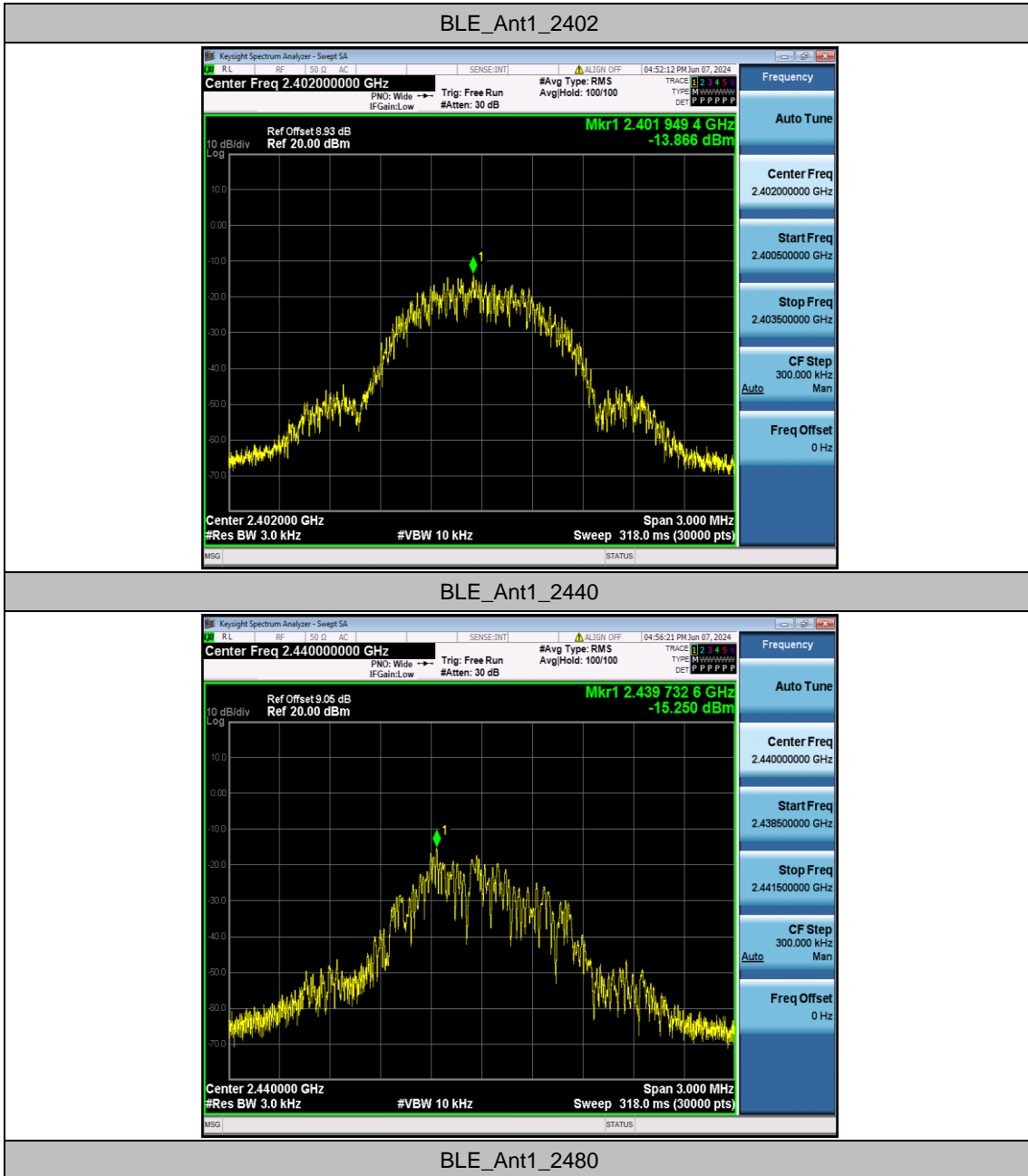
Test Result

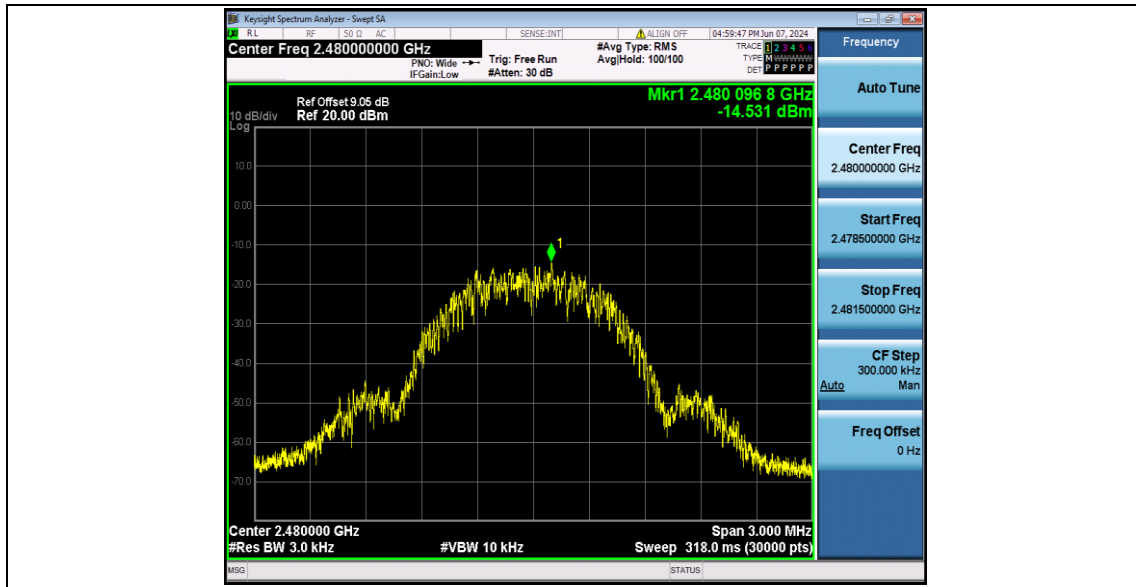
TestMode	Antenna	Freq(MHz)	Result[dBm/3kHz]	Limit[dBm/3kHz]	Verdict
BLE	Ant1	2402	-13.87	≤8.00	PASS
		2440	-15.25	≤8.00	PASS
		2480	-14.53	≤8.00	PASS

Note:

1. The Duty Cycle Factor and RBW Factor is compensated in the graph.

Test Graphs



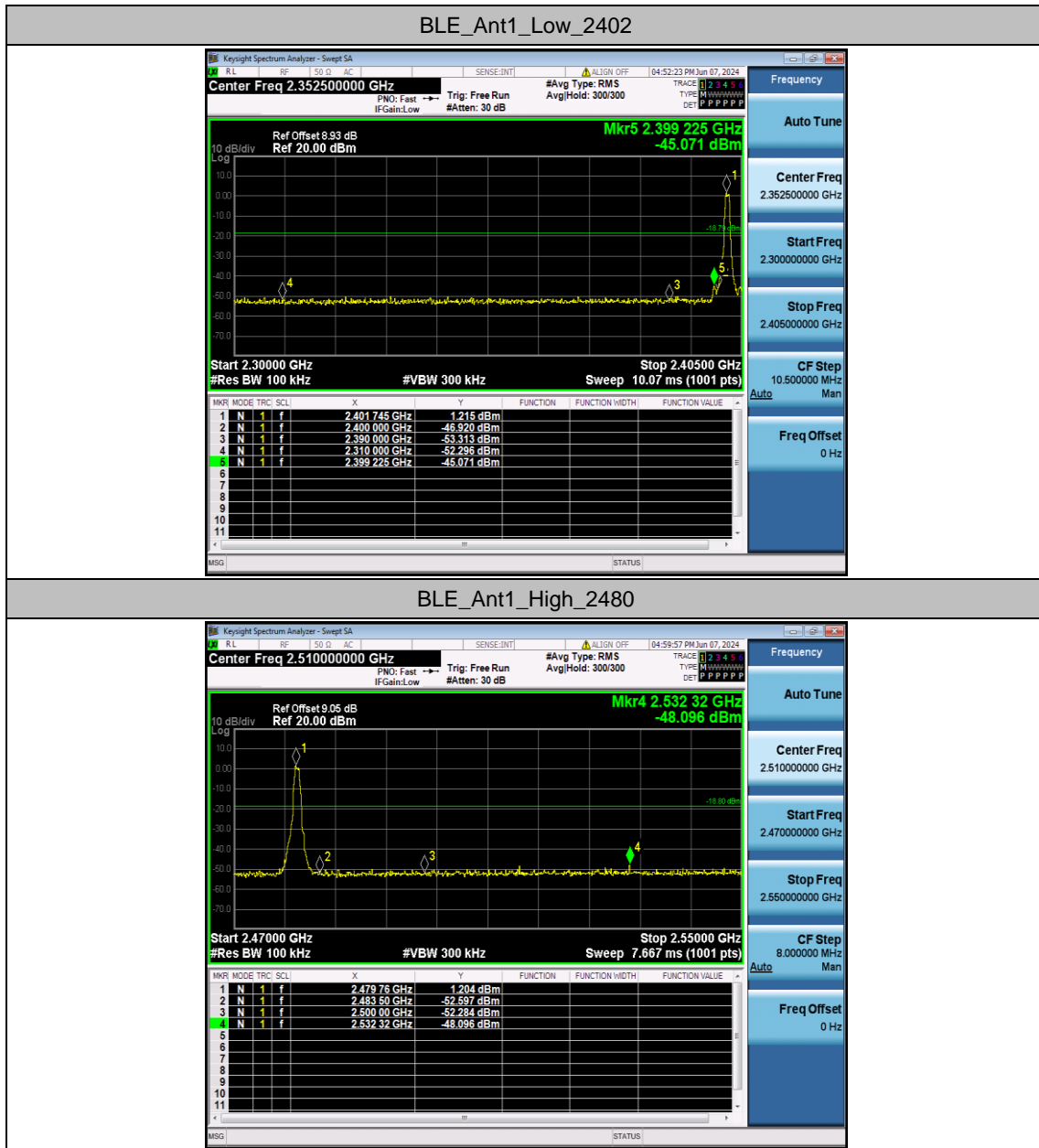


Appendix B.5: Band edge measurements

Test Result

TestMode	Antenna	ChName	Freq(MHz)	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE	Ant1	Low	2402	1.22	-45.07	≤-18.79	PASS
		High	2480	1.20	-48.1	≤-18.8	PASS

Test Graphs

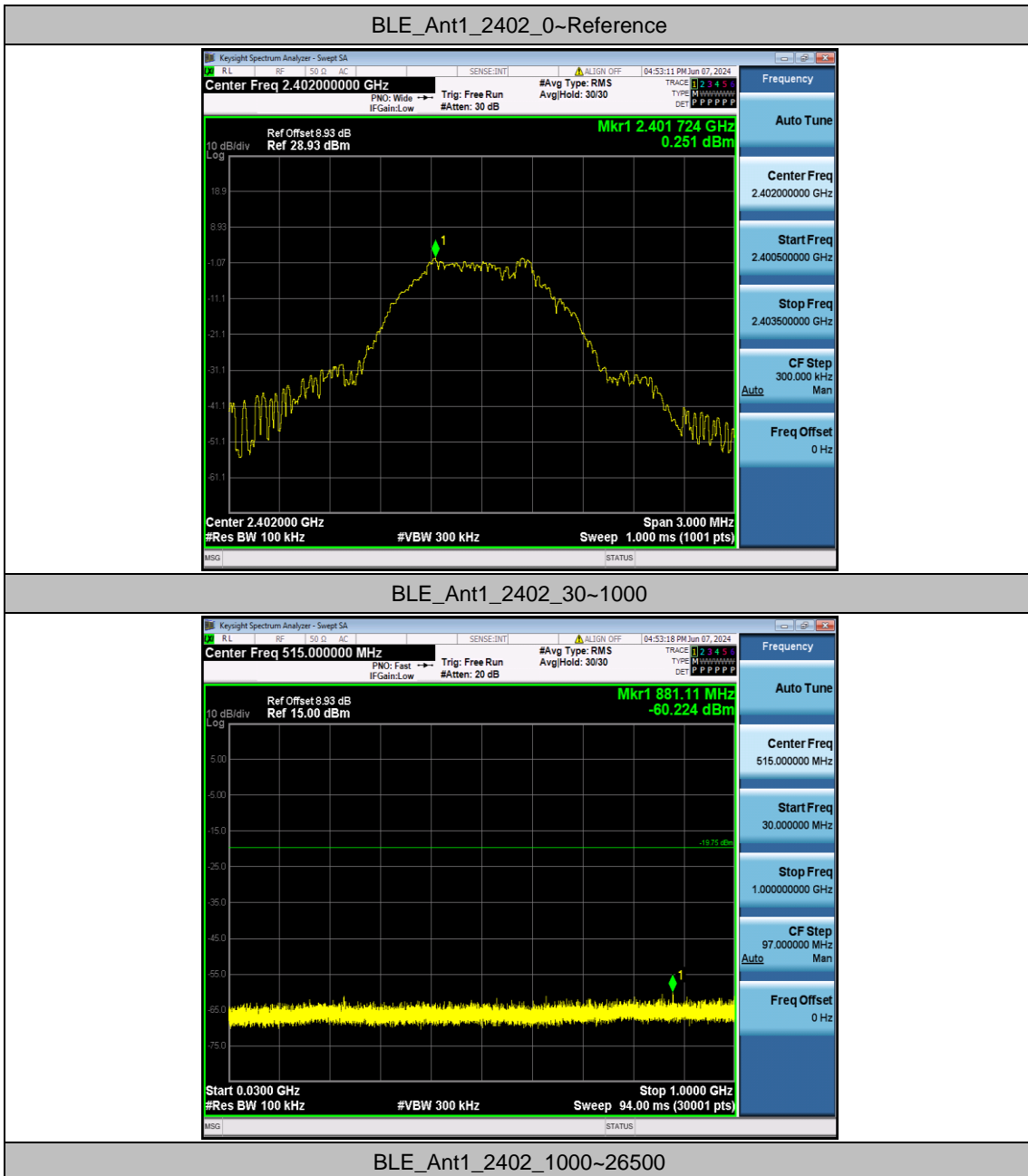


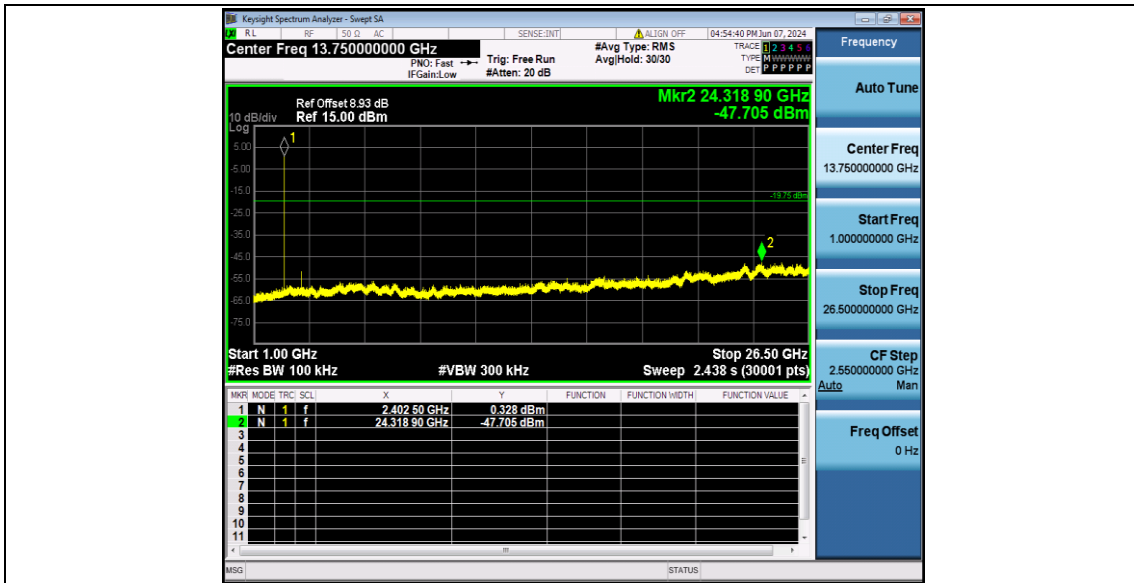
Appendix B.6: Conducted Spurious Emission

Test Result

TestMode	Antenna	Freq(MHz)	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE	Ant1	2402	Reference	0.25	0.25	---	PASS
			30~1000	0.25	-60.22	≤-19.75	PASS
			1000~26500	0.25	-47.71	≤-19.75	PASS
		2440	Reference	1.82	1.82	---	PASS
			30~1000	1.82	-61.01	≤-18.18	PASS
			1000~26500	1.82	-47.62	≤-18.18	PASS
		2480	Reference	-0.04	-0.04	---	PASS
			30~1000	-0.04	-60.33	≤-20.04	PASS
			1000~26500	-0.04	-47.7	≤-20.04	PASS

Test Graphs

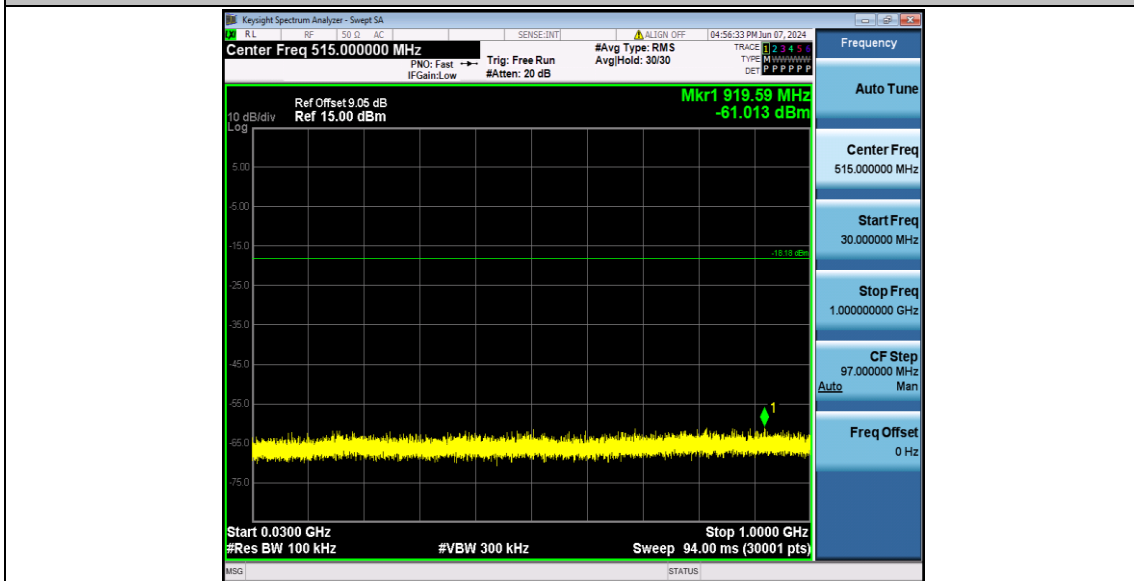




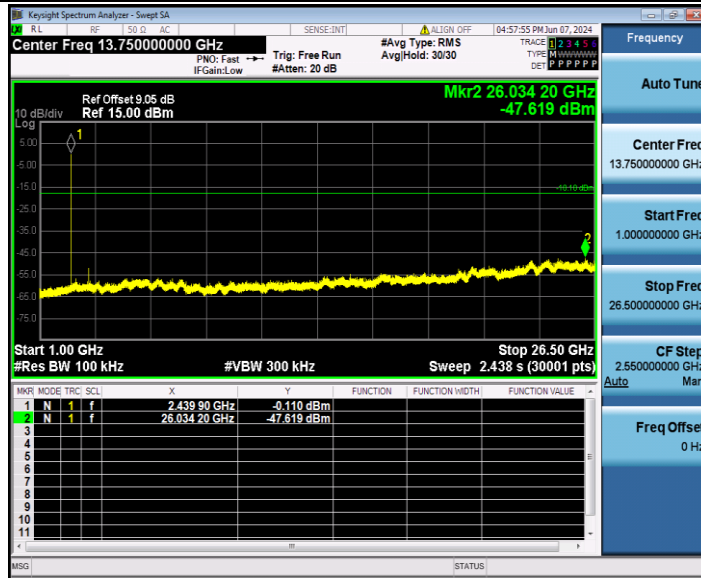
BLE_Ant1_2440_0-Reference



BLE_Ant1_2440_30-1000



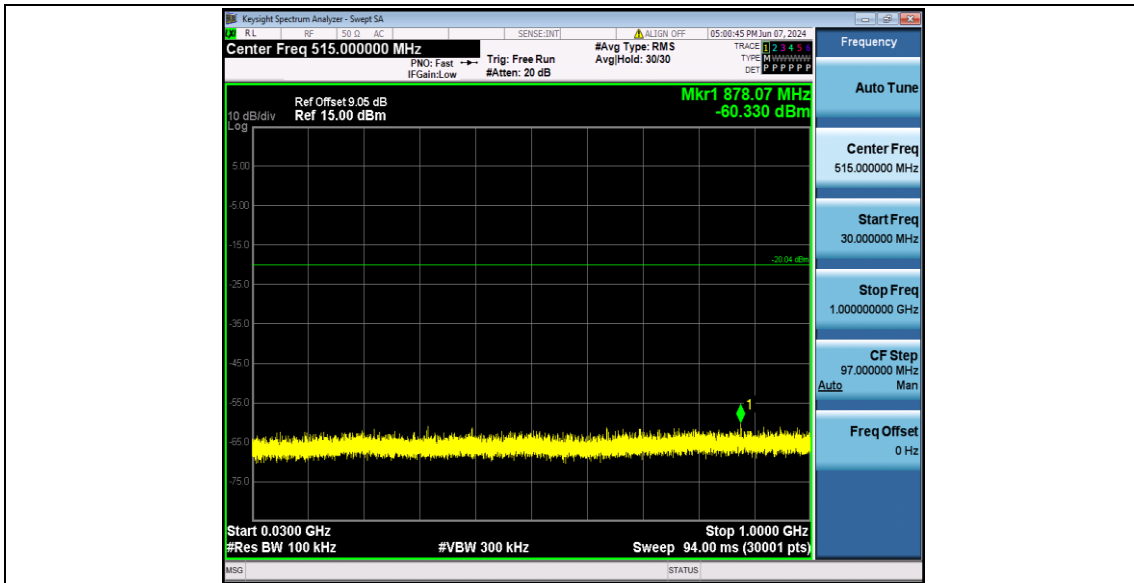
BLE_Ant1_2440_1000~26500



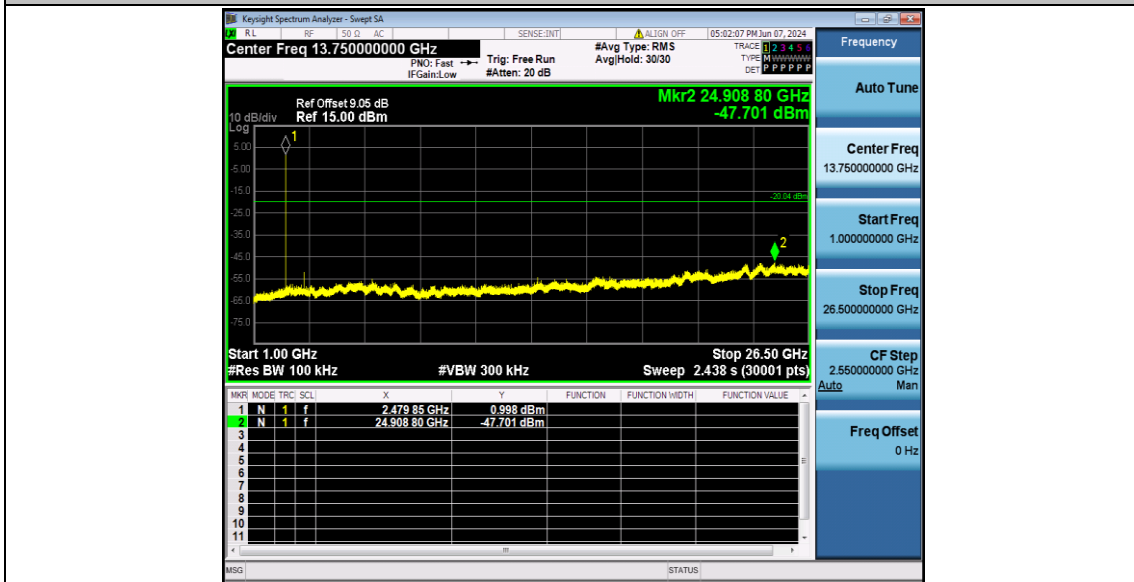
BLE_Ant1_2480_0~Reference



BLE_Ant1_2480_30~1000



BLE_Ant1_2480_1000~26500



Appendix B.7: Emissions in Restricted Bands

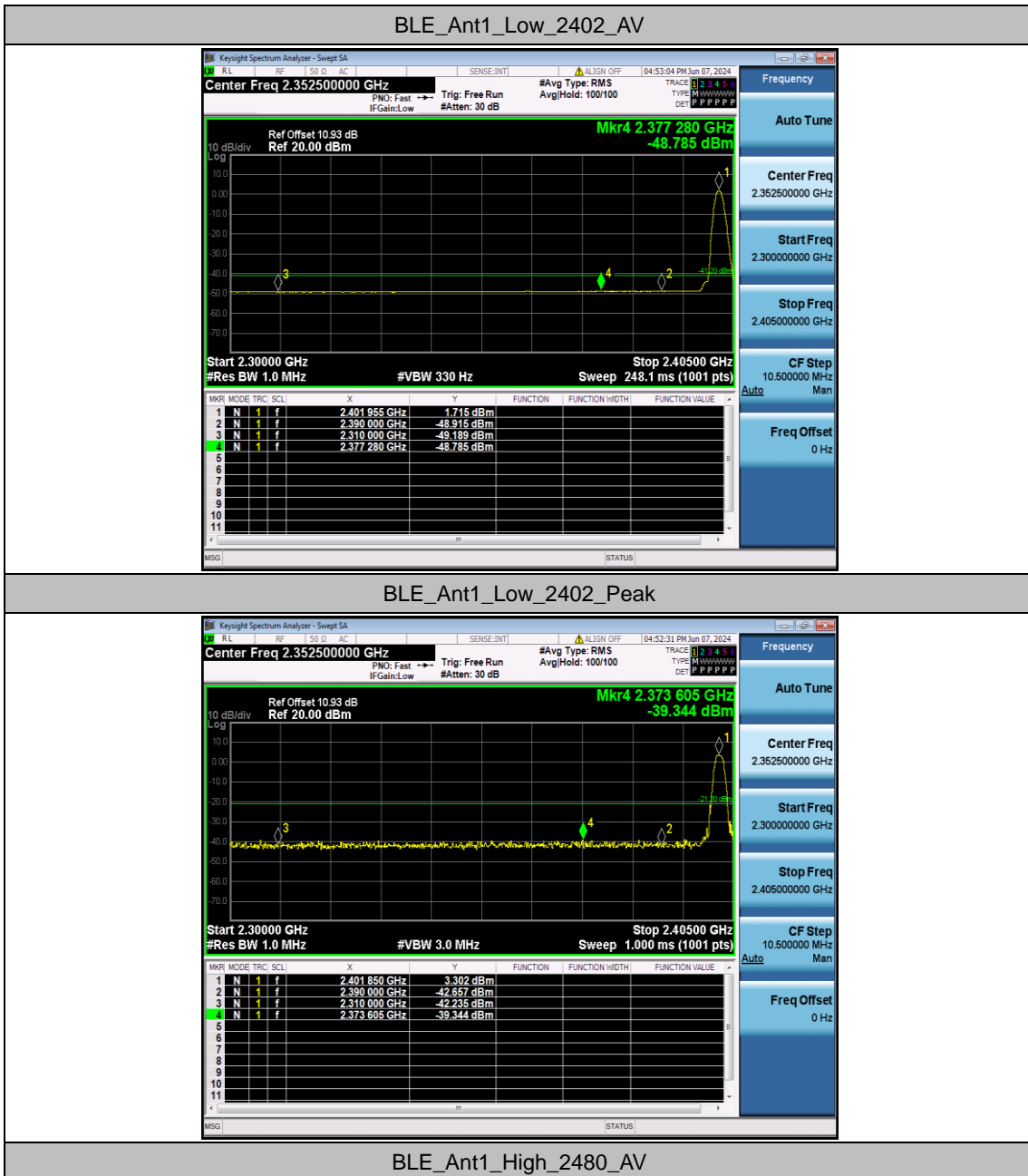
Test Result

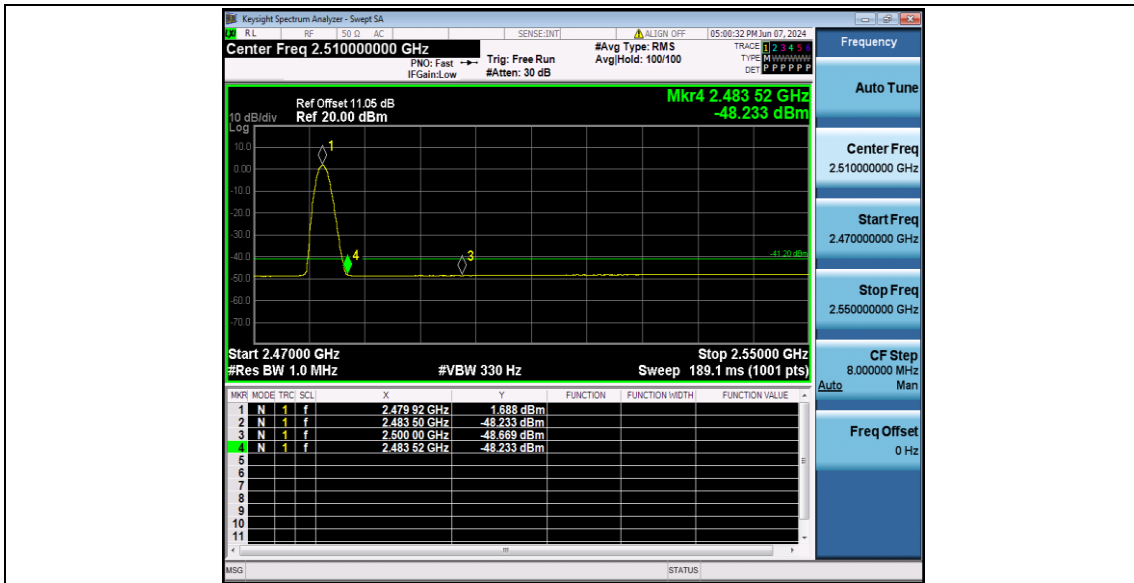
TestMode	Antenna	ChName	Freq(MHz)	Detector	Freq [MHz]	Result [dBm]	Limit [dBm]	Result [dBuV/m]	Limit [dBuV/m]	Verdict
BLE	Ant1	Low	2402	AV	2310.000	-49.19	≤-41.20	46.01	≤54	PASS
				AV	2377.280	-48.79	≤-41.20	46.41	≤54	PASS
				AV	2390.000	-48.92	≤-41.20	46.28	≤54	PASS
				Peak	2310.000	-42.24	≤-21.20	52.96	≤74	PASS
				Peak	2373.605	-39.34	≤-21.20	55.86	≤74	PASS
				Peak	2390.000	-42.66	≤-21.20	52.54	≤74	PASS
		High	2480	AV	2483.500	-48.23	≤-41.20	46.97	≤54	PASS
				AV	2483.520	-48.23	≤-41.20	46.97	≤54	PASS
				AV	2500.000	-48.67	≤-41.20	46.53	≤54	PASS
				Peak	2483.500	-41.88	≤-21.20	53.32	≤74	PASS
				Peak	2491.520	-39.4	≤-21.20	55.80	≤74	PASS
				Peak	2500.000	-40.16	≤-21.20	55.04	≤74	PASS

Note:

1. The Antenna Gain is compensated in the graph.
2. The Duty Cycle Factor and RBW Factor is compensated in the graph.
3. 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_High_2480_Peak

