

Case No. : <u>CTA24061300801</u>	
Ambient Condition: <u>23</u> °C, <u>49</u> %RH	
According Standard: ■Part15C	
Test Date: <u>2024.7.1</u>	Test Engineer: <u>Lushan Kong</u>

Appendix A.1: DTS Bandwidth

Test Result

TestMode	Antenna	Freq(MHz)	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE	Ant1	2402	0.728	2401.576	2402.304	0.5	PASS
		2440	0.724	2439.576	2440.300	0.5	PASS
		2480	0.740	2479.572	2480.312	0.5	PASS

Test Graphs



BLE_Ant1_2440

Frequency

Auto Tune

Center Freq
2.440000000 GHzStart Freq
2.438000000 GHzStop Freq
2.442000000 GHzCF Step
400.000 kHz
Auto ManFreq Offset
0 Hz

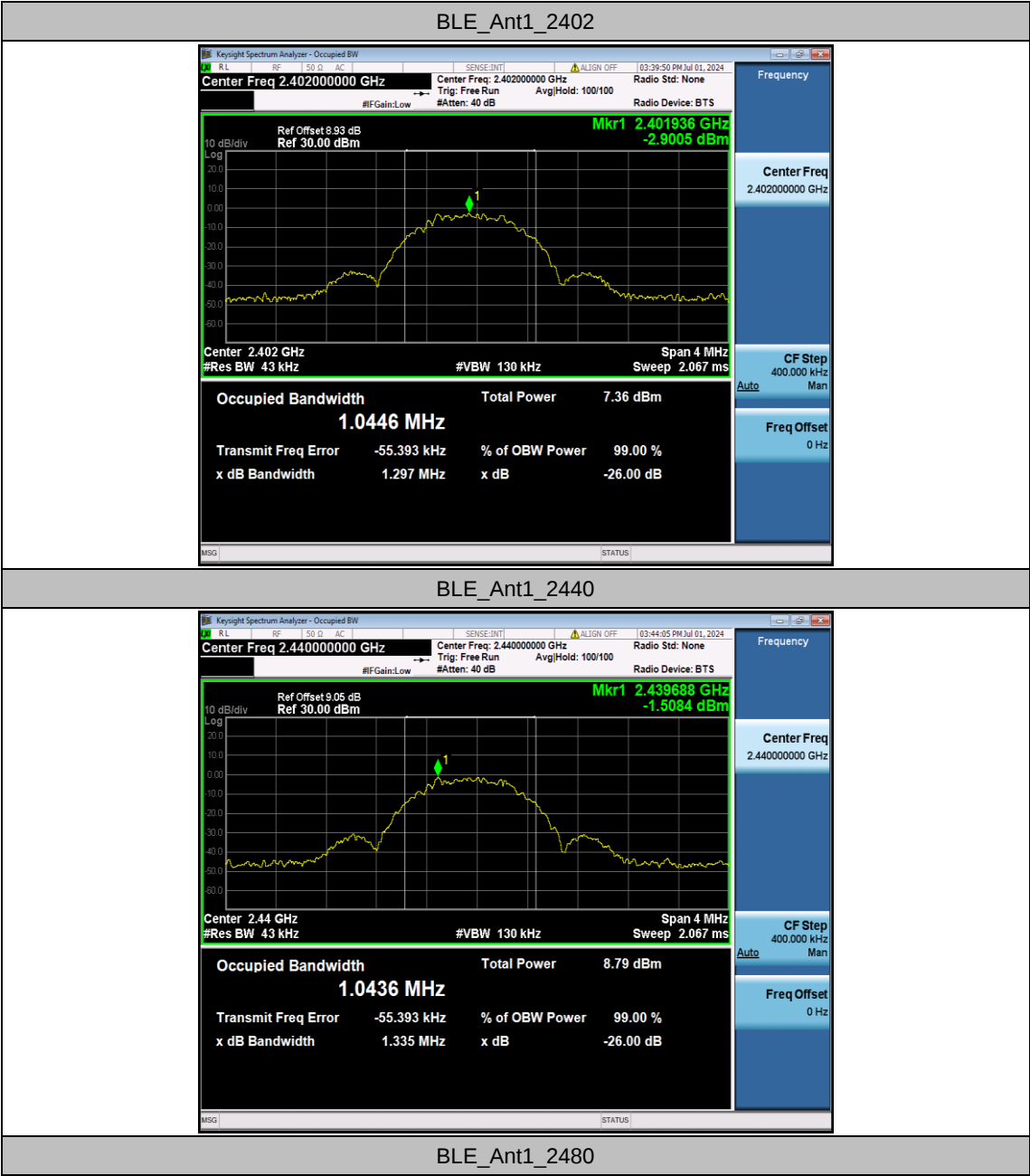
BLE_Ant1_2480

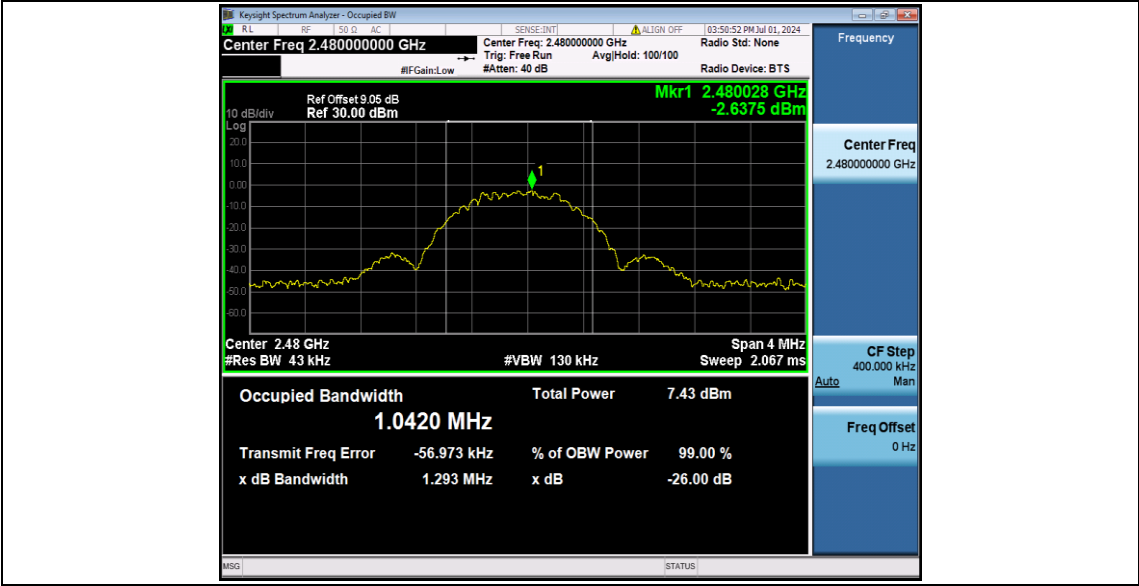
Appendix A.2: Occupied Channel Bandwidth

Test Result

TestMode	Antenna	Freq(MHz)	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE	Ant1	2402	1.0446	2401.4223	2402.4669	---	---
		2440	1.0436	2439.4228	2440.4664	---	---
		2480	1.0420	2479.4220	2480.4640	---	---

Test Graphs





Appendix A.3: Maximum conducted output power

Test Result Peak

TestMode	Antenna	Freq(MHz)	Conducted Peak Power[dBm]	Conducted Limit[dBm]	Verdict
BLE	Ant1	2402	1.19	≤30	PASS
		2440	2.69	≤30	PASS
		2480	1.19	≤30	PASS

Appendix A.4: Maximum power spectral density

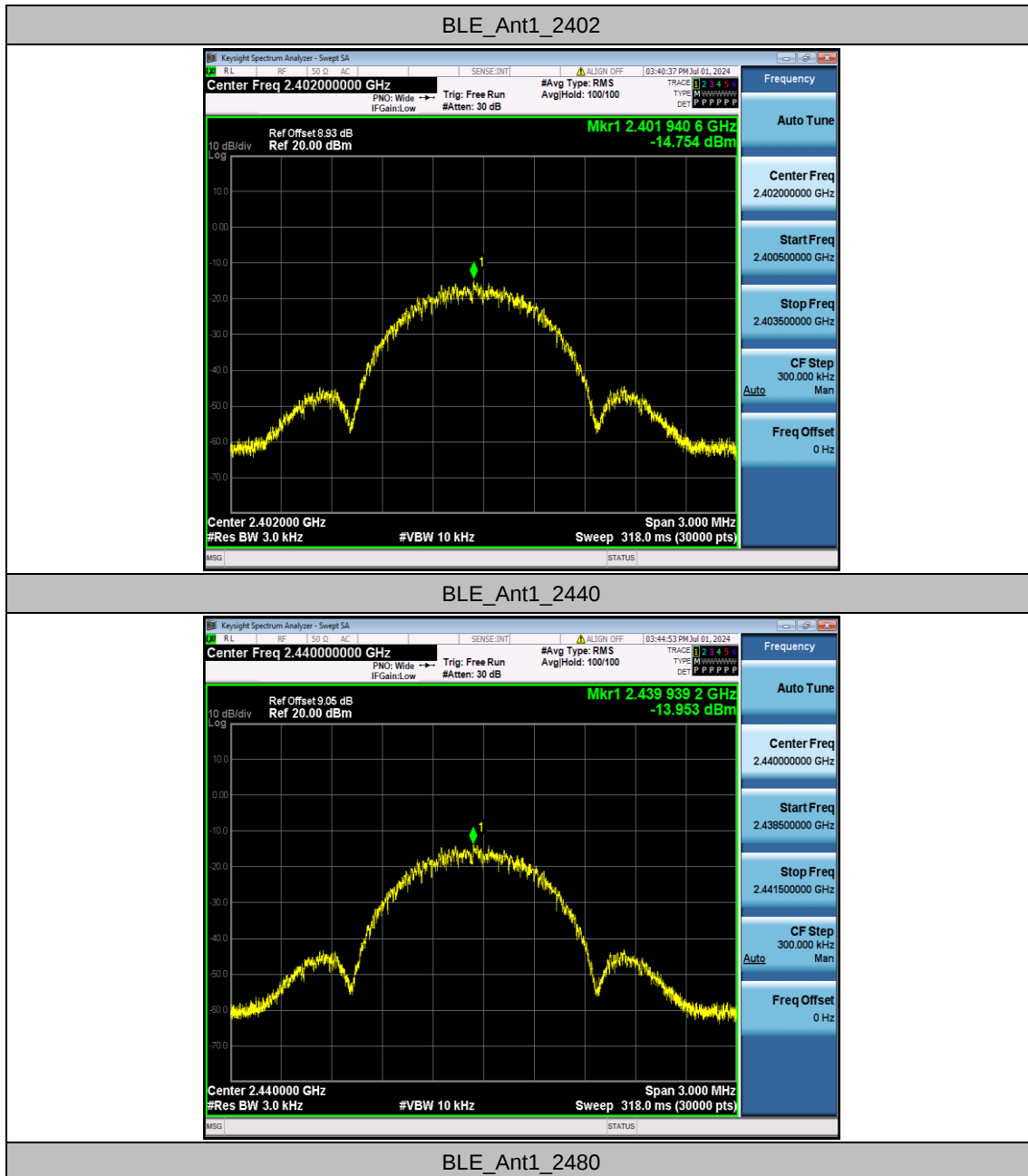
Test Result

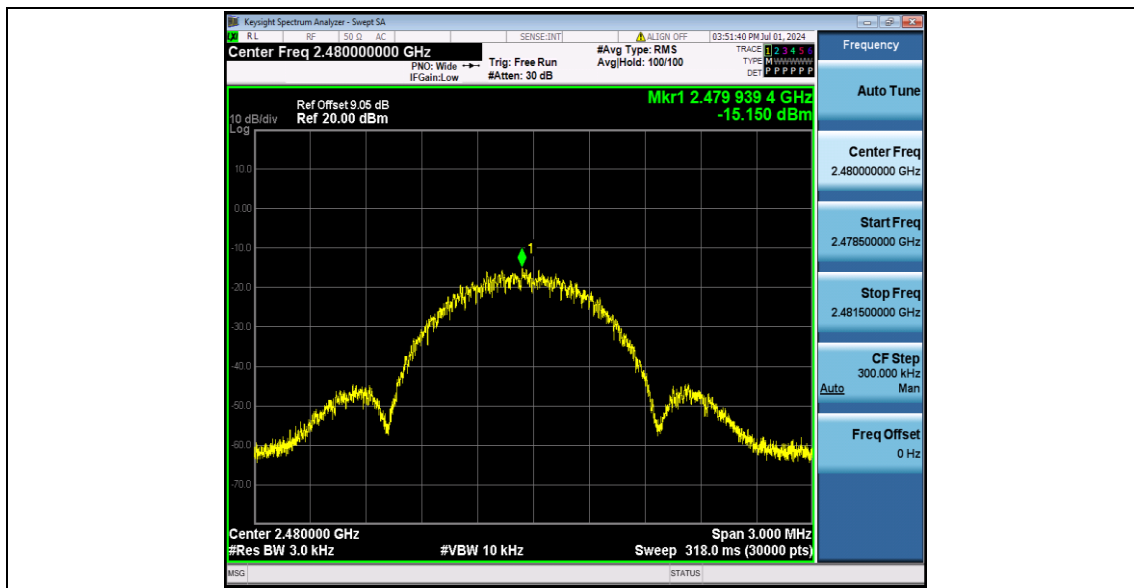
TestMode	Antenna	Freq(MHz)	Result[dBm/3kHz]	Limit[dBm/3kHz]	Verdict
BLE	Ant1	2402	-14.75	≤8.00	PASS
		2440	-13.95	≤8.00	PASS
		2480	-15.15	≤8.00	PASS

Note:

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

Test Graphs



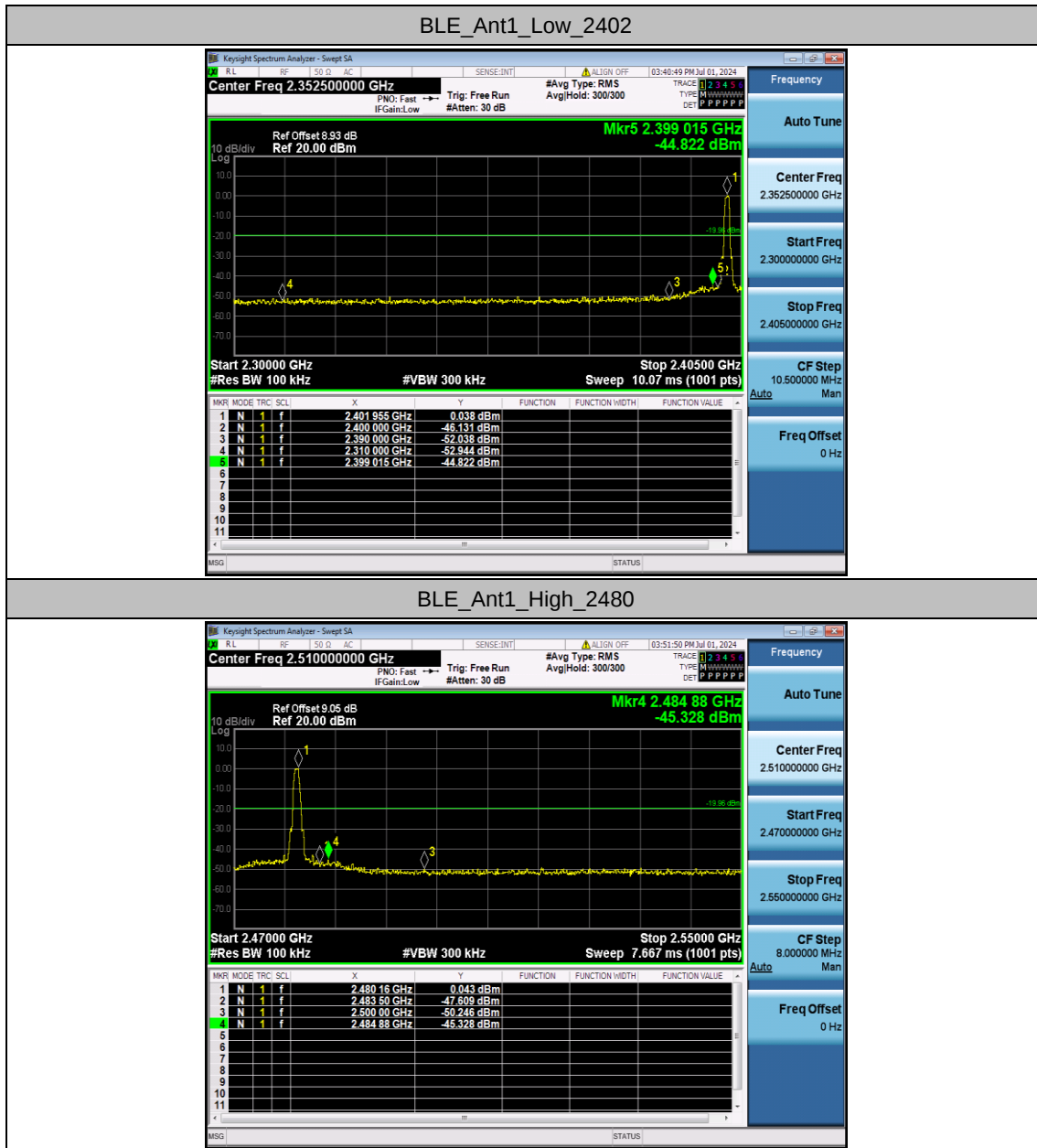


Appendix A.5: Band edge measurements

Test Result

TestMode	Antenna	ChName	Freq(MHz)	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE	Ant1	Low	2402	0.04	-44.82	≤-19.96	PASS
		High	2480	0.04	-45.33	≤-19.96	PASS

Test Graphs

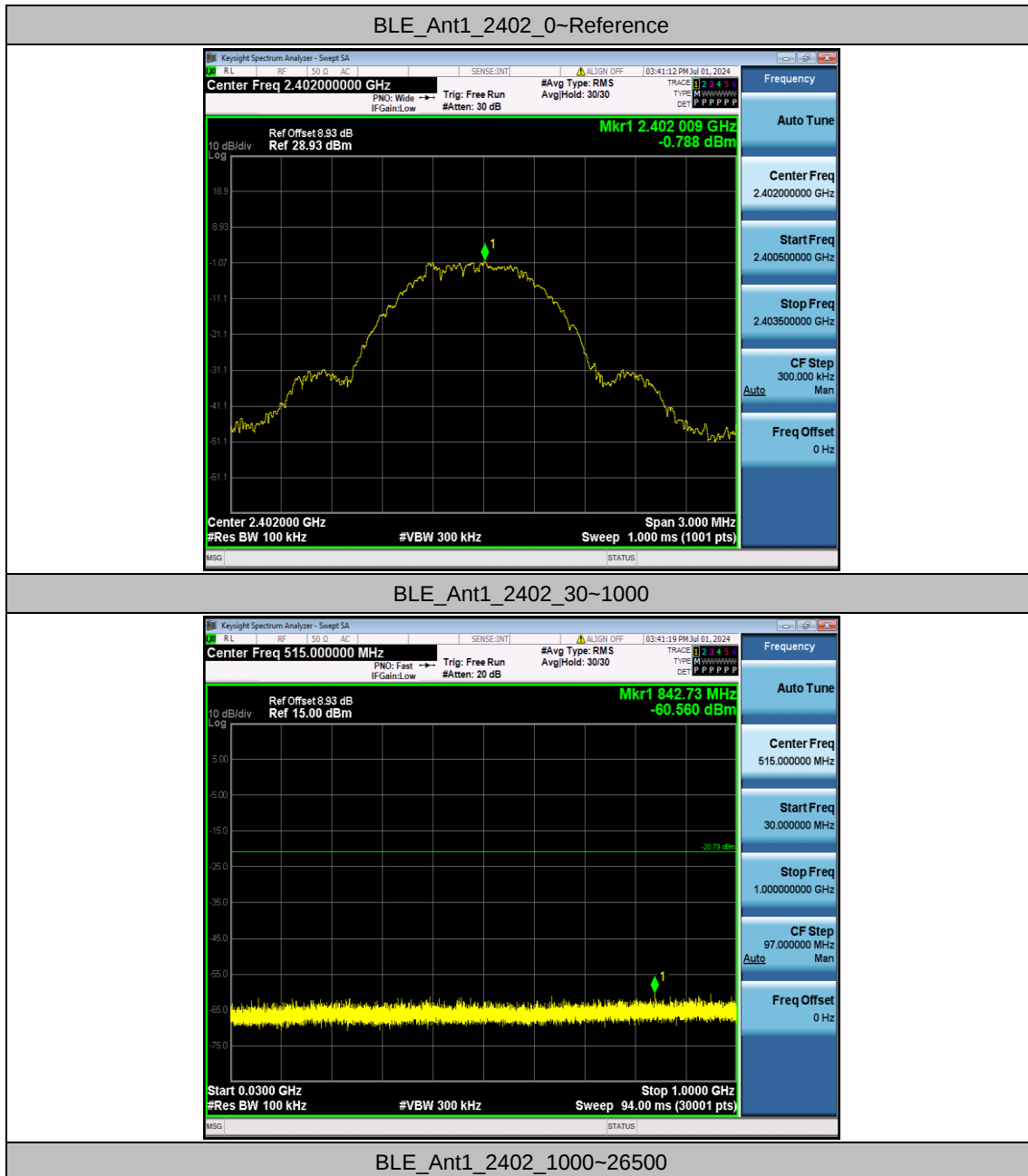


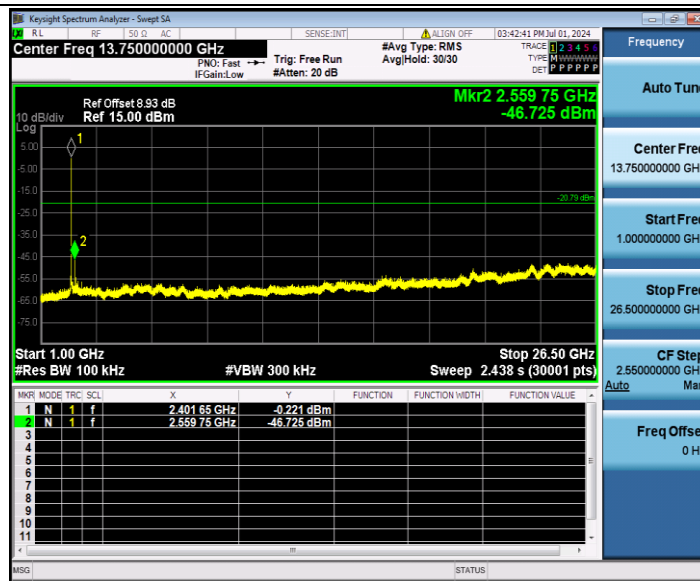
Appendix A.6: Conducted Spurious Emission

Test Result

TestMode	Antenna	Freq(MHz)	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE	Ant1	2402	Reference	-0.79	-0.79	---	PASS
			30~1000	-0.79	-60.56	≤ -20.79	PASS
			1000~26500	-0.79	-46.73	≤ -20.79	PASS
		2440	Reference	0.51	0.51	---	PASS
			30~1000	0.51	-60.19	≤ -19.49	PASS
			1000~26500	0.51	-46.77	≤ -19.49	PASS
		2480	Reference	-0.75	-0.75	---	PASS
			30~1000	-0.75	-60.21	≤ -20.75	PASS
			1000~26500	-0.75	-47	≤ -20.75	PASS

Test Graphs

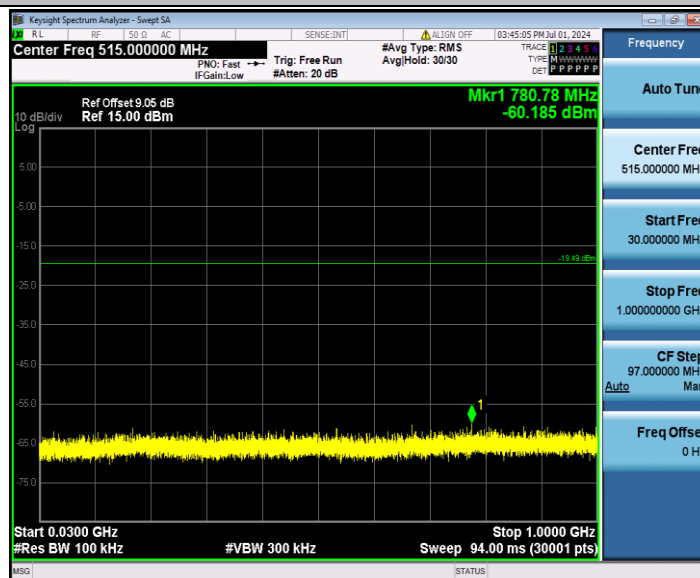




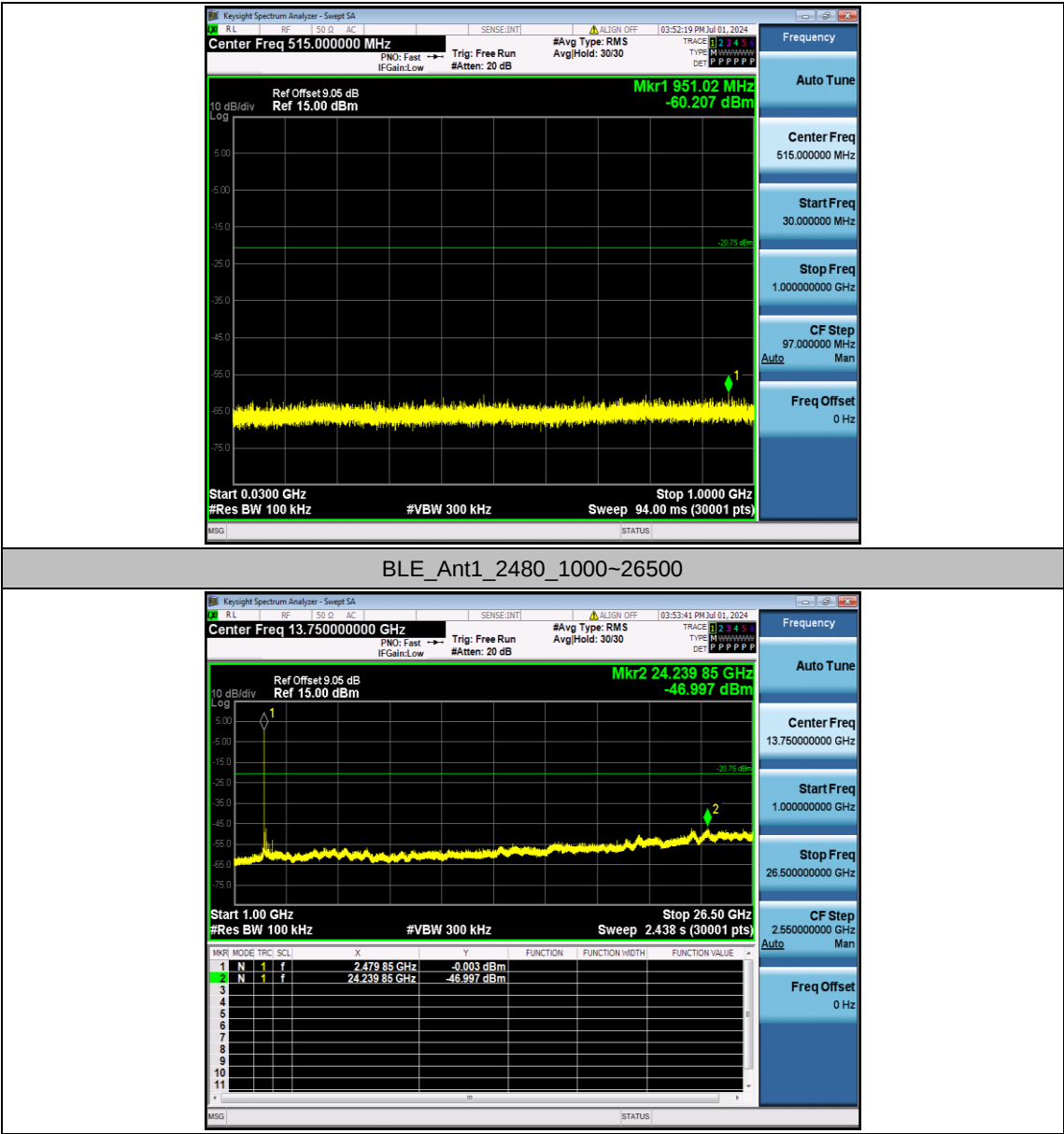
BLE_Ant1_2440_0~Reference



BLE_Ant1_2440_30~1000







Appendix A.7: Emissions in Restricted Bands

Test Result

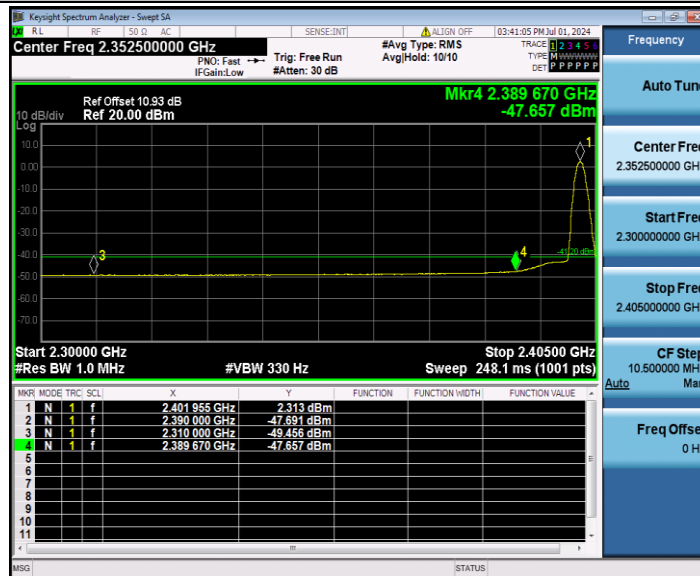
TestMode	Antenna	ChName	Freq(MHz)	Detector	Freq [MHz]	Result [dBm]	Limit [dBm]	Result [dBuV/m]	Limit [dBuV/m]	Verdict
BLE	Ant1	Low	2402	AV	2310.000	-49.46	≤-41.20	45.74	≤54	PASS
				AV	2389.670	-47.66	≤-41.20	47.54	≤54	PASS
				AV	2390.000	-47.69	≤-41.20	47.51	≤54	PASS
				Peak	2310.000	-45.16	≤-21.20	50.04	≤74	PASS
				Peak	2347.250	-39.34	≤-21.20	55.86	≤74	PASS
				Peak	2390.000	-43.81	≤-21.20	51.39	≤74	PASS
		High	2480	AV	2483.500	-43.18	≤-41.20	52.02	≤54	PASS
				AV	2483.520	-43.18	≤-41.20	52.02	≤54	PASS
				AV	2500.000	-48.08	≤-41.20	47.12	≤54	PASS
				Peak	2483.500	-39.16	≤-21.20	56.04	≤74	PASS
				Peak	2486.320	-36.27	≤-21.20	58.93	≤74	PASS
				Peak	2500.000	-42.83	≤-21.20	52.37	≤74	PASS

Note:

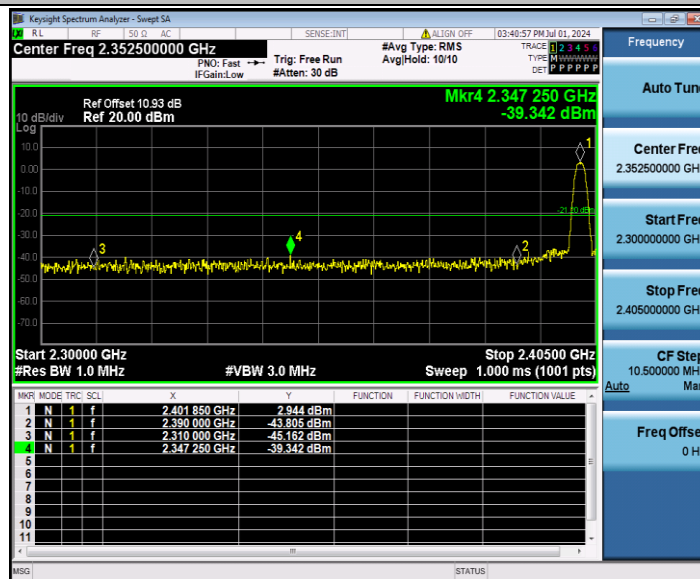
1. The Antenna Gain is compensated in the graph.
2. The Duty Cycle Factor and RBW Factor is compensated in the graph.
3. The limit in dBm for average detector is conversion from 54dBuV/m, according to 15.209(a). The limit in dBm for peak detector is 20dB above the limit of average detector in dBm.

Test Graphs

BLE_Ant1_Low_2402_AV



BLE_Ant1_Low_2402_Peak



BLE_Ant1_High_2480_AV

