
Case No. : <u>GTS20250807004-4-01A</u>
Ambient Condition: <u>23</u> °C, <u>50</u> %RH
According Standard: <u>■Part15C</u>
Test Date: <u>2025.8.13-2025.8.28</u> Test Engineer: <u>Evan ouyang</u>

AppendixA.1: DTS Bandwidth

Test Result

TestMode	Antenna	Freq(MHz)	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE	Ant1	2402	0.680	2401.664	2402.344	0.5	PASS
		2440	0.684	2439.648	2440.332	0.5	PASS
		2480	0.676	2479.648	2480.324	0.5	PASS

Test Graphs

BLE_Ant1_2402



BLE_Ant1_2440



BLE_Ant1_2480



AppendixA.2: Occupied Channel Bandwidth

Test Result

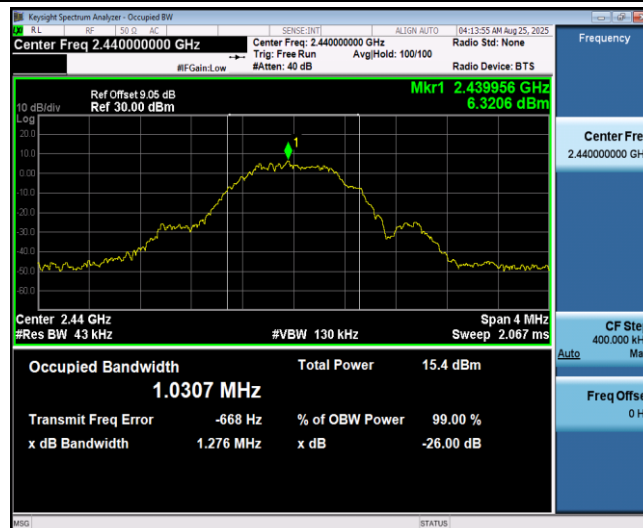
TestMode	Antenna	Freq(MHz)	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE	Ant1	2402	1.0212	2401.4830	2402.5042	---	---
		2440	1.0307	2439.4840	2440.5147	---	---
		2480	1.0251	2479.4947	2480.5198	---	---

Test Graphs

BLE_Ant1_2402



BLE_Ant1_2440



BLE_Ant1_2480



AppendixA.3: Maximum conducted output power

Test Result Peak

TestMode	Antenna	Freq(MHz)	Conducted Peak Power[dBm]	Conducted Limit[dBm]	Verdict
BLE	Ant1	2402	13.99	≤30	PASS
		2440	13.72	≤30	PASS
		2480	13.52	≤30	PASS

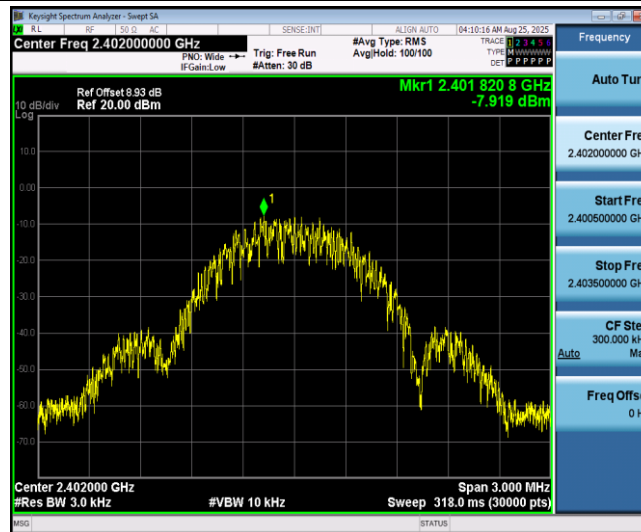
AppendixA.4: Maximum power spectral density

Test Result

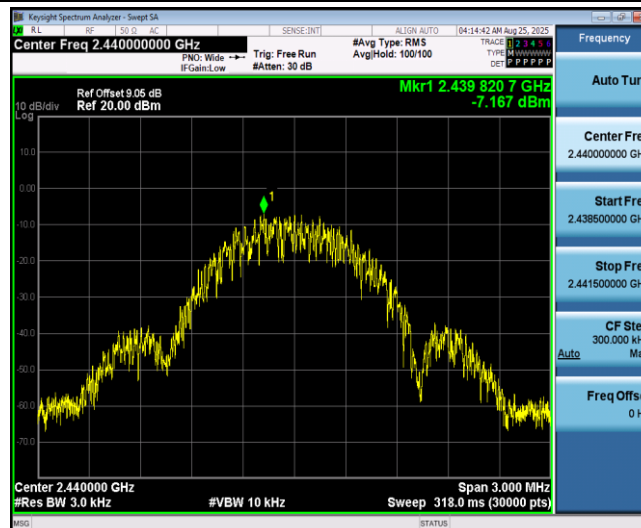
TestMode	Antenna	Freq(MHz)	Result[dBm/3kHz]	Limit[dBm/3kHz]	Verdict
BLE	Ant1	2402	-7.92	≤8.00	PASS
		2440	-7.17	≤8.00	PASS
		2480	-7.33	≤8.00	PASS

Test Graphs

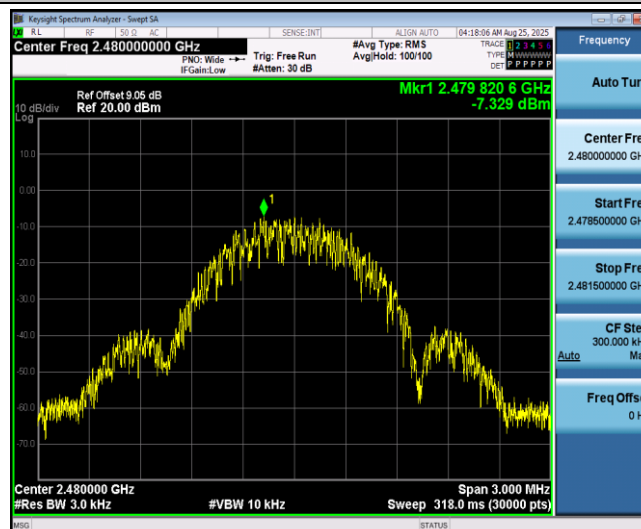
BLE_Ant1_2402



BLE_Ant1_2440



BLE_Ant1_2480

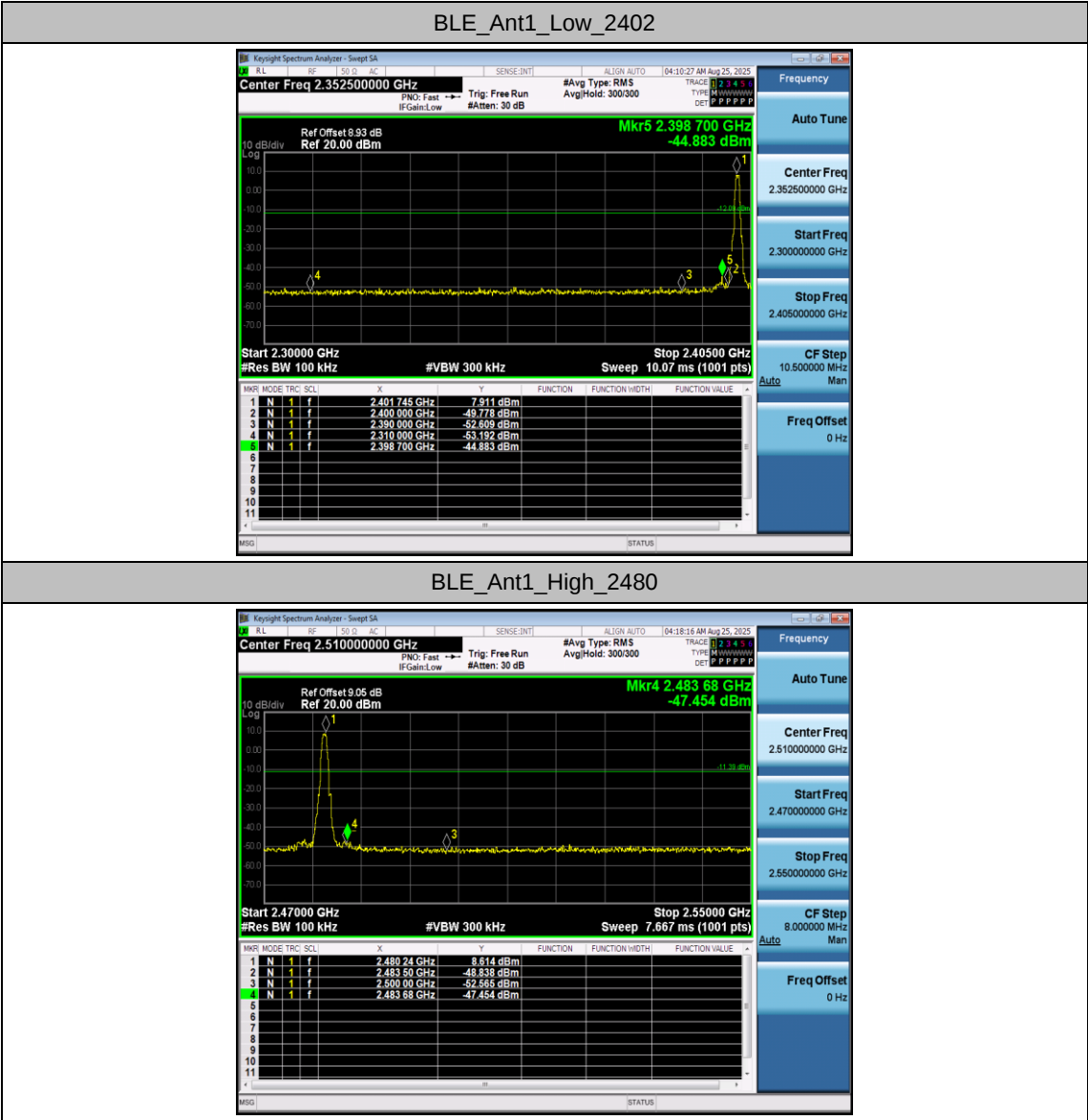


Appendix A.5: Band edge measurements

Test Result

TestMode	Antenna	ChName	Freq(MHz)	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE	Ant1	Low	2402	7.91	-44.88	≤-12.09	PASS
		High	2480	8.61	-47.45	≤-11.39	PASS

Test Graphs



BLE_Ant1_High_2480

Frequency
Auto Tune
Center Freq 2.510000000 GHz
Start Freq 2.470000000 GHz
Stop Freq 2.550000000 GHz
CF Step 8.000000 MHz
Auto
Freq Offset 0 Hz

AppendixA.6:Conducted Spurious Emission

Test Result

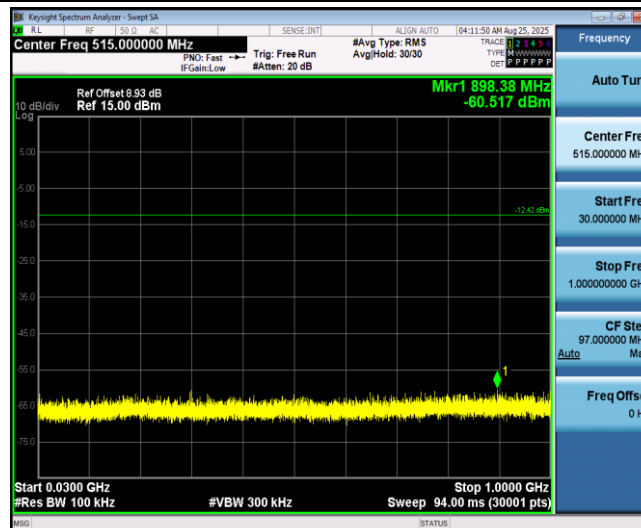
TestMode	Antenna	Freq(MHz)	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE	Ant1	2402	Reference	7.58	7.58	---	PASS
			30~1000	7.58	-60.52	≤ -12.42	PASS
			1000~26500	7.58	-42.68	≤ -12.42	PASS
		2440	Reference	8.39	8.39	---	PASS
			30~1000	8.39	-60.1	≤ -11.61	PASS
			1000~26500	8.39	-44.59	≤ -11.61	PASS
		2480	Reference	7.76	7.76	---	PASS
			30~1000	7.76	-59.98	≤ -12.24	PASS
			1000~26500	7.76	-45.55	≤ -12.24	PASS

Test Graphs

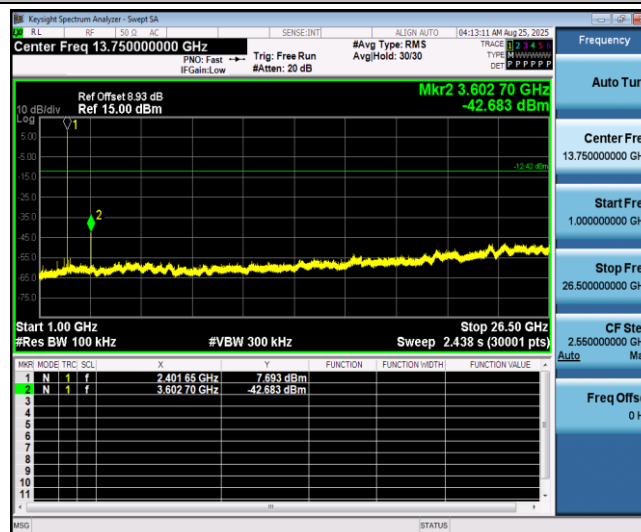
BLE_Ant1_2402_0-Reference



BLE_Ant1_2402_30-1000



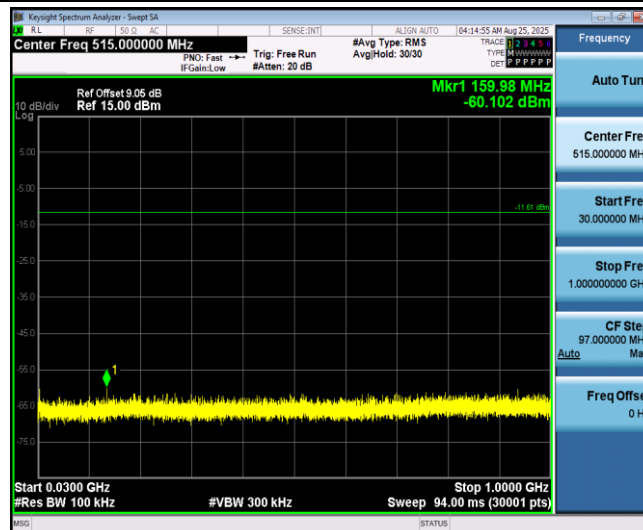
BLE_Ant1_2402_1000-26500



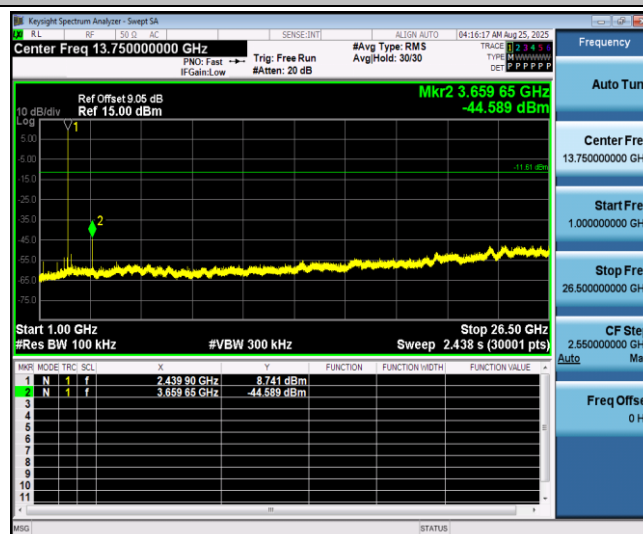
BLE_Ant1_2440_0-Reference



BLE_Ant1_2440_30~1000



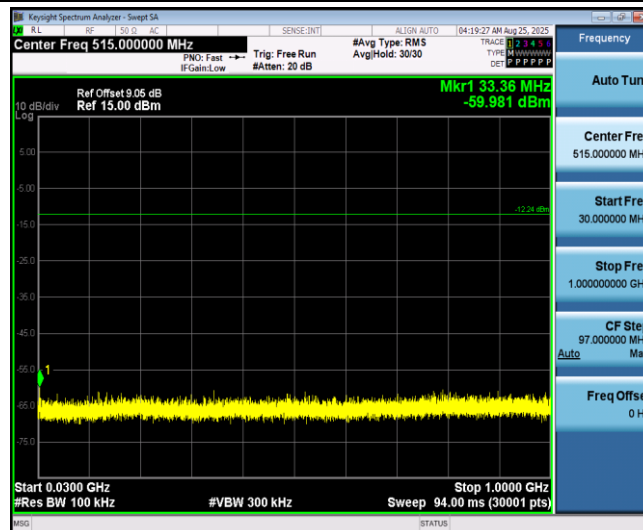
BLE_Ant1_2440_1000~26500



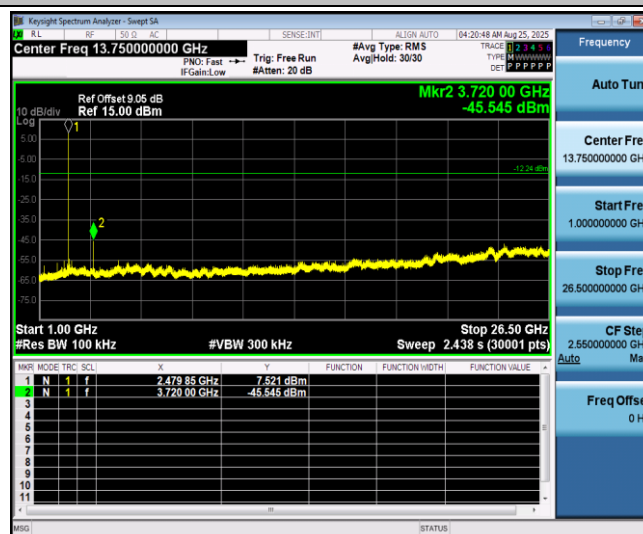
BLE_Ant1_2480_0~Reference



BLE_Ant1_2480_30~1000



BLE_Ant1_2480_1000~26500



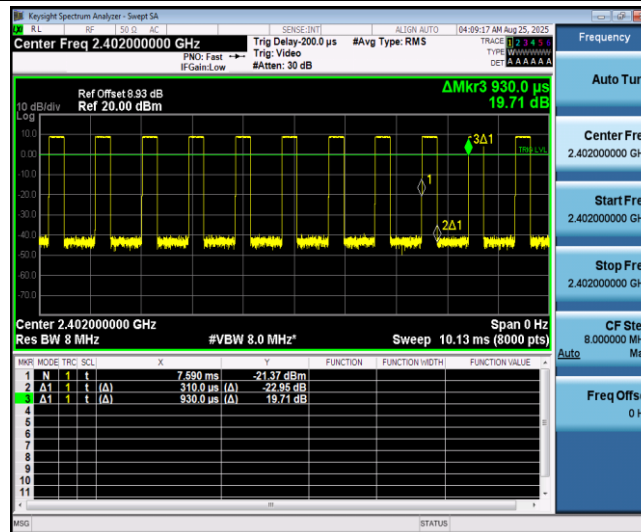
AppendixA.7: Duty Cycle

Test Result

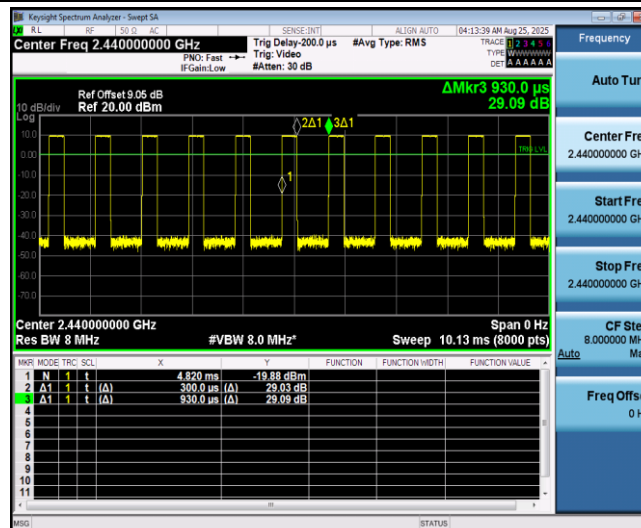
TestMode	Antenna	Freq(MHz)	ON Time [ms]	Period [ms]	X	DC [%]	Duty Cycle Factor[dB]	1/T Factor[KHz]
BLE	Ant1	2402	0.31	0.93	0.3333	33.33	4.77	3.23
		2440	0.30	0.93	0.3226	32.26	4.91	3.33
		2480	0.30	0.93	0.3226	32.26	4.91	3.33

Test Graphs

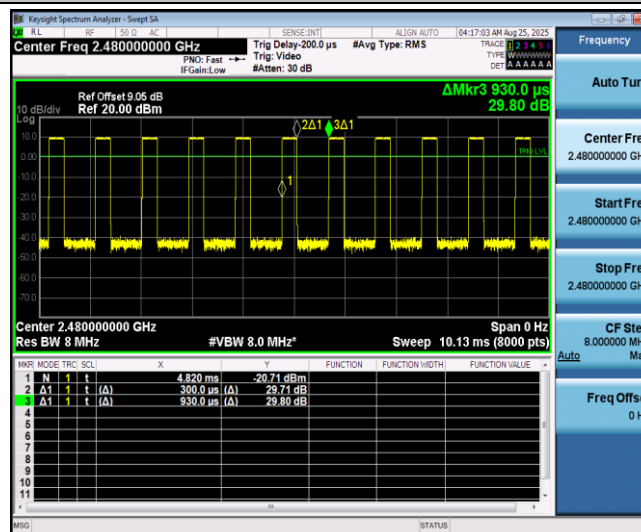
BLE_Ant1_2402



BLE_Ant1_2440



BLE_Ant1_2480



Appendix A.8: Emissions in Restricted Bands

Test Result

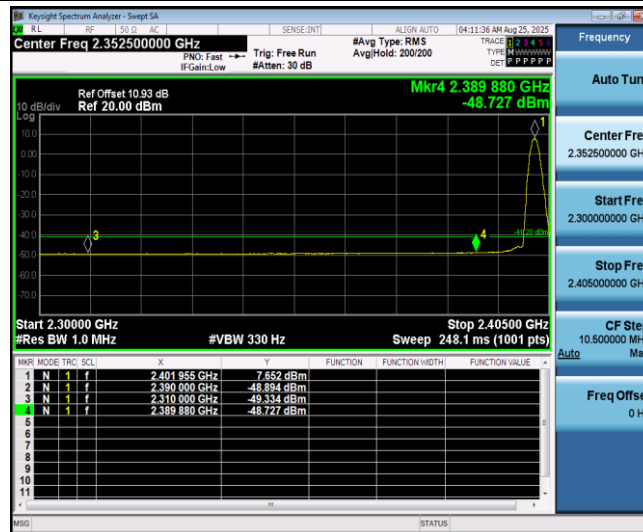
TestMode	Antenna	ChName	Freq(MHz)	Detector	Freq [MHz]	Result [dBm]	Limit [dBm]	Result [dBuV/m]	Limit [dBuV/m]	Verdict
BLE	Ant1	Low	2402	AV	2310.000	-49.33	≤-41.20	45.87	≤54	PASS
				AV	2389.880	-48.73	≤-41.20	46.47	≤54	PASS
				AV	2390.000	-48.89	≤-41.20	46.31	≤54	PASS
				Peak	2310.000	-41.88	≤-21.20	53.32	≤74	PASS
				Peak	2357.435	-39.08	≤-21.20	56.12	≤74	PASS
				Peak	2390.000	-40.96	≤-21.20	54.24	≤74	PASS
		High	2480	AV	2483.500	-44.98	≤-41.20	50.22	≤54	PASS
				AV	2483.520	-44.98	≤-41.20	50.22	≤54	PASS
				AV	2500.000	-48.41	≤-41.20	46.79	≤54	PASS
				Peak	2483.500	-36.87	≤-21.20	58.33	≤74	PASS
				Peak	2483.760	-35.44	≤-21.20	59.76	≤74	PASS
				Peak	2500.000	-40.16	≤-21.20	55.04	≤74	PASS

Note:

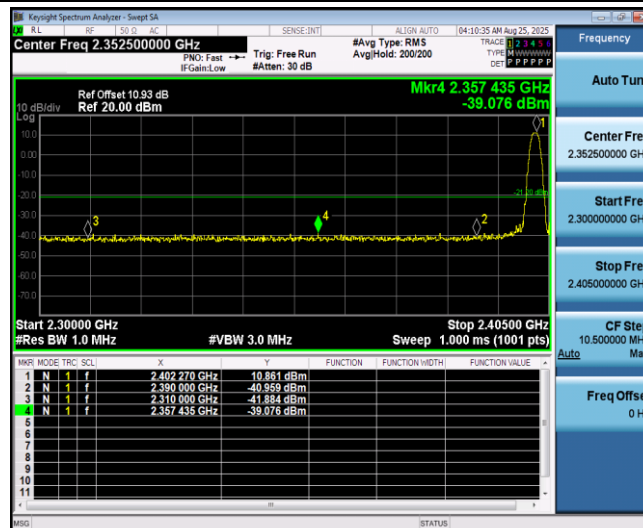
1. The Antenna Gain is compensated in the graph.
2. The Duty Cycle Factor and RBW Factor is compensated in the graph.
3. The limit in dBm for average detector is conversion from 54dBuV/m, according to 15.209(a). The limit in dBm for peak detector is 20dB above the limit of average detector in dBm.

Test Graphs

BLE_Ant1_Low_2402_AV



BLE_Ant1_Low_2402_Peak



BLE_Ant1_High_2480_AV

