

<b>Case No. :</b> <u>GTS20230619008-1-6</u>
<b>Ambient Condition:</b> <u>23</u> °C, <u>49</u> %RH, Atmos100.1Kpa,
<b>Test Date:</b> <u>2023.8.1</u> <b>Test Engineer:</b> <u>Evan Ouyang</u>

## Appendix A.1: DTS Bandwidth

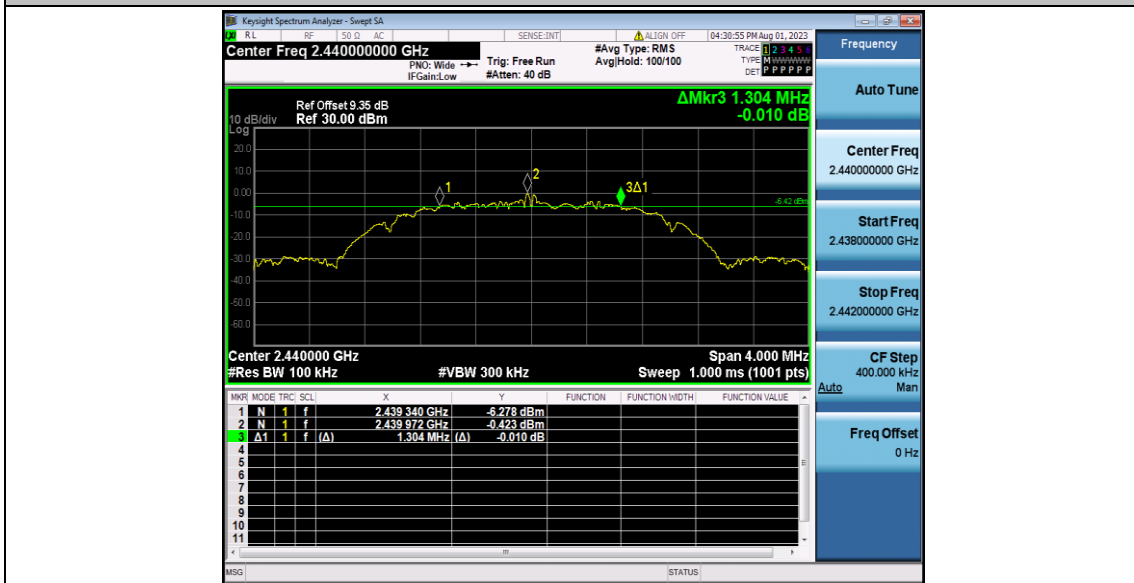
### Test Result

Test Mode	Antenna	Frequency[MHz]	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
ZigBee	Ant1	2405	1.316	2404.344	2405.660	0.5	PASS
		2440	1.304	2439.340	2440.644	0.5	PASS
		2480	1.648	2479.164	2480.812	0.5	PASS

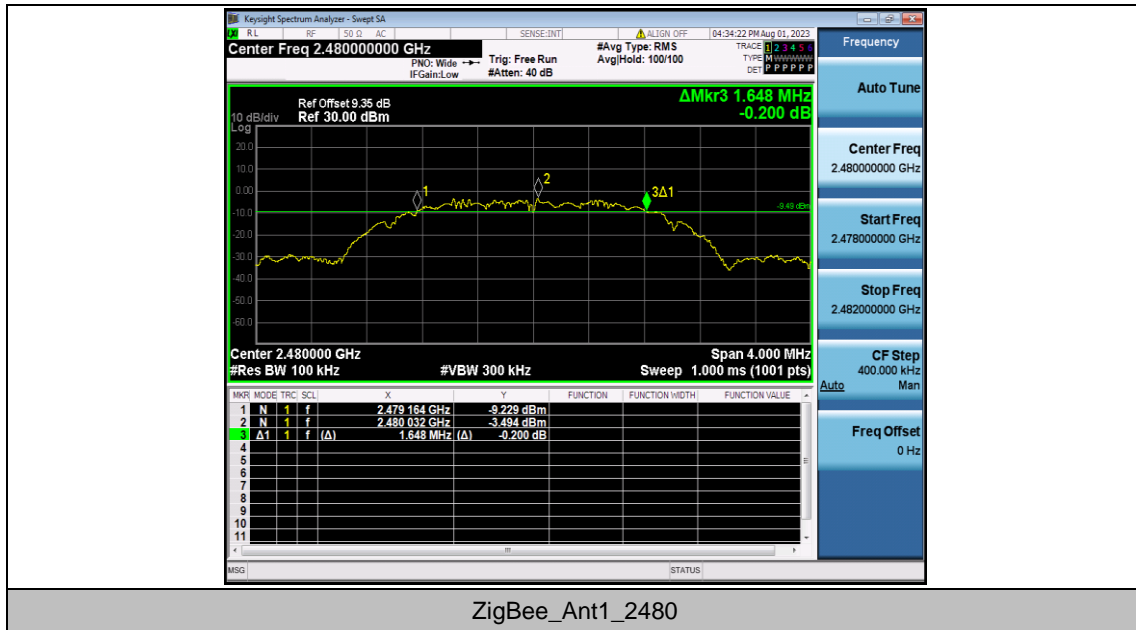
## Test Graphs



ZigBee\_Ant1\_2405



ZigBee\_Ant1\_2440



## Appendix A.2: Occupied Channel Bandwidth

### Test Result

Test Mode	Antenna	Frequency[MHz]	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
ZigBee	Ant1	2405	2.2325	2403.871	2406.104	---	---
		2440	2.2278	2438.872	2441.100	---	---
		2480	2.2418	2478.867	2481.109	---	---

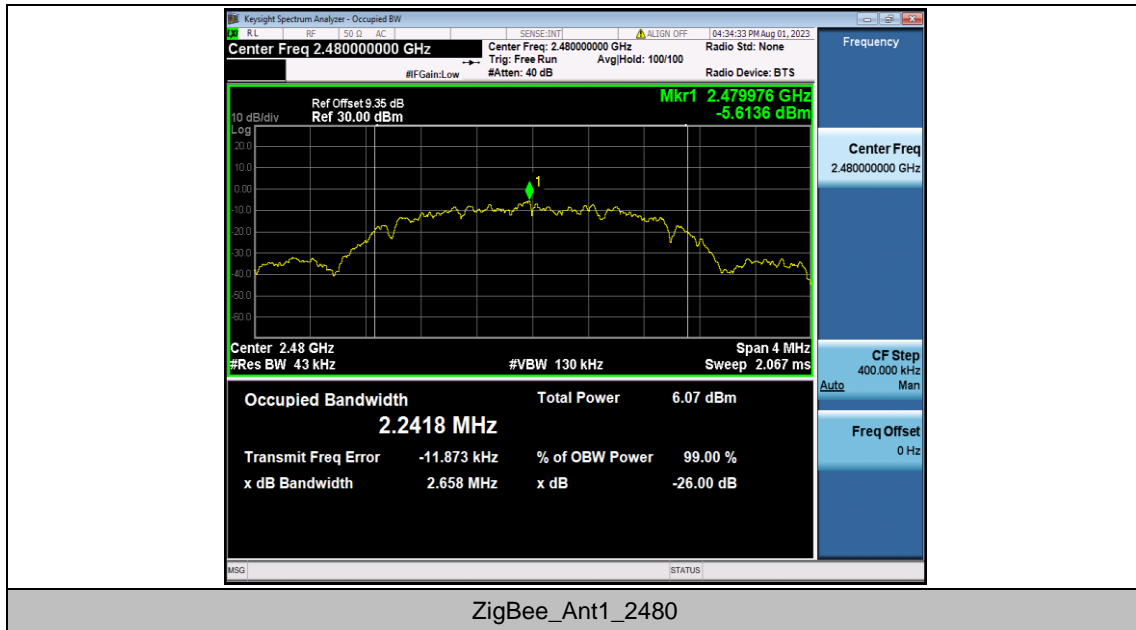
## Test Graphs



ZigBee\_Ant1\_2405



ZigBee\_Ant1\_2440



ZigBee\_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
ZigBee	Ant1	2405	0.49	≤30	PASS
		2440	1.78	≤30	PASS
		2480	1.27	≤30	PASS

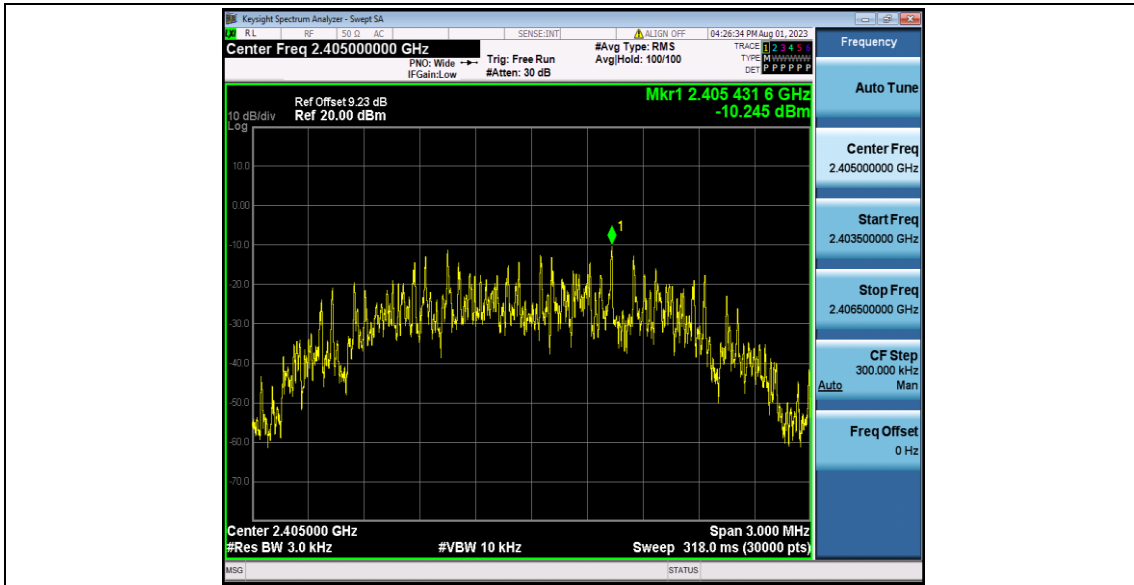
## Appendix A.4: Maximum power spectral density

### Test Result

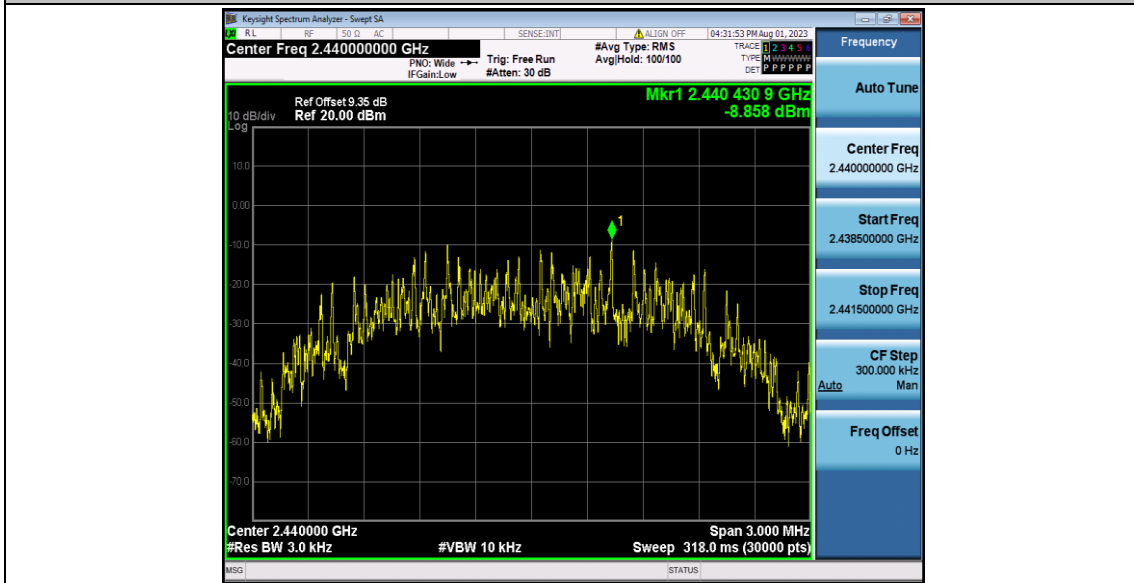
Test Mode	Antenna	Frequency[MHz]	Result[dBm/3kHz]	Limit[dBm/3kHz]	Verdict
ZigBee	Ant1	2405	-10.25	≤8.00	PASS
		2440	-8.86	≤8.00	PASS
		2480	-9.36	≤8.00	PASS



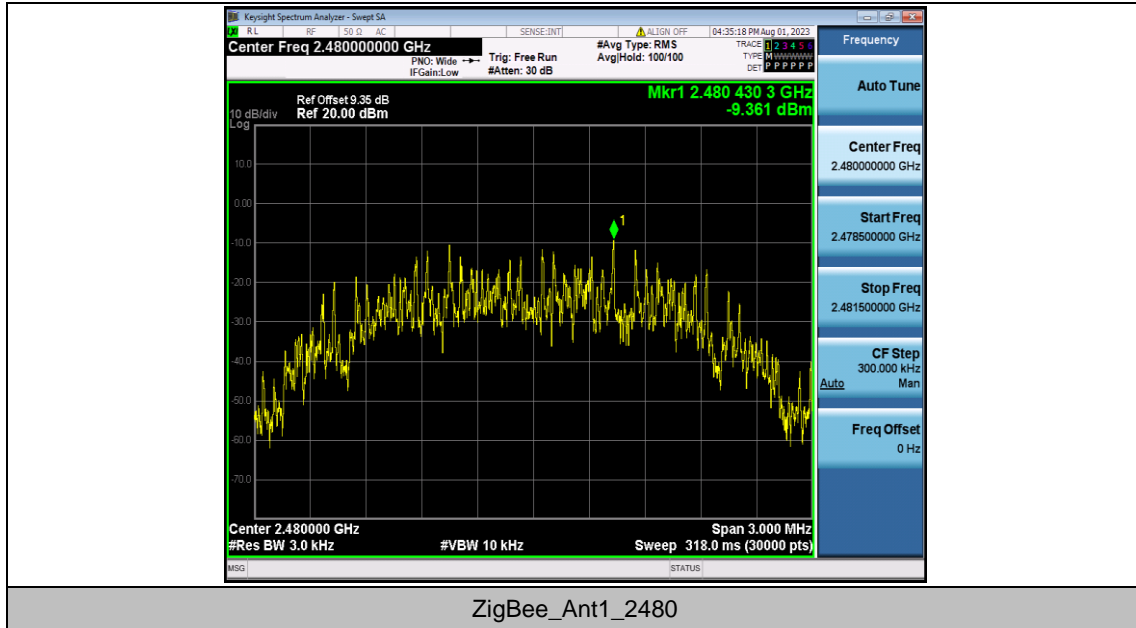
## Test Graphs



ZigBee\_Ant1\_2405



ZigBee\_Ant1\_2440



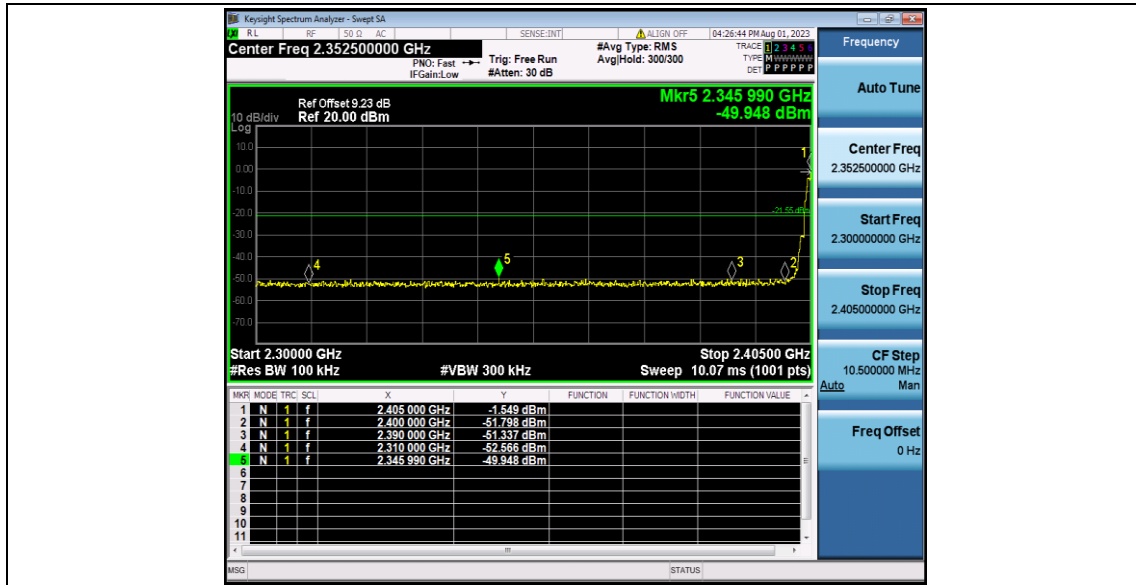
ZigBee\_Ant1\_2480

## Appendix A.5: Band edge measurements

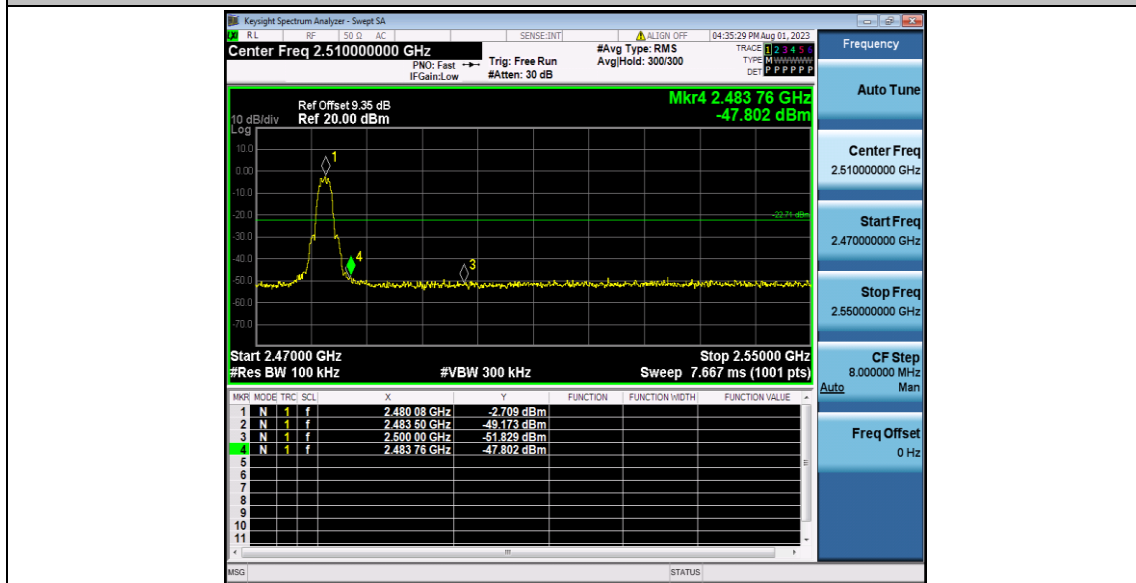
### Test Result

Test Mode	Antenna	ChName	Frequency[MHz]	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
ZigBee	Ant1	Low	2405	-1.55	-49.95	≤-21.55	PASS
		High	2480	-2.71	-47.8	≤-22.71	PASS

## Test Graphs



ZigBee\_Ant1\_Low\_2405



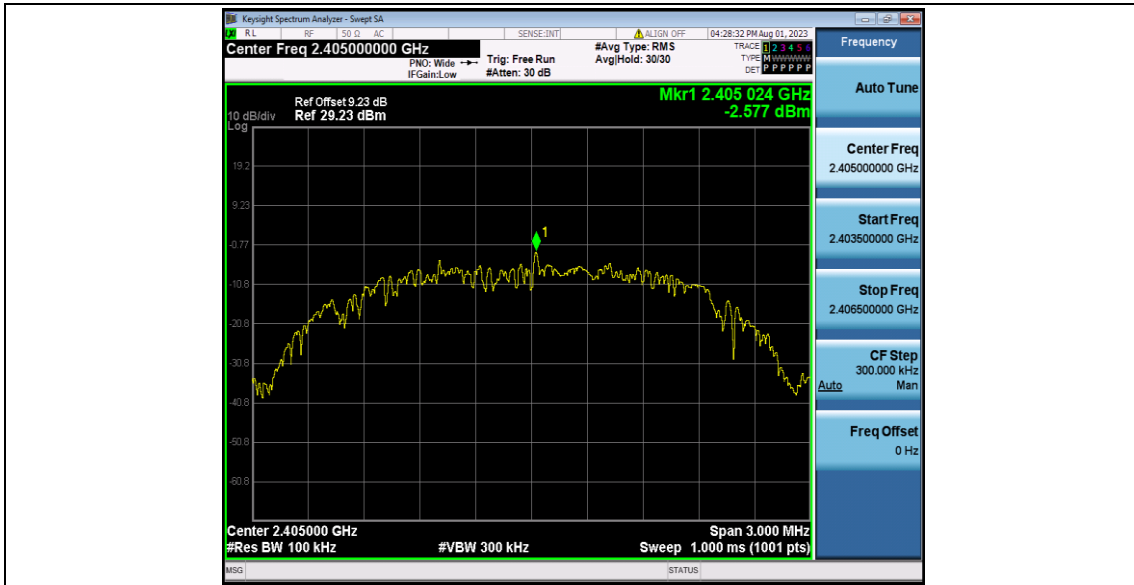
ZigBee\_Ant1\_High\_2480

## Appendix A.6: Conducted Spurious Emission

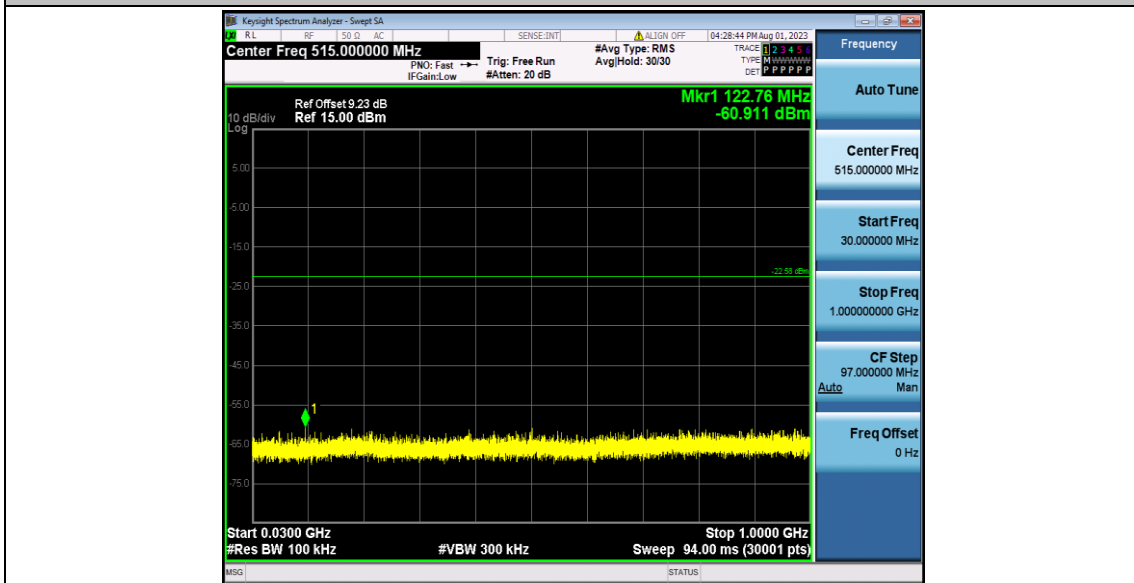
### Test Result

Test Mode	Antenna	Frequency[MHz]	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
ZigBee	Ant1	2405	Reference	-2.58	-2.58	---	PASS
			30~1000	-2.58	-60.91	$\leq -22.58$	PASS
			1000~26500	-2.58	-47.94	$\leq -22.58$	PASS
		2440	Reference	-1.42	-1.42	---	PASS
			30~1000	-1.42	-59.73	$\leq -21.42$	PASS
			1000~26500	-1.42	-47.79	$\leq -21.42$	PASS
		2480	Reference	-2.01	-2.01	---	PASS
			30~1000	-2.01	-60.45	$\leq -22.01$	PASS
			1000~26500	-2.01	-47.3	$\leq -22.01$	PASS

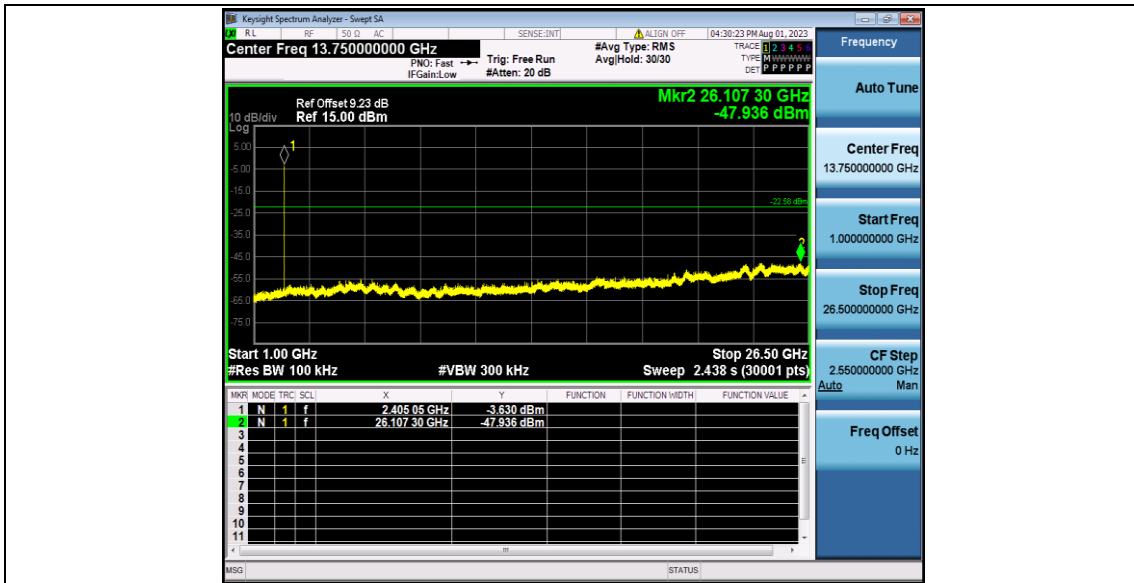
## Test Graphs



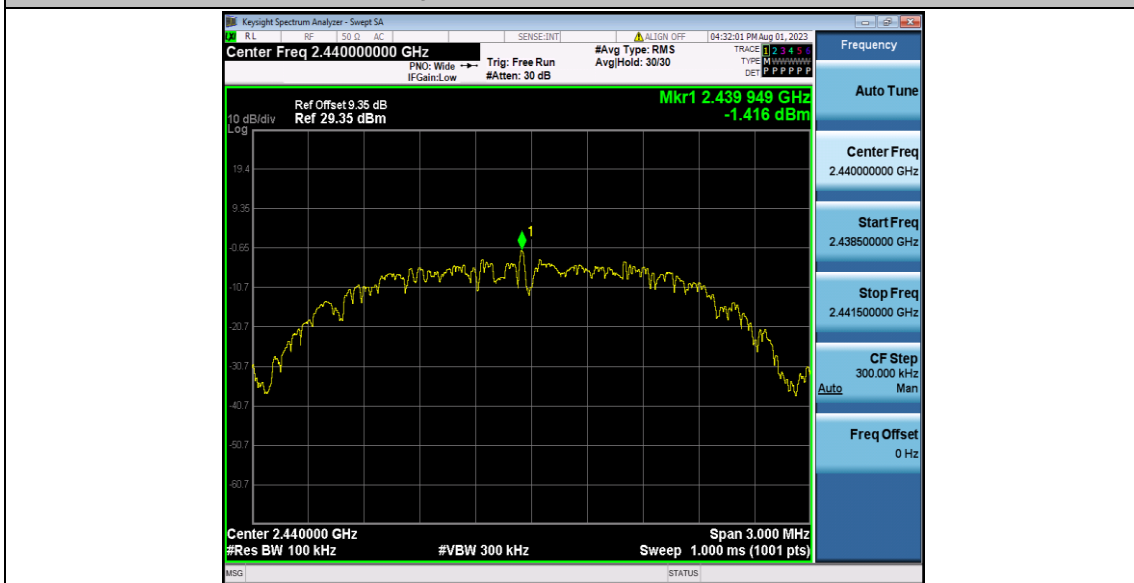
ZigBee\_Ant1\_2405\_0~Reference



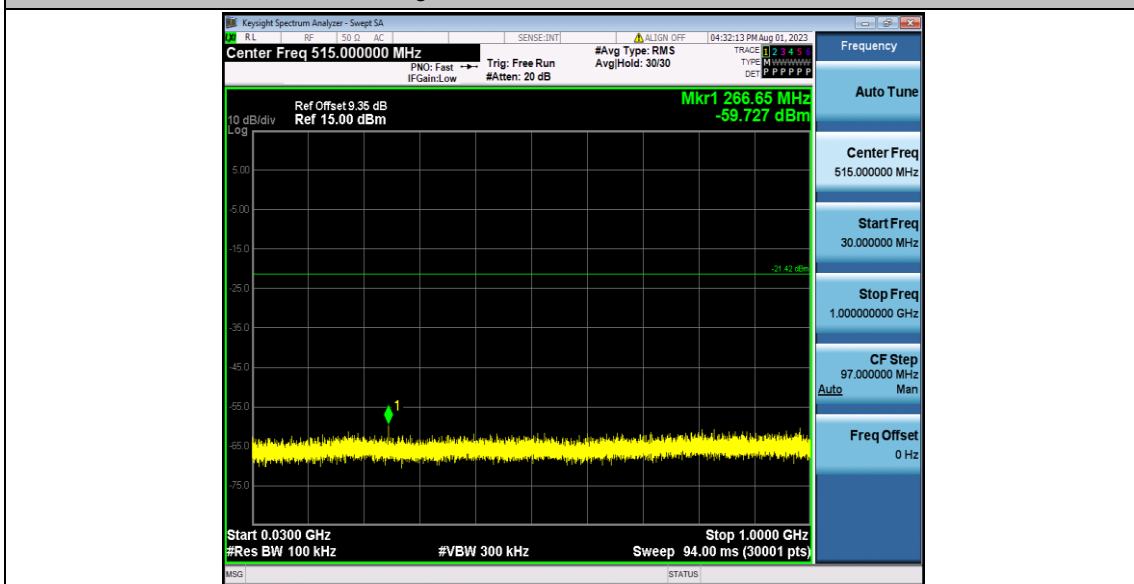
ZigBee\_Ant1\_2405\_30~1000



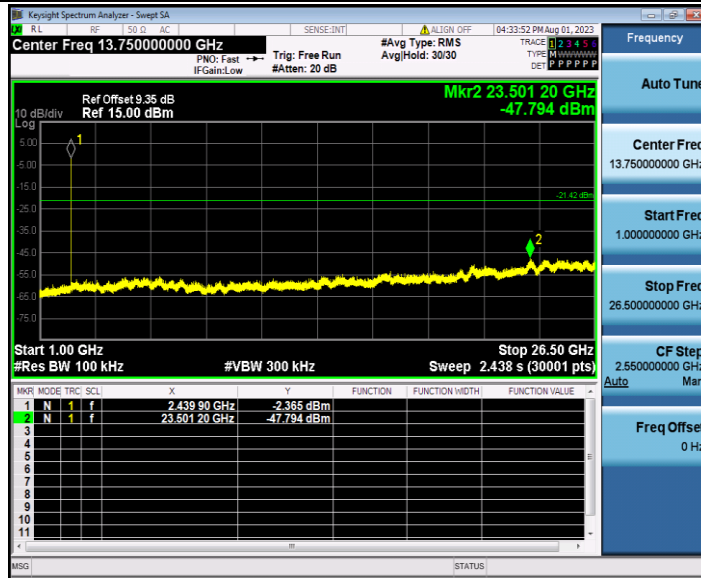
ZigBee\_Ant1\_2405\_1000~26500



ZigBee\_Ant1\_2440\_0~Reference



ZigBee\_Ant1\_2440\_30~1000

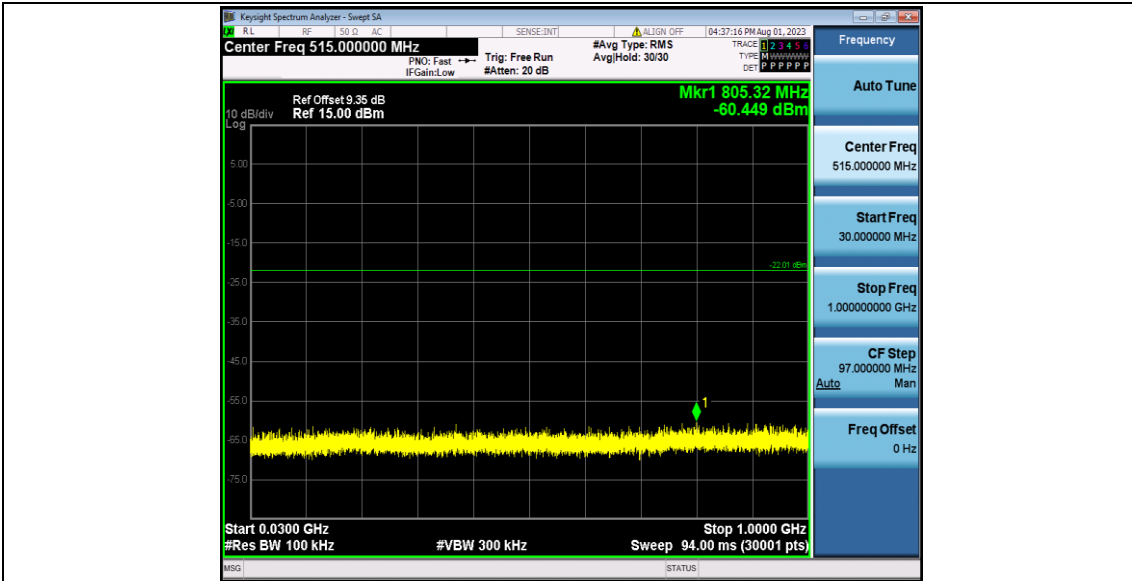


ZigBee\_Ant1\_2440\_1000~26500

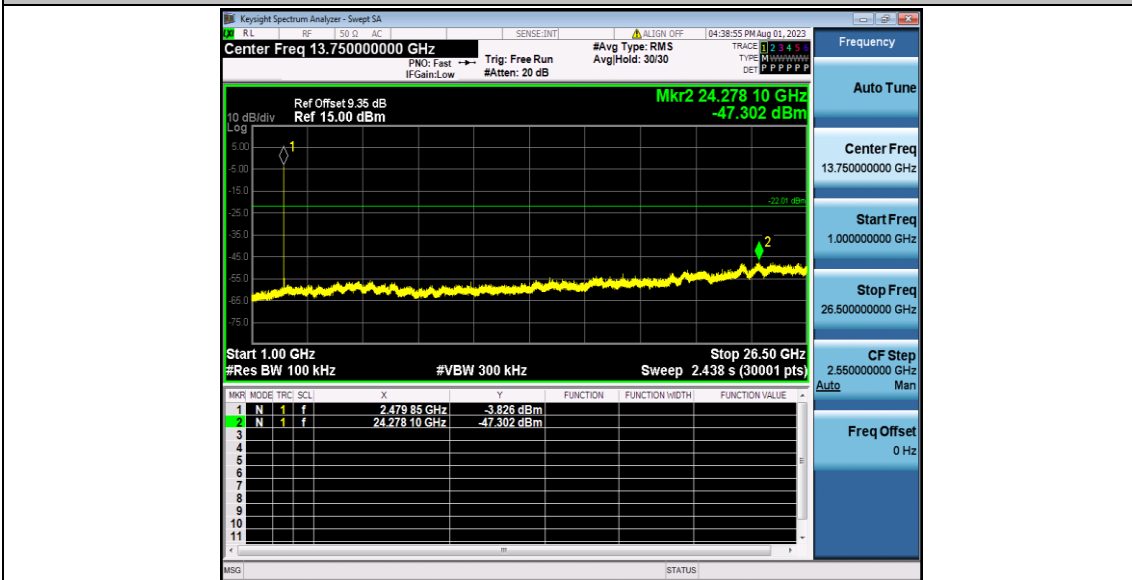


ZigBee\_Ant1\_2480\_0~Reference





ZigBee\_Ant1\_2480\_30~1000



ZigBee\_Ant1\_2480\_1000~26500

## Appendix A.7: Emissions in Restricted Bands

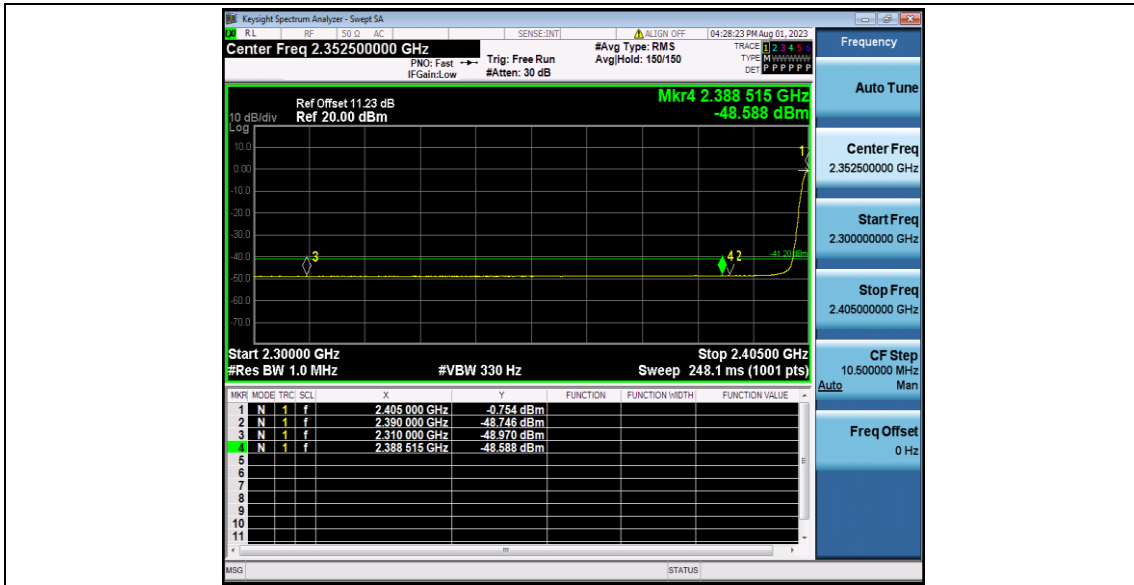
### Test Result

Test Mode	Antenna	ChName	Frequency [MHz]	Detector	Freq [MHz]	Result [dBm]	Limit [dBm]	Result [dBuV/m]	Limit [dBuV/m]	Verdict
ZigBee	Ant1	Low	2405	AV	2310.000	-48.97	≤-41.20	46.23	≤54	PASS
				AV	2388.515	-48.59	≤-41.20	46.61	≤54	PASS
				AV	2390.000	-48.75	≤-41.20	46.45	≤54	PASS
				Peak	2310.000	-40.76	≤-21.20	54.44	≤74	PASS
				Peak	2386.310	-38.13	≤-21.20	57.07	≤74	PASS
				Peak	2390.000	-41.3	≤-21.20	53.90	≤74	PASS
		High	2480	AV	2483.500	-43.76	≤-41.20	51.44	≤54	PASS
				AV	2483.520	-43.76	≤-41.20	51.44	≤54	PASS
				AV	2500.000	-48.33	≤-41.20	46.87	≤54	PASS
				Peak	2483.500	-35.75	≤-21.20	59.45	≤74	PASS
				Peak	2483.520	-35.75	≤-21.20	59.45	≤74	PASS
				Peak	2500.000	-41.65	≤-21.20	53.55	≤74	PASS

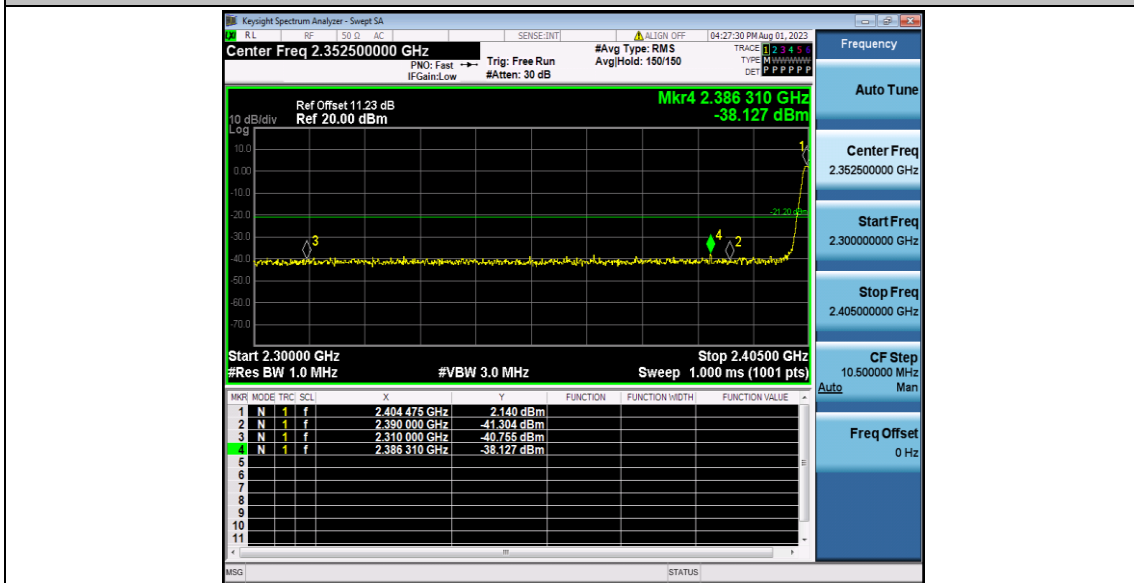
Note:

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.

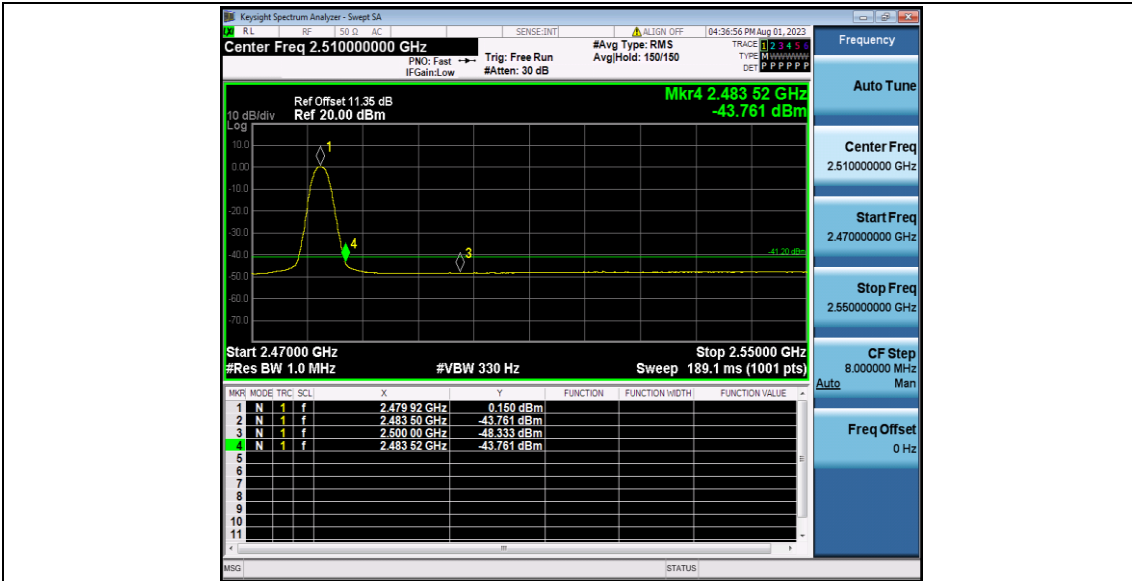
## Test Graphs



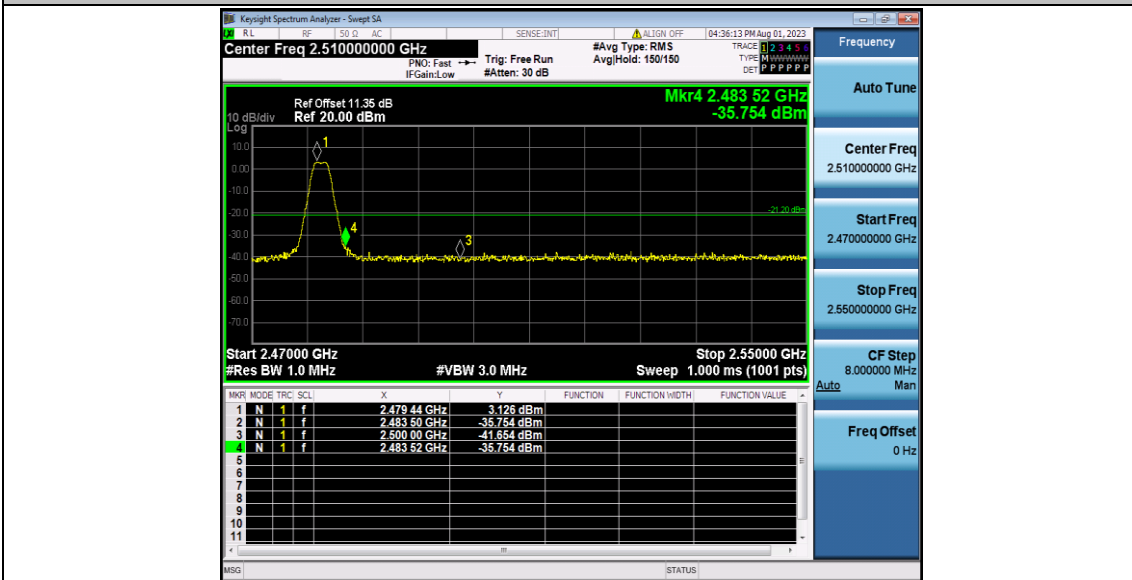
ZigBee\_Ant1\_Low\_2405\_AV



ZigBee\_Ant1\_Low\_2405\_Peak



ZigBee\_Ant1\_High\_2480\_AV



ZigBee\_Ant1\_High\_2480\_Peak