



Shenzhen BANTEK Testing Co., Ltd.

Report No.: BTEK260330017A01E0102

RF Test Report

For BTEK260330017A01E01

Project No.:	BTEK260330017A01E0102
Product Description:	22.9℃, 53%, 101.7kPa
Test Engineer:	Zora
Test Date:	2026-04-13~2026-6-27



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Report No.: BTEK260330017A01E0102

Test Summary

Item	Result
Duty Cycle	Pass
Bandwidth	Pass
Maximum Conducted Output Power	Pass
Maximum Power Spectral Density	Pass
Unwanted Emissions In Non-restricted Frequency Bands	Pass
Unwanted Emissions In Restricted Frequency Bands	Pass



1. Duty Cycle

1.1 Test Result

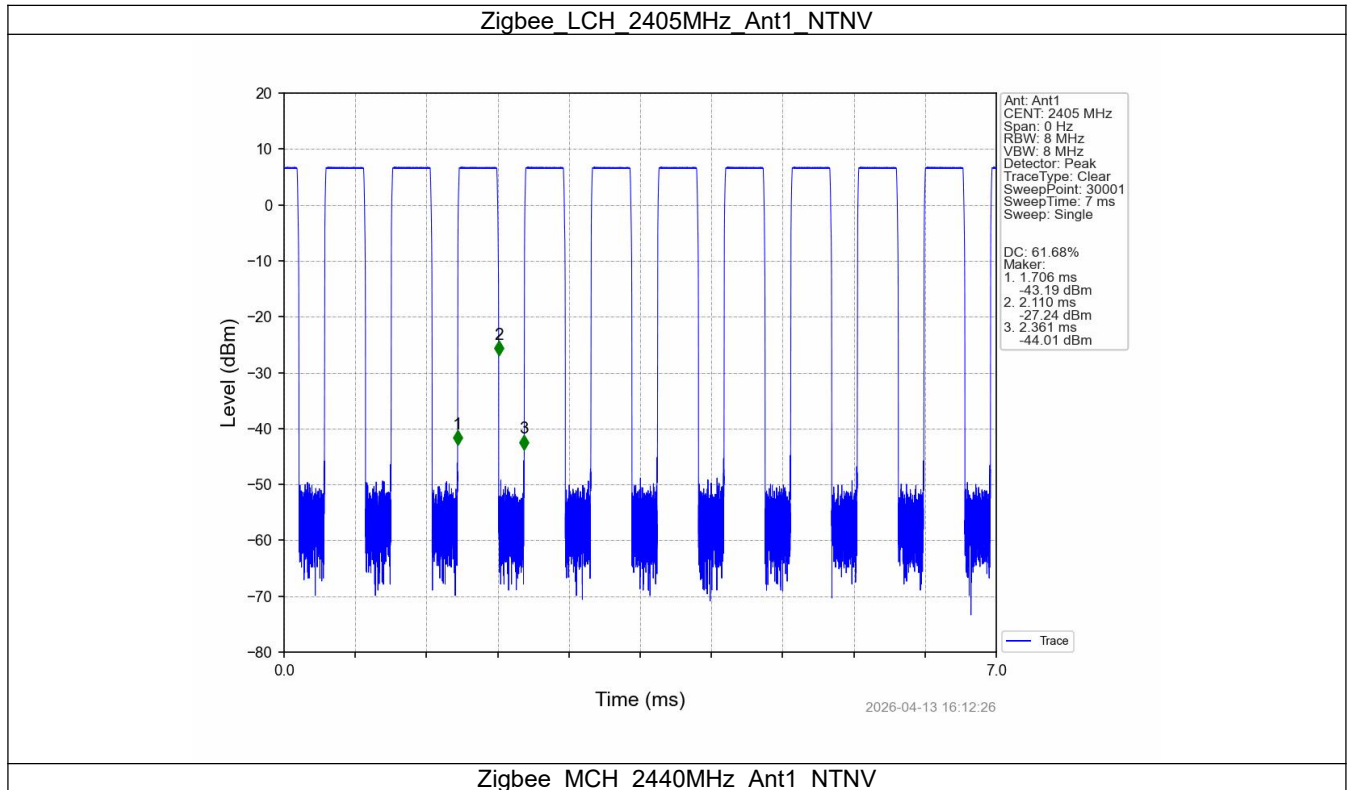
1.1.1 Ant1

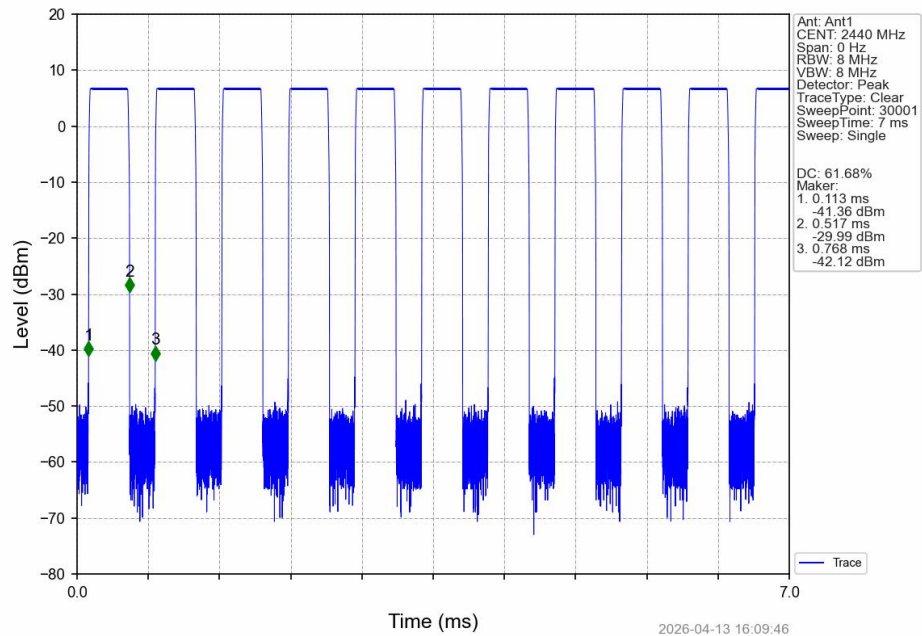
Ant1							
Mode	TX Type	Frequency (MHz)	T_on (ms)	Period (ms)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)	Max. DC Variation (%)
Zigbee	SISO	2405	0.404	0.655	61.68	2.10	0.07
		2440	0.404	0.655	61.68	2.10	0.04
		2480	0.403	0.654	61.62	2.10	0.06

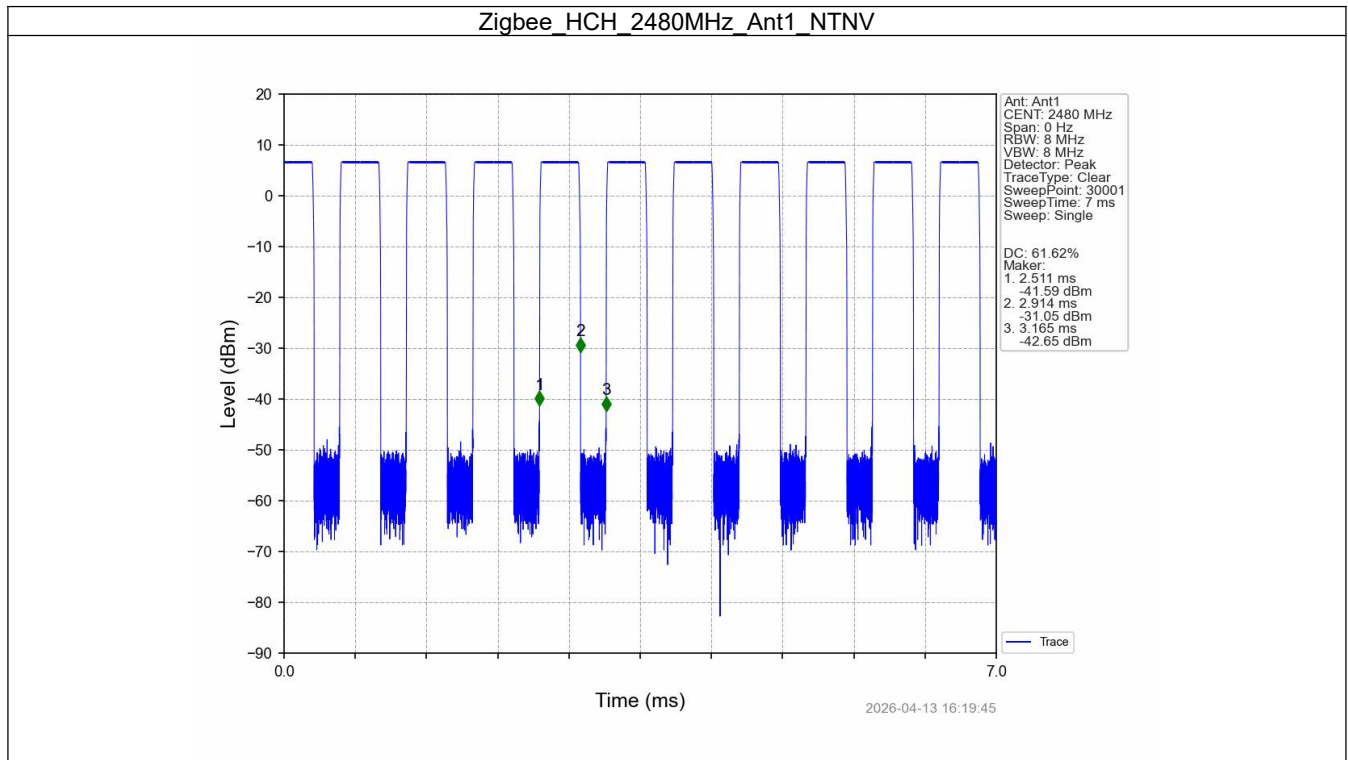


1.2 Test Graph

1.2.1 Ant1









2. Bandwidth

2.1 Test Result

2.1.1 OBW

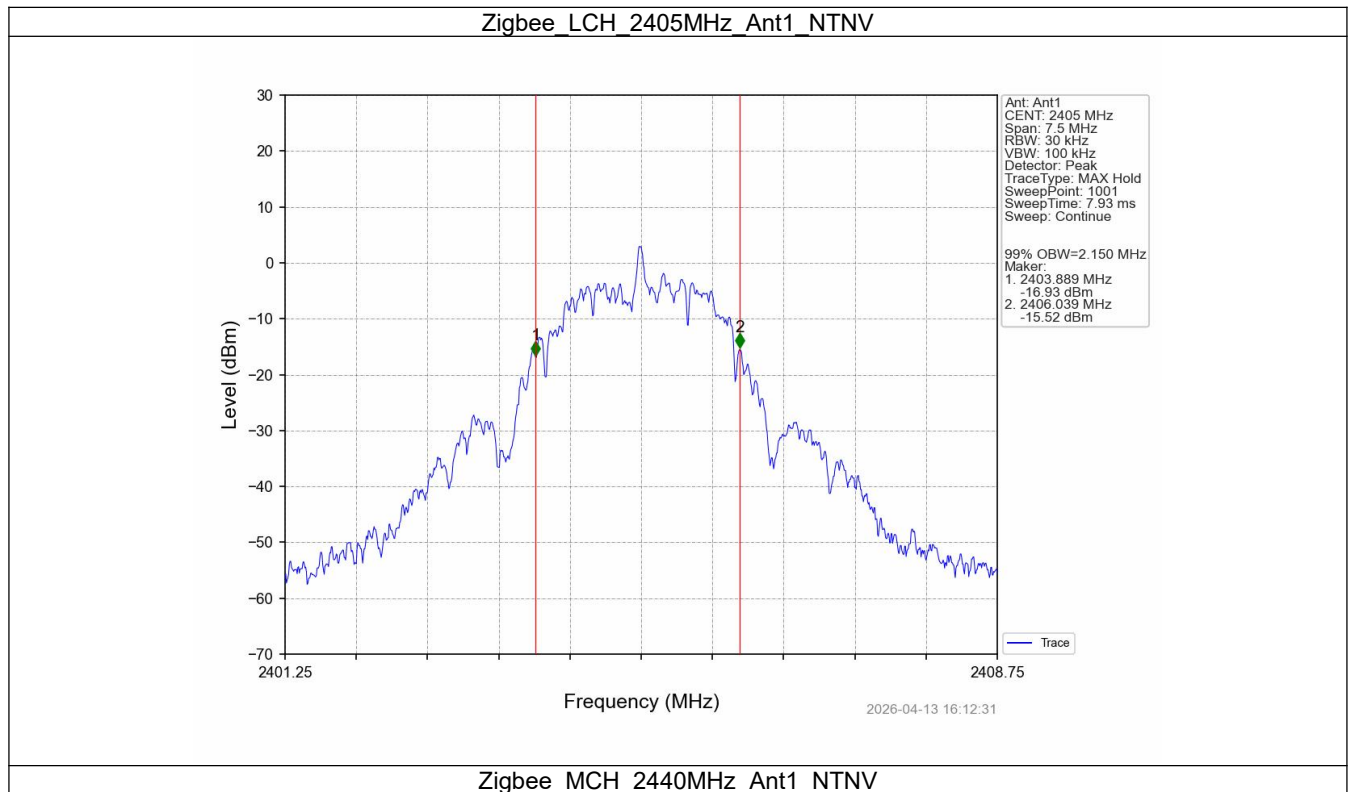
Mode	TX Type	Frequency (MHz)	ANT	99% Occupied Bandwidth (MHz)		Verdict
				Result	Limit	
Zigbee	SISO	2405	1	2.150	/	Pass
		2440	1	2.158	/	Pass
		2480	1	2.166	/	Pass

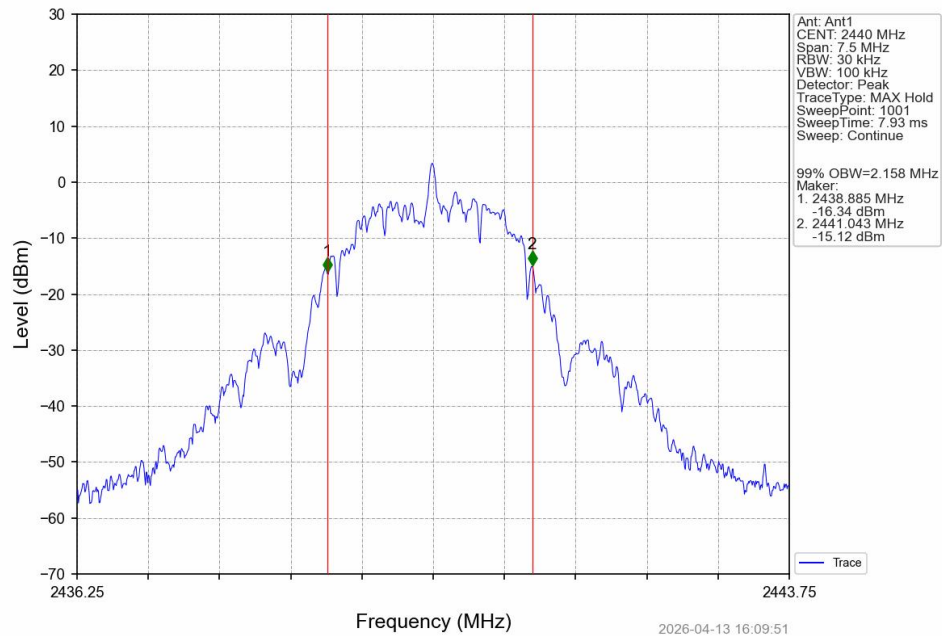
2.1.2 6dB BW

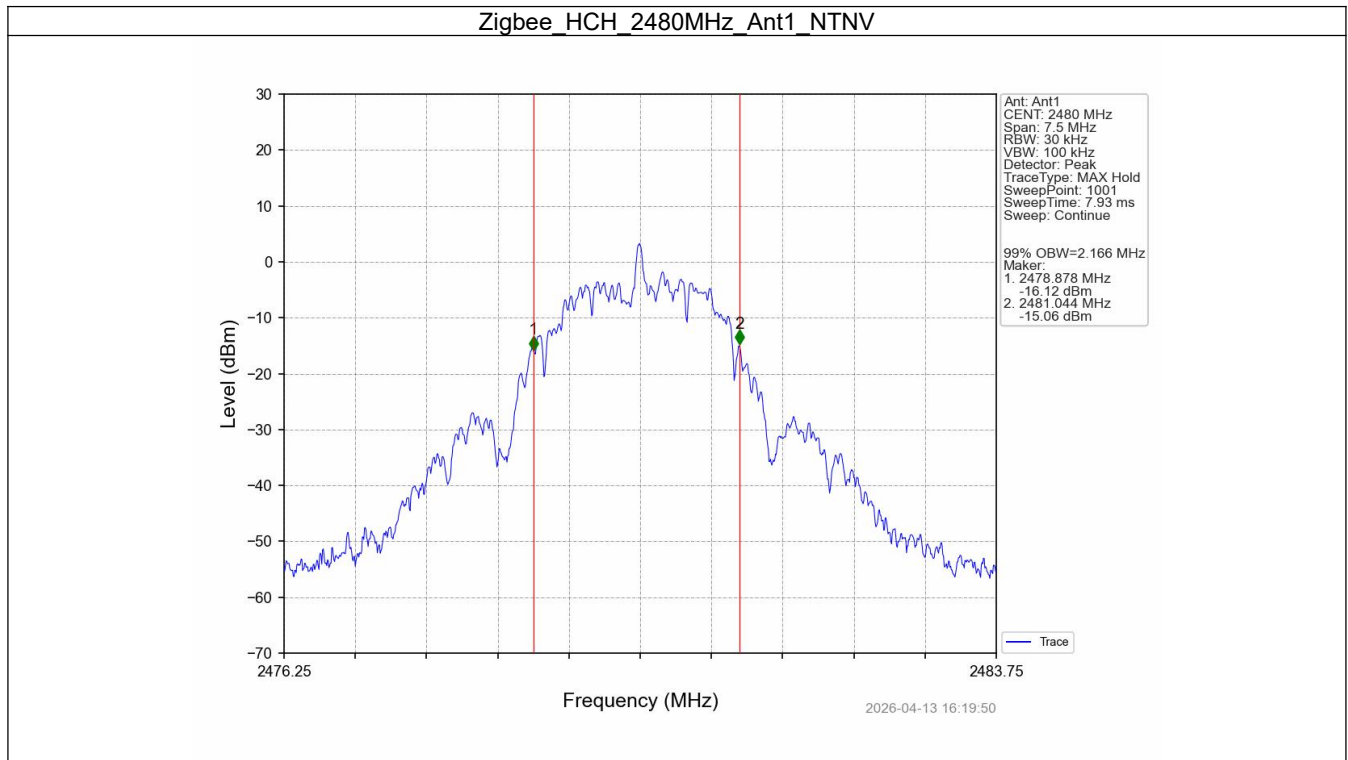
Mode	TX Type	Frequency (MHz)	ANT	6dB Bandwidth (MHz)		Verdict
				Result	Limit	
Zigbee	SISO	2405	1	0.820	≥ 0.5	Pass
		2440	1	1.100	≥ 0.5	Pass
		2480	1	0.821	≥ 0.5	Pass

2.2 Test Graph

2.2.1 OBW

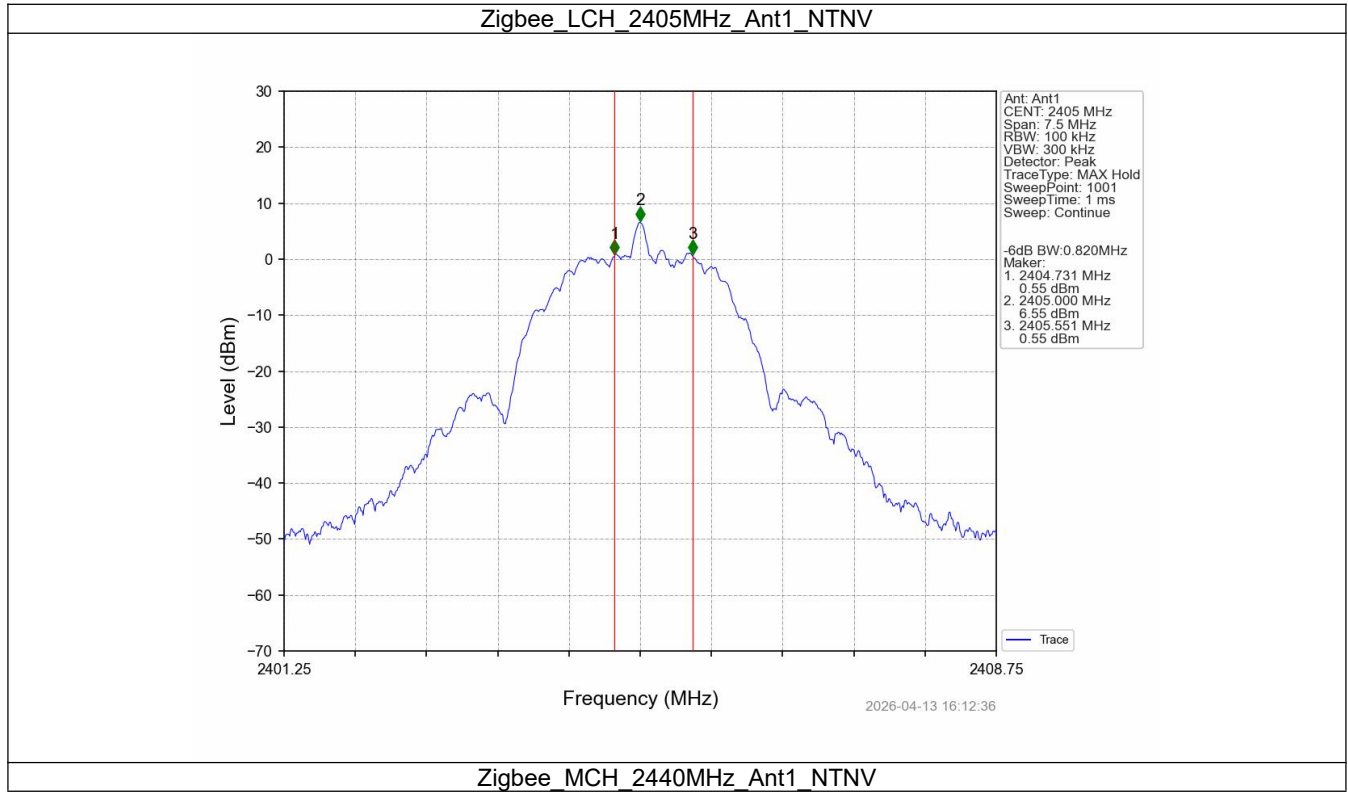


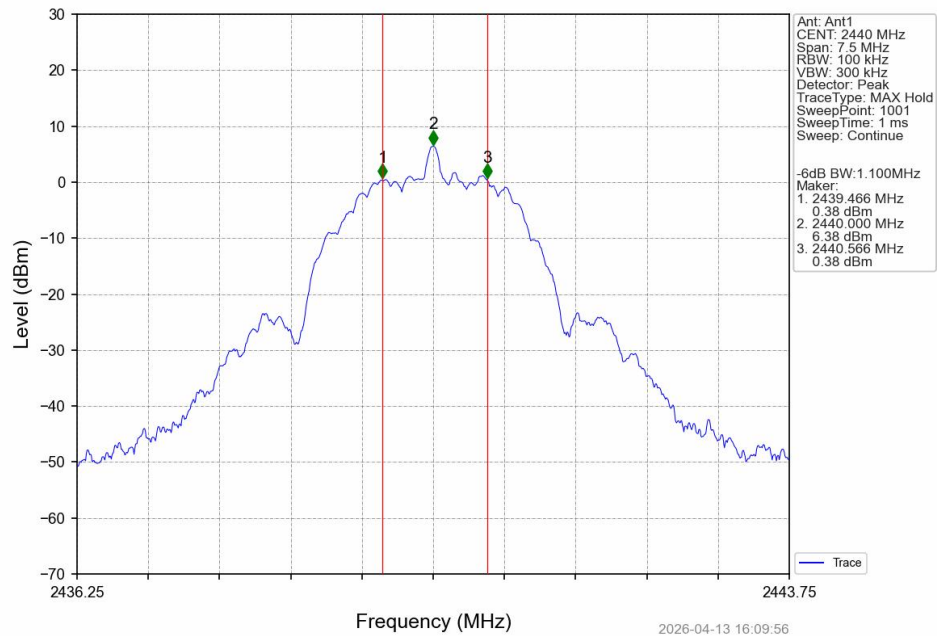




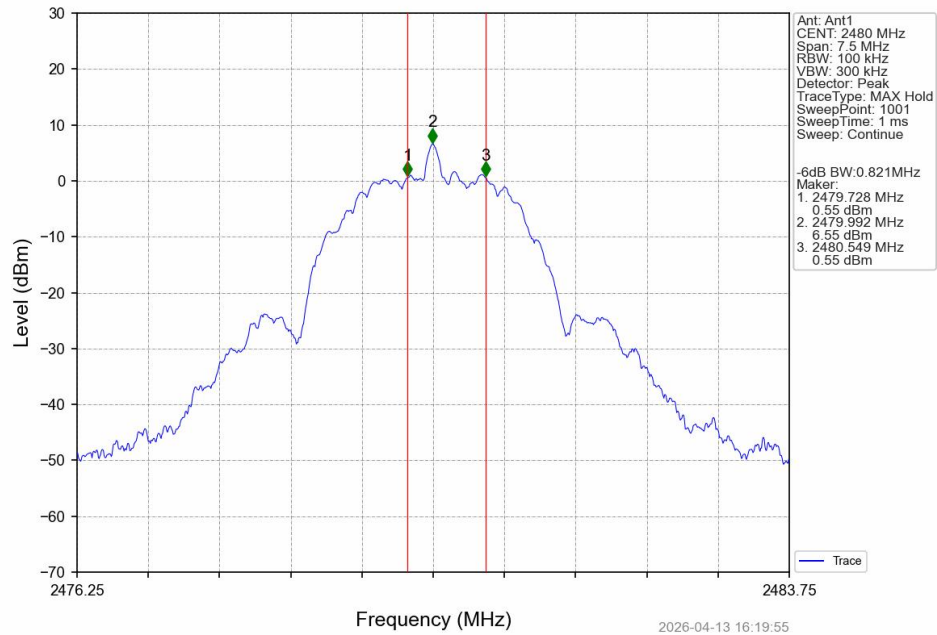


2.2.2 6dB BW





Zigbee_HCH_2480MHz_Ant1_NTNV





3. Maximum Conducted Output Power

3.1 Test Result

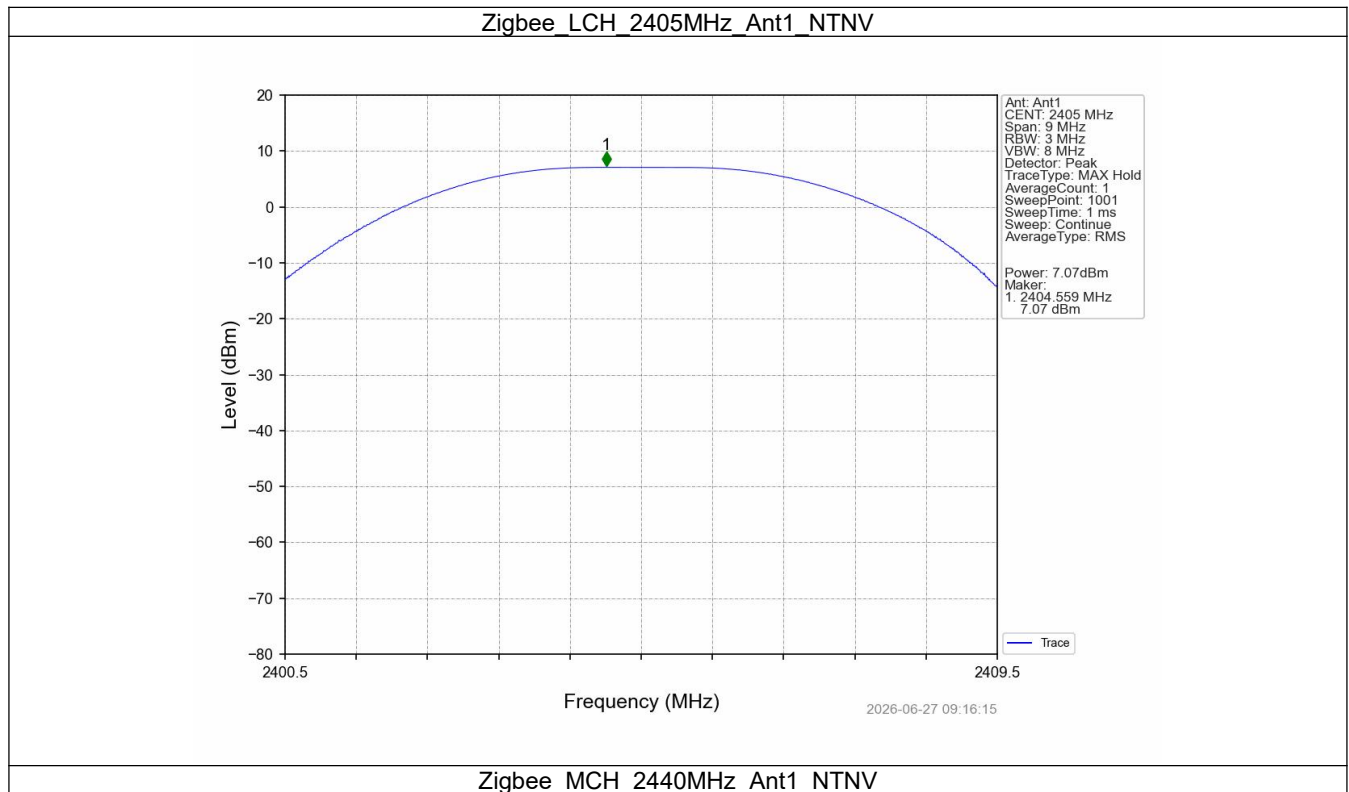
3.1.1 Power

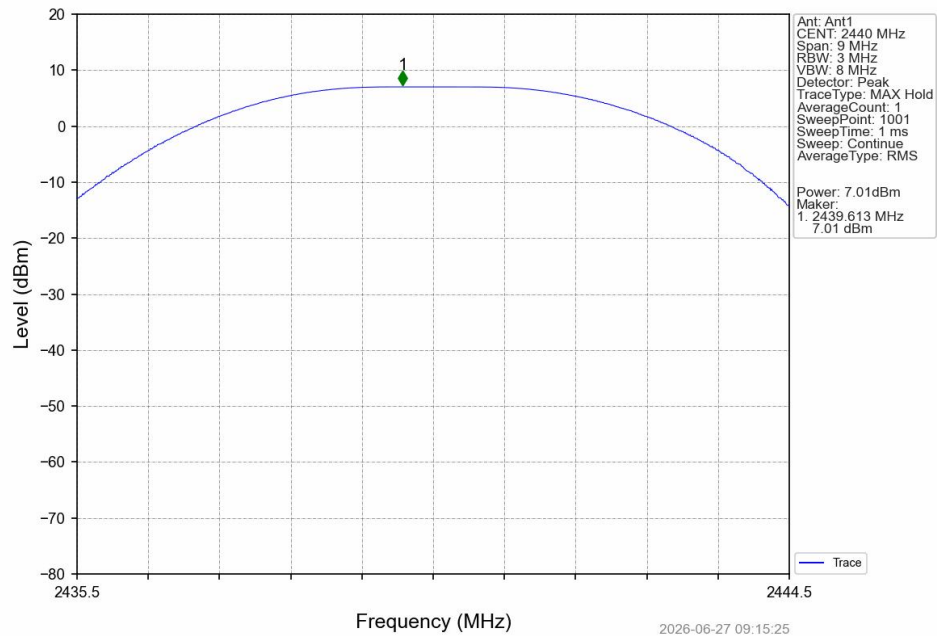
Mode	TX Type	Frequency (MHz)	Maximum Peak Conducted Output Power (dBm)		Verdict
			ANT1	Limit	
Zigbee	SISO	2405	7.07	<=30	Pass
		2440	7.01	<=30	Pass
		2480	6.92	<=30	Pass
Note1: Antenna Gain: Ant1: -2.03175dBi:					



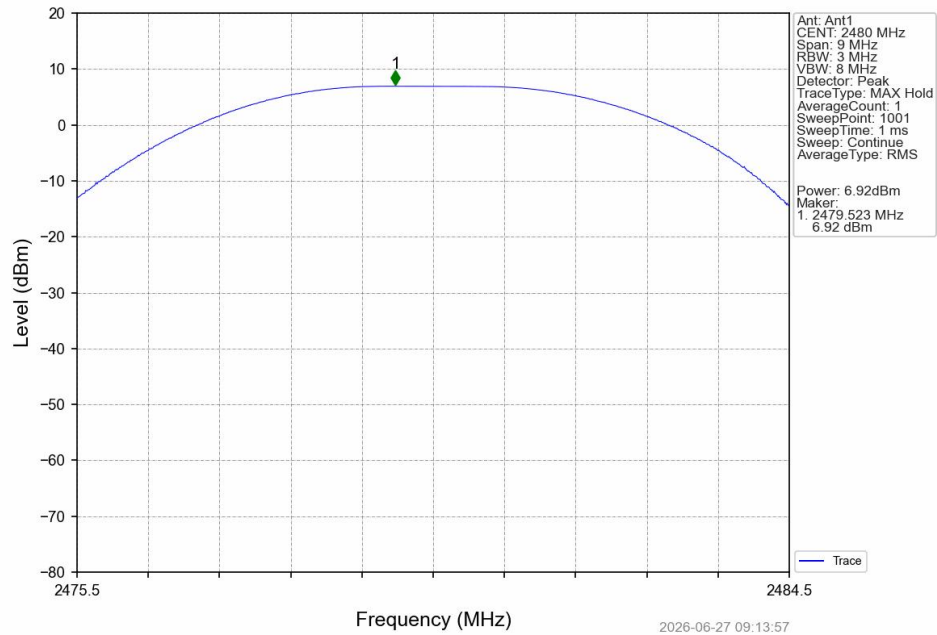
3.2 Test Graph

3.2.1 Power





Zigbee_HCH_2480MHz_Ant1_NTNV





4. Maximum Power Spectral Density

4.1 Test Result

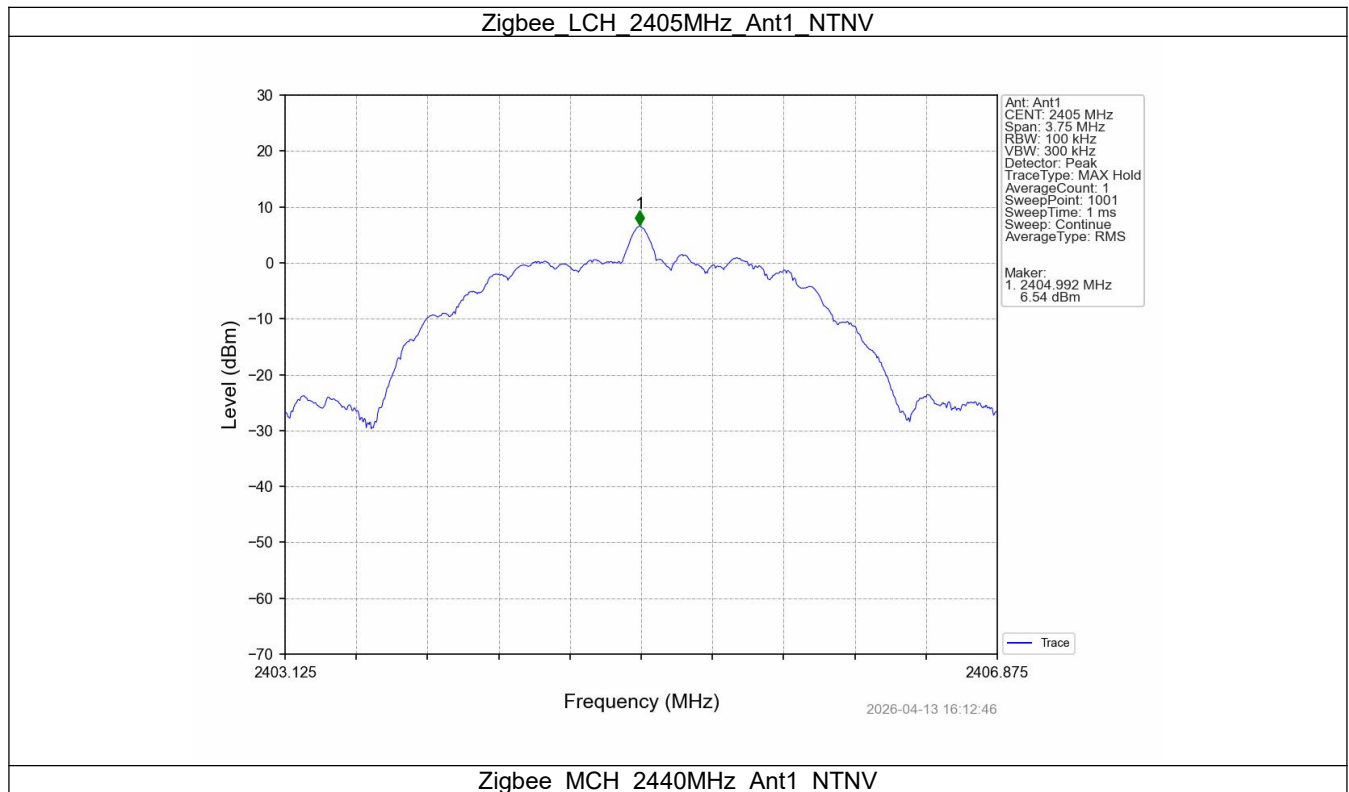
4.1.1 PSD

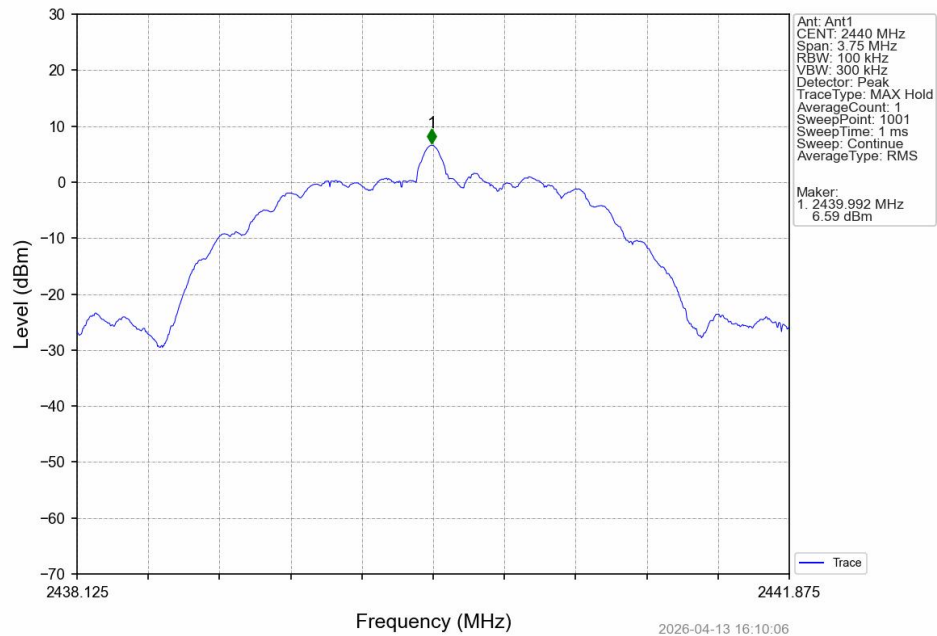
Mode	TX Type	Frequency (MHz)	Maximum PSD (dBm)		Verdict
			ANT1	Limit(dBm/3kHz)	
Zigbee	SISO	2405	6.54	<=8	Pass
		2440	6.59	<=8	Pass
		2480	6.51	<=8	Pass

Note1: Antenna Gain: Ant1: -2.03175dBi;

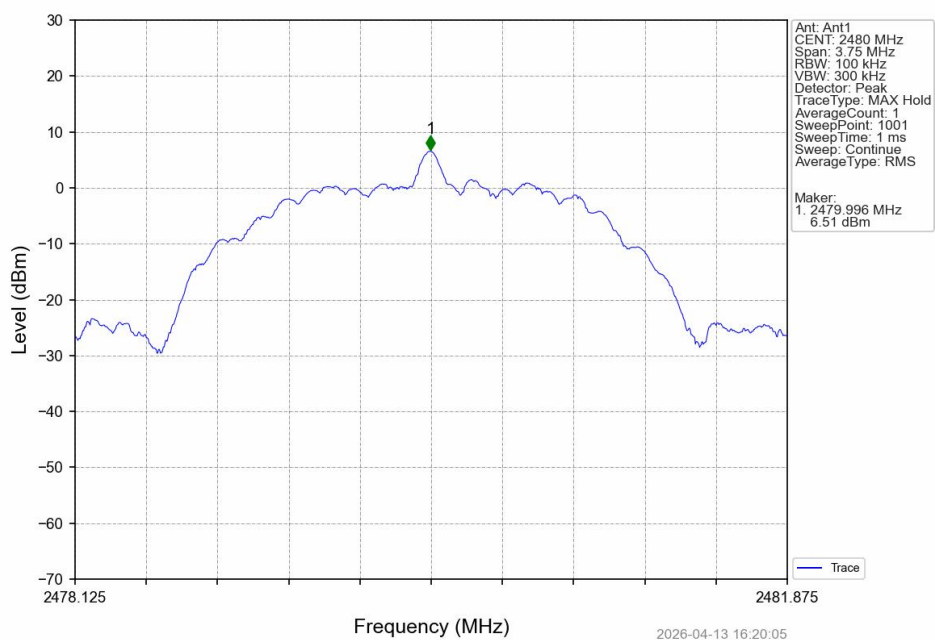
4.2 Test Graph

4.2.1 PSD





Zigbee_HCH_2480MHz_Ant1_NTNV





5. Unwanted Emissions In Non-restricted Frequency Bands

5.1 Test Result

5.1.1 Ref

Mode	TX Type	Frequency (MHz)	ANT	Level of Reference (dBm)
Zigbee	SISO	2405	1	6.51
		2440	1	6.57
		2480	1	6.51

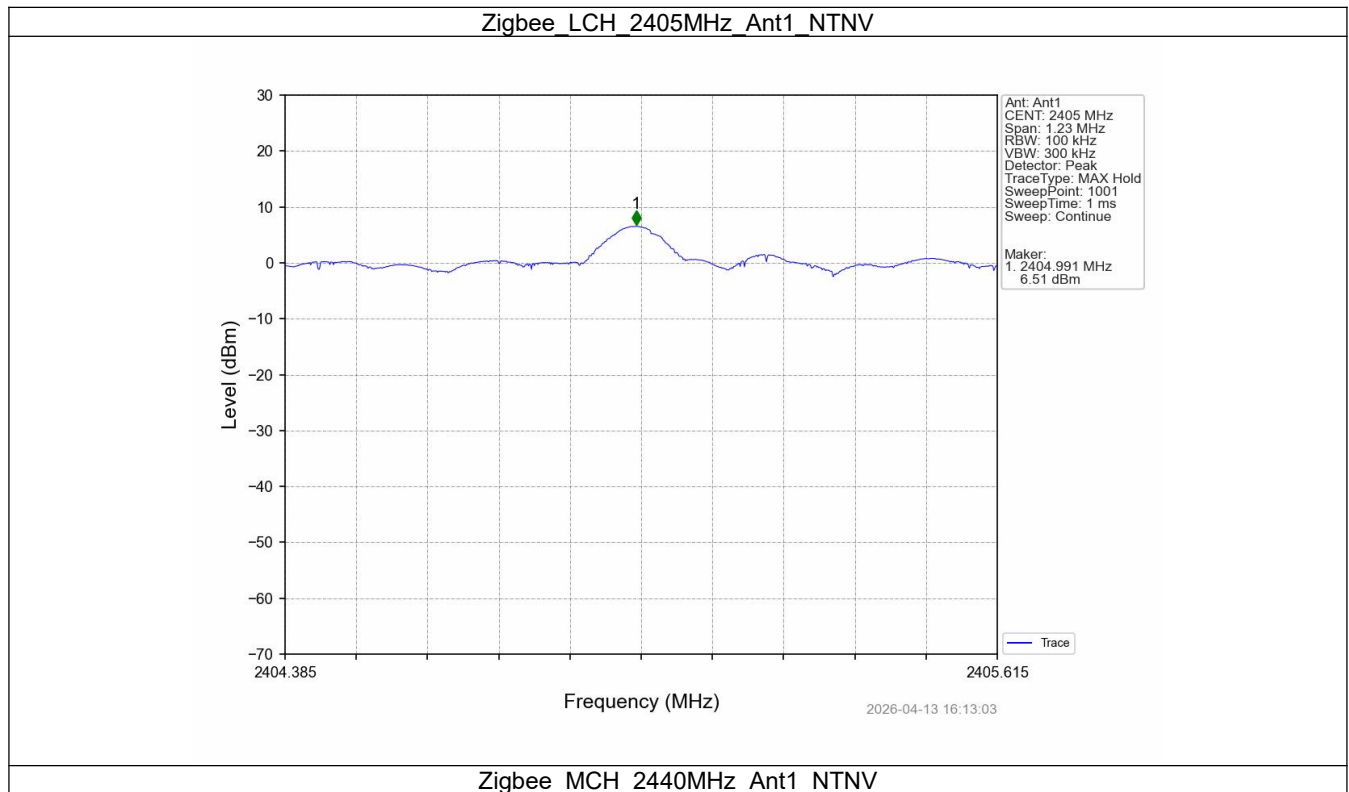
5.1.2 CSE

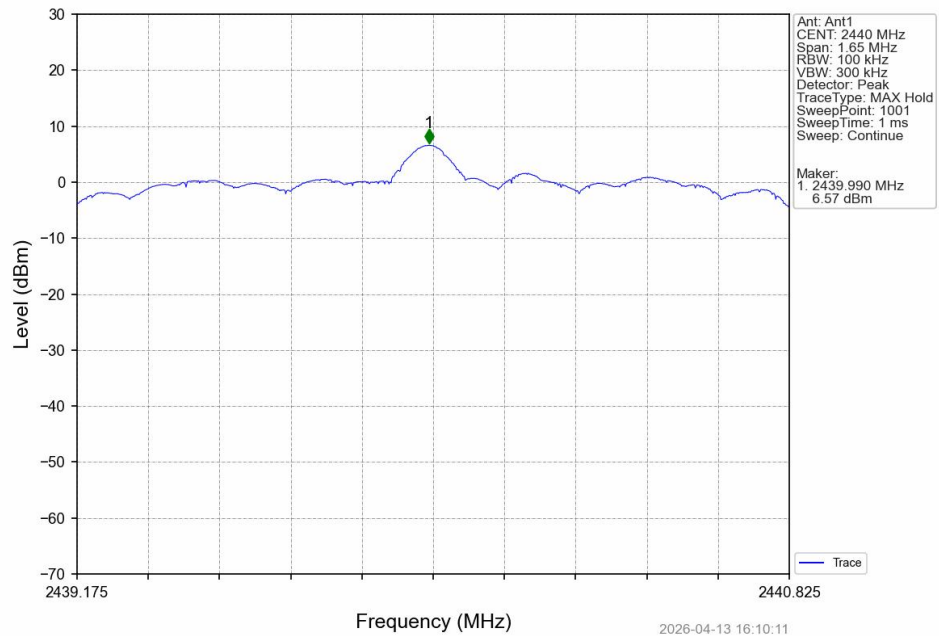
Mode	TX Type	Frequency (MHz)	ANT	Level of Reference (dBm)	Limit (dBm)	Verdict
Zigbee	SISO	2405	1	6.57	-13.43	Pass
		2440	1	6.57	-13.43	Pass
		2480	1	6.57	-13.43	Pass

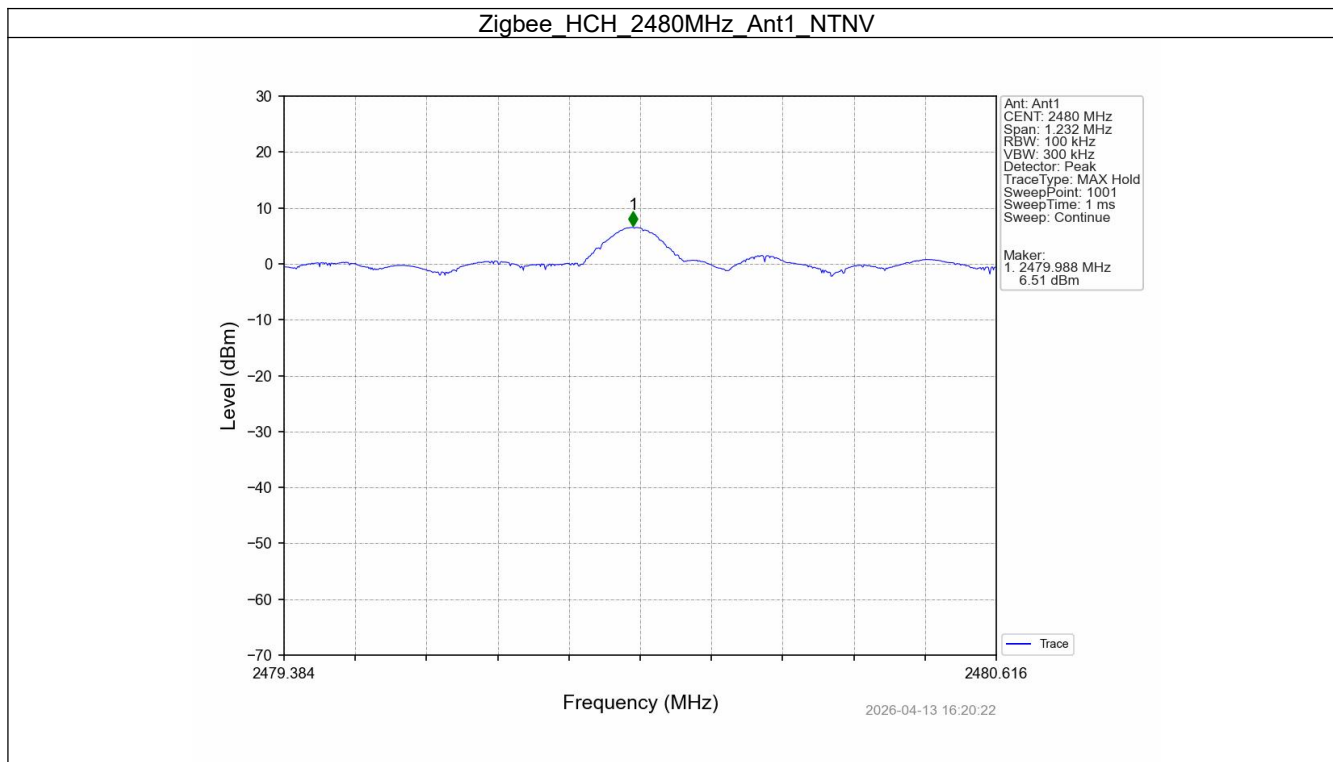


5.2 Test Graph

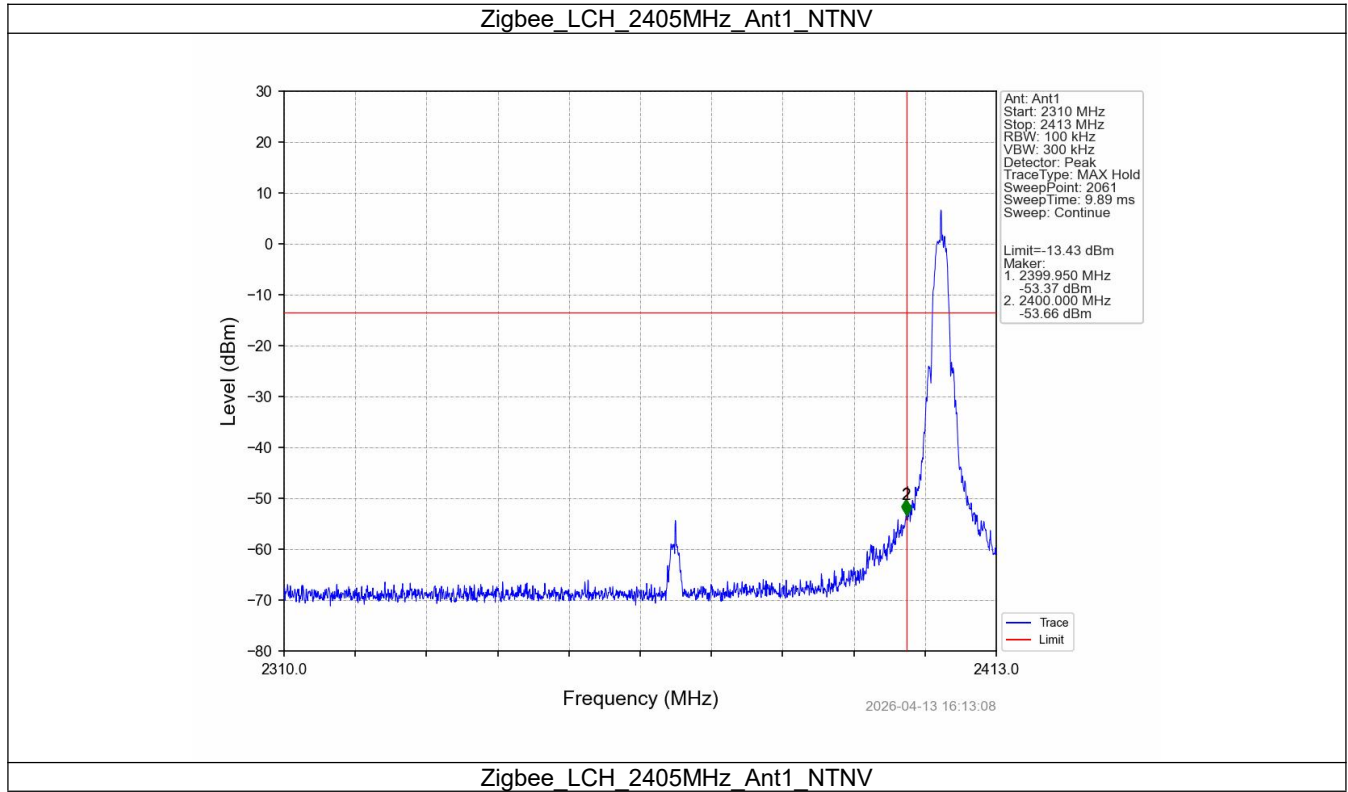
5.2.1 Ref

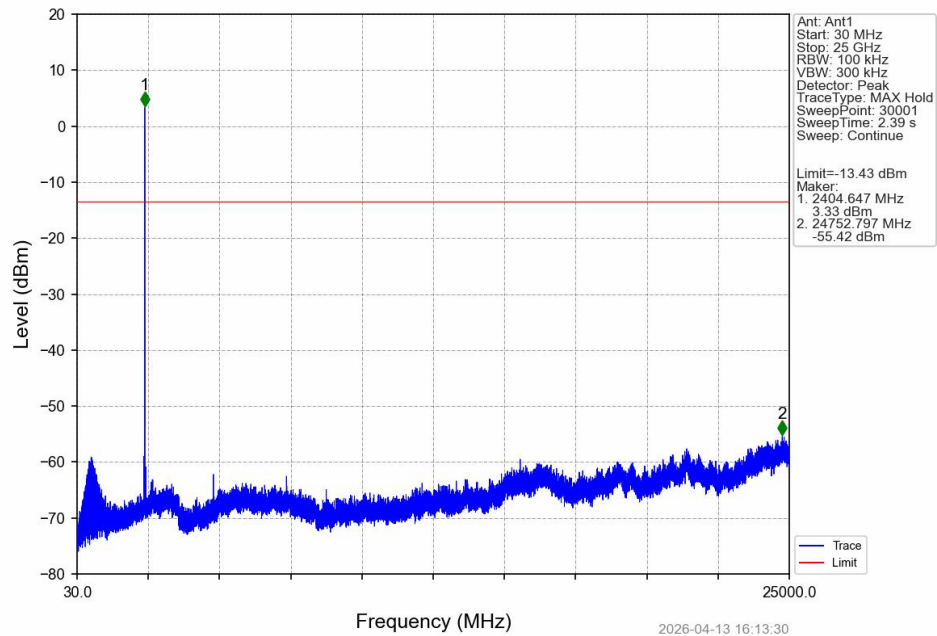




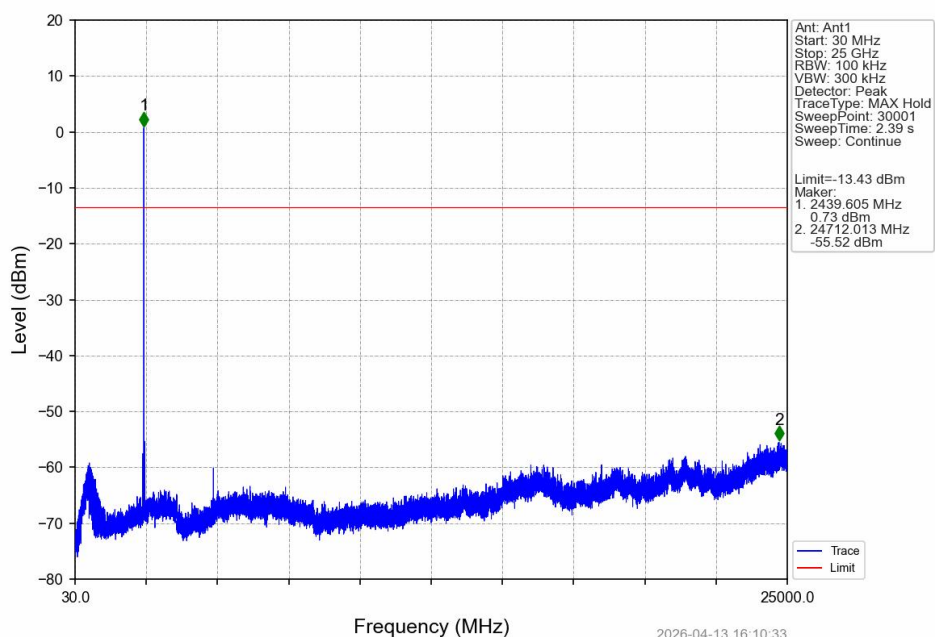


5.2.2 CSE

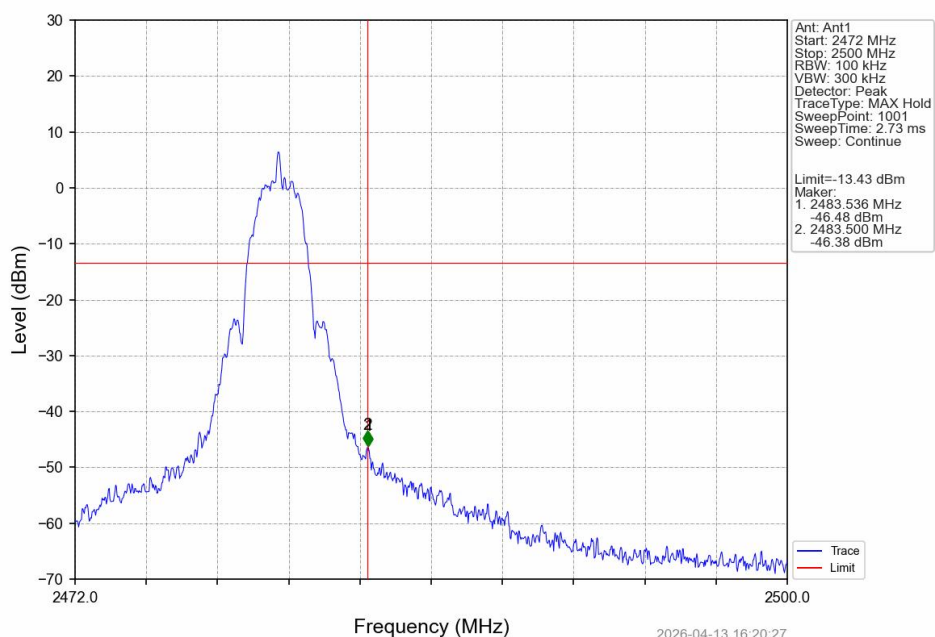




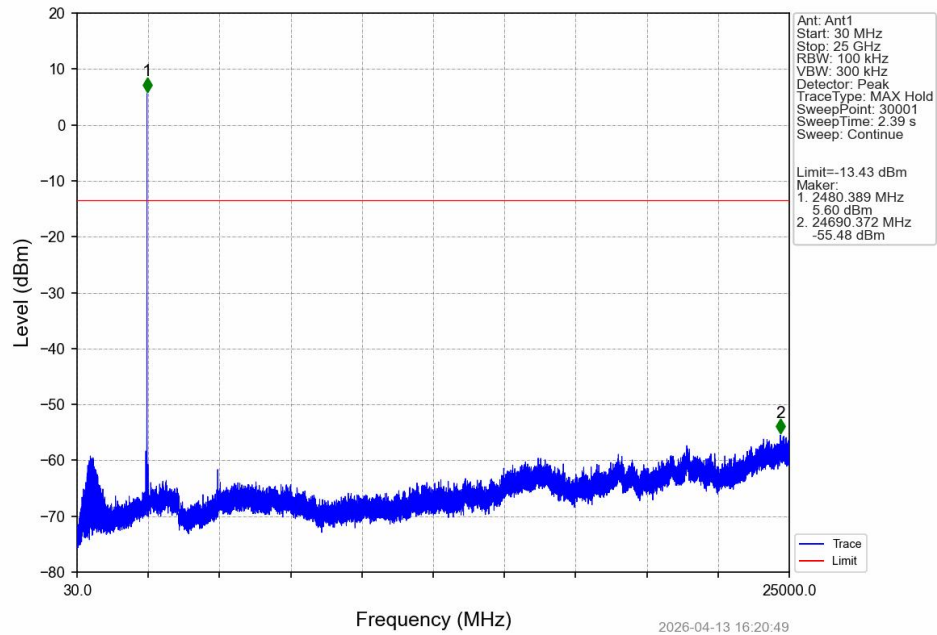
Zigbee_MCH_2440MHz_Ant1_NTNV



Zigbee_HCH_2480MHz_Ant1_NTNV



Zigbee_HCH_2480MHz_Ant1_NTNV





6. Unwanted Emissions In Restricted Frequency Bands

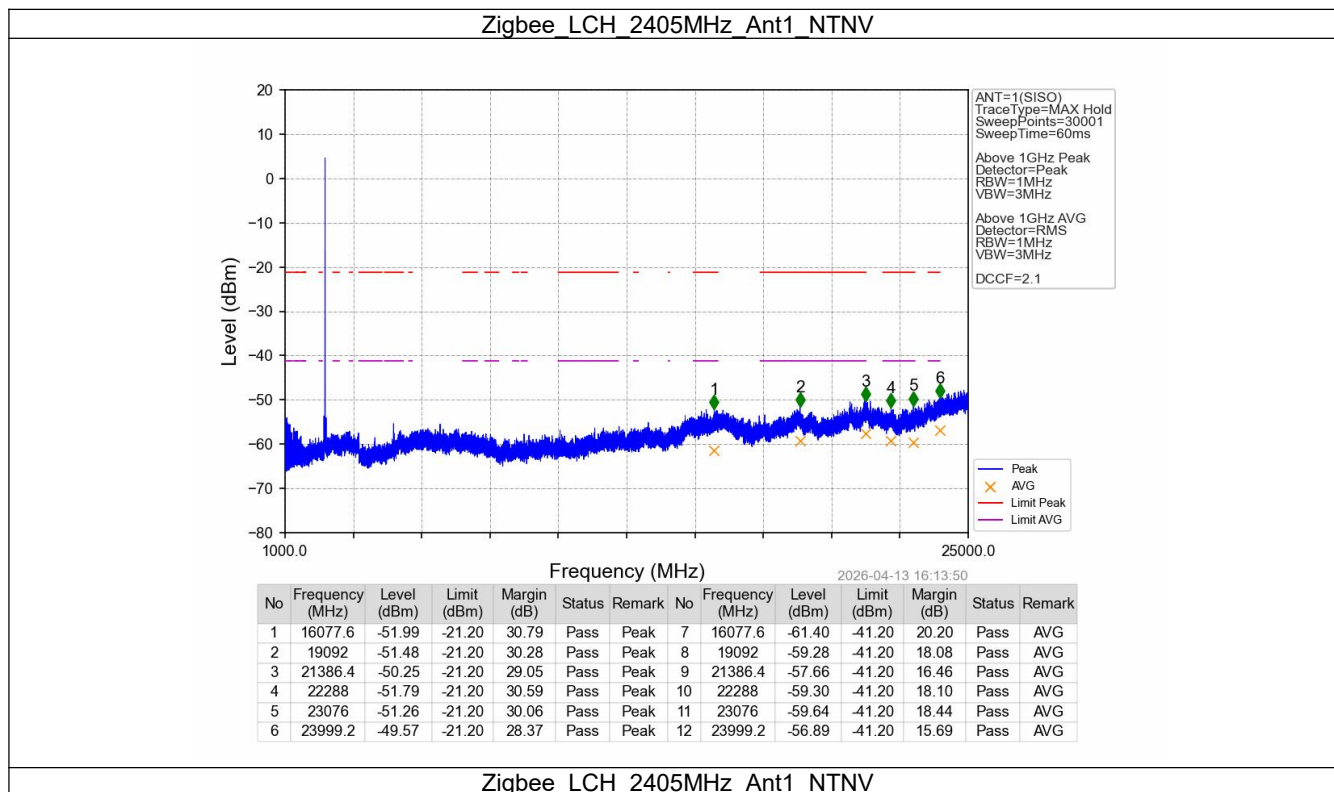
6.1 Test Result

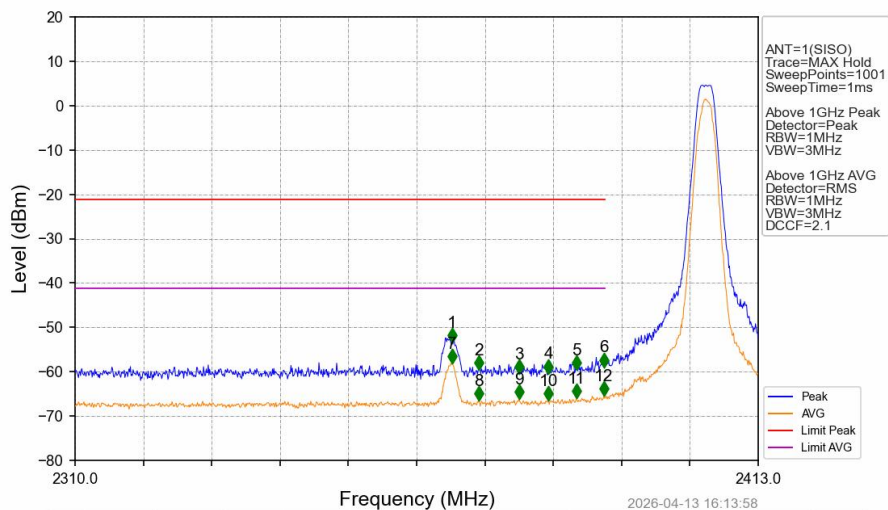
6.1.1 RSE

Mode	TX Type	Frequency (MHz)	ANT	Level of Unwanted Emissions (dBm)		Verdict
				Result	Limit	
Zigbee	SISO	2405	1	Refer To Test Graph		Pass
		2440	1	Refer To Test Graph		Pass
		2480	1	Refer To Test Graph		Pass

6.2 Test Graph

6.2.1 RSE



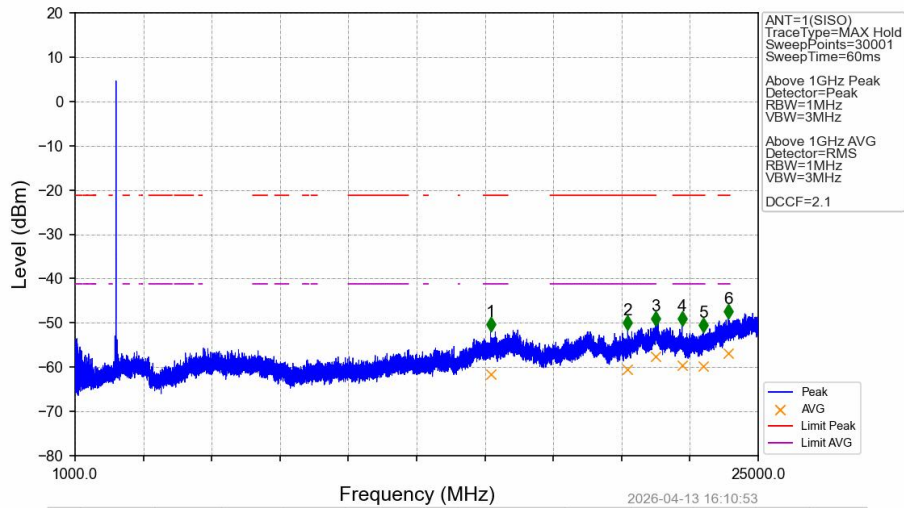


Frequency (MHz) 2026-04-13 16:13:58

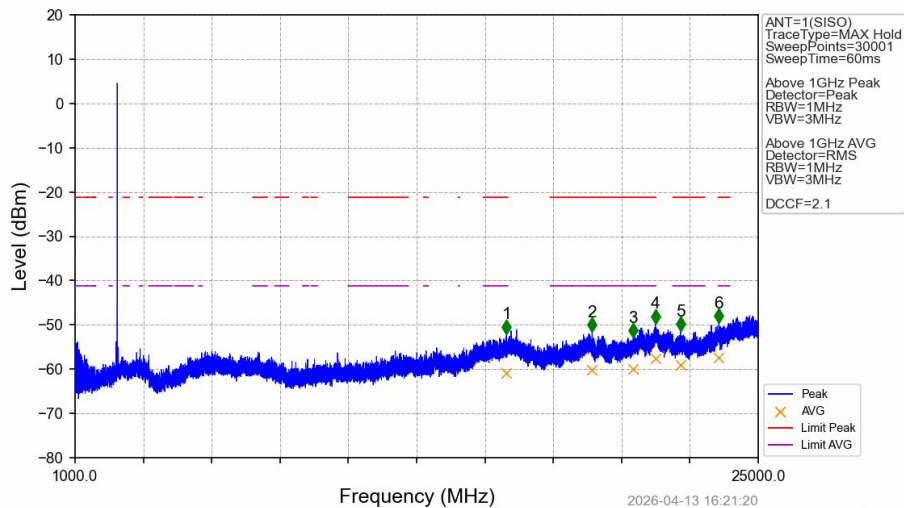
No	Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Status	Remark	No	Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Status	Remark
1	2366.856	-53.30	-21.20	32.10	Pass	Peak	7	2366.856	-58.09	-41.20	16.89	Pass	AVG
2	2370.873	-59.58	-21.20	38.38	Pass	Peak	8	2370.873	-66.47	-41.20	25.27	Pass	AVG
3	2376.950	-60.53	-21.20	39.33	Pass	Peak	9	2376.950	-66.17	-41.20	24.97	Pass	AVG
4	2381.379	-60.36	-21.20	39.16	Pass	Peak	10	2381.379	-66.46	-41.20	25.26	Pass	AVG
5	2385.602	-59.62	-21.20	38.42	Pass	Peak	11	2385.602	-66.01	-41.20	24.81	Pass	AVG
6	2389.722	-58.90	-21.20	37.70	Pass	Peak	12	2389.722	-65.34	-41.20	24.14	Pass	AVG



Zigbee_MCH_2440MHz_Ant1_NTNV



Zigbee_HCH_2480MHz_Ant1_NTNV



Zigbee_HCH_2480MHz_Ant1_NTNV

