

Appendix RF test data for Zigbee

1. Duty Cycle

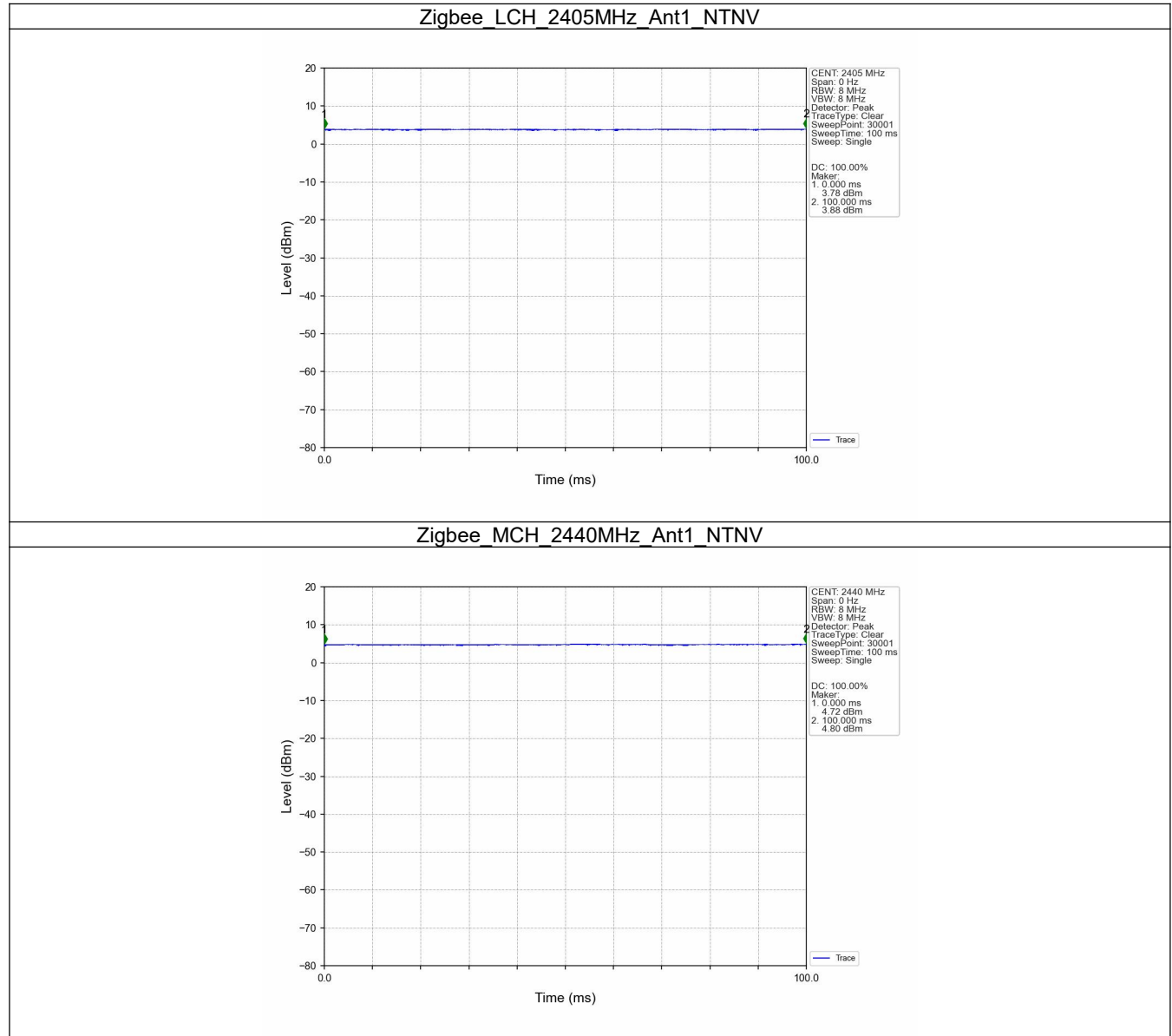
1.1 Test Result

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	100.000	100.000	100.00	0.00	0.00
		2440	100.000	100.000	100.00	0.00	0.00
		2480	100.000	100.000	100.00	0.00	0.00

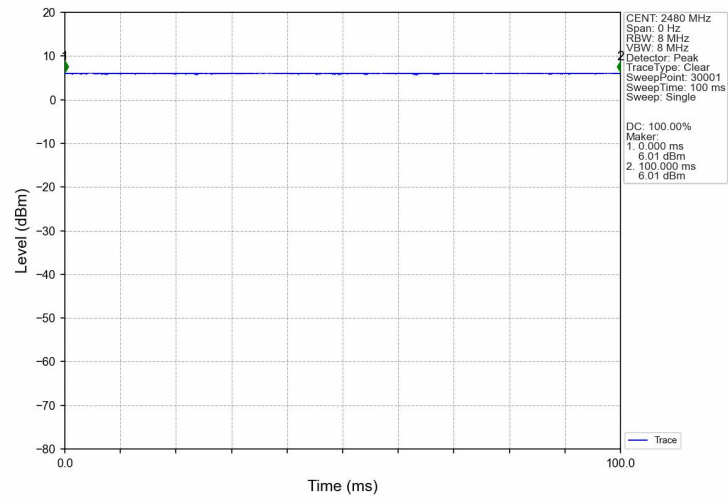
1.2 Test Graph

1.2.1 Ant1





Zigbee_HCH_2480MHz_Ant1_NTNV



2. Bandwidth

2.1 Test Result

2.1.1 OBW

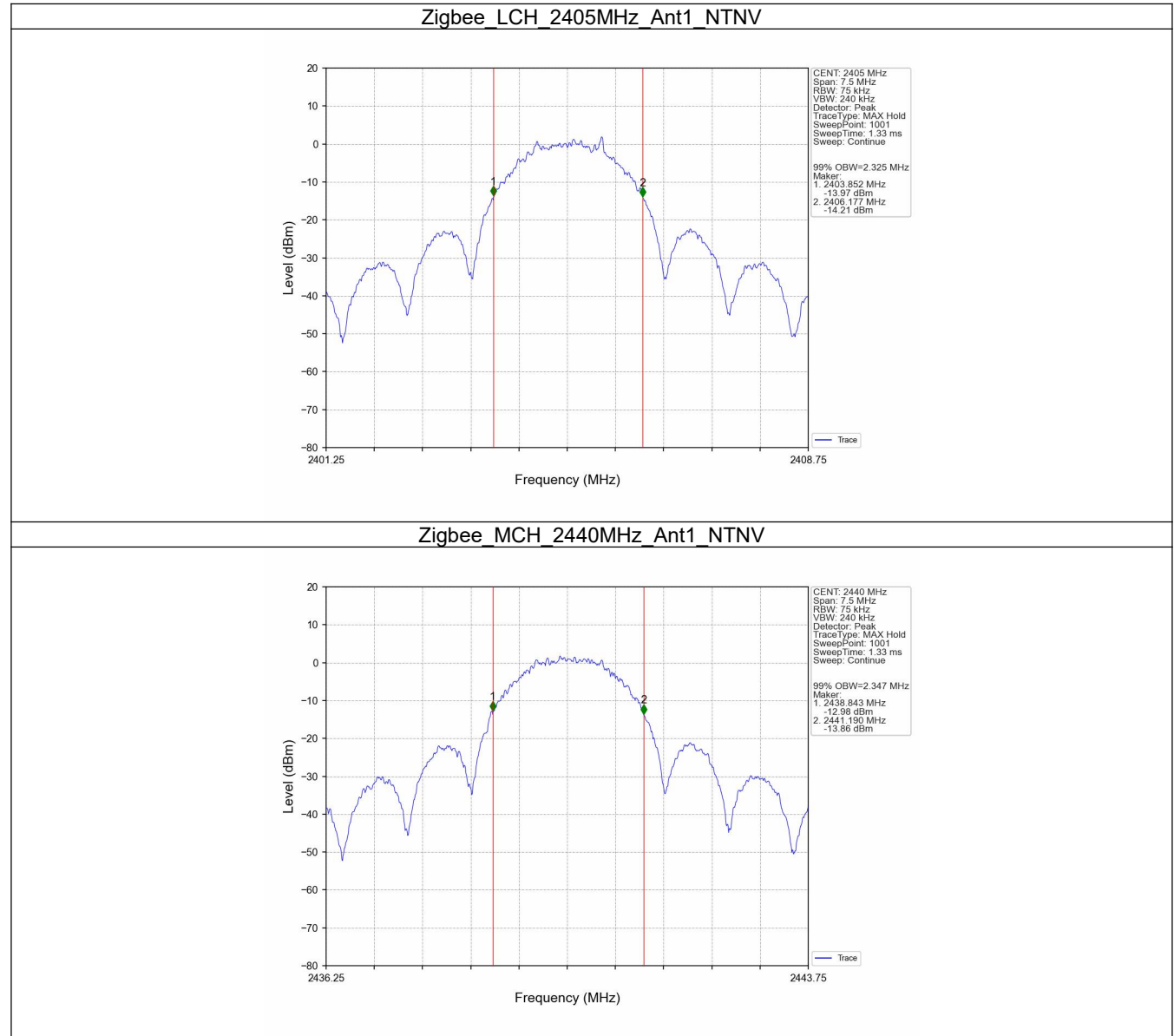
Mode	TX Type	Frequency (MHz)	ANT	99% Occupied Bandwidth (MHz)		Verdict
				Result	Limit	
Zigbee	SISO	2405	1	2.325	/	Pass
		2440	1	2.347	/	Pass
		2480	1	2.331	/	Pass

2.1.2 6dB BW

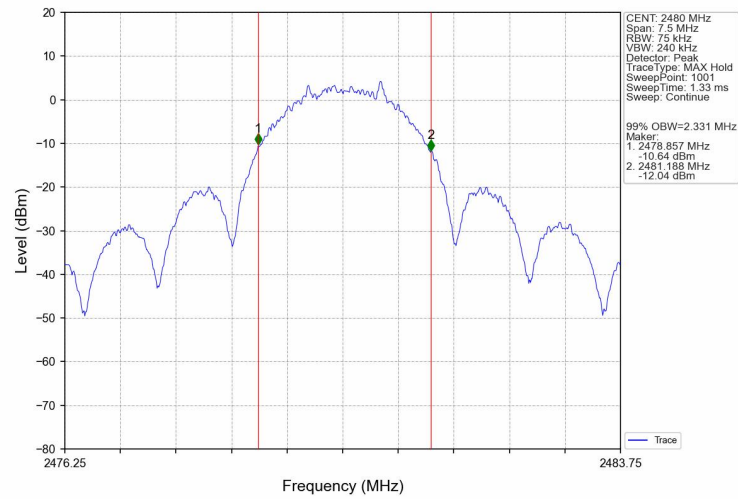
Mode	TX Type	Frequency (MHz)	ANT	6dB Bandwidth (MHz)		Verdict
				Result	Limit	
Zigbee	SISO	2405	1	1.553	≥ 0.5	Pass
		2440	1	1.512	≥ 0.5	Pass
		2480	1	1.551	≥ 0.5	Pass

2.2 Test Graph

2.2.1 OBW

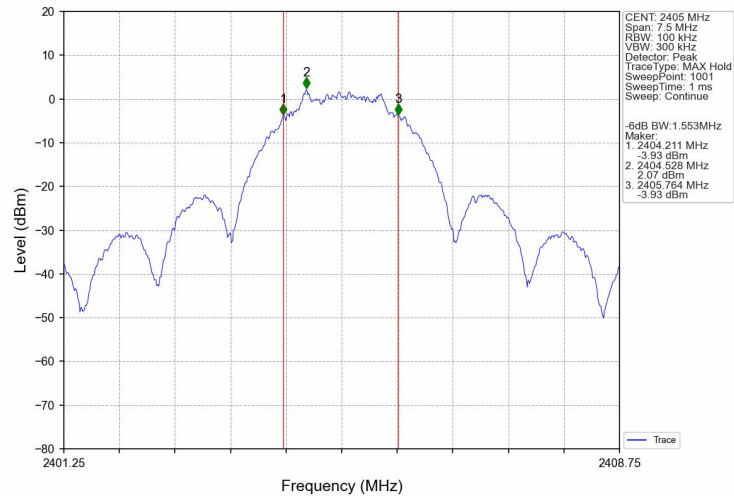


Zigbee_HCH_2480MHz_Ant1_NTNV

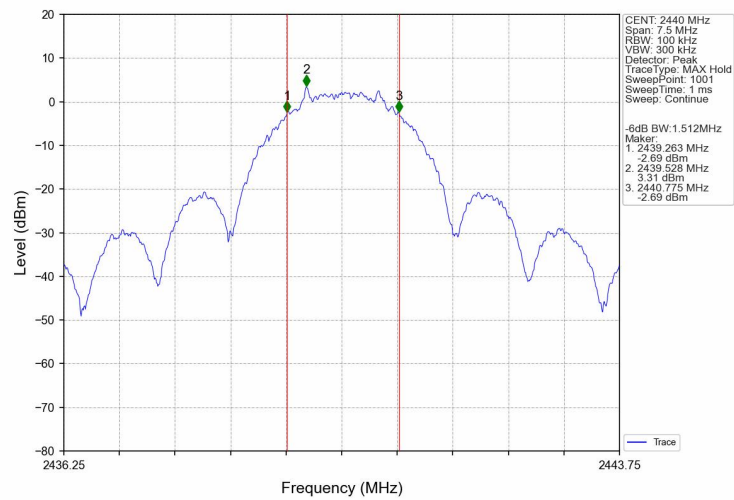


2.2.2 6dB BW

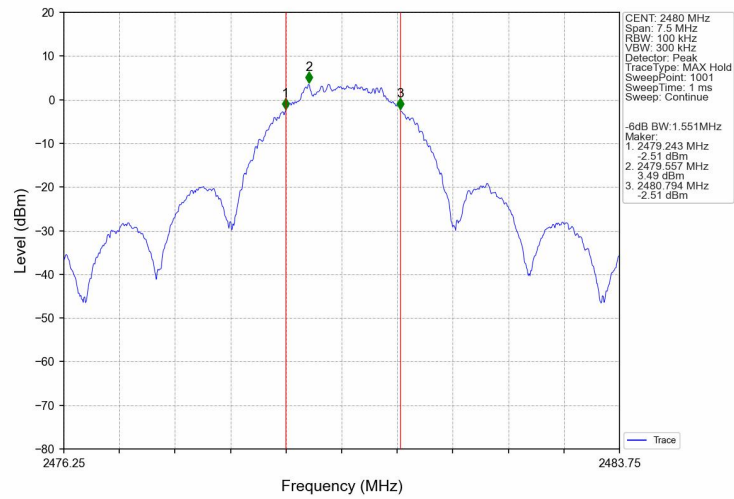
Zigbee_LCH_2405MHz_Ant1_NTNV



Zigbee_MCH_2440MHz_Ant1_NTNV



Zigbee_HCH_2480MHz_Ant1_NTNV



3. Maximum Conducted Output Power

3.1 Test Result

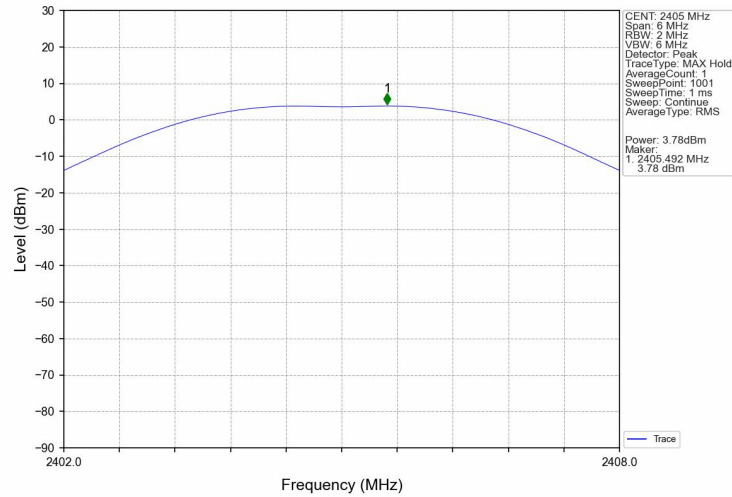
3.1.1 Power

Mode	TX Type	Frequency (MHz)	Maximum Peak Conducted Output Power (dBm)		Verdict
			ANT1	Limit	
Zigbee	SISO	2405	3.78	≤ 30	Pass
		2440	4.94	≤ 30	Pass
		2480	6.07	≤ 30	Pass

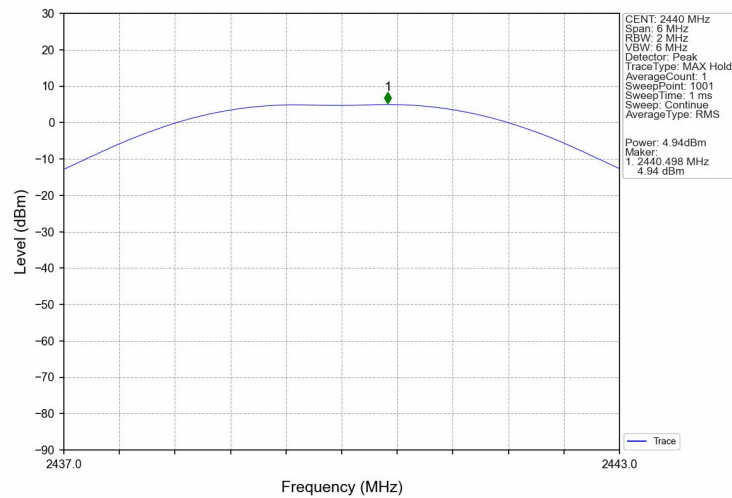
3.2 Test Graph

3.2.1 Power

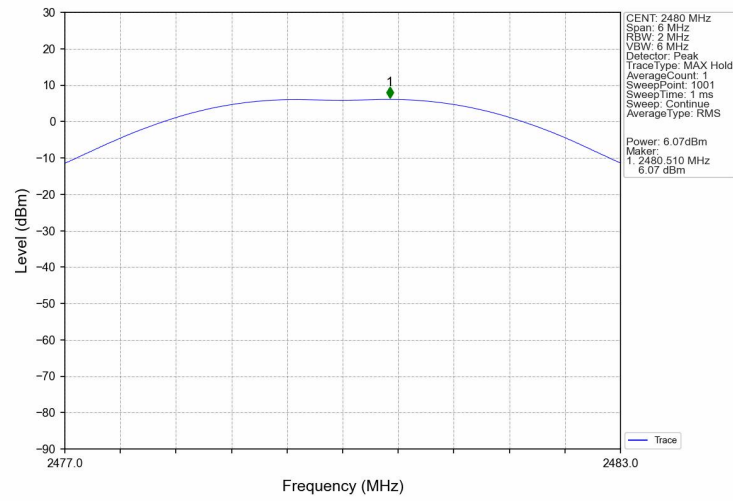
Zigbee_LCH_2405MHz_Ant1_NTNV



Zigbee_MCH_2440MHz_Ant1_NTNV



Zigbee_HCH_2480MHz_Ant1_NTNV



4. Maximum Power Spectral Density

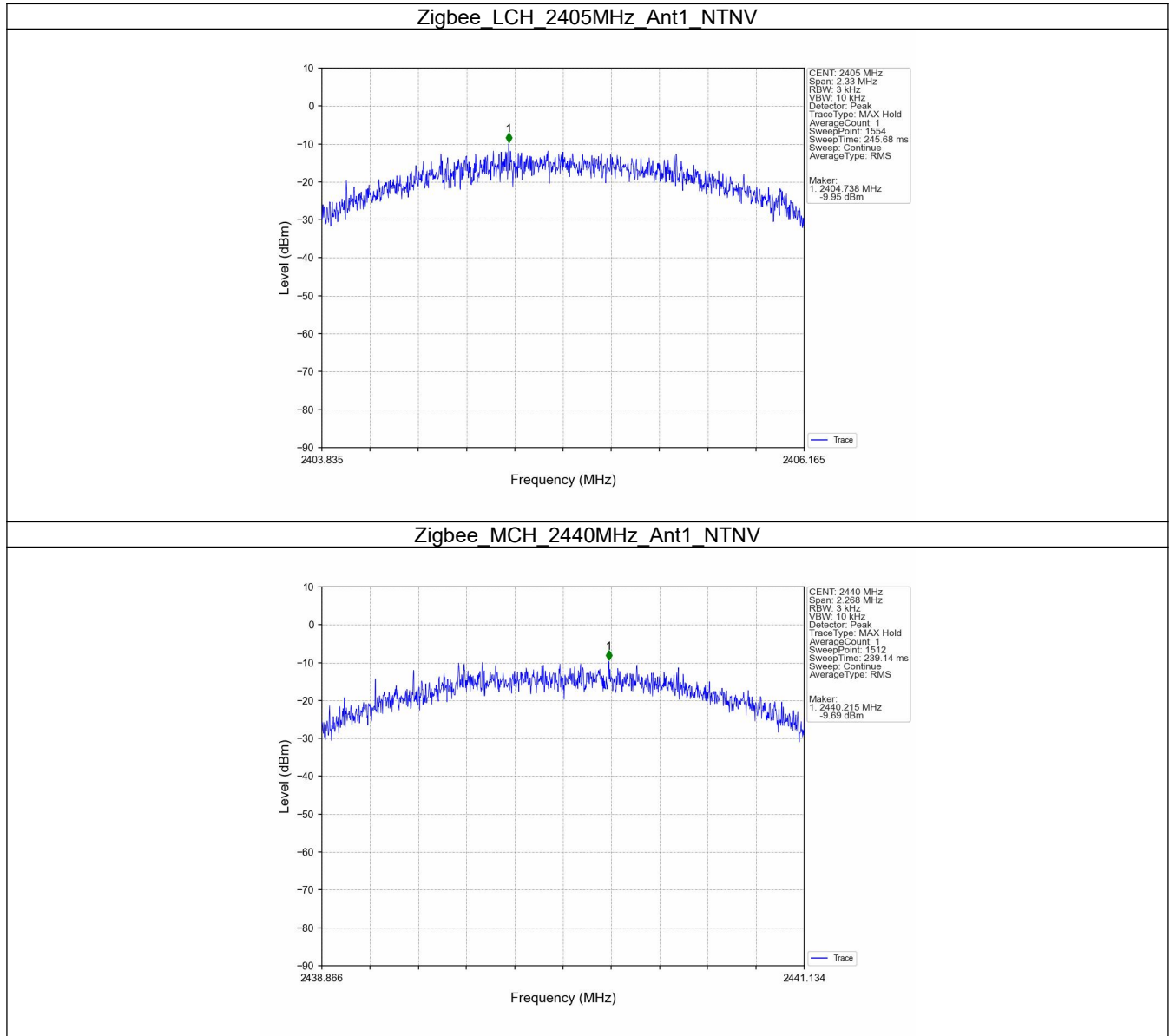
4.1 Test Result

4.1.1 PSD

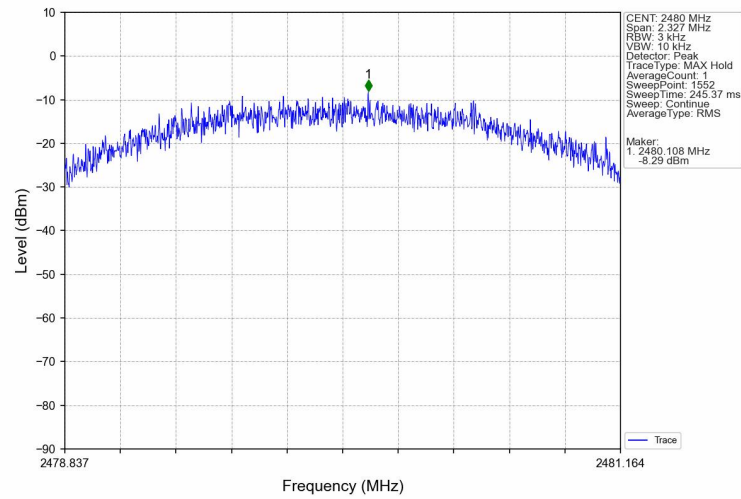
Mode	TX Type	Frequency (MHz)	Maximum PSD (dBm/3kHz)		Verdict
			ANT1	Limit	
Zigbee	SISO	2405	-9.95	<=8	Pass
		2440	-9.69	<=8	Pass
		2480	-8.29	<=8	Pass

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	1.97
		2440	1	3.27
		2480	1	4.34
Note1: Refer to FCC Part 15.247 (d) and ANSI C63.10-2013, the channel contains the maximum PSD level was used to establish the reference level.				

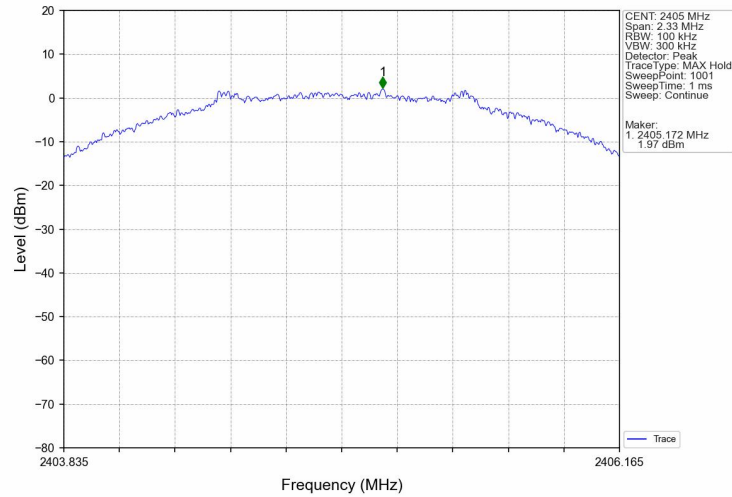
5.1.2 CSE

Mode	TX Type	Frequency (MHz)	ANT	Level of Reference (dBm)	Limit (dBm)	Verdict
Zigbee	SISO	2405	1	1.97	-18.03	Pass
		2440	1	3.27	-16.73	Pass
		2480	1	4.34	-15.66	Pass
Note1: Refer to FCC Part 15.247 (d) and ANSI C63.10-2013, the channel contains the maximum PSD level was used to establish the reference level.						

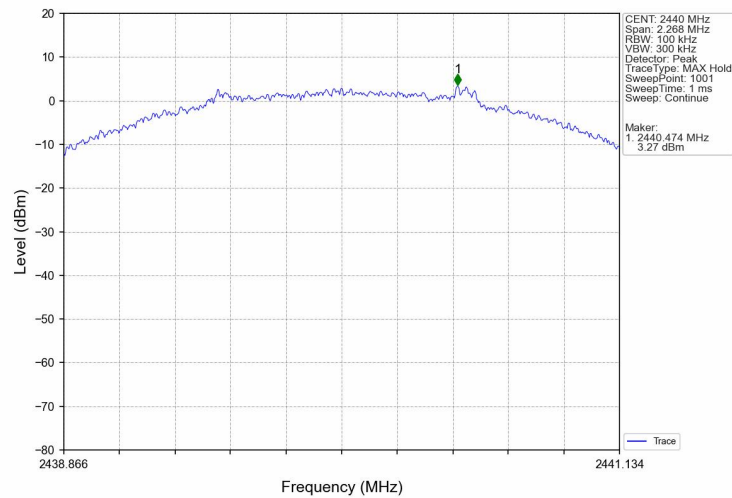
5.2 Test Graph

5.2.1 Ref

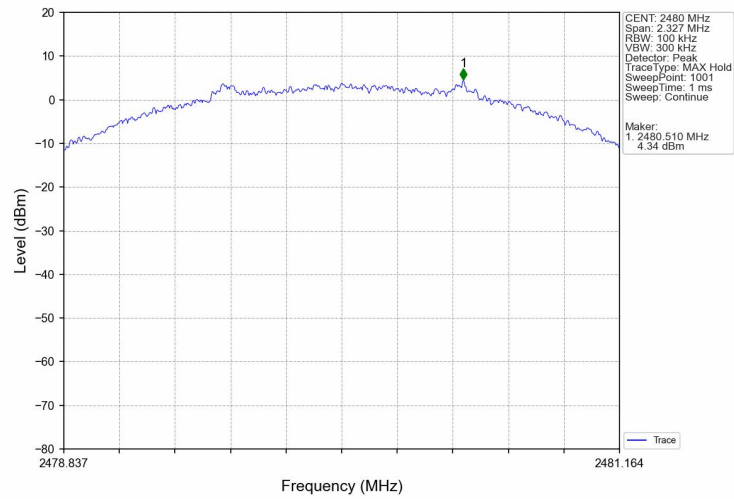
Zigbee_LCH_2405MHz_Ant1_NTNV



Zigbee_MCH_2440MHz_Ant1_NTNV

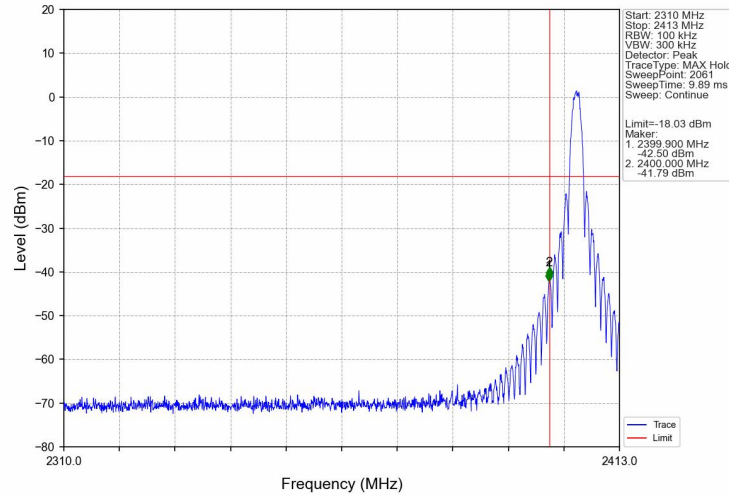


Zigbee_HCH_2480MHz_Ant1_NTNV

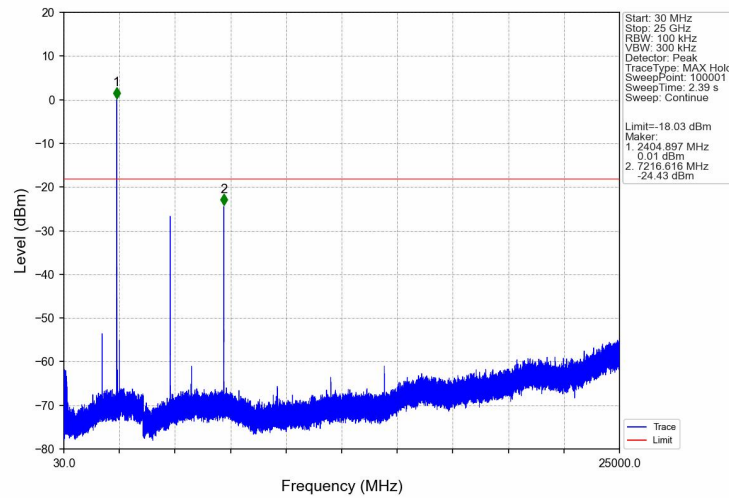


5.2.2 CSE

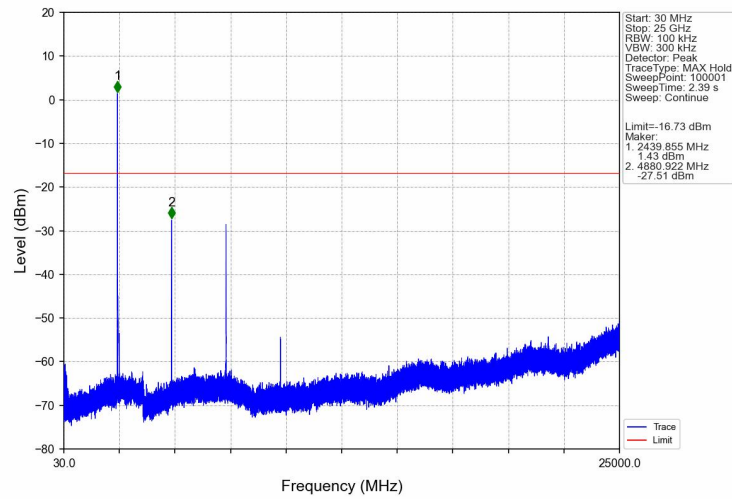
Zigbee_LCH_2405MHz_Ant1_NTNV



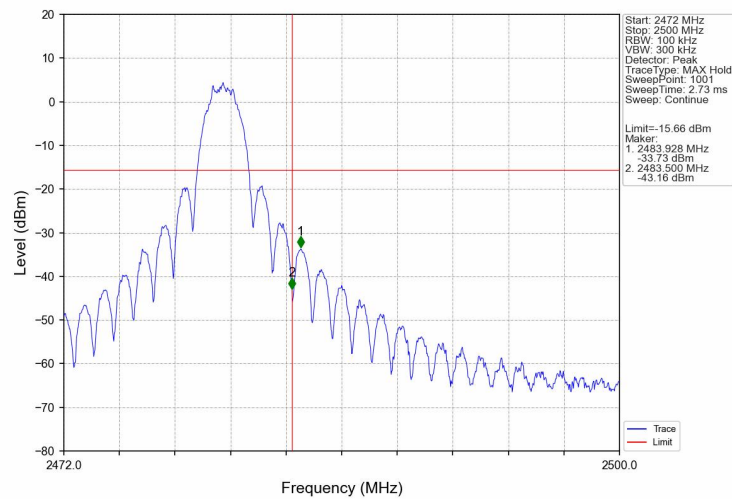
Zigbee_LCH_2405MHz_Ant1_NTNV



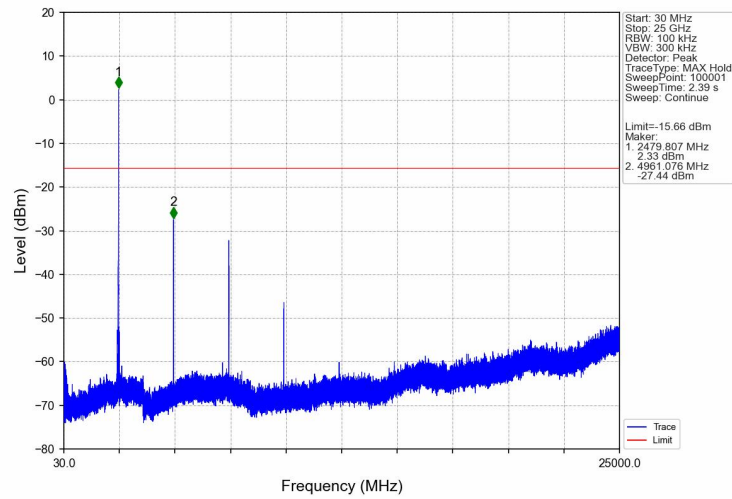
Zigbee_MCH_2440MHz_Ant1_NTNV



Zigbee_HCH_2480MHz_Ant1_NTNV



Zigbee_HCH_2480MHz_Ant1_NTNV



6. Form731

6.1 Test Result

6.1.1 Form731

Lower Freq (MHz)	High Freq (MHz)	MAX Power (W)	MAX Power (dBm)
2405	2480	0.0040	6.07