



Shenzhen BANTEK Testing Co., Ltd.

Report No.: BTEK251208002A01E0101

RF Test Report

For BTEK251208002A01E01

Project No.:	BTEK251208002A01E0101
Product Description:	22.7℃, 42%, 102.6kPa
Test Engineer:	Zora
Test Date:	2025-12-12



Shenzhen BANTEK Testing Co., Ltd.

Report No.: BTEK251208002A01E0101

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

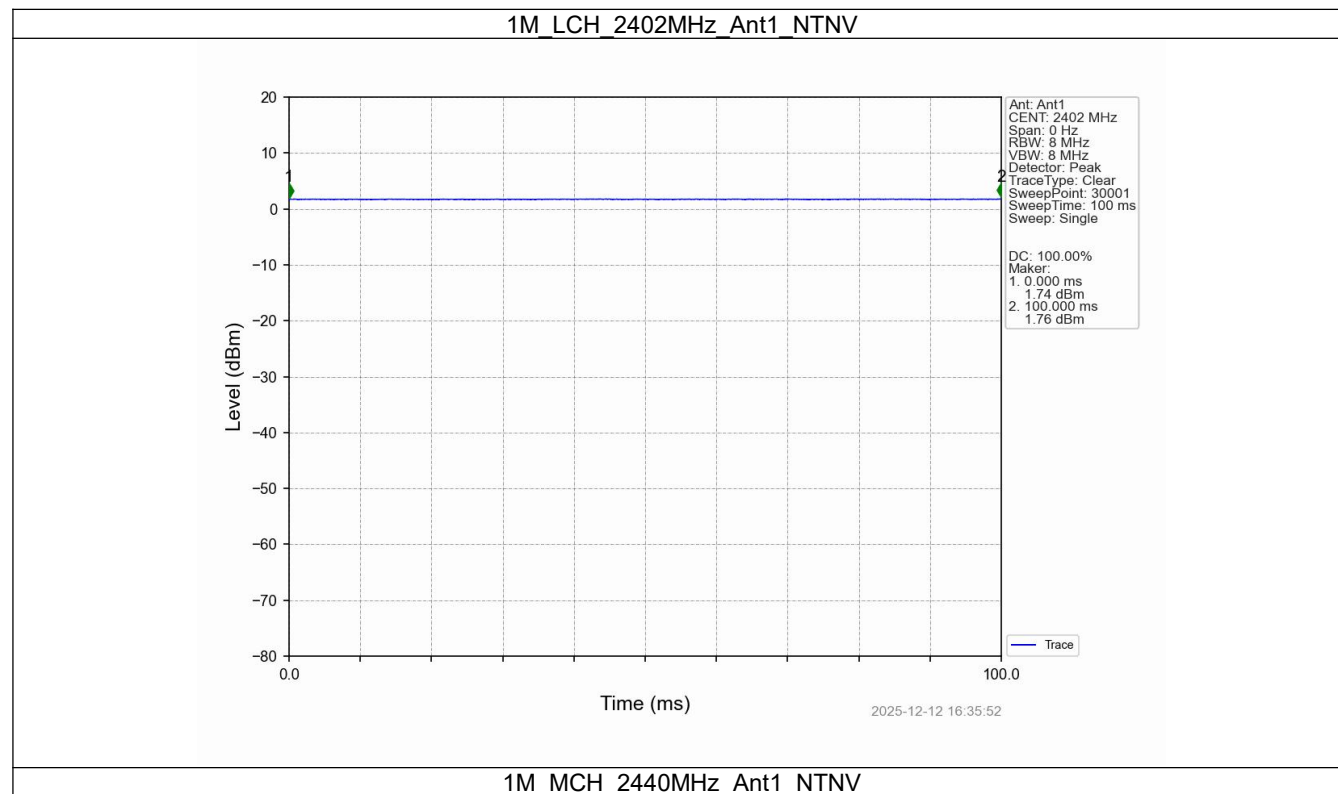
1.1.1 Ant1

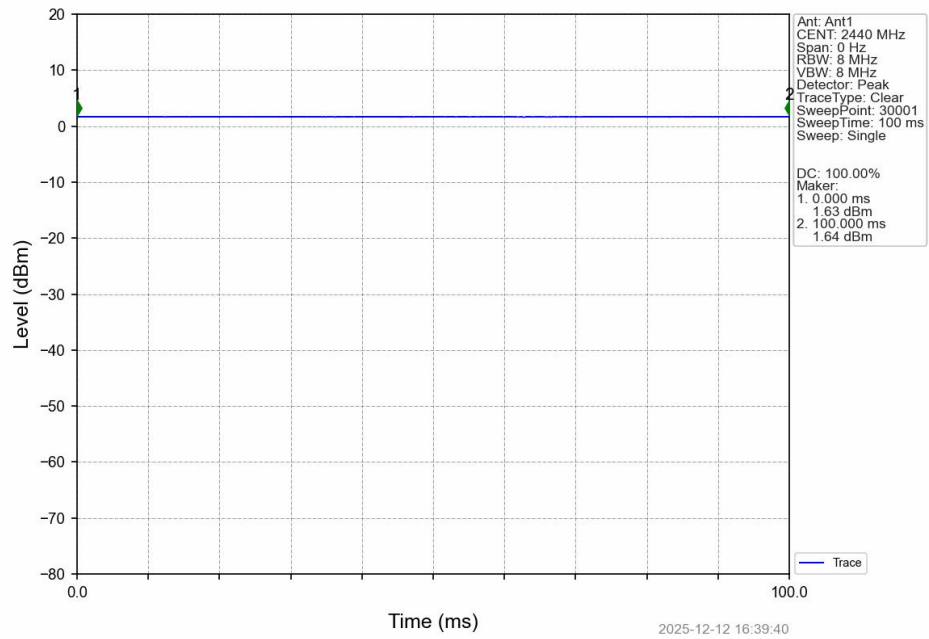
Ant1							
Mode	TX Type	Frequency (MHz)	T_on (ms)	Period (ms)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)	Max. DC Variation (%)
1M	SISO	2402	100.000	100.000	100.00	0.00	0.00
		2440	100.000	100.000	100.00	0.00	0.00
		2480	100.000	100.000	100.00	0.00	0.00
2M	SISO	2402	100.000	100.000	100.00	0.00	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

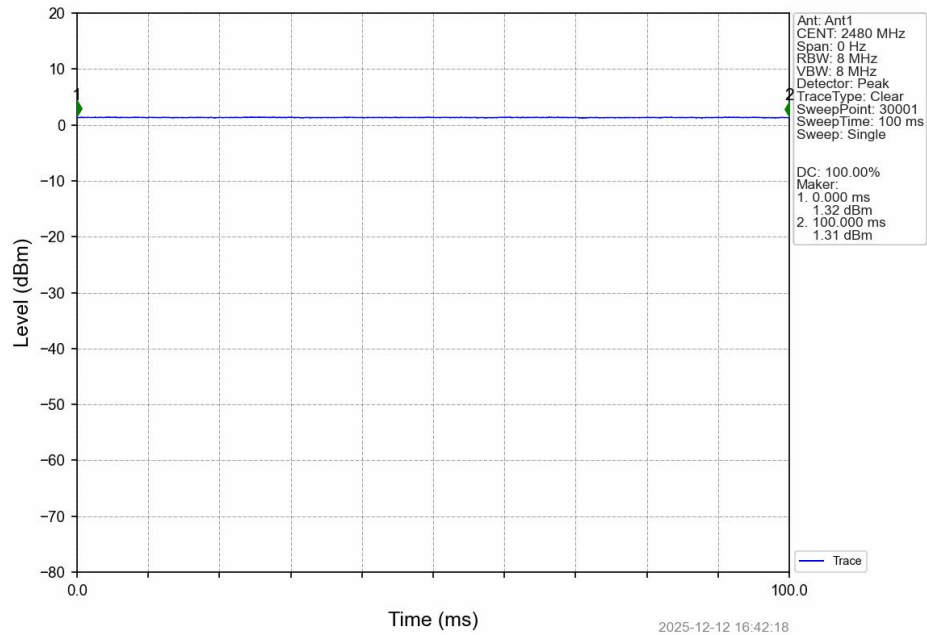
1.2.1 Ant1



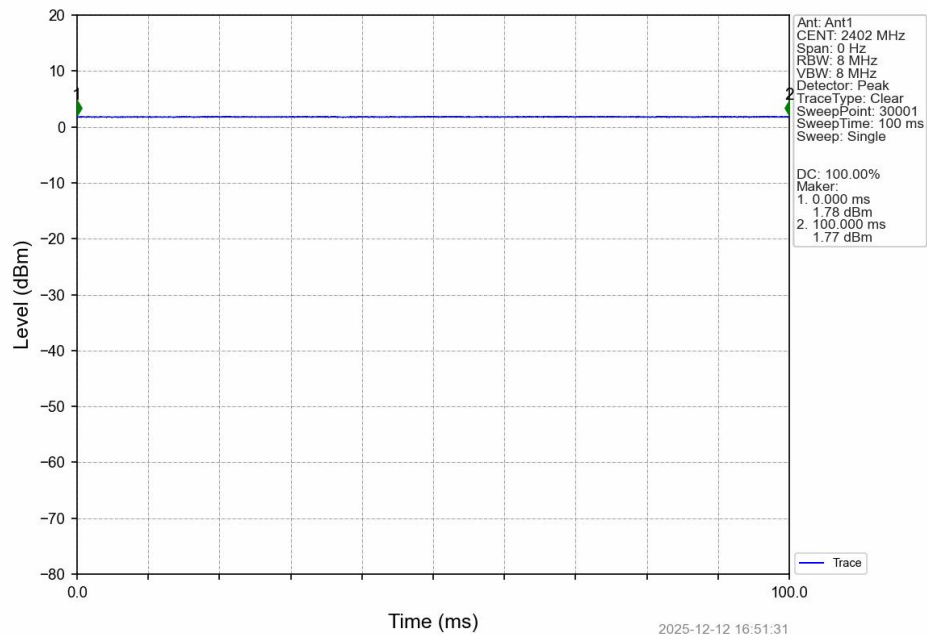




1M_HCH_2480MHz_Ant1_NTNV

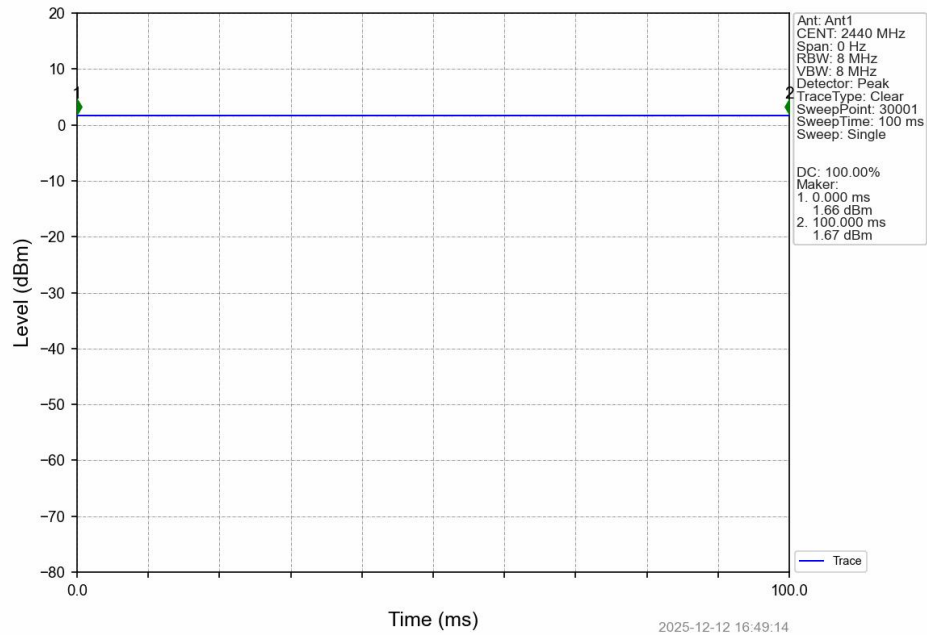


2M_LCH_2402MHz_Ant1_NTNV

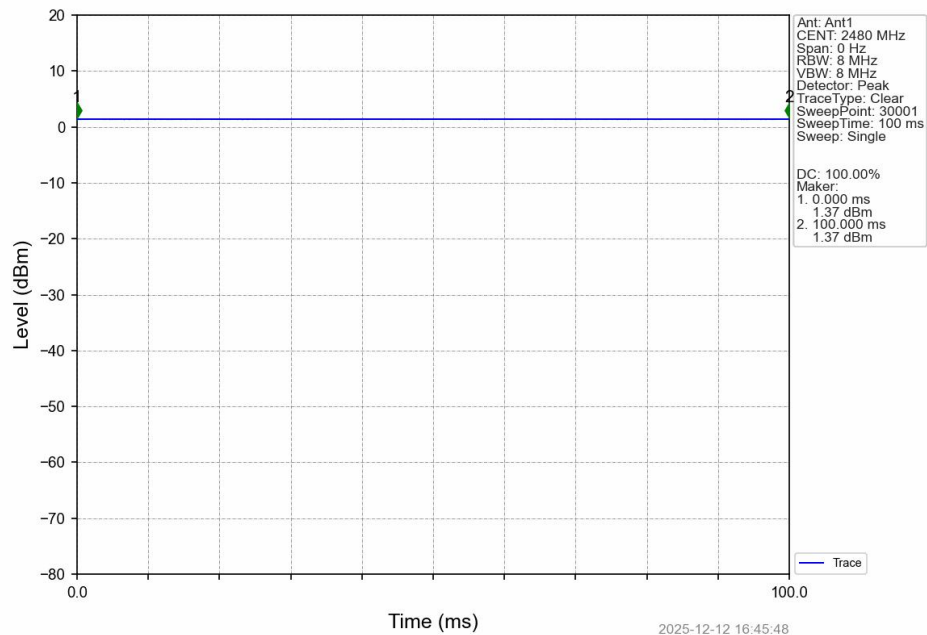




2M_MCH_2440MHz_Ant1_NTNV



2M_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	
1M	SISO	2402	1	1.064	/	Pass
		2440	1	1.083	/	Pass
		2480	1	1.081	/	Pass
2M	SISO	2402	1	2.084	/	Pass
		2440	1	2.085	/	Pass
		2480	1	2.101	/	Pass

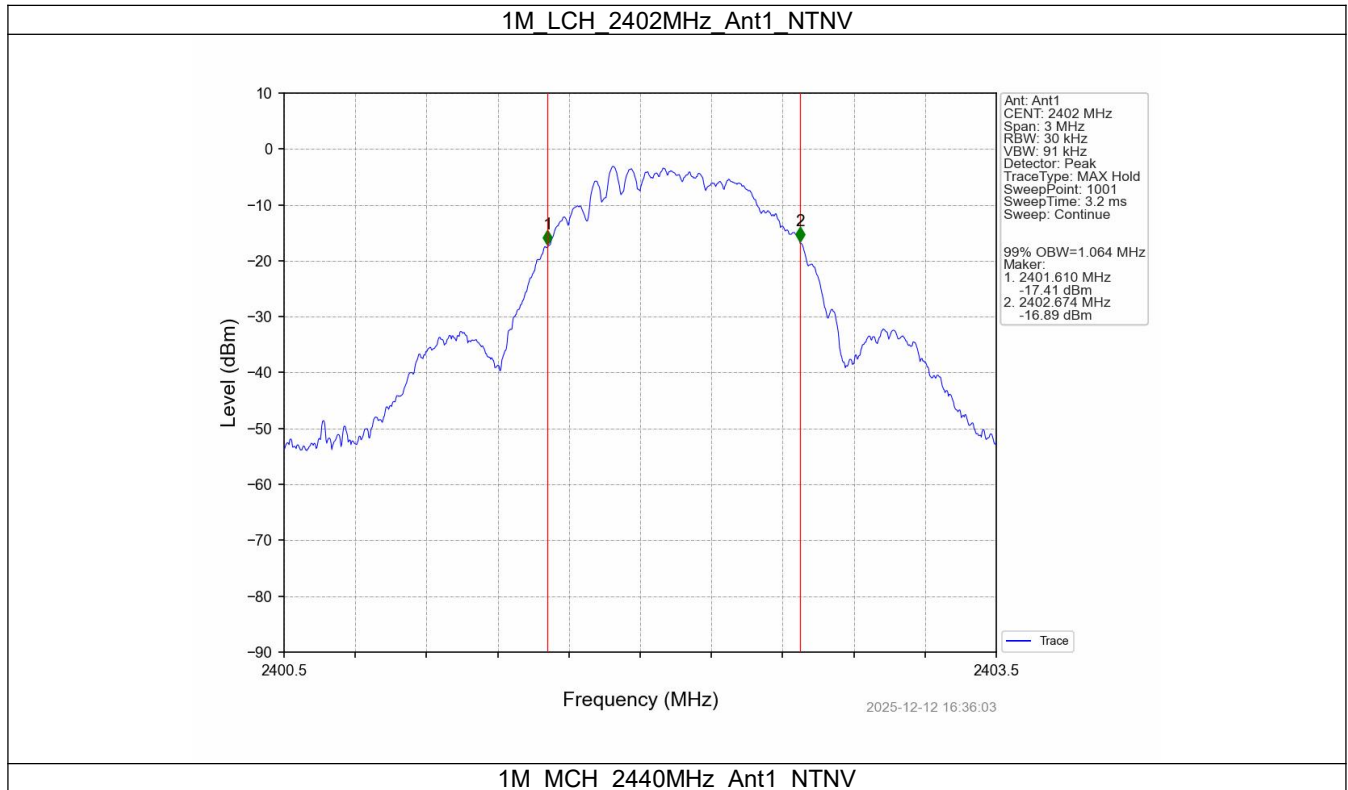
2.1.2 6dB BW

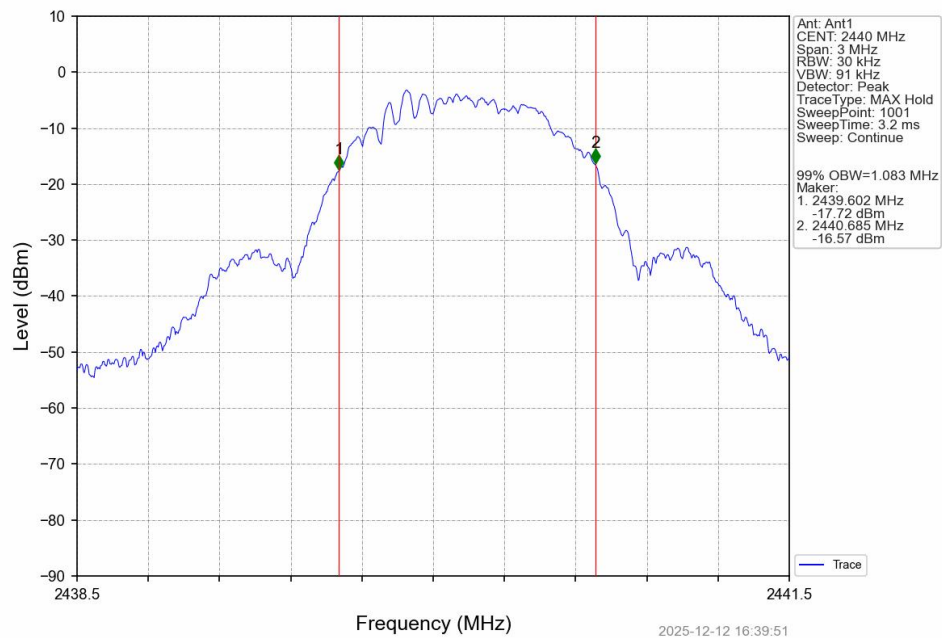
Mode	TX Type	Frequency (MHz)	ANT	6dB Bandwidth (MHz)		Verdict
				Result	Limit	
1M	SISO	2402	1	0.750	≥ 0.5	Pass
		2440	1	0.767	≥ 0.5	Pass
		2480	1	0.760	≥ 0.5	Pass
2M	SISO	2402	1	1.434	≥ 0.5	Pass
		2440	1	1.434	≥ 0.5	Pass
		2480	1	1.442	≥ 0.5	Pass



2.2 Test Graph

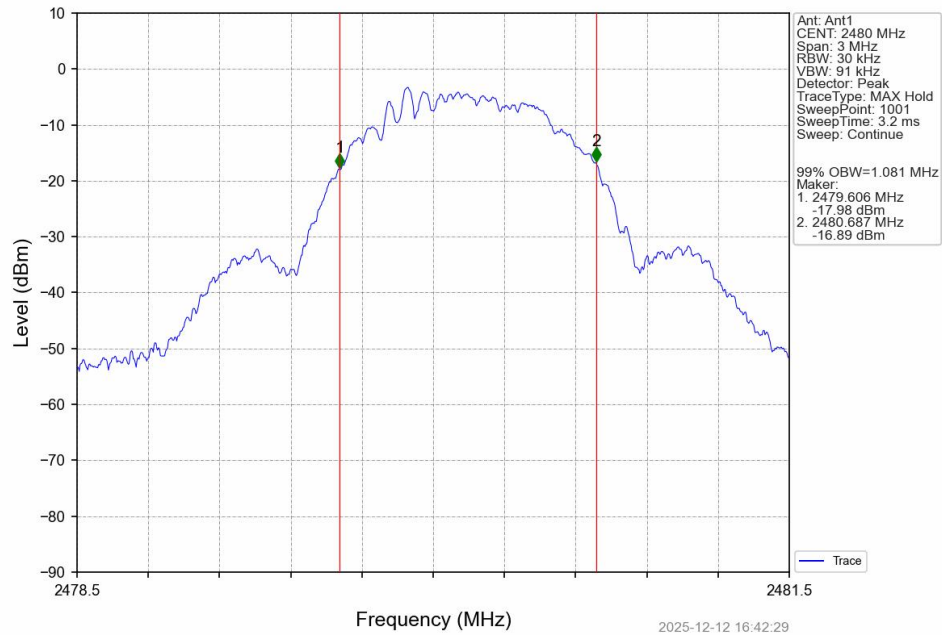
2.2.1 OBW



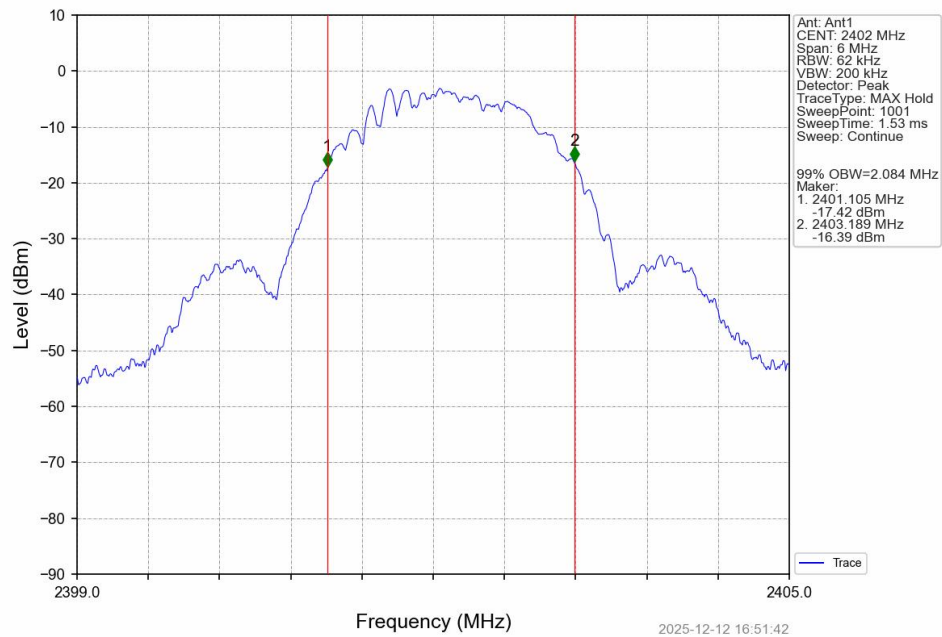




1M_HCH_2480MHz_Ant1_NTNV

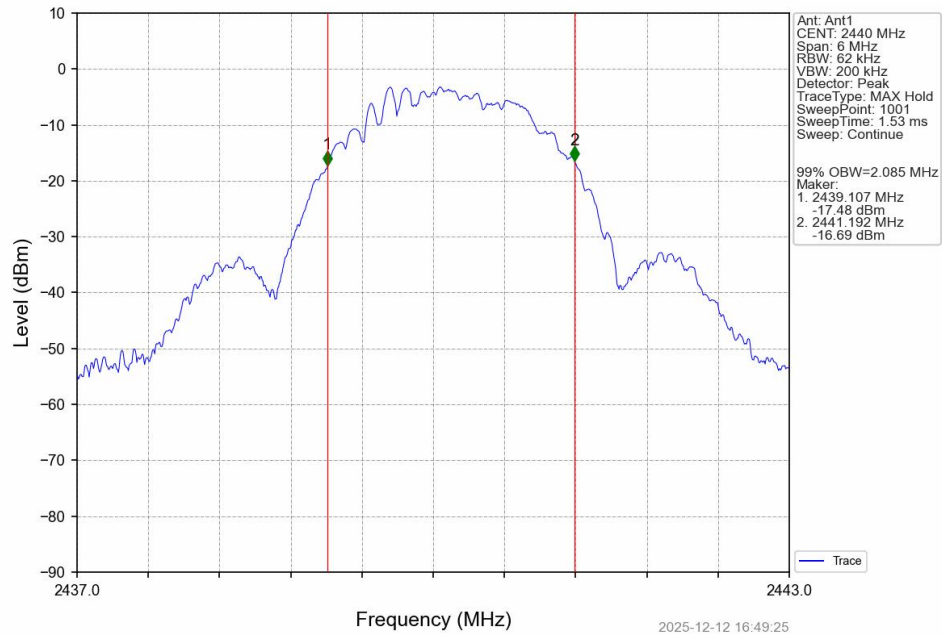


2M_LCH_2402MHz_Ant1_NTNV

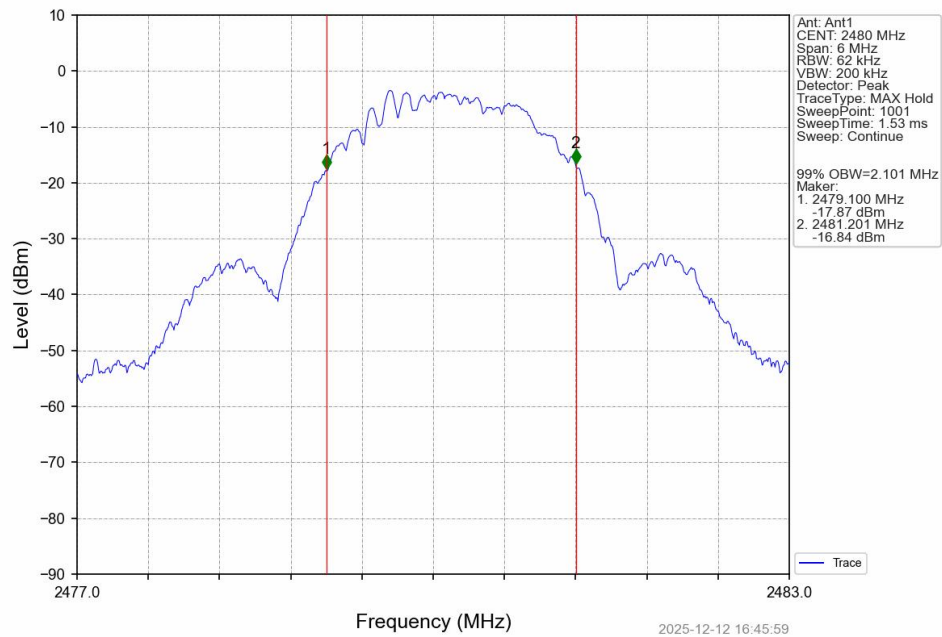




2M_MCH_2440MHz_Ant1_NTNV

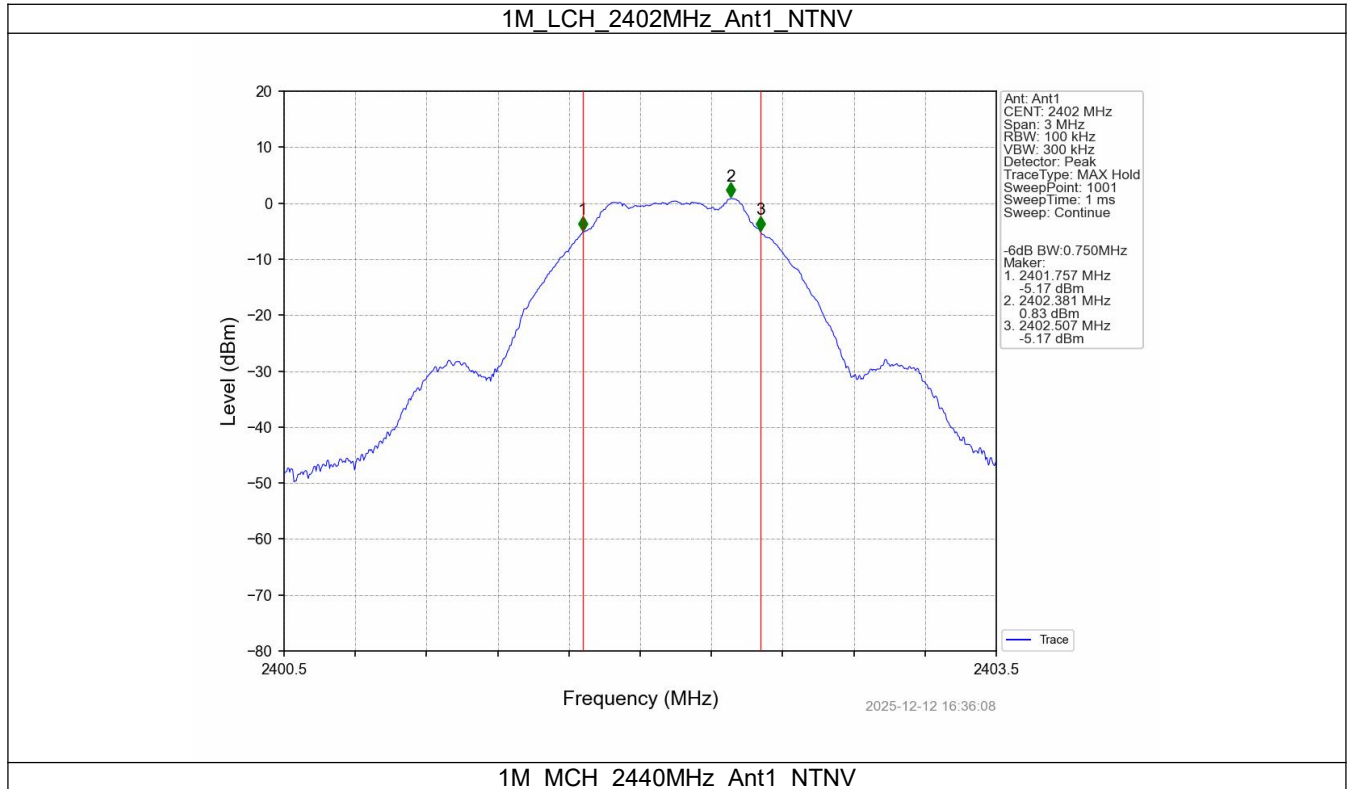


2M_HCH_2480MHz_Ant1_NTNV

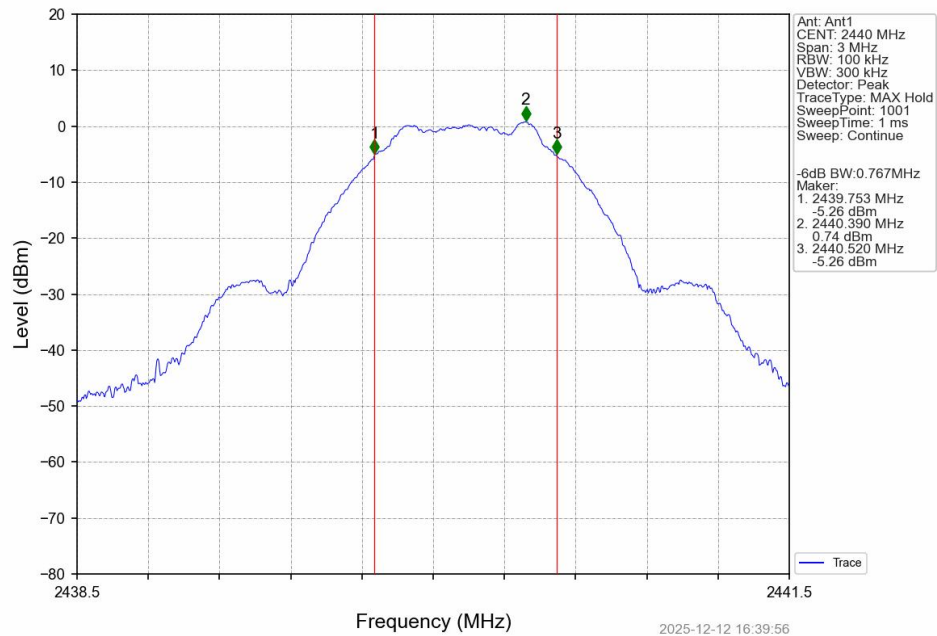




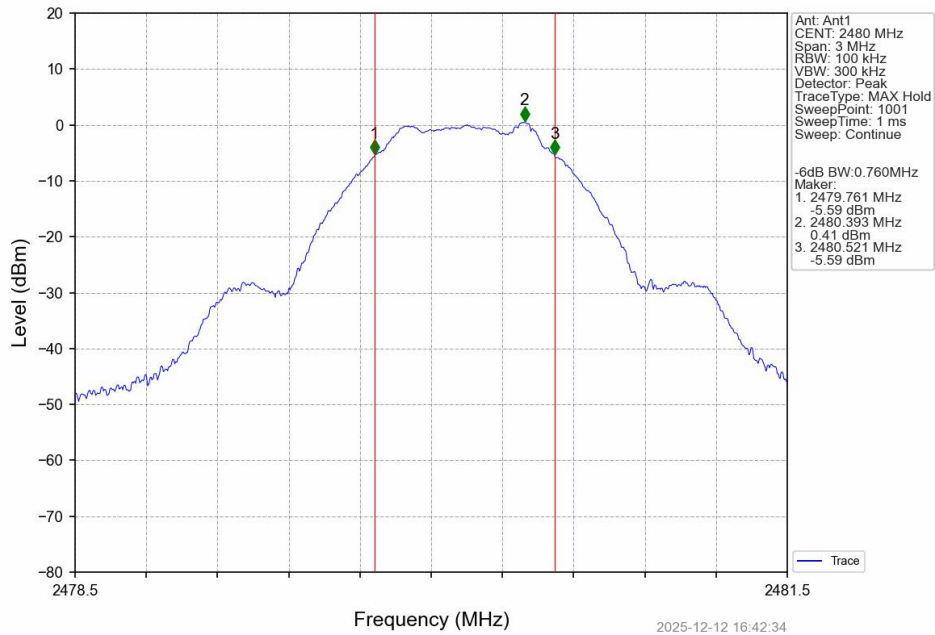
2.2.2 6dB BW



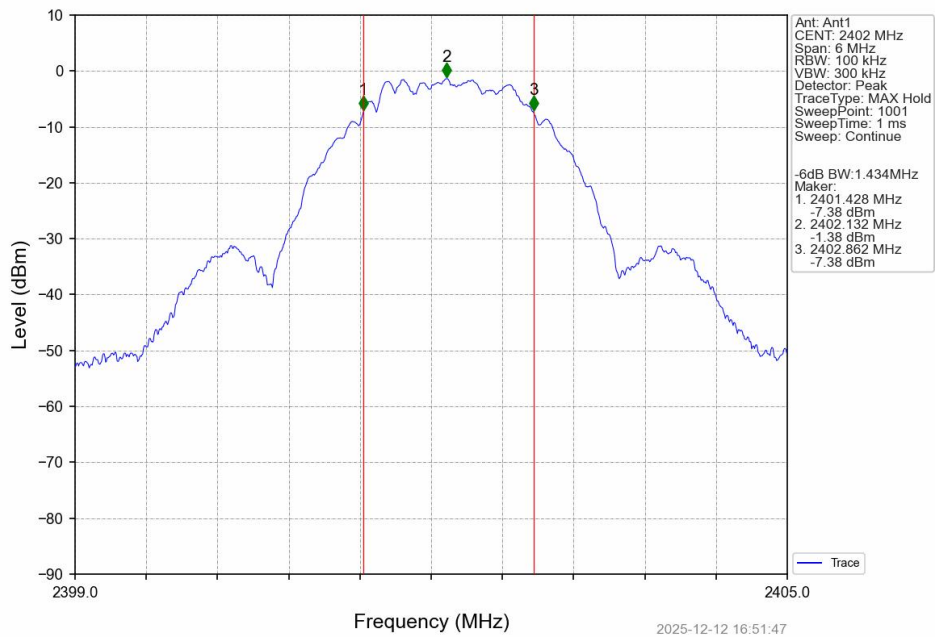
1M_MCH_2440MHz_Ant1_NTNV



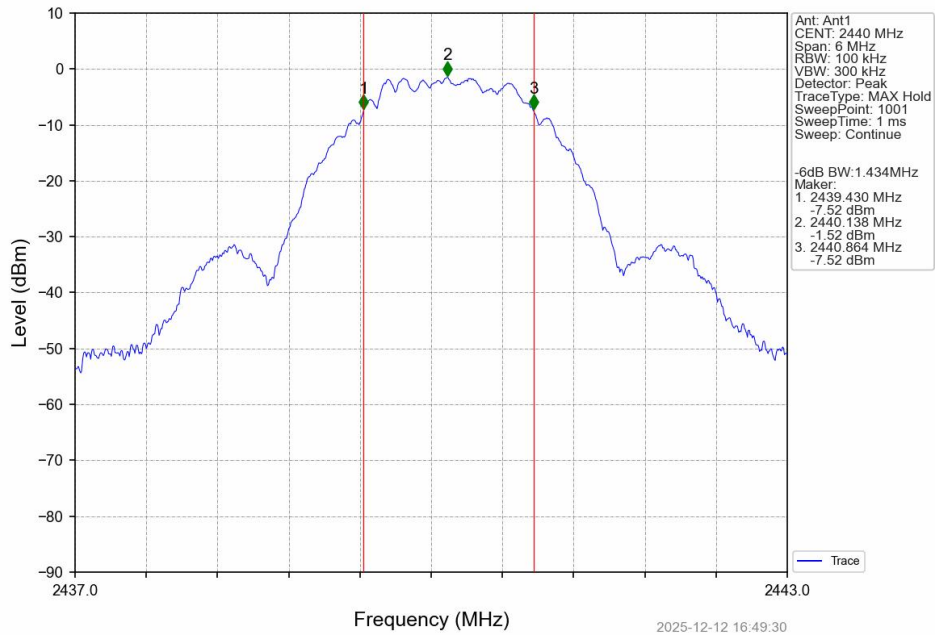
1M_HCH_2480MHz_Ant1_NTNV



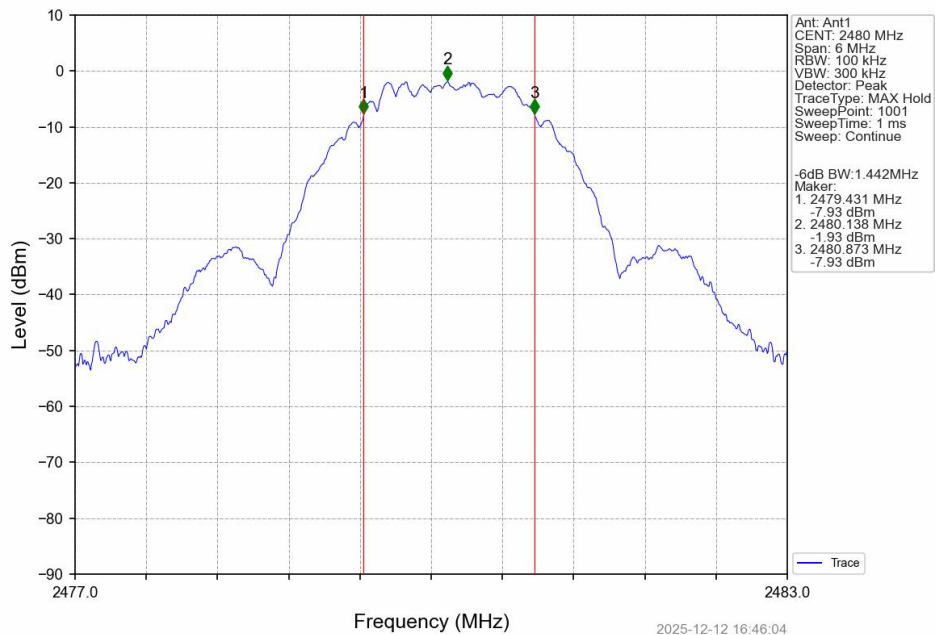
2M_LCH_2402MHz_Ant1_NTNV



2M_MCH_2440MHz_Ant1_NTNV



2M_HCH_2480MHz_Ant1_NTNV





3. Maximum Conducted Output Power

3.1 Test Result

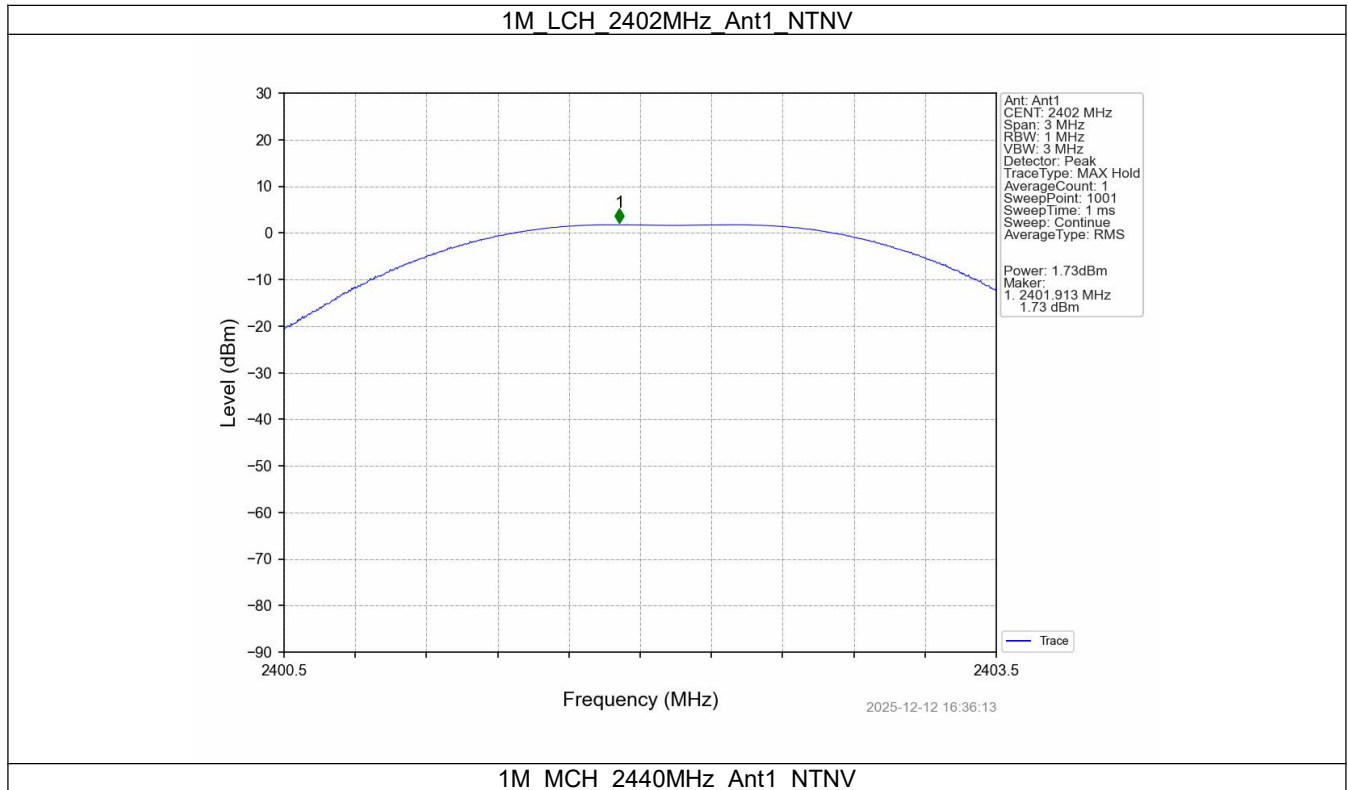
3.1.1 Power

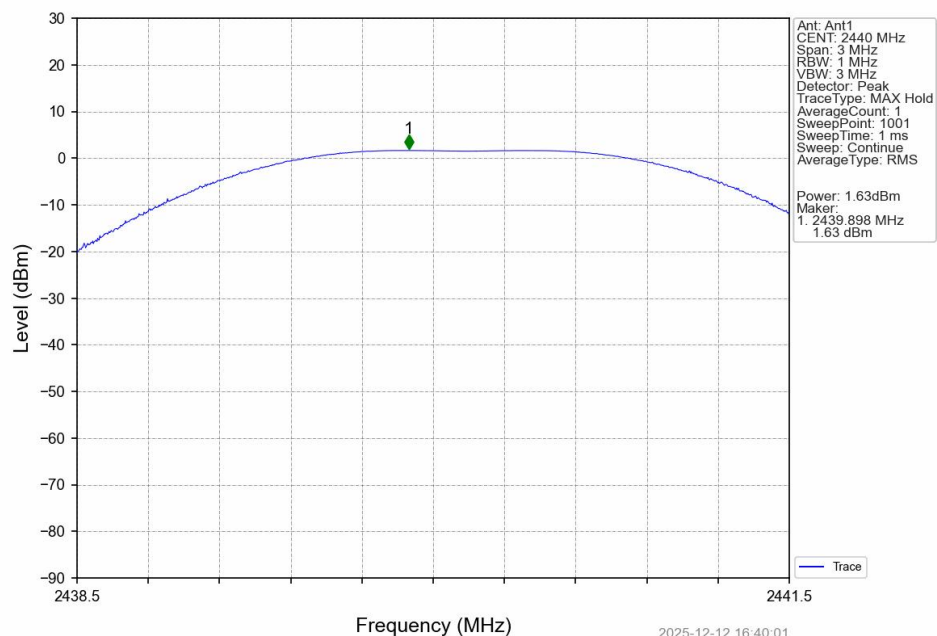
Mode	TX Type	Frequency (MHz)	Maximum Peak Conducted Output Power (dBm)		Verdict
			ANT1	Limit	
1M	SISO	2402	1.73	<=30	Pass
		2440	1.63	<=30	Pass
		2480	1.31	<=30	Pass
2M	SISO	2402	1.72	<=30	Pass
		2440	1.64	<=30	Pass
		2480	1.33	<=30	Pass

Note1: Antenna Gain: Ant1: 1.13 dBi;

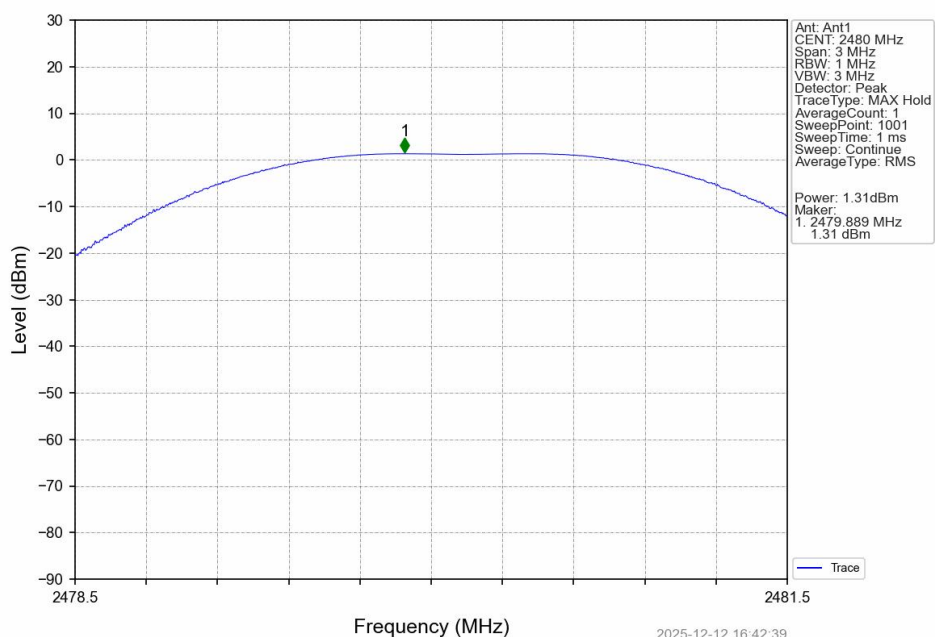
3.2 Test Graph

3.2.1 Power

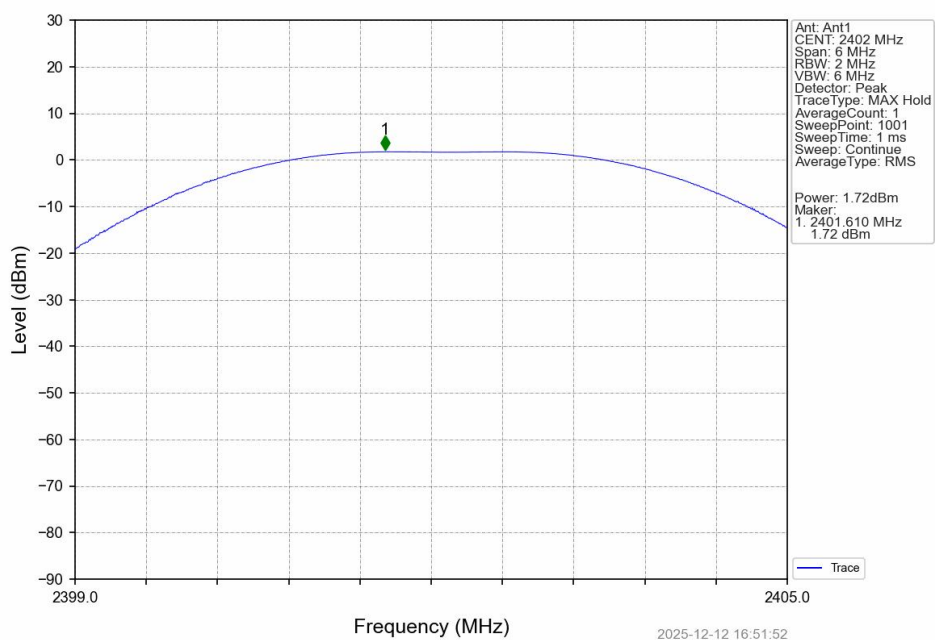




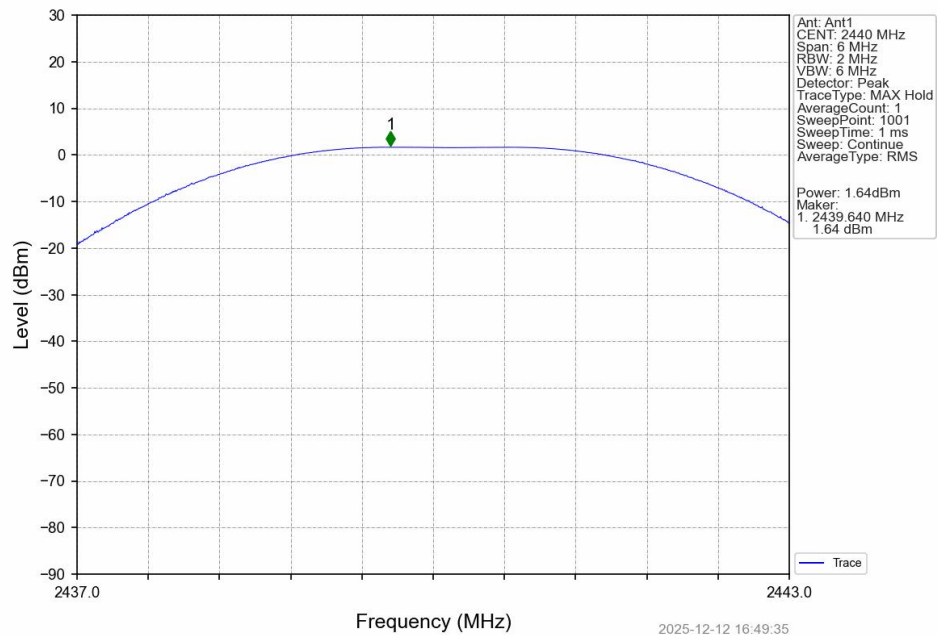
1M_HCH_2480MHz_Ant1_NTNV



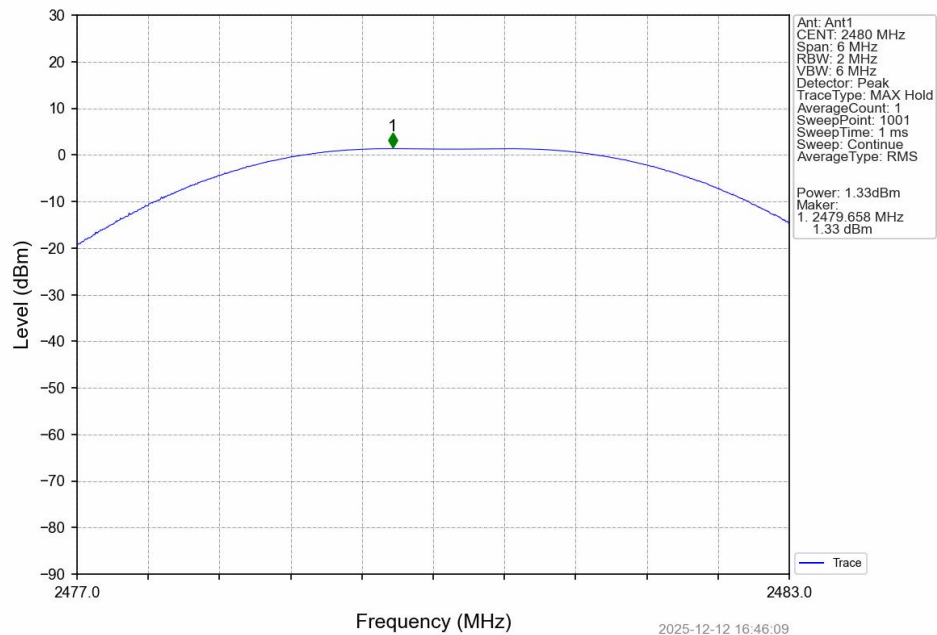
2M_LCH_2402MHz_Ant1_NTNV



2M_MCH_2440MHz_Ant1_NTNV



2M_HCH_2480MHz_Ant1_NTNV





4. Maximum Power Spectral Density

4.1 Test Result

4.1.1 PSD

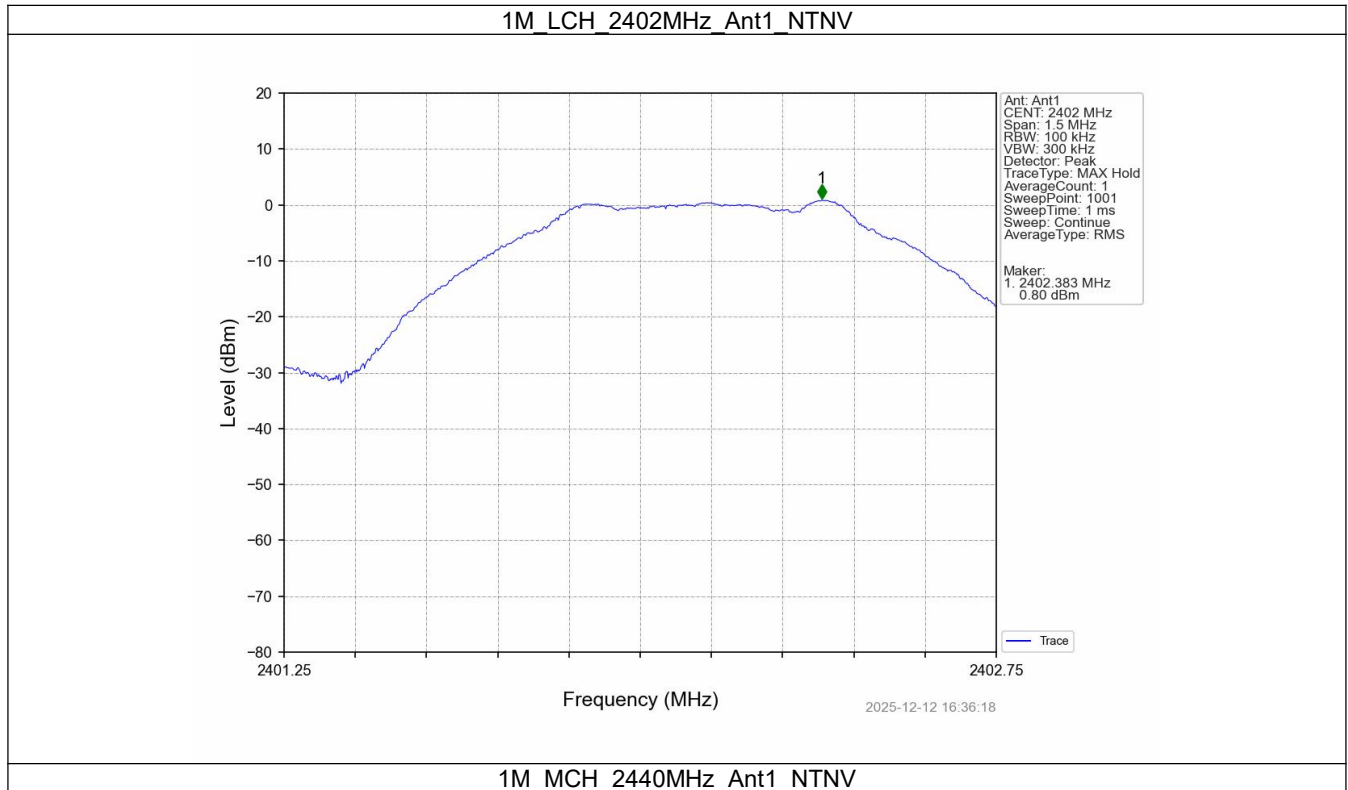
Mode	TX Type	Frequency (MHz)	Maximum PSD (dBm)		Verdict
			ANT1	Limit	
1M	SISO	2402	0.80	<=8	Pass
		2440	0.76	<=8	Pass
		2480	0.40	<=8	Pass
2M	SISO	2402	-1.46	<=8	Pass
		2440	-1.55	<=8	Pass
		2480	-2.07	<=8	Pass

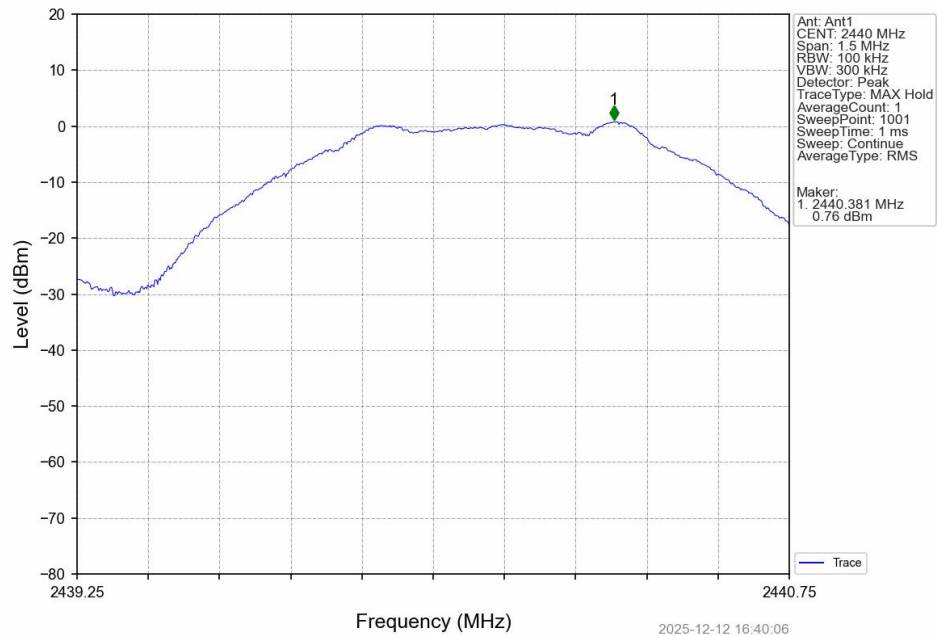
Note1: Antenna Gain: Ant1: 1.13 dBi;



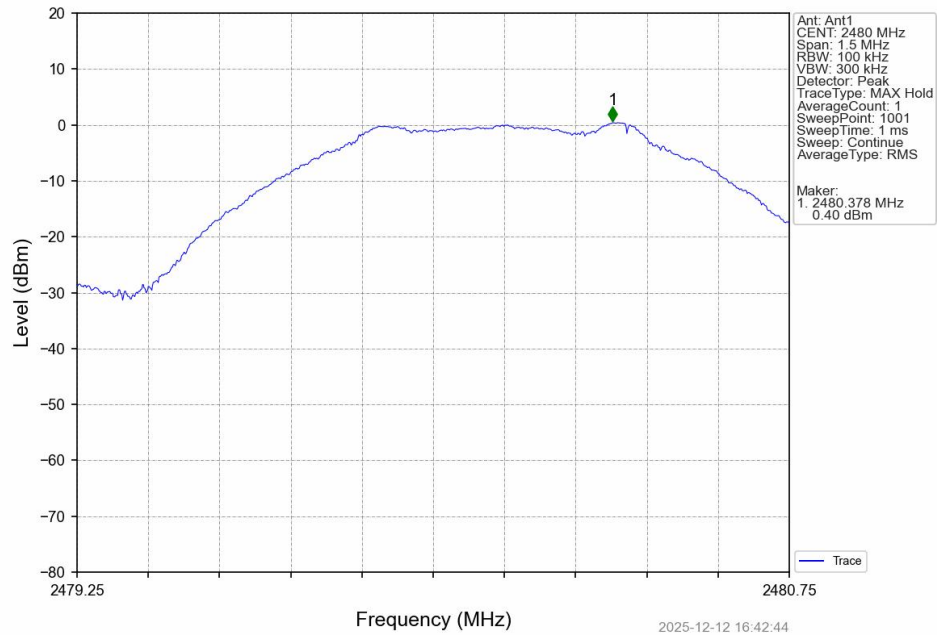
4.2 Test Graph

4.2.1 PSD

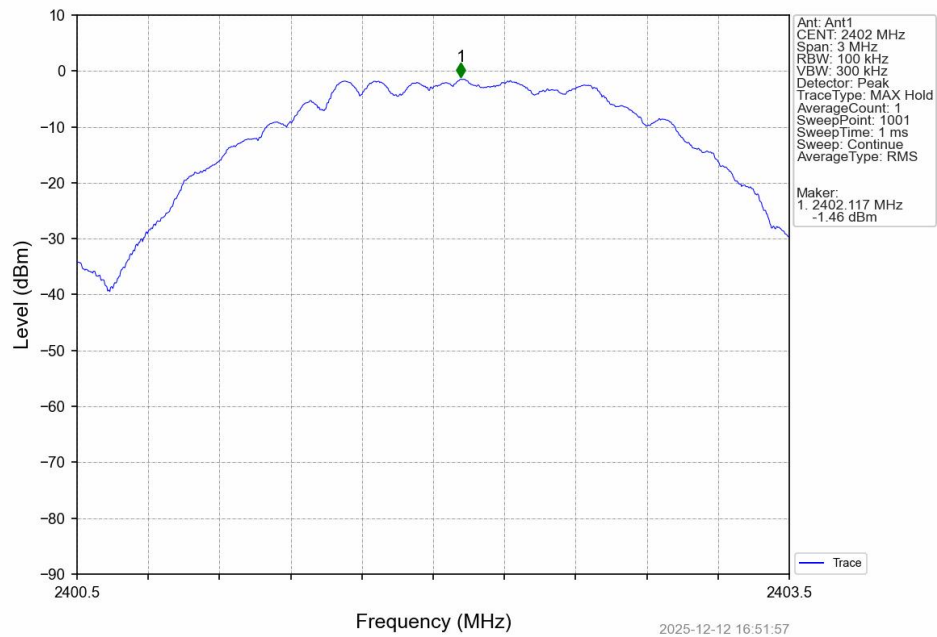




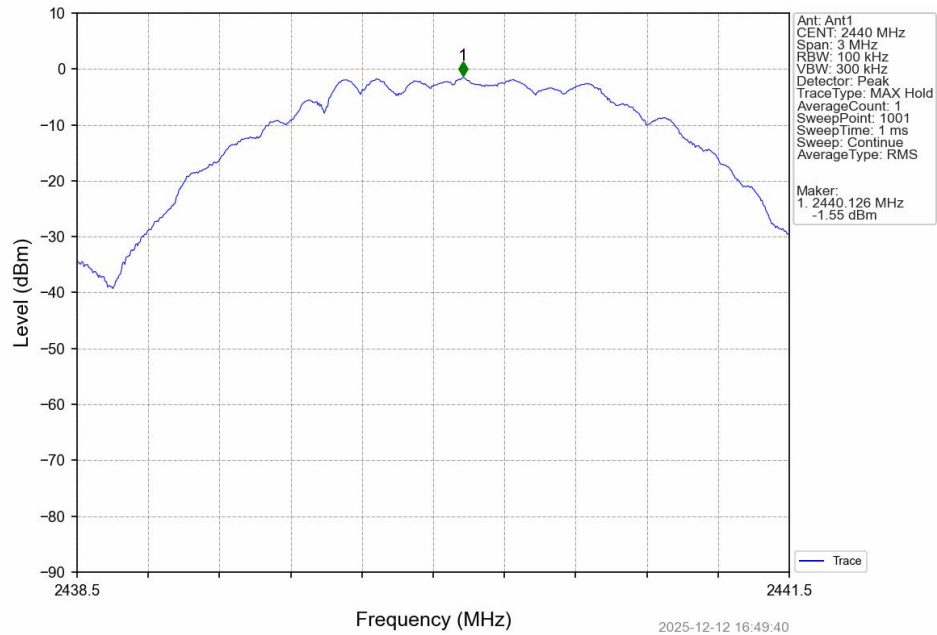
1M_HCH_2480MHz_Ant1_NTNV



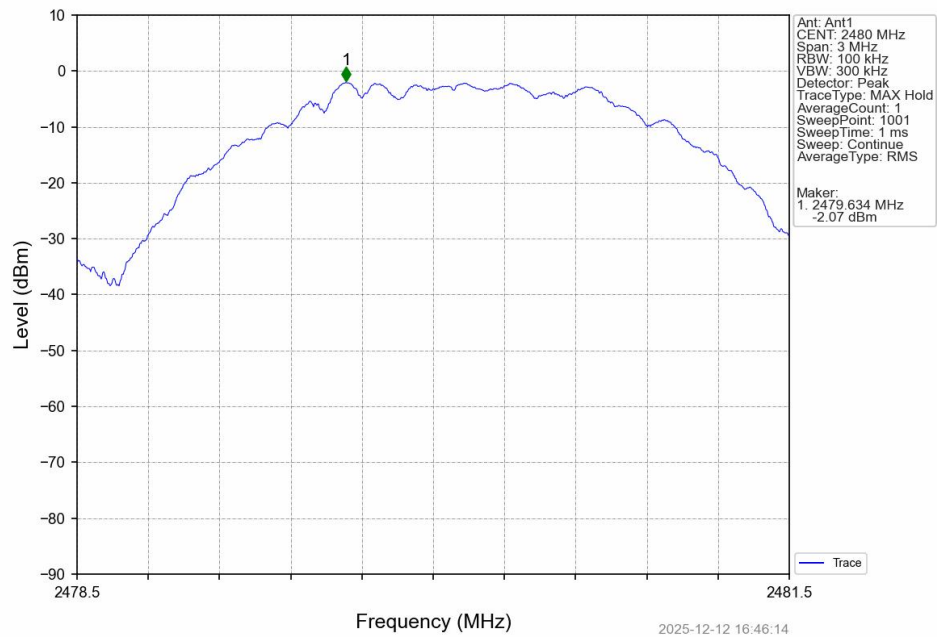
2M_LCH_2402MHz_Ant1_NTNV



2M_MCH_2440MHz_Ant1_NTNV



2M_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)
1M	SISO	2402	1	0.83
		2440	1	0.74
		2480	1	0.39
2M	SISO	2402	1	-1.50
		2440	1	-1.57
		2480	1	-2.06

Note1: Refer to FCC Part 15.247 (d) and ANSI C63.10-2020, the channel contains the maximum PSD level was used to establish the reference level.

5.1.2 CSE

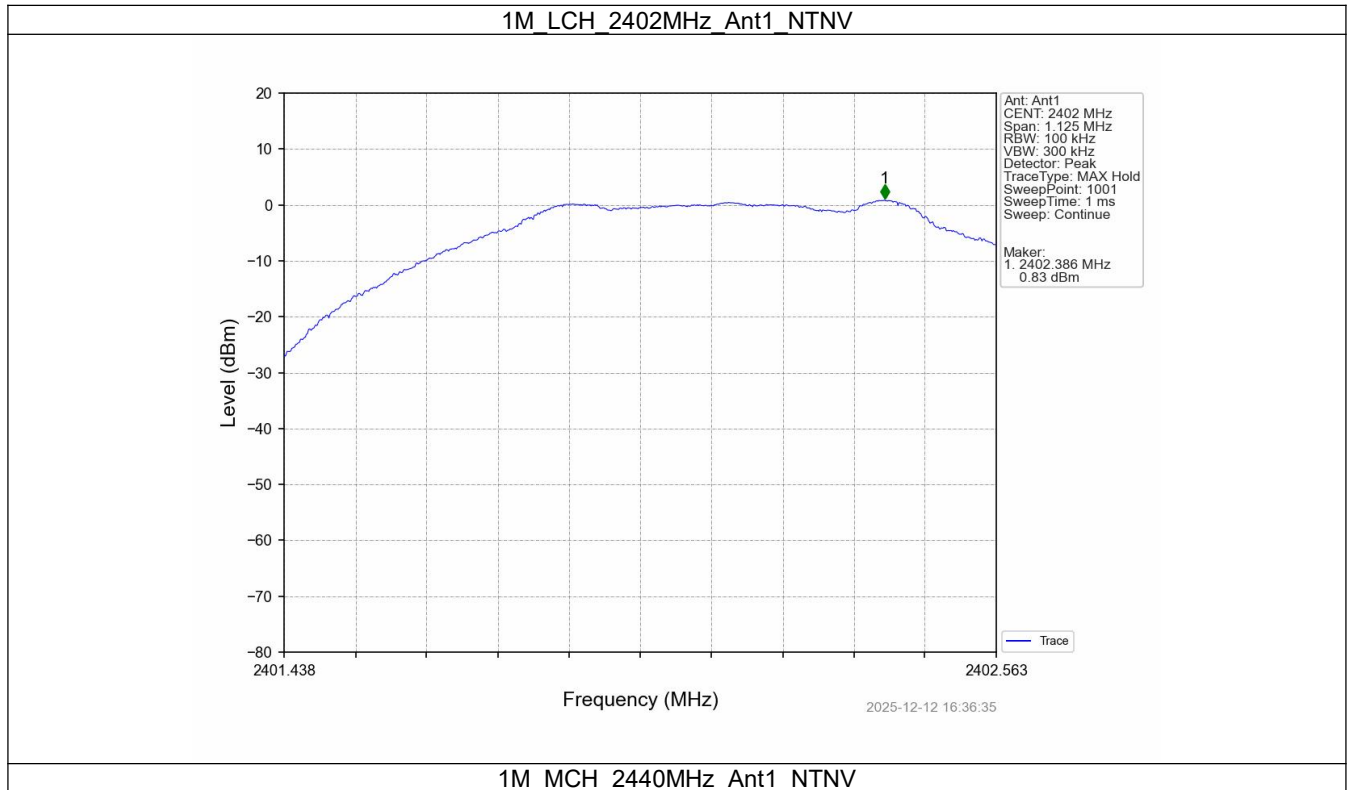
Mode	TX Type	Frequency (MHz)	ANT	Level of Reference (dBm)	Limit (dBm)	Verdict
1M	SISO	2402	1	0.83	-19.17	Pass
		2440	1	0.83	-19.17	Pass
		2480	1	0.83	-19.17	Pass
2M	SISO	2402	1	-1.50	-21.50	Pass
		2440	1	-1.50	-21.50	Pass
		2480	1	-1.50	-21.50	Pass

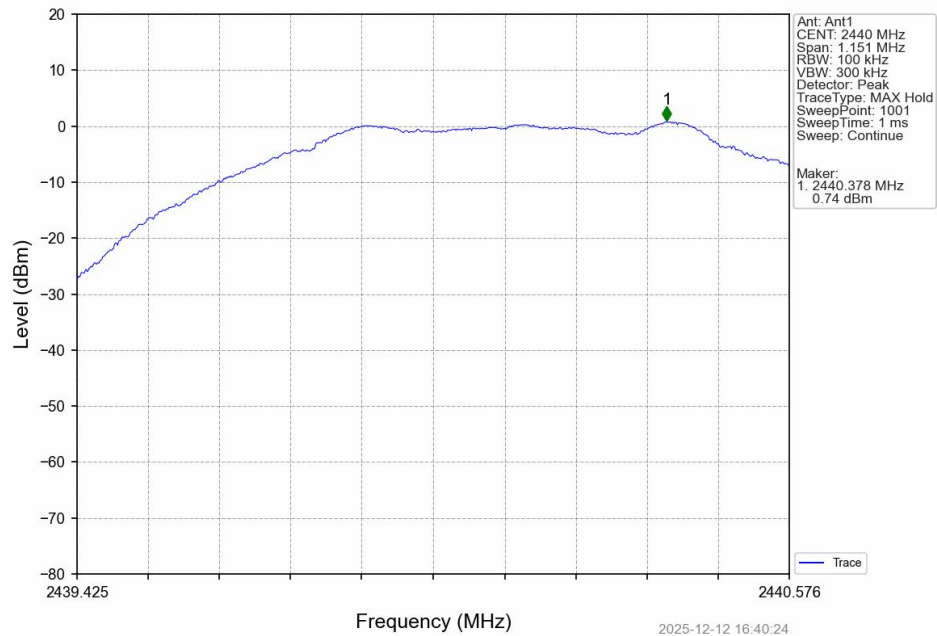
Note1: Refer to FCC Part 15.247 (d) and ANSI C63.10-2020, the channel contains the maximum PSD level was used to establish the reference level.



5.2 Test Graph

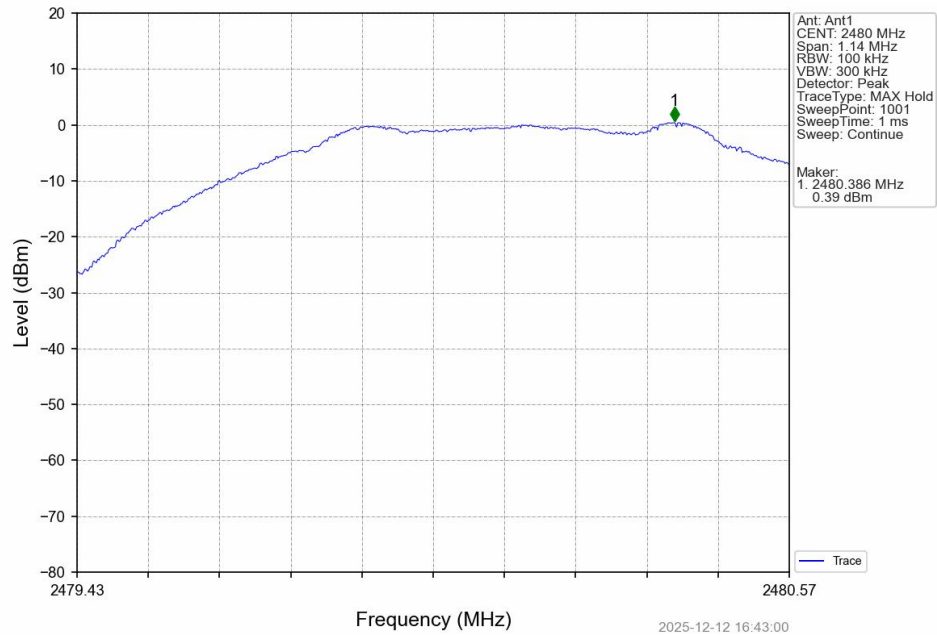
5.2.1 Ref



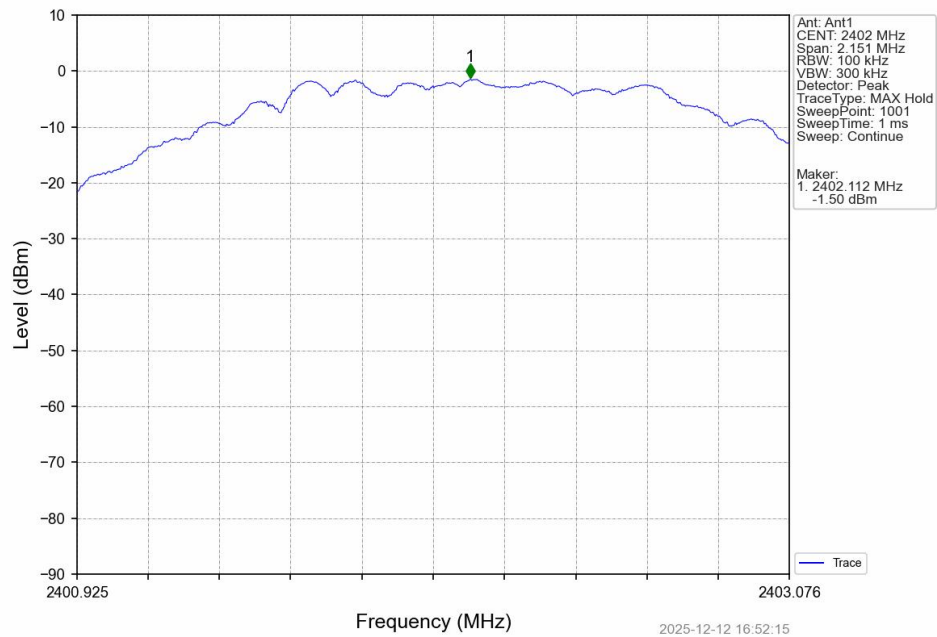


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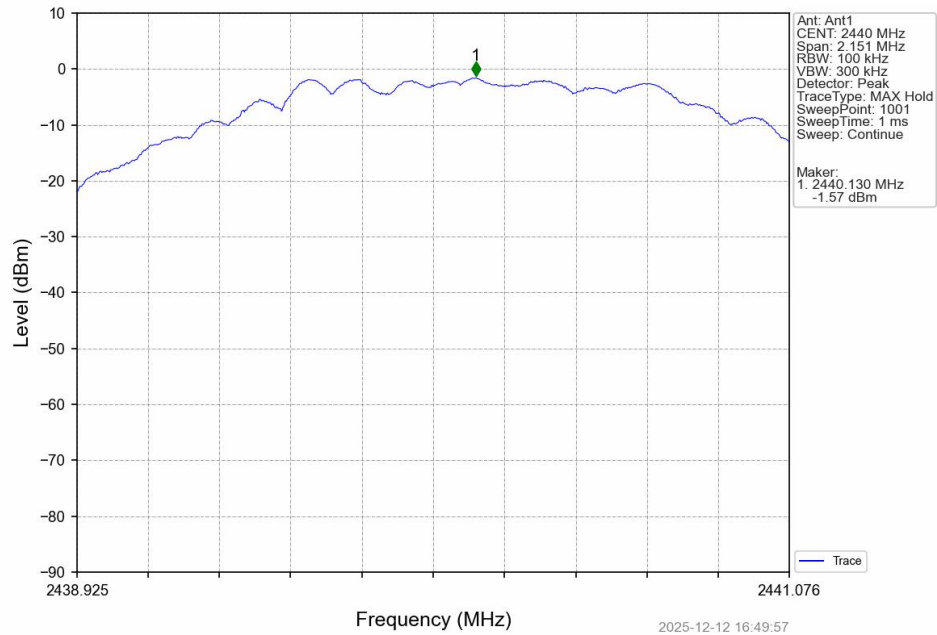
1M_HCH_2480MHz_Ant1_NTNV



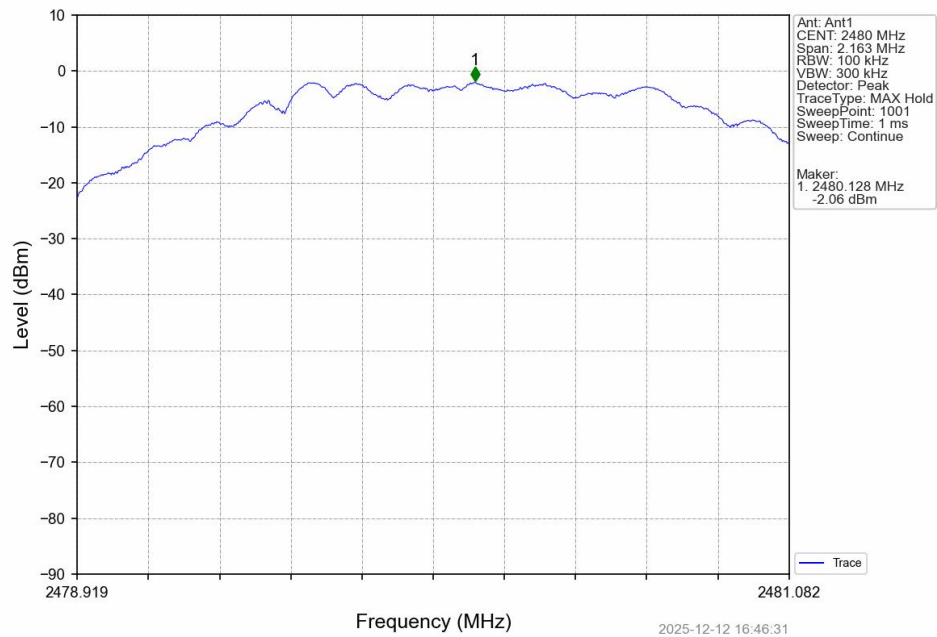
2M_LCH_2402MHz_Ant1_NTNV



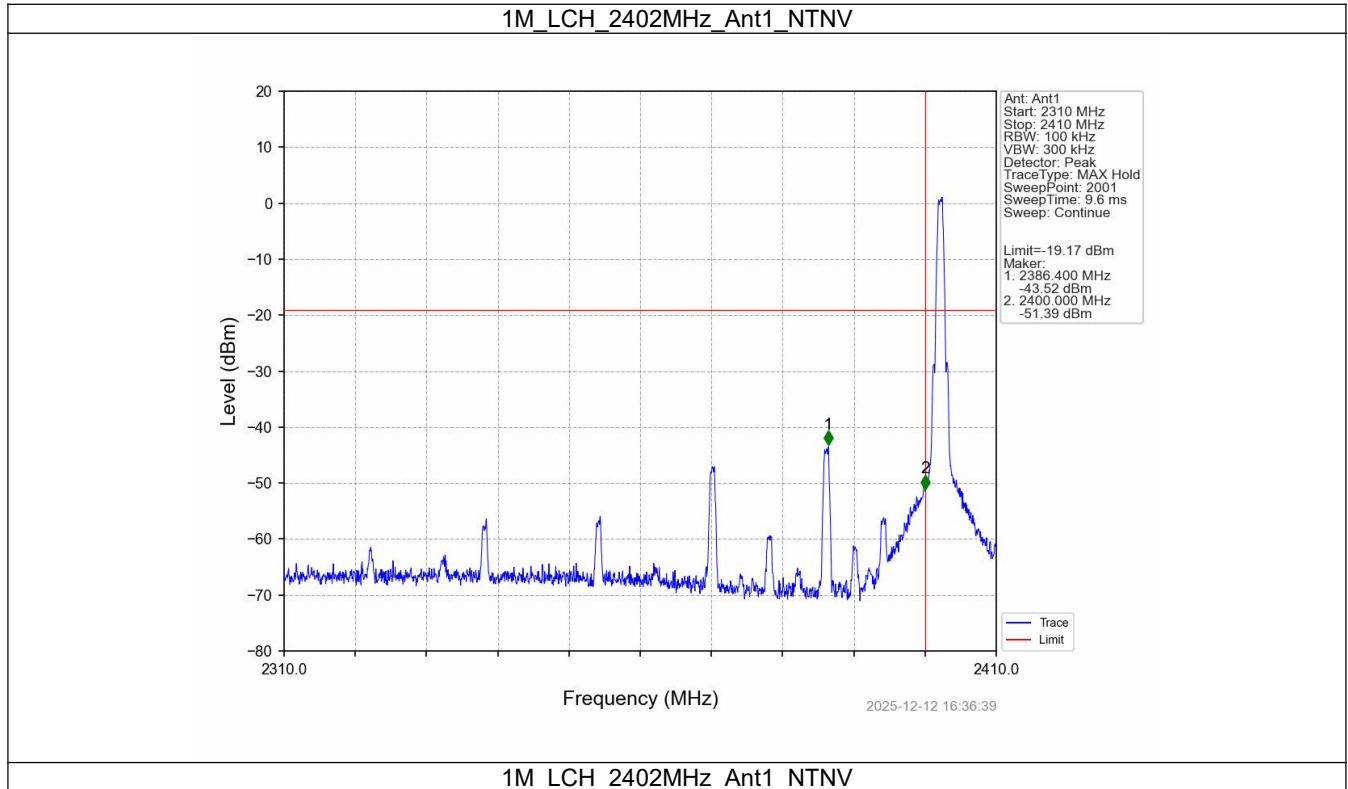
2M_MCH_2440MHz_Ant1_NTNV

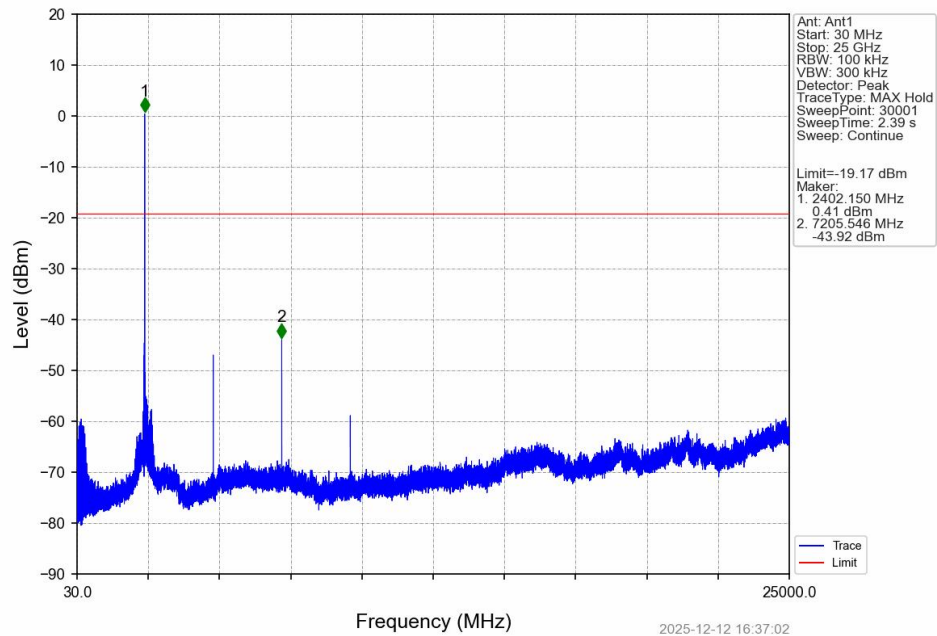


2M_HCH_2480MHz_Ant1_NTNV



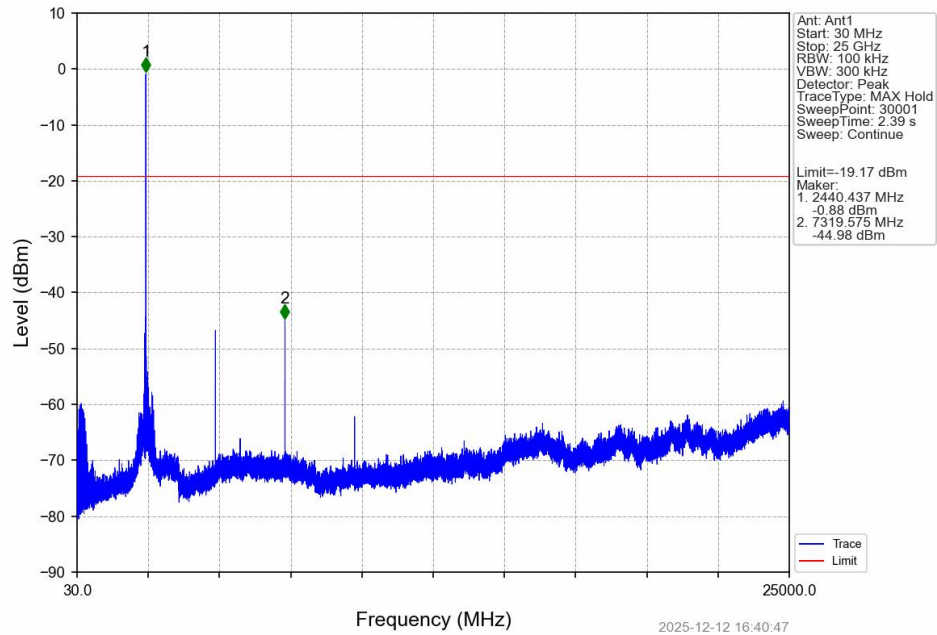
5.2.2 CSE



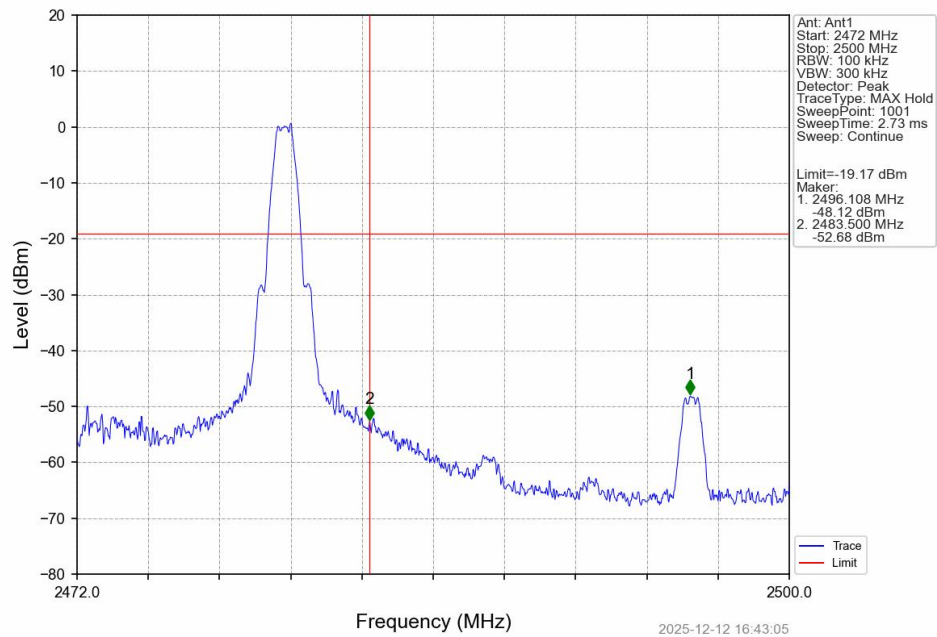


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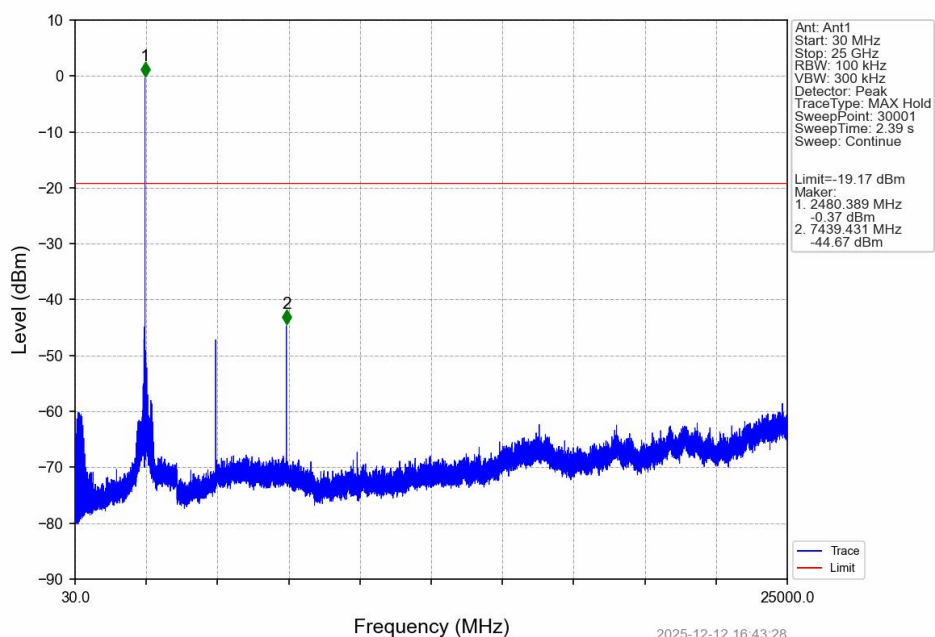
1M_MCH_2440MHz_Ant1_NTNV



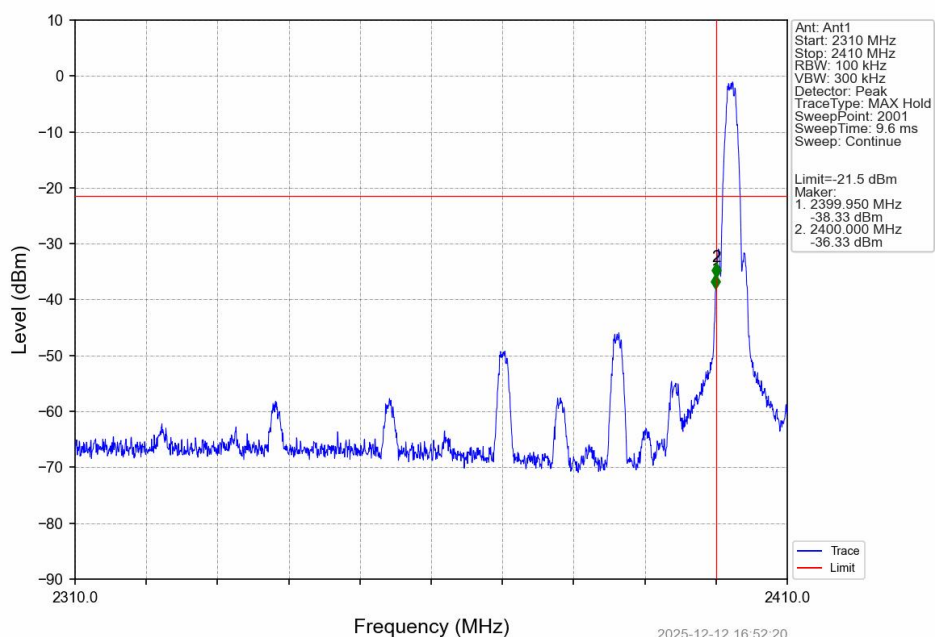
1M_HCH_2480MHz_Ant1_NTNV



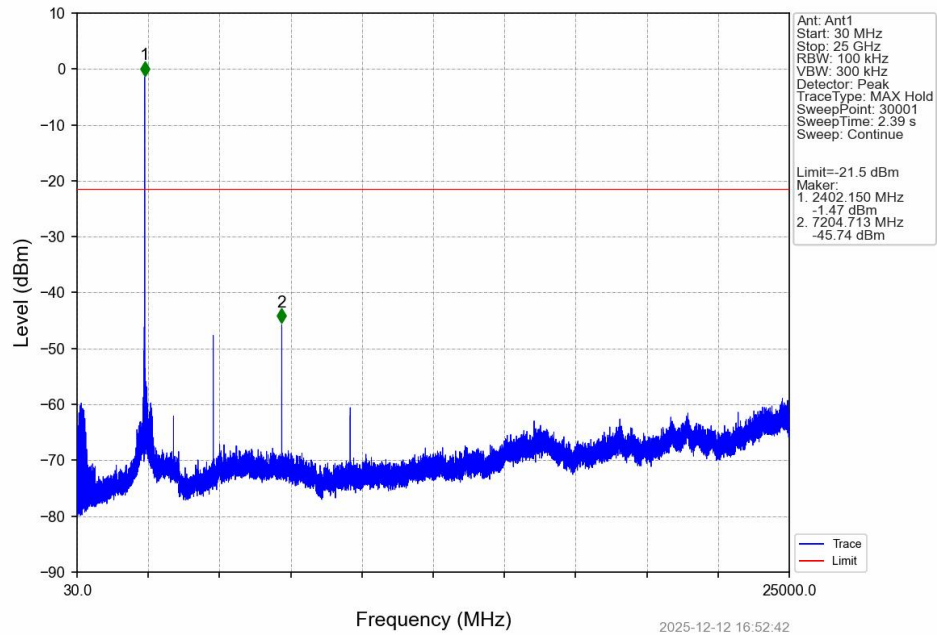
1M_HCH_2480MHz_Ant1_NTNV



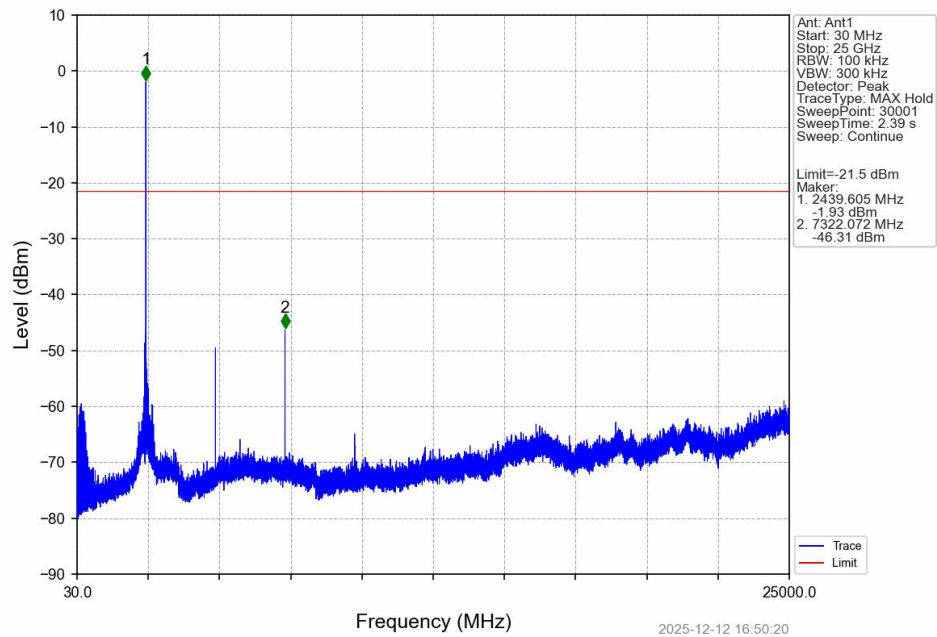
2M_LCH_2402MHz_Ant1_NTNV



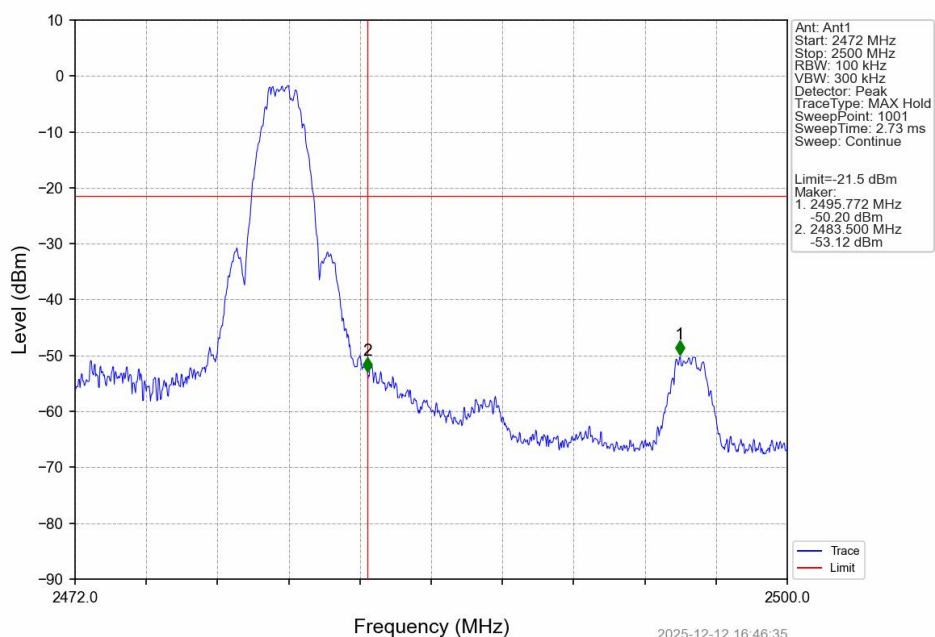
2M_LCH_2402MHz_Ant1_NTNV



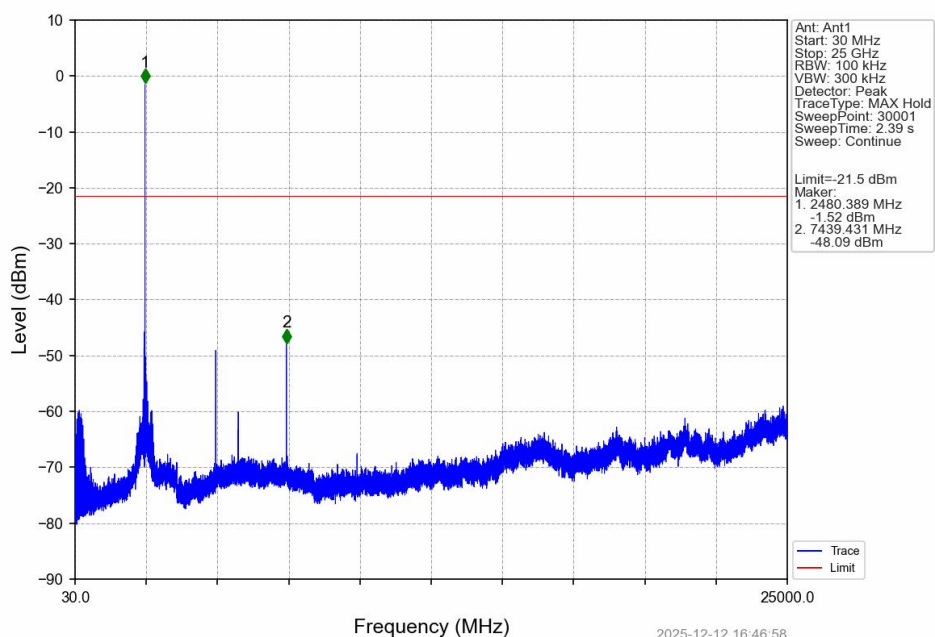
2M_MCH_2440MHz_Ant1_NTNV



2M_HCH_2480MHz_Ant1_NTNV



2M_HCH_2480MHz_Ant1_NTNV





6. Unwanted Emissions In Restricted Frequency Bands

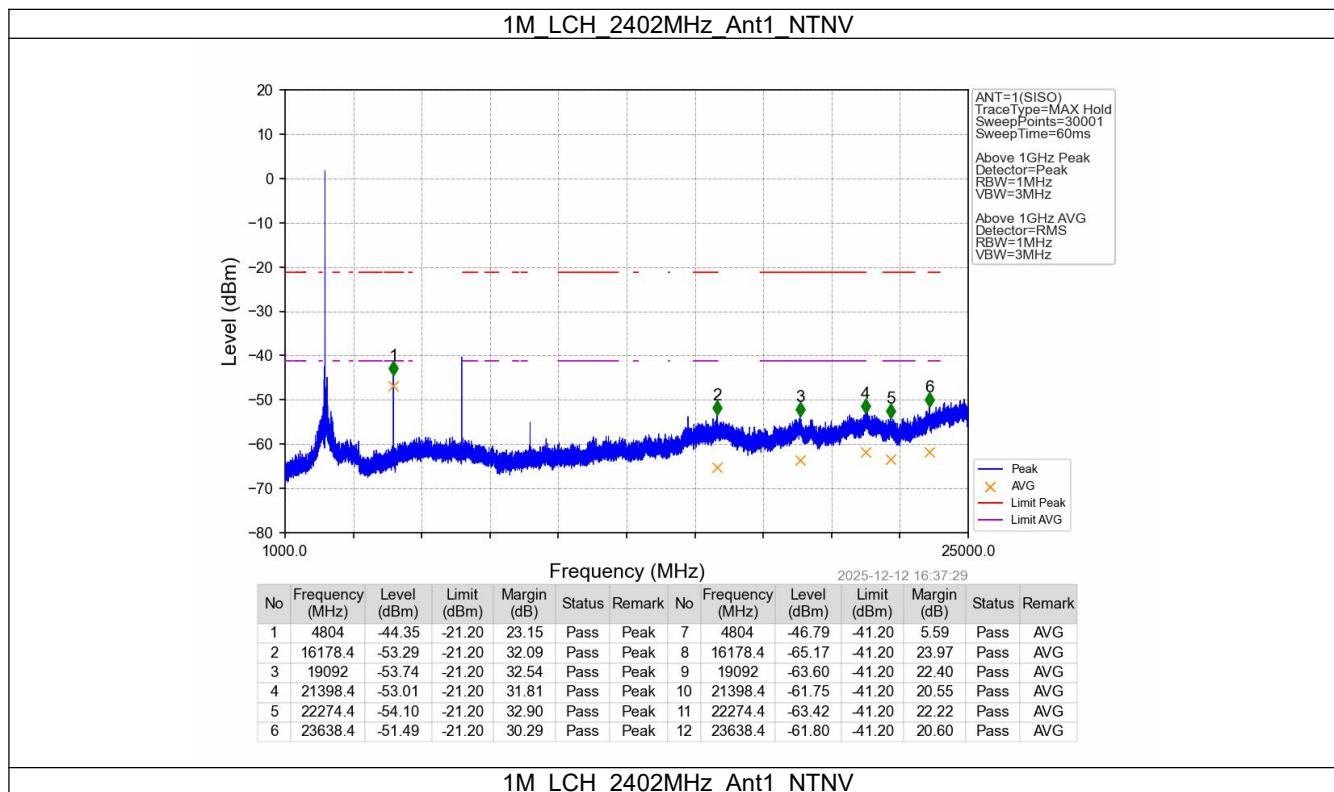
6.1 Test Result

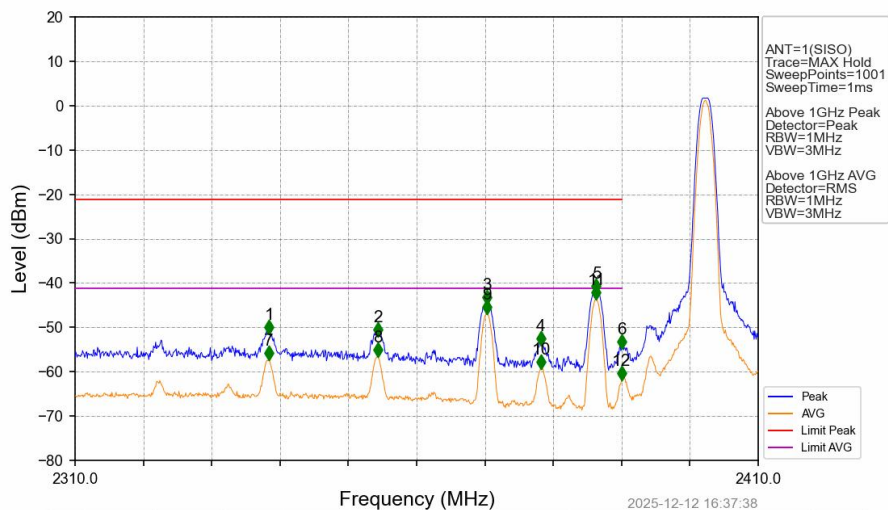
6.1.1 RSE

Mode	TX Type	Frequency (MHz)	ANT	Level of Unwanted Emissions (dBm)		Verdict
				Result	Limit	
1M	SISO	2402	1	Refer To Test Graph		Pass
		2440	1	Refer To Test Graph		Pass
		2480	1	Refer To Test Graph		Pass
2M	SISO	2402	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



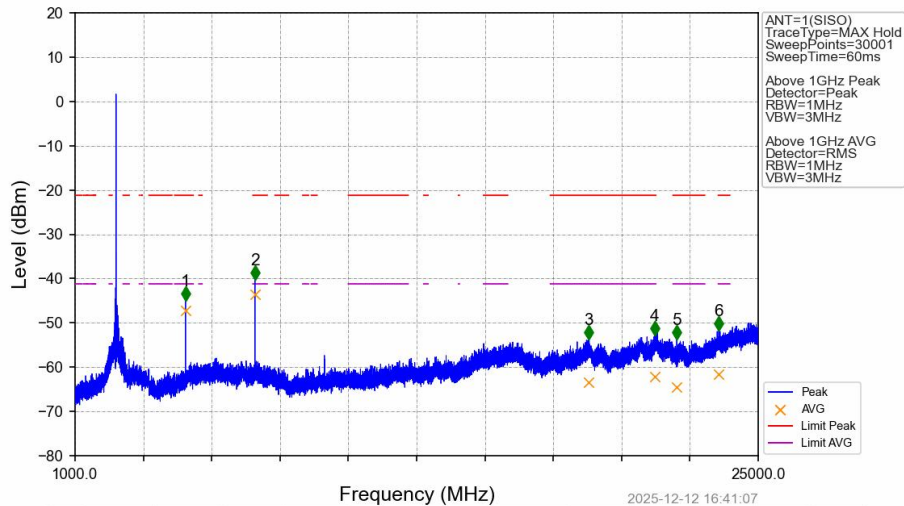


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No	Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Status	Remark	No	Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Status	Remark
1	2338.400	-51.48	-21.20	30.28	Pass	Peak	7	2338.400	-57.28	-41.20	16.08	Pass	AVG
2	2354.300	-52.11	-21.20	30.91	Pass	Peak	8	2354.300	-56.66	-41.20	15.46	Pass	AVG
3	2370.300	-44.81	-21.20	23.61	Pass	Peak	9	2370.300	-47.02	-41.20	5.82	Pass	AVG
4	2378.200	-54.04	-21.20	32.84	Pass	Peak	10	2378.200	-59.31	-41.20	18.11	Pass	AVG
5	2386.300	-42.24	-21.20	21.04	Pass	Peak	11	2386.300	-43.68	-41.20	2.48	Pass	AVG
6	2390.000	-54.76	-21.20	33.56	Pass	Peak	12	2390.000	-61.94	-41.20	20.74	Pass	AVG

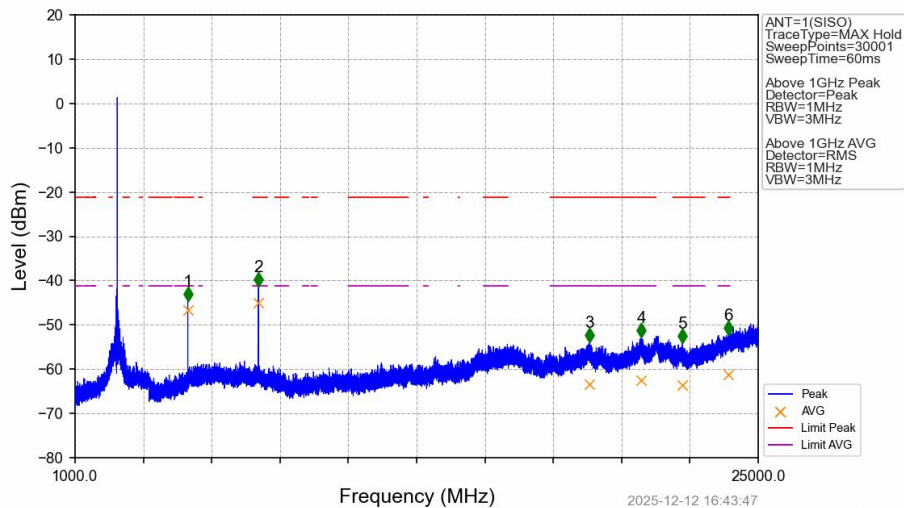


1M_MCH_2440MHz_Ant1_NTNV



No	Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Status	Remark	No	Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Status	Remark
1	4880	-45.01	-21.20	23.81	Pass	Peak	7	4880	-47.18	-41.20	5.98	Pass	AVG
2	7320	-40.26	-21.20	19.06	Pass	Peak	8	7320	-43.53	-41.20	2.33	Pass	AVG
3	19043.2	-53.75	-21.20	32.55	Pass	Peak	9	19043.2	-63.38	-41.20	22.18	Pass	AVG
4	21358.4	-52.78	-21.20	31.58	Pass	Peak	10	21358.4	-62.15	-41.20	20.95	Pass	AVG
5	22138.4	-53.80	-21.20	32.60	Pass	Peak	11	22138.4	-64.44	-41.20	23.24	Pass	AVG
6	23621.6	-51.66	-21.20	30.46	Pass	Peak	12	23621.6	-61.61	-41.20	20.41	Pass	AVG

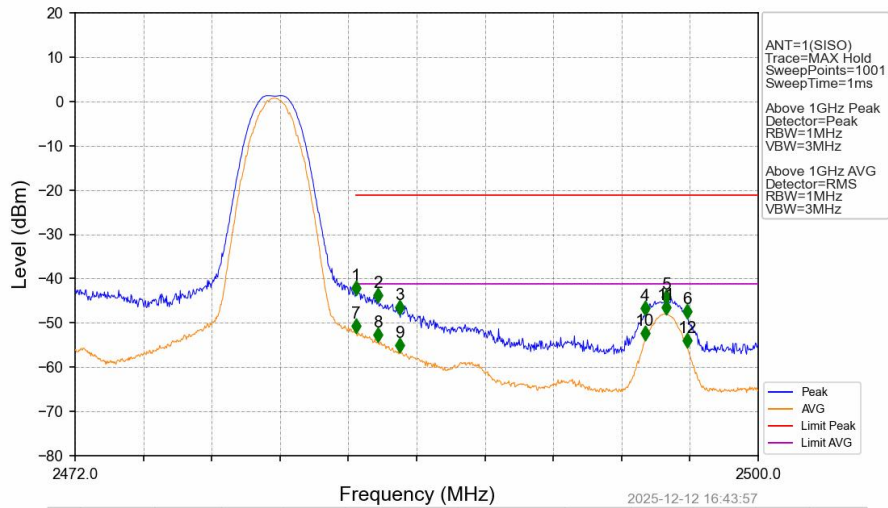
1M_HCH_2480MHz_Ant1_NTNV



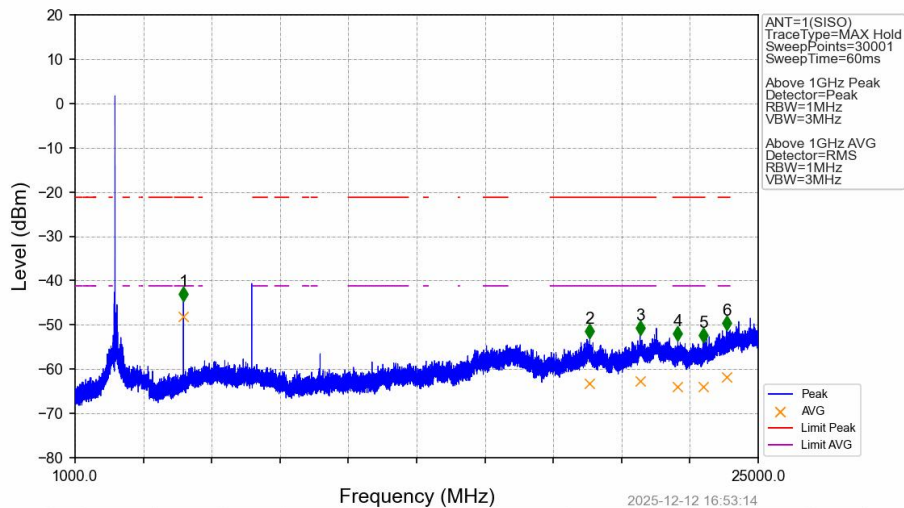
No	Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Status	Remark	No	Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Status	Remark
1	4960	-44.66	-21.20	23.46	Pass	Peak	7	4960	-46.66	-41.20	5.46	Pass	AVG
2	7441.6	-41.38	-21.20	20.18	Pass	Peak	8	7441.6	-45.00	-41.20	3.80	Pass	AVG
3	19081.6	-53.98	-21.20	32.78	Pass	Peak	9	19081.6	-63.50	-41.20	22.30	Pass	AVG
4	20894.4	-52.76	-21.20	31.56	Pass	Peak	10	20894.4	-62.49	-41.20	21.29	Pass	AVG
5	22321.6	-54.01	-21.20	32.81	Pass	Peak	11	22321.6	-63.58	-41.20	22.38	Pass	AVG
6	23964	-52.18	-21.20	30.98	Pass	Peak	12	23964	-61.26	-41.20	20.06	Pass	AVG



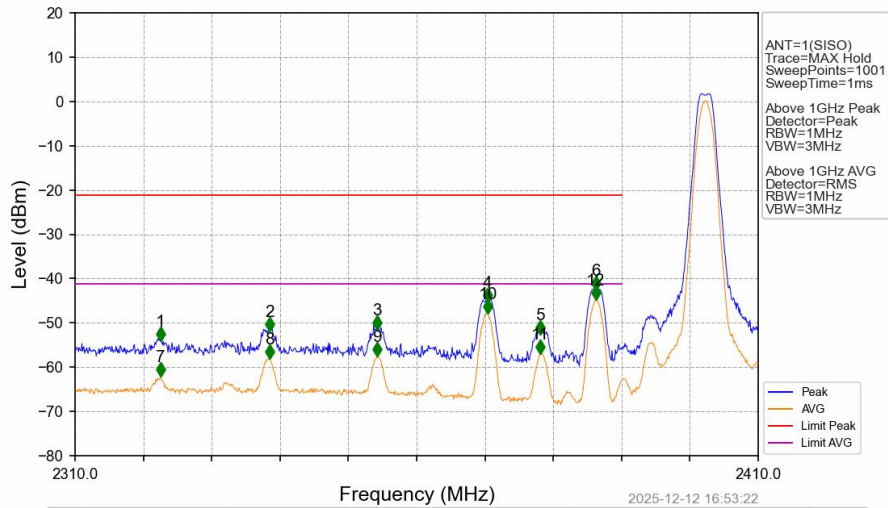
1M_HCH_2480MHz_Ant1_NTNV



2M_LCH_2402MHz_Ant1_NTNV

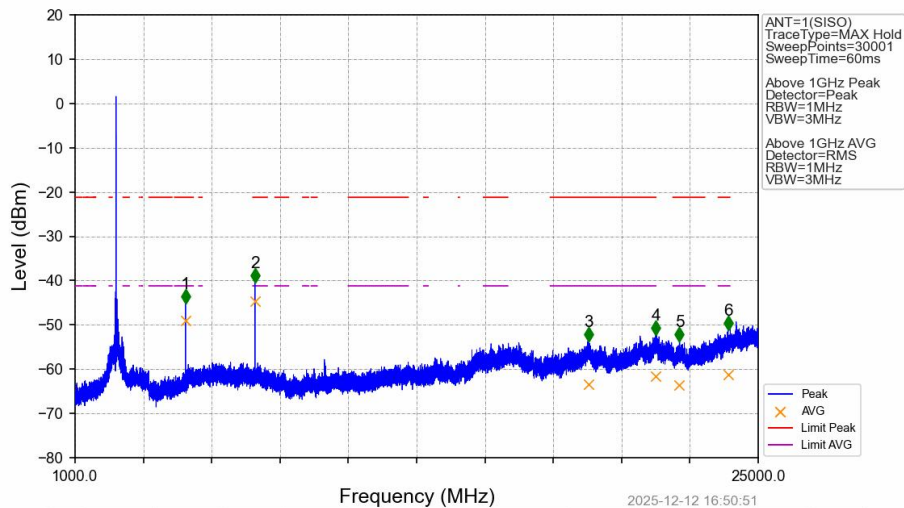


2M_LCH_2402MHz_Ant1_NTNV



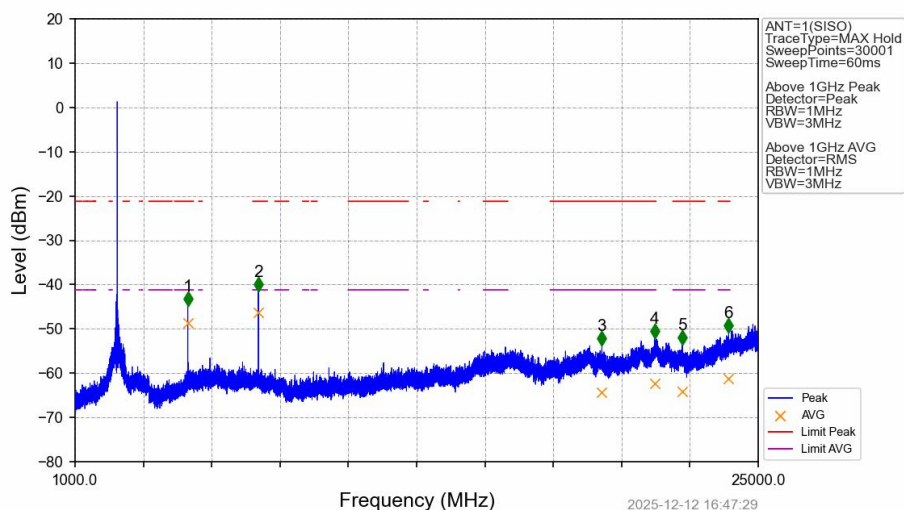
No	Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Status	Remark	No	Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Status	Remark
1	2322.500	-54.12	-21.20	32.92	Pass	Peak	7	2322.500	-62.07	-41.20	20.87	Pass	AVG
2	2338.500	-51.92	-21.20	30.72	Pass	Peak	8	2338.500	-58.01	-41.20	16.81	Pass	AVG
3	2354.200	-51.51	-21.20	30.31	Pass	Peak	9	2354.200	-57.55	-41.20	16.35	Pass	AVG
4	2370.400	-45.32	-21.20	24.12	Pass	Peak	10	2370.400	-47.94	-41.20	6.74	Pass	AVG
5	2378.100	-52.54	-21.20	31.34	Pass	Peak	11	2378.100	-56.99	-41.20	15.79	Pass	AVG
6	2386.200	-42.66	-21.20	21.46	Pass	Peak	12	2386.200	-44.81	-41.20	3.61	Pass	AVG

2M_MCH_2440MHz_Ant1_NTNV



No	Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Status	Remark	No	Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Status	Remark
1	4880	-45.13	-21.20	23.93	Pass	Peak	7	4880	-49.05	-41.20	7.85	Pass	AVG
2	7319.2	-40.40	-21.20	19.20	Pass	Peak	8	7319.2	-44.75	-41.20	3.55	Pass	AVG
3	19040.8	-53.72	-21.20	32.52	Pass	Peak	9	19040.8	-63.40	-41.20	22.20	Pass	AVG
4	21399.2	-52.31	-21.20	31.11	Pass	Peak	10	21399.2	-61.52	-41.20	20.32	Pass	AVG
5	22232	-53.65	-21.20	32.45	Pass	Peak	11	22232	-63.54	-41.20	22.34	Pass	AVG
6	23940.8	-51.09	-21.20	29.89	Pass	Peak	12	23940.8	-61.27	-41.20	20.07	Pass	AVG

2M_HCH_2480MHz_Ant1_NTNV



2M_HCH_2480MHz_Ant1_NTNV

