

Appendix A

RF Test Data for BLE(Conducted Measurement)

Product Name: Electric unicycle
Trade Mark: INMOTION
Test Model: V14

Environmental Conditions

Temperature:	25.6°C
Relative Humidity:	52.4%
ATM Pressure:	101Kpa
Test Engineer:	Simba Huang
Supervised by:	Seal Chen



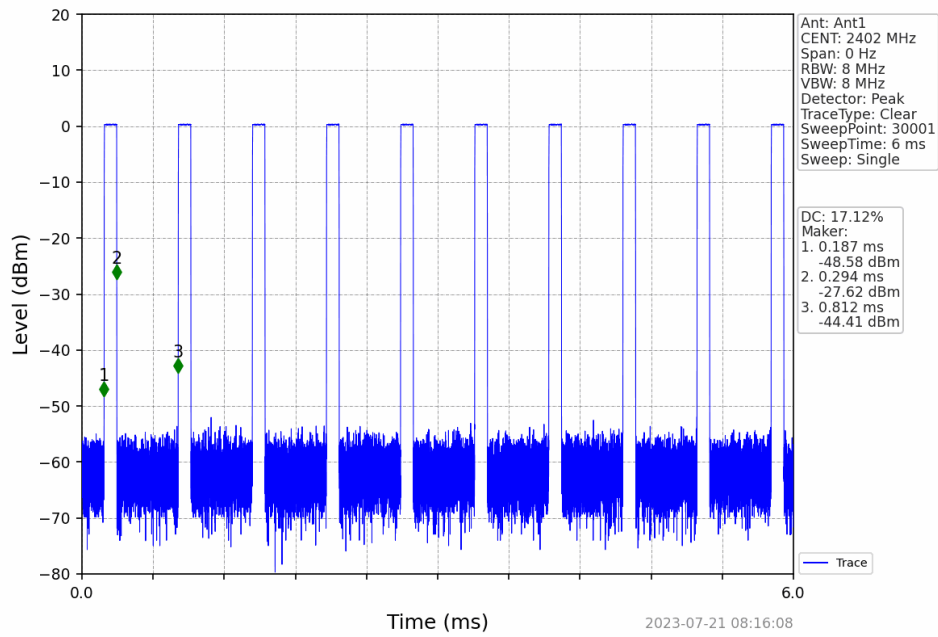
A.1. Duty Cycle

Test Result

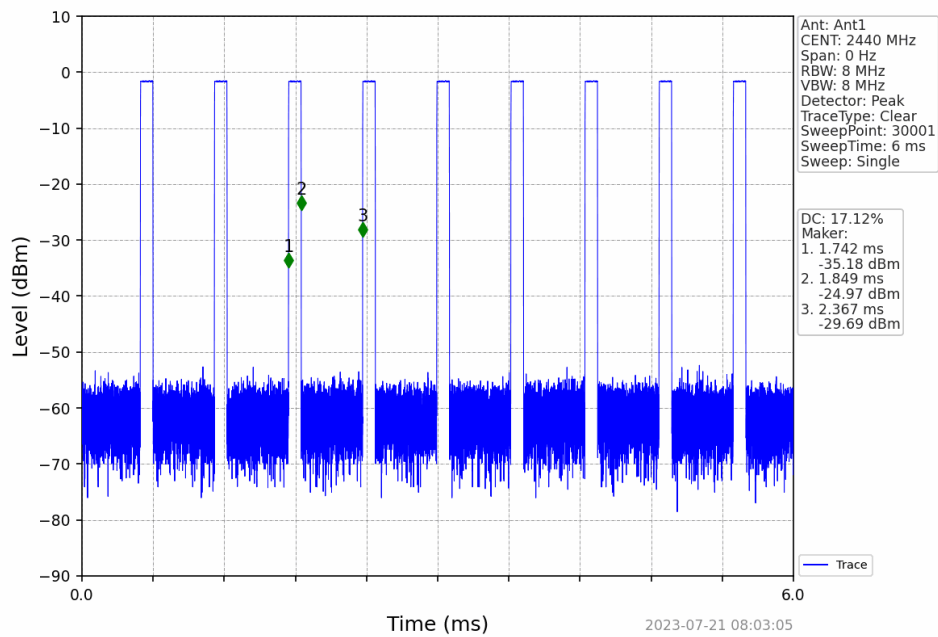
Mode	TX Type	Frequency (MHz)	T_on (ms)	Period (ms)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)	Max. DC Variation (%)
1M	SISO	2402	0.107	0.625	17.12	7.66	0.00
		2440	0.107	0.625	17.12	7.66	0.03
		2480	0.108	0.625	17.28	7.62	0.03

Test Graph

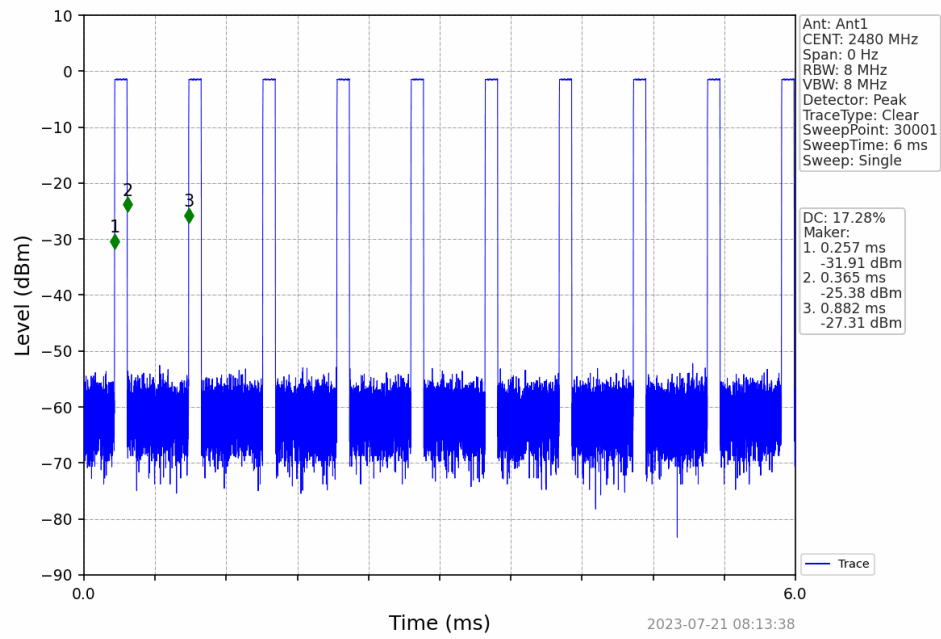
1M_LCH_2402MHz_Ant1_NTNV



1M_MCH_2440MHz_Ant1_NTNV



1M_HCH_2480MHz_Ant1_NTNV



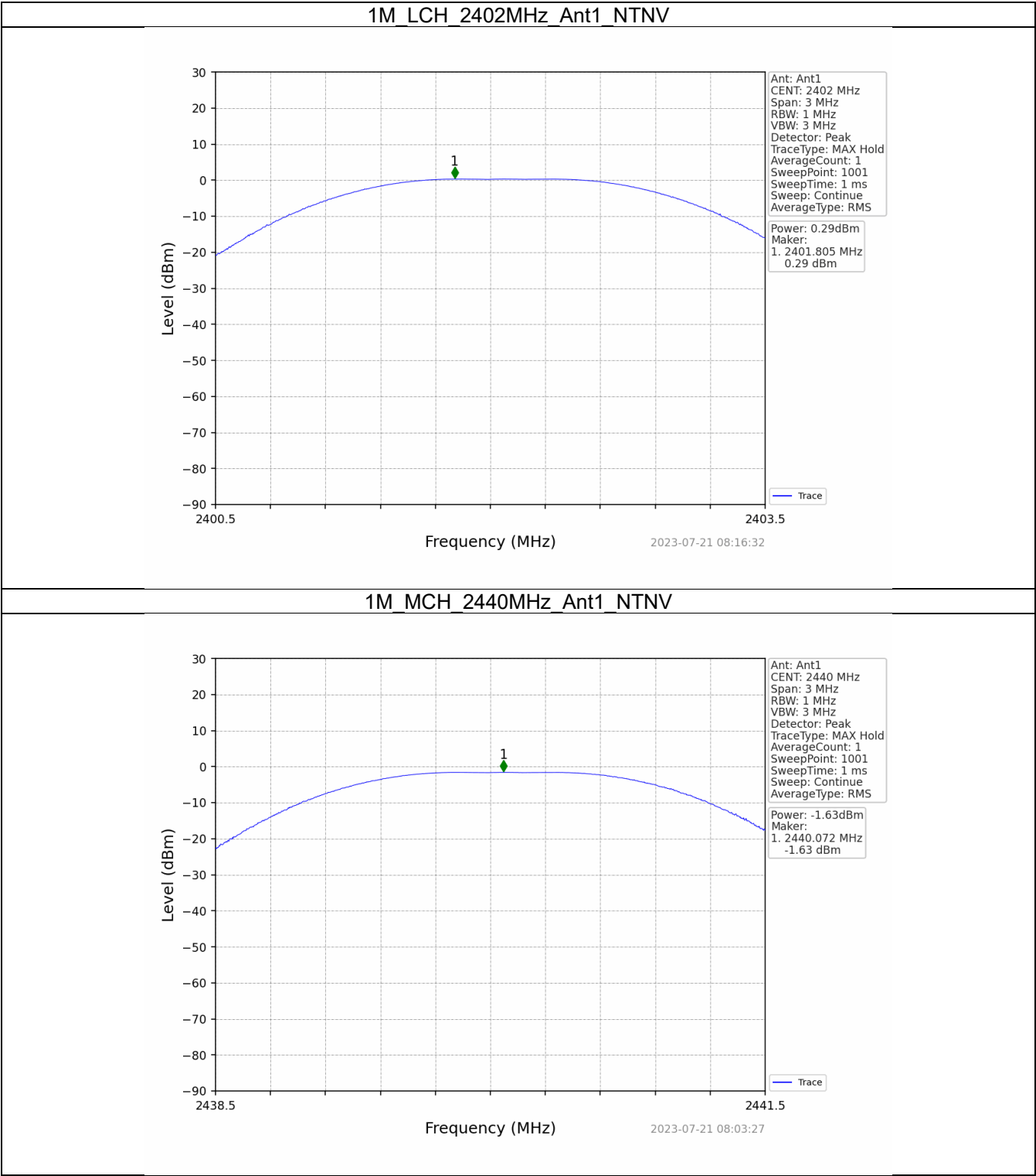


A.2. Maximum Conducted Output Power

Test Result

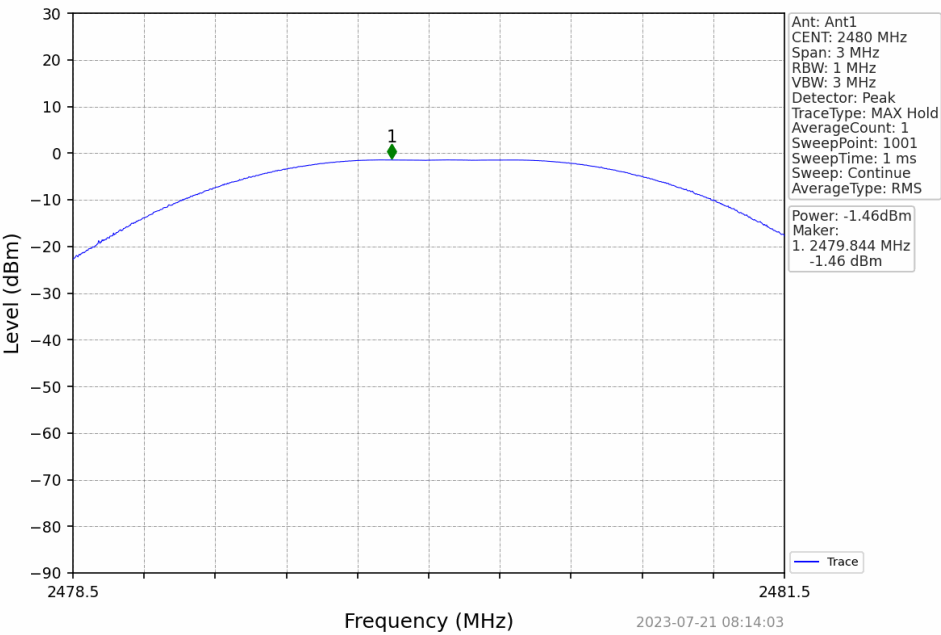
Mode	TX Type	Frequency (MHz)	Maximum Peak Conducted Output Power (dBm)		Verdict
			ANT1	Limit	
1M	SISO	2402	0.29	≤ 30	Pass
		2440	-1.63	≤ 30	Pass
		2480	-1.46	≤ 30	Pass

Test Graph





1M_HCH_2480MHz_Ant1_NTNV





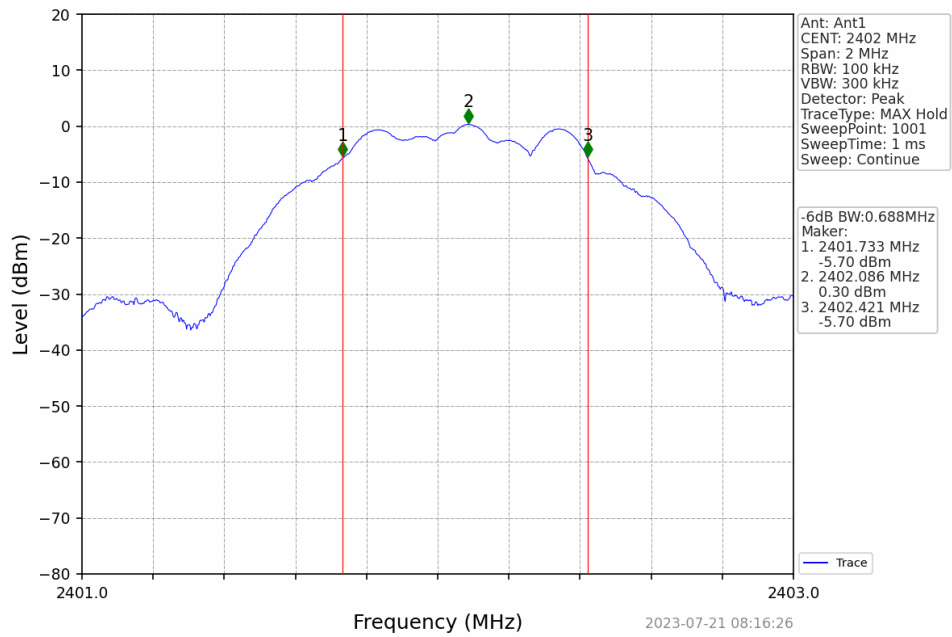
A.3. 6dB BW

Test Result

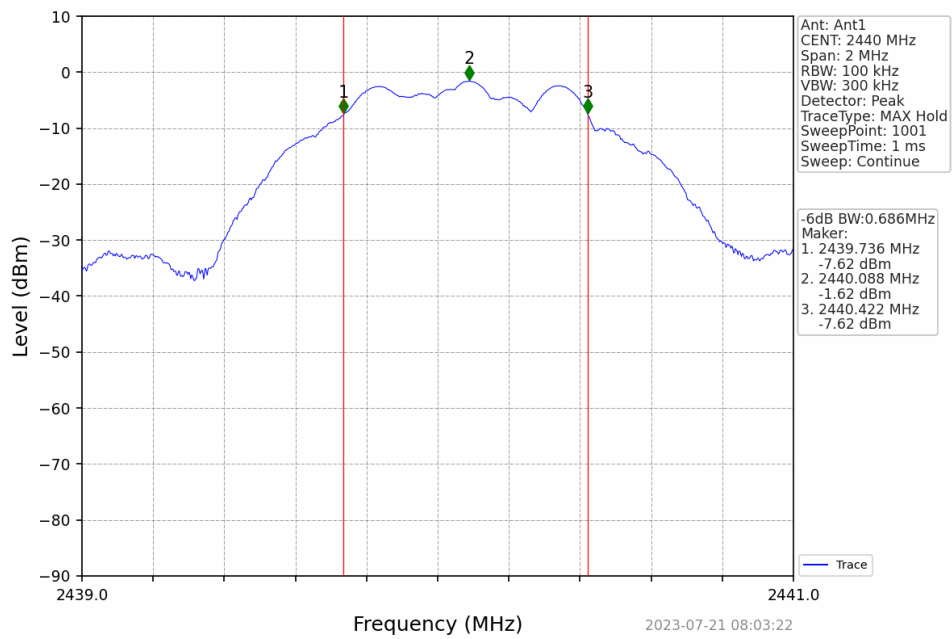
Mode	TX Type	Frequency (MHz)	ANT	6dB Bandwidth (MHz)		Verdict
				Result	Limit	
1M	SISO	2402	1	0.688	>=0.5	Pass
		2440	1	0.686	>=0.5	Pass
		2480	1	0.690	>=0.5	Pass

Test Graph

1M_LCH_2402MHz_Ant1_NTNV

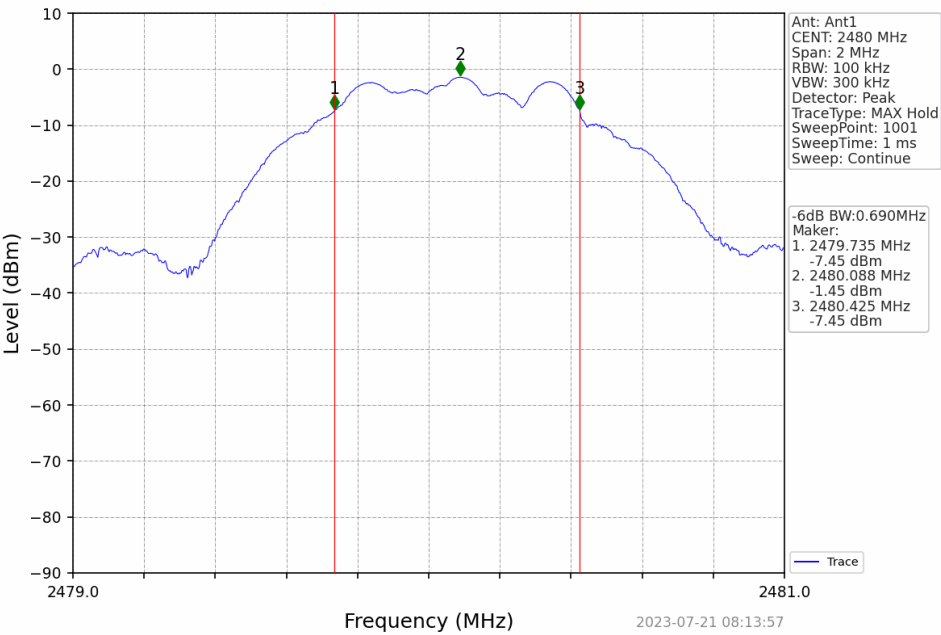


1M_MCH_2440MHz_Ant1_NTNV





1M_HCH_2480MHz_Ant1_NTNV



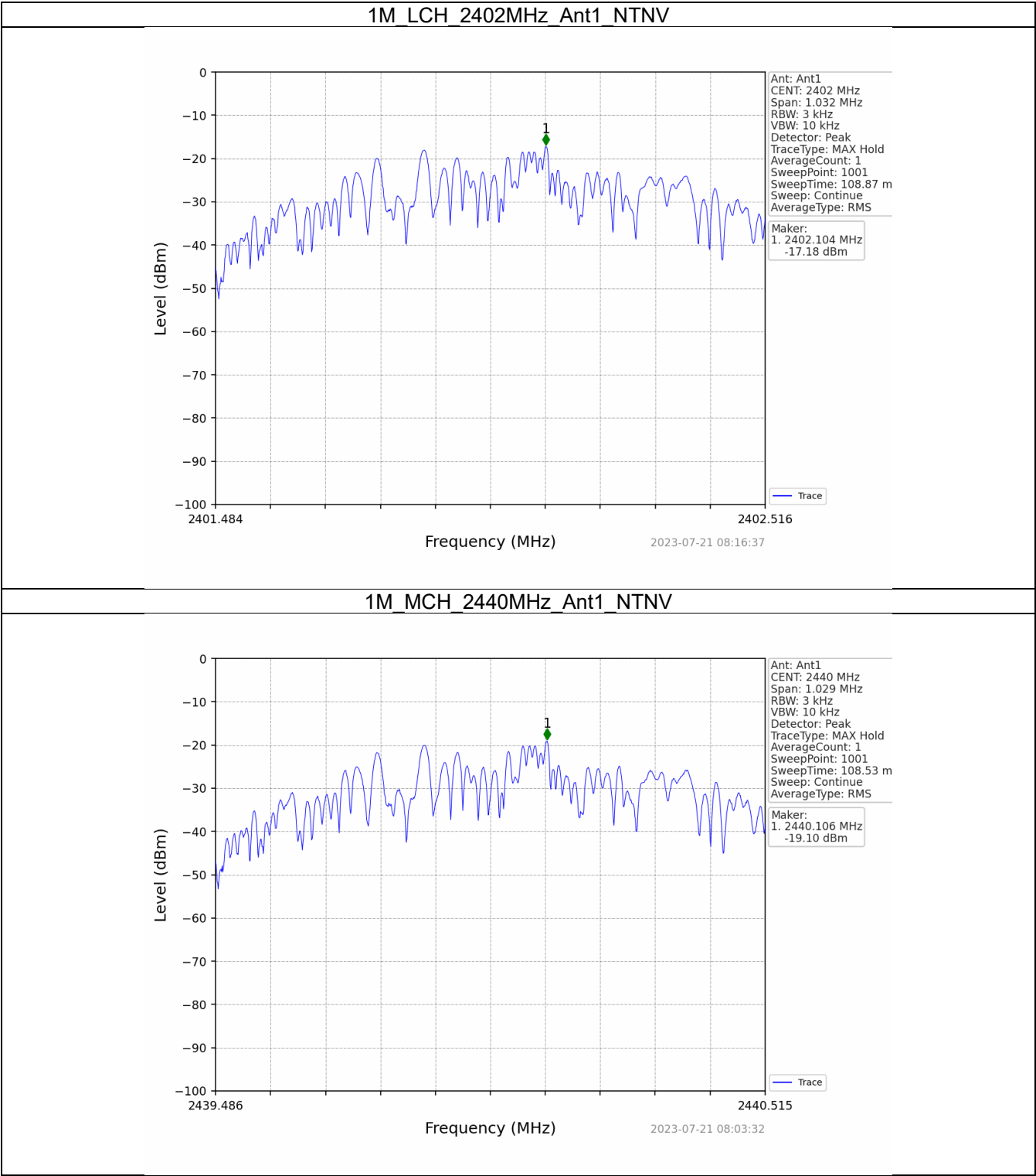
A.4. Maximum Power Spectral Density

Test Result

Mode	TX Type	Frequency (MHz)	Maximum PSD (dBm/3kHz)		Verdict
			ANT1	Limit	
1M	SISO	2402	-17.18	<=8	Pass
		2440	-19.10	<=8	Pass
		2480	-18.90	<=8	Pass

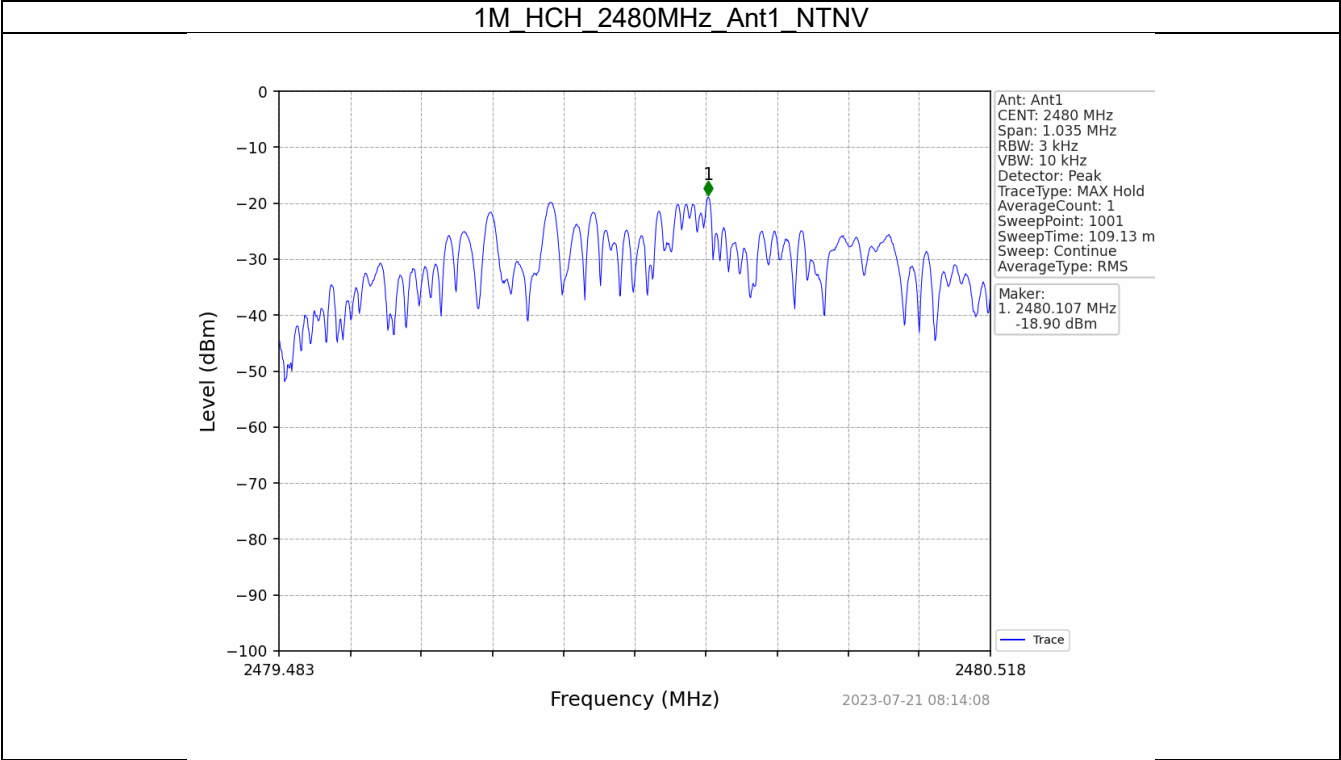


Test Graph





1M_HCH_2480MHz_Ant1_NTNV



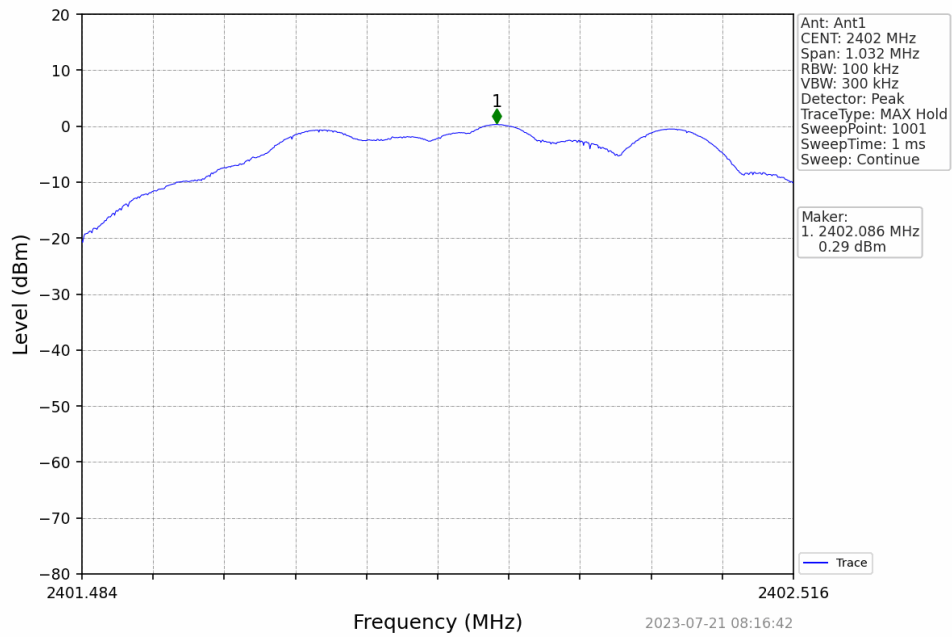
A.5. Conducted Spurious Emissions Test

Test Result

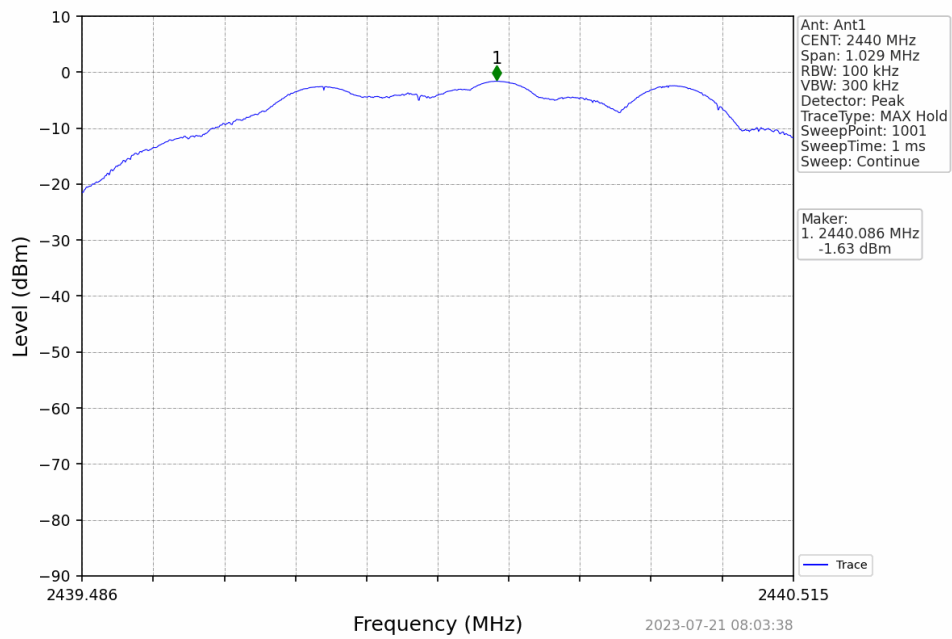
Mode	TX Type	Frequency (MHz)	ANT	Level of Reference (dBm)
1M	SISO	2402	1	0.29
		2440	1	-1.63
		2480	1	-1.46

Test Graph

1M_LCH_2402MHz_Ant1_NTNV

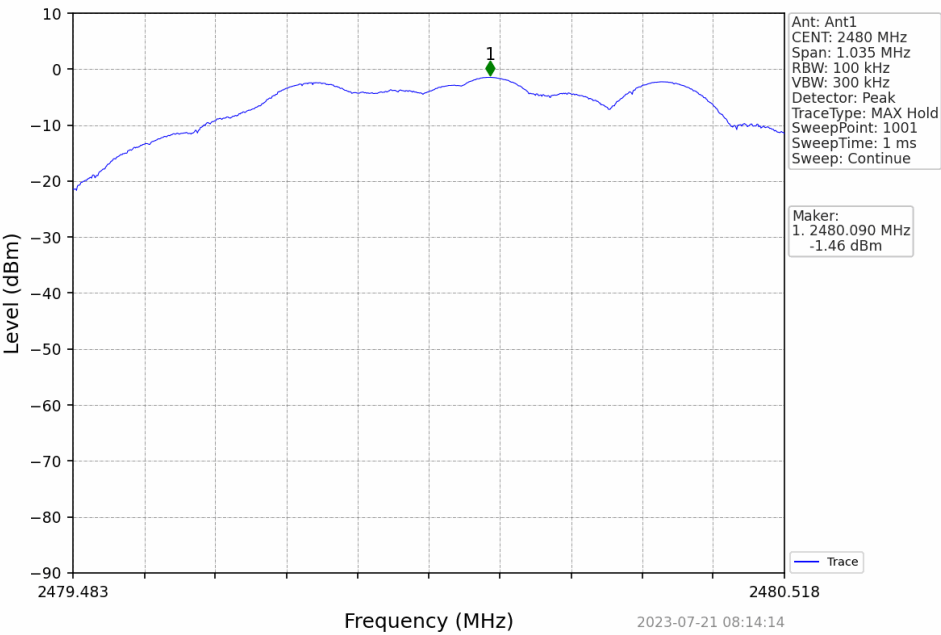


1M_MCH_2440MHz_Ant1_NTNV





1M_HCH_2480MHz_Ant1_NTNV



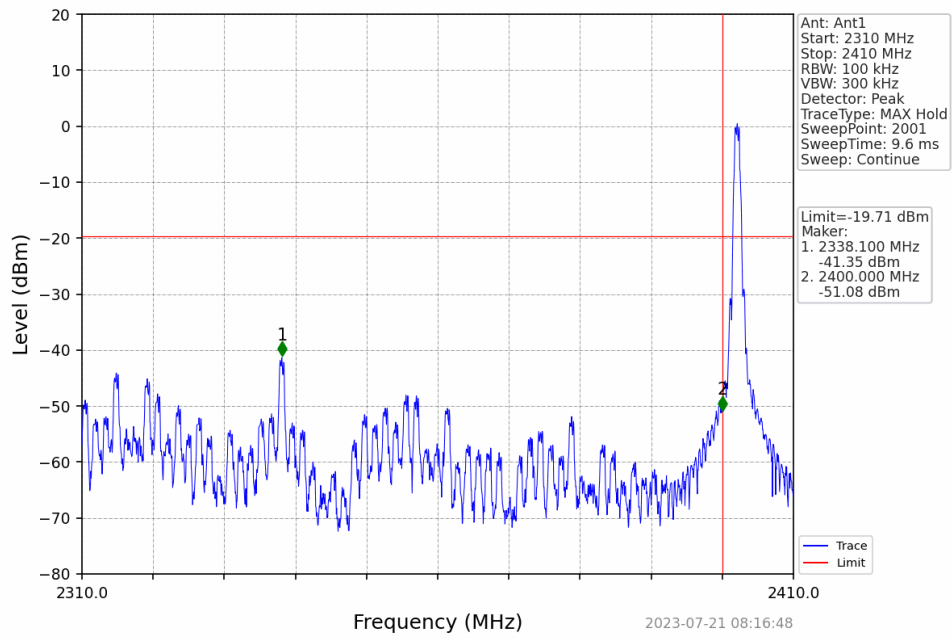
CSE

Test Result

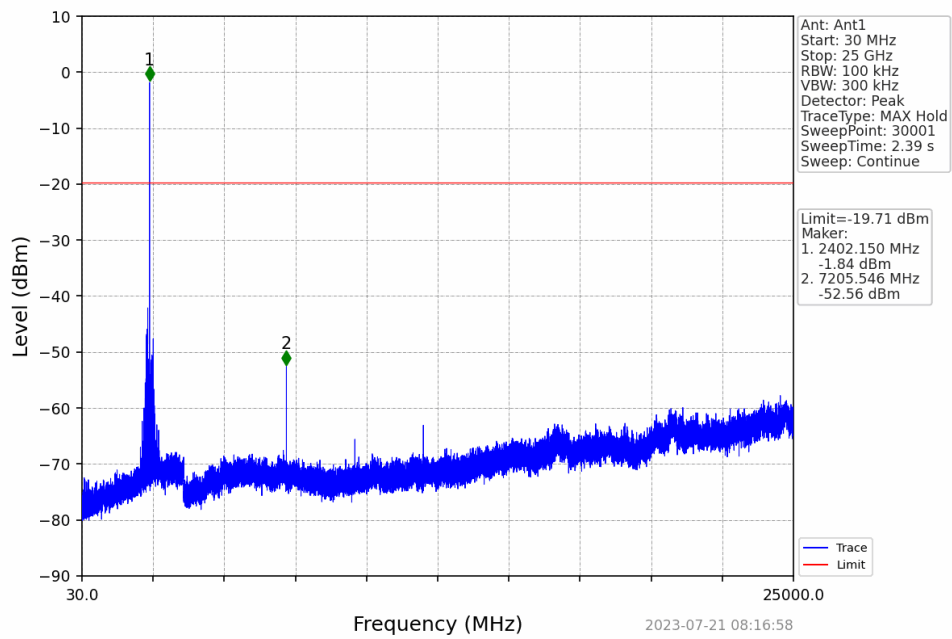
Mode	TX Type	Frequency (MHz)	ANT	Level of Reference (dBm)	Limit (dBm)	Verdict
1M	SISO	2402	1	0.29	-19.71	Pass
		2440	1	0.29	-19.71	Pass
		2480	1	0.29	-19.71	Pass
Note1: Refer to FCC Part 15.247 (d) and ANSI C63.10-2013, the channel contains the maximum PSD level was used to establish the reference level.						

Test Graph

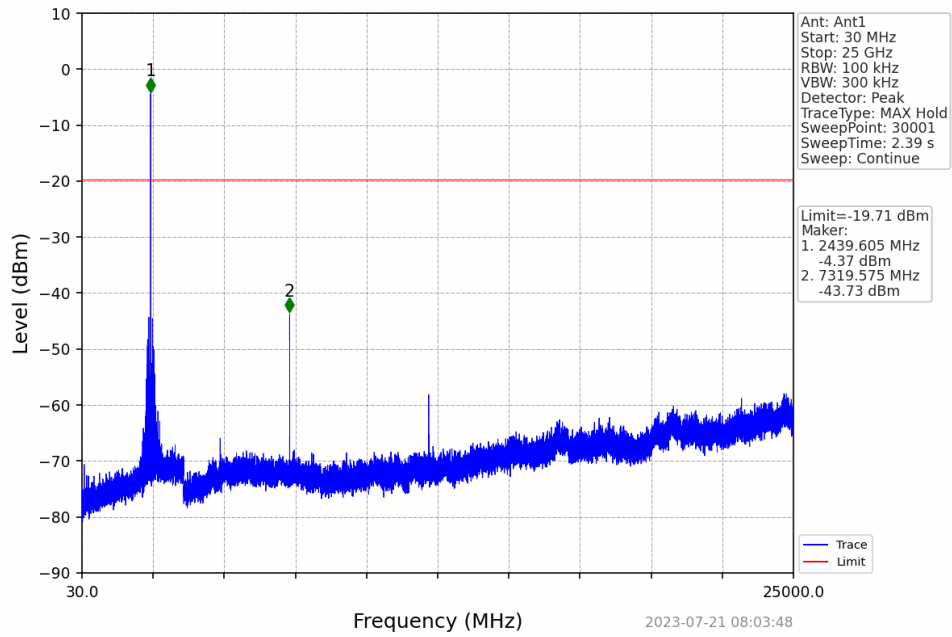
1M_LCH_2402MHz_Ant1_NTNV



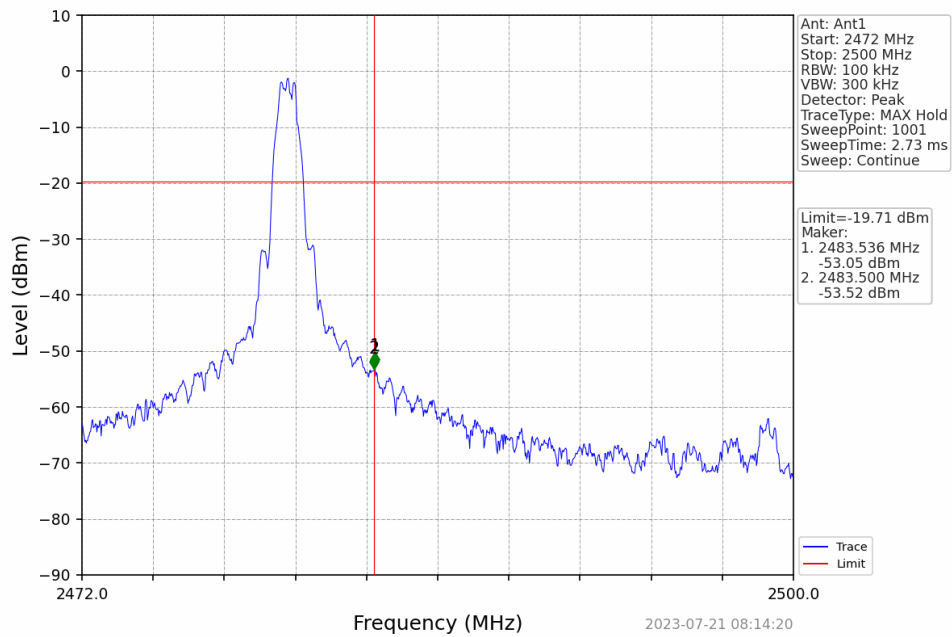
1M_LCH_2402MHz_Ant1_NTNV



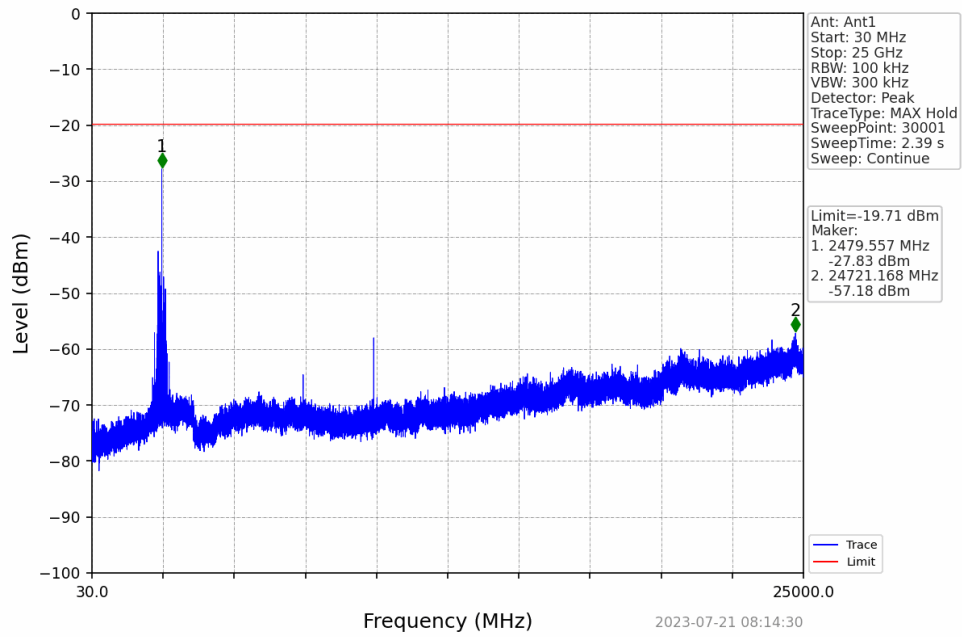
1M_MCH_2440MHz_Ant1_NTNV



1M_HCH_2480MHz_Ant1_NTNV



1M_HCH_2480MHz_Ant1_NTNV



A.6. Conducted band edge emission Test

Test Mode: GFSK										
Pol.	Frequen cy (MHz)	Meter Reading (dBuV)	Pre- amplifier (dB)	Cable Loss (dB)	Antenna Factor (dB/m)	Emission level (dBuV/m)	Limit (dBuV/ m)	Margin (dB)	Detect or Type	Result
Low Channel: 2402MHz										
H	2390.00	47.71	29.15	3.41	34.01	46.26	74.00	-27.74	PK	PASS
H	2400.00	65.19	29.16	3.43	34.01	63.77	74.00	-10.23	PK	PASS
V	2390.00	48.72	29.15	3.41	34.01	47.27	74.00	-26.73	PK	PASS
V	2400.00	67.74	29.16	3.43	34.01	66.32	74.00	-7.68	PK	PASS
H	2390.00	37.17	29.15	3.41	34.01	35.72	54.00	-18.28	AV	PASS
H	2400.00	48.69	29.16	3.43	34.01	47.27	54.00	-6.73	AV	PASS
V	2390.00	37.46	29.15	3.41	34.01	36.01	54.00	-17.99	AV	PASS
V	2400.00	45.80	29.16	3.43	34.01	44.38	54.00	-9.62	AV	PASS
High Channel: 2480MHz										
H	2483.50	50.39	29.28	3.53	34.03	49.17	74.00	-24.83	PK	PASS
H	2500.00	48.64	29.30	3.56	34.03	47.47	74.00	-26.53	PK	PASS
V	2483.50	52.04	29.28	3.53	34.03	50.82	74.00	-23.18	PK	PASS
V	2500.00	50.10	29.30	3.56	34.03	48.93	74.00	-25.07	PK	PASS
H	2483.50	40.05	29.28	3.53	34.03	38.83	54.00	-15.17	AV	PASS
H	2500.00	37.36	29.30	3.56	34.03	36.19	54.00	-17.81	AV	PASS
V	2483.50	41.67	29.28	3.53	34.03	40.45	54.00	-13.55	AV	PASS
V	2500.00	37.69	29.30	3.56	34.03	36.52	54.00	-17.48	AV	PASS
Remark: 1. Emission Level = Meter Reading + Antenna Factor + Cable Loss – Pre-amplifier, Margin= Emission Level - Limit										

End of the report