Appendix A

RF Test Data for BLE(Conducted Measurement)

Product Name: Electric unicycle
Trade Mark: INMOTION
Test Model: V11Y

Environmental Conditions

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

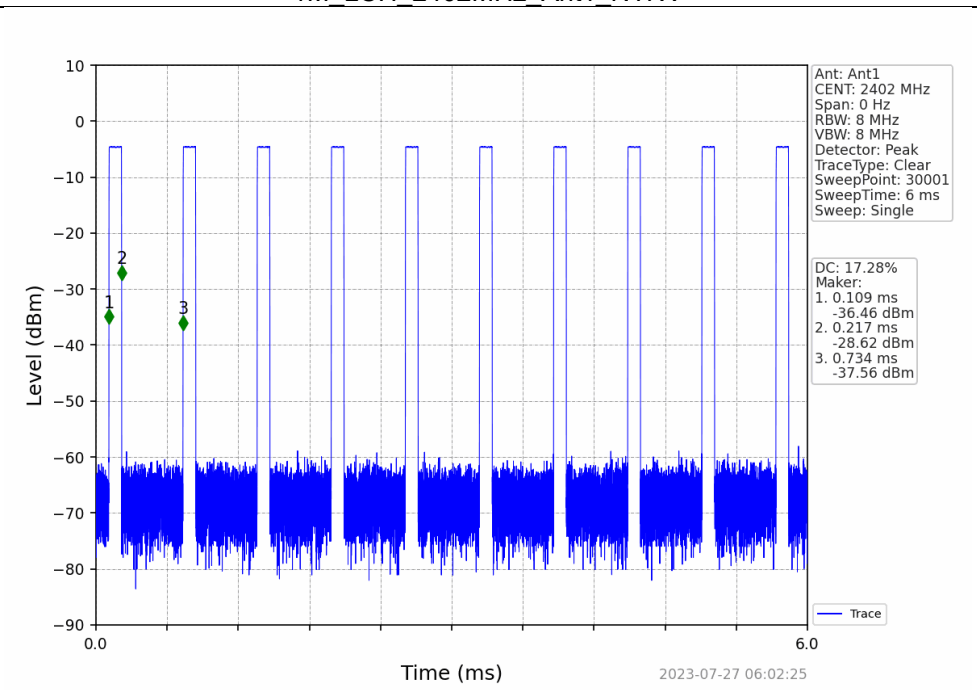
A.1. Duty Cycle

Test Result

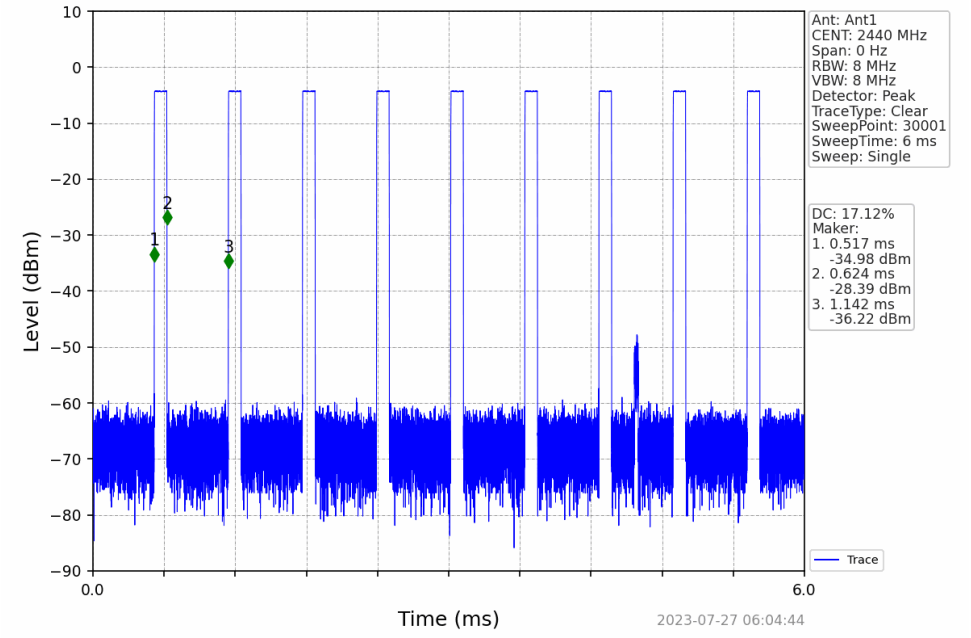
Mode	TX Type	Frequency (MHz)	T_on (ms)	Period (ms)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)	Max. DC Variation (%)
1M	SISO	2402	0.108	0.625	17.28	7.62	0.03
		2440	0.107	0.625	17.12	7.66	0.00
		2480	0.107	0.625	17.12	7.66	0.00

Test Graph

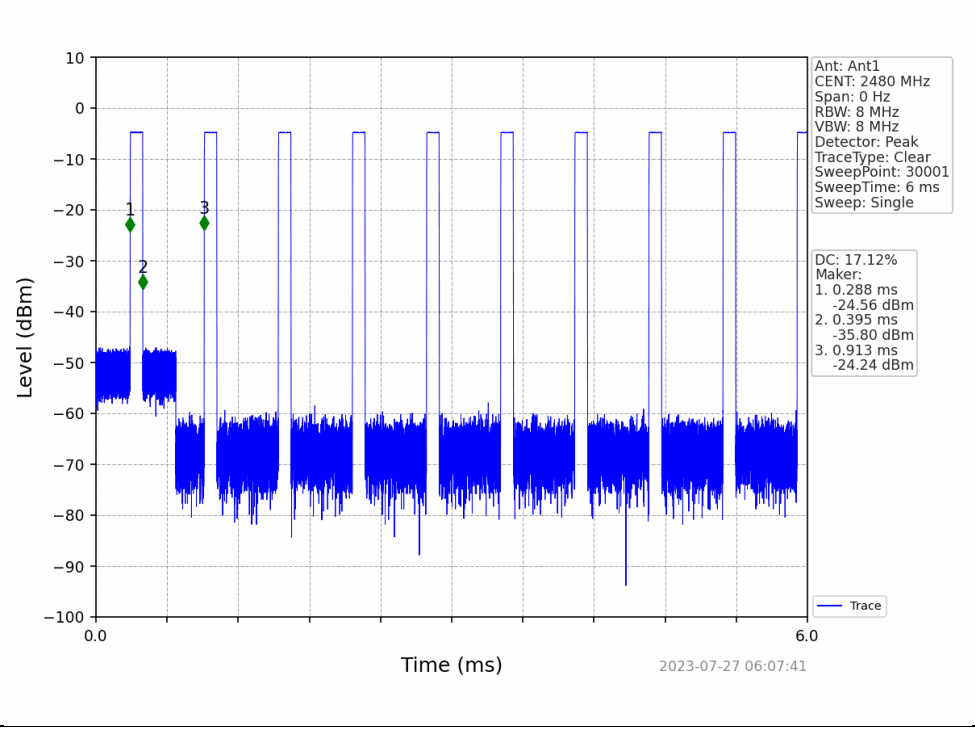
1M_LCH_2402MHz_Ant1_NTNV



1M_MCH_2440MHz_Ant1_NTNV



1M_HCH_2480MHz_Ant1_NTNV



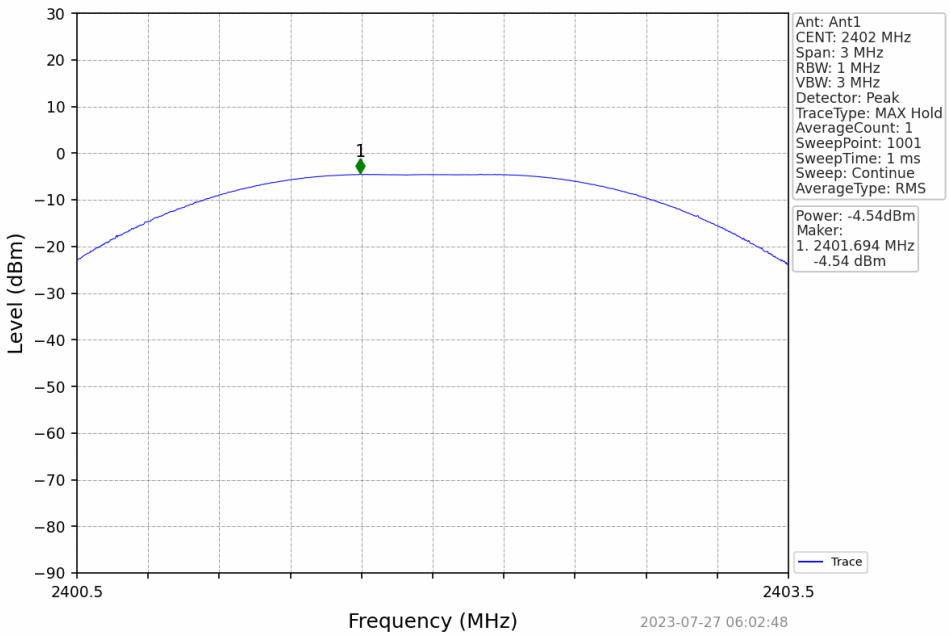
A.2. Maximum Conducted Output Power

Test Result

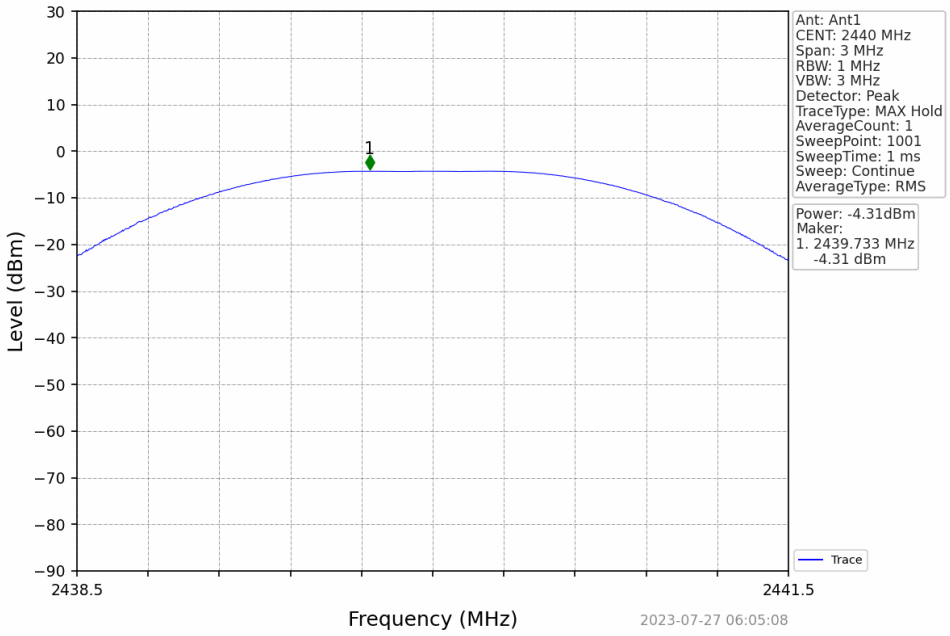
Mode	TX Type	Frequency (MHz)	Maximum Peak Conducted Output Power (dBm)		Verdict
			ANT1	Limit	
1M	SISO	2402	-4.54	<=30	Pass
		2440	-4.31	<=30	Pass
		2480	-4.78	<=30	Pass

Test Graph

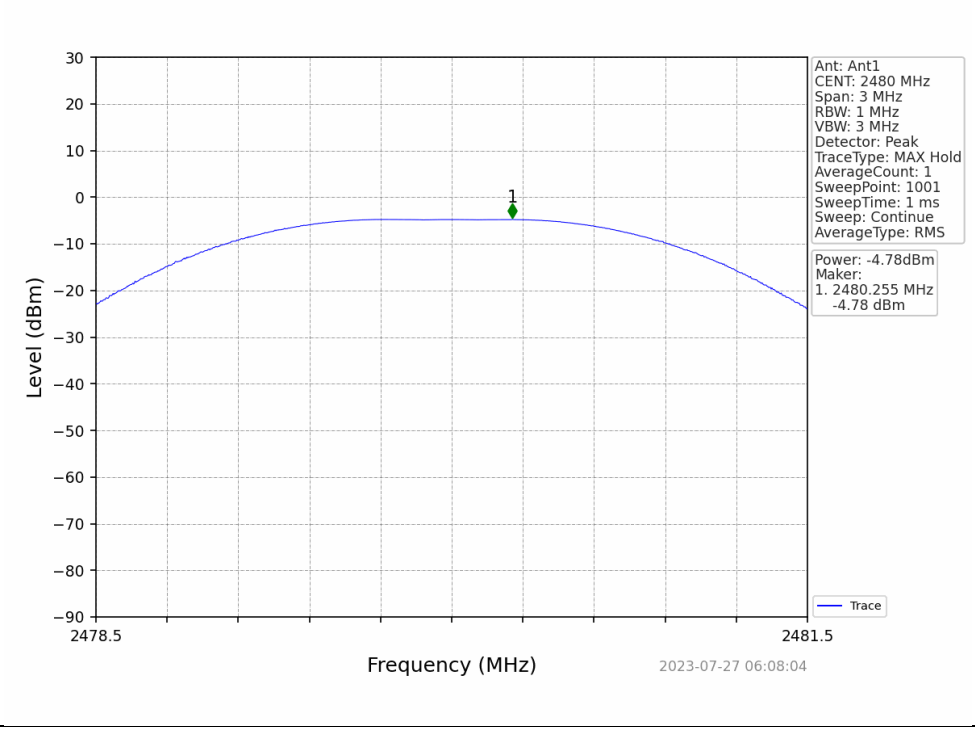
1M_LCH_2402MHz_Ant1_NTNV



1M_MCH_2440MHz_Ant1_NTNV



1M_HCH_2480MHz_Ant1_NTNV



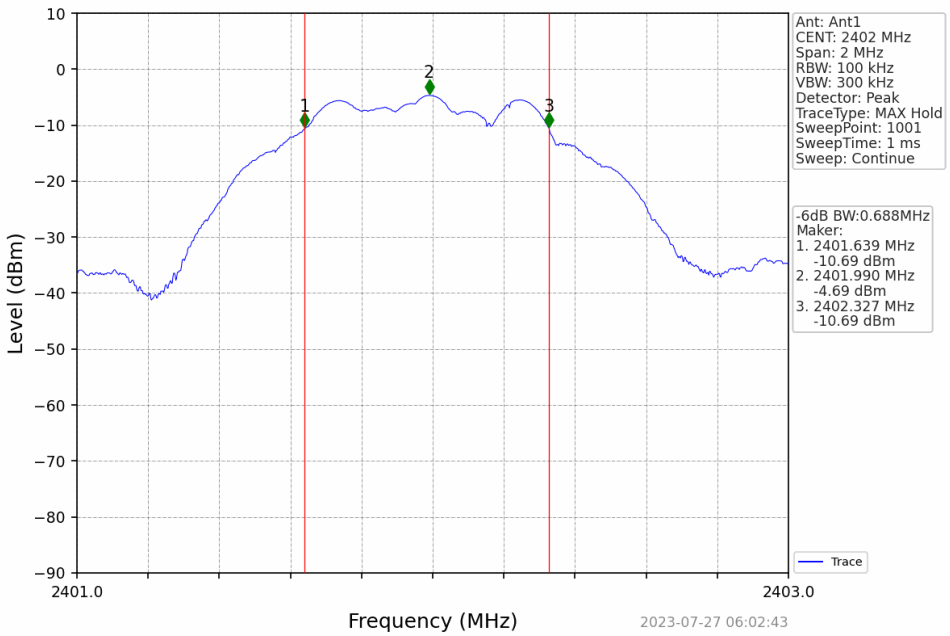
A.3. 6dB BW

Test Result

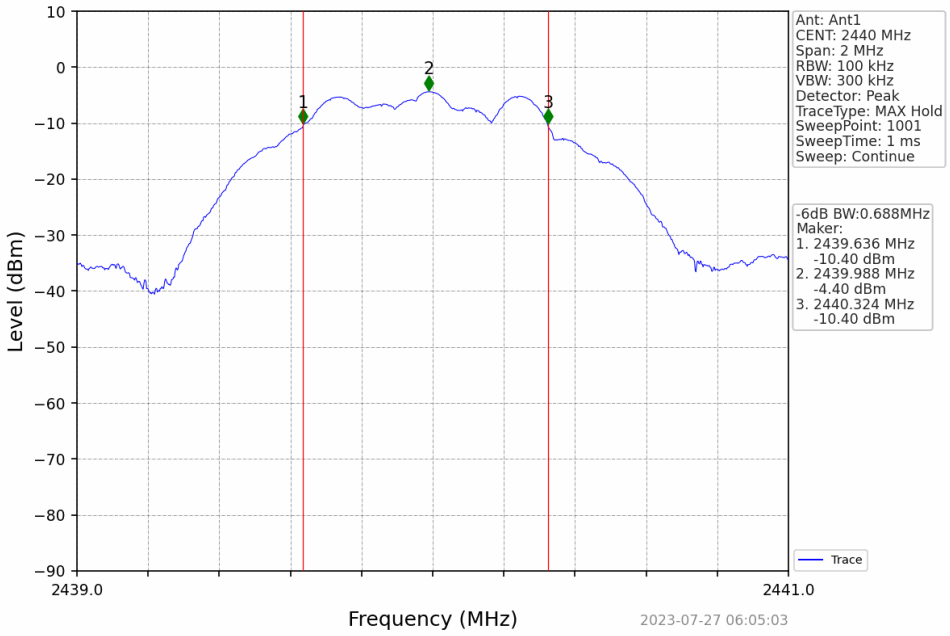
Mode	TX Type	Frequency (MHz)	ANT	6dB Bandwidth (MHz)		Verdict
				Result	Limit	
1M	SISO	2402	1	0.688	>=0.5	Pass
		2440	1	0.688	>=0.5	Pass
		2480	1	0.689	>=0.5	Pass

Test Graph

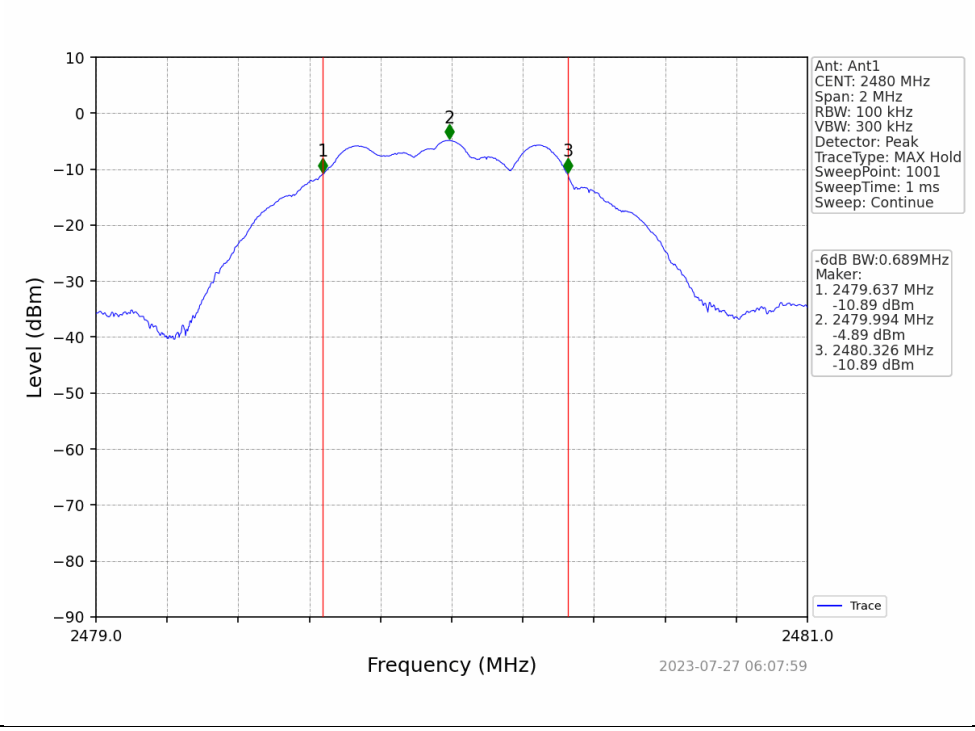
1M_LCH_2402MHz_Ant1_NTNV



1M_MCH_2440MHz_Ant1_NTNV



1M_HCH_2480MHz_Ant1_NTNV



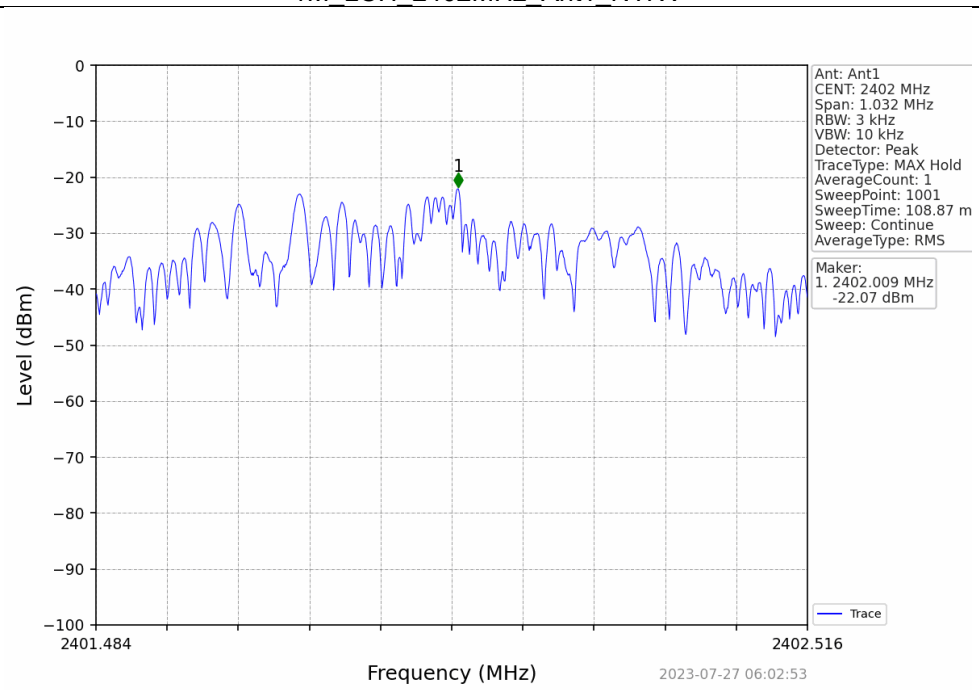
A.4. Maximum Power Spectral Density

Test Result

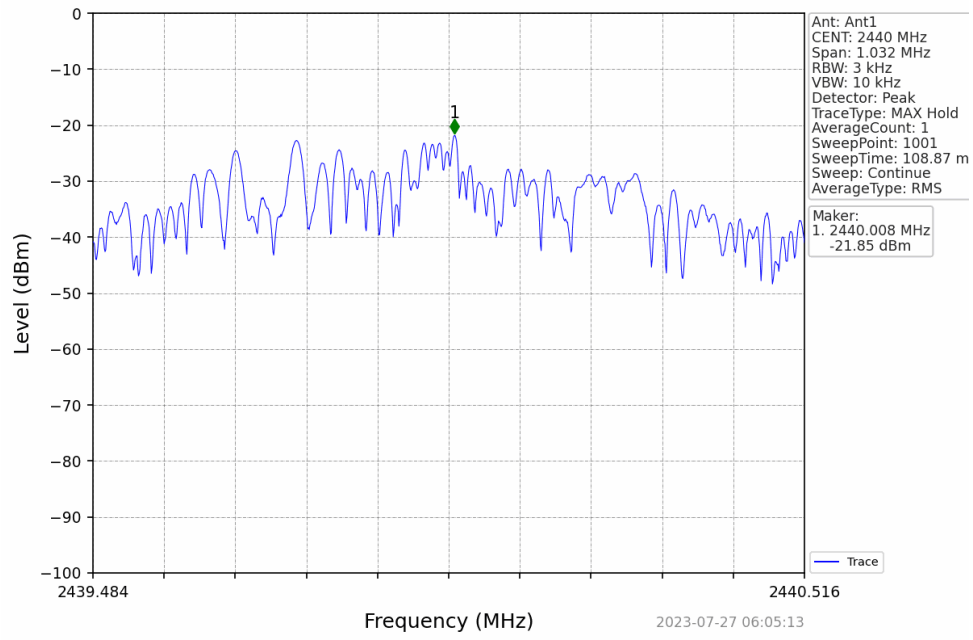
Mode	TX Type	Frequency (MHz)	Maximum PSD (dBm/3kHz)		Verdict
			ANT1	Limit	
1M	SISO	2402	-22.07	<=8	Pass
		2440	-21.85	<=8	Pass
		2480	-22.38	<=8	Pass

Test Graph

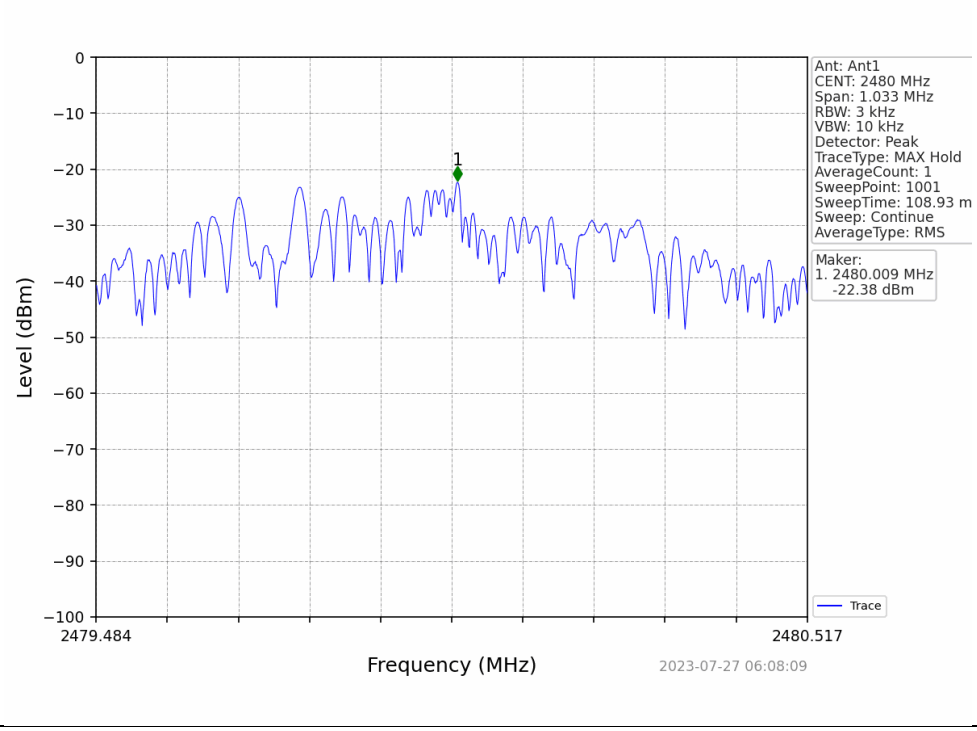
1M_LCH_2402MHz_Ant1_NTNV



1M_MCH_2440MHz_Ant1_NTNV



1M_HCH_2480MHz_Ant1_NTNV



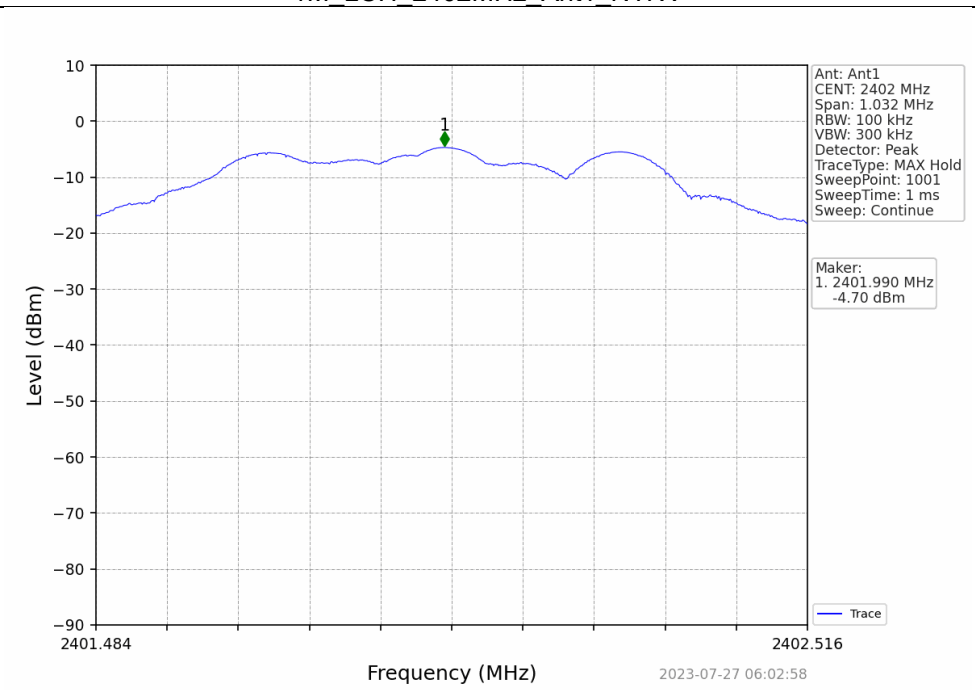
A.5. Conducted Spurious Emissions Test

Test Result

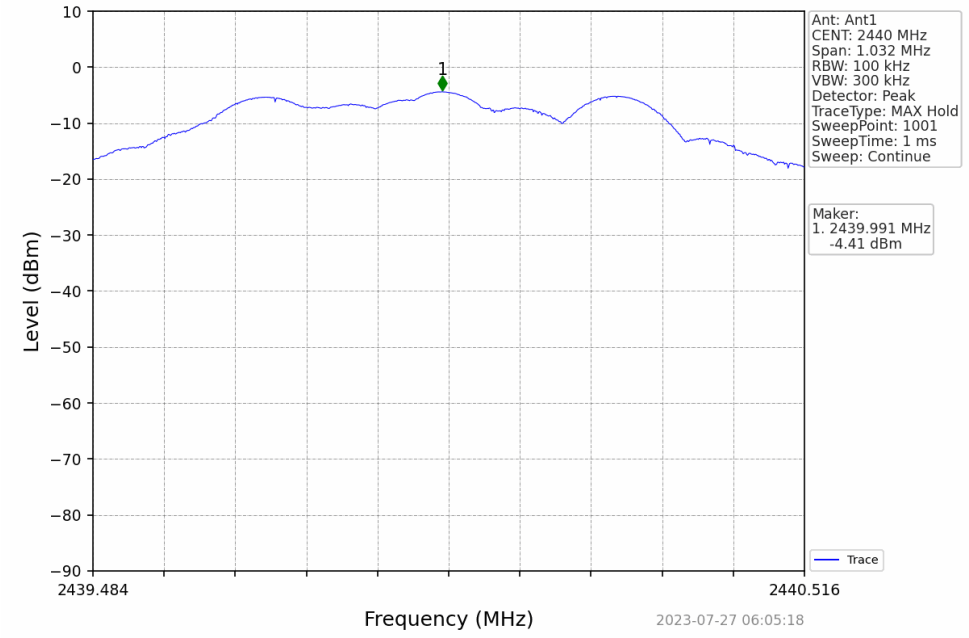
Mode	TX Type	Frequency (MHz)	ANT	Level of Reference (dBm)
1M	SISO	2402	1	-4.70
		2440	1	-4.41
		2480	1	-4.90

Test Graph

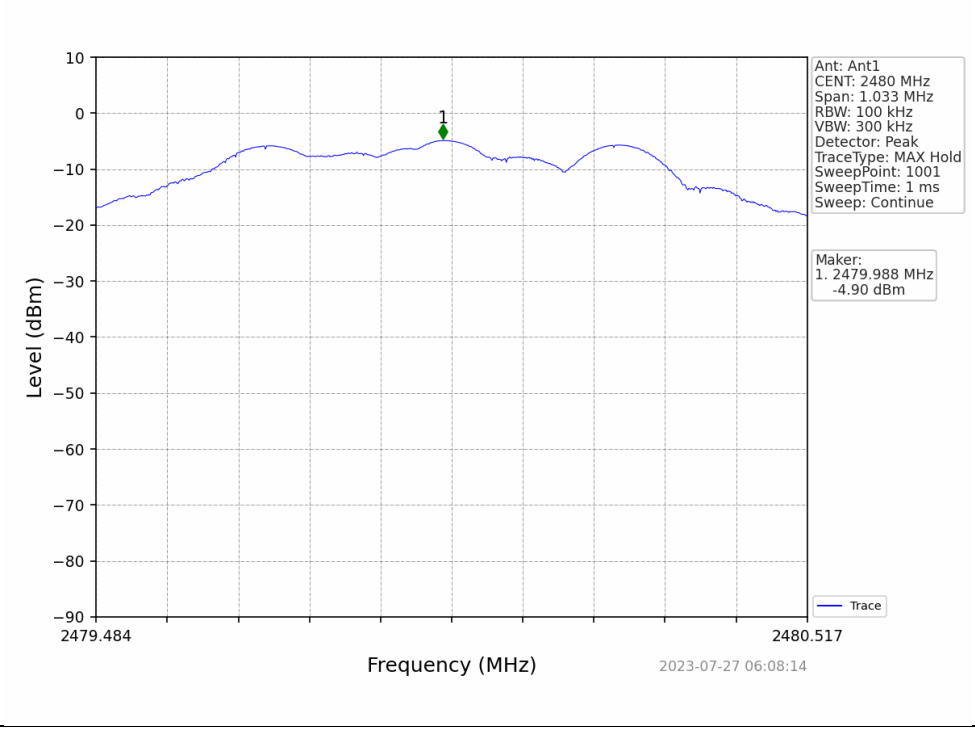
1M_LCH_2402MHz_Ant1_NTNV



1M_MCH_2440MHz_Ant1_NTNV



1M_HCH_2480MHz_Ant1_NTNV



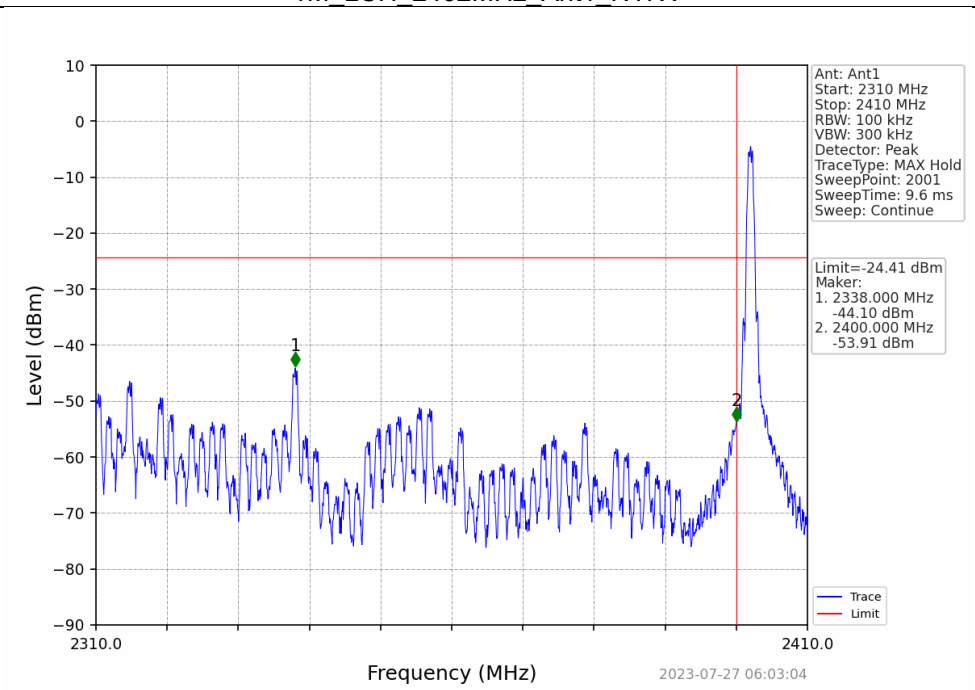
CSE

Test Result

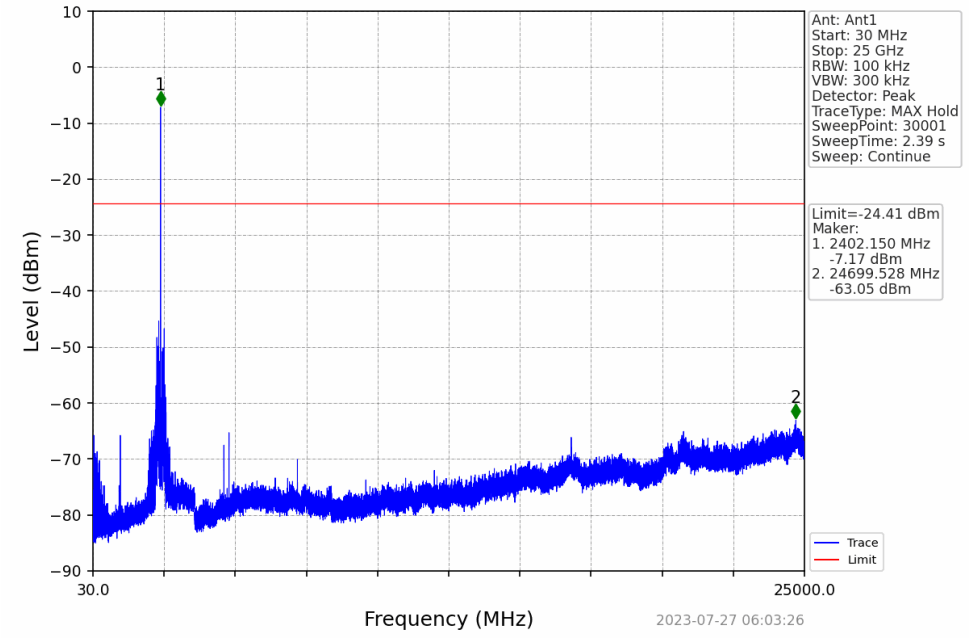
Mode	TX Type	Frequency (MHz)	ANT	Level of Reference (dBm)	Limit (dBm)	Verdict
1M	SISO	2402	1	-4.41	-24.41	Pass
		2440	1	-4.41	-24.41	Pass
		2480	1	-4.41	-24.41	Pass
Note1: Refer to FCC Part 15.247 (d) and ANSI C63.10-2013, the channel contains the maximum PSD level was used to establish the reference level.						

Test Graph

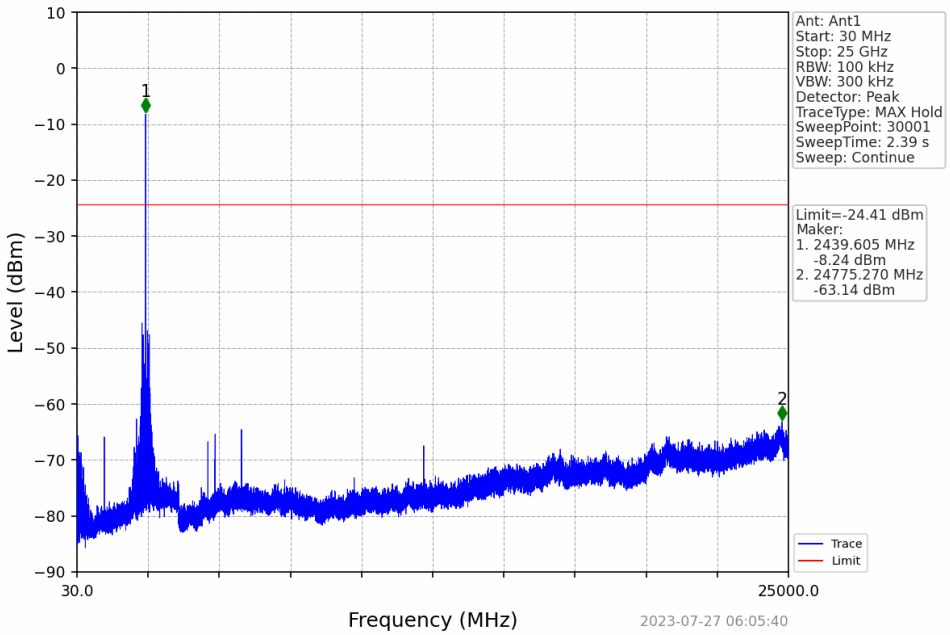
1M_LCH_2402MHz_Ant1_NTNV



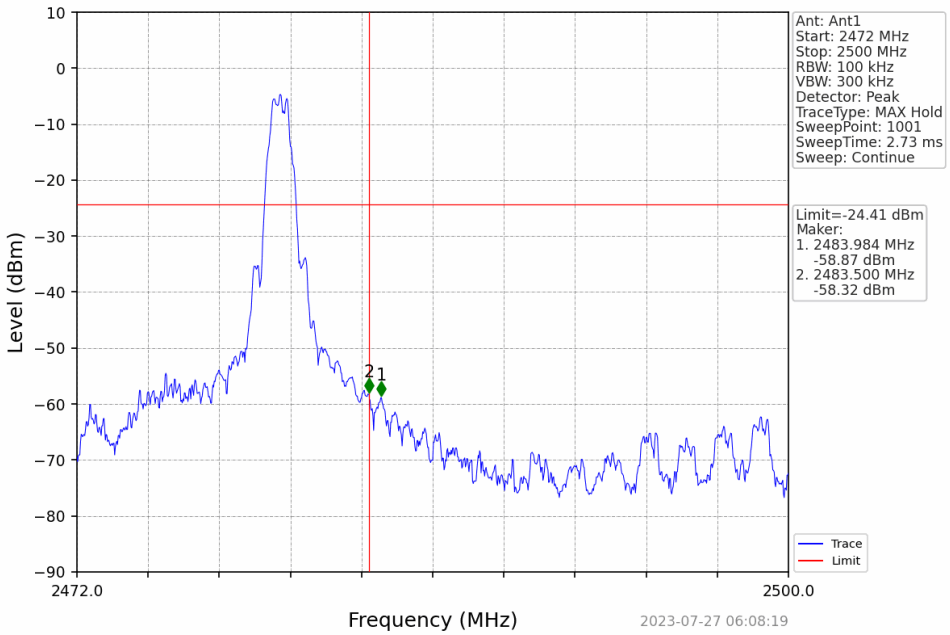
1M_LCH_2402MHz_Ant1_NTNV



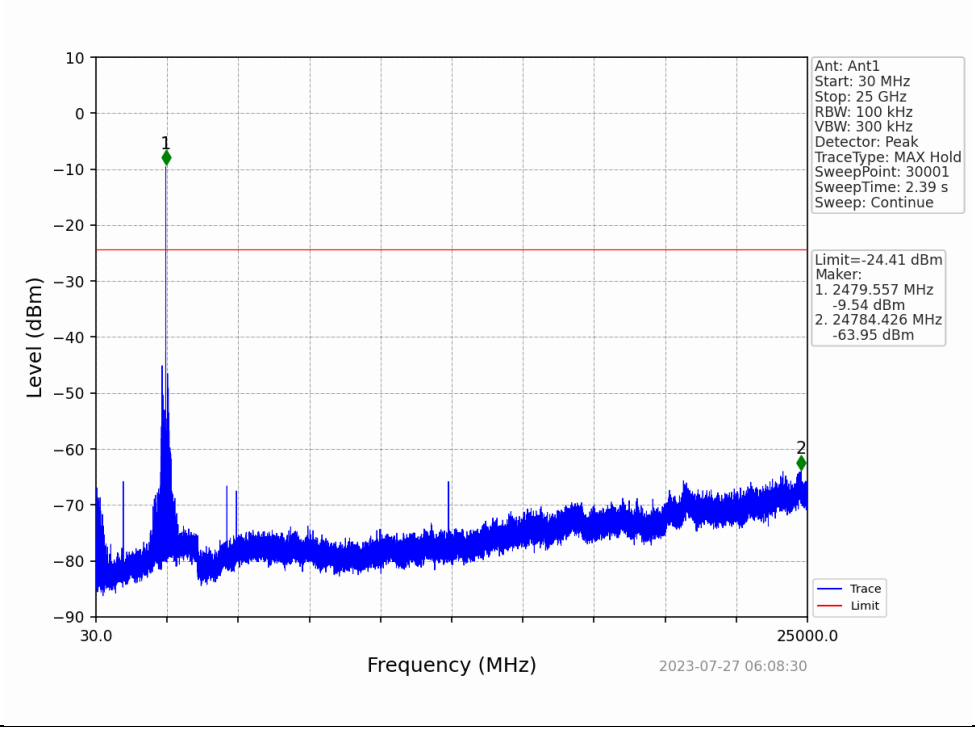
1M_MCH_2440MHz_Ant1_NTNV



1M_HCH_2480MHz_Ant1_NTNV



1M_HCH_2480MHz_Ant1_NTNV



A.6. Conducted band edge emission Test

Test Mode: GFSK										
Pol.	Frequency (MHz)	Meter Reading (dBuV)	Pre-amplifier (dB)	Cable Loss (dB)	Antenna Factor (dB/m)	Emission level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type	Result
Low Channel: 2402MHz										
H	2390.00	48.24	29.15	3.41	34.01	46.79	74.00	-27.21	PK	PASS
H	2400.00	65.80	29.16	3.43	34.01	64.38	74.00	-9.62	PK	PASS
V	2390.00	49.30	29.15	3.41	34.01	47.85	74.00	-26.15	PK	PASS
V	2400.00	68.41	29.16	3.43	34.01	66.99	74.00	-7.01	PK	PASS
H	2390.00	37.58	29.15	3.41	34.01	36.13	54.00	-17.87	AV	PASS
H	2400.00	49.13	29.16	3.43	34.01	47.71	54.00	-6.29	AV	PASS
V	2390.00	37.91	29.15	3.41	34.01	36.46	54.00	-17.54	AV	PASS
V	2400.00	46.29	29.16	3.43	34.01	44.87	54.00	-9.13	AV	PASS
High Channel: 2480MHz										
H	2483.50	50.98	29.28	3.53	34.03	49.76	74.00	-24.24	PK	PASS
H	2500.00	49.13	29.30	3.56	34.03	47.96	74.00	-26.04	PK	PASS
V	2483.50	52.72	29.28	3.53	34.03	51.50	74.00	-22.50	PK	PASS
V	2500.00	50.64	29.30	3.56	34.03	49.47	74.00	-24.53	PK	PASS
H	2483.50	40.47	29.28	3.53	34.03	39.25	54.00	-14.75	AV	PASS
H	2500.00	37.70	29.30	3.56	34.03	36.53	54.00	-17.47	AV	PASS
V	2483.50	42.13	29.28	3.53	34.03	40.91	54.00	-13.09	AV	PASS
V	2500.00	38.07	29.30	3.56	34.03	36.90	54.00	-17.10	AV	PASS

Remark:
1. Emission Level = Meter Reading + Antenna Factor + Cable Loss – Pre-amplifier, Margin= Emission Level - Limit

End of the report