



Annex for 2.4G WiFi

Test Report No.: CTL2404153021-WF02

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1. Bandwidth

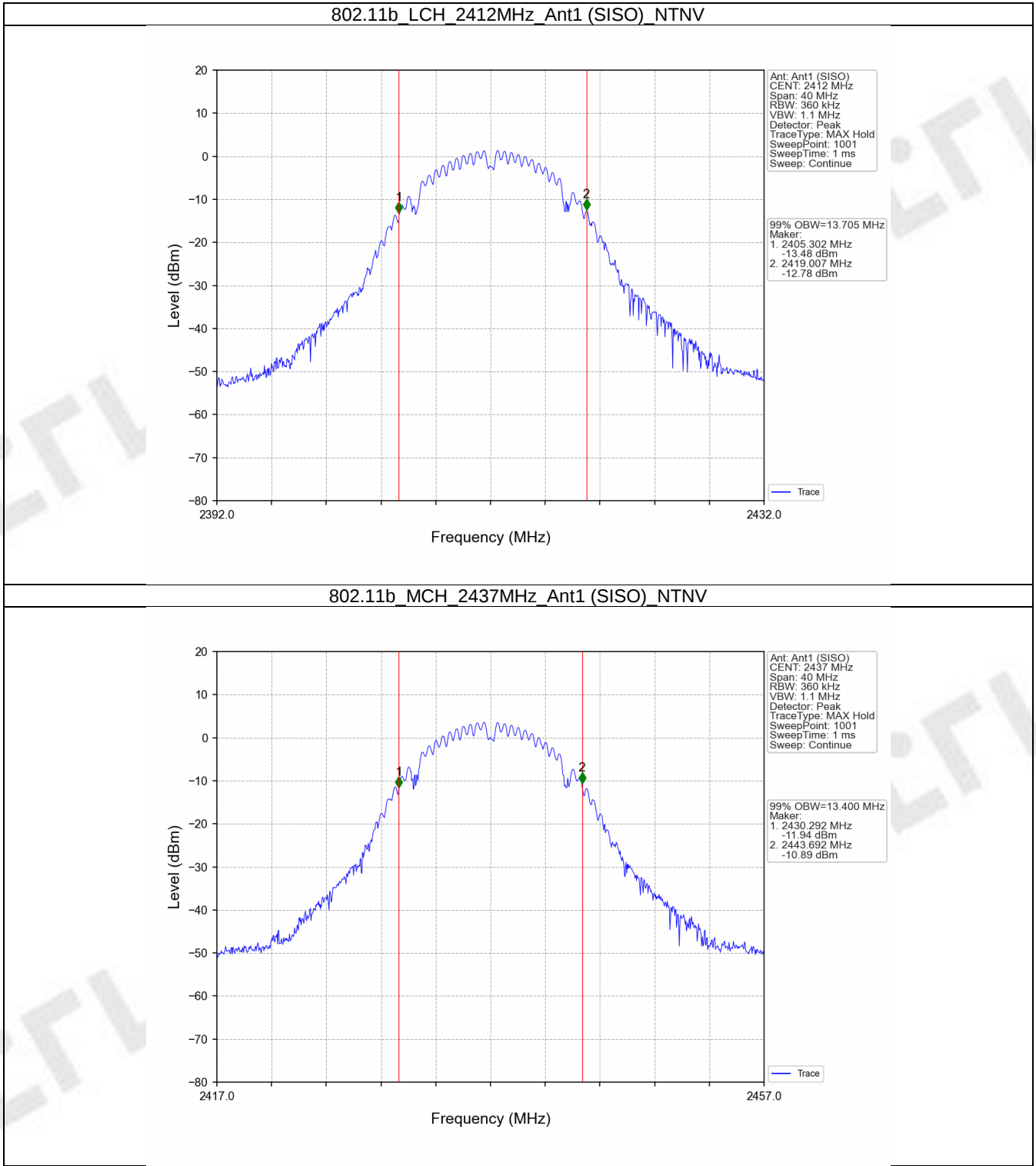
1.1 OBW

1.1.1 Test Result

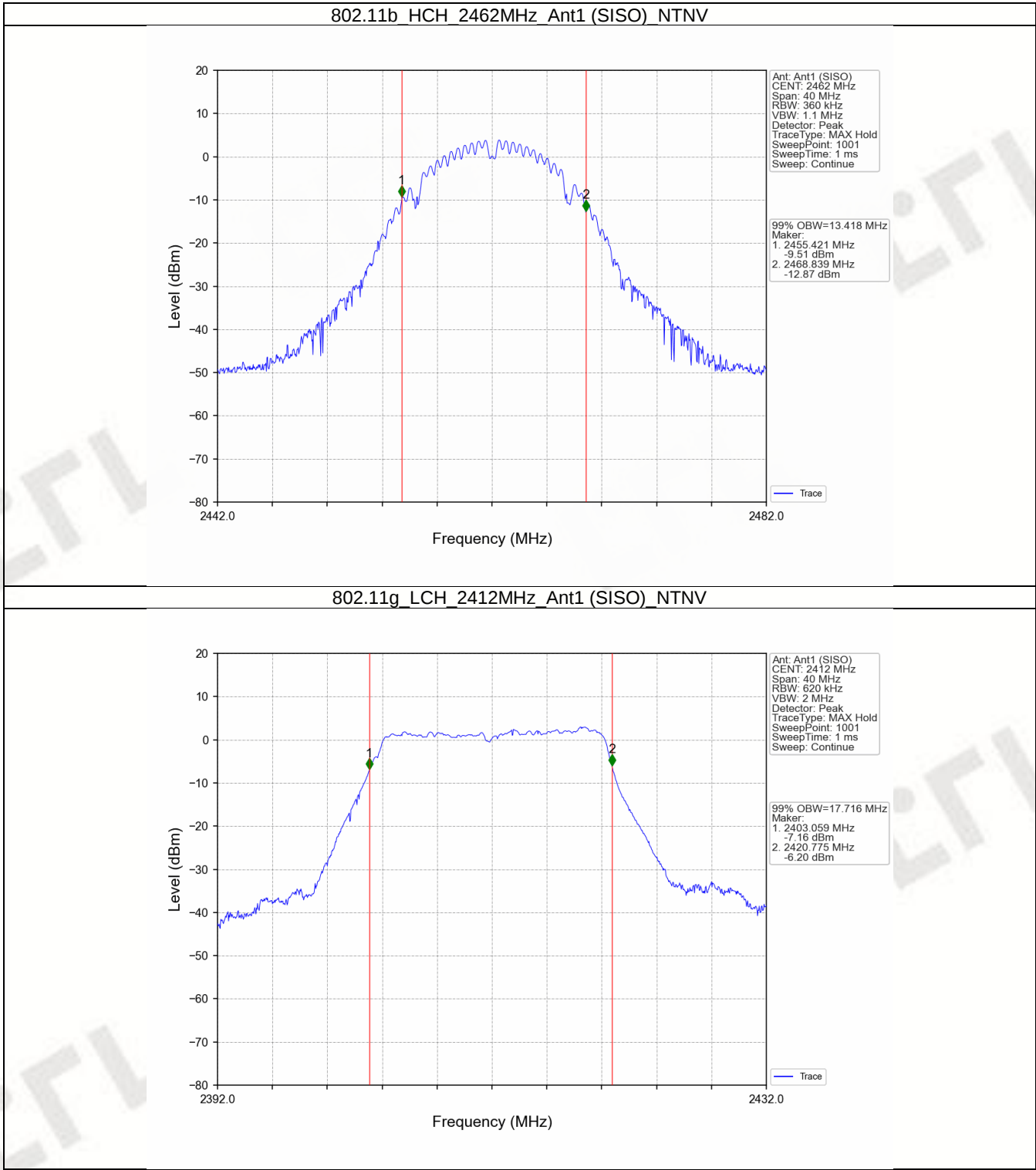
Mode	TX Type	Frequency (MHz)	ANT	99% Occupied Bandwidth (MHz)		Verdict
				Result	Limit	
802.11b	SISO	2412	1	13.705	/	Pass
		2437	1	13.400	/	Pass
		2462	1	13.418	/	Pass
802.11g	SISO	2412	1	17.716	/	Pass
		2437	1	17.569	/	Pass
		2462	1	17.582	/	Pass
802.11n (HT20)	SISO	2412	1	18.565	/	Pass
		2437	1	18.394	/	Pass
		2462	1	18.392	/	Pass
802.11n (HT40)	SISO	2422	1	36.775	/	Pass
		2437	1	36.731	/	Pass
		2452	1	37.060	/	Pass

FCCID: 2BF2G-CP001

1.1.2 Test Graph

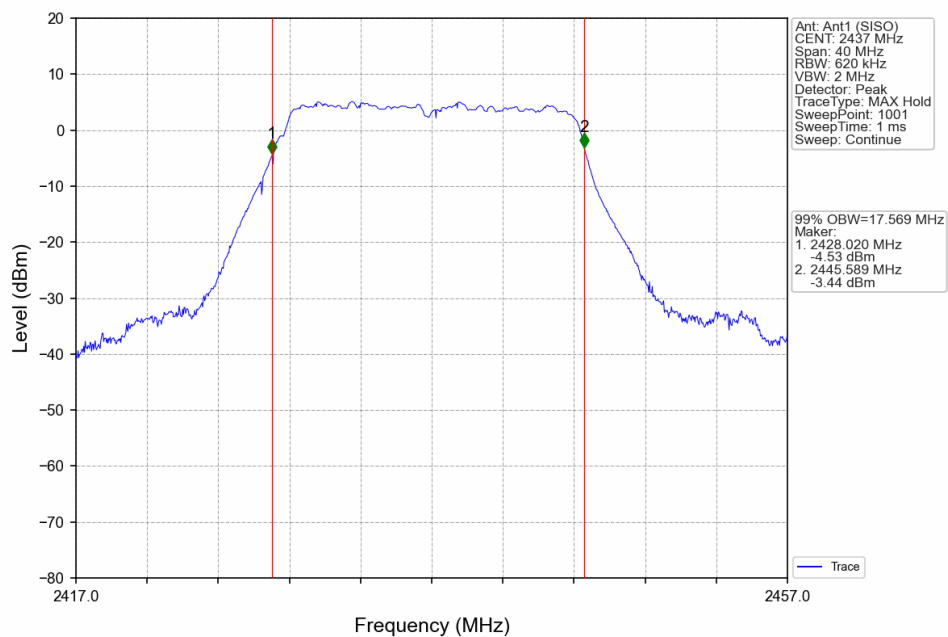


FCCID: 2BF2G-CP001

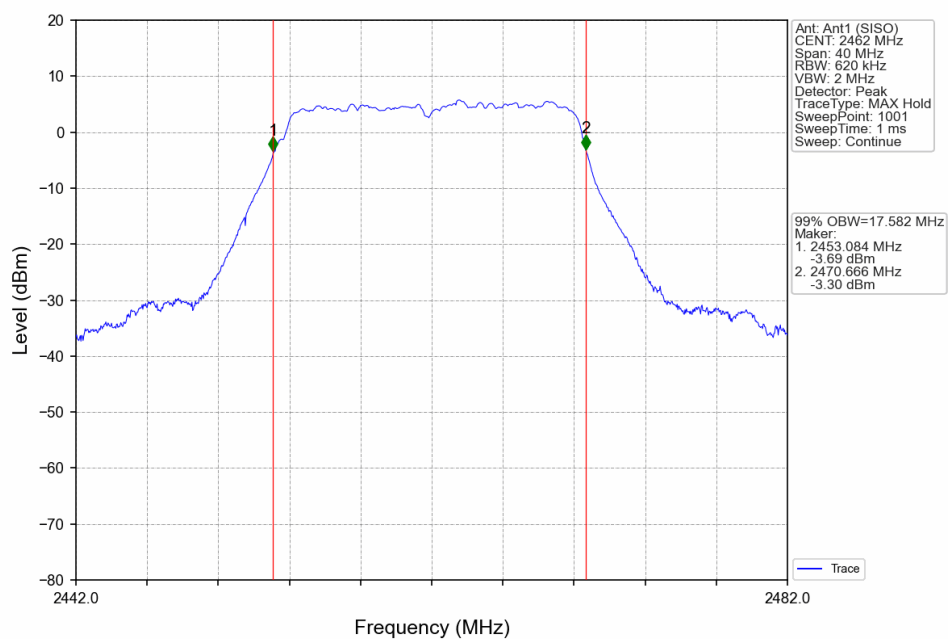


FCCID: 2BF2G-CP001

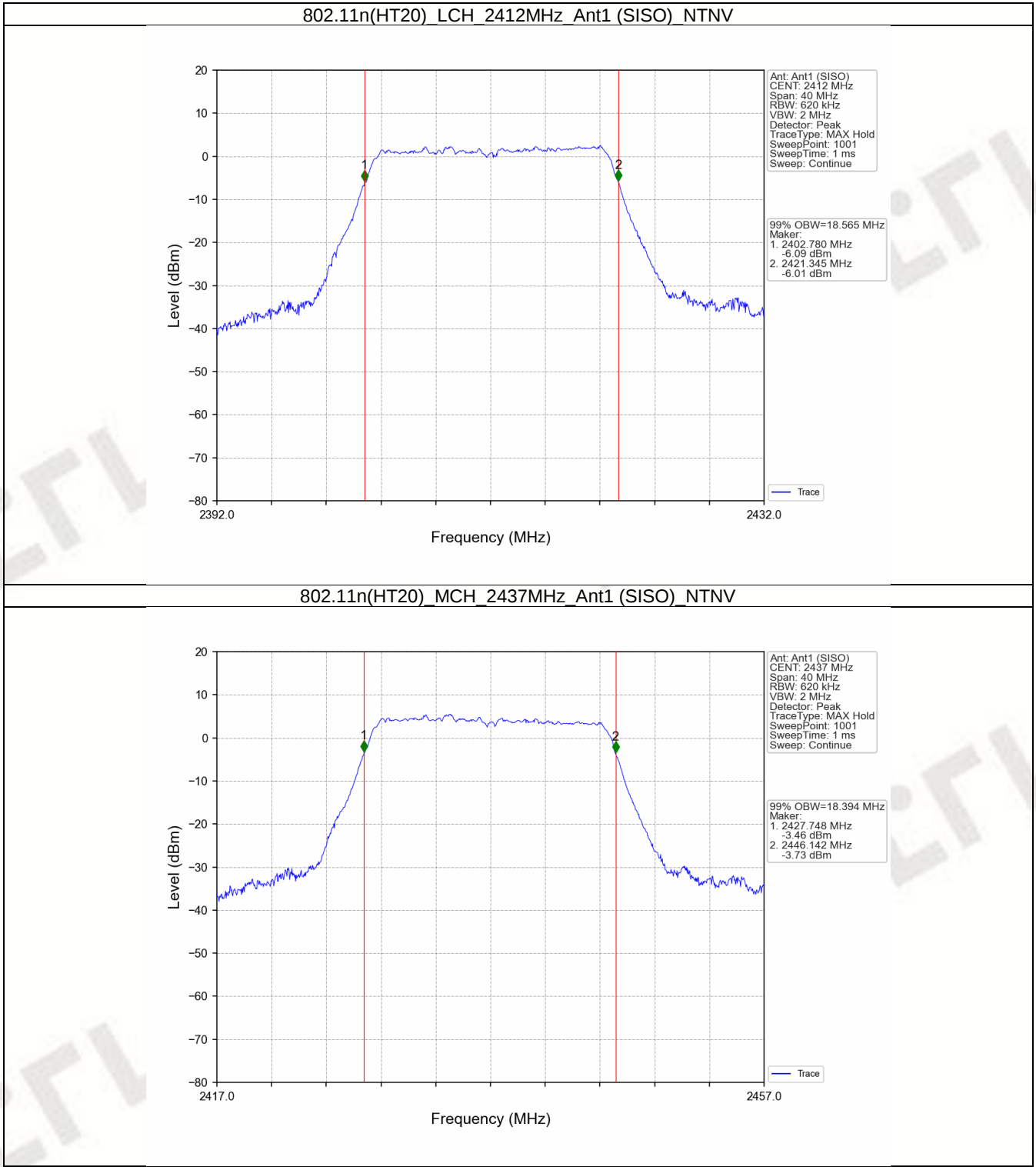
802.11g MCH 2437MHz Ant1 (SISO) NTN



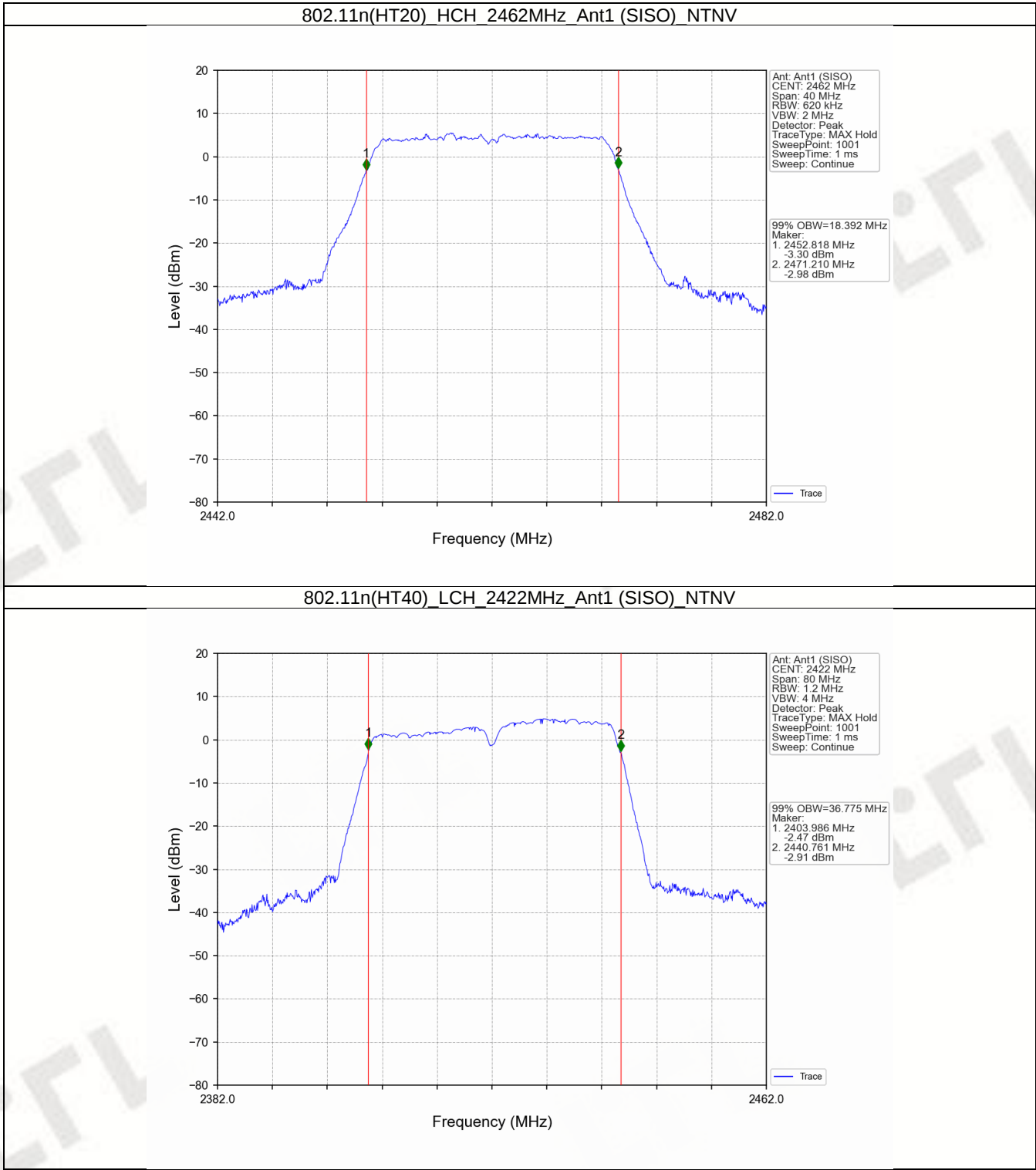
802.11g_HCH_2462MHz_Ant1 (SISO) NTN



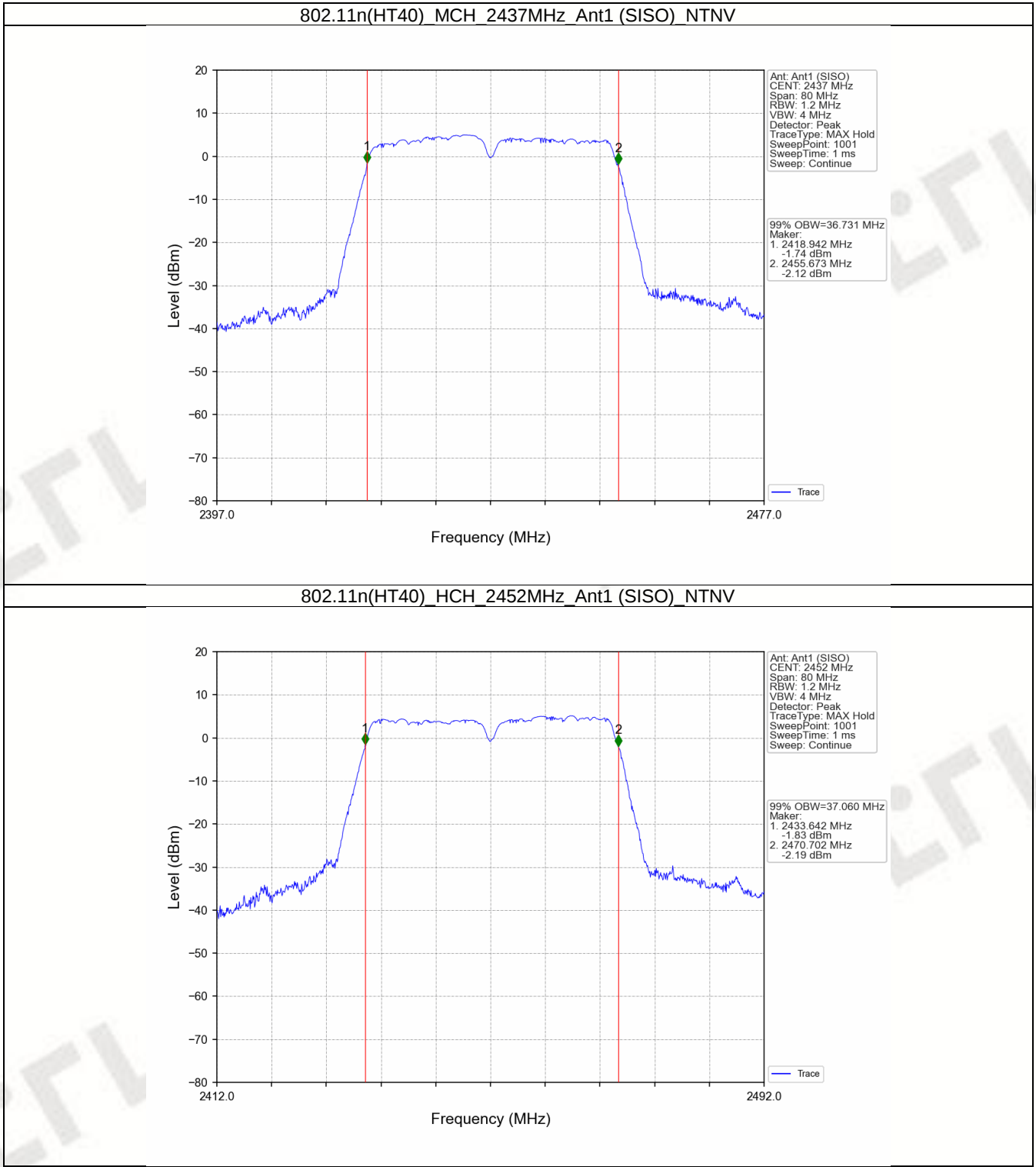
FCCID: 2BF2G-CP001



FCCID: 2BF2G-CP001



FCCID: 2BF2G-CP001



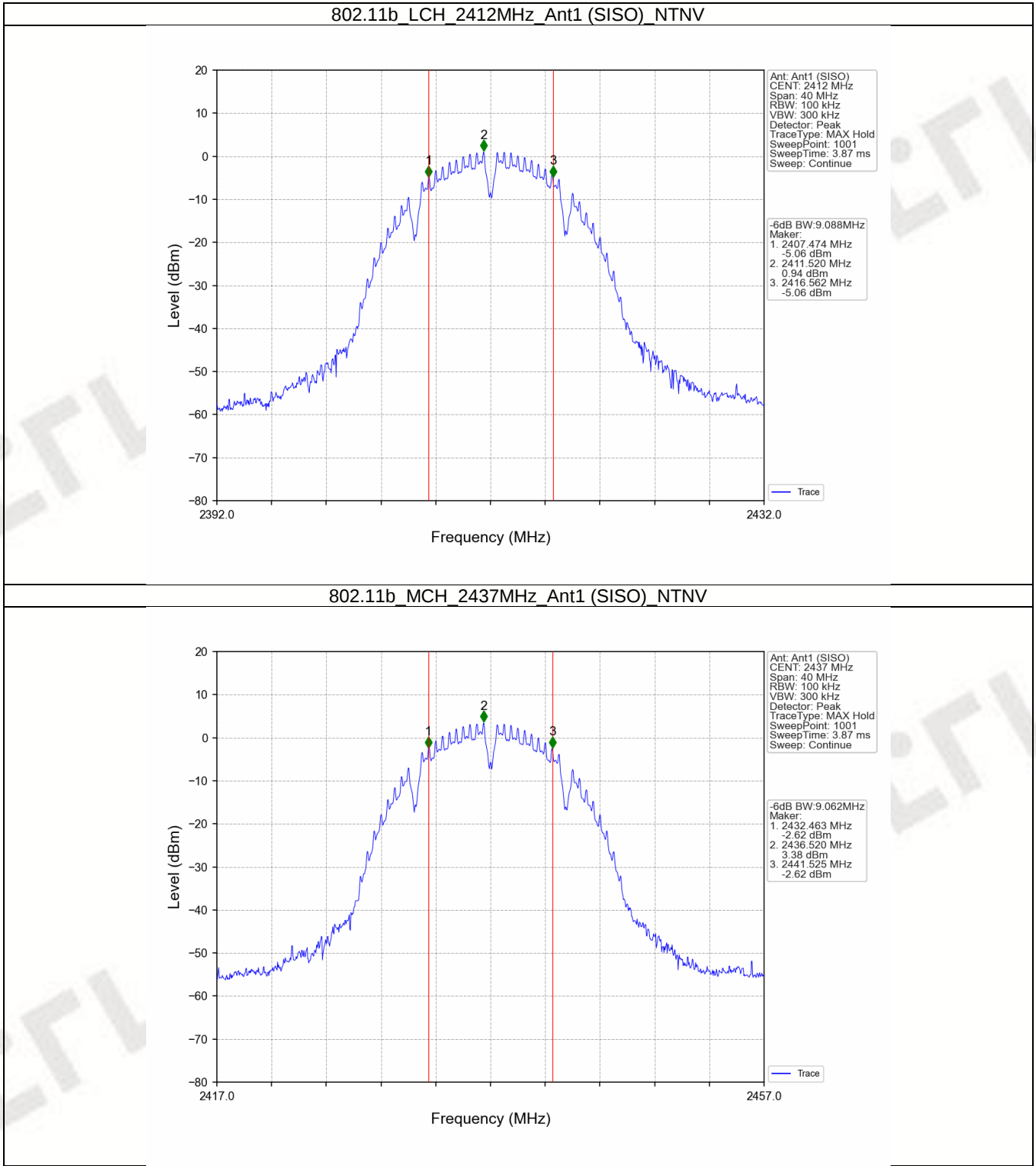
FCCID: 2BF2G-CP001

1.2 6dB BW**1.2.1 Test Result**

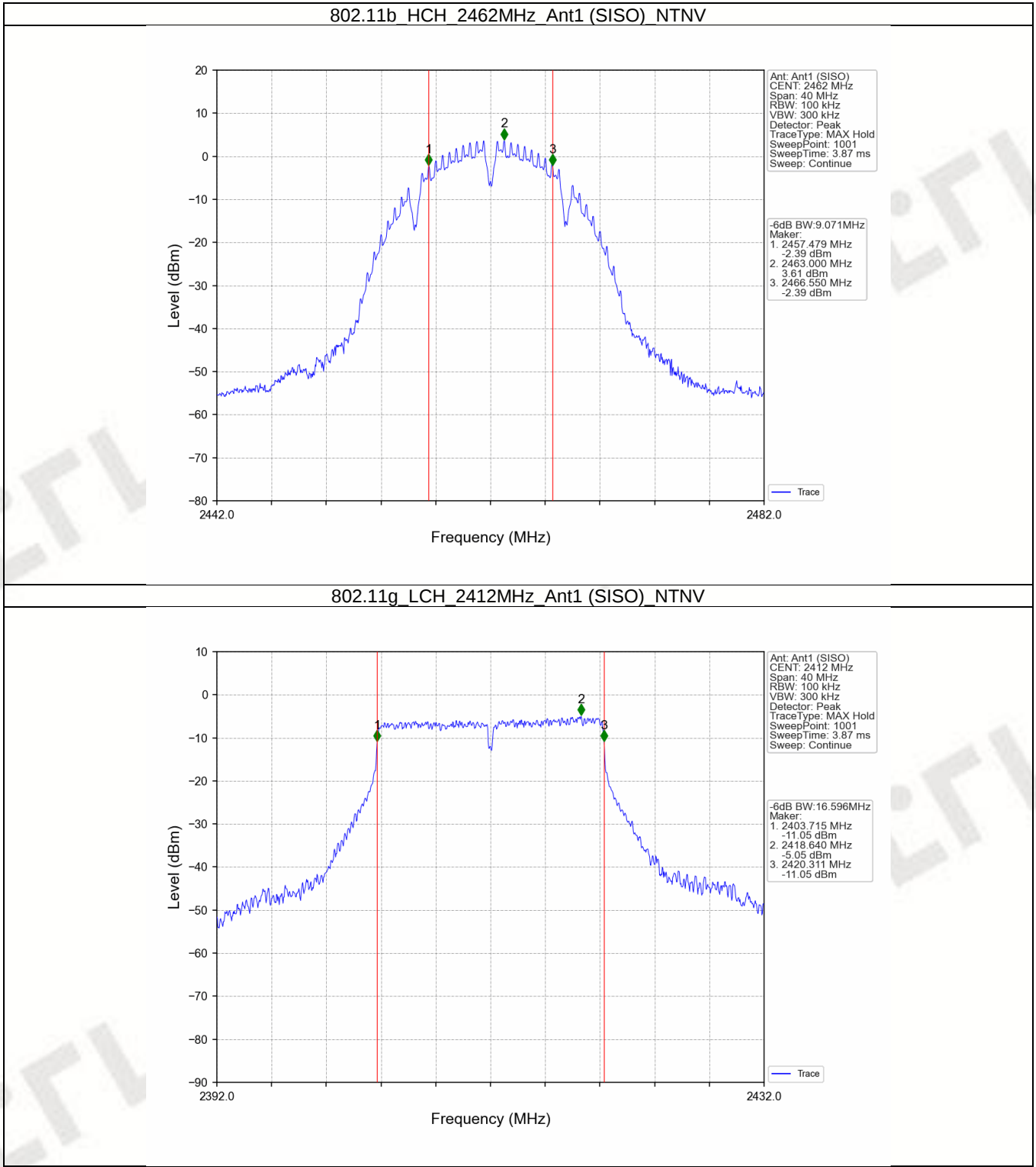
Mode	TX Type	Frequency (MHz)	ANT	6dB Bandwidth (MHz)		Verdict
				Result	Limit	
802.11b	SISO	2412	1	9.088	≥ 0.5	Pass
		2437	1	9.062	≥ 0.5	Pass
		2462	1	9.071	≥ 0.5	Pass
802.11g	SISO	2412	1	16.596	≥ 0.5	Pass
		2437	1	16.587	≥ 0.5	Pass
		2462	1	16.586	≥ 0.5	Pass
802.11n (HT20)	SISO	2412	1	17.805	≥ 0.5	Pass
		2437	1	17.753	≥ 0.5	Pass
		2462	1	17.786	≥ 0.5	Pass
802.11n (HT40)	SISO	2422	1	36.441	≥ 0.5	Pass
		2437	1	36.456	≥ 0.5	Pass
		2452	1	36.529	≥ 0.5	Pass

FCCID: 2BF2G-CP001

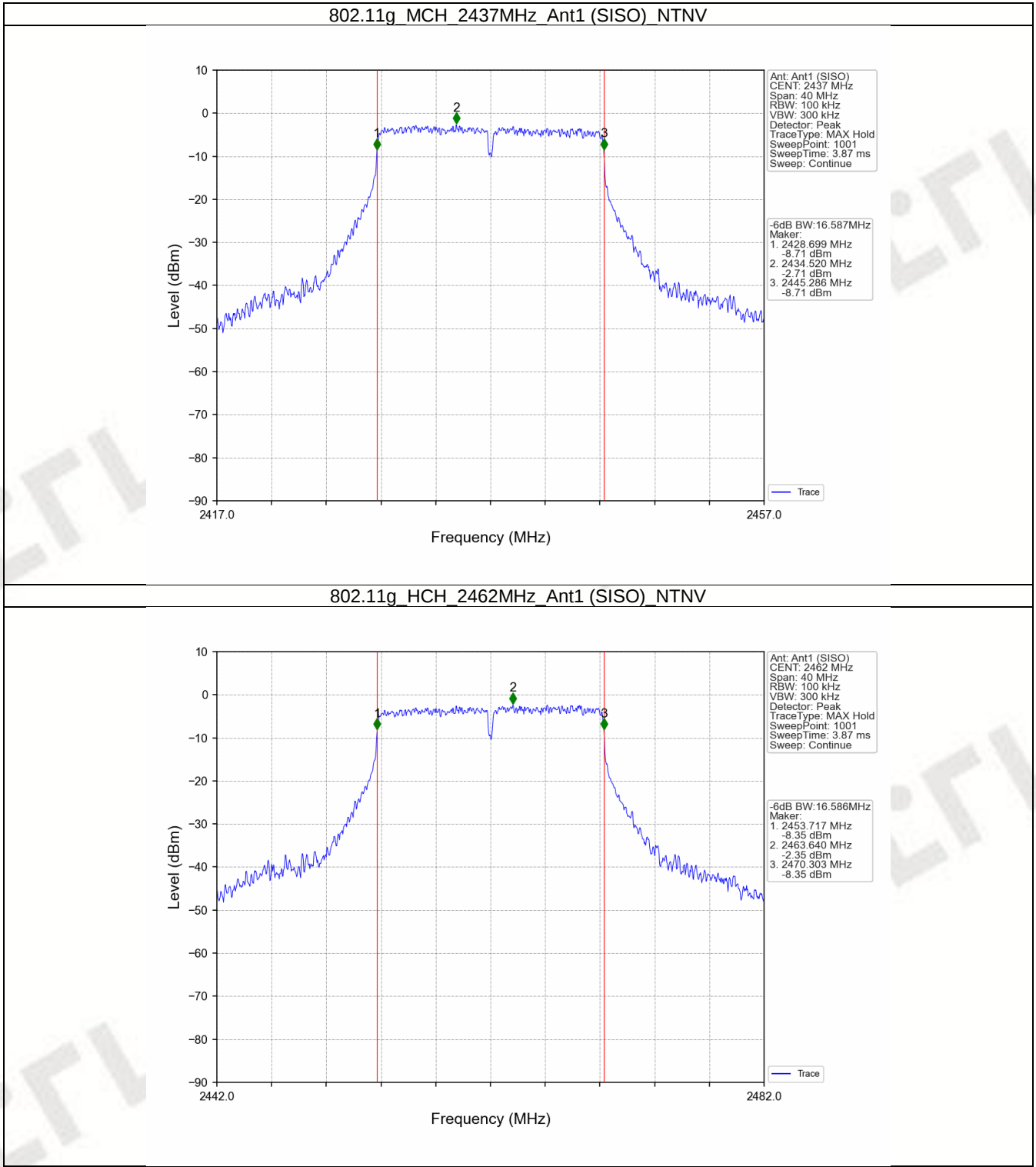
1.2.2 Test Graph



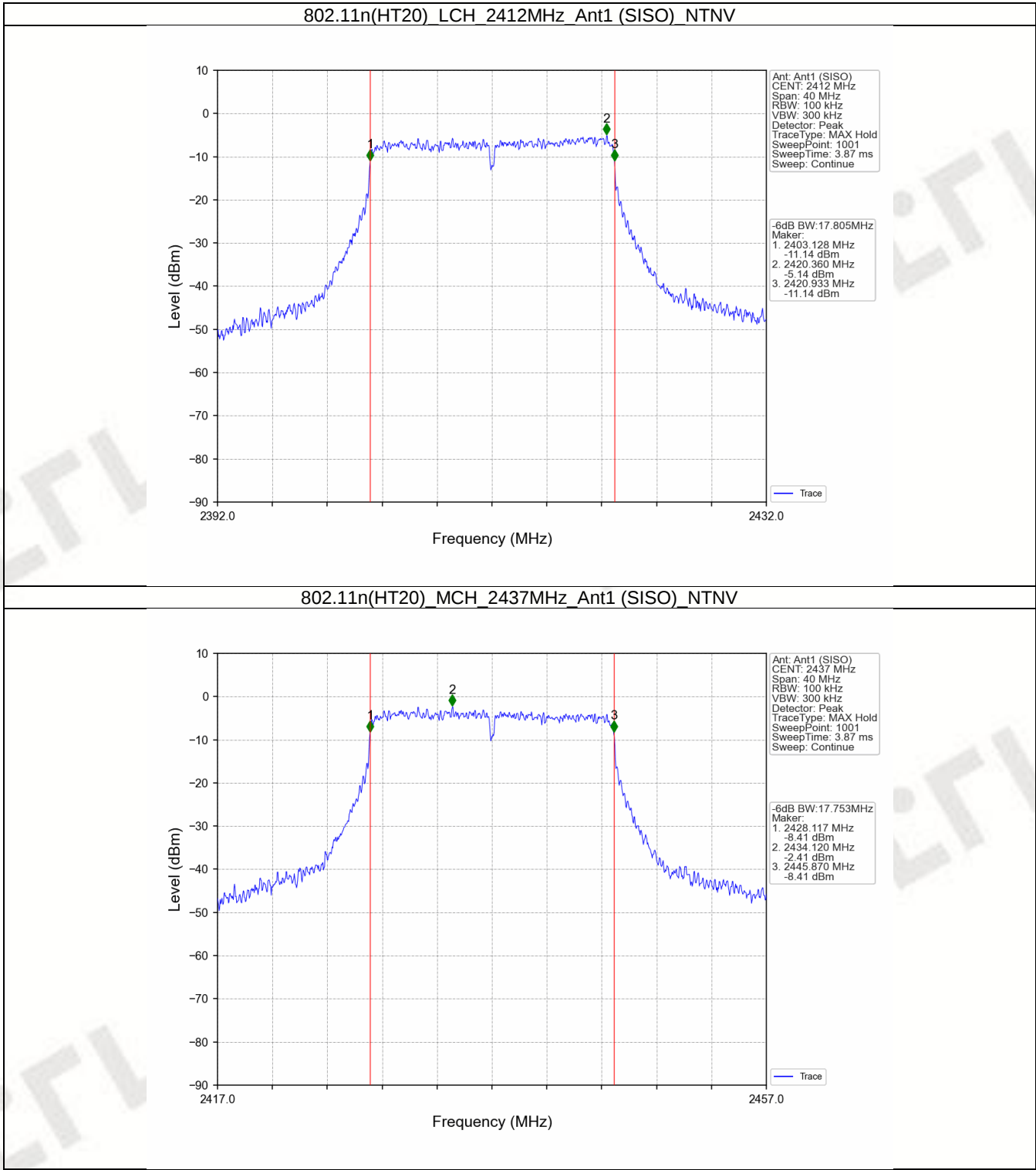
FCCID: 2BF2G-CP001



FCCID: 2BF2G-CP001

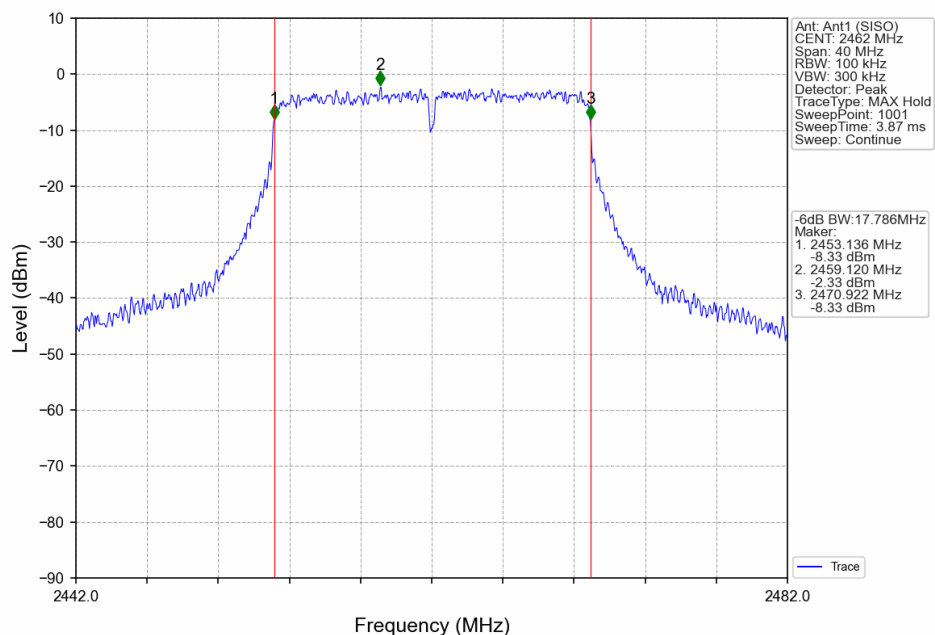


FCCID: 2BF2G-CP001

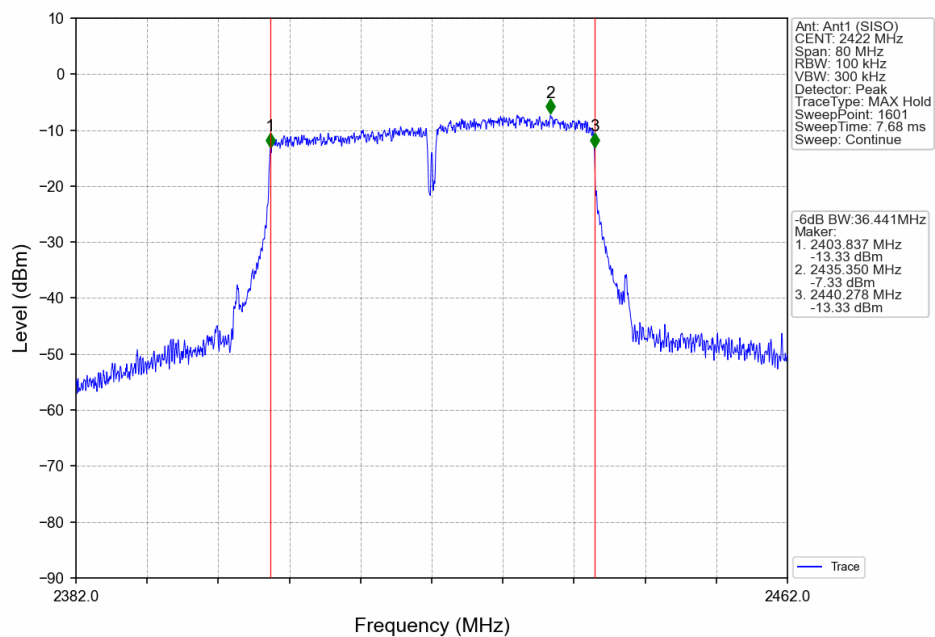


FCCID: 2BF2G-CP001

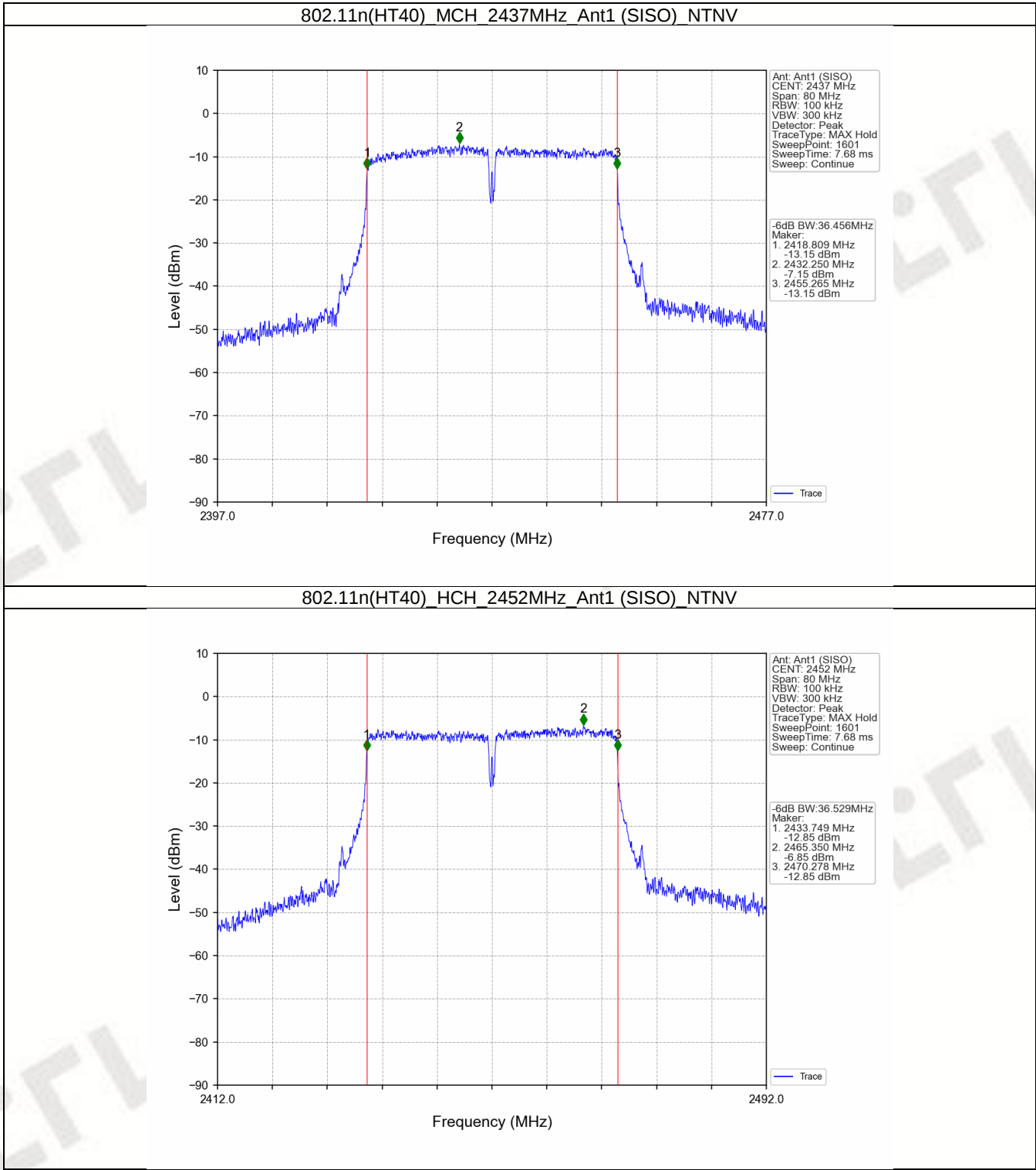
802.11n(HT20) HCH 2462MHz Ant1 (SISO) NTV



802.11n(HT40) LCH 2422MHz Ant1 (SISO) NTV



FCCID: 2BF2G-CP001



2. Maximum Conducted Output Power

2.1 Power

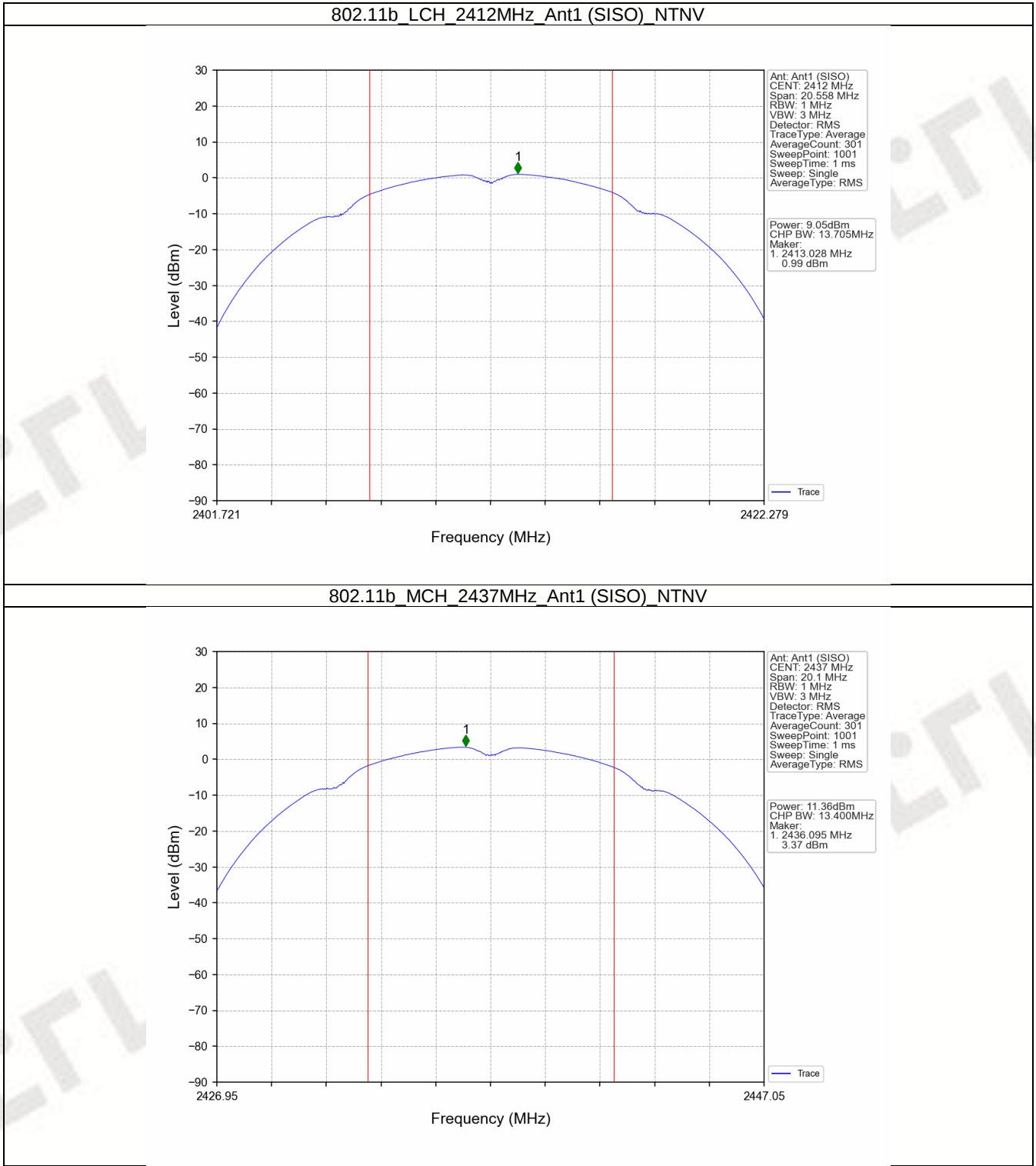
2.1.1 Test Result

Mode	TX Type	Frequency (MHz)	Maximum Average Conducted Output Power (dBm)		Verdict
			ANT1	Limit	
802.11b	SISO	2412	9.05	<=30	Pass
		2437	11.36	<=30	Pass
		2462	11.58	<=30	Pass
802.11g	SISO	2412	8.81	<=30	Pass
		2437	11.33	<=30	Pass
		2462	11.79	<=30	Pass
802.11n (HT20)	SISO	2412	8.72	<=30	Pass
		2437	11.26	<=30	Pass
		2462	11.66	<=30	Pass
802.11n (HT40)	SISO	2422	8.90	<=30	Pass
		2437	9.64	<=30	Pass
		2452	9.98	<=30	Pass

Note1: Antenna Gain: Ant1: 4.20dBi;

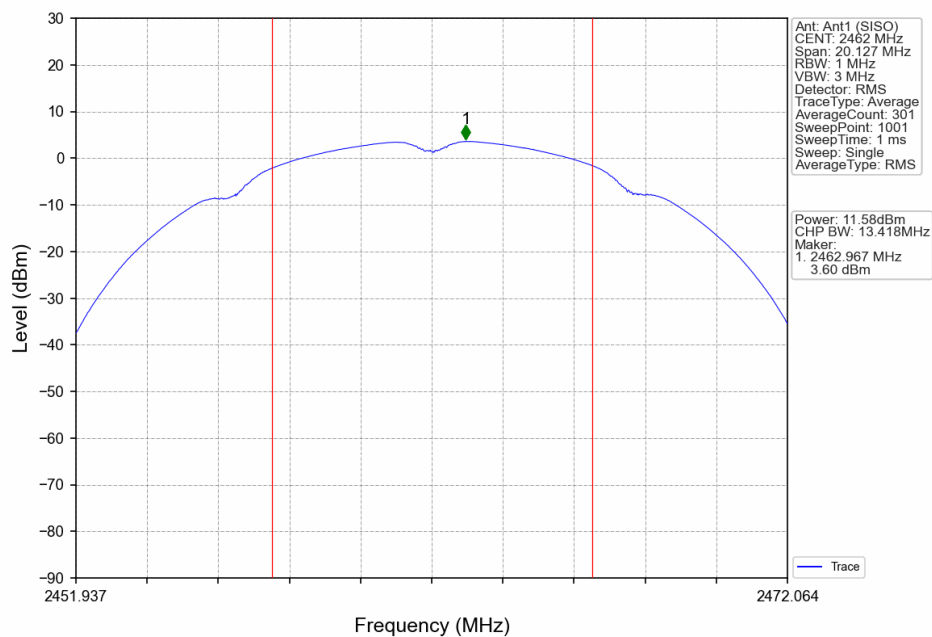
FCCID: 2BF2G-CP001

2.1.2 Test Graph

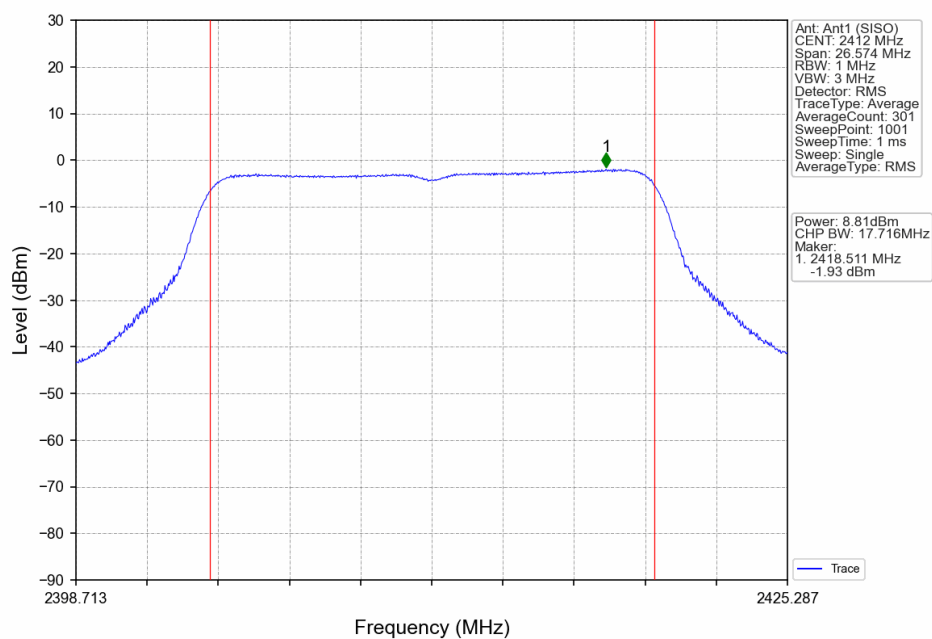


FCCID: 2BF2G-CP001

802.11b HCH 2462MHz Ant1 (SISO) NTN

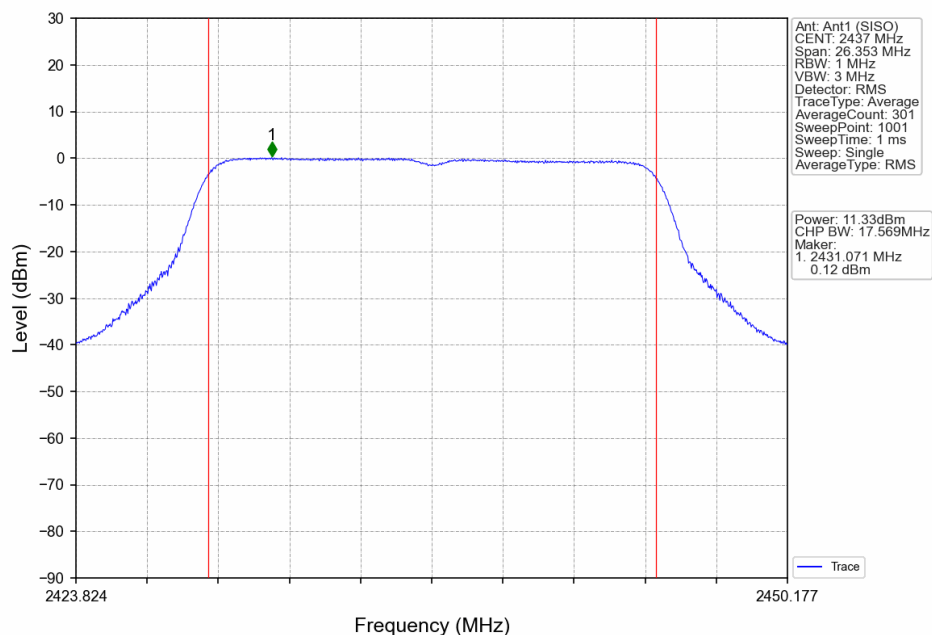


802.11g LCH 2412MHz Ant1 (SISO) NTN

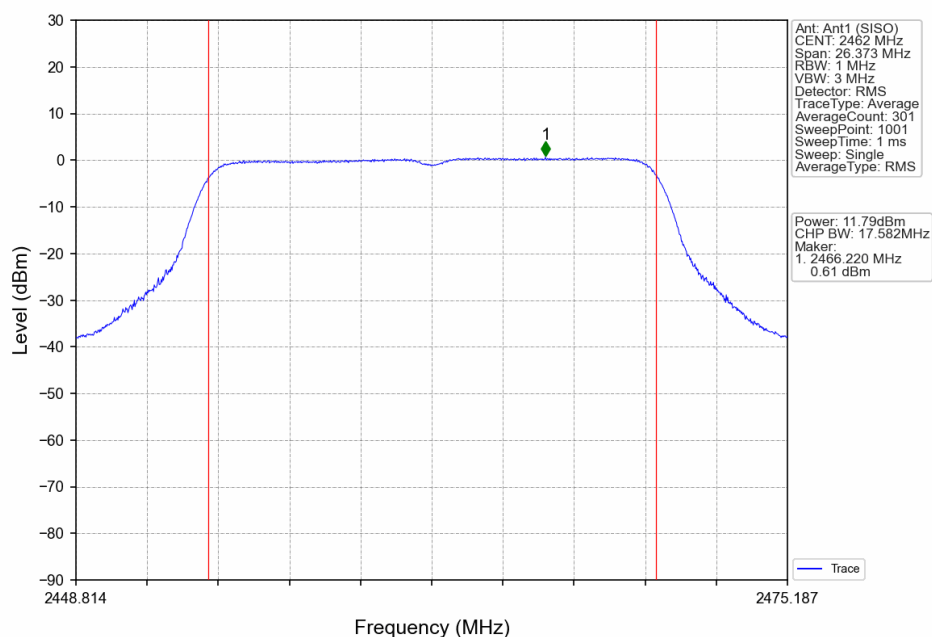


FCCID: 2BF2G-CP001

802.11g MCH 2437MHz Ant1 (SISO) NTN

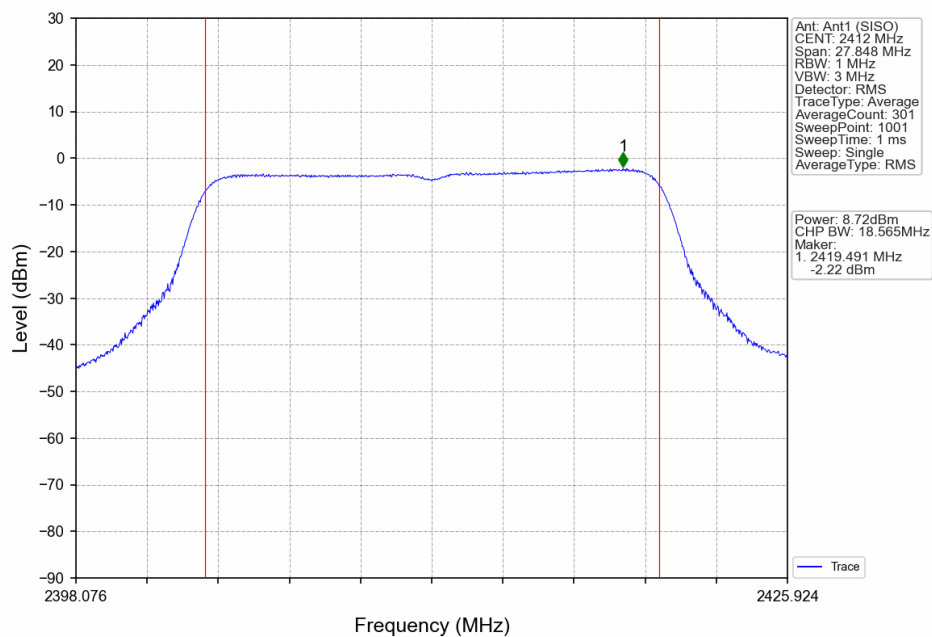


802.11g_HCH_2462MHz_Ant1 (SISO)_NTNV

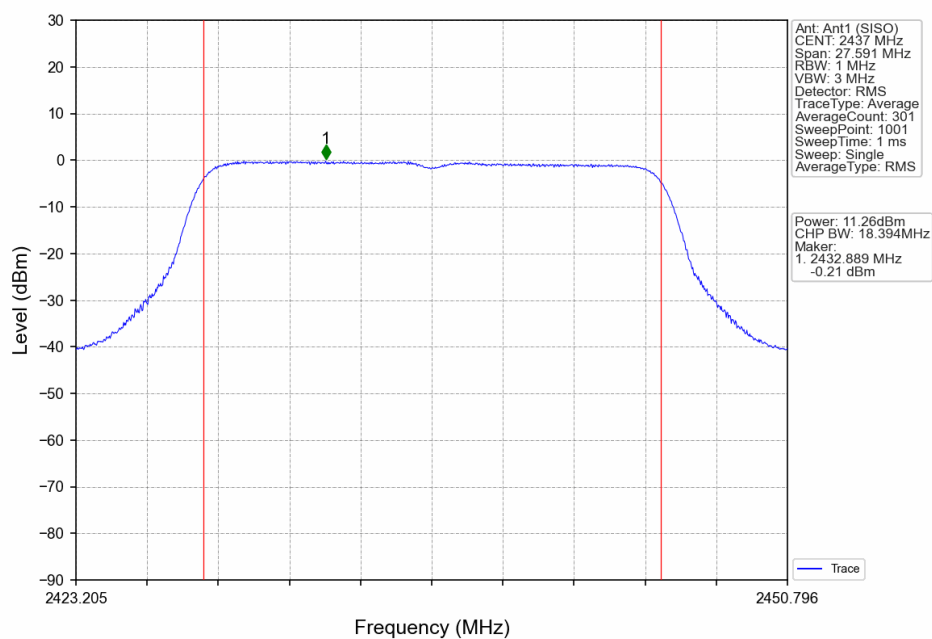


FCCID: 2BF2G-CP001

802.11n(HT20)_LCH_2412MHz_Ant1 (SISO)_NTNV

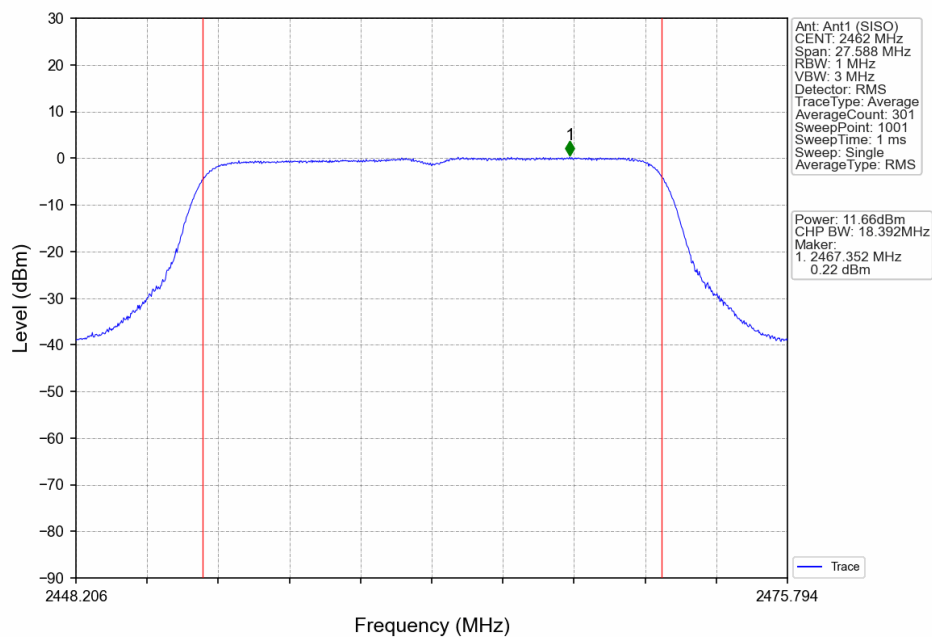


802.11n(HT20)_MCH_2437MHz_Ant1 (SISO)_NTNV

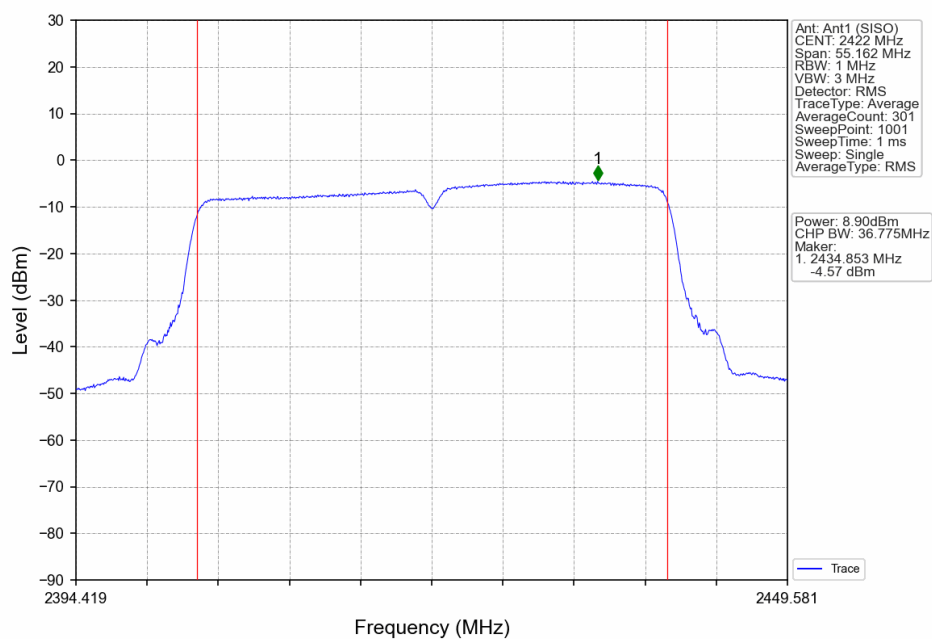


FCCID: 2BF2G-CP001

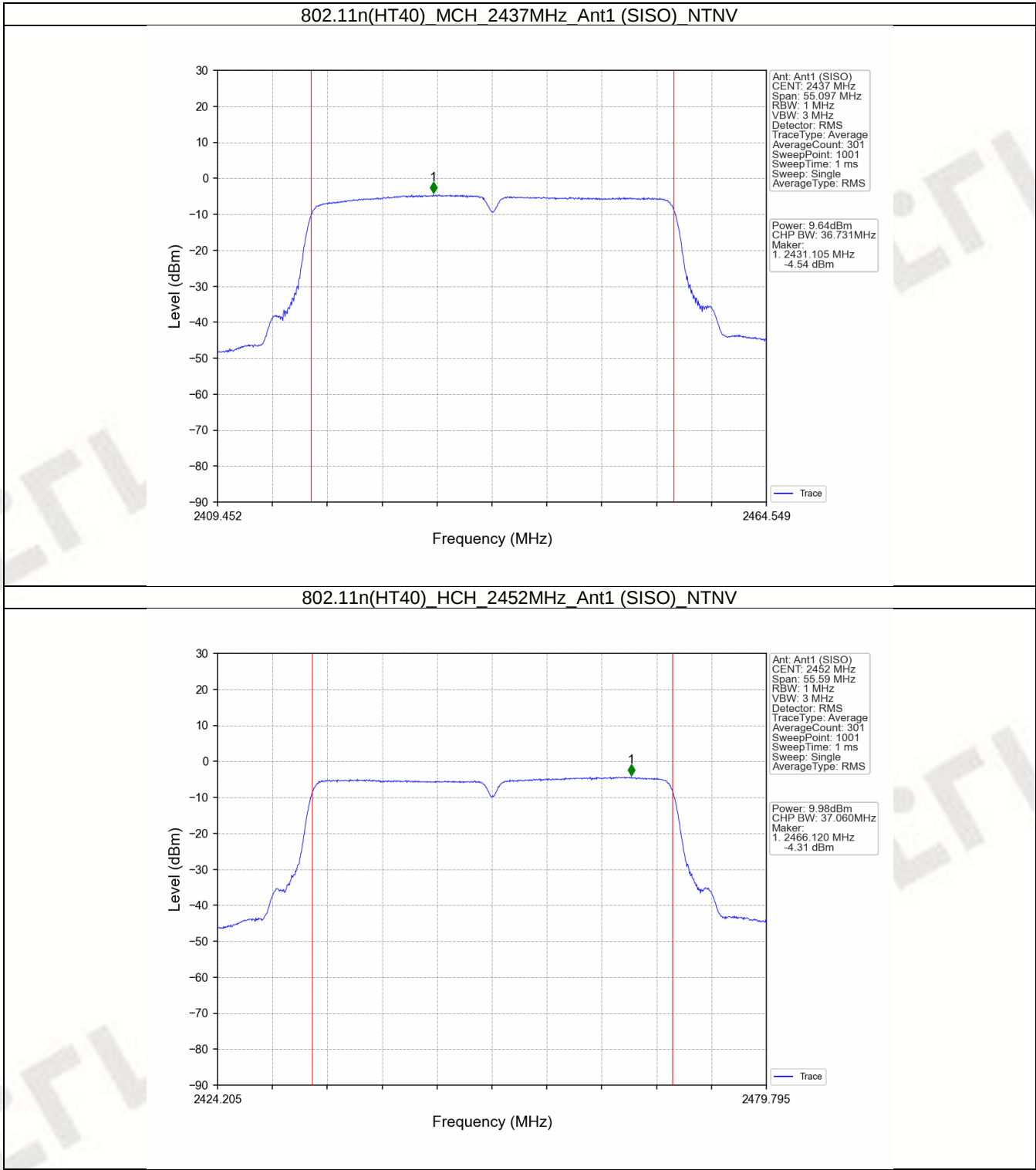
802.11n(HT20) HCH 2462MHz Ant1 (SISO) NTNV



802.11n(HT40) LCH 2422MHz Ant1 (SISO) NTNV



FCCID: 2BF2G-CP001



3. Maximum Power Spectral Density

3.1 PSD

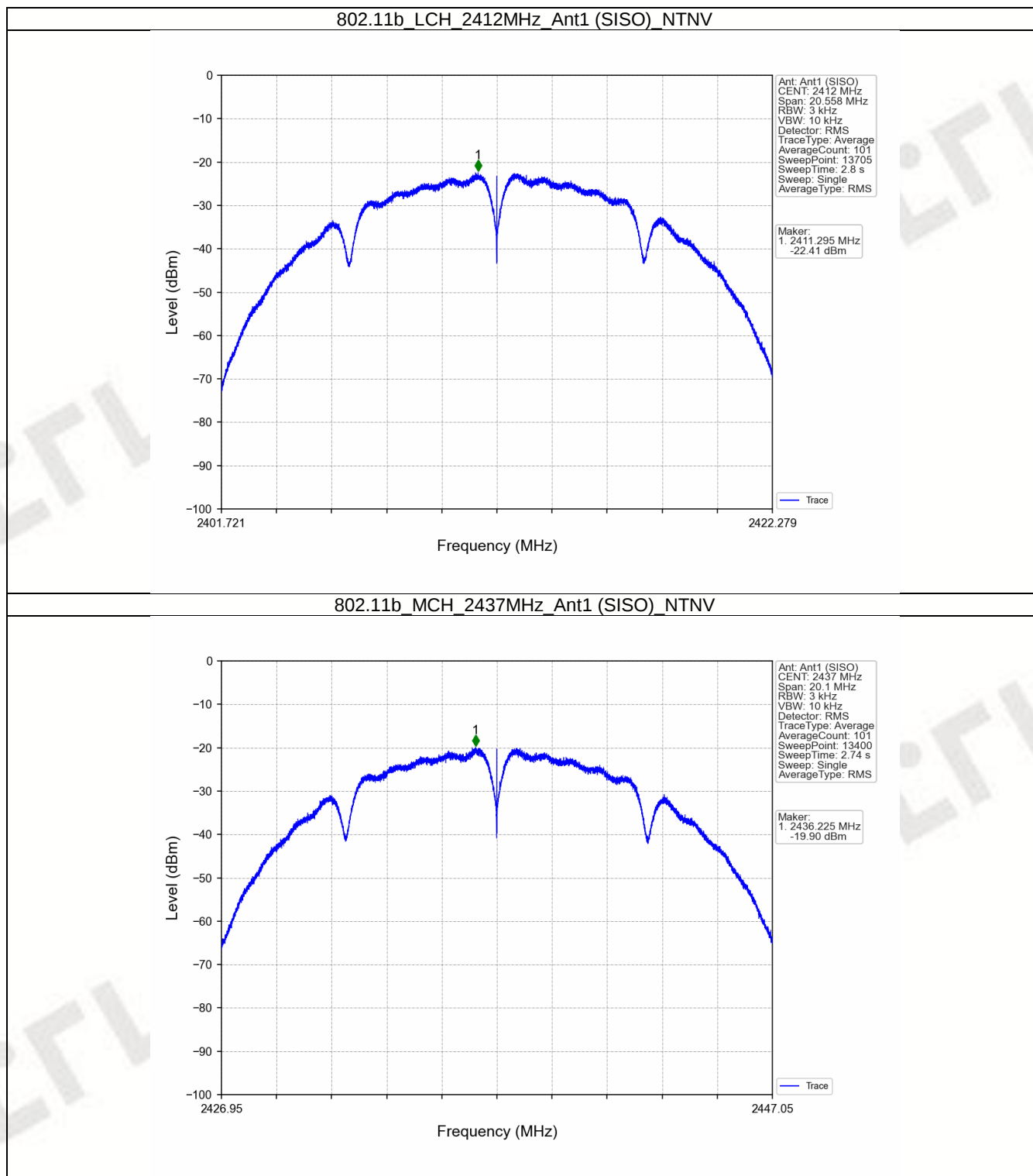
3.1.1 Test Result

Mode	TX Type	Frequency (MHz)	Maximum PSD (dBm/3kHz)		Verdict
			ANT1	Limit	
802.11b	SISO	2412	-22.41	<=8	Pass
		2437	-19.90	<=8	Pass
		2462	-19.71	<=8	Pass
802.11g	SISO	2412	-18.67	<=8	Pass
		2437	-16.08	<=8	Pass
		2462	-17.29	<=8	Pass
802.11n (HT20)	SISO	2412	-18.69	<=8	Pass
		2437	-15.98	<=8	Pass
		2462	-17.44	<=8	Pass
802.11n (HT40)	SISO	2422	-17.83	<=8	Pass
		2437	-17.77	<=8	Pass
		2452	-17.36	<=8	Pass

Note1: Antenna Gain: Ant1: 4.20dBi;

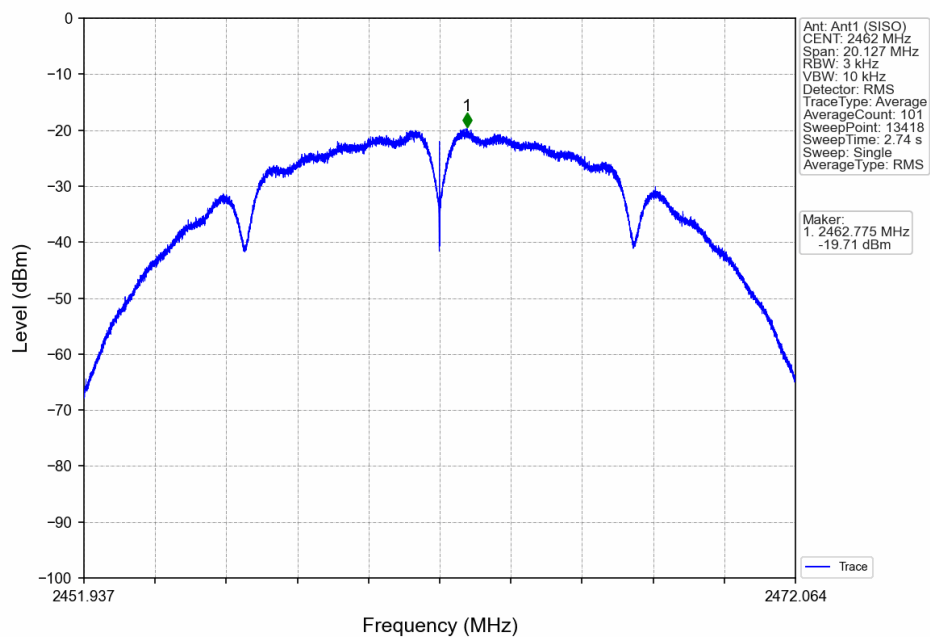
FCCID: 2BF2G-CP001

3.1.2 Test Graph

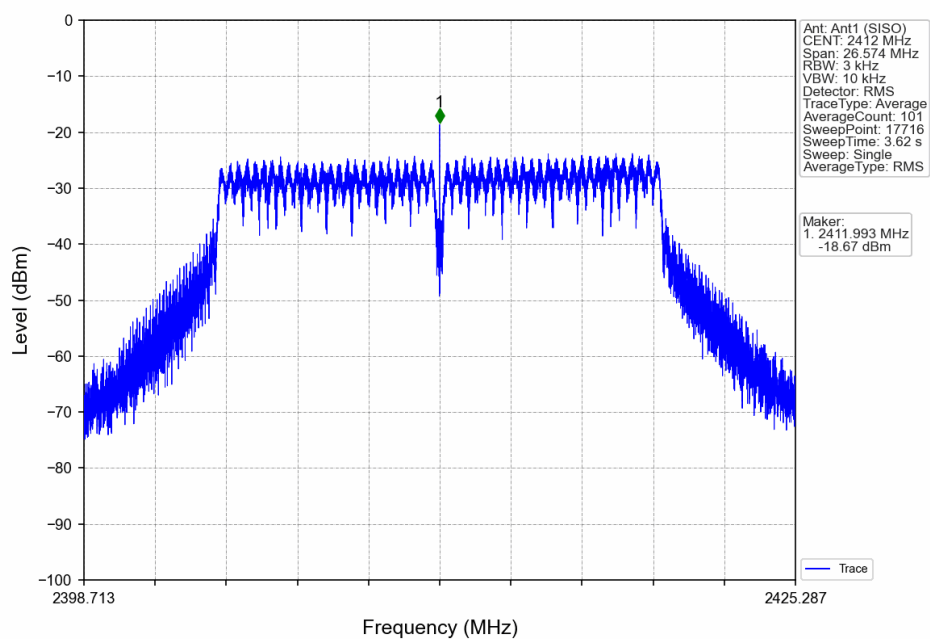


FCCID: 2BF2G-CP001

802.11b HCH 2462MHz Ant1 (SISO) NTN

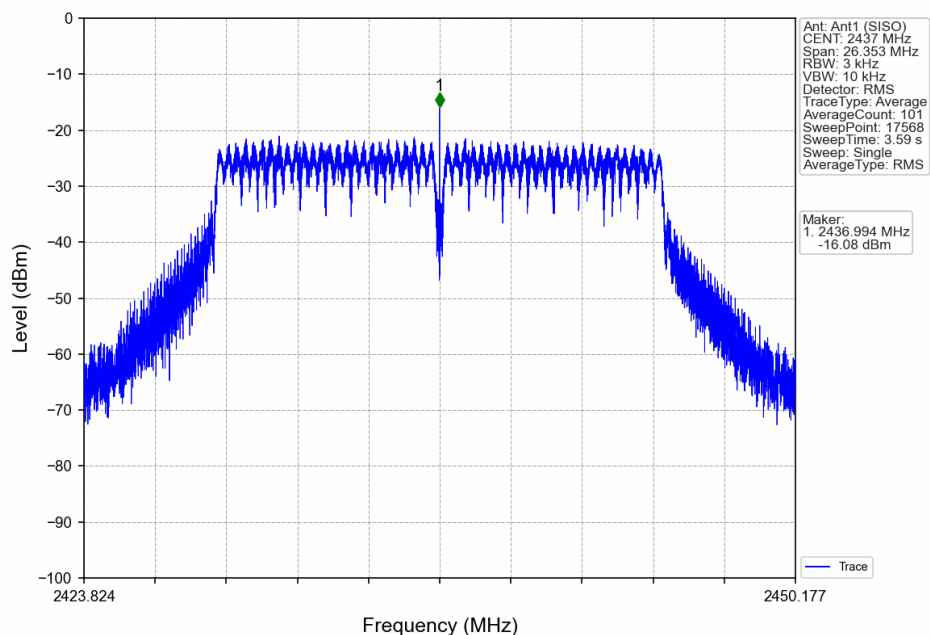


802.11g LCH 2412MHz Ant1 (SISO) NTN

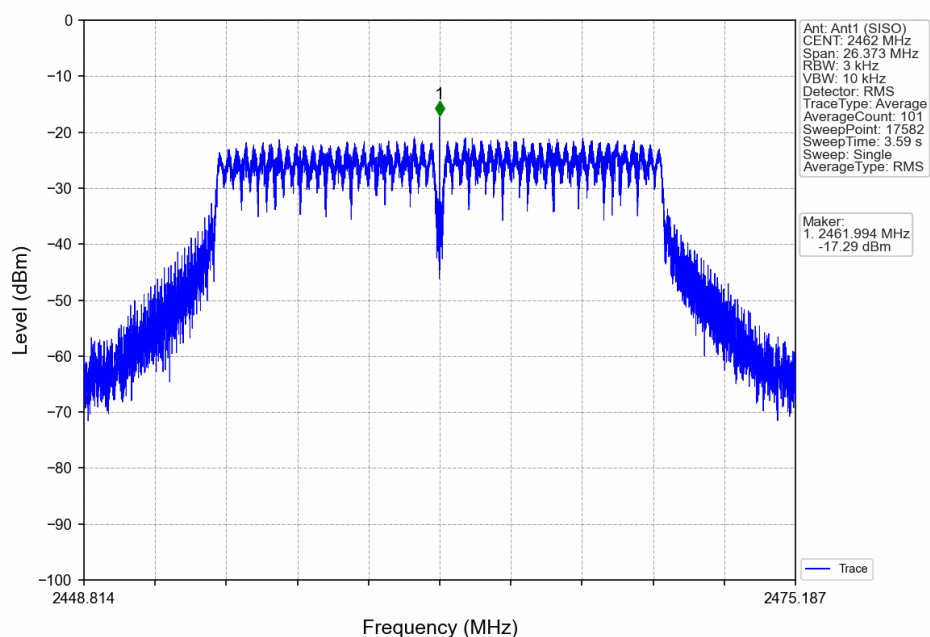


FCCID: 2BF2G-CP001

802.11g MCH 2437MHz Ant1 (SISO) NTN

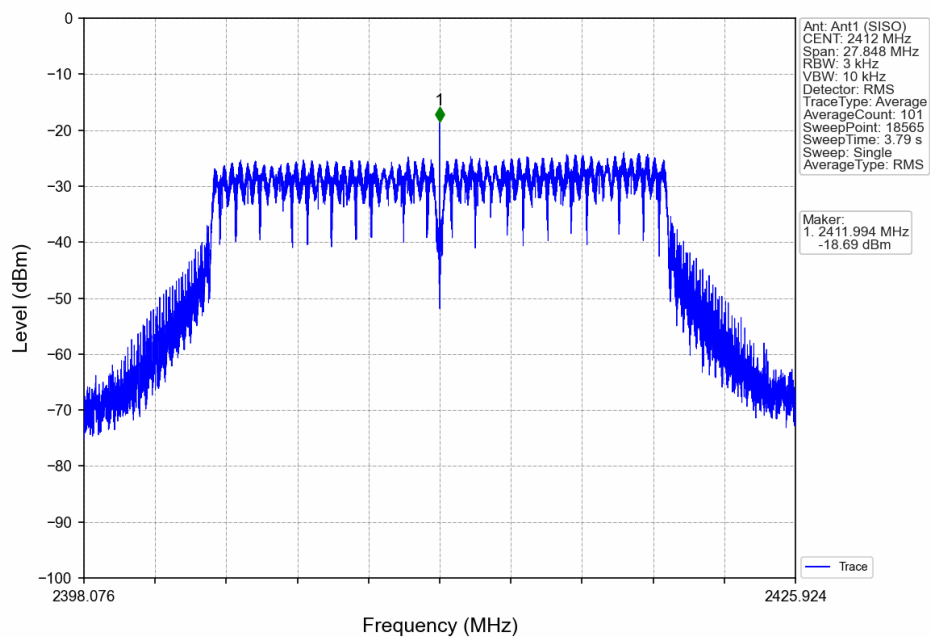


802.11g_HCH_2462MHz_Ant1 (SISO)_NTNV

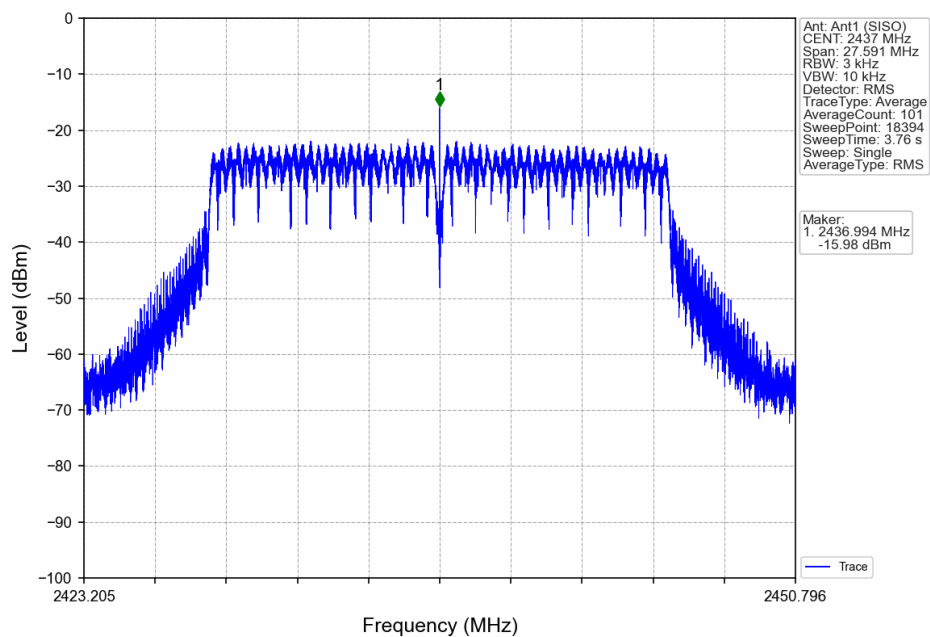


FCCID: 2BF2G-CP001

802.11n(HT20)_LCH_2412MHz_Ant1 (SISO)_NTNV

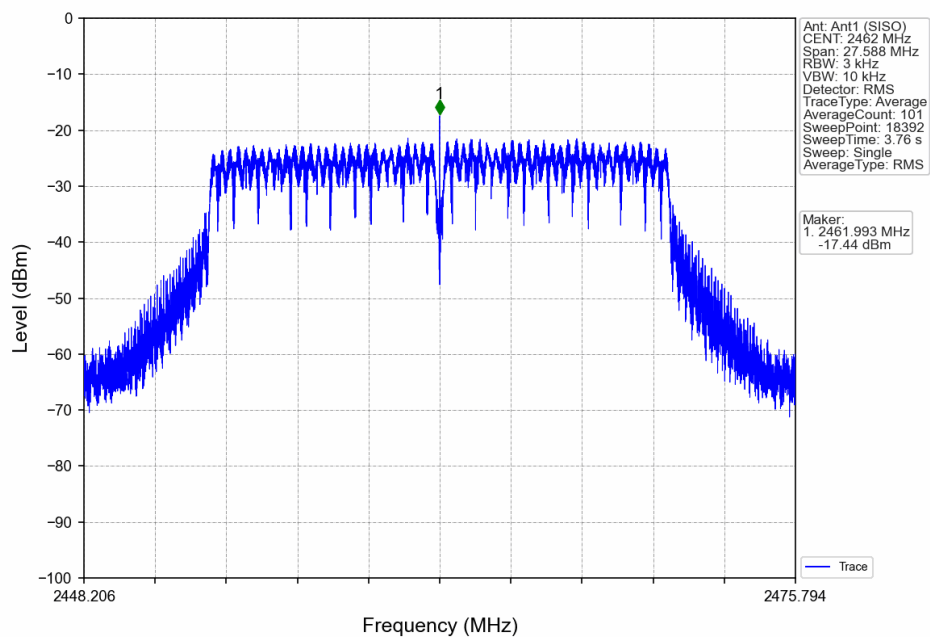


802.11n(HT20)_MCH_2437MHz_Ant1 (SISO)_NTNV

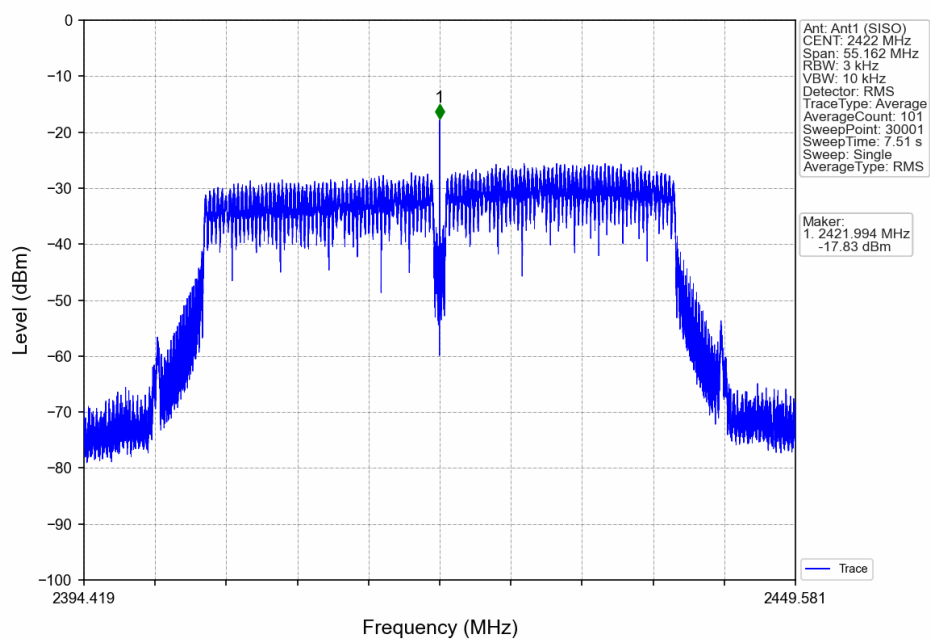


FCCID: 2BF2G-CP001

802.11n(HT20) HCH 2462MHz Ant1 (SISO) NTV

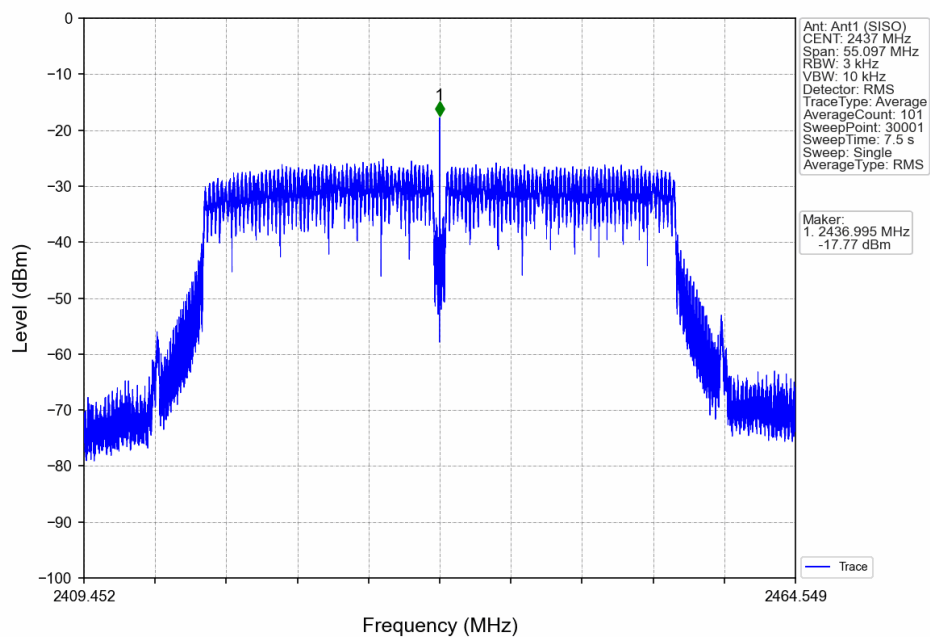


802.11n(HT40) LCH 2422MHz Ant1 (SISO) NTV

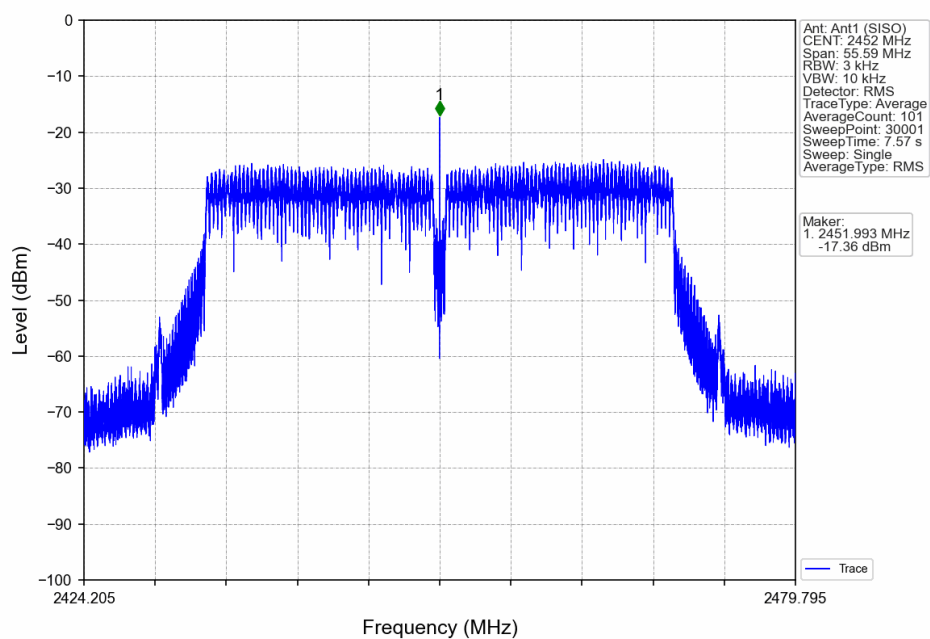


FCCID: 2BF2G-CP001

802.11n(HT40) MCH 2437MHz Ant1 (SISO) NTNV



802.11n(HT40) HCH 2452MHz Ant1 (SISO) NTNV



4. Unwanted Emissions In Non-restricted Frequency Bands

4.1 Ref

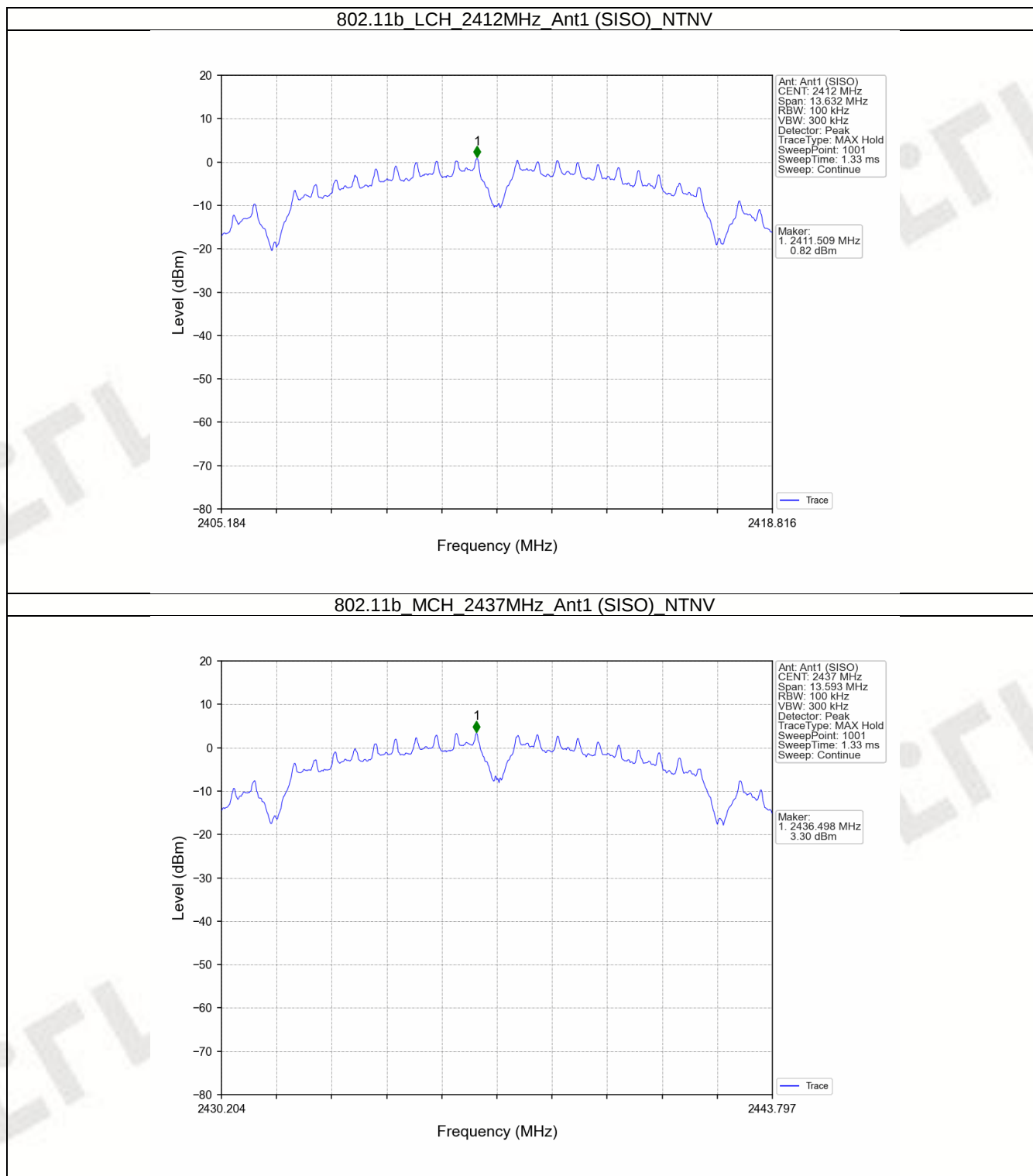
4.1.1 Test Result

Mode	TX Type	Frequency (MHz)	ANT	Level of Reference (dBm)
802.11b	SISO	2412	1	0.82
		2437	1	3.30
		2462	1	3.40
802.11g	SISO	2412	1	-5.11
		2437	1	-2.83
		2462	1	-2.44
802.11n (HT20)	SISO	2412	1	-5.22
		2437	1	-2.44
		2462	1	-2.41
802.11n (HT40)	SISO	2422	1	-7.35
		2437	1	-7.30
		2452	1	-6.85

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.

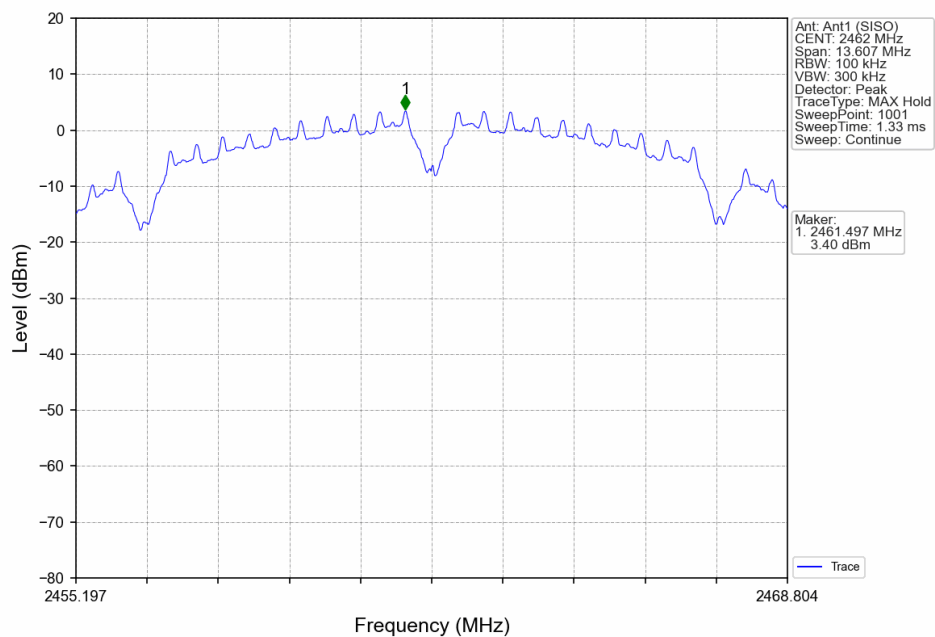
FCCID: 2BF2G-CP001

4.1.2 Test Graph

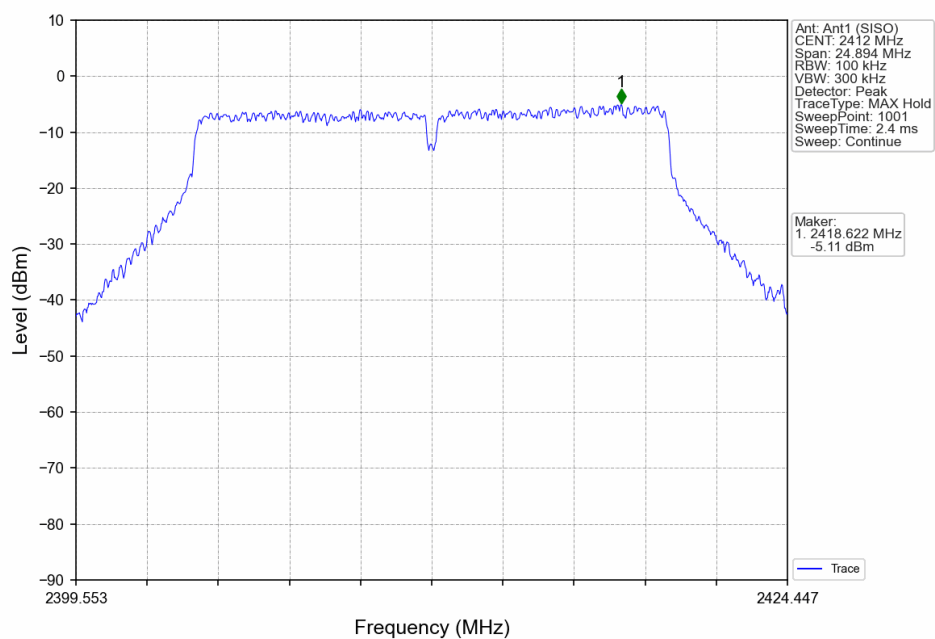


FCCID: 2BF2G-CP001

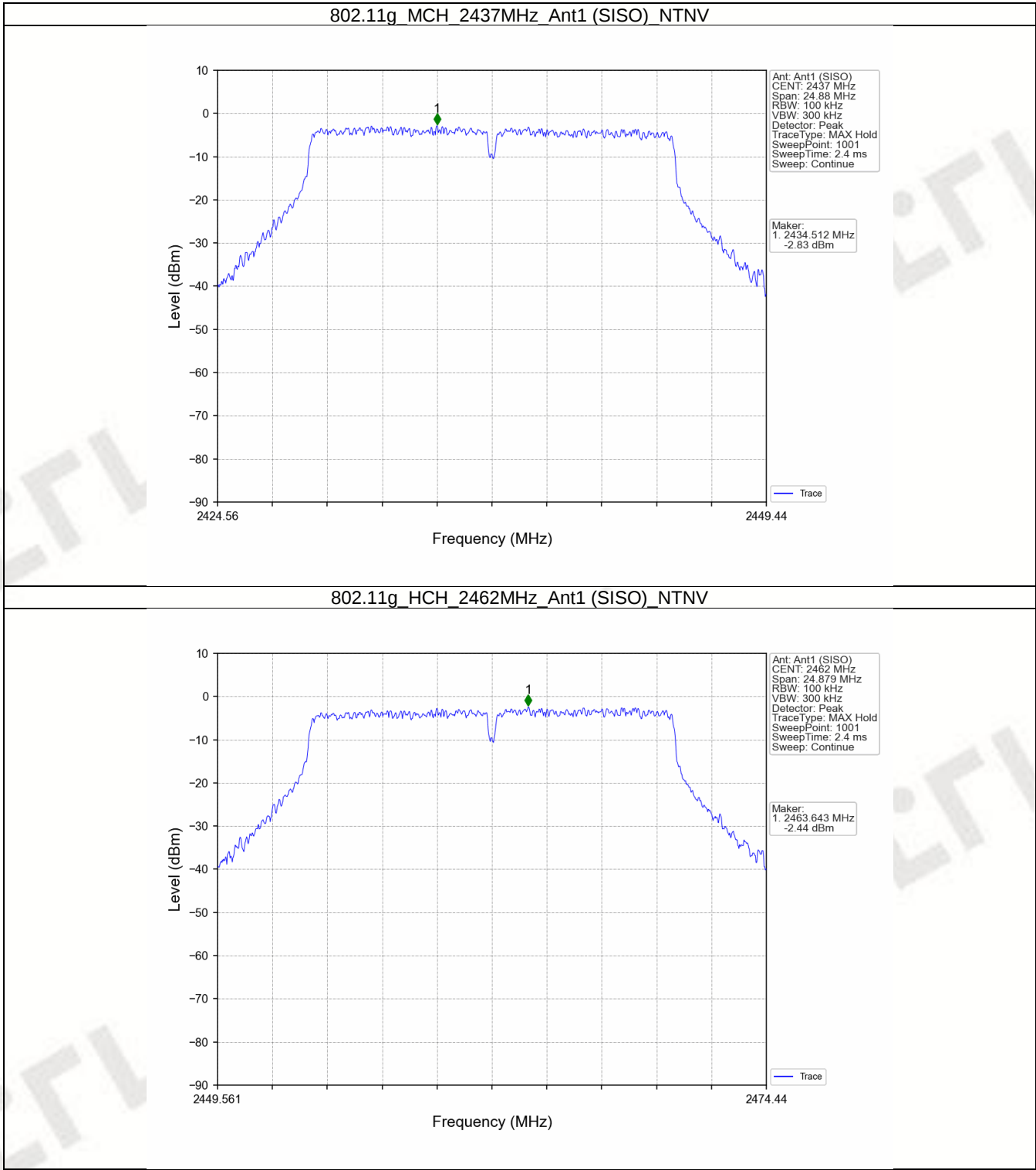
802.11b HCH 2462MHz Ant1 (SISO) NTN



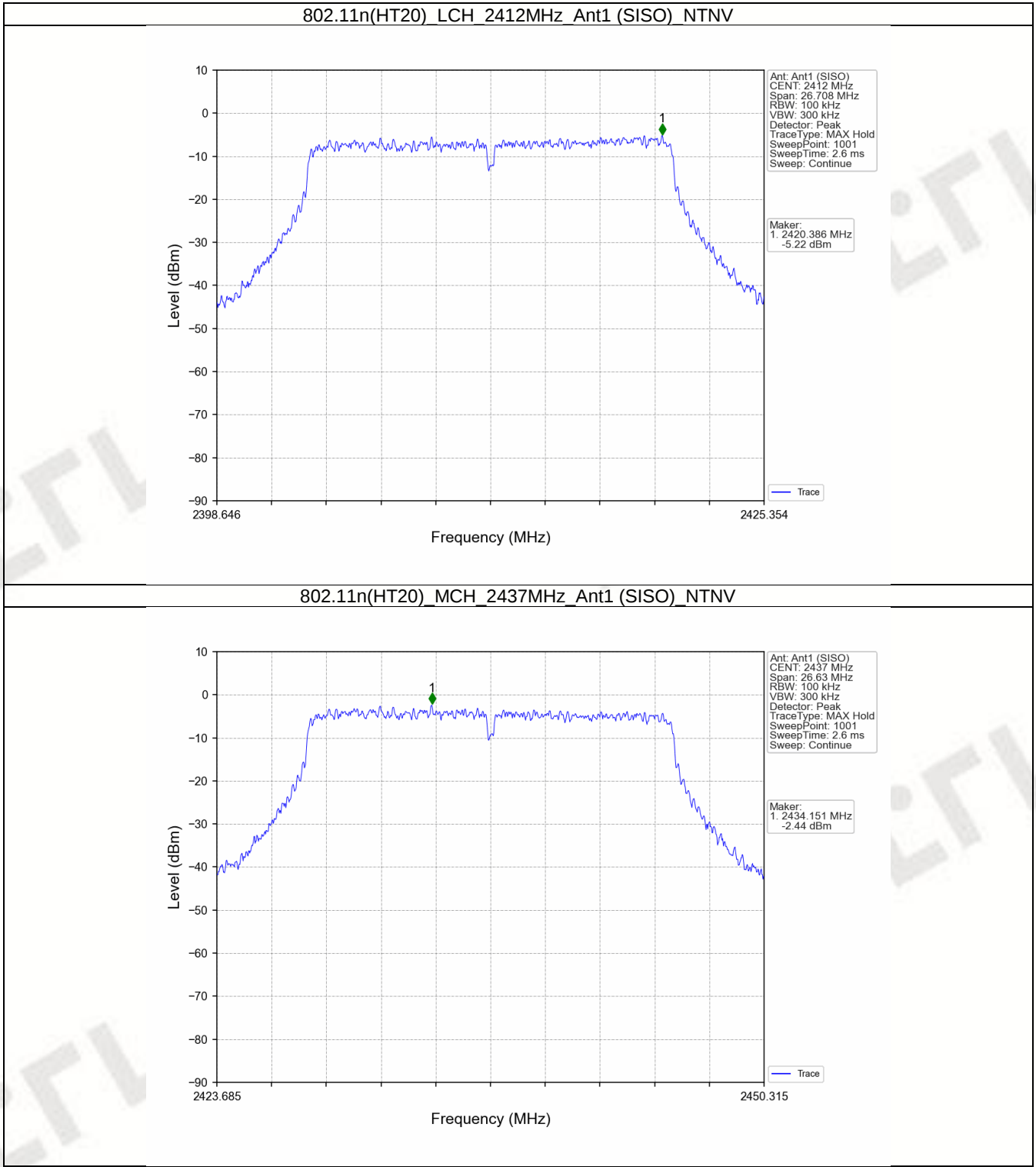
802.11g LCH 2412MHz Ant1 (SISO) NTN



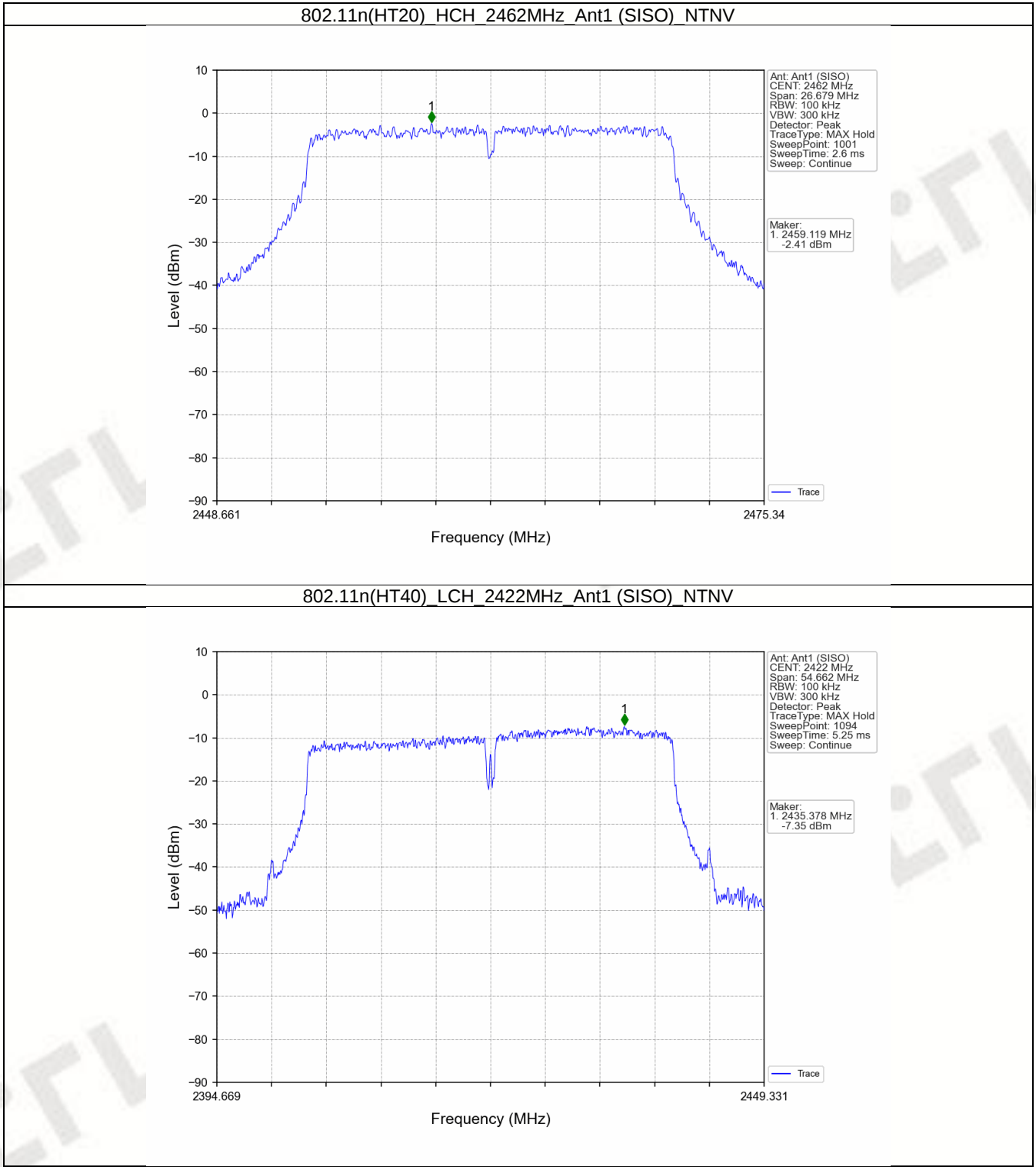
FCCID: 2BF2G-CP001



FCCID: 2BF2G-CP001

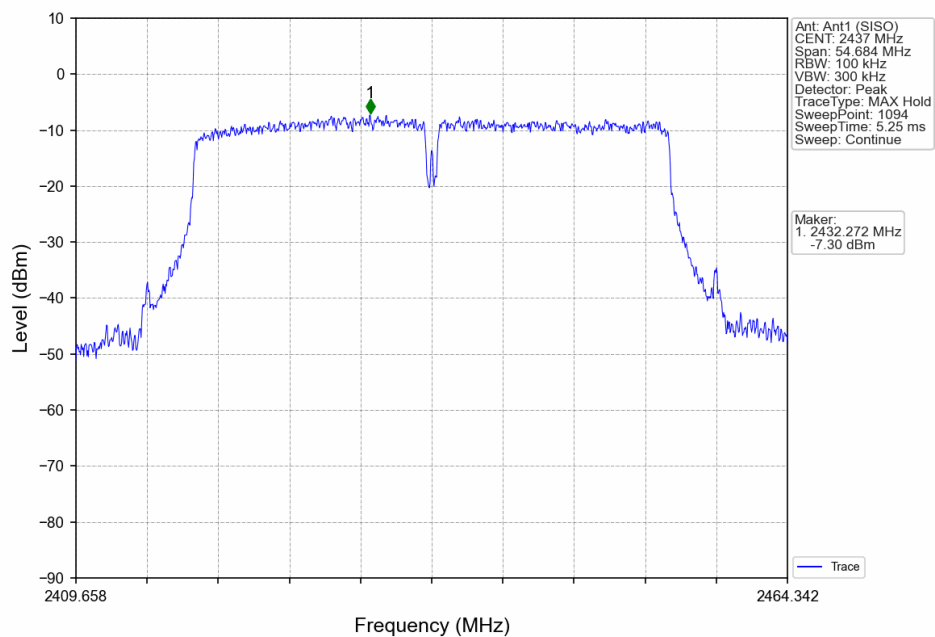


FCCID: 2BF2G-CP001

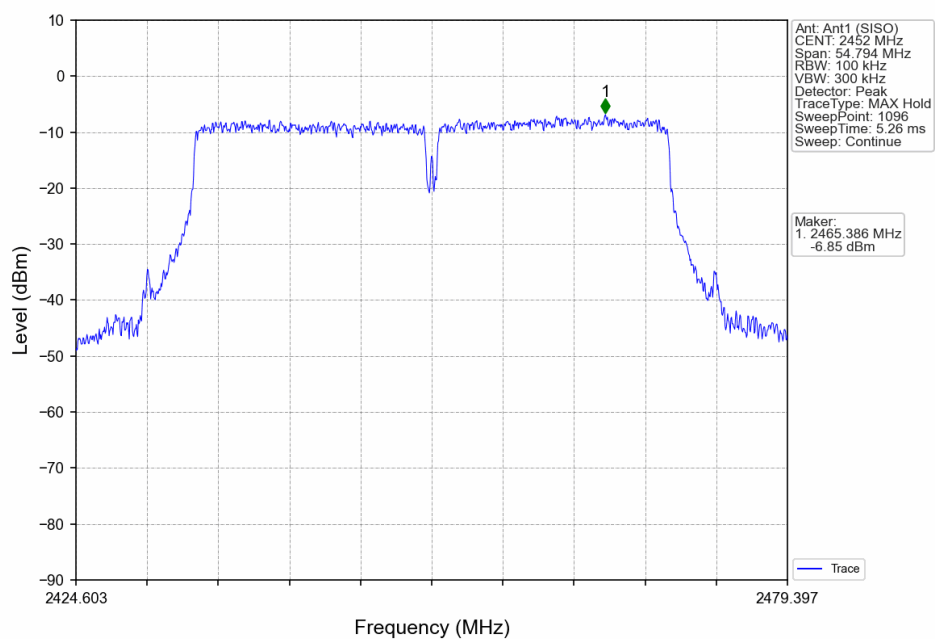


FCCID: 2BF2G-CP001

802.11n(HT40) MCH 2437MHz Ant1 (SISO) NTNV



802.11n(HT40) HCH 2452MHz Ant1 (SISO) NTNV



4.2 CSE

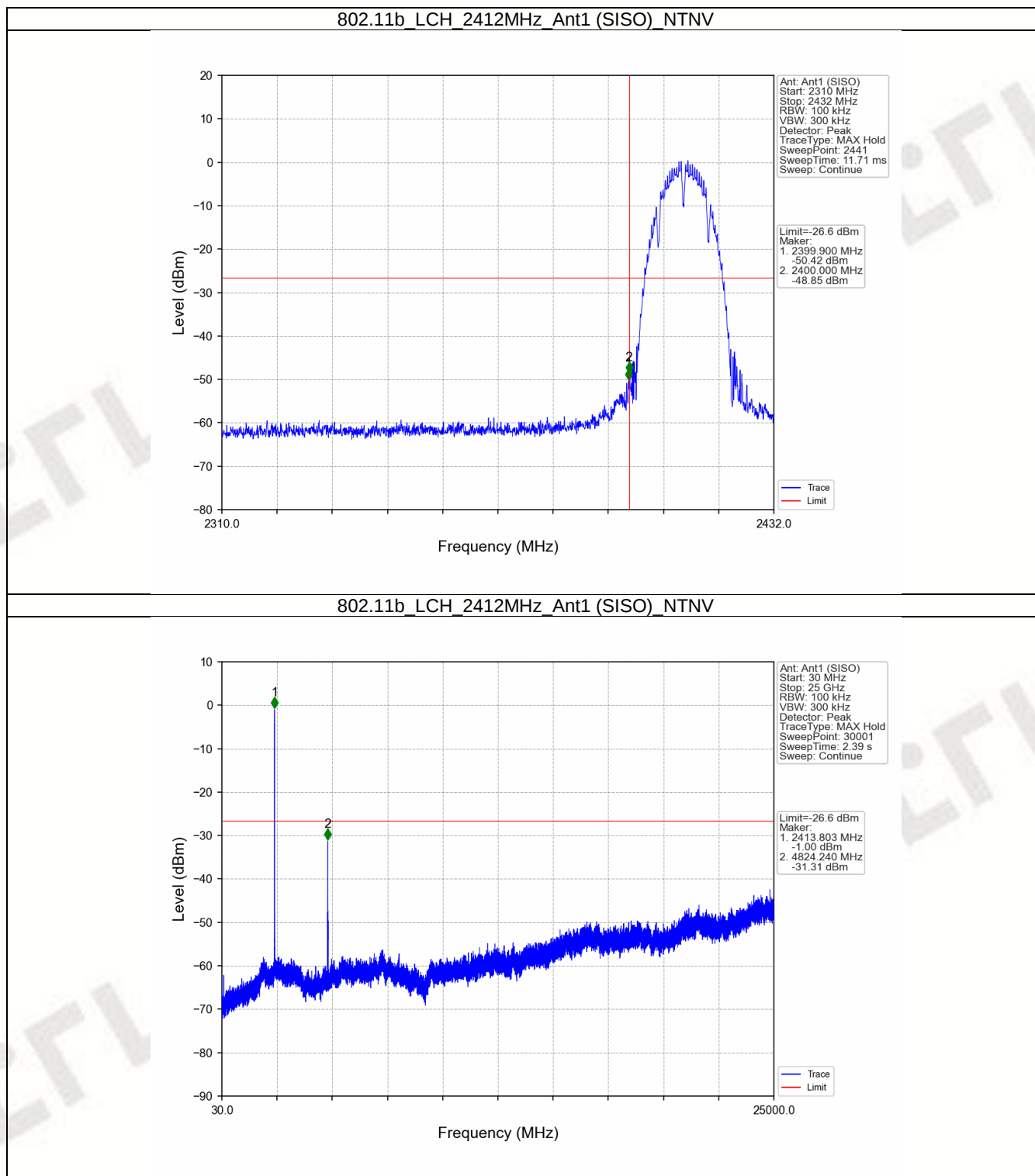
4.2.1 Test Result

Mode	TX Type	Frequency (MHz)	ANT	Level of Reference (dBm)	Limit (dBm)	Verdict
802.11b	SISO	2412	1	3.40	-26.60	Pass
		2437	1	3.40	-26.60	Pass
		2462	1	3.40	-26.60	Pass
802.11g	SISO	2412	1	-2.44	-32.44	Pass
		2437	1	-2.44	-32.44	Pass
		2462	1	-2.44	-32.44	Pass
802.11n (HT20)	SISO	2412	1	-2.41	-32.41	Pass
		2437	1	-2.41	-32.41	Pass
		2462	1	-2.41	-32.41	Pass
802.11n (HT40)	SISO	2422	1	-6.85	-36.85	Pass
		2437	1	-6.85	-36.85	Pass
		2452	1	-6.85	-36.85	Pass

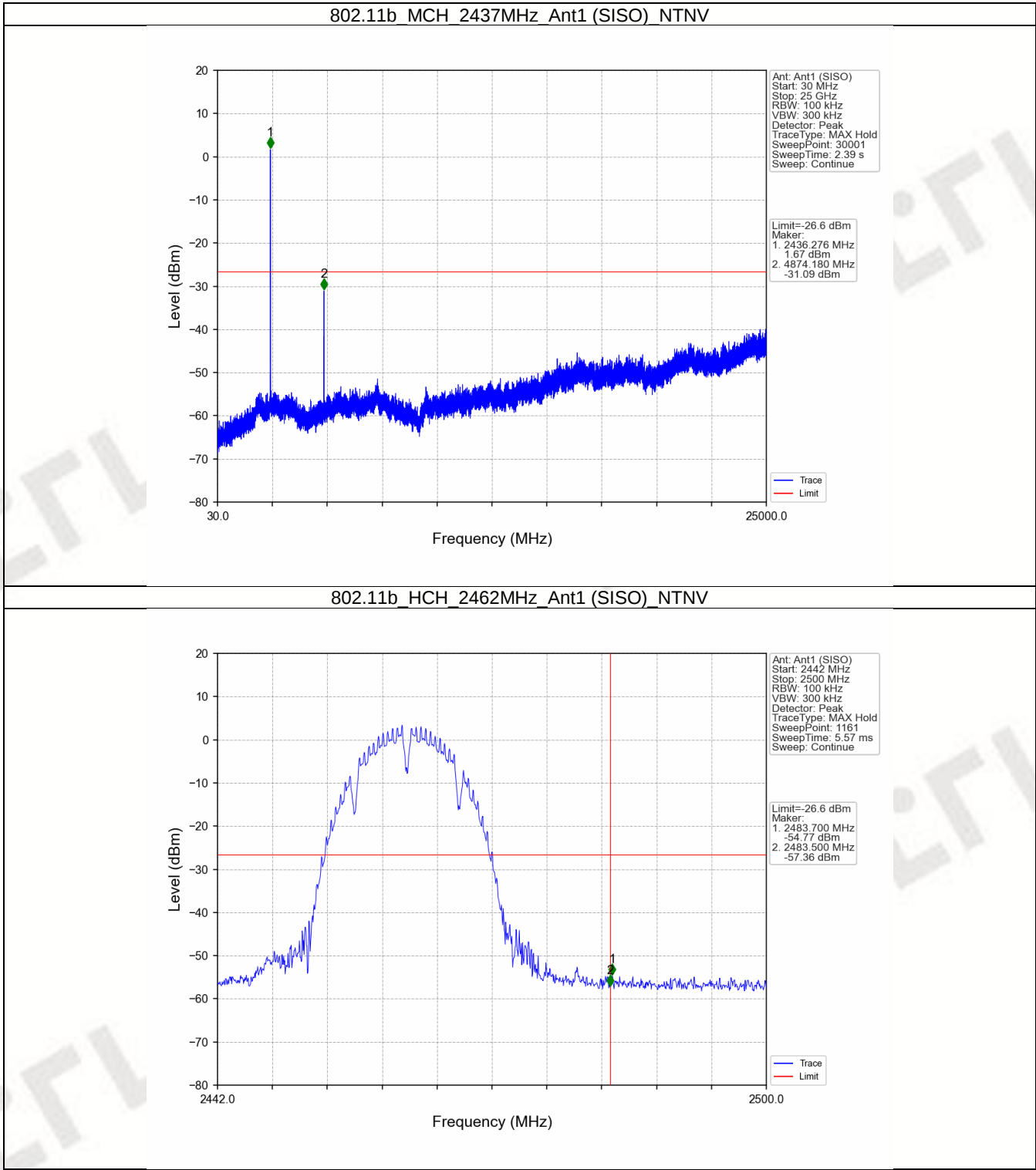
Note1: Refer to FCC Part 15.247 (d) and ANSI C63.10-2013, the channel contains the maximum PSD level was used to establish the reference level.

FCCID: 2BF2G-CP001

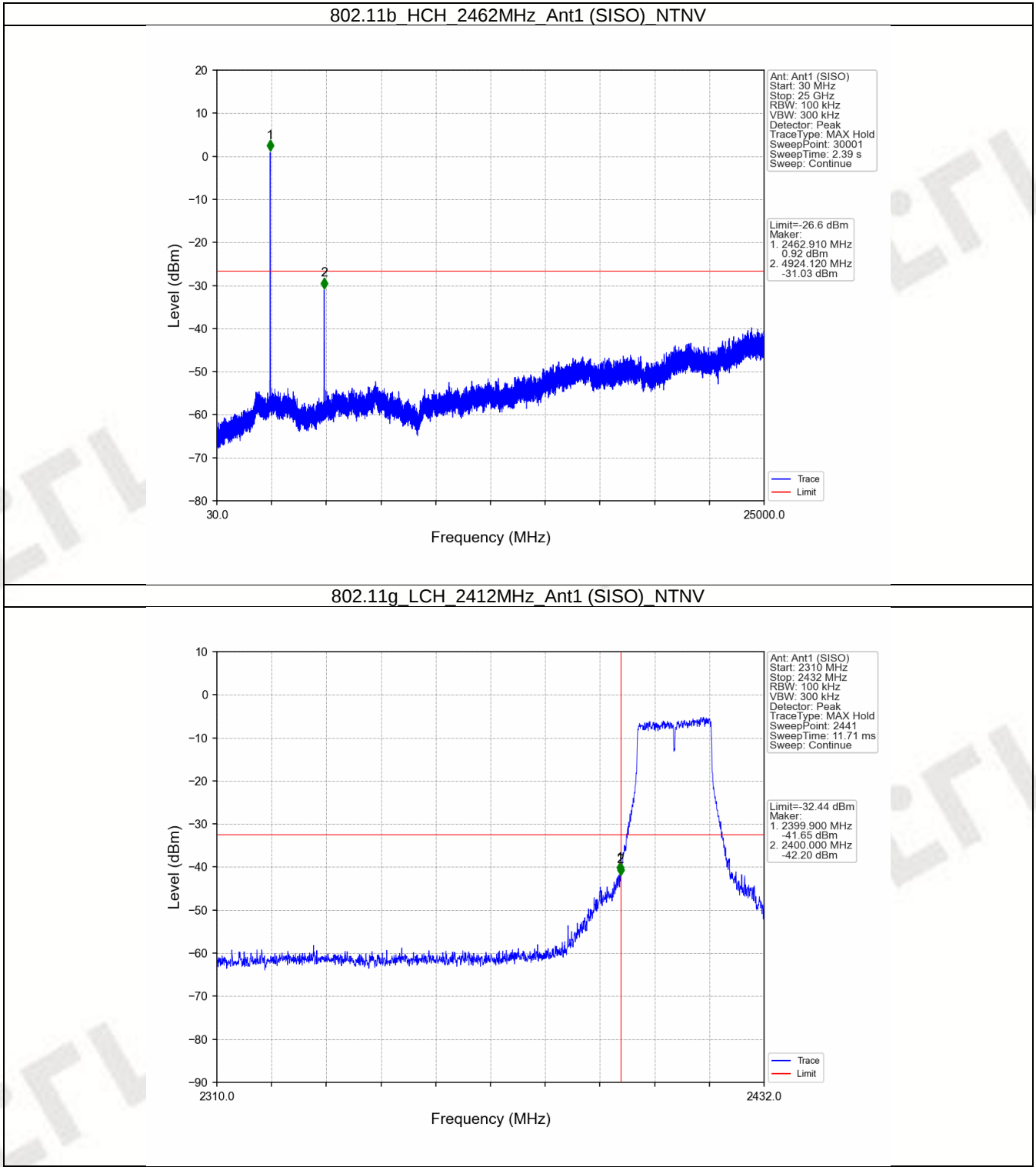
4.2.2 Test Graph



FCCID: 2BF2G-CP001

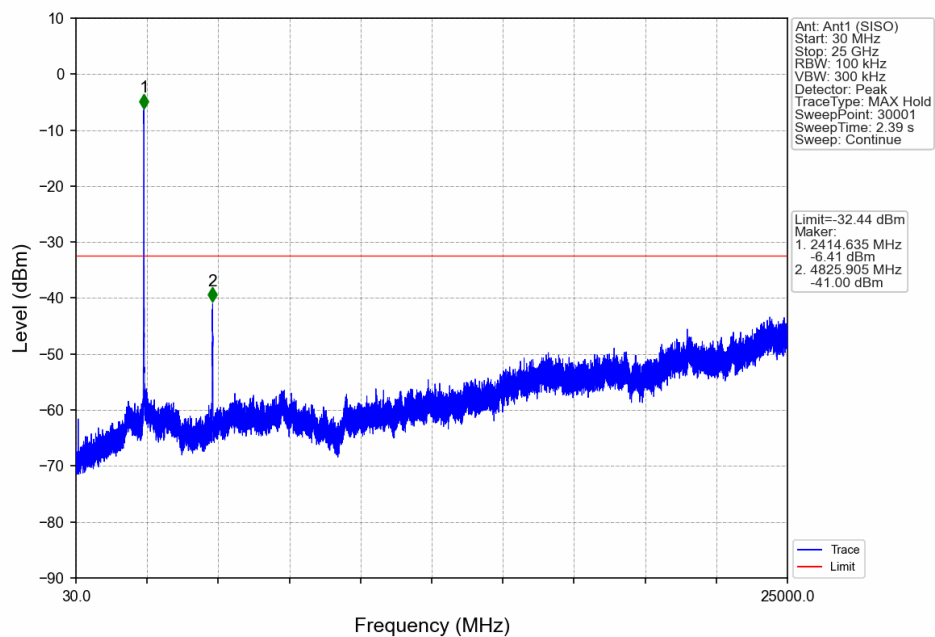


FCCID: 2BF2G-CP001

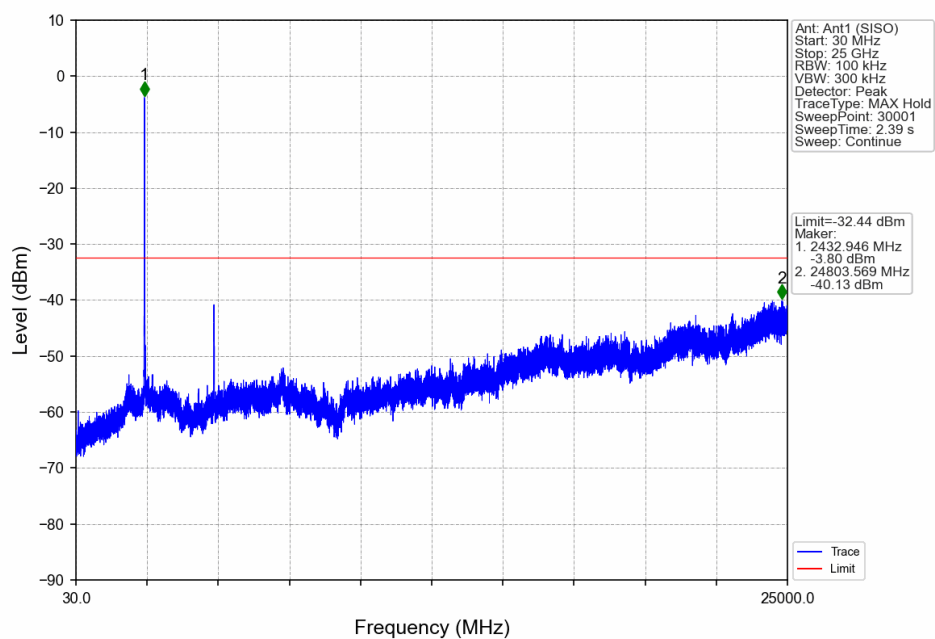


FCCID: 2BF2G-CP001

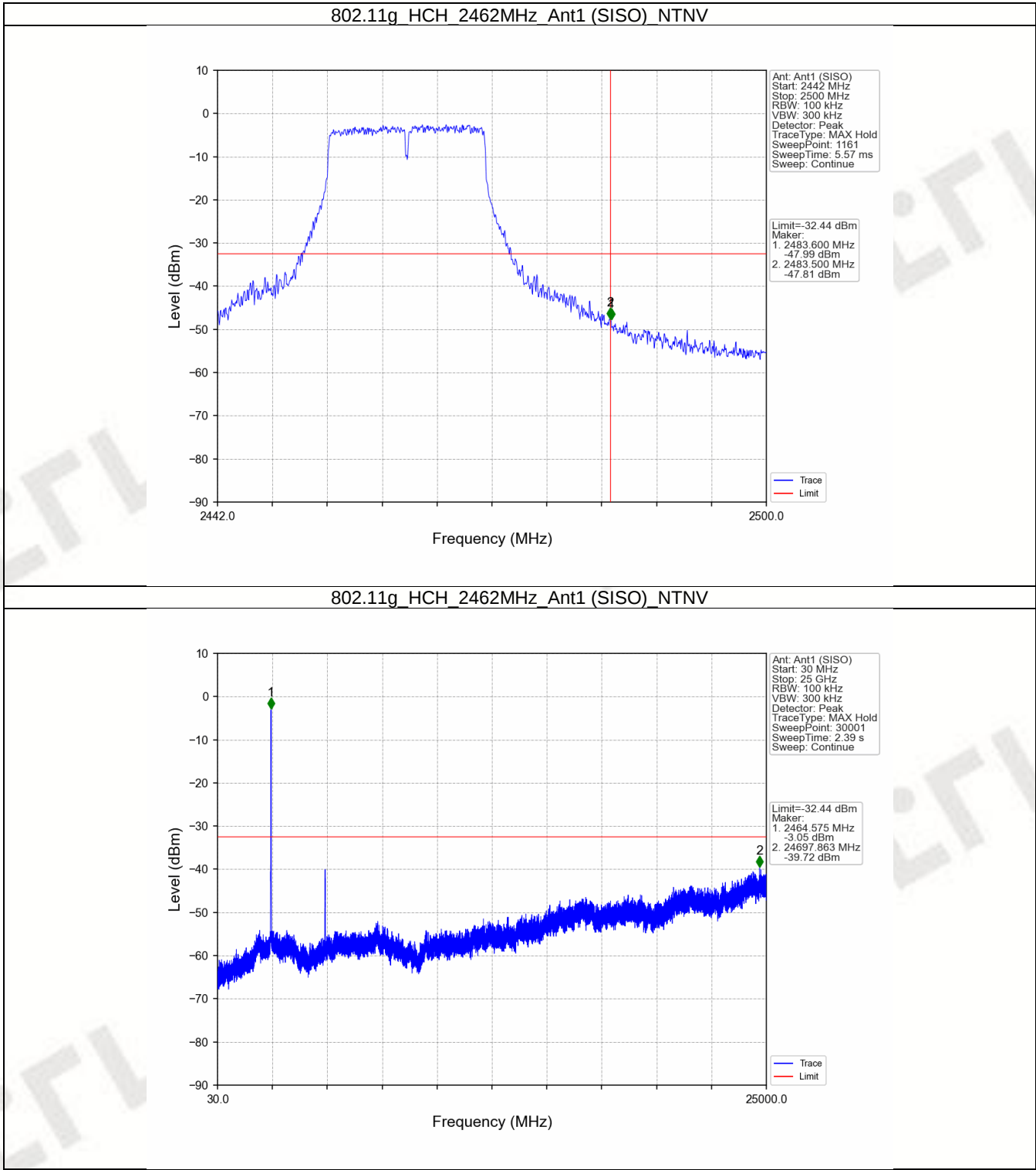
802.11g LCH 2412MHz Ant1 (SISO) NTN



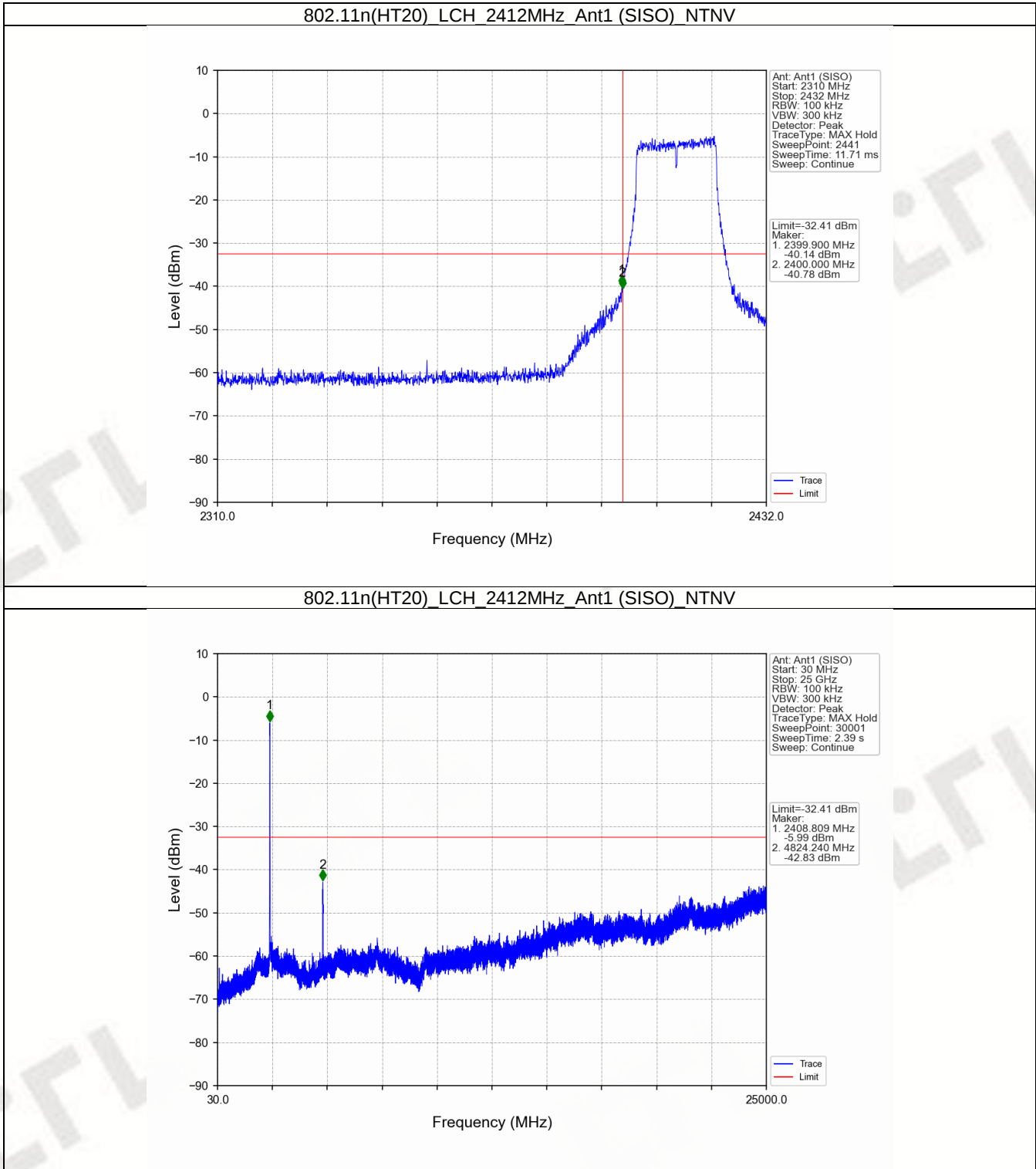
802.11g_MCH_2437MHz_Ant1 (SISO)_NTNV



FCCID: 2BF2G-CP001

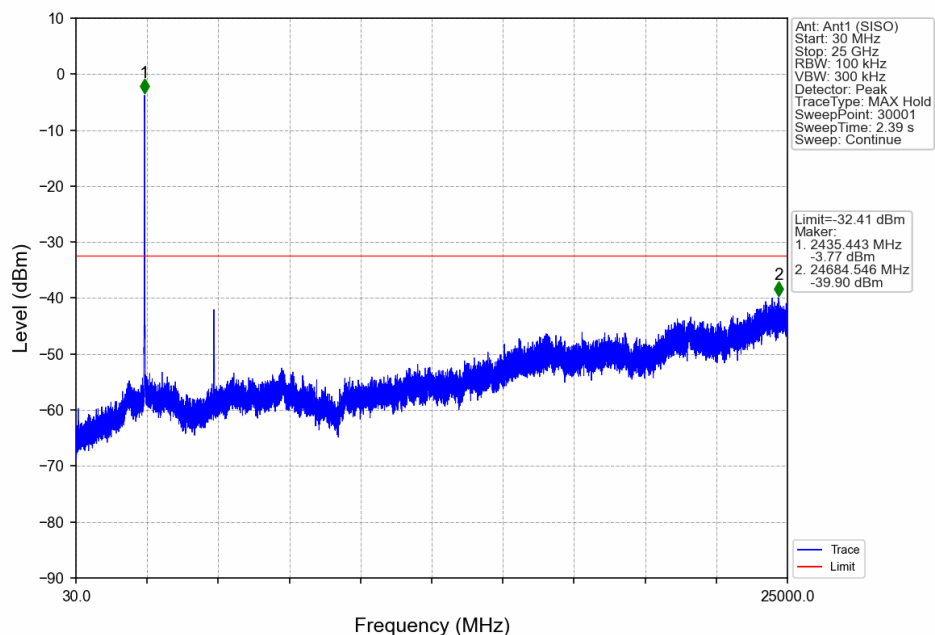


FCCID: 2BF2G-CP001

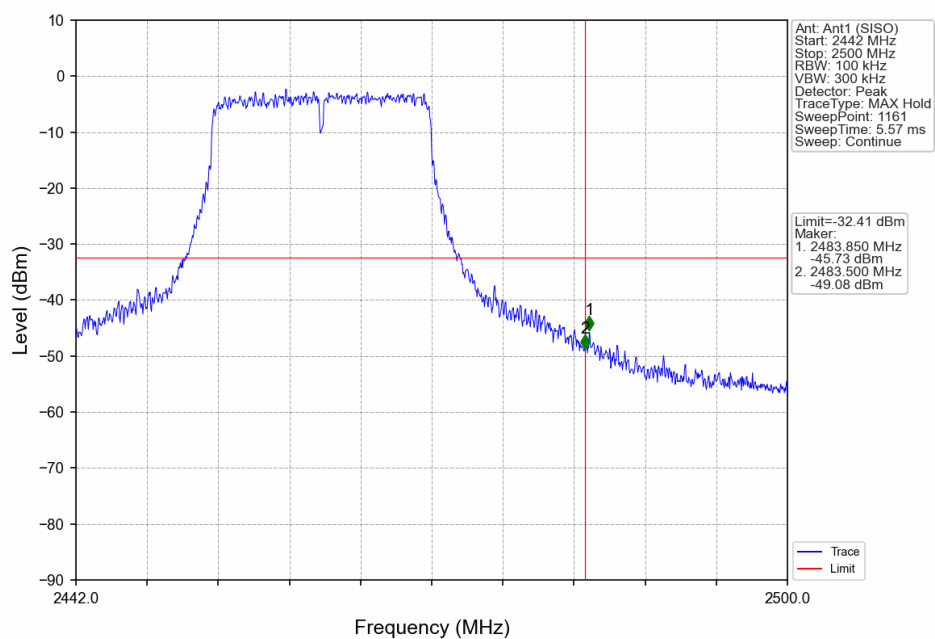


FCCID: 2BF2G-CP001

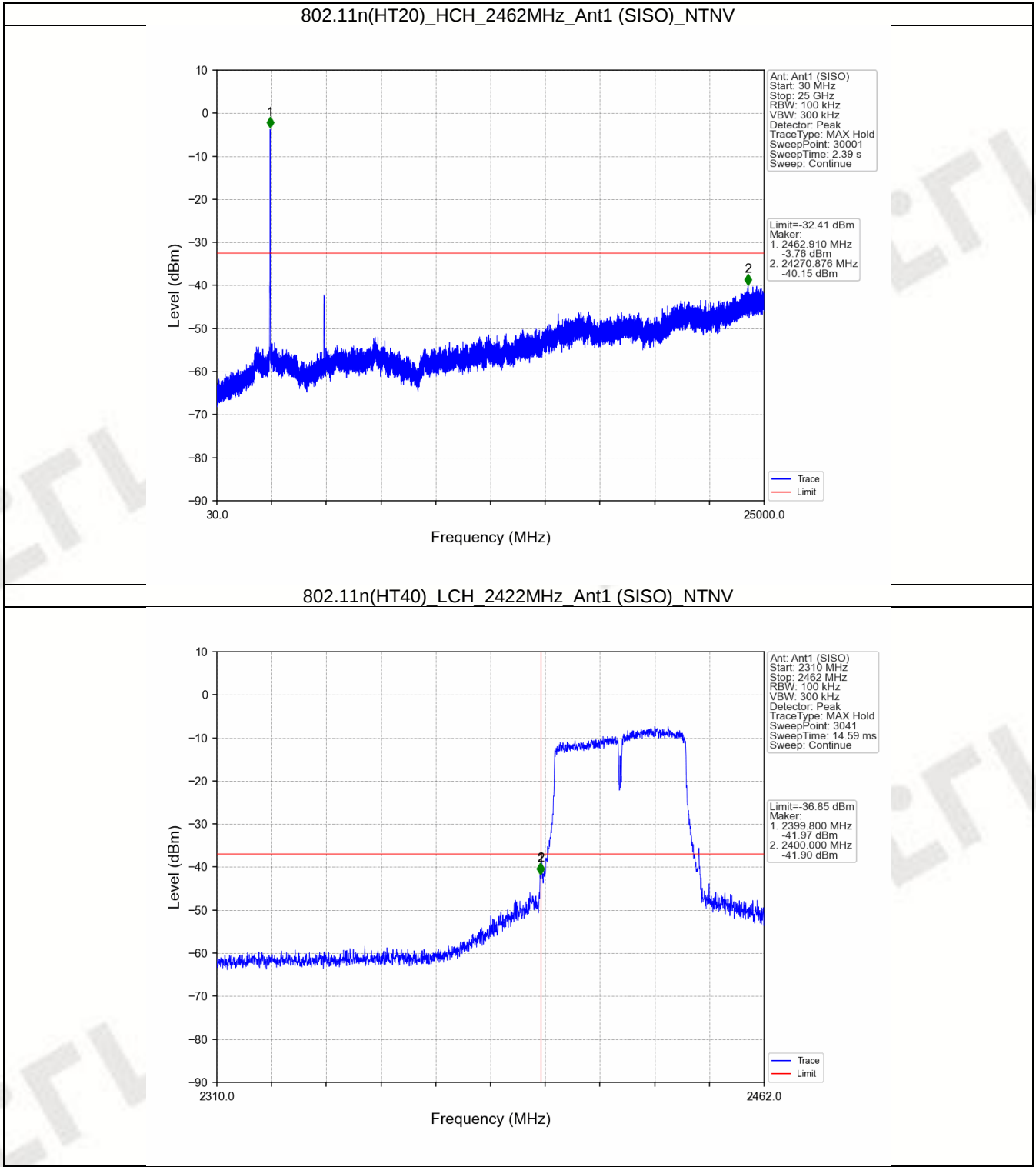
802.11n(HT20)_MCH_2437MHz_Ant1 (SISO)_NTNV



802.11n(HT20)_HCH_2462MHz_Ant1 (SISO)_NTNV

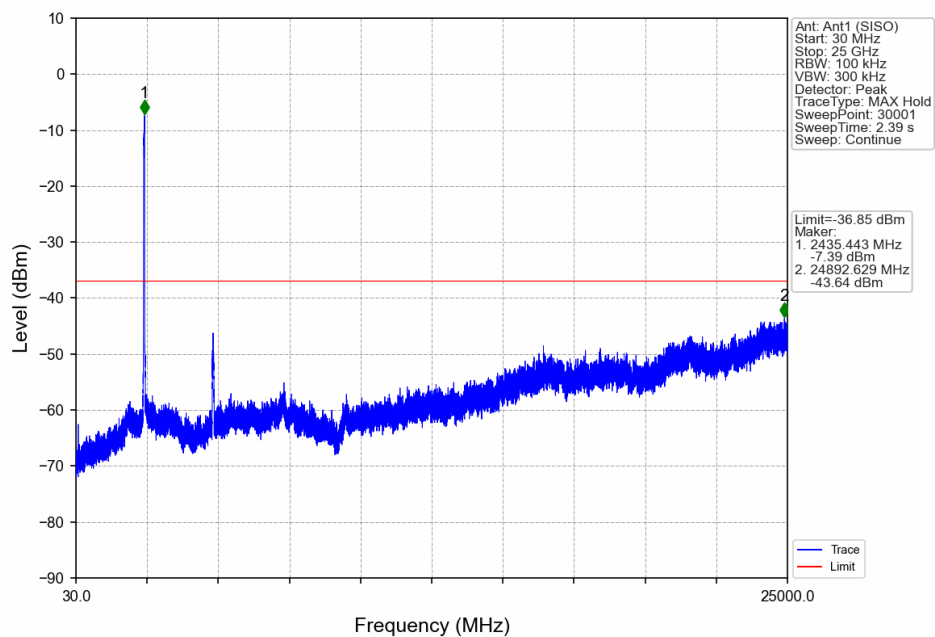


FCCID: 2BF2G-CP001

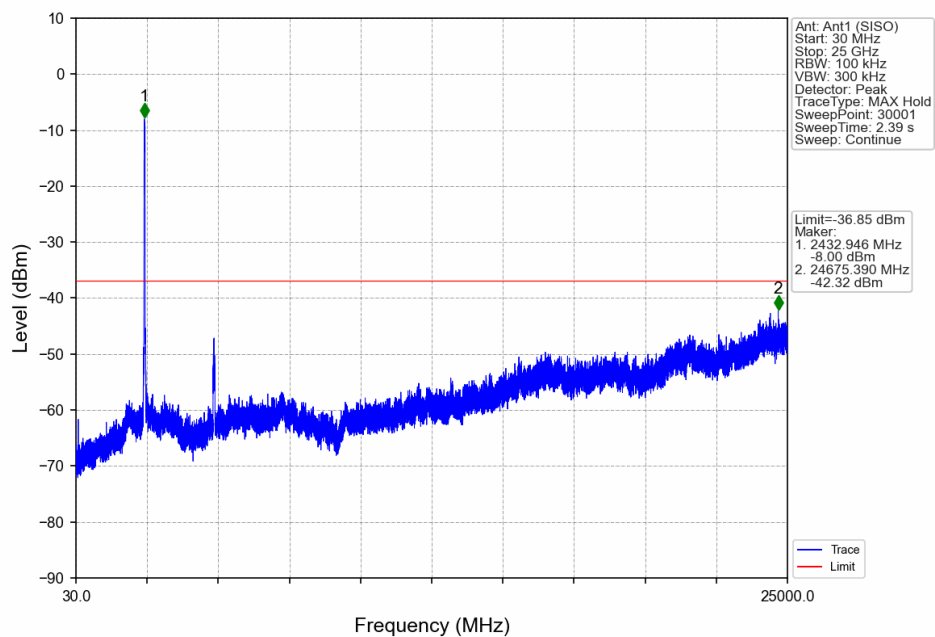


FCCID: 2BF2G-CP001

802.11n(HT40) LCH 2422MHz Ant1 (SISO) NTNV



802.11n(HT40) MCH 2437MHz Ant1 (SISO) NTNV



FCCID: 2BF2G-CP001

