



Shenzhen BANTEK Testing Co., Ltd.

Report No.: BTEK260713005A01E0203

RF Test Report

For BTEK260713005A01E02

Project No.:	BTEK260713005A01E0203
Product Description:	24.4℃,63%,101.3kPa
Test Engineer:	Milo
Test Date:	2026-08-06~2026-08-07



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



1. Duty Cycle

1.1 Test Result

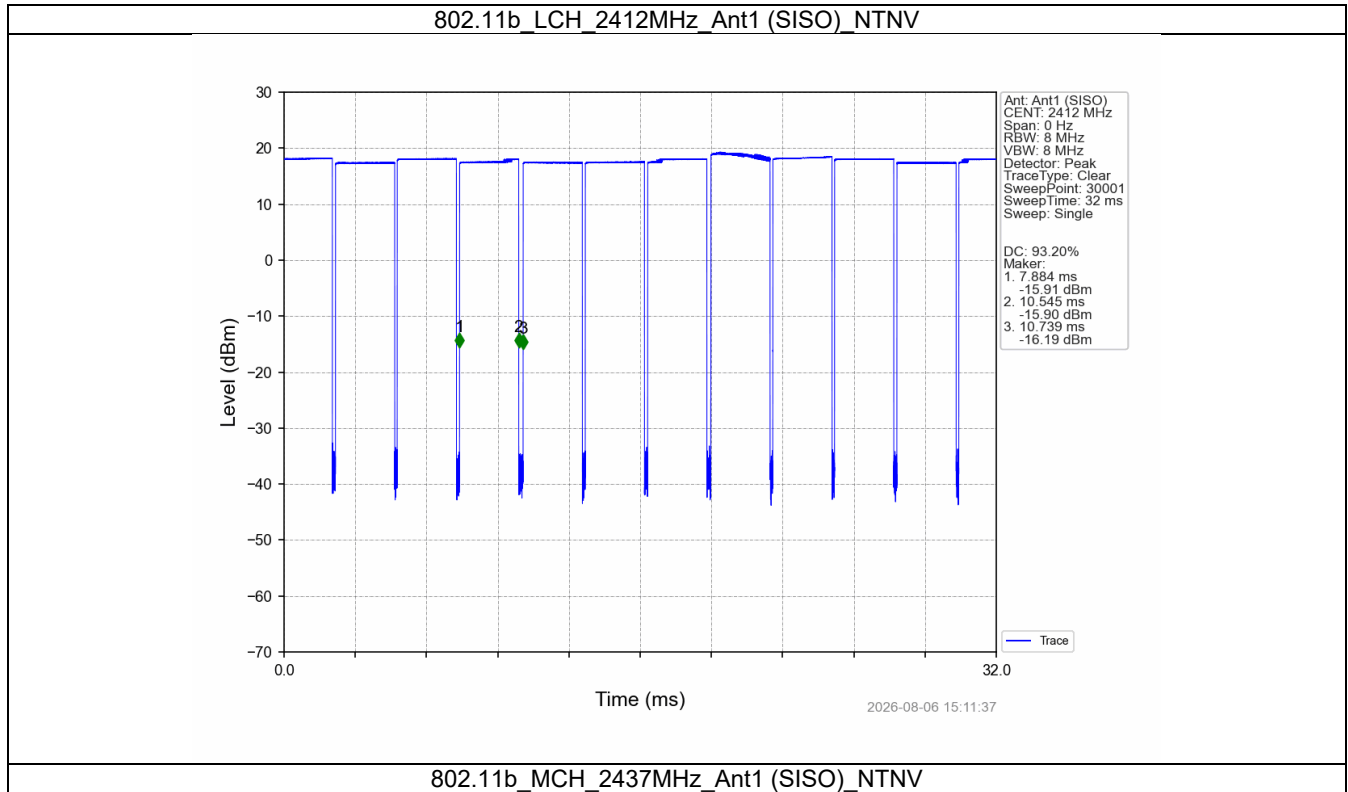
1.1.1 Ant1

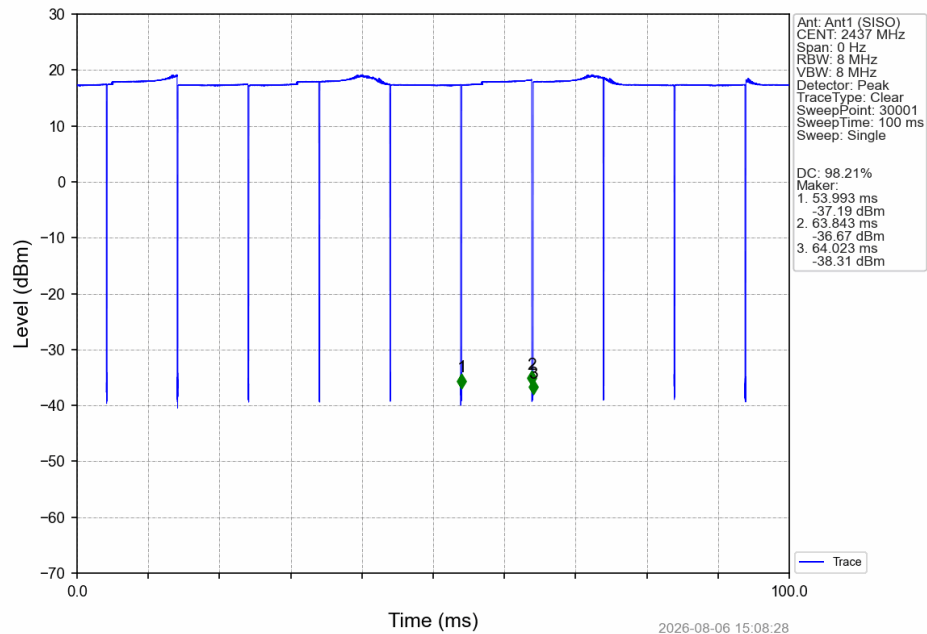
Ant1							
Mode	Tx Type	Frequency (MHz)	T_on (ms)	Period (ms)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)	Max. DC Variation (%)
802.11b	SISO	2412	2.661	2.855	93.20	0.31	2.80
		2437	9.850	10.030	98.21	0.08	0.86
		2462	2.661	2.845	93.53	0.29	2.15
802.11g	SISO	2412	1.633	1.809	90.27	0.44	3.21
		2437	1.633	1.800	90.72	0.42	2.81
		2462	1.632	1.782	91.58	0.38	1.00
802.11n (HT20)	SISO	2412	6.727	6.881	97.76	0.10	0.51
		2437	6.727	6.880	97.78	0.10	0.52
		2462	6.721	7.077	94.97	0.22	3.36
802.11n (HT40)	SISO	2422	2.469	2.612	94.53	0.24	0.95
		2437	2.501	2.643	94.63	0.24	0.71
		2452	3.268	3.402	96.06	0.17	0.55



1.2 Test Graph

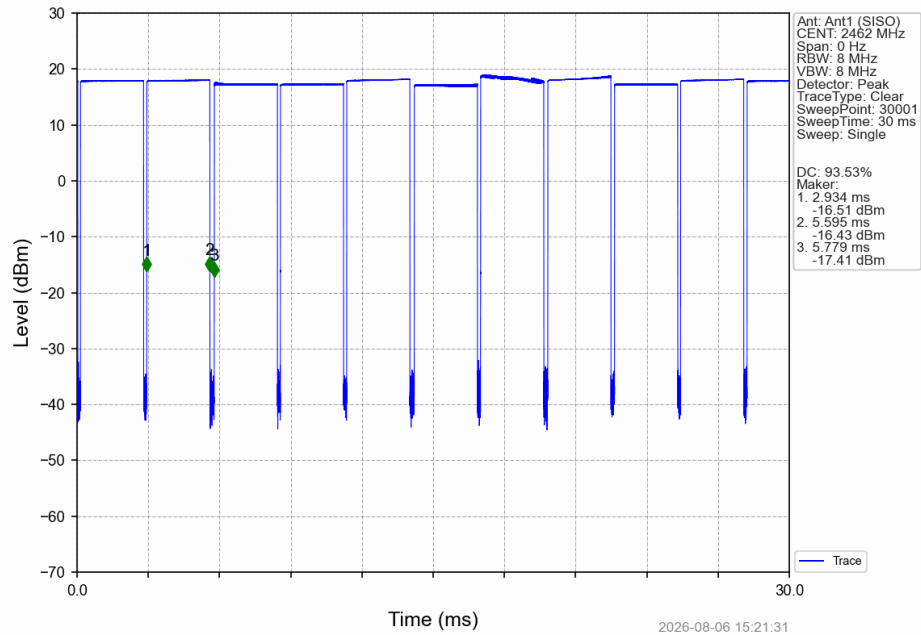
1.2.1 Ant1



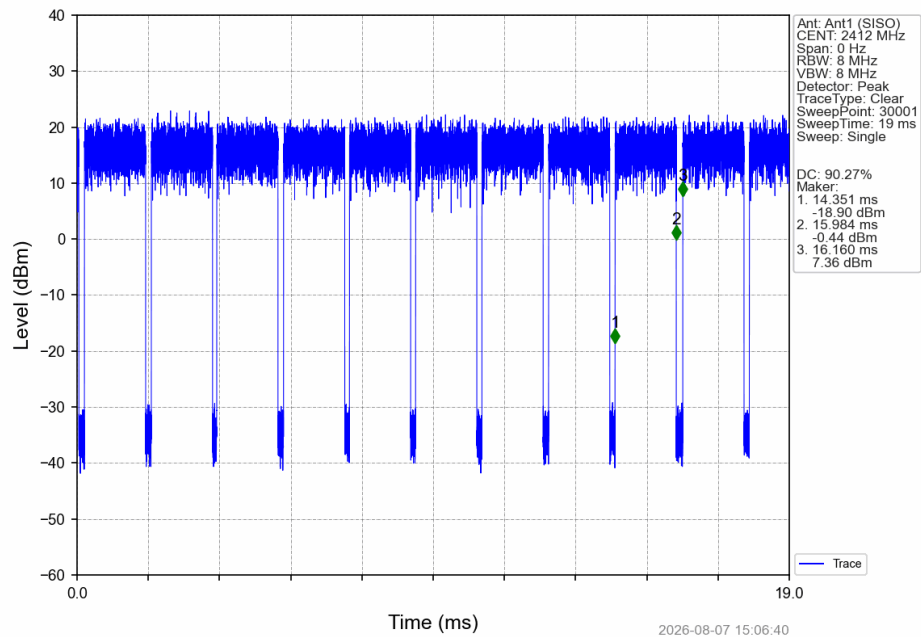




802.11b_HCH_2462MHz_Ant1 (SISO)_NTNV

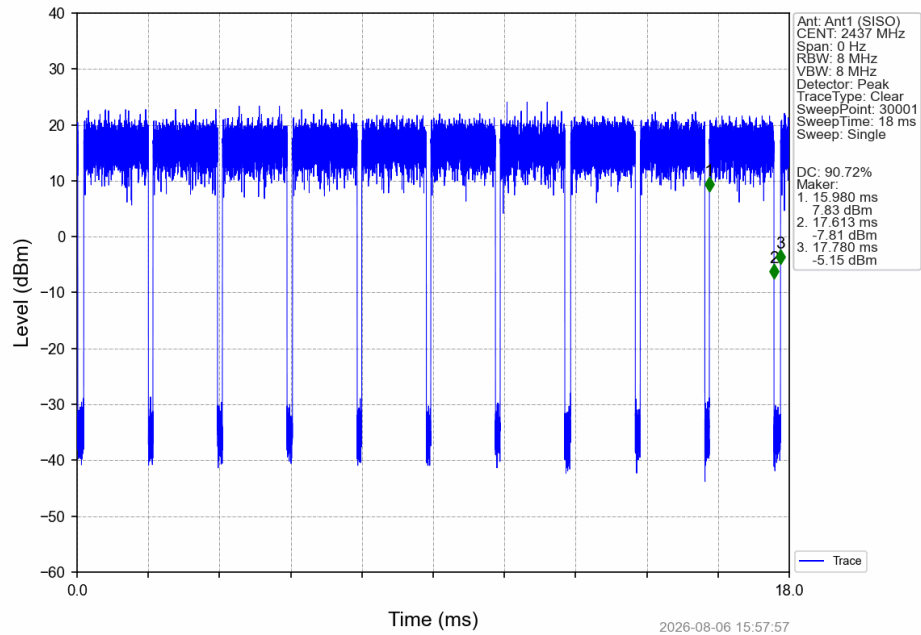


802.11g_LCH_2412MHz_Ant1 (SISO)_NTNV

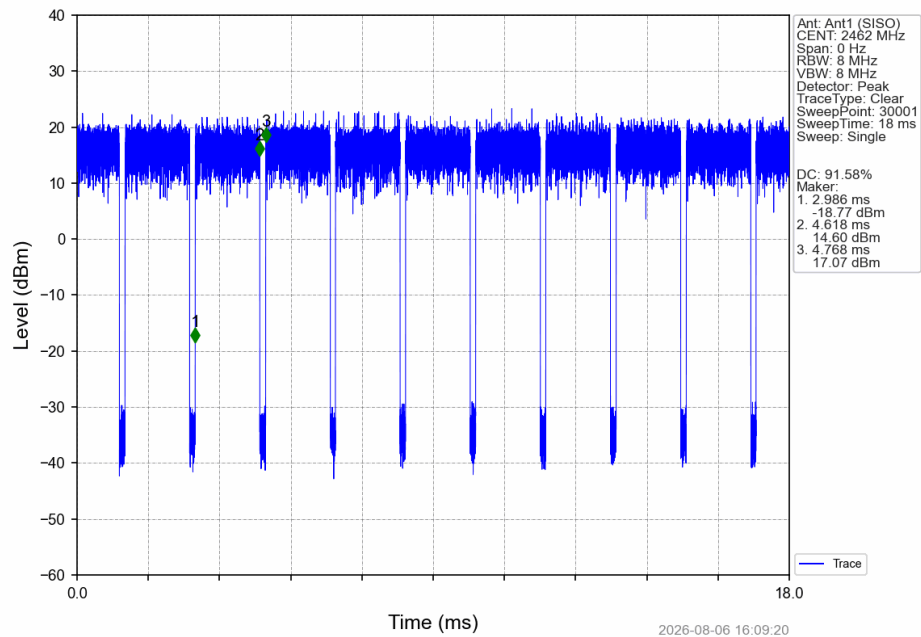




802.11g_MCH_2437MHz_Ant1 (SISO)_NTNV

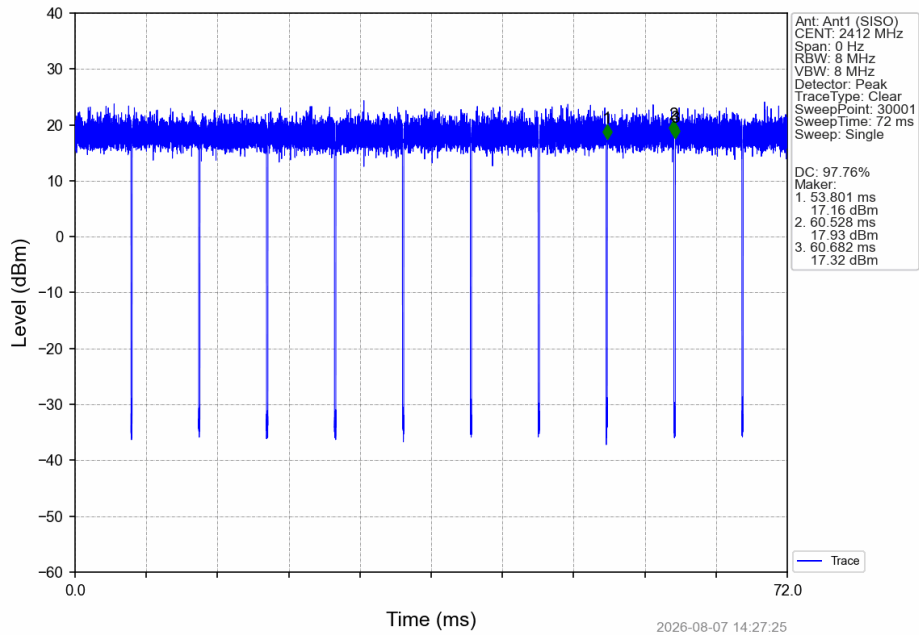


802.11g_HCH_2462MHz_Ant1 (SISO)_NTNV

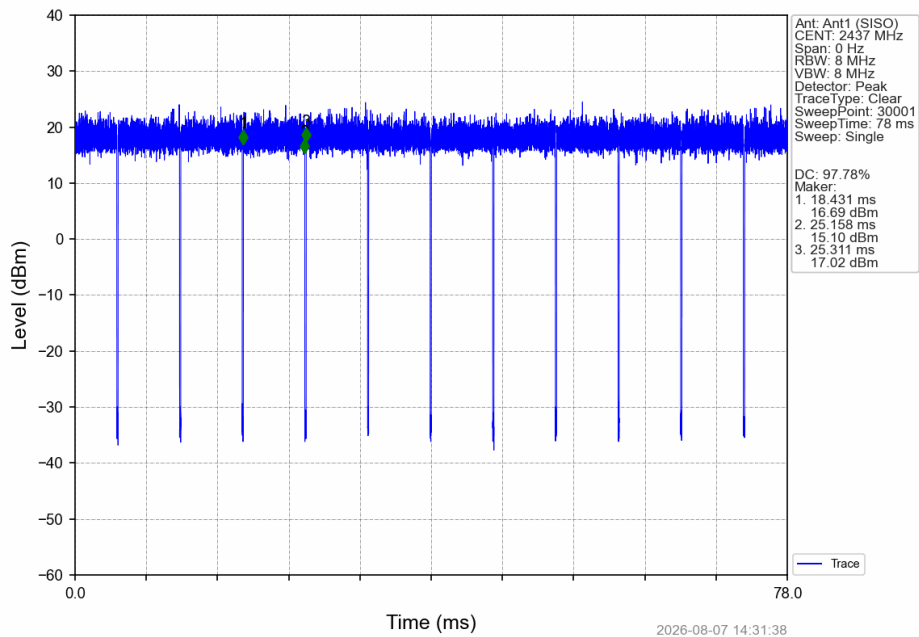




802.11n(HT20)_LCH_2412MHz_Ant1 (SISO)_NTNV

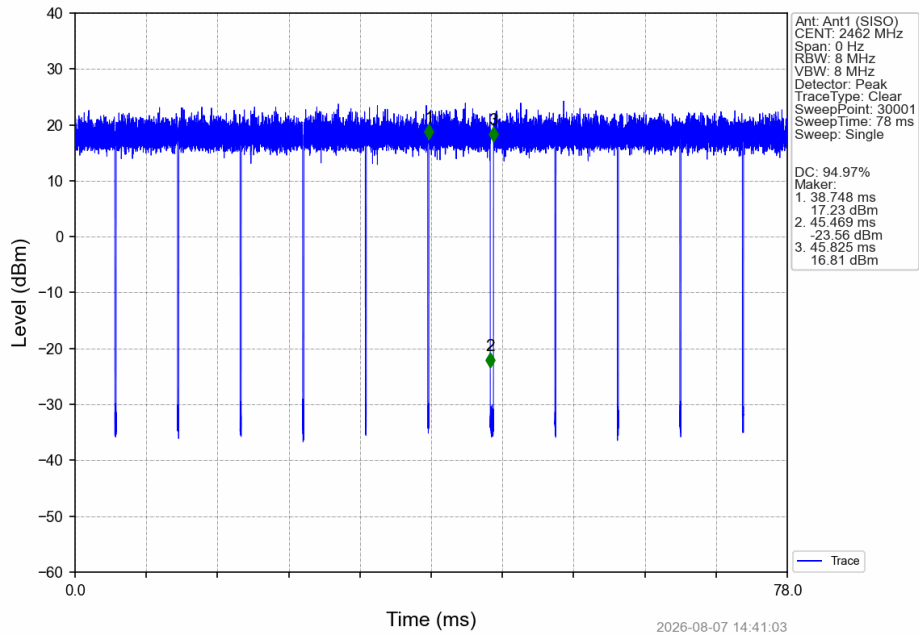


802.11n(HT20)_MCH_2437MHz_Ant1 (SISO)_NTNV

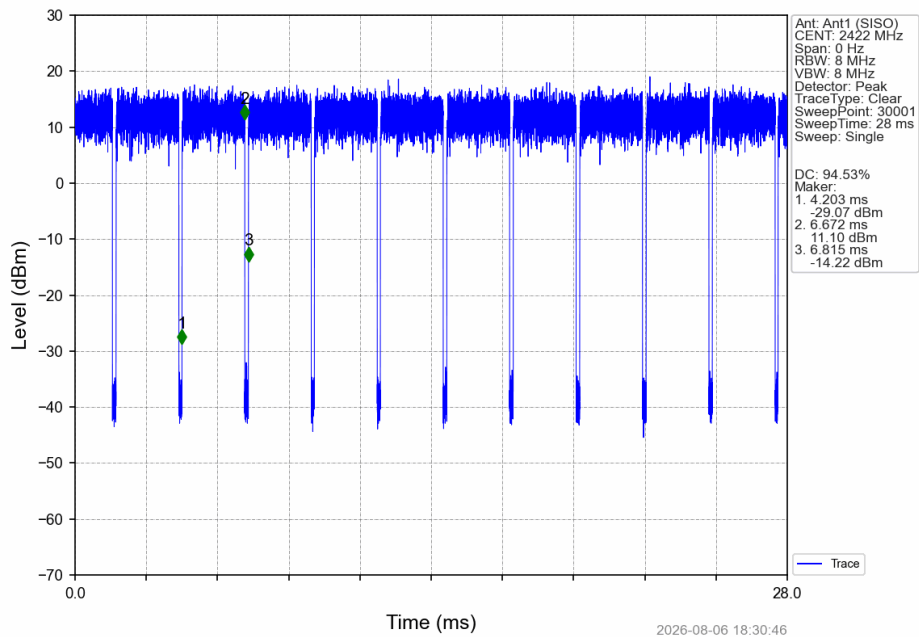




802.11n(HT20)_HCH_2462MHz_Ant1 (SISO)_NTNV

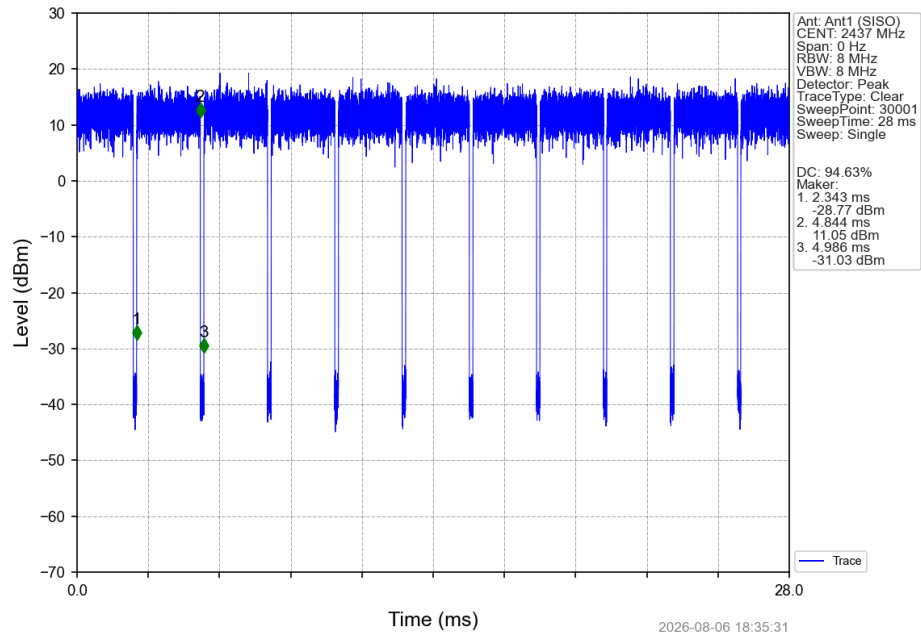


802.11n(HT40)_LCH_2422MHz_Ant1 (SISO)_NTNV

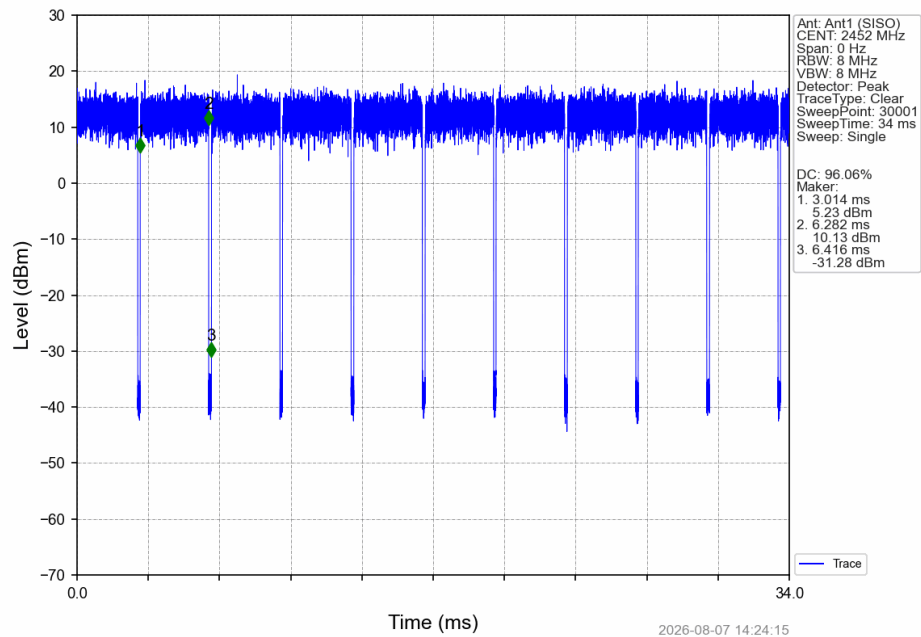




802.11n(HT40)_MCH_2437MHz_Ant1 (SISO)_NTNV



802.11n(HT40)_HCH_2452MHz_Ant1 (SISO)_NTNV





2. Bandwidth

2.1 Test Result

2.1.1 OBW

Mode	TX Type	Frequency (MHz)	ANT	99% Occupied Bandwidth (MHz)		Verdict
				Result	Limit	
802.11b	SISO	2412	1	13.961	/	Pass
		2437	1	13.969	/	Pass
		2462	1	13.960	/	Pass
802.11g	SISO	2412	1	15.929	/	Pass
		2437	1	15.947	/	Pass
		2462	1	15.923	/	Pass
802.11n (HT20)	SISO	2412	1	16.854	/	Pass
		2437	1	16.920	/	Pass
		2462	1	16.917	/	Pass
802.11n (HT40)	SISO	2422	1	34.788	/	Pass
		2437	1	34.806	/	Pass
		2452	1	34.718	/	Pass

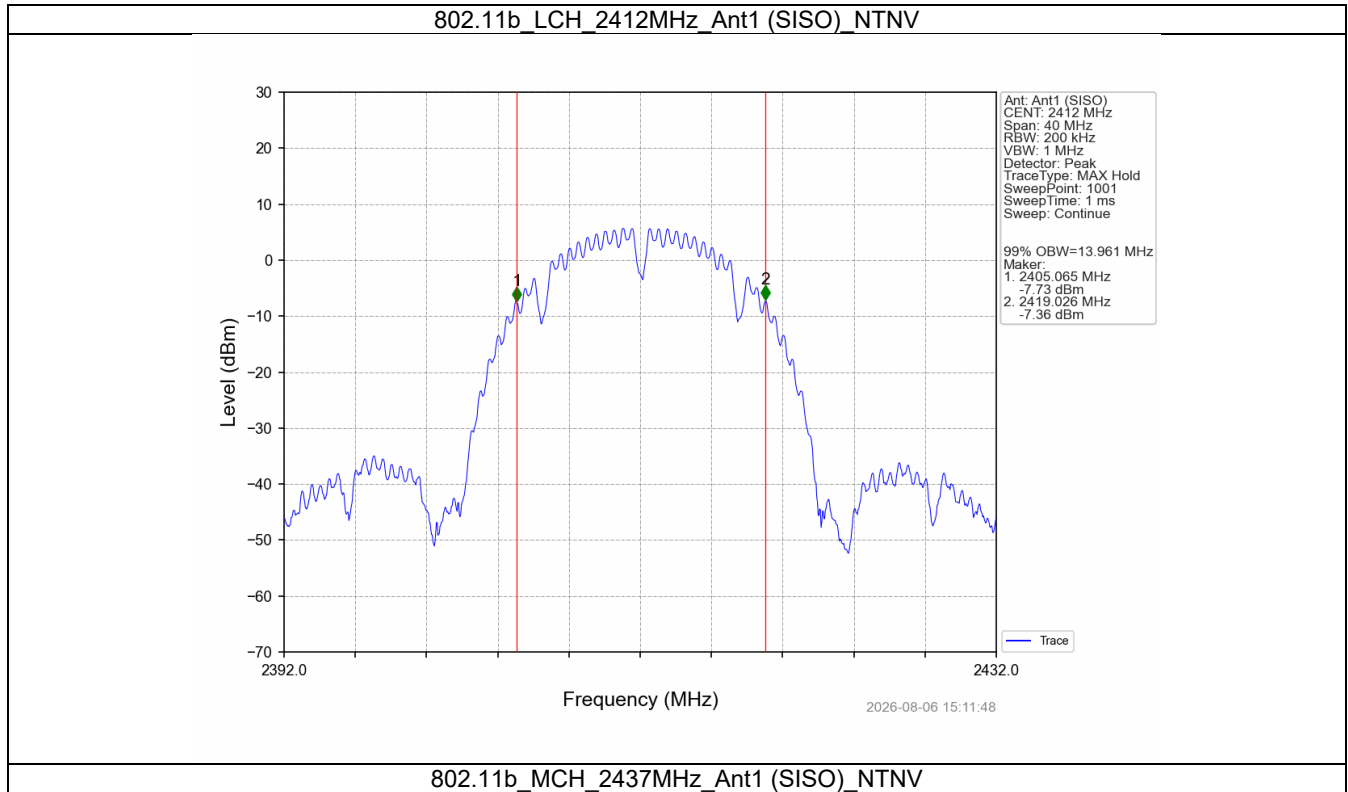
2.1.2 6dB BW

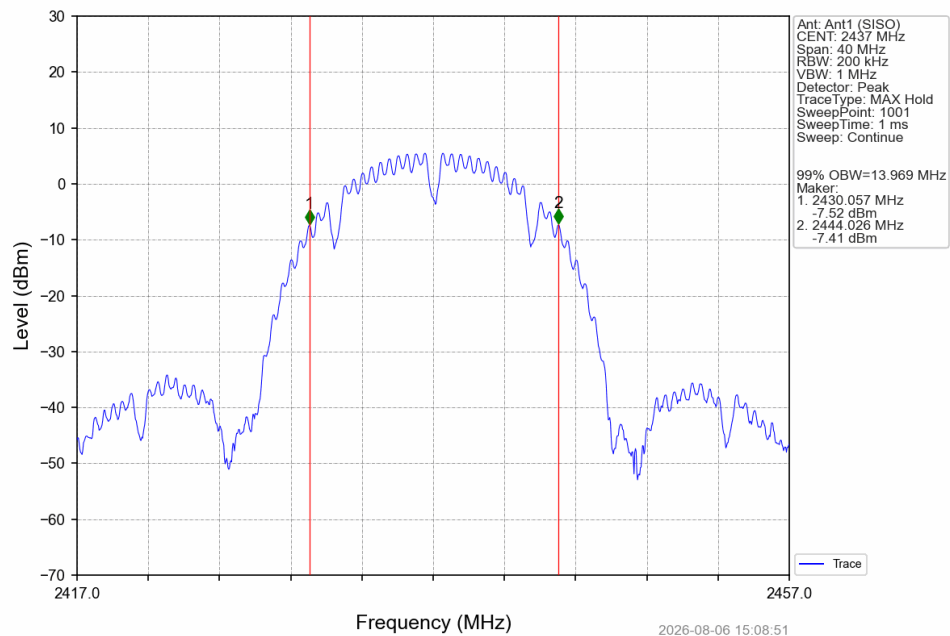
Mode	TX Type	Frequency (MHz)	ANT	6dB Bandwidth (MHz)		Verdict
				Result	Limit	
802.11b	SISO	2412	1	10.092	≥ 0.5	Pass
		2437	1	10.080	≥ 0.5	Pass
		2462	1	10.069	≥ 0.5	Pass
802.11g	SISO	2412	1	13.400	≥ 0.5	Pass
		2437	1	13.699	≥ 0.5	Pass
		2462	1	13.623	≥ 0.5	Pass
802.11n (HT20)	SISO	2412	1	14.318	≥ 0.5	Pass
		2437	1	14.204	≥ 0.5	Pass
		2462	1	13.711	≥ 0.5	Pass
802.11n (HT40)	SISO	2422	1	30.379	≥ 0.5	Pass
		2437	1	29.063	≥ 0.5	Pass
		2452	1	28.458	≥ 0.5	Pass



2.2 Test Graph

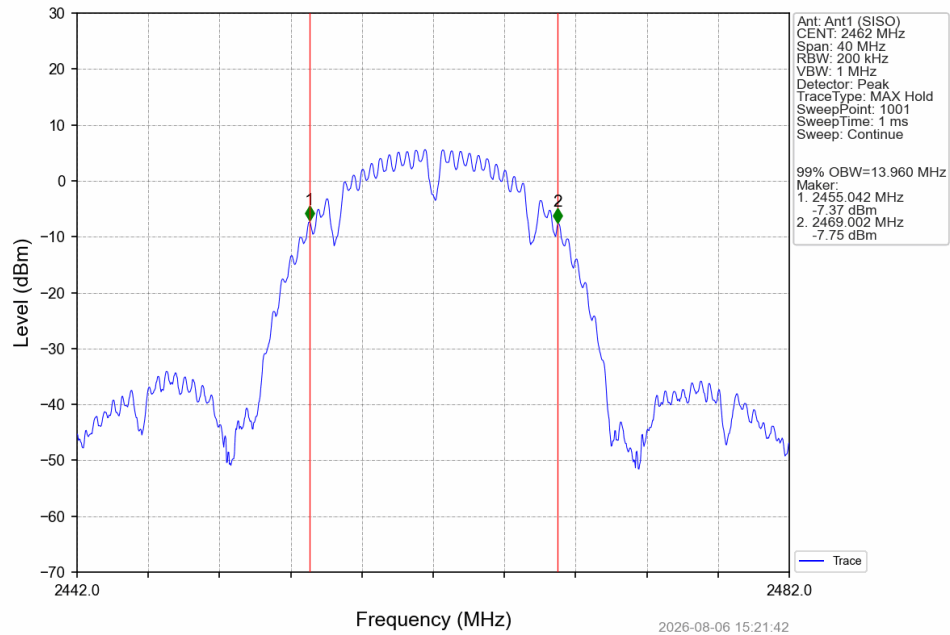
2.2.1 OBW



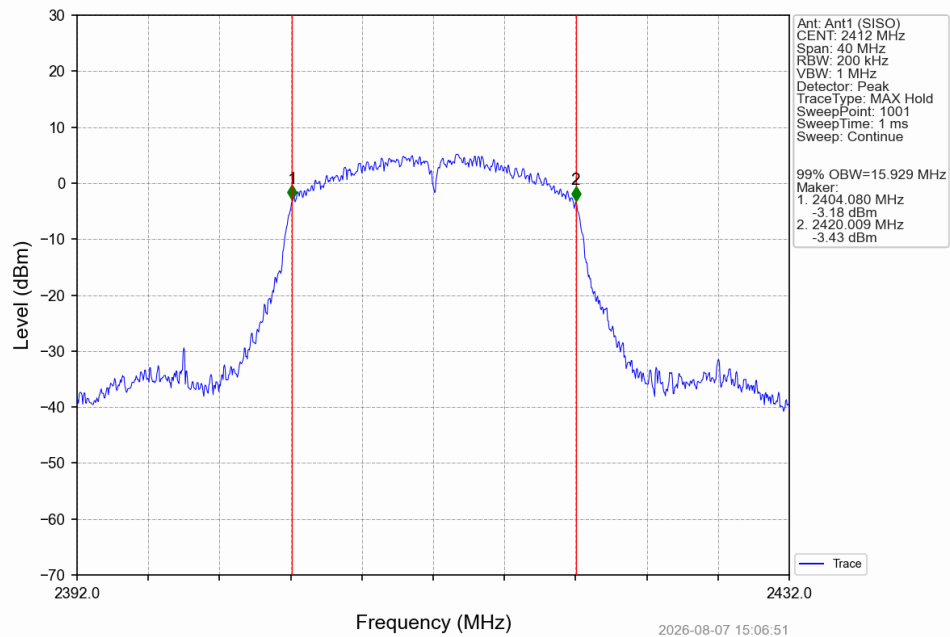




802.11b_HCH_2462MHz_Ant1 (SISO)_NTNV

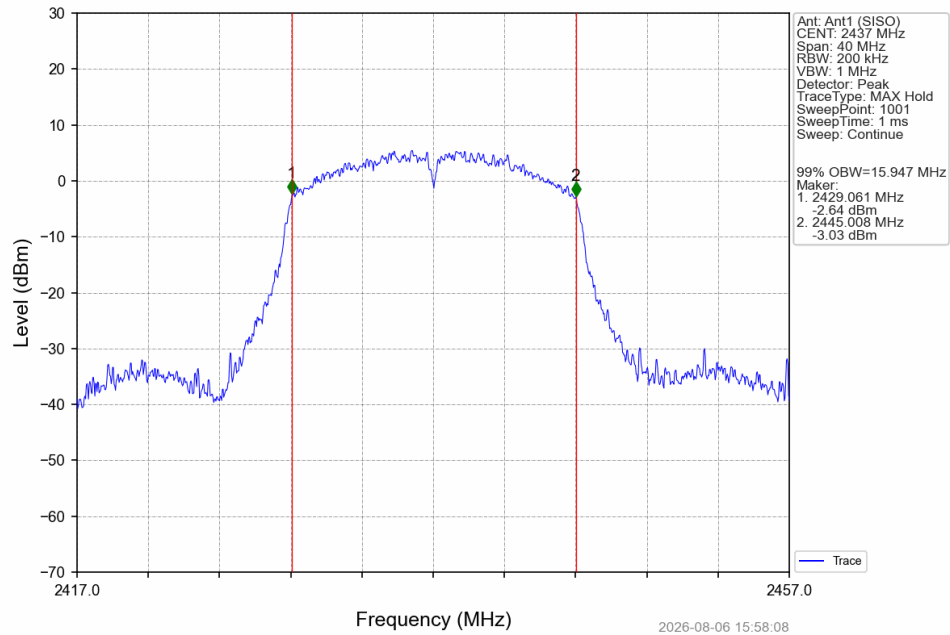


802.11g_LCH_2412MHz_Ant1 (SISO)_NTNV

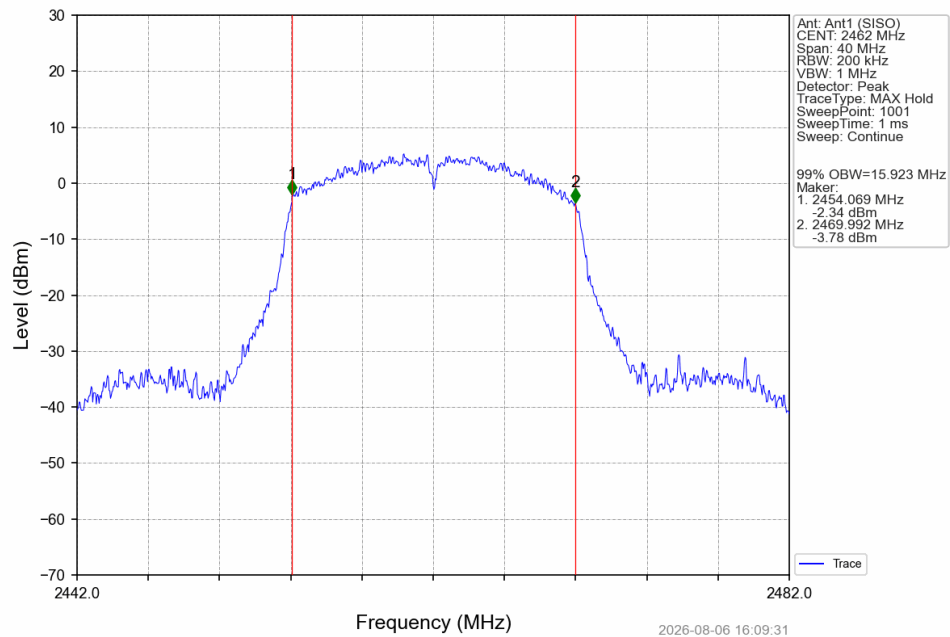




802.11g_MCH_2437MHz_Ant1 (SISO)_NTNV

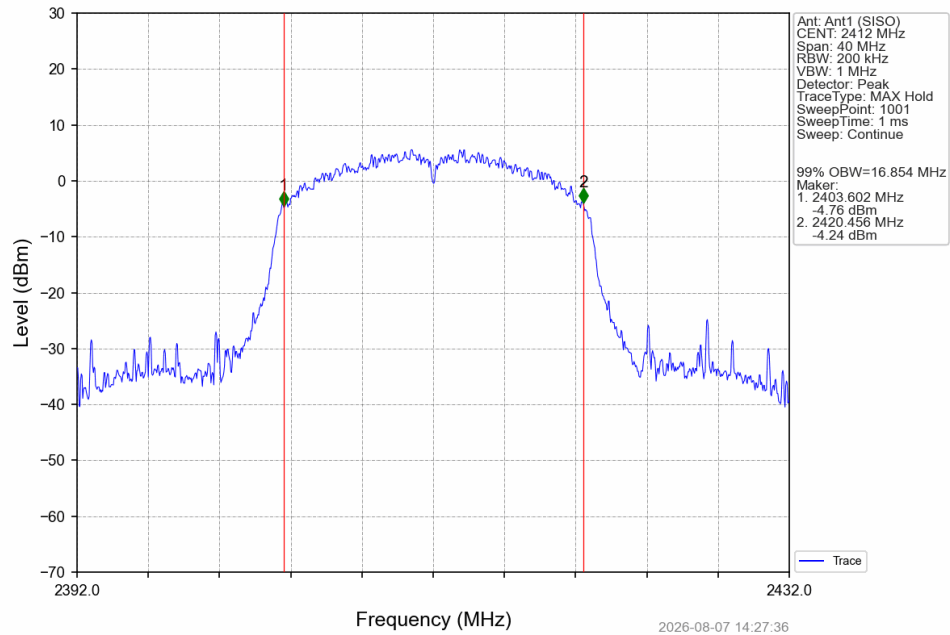


802.11g_HCH_2462MHz_Ant1 (SISO)_NTNV

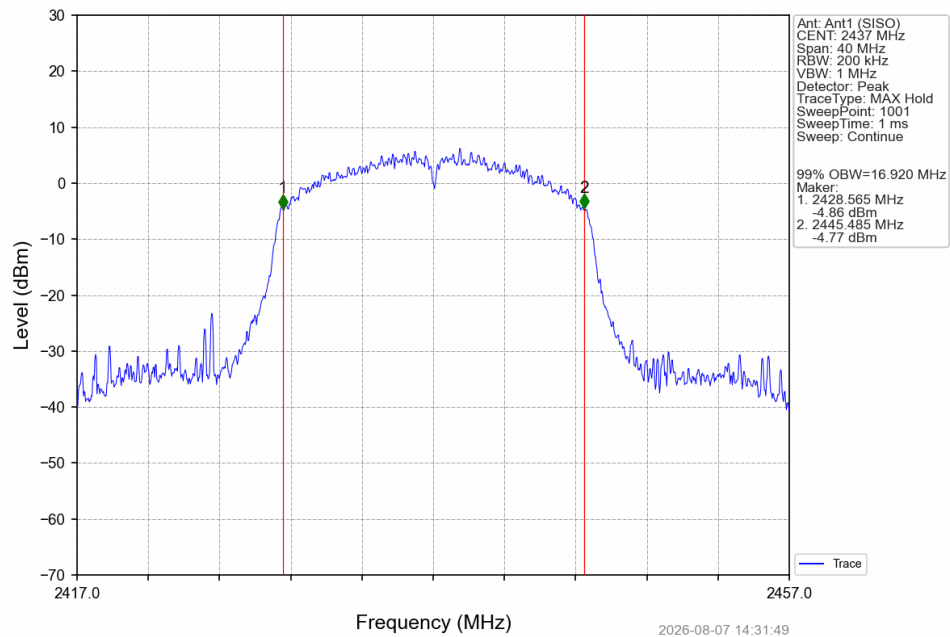




802.11n(HT20)_LCH_2412MHz_Ant1 (SISO)_NTNV

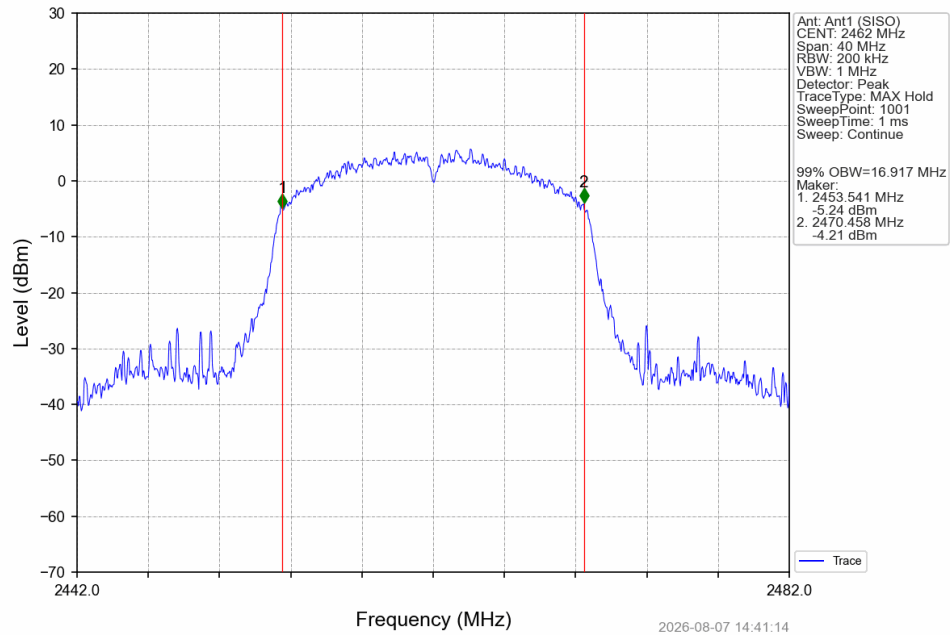


802.11n(HT20)_MCH_2437MHz_Ant1 (SISO)_NTNV

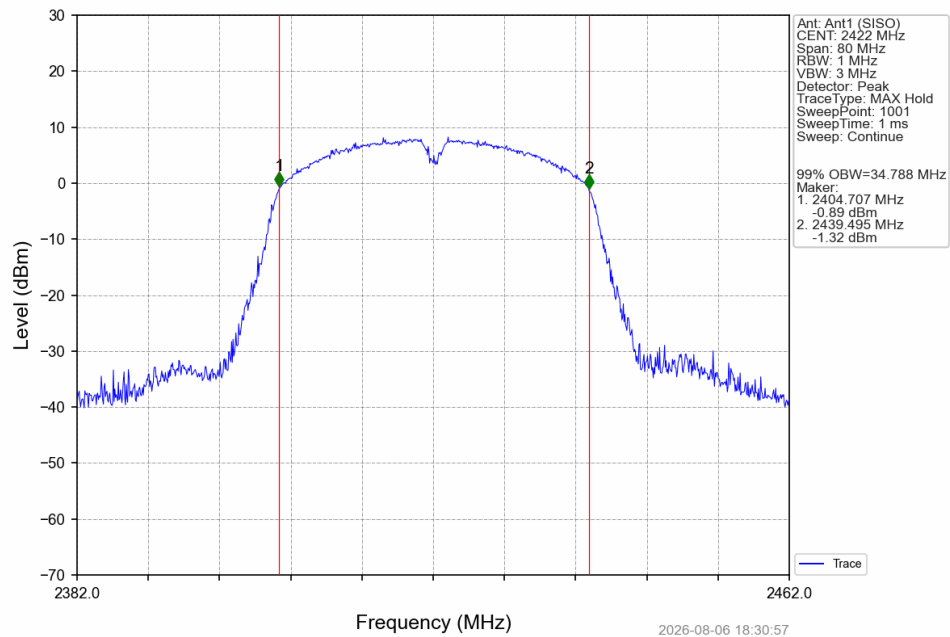




802.11n(HT20)_HCH_2462MHz_Ant1 (SISO)_NTNV

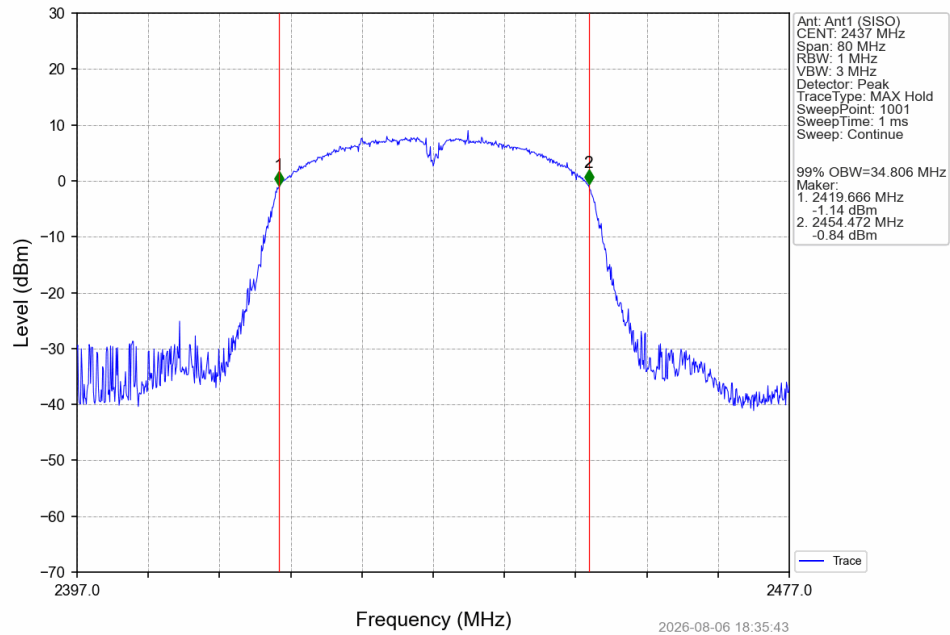


802.11n(HT40)_LCH_2422MHz_Ant1 (SISO)_NTNV

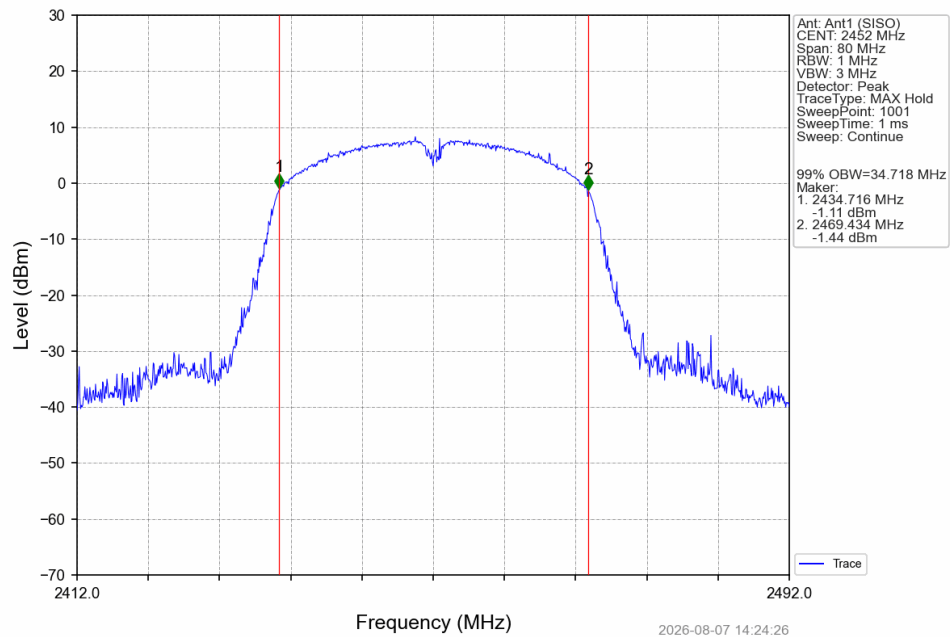




802.11n(HT40)_MCH_2437MHz_Ant1 (SISO)_NTNV

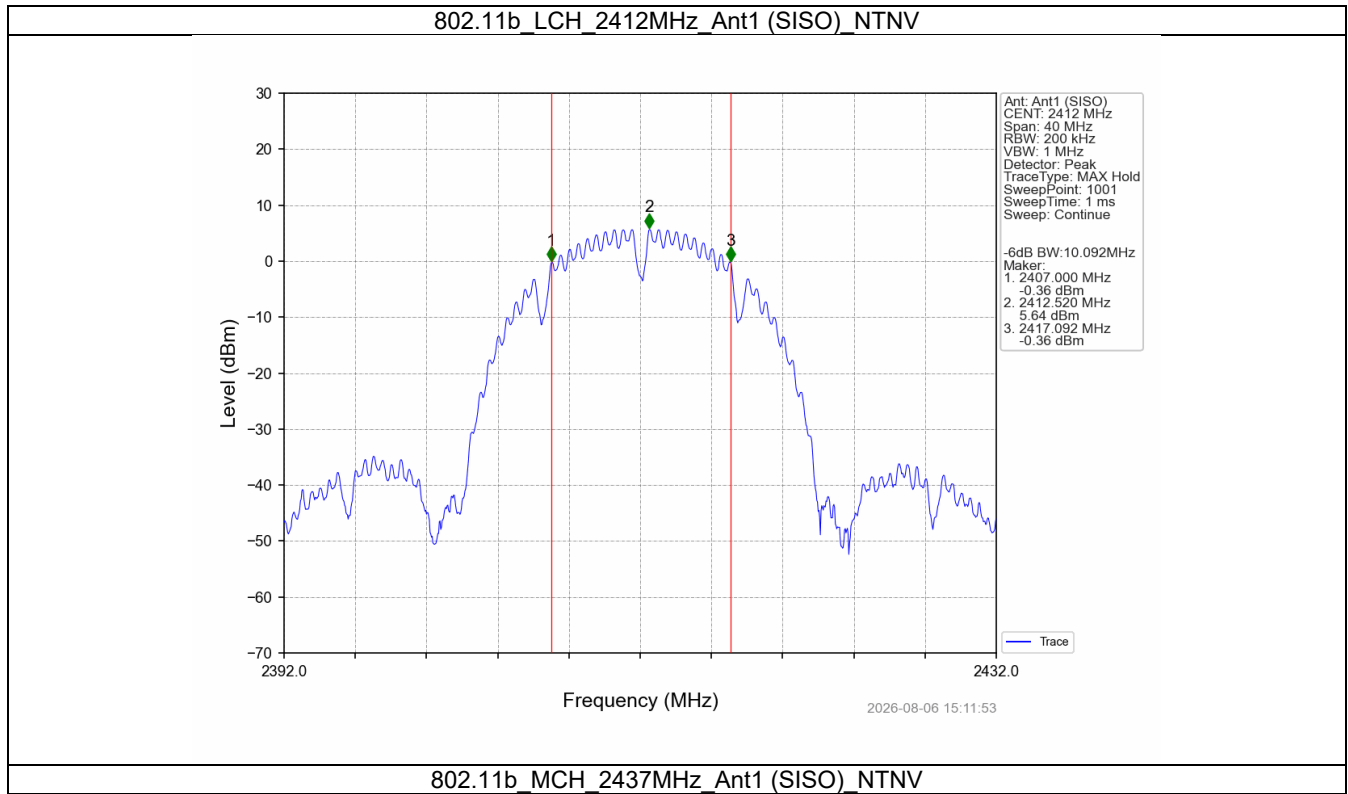


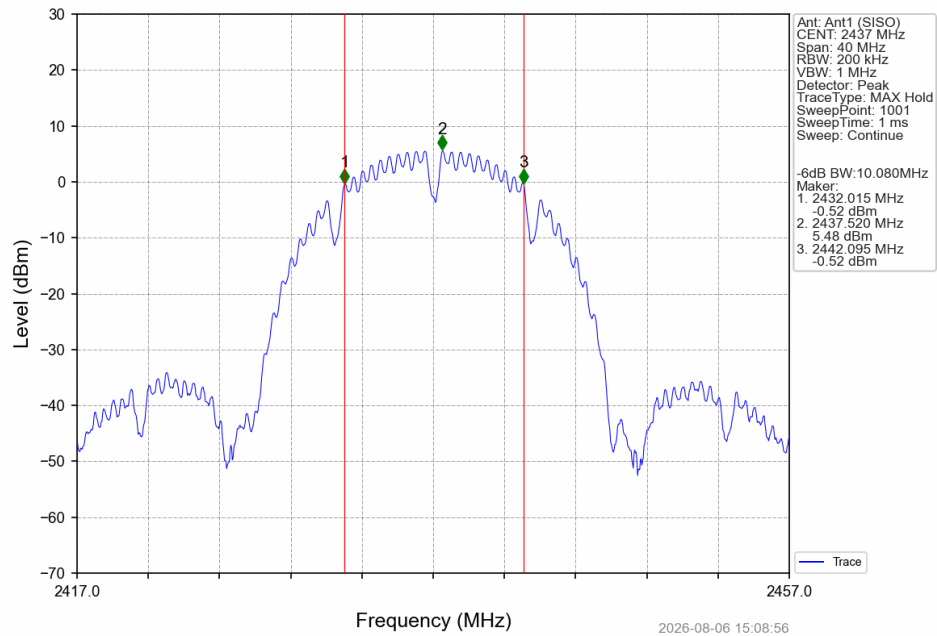
802.11n(HT40)_HCH_2452MHz_Ant1 (SISO)_NTNV





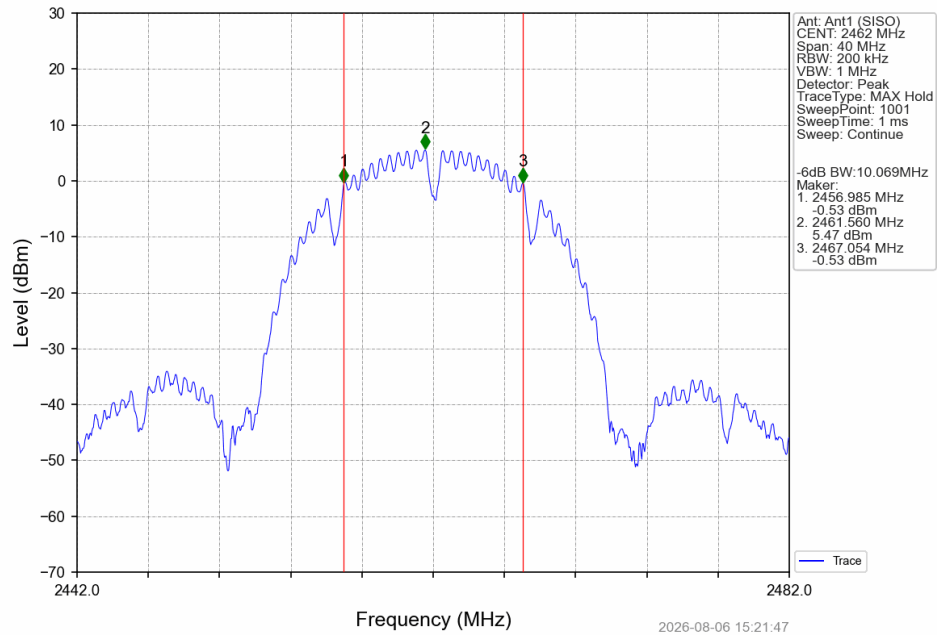
2.2.2 6dB BW



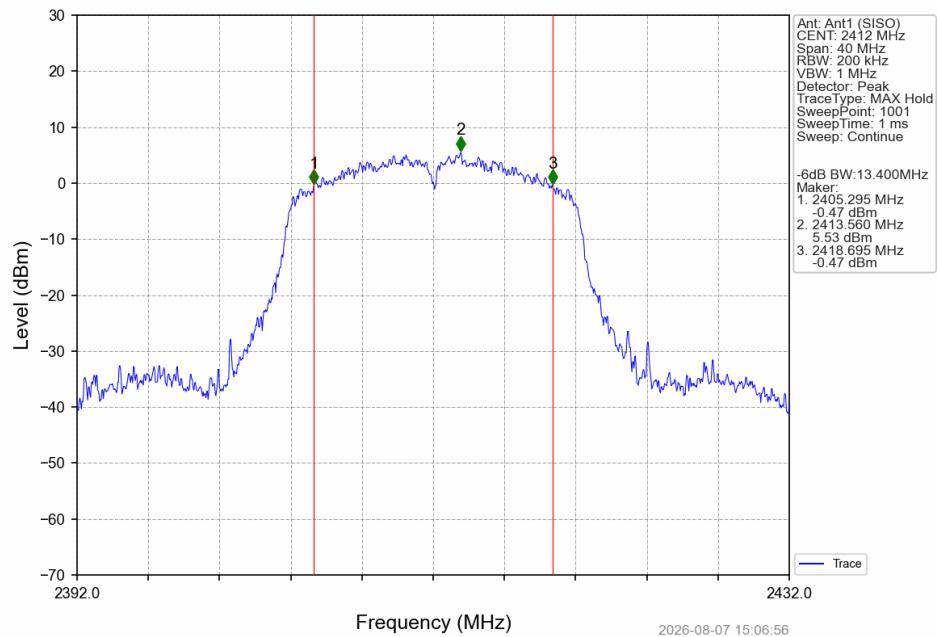




802.11b_HCH_2462MHz_Ant1 (SISO)_NTNV

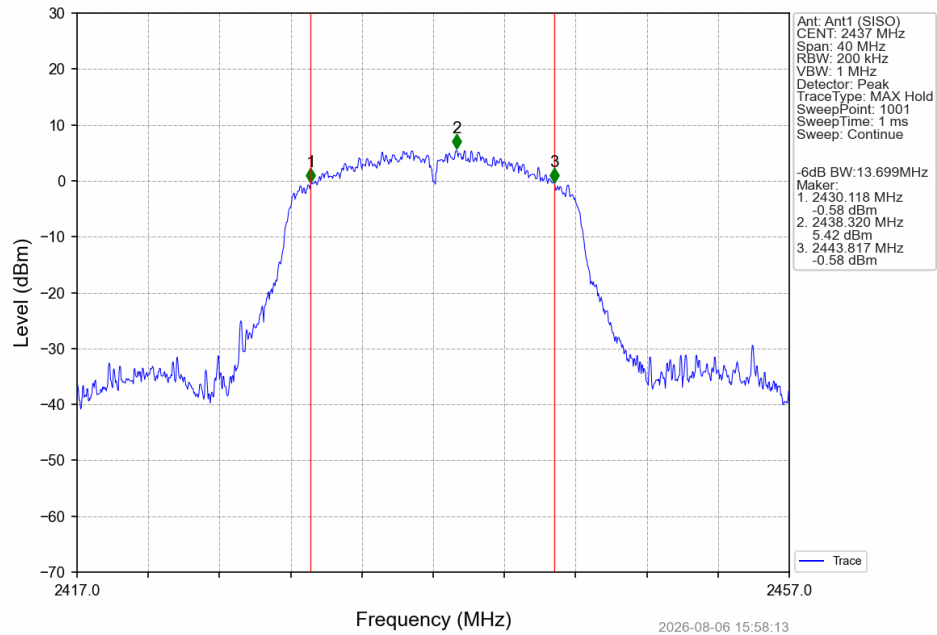


802.11g_LCH_2412MHz_Ant1 (SISO)_NTNV

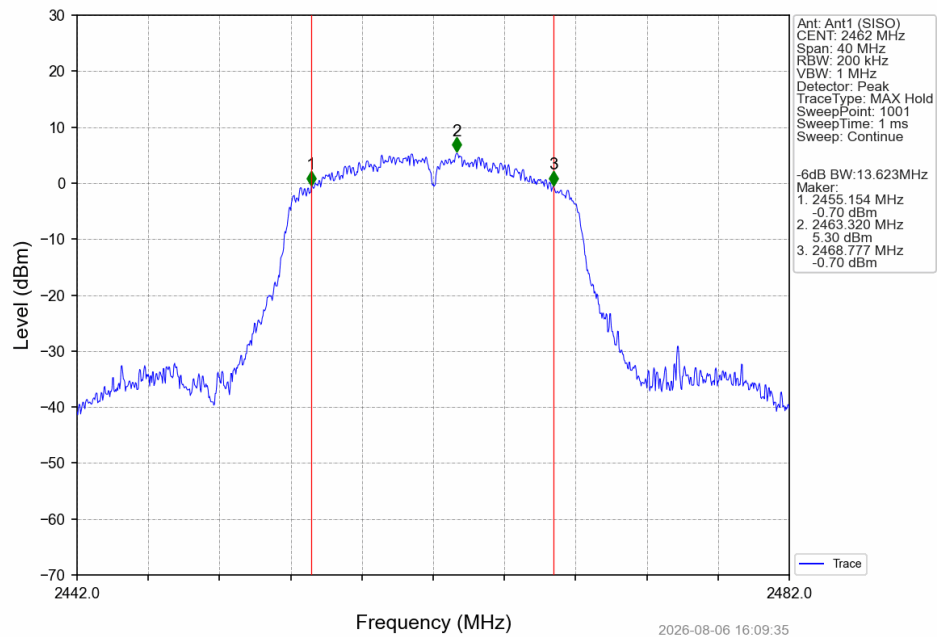




802.11g_MCH_2437MHz_Ant1 (SISO)_NTNV

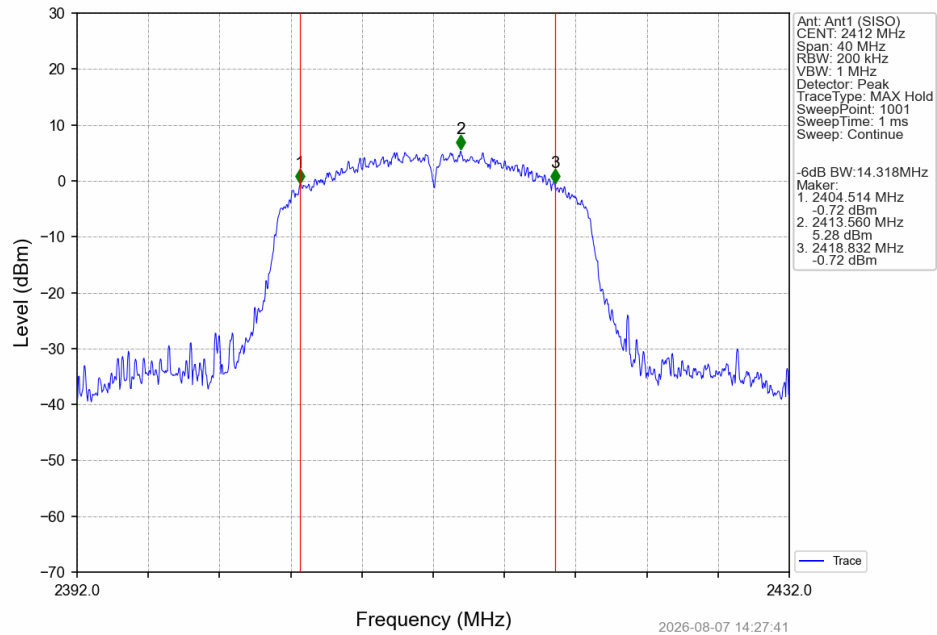


802.11g_HCH_2462MHz_Ant1 (SISO)_NTNV

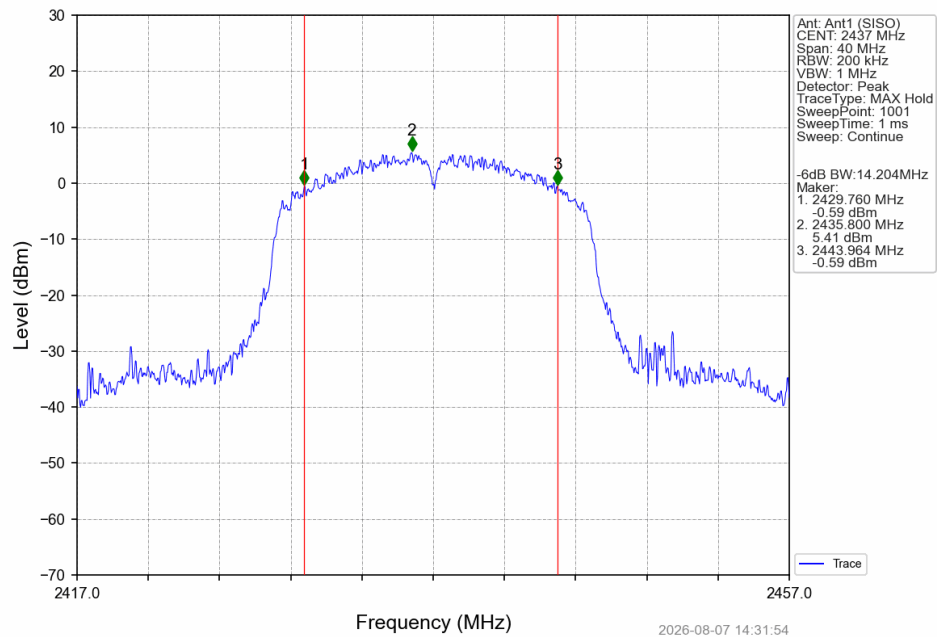




802.11n(HT20)_LCH_2412MHz_Ant1 (SISO)_NTNV

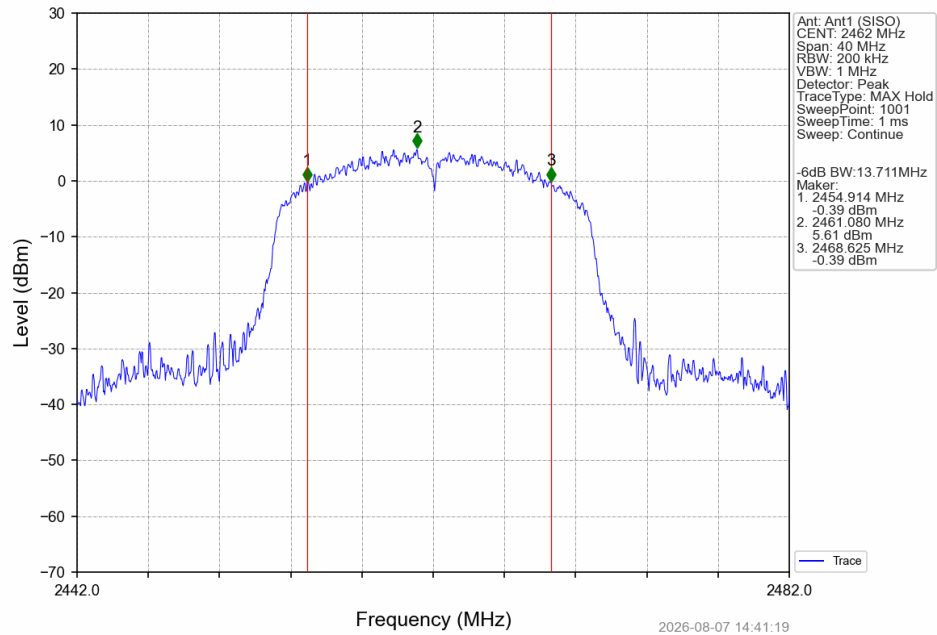


802.11n(HT20)_MCH_2437MHz_Ant1 (SISO)_NTNV

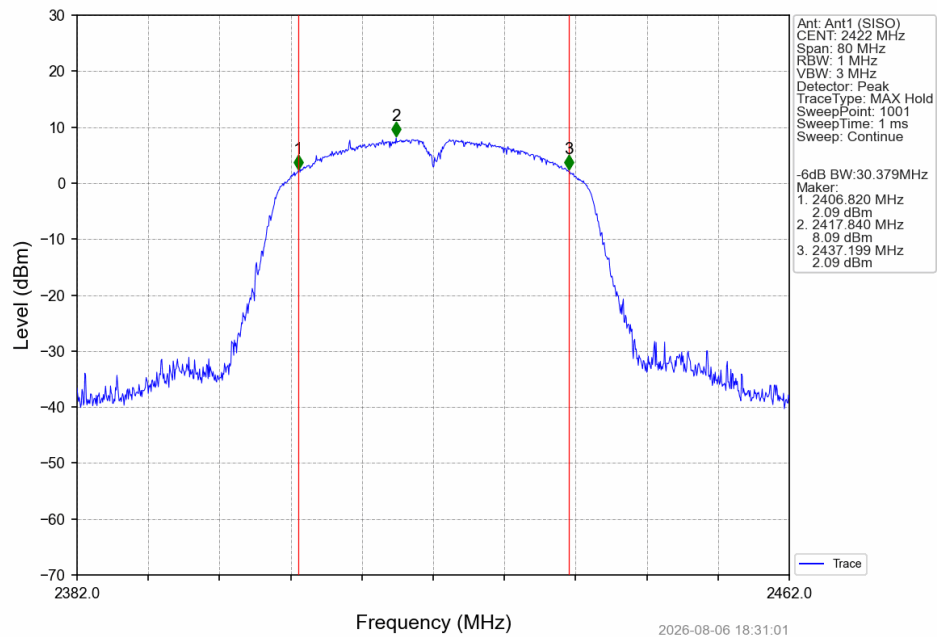




802.11n(HT20)_HCH_2462MHz_Ant1 (SISO)_NTNV

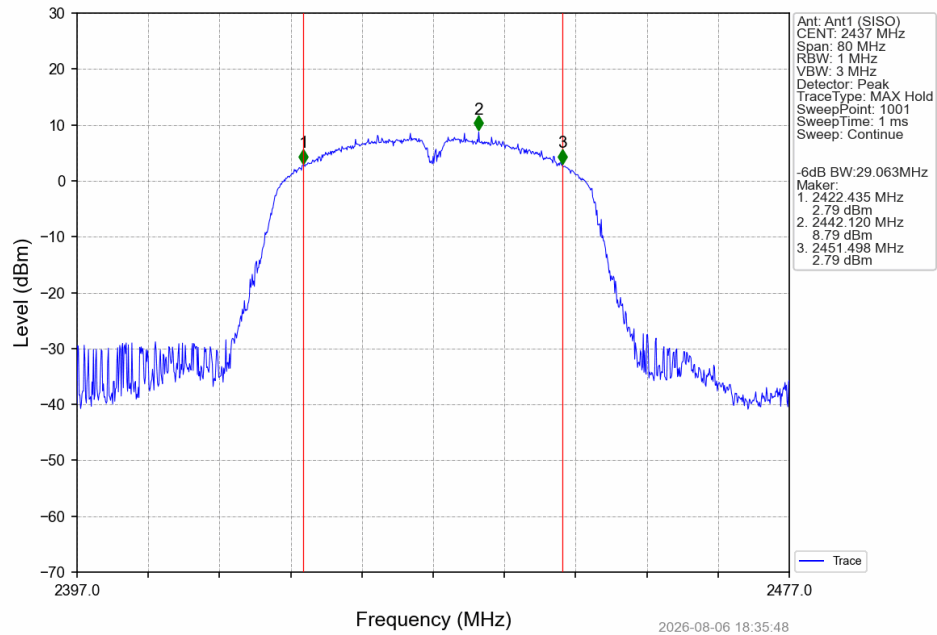


802.11n(HT40)_LCH_2422MHz_Ant1 (SISO)_NTNV

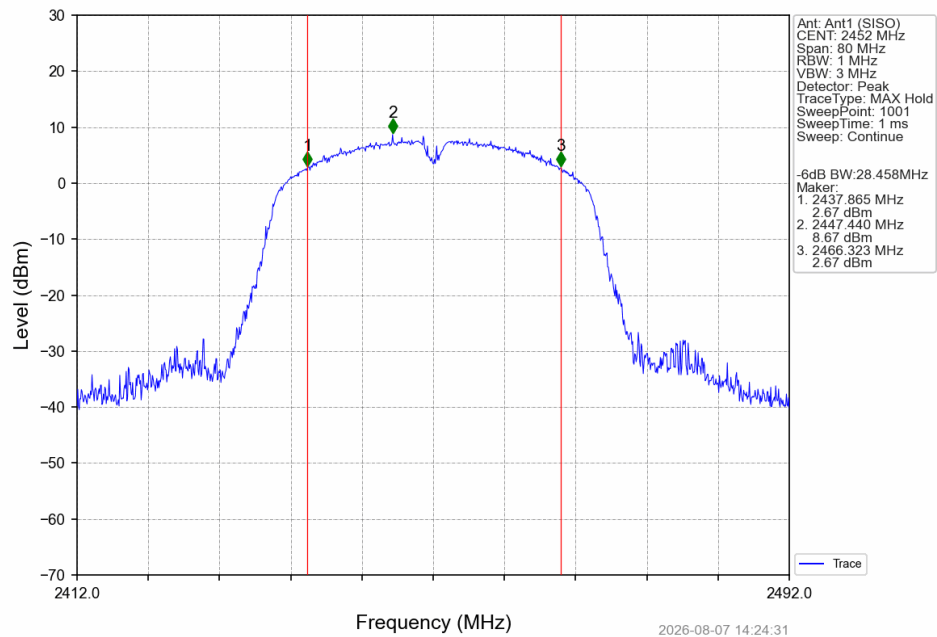




802.11n(HT40)_MCH_2437MHz_Ant1 (SISO)_NTNV



802.11n(HT40)_HCH_2452MHz_Ant1 (SISO)_NTNV





3. Maximum Conducted Output Power

3.1 Test Result

3.1.1 Power

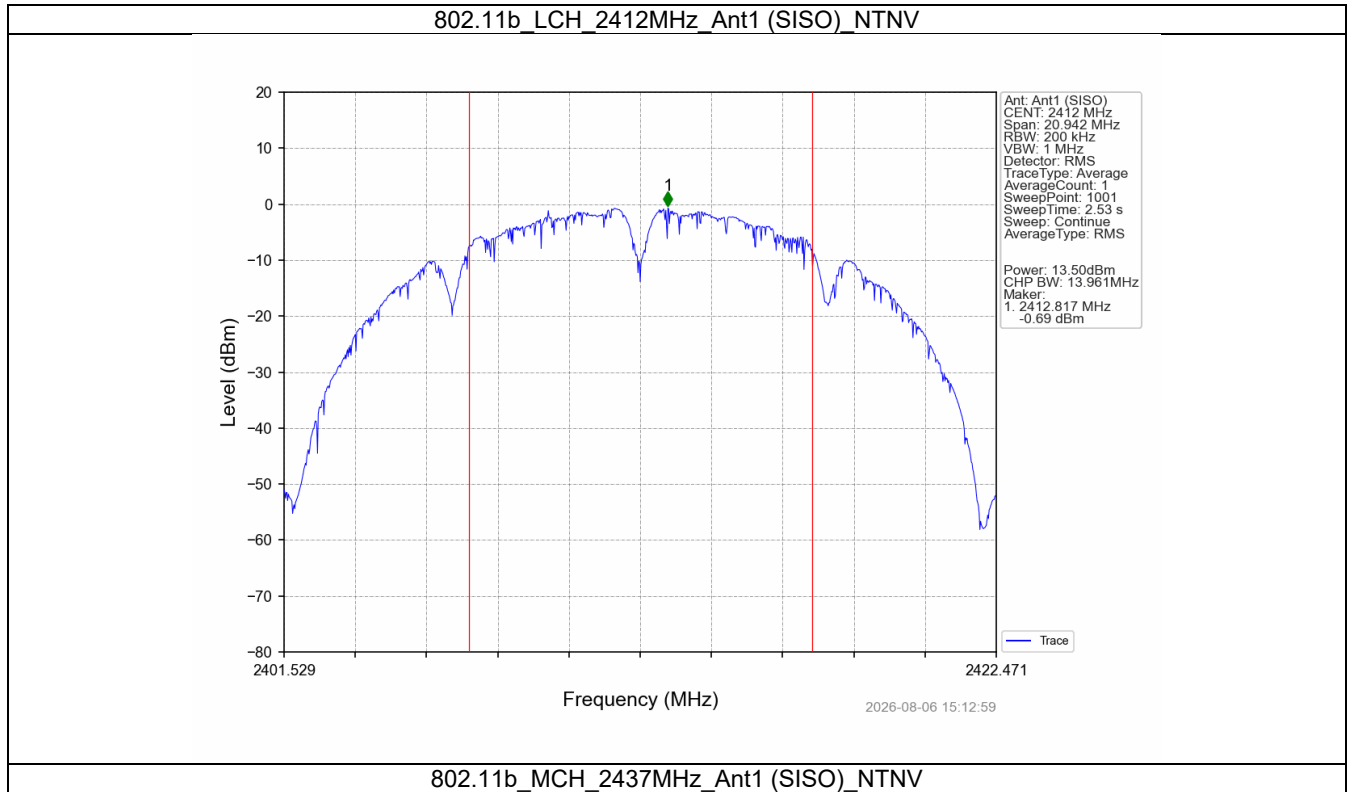
Mode	TX Type	Frequency (MHz)	Maximum Average Conducted Output Power (dBm)		Verdict
			ANT1	Limit	
802.11b	SISO	2412	13.50	<=30	Pass
		2437	13.79	<=30	Pass
		2462	13.42	<=30	Pass
802.11g	SISO	2412	13.10	<=30	Pass
		2437	14.05	<=30	Pass
		2462	13.97	<=30	Pass
802.11n (HT20)	SISO	2412	14.36	<=30	Pass
		2437	14.19	<=30	Pass
		2462	14.06	<=30	Pass
802.11n (HT40)	SISO	2422	12.70	<=30	Pass
		2437	12.67	<=30	Pass
		2452	12.54	<=30	Pass

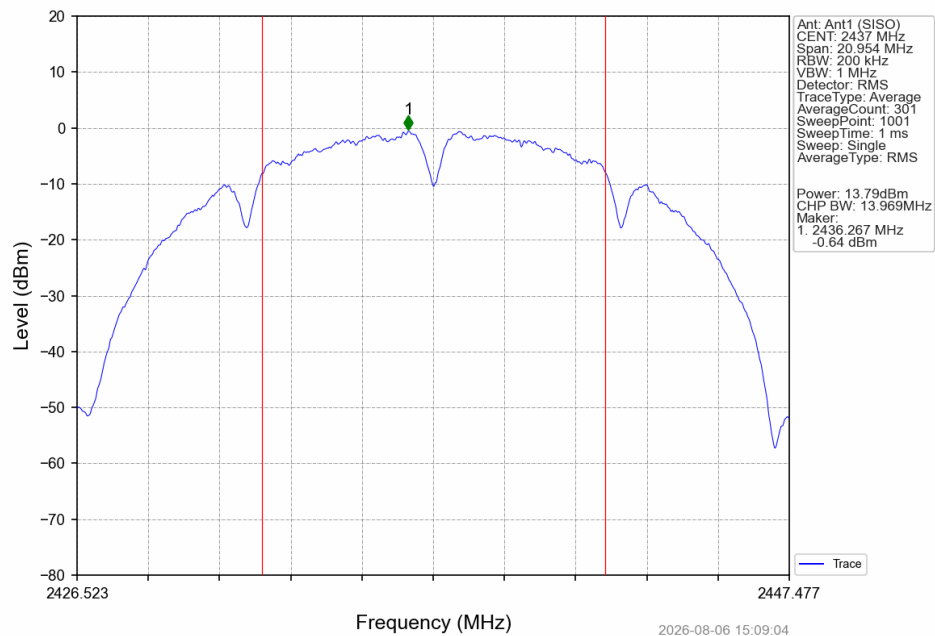
Note1: Antenna Gain: Ant1: 1.96dBi;



3.2 Test Graph

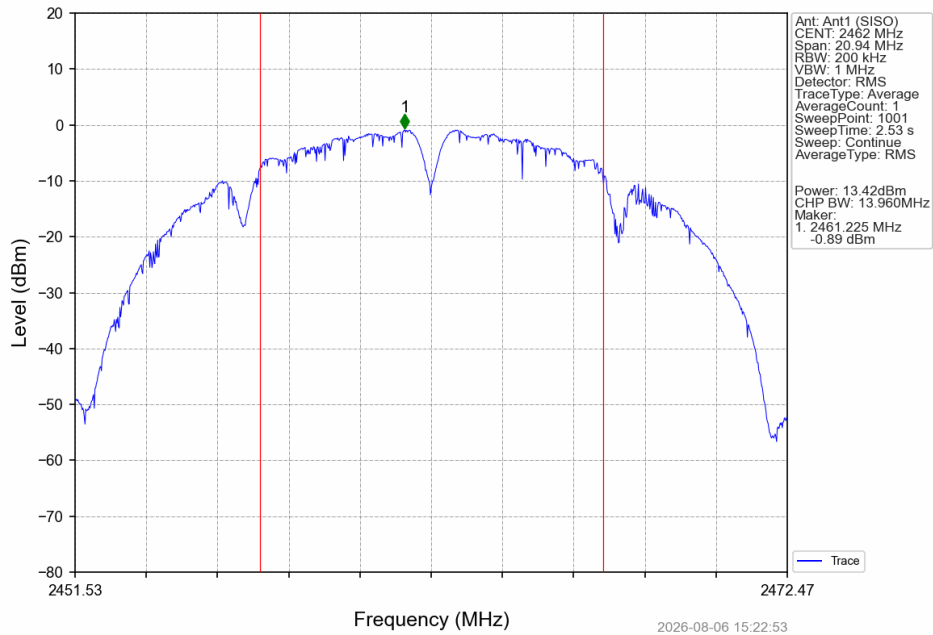
3.2.1 Power



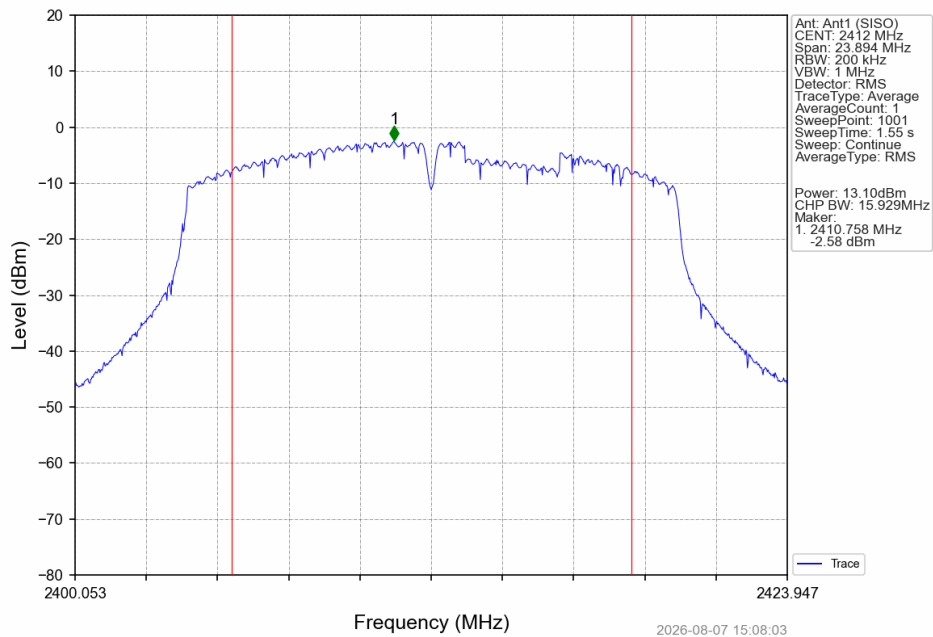




802.11b_HCH_2462MHz_Ant1 (SISO)_NTNV

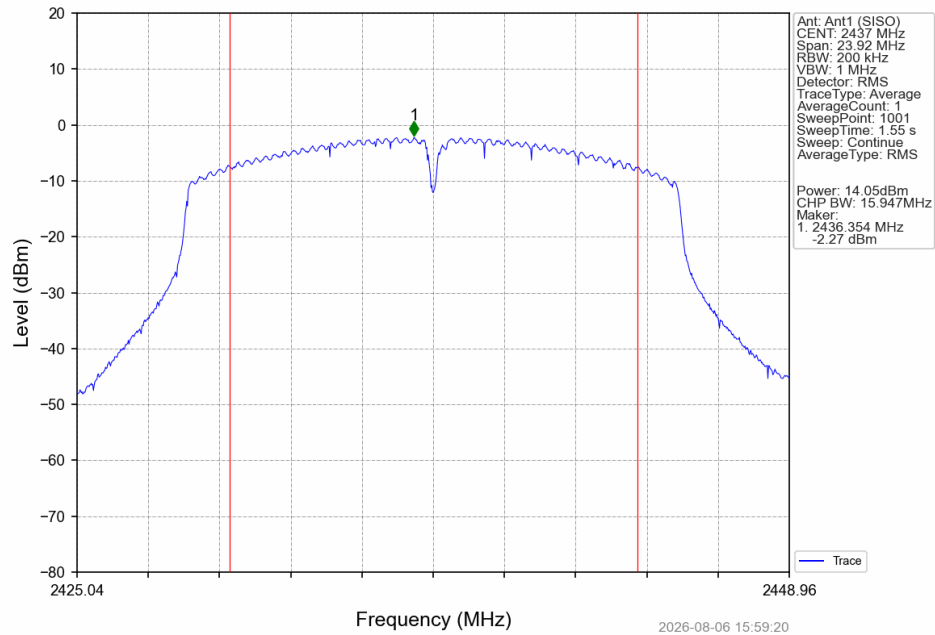


802.11g_LCH_2412MHz_Ant1 (SISO)_NTNV

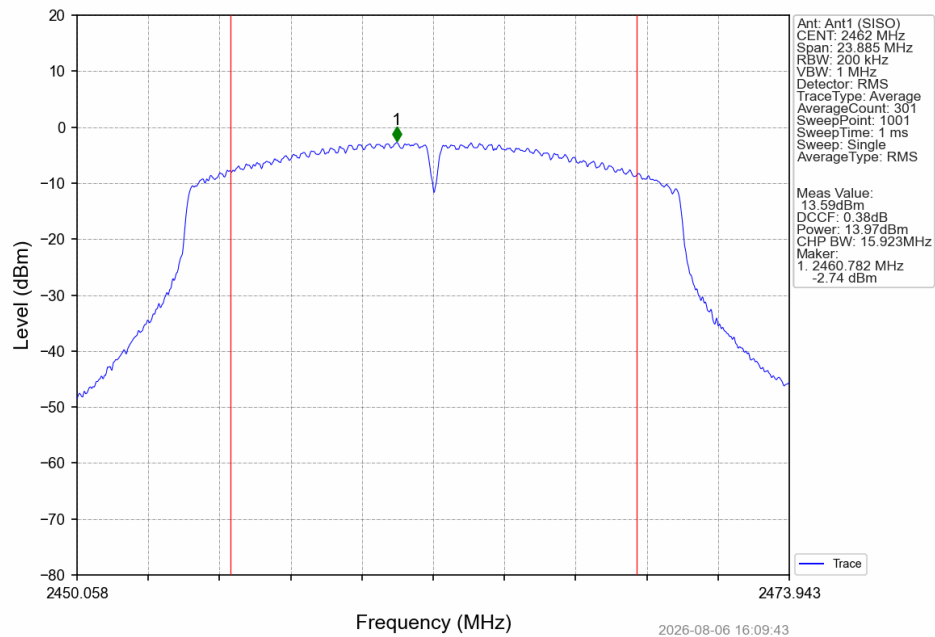




802.11g_MCH_2437MHz_Ant1 (SISO)_NTNV

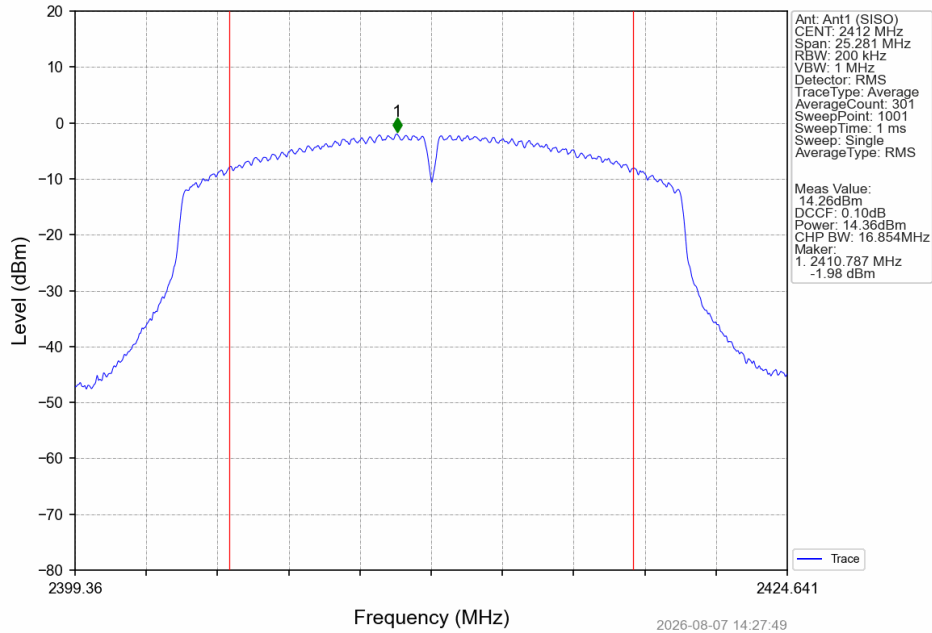


802.11g_HCH_2462MHz_Ant1 (SISO)_NTNV

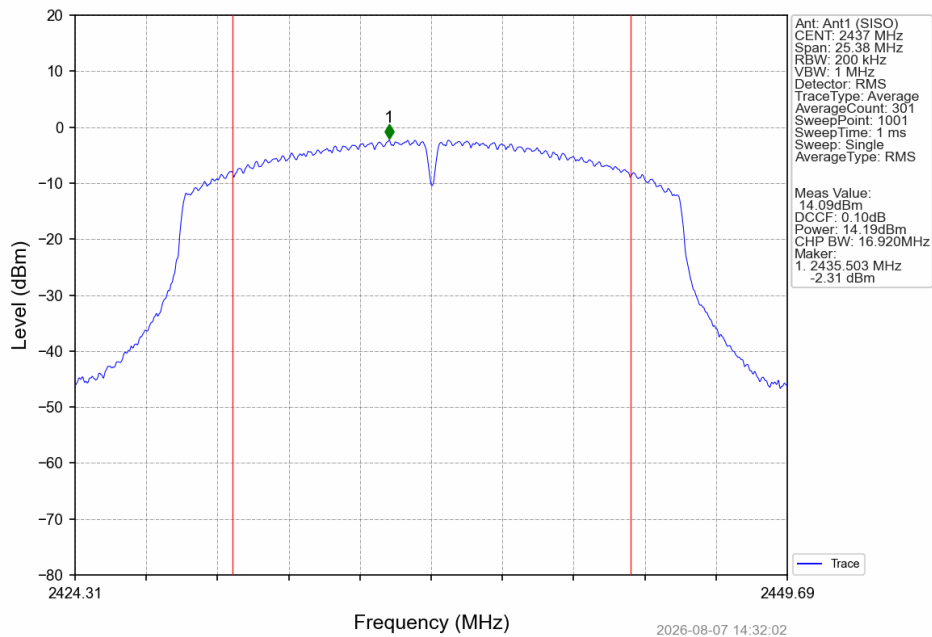




802.11n(HT20)_LCH_2412MHz_Ant1 (SISO)_NTNV

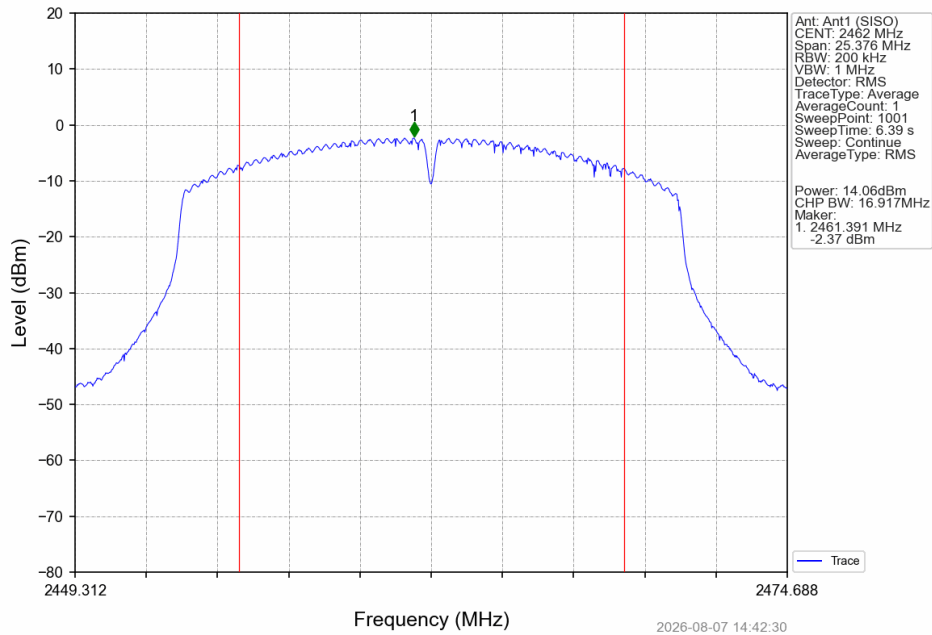


802.11n(HT20)_MCH_2437MHz_Ant1 (SISO)_NTNV

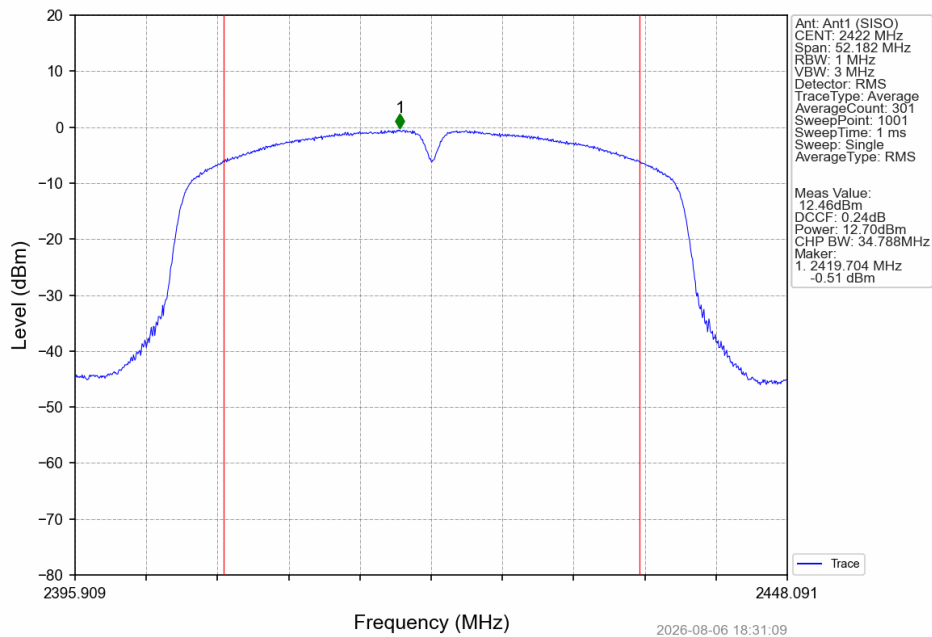




802.11n(HT20)_HCH_2462MHz_Ant1 (SISO)_NTNV

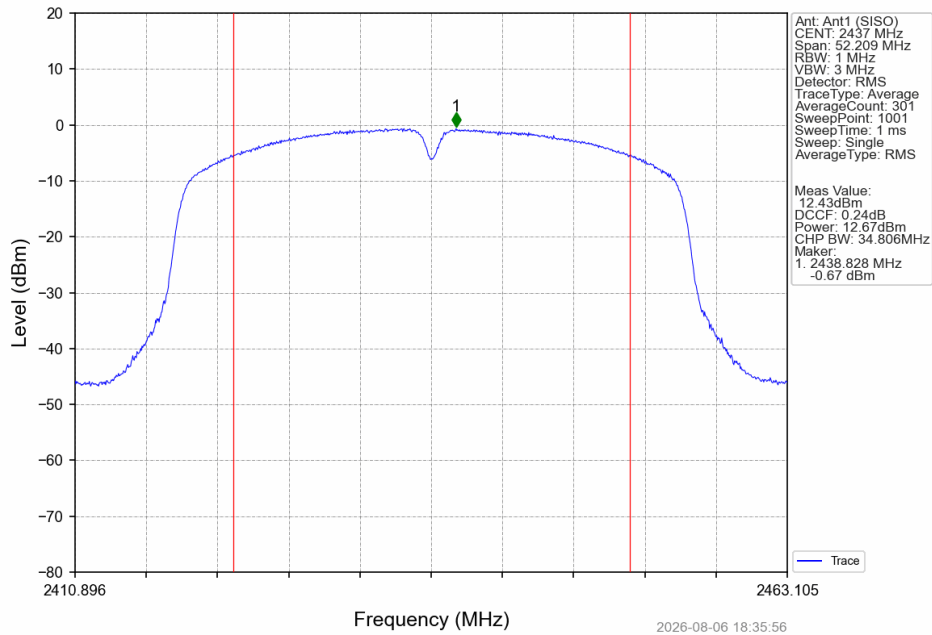


802.11n(HT40)_LCH_2422MHz_Ant1 (SISO)_NTNV

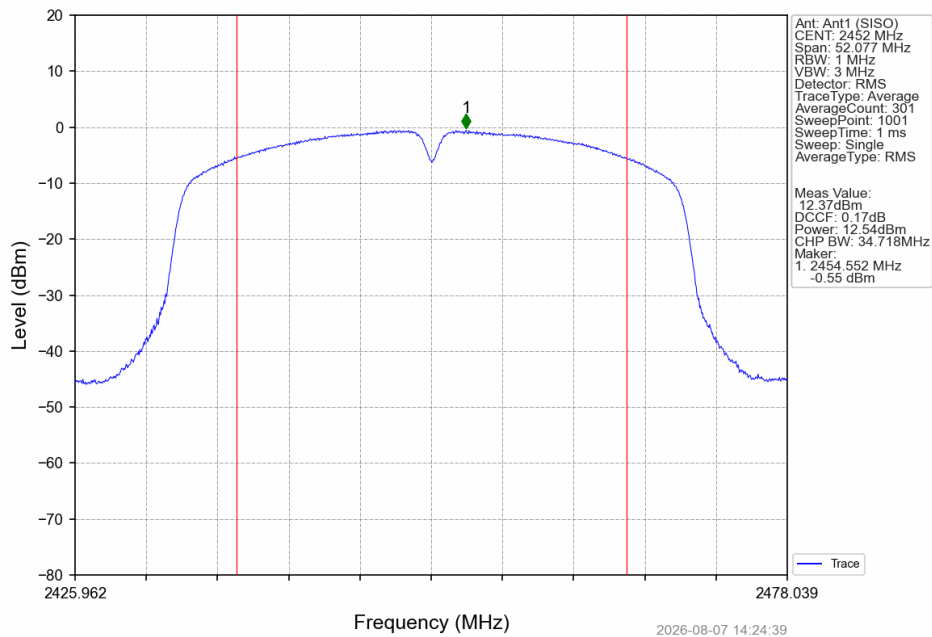




802.11n(HT40)_MCH_2437MHz_Ant1 (SISO)_NTNV



802.11n(HT40)_HCH_2452MHz_Ant1 (SISO)_NTNV





4. Maximum Power Spectral Density

4.1 Test Result

4.1.1 PSD

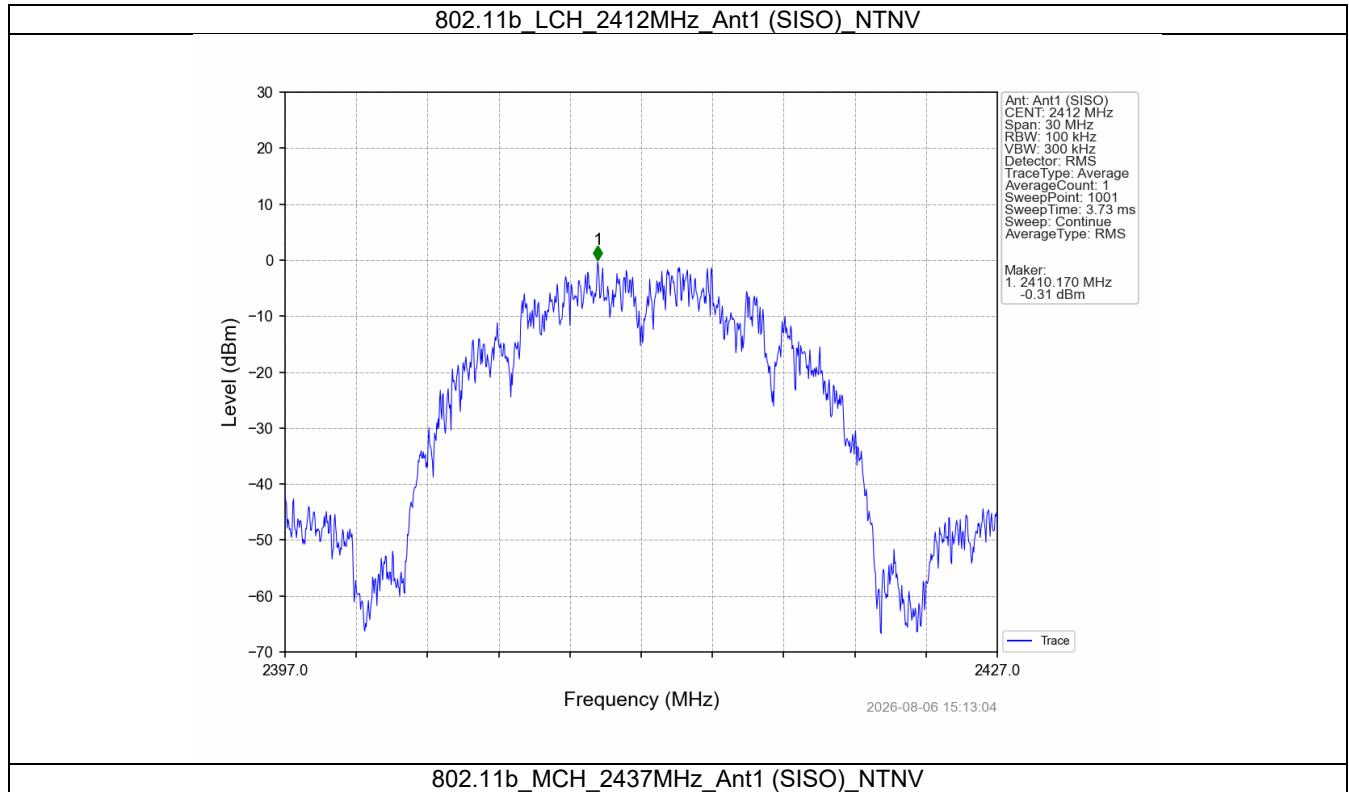
Mode	TX Type	Frequency (MHz)	Maximum PSD (dBm)		Verdict
			ANT1	Limit(dBm/3kHz)	
802.11b	SISO	2412	-0.31dBm/100kHz	<=8	Pass
		2437	-0.42dBm/100kHz	<=8	Pass
		2462	-0.54dBm/100kHz	<=8	Pass
802.11g	SISO	2412	-2.47dBm/100kHz	<=8	Pass
		2437	-1.27dBm/100kHz	<=8	Pass
		2462	-2.75dBm/100kHz	<=8	Pass
802.11n (HT20)	SISO	2412	-2.24dBm/100kHz	<=8	Pass
		2437	-1.68dBm/100kHz	<=8	Pass
		2462	-2.25dBm/100kHz	<=8	Pass
802.11n (HT40)	SISO	2422	-6.89dBm/100kHz	<=8	Pass
		2437	-7.39dBm/100kHz	<=8	Pass
		2452	-7.12dBm/100kHz	<=8	Pass

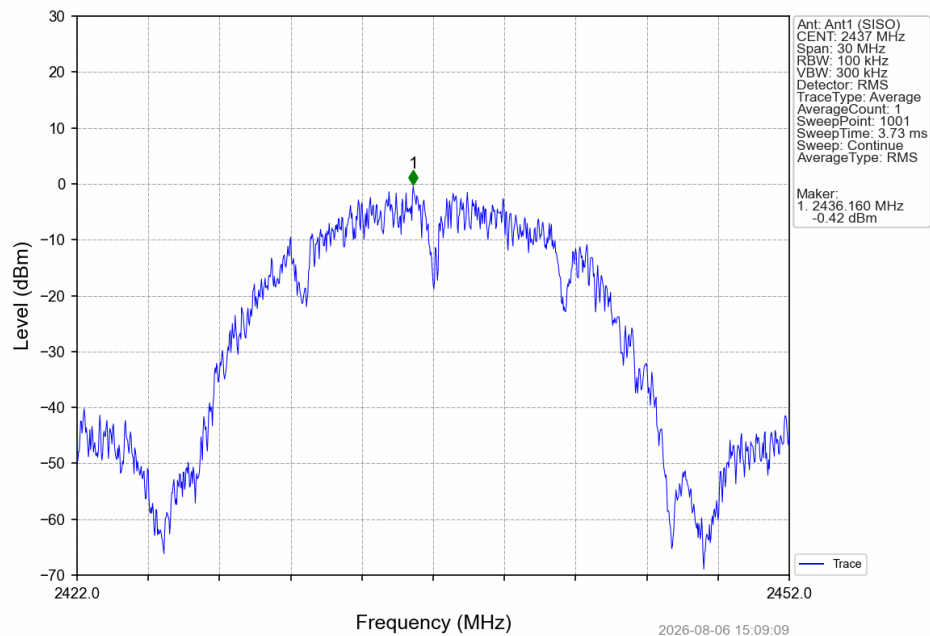
Note1: Antenna Gain: Ant1: 1.96dBi;



4.2 Test Graph

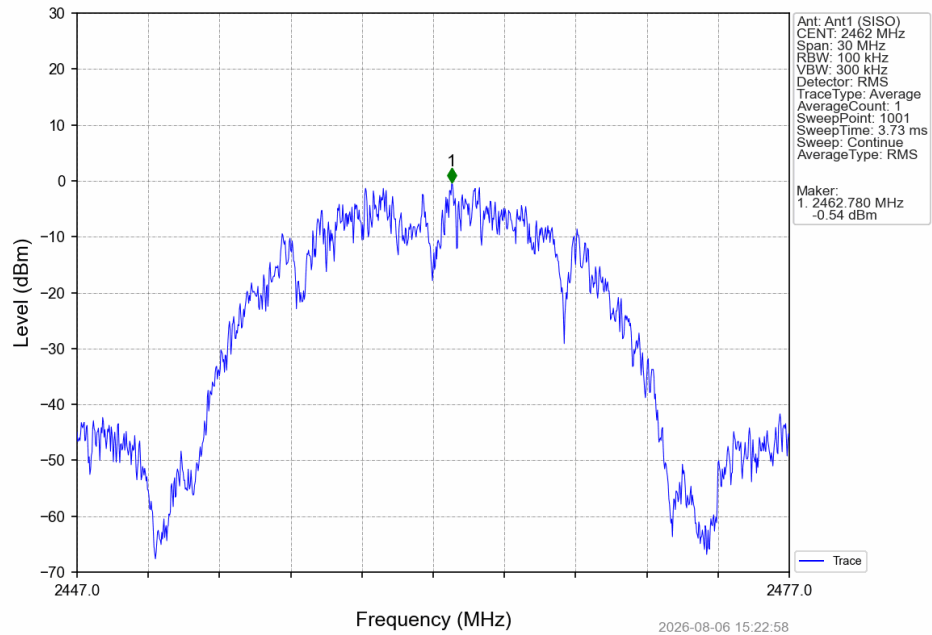
4.2.1 PSD



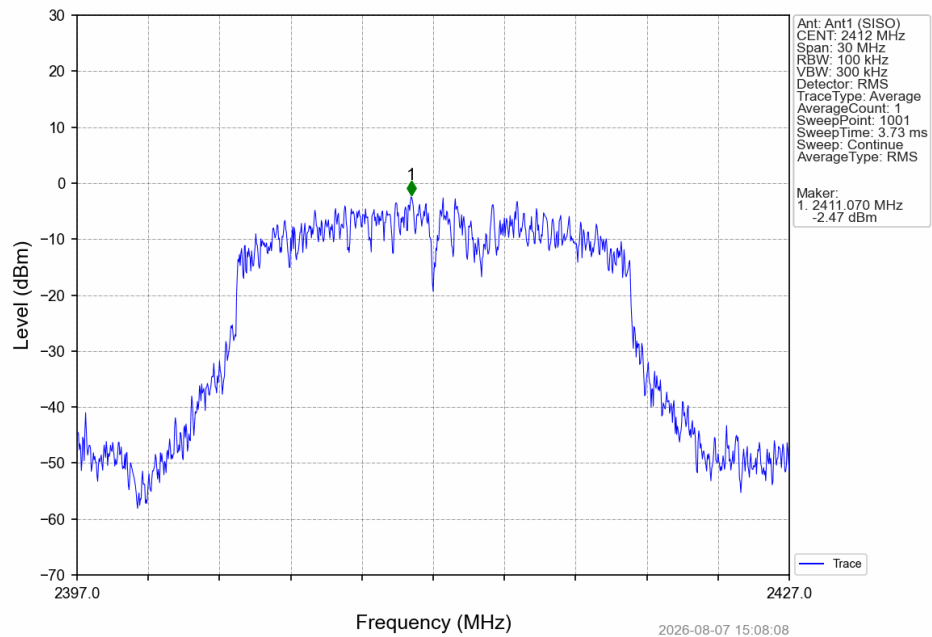




802.11b_HCH_2462MHz_Ant1 (SISO)_NTNV

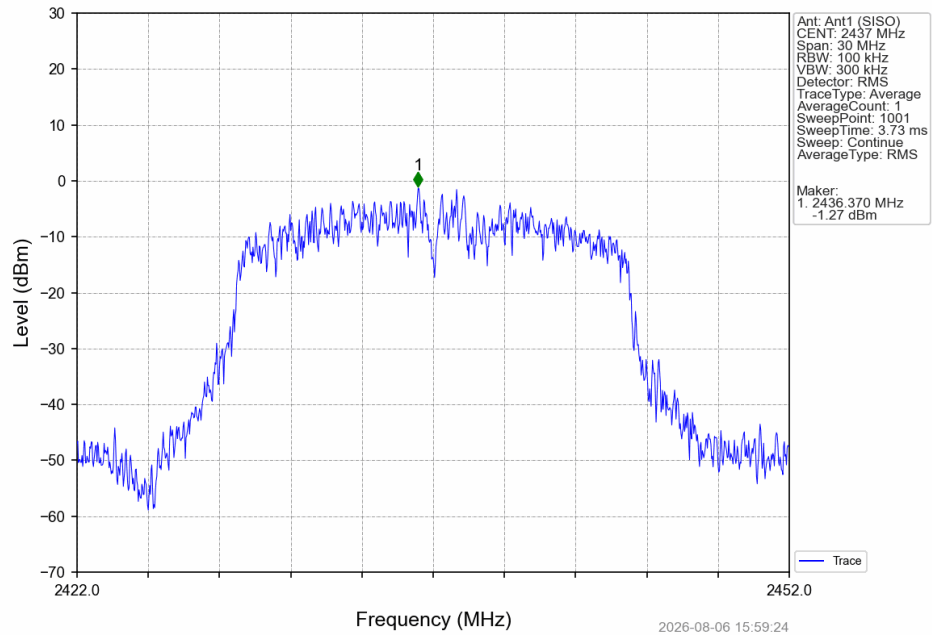


802.11g_LCH_2412MHz_Ant1 (SISO)_NTNV

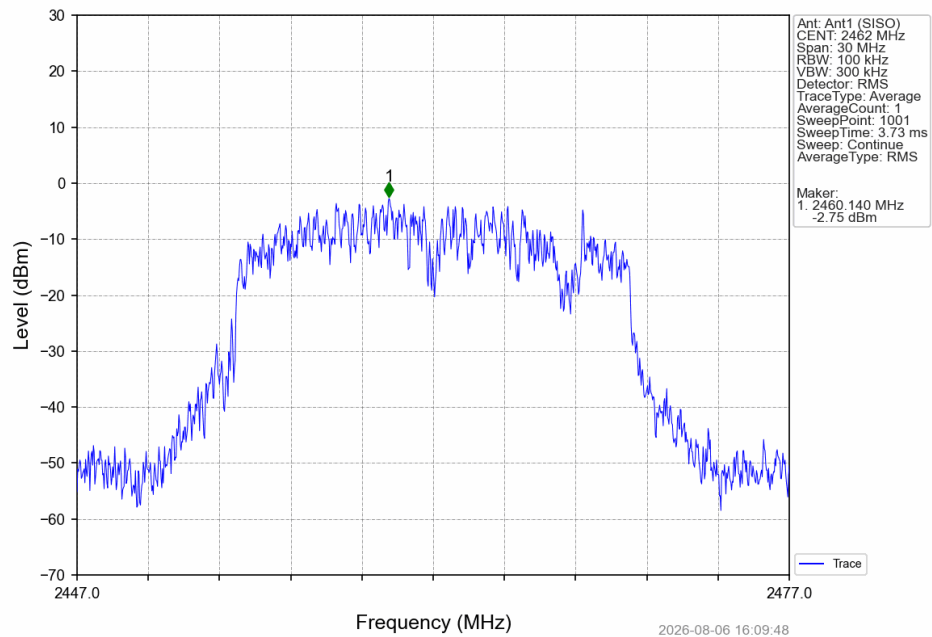




802.11g_MCH_2437MHz_Ant1 (SISO)_NTNV

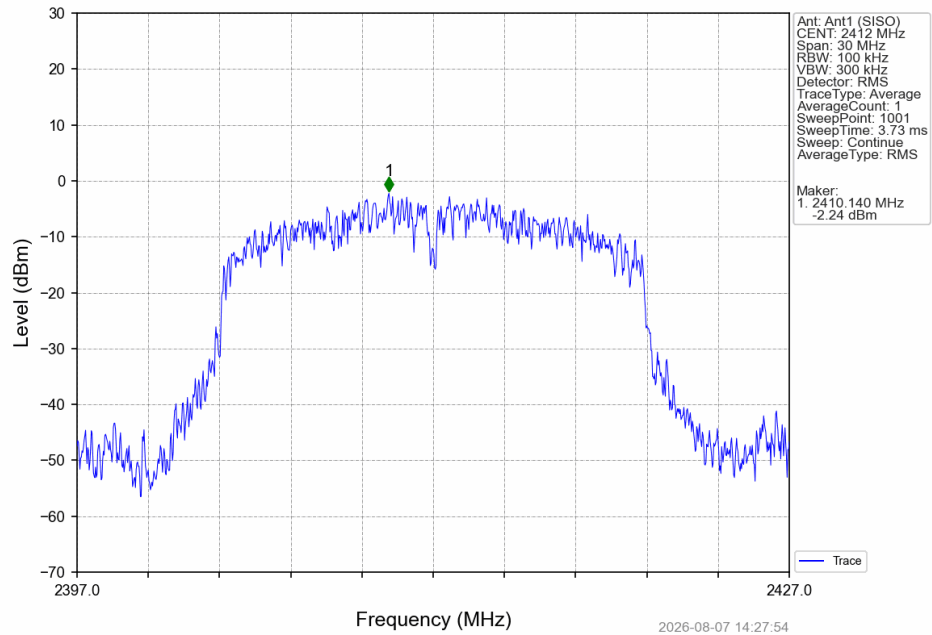


802.11g_HCH_2462MHz_Ant1 (SISO)_NTNV

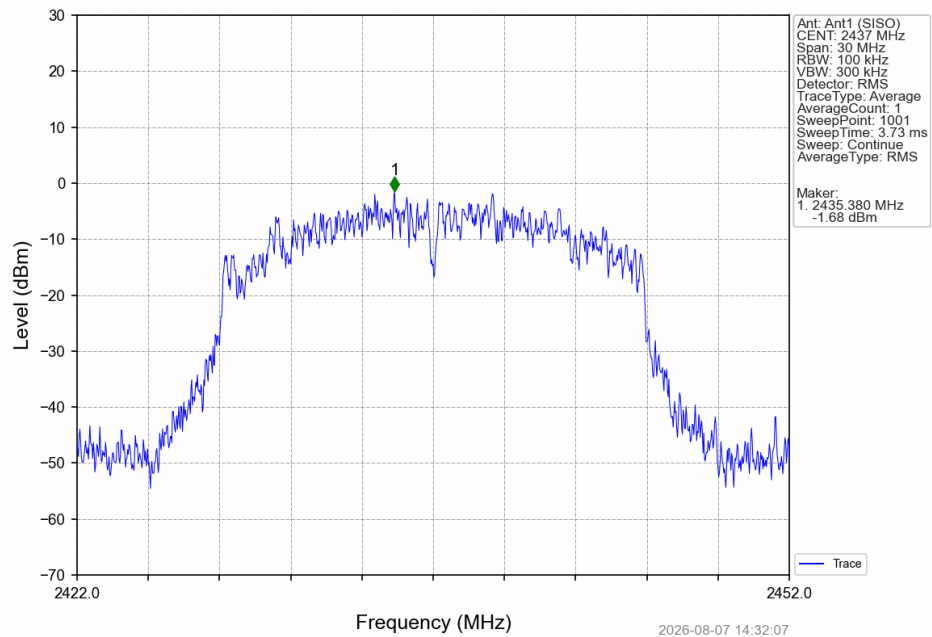




802.11n(HT20)_LCH_2412MHz_Ant1 (SISO)_NTNV

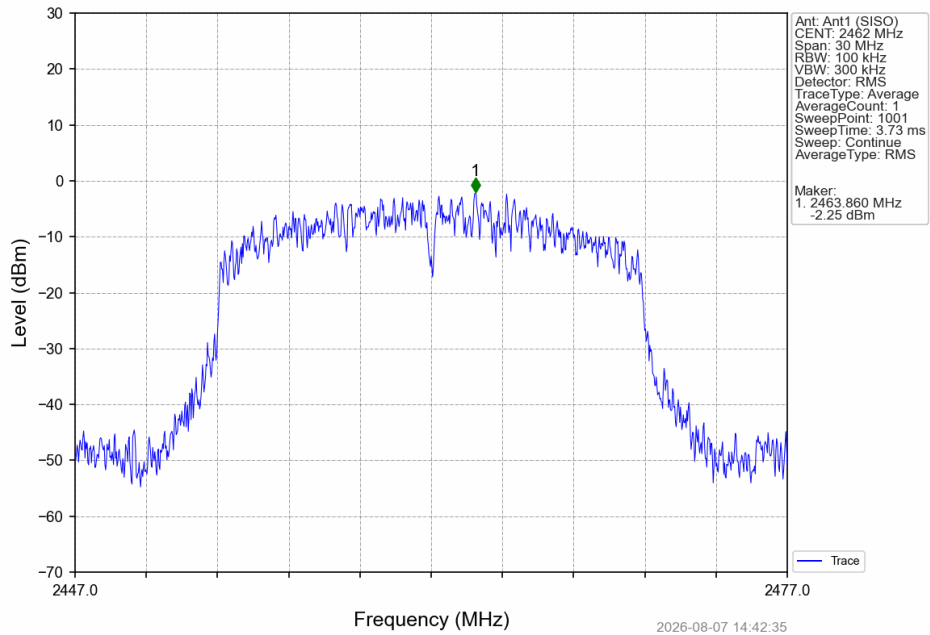


802.11n(HT20)_MCH_2437MHz_Ant1 (SISO)_NTNV

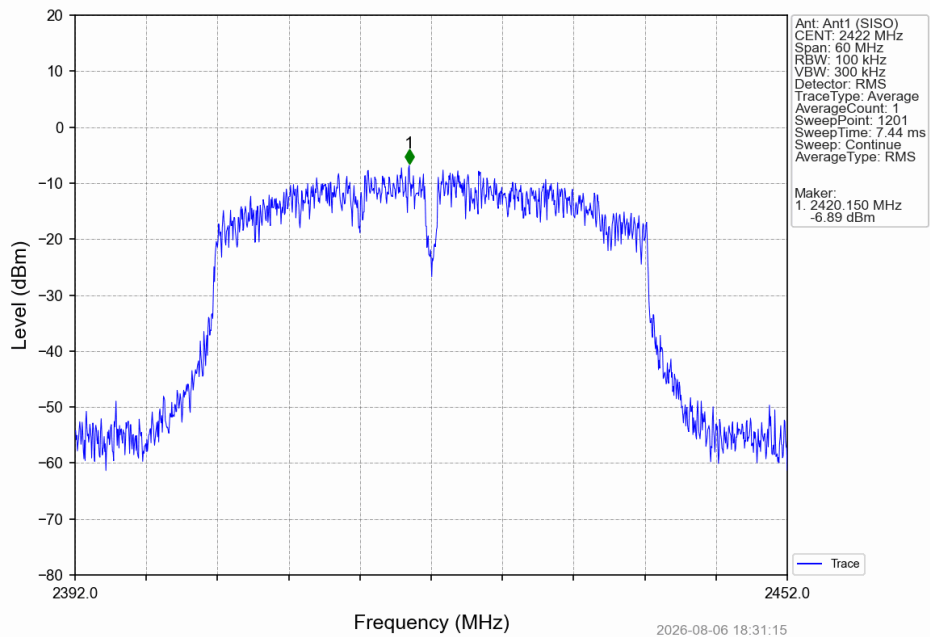




802.11n(HT20)_HCH_2462MHz_Ant1 (SISO)_NTNV

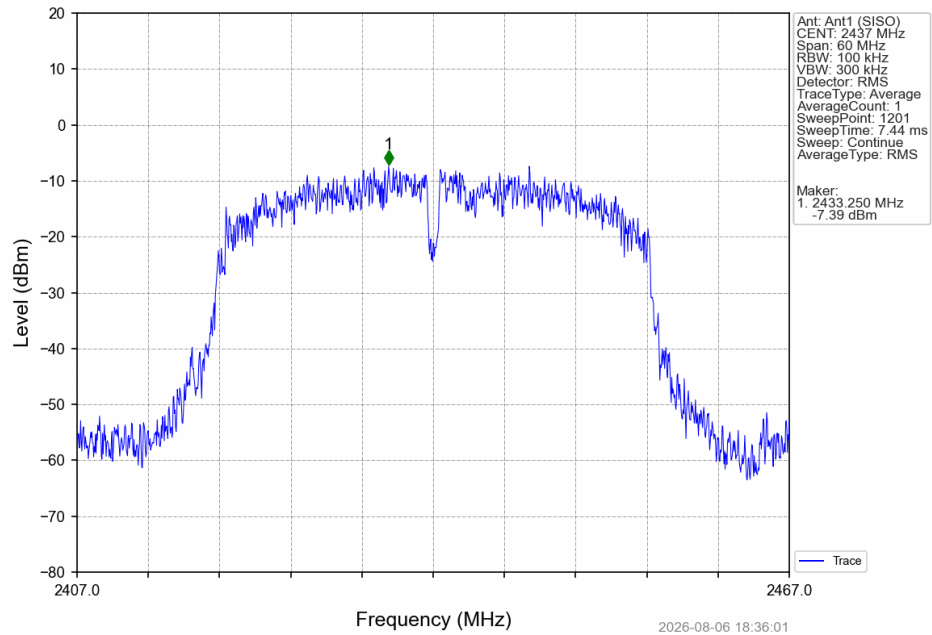


802.11n(HT40)_LCH_2422MHz_Ant1 (SISO)_NTNV

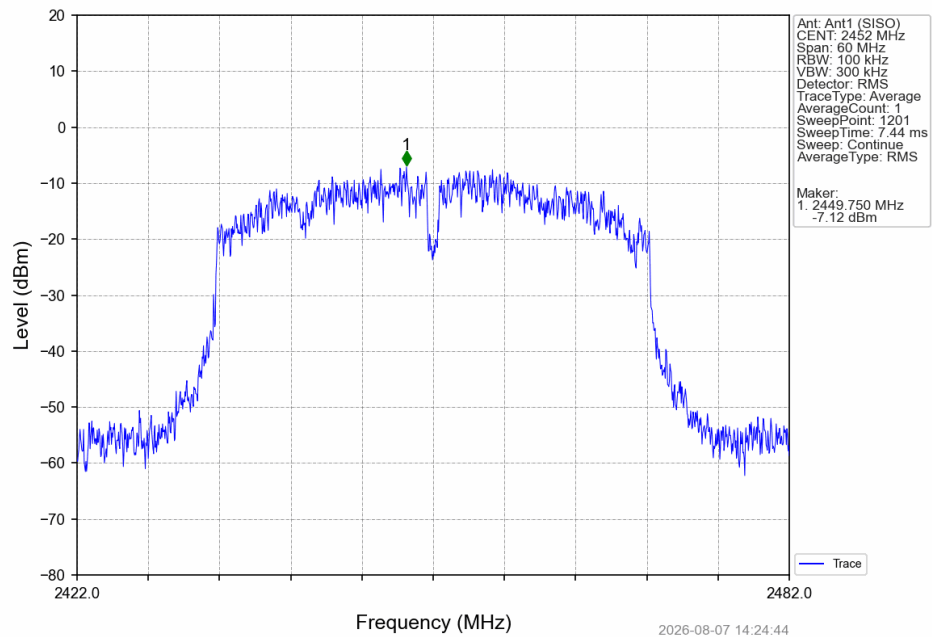




802.11n(HT40)_MCH_2437MHz_Ant1 (SISO)_NTNV



802.11n(HT40)_HCH_2452MHz_Ant1 (SISO)_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)
802.11b	SISO	2412	1	5.33
		2437	1	5.16
		2462	1	5.23
802.11g	SISO	2412	1	4.46
		2437	1	4.91
		2462	1	3.67
802.11n (HT20)	SISO	2412	1	3.75
		2437	1	3.65
		2462	1	2.39
802.11n (HT40)	SISO	2422	1	-0.03
		2437	1	-0.32
		2452	1	-0.02

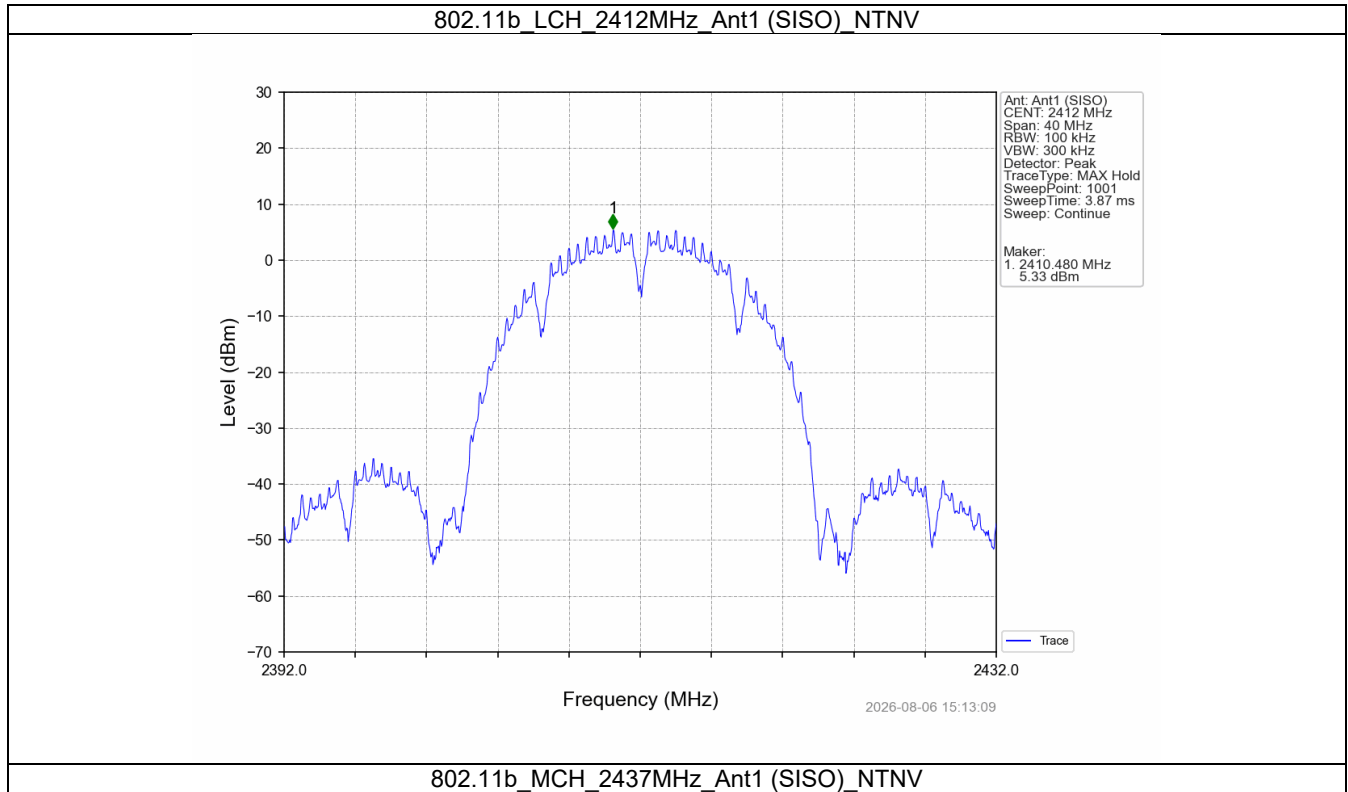
5.1.2 CSE

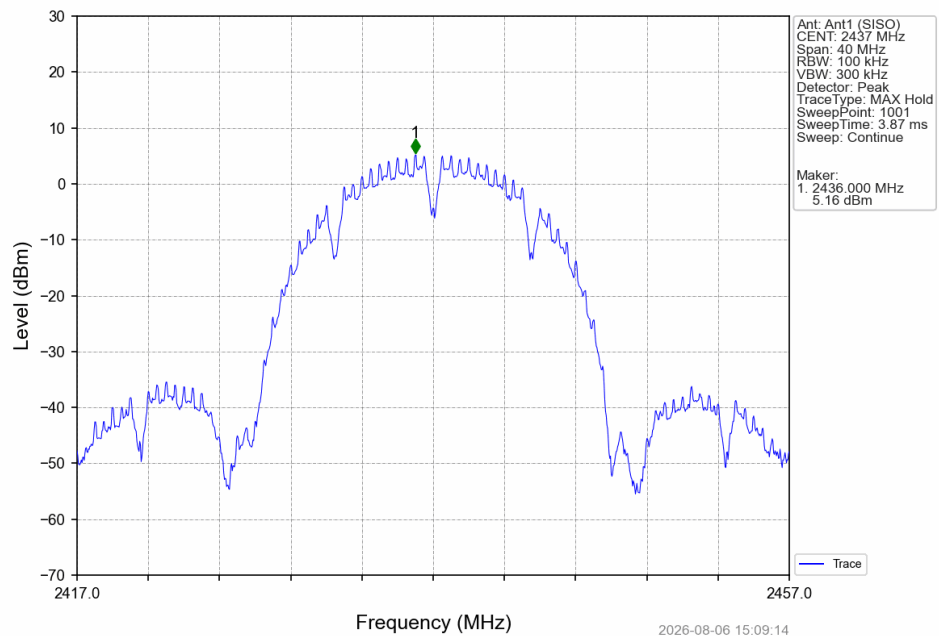
Mode	TX Type	Frequency (MHz)	ANT	Level of Reference (dBm)	Limit (dBm)	Verdict
802.11b	SISO	2412	1	5.33	-24.67	Pass
		2437	1	5.33	-24.67	Pass
		2462	1	5.33	-24.67	Pass
802.11g	SISO	2412	1	4.91	-25.09	Pass
		2437	1	4.91	-25.09	Pass
		2462	1	4.91	-25.09	Pass
802.11n (HT20)	SISO	2412	1	3.75	-26.25	Pass
		2437	1	3.75	-26.25	Pass
		2462	1	3.75	-26.25	Pass
802.11n (HT40)	SISO	2422	1	-0.02	-30.02	Pass
		2437	1	-0.02	-30.02	Pass
		2452	1	-0.02	-30.02	Pass



5.2 Test Graph

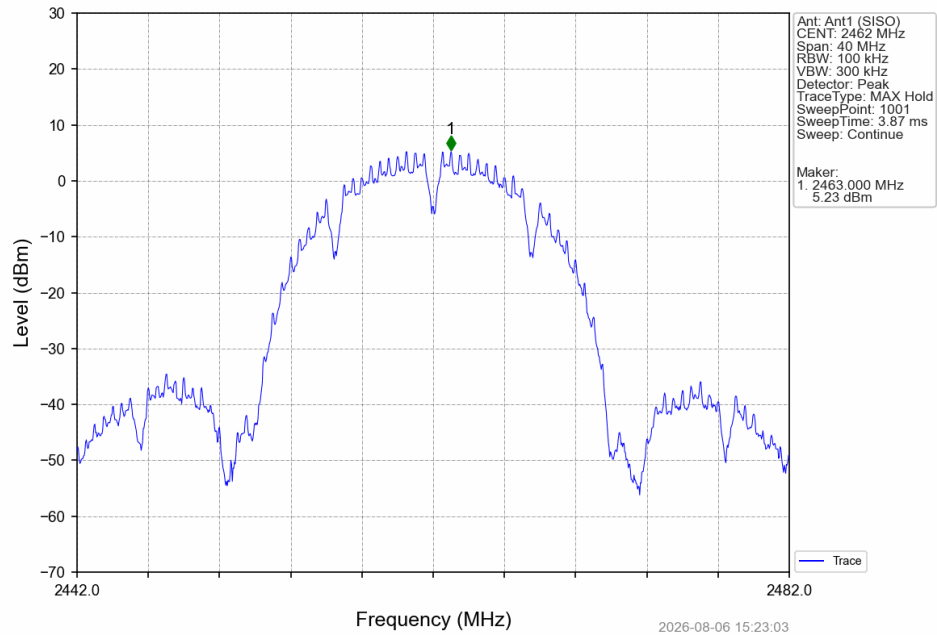
5.2.1 Ref



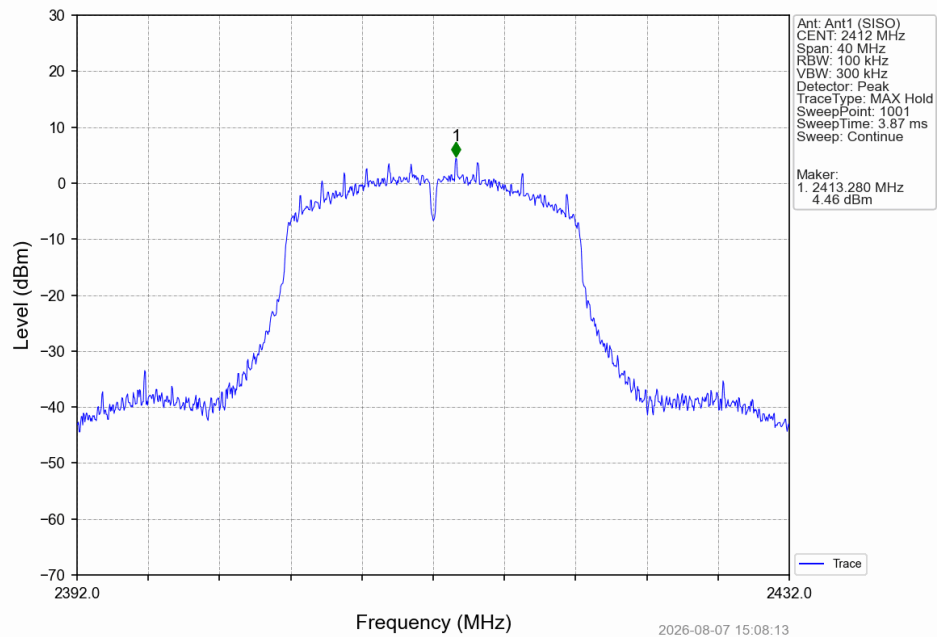




802.11b_HCH_2462MHz_Ant1 (SISO)_NTNV

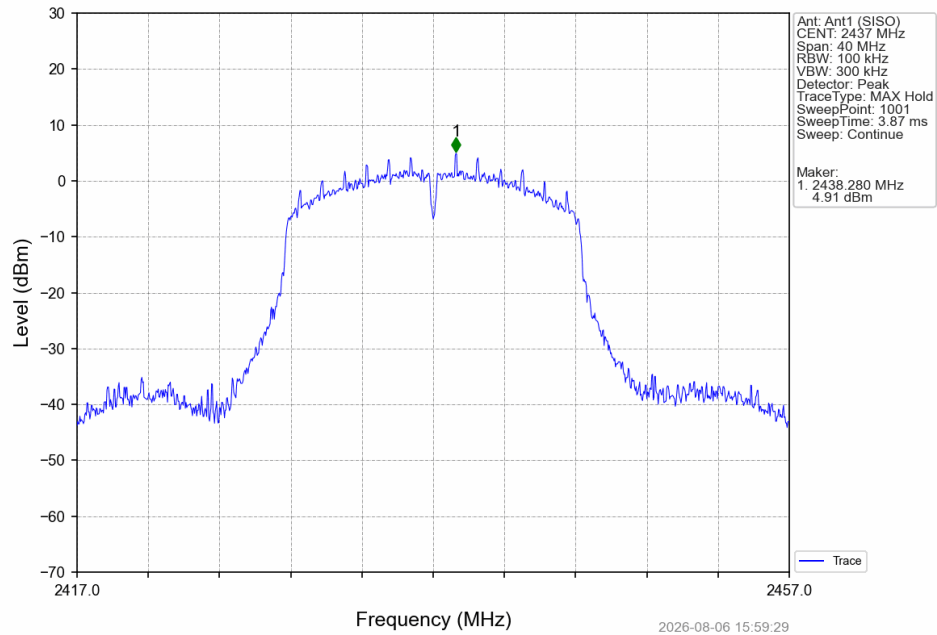


802.11g_LCH_2412MHz_Ant1 (SISO)_NTNV

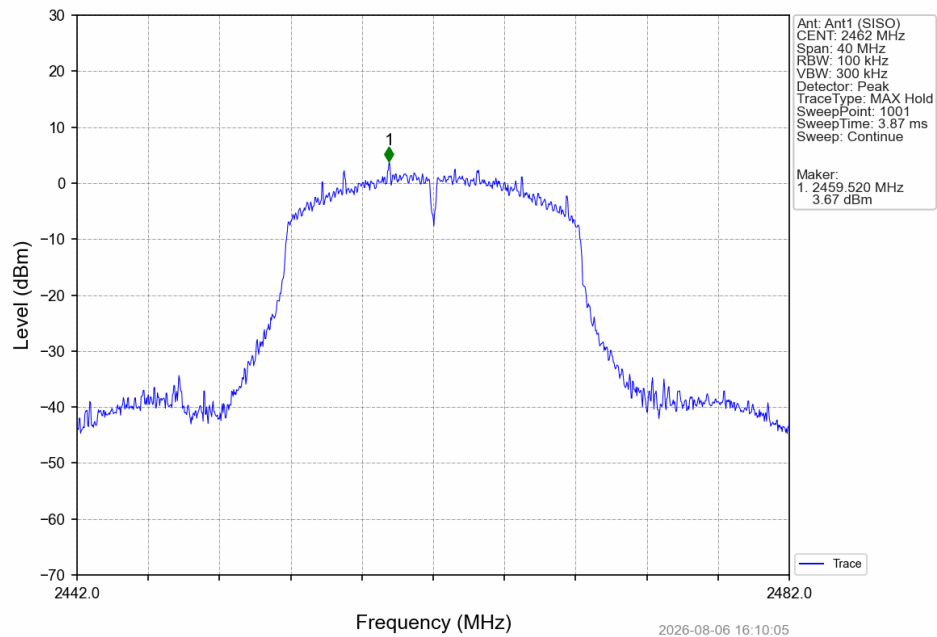




802.11g_MCH_2437MHz_Ant1 (SISO)_NTNV

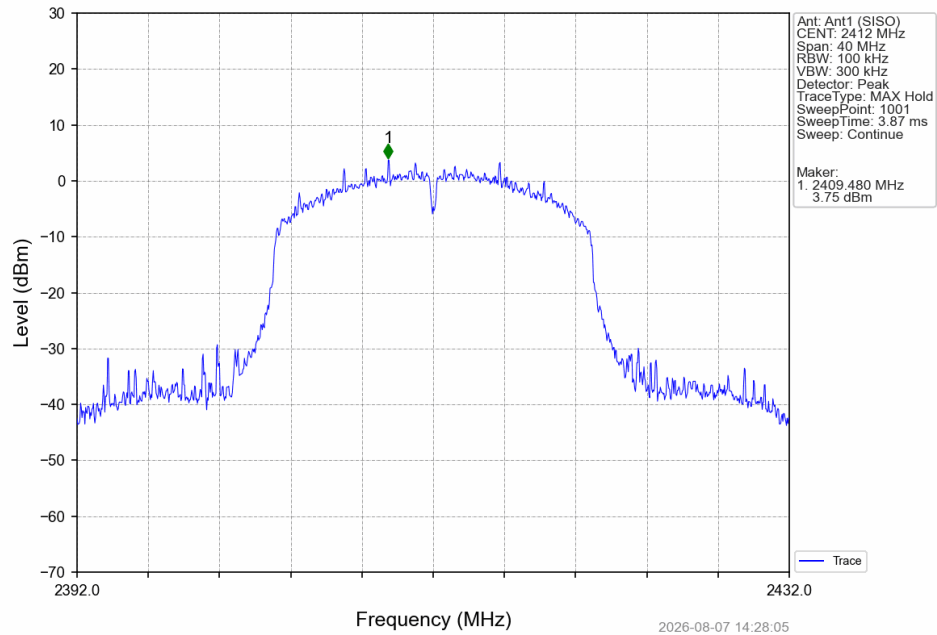


802.11g_HCH_2462MHz_Ant1 (SISO)_NTNV

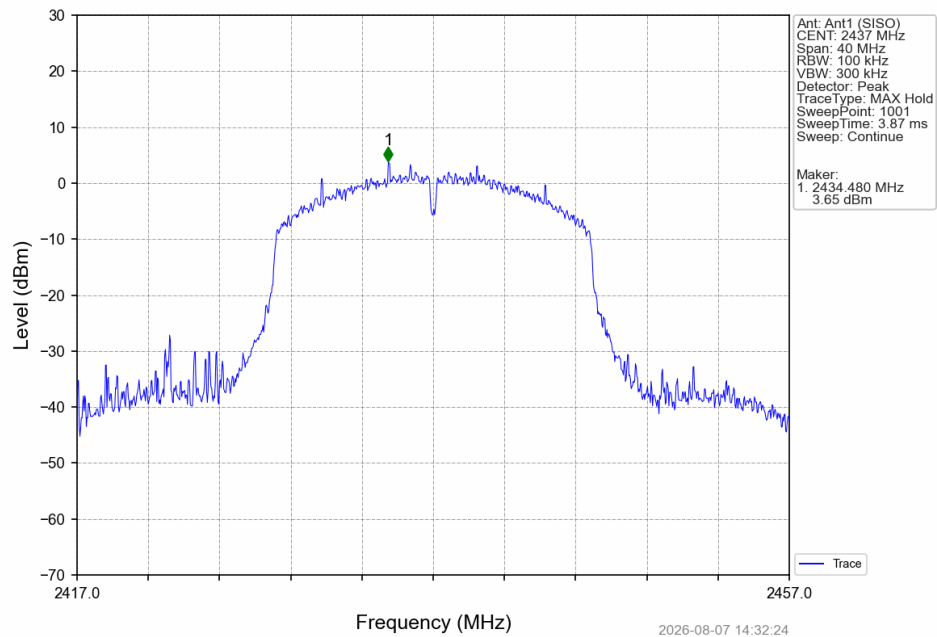




802.11n(HT20)_LCH_2412MHz_Ant1 (SISO)_NTNV

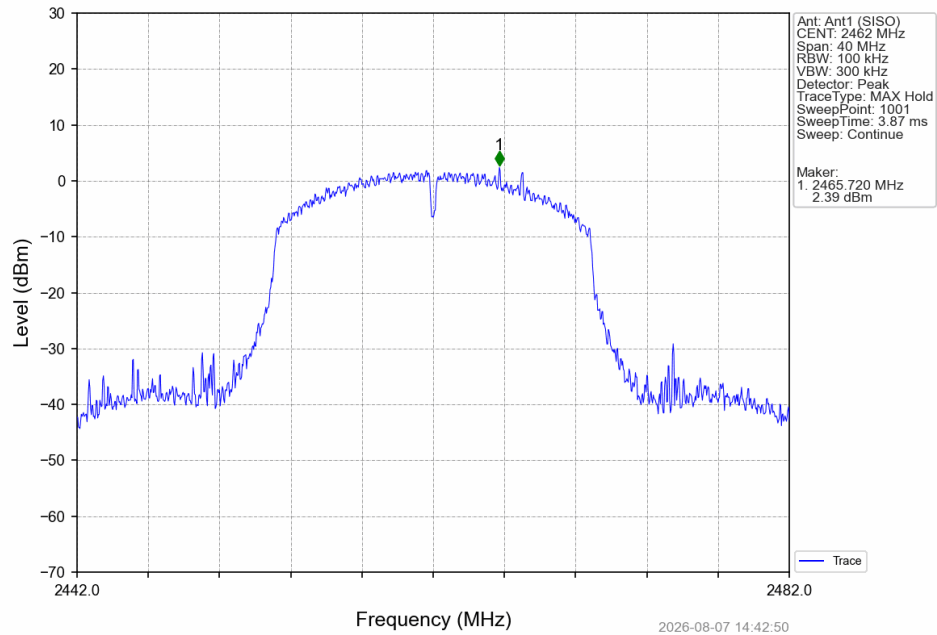


802.11n(HT20)_MCH_2437MHz_Ant1 (SISO)_NTNV

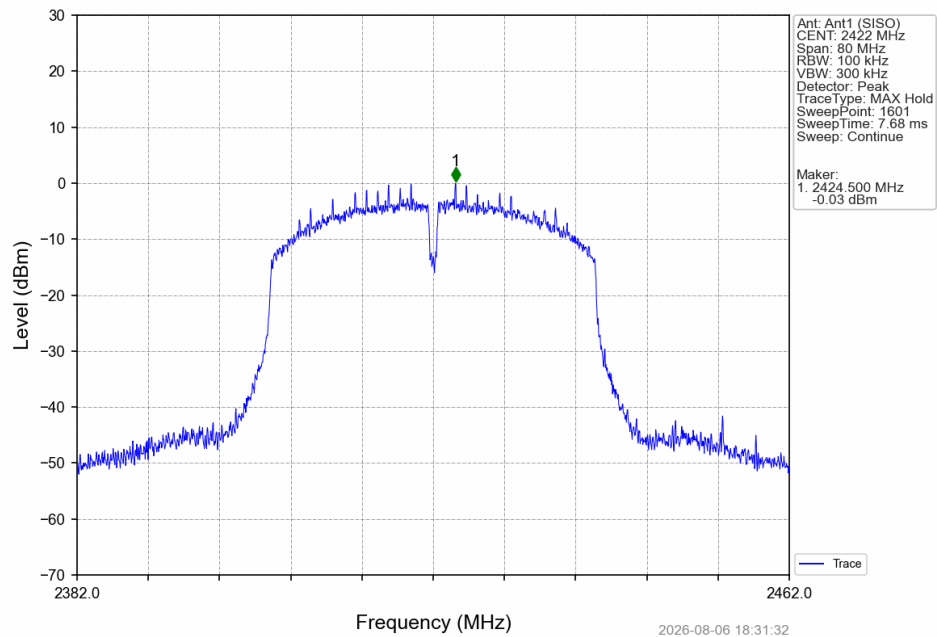




802.11n(HT20)_HCH_2462MHz_Ant1 (SISO)_NTNV

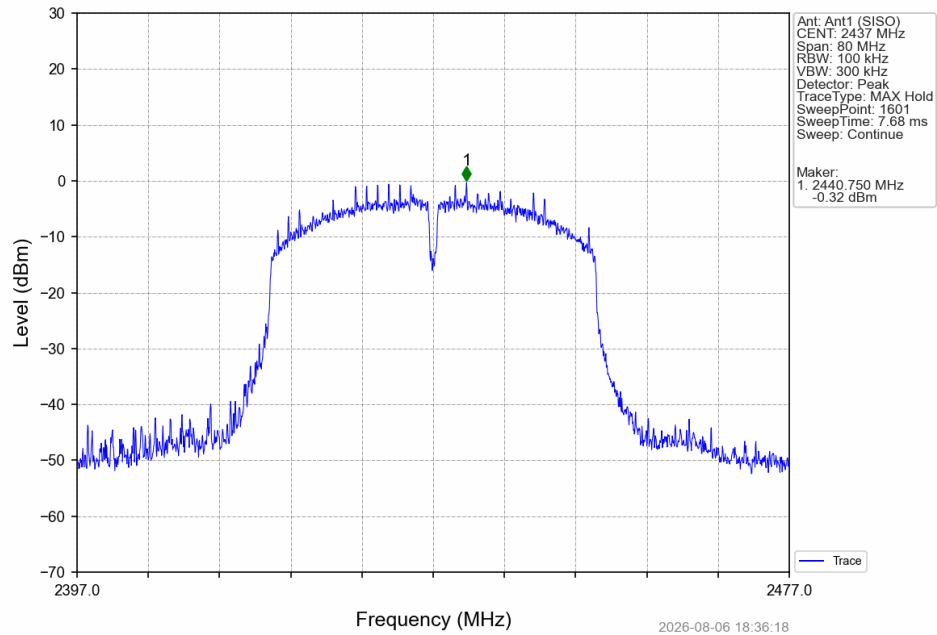


802.11n(HT40)_LCH_2422MHz_Ant1 (SISO)_NTNV

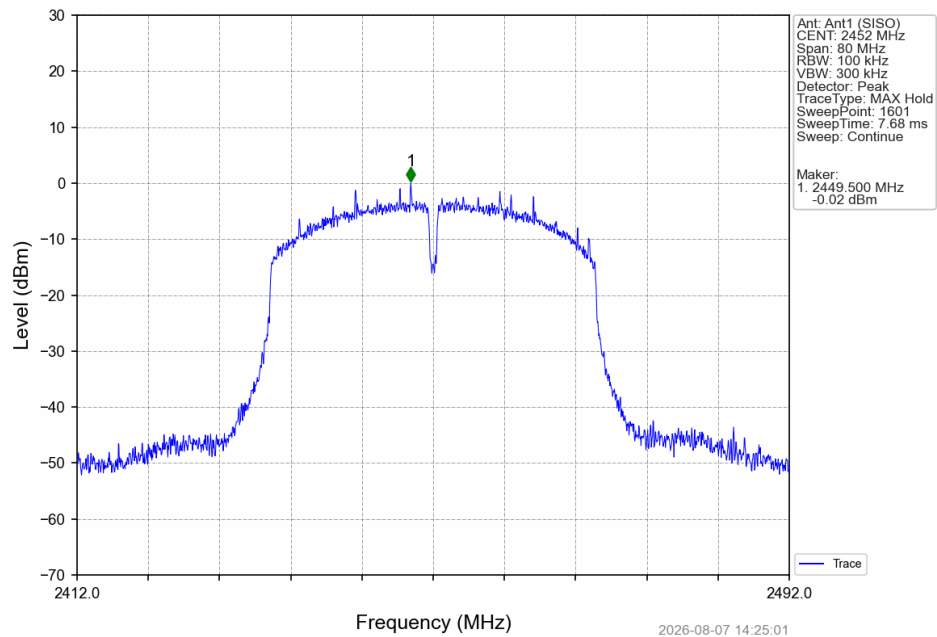




802.11n(HT40)_MCH_2437MHz_Ant1 (SISO)_NTNV

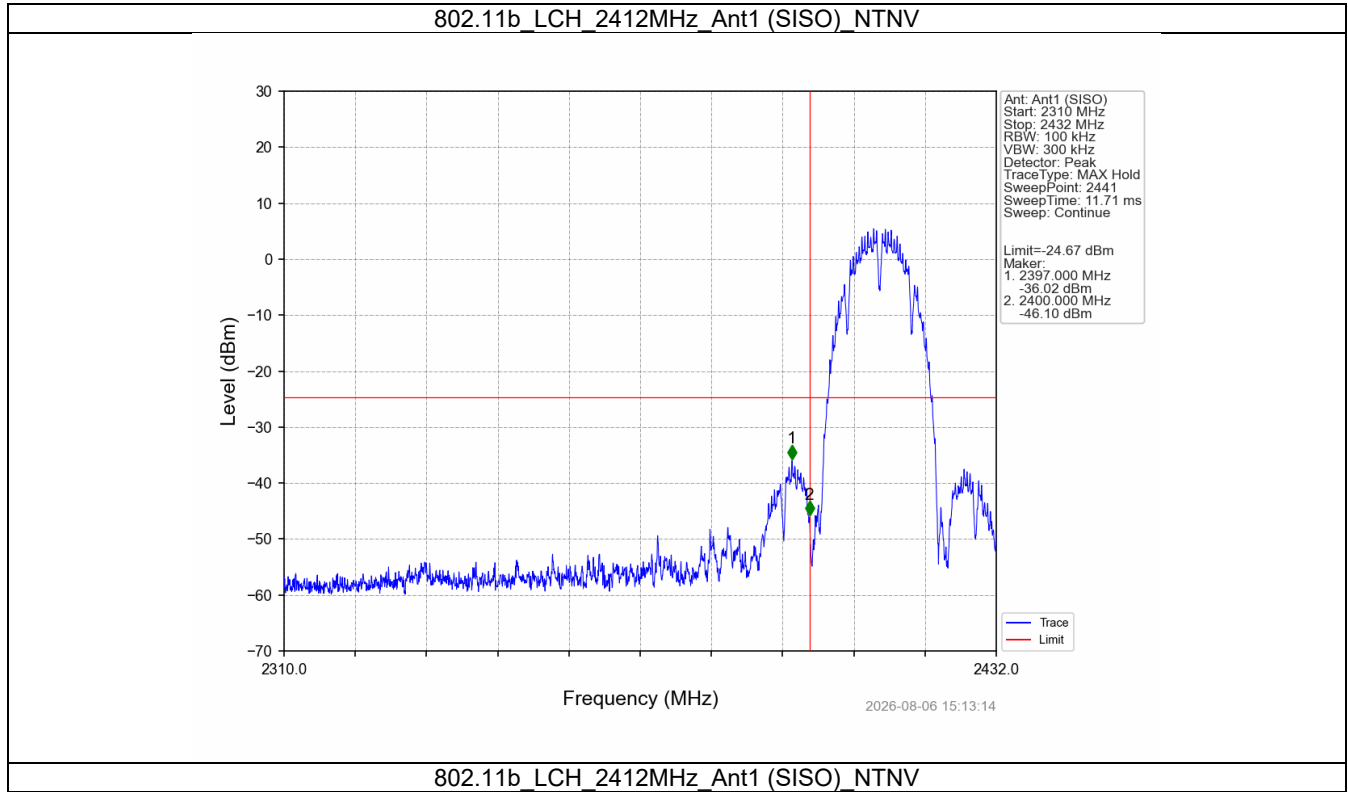


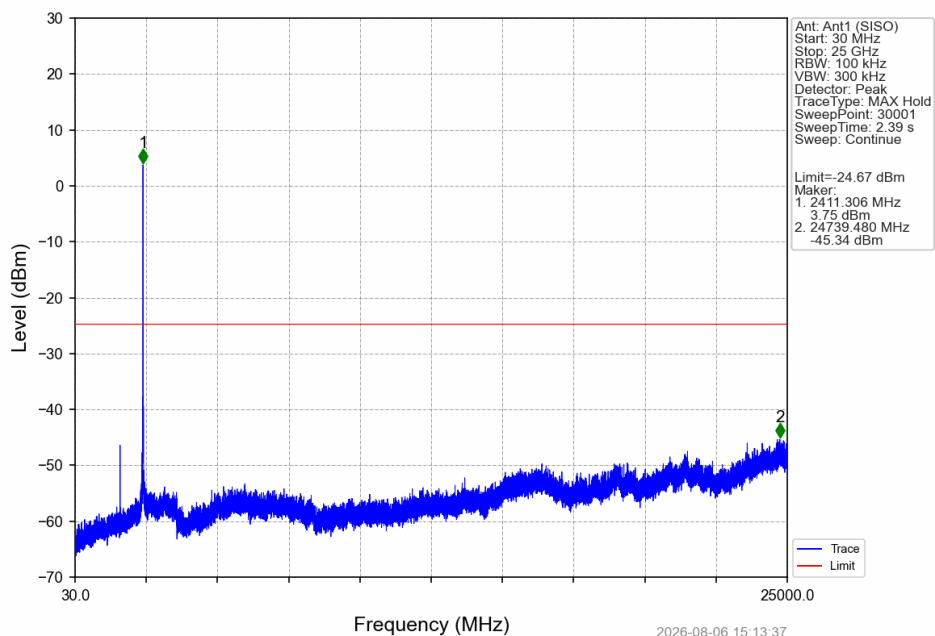
802.11n(HT40)_HCH_2452MHz_Ant1 (SISO)_NTNV





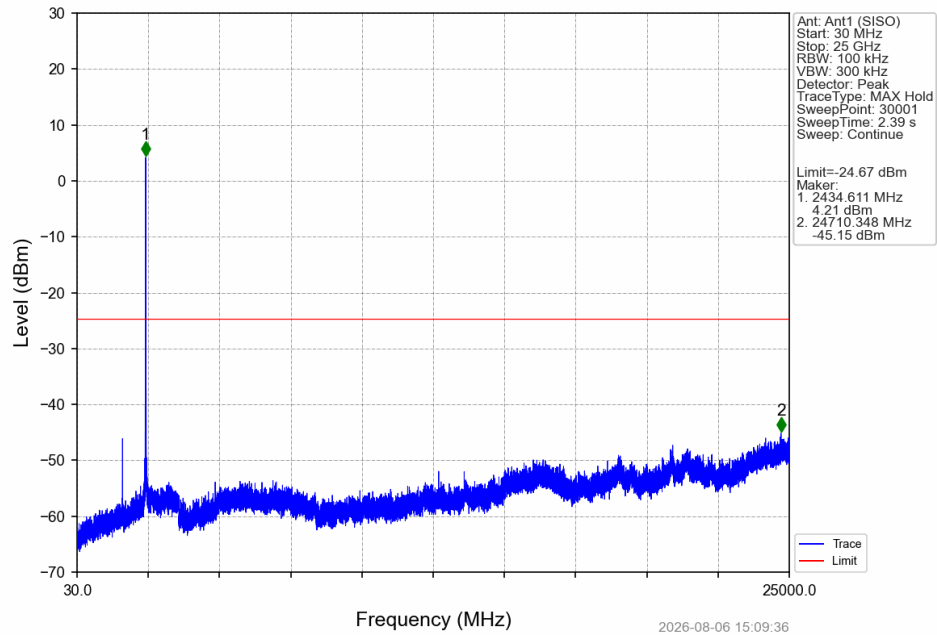
5.2.2 CSE



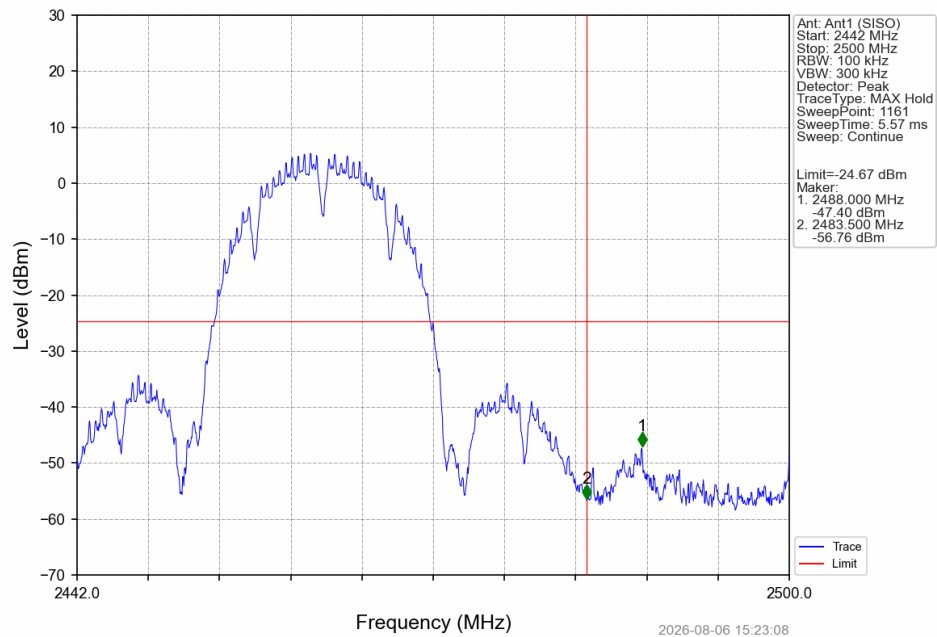




802.11b_MCH_2437MHz_Ant1 (SISO)_NTNV

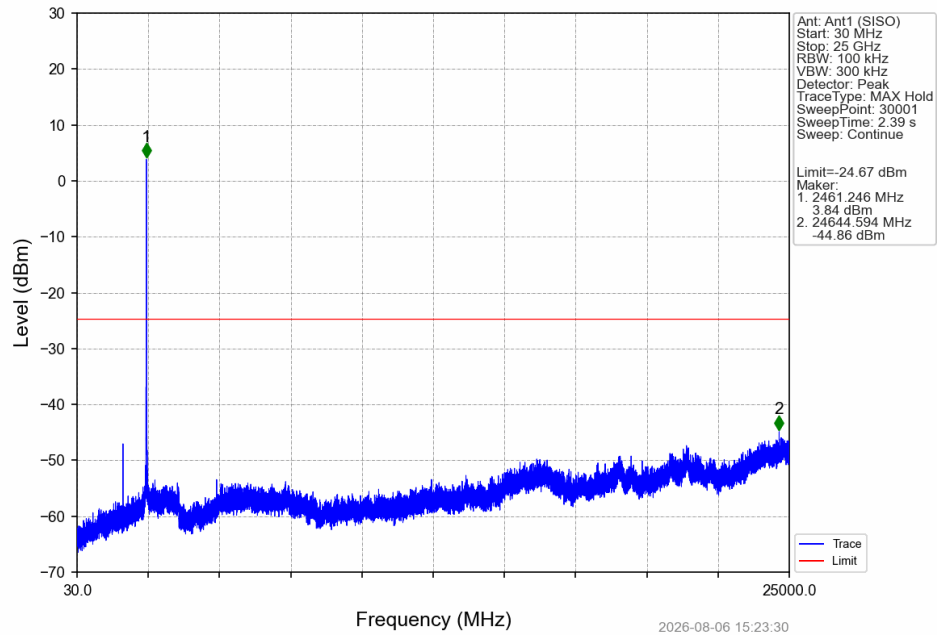


802.11b_HCH_2462MHz_Ant1 (SISO)_NTNV

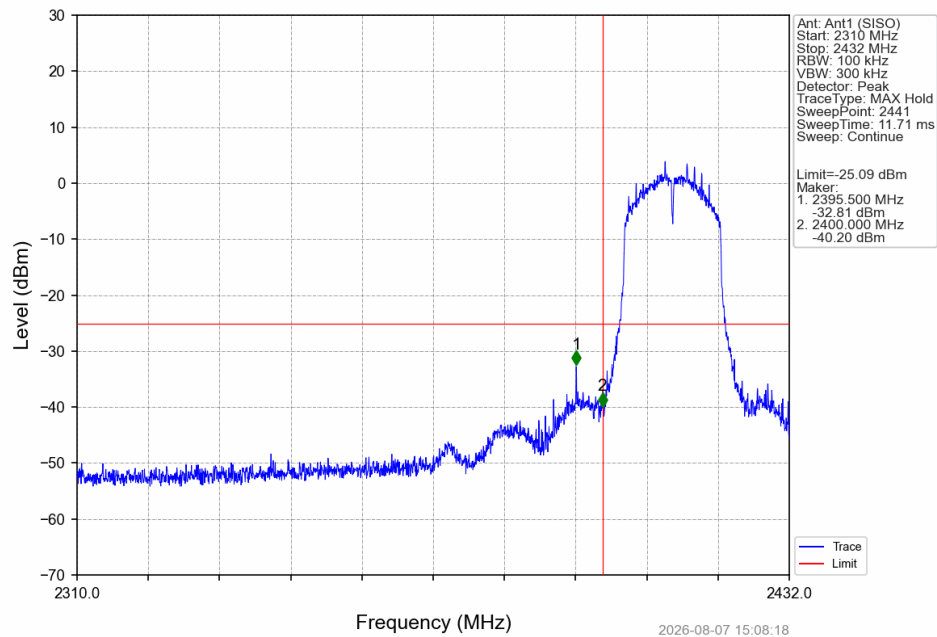




802.11b_HCH_2462MHz_Ant1 (SISO)_NTNV

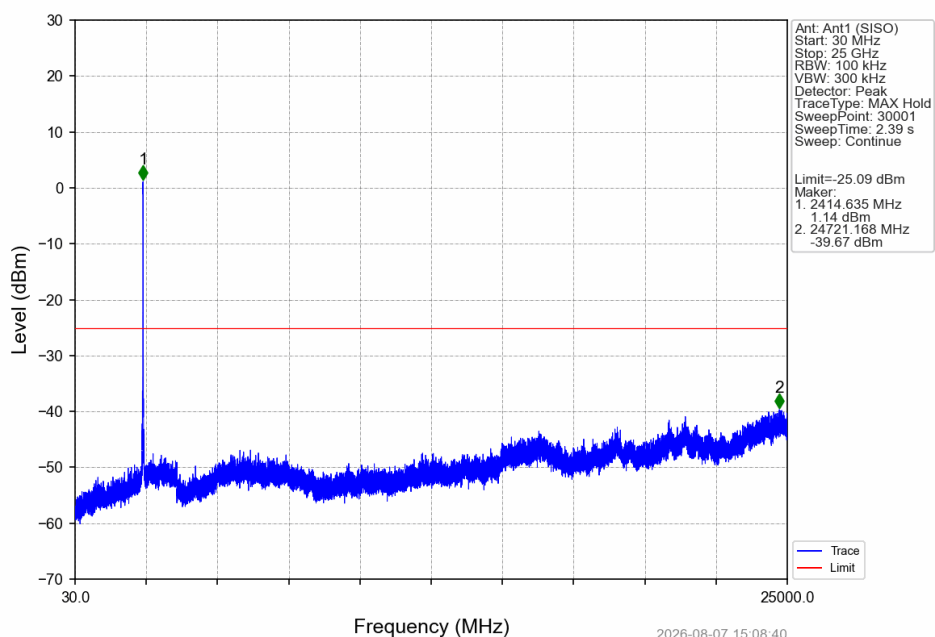


802.11g_LCH_2412MHz_Ant1 (SISO)_NTNV

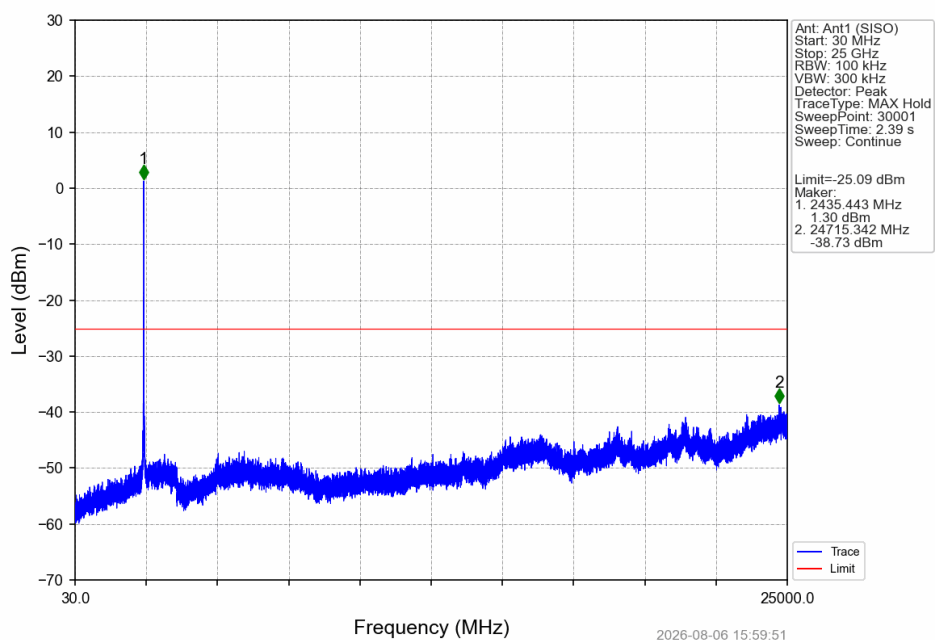




802.11g_LCH_2412MHz_Ant1 (SISO)_NTNV

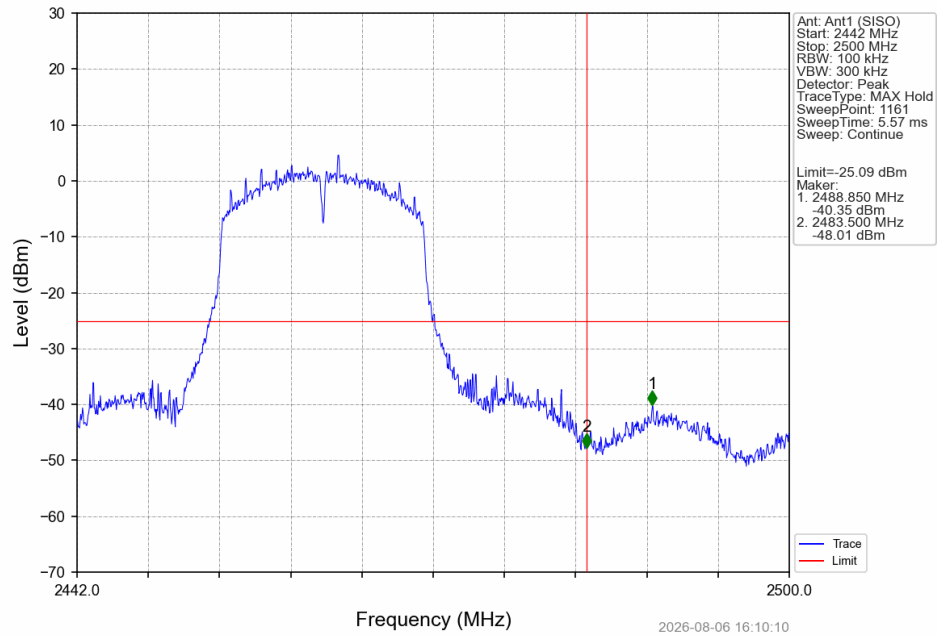


802.11g_MCH_2437MHz_Ant1 (SISO)_NTNV

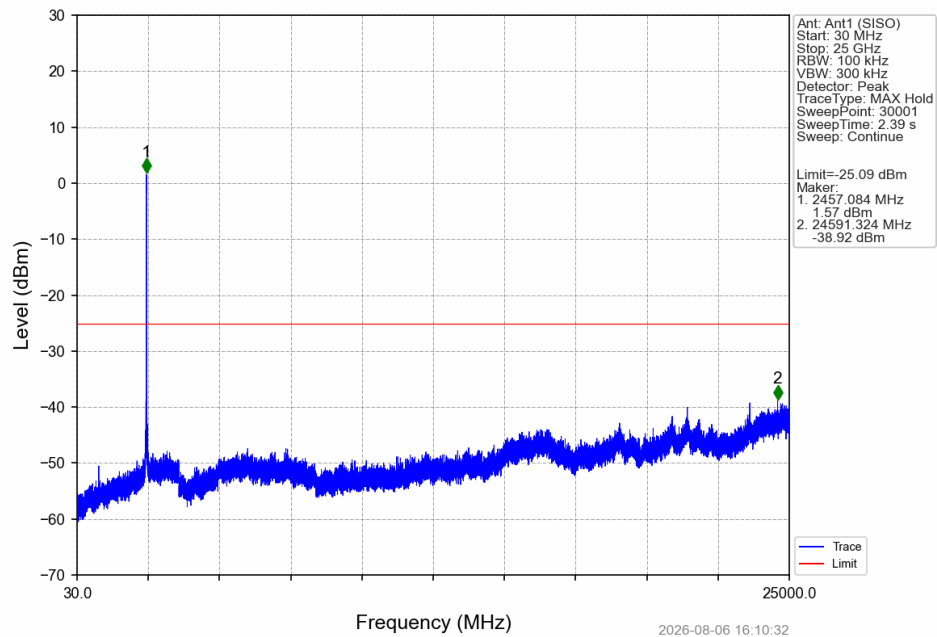




802.11g_HCH_2462MHz_Ant1 (SISO)_NTNV

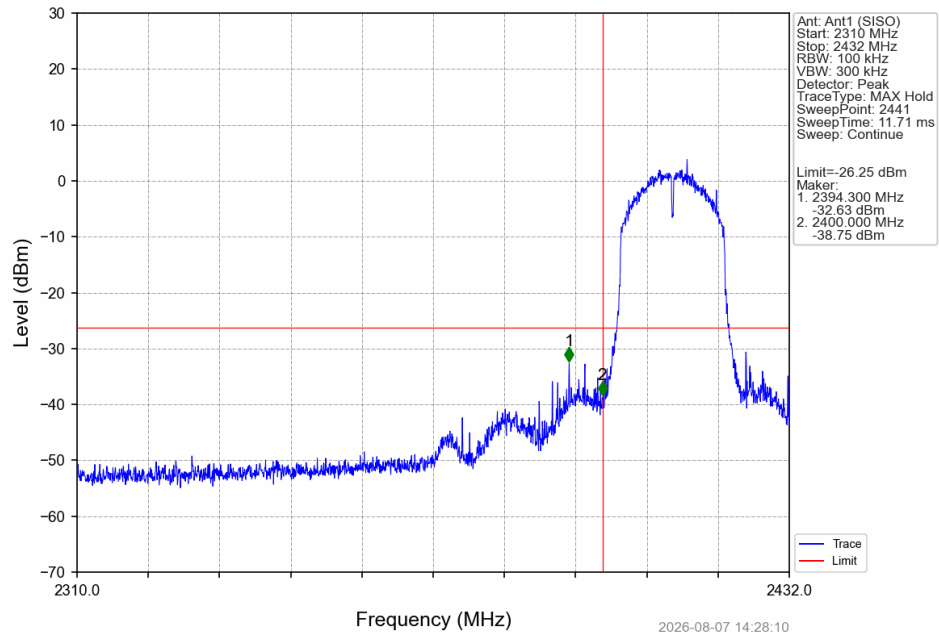


802.11g_HCH_2462MHz_Ant1 (SISO)_NTNV

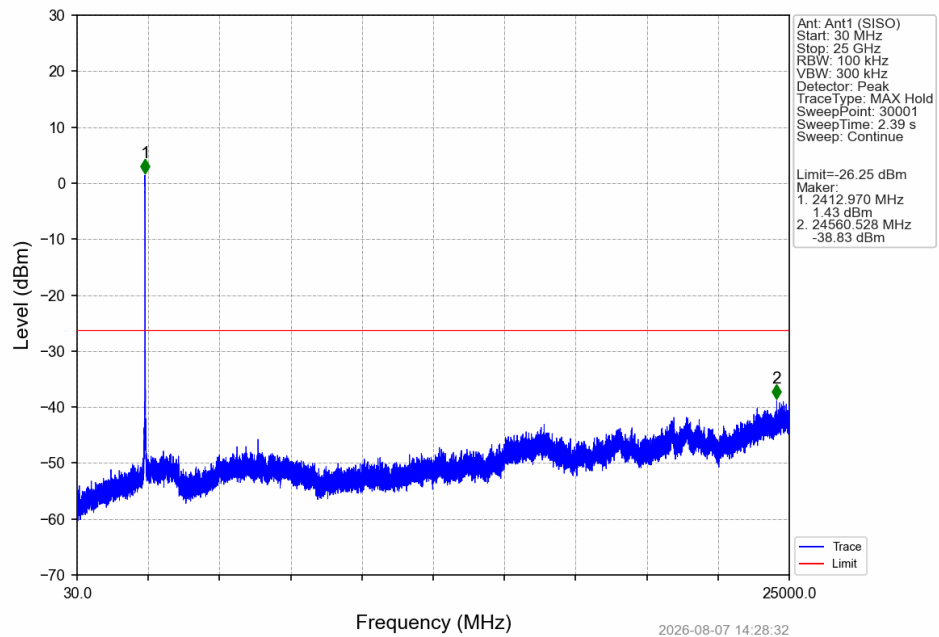




802.11n(HT20)_LCH_2412MHz_Ant1 (SISO)_NTNV

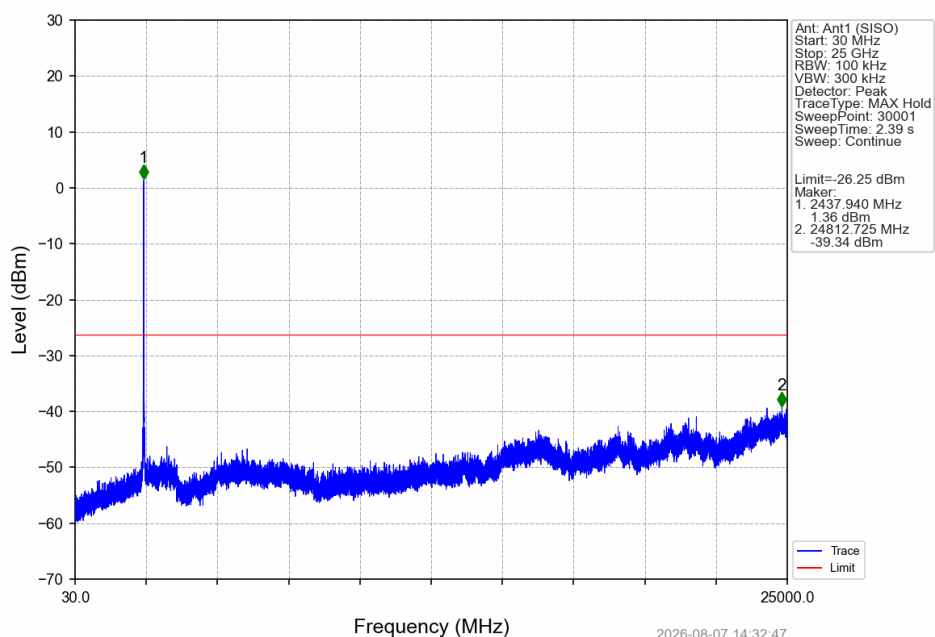


802.11n(HT20)_LCH_2412MHz_Ant1 (SISO)_NTNV

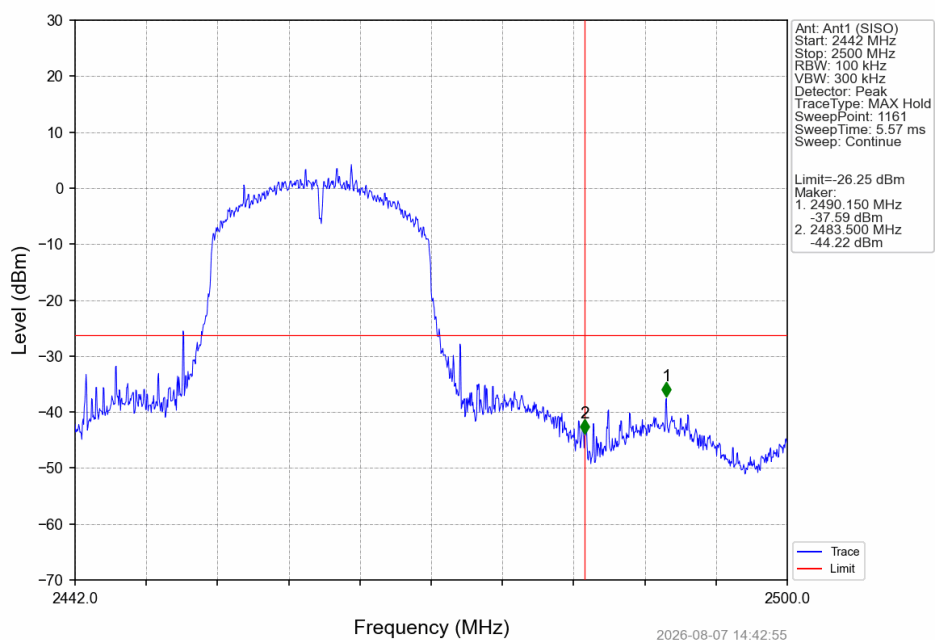




802.11n(HT20)_MCH_2437MHz_Ant1 (SISO)_NTNV

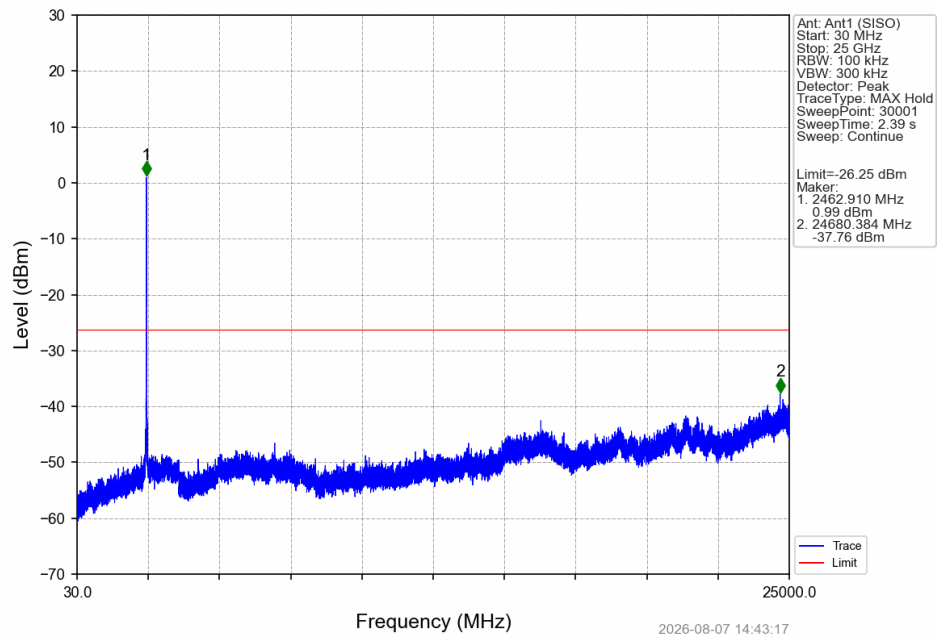


802.11n(HT20)_HCH_2462MHz_Ant1 (SISO)_NTNV

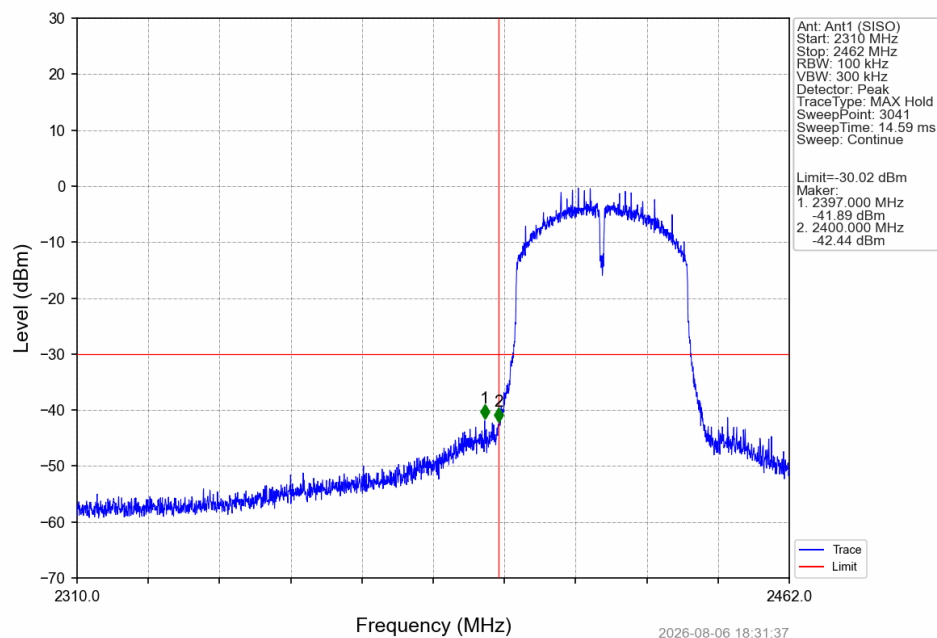




802.11n(HT20)_HCH_2462MHz_Ant1 (SISO)_NTNV

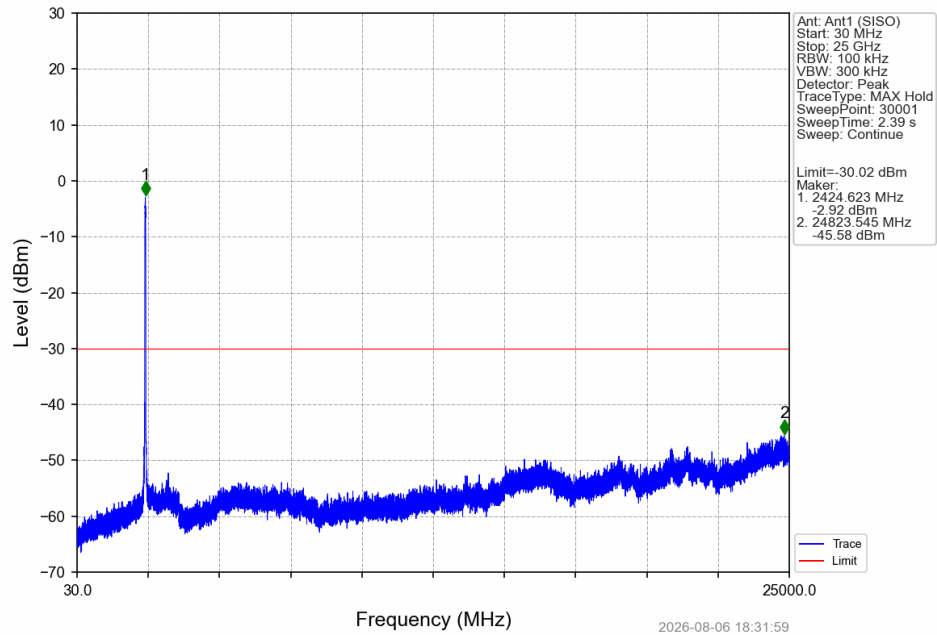


802.11n(HT40)_LCH_2422MHz_Ant1 (SISO)_NTNV

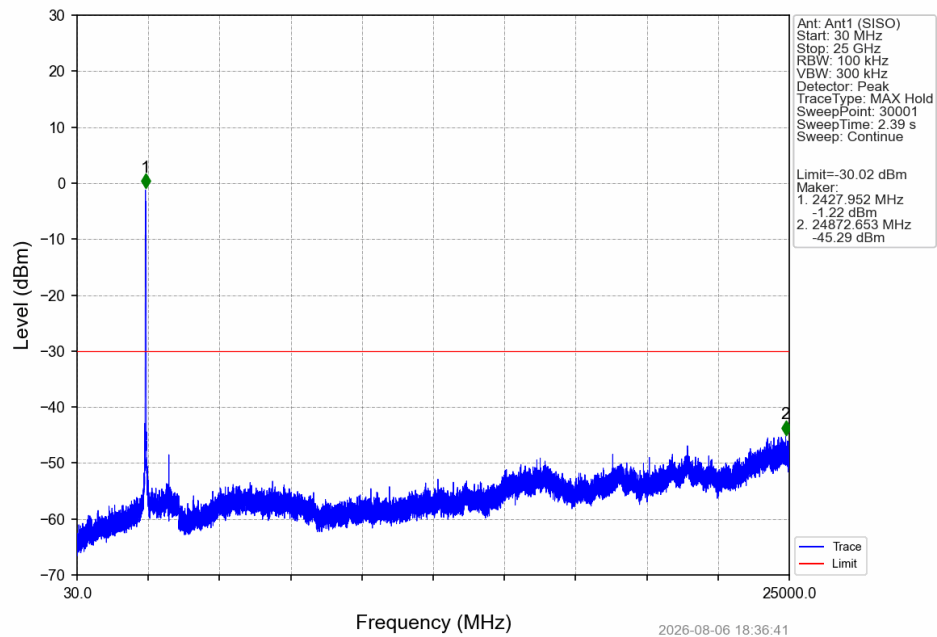




802.11n(HT40)_LCH_2422MHz_Ant1 (SISO)_NTNV

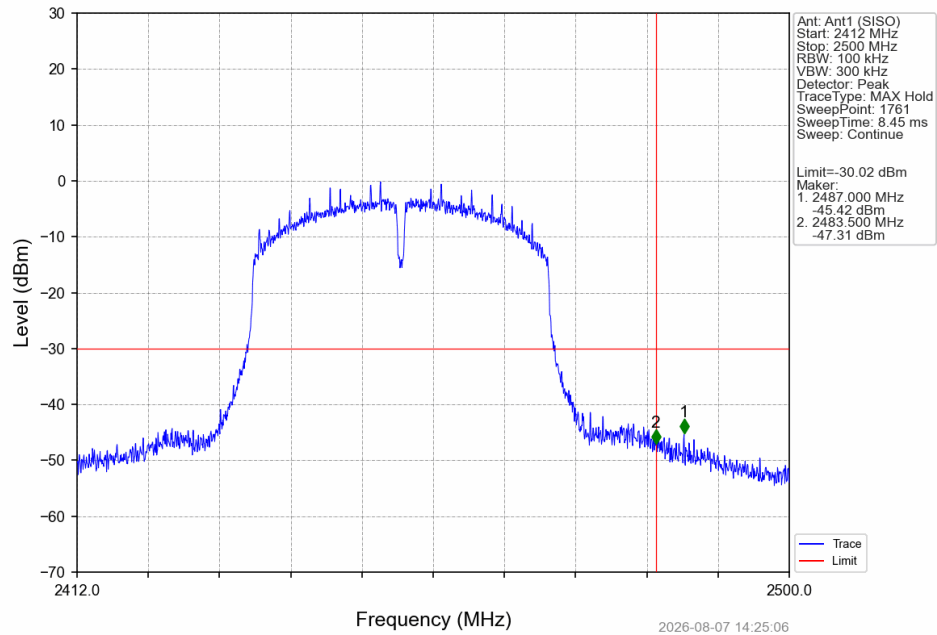


802.11n(HT40)_MCH_2437MHz_Ant1 (SISO)_NTNV





802.11n(HT40)_HCH_2452MHz_Ant1 (SISO)_NTNV



802.11n(HT40)_HCH_2452MHz_Ant1 (SISO)_NTNV

