

Appendix RF test data for WIFI2.4G

1. Duty Cycle

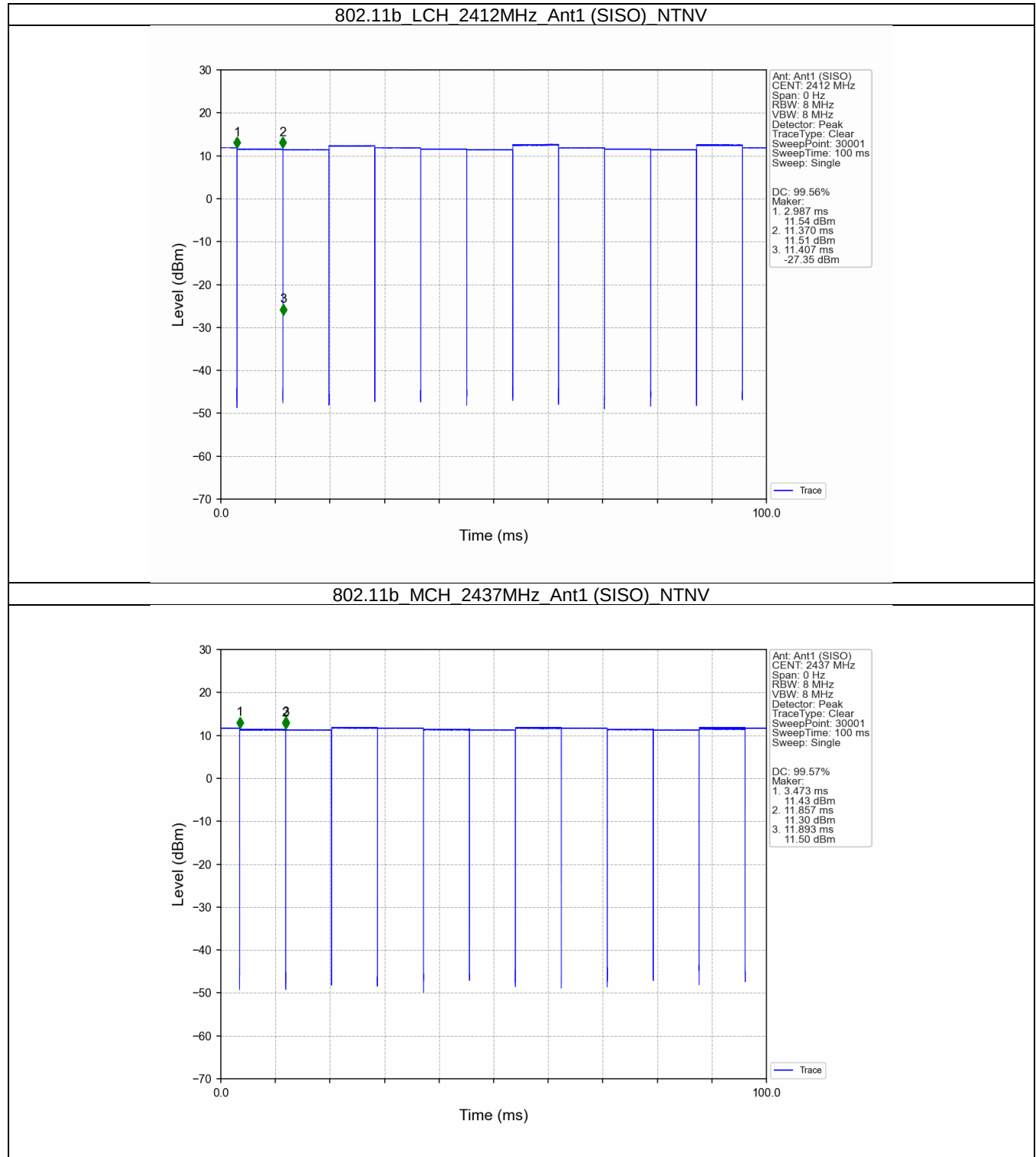
1.1 Test Result

1.1.1 Ant1

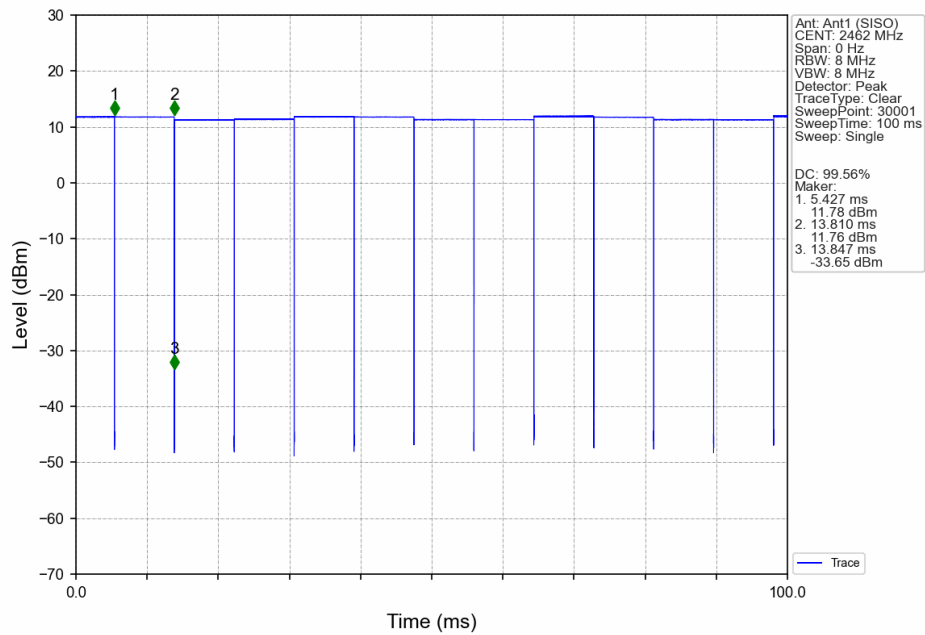
Ant1							
Mode	TX Type	Frequency (MHz)	T_on (ms)	Period (ms)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)	Max. DC Variation (%)
802.11b	SISO	2412	8.383	8.420	99.56	0.02	0.00
		2437	8.384	8.420	99.57	0.02	0.04
		2462	8.383	8.420	99.56	0.02	0.00
802.11g	SISO	2412	1.394	1.436	97.08	0.13	0.03
		2437	1.394	1.437	97.01	0.13	0.03
		2462	1.394	1.437	97.01	0.13	0.03
802.11n (HT20)	SISO	2412	1.302	1.344	96.88	0.14	0.03
		2437	1.302	1.344	96.88	0.14	0.03
		2462	1.302	1.345	96.80	0.14	0.00
802.11n (HT40)	SISO	2422	0.650	0.692	93.93	0.27	0.03
		2437	0.650	0.693	93.80	0.28	0.03
		2452	0.649	0.692	93.79	0.28	0.03

1.2 Test Graph

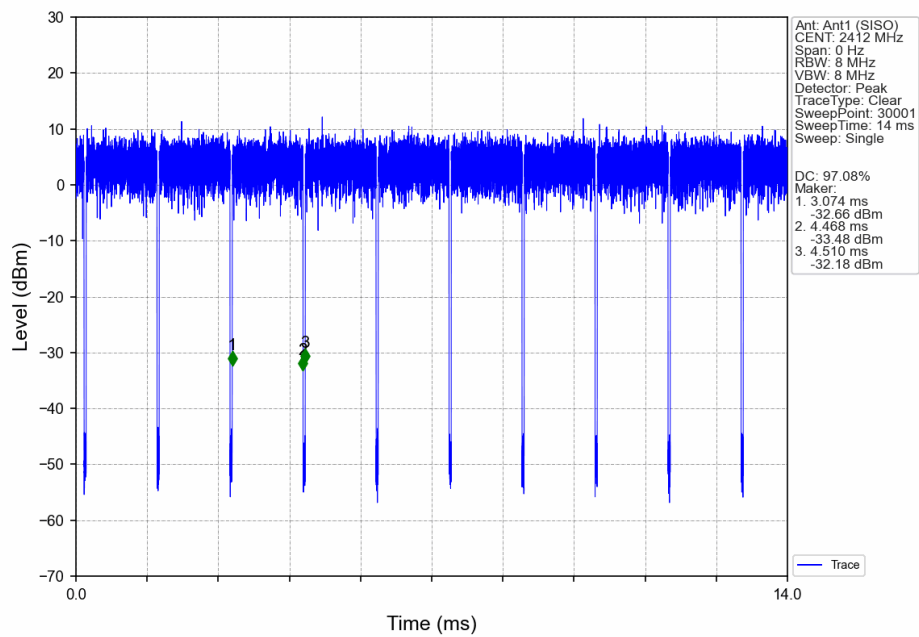
1.2.1 Ant1



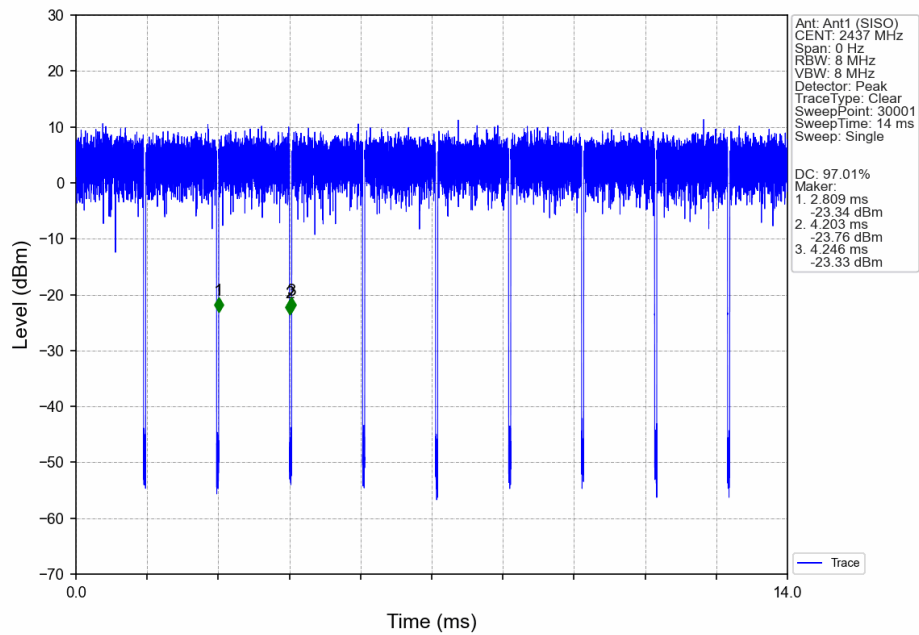
802.11b HCH 2462MHz Ant1 (SISO) NTN



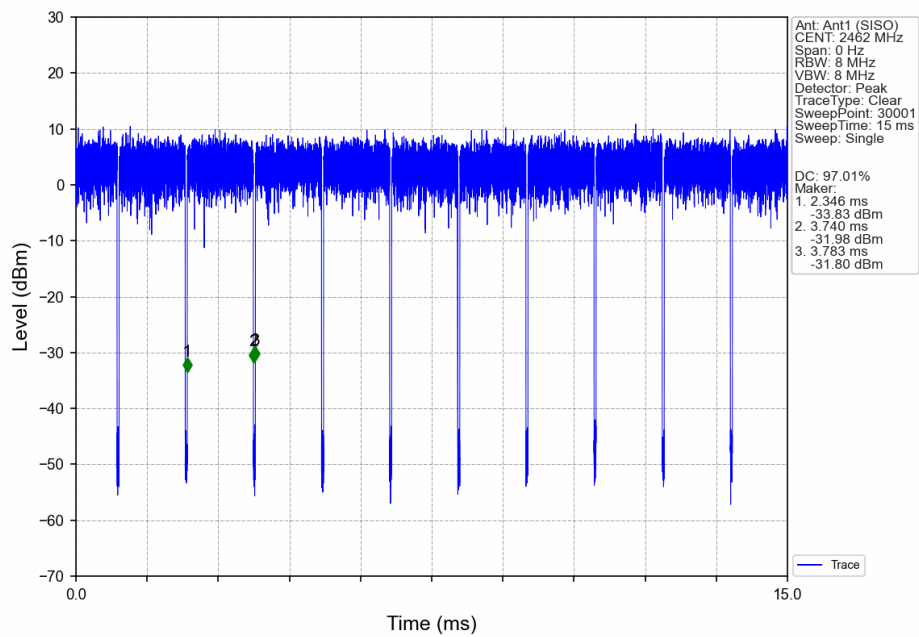
802.11g LCH 2412MHz Ant1 (SISO) NTN



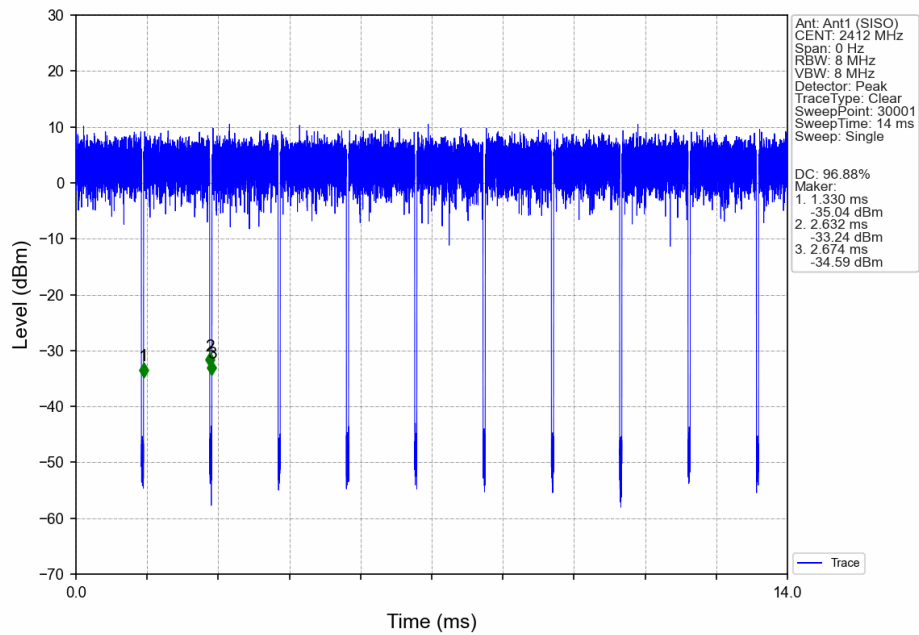
802.11g MCH 2437MHz Ant1 (SISO) NTN



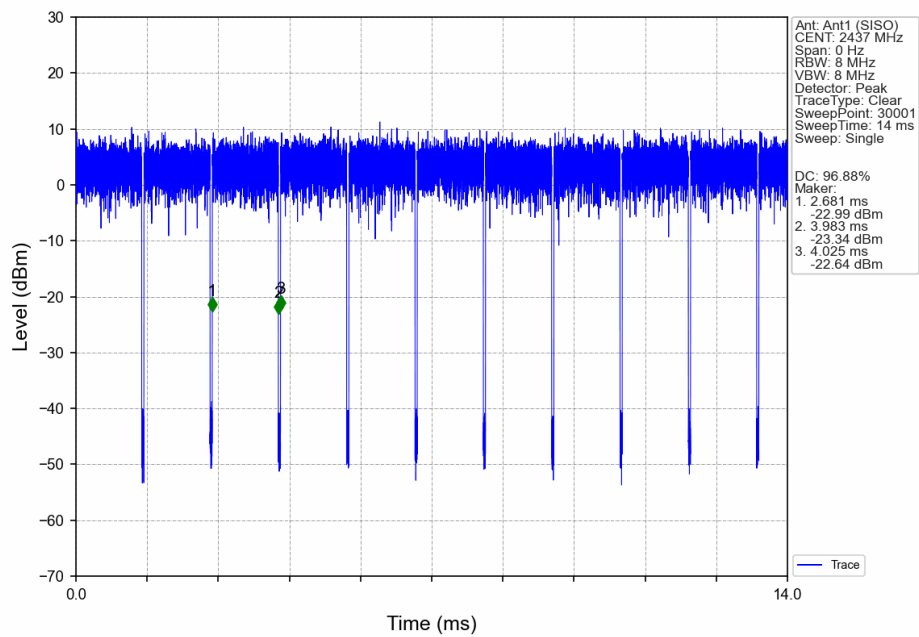
802.11g HCH 2462MHz Ant1 (SISO) NTN



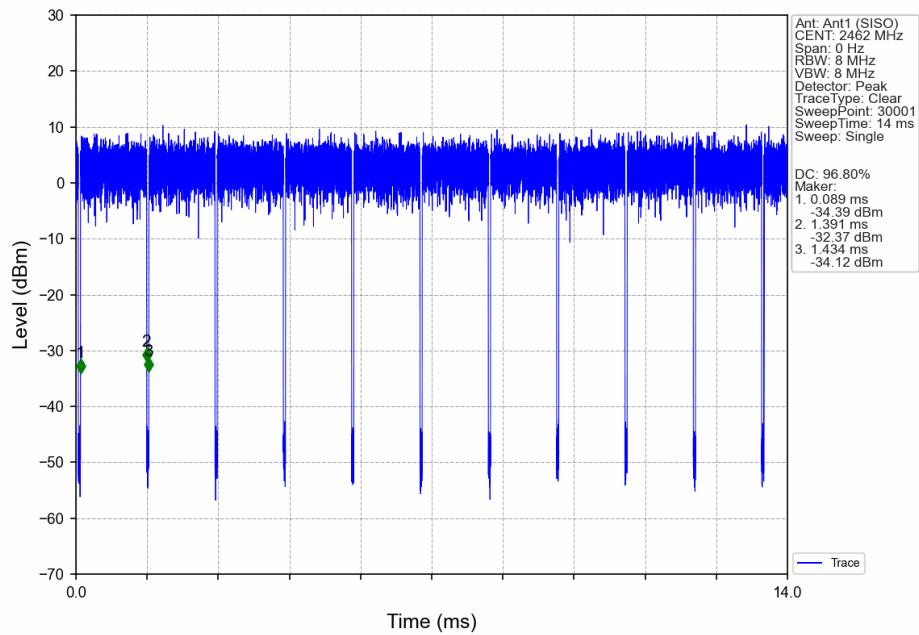
802.11n(HT20) LCH 2412MHz Ant1 (SISO) NTNV



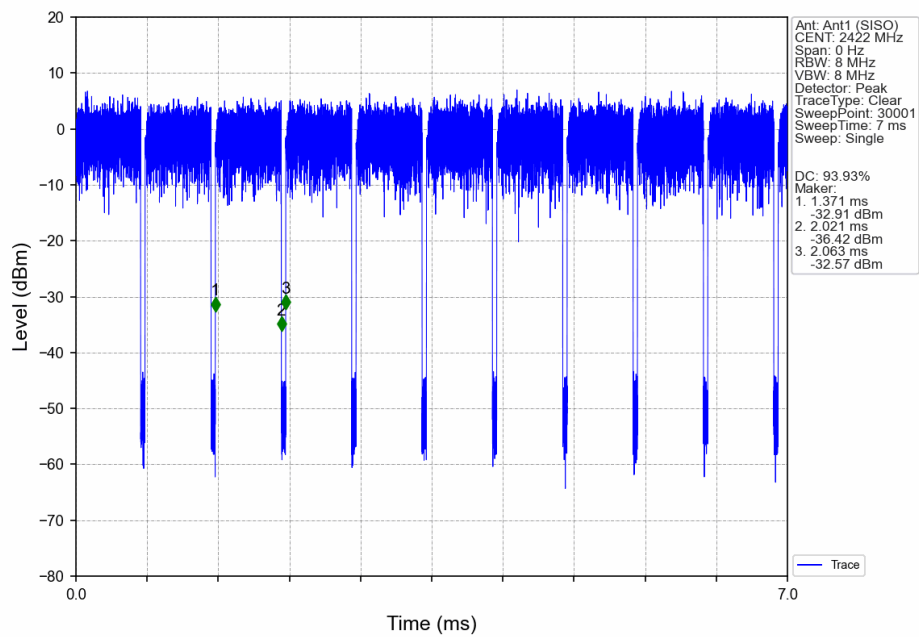
802.11n(HT20) MCH 2437MHz Ant1 (SISO) NTNV



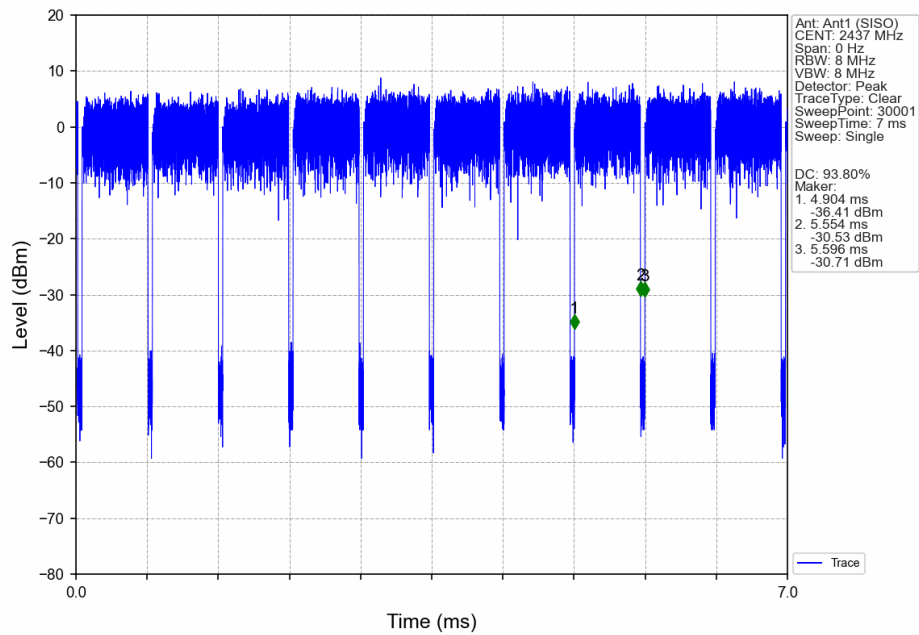
802.11n(HT20) HCH 2462MHz Ant1 (SISO) NTNV



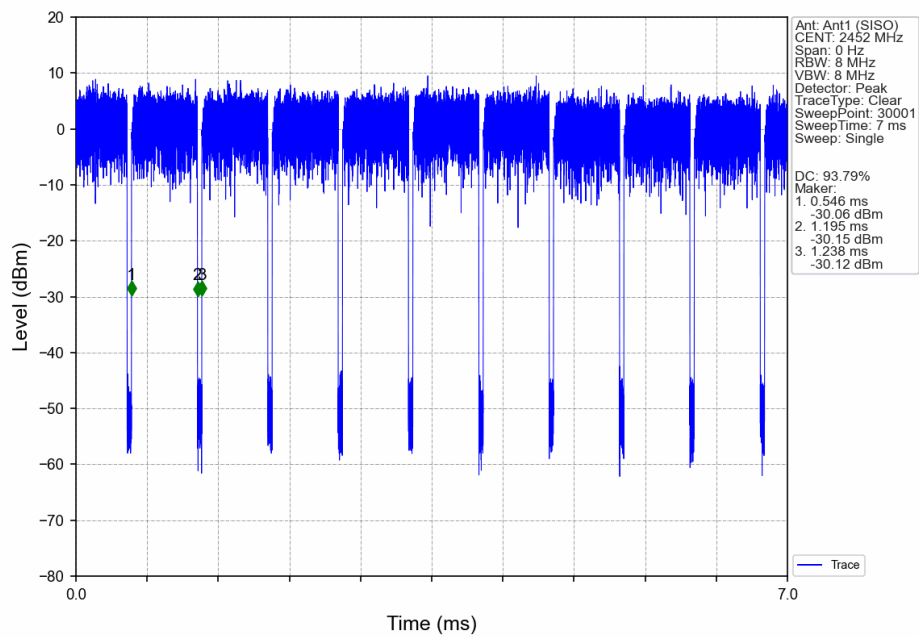
802.11n(HT40) LCH 2422MHz Ant1 (SISO) NTNV



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

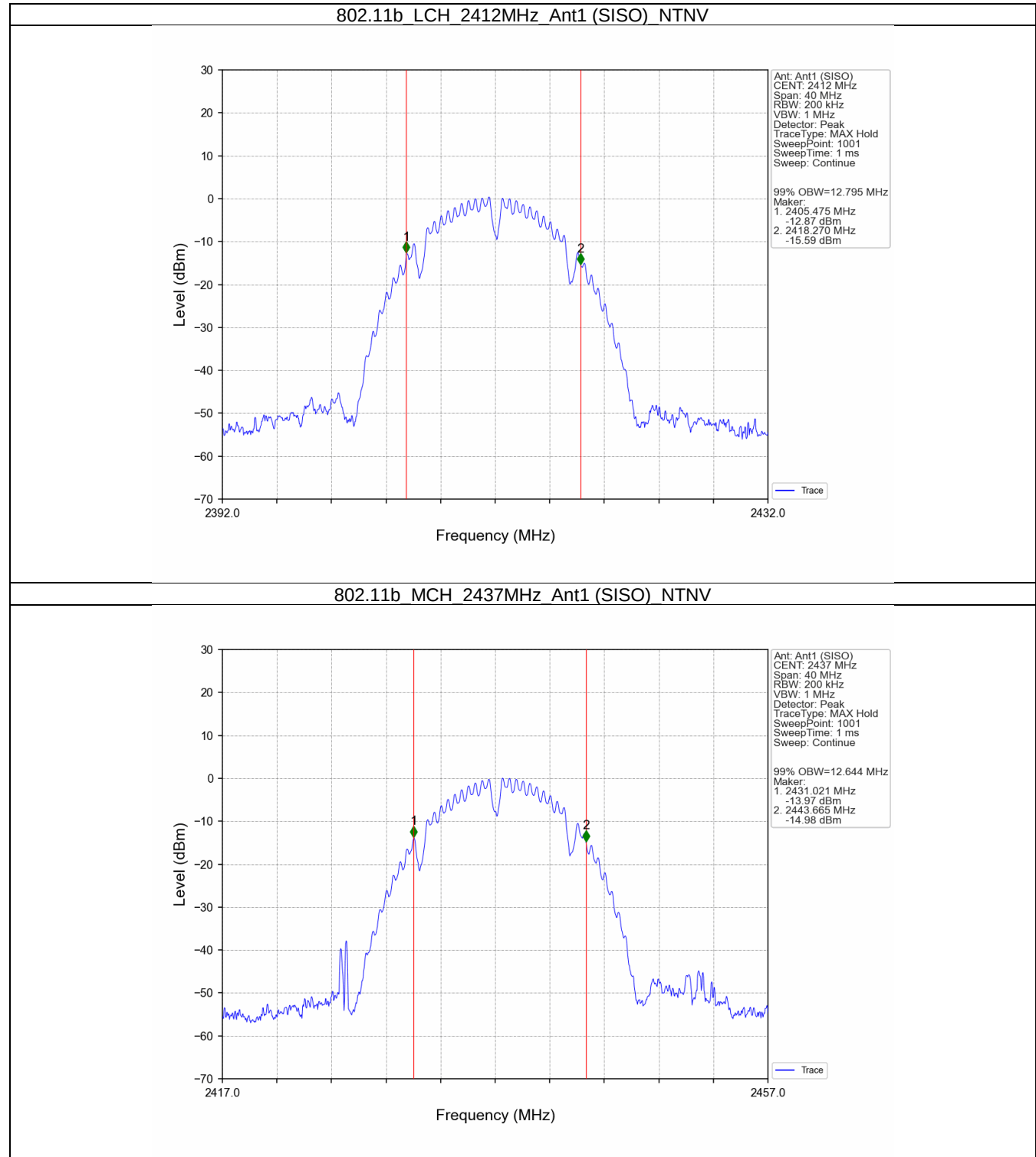
Mode	TX Type	Frequency (MHz)	ANT	99% Occupied Bandwidth (MHz)		Verdict
				Result	Limit	
802.11b	SISO	2412	1	12.795	/	Pass
		2437	1	12.644	/	Pass
		2462	1	12.921	/	Pass
802.11g	SISO	2412	1	16.541	/	Pass
		2437	1	16.425	/	Pass
		2462	1	16.576	/	Pass
802.11n (HT20)	SISO	2412	1	17.681	/	Pass
		2437	1	17.509	/	Pass
		2462	1	17.703	/	Pass
802.11n (HT40)	SISO	2422	1	37.110	/	Pass
		2437	1	35.651	/	Pass
		2452	1	35.492	/	Pass

2.1.2 6dB BW

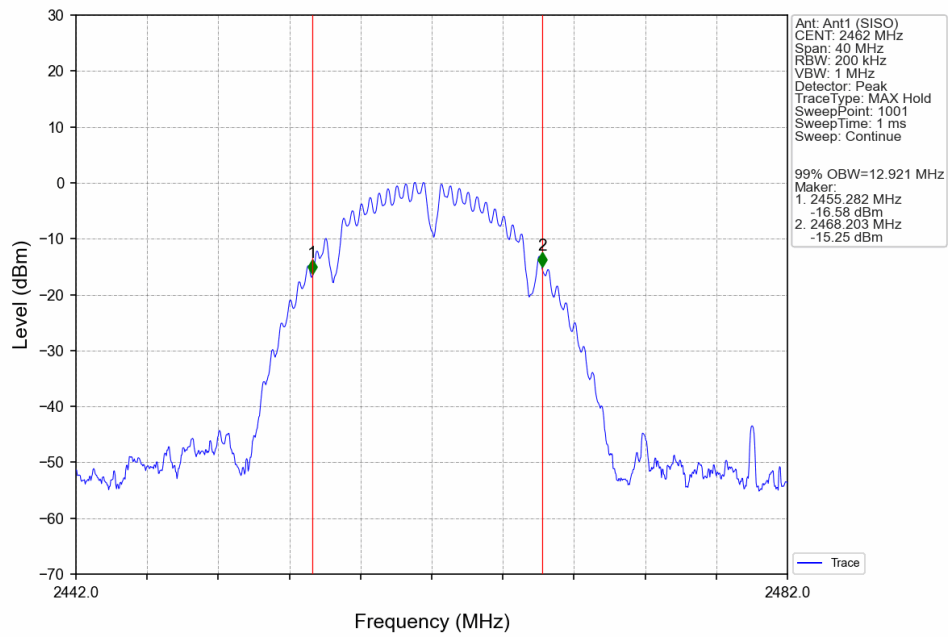
Mode	TX Type	Frequency (MHz)	ANT	6dB Bandwidth (MHz)		Verdict
				Result	Limit	
802.11b	SISO	2412	1	8.600	≥ 0.5	Pass
		2437	1	8.168	≥ 0.5	Pass
		2462	1	8.208	≥ 0.5	Pass
802.11g	SISO	2412	1	16.137	≥ 0.5	Pass
		2437	1	15.751	≥ 0.5	Pass
		2462	1	16.196	≥ 0.5	Pass
802.11n (HT20)	SISO	2412	1	17.398	≥ 0.5	Pass
		2437	1	16.365	≥ 0.5	Pass
		2462	1	17.209	≥ 0.5	Pass
802.11n (HT40)	SISO	2422	1	36.727	≥ 0.5	Pass
		2437	1	28.357	≥ 0.5	Pass
		2452	1	21.693	≥ 0.5	Pass

2.2 Test Graph

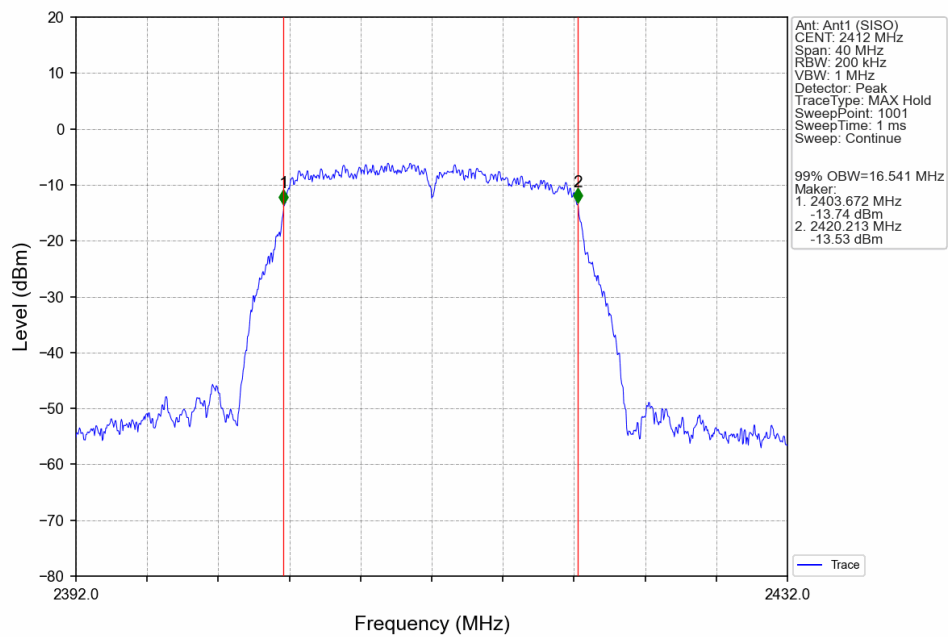
2.2.1 OBW



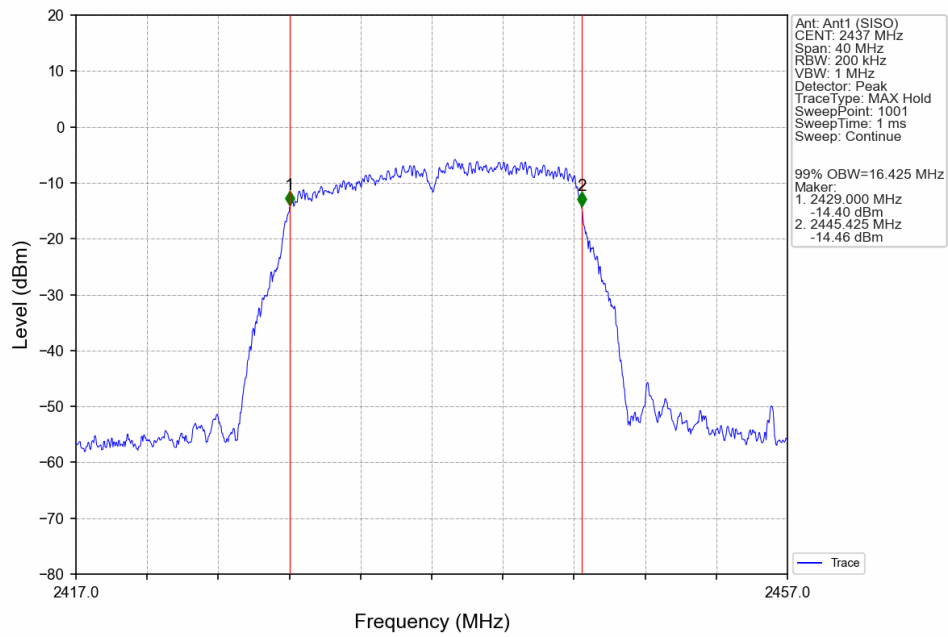
802.11b HCH 2462MHz Ant1 (SISO) NTN



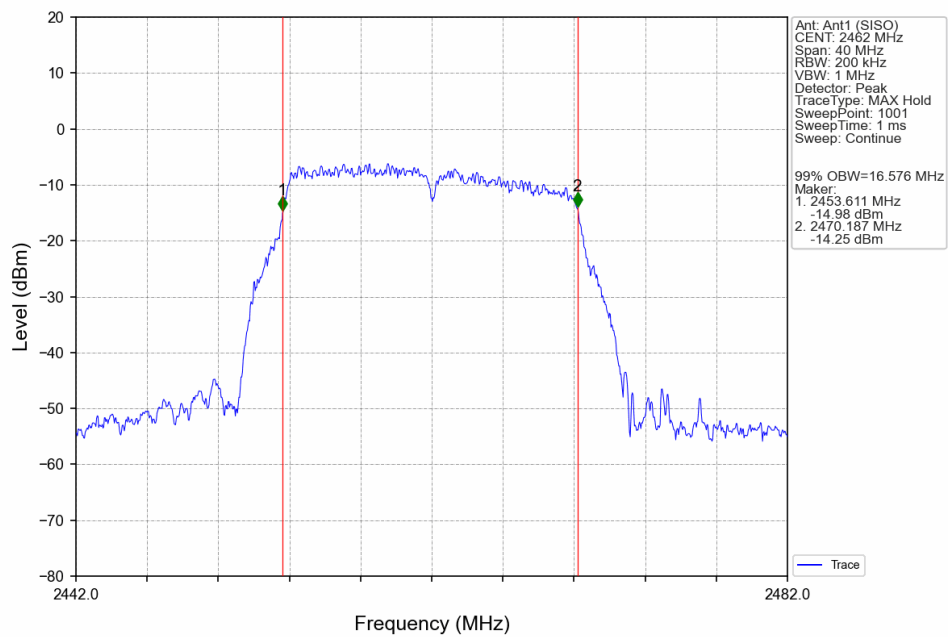
802.11g LCH 2412MHz Ant1 (SISO) NTN



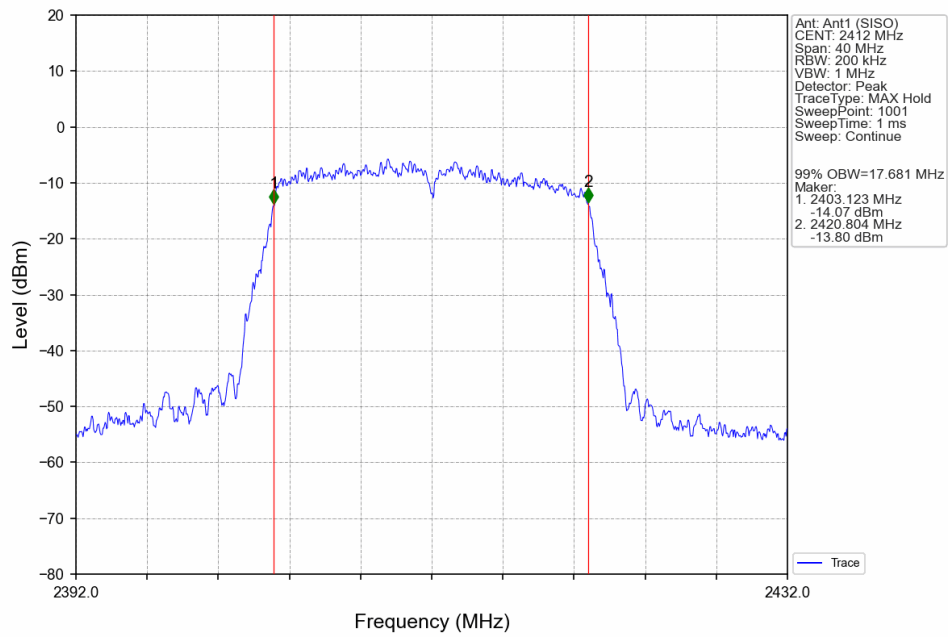
802.11g MCH 2437MHz Ant1 (SISO) NTNV



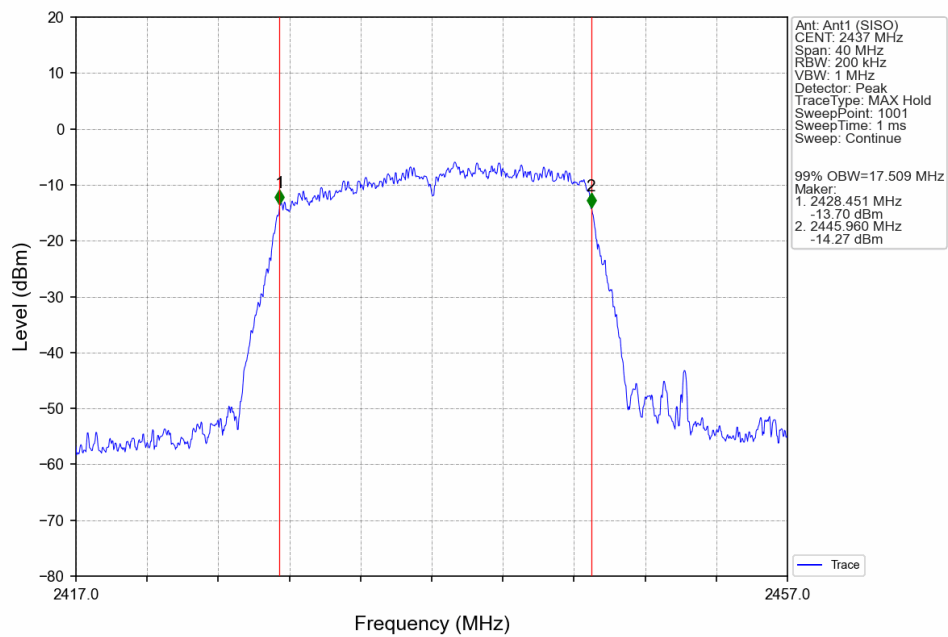
802.11g HCH 2462MHz Ant1 (SISO) NTNV



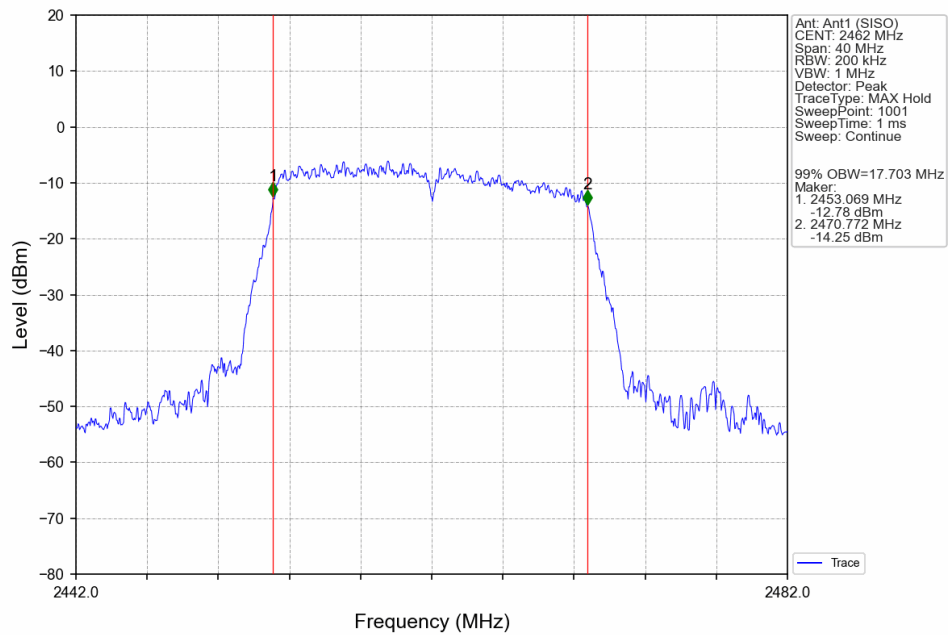
802.11n(HT20) LCH 2412MHz Ant1 (SISO) NTNV



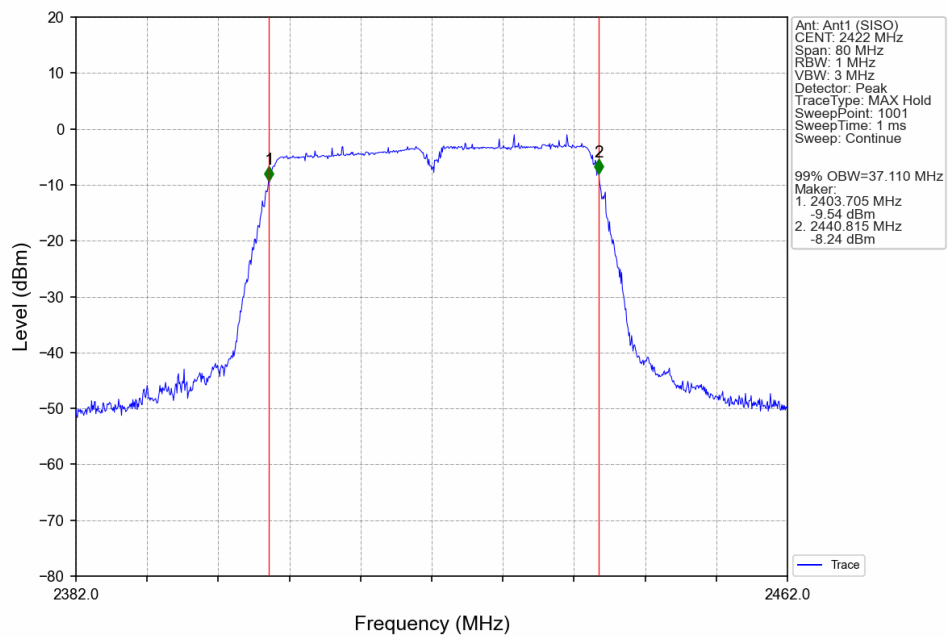
802.11n(HT20) MCH 2437MHz Ant1 (SISO) NTNV



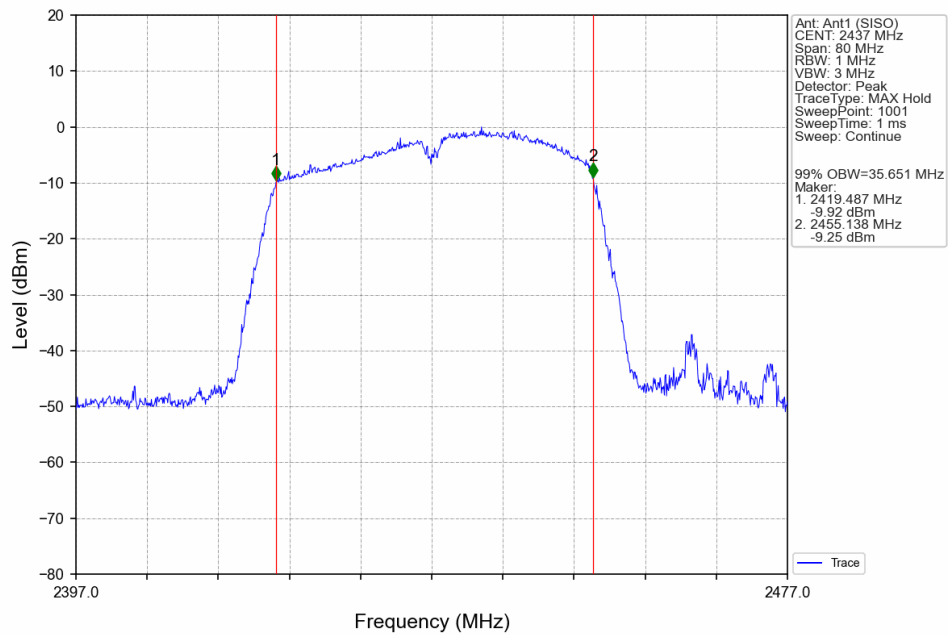
802.11n(HT20) HCH 2462MHz Ant1 (SISO) NTNV



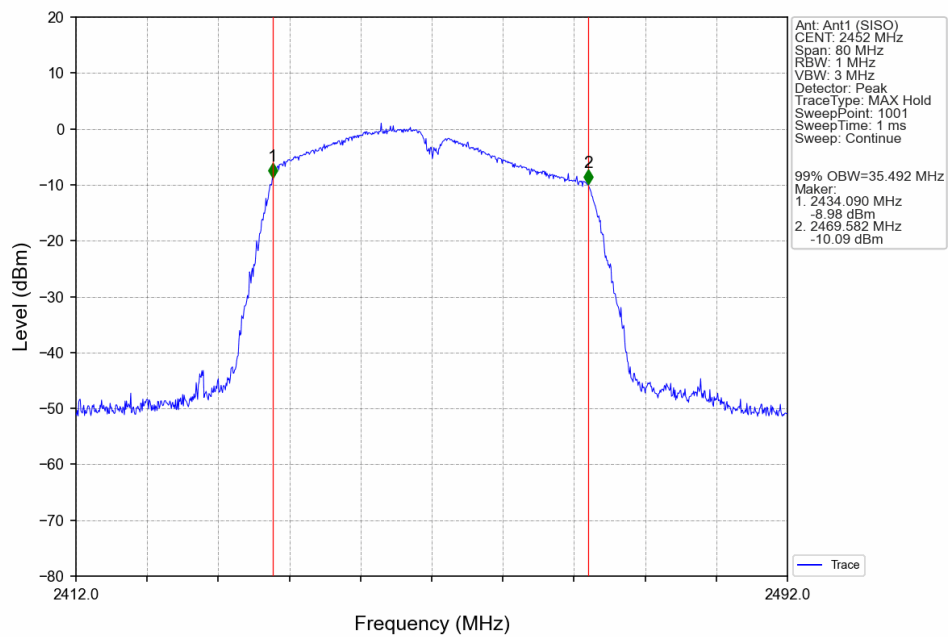
802.11n(HT40) LCH 2422MHz Ant1 (SISO) NTNV



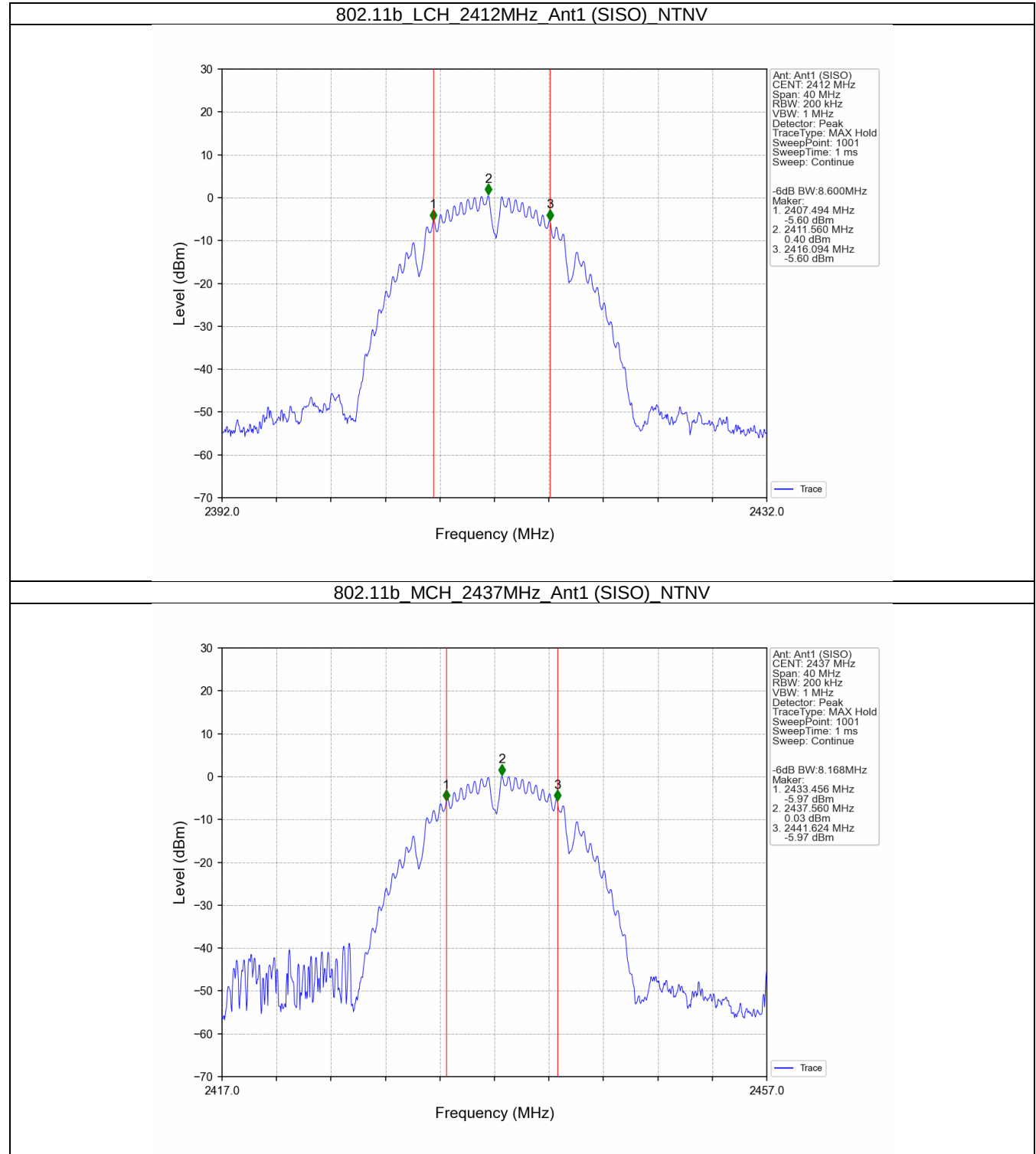
802.11n(HT40) MCH 2437MHz Ant1 (SISO) NTNV



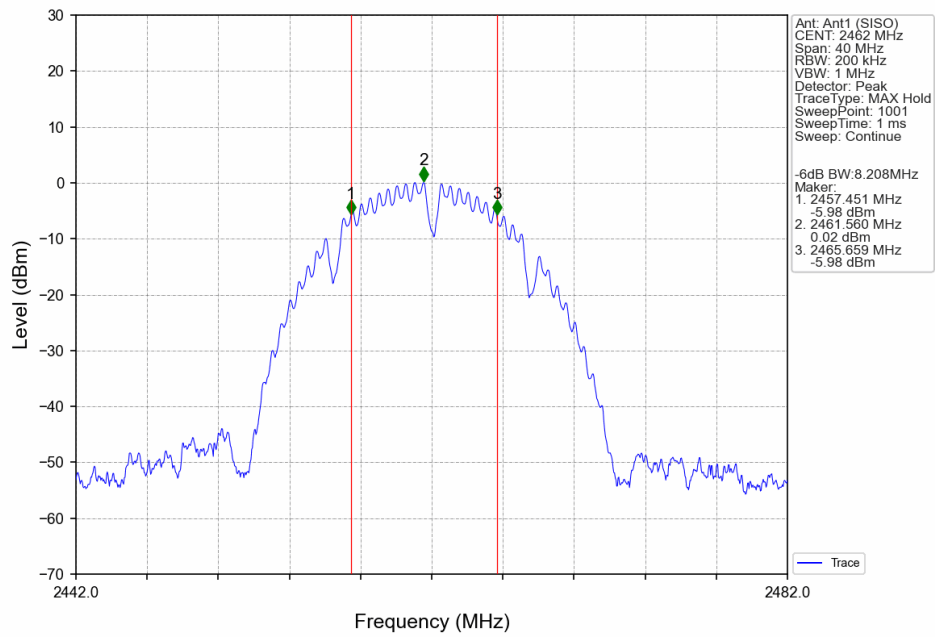
802.11n(HT40) HCH 2452MHz Ant1 (SISO) NTNV



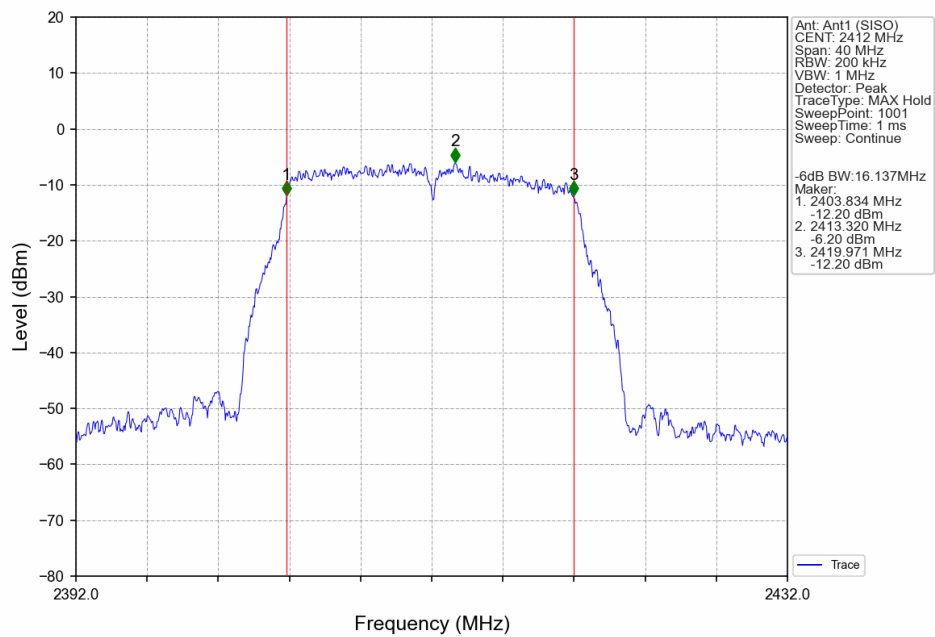
2.2.2 6dB BW



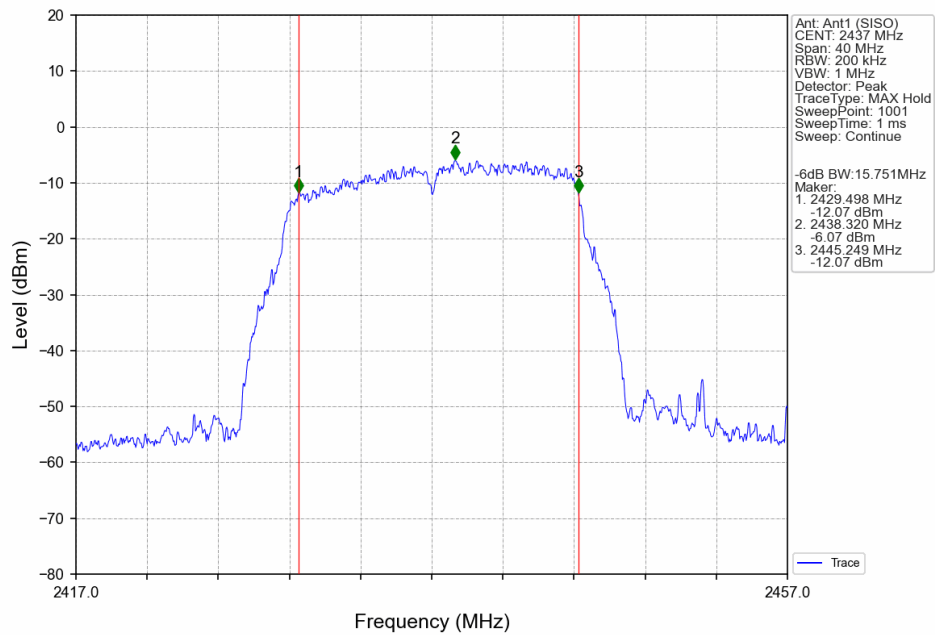
802.11b HCH 2462MHz Ant1 (SISO) NTNV



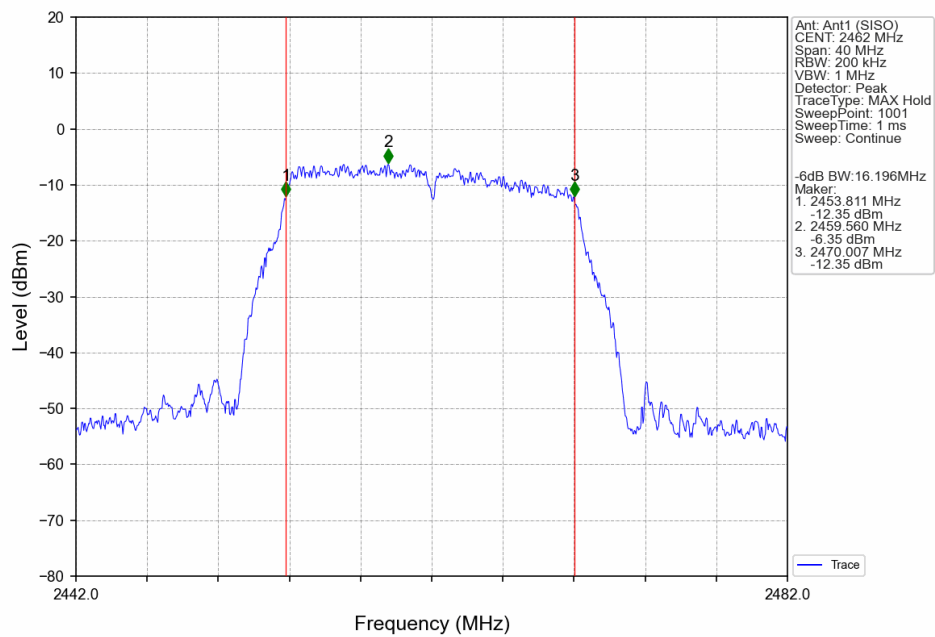
802.11g LCH 2412MHz Ant1 (SISO) NTNV



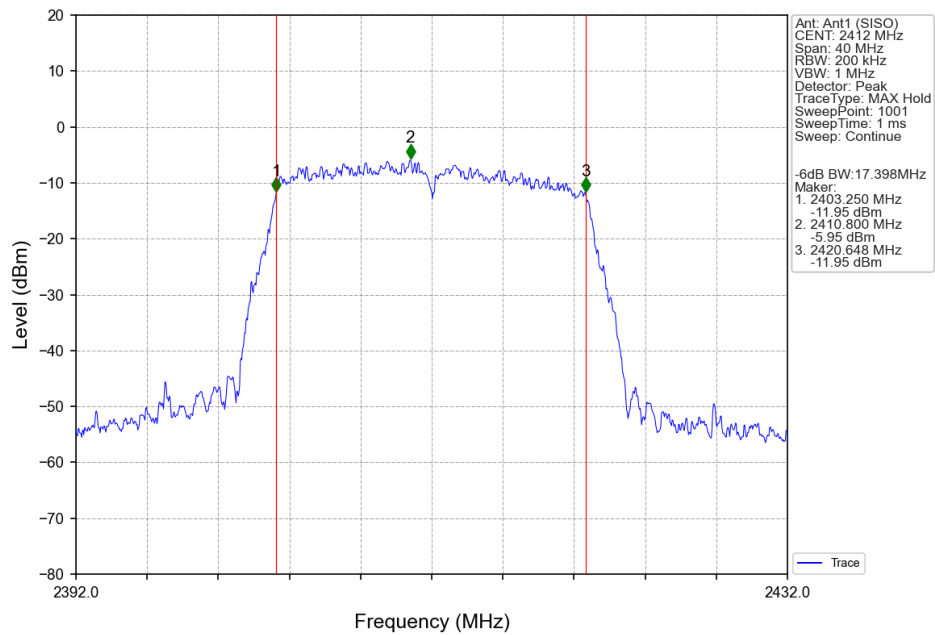
802.11g MCH 2437MHz Ant1 (SISO) NTNV



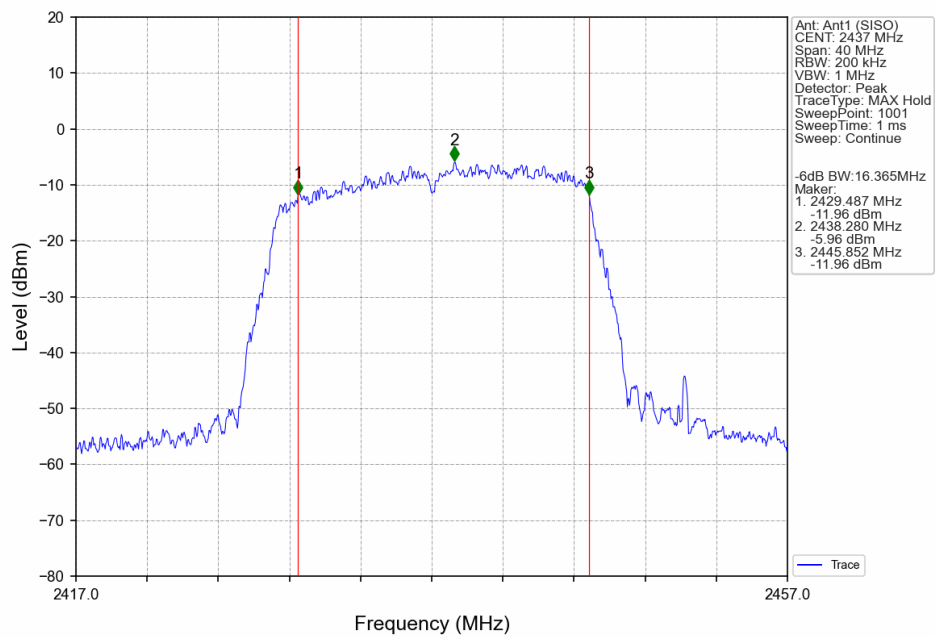
802.11g HCH 2462MHz Ant1 (SISO) NTNV



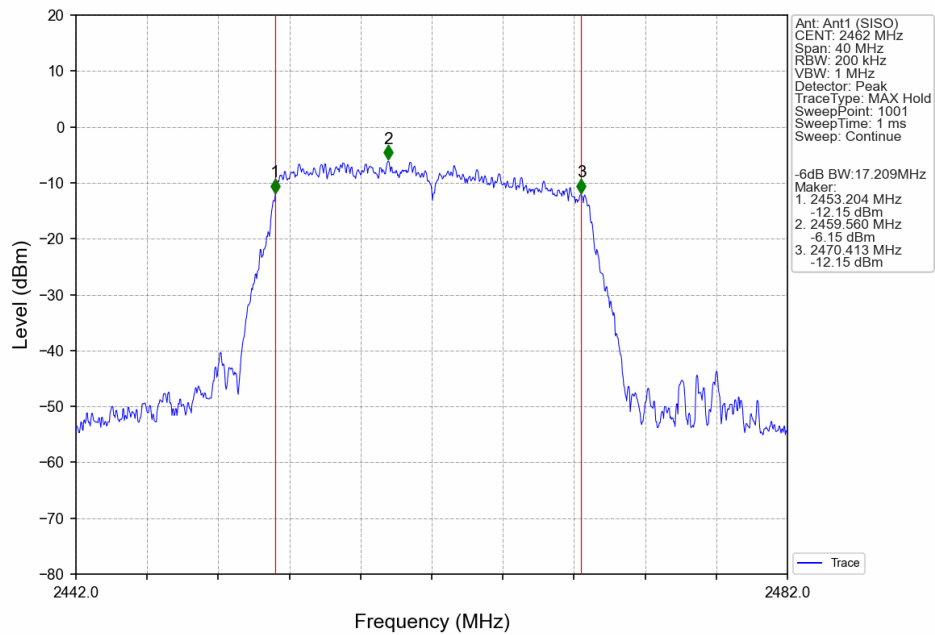
802.11n(HT20) LCH 2412MHz Ant1 (SISO) NTNV



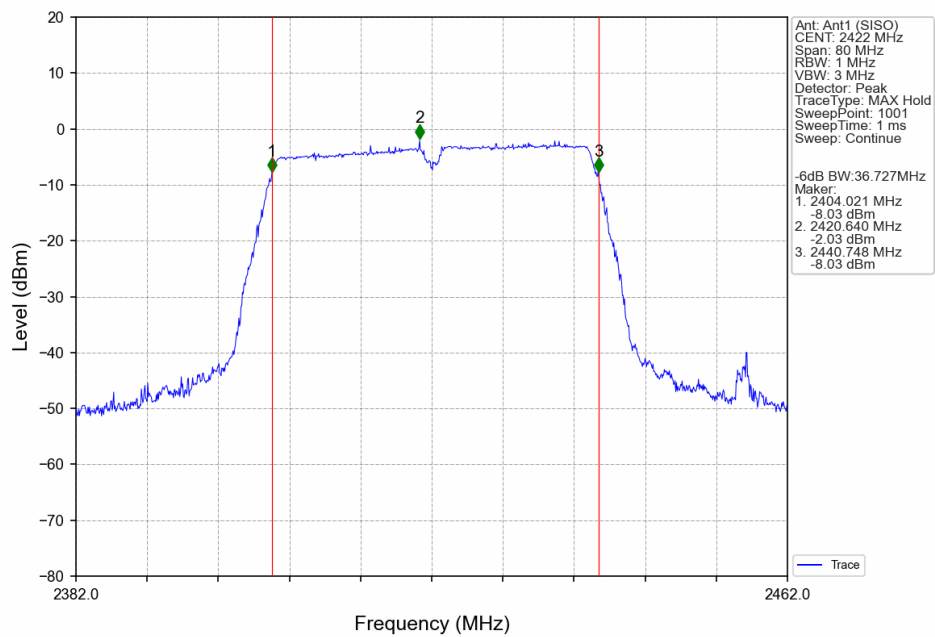
802.11n(HT20) MCH 2437MHz Ant1 (SISO) NTNV



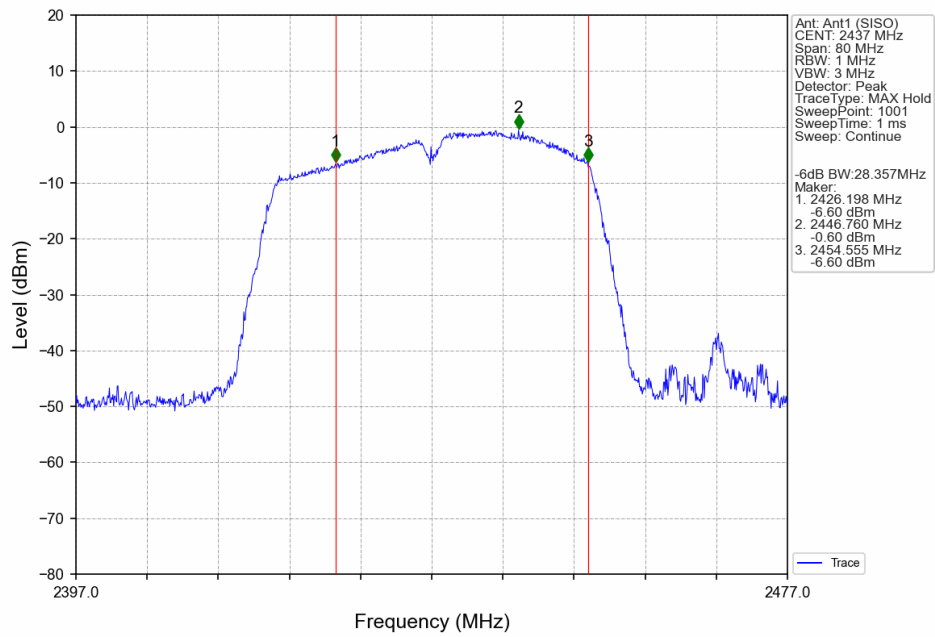
802.11n(HT20) HCH 2462MHz Ant1 (SISO) NTNV



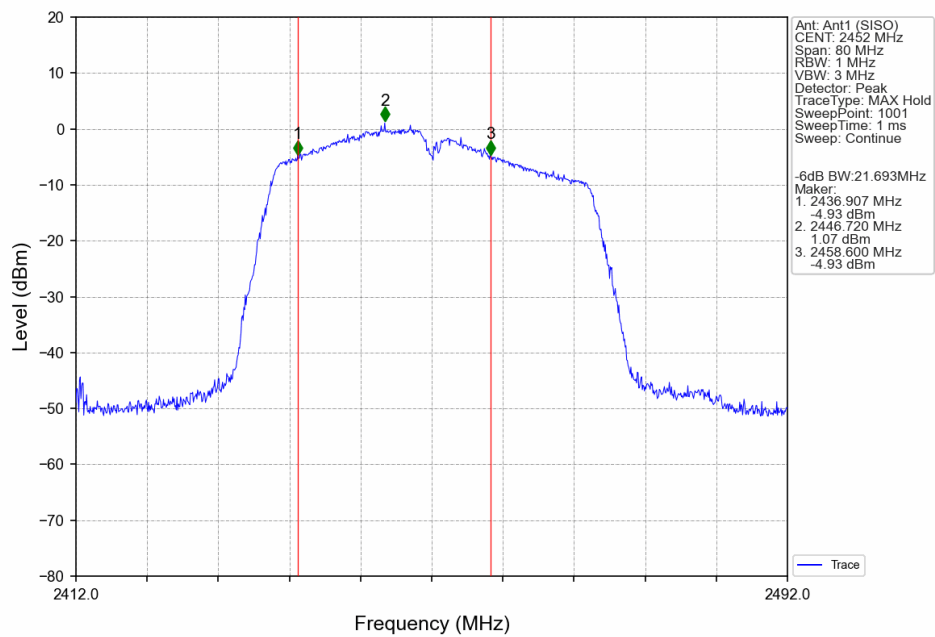
802.11n(HT40) LCH 2422MHz Ant1 (SISO) NTNV



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 Peak Conducted Output Power (dBm)		Verdict
			ANT1	Limit	
802.11b	SISO	2412	10.51	<=30	Pass
		2437	10.08	<=30	Pass
		2462	10.08	<=30	Pass
802.11g	SISO	2412	11.12	<=30	Pass
		2437	10.82	<=30	Pass
		2462	10.79	<=30	Pass
802.11n (HT20)	SISO	2412	11.10	<=30	Pass
		2437	10.68	<=30	Pass
		2462	10.81	<=30	Pass
802.11n (HT40)	SISO	2422	11.35	<=30	Pass
		2437	11.16	<=30	Pass
		2452	10.77	<=30	Pass

4. Maximum Power Spectral Density

4.1 Test Result

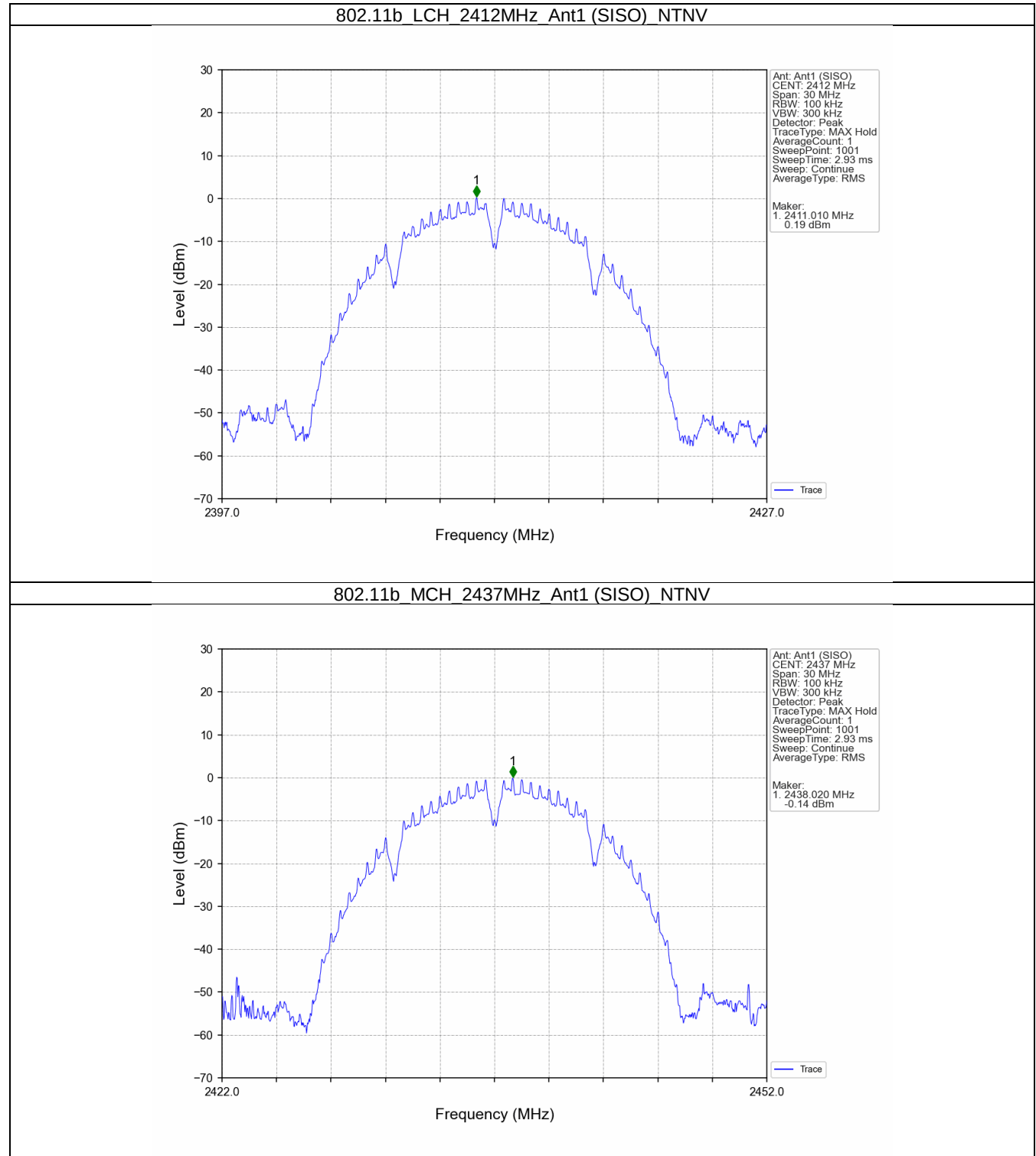
4.1.1 PSD

Mode	TX Type	Frequency (MHz)	Maximum PSD (dBm)		Verdict
			ANT1	Limit(dBm/3kHz)	
802.11b	SISO	2412	0.19dBm/100kHz	<=8	Pass
		2437	-0.14dBm/100kHz	<=8	Pass
		2462	-0.08dBm/100kHz	<=8	Pass
802.11g	SISO	2412	-7.20dBm/100kHz	<=8	Pass
		2437	-7.11dBm/100kHz	<=8	Pass
		2462	-7.38dBm/100kHz	<=8	Pass
802.11n (HT20)	SISO	2412	-7.01dBm/100kHz	<=8	Pass
		2437	-6.94dBm/100kHz	<=8	Pass
		2462	-7.40dBm/100kHz	<=8	Pass
802.11n (HT40)	SISO	2422	-10.21dBm/100kHz	<=8	Pass
		2437	-7.93dBm/100kHz	<=8	Pass
		2452	-7.29dBm/100kHz	<=8	Pass

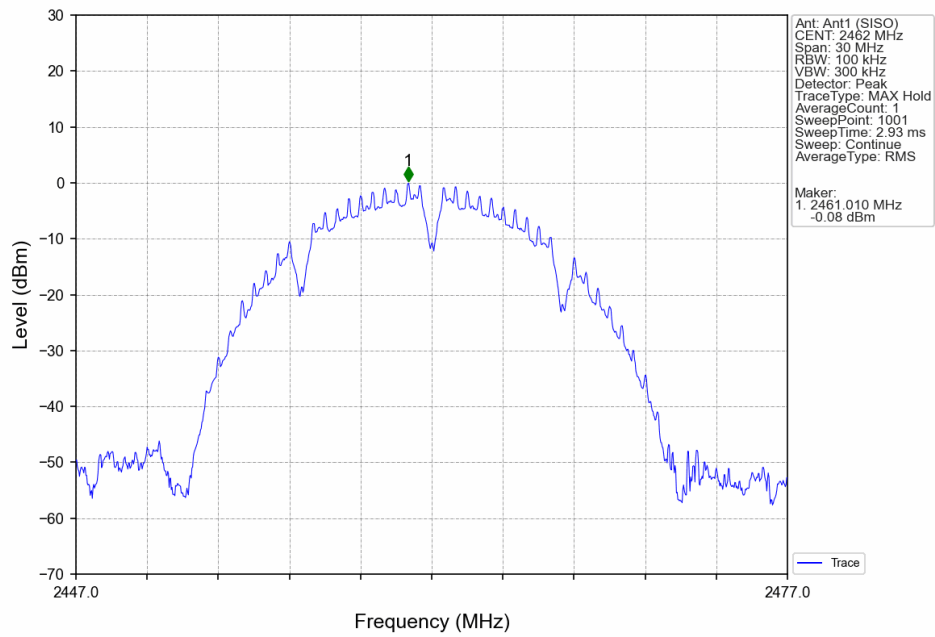
Note1: Antenna Gain: Ant1: 2.47dBi;

4.2 Test Graph

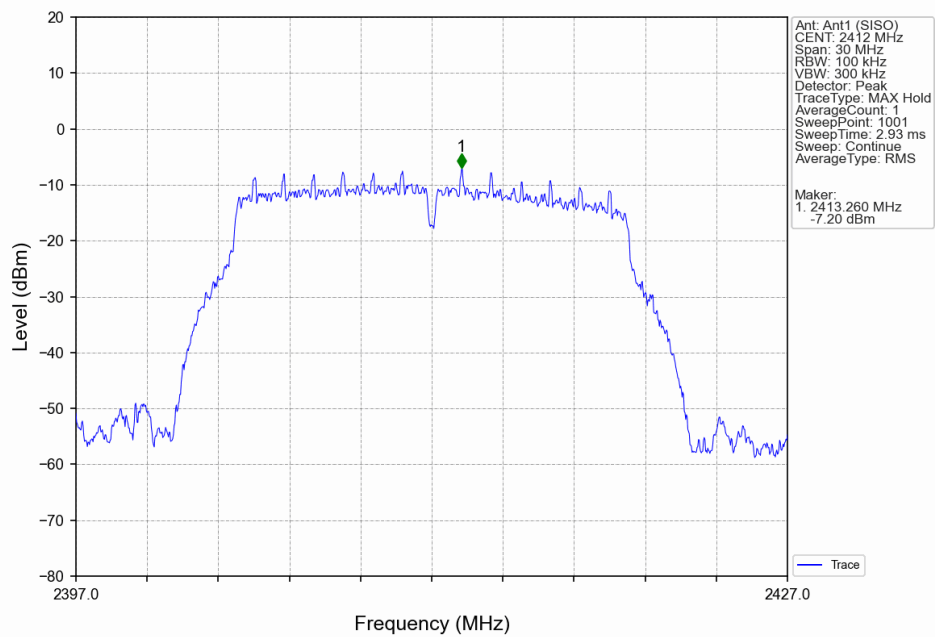
4.2.1 PSD



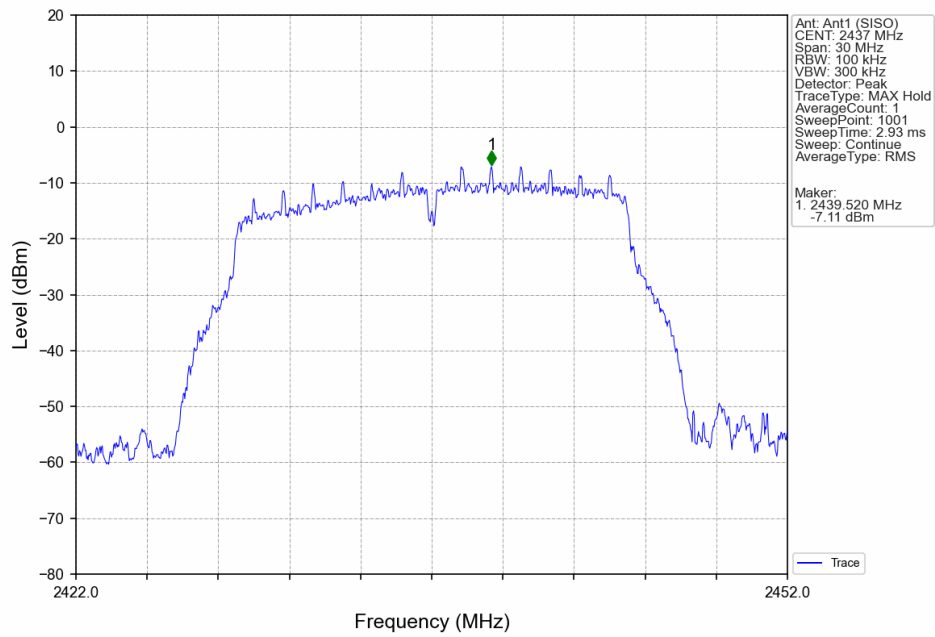
802.11b HCH 2462MHz Ant1 (SISO) NTN



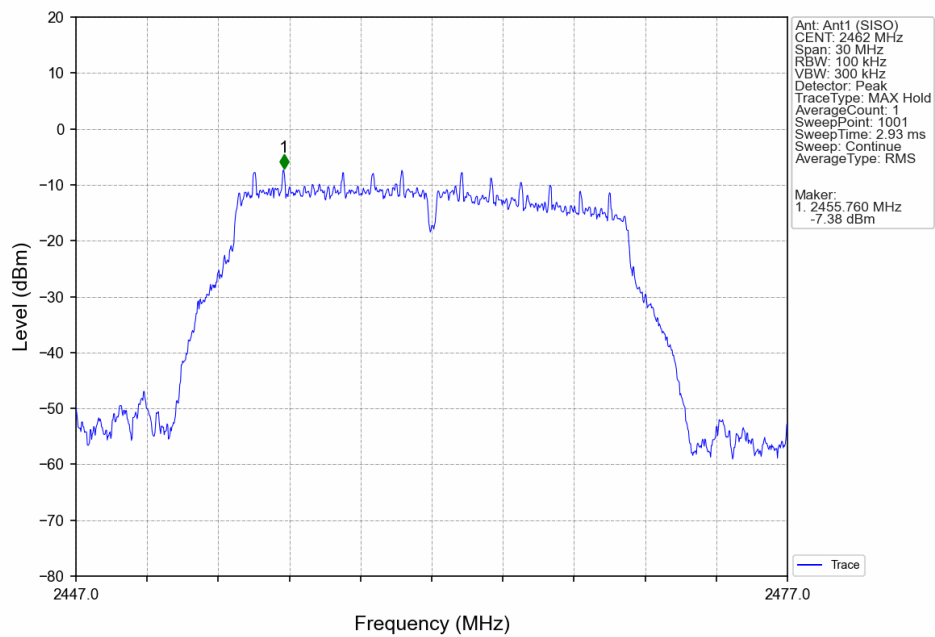
802.11g LCH 2412MHz Ant1 (SISO) NTN



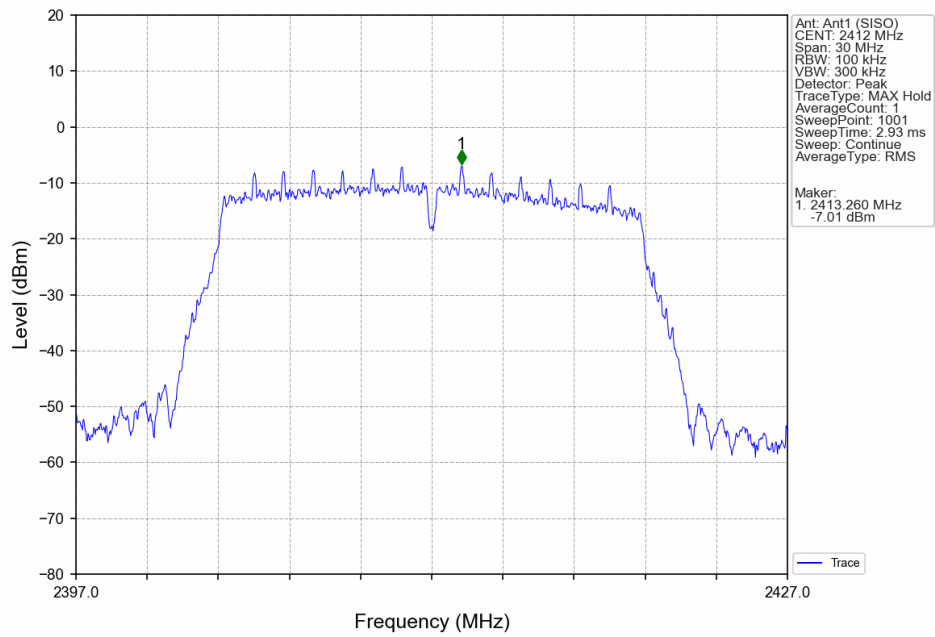
802.11g MCH 2437MHz Ant1 (SISO) NTNV



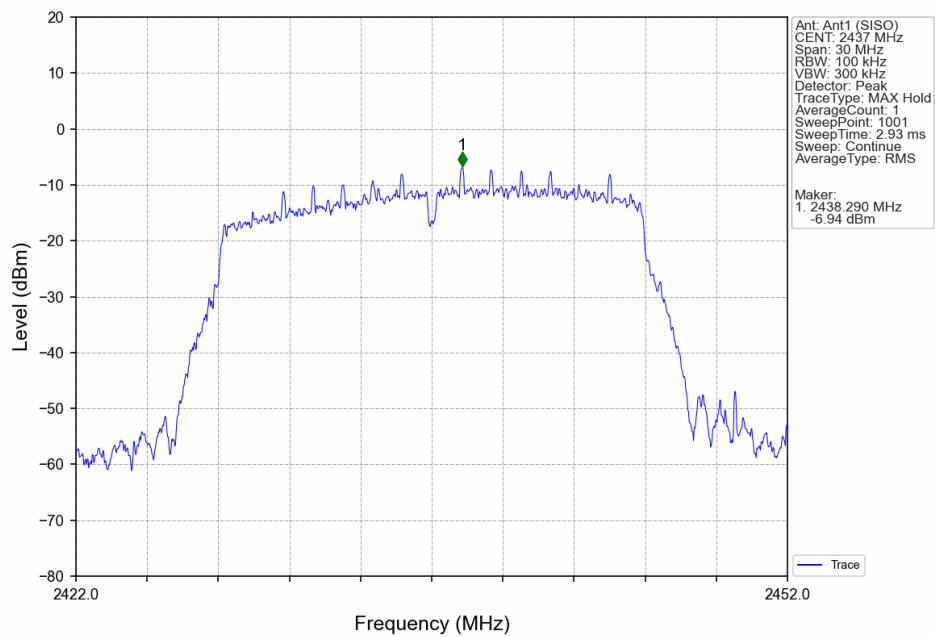
802.11g HCH 2462MHz Ant1 (SISO) NTNV



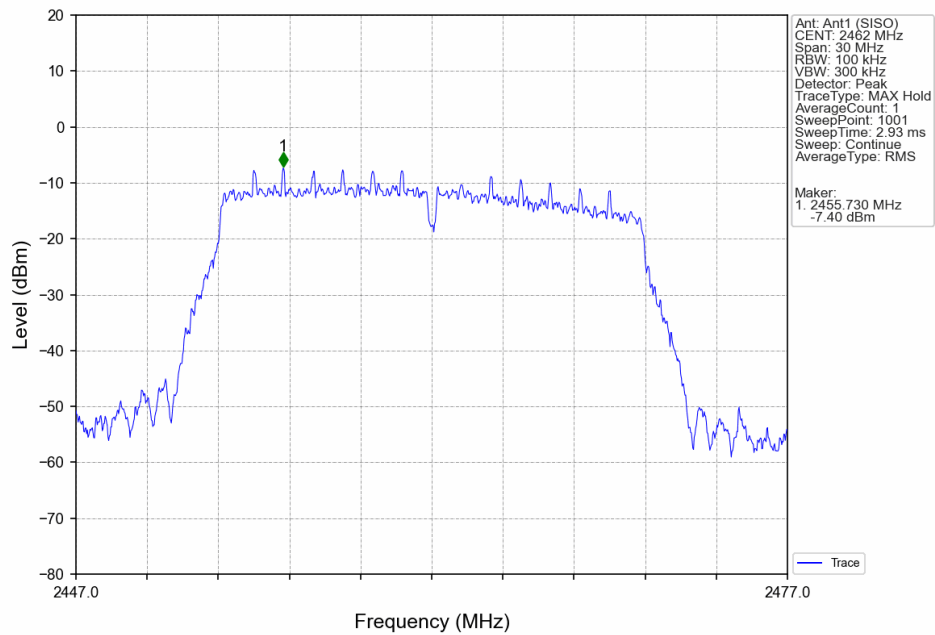
802.11n(HT20) LCH 2412MHz Ant1 (SISO) NTNV



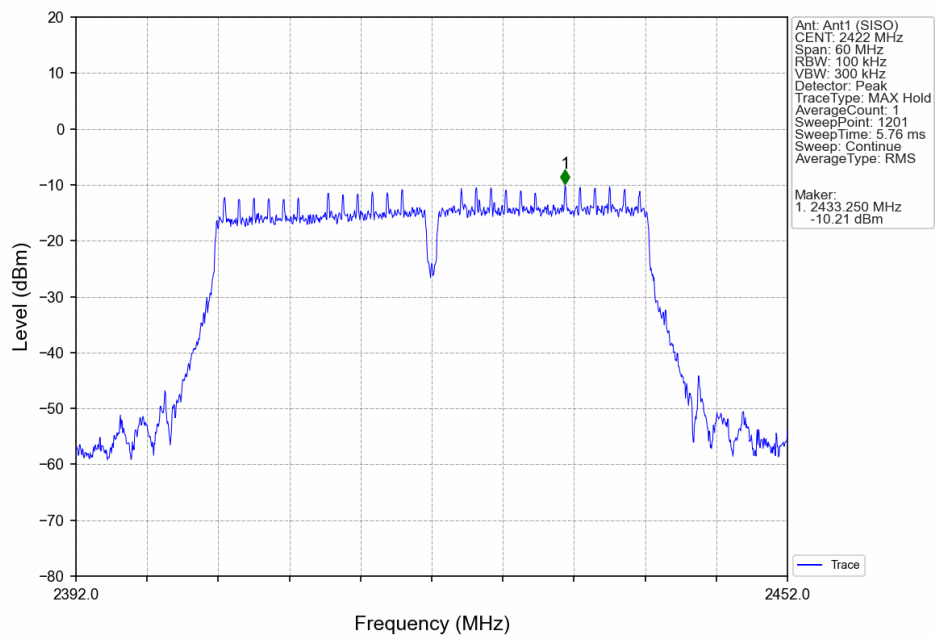
802.11n(HT20) MCH 2437MHz Ant1 (SISO) NTNV



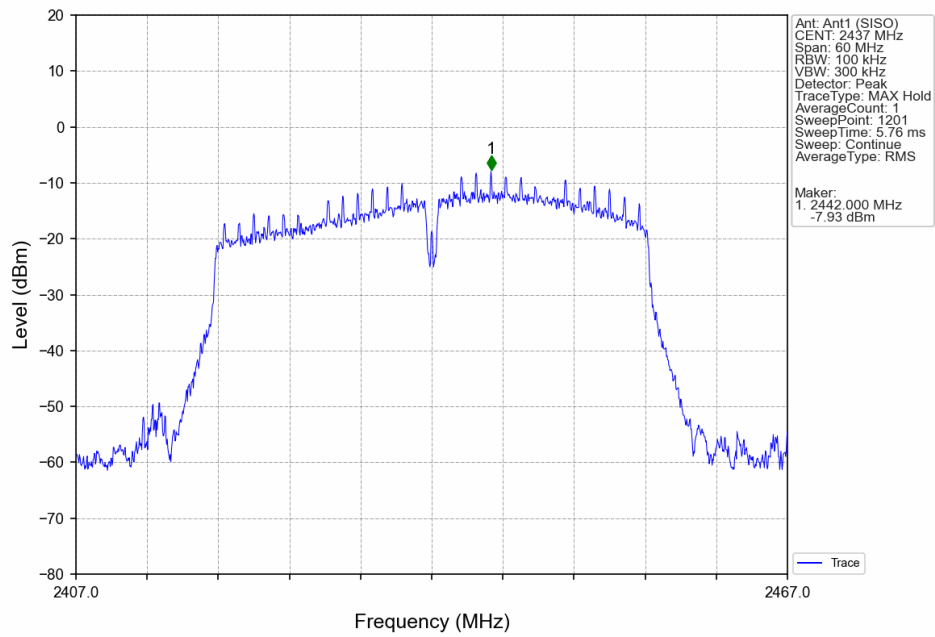
802.11n(HT20) HCH 2462MHz Ant1 (SISO) NTNV



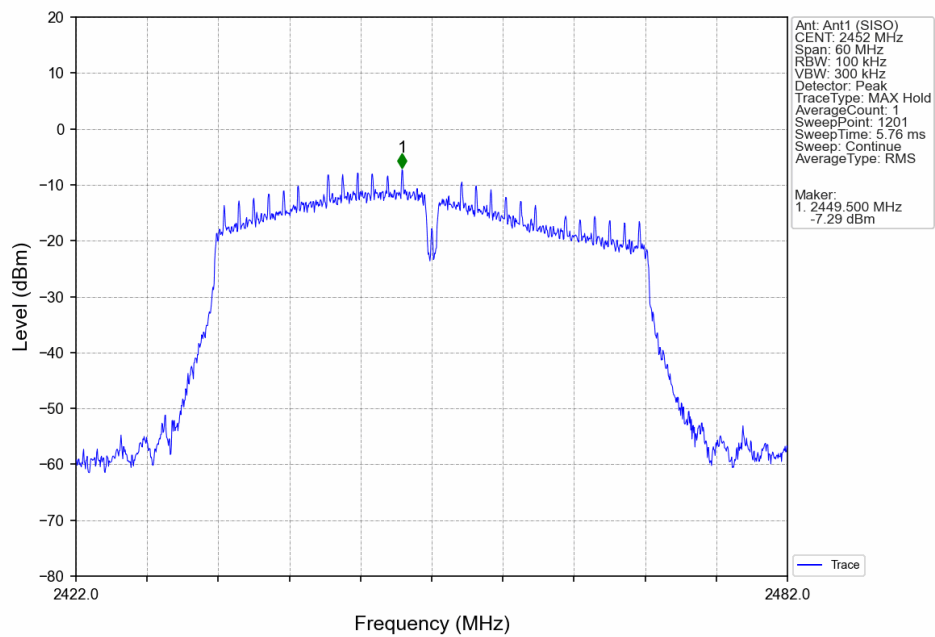
802.11n(HT40) LCH 2422MHz Ant1 (SISO) NTNV



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

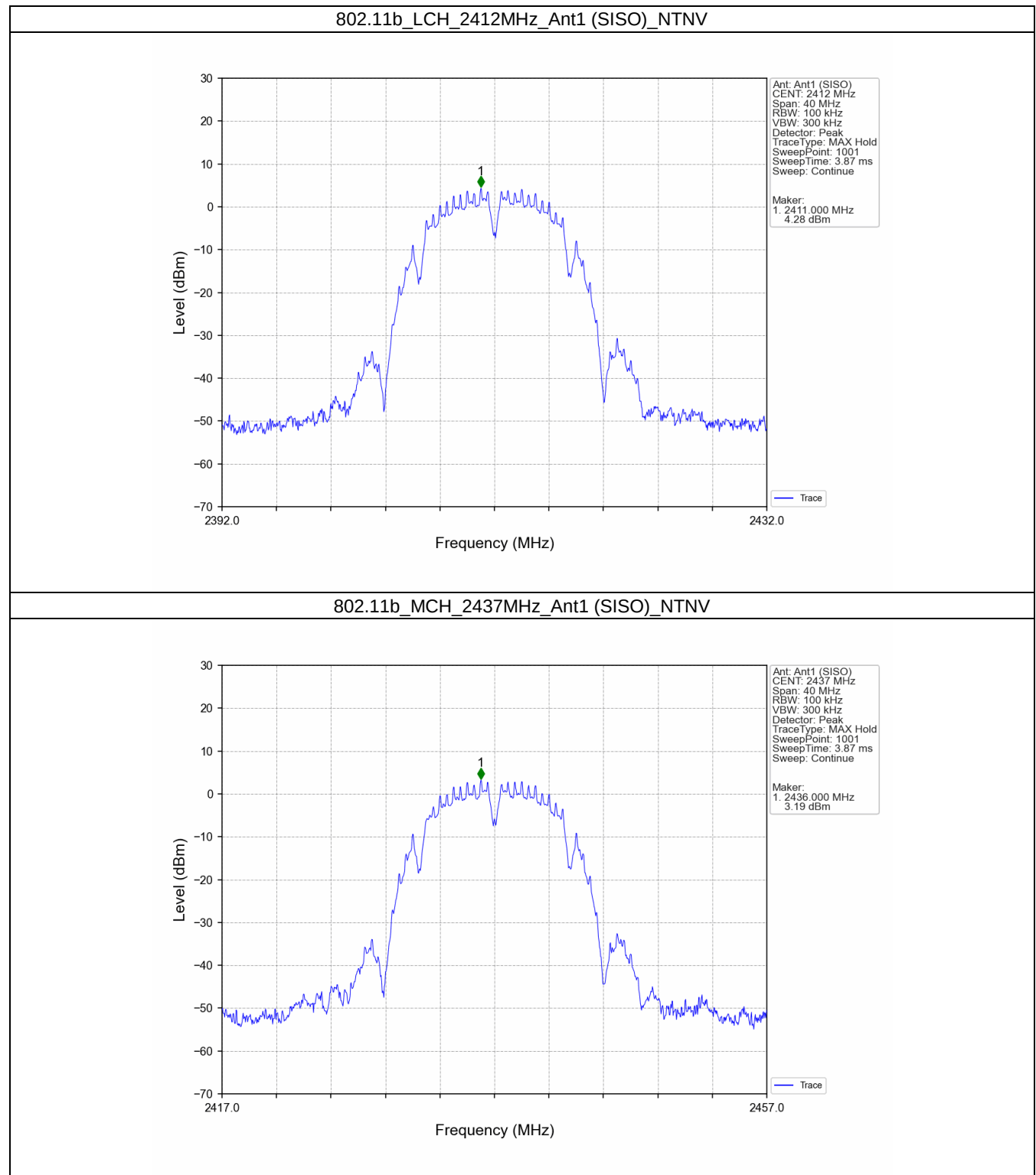
Mode	TX Type	Frequency (MHz)	ANT	Level of Reference (dBm)
802.11b	SISO	2412	1	4.28
		2437	1	3.19
		2462	1	2.24
802.11g	SISO	2412	1	1.41
		2437	1	0.03
		2462	1	-0.98
802.11n (HT20)	SISO	2412	1	0.93
		2437	1	0.25
		2462	1	-0.96
802.11n (HT40)	SISO	2422	1	-1.85
		2437	1	-2.00
		2452	1	-2.15

5.1.2 CSE

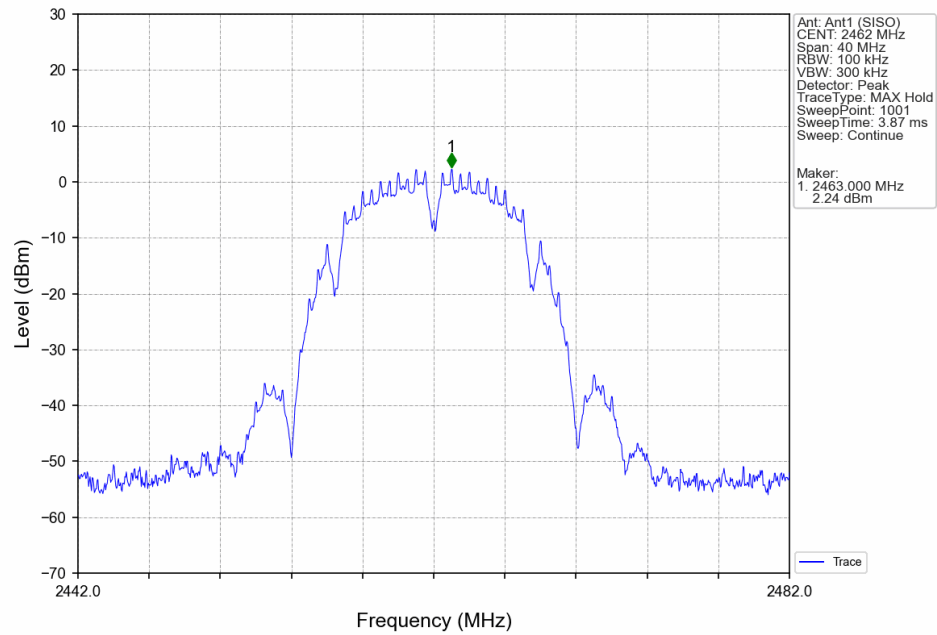
Mode	TX Type	Frequency (MHz)	ANT	Level of Reference (dBm)	Limit (dBm)	Verdict
802.11b	SISO	2412	1	4.28	-15.72	Pass
		2437	1	3.19	-16.81	Pass
		2462	1	2.24	-17.76	Pass
802.11g	SISO	2412	1	1.41	-18.59	Pass
		2437	1	0.03	-19.97	Pass
		2462	1	-0.98	-20.98	Pass
802.11n (HT20)	SISO	2412	1	0.93	-19.07	Pass
		2437	1	0.25	-19.75	Pass
		2462	1	-0.96	-20.96	Pass
802.11n (HT40)	SISO	2422	1	-1.85	-21.85	Pass
		2437	1	-2.00	-22.00	Pass
		2452	1	-2.15	-22.15	Pass

5.2 Test Graph

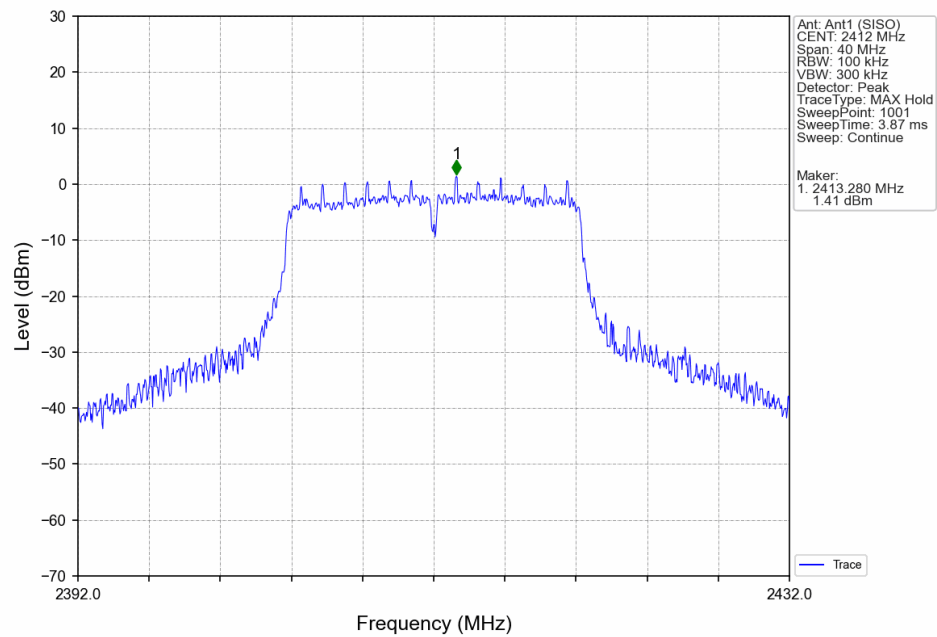
5.2.1 Ref



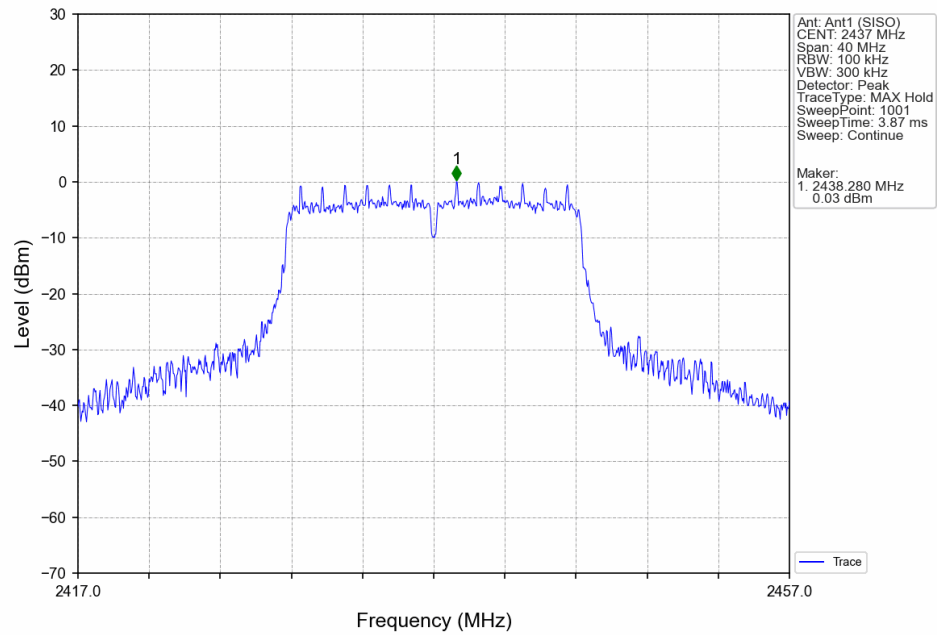
802.11b_HCH_2462MHz_Ant1 (SISO)_NTNV



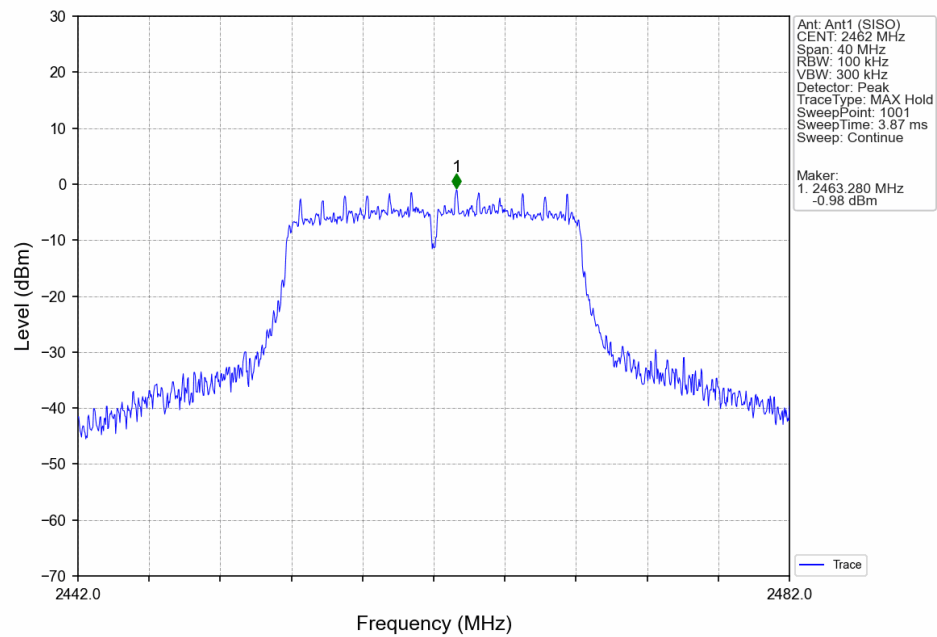
802.11g_LCH_2412MHz_Ant1 (SISO)_NTNV



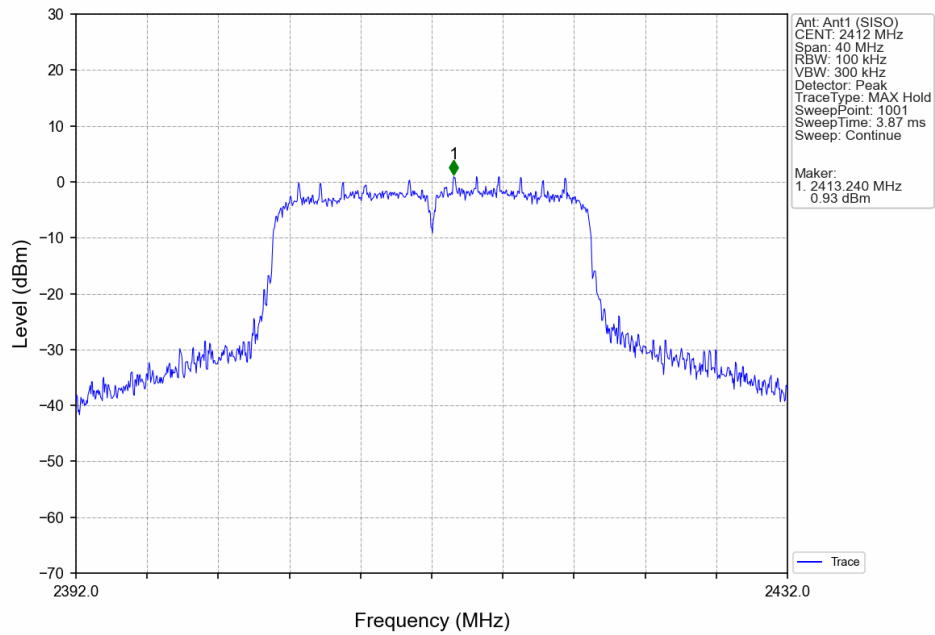
802.11g_MCH_2437MHz_Ant1 (SISO)_NTNV



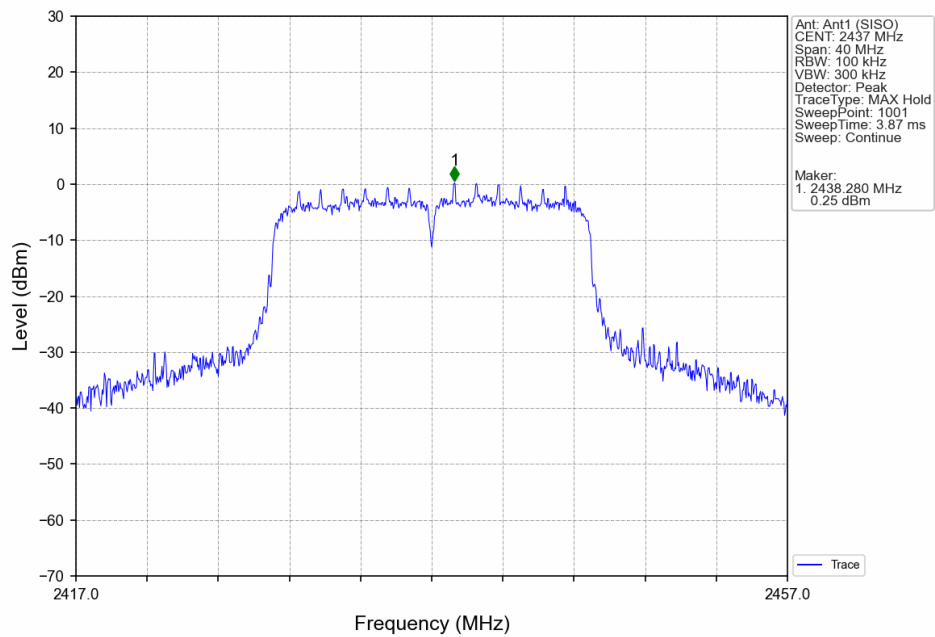
802.11g_HCH_2462MHz_Ant1 (SISO)_NTNV



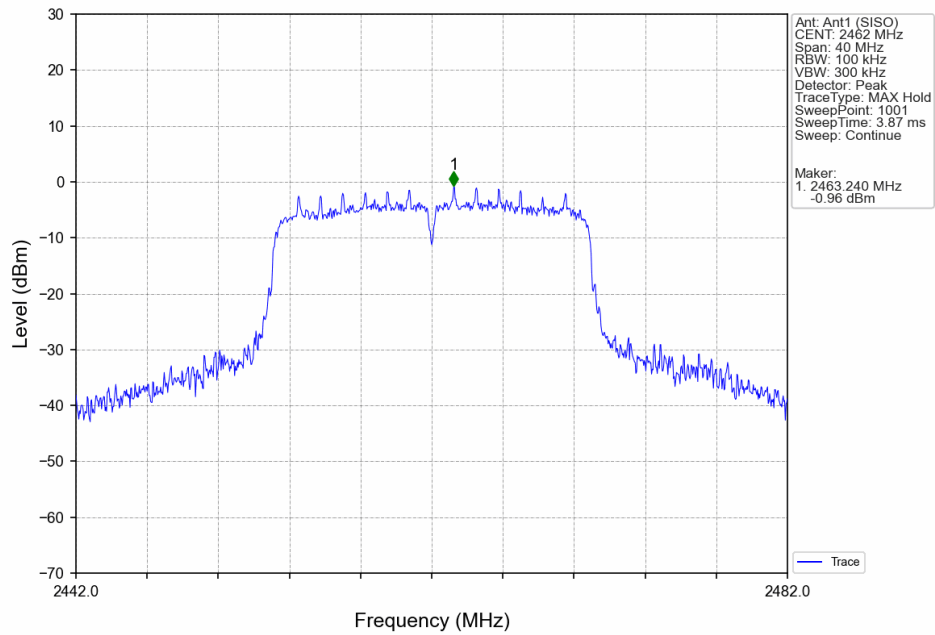
802.11n(HT20)_LCH_2412MHz_Ant1 (SISO)_NTNV



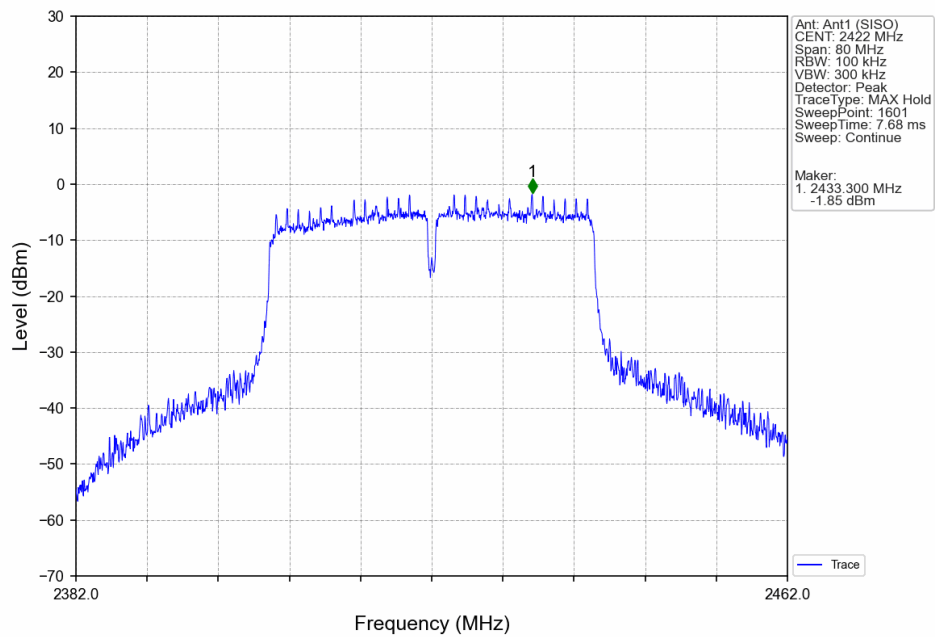
802.11n(HT20)_MCH_2437MHz_Ant1 (SISO)_NTNV



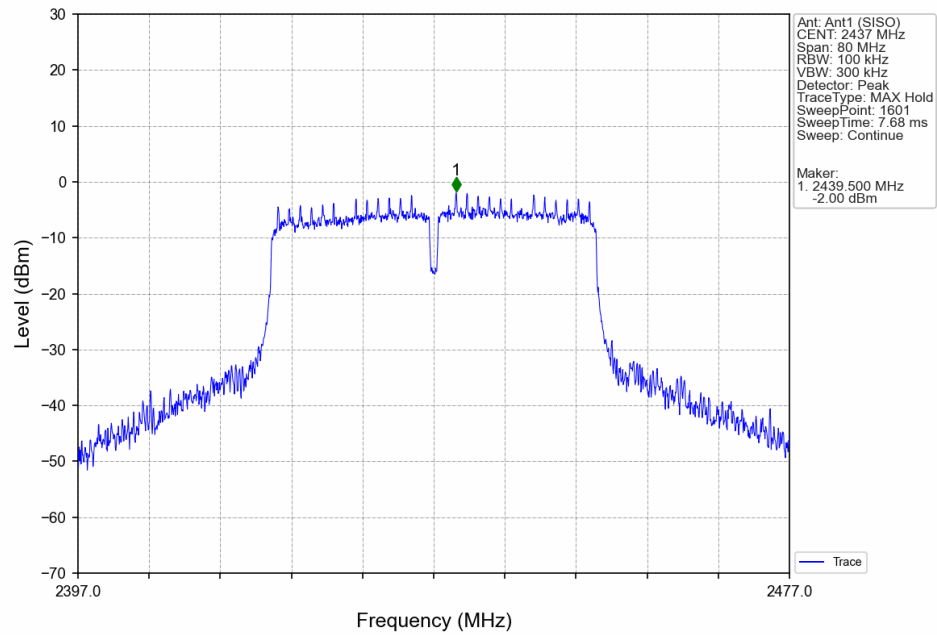
802.11n(HT20)_HCH_2462MHz_Ant1 (SISO)_NTNV



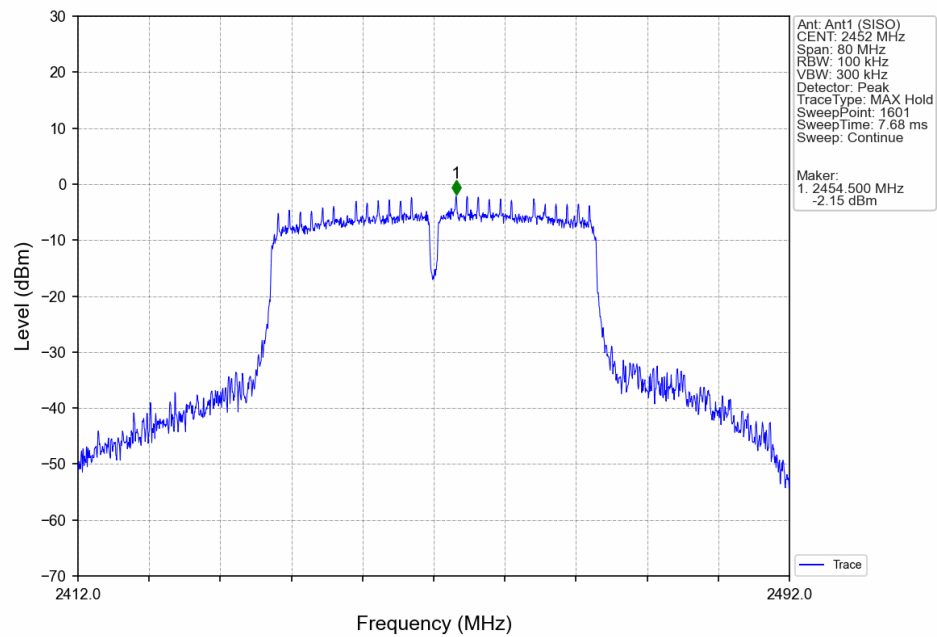
802.11n(HT40)_LCH_2422MHz_Ant1 (SISO)_NTNV



802.11n(HT40)_MCH_2437MHz_Ant1 (SISO)_NTNV

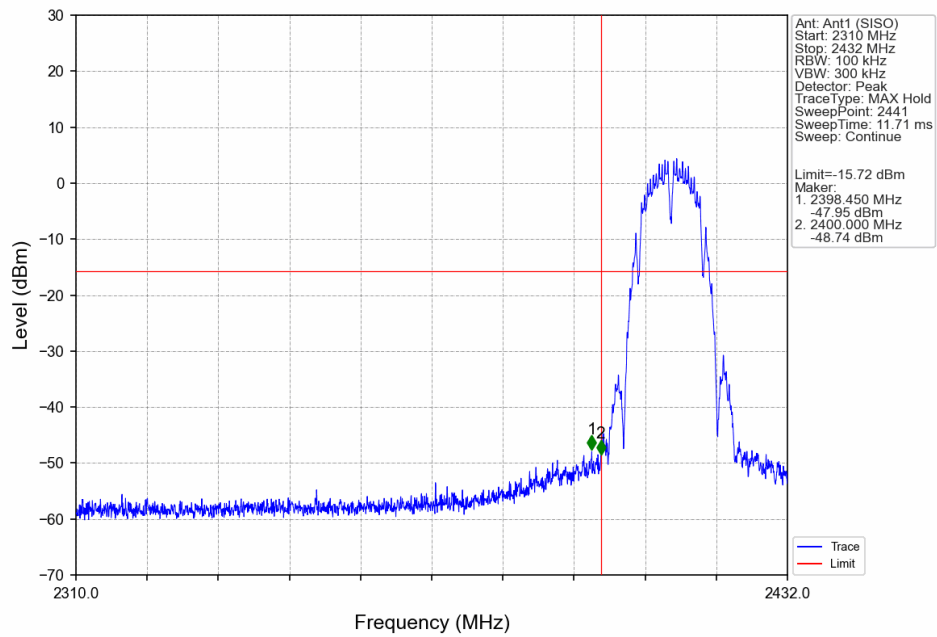


802.11n(HT40)_HCH_2452MHz_Ant1 (SISO)_NTNV

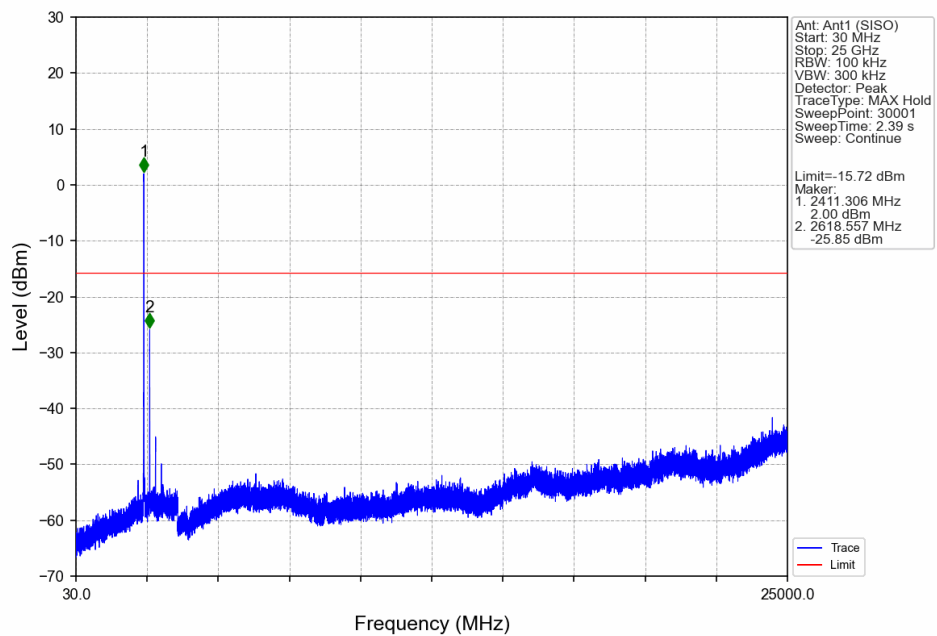


5.2.2 CSE

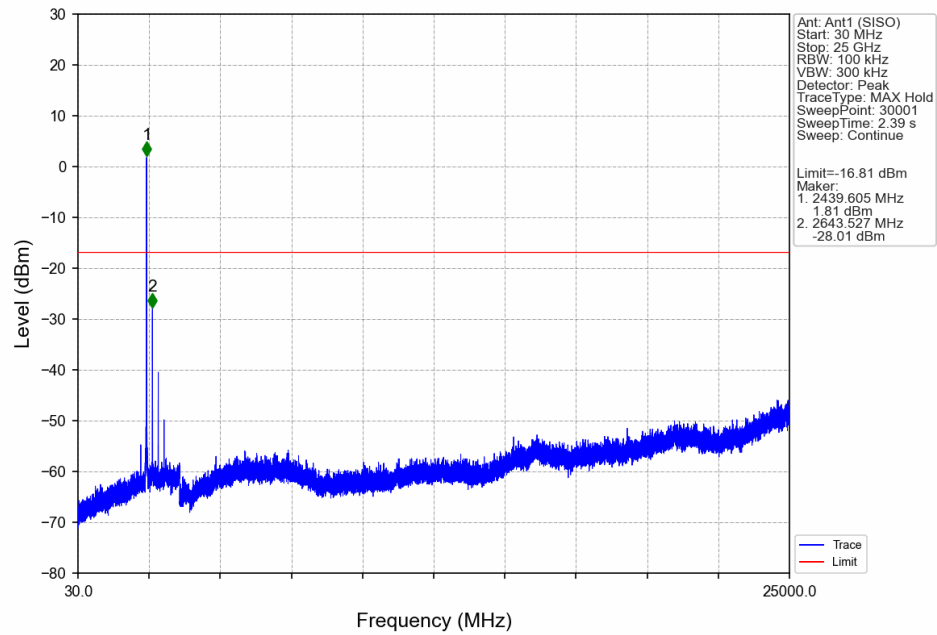
802.11b_LCH_2412MHz_Ant1 (SISO)_NTNV



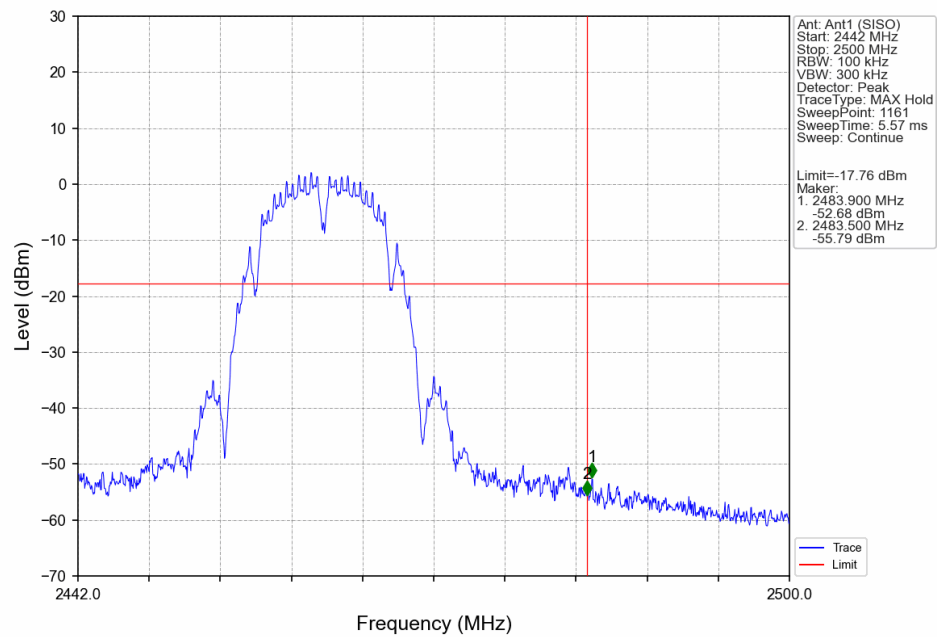
802.11b_LCH_2412MHz_Ant1 (SISO)_NTNV



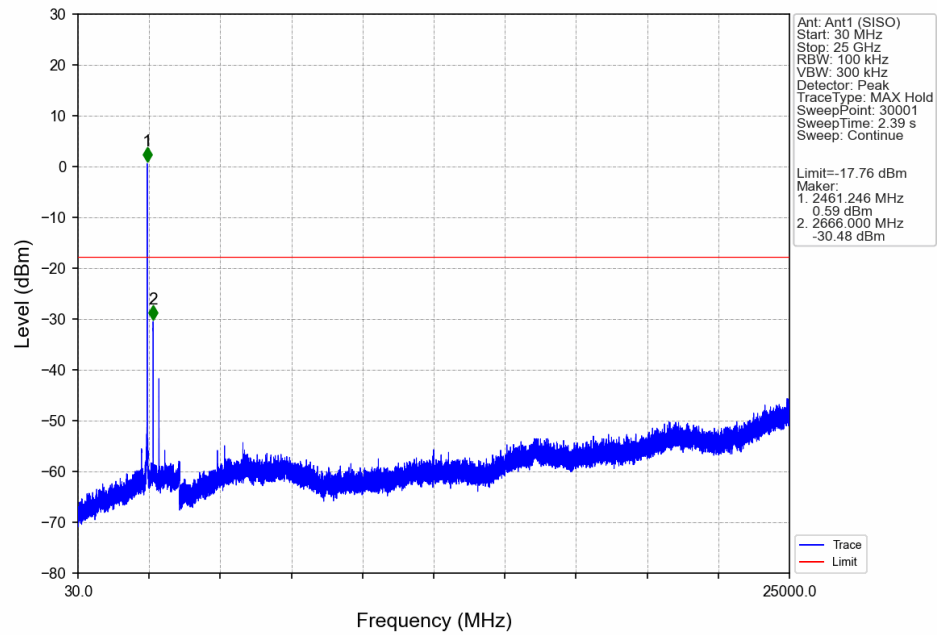
802.11b_MCH_2437MHz_Ant1 (SISO)_NTNV



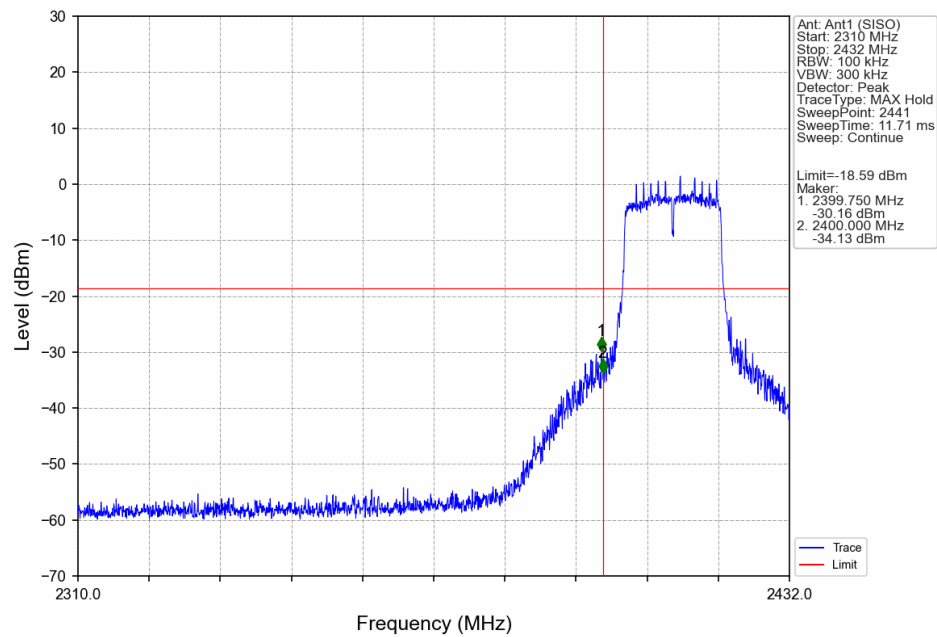
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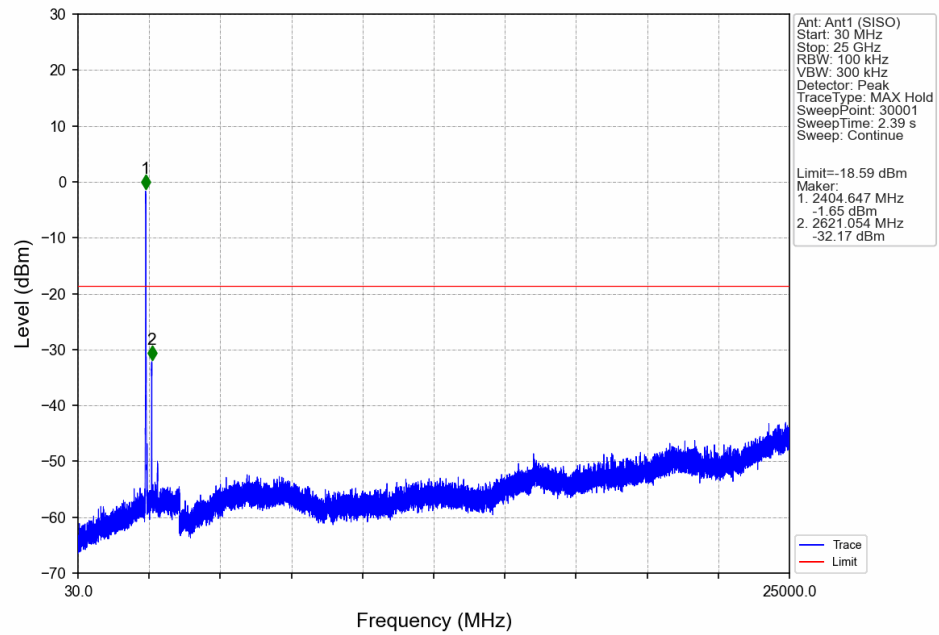
802.11b_HCH_2462MHz_Ant1 (SISO)_NTNV



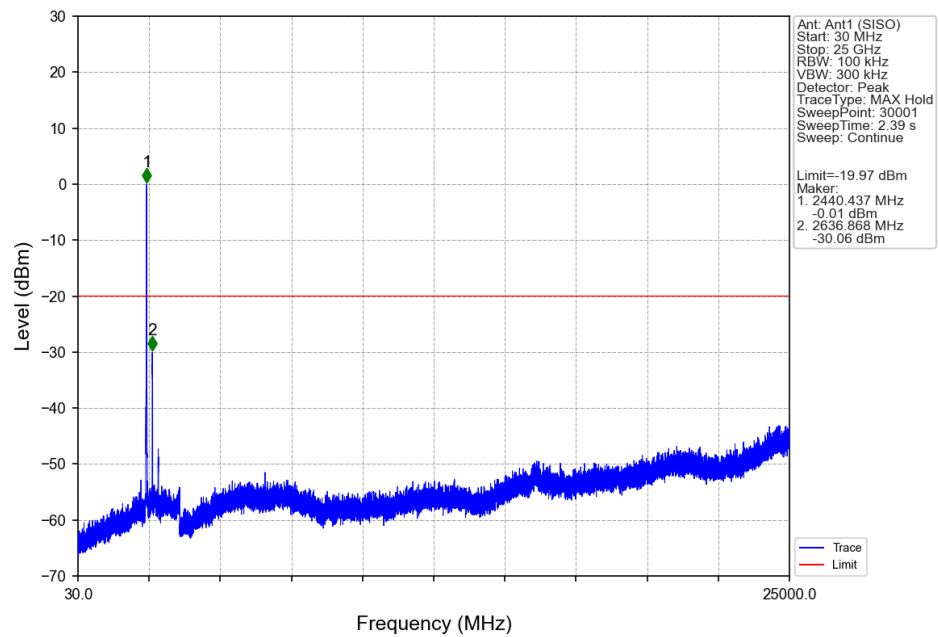
802.11g_LCH_2412MHz_Ant1 (SISO)_NTNV



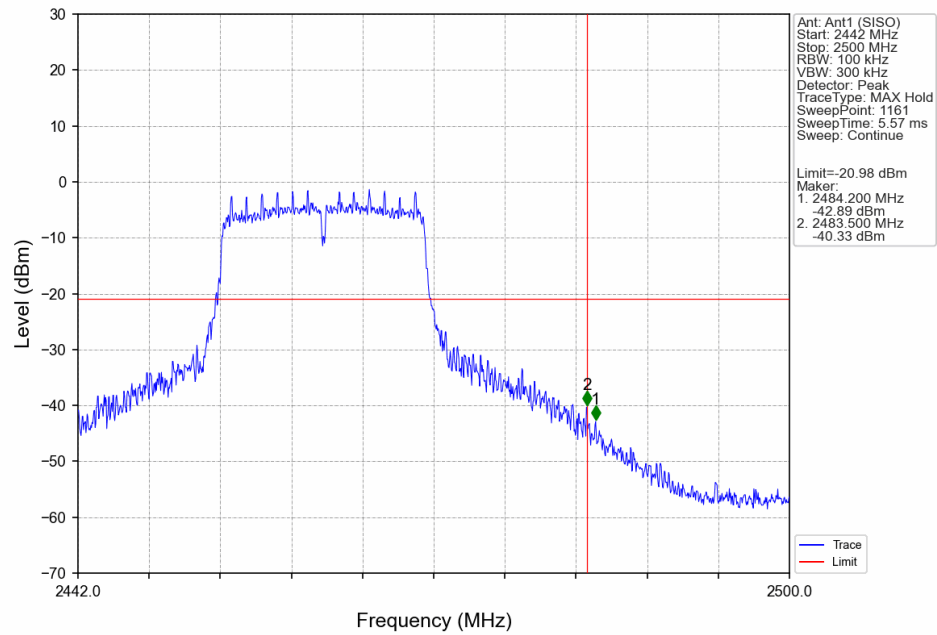
802.11g_LCH_2412MHz_Ant1 (SISO)_NTNV



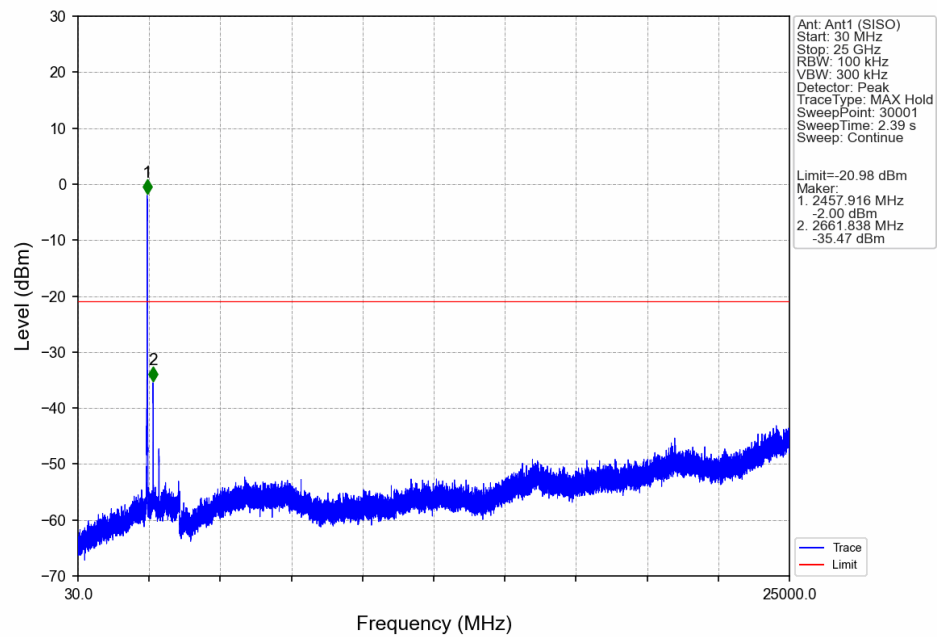
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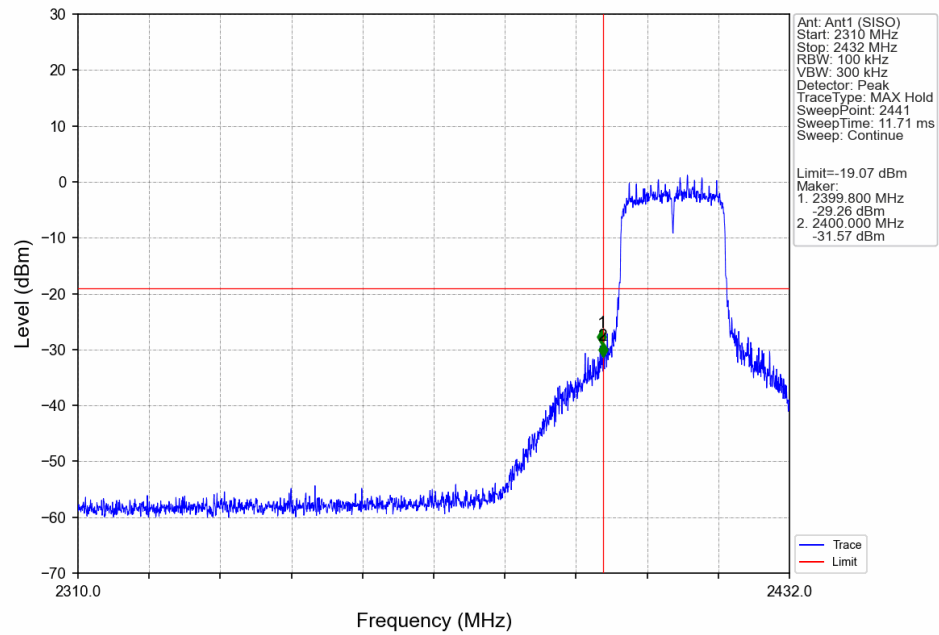
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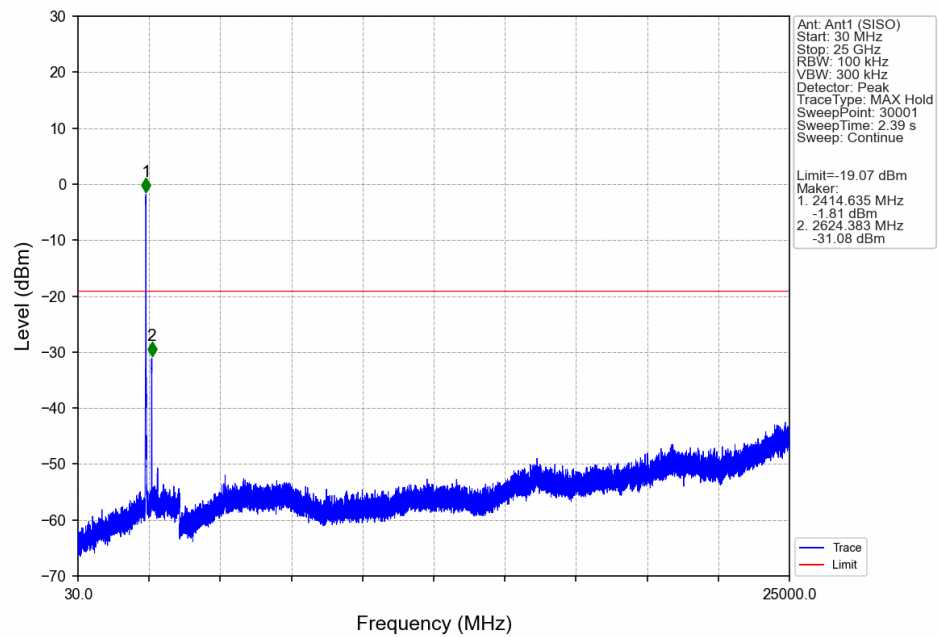
802.11g_HCH_2462MHz_Ant1 (SISO)_NTNV



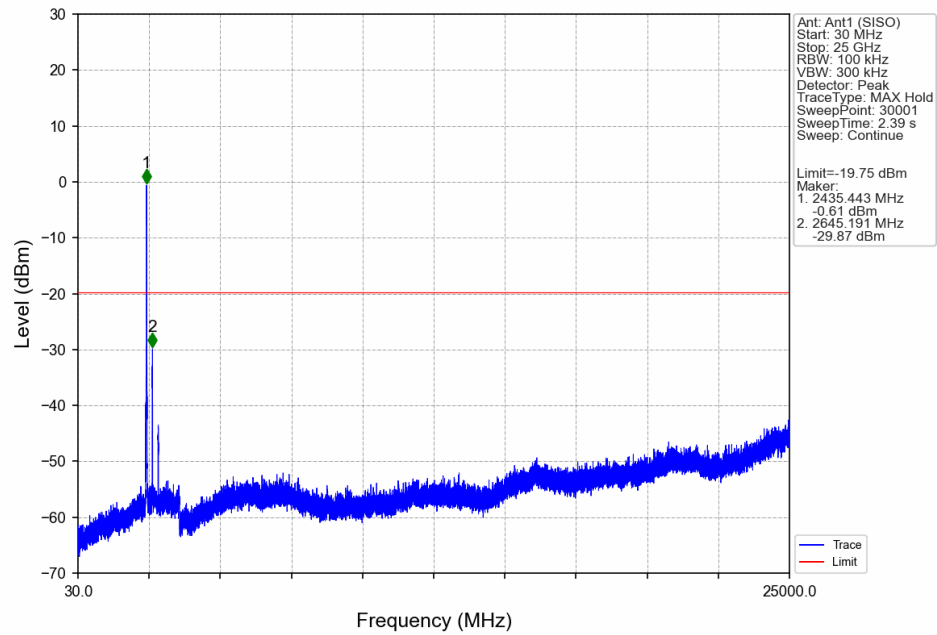
802.11n(HT20)_LCH_2412MHz_Ant1 (SISO)_NTNV



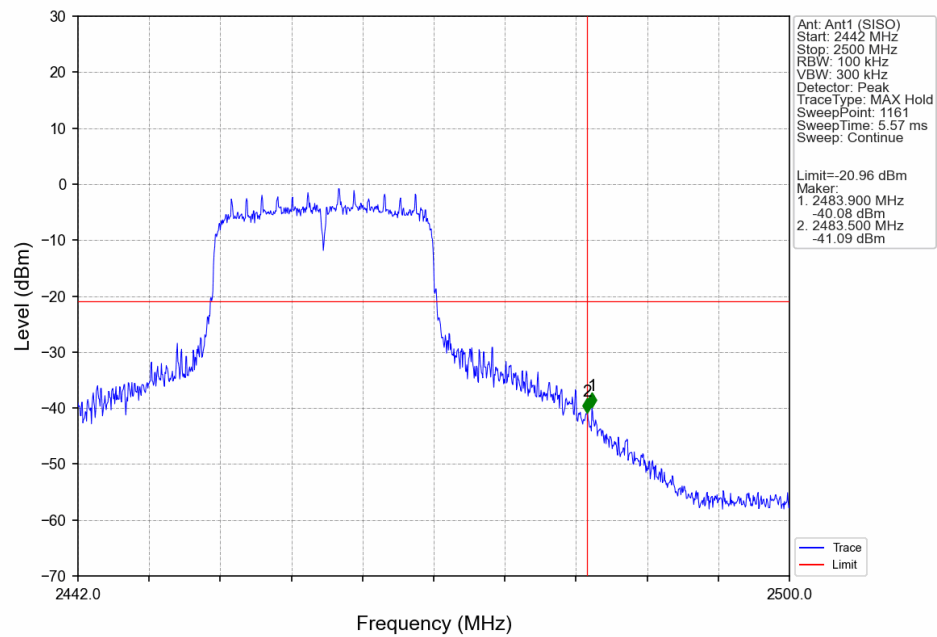
802.11n(HT20)_LCH_2412MHz_Ant1 (SISO)_NTNV



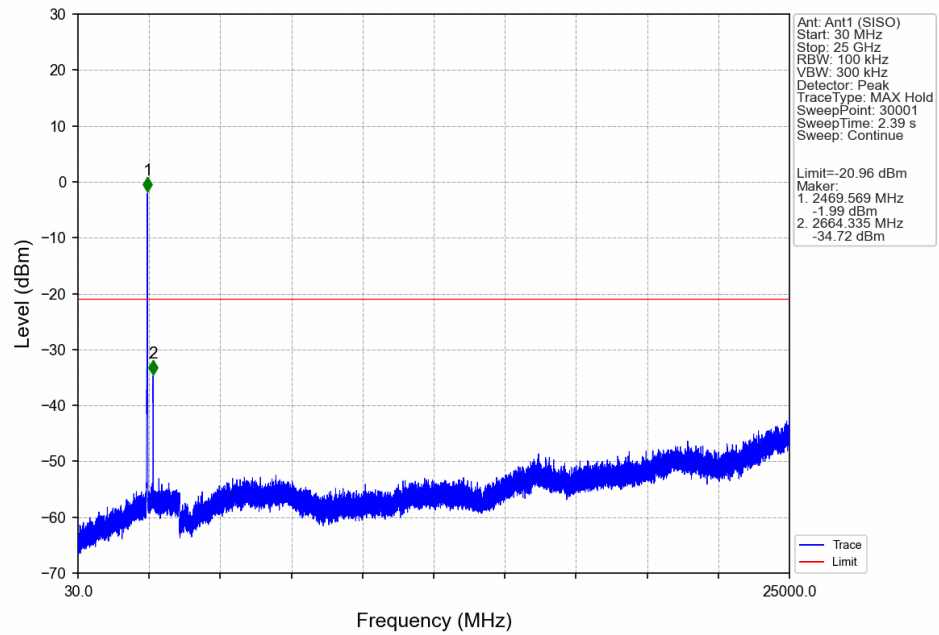
802.11n(HT20)_MCH_2437MHz_Ant1 (SISO)_NTNV



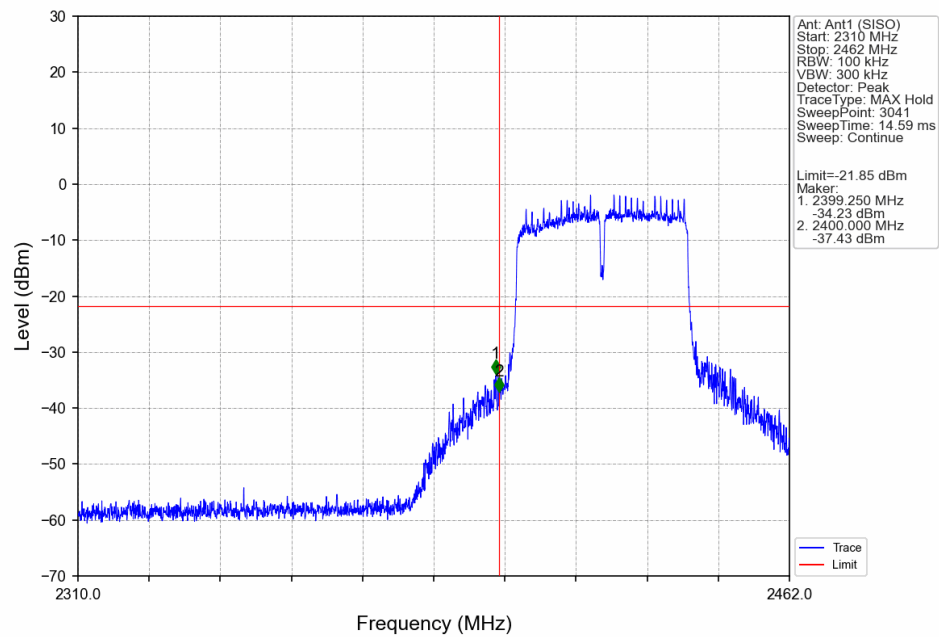
802.11n(HT20)_HCH_2462MHz_Ant1 (SISO)_NTNV



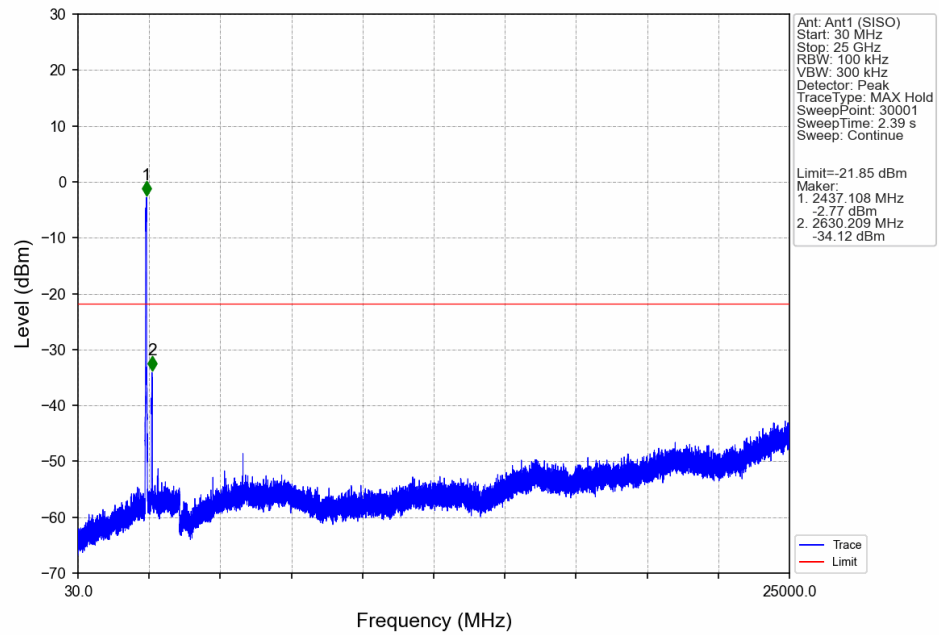
802.11n(HT20)_HCH_2462MHz_Ant1 (SISO)_NTNV



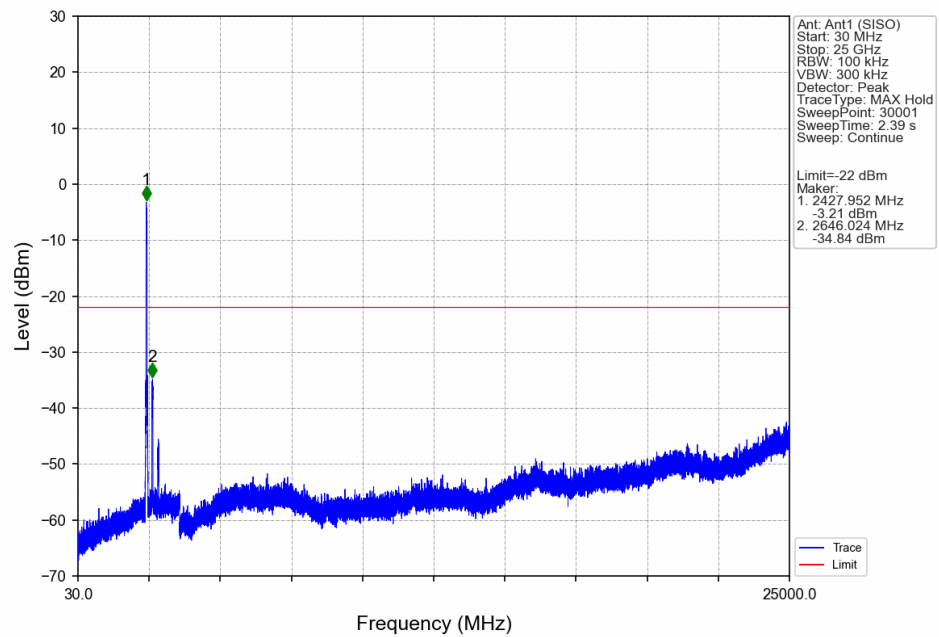
802.11n(HT40)_LCH_2422MHz_Ant1 (SISO)_NTNV



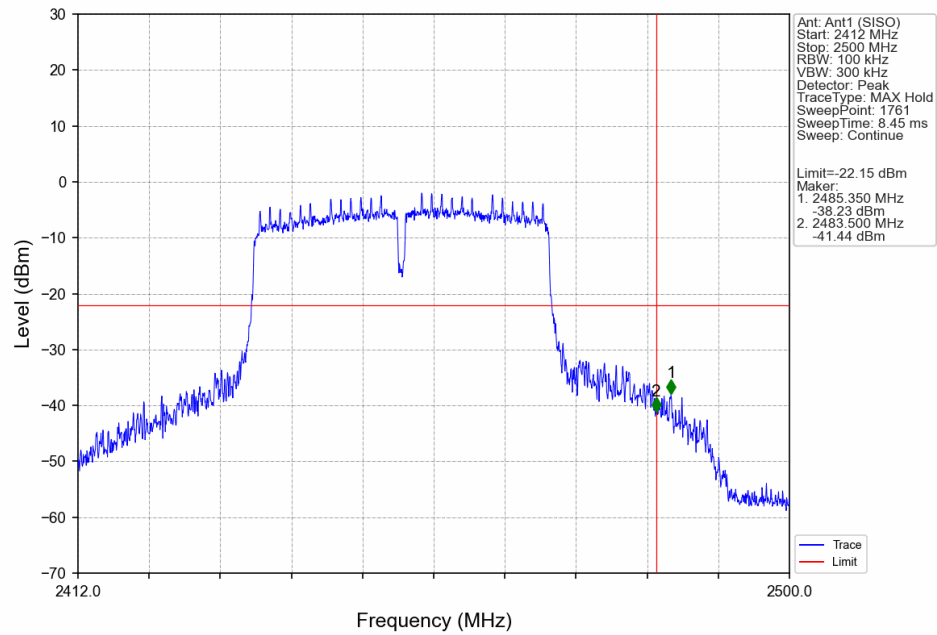
802.11n(HT40)_LCH_2422MHz_Ant1 (SISO)_NTNV



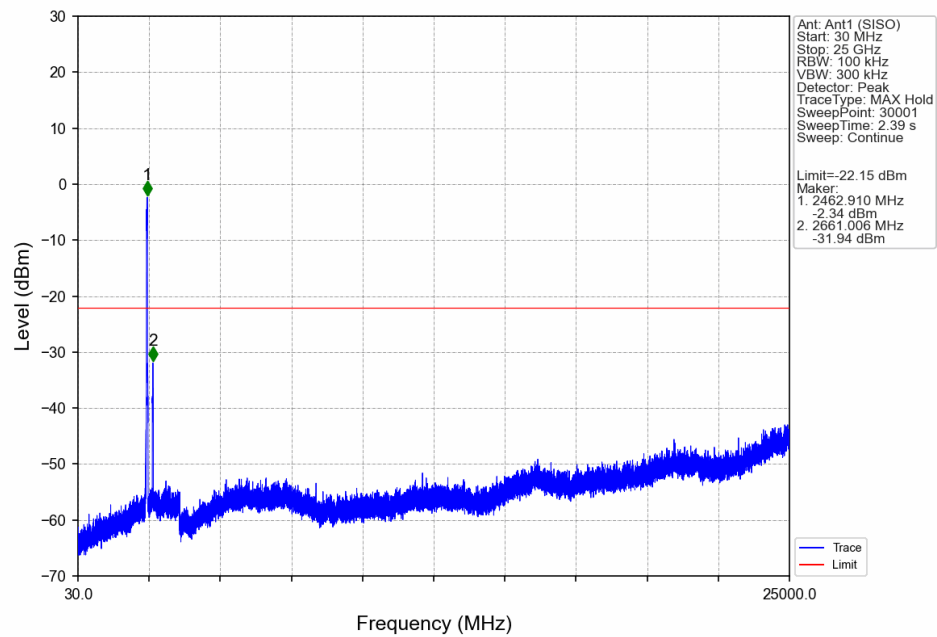
802.11n(HT40)_MCH_2437MHz_Ant1 (SISO)_NTNV



802.11n(HT40)_HCH_2452MHz_Ant1 (SISO)_NTNV



802.11n(HT40)_HCH_2452MHz_Ant1 (SISO)_NTNV



***** End of Report *****