

Appendix for 15.247

1. Bandwidth

1.1 OBW

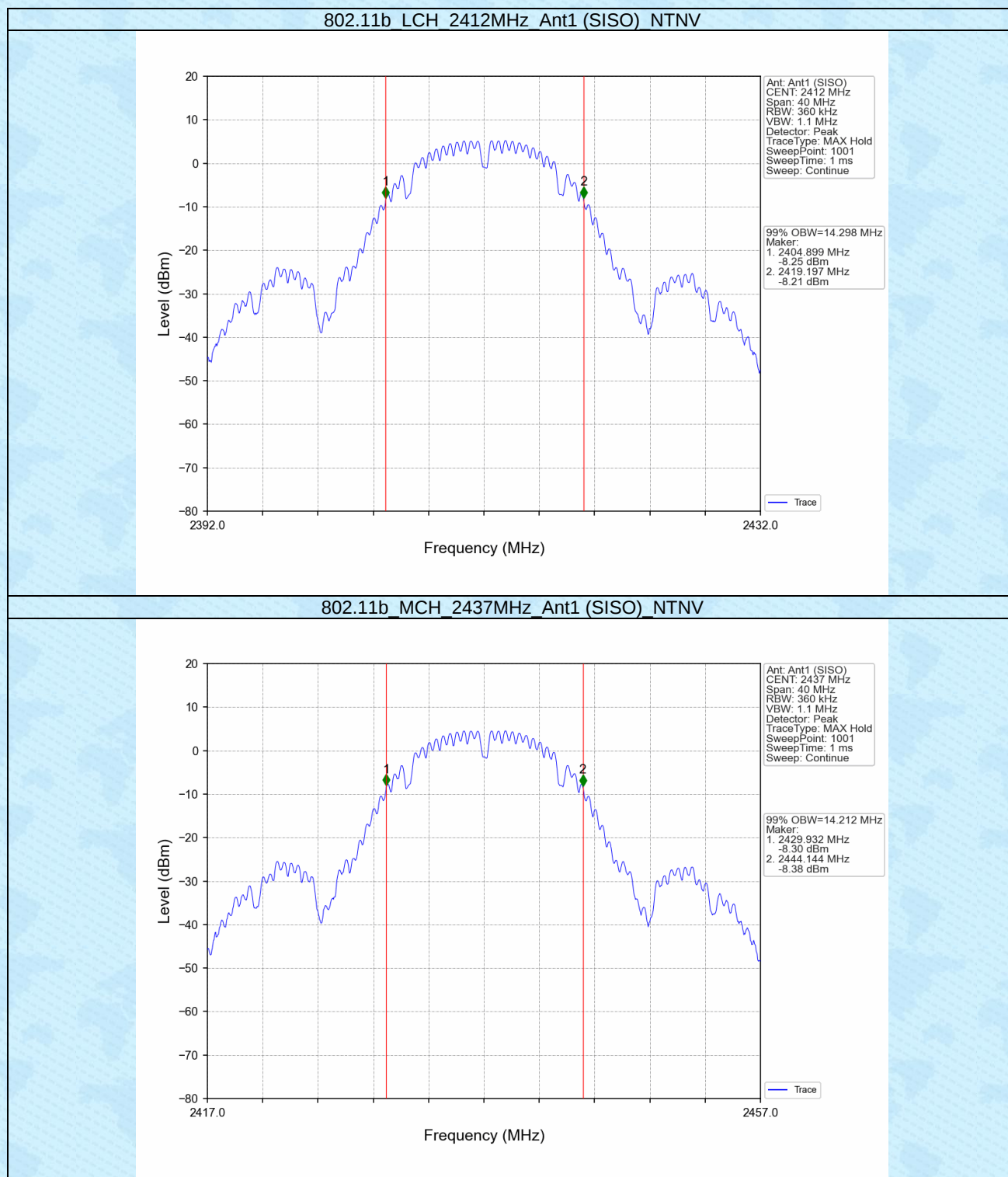
1.1.1 Test Result

Mode	TX Type	Frequency (MHz)	ANT	99% Occupied Bandwidth (MHz)	Verdict
				Result	
802.11b	SISO	2412	1	14.298	Pass
		2437	1	14.212	Pass
		2462	1	14.223	Pass
802.11g	SISO	2412	1	16.462	Pass
		2437	1	16.417	Pass
		2462	1	16.454	Pass
802.11n (HT20)	MIMO	2412	1	17.376	Pass
		2437	1	17.457	Pass
		2462	1	17.377	Pass
802.11n (HT40)	MIMO	2422	1	36.076	Pass
		2437	1	35.989	Pass
		2452	1	36.149	Pass

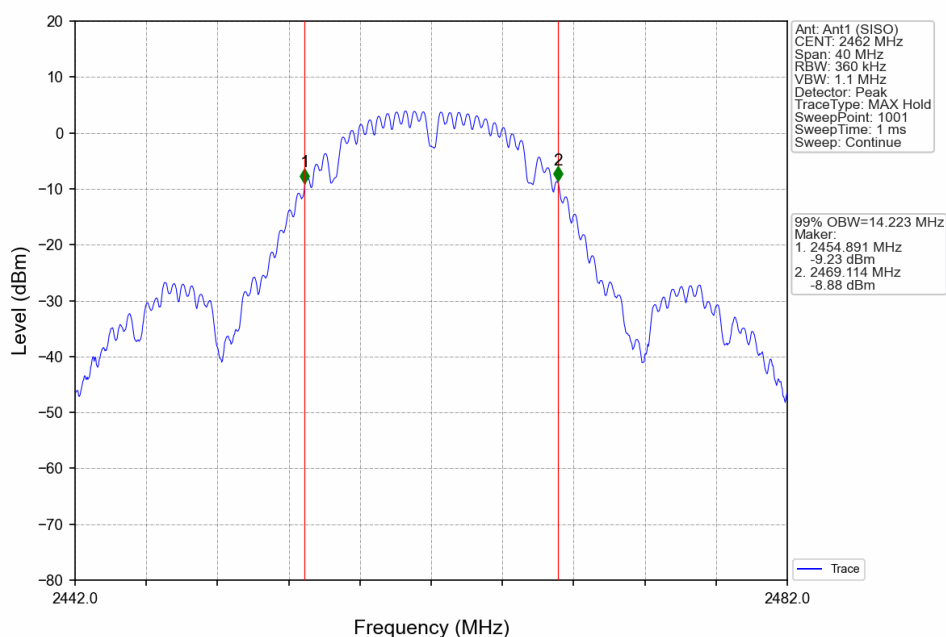
Mode	TX Type	Frequency (MHz)	ANT	99% Occupied Bandwidth (MHz)	Verdict
				Result	
802.11b	SISO	2412	2	14.373	Pass
		2437	2	14.260	Pass
		2462	2	14.181	Pass
802.11g	SISO	2412	2	17.810	Pass
		2437	2	17.412	Pass
		2462	2	17.192	Pass
802.11n (HT20)	MIMO	2412	2	17.490	Pass
		2437	2	17.478	Pass
		2462	2	17.506	Pass
802.11n (HT40)	MIMO	2422	2	36.207	Pass
		2437	2	36.057	Pass
		2452	2	36.290	Pass

1.1.2 Test Graph

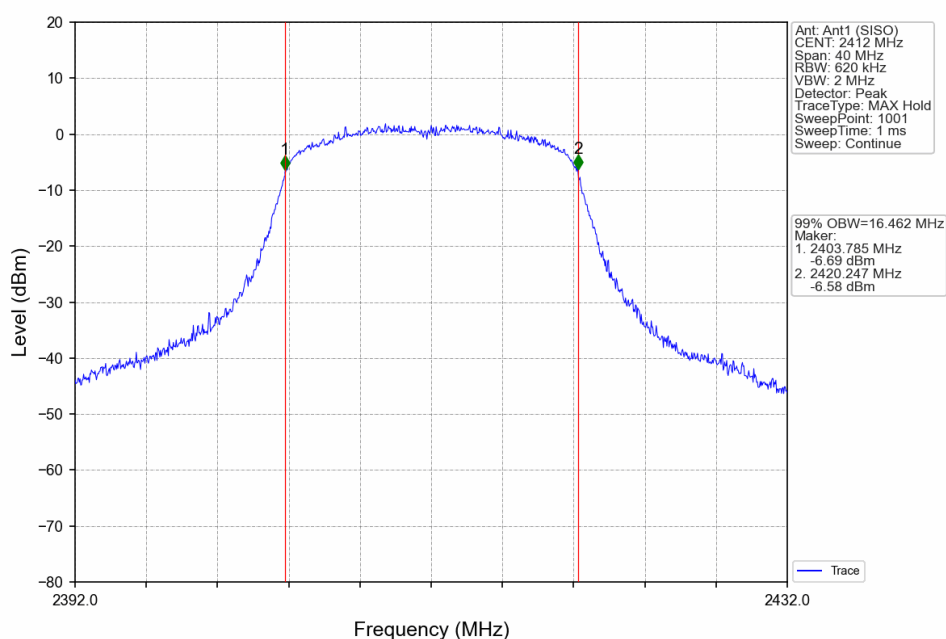
ANT 1:



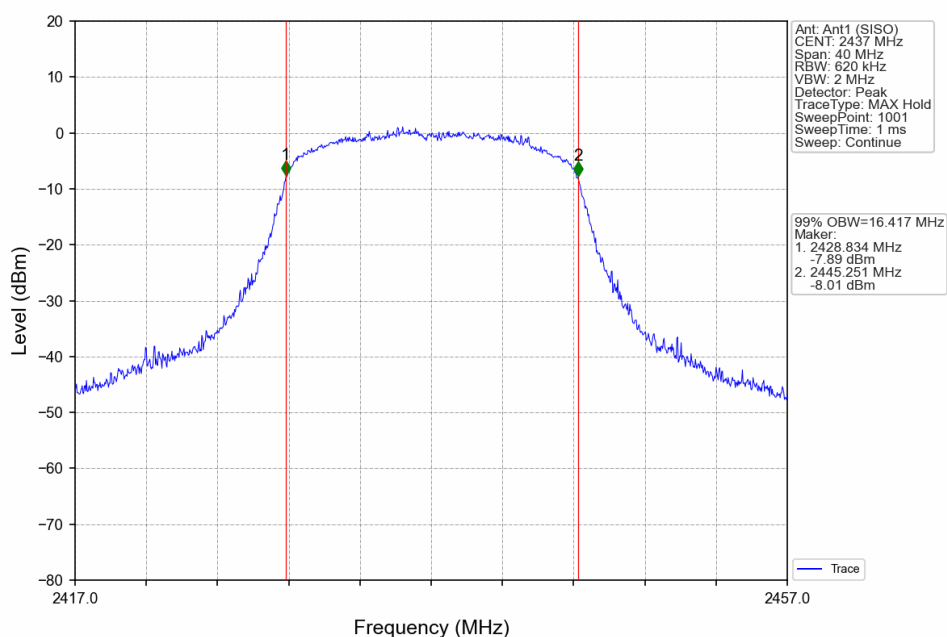
802.11b HCH 2462MHz Ant1 (SISO) NTNV



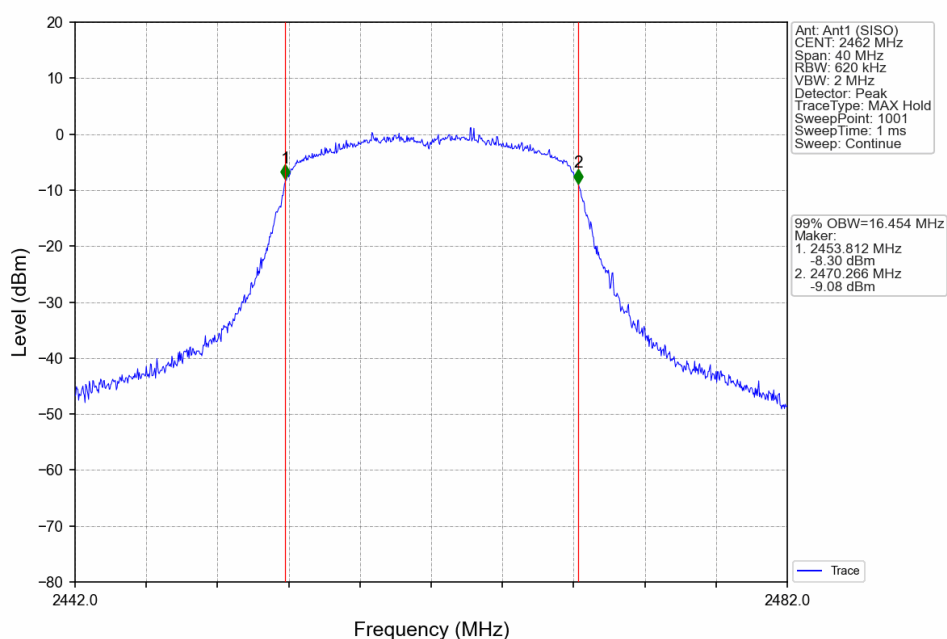
802.11g LCH 2412MHz Ant1 (SISO) NTNV



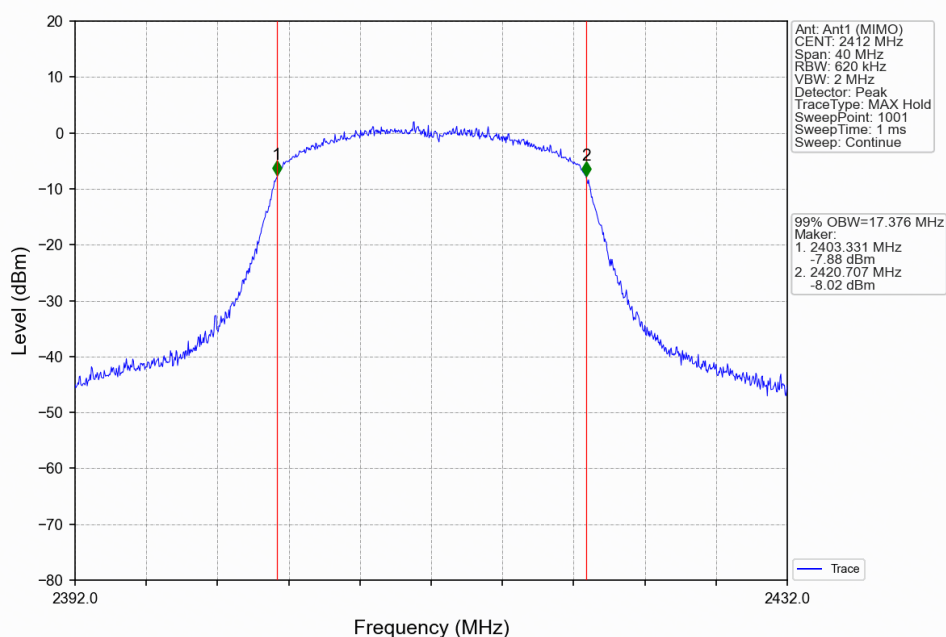
802.11g MCH 2437MHz Ant1 (SISO) NTNV



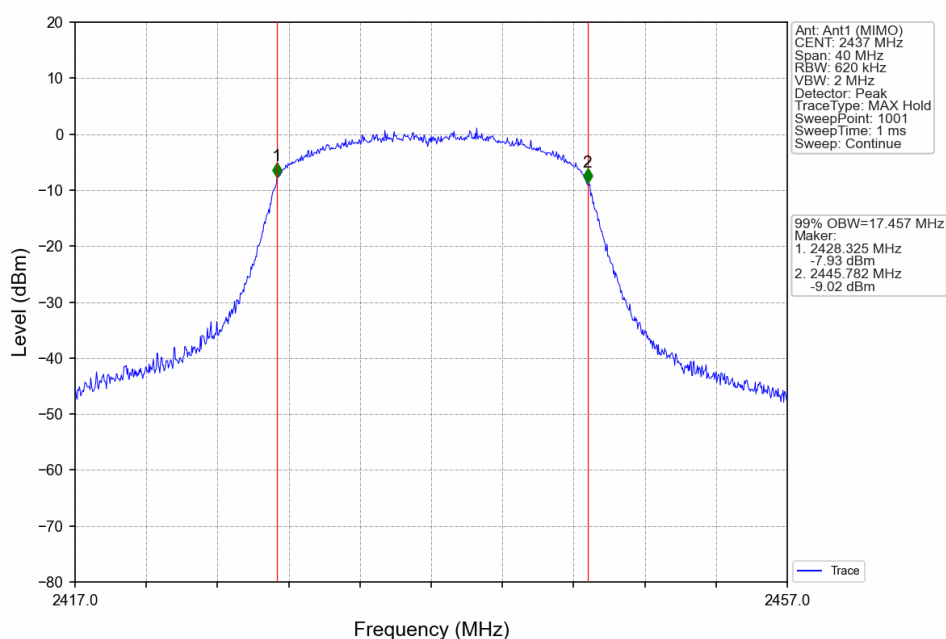
802.11g HCH 2462MHz Ant1 (SISO) NTNV



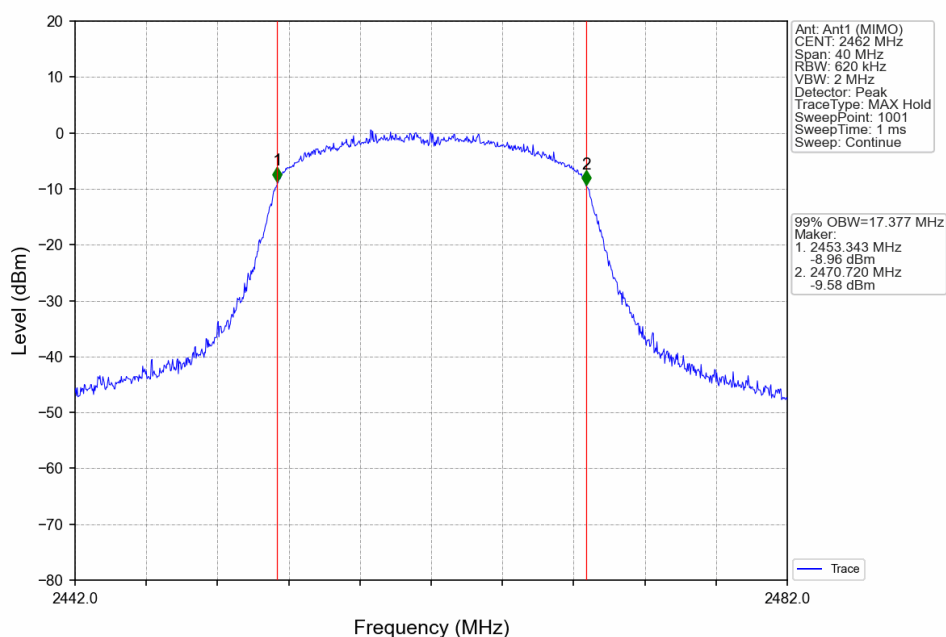
802.11n(HT20) LCH 2412MHz Ant1 (MIMO) NTVN



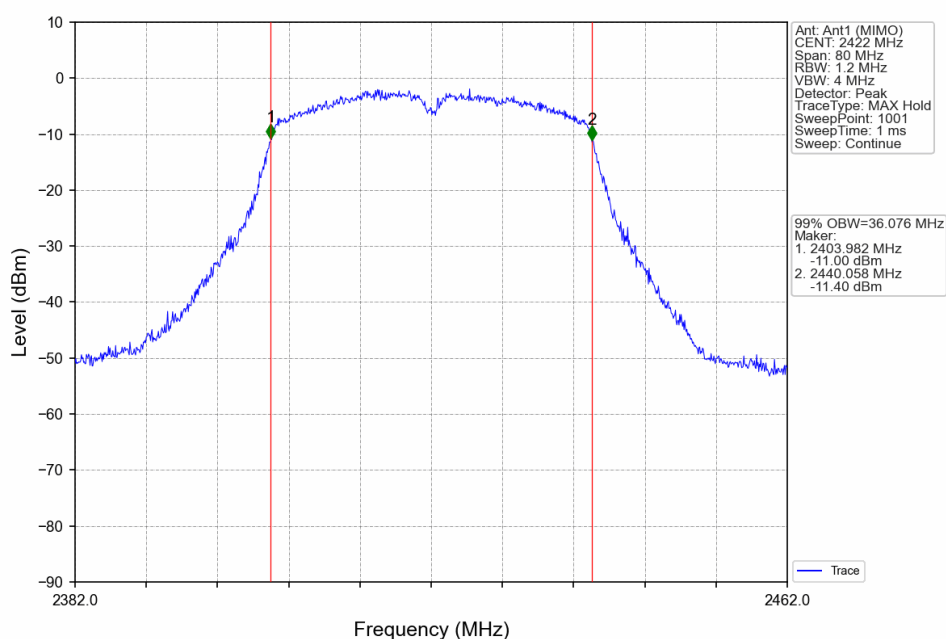
802.11n(HT20) MCH 2437MHz Ant1 (MIMO) NTVN



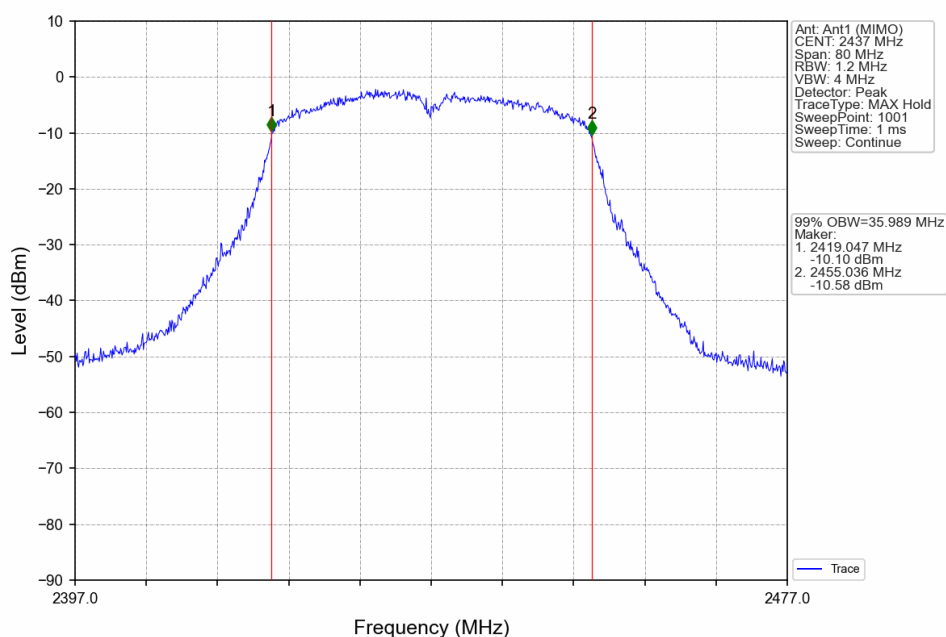
802.11n(HT20) HCH 2462MHz Ant1 (MIMO) NTN



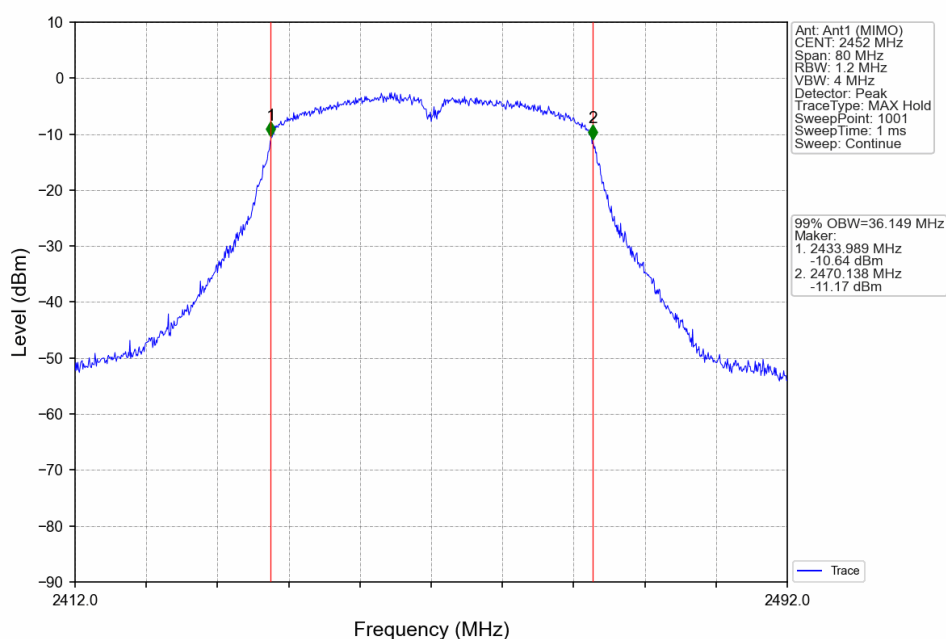
802.11n(HT40) LCH 2422MHz Ant1 (MIMO) NTN



802.11n(HT40) MCH 2437MHz Ant1 (MIMO) NTN

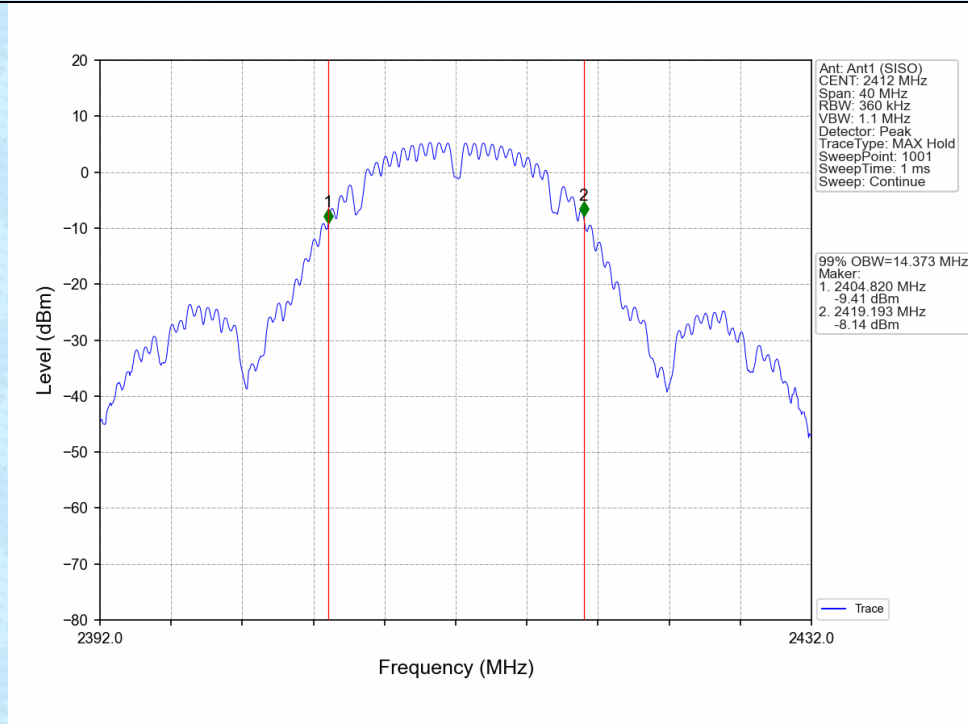


802.11n(HT40) HCH 2452MHz Ant1 (MIMO) NTN

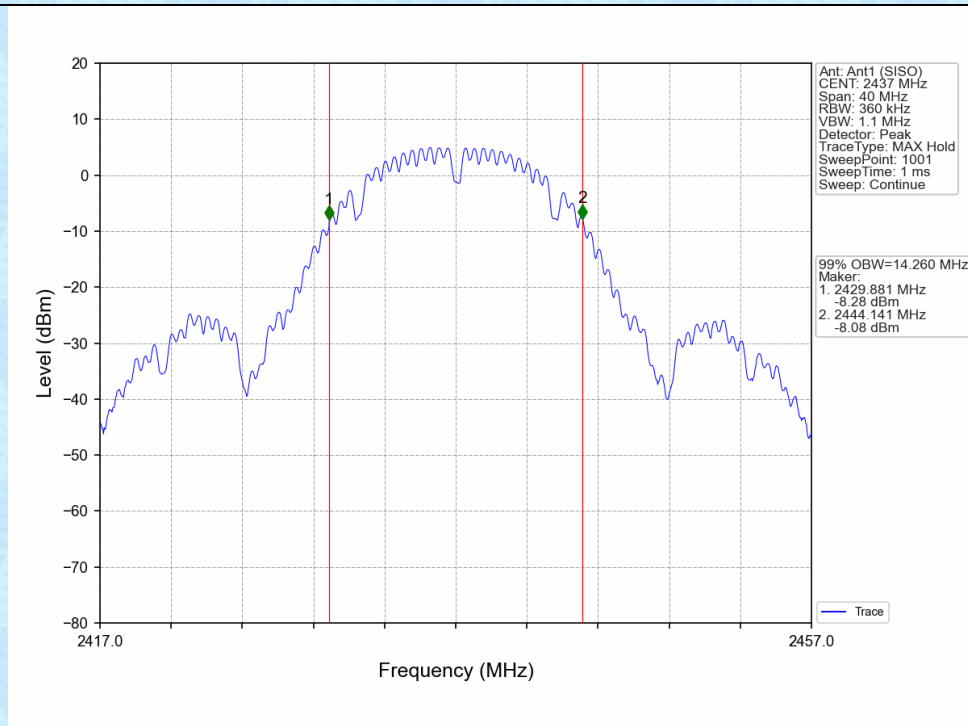


ANT2:

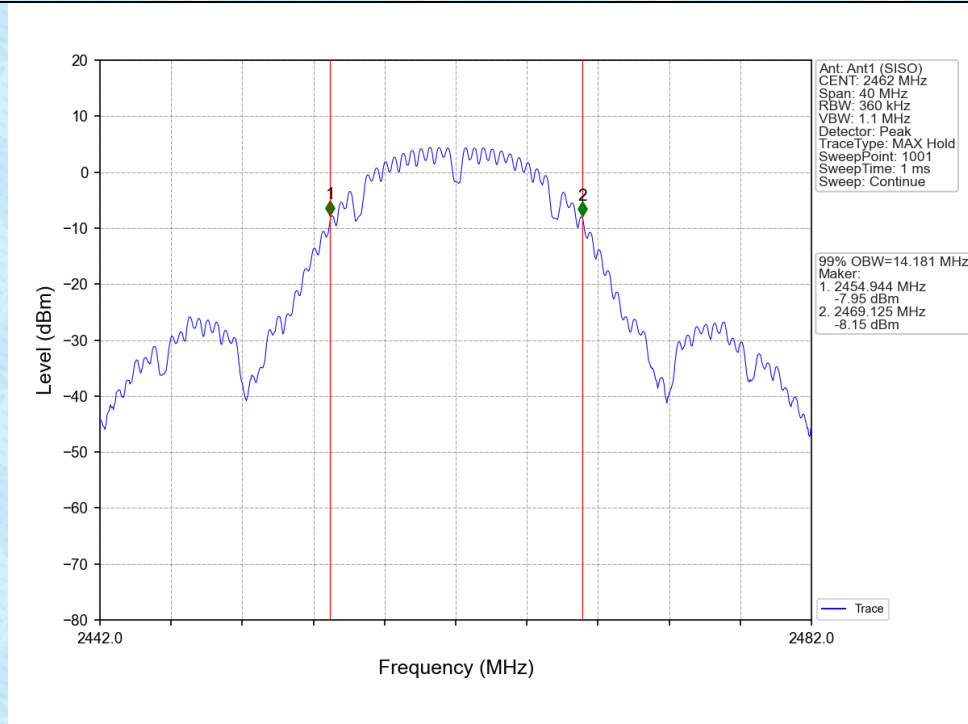
802.11b_LCH_2412MHz_Ant1 (SISO)_NTNV



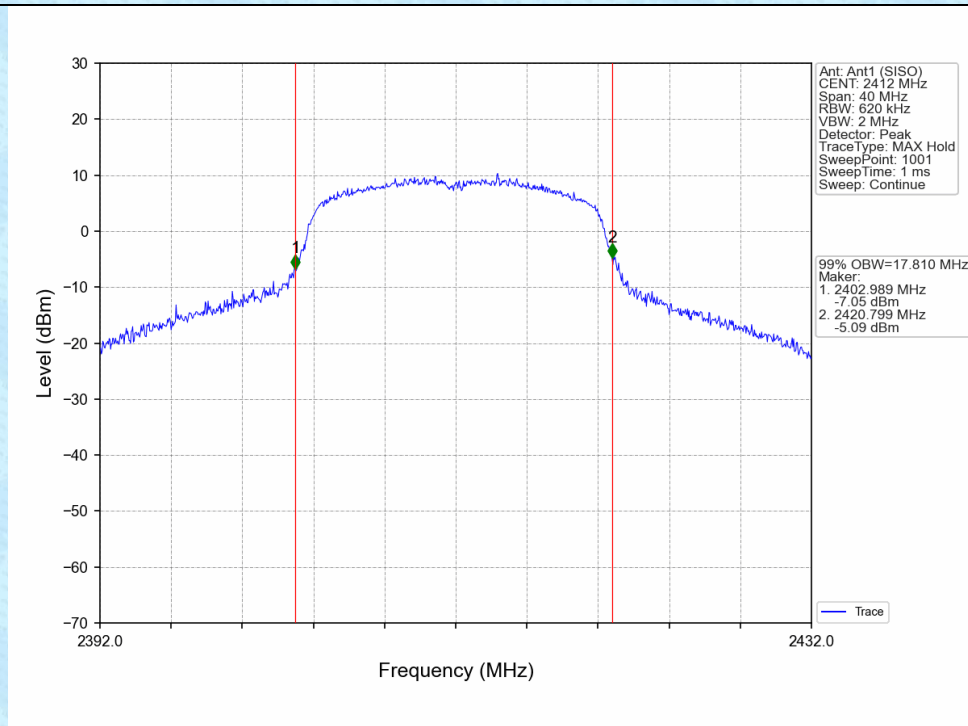
802.11b_MCH_2437MHz_Ant1 (SISO)_NTNV



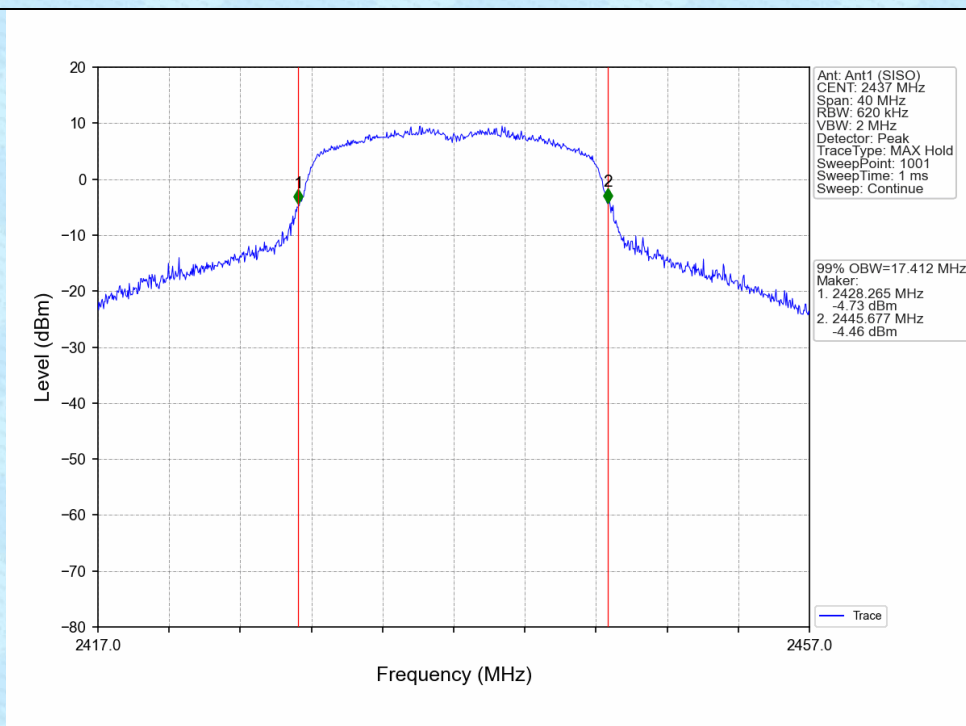
802.11b_HCH_2462MHz_Ant1 (SISO)_NTNV



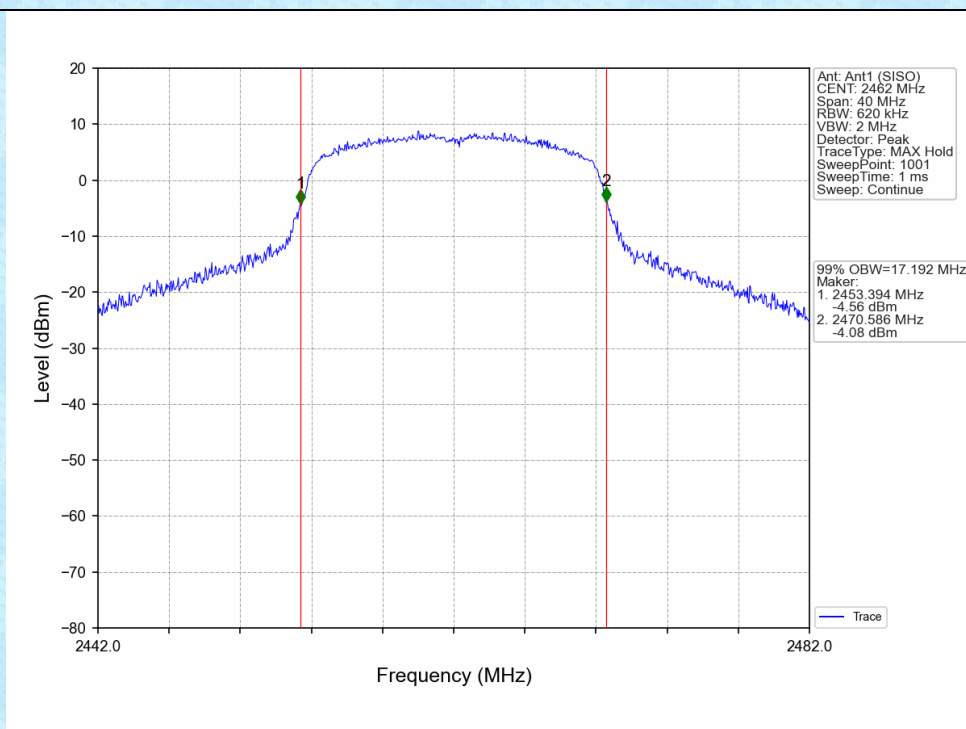
802.11g_LCH_2412MHz_Ant1 (SISO)_NTNV



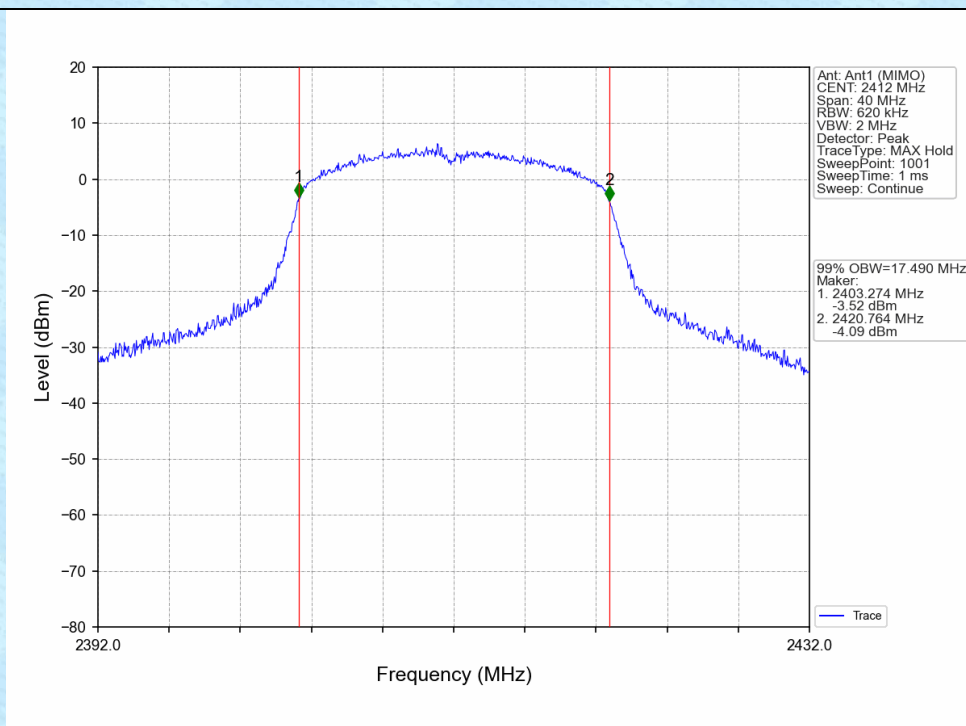
802.11g_MCH_2437MHz_Ant1 (SISO)_NTNV



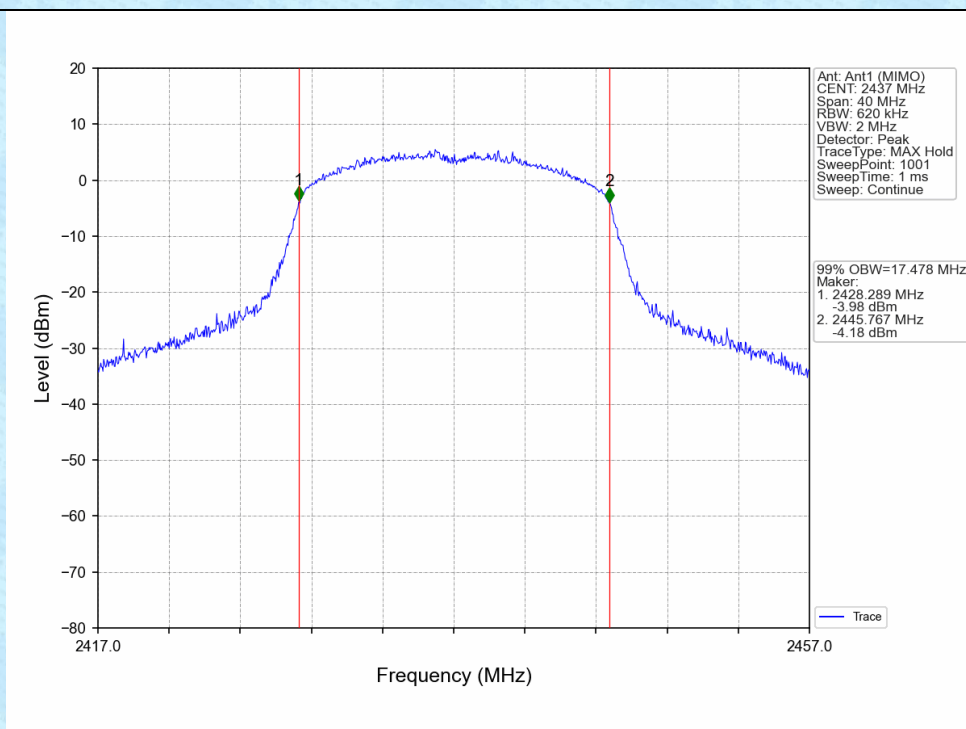
802.11g_HCH_2462MHz_Ant1 (SISO)_NTNV



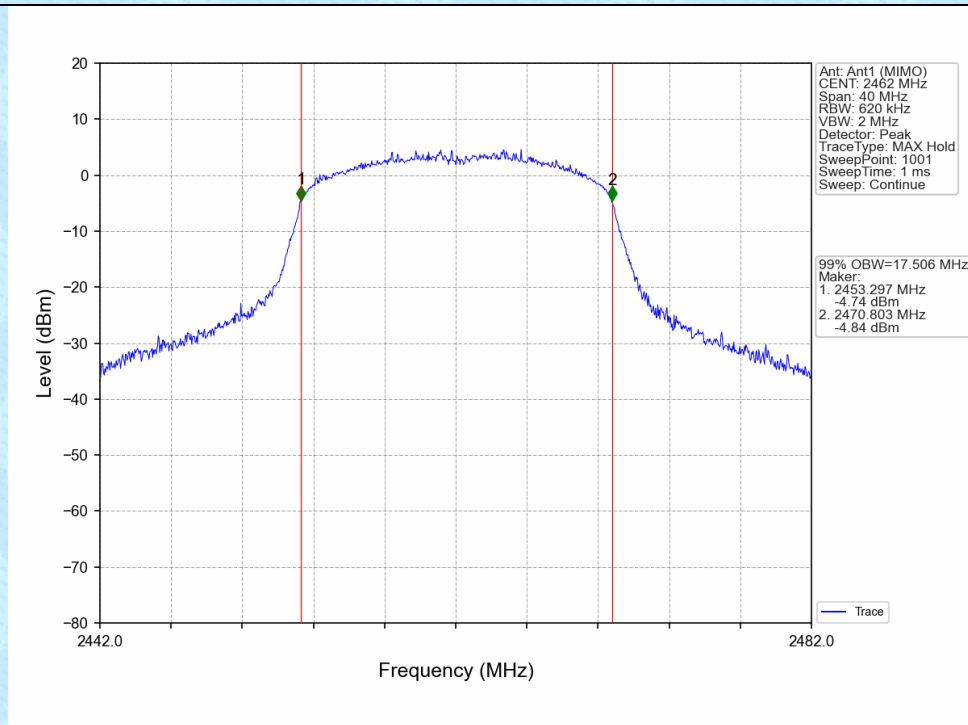
802.11n(HT20)_LCH_2412MHz_Ant1 (MIMO)_NTNV



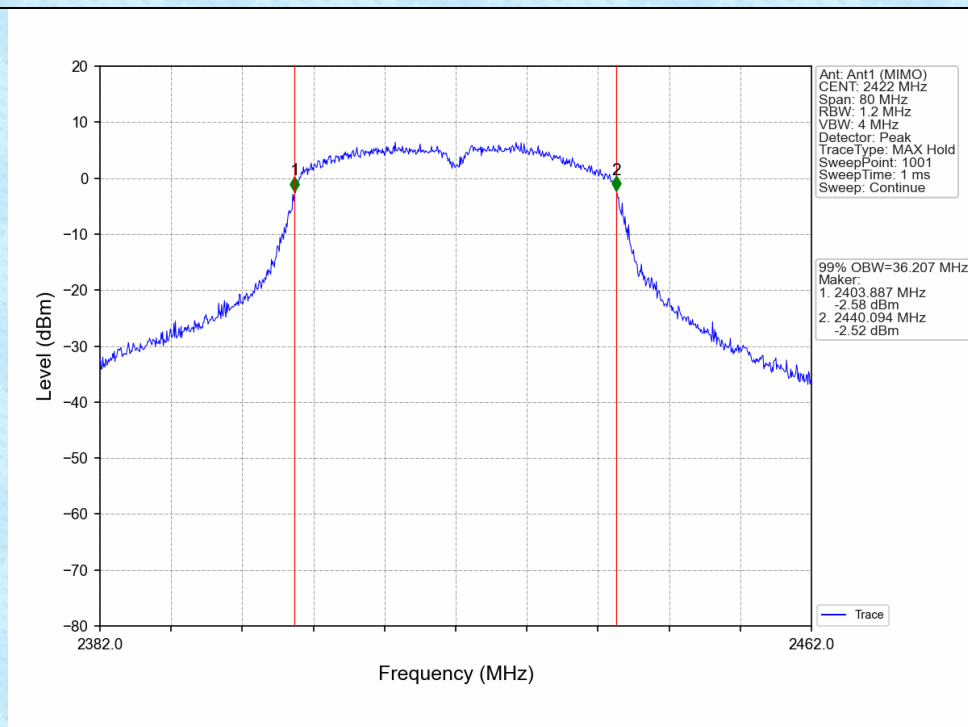
802.11n(HT20)_MCH_2437MHz_Ant1 (MIMO)_NTNV



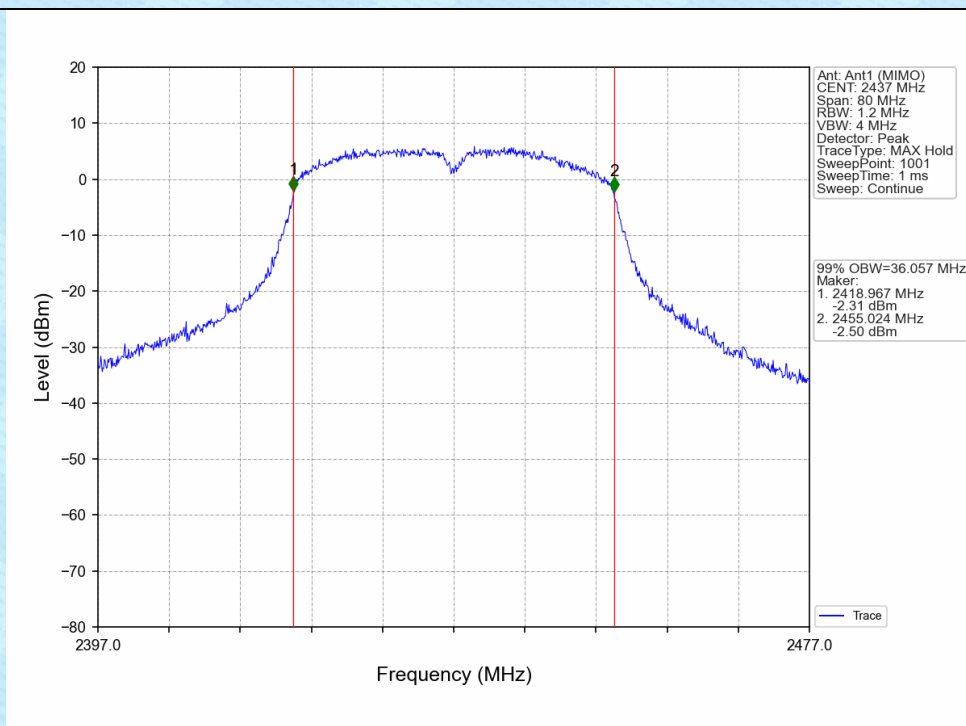
802.11n(HT20)_HCH_2462MHz_Ant1 (MIMO)_NTNV



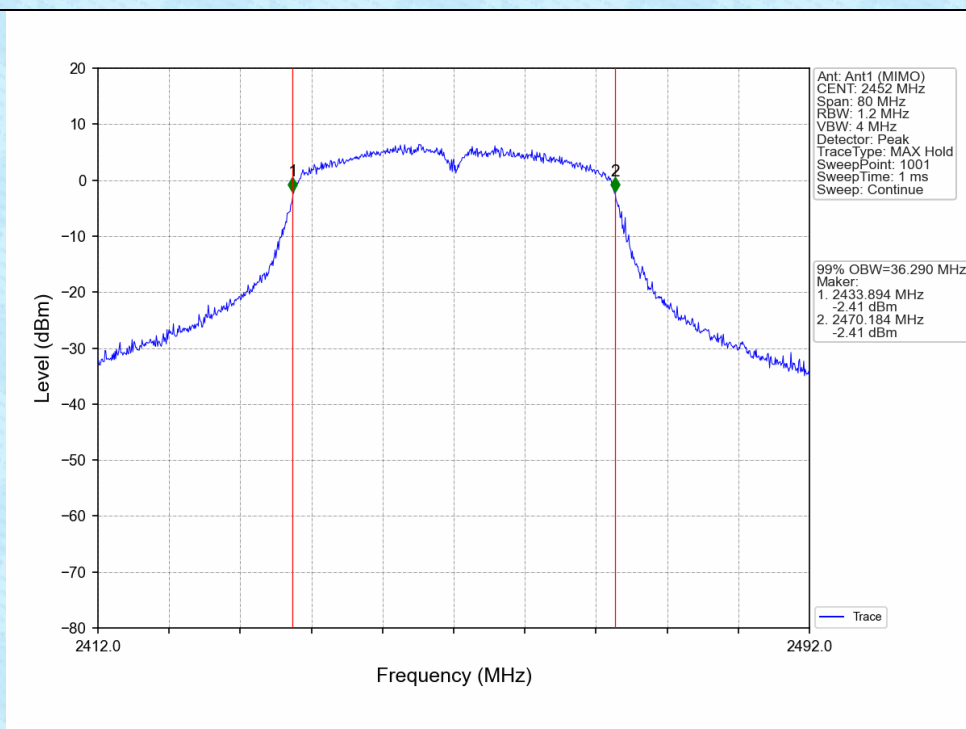
802.11n(HT40)_LCH_2422MHz_Ant1 (MIMO)_NTNV



802.11n(HT40)_MCH_2437MHz_Ant1 (MIMO)_NTNV



802.11n(HT40)_HCH_2452MHz_Ant1 (MIMO)_NTNV



1.2 6dB BW

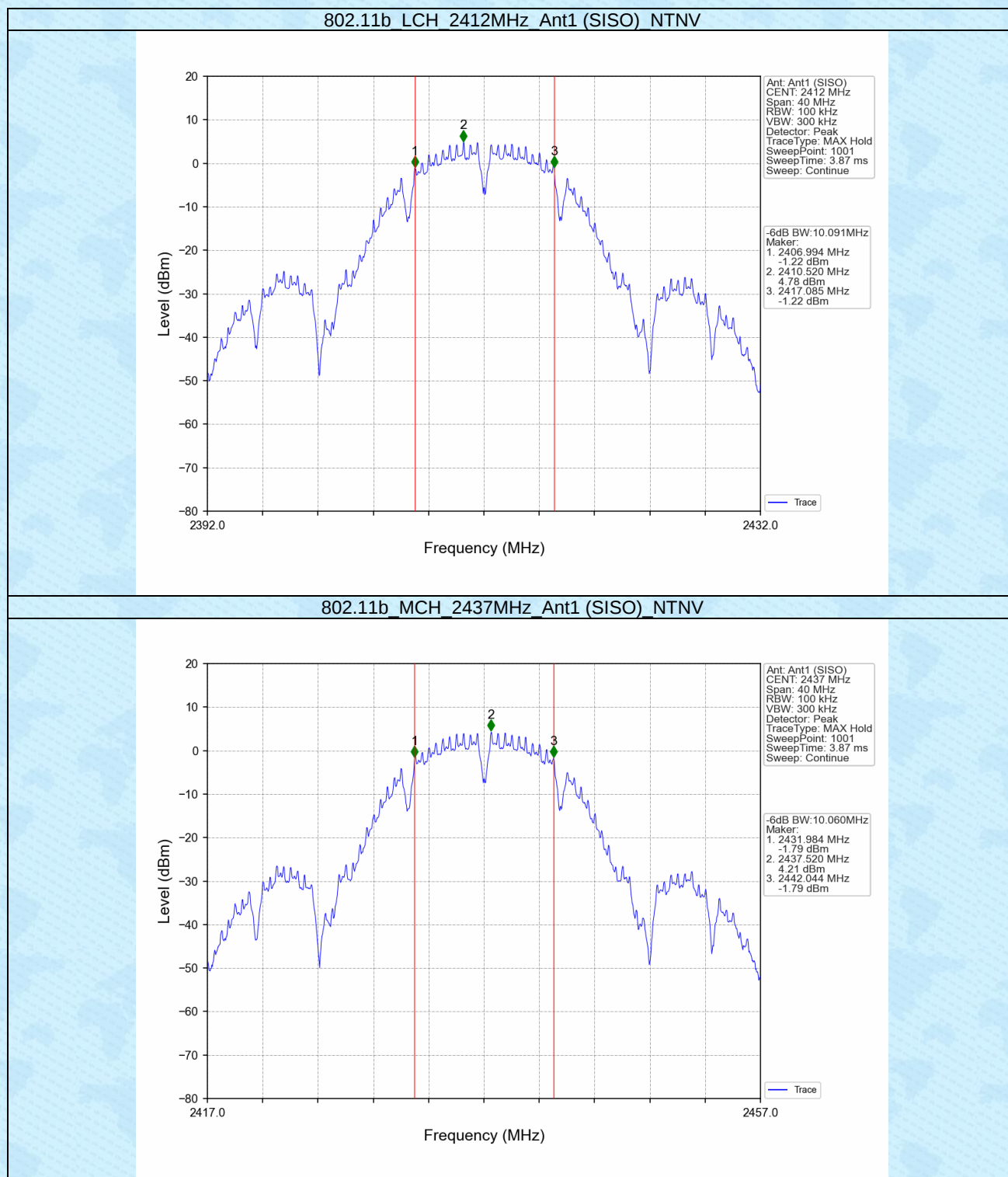
1.2.1 Test Result

Mode	TX Type	Frequency (MHz)	ANT	6dB Bandwidth (MHz)		Verdict
				Result	Limit	
802.11b	SISO	2412	1	10.091	≥ 0.5	Pass
		2437	1	10.060	≥ 0.5	Pass
		2462	1	10.060	≥ 0.5	Pass
802.11g	SISO	2412	1	15.967	≥ 0.5	Pass
		2437	1	15.105	≥ 0.5	Pass
		2462	1	15.116	≥ 0.5	Pass
802.11n (HT20)	MIMO	2412	1	15.136	≥ 0.5	Pass
		2437	1	15.075	≥ 0.5	Pass
		2462	1	15.141	≥ 0.5	Pass
802.11n (HT40)	MIMO	2422	1	33.766	≥ 0.5	Pass
		2437	1	33.830	≥ 0.5	Pass
		2452	1	33.862	≥ 0.5	Pass

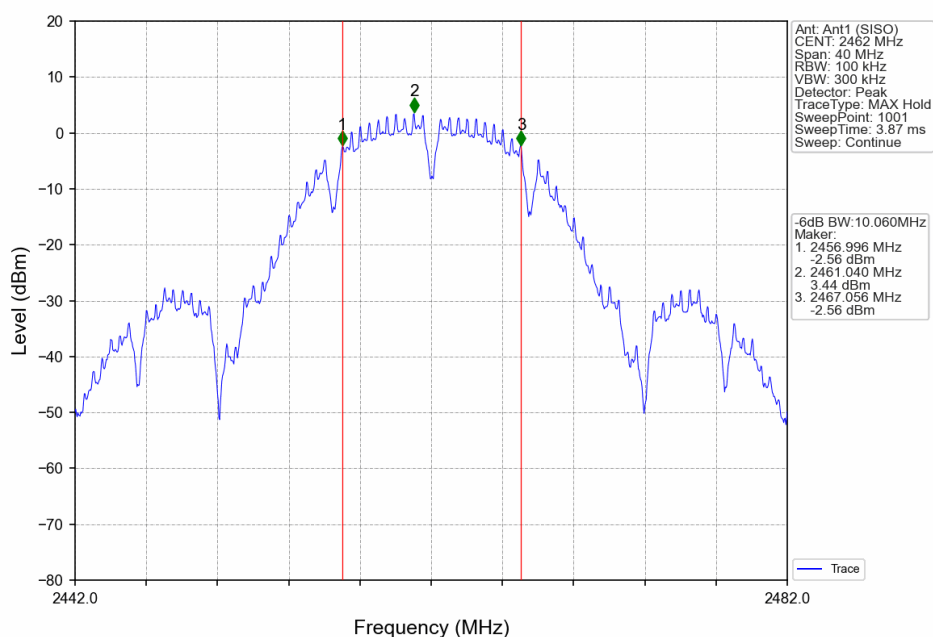
Mode	TX Type	Frequency (MHz)	ANT	6dB Bandwidth (MHz)		Verdict
				Result	Limit	
802.11b	SISO	2412	2	10.081	≥ 0.5	Pass
		2437	2	10.068	≥ 0.5	Pass
		2462	2	10.091	≥ 0.5	Pass
802.11g	SISO	2412	2	15.150	≥ 0.5	Pass
		2437	2	15.141	≥ 0.5	Pass
		2462	2	15.132	≥ 0.5	Pass
802.11n (HT20)	MIMO	2412	2	15.151	≥ 0.5	Pass
		2437	2	15.140	≥ 0.5	Pass
		2462	2	15.140	≥ 0.5	Pass
802.11n (HT40)	MIMO	2422	2	35.064	≥ 0.5	Pass
		2437	2	33.869	≥ 0.5	Pass
		2452	2	32.644	≥ 0.5	Pass

1.2.2 Test Graph

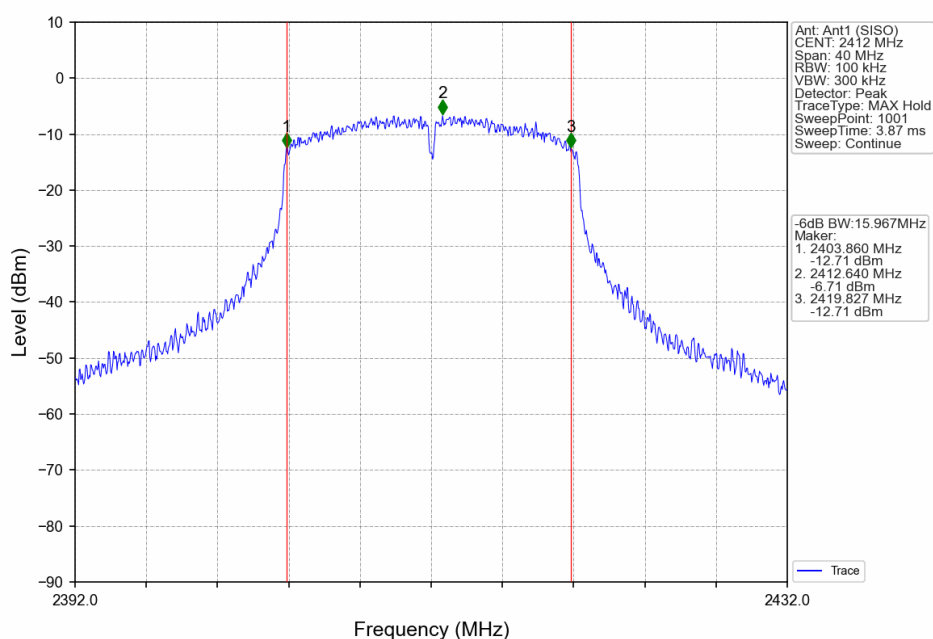
ANT1:



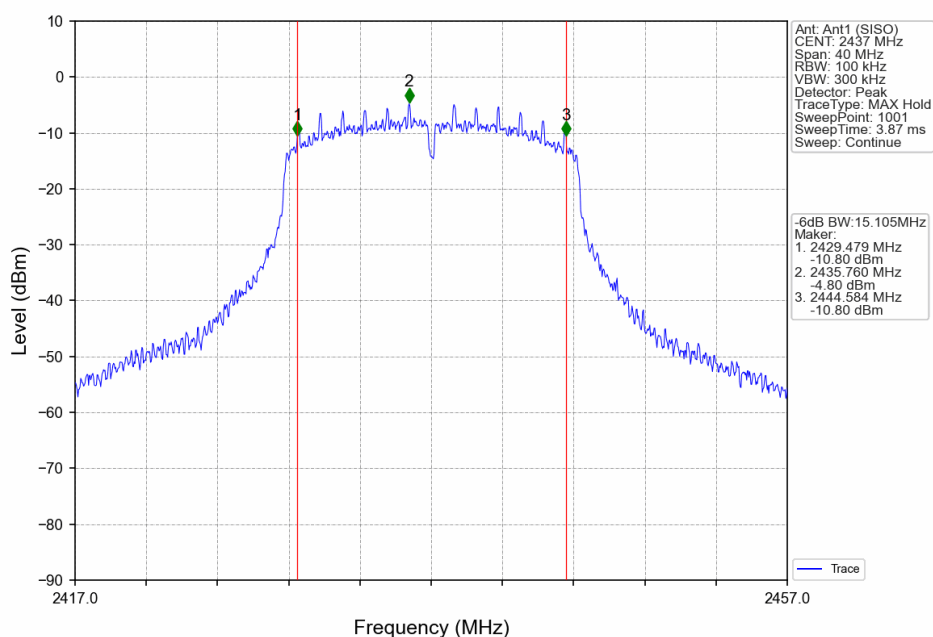
802.11b HCH 2462MHz Ant1 (SISO) NTNV



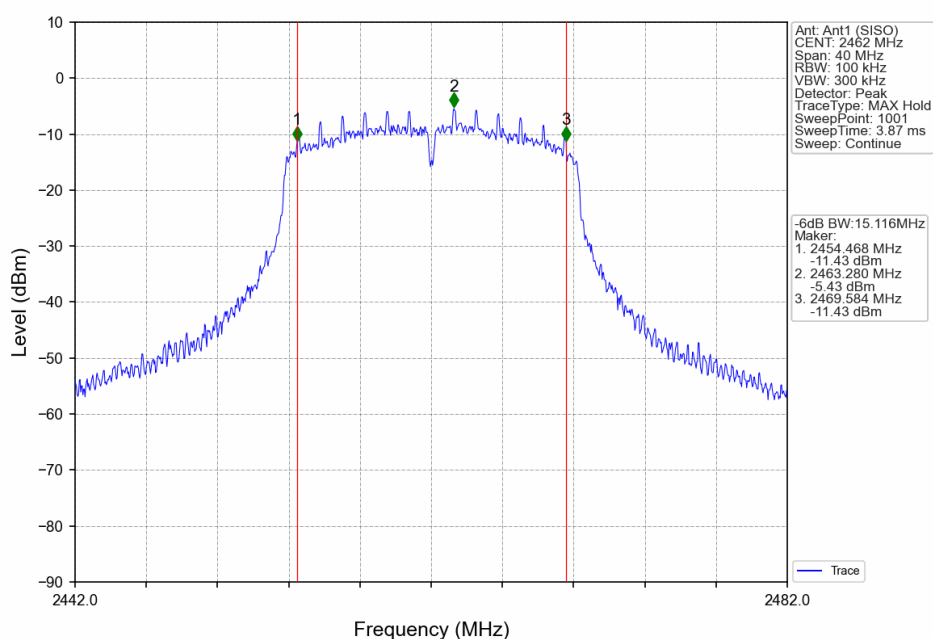
802.11g LCH 2412MHz Ant1 (SISO) NTNV



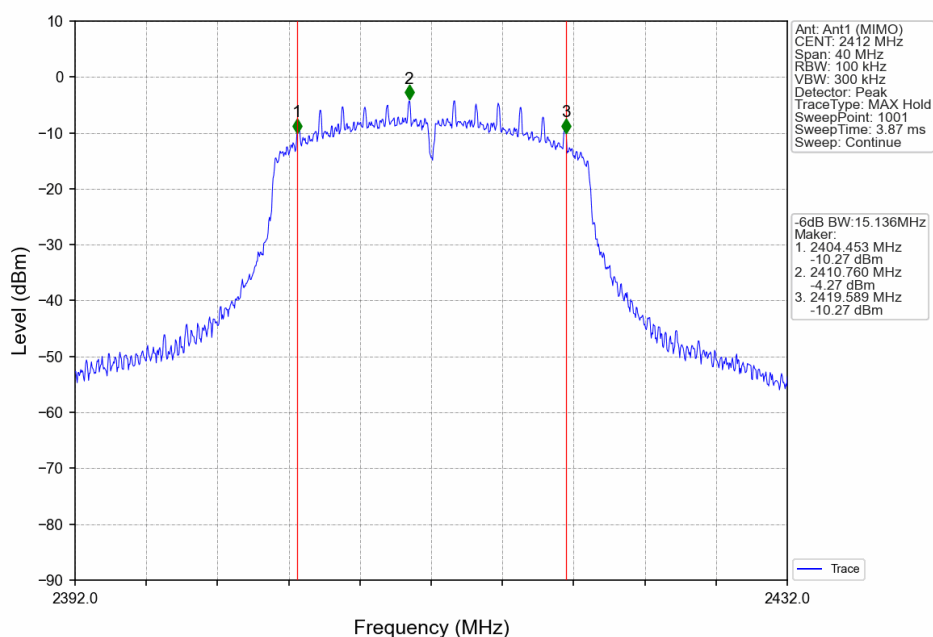
802.11g MCH 2437MHz Ant1 (SISO) NTNV



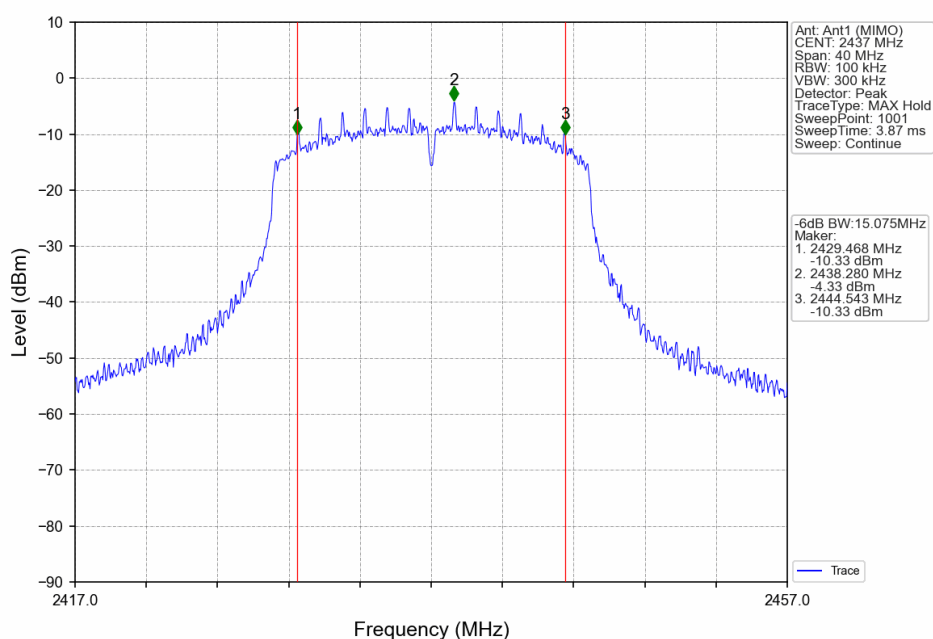
802.11g HCH 2462MHz Ant1 (SISO) NTNV



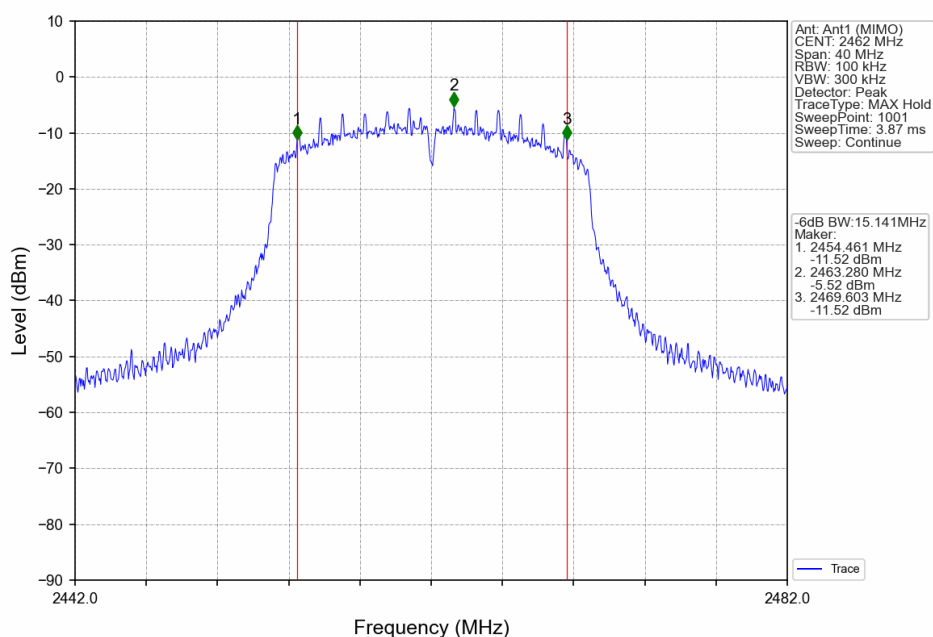
802.11n(HT20) LCH 2412MHz Ant1 (MIMO) NTVN



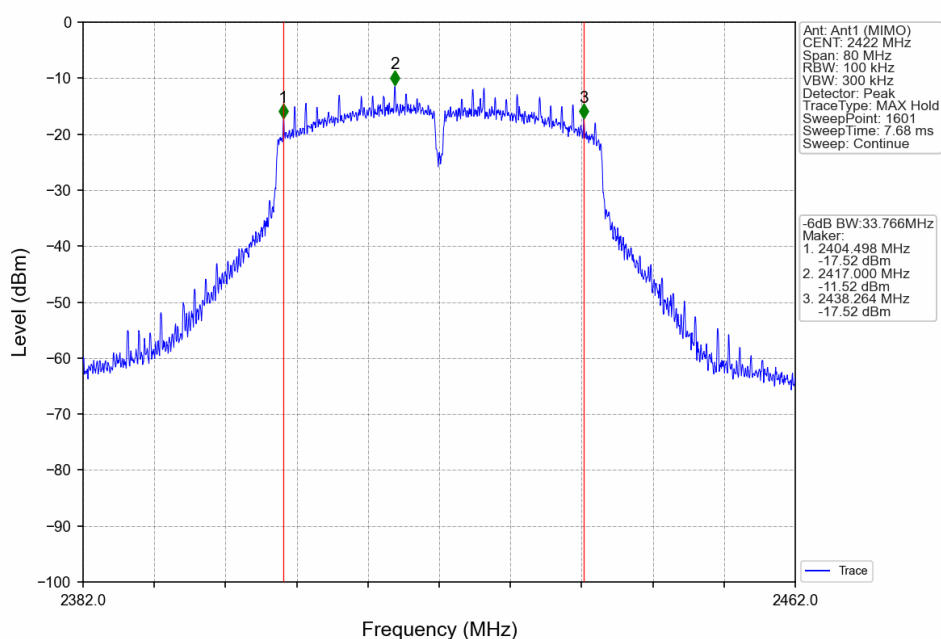
802.11n(HT20) MCH 2437MHz Ant1 (MIMO) NTVN



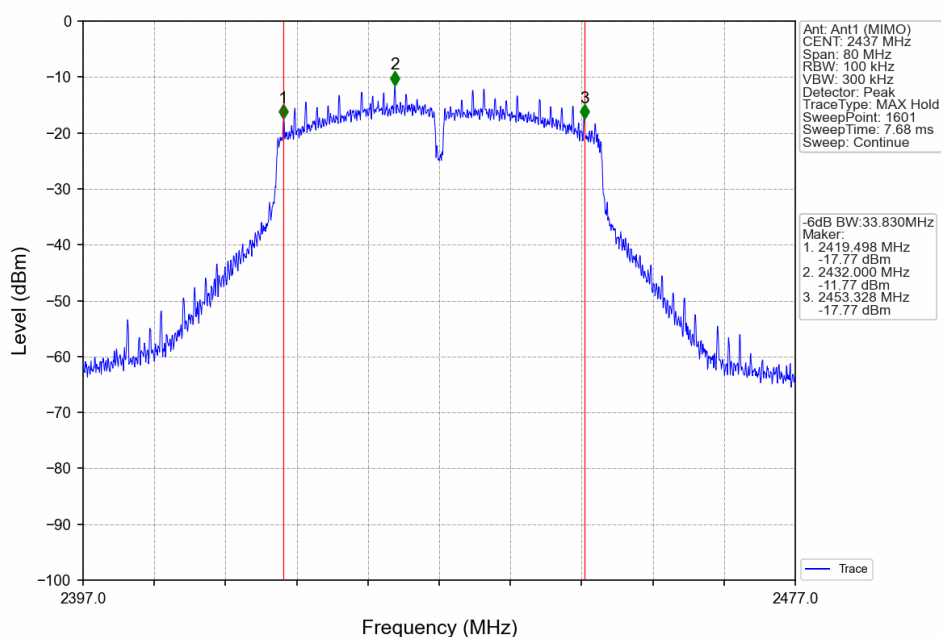
802.11n(HT20) HCH 2462MHz Ant1 (MIMO) NTNV



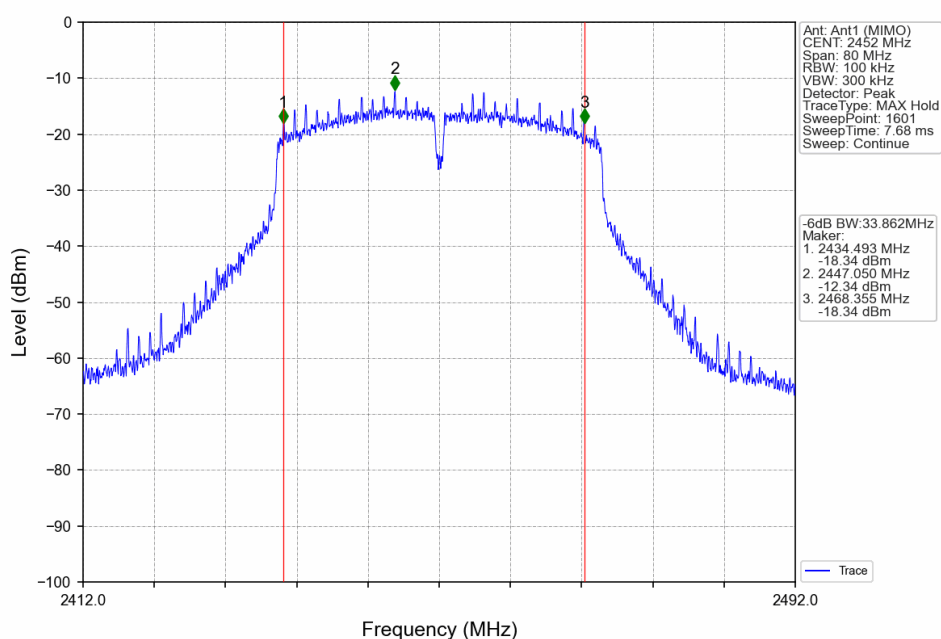
802.11n(HT40) LCH 2422MHz Ant1 (MIMO) NTNV



802.11n(HT40) MCH 2437MHz Ant1 (MIMO) NTN

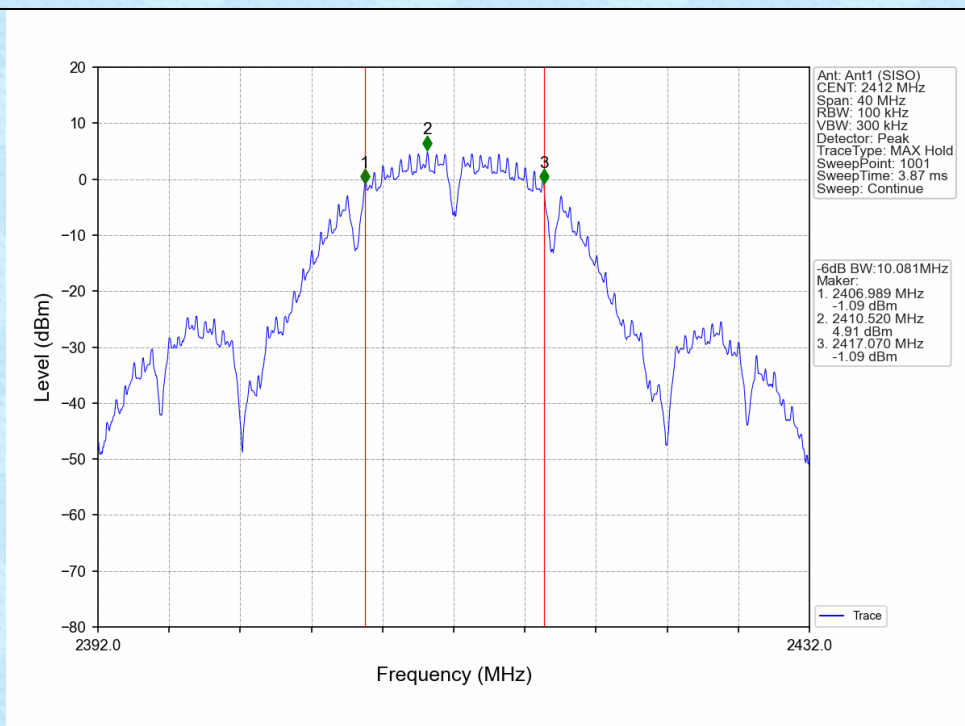


802.11n(HT40) HCH 2452MHz Ant1 (MIMO) NTN

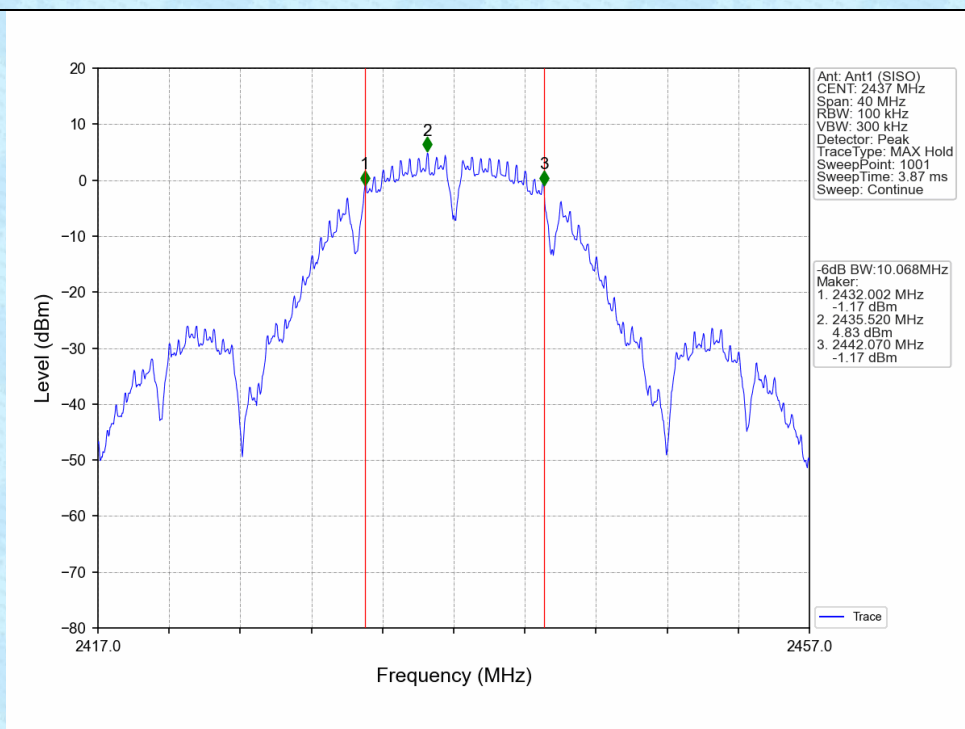


ANT2:

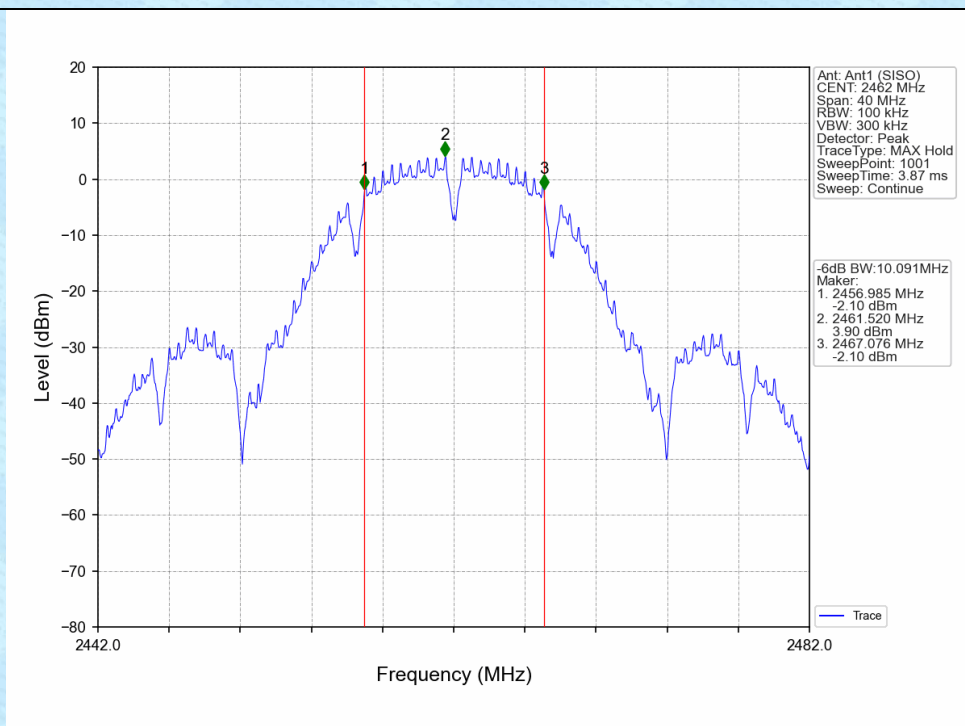
802.11b_LCH_2412MHz_Ant1 (SISO)_NTNV



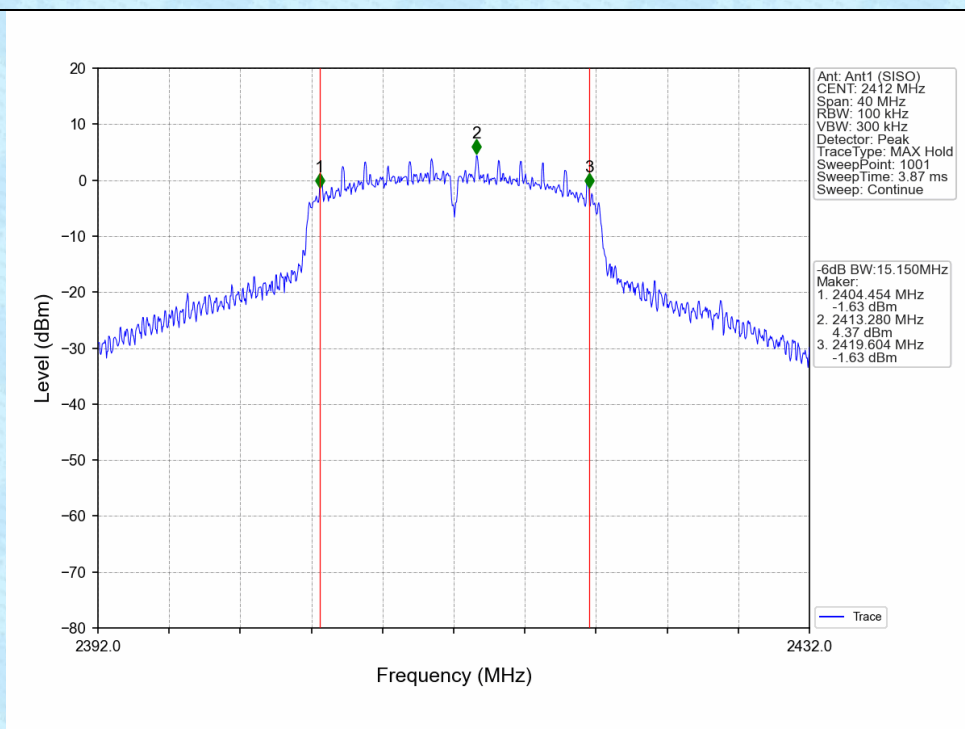
802.11b_MCH_2437MHz_Ant1 (SISO)_NTNV



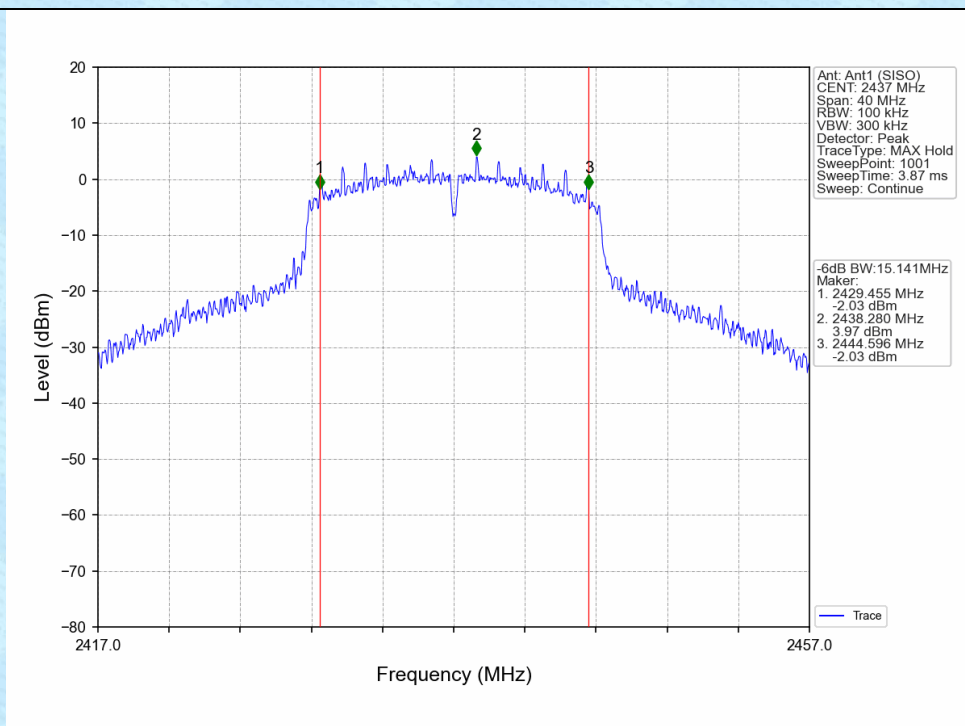
802.11b_HCH_2462MHz_Ant1 (SISO)_NTNV



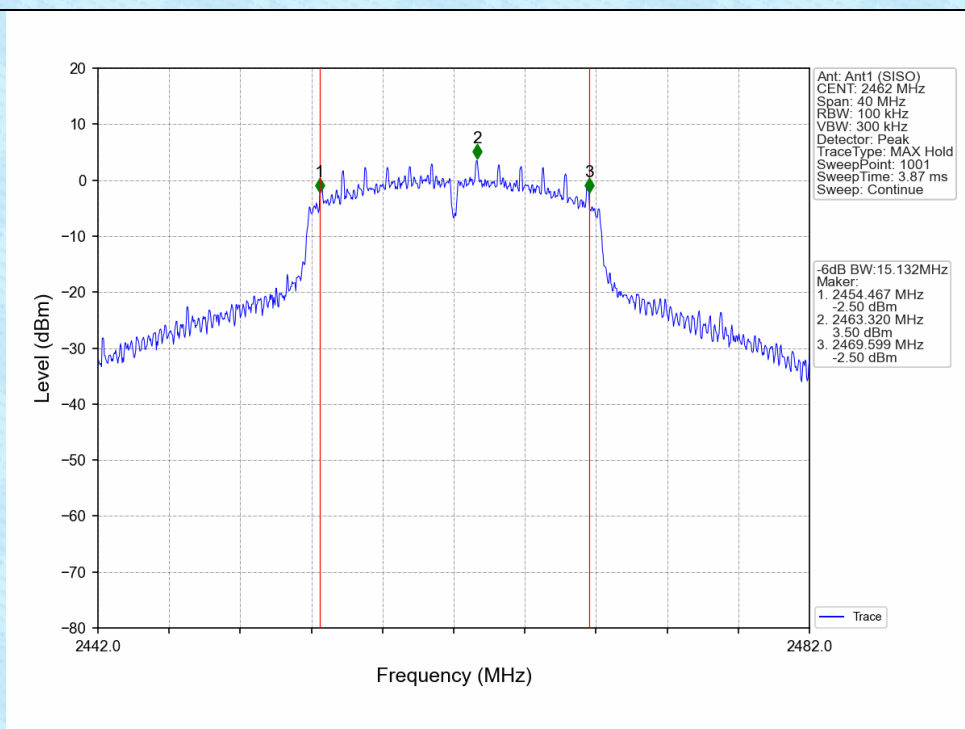
802.11g_LCH_2412MHz_Ant1 (SISO)_NTNV



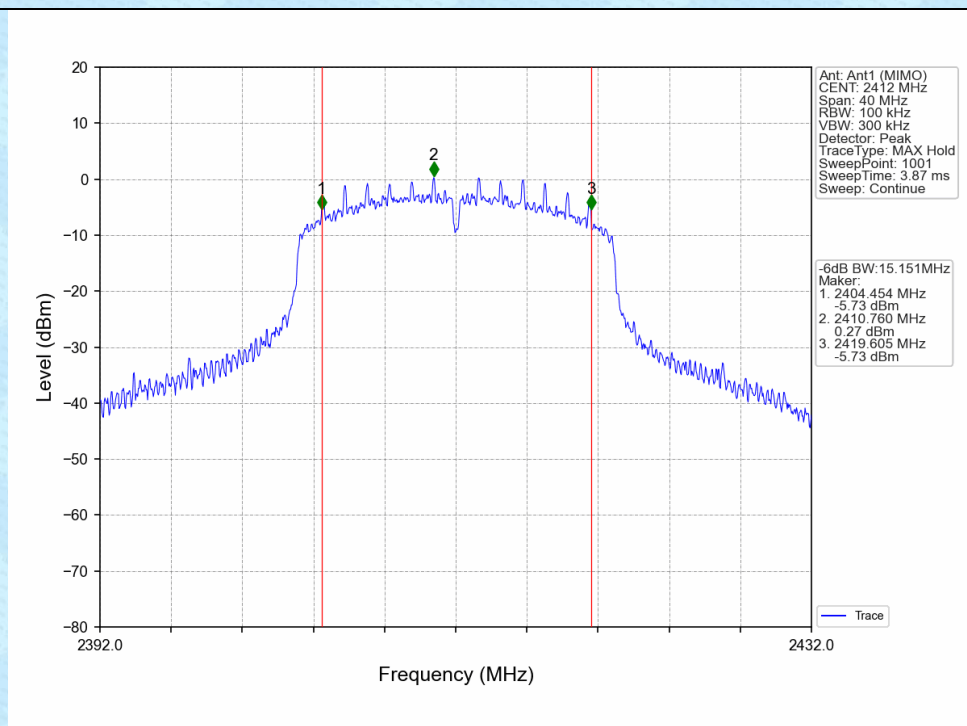
802.11g_MCH_2437MHz_Ant1 (SISO)_NTNV



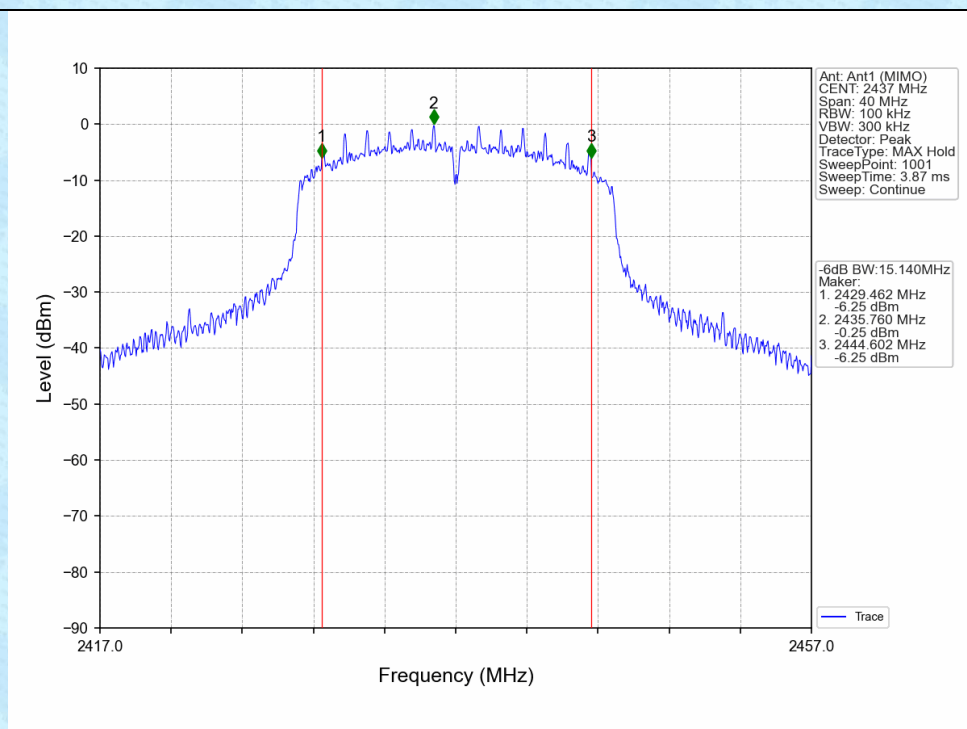
802.11g_HCH_2462MHz_Ant1 (SISO)_NTNV



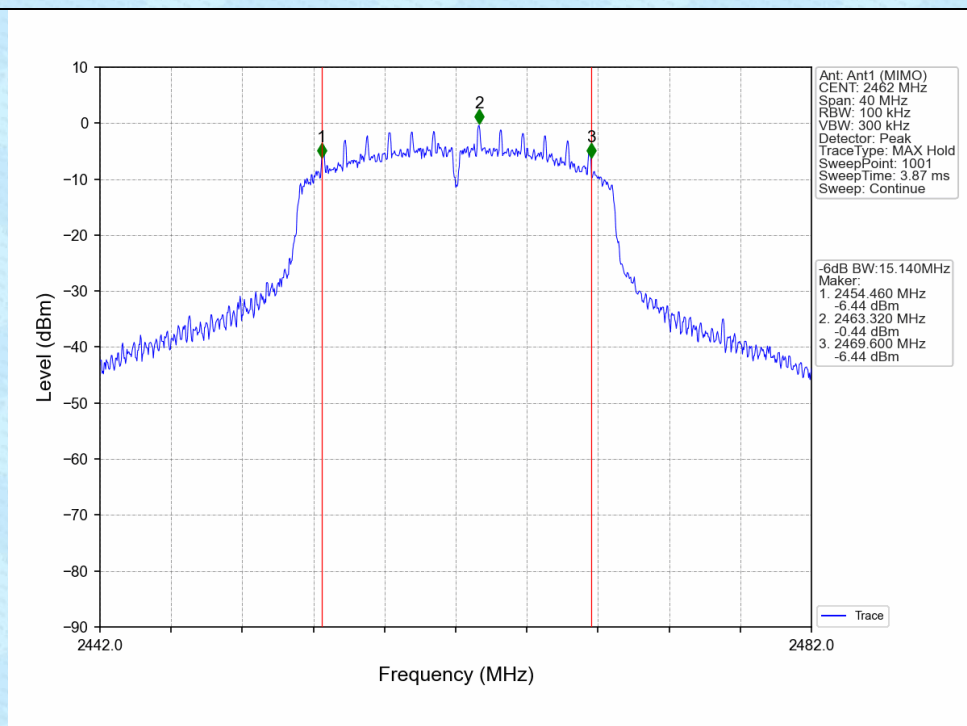
802.11n(HT20)_LCH_2412MHz_Ant1 (MIMO)_NTNV



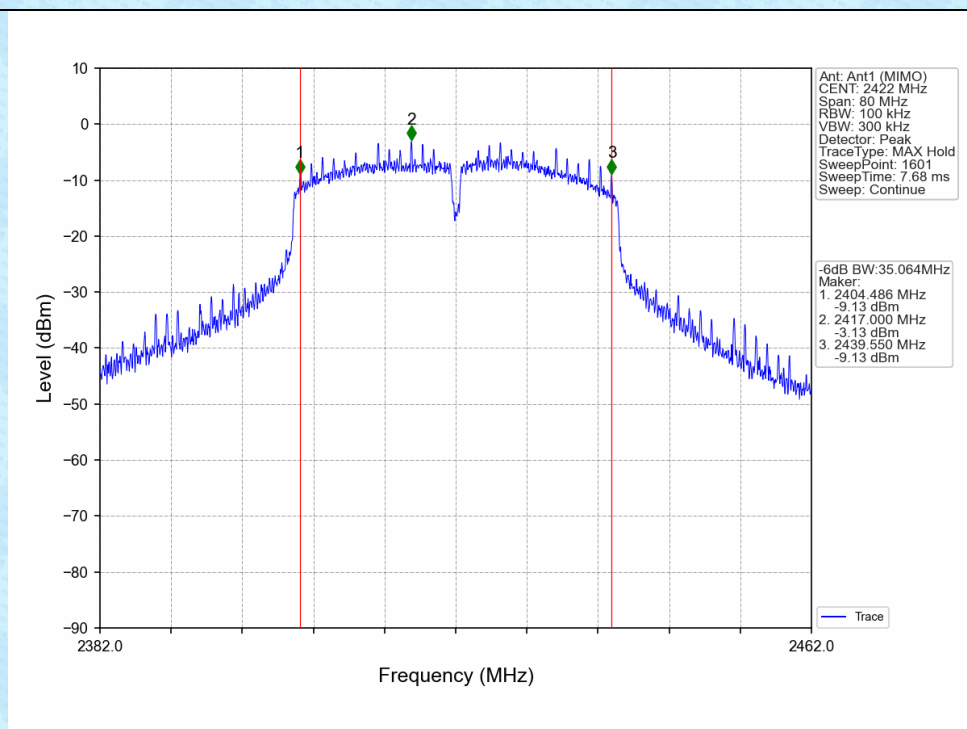
802.11n(HT20)_MCH_2437MHz_Ant1 (MIMO)_NTNV



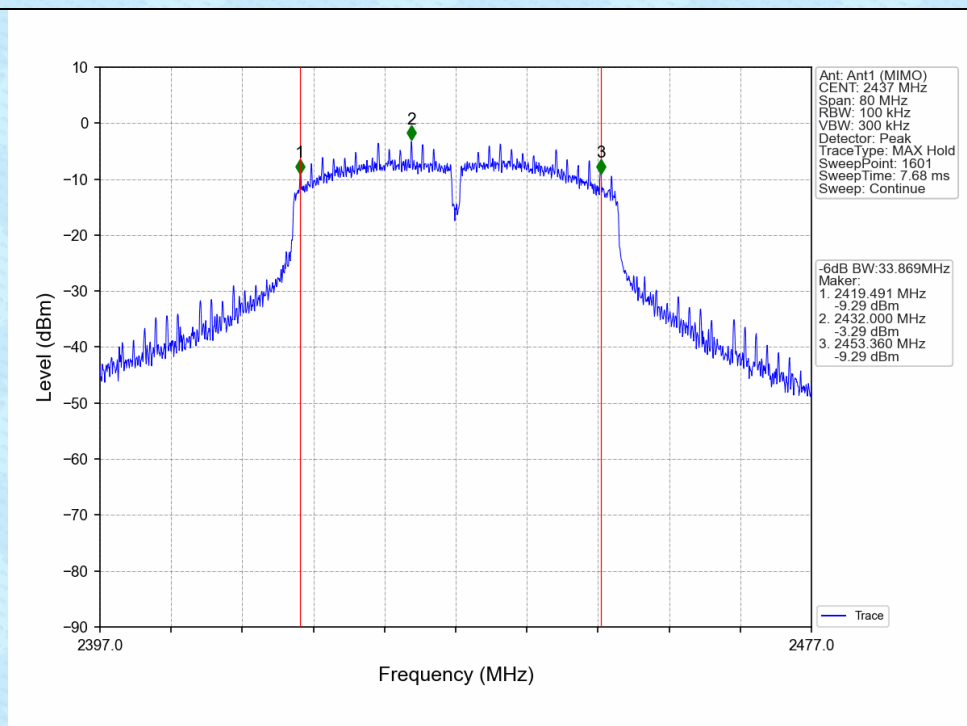
802.11n(HT20)_HCH_2462MHz_Ant1 (MIMO)_NTNV



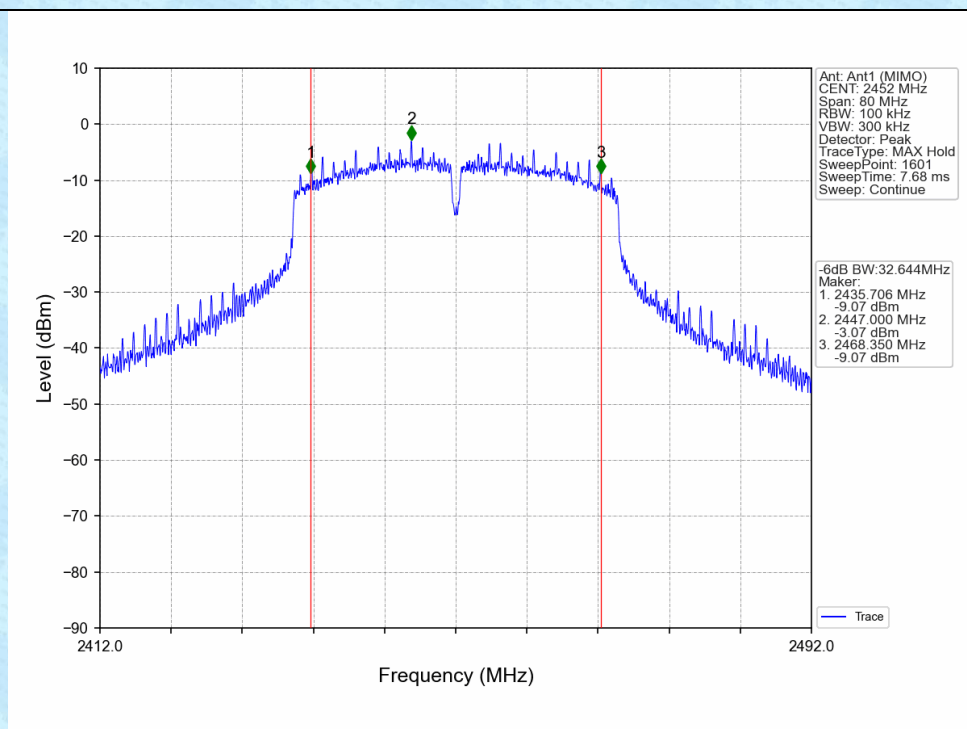
802.11n(HT40)_LCH_2422MHz_Ant1 (MIMO)_NTNV



802.11n(HT40)_MCH_2437MHz_Ant1 (MIMO)_NTNV



802.11n(HT40)_HCH_2452MHz_Ant1 (MIMO)_NTNV



2. Maximum Conducted Output Power

2.1 Test Result

Mode	TX Type	Frequency (MHz)	Maximum Peak Conducted Output Power (dBm)				Verdict
			ANT1	ANT2	MIMO	Limit	
802.11b	SISO	2412	16.57	16.03	/	<=29	Pass
		2437	15.94	15.54	/	<=29	Pass
		2462	15.21	15.42	/	<=29	Pass
802.11g	SISO	2412	14.01	13.72	/	<=29	Pass
		2437	13.03	13.12	/	<=29	Pass
		2462	12.36	12.74	/	<=29	Pass
802.11n (HT20)	MIMO	2412	13.36	13.03	16.21	<=25.99	Pass
		2437	12.63	12.35	15.50	<=25.99	Pass
		2462	12.07	11.94	15.02	<=25.99	Pass
802.11n (HT40)	MIMO	2422	9.38	8.86	12.14	<=25.99	Pass
		2437	9.06	8.67	11.88	<=25.99	Pass
		2452	8.68	8.34	11.52	<=25.99	Pass

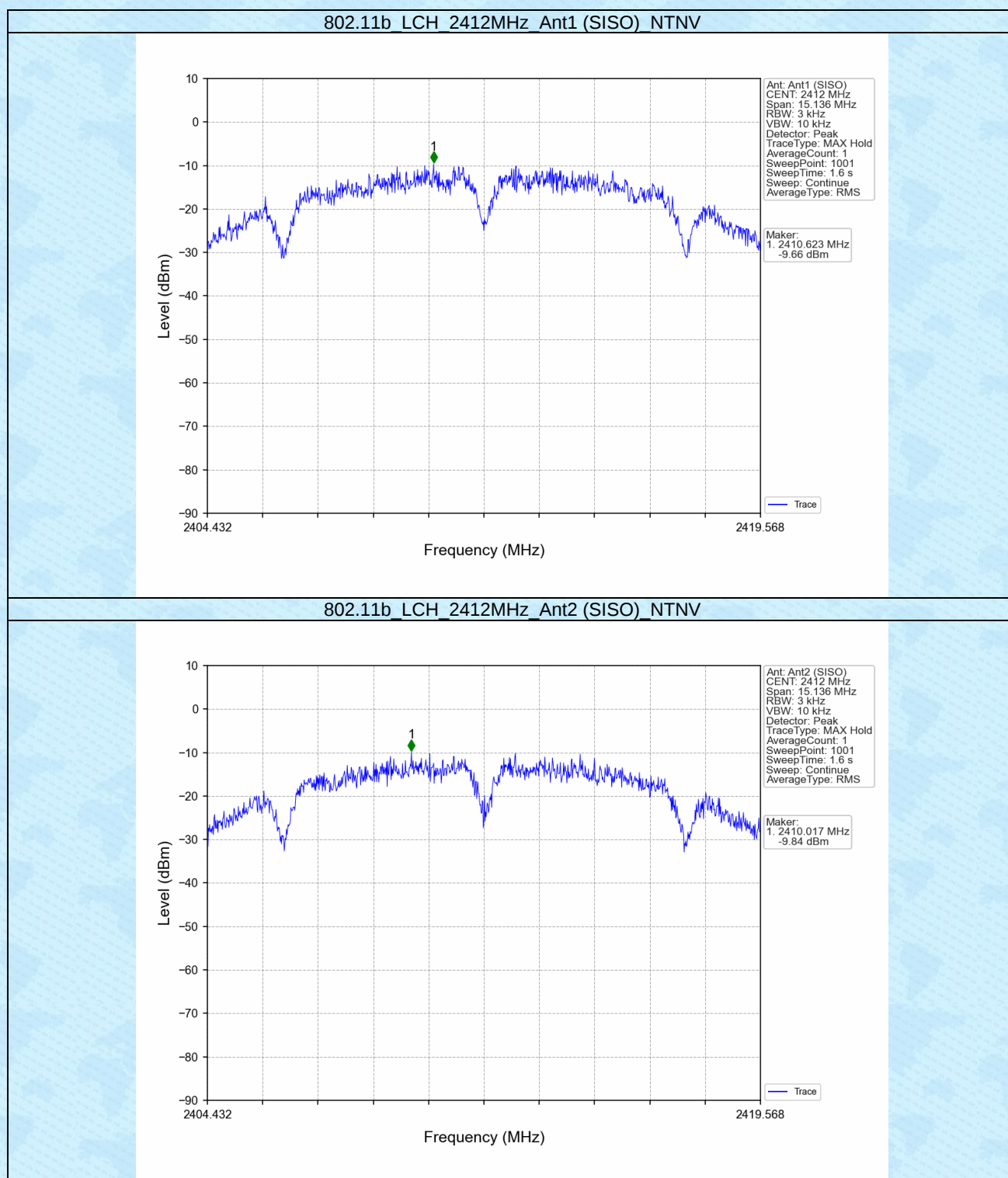
Note: transmit signals are completely correlated,
Directional gain= $10 \times \log[(10^{7/20} + 10^{7/20})^2/2] = 10.01\text{dBi}$

3. Maximum Power Spectral Density

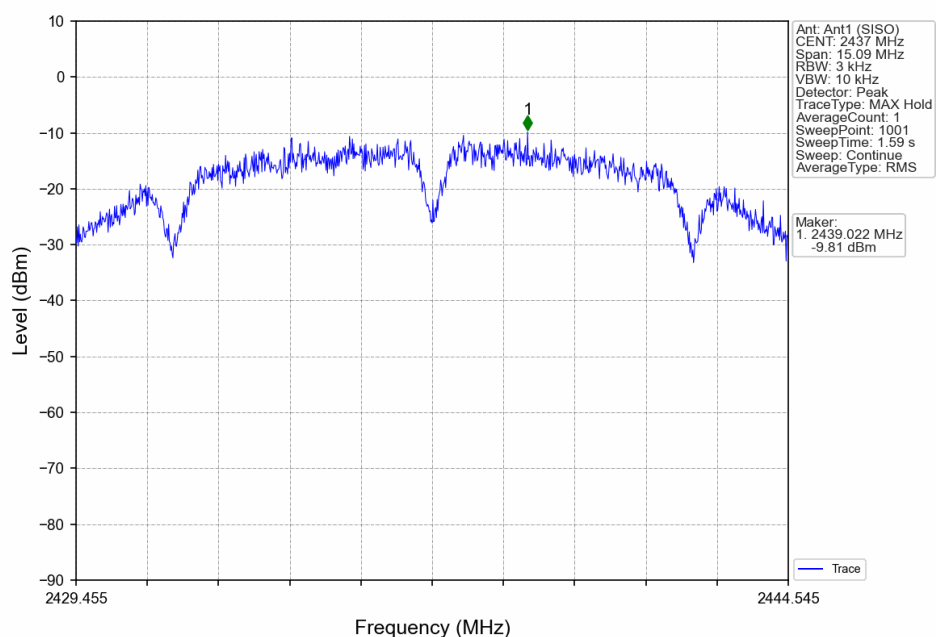
3.1 Test Result

Mode	TX Type	Frequency (MHz)	Maximum PSD (dBm/3kHz)				Verdict
			ANT1	ANT2	MIMO	Limit	
802.11b	SISO	2412	-9.66	-9.84	/	<=7	Pass
		2437	-9.81	-10.53	/	<=7	Pass
		2462	-10.17	-10.25	/	<=7	Pass
802.11g	SISO	2412	-18.59	-18.61	/	<=7	Pass
		2437	-19.63	-20.21	/	<=7	Pass
		2462	-19.77	-19.94	/	<=7	Pass
802.11n (HT20)	MIMO	2412	-19.14	-19.62	-17.30	<=3.99	Pass
		2437	-18.63	-20.22	-17.02	<=3.99	Pass
		2462	-20.92	-20.84	-18.52	<=3.99	Pass
802.11n (HT40)	MIMO	2422	-27.09	-26.67	-24.74	<=3.99	Pass
		2437	-26.72	-27.11	-24.43	<=3.99	Pass
		2452	-27.09	-27.30	-25.28	<=3.99	Pass

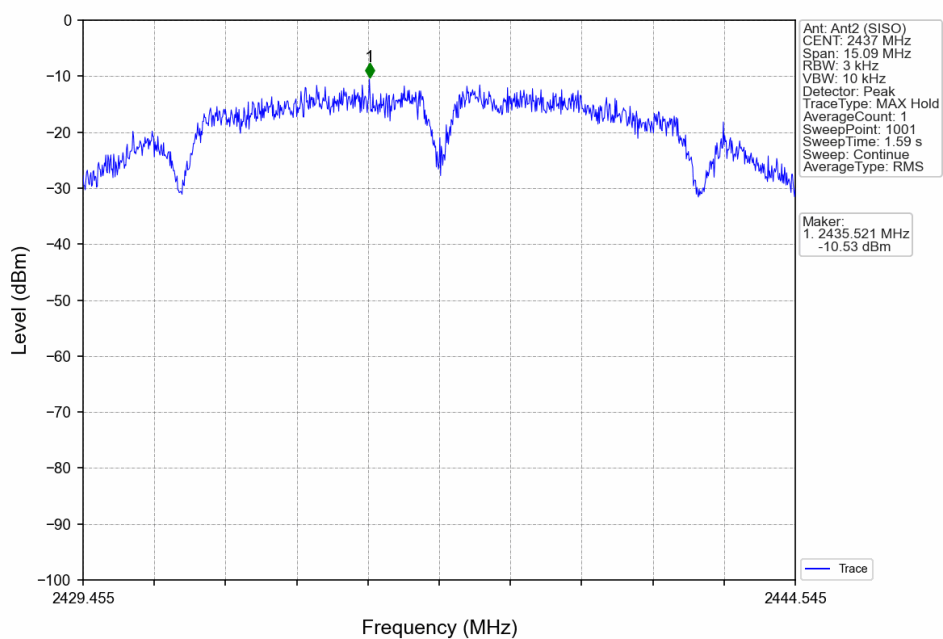
3.2 Test Graph



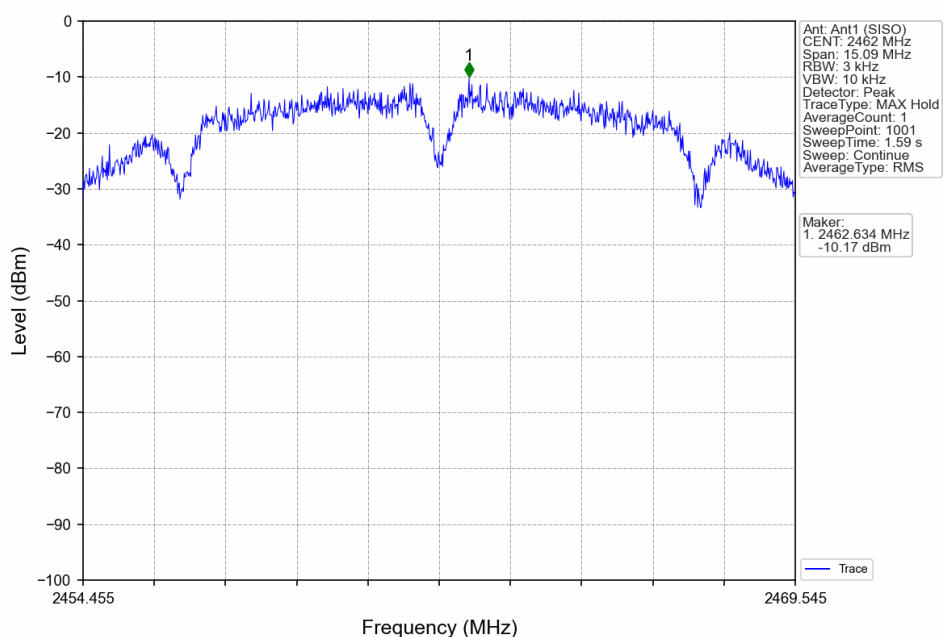
802.11b MCH 2437MHz Ant1 (SISO) NTNV



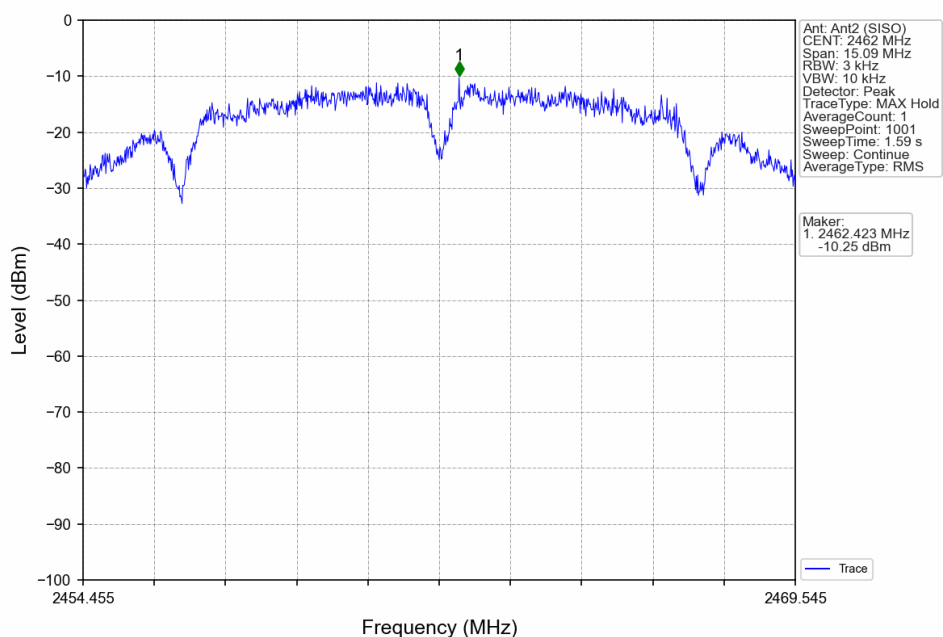
802.11b MCH 2437MHz Ant2 (SISO) NTNV



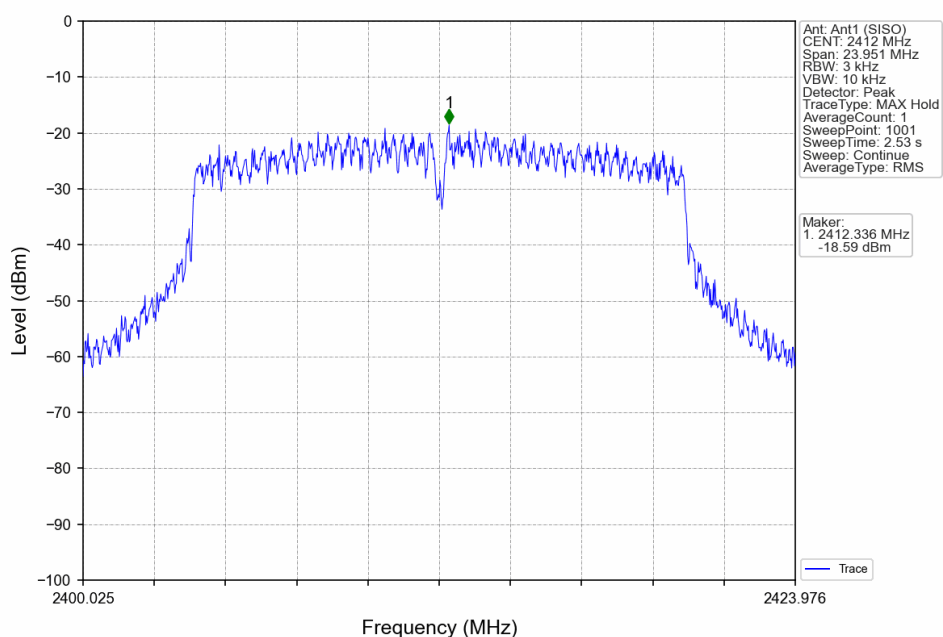
802.11b HCH 2462MHz Ant1 (SISO) NTNV



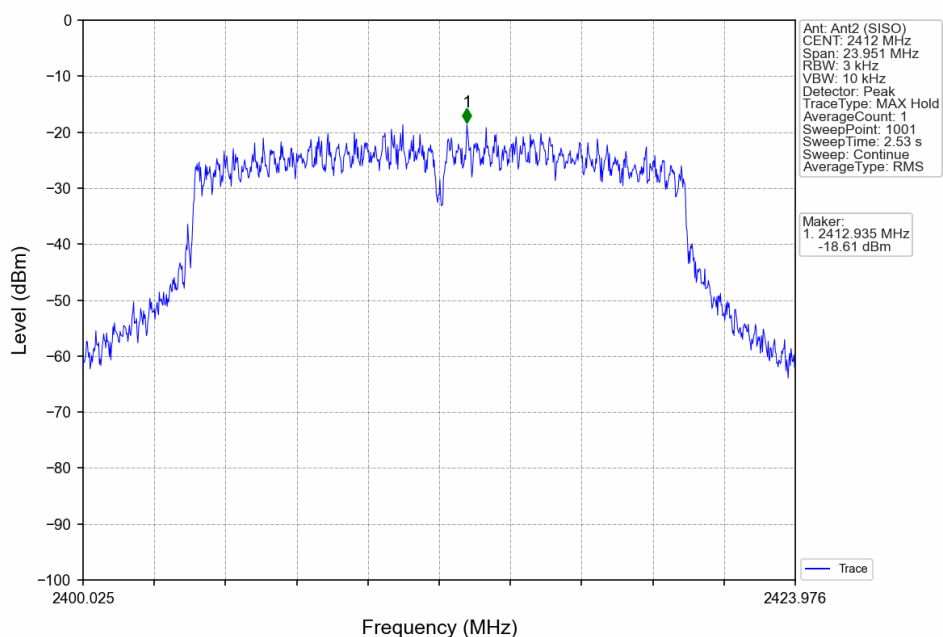
802.11b HCH 2462MHz Ant2 (SISO) NTNV



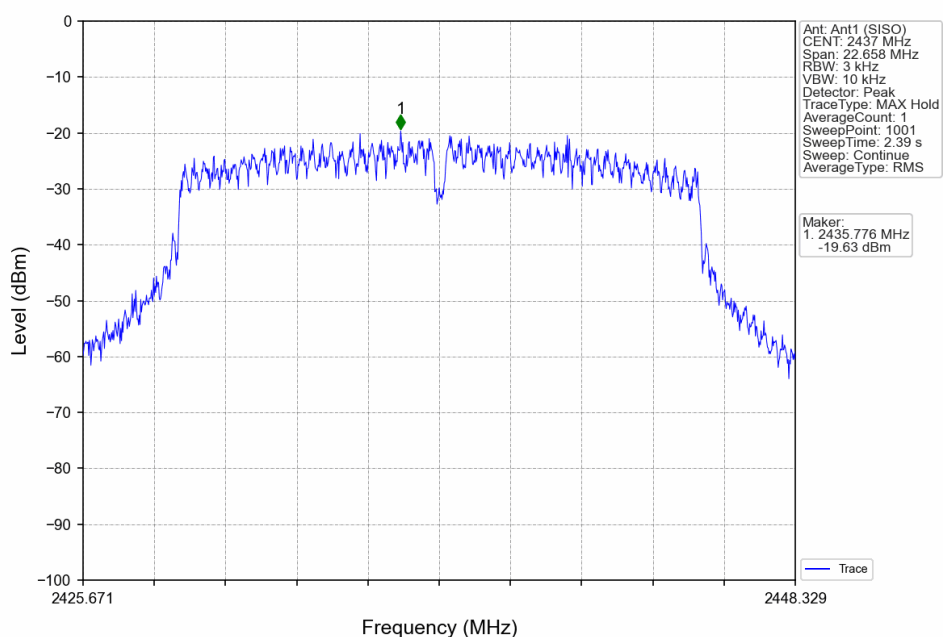
802.11g LCH 2412MHz Ant1 (SISO) NTNV



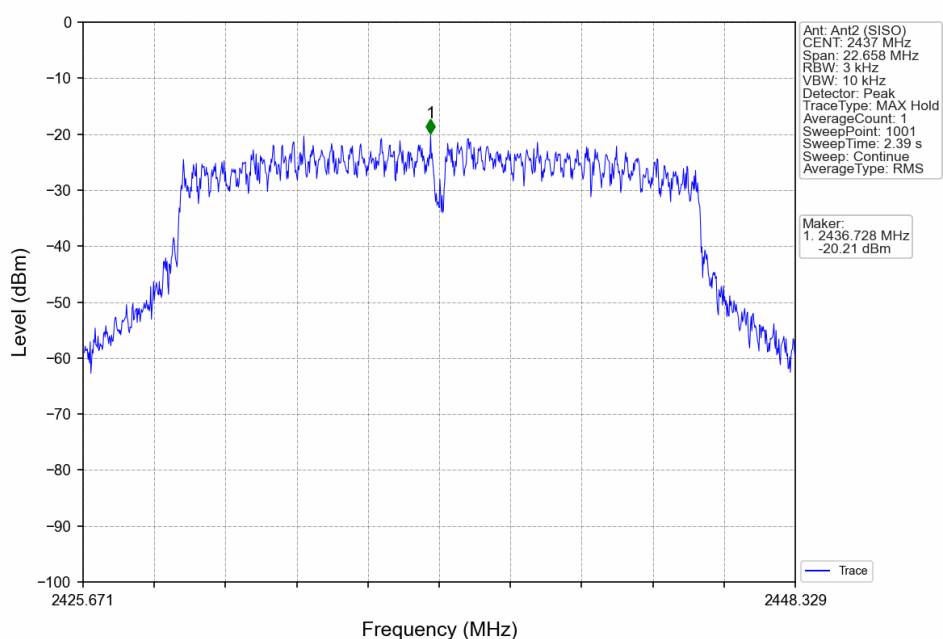
802.11g LCH 2412MHz Ant2 (SISO) NTNV



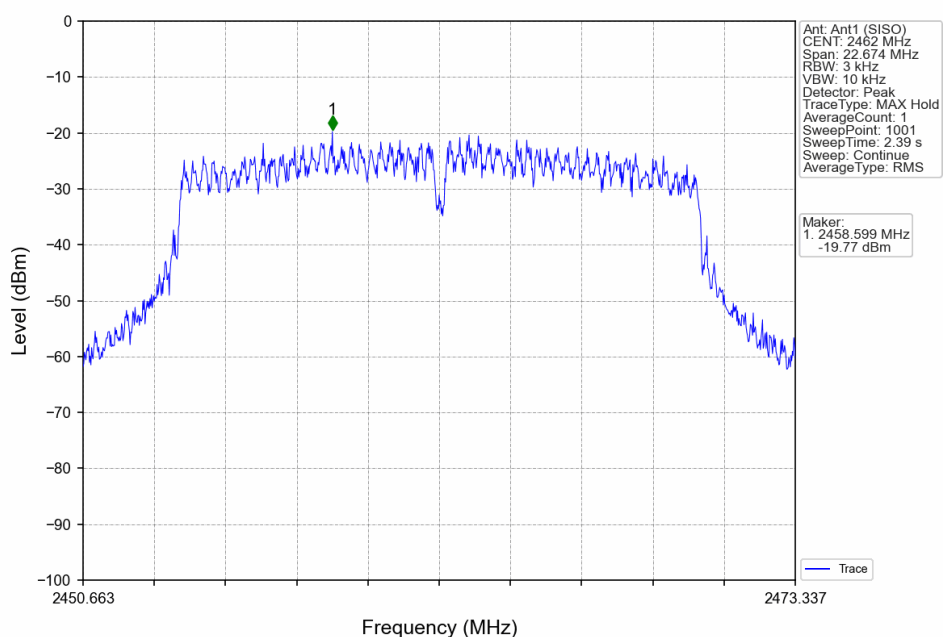
802.11g MCH 2437MHz Ant1 (SISO) NTNV



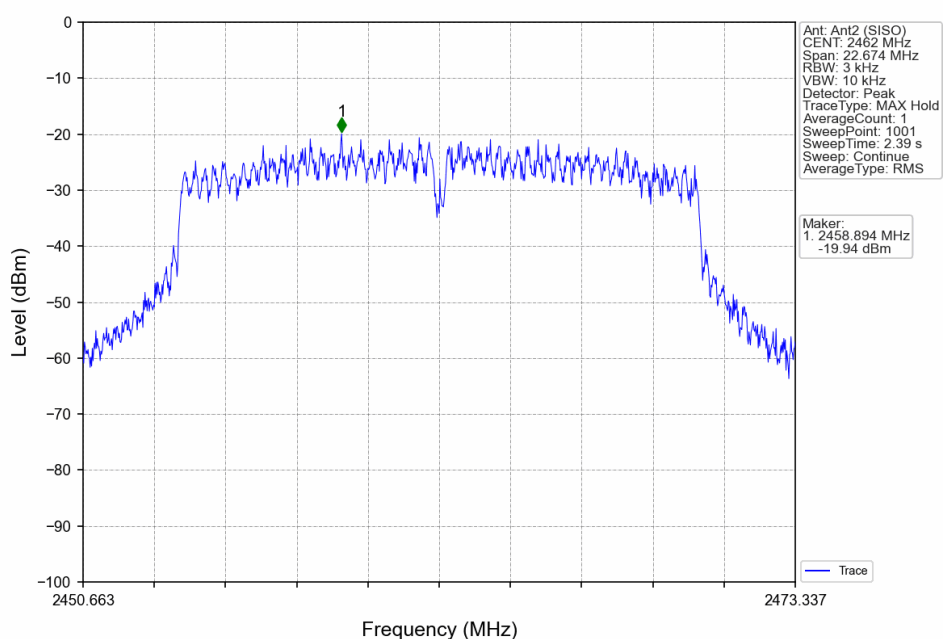
802.11g MCH 2437MHz Ant2 (SISO) NTNV



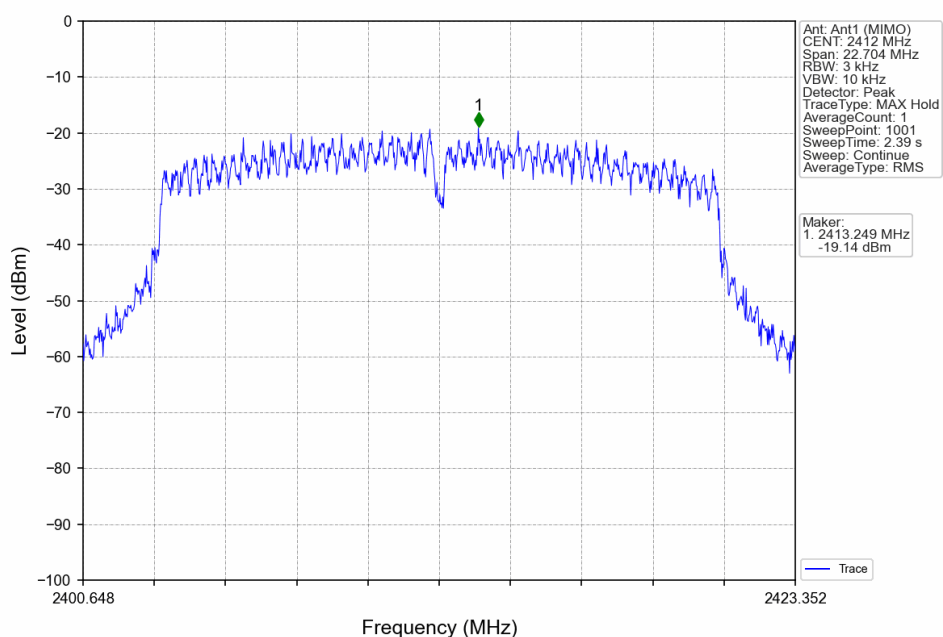
802.11g HCH 2462MHz Ant1 (SISO) NTNV



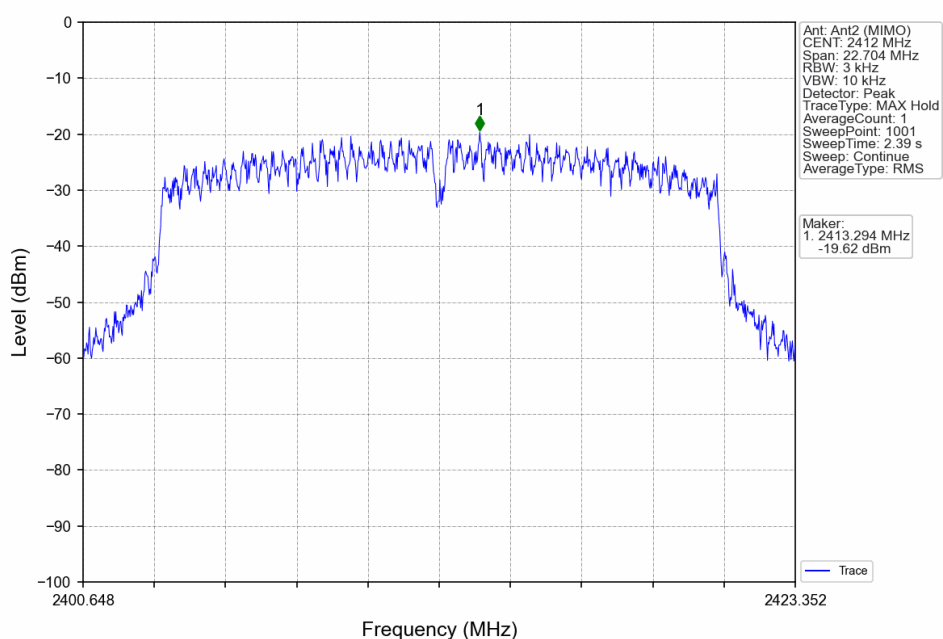
802.11g HCH 2462MHz Ant2 (SISO) NTNV



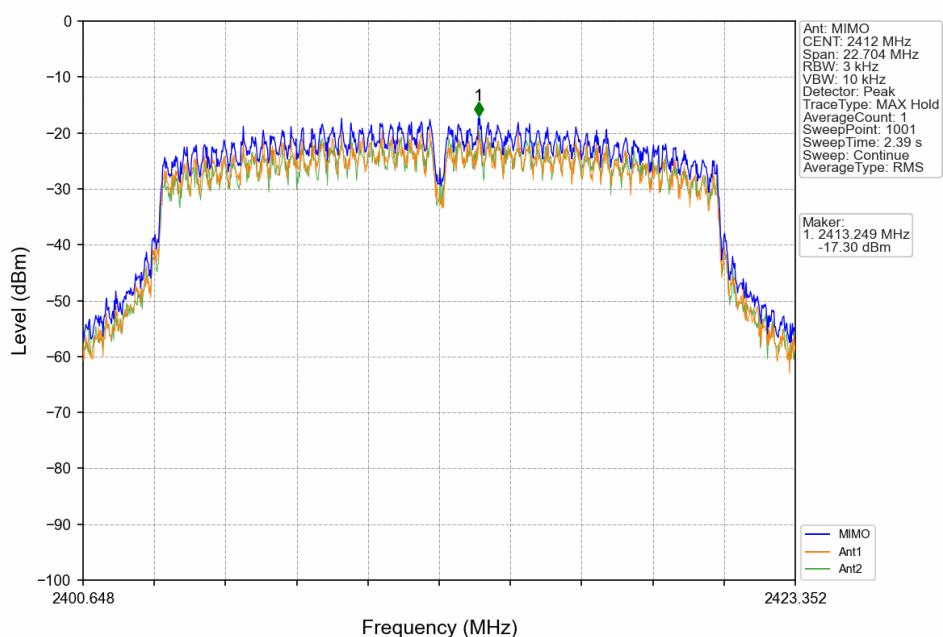
802.11n(HT20) LCH 2412MHz Ant1 (MIMO) NTNV



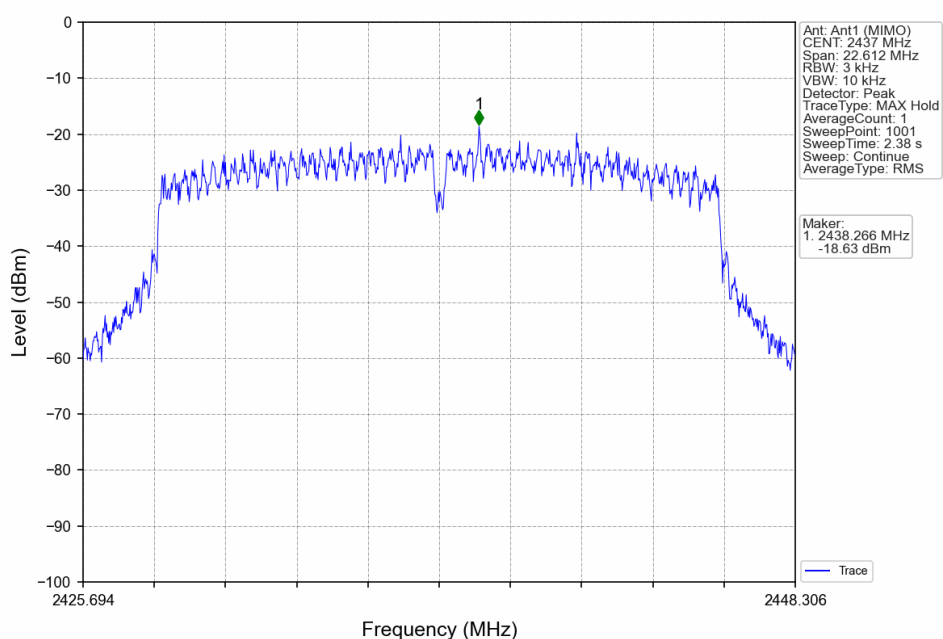
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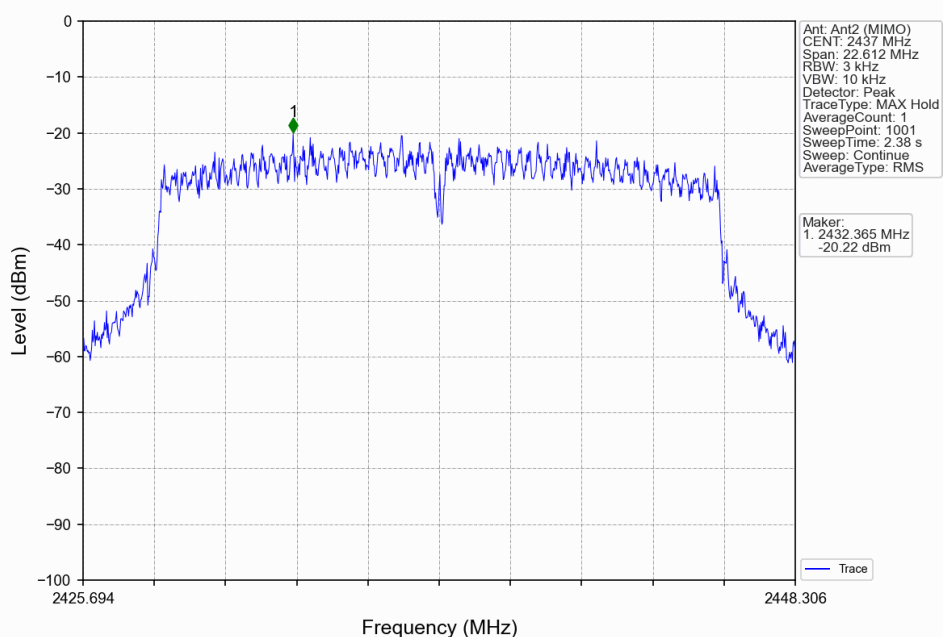
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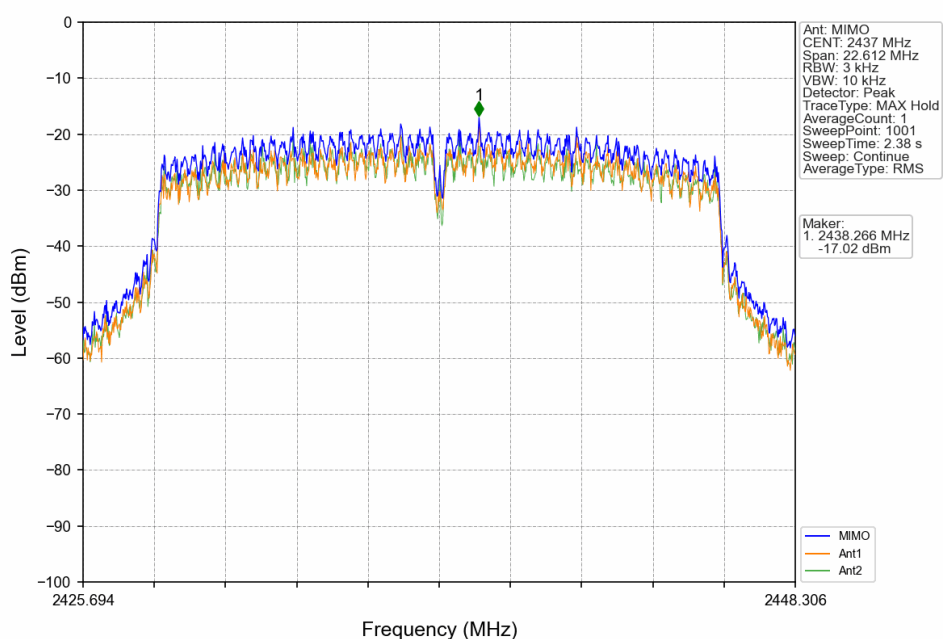
802.11n(HT20) MCH 2437MHz Ant1 (MIMO) NTNV



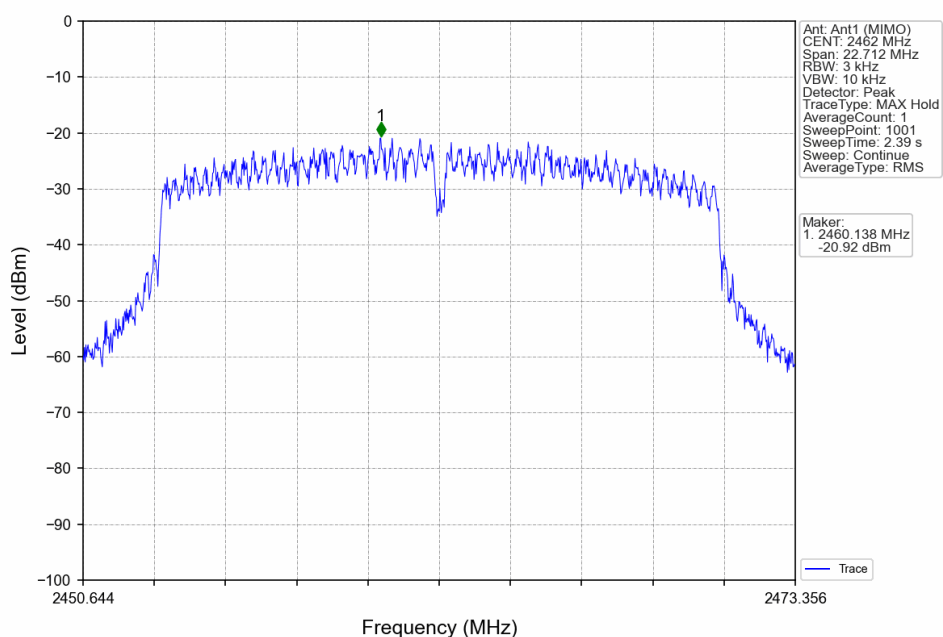
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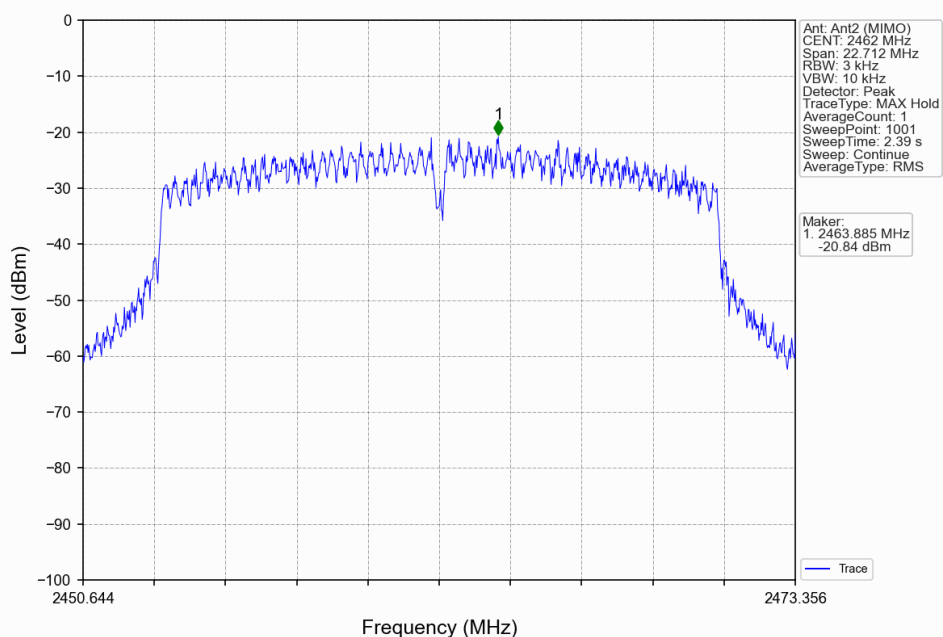
802.11n(HT20) MCH 2437MHz MIMO NTN



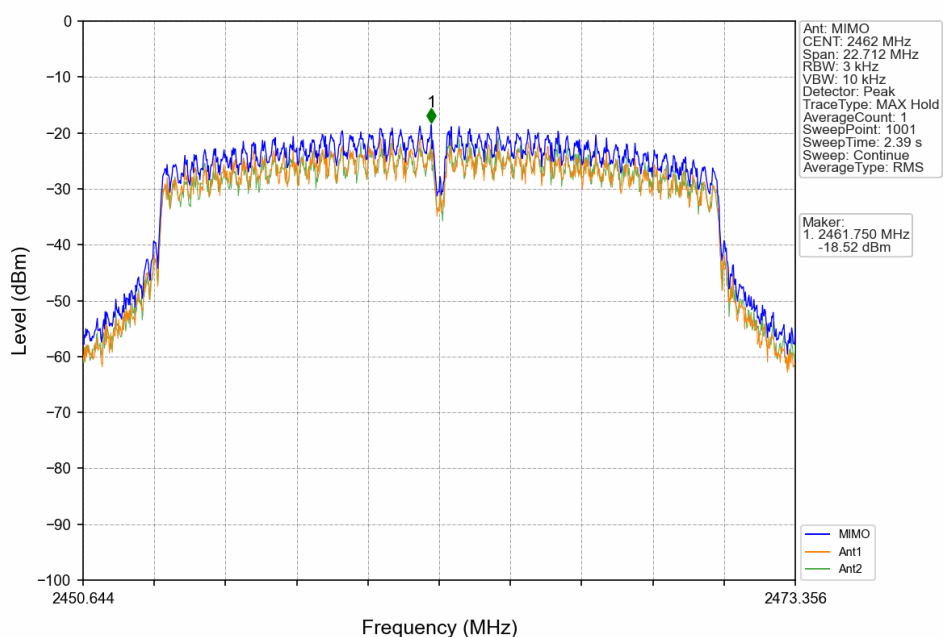
802.11n(HT20) HCH 2462MHz Ant1 (MIMO) NTNV



802.11n(HT20) HCH 2462MHz Ant2 (MIMO) NTNV



802.11n(HT20) HCH 2462MHz MIMO NTNV



802.11n(HT40) LCH 2422MHz_Ant1 (MIMO) NTNV

