

Appendix for 15.247

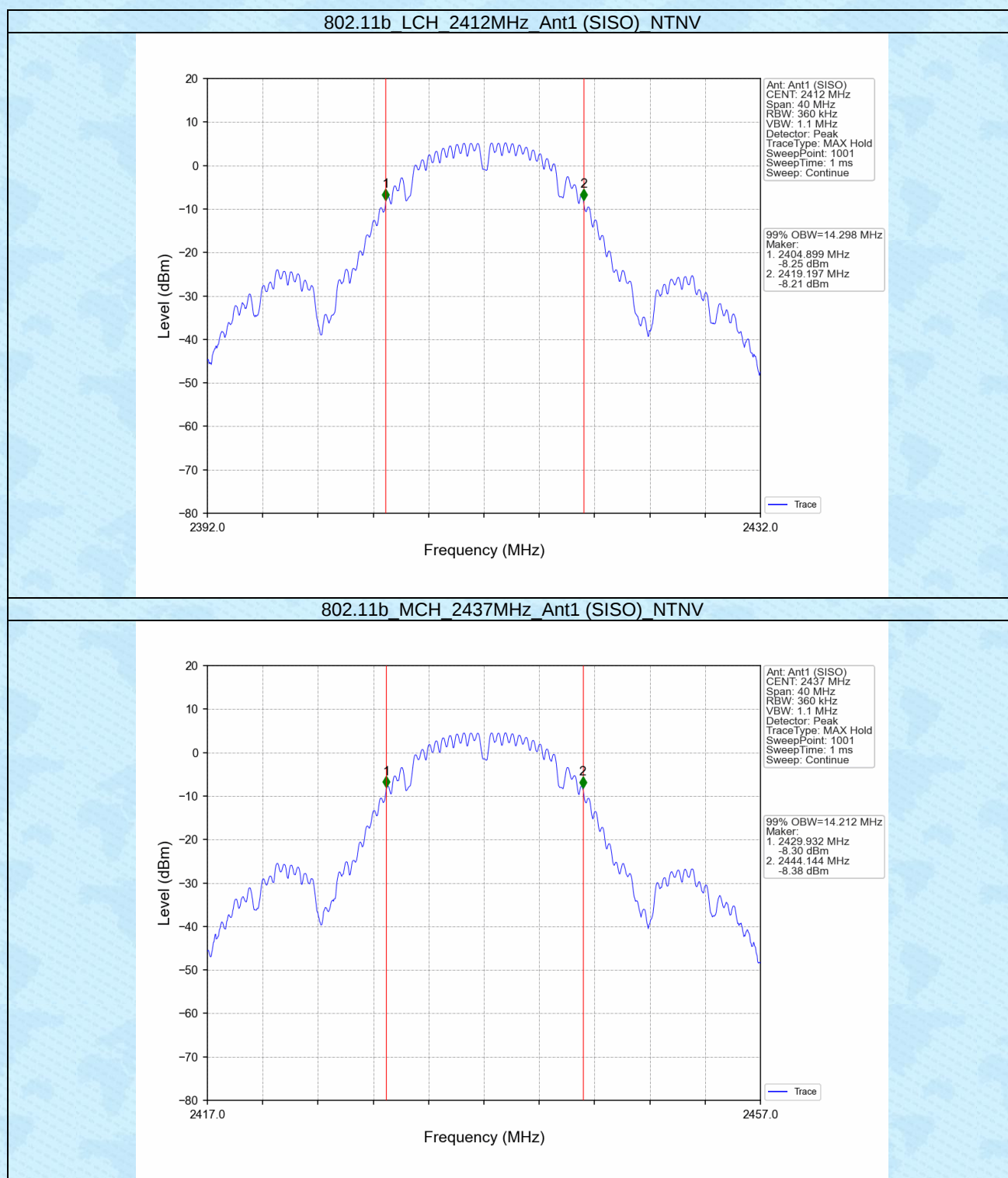
1. Bandwidth

1.1 OBW

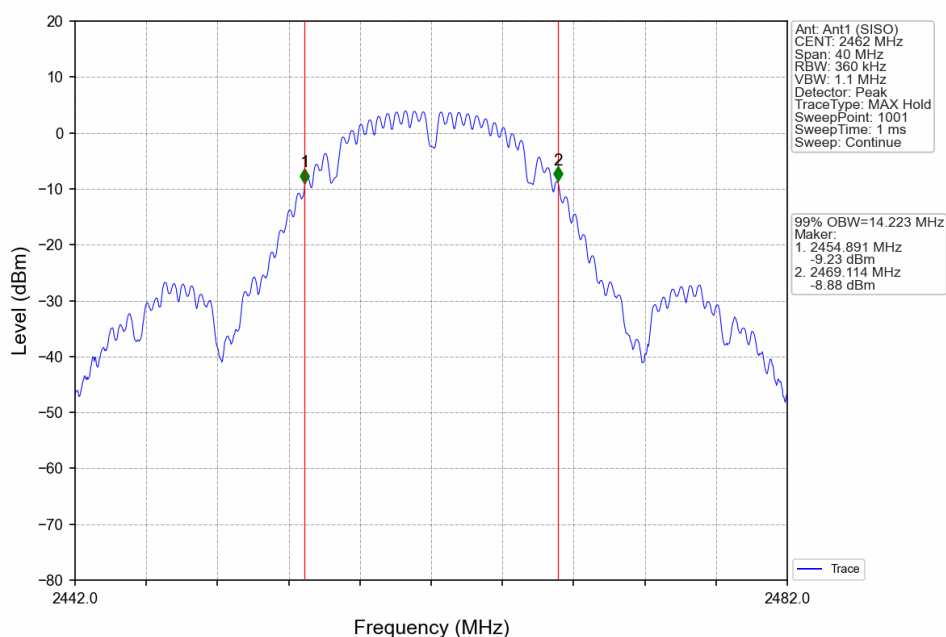
1.1.1 Test Result

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

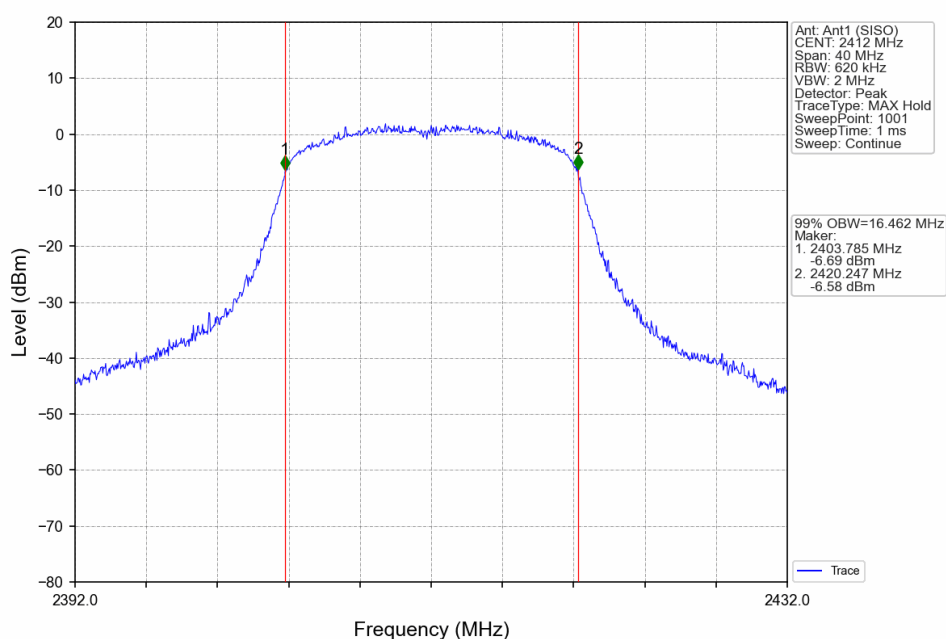
1.1.2 Test Graph



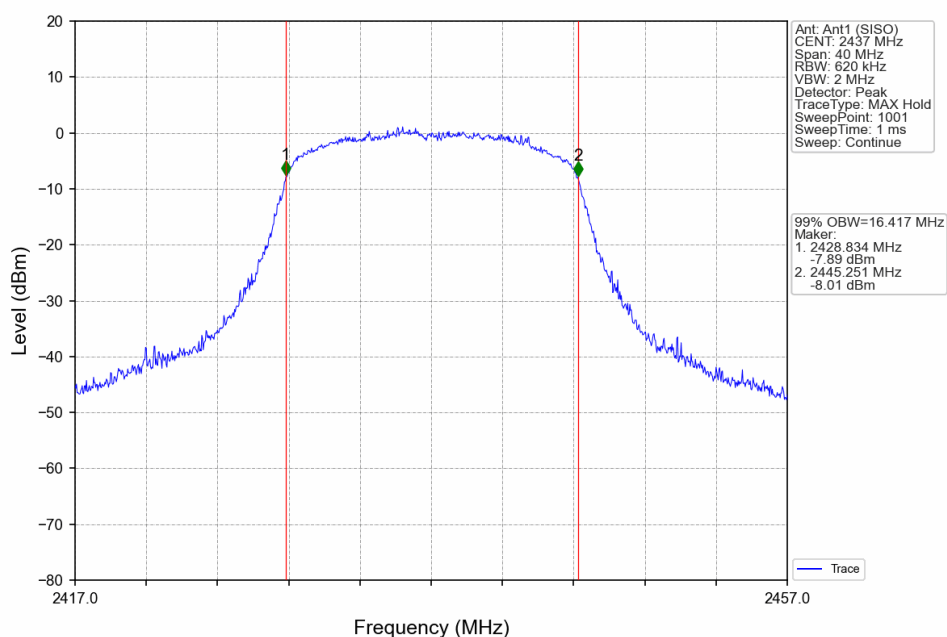
802.11b HCH 2462MHz Ant1 (SISO) NTNV



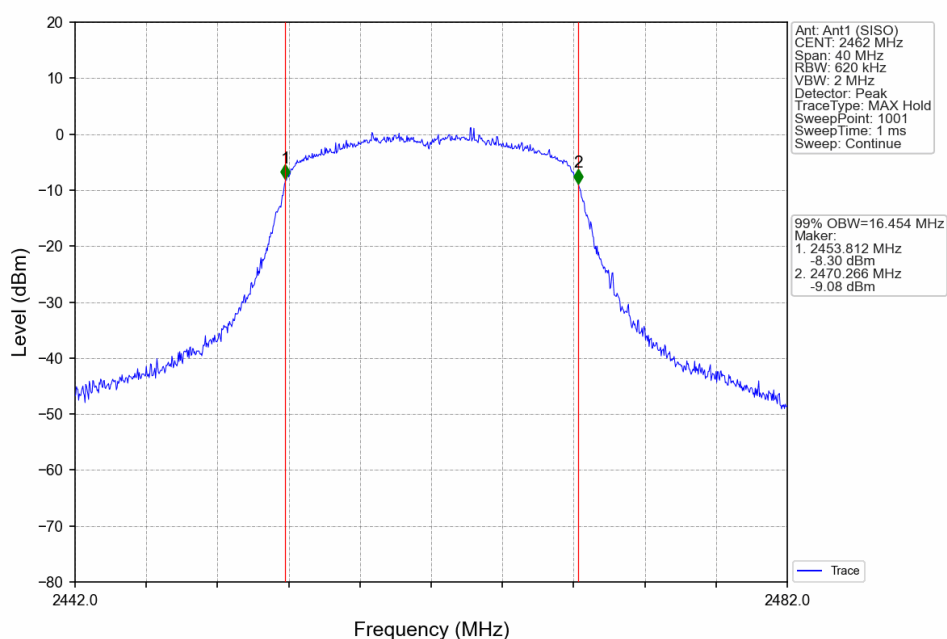
802.11g LCH 2412MHz Ant1 (SISO) NTNV



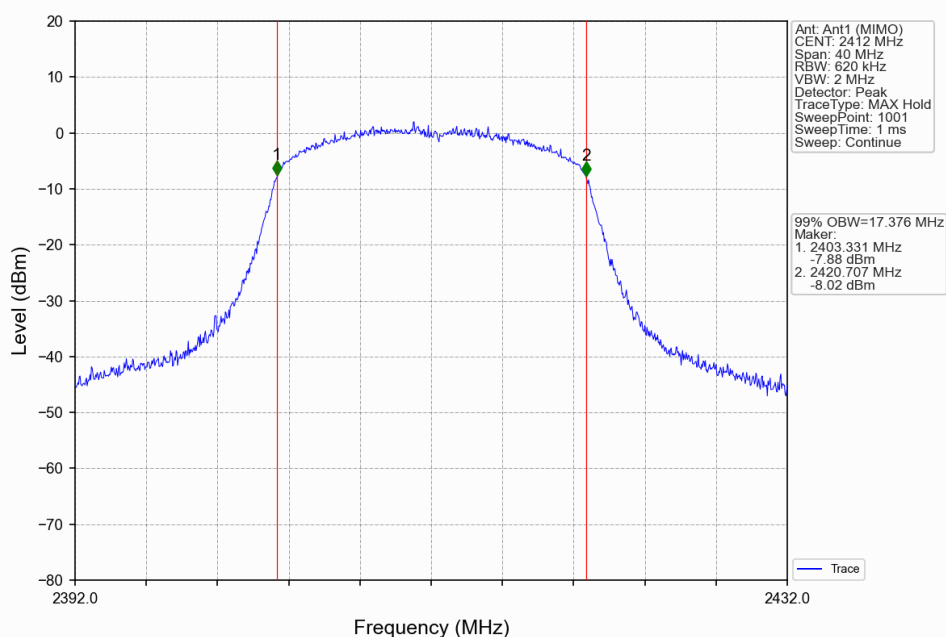
802.11g MCH 2437MHz Ant1 (SISO) NTNV



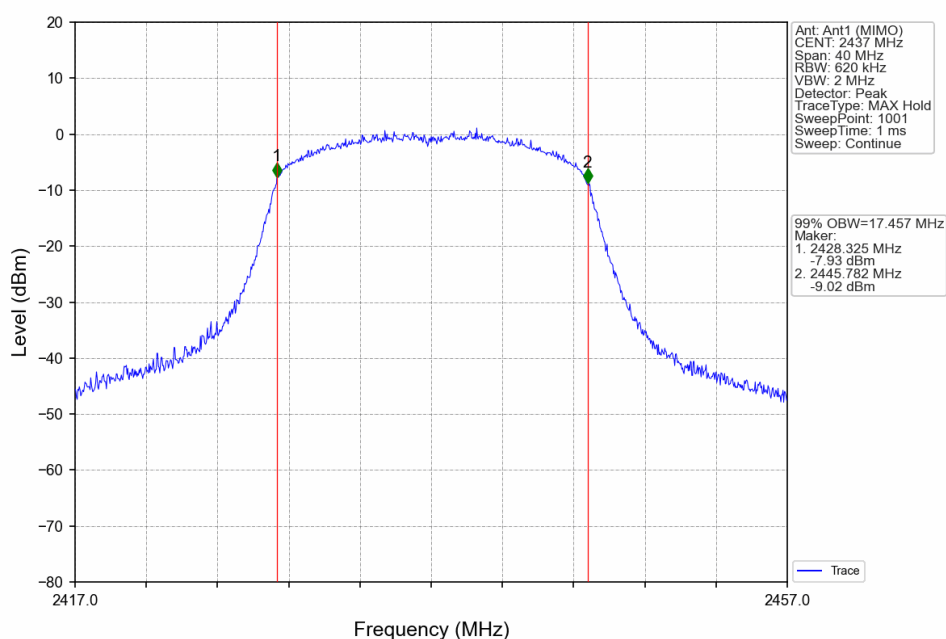
802.11g HCH 2462MHz Ant1 (SISO) NTNV



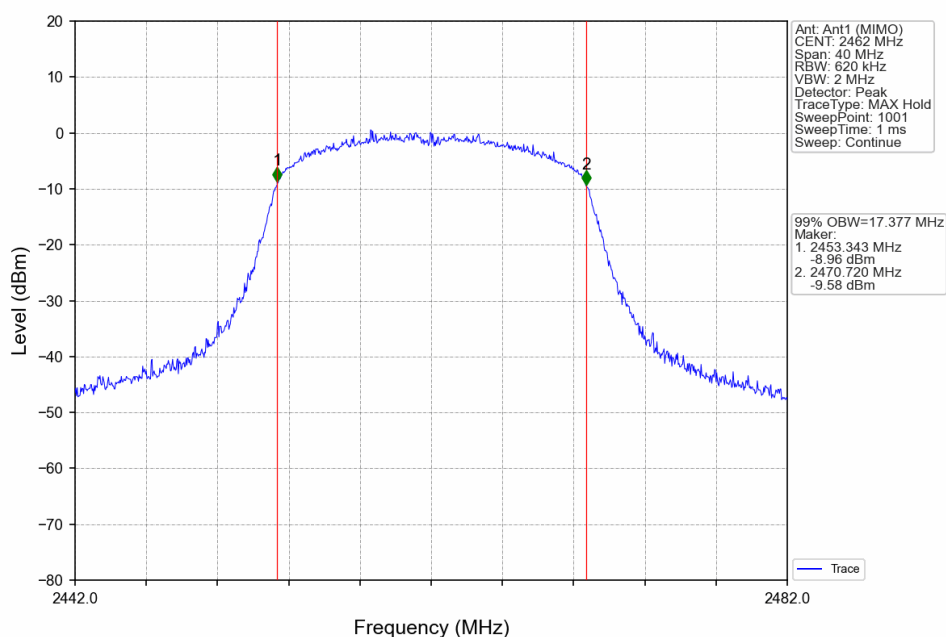
802.11n(HT20) LCH 2412MHz Ant1 (MIMO) NTV



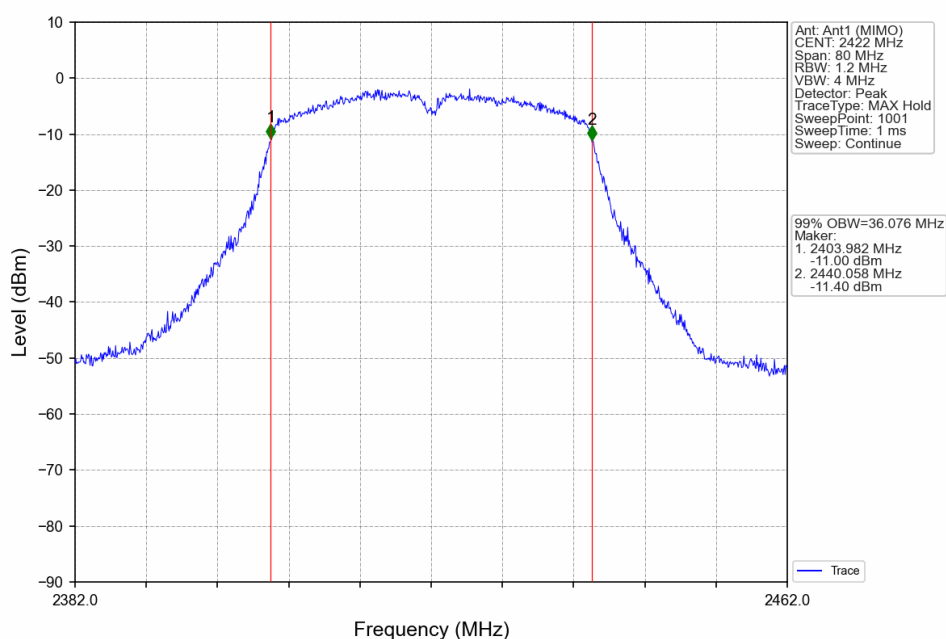
802.11n(HT20) MCH 2437MHz Ant1 (MIMO) NTV



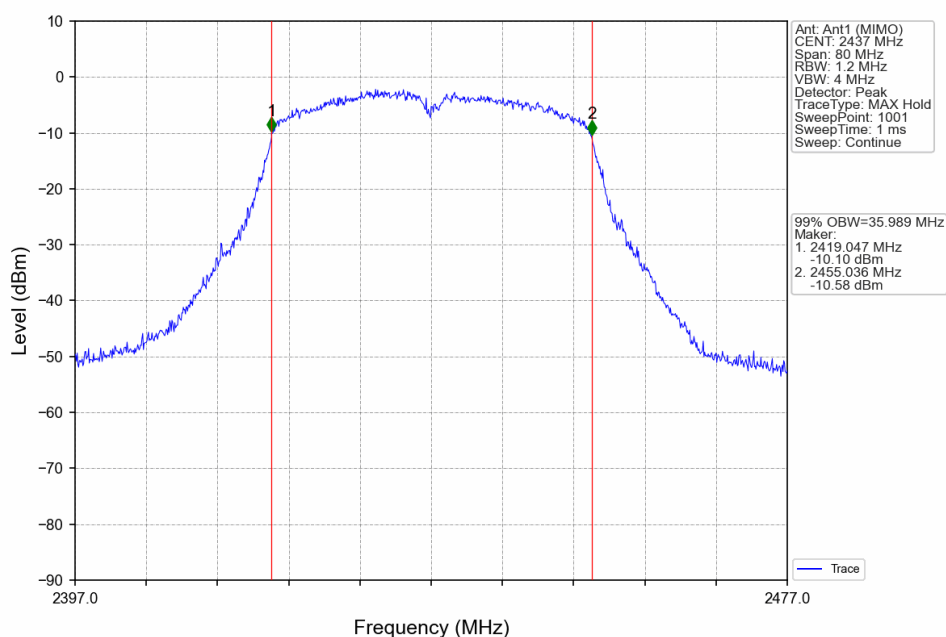
802.11n(HT20) HCH 2462MHz Ant1 (MIMO) NTNV



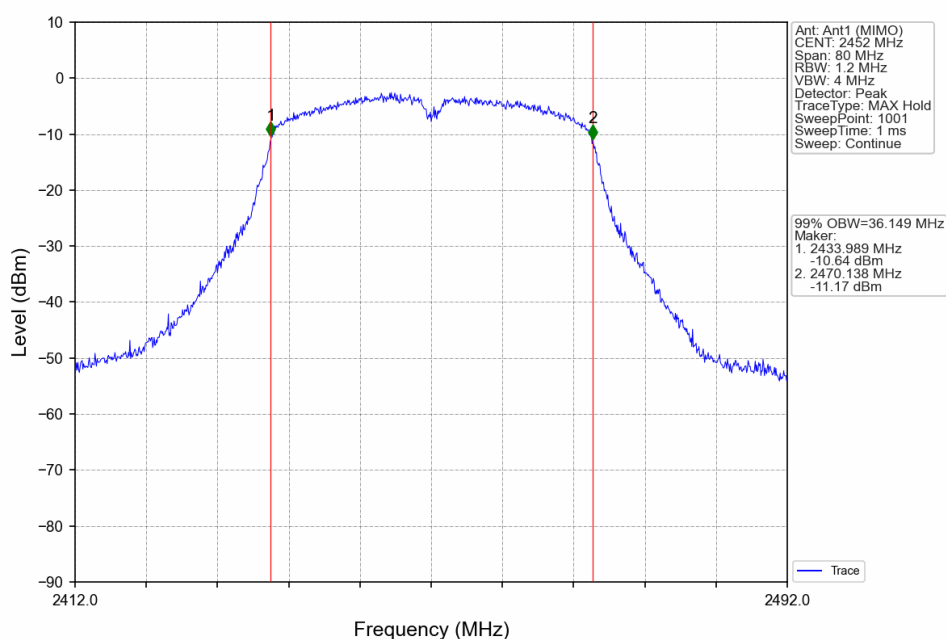
802.11n(HT40) LCH 2422MHz Ant1 (MIMO) NTNV



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



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

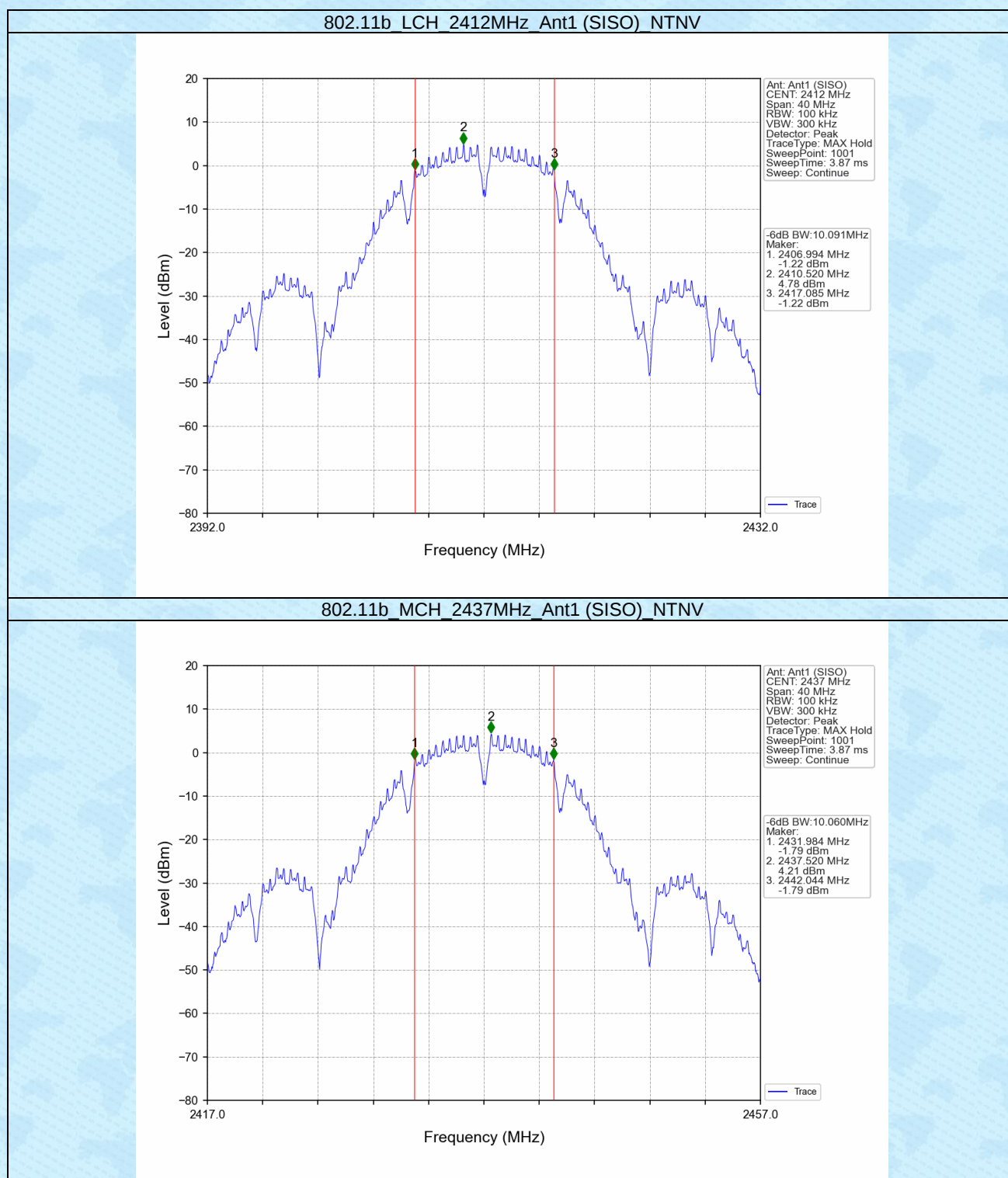


1.2 6dB BW

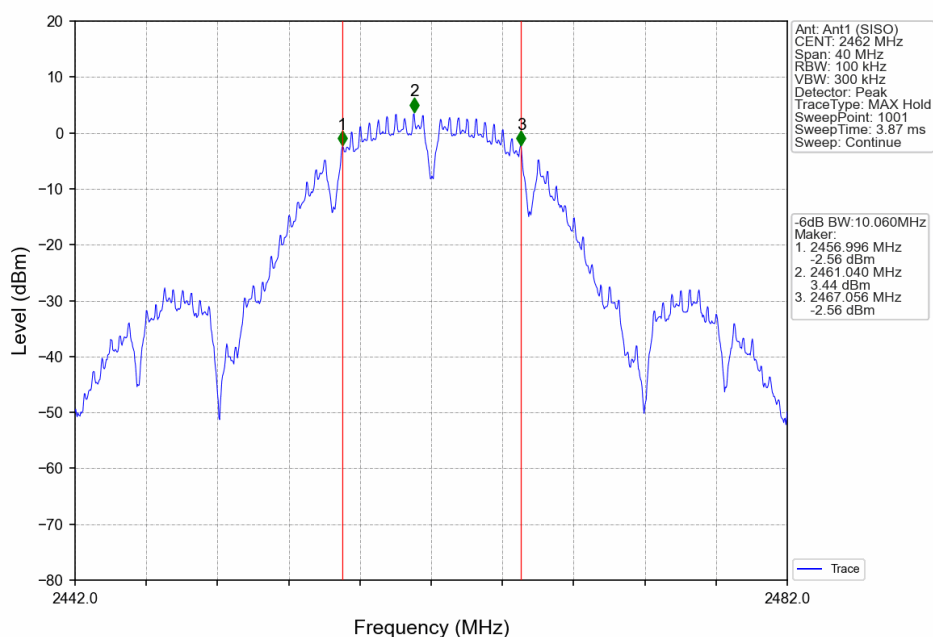
1.2.1 Test Result

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

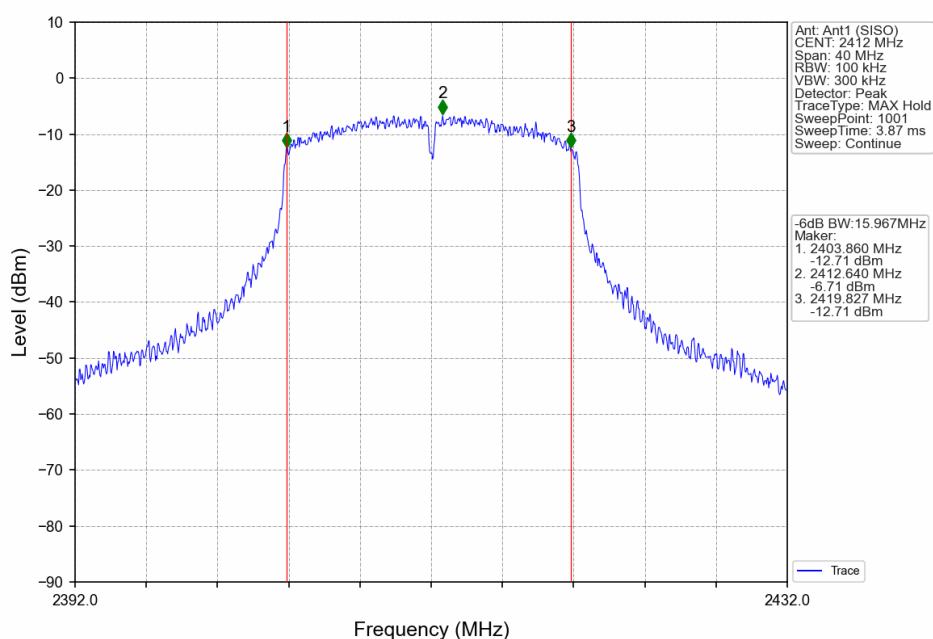
1.2.2 Test Graph



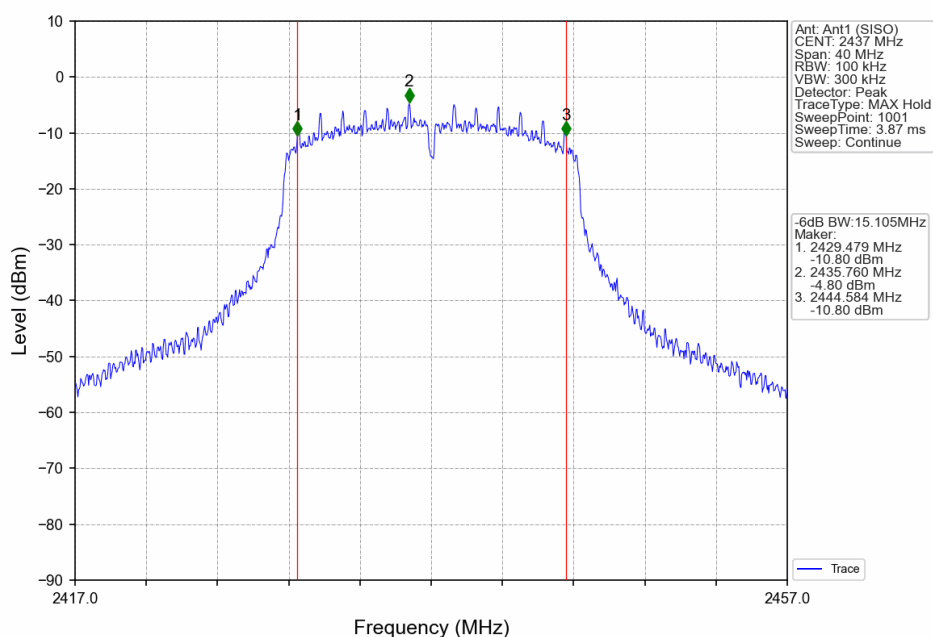
802.11b HCH 2462MHz Ant1 (SISO) NTNV



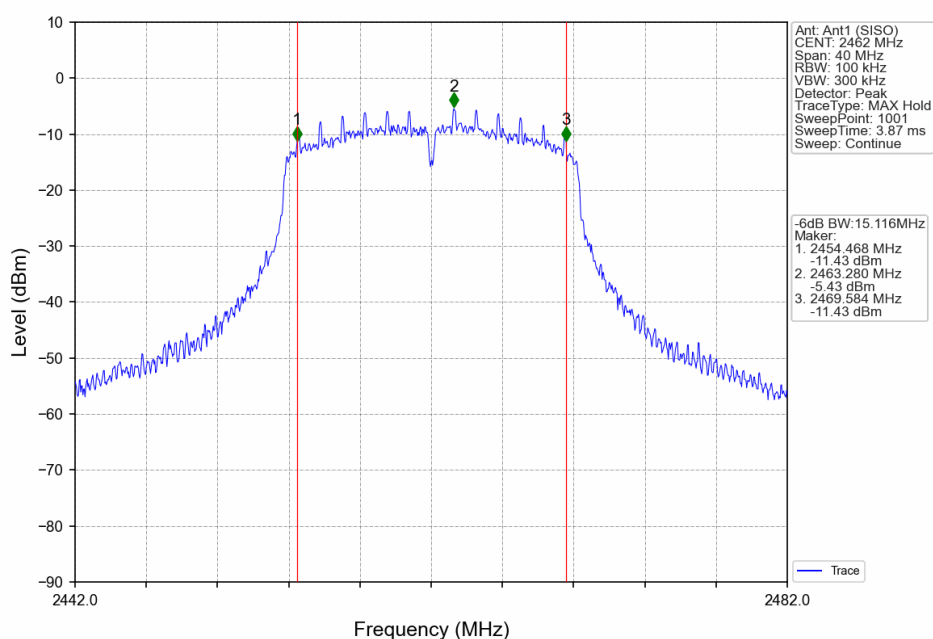
802.11g LCH 2412MHz Ant1 (SISO) NTNV



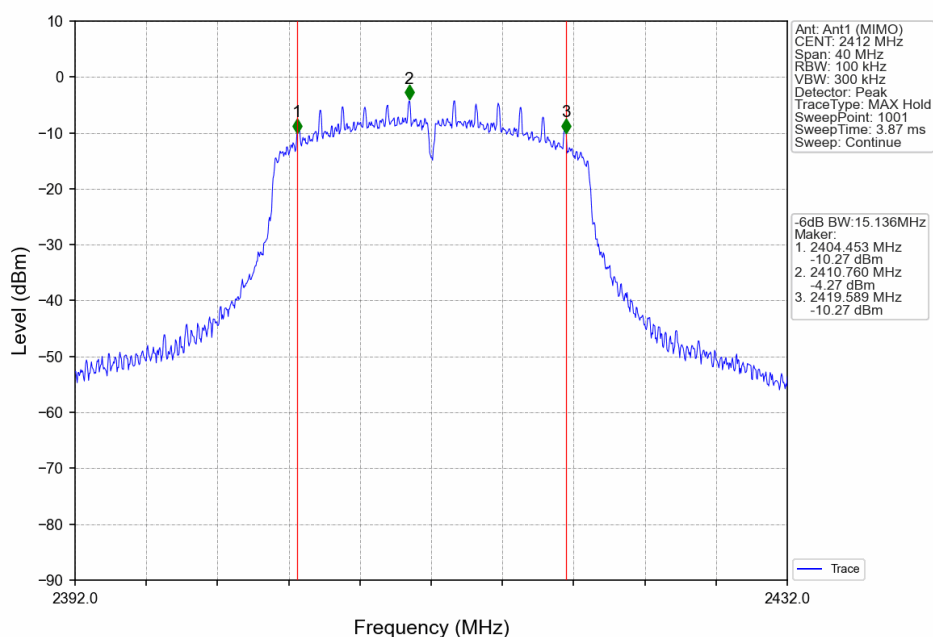
802.11g MCH 2437MHz Ant1 (SISO) NTNV



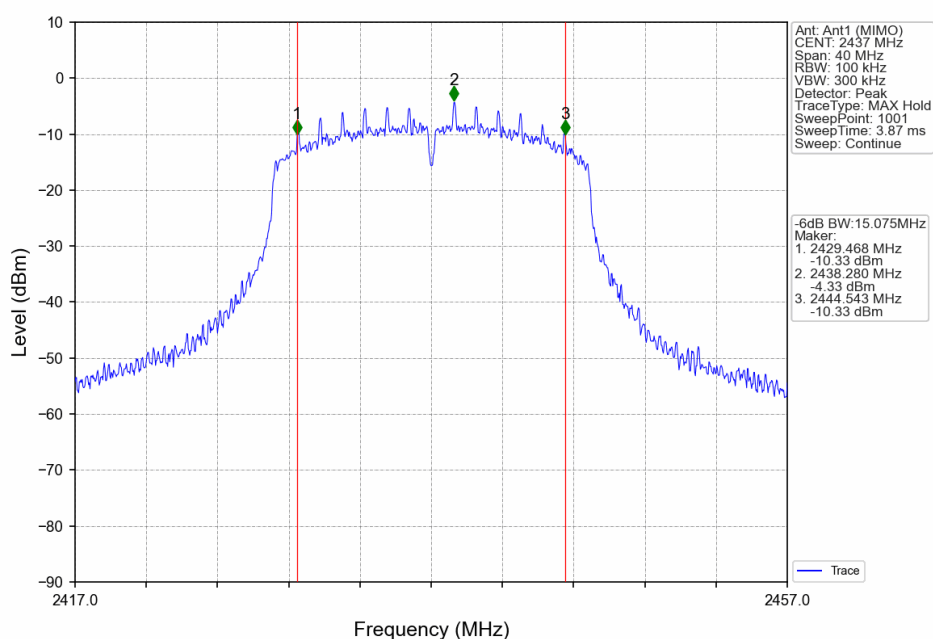
802.11g HCH 2462MHz Ant1 (SISO) NTNV



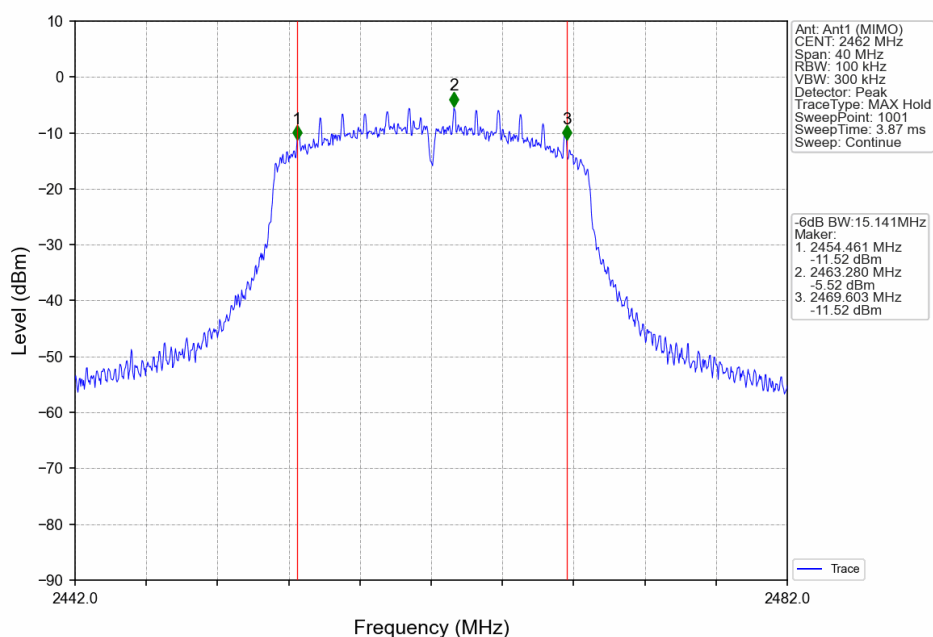
802.11n(HT20) LCH 2412MHz Ant1 (MIMO) NTNV



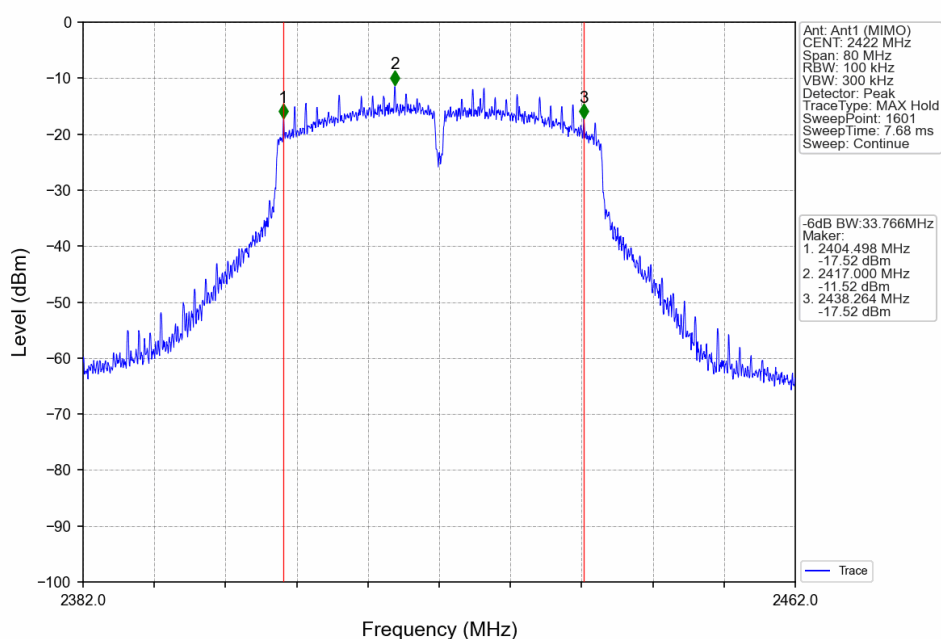
802.11n(HT20) MCH 2437MHz Ant1 (MIMO) NTNV



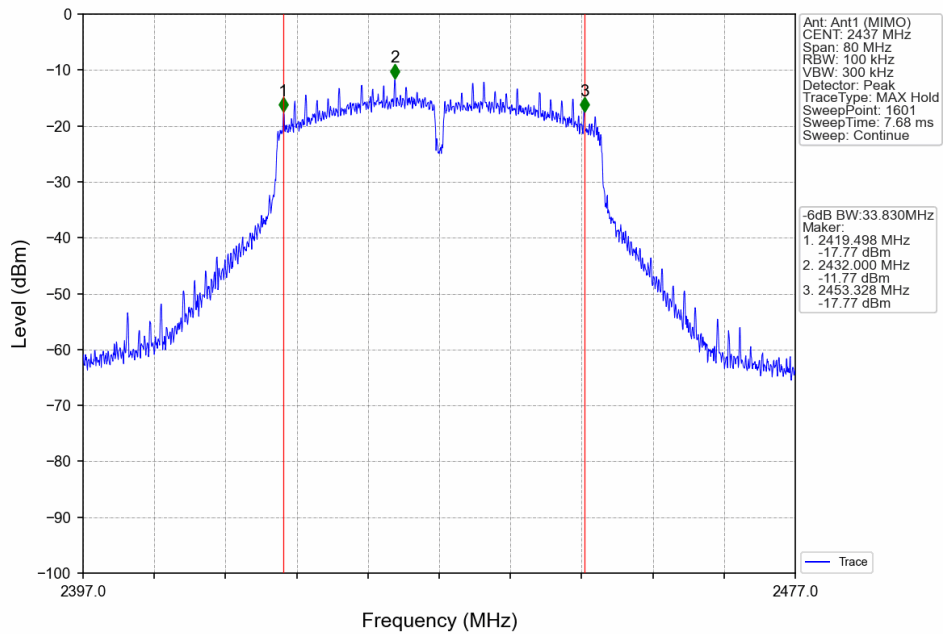
802.11n(HT20) HCH 2462MHz Ant1 (MIMO) NTNV



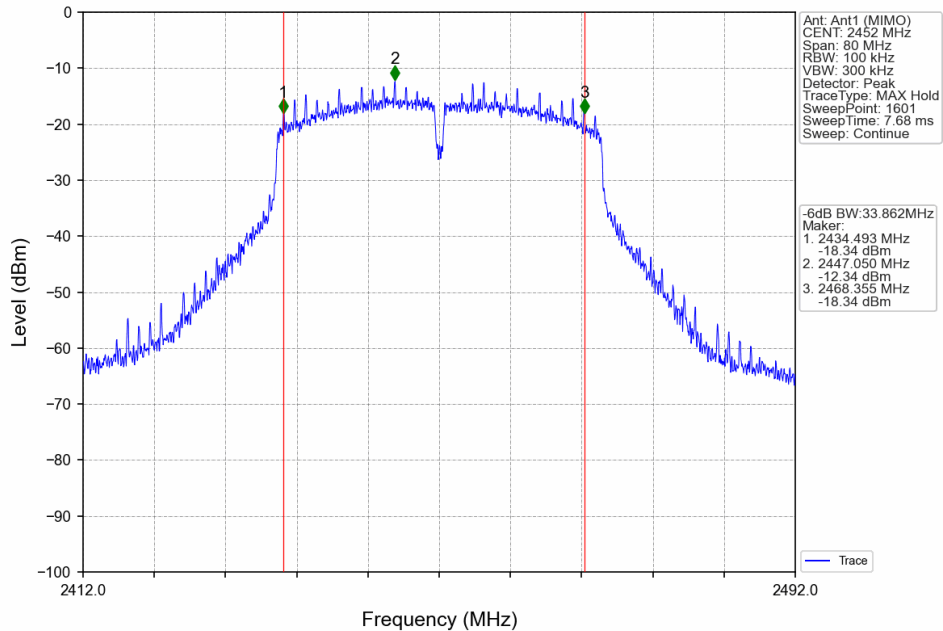
802.11n(HT40) LCH 2422MHz Ant1 (MIMO) NTNV



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



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



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

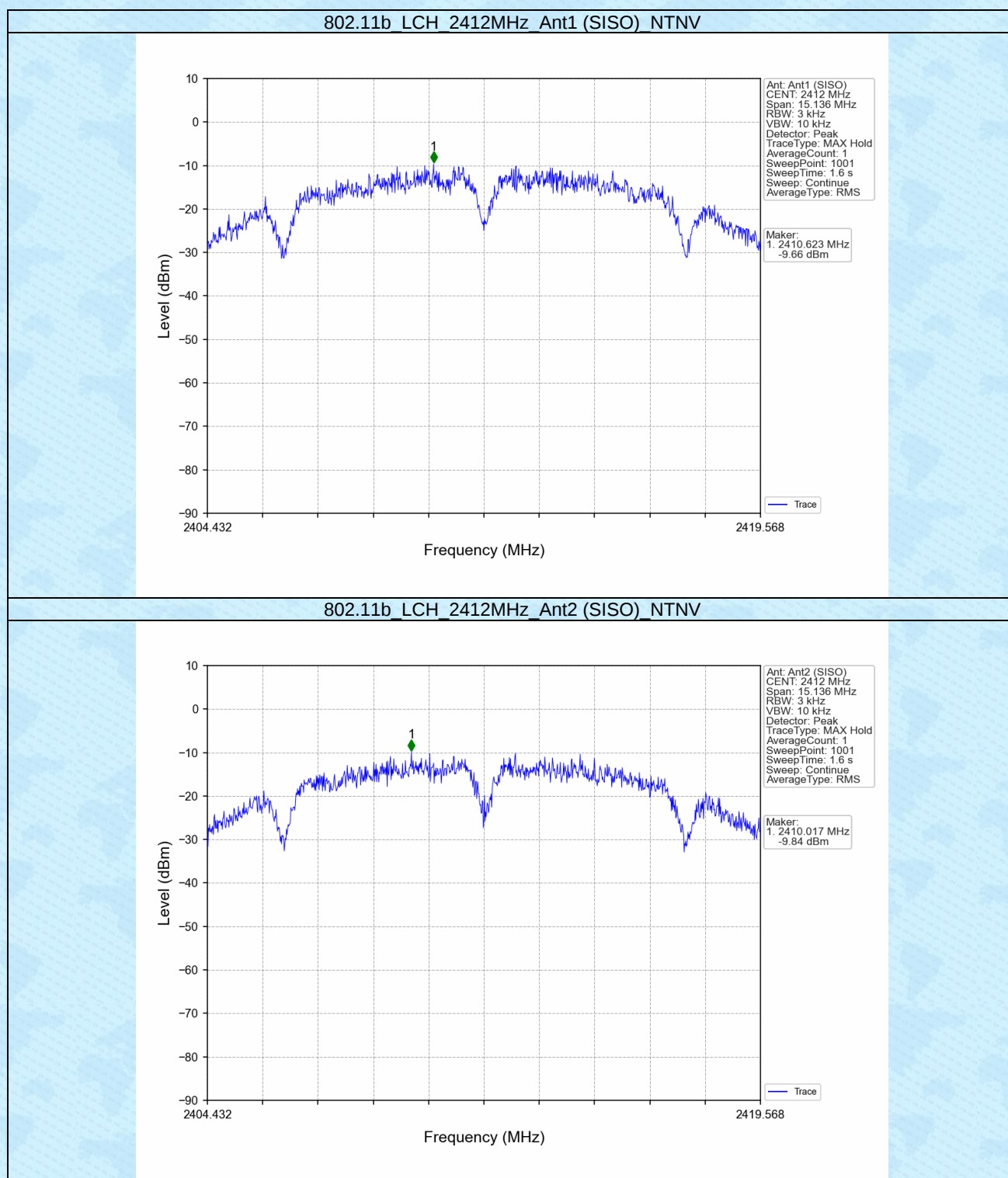
Note: transmit signals are completely correlated,
 Directional gain= $10 \times \log[(10^{7/20} + 10^{7/20})^2/2] = 10.01\text{dBi}$

3. Maximum Power Spectral Density

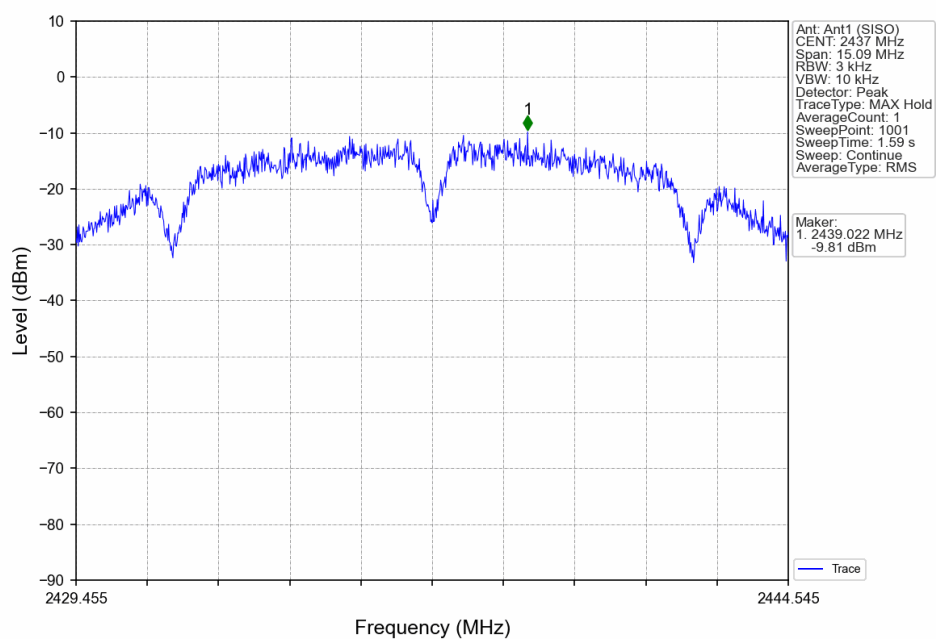
3.1 Test Result

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

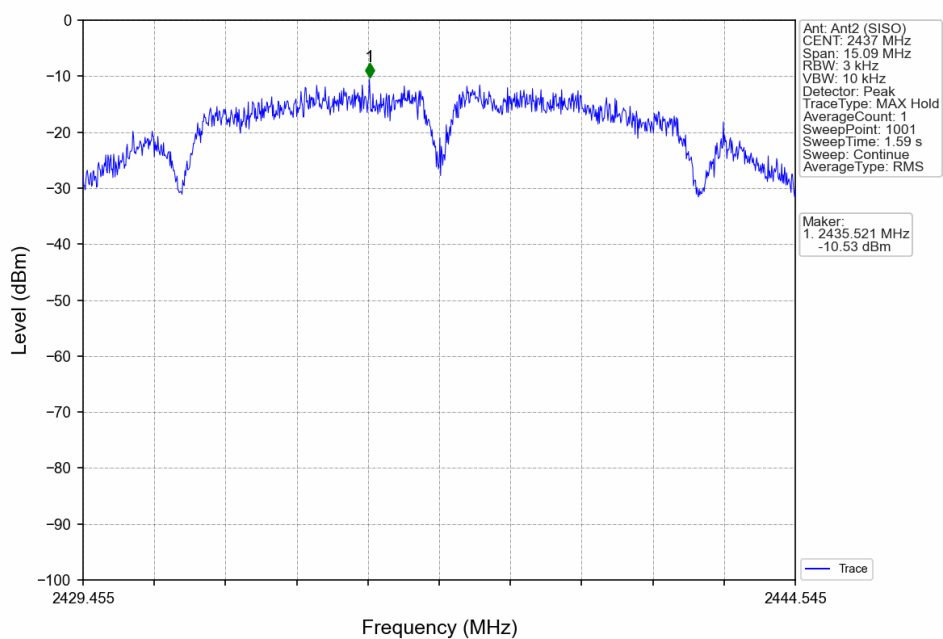
3.2 Test Graph



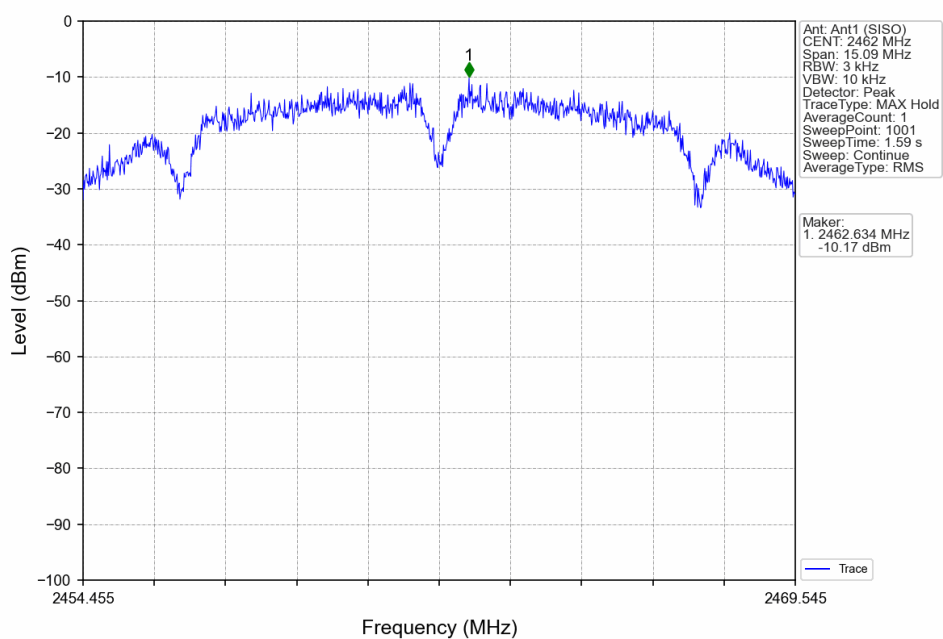
802.11b MCH 2437MHz Ant1 (SISO) NTNV



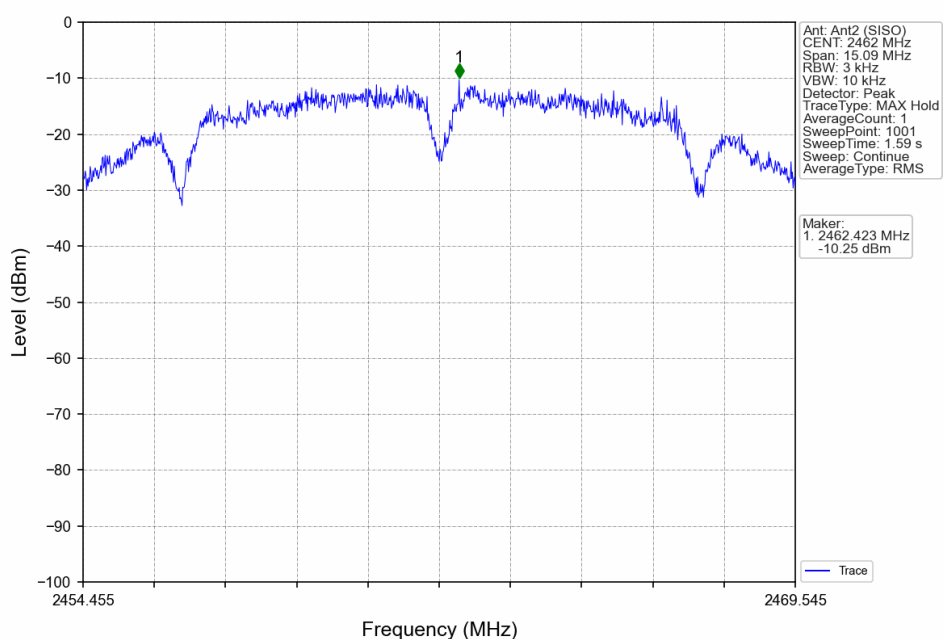
802.11b MCH 2437MHz Ant2 (SISO) NTNV



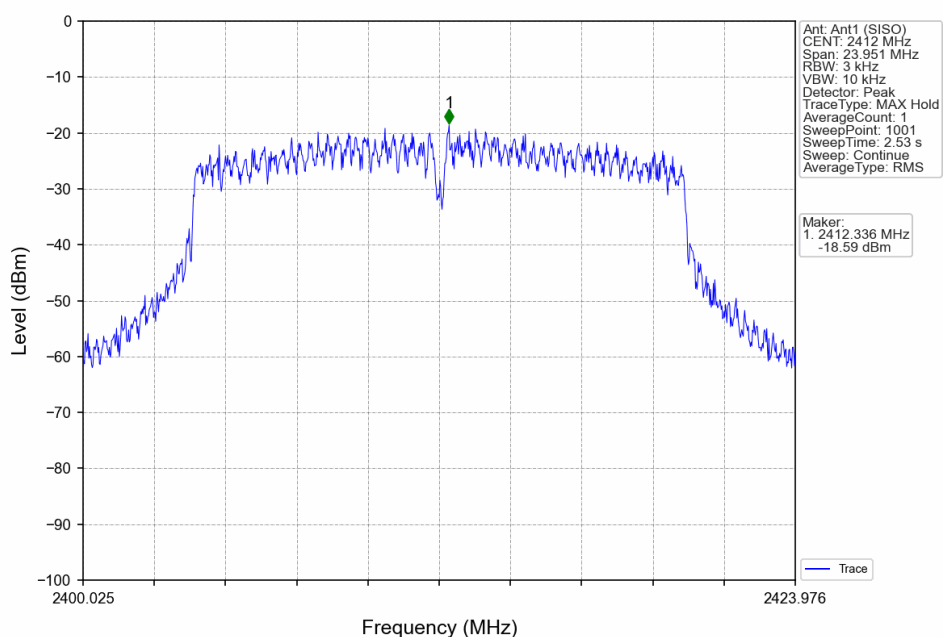
802.11b HCH 2462MHz Ant1 (SISO) NTNV



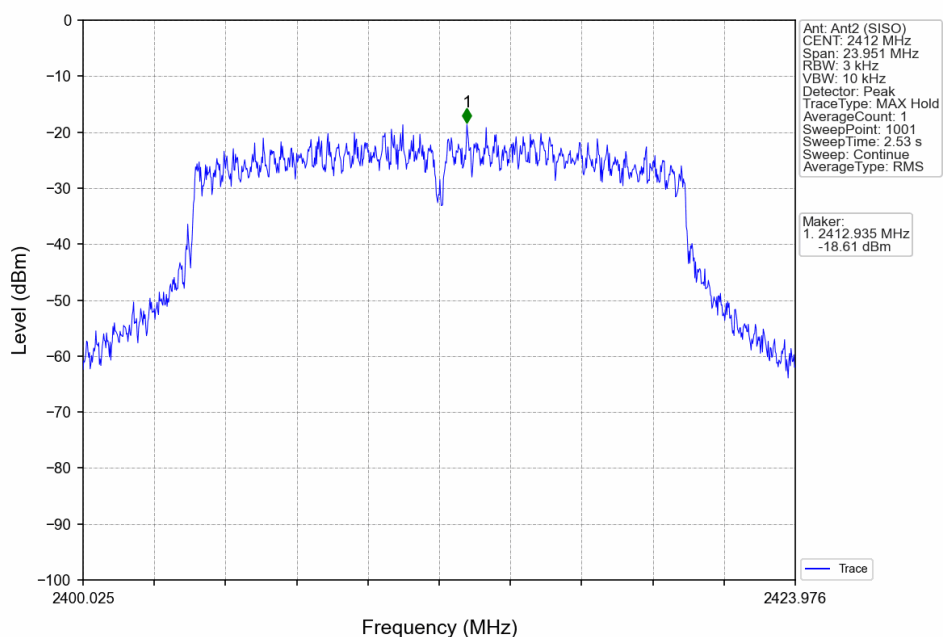
802.11b HCH 2462MHz Ant2 (SISO) NTNV



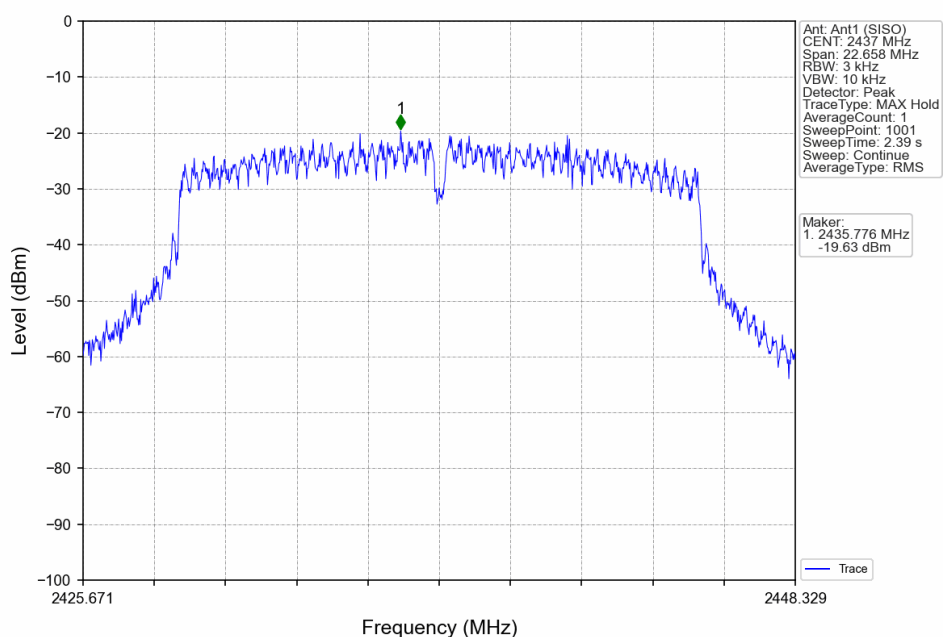
802.11g LCH 2412MHz Ant1 (SISO) NTNV



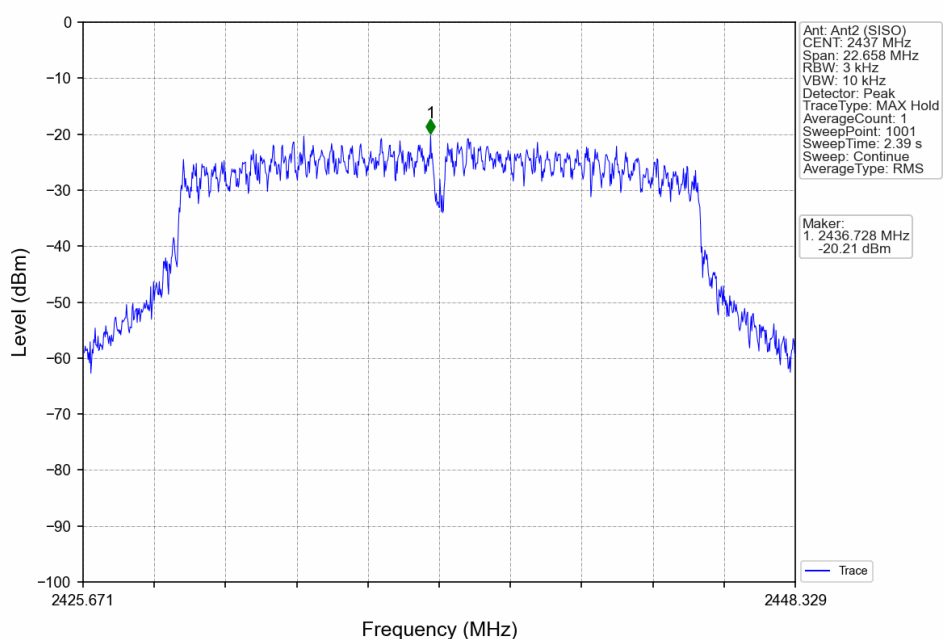
802.11g LCH 2412MHz Ant2 (SISO) NTNV



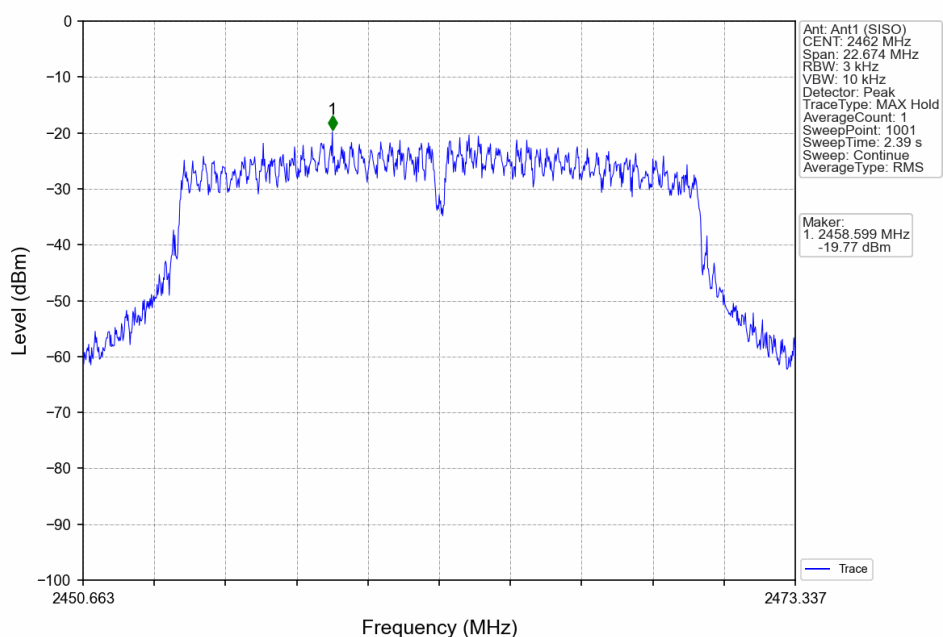
802.11g MCH 2437MHz Ant1 (SISO) NTNV



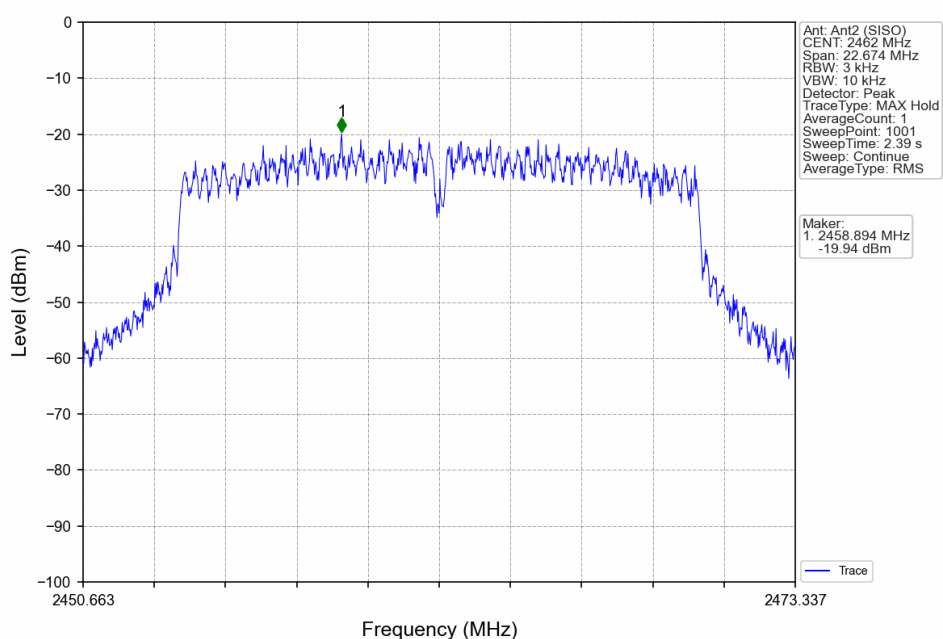
802.11g MCH 2437MHz Ant2 (SISO) NTNV



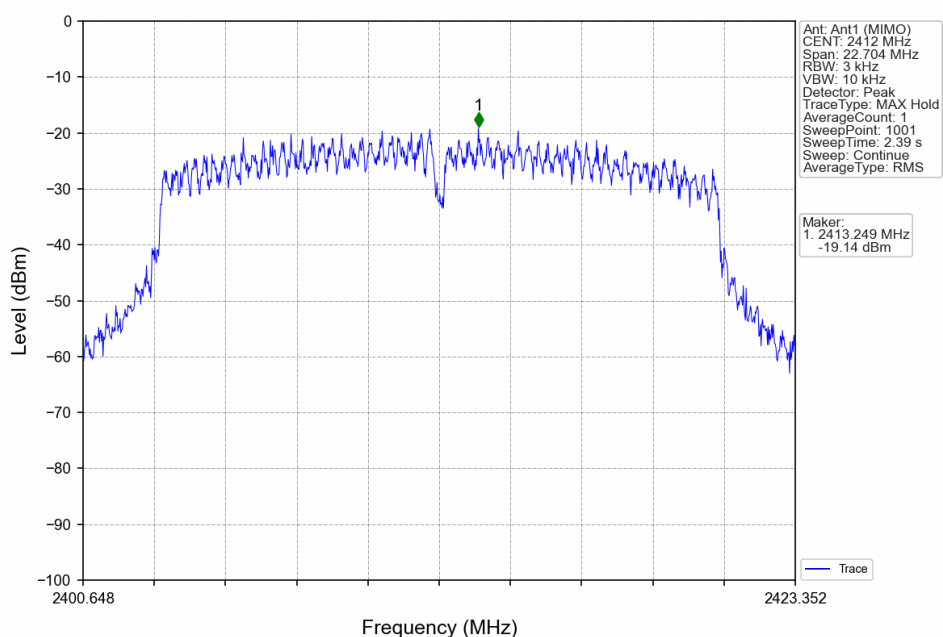
802.11g HCH 2462MHz Ant1 (SISO) NTNV



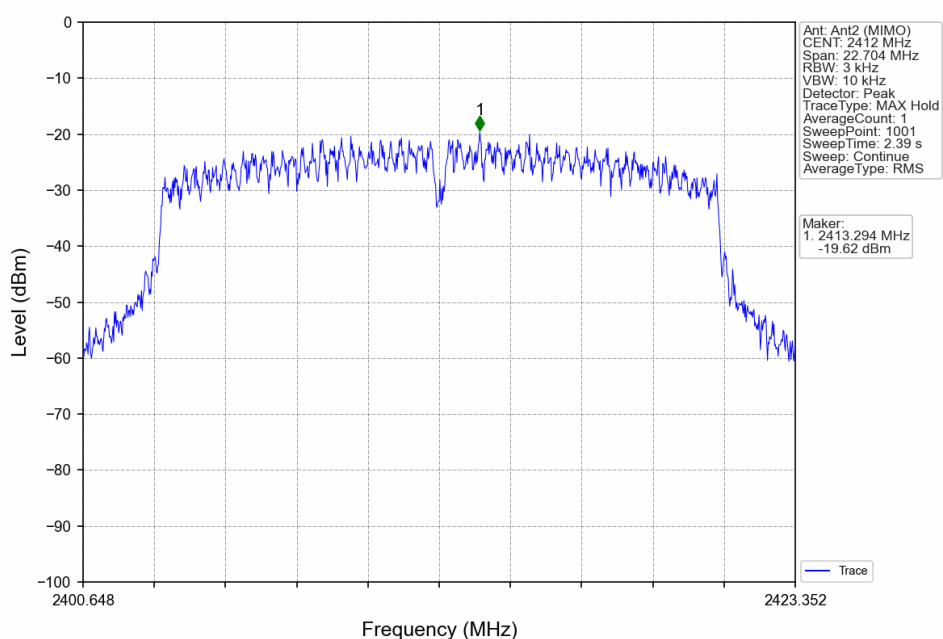
802.11g HCH 2462MHz Ant2 (SISO) NTNV



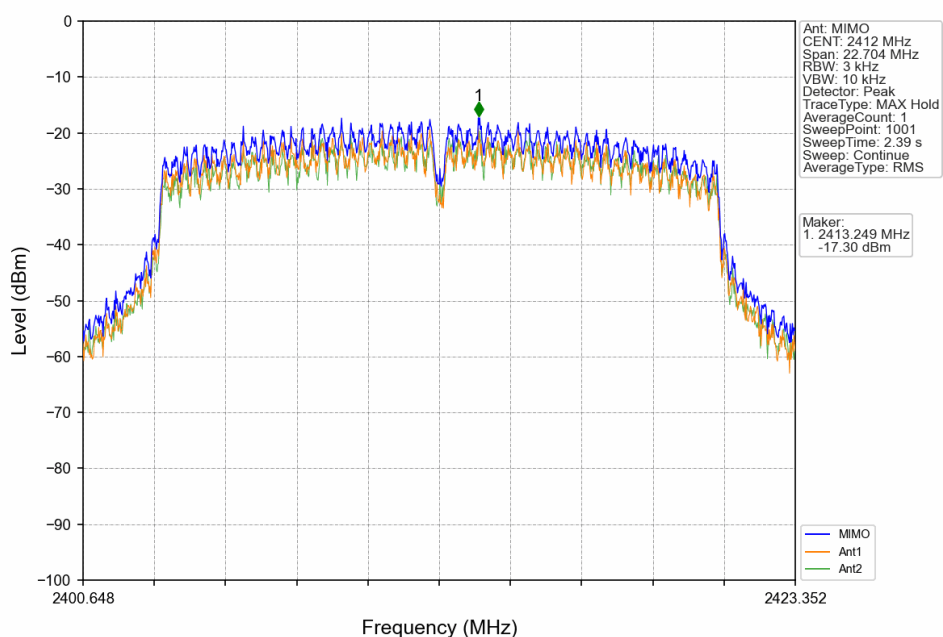
802.11n(HT20) LCH 2412MHz Ant1 (MIMO) NTNV



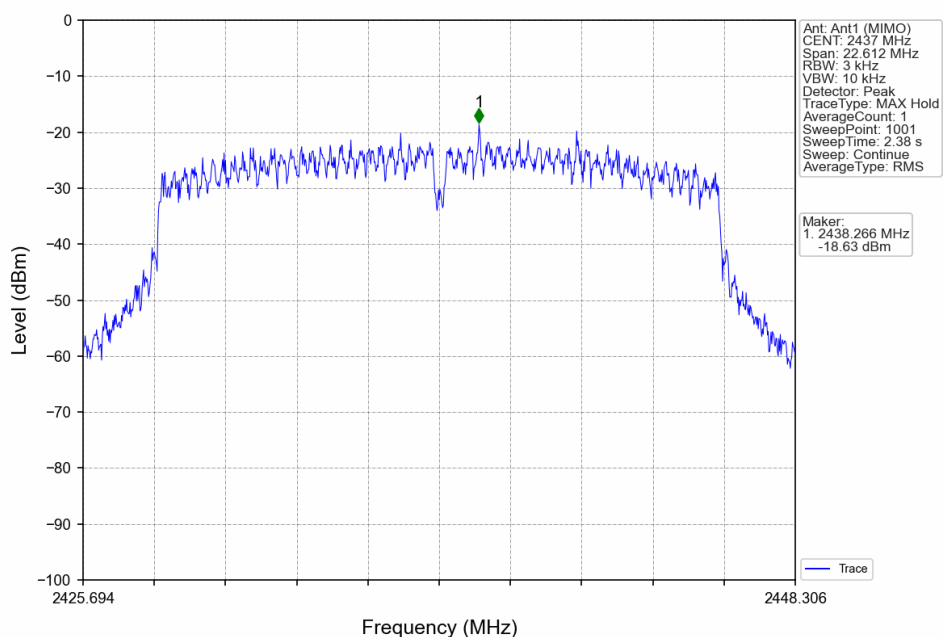
802.11n(HT20) LCH 2412MHz Ant2 (MIMO) NTNV



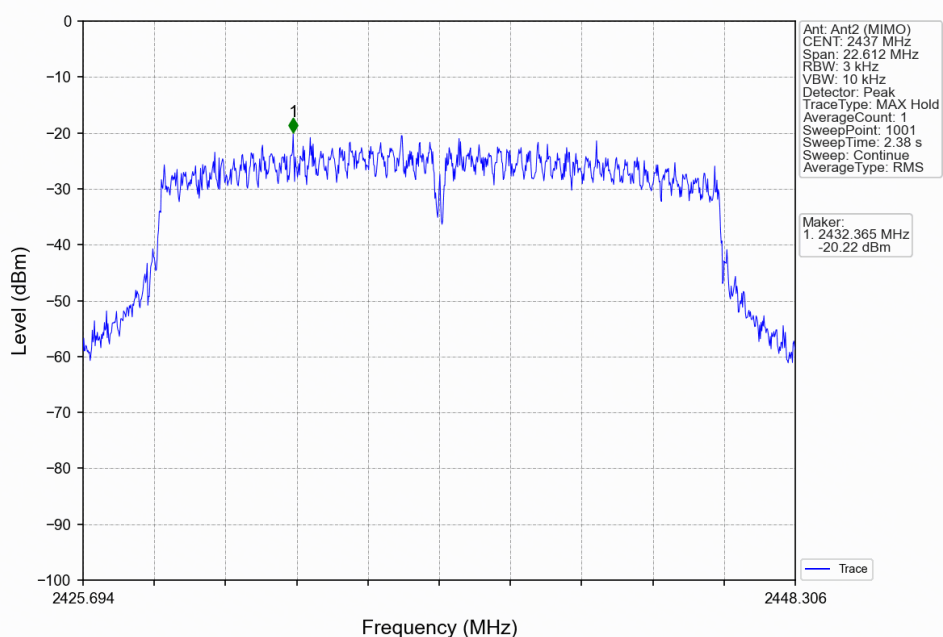
802.11n(HT20) LCH 2412MHz MIMO NTNV



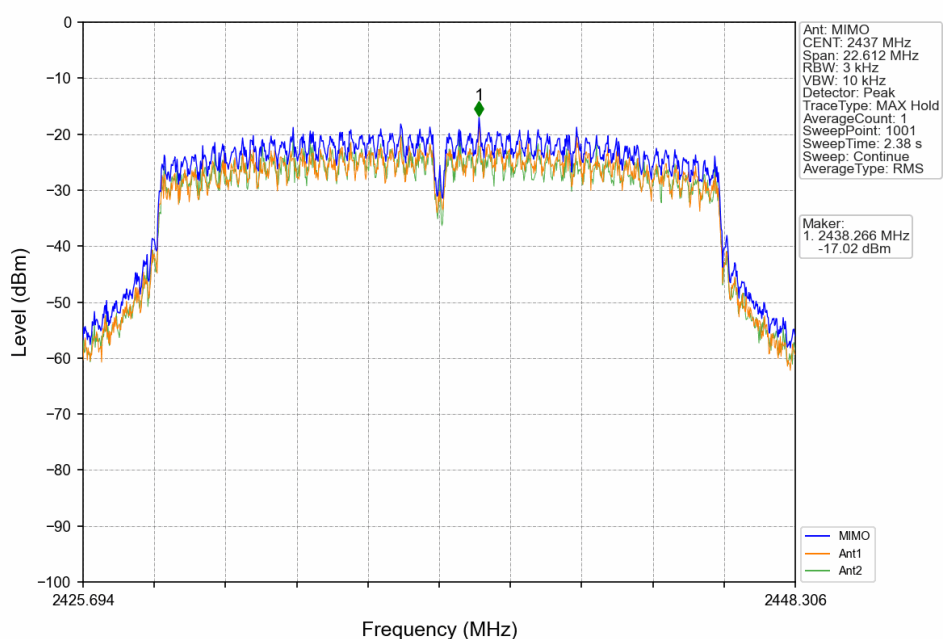
802.11n(HT20) MCH 2437MHz Ant1 (MIMO) NTNV



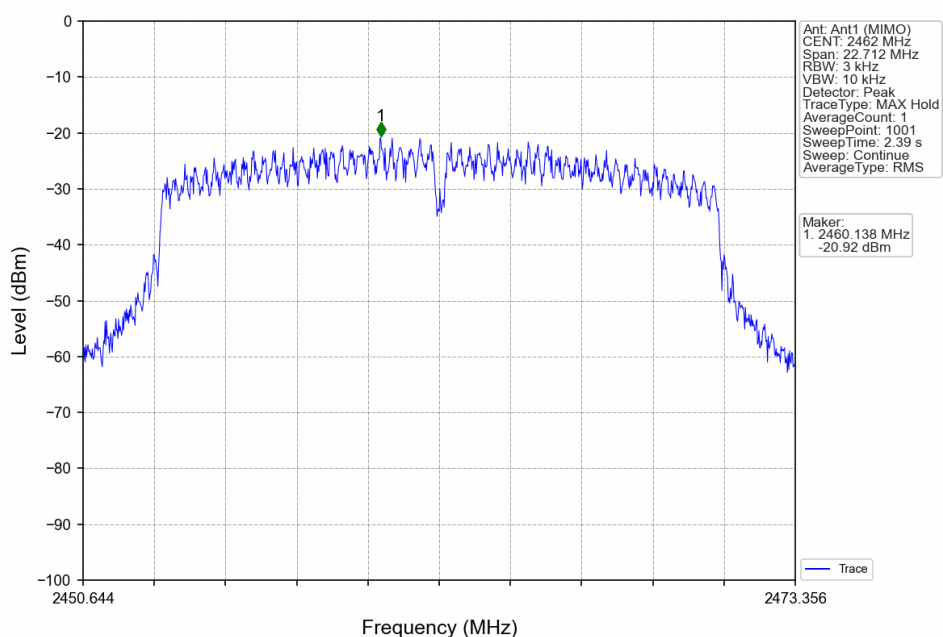
802.11n(HT20) MCH 2437MHz Ant2 (MIMO) NTN



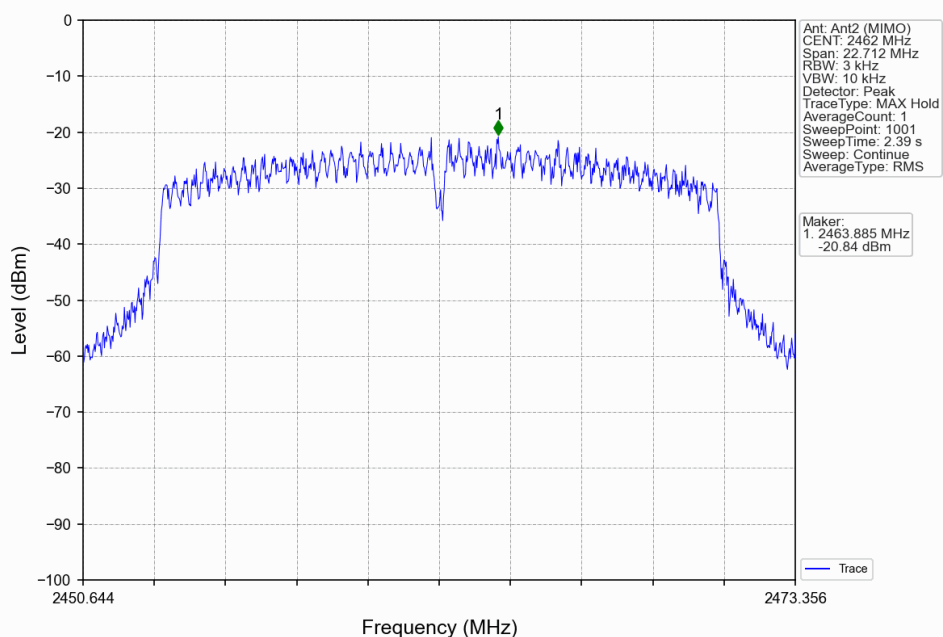
802.11n(HT20) MCH 2437MHz MIMO NTN



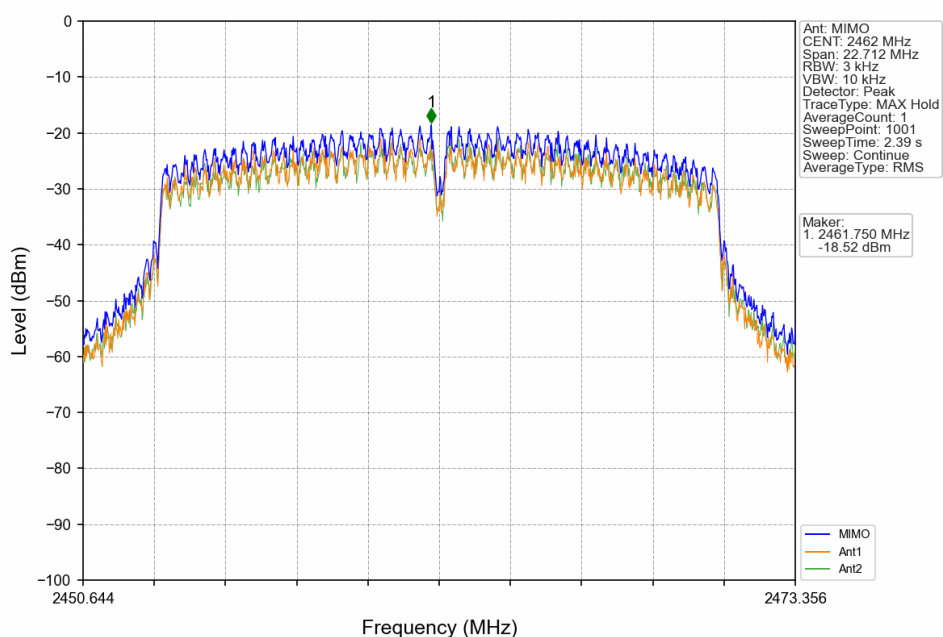
802.11n(HT20) HCH 2462MHz Ant1 (MIMO) NTN



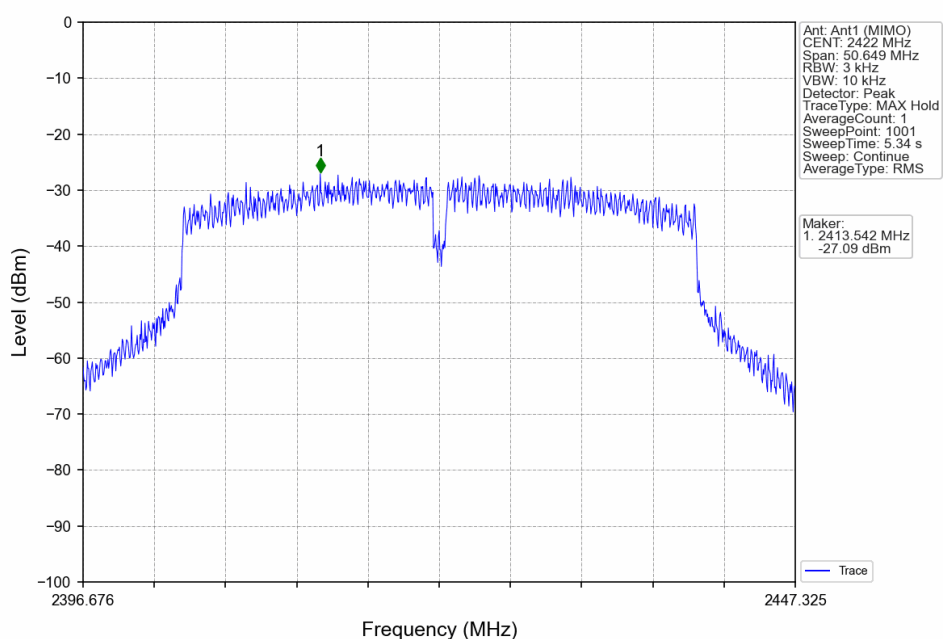
802.11n(HT20) HCH 2462MHz Ant2 (MIMO) NTN



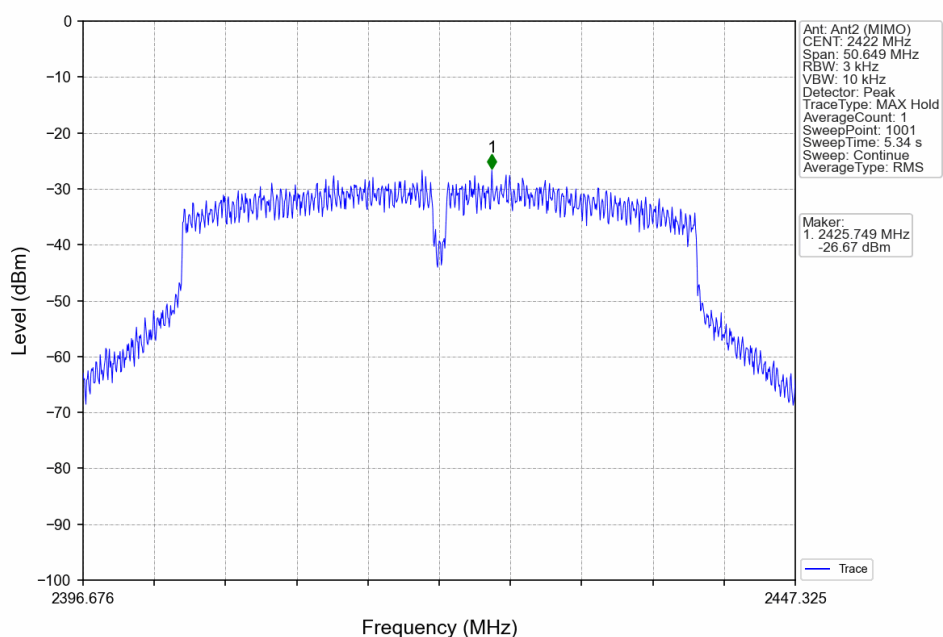
802.11n(HT20) HCH 2462MHz MIMO NTNV



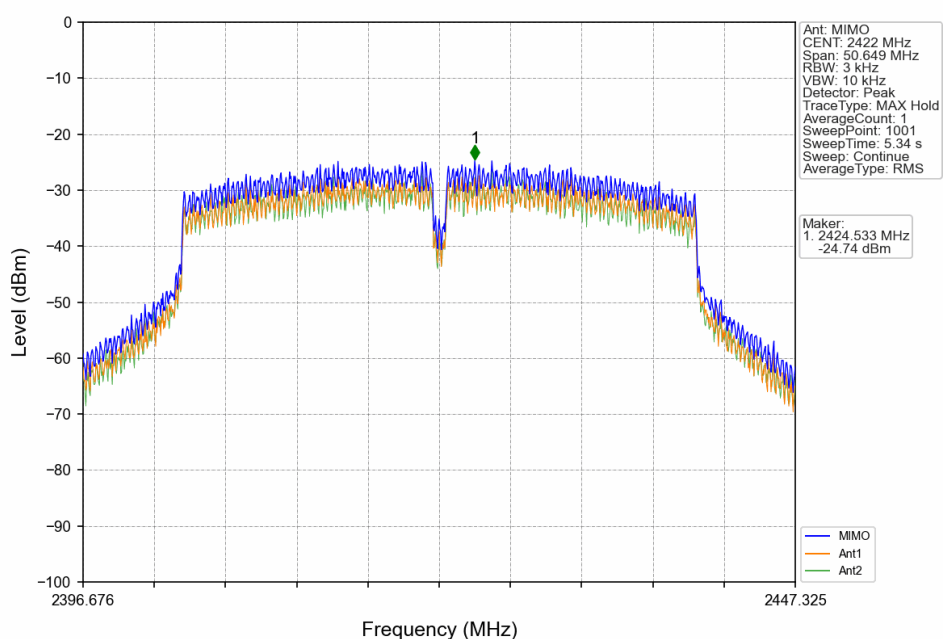
802.11n(HT40) LCH 2422MHz_Ant1 (MIMO) NTNV



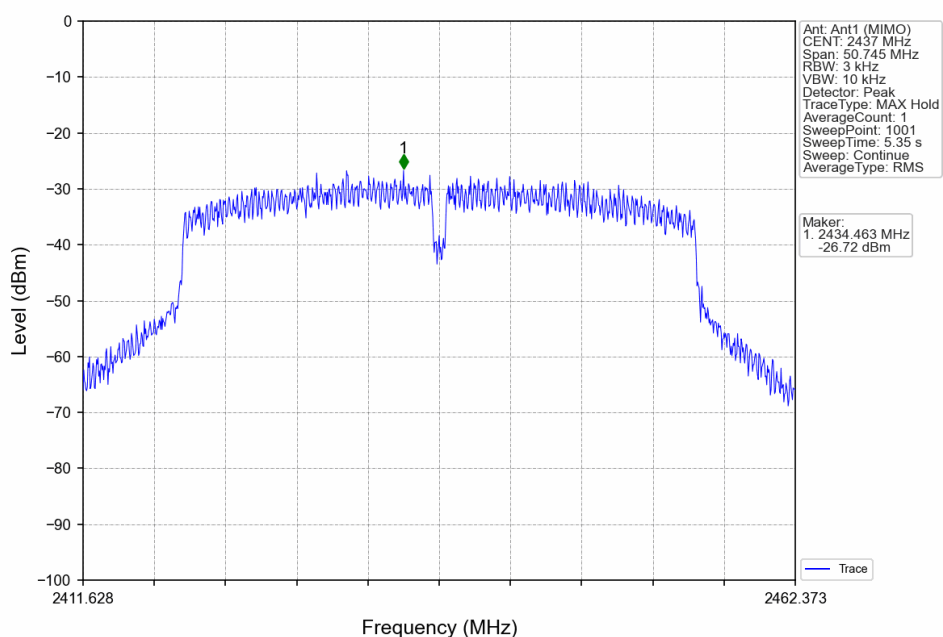
802.11n(HT40) LCH 2422MHz Ant2 (MIMO) NTN



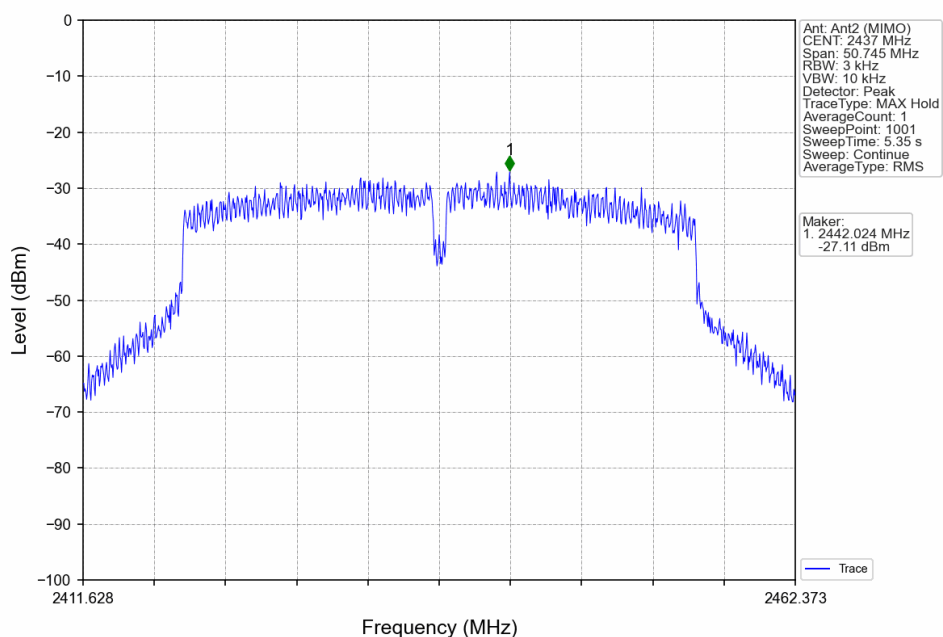
802.11n(HT40) LCH 2422MHz MIMO NTN



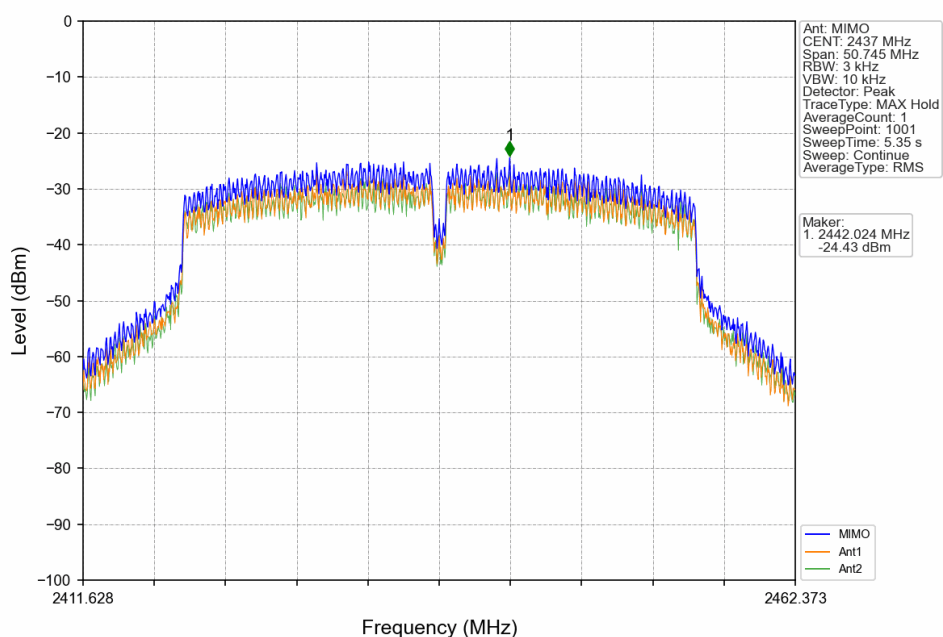
802.11n(HT40) MCH 2437MHz Ant1 (MIMO) NTN



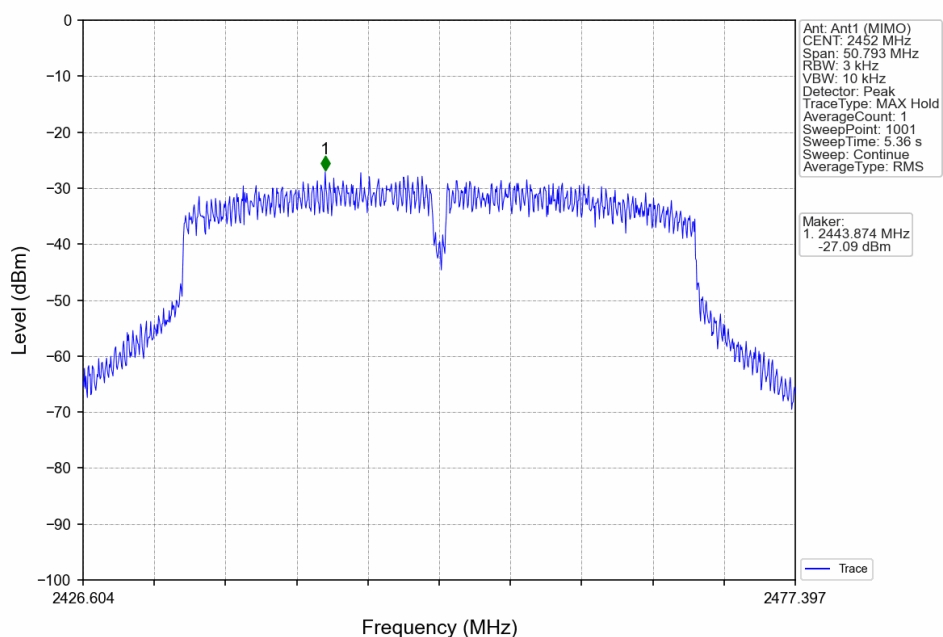
802.11n(HT40) MCH 2437MHz Ant2 (MIMO) NTN



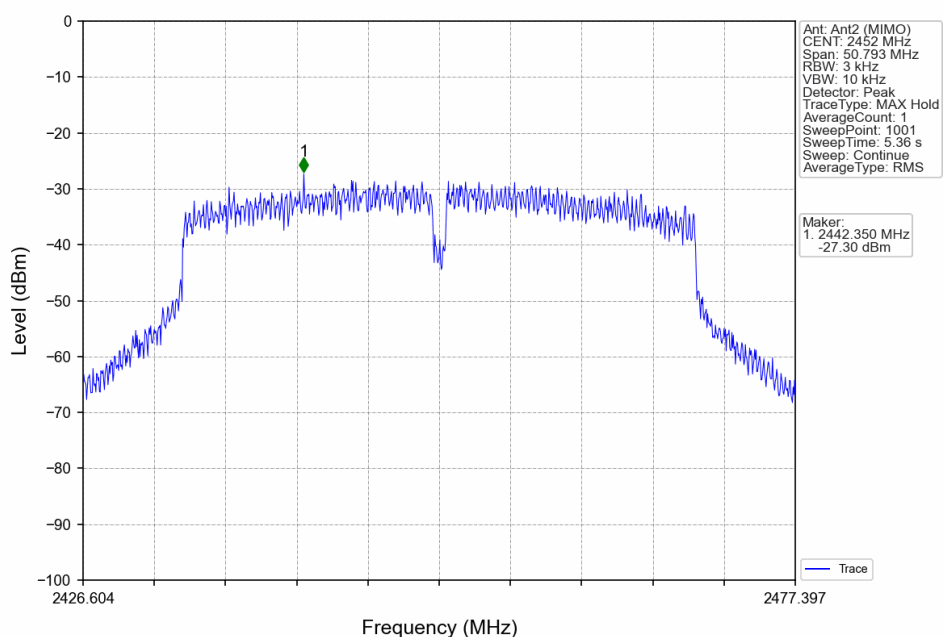
802.11n(HT40) MCH 2437MHz MIMO NTN



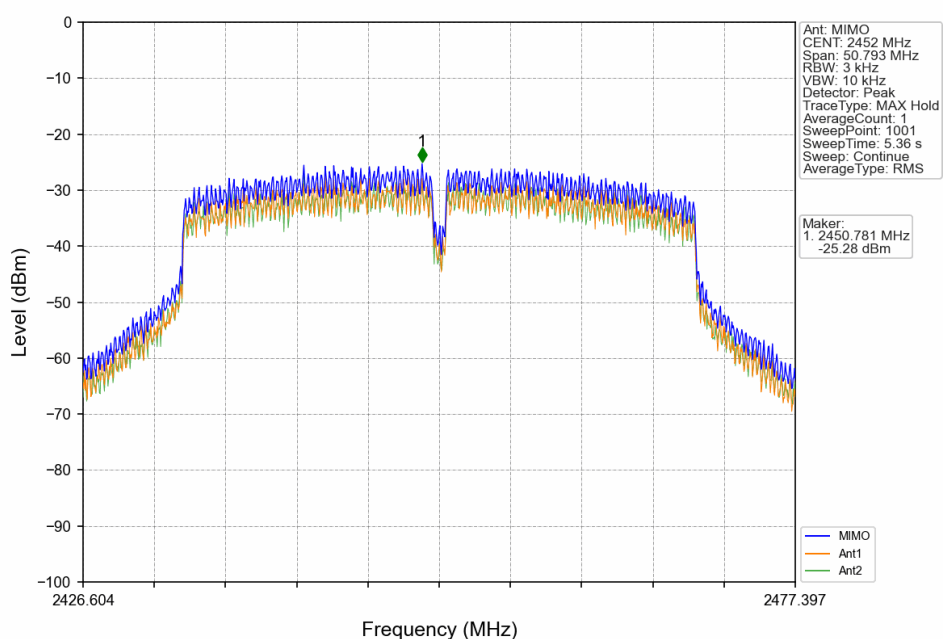
802.11n(HT40) HCH 2452MHz Ant1 (MIMO) NTN



802.11n(HT40) HCH 2452MHz Ant2 (MIMO) NTN



802.11n(HT40) HCH 2452MHz MIMO NTN



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	4.70
			2	4.07
		2437	1	3.87
			2	3.55
		2462	1	3.18
			2	3.35
802.11g	SISO	2412	1	-6.33
			2	-6.63
		2437	1	-4.87
			2	-5.01
		2462	1	-5.05
			2	-5.38
802.11n (HT20)	MIMO	2412	1	-4.23
			2	-5.04
		2437	1	-4.40
			2	-5.24
		2462	1	-5.51
			2	-6.06
802.11n (HT40)	MIMO	2422	1	-11.56
			2	-11.65
		2437	1	-11.80
			2	-11.93
		2452	1	-12.64
			2	-12.23
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.				

4.1.2 Test Graph

