

1. Duty Cycle

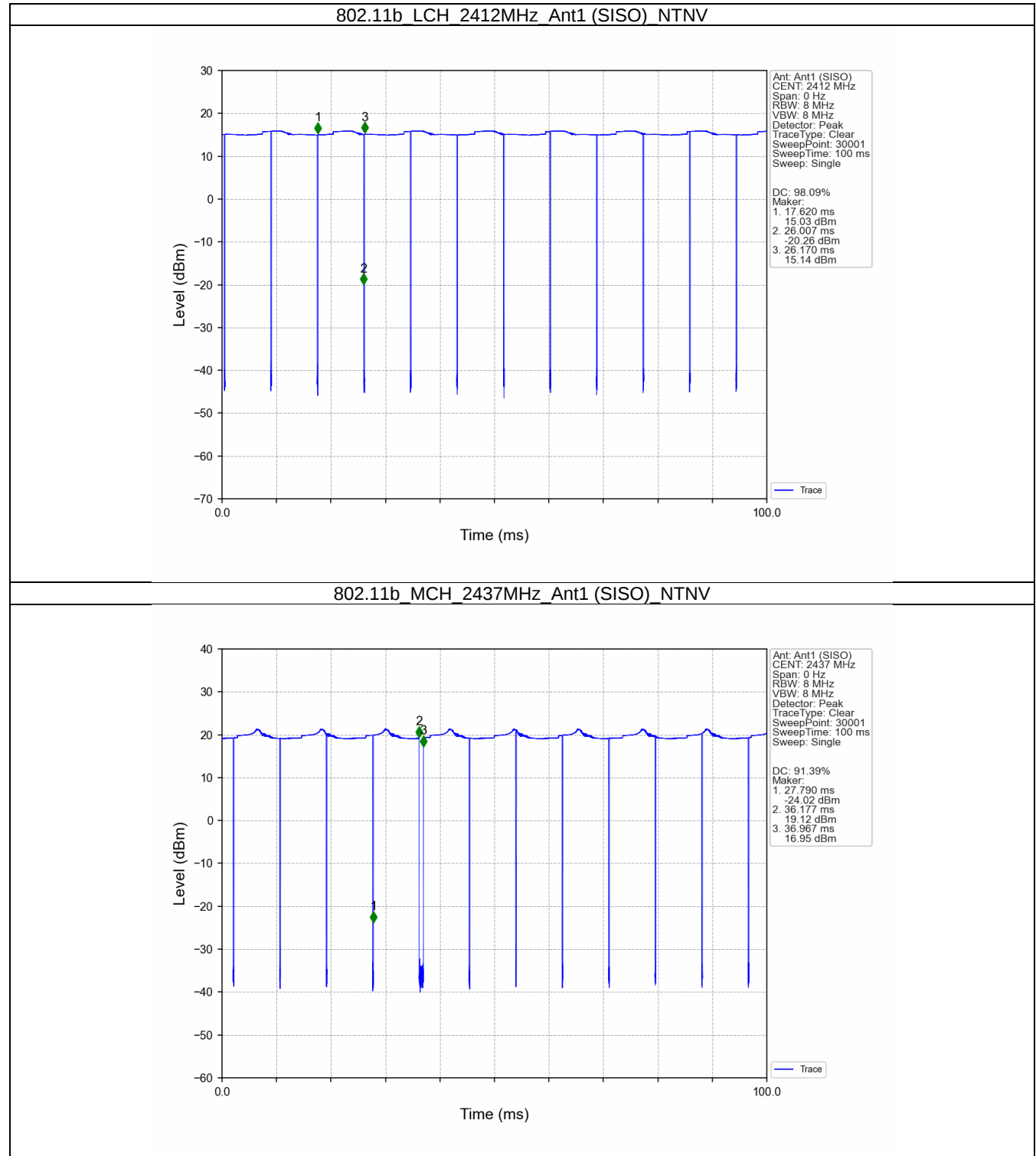
1.1 Test Result

1.1.1 Ant1

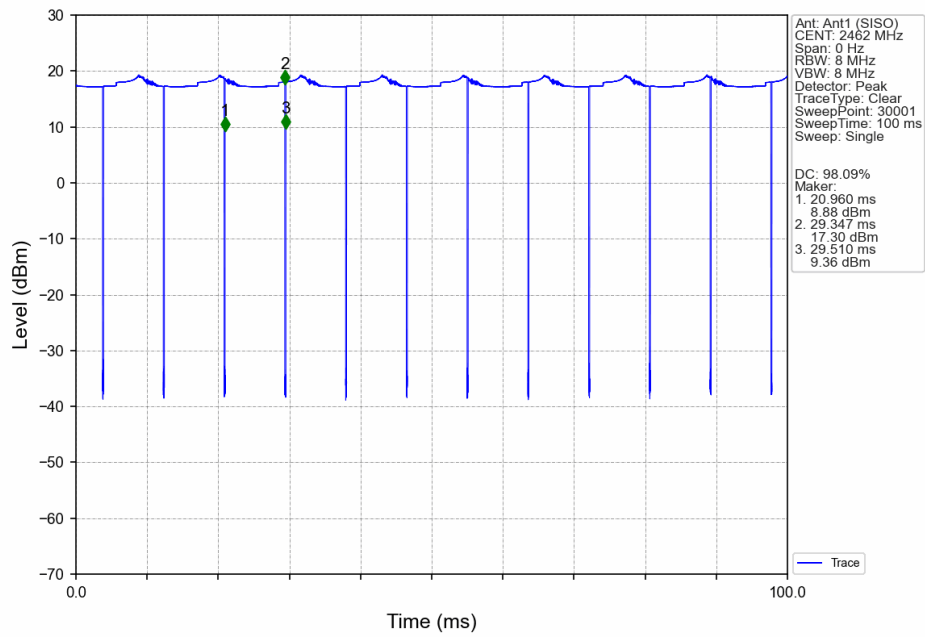
Ant1							
Mode	TX Type	Frequency (MHz)	T_on (ms)	Period (ms)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)	Max. DC Variation (%)
802.11b	SISO	2412	8.387	8.550	98.09	0.08	0.19
		2437	8.387	9.177	91.39	0.39	6.89
		2462	8.387	8.550	98.09	0.08	0.19
802.11g	SISO	2412	1.392	1.554	89.58	0.48	1.06
		2437	1.393	1.554	89.64	0.47	1.03
		2462	1.393	1.555	89.58	0.48	1.06
802.11n (HT20)	MIMO	2412	1.175	1.354	86.78	0.62	2.40
		2437	1.174	1.336	87.87	0.56	1.21
		2462	1.175	1.336	87.95	0.56	1.21
802.11n (HT40)	MIMO	2422	0.587	0.748	78.48	1.05	1.99
		2437	0.587	0.730	80.41	0.95	0.03
		2452	0.587	0.748	78.48	1.05	1.96

1.2 Test Graph

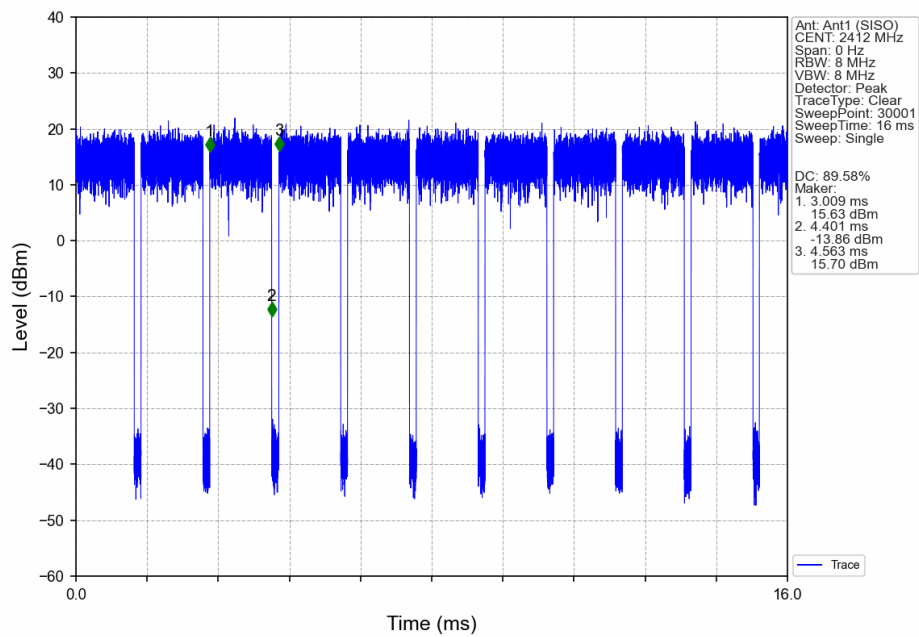
1.2.1 Ant1



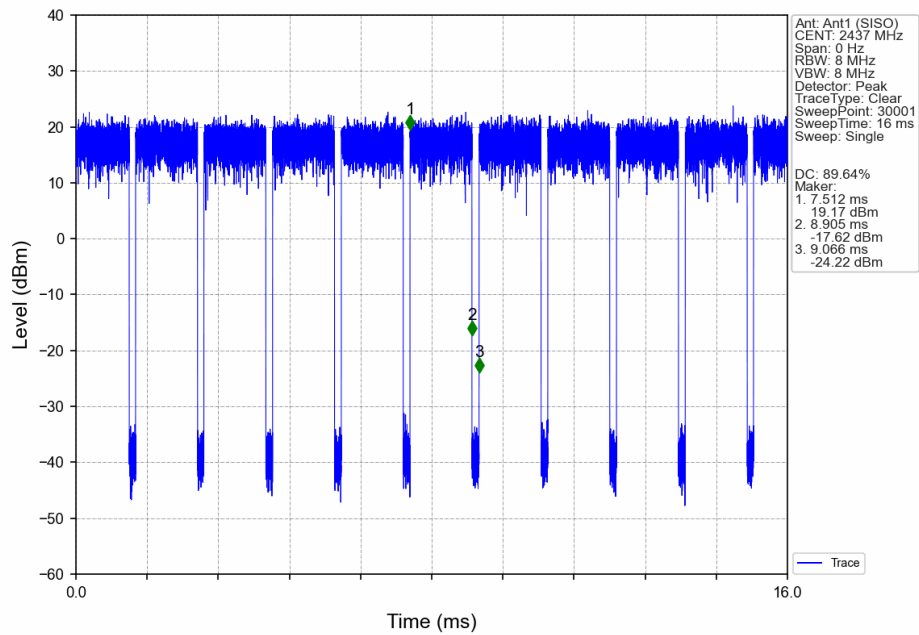
802.11b_HCH_2462MHz_Ant1 (SISO)_NTNV



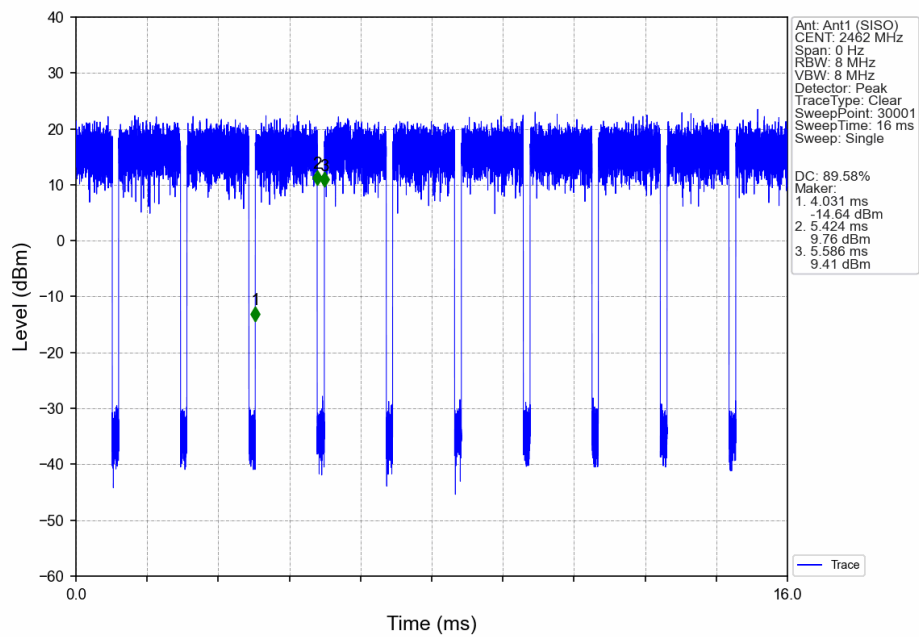
802.11g_LCH_2412MHz_Ant1 (SISO)_NTNV



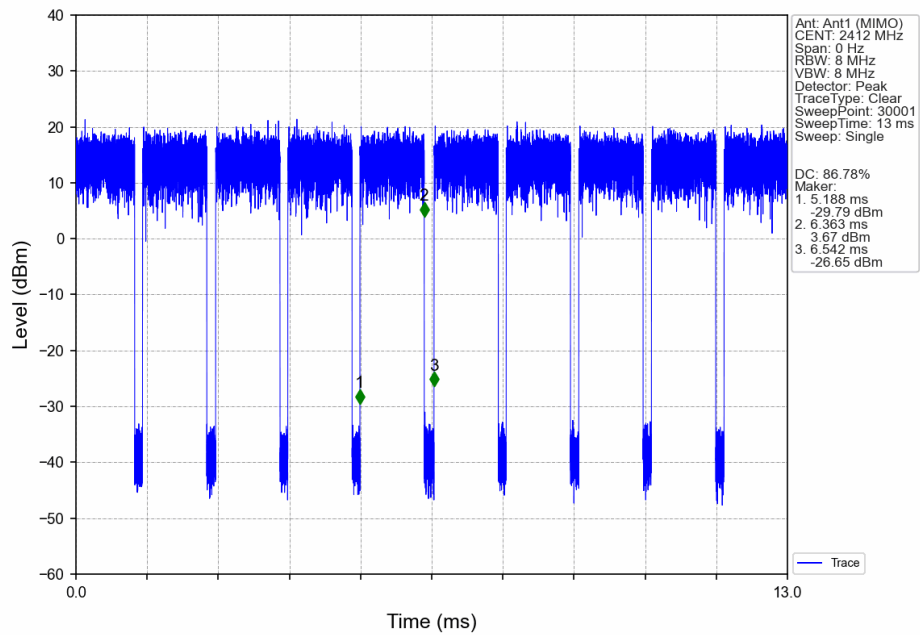
802.11g_MCH_2437MHz_Ant1 (SISO)_NTNV



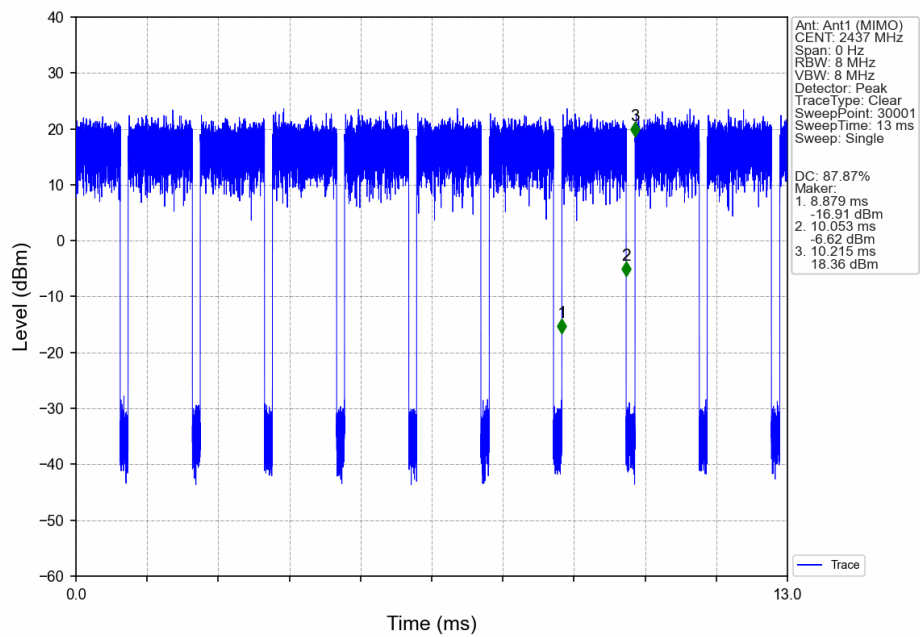
802.11g_HCH_2462MHz_Ant1 (SISO)_NTNV



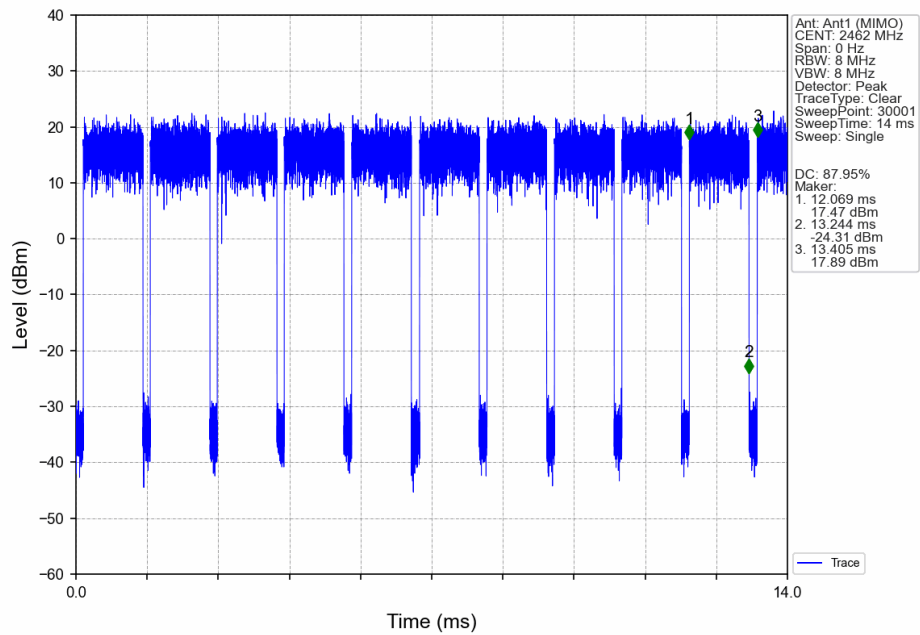
802.11n(HT20)_LCH_2412MHz_Ant1 (MIMO)_NTNV



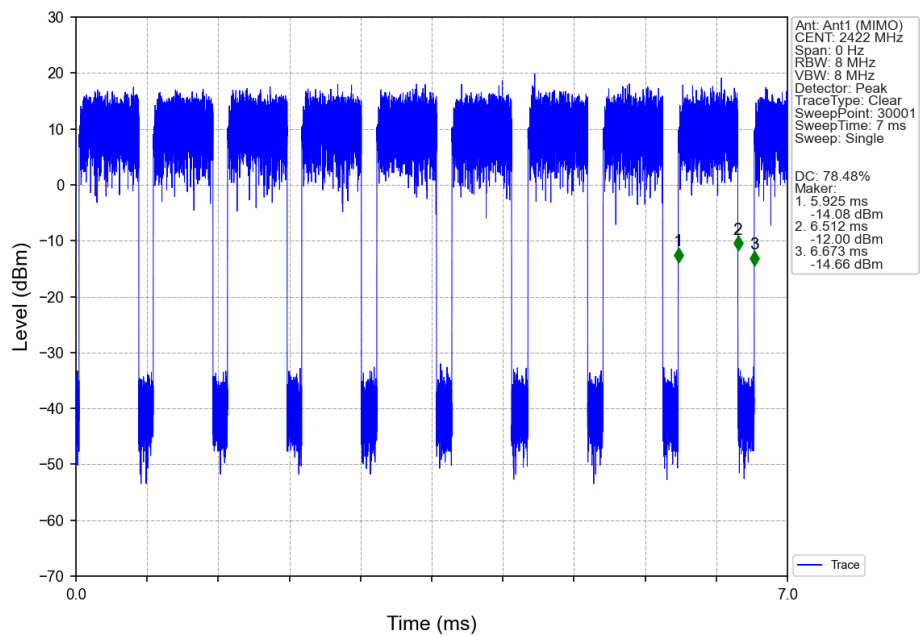
802.11n(HT20)_MCH_2437MHz_Ant1 (MIMO)_NTNV



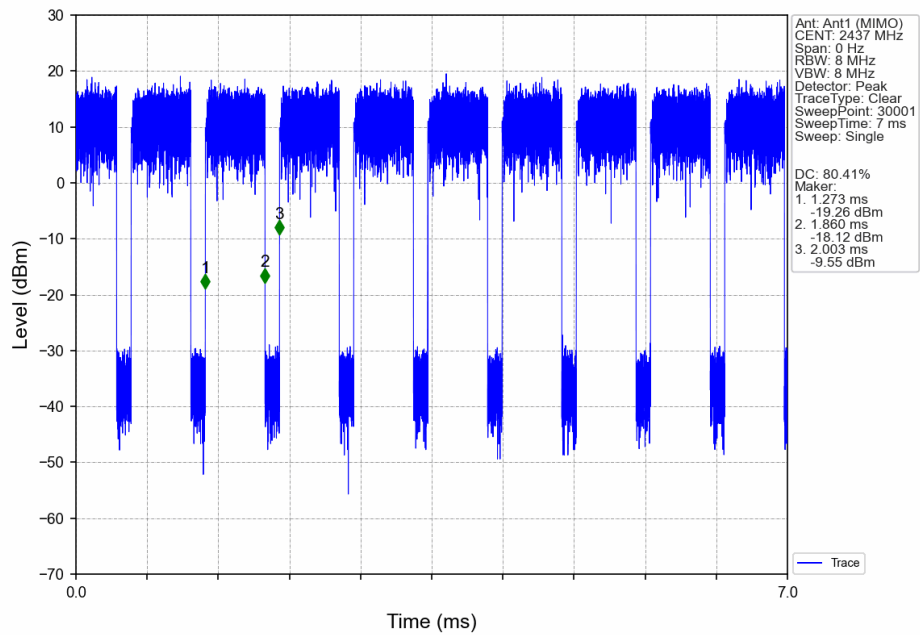
802.11n(HT20) HCH 2462MHz_Ant1 (MIMO) NTNV



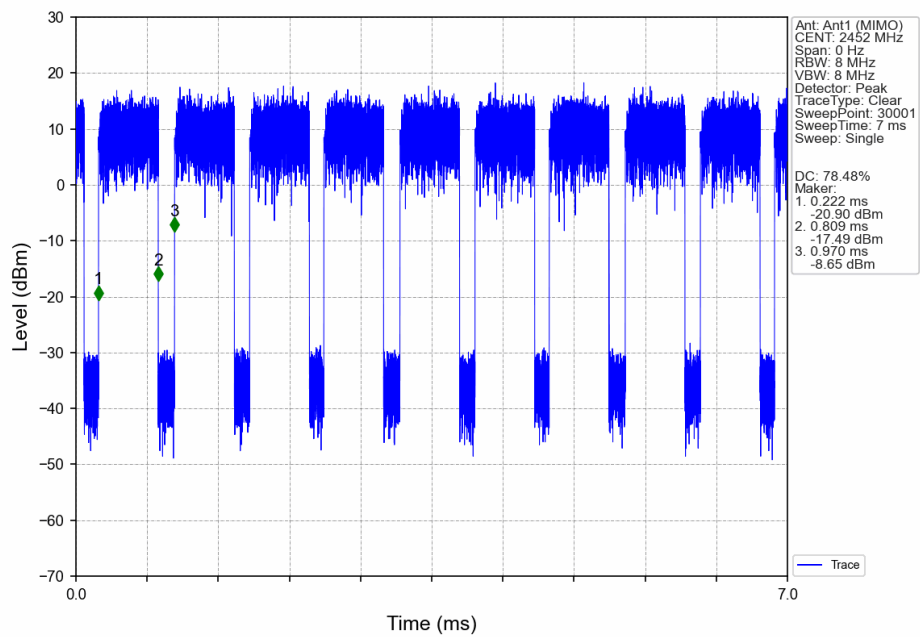
802.11n(HT40) LCH 2422MHz_Ant1 (MIMO) NTNV



802.11n(HT40)_MCH_2437MHz_Ant1 (MIMO)_NTNV



802.11n(HT40)_HCH_2452MHz_Ant1 (MIMO)_NTNV



2. Bandwidth

2.1 Test Result

2.1.1 OBW

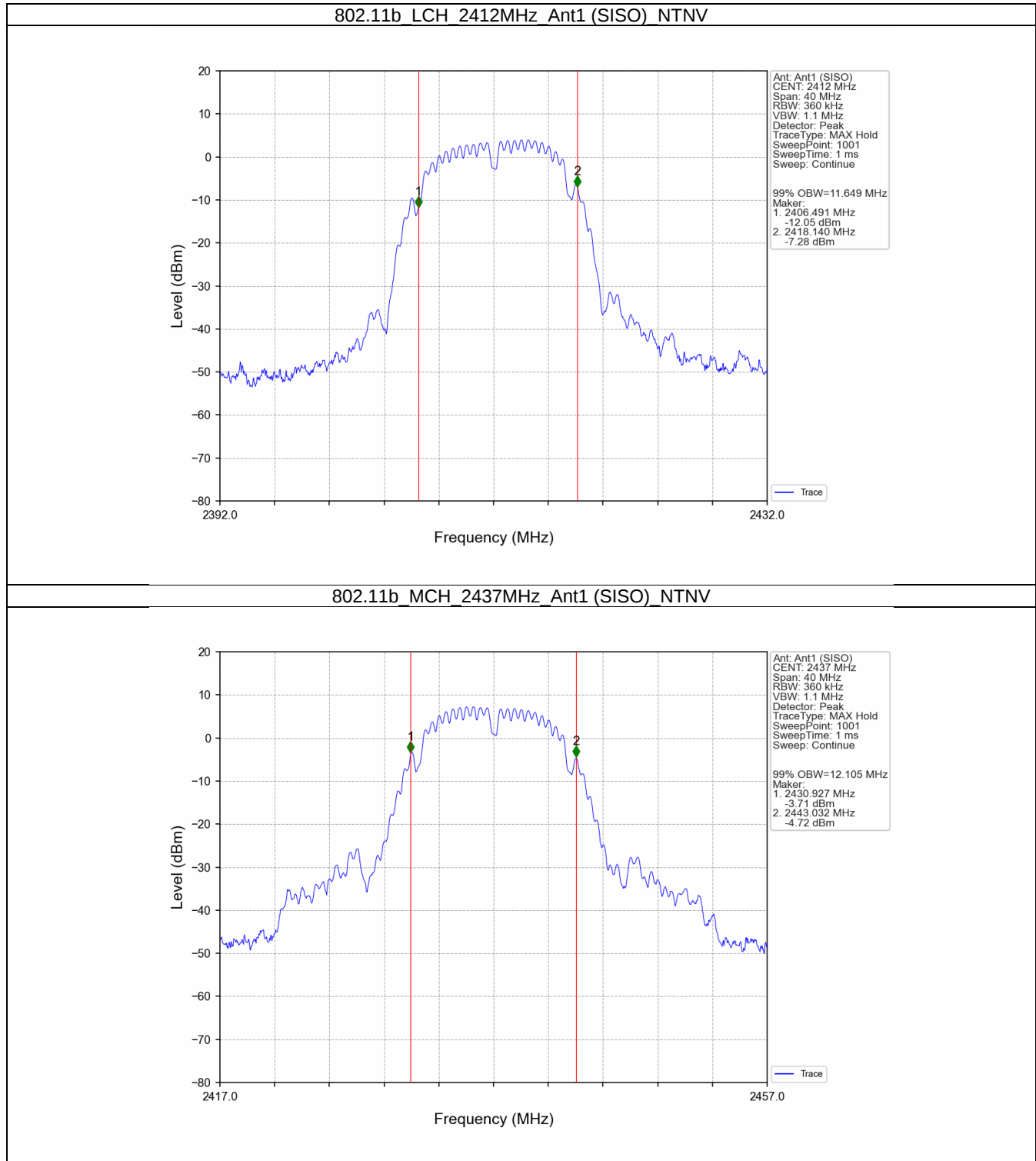
Mode	TX Type	Frequency (MHz)	ANT	99% Occupied Bandwidth (MHz)		Verdict
				Result	Limit	
802.11b	SISO	2412	1	11.649	/	Pass
		2437	1	12.105	/	Pass
		2462	1	11.915	/	Pass
802.11g	SISO	2412	1	17.612	/	Pass
		2437	1	18.149	/	Pass
		2462	1	17.799	/	Pass
802.11n (HT20)	MIMO	2412	1	18.524	/	Pass
		2437	1	20.991	/	Pass
		2462	1	18.614	/	Pass
802.11n (HT40)	MIMO	2422	1	36.347	/	Pass
		2437	1	37.390	/	Pass
		2452	1	37.040	/	Pass

2.1.2 6dB BW

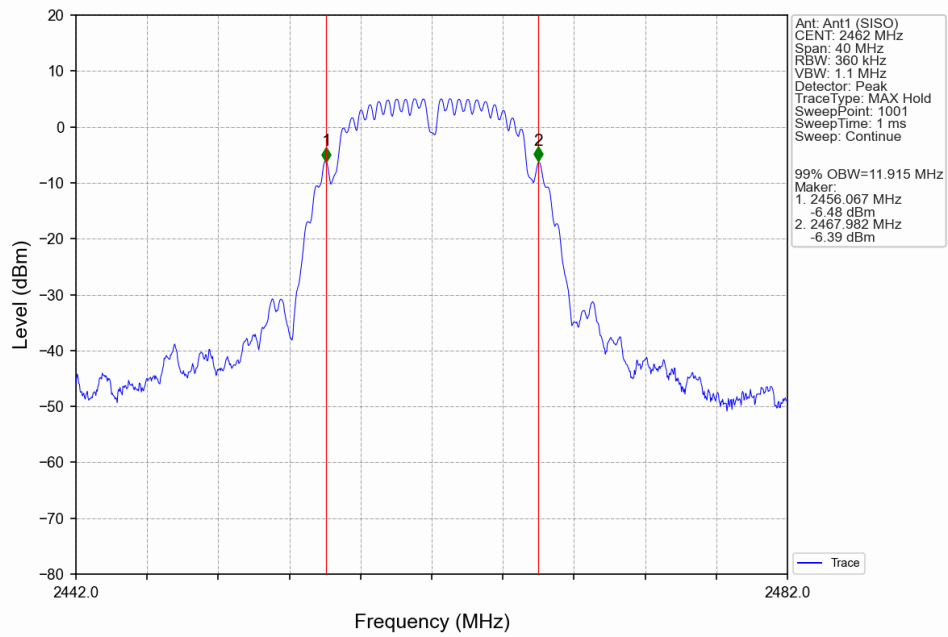
Mode	TX Type	Frequency (MHz)	ANT	6dB Bandwidth (MHz)		Verdict
				Result	Limit	
802.11b	SISO	2412	1	9.588	≥ 0.5	Pass
		2437	1	9.595	≥ 0.5	Pass
		2462	1	10.075	≥ 0.5	Pass
802.11g	SISO	2412	1	15.781	≥ 0.5	Pass
		2437	1	15.767	≥ 0.5	Pass
		2462	1	16.378	≥ 0.5	Pass
802.11n (HT20)	MIMO	2412	1	16.368	≥ 0.5	Pass
		2437	1	17.441	≥ 0.5	Pass
		2462	1	17.120	≥ 0.5	Pass
802.11n (HT40)	MIMO	2422	1	35.167	≥ 0.5	Pass
		2437	1	36.021	≥ 0.5	Pass
		2452	1	35.649	≥ 0.5	Pass

2.2 Test Graph

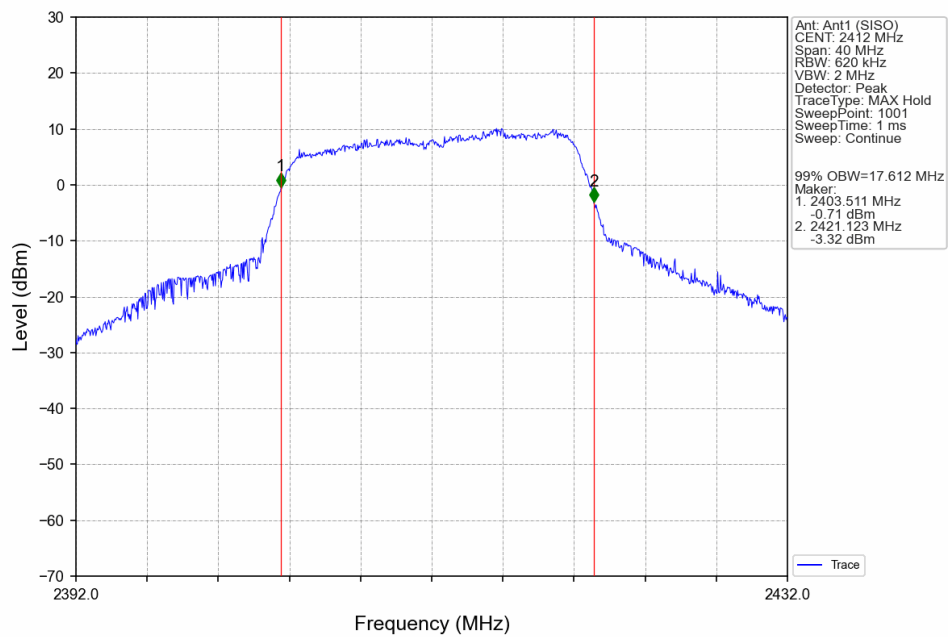
2.2.1 OBW



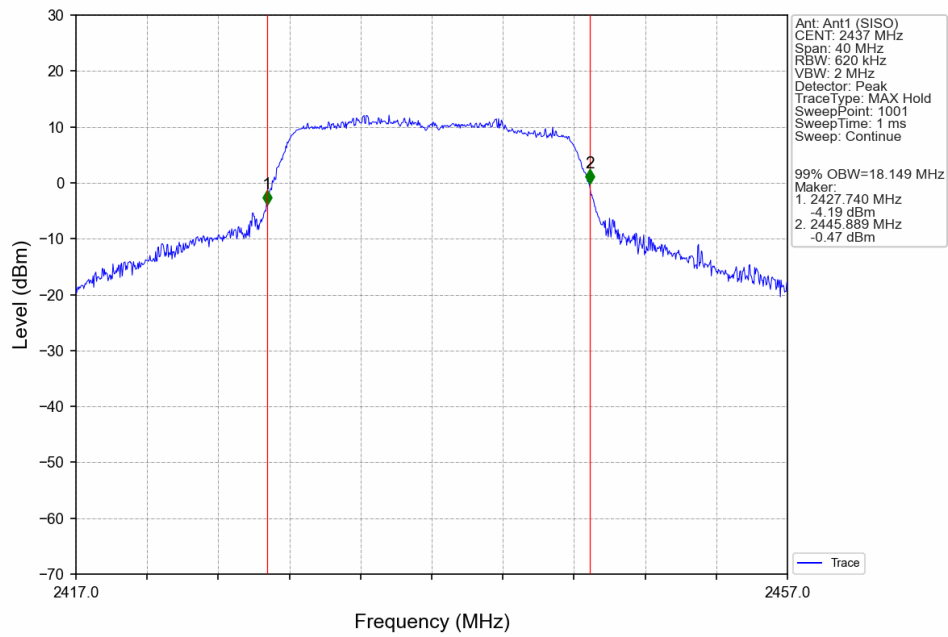
802.11b_HCH_2462MHz_Ant1 (SISO)_NTNV



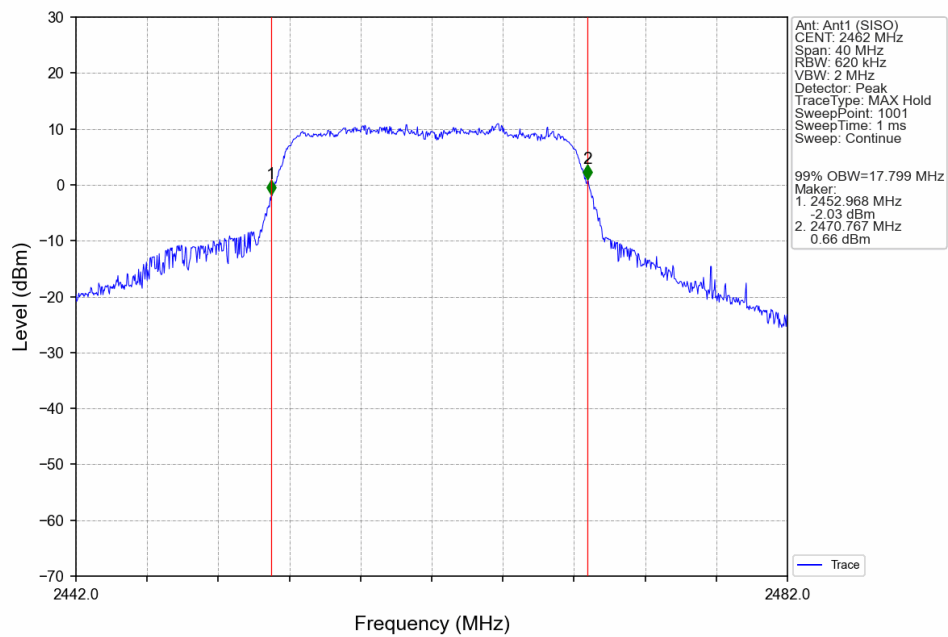
802.11g_LCH_2412MHz_Ant1 (SISO)_NTNV



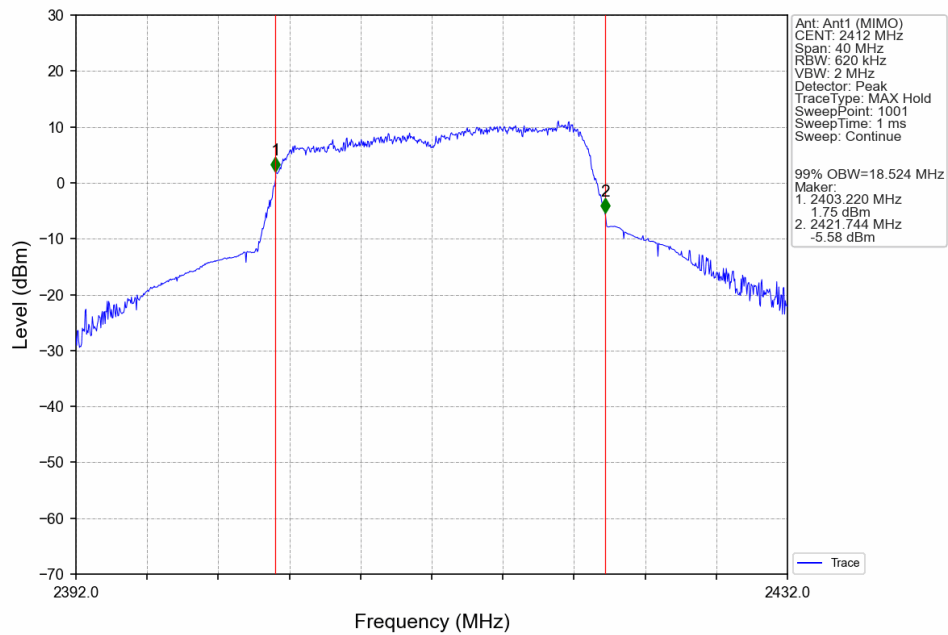
802.11g_MCH_2437MHz_Ant1 (SISO)_NTNV



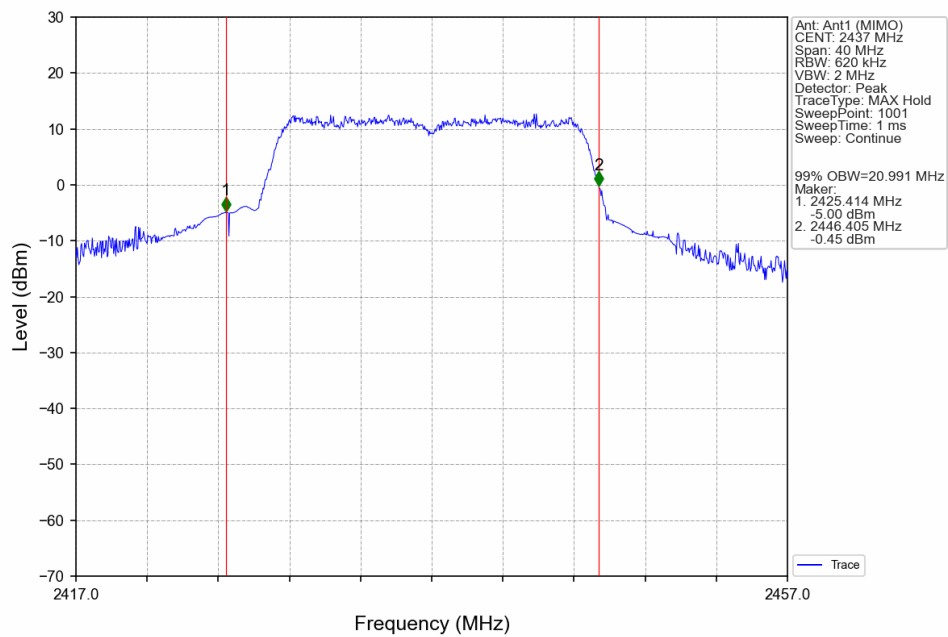
802.11g_HCH_2462MHz_Ant1 (SISO)_NTNV



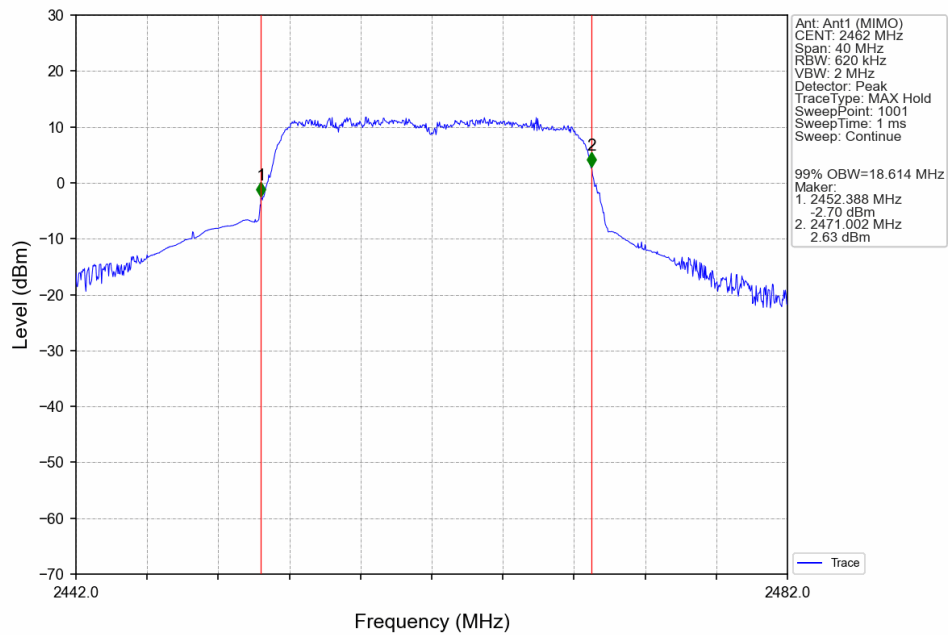
802.11n(HT20)_LCH_2412MHz_Ant1 (MIMO)_NTNV



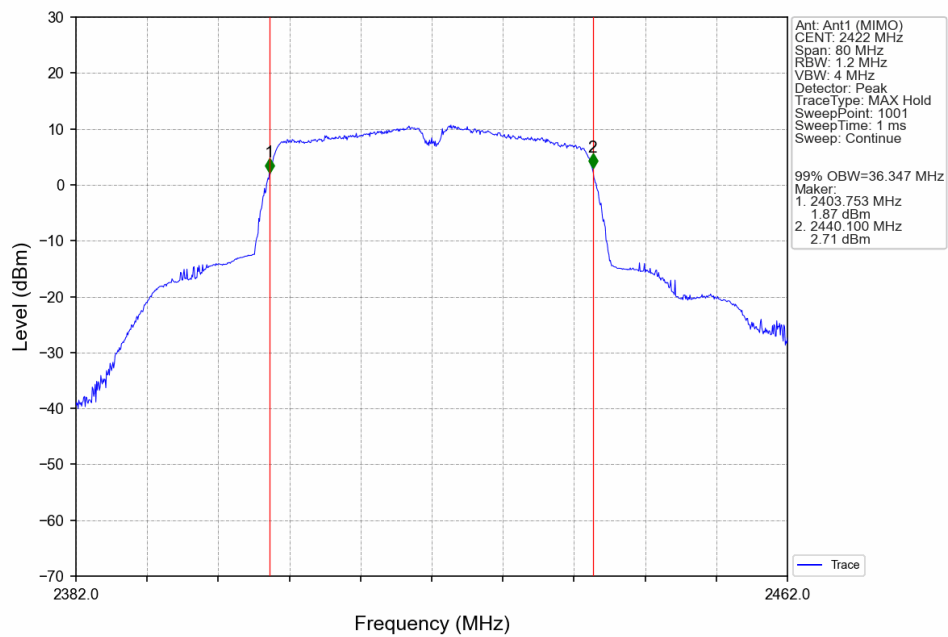
802.11n(HT20)_MCH_2437MHz_Ant1 (MIMO)_NTNV



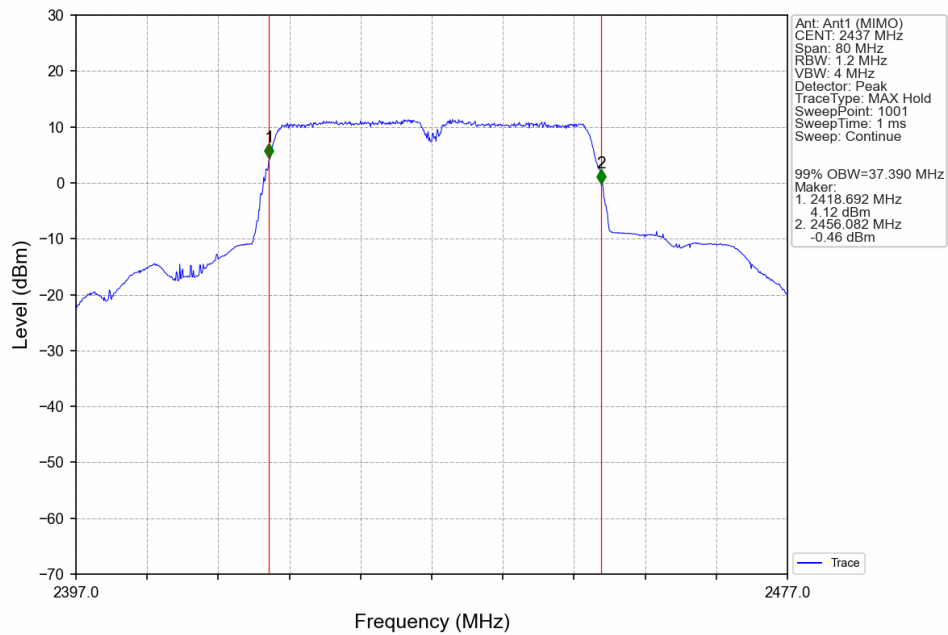
802.11n(HT20) HCH 2462MHz_Ant1 (MIMO)_NTNV



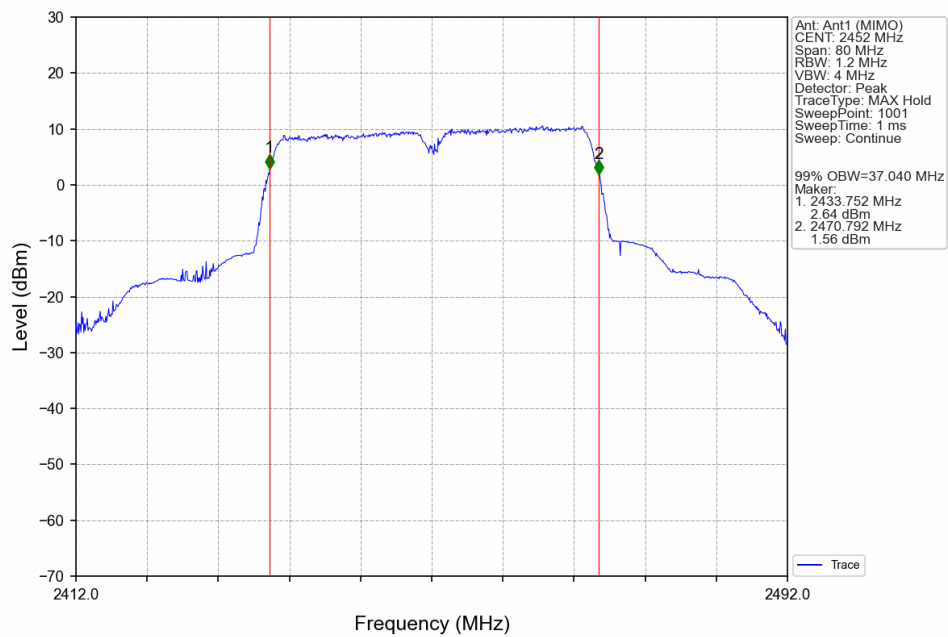
802.11n(HT40) LCH 2422MHz_Ant1 (MIMO)_NTNV



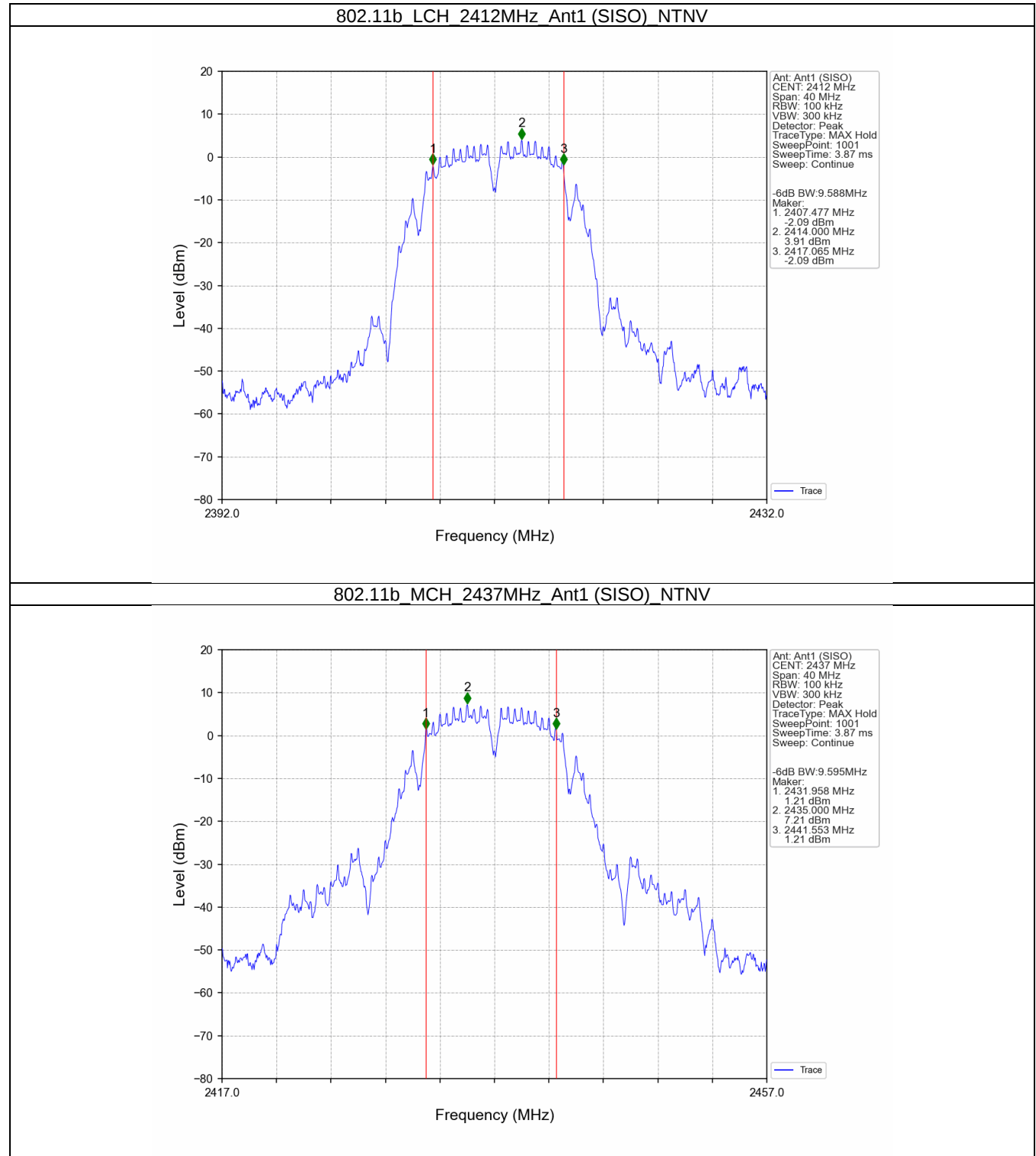
802.11n(HT40)_MCH_2437MHz_Ant1 (MIMO)_NTNV



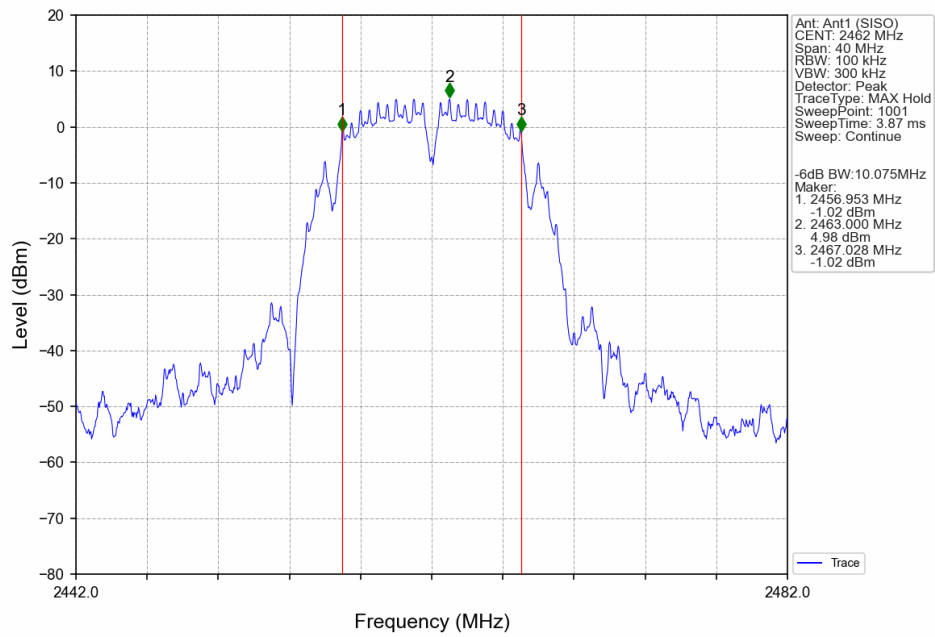
802.11n(HT40)_HCH_2452MHz_Ant1 (MIMO)_NTNV



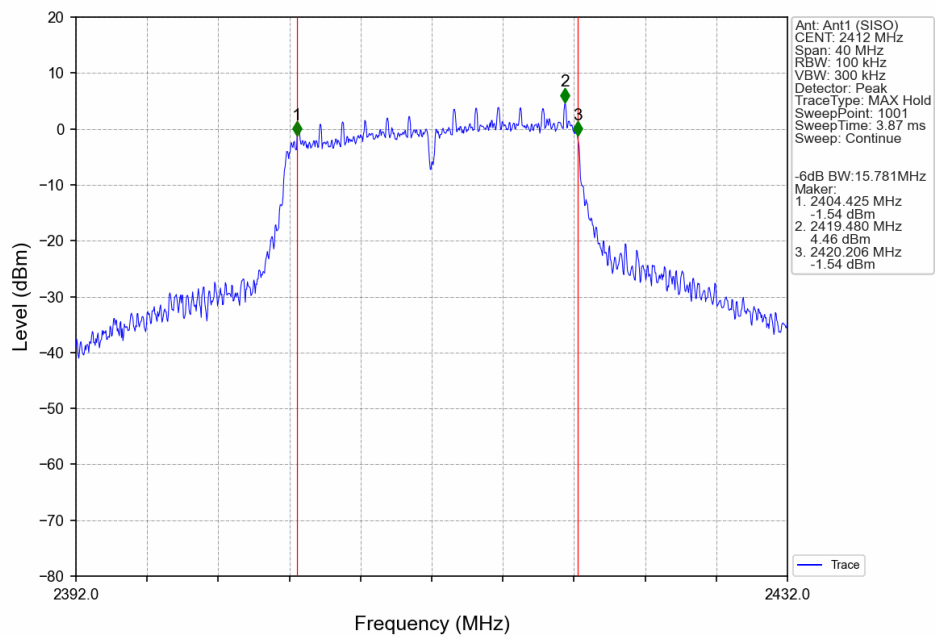
2.2.2 6dB BW



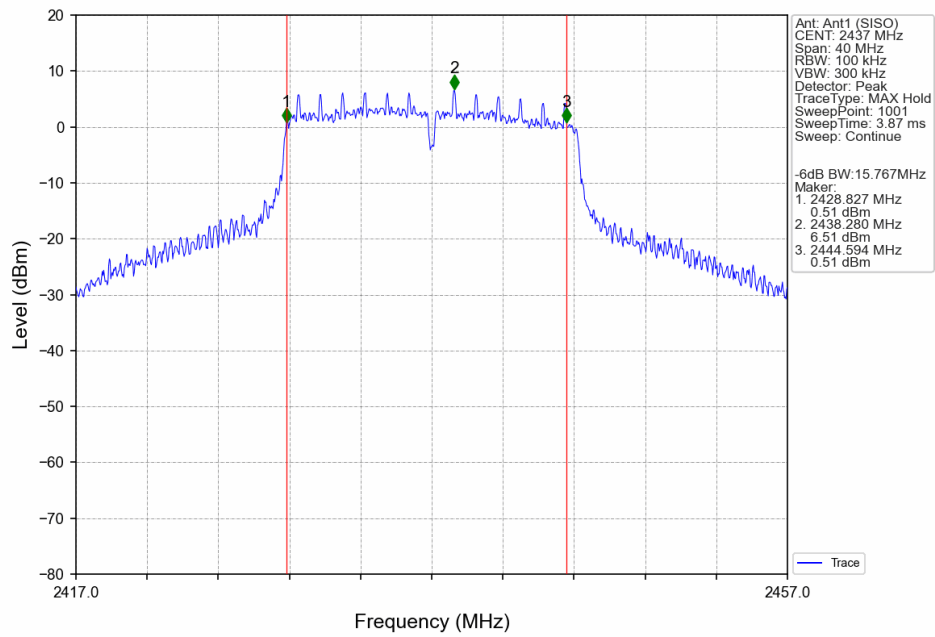
802.11b_HCH_2462MHz_Ant1 (SISO)_NTNV



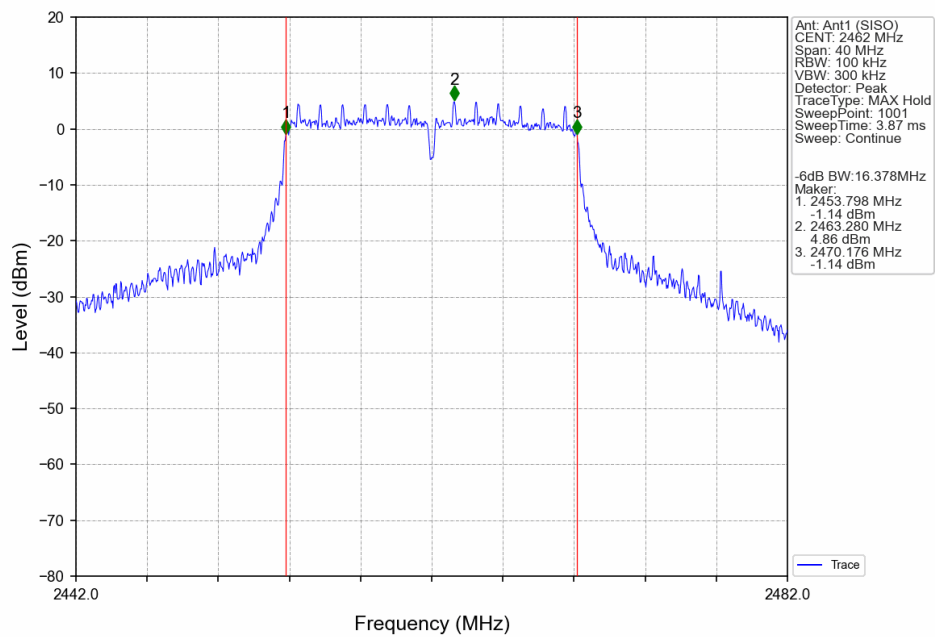
802.11g_LCH_2412MHz_Ant1 (SISO)_NTNV



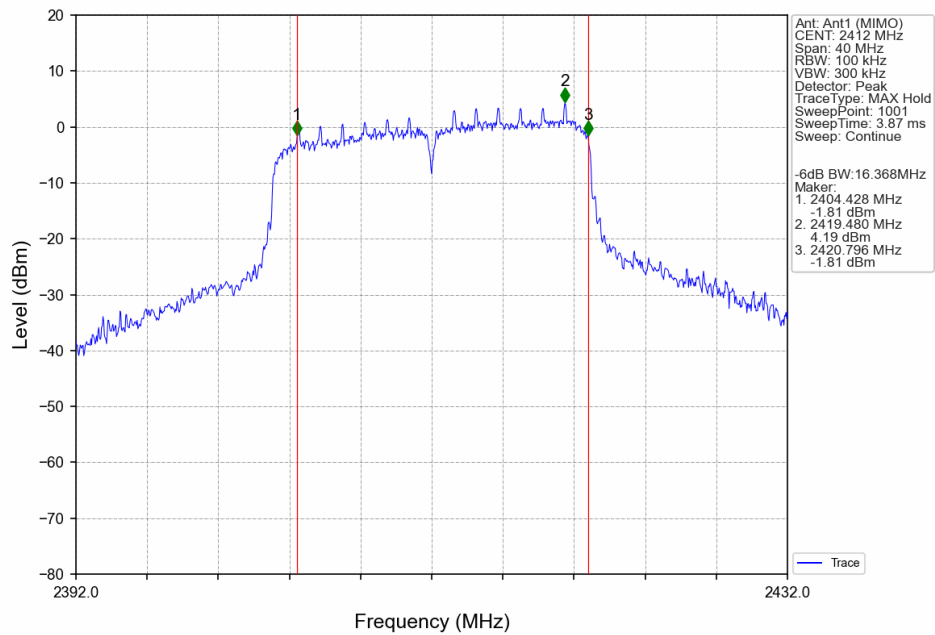
802.11g_MCH_2437MHz_Ant1 (SISO)_NTNV



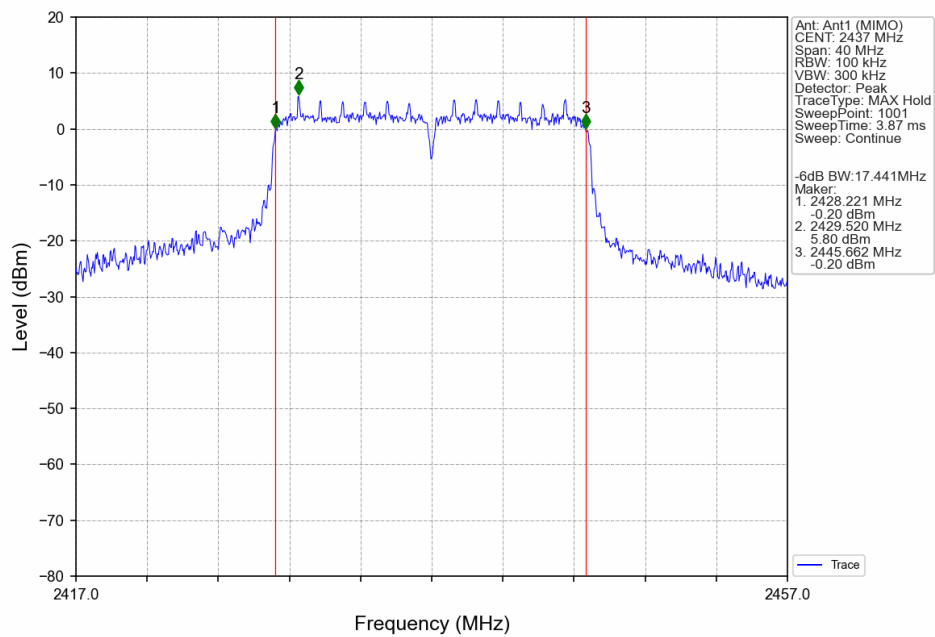
802.11g_HCH_2462MHz_Ant1 (SISO)_NTNV



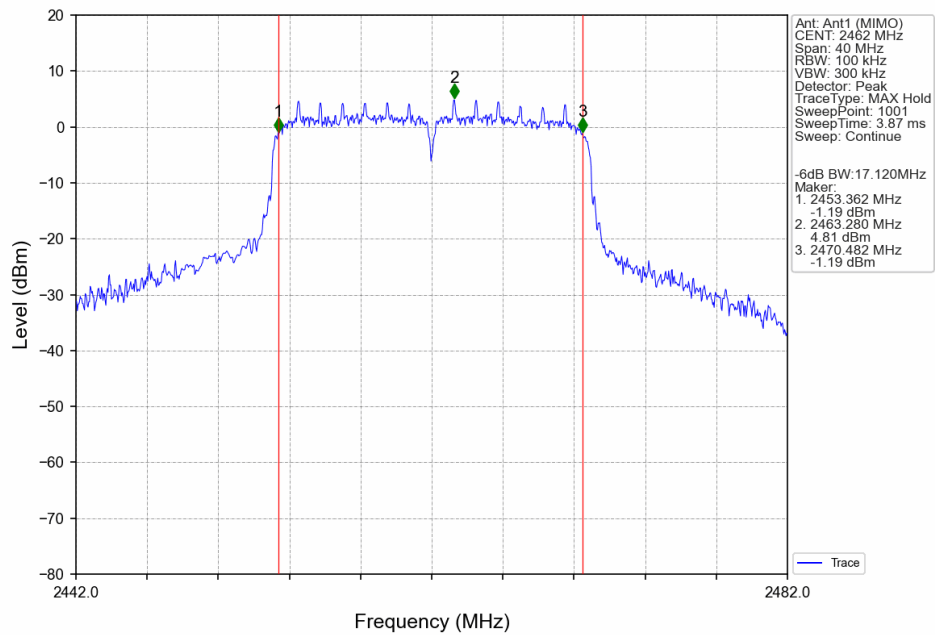
802.11n(HT20)_LCH_2412MHz_Ant1 (MIMO)_NTNV



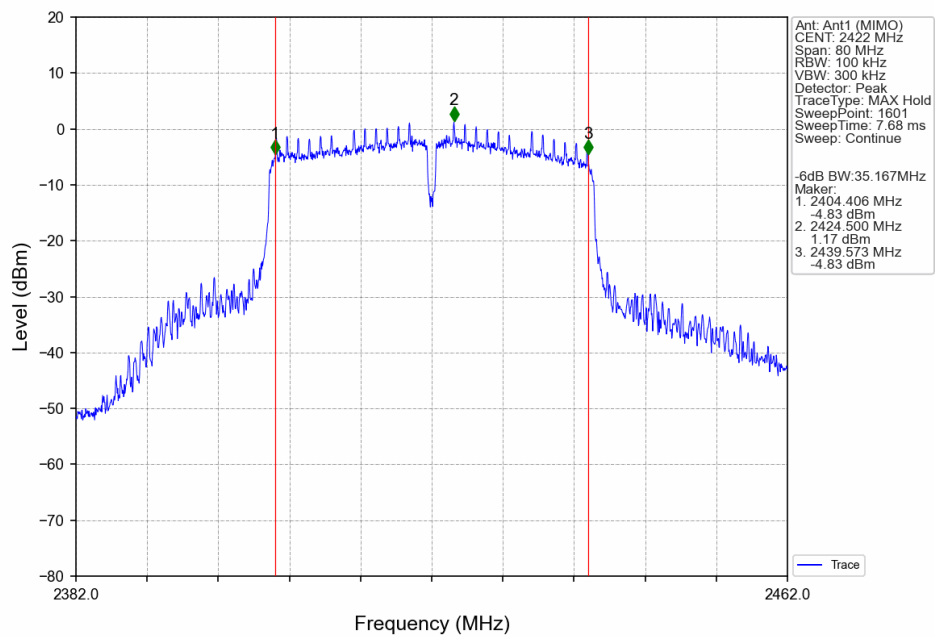
802.11n(HT20)_MCH_2437MHz_Ant1 (MIMO)_NTNV



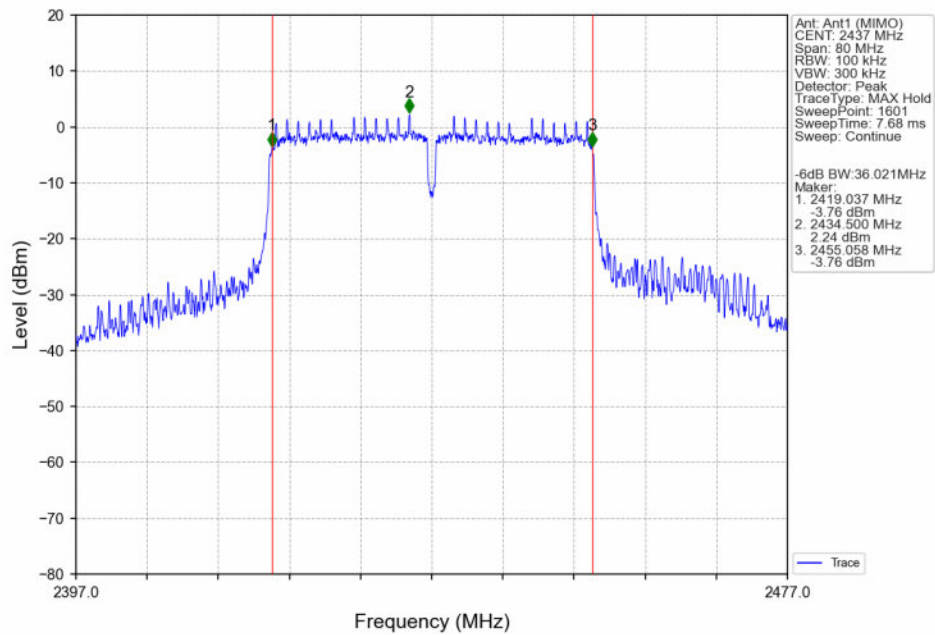
802.11n(HT20)_HCH_2462MHz_Ant1 (MIMO)_NTNV



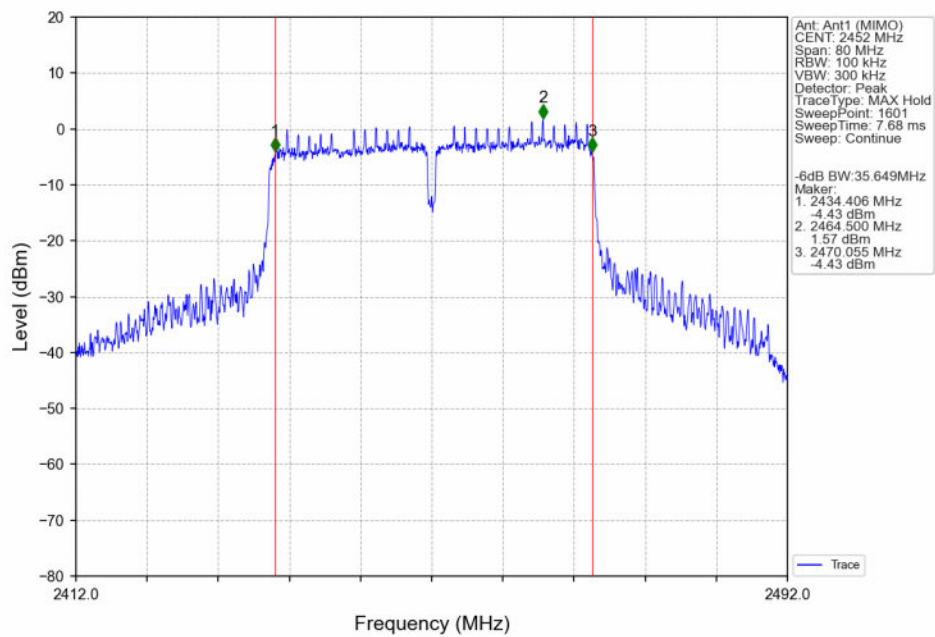
802.11n(HT40)_LCH_2422MHz_Ant1 (MIMO)_NTNV



802.11n(HT40)_MCH_2437MHz_Ant1 (MIMO)_NTNV



802.11n(HT40)_HCH_2452MHz_Ant1 (MIMO)_NTNV



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	ANT2	MIMO	Limit	
802.11b	SISO	2412	14.95	15.04	/	<=30	Pass
		2437	18.39	18.39	/	<=30	Pass
		2462	16.59	16.63	/	<=30	Pass
802.11g	SISO	2412	22.18	22.19	/	<=30	Pass
		2437	24.49	24.42	/	<=30	Pass
		2462	23.76	23.78	/	<=30	Pass
802.11n (HT20)	MIMO	2412	22.39	21.03	24.77	<=29.05	Pass
		2437	25.34	23.32	27.46	<=29.05	Pass
		2462	24.36	22.90	26.70	<=29.05	Pass
802.11n (HT40)	MIMO	2422	22.56	21.27	24.97	<=29.05	Pass
		2437	24.30	23.22	26.80	<=29.05	Pass
		2452	23.06	22.36	25.73	<=29.05	Pass

Note1: Antenna Gain: Ant1: 3.94dBi; Ant 2: 3.94dBi;

Note2: Directional Gain: correlated(Directional Gain = 6.95dBi)

4. Maximum Power Spectral Density

4.1 Test Result

4.1.1 PSD

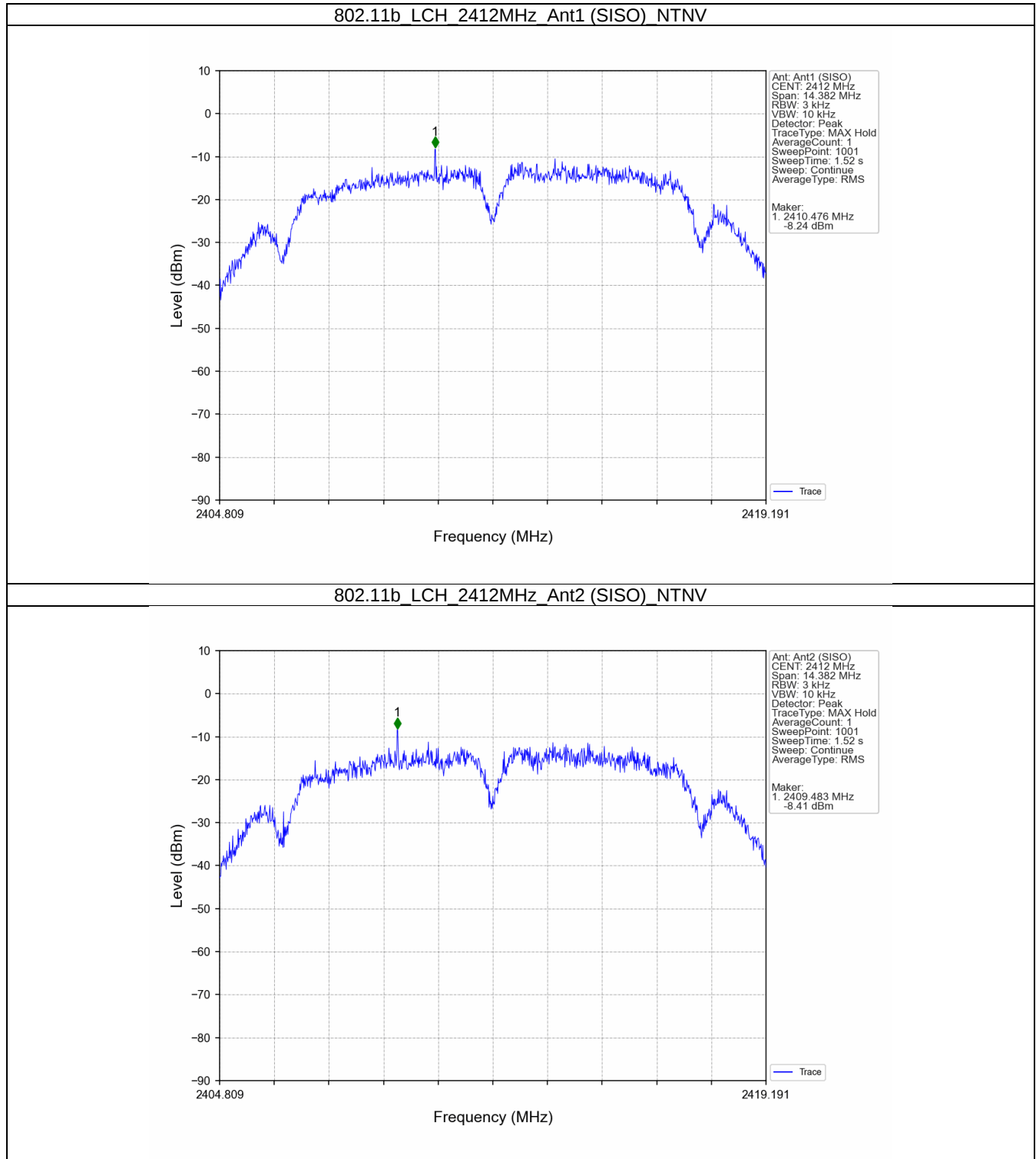
Mode	TX Type	Frequency (MHz)	Maximum PSD (dBm/3kHz)				Verdict
			ANT1	ANT2	MIMO	Limit	
802.11b	SISO	2412	-8.24	-8.41	/	<=8	Pass
		2437	-8.24	-7.05	/	<=8	Pass
		2462	-6.14	-6.22	/	<=8	Pass
802.11g	SISO	2412	-10.71	-11.09	/	<=8	Pass
		2437	-8.79	-8.88	/	<=8	Pass
		2462	-11.00	-10.10	/	<=8	Pass
802.11n (HT20)	MIMO	2412	-10.65	-11.32	-9.22	<=7.05	Pass
		2437	-8.82	-10.52	-8.01	<=7.05	Pass
		2462	-10.02	-11.97	-8.23	<=7.05	Pass
802.11n (HT40)	MIMO	2422	-14.10	-15.38	-12.64	<=7.05	Pass
		2437	-12.88	-13.14	-11.22	<=7.05	Pass
		2452	-14.13	-13.16	-11.47	<=7.05	Pass

Note1: Antenna Gain: Ant1: 3.94dBi; Ant 2: 3.94dBi;

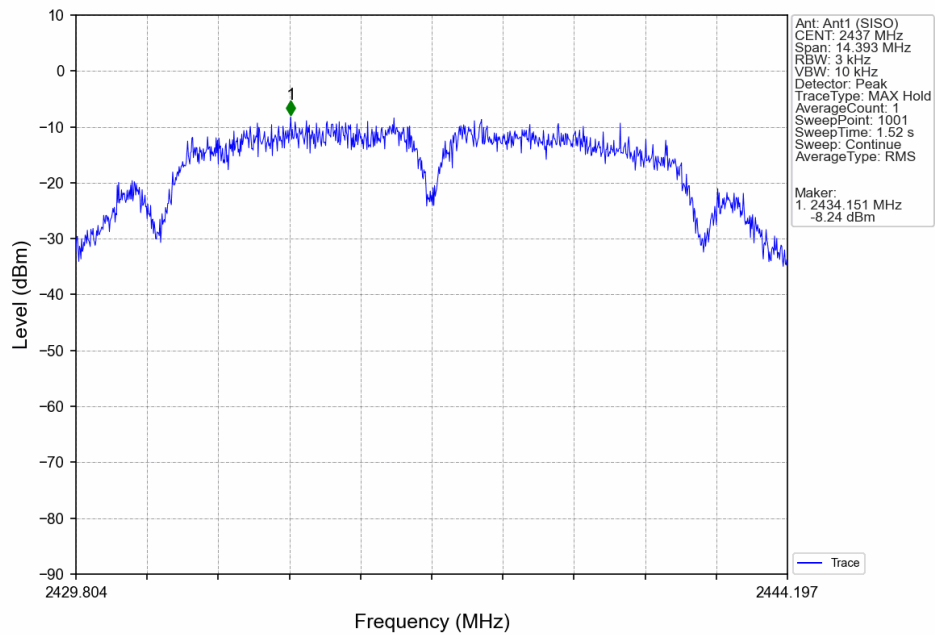
Note2: Directional Gain: correlated(Directional Gain = 6.95dBi)

4.2 Test Graph

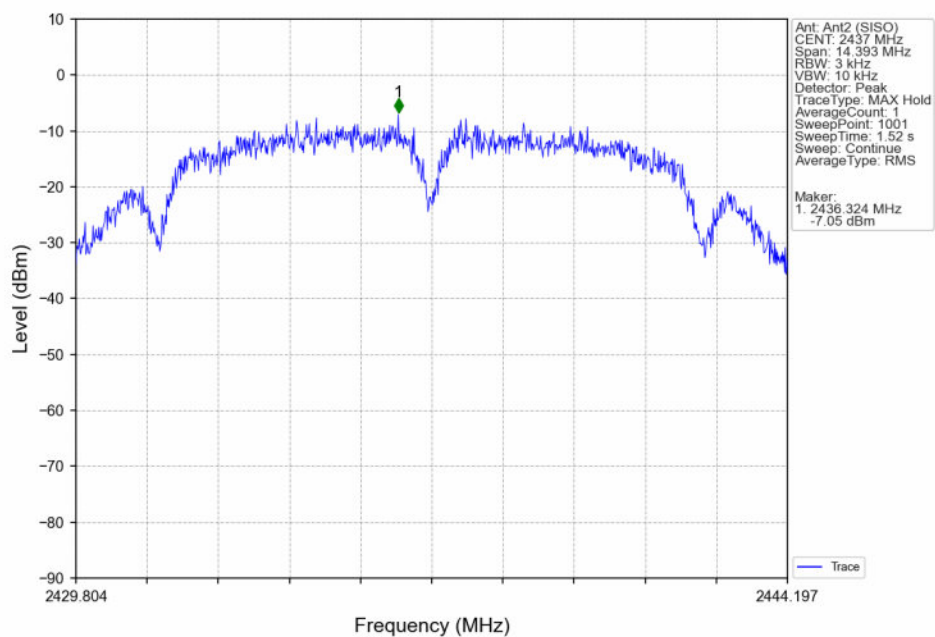
4.2.1 PSD



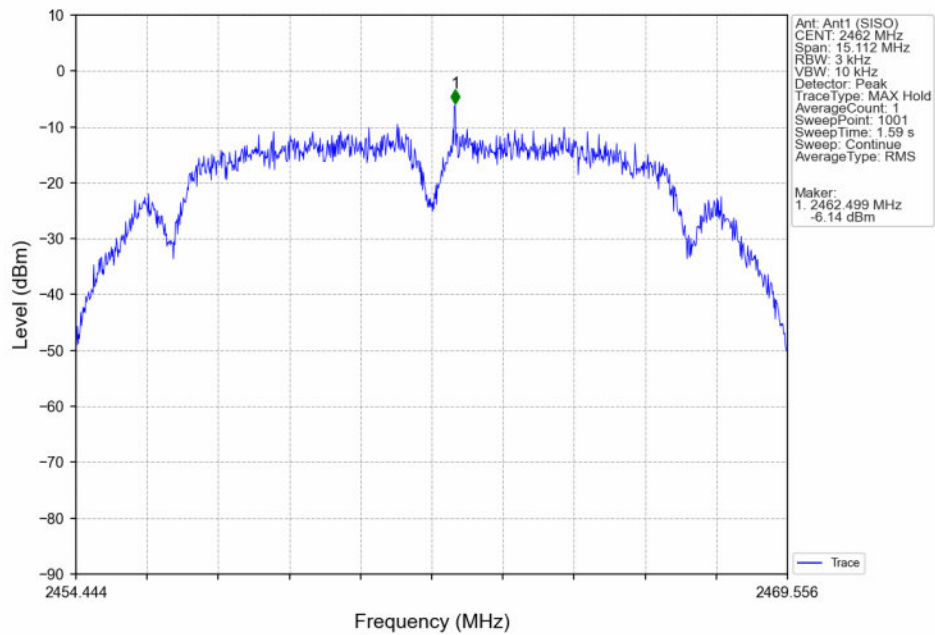
802.11b MCH_2437MHz_Ant1 (SISO)_NTNV



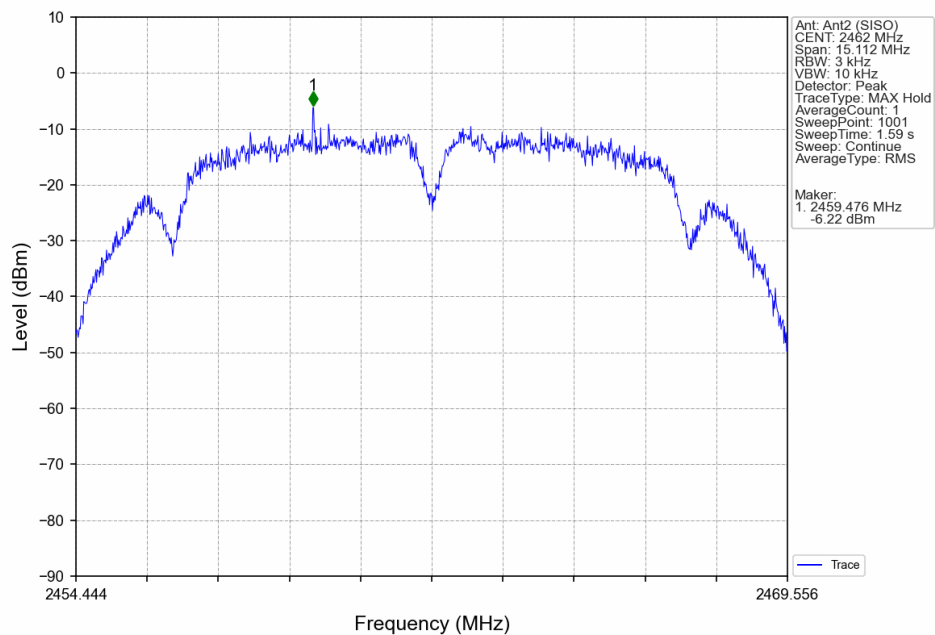
802.11b MCH_2437MHz_Ant2 (SISO)_NTNV



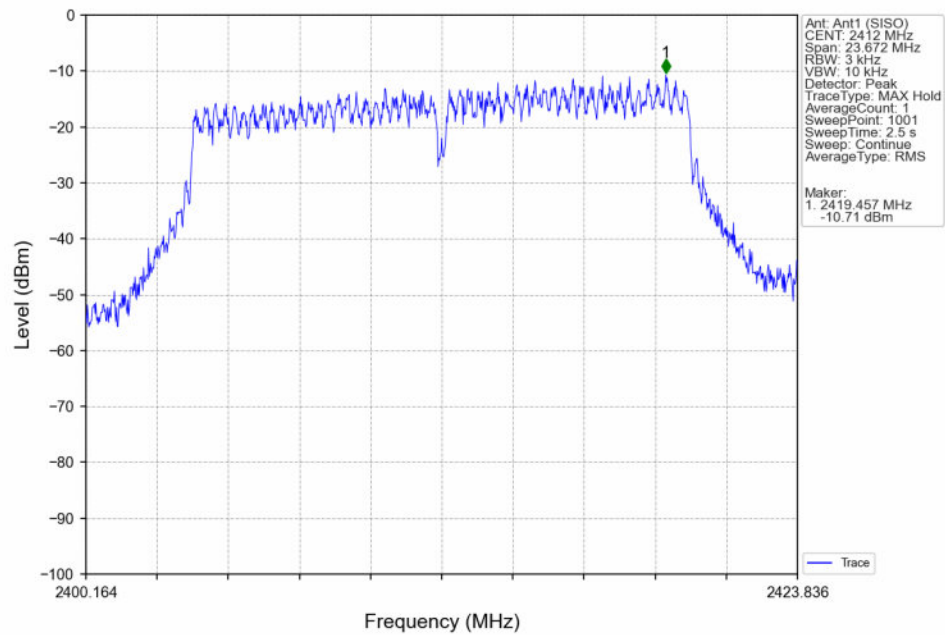
802.11b HCH 2462MHz_Ant1 (SISO)_NTNV



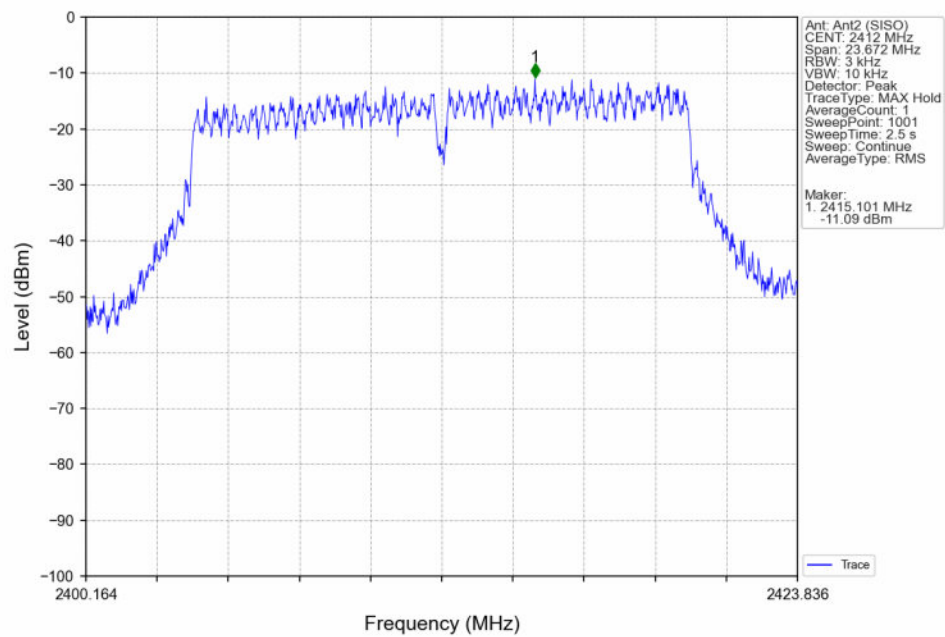
802.11b HCH 2462MHz_Ant2 (SISO)_NTNV



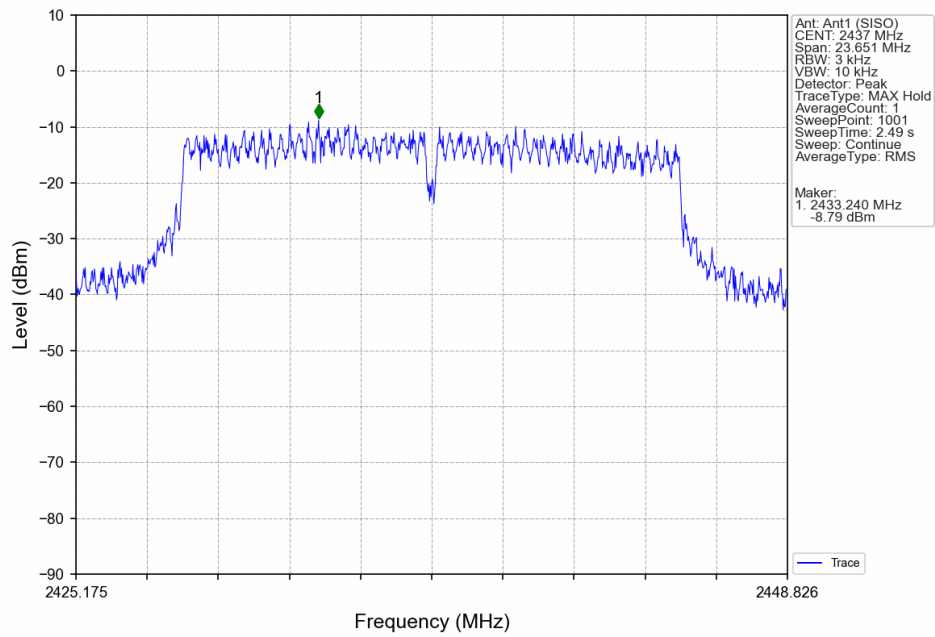
802.11g LCH 2412MHz_Ant1 (SISO)_NTNV



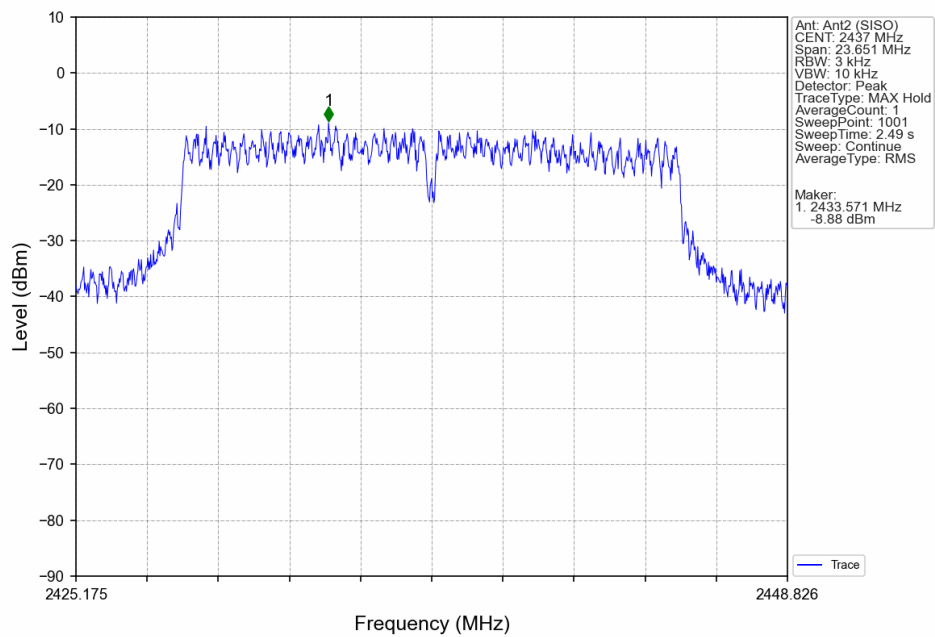
802.11g LCH 2412MHz_Ant2 (SISO)_NTNV



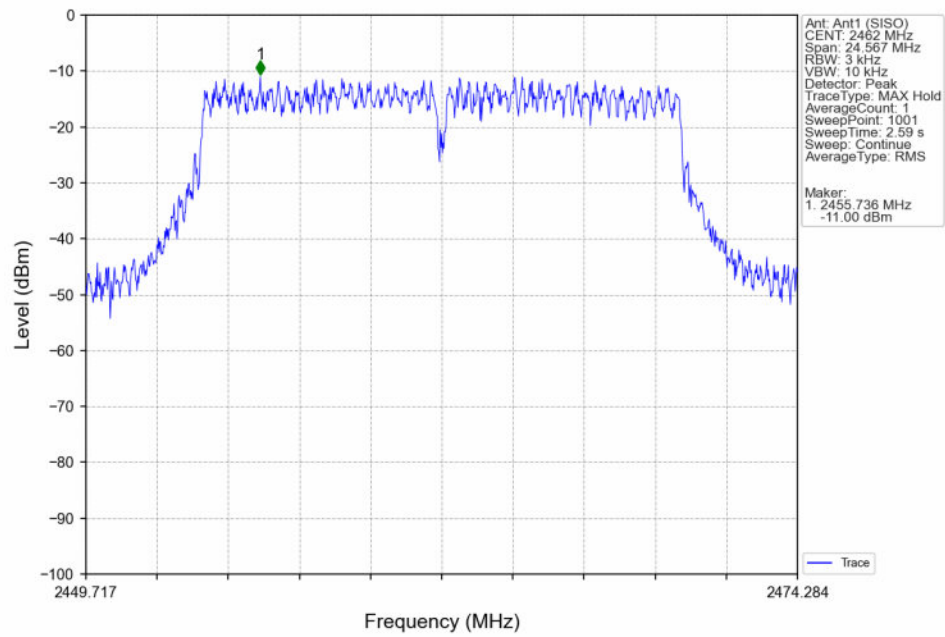
802.11g_MCH_2437MHz_Ant1 (SISO)_NTNV



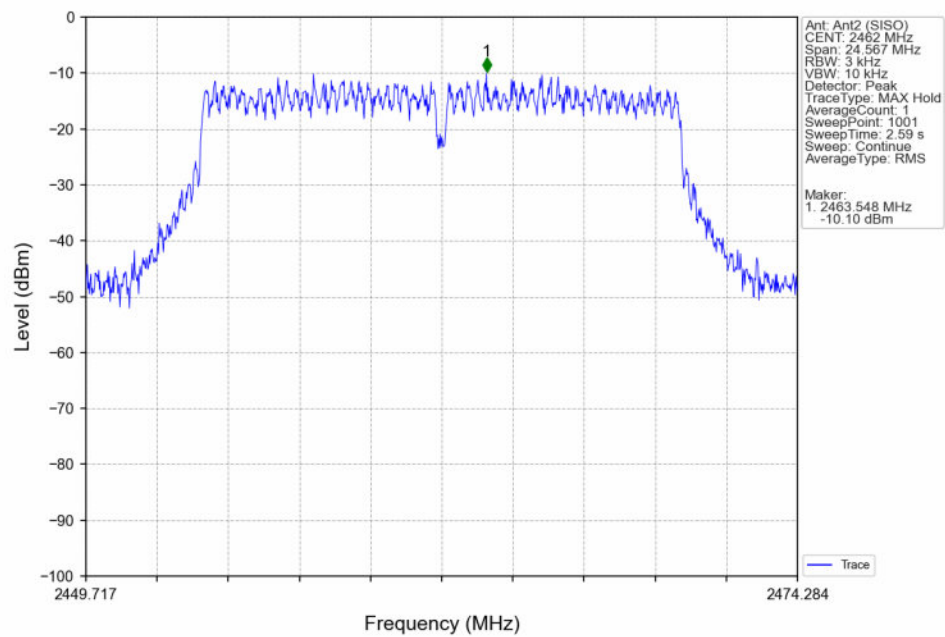
802.11g_MCH_2437MHz_Ant2 (SISO)_NTNV



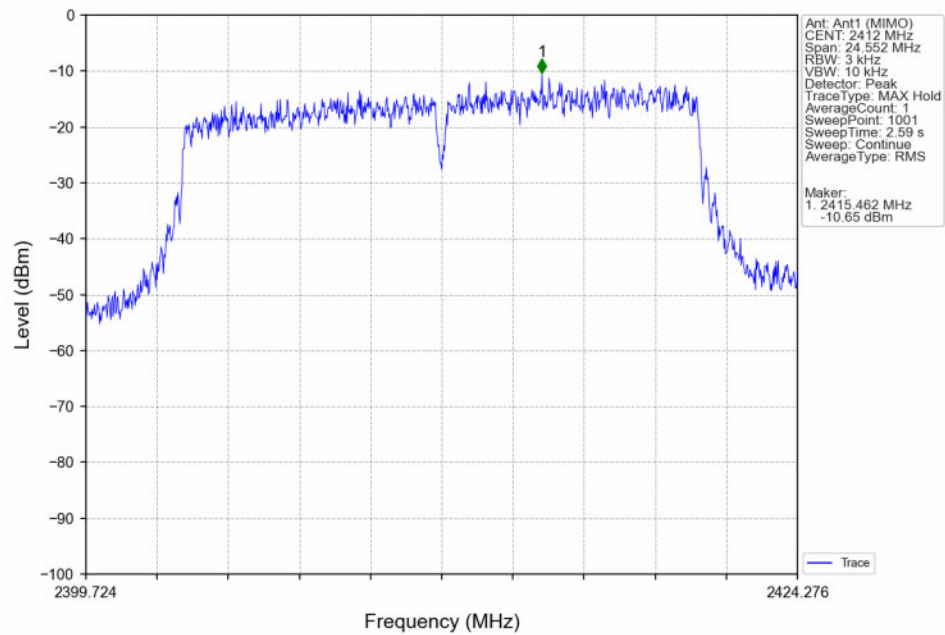
802.11g_HCH_2462MHz_Ant1 (SISO)_NTNV



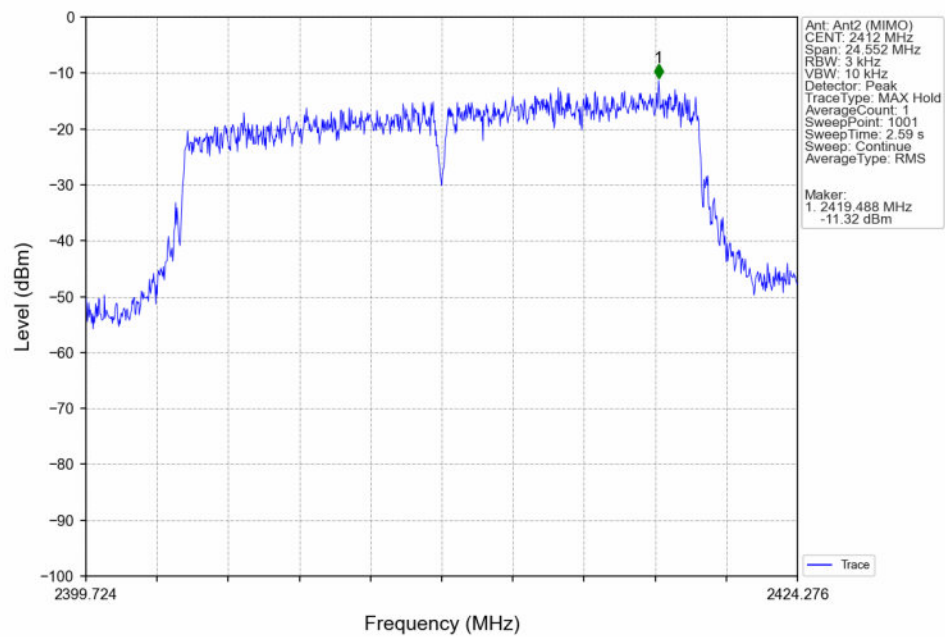
802.11g_HCH_2462MHz_Ant2 (SISO)_NTNV



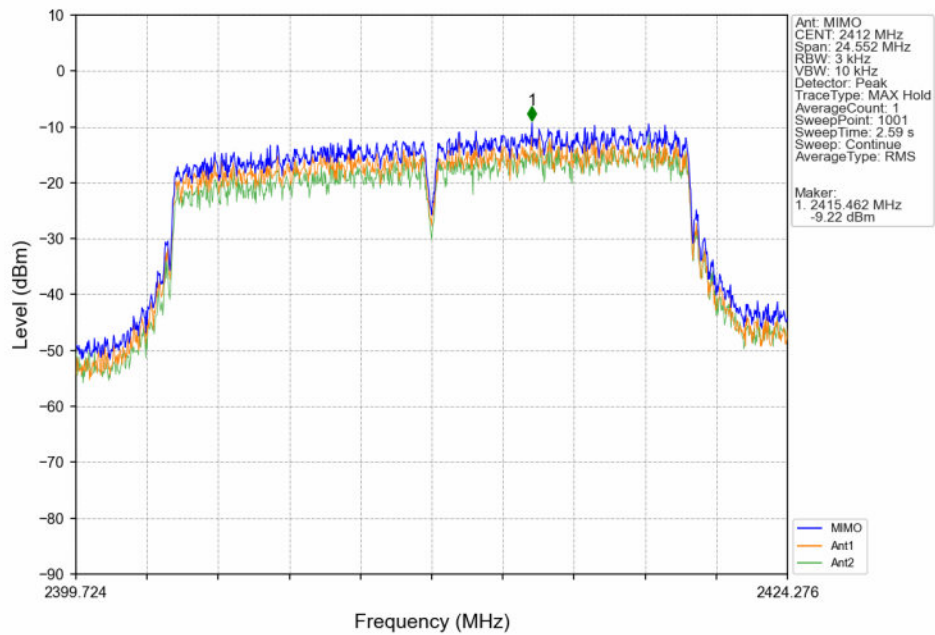
802.11n(HT20) LCH 2412MHz Ant1 (MIMO) NTNV



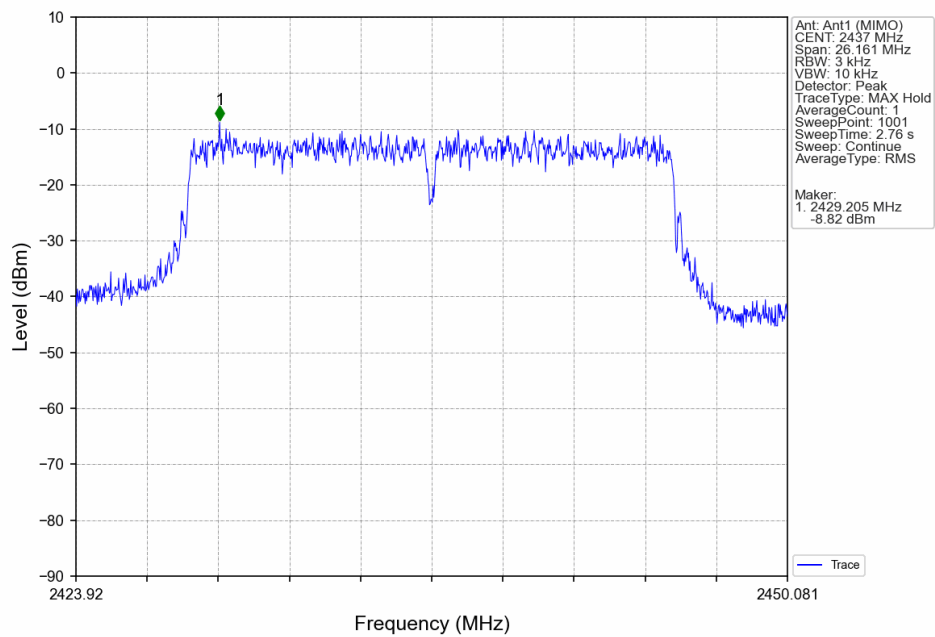
802.11n(HT20) LCH 2412MHz Ant2 (MIMO) NTNV



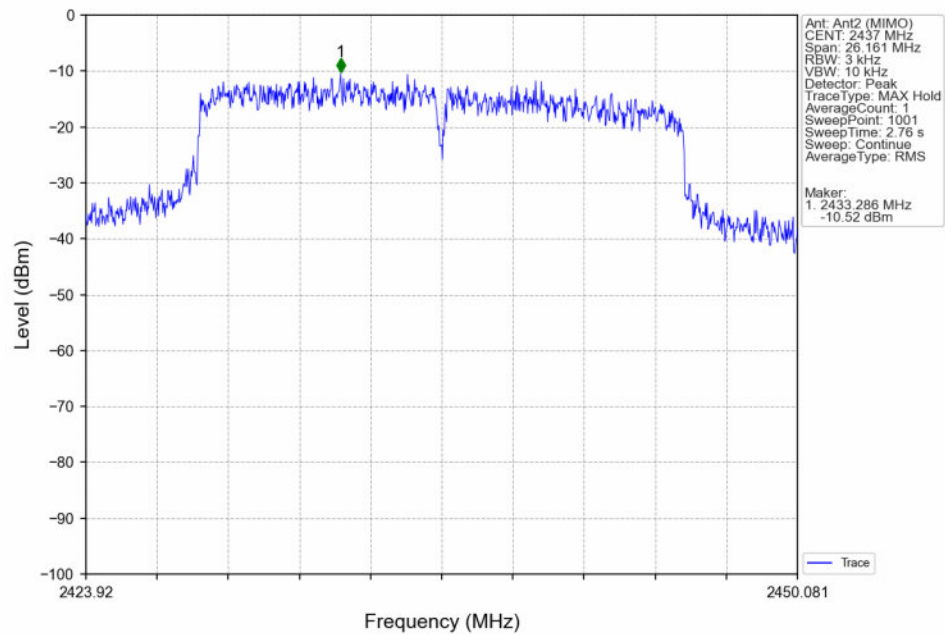
802.11n(HT20)_LCH_2412MHz_MIMO_NTNV



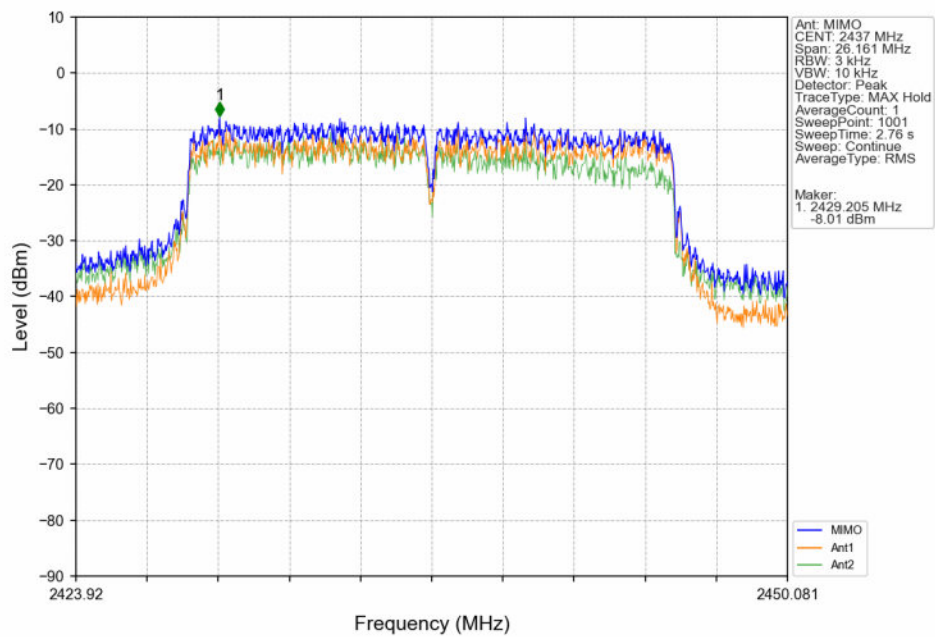
802.11n(HT20)_MCH_2437MHz_Ant1 (MIMO) NTN



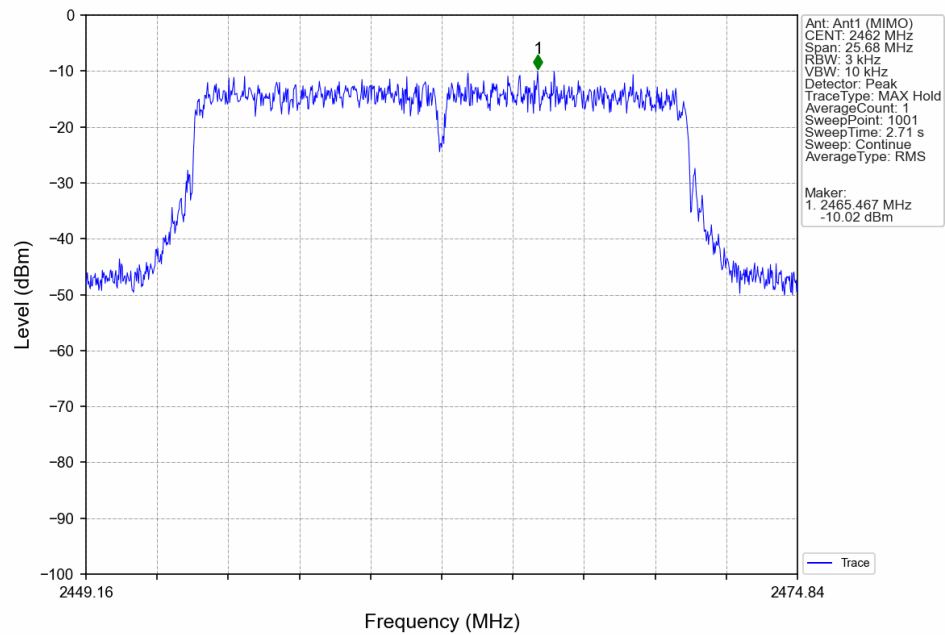
802.11n(HT20) MCH_2437MHz_Ant2 (MIMO) NTN



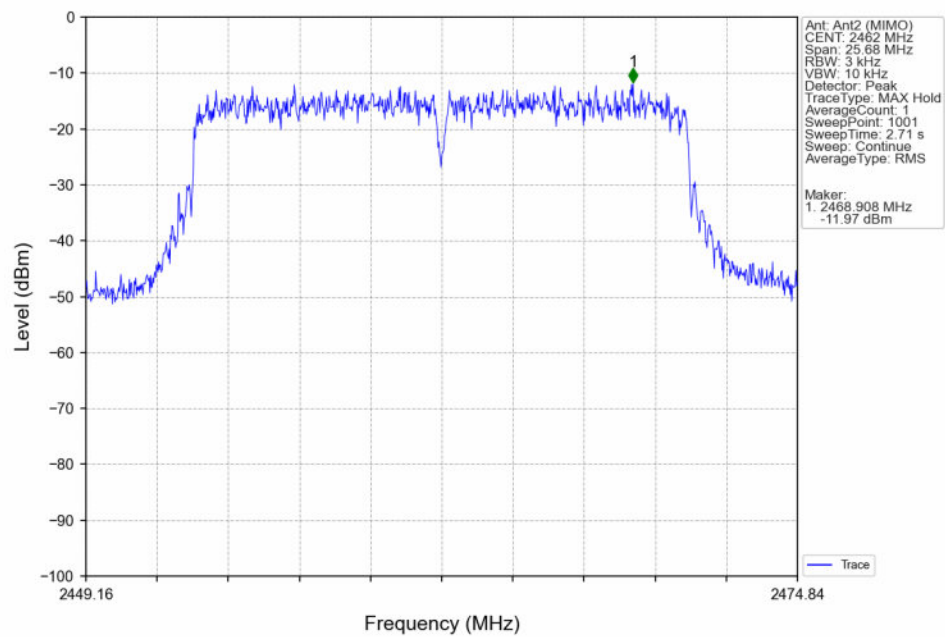
802.11n(HT20) MCH_2437MHz MIMO NTN



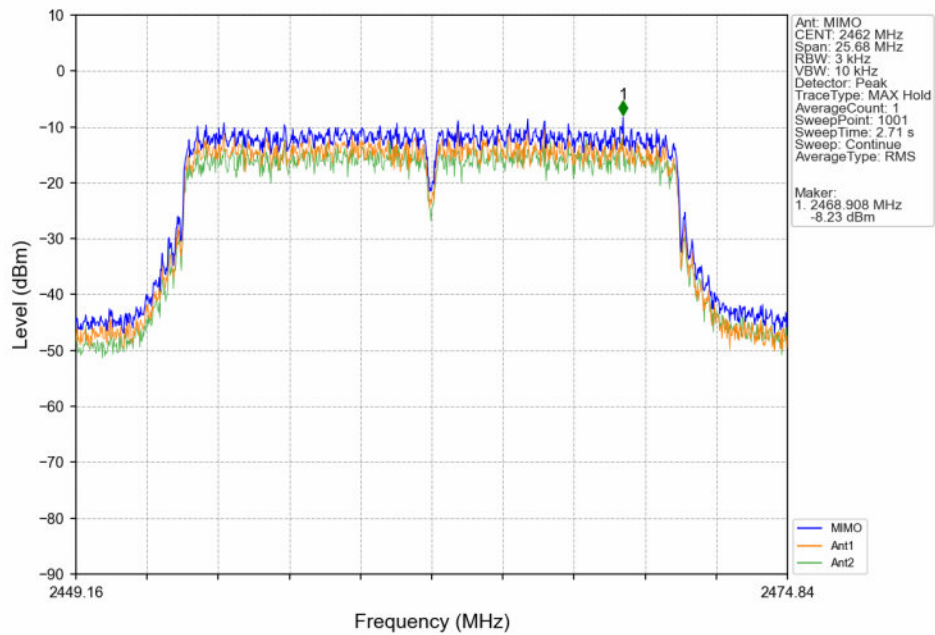
802.11n(HT20) HCH 2462MHz_Ant1 (MIMO)_NTNV



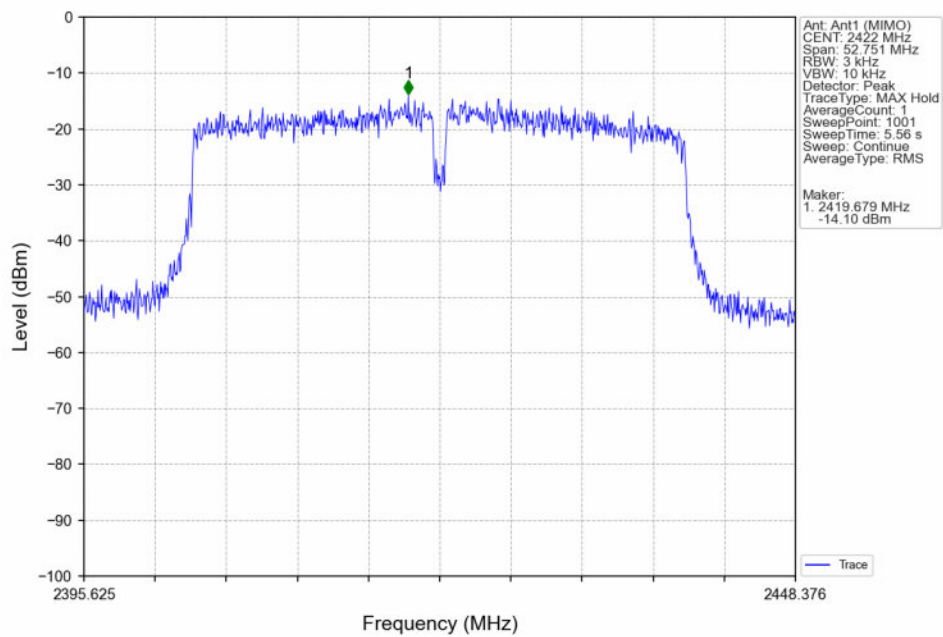
802.11n(HT20) HCH 2462MHz_Ant2 (MIMO)_NTNV



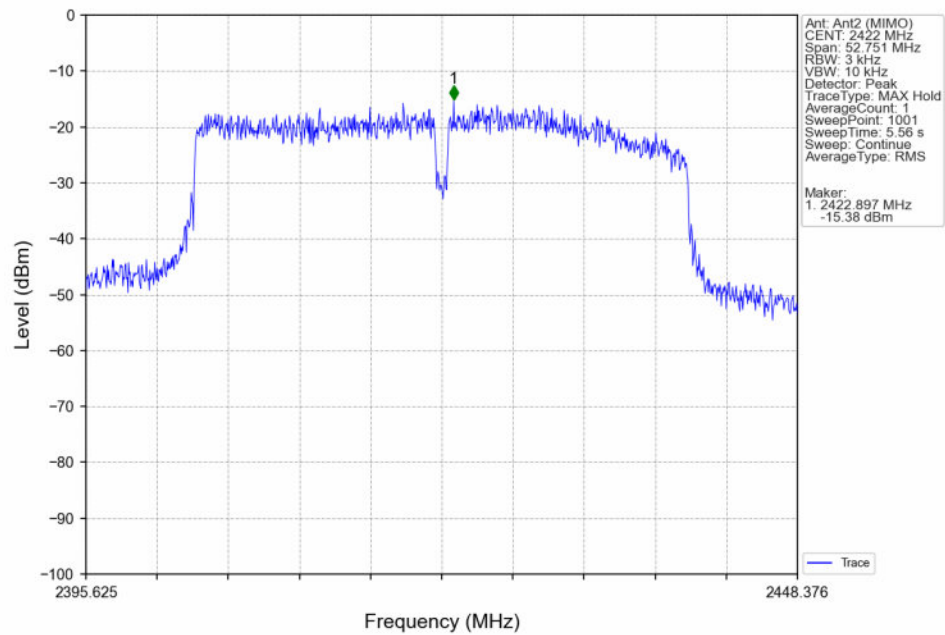
802.11n(HT20)_HCH_2462MHz_MIMO_NTNV



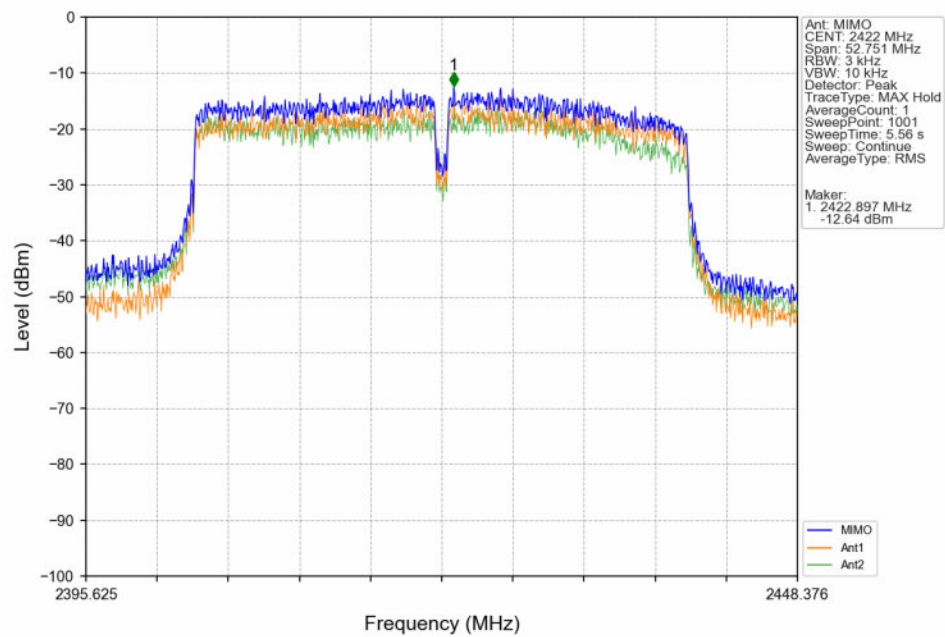
802.11n(HT40)_LCH_2422MHz_Ant1 (MIMO) NTN



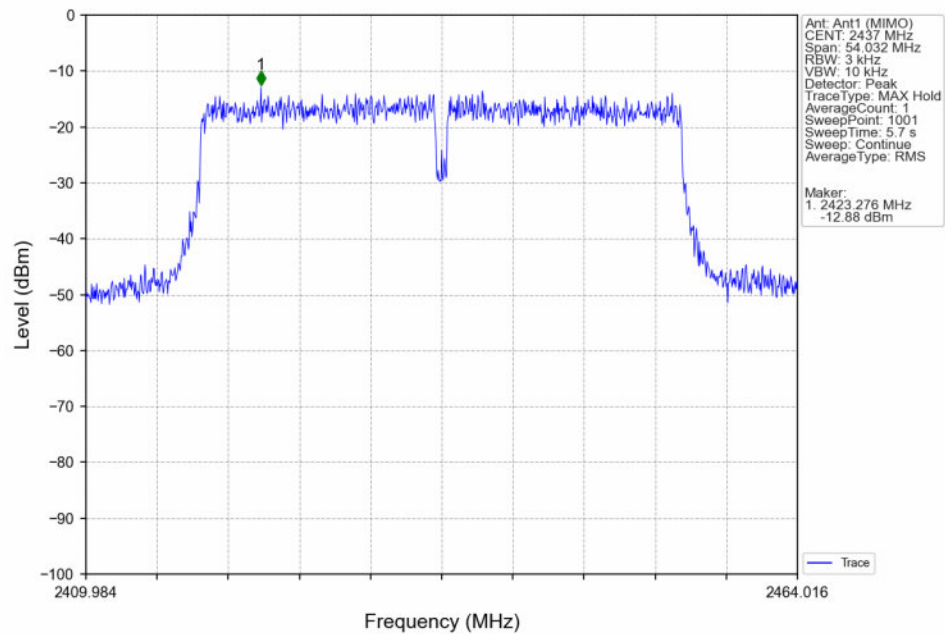
802.11n(HT40)_LCH_2422MHz_Ant2 (MIMO)_NTNV



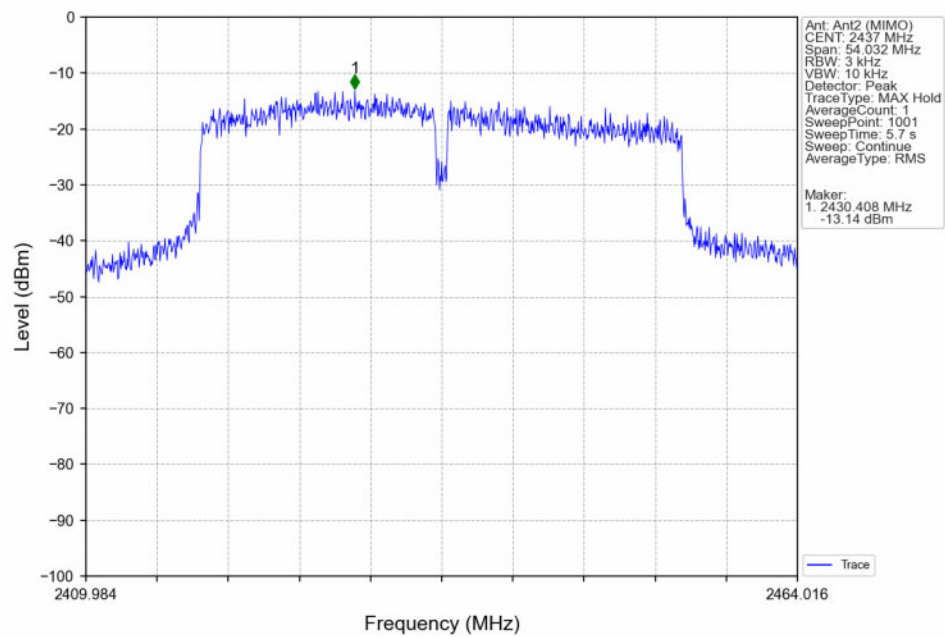
802.11n(HT40)_LCH_2422MHz MIMO_NTNV



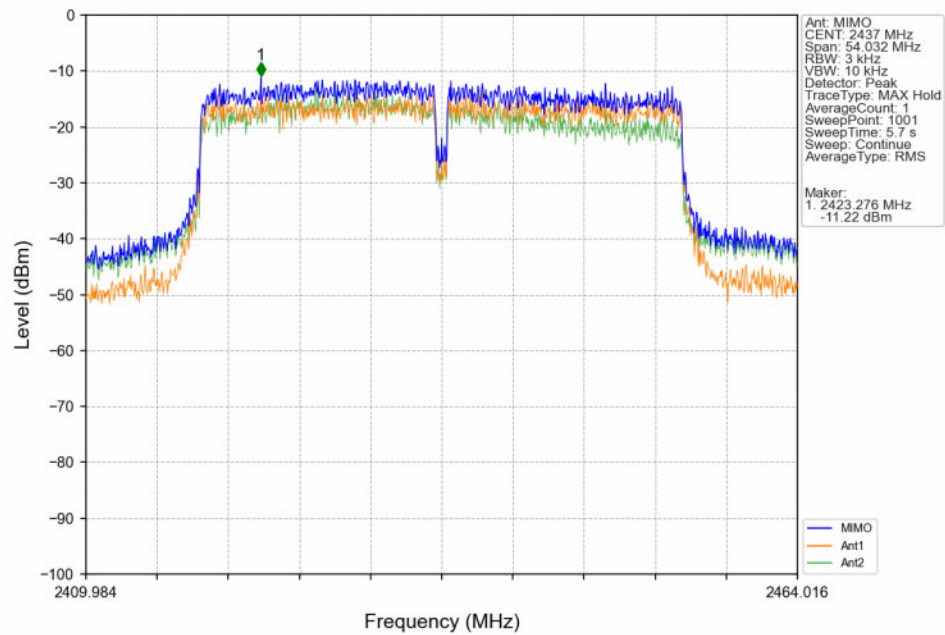
802.11n(HT40)_MCH_2437MHz_Ant1 (MIMO)_NTNV



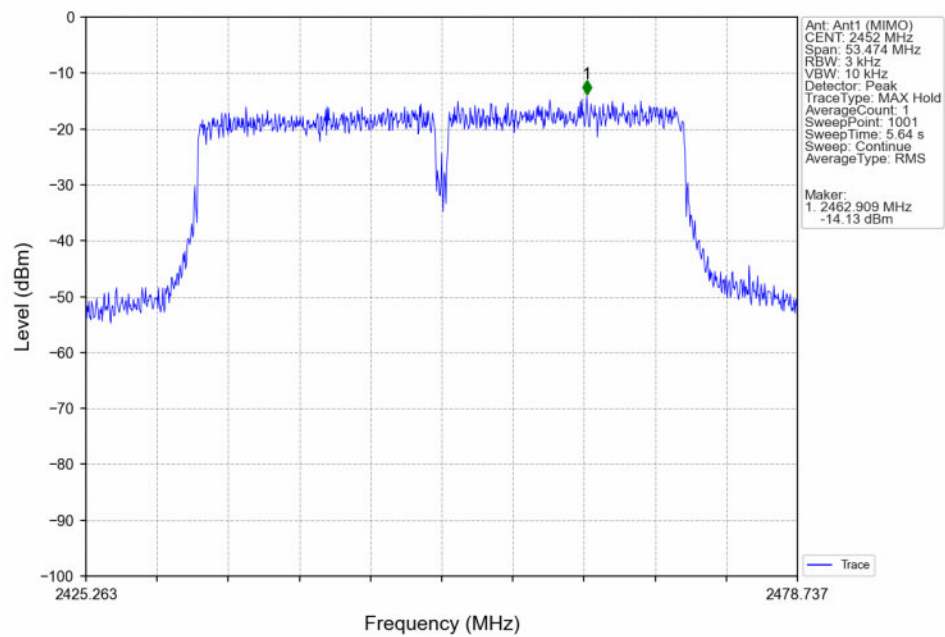
802.11n(HT40)_MCH_2437MHz_Ant2 (MIMO)_NTNV



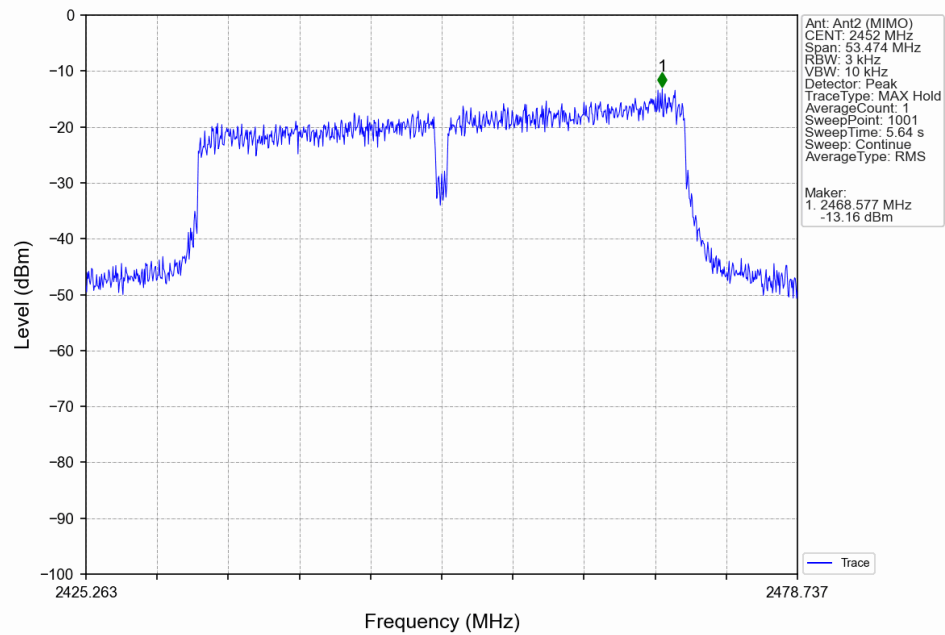
802.11n(HT40)_MCH_2437MHz_MIMO_NTNV



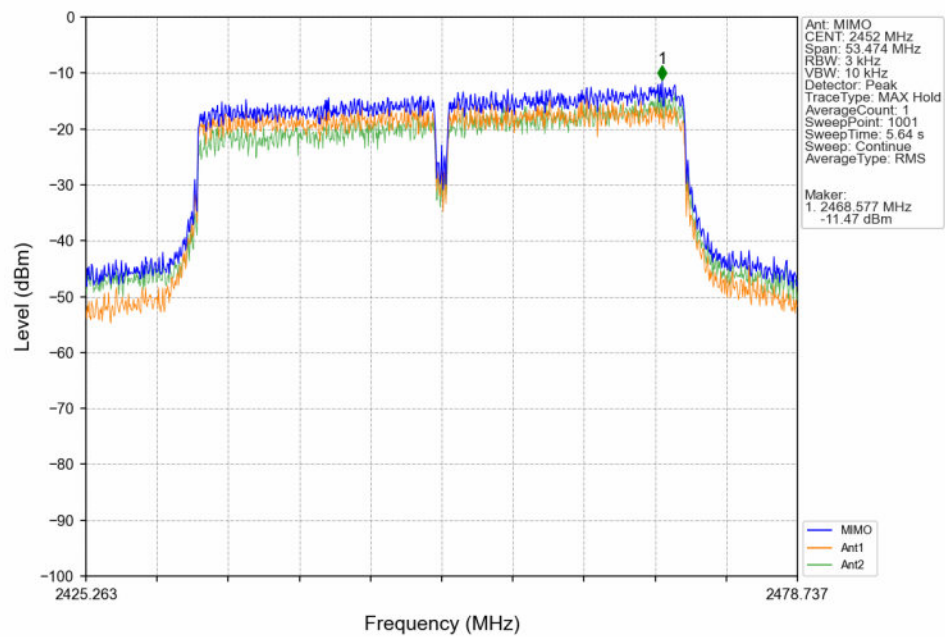
802.11n(HT40)_HCH_2452MHz_Ant1 (MIMO) NTN



802.11n(HT40) HCH 2452MHz_Ant2 (MIMO)_NTNV



802.11n(HT40) HCH 2452MHz MIMO_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	3.73
			2	3.76
		2437	1	7.20
			2	7.04
		2462	1	5.00
			2	4.92
802.11g	SISO	2412	1	4.03
			2	4.12
		2437	1	6.21
			2	6.03
		2462	1	4.74
			2	4.67
802.11n (HT20)	MIMO	2412	1	4.18
			2	3.33
		2437	1	5.65
			2	5.11
		2462	1	4.66
			2	3.02
802.11n (HT40)	MIMO	2422	1	1.22
			2	0.04
		2437	1	2.24
			2	2.95
		2452	1	1.21
			2	2.42

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.

5.1.2 CSE

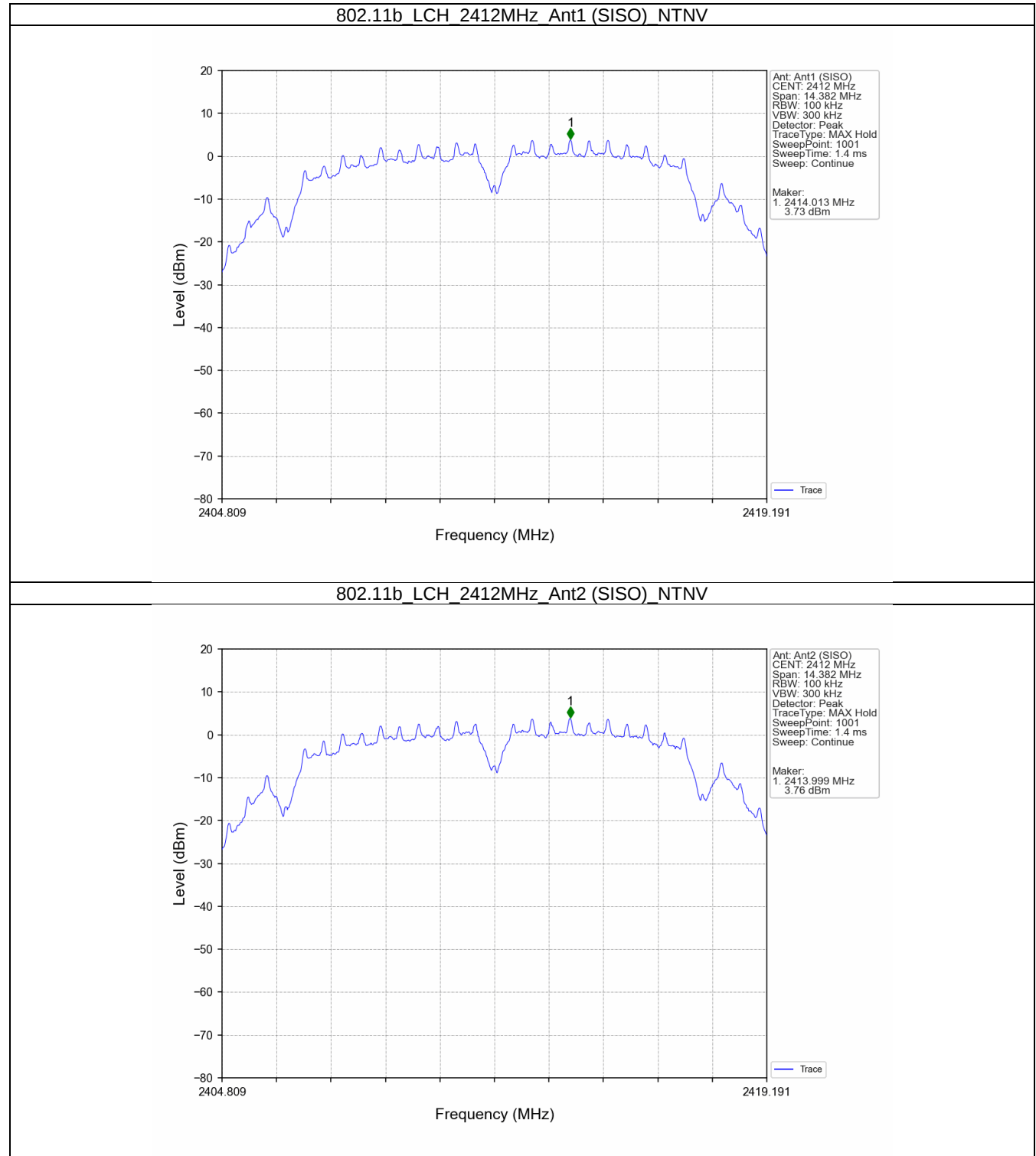
Mode	TX Type	Frequency (MHz)	ANT	Level of Reference (dBm)	Limit (dBm)	Verdict
802.11b	SISO	2412	1	3.73	-16.27	Pass
			2	3.76	-16.24	Pass
		2437	1	7.20	-12.80	Pass
			2	7.04	-12.96	Pass
		2462	1	5.00	-15.00	Pass
			2	4.92	-15.08	Pass
802.11g	SISO	2412	1	4.03	-15.97	Pass
			2	4.12	-15.88	Pass
		2437	1	6.21	-13.79	Pass
			2	6.03	-13.97	Pass
		2462	1	4.74	-15.26	Pass
			2	4.67	-15.33	Pass
802.11n (HT20)	MIMO	2412	1	4.18	-15.82	Pass
			2	3.33	-16.67	Pass
		2437	1	5.65	-14.35	Pass



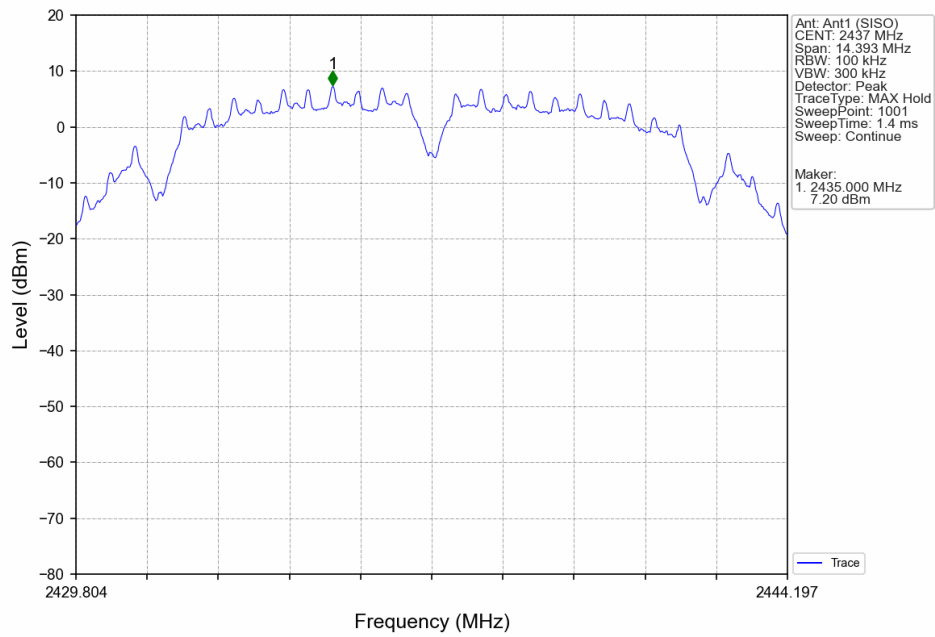
802.11n (HT40)	MIMO	2462	2	5.11	-14.89	Pass
			1	4.66	-15.34	Pass
			2	3.02	-16.98	Pass
		2422	1	1.22	-18.78	Pass
			2	0.04	-19.96	Pass
		2437	1	2.24	-17.76	Pass
			2	2.95	-17.05	Pass
		2452	1	1.21	-18.79	Pass
			2	2.42	-17.58	Pass
		Note1: Refer to FCC Part 15.247 (d) and ANSI C63.10-2013, the channel contains the maximum PSD level was used to establish the reference level.				

5.2 Test Graph

5.2.1 Ref



802.11b MCH_2437MHz_Ant1 (SISO)_NTNV



802.11b MCH_2437MHz_Ant2 (SISO)_NTNV

