



Report No.: SUCR250900091506

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8 Test Setup Photo

Refer to Appendix - Test Setup Photo for SUCR2509000915WM

9 EUT Constructional Details (EUT Photos)

Refer to Appendix_Photographs of EUT Constructional Details for SUCR2509000915WM



10 Appendix

1. Duty Cycle

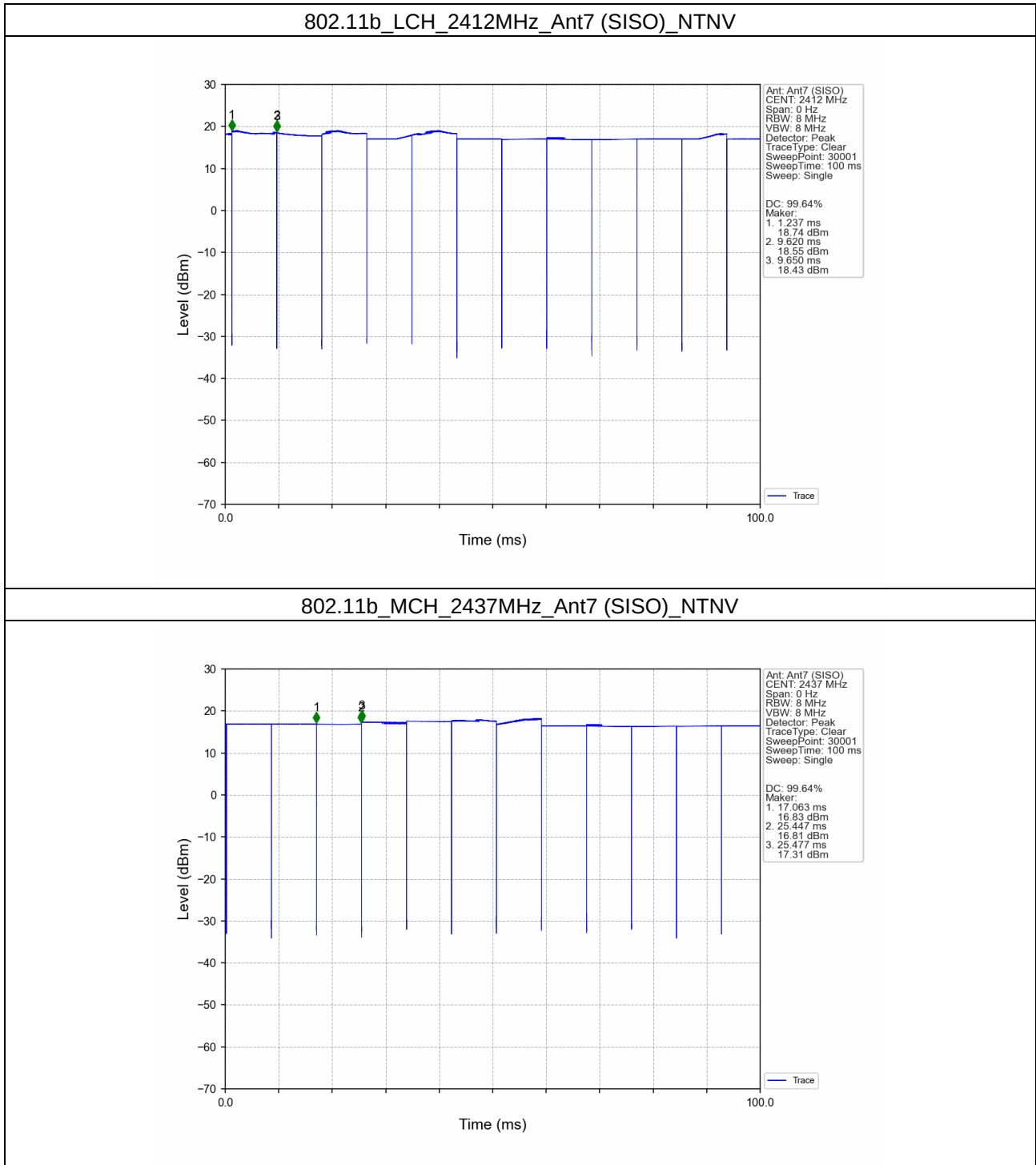
1.1 Test Result

1.1.1 Ant7

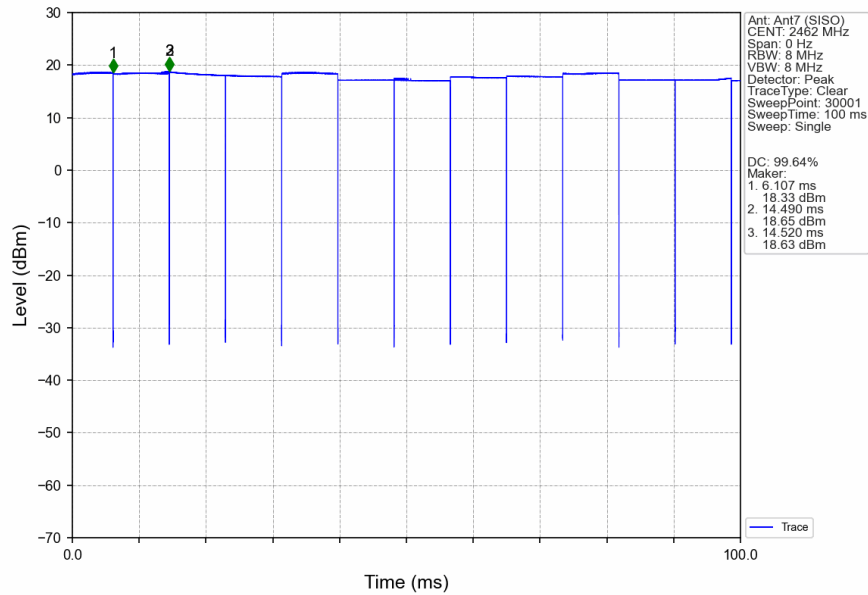
Ant7							
Mode	TX Type	Frequency (MHz)	T_on (ms)	Period (ms)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)	Max. DC Variation (%)
802.11b	SISO	2412	8.383	8.413	99.64	0.02	0.04
		2437	8.384	8.414	99.64	0.02	0.04
		2462	8.383	8.413	99.64	0.02	0.04
802.11g	SISO	2412	1.392	1.427	97.55	0.11	0.00
		2437	1.392	1.428	97.48	0.11	0.03
		2462	1.392	1.428	97.48	0.11	0.03
802.11n (HT20)	SISO	2412	1.300	1.335	97.38	0.12	0.04
		2437	1.300	1.336	97.31	0.12	0.07
		2462	1.300	1.336	97.31	0.12	0.07
802.11n (HT40)	SISO	2422	0.649	0.683	95.02	0.22	0.03
		2437	0.648	0.683	94.88	0.23	0.03
		2452	0.648	0.683	94.88	0.23	0.03
802.11ac (VHT20)	SISO	2412	1.312	1.348	97.33	0.12	0.07
		2437	1.312	1.348	97.33	0.12	0.04
		2462	1.313	1.349	97.33	0.12	0.07
802.11ac (VHT40)	SISO	2422	0.652	0.687	94.91	0.23	0.07
		2437	0.652	0.687	94.91	0.23	0.07
		2452	0.652	0.687	94.91	0.23	0.03

1.2 Test Graph

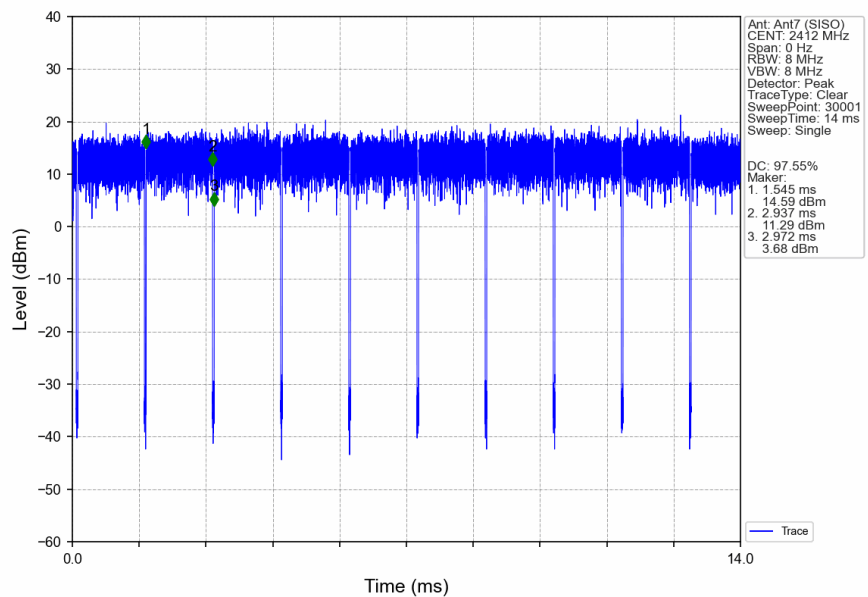
1.2.1 Ant7



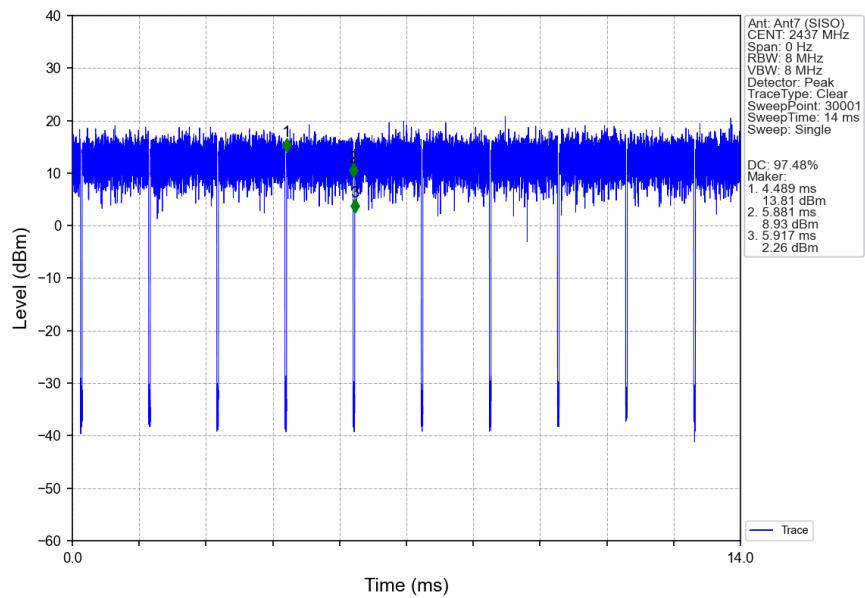
802.11b_HCH_2462MHz_Ant7 (SISO)_NTNV



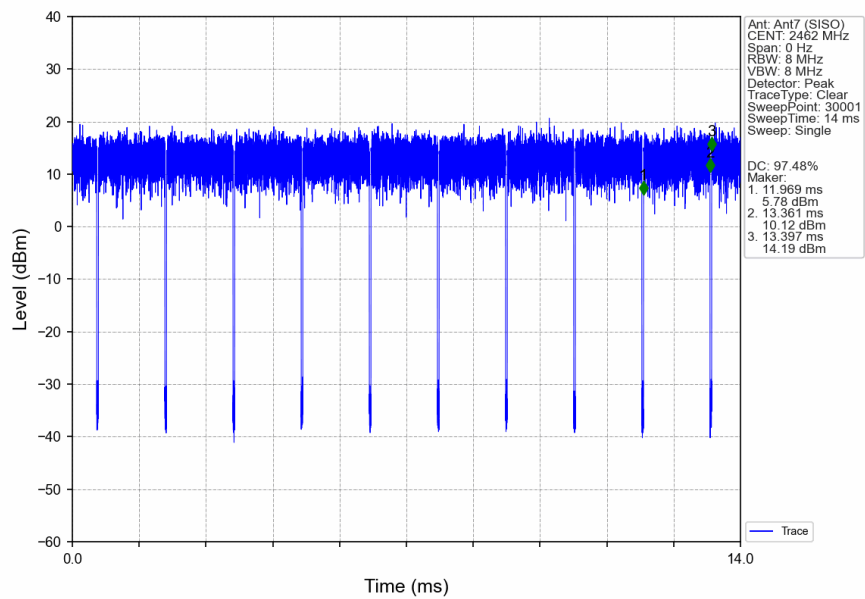
802.11g_LCH_2412MHz_Ant7 (SISO)_NTNV



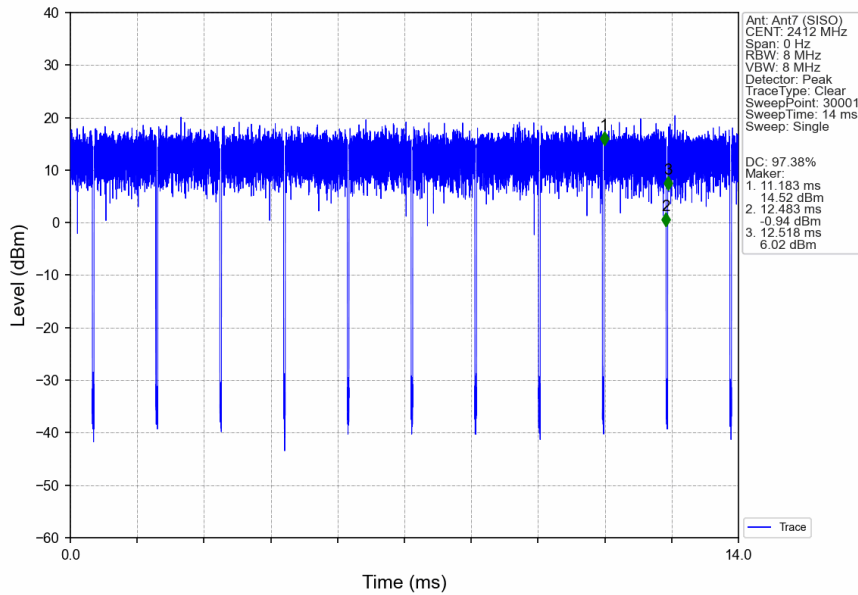
802.11g_MCH_2437MHz_Ant7 (SISO)_NTNV



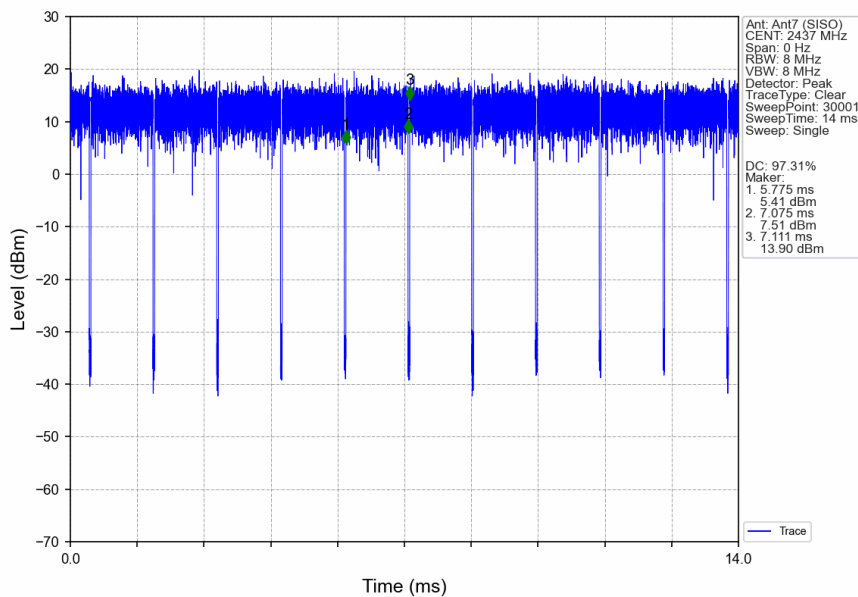
802.11g_HCH_2462MHz_Ant7 (SISO)_NTNV



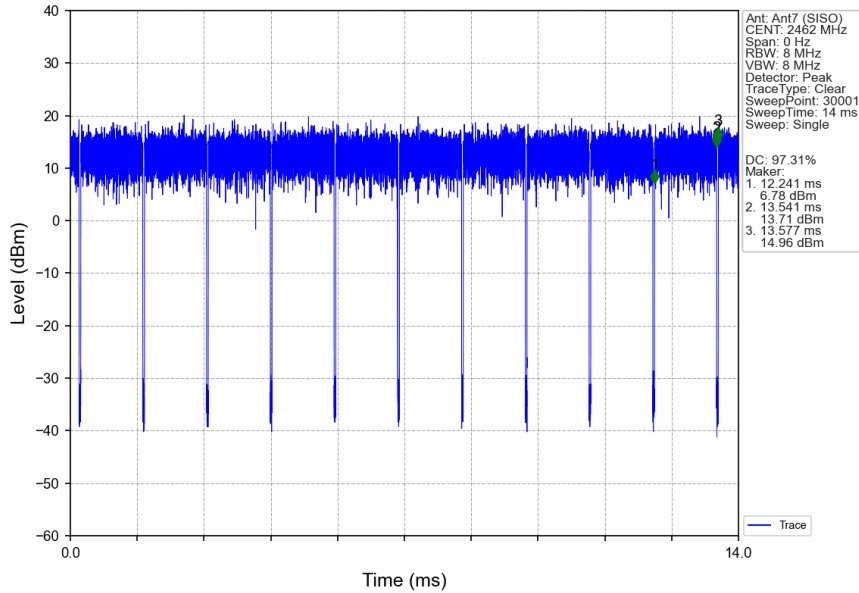
802.11n(HT20)_LCH_2412MHz_Ant7 (SISO)_NTNV



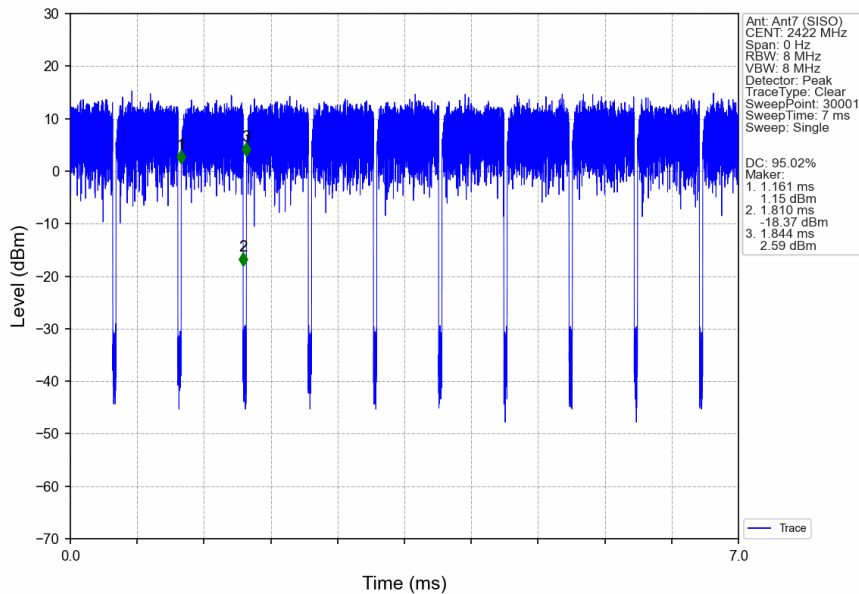
802.11n(HT20)_MCH_2437MHz_Ant7 (SISO)_NTNV



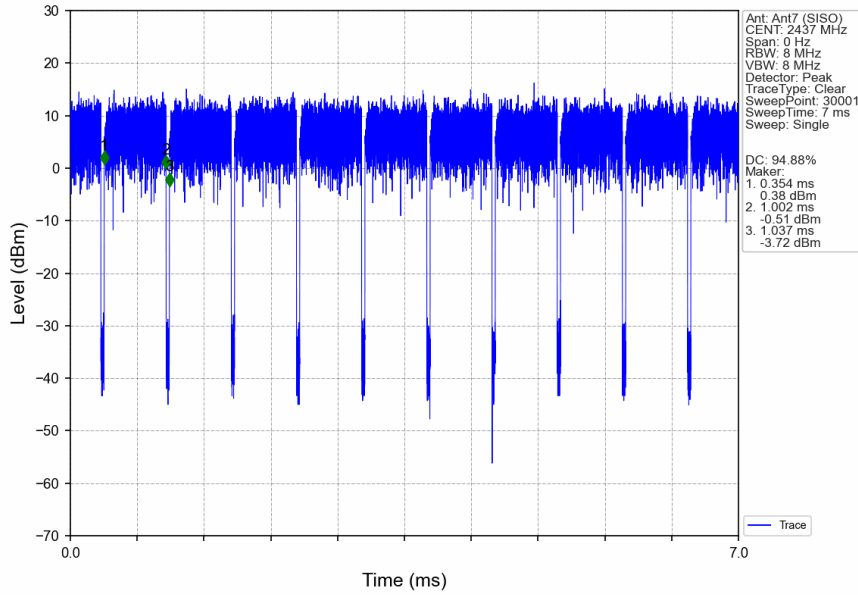
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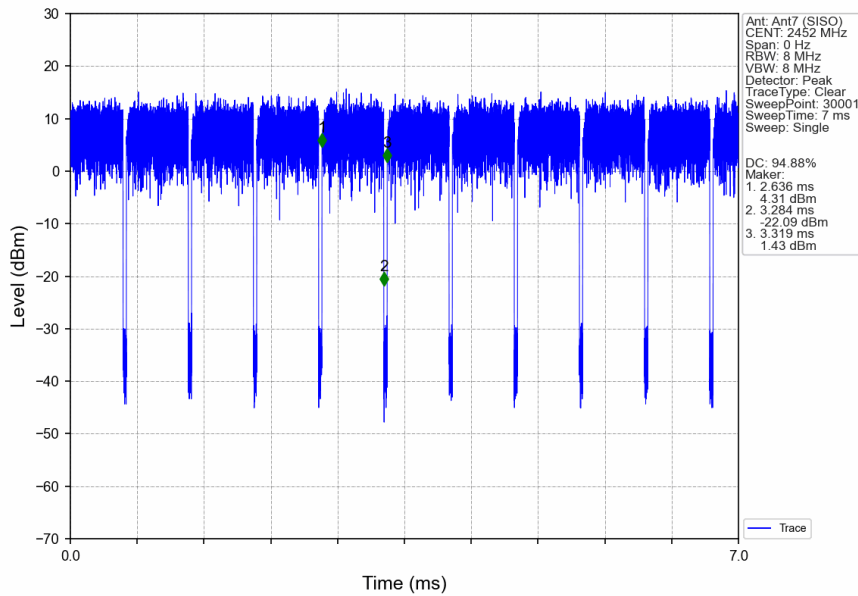
802.11n(HT40)_LCH_2422MHz_Ant7 (SISO)_NTNV



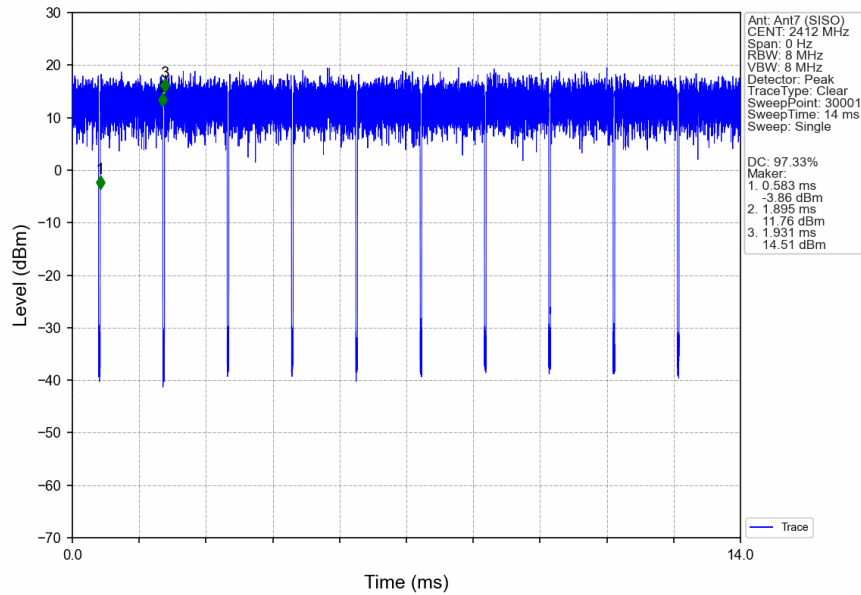
802.11n(HT40)_MCH_2437MHz_Ant7 (SISO)_NTNV



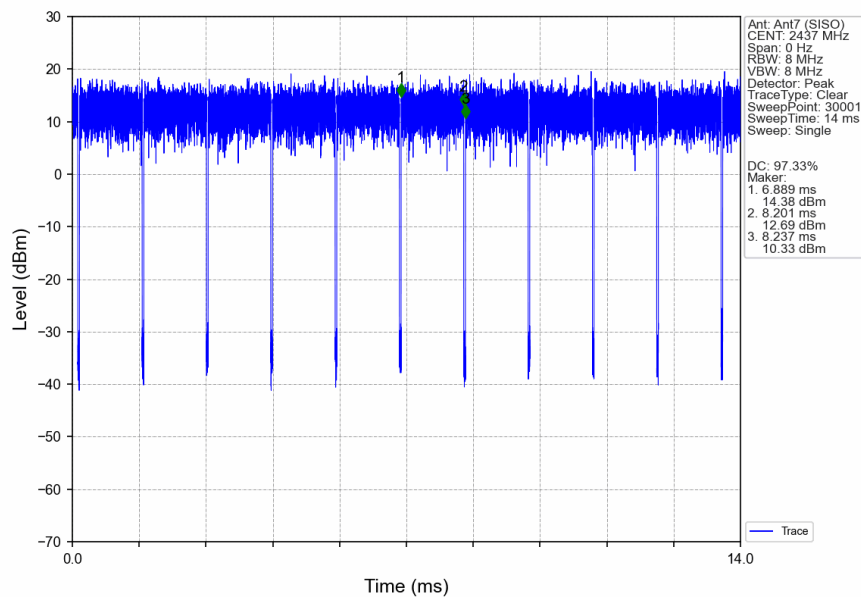
802.11n(HT40)_HCH_2452MHz_Ant7 (SISO)_NTNV



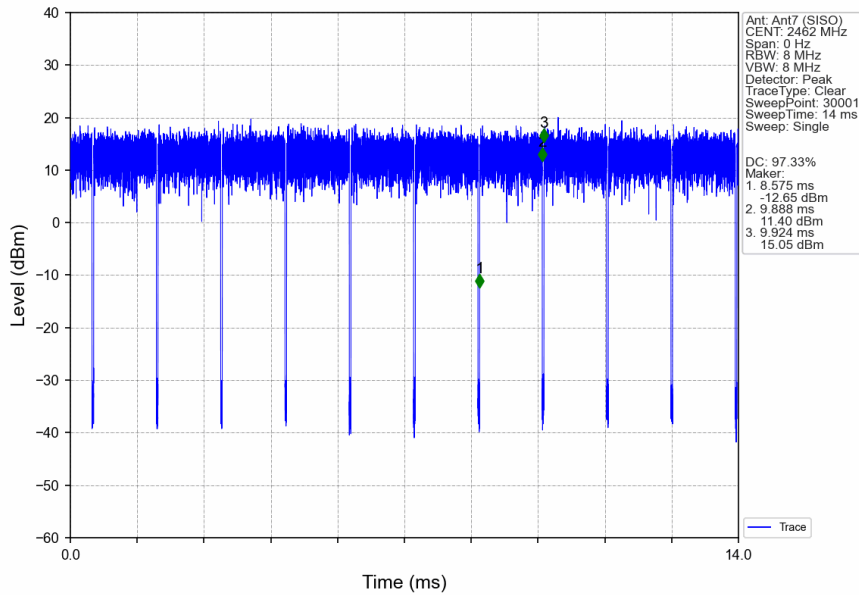
802.11ac(VHT20)_LCH_2412MHz_Ant7 (SISO)_NTNV



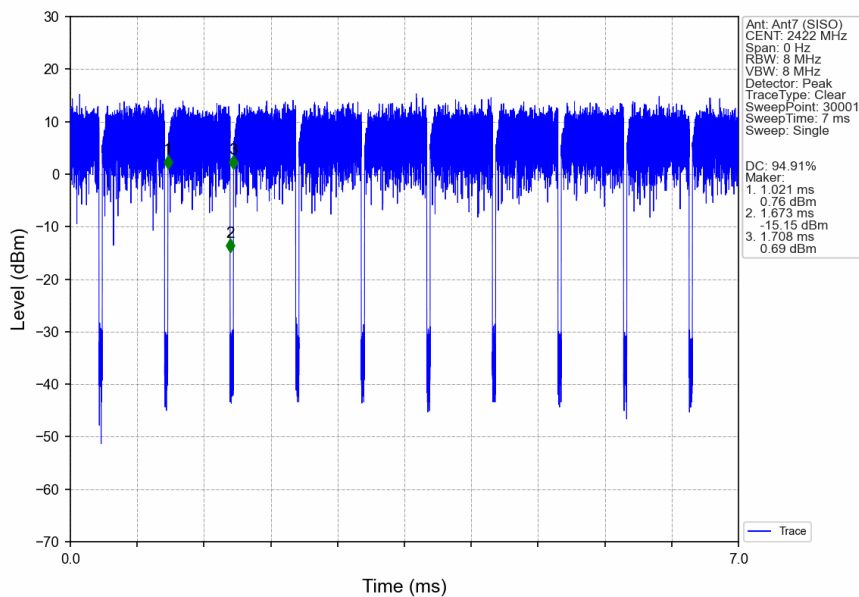
802.11ac(VHT20)_MCH_2437MHz_Ant7 (SISO)_NTNV



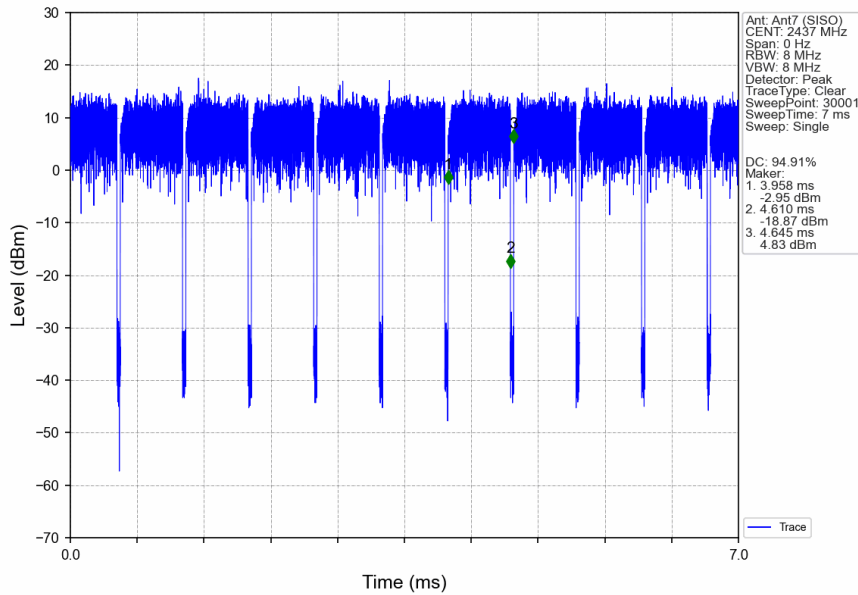
802.11ac(VHT20)_HCH_2462MHz_Ant7 (SISO)_NTNV



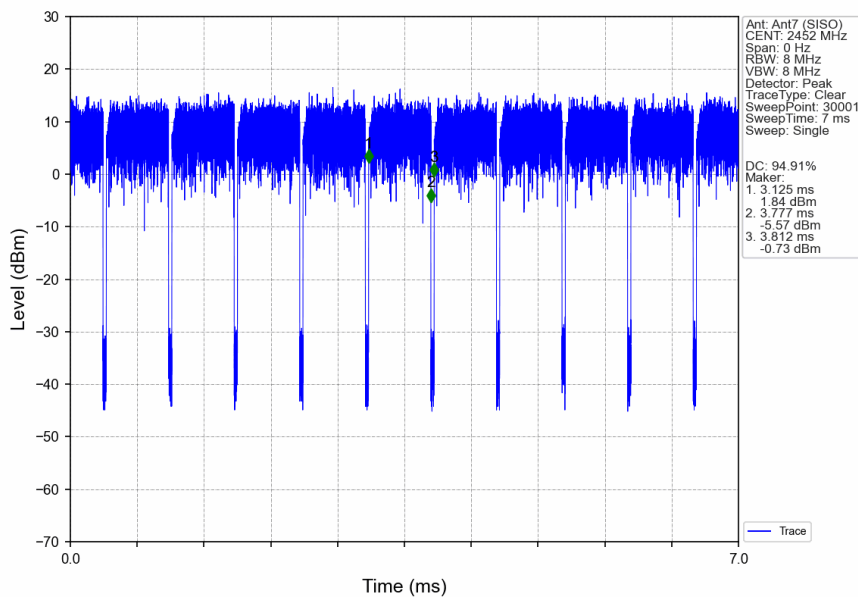
802.11ac(VHT40)_LCH_2422MHz_Ant7 (SISO)_NTNV



802.11ac(VHT40)_MCH_2437MHz_Ant7 (SISO)_NTNV



802.11ac(VHT40)_HCH_2452MHz_Ant7 (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	7	12.760	/	Pass
		2437	7	12.726	/	Pass
		2462	7	12.728	/	Pass
802.11g	SISO	2412	7	17.483	/	Pass
		2437	7	17.593	/	Pass
		2462	7	17.536	/	Pass
802.11n (HT20)	SISO	2412	7	18.356	/	Pass
		2437	7	18.422	/	Pass
		2462	7	18.388	/	Pass
802.11n (HT40)	SISO	2422	7	36.755	/	Pass
		2437	7	36.808	/	Pass
		2452	7	36.610	/	Pass
802.11ac (VHT20)	SISO	2412	7	18.339	/	Pass
		2437	7	18.367	/	Pass
		2462	7	18.394	/	Pass
802.11ac (VHT40)	SISO	2422	7	36.887	/	Pass
		2437	7	36.740	/	Pass
		2452	7	36.656	/	Pass

2.1.2 6dB BW

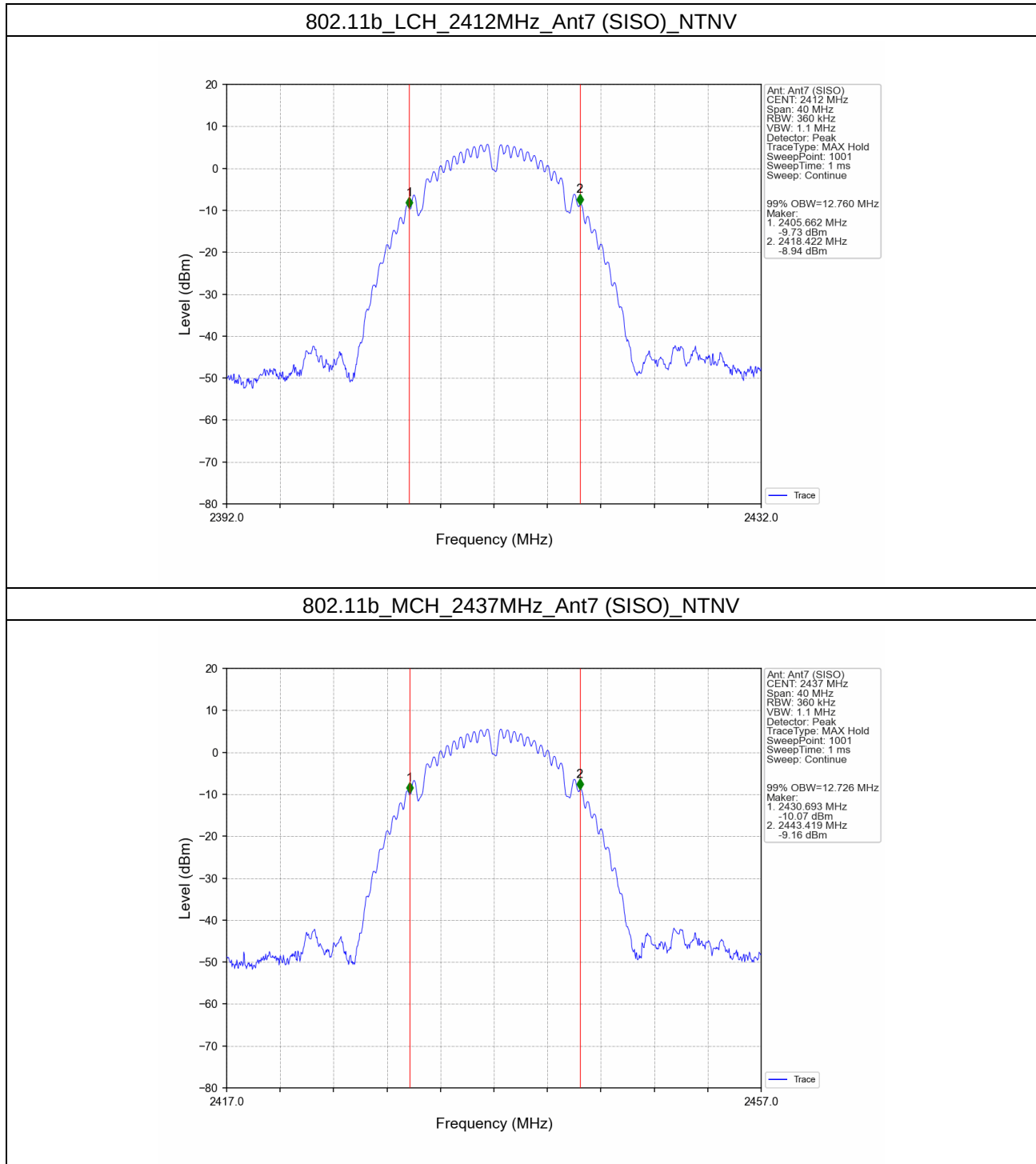
Mode	TX Type	Frequency (MHz)	ANT	6dB Bandwidth (MHz)		Verdict
				Result	Limit	
802.11b	SISO	2412	7	8.229	≥ 0.5	Pass
		2437	7	8.234	≥ 0.5	Pass
		2462	7	8.237	≥ 0.5	Pass
802.11g	SISO	2412	7	16.367	≥ 0.5	Pass
		2437	7	16.575	≥ 0.5	Pass
		2462	7	16.550	≥ 0.5	Pass
802.11n (HT20)	SISO	2412	7	17.588	≥ 0.5	Pass
		2437	7	17.929	≥ 0.5	Pass
		2462	7	17.747	≥ 0.5	Pass
802.11n	SISO	2422	7	36.462	≥ 0.5	Pass



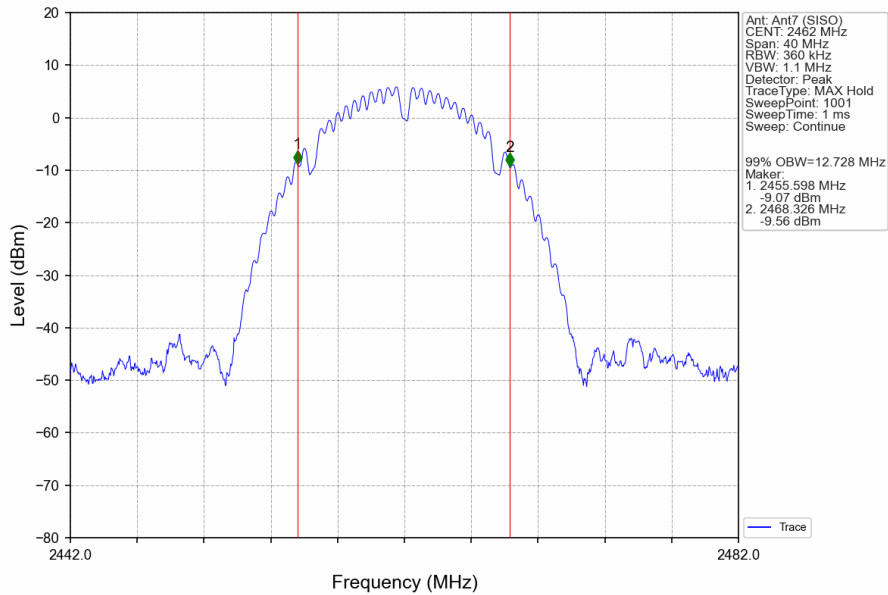
(HT40)		2437	7	36.462	≥ 0.5	Pass
		2452	7	36.268	≥ 0.5	Pass
802.11ac (VHT20)	SISO	2412	7	17.605	≥ 0.5	Pass
		2437	7	17.899	≥ 0.5	Pass
		2462	7	17.867	≥ 0.5	Pass
802.11ac (VHT40)	SISO	2422	7	36.463	≥ 0.5	Pass
		2437	7	36.262	≥ 0.5	Pass
		2452	7	36.304	≥ 0.5	Pass

2.2 Test Graph

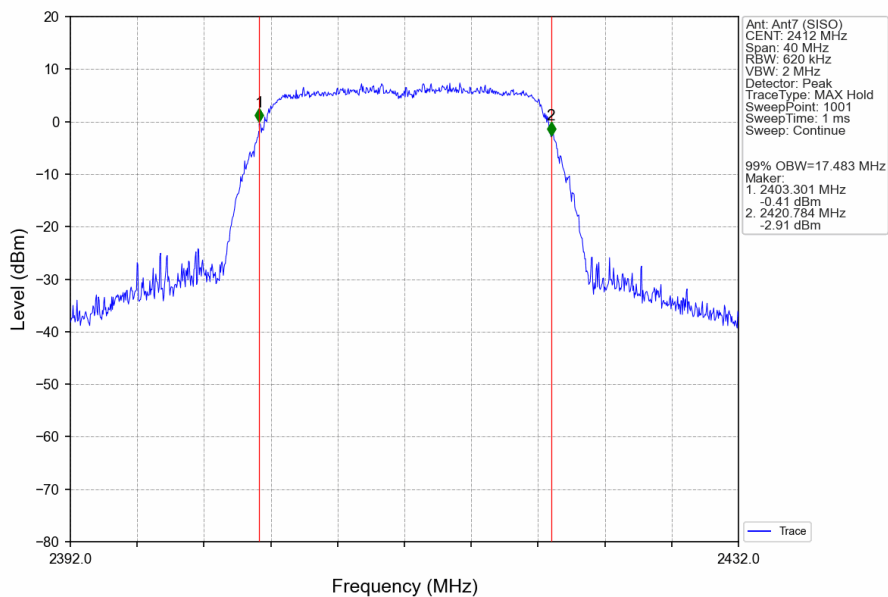
2.2.1 OBW



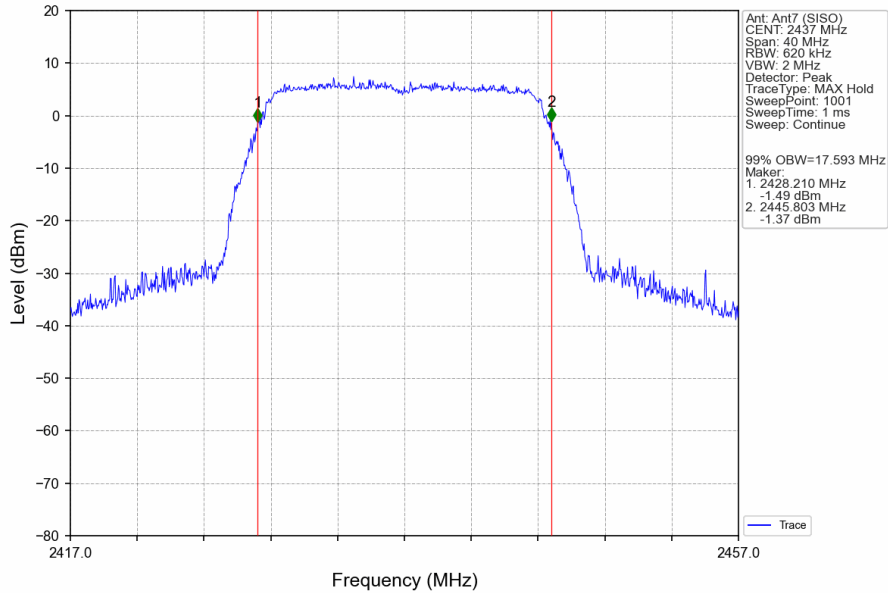
802.11b_HCH_2462MHz_Ant7 (SISO)_NTNV



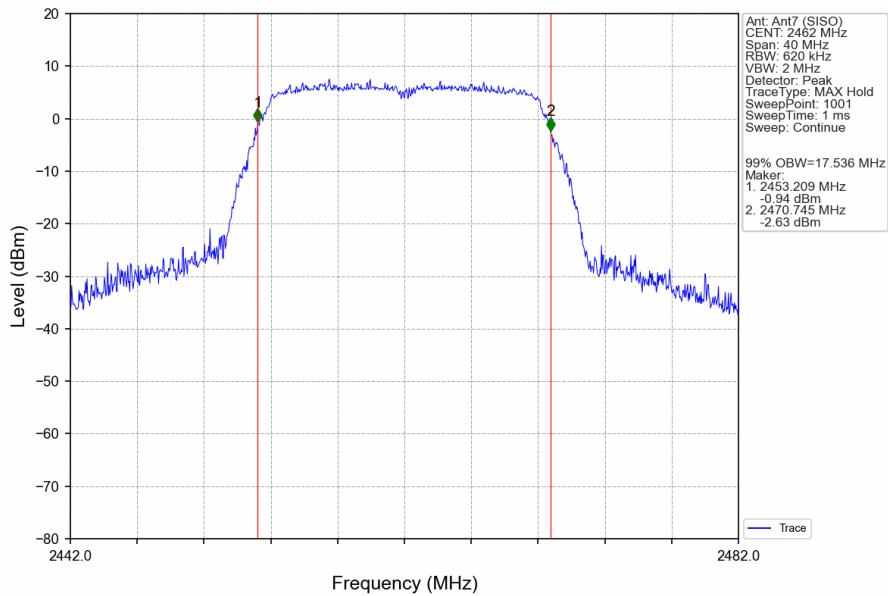
802.11g_LCH_2412MHz_Ant7 (SISO)_NTNV



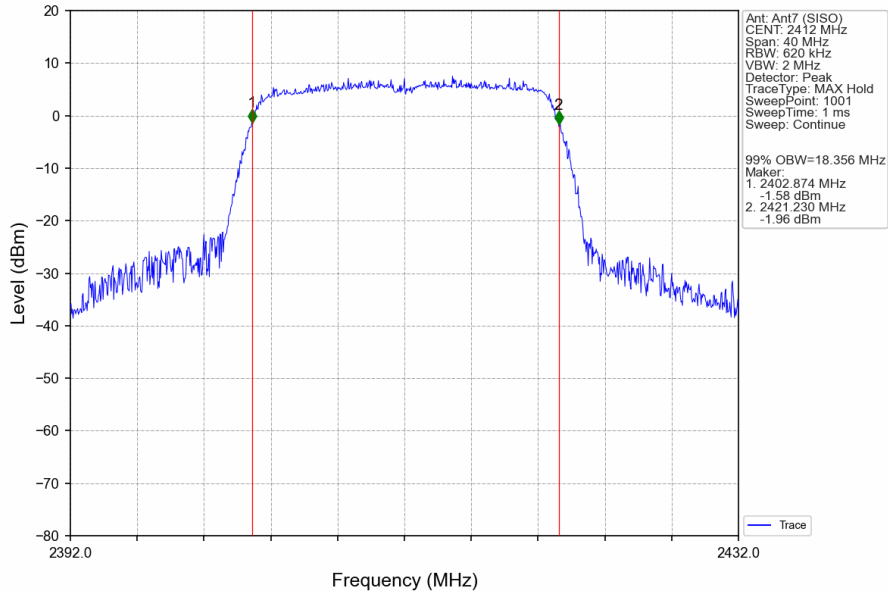
802.11g_MCH_2437MHz_Ant7 (SISO)_NTNV



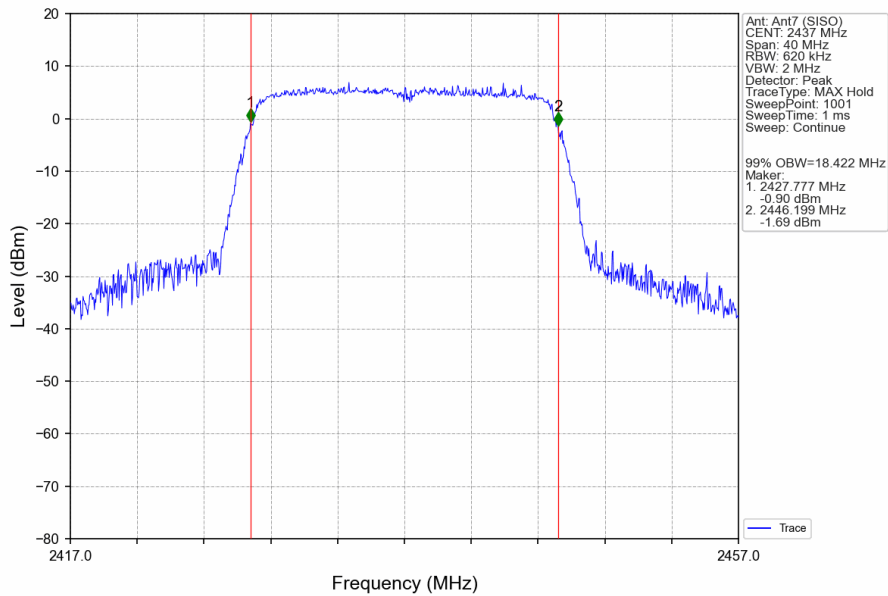
802.11g_HCH_2462MHz_Ant7 (SISO)_NTNV



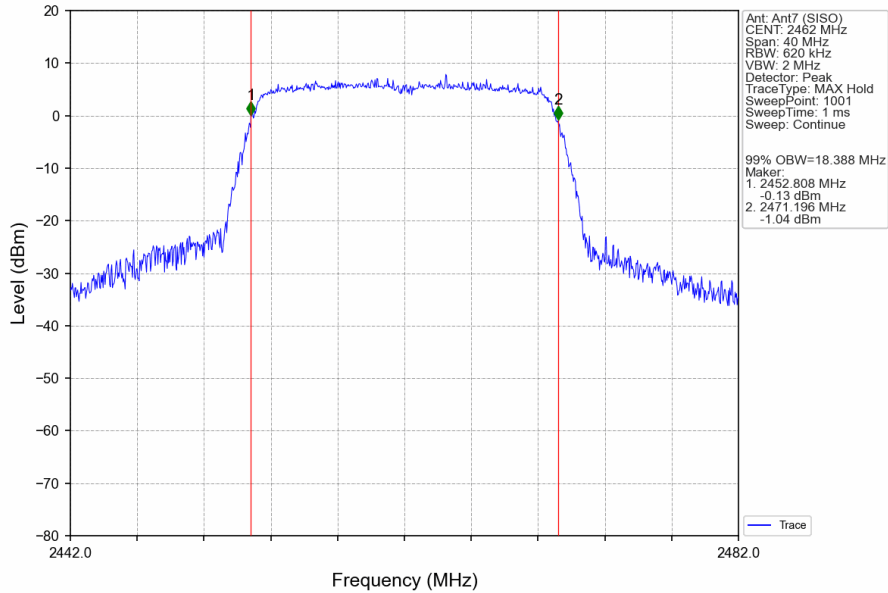
802.11n(HT20)_LCH_2412MHz_Ant7 (SISO)_NTNV



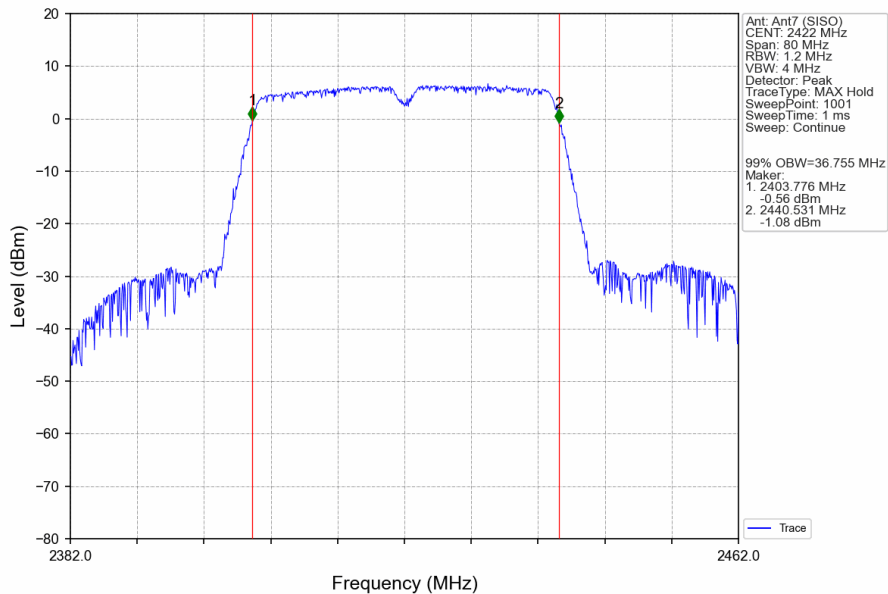
802.11n(HT20)_MCH_2437MHz_Ant7 (SISO)_NTNV



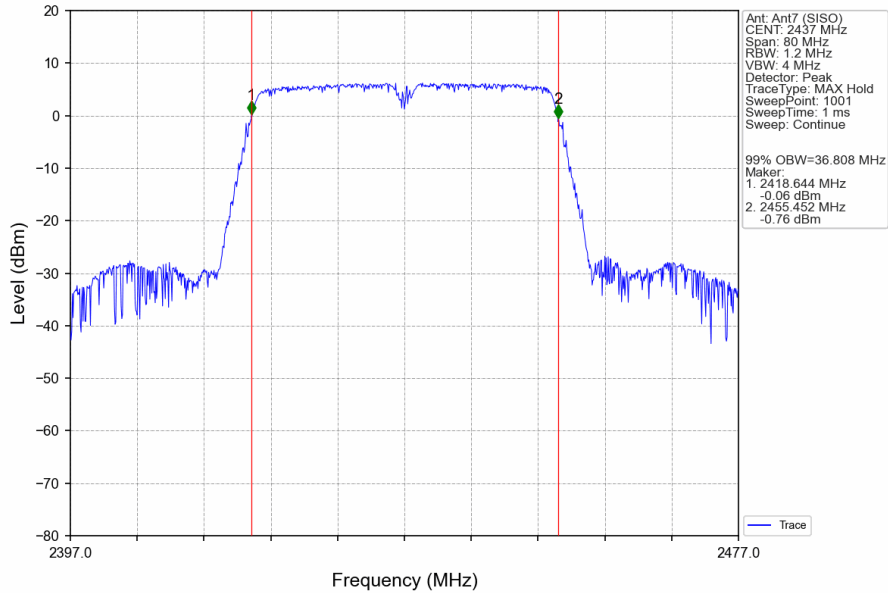
802.11n(HT20)_HCH_2462MHz_Ant7 (SISO)_NTNV



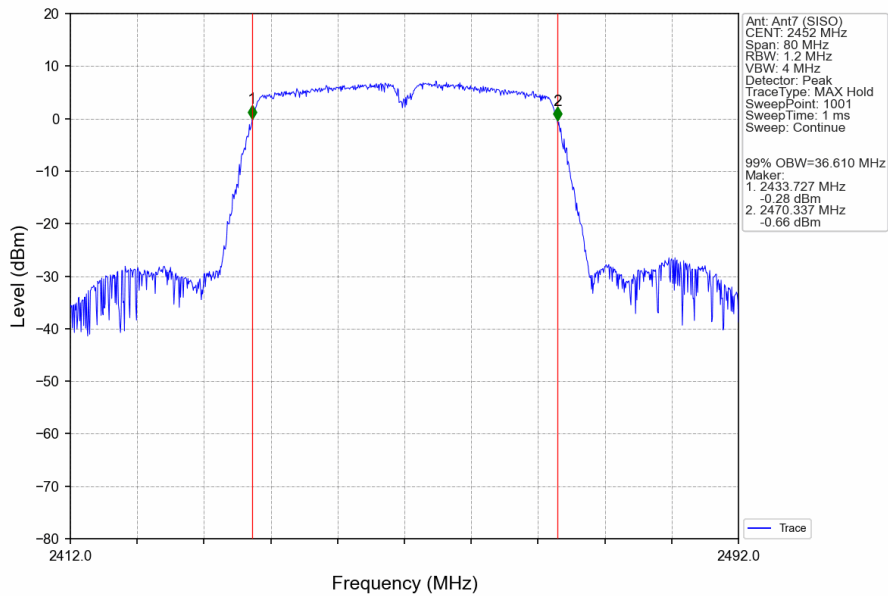
802.11n(HT40)_LCH_2422MHz_Ant7 (SISO)_NTNV



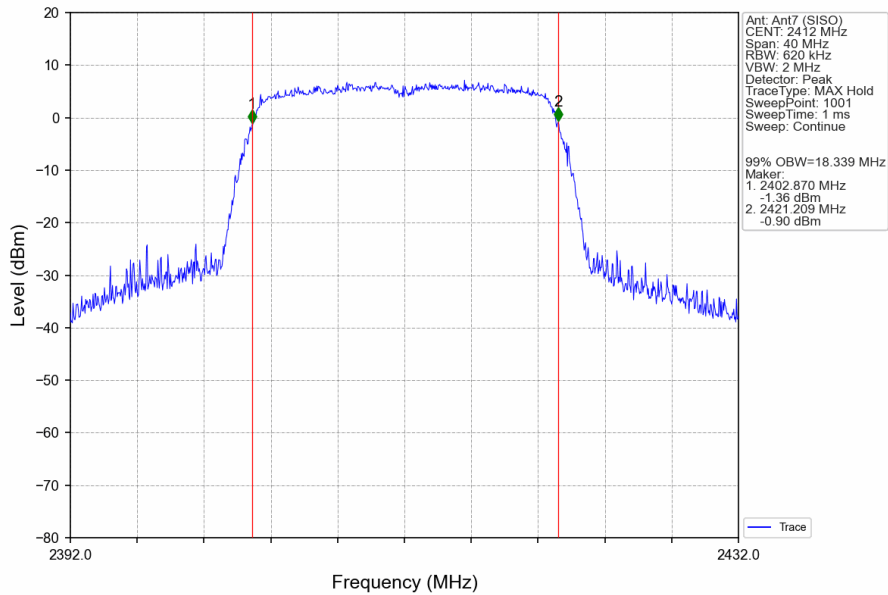
802.11n(HT40)_MCH_2437MHz_Ant7 (SISO)_NTNV



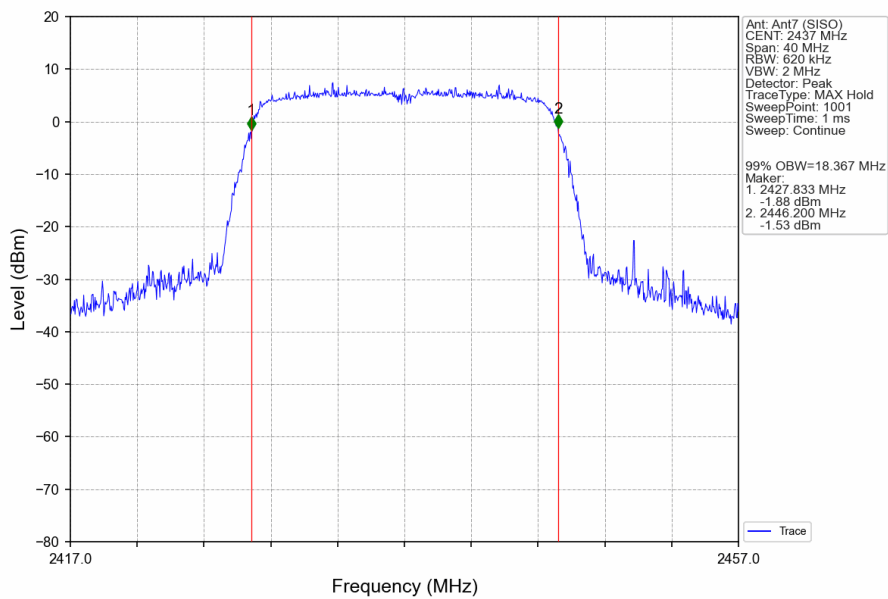
802.11n(HT40)_HCH_2452MHz_Ant7 (SISO)_NTNV



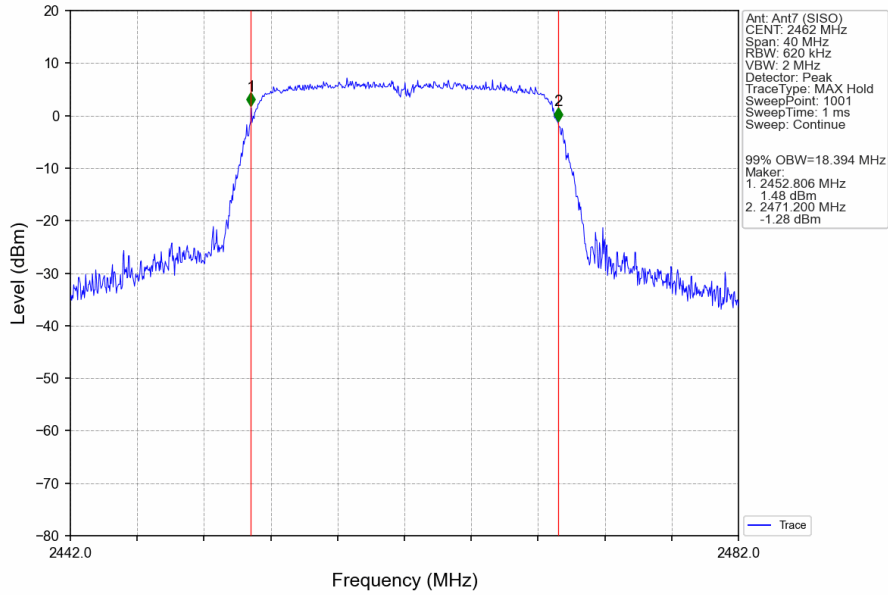
802.11ac(VHT20)_LCH_2412MHz_Ant7 (SISO)_NTNV



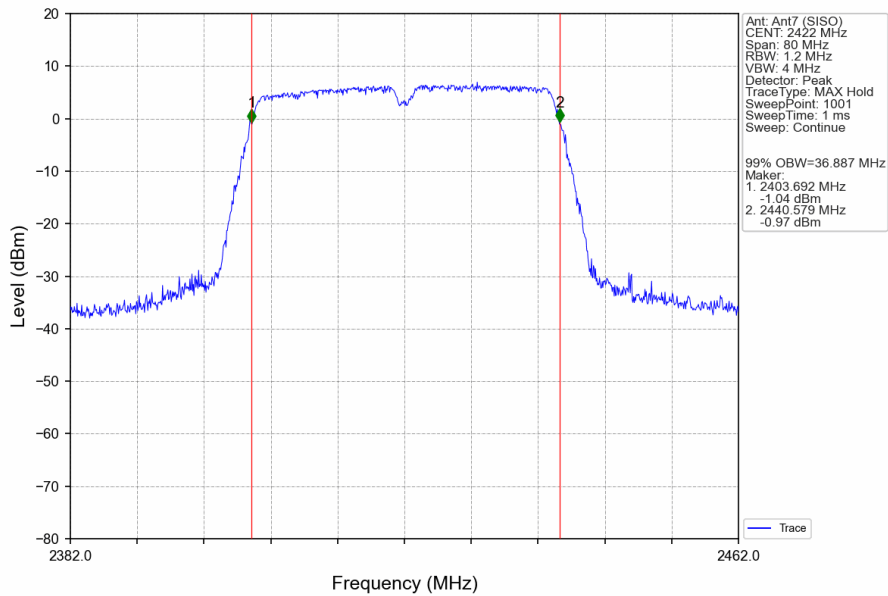
802.11ac(VHT20)_MCH_2437MHz_Ant7 (SISO)_NTNV



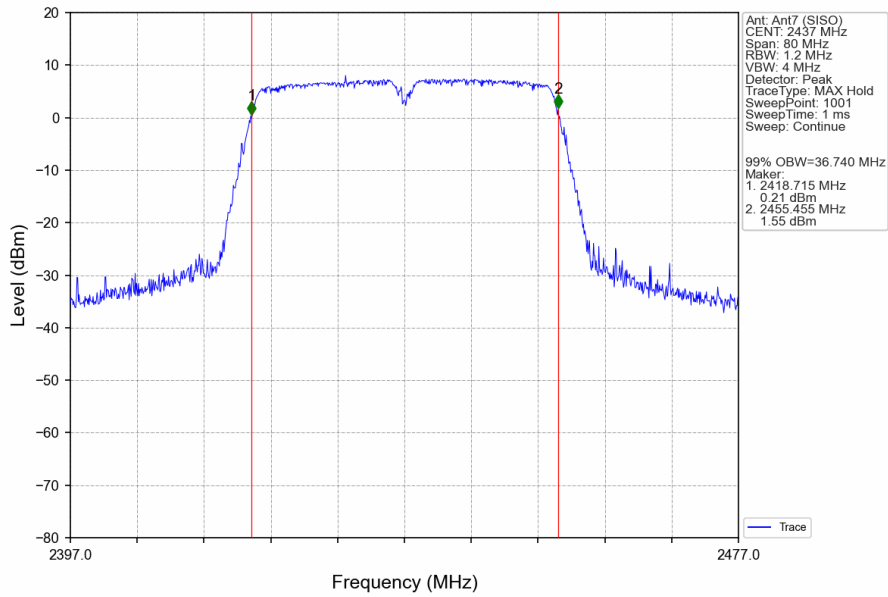
802.11ac(VHT20)_HCH_2462MHz_Ant7 (SISO)_NTNV



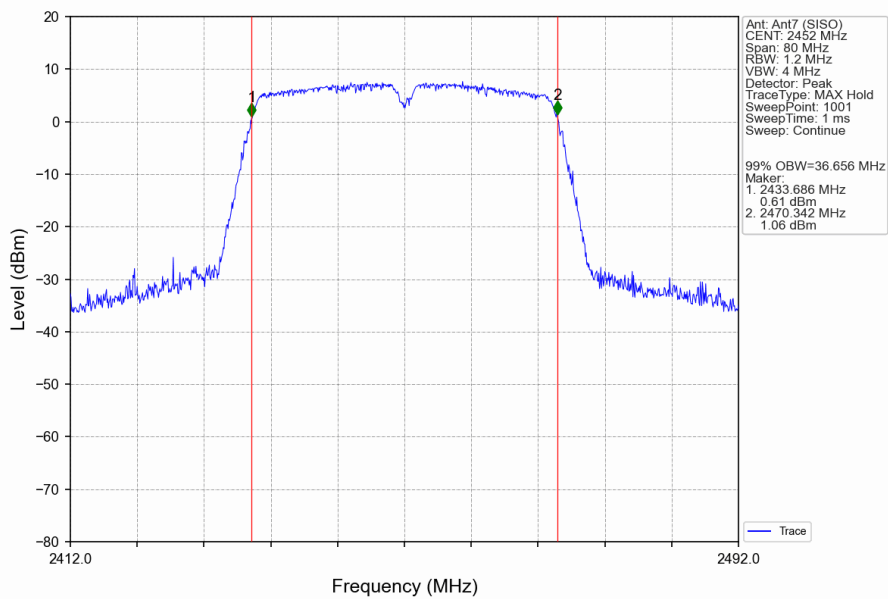
802.11ac(VHT40)_LCH_2422MHz_Ant7 (SISO)_NTNV



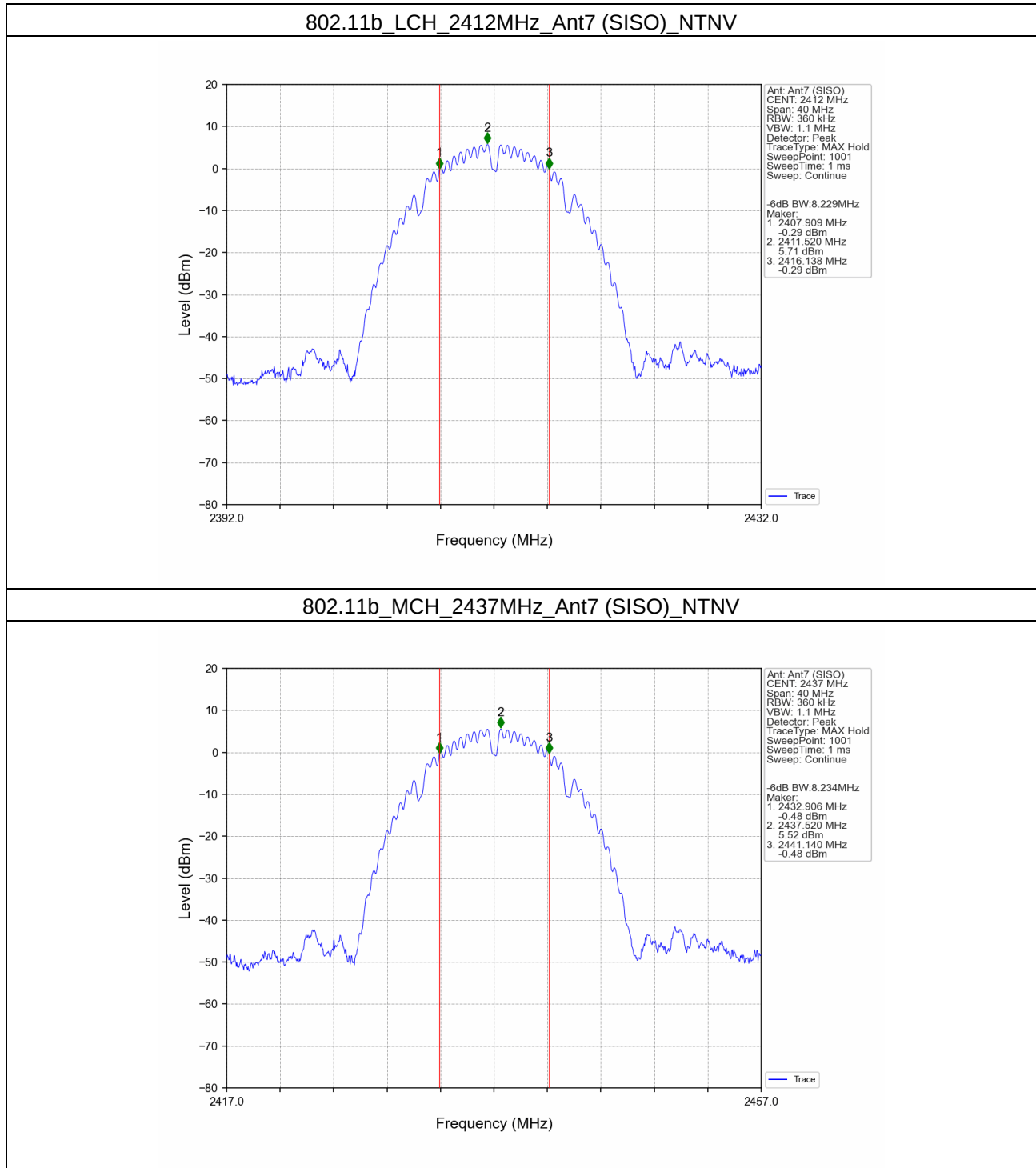
802.11ac(VHT40)_MCH_2437MHz_Ant7 (SISO)_NTNV



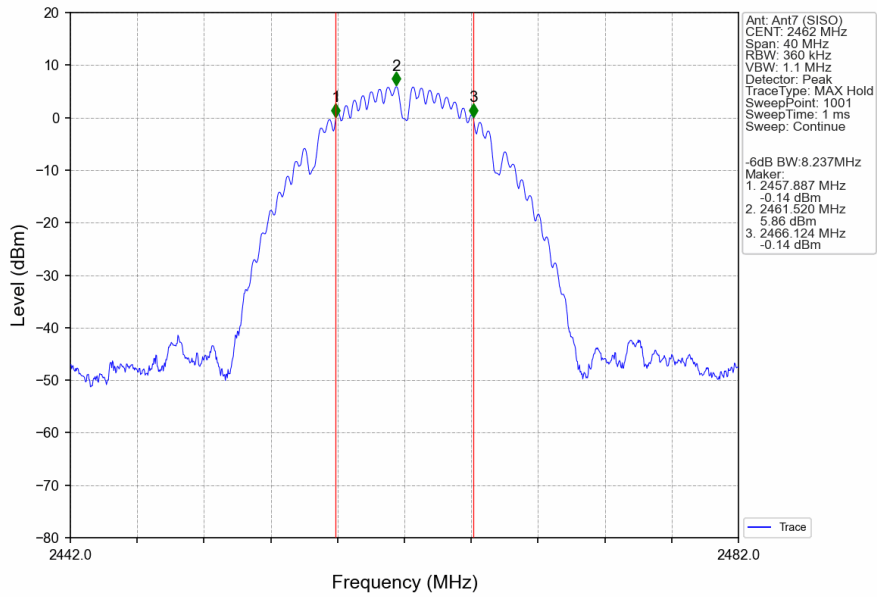
802.11ac(VHT40)_HCH_2452MHz_Ant7 (SISO)_NTNV



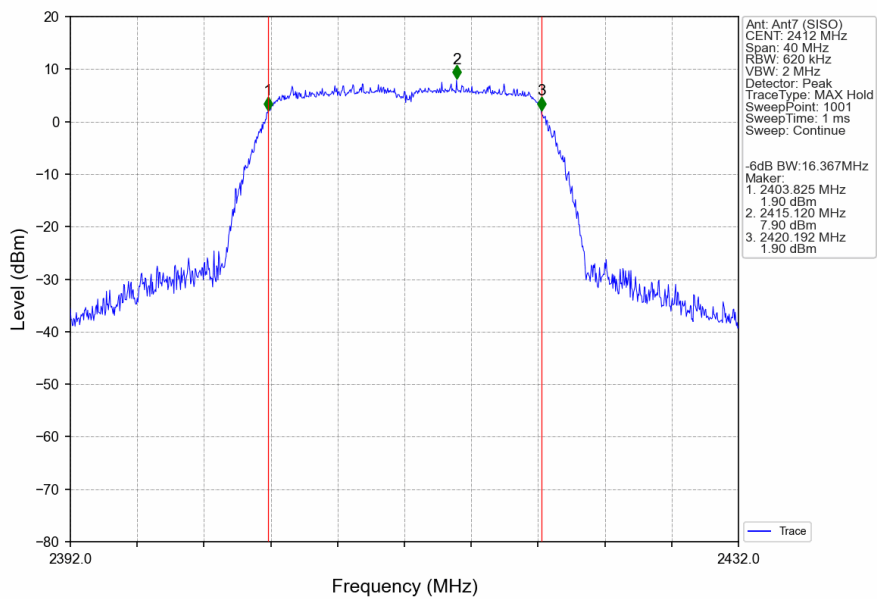
2.2.2 6dB BW



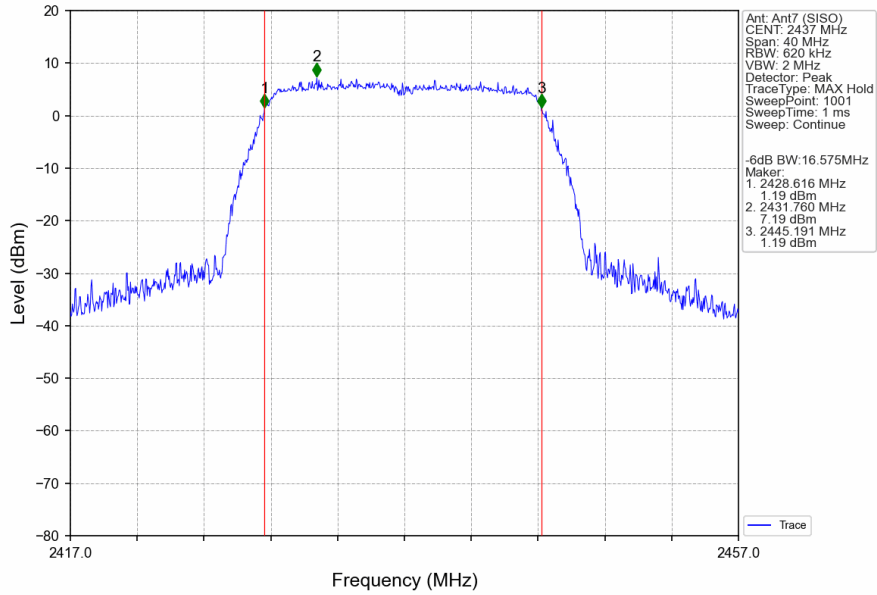
802.11b_HCH_2462MHz_Ant7 (SISO)_NTNV



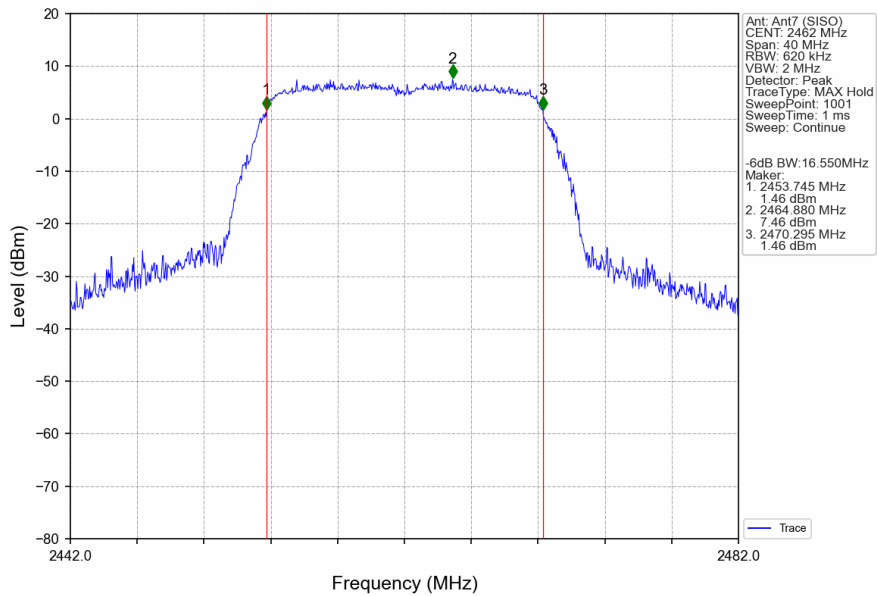
802.11g_LCH_2412MHz_Ant7 (SISO)_NTNV



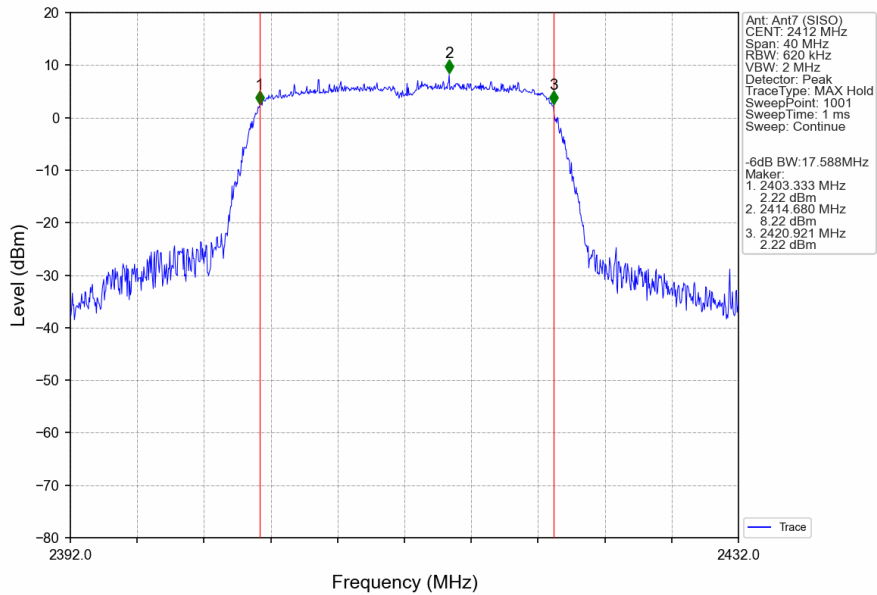
802.11g_MCH_2437MHz_Ant7 (SISO)_NTNV



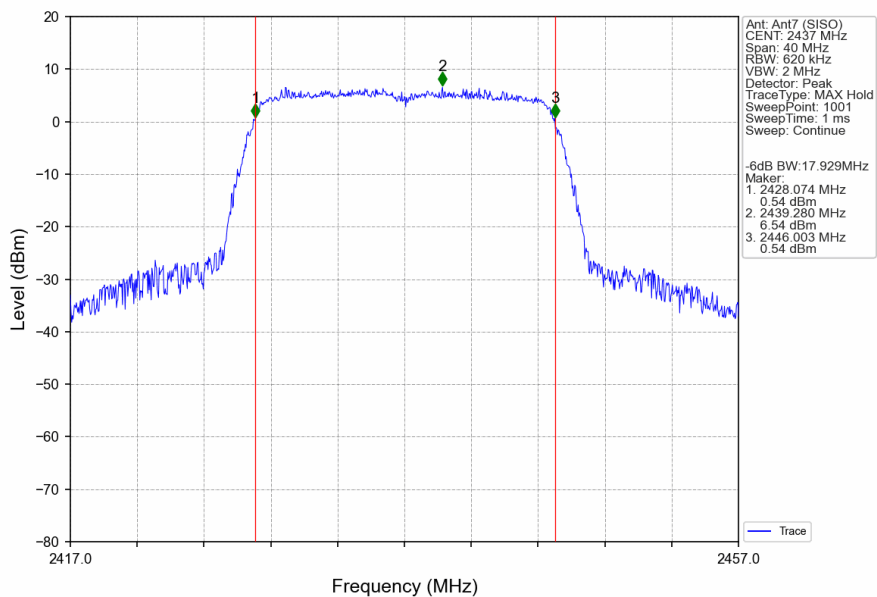
802.11g_HCH_2462MHz_Ant7 (SISO)_NTNV



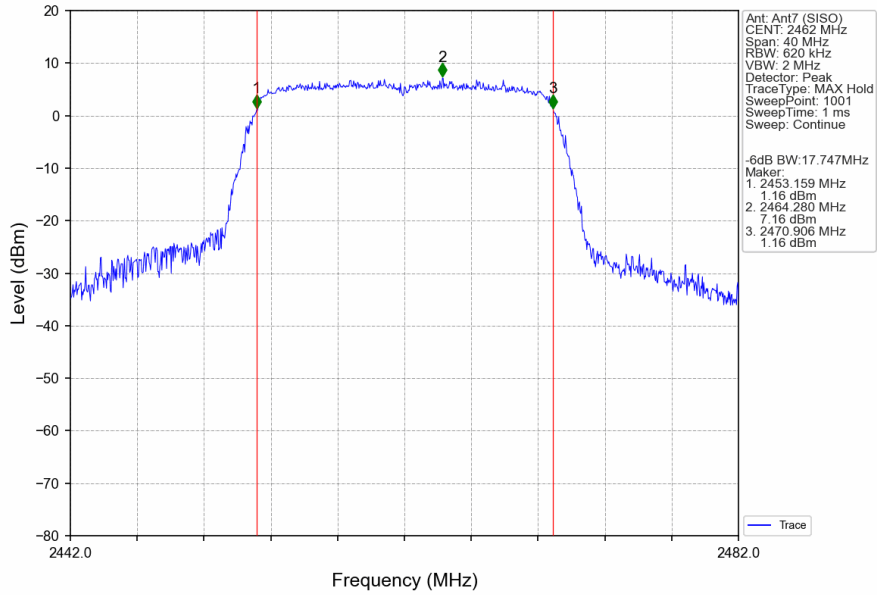
802.11n(HT20)_LCH_2412MHz_Ant7 (SISO)_NTNV



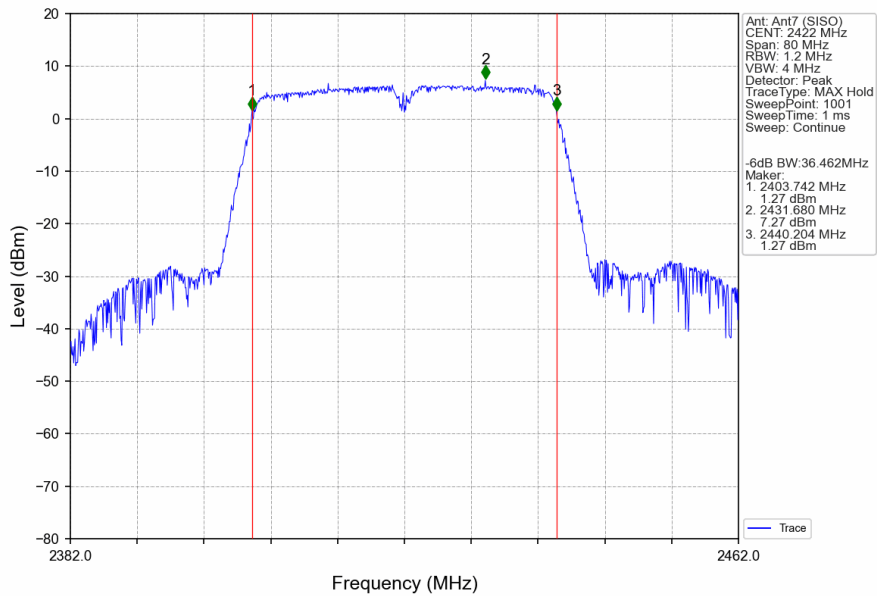
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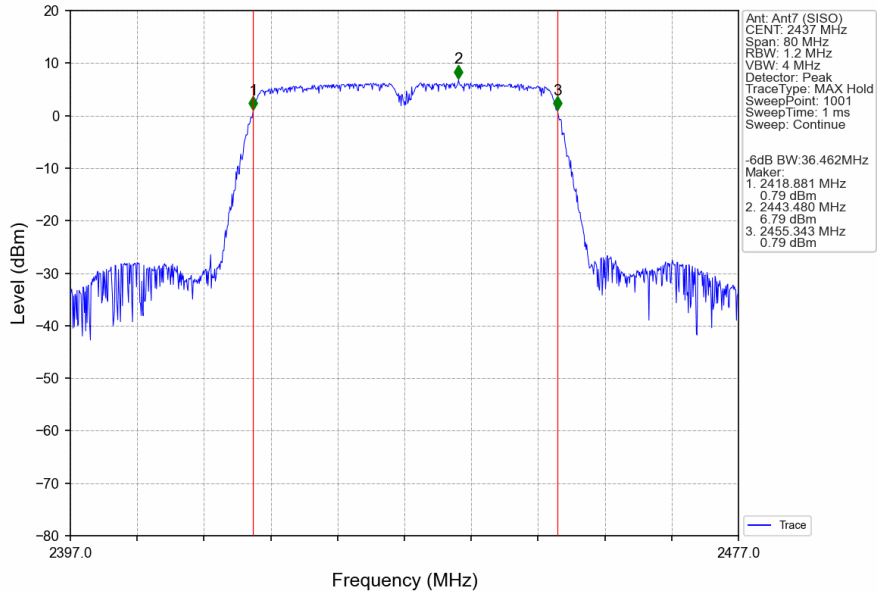
802.11n(HT20)_HCH_2462MHz_Ant7 (SISO)_NTNV



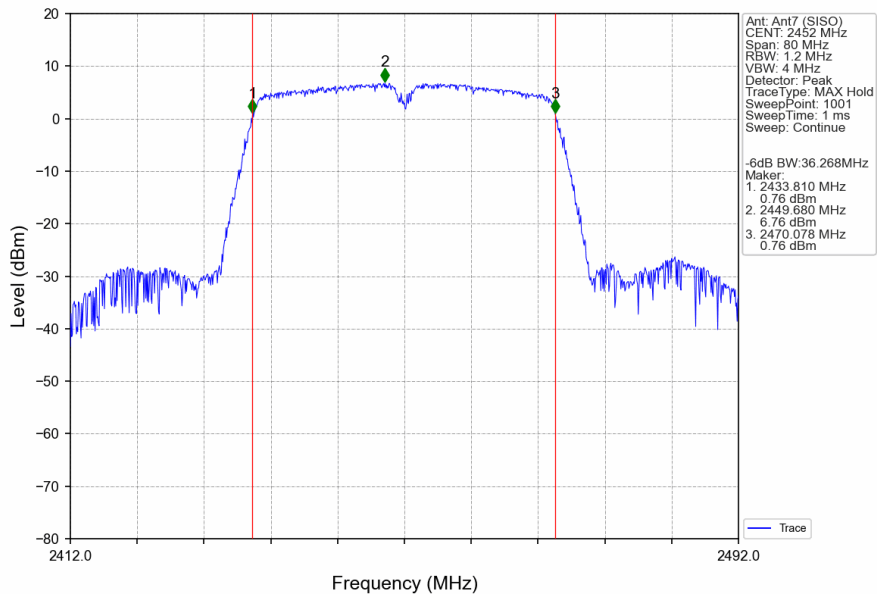
802.11n(HT40)_LCH_2422MHz_Ant7 (SISO)_NTNV



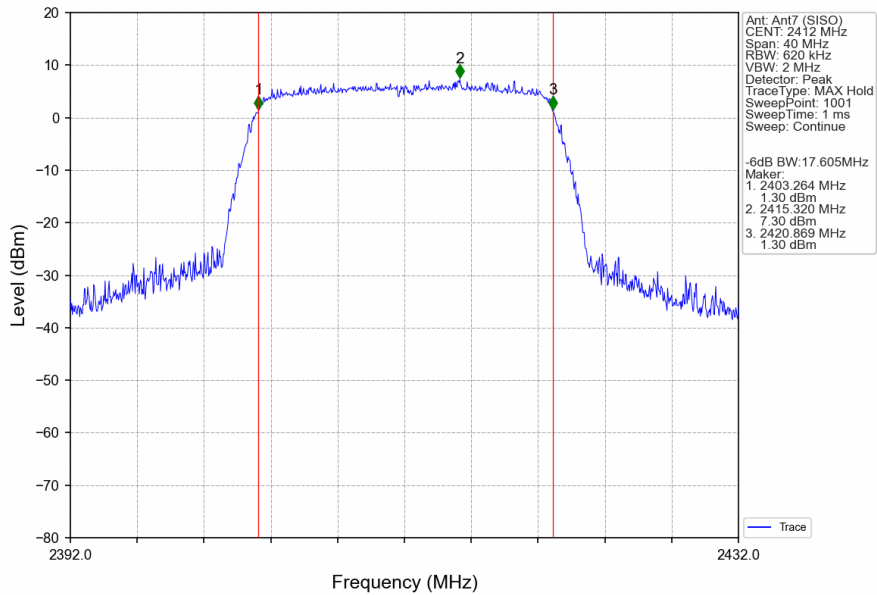
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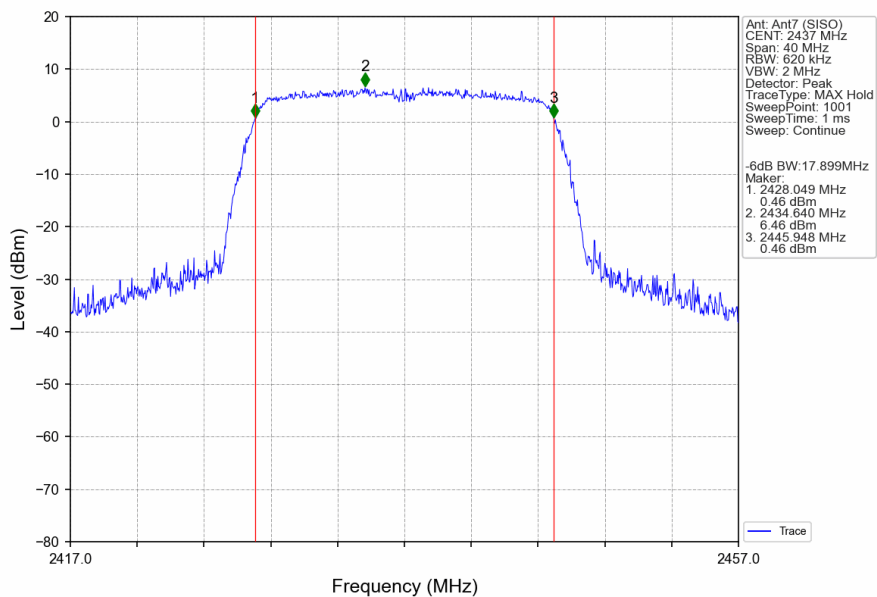
802.11n(HT40)_HCH_2452MHz_Ant7 (SISO)_NTNV



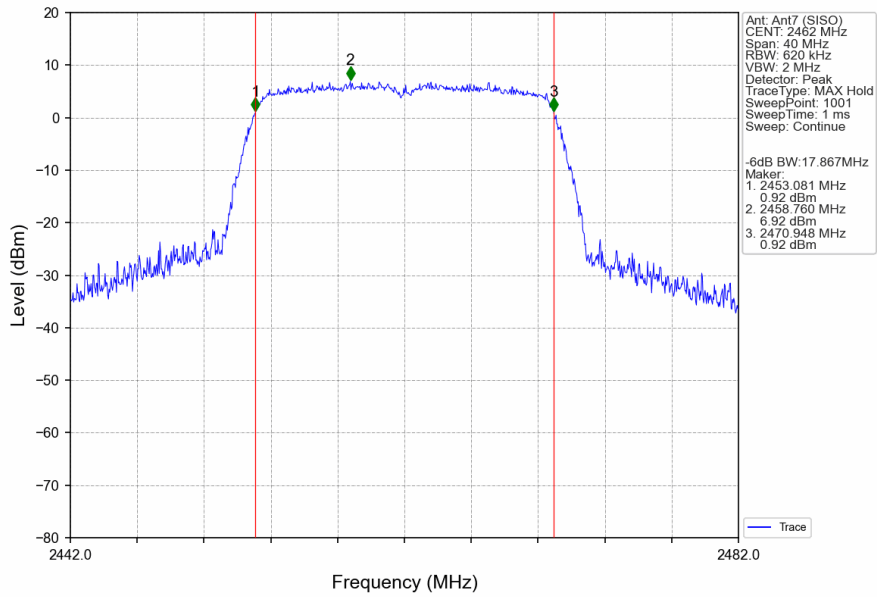
802.11ac(VHT20)_LCH_2412MHz_Ant7 (SISO)_NTNV



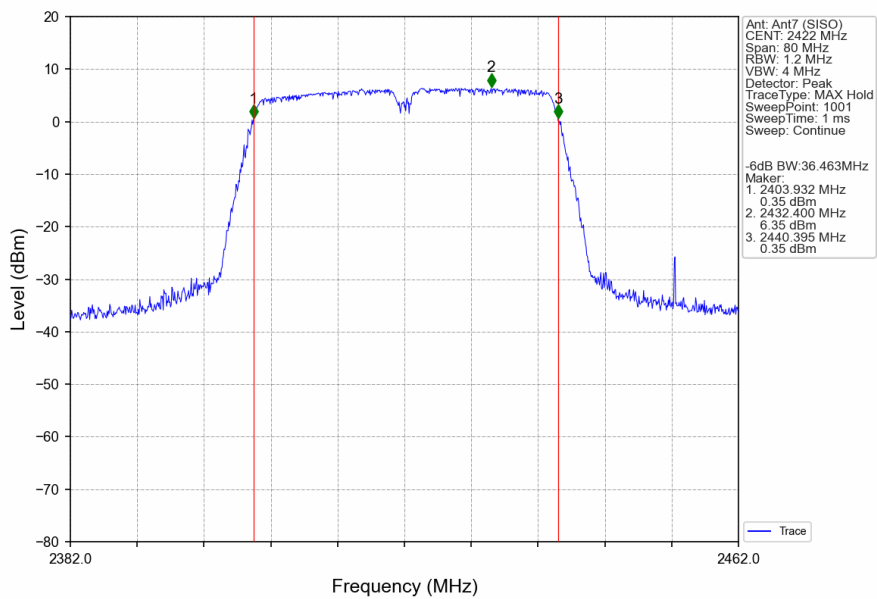
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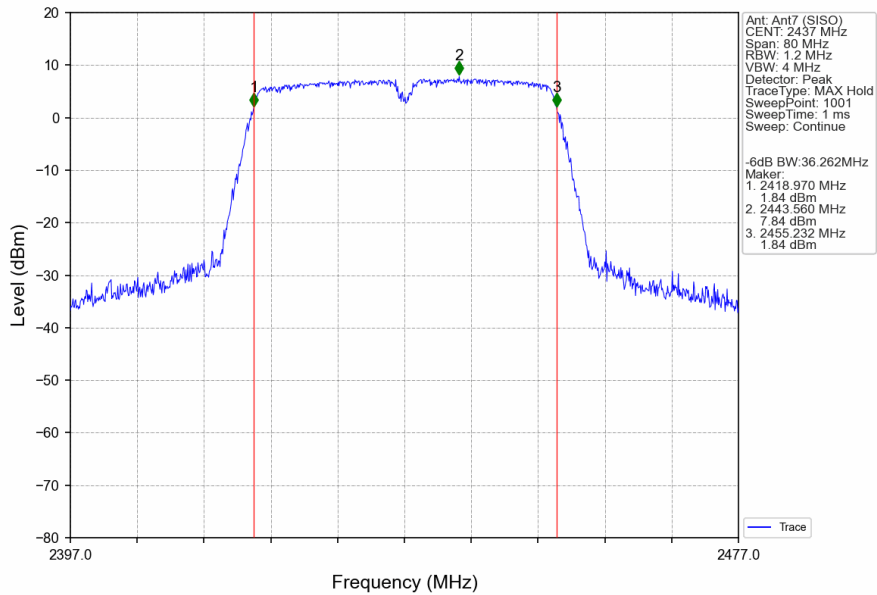
802.11ac(VHT20)_HCH_2462MHz_Ant7 (SISO)_NTNV



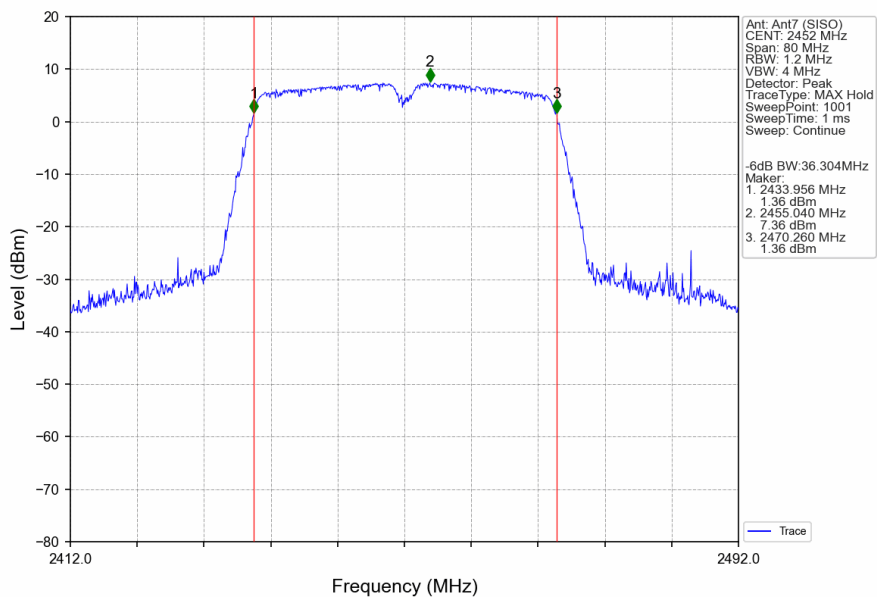
802.11ac(VHT40)_LCH_2422MHz_Ant7 (SISO)_NTNV



802.11ac(VHT40)_MCH_2437MHz_Ant7 (SISO)_NTNV



802.11ac(VHT40)_HCH_2452MHz_Ant7 (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
			ANT7	Limit	
802.11b	SISO	2412	14.84	≤ 30	Pass
		2437	14.50	≤ 30	Pass
		2462	14.99	≤ 30	Pass
802.11g	SISO	2412	13.85	≤ 30	Pass
		2437	16.42	≤ 30	Pass
		2462	16.83	≤ 30	Pass
802.11n (HT20)	SISO	2412	13.79	≤ 30	Pass
		2437	16.36	≤ 30	Pass
		2462	16.82	≤ 30	Pass
802.11n (HT40)	SISO	2422	14.00	≤ 30	Pass
		2437	17.04	≤ 30	Pass
		2452	17.02	≤ 30	Pass
802.11ac (VHT20)	SISO	2412	13.81	≤ 30	Pass
		2437	16.40	≤ 30	Pass
		2462	16.77	≤ 30	Pass
802.11ac (VHT40)	SISO	2422	13.98	≤ 30	Pass
		2437	16.99	≤ 30	Pass
		2452	17.00	≤ 30	Pass

Note1: Antenna Gain: Ant7: -1.50dBi;

4. Maximum Power Spectral Density

4.1 Test Result

4.1.1 PSD

Mode	TX Type	Frequency (MHz)	Maximum PSD (dBm)		Verdict
			ANT7	Limit	
802.11b	SISO	2412	-1.70	≤ 8	Pass
		2437	-2.09	≤ 8	Pass
		2462	-1.28	≤ 8	Pass
802.11g	SISO	2412	-6.02	≤ 8	Pass



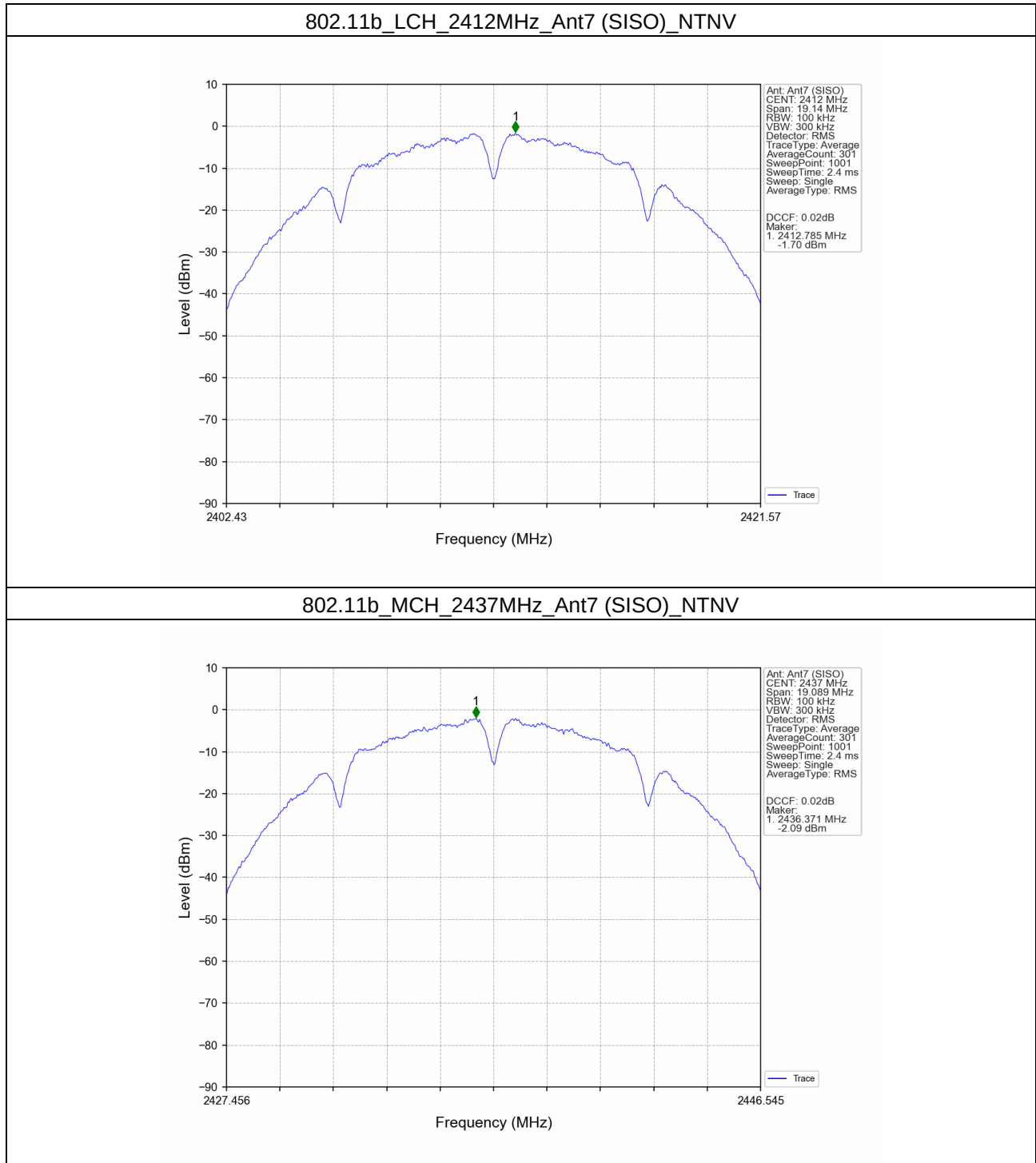
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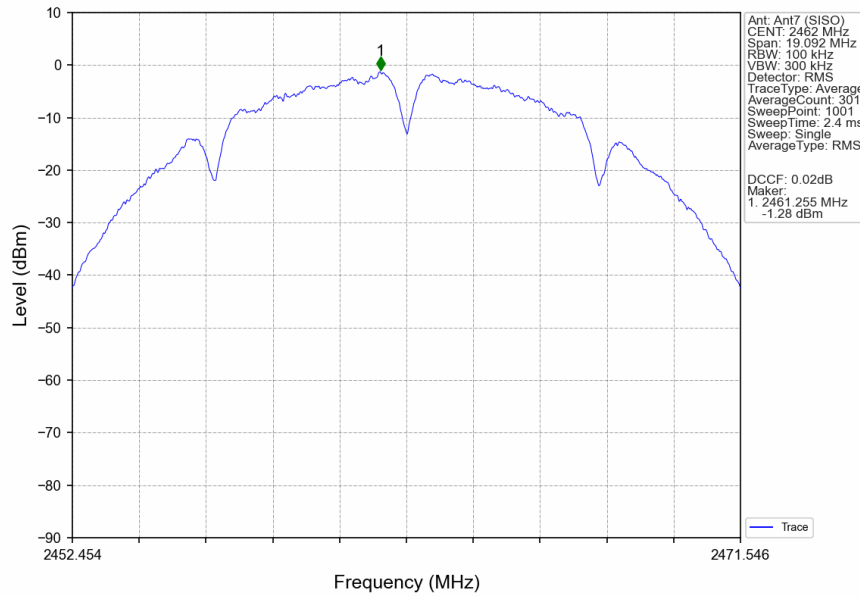
		2437	-3.61	<=8	Pass
		2462	-3.24	<=8	Pass
802.11n (HT20)	SISO	2412	-6.03	<=8	Pass
		2437	-3.76	<=8	Pass
		2462	-3.38	<=8	Pass
802.11n (HT40)	SISO	2422	-8.91	<=8	Pass
		2437	-5.83	<=8	Pass
		2452	-5.63	<=8	Pass
802.11ac (VHT20)	SISO	2412	-6.49	<=8	Pass
		2437	-3.78	<=8	Pass
		2462	-3.39	<=8	Pass
802.11ac (VHT40)	SISO	2422	-9.15	<=8	Pass
		2437	-6.17	<=8	Pass
		2452	-5.77	<=8	Pass
Note1: Antenna Gain: Ant7: -1.50dBi;					

4.2 Test Graph

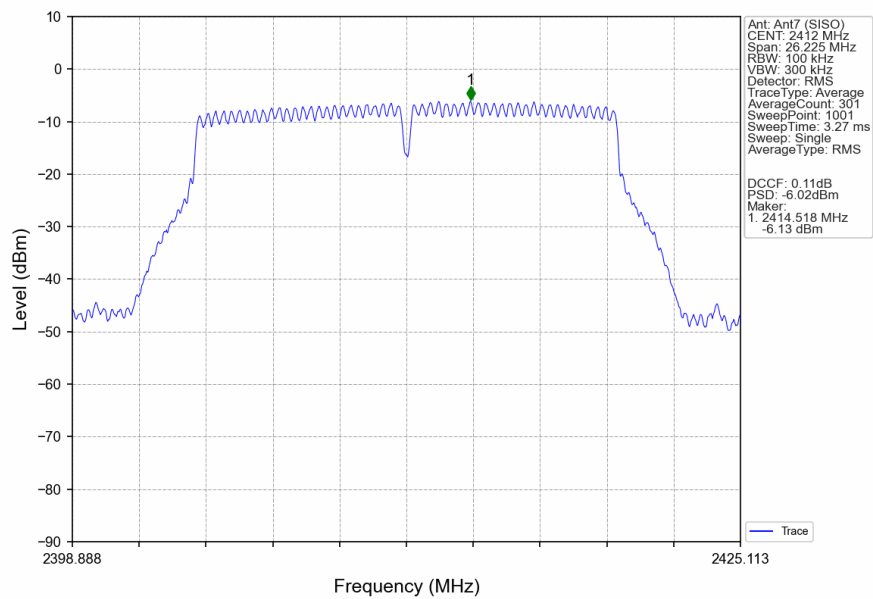
4.2.1 PSD



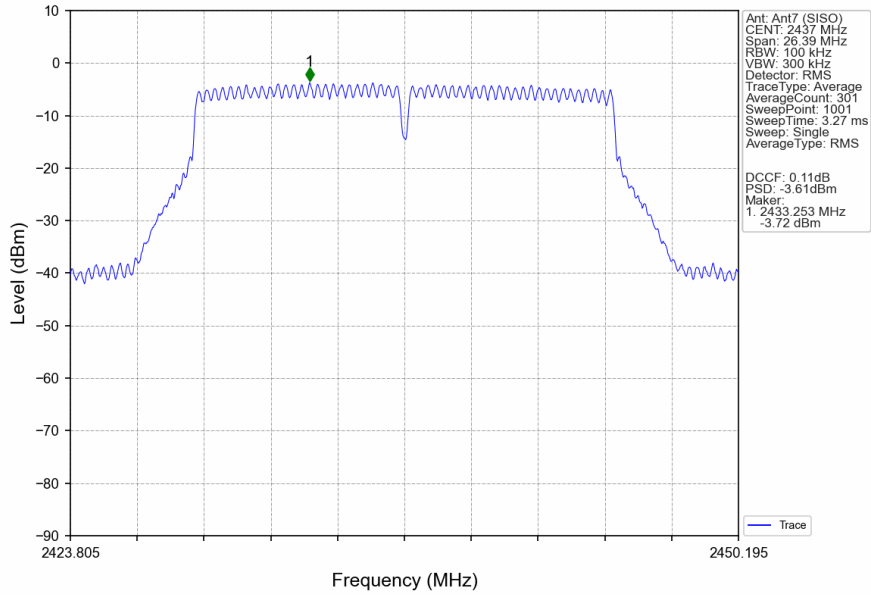
802.11b_HCH_2462MHz_Ant7 (SISO)_NTNV



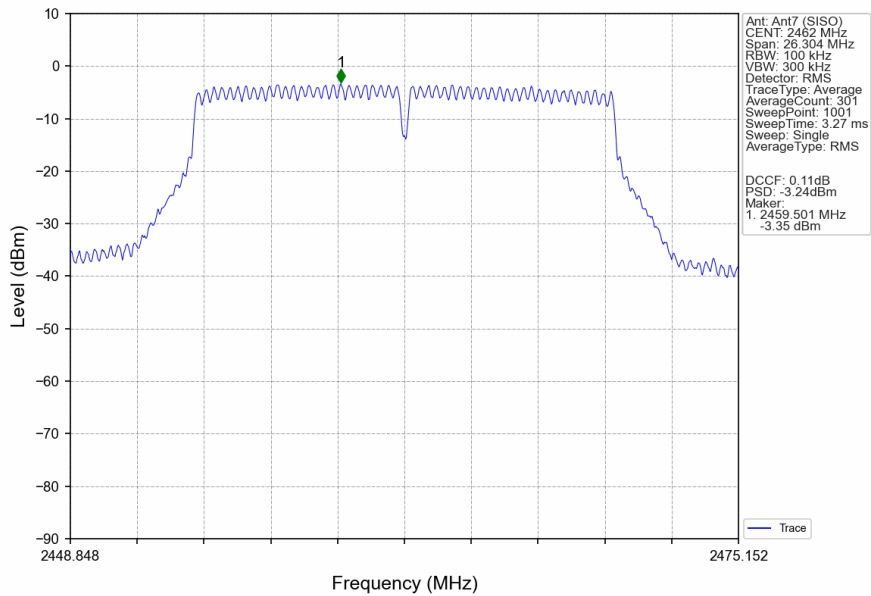
802.11g_LCH_2412MHz_Ant7 (SISO)_NTNV

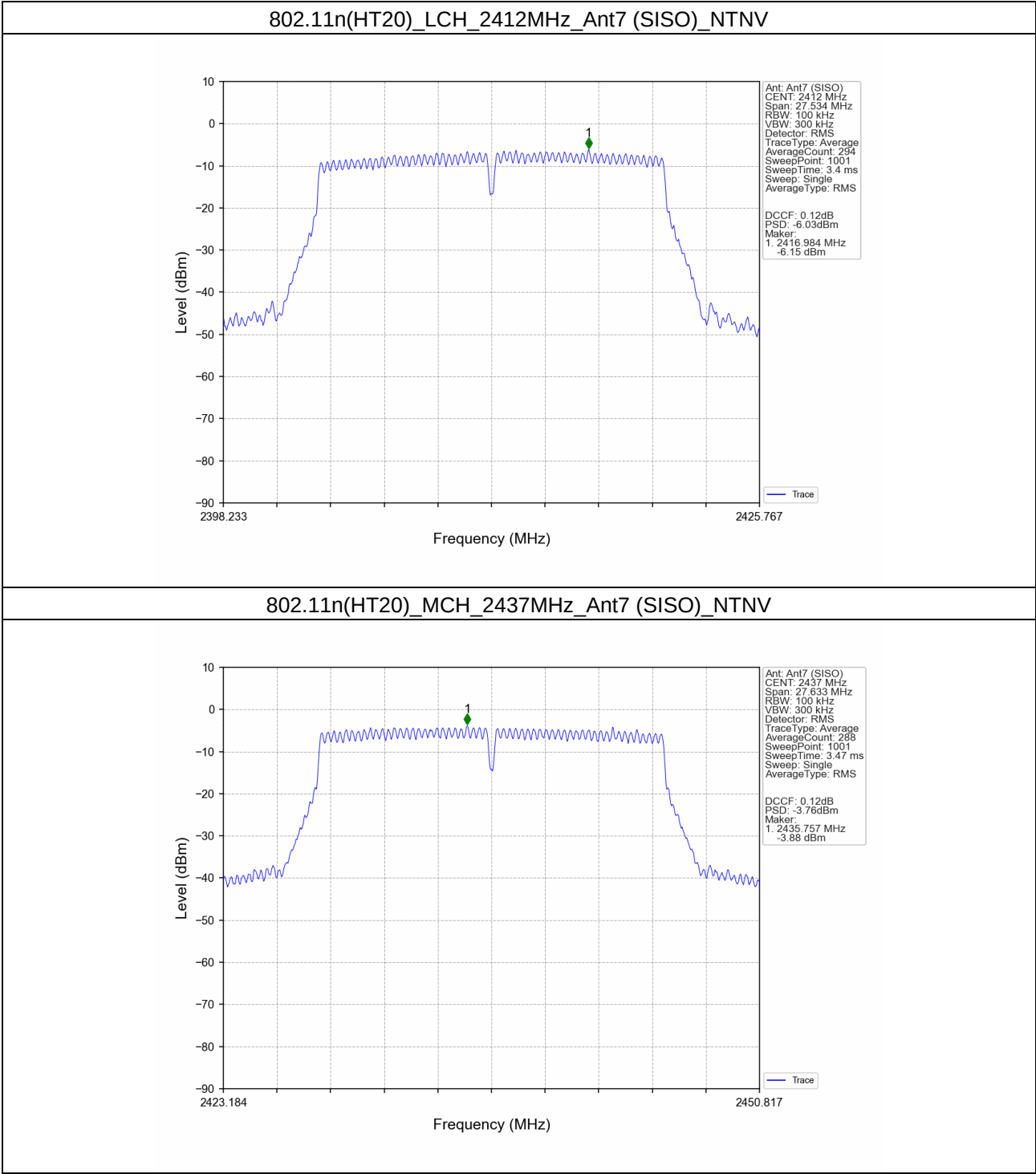


802.11g_MCH_2437MHz_Ant7 (SISO)_NTNV

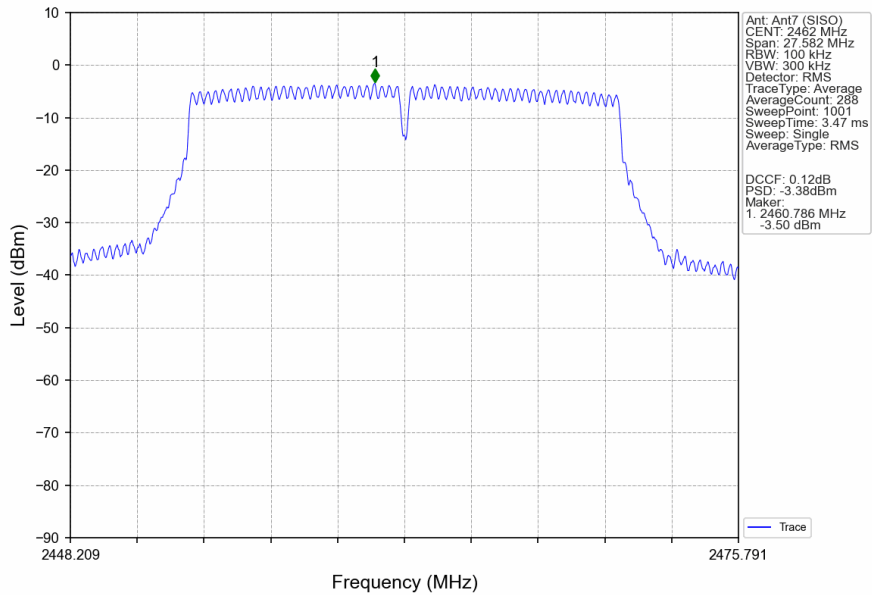


802.11g_HCH_2462MHz_Ant7 (SISO)_NTNV

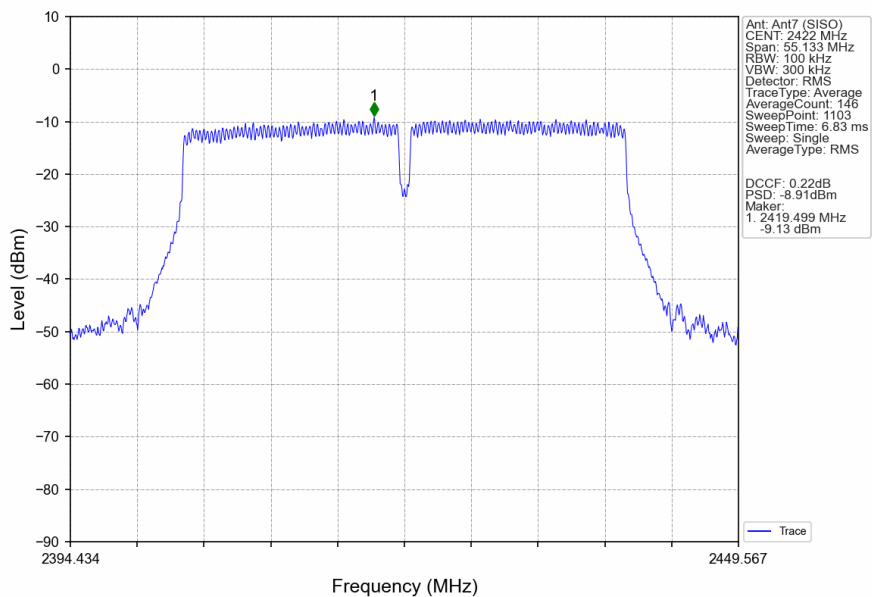




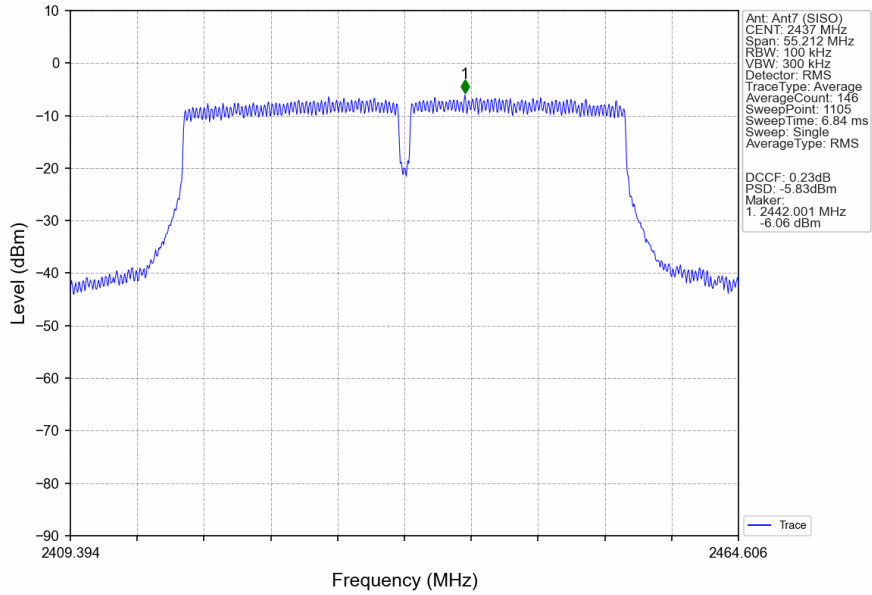
802.11n(HT20)_HCH_2462MHz_Ant7 (SISO)_NTNV



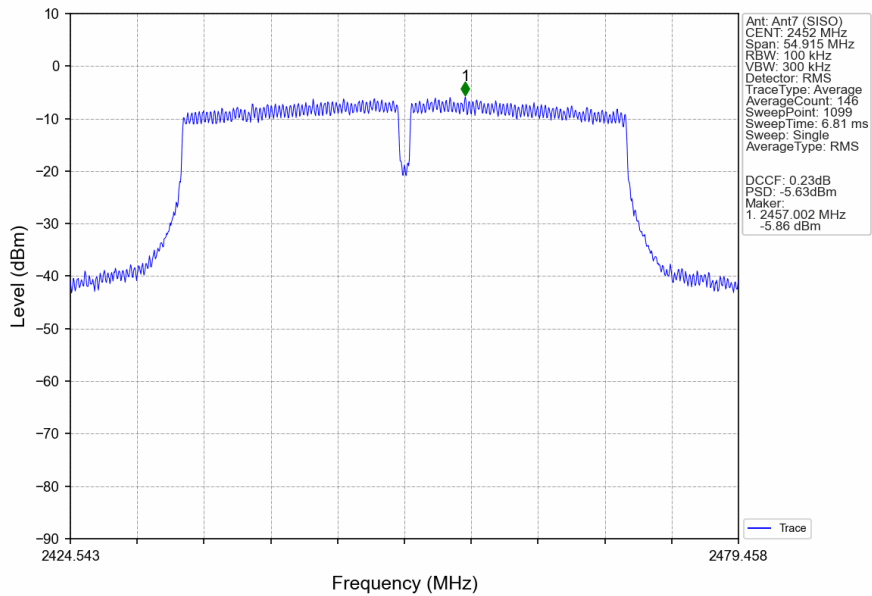
802.11n(HT40)_LCH_2422MHz_Ant7 (SISO)_NTNV

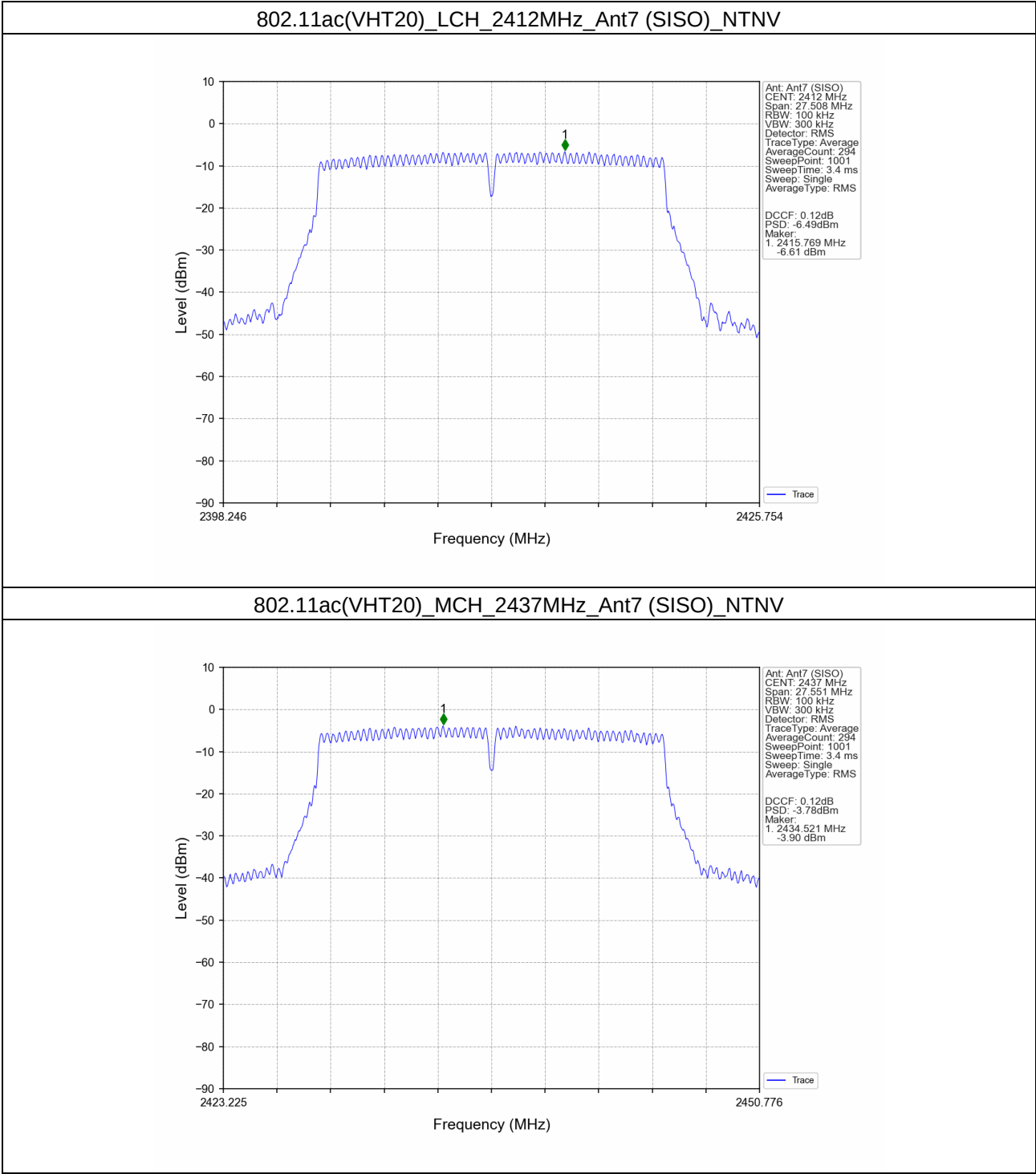


802.11n(HT40)_MCH_2437MHz_Ant7 (SISO)_NTNV

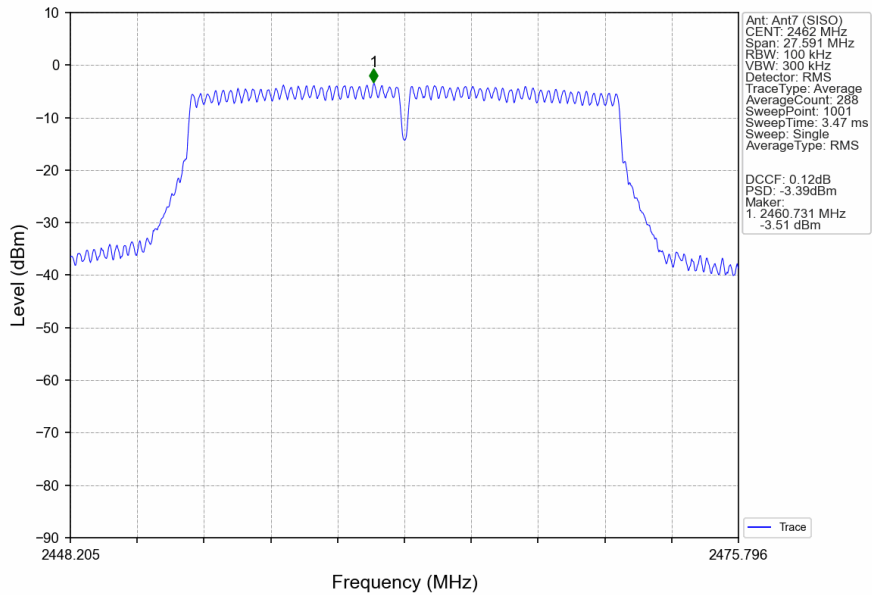


802.11n(HT40)_HCH_2452MHz_Ant7 (SISO)_NTNV

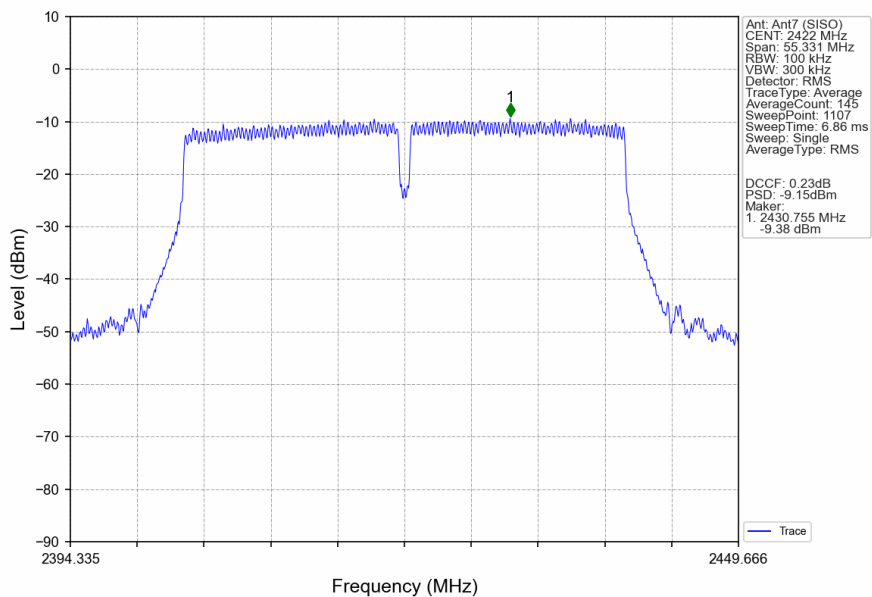




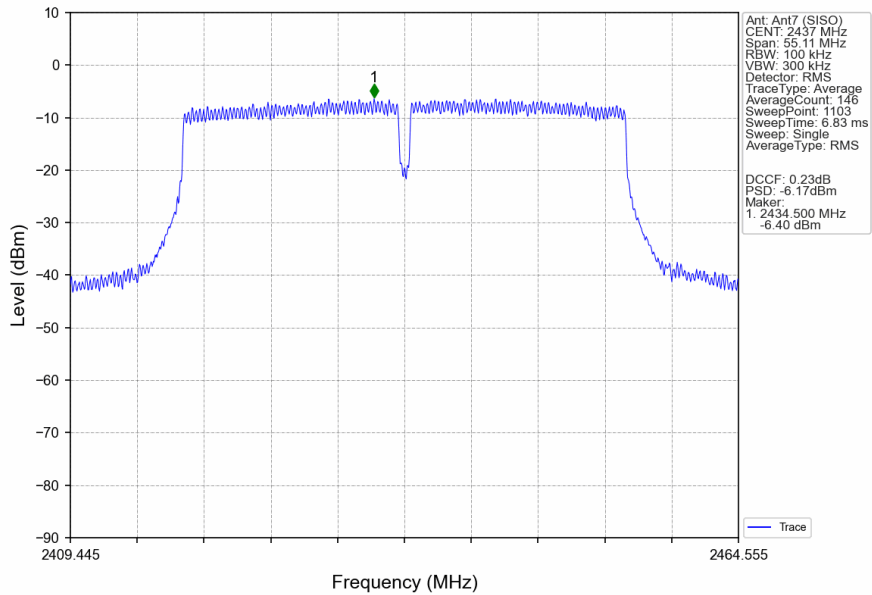
802.11ac(VHT20)_HCH_2462MHz_Ant7 (SISO)_NTNV



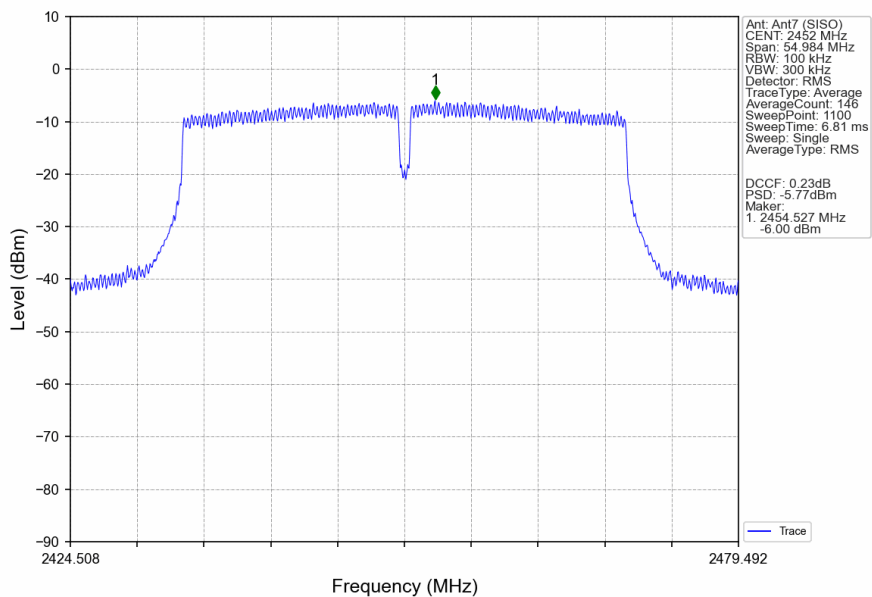
802.11ac(VHT40)_LCH_2422MHz_Ant7 (SISO)_NTNV



802.11ac(VHT40)_MCH_2437MHz_Ant7 (SISO)_NTNV



802.11ac(VHT40)_HCH_2452MHz_Ant7 (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	7	6.89
		2437	7	6.39
		2462	7	6.96
802.11g	SISO	2412	7	3.17
		2437	7	5.22
		2462	7	6.12
802.11n (HT20)	SISO	2412	7	2.98
		2437	7	5.61
		2462	7	6.02
802.11n (HT40)	SISO	2422	7	0.09
		2437	7	3.13
		2452	7	3.37
802.11ac (VHT20)	SISO	2412	7	3.09
		2437	7	5.64
		2462	7	6.08
802.11ac (VHT40)	SISO	2422	7	0.24
		2437	7	3.35
		2452	7	3.41

Note1: Refer to FCC Part 15.247 (d) and ANSI C63.10-2020, 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	7	6.96	-23.04	Pass
		2437	7	6.96	-23.04	Pass
		2462	7	6.96	-23.04	Pass