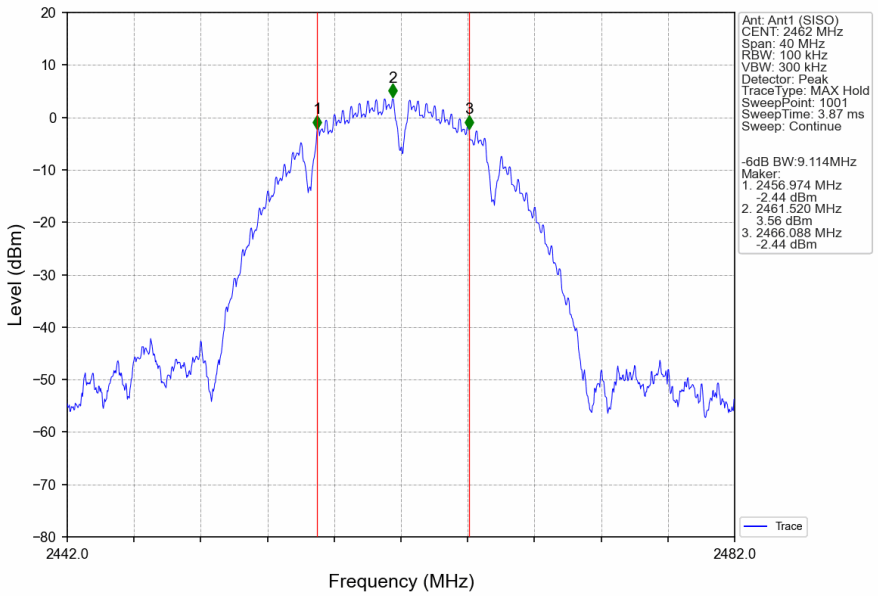
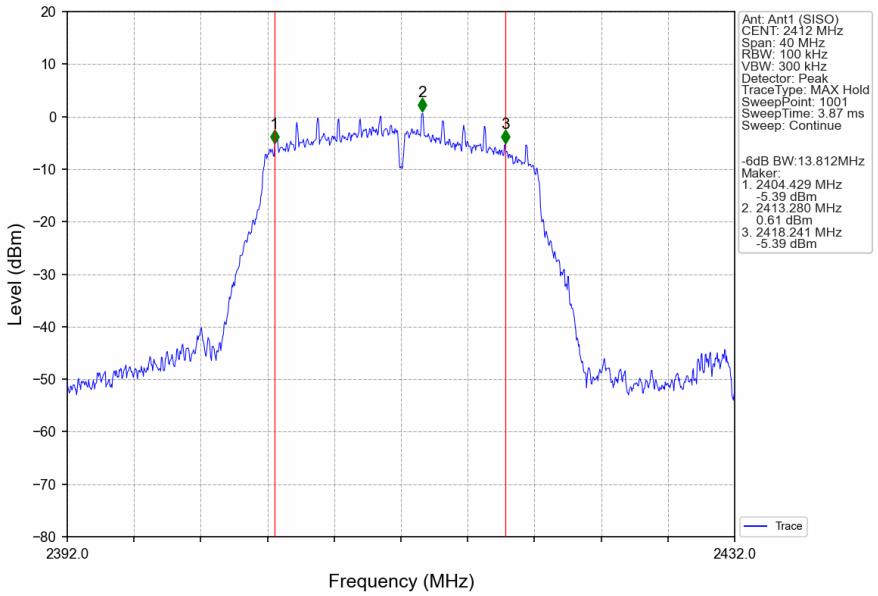
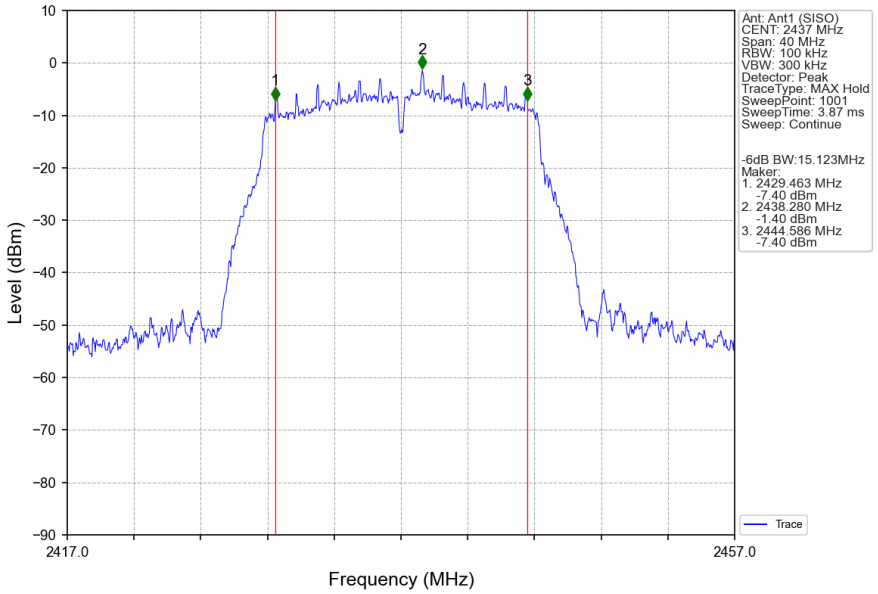
802.11b_HCH_2462MHz_Ant1 (SISO)_NTNV



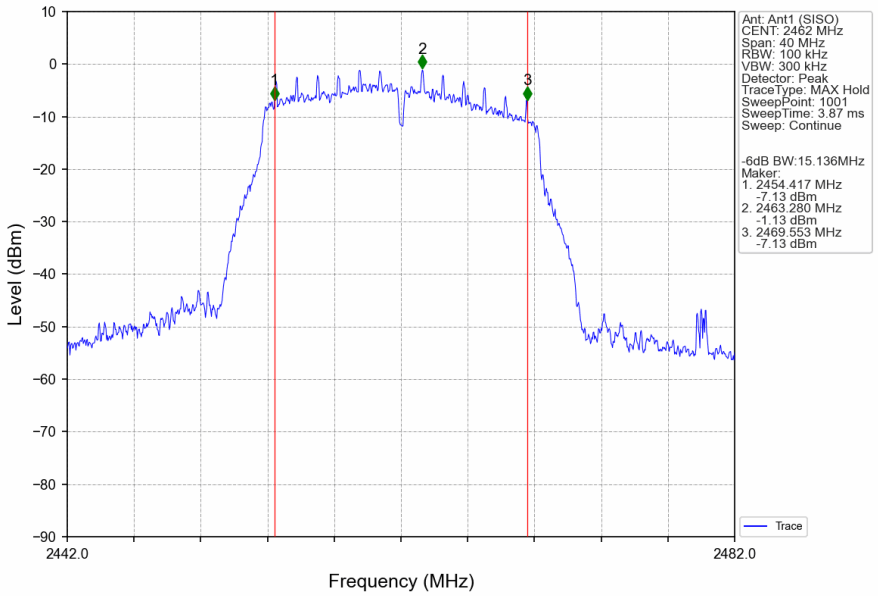
802.11g_LCH_2412MHz_Ant1 (SISO)_NTNV



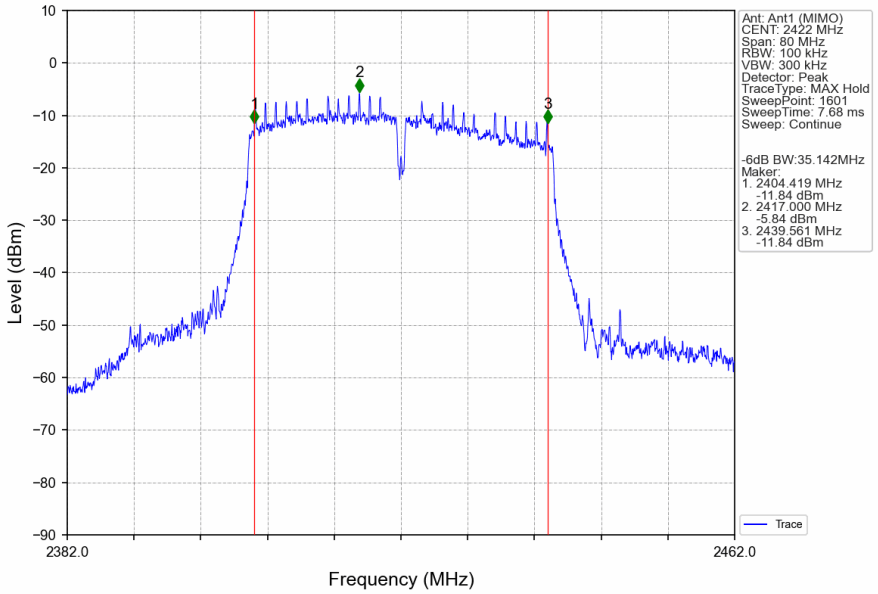
802.11g_MCH_2437MHz_Ant1 (SISO)_NTNV



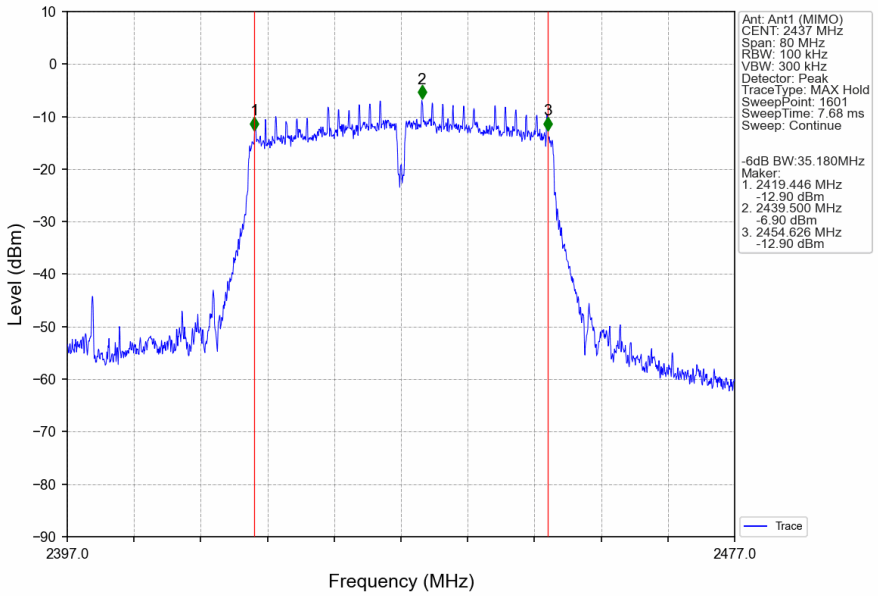
802.11g_HCH_2462MHz_Ant1 (SISO)_NTNV



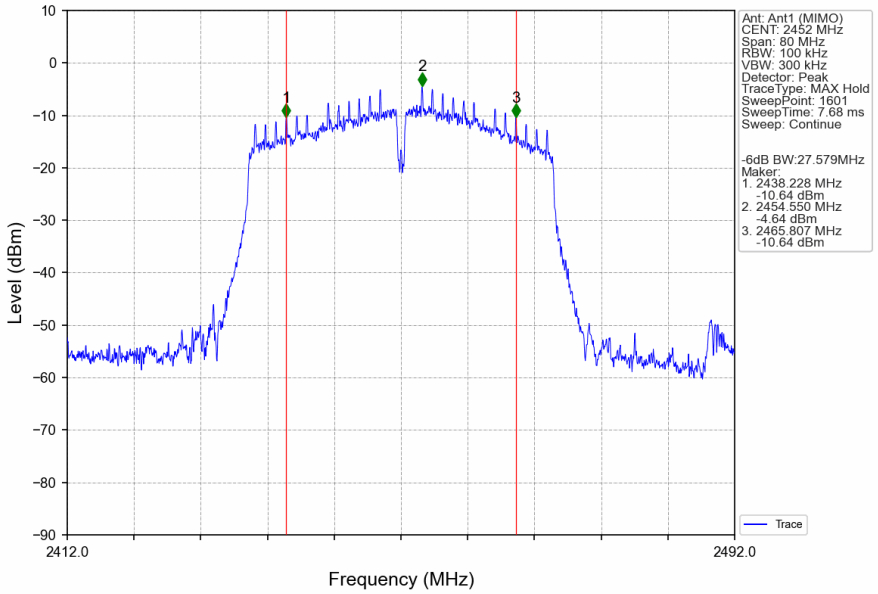
802.11n(HT40)_LCH_2422MHz_Ant1 (MIMO)_NTNV



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

Antenna Option 2

Mode	TX Type	Frequency (MHz)	Maximum Peak Conducted Output Power (dBm)				Verdict
			ANT1	ANT2	MIMO	Limit	
802.11b	SISO	2412	17.73	16.59	/	<=30	Pass
		2437	14.22	13.61	/	<=30	Pass
		2462	15.43	12.64	/	<=30	Pass
802.11g	SISO	2412	18.19	17.97	/	<=30	Pass
		2437	15.58	15.20	/	<=30	Pass
		2462	16.78	13.77	/	<=30	Pass
802.11n (HT20)	MIMO	2412	16.61	16.84	19.74	<=29.89	Pass
		2437	13.82	13.62	16.73	<=29.89	Pass
		2462	14.63	11.84	16.47	<=29.89	Pass
802.11n (HT40)	MIMO	2422	14.69	15.44	18.09	<=29.89	Pass
		2437	13.86	13.48	16.68	<=29.89	Pass
		2452	14.20	11.12	15.94	<=29.89	Pass
Note1: Antenna Gain: Ant1: 3.10dBi; Ant2: 3.10dBi; Note2: Directional Gain: 6.11dBi							

Antenna Option 1

Mode	TX Type	Frequency (MHz)	Maximum Peak Conducted Output Power (dBm)				Verdict
			ANT1	ANT2	MIMO	Limit	
802.11b	SISO	2412	17.73	16.59	/	<=30	Pass
		2437	14.22	13.61	/	<=30	Pass
		2462	15.43	12.64	/	<=30	Pass
802.11g	SISO	2412	18.19	17.97	/	<=30	Pass
		2437	15.58	15.20	/	<=30	Pass
		2462	16.78	13.77	/	<=30	Pass
802.11n (HT20)	MIMO	2412	16.61	16.84	19.74	<=30	Pass
		2437	13.82	13.62	16.73	<=30	Pass
		2462	14.63	11.84	16.47	<=30	Pass
802.11n (HT40)	MIMO	2422	14.69	15.44	18.09	<=30	Pass
		2437	13.86	13.48	16.68	<=30	Pass
		2452	14.20	11.12	15.94	<=30	Pass
Note1: Antenna Gain: Ant1: 2.00dBi; Ant2: 2.00dBi; Note2: Directional Gain: Band1: 5.01dBi							

4. Maximum Power Spectral Density

4.1 Test Result

4.1.1 PSD

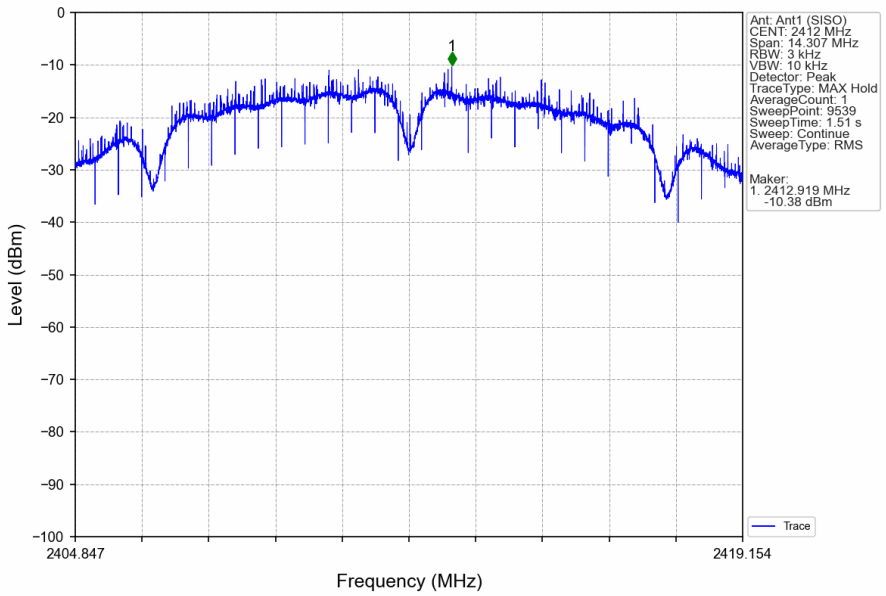
Mode	TX Type	Frequency (MHz)	Maximum PSD (dBm/3kHz)				Verdict
			ANT1	ANT2	MIMO	Limit	
802.11b	SISO	2412	-10.38	-0.34	/	<=8	Pass
		2437	-13.79	-5.99	/	<=8	Pass
		2462	-12.14	-15.59	/	<=8	Pass
802.11g	SISO	2412	-14.33	-15.87	/	<=8	Pass
		2437	-18.32	-18.15	/	<=8	Pass
		2462	-16.78	-20.46	/	<=8	Pass
802.11n (HT20)	MIMO	2412	-13.11	-15.76	-12.18	<=8	Pass
		2437	-20.04	-19.95	-17.50	<=8	Pass
		2462	-18.19	-21.60	-17.20	<=8	Pass
802.11n (HT40)	MIMO	2422	-21.57	-20.36	-18.62	<=8	Pass
		2437	-21.97	-21.50	-20.58	<=8	Pass
		2452	-20.57	-24.75	-20.12	<=8	Pass

Note1: Option 1: Antenna Gain: Ant1: 2dBi; Ant2: 2dBi;
Option 2: Antenna Gain: Ant1: 3.10dBi; Ant2: 3.10dBi;
Note2: Directional Gain: 5.01dBi for option 1 or 6.11dBi for option 2

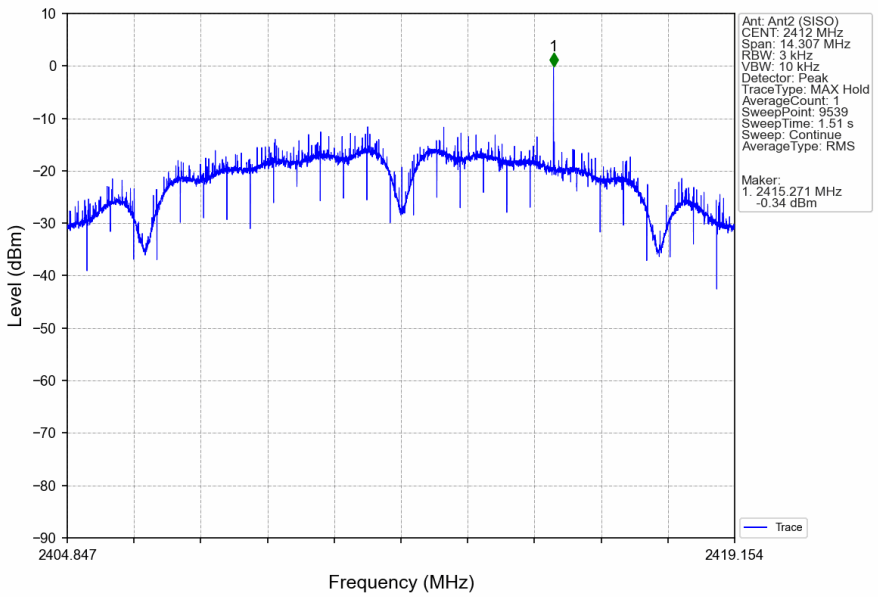
4.2 Test Graph

4.2.1 PSD

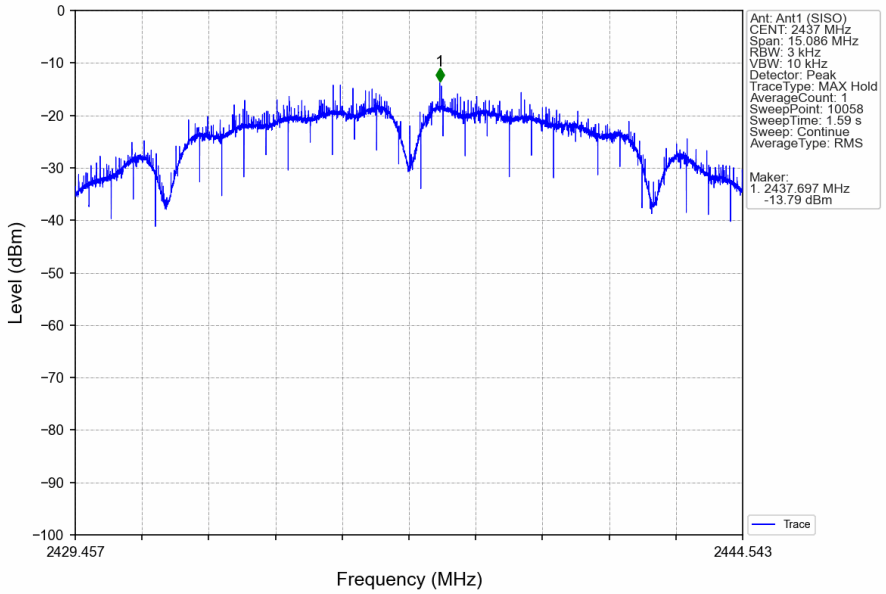
802.11b_LCH_2412MHz_Ant1 (SISO)_NTNV



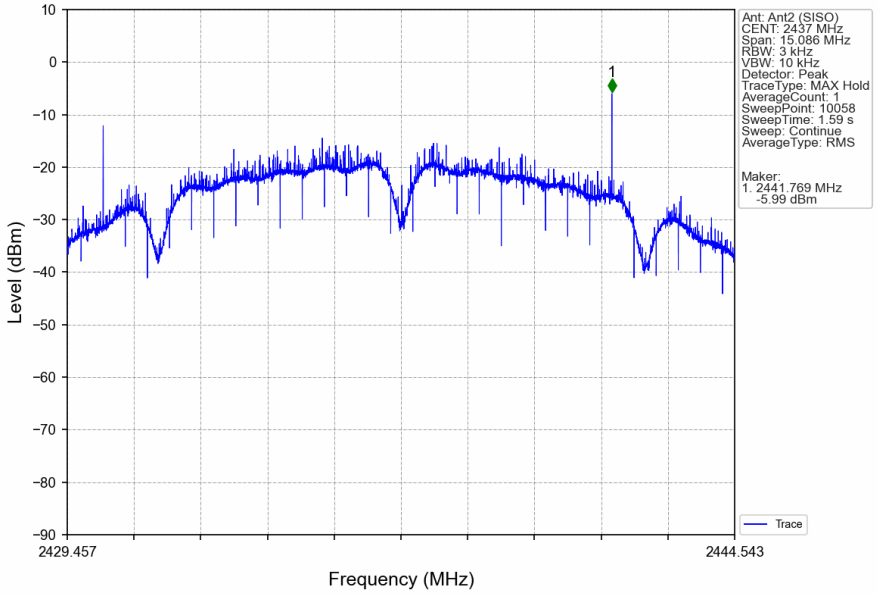
802.11b_LCH_2412MHz_Ant2 (SISO)_NTNV



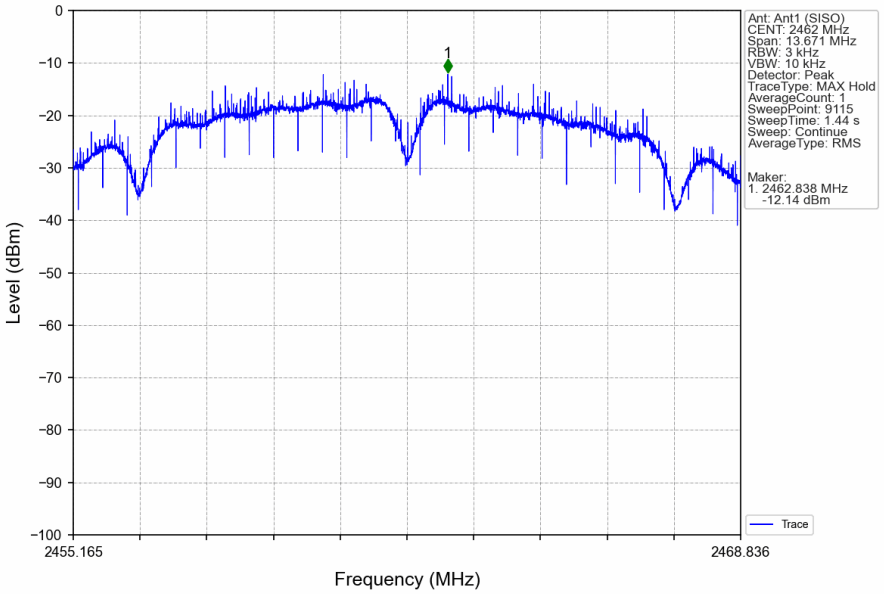
802.11b_MCH_2437MHz_Ant1 (SISO)_NTNV



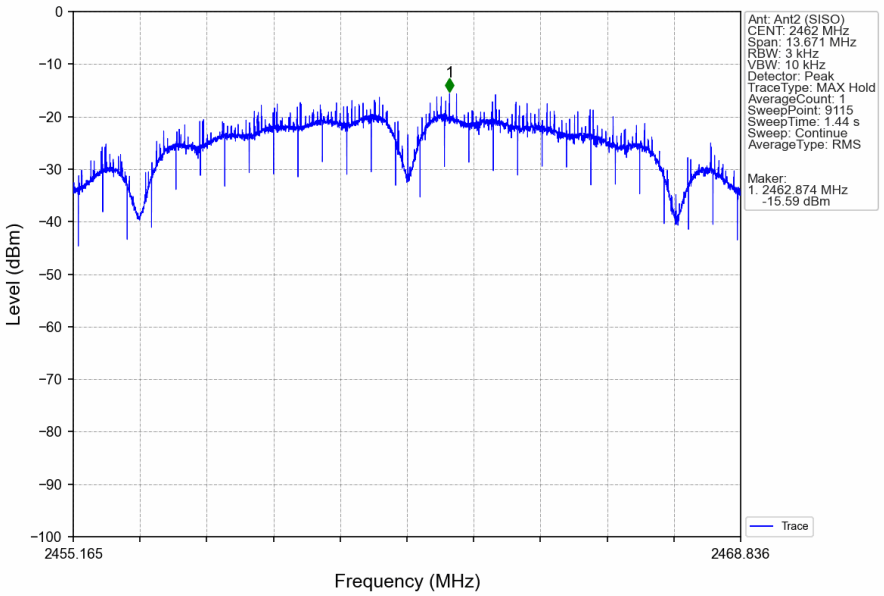
802.11b_MCH_2437MHz_Ant2 (SISO)_NTNV



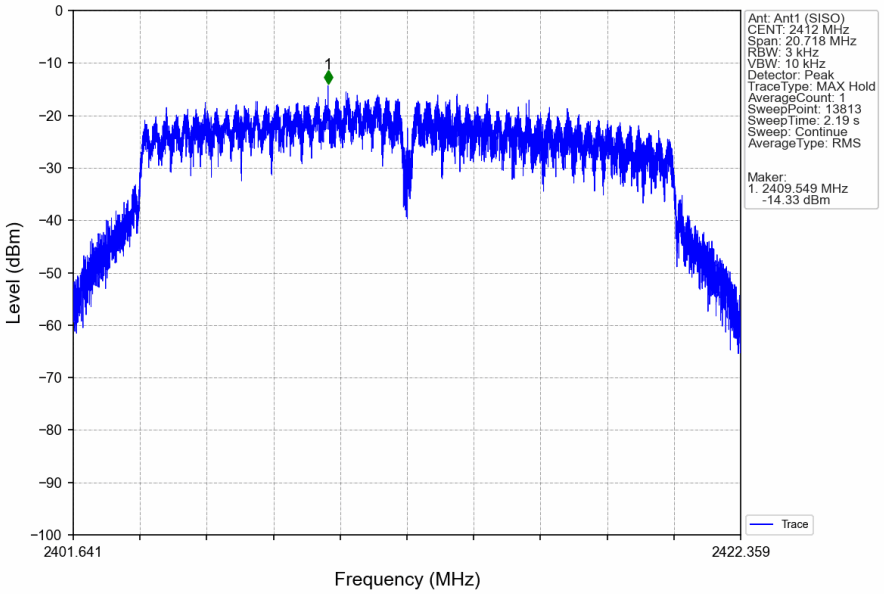
802.11b_HCH_2462MHz_Ant1 (SISO)_NTNV



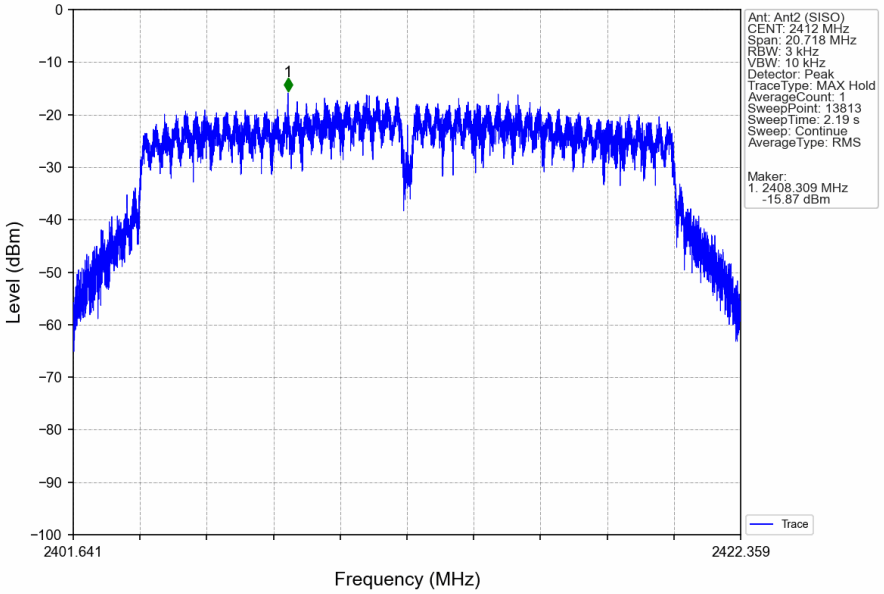
802.11b_HCH_2462MHz_Ant2 (SISO)_NTNV



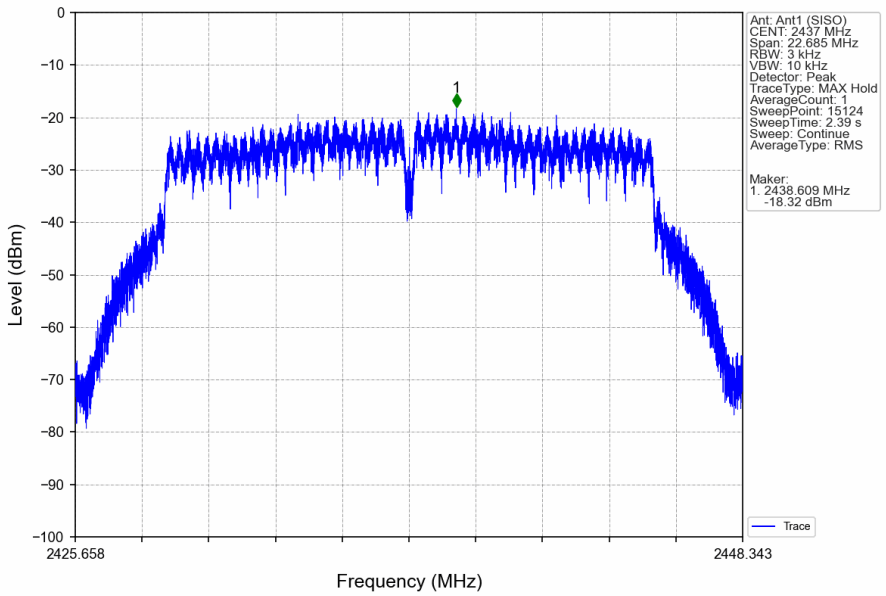
802.11g_LCH_2412MHz_Ant1 (SISO)_NTNV



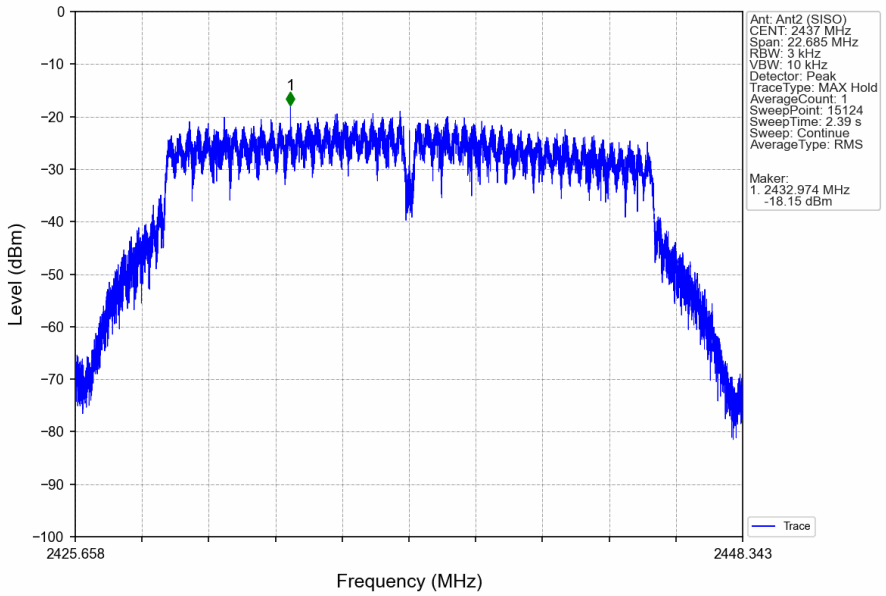
802.11g_LCH_2412MHz_Ant2 (SISO)_NTNV



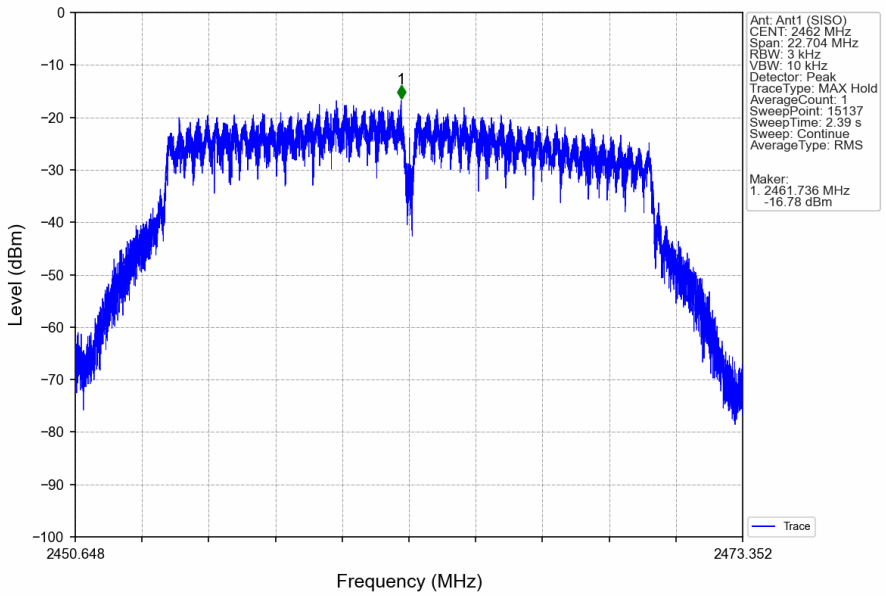
802.11g_MCH_2437MHz_Ant1 (SISO)_NTNV



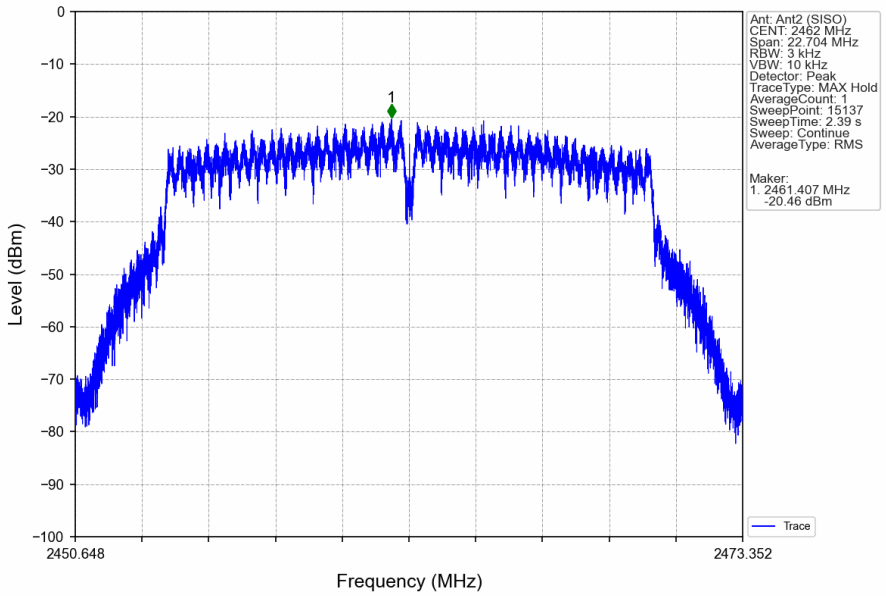
802.11g_MCH_2437MHz_Ant2 (SISO)_NTNV



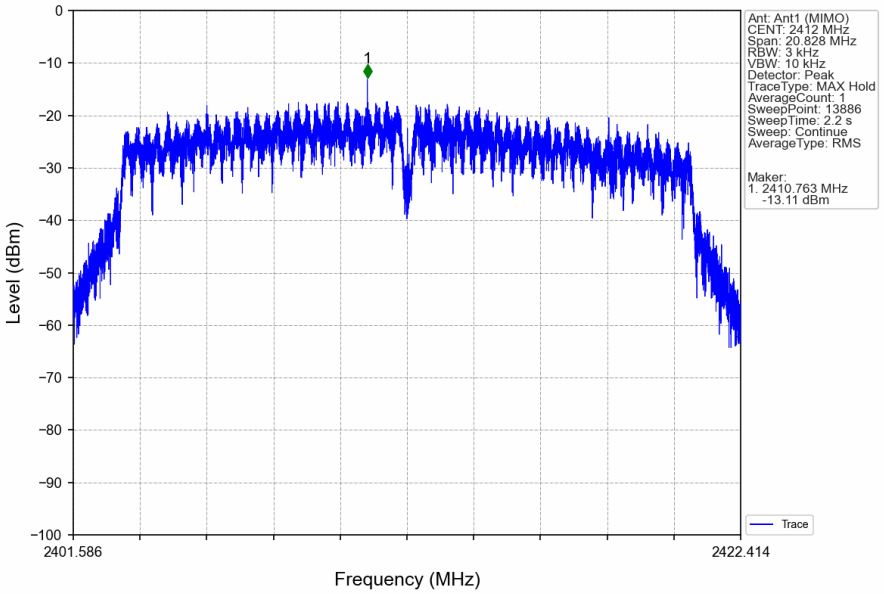
802.11g_HCH_2462MHz_Ant1 (SISO)_NTNV



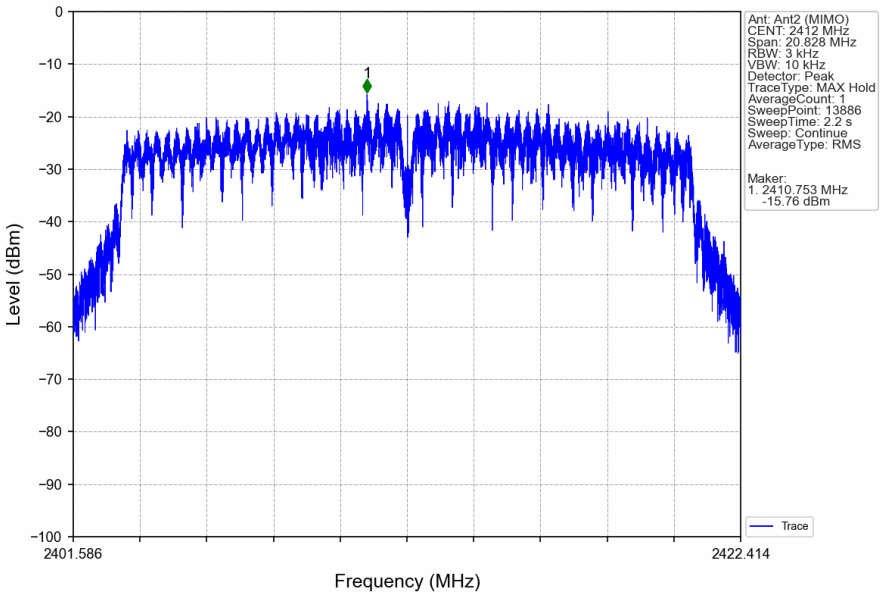
802.11g_HCH_2462MHz_Ant2 (SISO)_NTNV



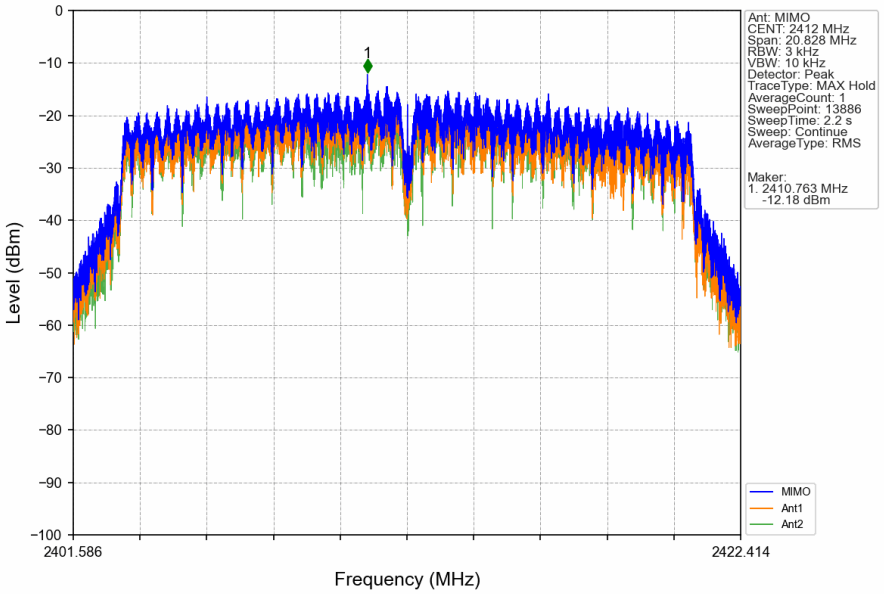
802.11n(HT20)_LCH_2412MHz_Ant1 (MIMO)_NTNV



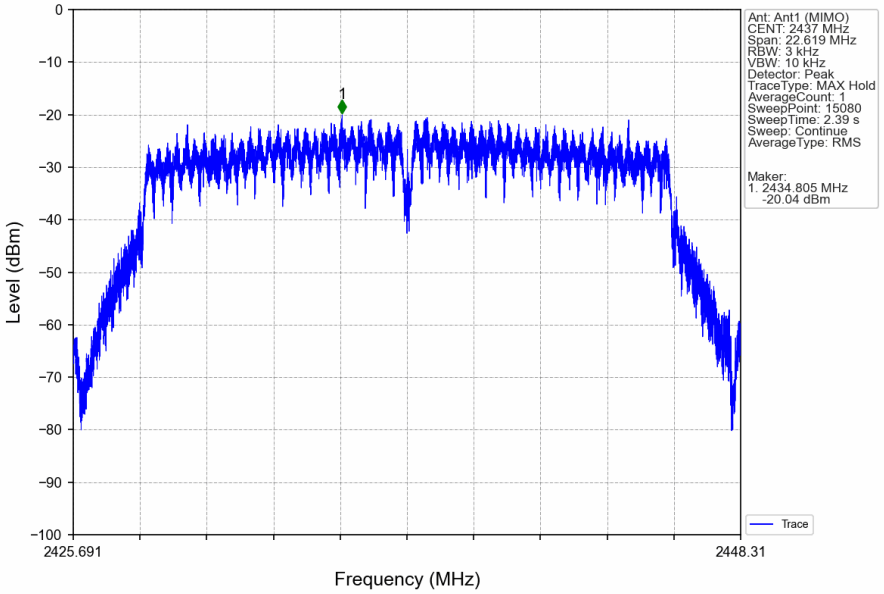
802.11n(HT20)_LCH_2412MHz_Ant2 (MIMO)_NTNV



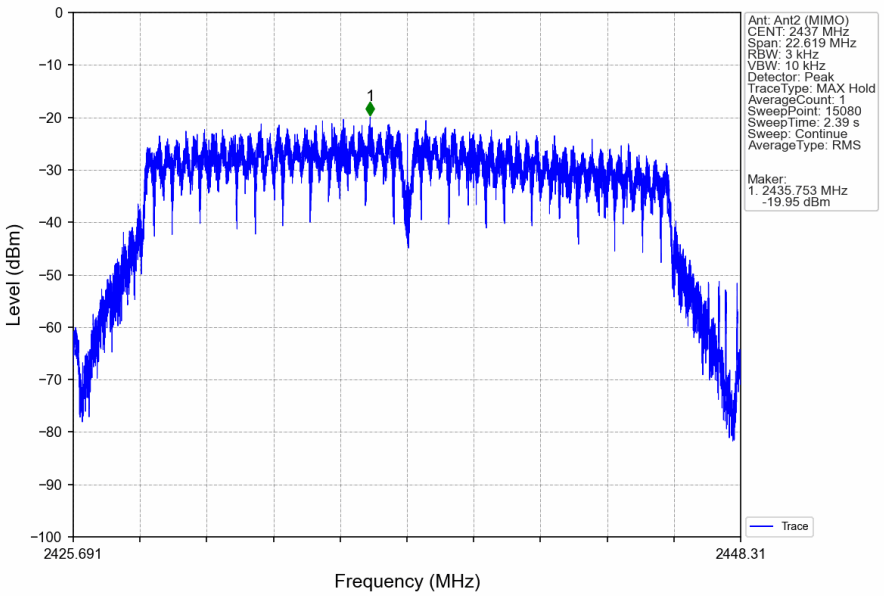
802.11n(HT20)_LCH_2412MHz_MIMO_NTNV



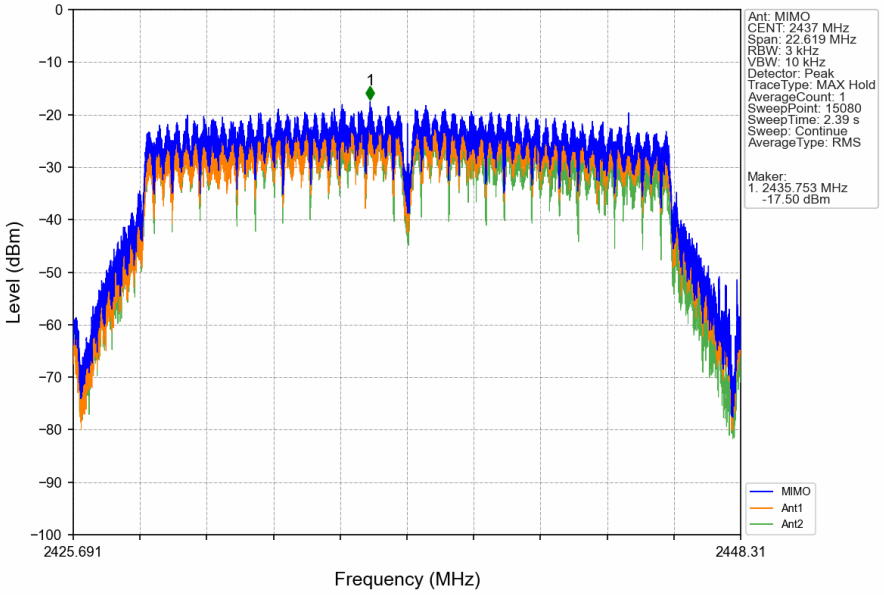
802.11n(HT20)_MCH_2437MHz_Ant1 (MIMO)_NTNV



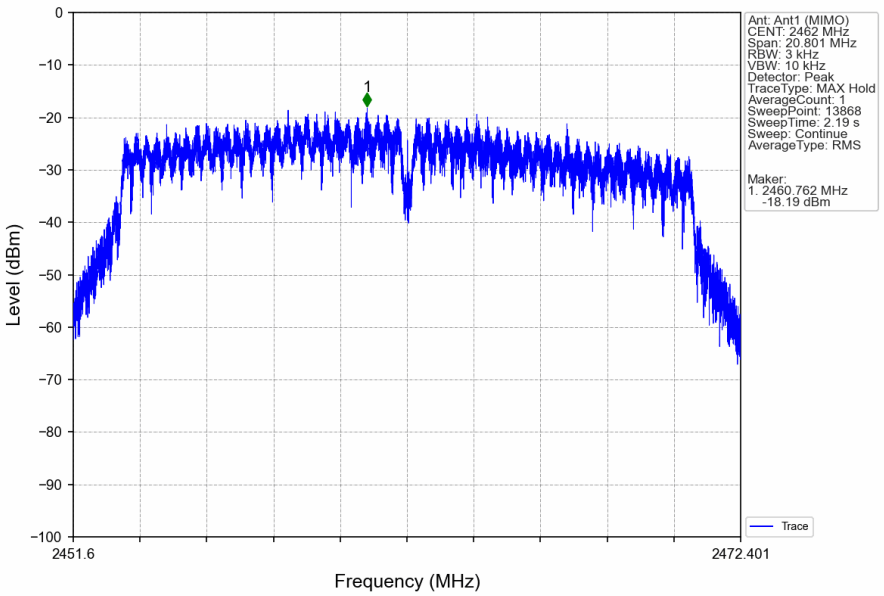
802.11n(HT20)_MCH_2437MHz_Ant2 (MIMO)_NTNV



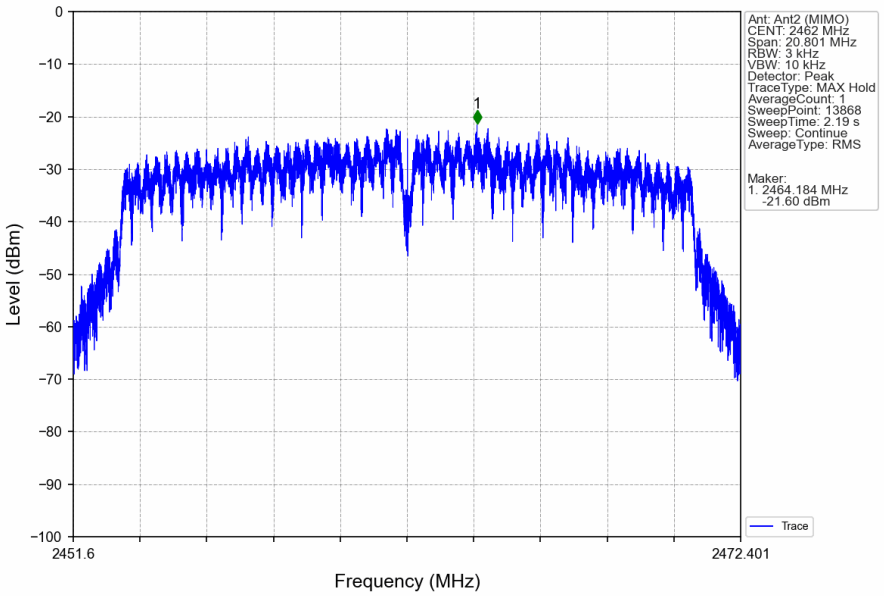
802.11n(HT20)_MCH_2437MHz_MIMO_NTNV



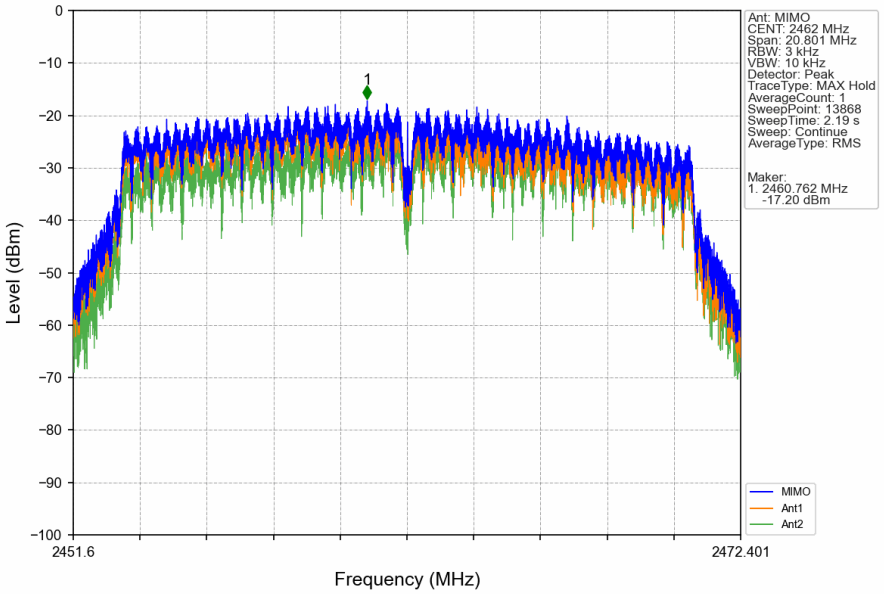
802.11n(HT20)_HCH_2462MHz_Ant1 (MIMO)_NTNV



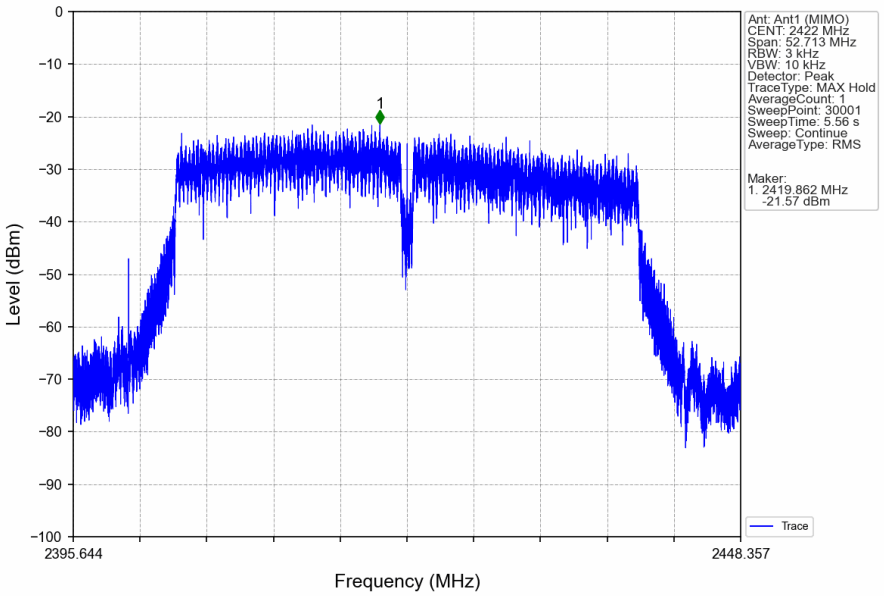
802.11n(HT20)_HCH_2462MHz_Ant2 (MIMO)_NTNV



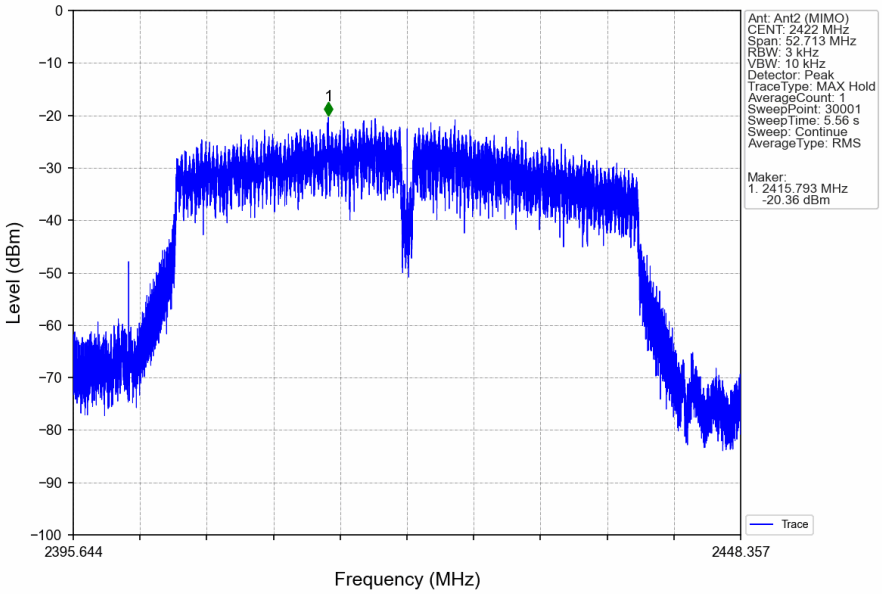
802.11n(HT20)_HCH_2462MHz_MIMO_NTNV



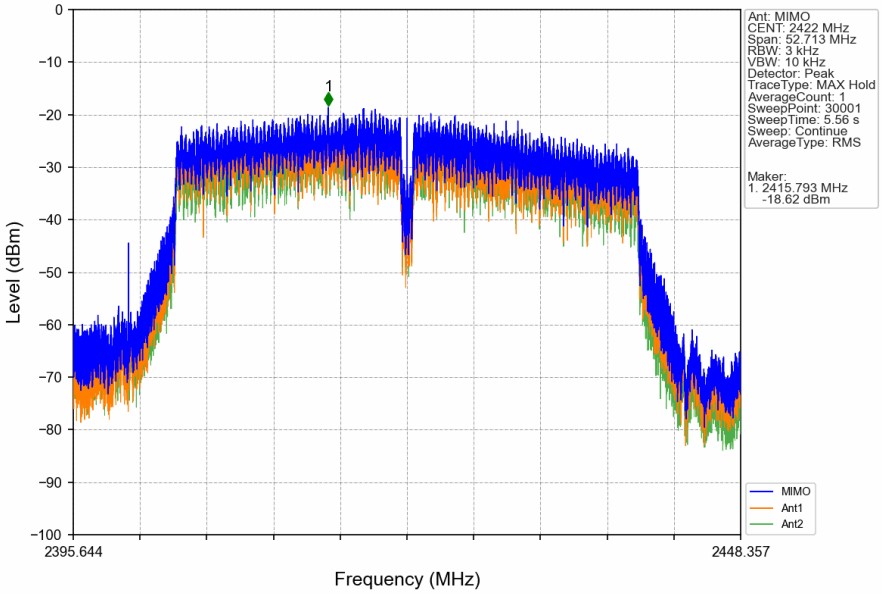
802.11n(HT40)_LCH_2422MHz_Ant1 (MIMO)_NTNV



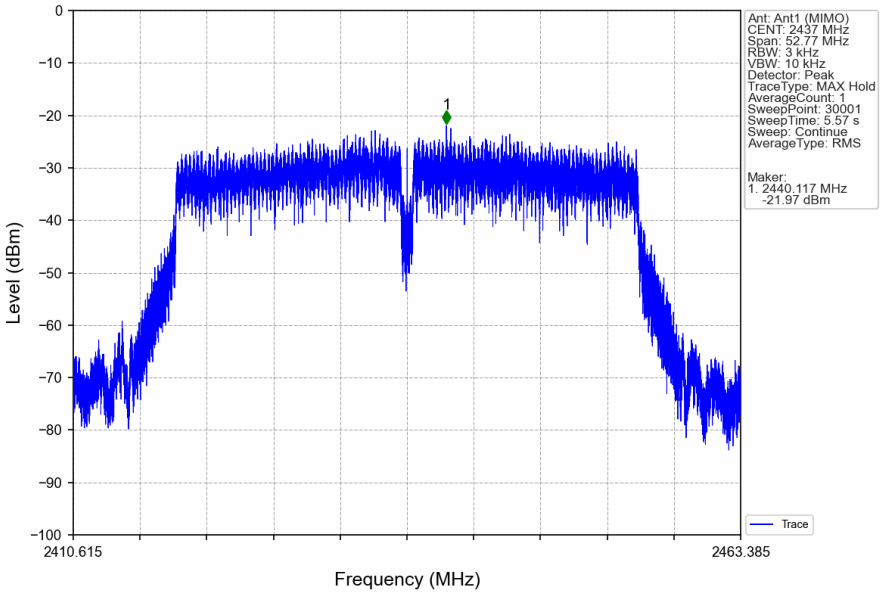
802.11n(HT40)_LCH_2422MHz_Ant2 (MIMO)_NTNV



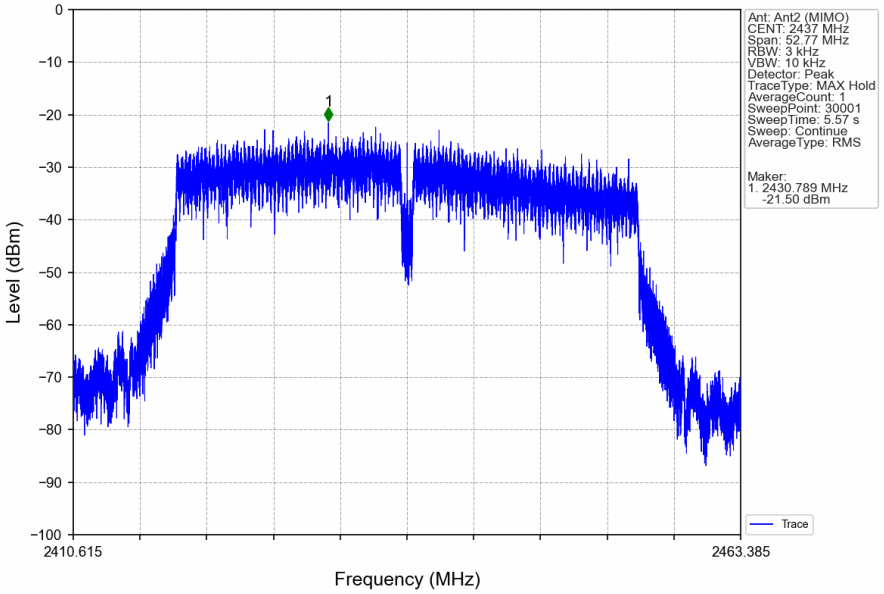
802.11n(HT40)_LCH_2422MHz_MIMO_NTNV



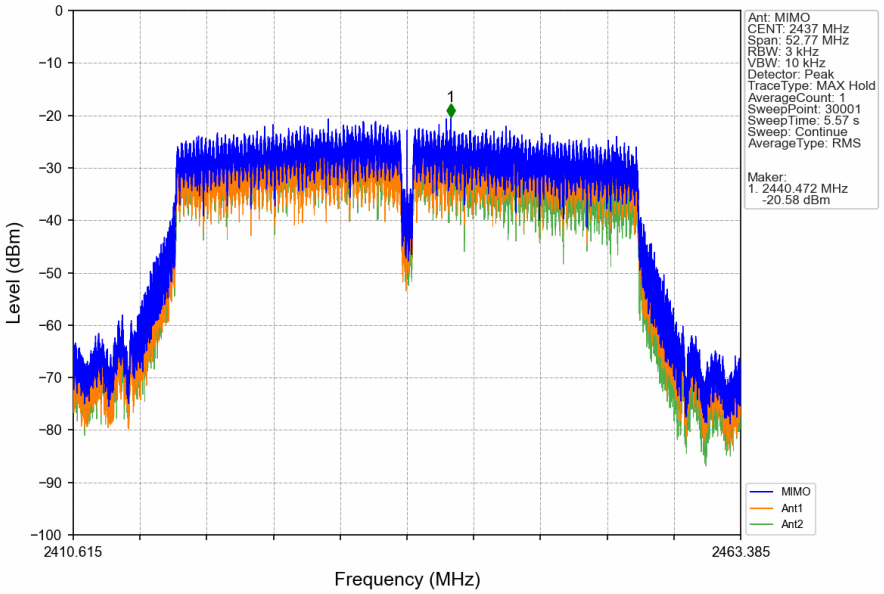
802.11n(HT40)_MCH_2437MHz_Ant1 (MIMO)_NTNV



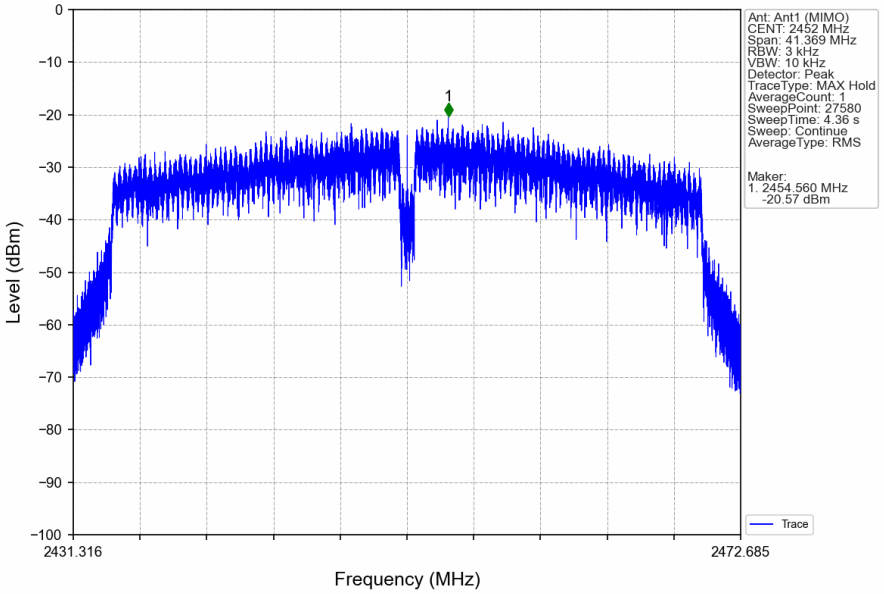
802.11n(HT40)_MCH_2437MHz_Ant2 (MIMO)_NTNV



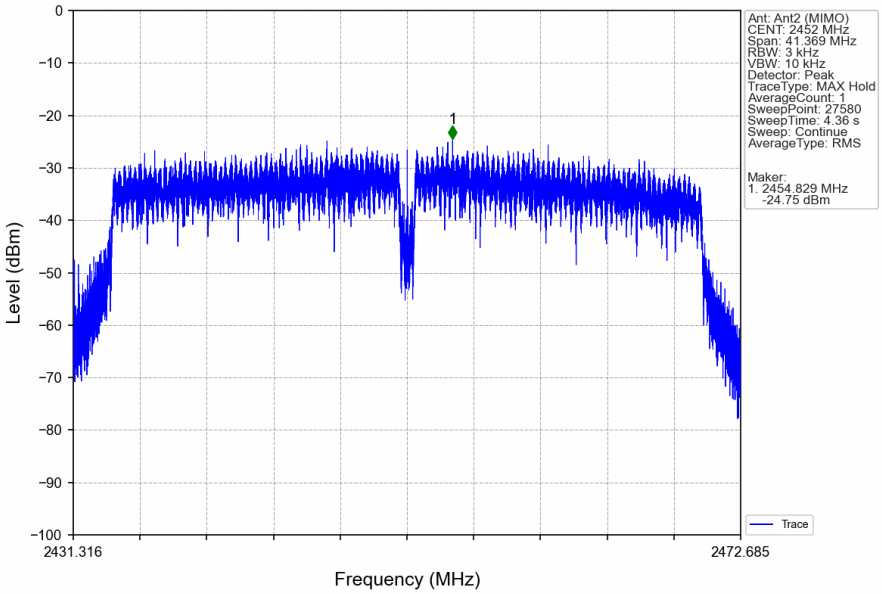
802.11n(HT40)_MCH_2437MHz_MIMO_NTNV



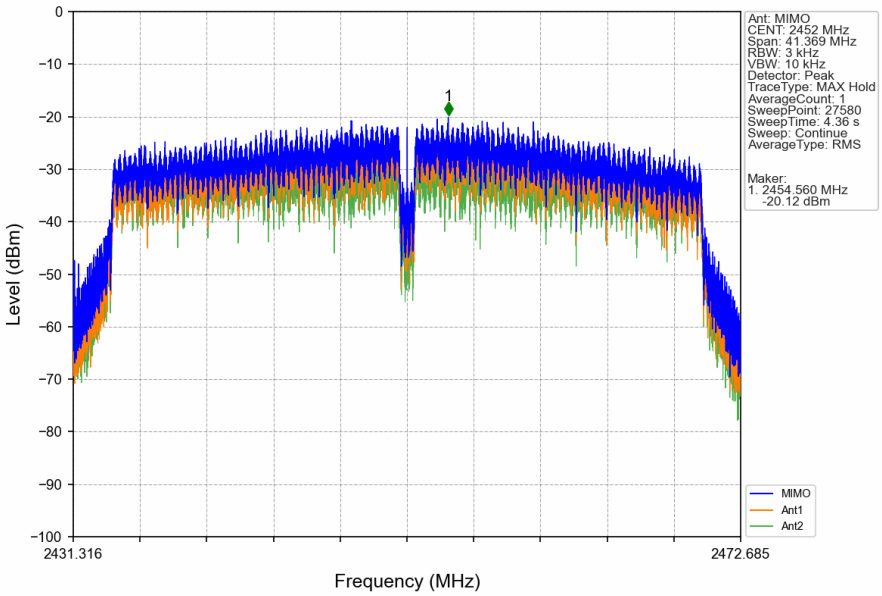
802.11n(HT40)_HCH_2452MHz_Ant1 (MIMO)_NTNV



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	5.74
			2	5.08
		2437	1	1.98
			2	1.31
		2462	1	3.54
			2	0.59
802.11g	SISO	2412	1	0.71
			2	0.50
		2437	1	-1.40
			2	-2.71
		2462	1	-0.71
			2	-3.96
802.11n (HT40)	MIMO	2422	1	-6.05
			2	-4.39
		2437	1	-6.70
			2	-6.97
		2452	1	-4.60
			2	-9.31
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.				

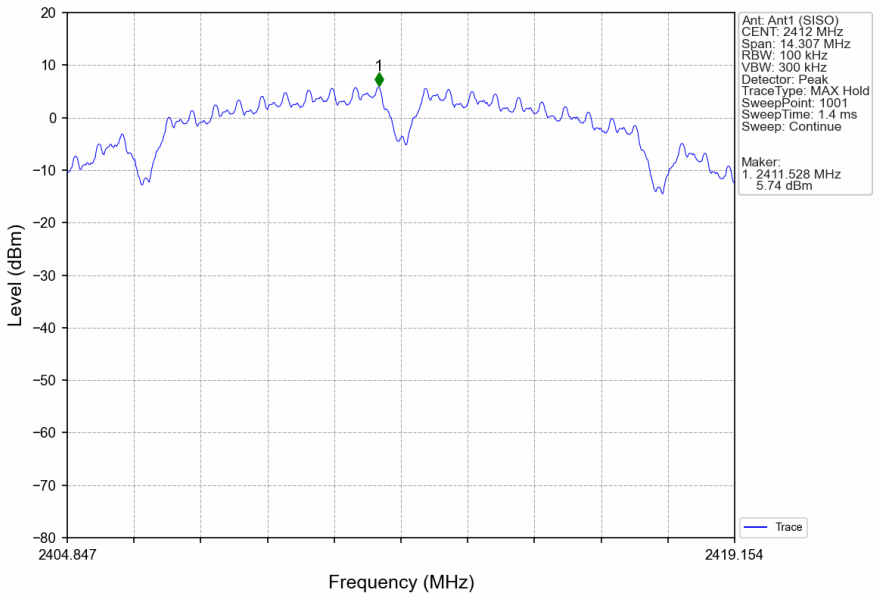
5.1.2 CSE and Band Edges

Mode	TX Type	Frequency (MHz)	ANT	Level of Reference (dBm)	Limit (dBm)	Verdict
802.11b	SISO	2412	1	5.74	-14.26	Pass
			2	5.08	-14.92	Pass
		2437	1	5.74	-14.26	Pass
			2	5.08	-14.92	Pass
		2462	1	5.74	-14.26	Pass
			2	5.08	-14.92	Pass
802.11g	SISO	2412	1	0.71	-19.29	Pass
			2	0.50	-19.50	Pass
		2437	1	0.71	-19.29	Pass
			2	0.50	-19.50	Pass
		2462	1	0.71	-19.29	Pass
			2	0.50	-19.50	Pass
802.11n (HT40)	MIMO	2422	1	-4.60	-24.60	Pass
			2	-4.39	-24.39	Pass
		2437	1	-4.60	-24.60	Pass
			2	-4.39	-24.39	Pass
		2452	1	-4.60	-24.60	Pass
			2	-4.39	-24.39	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.						

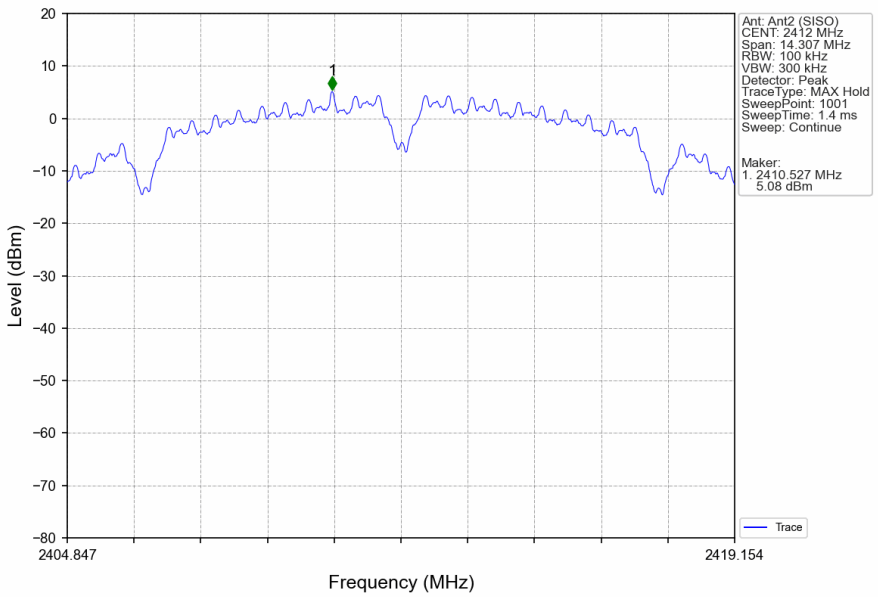
5.2 Test Graph

5.2.1 Ref

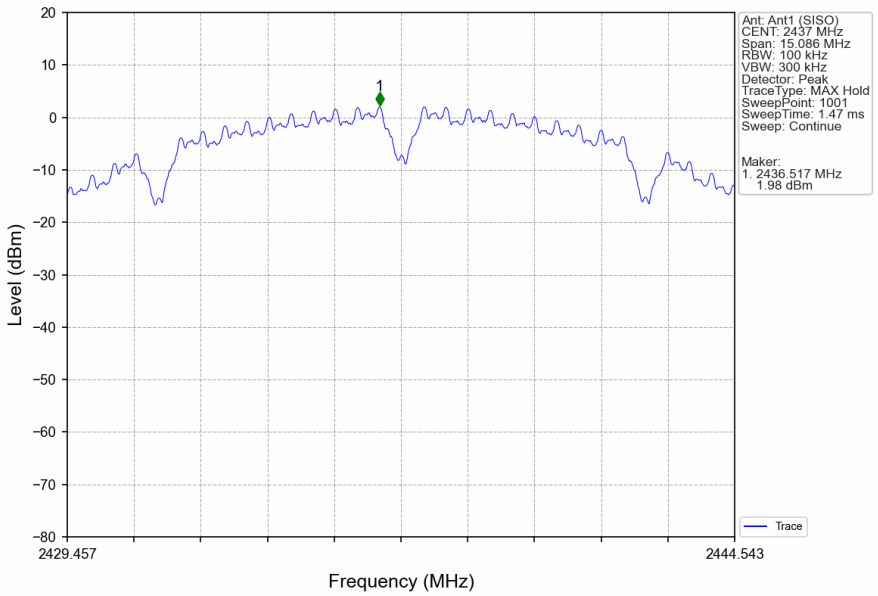
802.11b_LCH_2412MHz_Ant1 (SISO)_NTNV



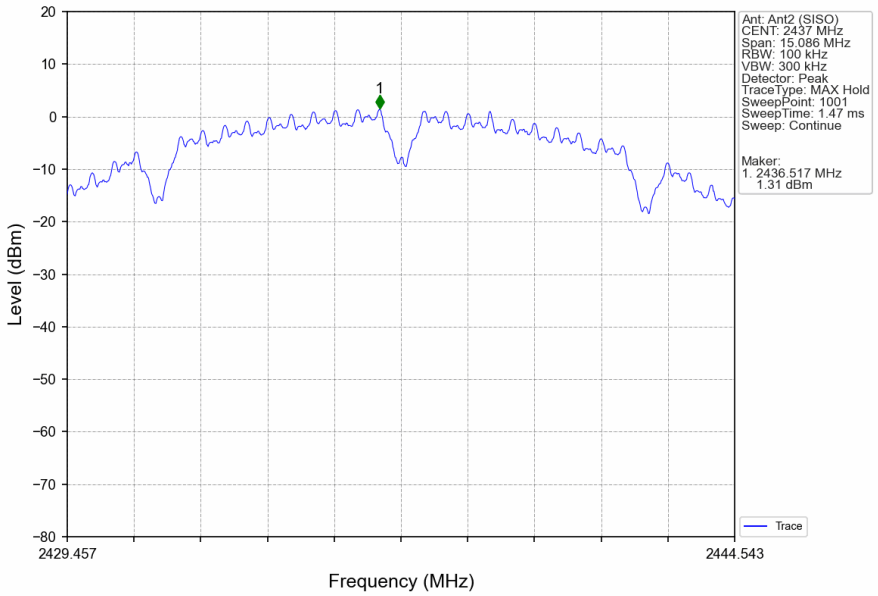
802.11b_LCH_2412MHz_Ant2 (SISO)_NTNV



802.11b_MCH_2437MHz_Ant1 (SISO)_NTNV



802.11b_MCH_2437MHz_Ant2 (SISO)_NTNV



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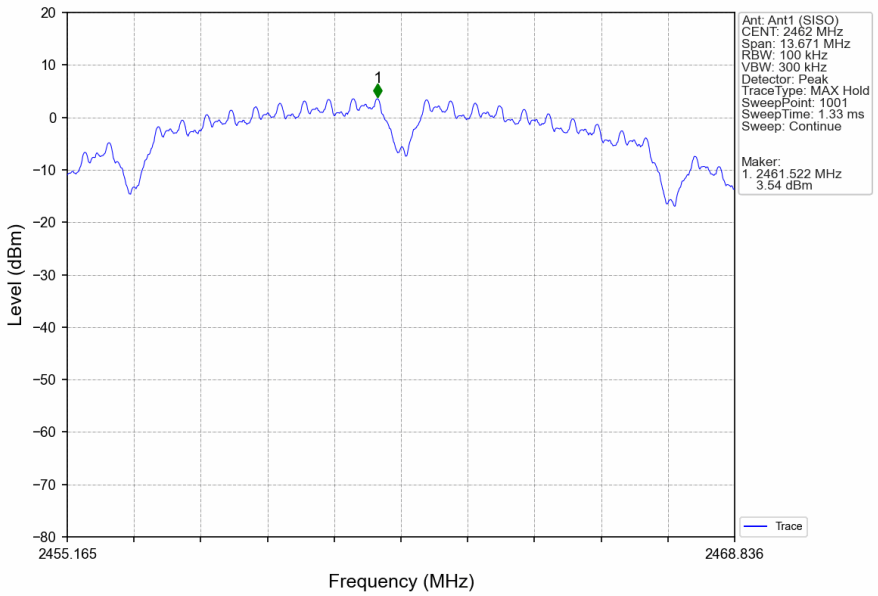

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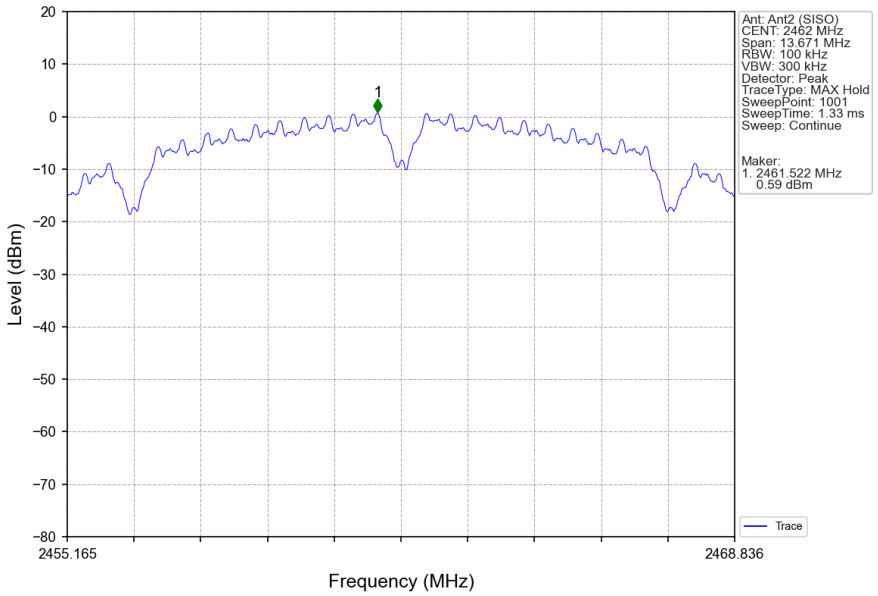

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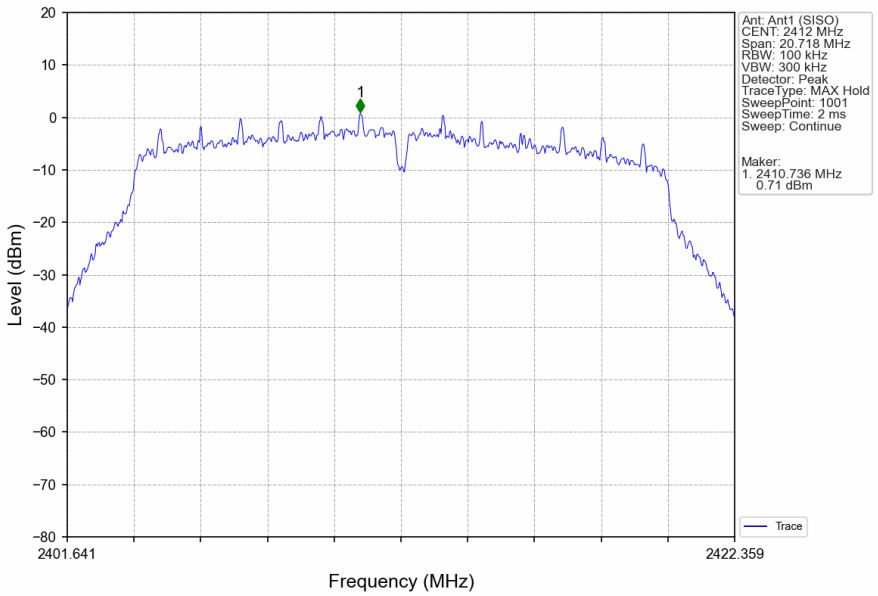

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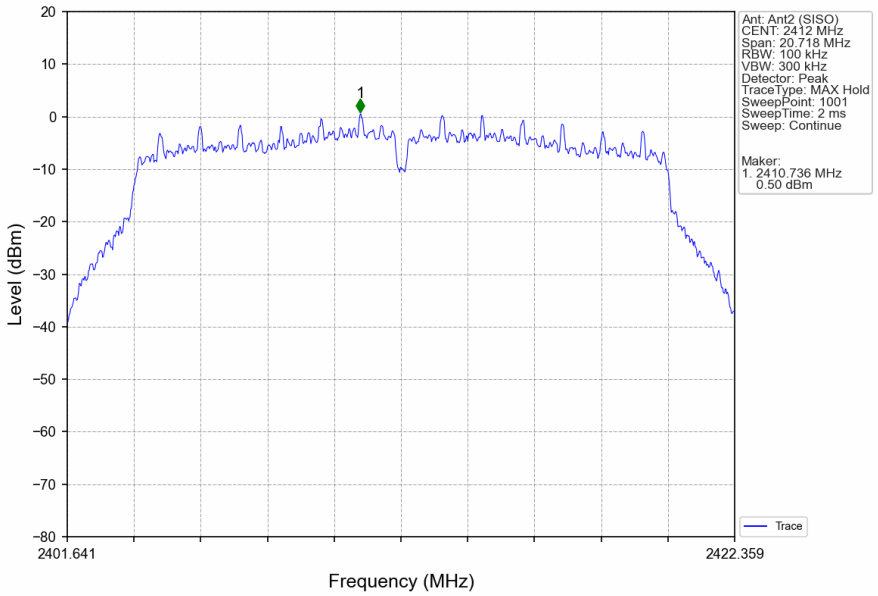

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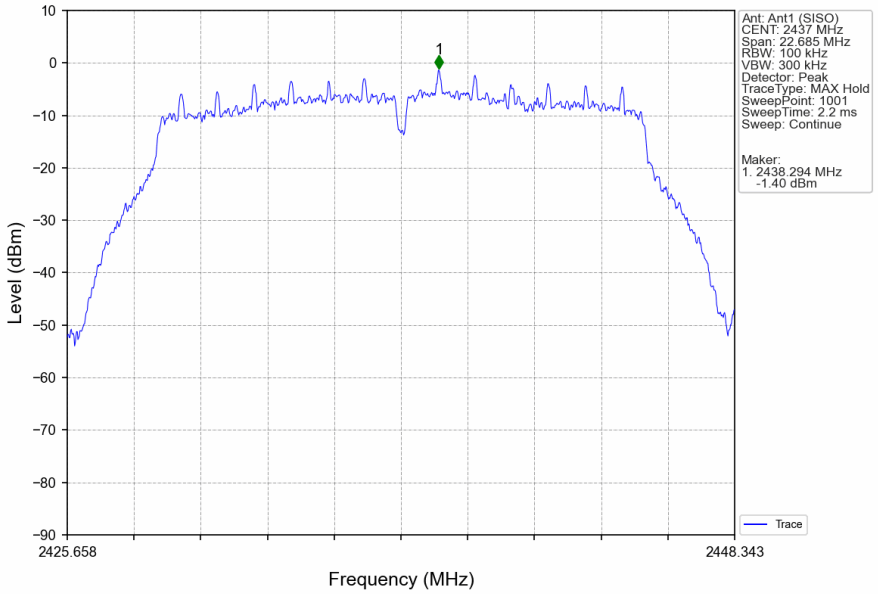

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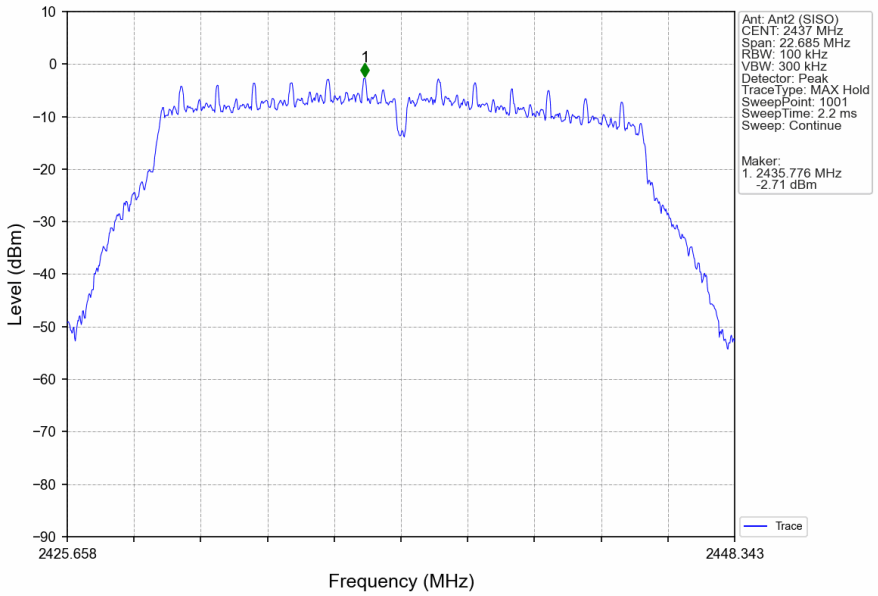

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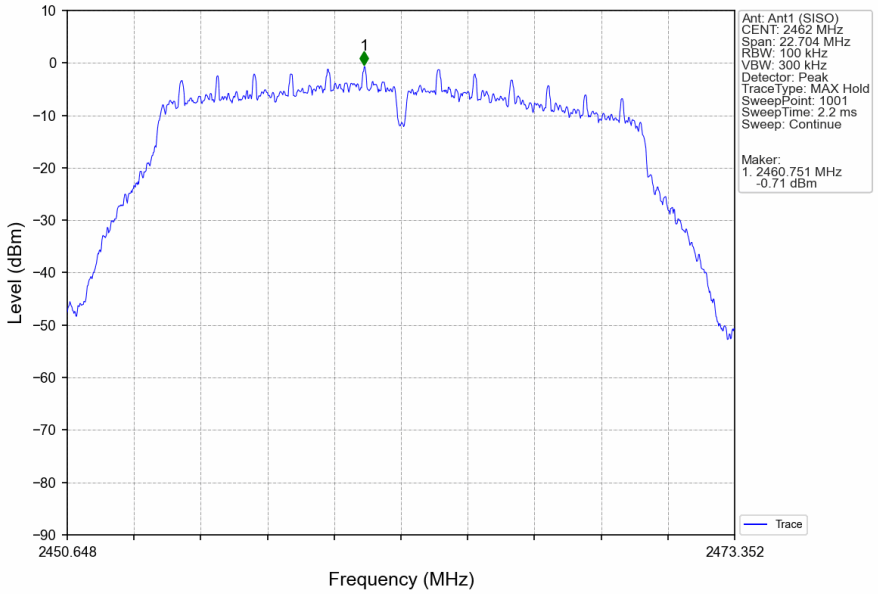

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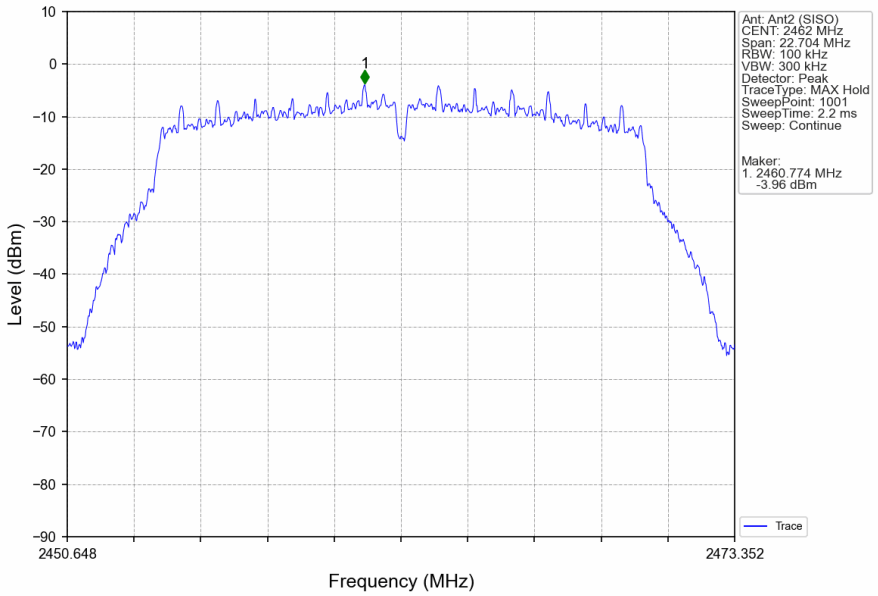
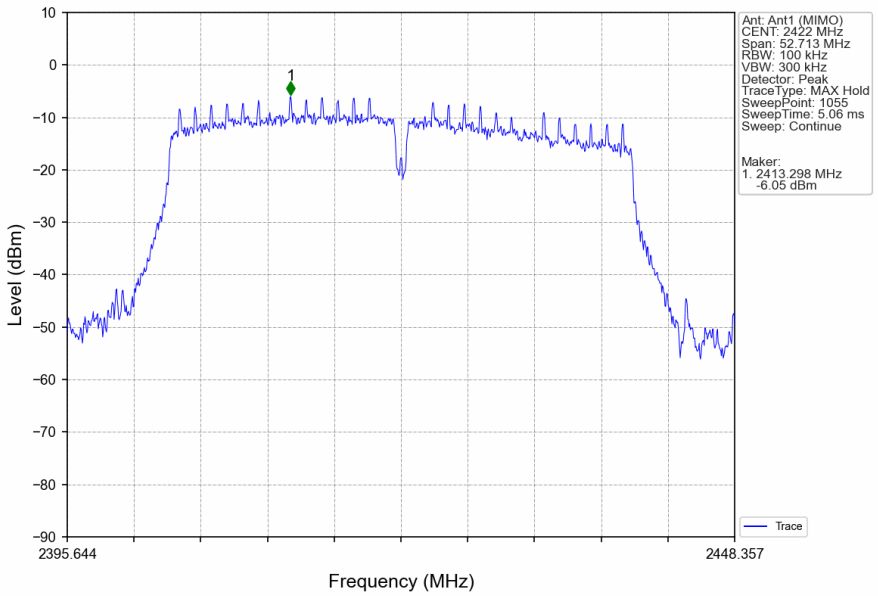


802.11n(HT40)_LCH_2422MHz_Ant1 (MIMO)_NTNV



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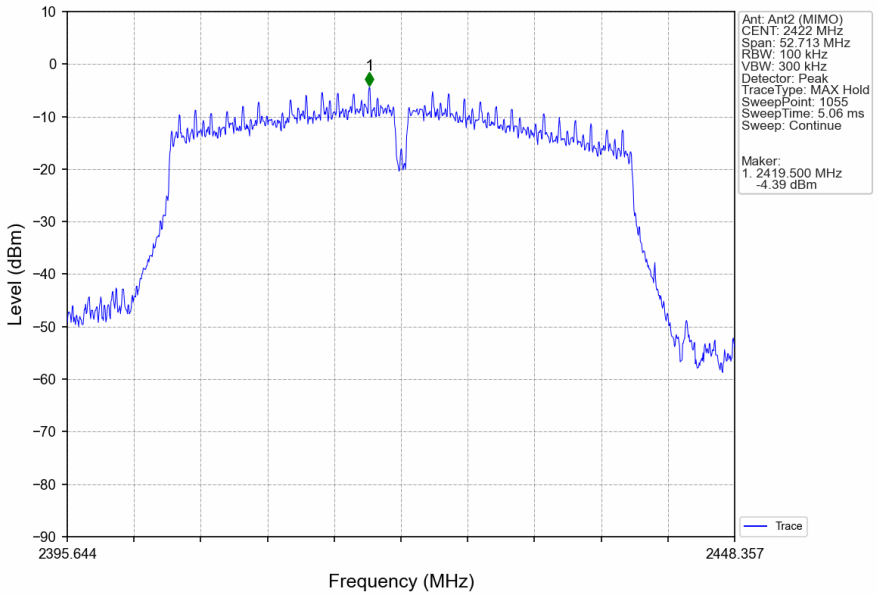

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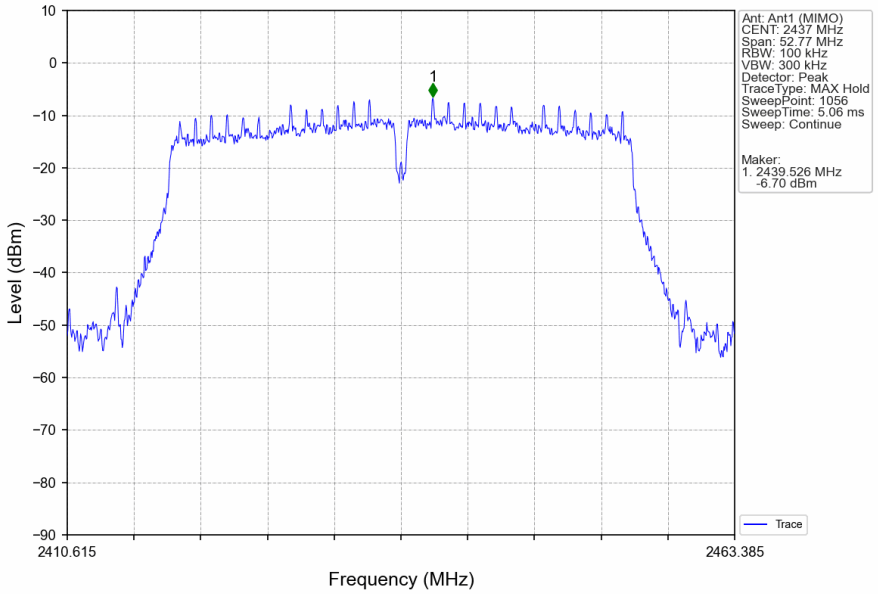

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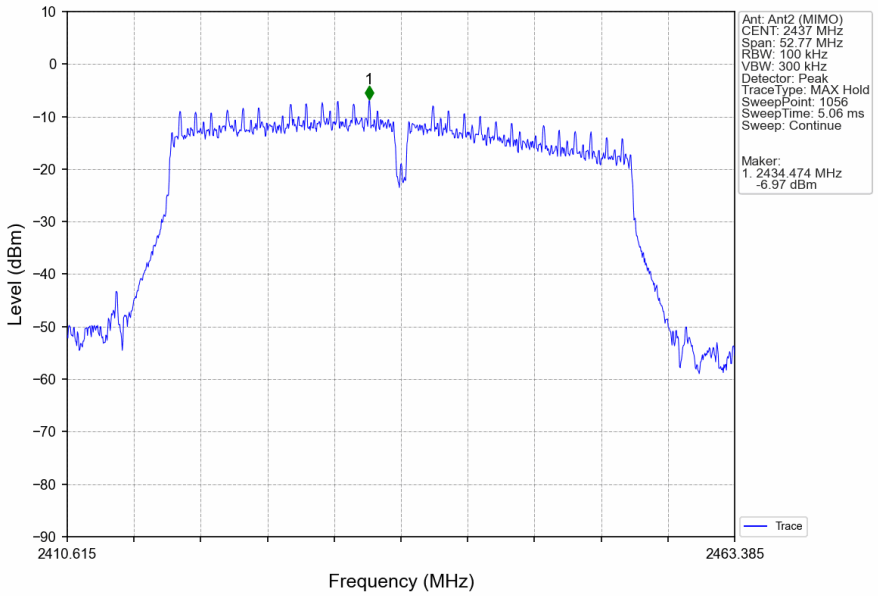
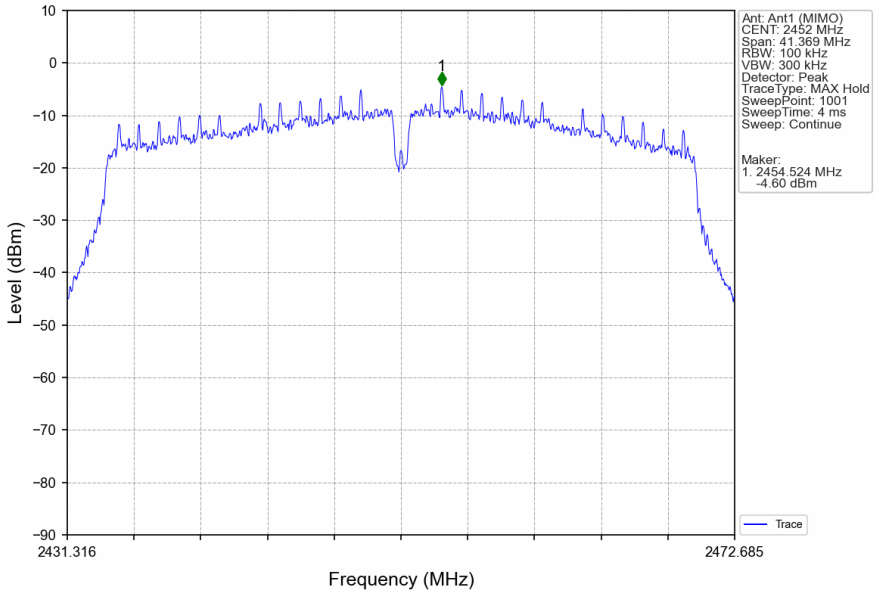


802.11n(HT40)_HCH_2452MHz_Ant1 (MIMO)_NTNV



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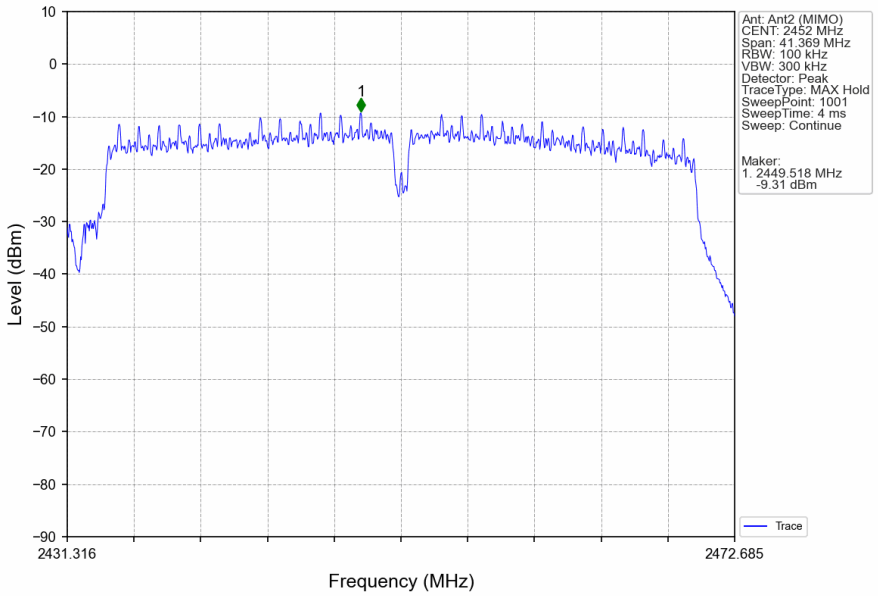
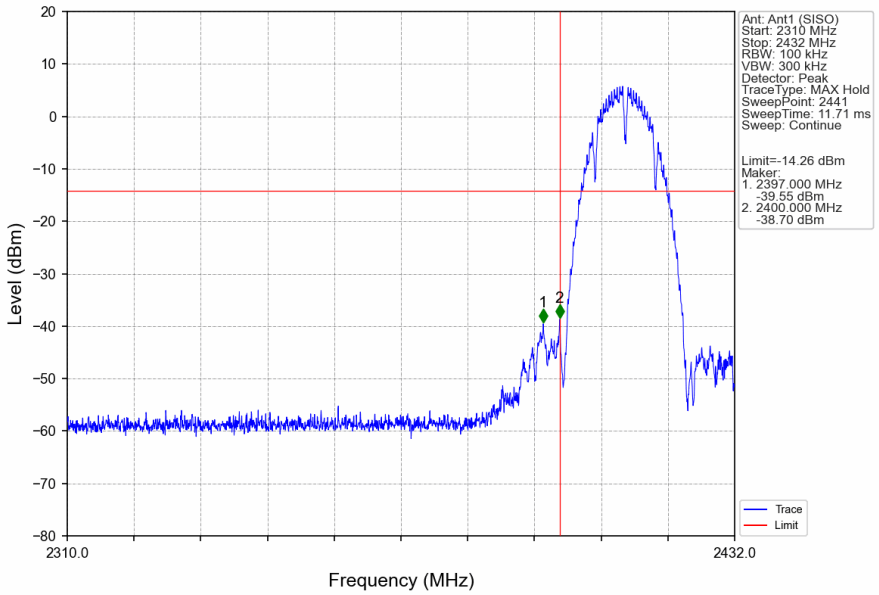


5.2.2 CSE and Band Edges

802.11b_LCH_2412MHz_Ant1 (SISO)_NTNV



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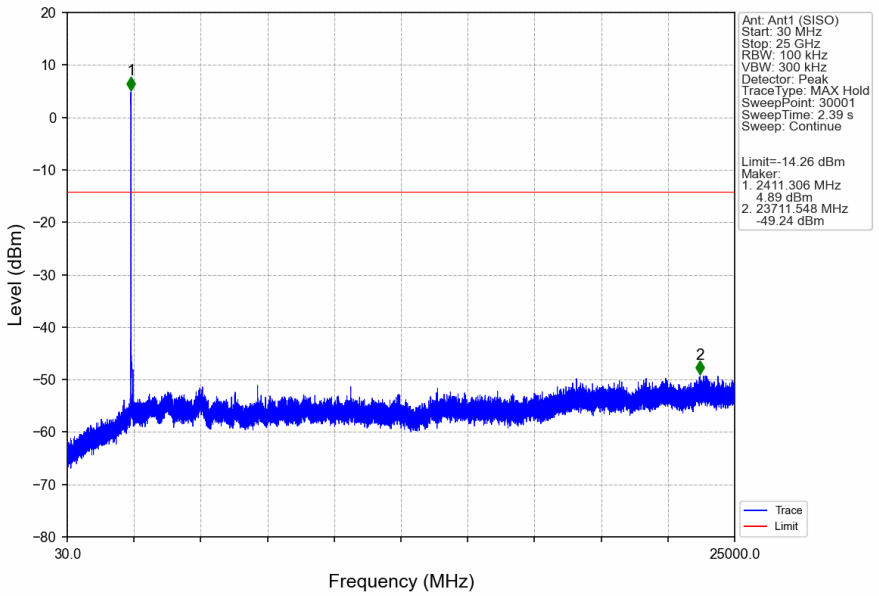

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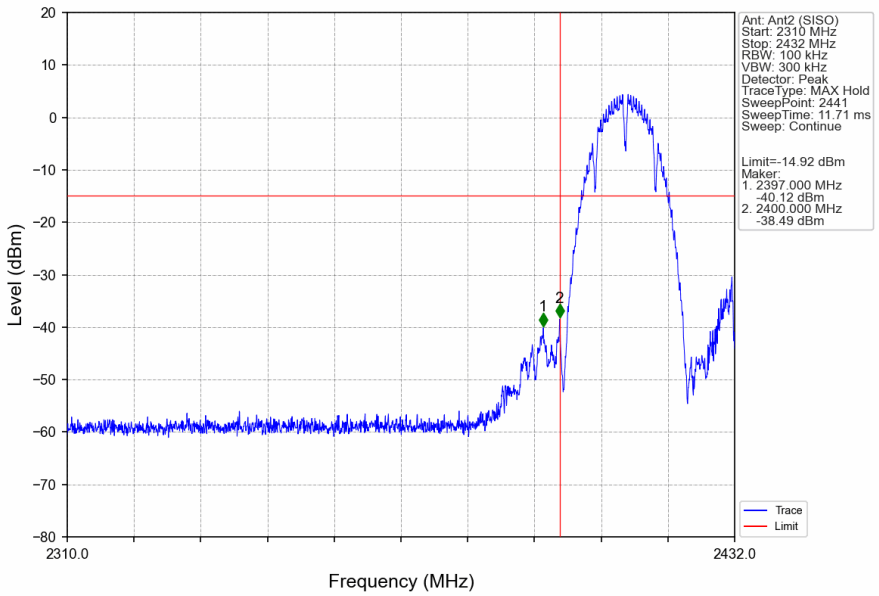

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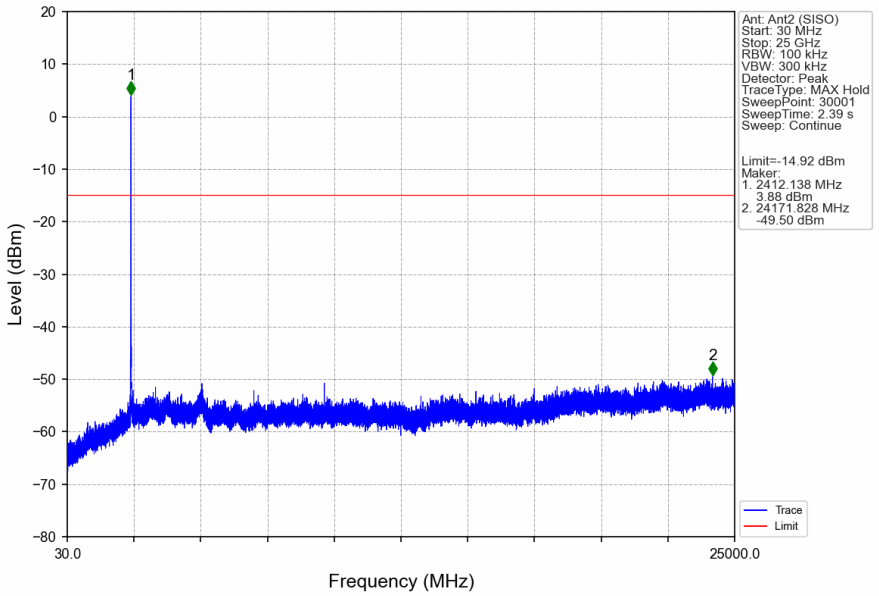
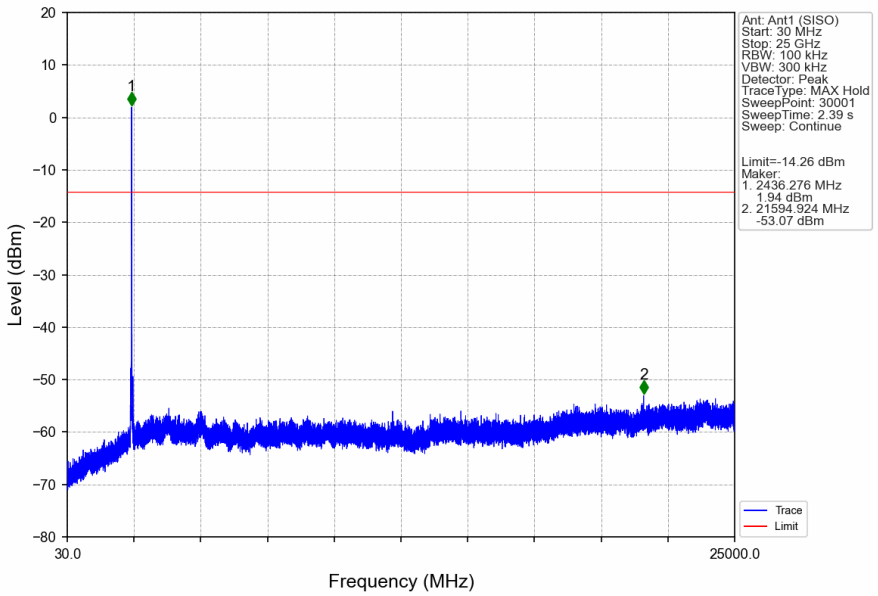


802.11b_MCH_2437MHz_Ant1 (SISO)_NTNV



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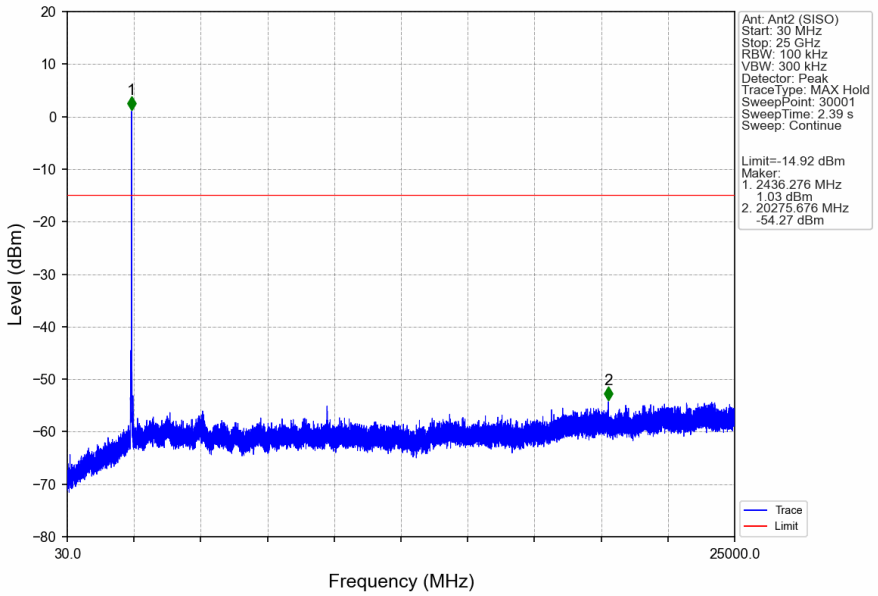

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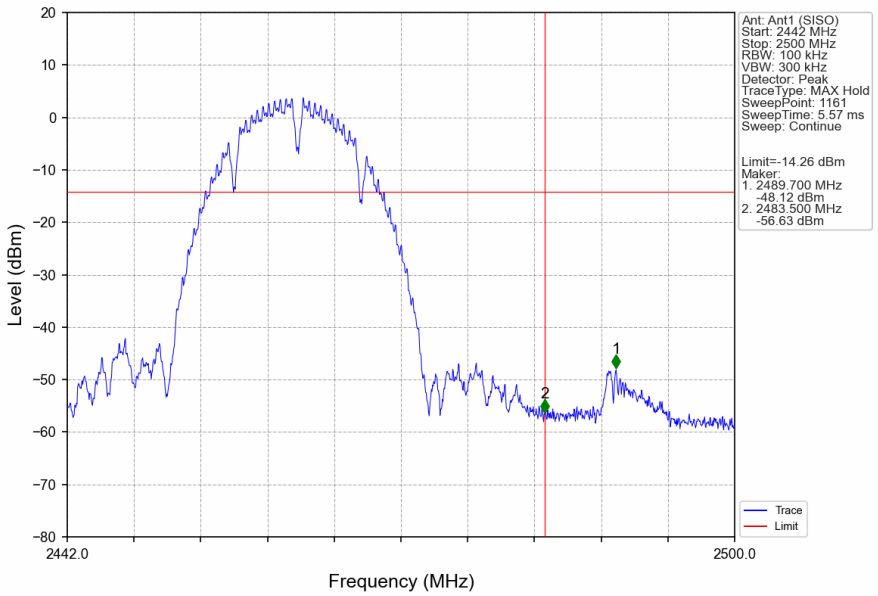
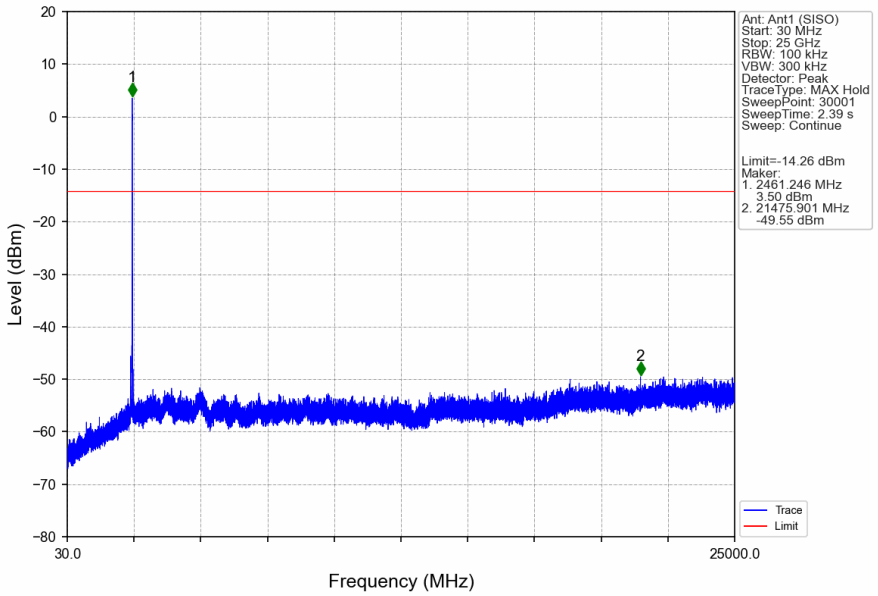


802.11b_HCH_2462MHz_Ant1 (SISO)_NTNV



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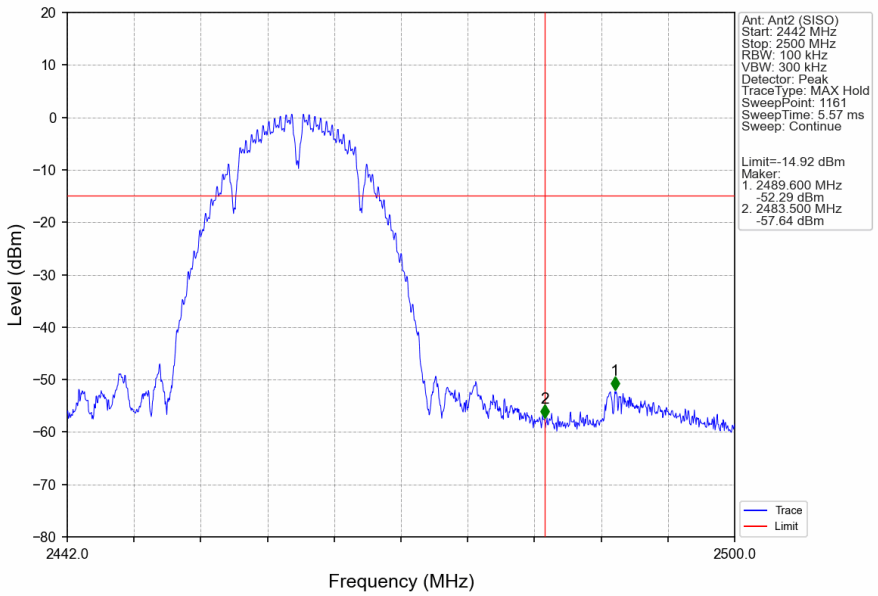
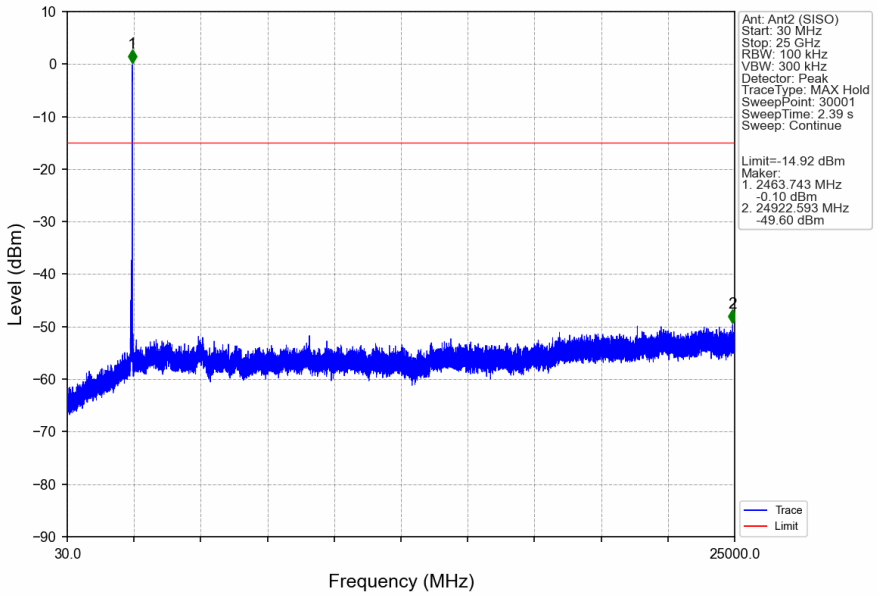


802.11b_HCH_2462MHz_Ant2 (SISO)_NTNV



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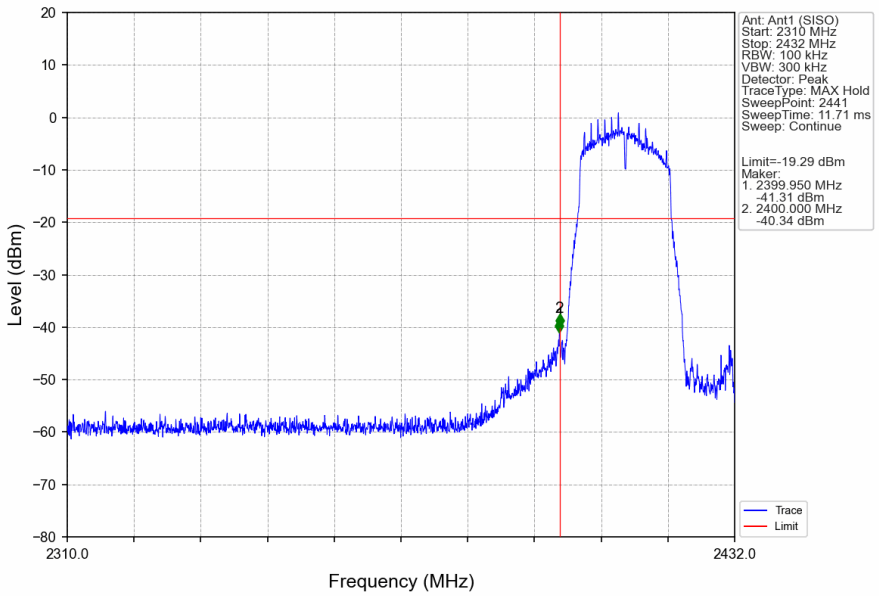

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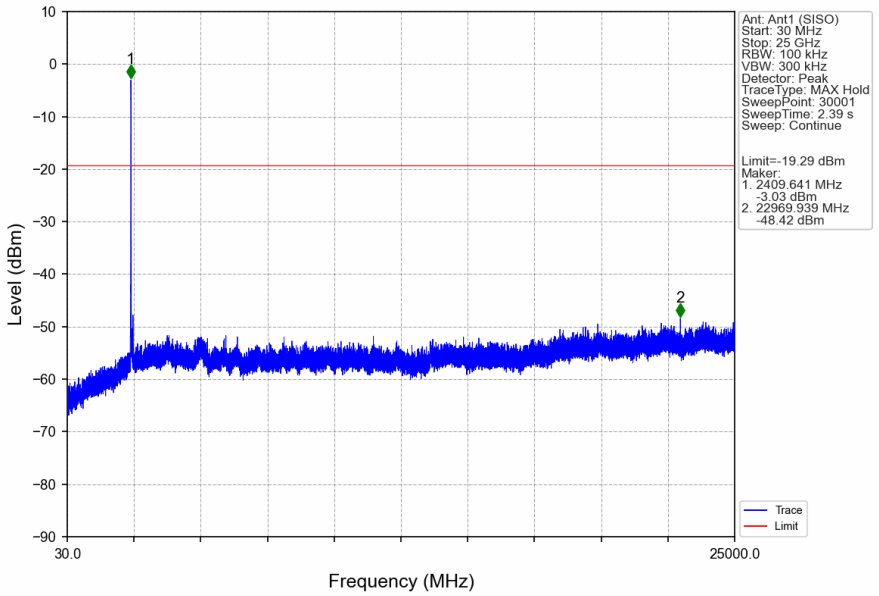

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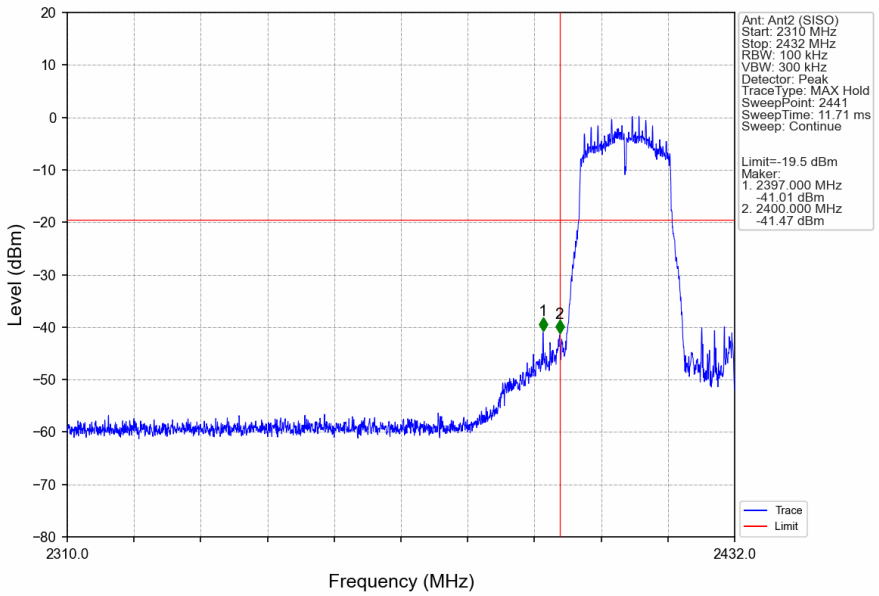

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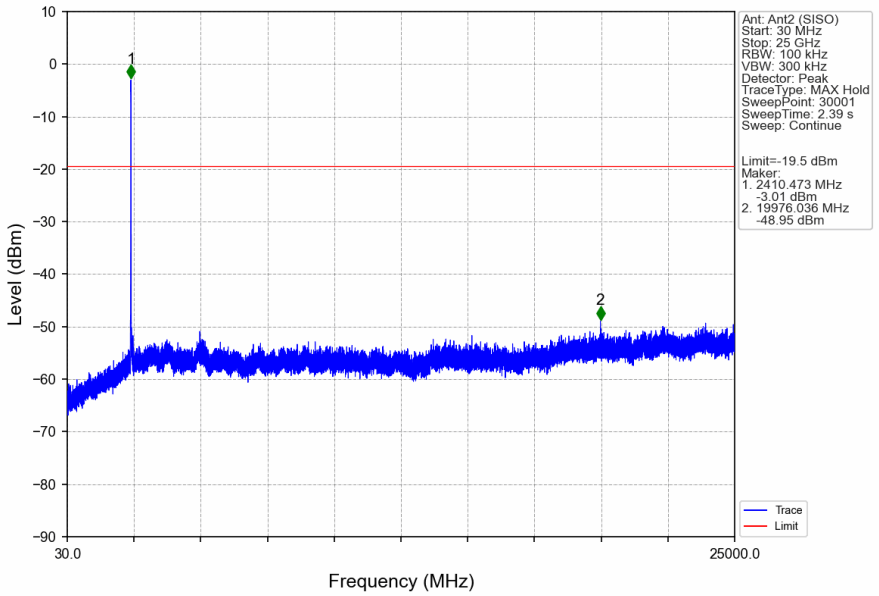
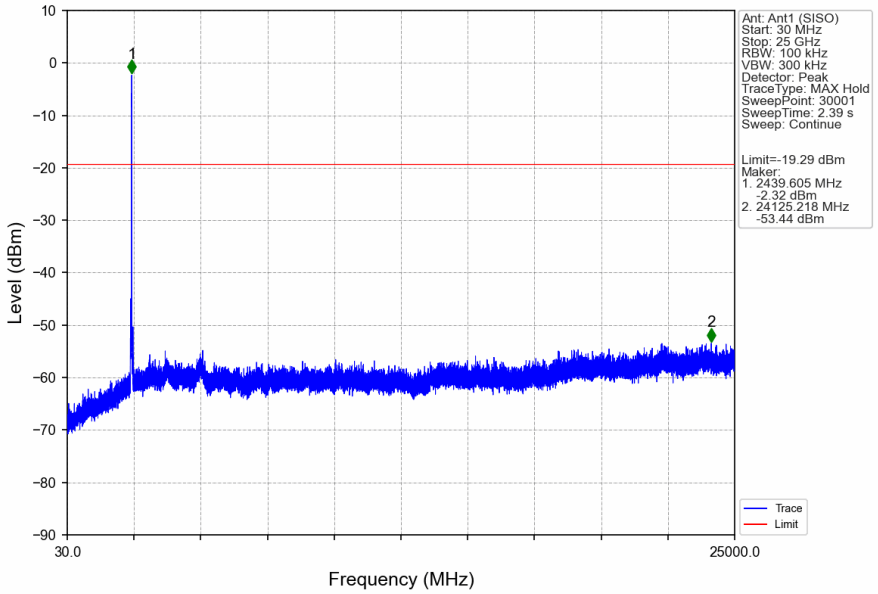


802.11g_MCH_2437MHz_Ant1 (SISO)_NTNV



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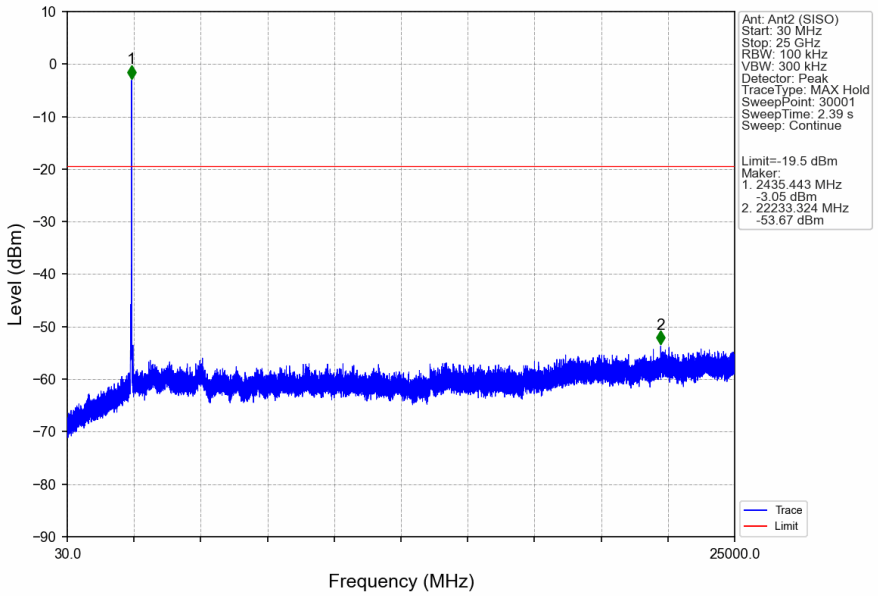

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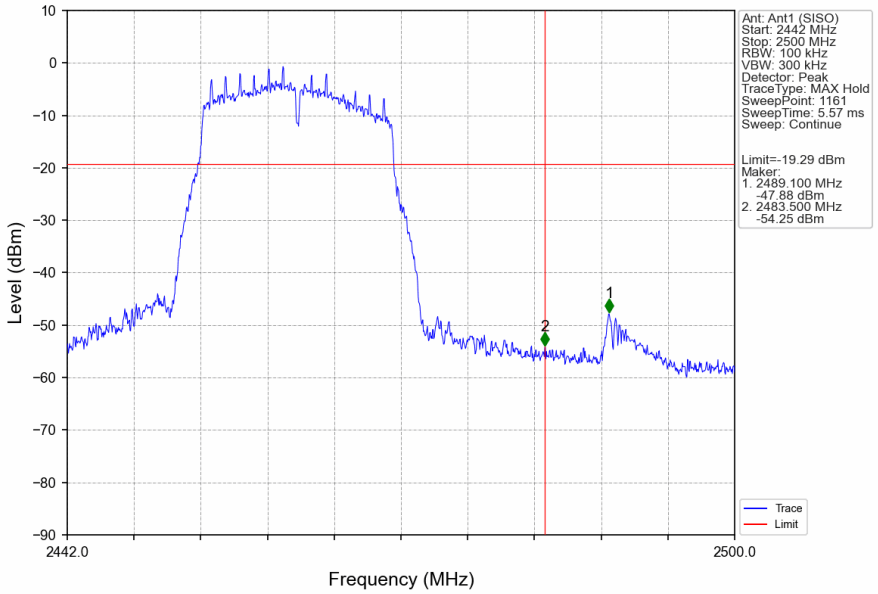
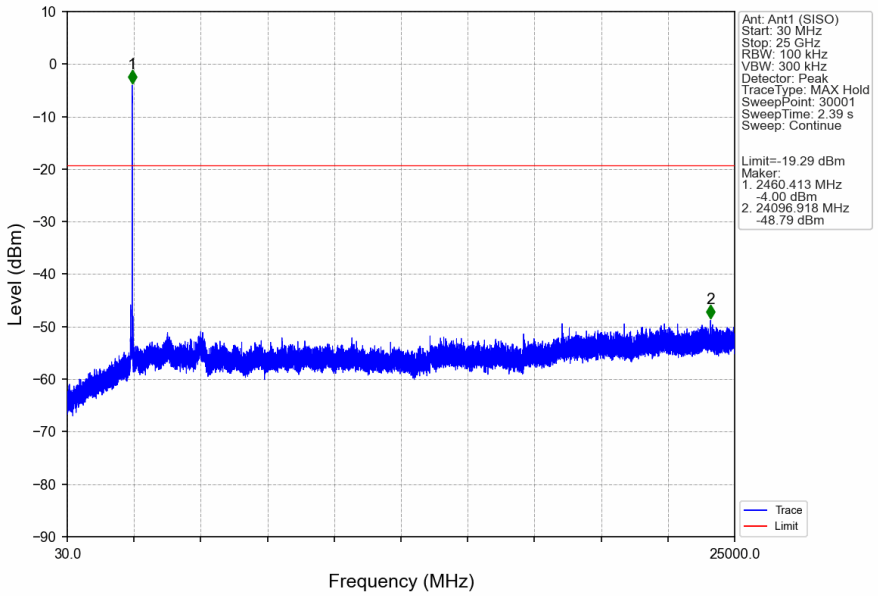


802.11g_HCH_2462MHz_Ant1 (SISO)_NTNV



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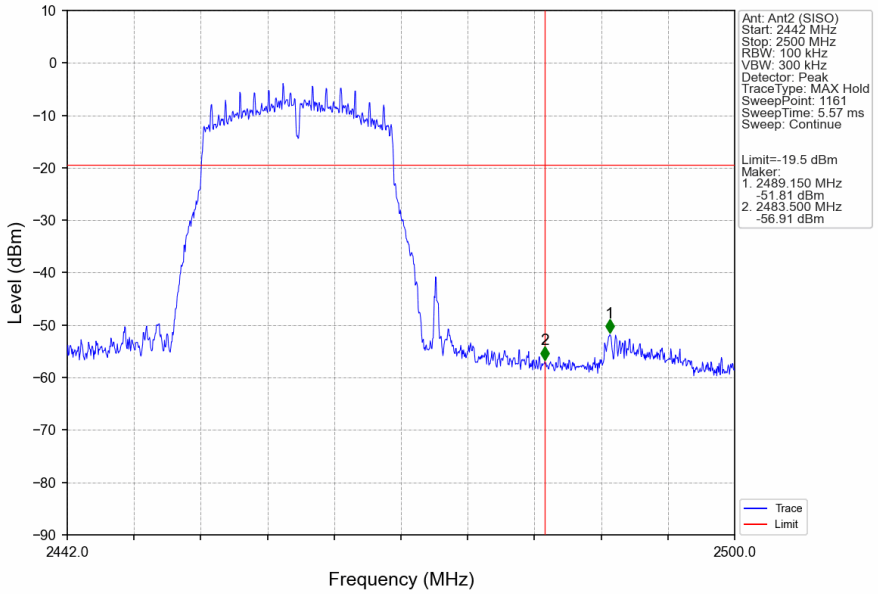

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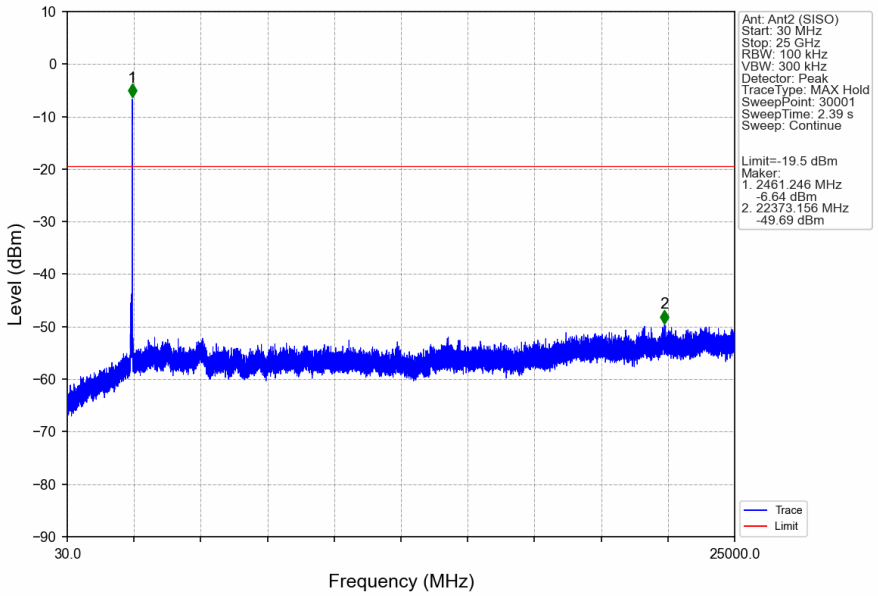
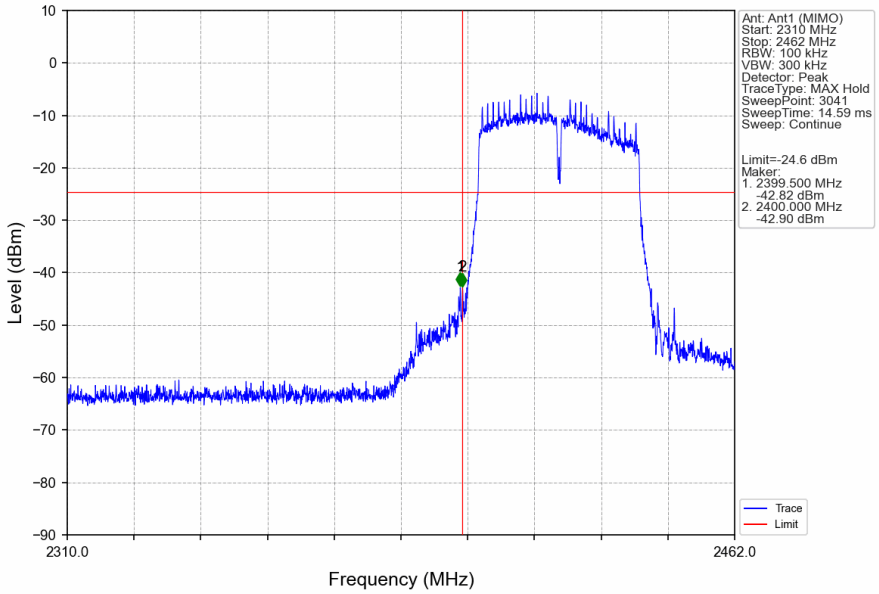
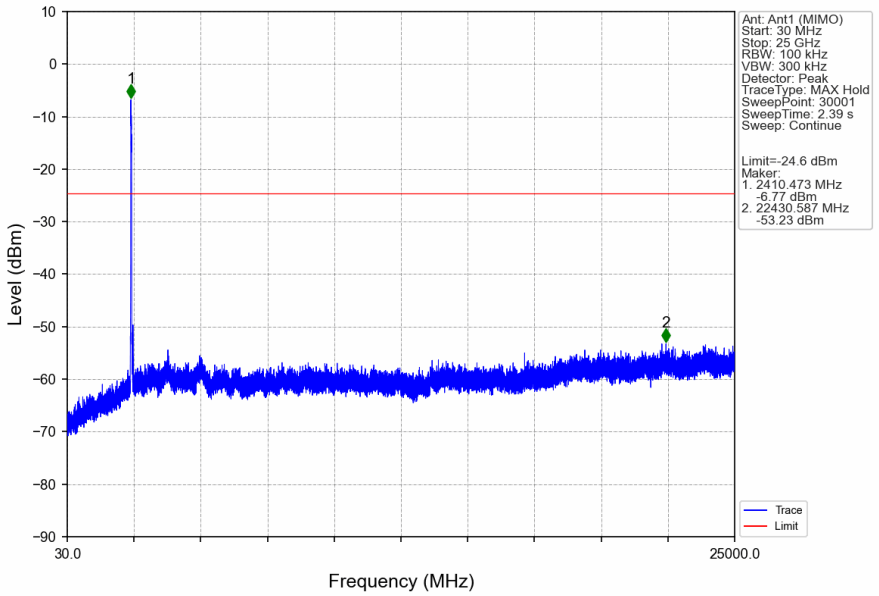


802.11n(HT40)_LCH_2422MHz_Ant1 (MIMO)_NTNV



802.11n(HT40)_LCH_2422MHz_Ant1 (MIMO)_NTNV



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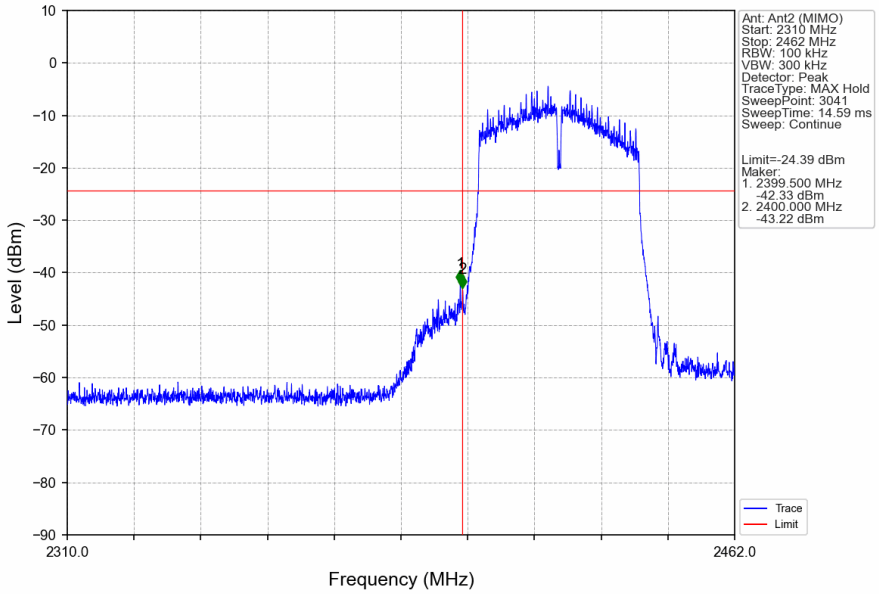

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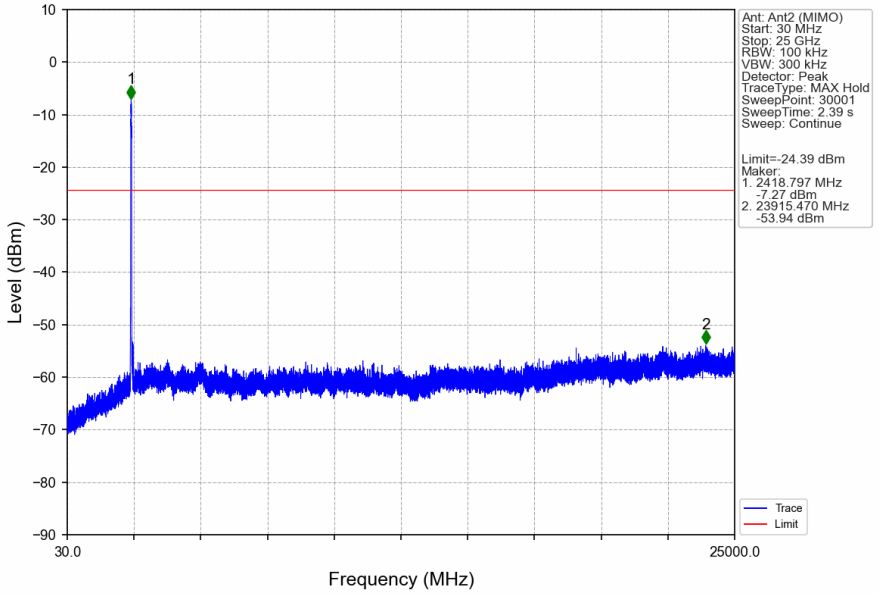

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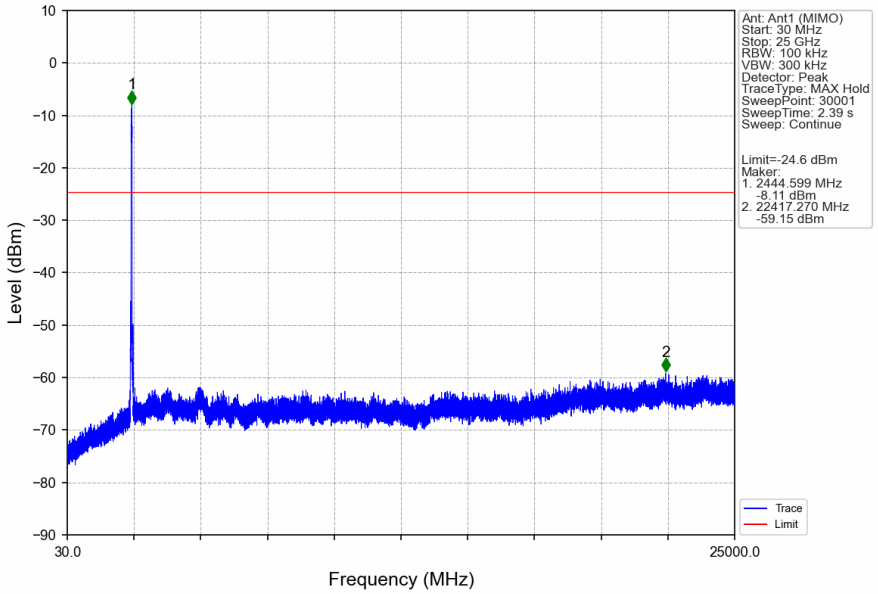

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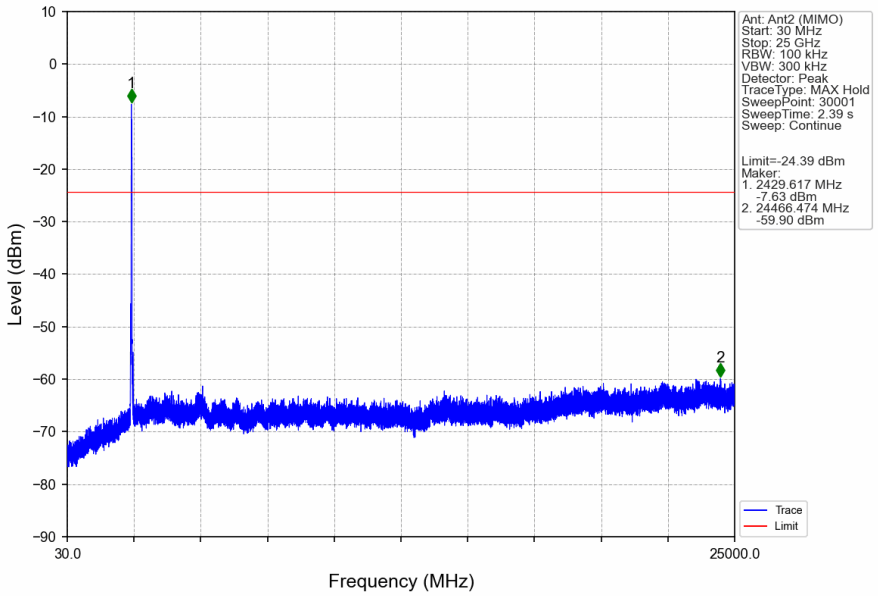
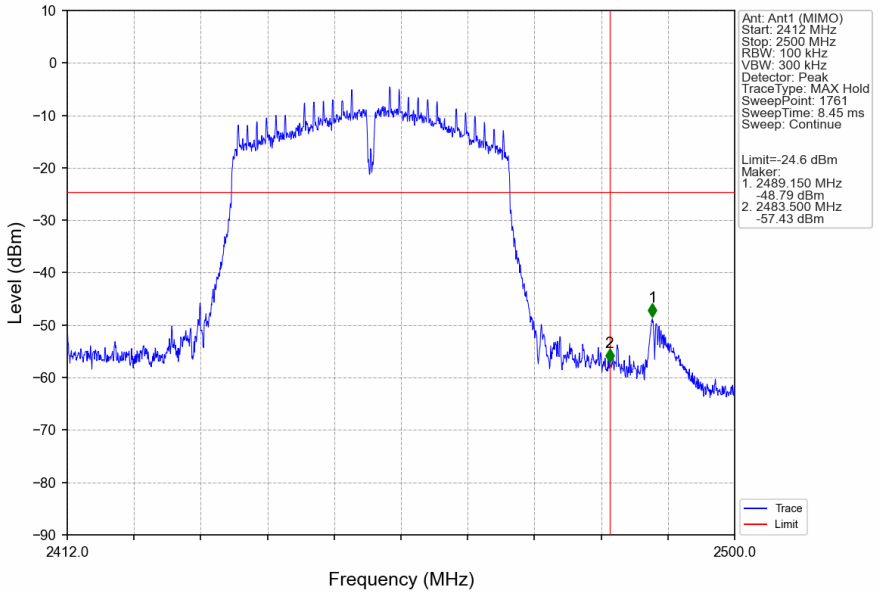


802.11n(HT40)_HCH_2452MHz_Ant1 (MIMO)_NTNV



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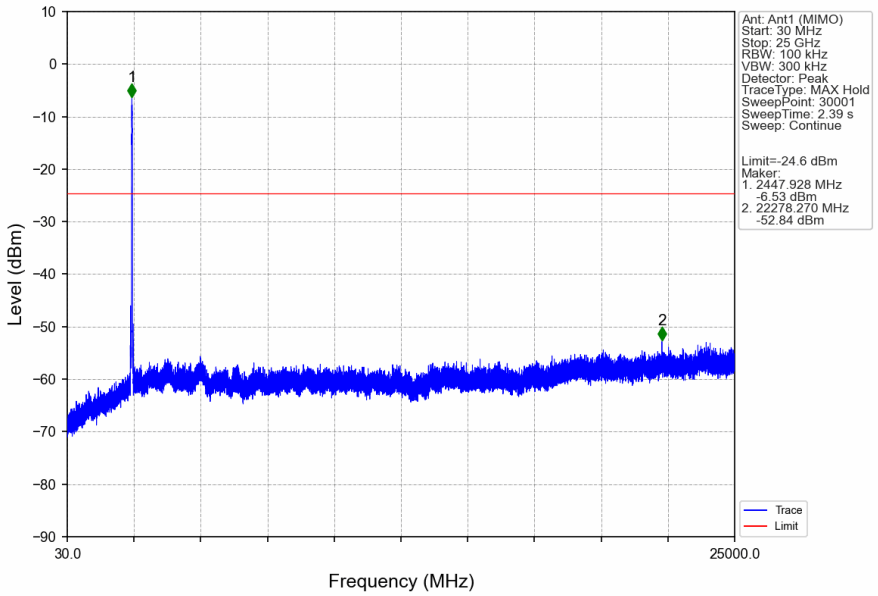

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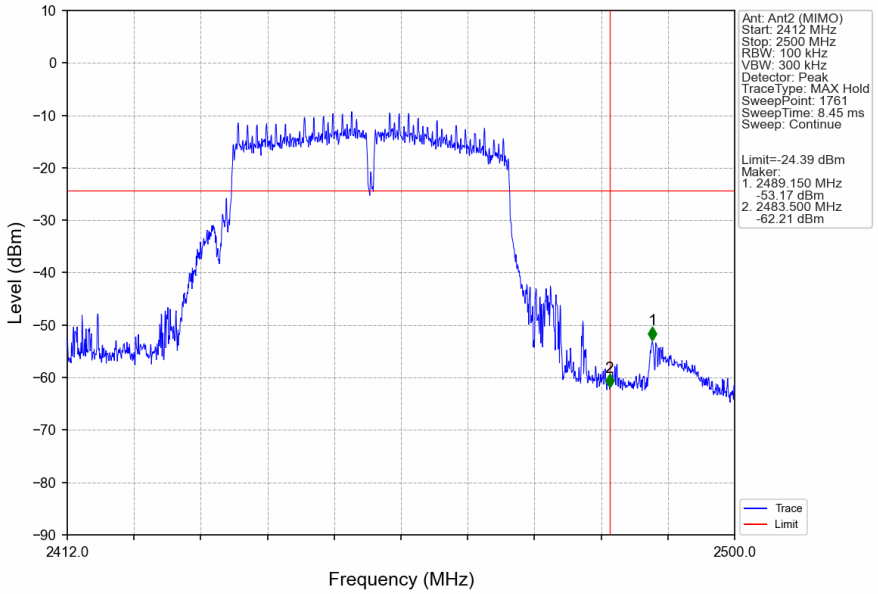

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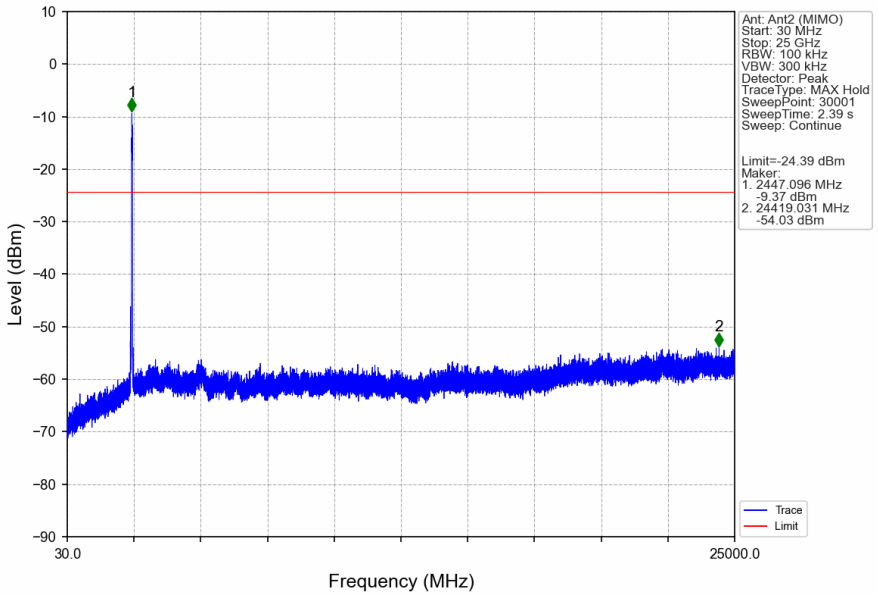

- End of the Report -

No.198, Kezhu Road, Science City, Economic & Technological Development Area, Guangzhou, Guangdong, China 510663 t (86-20) 82155555 www.sgsgroup.com.cn
中国・广东・广州高新技术产业开发区科学城科珠路198号 邮编：510663 t (86-20) 82155555 sgs.china@sgs.com