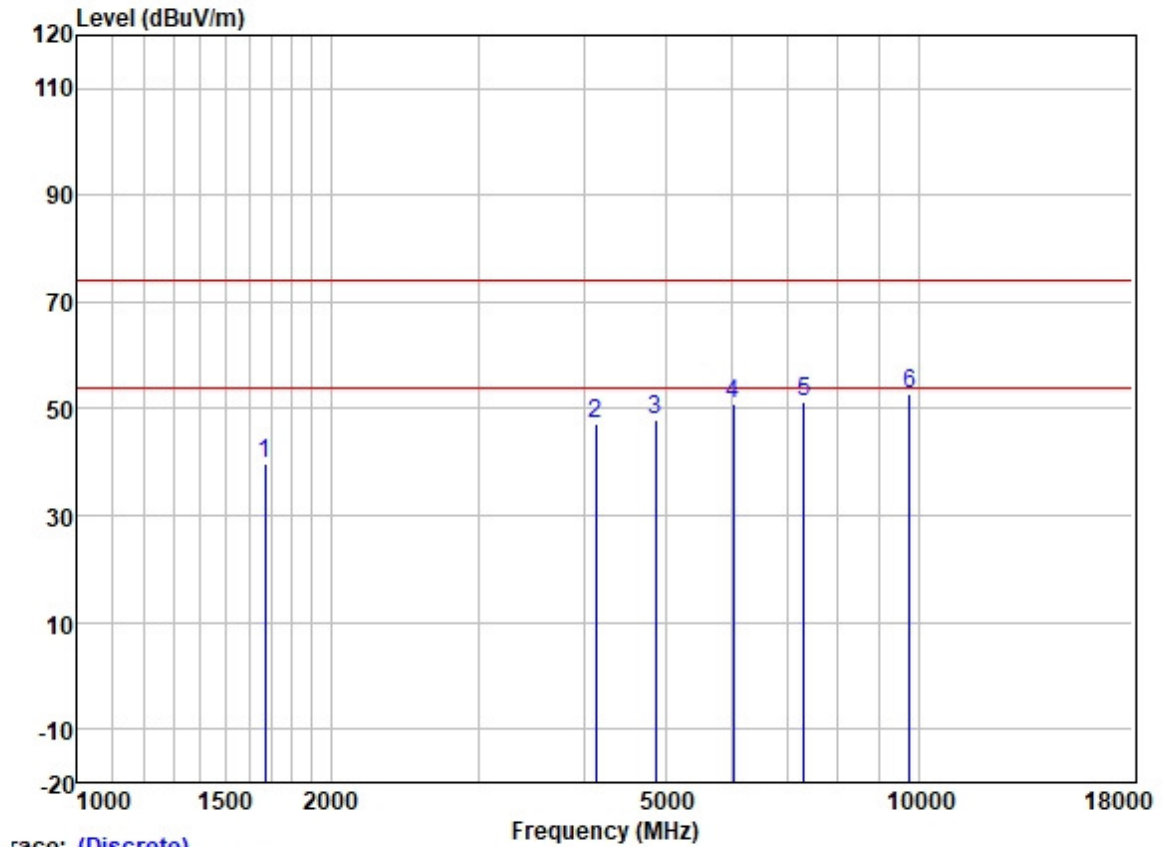


Test Mode: 02; Polarity: Vertical; Modulation:802.11n; Bandwidth:40MHz; Channel:middle



race: (Discrete)

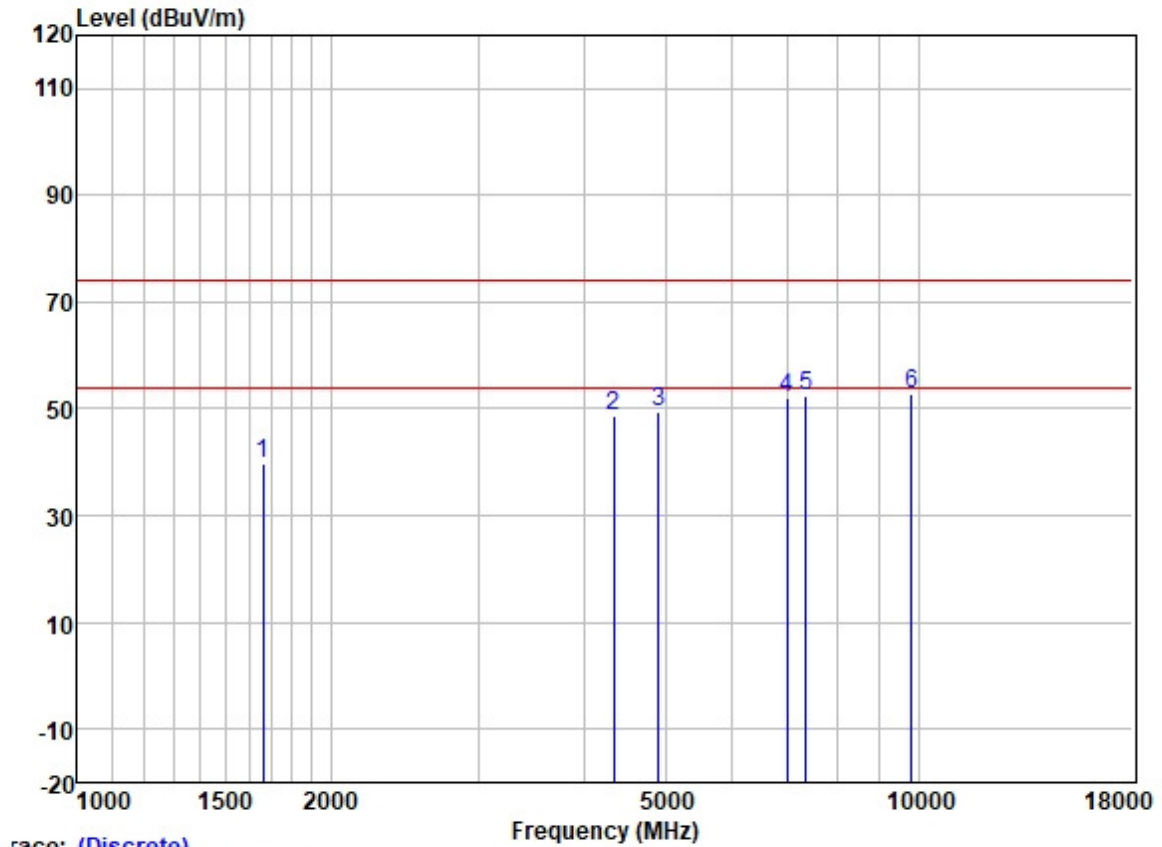
	Freq	ReadAntenna	Cable	Preamp		Limit	Over			
		Level	Factor	Loss	Factor	Level	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	1672.779	49.29	25.67	2.80	37.91	39.85	74.00	-34.15	VERTICAL	Peak
2	4133.699	49.52	30.01	4.60	36.80	47.33	74.00	-26.67	VERTICAL	Peak
3	4874.000	47.60	31.54	5.50	36.84	47.80	74.00	-26.20	VERTICAL	Peak
4	6018.999	49.24	32.44	6.19	36.90	50.97	74.00	-23.03	VERTICAL	Peak
5	7311.000	46.56	35.93	6.11	37.42	51.18	74.00	-22.82	VERTICAL	Peak
6	9748.000	44.61	38.50	7.02	37.41	52.72	74.00	-21.28	VERTICAL	Peak



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Test Mode: 02; Polarity: Horizontal; Modulation:802.11n; Bandwidth:40MHz; Channel:High



race: (Discrete)

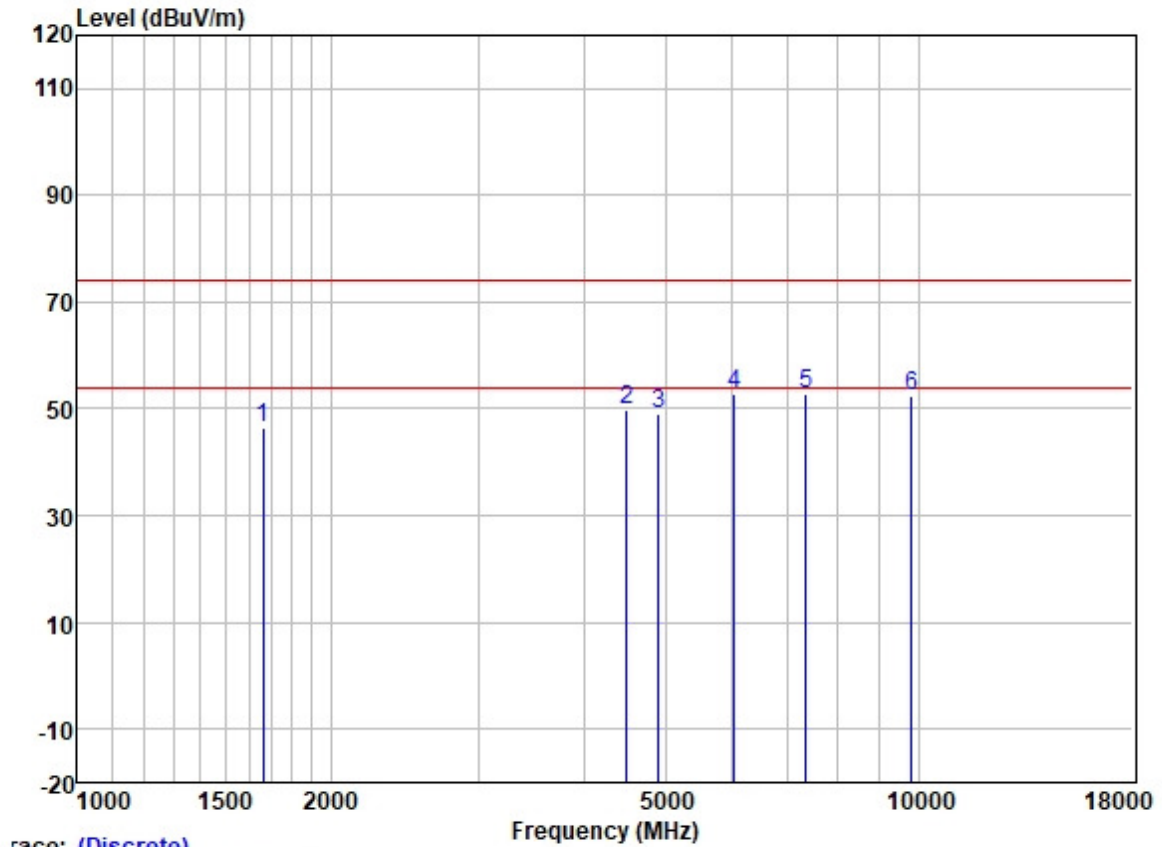
	Freq	ReadAntenna	Cable	Preamp		Limit	Over			
		Level	Factor	Loss	Factor	Level	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	1663.137	49.15	25.65	2.80	37.91	39.69	74.00	-34.31	HORIZONTAL	Peak
2	4341.886	50.23	30.57	4.67	36.81	48.66	74.00	-25.34	HORIZONTAL	Peak
3	4904.000	49.27	31.58	5.55	36.84	49.56	74.00	-24.44	HORIZONTAL	Peak
4	6974.982	48.63	34.97	5.81	37.23	52.18	74.00	-21.82	HORIZONTAL	Peak
5	7356.000	47.52	36.06	6.15	37.44	52.29	74.00	-21.71	HORIZONTAL	Peak
6	9808.000	44.69	38.56	7.00	37.41	52.84	74.00	-21.16	HORIZONTAL	Peak



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Test Mode: 02; Polarity: Vertical; Modulation:802.11n; Bandwidth:40MHz; Channel:High



	Freq	ReadAntenna Level	Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	1663.137	55.82	25.65	2.80	37.91	46.36	74.00	-27.64	VERTICAL	Peak
2	4495.125	50.60	30.80	5.05	36.82	49.63	74.00	-24.37	VERTICAL	Peak
3	4904.000	48.74	31.58	5.55	36.84	49.03	74.00	-24.97	VERTICAL	Peak
4	6036.421	50.88	32.48	6.18	36.90	52.64	74.00	-21.36	VERTICAL	Peak
5	7356.000	48.00	36.06	6.15	37.44	52.77	74.00	-21.23	VERTICAL	Peak
6	9808.000	44.26	38.56	7.00	37.41	52.41	74.00	-21.59	VERTICAL	Peak

8 Test Setup Photo

Refer to Appendix – Test Setup photos for GZCR2108020991AT

9 EUT Constructional Details (EUT Photos)

Refer to Appendix - External and Internal Photos for GZCR2108020991AT



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10 Appendix

1. Bandwidth

1.1 6dB BW

1.1.1 Test Result

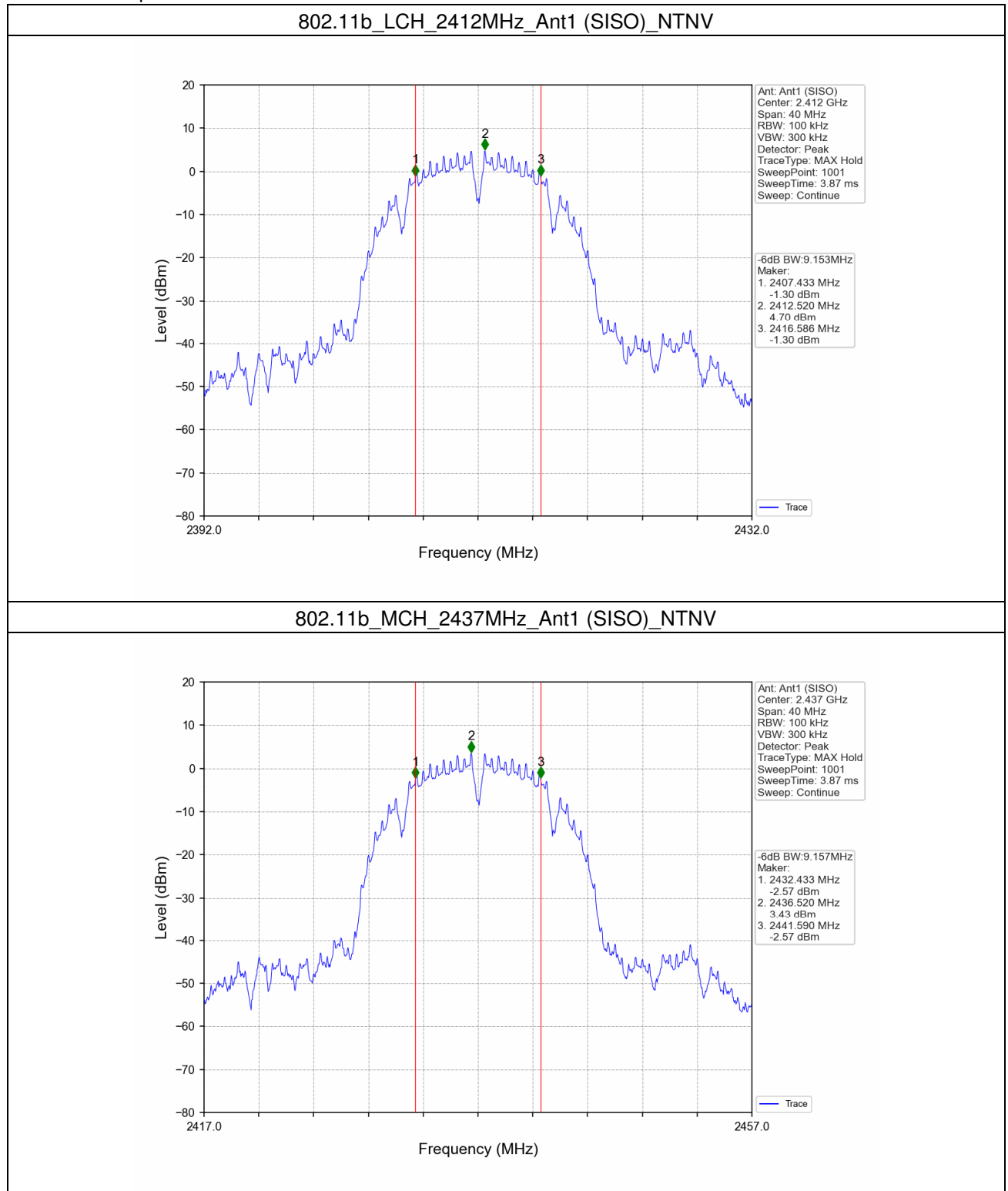
Mode	TX Type	Frequency (MHz)	Ant	6dB Bandwidth (MHz)		Verdict
				Result	Limit	
802.11b	SISO	2412	1	9.153	≥ 0.5	Pass
		2437	1	9.157	≥ 0.5	Pass
		2462	1	9.151	≥ 0.5	Pass
802.11g	SISO	2412	1	16.459	≥ 0.5	Pass
		2437	1	16.449	≥ 0.5	Pass
		2462	1	16.451	≥ 0.5	Pass
802.11n (HT20)	SISO	2412	1	17.376	≥ 0.5	Pass
		2437	1	17.370	≥ 0.5	Pass
		2462	1	17.380	≥ 0.5	Pass
802.11n (HT40)	SISO	2422	1	33.587	≥ 0.5	Pass
		2437	1	33.338	≥ 0.5	Pass
		2452	1	33.628	≥ 0.5	Pass



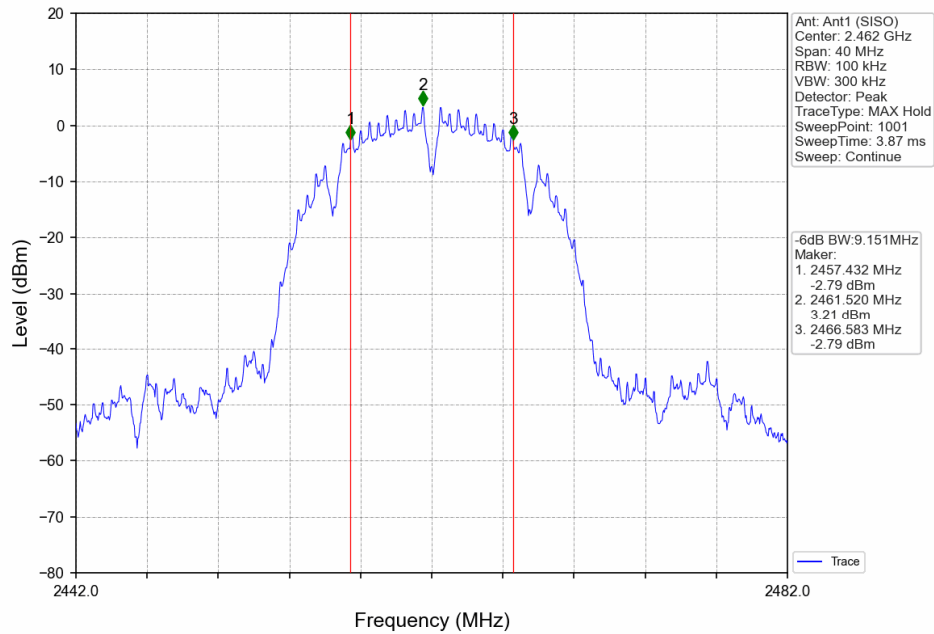
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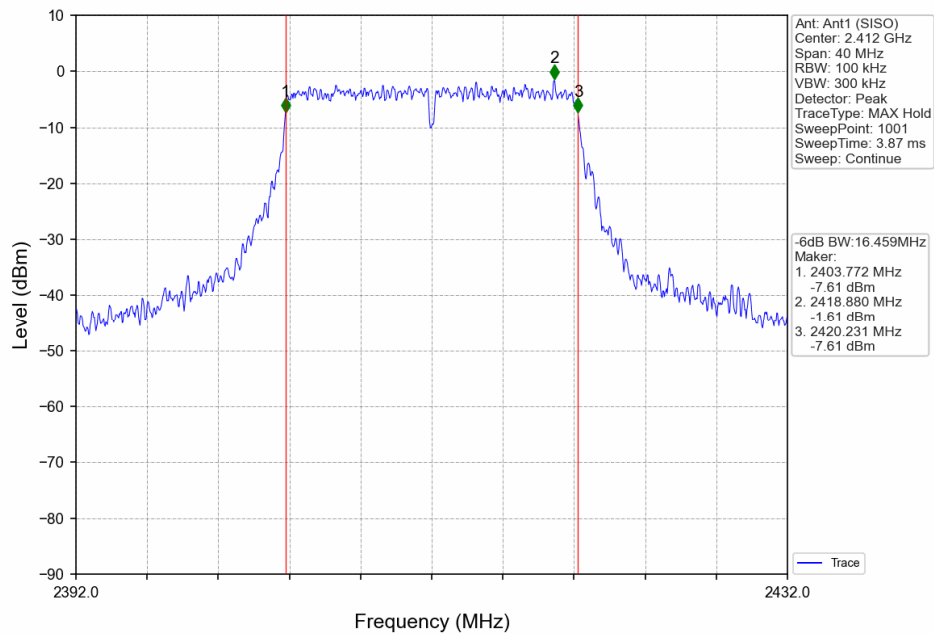
1.1.2 Test Graph



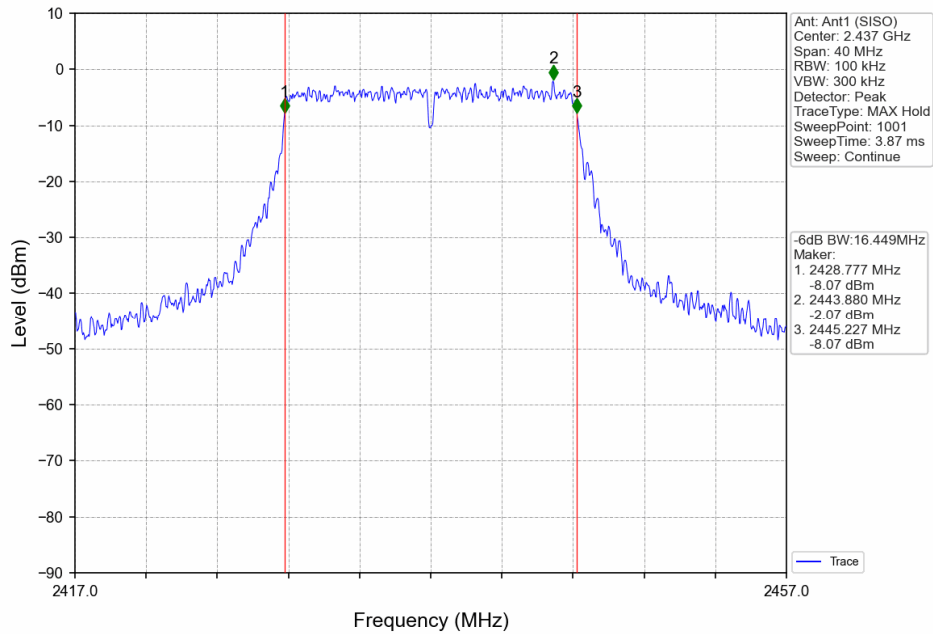
802.11b_HCH_2462MHz_Ant1 (SISO)_NTNV



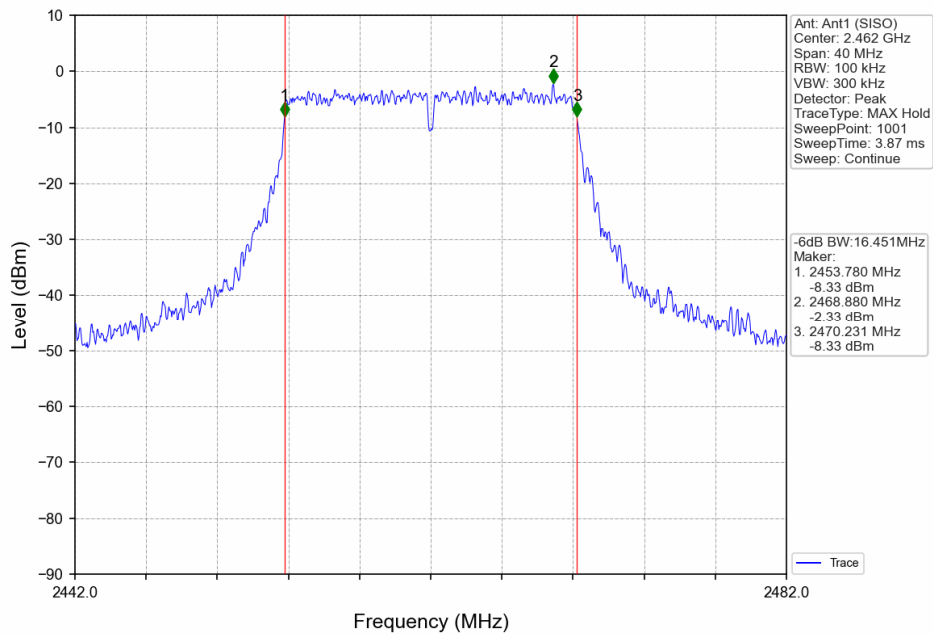
802.11g_LCH_2412MHz_Ant1 (SISO)_NTNV



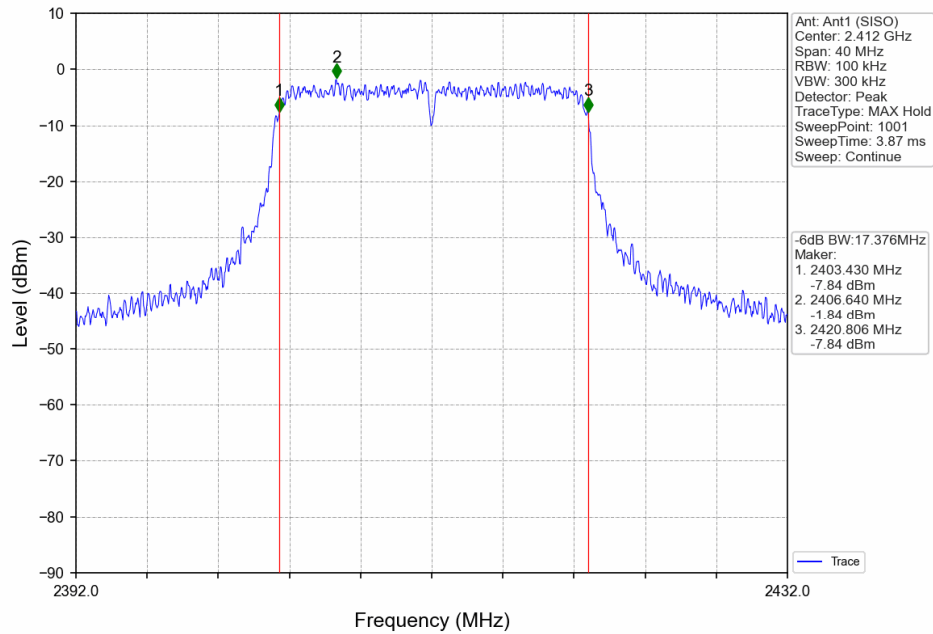
802.11g_MCH_2437MHz_Ant1 (SISO)_NTNV



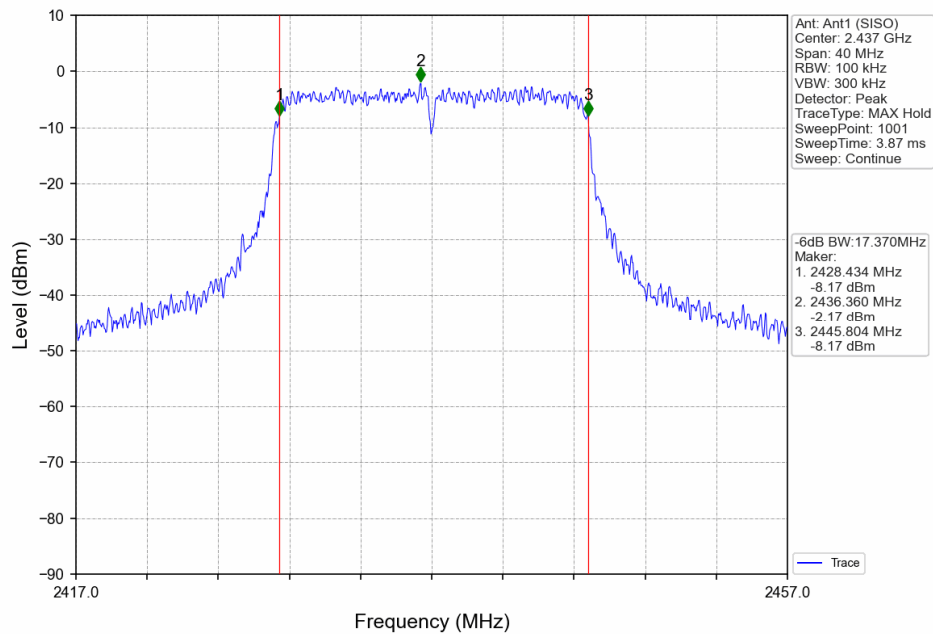
802.11g_HCH_2462MHz_Ant1 (SISO)_NTNV



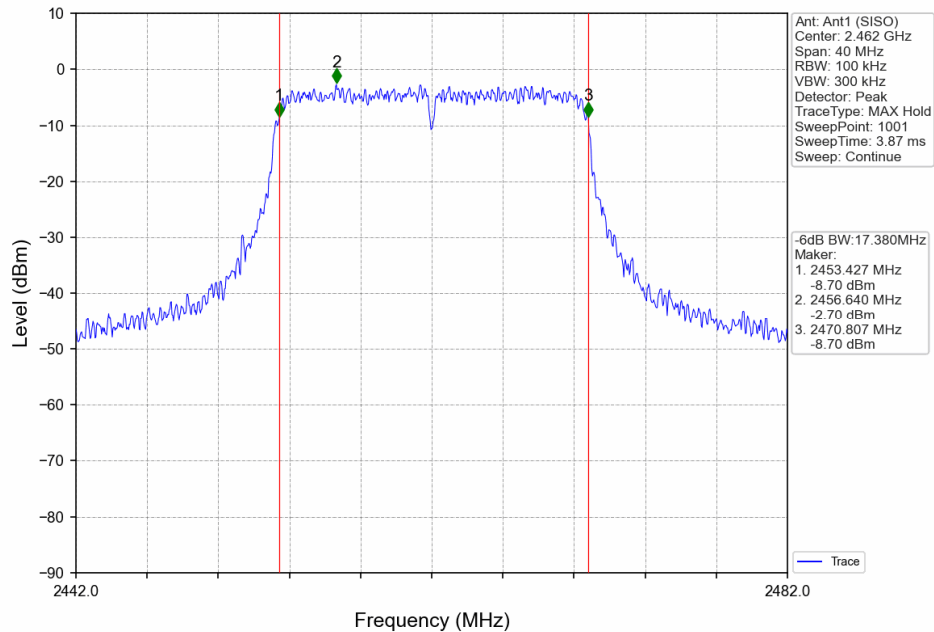
802.11n(HT20)_LCH_2412MHz_Ant1 (SISO)_NTNV



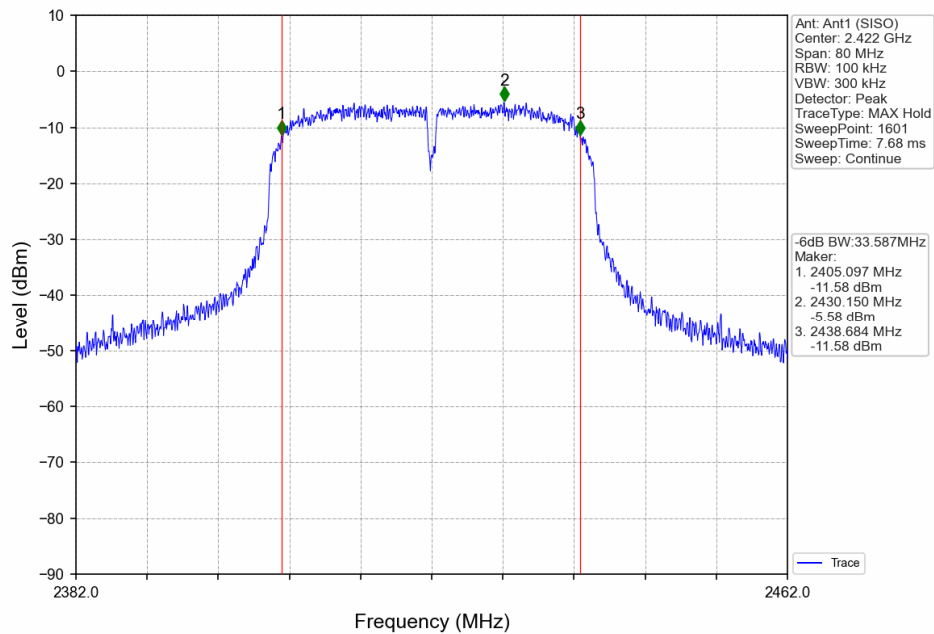
802.11n(HT20)_MCH_2437MHz_Ant1 (SISO)_NTNV



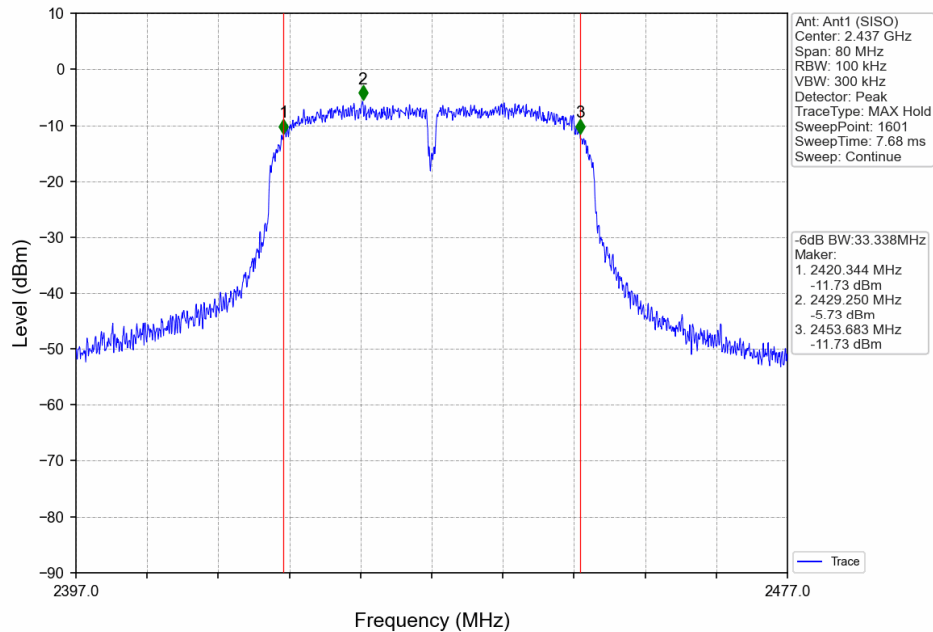
802.11n(HT20)_HCH_2462MHz_Ant1 (SISO)_NTNV



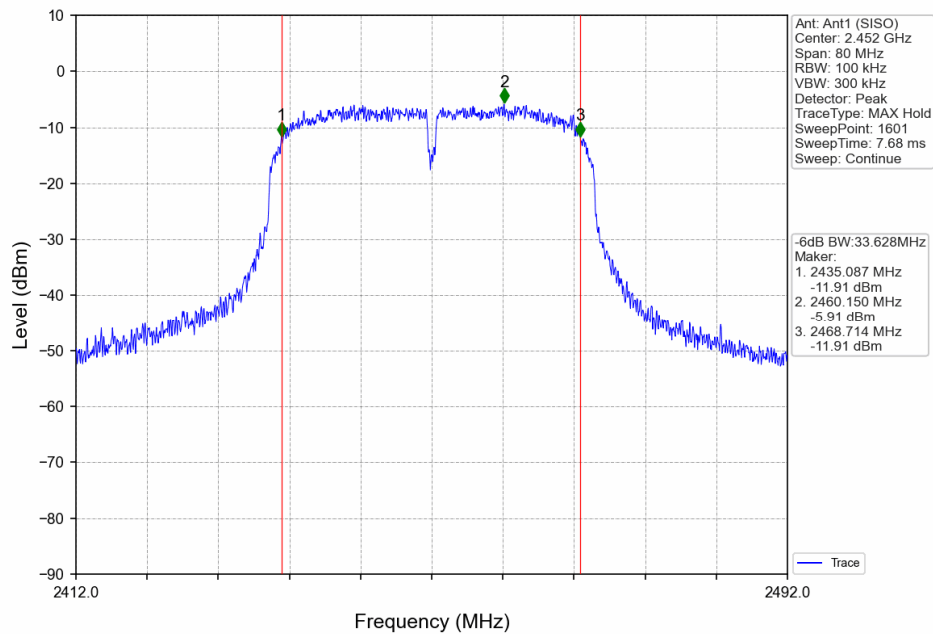
802.11n(HT40)_LCH_2422MHz_Ant1 (SISO)_NTNV



802.11n(HT40)_MCH_2437MHz_Ant1 (SISO)_NTNV



802.11n(HT40)_HCH_2452MHz_Ant1 (SISO)_NTNV



2. Maximum Conducted Output Power

2.1 Power

2.1.1 Test Result

Mode	TX Type	Frequency (MHz)	Maximum Conducted Output Power (dBm)		Verdict
			Ant1	Limit	
802.11b	SISO	2412	13.00	<=30	Pass
		2437	11.82	<=30	Pass
		2462	11.60	<=30	Pass
802.11g	SISO	2412	11.09	<=30	Pass
		2437	10.61	<=30	Pass
		2462	10.34	<=30	Pass
802.11n (HT20)	SISO	2412	10.95	<=30	Pass
		2437	10.39	<=30	Pass
		2462	10.15	<=30	Pass
802.11n (HT40)	SISO	2422	10.40	<=30	Pass
		2437	10.03	<=30	Pass
		2452	10.00	<=30	Pass
Note1: Antenna Gain: Ant1: 2.00dBi;					

3. Maximum Power Spectral Density

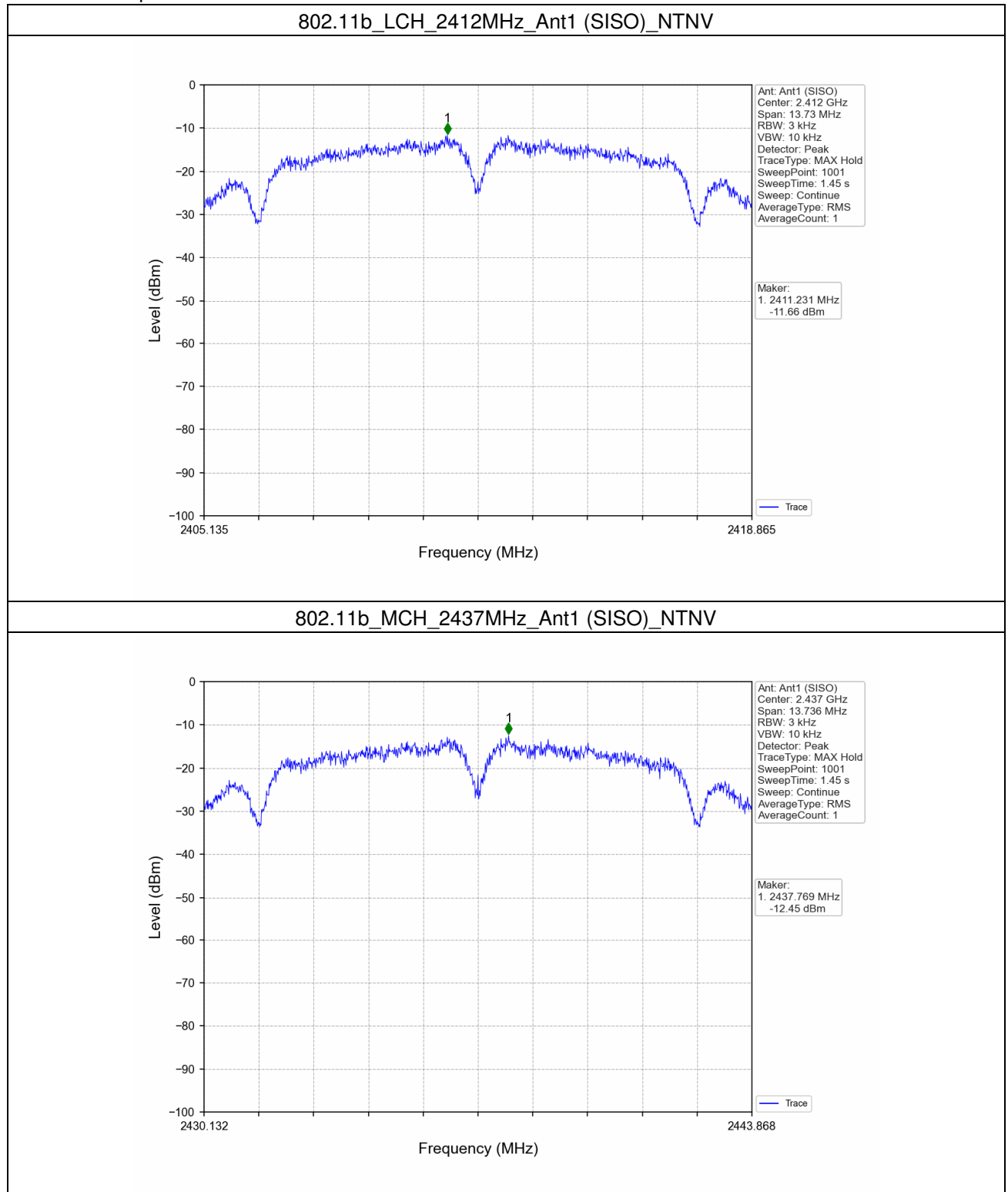
3.1 PSD

3.1.1 Test Result

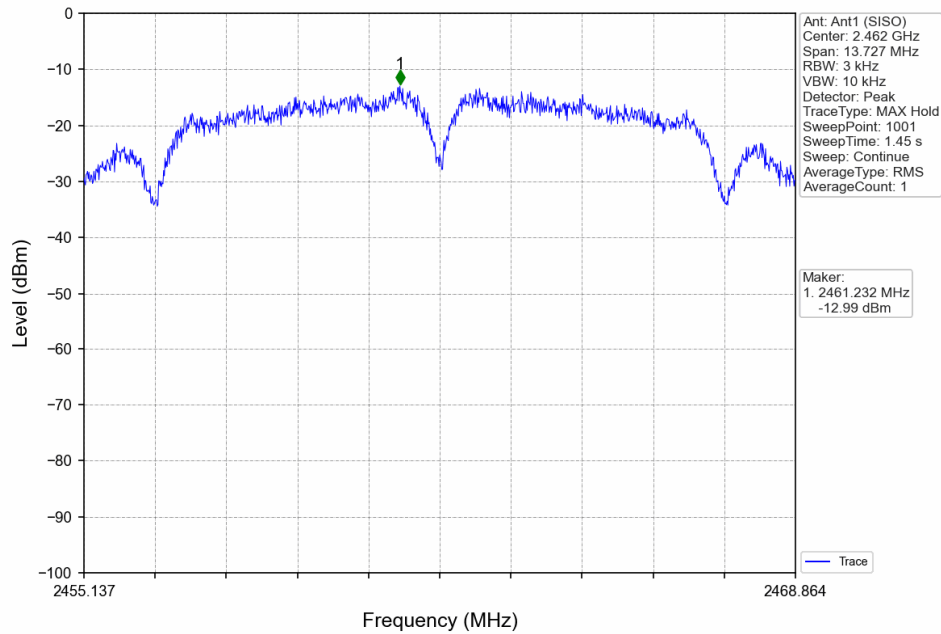
Mode	TX Type	Frequency (MHz)	Maximum PSD (dBm/3kHz)		Verdict
			Ant1	Limit	
802.11b	SISO	2412	-11.66	<=8	Pass
		2437	-12.45	<=8	Pass
		2462	-12.99	<=8	Pass
802.11g	SISO	2412	-16.68	<=8	Pass
		2437	-17.32	<=8	Pass
		2462	-17.64	<=8	Pass
802.11n (HT20)	SISO	2412	-16.70	<=8	Pass
		2437	-17.35	<=8	Pass
		2462	-17.58	<=8	Pass
802.11n (HT40)	SISO	2422	-19.12	<=8	Pass
		2437	-19.52	<=8	Pass
		2452	-18.17	<=8	Pass

Note1: Antenna Gain: Ant1: 2.00dBi;

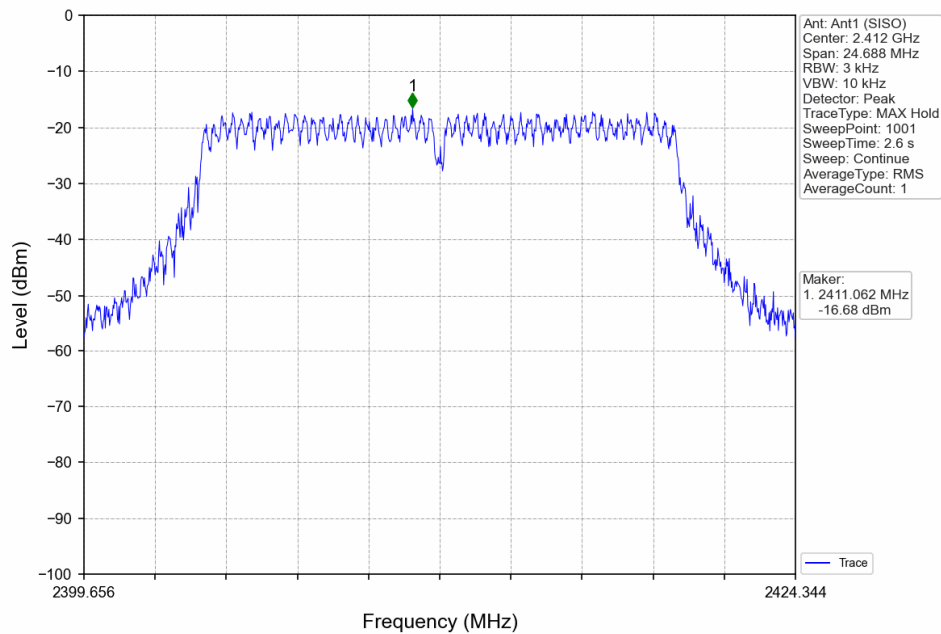
3.1.2 Test Graph



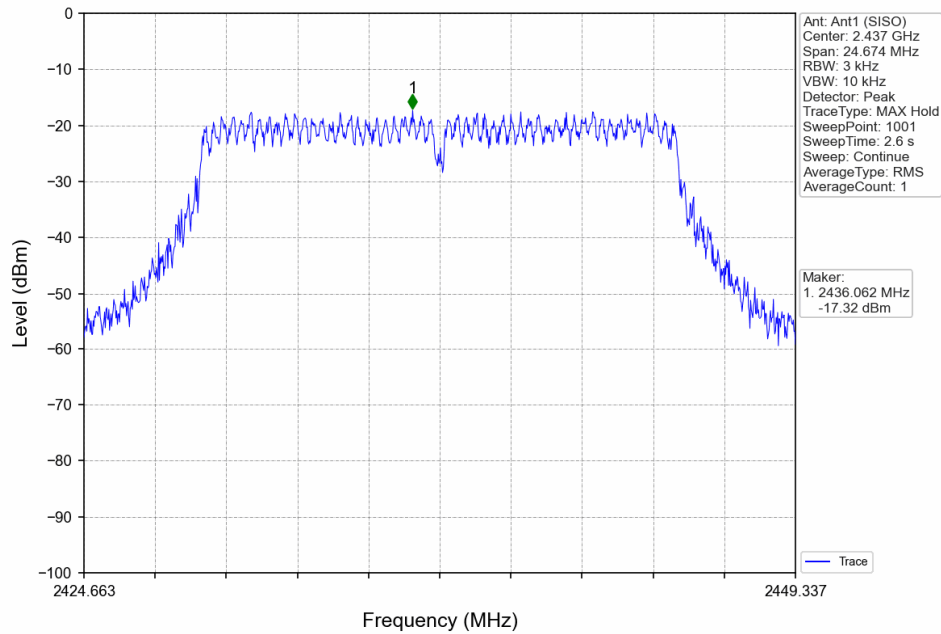
802.11b_HCH_2462MHz_Ant1 (SISO)_NTNV



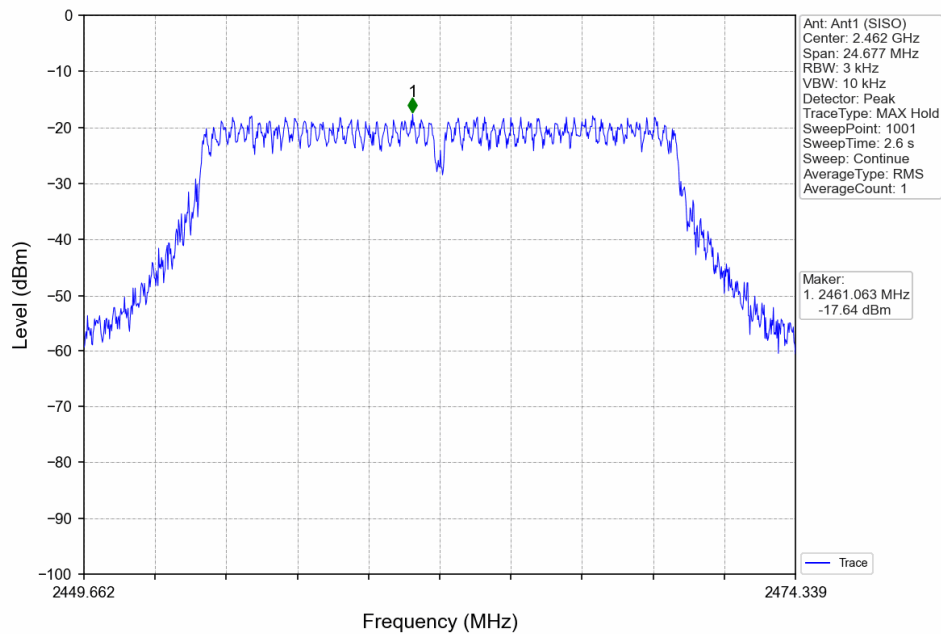
802.11g_LCH_2412MHz_Ant1 (SISO)_NTNV



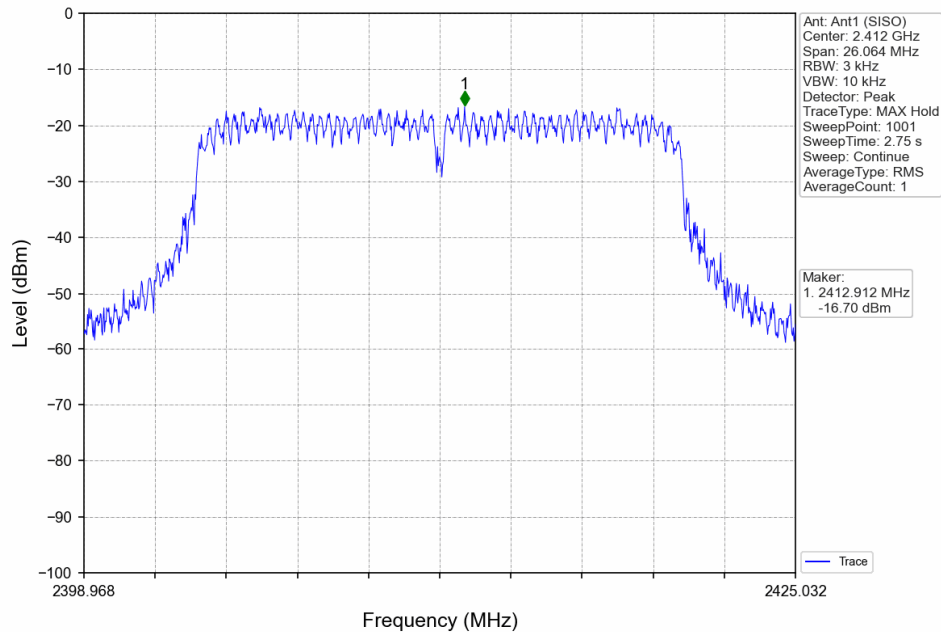
802.11g_MCH_2437MHz_Ant1 (SISO)_NTNV



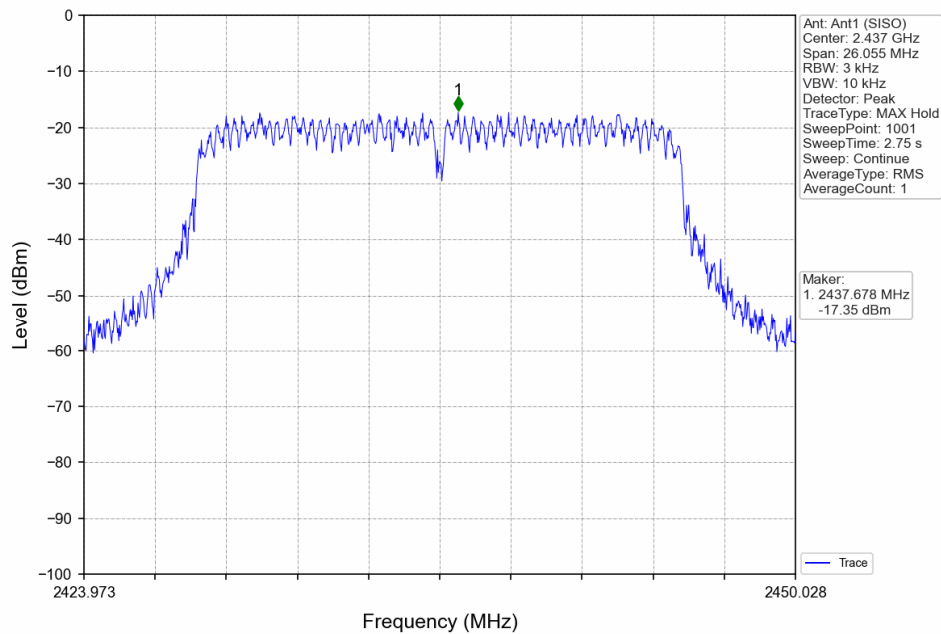
802.11g_HCH_2462MHz_Ant1 (SISO)_NTNV



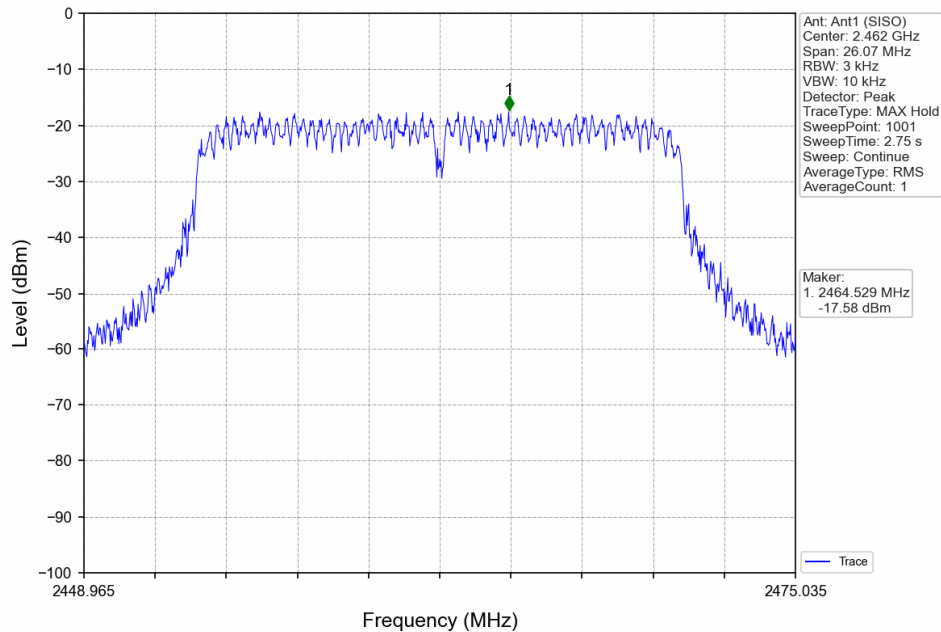
802.11n(HT20)_LCH_2412MHz_Ant1 (SISO)_NTNV



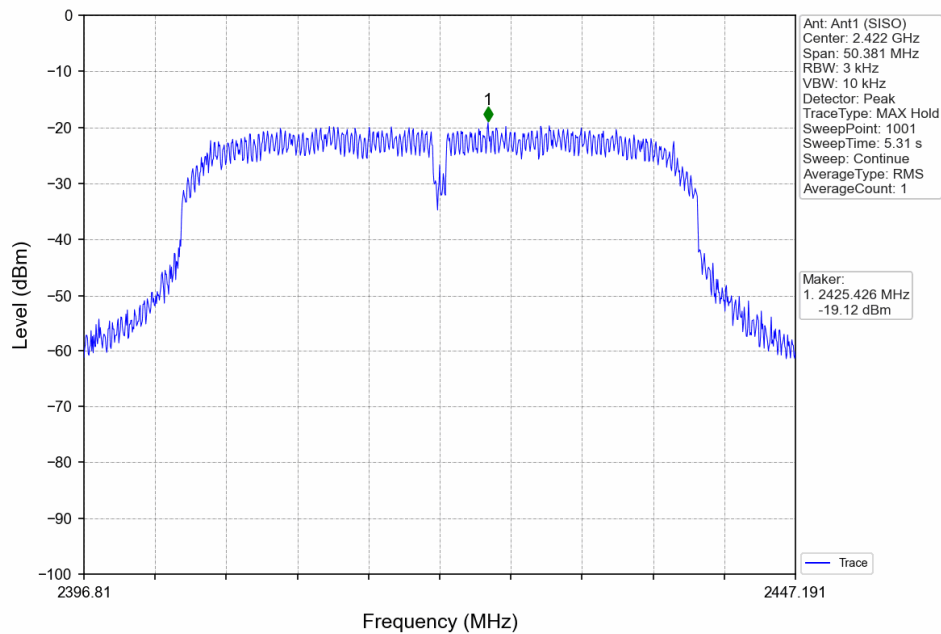
802.11n(HT20)_MCH_2437MHz_Ant1 (SISO)_NTNV



802.11n(HT20)_HCH_2462MHz_Ant1 (SISO)_NTNV



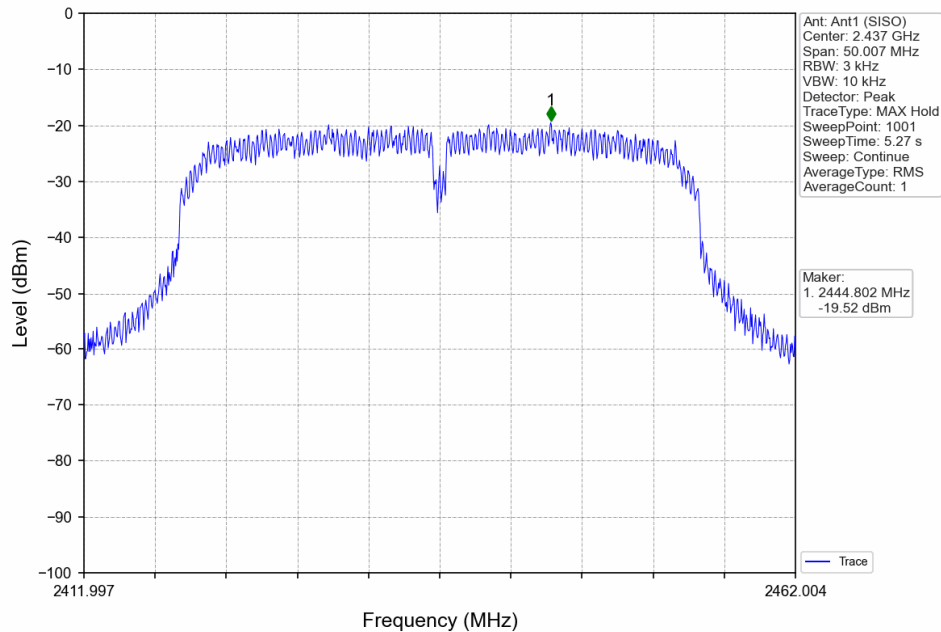
802.11n(HT40)_LCH_2422MHz_Ant1 (SISO)_NTNV



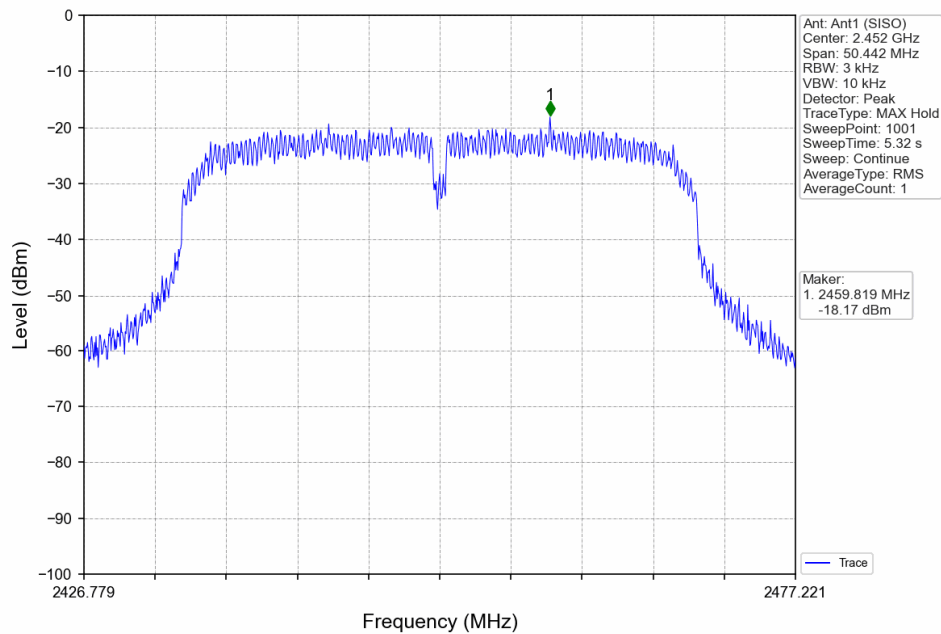
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802.11n(HT40)_MCH_2437MHz_Ant1 (SISO)_NTNV



802.11n(HT40)_HCH_2452MHz_Ant1 (SISO)_NTNV



4. Unwanted Emissions In Non-restricted Frequency Bands

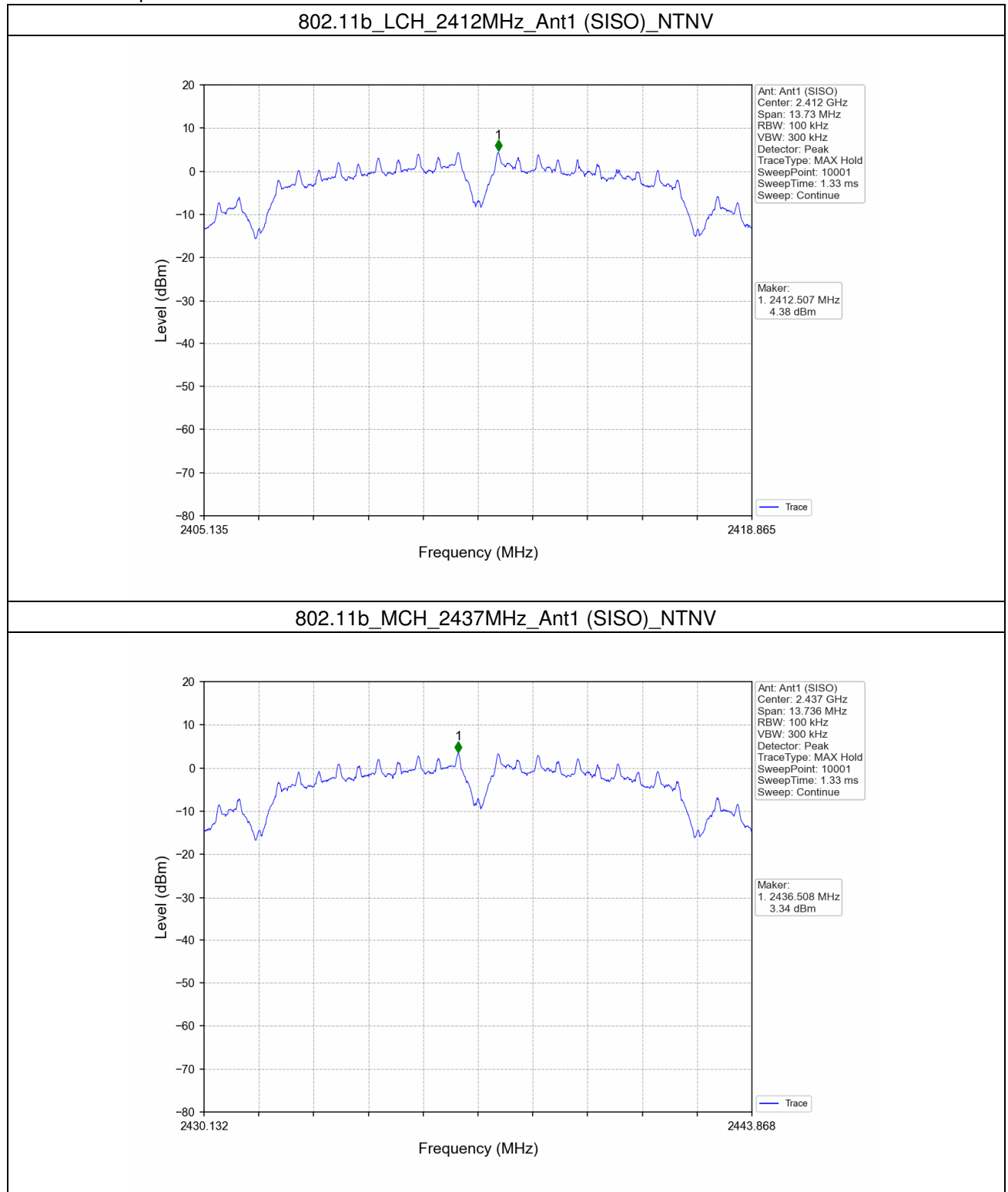
4.1 Ref

4.1.1 Test Result

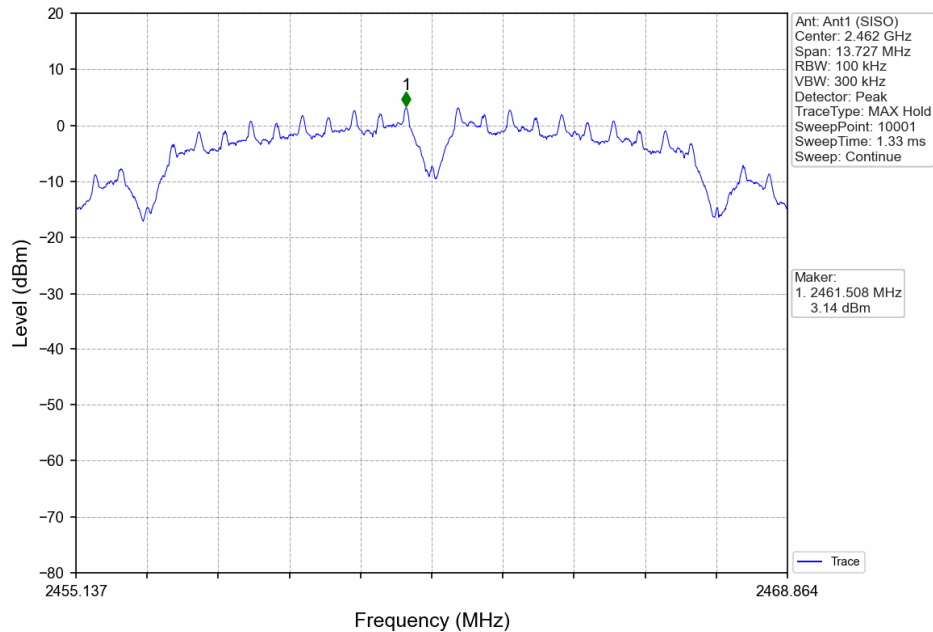
Mode	TX Type	Frequency (MHz)	Ant	Level of Reference (dBm)
802.11b	SISO	2412	1	4.38
		2437	1	3.34
		2462	1	3.14
802.11g	SISO	2412	1	-1.76
		2437	1	-2.19
		2462	1	-2.51
802.11n (HT20)	SISO	2412	1	-1.73
		2437	1	-2.78
		2462	1	-2.58
802.11n (HT40)	SISO	2422	1	-5.58
		2437	1	-6.09
		2452	1	-5.96

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.

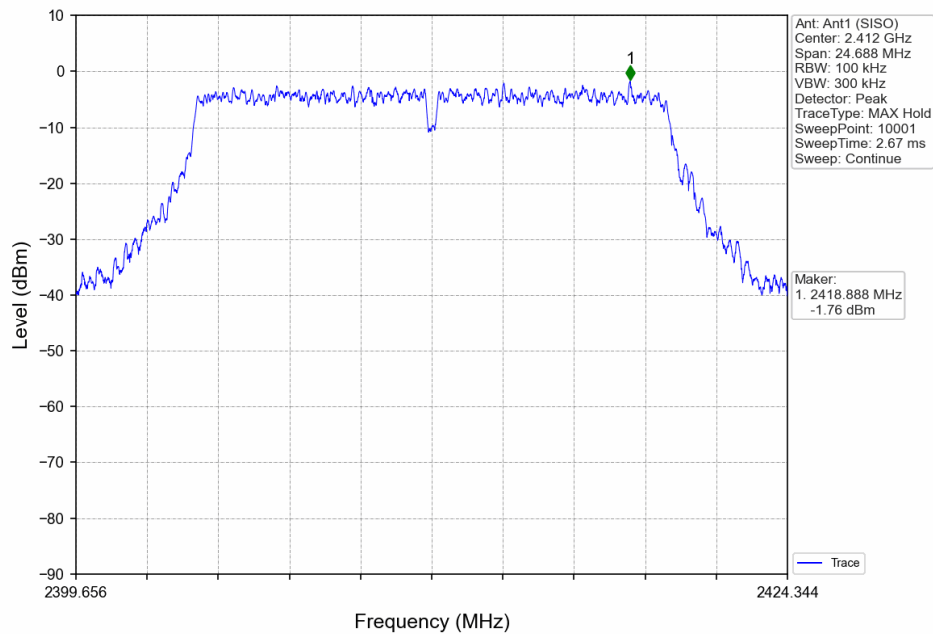
4.1.2 Test Graph



802.11b_HCH_2462MHz_Ant1 (SISO)_NTNV



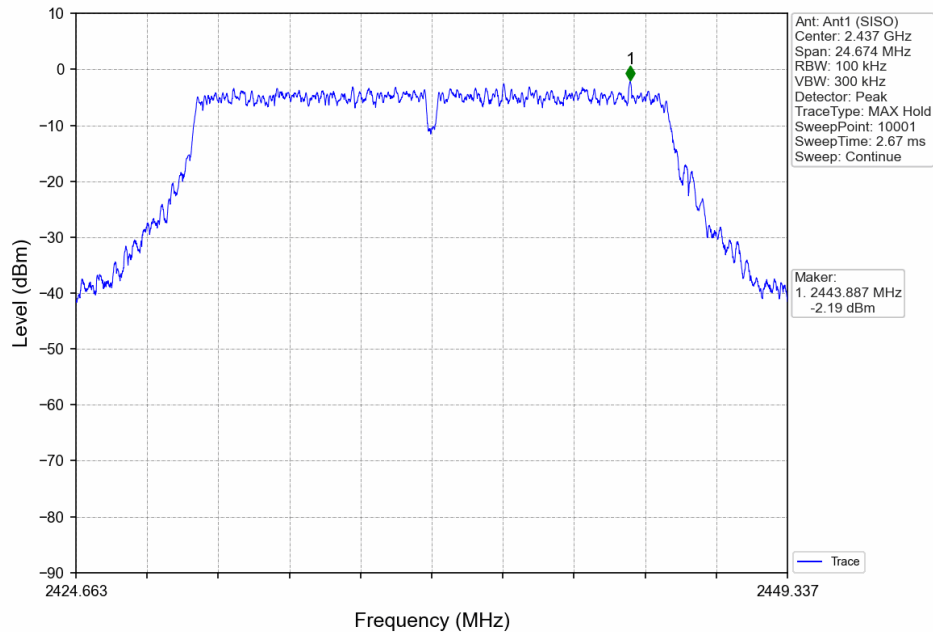
802.11g_LCH_2412MHz_Ant1 (SISO)_NTNV



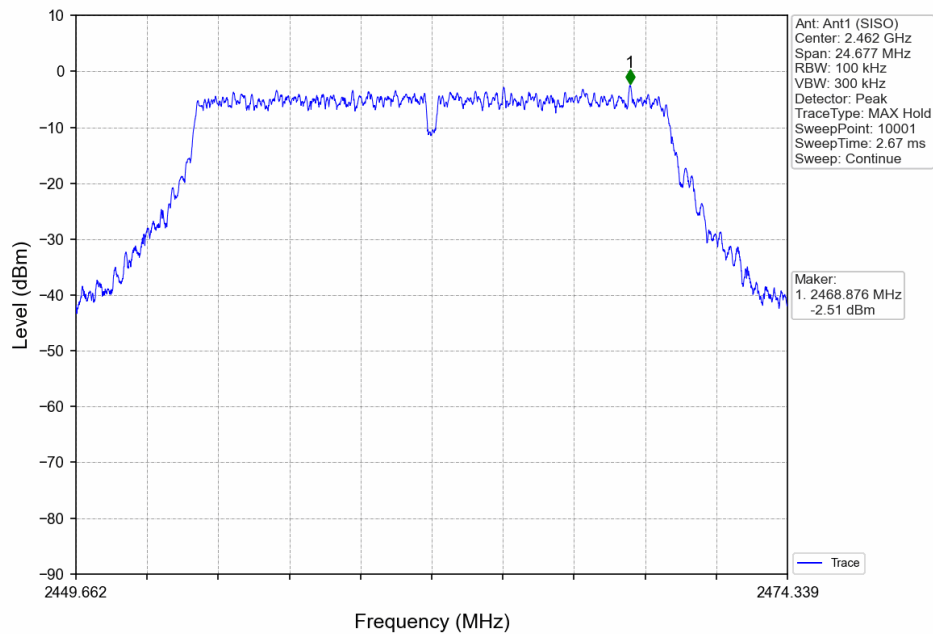
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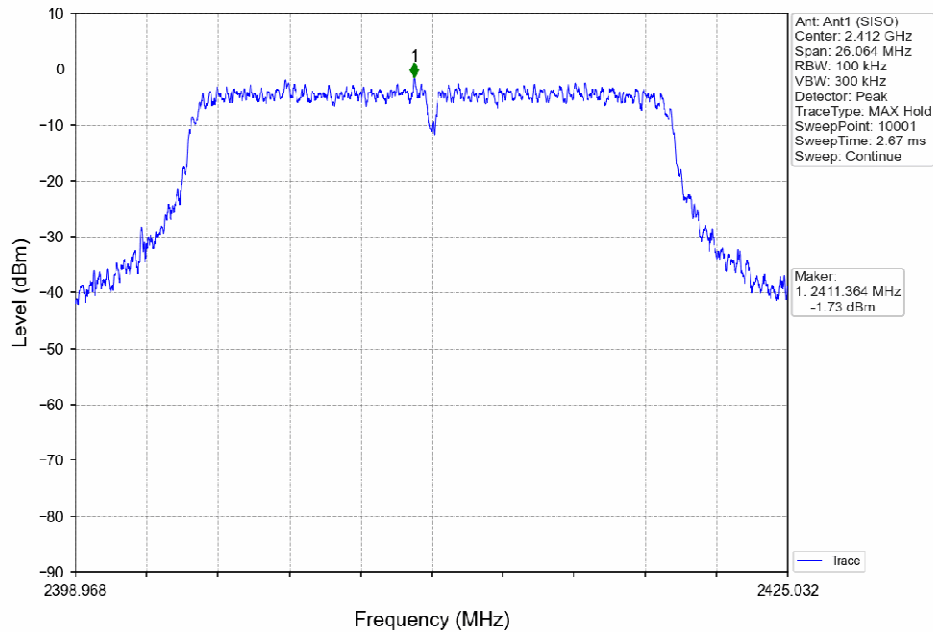
802.11g_MCH_2437MHz_Ant1 (SISO)_NTNV



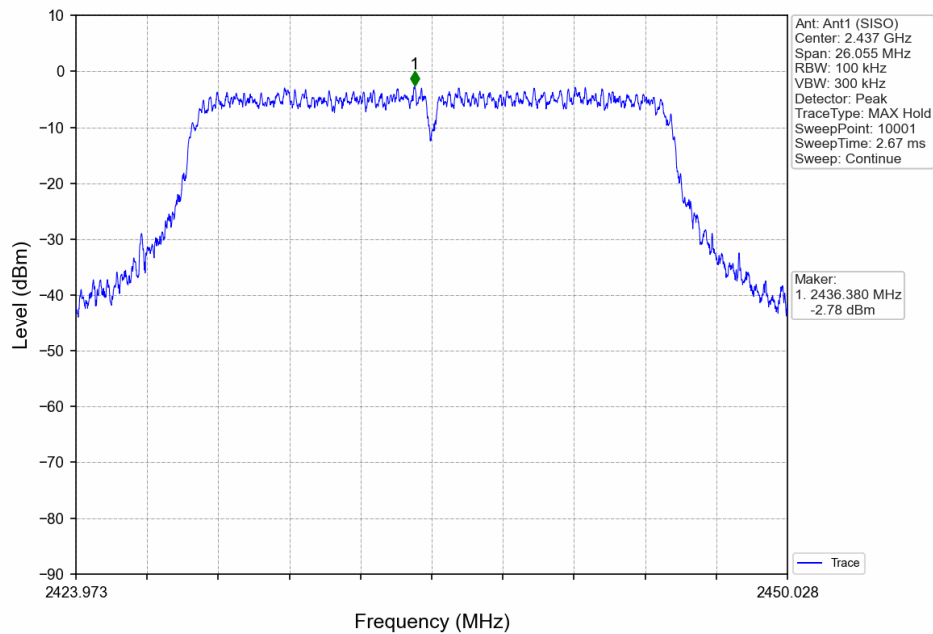
802.11g_HCH_2462MHz_Ant1 (SISO)_NTNV



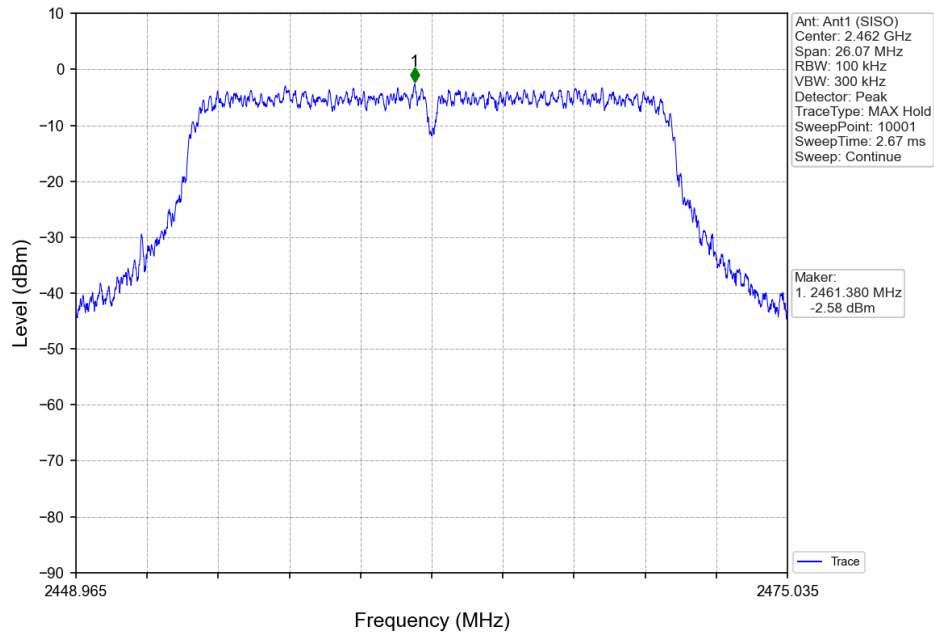
802.11n(HT20)_LCH_2412MHz_Ant1 (SISO)_NTNV



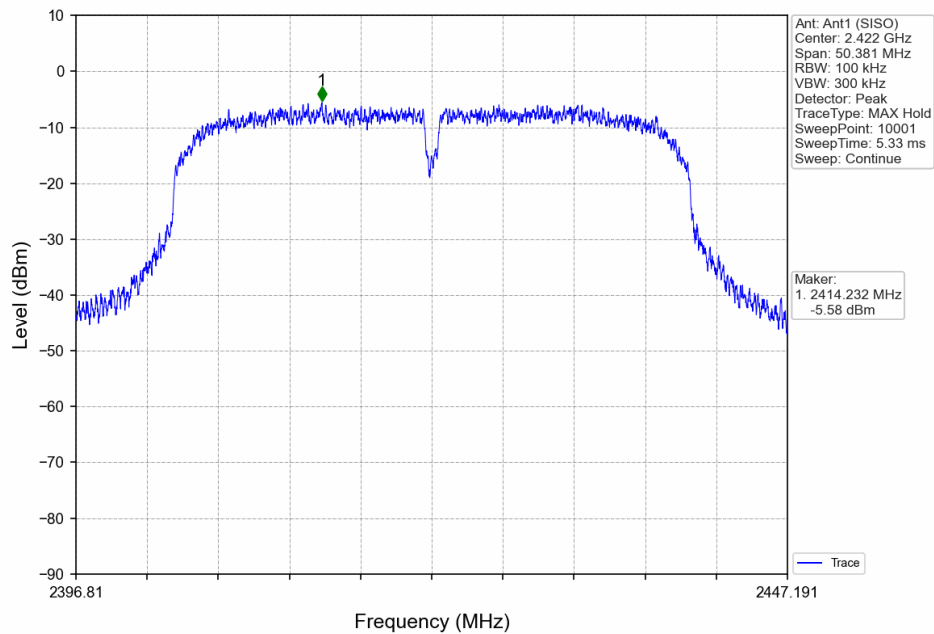
802.11n(HT20)_MCH_2437MHz_Ant1 (SISO)_NTNV



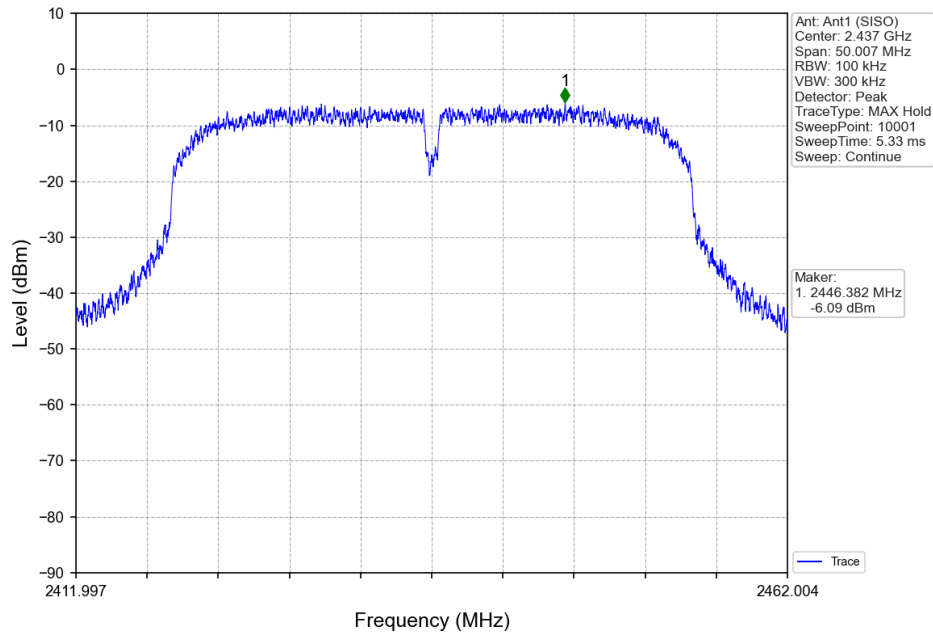
802.11n(HT20)_HCH_2462MHz_Ant1 (SISO)_NTNV



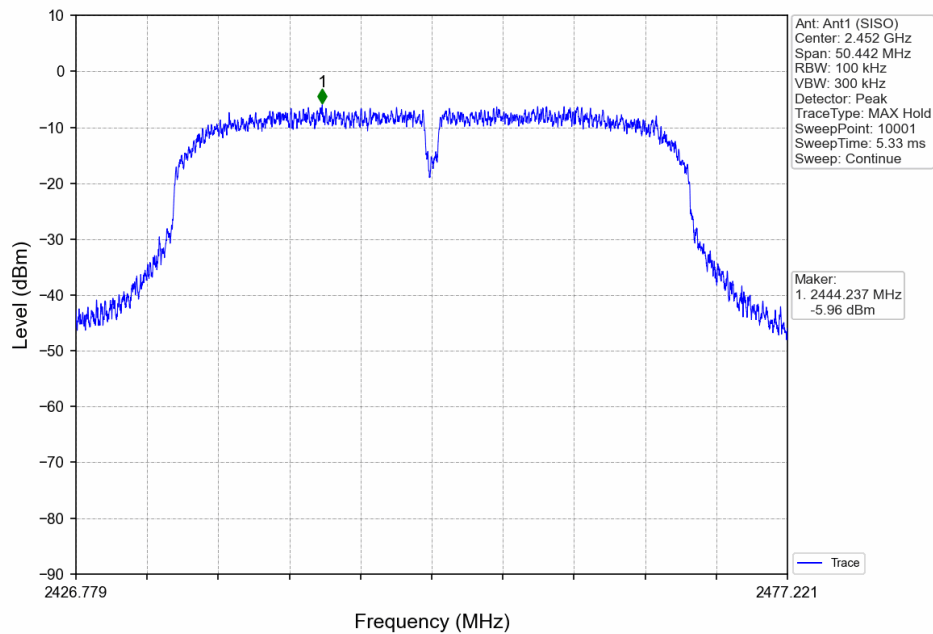
802.11n(HT40)_LCH_2422MHz_Ant1 (SISO)_NTNV



802.11n(HT40)_MCH_2437MHz_Ant1 (SISO)_NTNV



802.11n(HT40)_HCH_2452MHz_Ant1 (SISO)_NTNV



4.2 CSE

4.2.1 Test Result

Mode	TX Type	Frequency (MHz)	Ant	Level of Reference (dBm)	Limit (dBm)	Verdict
802.11b	SISO	2412	1	4.38	-25.62	Pass
		2437	1	4.38	-25.62	Pass
		2462	1	4.38	-25.62	Pass
802.11g	SISO	2412	1	-1.76	-31.76	Pass
		2437	1	-1.76	-31.76	Pass
		2462	1	-1.76	-31.76	Pass
802.11n (HT20)	SISO	2412	1	-1.73	-31.73	Pass
		2437	1	-1.73	-31.73	Pass
		2462	1	-1.73	-31.73	Pass
802.11n (HT40)	SISO	2422	1	-5.58	-35.58	Pass
		2437	1	-5.58	-35.58	Pass
		2452	1	-5.58	-35.58	Pass

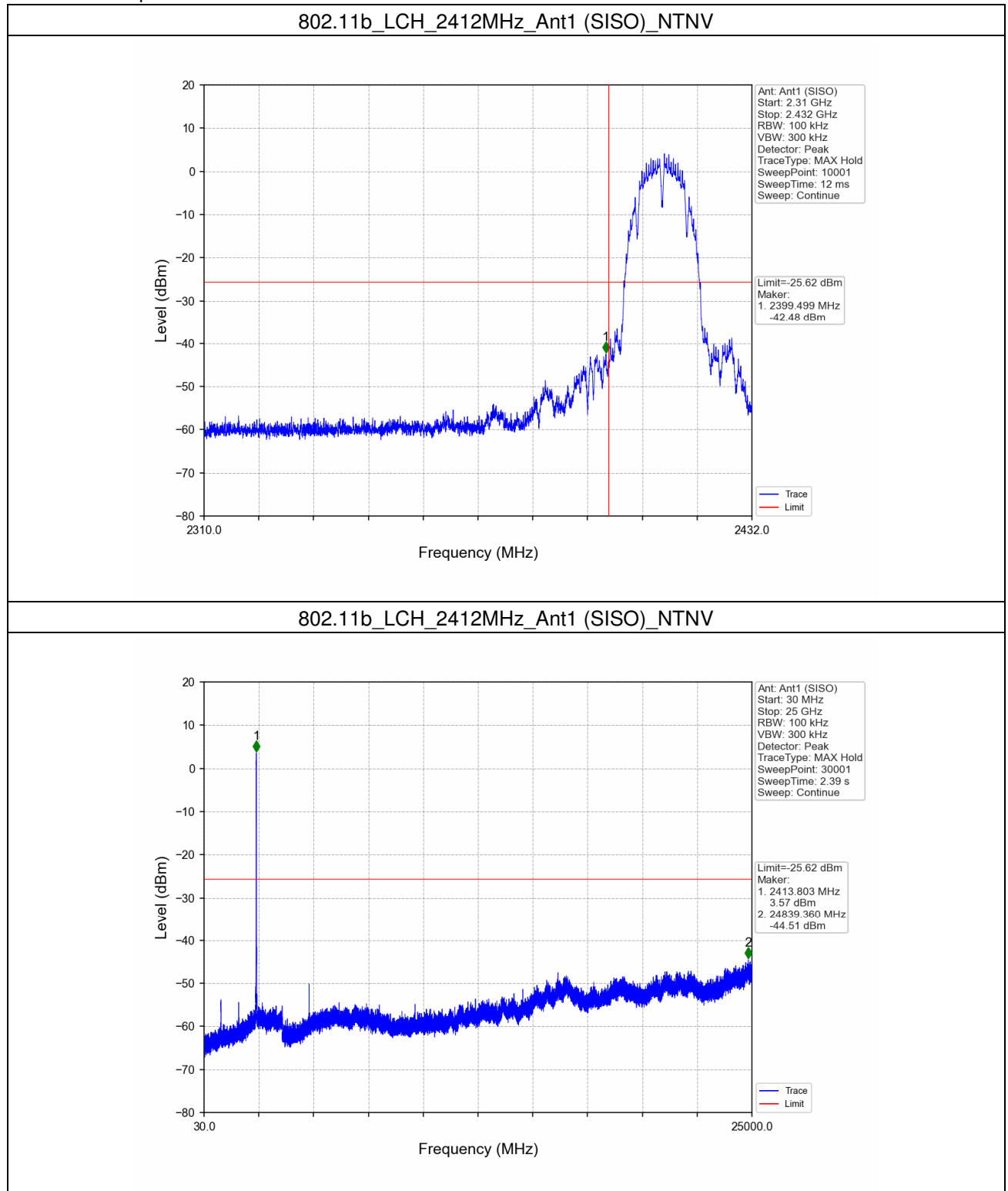
Note1: Refer to FCC Part 15.247 (d) and ANSI C63.10-2013, the channel contains the maximum PSD level was used to establish the reference level.



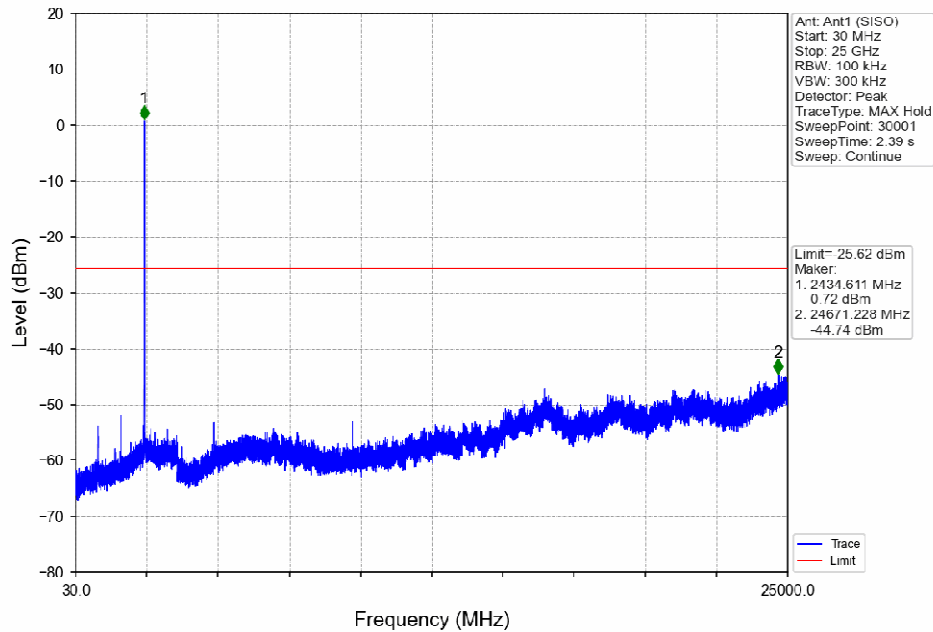
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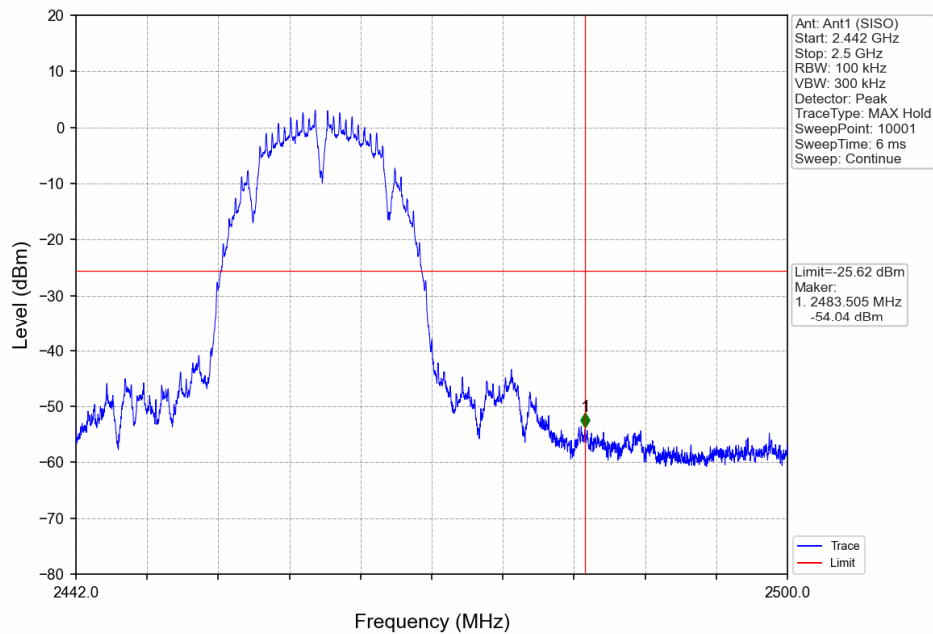
5.2.2 Test Graph



802.11b_MCH_2437MHz_Ant1 (SISO)_NTNV



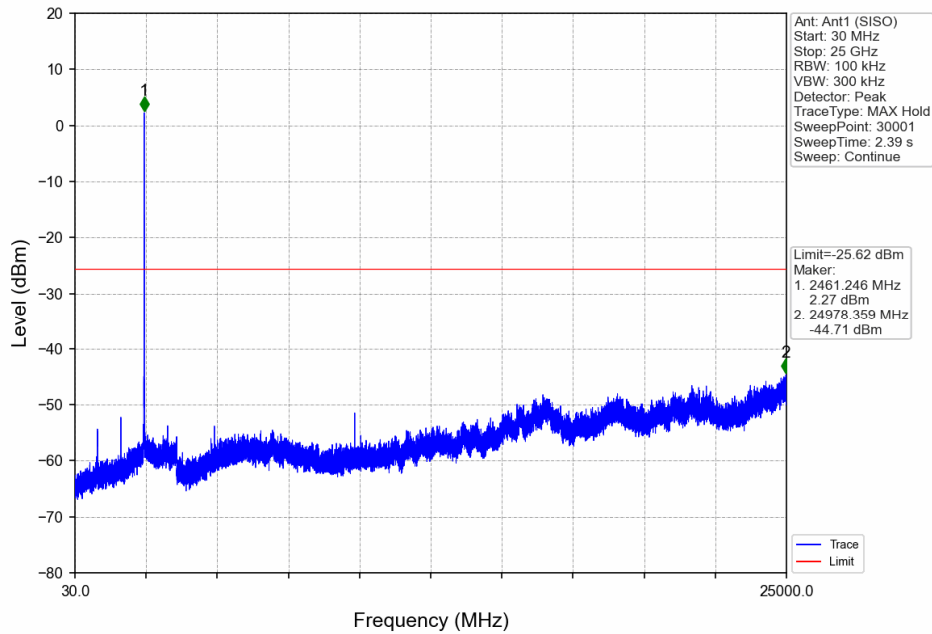
802.11b_HCH_2462MHz_Ant1 (SISO)_NTNV



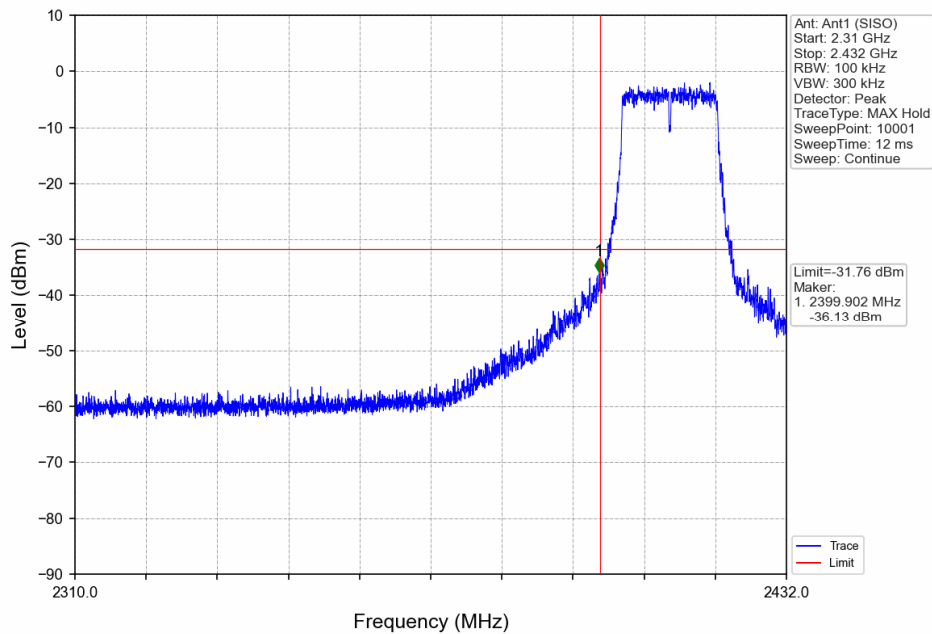
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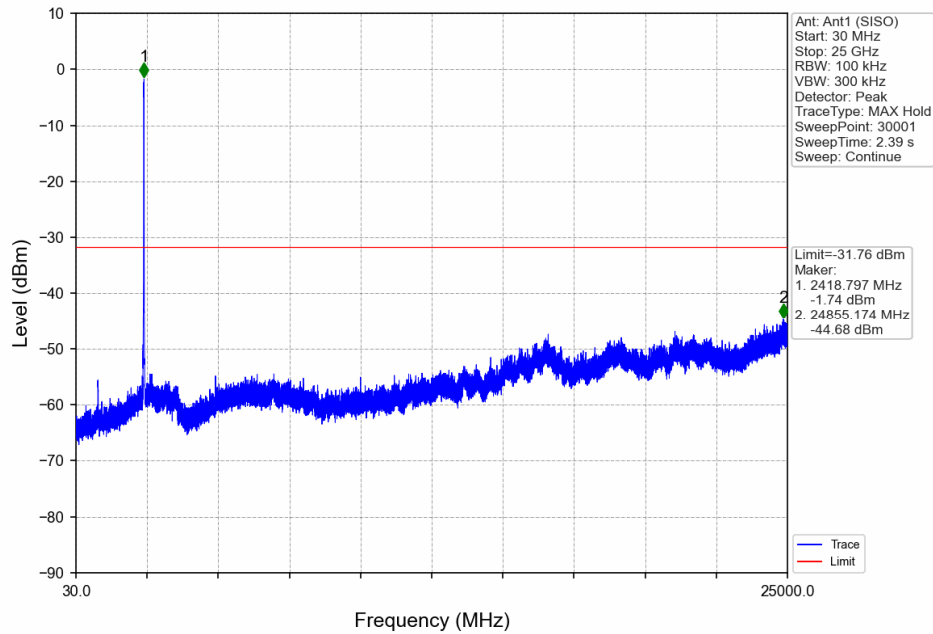
802.11b_HCH_2462MHz_Ant1 (SISO)_NTNV



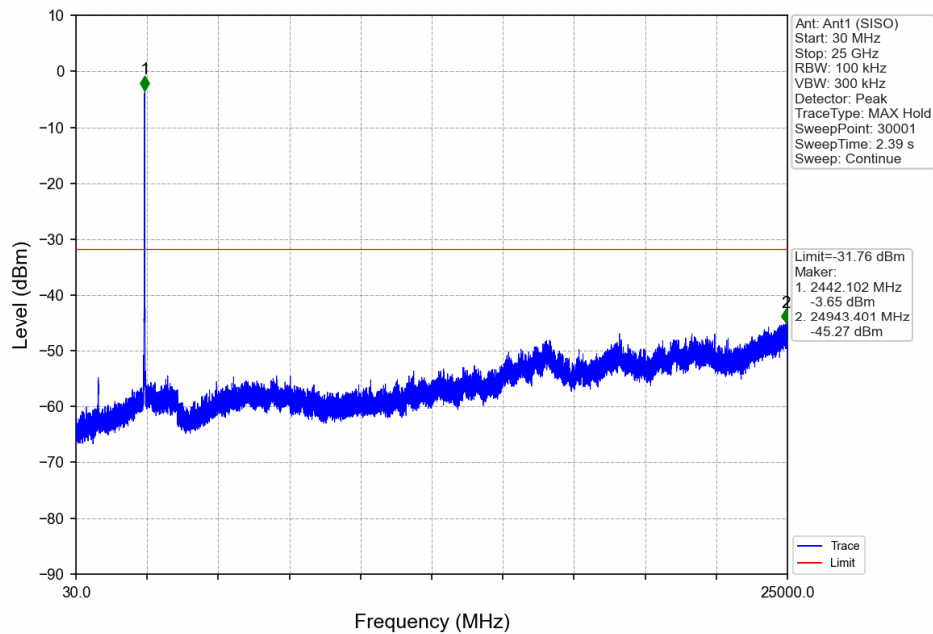
802.11g_LCH_2412MHz_Ant1 (SISO)_NTNV



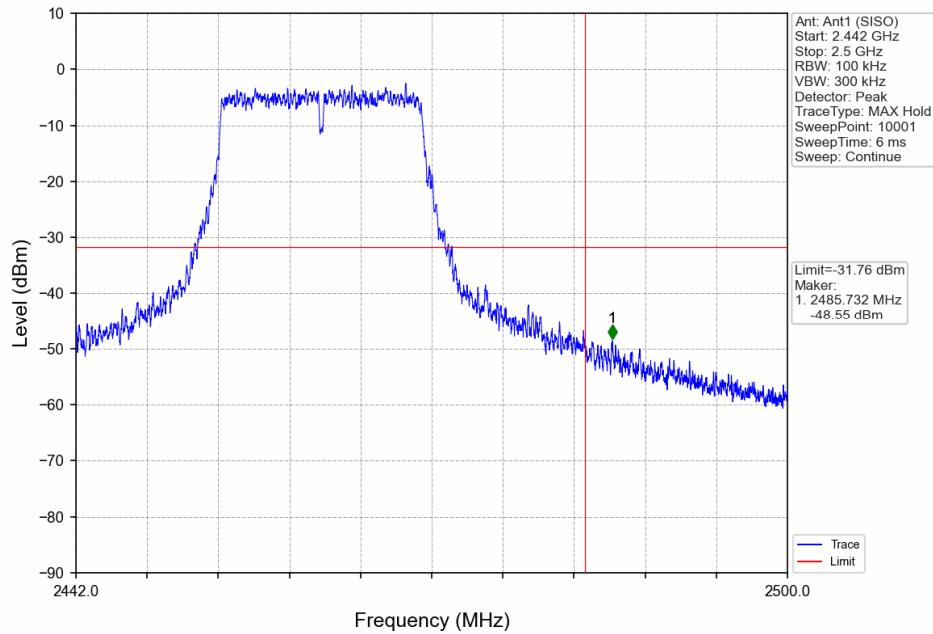
802.11g_LCH_2412MHz_Ant1 (SISO)_NTNV



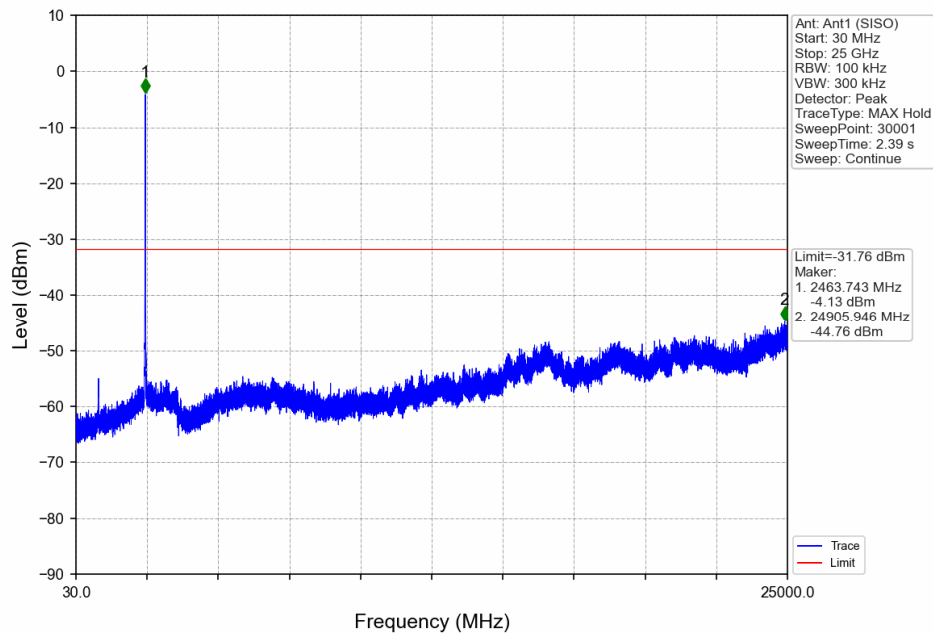
802.11g_MCH_2437MHz_Ant1 (SISO)_NTNV



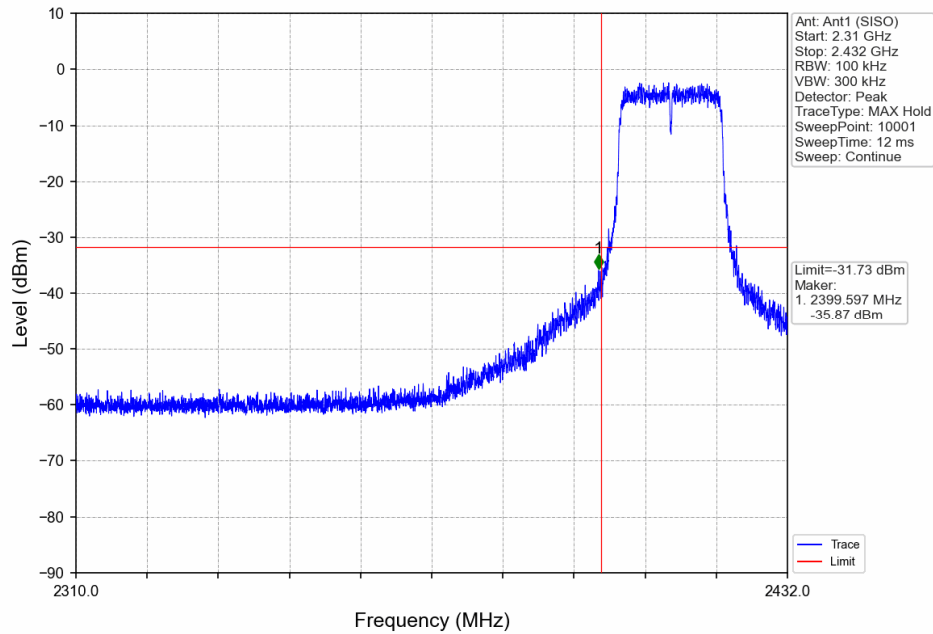
802.11g_HCH_2462MHz_Ant1 (SISO)_NTNV



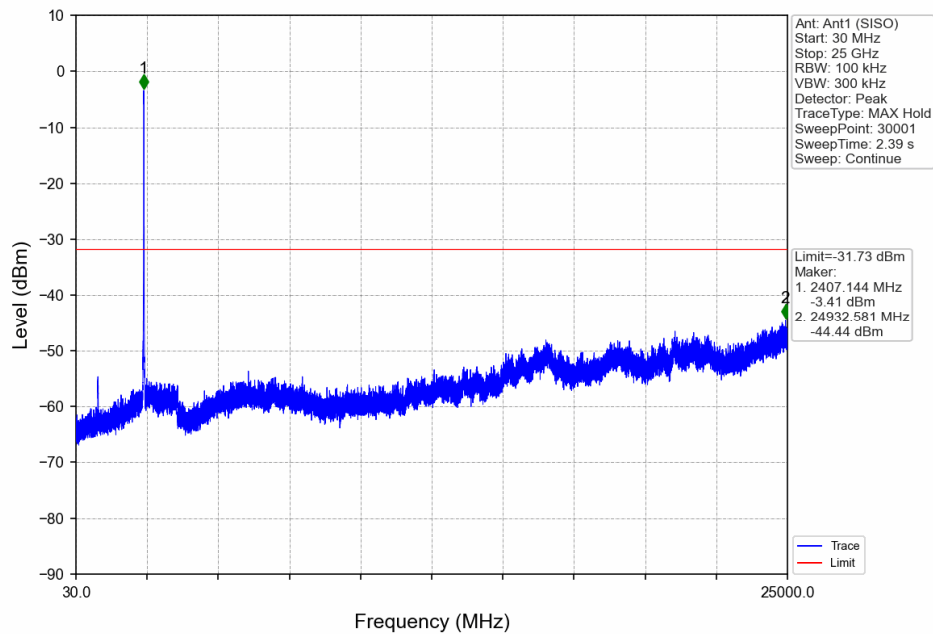
802.11g_HCH_2462MHz_Ant1 (SISO)_NTNV



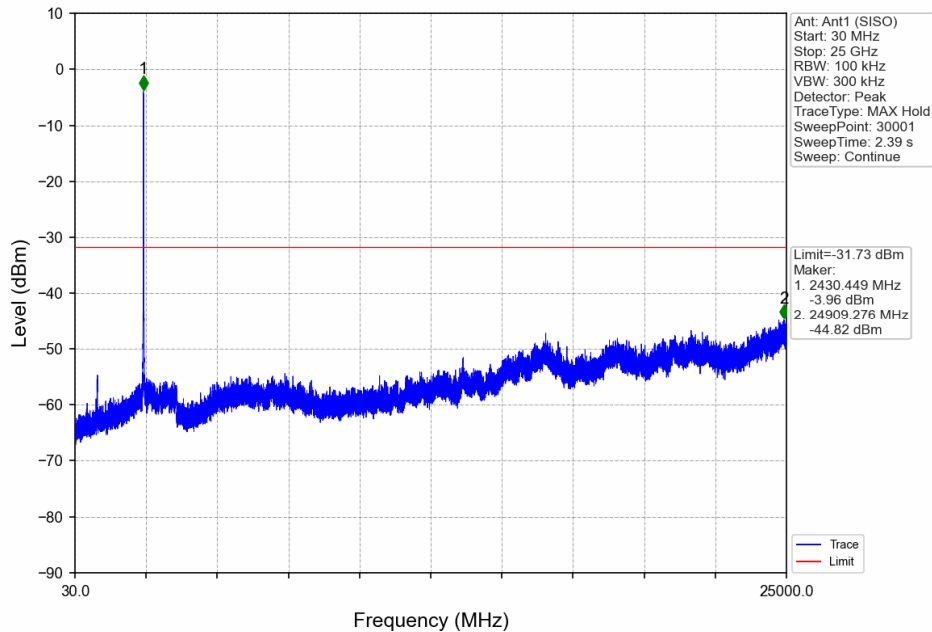
802.11n(HT20)_LCH_2412MHz_Ant1 (SISO)_NTNV



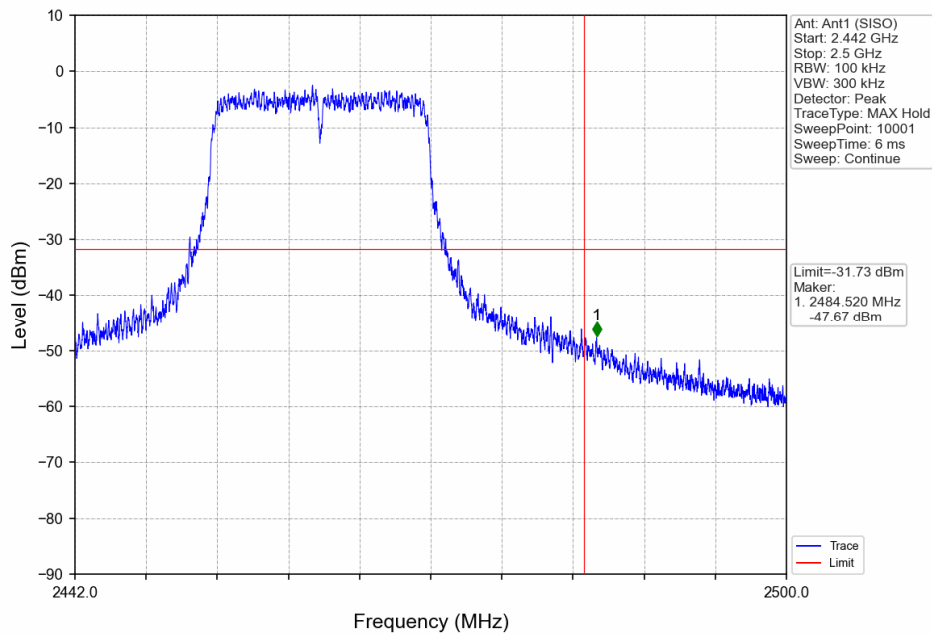
802.11n(HT20)_LCH_2412MHz_Ant1 (SISO)_NTNV



802.11n(HT20)_MCH_2437MHz_Ant1 (SISO)_NTNV

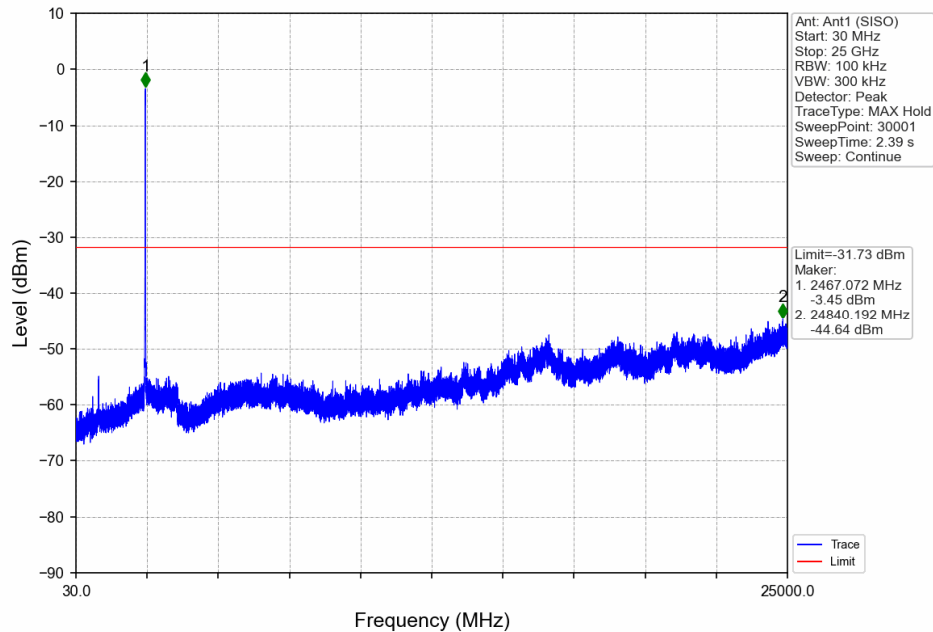


802.11n(HT20)_HCH_2462MHz_Ant1 (SISO)_NTNV

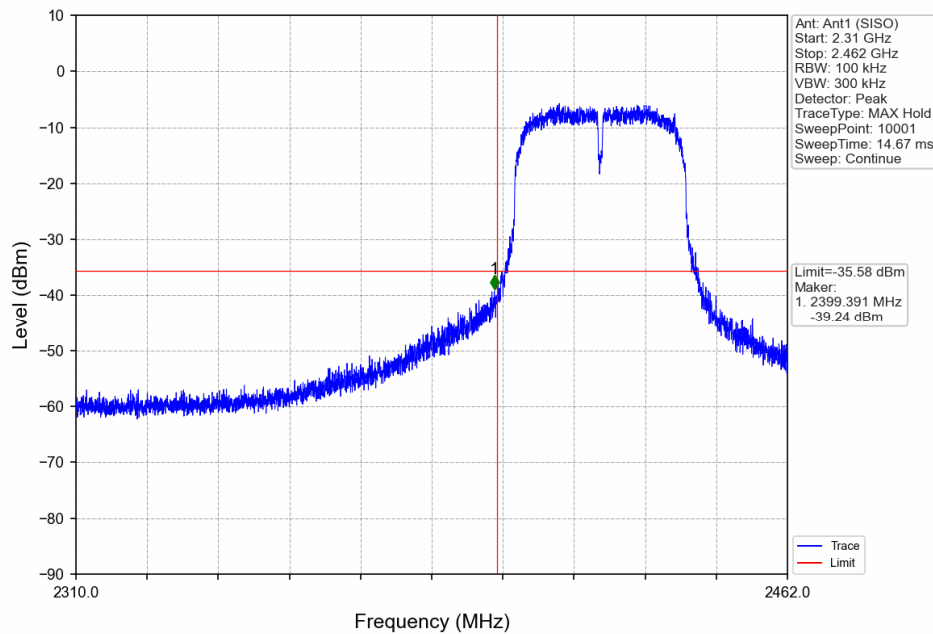


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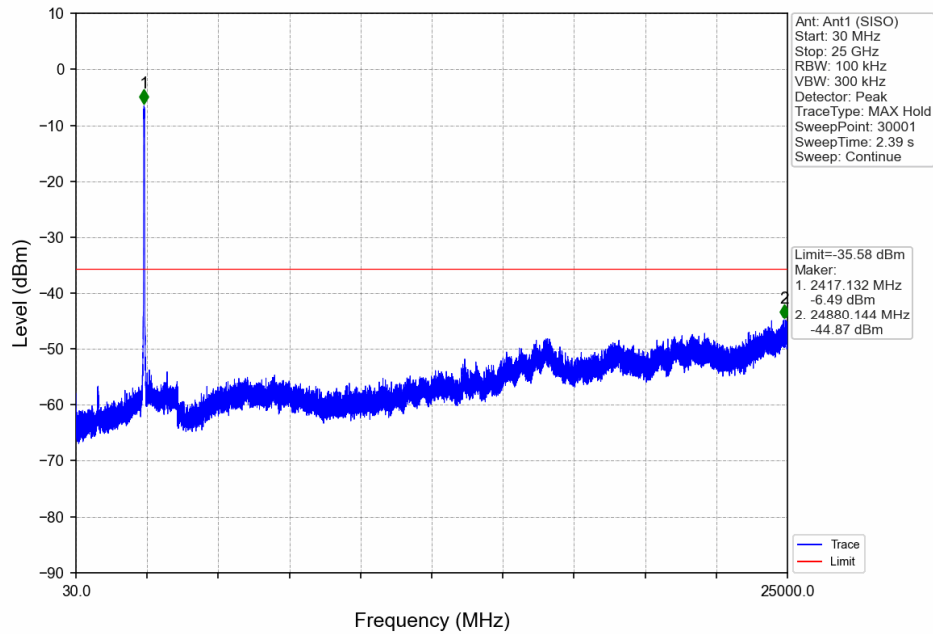
802.11n(HT20)_HCH_2462MHz_Ant1 (SISO)_NTNV



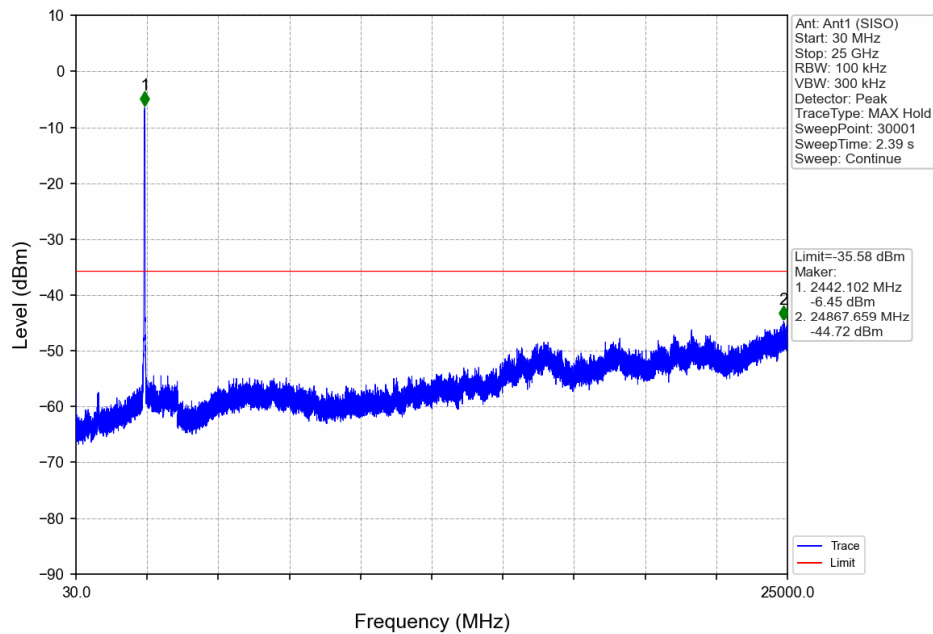
802.11n(HT40)_LCH_2422MHz_Ant1 (SISO)_NTNV



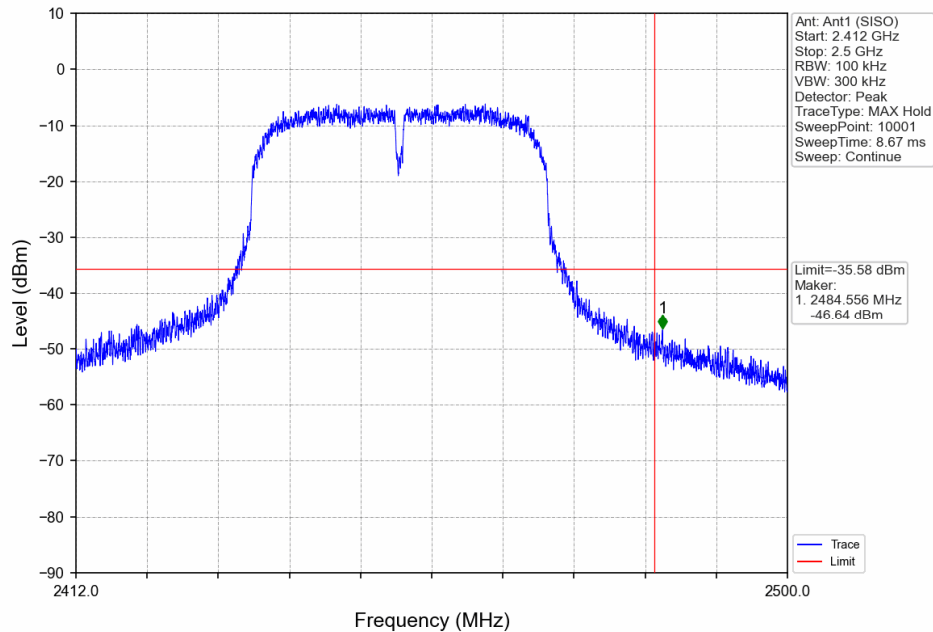
802.11n(HT40)_LCH_2422MHz_Ant1 (SISO)_NTNV



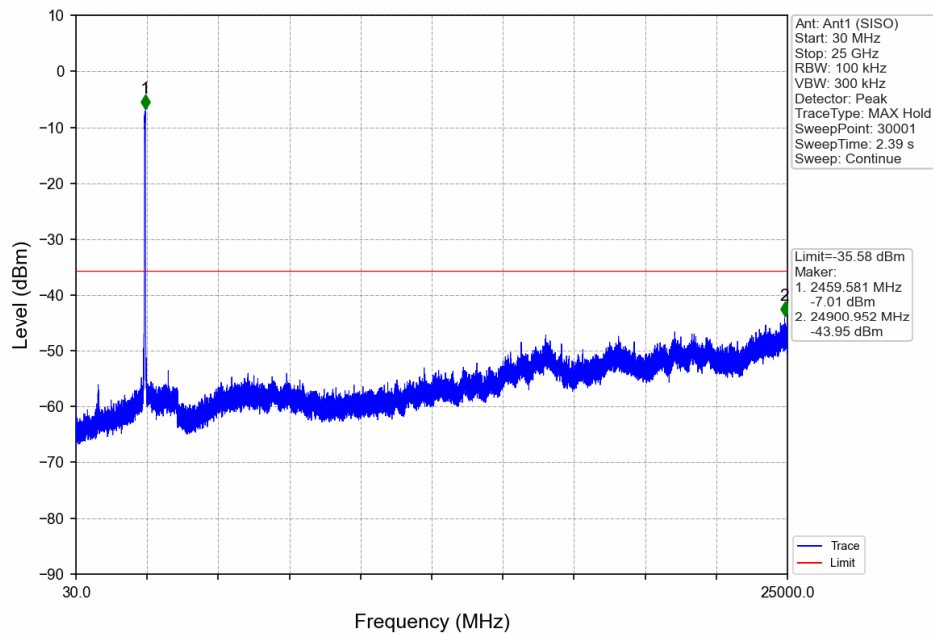
802.11n(HT40)_MCH_2437MHz_Ant1 (SISO)_NTNV



802.11n(HT40)_HCH_2452MHz_Ant1 (SISO)_NTNV



802.11n(HT40)_HCH_2452MHz_Ant1 (SISO)_NTNV



- End of the Report -