

Appendix RF test data for WIFI2.4G

1. Duty Cycle

1.1 Test Result

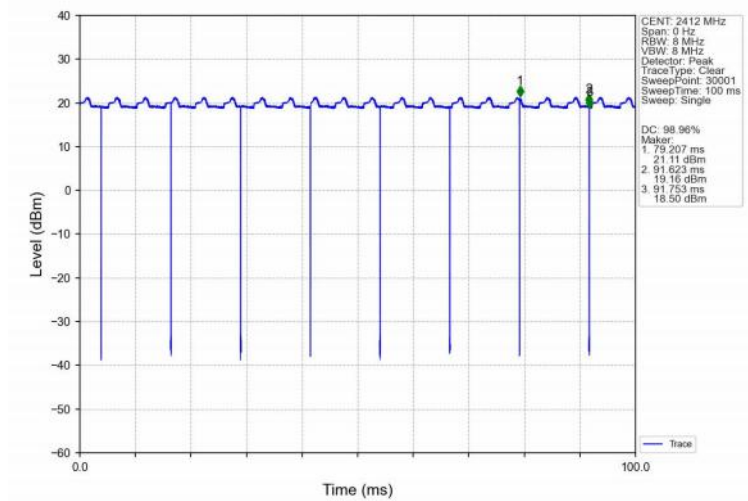
1.1.1 Ant1

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	12.416	12.546	98.96	0.05	0.03
		2437	12.416	12.546	98.96	0.05	0.03
		2462	12.417	12.547	98.96	0.05	0.03
802.11g	SISO	2412	2.064	2.193	94.12	0.26	0.03
		2437	2.065	2.195	94.08	0.27	0.04
		2462	2.064	2.193	94.12	0.26	0.04
802.11n (HT20)	SISO	2412	1.920	2.049	93.70	0.28	0.04
		2437	1.921	2.050	93.71	0.28	0.07
		2462	1.921	2.050	93.71	0.28	0.04
802.11n (HT40)	SISO	2422	0.945	1.074	87.99	0.56	0.03
		2437	0.944	1.074	87.90	0.56	0.03
		2452	0.945	1.075	87.91	0.56	0.03

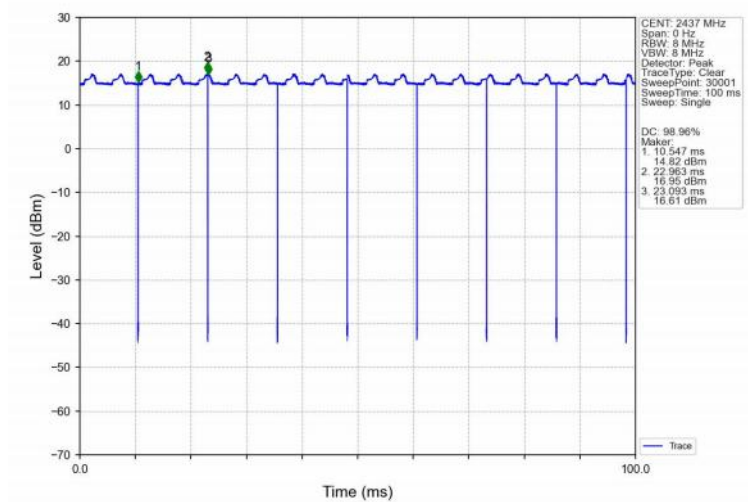
1.2 Test Graph

1.2.1 Ant1

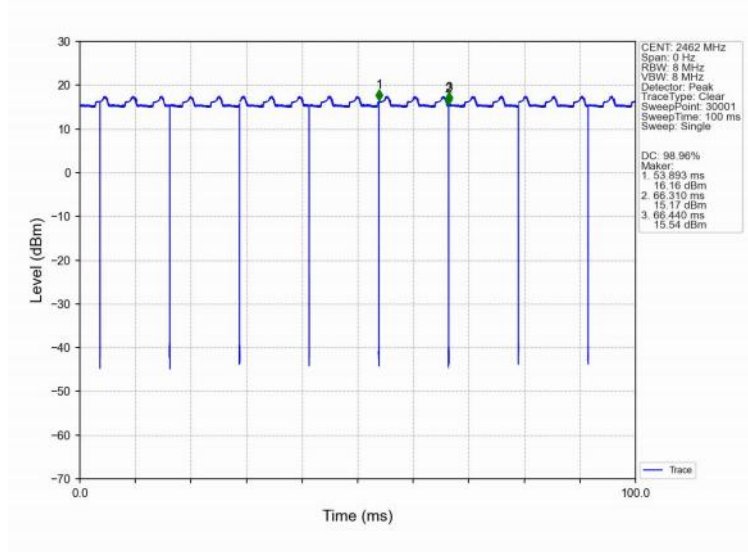
802.11b_LCH_2412MHz_Ant1 (SISO)_NTNV



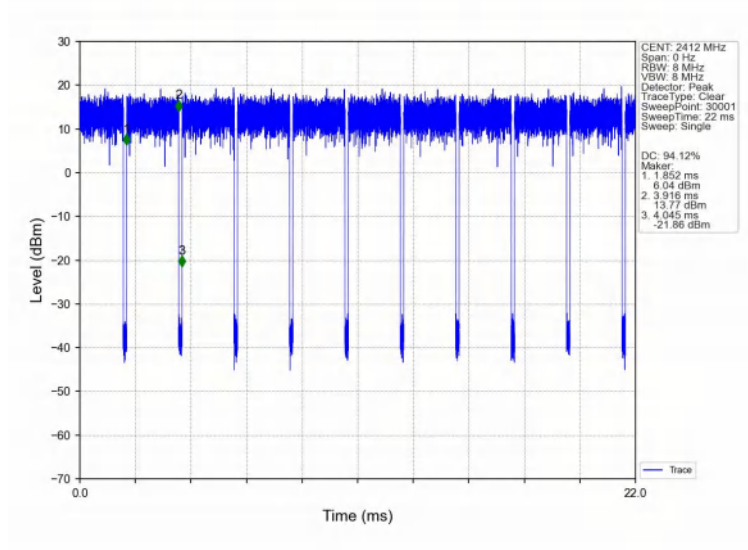
802.11b_MCH_2437MHz_Ant1 (SISO)_NTNV



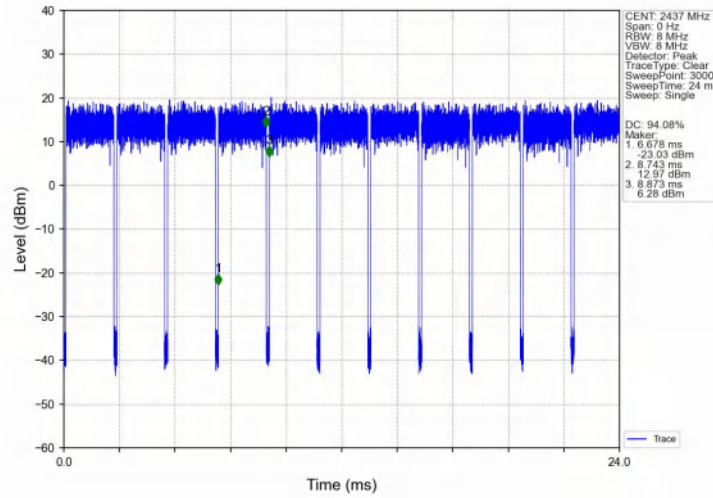
802.11b_HCH_2462MHz_Ant1 (SISO)_NTNV



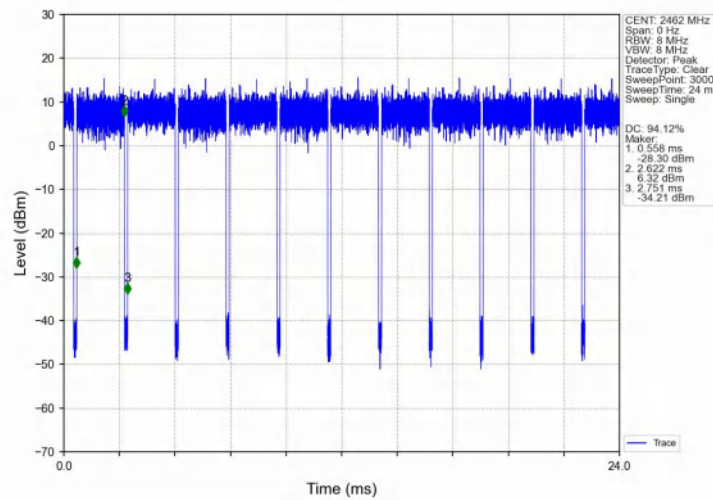
802.11g_LCH_2412MHz_Ant1 (SISO)_NTNV



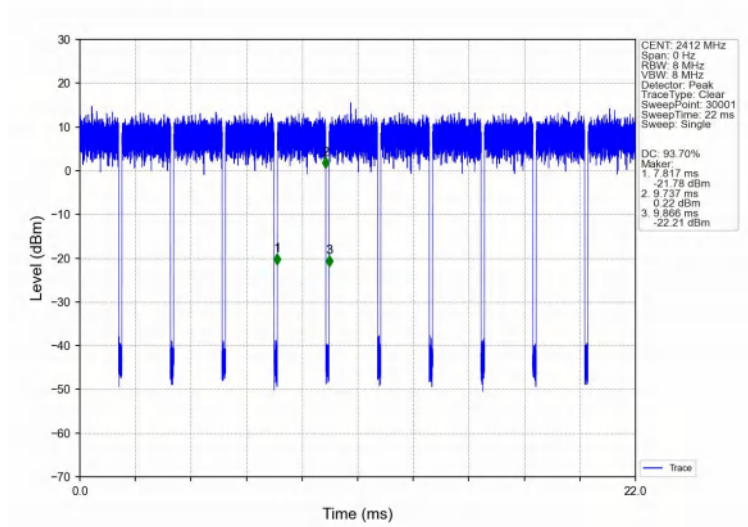
802.11g_MCH_2437MHz_Ant1 (SISO)_NTNV



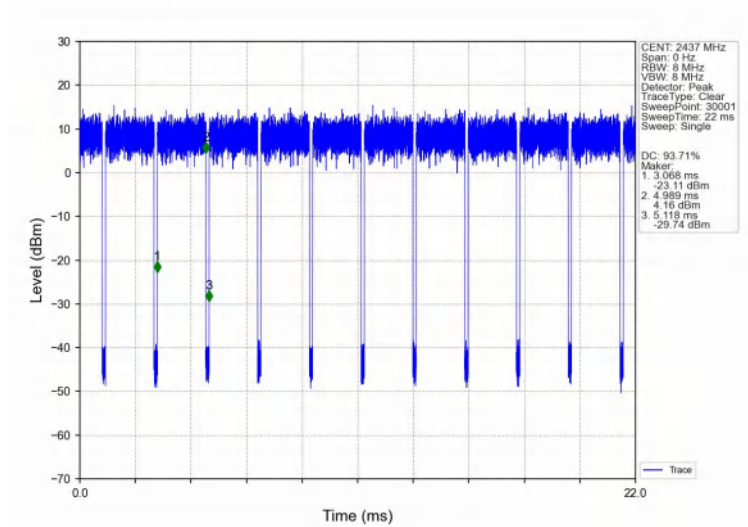
802.11g_HCH_2462MHz_Ant1 (SISO)_NTNV



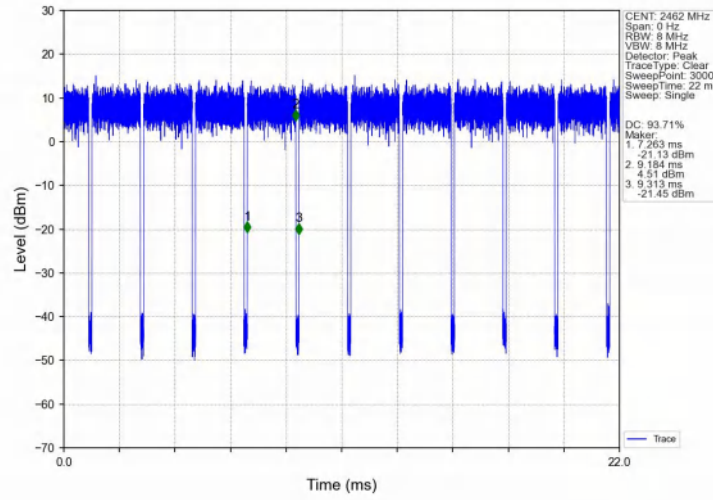
802.11n(HT20)_LCH_2412MHz_Ant1 (SISO)_NTNV



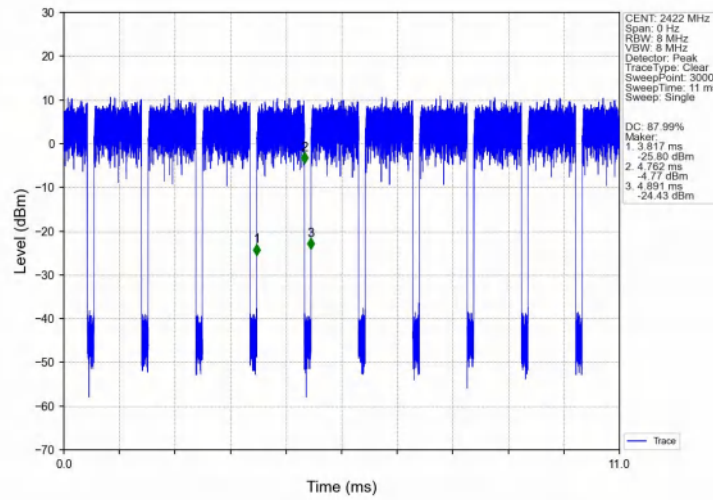
802.11n(HT20)_MCH_2437MHz_Ant1 (SISO)_NTNV



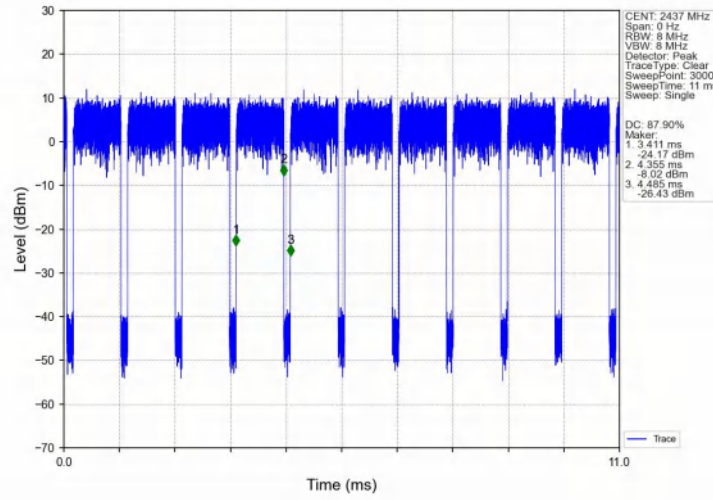
802.11n(HT20)_HCH_2462MHz_Ant1 (SISO)_NTNV



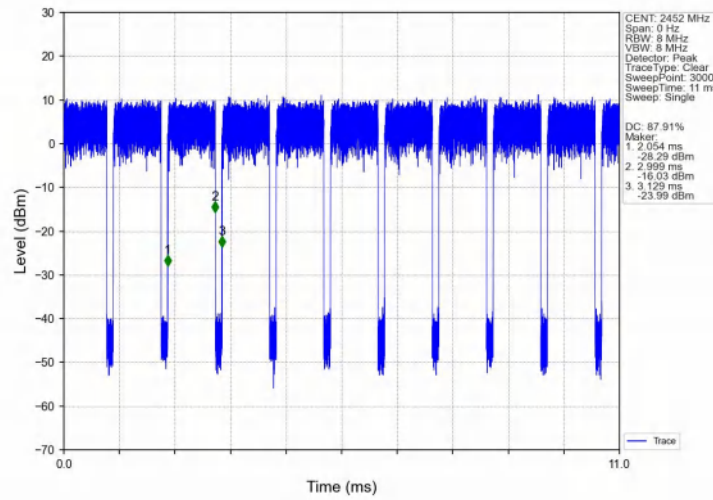
802.11n(HT40)_LCH_2422MHz_Ant1 (SISO)_NTNV



802.11n(HT40)_MCH_2437MHz_Ant1 (SISO)_NTNV



802.11n(HT40)_HCH_2452MHz_Ant1 (SISO)_NTNV



2. 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	14.627	/	Pass
		2437	1	14.628	/	Pass
		2462	1	14.626	/	Pass
802.11g	SISO	2412	1	16.506	/	Pass
		2437	1	16.604	/	Pass
		2462	1	16.021	/	Pass
802.11n (HT20)	SISO	2412	1	17.636	/	Pass
		2437	1	17.644	/	Pass
		2462	1	17.209	/	Pass
802.11n (HT40)	SISO	2422	1	35.833	/	Pass
		2437	1	35.870	/	Pass
		2452	1	35.811	/	Pass

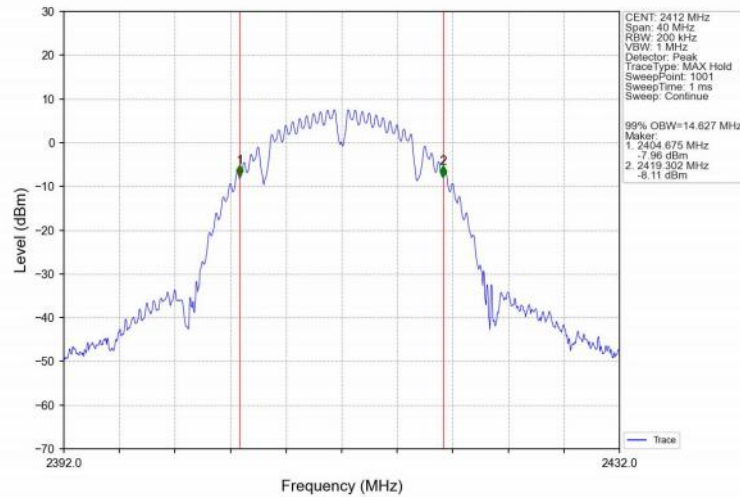
2.1.2 6dB BW

Mode	TX Type	Frequency (MHz)	ANT	6dB Bandwidth (MHz)		Verdict
				Result	Limit	
802.11b	SISO	2412	1	10.106	≥ 0.5	Pass
		2437	1	10.108	≥ 0.5	Pass
		2462	1	10.109	≥ 0.5	Pass
802.11g	SISO	2412	1	16.385	≥ 0.5	Pass
		2437	1	16.404	≥ 0.5	Pass
		2462	1	15.114	≥ 0.5	Pass
802.11n (HT20)	SISO	2412	1	17.606	≥ 0.5	Pass
		2437	1	17.576	≥ 0.5	Pass
		2462	1	16.384	≥ 0.5	Pass
802.11n (HT40)	SISO	2422	1	35.879	≥ 0.5	Pass
		2437	1	35.908	≥ 0.5	Pass
		2452	1	35.631	≥ 0.5	Pass

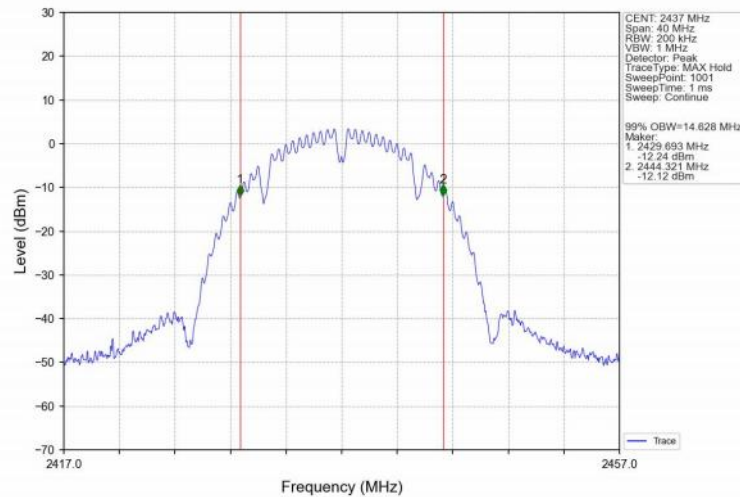
2.2 Test Graph

2.2.1 OBW

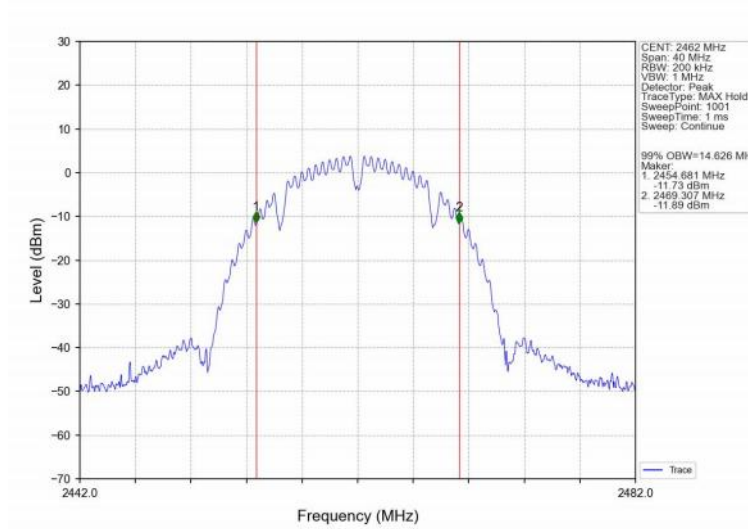
802.11b_LCH_2412MHz_Ant1 (SISO)_NTNV



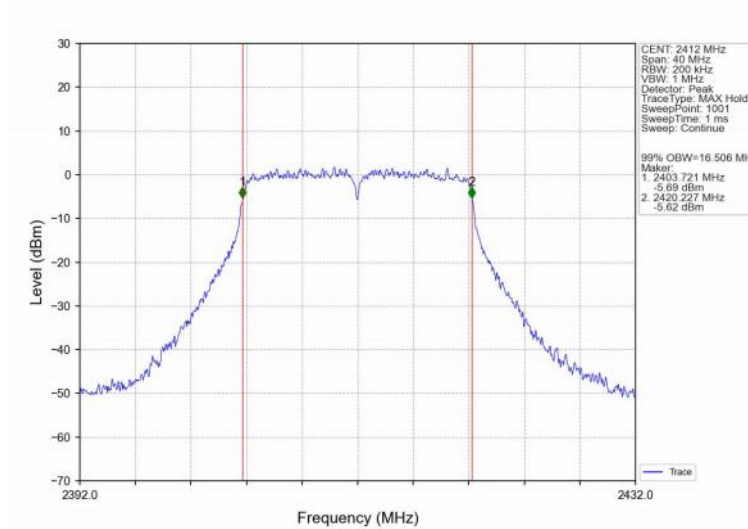
802.11b_MCH_2437MHz_Ant1 (SISO)_NTNV



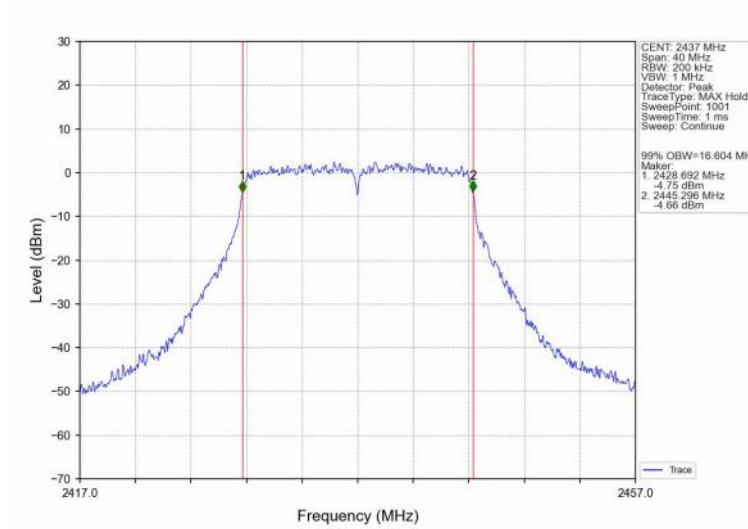
802.11b_HCH_2462MHz_Ant1 (SISO)_NTNV



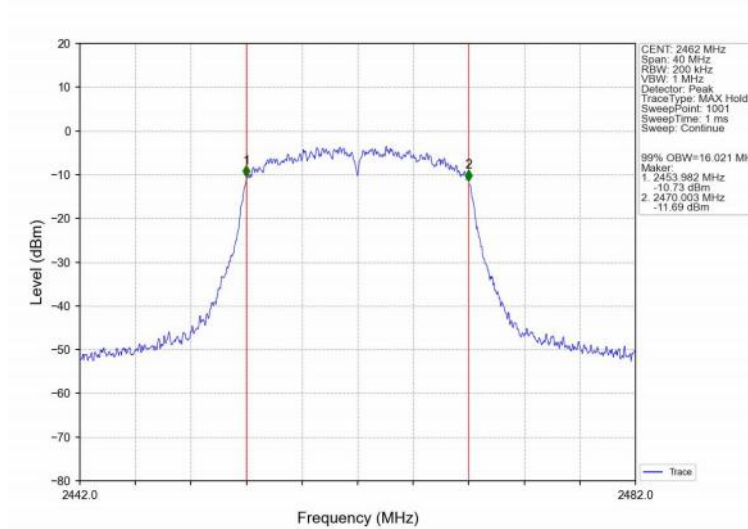
802.11g_LCH_2412MHz_Ant1 (SISO)_NTNV



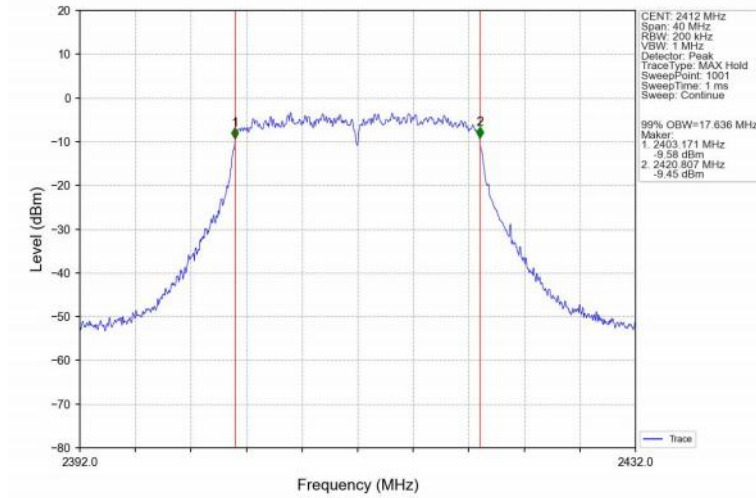
802.11g_MCH_2437MHz_Ant1 (SISO)_NTNV



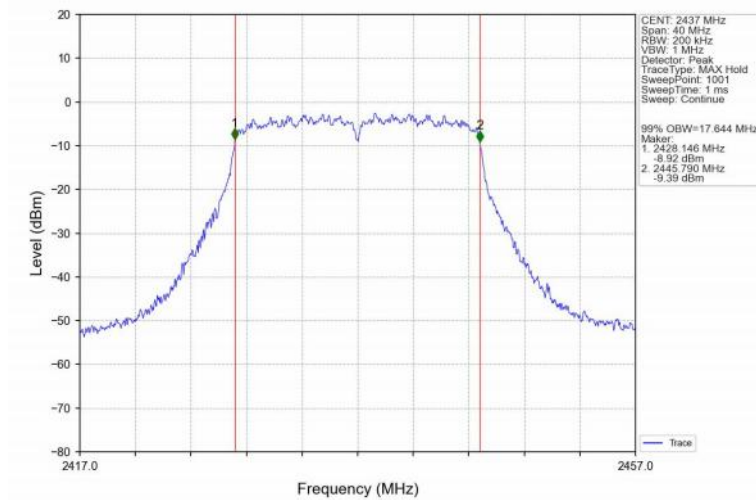
802.11g_HCH_2462MHz_Ant1 (SISO)_NTNV



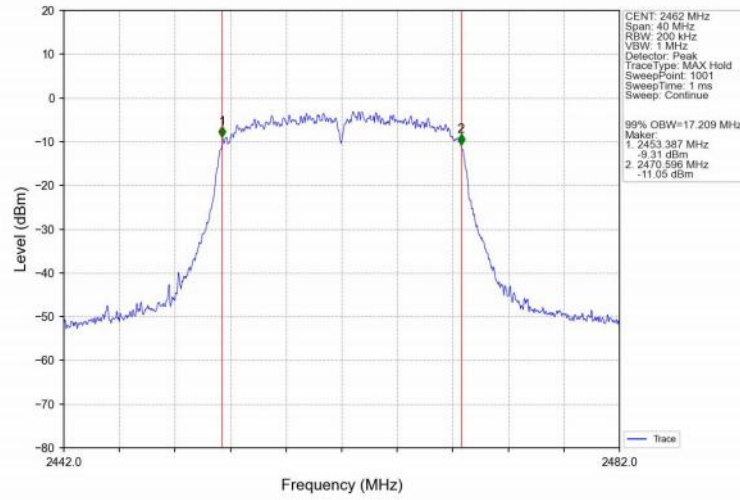
802.11n(HT20)_LCH_2412MHz_Ant1 (SISO)_NTNV



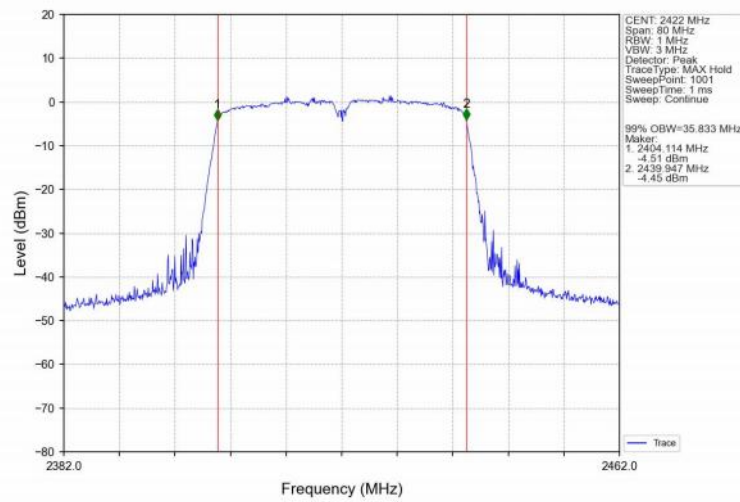
802.11n(HT20)_MCH_2437MHz_Ant1 (SISO)_NTNV



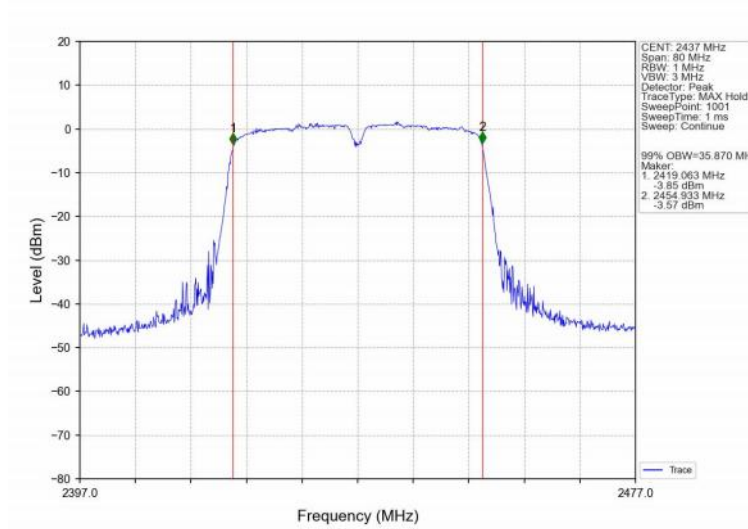
802.11n(HT20)_HCH_2462MHz_Ant1 (SISO)_NTNV



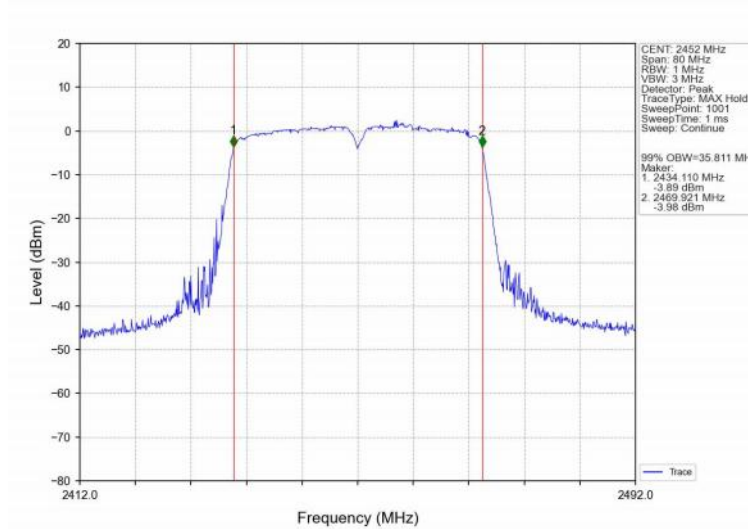
802.11n(HT40)_LCH_2422MHz_Ant1 (SISO)_NTNV



802.11n(HT40)_MCH_2437MHz_Ant1 (SISO)_NTNV

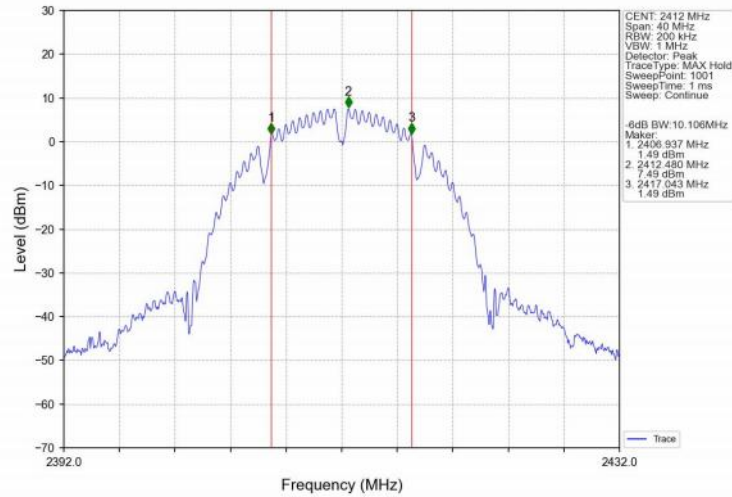


802.11n(HT40)_HCH_2452MHz_Ant1 (SISO)_NTNV

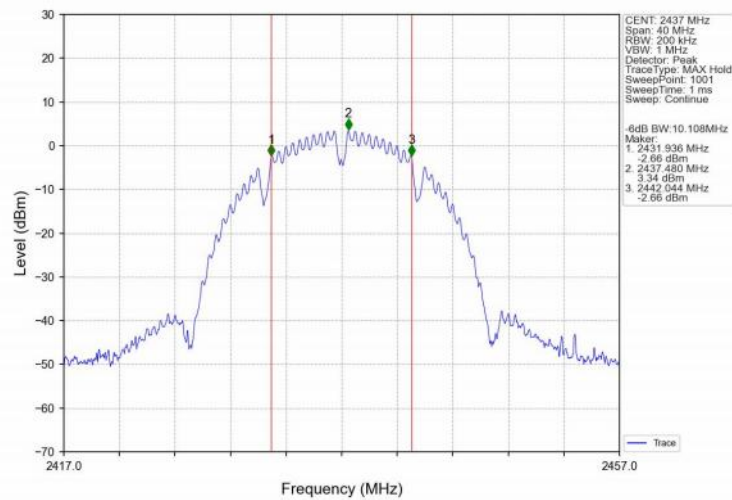


2.2.2 6dB BW

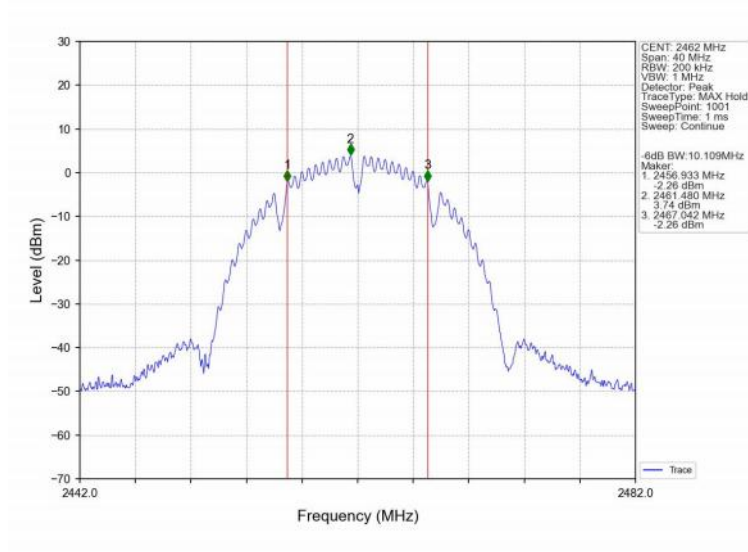
802.11b_LCH_2412MHz_Ant1 (SISO)_NTNV



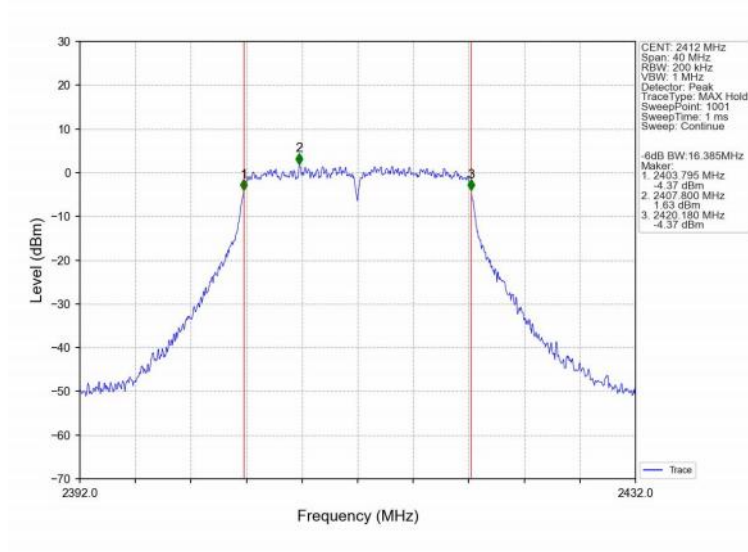
802.11b_MCH_2437MHz_Ant1 (SISO)_NTNV



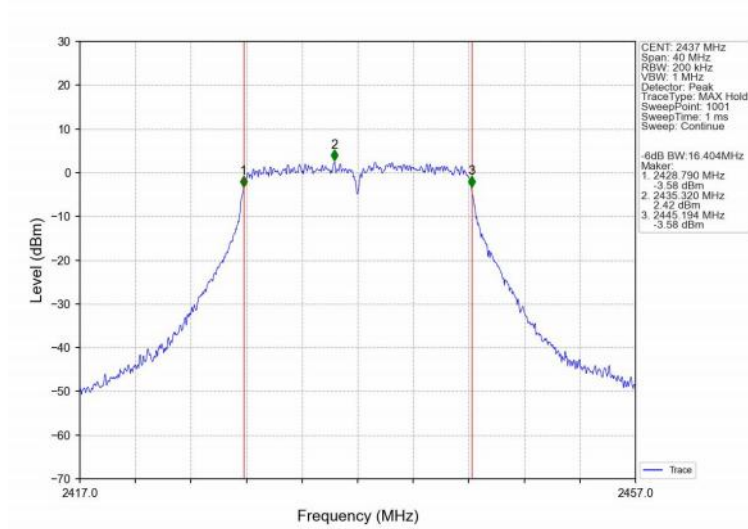
802.11b_HCH_2462MHz_Ant1 (SISO)_NTNV



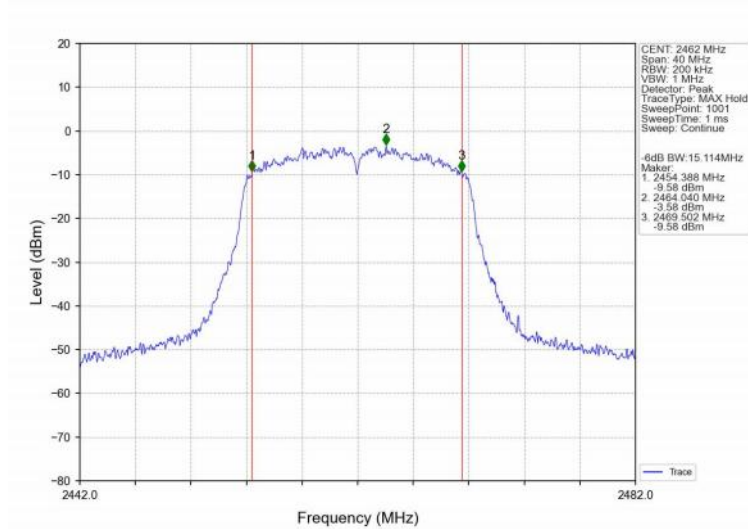
802.11g_LCH_2412MHz_Ant1 (SISO)_NTNV



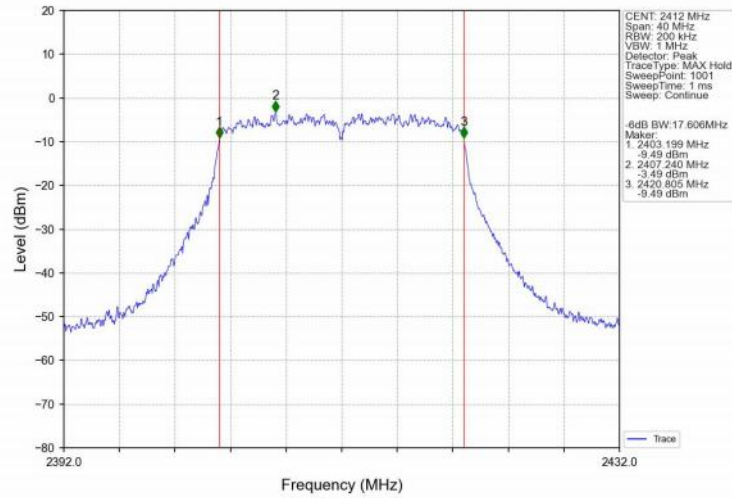
802.11g_MCH_2437MHz_Ant1 (SISO)_NTNV



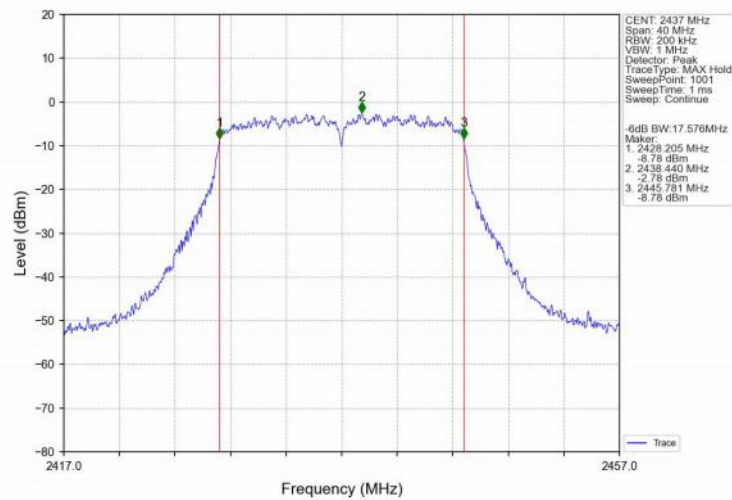
802.11g_HCH_2462MHz_Ant1 (SISO)_NTNV



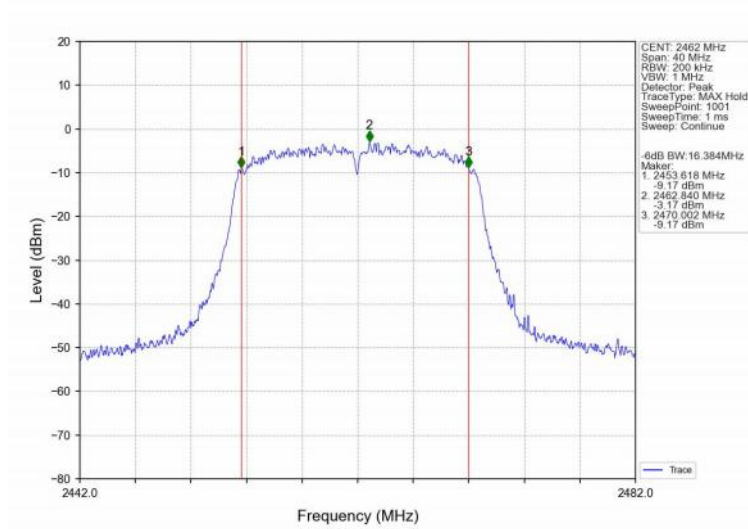
802.11n(HT20)_LCH_2412MHz_Ant1 (SISO)_NTNV



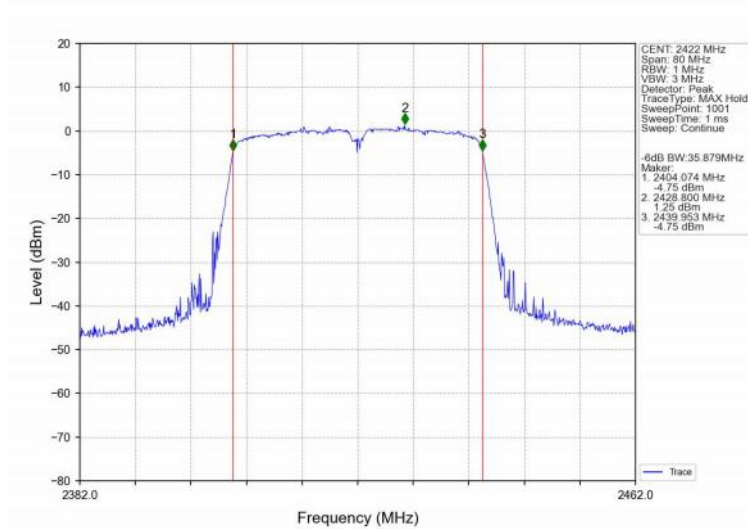
802.11n(HT20)_MCH_2437MHz_Ant1 (SISO)_NTNV



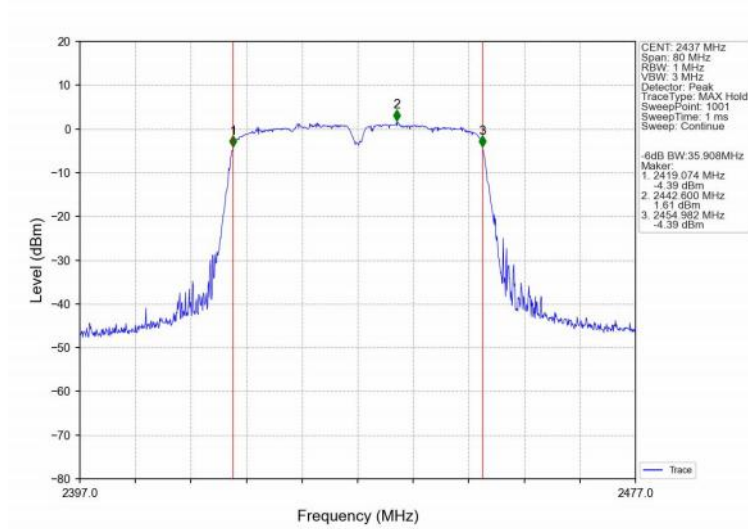
802.11n(HT20)_HCH_2462MHz_Ant1 (SISO)_NTNV



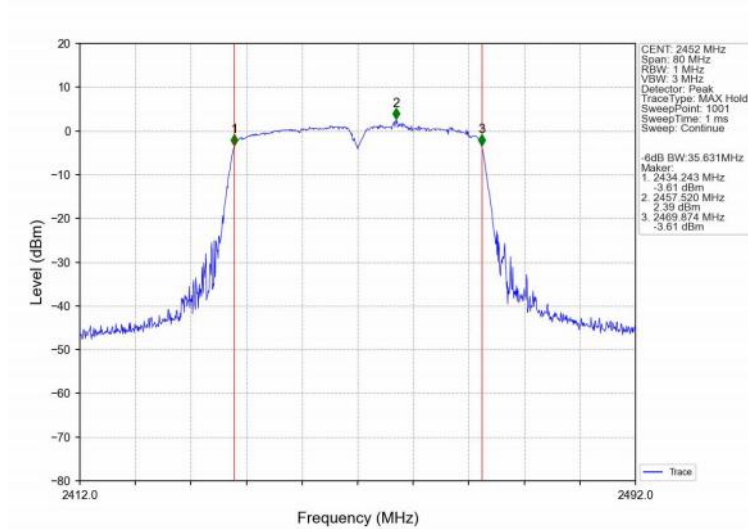
802.11n(HT40)_LCH_2422MHz_Ant1 (SISO)_NTNV



802.11n(HT40)_MCH_2437MHz_Ant1 (SISO)_NTNV



802.11n(HT40)_HCH_2452MHz_Ant1 (SISO)_NTNV



3. Maximum Conducted Output Power

3.1 Test Result

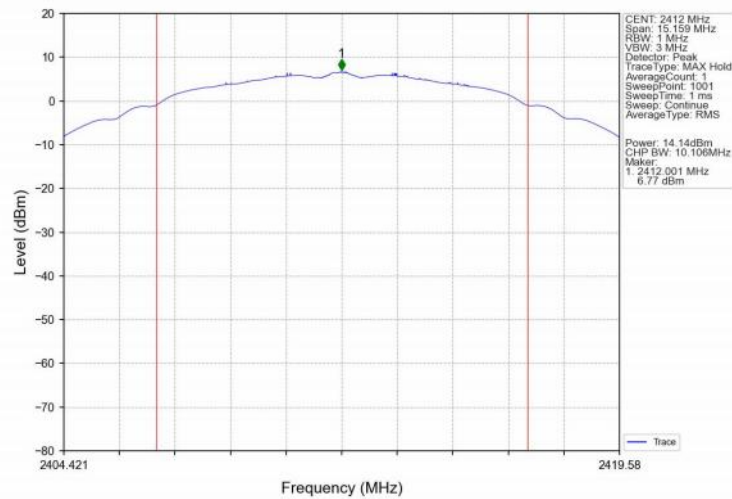
3.1.1 Power

Mode	TX Type	Frequency (MHz)	Maximum Peak Conducted Output Power (dBm)		Verdict
			ANT1	Limit	
802.11b	SISO	2412	14.14	<=30	Pass
		2437	14.45	<=30	Pass
		2462	14.87	<=30	Pass
802.11g	SISO	2412	14.93	<=30	Pass
		2437	15.53	<=30	Pass
		2462	13.35	<=30	Pass
802.11n (HT20)	SISO	2412	14.42	<=30	Pass
		2437	15.26	<=30	Pass
		2462	14.06	<=30	Pass
802.11n (HT40)	SISO	2422	14.77	<=30	Pass
		2437	15.29	<=30	Pass
		2452	15.31	<=30	Pass
Note1: Antenna Gain: Ant1:3.00dBi;					

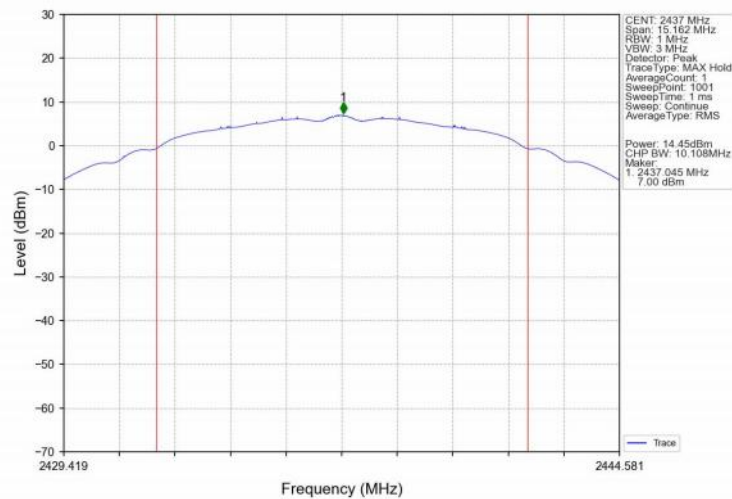
3.2 Test Graph

3.2.1 Power

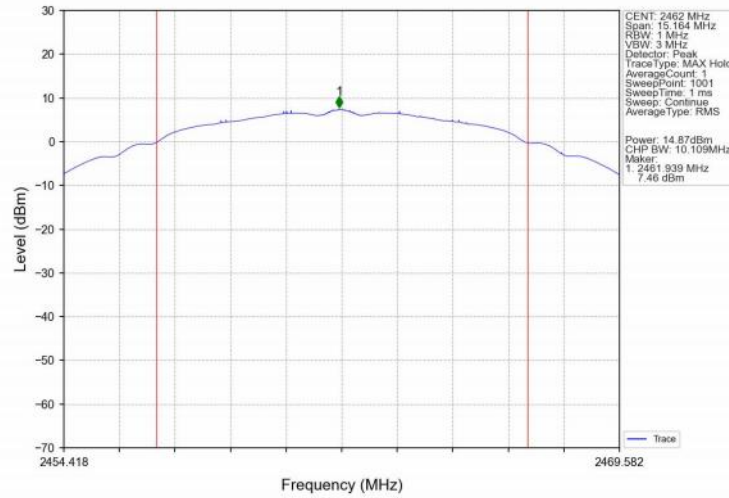
802.11b_LCH_2412MHz_Ant1 (SISO)_NTNV



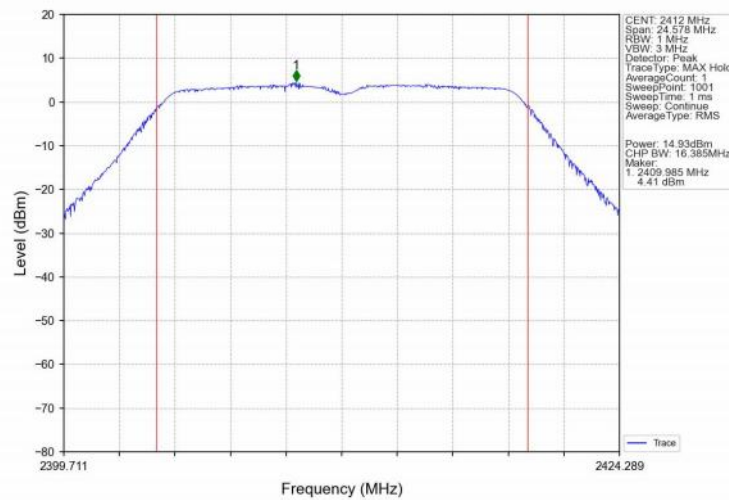
802.11b_MCH_2437MHz_Ant1 (SISO)_NTNV



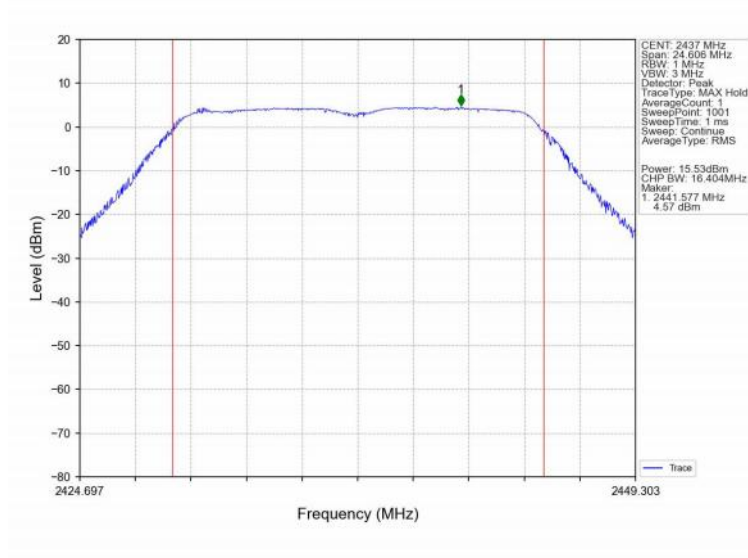
802.11b_HCH_2462MHz_Ant1 (SISO)_NTNV



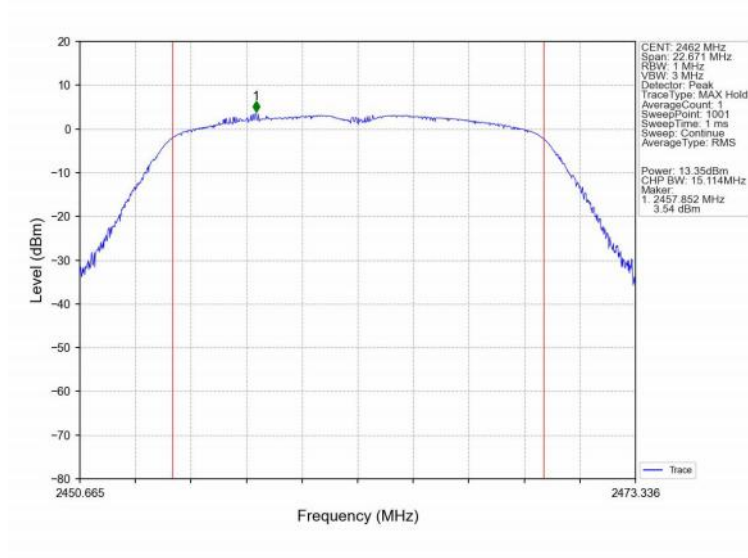
802.11g_LCH_2412MHz_Ant1 (SISO)_NTNV



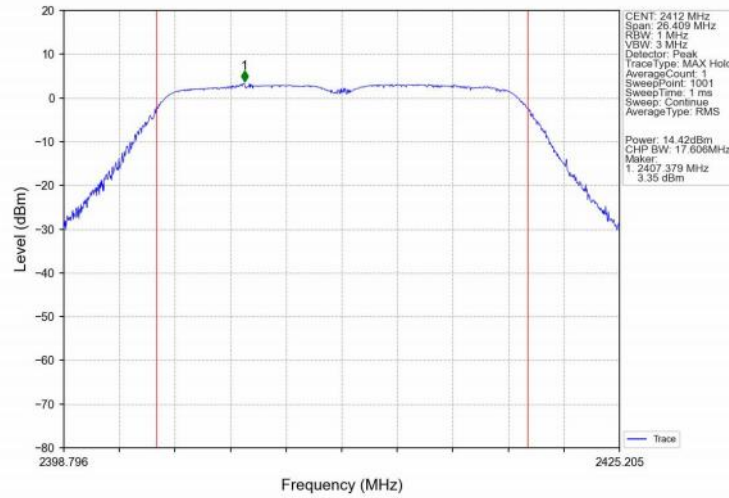
802.11g_MCH_2437MHz_Ant1 (SISO)_NTNV



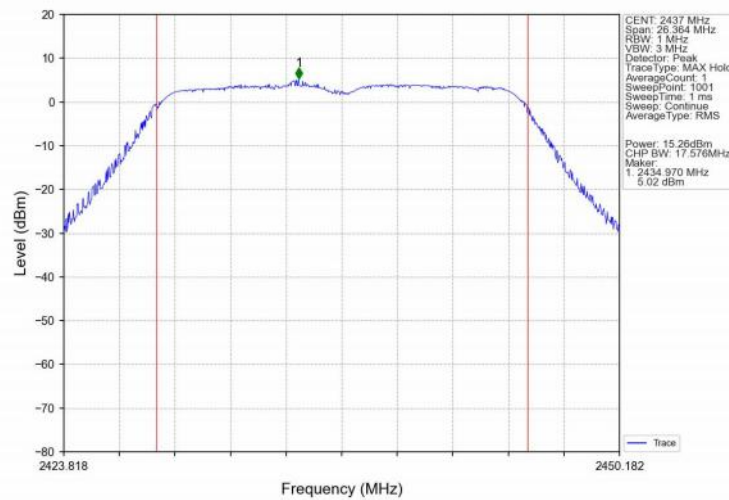
802.11g_HCH_2462MHz_Ant1 (SISO)_NTNV



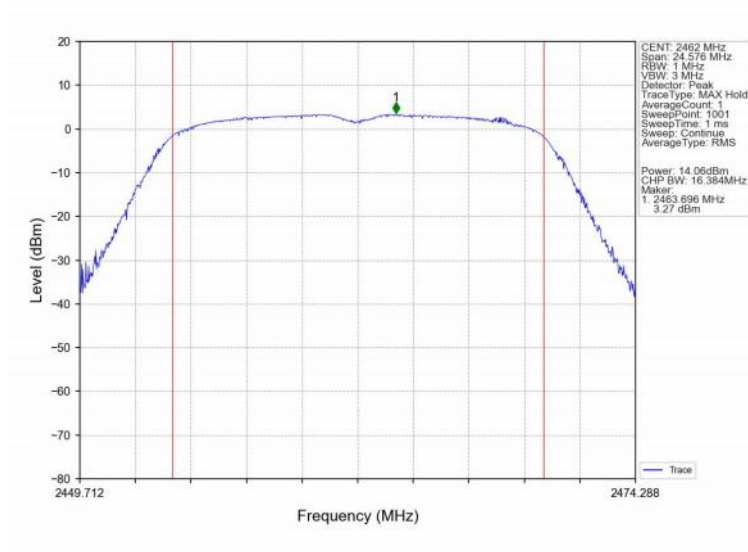
802.11n(HT20)_LCH_2412MHz_Ant1 (SISO)_NTNV



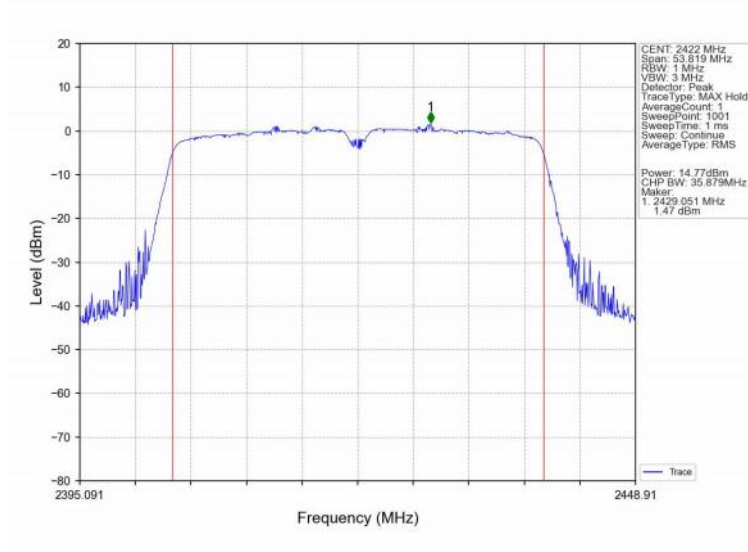
802.11n(HT20)_MCH_2437MHz_Ant1 (SISO)_NTNV



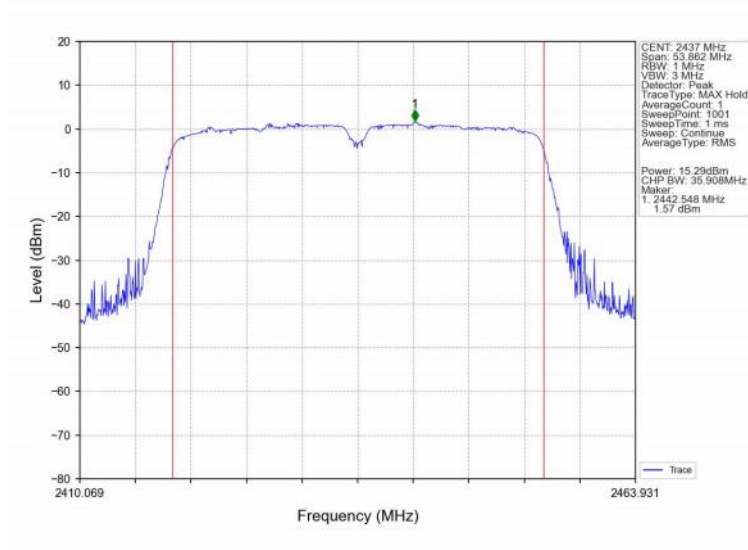
802.11n(HT20)_HCH_2462MHz_Ant1 (SISO)_NTNV



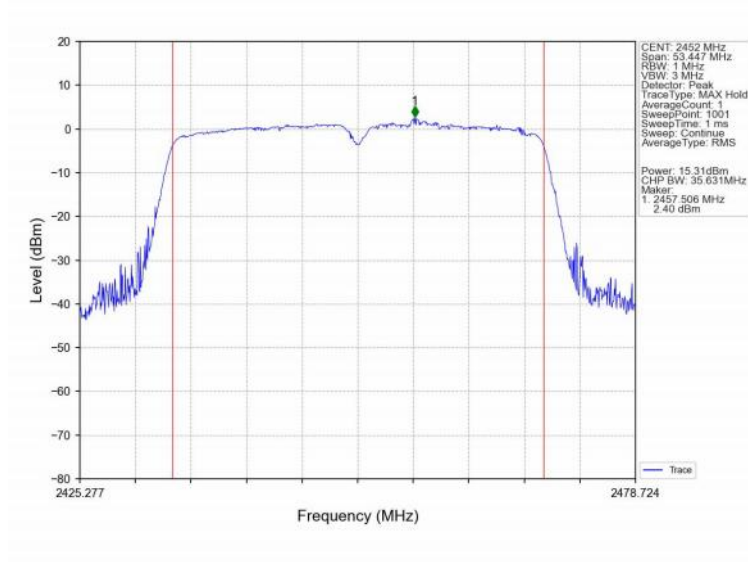
802.11n(HT40)_LCH_2422MHz_Ant1 (SISO)_NTNV



802.11n(HT40)_MCH_2437MHz_Ant1 (SISO)_NTNV



802.11n(HT40)_HCH_2452MHz_Ant1 (SISO)_NTNV



4. Maximum Power Spectral Density

4.1 Test Result

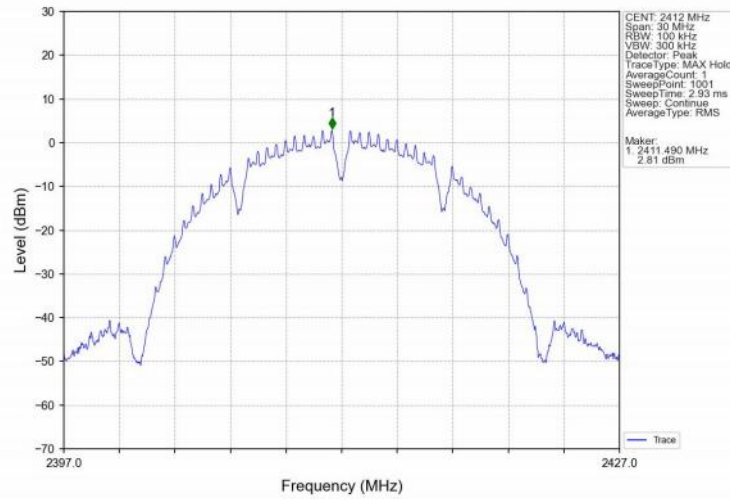
4.1.1 PSD

Mode	TX Type	Frequency (MHz)	Maximum PSD (dBm)		Verdict
			ANT1	Limit(dBm/3kHz)	
802.11b	SISO	2412	2.81dBm/100kHz	<=8	Pass
		2437	3.03dBm/100kHz	<=8	Pass
		2462	3.57dBm/100kHz	<=8	Pass
802.11g	SISO	2412	-3.81dBm/100kHz	<=8	Pass
		2437	-3.73dBm/100kHz	<=8	Pass
		2462	-4.21dBm/100kHz	<=8	Pass
802.11n (HT20)	SISO	2412	-4.58dBm/100kHz	<=8	Pass
		2437	-3.47dBm/100kHz	<=8	Pass
		2462	-4.14dBm/100kHz	<=8	Pass
802.11n (HT40)	SISO	2422	-6.96dBm/100kHz	<=8	Pass
		2437	-6.33dBm/100kHz	<=8	Pass
		2452	-6.37dBm/100kHz	<=8	Pass
Note1: Antenna Gain: Ant1: 3.00dBi;					

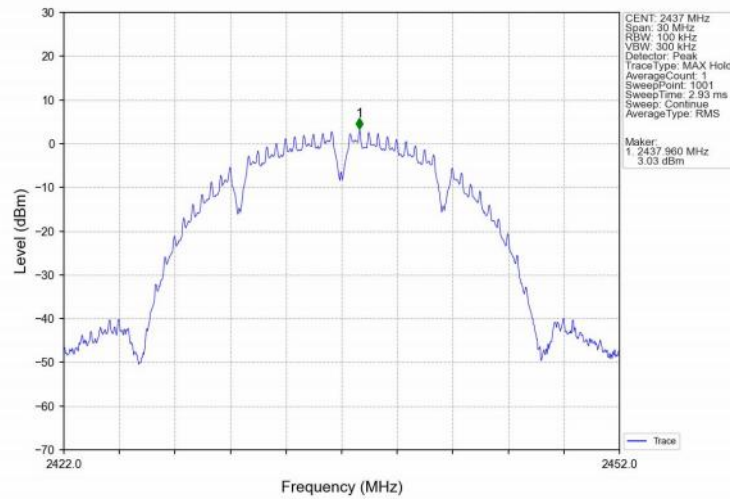
4.2 Test Graph

4.2.1 PSD

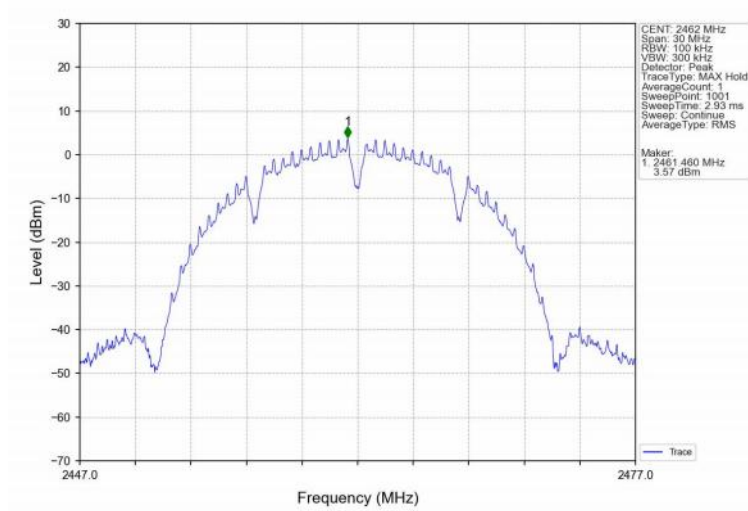
802.11b_LCH_2412MHz_Ant1 (SISO)_NTNV



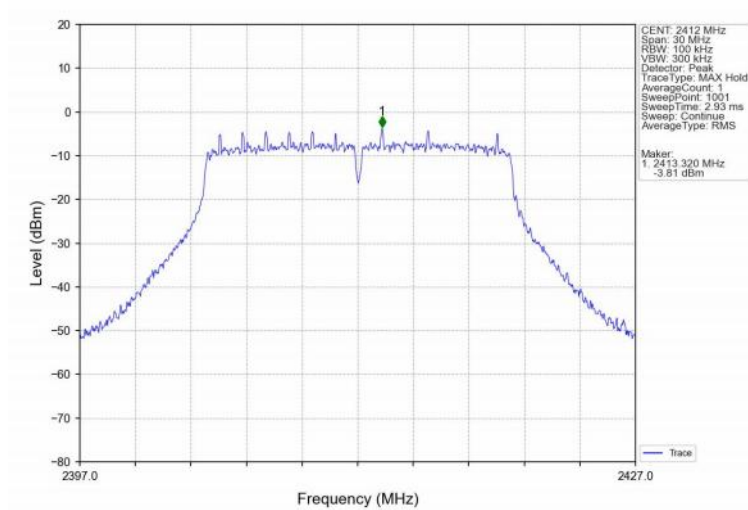
802.11b_MCH_2437MHz_Ant1 (SISO)_NTNV



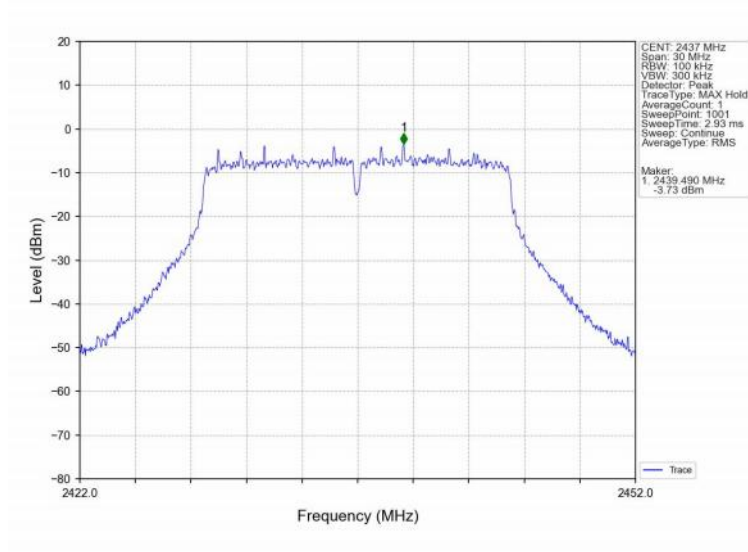
802.11b_HCH_2462MHz_Ant1 (SISO)_NTNV



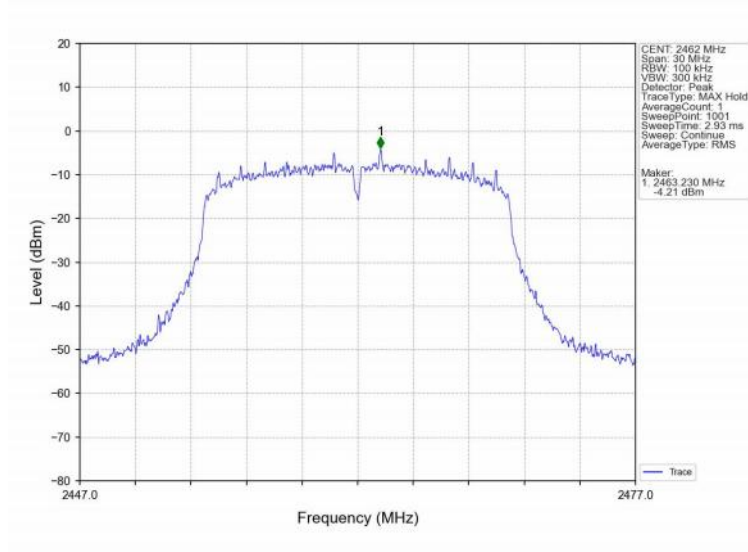
802.11g_LCH_2412MHz_Ant1 (SISO)_NTNV



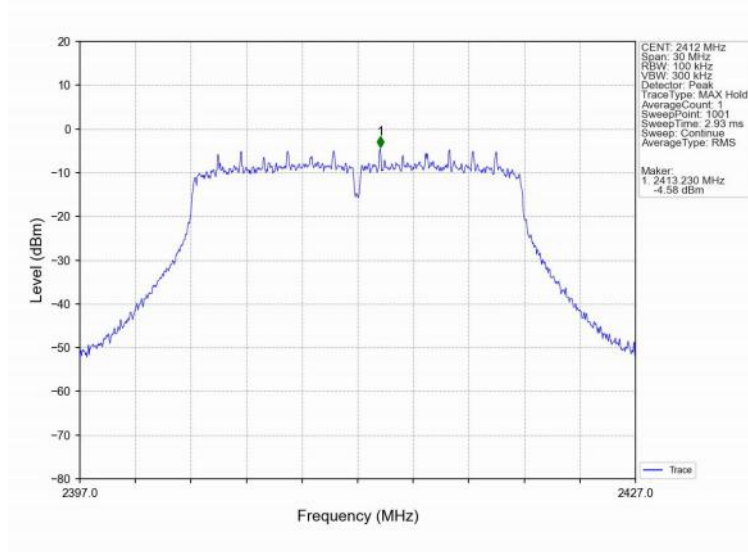
802.11g_MCH_2437MHz_Ant1 (SISO)_NTNV



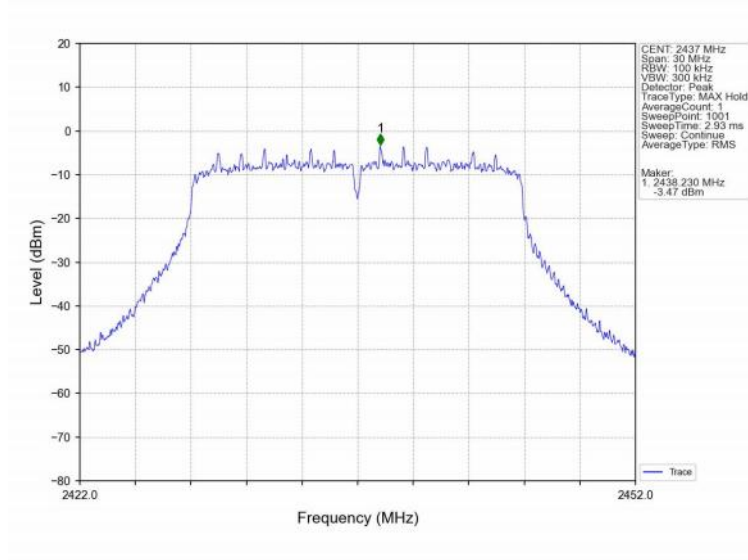
802.11g_HCH_2462MHz_Ant1 (SISO)_NTNV



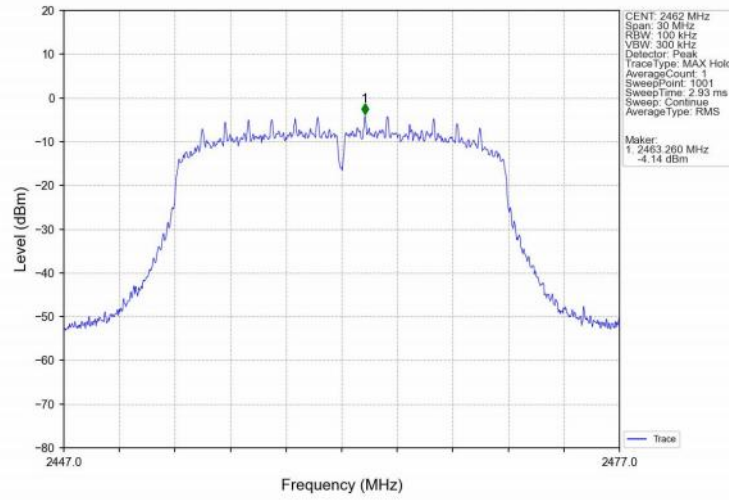
802.11n(HT20)_LCH_2412MHz_Ant1 (SISO)_NTNV



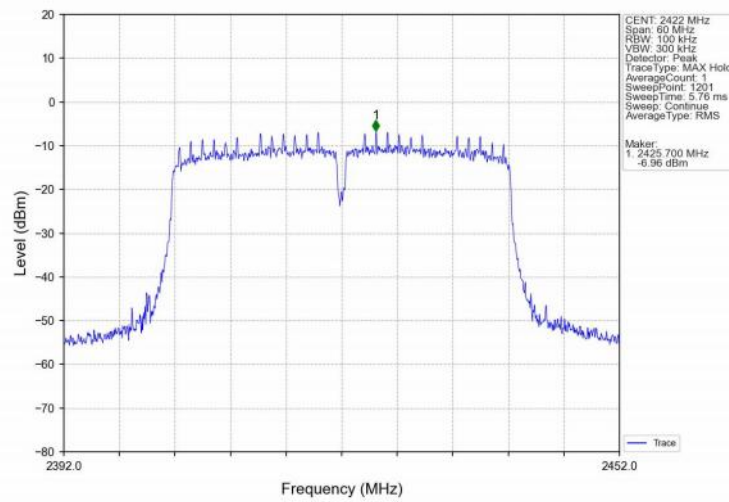
802.11n(HT20)_MCH_2437MHz_Ant1 (SISO)_NTNV



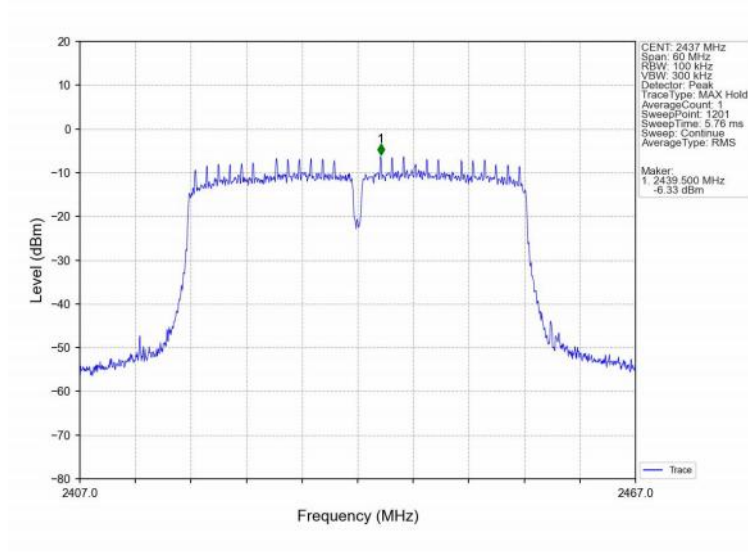
802.11n(HT20)_HCH_2462MHz_Ant1 (SISO)_NTNV



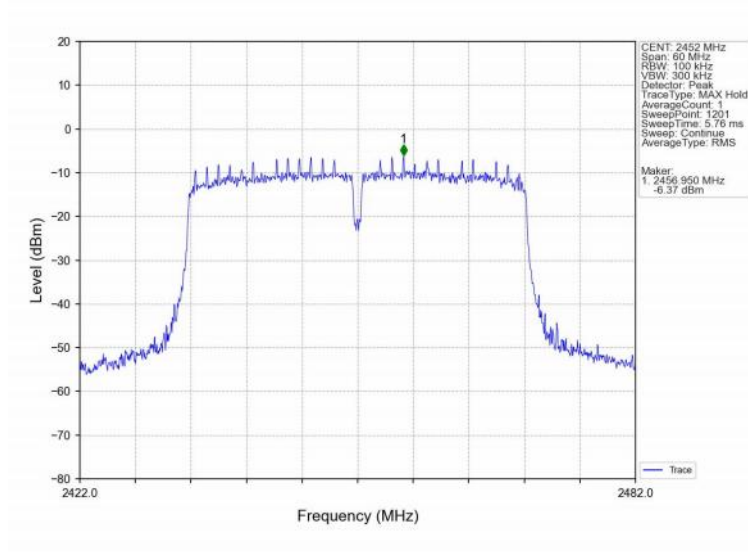
802.11n(HT40)_LCH_2422MHz_Ant1 (SISO)_NTNV



802.11n(HT40)_MCH_2437MHz_Ant1 (SISO)_NTNV



802.11n(HT40)_HCH_2452MHz_Ant1 (SISO)_NTNV



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	6.49
		2437	1	3.08
		2462	1	3.40
802.11g	SISO	2412	1	0.31
		2437	1	1.32
		2462	1	-4.36
802.11n (HT20)	SISO	2412	1	-4.26
		2437	1	-4.05
		2462	1	-4.04
802.11n (HT40)	SISO	2422	1	-6.95
		2437	1	-6.51
		2452	1	-6.31

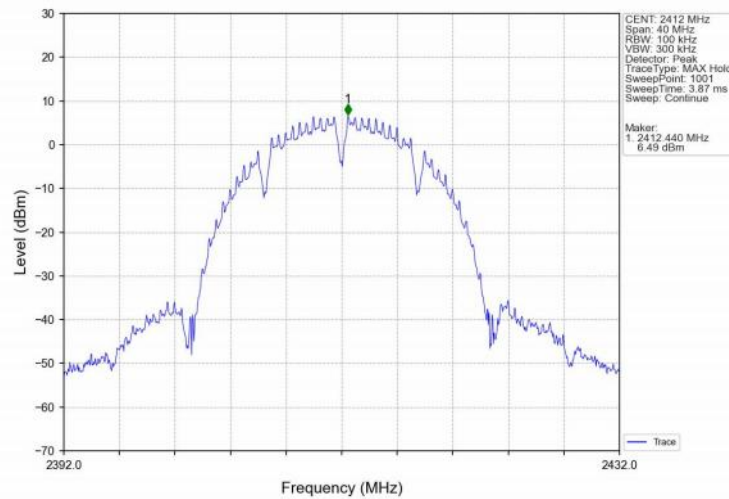
5.1.2 CSE

Mode	TX Type	Frequency (MHz)	ANT	Level of Reference (dBm)	Limit (dBm)	Verdict
802.11b	SISO	2412	1	6.49	-13.51	Pass
		2437	1	3.08	-16.92	Pass
		2462	1	3.40	-16.60	Pass
802.11g	SISO	2412	1	0.31	-19.69	Pass
		2437	1	1.32	-18.68	Pass
		2462	1	-4.36	-24.36	Pass
802.11n (HT20)	SISO	2412	1	-4.26	-24.26	Pass
		2437	1	-4.05	-24.05	Pass
		2462	1	-4.04	-24.04	Pass
802.11n (HT40)	SISO	2422	1	-6.95	-26.95	Pass
		2437	1	-6.51	-26.51	Pass
		2452	1	-6.31	-26.31	Pass

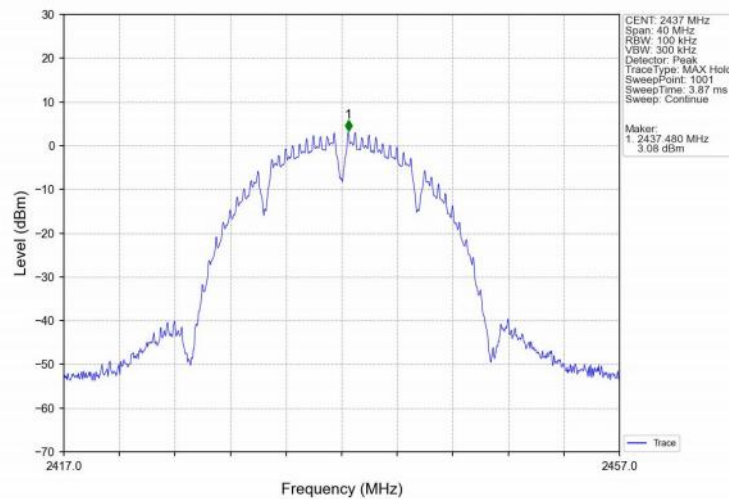
5.2 Test Graph

5.2.1 Ref

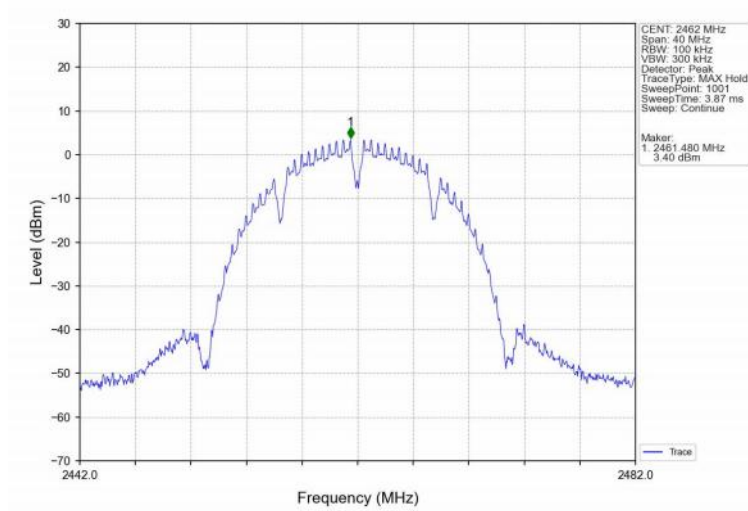
802.11b_LCH_2412MHz_Ant1 (SISO)_NTNV



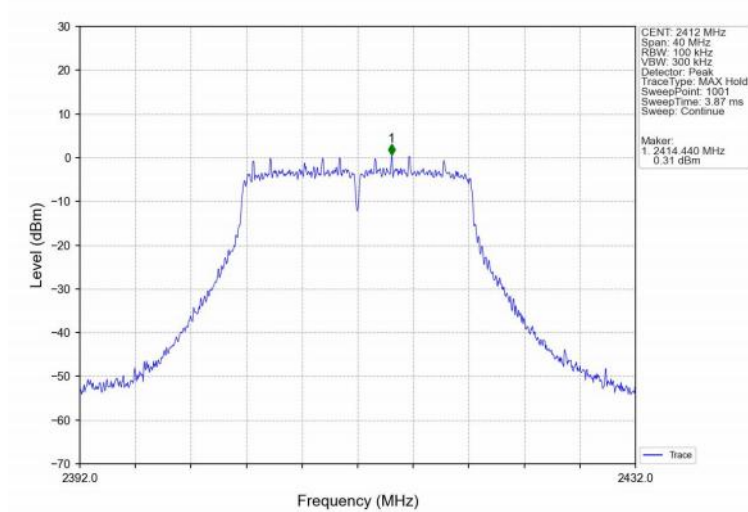
802.11b_MCH_2437MHz_Ant1 (SISO)_NTNV



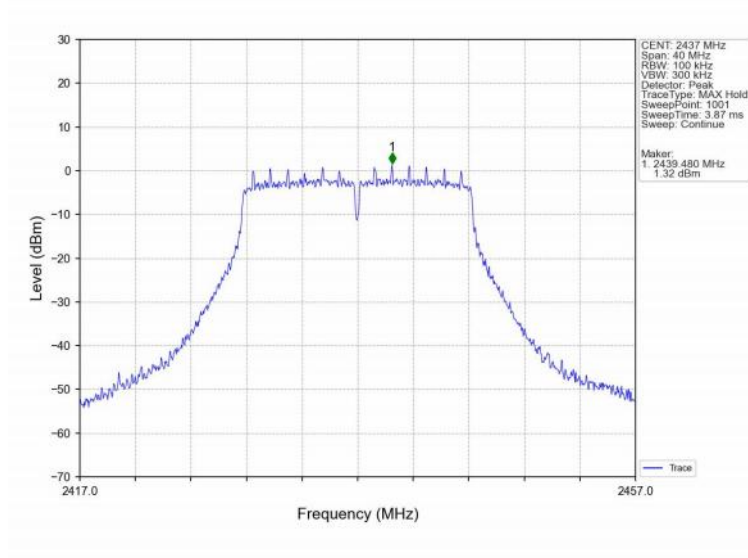
802.11b_HCH_2462MHz_Ant1 (SISO)_NTNV



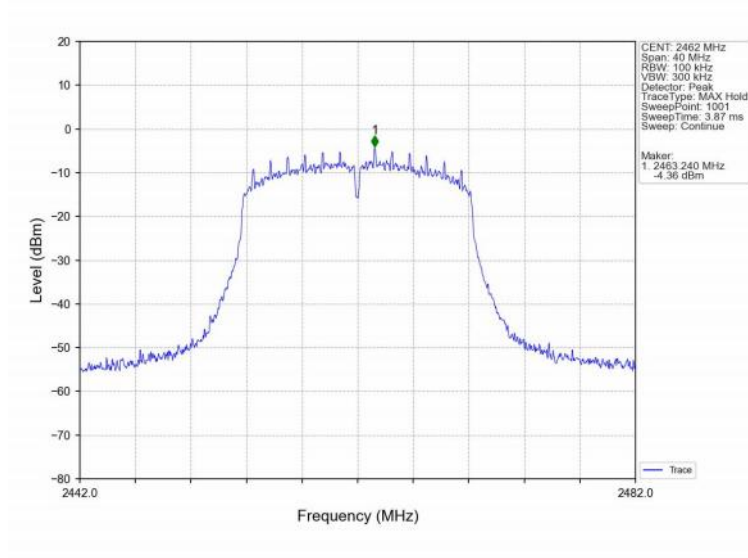
802.11g_LCH_2412MHz_Ant1 (SISO)_NTNV



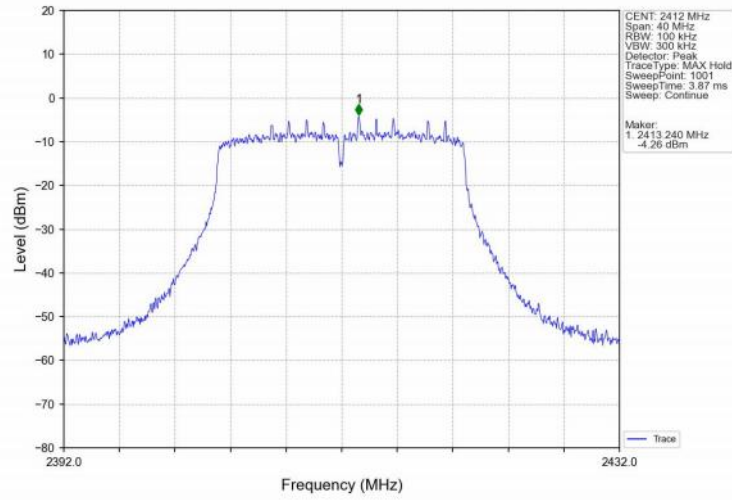
802.11g_MCH_2437MHz_Ant1 (SISO)_NTNV



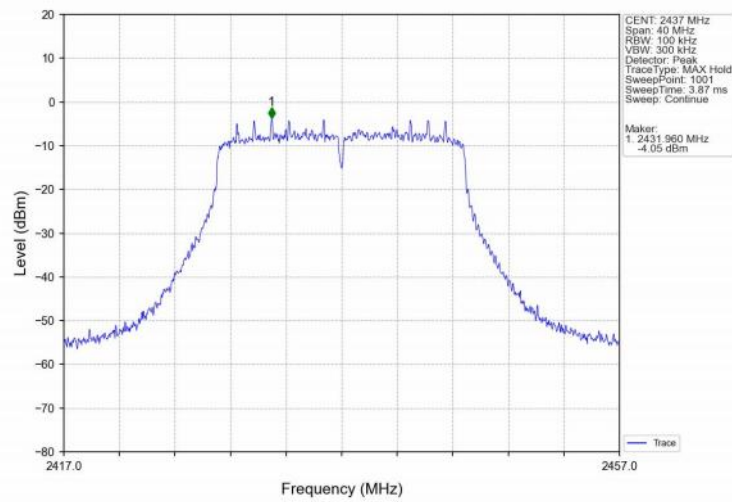
802.11g_HCH_2462MHz_Ant1 (SISO)_NTNV



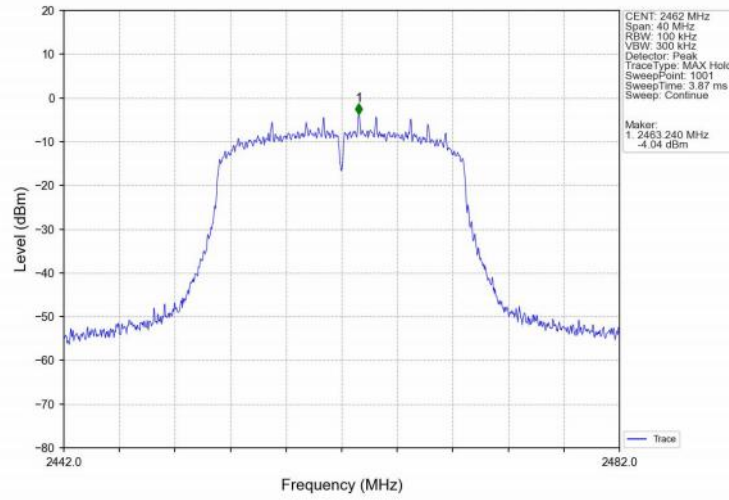
802.11n(HT20)_LCH_2412MHz_Ant1 (SISO)_NTNV



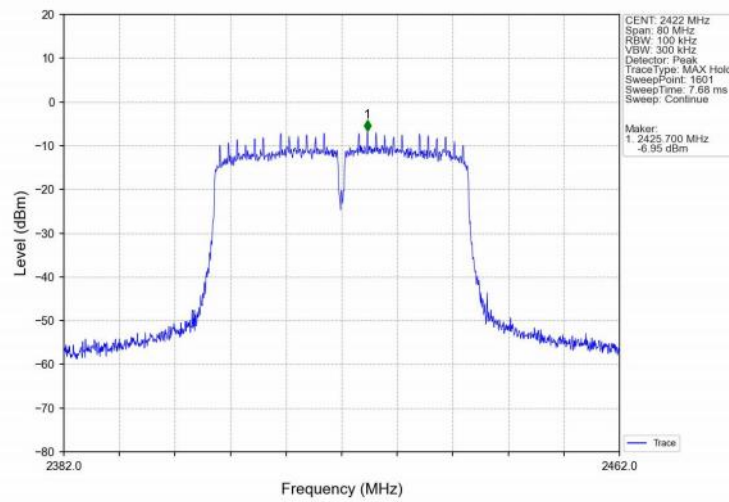
802.11n(HT20)_MCH_2437MHz_Ant1 (SISO)_NTNV



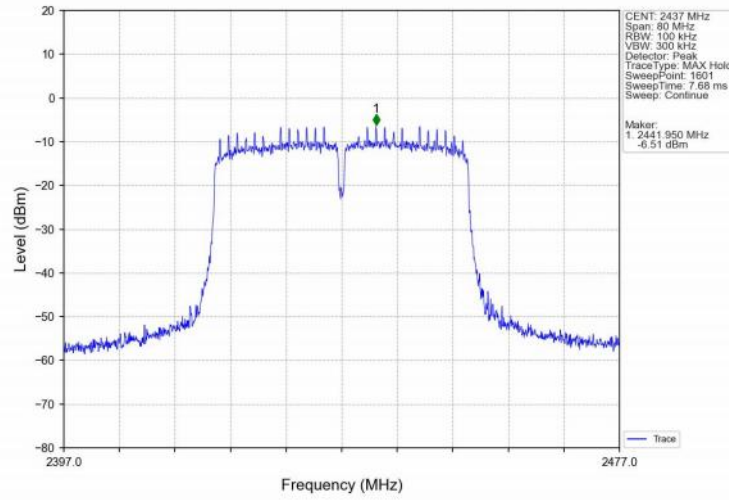
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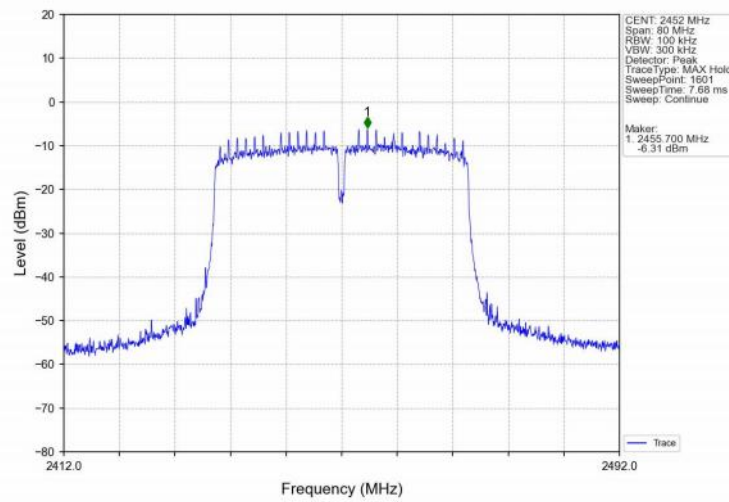
802.11n(HT40)_LCH_2422MHz_Ant1 (SISO)_NTNV



802.11n(HT40)_MCH_2437MHz_Ant1 (SISO)_NTNV

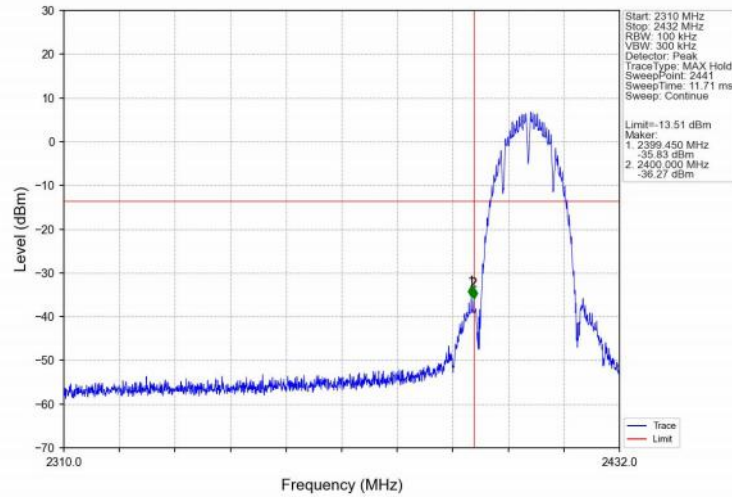


802.11n(HT40)_HCH_2452MHz_Ant1 (SISO)_NTNV

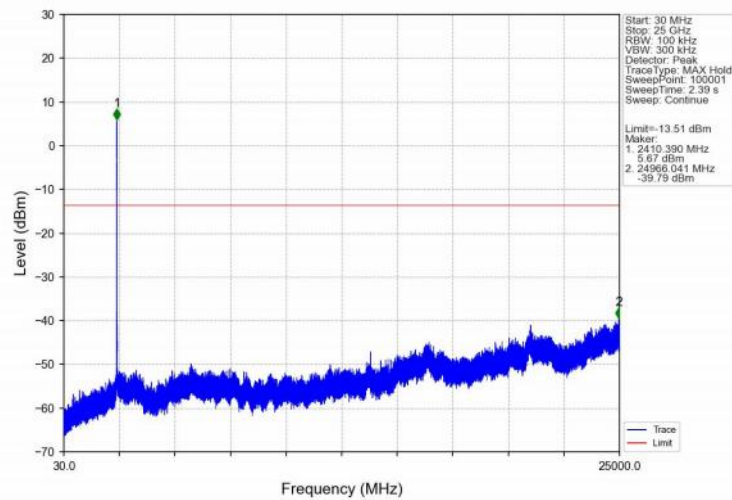


5.2.2 CSE

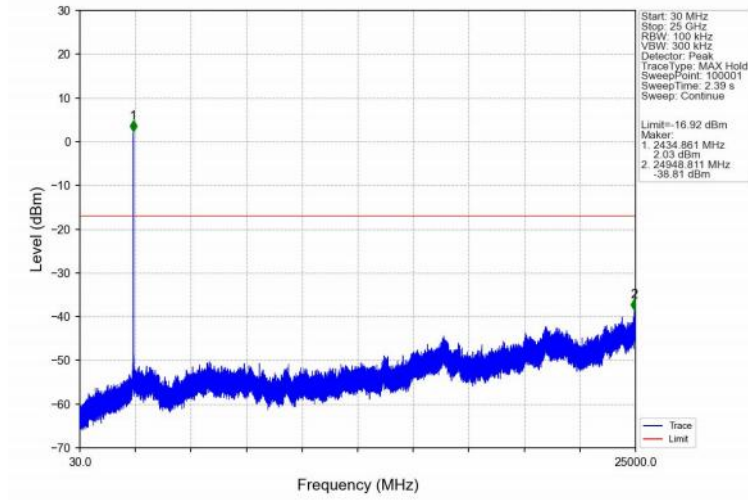
802.11b_LCH_2412MHz_Ant1 (SISO)_NTNV



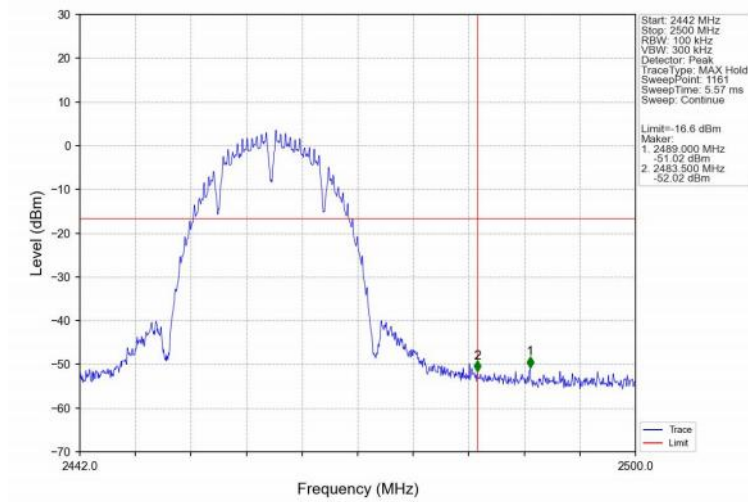
802.11b_LCH_2412MHz_Ant1 (SISO)_NTNV



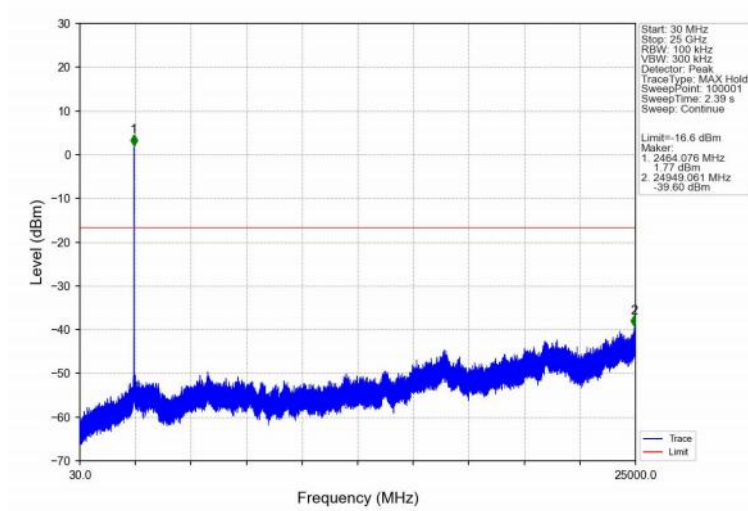
802.11b_MCH_2437MHz_Ant1 (SISO)_NTNV



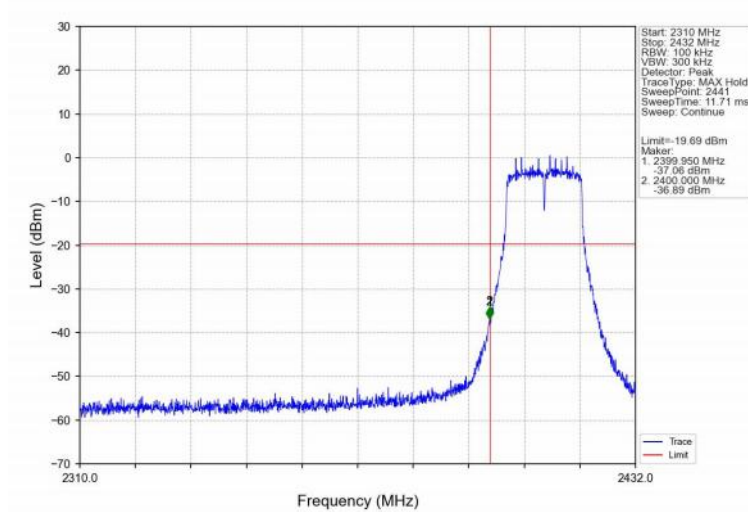
802.11b_HCH_2462MHz_Ant1 (SISO)_NTNV



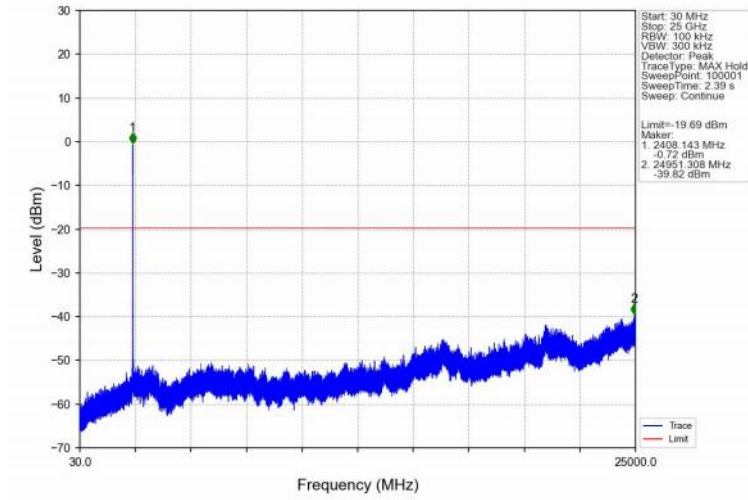
802.11b_HCH_2462MHz_Ant1 (SISO)_NTNV



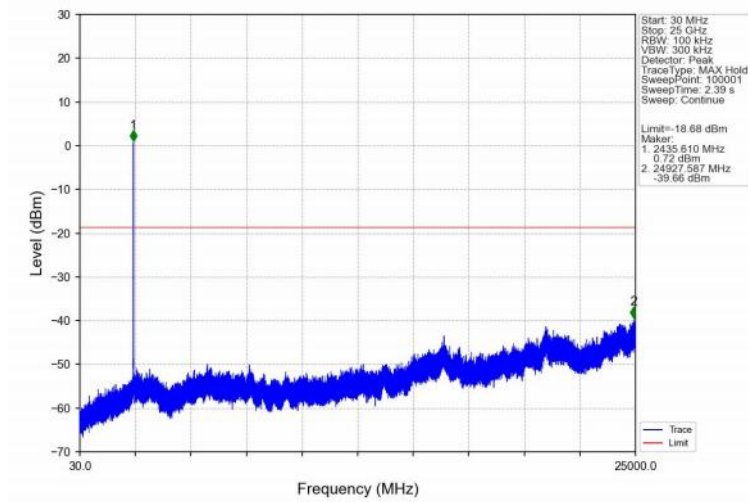
802.11g_LCH_2412MHz_Ant1 (SISO)_NTNV



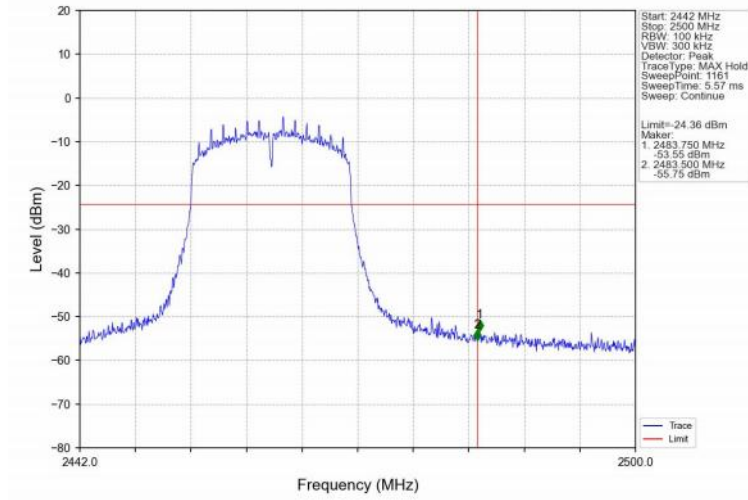
802.11g_LCH_2412MHz_Ant1 (SISO)_NTNV



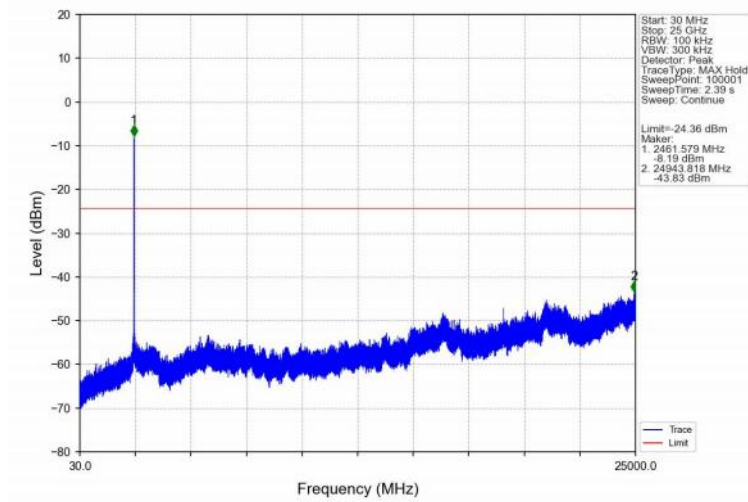
802.11g_MCH_2437MHz_Ant1 (SISO)_NTNV



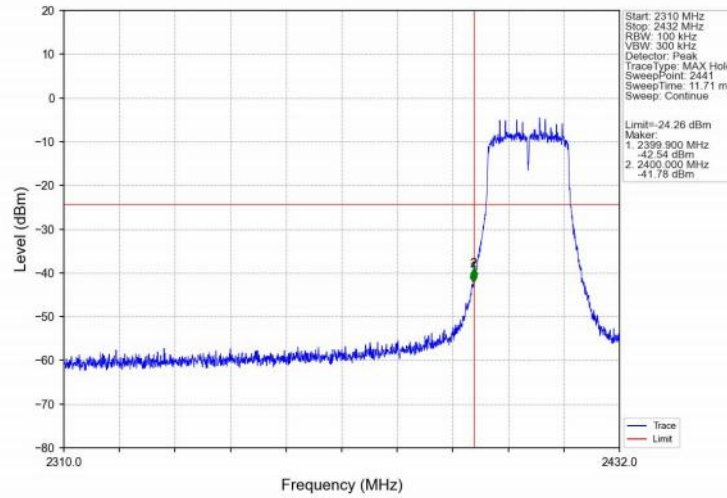
802.11g_HCH_2462MHz_Ant1 (SISO)_NTNV



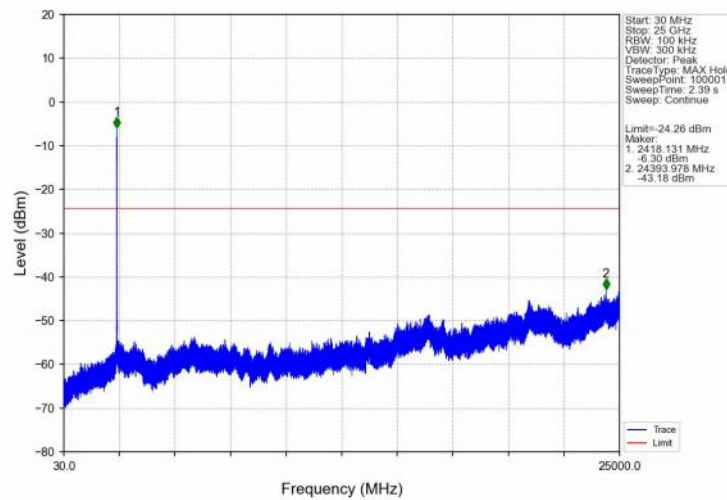
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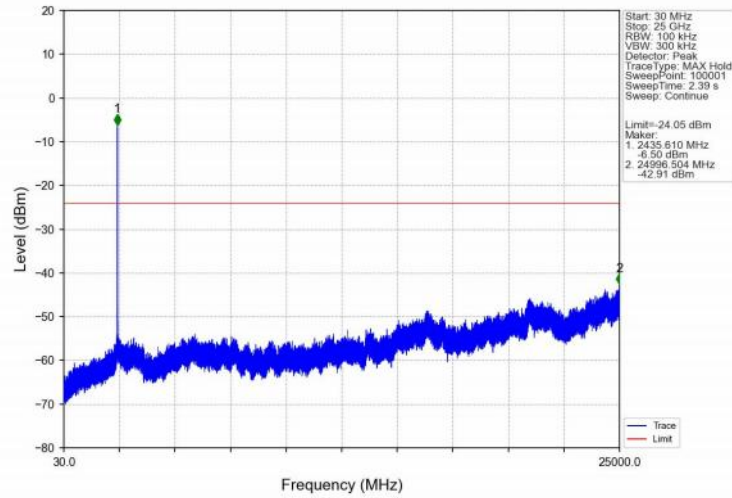
802.11n(HT20)_LCH_2412MHz_Ant1 (SISO)_NTNV



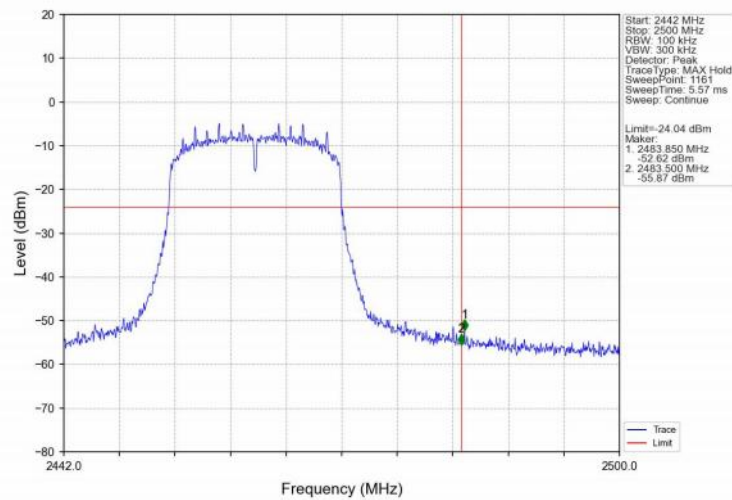
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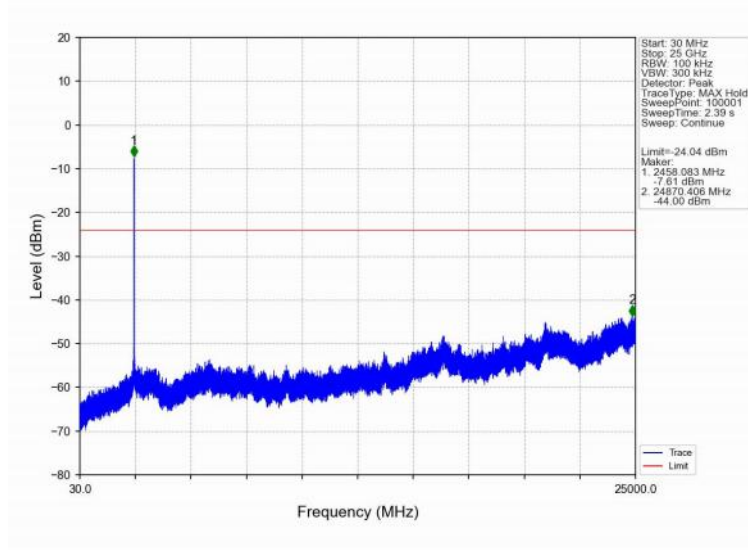
802.11n(HT20)_MCH_2437MHz_Ant1 (SISO)_NTNV



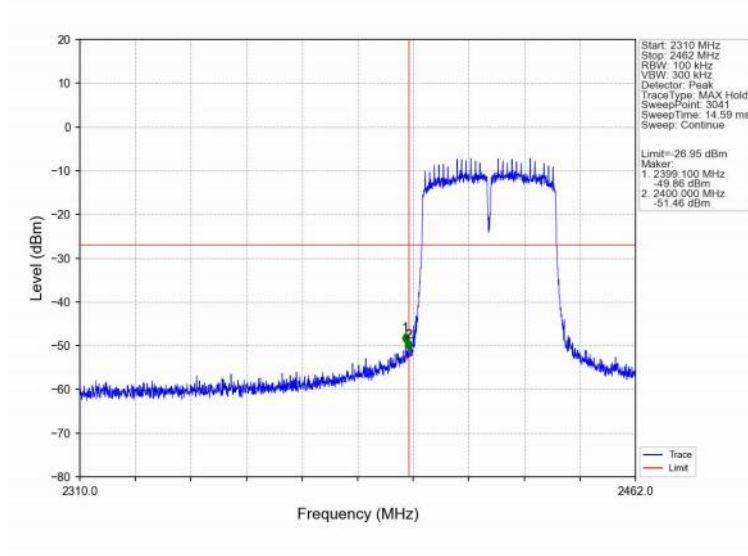
802.11n(HT20)_HCH_2462MHz_Ant1 (SISO)_NTNV



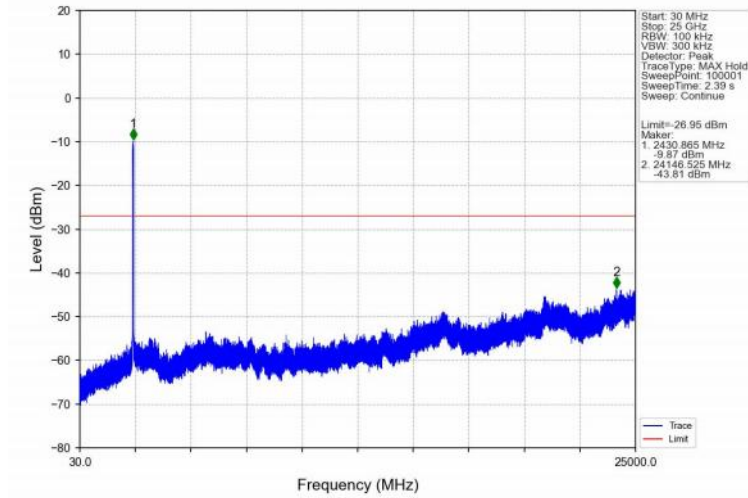
802.11n(HT20)_HCH_2462MHz_Ant1 (SISO)_NTNV



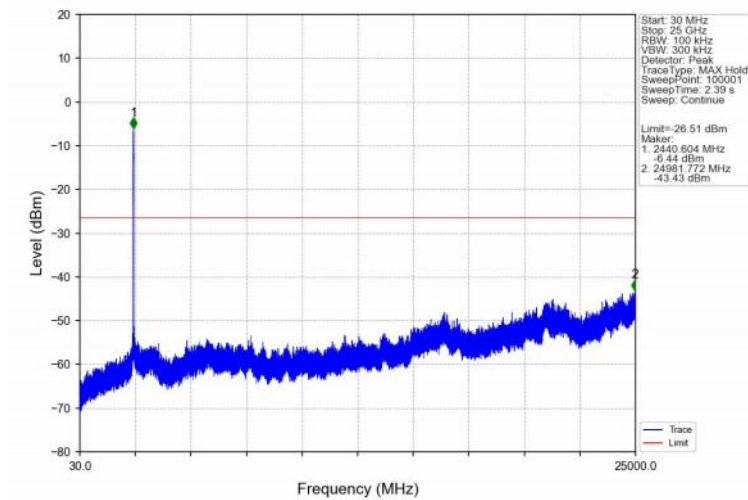
802.11n(HT40)_LCH_2422MHz_Ant1 (SISO)_NTNV



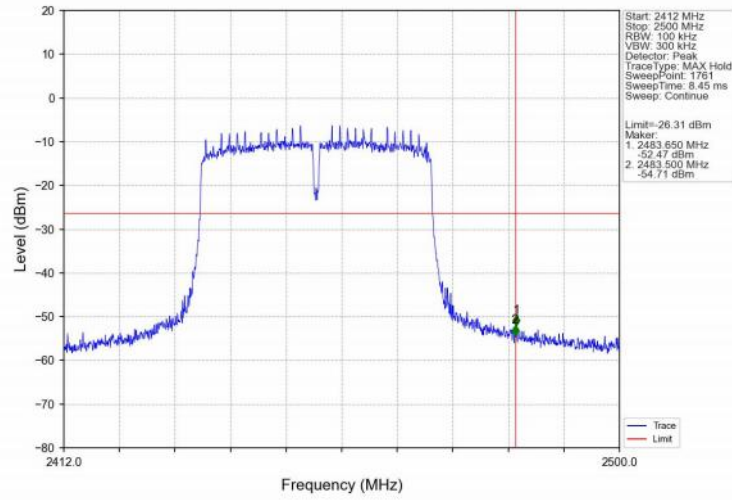
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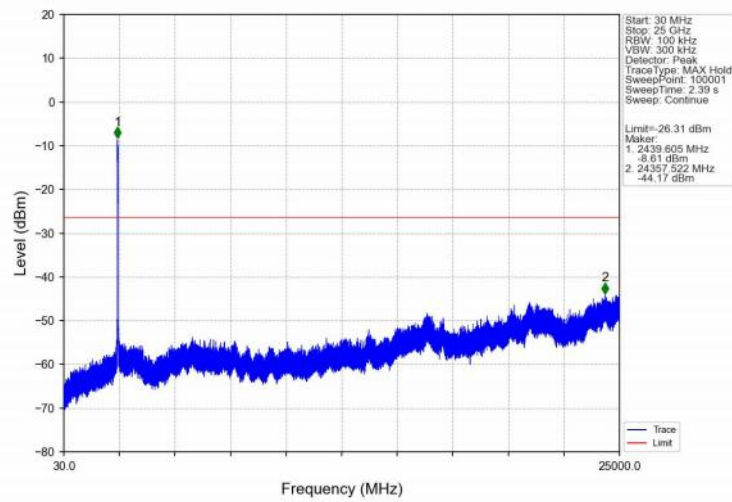
802.11n(HT40)_MCH_2437MHz_Ant1 (SISO)_NTNV



802.11n(HT40)_HCH_2452MHz_Ant1 (SISO)_NTNV



802.11n(HT40)_HCH_2452MHz_Ant1 (SISO)_NTNV



6. Form731

6.1 Test Result

6.1.1 Form731

Lower Freq (MHz)	High Freq (MHz)	MAX Power (W)	MAX Power (dBm)
2412	2462	0.0357	15.53
2422	2452	0.0340	15.31

***** End of Report *****