



Appendix A for SHEM190801587601

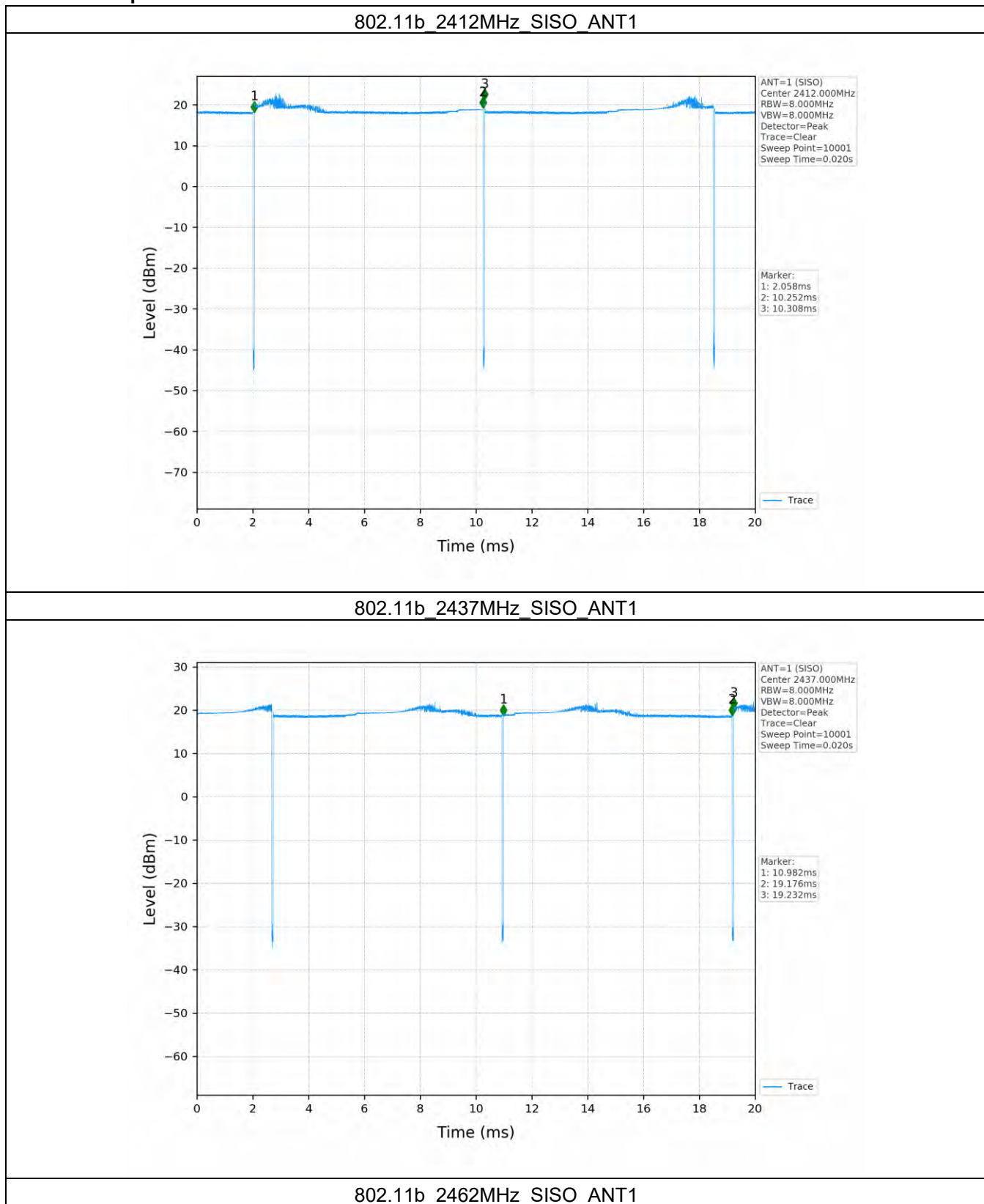
1. Duty Cycle

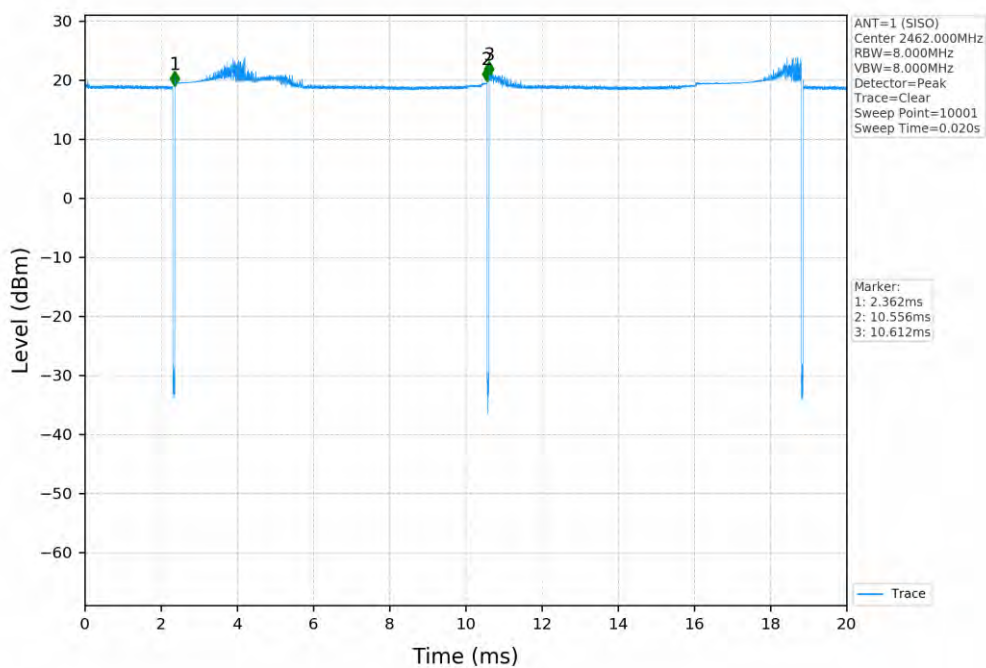
1.1 Test Result

Test Mode	Channel Frequency(MHz)	TX Type	ANT No.	T_on (ms)	Period (ms)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)
802.11b	2412	SISO	1	8.194	8.250	99.32	0.03
	2437	SISO	1	8.194	8.250	99.32	0.03
	2462	SISO	1	8.194	8.250	99.32	0.03
802.11g	2412	SISO	1	1.360	1.414	96.18	0.17
	2437	SISO	1	1.360	1.414	96.18	0.17
	2462	SISO	1	1.360	1.414	96.18	0.17
802.11n(HT20)	2412	SISO	1	1.272	1.326	95.93	0.18
	2437	SISO	1	1.272	1.326	95.93	0.18
	2462	SISO	1	1.272	1.326	95.93	0.18
802.11n(HT40)	2422	SISO	1	0.632	0.686	92.13	0.36
	2437	SISO	1	0.632	0.686	92.13	0.36
	2452	SISO	1	0.632	0.686	92.13	0.36

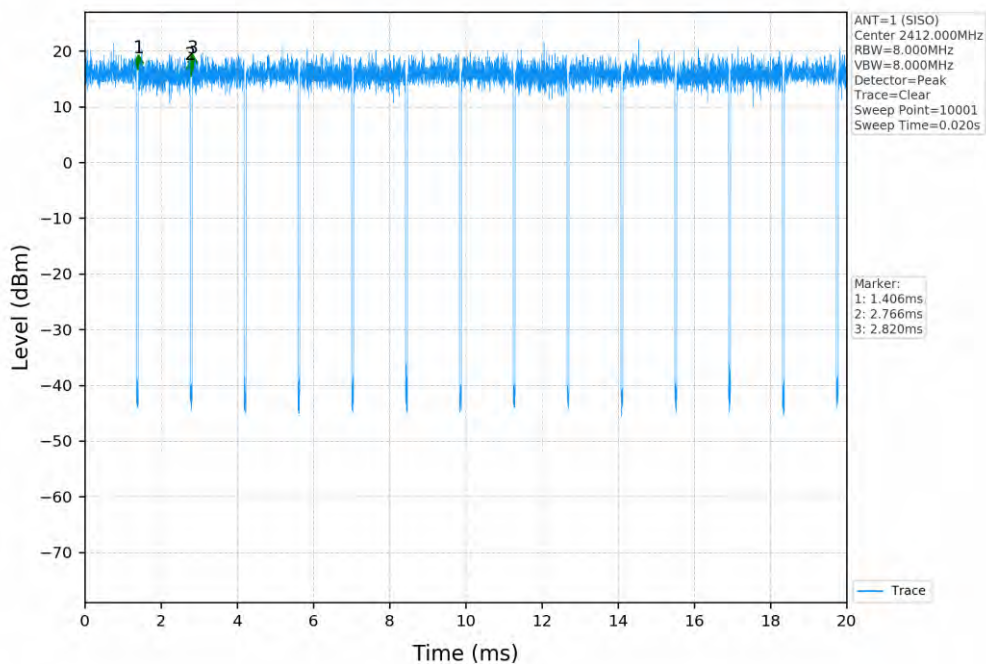


1.2 Test Graph

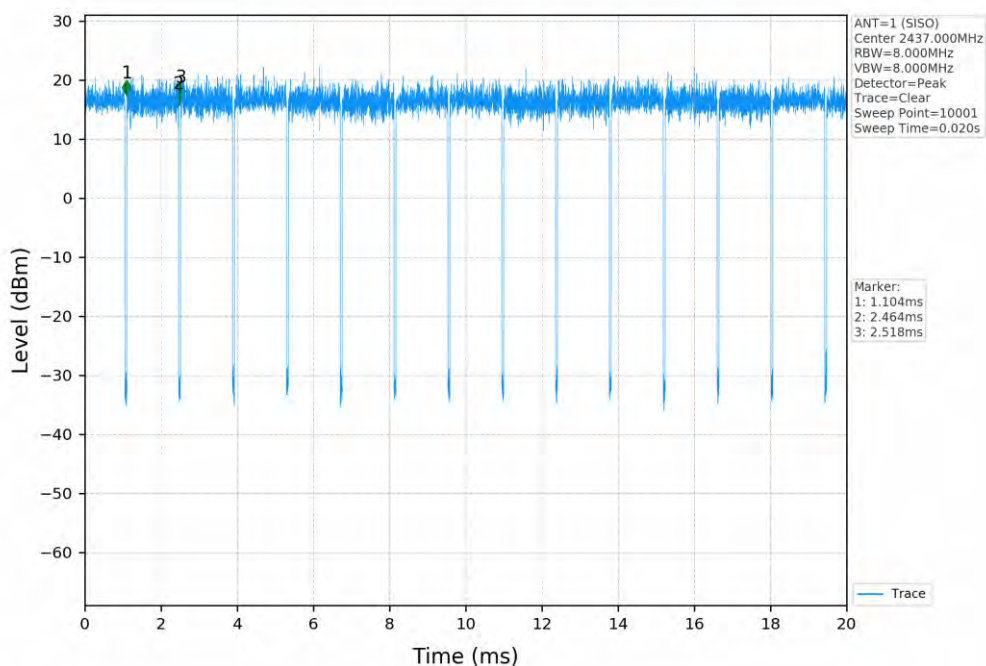




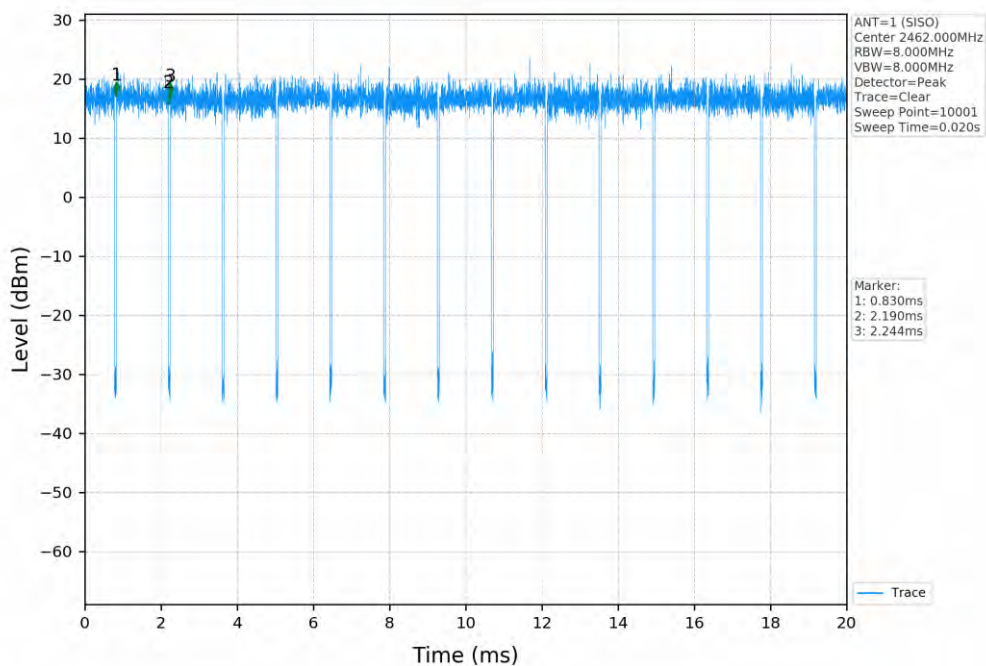
802.11g_2412MHz_SISO_ANT1



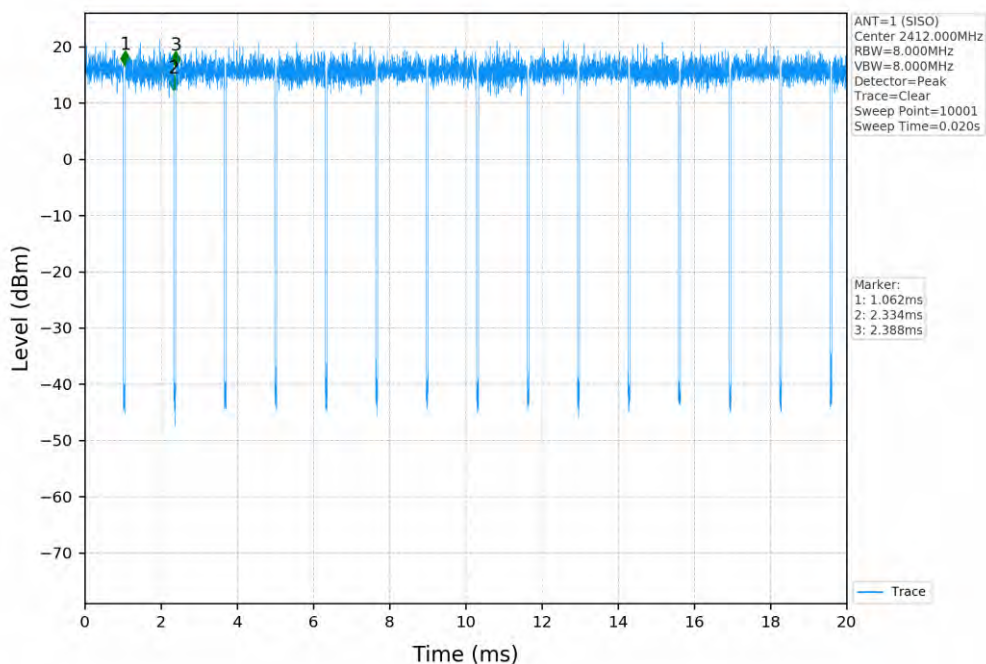
802.11g_2437MHz_SISO_ANT1



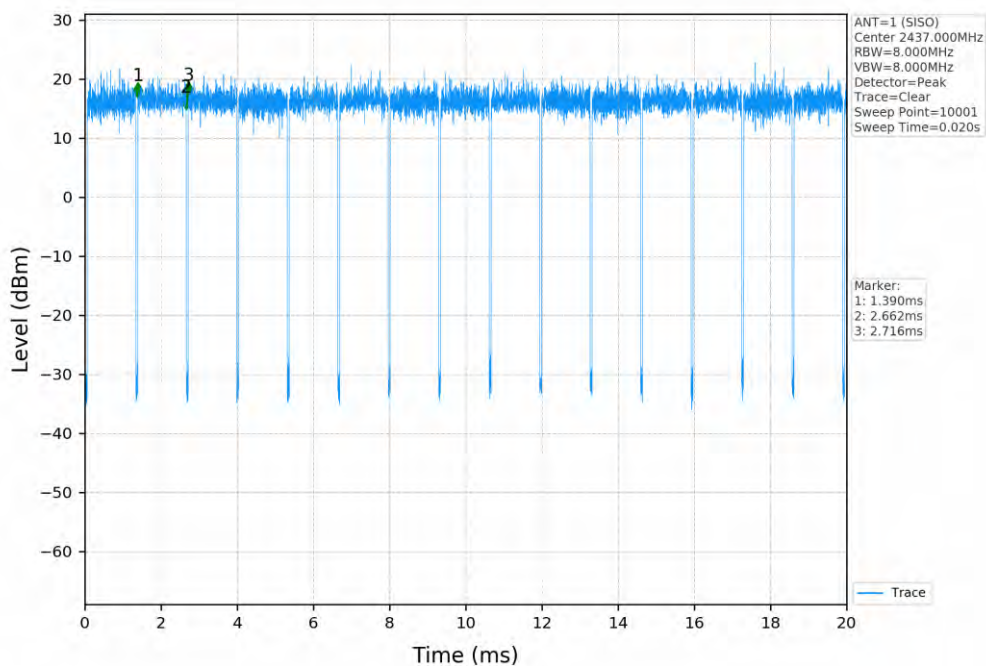
802.11g_2462MHz_SISO_ANT1



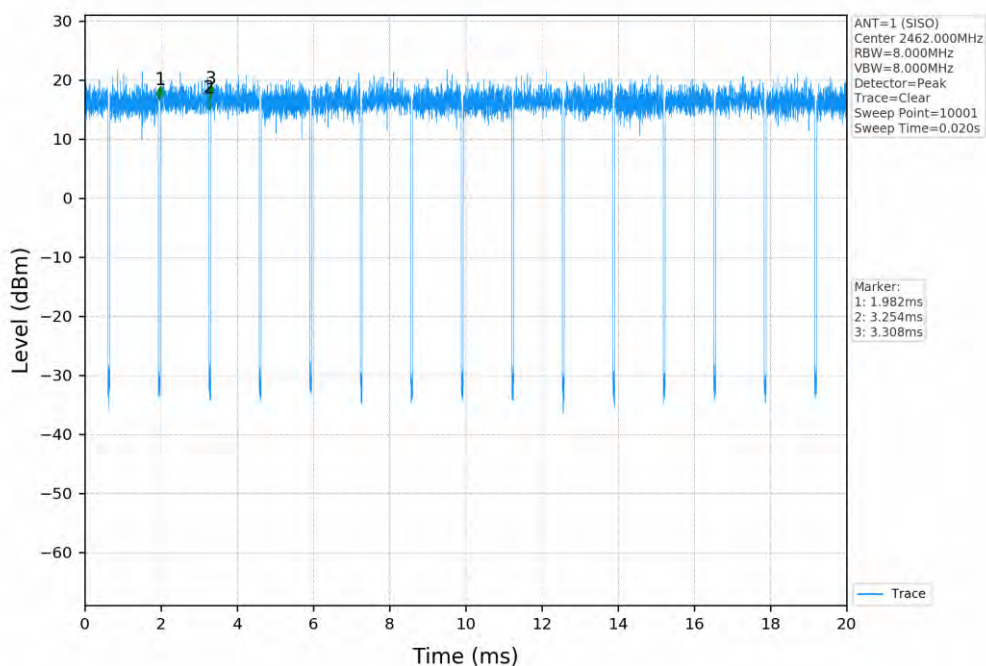
802.11n(HT20)_2412MHz_SISO_ANT1



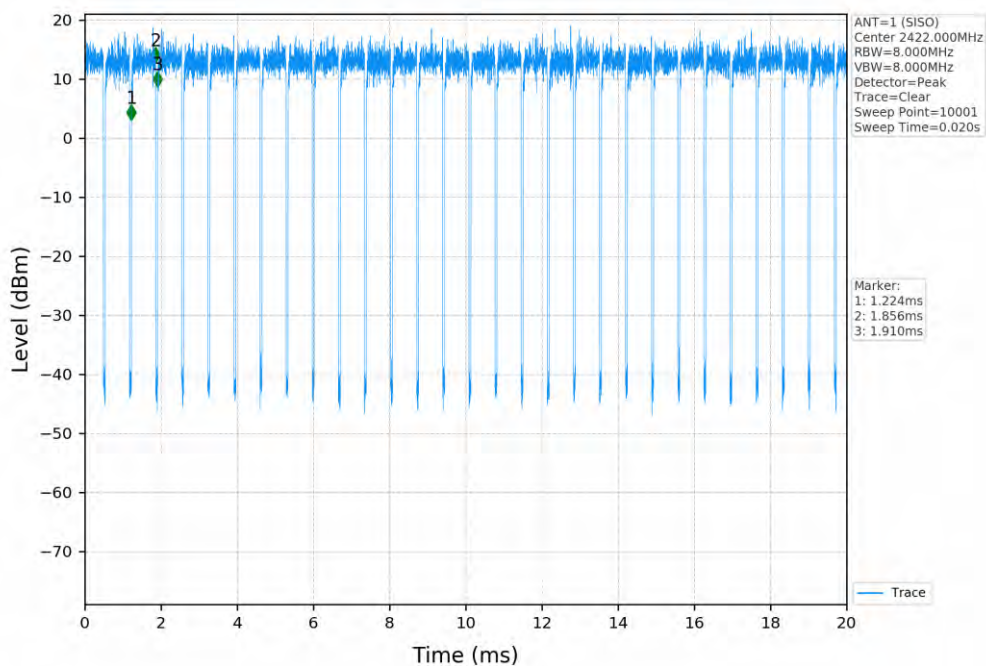
802.11n(HT20) 2437MHz SISO ANT1



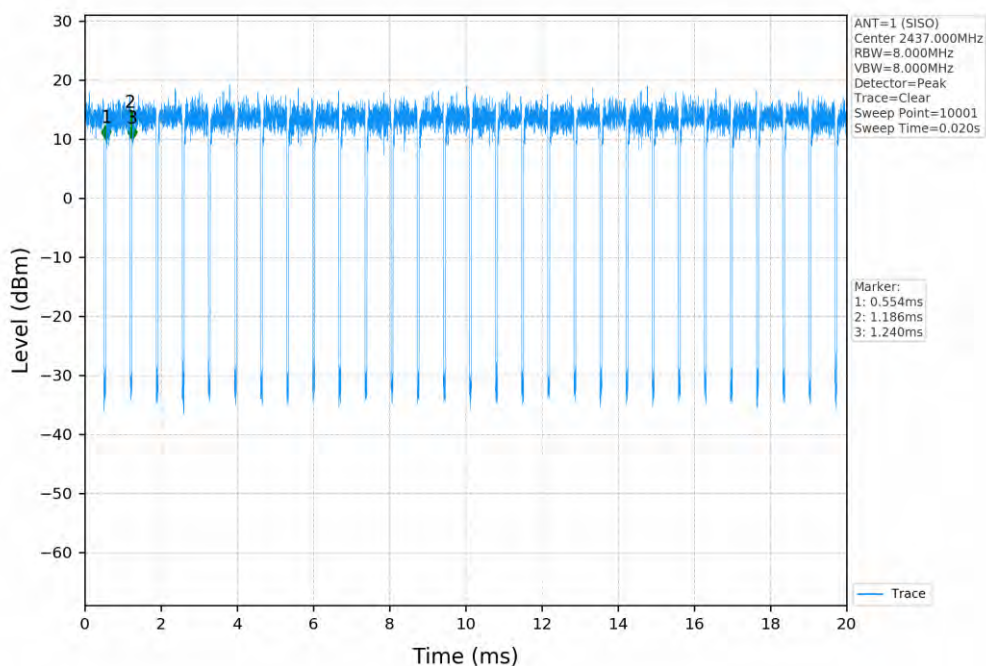
802.11n(HT20) 2462MHz SISO ANT1



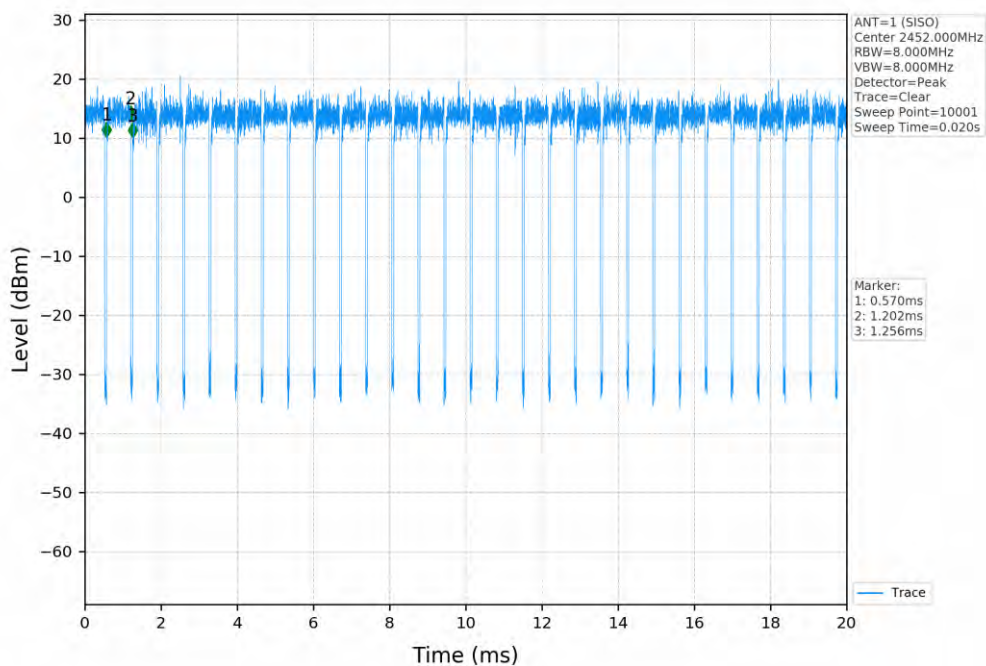
802.11n(HT40) 2422MHz SISO ANT1



802.11n(HT40) 2437MHz SISO ANT1



802.11n(HT40) 2452MHz SISO ANT1





2. Bandwidth

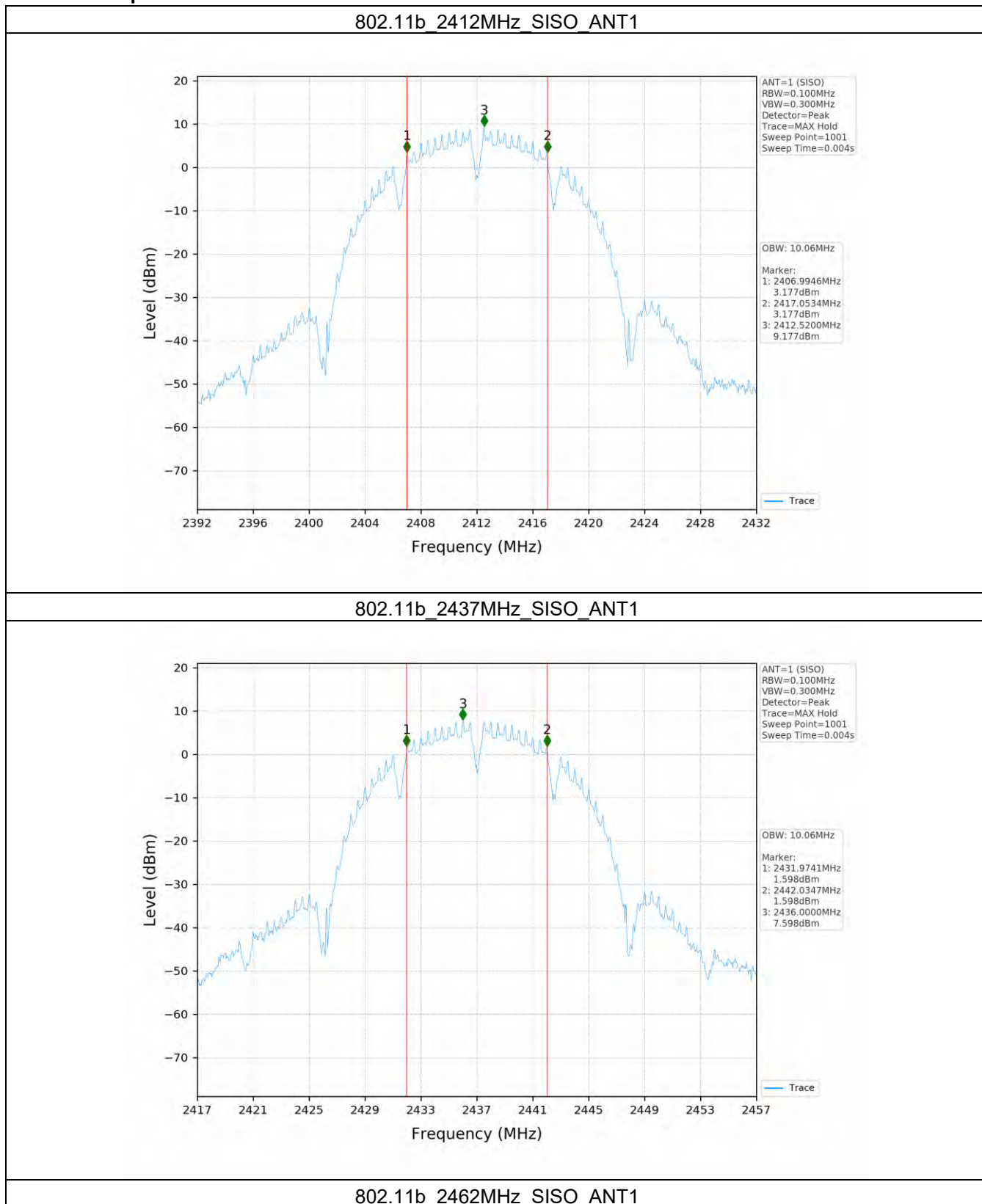
2.1 Test Result

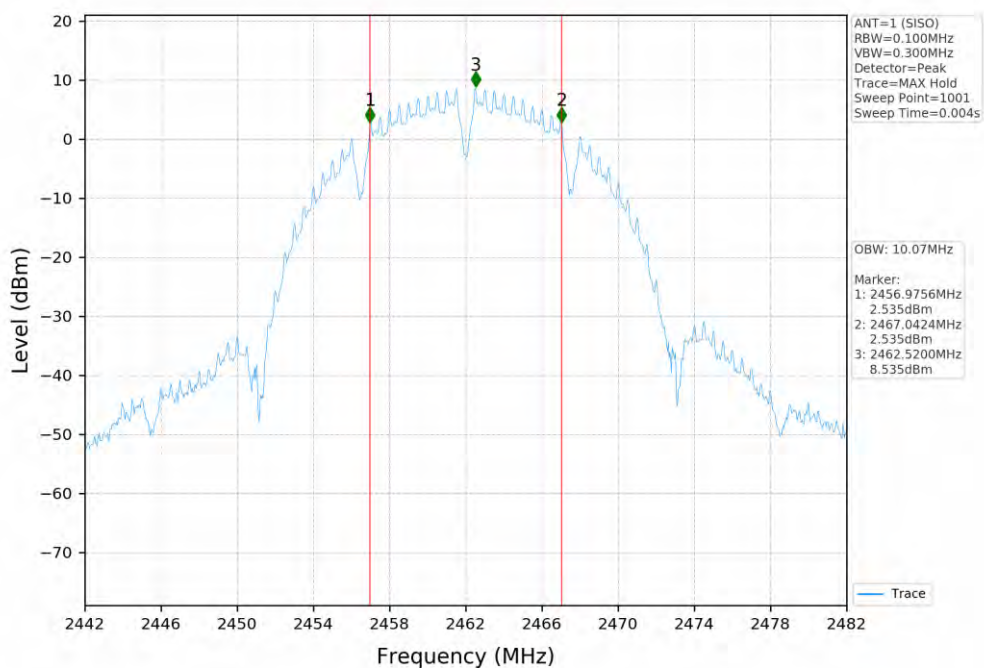
Test Mode	Frequency (MHz)	TX Type	ANT No.	6dB Bandwidth		Verdict
				Test Result (MHz)	Limits (MHz)	
802.11b	2412	SISO	1	10.060	≥0.5	PASS
	2437	SISO	1	10.060	≥0.5	PASS
	2462	SISO	1	10.070	≥0.5	PASS
802.11g	2412	SISO	1	16.390	≥0.5	PASS
	2437	SISO	1	16.390	≥0.5	PASS
	2462	SISO	1	16.410	≥0.5	PASS
802.11n(HT20)	2412	SISO	1	17.380	≥0.5	PASS
	2437	SISO	1	17.590	≥0.5	PASS
	2462	SISO	1	17.340	≥0.5	PASS
802.11n(HT40)	2422	SISO	1	35.150	≥0.5	PASS
	2437	SISO	1	35.390	≥0.5	PASS
	2452	SISO	1	35.160	≥0.5	PASS

Test Mode	Frequency (MHz)	TX Type	ANT No.	99% Occupied Bandwidth	
				Test Result (MHz)	
802.11b	2412	SISO	1	14.960	Only for Report Use
	2437	SISO	1	15.040	Only for Report Use
	2462	SISO	1	14.900	Only for Report Use
802.11g	2412	SISO	1	16.880	Only for Report Use
	2437	SISO	1	16.860	Only for Report Use
	2462	SISO	1	16.860	Only for Report Use
802.11n(HT20)	2412	SISO	1	17.960	Only for Report Use
	2437	SISO	1	17.860	Only for Report Use
	2462	SISO	1	17.900	Only for Report Use
802.11n(HT40)	2422	SISO	1	36.190	Only for Report Use
	2437	SISO	1	36.350	Only for Report Use
	2452	SISO	1	36.310	Only for Report Use

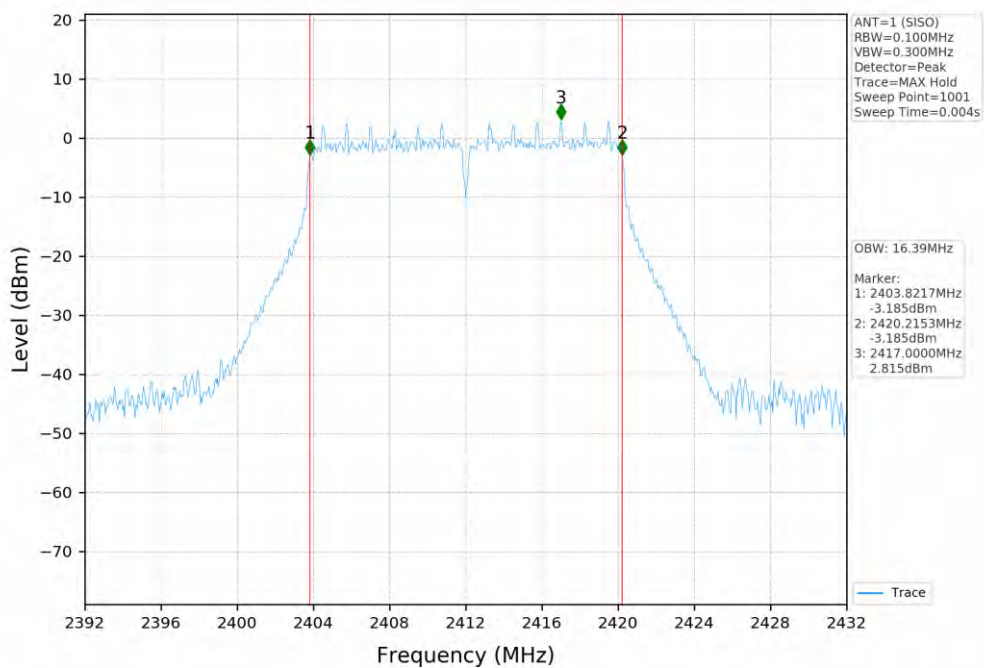


2.2 Test Graph - 6dB Bandwidth

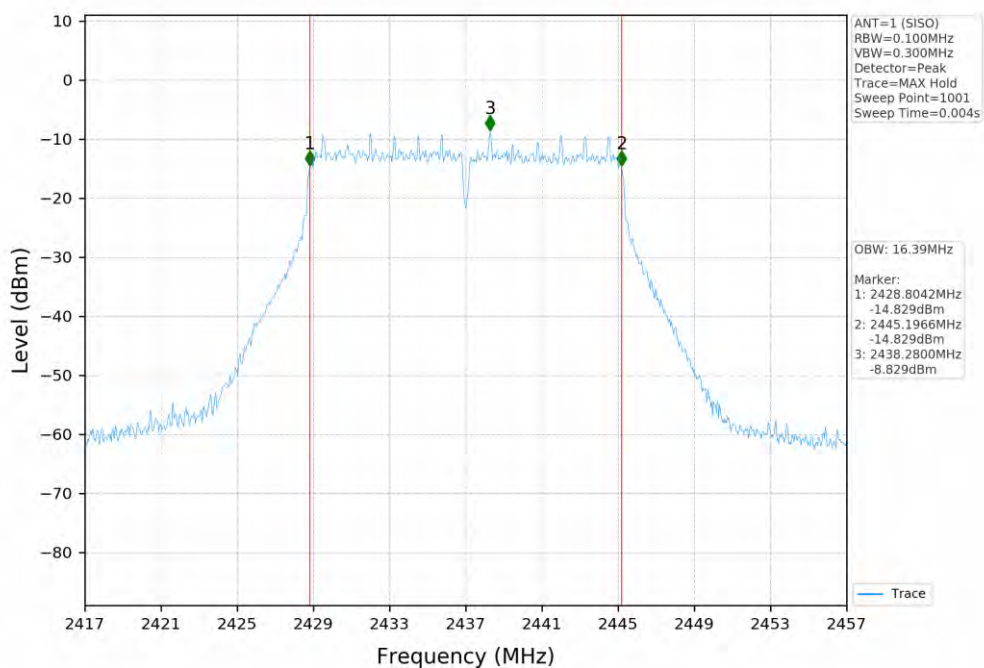




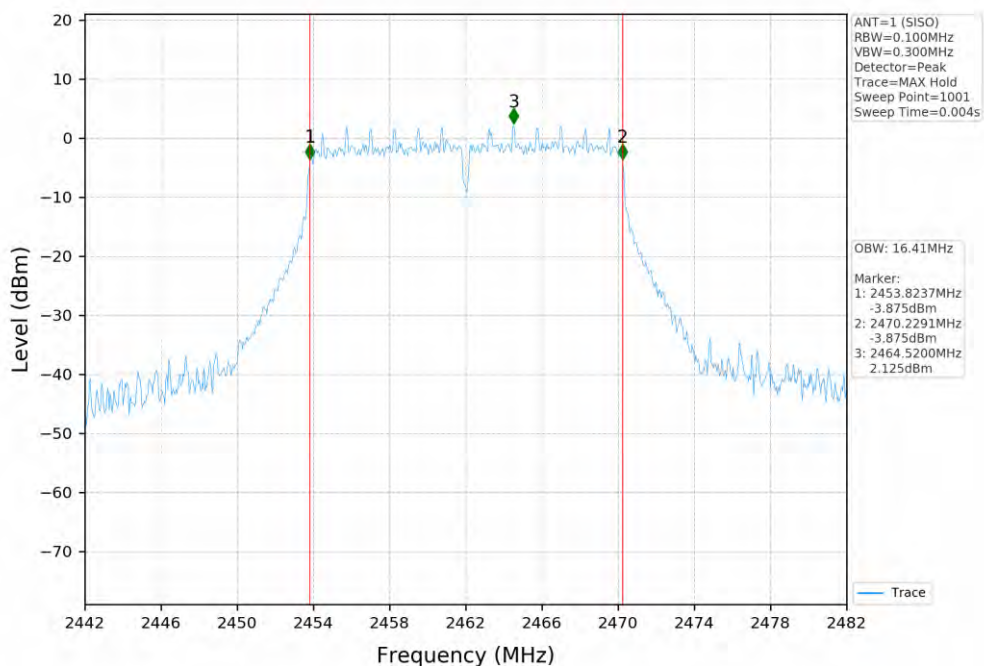
802.11g_2412MHz_SISO_ANT1



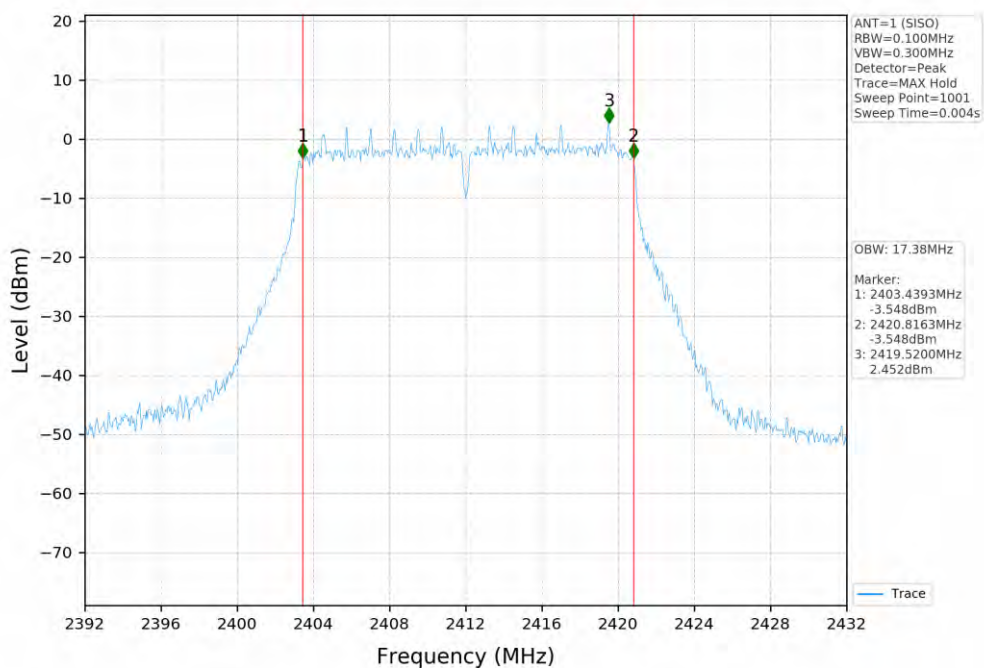
802.11g_2437MHz_SISO_ANT1



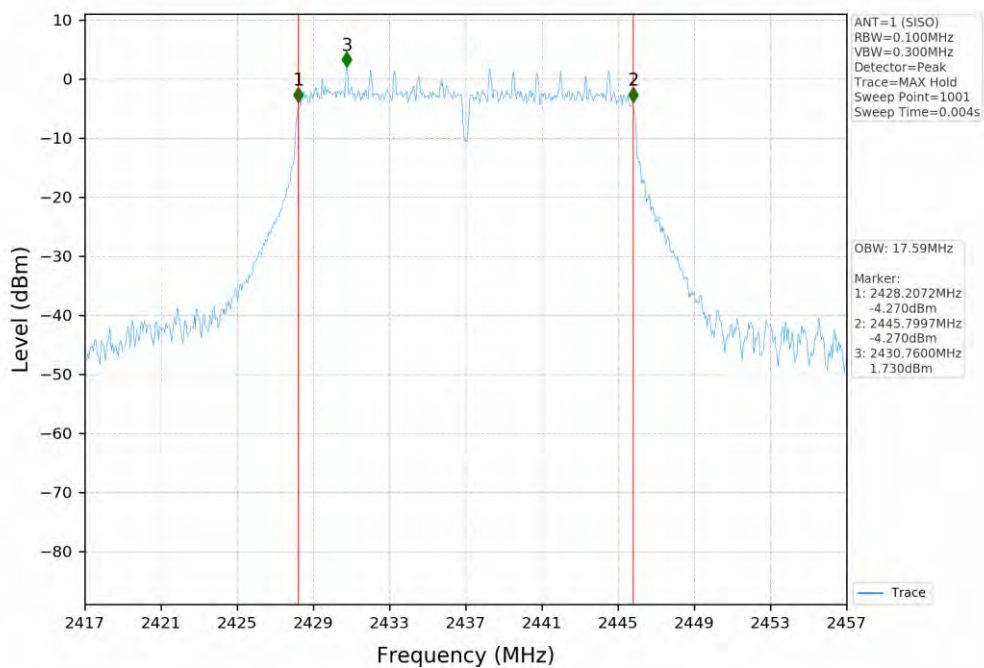
802.11g_2462MHz_SISO_ANT1



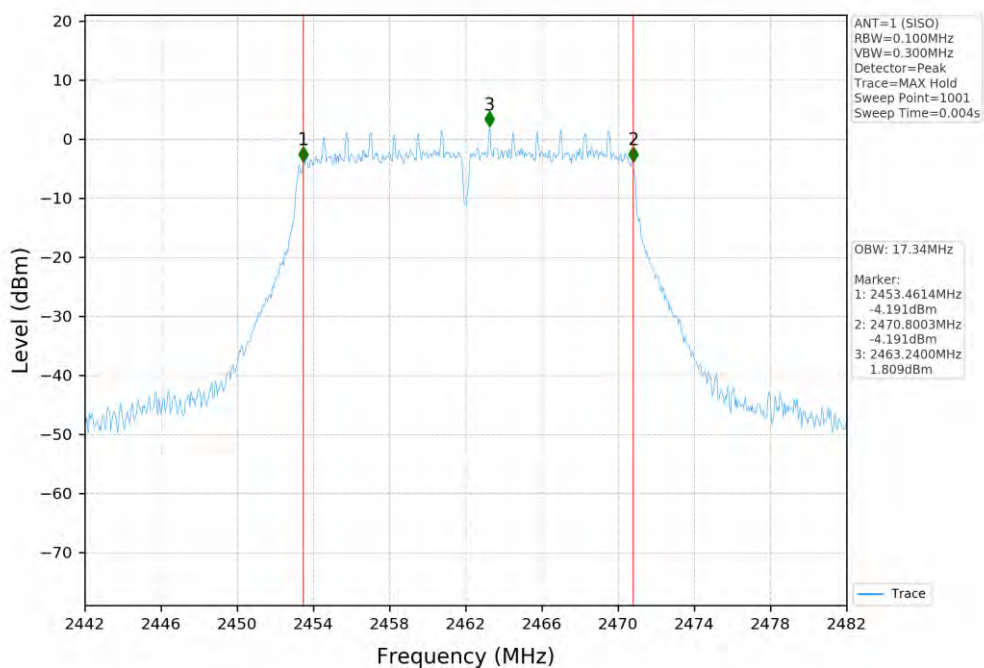
802.11n(HT20)_2412MHz_SISO_ANT1



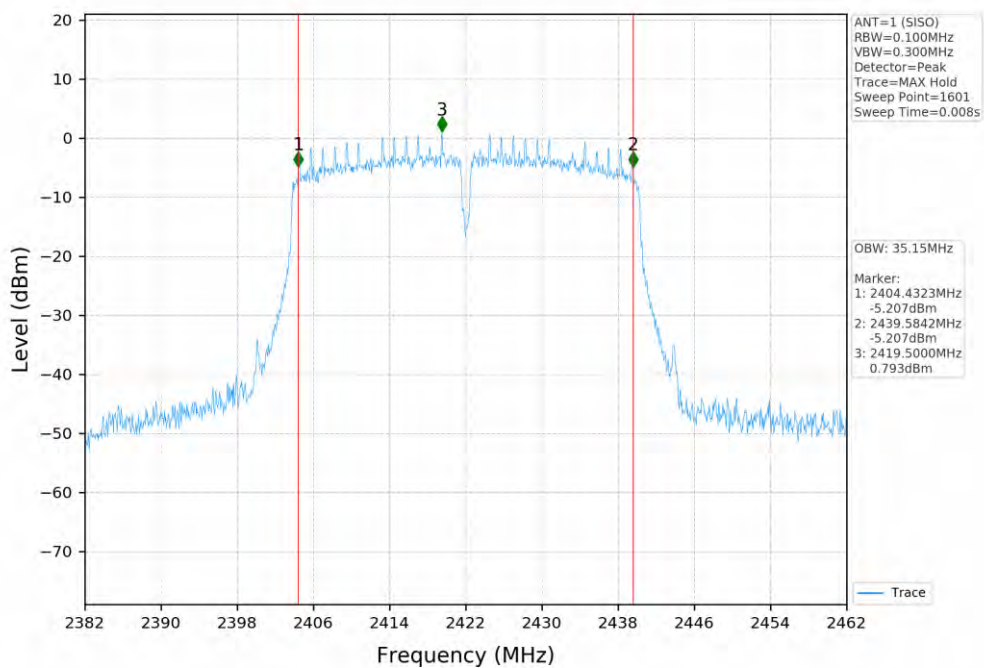
802.11n(HT20) 2437MHz SISO ANT1



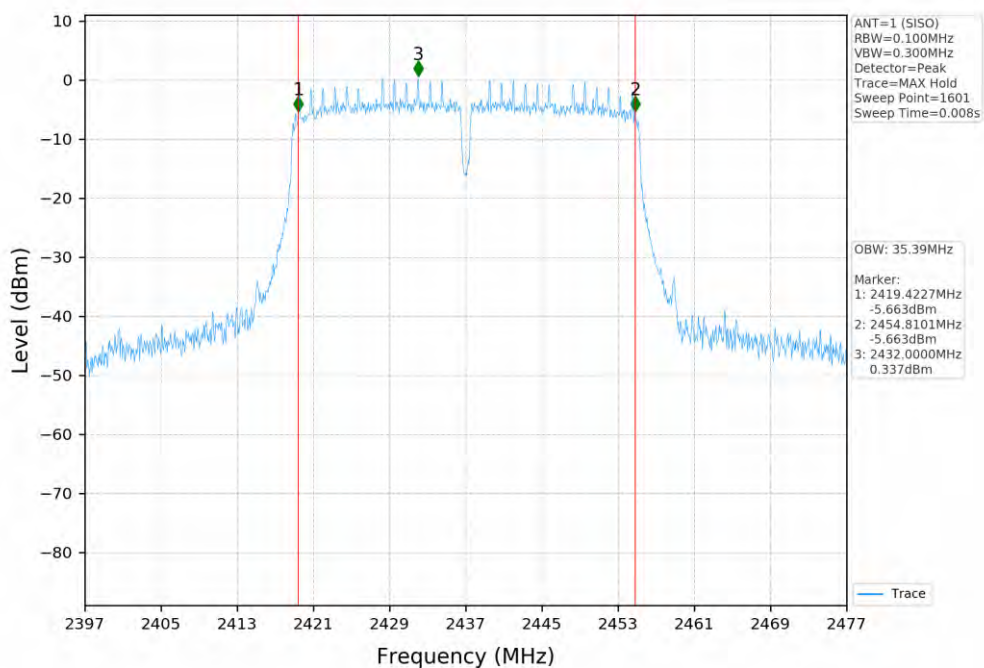
802.11n(HT20) 2462MHz SISO ANT1



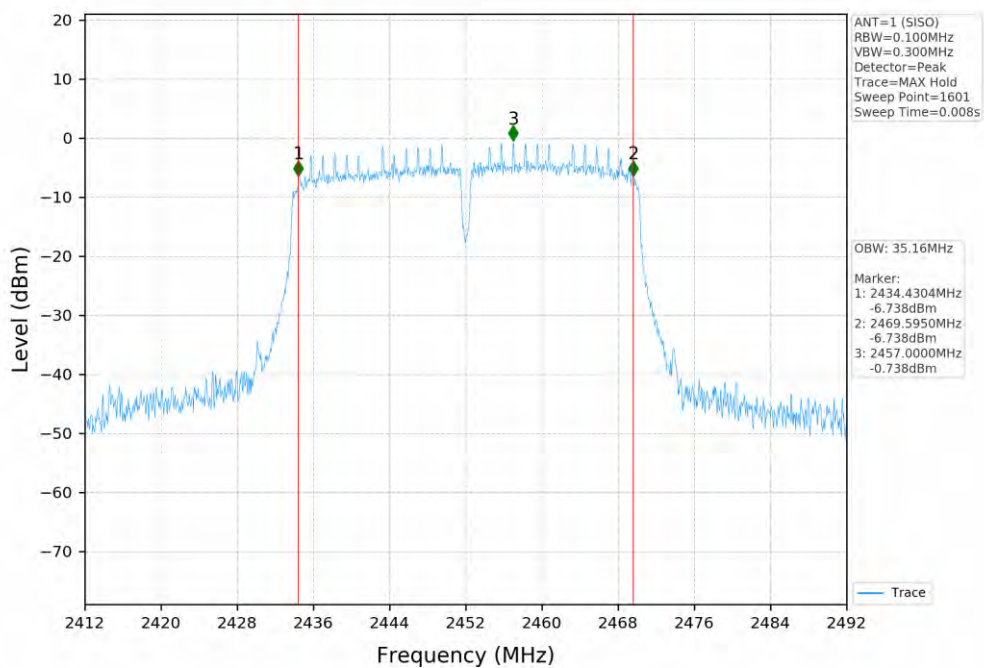
802.11n(HT40) 2422MHz SISO ANT1



802.11n(HT40) 2437MHz SISO ANT1

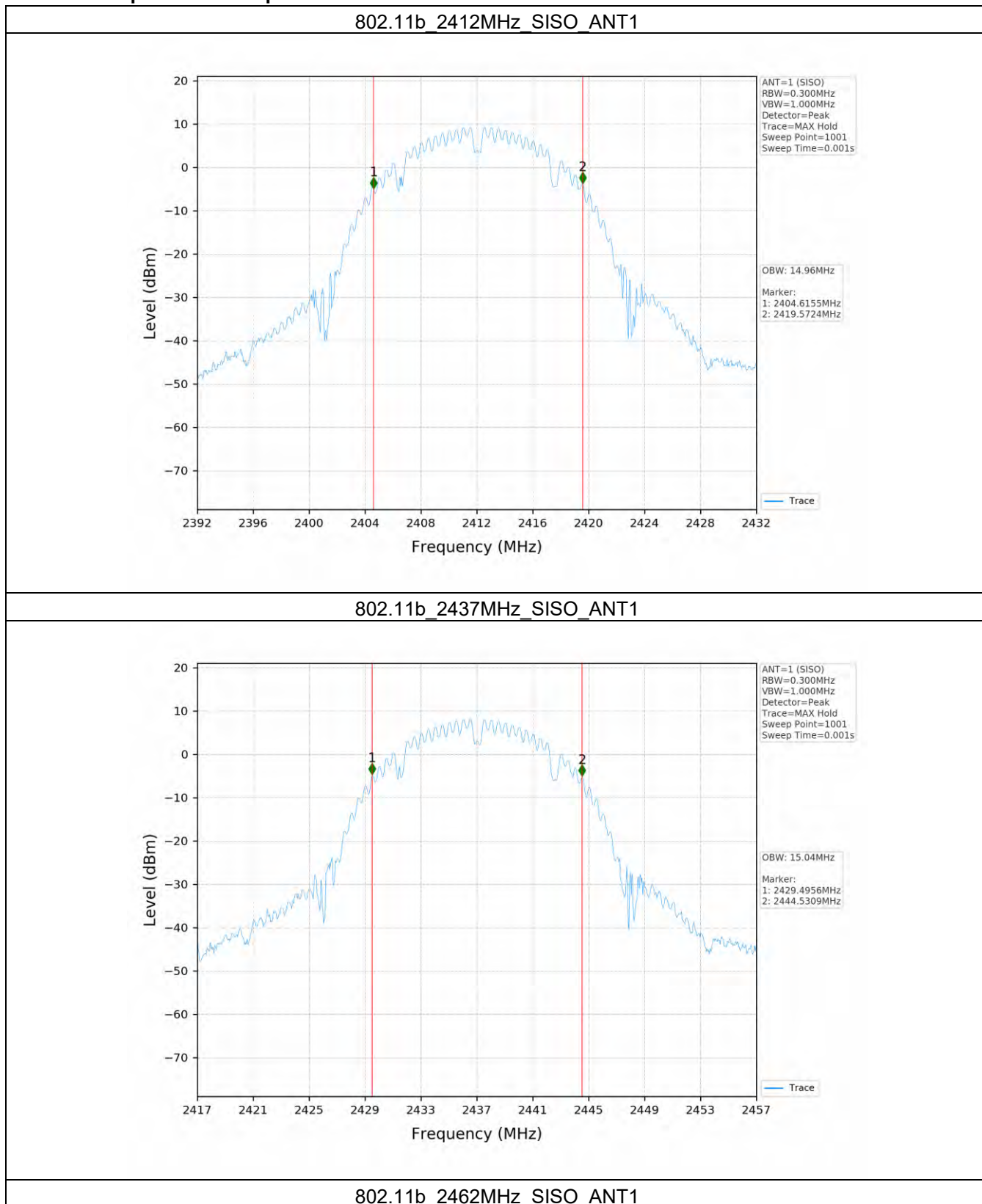


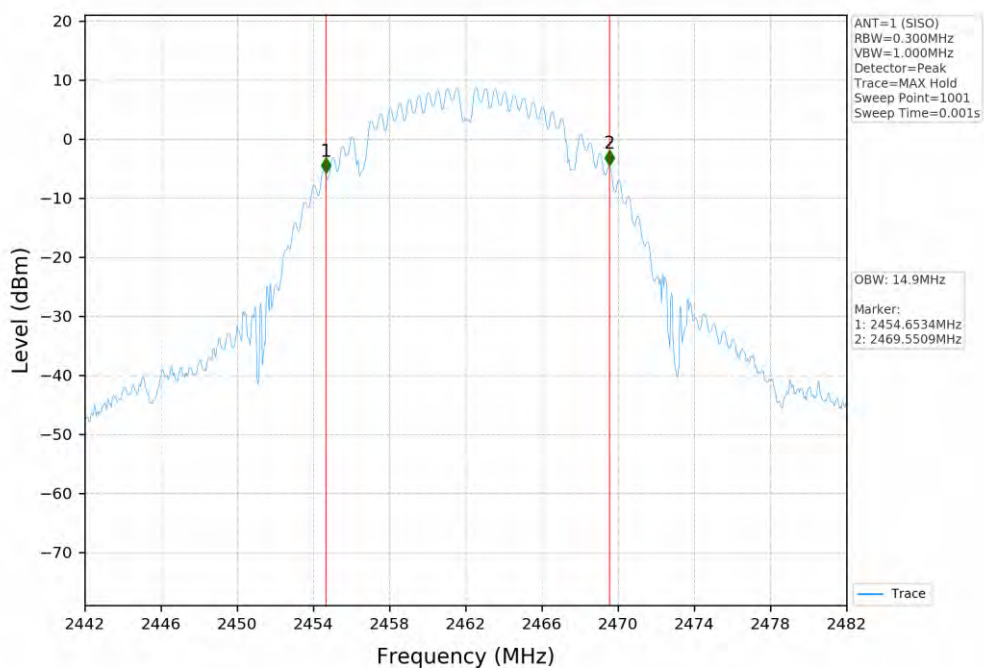
802.11n(HT40) 2452MHz SISO ANT1



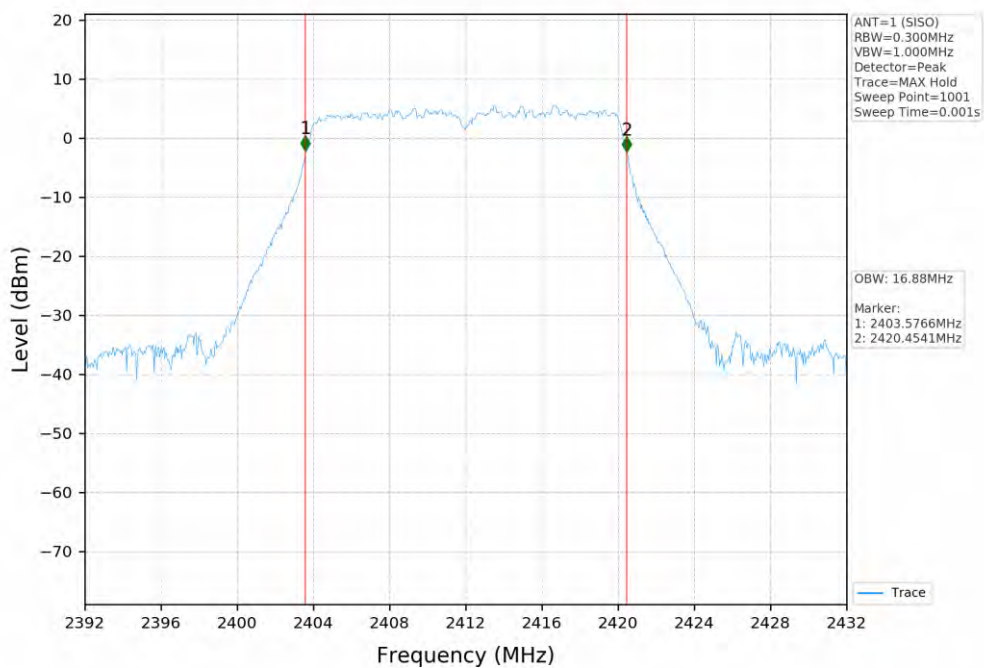


2.3 Test Graph - 99% Occupied Bandwidth

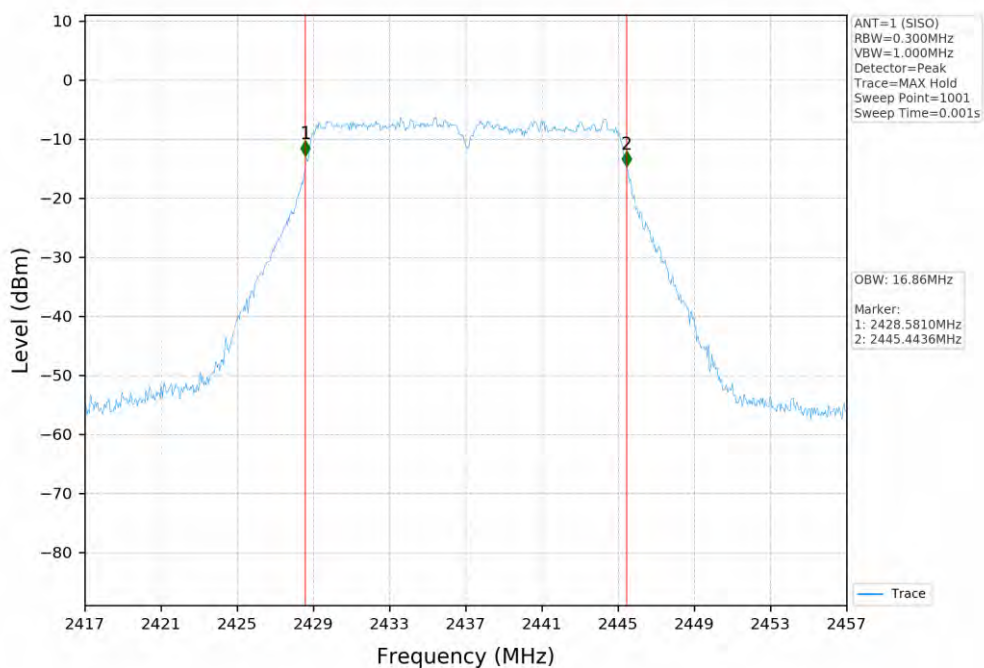




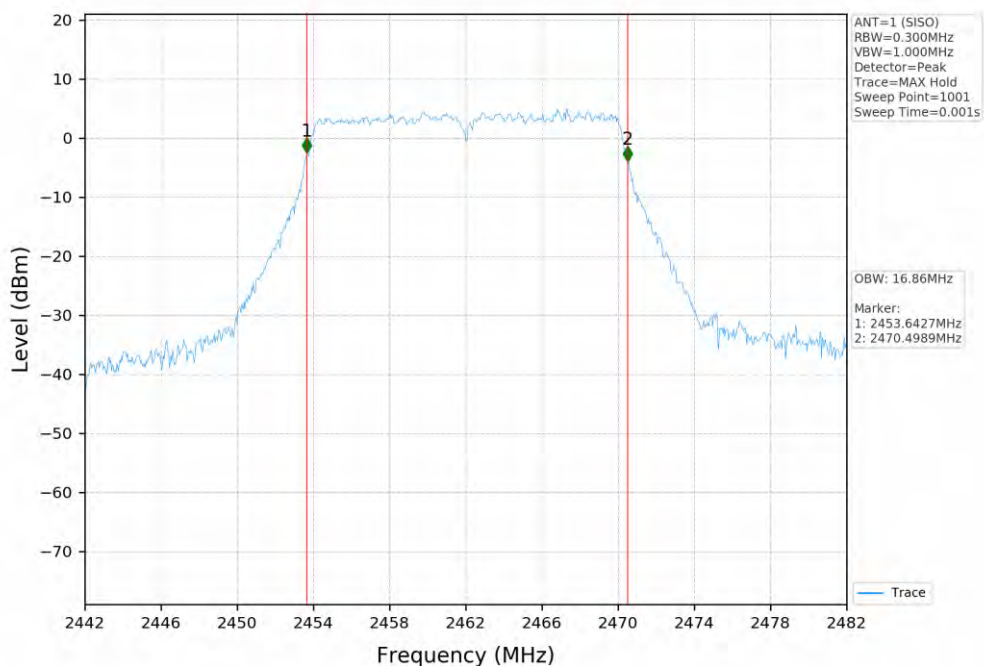
802.11g_2412MHz_SISO_ANT1



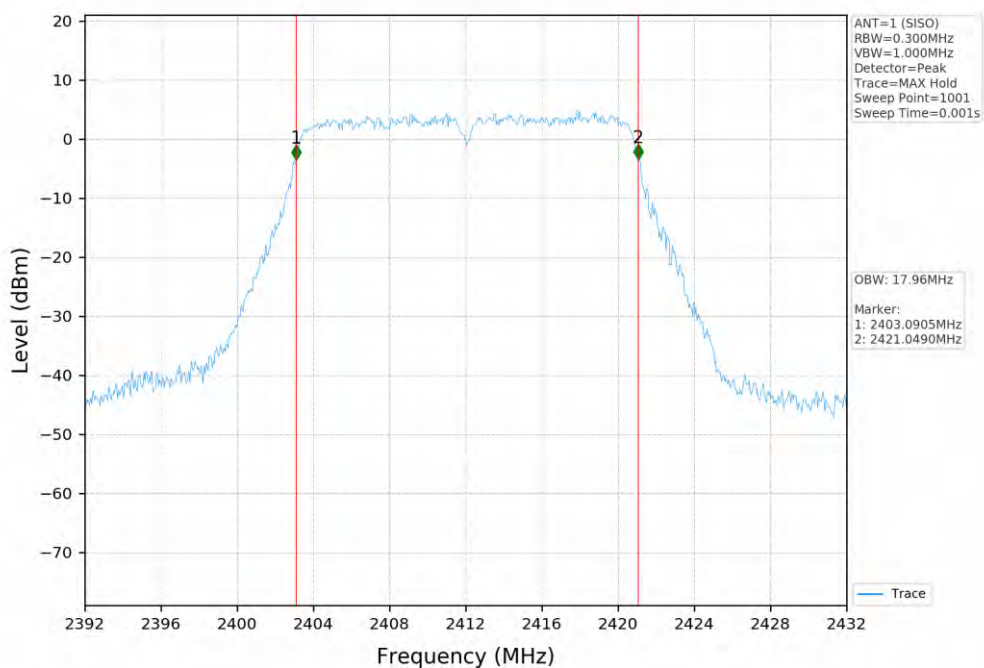
802.11g_2437MHz_SISO_ANT1



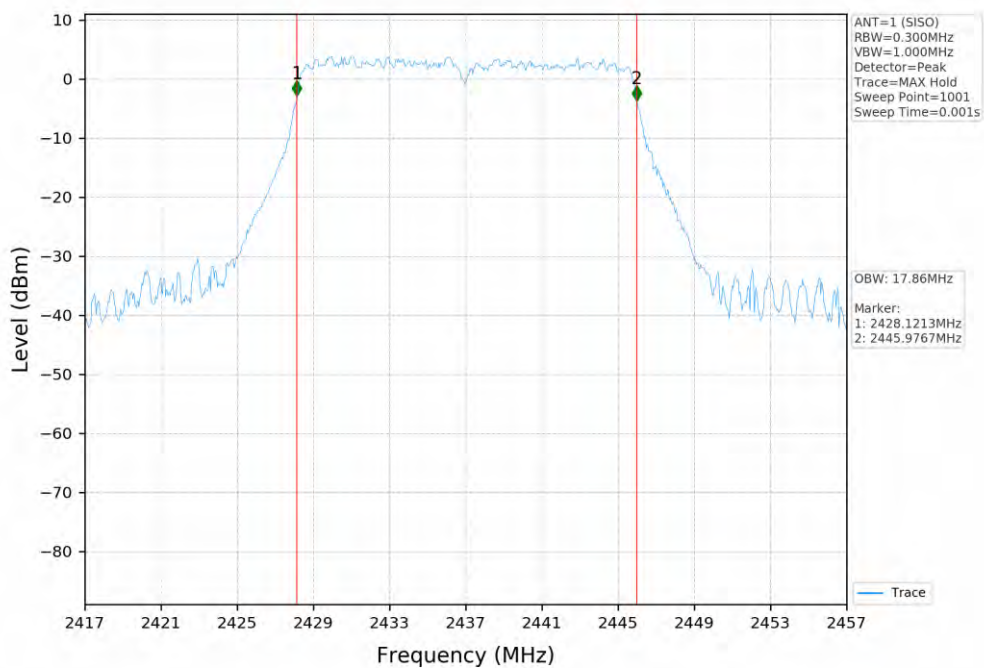
802.11g_2462MHz_SISO_ANT1



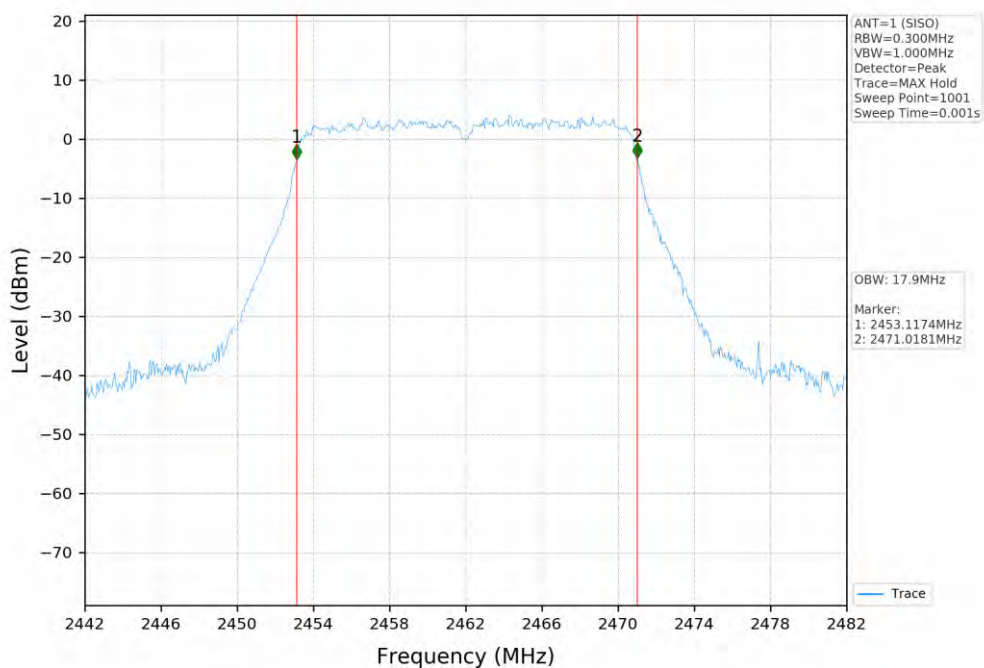
802.11n(HT20)_2412MHz_SISO_ANT1



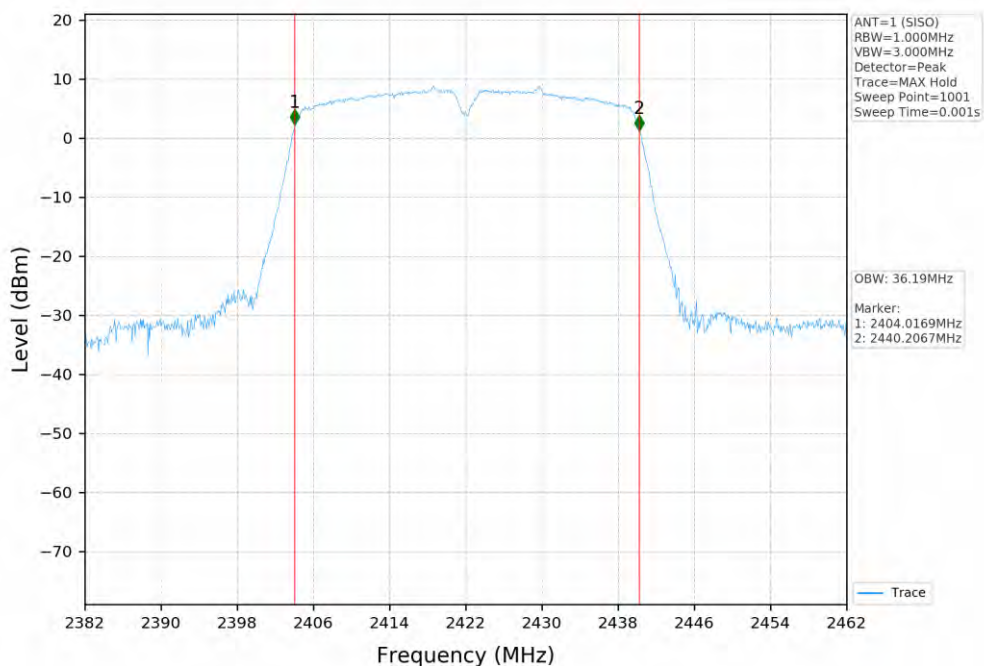
802.11n(HT20) 2437MHz SISO ANT1



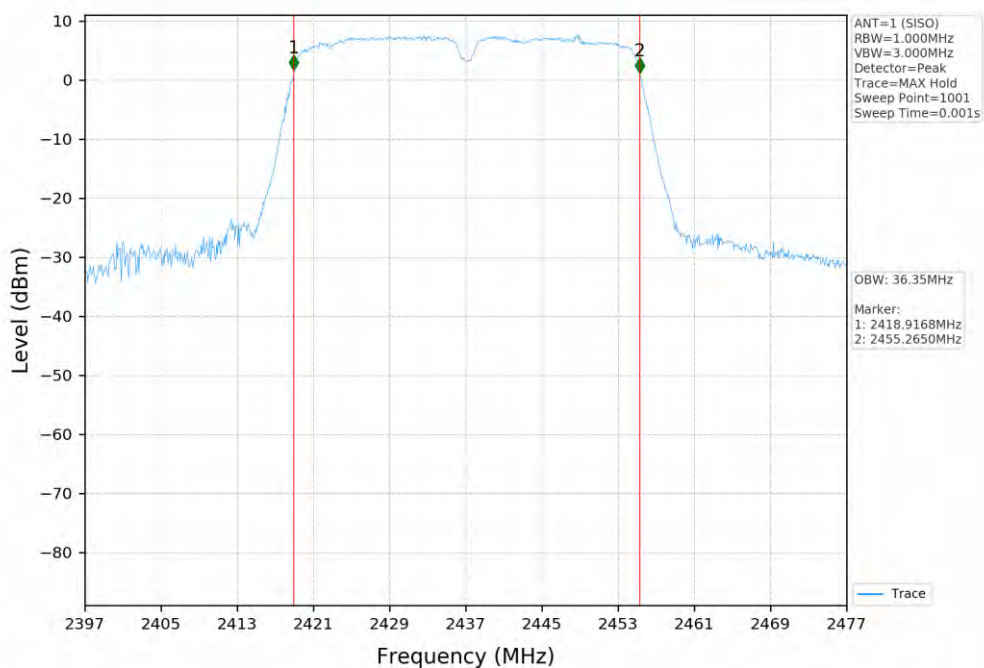
802.11n(HT20) 2462MHz SISO ANT1



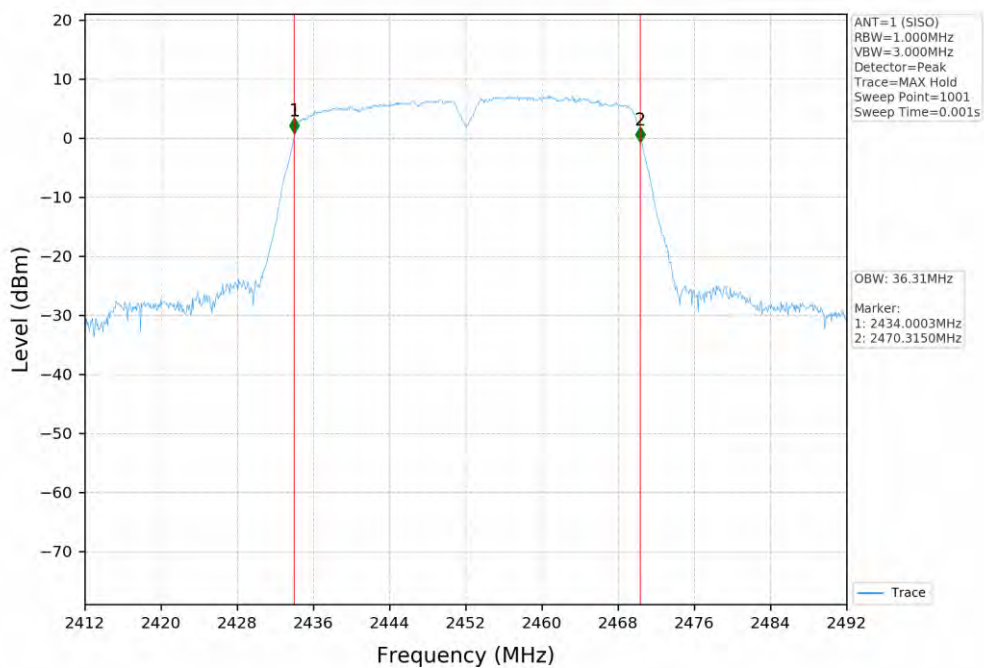
802.11n(HT40) 2422MHz SISO ANT1



802.11n(HT40) 2437MHz SISO ANT1



802.11n(HT40) 2452MHz SISO ANT1





3. Maximum Conducted Output Power

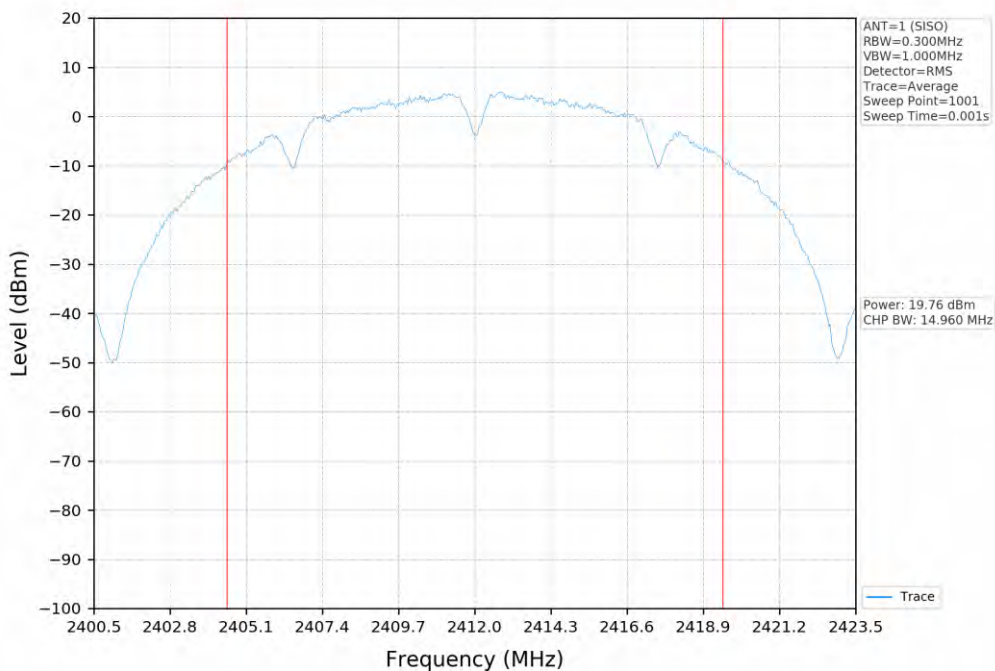
3.1 Test Result

Test Mode	Frequency (MHz)	Tx Type	Duty Cycle Correction Factor (dB)	Level (dBm)	Maximum Conducted Output Power (dBm)	Limits (dBm)	Verdict
			Ant 1	Ant 1	Ant 1		
802.11b	2412	SISO	0.03	19.76	19.79	≤30	PASS
	2437	SISO	0.03	18.57	18.60	≤30	PASS
	2462	SISO	0.03	19.16	19.19	≤30	PASS
802.11g	2412	SISO	0.17	14.03	14.20	≤30	PASS
	2437	SISO	0.17	14.46	14.63	≤30	PASS
	2462	SISO	0.17	13.42	13.59	≤30	PASS
802.11n(HT20)	2412	SISO	0.18	13.53	13.71	≤30	PASS
	2437	SISO	0.18	12.73	12.91	≤30	PASS
	2462	SISO	0.18	12.78	12.96	≤30	PASS
802.11n(HT40)	2422	SISO	0.36	14.20	14.56	≤30	PASS
	2437	SISO	0.36	13.84	14.20	≤30	PASS
	2452	SISO	0.36	13.03	13.39	≤30	PASS

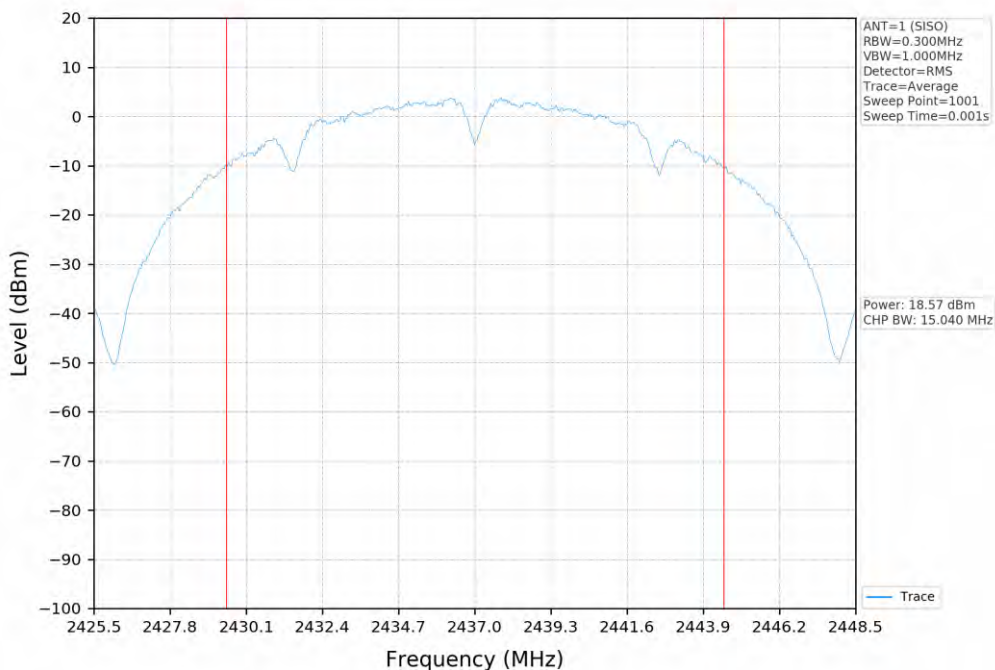


3.2 Test Graph

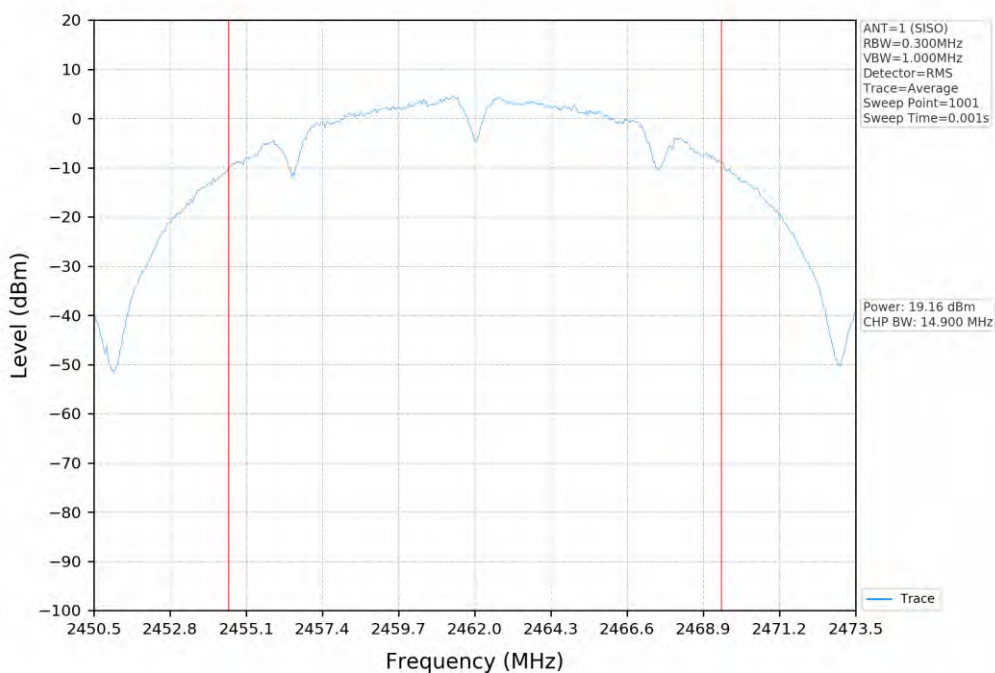
802.11b_2412MHz_SISO_ANT1



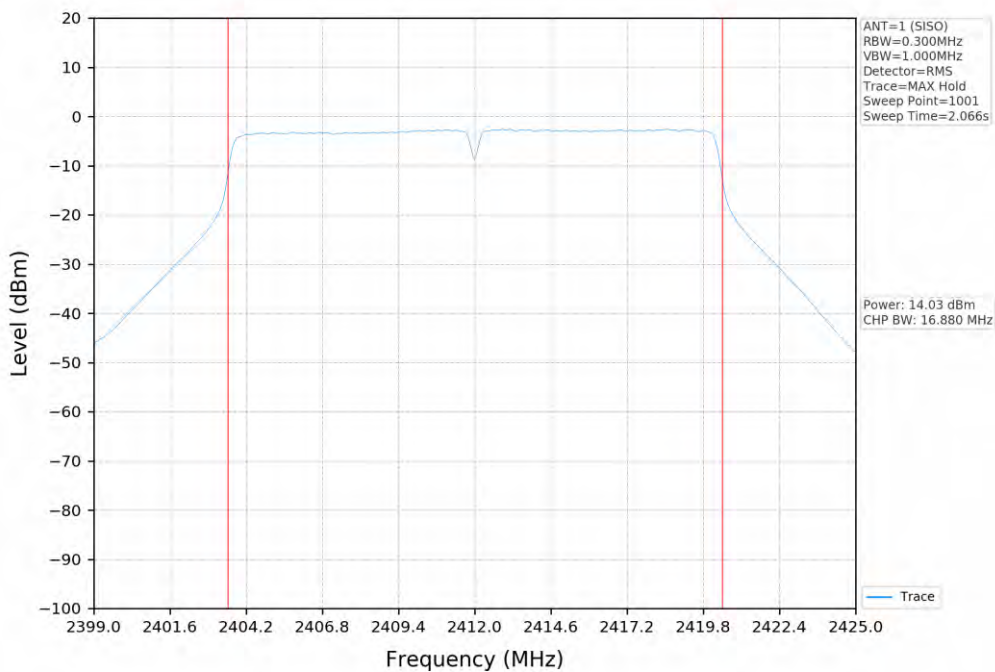
802.11b_2437MHz_SISO_ANT1



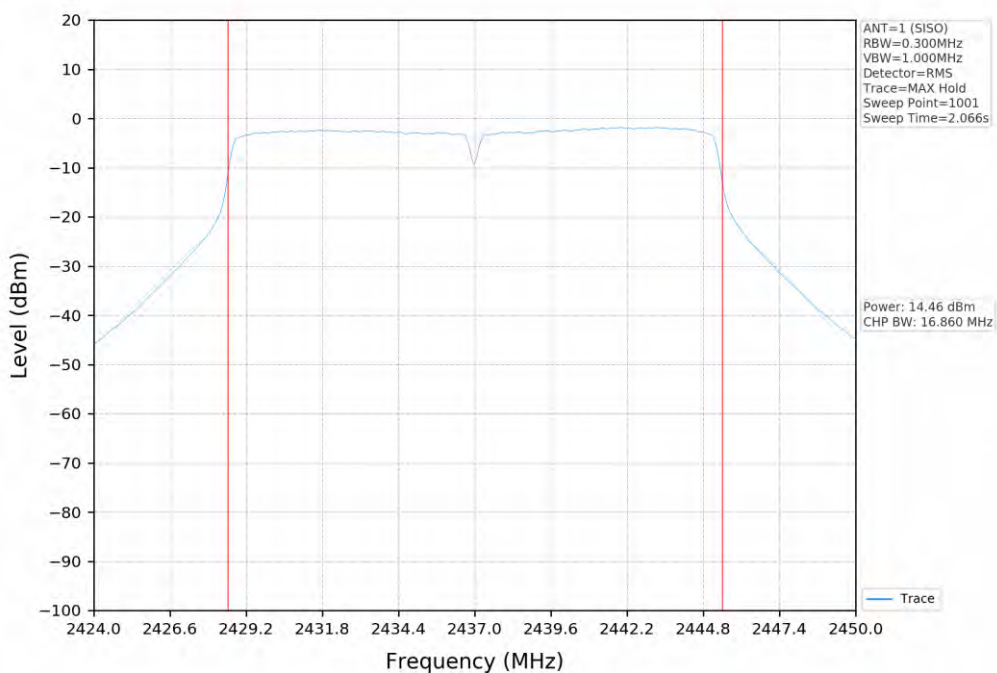
802.11b_2462MHz_SISO_ANT1



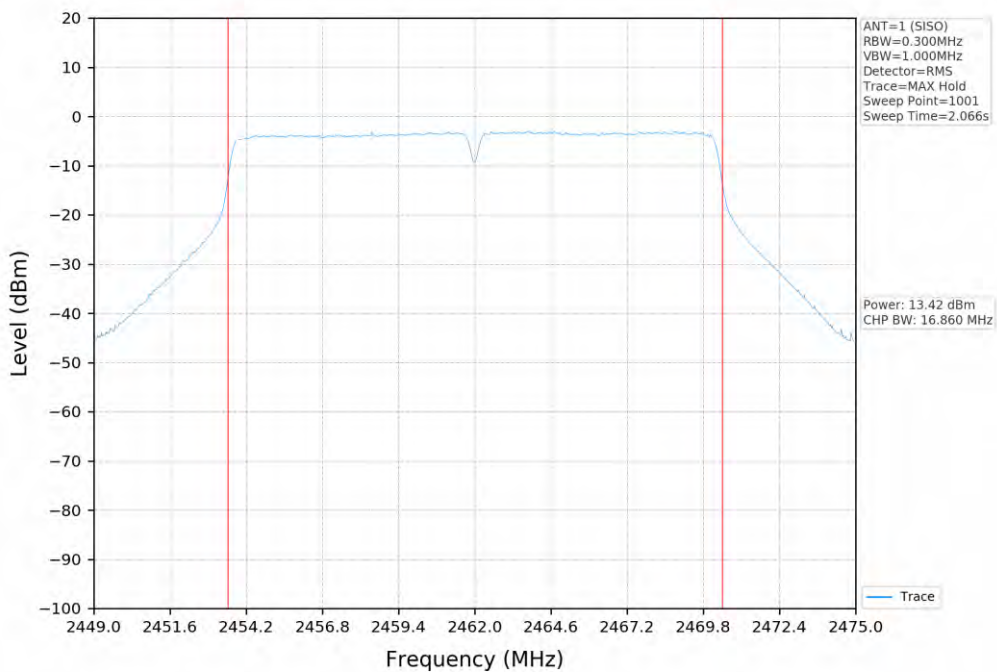
802.11g_2412MHz_SISO_ANT1



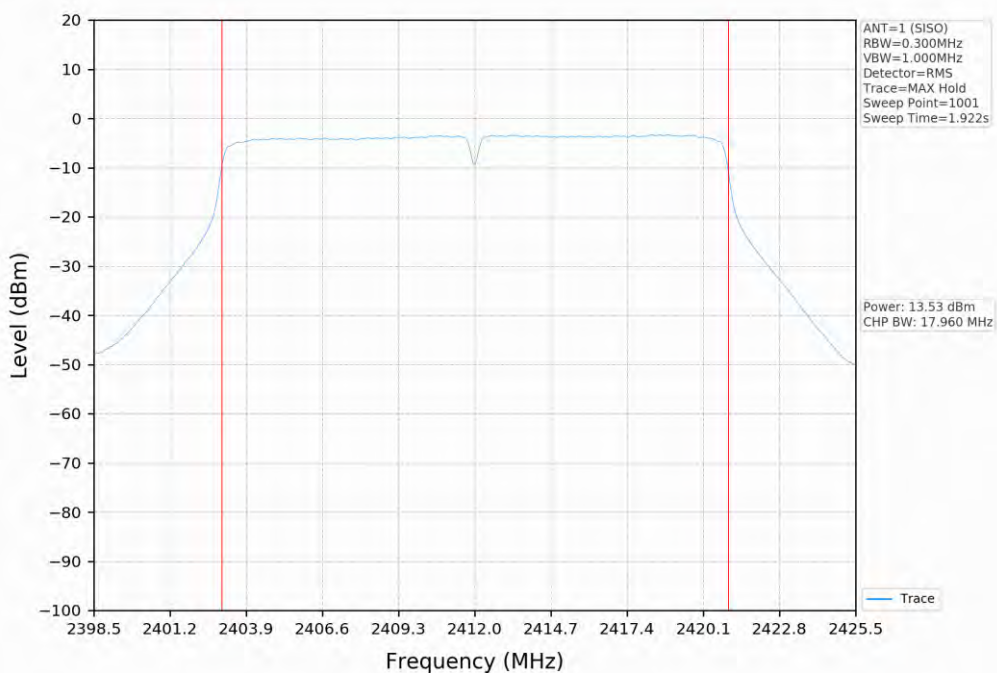
802.11g_2437MHz_SISO_ANT1



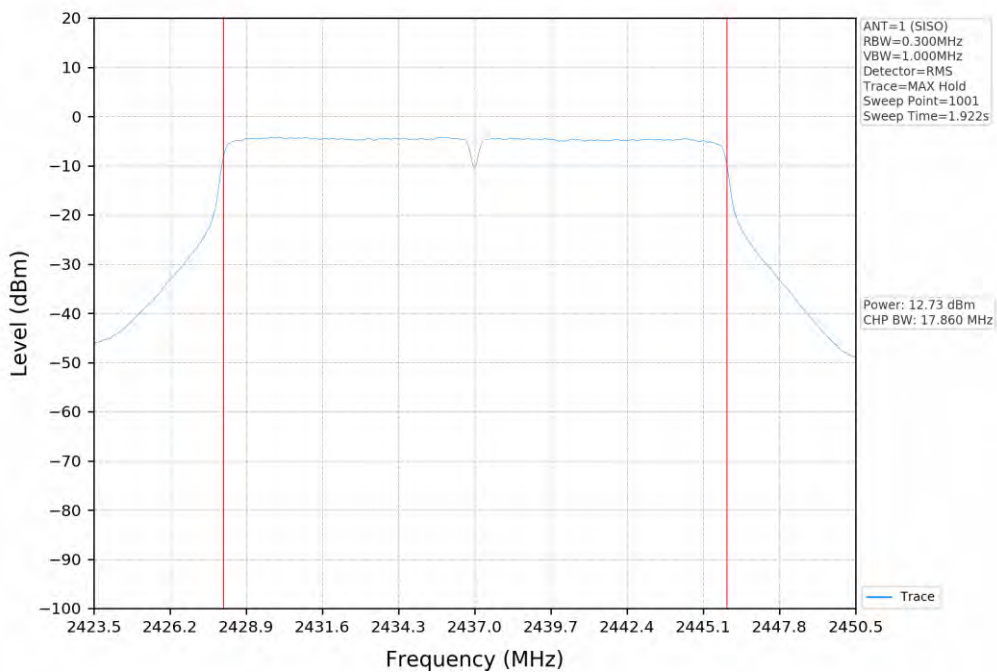
802.11g_2462MHz_SISO_ANT1



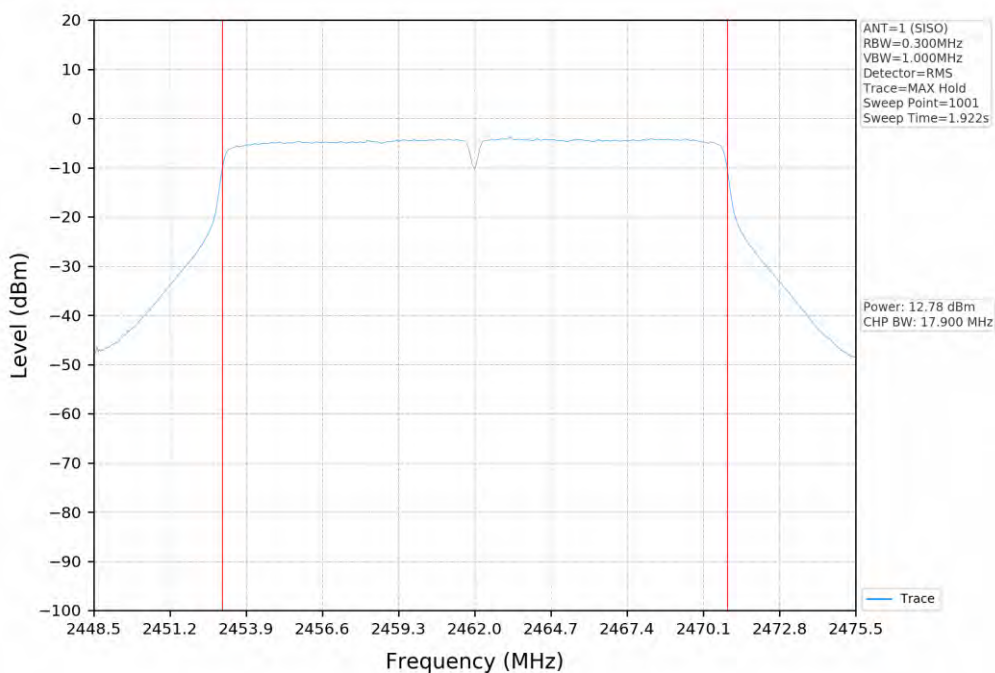
802.11n(HT20)_2412MHz_SISO_ANT1



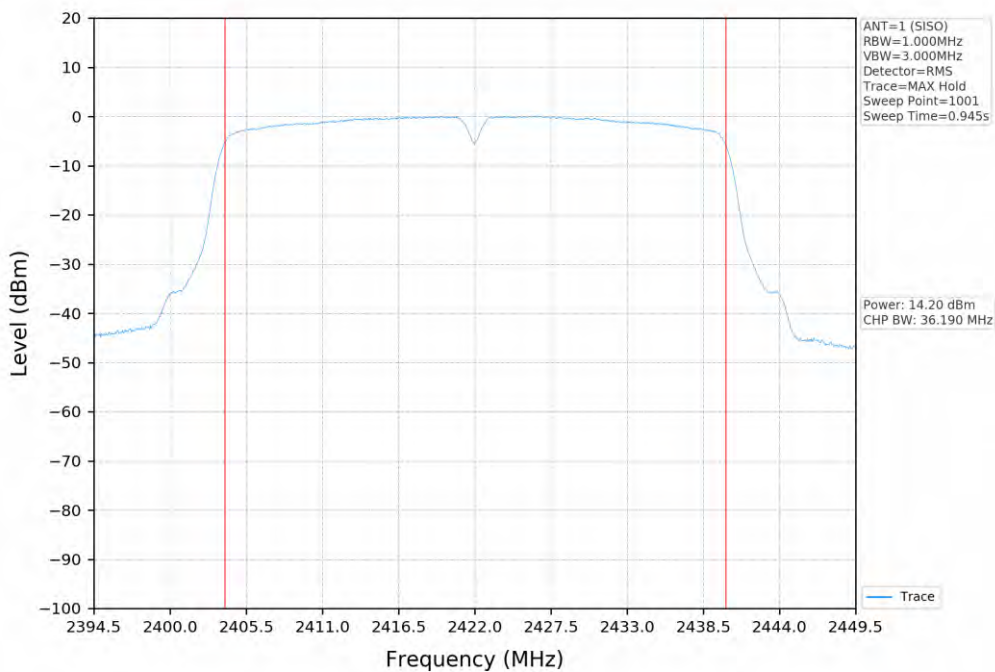
802.11n(HT20) 2437MHz SISO ANT1



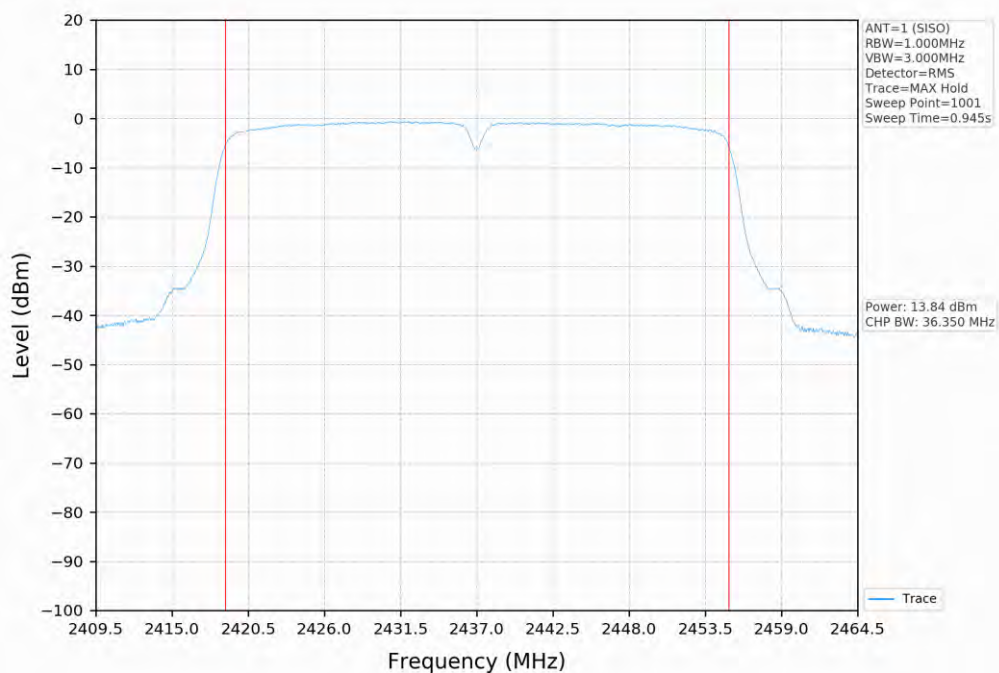
802.11n(HT20) 2462MHz SISO ANT1



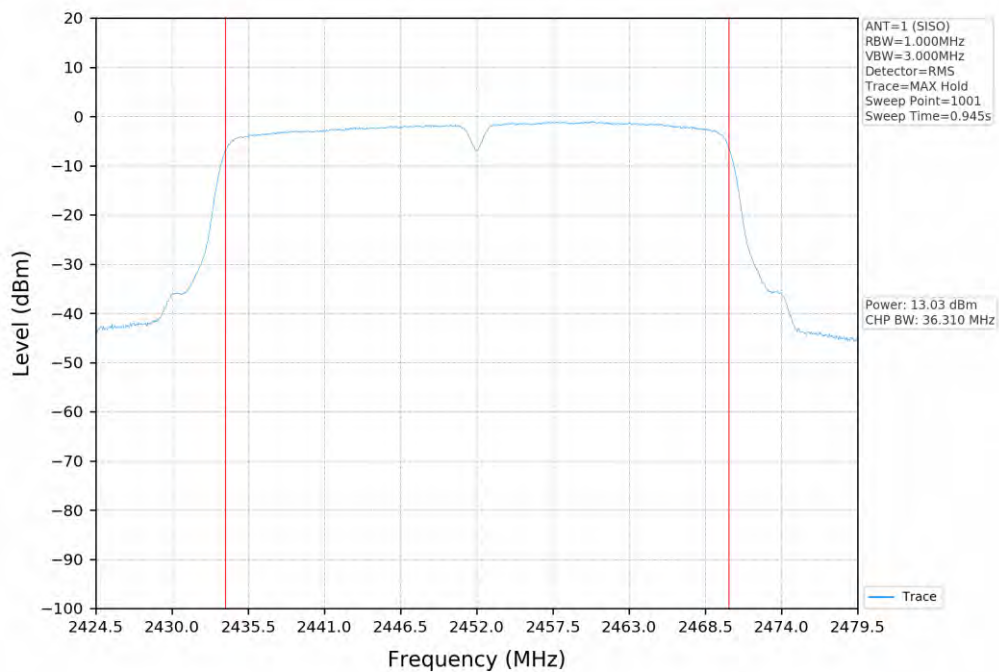
802.11n(HT40) 2422MHz SISO ANT1



802.11n(HT40) 2437MHz SISO ANT1



802.11n(HT40) 2452MHz SISO ANT1





4. Maximum Power Spectral Density (PSD)

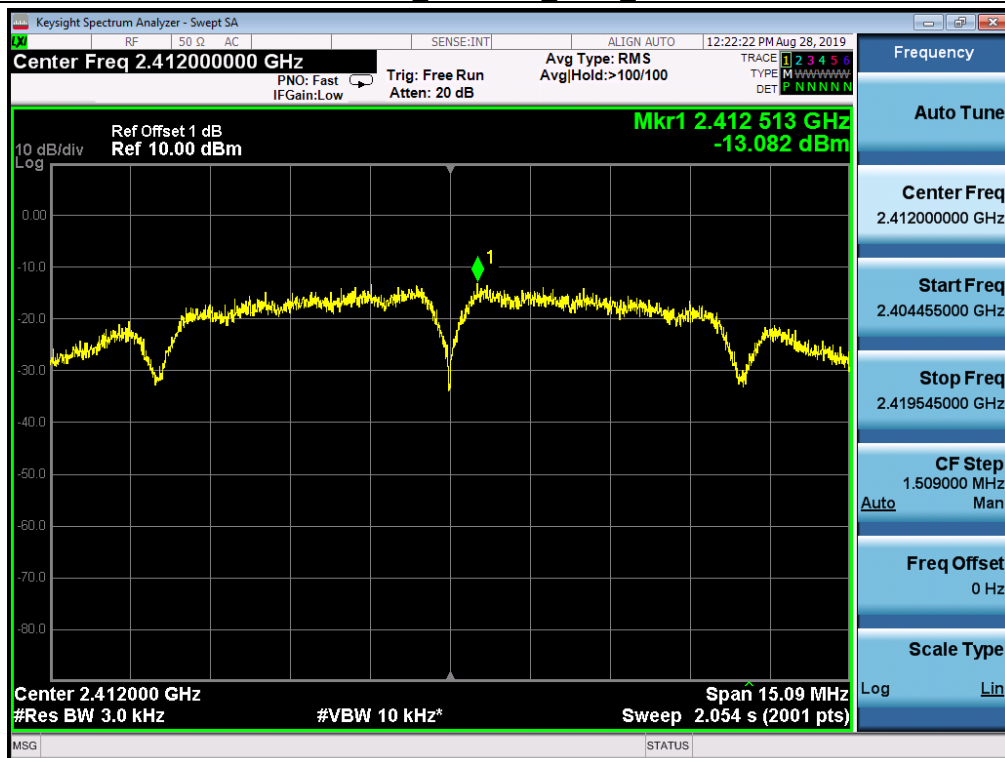
4.1 Test Result

Test Mode	Frequency (MHz)	Tx Type	Duty Cycle Correction Factor (dB)	Level (dBm/3K Hz)	Maximum Power Spectral Density (dBm/3K Hz)	Limits (dBm/3k Hz)	Verdict
			Ant 1	Ant 1	Ant 1		
802.11b	2412	SISO	0.03	-13.082	-13.052	≤8	PASS
	2437	SISO	0.03	-12.855	-12.825	≤8	PASS
	2462	SISO	0.03	-13.096	-13.066	≤8	PASS
802.11g	2412	SISO	0.17	-17.622	-17.452	≤8	PASS
	2437	SISO	0.17	-19.253	-19.083	≤8	PASS
	2462	SISO	0.17	-17.947	-17.777	≤8	PASS
802.11n(HT20)	2412	SISO	0.18	-17.004	-16.824	≤8	PASS
	2437	SISO	0.18	-17.273	-17.093	≤8	PASS
	2462	SISO	0.18	-18.406	-18.226	≤8	PASS
802.11n(HT40)	2422	SISO	0.36	-22.116	-21.756	≤8	PASS
	2437	SISO	0.36	-21.800	-21.440	≤8	PASS
	2452	SISO	0.36	-18.406	-18.046	≤8	PASS

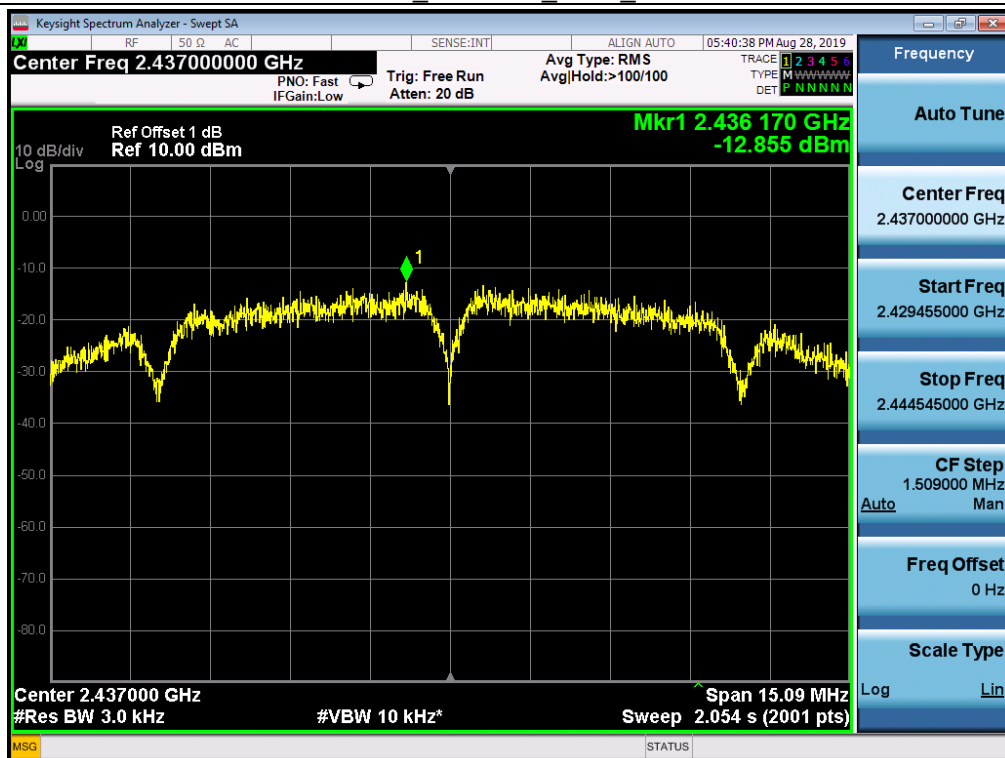


4.2 Test Graph

802.11b 2412MHz SISO ANT1



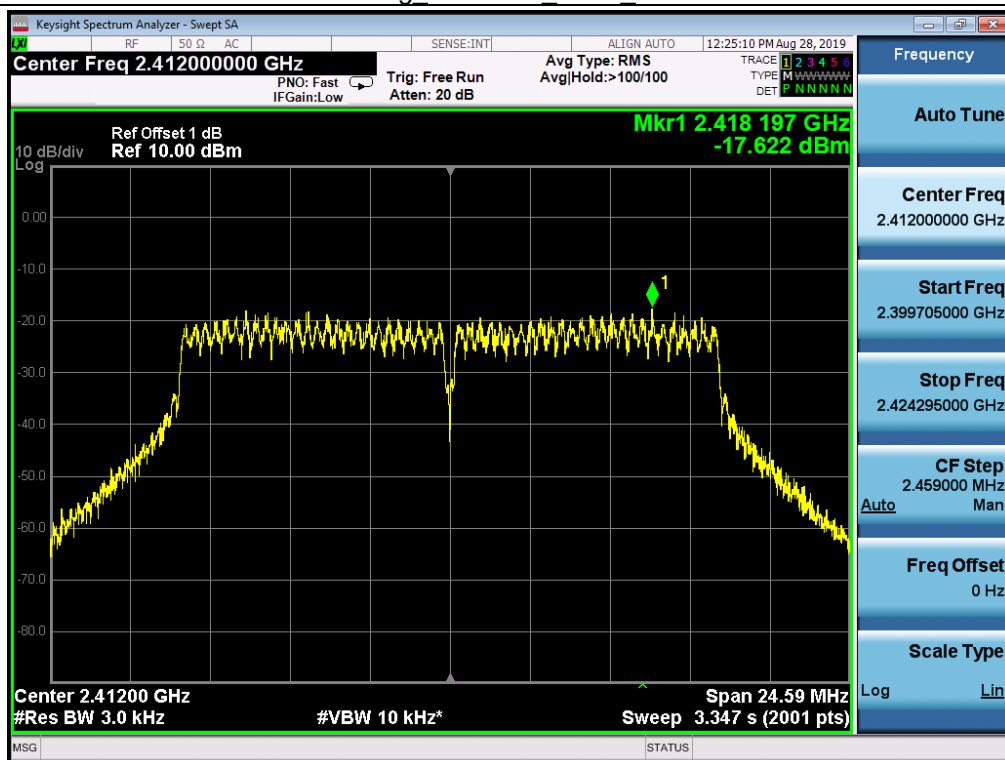
802.11b 2437MHz SISO ANT1



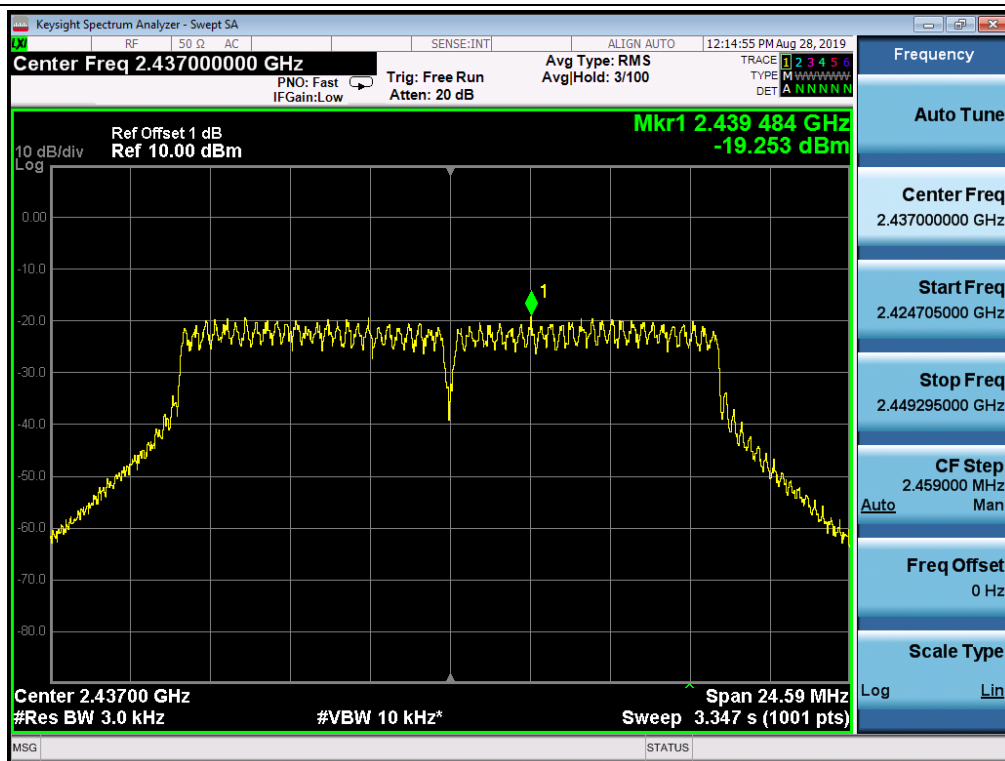
802.11b 2462MHz SISO ANT1



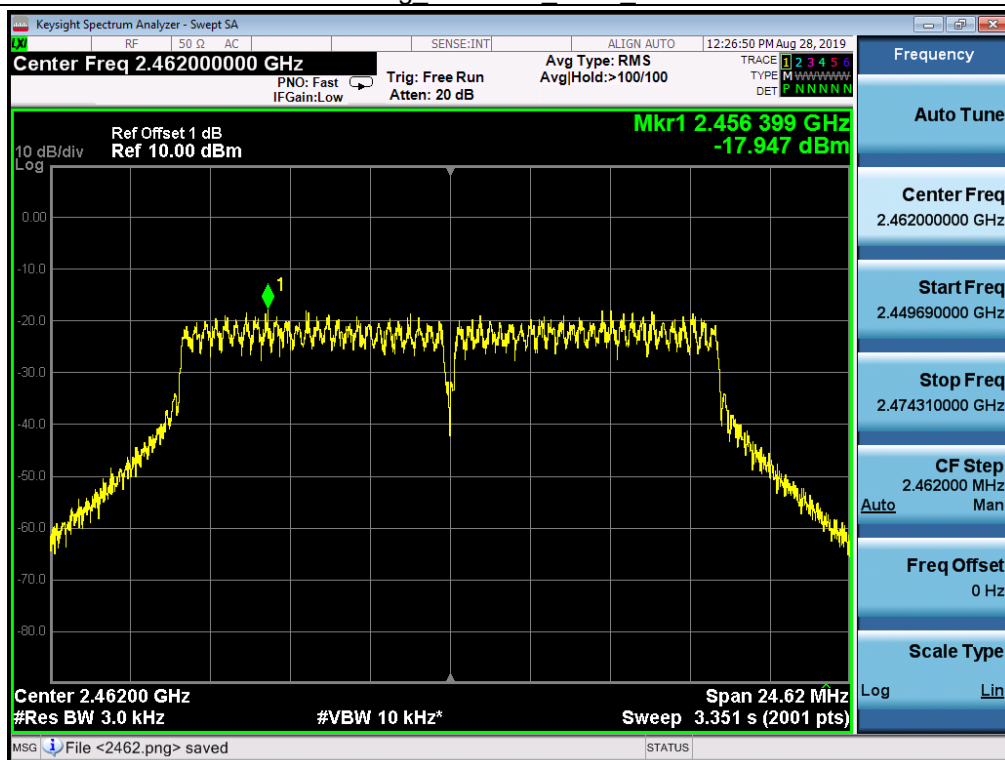
802.11g 2412MHz SISO ANT1



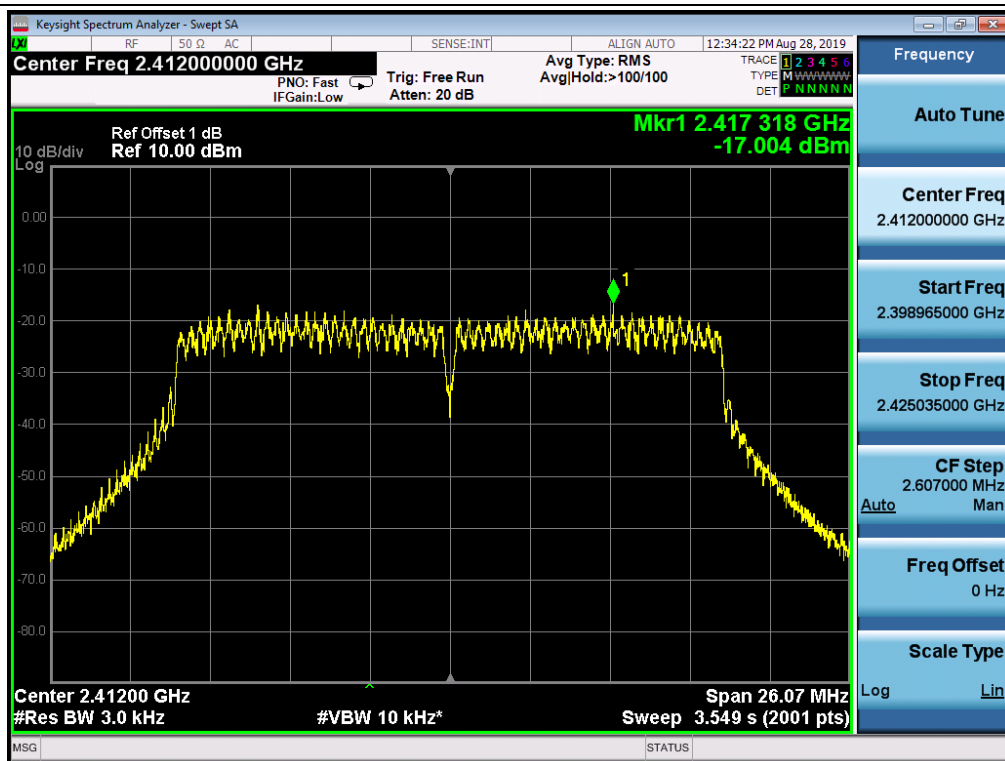
802.11g 2437MHz SISO ANT1



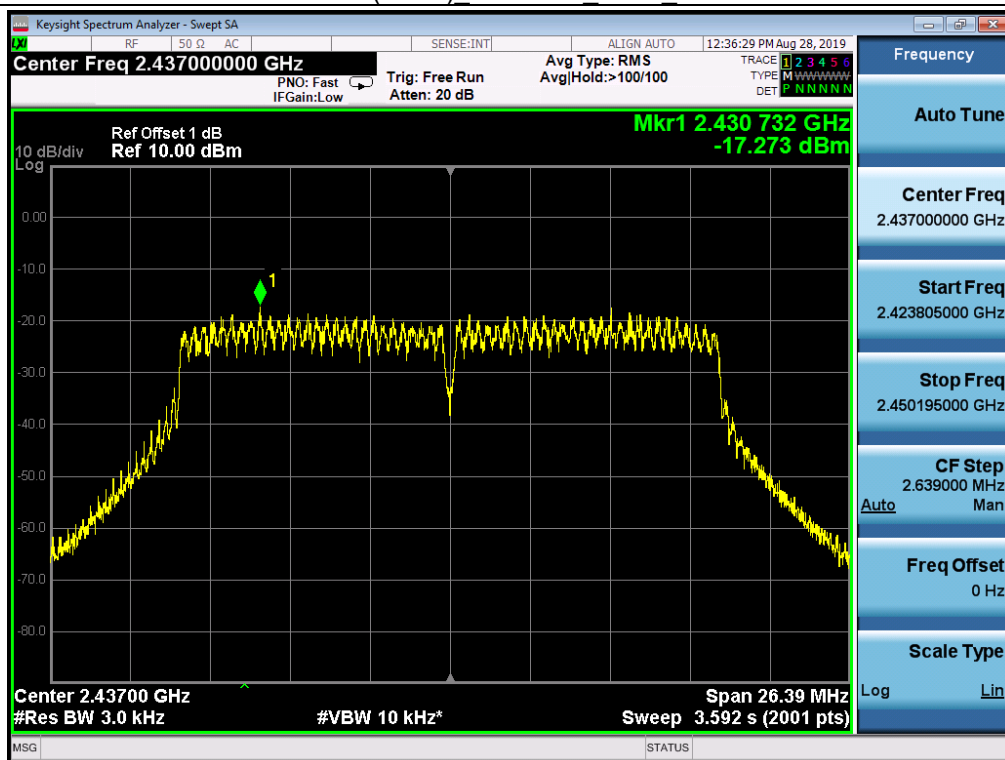
802.11g 2462MHz SISO ANT1



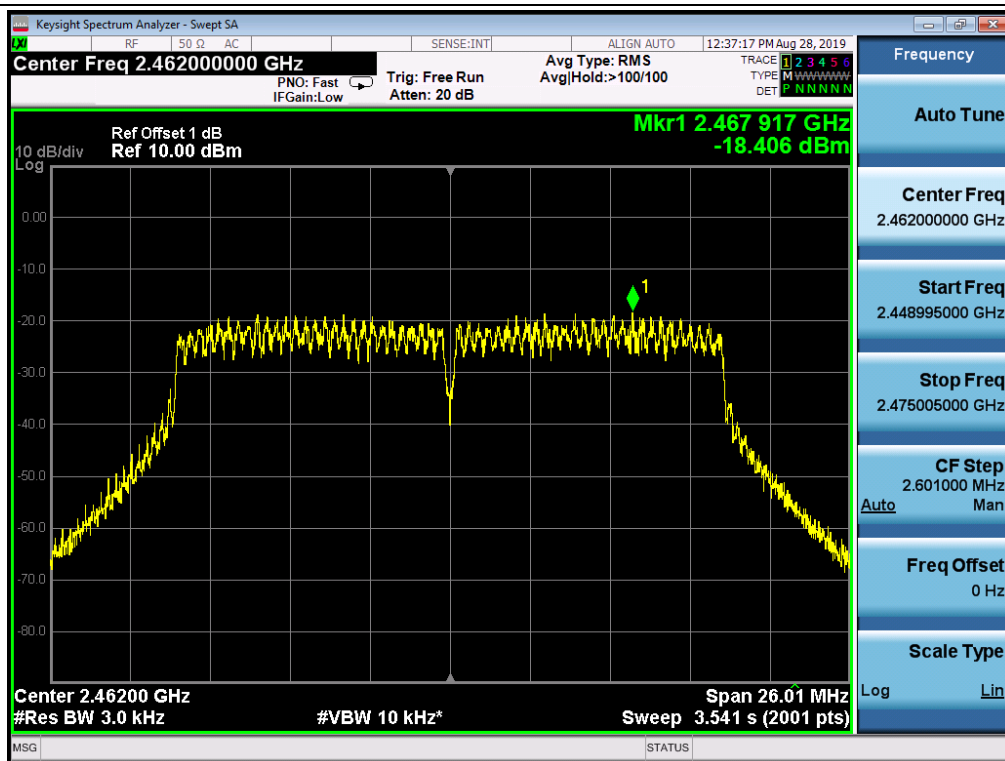
802.11n(HT20) 2412MHz SISO ANT1



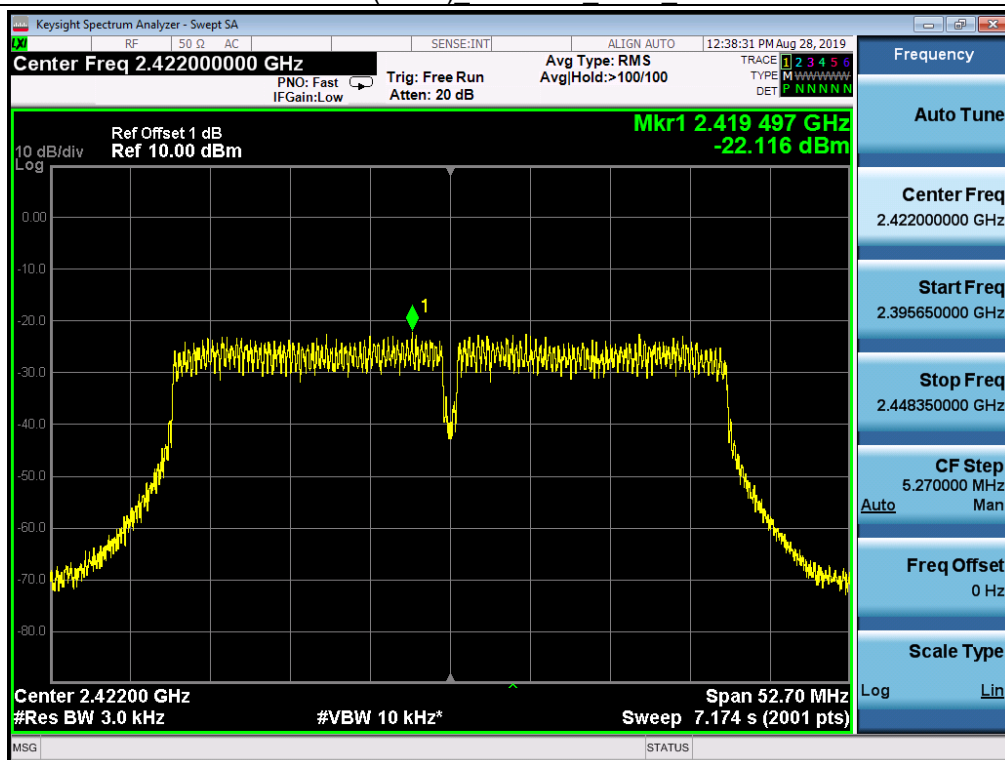
802.11n(HT20) 2437MHz SISO ANT1



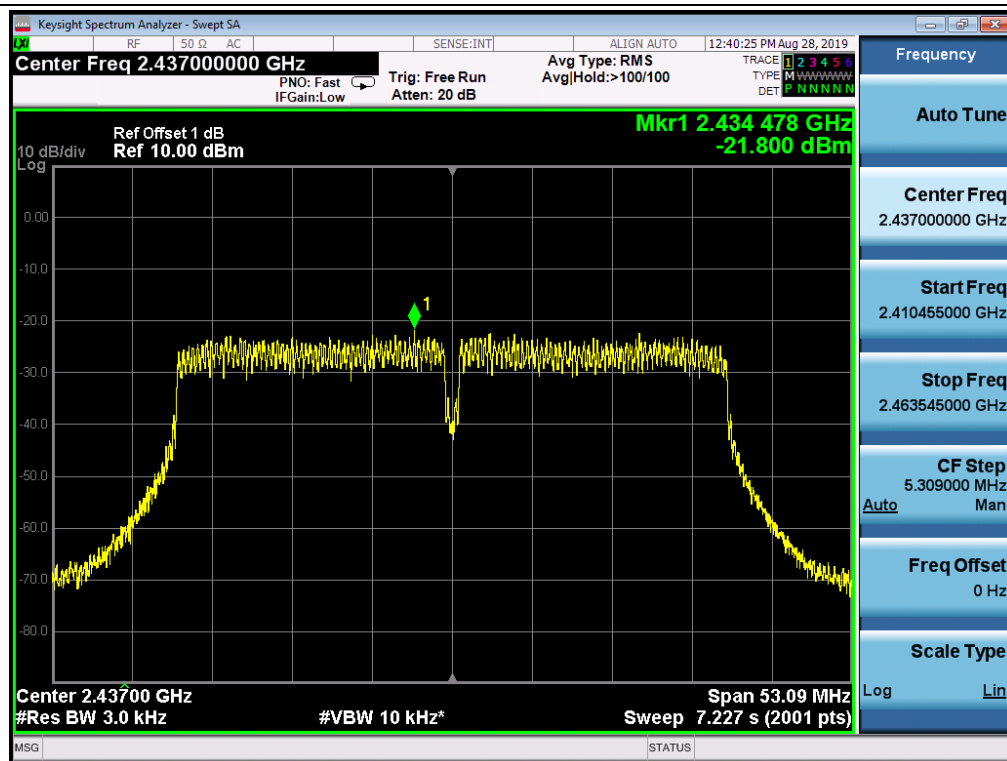
802.11n(HT20) 2462MHz SISO ANT1



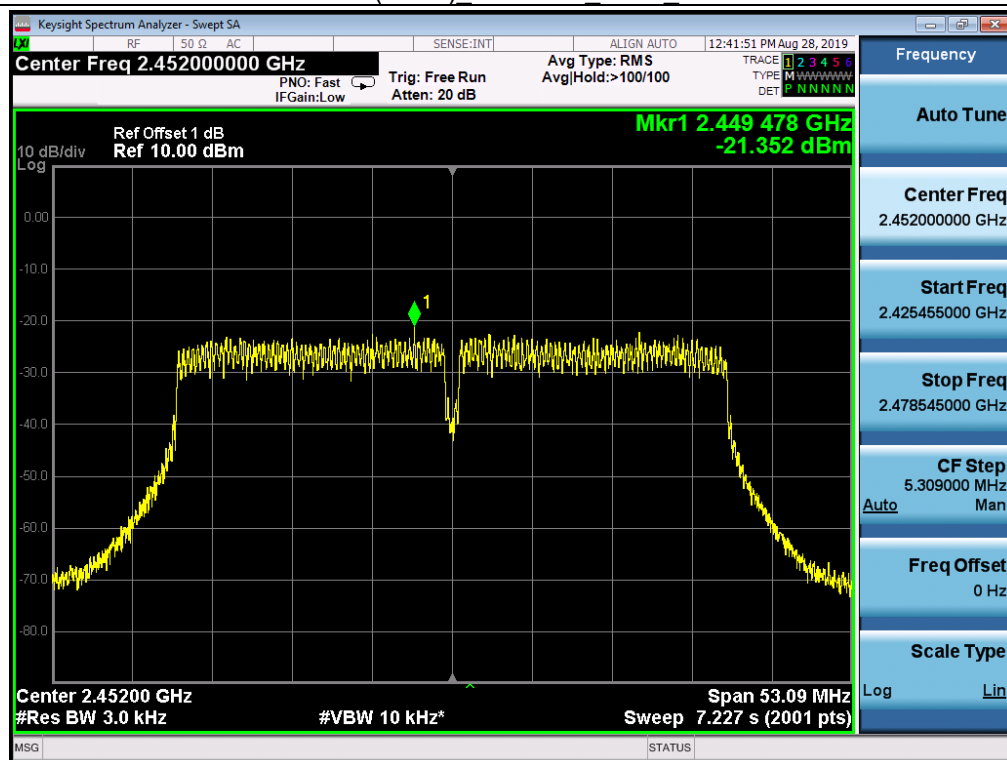
802.11n(HT40) 2422MHz SISO ANT1



802.11n(HT40) 2437MHz SISO ANT1



802.11n(HT40) 2452MHz SISO ANT1





5. Unwanted Emissions in Non-restricted Frequency Bands

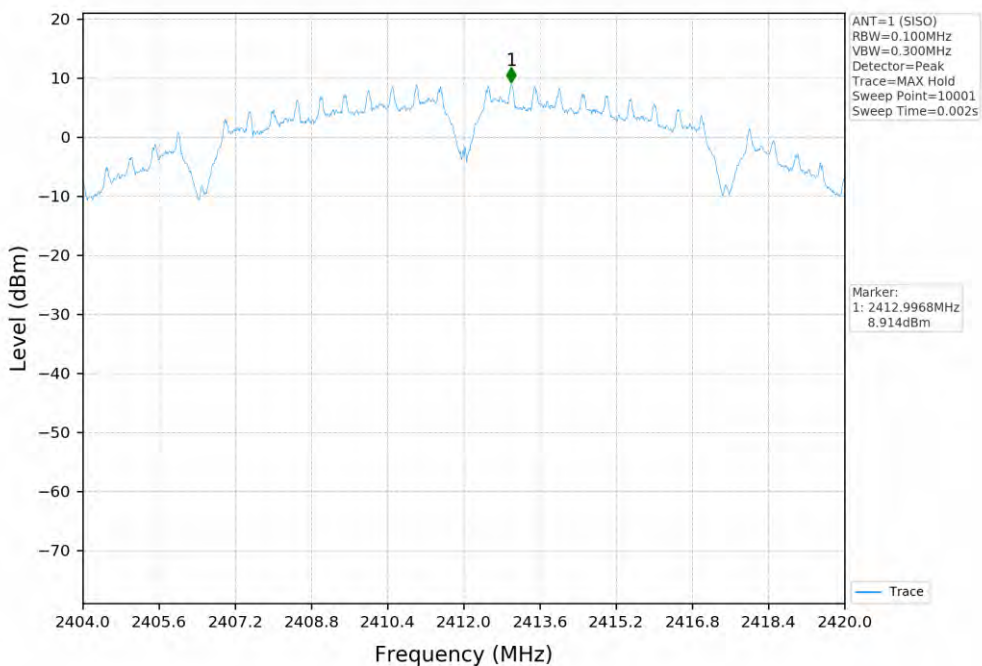
5.1 Test Result

Test Mode	Frequency (MHz)	TX Type	ANT No.	Spurious Conducted Emission (dBc)	Limits (dBc)	Verdict
802.11b	2412	SISO	1	Refer to test graph	≤ -30	PASS
	2437	SISO	1	Refer to test graph	≤ -30	PASS
	2462	SISO	1	Refer to test graph	≤ -30	PASS
802.11g	2412	SISO	1	Refer to test graph	≤ -30	PASS
	2437	SISO	1	Refer to test graph	≤ -30	PASS
	2462	SISO	1	Refer to test graph	≤ -30	PASS
802.11n(HT20)	2412	SISO	1	Refer to test graph	≤ -30	PASS
	2437	SISO	1	Refer to test graph	≤ -30	PASS
	2462	SISO	1	Refer to test graph	≤ -30	PASS
802.11n(HT40)	2422	SISO	1	Refer to test graph	≤ -30	PASS
	2437	SISO	1	Refer to test graph	≤ -30	PASS
	2452	SISO	1	Refer to test graph	≤ -30	PASS

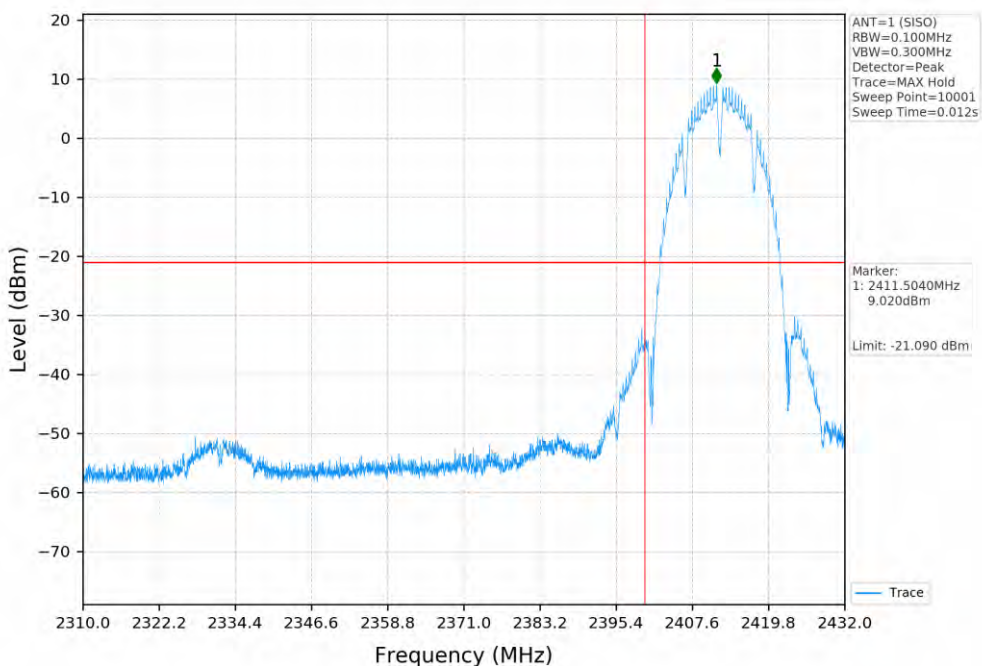


5.2 Test Graph

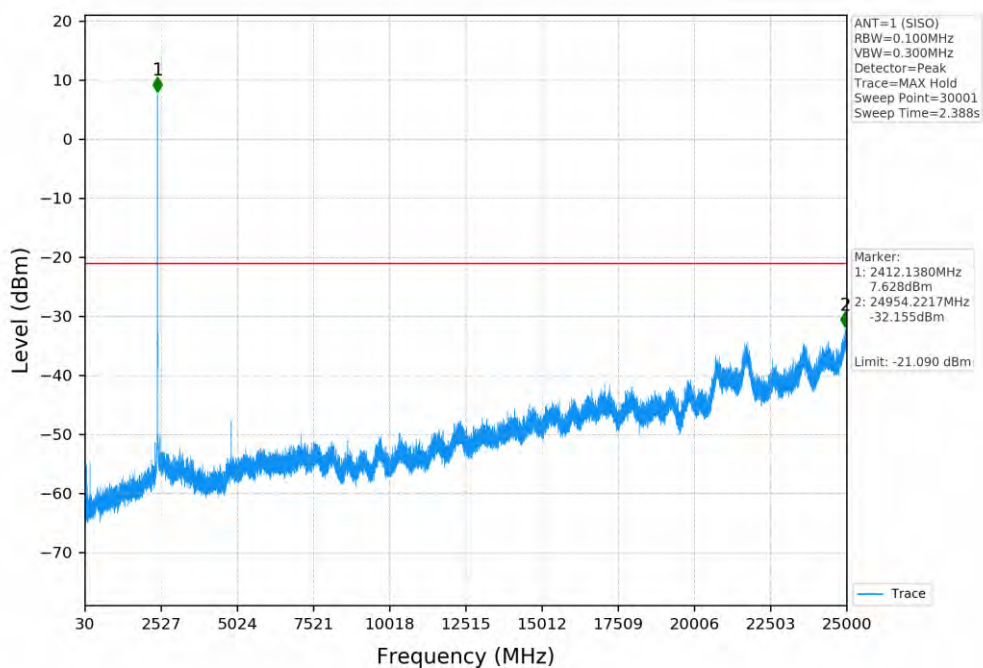
802.11b_SISO_ANT1_REF



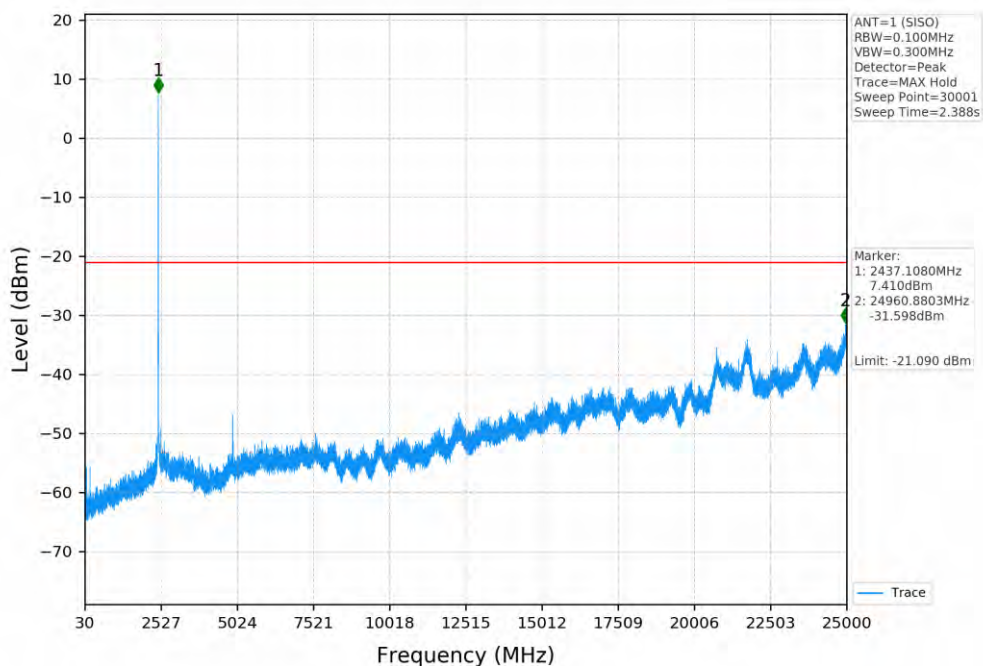
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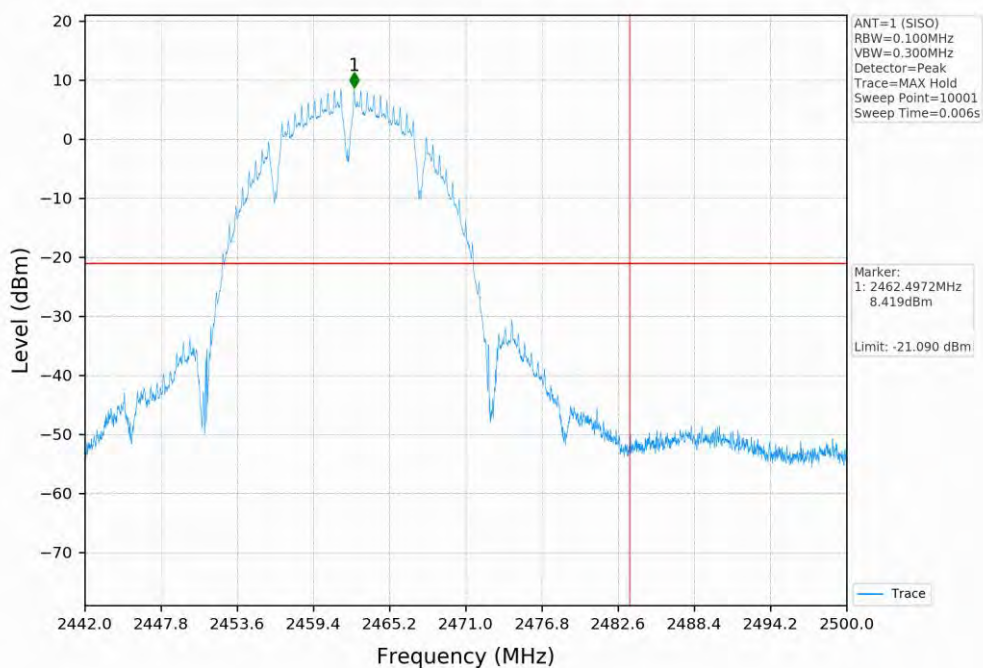
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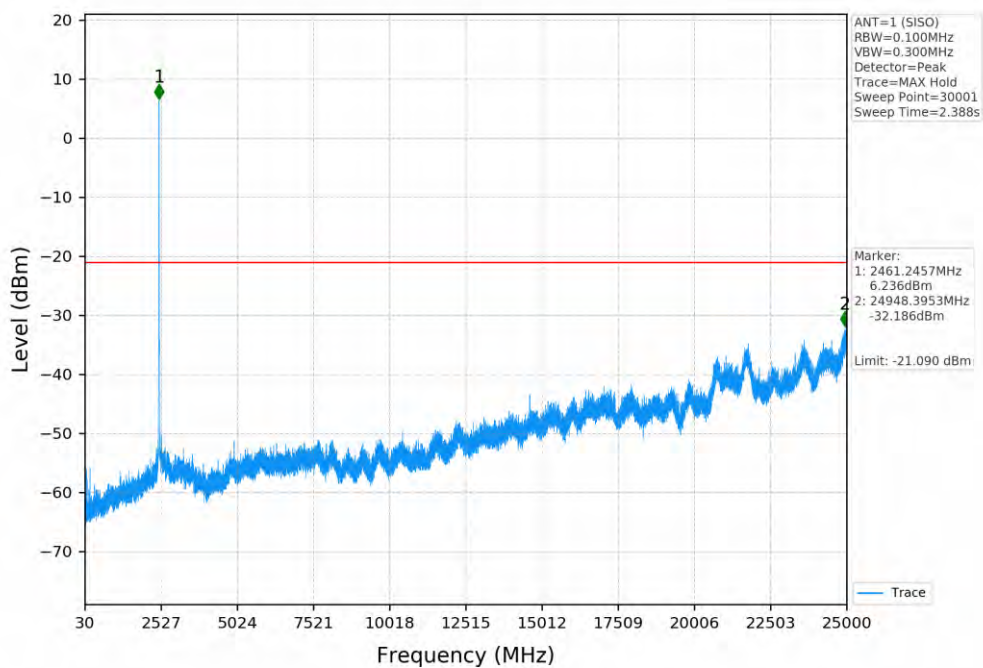
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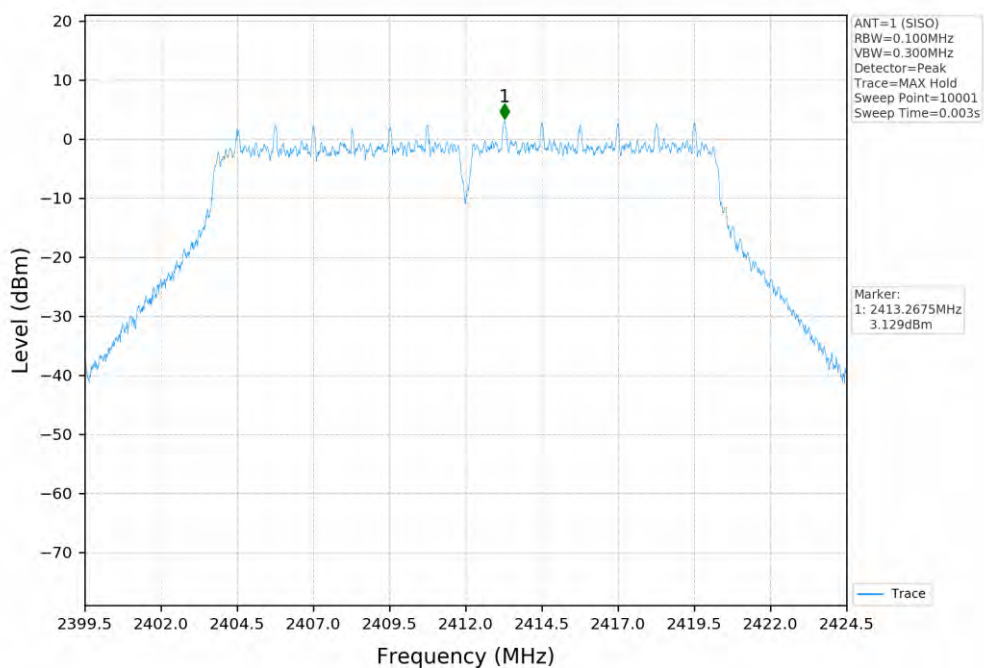
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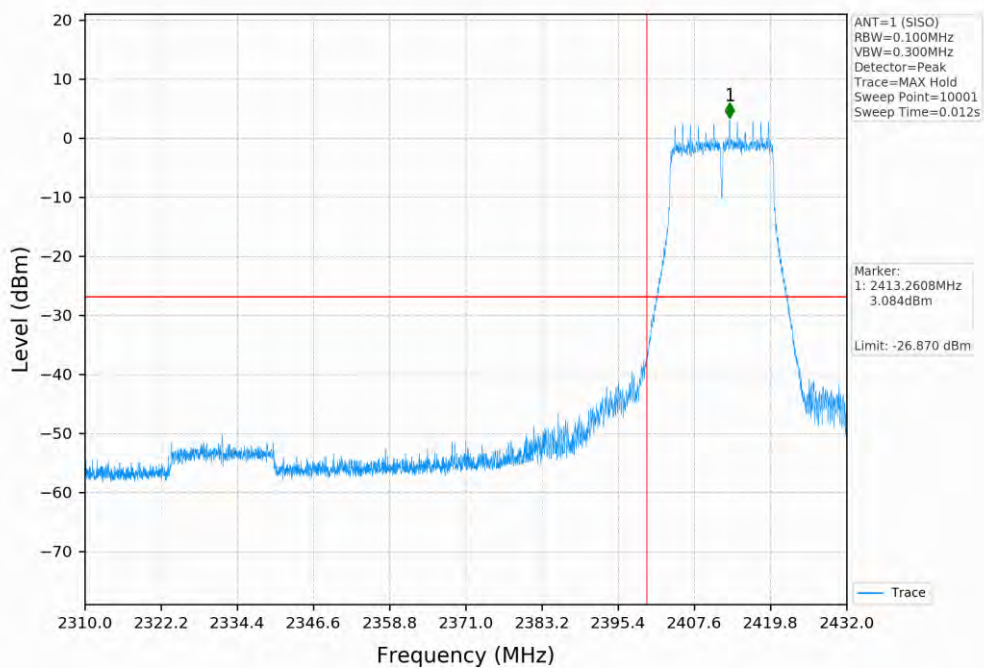
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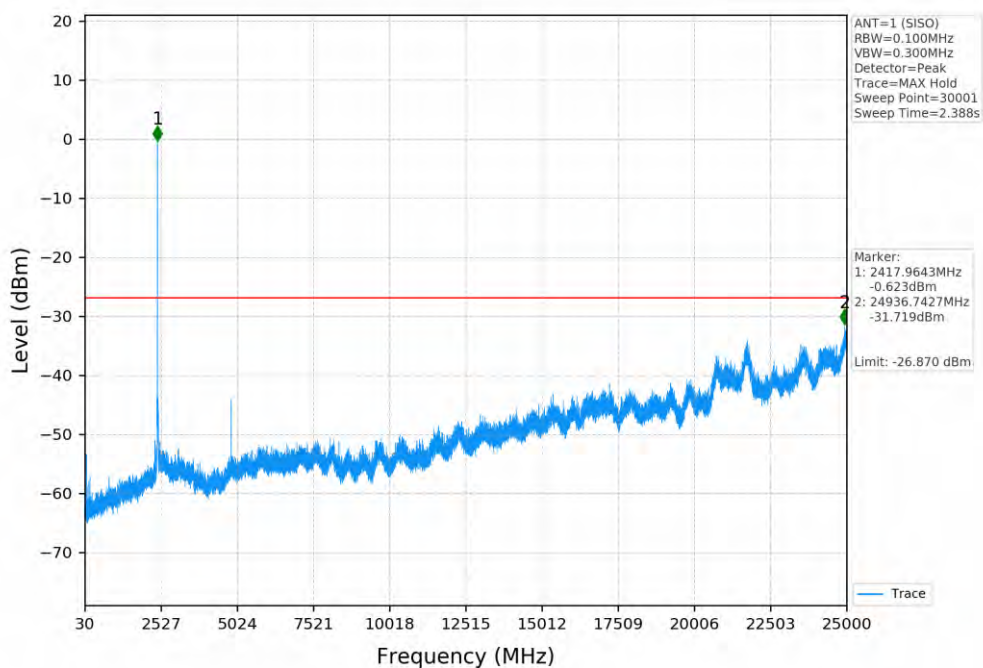
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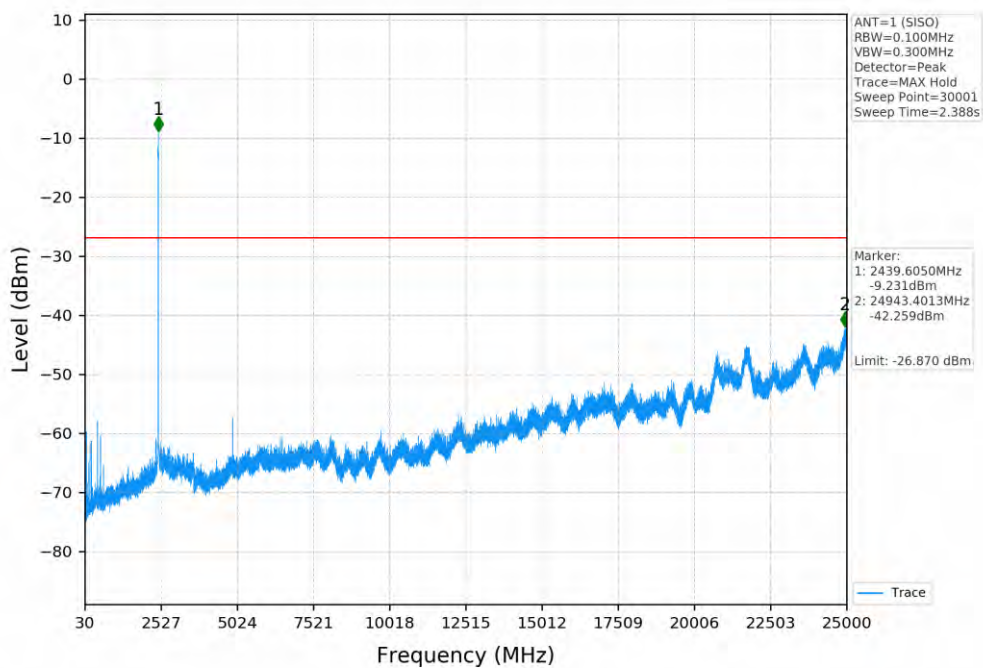
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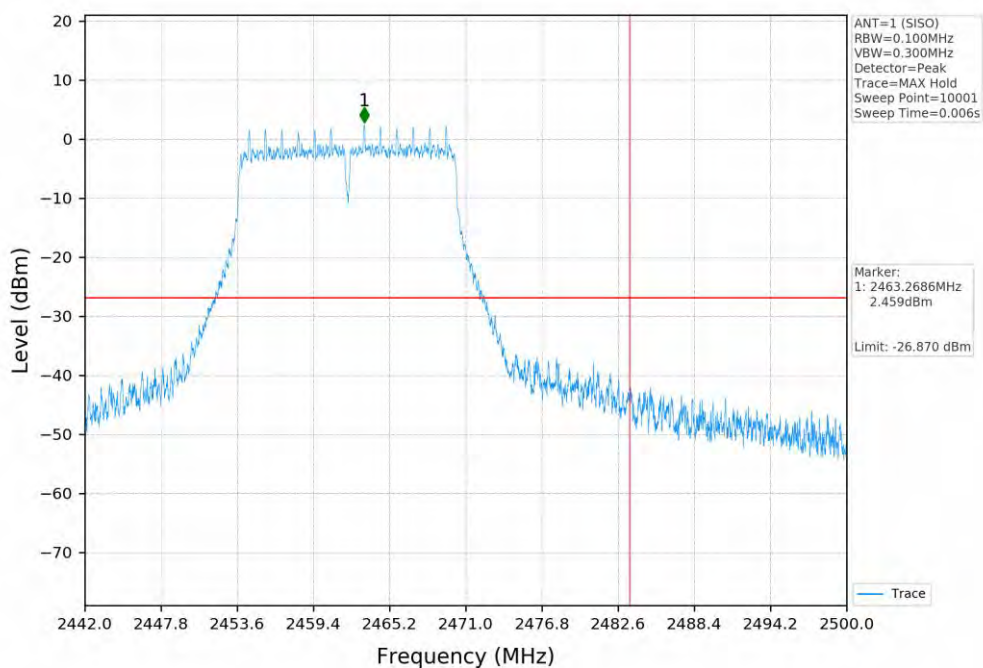
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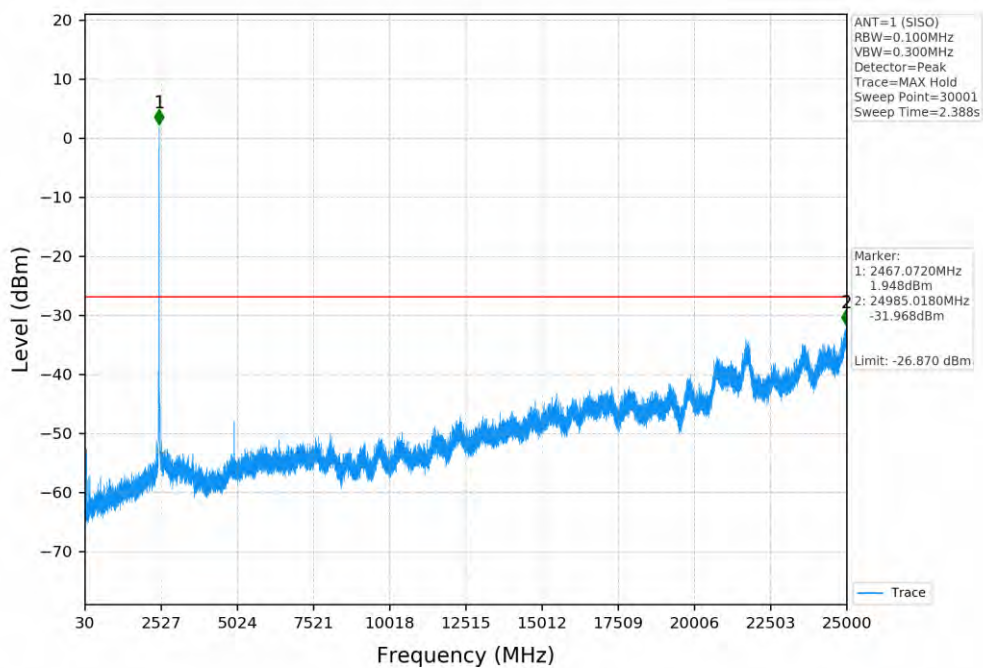
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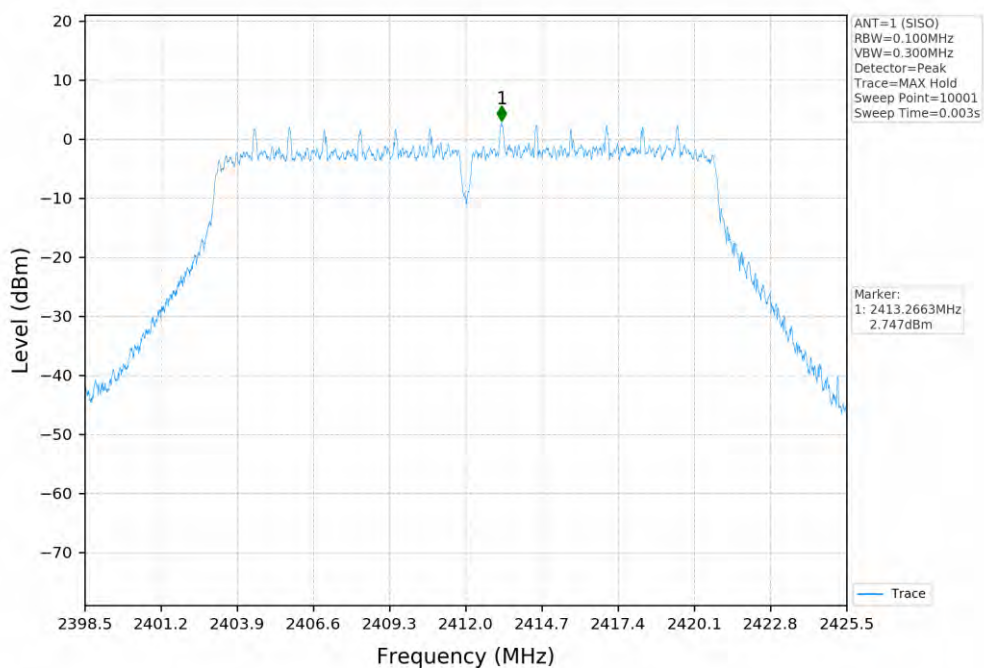
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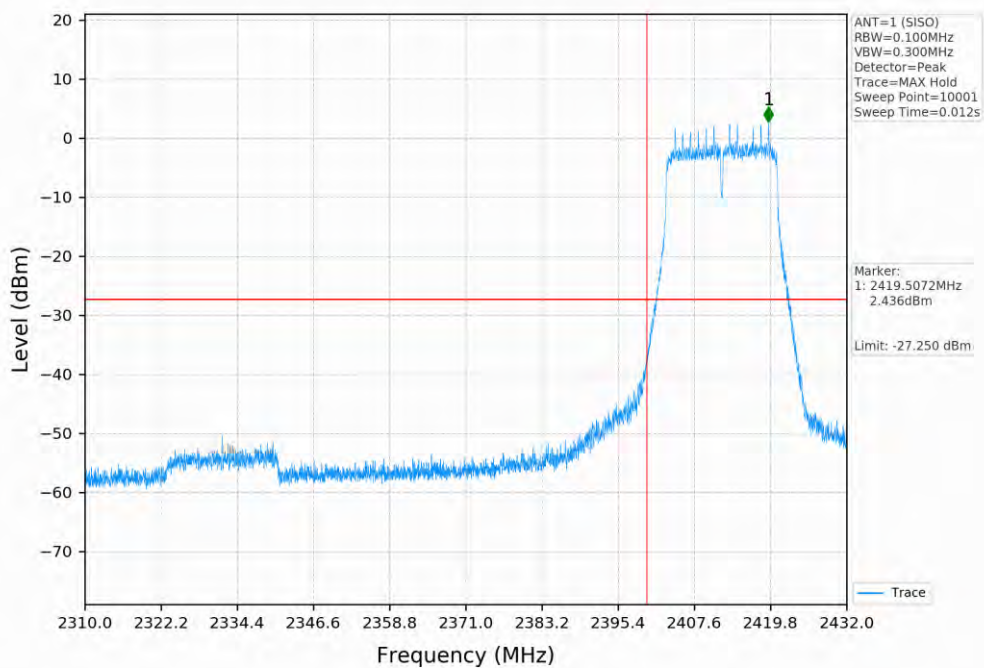
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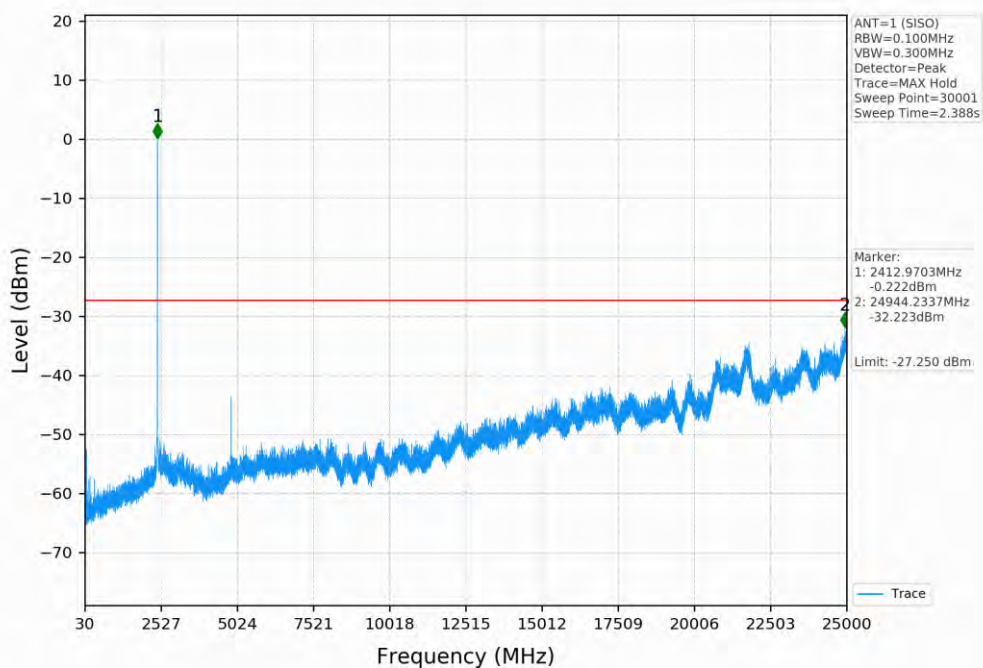
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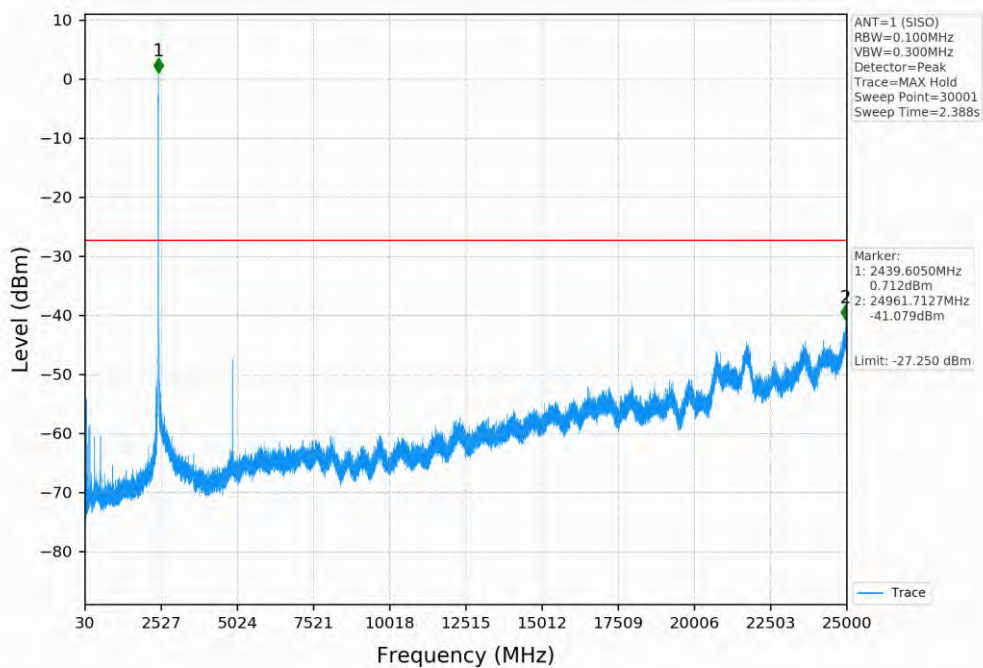
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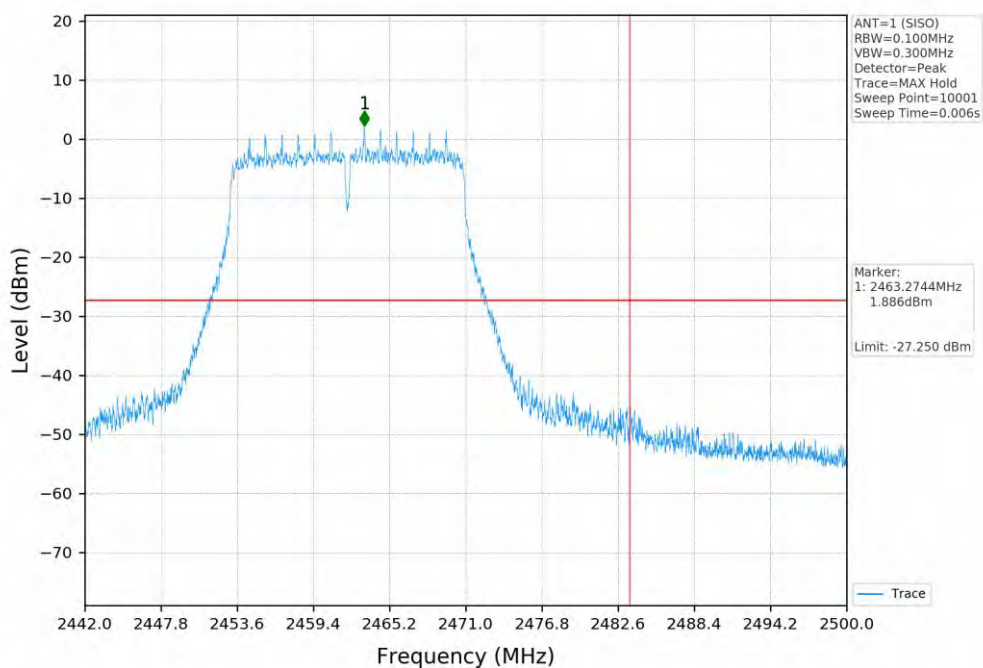
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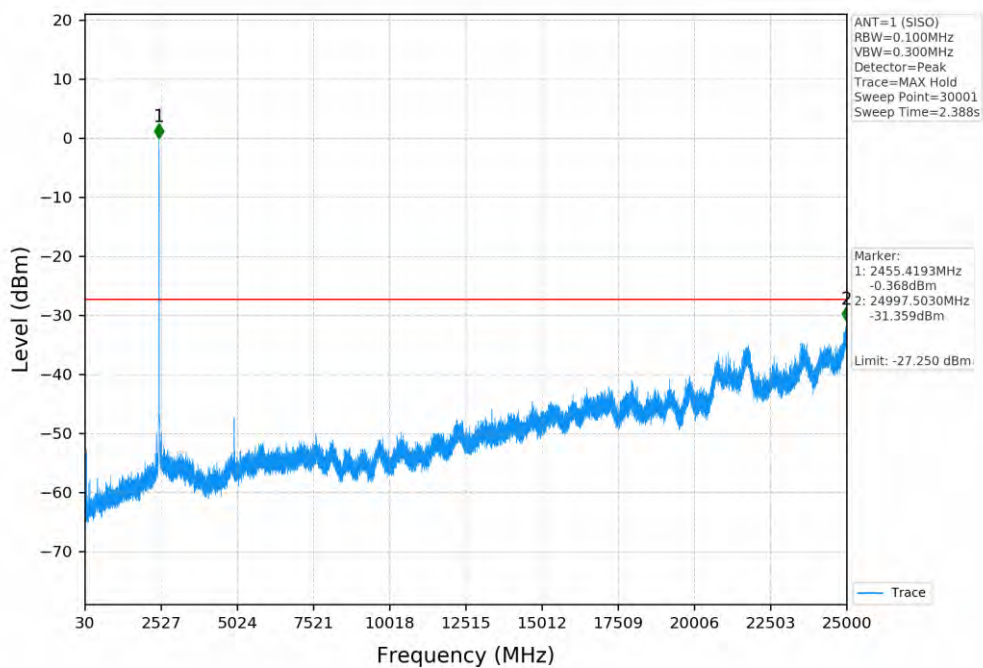
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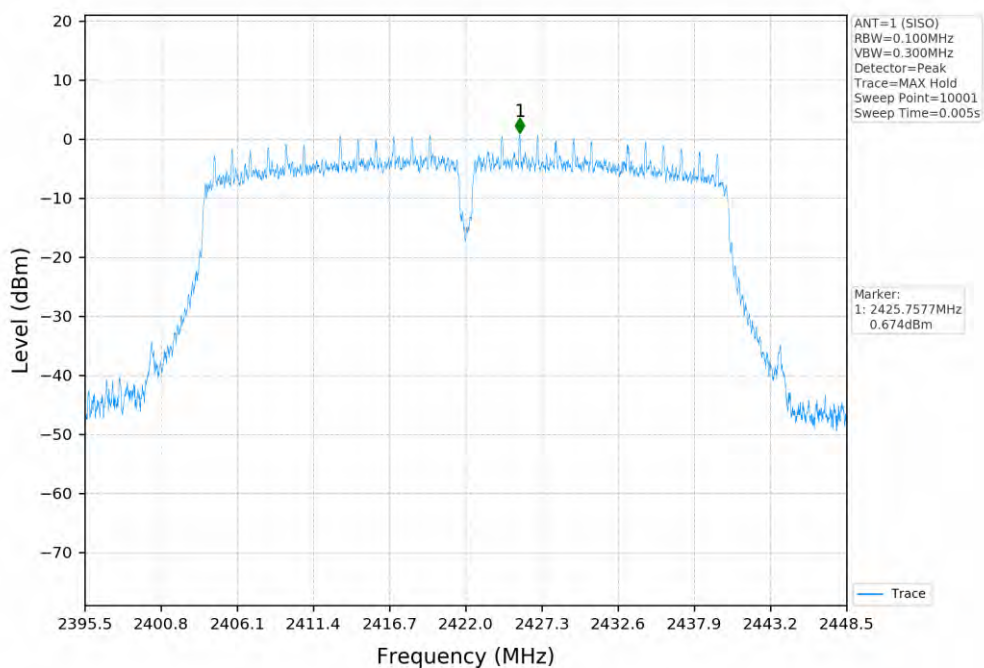
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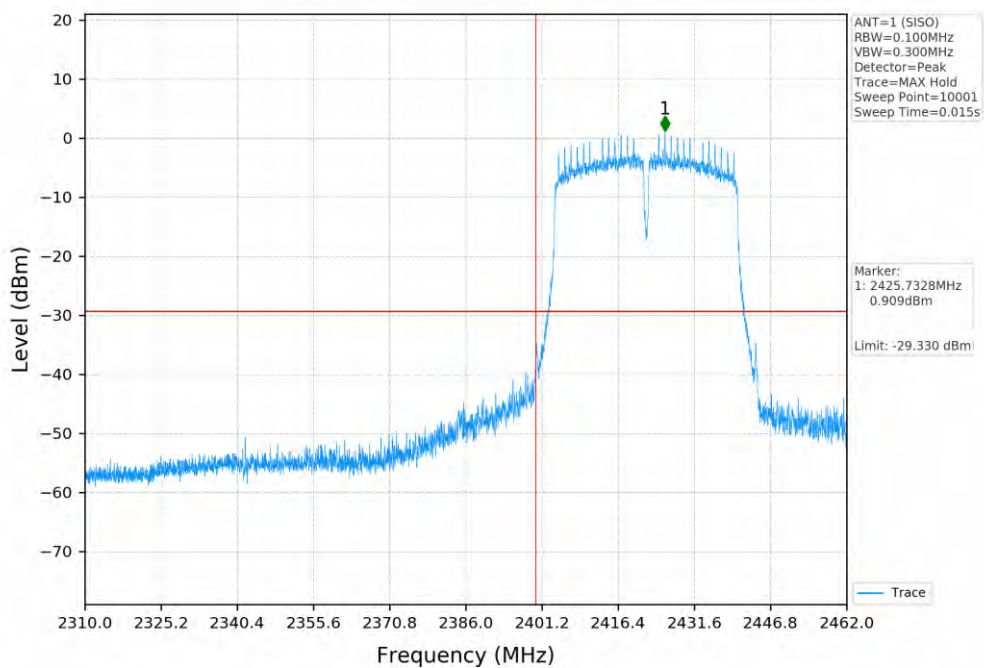
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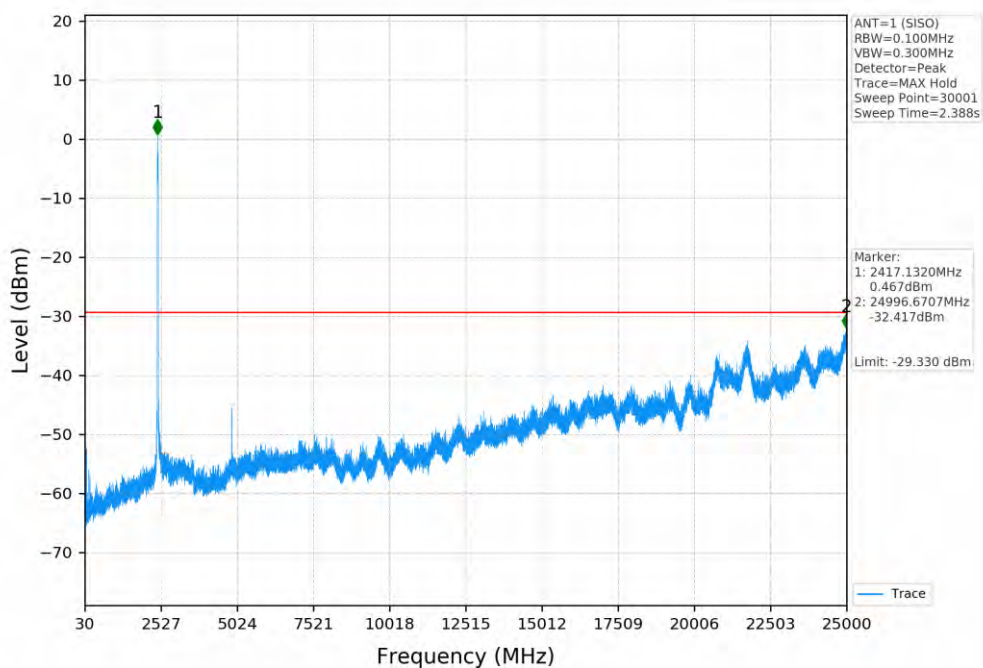
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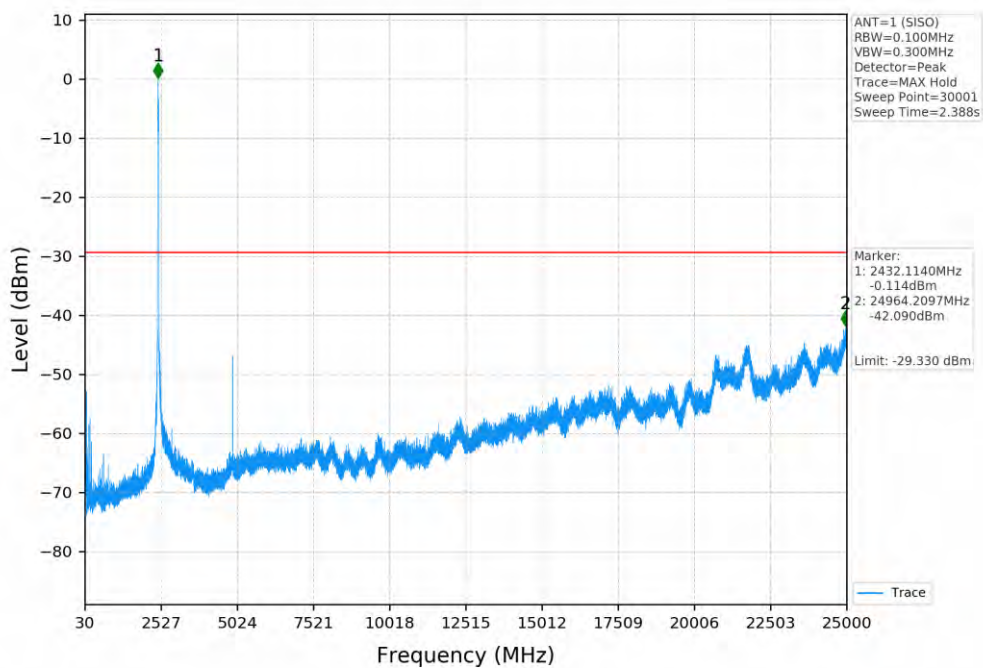
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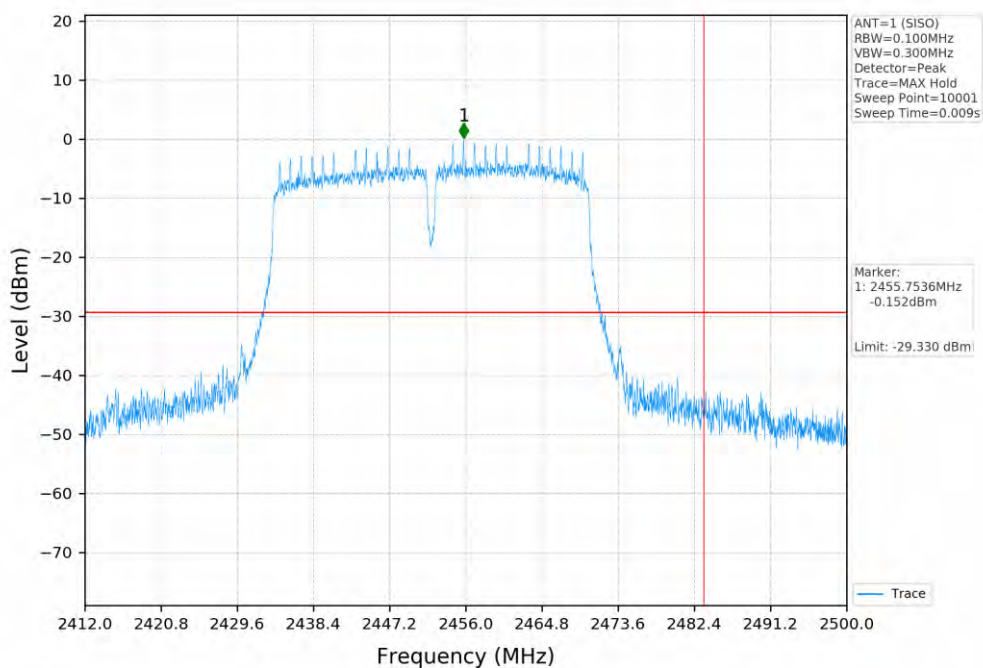
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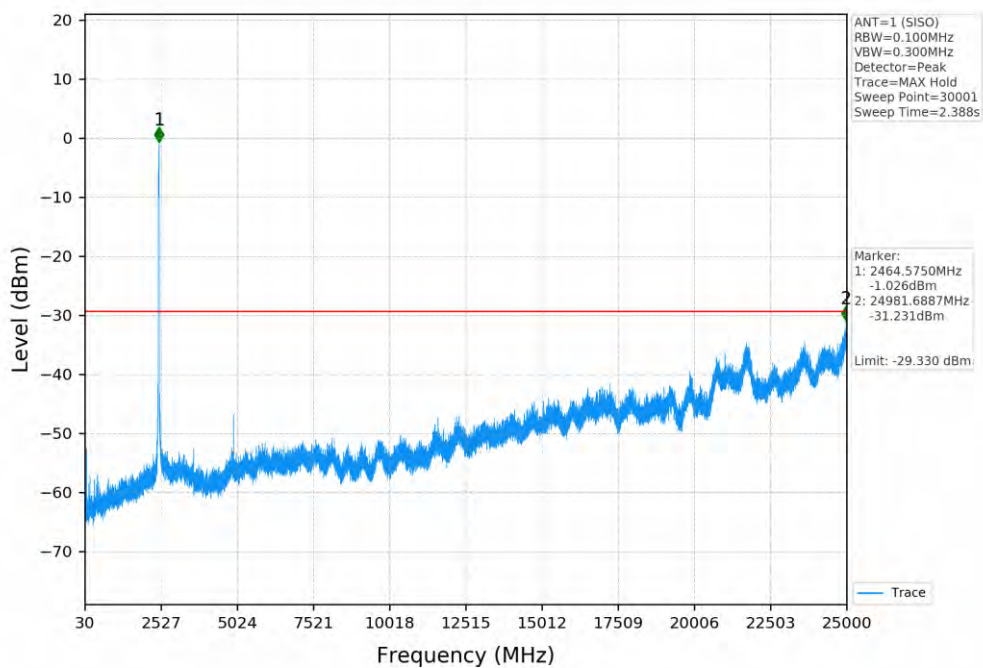
802.11n(HT40) 2437MHz SISO ANT1



802.11n(HT40) 2452MHz SISO ANT1



802.11n(HT40) 2452MHz SISO ANT1



- End of the Report -